GUIDE TO PORT ENTRY

LATVIA
to
ZAIRE

SHIPPING GUIDES LIMITED

GUIDE TO PORT ENTRY

1997 – 98

VOLUME 2

LATVIA
to
ZAIRE

GUIDE TO PORT ENTRY

Originally Devised by

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WARNING

Every effort has been made to ensure that the information contained in this *Guide* is correct. However, it must be clearly understood that this publication is intended as a *GUIDE ONLY*, that the information cannot be *Guaranteed* correct and that the final responsibility must (as always) rest with the Shipmaster.

At certain ports, items of navigational routeings and aids have been included as a means of general guidance only. Shipmasters should have in mind that full and due reference MUST ALWAYS be made to corrected charts of the area, to the appropriate Notices to Mariners, and all or any other navigational notices, warnings or amendments issued by proper Authorities and/or Navigational Aid Services.

The sketch maps are for general assistance and must not be used for navigational purposes. In particular, the shapes of buoys should be disregarded since these are indicated by varying symbols which may be consequent upon local usage and without resemblance to internationally applied symbols.

PLANS

All plans, unless otherwise stated, are reproduced by kind permission of the Port Authority.

IMPORTANT NOTICE

Users of previous editions of the guide are advised that some older Shipmaster's Reports and navigational information mentioned in other publications and pilots has been withdrawn from this edition of the guide. They may therefore wish to retain copies of previous editions for future reference.

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	Weipa	GREECE	Saint Nicolas
BRAZIL	Aracaju	GUYANA	New Amsterdam
	Porto Trombetas	INDIA	Pipavav
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CANADA	Gaspe	IVORY COAST	Lion Terminal
	Newcastle	JAPAN	General
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	Quebec	LIBYA	General
CHILE	Coronel	QATAR	Al Rayyan
	Quintero	ROMANIA	General
CHINA	General	THAILAND	Map Ta Phut
	Fangcheng	TURKEY	General
	Liuhua Terminal		Golluk
COLOMBIA	Turbo	UKRAINE	Evapatoria

LATE PLANS:

ALGERIA	Bejaia	INDIA	Pipavav
AUSTRALIA	Exmouth	ITALY	Gioia Tauro
BRAZIL	Suape	IVORY COAST	Lion Terminal
CHILE	Coronel	KOREA, Republic of	Pyeong Taek
CHINA	Liuhua Terminal	QATAR	Al Rayyan
EL SALVADOR	Acajutla	THAILAND	Map Ta Phut
GREECE	Saint Nicolas	TURKEY	Golluk
GUYANA	New Amsterdam		

Shipmasters, Shipowners or Managers, Port Authorities, Administrators and Agents, are earnestly requested to assist our work in up-dating the Guide by providing written comment, information, amendments or corrections and additional details of any ports or terminals, to the following address:

SHIPPING GUIDES LIMITED,
SHIPPING GUIDES HOUSE,
75 BELL STREET,
REIGATE,
SURREY,
RH2 7AN,
ENGLAND

All communications will be acknowledged and will be most useful, since it is only by this means that the *Guide* will remain of great value to the user and will be up to date and thoroughly professional in content.

For assistance and guidance in the submission of information, a reprint of the items presently covered by the *Guide* is placed hereunder. Additional items will also be most welcome.

N.B. PLANS, DIAGRAMS, DRAWINGS AND SKETCHES: As you will note, this 1997/98 edition of "Guide to Port Entry" contains over three thousand eight hundred plans and mooring diagrams that have been reproduced from plans and drawings very kindly sent to us by numerous Port Authorities, Agents and shipboard personnel. We hope that the special plan section will prove interesting and useful.

Presently however, the special plan section is to an extent incomplete, since there are many ports and mooring facilities for which we have not yet received the necessary plans for reproduction purposes. We are anxious to secure plans, diagrams, drawings or sketches of ports and facilities not presently shown in our special plan section, and therefore request that Port Authorities and/or Agents at the places concerned be kind enough to pass us this data together with the necessary permission for reproduction. We would also be very grateful if ship's officers calling at ports not already covered in our special plan section, could find it possible to provide us with diagrams or sketches of the facilities which would be suitable for reproduction in our later editions and/or which might be re-drawn as required by our own art department prior to reproduction.

Latvia

LIEPAJA: 56.32 N. 20.59 E. (See Plan)

PORT LIMITS: A vessel is considered an "arrived ship" usually upon reaching the Pilot Station.

DOCUMENTS:
4 copies Crew List.
2 copies General Declaration.
1 copy International Maritime Declaration of Health.
1 copy Tonnage Certificate.
1 copy Master's Declaration, filled out by Agent.
1 copy Documents concerning Cargo on Board.
Derat Certificate.

RESTRICTIONS: Entry usually allowed around the clock. Large vessels are allowed to enter in daylight only.

MAX. SIZE:
City Canal: LOA 125 m.
Draft 6.0 m. (+0.5 m., depending on wind).
Free Port: LOA 200 m.
Beam 30 m.
Draft 8.5 m.

HEALTH: Sanitary inspection undertaken when arriving from a foreign port. In the event of a disease on board, vessel can anchor in Inner Roads, upon vessel receiving a special permit from Harbour Master. Upon vessel's arrival, doctor and Agent board to fill out the Maritime Declaration of Health.

RADIO/VHF: ETA information usually provided by telex communication via Agent. Vessels approaching the port shall contact Vessels Traffic Service on VHF Channel 11. Liepaja Shipping (Agent) on Channel 11. Same channel is used for applying for tugs and Pilot.

RADAR: Port Radar Service is available on VHF Channel 11.

TUGS: 4 tugs available: 1,500 h.p., 900 h.p., 600 h.p. and 450 h.p.

BERTHING:

Berths No.	
47 – 51	Under reconstruction (depth 9.0 m.)
40	Metal, timber, packed wood.
41 – 42	Timber (pulpwood, logs).
55 – 60	Timber (pulpwood, logs).
73 – 78	General cargo (steel bundles, packed timber, fertilisers in big bags) and refrigerating plant.

BULK CARGO FACILITIES: "Duna" (Berths No. 62-63): Bulk cargoes from railcars (graphite, broken stone, peat, etc.).
LOA 120 m. Draft 6.0 m.

SPECIALISED CARGO HANDLING FACILITIES: There is a Ro-Ro Terminal at Berth No. 46.

The port has no facilities for handling chemicals (except in big bags).

BRIDGES: On entering Tosmare Canal, the turn-out bridge is opened as required.

STEVEDORES: Usually work round the clock. Average load/discharge rate is 800 tons per day.

MEDICAL: Advance notice of medical assistance required by Agents, but not obligatory. Agents can arrange for all necessary medical assistance. All inoculations and vaccinations can be carried out, if necessary.

TANKERS: 3 berths for tankers up to 5,000 d.w.t. and draft 6.0 m. Prevailing wind on berth is onshore. Special moorings are not required. There is a boat for collecting dirty water (capacity 30 tons). Shore steam is not available.

DENSITY: Salinity depends on wind as City Canal connects the sea with a lake. There is sea water in the port.

FRESH WATER: Available by trucks and tug, and via shore connections. Cost approximately U.S.$3.00 per ton.

FUEL: Four days notice required for large quantities. Delivery by barge.

CONSULS: Only Russian consul in Liepaja. Consulates of several other countries are situated in Riga, the capital of Latvia.

REPAIRS: All types of repairs normally possible. There are 2 shipyards with dry docks.

DRY DOCKS: 2 dry docks available. The larger is 200 m. length and has a width of 21.0 m.

1 floating dock with length 100 m. and capacity 2,200 tons.

SURVEYORS:
(a) Cargo inspectors (SGS, Baltic Kontor Ltd., Independent Marine and Cargo Surveyors, Average Agents).
(b) Russian Register of Shipping representatives available, they can act as representatives of Lloyd's Register of Shipping, German Lloyd, Bureau Veritas on contract terms.

GANGWAY/DECK WATCHMEN: Not necessary but available.

CUSTOMS ALLOWANCES: One litre of any kind of spirits and wine, and 200 cigarettes for each crew member to be held out of bond.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: 7 km. from the city. Two international air routes, to Ronne in Denmark and Visby in Sweden. Numerous air routes available via capital city of Riga.

TIME: Local time is GMT plus 2 hours.

HOLIDAYS: January 1st (New Year's Day); April 1st (Easter); May 1st (Labour Day); June 23rd (Midsummer's Eve); June 24th (Midsummer's Day); November 18th (Declaration of Independence Day); December 25th (Christmas Day); December 26th (Boxing Day).

Additional cost charged for cargo handling on official holidays.

POLICE/AMBULANCE/FIRE: Police, Tel: 02; Ambulance, Tel: 03; Fire, Tel: 01.

EMERGENCY CO-ORDINATION CENTRE: Call VHF Channel 11.

TELEPHONES: Arrangements for placing telephones on board do not exist.

SERVICES: There is no tank cleaning equipment. Discharge of tank washings is possible. Services like compass adjusting, radio and radar repairs, supply of charts, nautical publications, sounding paper, course recorder paper, Notice to Mariners, safety equipment available and extention of certificates possible.

STORING: (See "Prelims").
(1) Vessel can be stored by truck. Trucks can proceed alongside the berth.
(2) Forklift trucks can be used on the jetty to handle stores.
(3) Local riggers can be used to assist with storing.

SHIP SUPPLY SERVICE: Not available.

SHORE LEAVE: Crew members are allowed ashore.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

REGULATIONS: No unusual regulations for the port.

DELAYS: Delays can be expected in berthing and loading or discharging, if wind speed exceeds 12 m./sec.

DEVELOPMENTS: Port area is being developed.

AUTHORITY: Liepaja Port Authority, 9 Hikes Street, Liepaja, LV-3407 Latvia. *Contact:* Managing Director (Tel/Fax: 371-34-27605). Harbour Master (Tel/Fax: 371-34-24721).

AGENT: Liepaja Shipping Agency Ltd., 21A Kungu Str., LV 3401 Liepaja, Latvia. Tel: (371) 34 26278. Fax: (371) 7893443, (371) 9212102 (24 hours). Telex: (358) 161833 LPSA LV.

RIGA: 56.58 N. 24.06 E. (See Plan)

LOCATION: The Port of Riga is situated on the banks of the Daugava River falling into the Gulf of Riga 12 miles upstream from the mouth to the bridge at the banks of Milgravis Channel and Sarkandaugava Creek.

GENERAL: The Port is open for navigation all year round, but ice-breaker assistance is required for about 4 months in the year.

Ice-breaker "Varma" 17,000 h.p. (call sign "YLKV") is available to assist.

In severe Winters, there are ice conditions in the Gulf of Riga and Irbes Strait from January to April, and drift ice may form in navigable waters. Considerable changes of water level may be caused by strong winds and variation in atmospheric pressure.

No tides. Maximum rise of water level may reach 2.0 m. and maximum fall 1.0 m. from zero water level/mean water level observed over a period of many years. Usually the fluctuation of water level is between +0.60 m. to −0.60 m. During ice conditions, it usually remains at −0.30 m.

DOCUMENTS:
1 copy Master's Declaration.
4 copies General Declaration.
2 copies Cargo Declaration.
Bills of Lading
Manifests.
2 copies Stores List.
2 copies Crew Effects Declaration.
4 copies Crew List.
4 copies Passenger List.
1 copy Maritime Declaration of Health.
2 copies Veterinary and Phyto-Sanitary Declaration.

PILOTAGE: Compulsory, and operates around the clock. Government Pilots are provided. Agent will arrange Pilot on receipt of ETA at Buoy "B" (Pilot Buoy), which is to be given 96 hours, 48 hours, 24 hours and 4 hours prior to arrival.

The following information is to be forwarded together with the ETA:
(a) Name and type of vessel.
(b) Nationality and Owner.
(c) ETA.
(d) LOA, breadth, air draft for ships bound for Sarkandaugava.
(e) Actual draft and draft in fresh water.
(f) Type and quantity of cargo.
(g) Last port of call and passengers (if any).

Pilot meets vessel at Buoy "B" (Lat. 57° 06' N., Long. 23° 57' E.).

In case of bad weather and Pilot cannot embark/disembark vessel at Buoy "B", ships have to wait outside, at the quay or take Pilot to next safe port of call.

With permission of Traffic Monitoring Service, ships with length not exceeding 100 m. with draft less than 6.00 m., Pilots can embark/disembark at Rinuzi Leading Line.

DEEP SEA PILOTAGE: See "Baltic Deep Sea Pilotage".

Vessels bound to/from Riga, with deep draft and not familiar with ice conditions, are advised to have Pilot onboard from/to Ventspils Roads.

The order for Pilot from Ventspils to Riga must be given 48 hours prior to arrival at Ventspils Roads and 24 hours prior to departure from Riga.

APPROACHES:

Entrance Channel:

Ship Channel	*Breadth* (m.)	*Max. Draft* (m.)	*Air draft*[1] (m.)	*Remarks*
From Buoy B up to North Rinuzi Mooring Buoys (North Rinuzi Roads)	100.0	12.5		
From South Rinuzi Mooring Buoys up to the entrance into Export Harbour	100.0	10.00	52.0	
From Export Harbour Entrance up to Passenger Terminal		8.3	52.0	
Milgravis Canal up to Riga Shiprepair Yard's Docks			7.45	
Sarkandaugava Channel up to Berth JM-16 (Tanker Berth)		7.45		

Ship Channel	*Breadth* (m.)	*Max. Draft* (m.)	*Air draft*[1] (m.)	*Remarks*
Sarkandaugava Channel between Berth JM-16 and Berth SD-5 (Man-Tess Tanker Berth)	65.0	7.45	35	Vessels of greater airdraft may be piloted in/out, subject to a special permission from the Harbour Master.
Mangalsalas Basin Approaching Channel	100.0	6.5		

Note:

[1] With zero (mean) water level under temperature +35°C.

ANCHORAGES: The best Outer Roads Anchorage is 1 mile West of Buoy "B" and is advised by Vessel Traffic Service on VHF Channel 9.

Depths at the anchorage are from 32 m. – 35 m., bottom is mud and sand.

Roads are open to winds from S.W. to N.E. directions and unsafe for anchoraging in Autumn when these winds prevail.

With heavy waves in Outer Roads, ships are advised to leave anchorage for shelter in port or proceed to the open part of Gulf of Riga.

For Inner Roads Anchorage, Inner Roads and Turning Basin information, see Table below.

Inner Roads, Turning Basins and Anchorage:

Name	*Length* (m.)	*Breadth* (m.)	*Max. Draft* (m.)	*Remarks*
Passenger Terminal Roads (Downstream from Berth No. JPS-1 50 m. up to N. Andrejostas Lightbeacon).	650	250	8.0	Anchorage allowed (muddy clay, sand).
Andrejsala Roads (Downstream from N. Andrejostas Lightbeacon).	600	250	8.3	Anchorage allowed (muddy clay, sand).
Export Harbour (Eksportosta) Roads (From the beginning of Berth No. EO-9 to the end of Berth No. EO-15).	1,000	240	10.0	Anchorage allowed (muddy clay, sand).
Kundzinsala Roads (Opposite to Container Terminal from Berth No. KS-32 to Berth No. KS-34, both lengths inclusive).	450	450	10.0	Anchorage allowed (muddy clay, sand).
South Rinuzi Roads or South Rinuzi Mooring Buoys.	290		12.5	
North Rinuzi Roads or North Rinuzi Mooring Buoys.	300		12.5	
Milgravis – Sarkandaugava Turning Basin.	220	220	6.5	
Sarkandaugava Turning Basin (Opposite to Berth No. SD-5).	220	220	7.45	

MAX. SIZE: Max. LOA 225 m. Also see Table below.

Vessels with draft exceeding 10.06 m. are loaded/unloaded at Rinuzi Mooring Buoys 3 miles upstream breakwaters.

Permissible Size of Vessels:

Area of the Port	*Max. Length* (m.)	*Max. Beam* (m.)
North Rinuzi Roads or North Rinuzi Mooring Buoys	225.0	35.0
South Rinuzi Roads or South Rinuzi Mooring Buoys	225.0	35.0
Mangalsalas Harbour	156	25.0
Kundzinsala (Container Terminal)	225.0	35.0
Berths No. PM-16/17 and PM-19 of Pilmuiza Harbour[1]	170.0	30.0
Berth No. PM-20/21 of Pilmuiza Harbour[2]	200.0	35.0
Export Harbour[2] (Eksportosta)	225.0	35.0
Berths of Andrew Island (Andrejsala)	200.0	30.0
Passenger Terminal	200.0	30.0
South Harbour of Fishery Port	175.0	25.0
Riga Shiprepair Yard	200.0	35.0
Daugavgriva Harbour (Berths from DA-1 to DA-6 or Karaosta)	124.0	20.0

Note:

[1] Vessels of maximum size are allowed to be berthed, subject to Berths PM-16 and PM-20 being free from other vessels.

[2] Vessels of maximum size over 9 m. in draft may be moored/unmoored if current in Daugava River is under 1 knot.

HEALTH: Pratique obtainable after vessel moors when Health Officials visit vessel with Immigration and Customs Officers.

Health Inspector to be informed of any medical assistance required.

RESTRICTIONS: Vessels must have 0.45 m. under-keel clearance at the quay.

Vessels are to proceed along the Daugava River at a speed adopted to the conditions and the type of vessel, causing no backwash along the river banks and not exceeding 8 knots.

Traffic is suspended when winds exceed 14 m./sec. or visibility is less than 4 cables.

Passage of the Daugava River is prohibited for ships having anchors under water.

The velocity of the Daugava River water stream rises sharply during discharge of water through the overflow weir of Riga Hydroelectric Power Station and can reach 2 – 3 knots.

With currents exceeding 2 knots, movements in several basins are difficult and sometimes prohibited by Harbour Master.

Due to sandy bottom and to avoid damage to the underwater parts of a berth, vessel must not exceed "dead slow ahead/astern" revolutions on her engine until the stern of the ship is at least 15 m. from the quay.

RADIO: Vessels can establish ship-shore radio contact via Riga Radio Station, operating 24 hours a day.

All vessels navigating or laying at anchor in Port of Riga waters are to be contactable on VHF Channel 9, and if possible, Channel 16.

VHF:

Call Sign	*Channel*	*Notes*
Riga Radio – 1	16, 27	Telephone connections
Riga Radio – 67	16, 21	Telephone connections
Riga Traffic	16, 09	Vessel Traffic Service
Port Control	09	Port Control
Riga Radio – 2	14	Commercial Port Dispatcher
Riga Radio – 35	35	Fishery Port Dispatcher
Riga Radio – 13	30	Riga Shipyards Dispatcher

All Masters of inbound vessels, 10 nautical miles off Buoy "B", are obliged to advise Vessel Traffic Service via Channel 9.

Any movement of vessels in port waters is prohibited without permission of Vessel Traffic Service.

Vessel Traffic Service provides navigational, hydrographic, hydrometeorological and other information to Masters.

At 0815 hrs. and 1700 hrs. local time, Port Control broadcasts weather reports on Channel 9.

RADAR/VTS: Waterborne traffic within port limits and within 10 nautical miles of Buoy "B" is regulated by Vessel Traffic Service on VHF Channel 9.

Subject to a special payment, Vessel Traffic Service controls the position of vessels by radar.

TUGS: The number of tugs necessary for vessel is determined by Master on Pilot's advice. Harbour Master has determined compulsory use and minimal quantity of tugs to be used in several cases. Ship's lines only are used.

BERTHING:

Port Area (Latvian Name)	*Berth No.*	*Length* (m.)	*Max. Draft alongside* (m.)[1]	*Max. Draft 10.0 m.off* (m.)[1]	*Disponent Owner/ Remarks*
Customs Embankment (Muitas Rastmala)	MK-3	200	6.2		
Passenger Terminal (Juras pasazieru stacija)	JPS-1	132.0	6.0	8.0	Riga Commercial Port
	JPS-2	217.0	7.8	8.0	
Andrew Harbour's Berth (Andrejostas Piestatne)	AO-1	140.0	5.0		Latvian Shipping Co.
Andrew Island (Andrejsala)	AS-3	120.0	8.0		Riga Commercial Port
	AS-4	120.0	8.3		
	AS-5	144.0	8.0 (LOA 150 m.) 6.5 (LOA under 180 m.)		
Export Harbour's Damb (Eksportostas dambis)	ED	170.0	5.5	7.0[2]	
Export Harbour (Eksportosta)	EO-6	240.0	10.0		Riga Commercial Port
	EO-7	190.0	9.1	10.0	
	EO-8	188.0	9.3	10.0	
	EO-9	130.0	7.0		
	EO-10	150.0	7.0	7.8	
	EO-11	135.0	6.8	7.6	Riga Commercial Port
	EO-12	136.0	6.4	7.1	
	EO-13	100.0	8.3	8.7	
	EO-14	100.0	8.3	8.7	
	EO-15	215.0	9.2		
Peelmuizhas Basin (Pilmuizas Baseins)	PM-16	145.0	7.0		Riga Commercial Port
	PM-17	145.0	7.6		
	PM-18	104.0	7.0		
	PM-19	172.0	7.2		
	PM-20	218.0	8.7		Messrs. STREK
	PM-21	350.0	10.0		
Kundzinsala (Kundzinsala)	KS-32	150.0	10.0		Riga Commercial Port
	KS-33	150.0	10.0		
	KS-34	149.0	10.0		
Sarkandaugava (Sarkandaugava)	SD-4[4]	105.0	7.45		Man-Tess Co.Ltd.
	SD-5[4]	120.0	7.45		Man-Tess Co.Ltd.
Daudersala (Daudersala)	DS-9	160.0	5.5		Messrs. BMS
	DS-11			3.7	Building Construction Plant
	DS-12	120.0	3.2		
Yaunmilgravis (Jaunmilgravis)	JM-15	181.0	5.5		Messrs. Latvian Waterways
	JM-16	148.0	7.0		Messrs. Lat-East-West

Port Area (Latvian Name)	*Berth No.*	*Length (m.)*	*Max. Draft alongside (m.)*[1]	*Max. Draft 10.0 m.off (m.)*[1]	*Disponent Owner/ Remarks*
Yaunmilgravis (Jaunmilgravis)	JM-17	120.0	3.8	6.0	
	JM-20			[5]	
	JM-22	86.0	3.5		Messrs. ANI
	JM-23	102.0	4.2		Messrs. ANI
	JM-25	20.0	4.0		
	JM-25A	20.0	4.8		LOA 60 m.
	JM-26				Under construction.
	JM-27	56.0		7.45[6]	Messrs. Cona International
	JM-29	108.0	5.0		
Riga Shiprepair Yard (Rigas Kugu remonta rupnica)	RKR-3	70.0	4.2		
	RKR-4	120.0[7]	5.2		
		120.0[8]	4.8		
	RKR-5	161.0[7]	5.5	5.8	
	RKR-6	105.0	6.8	7.5	
			6.8	8.0	
	RKR-6A	105.0	6.0[7]		
		200.0[7]	3.0[8]		
	RKR-7	250.0[7]	7.5	8.0	
		230.0[8]	8.0		
	RKR-8	184.0	4.7		
	RKR-9	90.0	4.7		
Vecmilravis (Vecmiilgravis)	VM-3	35.0	5.0	6.0	
	VM-4				
Mangali Shiprepair Yard (Mangalu Kugu remonta rupnica)	MRK-1	180.0	6.7		
	MKR-2	200.0	6.5		
	MKR-3				
	MKR-4				
	MKR-5				
	MKR-6				
	MKR-7				
	MKR-8				
Fishery Harbour (Zvejas osta)	ZO-1	150.0	9.6		
	ZO-2	168.0	9.7		
	ZO-3	100.0	7.5		
	ZO-4	100.0	7.5		
	ZO-5	100.0	7.5		
	ZO-6	100.0	7.5		
	ZO-7	100.0	7.5		
	ZO-8	100.0	7.0		
	ZO-9	100.0	7.3	8.0	
	ZO-10	100.0	7.1	7.8	
	ZO-11	90.0	7.0		
	ZO-12	130.0	6.8		
	ZO-13	130.0	6.8		
	ZO-14	162.0	6.5		
	ZO-15	144.0	7.0		
Zvejnieku Island (Zvenjnieku sala)	ZS[9]	167.0			
Audupe Basin (Audupe)	AU-1	195.0	4.5		Shipping in daytime with current not exceeding 1 knot.
Mangalsala (Mangalsala)	MS-10	120.0	5.0		Messrs. Man Tees
	MS-11	120.0	5.3	6.5[10]	Messrs. Sala Co.Ltd. LOA 156 km.
	MS-12	120.0	5.0	6.5[10]	
	MS-13	140.0	5.5	6.5[10]	
Keepsala Island (Kipsala)	KPS-10			3.2	Riga Commercial Port
	KPS-14			4.0	
	KPS-16			4.0	
Ronyu Basin (Ronu Dikis)	RD-2	148.0	4.0		
	RD-3	120.0	4.5		Building Construction Plant
	RD-5	35.0[*1]	6.0		Cement Plant
Volery (Voleri)	VL-13	105.0	4.3		Use of tugs compulsory.
	VL-14[*2]	65.0	4.2		
			4.5		
	VL-17[*3]	30.0		4.7	
Kremery (Kremeri)	KR-19[*4]	115.0		4.7	
	KR-20[*4]	115.0		6.5	
	KR-21	135.0	4.5		
	KR-22[*5]	70.0	3.5		
	KR-24	100.0	4.5	6.5[*6]	
	KR-25	115.0	4.5	6.5[*6]	
Lower Podcape (Gas Terminal) (Lejas Podrags)	LP-27	145.0	6.6		Gas jetty.
Daugavgriva (Daugavgriva)	DG-1	150.0	6.2	7.1	
	DG-2	160.0	6.4	7.1	
	DG-18				Port side alongside.
	DG-19				
	DG-20				
	DG-27[*7]	140.0	7.1		
	DG-56	105.0	5.5		

Notes:

[1] If depth survey fails to be performed within 1.5 years, the indicated draft limitations shall be deemed legally not valid. The seafarers should note that the water level within the Port of Riga under ice conditions is usually 0.3 m. lower than indicated.

[2] The maximum draft for mooring a vessel alongside M/V "Apse" (L = 145 m.).

[4] It is forbidden to moor or keep tankers and dry cargo vessels simultaneously alongside Berths No. SD-4 and SD-5.

[5] Vessels to be moored alongside the floating repair shop with their port side to. The length of 105 m. and draft 5.5 m. fore and 8.7 m. aft are maximum permissible for such vessels.

[6] Vessels to be moored alongside barges of total breadth 26 m.

[7] At the head of the berth.

[8] Further along the berth.

[9] Maximum draft at the Southern end of the berth is 6.5 m., 5.5 m. at its Northern end.

[10] The permissible draft at 3.0 m. off the berth side. Vessels over 140 m. in length are allowed in Mangalsala Basin when current in Daugava River is under 1 knot. To enable mooring/unmooring of the said vessels, the berths of Mangalsala Basin are to be free of any other vessels. The tug "Mussons" to be used.

[*1] Maximum length of the vessel is 100 m.

[*2] Only vessels under 58 m. in length if equipped with bowthrusters are allowed to be piloted in. Maximum draft at the base of the pier is 4.2 m., while at the riverside head it is 4.5 m.

[*3] For mooring alongside a barge of 12.0 m. in beam.

[*4] Vessels under 100 m. in length to be moored alongside barges with aggregate beam of 20.0 m.

[*5] Maximum permissible length of vessel is 65 m. Tug assistance is compulsory.

[*6] Vessels to be moored alongside the floating crane of 16.5 m. in beam.

[*7] Maximum permissible length of vessel is 124 m. Mooring alongside the floating berth.

CRANES: Cranes of up to 40 tons capacity are operated on the quays and by warehouses. There are also floating cranes with lifting capacity of up to 100 tons, other cargo handling equipment and intra-port transport.

SPECIALISED CARGO HANDLING FACILITIES: Berths PM 16-19 are suitable for handling of ships type Ro-12, Ro-30, Ro-60, KS-32, 7PS-2 and MK-3.

BRIDGES: None. Airdraft on Daugava Fairway is 52 m. and on approaches to Sarkandaugava Berths SD-4, SD-5, the airdraft is 35 m. The Harbour Master may permit passage of ships with greater airdraft to Sarkandaugava Quays.

MEDICAL: All medical assistance available.

STEVEDORES: Master's and/or Shipowner's information of cargo details, stowage, etc., is required in advance. Information should be addressed to Agent in Riga.

DENSITY: 1002 (approx.).

FRESH WATER: Available. Delivered from shore or by barge to Inner Roads.

FUEL: Bunkers are supplied by barges during loading or discharging of non-inflammable cargoes.

CONSULS: Canada, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Poland, Russia, Sweden and U.S.A.

REPAIRS: All kinds of repairs for hull, machinery, radio and navigational equipment to vessels with deadweight up to 30,000 tons.

GANGWAY/DECK WATCHMEN: Recommended. These duties normally performed by crew.

OPENING/CLOSING HATCHES: Opening and closing of hatches is usually done in accordance with conditions of Charter Party.

CUSTOMS ALLOWANCES: Usual restrictions on quantities.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: International airport available. Internal flights between Riga and most cities possible.

TIME: GMT plus 3 hours in Summer, and GMT plus 2 hours in Winter.

HOLIDAYS: January 1st; Good Friday; Easter Sunday; May 1st; First Sunday in May; June 23rd and 24th; November 18th; December 25th, 26th and 31st.

EMERGENCY CO-ORDINATION CENTRE: Tel: (371-7) 329775. Fax: (371-7) 320100. Telex: 161396 MRCC LV.

TELEPHONES: Installation and use charged according to existing tariffs.

SHORE LEAVE: Crew allowed ashore.

IDENTIFICATION CARDS: Seaman's Book required.

AUTHORITY: The Port of Riga Authority, 6 Eksporta Street, LV-1242 Riga, Latvia. *Tel:* (371-7) 325350. *FAX:* (371-7) 830051.

Harbour Master's Office, 6 Eksporta Street, LV-1010 Riga, Latvia. *Tel:* (371-7) 329235. *FAX:* (371-7) 322750.

AGENT: Riga Shipping Agency Ltd., 13 Maza Pils Street, LV-1050 Riga, Latvia. Tel: (371) 7223084, 7227765, 9211254 (24 hours). Telex: 161318 Risag LV. Fax: (371) 7830304.

VENTSPILS: 57.24 N. 21.33 E. (See Plan)

GENERAL: A Baltic Sea port, Ventspils is situated at the mouth of the Venta River. Ventspils is ice free throughout the year.

There are periodical alterations in the water level of the Venta River, chiefly due to the effects of the wind. The rise of the water level is usually due to moderate Westerly winds, and the fall is caused by Easterly winds.

The maximum rise of the water level is observed in the Venta River at the time of Spring floods and during Winter time.

The port of Ventspils aquatorium includes the Avant-port, the Fishery Harbour and the Commercial port. A fairway, direction 323.6° – 143.6°, 130 m. wide leads to the port from seaward of Reception Buoy "Ventspils-B".

The West fairway direction 289.9° – 109.9°, 130 m. wide from the "Ventspils-A" Buoy. Both fairways are suitable for all vessels. The draft of vessels passing through the fairway should not exceed 12.50 m. (FW).

Vessels can enter the port by this fairway only after having obtained the Harbour Master's permission, as after continuous Westerly winds the fairways have soundings of 11.0 m. or less.

DOCUMENTS: *Clearance at Latvian Ports:*

1. All vessels arriving from foreign ports or foreign waters, or sailing to foreign ports or waters, shall be cleared by state authorities at the ports of Riga, Ventspils, Liepaja, Pavilosta and Salacgriva, in accordance with the regulations of clearance by state authorities at Latvian ports.

   All persons without Seaman's Registration Books on board the above mentioned vessels shall have passports with the visas of the corresponding countries.
2. After having been cleared at one Latvian port, the vessel has the right to enter another Latvian port without clearance, only notifying the respective Harbour Master.

Clearance of Vessels Arriving at Latvian Ports from Foreign Ports or Foreign Waters:

1 copy Master's Declaration.
4 copies General Declaration.
2 copies Cargo Declaration.
Bills of Lading – To be shown.
2 copies Ship's Stores Declaration.
2 copies Crew's Effects Declaration.
5 copies Crew List.
5 copies Passengers' List.
1 copy Maritime Declaration of Health.
2 copies Veterinary and Phyto-Sanitary Declaration.

The Order for Drawing-up and Submitting the Documents:

1. Prior to vessel's arrival at a Latvian port, the Master is obliged to fill in and sign "Maritime Declaration of Health" and "Veterinary and Phyto-Sanitary Declaration" which are delivered on board by the Pilot.
2. After drawing up above mentioned declarations, Pilot notifies the VTS about their contents on VHF. The VTS forwards this information to the vessel's Agent.
3. The vessel's Agent notifies the Sanitary-Quarantine, Veterinary Control and Phyto-Sanitary Authorities about the contents of the Master's Declarations.
4. The Sanitary-Quarantine, Veterinary Control and Phyto-Sanitary Authorities, according to the contents of the Maritime Declaration of Health and Veterinary and Phyto-Sanitary Declaration, decide if it is necessary to come on board the vessel, having arrived at the port and inform the vessel's Agent of their decision.
5. If the authorities decide that their presence on board of the vessel for her clearance is necessary, they come on board together with the vessel's Agent and make her clearance.
6. Immigration and Customs Authorities are notified by the vessel's Agent 2 hours prior to her mooring. Immigration and Customs Authorities arrive on board after vessel's mooring and make her clearance.

Clearance of Vessels Sailing to Foreign Ports and Foreign Waters: Documents to be submitted:

2 copies Master's Declaration.
3 copies General Declaration.
2 copies Cargo Declaration.
Bills of Lading – To be shown.
5 copies Crew List.
5 copies Passenger List.
2 copies Sailing Permit (one copy to be submitted to the Pilot on sailing).

Drawing up and Submitting of Documents: 2 hours prior to sailing, the Master shall submit the Master's Declaration, Crew List and Passenger List to the Harbour Master.

After receiving the documents mentioned above, the VTS immediately notifies the Immigration and other authorities about vessel's sailing. The above mentioned authorities carry out vessel's clearance either arriving on board or via the vessel's Agent.

Vessel's Clearance Arriving from Latvian Ports or Latvian Waters: Documents to be submitted:

1 copy Master's Declaration.
2 copies Cargo Declaration.
2 copies Crew List.
2 copies Passenger List.
Bills of Lading – To be shown.

Drawing up and Submitting of Documents: The Master or his Agent submit Master's Declaration, Crew List and Passenger List to the Harbour Master, Cargo Declaration to the Customs Authorities, and Master's Declaration and Passenger List to the Immigration Authorities.

Outward Clearance of Vessel's Sailing from one Latvian Port to another or to Latvian Waters: Documents to be submitted:

1 copy Master's Declaration.
2 copies Cargo Declaration.
2 copies Crew List.
2 copies Passenger List.
Bills of Lading – To be shown.
2 copies Sailing Permit (one copy to be submitted to the Pilot on sailing).

Vessel's Outward Clearance: At least 2 hours prior to leaving the port, the vessel's Master or his Agent submit Master's Declaration, Crew List, Passenger List and Bills of Lading to Harbour Master, Cargo Declaration, Crew List and Passenger List to the Customs Authorities, and Crew List and Passenger List to the Immigration Authorities. The Harbour Master's Permit to leave the port is valid for 6 hours. After 6 hours it has to be renewed.

DEEP SEA PILOTAGE: See "Baltic Deep Sea Pilotage".

PILOTAGE: Pilotage is compulsory for entering, shifting and leaving the port for all vessels exceeding 70 m. LOA, and for all tankers with LPG/LNG or chemical cargoes, regardless of length.

Pilots board and leave vessels in the areas of Reception Buoys "Ventspils-A" and "Ventspils-B". Pilot service is available round the clock when entering and leaving the port.

Port Control on Channels 16, 9 and 67.

ANCHORAGES: Anchorage in the outer port road for vessels loaded with chemical cargoes is allowed in Area No. 50, co-ordinates:

Lat. 57° 29.75' N.	Long. 21° 28.62' E.
Lat. 57° 29.12' N.	Long. 21° 29.90' E.
Lat. 57° 30.82' N.	Long. 21° 31.75' E.
Lat. 57° 31.48' N.	Long. 21° 30.40' E.

Area 50A: For vessels drawing over 10.0 m. co-ordinates:

Lat. 57° 31.5' N.	Long. 21° 22.6' E.
Lat. 57° 31.2' N.	Long. 21° 33.5' E.
Lat. 57° 30.2' N.	Long. 21° 21.0' E.
Lat. 57° 29.6' N.	Long. 21° 22.8' E.

Anchorage in outer port road for tankers, vessels loaded with explosive or inflammable cargoes and also for vessels holding up in quarantine is allowed in Area No. 51, co-ordinates:

Lat. 57° 29.40' N.	Long. 21° 28.82' E.
Lat. 57° 28.08' N.	Long. 21° 27.15' E.
Lat. 57° 27.90' N.	Long. 21° 30.80' E.
Lat. 57° 27.02' N.	Long. 21° 28.72' E.

Area 51A: For vessels drawing under 5.0 m. co-ordinates:

Lat. 57° 27.8' N.	Long. 21° 31.2' E.
Lat. 57° 27.8' N.	Long. 21° 33.7' E.
Lat. 57° 26.4' N.	Long. 21° 31.2' E.
Lat. 57° 26.4' N.	Long. 21° 33.7' E.

Anchorage in outer port road for all the other vessels is allowed in Area No. 52, co-ordinates:

Lat. 57° 27.98' N.	Long. 21° 26.40' E.
Lat. 57° 26.65' N.	Long. 21° 24.87' E.
Lat. 57° 26.05' N.	Long. 21° 27.10' E.
Lat. 57° 26.21' N.	Long. 21° 28.88' E.

These Areas are announced by Notices to Mariners. Depths in the anchorage are from 10 m. to 12 m. The bottom is sand; the holding ground is good.

When the wind is over 20 m./sec., it is recommended that vessels weigh anchor and drift in order to avoid losing an anchor.

The Master of a vessel has to inform the Vessel Traffic Service through their Agent of the exact position of the anchorage stating the bearing and the distance from the North breakwater lighthouse.

The anchorage in the outer road is not safe during strong Westerly winds therefore vessels are recommended to drift while awaiting entry to the port or to go to sheltered places situated in the areas of the Kolkasrags Point and the Gotland Islands.

MAX. SIZE: In accordance with its technical possibilities, the port can handle vessels with the following maximum dimensions:

Oil and Chemicals Harbour: Length 252 m., beam 43 m.
Export Region: Length 230 m., beam 32 m.
Import Region:
  Piers No. 6 – 9: Length 185 m., beam 25 m.
  Pier No. 10: Length 200 m., beam 30 m.
  Bunkering Station Pier No. 11A: Length 165 m., beam 25 m.

The permissible draft of vessels in the main channel to the outer harbour is 12.0 m. Also see "Berthing".

When proceeding along the fairway and passing through the Venta River channel, vessels should have speed not exceeding 5 knots.

HEALTH: Pratique obtainable after mooring. Sanitary Inspector visits vessel after mooring together with Immigration and Custom House Officer. If medical care required the Sanitary Inspector has to be informed.

It is strictly forbidden to throw any type of garbage materials overboard from the ship into water areas of the port (bilge water, sanitary water and other infected pollutants). There are three self-propelled barges for these services.

Note: Pratique may be granted on arrival in the roads if vessel reports "Healthy" by means of radio, radio-telephone, etc.

RADIO/VHF: Radio contact should be established via the Ventspils Radio-1 Port Radio Station which operates 24 hours a day.

Station	*Call Sign*	*Channel*
Port Radio	Ventspils Radio 1	16, 7, 22, 26, 27
Port Dispatcher	Ventspils Radio 2	16, 9, 10
Port Control	Ventspils Radio 5	16, 9
Port Fleet	Ventspils Radio 6	9
Radar Station	Ventspils Radio 9	16,14
Dispatcher oil/ chemical area	Ventspils Radio 15	16, 33
Traffic Control	Ventspils Radio 17	16, 9, 30, 67
Sea Channel	Ventspils Radio 20	16, 29
Bunker Service	Venoil	33

All vessels should maintain a continuous listening watch on Channel 9 whilst within the area.

ETA: The Master of a vessel shall notify, via his Agent, the Harbour Master of the estimated time of arrival 48 hours in advance, repeating it 24 hours later, and giving the final information 4 hours before vessel's arrival at the Pilot Embarkation Buoy "A" or "B".

The Master of a vessel shall furnish the following information:

Vessel's name, call sign and nationality.
Estimated time of arrival (date and hour).
Vessel's overall length and draft.
Quantity and denomination of cargo.
Vessel's Agent.

VTS: Traffic Control on VHF Channels 16, 9 and 67.

RADAR: The port has a Shore Radar Vessels' Control System.

TUGS: Use of tugs for tankers and gas tankers is compulsory. For dry-cargo vessels, the necessity and number of tugs for entering and leaving the port or shifting is determined by the Master with Pilot's agreement, in accordance with the weather conditions and other factors.

Normally tugs join vessels within the port area.

BERTHING: Berthing of vessels and shifting berths is carried out round the clock. Vessels having length over 185 m. and draft over 9.5 m. (FW) when approaching the port through the Venta River Channel are allowed to enter or leave the port, moor and shift berth during the day only and when winds do not exceed Force 5.

Cargo berths with depths alongside up to 11.9 m. situated on the right bank of the Venta River are equipped for handling general, bulk cargoes and metals. Berths of the Avantport are equipped for handling crude oil, liquid gas chemicals and oil products. They can receive vessels with the maximum permitted draft of up to 12.50 m. (FW) (at the datum at Kronstadt). There are covered warehouses and open concrete floor sheds in the port.

There is a potash handling plant.

Berth No.	*Length* (m.)	*Max. Draft* (m.)	*Owner/Operator*
Export Region:			
1	204	9.7	"Njuventa"
2	194	9.9	"Njuventa"
3	174	9.6	"Njuventa"
4	250	11.5	"Kalija Parks"
5	720	4.9	Commercial Port
Import Region:			
6	151	8.7	"Uniparks"
7	150	8.5	"Uniparks"
8	150	8.3	"Uniparks"
9	196	9.2	"Uniparks"
10	302	11.5	"Uniparks"

Berth No.	*Length (m.)*	*Max. Draft (m.)*	*Owner/Operator*
Bunkering Station:			
11	84	8.5	"Venoil"
11A	84	8.5	"Venoil"
11B	84	8.5	"Venoil"
12	107	5.9	"Venoil"
Krimulda's Harbour:			
13	94	6.0	"Ventplac"
13A	Not constructed.		Port Authority
13B	100	5.0	"Globuss"
14	108	5.6	"Ventplac"
15	108	5.0	"Ventplac"
16	225	5.5	Port Authority
16A	229	5.5	Port Authority
16B	235	5.5	Port Authority
Other Port Territories:			
17	123	6.5	Maritime Administration
18	96	6.5	Maritime Administration
19	98	6.5	Port Authority
20	475	6.5	Port Authority
21	222	6.5	Port Authority
22	160	6.0	Port Authority
23	361	4.7	Border Guards
24	43	4.7	Port Authority
25	261	6.0	Juras Darbnicas
25A	19	6.0	Maritime Administration
25B	106	5.5	Port Authority
26A	153	5.5	"Njuventa"
26B	55	5.5	"Njuventa"
26C	288	8.6	"Njuventa"
Oil and Chemicals Harbour:			
26	172	5.7 – 6.6	"Ventbunkers"
27	96	5.9	"Ventbunkers"
28	310	11.2	"Ventbunkers"
29	310	11.2	"Ventbunkers"
30	344	12.5	"Ventbunkers"
31	344	12.5	"Ventbunkers"
32	360	12.5	"Ventbunkers"
33	360	12.5	"Ventbunkers"
34	234	8.4	"Ventamonjaks"
35A	50	13.5	"Ventamonjaks"
36	300	12.5	"Ventamonjaks"
37	376	12.5	Port Authority
38	210	5.5 – 6.5	"Enkurs"
40	80	7.0	"Baka"
New Fishing Harbour:			
1	200	4.5	"Enkurs"
2	230	4.5	"Enkurs"
3	107	4.5	"Enkurs"
4	100	4.5	"Enkurs"
5	107	4.5	"Enkurs"
6	230	4.5	"Enkurs"

BULK CARGO FACILITIES: *Handling Rates:* Potash 15,000 tons/day. Steel/metal products 1,500 tons/day.

CRANES: Quays are equipped with electric cranes of up to 45 tons capacity. There are floating cranes of up to 100 tons capacity, cargo handling equipment for bulk cargoes and machinery.

STEVEDORES: Master's and/or shipowner's information of cargo details, stowage – especially for ships with inward general cargoes – is required in proper time. Information has to be addressed to Agent in Ventspils.

ETA notification 48, 24 and 4 hours before arrival to Agent in Ventspils.

MEDICAL: Hospital facilities available. Advance notice desirable, however depends on kind of sickness. Master should place orders concerning inoculations, vaccination, fumigation, hospitalisation and etc., with representative of Sanitary Inspection. Veterinary Certificate is compulsory for all kinds of animals and cargoes of animal origin; phyto-certificate is compulsory for cargoes of vegetable origin.

TANKERS: Report: September 1993 (Updated 1996).

Terminals:

Name:	"Ventbunkers"/"Ventamonjaks" Chemical Refinery Plant		Floating Storage
Tel:			(371) 68972
Telex:			(64) 161864
Shore Tanks	Product	Capacity (tonnes)	Floating Storage for Gas Oil and Fuel Oil.
	Crude Oil	154,000	Gas Oil 3,000 tonnes
	Gas Oil	150,000	Fuel Oil 4,000 tonnes
	Gasoline	27,000	
	Naphtha	15,300	
	Fuel Oil	17,950	
	Semigudron	7,050	
	Chemicals	27,000	
Length of Shorelines	Varies from 5 km. to 7 km. Capacity per line approximately 3,500 cu.m. Designated pipelines.		
Loading Rate	Crude Oil 3,000 cu.m. Gas Oil 4,000 cu.m. Others 1,000 cu.m.		

Berths No.	Max. Draft (m.)	Length (m.)	Grades handled	Connections
26	6.60	113	GO/FO	12 in.
27	5.70	80	GO/FO	10 in./12 in.
28, 29	11.30	200	GO/Naphtha JF/Gasoline	10 in./12 in.
30, 31	12.50	200	Semigudron Crude	10 in./12 in.
32, 33	12.50	200	GO/CO/Semi SNO/Waste Oil	10 in/12 in.
34	8.40	125	Chemicals	
36	12.50	200	Chemicals	

Report: October 1993 (Updated 1996).

Berth No.	*28/29*	*30/31*	*32/33*	*34*	*36*
Min. Depth in Approaches (m.)	14.4	14.4	14.4	14.4	14.4
Under-keel Clearance in Approaches (m.)	1.9	1.9	1.9	1.9	1.9
Max. Draft (m.)	11.0	12.5	12.5	8.5	12.5
Max. Summer d.w.t.(tonnes)	27,400	50,700	60,500	25,000	50,000
Max. Displacement (tonnes)	35,900	64,000	75,000	–	–
Max. LOA (m.)	178.8	230.6	242.6	178.5	217.0
Max. Beam (m.)	25.3	31.0	32.2	25.3	32.8
Max. Distance Stern to Manifold (m.)	120.0	125.0	150.0	70.0	70.0
Max. Height of Manifold (m.)	21.5	21.4	21.6	21.6	21.6
Min. Height of Manifold (m.)	3.0	3.0	3.0	3.0	3.0

Operators: Ventbunkers operate Berths No. 28/29, 30/31 and 32/33. "Ventamonjaks" operate Berths No. 34, 35A and 36.

Note: Berths No. 28 and 29 have the same characteristics, and Berths No. 31 and 32 have the same characteristics. There are a total of 7 berths.

Ballast Facilities: Shore reception facilities accept up to 15,000 tonnes. Deballasting rate up to 5,800 cu.m./hr. The port does not accept ballast if chemicals or leaded cargoes were onboard.

Products handled:

Berths No. 28 and 29: Gas Oil, Jet Kerosene, Jet Fuel.

Berths No. 30 and 31: Gas Oil.

Berth No. 32: Semi-Goudron and Crude Oil.

Berth No. 34: Methanol, Isobutanol, Monoetilen-Glycol, Nitrile-Acril Acid, Superphosphoric Acid, Glycerine.

Berth No. 36: Methanol and Ammonia.

Loading Rates: Oil products 2,200 t.p.h. LPG 1,200 t.p.h.

DENSITY: In port about 1002.

FRESH WATER: Fresh water available, delivered from shore or by barge (capacity 450 tons).

FUEL: All grades available subject to prior inquiry. Bunkers can be taken from the oil jetty or supplied by lighters.

CONSULS: No Consulates.

REPAIRS: Small deck and engine repairs, diving inspections can be carried out.

DRY DOCKS: None.

SURVEYORS: Maritime Register of Shipping (Russia), Saybolt and SGS Latvia Ltd.

GANGWAY/DECK WATCHMEN: Service of watchmen recommended; however, Master's option.

HATCHES: Opening and closing of hatches is normally done by the ship's crew. However, this will be done by stevedores at extra charge if requested by Master.

CERTIFICATES: Required to be on board:

International Tonnage.
International Class.
Load Line.
Safety Equipment.
International Radio.
Derat Certificates.
Certificate of Financial Security in respect of civil liability for oil pollution damage, 1969.

CUSTOMS ALLOWANCES: There is no restriction for crew use and bond locker is not sealed.

REPATRIATION: Repatriation of crew left behind by a vessel in hospital is arranged by other tramp-ships with Master's consent or by rail or air after the necessary documents have been arranged.

TIME: GMT plus 2 hours all year round.

HOLIDAYS: January 1st; April 17th (Easter); June 23rd and 24th (Midsummer's Day Holiday); 18th November (Day of Independence); December 25th, 26th and 31st (Christmas and New Year). Cargo work never stopped on holidays, except New Year.

POLICE/AMBULANCE/FIRE: If required have to be called through Maritime Agency.

TELEPHONES: It is possible to place telephones on board.

SERVICES AVAILABLE: Tankers' deballasting installation for slops; service for radar and VHF repairs; compass adjusting; workshop for ordinary deck and engine repairs; ship chandler service; bunker, water, garbage removal, bilge cleaning, surveyors.

SHORE LEAVE: Crew members allowed ashore.

GARBAGE DISPOSAL: Vessels shall deliver rubbish, garbage, any other solid waste, dirty ballast, bilge water, feces, and other sewage waters to special cars/lorries/barges. Master should give an order through agent. Services to be charged according to the tariffs effective at the time.

WASTE OIL DISPOSAL: Collection service available, capacity of shore tanks 55,000 cu.m./day, rate 5,800 cu.m./hour. Charges: £10/hour, minimum 6 hours, gasoline and vegetable oils excepted. Contact Tel: 6337, 66237.
SEAMAN'S CLUBS: 20 Dzintaru Str., Ventspils LV-3602, Latvia. Tel: 67068, 68356, 68292. Facilities include currency exchange, shop, bar, minibus collection.
CURRENCY: Latvian Lats (Ls). U.S.$ 1.00 = 0.53 Ls (10.3.96).
IDENTIFICATION CARDS: Seaman's Book required.

SHIPMASTER'S REPORT: 1976 (Updated 1994).
Port operation in foggy weather said to be controlled by radio and millimetre (aircraft) type radar installation, one scanner of which is situated on tower near root of Southern Breakwater.
Tugs: Alleged that 5 are available; 1 icebreaker type of 5,000 h.p. 4 medium size, and 1 small, 1 at least of which was propelled by Voith-Schnieder gear of about 750 h.p.
Pilots: To call Pilots, use Channel 16 and 9 and call Ventspils Traffic Service who make arrangements with Harbour Office and Agents.
During time vessel deballasting and loading; any problems can be resolved by call to Agents on VHF Channels 71 and 74.
Regulations: Fire Officers demand that suitable bonding wire be fitted (supplied by ship). No shore facility available.
Facilities: No. 1 Pier has (building) tower crane for handling hoses. Berths No. 2 and 3 are fitted with loading arms hoses and towers. Fresh water available. Bunker fuel available but not necessarily marine diesel.
Cargo Berths: There are believed to be 8 dry cargo berths, within the river port area, some with cranes, suitable for general cargo, together with storage buildings. Refrigerated/chilled cargoes have been handled regularly.

SHIPMASTER'S REPORT: May 1980 (Updated 1996).
Vessel: LPG carrier of 10,000 g.r.t.
Pilotage: The following are the Port Authority's comments (dated March 1996):
Liquefied gas and chemicals carriers with length not exceeding 150 m., and tankers with oil and oil product cargoes with length not exceeding 185 m., are permitted to enter and leave the port round the clock by wind not exceeding 14 m./sec. and visiblity not less than 2 miles.
Tankers with gas and chemical cargoes with length exceeding 185 m., tankers with oil and oil product cargoes with length exceeding 235 m., and dry cargo vessels with length exceeding 185 m. are permitted to enter and leave the port by daylight by wind not exceeding 8 m./sec. and visibility not less than 2 miles.
Pilotage time to berth is approximately 40 minutes.
Tugs: The following are the Port Authority's comments (dated March 1996):
At least one tug's assistance is compulsory for tankers with cargo and in ballast, and vessels with dangerous cargoes (Class 1, 2, 6, 7), if they exceed 70 m. in length. At least 2 tugs' assistance is compulsory for vessels exceeding 150 m. in length. These demands do not apply to technical fleets and bunkering vessels.
Tankers with cargoes and in ballast, vessels with dangerous cargoes (Class 1, 2, 6, 7, according to IMO Classification), having bow thrusters and not exceeding 150 m. in length, have to use assistance of one tug, in principle, it could be used as a "stand-by" tug.
Berth: (Ammonia only – See "Plan"). Modern fendered concrete quayside with depth alongside 13 m. to 14 m. No tidal range but atmospheric conditions affect Baltic water level – density alongside 1001. Vessel generally berths port side alongside. Berth equipped with 12 in. 150 ASA liquid and vapour Chicksans. Ship's reducer used on vapour manifold. Ship's gangway used.
Cargo: Anhydrous ammonia received at −33° Celcius. Loading rate agreed before commencing loading (in this case requested 650 t.p.h.) and increased to over 1,000 t.p.h. after officially requesting for increased rate through agency. The rate agreed prior to loading is expected to be maintained throughout loading with usual reductions for topping off as required. Average rate for 10,230 tonnes loaded was 714 t.p.h.
Vapour return line connected but not required or used – high back pressure on line. Documentation slow – cargo documentation cannot commence until ship cleared and Chicksans not connected until cargo documentation completed. Shippers "Sojuzchimexport" require Quality Certificate for cargo heel onboard – accepted ship's declaration of purity. Also require cargo plan showing 100% tank volume for each tank – to prevent overloading. Bill of Lading quantity = cargo as measured onboard by shore surveyor (accompanied by interpreter).
Bunkers/Water/Chandler: None required but all available.
Agents: Efficient and friendly service. All representatives speak perfect English and very helpful in dealing with Authorities. Agents require ship information, cable 24 hours prior to arrival with following information:
(a) Ship's name, signal letters, nationality.
(b) Last port.
(c) Draft forward and aft, length, gross and nett tonnage.
(d) Cargo requirements.
(e) Owner's name and telex number.
(f) Bunkers, water and provisions required.
(g) Number of crew and health declaration.
(h) ETA at Buoy "B".
If Agents are required in port, call "Ventspils Radio" on Channel 16 and ask for connection to Agency.
Authorities:
Customs: Usual Bond Declaration required but unconcerned with bonded items onboard and bond locker not sealed in port.
Currency Declaration most important. Customs are not interested in personal cash holdings but must have a "TOTAL Cash Onboard Declaration" and the currencies involved. This total to include personal cash, bar cash, safe cash, etc.
Persons going ashore MUST obtain receipts for all expenditure which are then compared with the total declaration prior to departure.
Immigration: Usual Crew Lists required plus Discharge Books or Passports of all onboard. These are taken ashore, stamped and returned onboard. Persons going ashore will then be required to exchange Discharge Book for shore pass with guard at bottom of gangway. Prior to departure, all personnel must report to Immigration onboard for an identification check.
Port Health: Doctor boarded on arrival but formality only. Cursory inspection of store rooms only.

SHIPMASTER'S REPORT: November 1980 (Updated 1996).
Pilotage: Pilotage is compulsory. 12 Pilots available. Pilot boards at Fairway Buoy at the beginning of the old entrance channel and disembarks at Buoy No. "A" in the new deep water channel or Buoy B of the Main Channel. Docking and undocking without the aid of a Pilot is not allowed.
Restrictions: Vessels can enter and leave port during hours of darkness at any stage of the tide, however, vessels are not allowed to manoeuvre in fog or at times when the wind is strong. Shore radar is used at night and in fog for berthing.
Tugs: 4 tugs available.
Radio: Ventspils Radio, call sign "UNI", on 500 kHz, 2182 kHz and VHF Channel 16.
VHF: Pilot uses Channels 9 and 14 after initial call on Channel 16.
Facilities: The following are available: Fresh water, fresh provisions, small repairs, small machine shop, Lloyd's Surveyor, Salvage Surveyor (Lloyd's), laundry service, bunker fuel oil, diesel oil, small stock of lubricating oils, Doctor and hospital, groceries and meats, slop tanks – there is no slop storage – slops are segregated during discharge.
Tankers: There are 6 berths at the oil terminal at 3 piers (Berths No. 28 – 33).
Vessel berthed at No. 31. Ballast is required when arriving or sailing in a light condition (clean ballast may be discharged into the sea with permission from shore).
The tanker terminal exports crude oil, nafta and gas oil but no petrol. Ship's hoses are used. 2×12 in. lines are connected direct to the ship's manifold. No shore booster pump available. Max. pressure 5 kgs.
General Cargo Facilities: There are facilities for handling bulk cargo. Large number of cranes available.
Ro-Ro facilities at Berths No. 9 and No. 10. There is a floating crane with a 100 ton capacity. There is equipment for handling 20 ft. containers only, however, there is very little storage space available for containers.
Fuel: There are 2 tankers, capacity 5,000 tons each for fuel and diesel oil.
Fresh Water: There is one non self-propelled water barge, capacity 800 tons.

AUTHORITY: The Port of Ventspils Authority, 8 Uzhavas Street, LV-3601 Ventspils, Latvia. *Tel:* 371-36-22586. *Telex:* 161812 Admin Lv. *FAX:* 371-36-21297. *Contact:* Imants Sarmulis, Chief Executive. Guntis Tirmanis, Deputy Chief Executive. A. Buks, Harbour Master.
AGENT: RISAG, Ventspils Branch, 66 Dzintaru Street, LV-3602 Ventspils, Latvia. Tel: (371) 3667881, 9345527 (24 hours). Fax: (371) 3680205. Telex: (538) 161837 Vesag Lv.

Lebanon

GENERAL:

DOCUMENTS: All vessels calling at Lebanese ports and terminals must have the following ready prior to arrival at Beirut Port:

3 copies of Cargo Manifest for Lebanese ports and terminals.
3 copies of Cargo Manifest for cargo in transit.
3 copies of Cargo Recapitulation (See below).

The Customs Authorities, by law, are the first authority to board the vessel upon her arrival to ascertain correctness of all cargo documents.

Should any of the above documents not be ready upon arrival for Customs checking, heavy fines are imposed by the Customs Authorities, and this being about 10% of the customs value.

Customs duties vary between 1% – 100%, and therefore in some cases, the Customs fine could be equivalent to the cargo value.

We quote hereunder an example of a message sent by Agent to a Principal, quoting Patrol Brigade/Customs Regulations:

"Vessel's Patrol Brigade Clearance No. 5, dated 8th May 1993, Master should be instructed that 40 miles from Beirut Port he will have to contact "Oscar Charlie" on VHF Channel 11 giving his Clearance No./cargo details.

Again, 12 miles from Beirut Port, Master should contact "Oscar Charlie" on VHF Channel 11, and he will then receive the clearance to proceed to Beirut Port for Customs inspection, which is usually carried out during daylight hours.

Please note that only after completion of Customs inspection will vessel be able to berth and then start discharging.

Moreover, and as per Customs Regulations, Master should have ready on vessel's arrival at Beirut, 3 copies of the Cargo Manifest and 3 copies of the Cargo Recapitulation.

If Loading Port Manifest not available on board, then Master has to prepare same prior to vessel's arrival.

As to Cargo Recapitulation to be prepared by Master, this can be prepared on normal A4 paper as per the below format:

Cargo Recapitulation

Port of Loading	*Manifest*	*Packages*	*Weight*
Total			
In Transit			

Packages... weight...
Master's signature"

TANKERS: *Requirements for Tankers Calling at Lebanon:* We quote below new regulations imposed by the Ministry of Petroleum concerning requirements for all tankers calling at Lebanese oil terminals:

1. A certificate proving that the tanker is less than 25 years old, otherwise a special survey will be conducted and Sea-Worthiness Certificate required from one of the following classification societies:
   Lloyd's Register of Shipping.
   American Bureau of Shipping.
   Det Norske Veritas.
   Nippon Kaiji Kyokai.
   Registro Italiano Navale or Hellenic Register of Shipping or any other register, accredited by the Directorate General of Transport.
2. Following trading certificates must be in good order and valid:
   Safety Construction Certificate.
   International Tonnage Certificate.
   IMO "Gas Fitness" Certificate.
   Safety Equipment Certificate.
   Safety Radio Telegraphy Certificate.
   IOPP Certificate.
   Manning Certificate.
3. Possess an insurance policy from one of the internationally recognised insurance companies and/or vessel's P&I Club to cover the following risks:
   Oil pollution (up to 500 million Dollars).
   Physical damage to berth/terminal.
   Collision against floating objects.
   Death or personal injury.

The above required documents must be presented to the Ministry of Petroleum immediately after vessel's arrival for checking same/giving a clearance to the vessel to proceed to designated oil berth/start discharging.

Tankers Loaded with Petroleum Products: All tankers calling at Lebanese terminals will be allowed to approach Beirut Port for Customs inspection, but will not be allowed to moor at petroleum products berths, nor start discharging prior to receipt of satisfactory analysis results from the surveying company appointed by the Ministry of Petroleum.

In this respect, the receivers and after vessel's arrival at Beirut Port must advise the Ministry of Petroleum of the cargo specifications intended for discharge at their terminal in order for the Ministry's surveyors to take cargo samples for analysis.

CUSTOMS INSPECTION: All vessels calling at Lebanese ports and terminals "must" first call at the port of Beirut for Customs inspection and visa of Manifest.

Agent will, 48 hours prior to vessel's arrival, arrange for vessel's clearance and vessel's clearance number will be communicated to the Master.

In this respect and 40 miles from Beirut, Master will have to contact "Oscar Charlie" on VHF Channel 11 giving his clearance number/cargo details.

Again, 12 miles from Beirut Port, Master will have to contact "Oscar Charlie" on VHF Channel 11, and he will then receive the clearance to proceed to Beirut Port for Customs inspection.

Also see "Documents".

REPORT: November 1994.

Measures put in force concerning vessels
Arrivals and Sailings to and from Lebanon

Notice is given to:

1. All vessels entering the Lebanese Territorial Waters without presenting to the Maritime Chamber an application for permission to enter at least 24 hours prior to arrival. This application should be submitted by the licensed ship agent.
2. Entrance to the following ports: Tripoli, Beirut/Saida – Sour.
   2.1. Entering these ports should be carried out by navigating on course 090°.
   2.2. Sailing out from these ports should be carried out by navigating on course 270°.
   2.3. Entering and sailing out should be carried out within a lane not to exceed 3 miles opposite the relevant port.
   2.4. Sailing between these ports should be carried out within the Lebanese Territorial Waters at a distance of 3 miles from the coast, up to 12 miles deep.
3. Times of Sailing.
   3.1. Entering and sailing out from Beirut Harbour over 24 hours.
   3.2. Entering and sailing out to and from the following ports: Tripoli, Saida and Sour; between 0500 hrs. until 2000 hrs.
   3.3. Sailing between the Lebanese ports is limited between 0500 hrs. and 2000 hrs.
4. All ships entering or leaving the Lebanese ports should contact the Maritime Operations Rooms, as follows:
   4.1. On entering:
   First contact should be established at 12 miles from the port of destination.
   Second contact should be established at 6 miles from the port of destination.
   Third contact when arriving at anchorage off the port of destination.
   4.2. On leaving:
   First contact on leaving the point of berth.
   Second contact when arriving at 6 miles from harbour.
   Third contact when arriving at 12 miles from harbour.
5. Contact should be carried out as follows:
   5.1. On leaving and entering from and to the ports of Sour and Saida, contact to be made with the Combined Maritime Operations Room, Saida Branch, on call sign "O.S.".
   5.2. On leaving and entering from and to the port of Beirut, contact to be made with the Principal Maritime Operations Room, on call sign "O.C.".
   5.3. On leaving and entering from and to the port of Tripoli, contact to be made with the Combined Maritime Operations Room, Tripoli Branch, on call sign "O.N.".

Message from Agent to Shipowner (Dated July 1994):
Re: ETA Beirut.

Please advise Master to communicate with following on VHF Channel 16:

(A) Lebanese Navy Base ("Oscar Charley") when 12 miles off Beirut, then at 6 miles and at 1 mile.
P.S.: When sailing to and from Beirut, always remember Lebanese Territorial Waters are 12 miles. Also point of entry/exit should be on 270° of Ras Beirut. Failing to abide will result in fines. Furthermore, if this infraction is repeated, seizure of vessel is possible.
(B) Beirut Harbour Master, Bey Pilot Station and Marine Customs Brigade (G-4), when off Bey port.

Advising them:
1. Name/nationality of vessel.
2. Giving them Navigation Permit (No. . . dated . . . 1994).

Note: This number is allocated for registration for vessel M/V . . . . for this call only.
Please confirm.
Note: Master M/V . . . . to confirm receipt of above telex and vessel's Navigation Permit No. . . . . dated . . . 1994 by return telex.
Note: Master to advise in same telex available space left after discharging Beirut cargo (in TEU's) for loading empty/full containers from Beirut.

Also Master is kindly requested to advise if any full cargo to be discharged at Beirut and from which port. Your prompt reply would be much appreciated in order to telex you back details of recapitulation.

Message from Agent to Shipowner (Dated August 1994):
Re: Guidelines/Requirements – Bey Port.

We recapitulate herebelow guidelines/requirements to be adhered to by vessels when calling at Beirut:

I. Vessels sailing from/to Beirut should adhere to the following:
   (A) Lebanese Territorial Waters are 12 miles from the coast line.
   (B) Access route to/from Beirut is 270° off Ras Beirut Point.
   (C) When vessels enter Lebanese Waters, the Lebanese flag should be raised.
   (D) Vessels should communicate on VHF Channel 16 with Lebanese Navy Base ("Oscar Charley") when vessel is 12 miles from Beirut Port, and should give them the Navigation Permit Number and date issued for the respective call.
   We always communicate the Navigation Permit to the vessel well before arrival (Editor's Note: See message above). The vessel should also maintain contact with the Navy Base when the vessel is 6 miles and then 1 mile off Beirut Port.
   (E) The vessel should also communicate on VHF Channel 16 with Bey Harbour Master, Bey Pilot Station and Customs Brigade (G-4) when off Bey Port, advising them:
   (1) Name/nationality of vessel.
   (2) Exact ETA Beirut Port.

II. Documentation: On arrival, the following documents should be available in 6 copies, which should be duly stamped and signed by hand:

(a) Cargo Manifest.
(b) Recapitulation List of containers/weight of cargo for Bey discharge and containers/weight of cargo in transit.
(c) Crew List (Note: Crew Passports or Seaman's Books should be available on arrival to check against Crew List).
(d) Tobacco List (Crew members are allowed to keep 2 packets, repeat 2 packets, of cigarettes for personal use only).
(e) Liquor List.
(f) Passenger List, if any.
(g) Mail List.

III. Port Operations:

(A) From May to October, it is usually possible to enter, berth and start operations up to 2100 hrs. During Winter and depending on weather conditions, it is possible to enter, berth and start operations up to 2000 hrs. If vessel arrives later, she will have to remain off Bey Port to berth the following morning to start operations.
(B) Operations can only start after vessel obtains Free Pratique, normally about 1 hour after berthing.
(C) Operations, when started, can be maintained until completion.
(D) Departure from Bey Port is possible any time after completion of operations, but subject to permit of departure from the Harbour Authority.

BEIRUT (Beyrouth): 33.54 N. 35.30 E.

See "General" before first port.

DOCUMENTS:

Manifests should be visaed by Lebanese Consul at ports of shipment, or at any port *en route* where there is a Lebanese Consul. If on account of non-existence of Lebanese Consul at ports of shipment or at any of these *en route* the manifests are not visaed, then such consular visa dues are collected at Beirut.

5 copies of Cargo Manifests.
2 Store Lists.
5 Passenger Lists.
2 lists of Cigarettes and Tobacco (See "Customs Allowances").

For cargoes loaded for Lebanon, there are new regulations concerning documentation as follows:

Original Cargo Manifest to be presented to the Authorities should be rubber stamped and signed by the Customs Authorities at the port of loading.

Copy of each Bill of Lading should be attached to the above Manifest.

A letter from Owners/Charterers indicating the Agents at the respective port.

PILOTAGE: Agent arranges Pilot via Harbour Master. Agent therefore to be kept well informed of ETA, 48 hours and 24 hours prior arrival. Pilot boat white with red funnel. Sound signals, 2 long and 1 short or contact can be made via VHF to Harbour Master. Pilot boards outside main breakwater. Assistance of Pilot outside daily normal hours, Sundays and official holidays, will be cost calculated at 100% more. Official normal working hours for pilotage station as follows: from 1st October up to 30th April, 0700 till 1700 hrs.; from 1st May up to 30th September, 0700 till 1800 hrs., For tankers outside harbour, the pilotage dues will be 100% extra.

Also see "Shipmaster's Report – January 1982".

ANCHORAGE: In Roads outside breakwater. Also see "Shipmaster's Report – January, 1982".

RESTRICTIONS: No particular restrictions. Pilot normally available between sunrise and sunset otherwise by special agreement.

MAX. SIZE: Max. draft in port 13 m. No limitation to breadth or length.

HEALTH: Health Authorities board in Roads. Health Form obtainable from Agent or doctor. Yellow fever certificates required for ships coming from Far East and Red Sea. Owners should check with Agents respecting any recent imposition of anti-epidemic regulations and requirements for additional injections for Crew members.

RADIO: Cables via Beirut Radio to and from Agent.

VHF: VHF Channels 13 and 16.

TUGS: Tugs of 1,000 h.p. join vessel inside port when necessary. Ship's lines to be used.

BERTHING: If port congested priority given to vessel already registered. Passenger-tourist vessels and cargo for Army have priority. Harbour capable of berthing 24 ships simultaneously and 3 moored on buoys, discharging into barges. All discharging is by ship's gear.

Dock No. 1: Surrounded by Quay Nos. 1, 2, 3. Depth of water varies between 3 m. and 8 m. Parts of Quay No. 1 and Quay No. 2 with 3 m. depth of water are reserved for floating units of port company and for launches of Harbour Master and pilotage service. Slipway of 1,000 tons capacity and workshops.

Dock No. 2: Surrounded by Quay Nos. 4, 5, 6, 7, with water depths varying between 8 m. and 10.5 m. On Quay No. 5 berthing priority is given to passenger ships, while the other quays are for cargo vessels.

Dock No. 3: Surrounded by Quay Nos. 8, 9, 10, 11, with depths varying between 10.5 m. and 13 m. All these quays can berth ships bringing general cargo. At Quay No. 8 of 13 m. depth, priority of berthing is given to grain ships.

Grain Silo: There are 120,000 tonnes capacity silos. Ships will be unloaded by means of 2 gantry type suction machines, mobile on rails with a capacity of 6×100 t.p.h.

Containers: A ship's Master advises that containers should be loaded on one side of the vessel and vessel berth that side to the berth as crane unable to reach outboard side.

Ro-Ro: All quays in Docks No. 2 and 3 can receive Ro/Ro vessels.

CRANES: Lifting capacities:

44 × 20/100 tonnes.
4 × 127 tonnes.
4 × 150 tonnes.

STEVEDORES: Ordered by Agent. No ETA to Stevedores necessary. Working hours, 0800 – 1200, 1300 – 1600. Otherwise overtime on Sundays and on official holidays.

MEDICAL: Master to advise Agent by cable prior to arrival if medical attendance required.

TANKERS: 7 CBM's available at Beirut and 3 at Aamchit (Lat. 34° 09' N., Long. 35° 37' E.).

Terminal	*Max. D.w.t.* (tonnes)	*Max. LOA* (m.)	*Max.safe Draft* (m.)	*Product handled*
Beirut				
Coral	35,000	200	11.6	White products, chemicals.
Medco	30,000	200	10.0	Black oil products, white oil products, chemicals, lube oil.
Uniterminals	35,000	200	12.0	White oil products, lube oil, chemicals.
Total	45,000	200	11.0 (12.0 latter)	White oil products.
Wardieh	25,000	200	9.5	White oil products, chemicals.
Jirco	45,000	200	13.0	White oil products.
MPC Miskoui	45,000	200	15.0	White oil products.
Aamchit				
Petrol Gaz Co.	45,000	200	15.0	White oil products.
Universal Gaz	45,000	200	15.0	White oil products.
IPT-ISSA	45,000	200	15.0	White oil products.

Notice: The Coral Oil Co. Ltd.: Dated November 1984. To the Master.

TANKER MOORING AND DISCHARGING PROCEDURE AT CORAL OIL TERMINAL, BEIRUT.

We should be grateful if you would kindly note the following:

1. Berthing: The following is for your guidance:

Our moorings have been laid so as to give you a stern mooring for the old lines and amidships mooring for the new line (see item 2) using ship's anchors at the head. It is recommended that both anchors should be dropped when the vessel is discharging.

The ideal position for your ship is such that she would be heading N.N.W., in which position you will be clear of all obstructions in the event of an emergency. As you are aware, there is a wreck lying on the seabed to the East of the moorings and a half-submerged rock to the West.

When the significant wind speed is 10 knots, it is recommended that you stop cargo operations and advise our representative on board (see item 4 below) accordingly. Our hoses will be disconnected immediately after that. Please ensure close co-ordination with him.

When the significant wind speed rises to 15 knots you are recommended to unmoor and leave the berth. It is your responsibility to ensure that arrangements are made for the Pilot's mooring boat to unmoor the ship's lines.

Please keep in touch with the Meteorological Office in periods of unstable weather, and keep your engines in a state of readiness.

N.B. For amidships discharge (see item 2 below) you are advised to have enough mooring ropes available to cover extra distance to our mooring buoys (roughly 4 × 200 m.).

Please do not "Hang On" in wind speed beyond the above limits.

2. Cargo Discharging System:

There are two systems:

(a) The "Old Lines": The so called "Old Lines" system is to be connected through our submarine hoses to your stern discharge point. At that point the following products may be discharged: Lubricating base oil through one line and Jet A-1 and a limited number of chemicals, Gasoline or Gasoil through another line. In this particular case, you are requested to pump sweet or sea-water plugs, as the case may be, to clear our submarine and shore line between products.

(b) The "New Line": The so called "New Line" is for amidships discharge and is exclusively used for chemicals through a 'pigging' arrangement. Ideally, you should have Nitrogen aboard as well as compressed air for use in conjunction with this system, bearing in mind that Nitrogen must be used (not compressed air) with low flash point products.

3. Quality of Cargo: Please hand our representative the Certificate of Quality, issued by the Refinery, corresponding to the cargo destined to us.

The cargo may not be discharged unless the Certificate of Quality is handed to us beforehand and found to be fully conforming to the latest issue of the relevant specifications.

Furthermore, we shall carry out a few tests on representative samples drawn from your tanks before discharge.

If the results of the analyses are unsatisfactory, the cargo may not be discharged.

4. Personnel on Duty: A member of our staff with a few assistants will be on duty day and night on your ship and we trust they will be allowed to use your mess-room from time to time. Installation personnel are also on constant watch checking the shore tanks, inspecting the pipelines and manipulating the signals.

We would ask you to ensure that a responsible member of your crew remain on duty at the stern or amidships to answer shore signals promptly and react accordingly.

A member of our staff is always present at the Installation while the ship is discharging and you are requested to contact him if anything should be required.

5. Security and Safety:

(i) No engine repairs should be carried out at this berth.
(ii) The Port Authority forbids gas freeing while the tanker is berthed. Besides, fishermen's practices in the immediate vicinity of the berth may endanger your ship in case of gas-freeing.

(iii) You will appreciate that we cannot be held responsible for the security of your ship or prevent unauthorised persons from going on board.

Peddlers might attempt to board tankers, in which case the safety of your operations might be affected. It is strongly recommended that you post watchmen to prevent their access to the ship.

6. Communications: (a) Pumping Signals: Shore signals are made with White and Red discs by day and coloured lights by night from the Yard Arm of the signalling mast at the shore end of our jetty.

Ship signals are a series of short blasts of 5 seconds' duration.

(i) Amidships Discharge:

	Shore Signals		*Ship Answering Signals*
	Day	*Night*	
Launch pig or sphere	One disc	One white light	One blast
Pump product	Two discs	One green light	Two blasts
Pump air or Nitrogen	Three discs	Two green lights	Three blasts
Stop pumping product, air or Nitrogen	Four discs	One red light	Four blasts
Disconnect	No disc	Two red lights	Several short and long blasts
(ii) Stern Discharge			
Pump water	One disc	One white light	One blast
Pump product slowly	Two discs	One green light	Two blasts
Pump product full speed	Three discs	Two green lights	Three blasts
Stop pumping product or water	Four discs	One red light	Four blasts
Disconnect	No disc	Two red lights	Several short and long blasts

In the event of the ship having to stop pumping, please sound 4 short blasts before closing the valve, whereupon pumping should not be resumed until the appropriate signal has been run up again on our signal mast.

(b) "Walkie-Talkie": Walkie-Talkie communication is established between ship and the shore, but the equipment may fail and the above signals are essential.

(c) Motor-boat: Motor-boat is on Company service while the ship is at mooring.

7. Pumping and pumping speed: Delivery of all products may proceed day and night.

(i) "Old Lines" Jet A-1, some Chemicals, Gasoline or Gas Oil:

When delivering the above products through the "Old Line" (i.e. using water plugs), the following pumping speeds must be observed:

During the first half hour, pump slowly to clear the water plug in the pipeline and avoid development of unrelaxed static electricity. The pumping rates must be limited as follows: Kerosene/Jet A-1 90 t.p.h., Water 115 t.p.h.

After the first half hour, the rate of pumping should be commensurate with a pressure at the stern connection to the submarine hoses not exceeding 100 p.s.i. It should not be less than 300 product t.p.h.

At the end of the cargo pumping operation, sea-water is to be pumped to clear the product contained in the pipeline into the shore tanks. Pumping speed must not exceed 115 t.p.h.

(ii) "Old Lines" – Lubricating Base Oils: No restrictions except to pressure at the stern which is not to exceed 100 p.s.i.

(iii) "New Line" – Chemicals: No restrictions except to pressure at the amidships discharge point which is not to exceed 150 p.s.i.

The detailed procedure concerning the use of the sphere or pig and Nitrogen, Compressed Air, or Chemical products to push the sphere or pig will be discussed and agreed with you beforehand.

8. Quantities to be discharged: Will you please ensure that the quantities discharged agree with the B/L figures. Any difference in these figures should be confirmed in writing to the member of our staff on board your ship. In any case, the shore tanks' dips are those that will serve as a final basis for acknowledgment of the cargo received. They are witnessed and certified by the shore Customs Authorities, as well as the Insurance Surveyor.

9. Ship's Agent: The ship's Agent is expected to deal with all questions of port and harbour regulations, currency, health, etc.

Reminder: Hose-lifting derrick, air compressors and nitrogen; the tanker must be fitted with derricks of 3 to 4 tons lifting capacity (depending on the height of the connection above sea-level) to lift part of the submarine 8 in. hoses required for connection to its stern discharge or amidships discharge, as the case may be.

In the case of lubricating base oils, the tanker must be provided with an air compressor to clear the line before pumping the next grade of base oils.

In the case of chemicals, except for those to be discharged at the "Old Lines", the tanker must have Nitrogen and compressed air available in adequate quantity.

Signed: Manager Operations.

Also see "Shipmaster's Report" dated February 1983.

DENSITY: 1025.

FRESH WATER: The port company has equipped all quays with hydrants. Ships moored on buoys can also be supplied with water from cistern barge. By shore installation or by barge. Delivery rate 20/25 t.p.h. Outside harbour double price per barge.

FUEL: Fuel, gas oil, diesel obtainable. 48 hours' notice required.

FIRE PRECAUTIONS: Special berths for tankers.

CONSULS: Most countries have consulates.

REPAIRS: Most types of repairs carried out.

CUSTOMS ALLOWANCES: (Tobacco) 40 cigarettes per Crew member (Master 2-3 cartons). Customs very strict, and will search crew cabins. Regulations are as follows:

1. That the quantity of tobacco to be allowed on board vessels upon their arrival at a Lebanese port, will be fixed on the basis of 2 packets per crew member, passenger per day and to be calculated on a maximum period of 4 months, if the vessel emanates from an American, Asian or African port - not central Africa; and for 2 months if the vessel last port of call is in Europe, Central Africa or Mediterranean, which will be deducted port of call, until arrival at a Lebanese port. That the number of passengers to be taken into account on a tourist vessel, will be the number of berths the vessel can accommodate and not the number of passengers actually on board. As to cargo vessels, the actual number to be accounted for will only be the crew members and the Master of the vessel.

2. In the event that it is the first call of the vessel at a Lebanese port and not aware of such regulations, and it was found onboard her an excess quantity to the actual one allowed, as indicated above, a Process Verbal will be established for the excess quantity found and the cigarettes placed under seal. An undertaking is also to be obtained from either the Owners and/or her Agents to the effect that they will submit a certificate, within 1 month, to be issued by the relevant Customs Authorities of the next port of call of the vessel after a Lebanese port. While the seizure on the vessel will be lifted when a Bank Guarantee equalling the amount of fine and dues is placed, or a personal guarantee from the Agent – if solvable – and in the event that the undertaking is not fulfilled the usual penalties will be inflicted according to the Law.

3. In the event the vessel is aware of such restriction, and for one reason or another, she is carrying an excess quantity, this excess must be, as per official regulations, shown on the manifest legalised and issued at the last port of call touched by the vessel prior to Beirut. Any excess found over and above such declaration will be considered as smuggling and the law will be applied.

Wine and/or Spirits: 1 bottle per crew member. Master allowed 3 or 4 bottles.

HOLIDAYS:

Holidays	*Date*	*Days*
New Year's Day	January 1st	1
St. Maron	February 9th	1
Good Friday (Catholic)	Varies	1
Easter Monday (Catholic)	Varies	1
Labour Day	May 1st	1
Good Friday (Orthodox)	Varies	1
Easter Monday (Orthodox)	Varies	1
Al Fitr (Ramadan)	Varies	1
Assumption Day	August 15th	1
Al-Adha	Varies	2
Moslem New Year's Day	Varies	1
Achoura	Varies	1
All Saints' Day	November 1st	1
Independence Day	November 22nd	1
Prophet's Birthday	Varies	1
Christmas Day	December 25th	1

Port closes completely: New Year's Day, Al-Adha, Easter Monday, Labour Day, Independence Day, 1st day of Ramadan and Christmas Day. On other holidays, day work in port carried out against overtime payment.

DRY DOCKS: None except for 500/1,000 tonner.

GANGWAY/DECK WATCHMEN: Available and recommended.

OPENING/CLOSING HATCHES: For liners, by stevedores, otherwise per agreement.

REPATRIATION: Very good facilities for repatriation.

AIRPORT: About 10 km. distant, served by regular airlines.

TIME: GMT plus 2 hours. Summertime, GMT plus 3 hours.

POLICE/AMBULANCE/FIRE: Telephone numbers: Police 16, Ambulance 18, Fire 17.

TELEPHONES: Available on request by shipping agency.

SERVICES: Tank-cleaning equipment. Facilities for discharge of tank-washings, compass adjusting, laundry, etc., available.

SHORE LEAVE: Crew allowed onshore.

IDENTIFICATION CARDS: Shore pass given to each crew member. Passport and Seaman's Book to remain in Master's care.

DELAYS: 1. Unavailability of berth or barges due congestion mainly during Winter months (December to April). 2. Vessel already registered will lose turn if not returned to port in time. 3. Barge ordered for bunkering might be occupied if vessel's arrival delayed.

DEVELOPMENTS: Report: July 1992.

To bring the port up to maximum standards in its existing structure, the following measures and works remain to be carried out:

Tenders for the repair of the last four warehouses.

Purchase of equipment for Dock 3 (Estimated cost: U.S.$ 27 million).

Completion of Dock 4: Extension of the breakwater (+280 m.), construction of the breakwater head and of Quay 15 (U.S.$ 24 million; duration: 18 months).

Restoration of the superstructure and purchase of handling equipment, especially 4 container gantry cranes on Quay 14 (U.S.$ 50 million).

The rehabilitation of Beirut Port and its 4 docks should be completed by 1993/94.

In addition to the capacities of Docks 3 and 4, a fifth dock with a draft of 15.0 m. is projected to receive fourth generation container ships. With a 330,000 sq.m. open storage area, 2,000 m. of quays and 8 gantry cranes, it is designated to handle 400,000 containers per year, which will add to the handling capacity of Dock 4, i.e. 200,000.

The cost of Dock 5 and ancillary equipment is approximately U.S.$ 200 million.

SHIPMASTER'S REPORT: January, 1982.

Vessels approaching Beirut Harbour from a Southerly direction are advised to make Ras Beirut Light on a bearing of 132°. When the light is approximately 3 miles away alter course to 090° until the Eastern end of breakwater is abeam and alter course to 150° to pass Green Buoy (near end of breakwater) to starboard. The Pilot will board vessel near the green buoy or at anchorage.

Good anchorages may be obtained East of breakwater with good holding ground. In view of the prevailing tension it is advisable to approach Beirut during daylight hours as incidents of sniper fire and shelling have been reported.

Shore leave for seamen/ship's personnel may be granted during daylight hours from 0900 to 1500 only in the Christian (Eastern) Sector. It is not advisable to visit the Muslim sector of the Western Beirut.

Provisions, bonded stores and good shopping available despite tension.

SHIPMASTER'S REPORT: February 1983.

Tankers: The following are the requirements for product delivery vessels calling at tanker berths operated by Dora Terminals.

Medco Terminal:

I – TECHNICAL CONDITIONS

1. Tanker mooring should take place during daylight at the berth specially provided for discharging opposite our installations at Dora i.e. "Baie Saint Georges".
2. Tanker's d.w.t. (dead weight tonnage) must not exceed 25,000 – 30,000 metric tons.
3. Only stern discharge is permissible.
4. Submerged portion of the tanker's stern must not exceed 28 ft. – 29 ft.
5. Discharge hose facilities provided are of 6 in., 8 in. and 10 in. diameter. Working pressure must not exceed 5 – 6 kg./sq.cm.
6. Upon arrival, the Shipmaster shall abide by the instructions given to him by Beirut Pilot and Harbour Master and by employees of this company, it being understood that putting the ship at anchor immediately upon arrival is subject to weather conditions. In other words mooring, anchorage and discharge of load are not possible when sea is rough.
7. Ship must be equipped with all necessary international documents in accordance with universally accepted rules and regulations because discharging takes place under supervision of Lebanese Customs Authorities and other Government Officials.
8. Swivelling tanker's crane boom to extend outside tanker minimum 3 m. in order to lift vertically flexible hoses. Also suitably located hang-off bitts for submarine hose.
9. Discharge line to be fitted with ASA 150 8 in. flange connected (or ASA 150 6 in. connection) and pressure gauge, conveniently located.
10. Pumps to be preferably centrifuge with by-pass (or relief valve) set at 9 kg./sq.cm.
11. Tanker shall be responsible for any and all damages which may occur to our installations whether it be due to weather, natural or technical reasons. Tanker shall likewise be responsible for damages caused by negligence or faulty manoeuvres on the part of the Master or the crew.
12. The company's Superintendent at his own discretion may refuse admission to a tanker or discharge of a cargo when he notices that the tanker is not adequately equipped technically for the discharging process as is usually required. Shipowners shall then carry out all necessary repairs, wherefore demurrage, if any, shall be exclusively at the tanker's expense.
13. When the discharge process has been completed and all formalities done, hose disconnected and mooring ropes released, the tanker, using its anchor to move forward, shall leave the mooring place immediately and clear a suitable distance off marine installations without using the propeller.
14. Should weather conditions worsen during discharge operations, the Superintendent shall have the right to disconnect the hose and request Shipmaster to leave discharge berth immediately for protection of human lives, installations and ship.
15. All harm befalling divers and/or company workmen during discharge activities shall be at the tanker's expense as long as these men are on board the tanker.
16. Both tanker and company shall be prepared to tie-in the discharge hose within 6 hours period effective from the time mooring at company's berth has been performed by Beirut Pilot.
17. Master is requested to give 72/48/24 hours' pre-arrival notice through "Radio Orient" to our cable address "Geochammas Beirut".

II – GENERAL CONDITIONS

1. Details of tanker arrival and discharge must be arranged beforehand. Should two tankers arrive at the terminal preference shall be accorded the tanker that has arrived first.
   In those cases where a Government-bound tanker comes in for unloading at the same time as another tanker is discharging at our installations, no demurrage shall be due by the company.
2. Quantities received are those measured in our tanks. The company shall not be responsible for any shortage due to leakage or otherwise, notwithstanding the fact that the company shall spare no effort to avoid any such loss.
3. It is clearly understood that all discharge activities such as anchorage, discharge, material receiving, storage, etc. are for the responsibility and expense of the Government. It is likewise agreed that all damage which may befall our marine installations, tanks and the company's other installations at Dora, irrespective of cause, even if it be a force-majeure, are the responsibility of the Government as the company shall then be working in accordance with the Government's request and for its account.
4. All port dues and other charges connected with the tanker or the cargo are for the Government expense.
5. All expense for products delivered by tank trucks are for the account of the receiver.
6. Under all circumstances the company shall be held free of any responsibility whether for reasons mentioned above or omitted. It is likewise not responsible in all instances where the terms "cas fortuit, force majeure" and applicable.
7. The company may be contacted through the following means:
   (a) Radio Orient Ogero.
   (b) Telex: 22259 Menira/20816 Mecham/20112 Ctctco.
   (c) Telegram: Geochammas-Beirut.
   (d) Tel: 894077 (working hours: 0800 – 1400 hrs.)
   (e) Marine Band: Channel 16 when 30 miles away.

Wardieh Terminal:

Max. draft at Terminal 30 ft. Max. quantity which can be received through the sealine is 200 metric tons per hour. Type of flange – 8 in. flange. Pumping can be effected through a 10 in. submarine pipeline.

REPORT: September 1992.

Agent's advice to Ship Operator:

Procedures for Vessels calling at Beirut:

1. Vessel's arrival must be declared to Lebanese Navy/Chamber of Maritime Operations "Oscar Charlie", at least 24 hours before arrival.
2. "Oscar Charlie" will supply an entry number which Agent must convey to Master of vessel.
3. At the 12 mile limit, Master must call "Oscar Charlie" on VHF Channel 16 or Channel 11, quoting his entry number, and declare his intention to call Beirut. "Oscar Charlie" will instruct him to proceed to near harbour entrance/anchorage. Master must call "Oscar Charlie" again at 6 miles, at 1 mile, at anchorage and upon berthing/mooring, each time quoting his entry number.
4. Beirut Port should be approached on course 090° and depart on course 270°.
5. When vessel is ready for sailing, exit number must be obtained from "Oscar Charlie". Master must call "Oscar Charlie" for permission to sail quoting exit number, again at anchorage, 1 mile, 6 miles and 12 miles, each time quoting exit number.

Note: "Oscar Charlie" is available 24 hours/day and vessels may arrive/depart Beirut 24 hours/day. However, vessels proceeding to other Lebanese ports may only do so between 0600 hrs. and 1800 hrs.

Customs: Customs require Master to produce 3 complete sets of Beirut Manifest stamped and signed on every page. They also require Master to prepare a Cargo Declaration stamped and signed in 4 copies, stating quantity and weight of Beirut cargo per port of loading. This Declaration must also state weight and quantity of cargo-in-transit, and state next port of call. These documents should be ready on arrival.

Vessels calling at Lebanese Ports other than Beirut: Vessels calling at other Lebanese ports must first proceed to Beirut Roads for clearance. Procedure with "Oscar Charlie" same as for vessels calling Beirut, but vessel must wait at Beirut Roads to be boarded by Customs, who will check Manifest and Cargo Declaration before giving vessel clearance to proceed to port of destination. Permission to proceed must then be obtained from "Oscar Charlie", who should also be informed of arrival at port of destination. Departure procedure same as Beirut.

Vessels navigating between Beirut and other Lebanese ports must do so between 0600 hrs. and 1800 hrs. at a distance of 3 miles from the coast.

Note: Vessels calling at Tyre must also obtain clearance from Israeli Authorities at Haifa.

SHIPMASTER'S REPORT: October 1995.

1. At present time (October 1995), vessels may enter the port any time without restrictions.
2. Before entering "12 miles Zone", vessels shall make contact with navy ship (Call sign "Oskar Charlie") on VHF Channels 16 and 11 to obtain permission to enter territorial waters. They give number of permission.
3. Vessels may not enter "12 miles Zone" without permission, heavy penalties may be imposed.
4. On entering "12 miles Zone", vessels shall steer course 090° and proceed on this course up to the main breakwater.
5. When leaving port, after passing breakwater, vessels shall steer a course 270°.
6. When passing 3 miles from breakwater and 6 miles to breakwater, report position to "Oskar Charlie".
7. Pilotage is compulsory for entering the port, but it is not compulsory when leaving.
8. Pilot meets the vessel very close to breakwater, sometimes Pilot asks Master to enter the port and meets the vessel inside. Pilot boat is not equipped with VHF, also pilot station is not equipped with VHF.
10. One tug is available at port.
11. Before leaving the port, Master has to call "Oskar Charlie" to obtain permission to leave.
12. Before leaving the port, Agent gives the Master Port Clearance with the number which Master shall then pass to "Oskar Charlie" when getting permission to leave port.

Customs:

1. Customs at Beirut are very strict.
2. They require following documents:
   5 copies Crew List.
   1 copy Crew Effects Declaration.
   1 copy Stores List.
   4 copies Original Cargo Manifest with attached Global Manifest.
3. All copies of Cargo Manifest and Global Manifest should be signed before they are given to the Customs. This rule is very strict.

AUTHORITY: Compagnie de Gestion et D'exploitation du Port de Beyrouth, B.P. 1490, Beirut, Lebanon. *Tel:* (01) 580211/16. *Cables:* Beyrouport-Beirut. *Contact:* J. Khazen, Port Director.

AGENT: Gulf Agency Co. (Lebanon) Ltd., P.O.Box 4392, Beirut, Lebanon. Tel: (961-1) 446189, 446086, 446097, after office hours 446189. Telex: 44874, 48161 ("GAC LE"). Fax: 446097, 584534.

CHEKAA (Including Enfeh Terminal): 34.20 N. 35.43 E. (See Plan)

See "General" before first port.
Port is used for cement loading and discharge of sulphates.

ANCHORAGE: Safe anchorage in Chekaa Bay.

MAX. SIZE: See "Berthing" and "Tankers".

TUGS: None.

BERTHING:

1st Quay	Length:	40 m.
	Depth:	30/31 ft. (at pier).
	Draft:	28 ft.
	Permissible d.w.t.:	15,000 tons. **
	Working Time:	Around the clock, daily outturn about 5,000 tons/WWD.
2nd Quay	Length:	45 m.
	Water Depth:	30/31 ft. (at pier).
	Draft:	27 ft.
	Permissible d.w.t.:	15,000 tons.
	Working Time:	Around the clock, daily outturn about 5,000 tons/WWD.

** Larger vessels can be accepted, but this is subject to approval from receivers.

Discharge facilities:
- 2 shore cranes available: 1 fixed, 1 mobile.
- Discharge effected by screw conveyors.
- Maximum water-line to hatch-coaming in ballast: 9.0 m.

TANKERS: *Enfeh Terminal:* Position: Lat. 34° 20' 31" N., Long. 35° 43' 54" E. Port is used to load and discharge gasoline and bitumen.

Anchorage: Safe anchorage in Chekaa Bay.

Max. size: Draft up to 20 ft.

Berthing: Using 2 anchors and moored stern to shore facilities. In event of swell vessel required to leave quay and anchor in bay.

Storage Capacity: 5,000 tons for gasoline. 2,500 tons for bitumen under construction.

Load/Discharge: Rate 150 t.p.h. Tankers to use stern discharge and communicate with shore 48 hours prior to arrival on VHF Channel 16.

Agent: Gefco.

REPORT: November 1982.

Slag is from time to time discharged at this port.

1. Max. draft permissible: 27 ft.
2. Length of berthing quay: about 40 m. – 45 m. Therefore vessels must do several shifts ahead and astern in order to discharge all holds.
3. Discharging by 2 shore cranes (1 fixed at quay and 1 mobile) using grabs.
4. Daily quantity discharged: about 2500 – 3000 tons per weather working day of 24 hours (receivers and stevedores working 24 hours round the clock, subject weather permitting).
5. The quay is at an open road, not sheltered and well exposed to South Westerly winds.
6. Agency attendance was monopolised in Chekaa since 1975 (when war started in Lebanon) and the only agents attending are:
   (a) Messrs. Kfoury, the Pilots of Chekaa for: The Societe des Ciments Libanais Sal Chekaa.
   (b) Pilot and Agents: Kfoury. Cimenterie Nationale S.A.L. Chekaa, the Company who owns the above mentioned quay. (Mailing address: c/o IMS 285, P.O.Box 895, Larnaca, Cyprus).

SHIPMASTER'S REPORT: March 1994.

Ship's Particulars:

G.r.t.: 25,056.
Summer d.w.t.: 44,363.
Displacement: 33,463 tonnes.
Arrival Draft: Forward 7.35 m., aft 7.84 m.
Cargo: Petcoke in bulk.
Quantity: 21,996.3 tonnes.

General: Information available through latest Sailing Directions is very scanty. There is no large scale chart or plan of the port published by British Admiralty. The only chart which could be used is No. 2633.

B.A. Chart No. 2633 was used after enlarging the area of interest more than 300%, using a photocopier on board. It served its purpose quite well and the vessel anchored at Chekka Roads about 1.25 nautical miles off the coast.

Documentation: Apart from the usual paperwork required in most countries and as per "Guide to Port Entry", Agents had advised vessel to have 3 copies of Cargo Manifest and 3 copies of Cargo Recapitulation ready for Lebanese Patrol Brigade (PB). Example of Cargo Recapitulation is as below. Both these documents should be signed and stamped and ready for the Patrol, otherwise heavy fine may be imposed.

Example:

CARGO RECAPITULATION

M.V.:
at:
Date:

Port(s) of Loading	Serial No. of Cargo Manifest	Packages	Weight

In Transit:
Packages:
Weight:

Master

Notes: (1) This form is only for cargo destined for Lebanese ports.
(2) Date and place: Arrival date of first Lebanese port where Patrol Brigade Clearance is given.

Patrol Brigade: A few days prior to arrival in Lebanese waters, our Agents had telexed us our PB Clearance number. Vessel must contact them on VHF Channel 11 (Call Sign "Oscar November"), prior to entering Lebanese territorial waters (12 nautical miles) and request permission to enter.

As per Agents' advice, vessel called at Tripoli for PB Clearance. On anchoring at Tripoli Road, boarding party came aboard and gave the Clearance papers, which were to be handed over to Customs and other officials at Chekka.

On berthing at Chekka, Customs, Immigration, Port Health, Lebanese Army Security and Agents boarded vessel for Inward Clearance. Security personnel checked all cabins. Customs stringent about quantity of cigarettes held by each crew member, but quite lenient about alcoholic beverages.

Berthing: See "Plan".

Vessel berthed starboard side to with mooring lines as per "Plan". By using starboard anchor and two starboard quarter lines, vessel was kept slightly off the berth to avoid any contact damage to ship or jetty. As this vessel does not have bow or stern thrusters and no tugs available, these will help at the time of unberthing. No berthing or unberthing is undertaken in inclement weather, especially if wind and seas are from South to S.W. direction.

Engines were on short notice throughout the period vessel was alongside, and weather was monitored by regularly taking weather reports. Pilot remained on board for the entire stay alongside.

Gangway: Provided by port.

Discharging: Only one hopper available. Hence cargo has to be discharged from adjacent hatches using ship's cranes and thus slows down rate of discharge, and since the jetty is so short, vessel has to warp to align hatches against the hopper.

Cranes:

(1) 1 fixed electric crane 3 tons S.W.L. with grab on the jetty . The same was used by vessel.
(2) 2 mobile cranes, which can be used for discharging by much smaller vessels. Details can be had from M/S Kfoury, local Agents.
(3) 1 mobile crane 125 tons S.W.L., boom 30 m., and one mobile telescopic crane 50 tons S.W.L., boom 32 m., are available on hire ex-Beirut. Hire charges and other details available from Gulf Agency in Beirut.

Max. Draft: 27 ft. (salt water).

Fenders: 10 ordinary truck tyre fenders are rigged along the length of the jetty. They are adequate for much smaller vessels using the berth regularly, but not sufficient for this size of vessel, hence the need to lay-off the berth to minimise chances of contact damage.

Repairs: Not possible at Chekka. Facilities available at Beirut, and they do undertake repairs.

Cargo receivers M/S Cimenterie Nationale Sal have their own workshop at Beirut, and they assisted vessel to repair one crane hydraulic cylinder.

Fresh Water: Available from jetty by hoses. Rate about 15 tons per hour.

Provisions: Fresh and dry provisions readily available.

Shore Leave: Being a private berth, strict security and no shore leave granted to crew by Immigration Authorities.

AGENT: See "Beirut".

RAS SELAATA: 34.17 N. 35.40 E. (See Plan)

See "General" before first port.

(A) LEBANON CHEMICAL CO. PLANT WHARF:
(B) SELA'ATA TERMINAL PORT:

(A) LEBANON CHEMICAL CO. PLANT WHARF:

LOCATION: Lat. 34° 16.2' N., Long. 35° 39.2' E.

Lebanon Chemical Co. Port is located to the South of Tripoli and is used for dry and liquid chemical cargoes.

PILOTAGE: Pilotage is provided by the Company, and the Pilot meets vessels one mile to the S.W. of the quay.

ANCHORAGE: Good anchorage is available in Sela'ata Roads.

MAX. SIZE: Depth in manoeuvring area is 21 ft. Maximum permissible draft is restricted to 21 ft.

HEALTH: Health Authorities board in harbour. Health form obtainable from Agent. Owner should check with Agent with regard to any recent imposition of anti-epidemic regulations and requirements for additional injections for crew members.

RADIO: Cables to and from Agent sent via Beirut Radio.

VHF: See "General".

BERTHING: One pier 90 m. long, suitable for vessels up to a maximum of 6,000 tonnes d.w.t.

STEVEDORES: Cargo handling is carried out by the Company's crew round the clock.

MEDICAL: Master to advise Agent by cable prior to arrival if medical attendance required.

DENSITY: 1026 – 1027.

FRESH WATER: May be available alongside pier.

FUEL: Diesel oil available by truck.

CONSULS: Most countries have consulates in nearby Tripoli.

AIRPORT: Kleiate (Tripoli) or Beirut.

TIME: GMT plus 2 hours. GMT plus 3 hours in Summertime.

HOLIDAYS:

Holiday	*Date*	*Days*
New Year's Day	January 1st	1
Al-Adha (Karban Bairam)	varies	2
Ashoura	varies	1
New Year (Islamic)	varies	1
Arab League Day	March 22nd	1
Good Friday	varies	1
Easter Monday	varies	1
Good Friday (Oriental)	varies	1
Easter Monday (Oriental)	varies	1
Labour Day	May 1st	1
Martyr's Day	May 6th	1
Ascension Day	varies	1
Mohamed's Birthday	varies	1
Assumption Day	August 15th	1
All Saint's Day	November 1st	1
Independence Day	November 22nd	1
Ramadan	varies	2
Christmas Day	December 25th	1

GENERAL: Lebanon Chemical Co. have VHF set in management building. Call sign is "Pilot Lebanon Chemical Co.". It has a range of 35 miles and listens on VHF Channel 16 from 0630 hrs. to 1600 hrs.

Agent: P. Adem may be contacted on VHF Channel 16 or through the Company.

Cables: Cables to Agents and Company are routed through Beirut Radio.

(B) SELA'ATA TERMINAL PORT:

LOCATION: Lat. 34° 16.97' N., Long. 35° 39.87' E.

Sela'ata Terminal Port is located to the South of Tripoli, and is used for dry, liquid, general cargoes and containers.

The entrance to the harbour and the channel entrance are restricted to vessel's having a maximum draft of 13.0 m.

PILOTAGE: Agent arranges for qualified Pilot to meet vessels 2 miles N.W. of breakwater.

ANCHORAGE: Good anchorage available in Sela'ata Roads.

MAX. SIZE: Depth at entrance 13.0 m. Max. draft alongside quay 13.0 m.

HEALTH: See Section "A".

RADIO: Cables to and from Agent (ASLAC) via Beirut Radio (OGERO).

VHF: See "General".

TUGS: There is one tug at Sela'ata (250 h.p.). A second tug could be made available upon request.

BERTHING: One pier about 140 m. long, 2 berths, 2 shore cranes and 1 grain unloader (250 t.p.h.), suitable for vessels up to 30,000 tonnes d.w.t.

STEVEDORES: No ETA to stevedores necessary. Working hours are 0700 hrs. – 1500 hrs. Overtime on Sundays and on official holidays.

MEDICAL: Master to advise Agent (ASLAC) by cable prior to arrival if medical attendance required.

TANKERS: *Liquid Cargoes:* A 6 in. connection is available at plant wharf with a length 800 m. and a discharge capacity of 200 t.p.h. Vessels to be equipped with a 6 in. discharge hose of 10 m. length.

DENSITY: 1026 – 1027.

FRESH WATER: May be available inside harbour premises.

FUEL: Diesel oil is available in trucks.

GANGWAY/DECK WATCHMEN: Recommended. Shore watchmen available round the clock.

OPENING/CLOSING HATCHES: For liners by stevedores, otherwise per agreement.

CUSTOMS: Available on request.

IDENTIFICATION CARDS: Due to prevailing situation, on shore passes issued to crew members.

CONSULS: Most countries have consulates in nearby Tripoli.

AIRPORT: Beirut or Kleiate (Tripoli).

TIME: GMT plus 2 hours. Summertime GMT plus 3 hours (15th June – 15th October).

HOLIDAYS: See Section "A".

GENERAL:

Agent : A. Sinno (Huiles et Derives) on Channel 16 (ZOUYOUT).

Cables : Cables to Agents routed through Beirut Radio (ASLAC).

VHF:

Equipment : Fixed Station sited in Terminal Building and used by Supervisor.

Call Sign : ZOUYOUT.

Range : Approximately 35 miles.

Frequency : Transmitting on Channel 16.
Receiving on all frequencies.

Watches : 0630 hrs. – 1430 hrs.

Mobile Station

Equipment : Portable, battery operated, carried aboard vessel with loading/discharging Supervisor.

Call Sign : ZOUYOUT.

Range : Approximately 2 miles.

Frequency : Transmitting on CB bands (Domestic).
Receiving on CB bands (Domestic).

Watches : Continuous, whilst vessel loading/discharging.

Note: The VHF system is not connected to the main telephone switchboard, and only selected shore stations have access to it.

AGENT: See "Beirut".

SIDON: 33.30 N. 35.21 E. (See Plan)

(A) ZAHRANI OIL INSTALLATION.
(B) JIEH TERMINAL – COGICO.

(A) ZAHRANI OIL INSTALLATION (Including Sidaco Terminal).

See "General" before first port.

BERTHS NO'S. 1, 3 AND 4 HAVE BEEN TAKEN OUT OF SERVICE AND ALL MOORING BUOYS HAVE BEEN REMOVED. THE SUBMARINE LINE IS STILL THERE.

BOTH THE WHITE AND THE RED SEABUOYS ARE MISSING.

OPERATORS: Zahrani Oil Installation, Sidon Terminal. The Company transports crude oil from Saudi Arabia via pipelines and exports from terminal South of Sidon (Saida). Terminal operates 24 hours a day, 7 days a week.

Advance Information: Prior to acceptance of nomination of vessels, Zahrani Oil Installations requires advance information regarding maximum draft, vessel's equipment and location of manifold in reference to distance from the stern of the vessel, permanent ballast, simultaneous loading of cargo and discharging of ballast, etc. Acceptance or rejection will be made after evaluation of above data by Sidon Marine personnel.

FLAG: All vessels required to fly Lebanese Ensign on foremast during daylight hours. Lebanese flags may be obtained from ship's Agent.

LOCATION: Sidon Terminal is open, unsheltered roadstead, situated immediately North of Zahrani River, about 5 miles South of City of Sidon (Saida), Lebanon. It is approximately 35 miles South of Beirut, and 17 miles North of Tyre.

DESCRIPTION: Terminal's Tank Farm consists of 23 storage tanks situated East of terminal at 360 ft. (average) above sea level. Marine and administrative offices, a laboratory for testing stocks, 2 large and 2 small storage tanks all located within area just above sea level. An "L"-shaped pier for harbouring Company's marine craft extends approximately 1,000 ft. from shore near Southern end of berthing area.

NAVIGATIONAL AIDS: Radio beacon (Out of service) tower located 1,200 ft. back from beach, S.E of moorings. Occulting red light (about 30 flashes per minute) mounted on top, elevation 184 ft. above sea level; position Lat. 33° 30' 04" N., Long. 35° 20' 31" E. Tower also marked with 2 sets fixed red lights located respectively 45 ft. and 90 ft. below occulting red light. Radio beacon is automatic and operates on 24 hr. basis on frequency of 296.5 kHz, with "SAD" as the identifying call sign. It will signal 2 times over a 10-second period and then give a constant 1,000 cycle tone for 72 seconds. Tower is of cage-type construction, painted red and white. About 2.5 miles S.W. of terminal sea buoy and approximately 2 miles offshore is rocky shoal with approximately 32 ft. of water over it. Vessels approaching from Southward should keep offshore until radio beacon tower bears 100° true before hauling-in.

Defense Mapping Agency (DMA) Pub. 132, "Sailing Directions (Enroute) for Eastern Mediterranean" (6th Edition 1989) reads in part:

Caution: Vessels should keep at least 3 miles offshore along this part of the coast, and in depths of not less than 27 m. (15 fathoms).

During darkness terminal range lights and mooring buoy marker lights may be visible. These lights are located inside the restricted area.

A conspicuous water tank (painted aluminium) on a tower located Lat. 33° 29' 27" N., Long. 35° 21' 10" E., the top of which has elevation of 460 ft. above sea level. Location is seaward of centre oil storage tanks.

There are a number of smaller radio towers to N.W. and S.W. of beacon tower. South of terminal, at Medreco Refinery, is a conspicuous black stack located Lat. 33° 29' 31" N., Long. 35° 20' 08" E. A little further N.W. from this stack is a tall pipe painted aluminium with a flare on top at Lat. 33° 29' 35" N., Long. 35° 20' 03" E.

Berth Locations: See comments before "Operators" above.

Berth No. 1 (7 buoys) Lat. 33° 30.8' N., Long. 35° 19.9' E.
Berth No. 3 (6 buoys) Lat. 33° 32.0' N., Long. 35° 20.4' E.
Berth No. 4 (5 buoys) Lat. 33° 32.4' N., Long. 35° 20.8' E.

DOCUMENTS:

Health Declaration: International Health Form to be filled out by Master on arrival.

Cargo Manifest: No cargo arrival manifest required, as same usually prepared by local Agent.

Clearance: No clearance required.

Crew List: 4 copies required on arrival.

Passenger Manifest: If any passengers on board.

Store List: 2 copies.

Bonded Store List: 2 copies. Present regulations at Sidon Terminal allow each seaman to retain in his possession a maximum of 40 cigarettes or the equivalent weight of tobacco or cigars. The balance of all smoking items must be collected and carefully listed prior arrival. This list will be checked by Customs before sealing lockers. If any discrepancies, vessel subject to a fine.

PILOTAGE: Vessels to be moored at Sidon will be boarded by Mooring Master of Company within 2 miles to seaward of terminal sea buoy. Mooring Master will advise Ship's Master on approaches to berth, mooring, unmooring, connecting and disconnecting submarine hoses and in all other operations within berthing area. All manoeuvring of ships within berthing area shall be done only in accordance with advice of a Mooring Master, subject to the understanding that in all cases and circumstances Master of the vessel being manoeuvred shall remain solely responsible, on behalf of vessel's owner, for safety and proper manoeuvring of vessel. Ship's Master or qualified deck officer must be on bridge at all times while ship is manoeuvring.

Vessels must have a pilot ladder safely and securely rigged, and all vessels over 45,000 d.w.t. should have an accommodation ladder rigged in combination with pilot ladder for safe boarding of Mooring Master and Government officials. Pilot ladder should be abaft and close to accommodation ladder so that Mooring Master, after climbing a few steps, can use accommodation ladder for remaining climb. Since hoses handled on port side at Sidon, it is advisable to rig ladders on starboard side. If at night, adequate lighting must be rigged over-side for Mooring Master to approach side of ship and climb ladder safely.

Note: Vessels having special rigs, such as hoisting equipment on short sections of pilot ladder, are not required to rig pilot/accommodation ladders per the above.

ANCHORAGE: For vessels awaiting berth, good anchorage 305° – 2 miles from boat jetty breakwater in 16 to 20 fathoms, sandy bottom. Vessels should under no circumstances anchor North of terminal sea buoy as depths are excessive for safe anchoring.

RESTRICTIONS: Berthing and unberthing during daylight hours only.

Vessels must not arrive with more than 50,000 tons cargo on board.

MAX. SIZE: Berth No. 2, depth approx. 67 ft. Tankers up to 80,000 d.w.t. or approx. 55 ft. draft are considered max. size which should be handled during Winter months at Sidon, and then only if vessel meets all of below recommended requirements. Otherwise, vessels of over 80,000 d.w.t. should not be nominated for liftings at Sidon during period November-April. In Summertime max. 100,000 d.w.t.

Based on previous experience, sudden and severe storms of long duration are not expected from April through October. Vessels over 80,000 d.w.t. may, therefore be accommodated during this period. However, prior to acceptance of nomination of vessels over 80,000 d.w.t. Zahrani Oil Installation requires advance information regarding max. draft, vessel's equipment and location of manifold in reference to distance from stern of vessel which should not exceed 450 ft. Acceptance or rejection will be made after evaluation of above data by Sidon Marine personnel.

Summary of Recommendations for Vessels over 40,000 d.w.t.:

1. Capable, efficient and reliable anchor windlass(es).
2. 15 shots on starboard chain – 13 shots on port chain are satisfactory.
3. Mooring wire winches, 1 on aft well deck, 3 on poop deck, 200 fathoms wire on each, with adequate number of manila or synthetic ropes to double up as needed.
4. Capability of lifting 16 in. hose string – 6.5 tons static weight.
5. Suitably located hang-off bits.
6. Capability of keeping vessel in a reasonable safe ballast condition (November-March) by permanent ballast or loading while deballasting, or a combination of both.
7. Ship's manifold located not more than 400 ft. from stern.

HEALTH: Rules governing quarantine of vessels are same as found in other ports.

RADIO:

(a) Facilities. Zahrani Oil Installations has own ship-to-shore radio telegraph, and VHF radio telephone station at terminal. This station is not open to commercial traffic. Services limited to traffic between Zahrani Oil Installations and tankers within 3 days' sailing time from terminal. Messages to or from tanker agents classed as "Commercial" and must be routed via Radio Orient, a commercial radio station. Its call sign is ODR.

Radio Orient Beirut, call sign ODR, transmits (CW) on 8702 kHz and 13101 kHz simultaneously half-past each hour beginning at 0630 until 2130 hrs. GMT, the traffic list; 524 kHz each hour beginning at 0600 hrs. until 2100 hrs. GMT, the traffic list. Listens on 8534–8374 kHz and 12531–12561 kHz for replies and calls each hour from half-past the hour until the hour; 500 kHz 0600 to 2200 hrs. GMT and 425, 454, 468 and 480 kHz from the hour until half-past the hour for replies and calls. Keeps watch only between 0600–2200 hrs. GMT on 500 kHz.

(b) Advice of Arrival. It is important that ships establish radio contact with "ODR" (Out of service in December 1994) when 3 days distant from Sidon and maintain this contact at regular intervals until just prior to arrival at the terminal. All ships should send a 72-hour ETA message to Zahrani Oil Installations, giving the best estimate of ship's arrival time, a statement of bunker requirements and other relevant information. Shorter notice may result in berthing delay. Further ETA messages should be sent when vessel is 24 hours and 12 hours distant and to cover any other time changes occurring in the original ETA or those subsequent thereto. The 12-hour ETA should include a statement regarding "ship's readiness to load" on arrival, and time required to discharge clean ballast after ship is moored. A further contact when 4 hours away is desirable for exchange of weather data and mooring schedule. Vessels failing to give minimum of 12 hours arrival notice may be subject to delays in acceptance.

(c) Ship-to-Shore Communications. Ship-to-shore communications, while ships are in moorings, will be by portable VHF radio units used by the Mooring Master only. The use of the ship's radio station (except Channels 16-14) and/or battery charging equipment is prohibited for safety reasons during cargo transfer operations.

In the event of normal ship-to-shore communications failure, the (ship's) emergency whistle signal should be used.

VHF: Zahrani VHF radio telephone system and Zahrani Terminal Shore Control operate on international Channels 14 and 16, 156.7 MHz and 156.8 MHz respectively. Channel 16 used to establish contact while all traffic handled on Channel 14. Zahrani Oil Installations guards these channels on a 24 hour basis, and contact can generally be made at distances up to 100 miles from terminal. Conversations on these channels will be carried out in English language only.

Mooring Master only will be in direct charge of portable VHF ship-to-shore radio communications.

BERTHING: 7 buoys at Berth No. 2. Berths numbered 1 to 4 from South to North. Vessels moored on one heading (West) basis using both bow anchors with max. possible spread of anchors to increase ship's anchor beam holding components. Ship's stern moored to cylindrical buoys fitted with release hooks, using 7 ropes (or wires) to respective mooring buoys. Permanent moorings consist of 7 steel cylindrical buoys in each berth. Certain mooring buoys in all berths fitted with 1.5 in. diameter preventer wires, one end of which is secured to mooring buoys. When required, other end is brought on board vessel by a messenger line after ship moored in position. Preventer wires supplemental to ship's regular moorings during adverse conditions. Ships should have chain stoppers for handling these wires.

Sidaco Terminal: Sidaco has a berth at Zahrani in position Lat. 33° 30' 07" N., Long. 35° 20' 03" E. (Between Berth No. 1 and Berth No. 2). Vessels moor with 2 anchors forward and 5 mooring buoys aft on a Westerly heading. Max. LOA 200 m. and max. draft 15.0 m. There is a sub-sea pipeline of 8 in. for clean products and 4 in. for LPG.

Sidaco also have a 6 in. line for LPG at the Cogico Terminal (See Part (B)).

BALLAST: Masters are warned that no dirty ballast or bilge water may be discharged within an area extending 100 nautical miles seaward of the Lebanese coastline. All pipelines, sea suctions, strainers and pumps that are to be used for the discharge of clean ballast must be flushed clean prior to entering the 100 mile zone. Except for oil retrieved under "load-on-top" procedures, Masters must assure themselves that all oil tanks, pipelines and pumps are free of all traces of oil.

The terminal has no facilities for receiving oily ballast. A vessel must have sufficient ballast for safe manoeuvring. However, by carefully watching the weather, especially in the Summer months, by frequent interchange of weather information and berthing instructions, and, by a knowledge of the behaviour of his own vessel, a Master may desire to arrive at the terminal with minimum ballast thereby lessening any possibility of infringement of the pollution restrictions of this section, and also reducing time in berth.

As soon as practicable after arrival and prior to acceptance, all the vessel's tanks will be inspected for evidence of oil in ballast tanks. Inspection will continue during discharge of ballast. If evidence of oil appears at either of these inspections, the ship must return at once to a point not less than 100 miles from the coastline and there accomplish the necessary tank cleaning. Any vessel required to return to a position at least 100 miles offshore for the purpose of discharging dirty ballast, cleaning tanks or for any similar reason, automatically nullifies any Notice of Readiness already tendered, and at the same time loses any priority held for loading. On return from sea, vessel will be entered for loading at the time of the second arrival, when a new Notice of Readiness will be tendered.

Vessels discharging dirty ballast within the prohibited 100 mile zone may be subjected to action by the Lebanese Government. In addition, ship's owners and charterers will be promptly notified of any violation.

Masters are also warned that ship's garbage or trash should not be dumped within 50 miles from the Lebanese coast.

LOADING: *Connecting-up.* Ships loaded by means of submarine pipelines. Weight of the 16 in. hose in No. 2 Berth about 6.5 tons. Hoses lifted by ship's gear on port side. Detail of flange templates shown in drawings below. Ships should provide manifold fittings to allow connection of flanges shown in "Plan Section".

Mooring Master advises ship's personnel in lifting, connecting, disconnecting and lowering of hoses. A ship's deck officer must be present, and must direct ship's crew in all hose handling. There must be sufficient crew on deck to perform this work.

(c) Rates: Loading is by gravity flow from tank farm which is approximately 360 ft. above sea level. Loading rates as follows (approximate maximum):

Rates (BPH)

Berth	*With 1 Hose*	*With 2 Hoses*
2	40,000	70,000 (16 in. hoses)

Order save ship's time and to ballast vessel as quickly as possible, as well as to make berth available for others, it is requested that ships receive oil as fast as it can be delivered, with due regard for safety. The removal of any restrictions, such as strainers, etc., is recommended.

DISCHARGING: Ships unloading crude or refined products in Zahrani Oil Installations Seaberth must:

1. Be able to discharge at least 1,000 t.p.h.

2. Be equipped with centrifugal cargo pumps only. Piston pumps will NOT be accepted due to the damaging effect they have on the submarine hoses.

3. Ships without permanent ballast tanks must be able to discharge cargo and load ballast simultaneously.

4. Vessels must NOT strip (drain) their cargo tanks into the sealine. Air injected by this operation may cause the line to float and buckle.

Report: 1983. Cargo discharged through 8 in. line (old bunker line).

MEDICAL: Neither medical nor hospital facilities provided by Zahrani. Private doctors and hospital facilities available at Sidon and Beirut. Agents acquainted with situation and can make necessary arrangements.

If unable make radio contact, then vessels requiring emergency medical assistance should hoist International Code Flag "W" in daylight, and at night, send "W" (· – –) on blinker light to attract immediate attention, the same signal "W" (· – –) should be given on ship's whistle in either day or night hours. Signal should be repeated until acknowledged visually by either another ship in berth; from shore station or from Company launch. As soon as signal is received, terminal officials will advise ship's Agent as soon as possible of the emergency medical aid required.

DENSITY: Salinity of the sea is same as open Atlantic Ocean. Temperature ranges from 60°F. to 85°F. (15.6°C. to 29.4°C.) depending on season.

FRESH WATER: Not available.

FUEL: Ships calling at Sidon to load crude oil should arrange for bunker fuel nominations through one of the offtaker companies well in advance of arrival. Bunker fuel will not be delivered until Zahrani Oil Installations has received a firm nomination. Bunker fuel will be loaded as promptly as circumstances permit, but Zahrani Oil Installations assumes no liability for any delays incurred by a vessel in berthing or loading bunker fuel. Maritime lubricants available, through marketing representatives in Beirut by arrangement through Agents.

PRECAUTIONS: *(a) Valve Control.* Ship's valves must not be closed against the oil stream.

(b) Emergency Signal. When, and if normal ship-to-shore communications fail, the emergency signal to stop oil flow will be a continuous blast on ship's whistle, until oil ceases to flow. Steam or air should never be shut off from the whistle during loading. Whenever emergency whistle is used, all loading operations in all berths will be shut down until communications can be established with vessel giving the signal. For this reason, it is requested that ships in the area refrain from using their whistles for other purposes.

(c) Readiness to Leave Berth. Port is considered an "open roadstead", and under no circumstances may engine be shut down for repairs while ships moored in submarine berths. Vessels in submarine berths must be able to clear, and shall clear immediately upon advice of Mooring Master. Ship's engine and gear must therefore be ready at all times with full power for immediate use.

(d) Loading and Deballasting Simultaneously. Properly equipped vessels will be encouraged to discharge clean ballast and load oil simultaneously. This capability is especially necessary during unsettled weather order keep vessel reasonably ballasted.

CONSULS: Italy and Norway. Consular or diplomatic representatives for most nations maintain offices in Beirut.

REPAIRS: No facilities.

SURVEYORS: Available from Beirut. Saybolt also available.

OFFICIALS: Lebanese officials, such as Customs Director, Quarantine Officer, Immigration Officer, Captain of the Port and Police, stationed at Sidon. Should Customs guards be stationed on board while in berth, it is expected that ship will provide food for these guards and other officials.

STORING: See "Prelims".

1. Barge only.
2. No storing during loading/discharging.
3. Open sea-berth.
4. Open sea-berth.
6. No.

SHORE LEAVE: Arranged between Agent and Lebanese Security Officer aboard vessel. Ship's personnel (other than emergency or medical cases) not allowed to disembark at terminal. All personnel going ashore must land at Sidon where small boats must cross a shallow and sometimes impassable bar. Delays have been caused to vessels whose personnel have been unable to rejoin their ship. Sufficient personnel must be aboard at all times for letting go lines so that vessel can clear berth whenever required.

GENERAL: *(a) Mooring Wires and Winches.* Use of mooring wires to powered drums for all vessels calling at Sidon is strongly recommended. Because there are no mooring tugs available, a ship's ability to moor during marginal weather conditions is dependent upon its ability to warp itself into position. Vessels with capable wire winches and deck mooring equipment that are able to place 1 or 2 mooring ropes on a windward mooring buoy, usually able to moor without difficulty. Vessels over 40,000 d.w.t. should have mooring wires to powered drums, 1 on aft well deck and 3 on poop deck. The wires should be 200 fathoms in length and so secured as to be easily let go from ship if necessary.

(b) Ropes. Vessels should have 2 suitable, best quality mooring ropes of 200 fathoms each located on aft part of after well deck for use on either port or starboard side, 3 (min.) suitable, best quality mooring ropes of 200 fathoms each and 3 additional ropes of 150 fathoms each on poop deck plus properly located warping winches and bitts. Vessels equipped with mooring wire winches on poop deck may reduce required "additional" ropes accordingly. Wires are not used on port side of aft well deck due to possible fouling of wire with hose or pipeline underwater facilities. In this position a suitable, best quality mooring rope must be used. 2 ropes of 200 fathoms each recommended, to be used on either side while mooring, and used on port side only for securing ship in berth.

SHIPMASTER'S REPORT: February 1983.

Tankers: The following notices are presented to the Master on arrival at the terminal.

ZAHRANI OIL INSTALLATION
SIDON, Lebanon
Tanker Loading Advice

Master………………………………………………19………

Your vessel is scheduled to moor in Berth No…………at………… hours…………………………19………

A Mooring Master will board your vessel prior to this hour. Engines, deck machinery, mooring lines and crew should be in readiness to proceed to berth.

The cargo (a 5 ton lift) and fuel hose will be picked up on the PORT SIDE.

The Mooring Master advises ship's personnel regarding the lifting and connecting of the submarine hoses, and after loading is completed, regarding the disconnecting and lowering. In this connection, he acts in an advisory capacity and assumes no liability on behalf of the Company. A ship's deck officer must be present, and he must approve the hose connection on board. The ship's crew will do the actual connecting and disconnecting of the hose.

The Mooring Master will be in charge of all ship to shore communications.

One prolonged blast of ship's whistle is the emergency signal to shore to stop the flow of oil to the ship and apply vacuum on the submarine lines.

SHIPS MUST NOT CLOSE VALVES AGAINST INCOMING OIL. Ships will be held liable for damage resulting from such closures.

Vessels in submarine berths must be able to clear immediately upon instructions from the Mooring Master.

CAUTION: It is the ship Master's responsibility to see that no oil (crude, bunker C, diesel or bilges) is pumped or spilled overboard from his ship either in the vicinity of the Company's Terminal area or within the area of 100 miles from the Lebanese coast. In the event of any oil spillage or loss from your vessel as the result of any act or omission of the vessel, such as but not limited to, pumping of oily water over side from ballast or bilge, or oil spill during loading, the vessel shall be responsible for all costs and expenses of clean up, or for any damages to property or injury to persons resulting from such spillage or oil loss. Zahrani Oil Installations reserves the right to take all reasonable measures to clean up any resulting pollution or contamination on land or sea and will charge to vessel for all costs and expenses incurred thereby. In addition, since Zahrani Oil Installations, as operator of the Terminal, is responsible (as a guarantor of the ship) for any damages to property of or injury to third persons, resulting from such spillages or oil losses, in the event Zahrani Oil Installations pays or settles valid claims of third parties for such damages or injury, Zahrani Oil Installations shall have the right to recover from the vessel all costs and expenses arising from its handling, payment and settlement of such third party claims.

The Port Authorities are very strict in this matter and a written report is submitted to ship's owners. WELL DECK SCUPPERS MUST BE PLUGGED DURING LOADING.

Please sign the attached duplicate of this notice, acknowledging receipt of same.

ZAHRANI OIL INSTALLATION.

ZAHRANI OIL INSTALLATION
SIDON, Lebanon

Master………………………………………………19………
Sidon, Lebanon

Dear Sir,

It is the ship Master's responsibility to assure that no oil including without limitation crude, bunker C, diesel or bilges is pumped or spilled overboard from his *vessel* in the vicinity of the Company's Terminal area or within the Prohibited Zone offshore Lebanon as defined in the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended in 1962. In the event of any oil spillage or loss from your vessel including but not limited to spillage due to pumping of oily water over the side from ballast or bilge or oil spill during loading, the vessel and her owners, operators, *Agents, and Master* shall be responsible for all costs and expenses of cleanup and for any injury to persons or damage to property, *including Zahrani Oil Installations employees and property,* resulting from such oil spillage or loss. Zahrani Oil Installations reserves the right to take all reasonable measures to clean up any resulting pollution or contamination on land or sea, but only as a contractor on behalf of your vessel and/or her owners, operators, *Agents or Master* and will charge the vessel and/or her owners, operators, *Agents or Master* for all costs and expenses incurred thereby.

Zahrani Oil Installations, as operator of the terminal, is responsible as a guarantor of the ship for any injury to third persons or damage to property resulting from such oil spillage or losses. The Port Authorities are very strict in this matter and a written report is submitted to *the vessel's owners, operators, Agents or Master* for any such incidents. In the event Zahrani Oil Installations settles or is required to pay valid claims of third parties for such injury or damage, Zahrani Oil Installations shall have the right to recover from the vessel and/or from her owners, operators, *Agents or Master* all costs and expenses arising from its handling, settlement and payment of such third party claims.

Please sign and return the attached duplicate of this notice acknowledging receipt of same.

ZAHRANI OIL INSTALLATION.

AUTHORITY: 1. Zahrani Terminal, Lebanon, P.O.Box 28, Sidon, Lebanon.

2. Marmed Marine Services, P.O.Box 778, Battah Building, Raid Al Solh Street, Sidon, Lebanon. *Tel:* 07-720508, 07-722984. *Contact:* Captain Fahim M. Battah.

AGENT: See "Beirut".

(B) JIEH TERMINAL – COGICO.

LOCATION: Lat. 33° 39' 04" N., Long. 35° 24' E.

The Terminal is 18 nautical miles S.W. of Ras Beirut and 7 nautical miles N.E. of Saida (Sidon).

DOCUMENTS: See "Sidon – Part (A)".

PILOTAGE: Two hours advance notice of ETA to Pilot on Channel 16 or 10.

ANCHORAGE: 340° × 6 cables from breakwater.

Depth is 15 fathoms, and the bottom is sand.

MAX. SIZE: LOA 200 m., beam 30 m. and max. draft 12.0 m. (Summer) and 10.0 m. (Winter).

HEALTH: See "Sidon – Part (A)".

VHF: Call "Cogico" on Channel 16 or 10.

RADAR: Not available.

TUGS: There is a small pushing tender of 300 h.p. available.

BERTHING: One open sea berth consisting of 5 mooring buoys.

Two subsea lines, 10 in. for clean product and 6 in. for LPG.

There is a small quay used for asphalt and jet fuel. Depth alongside 7.0 m. Loading and unloading is by shore equipment.

Sidaco also handle LPG at this Terminal and have a storage sphere in the Terminal.

Also see "Tankers".

CRANES: Not available.

BULK CARGO FACILITIES: Not available.

STEVEDORES: Not available.

MEDICAL: There are two hospitals within 4 km. of the Terminal.

TANKERS: Loading and unloading hoses and subsea line are 10 in. 150 ASA.

No slop residue discharge facilities available.

No special moorings required.

Facilities to combat oil spills are available.

DENSITY: 1025.5.
FRESH WATER: Available at quay by trucks of 20 tonnes capacity.
FUEL: Available.
FIRE PRECAUTIONS: IMO precautions in respect of tankers and safety on board.
CONSULS: Beirut and Sidon.
REPAIRS: Small repairs possible.
DRY DOCKS: None.
SURVEYORS: Available from Beirut.
GANGWAY/DECK WATCHMEN: Available.
CUSTOMS ALLOWANCES: Usual restrictions.
REPATRIATION: Facilities available.
AIRPORT: Beirut International Airport is 30 km. from Terminal.
TIME: GMT plus 2 hours.
HOLIDAYS: Work can be arranged on holidays.
POLICE/AMBULANCE/FIRE: All services are available at the Terminal.
EMERGENCY CO-ORDINATION CENTRE: Not available.
TELEPHONE: Not available.
SERVICES: Not available.
BANKS: At Saida (Sidon) and Beirut.
SHIP SUPPLY SERVICES: All kinds of supplies, including fuel and diesel oil (Lebanese Specification), are available.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Passport (photocopy).
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUB: Not available.
CURRENCY: U.S.$ 1.00 = 1650 L.L.
DEVELOPMENTS: A new conventional berth has been established 5 cables West of the Cogico Berth. It consists of 7 mooring buoys and has 2 subsea lines (20 in. for fuel oil and 6 in. for diesel oil). Vessels at berth head West, similar to Berth No. 2 at Zahrani Terminal. This berth belongs to Jieh Power Station (E.D.L.), Electricity du Liban.
OPERATOR: Cogico, P.O.Box 145482, Beirut, Lebanon. *Telex:* 22162. *FAX:* 01-862563, 01-867409. *Contact:* Captain Fahim M. Battah.

SOUR (Tyr): 33.16 N. 35.12 E. **(See Plan)**

SHIPMASTER'S REPORT: November 1994.

LOCATION: About 12 miles North of the border with Israel.
DOCUMENTS:
1 copy Cargo Manifest.
3 copies Crew List.
1 copy Crew Personal Effects Declaration.
1 copy Stores List.
APPROACHES: B.A. Chart No. 2903.

When 12 miles from the port, vessel is required to call "Oscar Sierra" (Coast Guard Station) on VHF Channel 11 and "Israeli Navy" (Israeli Coast Guard) on VHF Channels 16 and 11. At the distance of 6 miles, vessel should call "Israeli Navy" again for permission to proceed to the port.

Permission may be granted, or they may direct the vessel to the point of 3 miles West of Sour port to wait final permission to enter the port. All data about the ship, cargo and Crew List (spelling) are requested.
PILOTAGE: Compulsory. Pilot is called on VHF Channel 16 and arrives onboard 3-4 cables North of breakwater.
ANCHORAGE: There is a convenient and well sheltered anchorage from Southerly winds and open for Northerly and Westerly winds, 6-7 cables N.N.E. from the breakwater.
RESTRICTIONS: No night navigation.
MAX. SIZE: Maximum draft should be not more than 5.30 m. in good weather conditions.
TUGS: There are no tugs available in the port. Vessels can dock or undock without tugs when weather conditions are favourable.
BERTHING: See "Plan".

TRIPOLI: 34.28 N. 35.49 E. **(See Plan)**

(a) DRY-CARGO PORT
(b) TRIPOLI OIL INSTALLATIONS
(c) PETRO-STORE TERMINAL

(a) DRY-CARGO PORT.

See "General" before first port.

Manifests should be visaed by Lebanese Consul at ports of shipment or at any port *en route* where there is a Lebanese Consul. If on account of non-existence Lebanese Consul at ports of shipment or at any ports *en route* the manifests are not visaed, then such consular visa dues are collected at Beirut.

Non-Liner vessels calling at Tripoli, are to present on arrival to the local Customs' authorities, one copy of each manifest of cargo on board (even "IN BALLAST" manifests), DULY STAMPED AND SIGNED by the Customs' Authorities at the Loading Ports.

Otherwise, the vessel is subjected to a Customs' FINE.
APPROACHES: Sunken wreck in position Lat. 34° 30' N., Long. 35° 49' E.

Depth in channel 9.0 m.

DOCUMENTS:
1 Legalised copy of Cargo Manifests.
5 copies of Cargo Manifests.
2 Store Lists.
5 Passenger Lists.
2 Lists of Cigarettes and Tobacco (See "Customs Allowances").

In addition to documents listed, 2 copies of each Bill of Lading are to be handed over on arrival to the Agents, for Local Customs' Authorities control and check.
PILOTAGE: Compulsory. Agent arranges with Harbour Master, therefore keep Agent closely advised ETA. Harbour Master may also be contacted on VHF Channel 16.

Pilot boarding position: Lat. 34° 29.6' N., Long. 35° 49.5' E.
ANCHORAGE: Good anchorage.
MAX. SIZE: Max. LOA 150 m. (occasionally 175 m.). Max. draft alongside berth 22 ft. 6 in.
HEALTH: Health Authorities board in roads. Health form obtainable from Agent or doctor. Yellow Fever Certificates required for ships coming from Far East and Red Sea. Owners should check with Agents respecting any recent imposition of anti-epidemic regulations and requirements for additional injections for crew members.
RADIO: Cables via Beirut Radio to and from Agent.
VHF: Harbour Master on Channels 16 and 6.
BERTHING: New pier about 600 m. length. 2 berths. 20 cranes, capacities 5 tons – 100 tons. 2 forklifts with capacity 20 tons each. Lighters available for discharging alongside vessel. Ship's gear often used for discharging. There is a grain silo with capacity of 4,000 tonnes. 30 steel barges of 350 tons capacity each. 40 wooden and steel barges of 200 tons capacity each. All cranes, forklift and barges are privately owned. 50 ton floating crane available, owned by port company.
STEVEDORES: Ordered by Agent. No ETA to stevedores necessary. Working hours, 0700 – 1500, otherwise overtime included on Sundays and on official holidays.
MEDICAL: Master to advise Agent by cable prior to arrival if medical attendance required. Hospitals available.
DENSITY: 1025.
FRESH WATER: Available by barge.
FUEL: Available alongside by tanker trucks.
REPAIRS: Possible.
SURVEYORS:
1. Cargo inspectors are available in Tripoli.
2. Surveyor's (Lloyd's and A.B.S.) are also available in Tripoli.

GANGWAY/DECK WATCHMEN: Available and recommended.
OPENING/CLOSING HATCHES: For liners by stevedores, otherwise per agreement.
CUSTOMS ALLOWANCES: Tobacco. 40 cigarettes per crew member. Customs very strict, checking crew cabins. Regulations are as follows:

1. That the quantity of tobacco to be allowed on board vessels upon their arrival at a Lebanese port will be fixed on the basis of 2 packets per crew member, passenger per day, and to be calculated on a maximum period of 4 months, if the vessel emanates from an American, Asian or African port – not Central Africa; and for 2 months if the vessel's last port of call is in Europe, Central Africa or Mediterranean, which will be deducted from the quantity, and on the same basis the consumption by the crew members and passengers during their trip, and this to start from the last port of call until arrival at a Lebanese port.

That the number of passengers to be taken into account on a tourist vessel will be the number of berths the vessel can accommodate and not the number of passengers on board. As to cargo vessels, the actual number to be accounted for will only be the crew members and the Master of the vessel.

2. In the event that it is the first call of the vessel, at a Lebanese port and not aware of such regulations, and it was found on board her an excess quantity to the actual one allowed, as indicated above, a Process Verbal will be established for the excess quantity found and the cigarettes placed under seal. An undertaking is also to be obtained from either the Owners and/or her Agents to the effect that they will submit a certificate, within one month, to be issued by the relevant Customs Authorities of the next port of call of the vessel after a Lebanese port. While the seizure of the vessel will be lifted when the Bank guarantee equalling the amount of fine and dues is placed, or a Personal Guarantee from the Agent – if solvable – and in the event that the undertaking is not fulfilled, the usual penalties will be inflicted according to the law.

3. In the event the vessel is aware of such restriction, and for one reason or another she is carrying an excess quantity, this excess must be, as per official regulations, be shown on the manifest legalised and issued at the last port of call touched by the vessel prior to Beirut.

Any excess found over and above such declaration will be considered as smuggling and the law will be applied.

Wine and/or spirits: 1 bottle per crew member; Master allowed 3/4 bottles.
CARGO GEAR: Ship's gear to be used.
CONSULS: Most countries have consulates in Beirut.
AIRPORT: Beirut International Airport is 100 km. from Tripoli.
TIME: GMT plus 2 hours. Summertime, GMT plus 3 hours.
HOLIDAYS:

Holidays	*Date*	*Days*
New Year's Day	January 1st	1
St. Maron	February 9th	1
Good Friday (Catholic)	Varies	1
Labour Day	May 1st	1
Good Friday (Orthodox)	Varies	1
Al Fitr (Ramadan)	Varies	1
Assumption Day	August 15th	1
Al-Adha	Varies	2
Moslem New Year's Day	Varies	1
Achoura	Varies	1
Independence Day	November 22nd	1
Prophet's Birthday	Varies	1
Christmas Day	December 25th	1

BANKS:
The British Bank of the Middle East, Mina Street, Tripoli, Lebanon. Telex: 21850 Bbme.

Banco di Roma, Tell Street, Tripoli, Lebanon. Telex: 21818 Romtri.

STORING: See "Prelims".

1. Cargo ships can be stored by barge and truck and tankers by supply launches.
2. Cargo ships – Yes. Tankers can be stored only at anchorage.
3. Yes.
4. Yes.
5. Storing can be done around the clock.
6. Storing is done by ship chandlers or their Agents.

IDENTIFICATION CARDS: Shore pass given to each crew member. Passport and Seaman's Book to remain in Master's care.

AUTHORITY: The Harbour Master, Ministry of Public Works and Transport, El-Mina, Tripoli, Lebanon. *Tel:* 600283 (Harbour Master). *Telex:* 46030 LE A/B Tihama. *Contact:* V. Ghazi, Harbour Master.

AGENT: See "Beirut".

(b) TRIPOLI OIL INSTALLATIONS.

See "General" before first port.

Note: Terminal storage tanks were partly destroyed in late 1983. Sea berths were re-commissioned in March 1984.

DOCUMENTS: See "Section A – Dry-Cargo Port".

PORT LIMITS: There are three spar-buoys to indicate the limits of the Company's Sea Terminal boundaries.

The location of these buoys is as follows:

1st.	Lat. 34° 30' 03" N.	Long. 35° 52' 30" E.
2nd.	Lat. 34° 29' 42" N.	Long. 35° 52' 26" E.
3rd.	Lat. 34° 29' 03" N.	Long. 35° 51' 04" E.

PILOTAGE: The company's Mooring Masters will meet tankers 2 miles N.E. of Tripoli Breakwater Head. Tankers of 40,000 d.w.t. and over should have rigged, when in light condition, an accommodation ladder lowered to about 12 ft. above water. This can be adjusted to suit conditions. A pilot ladder should be rigged immediately abaft the accommodation ladder, to within 2 ft. above the water. This will enable Pilot to ascend pilot ladder clear of launch and then step on to the lower platform of the accommodation ladder. United Kingdom Merchant Shipping (Pilot Ladders) Rules are relevant.

ANCHORAGE: Good anchorage immediately W.N.W. of No. 4 sea berth buoys.

MAX. SIZE: Least depth of water available in berth, and swinging circle, after deducting 6 ft. for the height above sea bed of the sea line and cradle is as follows: No. 1 Berth, 62 ft.; No. 2 Berth, 66 ft.; No. 3 Berth, 53 ft.; No. 4 Berth, 38 ft. The swinging circle is defined as 1.5 ship's lengths from dropping position of ship's inshore anchor. The approximate draft limits quoted are based on an under-keel clearance, in the berths, of 6 ft.

VLCCs will be handled in Berth No. 2 and loaded to a draft of 60 ft. During the period April to October, and subject to the Master and Mooring Master being satisfied that weather conditions permit loading to a reduced under-keel clearance of 4 ft., then the loaded draft may be increased to 62 ft.

HEALTH: See "Section A – Dry-Cargo Port".

RADIO: The Lebanese Oil Installations Limited, Tripoli, must be informed 48 hours prior to arrival of a vessel's ETA, quantity of cargo required, maximum loading rate, SWL of derrick for lifting hoses and confirming that the ballast for discharge in port waters is clean. Communication with Iraq Petroleum Company, Limited, should be by cable addressed to "Petriraq, Tripoli, Lebanon", or direct to Tripoli Terminal Radio Station.

Tripoli Terminal Radio Station. Call Sign – ODC 8.

Waveband	*Hours (GMT)*	*Watch Details*
	0800–0830	ODC 8 Broadcast Traffic List and calls ships on 8514 kHz. Listens on 8354–8374.
	1200–1230	Will transmit on 12831 kHz on request.
High Frequency	1600–1630	
	2230–2300	
	0000–2400	Monitor 500 kHz for calls and answers only.
	0730	Broadcast on 500 kHz QSW 442 kHz.
	0730–0800	Transmit Traffic List on 442 kHz, receives ship frequencies – 425, 454, 468, 480 and 512 kHz.
High Frequency	1130	Broadcast call on 500 kHz, QSW 442 kHz.
	1132–1200	Transmit Traffic List on 442 kHz, receives on normal ship frequencies – 425, 454, 468, 480 and 512 kHz.
Medium Frequency	1530	Broadcast call on 500 kHz QSW 442 kHz.
	1532–1600	Transmit Traffic List on 442 kHz, receive on normal ship frequencies – 425, 454, 468, 480 and 512 kHz.
	2200	Broadcast call on 500 kHz, QSW 442 kHz.
	2202–2230	Transmit Traffic List on 442 kHz, receive on normal ship frequencies – 425, 454, 468, 480 and 512 kHz.
	2232	Broadcast call QSY QSX 500 kHz.

Cables to Agents may be routed through Beirut Radio.

VHF: Tripoli:

Equipment: Fixed Station sited in Terminal Building and used by Control Room.
Call sign: Tripoli Control
Range: Approximately 15 miles.
Frequency: Transmitting on 163.6 MHz. Receiving on 159.1 MHz.
Watches: Continuous.

Mobile Station
Equipment: Portable, battery operated, carried aboard vessel with Mooring Master.
Call sign: Ship's name (before mooring), or Berth No. (after mooring).
Range: Approximately 8 miles.
Frequency: Transmitting on 159.1 MHz. Receiving on 163.6 MHz.
Watches: Continuous, whilst Mooring Master on board.

Notes
1. Tripoli also keeps a continuous watch on the international calling frequency of 158.8 MHz. This has a range of approximately 15 miles and its call sign is "Tripoli Control".
2. The VHF System is not connected to the main telephone switchboard and only selected shore stations have access to it.

TUGS: There is no tug at Tripoli.

BERTHING: *Sea Line Berths.* 5 berths numbered from N.E. to S.W. specifications as follows:

Berth No.	*Max. t.p.h.*	*Fixed Sea Line*	*Strings of Flexible Hoses*	*Approximate Limits Draft*	*Approximate Limits Deadweight*
1	5,000	2×24 in.	2×16 in.	56 ft.	140,000
2	6,000	1×32 in.	2×16 in.	60 ft.	250,000
3	5,000	1×32 in.	2×16 in.	47 ft.	87,000
4	Products	2×16 in.	2×12 in.	32 ft.	25,000
5	LPG	1×6 in. 1×3 in.	1×6 in. 1×3 in.	30 ft.	5,000

As loading is by gravitation, the maximum rates are dependent upon availability of suitable shore tanks and loading lines.

LOADING:

1. *Readiness to Load,* will be received by the Mooring Master, who is the Company Representative on board. The advice from the vessel which states she is ready to receive cargo is considered as final, and as indicating that every operation necessary aboard the vessel has been completed. As soon as possible after such a signal has been received, and without further advice, loading will commence. Damage to hoses can occur if ship's valves are not open at the start of loading.

2. *Derricks*
(*a*) Two hoses are connected on the port side amidship.
(*b*) Derricks or cranes reaching over the hose connection should be capable of lifting the flexible hose from the sea-bed to a height of up to 30 ft. above the deck.
(*c*) A minimum SWL of 5 tons is required for 12 in. hoses.
(*d*) The faster loading berths equipped with 16 in. hoses are available only to vessels with derricks and tackle with a minimum "Safe Working Load of 7 tons". Such vessels will be given berthing priority when queuing occurs and these berths are free but other vessels have not the capacity to handle the larger hoses.

3. *Hose Hang-off Bitts* are required at about 10 ft. from the ship's rail at the loading manifold to secure the submarine hoses on the port side.

4. *Hose Connection/Disconnection.* Ship's crew with a responsible officer in charge to perform all operations as advised by the Mooring Master, to lift, connect, disconnect and lower hoses.

5. *Ship's manifold* – to be prepared for the connection of 12 in. or 16 in. hoses with flanges of 150 series, dependent on berth allocation.

6. *Loading – Supervision and Commencement*
(*a*) All operations in connection with starting of loading, discharging, switching of tanks on board and topping-off must be directly and personally supervised by a responsible ship's officer.
(*b*) The advice from the vessel that she is ready to receive cargo is considered as final, and as indicating that every operation necessary aboard the vessel has been completed. As soon as such a signal has been received, and without further advice, loading will commence. Damage to hoses can occur if ship's valves are not open at the start of loading.

Caution: The oil loading stream to the ship is controlled on shore and it is extremely dangerous if a ship's valve is closed against the flow of oil.

To prevent excessive pressure from surge in ship and shore lines, ship's valves must not be shut-off against the stream, and when switching tanks, ship's valves must be closed slowly. Vessels will be held liable for damages resulting from any mal-operation of valves on board.

7. *Tank Dips.* During loading frequent checks should be made by the responsible ship's officer to ensure that cargo is entering the designated cargo tanks only and that there is no escape of oil into pump-rooms or through sea and overboard discharge valves. Particular care must be exercised by ship's personnel in "Topping-off" tanks and towards completion of loading to ensure that the terminal is given timely advice of any decrease in loading rate required. Adequate "standby" notice must be given before the final "stop".

8. *Loading Operations*
(*a*) The Mooring Master will not transmit any loading instructions to the shore until the responsible ship's officer is satisfied that the hoses are connected correctly and that all valves have been set for receiving cargo.
(*b*) Loading rates requested by the vessel or quoted by the terminal will be the peak or maximum rate at any time during the loading period.

(c) While in berth, ships should be ready to move under their own power in the event of their breaking adrift, catching fire, fire in adjacent berths or other emergency. No repair should be carried out while in berth which would immobilise the ship or impair her fire-fighting efficiency.

Failure to vacate the berth on completion of loading may result in delays to other vessels, demurrage, and loss of throughput which shall be accountable to the vessel.

(d) The Mooring Master will advise the Master of the ship as to any signals needed for local requirements.

(e) The Mooring Master brings a portable radio on board for ship to shore communication.

Products: *Requirements for a Product Delivery Vessel:*

1. The discharge berth is an open sea berth.
2. Tripoli Terminal Call Sign is ODC 8 and Master's ETA should be sent at least 48 hours prior to vessel's arrival on 500 kHz.
3. Vessel to be equipped with centrifugal pumps capable of maintaining a ship's rail pressure of 120 p.s.i. (reciprocating pumps are totally unacceptable).
4. Max. draft loaded 32 ft. in Berth No. 4 and 62 ft. in Berth No. 2.
5. 5 ton derrick SWL.
6. 6 mooring ropes 120 fathoms each.
7. Port and starboard anchors to have a minimum of 8 working shackles each.
8. Midship connection (Portside 1×12 in. 150 ASA).
9. Pumping is against a head of 270 ft.
10. Laytime to be calculated at an average discharge rate of 250 t.p.h.

DENSITY: 1025.

FRESH WATER: May be available at anchorage before berthing, but it is expensive.

FUEL: Fuel oil is available at Berths 2 and 3. The 12 in. bunker hose is raised on the port side of the vessel. Bunkering rates are 100 t.p.h. to 350 t.p.h.

CUSTOMS ALLOWANCES: See "Section A – Dry-Cargo Port".

GARBAGE DISPOSAL: Garbage collected from alongside upon request. Collections are carried out only during office hours (0700 hrs. – 1500 hrs.). Charges are nominal.

WASTE OIL DISPOSAL: Not possible for large quantities, but small quantities in drums may be possible through ship's agent.

SEAMAN'S CLUBS: None.

CURRENCY: Lebanese Pound (L£).

GENERAL:

1. *Ballast*

(a) Vessels should arrive with sufficent clean ballast for safe handling of vessel under prevailing weather conditions.

(b) Ballast water must be clean and a declaration signed by the Master and delivered to the terminal to this effect. Vessel's scuppers must be effectively plugged and leakage or spillage of oil aboard ship must not be swept or washed overboard.

(c) *Pollution of the sea – warning.* It is an offence to discharge dirty ballast or pump out bilges. The authorities are very strict and your attention is drawn to the Lebanese Notice to Mariners No. 23/1 of 29th July 1965, and to the volume entitled "International Conference on Prevention of Pollution of the Sea by Oil", issued by IMO London.

In the event of your vessel discharging dirty ballast or spilling oil, cost for cleaning the pollution, third party claims and port fines shall be borne by the vessel.

It is recommended that vessels carry an adequate amount of dispersants with means of application in case of oil spills.

2. *Gear to be provided by the ship*

(a) Anchor to be fitted with marker buoys and 20 fathoms line.

(b) 4 good mooring lines of not less than 150 fathoms each and of suitable size for the vessel. 2 additional 150 fathoms lines securely tailed to the first lines for cases where 150 fathoms may not reach to the stern buoys initially.

(c) For vessels of 50,000 d.w.t. and larger, powered mooring winches with 200 fathoms of wire rope.

(d) 4 suitable rope stoppers to be available aft.

(e) 2 good chain stoppers for use on 5.5 in. circumference wires (preferably carpenter's patent stoppers).

(f) 2 good 4.5 in. circumference boat ropes 200 ft. long placed one on each side of the vessel.

(g) 2 good ropes, 15 fathoms × 3.5 in. circumference and 2 heaving lines for lowering hoses.

3. *Lighting.* Manifold and poop mooring areas should be adequately lit to enable night mooring and loading operations to be carried out with safety. Sea area around the ship to be illuminated.

4. *Deck Watch.* A deck watch must be maintained at all times the vessel is in berth. In addition to its normal duties, the watch must inspect the hose connections and area around the ship against oil spillage, pollution, and prevent unauthorised persons from boarding your vessel.

5. *Boarding of vessel.* The control of persons boarding your vessel is the ship's responsibility. Boarding should be restricted to Company employees on duty and to persons authorised by the Port Authorities as advised by your Agents.

6. *Stores/Provisions* or other items should not be received or discharged whilst loading is in progress. Launches other than the Company's mooring launch, should not lie alongside the vessel.

7. *Tanker Safety.* Masters are at all times responsible for the application of all safety precautions as prescribed in the International Oil Tanker and Terminal Safety Guide.

8. *IOTTSG Safety Check List.* The Tanker Safety check list must be completed after inspection of each item prior to commencement of and during loading. The Mooring Master is authorised to stop all loading operations should he consider that the safety of lives and property is endangered by the infringement of safety rules.

9. *Action in case of Emergency.* In the event of a fire, oil spillage or other emergency on the vessel,

The Emergency Signal is:

3 or more blasts of not less than 10 seconds duration each on whistle or siren supplemented by a continuous ringing of the general alarm bells.

SHIPMASTER'S REPORT: February, 1983.

Documents:

1 Copy Cargo Manifest.
3 Copies Crew Lists.
1 Copy Personal Effects Declaration.
1 Copy Bonded Stores List.

Approaches: Admiralty Chart No. 2903 – Tripoli Roadstead.

Ramkin Isle Light visible on approaches to the port but cannot be relied upon for full power.

Fairway Light Buoy (flashing green every 4 seconds):
Position: Lat. 34° 30' 00" N.
Long. 35° 52' 28" E.

N.B. – The Fairway Buoy has been removed.

All buoys should be treated with caution as some removed and all unlit. Breakwater and mooring buoys give good radar targets.

Pilotage: Pilotage is compulsory. In an emergency, vessel could dock/undock without Pilot. Area on chart marked 'Pilots' should be avoided due to a wreck with only 21 ft. clearance. Most suitable position for boarding is 1 mile East of this area.

It is requested that tankers of 40,000 d.w.t. and over should have rigged, when in light condition, an accommodation ladder lowered to about 12 ft. above the water. A pilot ladder should be rigged immediately abaft the accommodation ladder, to within 2 ft. above the water (U.K. Merchant Shipping – Pilot ladders – Rules 1965 is relevant).

Pilot ladder used for boarding. Accommodation ladder unsuitable due to swell.

Anchorage: Area for boarding Pilot is also suitable for anchoring, if awaiting berth due to adverse weather, and for approaches to the sealine berths. Good holding with 7 shackles of cable.

Restrictions: No night navigation.

Max. Size: Draft restricted to 62 ft. No restrictions on length or beam.

Health: Pratique granted on arrival.

Radio: Initial ETA sent to Beirut via Portishead Radio.

(a) Advice of ETA, is required 48 hours prior to vessel's ETA stating quantity of cargo required, max. loading rate, SWL of derrick for lifting hoses, and confirming that the ballast for discharge in port waters is clean.

(b) Lines of Communication:

i. Tripoli Terminal Radio Station. Call sign ODC8.
ii. By cable to "Petriraq Tripoli – Lebanon".
iii. International VHF 156.8 MHz – range approx. 15 miles. Call sign "Petriraq Tripoli".

Tripoli Oil Installations – Lebanon.

Station: Tripoli Oil Installations – Lebanon, Tripoli Lebanon, private station for communication with tankers bound Tripoli, Lebanon.

Call sign: ODC8. Address: Toil, Tripoli Lebanon.

Periods open for traffic: ODC8 keeps a continuous 24 hours watch on 500 kHz for calls and answers only.

Medium Frequency Schedules: ODC8 transmits traffic list on 442 kHz and listens in the band 425-512 kHz.

0750 – 0800 hrs. GMT. 1530 – 1600 hrs. GMT.
1130 – 1200 hrs. GMT. 2200 – 2230 hrs. GMT.

High Frequency Schedules: ODC8 transmits traffic list on 8514 and 12831 kHz simultaneously and listens in the band 8554 – 8374 kHz:

0800 – 0830 hrs. GMT. 1600 – 1630 hrs. GMT.
1200 – 1230 hrs. GMT. 2230 – 2300 hrs. GMT.

Note: In addition to above, Tripoli Terminal keeps a continuous watch on the international calling frequency of 156.8 MHz. This has a range of approximately 15 miles and its call sign is "Toil, Tripoli Lebanon".

It is essential that tankers bound Tripoli Lebanon, communicate with station ODC8 at least 48 hours before arrival, and thereafter maintain contact (It may, at any time, be necessary to change orders regarding port of loading).

Radio station reported to be operating at reduced power but no contact made at all to date. Reasons given: No operators, no technicians, no maintenance, to name but a few. Contact made by VHF to 'Tripoli Oil Terminal', range varies from 15 miles down to 3 miles.

VHF: See "Radio". Pilots Channel 16, Port Channel 16, Agents' Channels 16 and 14.

Tugs: Not available. Vessels can dock/undock without tugs under favourable weather conditions.

Conditions of Use:

Notice: The facilities and assistance provided by TOIL to ships visiting the port for any purpose whatsoever are subject to the following conditions whether or not any charge is made therefor:

1. Assistance, Advice or Instructions.

   Neither the TOIL (which expression shall hereafter include any other owner of property used in conjunction with the property of TOIL) nor its servants or agents (in whatever capacity may be acting) shall be responsible for any loss, damage, injury or delay from whatsoever cause arising out of any assistance, advice or instruction whatsoever given or tendered in respect of any vessel. In all circumstances the Master of the vessel shall remain solely responsible on behalf of his Owners for the safety and proper navigation of his vessel, and the vessel and her Owners shall indemnify TOIL or its agent against all loss or damage sustained by TOIL or its servants or its agents, or for which TOIL shall be legally liable by reason of negligent navigation of the vessel.

2. Use of Sea Berths, Sea Loading Lines, Harbours, Jetties and Gear.

   (a) While TOIL has taken all reasonable care to ensure that the berths, facilities and other premises of TOIL and the gear and equipment used in connection therewith are safe, TOIL does not represent or warrant that the sea berths, sea loading or bunkering lines, harbours and jetties of TOIL or the gear and equipment (including gangways where provided) used in connection therewith are safe or suitable for any vessel, and any vessel using them or any of them shall be and remain at the sole risk of the Owners or Master thereof and in particular (but without prejudice to the generality of the foregoing) the safety or suitability of the gangway is the sole responsibility of the Master.

TOIL does not warrant the seaworthiness of any craft hired or used by any vessel nor its fitness for any particular purpose.

(b) TOIL will not be responsible for the acts or defaults of any of its servants or agents or of any Port Authority or its servants or agents nor for any loss, damage, injury or delay from whatsoever cause arising that may occur to the vessel or her cargo or equipment or to the Master or any member of her crew whether on board or otherwise, or in the course of mooring or unmooring or raising or lowering of the loading or bunkering lines or loading or discharging or otherwise howsoever, or to any third party, and the vessel and her Owners shall hold TOIL or its servants or agents harmless and indemnified against all claims, damages, costs and expenses arising therefrom.

(c) TOIL will not be responsible for any loss, damage, injury or delay directly or indirectly caused by or arising from strikes, lock-outs or labour disputes or disturbances whether TOIL or its servants or agents are parties thereto or not.

(d) If during or by reason of the use of the vessel of the sea line terminals, harbours or jetties or other premises of TOIL or its agents or the gear or equipment used in connection therewith or any craft of TOIL, any of them shall be damaged or become dangerous or unusable and irrespective of whether or not such damage has been caused or contributed to by the negligence of TOIL or its servants or agents or of any Port Authority or its servants or agents, the vessel and her Owners shall hold TOIL or its servants or agents harmless and indemnified against all loss arising therefrom.

3. These conditions shall be construed according to the law of Lebanon and if so required by TOIL the vessel and her Owners shall submit to the jurisdiction of the Lebanese Courts.

Notice of Readiness: Notice of Readiness accepted by Mooring Master at his time of boarding.

Ballast: Our vessel required a minimum of 6,000 tons of ballast on sailing light.

No facilities for dirty ballast or slops.

Loading: Mooring Master remains aboard at all times. Mooring boat and crew also stand-by throughout. Meals to be provided for the extra personnel.

Loading/Discharge Operations: Ship's pumping pressure not to exceed 120 p.s.i.

Discharging: Reducers supplied by terminal. No problems for 10 in. manifold.

Programme of operations:

During Mooring Operations:

	Action
1. Ullage, Water Dip and Sample Ship's Tanks.	Terminal for Refinery
2. Labelled Samples ex-ship and any forwarded from loading port to Refinery for checking prior to commencement of discharge.	Terminal for Refinery
3. Authority to discharge cargo after testing of ship's samples.	Refinery

General Sequence of Operations:

1. Ship to pump sea water to clear into shore tanks the amount of gas oil contained in the sea and shore lines.	All concerned
2. When advised follow up with ship's cargo, warning of any stoppages in the ship's pumps is essential.	All concerned
3. On completion of discharge, ship to pump sea water, as required, to clear sea/shore lines.	All concerned
4. Sea/Shore Pipeline systems to be left with sea water.	All concerned

Prior to commencement of Discharge:

1. Pressure gauge to be fitted at hose on ship's manifold connection.	Marine Supervisor
2. Discharge pressure at ship's manifold not to exceed 120 p.s.i. (9 kgs.).	Mooring Master
3. Refinery to gauge tanks and prepare lines for the reception of gasoline (estimated at 180 long tons) and to confirm to Terminal Shift Supervisor when ready to receive the stream (time to be logged).	Refinery
4. Terminal Supervisor to ensure shift attendants are on duty to operate and supervise the booster pump at the transfer manifold.	M.M.S. and Terminal Supervisor
5. A Fireman will be required to be in attendance at the Booster Pump Manifold throughout discharge operations.	Refinery

Commencement of Discharge:

1. Vessel to commence pumping sea water, gradually increasing pressure to maximum when all the system to the shore tank is checked and shore tank is receiving stream.	Mooring Master on board, also Ref. and Terminal Shift Supervisor
2. The booster Pump will pick up the stream at the Transfer Manifold, Pump attendants must be instructed to maintain a minimum positive suction pressure of 5 p.s.i. and operate within permissible amperage readings.	M.M.S. and Terminal Supervisor
It is VERY IMPORTANT that ship/shore operations be co-ordinated to ensure that the Booster Pump is never on stream when the ship's pumps are stopped, as this would cause DANGEROUS overheating conditions, especially dangerous in low flash point refined products.	Mooring Master, (Terminal Shift Supervisor for immediate instructions to Pump Attendant).
3. Pressure readings at ship's manifold and at Foreshore Manifold to be recorded hourly by Foreman.	Mooring Master and Terminal Foreman

During Ship's Pumping/Discharge:

1. Refinery to sample at manifold of Tank 39 or any other points and advise when the line content of gas oil has been displaced and pumping of sea water by the ship should stop.	Refinery to Terminal Shift Supervisor
2. Refinery to advise when vessel may commence pumping its cargo.	Refinery to Terminal Shift Supervisor
3. Refinery to sample stream at Manifold of Tank 39 etc., where sea water would be drained out and switch stream into appropriate storage tanks when the required product appears in the sampling.	Refinery
4. IMPORTANT: Comply with Safety Code precautions when gauging receiving tank, especially when the oil level is below roof supports, to avoid the discharge of static electricity by the introduction of any "Conductors", such as a metal gauge tape and weight, into the space between the roof and level of the oil being received.	Refinery

Completion of Cargo:

a) Mooring Master to advise when cargo discharge is completed and ship's tanks are dry.	Mooring Master
b) When advised, vessel to resume operations by pumping sea water to displace the line content of Blend Stock.	Mooring Master, Terminal Shift Supervisor
c) Refinery to advise when pumping of sea water may be stopped.	Refinery to Terminal Shift Supervisor
d) Refinery to gauge tanks and prepare certificate of quantity for cargo received in accordance with general procedure.	Refinery/ Terminal
e) Shore line to be re-set to "CLOSED" and to be left with sea water up to Tank 39.	Refinery to Terminal Shift Supervisor

Also see "Loading".

Density: 1025.

Fresh Water: Available by barge. Arranged through ship's Agent.

Fuel: Fuel oil is available in Berths 2 and 3 through a 12 in. hose lifted on the port side. Rates may vary between 100 and 350 t.p.h.

Diesel and lubrication oils not available.

Consuls: Nearest British Consul at Beirut.

Repairs/Dry Dock: Not available.

Surveyors: Lloyd's.

Gangway/Deck Watchmen: Due to attempted theft of paint stores by armed men, security guards recommended at the anchorage and on the berth.

Shore Leave: Not permitted.

Customs Allowances: Bond checked by Customs but not sealed.

Airport: Nearest at Beirut.

Services: Available: Laundry service, telex (unreliable), doctor, hospital, provisions, recovery of anchors, etc.

Not available: No facilities for discharge of slops or dirty ballast.

NOTICE: Responsibility for the safe conduct of operations on board your ship while at our terminal rests with you as Master. Nevertheless since our personnel, property and other may suffer serious damage in the event of accident aboard your ship, we wish before operations start, to seek your full operations and understanding on the safety requirements set out on the Ship/Shore Safety Check List.

The Safety requirements have been drawn up by ourselves in conjunction with other Terminal Operators in Middle East and representative section of the International Tanker Industry.

They are based upon the provision of the codes of safe Practice currently accepted by the Oil and Tanker Industries. We therefore expect you and all under your command to adhere strictly to them, throughout your stay in this Terminal. We, for our part, will ensure that our personnel do likewise and co-operate fully with you in the mutual interest of safe and efficient operation.

In order to assure ourselves of your compliance with these Safety requirements we have instructed our Mooring Master to report to you or your deputy and join one of your officers in a routine inspection of Cargo Decks and accommodation spaces.

If you observe any infringement of these requirements by Terminal or any other personnel on board your ships, please bring this immediately to the notice of our representative. Should you consider any immediate threat to the safety of your ships arises out of any action on our part or equipment under our control, you are fully entitled to demand an immediate cessation of operations.

Our Mooring Master is the Company Representative on board. WE RESERVE THE RIGHT IN THE EVENT OF CONTINUED OR BLATANT DISREGARD OF THESE SAFETY REQUIREMENTS IN YOUR SHIP, TO STOP ALL OPERATIONS AND ORDER YOUR SHIP OFF THE BERTH FOR APPROPRIATE ACTION TO BE TAKEN BY THE CHARTERERS AND THE OWNERS CONCERNED.
For TRIPOLI OIL INSTALLATIONS – LEBANON

AUTHORITY: *Operator:* Tripoli Oil Installations Lebanon, P.O.Box 150, Tripoli (via Beirut), Lebanon. *Tel:* 601995, 430501-8. *Telex:* 46313, 46069. *Cables:* Petriraq Tripoli. *FAX:* 06-530503. *Contact:* Captain George Abed, Marine and Terminal Manager.

AGENT: See "Beirut".

(C) PETRO-STORE TERMINAL.

PORT LIMIT: Petro-Store multi-buoy Oil Terminal is owned and operated by Petro-Store International S.A.R.L., and is situated N.E. of Tripoli Harbour in position Lat. 34° 28' 04" N., Long. 35° 50' 30" E. (British Admiralty Chart No. 2903 - Tripoli Roadstead).

DOCUMENTS: Ship's particulars, Cargo documents, Crew List, Stores Lists, Health Declaration and all tanker's certificates should be valid on date of call.

PILOTAGE: Pilotage is compulsory. Pilots meet tankers 1.5 nautical miles North of the main breakwater during daylight hours (B.A.Chart No. 2903).

ANCHORAGE: A good anchorage area is situated W.N.W. of Seaberth No. 4 of Tripoli Oil Installations - Lebanon (TOIL).

MAX. SIZE: Maximum deadweight acceptable is 35,000 tonnes with a restricted maximum draft of 7.5 m. (underwater clearance 1.5 m.).

HEALTH: Port Health Officers board tankers in Tripoli Roads. "Q" flag must be hoisted on arrival.

RADIO:
ETA: Tankers should cable their ETA 72 hours, 48 hours and 24 hours prior to their arrival at Tripoli. The Lebanese Navy (Oscar November on VHF Channel 11) should be advised of the tanker's arrival when 12 miles, 6 miles and 1 mile off Tripoli Roads.
Communications: Petro-Store International can be contacted by Telex (No. 40897, answerback FALCON), Fax (No. 966-06-610076) and by VHF Channel 16.

TUGS: Tugs of approximately 1,000 b.h.p. are available on request.

TANKERS:
Hoses: 1×12 in. and 1×8 in. hose (ASA 150 and 300) are connected on the portside.
Cargo Handling: Cargo handling is operated round the clock at a rate of 800 t.p.h.

DENSITY: Sea-water density varies between 1027 and 1030.

FRESH WATER: Fresh water is available in barges.

FUEL: Fuel oil and gas oil bunkers are available on special request.

CONSULS: British, Italian, Greek and Dutch consulates are available in Tripoli.

SURVEYORS: Most well known surveying companies are locate in Beirut and render their services in Tripoli.

CUSTOMS: Customs Officials meet tankers on their arrival at Tripoli Roads. Regulations are very strict.

GENERAL:
Tides: Tidal range is 0.3 m. to 0.45 m.
Provisions: Available in large quantities.
Deratisation: Can be obtained in accordance with International Regulations.
Garbage: Can be collected on request.
Pollution: Very heavy fines for pollution.

OPERATOR: Petro-Store International S.A.R.L. *Contact:* Mr. Ziad R. Ghandour, General Manager. Also see "Radio".

AGENT: See "Beirut".

NOTES

Please also advise Shipping Guides Ltd.

Liberia

GENERAL

COURTESY FLAG: Masters of vessels should check with the Pilot the correct times for raising and lowering (0600 – 1800 hrs.) the courtesy flag as heavy fines are imposed if raising and lowering is carried out at the wrong time. It is also advisable to carry a spare courtesy flag aboard the vessel.

PIRACY: *Notice to Mariners:*

1. Mariners are advised to exercise caution when sailing near the coast of Liberia.
2. A cargo vessels was seized by small craft believed to have been operated by the National Patriotic Front of Liberia. Information indicates that the rebel ships may be flying two flags – flag of Liberia and the flag of the National Patriotic Front (Red with Black Scorpion).
2. Mariners are advised to keep at least 30 miles off the coast.

BUCHANAN: 05.52 N. 10.02 W. (See Plan)

PORT LIMITS: A vessel shall be considered to have arrived at Port of Buchanan when she enters a circle with a 3 nautical mile radius from the beacon on the main breakwater head (Fl.G.3 sec.). The above does not affect present stipulations of ore ships' Notice of Readiness, which remain unchanged nor does it limit Port Authorities exclusive right to decide in which order ships shall be worked.

Notice of Readiness: Notice of Readiness will not be accepted from vessels anchored more than 3 miles off the head of the main breakwater.

DOCUMENTS:

1 copy Clearance from last Port of Call.
1 copy Health Declaration.
6 copies Number of Passengers.
4 copies Ports of Call
6 copies Cargo Manifest (even in ballast).
7 copies Crew List.
3 copies Stores List (ship).
3 copies Personal Effects List.
1 copy Vaccination List.

Customs, health and passport inspection normally takes place at the berth.

It is recommended that the Master of the ship himself attends at the boarding party to clear the ship upon arrival and that the above documents are prepared upon the ship's arrival.

PILOTAGE: Lamco provides pilotage. Pilot boarding approximately 1.5 miles off the main breakwater, bearing 095°/110°. Pilot to be provided with a clean and safe ladder on the lee side. Buchanan Pilot on VHF Channel 16.

ANCHORAGE: If waiting for Pilot, anchor off main breakwater on bearing 090° – 110°, 1.5 miles – 2.5 miles off main breakwater (South).

Exit Channel: Anchoring is prohibited within a sector with a bearing of 060° – 080° to the head of the main breakwater, as this is the exit sector.

RESTRICTIONS: Harbour traffic hours – towage and pilotage (ore ships), 0000 – 2400 hrs. General cargo ships (tankers), 0700 – 2300 hrs.

MAX. SIZE: See "Bulk Handling Facilities", "Berthing" and "Tankers".

Arrival Draft: Maximum arrival draft for ore carriers must not exceed 8.85 m. and air draft should not exceed 15.0 m. Maximum arrival draft for cargo vessels must not exceed 9.15 m.

HEALTH: Customs, health and passport inspection normally takes place at the berths. Quarantine signal must not be hauled down before "Free Pratique" is received. If diseases are suspected on board contact the Port Authorities or Agents by radio for instructions. After call at other Liberian ports where Free Pratique has been granted, Port Health will also board here.

RADIO: Buchanan Harbour will call on 6520 kHz, 4 days before ETA, between 0800 hrs. and 0830 hrs. GMT, or when within 200 miles call Buchanan Harbour on 2182 kHz at 0800 hrs. GMT. Communications with ore ships per HF, call 2182 kHz. Traffic, 2638 kHz, 2738 kHz. VHF, call Channel 16. Traffic, Channels 6, 9, 12 and 14.

Contact immediately before arrival:

Watch schedule of Buchanan Harbour:

From about 2 hours before expected arrival of an ore ship, the LAMCO Clearing Office is keeping continuous radio watch on VHF Channel 16 and call frequency 2182 kHz, for possible subsequent switching over to VHF Channels 6, 9, 12 or 14 and 2738 kHz or 2638 kHz.

The call sign is "Buchanan Harbour", ELM 1.

All ore ships heading for Buchanan are requested to establish radio contact with "Buchanan Harbour", ELM 1, using the above frequencies approximately one hour before estimated time of arrival.

Contact 24 Hours Before Arrival:

Whenever an expected ore ship is to arrive in the Port of Buchanan within about 24 hours, the LAMCO Clearing Office will for the purpose of securing timely and accurate information on the ETA of the ship, maintain the following radio watch schedule.

Morning watch	:	0800 – 0900 GMT
Afternoon watch	:	1500 – 1600 GMT

Frequencies:

The radio watch is kept on call frequency 2,182 kHz for subsequent switching over to 2638 kHz, or 2738 kHz, or 6520 kHz (0830 – 0900 and 1530 –1600 GMT).

The radio set used on shore has a reach of approximately 600 miles. In accordance with the above, ore ships heading for Buchanan and having radio sets operating on frequencies listed are requested to establish radio contact with "Buchanan Harbour" and give ETA message as soon as possible after they have come within 600 miles distance from the port.

Contact at a distance of approximately 1,400 miles and on sailing from last port:

Sailing from last port: On sailing from last port for Buchanan, the owner or the Master shall telegraph to "GIMSALES", Stockholm (Telex No. 17549) and to "LAMCO", Buchanan (Telex No. 44260) stating expected date of arrival and furthermore indicate to the latter the vessel's preferred radio working frequency in the 4000 kHz – 8000 kHz range.

Radio watches: Starting 4 days before the vessel's ETA at Buchanan, "Buchanan Harbour", ELM 1, will call the vessel on 6520.0 kHz between 0830 – 0900 GMT and 1530 – 1600 GMT.

Every day, except on holidays and Sundays, Buchanan Harbour keeps watch on 2182.0 kHz between 0800 – 0830 GMT and 1500 – 1530 GMT and on 6520.0 kHz between 0800 – 0830 GMT and between 1530 – 1600 GMT. These watches will also be kept on holidays and Sundays in case a vessel is expected on those days or the following workday.

Notice in advance: The Master shall give telex or cable notice 72 hours and 36 hours prior to the vessel's expected arrival at Buchanan to LAMCO, Buchanan, if no radio contact has been established previously.

TUGS: Lamco provides towage with two tugs 1,640 h.p. and one tug 3,300 h.p. Tugs join vessel about 0.5 mile North of red buoy.

BERTHING: Ore Quay: Length 257 m., depth alongside 14.0 m.
Commercial Quay: Length 320 m., depth alongside 10.0 m.
Tug Quay: Length 126 m., depth alongside 10.0 m.

Storage: A commercial warehouse with a storage capacity of 2,300 sq.m. built on the harbour along with the Customs warehouse of 1,000 sq.m.

Iron ore storage capacity: 1.7 million tons on shipping stockpiles. 0.4 million tons on feed stockpiles.

CRANES: 1×150 ton derrick crane and 1×20 ton portal crane at the Commercial Quay.

BULK HANDLING FACILITIES:

Instructions for the handling of ore ships with a draft of 39 ft. or more:

The departure shall be arranged in such a way that the following conditions are fulfilled:

1. *Minimum clearance "C"* under the ship's keel shall be 3 ft. except for ships having a beam "B" exceeding 125 ft., for which minimum clearance required shall be calculated by the following formula:

$$C = \frac{B}{125} \times 3 \text{ ft.}$$

2. *Maximum advisable draft "D" Max* in the basin shall at any time be based on the actual height of the sea level "H" at that time (measured from the project O-level) and on the required minimum clearance "C" under the keel shall under normal conditions be estimated as follows (for – 12.95 area):

$$D \text{ max} = 42.5 + H - C \text{ (all measurements in feet).}$$

3. *Departure on falling tide* is permitted only when it can be shown that the minimum clearance "C" as per above will be maintained during a period of at least 2 hours from the time the tugs start pulling. (This means as a consequence that for a ship that commences departure less than one hour *before* high water the draft shall be based on estimated level of the falling water 2 hours after commencement.

Note that the level one hour after high water has sunk about 7% and the level 2 hours after high water 25% of the total tidal range.

Deep Water Basin at Buchanan Ore Loading Quay: With the completion of the deep water basin at the Ore Loading Quay, the water depth alongside the quay is increased from 12.95 m. to 14.00 m. below the zero level of the General Elevation System.

The required keel clearance is 3 ft. for ships up to 125 ft. beam. The max. permissible draft alongside the quay is thus:

$$46 \text{ ft.} - \left(\frac{\text{beam in ft.}}{125} \times 3\right) \text{ ft.} + \text{tide}$$

Tidal range:
MHWS = +1.18 m. above zero level of the General Elevation System.
MLW = +0.05 m. above zero level of the General Elevation System.
MLWS = − 0.15 m. below zero level of the General Elevation System.

Because of the necessity to save a rock shelf to support the sheetpiling of the cells when blasting and dredging the deep water basin, new fenders have been installed at the quay in order to keep the bilges of the vessels well clear of those rocks. The new fenders have a diameter of 1.20 m. A ship loaded to maximum permissible draft can have a list of 5° without touching the rock slope but since she would touch the bottom with a list of about 3° such lists will not be tolerated.

Height of Shiploader: 17.0 m. above the water level at MHWS. A 1.0 m. safety margin is normally sufficient.

Maximum shiploader outreach (including throw) from the new fender line is 24.0 m. whereby a max. 48 m. wide vessel can be loaded. Loading rate 6,000 t.p.h. (3,000 t.p.h. July 1987).

It must be clearly understood that the sailing drafts are unchanged. The width of the deep water basin is only 60 m. It gives however, the great advantage of being able to continue loading without stopping for low water, whereby loading can often be completed 12 hours earlier than without the deep basin.

An even greater advantage is probably the increased safety, should a large ship develop engine trouble after she has exceeded the former maximum permissible low water draft, in which case operators have no alternative but to pull vessel out at HW as "dead ship" which could very easily result in a major accident with enormous economic consequences. Now operators can let vessel remain alongside over the next low tide without any risk.

Vacation of Berth: Vessels should vacate their berths immediately after completion of loading or discharging.

Ore carriers are allowed a maximum stay of 30 minutes, whereafter U.S.$1,000 per hour or any part thereof will be levied at the Harbour Master's discretion. (This may be exempt if vessel on max. draft awaiting high water sailing.)

MEDICAL: Hospital and medical care is provided; advance notice should be given in serious cases. Yellow fever and cholera vaccinations are compulsory to enter the Republic. Vaccination book is required.

STEVEDORES: As early as possible advance notice of ETA required latest by 1500 hrs. on day preceding arrival if a weekday, or Saturday before noon if arrival on Sunday.

Shore working hours: Ore handling: 24 hours a day.

General cargo handling:

Morning Shift:
Monday through Friday 0700 – 1500
Saturday 0700 – 1200
Afternoon Shift:
Monday through Friday 1500 – 2300
Saturday 1200 – 2300
Night Shift:
Monday through Saturday 2300 – 0700
Holidays: 0700 – 0700 of next work day.
Container vessels/Ro-Ro vessels (Afternoon Shift):
Monday through Friday 1500 – 2300
Saturday 1200 – 2300
Container vessels/Ro-Ro vessels (Night Shift):
Monday through Saturday 2300 – 0700
Container vessels/Ro-Ro vessels (Sundays and Holidays):
Sundays & Holidays 0700 – 0700

TANKERS: One tanker berth with 1×8 in. pipeline for discharging only. Hose connections are 6 in. and 10 in.

Max. size: 8.2 m. draft if length 170 m. or less and 7.0 m. if length over 170 m.

Oil depot capacity:
22,000 cu.m. diesel oil.
1,000 cu.m. gasoline.
15,000 cu.m. heavy oil.
Various storage tanks:
1,500 cu.m. diesel oil.
450 cu.m. heavy fuel.

DENSITY: Varying but around 1020/25.

FRESH WATER: Fresh water is available, ex-quay only, rate is 20 t.p.h. Subject to availability.

FUEL: No bunker facilities available.

GANGWAY/DECK WATCHMEN: Agent strongly recommends employment of night watchmen as thieving is commonplace.

OPENING/CLOSING HATCHES: Performed by stevedores.

CONSULS: Swedish Vice-Consul only; however, most countries are represented either by Embassy or Consul at Monrovia.

REPAIRS: No commercial facilities available. In cases of emergency Lamco might assist with minor repairs.

CUSTOMS ALLOWANCES: Direct sales from ships are strictly forbidden.

REPATRIATION: Can be arranged.

AIRPORT: Roberts International Airport about 1 hour ride by car; several connections to the rest of the world.

TIME: GMT; no alterations during the year.

HOLIDAYS: January 1st; February 11th; Second Wednesday in March; March 15th; April 12th; May 14th; July 26th; August 24th; First Thursday in November; November 29th; December 1st; December 25th. Special holidays as proclaimed from time to time by the Liberian Government. No work will be performed on January 1st, July 26th and December 25th.

POLICE/FIRE/AMBULANCE: No phone available; however the Lamco Plant Protection Force should be contacted; one Officer is normally assigned to each quay/gate.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not required.

DELAYS: Generally, no major delays have occurred. For ore carriers and tankers the tide may occasionally involve 24/36 hours waiting time depending on the size of ships expected to load: general cargo ships; no delay.

GENERAL: *Customs:* Two Customs Officers stay on board the ship during ship's entire stay and they should be given meals in the Officers' Mess and if necessary night quarters.

Cabins: It is recommended to keep all cabins locked during the stay in port.

Provisions: There are some chandlers in Buchanan for fresh fruits, fish, etc. No duty free or wholesale facilities provided.

Tide: Range of tide 0.90 m. – 1.50 m. (3 ft. – 5 ft.)

AUTHORITY: *Port Operators:* Lamco J. V. Operating Company, c/o Roberts International Airport, Robertsfield, Liberia. *Tel:* Monrovia 224238 (local), Monrovia 221190 (overseas), Buchanan 1545, 1546. *Telex:* 44260, 44293 Lamco. *Cables:* LAMCO Buchanan (Liberia) KTB. *Contact:* Harbour Master.

AGENT: All ore carriers must employ LJVOC as their Agent.

GREENVILLE: 04.59 N. 09.03 W.

PORT LIMITS: Sea Buoy: 04° 58.27' N., 09° 04.27' W.

DOCUMENTS:
6 Crew Lists.
6 Passenger Lists.
4 Customs and Crew Declaration.
2 Vaccination Lists and valid Cholera/Yellow Fever Certificates.
2 Copies Manifests.
2 Copies, Bills of Lading.
Load Line and Safety Construction Certificates.
Licences of Officers (for Coast Guard).
Cargo Gear Certificate.

PILOTAGE: Compulsory. Pilot embarks in position of Sea Buoy or at the authorised anchorage. Boarding is done from a launch painted black and white with the word "Pilot" inscribed. Contact can be established on a normal working day between 0730 – 1700 hrs., on Saturdays 0730 – 1200 hrs., holidays and Sundays – Office not open, but should a vessel be expected the Pilot can be contacted during the expected time of arrival on VHF Channel 16 or 12.

ANCHORAGES: Indicated on the Chart by a dotted line commencing in position Lat: 4° 58.8' N., Long: 9° 03.4' W. running in a direction 309° for 11 cables thence 092° for 10 cables then 188° for 7 cables with a minimum depth of 6.5 fathoms. Care should be exercised as there exists a 4 fathom patch at the edge of the anchorage area. Vessels proceeding to the anchorage area should proceed with the Sea Buoy and the North Point Lighthouse, bearing 059° to within a distance of one mile from the breakwater, thereafter altering course for the anchorage.

RESTRICTIONS: Pilotage is carried out between 0500 hrs. and 2300 hrs. daily. Under extenuating circumstances pilotage can be done after 2300 hrs., if previous arrangements are made.

MAX. SIZE: Length 156 m., beam no restriction, draft 7.31 m.

HEALTH: Pratique granted by Port Health Officer on arrival at berth, no Radio Pratique granted.

RADIO: None, ETA's should be routed to Agents via telex or cables.

VHF: Contact can be established with the Marine Office or the various Agencies during normal working hours Monday – Friday 0730 – 1700 hrs., and on Saturdays 0730 – 1200 hrs. on Channel 16 VHF.

RADAR: No Port Control radar.

TUGS: One twin screw tug of 1,450 b.h.p. available for assisting vessels. This tug is equipped with modern fire fighting appliances, and can also execute coastal towage of vessels if required. Ship's lines are preferable for towing, but if not available then tug's line can be used.

Two 192 h.p. launches are available for assisting coasters, and the towing of logs when rafting is being done.

BERTHING: One jetty 585 ft. in length with a depth of 8.1 m. Smaller jetty for vessels not exceeding 180 ft. in length with a depth of 4.9 m. alongside. In addition vessels loading floating logs can be berthed safely in the middle of the basin parallel to the main jetty with a depth of 8.1 m. Under favourable weather conditions (November – April) a third vessel can be accommodated at right angles to the jetty in a similar depth to the inner basin. All loading and discharging must be done by ship's gear.

CRANES: None presently available, but plans are underway to purchase a 70 ton mobile crane.

BULK CARGO FACILITIES: Cargo handled-forestry products only, i.e. logs, boules, sawn timber and plywood.

SPECIALISED CARGO HANDLING FACILITIES: None.

BRIDGES: None.

STEVEDORES: Arrangements can only be made on vessel's arrival as this depends on the availability of the logs and sawn timber to be loaded. The required loading rate for vessels alongside the jetty is 800 cu.m. per 24 hours and vessels in the basin 500 cu.m. per 24 hours.

MEDICAL: One Government owned hospital with 50 beds, and one private clinic, both with limited facilities available.

TANKERS: Facilities for small coastal tankers only, but larger tankers loading palm oil can use the large jetty with portable hoses/pipes connected from the permanent installation.

DENSITY: November-April 1025; May-October 1010.

FRESH WATER: Available at berth or by tug.

FUEL: Small amounts of diesel can be delivered by truck.

FIRE PRECAUTIONS: Usual precautions.

CONSULS: Nearest at Monrovia.

REPAIRS: No facilities.

DRY DOCKS: None.

SURVEYORS: All classification societies are represented at Monrovia. Surveyors will travel to Greenville if arrangements are made by Agents.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

HATCHES: Opening/closing carried out by crew but alternative arrangements can be made for shore labour.

CUSTOMS ALLOWANCES: 200 cigarettes/1 bottle spirits per crew member, but depending on duration of stay.

CARGO GEAR: Ship's gear only.

REPATRIATION: Carried out via Monrovia.

AIRPORT: Small domestic airport 5 miles from the port with two flights daily to Monrovia, approximately 45 minutes flying time.

TIME: GMT is observed throughout the year.

HOLIDAYS: There are 13 National Holidays, January 1st, New Year's Day; February 11th, Armed Forces Day; 2nd Wednesday in March, Decoration Day; March 15th, J. J. Roberts' Birthday; Good Friday; 2nd Friday in April, Fast and Prayer Day; April 12th, National Redemption Day; July 26th, National Independence Day; August 24th, National Flag Day; 1st Thursday in November, Thanksgiving Day; November 29th, Tubman's Birthday and December 25th, Christmas Day.

No work is permitted whatsoever on January 1st, New Year's Day; April 12th, Redemption Day: July 26th, Independence Day and December 25th, Christmas Day.

POLICE/AMBULANCE/FIRE: Within reach. Not available by telephone.

TELEPHONES: Not available.

SERVICES: No facilities exist for tank cleaning or compass adjusting.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not required.

REGULATIONS: No unusual regulations.

DELAYS: Can be expected during the rainy season (April-November) when adverse weather conditions (heavy swell) exist causing vessels to part their moorings. This usually lasts not more than 2 days in any given period. At such times, vessels are moved to the inner basin or to the roadstead until the conditions improve.

GENERAL: The port designed for the handling of logs and related wood products has just completed a re-habilitation project which included the dredging of the basin and approaches, new rafting and lighting facilities, also the placing of both fresh and salt water mains to the quay. Feasibility studies are now underway with a view to increasing the length of the Main Quay by 33 m. Despite the fact that the present facilities are for vessels of 156 m., vessels of 160 m. were safely berthed in the past year.

Navigational aids installed in 1987 as follows:

Sea Buoy R. & W. HOR. bands, Posn., 04° 58.27' N., 09° 04.27' W. Fl. W. ev. 10 secs.

Buoy marking mutine patch R. & W. HOR. bands, Fl. W. ev. 6 secs.

Red Buoy bearing 337° × 2 cables from the breakwater marking the Northern extremity of the Harbour, Fl. R. 3 ev. 8.5 secs.

North Pt. Lt. Ho. Sectored Fl. R. & W. 2 ev. 11 secs.

130° – 310° Obscured
310° – 040° Red
040° – 080° White
080° – 130° Red

Light at the Northern extremity of Jetty, Fl. G. ev. 3 secs.

AUTHORITY: National Port Authority, Port of Greenville, P.O.Box 165, Greenville, Sinoe County, Liberia. *Tel:* 9538/9. *Cables:* "Sinoe Port". *Contact:* Captain S. L. Wynter, Chief Pilot.

HARPER (Cape Palmas): 04.22 N. 07.44 W. (See Plan)

SHIPMASTER'S REPORT: August 1991.

Harper Port (Cape Palmas) located in position Lat. 04° 21.7' N., Long. 07° 43.8' W. is a small port with major export of logs, mainly to Europe.

The port is situated on the N.E. side of Russwurm Island.

There are buoys placed in directions and distance measured from Sea to Cape Palmas as follows (Also see "Plan"):

Buoy No. 1 – 072° × 1.6 miles. Buoy No. 2 (red) – 093.5° × 1.14 miles, near Congo Rock. Buoy No. 3 (green) – 092° × 0.6 miles, near Yoruba Rock.

Buoy No. 1 in line with beacons at Yoruba wreck (easy to spot), buoy in line with the beacons 045° × 1.8 miles which lead to Cape Palmas anchorage.

When entering the port of Harper from Buoy No. 1 steer 067°. This will bring vessel to the middle of the harbour entrance. A red buoy near Outer Rock and Cape Rock has to remain close on the portside. When entering the port the Old Jetty will remain close on starboard side. When the Old Jetty is abeam to starboard, vessel is swung to starboard in order to go portside alongside at the New Jetty. There is very little space in the port, just sufficient to swing around.

The New Jetty is about 100 m. long. There are just enough bollards to moor the ship. Several bollards are broken. Moorings break regularly and if they do not break during periods of high swell the bollards will, as happened to us, be ripped off the pier. The swell is most frequent between May and August (rainy season). The port is dangerous in the months June/July (in my opinion) when the swell is very high, especially for ships over 2,000 tons.

The New Jetty is designed for ships up to 2,000 tons but ships over 3,000 tons enter the port. Safe draft is 5.20 m., but according to personnel it is 6.0 m. at high water, but I would not recommend this. We did several trips and touched the bottom during low water with a draft of 5.2 m. (there was a big swell at the time). The swell is at times very big and it is not advisable to stay alongside the pier at night in those periods. Night navigation is also not advisable.

There are no Pilots or tugs and there is little or no communication possible by VHF or radio.

There is one working mobile crane but usually ship's gear will be used. The shipper acts as the agent so few services can be expected.

No provisions, water or fuel are available.

The following documents will be requested: 7 copies Crew List; 2 copies Narcotics List; 2 copies Stores List; 2 copies Crew Declaration; 6 copies Arms and Ammunitions List; 1 copy Health List; 6 copies Stowaway List; 6 copies Animals List; 6 copies Last Port of Call List; 2 copies Vaccinations List.

MONROVIA: 06.20 N. 10.50 W. (See Plan)

DOCUMENTS:

4 Crew Lists.
4 Passenger Lists or Statements "Nil" if none aboard.
2 Manifests for Customs. This should state ballast if no cargo aboard.
4 List of Ports of call from commencement of voyage with date of calls.
1 International Health Declaration.
1 List of dates of yellow fever and cholera vaccination.
4 Stores Lists.
2 Crew Customs Declarations.
Immigration now stamp all seamen's Discharge Books or Passports.
2 Livestock Lists.

Notice:

The National Port Authority have issued Circular No. 1/1988 which reads:

"The National Port Authority, Freeport of Monrovia, is herewith announcing the following:

1. Ship's ETA, draft – and corrected ETA – shall be furnished to the Harbour Master in writing, minimum 24 hours prior to ship's arrival.
2. The following cargo documents shall be furnished minimum 48 hours prior to ship's arrival to the Operations Manager (with the exception of those cargo documents of last coastal port in West Africa, which shall be made available at ship's arrival).

Import:

6 complete and legible sets of Cargo Manifests, classing separate:
- containers (size and type to be indicated)
- rolling units
- general cargo (loose)
- LCL-container manifest (separate per unit)
- summary.

2 Manifests of cargo to be shifted via quay
1 Stowage/bay plan
3 List of Dangerous Goods (as to IMDG-codification) for Monrovia
1 List of Dangerous Goods (as IMDG-codification) in transit

Export:

2 copies of the provisional Booking List shall be furnished minimum 48 hours prior to ship's arrival to the Operations Manager
3 complete and legible sets of Export Manifest classed as the Import Manifests – Customs passed and stamped, shall be furnished minimum 48 hours after ship's departure to the Operations Manager.

All cargo documents shall use metric system in weight and measurement.

3. As from 1st May, 1988 a new billing procedure has been established. As from this date, vessel's billing shall comprise of 2 invoices of same old form.

The first invoice shall cover marine services and facilities including water supply only, while the second invoice shall cover Operations Department tariff items i.e. shift surcharges for gangs, overtime, etc.

Payment is expected within 14 days after receipt of invoice, thereafter, port's services shall be suspended, until payment has been effected completely."

APPROACHES: The artificial harbour is protected by 2 rock breakwater extending 1.25 miles out into the open sea, encompassing some 750 acres of protected waters. The distance between the breakwater entrance is 970 ft. and in the centre of the opening a 500 ft. wide channel marked by buoys has been dredged to 49 ft. MLW. This channel is 1.33 miles long with a 30° turn half way and marked by means of 4 lighted channel buoys. North and South Mole ends of the breakwater are marked by red and green rotating light beacons respectively. The channel within the breakwaters gradually widens into a turning basin whose depth towards the Iron Ore Piers is dredged to a depth of 45 ft. MLW and 30 ft. off the General Cargo Pier.

PILOTAGE: Pilot is compulsory. Pilotage available day and night, except for vessels berthing at the oil jetties. Pilot ordered through local Agent. 24 hours or minimum 12 hours notice of ETA by Radio Telephone on 2182 kHz. Pilot instructs ship through signal tower or direct on VHF Channel 16.

Pilot comes out from inside breakwaters by pilot launch, displaying "H" flag by day and white over red light at night and "Pilot" in large black letters on side of the launch. Pilot will inform ship by VHF which direction to proceed to meet the pilot launch by the Fairway Buoy. Vessels should always keep clear of the Fairway Channel, as very large bulk carriers sail on deep draft.

ANCHORAGE: Recommended anchorage is 3 miles from breakwater (45 ft. – 60 ft.) in roadstead is to the South of the buoyed channel which provides goods holding ground on a sand and mud bottom. Vessels are not anchored within Inner Harbour except for very short periods of time.

RESTRICTIONS: Pilot service is day and night. Loaded oil tankers berth in daylight hours only. Deep loaded vessels i.e. 40 ft. draft and over are restricted to tide for berthing and sailing. Maximum draft for main ore piers is 45 ft. Vessels up to 860 ft. length can be accommodated at these piers. No restriction on beam except that carriers with beam in excess of 126 ft. may experience difficulty in loading with present loading gantries. Bulk carriers of 90,000 d.w.t. and over will berth only in daylight hours.

MAX. SIZE: Vessels loading at the Iron Ore Piers are limited to a max. draft of 45 ft. and sail from 2 hours before HW up to the time of HW.At the bunker pier vessels are limited to a draft of 32 ft. and at the marginal cargo wharf to a draft of 30 ft. Vessels exceeding these drafts can be heavily fined.

Also see "Restrictions" and "Berthing".

HEALTH: Vessels entering must fly International Code flag "Q". Port Health Officials board upon berthing. Pratique automatic for vessels having cleared at other Liberian ports, but vessel must still clear Customs.

RADIO: ETA messages from ships are received in the Freeport through Liberian Government Radio Station, Monrovia and through French Cable Station, Monrovia.

Monrovia Radio call sign ELC-2150 (6° 17' N., 10° 48'W.) is fitted with VHF and HF radio at the Freeport, working from 0800 hrs. to 2400 hrs. The VHF is of the Marine type with Channels 6, 8, 9, 10, 11, 12, 13, 14, 15 and 16. Also transmits on 482-500-512 kHz and receives on 500 kHz A1 2.5 kW.

Other Frequencies: 8518 (8 MHz Channels 5 & 6) A1 2.5 kW
12709 (13 MHz Channels 5 & 6) A1 2.5 kW
16983 (16 MHz Channels 5 & 6) A1 2.5 kW
17146 (17 MHz Channels 5 & 6) A1 2.5 kW
22491 (22 MHz Channels 5 & 6) A1 2.5 kW

Telex Address: National Port Authority - NATPORT 44275.

VHF: Vessels arriving or sailing must make contact with Freeport Control Tower on Channels 16 and later 14 or 12 within the port area and Pilots' Office and for manouvering Channel 9.

TUGS: Use of tugs compulsory. 3 tugs available. 'Nana Kru' and 'Stockton Creek' 1,700 h.p. each and 'Bentol' 3,900 h.p. Join vessels just inside breakwater entrance. For berthing, tug lines used; for sailing, ships lines often used.

BERTHING: *Cargo Wharf:* The marginal cargo wharf is 2,000 ft. long (230 ft. leased to Amoco) and 36 ft. wide with 8 transit warehouses. The wharf has a concrete deck and has a depth alongside of 30 ft. at MLW. All cargo is discharged and loaded by ship's gear. Sufficient amount of cargo handling equipment is available such as forklift trucks ranging from 4 tons to 35 tons capacity. Tractors and trailers are available.

A 40 ton capacity steam crane is available at No. 2 Berth for heavy lifts. There are also 2 mobile cranes with capacities from 25 tons to 35 tons but they are not suitable for ship discharge. Fresh water is available at this wharf, loading rate is approximately 25 t.p.h.

Bunker Pier: This is a "T" jetty on the South edge of the dredged basin with a depth of 34 ft. at MLW. No fresh water is available at this pier.

Port Authority Circular: October 1985.

"The maximum Summer deadweight of vessels allowed to berth at the Bunker Pier should not exceed 30,000 tonnes. The vessel must be provided with a minimum of 10 manila mooring ropes and under no circumstances will wire mooring lines be accepted especially those from auto-tension winches. It is also recommended that special shackles be provided by the vessels to be used in case of any unfavourable weather that will endanger the safety of the vessel while she is berthed alongside."

The bunker pier can accommodate vessels of max. LOA 700 ft. and draft 32 ft.

LPRC Crude Oil Discharging Berth: This is situated between the Bong Mine and NIOC Ore Piers and consists of one breasting dolphin and an after mooring dolphin. Tankers discharging crude oil are moored by means of 2 anchors with starboard side to the dolphin and the stern made fast to the mooring dolphin. Discharge is by means of submarine and floating pipelines connected on the starboard side amidships. Tankers are limited to a length of 700 ft. and draft of 40 ft. Fresh water is available at this pier.

Fish Pier: A pier with its own dredged channel and turning basin is used by fishing vessels to discharge cargo into cold storage. This pier is situated on the Northern Breakwater with the Cold Storage Facility located on the inshore side of the breakwater. Fresh water is available at the pier. The channel to the fish pier is 90 ft. wide and dredged to 20 ft. MLW. Size of vessels using this pier is limited to 240 ft. length and 19 ft. draft.

Iron Ore Piers:

Bong Mining Company Pier:

Approaches max. draft on MLW	45 ft.
Alongside max. LOA of vessel	900 ft.
Max. beam of vessel	125 ft.
Max. draft on HW	45 ft.
Alongside pier length	886 ft.
Depth alongside MLW	45 ft.
Loading boom height above HWOST	45 ft. 6 in.
Loading boom outreach from fenderline	57 ft.
Pier length covered by loading boom	750 ft.
Loading rate	3,200 t.p.h.

National Iron Ore Company Pier:

Approaches max. draft on MLW	45 ft.
Alongside max. LOA of vessel	1,000 ft.
Max. beam	114 ft.
Max. draft on HW	45 ft. North side 42 ft. South side
Alongside Pier length	900 ft.
Depth alongside MLW	45 ft. North side 42 ft. South side
Loading boom outreach from fenderline	60 ft.
Loading boom height above HWOST	43 ft.
Pier length covered by loading boom	640 ft.
Loading rate	1,200 t.p.h.

Fresh water available at this Pier.

Liberia Mining Company Pier: (Now used to accommodate vessels).

Approaches max. draft on MLW	45 ft.
Alongside max. LOA of vessel	830 ft.
Max. beam	130 ft.
Max. draft on HW	45 ft. North side 38 ft. South side
Alongside Pier length	825 ft.
Depth alongside MLW	45 ft. North side 42 ft. South side
Loading boom outreach from fenderline	61 ft.
Loading boom height above HWOST	46 ft.
Pier length covered by loading boom	560 ft.
Loading rate	2,000 t.p.h.

Fresh water available at this Pier.

BRIDGES: None.

STEVEDORES: Several stevedoring companies. Port Authority handles all cargo on shore and accepts cargo ex-ship's hook only.

A daily meeting with all ship's agents is conducted by the Operations Manager regarding the arrivals and departures of ships and to arrange for required gangs to load or discharge ships including requests for overtime and night work.

Stevedores gangs have to be ordered the day before required, therefore essential for Agents to receive ETA messages in sufficient time.

Working Hours: Monday-Friday: 0800-1200 and 1300-1600. Saturday: 0800-1200. Overtime is permitted at night, Sundays and Holidays if requested.

MEDICAL: Whenever possible Masters should cable Agents if require medical attention especially when arriving week-ends or during night. Hospital facilities available. Port Health require yellow fever vaccinations for crew members.

TANKERS: See "Restrictions" and "Berthing".

DENSITY: Density varies with the tide. Also varies during rainy season as river flow increases. Varies from 1009 to 1024 oz. per cu. ft. with average of approx. 1019 oz. per cu. ft.

FRESH WATER: Available (See "Berthing"). Average rate of delivery approx. 20 t.p.h.

FUEL: Light diesel oil and heavy fuel oil available and these can be blended to specification by supplying oil company. Fuel and diesel only available on bunkering pier.

CONSULS: Majority of foreign countries have Consuls.

REPAIRS: Limited deck and engine repairs can be carried out by private companies.

DRY DOCKS: One very small floating dock capable of lifting 300 tons with max. draft of 8 ft. This dock is used for small coastal craft and only accepts very limited outside work. There is also a synchrolift of about 250 tons, owned by private fishing company.

GANGWAY/DECK WATCHMEN: Private security men are engaged by the Agent. Port Security also maintain regular patrol.

OPENING/CLOSING HATCHES: Normally done by stevedores.

CUSTOMS ALLOWANCES: Tobacco, reasonable quantities for consumption while in port. Wine and/or Spirit, as tobacco.

REPATRIATION: Repatriation of crew is possible.

AIRPORT: Roberts Field International Airport 45 miles distant. Served with daily international flights to Europe and America.

TIME: GMT.

HOLIDAYS: Many official holidays during year but cargo work carried out those days on overtime rates. Port closes 3 times a year: 26th July (Independence Day), Christmas Day and New Year's Day.

POLICE/AMBULANCE/FIRE: Port Authority have own Security Force and Fire Service, situated in port area. There is also an ambulance service.

TELEPHONES: There are no facilities for telephones on board.

SERVICES: Hull, deck and engine surveys can be obtained through Lloyd's, German Lloyd, B.V., Norske Veritas, America Bureau Agents and most of the other classification societies.

Provisions are available from duty-free bonded warehouses in the Freeport area. These include frozen, chilled and tinned food, spirits and tobacco products. A wide variety of housekeeping items, such as soap, paint, etc. are also available. Fresh vegetables and fruits are available through ship chandlers. 1×100 ton capacity lighter available.

SHORE LEAVE: No restriction on shore leave.

IDENTIFICATION CARDS: Not required, but Seaman's Books are endorsed aboard by Immigration.

GARBAGE DISPOSAL: Service not available.

WASTE OIL DISPOSAL: Arranged by P & I Club.

SEAMAN'S CLUBS: None.

CURRENCY: Liberian Dollar, equivalent to U.S.Dollar.

WEATHER: *Tides and Currents:* The rise of tide varies from 2.0 ft. to 3.9 ft. from neaps to springs. The flood tide runs in a north easterly direction at approximately 1 knot and the ebb to the S.W. at approximately 1 knot. Inside the harbour a tidal flow of 0.5 – 1.0 knots is experienced. There is no prediction of the directions of flow as the water circulates around the harbour sometimes in one direction and sometimes in the opposite. The currents along the coastline are variable and not predictable.

Prevailing Wind: The prevailing wind is West to Southwest during the dry season. A Northerly wind is sometimes experienced for 2 or 3 weeks. The stronger winds are experienced during the wet season of April to November and during this period the average wind force is about Force 4 (Beaufort Scale). The wind usually rises in the afternoon or early evening and falls off during the night. During the dry season the wind is usually Northerly during early mornings and backs to the S.W. by late afternoon. Dangerous winds are revolving line squalls of intense force and usually of very short duration. Heavy rain/winds normally comes from the landside. These conditions are considered dangerous to vessels only during the process of berthing, but cause no danger to vessels in port securely moored. These infrequent tornadoes occur during the seasonal transition months of March/April and October/November.

Vessels alongside piers will sometimes experience a surge, which may part mooring lines. This is due not to the wind, but to a swell entering the harbour and is a condition which seldom occurs.

PIRACY: Acts of piracy have taken place at the port.

SHIPMASTER'S REPORT: February 1983.

Pilotage: Pilot launch has black hull, white housing and green housing top. The word "Pilot" is painted in large white letters.

Pilot boards near the Sea Buoy, 7.3 cables from Southern Breakwater.

Health: 2 Coastguard Officials and 1 Immigration Official board with the Pilot to complete formalities. We do not think that this is the case for all vessels.

Radio: The Freeport of Monrovia no longer maintains a watch on HF 2182 kHz.

Tugs: 3 tugs available.

When sailing, vessel takes 1 tug at stern, using 2 ship's lines.

Gangway/Deck Watchmen: Port security personnel maintain continuous watch while vessel is berthed.

Opening/Closing Hatches: Normally done by ship's crew.

AUTHORITY: National Port Authority, Freeport of Monrovia, P.O.Box 1849, Monrovia, Liberia. *Tel:* 221454, 222932. *Telex:* 44275. *Cables:* "Natport". *FAX:* 231-224615, 225556. *Contact:* A. Lamii Kromah, Managing Director.

AGENT: Scanship (Liberia) Inc., P.O. Box 10.0.209, Burshrod Island, 1000 Monrovia 10, Liberia. Tel: 222133, 222130. Fax: 226185. Telex: 44281. Cables: "Scanship Monrovia".

Socialist People's Libyan Arab Jamahiriya

GENERAL: All ports:

NAVIGATION REGULATIONS: The following telex received from Libyan Marine Department on 21st October 1985.

Quote:

Please be advised that the following general information to be added to next edition of "Guide to Port Entry".

1. The following is a resume of instructions issued by the Libyan authorities to which all ships must abide in Libyan territorial waters (limited by 12 nautical miles and in Gulf of Sirte by parallel 32° 30' N.).

2. Ships bound for Libyan ports must inform the authorities of the port by writing or telegram 24 hours prior to entering the Libyan territorial waters including name, flag, nationality, destination, cargo, agent, date of arrival, duration of stay in the port, port of origin and the approach route to Libyan port and the port of destination after leaving Libyan waters, they must insure continuous monitoring on Channel 16 and contact the port authorities on Channels 16, 11 or 12.

3. Commercial ships may pass on innocent passage within territorial waters only during day time provided they inform the Libyan authorities at least 12 hours prior to entering and giving the latitudes and longitudes of the points of entering and leaving, duration of stay in territorial waters, courses and speed.

4. All ships must keep to the anchorage areas shown in charts and strictly refrain from causing pollution of waters.

5. The following are declared as prohibited areas:

(A)	32° 52.8' N.,	13° 24.5' E.
	32° 57.7' N.,	13° 24.5' E.
	32° 57.7' N.,	13° 18.0' E.
	32° 53.8' N.,	13° 22.3' E.
(B)	32° 53.7' N.,	13° 20.6' E.
	32° 55.9' N.,	13° 18.0' E.
	32° 55.9' N.,	13° 15.0' E.
	32° 54.5' N.,	13° 15.0' E.
(C)	31° 09.0' N.,	19° 42.0' E.
	31° 09.0' N.,	19° 19.0' E.
	31° 56.0' N.,	19° 42.0' E.
	31° 56.0' N.,	19° 19.0' E.
(D)	32° 58.0' N.,	13° 06.0' E.
	32° 53.0' N.,	13° 06.0' E.
	32° 58.0' N.,	12° 48.0' E.
	32° 52.0' N.,	12° 44.0' E.

6. Ships that violate the instructions and the prevailing laws will be subject to punitive penalties, including opening fire at the ship and forcing her to obey the orders of the Libyan Arab Fleet.

7. All ships shall proceed to any of the following ports through the approaching point and shall inform the Port Control of her course and speed.

Tripoli Port:		
(A)	33° 00' N.,	12° 58' E
(B)	33° 07' N.,	13° 10' E
(C)	33° 05' N.,	13° 19' E
(D)	33° 05' N.,	13° 04' E
Benghazi Port:		
(A)	32° 03' N.,	19° 50' E
(B)	32° 09' N.,	19° 49' E
(C)	32° 17' N.,	19° 53' E
(D)	32° 20' N.,	20° 06' E
Zwara Port:		
(E)	33° 03' N.,	12° 15' E
Misurata Port:		
(F)	32° 34' N.,	15° 16' E
Oil Terminals (Gulf of Sirte):		
(G)	32° 22' N.,	18° 30' E
Derna Port:		
(H)	32° 58' N.,	22° 42' E
Tobruk:		
(K)	32° 10' N.,	24° 02' E

8. All ships shall maintain communication with the coastal stations.

9. All ships shall follow the instructions of the Port Authority about the anchorage position.

10. No ship shall have the right to change her anchorage location without port authority permission.

Unquote.

The following telex was received from Libyan Marine Department on 1st October 1990.

Quote:

The following is a resume of standard marine regulations issued by Libyan Authorities to which all ships must abide in Libyan waters, which are limited by 12 nautical miles from coastline and in Gulf of Sirte by parallel 32° 30' N.

1. Ships bound to any Libyan port must:
   (a) Inform her Agent in Libya, from her sailing port, of the following: Name, call sign, nationality, name and address of owner, name and nationality of Master, No. of crew and passengers (if any), G.T., type of cargo, destination port, date and ETAs or (departure), date of arrival.
   (b) 24 hours prior to arriving at the selected approach point, vessel must contact the nearest coastal station to confirm the above information and include the following:
   Position, speed, course at that moment, approach point to use, state of sea, ship's condition (trim, list, draft (fore and aft)).
   (c) On arriving at the approach point, vessel must contact the port of destination to confirm ETA, course and speed.
2. Ships leaving any Libyan port on international voyage must:
   (a) Advise her Agent, at least 4 hours before departure, of the following:
   Name, call sign, No. of crew and passenger (if any), next port, cargo on board, course and speed from the outer limits of the port to the end of Libyan territorial waters.
   (b) Insure regular communication with the port radio and coastal station on VHF Channel 16.
3. Ships on voyages between Libyan ports must:
   (a) Advise her Agent of the following:
   Name, call sign, ETAs or (time of departure), cargo on board, next port, ETA, draft (fore and aft), course and speed or courses and speeds.
   (b) Insure continuous monitoring on Channel 16.
   (c) Insure regular contact with the port radio and/or coastal station every 4 hours or when possible.
4. All ships must abide to the anchorage and prohibited areas and must adjust their course to pass by one of the approach points.
5. All ships must insure that they have on board all certificates and documents required, including the Safe Minimum Manning Certificate, when going to any Libyan port or passing through Libyan territorial waters.
6. Ships that violate these standard regulations and prevailing laws will be subject to punitive penalties.
7. These regulations will come into force on 10th October 1990.

Unquote.

CLEARANCE: ETA to be advised to Port Authority 24 hours before arrival, including the following information: Ship's Name, type, Nationality and port of Registry; Owner, Master and Agent names; Gross and Net tonnage; Ship's length and draft forward and aft; Expected duration of stay in the port; Last port of call, tonnage, quantity and kind of cargo for discharging and loading; Full details of any dangerous liquids or cargo; Number of passengers and crew; Health situation.

Before arrival at the outer limits of the port, vessel requested to hoist the following signals: Flags of her call-sign; Flag of Quarantine; Flag of ship's Nationality; The Libyan Flag on the foremast; Red Flag during daylight and Red light during night-time, if carrying explosives or any inflammable cargo; Pilot Flag and the international flag code signals must be respected.

PILOTAGE: Pilotage is compulsory for all vessels. Pilot boat will meet ships outside the harbour. Ships should wait for Pilot at anchor outside the harbour if weather is good. In case of bad weather, after getting permission from Harbour Master ships may enter the harbour at their own risk and anchor inside.

DOCUMENTS: *On Arrival:* Last Port Clearance; Full sets of cargo documents; Copies covering consignment; Certificate of Origin; Bills of Lading, etc. Not less than 7 copies of Crew and Passenger Lists. Other documents as required at each port.

Ship's Certificates should be delivered to the Marine Inspection Office at the port.

During the First 24 Hours of Arrival: Valid certificates to comply with all the International conventions in force for the State whose flag the ship is flying. Certificate of Registry. For the National ships, moreover, the official log book, engine log book and ship's articles.

Agency Requirements: The following agency requirements in respect of pre-arrival notices and documentation in addition to official documents and certificates needed for ordinary port clearance should be complied with. Pre-arrival notice to be communicated by telex to Agents containing following information:

(a) vessel's name and flag;
(b) g.r.t./n.r.t./s.d.w. and nature of cargo;
(c) ETA and quantity of cargo to be handled;
(d) exact address to whom disbursements accounts should be sent.

For dry cargo vessels further information should be submitted:

(e) conditions of stevedoring, whether basis liner terms or F.I.O.S.;
(f) net freight earned along with all cargo details specifically each Bill of Lading.

Upon arrival the following documents are to be handed over:

1. Masters of tankers should produce and hand over to Port Authorities 'Certificate of Discharge' pertaining to previous calls (non-compliance will cause delay in berthing);

Following only applying to dry cargo vessels:

2. 14 copies of Cargo Manifest (clearly stating measurements and weights);
3. 2 copies of Freight Manifest;
4. 2 copies each Bill of Lading;
5. 2 copies Cargo Plan.

Report: May 1984. From State Agent.

Agent to submit all ship's documents/certificates, cargo documents and crew documents and/or any other declarations connected thereto, in the Arabic language. This is effective from 1.6.84, noting until this date, we shall arrange for the required translation as a transitional period, after which and effective from the above mentioned date, all ships shall arrive with all above said documents/certificates/ declarations, etc., in the Arabic language.

Your full and strict adherence to the above is required avoiding unnecessary inconveniences to all parties concerned as any failure on your part shall never be tolerated by the concerned authorities.

Report: June 1984. From State Agent.

Please note: Temporarily vessels should arrive with the following ship certificates already translated into Arabic, otherwise vessels shall be delayed in sailing. The other documents we shall arrange for translation of same at our end on a temporary basis:

Certificate of Registry.
Safety Construction Certificate.
Safety Equipment Certificate.
Radio Telegraphy Certificate.
Load Line Certificate.

Report: September 1984. From State Agent.

Following documents imperative to be translated at your end, and not by Agent:

1. Ship's documents:
   - Registry Certificate.
   - Load Line Certificate.
   - Safety Construction Certificate.
   - Safety Equipment Certificate.
   - Safety Radio – Telegraphy Certificate.
2. All Cargo Manifests.
3. All other lists and declarations such as Crew List, Officers' List, Stores, etc.

Note that the competent authorities at our end (namely the Ports and Lights Department of Tripoli) are presently insisting on collecting from ship direct all the documents in question in Arabic translation upon vessel's arrival thus leaving no possibility whatsoever for any assistance previously rendered by the Agent.

ANCHORAGES: *Benghazi:* Area between Lat. 32° 11' N. and 32° 07' N. and Long. 19° 56' E. and 19° 59.2' E.

Derna: Within 1.5 miles radius of position Lat. 32° 49.3' N. and Long. 22° 39' E.

Es Sider: Area between Lat. 30° 41.5' N. and 30° 43.0' N. and Long. 18° 22' E. and 18° 25' E.

Misurata: Within 1.5 miles radius of position Lat. 32° 23.0' N. and Long. 15° 18' E. (about 4.7 miles from main lighthouse).

Tobruk: Area between Lat. 32° 03.7' N. and 32° 05.5' N. and Long. 24° 02.0' E. and 24° 03.0' E.

Tripoli: Area between Lat. 32° 55.5' N. and 32° 56.5' N. and Long. 13° 09.8' E. and 13° 11.7' E.

Zuara: Within 1 mile radius of position Lat. 32° 57' N., Long. 12° 10' E. (in direction 065° from main lighthouse).

Also see individual oil terminals.

HEALTH: The following documents to be provided for the doctor: A valid Fumigation Certificate; International Vaccination Certificate for every person on board; Health Certificate for any animal or bird on board. No automatic Free Pratique between the Libyan Ports.

TUGS: Tugs are available at all Libyan Ports.

BERTHING PRIORITY: The berthing priority scheme, according to law, as follows: (1) Passenger ships. (2) Animal ships. (3) Liner and mail ships. (4) Cargo ships. (5) Tankers and dangerous cargo ships. Ships with cargo of less than 300 tons, may not have to comply with the scheme; subject to Harbour Master's decision.

CONSULS: Embassies in Tripoli. No consuls at any ports.

SURVEYORS: The following addresses are Agents for the mentioned Classification Societies and may be contacted for the necessary surveys on request:–

Lloyd's Register of Shipping: P.O.Box 111115 Tripoli. Telephone: 74383. Telegraphic Address: Lloydsreg Tripoli Libya.

Bureau Veritas: Tripoli: Orfelli Agencies, 109 – 1st September Street, P.O.B. 2283, Telephone: 35338 and 37398, Telegraphic address: Shetaf Tripolilibia.

American Bureau of Shipping: Tripoli: Libyan Arab Shipping, Baghdad Street, Andalus Building, P.O.B. 882, Telephone: 41712 and 39358, Telegraphic Address: Arabship Tripolilibia, Telex 20033 Arabship.

Germanischer Lloyd: Tripoli: Johs Rieckermann, Baghdad Street, Andalus Building, P.O.B. 2121, Telephone: 37021 and 31069, Telegraphic address: Rieckermann Tripolilibia.

Registro Italiano Navale (RINA): Tripoli: Mr. Mahmoud Gamar, c/o Libyan Arab Shipping Co., Baghdad Street, Andalus Building, P.O.B. 2325, Telephone: 41712 and 39358, Telegraphic address: Gamarin Tripolilibia.

OPENING/CLOSING HATCHES: To be done by crew.

CUSTOMS ALLOWANCES: 200 cigarettes for each crew member or passenger. All kinds of alcoholic drinks are forbidden, even wine and beer, and to be kept in the store under the Customs seal. Also arms, perfume, saccharine and all kinds of anaesthetic. The sum of 10 Libyan dinars allowed for each crew member. All Libyan and Foreign currency to be declared in the Currency Declaration. All personnel effects and electronics to be declared in the Crew Declaration.

BLACK LIST: Libyan law prohibits vessels from having on board any goods or containers of Israeli origin. Any vessel having such goods or containers on board on arrival in the harbour will be liable to heavy fine and confiscation of the goods or containers. The Libyan Authorities may, moreover, refuse to clear the vessel.

TIME: Local time at all the seasons is GMT plus 2 hours.

HOLIDAYS: Friday is the weekly day off. 2nd March; Revolution Day (1st Sept. yearly); Evacuation Days (28th March, 11th June, 7th October; yearly), Syrian Revolution Day (8th March, yearly); Sudanese Revolution Day (25th May, yearly); Egyptian Revolution Day (23rd July, yearly); Hijra New Year (1st Moharam, Muslim year); Ashoura (half day, 10th Moharam, Muslim Year); Mohammadan birthday (12th Rabih Awel, Muslim Year); Israa Wa Merag (half day, 26th, Rajeb, Muslim Year); Eid El-Fitr (1st, 2nd & 3rd Shawal, Muslim Year); Eid El-Adha (9th, 10th. 11th, & 12th Zi Al-Heja, Muslim Year).

TELEPHONES: All calls through Tripoli and Benghazi Coastal Stations – No calls allowed when the ship is alongside.

SHORE LEAVE: Crew members permitted ashore during daytime. Shore leave not permitted at oil terminals.

IDENTIFICATION CARDS: Seaman's Book or Discharge Book, Passports, Identity Cards — all should be valid.

Shore passes issued and Seaman's Book to be kept at the gate at port entrance.

MINE FIELDS: The following areas are prohibited area and dangerous for navigation due to mines:

(1) Lat. 32° 52.78' N. Long. 13° 24.60' E.
Lat. 32° 57.67' N. Long. 13° 24.46' E.
Lat. 32° 57.67' N. Long. 13° 18.00' E.
Lat. 32° 53.82' N. Long. 13° 22.30' E.

(2) Lat. 32° 53.70' N. Long. 13° 20.61' E.
Lat. 32° 55.93' N. Long. 13° 18.00' E.
Lat. 32° 55.93' N. Long. 13° 15.00' E.
Lat. 32° 54.45' N. Long. 13° 15.00' E.

(3) Lat. 32° 37.00' N. Long. 23° 13.00' E.
Lat. 32° 14.50' N. Long. 23° 31.00' E.
Lat. 32° 10.50' N. Long. 23° 28.50' E.
Lat. 32° 37.50' N. Long. 23° 7.50' E.

ATTENTION: It is imperative that vessels contact the wireless stations on the Libyan coast at a distance of 30 miles from the proceeding port, giving the ship's position. Ship's winches and cargo gear should be in good order otherwise they will be liable to heavy fine if any delay occurs.

FLOATING DOCK: See "Tripoli".

REGULATIONS: Foreign currency not to be taken ashore. Crew members' visits between ships are not allowed without the prior permission of Customs and Immigration. Ship's lifeboats are not to be used within harbours limits without the prior permission of the authorities. No engine repairs to be carried out in port whilst alongside or at anchor in the port without prior permission of authorities. Movements of ships in the port are not allowed without instructions. Using ship's propellers whilst in port is not allowed without permission. Ship's whistles not to be used without good reason. Cleaning funnels or making smoke whilst in port is strictly forbidden. Ship's gangway to be in position at all times whilst alongside. Rat guards to be fixed all times on every rope. Painting or scraping the outer hull of the ship not to be carried out without prior permission of authorities. Duty officer to be on board all the time accompanied by sufficient crew.

For tankers or vessels laden with dangerous cargo; moreover, the mentioned hereabove: Red flag to be hoisted in daylight and red light to be on in the night-time. No movements allowed between sunset and sunrise for such ships. Electricity to be off from ship's holds whilst loading or discharging. Towing wires with suitable shackle to be ready fore and aft. Smoking and any kind of fire are strictly forbidden on deck. All steps for safety to be carried out.

POLLUTION: Pollution of any kind is strictly forbidden. Any ship causing any kind of pollution will be liable to heavy fine.

The discharge of ballast from cargo tanks is not permitted in Libyan waters by vessels calling at Libyan ports.

DELAYS: Delays in berthing and load/discharging can normally be expected.

AGENCY: IMPORTANT.

Universal Shipping & Maritime Agency at Benghazi can attend to vessels at Benghazi, Marsa el Brega, Marsa el Hariga and Zuetina.

Universal Shipping & Maritime Agency,
P.O.Box 2450,
Omar Mukhtar Street,
Benghazi.
Cables: "Universal" Benghazi/Libya.
Telex: 40101/40025.

Universal Shipping & Maritime Agency at Tripoli can attend to vessels at Tripoli, Misurata, Zuara, Zawia, Ras Lanuf and Es Sider.

Universal Shipping & Maritime Agency,
P.O.Box 3703,
Tripoli.
Cable Address: "Uniship" Tripoli.
Telex: 20677, 20263.

Shahat Shipping & Stevedoring Co. will attend to agency matters at Benghazi, Derna, Marsa el Brega, Marsa al Hariga, Tobruk and Zuetina.

Shahat Shipping and Stevedoring Co.,
P.O.Box 2973 and 1496,
Benghazi,
Cable Address: "Shahat Ship" Benghazi.
Telex: 40231.

Germa Shipping and Stevedoring Co. will attend to agency matters at Misurata, Es Sider, Ras Lanuf, Tripoli and Zawia.

Germa Shipping and Stevedoring Co.,
(Temporary address Baghdad Street),
P.O.Box 985,
Tripoli.
Cable Address: "Germa Ship".
Telex: 20058.

The Libyan Shipping Agencies Group – Benghazi will attend agency matters at Benghazi, Marsa el Brega, Marsa al Hariga, Es Sider, Ras Lanuf, Tobruk, Zueitina, Misurata, Tripoli, Zawia and Bouri.

Libyan Shipping Agencies Group – Benghazi.
Tel: 00218-61-93912/94312/95240.
Fax: 00218-61-95916/91403.
Telex: 40497, 40074, 40103.

Sousa Shipping Agency will attend to agency matters at Marsa El Hariga, Tobruk, Derna, Benghazi, Ras El Mungar, Zueitina, Marsa El Brega, Ras Lanuf (Rasco Terminal/Veba Terminal), Es Sider, Misurata, Khoms, Tripoli, Bouri, Zawia and Abu Kammash.

Soussa Shipping Agency,
Islamic Call Society Building,
7th Floor, Flats 709-710,
P.O. Box 5999,
Garden City,
Benghazi,
Libya.
Tel: 00218-61-9096077, 70923, 70255.
Fax: 00218-61-70255.
Telex: 50633 LY, 40226 LY.

AUTHORITY: Libyan Marine Affairs Department, P.O.Box 648, Tripoli, G.S.P.L.A.J. *Tel:* 609011/40. *Telex:* 20400, 20533 Minsco Ly. *FAX:* 605149. *Contact:* Head of Marine Department.

BENGHAZI: 32.06 N. 20.03 E. (See Plan)

Also see "General" before first port.

PORT LIMITS: (a) The water area existing within the actual breakwater and that which may fall within any new breakwater eventually constructed up to the bridge across the shallow water basin at the Eastern side.

(b) The water area known as the navigational channel outside the harbour commencing as from the harbour entrance along the distinguishing marks of the channel for a distance of 1 mile (2 km.).

ANCHORAGE: See "General" before first port.

RESTRICTIONS: Vessels are not permitted to enter harbour between sunset and sunrise.

MAX. SIZE: All types of ships with 27 ft. draft and less in Wintertime and 28 ft. and less in Summertime are safe to enter the harbour.

RADIO: Benghazi Port Radio, from 0800 to 1800 hrs., call sign 5AV, R/T 2182, VHF Channel 16.

VHF: Port Radio on Channels 16 and 12.

BERTHING: Up to 15 vessels can be berthed at one time.

Quay No.	*Length* m.	*Depth* m.
1	310	9.0
2	280	9.0
3	170	9.0
Libya No. 1	40	5.5
Libya No. 2	130	5.5
Libya No. 3	115	5.5
F.J. No. 1	135	5.5
F.J. No. 2	135	5.5
F.J. No. 3	135	8.0

Note: F.J. No. 3 not in use at the present time.

CRANES: Electric floating crane available up to 200 tons.

STEVEDORES: All stevedoring operations and formalities to be done by Agent, 2 stevedoring companies will be formed in the near future.

MEDICAL: All facilities available.

TANKERS: *Ras al Mingar:* The jetty is near Benghazi.

One side of the jetty handles dirty products and LPG.

Max. d.w.t.: 10,000 tonnes.
Max. draft: 22 ft. in Summer and 21 ft. in Winter.
Max. LOA: 140 m.

The other side handles clean petroleum products.

Max. d.w.t.: 9,000 tonnes.
Max. draft: 21 ft.
Max. LOA: 120 m.

A derrick with SWL of 5 tonnes is required. The derrick must have a minimum outreach of 2.7 m.

Also see "Shipmaster's Report".

FRESH WATER: Available by barge and alongside. Should be obtained from Port Authority through ship's Agent.

FUEL: Available through Agents. A notice of 48 hours needed, advisable for Chief Engineer to check what grades are available.

CONSULS: None.

REPAIRS: Minor repairs are possible. Also see "Tripoli".

WATCHMEN: Compulsory, provided by Port Authority.

REPATRIATION: Facilities exist without difficulty.

AIRPORT: Benina Airport situated 29 km. away.

POLICE/AMBULANCE/FIRE: Police 99, Ambulance: 2131, 2132, 2281, Fire: 5555, 5599.

SHORE LEAVE: Allowed after Free Pratique, Customs and Immigration formalities completed.

DEVELOPMENTS: Port extension project underway.

SHIPMASTER'S REPORT: April 1993.

Ras al Mingar: 5 miles North of Benghazi.

The jetty extends 600 m. from shore in direction 310° and is suitable for natural gas tankers. Two of the three berths are out of order as part of the jetty was destroyed by bad weather.

The inshore berth can accept tankers for gas oil, gasoline and jet fuel or LPG tankers with max. draft 21 ft. and max. LOA 110 m.

2 tugs assist with berthing and unberthing.

Ras al Mingar Pilot works on VHF Channel 72 but all procedures are through Benghazi Port Control.

Back pressure was 2.5 kg./sq.cm., sometimes one booster pump is used to assist with discharge.

When unberthing, the Pilot remains ashore and co-ordinates the operation on VHF Channel 77 with tugs and vessel.

Documents as per other Libyan ports.

Water is available, but only 10 – 15 tonnes in 24 hours.

AUTHORITY: Port Manager and Harbour Master.

AGENCY: See "General" before first port.

BOURI: 33.54 N. 12.39 E. (See Plan)

LOCATION: The position of the AGIP Oil FSO "Sloug" is:

Lat. 33° 54' 32.94" N., Long. 12° 39' 19" E.

The FSO is moored to a single point mooring structure by a hinged bracket. The water depth is 161 m.

FSO "Sloug": LOA 348.9 m.; Length between perpendiculars – 330.7 m.; Moulded depth 25.5 m.; Moulded breadth 51.8 m. Max. draft 20.012 m. and Minimum draft 10.0 m.

DOCUMENTS: Documents required to obtain clearance are as follows:

5 copies Crew List.
5 copies Passenger List.
2 copies Tobacco/Spirits Declaration.
2 copies Personal Effects Declaration.
2 copies Stores Declaration.

Following certificates will also be inspected by the Libyan authorities:

Clearance from Last Port.
International Maritime Health Declaration.
Animal List, with proper Health Declaration.
Entering and Leaving Territorial Waters Certificate.
Report Inwards Certificate.
Report Outwards Certificate.
Boycott Certificates.
Tankers Characteristics Certificate.
Certificate of Discharge, signed by the discharge port authorities, of the last port (cargo) loaded in Libya.
Tovalop Certificate.

Port Entry: Offtaking Vessel's Free Pratique, Customs Entry and Clearance, Immigration inspection and documentation for the loading operation will be arranged by vessel's agents.

Agency: An Agency representative is stationed on the FSO for ship's Clearance.

APPROACHES: Two production platforms (DP4, DP3) are situated respectively in position Lat. 33° 55' 23.38" N., Long. 12° 40' 50.96" E. and Lat. 33° 53' 39.45" N., Long. 12° 36' 23.83" E.

Subsea lines run between the 2 platforms and the FSO. All ships are warned that it is strictly forbidden to anchor within 0.5 miles of the line joining the two platforms.

No ship should approach any of the structures closer than 0.5 miles and should proceed to the "Waiting Area" (2 miles South of the FSO) adhering strictly to this regulation, and await for further instructions from the FSO.

PILOTAGE: The Mooring Master will board the Offtaking Vessel in the "Waiting Area" which is located 2 miles South of the FSO. Depth of water 166 m.

Also see "Mooring/Unmooring".

RESTRICTIONS: Mooring operations normally take place during daylight.

MAX. SIZE: 35,000 d.w.t. – 150,000 d.w.t. Max. LOA 283.0 m. Max. beam 44.0 m. Draft – no limit.

RADIO/VHF: *ETA:* Vessels will inform "Agip Oil Tripoli", through their local agents, of their ETA at the designated "Waiting Area" located about 2 miles South of the FSO "Sloug" Terminal.

Notices Procedure: All vessels destined to load Crude Oil at the Bouri Field are requested to inform "Agip Oil Tripoli" of their ETA 72 hours, 48 hours and 24 hours prior to their arrival at the "Waiting Area".

The "72 hour notification" must include the following information:

1. Firm ETA (local time and date).
2. Name of tanker and Master's name.
3. Flag.
4. Gross tonnage.
5. Nett tonnage.
6. DWT.
7. Quantity of cargo required.
8. Confirm 2×16 in. connections (ASA 150) on port side manifold.
9. Confirm existence of a Smit Bracket or chain stopper forward.
10. LOA and Draft.
11. Distance from bow to manifold and stern to manifold.
12. Minimum vessel's speed and equivalent RPM.
13. Confirm availability of at least 10 mooring lines forward and 6 mooring lines aft (mooring lines should be suitable for the intended service).
14. Shipper.
15. Agent.
16. Consignee.
17. Destination.
18. Last port of call.
19. Any requirements needing early attention.
20. Confirm inert gas system operating correctly and that vessel will maintain a maximum oxygen content of 8% in the tanks throughout berthing, deballasting, loading and unberthing operations.

The 48 hour and the 24 hour notification shall specify only the latest ETA, plus any amendments to the details already advised under the "72 hour Notification".

After the initial notification has been made, any change in ETA of more than 12 hours must be immediately communicated to "Agip Oil Tripoli" through the ship's agent.

Radio Contact with the FSO "Sloug": Vessels in VHF range of the FSO will call "Bouri Terminal" on Channel 16, working on Channel 70. Once in contact, a mutually agreed upon channel will be used.

A private channel will normally be used between the FSO and the Offtaking Vessel during operations. The Mooring Master will supply portable sets equipped with this channel for operations use.

Communications during Loading Operations: Medium and high frequency radio systems are to be shut down during cargo transfer and deballasting.

Communications Failure: Should communications fail during any part of the operation (mooring, cargo transfer, unmooring), the party affected shall sound the International Code Signal "K" on her whistle and all operations, if in progress, will be stopped until normal communications are re-established.

MOORING/UNMOORING: To ensure coordination between the FSO and Offtaking Vessel, a Mooring/Loading Master will be in attendance to advise the operational procedures necessary to ensure a safe, accident and pollution-free operation.

Mooring Master: The Mooring Master will board the Offtaking Vessel at the "Waiting Area" by a tug that will remain in attendance. Necessary mooring gear (when applicable) will be transferred to the Offtaking Vessel.

Lifting Gear: The Offtaking Vessel must have her own lifting gear rigged and ready for use on her port side *but not swung out.*
Accommodation Ladder: The Offtaking Vessel must have her accommodation ladder and pilot ladder, rigged in combination, on her port side and lowered to about 2.5 m. above the water level. Crews in attendance should be in radio contact with the vessel's bridge.
Lee Side: The Offtaking Vessel shall manoeuvre in a way to make a lee on her port side, to allow the Mooring Master and other Terminal personnel to board the vessel.
Mooring Master's Station: The Mooring Master shall be stationed on the bridge of the Offtaking Vessel and advise the Master on the mooring procedures. Safety Check List(s) must be signed by the vessel's Master prior to the beginning of any operation.
Aborting of Mooring Operation: The Mooring Master will always be prepared to abort the mooring operation, either on his own initiative or upon instructions of the Master of the Offtaking Vessel. The decision should be taken in ample time whilst the situation is still under control. If, for any reason, the Terminal Superintendent on the FSO requires to abort the operation, he will inform the Offtaking Ship immediately.
Mooring Master's Duty: The advisory service of the Mooring Master will continue until the Offtaking Vessel is safely secured to the FSO, either alongside or in tandem and will resume during the unmooring and departure operations, until the Offtaking Vessel is at a safe distance from the FSO (i.e. in the Waiting Area).
Fenders: The fendering system of the FSO consists of 5 "Yokohama" rubber fenders, secured to the FSO's side prior to the beginning of the operation. Offtaking Vessel must be ready to use her own secondary fenders.
Mooring Operations Hours: Mooring operations will normally take place in daylight hours only. In special cases the Terminal Superintendent may authorise the Mooring Master to perform mooring operations during night hours.
Mooring Manoeuvre (Side to Side): The Offtaking Vessel will manoeuvre in a safe way so as to approach the FSO's starboard side, making use of her engines and *if necessary* utilising the services of the tug in attendance, under the Mooring Master's advice. A wire rope suitable for towing should be made ready and lowered from the starboard bow to the water level when approaching the FSO until securely moored, to be used by the tug *if necessary.*
Caution: No anchors must be used. Anchors must be secured in such a way as to avoid accidental release.
Number of Mooring Lines (Side to Side): A minimum of 10 suitable lines will be secured fore and 6 aft, 2 of them must be spring lines at each end.
Unmooring Manoeuvre (Side to Side): The unmooring manoeuvre will again be monitored by the Mooring Master. The tug will be in attendance. A rope suitable for towing should be made ready and lowered, from the Offtaking Vessel's starboard bow, to the water level, to be used by the tug *if necessary.*
Mooring Manoeuvre (Tandem): The Offtaking Vessel will manoeuvre in a safe way so as to approach the FSO's stern, making use of her engines and, *if necessary,* utilising the services of the tug in attendance under the Mooring Master's advice.
Caution: No anchors must be used. Anchors must be secured in such a way as to avoid accidental release. A wire rope, suitable for towing, should be made ready and lowered from the stern central fairlead to about 1.0 m. from the water level, but *no further,* unless so instructed.

The tandem mooring assembly floating pick-up rope will be heaved up from the Offtaking Vessel's bow Panama Fairlead by a polypropelene messenger rope of 1.5 in. diameter and at least 300 ft. long, that must be made ready while approaching. The Mooring assembly will then be heaved up and the chafing chain stoppered in the bow Smit Bracket or chain stopper. In case no suitable Smit Bracket or chain stopper is available, the chafing chain will be stoppered by 2 wire snotters made fast on the ship's bollards (wire snotters and necessary gear will be supplied by the FSO when the vessel is at the "Waiting Area").

Immediately after the chafing chain is made fast, the tug will pass to the offtake vessel, a nylon towing rope, 14 in. circumference, to be made fast to one of her stern bollards. The tug maintains the towing rope on its quick release hook.

Care should be taken not to move the propeller during this operation.
The tug will remain in attendance during the whole time the vessel is in "tandem", in order to avoid any contact between the Offtaking Vessel and the FSO's stern.
Caution (Tandem and Side-to-Side Mooring): Offtaking ship's main engines must remain in constant readiness to move under its own power, during the whole time spent moored at the FSO.
Tandem Mooring Assembly Composition:
The system is composed of:

1. About 30 ft.×3.5 in. diameter chafing chain, stoppered by a Smit Bracket on the FSO
   connected to
2. About 170 ft.×21 in. circumference nylon rope
   connected to
3. About 30 ft.×3.5 in. chafing chain that will be stoppered on the Offtaking Vessel by a Smit Bracket or chain stopper, or by 2×2.75 in. diameter (approx.) wire snotters. The chafing chain is held afloat by a metalic buoy connected by a 1 in. "O" Chain, about 9 ft. long, to the extremity of it
   connected to
4. About 600 ft.×14 in. polypropelene floating pick-up line.

LOADING: Max. loading rate 9,000 cu.m.p.h. (56,610 bbl.p.h.).
Crude Oil: Name: Bouri. Pour Point: Less than 10°C.
API: 26.0. Loading Temp: +37.8°C (100°F) approximately.

Hydrogen Sulphide: Masters are warned that Bouri Crude might contain Hydrogen Sulphide (H_2S). Crew members involved in cargo operations should be warned of the hazard that can be faced and how to deal with it.

Loading Operations at the FSO: Loading operations will be carried out either:

1. Side-by-Side: Export tanker moored to the FSO's starboard side by her own mooring lines (minimum 10 lines forward and 6 lines aft, of which 2 must be spring lines each end)
   or
2. Tandem: Export tanker moored to the FSO's stern by the FSO's mooring assembly. Export tankers should have a Smit Bracket or chain stopper fitted. In case no Smit Bracket or chain stopper is available, suitable wire snotters and ancilliary equipment will be supplied by the FSO to allow the mooring.

Check List: Before commencing any loading operations a Check List will be completed and signed by the Offtaking Vessel's Master and retained by the Mooring Master.
Mooring Arms or (alternative) Hoses: The FSO is equipped with 2×16 in. (150 ASA) loading arms.
Stern Loading Hose: The FSO is equipped with 1×16 in. hose floating string, about 800 ft. long, connected to the stern for "Tandem Loading". The string end will be picked-up after the completion of stern mooring, by the ship's own lifting gear and connected to the port side manifold.
Deballasting: The Offtaking Vessel must be able to load while discharging ballast from her clean ballast tanks to the sea. In case the Offtaking Vessel could not load while discharging ballast, she should be prepared to load part cargo before discharging ballast, in order to maintain a proper draft and trim, while always ensuring that no oil pollution could arise.
Commencement of Loading: Loading operations will start as soon as the mooring arms (or hoses) are connected and as soon as agreed between the Offtaking Vessel's Master/Chief Officer and the Mooring Master, who will assist with the whole operation.
Loading Rate: Loading will start at low pumping rate to ensure the tightness of the system and will then be brought to the maximum *previously agreed upon* rate.
Watches during Loading: Manifolds and mooring line watches will be continuously kept on the Offtaking Vessel during the whole loading operation.
Lack of Communications: Communications between the Offtaking Vessel and the FSO will be ensured by means of portable radio sets supplied by the Mooring Master. In no case should there be a breakdown in communications during the loading operations. In event of such breakdown, the International Morse Signals, letter "K", will be blown by the Offtaking Vessel or by the FSO whistle. Loading operations will be stopped until communications have been re-established.
Completion of Loading: As soon as the loading operation is completed the loading arms/hoses will be disconnected and the Offtaking Vessel will be unmoored and sailed to a safe distance from the FSO, with the advisory services of the Mooring Master. Cargo documents will be brought to the vessel later by the tug.
BALLAST: There are no facilities for receiving clean/dirty ballast at the Terminal. Only clean ballast can be discharged overboard.
MEDICAL: In case of need of medical attention, the following information should be sent to the Agents:

1. Name, rank, nationality and passport number of the crew member.
2. General symptoms and/or any particular requirements.

FRESH WATER/FUEL: Available in cases of emergency only.
SHORE LEAVE: Crews are not allowed shore leave, however sick crew members can be repatriated or go ashore for medical attention. In case of repatriation, the Master must agree the correct procedure with his agents.
GARBAGE DISPOSAL: No service available.
WASTE OIL DISPOSAL: Not available.
WEATHER: *Winds:* Radial distribution shows an increase of wind blowing from N.W. and a decrease when blowing from E.S.E. Maximum observed wind speed can reach gale Force 8 (sometimes more) from N.W. during Winter time.
Waves: Waves are mainly from West to North and from East to S.E.

Waves generated by cyclonic disturbances come from N.W. to S.E. across the Thyrrenean Sea. High pressure in the Bouri area direct waves from E.S.E. to North.
Currents: The prevailing current is flowing Eastward with a maximum rate of about 1.5 knots.
Miscellaneous:

Max. sea surface temperature:	31°C.
Min. sea surface temperature:	7°C.
Max. air temperature:	33.5°C.
Min. air temperature:	5°C.

Rain:
Annual average is about 381 mm. Significant periods are January – February with 68 mm. and November – December with 80 mm.
Max. tide range: 0.95 m.
Bottom conditions: 18 m., thick top silty carbonate sand.

GENERAL: *Flag:* All ships calling at Bouri Field must fly the Libyan flag and the Quarantine signal must be displayed upon the authorities visit.
Gangway: Normally no gangway will be rigged between the FSO and the Offtaking Vessel. Should one be used, a safety net must be fitted underneath.
Visitors: Unauthorised personnel are not allowed to visit the FSO or the Offtaking Vessel.
OPERATOR: AGIP Oil Ltd., Dahra Building, P.O. Box 346, Tripoli, G.S.P.L.A.J. *Tel:* 35135-35153. *Telex:* 20282 Ly. *FAX:* 46293.
Contact: Marine Co-ordinator – Production Department.

DERNA: 32.45 N. 22.40 E. (See Plan)

Also see "General" before first port.

PORT LIMITS: (a) The water area existing within the actual breakwater and an imaginary line connecting the end of the breakwater and the damaged breakwater existing at the Southern side.

(b) The water area known as the navigational channel outside the harbour commencing as from harbour entrance for a distance of 1 km.

ANCHORAGE: See "General" before first port.

RESTRICTIONS: Vessels are not permitted to enter harbour between 2100 hrs. and 0600 hrs.

MAX. SIZE: Depth of Inner Bay – 8 m., Entrance – 9 m. and Outer Channel 10 m.

RADIO: Recommended that radio messages for Agents be sent via Malta Radio or any other near coast station.

VHF: Port Control on Channel 16.

TUGS: 3 tugs available.

BERTHING: Old Quay, Length 120 m., depth 6 m. New Quay, length 950 m., depth 9 m.

CRANES: 3 cranes available.

STEVEDORES: All stevedoring operations and formalities to be done by Agent. Two new companies will be formed in the near future.

MEDICAL: Available.

TANKERS: Max. size 18,000 d.w.t. Max. draft 11.5 m. if weather conditions permit.

FRESH WATER: Available alongside, to be supplied by Port Authority through ship's Agents.

FUEL: Available through Agents, a notice of 24 hours needed. Advisable for Chief Engineer to check what grades are available.

CONSULS: None.

REPAIRS: Not available. See "Tripoli".

WATCHMEN: Compulsory, provided by Port Authority.

REPATRIATION: Available via Benghazi.

POLICE/AMBULANCE/FIRE: Call Port Manager, 2063 and 2074.

SHORE LEAVE: Allowed after Free Pratique, Customs and Immigration formalities completed.

DEVELOPMENTS: New port facilities to include 1 quay, length 280 m. for general cargo and container vessels, depth alongside 9 m. – 10 m.

One quay, length 500 m., depth alongside 9 m. – 10 m. This quay will have 4 berths, one for grain cargoes, one for the Port Police, one for vessels loading and for mooring of a dry dock.

AUTHORITY: Port Manager and Harbour Master.

AGENCY: See "General" before first port.

ES SIDER: 30.38 N. 18.22 E. (See Plan)

Also see "General" before first port.

DOCUMENTS: Waha acts on behalf of tankers loading at Es Sider and shall prepare all crude oil loading documents. Germa Shipping and Stevedoring Co. or Universal Shipping Co. Agency is contracted by Waha for all normal agency duties. This agency is currently the only agency used by the four Owner Companies.

After a tanker arrives at the anchorage or is moored in a berth, an agency representative will come aboard, accompanied by Jamahiriya Customs Officials and Immigration Police. The agency representative will present certain clearance forms to the Master, which should be completed as soon as possible. After these forms have been signed by the Master, they shall be returned to the agency representative, who shall make the necessary distribution.

Crude oil loading documents shall be prepared by the Waha documentation group prior to and during loading operations, to expedite their final completion. When the tanker has been loaded, the documents shall be completed and endorsed by the Customs Officer and by the representative of the Secretariat of Petroleum. The documents shall then be distributed aboard the tanker and elsewhere, in accordance with previously arranged standard documentation schedules.

The tanker shall be considered clear to depart Es Sider when the crude oil loading documents have been delivered to the Master.

Jamahiriya Customs Authorities:

(a) List of the crew with a declaration of their personal belongings (Form supplied by the Customs Authorities).

(b) List of tanker's stores.

(c) List of passengers.

(d) Six copies of Cargo Manifest for cargo to be discharged at Es Sider.

(e) One copy of Cargo Manifest for cargo in transit.

Blank copies of "Certificate of Discharge" are placed on board every vessel at Es Sider. These certificates must be endorsed by the Customs, or other recognised authority, on completion of discharge. One completed certificate must then be forwarded to the Libyan Customs Authorities according to the instructions contained in the "Certificate of Discharge". At least one further copy should be retained on board, to be produced to the Customs on any subsequent voyage to a Libyan port. Failure to produce the certificate may result in delays to loading, or even rejection of the vessel by the Libyan authorities.

APPROACHES: Coastal landmarks in the area are as follows:

(a) The most prominent landmark is a water tower in the terminal area which is painted white and is 180 ft. above sea level. This water tower is located at Lat. 30° 38' 00" N., Long. 18° 21' 01" E. and displays a fixed red light at night.

(b) A communications tower in the Terminal area is a most conspicuous landmark. It is located at Lat. 30° 37' 59.5" N., Long. 18° 20' 54.5" E.

(c) A radio antenna tower which is 395 ft. above sea level is located at Lat. 30° 36' 56" N., Long. 18° 16' 55" E. At night this tower is lighted by an occulting red light, flash two seconds, eclipse one second, and there is a fixed red light halfway up the mast. It is flanked by two dish shaped aerials.

(d) There is a water tower at Ras Lanuf Terminal with a highest elevation of 179.5 ft. above sea level located at Lat. 30° 30' 42" N., Long. 18° 32' 22" E. It is white in colour. A white light, characteristics:– flash two every 5 seconds, height above sea level 163 ft., is mounted on the seaward side. There is also a fixed red air warning light on the top of the structure.

(e) An omni-directional aircraft radio beacon is situated at Lat. 30° 37' 31" N., Long. 18° 21' 04" E. transmitting "OJ" 5 times every 60 seconds on 300 kHz.

Range lights and mooring buoy marker lights will appear and disappear with unscheduled frequency. These lights are for the use of the Mooring Masters at the Terminal and should be disregarded by any tankers using the Terminal.

PILOTAGE: Vessels to be moored, anchored or manoeuvred will only be boarded within the recommended anchorage area (Pilot boarding area centred at Lat. 30° 40' N., Long. 18° 23' 30" E.). A vessel is not considered arrived until it is in the recommended anchorage area. The Mooring Master will advise the Master on approaches to berths, mooring, unmooring, connecting and disconnecting the hoses and in all operations within the anchorage or berthing area. All manoeuvring of ships shall be done only in accordance with the advice of a Waha Mooring Master, subject to the understanding that in all cases and circumstances the Master shall remain solely responsible for the safety and proper manoeuvring of the tanker. The Master or one of his qualified deck officers must be on the bridge at all times while the tanker is being manoeuvred.

Tankers not equipped with pilot hoists shall provide a pilot ladder, or ladders, constructed and placed in accordance with latest Safety of Life at Sea Convention. Tankers having a large freeboard are requested to use a combination of pilot ladder and accommodation ladder, which is also in accordance with the above Convention. A ship's officer, plus the necessary crew members, shall be present at the ladder or hoist to ensure the safe embarkation and disembarkation of Mooring Masters and Port Authorities. All such ladders and hoists shall be thoroughly tested and inspected before the vessel arrives in the recommended anchorage.

The Mooring Master shall be in direct control of all tanker communications while in the Terminal area. Any unauthorised communications will result in the immediate cessation of all operations excepting clearing of the berth. Such tanker immediately nullifies its Notice of Readiness.

ANCHORAGE: The recommended anchorage area is a rectangular area bounded by the following co-ordinates:

(1) 30° 43' N., 18° 22' E.
(2) 30° 43' N., 18° 25' E.
(3) 30° 41.5' N., 18° 22' E.
(4) 30° 41.5' N., 18° 25' E.

MAX. SIZE: The following are the approximate berth limitations:–

	Length	*Draft*
No. 1 Berth	920 ft.	51 ft.
No. 3 Berth	950 ft.	51 ft.
No. 4 Mono-Mooring	1,150 ft.	62 ft. 6 in.
	Max. beam 158 ft.	Max. d.w.t. 250,000
No. 5 Mono Mooring	1,165 ft.	73 ft.
	Max. beam 184 ft.	Max. d.w.t. 300,000

Note: No. 4 Mono-Mooring: The max. length overall is 1,150 ft. The max. draft to which vessel can load in good weather is 62 ft. 6 in., and when vessel lies within 30° of loading line. During adverse weather causing vessel to roll and pitch, draft may be restricted to 58 ft. The max. draft limitation in good weather is due to depth to top of loading line being 63 ft. at distance of 1,900 ft. from buoy.

Length, beam and d.w.t. could all be extended provided draft does not exceed 62 ft. 6 in.

All the above limitations are based upon standard tankers in normal weather conditions.

Waha reserve the right to vary the above limitations, depending on vessel's freeboard, (OBO's – ore/oil vessels, etc.) and also the prevailing weather conditions.

RADIO/VHF: Waha maintains direct communication with Tripoli Radio, details of which are shown in publication 205 of the U.S. Hydrographic Office and are included in the Berne Lists. Waha also maintains a VHF station at Es Sider Terminal.

Cables should be addressed to: Wahaoil Pipeline Tripolilibya. Cables addressed in this manner will be received directly by the Waha Communications Centre in Tripoli and relayed immediately by voice radio or teletypewriter to the terminal at Es Sider. Vessels with a telex facility on board should telex directly to 20158 Wahalibya, Attention Marine Superintendent.

Within 6 hours of clearing its last port for its voyage to Es Sider, each tanker shall provide the Terminal with the following information by cable addressed to Wahaoil Pipeline Tripolilibya:

(a) The name of the tanker.

(b) The name of the port from which the tanker last cleared.

(c) The date and hour of the ETA at Es Sider Terminal.

When the Master of the tanker en route to Es Sider is of the opinion that his tanker is within 72 hours of arrival at Es Sider, he shall notify

the Terminal by cable addressed to Wahaoil Pipeline Tripolilibya, or telex as above, providing the following information:
(a) The name of the tanker.
(b) ETA at Es Sider.

When the Master of the tanker en route to Es Sider is of the opinion that his tanker is within 24 hours of arrival at Es Sider, he shall notify the Terminal by cable addressed to Wahaoil Pipeline Tripolilibya, providing the following information:
(a) The name of the tanker.
(b) ETA at Es Sider.
(c) Quantity of cargo required, maximum draft on departure Es Sider, and deballasting time required before vessel can commence loading.

When the Master of the tanker en route to Es Sider is of the opinion that his tanker is within 12 hours of arrival at Es Sider, he shall notify the Terminal by cable addressed to Wahaoil Pipeline Tripolilibya, or telex as above, providing the following information:
(a) The name of the tanker.
(b) ETA at Es Sider.

4 hours before the Master expects to arrive at Es Sider to receive a Mooring Master on board, he shall notify the Terminal by cable addressed to Wahaoil Pipeline Tripolilibya, or telex as above, and also pass the same by VHF radio, providing the following information:
(a) The name of the tanker.
(b) Precise ETA at Es Sider.

If the tanker is equipped with a FM radio-telephone in the 156–162 MHz band, communications may be established with the Es Sider Terminal Dispatcher by calling on Channel 16, 156.8 MHz. This frequency is monitored continuously. The range of the Terminal station is approximately 100 miles.

VHF Channel 8 is also available for use as a marine working frequency.

When the Master submits his first estimated time of arrival to the Terminal he shall indicate if the vessel is to load a part cargo, in which case it should be stated clearly whether it is first or second part of loading.

Jamahiriya Local Time is GMT plus 2 hours (GMT plus 1 hour in Winter).

ARRIVAL PROCEDURE: Tenders to load crude oil cargo will normally be accepted and berths will be assigned to tankers in order of arrival, provided they have valid nominations for cargo and carry clean ballast, if any, and are in all respects equipped and ready to berth. In the event that berthing is delayed on account of weather, tankers will normally keep their position in line. Tankers required to leave Terminal area on account of weather (port closed) shall maintain contact with the Terminal via Tripoli Radio or VHF so they will be available when the weather moderates. Waha reserves the right to decline to berth a specific tanker if its condition or facilities are unsafe for berthing or loading, even though the Terminal may be open to other tankers. Waha Marine Superintendent's decision shall be final.

As soon as practical after arrival, all tanks will be inspected for evidence of oil in ballast. Similar inspections will continue during discharge of ballast. If evidence of oil appears at any time, the tanker shall be rejected forthwith and shall not again be accepted until it is shown the ballast can be properly discharged.

If during inspection or during progress of loading it is revealed that tanks are not tight or that oil is leaking from the tanker, it shall be rejected from further loading. Tanker shall not be later accepted for loading unless satisfactory evidence of repair is submitted, duly certified by Lloyd's or ABS Surveyors, or other recognised surveyors.

Upon arrival at the Terminal of Es Sider, the Master shall give Notice of Readiness to load by wireless or VHF but not before one or other of the following events shall have transpired:
(a) The Master shall have received the Mooring Master on board; or
(b) The Master shall have dropped anchor in the anchorage.

However, the Notice of Readiness shall not be accepted unless the tanker is in every respect ready to load.

In reporting readiness to load, the Master of any vessel arriving at Es Sider for the first time shall state whether the flanges on the manifold of his vessel are such as to permit hose connections without modification.

A tanker shall have sufficient ballast for safe handling, and in any case not less than 25% of Summer deadweight. Careful watch of the weather, frequent interchange of information between the tanker and the Terminal and the knowledge of the behaviour of his tanker may permit the Master to bring his tanker with minimum of ballast.

HEALTH: Tankers shall fly "Q" on arrival by day and display a red light over a white light at night to indicate quarantine conditions.

VHF: Tankers shall keep continuous watch on VHF Channel 16 when at anchor in the anchorage. Failure to keep watch on Channel 16 may lose them their berthing turn.

TUGS: Not required. Waha maintains launches to assist in berthing tankers. These are under the direct supervision and control of the Mooring Master.

BERTHING: The 2 (7-Buoy) conventional berths are approximately 1 mile from shore and in approximately 65 ft. of water. Central Spar Buoys of these 3 berths are:
Berth No. 1 (Easternmost)
Lat. 30° 38' 58" N. Long. 18° 22' 43" E.
Berth No. 3 (Westernmost)
Lat. 30° 39' 35" N. Long. 18° 21' 53" E.

To the West of the 3 conventional berths is a mono-mooring berth. It is about 2 miles from shore in approximately 80 ft. of water.
Berth No. 4
Lat. 30° 40' 31.5" N. Long. 18° 21' 43.7" E.

To the East of the 3 conventional berths is a second mono-mooring berth. It is about 3.5 miles from shore in approximately 100 ft. of water.
Berth No. 5
Lat. 30° 39' 55.95" N. Long. 18° 25' 19.13" E.

Conventional Berths:

The Mooring Master may reject a tanker if he deems that the tanker is not properly equipped; or that the tanker fails to have a full complement of trained personnel capable of carrying out all the berthing procedures and in particular the hose connecting as directed by him; or that the tanker has dirty ballast; or that the tanks are not suitable for carrying crude oil. Tankers having a separate system of ballast tanks shall be permitted to discharge ballast and load oil simultaneously; however, approval shall first be obtained from the Waha Marine Superintendent.

Tankers shall be equipped with an adequate propulsion unit as certified by an appropriate Survey Society. Tankers with inoperative or partially inoperative propulsion units shall be rejected. No repairs shall be made while the tanker is in or near a berth.

Tankers shall have 2 bower anchors and ground tackle in good working condition and in sizes and class to qualify under either Lloyd's or ABS ratings, even though they may have been classified by other Societies. Vessels should be capable of running out a minimum of 165 fathoms (11 shackles) of chain on each anchor in order that they may be berthed at one of the sea loading berths.

Tankers shall have at least one winch, in good working order, on the poop deck capable of heaving on two ropes simultaneously. The winch drums must be of such a size to be able to take at least 5 turns of mooring rope.

Tankers shall have one winch on the after end of the main deck, so sited that ropes led through the fairleads at the after end of the main deck, port and starboard, can be hove on. The winch drum must be of such a size to be able to take 5 turns of mooring rope.

All tankers shall have suitable stoppers for all lines and stoppers for wire ropes. Wire ropes are a part of the permanent berths and all tankers shall pick up the wire ropes unless an exception is approved by the Marine Superintendent. The exception may be based upon tanker having suitable wires with nylon or synthetic rope tails for ease of handling by launch and launch crews. These tails should be of appropriate strength and of a suitable length to enable them to be manhandled on to the mooring buoy hooks. Constant tension winches may not be used except where they can be solidly locked and the constant tension feature not used. The making fast of berth mooring wires on ship's reels will be treated as a last resort to be used only in the absence of sufficient bitts.

Tankers shall have at least 9 good synthetic fibre lines of not less than 9 in. circumference and at least 120 fathoms in length, with an eye spliced in each end. These lines shall be placed out free for running; 3 on the after end of the main deck, and 6 on the poop deck. The 3 lines on the after end of the main deck shall be married together so that if the need arises the double length can be run on either side of the tanker. The Mooring Master may require the use of additional ropes or wires to effect a safer mooring, and these are to be supplied on his advice.

Tankers shall be equipped with blocks, tackle, booms, runners, and sundry equipment to efficiently hoist the submarine hoses (5 tons at conventional berths and 10 tons at monobuoys) from the sea bottom. Other necessary equipment includes wrenches, gaskets, nuts, bolts, strops, drip pans, sawdust, drift pins, etc. The derrick should be rigged with a single wire runner of sufficient strength to be able to lift 10 tons.

After the tanker is securely berthed, the submarine hoses shall be lifted amidships on the port side. The base lift may weigh up to 10 tons. Hoses shall be lifted and connected by the tanker crew. The Mooring Master shall advise the tanker's officer-in-charge concerning lifting techniques; however, the responsibility for all operations shall remain with the officer.

It is believed that the facilities at Es Sider are similar to those of other Mediterranean Terminals, and that, generally speaking, no unusual or unique equipment shall be required by the tankers.

Shore Stops: If it is requested by the Master of the tanker that the cargo flow should be stopped from the shore at a predetermined tonnage, it must be clearly understood that Waha Oil Company of Libya, Inc. will not be held responsible for any error, and that in the case of overloading, the excess cargo cannot be pumped back ashore.

Vessels are encouraged to load and deballast at the same time providing that segregated ballast tanks or double valve separation exists.

Mono Moorings: Nos. 4 and 5 Berths are single point buoy moorings. The body of the buoy is secured in a fixed position by means of 8 moorings, whilst the top of the buoy is in the form of a turn-table, allowing the ship's moorings and hoses to rotate and take up the position the vessel naturally lies due to wind, sea and current conditions.

Vessels are normally moored by 2 bow lines only, these being provided by Waha. A selection of wire strops and shackles will also be placed on board for mooring purposes. The 2 mooring lines are hove in until the length of chafing chain to O.C.I.M.F. standards is brought inboard. According to the mooring arrangements, the Mooring Master will advise on the method of securing the vessel. Ship's wires or ropes may be required to back up mooring equipment supplied by Waha. Smit towing brackets will be utilised when fitted in suitable position and if they are of adequate strength and size. Other O.C.I.M.F. standards chain compressors and fittings are acceptable. However, it should be noted that 2 ropes are provided and therefore 2 chafe chains must be hove inboard and properly secured. Under no circumstances shall the ship be moored with the lead-in ropes.

On advice from Waha that a vessel is to load at the mono moorings, she will have the following ready before the Mooring Master boards:
(a) Port side derrick to be rigged ready to lift various wire strops, shackles, and hose securing equipment. This equipment will be placed on board at the same time as the Mooring Master boards, or as soon as possible thereafter, who will advise on its disposition.
(b) Forward, the vessel should have ready 2 good synthetic fibre mooring lines, at least 9 in. circumference, 2 good 4 in. circumference rope messengers at least 400 ft. long, or two 3 in. wire messengers of the same length, each fitted with a suitable screw shackle. Also a crowbar, spikes and hammers.

(c) No moorings will be required aft.
(d) The vessel shall make a good lee on the port side, taking due care that ladders and accommodation ladders are clear of the tanker's manifold area and overboard discharges.

It is essential on this berth that the hoses be picked up immediately mooring operations are complete. On advice from the Mooring Master, part of the ship's crew must be standing by at the port manifold for this operation.

Hose lifting and connecting operations are basically the same as in conventional berths, except that hose strings are floating and therefore may require bowsing in rough weather.

Vessel's engines must be ready at all times, and under no circumstances is the propeller to be turned ahead without prior consent of the Mooring Master. Failure to comply with this may result in cessation of operations, and possible rejection as being unsuitable for a single point mooring. Any damage caused to the berth or hoses as a result of turning the propeller ahead without consent will be charged against the vessel.

In adverse weather, a continuous lookout will be required on the forecastle head, by responsible persons, to keep watch on the moorings, manifold and hoses.

In adverse weather the Mooring Master may require cargo to be loaded, in the initial stages, into the forward compartments and this should be complied with when requested.

Vessels are encouraged to load and deballast at the same time, where this is possible. In the case of vessels with permanent ballast tanks, this ballast should not be started without first consulting the Mooring Master.

LOADING: Raising, lowering, connecting and disconnecting of submarine hoses, as well as all other labours and duties on shipboard, shall be performed entirely by the ship's crew. Lack of co-operation by the crew in this operation will result in the rejection of the tanker, her return to the anchorage and any consequent loss of loading turn until crew are prepared to perform this work.

Mooring Masters shall report unsatisfactory conditions to the Waha Marine Superintendent, who may reject the tanker until corrections are made. All costs accruing from these conditions shall be for the tanker's account.

Loading Rates:

Conventional Berths No. 1 and 3	40,000 b.p.h.
No. 4 Mono-Mooring	30,000 b.p.h.
No. 5 Mono-Mooring	50,000 b.p.h.

BALLAST: 4 hours deballast time (before commencing loading) is the maximum time allowable in consideration of the open and exposed nature of the berths. Vessels which take longer to deballast put the berth at unacceptable risk if the weather deteriorates. Should a tanker be unable to comply with this stipulation, Waha Marine Superintendent may berth more suitable vessels ahead of her if poor weather conditions dictate. Vessels with an unduly long deballast time may be rejected.

There are no facilities at Es Sider for the discharge of dirty ballast, and vessels arriving with dirty ballast will not be authorised to deballast in the vicinity of the Terminal. Any tanker rejected because of dirty ballast or sea pollution will automatically nullify its Notice of Readiness to load and thereby relinquish any right to priority of loading position.

It is the Master's responsibility to see that no oil of any kind is pumped or spilled overboard from his tanker. This includes oily water from bilges, residuals from previous voyages or any other matter that may result in pollution of the sea. Owners and Masters are invited to examine all laws concerning pollution of the sea, especially in regard to the Mediterranean Sea area. Inspections may be made by the Libyan Ports & Lights Authorities, whose opinion of the cleanliness of the ballast shall be final.

The waters in and adjacent to the Terminal of Es Sider must not be polluted, and only clean oil-free ballast may be discharged anywhere inside of a line 100 miles to seaward and roughly parallel to the Libyan Coastline.

Prior to acceptance all tanks will be inspected for evidence of oil in the ballast and during discharging similar inspections will continue.

Masters are warned that when disposing of dirty ballast outside Libyan waters, all pipelines, sea-suctions, strainers and pumps that are later to be used to discharge clean ballast, must be flushed clean so that there will be no chance of even a small amount of pollution when the clean ballast is pumped out.

Any vessel required to return to a position outside the Mediterranean Sea for cleaning tanks or for any similar reason, automatically nullifies any Notice of Readiness already tendered and at the same time loses any priority held for loading. On return from sea, vessel will be entered for loading at the time of the second arrival, when a new Notice of Readiness will be tendered.

Master's attention is directed to Es Sider Notices concerning oil pollution and to the serious consequences of discharging dirty ballast, besides having his tanker rejected.

MEDICAL: Medical assistance shall be on an emergency basis only. The Doctor will only board a vessel if it is physically impossible for the patient to attend the clinic ashore and there is no priority need for the Doctor's services on shore. Normally the Doctor will require the accommodation ladder rigged for boarding.

If it is necessary to land a patient at Es Sider, he must be accompanied by an officer able to speak English or Arabic. Patient and accompanying person must have their Passports and International Certificates of Vaccination and Immunisation, and the Authorities must be advised prior to their leaving the ship.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: Consulates are located in Tripoli, which is approximately 650 km. by road from Es Sider. Some countries having Consulates are: Algeria, Argentina, Belgium, Brazil, Chad, Czech Republic, Denmark, Finland, France, Germany, Ghana, Greece, India, Italy, Japan, Jordan (represented by Indian Embassy), Kuwait, Lebanon, Morocco, Nigeria, Nationalist Republic of China, Pakistan, Russia, Saudi Arabia, Spain, Sudan, Syria, Sweden, Switzerland, Tunisia, Turkey, Venezuela and Yugoslavia.

REPAIRS: When a tanker is in or near the berth, its engines shall remain ready with full power for immediate use. Engine repairs shall not be performed near any berth.

WATCHMEN: Not less than one capable deck officer and three able seamen shall be available on the deck at all times. No person under the influence of alcohol shall be allowed on deck. The Mooring Master's opinion on the sobriety of an individual shall be final.

CUSTOMS ALLOWANCES: Cigarettes, cigars, matches, tobacco, spirits, wines, beers, perfume, arms, ammunition, saccharine, and certain other items shall be placed under Customs seal from the time of arrival in port until such time as the tanker has left territorial waters.

Each officer and crewman is allowed the following ration for each day the tanker is in port: *(a)* 25 cigarettes per day, or 25 grammes of tobacco or 25 grammes of cigars. *(b)* One litre of beer or 0.5 litre of wine. *(c)* Special provisions are sometimes made for the Master.

REPATRIATION: No facilities exist for crew changes or repatriation.

TIME: GMT plus 2 hours.

SHORE LEAVE: None of the officers and none of the crew of any tanker shall be permitted shore leave at Es Sider.

GARBAGE DISPOSAL: No facilities.

WASTE OIL DISPOSAL: No facilities.

GENERAL: The Terminal of Es Sider operates 24 hours a day, 7 days a week, while weather permits.

Range lights and mooring buoy marker lights will appear and disappear with unscheduled frequency. These lights are for the use of Mooring Masters at the Terminal, and should be disregarded by any tankers using the Terminal.

Waha maintains launches to assist in berthing tankers. These are under the direct supervision and control of the Mooring Master. Any service and facilities provided by Waha, including the services of the Mooring Masters, launches, or berthing equipment, are at the vessel's risk. The furnishing of a Mooring Master, launches, or other services and facilities shall not be construed to be, or give rise to, a personal contract. Waha shall have benefit of all exemptions from the limitations of liabilities to which an owner or a vessel is entitled under the laws of the United States of America.

When a Mooring Master and his assistants, possibly apprentice Mooring Masters, are assigned to a tanker, the tanker shall supply them with accommodation of the same standard and meals in the same manner as comparable personnel of the tanker. No special meals or special foods shall be required unless to comply with Moslem religious teachings. The intent is that the furnishing of meals to Waha personnel be kept to the minimum, compatible with the ordinary working of the Terminal.

No boats may be lowered into the water, except in an emergency.

Adequate deck lighting must be available for night mooring and loading. A good floodlight will be required to illuminate the area around the submarine and cargo hose connections during hosing and loading operations. During the discharge of ballast at night, the sea area around the vessel must be adequately lighted. If vessel is berthed on mono-mooring buoy, in addition to the foregoing, lights MUST be provided on forecastle head and over bow to facilitate supervision of moorings.

Stores of any sort shall not be handled while tanker is under "Notice of Readiness". No stores shall be handled while the tanker is in or near a berth.

Use of anchor marker buoys recommended.

Should any tanker or craft become an obstruction in any part of the Terminal or approaches thereto, or in any area of the submarine pipeline. Waha shall be empowered and shall have the right to take any steps it may deem necessary to remove the obstruction without notice to the Owners. All expenses of such removal shall be borne by the tanker or craft or by those owning it at the time of the accident causing the obstruction, and Waha shall be entitled to reimbursement by them for any such expenses incurred by it.

Power must be available at all times on all deck winches and on anchor windlass while the vessel is in the moorings.

If mooring wire winches are used, wires should be secured so as to enable them to be quickly let go from the vessel without damage.

Only in an emergency shall the tanker manifold valves be closed against crude flow, and then only with the Mooring Master's consent.

Should communications fail, the cessation of loading may be effected by a continuous sounding of the ship's whistle. This procedure will then stop the loading of all tankers in the area.

The bridge and/or control area shall not be locked nor otherwise arranged to prevent immediate entry at all times by the Mooring Master.

In adverse or marginal weather conditions Mooring Master may request that extra personnel be placed on duty on deck for tending moorings or hoses as required. Masters are advised to comply with this request.

The Mooring Master shall witness the plugging of all scuppers. Failure to plug scuppers shall result in the tanker's rejection.

The presence of unauthorised craft alongside a tanker will render it unacceptable. It shall be the duty of the tanker's personnel to clear all such craft away from the tanker.

When tankers are loading or discharging crude oil or ballast, and while tank tops are open or ullage plugs are open, boiler tubes shall not be blown. Every precaution shall be exercised to prevent sparks escaping through the funnel or stack or from the galley stack. The Mooring Master may demand all fires extinguished if he deems it necessary for safety.

Under the interpretation accorded to the Libyan "Boycott of Israel" Law, it is considered to be a violation thereof if a vessel calling at a Libyan terminal has on board any item of Israeli origin, irrespective of the nature thereof, including but not limited to manufactured products, fruit and vegetables, as well as empty crates, cartons, bottles and paper wrappings, regardless of the country where any of the foregoing was obtained. The law is strictly enforced, and the minimum penalty for violation thereof normally includes a fine and confiscation of all such items. Fines can exceed $1,000.

Charts: B.A. 3344 and Italian No. 431.

SHIPMASTER'S REPORT: May 1987.

Prior to arrival *all* storerooms were thoroughly checked to ensure that no produce, tools or equipment indicated that they were of Israeli or South African origin. "Magazines", Time, Newsweek, old newspapers etc., were put out of sight as many of these publications contain political cartoons. Israeli (and South African national flags) were removed from the flag locker together with their respective name tags. ALL alcohol placed in the bonded store and listed. An *accurate* Stores List of selected items together with a comprehensive *accurate* Crew Declaration List were prepared.

Fifteen minutes after berthing, Agent, Customs, Immigration and Port Captain boarded. Immigration checked Crew List against Passports. Customs checked Bonded Stores List against Bond Locker. Customs checked coffee and sugar against Stores List. No discrepancies were found and all other items were accepted. Port Captain checked vessel's trading certificates and had to be convinced why the vessel could not produce the trading certificates translated into Arabic. This could cause a delay on any subsequent voyage to Libya.

As stated in "Guide to Port Entry", Master has to sign a Declaration of Discharge, which *must* be endorsed by the Customs at the Port of Discharge and *must* be posted back to Libya, a copy *must* remain with the vessel. Failure to comply with the regulation will automatically mean a long delay and possible rejection of the vessel on any subsequent visit to Libya.

As all the necessary papers were in order and no discrepancies found all official were polite and quite happy.

There were no problems with mooring, loading cargo, figures, etc. However, this vessel does not have the required number of mooring ropes to berth as per port requirements. (9 ropes required Aft). See "Plan Section".

AUTHORITY: Waha Oil Co., P.O.Box 395, Tripoli, S.P.L.A.J. *Tel:* 31116/29 (ext. 6311). *Telex:* 20158 Wahalibya. *Cables:* Wahaoil. *Contact:* Captain A.R. Dunn, Marine Superintendent.

AGENCY: See "General" before first port.

MARSA AL HARIGA: 32.04 N. 24.00 E. (See Plan)

Also see "General" before first port.

LOCATION: Marsa al Hariga Oil Terminal is located on the South side of the harbour of Tobruk, approximately 1 mile Eastward of Marsa al Hariga.

DOCUMENTS:

A. Customs Requirements. On the arrival of a vessel, the Tobruk Customs Authorities will require from the Master of the vessel:

4 copies of a Crew List.
2 copies of a List of Ship's Stores.
2 copies of a Declaration of the Crew's Personal Belongings, including currency, cigarettes, gifts, etc.
4 copies of a Passenger List.
Last Libyan (cargo discharge certificate) to be checked for validity on boarding, if not correct vessel has to wait outside for ship's purposes.

B. Harbour Master's Requirements. On the arrival of a vessel, the Tobruk Harbour Master will require from the Master of the vessel:

1 copy of a Crew List.
1 copy of a Passenger List.
1 copy of the Ship's Manifest.
1 copy of a Port Declaration (form will be made available to each vessel on arrival).

APPROACHES: Vessels bound for the terminal should approach the harbour of Tobruk from the North-East with the lighthouse on Tobruk Point bearing 238° (true). In daylight this lighthouse should be kept in line with the conspicuous German War Memorial on the South side of the harbour.

When about 4 miles from Tobruk Point, course should be altered to 224.5° (true) to bring the leading lights on Marsa Umm esc-Sciausc in line. This course should be maintained until the vessel is close to the outer buoy, where one of the company's Berthing Masters will board.

Deep-draft vessels sailing from the terminal should avoid navigating North-Westward of the leading line from Marsa Umm esc-Sciausc, owing to the presence of shoal water off Tobruk Point.

PILOTAGE: Vessels coming to and departing from the Terminal will be berthed and unberthed by Berthing Masters provided by the company, subject to the understanding that in all circumstances the Master shall remain solely responsible on behalf of his Owners for the safety and proper navigation of his vessel.

Berthing Masters will board at the Outer Buoy.

The Pilot and Loading Master are to be provided with cabins whilst the vessel is alongside.

ANCHORAGES: If a berth is not immediately available on a vessel's arrival off the harbour of Tobruk, the vessel will be advised by the company where she is to anchor.

Anchorage position for tankers waiting to be berthed is 1.5 miles N.E. of the Outer Buoy.

MAX. SIZE: Max. Summer deadweight 150,000 long tons and Max. draft 56 ft. at No. 1 and Max. Summer deadweight 130,000 long tons and Max. draft 52 ft. at No. 2. The berths are located at the end of a T-head jetty which extends some 700 ft. from the shore. There is a minimum depth alongside of 60 ft. and approach to and departure from the berth can be made in not less than this depth of water. Freeboard at any time whilst deballasting must not exceed 55 ft.

HEALTH: The Libyan Authorities will grant clearance by radio of a vessel coming to the terminal. Radio messages requesting clearance should be sent not earlier than 48 hours prior to vessel's arrival off the harbour of Tobruk and should give the details required in the Maritime Declaration of Health which must also be completed.

COURTESY FLAG: On entering the territorial waters of the Libyan Arab Republic which commence 6 miles off the coast of Libya, vessels should if possible, hoist the Libyan flag, and in any event the Libyan flag must be hoisted before entering the harbour of Tobruk. Should a vessel arrive without a Libyan flag on board, one may be obtained from the Company's Berthing Master when he boards at the Outer Buoy.

ARRIVAL MESSAGES: In addition to their arrival messages to Agent, vessels must pass an arrival message to the terminal via the company's radio station giving at least 72 hours notice of ETA and advising their estimates of:

(a) The quantity of cargo (in long tons) to be loaded at the terminal.
(b) The cargo loading rate (in long tons) per hour.
(c) The quantity of ballast (in long tons) to be discharged ashore at the terminal.
(d) The ballast discharge rate (in long tons).

If, subsequent to advice of their ETA there is any material change, a further ETA message must be passed via the company's radio station.

RADIO: Tobruk Radio 5 A1 (MF & HF). Position: 32° 02' N. 24° 00' E. Frequency: 420, 500 A1, A2, 0.5 kW. 4241 kHz at 2130 GMT, 8480 kHz at 1730 GMT, 16963 kHz at 0930 and 1330 GMT. All using A1 0.5 kW. *Note:* Station owned by Arabian Gulf Oil Company. Company telegraphic address: "Injaz Tobruk". Telex: No.: Agoco Ly 50023. All times given are GMT. Station keeps watch on 500 kHz during 24 hours.

TUGS: For berthing and unberthing at the terminal, vessels will be required to use the 2 diesel tugs which are available at the terminal. Each of these diesel tugs has a bollard pull of approximately 25 tons.

BERTHING: *Jetty:* Vessels will berth on the jetty starboard side alongside, depending on the prevailing weather conditions, though starboard side alongside is preferred. Each berthing head is "T" shaped and is protected by 4 breasting dolphins.

Moorings: Normal requirements are 4 head ropes, 3 breast ropes and 2 springs (springs to be ropes whenever possible).

All moorings, except the backsprings to the outer breasting dolphins at Jetty Berth No. 1 attached to quick release hooks.

Buoy Berth: Removed.

HOSES: New loading arms installed (balanced type) are Woodfield Mark 4, manifold size 16 in. ASA. Loading rate is maximum of 4,000 t.p.h. per hose.

OIL BARRIER: "Gemlen" floating anti-pollution booms on reels at jetty heads. Boat with chemical dispersants standing-by. Anti-pollution barge with floating boom and oil skimmer is available.

BALLAST: Vessels should make every effort to arrive at the terminal with clean ballast and with the minimum quantity for safe handling under prevailing weather conditions.

All ballast must be discharged into shore tanks provided by the company, unless it is clean ballast, carried in tanks which are completely isolated from the vessel's cargo system. However, the discharge of such ballast into harbour waters must not be commenced until the ballast has been inspected by a company official, and he has certified that it is in order to commence discharge.

Ballast can be accepted into the Company's store tanks at rates up to 4,500 t.p.h. from the jetty berths. Ballast is discharged ashore over the jetty by way of a loading boom. Max. quantity 35,000 tons.

LOADING: Cargo loading at each jetty berth is by means of four 16 in. Woodfield Mark 4 loading arms. Cargo loading at the buoy berth is by means of a 34 in. submarine line to which two 12 in. flexible hoses are attached.

This system permits a max. loading rate of approximately 8,000 t.p.h. over each jetty berth. The actual loading rate for a particular vessel will be determined prior to the commencement of loading by agreement between the Master and the Company.

Jetty: Method: gravity loading, max. head 360 ft. rate regulated to requirements. Loading rates: 2 lines each 4,000 t.p.h. Two 8,000 t.p.h. maximum.

FRESH WATER: Not available.

FUEL: Not available.

SAFETY: A copy of the Regulations will be given to Master when Company's Berthing Master boards at outer buoy. Masters should make themselves thoroughly acquainted with these Regulations, strict observance of which is required by the Company.

In the event of any infringement of the Regulations, operations may be stopped and, if so, will not be recommenced until the Company is satisfied that appropriate action has been taken by the Master to comply with all the Regulations. The Company also reserves the right to unberth a vessel in the event of a continued or blatant disregard of any of the Regulations. Any loss or expense to the Company resulting from an infringement of the Regulations and, in particular, in the event of an infringement leading to an interruption of operations and/or unberthing of a vessel, will be for the account of the Owners.

CONSULS: None.

REPAIRS: No shore facilities for carrying out repairs to vessels either at the terminal or at Tobruk.

CUSTOMS ALLOWANCES: Cigarettes, cigars, tobacco, matches, spirits, wines, beer, perfume, arms, ammunition and saccharine have to be locked up under Customs' seal from time of vessel's arrival in harbour of Tobruk until time of departure.

Whilst in harbour, each member of crew allowed following: 200 cigarettes. All spirits, beer and wines to be placed under seal.

No fixed allowances for cigars and tobacco.

Libyan law prohibits vessels from having on board any goods or containers of Israeli origin. Any vessel having such goods or containers on board on arrival in the harbour of Tobruk will be liable to a heavy fine and confiscation of the goods or containers. The Libyan Authorities may, moreover, refuse to clear the vessel.

REGULATIONS:

1. *Ship's Garbage.* Whilst within limits of harbour of Tobruk the throwing overside of ship's garbage is prohibited.
2. *Ship's Radio.* Once vessel berthed at Terminal the use of her radio will not be permitted.
3. *Ship's Boats.* Use of ship's boats not permitted within limits of harbour of Tobruk.

SHIPMASTER'S REPORT: April 1983.

Anchorage: Anchorage position for tankers is from 1.5 miles – 2 miles N.E. of the Outer Buoy. Holding ground is bad. As soon as wind increases up to Force 7 and swell grows, it is best to heave up the anchor and to proceed to sea and wait, keeping watch on VHF Channel 16.

Many vessels have lost anchors.

Max. Size: Berth No. 1 – Max. draft 56 ft. Berth No. 2 – Max. draft 52 ft.

AUTHORITY: General Ports and Lights Administration, P.O.Box 648, Tripoli, Libya.

Operator: Arabian Gulf Oil Co., P.O. Box 44, Tobruk. *Tel:* 87-22044/7. *Telex:* Agoco Ly 50023. *Cables:* Injaz Tobruk. *FAX:* 22044 Tobruk. *Contact:* Marine Department or Terminal Manager.

AGENCY: See "General" before first port

MARSA EL BREGA: 30.25 N. 19.34 E. (See Plan)

Also see "General" before first port.

SIGNALS/FLAGS: The Libyan maritime authorities require all vessels conducting business with Libyan ports, or plying the Libyan territorial waters, to strictly comply with the following standing international maritime practices:

1. To sound whistle signals appropriate to the different vessel manoeuvres, as well as during entering and leaving ports.
2. To fly the flag of the country of registration when approaching port(s) of destination, and during vessel's stay in port.
3. To salute Libyan navy vessels upon approaching such vessels.
4. All ships must fly the Libyan flag when inside territorial limits.
5. Libyan Law does not permit ships using Libyan waters to retain Israeli flags, stores or literature pertaining to Israel on board, even though these may be normally part of the vessel's navigation equipment.

Failure to adhere to the above may result in penalties by the Authorities.

LOCATION: Marsa-el-Brega is located in the South-Eastern part of the Gulf of Sirte in Lat. 30° 25' 0" N., Long. 19° 34' E. It is an open bay contained between Ras Magdar and an unnamed headland some 3 miles to the West.

Vessels calling at Brega should have on board B.A. Charts No. 3350 and 3354, or H.D. Chart No. H203. No charts are available at Brega.

The Brega Sea Buoy is located in Lat. 30° 27.55' N., Long. 19° 35.1' E. A white flashing light is exhibited on a orange/white pillar buoy at a height above the water of 6.1 m. The light's characteristic is one flash every ten seconds (Fl. 10 sec.).

Single point mooring Berth No. 5 (SPB 5), is located in position Lat. 30° 26' 45.26" N., Long. 19° 34' 7.4" E.

Single point mooring Berth No. 6 (SPM 6), is located in position La. 30° 26' 17.3" N., Long. 19° 33' 1.3" E. The mooring buoys exhibit a white flasing light (characteristic "U").

Bow mooring (out of service) in position Lat. 30° 26' N., Long. 19° 33.9' E. with a flash red light (2 ev. 5 sec.) at a height of 28.34 m. above sea.

Radio beacon (Aero) is located in Lat. 30° 25' N., Long. 19° 34' 14" E. Call sign is "MB" and operates continuously on a frequency of 403 kHz.

A single flare is located in Lat. 30° 24' 31.9" N., Long. 19° 35' 49.7" E. Three other flares are located approximately 2,213.36 m. to the West and Southwest. The flares, when burning, can be seen at extreme distances.

Numerous lit and unlit buoys are located within the restricted area shown on B.A. Chart No. 3350. Vessels are cautioned that these buoys may change position due to weather. Vessels are not permitted to enter restricted area shown, without a Brega pilot on board.

Brega is radar controlled with scanner in position Lat. 30° 25' 02.5" N., Long. 19° 34' 55.6" E. Height of tower 34.19 m.

Berth No. 2 (Naphtha) in position Lat. 30° 25.30' N., Long. 19° 35.45' E. Berth not in use, 5 buoys removed to store.

DOCUMENTS: Customs and Immigration Officials will board the vessel, except in adverse weather. All relevant documents are supplied by the Agent. The Master will sign and stamp the papers. These will then be handed over to the Authorities before clearance for loading is granted.

When ships clear inwards, they should complete the necessary forms for members of the crew, and all goods held (e.g. liquor, cigarettes, cameras, money, etc.) with the crew members' signature and rank. This form is ordinarily supplied in advance, however ships making their first call at Libya will receive advance forms for future calls.

Customs, Immigration and Lights Authorities Forms:

Port Declaration – Form P.L. 7 (1 copy).
(Title in Arabic) Inward Report – Form C.L. 128 (3 copies).
Cargo Manifest Inward – Form C.L. 1 (3 copies).
Report Outwards – Form C.L. 4 (3 copies).
Crew Manifest Inwards – Form C.L. 31 (2 copies).
Export Manifest Form C.L. 155 (6 copies).
Certificate of Discharge.

Ship's Forms:

Crew List (3 copies) (also 1 copy to be handed to Pilot).
Stores List (2 copies).
Clearance from Last Port (1 copy).
Certificate of Discharge from last Libyan Cargo.

Certificate of Discharge: If vessel has not called at a Libyan port since October 18th, 1973, then a letter is required from the Master, addressed to the Secretariat of Petroleum, stating that he undertakes to mail the Certificate of Discharge, for the present cargo, from the port of discharge and retain one signed stamped copy on board. It is essential that the Certificate of Discharge for any petroleum cargo loaded after that date, be on board the vessel and it must be clearly signed and stamped by the Authorities at the port receiving the last Libyan cargo. Vessels may incur delays or be refused loading permission where this is not complied with.

One copy to Secretariat of Petroleum, P.O.Box 2655 and 5335, Tripoli.

One copy to Marine Superintendent, Sirte Oil Co., Sirte Field, P.O.Box 385, Tripoli.

PILOTAGE: The services of a Pilot/Mooring Master are provided. He will normally board the vessel in the vicinity of the Brega Buoy and will advise the Master on approaches to the berths, mooring and unmooring, connecting and disconnecting cargo hoses, and all other operations within the berthing area. Vessels are cautioned not to enter the restricted area without the services of a Brega Pilot. Pilot ladder must conform to international safety standards.

The Master of the vessel shall notify the Pilot of any special conditions, difficulties or peculiarities, such as defective equipment, lines or gear, which might impose special hazards in connection with handling, mooring or loading the vessel.

The pilot will decline to moor vessels if they are not equipped with satisfactory mooring equipment, lines, gear, etc.

Vessels must be moored to the entire satisfaction of the Pilot, and must be ready at all times, to put out more lines or to adjust the lines as required by any change in the weather, or as requested by the Pilot. Masters are responsible for the frequent monitoring and careful tending of moorings throughout period on the berth.

Masters of vessels are reminded of their obligation to comply with statutory rules, and are requested to comply with the following:

The officer responsible for the embarkation or disembarkation of the Pilot must be a *Watchkeeping Officer.*

The pilot ladder must be properly secured and adequately illuminated.
  The ladder must be in good condition.
  The length of the ladder should not exceed 30 ft.
  For vessels loading Crude/Naphtha, a combination accommodation/pilot ladder should be used.

Spreaders are to be positioned at intervals of not more than 10 ft.

Two manropes in good condition should be ready but not lowered, unless so instructed by the Pilot.

A lifebuoy with a safety line and self-illuminating light must be available at the embarking area.

If, in the opinion of the Pilot, the pilot ladder is not safe, the Pilot may refuse to board the vessel, and thus cause delay to the ship. Such delay would be for ship's account.

Vessels are cautioned not to enter the restricted area without the services of a Brega Pilot.

ANCHORAGE: Suitable anchorages are located 0.5 miles – 2.0 miles Northeast to East of the Brega Buoy in 22 m. – 23 m. depth.

Vessels are not permitted to anchor within 0.5 miles of the channels into the inner harbour, and are to keep clear of the 143° 41' leads.

MAX. SIZE: Maximum draft for vessels entering or sailing from the inner harbour is 10.0 m.

Also see "Berthing".

TUGS: Marsa-el-Brega Port maintains tugs and mooring launches to assist vessels to moor and unmoor.

HEALTH: Quarantine signals must be displayed upon entering Brega port limits in accordance with international practice, and shall be continuously displayed until Pratique is granted.

RADIO: *Arrival Advice:* The Owner, Master, Charterer or Agent should cable the following information to Brega Marine, P.O.Box 385, Tripoli, Libya, S.P.L.A.J. (Telex 30120/21/22 SIRTCO LY or 50557 SIRTCO LY) through Tripoli or via Malta, if beyond communication range of Tripoli, 72 hours in advance, and at least 48 hours with subsequent update message 24 hours before arrival.

The cable/telex office is closed between 1900 hrs. and 0700 hrs., allowance for delays due to this, and other causes, should be allowed for.

ALL VESSELS:

  Name of vessel.
  Flag.
  Gross tonnage.
  Nett tonnage.
  Summer deadweight.
  Anticipated draft at loaded condition.
  Last port.
  Next port.
  ETA at Brega (local time).
  Agent.
  Length of vessel.

TANKERS LOADING CRUDE:

  Distance bow to manifold.
  Segregated ballast or deballast time required.
  Size of manifold (1×16 in. American Standard).
  Safe working load of derrick.
  Inert Gas System working and tanks inerted.
  Vessel fitted with bow chain stopper (AKD).
  Certificate of Discharge on board from last Libyan cargo, and if port of discharge same as port cleared for.
  Cargo required by vessel.

TANKERS LOADING NAPHTHA:

Segregated ballast or deballast time.

Size of manifold (1×12 in. American Standard) for tankers loading Naphtha at Sea Berth No. 2. At present, tankers loading Naphtha alongside Jetty No. 2 in the inner port with loading arms. Size of manifold (2×8 in. American Standard).

Minimum of 10×10 in. circumference fibre or synthetic mooring ropes (for use at after end of ship).

Safe working load of port derrick.

Certificate of Discharge on board from last Libyan cargo, and if port of discharge same as port cleared for.

Inert Gas System working and tanks inerted.

CARGO SHIPS:

Amount of cargo on board for discharge.

Receivers of cargo.

Advise number of stevedore gangs required.

Latitude 32° 30' N.:

As a rule, vessels are no longer required to receive permission prior to crossing Lat. 32° 30' N. en route to Brega. It is sufficient to contact Maritime Radio Tripoli or Benghazi giving ETA at Lat. 32° 30' N. and proceed to Brega. Should permission be denied, vessels will be contacted accordingly.

VHF: *Port Control:* Marsa-el-Brega Port Control is equipped with VHF radio.

The following communication procedure should be adhered to:

Vessels approaching Brega should call Brega Port Control on Channel 16, at least 1 hour before arrival.

Prior to Pilot boarding, the vessel will be allocated one of 5 working channels (6, 9, 12, 13, 14). Sirte Co. vessels are equipped to operate on these channels.

Note: Whilst in Libyan Territorial waters, it is prohibited for vessels to use Radio and Wireless Telegraphy. However, VHF communications between vessels and Libyan Ports Authorities are not affected by this prohibition.

BERTHING: *Crude Oil Berths, SPM No. 5 and SPM No. 6:*

Maximum size of vessel: 300,000 d.w.t.

Length and draft unrestricted.

Flowrate: 48,000 bbls./hr.

API approximately 40.5.

Mooring consists of a monobuoy to which are attached 2×15 in. Samson lines. These are shackled to a single 3 in. Chaffing chain, which is attached to a pick-up line.

1. The ship's Panama lead should have minimum inside dimensions of 40 cm. high and 60 cm. wide. In the event that a vessel is not equipped with a suitable Panama lead, alternative fairleads will be examined. Should the alternative fairleads be considered insufficient to accommodate the 3 in. Chaffing chain, the vessel will not be berthed.
   In case of vessels without Chain stoppers (AKD) fitted, strops and shackles will be placed on board. *PLEASE ADVISE.*
2. The vessel is required to have ready a good 3.5 in. – 4 in. messenger line ready, and at least 137.25 m. in length.
3. Port derrick should have a S.W.L. of 10 tons, and be ready on arrival.
4. Vessels berthing at the SPM's must have their anchors secured, due to underwater PLEM and pipelines.
   Floating hose is 24 in. with a 16 in. over-the-rail hose. Ship's manifold should be ready to receive 1×16 in. hose (American Standard).
5. All mooring, unmooring and hose operations are done by the ship's crew as indicated by the Mooring Master.
   Notice of Readiness will be accepted only when the Pilot boards the vessel in the vicinity of Brega Buoy.

Naphtha Berth No. 2:

Maximum size of vessel: 55,000 d.w.t., in good weather.

Maximum length: 244 m.

Maximum draft: 12.8 m.

Maximum flowrate: 21,000 bbls./hr.

API approximately 70.

1. Ships should have ready aft, a minimum of 10×10 in. circumference fibre or synthetic mooring ropes in good condition, each not less than 230 m. (120 fathoms) in length. Mooring wires are not normally acceptable. It is recommended that 4 ropes be ready on the main deck, two on each side.
2. Port derrick to be ready to receive one 12 in. hose.
3. Both anchors to be ready and working.
4. Mooring and hose operations by ship's crew.

Product Dock:

Maximum draft: 7.92 m.

Jetty length: 260 m.

Loading arm 129 m. from corner.

Vessels loading or discharging refined petroleum will be berthed at the product jetty.

Vessels cannot remain alongside the Breakwater except in fine weather.

LNG Jetties A (North) and B (South):

Head, stern and breast lines to dolphins.

Springs are secured to the central pier.

Vessels must be ready to leave at short notice.

LPG Jetty A: Connection on centre berth position.

LPG Jetty B: Connection on East breasting dolphin.

Caustic Jetty A: Connection on North Breasting Dolphin.

Cargo Quay – West Side (Sirte Oil Co.):

Maximum size of vessel: 152.5 m.

Maximum draft: 7.92 m.

Ships must have adequate unloading gear.

The following restrictions and conditions shall be observed by Masters, consignees and Agents:

1. The permission of the Operations General Manager must be obtained before a ship can berth to handle cargo that is non-Sirte Oil Co.
2. Unloading must be from ship to truck, and no marshalling arrangements can be made available inside the area.
3. Unloading operations may not be performed, except during daylight hours as determined by the Marine Superintendent.
4. Loading trucks will adhere strictly to Sirte Oil Co. safety rules.
5. Arrangements for the entrance and movements of stevedoring personnel must be coordinated with Sirte Oil Co. Security Division.
6. The stevedores will be held responsible for cleaning up after unloading the vessel, under direction of Sirte Oil Co. Materials Division.
7. Ten (10) days advance notification must be given to the Marine Division.
8. All vessels with or loading Sirte Oil Co. cargo will be given priority, even if this requires interruption of the unloading operations of other cargo vessels.

Ro-Ro facility can be used by suitable vessels when Product Jetty is not occupied.

Height of jetty above sea level approximately 1.5 m.

East Side of Inner Harbour:

Jetty No. 1: Ammonia and methanol.

Jetty No. 2: Naphtha, methanol, acid and caustic.

Maximum size of vessel: 30,000 d.w.t.

Overall moorings: Jetty No. 1 – 334 m. Jetty No. 2 – 341 m.

Load section: 42 m.

Maximum draft: 10 m.

Urea Berth:

Overall length: 200 m.

Yokohama fenders in centre, 62.5 m. from each end.

Draft restriction: 8.8 m. (29 ft.) even keel.

East Cargo Quay:

Length of Quay: 394 m.

Maximum draft: 9.2 m.

Height of Quay: 2.7 m.

Maximum size of vessel: 15,000 d.w.t.

Suitable Ro-Ro vessels may berth stern on to the quay.

Ships using the Eastern part of the harbour are controlled in the same manner as in the Western part of the harbour, together with any particular rules concerning the individual berths therein, that the National Petrochemical Co. may apply.

TANKERS: *Communications:* During loading offshore communications between ship and shore is via VHF. In the event of a breakdown in communications, the ship should sound the emergency signal, comprising a succession of short blasts on the ship's whistle. All loading will then cease until radio contact with the shore has been re-established.

Safety Rules: Safety rules for tankers are as the "International Safety Guide for Oil Tankers and Terminals." and IMO Recommendations on the Safe Transport, Handling and Storage of Dangerous Substances in Port Areas (Assembly Resolution A.435 (XI).

The Mooring Master is authorised to suspend operations in any cases where dangerous conditions or practices are deemed to exist, and if need be removed from berth.

Vessels at Sea Berths are not to adjust mooring lines before consulting the Pilot/Mooring Master.

Ballast: As soon as practicable after arrival and prior to acceptance, ballast will be inspected for evidence of oil. Samples will be sent ashore for testing. Inspection will continue during discharge of ballast.

If evidence of oil appears, the vessel may be returned to sea, or made to keep the dirty ballast on board.

Any vessel required to return to sea for the purpose of cleaning tanks or for any similar reason, automatically nullifies any Notice of Readiness, and at the same time loses priority held for loading. On return, a new Notice of Readiness must be tendered.

Vessels not having sufficient illumination will not berth if discharge of ballast continues after dark.

Loading Precautions: Masters are responsible to see that no oil is spilled from their ship.

If during inspection while loading, it is revealed that the ship's hull is not oil-tight, the ship will be rejected and refused further loading.

Vessels will be encouraged to discharge ballast and load oil simultaneously, subject to the loading rate.

Vessels Loading Crude and Naphtha: Inert Gas/Closed Ullage Requirements: It is a requirement of the amendment to "International Convention for the Safety of Life at Sea 1974", Regulation 60, that the vessel be fitted with an Inert Gas System. It is also a requirement of the same convention and the "International Safety Guide for Oil Tankers and Terminals" (ISGOTT) that, prior to loading, the cargo tanks must be inerted in accordance with the guidance laid down in Chapter 9 of ISGOTT and the I.M.O. Publication "Inert Gas Systems" 1983 edition.

Unless vessel's cargo tanks have been inerted to the required standards, that is, not more than 8% oxygen content by volume, the terminal operators will not commence loading and any delays arising, until such time tanks are inerted to the required oxygen level, will be to vessel's own account, and Notice of Readiness will not be accepted.

Furthermore, it is also a requirement of Regulation 60 that the vessel is fitted with a Closed Ullaging System. The use of which, during loading, will ensure that the inert gas/hydrocarbon vapour mixture is expelled only through the venting system designed for the purpose, and not through the ullage/sighting ports or any other deck openings.

These requirements are necessary to comply with "SOLAS" requirements, and to protect the terminal facilities and Sirte Oil Co. require vessel to confirm that they will in fact be met by signing and stamping last page of the terminal booklet.

SPM Berths No. 5 and 6, (Crude Cargo): Forecastle Head Watchman: A watchman *must* be stationed on the forecastle-head at all times to report any failure of moorings. He should also report immediately if the vessel tends to "ride-up" to the buoy.

He should be equipped with the appropriate means to communicate with the Officer of the Watch.

INSPECTION/POLLUTION: *Arrival*: As soon as practicable after arrival and prior to acceptance, all of the vessel's tanks will be inspected for evidence of oil in ballast tanks. Inspection will continue during discharge of ballast. If evidence of oil appears at either of these inspections, the ship must return at once to sea and clean tanks, etc., in accordance with the procedures as laid down in the booklet entitled "Clean Seas Guide for Oil Tankers – The Operation of Load on Top" as issued by the International Chamber of Shipping – Oil Companies International Marine Forum.

Any vessel required to return to sea for the purpose of cleaning tanks or for any similar reason automatically nullifies any Notice of Readiness already tendered, and at the same time loses priority held for loading. On return from sea, vessel will be entered for loading at the time of the second arrival when a new Notice of Readiness will be tendered.

In addition to the lights usually displayed, vessels discharging ballast or loading cargo during darkness, will illuminate the area round the ship to the satisfaction of the Mooring Master in order that any oil on the surface of the sea may be readily detected and appropriate action taken. Vessels not having sufficient illumination will not berth if discharge of ballast continues after dark. Vessels having sufficient illumination will take precedence in berthing order. Vessels should provide suitable floodlights for working on deck during night operations, and should designate a responsible person to keep a continuous watch on hoses and moorings at all times during sea berth occupancy.

Loading Precautions: Masters are responsible to see that no oil (crude, bunker, diesel or bilge) is pumped or spilled overboard from their ships. Cargo hose should be inspected to ensure proper connection; drip pans should be in place, especially when disconnecting hose; scuppers should be plugged tight to contain possible spills; loading valves should be checked and tested to ensure proper operation and tight shut off; unused cargo and bunker connections should be blanked off; stern discharge line, if any, should be closed and blanked off; all sea valves should be closed and lashed shut upon completion of deballasting; the ship should provide sufficient staff (a minimum of one officer and three other crew members are recommended) to ensure proper supervision of loading and topping off operations.

If, during first inspection or during progress of loading, it is revealed that ship's hull is not oil-tight, ship will be rejected and refused further loading. Ship will not later be accepted for loading unless satisfactory evidence, duly certified by Lloyd's or American Bureau of Shipping or other recognised survey agency, of effective repair is submitted.

Contamination of the Sea: In the event any vessel should discharge dirty ballast or spill oil in the vicinity of the Brega Terminal area, Sirte Oil Co. retains the right to take any action that may be necessary to clean up the contaminated area whether the contamination is upon the sea or the shore, or upon any structures or properties located in or upon the sea or upon the shore. In addition, Sirte Oil Co. shall have the right to settle any claims of third parties arising from such contamination. All costs and expenses incurred by Sirte Oil Co. to carry out the cleaning up of such contamination, or the settlement of third party claims, shall be borne by the vessel or by those owning the vessel at the time of the said contamination, and Sirte Oil Co. shall be entitled to reimbursement by said owners for any such cost and expenses.

FRESH WATER: No fresh water is available.

FUEL: No bunkers are available.

REPATRIATION: Crew members cannot pay off or leave the vessel at Marsa el Brega except in cases of emergency. Even in an emergency, it should be noted that Seamen's Books are not valid under the Libyan law. A valid passport is required, and with adequate notice by radio it is possible to obtain an exit visa for a crew member leaving in an emergency.

SAFETY: The vessel's personnel are responsible for the safety of the vessel and must take all necessary precautions, whether or not so advised by the Mooring Master, having in mind the hazards of the operation because of the product being loaded, weather conditions and any other circumstances requiring special care or caution.

While a vessel is moored, all the vessel's personnel and vessel's operations must comply with or be in accordance with the following Safety Rules:

(a) *Smoking is prohibited on the open decks of vessels. Smoking is permitted on board vessels only in enclosed spaces specifically assigned by the Master as Smoking Areas.*

(b) Before any loading commences all scuppers on the loading deck through which oil might escape overside must be tightly plugged and must be so maintained throughout the period the vessel remains within the limits of the harbour.

(c) The Master is responsible to see that oil from the vessel is neither spilled nor pumped into the water. At all times while loading cargo, all openings to the loading deck from crew, engine, galley and other dangerous areas shall be tightly closed.

(d) Boiler tubes are not to be blown. Every precaution must be taken so that sparks do not at any time escape from the funnel or stack.

(e) Ship's wireless is not to be operated while vessel is in the berth.

(f) Two hoses with spray nozzles to be laid out near manifolds and pressure maintained on fire mains at all times. Two suitable portable fire extinguishers (foam or dry powder) should also be available and bags of sand kept near manifold to contain any small oil spillage.

(g) Please note carefully that the Mooring Master is authorised to suspend operations in case any of the foregoing Safety Rules are not observed and in all cases where dangerous conditions or practices are deemed to exist.

Shore Alarm Signals:

Category 2 (Serious Incident): Three 2 second blasts of the District siren.

Category 3 (Major Disaster): A series of three Category 2 alarms.

Ships:

Fire: Six (6) or more short blasts, followed by a long blast repeated until shore contact, and continuous ringing of vessel's fire alarm system.

VHF Radio: *All* vessels to stand by Channel 16.

Fire or Explosion on Board Crude Vessel Berthed Offshore:

A. Responsible officer to man bridge, engines to be put on standby and crew to disconnect hoses as soon as possible.

B. Loading to be stopped on other vessels berthed offshore. Hoses to be disconnected and hung off, engines put on standby and crew standing by to vacate berth if necessary.

C. Vessels at anchor in the vicinity of the Brega Buoy to have engines on standby, with crews ready to heave up and put to sea if need arises.

Fire or Explosion on Board Ships in Inner Harbour:

A. Master to call Port Control on VHF Channel 16 with details.

B. Loading arms or hoses to be disconnected as soon as possible.

C. Loading or discharging to cease immediately on other vessels in harbour and offshore berths. Vessels to standby to vacate berths if necessary.

Fire extinguishers and hoses with nozzles capable of projecting a fine spray (fog) should be rigged in the vicinity of the loading/discharging manifold with fire mains pressurised at all times. (See 13.2.2.3 of I.O.T. & T.S.G., 2nd Edition).

Crude Oil Health Hazards (Hydrogen Sulphide Content)

A sour crude can be defined as one containing Hydrogen Sulphide (H_2S) within the range of 0.05 cu.ft. to 8.8 cu.ft. per 100 gallons or capable of generating atmospheric Hydrogen Sulphide concentrations of 5 to 1,000 p.p.m. Hydrogen Sulphide vapours in air are extremely toxic and the Maximum Allowable Concentrations (MAC) for personnel exposure throughout an eight hour day is 10 p.p.m. The gas is highly odorous and a particular hazard is its special effect of causing paralysis of the olfactory nerve, thus destroying the sense of smell.

Escape of Hydrogen Sulphide vapours from crude oil is relatively facile and due to a heavier than air effect (S.G. 1.19) may justify additional precautions under some atmospheric conditions.

The following medical effects on personnel exposed to Hydrogen Sulphide represent an indication of the degree of vigilance necessary to prevent or minimise exposure:

	Atmospheric Concentration Range	*Personnel Reaction*
(i)	50–100 p.p.m.	Slight irritation after exposure for 1 hour.
(ii)	200–300 p.p.m.	Marked irritation after exposure for 1 hour.
(iii)	500–700 p.p.m.	Loss of consciousness after exposure of 30–60 minutes.
(iv)	700–900 p.p.m.	Rapidly produces unconsciousness and death occurs a few minutes later.

The particular hazards introduced by the carriage of crudes containing Hydrogen Sulphide may be restricted by observing the following practices:

(1) Every opportunity should be taken to utilise closed loading facilities to discharge displaced gas remote from deck areas.

(2) During loading operations, where large volumes of gas are discharged to atmosphere, regular observations should be made of gas concentrations about the decks.

(3) Any persons engaged in sampling, gauging, sighting open cargo tanks or disconnecting cargo hoses, should work windward of the vapour source and should be kept under surveillance from a safe area.

(4) In the event of a person being rendered unconscious by vapours with high Hydrogen Sulphide content, urgent removal to a safe area and application of artificial respiration is of prime importance, followed by the early attention of a qualified medical practitioner.

(5) In respect of loading crude with a high Hydrogen Sulphide content, it is not necessary to take water dips after loading and ullages as indicated by "Whessoe" or other automatic gauges are acceptable on vessels fitted with this type of equipment. Cargo samples taken from the shore meter battery are acceptable.

(6) In respect of transporting crudes with a high Hydrogen Sulphide content, one day prior to arrival at the discharge port, the pressure/vacuum valves should be jacked open to allow gas concentrations to escape to atmosphere at the masthead; then prior to berthing those valves should be reset in the operating position.

The degree of sourness is normally indicated by the Hydrogen Sulphide content in p(arts) p(er) m(illion) *liquid measure*. The Hydrogen Sulphide contents of various types of sour crudes so defined are as follows:

Crude	*Hydrogen Sulphide (p.p.m. Liquid Measure)*
Agha Jari	20
Jambur/Bai Hassan	40
Kirkuk	40–70
Gach Saran	70
Brega	260
Qatar	200–300

The *Atmospheric* Hydrogen Sulphide concentration varies materially with atmospheric conditions. Particular caution should be exercised when petroleum vapours generally tend to concentrate about the decks. H_2S is readily detected with a MSA Toxic Gas Detector.

The precautions referrred to above should be carefully observed at all times.

MEDICAL: There are limited medical and dental facilities at Marsa el Brega. Personnel requiring urgent medical treatment may obtain it, but this will only be undertaken in serious cases. The cost of transport and treatment will be charged to the vessel. A form entitled "Charges for Ship Account" must be completed in quadruplicate and sent ashore with the person requiring treatment. This form can be obtained from the ship's Agent.

Masters of vessels arriving at Marsa el Brega who require medical treatment should give advance notice of their requirements by radio whenever possible.

REPAIRS: No repairs are allowed to ship's engines while vessels are moored in the berths. Ship's engines should be ready for use on short notice in case the vessel has to vacate the berth suddenly because of bad weather. There are no repair facilities for ships available at Brega.

SHORE LEAVE: Ship's personnel are not permitted ashore, nor on the wharves or jetties for any purpose whatsoever.

PORT REGULATIONS:

Cargo Vessels: Also see "Max. Size".

The following restrictions, conditions, rules and priorities shall be observed by Masters, Consignees and Agents of non-Sirte Oil Co. cargo vessels calling at Marsa el Brega and berthing at the Sirte Oil Co. cargo jetty.

1. The permission of the Operations General Manager must be obtained before a non-Sirte Oil Co. cargo vessel can discharge. The Operations General Manager also designates certain priorities which may change from time to time. Agents of cargo ships must keep in touch with Marine Superintendent who will advise them of the priority assigned to their vessel.

2. Maximum vessel draft 26 ft.

3. Maximum length overall 500 ft.

4. No repairs may be carried out to the propulsion machinery during the unloading operation and the ship must remain mobile and be ready to manoeuvre at all times.

5. Vessels must be equipped with their own unloading Gear.

6. Unloading must be from ship to truck and no marshalling arrangements can be made available inside the reserved area. The unloading operations must be completed rapidly.

7. Unloading operations may not be performed except during daylight hours as determined by the Marine Superintendent.

8. Loading trucks will be required to adhere strictly to Sirte Oil Co.'s safety rules, particularly while operating within the limits of the Industrial area.

9. Arrangements for the entrance and movement of the stevedoring personnel must be coordinated with Sirte Oil Co.'s Industrial Security Division. No housing or victualling will be provided for stevedoring personnel. All expenses, costs, remunerations and compensations associated with this activity will be borne directly by the company concerned.

10. The stevedores will be held responsible for cleaning up after completion of unloading.

11. No victual, water supply or bunkering service is available for vessels calling at Brega.

12. Advance notification must be given to Sirte Oil Co. Marine Division at least 10 days prior to arrival of vessel at Marsa el Brega. ETA of vessel to be notified 72 hours prior to arrival and confirmation and reconfirmation 48 hours and 24 hours respectively prior to arrival.

13. A system of priorities for cargo vessels entering Brega is in operation as follows: 1st – Sirte Oil Co. cargo, 2nd – N.O.C., 3rd – other vessels. This system will apply even though this requires interruption of operations of vessels already berthed.

14. Weather and sea conditions, particularly during the period December to April of each year, impose severe restrictions on the cargo pier usage. Among these restrictions are the discontinuation of unloading and the unberthing of the ships as a safeguard against ship and berth damage.

One hour's notice will be given to Masters should it be deemed necessary to vacate the berth due to bad weather.

15. Sirte Oil Co. shall not be held reponsible for any waiting period or delay (demurrage) related to the entry of cargo ships, nor be liable for any costs or compensation in that connection, regardless of the circumstances.

16. Sirte Oil Co. shall not be held liable for any loss, damage or injury that may occur to any property or persons whatever the cause thereof as long as they are related to or resulting from the use of the port. Such loss, damage or injury shall be the liability of the Master, Consignee or Agent irrespective of whether they are real or alleged. The above named shall also undertake to indemnify Sirte Oil Co. for any such losses and damages and to hold Sirte Oil Co. harmless from any liability that may arise as a result thereof.

17. All vessel movements will be subject to the control and direction of Sirte Oil Co. Marine Division Superintendent.

Tankers: Permission for overside painting is to be obtained through the Agent before painting can be started.

No repairs are allowed to ship's engines while vessel is moored in the berths. Ship's engines should be ready for use on short notice, in case the vessel has to vacate the berth suddenly because of bad weather.

Vessels should have sufficient ballast aboard for safe manoeuvring, but should not arrive excessively ballasted. The propeller should be submerged, and vessel trimmed not more than 2.43 m. by the stern.

Vessels not properly ballasted will not be berthed in turn, and will not have their Notice of Readiness accepted.

There are no facilities for the discharge of dirty ballast. *All Ships must arrive with clean Ballast.*

All tank lids must be closed and vented to the atmosphere via the agreed system.

WEATHER: *Meteorologic and Oceanographic Information:*

1. Sea conditions: Mid December to mid April, maximum wave height 25 ft. – 30 ft. Late April to early November wave height can reach 12 ft., particularly during afternoons, when winds can attain a velocity of up to 35 knots.
2. Wind direction and velocity: Late December to end of February wind direction mostly North-Westerly with a velocity of up to 75 knots. March to May wind direction varies with land/sea breeze effect with a velocity up to 15 – 35 knots. June to August mainly Northerly sea breezes. September to early November mainly light winds but with occasional gales and sand occurring. Maximum wind velocity 45 knots.
3. *Vessels should not remain at Anchor in bad weather.*
4. All berths in the inner harbour are adversely affected during periods of bad weather, particularly when the prevailing wind is from the North-West.
5. All vessels in the inner harbour are therefore required to be ready to proceed to sea, as directed by the Marine Superintendent or his representative, when adverse weather prevails or is expected. One hour's notice will be given to Masters, should it be deemed necessary to vacate the berth.
6. Masters of cargo/product vessels are cautioned that seaweed in suspension is present in the inner harbour area, and all precautions should be taken to avoid blockage of main engine intakes.

Weather:

Rain and thunderstorms	September – April
Sand storms	March – June
Fine with mostly little cloud	June – August.

Temperatures: May to October: Maximum temperature 120° F. Normal day temperature 95° F.

November to April: Minimum temperature 35° F. and maximum 85° F.

Humidity: Generally low during periods of maximum temperature.

GENERAL: *Provisions:* There are no fresh or dry provisions available at Marsa el Brega.

Mail: The Ship's Agency will handle all official and crew ship's mail.

Harbour Work: Dredging is in continual progress in the vicinity of the inner harbour. Vessels are cautioned not to enter the restricted area (B.A. Chart 3350) without the services of a Brega Pilot/Mooring Master.

All mooring lines to be fitted with adequate ratguards.

All berths in the inner harbour are adversely affected during periods of bad weather, particularly when the prevailing wind is from the North-West.

All vessels allocated berths in the inner harbour are therefore required to be ready to proceed to sea as directed by the Marine Superintendent or his representative when adverse weather prevails or is expected.

Smoking is strictly prohibited on board all tankers except in locations approved by the Masters of the vessels. No smoking on deck even if gas free.

Full power must be available for all manoeuvring to and from all berths. During deballasting and loading, vessels must maintain engines and propulsive machinery in readiness at all times to leave the berth on short notice.

No repairs are permitted which will delay or interfere with this contingency. Contravention of this ruling constitutes a serious safety hazard and will entail towage from the berth and possible delay to the vessel for which Sirte Oil Co. will accept no responsibility.

It is the responsibility of the vessel, before arriving, to see that ballast water is free of oil and to *discharge ballast water through ballast discharge lines* prior to arrival to ensure their cleanliness.

All tankers for sea berths must have port derrick ready for use.

Masters are warned that no contaminated ballast or bilge water may be discharged within Libyan territorial waters. It is the responsiblity of the vessel before arriving to ensure that ballast water is free of oil, and that all pipelines, sea suctions, strainers and pumps have been flushed clean of oil.

SHIPMASTER'S REPORT: August 1984.

Charts: British Admiralty 3354, 3350. French 5792.

Approach: Refinery buildings are radar identifiable at over 20 miles and the fairway buoy (Lat. 30° 27.55' N., Long. 19° 35.1' E.) at over 6 miles, also at about this distance it is possible to make out the shape of the harbour breakwaters on radar. The line of soundings is very sharp on the echosounder, and the 50 m. line 7 miles out when coming from the North was raised very easily.

Pilotage: Pilot boarded at the fairway buoy from a large tug (Dutch company contracted to the port). Vessels are not allowed to proceed into the restricted area 0.5 miles South of the fairway buoy without a Pilot. The area inside the restricted zone having several tanker SPM's and other obstructions.

The Pilot was immediately concerned about the vessel's air draft for berthing at the Urea Berth. After berthing I made a rough calculation and would say a vessel with a main deck air draft of over 38 ft./40 ft. would have great difficulty accommodating them. Our main deck air draft at the time was 31 ft. When asked the Pilot stated that the maximum departure draft was 29 ft.

To approach the berth vessels enter with 2 tugs (2,000 h.p.) fast on the starboard shoulder and quarter, berthing being port side alongside. When the breakwater has been rounded vessel is headed East until clear of the Fl. 5 sec. elbow buoy when the swing to starboard with engines and tugs is started (starboard anchor ready in case of emergency). Once vessel is swung until heading about S.W., tugs then push her alongside as near into the corner with the general cargo berth as she she will go, in our case about 8 m. (this is also to facilitate the after elevator being used to work No. 1 Hatch, on this vessel LOA 169.1 m.).

Survey/Loading: Shippers are National Petroleum Co. and all cargo survey work is done by Societe Generale de Surveillances S.A. The surveyor was very helpful. Stowage factor for treated urea is approximately 48/49.5 cu. ft. per ton. The loading rate stated was 400 tonnes p.h. although in actual fact we never achieved an average of more than 300 tonnes p.h. Treated urea is very hydroscopic, with the climatic conditions in Libya, it is impossible to load if the relative humidity is over 75%. This usually involved stopping in the evenings around 1800/1830 hrs. and restarting in the morning 0800/0830 hrs., although on one occasion we did manage to work all night.

The elevator is self-trimming and does a reasonable job, however, with the high stowage factor some hatches were filled but because of the restricted height of the elevator, it proved impossible to get the loading chute high enough to fill the coamings as we would have liked, and thus our intake per hatch was reduced.

Clearance/Customs formalities: Libyan Government have issued a statement that from 7th June, 1984, all incoming ships must have all ship's papers and documents translated into Arabic. This we managed to have done but only because of the length of stay in the previous port. In actual fact the Agent took no notice of these translations, they wanted their own forms filled in by the Master. The Customs Officials were very courteous. No alcohol is allowed, also all cameras had to be locked in the bond as El Brega is a restricted port because of the oil installations, and hence no shore leave. The main transmitter was also sealed.

SHIPMASTER'S REPORT: November 1987.

Vessel: 95,000 d.w.t. tanker.

We were advised by Charterers to inform Germa Shipping, Tripoli of our ETA and other relevant information. They in turn advised us that we should contact Shahat Shipping, Brega, but they were in fact already receiving all ETAs.

We were unable to contact the terminal until some 2 hours off as they were in the process of moving their VHF aerial. When re-sited, communications are likely to be much improved.

No information is passed by the terminal to the pilots until just prior to arrival of the vessel. It is therefore a good idea to send a 24 hour ETA to Sirte Oil Company (Telex No. 30120, 30121, 30122) who will pass messages to the pilots.

Samples were taken of all ballast tanks (even segregated ballast) for analysis ashore. If excess oil is found, vessel will be ordered off the berth for extra cleaning.

Maritime Declaration of Health not required. Pilot grants Pratique on boarding. Pilot also carries out safety and anti-pollution check lists.

Tug does not usually tow astern as an on/off shore breeze keeps the vessel clear of the buoy, however engines are to be kept on 10 minutes notice in order to give stern power.

After berthing, the Pilot gives papers to the Master, 2 of which have to be completed and signed. The remaining papers have to be signed and are taken away by the Agent. The ship's stamp is to be placed on all papers.

Libyan Discharge Certificate: It is essential that the discharge figures inserted at the discharge port are exactly the same as the Bill of Lading figures.

The Crew Declaration has to be transferred to a local form and signed by each crew member. If some of the crew members are too busy to sign this form and in order to avoid delays to the Customs, it is in order for the Master to sign on their behalf.

On departure, call Port Control and give time of departure, course, speed and destination.

A new SBM is being laid in a position 242° True × 1.04 nautical miles from the existing SBM.

AUTHORITY: Brega Marine, Sirte Oil Co., P.O.Box 385, Tripoli, Libya, S.P.L.A.J. *Tel:* 021-602052-56. *Telex:* 30120, 30121, 30122 Sirtco Ly, or 50657 Sirtco Ly. *Contact:* Captain F.M. Sayd, Marine Superintendent – Brega.

AGENCY: Universal Shipping Agency. Telex: 50635.
Shahat Agency. Telex: 50635 Shahat Ly.
Also see "General" before first port.

MISURATA (Qasr Ahmed): 32.22 N. 15.13 E.

(See Plan)

Also see "General" before first port.

GENERAL: The harbour is enclosed by 2 rubble mound breakwaters armoured by tetrapods. The North Breakwater extends 1,400 m. due East from Ras Zarrugh Lighthouse and East Breakwater extends 1,800 m. due North from the shore near the prominent radio station about 2 km. South of the Ras Zarrugh Lighthouse. There are lights on the breakwater roundhead. On the North Breakwater a green flashing light (0.3 secs.) every 3 secs. and on the Eastern Breakwater a red flashing light (0.3 secs.) every 3 secs. The Ras Zarrugh Lighthouse at the foot of the North Breakwater is a square tower with black and white vertical stripes. The structure is 8 m. high and is on the top of a 16 m. hill. The light is flashing white (0.5 secs.) every 5 secs. with a range of 8 miles.

On the South side of harbour there is Steel Mill Harbour which is under construction.

There is a radio mast 7.6 miles W.N.W. of Ras Zarrugh with fixed red flashing lights.

For Harbour Entrance there are guides, 2 fixed red lights and 1 green flashing light, bearing 273° N.W. from breakwater roundheads. The Harbour Entrance Channel is 150 m. wide and 12 m. deep.

Inside the entrance there is a turning circle, diameter 470 m., depth 12 m. and the harbour dredged area 920 m. × 200 m. to a depth of 11 m. leads due South alongside the berth. A 500 m. × 300 m. dredged area to a depth of 8 m. leads to the West alongside the North Breakwater.

Directions: Keep 2–3 miles offshore before turning due West for entrance.

Currents: Predominantly N.W. at mean rate of 0.5 to 0.75 knots but in Winter winds can reverse the flow and induce S.E. set in excess of 1 knot.

DOCUMENTS:
Maritime Declaration of Health (to be completed on arrival).
Crew List.
Passenger List (if any).
Ship's Stock.
Stores List.
Animals Aboard List.
Ship's Log.
Last Port Clearance.
Safety Certificate Certificate.
Construction Certificate.
Safety Equipment Certificate.
Load Line Certificate.
Radio Certificate.
International Oil Pollution Prevention Certificate.

Where possible Cargo Manifests and Stowage Plans should be forwarded by airmail to the local Agent, ahead of the vessel's arrival.

PILOTAGE: Compulsory, Pilot will board about 1 mile outside the port entrance.

ANCHORAGES: Bearing approximately 273° to lighthouse on Ras Zarrugh 13 m. depth 1 mile (2 km.) offshore but holding ground is poor and it is advisable to leave anchorage at signs of onset of bad weather.

RADIO: "Misurata Port Control" should be worked as early as possible.

VHF: A high powered base station operates at the top of a 16 m. hill at the foot of the lighthouse at Ras Zarrugh. A continuous watch is maintained round the clock on Channel 16. All other Authorities such as Harbour Master, Customs, etc., should be contacted through "Radio Misurata Port Control" on Channel 16. Channel 10 can be used inside the harbour.

TUGS: Join the vessel outside the Harbour Entrance. The tugs are m.t. "Sorman", m.t. Kiklah", each 565 b.h.p. and m.t. "Al-Keriat", 2,520 b.h.p.

BERTHING: There are 6 berths, totalling 1,120 m. of concrete quay dredged to 11 m. with timber and rubber fenders and bollards at 15 m. intervals, the quay deck is at an elevation of 2.25 m. The berths include a Ro/Ro facility at Berth No. 1.

CRANES: The following types of shore cranes are available and in the near future, a floating crane of 100 tons will be available. Capacity of cranes are 57, 45, 35 and 25 tons.

STEVEDORES: *Working Hours:* 0630 to 2400 hrs., even on holidays.

MEDICAL: Full hospital facilities are available without prior notice.

TANKERS: Tankers berth at Berth No. 28. Depth alongside 11.0 m.

FRESH WATER: Available alongside and by barge.

FUEL: Available.

CONSULS: Nearest consuls are at Tripoli.

REPAIRS: See "Tripoli".

REPATRIATION: Possible.

AIRPORT: Tripoli Airport situated about 220 km. from Misurata.

TIME: Local time GMT plus 1 hour from 1st day of October until 31st March, and GMT plus 2 hours from 1st day of April to 30th September.

HOLIDAYS: Fridays; 1st day of Lunar calander year; Idd-ul-Ahada, 4 days; Idd-ul-Zoha, 4 days; 2nd March; 8th March; 28th March; 11th June; 23rd July; 1st September; 7th October. Even on holidays cargo work continuously maintained.

POLICE/AMBULANCE/FIRE: Call Port Manager Tel: 21101 & 21094.

SERVICES: All kinds of food and soft drinks are available except alcoholic drinks and pork.

SHORE LEAVE: Allowed after Free Pratique, Customs and Immigration formalities completed.

DEVELOPMENTS: Grain silos are under construction.

Stage II (Berths No. 7 – 18) has already been started for 1 passenger berth, 4 general cargo berths, 4 container berths, 2 Ro/Ro berths and sheds, etc.

SHIPMASTER'S REPORT: December 1977.

Chart: British Admirality Chart No. 3353 "Ras Ashdir to Sirte".

A mole has been constructed from Ras Zorog in an East direction, the length of which is approximately 1,100 m.

A second mole extends from the shore in a Northerly direction, approximately 1,800 m. in length. Entrance to the harbour is between the outer ends of both moles.

Wharves and sheds are being built along three quarters of the length of the Northerly direction mole, and around the South part of the inner harbour perimeter. At the time of the visit by this vessel about 350 m. of quay was completed, with depth alongside of 11 m.

All the construction work appears to be done by Yugoslavian labour. The "Overseer" acted as Pilot and was a very able and pleasant person. All questions regarding cargo and fresh water, provisions, etc., were dealt with by him. He supplied 10 tons of fresh water by road tanker, and organised a visit from a ships' chandler for a small quantity of fresh salad and potatoes.

There are 2 small tugs which were used in berthing under the Pilot's direction. These were very necessary owing to a number of obstacles in the harbour (divers boats, pipes, etc.). The Pilot's knowledge of English was limited and it is most necessary for the ship's Master to judge his intentions carefully.

Without a doubt the Port of Misurata when open for commerce will be a very useful port, although a small port (inside harbour space was roughly estimated to be about 1,500 m. × 700 m.). The Pilot advised that it was expected to be opened about the middle of 1978.

The vessel anchored off the port entrance at 0800 hrs. and Pilot boarded at 1100 hrs., vessel berthed shortly afterwards. Discharge of 208 tons of construction material from No.1 hold commenced at 1330 hrs., and ceased at 2400 hrs. for the day. Work resumed at 0930 hrs. on the following day, and was completed at 1330 hrs. A mobile shore crane was used throughout for discharge into lorries.

All Agency work was attended to by our Tripoli Agent, who arrived onboard at 1700 on day of arrival. As Tripoli was our next port, he was most helpful in advising our berthing prospects at that port, and delivering ship's mail.

The entering and clearing formalities were attended to by 2 Customs

Officers. They advised that there was strictly no shore leave for the crew. All accommodation was diligently searched including the Master's for alcohol, and none whatever was allowed to be in crew's possession. However when all was found to be in order, on request a small amount of bond stores was released for Christmas.

The vessel departed at 1600 hrs. for Tripoli where the Agent's estimate of 2 – 3 days waiting (although there were 50 ships at anchor) proved to be correct.

SHIPMASTER'S REPORT: March 1978.

Work is still in progress on the Southern Mole. More warehouses are to be erected there, also a grain silo. On the Western shore of the harbour more berths are to be constructed possibly for containers, but nothing finalised yet.

Misurata is to be principally a Ro/Ro port specialising in transit cargoes. A nearby motorway runs in a Southerly direction for 1,000 miles into Central Africa.

There will be facilities for conventional cargoes. Dredging is in progress in the Western part of the harbour in preparation for the new berths. The area is being marked by red marker buoys. The port is scheduled to open in June/July this year and to date there are no services excepting Customs who attend to all the Entering and Clearing formalities. All pilotage being performed by the Master, the contractors work boats will act as tugs if requested.

Documentation is similar to requirements for other Libyan ports also the same strictness regarding alcohol. All Officers and Ratings were allowed to retain a small quantity of beer, all other alcoholic drinks being placed under Seal.

SHIPMASTER'S REPORT: February 1988.

Chart: B.A. Chart No. 3353.

Documents:

8 copies Crew List.
2 copies Crew Declaration (on Libyan forms).
2 copies Manifest.
1 copy Health Declaration.
2 copies Currency Declaration (on Libyan forms).
All Passports.
1 copy Arms and Ammunition List.
1 copy Drugs List.
2 copies Cargo Manifest.

Cameras placed under seal. No cigarette issue allowed. Bond remains sealed if proceeding to another Libyan port. Definitely no alcohol. Customs would not allow beer issue. Ship's Certificates to be in Arabic. Passports exchanged for Landing Cards at the gate. All stores checked for signs of South African and Israeli produce.

Approaches: The name Qasr Ahmed is not used. All local people use the name Misurata and all Libyan Customs and cargo documents refer to Misurata.

The harbour area and power stations (32° 20' N., 15° 13.5' E.) were identified on the radar at 24 miles.

There are two harbours, the older general cargo and tanker port of Misurata and the recently constructed Steel Harbour which is about one mile to the South.

On approach, the power station chimneys and the gantry crane on the new Steel Harbour breakwater and the grain silo at Misurata are visible. At night, the flashing red lights on the power station chimneys and the horizontal red flashing lights between the chimneys are very conspicuous.

There are 2 sets of antenna dishes (32° 21.25' N., 15° 13.3' E.) just South of Misurata Harbour which are conspicuous.

Anchorage: Vessels may anchor anywhere off the breakwaters but not within 2 miles of the port. Anchorage exposed to heavy swells.

Channel: The leading line to Misurata Harbour is 270° and is indicated by leading marks/lights (red and white horizontal, inverted triangles and a front light exhibiting flash green every 5 seconds and the rear green light flashing green every 12 seconds). The front daymark is barely visible.

The Fairway Buoy has been removed.

The Pilot advises that the depth at the tanker berth is 38 ft. and eventually all the harbour will be the same depth. The maximum draft permitted at the tanker berth is 36 ft. and this was confirmed by the echo sounder.

2 sets of buoys and a Fairway Buoy in position 32° 30.9' N., 15° 19.0' E. mark the channel to the Steel Harbour. The leading light is 263°. There are no leading marks or lights visible. The Channel depth is believed to be 50 ft. and this was confirmed in part by echo soundings. The channel width is approximately 200 m.

Pilotage: The Pilot boards outside Misurata Harbour entrance from a small grey tug. Pilot normally boards between 0800 hrs. and 2000 hrs. Normally there are no movements on Friday.

Tugs: There are 2 tugs available, the larger tug being approximately 2,000 h.p.

VHF: On arrival, vessels should call Misurata Port Control on Channel 16, working Channel 12. On approach all the usual details are required (See "Tripoli – Shipmaster's Report" dated March 1988). Misurata Port Control on Telex No. 90130221 PORTMSLY

Harbour: The harbour is being extended beyond the existing breakwaters. New berths are under construction to the West of the existing Eastern breakwater berths.

The new oil terminal in position 13° 22.3' N., 15° 13.2' E. is capable of taking product tankers up to about 30,000 d.w.t.

All charted buoys inside the harbour have been removed.

The new Steel Harbour appears to be completed and has conveyors which are adjacent to the steel mills and one gantry type grab crane.

Within the Steel Harbour there is a service harbour with control tower.

Tanker Berth: The tanker berth is on the N.W. corner of Misurata Harbour. Vessels berth port side alongside.

The newly constructed concrete berth is a pier with outlying mooring dolphins each end, which are connected to the pier by steel walkways. The mooring points and fendering are very good.

This berth handles product imports for the local area including the steel mills and the power station. The products are LPG for cooking and heating fuel, jet fuel/Avgas, gas oil and fuel oil.

At the present time, there are no bunker or fresh water facilities, however, we understand that IFO and gas oil and fresh water pipelines are to be laid to the pier.

The gangway was easily landed.

Moorings: The moorings consisted of 2 head/stern lines, 1 breast line and 2 springs at each end. The starboard anchor with one shackle in the water was used for approaching the berth and a mooring boat assists with running lines.

Cargo: LPG is handled by a 6 in. Chicksan arm with clamps, the shore required a 6 in. spool. The pipeline is 8 in. diameter and runs a distance of 5.3 km. to 5 spheres with a total capacity of 8,000 cu.m.

The terminal requires cargo at 0°C. Max. pressure 8 kg./sq.m. Maximum pumping rate 145 cu.m./h. The shoreline relief valves are set at 16 kg./sq.m. and the maximum pressure in the shore tanks is 7 kg./sq.m. The average discharge is 68 t.p.h.

There was no surveyor in attendance and no shore calculations made. The Receivers, "Breganaft" checked the ullages.

The pipeline was hot gassed for 45 minutes.

Gas oil and Avgas are handled through 2×10 in. Chicksans and fuel oil is handled through 1×12 in. Chicksan.

Fresh Water: Fresh water is available by barge and should be ordered well in advance. While we were in port the barge was moored astern of us at the Port Authority Jetty. The capacity of the barge is 200 tonnes. It will also take water to vessels at anchor in calm weather.

Customs: Customs authorities make a very thorough search of the vessel.

Shore Leave: Not permitted.

General: Friday is a holiday so there is very little movement on that day.

AUTHORITY: Port of Misurata, P.O.Box 18218, Misurata, Libya. *Tel:* (051) 24457, 29428. *Telex:* 30221 Port Ms Ly. *FAX:* (051) 22492. *Contact:* The General Manager.

RAS LANUF: 30.31 N. 18.35 E. (See Plan)

(A) VEBA OIL OPERATIONS (V.O.O.)
(B) RAS LANUF OIL & GAS PROCESSING CO. INC. (RASCO)

(A) VEBA OIL OPERATIONS (V.O.O.)

Also see "General" before first port.

DOCUMENTS: Customs will require:

4 Crew Lists.
1 Crew Declaration of personal belongings (including cigarettes, etc.)
2 Stores Lists.
1 Passenger List.

Crew Lists and Crew Declaration of personal belongings must be on the approved Libyan Government Documents. Vessels are advised on their initial visit to the port to obtain sufficient forms for future visits. Also required are:

6 Copies of Cargo Manifest for Ras Lanuf Discharge.
1 Copy of Cargo Manifest for transit cargo with a summary.
1 Copy of Passenger Manifest.

A copy of a Certificate of Discharge of the last cargo loaded at a Libyan port is required. Said Certificate to be duly signed and stamped by Customs Authorities at the discharge port. Blank forms will be delivered with the cargo documents.

Clearance from the last port of call will be required by the Government authorities. The police will require 4 copies of a Crew List and a Passenger Manifest if any passengers on board.

PILOTAGE: It is most important that ships establish communications with the Terminal, Ras Lanuf Control, by VHF on Channel 16 within 3 to 4 hours or earlier before arrival.

Upon contact, the vessel will be requested to switch to Channel 14. This channel is used by the Terminal Marine Section for internal use and tanker mooring operations.

Channel 11 is reserved for communications between ships in moorings and Ras Lanuf Control, and should only be used for general purposes after obtaining clearance from Ras Lanuf Control.

Vessels to be moored at the Offshore Terminal at Ras Lanuf will be boarded by the Company's Mooring Master in the close vicinity of the suggested Anchorage Area mentioned below.

The Mooring Master will advise the ship's Master on approaches to the assigned berth, mooring, unmooring, connecting and disconnecting hoses, and in all other operations within the port area.

The Mooring Master will have sole control of all radio communications during the period the vessel is manoeuvring or moored in a berth.

NAVIGATION AIDS:
Seabuoy, white, with white flash every 5 seconds, in approximate position Lat. 30° 33' 56" N., Long. 18° 34' 35" E.

Vessels in the vicinity should not navigate or anchor inshore of a bearing 280° and 130° from this buoy.

A white unlit spar buoy, with a 1 m. horizontal orange stripe, fitted with a radar reflector, is located in a position Lat. 30° 32' 12" N., Long. 18° 33' 22" E. This buoy marks the tie-in position between the old Berth No. 3 and the new Berth No. 3 SPM.

A Fairway Channel Entrance Buoy flashing white every 2 secs. is located in a position approximately 30° 30' 46" N., 18° 37' 44" E.

A Channel Buoy flashing red every 5 secs. is located in a position approximately Lat. 30° 30' 17" N., Long. 18° 36' 16" E.

North Breakwater Light with occulting light green 2 every 10 secs. is located in a position approximately 30° 30' 38" N., 18° 35' 43" E.

East Breakwater Light with occulting light 2 red every 10 secs. is located in a position approximately 30° 30' 29" N., 18° 35' 24" E.

A Rear Range Light with a fixed white light is located in a position approximately Lat. 30° 30' 56" N., Long. 18° 34' 09" E.

A Front Range Light with a fixed white light is located in a position approximately Lat. 30° 30' 54" N., Long. 18° 34' 17" E.

An Unlit Spar Target Buoy, colour white is located in a position approximately Lat. 30° 31' 20" N., Long. 18° 35' 21" E.

An Unlit Spar Target Buoy, colour white is located in a position approximately Lat. 30° 31' 12" N., Long. 18° 35' 35" E.

The Mooring Area has been swept to a depth of 73 ft. in Berth Nos. 1, 2 and 3, at the SPM to a depth of 96 ft.

There are very few coastal landmarks in this area. The following should prove helpful to visiting mariners:

The Terminal Water Tower with highest elevation of 179 ft. 6 in. above sea level is located in Lat. 30° 30' 42" N., Long. 18° 32' 22" E. It is coloured white. A white light (Characteristics: flash 0.2 secs., eclipse 1.05 secs., flash 0.2 secs., eclipse 3.55 secs.) is mounted on the seaward side of the structure at 163 ft. above sea level. There is also a fixed red warning light on top of the tower.

Large oil storage tanks with highest elevation 376 ft. above sea level are located in approximately Lat. 30° 27' 24" N., Long. 18° 29' 58" E. They are coloured white.

ANCHORAGE: Suggested anchorage area is within a 3,000 ft. radius of position Lat. 30° 33.5' N., Long. 18° 36' E. in approximately 90 ft.

MAX. SIZE: Conventional berths: Up to 56 ft. draft; up to 130,000 d.w.t.

Single Point Mooring: Up to 75 ft. draft, up to 300,000 d.w.t.

HEALTH: By day – fly flag "Q" and by night display red light over white light for Quarantine Service.

Libyan Customs, Federal Police and Immigration Officials will board the vessel as soon as possible after arrival to give inward clearance and "Pratique" services. Libyan Government Regulations are strictly enforced. The vessel should have a clean Bill of Health or equivalent document from the last port of call.

RADIO: ETA messages and cargo requirements should be transmitted to Veba Oil Operations, Tripoli, Libya. Telex: 20260 LY and 20892 LY.

The first message should include, if the vessel has on board a Certificate of Discharge of the last Libyan cargo loaded, duly signed and stamped by Customs Authorities at the discharge port.

To avoid unnecessary delays, it is essential that the Master reports any discrepancies on the above certificate, in particular when the cargo was not discharged at the port stated under Section B – Port of Discharge Details.

VHF: Ras Lanuf Oil Movements Control Centre keeps continuous watch on VHF Radio-telephone Channel 16 (156.80 mHz), Channel 14 (156.70 mHz) and Channel 11 (156.55 mHz). Vessels approaching the port should make contact on Channel 16 when shore will request her to switch to Channel 14. This Channel will also be used by terminal Marine Section for internal use and tanker mooring control. Channel 11 is reserved for communications between ships in mooring and Terminal Oil Movements Control Centre and should only be used for general purposes after obtaining clearance from Oil Movements Control on Channel 16. This is a safety measure since oil flow to ships is controlled through Channel 11 and therefore it must be clear at all times in case of need to stop oil flow for any cause. Channel 16 is for calling and safety use only.

TUGS: 2×730 h.p. The company maintains launches (3×360 h.p.) to assist in mooring and unmooring vessels. These are under the direct supervision and control of the Mooring Master.

BERTHING: There are 4 submarine loading pipelines which terminate in the following approximate positions which are each marked by an unlit white spar buoy.

Berth No. 1: Lat. 30° 31' 35" N., Long. 18° 34' 37" E., from which a submarine pipeline runs to shore on a bearing of approximately 224°. Depth of water at spar buoy 70 ft.

Berth No. 2: Lat. 30° 31' 55" N., Long. 18° 33' 58" E., from which a submarine pipeline runs to shore on a bearing approximately 197°. Depth of water at spar buoy 70 ft.

Berth No. 3: Lat. 30° 32' 54" N., Long. 18° 34' 40" E., a Single Point Mooring buoy in 96 ft. water.

Berth No. 4: Lat. 30° 31' 50" N., Long. 18° 36' 06" E. – a Single Point Mooring buoy in 96 ft. of water.

In Berths No. 3 and 4, vessels are secured to the SBM by one mooring hawser. The SPM berths are designed to handle tankers up to 255,000 d.w.t. in Berth No. 4, and up to 300,000 d.w.t. in Berth No. 3.

Raising, lowering, connecting and disconnecting of submarine hoses, as well as all other labours and duties on shipboard, will be performed by the ship's crew under direction of the Mooring Master.

LIFTING HOSES: After the vessel is safely moored, the submarine hoses will be lifted on the port side. Berths No. 1 and 2 are each equipped with 2×12 in. loading hoses, the weight being approximately 5 long tons.

Berths No. 3 and 4 (SPM) are equipped with 2×16 in. loading hoses, the weight being approximately 7 long tons. Therefore, vessel must have a derrick with a cargo winch or a crane with a S.W.L. of a minimum 7.5 tons by the port side manifold.

Hose connection to be performed by the ship's crew. The derrick should be ready on arrival to lift up the Terminal's hose gear.

MEDICAL: No medical services (except in case of emergency and subject to a doctor being available) or other services are to be expected at Ras Lanuf.

BALLAST: There are no ballast reception facilities at this Off-shore Terminal. Local regulations require that ballast may only be discharged from permanent and/or segregated ballast tanks. Any vessel arriving with ballast in her cargo tank(s) must retain that ballast on board or she will be rejected. All costs accruing therefrom will be to the ship's account.

Vessels arriving at Ras Lanuf Terminal shall retain sufficient ballast on board, and shall comply with the draft requirements of Regulation 13 of Annex I of Marpol to permit safe handling of the vessel in the prevailing weather conditions.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: The only consulates are located in Tripoli which is 670 km. by road from Ras Lanuf.

REPAIRS: When a ship is in the moorings or vicinity, its engines must remain on standby with full power for immediate use. Deck machinery shall be kept in instant readiness. *Positively no repairs of any sort will be permitted in the moorings.*

CUSTOMS ALLOWANCES: Cigarettes, cigars, tobacco, matches, spirits, wines, beers, perfume, arms, ammunition, saccharine and possibly other items have to be locked up under Customs seal from time of arrival of ship in port until time of leaving territorial waters. Each person is allowed 25 cigarettes per day of stay or 25 grams of tobacco or cigars in lieu.

REPATRIATION: Crew members cannot pay off or leave the vessel at Ras Lanuf except in cases of extreme emergency. Even in an emergency it should be noted that Seamen's Books are not valid under the Libyan law. A valid passport is required.

TIME: Libyan local time is GMT plus 2 hours.

SHORE LEAVE: Not allowed.

GENERAL: No stores, foodstuffs or goods whatsoever of Israeli origin may be on board any ship calling at Ras Lanuf.

Penalties: Fine, confiscation of goods and possibly more. The Libyan Government strictly enforces this law.

Whilst arriving fly the Libyan Ensign (plain green).

Due to the existence in these waters of the fish commonly called "Weaver" fish, ship's crew are urged to exercise extreme caution in fishing whilst lying off the port area. There have been several cases of poisoning by these fish, all of which were distressingly painful, caused by contact with the fins.

AUTHORITY: Veba Oil Operations (V.O.O.) – Ras Lanuf (V40), P.O.Box 690, Tripoli, S.P.L.A.J. *Tel:* Tripoli 30081 (ext. 4116). *Telex:* 20260, 20892. *Cables:* Pegasus Tripolilibya. *Contact:* Captain B. Michels – Ras Lanuf Marine Office.

AGENCY: See "General" before first port.

(B) RAS LANUF OIL AND GAS PROCESSING CO. INC. (RASCO)

PORT LIMITS: Southward of area bound by Latitude 30° 32.7' N. and between Longitudes 18° 34' E. and 18° 39' E.

DOCUMENTS: 4 copies of Crew List on approved Libyan government document. (Vessels are advised to obtain sufficient forms for future visits during their stay).

1 copy of Personal Effects including cigarettes, etc.

2 Lists of Stores.

1 List of Passengers.

6 copies of Cargo Manifest for cargo to be discharged at Ras Lanuf Harbour.

1 copy of Cargo Manifest for cargo in transit.

1 copy of Certificate of Discharge (of the last cargo) at Libyan port duly signed and stamped by the Customs Authority at the discharge port. Blank forms will be delivered with the cargo documents. If not done on board the Ship's Purser should make request for them to be provided.

Clearance from the last port of call is required by the Government Authority.

4 copies of Crew List and the Passenger Manifest are required by the Police.

PILOTAGE: Ras Lanuf Harbour (RASCO) should be advised by telex (Telex: Ras Lanuf 50618, 50650 – Rasco Ly). Cable: Rasco, Ras Lanuf (Telephone via Tripoli 49994-99: via Benghazi 86744-48) at least 72 hours in advance, the ETA at RASCO Anchorage. It should be constantly updated/confirmed when 24 hours, 12 hours, and 4 hours distant. If more than 1 hour change in ETA occurs, the new ETA must be given. Clear specification should be made if ETA is in GMT or local Libyan time. The information in the ETA cables should be completed as per the terms of the charter party. The 72 hours message must include the ETA, last port of call, if any sickness on board, and if vessel has clean Bill of Health and cargo quantity expected to be lifted in net metric tons at 60°F (15.6°C). The 12 hour message should include definite indication as to the vessel being ready to load or not and should also include information on the time she will require to discharge ballast after arrival. Precise time of arrival should be given when ship is 4 hours distant from the terminal. On arrival at the anchorage, the vessel must contact RASCO Port Control on VHF Channel 16 to register herself.

Also see "Anchorage".

ANCHORAGE: Vessels to be secured alongside will be boarded by the Pilot in the anchorage or in its vicinity. The vessel should not manoeuvre or navigate in the vicinity of any sea buoys but should make directly for the anchorage which is a circle of diameter 1 nautical mile with centre in position Lat. 30° 32' N., Long. 18° 38.09' E., in more than 30 m. of water. For shallower draft vessels it is permissible to anchor due Southward as close as possible to this position, in an adequate and safe depth, Northward of the Fairway Buoy (position: Lat. 30° 30.6' N., Long. 18° 37.7' E.), leaving seaway free for approaching and manoeuvring. If need be vessels may anchor in safe waters Eastward of this anchoring area. Anchoring Westward of this area is prohibited.

MAX. SIZE:

(a) Tankers 3,000 – 50,000 d.w.t. will be catered for on finger jetties 1A and 1B which have a dredged depth of 14.0 m. Tankers 3,000 – 30,000 d.w.t. will be catered for on Berths 2A and 2B which have a dredged depth of 12.5 m. and Berths 3A, and 3B which have a dredged depth of 11.5 m. The quay wharf has a dredged depth of 11.5 m., on which 3 dry cargo ships of 5,000 – 20,000 d.w.t. can be berthed at one time. The quay wharf is 672 m. in length with a 35 ton multi-purpose crane to be installed and able to run the entire length of quay wall. Caustic soda discharging facilities are also available on the wharf, but the LOA of the vessel is limited as the distance between the ship's manifold and the extreme part of the vessels' stern should not be more than 48 m.

(b) *Max. Size:*

Jetty 1-A, 1-B:	
Max. LOA	250 m.
D.w.t.	50,000 tons
Max. Draft	12.5 m.
Jetty 2-A, 2-B:	
Max. LOA	189 m.
D.w.t.	30,000 tons
Max. Draft	10.5 m.
Jetty 3-A, 3-B:	
Max. LOA	189 m.
D.w.t.	30,000 tons
Max. Draft	9.5 m.
Quay Wharf:	
Max. LOA	177 m.
D.w.t.	20,000 tons
Max. Draft	9.5 m.

(c) Hooks have been provided on dolphins which are of 100 tons capacity. All bollards on the quay wharf fitted on the finger jetties are of 100 tons capacity. Other bollards are of 50 tons capacity.

HEALTH: For quarantine services:

(a) By day: Flag "Q" (yellow flag).

(b) By night: Red light over white light.

(c) Libyan Customs and Immigration Officials will board the vessel as soon as possible after arrival to give inward clearance and Pratique services. Libyan government restrictions are strictly enforced. The vessel should have a clean Bill of Health or equivalent document from the last port of call.

RADIO/VHF: Direct communication between ship and shore will be made by VHF. RASCO Communication Centre maintains a continuous VHF watch on VHF channels. On approaching, vessels should make contact on VHF Channel 16 when they will be requested to switch over to another channel. ETA messages can presently be received only on telex (See "Pilotage"). When 4 hours distant arrival messages are to be passed on VHF in addition. VHF Simplex Channels allotted to this harbour are 10 and 12. The Duplex Channel allotted is 22. Vessels must confine themselves to the channel ordered by Port Communications.

RADAR: There is no radar in operation.

TUGS: The harbour will maintain 2 coastal tugs (approx. 2,000 h.p. each) with anti-pollution and fire-fighting capabilities, 2 dual purpose launches and 3 mooring launches, when the harbour is fully operational. Vessels are, however, presently berthed by hiring of tugs.

BERTHING: There are presently 6 finger jetties and a quay wharf (See "Max. Size" and Table overleaf). Berthing will be done at the instructions of the Pilot who will board at the anchorage or in the vicinity. Vessels are to have their berthing gear in readiness well before berthing. 2 good lines forward and 2 lines aft will be required for passing to the tugs. Vessels must keep their fire-fighting and emergency system in operational readiness for their own use.

Hoses and Fuel Connections: No dirty ballast facilities at present.

All work on the ship is to be carried out by harbour staff.

MEDICAL: Medical service can be provided in the event of an emergency. For an emergency having occurred at sea the terminal should be informed by quickest means. The patient should be kept ready for evacuation with his gear, CDC, Passport and one person in attendance.

There are limited hospital and dental facilities available at a distance of about 30 km. from the harbour. During working hours, at a distance of about 3 km. medical facilities are available.

BALLAST: Presently there are no facilities to handle dirty ballast. Any ship arriving with dirty ballast will be rejected and all costs accruing therefrom will be to the ship's account. Notice of Readiness shall not be accepted until vessel returns with clean ballast and tanks fit to receive cargo. She will have to tender a fresh Notice of Readiness to load on the second arrival. Tank cleaning and gas freeing alongside will not be permitted under any circumstances.

DENSITY: 1027.

FRESH WATER: Not available.

FUEL: Not available.

FIRE PRECAUTIONS: Fire precautions are strictly enforced. Any laxity on this account will cause stoppage of operations.

CONSULS: Consulates are located at Tripoli 670 km. away by road from Ras Lanuf.

REPAIRS: When the ship is berthed, its engines must remain on standby with full power for immediate use. No repairs of any kind will be permitted when alongside.

SURVEYORS: No facility for surveying will be provided by the terminal.

GANGWAY/DECK WATCHMAN: Vessels are to employ their own watchman on the gangway.

HATCHES: Where hatches are required to be opened, the crew will be required to open them.

CUSTOMS ALLOWANCES: Cigarettes, cigars, tobacco, matches, spirits, wines, beers, perfumes, arms, ammunition, saccharine and other items have to be locked up under Custom's seal from time of arrival of ship in port until time of leaving territorial waters. Each person is allowed 25 cigarettes per day of stay or 25 grams of tobacco or cigars in lieu. Liquor is not allowed to be possessed or consumed by any member of the crew.

CARGO GEAR: The vessel's cargo gear is to be ready in all respects. The cargo gear may be augmented from shore. The Notice of Readiness will not be considered valid if cargo gear is not ready for instant use.

REPATRIATION: Crew cannot sign-off except in the event of extreme emergency. Even in an emergency it should be noted that Seaman's Book (CDC) are not a valid document under Libyan law. A valid Passport is needed.

TIME: Libyan time is GMT plus 2 hours (1st April to 30th September) and GMT plus 1 hour (1st October to 31st March).

AIRPORT: Although the nearest airport is about 10 km. from the terminal the flight schedules are irregular, and are operated by private airlines. Regular flights operate from Tripoli 670 km. and Benghazi 375 km. by road.

HOLIDAYS: Notice of Readiness will be accepted and cargo work will be carried out on holidays. Fridays are weekly holidays.

POLICE/AMBULANCE/FIRE: In the event of an emergency, the Duty Loading Supervisor on the berth is to be contacted.

EMERGENCY CO-ORDINATION: Call Duty Loading Supervisor.

TELEPHONES: At present no facility exists for making a local call or international telephone calls from the vessel. Telex facility is available if arranged with the agent.

SERVICES: No special service is available.

BANKS: No banking or exchange facilities are available.

STORING: No storing facilities are available.

SHORE LEAVE: Not allowed.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Libyan Dinar.

GENERAL: (a) No stores, foodstuffs or goods of Israeli or South African origin may be on board any ship calling at Ras Lanuf. Penalties are fines, confiscation of goods and possibly more. The Libyan government strictly enforces this law. (b) On arrival fly Libyan ensign: plain green flag. (c) Once the ship is berthed, there is likely to be no delay in commencement of operations.

DEVELOPMENTS: The port is under development and more information, if needed, is obtainable from the Loading Supervisor on duty.

SHIPMASTER'S REPORT: October 1987 (Updated 1992).

Documents:

5 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
1 copy Currency List.
2 copies Arms and Ammunition list.
2 copies Drugs List.

All alcohol is placed in bond and seals are checked during vessels stay. Vessels should not have on board any produce from Israel or South Africa.

This was the vessel's first call and Arabic documentation was not required.

Certificate of Discharge of previous Libyan cargo is required.

The figures for the bond are required in bottles and not litres or weight. For first Libyan call the Master is to make a declaration that the vessel has not called before and that a Negative Certificate of Discharge is held.

Charts: BA. Chart No. 3343 and 3354.

Approaches: Vessels are to approach and report to Libyan coastal station on reaching position Lat. 32° 30' N., Long. 18° 30' E.

On approach we used Benghazi Radio (5AB) on M/F-R/T (The ship does not have W/T). Service was clear and prompt.

The first radar target sited was the tanks at Es Sider (Lat. 30° 37' N., Long. 18° 17' E.). These tanks were sighted at 80 miles.

The wreck in position (Lat. 30° 49' N., Long. 18° 05' E.) was conspicuous at 29 miles.

Anchored vessels at Es Sider and Ras Lanuf also make a good target. Ras Lanuf RASCO Harbour was picked up at 24 miles.

An ETA was sent to RASCO and Benghazi Radio 4 hours before arrival.

Anchorage: The anchorage is that indicated on the BA. Chart No. 3343 (Lat. 30° 32' N., Long. 18° 38.09' E.)

If vessels have to wait for departure documents and are required to vacate the berth they anchor 0.5 miles east of the main breakwater.

Pilotage: Pilots for RASCO Harbour are available 24 hours. There are no night restrictions.

The Pilot boards from a tug near the Sea Buoy and on departure the pilot leaves just inside the breakwater heads.

VHF: Channel 10 is used for communicating with the Pilots. RASCO Port Control on Channel 16 after which communications are on either Channel 12 or Channel 22. Port Control normally gives 1 hours notice for raising anchor and berthing.

Tugs: At the present time there are 3 tugs in operation in RASCO Harbour. 1 × 3,000 h.p., 1 × 2,500 h.p. and 1 × 500 h.p.. Ship's lines are used to the large tug. The small tug pushes alongside.

Berthing: Vessels normally berth head out at all berths, port side to. However, if vessels manifold is in an awkward position vessel can berth starboard side to. The depths are as charted on BA. Chart No. 3343. Pilots report the maximum Winter draft at Gas Berths No. 3A and 3B as being 9.5 m. In Summer a slightly increased draft is allowed.

The very large breakwaters afford the vessel good shelter.

BERTHING: Arrangement of Facilities at Quay Wharf and Finger Jetties

Berth No.	*Product (Tonnes)*	*Parcel Size No.*	*Loading Arm*	*Loading Arms Which Can Connect Simultaneously*	*Loading Arm Size/But Can Fit Without Spool (cu.m./hr.)*	*Maximum Working Rate of Loading Arm (cu.m./hr.)*	*Expected Loading Rate Approx. (cu.m./hr.) Offload Rate*	*Remarks*
1A	Crude or Fuel Oil	50,000	43, 44 45, 46	1. Any two adjacent 2. 44, 45, 46. 3. 43, 44, 45. 4. 43, 46	12 in./8 in., 10 in., 12 in. ANSI 150 lbs.	1,750/1,165	3,160 (3 pumps) —	Deballasting facility presently not available.
1B	Crude or Fuel Oil	50,000	53, 54, 55, 56	1. Any two adjacent. 2. 54, 55, 56. 3. 53, 54, 55. 4. 53, 56	12 in./8 in., 10 in., 12 in. ANSI 150 lbs.	1,750/1,165	3,160 (3 pumps) —	Deballasting facility presently not available.
1A	Gas Oil	50,000	42, 43, 44	1. Any two adjacent. 2. 42, 43, 44.	12 in./8 in., 10 in., 12 in. ANSI 150 lbs.	2,500/1,850	3,750 (3 pumps) —	Deballasting facility presently not available.
1B	Gas Oil	50,000	52, 53, 54	1. Any two adjacent. 2. 52, 53, 54.	12 in./8 in., 10 in., 12 in. ANSI 150 lbs.	2,500/1,850	3,750 (3 pumps) —	Deballasting facility presently not available.
1A	Deballast Bunkering	—	41 (exclusive) 46	—	12 in./8 in., 10 in., 12 in. ANSI 150 lbs.	3,000/1,500 1,000/500	—	Deballasting facility presently not available. Only one arm on each berth to be used for deballasting at one time.
1B	Deballast Bunkering	—	51 (exclusive) 56	—	12 in./8 in., 10 in., 12 in. ANSI 150 lbs.	3,000/1,500 1,000/500	—	
2A	Naphtha	10,000	22	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,850/1,500	1,550 (2 pumps) —	Deballasting facility presently not available.
2B	Naphtha	10,000	32	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,850/1,500	1,550 (2 pumps) —	Deballasting facility presently not available.
2A	Pyrolysis Gasoline	10,000	22	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,850/1,500	1,300 (1 pump) —	Deballasting facility presently not available.
2B	Pyrolysis Gasoline	10,000	32	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,850/1,500	1,300 (1 pump) —	Deballasting facility presently not available.
2A	Domestic Kerosene	30,000	24, 25	Both	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,950/1,300	3,750 (3 pumps) —	Deballasting facility presently not available. Cannot load Domestic Kerosene simultaneously on Berths 2A and 2B.
2B	Domestic Kerosene	30,000	34, 35	Both	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,950/1,300	3,750 (3 pumps) —	
2A	Jet Fuel	10,000	24, 25	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,950/1,300	1,150 (2 pumps) —	Deballasting facility presently not available. 1. Only one arm at a time.
2B	Jet Fuel	10,000	34, 35	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,950/1,300	1,150 (2 pumps)	2. Cannot load Jet Fuel simultaneously on Berths 2A and 2B.
2A	Deballasting Bunkering	—	21, 26 (exclusive)	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	3,000/1,500 1,000/500	—	Deballasting facility presently not available.
2B	Deballasting Bunkering	—	31, 36 (exclusive)	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	3,000/1,500 1,000/500	—	Only one arm on each berth to be used for deballasting at one time.
3A**	Propylene	4,000	05: Liq. Load 06: Vapour/Off Load	Both	8 in./6 in., 8 in.* ASA 300 lbs.	–/720 4,168 kg./hr.	657 2,450	Both arms to be connected simultaneously.
3A**	Butadine (C4)	4,000	03: Liq. Load 04: Vapour/Off Load	Both	8 in./6 in., 8 in.* ASA 300 lbs.	–/630 4,168 kg./hr.	645 1,500	Both arms to be connected simultaneously.
3B**	Ethylene	4,000	07: Liq. Load 08: Vapour/Off Load	Both	8 in./6 in., 8 in.* ASA 300 lbs.	–/780 4,310 kg./hr.	710 3,800	Both arms to be connected simultaneously.
3B	LPG	4,000	01: Liq. Load 02: Vapour/Off Load	Both	8 in.6 in., 8 in.* ASA 300 lbs.	–/710 4,310 kg./hr.	714 2,900	Both arms to be connected simultaneously.
Quay (Import)	Caustic Soda 50%	4,000	09:	—	10 in./8 in., 10 in.* ASA 150 lbs.	–/330	—	Crane facility presently not available.
Quay (Import)	Methanol	4,000	10:	—	10 in./8 in., 10 in.* ASA 150 lbs.	–/650	—	Crane facility presently not available.

* Other sized spools are provided.

** Jetties assigned for cryogenic products (Ethylene, Propylene, Butadine (C4)) now in operation. Vessels should arrive ready to load – cooled down with cargo vapour in vessels's tanks similar to the cargo to be loaded.

Gas carriers berth at the innermost berths - Berth 3A and 3B. Berth 3A handling propylene and butadine (C4) and Berth No. 3B handles ethylene and straight LPG.

Moorings consist of 2 head/stern lines, 1 breast line and 2 springs fore and aft. The finger piers are well fendered. Ship's gangway used. A mooring boat assists with running the ship's lines.

Berths 1A, 1B, 2A and 2B are for products.

Cargo: Vessel loaded propylene at Berth No. 3A. Largest vessel handled to date was 30,000 cu.m., which was a full load of propylene. The average sized vessel handled is 4,000 cu.m.

Export of ethylene and propylene commenced in May 1987 and C4 shortly thereafter. LPG production is to start in the near future. The plant which is immediately behind the general cargo berth produces 1,000 tonnes of ethylene, 500 tonnes of propylene and 300 tonnes of C4 per day.

At Berth No. 3A the propylene Chicksans are 8 in., 300 ASA for liquid and vapour. The maximum pressure on the liquid line is 5 kg./sq.cm. and on the vapour return line 1.2 Kg./sq.cm. Connection is by hydraulic clamps and shore reducers are provided.

Maximum propylene loading rate is 450 tonnes per hour.

The supply line is 3 km. in length and this causes a warm initial "slug". The coldest temperature achieved was −45°C for propylene (Terminal written advice), we got down to −44°C. There is no recirculation line. The pier staff who were mainly Yugoslavians were very co-operative. The SGS/Redwood Surveyor was from Belgium.

There is no nitrogen for purging at the present time as the plant uses the total supply capacity. It is believed that additional nitrogen production is planned.

Fresh Water: Not available.

Agent: We used Universal Tripoli who are the Government Agent. The local representative will have his own telex by November, telex number will be 50608 Uniship. We used the plant telephone to contact the agent, number being 3331/3332.

General: There is a general cargo quay called "Marginal Quay" inside of Berths No. 3A and 3B. The quay is well fendered and has a large flat quayside.

The LPG plant is immediatley behind with tanks to the South and 2 conspicuous flares in positions Lat. 30° 28.35' N., Long. 18° 34.95' E. and Lat. 30° 29.40' N., Long. 18° 34.30' E.

The breakwater lights are flashing (not occulting).

Further expansion is taking place to the South of the harbour in position Lat. 29° 12' N., Long. 18° 35.5' E.

No services are available at RASCO.

No alcohol is allowed in cabins. Everything is to be placed in bond. Customs check the seals at odd times.

We were advised that regular traders are sometimes made a special concession and are allowed beer and wine but only after arrival.

Positively no South African or Israeli produce to be on board. Large fines are imposed for contravention.

Ship's Certificates should be in Arabic for regular traders. However this is not necessary for the first call.

The Discharge Certificate is to be endorsed by the Customs at the port of discharge. Two copies are to be mailed to Libya and one copy is to be retained on board for the vessels next visit to Libya.

Passes are required if crew members wish to travel in the area. These are frequently and carefully checked.

AUTHORITY: Owners of the harbour: The Ras Lanuf Oil & Gas Processing Co. Inc., Ras Lanuf, Libya.

Postal address:
(i) P.O.Box Tripoli 75071 (Ghout el Shaal).
(ii) P.O.Box Benghazi 1971.

Tel: via Tripoli: 49994-99. via Benghazi: 86744-48
Telex: 50613, 50616, 50650, 50660, 50661 Rasco Ly.
Cables: Rasco, Ras Lanuf. *Telex:* 50613, 50660 (Rasco Ly)
Contact: Captain M. Sobhi Farag, Harbour Operations.

AGENCIES:
1. Germa Shipping Company.
2. Shahat Shipping Agency.
3. Universal Shipping Agency.

Also see "General" before first port.

TOBRUK: 32.04 N. 24.00 E.

Also see "General" before first port.

PORT LIMITS: The complete water area existing within Tobruk Bay or that water area existing to the West of an imaginary line commencing as from Tobruk Peninsula up to the coast to the South.

It is formed by 3 areas inside the Bay, namely Marsa Tobruk, the proposed naval base and Marsa Al-Hariga Oil Terminal.

ANCHORAGE: See "General" before first port.

MAX. SIZE: Max. draft: 29 ft. Max. length: 400 ft.

RADIO: Tobruk Radio (Station operated by Arab Gulf Oil, Operating times 0900/0930, 1300/1330, 1700/1730, 2100/2130 hrs.) 5AL: 420, 425 and 500, VHF (24 hours) Channels 12, 16 and 19.

BERTHING: Berths in Tobruk Harbour:
Quay No. 3: Length 82 ft., draft 11 ft.
Quay No. 4: Berth 1: Length 560 ft., draft 20 ft.
Berth 2: Length 395 ft., draft 28 ft.
Berth 3: Length 410 ft., draft 30 ft.

STEVEDORES: All stevedoring operations and formalities to be done by Agents. 2 companies to be formed in the near future.

MEDICAL: Available.

TANKERS: Refer to "Marsa Al Hariga".

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: Not available; see "Tripoli".

REPATRIATION: Available via Benghazi.

DEVELOPMENTS: Port extension project underway.

AUTHORITY: Port Manager and Harbour Master.

AGENCY: See "General" before first port.

TRIPOLI: 32.54 N. 13.13 E.

Also see "General" before first port.

PORT LIMITS: (a) The water area existing inside the actual breakwater and that which may fall within any new breakwaters eventually constructed in accordance with the Port Developments Project.

(b) The outer water area known as the navigational channel commencing as from the harbour entrance along the distinguishing marks of the channel for a distance of about 1 mile.

PILOTAGE: Compulsory Pilot boards at entrance of channel.

ANCHORAGE: See "General" before first port.

RESTRICTIONS: Any containers arriving on Ro/Ro ships should be on trailers.

MAX. SIZE: All types of ships with 28 ft. draft and less are safe in harbour.

RADIO: Tripoli Radio (coast station – 24 hours), 5AT, 476 and 500 kHz, R/T 2182 and 2197, VHF Channels 16 and 6.

Tripoli Port Radio (24 hours), 5AI, 500 kHz, R/T 2182, VHF Channels 8, 12 and 16 and in an emergency Channel 14. Tripoli Port Radio Telex No. 20464.

CRANES: 2 floating cranes, 100 tons and 200 tons capacity. 25 electric cranes 5 tons - 30 tons capacity. 67 cranes of various capacities up to 50 tons.

STEVEDORES: Two companies available. Working hours: 0700-2000.

BERTHING:

	Quay No.	*Length* (ft.)	*Depth* (ft.)
Main Port:	5.5	200	11
	6 East	200	13
	6 West	220	13
	7	400	18
	8	400	22
	9	400	23
	10	450	22/25
	11, 12 & 13	930	22
	Victory	550	22
	F.J. STB.S.	200	10
	F.J. PT.S.	200	9
	Japanese	4,823	19.7
Karamanly:	1 & 2 (oil)	450	27
	3	400	22
	4	400	18
	5	300	15
	F.J. STB.S.	250	14
	F.J. PT.S.	250	16.5

MEDICAL: All facilities available.

FRESH WATER: Available by barge and alongside. Passenger vessels 100 tons maximum and cargo vessels 50 tons maximum.

FUEL: Available through Agent. A notice of 24 hours needed, advisable for Chief Engineer to check what grades are available.

CONSULS:
Algeria, 34631
Belgium, 37797
Bulgaria, 35733
China, 32300
Denmark, 39413
France, 33526 & 33527
Germany, 33827 & 30554
Greece, 36978 and 36689
India, 41835
Iraq, 34235
Italy, 34131
Jordan, 32707
Kuwait, 40282 and 40281
Lebanon, 33733 and 32289
Pakistan, 40072
Malta, 38081 and 38082
Morocco, 34239 and 40188
Netherlands, 41549 and 41550
Poland, 31768
Russia, 30554
Saudi Arabia, 30486
Spain, 35463 and 33275
Sudan, 39181 and 39182
Sweden, 32343
Switzerland, 32416
Syria, 31783
Tunisia, 31051/2
Turkey, 37728
Venezuela, 36838
Yugoslavia, 34114 and 33392.

DRY DOCK: *Floating Dock:*

Length over platform	136.700 m.
Length over pontoon	121.200 m.
Moulded outer breadth	30.600 m.
Inner clear breadth	23.400 m.
Depth of pontoon at centre line	3.100 m.
Height of keel blocks	1.200 m.
Depth of water above keel blocks	6.400 m.
Lifting capacity	5,000 tons

Spare parts to be supplied by ship's owner. 3 kinds of marine paint are available.

WATCHMEN: Available.

REPATRIATION: Crew changes are possible.

AIRPORT: A number of major air lines operate to and from Tripoli Airport which is about 27 km. from the city.

POLICE/AMBULANCE/FIRE: Main port call; 39111, 35010, 31518. Karamanly Wharf call: 30378, 35010, 31518.

SHORE LEAVE: Allowed after Free Pratique, Customs and Immigration formalities completed.

DEVELOPMENTS: 2.6 km. of new quays under construction with depths of 10.0 m. – 12.0 m. The second phase of new construction will include berths for container vessels and Ro/Ro vessels.

SHIPMASTER'S REPORT: March 1988.

Chart: BA. Chart No. 248.

Documents:
8 copies Crew List.
2 copies Crew Declaration (on Libyan forms).
2 copies Manifest.
1 copy Health Declaration.
2 copies Currency Declaration (on Libyan forms).
All Passports.
1 copy Arms and Ammunition List.
1 copy Drugs List.
2 copies Cargo Manifest.

Cameras are placed under seal. No cigarette issue allowed. Bond remains sealed if proceeding to another Libyan port. Definitely no alcohol, Customs would not allow beer issue. Ship's Certificates to be in Arabic. Passports exchanged for Landing Cards at the gate. All stores checked for signs of South African and Israeli produce.

Approaches: Vessels are to contact Tripoli Radio on 2182 kHz. at least 8 hours before arrival and obtain current navigational warnings. At the same time advise Tripoli Radio of vessel's ETA and inward course and speed.

Tripoli Radio normally uses 2197 kHz. as the main M/F transmitting frequency. Their reply was prompt and English was good.

Tripoli Radio has Telex Nos. 90129515 AT TPLY and 90120300 TAT TPLY.

Tripoli Port should be contacted on VHF Channel 12 as early as possible, giving ETA Tripoli and inward course and speed.

Tripoli Port will require the following information: LOA, Beam, Gross Tonnage, Nett Tonnage, Draft, Cargo Tonnage, Agent, Charterer, Owner, Flag, Number of Crew and Nationality, Last Port of Call and Next Port of Call.

Tripoli Port Control has Telex No. 90120464 TRIPORTHLY.

On approach, Tripoli Port shows up well on radar at 30 miles when there are ships anchored off.

D/F Station "Tarabulus" was not obtainable.

The N.E. Breakwater and Tarabulus High Light Tower were conspicuous but the light was weak.

All Channel Buoys except No. 3 have been withdrawn. Only the beacons are in position.

Pilot: The Pilot may be contacted through Tripoli Port Radion on VHF Channel 16, working on Channels 12 and 8. The Pilot boards from a grey tug near Beacon No. 2. If the weather is poor, Pilot may board inside the breakwaters. The Pilots speak good English and are competent.

When leaving the Port, the Pilot disembarks in the Outer Harbour before reaching the new Breakwater's entrance.

Entry: Maximum draft handled to No. 3 Pier and Karamanli Mole is 29 ft. Tidal range 1 ft. 6 in. Minimum depth found at Karamanli Mole Oil Berth was 32 ft. There are no tanker movements from 30 minutes before sunset until 0730 hrs. the next day.

Generally, cargo vessels are not handled at night, however, movements may be undertaken if absolutely necessary.

In Winter the Port is often closed due to bad weather which causes very heavy N.W. swells across the breakwater entrance near Buoy No. 3.

Anchorage: The anchorage is that indicated on BA. Chart No. 248. Anchored vessels were spread out to the East of the limits on the chart but West of the Channel Leading Line. The anchorage is unprotected from all winds except those off the land. We anchored with Tarabulus Lighthouse bearing 165° × 1.5 miles for a period of 12 hours in a Force 9 wind from the W.N.W. and whilst trying to get underway we parted our cable.

Tugs: Tugs are not used by small vessels. Pilot reports that only 2 tugs are in operation at the present time.

Berth: LPG imports are handled at the outer end of Karamanli Mole. This berth only handles LPG. The old oil product pipelines are no longer in use.

The berth face consists of old sheet piling and is in a poor state of repair, protected by old tractor tyres. Inner Karamanli Mole is generally used by bulk carriers discharging grain, this can restrict the size of ships using the oil berth. Normally LPG is handled by small vessels.

Vessels normally berth port side alongside but can berth starboard side alongside if required and if space permits.

Mooring/Gangway: There are very few bollards on the berth and only breast lines can be run. Insufficient room to run stern lines. Ship's gangway was used and it was easy to land.

Cargo: LPG mix. Normally 75% Butane and 25% Propane, but this depends on the season (cooking fuel, etc.).

Liquid and vapour lines were 3 in. rubber hoses which were connected to 6 in. and 4 in. lines respectively. The distance to the pressure tanks (20 tonnes each) is 4 km. Pressure tanks product is bled off to road tankers and also piped inland. Discharge pressure was 9 kg./sq.cm. and the minimum temperature −2°C. via ship's heater and booster pump.

The line pressure fluctuates when product is bled off to road tankers.

The liquid shore line is to be hot gassed/blown clear for 2 hours on completion of liquid discharge.

Vapour is returned to ship, only opened 2 tanks for this operation, which reached 3 kg./sq.cm.

Average rate 40 t.p.h.

No surveyor attended. The receiver "Breganaft", also the shipper, was in attendance at the start and on completion and was of assistance.

Tank Dry Certificate required on completion.

Fresh Water: Fresh water is available by tanker truck of 10 tonnes capacity or by barge of 200 tonnes capacity. 2 self propelled barges were observed in the harbour. Cost of delivery inside the harbour is U.S.$10.0 per tonne.

Agent requires 48 hours' notice for fresh water in order to prepare paperwork.

Fresh water also obtainable at the outer anchorage in calm weather but cost is high.

VHF: Tripoli Radio on VHF Channel 26 but also uses Channel 22 and others as per ALRS. The Ship's Radio Station was sealed by Port Police whilst in Port.

International calls by vessels at anchor to Italy and Greece were handled quickly.

Customs: Officials visited the vessel 17 hours after arrival. As we were under seal on coastwise voyage from Zuetina they only checked seals on the bond. We were given a cigarette issue but no alcohol of any description was issued. All alcohol remains under seal whilst on the coastal trade. All radios and cameras were manifested so were allowed to be kept in cabins.

Agent: Vessel handled by "Universal". Agent attended with Customs 17 hours after arrival and was helpful with regard to ordering stores. If vessel finishes overnight she has to wait for clearance until 1000 hrs. the following day as the Customs House does not open until 0800 hrs.

Stores: Imported stores not available. Fresh produce available but dependent upon the season, prices are high. Basic items are obtainable.

Bunkers: Most grades available by road tanker through "Breganaft".

Forms: Also see "Documents". Crew Manifest and Money List to be on Libyan forms but if first visit to Libya, international forms are acceptable. All Ship's Certificates to be in Arabic.

Crew Manifest.
8 copies Crew List on IMO Forms acceptable.
2 copies Cash in Master's Safe.
2 copies Ship's Fixture List.
Port Clearance and Customs Clearance from Last Port (very important).

General: Vessels on coastwise trade must keep at least 12 miles offshore.

The local currency is the Libyan Dinar and 1 Dinar = U.S.$3.5 (official).

Mail can be sent out via the Agent.

Repatriation and crew changes are possible but outward tickets must be paid for in Tripoli (not PTA) by remittance of hard currency. There are nearly always vacant seats on all outward flights. All crew joining require a visa.

Shore leave is only allowed during daytime. Passport is handed in at the gate and a local I.D. card is given in exchange.

Friday is the Moslem holiday. March 2nd was a Public Holiday.

AUTHORITY: Port Manager and Harbour Master.

AGENCY: See "General" before first Port.

ZAWIA (Azzawiya): 32.48 N. 12.42 E. (See Plan)

Also see "General" before first port.

LOCATION: Zawia Offshore Oil Terminal is situated about 50 km. West of Tripoli.

PORT LIMITS: Seaward limits extend from 32° 50' 30" N. to the coastline between 12° 40' 00" E. and 12° 44' 00" E. (refer Port Plan on B.A. Chart No.3353). Vessels are considered to be "Arrived Ships" and (subject to charter party terms) laytime will commence, when the ship is approximately 2 miles off the S.A.L.M. berths. The port is operated by the National Oil Corporation of the Socialist People's Libyan Arab Jamahyria.

DOCUMENTS: Masters are advised to have the following documents prepared before arrival in order to expedite ship's inward clearance:

6 copies Crew List.
2 copies Stores Manifest.
2 copies Personal Declaration (Crew).
Health Documents.
Cargo Documents (Cargo Inwards).
Ship's Papers.
Ship's Certificates.
Discharge Certificate (of last cargo loaded at any Libyan Port - duly authenticated at port of discharge. Loading cannot be undertaken until document presented to shore official via ship's Agent.).

PILOTAGE/APPROACHES: Vessels are advised to anchor Westwards of a position about 1 mile Northwards of Berth No.1 and not closer than 7.5 cables from any berth or to approach any berth closer than 7.5 cables without having received Harbour Master's or Duty Pilot's permission.

S.A.L.M. Berth No.1: 32° 48' 18" N., 12° 42' 00" E.
C.B.M. Berth No.2: 32° 48' 06" N., 12° 42' 38" E.
S.A.L.M. Berth No.3: 32° 48' 12" N., 12° 41' 12" E.
Flare Stack (2 Flares in North/South orientation)
North Flare: 32° 47' 24" N., 12° 42' 00" E.

Azzawiya Oil Terminal is adjacent to the flares. Tankers are warned that it is unsafe to remain at anchor during adverse weather conditions. The bottom is sand, overlaying bed-rock and the depth of water about 35 m. When unable to remain at anchor vessels are to keep Northwards of Lat. 32° 52' N.

RESTRICTIONS: Whilst at a berth, tankers must have main engines ready for immediate use at all times. Sudden and often violent changes of weather may occur without prior indication at any time and vessels may be required to curtail cargo operations, disconnect hoses and vacate the berth at very short notice, the Loading Master will advise accordingly.

The Pilot (Loading Master) and when appropriate a Cargo Surveyor will be in attendance prior to berthing and until berth vacated, suitable accommodation, etc., and normal courtesies to be provided. The Pilot may on occasions be detained on board. Pilot, Agent and Port Officials and Service craft are available during daylight hours only. Cargo documentation and outward clearance for vessels loaded will be completed during normal daytime working hours.

Vessels must have sufficient ballast for safe manoeuvring with propeller immersed and trimmed to about 8 ft. by the stern. If in the opinion of Harbour Master/Pilot the ship has insufficient ballast she may not be allowed to berth.

The discharge of dirty ballast is strictly prohibited. There are no facilities for the reception of water ballast or tank washings ashore. In the case of crude oil vessels Crude Oil Washing is not permitted.

HEALTH: Local Officials will board vessels to grant Free Pratique. Vessels must report any suspected disease or fever to local Authority prior to being boarded by Agent or Pilot. There are facilities to treat serious injuries or illness. Inoculations and vaccinations cannot be dealt with.

VHF: Call sign: "Zawia Port Control".

Zawia Port Control keeps 24 hours watch on Channels 16, working channels 22 and 27. Vessels approaching the anchorage must give the following information when possible:

(a) Ship's name and flag.
(b) Up-dated ETA.
(c) Cargo nomination, grade and quantity.
(d) Vessels discharging to give grade and Bill of Lading figures.
(e) Distance between Ship's rail and manifold, manifold size and derrick SWL.

For cargo operations Ship/Shore communication is maintained by Loading Master via Walkie-Talkie radio or by VHF Channel 12, Call sign "Tank Farm".

Service launches operate on Channel 12, though all are equipped with standard Ship VHF sets.

Link calls may be established via Tripoli Radio.

BERTHING: Prior to berthing, vessels should have the port derrick rigged with a SWL of 10 tons if nominated for SBM No.3 (Crude Oil discharge), 7 tons for SBM No.1 (Fuel loading and Crude Oil/Reduced Crude Oil discharge) and 5 tons for CBM No.2 (Vessels handling White Oils, Vacuum Gasoil, Lubricating Oils).

Vessels proceeding to SBM's will have 2 wire rope strops with shackles placed on board to secure chafing chain ends of nylon mooring ropes.

Vessels loading Fuel Oil or discharging Reduced Crude Oil will have a special device placed on board to accommodate 2 hoses connected to one ship's manifold.

Hose handling, connecting and disconnecting to be carried out by ship's crew under the supervision of a Deck Officer to Mooring Master's advice.

Masters are requested to have available adjacent to port side manifold:

2×15 m. lengths of synthetic fibre rope 127 mm. circumference.
1×14 lb. (6 kilo) and 1×7 lb. (3 kilo) hammer.
2×1.5 ton chain blocks and/or suitable rope tackle.
Large Shifting Spanner.
1 Wire strop of 20 mm. – 25 mm. diameter, about 2 m. – 3 m. length.
Rope lashings.

S.A.L.M. Berth No.1: Buoy is moored approximately 1,400 m. offshore with a least depth of 22 m. in a position 32° 48' 18" N., 12° 42' 00" E. The berth can accommodate vessels of 15,000 d.w.t. to 100,000 d.w.t., max. draft 17.0 m. The vessel is secured at the bow with 2 nylon mooring ropes. Chafing chain ends are secured by shackles and wire strops. The floating hose strings on vessel's portside terminate in 12 in. diameter flanges, A.S.A. 150, fitted with neoprene 'O' ring gaskets. Minimum distance 3.5 m. between manifold and ship's hose rail. Cargo boom 7 tons SWL.

C.B.M. Berth No.2: "See Plan". CBM No.2 is approximately 1,100 m. offshore with an average depth of 21 m. in position 32° 48' 06" N., 12° 42' 38" E. (approx). The berth can accommodate vessels of 5,000 d.w.t. to 25,000 d.w.t. maximum 175 m. LOA and max. draft 10.0 m. The vessel is berthed heading about 310° (T) with 2 bow anchors and 3 buoys (one stern, one starboard quarter, one port quarter).

One 8 in. diameter hose (one hose each for leaded and unleaded products) terminating in an 8 in. diameter flat face bolted flange. One 10 in. diameter hose (for lubricating oils only) terminating in a 10 in. diameter flat face bolted flange.

For those vessels discharging Lub oils, a spherical device (pig) will be placed on board with air compressor.

Two refinery employees will oversee the discharge operation, control line clearing procedures and will remain on board. Food will be supplied from ashore.

S.A.L.M. Berth No.3: Buoy is moored approximately 1,350 m. offshore with a least depth of 24 m. in position 32° 48' 06" N., 12° 42' 38" E. (approx). The berth can accommodate vessels of 25,000 d.w.t. to 140,000 d.w.t., max. draft 19.0 m. The vessel is secured at the bow with 2 nylon mooring ropes. Chafing chain ends are secured by suitable shackles and mooring strops (supplied). Two floating hose strings are taken on vessel's port side, terminating in 16 in. diameter flanges A.S.A., fitted with neoprene 'O' rings and 'Camlock' bolts. Cargo boom 10 tons SWL.

No lights have yet been installed to mark CBM No.2.

SALM.Berths No.1 and No.3 are each equipped with radar reflectors installed at top buoy and lights mounted on the buoy deck with the following characteristics: Colour White Fl. "U" ev. 12 secs (unreliable).

A light Fl.R.G. ev. 7 secs. is exhibited on Eastern end of small craft harbour breakwater.

Tidal streams are generally weak and ineffectual. Sub-sea and surface currents often run in differing directions. Current strengths of about 2 knots are not uncommon and are largely influenced by the wind.

GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Libyan Dinar (LD).
SAFETY: *Fire and Safety:* Fire and Safety Regulations will be *strictly* enforced at all times and regular checks will be made by the responsible Refinery Official. A safety check list is to be completed and signed by the Master, the Chief Officer and Loading Master. Anti-pollution of the sea precautions are to be observed at all times. A pollution control vessel is available for use in the event of accidental spillage.
GENERAL:
No fuel or diesel bunkers available.
No fresh water available.
No provisions or supplies available.
No shore leave or crew changes possible.
No cranes or lighters available.
No repair facilities available.
No lifeboats or other craft to be lowered in to water.
No swimming over the side allowed.
AUTHORITY: Azzawiya Refinery, P.O.Box 15715, Azzawiya. P.O.Box 6451, Tripoli. *Tel:* Tripoli 30423/24/35. *Contact:* Mohamed M.Zerti, Marine Co-ordinator.

AGENCY: See "General" before first port.

ZUARA: 32.55 N. 12.07 E.

Also see "General" before first port.

PORT LIMITS: (a) The water area existing between the actual breakwater and that which may fall within any new breakwater eventually constructed.

(b) The water area known as the navigational channel existing outside the harbour entrance for a distance of about 0.5 miles (1 km.).
APPROACHES: If approaching from the East, vessels are to give the coast a berth of at least 3 nautical miles.
ANCHORAGE: See "General" before first port.
RESTRICTIONS: Port for ships laden with direct delivery cargo only.
MAX. SIZE: Ships up to 13 ft. draft and 65 m. length are safe in the harbour.
RADIO: Tripoli Radio and Port Radio use VHF Channel 16.
BERTHING:

Quay No.	*Length*	*Depth*
Shore quay	2 ships	13 ft.
F.J. Stb.S.	165 ft.	13 ft.
F.J. Pt.S.	165 ft.	13 ft.

STEVEDORES: 2 companies available.
MEDICAL: Available.
REPAIRS: Not available, see "Tripoli".
REPATRIATION: Possible.
AIRPORT: Tripoli Airport situated about 127 km. from Zuara.
POLICE/AMBULANCE/FIRE: Call Port Manager, Tel: 025305.
SHORE LEAVE: Allowed after Free Pratique, Customs and Immigration formalities completed.
DEVELOPMENTS: 18 berths to be constructed in a new master plan.
AUTHORITY: Port Manager and Harbour Master.
AGENCY: See "General" before first Port.

ZUEITINA: 30.51 N. 20.00 E. (See Plan)

Also see "General" before first port.

LOCATION: The Terminal Fairway Buoy, moored in position Lat. 30° 55' 00" N., Long. 19° 59' 48" E., is painted black; it shows at night a white light flashing "Z" every 10 seconds. A prominent landmark is the radio mast (height 451.5 ft. above sea level) in position Lat. 30° 49' 57.6" N., Long. 20° 03' 05.5" E.; it displays at night 3 red lights in a vertical line – the top light flashing, the 2 lower fixed. The top light is on top of the mast (which is 400 ft. above the base), the middle light is 266 ft. above the base, and the lowest light is 133 ft. above the base. At night flares at the Liquid Petroleum Gas Plant, in position Lat. 30° 54.2' N., Long. 20° 05.4' E., can be seen from a considerable distance; by day a column of smoke emanating from this position is also conspicuous. 14 large oil tanks, painted white, near the foot of the Radio mast, are prominent landmarks.

Positions of Moorings:

"Alpatah" berth	Lat. 30° 53' 30" N.	Long. 20° 01' 05" E.
"Brega" berth	Lat. 30° 52' 18" N.	Long. 20° 01' 24" E.
"Chahett" berth	Lat. 30° 52' 08" N.	Long. 20° 00' 11" E.
"Dalila" berth	Lat. 30° 50' 56" N.	Long. 20° 00' 26" E.
"Echbar" berth	Lat. 30° 50' 16.4" N.	Long. 19° 59' 16.1" E.

"Alpatah" and "Echbar" out of service, marked by navigation buoys.
FLAGS: When arriving at Zueitina by day, ships must display, in addition to their own national ensigns, the Libyan flag and the appropriate quarantine signal. Throughout the ships' stay, during daylight hours, they must display the Libyan flag, their own national ensigns and, when applicable, the International Code signals "B", "H" or "G", and the appropriate quarantine signal.
DOCUMENTS: Soon after vessel's arrival, a Custom's Officer will board, accompanied by an Agency representative, who will act on behalf of the ship and its Agent, as well as on behalf of the Company, in the execution of essential business. The following documents, signed by the Master and imprinted with the ship's official stamp, are required by the Customs Official for the Customs and Immigration Departments and for the Port and Lights Authority:

2 copies Entering and Leaving Territorial Waters Certificates.
2 copies Report Inwards Certificates.
2 copies Crew Declarations of Dutiable Goods.
2 copies Crew Declaration List.
2 copies Report Outwards Certificates.
3 copies Boycott Certificates.
2 copies Stores Lists.
5 copies Crew Lists.
1 copy Clearance from Last Port of Call.
2 copies Tanker Characteristics Certificates.
1 copy Certificate of Discharge, from the Discharge Port Authorities, of the last cargo loaded in Libya.

With the exception of the Crew Lists and the Stores Lists and the clearance from the Last Port, the above forms will be provided by the Company clerk.

It is important that the Master should be able to produce a properly authenticated certificate of discharge covering the last cargo loaded into the ship in Libya. If for some reason he is not in possession of such a certificate, he must write a letter of explanation which includes the pertinent extracts from the ship's log book, append his own signature to it and stamp it with the ship's official seal, and address it to the Secretariat of Petroleum, Es Zueitina, GSPLAJ. If the explanation for failure to produce the certificate is considered satisfactory the ship may be permitted to load. If there appears to be any suspicion that the last port was not as stated, the ship will be turned away.

If the vessel has not previously loaded in Zueitina, the Master is required to confirm this fact in an official letter, stating also the ship's last port of discharge and giving an undertaking that the cargo about to be loaded will not be discharged in any of the countries to which the Arab embargo extends.

The Mooring Master will, after boarding, lose no time in informing Zueitina Marine that he has received one or other of these foregoing documents from the Master, which he will, at the first opportunity, send ashore for delivery to the Secretariat of Petroleum representative. This will ensure that there is no unnecessary delay in the commencement of loading.

On completion of loading, the Shahat Agent will again board the ship with the cargo documents which are to be signed by the Master. The clerk has to deliver to the Master one copy of each document for his own use and one copy for consignee and bring the rest of documents ashore with him.

1. Bill of Lading
2. Cargo Manifest
3. Time Sheet
4. Certificate of Origin
5. Master's Receipt
6. Export Manifest

All of which forms are provided by the Company or by the Agency. He will also take ashore any letters to be posted. On occasions, a Customs Official will visit the ship with the documentation clerk prior to sailing to ensure that the seals which were put on the bonded stores lockers have not been tampered with before the ship has left Libyan waters.

The documentation formalities prior to the ship's departure, are usually completed whilst the ship is unmooring from the berth, or just after it has left the berth, hove to with the Mooring Master still aboard. Sometimes, however (and particularly after the loading of "Agip" cargo), the processing of the papers ashore may take longer than usual, and the ship may have to anchor to await the clerk's eventual arrival, in which case the Mooring Master will direct it to a safe anchorage before disembarking. Zueitina Marine will then inform the Master when the launch bearing the clerk is about to leave the Small Craft Harbour, in order that the anchor may be weighed, and a lee side presented to the launch.

ACCEPTANCE PROCEDURE: *Notice of Readiness, Laytime, etc:*
Vessels Loading Crude Oils: A vessel for which a berth is available on arrival will be boarded by the Mooring Master at the Terminal Fairway Buoy and, providing that the vessel is in all respects ready to commence loading (except for the necessary de-ballasting time), the Notice of Readiness will be accepted at the time of the Mooring Master boarding, subject to the provisos – a, b, c and d, below.

If the vessel is not in all respects ready to proceed to the berth, with main engine and auxiliaries fully manoeuvrable, mooring ropes on deck, anchors, windlasses, winches, etc., in good working order and readiness, it will not be accepted until the Mooring Master is satisfied that all these conditions are met.

A vessel which has been instructed by Zueitina Marine to anchor in the roadstead on arrival should, after doing so, inform Zueitina Marine of the precise anchorage time, which time will, for the purposes of berthing order and the Port Log, be considered as the vessel's arrival time. According to the practice of the port, acceptance of the Notice of Readiness will coincide with this arrival time, providing:–

(a) that it is within the hours of daylight – deemed to be from 0600 hrs. (local time) to 1800 hrs. (local time),
(b) that it is not a Public Holiday, or a Friday (the Libyan Sabbath), unless the vessel is actually handled on that day,
(c) that the port is open, and
(d) that the vessel has been nominated to load.

An exception to clause (a) above, is when conditions allow night berthing, in which case the vessel will be accepted when the Mooring Master boards, or, should the vessel have been at anchor, when the anchor is aweigh, providing that the Mooring Master is then on board.

In the case of a vessel arriving without nomination, the Notice of Readiness will be accepted when notification of her nomination has been received at the Terminal, subject to provisos (a), (b) and (c) above, and instructions from the Company's Operations Department. On occasions when the Company deems it advisable to berth a vessel prior to the date of the nominations, acceptance of the Notice of Readiness will be at the time the Mooring Master boards, providing that the anchor is then aweigh.

In addition to clauses (a), (b) and (c) and (d), above, vessels will not necessarily be accepted when arriving at a time ahead of, or behind, their last scheduled Estimated Time of Arrival, especially if such acceptance would be at the expense of a vessel that has arrived within its nominated period.

Vessels Loading Liquid Petroleum Gas: A Liquid Petroleum Gas Tanker's Notice of Readiness will be accepted on arrival, provided that:

(a) the port is open ("port" meaning, in this case, the LPG berth),
(b) that it is not a Friday (the Moslem Sabbath) or an official holiday, unless the ship is actually handled on that day,
(c) that it is not during the night hours – deemed to be, at the LPG berth, between 1800 hrs. and 0600 hrs. (local time) – unless the ship is actually handled during that period,
(d) that the ship does not arrive on the same day, or clash with the loading of, another LPG tanker chartered under a LINOC contract,
(e) that the ship's tanks are in such a state of readiness, i.e., requiring no cooling, no purging, that loading can be commenced at *full rate* immediately the hoses are connected,
(f) that the arrival time does not differ appreciably, either before or after, from the last signalled ETA sent by the ship and received at the Terminal, and
(g) that the vessel has been nominated to load.

When a Liquid Petroleum Gas tanker does arrive whilst the port is closed, the Notice of Readiness will be accepted at the time of the opening of the port, subject to provisos (b), (c), (d), (e), (f) and (g).

The N.O.R. of an LPG loader arriving on a Friday or on an official holiday, or during the aforesaid night hours, will be accepted at 0600 hrs. (local time) on the first subsequent working day, subject to provisos (a), (d), (e), (f) and (g).

An LPG tanker arriving on the same day as an LPG tanker scheduled to load under a LINOC contract, or whose loading would clash with an LPG tanker scheduled to load under a LINOC contract, will have its N.O.R. accepted on the completion of hose connection, subject to provisos (e) and (f).

PILOTAGE: A Mooring Master will board the vessel 1.5 miles S.E. of the Fairway Buoy and advise Master on all manoeuvres relative to berthing, connecting and disconnecting the hoses, and in all operations within the anchorage or berthing area.

Vessels of 40,000 d.w.t. and upwards should have a pilot ladder long enough to reach the Mooring Master's launch rigged just abaft the accommodation ladder, in such a manner that the Mooring Master can transfer to the accommodation ladder when about 10 ft. from sea level. Ladders must be strong, clean, and in good state of repair and conform to international requirements. In cases where the ladder(s) fails to conform with these requirements, the Mooring Master will decline to board until an adequate ladder has been provided. A good lee should be made, to allow the launch to come alongside and the Mooring Master to board safely. (Note: Ships which have been instructed to berth at the S.P.M's, and need to take the Company's gear aboard, should have the ladder(s) rigged on the port side, in order that they may take it aboard from the Mooring Master's launch with the working derrick as soon as the Mooring Master has boarded).

The Mooring Master may require the vessel to unberth at any time he deems it necessary for the safety of the vessel, or the installations, or both, or because of infringements of the Port Rules by the vessel.

As soon as practicable after boarding, the Mooring Master will inspect the mooring and lifting equipment and the ballast, and not until he has assured himself that the equipment is adequate, and the ballast clean, will the ship be accepted. His opinion of the adequacy of the gear, and of the cleanliness of the ballast, shall be final.

ANCHORAGE: Vessels awaiting the Mooring Master, whether for berthing in the crude oil berths or alongside the LPG berth, should heave to in the close vicinity of the Terminal Fairway Buoy. If they are obliged, or instructed to anchor, they should do so in the recommended anchorage, which is within the radius of a circle centred in position Lat. 30° 55' N., Long. 20° 01' E. Under no circumstances should they anchor South of the 30° 54' 00" parallel. Whilst at anchor, they should exercise the utmost vigilance, as they are liable to drag anchor in rough weather, and should keep in VHF radio-telephone with the Terminal at all times. If heavy weather necessitates them heaving up anchor and proceeding to sea, Zueitina Marine must be informed accordingly.

RESTRICTIONS: Daylight berthing only at "Brega-CBM" and "Dalila-CBM".

MAX. SIZE: *LPG Berth:* 30,000 cu.m. and draft 8.7 m.
Chahatt-Monobuoy: 275,000 d.w.t. and draft 20.0 m.
Brega-CBM: 150,000 d.w.t. and draft 18.25 m.
Dalila-CBM: 110,000 d.w.t. and draft 18.25 m.

HEALTH: Pratique will be granted by the Custom's Official. He will examine the ship's logbook, and will inspect and seal the bonded storerooms.

All ships must display the appropriate quarantine signal until given Pratique.

RADIO: 72 hours prior to arrival at Zueitina, Masters should advise the Company of their vessels' ETA via Tripoli and via Portishead Radio. They should subsequently confirm or amend them when they are 48 hours and again when they are 24 hours distant from the Port.

All messages to Zueitina Terminal should be addressed to the Operations Manager, Zuetina Oil Company, with copies to the Terminal Superintendent.

Messages should include the quantity and grade of cargo to be loaded, the last port of call and destination, Bill of Health status and details of any sickness on board. Estimated times of arrival should be given in GMT. (Libyan Standard Time is GMT plus 2 hours).

Masters of vessels equipped with VHF radio-telephones should contact Zueitina Marine on Channel 13 or Channel 16 when within range, and give a firm calculated time of arrival at the Zueitina Fairway Buoy. They should also again inform Zueitina Marine Duty Officer of the quantity and grade of cargo required, the last port, estimated deballasting time and the destination. They should confirm that they have in their possession a Certificate of Discharge for the last cargo loaded into their ships in Zueitina or, in cases of ships arriving in Zueitina for the first time, that they have ready for the Secretariat of Petroleum a letter which certifies that the cargo which they are about to load will not be discharged in any country against which the Arab Oil Embargo extends. In vessels paying their first visit to the Terminal, Masters should also inform the Duty Officer of the size and type of the manifold connections (i.e. 12 in. ASA, or 10 in. European, etc), and whether or not they have on board heavy wires and shackles for mooring at the mono-buoys.

(N.B. It is important that all ships arriving at Zueitina are fitted with VHF radio-telephones, capable of operating on the main working Channels. Without VHF communications, Zueitina Marine cannot always know with accuracy a vessel's arrival time, and as a result that vessel might well lose its loading turn and be subjected to an appreciable – and, with VHF, avoidable – delay in consequence.)

An aerial radio beacon is located on the North-Eastern arm of the Small Craft Harbour, in position Lat. 30° 54' 05" N., Long. 20° 04' 12" E., intended as an aid to navigation for aircraft flying to and from Zueitina airstrip. The beacon transmits continually the call sign ZUE, on 369 kHz: the signal, which is omni-directional, has a range in excess of 100 miles.

VHF: Working on Channel 13.

TUGS: One tug ("Saladin") of 4,600 h.p., bollard pull 55 tons now available to assist in berthing at CBM and LPG berths.

One to six mooring launches of 370 h.p. available, normally two launches assist berthing at SBM's.

BERTHING: The sea terminal consists of five berths for loading crude oil products, two of which – "Brega" and "Dalila" – are conventional buoy moorings, and the others – "Alpatah" ("Alpatah" buoy at present temporarily removed but position marked by Tower Buoy with same characteristic light) "Chahett" is a monobuoy and "Echbar" is marked by a navigation buoy. Conventional buoy moorings "Brega" and "Dalila" are approximately 2.5 miles offshore, with an average depth of 70 ft. and 80 ft. respectively. 42 in. (ID) submarine lines connect the berths to the shore installations. To the header at the seaward end of each of these submarine lines are connected two strings of flexible reinforced rubber hoses, laid on the sea bed and buoyed when not in use. The forward of the two strings is made up of (from the header) three 30 ft. lengths of 24 in. i.d. hose, two 30 ft. lengths of 20 in. i.d. hose, and seven 30 ft. lengths of 16 in. i.d. hose. The after string is similar, but with one less length of 16 in. i.d. hose. To the seaward extremity of each hose string is fitted a 16 in. to 12 in. ASA reduction flange. When the ship has berthed, each hose string is towed in to the ship's side below the manifold by the attendant launch, to be hove up by crane or derrick and bolted to the ship's connections, *invariably on the port side*. Where the ship's connections differ from the 12 in. ASA flange on the hose, suitable reduction spools must be fitted. The weight to be lifted on each hose is approximately 7 tons.

Single-point mooring "Chahett" is approximately 3 miles offshore, in an average depth of 100 ft. of water. The submarine pipeline to "Chahett" berth is 48 in. i.d. Particulars of the strings of hoses from the header to the ship's manifold are described in detail in the chapter on "Single-point Moorings". As in the conventional buoy berths, *the hoses are always taken up on the port side*, and the connecting flange on the hose is 12 in. ASA pattern. The weight to be lifted is approximately 7 tons, but this is to some extent dependent on the ship's freeboard.

Mooring Equipment: Vessels to be fitted with A.K.D. chain stoppers with certificates. If no A.K.D. stopper available, Terminal will provide strops.

Single-Point Moorings: The "Mono-buoy" is a large cylindrical buoy (weight 106 tons), divided by steel bulkheads into four water-tight compartments, through the centre of which emerges the loading hose. The perimeter of the buoy, to which the buoy-to-ship moorings are attached, is a turntable which revolves on bogies round the centre – hose-supporting – section, in such a manner that the vessel berthed on the buoy will always lie head to wind. The minimum depth of water within the swinging radius of the largest ship envisaged at the buoy is approximately 95 ft.

To the mono-buoy is attached a 240 ft. length of chain cable, made up of 3 in. U3 steel studded links, and supported in polyurathene buoyancy collars, at the seaward end of which is a "chafing chain". This "chafing chain" (2.75 in. U4) is 20 ft. long and of similar construction to the main chain, but with three open links at the end: it is detachable for periodic renewal. To the end of the chafing chain is attached the "approach rope" – a 200 ft. length of 10 in. circumference plaited polypropylene which, when not in use, is allowed to float out free from the buoy.

The ship approaches the buoy from downwind, taking care to keep the wind right ahead (adequate ballast should be retained aboard to provide manoeuvrability). When sufficiently close, the crew will lower to the attendant launch the end of a good mooring rope, to the eye of which has been attached a stout nylon lashing, about 2 fathoms long. This mooring rope should be passed out through a central Panama lead, if a suitable one exists (or from a fairlead on the port bow (when the ship is fitted with a bulbous bow) a line put out through a central lead, should be brought back along the forecastle, clear of the bulbous bow, and then be lowered to the water to avoid the possibility of the launch coming into contact with the bulb when coming in to collect the end of the rope. Meanwhile, two heavy 5.5 in. circumference flexible steel slip wires will have been made fast in readiness, preferably on different sets of bitts, in such a manner that there is an adequate number of turns around the bitts and that the end of the eye reaches to approximately 10 ft. and 10 ft. 9 in. respectively from the Panama/fairleads. When the chain comes aboard, it is quickly secured to the wires by two 150 tons B.S. shackles, which are bolted through two of the open links in the chafing chain. The strain on the approach rope (which had followed the ship's rope round the drum-end of the windlass) is now released, and the weight allowed to come on to the wires. The approach rope is then "turned-up" as an additional mooring and the ship is now all fast in the berth. Ship's tension wires, or other mooring lines, should also be shackled or lashed to the chain, for added security.

A GOOD A.K.D. STOPPER OR SIMILAR, BUT NOT A TOWING BRACKET SHOULD BE FITTED.

When leaving the berth, the ship's additional moorings are first detached from the chain, any slack which is in the approach rope is taken in and that rope made fast very securely. The slip wires are then slacked off slowly and carefully until the strain comes on to the approach rope (when strong winds have tightened the mooring, it will probably be necessary to put the engine slow ahead before attempting to do this). The shackles can then be taken adrift, freeing the wires, and the approach rope slacked off until the chain reaches the water – care being taken to ensure that it is not allowed to fall across the hoses. The engine is then put astern, and the rope allowed to pay out easily (with half a turn around the bitts to stretch it clear) as the ship leaves the buoy.

(Reminder – unlash the ship's rope from the approach rope before unmooring from the buoy!).

Loading: Rate of loading is between 32,000 b.p.h. and 36,000 b.p.h.

Conventional Buoy Moorings: In berths "Brega" and "Dalila" the ship is berthed with two anchors streamed out ahead and mooring lines to 5 buoys round the stern and quarters. In addition, to all buoys except No. 3 (right astern) there are attached 5.5 in. circumference steel wires, laid on the sea bed, buoyed, when not in use – in all but the most settled weather these are brought into the ship by the mooring launch, hove up and made fast on board. Vessels should have ready a good 3.5 in. rope messenger to take up these wires, and strong chain stoppers, or "carpenter's stoppers", for use when securing them.

Before the ship reaches the berth, there should be three good mooring lines ready on the after end of the main deck, two of which have been securely married in readiness to be sent away first, to warp the ship round. At least seven good ropes should be ready for running out from the poop, with lashings ready in case one rope has to be married to another. Plaited polypropylene ropes, at least 120 fathoms long and of a diameter and strength appropriate to the size of the vessel, are recommended: large manilla ropes, slow and cumbersome to handle, are definitely unsuitable for berthing under these conditions.

Synthetic ropes on automatic winches are favoured in this port, but it is recommended that they be at least 150, and preferably 200 fathoms long. The winches must be capable of being firmly locked when in the moorings – any tension feature is not permissible.

When it has been necessary to slip moorings in order to leave the berth quickly and without the assistance of the mooring launches, the Company will make every effort to recover them and to return them to the vessel as soon as possible. Normally the Company makes no charge for recovering anchors and moorings, but it reserves the right to do so under exceptional circumstances.

In the conventional buoy moorings, in order that ships may be securely moored against beam winds and with sufficient chain leading ahead to ride out heavy swells, it is recommended that they be equipped with ample chain on both bower anchors. Experience gained in sea berths suggests that the chain required on each anchor should be more than the length of the ship. In vessels of 100,000 d.w.t., for which the berths were designed, it is recommended that there should be 14 shackles (1,260 ft.) of chain on each anchor. A minimum acceptable amount of chain is 10 shackles (150 fathoms) for the safety of the ship and the company's installations. Anchor marker buoys should be used.

HOSES: The lifting, lowering, connecting and disconnecting of the cargo hoses will be done by the tanker's personnel in accordance with the advice and directions of the Mooring Master. Ship's derricks and deck winches should be capable of operating with a safe working load of 7.5 tons and preferably 10 tons. Vessels with inadequate hose-lifting equipment will be rejected. All derricks should be fitted with "preventer-guys" in addition to normal guy tackles.

The port derrick must be rigged and ready for use on arrival. In addition ships leaving SPM should have the starboard derrick ready, too, in order to facilitate the discharge of the mooring gear on the lee side.

Sets of bitts, or strong staghorns, for hanging off the hoses, must be provided, suitably located near the manifold.

On the surface, extending from the buoy (to which it is connected by a Chicksan swivel (a universal joint)), is a hose string comprised of 26 (at "Chahett") 30 ft. lengths of 24 in. i.d. floating hose, culminating in a floating junction box: from the other side of this junction box emerge two strings of four lengths of 16 in. i.d. hose. The end ones – the "over-rail" hoses – are fitted with 16 in. to 12 in. ASA reduction flanges, which, after the hose has been hove aboard, are bolted or clamped to the ship's manifold.

For VLCCs, additional lengths of floating hose are inserted if necessary.

LOADING: *Zueitina Crude Oils and Debutanized Condensate:* The principal cargo loaded at Es Zueitina Terminal is Zueitina Field Blended Crude Oil, pumped in from the Company's wells, 212 km. inland, but in addition certain other grades of crude oil are loaded, namely, Zueitina Medium Crude, Zueitina Premium Crude, and Zueitina Debutanised (Stabilised) Condensate. Also loaded are Liquid Petroleum Gas products, Butane and Propane (LPG) see "LPG Loading Berth", and "Agip" Buattifel Crude Oil, from the wells of Agnezia Generale Italiana Petroli, in concession 100.

Virgin naphtha also exported.

The following pertinent data will, we believe, be of interest to tanker owners and operators, Masters and Mates, and to refinery operatives nin the discharging ports:-

Zueitina Field Blend

Average A.P.I. 40.1
Average Specific Gravity 0.8246
Pour point +35
Reid Water Vapour Pressure +5.2 p.s.i. at 100°F
H_2S less than 5 p p m.
Flash Point below 60°F
Average loading temperature on board 108°F
Barrels per long ton at 60°F 7.741

Zueitina Medium Blend

Average A.P.I. 36
Average Specific Gravity 0.8448
Pour point +85
Reid Water Vapour Pressure +5.0 p.s.i. at 100°F
H_2S less than 5 p p m
Flash Point below 60°F
Average loading temperature on board 98°F
Barrels per long ton at 60°F 7.582

Zueitina Premium Crude

Average A.P.I. 43.5
Average Specific Gravity 0.8086
Pour point +30
Reid Water Vapour Pressure +5.6 p.s.i. at 100°F
H_2S less than 5 p p m
Flash Point less than 60°F
Average loading temperature on board 108°F
Barrels per long ton at 60°F 7.922

Zueitina Debutanised (stabilised) Condensate and Debutanised Condensate:

Average A.P.I. 78.0
Average Specific Gravity 0.6706
Pour point −60°F
Reid Water Vapour Pressure 11.0 p.s.i. at 100°F
H_2S less than 1 p p m
Flash Point less than 0°F
Average loading temperature on board 75°F
Barrels per long ton at 60°F 9.555

The grades of cargoes to be loaded will affect the berthing schedule, irrespective of the chronological sequence of vessels' arrival times.

It is recommended that vessels take the maximum flow with due regard to safety, in order to both expedite the turn-round time and to obtain the bottom-weight to counteract the possible effect of local winds which frequently spring up with little warning.

Care must be taken not to overload, as there is no provision whatsoever for cargo once loaded to be pumped back ashore.

Warning is given of the danger of closing hoses against an incoming oil flow. Such a procedure may create excessive pressures which result in damage to loading hoses, sea lines, and other Terminal equipment. Vessels which ignore this warning and do in consequence cause such damage will be held responsible for all costs incurred for the renewal or restoration of the damaged equipment.

The attention of Masters is drawn to Safety Precautions, wherein they are reminded of their responsibilities for ensuring that all persons aboard their ships are cognizant with the hazards involved in the loading operations, and with the need for strict observance at all times of the Fire and Safety Rules. Debutanised Condensate, in particular, is a highly volatile fluid which must be treated with the utmost prudence.

(N.B. particulars of cargoes included in the foregoing are for information only and do not constitute a guarantee of quality).

Loading – A.G.I.P "Buattifel" Crude: Because of its high wax content – 37% – A.G.I.P. "Buattifel" Crude Oil, (hereafter referred to as "Agip") has to be maintained at a very high temperature throughout its entire transit from the wells to the Terminal system, and thence via the sea lines to the berth and the loading vessel: it will arrive on board at approximately 140°F, and the heating coils in the cargo compartments must be motivated in readiness and be capable of keeping the oil at above this temperature.

Two berths "Brega" and "Chahett", have been modified for the loading of Agip cargoes – ships may be moored in either of these berths but because of the considerable heating problem involved only one of the berths at a time can be used for loading Agip cargo. Through the submarine lines to "Brega" and "Chahett" central "gut" lines have been inserted – at "Chahett" berth where the sea line is 48 in. diameter, the gut line is of 18 in. diameter, and at "Brega" – sea line 42 in. diameter – the diameter of the gut line is 16 in. These two gut lines (which are, of course, tied in ashore with the Terminal tank and metering and pumping complex) terminate 20 ft. from the headers at the seaward ends of the sea lines. The area between the outside of the gut line and the interior wall of the sea line is called the "annulus". To the headers (from which emanate the strings of flexible hoses which are ultimately bolted to the ship's manifold connections) are fitted remote control hydraulic valves, operative from the loading station within the Terminal.

Immediately prior to the berthing of the prospective Agip loading ship, hot Zueitina crude oil is circulated from its storage tank, through the gut line, and back through the annulus, heating the entire system. Once the ship is securely moored, preparations are made to replace the hot "Zueitina" oil with hot Agip oil. (60,000 barrels is the full line content at "Chahett", 33,600 barrels at "Brega"). This process will take about four hours, and ship and shore must work in conjunction to ensure that the deballasting and the recirculation of the line with hot Agip oil are completed at about the same time. This is of vital importance, for once the line system is filled with hot Agip cargo it cannot remain in circulation for more than one hour. If the ship is not then ready to receive it, the Agip oil must be replaced by Zueitina oil, and only after this has been circulated round the line can the line be again replenished with another circulation of Agip oil. This entire process may take about 12 hours – a wastage of time which neither the Terminal nor the ship operators can afford to contemplate with unconcern.

When ship and shore are ready to begin loading, the remote control valves are opened and, at a very slow rate, the cold Zueitina oil which has been in the flexible hoses is loaded – 1,500 barrels at "Chahett", 300 barrels at "Brega".

At this point, the loading officer in the ship will transfer the cargo to other tanks to avoid intermingling of the two types of crude, for now hot Agip is entering the ship's system, from the gut line. Loading continues at a slow rate until the contents of the gut line – 6,000 barrels at "Chahett", 3,600 at "Brega" – have been pumped into the ship, after which the loading of the Agip, at normal rate, is through the annulus only. (The gut line is, at this point, filled with Zueitina oil, which will remain static throughout the loading of the Agip cargo).

With about 2,000 barrels of Agip cargo to go to completion, loading is stopped in order that the ship's loading officer may check his ullages and calculations. When, in "Brega" there are 300 barrels to go, in "Chahett" 1,500 barrels, loading is again stopped briefly: this marks the completion ashore of Agip cargo being pumped into the circuit. Now the Zueitina oil in the gut line is pumped into the flexible hose strings, so that when the required quantity of Agip oil has been loaded into the vessels, the hose strings – from the headers to the terminal flanges, disconnected from the manifold – are filled with Zueitina crude oil, which will not solidify whilst the hoses lie dormant under the sea. Similarly, the Agip crude oil in the annulus of the sea line is pumped back into the tank ashore and replaced throughout the system by Zueitina crude.

The foregoing explanation pertains to vessels loading Agip cargo only, taking the minimum essential Zueitina oil solely as a line flush. If, however, a ship requires a part cargo of Zueitina crude, it will load that after completing the Agip cargo, except for that small quantity used as the line flush at the commencement.

A.G.I.P. "Buattifel" Crude, particulars:-
Average A.P.I. 41.0 at 60°F
Average Specific Gravity 0.806
Wax Content 37%
Pour point +95°
H_2S Nil
Flash Point 68°F (ABEL)
Average Loading Temperature on board 140°F to 150°F
Barrels per Long Ton 7.9 (approximate)

(N.B. The above data is for information only and does not constitute a guarantee of quality).

LPG LOADING BERTH: *Berth, Location and Nature:* The LPG loading berth is S.S.W. of the Small Craft Harbour, inside Tre Scogli Reef. It is designed for vessels of approximately 700 ft. in length, with a cargo capacity of 30,000 cu.m. The max. permissible loaded draft is 8.7 m.

The channel through the reef, between Trinity Buoy (painted yellow, quick flash green, Lat. 30° 53' 30" N., Long. 20° 02' 48" E.) and Wafeya Beacon – Scoglio Sud – (white skeleton tower, group flash, 6 every 10 seconds) runs in a 315° (T) – 135° (T) direction: it is marked by two leading marks, the front one in position Lat. 30° 53' 16" N., Long. 20° 03' 42" E., and the rear one 750 m. (2,460 ft.), 135° (T), from this position. Both marks are black steel pylons with black and red oblong grid topmarks: the front one shows at night an amber light flashing every 1.5 seconds, whilst the rear one shows an amber occulting light, the period of light being six seconds every ten seconds. A small white spar buoy, showing at night a quick flashing red light, marks the turning position for ships approaching or leaving the berth.

The loading platform is of structural steel, supported on concrete piles, and faced with heavy rubber fenders. Ships are berthed alongside four breasting dolphins (two of which are incorporated into the loading platform), with other mooring dolphins ahead and astern and on the inside bow and inside quarter. Ships approaching the berth swing round on the port anchor and about six shackles of chain – when moored, the chain is hove tight.

Only one loading line is used, with a connecting flange of 6 in. ASA 1,300 lbs. It is hove on board the ship with the ship's derrick or crane, or radial davit. A 12 in. Chicksan available for large vessels. Vapour line to "flare" only provided.

Such is the location of the berth – fully exposed to winds from most directions but sometimes protected partially by the reef from the worst effects of the swell – that on occasions LPG tankers cannot be berthed although the crude oil berths in the harbour are operational. And vice versa. Consequently, with regard to Port Closure Time, the LPG berth is regarded as a separate entity from the main harbour.

Arrival: On first contacting Zueitina Marine by VHF (Channel 13 or 16), the Master of an LPG tanker should, in addition to giving his ETA at the Terminal Light Float, inform Zueitina Marine of his last port, the intended port of discharge after leaving Zueitina, the quantity and grade of cargo required, the temperature at which he wishes the cargo to be loaded, the size of the ship's manifold connections, and whether or not he has aboard a Certificate of Discharge for the cargo loaded in Zueitina.

If the vessel is to berth on arrival, the Mooring Master will board in the close vicinity of the Terminal Fairway Buoy. If the ship is instructed to anchor, the Master should do so in the recommended anchorage.

Pratique, Customs Formalities: If the ship has been obliged to anchor, Pratique and Customs formalities may be dealt with in the anchorage. Alternatively, they may be attended to on board after the ship has berthed.

For information regarding documents required on arrival, Customs and Immigration procedure see "Documents".

Loading: For a ship which needs tank purging and cooling prior to loading, the minimum rate will be approximately 100 b.p.h. Inert gas is not provided at Zueitina Terminal – the vessel must provide inert gas for purging after previous cargoes other than butane or propane. The ship will not be loaded until the air has been purged to a maximum oxygen content of 0.5%. When loading has commenced, the minimum rate permitted by the Libyan Secretariat of Petroleum is 1,500 b.p.h. The maximum rate available is between 6,000 and 7,000 b.p.h. For "topping off", the rate can, within these limits, be adjusted to the requirements of the loading officer. Arrangements can be made in advance for the LPG plant to stop loading when the desired quantity has been metered into the ship, or alternatively, the ship's loading officer can instruct the Terminal to stop loading when he sees that the correct amount has been received aboard.

Loading operations on board are the responsibility of the ship's personnel. The Master's attention is particularly drawn to the Terms of Acceptance as detailed in the "Tanker Loading Advice" letter which he has signed, and to the "Zueitina Marine Terminal, Fire and Safety Rules".

The loading platform – abreast of the ship's manifold and within easy hailing distance – is manned at all times during loading operations, and the ship *must* maintain a continuous verbal contact with the loading operative. In addition, VHF contact between ship and loading installations must be maintained on Channel 12. In the event of any emergency – fire, leakage, parting of moorings, etcetera – the operative on the platform can stop the loading by remote control.

Unberthing in Bad Weather: Should deteriorating weather conditions necessitate the vessel leaving the berth quickly, a Mooring Master will be speedily available at all hours.

Cargo Particulars: The following data will, we believe, be of interest to Masters and Mates and operators of vessels loading LPG products:-

Propane
Average A.P.I. 146
Average Specific Gravity 0.507 60/60°F
Reid Vapour Pressure 175 p.s.i.g.
Free Water Nil
Copper Strip Corrosion 1a
Flash Point less than 0°F
Average Loading Temperature −40°F (−40°C)
Barrels per Metric Ton at 60°F 12.3 (approx).

Butane
Average A.P.I. 114.2
Average Specific Gravity 0.576 60/60°F
Reid Vapour Pressure 48 p.s.i.g
Free Water Nil
Copper Strip Corrosion 1a
Flash Point less than 0°F
Loading Temperature at Ship's Request, within Ranges +18°F (−8°C) to +35°F (+2°C)
Barrels per metric ton at 60°F 10.8 (approx.)

(N.B. The foregoing data is intended for information only, and does not constitute a guarantee of quality.)

Departure: Immediately after completion of loading, the manifold connections are unbolted and the loading arms retracted. Shortly afterwards the Mooring Master will board and, with the assistance of adequate mooring boats, unberth the ship and pilot it through the reef to a safe anchorage in the outer harbour before disembarking.

When the documents pertaining to the ship's loading have been completed ashore, a clerk will take them out to the ship. (On occasions he will be accompanied by a Customs Official, boarding the ship to ensure that the seals which were put on bonded storerooms on arrival have not been tampered with before the ship has left Libyan territorial water.) It is customary for Zueitina Marine to inform the ship's Master when the documents clerk leaves the Small Craft Harbour, so that the anchor may be hove up and a lee side presented to the launch.

After the documentation formalities have been completed on board, the Master is required to pass by VHF to Zueitina Marine the official sailing time of his ship.

MEDICAL: Medical facilities are limited to emergency cases only. Under certain circumstances, however, the Terminal medical practitioner will give advice to Masters by VHF in cases where Crew members appear to be suffering from undiagnosed ailments. If it is essential for a sick person to be landed, the ship's Agent must first obtain the approval of the Government authorities.

The sick person when coming ashore must be accompanied by an officer or other responsible person able to speak English, and both the patient and the person accompanying him must be in possession of passports. (Not seamen's discharge books, which are not recognised in Libya).

BALLAST: Because of the exposed position of the sea berths, it is essential that vessels arrive with sufficient ballast for safe handling, having due regard to existing weather and sea conditions. Experience has shown that a fair estimate of the amount required is one third of the summer deadweight. A tanker found by the Mooring Master to be insufficiently ballasted will be rejected. However, it is imperative for the safety of the ship and of the installation that deballasting should be as speedy as possible, to reduce the period wherein the ship is most vulnerable to any sudden deterioration in the weather. It is, indeed, to the advantage of everyone concerned if the ship is able to commence loading as soon as the hoses are connected, deballasting simultaneous with the loading of the cargo. In cases when it is essential to complete the deballasting before loading can start, and deballasting time in excess of 6 hours will be deducted from the lay time.

As there are at Zueitina no facilities for discharging it ashore, vessels must arrive at the Terminal with clean ballast.

The Mooring Master will inspect ship's ballast on boarding, and he has the power to reject any vessel that he deems would cause pollution in the Terminal waters. A vessel so rejected must proceed to a position over 100 miles from the coast, re-ballast, and return only when the ballast is completely clean. A new Notice of Readiness must then be tended, and the loading turn will be counted as from this second arrival.

Note: No dirty ballast is now allowed to be discharged anywhere in the Mediterranean. No vessel will be accepted that has to discharge ballast prior to start of loading. Any vessel must be at a suitable draft for sailing at any time, i.e. C.B.T.

The sea area round the ship shall be adequately lighted, as frequent inspection by the Mooring Master will be made during ballast discharge. Any pollution whatever, including bilge discharge, will be cause for rejection. Similarly, any hull leaks causing pollution during loading will be cause for rejection – a vessel rejected on these grounds will not be re-accepted until satisfactory evidence of repairs has been certified by a qualified surveyor.

On completion of deballasting, all unused cargo connections must be blanked off, sea valves closed and lashed, deck scuppers securely plugged, and drip pans placed below the cargo hose connections. All the requirements listed on the Company's Safety and Fire Precautions Check Form must be seen to be complied with before loading is commenced.

In the event that the Company has to settle any third party claims as a result of damage to property caused by pollution attributable in any way to a vessel, the Company will have the right to reimbursement by those responsible for the vessel for all expenses incurred.

FRESH WATER: No fresh water available.

FUEL: No bunkers available.

CONSULS: None locally. See "Tripoli".

REPAIRS: There are no engineering repair shops.

SURVEYORS: Various companies of cargo inspectors perform duties at Zueitina, but must be arranged prior to vessel's arrival through U.K. or Paris headquarters. No Classification Societies at Zueitina.

CUSTOMS ALLOWANCES: Each member of the crew is allowed 25 cigarettes, or 25 grammes of tobacco (Note: No alcohol), for every day of the ship's stay in port. Other tobacco and cigarettes, wines, beers and spirits, as well as matches, arms and ammunition, and saccharine, will be retained under seal whilst the ship is in Libyan waters.

REPATRIATION: Only in an emergency can any crew member be paid off. Seamen's Discharge Books are not recognised in Libya. Crew members are advised to have a valid Passport in their possession in case of emergency.

SHORE LEAVE: No shore leave is permitted.

WEATHER: Weather conditions in Zueitina are generally clement. The temperature during the Winter seldom falls below 10°C (50°F), and in the Summer, even at midday, is rarely in excess of 35°C (95°F). The prevailing winds are Northwesterly. During the mid-Summer months, the land- and sea-breezes phenomenon is very apparent: a Northwesterly wind springs up at about 1100 hrs. sometimes to reach near-gale force by late afternoon, then gradually dying away during the evening. At about 2300 hrs. the wind begins to blow off the land – again sometimes to a fresh breeze or near-gale – before falling away completely around dawn.

During the Spring and Autumn, and in the early Winter months, there are frequent prolonged periods of calm, tranquil weather. However, in Spring especially, and again in the Autumn, such periods may be interrupted by the onset of the "gibli", an off-shore wind which, like the "khamsin" wind in Egypt, springs up with little warning to reach gale intensity, laden with sand and dust to such an extent that visibility is reduced to a few yards.

In the Winter months, prolonged periods of strong Northwesterly gales, with very heavy seas and high swells, accompanied by frequent rain squalls, are experienced. Even after the strong winds have subsided, long, high swells may continue for several hours to prevent mooring operations. Such Northwesterly gales are usually accompanied by a sharply rising barometer, and follow the passing of a cold front, with winds from the West.

Rainfall is confined to the Winter months only. Fog is rare, though it does occasionally occur in the Spring and Summer around dawn, generally dissipating after two or three hours.

GENERAL: Vessels are advised not to have on board any articles whatsoever of Israeli origin. If anything of such a nature is found it will be confiscated and the ship be liable to a fine and possibly to a delay for further investigation.

Goods – and, in particular, alcohol and tobacco – must not be taken from ship to shore, or from ship to ship.

Being an open roadstead, vessels must keep engines in a state of immediate readiness. No repairs to main engine may be undertaken in berth. Steam or electric power must be available on deck in case adjustments to anchor cables or mooring lines are found necessary. Power must be available on ship's whistles and sirens. Ship's boats must not be lowered into the sea and detached from the falls. Swimming is prohibited. The Mooring Master (and, when applicable, his assistant(s)) assigned to a tanker, will remain on board until after the vessel has loaded, unmoored, has completed documentation formalities and has cleared the Company's installations and is safely heading for she open sea. During the time he is aboard he is to be provided with accommodation suitable for one of Master Mariner status, and with palatable meals.

SHIPMASTER'S REPORT: March 1988.

Chart: B.A. Chart No. 3346.

Documents:

8 copies Crew List.
2 copies Crew Declaration.
2 copies Ship's Manifest.
1 copy Health Declaration.
2 copies Currency List.
All Passports.
1 copy Arms and Ammunition List.
1 copy Drugs List.

No alcohol allowed in cabins, all must be place in bond and manifested. "Magazines" and "calendars" must be placed under seal.

Money in the ship's safe is to be manifested. If vessel staying in Libyan coastal waters the bond remains sealed. Customs may issue a limited amount of beer but for ship use only.

Stores must be checked to make sure that there is no produce from South Africa or Israel.

The Crew Declaration and the Crew Money List must be on Libyan forms, unless first Libyan port of call.

Approach: The harbour area was observed on radar at 24 miles and Zuetina Light was observed at 15 miles. The Light Float light is weak. Zuetina D/F was operational. Taking of soundings on approach can be of assistance.

Bengazi Radio should be contacted on 2182 kHz. when inward bound. The Station was difficult to raise but the operators were polite and spoke good English. They require vessel's destination, ETA, position, course and speed.

Zuetina Terminal Telex No. 90120130 ZUELY.

Anchorage: LPG ships anchor in the anchorage indicated on BA. Chart No. 3346. If the vessel is familiar with the Port she may anchor 0.75 miles N.W. of Scoglio Sud Reef Lighthouse.

Pilot: The Pilot/Mooring Master boards at the anchorage from a mooring launch and on departure leaves at the same position. Zuetina Marine is on VHF Channel 13. Pilots stay on board whilst the vessel is at the Offshore Mooring but does not normally stay on vessels at the LPG Berth unless the weather is poor.

Entry: Between Scoglio Sud Reef Light and Q.Fl.R. Buoy in position 30° 53.55' N., 20° 03.40' E. less water reported. Approach and departure to the LPG Berth is made to the South and West of the Q.R. Buoy between the buoy and Trinity Shoal. Minimum depth from the Light Float to the berth was found to be 39 ft.

Tugs: One large tug/mooring vessel of 4,500 h.p. used at the offshore moorings. 3 mooring launches of 350 h.p. used at the LPG berth, these launches also used at the offshore moorings. A total of 4 launches are available and a 5th launch is under repair.

Berth: Vessels berth starboard side to. The berth is very exposed and often closed in Winter.

Berthing and unberthing possible at night time if the weather is calm, however, night berthing and unberthing not carried out if the tanks are full.

The Radar Station at Zuetina is in the same position as Zuetina Light.

The berth flat fender face is 25 m. in length with one breasting dolphin at each end. Small vessels tend to lie on the berth flat face. The berth is aligned 104° – 284°.

There is a Q.Fl.R. Light on the N.W. breasting dolphin.

Vessels leave the berth as soon as hoses are disconnected and complete paperwork at the anchorage.

Moorings: Moorings consist of 2 head/stern lines, 2 breast lines and 2 springs at each end. The head and stern lines are sent to buoys and the breast lines to the mooring dolphins. Springs are sent to bollards on the berth.

The port anchor was let go to approximately 3 shackles when approaching the berth. The mooring launches push the vessel into the berth and hold her there until all fast.

Cargo: The Chicksan arms have been taken down and only rubber hoses are used. Liquid hose is 6 in. 300 ASA. A vapour return line is available but metered and charged. It was not used.

There is a hydraulic crane on the berth for hose handling. A ship's derrick/crane is also required and ship's crew are required to make connection.

If vessel is handling butane and propane, butane is handled first. There is about 4.5 hours' wait between products whilst the line is cleared. Normal minimum rate is about 55 t.p.h. but can go slower for short periods while cooling. The normal maximum for hose loading is 200 t.p.h. Butane chilled to about −5°C. Beware of pressure reduction on loading chilled butane.

No surveyor or terminal representative was in attendance for figures at the start or finish.

There is a terminal representative in a hut on the berth during loading with a walkie-talkie on Channel 12. Channel 12 also connects with the LPG Control Room and can be contacted if there are any queries. The Bill of Lading is on the shore figures and this compares favourably with the ships's figures.

Propane can be loaded first by prior arreangement, however, the Terminal is not keen on doing this as the line is normally left under butane.

Average Specific Gravity of butane 0.567 and propane 0.508.

Facilities: Emergency medical attention is available at the Terminal Clinic. Agent advises that there are a few fresh stores available.

Customs: Beer is sometimes allowed out of bond if the vessel is proceeding outside Libya, but alcohol will not be issued if vessel is on the coastal trade. A cigarette issue is allowed.

If vessel is on the coastal trade, make sure the "Custom's Rider" is correct on departure.

Papers: All departure documentation completed at anchorage after loading. The agent attends but no representative of the terminal. Completion of documentation can take up to 3 hours. The Libyan Discharge Certificate is very important and must be properly signed at the port of discharge even if on Libyan coastal trade.

General: The oil company has flights twice a week from Tripoli. Terminal personnel often arrive and leave via Benghazi which is 2 hours by road and take Air Malta flight to Valletta for onward connections.

AUTHORITY: Zueitina Marine Terminal, Zueitina Oil Co., P.O.Box 2134, Tripoli, G.S.P.L.A.J. *Tel:* Tripoli 38011 (ext. 116-119 Zueitina). *Telex:* 20289, 20130 Zue Ly. *FAX:* 39109. *Contact:* Captain J. Folkestad, Marine Superintendent. M. Oun, Operations Manager.

AGENCY: All ships must have an approved Agent to look after their interests. As from 1st June, 1978, all shipping agencies in G.S.P.L.A.J. have been superseded by nationalised companies (Shahatt, Universal, Germa, Libyan Shipping).

See "General" before first port.

Cables of estimated time of arrival sent to the Agent should be in addition to, and not in place of, those sent to Zueitina Oil Company, Tripolilibya. Total charges are 750 Libyan dinars for the first 30,000 tons summer deadweight, or part thereof, plus 2 dinars 500 Dirhams for every 100 tons or part thereof in excess of 30,000 tons, plus 2% of the total sum in revenue stamps.

NOTES

Please also advise Shipping Guides Ltd.

Lithuania

KLAIPEDA: 55.43 N. 21.07 E. (See Plan)

GENERAL: A Baltic seaport, Klaipeda is situated in a narrow strait called the "Sea Canal", which connects the Kursiu Marios (Gulf) with the Baltic Sea.

The port is open for navigation all the year round.

During strong winds blowing from directions between the S.W. and N.W., lying in the port is dangerous due to strong waves and surge. In this event vessels must proceed to sea.

DOCUMENTS:

5 copies Crew List.
2 copies Passenger List.
2 copies Ship's Stores Declaration.
2 copies Crew Effects Declaration.
2 copies Cargo Declaration.
5 copies General Declaration.
1 copy List of Ship's Certificates (date of validity).

APPROACHES: The width of the approaching channel to the port is 100 m. and depth 11.5 m. Depths of the channel at a distance of 400 m. – 600 m. from the entrance to the Sea Canal are subject to changes due to lots of sand and mud brought down from the Kursiu Marios (Gulf) by the Spring floods, in particular. The entrance to the Sea Canal is protected by the Northern and Southern moles.

The length of the fairway of the Juru (Sea) Canal from the entrance up to the Kiaules-Nugara shoal at the entrance to the Kurshiu Marios Gulf is 4 miles, width varies from 180 m. to 300 m. and the depths are from 6 m. to 9 m. at the mean water level.

The permissible drafts for vessels navigating along the Sea Canal are as follows: 10.6 m. to 8.0 m. from the canal entrance up to the Winter Harbour, but further up to the Stevedoring Company "Klaipedos Smelte" situated 1.5 miles and Ferry Terminal situated 2.5 miles to the South of the Dane River estuary – not more than 7.5 m. From the Stevedoring Company "Klaipedos Smelte" up to the Timber Harbour – not more than 7.5 m.

DEEP SEA PILOTAGE: See "Baltic Deep Sea Pilotage".

PILOTAGE: A Pilot boat usually meets a vessel at Light Buoy No. 1 (Lat. 55° 44' N., Long. 21° 00' E.). It carries the Pilot flag by day and lights prescribed for a Pilot boat by night.

Pilot's watch is kept 24 hours a day except in periods of dense fog and strong S.W. – N.W. winds over Force 7 Beaufort Scale.

The Master of a vessel shall order a Pilot via the Shipping Agency in advance.

The port is equipped with a coastal radar vessels' movement control system (Atlass type).

ANCHORAGE: Anchorage can be obtained in the outer roads at Receiving Light Buoy No. 1 (Lat. 55° 44' N., Long. 21° 00' E.).

The outer roads anchorage for tankers is situated at a distance 3.5 miles (N.W.) from Receiving Light Buoy No. 1. Depths from 31 m. – 35 m.

The holding ground is sand and clay. Anchorage in the outer roads is not safe during heavy seas caused by Westerly winds.

RESTRICTIONS: There are no restrictions for the entry to the port.

The width of the approaching channel to the port is 100.0 m. and depth 11.5 m.

MAX. SIZE: Length not greater than 193 m. and breadth unlimited. Max. permissible draft for all vessels entering the port, 10.5 m.; and for tankers loading at installations outside main port area, 10.5 m. and LOA 185 m.

RADIO/VHF: Vessels can establish radio contact through the port radio station Klaipeda Radio, operating 24 hours per day on the following frequencies:

Call sign	*Frequencies (kHz) or Channel* *Working*	*Calling*	*Type of transmission*	*Time of work*
LYK	500	500	A1	H24
	523	454	A1	H24
Klaipeda Radio	2182	2182	A3	H24
Klaipeda Radio-1	3	16	F3	H24
Klaipeda Radio-5 (Vessel Traffic Service)	16, 9		F3	H24
Klaipeda Radio-32 (Port State Control)	10		F3	H24
Klaipeda Radio-2 (Stev.Co. "Klasco")	14		F3	H24
Klaipeda Radio-31 (Stev.Co. "Klaipedos Smelte")	25		F3	H24
Klaipeda Radio-8 (International Ferry Terminal)	15		F3	H24

Vessel traffic in the roads and harbours is governed by the Shore Signal Station equipped with radar which gives all possible information for ensuring safe pilotage.

TUGS: Ordered by Pilot if necessary. Mooring and unmooring of large sea-going vessels can be effected with tugs' assistance only. Number of tugs to be ordered depends on the weather conditions and can be agreed upon between Master and Pilot. Master should order tugs by radio well in advance. Ship's lines to be used.

CRANES: Cranes of up to 40 tons capacity are operated along quayside and by warehouses. There are also other cargo handling facilities including floating cranes up to 50 ton capacity.

STEVEDORES: Report 12 days, 96 hours, 24 hours and then 12 hours prior arrival giving ETA, and 72 hours then 12 hours prior arrival advising perishable goods, characteristics of vessel, gross capacity, number and measurement of hatches, tween-decks, shelter-decks, description and quantity of cargo, stowage plan, heavy lifts, pieces of above 3 tons each especially indicated. Day and night loading/discharging operation, Sundays and holidays included.

BERTHING:

Berth	*Length (m.)*	*Possible Draft (m.)*
Oil Terminal		
No. 1, 2	283 (each)	10.5
No. 3	141	9.5
Stevedoring Company "Klasco"		
No. 5, 6	406 (total)	10.6
No. 7, 8	360 (total)	9.0
No. 10	179	8.0
No. 11	170	8.7
No. 12	265	8.3
No. 9, 13, 15 – 18	944 (total)	7.5
Stevedoring Company "Bega"		
No. 69, 70, 71	425 (total)	6.7

A new cargo pier is to be built. Completion expected at the end of 1996.

Stevedoring Company "Klaipedos Smelte"		
No. 94 – 104		7.5
International Ferry Terminal		
No. 146, 147	210 (each)	7.5

No specific requirements. Vessels allocated berth according to kind of cargo to be loaded/discharged and their turn.

The quays of the port are equipped to handle general, bulk and liquid cargoes. There are enclosed warehouses and concrete floor sheds.

MEDICAL: Master to advise by radio prior arrival if medical attendance required on board.

TANKERS: Three berths. Max. draft 10.5 m. Shore facilities for discharge of ballast.

Products handled:
Fuel oil – storage 60,000 cu.m.
Gas oil – storage 4,000 cu.m. (for bunkers only).

DENSITY: Fresh water (not affected by tide).

FRESH WATER: Most berths supply by shore installations, otherwise barge.

FUEL: Deliveries only by bunker barge.

CONSULS: Russia. Tel: (370-6) 393246, 393157. Tel/Fax: (370-6) 259015.

REPAIRS: All kinds of repairs for vessels of 10,000 d.w.t. can be effected.

SURVEYORS: Saybolt in Ventspils (Latvia).

GANGWAY/DECK WATCHMEN: Compulsory for gangway checking. Guard net and life buoy required.

OPENING/CLOSING HATCHES: Normally done by crew.

CUSTOMS ALLOWANCES: Each crew member allowed 200 cigarettes and 1 litre wine/spirits.

REPATRIATION: No facilities for crew changes. Arranging any necessary repatriation at Master's request effected by Immigration Authorities.

AIRPORT: At Palanga (25 km. from Klaipeda), served by regular lines to Kristianstad, Hamburg, Frankfurt and Moscow.

TIME: GMT plus 2 hours in Winter and GMT plus 3 hours in Summer (1st April – 1st October).

POLICE/AMBULANCE/FIRE: Police, Tel: 02; Ambulance, Tel: 03; Fire, Tel: 9300, 001.

CERTIFICATES: All ship certificates required on every call.

TIDE: There are periodical alterations in the water level, chiefly due to the effects of the wind. In general, strong Westerly, Northerly, N.W. and sometimes S.W. winds raise the water and Southerly and Easterly winds lower it.

The water level usually begins to rise suddenly. It rises very quickly but lasts for a very short period of time. The max. difference between high and low level is usually observed in Autumn and Winter.

Sometimes the changes in the water level can be caused by the considerable variation in atmospheric pressure ("Seish" effect).

TELEPHONES: May be arranged on board.

SHORE LEAVE: Crew members allowed ashore with Seaman's Book.

GARBAGE DISPOSAL: Ring 99414. Two small vessels "Fauna" 306 tons, and "Flora" 417 tons, and 8 containers. Cost of removal is 100 Rub./ton.

WASTE OIL DISPOSAL: See above.

CURRENCY: Local currency is Litas (Lt).

SEAMAN'S CLUBS: Seaman's Club, Sankryzhos 7, Klaipeda, Lithuania. Tel: 95-88, 1-64-14. Facilities: Bar, currency exchange office, duty-free souvenir shop, library, sightseeing tours of the town/out of town, tickets for performances, concerts, movies, football, basketball, table tennis and other indoor and outdoor sports games.

The Seaman's Club opens daily from 1630 hrs. – 0030 hrs.

GENERAL: In case of stormy weather or dense fog vessels are lying at Outer Roads until entering permitted by Harbour Master. In such cases vessels lying alongside berth to be shifted to Inner Road.

DEVELOPMENTS: *Under Construction:* Container Terminal: Length 620 m., depth 8.5 m., storage area 155,000 sq.m.

To be Constructed: Ferry Terminal, Timber Export Terminal, Building Materials Export Terminal.

AUTHORITY: Klaipeda State Seaport, J. Janonio 24, 5800 Klaipeda, Lithuania. *Tel:* (370-6) 257186. *FAX:* (370-6) 253354. *Contact:* Valentinas Greiciunas, Director.

Harbour Master's Office: *Tel:* (370-6) 399509. *Tel/Fax:* (370-6) 219047. *Contact:* Nikolaj Severincik, Harbour Master.

Democratic Republic of Madagascar

ANTSIRANANA (Diego Suarez): 12.14 S. 49.26 E.

DOCUMENTS:
Documentation on Arrival:
Customs:
2 Crew Lists.
2 Personal Effects Lists.
2 Stores Lists (Bonded).
Immigration/Police:
4 Crew Lists and inspection of vessel and Seamen's Book.
Port Health:
1 Vaccination List and inspection of Derat Certificate.
Agents:
3 Crew Lists.
Ship's Register to be lodged ashore.
Clearance from Last Port.
Documentation on Departure:
An Official from the Port and the Agent visit and will wish to see:
For a Liner:
Load Line Certificate.
Safety Equipment Certificate.
Derat Certificate.
For a Cargo Ship:
Load Line Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Equipment.
Derat Certificate.
Ship's Register (held by the Agent).

After checking all these an Outward Clearance Certificate will be presented. One is then free to leave the Port, the Agent having given an undertaking that all Port dues have been paid.

APPROACHES/PILOTAGE: Tides run fast in the Orangea Pass, but seem to follow the pattern as per the Admiralty Pilot. Until experience is gained it should only be taken in the hours of daylight. There are numerous natural transit marks available to the navigator, all very clearly described in the 'Pilot'. For this reason it would be essential to take this in fine visibility. Pilot can be taken at Cape Mine but this can be difficult and dangerous in the S.E. Trade season and ships are advised that they can proceed on into the Bay right up to Port Antsiranana Point.

Harbour is large and commodious but subject to very strong N.E. winds from May to October, width of entrance 300 m. Tidal current in Roads, which may attain 3 knots. HWST 2.36 m., LWST 3.56 m., HWNT 1.63 m., LWNT 0.99 m. Pilotage compulsory for vessels of 150 n.r.t. and more. For obtaining Pilot, ETA must be sent 24 hours in advance including ship's characteristics. Course to steer: From Lat. 12° 13' 09" S., Long. 49° 26' 00" E. Entrance 275° thence beacons in line heading 230°.

ANCHORAGE: There are many splendid anchorages available in this vast Bay. Vessels can anchor 2 cables off the N.W. corner of the wharf at Antsiranana (Diego Suarez).

RESTRICTIONS: No entry for vessels or crews from: Taiwan(Formosa) and South Korea.

MAX. SIZE: No restriction except max. draft alongside 11 m.

HEALTH: Yellow fever/cholera certificates required for vessels coming from African/Indian countries. Pratique is automatic for vessels entering after calling at another port in the same country.

RADIO: Radio station is "Diego Radio".

VHF: Harbour Master's Office does not have VHF. Navy have VHF Channel 16.

TUGS: Three small tugs available (belonging to Navy and require 24 hours' notice).

BERTHING: Ocean Vessel Wharf: Length 300 m., max. depth 11 m. HW.
Coaster Quay Wharf: Length 60 m., max. depth 4.20 m.
With Pilot, vessel can come alongside day or night.

CRANES: Two port cranes, only used for small coasters. 1×5 tons and 1×2 tons.

STEVEDORES: Advise before 0700 hrs. in order to commence the same day and before 1700 hrs. in order to commence next day at 0600 hrs. with maximum gangs.

Working Hours: 0700 – 1100 hrs., 1300 – 1700 hrs. Overtime Working: 0600 – 0700 hrs., 1100 – 1300 hrs., 1700 – 0600 hrs. No half shifts.

MEDICAL: Difficult to find medicines. In case of serious illness hospital facilities available.

TANKERS: See "Berthing". Discharging rate 200 cu.m.p.h. with flexible hose. Loading rate 30 – 50 t.p.h., depending on ship.

FRESH WATER: Available.

FUEL: Not available.

CONSULS: French Consul.

REPAIRS: All types of deck and engine repairs can be carried out.

DRYDOCK: *Shipmaster's Report:* 1975.

Length overall	199.05 m.	653.00 ft.
Subdivided into sections	128.96 m. 70.09 m.	424.00 ft. 229.00 ft.
Breadth at Bottom	28.40 m.	93.00 ft.
Breadth at Coping	36.60 m.	120.00 ft.
Depth at sill and blocks at MHWS	10.42 m.	34.40 ft.

Yard Services: Nothing was too much trouble for any of their staff attending this ship. Power was a bit of a problem but they did everything to help. Fire mains, fresh water, cranes were all good. Toilets and shower-rooms were more than adequate especially after we were given our keys and had them cleaned.

Workshops: A modern well equipped yard with every conceivable service from an iron foundry to upholstery shops. A clean, well kept set of shops including the building of small craft. The Engineers of this ship were very favourably impressed with the shops and technical services.

From time to time, the yard meet with certain material supply difficulties to satisfy full needs for ship repairs. It is recommended that Owners interested in docking their vessels at this yard study this matter before contracting.

Firms Address: Societe d'Exploitation pour la Construction et la Raparation Navale, B.P. 135, Antsiranana, Madagascar. Tel: General Manager (Home) 221-70, (Office) 226-84, Central 212-65 and 222-98. Telex: 93 103. Cables: Secren, Diego Suarez.

GANGWAY/DECK WATCHMEN: Trade Union on the spot can supply.

OPENING/CLOSING HATCHES: Usually by ship's crew.

SURVEYORS: There is no Lloyd's Surveyor in the country. Often when required Lloyd's Representative flies up from Durban. Sometimes it is agreed that the resident Bureau Veritas Surveyor will subsititute. M. Ralibera Henri in Tananarive is the principal B.V. Surveyor in Madagascar. M. Ralibera received agreement from his head office in Paris to act as non-exclusive surveyor of N.K., N.V. and local insurance company.

CUSTOMS ALLOWANCES: (Tobacco/wine, spirits) Quantity permitted to be held out of bond is only for the personal consumption of each crew member.

CARGO GEAR: Load/discharge effected by ship's gear, no heavy lift cranes available.

REPATRIATION: For crew changes Entry-Visa is required and repatriation can be carried out according to Harbour Master's Certificate and Immigration permission.

AIRPORT: AirMad Services are available each day to connect with the international Air France flights to Orly from the local airfield about 8 miles from the town.

TIME: Local time is GMT plus 3 hours.

HOLIDAYS: Sunday, but can be worked on overtime from 0600 hrs. to 1400 hrs.

New Year's Day, Commemoration of 29th March 1947, Easter Sunday and Monday, May 1st, Ascension Day, Whit Monday, Independence Day (June 26th), Assumption BV Mary (August 15th), All Saints' Day (November 1st), Christmas Day, Anniversary of the Democratic Republic of Madagascar (December 30th). No work possible on these holidays. Overtime rates for all other holidays.

TELEPHONES: No telephones placed on board.

SERVICES: Facilities for compass adjusting, radar and radio repair by Secren (See "Drydock").

BANKS:

Bankin'Ny Indostria (BNI), Angle Rue de France et Rue Colbert, B.P. 4., Antsiranana, Madagascar. Tel: 221-46, 221-52.

Banky Fampandrosoana Ny Varotra (BFV), (Banque Nationale Pour Le Commerce), Rue Richelieu, B.P. 18. Tel: 211-89.

Bankin'Ny Tantsaha Mpamokatra (BTM), (Banque Nationale Pour Le Developement Rural), Rue Richelieu, Antsiranana, Madagascar.

STORING: Local stores can be delivered directly on board even during loading/discharging, by the ship chandler. Agent will arrange Customs formalities.

SHORE LEAVE: Crew members are allowed ashore.

IDENTIFICATION CARDS: Seamen's Book is sufficient.

SPECIAL PORT REGULATIONS: See "Restrictions".

REGULATIONS: Any repair work involving even small temporary repairs only with Harbour Master's permission. Using vessel's lifeboat subject to Harbour Master's and Customs permission. Landing of foreign currency is strictly prohibited. Possession of local currency must be justified.

DELAYS: None.

AUTHORITY: Service Provincial de la Marine Marchande, au Port, P.O.Box 109, Antsiranana, Madagascar. *Tel:* 211-33.

AGENT: SCAC Transport International, Box Poste 384, Antsiranana, Madagascar. Tel: Antsiranana 21327 and 21549. Telex: 93102. Cables: Freight Antsiranana.

FORT DAUPHIN: 25.02 S. 47.02 E.

DOCUMENTS:
Manifest of Cargo for discharge.
Manifest of Cargo in transit.
Ship's Stores List.
List of Passengers Landing.
Crew List.
Franchise Certificate (for mail-carrying vessels).

PILOTAGE: The port is an open roadstead and pilotage not required.

ANCHORAGE: In depths of 8 m. Vessels anchoring are charged with port dues.

RESTRICTIONS: Port is normally used by coastal trading vessels. In case of liners handling cargo exceeding 150 tons, special permission required which is obtained by Agent.

HEALTH: Pratique should be requested from the Health Department, Tel: 36.

RADIO: Fort Dauphin Radio, call sign 5RD, between 0400 and 1630 hrs. GMT on following frequencies: 458, 500, 2182 and 2712 kHz.

TUGS: None available.

BERTHING: There are no berths alongside. Vessels work cargo at anchorage.

There is a crane on the dock with a capacity of 3 tons.

STEVEDORES: Arranged by the Fort Dauphin Lighterage Company. Advance notice of ETA required to arrange gangs. Average loading/discharging rate is 10 tons per hold per hour.

MEDICAL: 2 hospitals available in the town.

TANKERS: 1 buoy berth for tankers.

FRESH WATER: No water barge. Only small quantities can be supplied in emergency.
FUEL: Not available.
CONSULS: France.
REPAIRS: Only facilities available for repairing lighters.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Opening and closing hatches carried out by stevedores.
CUSTOMS ALLOWANCES: 1 carton of cigarettes per man. No alcohol.
REPATRIATION: No facilities for effecting crew changes.
AIRPORT: Situated 5 km. from the port, 3 regular flights per week.
TIME: GMT plus 3 hours all year round.
HOLIDAYS: Days on which work is normally carried out with overtime payment: Easter; Ascension Day; Whitsun; Assumption; Christmas.

Official holidays on which work can be arranged by special permission: 1st January; 1st May; 26th June (Independence Day); 30th December; Festival of the Republic.
FIRE/POLICE/AMBULANCE: Police Tel: 49; Fire 19; Ambulance 36.
SHORE LEAVE: Not permitted.
AUTHORITY: Service des Ports' Phares et Balises, Tananarive.

AGENT: SCAC Transport International, BP 425, Tananarive, Madagascar. Tel. 20631. Cables: "Freight Tananarive". Telex 22251. Fax: 233730.

MAHAJUNGA (Majunga): 15.44 S. 46.20 E.

DOCUMENTS:
List of Crew Members.
List of Passengers.
Customs Documents.
Health Documents.
Manifests.
Bills of Lading.
Ship's papers.
PILOTAGE: Vessels requiring Pilot must apply by cable to Mahajunga Harbour Master's office at least 24 hours before arrival. Pilot embarks at Narcissus buoy.
ANCHORAGES: Indicated to Ship's Master by cable from Mahajunga Harbour Master's office.
RESTRICTIONS: Ships can enter day and night. Max. draft allowed 10 m.
MAX. SIZE: No restriction except for max. 10 m. draft.
HEALTH: Pratique automatic when vessel comes from a Madagascar port. Pilot is health agent.
RADIO: Radio Mahajunga.
STEVEDORES: Vessel informs Agent by telegraph 24 hours in advance of number of gangs needed.
MEDICAL: Hospital available.
TANKERS: 1 berth, max. draft 10 m.
FRESH WATER: Unlimited drinking water.
CONSULS: French and Greek Consulates.
REPAIRS: Minor repairs only.
CERTIFICATES: See "Toamasina".
CUSTOMS ALLOWANCES: See "Toamasina".
REPATRIATION: All facilities available.
AIRPORT: Served by regular airlines; 7 km. from town.
TIME: GMT plus 3 hours.
HOLIDAYS: Catholic and official holidays. Commercial transactions possible on public holidays.
POLICE/FIRE/AMBULANCE: Police 24–85; Fireman 13; Hospital 29–15.
AUTHORITY: Harbour Master.

AGENT: SCAC Transport International, B.P. 256, 401 Mahajunga. Tel. 22070, 22387 and 22008. Telex: 62710. Cables: Freight Mahajunga.

PORT ST.LOUIS: 13.05 S. 48.50 E.

SHIPMASTER'S REPORT: August 1990.

CHARTS: B.A. Chart No. 3873 and French Chart No. 5404.
DOCUMENTS:
Clearance from last Port.
1 Health Declaration.
1 Vaccination List.
7 Crew Lists.
4 Personal Effects Declarations.
2 Stores Lists.
1 Passenger List.
1 Arms and Ammunition List.
1 Narcotics List.
1 Parcel List.
4 Cargo Manifests.
PILOTAGE/APPROACHES: The port is an open roadstead and pilot is not available and also not required.

The approach to the anchorage with radar presents no difficulties. At night time without a radar, however, it is difficult, because of the non-existence of any buoys or lighthouses.
ANCHORAGES: As per Port Control's advice, the vessel anchors in position 13° 04.6' S., 48° 45.7' E., about 3.5 miles off the closest shore line, in about 9 m. of water. The holding ground is soft mud and sand, vessel did not drag.
RESTRICTIONS: No information available.
MAX. SIZE: No information available.
HEALTH: Pratique is normally granted after doctor visits the vessel.
RADIO: All local W.T. stations are reported to be inoperative. Cape Town Radio (ZSC) was used to relay ETA messages, which seemed to have arrived in time.
VHF: Channel 16 is used by Port Control and agents.
RADAR: No port radar services available.
TUGS: There are 3 small tugs of about 500 h.p., used for towing the barges to the anchored vessel. One tug is permanently under repair.
BERTHING: No berthing. There are two small tide bound jetties of 100 m. length each, which are used to load and unload the barges.

It is said that there are 12 barges, but 7 barges are in a very bad state of repair. The capacity of each barge is about 100 tons.
CRANES: It is said that there is 1 crane of 20 tons, and 2 cranes of 3.5 tonnes, on the jetties. One crane is under repair.
BULK CARGO FACILITIES: No facilities. Export products are raw sugar and molasses. Sugar is brought to the vessel in bags, hauled aboard with slings and nets, and poured into the holds through openings between hatch covers or pontoons, by cutting the bags.
STEVEDORES: Available in sufficient numbers at all times and on very short notice. Stevedores in port work in two shifts (0600 hrs. – 1800 hrs. and 1800 hrs. – 0600 hrs.).
MEDICAL: It is said that there is a hospital with all facilities.
TANKERS: No information available.
DENSITY: 1025.
FRESH WATER: It is said that fresh water can be supplied by barge. The cost is about U.S.$ 3.00 per ton.
FUEL: No information available.
CONSULS: There are no consuls locally.
REPAIRS: No information available.
DRY DOCKS: None.
SURVEYORS: None available.
GANGWAY/DECK WATCHMEN: Not compulsory, and also not necessary.
HATCHES: Opening and closing of hatches is normally carried out by crew.
CUSTOMS ALLOWANCES: No restrictions, stores are not sealed. 1 Customs Officer stays on board.
CARGO GEAR: Ship's gear is used.
REPATRIATION: There is a small local airport at Sirama, 7 km. away from Port St.Louis, which is connected with daily flights to Antsiranana (Diego Suarez), 134 km. away, and from there via the international airport of the Capital.
AIRPORT: See "Repatriation".
TIME: Local time is GMT plus 3 hours.
HOLIDAYS: See "Antsiranana" (Diego Suarez).
POLICE/AMBULANCE/FIRE: No information available.
EMERGENCY CO-ORDINATING CENTRE: No information available.
TELEPHONE: No information available.
SERVICES: No information available.
BANKS: Banque Tantsaha Mpamokatra BTM at Sirama.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: ID cards are not issued.
REGULATIONS: No particular or unusual regulations.
DELAYS: Delays are normally caused when tugs cannot bring barges, due to the tide bound jetty. Also tugs are not powerful enough. Due to the delays, an average loading rate of about 750 tons per working day (2 gangs) was experienced.
GENERAL: 6 persons are accommodated on board. Since most stevedores are also staying on board, a fire burning portable stove for feeding the stevedores, as well as a portable water tank, is put on board. Tugs and barges are in a poor state. Robberies were not reported.
AUTHORITY: See "Antsiranana" (Diego Suarez).

AGENT: Local Agent: Direction d'Etablissement at Sirama.

Main Agents: Societe Siramamy Madagascar, Rue de Belgique, Boite Postale 1633, 101 Antananarivo, Madagascar. Tel: 252.35. Telex: 22372. Cables: Sirama Antananarivo.

TOAMASINA (Tamatave): 18.08 S. 49.22 E. (See Plan)

DOCUMENTS:
Merchant Marine Department:
Safety Certificates.
Crew List.
Passengers List.
1 Full Set Cargo Manifest.
Health:
International Maritime Certificate of Health.
List of Passengers Disembarking.
Transit Passengers List if any.
Derat Certificate.
Crew List.
Immigration:
List of Passengers Disembarking (required on arrival and before ship's departure).
Transit Passenger List if any.
4 Copies Crew Lists.
Customs:
Ship's Register.
3 Stores Lists.
3 Crew Effects Lists.
3 Crew Lists.
5 Full Sets Cargo Manifests.
3 Lists Passengers Disembarking and Transitting if any.
Port:
4 Full Sets Cargo Manifests.
4 Dangerous Cargo Lists.
Agents:
2 Full Sets Cargo Manifests.

PILOTAGE: Compulsory. Telegraphic address: Porttave Toamasina. Telex: 55619 Port Mg. Ships advise Agents hour of ETA. Pilots informed by Agents. Due to the extension of breakwater, the South Pass is closed to deep-sea ships, except small coastal vessels. For large vessels, the pilot boat waits on the East Pass on line 277° True or range approximately 3.3 miles S.S.E. of Prunes Island Lighthouse.

The pilot boat is fitted with a small portable VHF set (Channels 16, 12, 9 and 6) but its effective range is only about 5 miles.

ANCHORAGES: No special anchorage. If no berth available on ship's arrival, Pilots put ships at best anchorage, according to draft and length of ship, between Reef and shore.

Acts of piracy have taken place at the anchorage.

RESTRICTIONS: Ships enter and sail day and night any time. Max. tide only 3 ft. However, tankers berth in daytime only between 0500 hrs. and 1500 hrs.

MAX.SIZE: For Roads, max. length about 200 m. (concerns only passenger ships). For cargo vessels max. length 180 m.; max. draft 31 ft. 2 in. (9.5 m.).

For tankers, max. LOA 230 m., max. beam 31 m., max. draft 12.20 m. in salt water. Distance from stern to manifold 110 m.

HEALTH: Quarantine message sent to Agents who inform Health Service. "Q" flag must be hoisted during daytime or red over white light at night time if health satisfactory. Master presents Maritime Declaration of Health. Health Officer and Immigration board at Quarantine Anchorage.

RADIO: Toamasina Radio, call sign 5RS.

VHF: Toamasina Radio – Channels 16, 26 and 27.

TUGS: 1 tug of 1,750 h.p. available to assist berthing. One tug 200 h.p. for towing fresh water barge.

BERTHING: 4 berths for deep-sea ships and 2 berths for coastal ships. Ships moored at berth in order of arrival and according length and draft. Mooring has to be very strong, due to swell that may sometimes enter harbour when S.E. trade winds are strong, or if cyclone in vicinity. Swell is so dangerous that ships have to go to anchorage or put to sea until weather improves.

CRANES: Mobile crane of 45 tons available.

STEVEDORES: ETA to Agents must give hatches, tonnages, and all information about cargo.

Working hours: 1st shift 0700 – 1400 hrs., 2nd shift 1400 – 2100 hrs. On Sundays there is one shift 0700 – 1400 hrs. at overtime rates.

MEDICAL: Preferable to inform Agents in advance. All hospital facilities available.

TANKERS: 1 refinery imports crude oil and exports fuel and refined oils. Tankers moored using anchors forward, and moorings aft.

Diameter of lines 12 in. No slop discharge facilities. If tanks are to be washed, slops must be discharged outside harbour.

Shipmaster's Report: A brief description of the berthing manoeuvre is as follows:

About 350 m. from the berth, let go starboard anchor and swing around to starboard with the assistance of a tug, slacking the cable all the time. As vessel completes swing, let go Port anchor, then slack down both anchors. Vessel usually finishes up with about 9 shackles on each anchor. Aft, vessel secures with 4 lines from the starboard quarter to the buoy and 4 lines from the port quarter to the quay. The mooring operation takes about 2.5 hours and unmooring about 1.5 hour.

Facilities:

1. One 12 in. rubber hose, connected always from the starboard side. You can expect 4-5 hours for connecting up the hose and about 2-3 hours for disconnecting.
2. The shore tanks are situated about 5 km. from the vessel, and have a total storage capacity of about 100,000 cu.m. The tanks are located about 4 m. above sea level, the heights of the tanks being approximately 13 m.
3. The main pipeline is 20 in. diameter by 5 km. long.
4. Maximum back pressure permitted is 6-7 kg. However, in view of the length and size of the line it is very difficult to obtain such a pressure, even with all 3 pumps going all out. Understand from the refinery Superintendent that maximum back pressure so far attained was 4 kg. The back pressures are monitored by gauges fixed on the manifold and on the quay.
5. The maximum draft permitted at the Tanker mooring is 40 ft. Fully laden tankers arriving can berth only in daylight hours. However, 24 hour sailing is possible.
6. The cargo discharging operations are as follows: The main pipeline is kept constantly filled with bunker fuel and has a capacity of approximately 1,000 cu.m. After connecting up vessels commence discharge of their crude. The bunker fuel in the line is thus pushed back and stored in a separate tank ashore. The vessel then continues to discharge her full cargo. After completing discharge, all tanks are inspected and a dry certificate obtained. The refinery then pushes back the pipeline crude (1,000 cu.m.) and about 1,200 cu.m. of bunker fuel, which must be stored on the ship in separate tanks. Thereafter, the vessel must discharge all crude, and finally the bunker fuel.

   Thus the pipeline is constantly kept filled with bunker fuel.

   The drawbacks to the vessel are obvious. 3 individual stripping operations are involved viz. stripping the crude during completion of discharge, stripping of pipeline crude stored in the ship and stripping of the bunker fuel.

   Note: Capacity of shore pumps (when transferring oil back to ship) is 800 t.p.h.
7. Communications: A telephone is installed aboard for contact between ship and shore. This however, never seems to be at its best when you need it most. Other difficulties are the language barrier (French being spoken). Notwithstanding, the slow rate of discharge obtainable, helps to offset in part the lack of communications.
8. Out-turn quantities: It is understood that these are checked by sounding shore tanks.
9. Bunkers are available on 24 hours notice. Range Redwood 1,000–1,500 seconds.
10. Diesel oil is available, however, as the supply barge has been out of commission for sometime now, supply cannot be depended upon.
11. Fresh Water available.
12. Connection and disconnection of the cargo pipeline is undertaken by the refinery personnel.

DENSITY: 1023.5.

FRESH WATER: Delivered by water-boats at rate of about 100 t.p.h.

FUEL: Available alongside. Gas oil and diesel oil at 70 t.p.h. Fuel oil at 110 t.p.h.

FIRE PRECAUTIONS: 1 fire-boat stationed near tankers.

CONSULS:

Denmark	Tel: 2615
Netherlands	Tel: 2632
France	Tel: 2721
Great Britain	Tel: 2680
Norway	Tel: 2549
Sweden	Tel: 2136

REPAIRS: Only small repairs possible.

GANGWAY/DECK WATCHMEN: Recommended. Very low cost.

OPENING/CLOSING HATCHES: Booms always operated by crew. If hatches are Macgregor type, by crew; otherwise by stevedores.

CERTIFICATES: Safety Certificates (3), Derat or Exemption Certificate, Register, Load Line Certificate.

CUSTOMS ALLOWANCES: 200 cigarettes. Wine/Spirits, 1 opened bottle.

REPATRIATION: Possible, arranged by Agents.

AIRPORT: Served by regular airlines. 1 flight a day by Air Madagascar to Tananarive and 4 to 6 flights a week from Tananarive to Africa and Europe.

TIME: Local time GMT plus 3 hours.

HOLIDAYS: 13 holidays per year. Cargo work cannot be arranged on holidays but can be on about every second Sunday.

TELEPHONES: 2 connections at 2 berths used for passenger ships, but may be requested by other ships.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Only seaman's papers required.

GARBAGE DISPOSAL: The Port Authority provides a collection service on request.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: Apostolat de la Mer, P.O.Box 98, 16 Rue de la Reunion, Toamasina. Tel: 324-11.

CURRENCY: Malagasy Franc (FM).

DELAYS: Not fixed. When all berths occupied, ships wait at anchorage.

GENERAL: Small tugs and lighters for ships operating on roads. One port launch for crews of ships at anchor.

DEVELOPMENTS: New quay recently constructed.

SHIPMASTER'S REPORT: January 1994.

Approaches: We kept about 10 miles off-shore until abeam of the harbour breakwater and then altered course for the pilot boarding ground.

Navigational Aids: Ile Aux Prunes Light is operative and has a maximum range. Leading marks are white stone buildings and clearly visible from seaward. They are in line 277° (T) and give the passage through Passe de L'Est. We entered at daylight, but could only ascertain that the rear marker was lit.

Shoal: When entering and leaving, we passed over two pinnacles some 5 m. shallower than the surrounding water, estimated at 23.0 m. depth. These 2 points are very close together and are on the leading line, with Ile Aux Prunes Lt. bearing 005° (T).

Pilotage: Despite information to the contrary, in the Pilot Books and Port Information Book, the Pilot does not board at the position marked outside the reef. Vessels have to enter through the reef and pick-up the Pilot inside. Standard of piloting was good.

Anchorage: Either outside the reef in depths of 22 fathoms upwards or inside in depths of 15 fathoms. The inshore anchorage is preferable, as vessels are sheltered from the swell and the prevailing S.E.'ly winds.

Berth: The tanker berth is an extension of the general cargo berth with the last 40 ft. sealed-off by a security fence. The sterns of cargo vessels on this berth are close to the shore manifold, and there are no smoking restrictions.

The Mediterranean moor is used, with the vessel approaching the quay head-on and letting-go the starboard anchor when approximately 3 ships length off the berth. The anchor is slacked out to 5 shackles, whilst the vessel is turned with the assistance of 2 tugs, and the port anchor is then let go (a second Pilot controls operations from the Fo'cs'le). Both anchors are then paid out, with the engines on slow astern until the mooring ropes can be run from the stern. 3 or 4 lines are then run to the quay. The first pair being crossed and the vessel is finally secured some 70 m. from the quay.

As we were to find out, this is not a very safe berth, as the prevailing winds are on the port quarter, and the stern falls off to starboard. This means that the starboard ropes lead across the stern and are subject to chafe. If possible, these ropes should be lead from right aft. Should the moorings part, then the stern would swing towards the vessels on the Container Terminal, without sufficient room to clear them. If problems do arise, the Port Office can be contacted by VHF, call "Securite", but whether the tugs would be available in the middle of the night is not known.

Communications: Port Office VHF is bad, and even at 5 miles the transmission is broken up. The pilot boat has a much better set and normal communication is possible.

Discharge: For refined products, a 6 in. floating hose is led from the quay to the port manifold. The hose is in poor condition and maximum pressure allowed is 5 Bar at the manifold. This gave a discharge rate of 220 t.p.h. (which was considered to be good by the local representative).

Communications from ship to shore during pumping operations are not satisfactory, the normal method being shouting and whistling from the quay until someone's attention is attracted onboard.

Prior to disconnecting, a water flush is required, followed by pumping air for 5 minutes. This is to reduce the weight of the pipeline when lifting back onto the quay.

Facilities: A launch service is available for transporting crew and officials to and from the quay. The trip is of about 2 minutes duration, and each trip costs U.S.$ 70.00.

Water is available by barge with capacity 80 tons, and appears plentyful.

Currency: Malagasy Francs, at 1977 to U.S.Dollar.

Max. Draft: Tankers 12.2 m. Cargo 10.2 m.

Messages: Send Pratique and ETA via Agency, who will pass on to appropriate officials.

AUTHORITY: Societe d'Exploitation du Port de Toamasina, B.P. 492, Republic of Malagasy. *Tel:* 321-55/56, 327-60/68/69/71. *Telex:* 55619 Port Mg and 55623 Port Mg. *FAX:* 33558.

AGENT: SCAC Transport International, Rue du Capitaine-Shoel, BP 411, Toamasina, Madagascar. Tel. 5320-48; 5320-49; 5326-80; 5326-81. Telex: 55610/55611/55628. Fax: 532910. Cables: "Freight Toamasina".

NOTES

Please also advise Shipping Guides Ltd.

Madeira

FUNCHAL: 32.38 N. 16.55 W. (See Plan)

DOCUMENTS:
Maritime Declaration of Health.
5 Crew Lists.
12 Lists of Passengers Finally Landing.
5 Lists of Passengers in Transit.
1 List of Stores and Provisions, including Deck and Engine Stores.
1 List of Contents of Shops on board.
6 Copies of Manifest of Cargo for Discharge.
2 Copies of each B/Lading of Cargo for Discharge.
1 Copy of Manifest of Cargo in Transit.
1 List of Passengers Finally Landing, visaed by Portuguese Consul at original port.

All other entry and clearance documents are arranged by the Agents.

PILOTAGE: Vessels should radio their ETA to Agents who order Pilot. 24 hours' notice requested. Pilot launch flies "H" flag during day. Exhibits bright white light over red at night. To request Pilot on approach by day fly international "G" flag, or give 2 long and 1 short blast on whistle. At night flash 2 long 1 short. For vessels berthing alongside Pilot boards in bay; for vessels anchoring Pilot does not board but pilot launch indicates where vessel should anchor. Pilot boat equipped with VHF, Channel 16 (calling) and Channel 6 (working).

ANCHORAGE: Permitted anchorage within 800 m. – 900 m. East from end of breakwater or 300 m. – 500 m. South of breakwater within a limit of 400 m. from shore.

RESTRICTIONS: None.

MAX. SIZE: No limit to size of vessels which can anchor, but all anchorage positions should be indicated by pilot launch. For vessels berthing alongside quay max. permissible length 990 ft. max. draft 36 ft. Oil carriers discharge at buoys at Praia Formosa 3 miles to West of Funchal. Max. length of oil tankers than can berth at oil discharge buoys 665 ft. max. draft 36 ft.

HEALTH: Free Pratique may be arranged by Master sending wireless message addressed "Port Doctor Funchal" – "Request Free Pratique arriving . . . from . . . sailing to . . . number passengers . . . landing . . . number passengers in transit . . . number of crew . . . all well. Master".

In event suspected disease or fever on board Master should wireless either Port Doctor direct or to ship's Agents, who will inform Port Doctor. The Master will then be instructed what further action he is to take.

When vessel other than of national flag arrives after calling at another port in same country usual procedure applies, i.e. Masters' radio for Free Pratique or Pratique granted by Doctor visiting in bay.

RADIO: Maderia Radio Station, call sign "CUB" 500 kHz. Same station normally used by Agent when communicating with vessel.

TUGS: Two tugs each of 1,000 h.p. – 1,100 h.p. (bollard pull 18 tons) are available.

N.B. Vessels up to 2,000 gross tons are not obliged to use tugs.

Vessels of between 2,000 and 15,000 gross tons are obliged to use 1 tug. Vessels over 15,000 gross tons are obliged to use 2 tugs.

BERTHING:

Quay No. 1	Length 139 m., depth 6 m.
	Length 41 m., depth 7 m.
	Length 19 m., depth 8.5 m.
Quay No. 2	Length 425 m., depth 11 m.
Quay No. 3	Length 347 m., depth 11 m.

CONTAINER FACILITIES: Container Terminal: Length 260 m. Depth 7.0 m.

Equipment: 1 Crane, 25 tons at 20 m.
1 Crane, 30 tons at 30 m.
1 Mobile Crane, 22 tons at 20 m.
1 "Travelift" of 45 tons capacity.
4 Container Handling Cranes with extendable spreaders for 20 ft., 30 ft. and 40 ft. containers.

STEVEDORES: When ships require labour, Agents must be notified before 1600 hrs. on working days and on Sundays and holidays before 1100 hrs., after these hours labour not available for last minute engagement. On Christmas Eve work stops at noon, even if ships loading or discharging. No labour available Christmas Day, New Year's Day or Easter Sunday.

Grain cargoes can only be worked from 0800 hrs. to 2400 hrs. daily, including Sundays, and a maximum of 4 gangs only can be worked simultaneously.

Bulk cargoes such as potash and fertilisers need to be bagged on board. Receivers supply the bags – and this generally applies to grain. Bulk cement, clinker and granulated plaster is discharged by grabs.

MEDICAL: Advance notice is required by Agents for any medical attention required. Hospital facilities available. No inoculations required.

TANKERS: Diameter of connection of discharge lines 8 in. into pipelines of 12 in. diameter for black fuel and 10 in. diameter for white fuel. 1 anchorage buoy berth with max. draft of 36 ft.

DENSITY: Salt water.

FRESH WATER: Available at all berths. Order through Agent. Approximate delivery rate 60 t.p.h.

FUEL: Fuel oil available from 3,500 seconds Redwood 1 to 200 seconds Redwood 1. Also marine diesel and gas oil. 12 hours' minimum notice required.

FIRE PRECAUTIONS: At discharging buoys usual non-smoking precautions.

REPAIRS: Repair yard available which can carry out most engine repairs on board except removing or replacing main engines. Hull work limited to removing riveting or replacing hull plates above water line, electric and oxy-acetylene welding. Most electrical work can be effected but notice required in regard to materials necessary. Foundry where castings can be made up to one ton weight.

DRY DOCKS: None.

CONSULS:

Austria	221057	Monaco	220041
Belgium	220255	Netherlands	220317
Brazil	220355	Norway	220541
Costa Rica	224888	Panama	220091
Denmark	222031	Peru	221375
Dominican Republic	221057	Spain	220535
Finland	220596	Sweden	220121
France	221445	Switzerland	222101
Germany	220338	United Kingdom	221221
Greece	220824	United States	223309
Guatemala	220824	Uruguay	220535
Italy	223890	Venezuela	224050

GANGWAY/DECK WATCHMEN: Gangway watchmen recommended.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: Tobacco, Wine and Spirits: Moderate supplies allowed for personal use during ship's stay.

CARGO GEAR: No specific local safety regulations. Vessels discharging must provide strops, slings and nets. Lifts over 5 tons must be effected by ship's gear.

10 mobile cranes are available:
1 crane – 6 tons at 12 m., 3 tons at 24 m.
3 cranes – 5 tons at 20 m.
3 cranes – 3 tons at 12 m.
1 crane – 15 tons at 13 m.
1 crane – 45 tons at 3 m.
1 crane – 20 tons at 3 m.

A floating crane is available which can lift up to 27 tons from the water line up to 8 m. This same crane can lift up to 20 tons from the water line to 12 m.

REPATRIATION: Limited facilities for crew changes. Necessary repatriations can be made.

AIRPORT: At Santa Cruz, 20 km. East of Funchal. Service between Funchal and Lisbon operated by national airline TAP, 19 flights weekly Funchal/Lisbon/Funchal.

TIME: GMT maintained throughout year.

HOLIDAYS: New Year's Day (totally unworkable); Easter Sunday (totally unworkable); Municipal Holiday (local) (workable, 50% overtime); Camoes Day (workable, 50% overtime); Corpus Christi (workable, 50% overtime); Assumption (workable, 50% overtime); Proclamation of the Republic (workable, 50% overtime); All Saints (workable, 50% overtime); Independence of Portugal (workable, 50% overtime); The Immaculate Conception (workable, 50% overtime); Christmas (totally unworkable).

Workers' Day, Portugal Day and Good Friday are also totally unworkable.

Saturday is an ordinary working day. December 24 (workable up to 1500 hrs. only).

POLICE/AMBULANCE/FIRE: Police 222022; Ambulance 222122; Fire 221163.

SHORE LEAVE: All crew visiting shore must be in possession of special Landing Card, plus Identity Cards, Discharge Books or Passports, which must be shown to Immigration Officer at gangway. Crew Landing Cards must be stamped by Immigration Officer before crew can proceed ashore.

IDENTIFICATION CARDS: Required.

GENERAL: There is a marina for 200 craft with depths between 3 m. and 6 m.

AUTHORITY: Capitania do Porto do Funchal, 9000 Funchal, Madeira.

Direccao do Porto do Madeira, Av. Sa Carneiro, 9000 Funchal, Madeira. *Postal Address:* Apartado 246, 9003 Funchal, Madeira. *Tel:* 221041, 225281, 225288. *Telex:* 72290 Dipmad P. *FAX:* 220196, 221042. *Contact:* Menezes Vasconcelos, Port Director.

NOTES

Please also advise Shipping Guides Ltd.

Malaysia

BINTULU, Sarawak: 03.16 N. 112.59 E. (See Plan)

PORT LIMITS: Following the arc of a circle with a radius of 10 nautical miles radiating from Tanjong Kidurong Point in position Lat. 03° 16.1' N., Long. 113° 03.20' E.
Fairway Buoy: Lat. 03° 16.35' N., Long. 112° 59.0' E.

DOCUMENTS: The required documents are:
4 copies Last Port Clearance/Shipping Arrival Report.
1 original Maritime Declaration of Health.
6 copies Crew List.
4 copies Voyage Memorandum.
6 copies Passenger List.
3 copies Vaccination/Cholera List.
3 copies Personal Declaration.
1 original Bonded Stores List, Ex-Customs.
5 copies Provisions List.
3 copies Engine Stores List.
3 copies Arms and Ammunition List.
3 copies Transit Manifest.

APPROACHES: The approach channel is a dredged channel 5.7 km. long, 240 m. wide with a depth of 15.0 m. at Chart Datum and is provided with leading lights and buoys. All navigational aids are reliable. For prominent points refer to B.A. Chart 2100. Current runs at 2 knots and tidal range is 2.2 m.

PILOTAGE: Pilotage is compulsory and available day and night.
Notification of Arrival: 24 hours notice of ETA required.
LNG/LPG/Ammonia vessels to give 72 hours notice.
Pilot Boarding Ground: Lat. 03° 18.0' N., Long. 112° 58.5' E.
VHF: All vessels shall contact Port Control by VHF Channel 12 at least 3 hours before arrival at the Pilot Boarding Ground or as soon as VHF contact can be established.

ANCHORAGE: Depth at anchorages varies from 12.0 m. to 26.0 m.
There are different anchorages within the Bintulu Port water limits:

Areas	Depths
(a) General Cargo Anchorage	5.0 m. – 22.0 m.
(b) Waiting Anchorage	24.0 m. – 28.0 m.
(c) Gas Tanker Anchorage	24.0 m. – 26.0 m.
(d) Petroleum Anchorage	21.0 m. – 25.0 m.
(e) Explosives Anchorage	7.0 m. – 21.0 m.

RESTRICTIONS: Depth at General Cargo Wharf is 10.5 m. Depth at Bulk Cargo Wharf is 13.5 m. Depth at LNG Jetty is 15.0 m.
No berthing after sunset at LNG Jetty.

MAX. SIZE: Max. draft for general cargo vessels is 10.0 m.
Also see "Tankers".

HEALTH: Maritime Declaration of Health to be completed on arrival in accordance with International Sanitary Convention, 1944.

VHF: Receiving channels used within Bintulu Port are as follows:
Channel 12 – Working channel.
Channel 14 – Port Operations.
Channel 16 – International calling.
Port offers 24 hours service.

Vessels are required to establish contact with Terminal Operator's Control Tower, call sign "Mike Kilo" (MK) on Channel 12 for pilots, etc., at least 3 hours before the expected time of arrival and departure from the port.

TUGS: Use of tugs is compulsory and depends on the size/length of the vessel:
Particulars of 4 Steerable Thruster Tugs:

LOA:	37 m.
Length of Design Waterline:	35.5 m.
Breadth (moulded):	11.0 m.
Depth (moulded):	4.20 m.
Main Engines:	MWM TBD 441 V12 2×1,956 h.p. @ 900 RPM each. Engine couple to Liaaen CP compass thruster type TCN 92/68-230.
Auxilliary Engines:	3×MWM D232V8 85KW/415V/50 HE.
Speed	13.5 knots.
Bollard pull:	42 tonnes.

Particulars of 2 Twin-Screw Tugs:

LOA:	27 m.
Length of Design Waterline:	26.5 m.
Breadth (moulded):	8.00 m.
Main Engines:	2×MWM TBD 440-6. 2×929 HP @ 900 RPM.
Auxilliary Engines:	2×MWM TD 232 V8.
Speed:	11.5 knots.
Bollard pull:	23 tonnes.

BERTHING: 3 berths with a total length 514.5 m. for general cargo.
1 berth of 270 m. for bulk cargoes.
1 Ro/Ro Ramp of 25.5 m.
1 Jetty for LNG vessels only.
1 Jetty for petroleum products.

The wharf apron for the General Cargo Wharf is 24 m. and for the Bulk Cargo Wharf it is 30 m. The depth alongside the General Cargo Wharf is 10.5 m. and alongside the Bulk Cargo Wharf it is 13.5 m.

CRANES: 1 Gottwald mobile crane with 100 tonnes lifting capacity, 1 mobile crane with 30 tonnes lifting capacity at 10 m. radius and 1 mobile crane with 15 tonnes lifting capacity at 7.0 m. radius.

STEVEDORES: Stevedores and cargo handlers are obtainable from the Terminal Operator's Cargo Handling Services Department.

TANKERS: *Shell MDS Jetty:*
Max. LOA: 177 m.
Max. d.w.t.: 38,000 tonnes.
Minimum Size: 1,500 S.d.w.t.
Max. Draft: 12.5 m.
Minimum Depth and U.K.C. (Berth): 13.5 m./1.0 m.
Minimum Depth and U.K.C. (Approaches): 13.5 m./1.0 m.
Density: 1016.
Night Berthing/Unberthing: Allowed.
Bunkers: Not available at berth (supply available at anchorage).
Fresh Water: Available at berth.
Max. Freeboard: 13.5 m.
Type of Berth: Finger jetty.
Lighterage: Not available.
Grades Handled: Gas Oil, Kerosene, Naphtha, Solvent Feedstock, Detergent Feedstock, Waxy Raffinate and Liquid Waxes.
Dirty Ballast Facilities: None.
Slop Facilities: None.
Tugs: 3×2,500 h.p. and 2×1,500 h.p.

General: Information on bow to centre manifold (BCM) is always required due to position of stern mooring dolphin and close proximity of shallow water to the stern.

When a LNG carrier is in the approach channel, restriction will be imposed on the movement of all other vessels entering or leaving the port.

Also see "Bintulu Terminal".

DENSITY: Average 1009 – 1025.

FRESH WATER: Available at berth. No limitation as to vessel's requirement. Rate approximately 35 – 40 tonnes per hour.

FUEL: High speed diesel available. Price varies from time to time. The supply is by bunker barge and tank trucks at all berths. Other fuel as well as marine lubricants can be obtained through suppliers.

REPAIRS: Deck and engine not attended. Minor repair facilities exist.

SURVEYORS: Kinabalu Adjusters and Surveyors Sdn. Bhd., Mr. Mathews G. Ingan. Tel. 086-34620. Kinabalu Adjusters and Surveyors Sdn Bhd., includes insurance for cargo and cargo claims.
Class survey – available by special arrangement.

GANGWAY/DECK WATCHMEN: Usually ship's crew and ship's gangway.

OPENING/CLOSING HATCHES: Stevedores or ship's crew, whichever to ship's advantage.

CUSTOMS ALLOWANCES:
25 sticks cigarettes per day per man.
1 quart beer/stout/wine per day per man.
One-eighth quart spirit per day per man.
8 sticks cigars per day per man.
1 oz. tobacco per day per man.

CARGO GEAR: Cargo gear is available for loading/discharging, etc., for heavy lifts up to 100 tonnes.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: Distance 20 km., served by Malaysian Airline System (MAS).

TIME: Local time is GMT plus 8 hours.

HOLIDAYS:
(a) First Day of Chinese New Year.
(b) First Day of Hari Gawai (1st June).
(c) First Day of Hari Raya Puasa.
(d) National Day (31st August).
(e) Christmas (25th December).

POLICE/AMBULANCE/FIRE: Dial 999 and ask for service required.

TELEPHONES: Connecting points available at berth.

BANKS:
1. Bank Bumiputra Malaysia Bhd., Bangunan BDA, Bintulu. Tel: 086-331320.
2. Bank Utama Malaysia Bhd., Jln. Sommerville, Bintulu. Tel: 086-331133.
3. Hock Hua Bank Bhd., 23 Jln. Sommerville, Bintulu. Tel: 086-331433.
4. Malayan Banking Bhd., 24 Jln. Abang Galau, Bintulu. Tel: 086-331635.
5. Standard Chartered, 89 Jln. Keppel, Bintulu. Tel: 086-331272.
6. Malayan United Bank Bhd., 186 Taman Sri Dagang, Bintulu. Tel: 086-332393.
7. Public Bank Bhd., 28 Jalan Sommerville, Bintulu. Tel: 086-337751.

SHIP SUPPLY SERVICE: Pau Chiong Tai is the local ship chandler. Prices are reasonable.

SHORE LEAVE: Shore leave is normally allowed up to 1800 hrs., according to Immigration bye-law.

GARBAGE DISPOSAL: Garbage disposal service is available. Rubbish bins are provided at strategic locations throughout the port. The service is provided free of charge.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Malaysian Ringgit (MYR$).

DELAYS: Vessels generally berth on a "first come first served" basis, irrespective of day or night. No delays experienced so far at Bintulu Port.

GENERAL: The port is an "all weather port" and the most modern port in Sarawak. When a vessel is within the port limits, extra precautions must be taken to avoid oil spillages, etc.

When vessel is lying at berth no rubbish should be thrown overboard.

The Port Safety Officer will board vessel, under normal circumstances, to inspect the ship prior to loading.

Preventive measures must be taken to avoid the risk of fire whilst at the Port wharf.

AUTHORITY: Bintulu Port Authority, P.O. Box 296, 97007 Bintulu, Sarawak, Malaysia. *Tel:* 086-253888, 253130. *FAX:* 086-252929. *Contact:* Captain Awangku Malyx Pengiran Mahran, General Manager. *Operator:* Bintulu Port Sdn. Bhd., P.O.Box 996, 97008 Bintulu, Sarawak, Malaysia. *Tel:* 086-251001/7 (7 lines). *Telex:* Biport MA 73179. *FAX:* 086-253597. *Contact:* En. Ramli Abu Samah, C.E.O./Managing Director.

BINTULU TERMINAL: 03.20 N. 113.01 E. (See Plan)

LOCATION: The single buoy mooring (B1) is positioned at Lat. 3° 20' N., Long. 113° 01' E. and can accommodate tankers with max. SDWT of 350,000 tonnes.

The Single Buoy Mooring (B2) is positioned at Lat. 03° 22' 25" N., Long. 113° 02' 40" E. and can accommodate tankers of max. SDWT of 350,000 tonnes.

Charts: B.A. Charts No. 2100 and 1748.

DOCUMENTS:

Last Port Clearance.
9 Crew Lists
3 Malaysia Crew Lists (Provided on arrival).
2 copies General Stores Lists.
1 Shipping Arrival Report (Provided on arrival).
1 Application for Clearance (Provided on arrival).
5 Passenger Lists.
3 Narcotics Lists.
3 Arms and Ammunitions Lists.
2 Crew Personal Declaration Lists.
2 Vaccination Lists.
3 copies Inward Manifest ("Nil" Manifest required).
International Maritime Health Form, provided by Agent.

Customs and Health Requirements: A detailed Shipping Report has to be completed for Government Marine Department. Local Agents will provide the necessary forms for completion. If the vessel originates from an infected port, or if the state of health is suspect, the Port Medical Officer may board the vessel, in order to inspect the crew and relevant International Medical Certificates.

PILOTAGE: Pilotage is compulsory and is operated by Bintulu Port Authority. The Pilot boards vessels calling at the SBM at the pilot boarding ground in position Lat. 03° 13.0' N., Long. 112° 55.2' E. Shell Loading Master, Mooring Assistant and Cargo Surveyors board in the same area from the mooring launch.

The regulation pilot ladder should be rigged well aft on the lee side. Prior to moving to berth mooring equipment is loaded onto vessel's forecastle.

Officials: The Berthing/Loading Master, Mooring Assistant, Petronas Representative, Independent Cargo Surveyor(s) and Customs Officer remain on board throughout the vessel's stay at the SBM. It is possible that the vessel's Agent will also remain on board.

APPROACHES: *Approaches to the Port:* References should be made to the appropriate charts for the berth. From seaward, various oil and gas exploration and platform installations are spread throughout Brunei and Sabah waters. Masters of vessels are advised to give such facilities a wide berth.

ANCHORAGES: A petroleum anchorage bounded by the following co-ordinates has been established:

Lat. 03° 24.4' N., Long. 112° 57.3' E. Thence to position
Lat. 03° 21.3' N., Long. 112° 59.6' E. Thence to position
Lat. 03° 22.0' N., Long. 113° 02.4' E. Thence to position
Lat. 03° 26.0' N., Long. 113° 01.2' E. Thence along the port limits to position Lat. 03° 24.4' N., Long. 112° 57.3' E.

Refer to B.A.Chart No. 2100.

Use of ship's anchors is strictly prohibited except in extreme emergency. In any case, the anchor must never be dropped anywhere within a distance of 400 ft. (122 m.) on either side of the pipeline, its entire length, nor closer than 0.5 nautical miles (5 cables) radius from the SBM. Both anchors should be secured prior to berthing operations.

RESTRICTIONS: Berthing/unberthing is carried out night and day, weather permitting.

MAX. SIZE: The maximum water depth in the manoeuvring area is 62 ft. and the max. permissible draft 52 ft. Max. distance bow to centre manifold 590 ft. No restriction on LOA.

DEPARTURE ROUTE: For deep draft vessels the following departure routes (approaching – opposite course) are recommended:

North-West Route:

From SBM-B1 steer 304° to position: Lat. 3° 51' N., Long. 112° 14' E.

Along this route 2 navigational light buoys have been laid both South Cardinal:

1. Parsons Shoal (Beting Tugau) position: Lat. 3° 52' 22" N., Long. 112° 16' 06" E.
2. South Acis Shoal (Beting Likau) position: Lat. 3° 35' 50" N., Long. 112° 39' 36" E.

North-East Route:

From SBM-B1 steer 015° to position: Lat. 3° 35' 25" N., Long. 113° 05' 25" E., which is marked by East Cardinal light buoy (Beting Nabau).

Onward course 042° to position: Lat. 3° 52' N., Long. 113° 20' E.

The N.N.E.'ly tip of the Cochrane Bank is marked by an East Cardinal light buoy (Permating Payong) in position: Lat. 3° 51' 38" N., Long. 113° 18' 06" E.

A 36 in. gas trunk line has been laid to the North and East of the SBM.

HEALTH: See "Documents".

RADIO: Standard message by the Masters of vessels calling at Bintulu SBM must be sent at least 96 hours before arrival at Bintulu. ETA at Bintulu shall be addressed to the local Agents and copied to Saroilco Miri.

Also see "General".

W/T traffic should be passed through Singapore Radio, Kuching or Miri Radio.

Pre-Arrival Information: Prior to vessel's arrival at SSB/SSPC berths, 72 hours before her arrival, Master of vessel shall answer SSB/SSPC Questionnaire as outlined below.

Messages shall be sent to the local Agent and copied to Sarawak Shell Berhad/Sabah Shell Petroleum Company (Telex: MA74424/74425/74426. Fax: 085-454857).

AAA	Vessel's name, previous name (if any), call sign and nationality.
BBB	Master's name.
CCC	GRT, NRT and SDWT.
DDD	ETA, date and local time (GMT +8 hours).
EEE	Last Load Port/Discharge Port.
FFF	Next Load Port/Discharge Port.
GGG	Number of Crew.
HHH	Grade and Quantity of Cargo on arrival, previous cargo and cargo to be loaded at SSB/SSPC Terminal and tanker's maximum loading rate per manifold.
JJJ	Quantity of ballast in SBT and CBT and confirmation that the vessel is able to load and deballast simultaneously.
KKK	Arrival drafts.
LLL	Any defects that may cause pollution or affect loading.
MMM	Confirm vessel has a fully operational I.G. system and meets all SOLAS/IMO/OCIMF requirements.

All vessels loading at SSB/SSPC berths for the first time shall include the following additional information:

NNN	Length overall (LOA) and distance of bow to centre manifold (BCM).
PPP	Do manifolds meet OCIMF standards.
QQQ	What is the SWL of Tanker's starboard derrick.
RRR	Number and size of AKD bow chain stoppers.

Berthing Instructions: After ETA advice the following message will be transmitted to the Master.

AAA	Based on your ETA . . . present intention is to berth you on arrival.
BBB	Pilot will board at the boarding area of 2 miles diameter in the following position: Lat. 03° 22' N., Long. 112° 58' E.
CCC	Confirm ETA at least 48 hours in advance. When within range you are required to confirm your ETA 3 hours prior to arrival at Bintulu Terminal on VHF Channel 18 or 16.
DDD	Please keep us advised of any changes in your ETA. Onus of ETA confirmation rests with vessel.
EEE	After having established radio contact on VHF you will receive further instructions.

Transmission of Ship's Radio: Use of the ship's radio transmitter is prohibited during the vessel's stay at the SBM.

VHF: Bintulu Port Authority Control operates on VHF Channels 12, 14 and 16, and Bintulu Crude Oil Terminal stands by on Channel 18. Ships should inform Bintulu Port Control and Bintulu Terminal on the proper frequency of their ETA at least 3 hours before arrival at pilot boarding station, or as soon as VHF contact can be established.

Bintulu Port Authority requires every vessel whilst underway within port limits and in the approaches thereto to maintain continuous watch on Channel 12.

TUGS: Bintulu Port Authority makes it compulsory for tankers calling at the SBM to use a tug for berthing/unberthing. 3×3,500 b.h.p. and 2×1,500 b.h.p. tugs are available for such purposes.

Mooring Launch: The mooring launch will be in attendance throughout the tanker's stay at the SBM. The launch is used to send the messenger end of the pick-up ropes to the vessel. On completion of mooring operations, the launch picks up the hoses for connection and remains at the vessel until the completion of loading operations.

BERTHING: *Mooring Procedure:* The tanker is moored to the SBM by 2×16 in. circumference (8 strand plaited) mooring lines 150 ft. (45.72 m.) in length, each connected to a 3 in. (76 mm.) chafing chain. A pick-up rope 10 in. × 150 ft. in length is connected to the chafing chain. A suitable standard mooring rope must be lowered down by the vessel to the mooring launch in order to hoist the pick-up ropes.

The starboard (inner) line will be the first line to be picked up as the tanker approaches the SBM.

Closing speed, when the vessel is within range of the pick-up rope (approximately 100 m. from the SBM), must not exceed 0.5 knots.

As the vessel slowly closes in on the buoy, the pick-up rope and chafing chain are hove on board until the chafing chain is in position in the fairlead (chain support buoy just outboard of the fairlead). The chain is then secured in the bow stopper.

While the starboard mooring is being tended to, the mooring boat clears the port mooring rope from the buoy. The rope is then hove on board and is connected in the same manner to the starboard one.

Note: The vessel should have 2 mooring ropes ready on the forecastle.

Unmooring: Weight on the mooring lines may be taken off by using ship's engines. The polypropylene pick-up ropes, which remain connected to the triangle plates of the chafing chains, are lead to the winches, and the weight is taken off the bow stopper. The bow stoppers are released, and the moorings and pick-up ropes lowered from the bow into the water.

The port mooring is normally disconnected and lowered first.

When both moorings have been let go, the tanker is given sternway until the bow is well clear of the hose strings. The mooring and hose connection equipment is then transferred to the mooring launch.

LOADING: *Position of Hose Connection:* 2×16 in. cargo loading hoses (length 840 ft.) will be connected on the starboard side amidships at SBM-B1. A single 16 in. hose for loading Condensate is connected on the port side at SBM-B2.

Mooring and hose connection is carried out by the vessel's crew, as advised and supervised by the shore mooring assistant.

Connecting Hoses: Hose connection is carried out by ship's crew.

The hoses are lifted and connected one at a time. The forward or 'inner' hose is tended to first. The derrick runner is hooked into an enlarged link in the hose lifting chain and the hose end is then lifted out of the water until sufficient length is available for direct connection to the tanker' manifold. The weight of the hose in this position is transferred to the hose hang-off chain and the hose end is then lowered onto the deck. The blank flange is removed and the hose connected to the vessel's manifold. After connecting, the hoses are supported at the tanker side by flat webbing slings hung from the derrick runner in order to maintain a reasonable radius of bend. They are also suitably lashed to the hose bar of the side rail to reduce movement caused by sea conditions. In seas exceeding 5 ft., the floating hose strings become lively and require attention. Excessive movement of the hoses will result in chafe and strain on the flanges in way of the manifold. This can be reduced to a minimum by a suitable suspension of the hoses from the derrick runner backed up by rope lashings at the side rails or hose bars. Such preventive measures depend largely on the construction and layout of the tanker in the manifold area, also on the distance of the manifold from the vessels' side.

Loading Procedure: Three grades of crude oil are exported from Bintulu Terminal. Bintulu Crude Oil (approximate API 33.0), Bintulu Light Condensate (approximate API 60.3) and Bintulu Spiked Crude (i.e. Crude/Condensate Blend – approximate API 38.3).

The maximum loading rate on three pumps in 5,300 cu.m./hr., and a maximum back pressure of 120 p.s.i. (approximately 10 bars) at the Terminal's end. The rate will be slightly lower for Condensate and Spiked Crude. The Loading Master shall advise the vessel as to the loading rate for the lifting prior to commencement of cargo operations.

The Loading Master will remain on board throughout the vessel's stay at the berth, acts as the Terminal's representative, and will attend to all cargo formalities.

As soon as possible, the Master shall provide cargo requirements, tanker maximum loading rate and any other pertinent data as required by the Loading Master.

After all pre-loading formalities have been attended to, the following steps will be taken:

(a) Joint inspection to be carried out by the ship and the Berthing/Loading Master to ensure all requirements on the Safety Check List are adhered to.
(b) Method of communication and emergency shut-down procedure between ship and shore is established and understood. Prior to commencement of operations, the radio communication shall be tested to ensure the system is operating satisfactorily.
(c) Ship and shore to confirm readiness to commence loading operations.
(d) Commencement of loading operations to be at slow rate.
(e) Once loading operation commences, manifold connections and loading hoses are checked for leaks, and faults rectified. The mooring launch shall patrol round the vessel and the SBM to check for possible leakages into the sea.
(f) Once the vessel has confirmed receipt of cargo, the Emergency Shut Down trip is tested. On completion of the trip test, pumping is resumed and the loading rate gradually increased to the agreed loading rate.
(g) Manifold connections, hoses and water around the vessel are again checked for faults and/or leakages.
(h) Lines are to be checked at frequent intervals, and the Berthing/Loading Master shall be immediately informed of any abnormality.
(i) Ship and shore figures are to be compared every 2 hours at agreed times, and any discrepancies investigated.

Suspension of Loading Operation: If loading operations are suspended for excessive periods (e.g. leakages, ship/shore breakdown, etc.), or due to impending heavy weather, the hoses shall be disconnected, blanks flanged and made ready for lowering into the sea. The Berthing/Loading Master shall give the Master the instructions to do so after monitoring the situation.

Disconnecting Hoses: The "after" or outer hose is disconnected first. As soon as the hoses have been disconnected from the tanker's manifold, the blank flanges are fitted. Each hose is lowered over the side and towed clear from the tanker's side by the mooring launch to prevent possible entanglement with the tanker's propeller.

General Information: Tanker's manifolds should conform to/with the standards recommended in the OCIMF publication "Standards for Tanker Manifolds and Associated Equipment".

Tanker mooring equipment shall be in line with the recommendations contained in the OCIMF publication "Standards for Equipment Employed in the Mooring of Ships at Single Point Moorings".

Ship to shore communication during loading operations is by way of a portable VHF radio set provided by the Terminal. Additionally, communication can be used by VHF Channel 18.

Rig starboard derrick to maximum S.W.L.

Minimum acceptable:
16,000 – 60,000 S.d.w.t. : 10 tonnes
Over 60,000 S.d.w.t. : 15 tonnes

BALLAST: For ships with Segregated Ballast Tanks (SBT's), Masters are advised to deballast concurrently with loading, to avoid excessive trim while at the same time taking stresses on the hull into consideration. The vessel must at any time be able to manoeuvre and vacate the SBM.

For vessels with combination Clean Ballast Tanks (CBT's) and SBT's, Masters are advised to confer with the Berthing/Loading Master for directions. Nevertheless, for vessels of 70,000 tonnes S.d.w.t. and above, the ballast/cargo configuration must at all times not be less than 25% of the vessel's S.d.w.t.

MEDICAL: Medical and dental services are available at Bintulu through the local Agents.

Ship's personnel given special permission to go ashore for medical treatment must be in possession of an identification card and/or passport.

DENSITY: Varies between 1020 and 1025.

FRESH WATER: Limited supply available by water boat.

FUEL: Not available.

REPAIRS: No facilities available.

Immobilisation: Immobilisation of engines is not permitted at any time during the vessel's stay at the SBM.

TIME: GMT plus 8 hours.

WEATHER: All the SBMs concerned are positioned in the open sea. The weather in this region is basically good for tanker operations.

The seasonal weather patterns are broadly divided into 3 and the terminology used is consistant with that of South East Asia. These 3 types are:

(1) S.W. Monsoon (June-October).
(2) N.E. Monsoon (December-March).
(3) Transitions between the Monsoons.

Persistant bad weather occurs during the N.E. Monsoon. High swell conditions can persist for periods of 3 to 4 days and in extreme conditions for up to a week. During the S.W. Monsoon winds are generally light to moderate, but during brief surges (generally lasting less than 36 hours) winds are occasionally strong, and local gale force squalls are experienced. The most favourable time for tanker operations is during the transition periods. Winds are lighter and variable. Seas in this period are rarely more than very slight. The only troublesome periods are the occasional severe squalls that originate from inland, which are associated with cumulonimbus clouds and thunderstorms.

The basic patterns of these squalls are vigorous thunderstorms inland, increasing as the storm approaches. Just before the onset of torrential rain, the wind backs rapidly towards the land and increases violently to the peak gust.

SHORE LEAVE: Not permitted.

GENERAL: *Conditions of Acceptance:* SSB/SSPC accepts vessels for handling at Miri, Bintulu and Labuan on the undertaking that operations are conducted safely and expeditiously, and that berths are vacated as soon as possible after operations are completed.

The Company reserves the right not to accept vessels at the SBMs which do not adhere to the following:

(a) For tankers of 70,000 tonnes S.d.w.t. and above, be capable to retain on board at all times a minimum of 25% of their S.d.w.t., either in the form of cargo, ballast water or both (Tankers with segregated ballast tanks would therefore be preferred).
(b) Be fitted with Inert Gas System and Cargo tanks to be inerted.
(c) Be fitted with bow stopper(s) to OCIMF requirements (Refer to Terminal Information for size of stopper(s)).
(d) Be capable of loading the cargo nominated at a rate of 3,000 tonnes per hour and above.
(e) Be covered by Tanker Owners Voluntary Agreement concerning Liability for Oil Pollution (TOVALOP), and the purchasers of the crude oil shall be subscribers to the Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution (CRISTAL).
(f) Be capable of complying with latest issues of OCIMF Standard for Tanker Manifolds and Associated Equipment, International Safety Guide for Oil Tankers and Terminals (ISGOTT), MARPOL, or such other safety guide as shall be agreed between the parties. The Terminal Operator shall provide for the updates to be sent to each party and acknowledgement of receipt of the same shall be sent to the Terminal Operator as soon as possible before its implementation.

The Company further reserves the right to suspend operations and require the removal of any vessel from the SBM for:

(a) Flagrant or continued disregard to Berth Regulations and ISGOTT.
(b) Defects in the vessel, equipment or manning or operations which in the reasonable opinion of the Company presents a hazard to the Company's facilities, personnel or operations.
(c) Operational performance, in the reasonable opinion of the Company, constitutes an unacceptable constraint on the Company's operation.

The Company shall not be liable for any cost incurred by the vessel, its Owners, Charterers or Agents as a result of a refusal to load all or part of a nominated shipment, delays or suspension of loading or a requirement to vacate the SBM arising from this Regulation (3) or Regulation (14) hereof.

Conditions to be observed during Loading Operations: In general, operations shall be conducted in accordance with the current requirements of the current edition of the International Safety Guide for Oil Tankers and Terminals (ISGOTT) in particular:

(a) Deck/cargo watch shall be manned by sufficient crew under the continuous supervision of a responsible officer, to control routine operations and any emergencies.
(b) A responsible English speaking ship's officer must be on watch at all times. A responsible member of the ship's crew shall be stationed at or near the ship's manifold at all times.
(c) There must be an efficient communications means between the Cargo Control Room (CCR) and the ship's crew on deck watch at all times.
(d) All doors, portholes and openings leading from the main deck to the accommodation or machinery spaces with the exception of the pumproom shall be kept closed, and doors, portholes and openings at any deck level above the main deck which overlook that deck shall be kept closed. Cargo Control Room doors opening onto or above the main deck may be opened momentarily for access.
(e) All ventilators, through which gas can enter, shall be suitably trimmed, and mechanical ventilation and air conditioning shall be stopped if gas is being drawn into the accommodation. Window type air conditioning units shall be electrically disconnected, unless situated wholly within the accommodation.
(f) The cargo pumproom mechanical ventilation system shall be kept in operation, and the atmosphere within the pumproom maintained in a condition such as to permit safe entry. On demand from the Loading Master, the responsible ship's officer shall provide evidence of safe entry conditions.
(g) The responsible ship's officer shall give a verbal notice to the Loading Master at least 15 minutes before any requirement to slow down the pumping rate. The Loading Master shall also be duly informed prior to topping of any cargo tanks, valve operations which may cause an increase in back pressure of the shore pumps.
(h) During loading operations, the responsible ship's officer must ensure that before closing any tank valve(s), another set of tank valve(s) must be in the open position. Under no circumstances must total closure of the ship's system be carried out against cargo flow.

Prevention of Sparking and Excessive Funnel Smoke: Connecting and disconnecting of cargo hoses and other operations on deck involving the use of metal instruments shall be carried out in a manner that avoids the generation of sparks.

Blowing through of boilers and main engines, resulting in production of excessive funnel smoke, is permitted for short period only.

Weather Precautions: Operations shall be stopped during severe electrical storms or periods of high winds at the discretion of the responsible ship's officer or the Loading Master, and all tank openings and cargo valves shall be effectively closed. The Berthing/Loading Master will then decide if it is necessary to disconnect the loading hoses and unmoor.

The moorings to the SBM shall be checked frequently and the Loading Master shall be advised accordingly of any abnormality.

Smoking: Smoking is only permitted in those enclosed spaces specifically designated by the Master in consultation with the Berthing/Loading Master as "Smoking Areas". Smoking is not permitted outside the designated areas.

Portable Radios, Torch (Flash) Lights: Only intrinsically safe and approved portable VHF radios and torch (flash) lights shall be used on board the vessel.

Immobilistaion of Main Engines/Generators for Repairs, etc.: Immobilisation of engines is not permitted at any time during the vessel's stay at the SBM. Engines must be ready for use at any time the Berthing/Loading Master decides to unmoor for breach of safety requirements or due to weather.

Fire Precautions: Vessel's fire fighting appliances, including main and emergency fire pumps, shall be ready for immediate use, and pressure shall be maintained while at the SBM. At least 2 fire hoses, fitted with jet/fog nozzles, shall be uncoiled and connected to the fire main on the main deck close to the manifolds. At least 2 portable fire extinguishers shall be appropriately placed in the vicinity of the cargo loading manifold(s).

Avoidance of Oil Pollution: No oil or ballast water (other than clean ballast from segregated ballast tank) shall be discharged or allowed to escape from a vessel into the water, unless they comply with MARPOL 73/78 requirements that the oil content of the effluent does not exceed 15 p.p.m., and no visible traces of oil is sighted on the surface of the water.

When alongside the SBM, during cargo operations all scuppers shall be effectively plugged.

Any leakages or spillages must be reported *immediately* to the Loading Master and operations suspended to minimise/contain such leakage or spillage. Loading Master shall then take further appropriate action after assessing the situation.

Discarding Material/Garbage Overboard: No garbage, hazardous materials or any other objectionable material(s), either solid or fluid, shall be thrown/discarded overboard.

Inert Gas Operations:

(a) The inert gas system must be capable of delivering inert gas with oxygen content of not more than 5% by volume in the inert gas supply main. The atmosphere in the cargo tanks must at all times be maintained at positive pressure, and the oxygen content must not exceed 8% by volume.

(b) In the event of failure in the inert gas system in port, the Loading Master is to be informed immediately.

(c) The Company reserves the right not to accept any tanker to the berth, unless all cargo tanks are fully inerted. The Company shall not be responsible for any loss or delays as a result thereof.

Information required prior to Arrival: The vessel's Agent will send a comprehensive message to the Master advising and requesting information. Masters of vessels should advise estimated time of arrival (ETA) at intervals of 72, 48 and 24 hours before arrival. The Bill of Health should be advised at least 24 hours prior to arrival.

Pilot Ladders: If the freeboard of a vessel exceeds 5.0 m., combination ladder shall be rigged on the leeside. Pilot ladder used must be in good condition, fitted with spreaders and securely fastened. A lifebuoy with a heaving line attached shall be sited ready for use. At night, sufficient illumination shall be provided.

AUTHORITY: *Operator:* Sarawak Shell Berhad, Locked Bag No. 1, 98009 Miri, Sarawak, Malaysia. *Tel:* 085-454545. *Telex:* MA 74424/74425/74426. *FAX:* 085-45454857. *Cables:* SAROILCO. *Contact:* Captain Lionel Rodrigues, Head of Marine Services.

DULANG MARINE TERMINAL: 05.48 N. 104.10 E.

(See Plan)

LOCATION: The Dulang Marine Terminal is situated off the East coast of peninsular Malaysia. It is approximately 70 nautical miles (130 km.) N.E. of Kuala Terengganu in position Lat. 05° 48.6' N., Long. 104° 10.1' E.

The terminal consists of a Floating Storage and Off-loading vessel (FSO) named "Puteri Dulang". It is located 1 nautical mile South of the Dulang "B" Production Platform which processes and stabilises the Dulang crude oil prior to pumping to the FSO via a submarine pipeline.

The positions of the platforms are as follows:

Dulang "A" Platform:	Lat. 05° 49.3' N.,	Long. 104° 11.8' E.
Dulang "B" Platform:	Lat. 05° 44.4' N.,	Long. 104° 09.7' E.
Dulang "C" Platform:	Lat. 05° 50.5' N.,	Long. 104° 08.0' E.

The FSO has an integral Single Point Turret (SPT) attached to the bow which permits it to pitch, roll and weathervane 360°, according to wind and current conditions. It is permanently moored in 77 m. of water by means of 6 pre-tensioned anchor chains attached to sub-sea piles.

The terminal, with associated production platform, is operated by Petronas Carigali Sdn.Bhd. It is used for shipping crude oil on behalf of both Petronas and Esso Production Malaysia Inc.

All platforms are equipped with fog horns and navigation lights. The navigation lights can be seen from a distance of 2 miles and flash in sequence the Morse code letter "U". The Dulang "B" Platform can easily be seen for several miles due to its flare. The platforms are approximately 15.0 m. above the water line and can easily be detected on radar.

Caution: Dulang "B" flare may not be lit and should not be relied upon for navigation.

Mooring Method: The terminal is equipped for Alongside Mooring and Tandem Mooring. The method to be used shall be at the discretion of the Dulang Marine Terminal Representative.

THE TANDEM MOORING IS THE PREFERRED METHOD

DOCUMENTS: The following documents are required to be prepared prior to arrival to ensure speedy clearance:

16 copies Crew List.
2 copies Stores List.
2 copies Personnel Effects List.
6 copies Passenger List.
2 copies Cargo Manifest.
4 copies Drugs/Narcotics List.
4 copies Arms/Ammunition List.
2 copies Vaccination List.
4 copies Voyage Memo/Itinery.
2 copies Derat Certificate or Derat Exemption Certificate.
2 copies Tanker's General Information.
Last Port Clearance.
Ship's Certificates for inspection.

PILOTAGE: The Pilot/Mooring Master will normally board tankers from a tug at one of two boarding positions:

"North" in position Lat. 05° 52' N., Long. 104° 11' E.
"South" in position Lat. 05° 47' N., Long. 104° 07' E.

Tankers will be informed by VHF, prior to berthing, of the position to be used.

Notice of Readiness: Tankers calling at Dulang Marine Terminal are to be in all respects ready to commence loading. The Notice of Readiness will be acknowledged at the time of pilot boarding.

ACCEPTANCE CRITERIA FOR "ALONGSIDE BERTHING": At the discretion of Carigali, tankers between 40,000 d.w.t. and 85,000 d.w.t. with a length of 242 m. or less and with a maximum full load displacement of 100,000 tons can be safely accommodated alongside the FSO, provided they comply with the following minimum standards:

1. Moorings:

Forward: 4 winch mounted ropes.
Maindeck forward: 2 winch mounted ropes.
Maindeck aft: 2 winch mounted ropes.
Aft: 4 winch mounted ropes.

All to lead through closed chocks (fairleads).

Note:

(a) Tankers not equipped with self-stowing winches are not acceptable at the terminal.

(b) All moorings should be synthetic fibre ropes or wire ropes with synthetic tails. Mixed moorings are not acceptable.

(c) Winches and brakes must be in good operating condition.

(d) Mooring lines must be of adequate size and in good condition.

(e) Winch mounted wires must be fitted with synthetic tails in order to provide needed elasticity and to permit cutting in an emergency.

Additionally, closed chocks (fairleads) and bollards must be available on the tanker for making fast FSO provided preventer wires:

Forward: 2 wires.
Maindeck forward: 1 wire.
Maindeck aft: 1 wire.
Aft: 1 wire.

2. Hose Connection: The tankers must have 2×12 in. 150 ANSI flanged connections ready at port side midships manifold.

The manifolds must comply with "OCIMF Standards for Oil Tanker Manifolds and Associated Equipment".

ACCEPTANCE CRITERIA FOR "TANDEM MOORING": At the discretion of Carigali, tankers up to 150,000 d.w.t. with a length of up to 281 m. and with a maximum full load displacement of 196,000 tons can be moored astern of the FSO, provided they comply with the following minimum standards:

1. Mooring Equipment: The tanker must be equipped with correct mooring equipment relevant to it's size as recommended in the "OCIMF Standards of Equipment Employed in the Mooring of Ships at a Single Point Mooring". The minimum dimensions of the centre bow fairlead should be not less than 600 mm. wide and 450 mm. deep, in order to accommodate the FSO hawser chafing chain.

   Tankers which do not comply with "OCIMF Standards of Equipment Employed in the Mooring of Ships at a Single Point Mooring" will not be accepted for tandem mooring.

   Forward winches/windlasses must be in good condition and have sufficient capacity (10 tons S.W.L.) to lift the mooring hawser assembly. Tankers not equipped with self-stowing winches are not acceptable at the terminal.

   Tankers not fitted with a bow chain stopper will be considered "unsafe" for normal mooring operations and will not be accepted for tandem mooring at the Dulang Marine Terminal.

2. *Hose Connection:* The tanker is to be equipped with a loading manifold in accordance with the "OCIMF Standards for Oil Tanker Manifolds and Associated Equipment". It is to have 1×16 in. 150 ANSI flanged connection ready at the port side midship manifold.

APPROACHES: *Restricted Area:* Due to the presence of numerous platforms, submarine obstructions and pipelines, a Restricted Area bounded by the following coordinates has been established:

A.	5° 30' N.	104° 34' E.
B.	5° 10' N.	105° 34' E.
C.	5° 20' N.	105° 40' E.
D.	5° 46' N.	105° 14' E.
E.	5° 46' N.	104° 48' E.
*F.	5° 56' N.	104° 04' E.
*G.	5° 46' N.	104° 04' E.

*Note: Positions 'F' and 'G' have not yet been gazetted or included in nautical publications.

Waiting Area: A Waiting Area centred on position Lat. 5° 44' N., Long. 104° 00' E. and with a radius of 5 nautical miles has been established.
Navigation: Tankers bound for Dulang Marine Terminal should approach the Waiting Area keeping well clear of the Restricted Area.

Tankers should under no circumstances enter or anchor in or near the Restricted Area.

The platforms and FSO are good radar targets, normally detectable on the radar at 20 miles. However, due to the possible presence of drilling tenders and construction work taking place in the area, platforms or the FSO should not be used as navigational aids, except when positively identified and position confirmed by other means.

Tankers which have received VHF instructions from the FSO shall proceed to one of the pilot boarding positions and must maintain a distance of not less than 2 miles from all oil platforms, structures, work or crane barges within the Restricted Area. Should this distance need to be increased, they will be so advised by Dulang Marine Terminal.

ANCHORAGE: Depth of water in the Waiting Area ranges between 60 m. and 90 m. The sea bottom consists of fine mud and sand and provides poor anchor holding ground. Anchoring is therefore not recommended in the Waiting Area.

Tankers awaiting berth at Dulang Marine Terminal are advised to drift or slow steam in the Waiting Area or in the area S.W. of the Waiting Area, while keeping in VHF contact with the Terminal.

RESTRICTIONS: Berthing is carried out only during daylight hours whereas unberthing will take place day and night.

RADIO/VHF: *Radio Advice:* All radio traffic to be channelled through Singapore Radio and vessels should monitor traffic lists from the same station.

1. Cables for Petronas to be addressed to:
   Petron MA 30032 or MA 30696.
   International Marketing, KL
   with copy to Carigali MA 51487,
   Production Operations, Kemasik.
2. Cables for EPMI to be addressed to:
   Essosupply MA 30293, KL
   with copy to Offprod MA Kemasik.

Arrival Advice: Immediately after having received instructions to proceed to the Dulang Marine Terminal, the Master is required to cable Carigali and Agent the following:

AAA	Tanker name, previous name (if any), call sign and flag.
BBB	ETA date and local time (GMT + 8 hours). ETA to be confirmed 72 hours, 48 hours and 24 hours prior to arrival. If there are any major changes, the ETA should be reconfirmed.
CCC	Master's name and nationality.
DDD	GRT, NRT, SDWT, light and full load displacement tonnage.
EEE	Last discharge port and intermediate ports.
FFF	Next discharge port and intermediate ports.
GGG	Number of crew and nationality.
HHH	Number of passengers.
III	Grade and quality of cargo on arrival, previous cargo and cargo to be loaded at Dulang Marine Terminal and loading rate per manifold.
JJJ	Whether previous cargo or any cargo on board has high H_2S contents and H_2S concentration in tank vapour spaces.
KKK	Malaysian Light Dues receipt number and date.
LLL	Arms on board.
MMM	Confirmation that vessel is able to load and deballast simultaneously.
NNN	Arrival draft.
OOO	Any leaks which would cause pollution or affect loading.
PPP	Pratique granted: Place/date. If any sickness on board or Clean Bill of Health.
QQQ	Confirm inert gas system operational and cargo tanks inerted on arrival.
RRR	Confirm cargo heating system operational and able to maintain Dulang Crude at 50° C. during loaded voyage.

All tankers loading at Dulang Marine Terminal for the first time to include the following additional information:

SSS	Length overall and the distance from the bow to centre of the midship manifold.
TTT	1. *For Alongside Berthing:* (a) Confirm that 2×12 in. 150 ANSI flanges are available at port midship manifold. (b) Advise the number and type of moorings on self-stowing winches with location of port side chock (fairlead) in relation to midship manifold centre line. Specify whether chocks are open or closed type. 2. *For Tandem Mooring:* (a) Confirm that a 16 in. 150 ANSI flange is available at port midship manifold. (b) Confirm that the tanker complies with "OCIMF Standards of Equipment Employed in the Mooring of Ships at Single Point Moorings" and that the minimum dimensions of the centre bow fairlead is not less than 600 mm. wide and 450 mm. deep. 3. The tanker will be required to supply the necessary reducer for the above. 4. In each case confirm that manifold arrangements comply with "OCIMF Standards for Oil Tanker Manifolds and Associated Equipment".
UUU	Confirm that combination of gangway and pilot ladder will be ready on arrival. Only the pilot ladder will be required if freeboard is less than 4.6 m.
VVV	Whether vessel is diesel or steam turbine powered.

VHF Communications: Dulang Marine Terminal keeps a 24 hour watch on Channel 12.

Communications language of the terminal is English.

Arrival Procedures: Masters should endeavour to establish contact with Dulang Marine Terminal as soon as they are within VHF radio range. Instructions thereafter will be given for further approach and also the berthing schedule.

BERTHING: *Preparation:* Prior to arrival vessels should prepare the following:

1. Pilot Ladder: A pilot ladder (with 2 side ropes) in combination with the tanker's accommodation ladder, complying with SOLAS recommendations, should be safely and securely rigged on the port side for tandem mooring and starboard side for alongside mooring. So that boarding personnel can first use the pilot ladder until part way up the tanker's side and then transfer safely and easily to the accommodation ladder.

Tankers with a freeboard of less than 4.6 m. need to only rig-up the pilot ladder with the 2 side ropes. Air operated pilot hoists are not acceptable. A responsible officer and competent personnel are to attend the pilot ladder when the Pilot and lifting crew board and leave. A light heaving line and canvas bag should be ready to take on board the Pilot's equipment.

During the hours of darkness, the pilot ladder and adjacent deck areas are to be adequately illuminated.

The tanker will provide a lee for the Mooring Master and lifting crew boat when boarding and leaving.

2. Mooring Equipment:
For Alongside Berthing: Winches, mooring and heaving lines (at each station) are to be ready on the tanker's port side to facilitate berthing on the starboard side of the FSO. 2 or 3 portable rattan or manila fenders with suitable lines are to be ready at the forward mooring station. The tug is usually secured on the starboard shoulder or bow.
For Tandem Mooring: The winch-mounted rope from the forward port winch is to be removed and replaced with a 3 in. messenger rope 200 m. long. The chain stopper and hawser handling equipment are to be inspected and readied for operation.

3. Derricks:
For Alongside Berthing: The derrick is to be rigged on the port side for use when connecting the hoses. The size of derrick shall be in accordance with "OCIMF Standards for Tanker Manifolds and Associated Equipment".
For Tandem Mooring: The derrick is to be rigged on the port side to pick-up a tool-basket from the tug/support vessel for the hose connection. This derrick will subsequently be used for lifting, connecting and securing the cargo hose. The derrick shall be in accordance with "OCIMF Standards for Tanker Manifold and Associated Equipment".

4. Manifold:
For Alongside Berthing: The manifold on the port side is to be readied, for connecting 2×12 in. cargo hoses with Camlock couplings. At least 200 mm. clear space behind the manifold is necessary for connecting the Camlock couplings.
For Tandem Mooring: The manifold on the port side is to be readied for connecting 1×16 in. cargo hose with a Camlock coupling. At least 200 mm. clear space behind the flange is necessary for connecting the Camlock coupling.

Floating Storage and Off-loading Vessel (FSO): The FSO is a flat (slab) sided barge, fitted with fenders, cranes, mooring hawser and hose for alongside and tandem loading. Its overall length is 242 m. and the total crude oil capacity is 135,000 kilolitres. The FSO is fitted with a meter and prover system for the measurement of the crude.

A dedicated tug is in close attendance for assisting in the berthing and mooring of the tankers.

Tankers between 40,000 d.w.t. – 85,000 d.w.t. can be accommodated alongside the FSO's starboard side, in which case a dedicated tug will assist in the berthing operations. 2×12 in. cargo hoses will be used for transferring the crude from the FSO to the tanker.

Tankers of the larger sizes, up to 150,000 d.w.t., can be moored in tandem astern of the FSO by means of a mooring hawser secured via a chafe chain to the bow chain stopper of the tanker. Dedicated tug and support vessel will assist in the mooring operation. When so moored, crude oil is transferred from the FSO by 1×16 in. floating hose string to the port midship manifold of the tanker.

Berthing and Mooring: Prior to berthing, the Pilot/Mooring Master will discuss with the Master of the tanker the intended berthing/mooring operation and make sure that the tanker is fully manoeuvrable. He will also inspect the tanker's ballast to ensure that only clean ballast is carried and that its disposal overboard will be safely carried out if done simultaneously with the loading of cargo.

Berthing is carried out only during daylight hours, whereas unberthing can take place at any time of the day or night.

After ensuring that the manoeuvring area is clear of other traffic, and that weather and sea conditions are suitable, the Pilot/Mooring Master will manoeuvre the tanker for the approach to the FSO. The heading of the tanker will normally be such that she will have the wind ahead, but currents may have to be taken into account.
Alongside Berthing: When the tanker is about 1.0 nautical miles from the stern of the FSO, the tug will be made fast, using its own ropes, on the tanker's starboard shoulder normally in the push/pull mode.

The tanker will then be positioned, with minimum speed through the water, 50 m. – 80 m. off the starboard side of the FSO and then either a mooring boat will bring a messenger line to the tanker's bow or a light line connected to the messenger will be shot onto the tanker's forecastle head/foredeck by means of a line throwing device. When the messenger line is on board, the tanker's first two mooring ropes will be attached, retrieved by the FSO and made fast. A similar operation occurs aft.

When within heaving-line throwing-distance, the remaining moorings will be sent across to the FSO in a planned sequence, according to conditions. The tanker will the heave itself alongside the FSO.

It is important that 2 – 3 portable fenders of rattan or manila be ready to be deployed over the bow in the event there is any contact by the tanker to the FSO.

Depending upon prevailing and forecast weather conditions, the tanker's moorings will be augmented by wire-rope/nylon-grommet moorings from the FSO.

As soon as the tanker is safely moored alongside the FSO, a gangway will be rigged between the two vessels and Malaysian Officials, surveyors and the tanker's Agent will board the tanker for clearance and tank inspection, etc.

Tandem Mooring: A Mooring Master, Mooring Supervisor and other essential personnel will board the tanker for clearance and tanker inspection. The Mooring Master will be the Carigali representative on board the tanker. The Mooring Supervisor will advise the tanker's crew in hooking-up the hawser and hose. The Malaysian Officials will clear the tanker and the surveyors will inspect the tanker's cargo tanks and take ullages.

Immediately after all personnel are on board, a tool basket will be lifted on board at the midship manifold area. The tanker should have the derrick plumbed 3 m. off the ship's side. A guide line should be connected to the derrick lifting hook. Sufficient crew must be available on deck at that time to expedite the lifting of the tool basket onboard.

The following equipment, provided by the tanker, shall be in position and ready for use when the Mooring Master and Mooring Supervisor board:

On the forecastle-head:

(1) One messenger line, minimum 3 in. circumference × 200 m. long.

(2) A selection of shackles, strops and tools (sledge hammer, crowbar, etc.).

On the Poop-deck:

(1) One messenger line, minimum 3 in. circumference × 200 m. long.

When the approach to the FSO commences, the support vessels and tug will be in attendance to assist.

Approach to the FSO involves manoeuvring at close quarters to the FSO. It is imperative, therefore, that all measures are taken to ensure that there is no loss of steering during the manoeuvring.

The Mooring Master will test the tanker's engines ahead and astern and also the full port to starboard rudder movement before commencing his approach run.

The hawser messenger line is connected to the 10 in. pick-up rope followed by a 76 mm. or 54 mm. chafe chain (depending upon the size of the tanker). This chain in turn is shackled to a 24 in. circumference nylon hawser shackled to a 76 mm. chafing chain which is secured to the stern of the FSO.

During the approach of the tanker to the FSO, the tanker's crew, under the advice of the Mooring Supervisor, will prepare the forecastle for the mooring operation. This will include passing one messenger rope through the centre bow fairlead (or other fairlead designated by the Mooring Master) ready to be sent to the tug/support vessel.

Once the tanker is close to the FSO, the tug/support vessel will manoeuvre alongside the tanker and take on board the messenger line. It will then attach the tanker's messenger to the end of the hawser messenger line. The tanker will then heave in both messengers, taking up slack as the tanker approaches the stern of the FSO, until the end of the 10 in. pick-up rope is secured.

Once the 10 in. pick-up rope is safely onboard and connected to the winch, tension should be applied as the tanker moves slowly forward to the FSO. Care should be taken not to apply any excess tension on the line, until the chafe chain on the end of the pick-up rope is secured in the chain stopper.

During this operation, the distance and speed of the tanker's bow to the stern of the FSO will be continuously relayed by the Mooring Supervisor and Captain of the tug/support vessel to the Mooring Master on the bridge. The tug/support vessel will be utilised, if required by the Mooring Master, for manoeuvring the tanker into position.

After the hawser chafe chain is safely secured in the tanker's bow chain stopper, the tanker will then be allowed to settle back gently onto the chafing chain and mooring hawser assembly until she is riding safely to the stern of the FSO.

On completion of mooring operation, the tug/support vessel will be secured to the stern of the tanker, to prevent the tanker from oscillating and coming into contact with the FSO. Until the tug or the vessel is secured, it may be necessary to use the tanker's engine for this purpose.

Caution: Very slow astern should be used due to the recoil action of the hawser.

Once the vessel is secured, the tanker's engines must be maintained in a state of constant readiness, and at no time during the tanker's stay at the terminal may the engines be immobilised.

The Mooring Master will remain onboard the tanker throughout the lifting operation.

Unberthing and Unmooring: Prior to unberthing from alongside and unmooring from tandem, the Mooring Master will discuss these procedures with the Master of the tanker to ensure a safe disconnection. Upon receipt of the cargo documents, the unberthing/unmooring shall commence.

Alongside Berthing: The loading hose shall be disconnected while waiting for the cargo documents. Upon receipt of the documents, the tug will be made fast to the tanker's starboard bow, using it's tow rope. All FSO wire-rope/nylon-grommet moorings will be cast-off followed by the tanker's mooring ropes as per the Mooring Master's instructions.

Tandem Mooring: Immediately after the hose is disconnected, and the receipt of the cargo documents, unmooring of the tanker will commence. The support vessel at the stern of the tanker will be released at the discretion of the Mooring Master. On the instructions of the Mooring Master, the mooring hawser will be hove in to disconnect the chain from the chain stopper. The mooring chain and hose will then be released and the tanker will be allowed to drift away from the FSO. While the tanker moves away with or without the assistance of the tug/support vessel, the mooring hawser will be lowered into the water by easing back on the pick-up rope.

When the tanker is safely clear of the FSO, the tool basket will be lowered to the tug and the personnel will disembark.

HOSES: *Hose Connection:* The hose connection will be done by the tanker's crew, supervised by a responsible officer from the tanker. The FSO Mooring Supervisor will oversee the operation to ensure proper procedures are followed.

Alongside Berthing: 2×12 in. hoses with 150 ANSI Camlock fittings will be connected to the tanker's midship manifold. The hoses will be transferred from the FSO to the tanker using the FSO crane. If the weather conditions are poor, the tanker's derrick may be used to facilitate and expedite the hose hook-up.

Tandem Mooring: Upon completion of the mooring operation, a single cargo hose will be connected to the tanker's port midship manifold which must be prepared prior to the mooring to accept the 16 in. hose with a 150 ANSI Camlock fitting.

Depending upon the freeboard of the tanker, the weight of the hose string to be lifted could approach 8.5 tons. All tankers calling at Dulang Marine Terminal must have their port derrick rigged for a safe working load of 10 tons.

The tug will tow the end of the hose string to the tanker's port midship manifold area and connect the tanker's cargo hook to the hose pick-up chain. The hose will then be lifted to a position sufficiently above the main deck so that the hang-off chain can be connected to the snubbing chain which will be secured to the manifold bitts. The blank will be removed and the hose connected to the manifold by means of a Camlock coupling.

When the hose is connected, the length between the manifold and the rail will be supported by a nylon sling suspended from the tanker's derrick. This is to ensure that there is no undue strain on any part of the manifold or hose string.

Hose Disconnection: The hose disconnection will be done by the tanker's crew, with the FSO Mooring Supervisor monitoring the operation to ensure it is done correctly.

Alongside Berthing: On completion of loading, and when the tanker is informed by FSO Cargo Control Room that all flow has ceased, the tanker's manifold valve will be closed and drain valve opened. Once hoses have been drained, they can be disconnected from the tanker's manifold and blanked.

Tandem Mooring: During the last few minutes of loading, insignificant quantity of pour point depressant chemical shall be injected at the manifold to prevent crude solidification, for crude that will remain inside the hose string after the loading. This treatment will have negligible effect on the crude properties.

Upon completion of loading, the tanker will then be advised to first close the manifold valve followed by the hose end butterfly valve. The hose will then be disconnected, blanked and lowered into the water with the hose pick-up rope secured to the tanker's manifold bitt while waiting for unmooring.

LOADING: *Transfer Plan:* Prior to commencement of loading, an agreed oil transfer plan must be established and understood by both parties. This will include loading rates for start-up, maximum bulk, tank top-off rates and also the emergency stop procedure.

When the tanker is ready, the responsible officer will advise the Mooring Master who will in turn advise the FSO Cargo Control Room by VHF that loading may commence. The FSO will then commence the loading at the agreed start-up rate, adhering to the start-up procedures. The rate will not be increased to the bulk loading rate until it has been established that there are no leaks or significant rise in pressure on the loading line(s).

The loading operations will be controlled by VHF radio communication between the FSO and Tanker Control Rooms.

Tankers are required to maintain a 24 hour watch on the bow, midship manifold and bridge/cargo control room during the lifting and communications procedures are to be established to provide for prompt stoppage of the transfer in case of overflow or other emergency.

When the tanker is at the terminal, the boiler tubes are not to be blown. Every precaution must be taken so that no sparks escape from the funnel.

Crude Transfer Rate: The FSO pumping rate ranges from 4,500 kl./hr. to 5,700 kl./hr.

In order to expedite turn-around time, tankers are encouraged to take maximum loading rate when they can safely do so. Care must be taken not to overload.

Caution: Warning is given of the danger of closing valves against an incoming oil stream. This will create excessive pressure which may result in damage to the loading hoses and terminal facilities. Tankers will be held liable for damage resulting from failure to observe this precaution.

Heating Coils: Tankers shall be equipped with cargo tank heating coils able to maintain Dulang Crude Oil at a temperature of at least 50°C. during the voyage or as instructed by the Owner, Charterer or Consignee.

Dulang Crude Properties: Stabilised Dulang Crude Oil loaded from the FSO will have the following approximate characteristics:

API	39.4.
Specific gravity	0.8276.
Temperature	48°C – 50°C.
H_2S content	Nil.

It is a waxy crude with a pour point of about 32°C. and requires heating.

BALLAST: Tanker Owners and their Masters are responsible for complying with all International Convention Laws and Local Regulatory Body Requirements concerning pollution of the sea, having particular regard for this area.

There are positively no facilities for disposal of dirty ballast. It is the tanker Master's responsibility to see that no oil of any kind is pumped or spilled overboard from his ship. This includes oily water from bilges, crude residues from previous voyages or any other matter that may result in pollution of the sea. Any fines imposed and cleaning costs shall be for tanker's account.

If evidence of oil appears during deballasting, the tanker will be rejected forthwith and will not be accepted until satisfactory evidence is produced that such ballast was disposed of in a proper manner. If during inspection or during the progress of loading it is revealed that the tanker's tanks are not tight or that oil is leaking from the ship, the tanker may be rejected or refused further loading. The tanker will not be accepted later for loading, unless satisfactory evidence of repair is submitted, duly certified by a recognised Classification Society.

Any tanker rejected because of dirty ballast or sea pollution will automatically nullify her "Notice of Readiness" and will lose any priority of position for loading.

The tanker must have proper trim and sufficient ballast and/or cargo already on board for safe handling, having due regard to existing weather and sea conditions. The propeller is to be covered and stern trim should not be more than 2 m.

Tankers equipped with a separate system of ballast tanks will be allowed to discharge ballast and load oil simultaneously, provided that approval is first obtained from the Representative.

All spillage of oil must be reported immediately to the Dulang Marine Terminal Representative and a detailed report must be written, signed and submitted by the Master of the tanker concerned.

Deballasting: Ballast water pumped overboard should not contain oil or mixtures containing oil (a mixture with an oil content of one hundred or more parts in one million parts of the mixture) in accordance with Section 27(1) of the Environmental Quality (Amendment) Act, 1985 with regard to Malaysian waters and Section 20(1) of the Exclusive Zone Act, 1984 with regard to the exclusive economic zone.

The tanker's ballast tanks will be carefully inspected. Tankers with dirty or doubtful ballast water will not be accepted unless analysis of water samples for oil content show otherwise.

POLLUTION: The terminal is located within Malaysia's Exclusive Economic Zone and the Master or Owner of a vessel is subject to prosecution if oil is discharged or escapes into the sea.

Dulang Crude is a high wax content oil which solidifies at sea temperature. It is therefore imperative that escape of oil, whether from cargo or otherwise is prevented.

Master and Owner will be held liable for all clean-up costs and third party claims.

Oil Spills: Should an overflow or hose leak occur during loading: Immediately advise the FSO to stop loading, retain the spillage onboard and clean up or recover the oil. All spillage of oil must be reported immediately to the Dulang Marine Terminal Representative and a detailed report must be written and submitted by the Master of the tanker concerned.

TIME: GMT plus 8 hours.

SERVICES: The Dulang Marine Terminal is located offshore and the only means of transport to and from shore is via helicopter to Kerteh or by supply boat to Kemaman Supply Base (KSB). The terminal can therefore not provide logistical support to tankers calling at the terminal. There is:

No shore leave.
No crew changes.
No provisions or stores.
No bunkers or fresh water.
No Consulates/Embassies.
No engine repairs or spare parts.
No dirty ballast/slop disposal.

No doctor or clinic, however in emergencies, exceptions may be permitted for humanitarian reasons.

Only authorised personnel are permitted to board tankers while at the terminal.

GARBAGE DISPOSAL: Dumping of garbage overboard, of whatever kind, is strictly forbidden.

CHARTS: USNOA 71024, B.A. 2660(a), B.A. 2414, B.A. 3543.

SAFETY: *Ship/Shore Safety Check List:* A Ship/Shore Safety and Pollution Check List is used at the terminal and all operations closely follow recommendations contained in the International Safety Guide for Oil Tankers and Terminals.

Deck Watch and Mooring Management: It is imperative that a continuous deck watch, with a responsible officer, be kept at all times.

The quantity of cargo received by the tanker and the pressure at the loading manifold should be recorded and compared with those of the FSO at regular intervals.

Unberthing due to Weather/Emergency: If wind and sea conditions, or the load on the alongside moorings or the tandem mooring hawser, reach designed limits for the terminal, loading will be suspended and, where necessary, the tanker unberthed.

The tanker's engines should be on stand-by at all times for immediate evacuation of the berth, in case of an emergency.

VHF Communications Failure: VHF radio communications should be maintained at all times. Loading operations will be stopped if contact is lost.

Electrical Storms: Loading will be stopped during thunderstorms or when there are electrical storms in the immediate vicinity.

Fire: In the event of fire on board, immediately advise the FSO Cargo Control Room to stop loading, and prepare to disconnect the hose(s) and evacuate the berth. The tug standing-by may assist if required, under the FSO Mooring Master's guidance. In case of VHF communications failure, sound 10 short blasts on ship's whistle.

WEATHER: *Reference:* China Sea Pilot Volume 1.

Weather: S.W. Monsoon (May to September):

Winds are generally from the South or S.W. during this period and can reach gale force in local squalls.

N.E. Monsoon (November to March):

Winds are generally from the N.E. during this period, intermittent bad weather occurs during this monsoon and high sea and swell conditions can persist for extended periods.

Transition Periods (April and October):

Winds are generally variable during the transition periods, but may freshen in the late afternoon and early evening. Occasionally, local gale force squalls may occur, but these are generally of short duration.

Currents: Ocean currents are variable except in the N.E. monsoon period when a 1.0 knot – 1.5 knot S.W. setting current predominates.

CAUTION: Severe squalls often occur suddenly without warning. It is therefore important when moored that an alert deck watch is kept at all times.

AUTHORITY:

Operator: Petronas Carigali, Peninsular Malaysia Operations, Petronas Office Complex, 24300 Kerteh, Kemamam, Terengganu, Malaysia. *Tel:* 09-540722. *Cables:* Cagali. *Telex:* 51487 MA. *FAX:* 09-540855.

Shippers: Petroliam Nasional Berhad (Petronas), International Marketing Division, Menara Dayabumi, Kompleks Dayabumi, Jalan Sultan Hishamuddin, 50050 Kuala Lumpur, Malaysia. *Cables:* Petron. *Telex:* 30839 MA, 30696 MA, 30032 MA. *FAX:* 03-230-4931.

Esso Production Malaysia Inc., Supply Department, Kompleks Antarabangsa, Jalan Sultan Ismail, P.O.Box 10857, 50728 Kuala Lumpur, Malaysia. *Cables:* Essoprod/Esso Supply. *Telex:* 30293 MA. *FAX:* 03-242-8760.

KEMAMAN, Malaya: 04.16 N. 103.29 E. (See Plan)

LOCATION: Kemaman Port is situated on the East coast of peninsular Malaysia in position Lat. 04° 16.6' N., Long. 103° 28.8' E.

PORT LIMITS: The seaward limits of Port of Kemaman are contained between Lat. 04° 16' 24" N. and Lat. 04° 11' N., and Long. 103° 34' E.

DOCUMENTS: Following documents should be kept ready for submission:

Document	*Port*	*Customs*	*Immigration*	*SD Police*	*Harbour Master*	*Port Health*
			Number of Copies			
Declaration of Health	–	–	–	–	–	1
Crew List	1	1	3	1	1	1
Passenger List	1	1	1	1	1	1
Vaccination Certificates	–	–	–	–	–	Orig.
Derat/Derat Exemption Certificates	–	–	–	–	Orig.	Orig.
Transit Order	–	–	–	–	–	Orig.
Crew Identification Documents	–	–	Orig.	R	–	–
Stowaway List	–	1	1	1	1	1
Bonded Stores/Personal Effects	–	1	–	–	–	–
Port Clearance	P.C.	Orig.	–	–	Orig.	–
Import Manifest	2	2	–	–	–	–
Transhipment Cargo Manifest	–	2	–	–	–	–
Arms/Ammo List	–	1	–	1	–	–
Drugs List	–	1	–	1	–	–
Certificate of Registry	–	–	–	–	Orig.	–
Safety Equipment Certificate	–	–	–	–	Orig.	–
Loadline Certificate	–	–	–	–	Orig.	–
Radio Safety Certificate	–	–	–	–	Orig.	–
Ship Construction Certificate	–	–	–	–	Orig.	–
Tonnage Certificate	–	–	–	–	Orig.	–
Ship's Articles	–	–	Orig.	–	Orig.	–

Note: Numerals indicate number of copies.
'Orig.' indicates original
'R' indicates on request
'P.C.' indicates photocopy

Identification documents should be arranged in the same sequence as Crew List.

PILOTAGE: The pilot can be contacted at the port on VHF Channels 16 or 11. The pilot meets the vessel in the port limits/anchorage. Pilotage is available round the clock. Pilot ladder must be on lee side.

Anchorage position for vessels awaiting a pilot is Lat. 04° 11.5' N., Long. 103° 31.9' E.

ANCHORAGES:

Petroleum Anchorage: Lat. 04° 10.4' N., Long. 103° 30.7' E., in depths of 20 m.

Deep Water Anchorage: Lat. 04° 12.2' N., Long. 103° 33.1' E., in depths of 24 m.

Working Anchorage: Lat. 04° 12.9' N., Long. 103° 32.2' E., in depths of 22 m.

Supply Vessel Anchorage: Lat. 04° 14.6' N., Long. 103° 29.5' E., in depths of 13 m.

The above anchorages have a bottom of mud and sand with good holding ground providing shelter in the basin.

Also see "Pilotage".

APPROACHES: *Entrance Channel:* The depth in the dredged channel is 15.0 m., length is 3.0 km. and minimum width is 250 m. The channel is marked with lighted Beacons No. 1 – 4 and an onland transit marker.

MAX. SIZE: Vessels having a max. size of 120,000 d.w.t., length of 260 m., beam 35.0 m. and a max. draft of 12.2 m., can berth alongside. Note: The port will be dredged to 17.0 m. by mid-1997.

HEALTH: Healthy vessels are brought to berth. Suspect or infected vessels are taken to Quarantine Anchorage to await clearance from Port Health Authorities. Automatic health clearance is not granted.

RADIO: Radio messages are routed through Penang Radio.

VHF: Vessels should contact "Kemaman Port Control" on Channel 16.

Working channels for Kemaman Port Control are Channels 16, 11 and 68.

RADAR: There is no port radar station in Kemaman Port.

TUGS: 3 tugs available. Tugs lines are used.

2×3,200 h.p. and 1×1,200 h.p.

BERTHING:

Quay Name	*Length* (m.)	*Depth* (m.)	*Cargoes handled*
1-KSB	360	9.0	Supplies for offshore activities.
2-East Wharf	648	12.2	General cargo/bulk cargo.
3-Export Terminal (LPG)	320	12.5	Liquid petroleum gas.

BULK CARGO FACILITIES: Commodities handled are steel billets, hot briquette iron, scrap iron, ilmenite ore and copper slag. Cargoes handled are mainly to cater for the industries near the port.

CRANES: There is one container gantry crane with 30.5 ton S.W.L. and 2 privately owned cranes to handle bulk cargoes of 37 tons and 25 tons capacity.

STEVEDORES: The port works 24 hours a day, 365 days a year.

MEDICAL: Hospital/doctor are not available at Kemaman Port. General hospital/doctor are available in Kemaman Town, which is about 8 km. from Kemaman Port.

TANKERS: There are no facilities for oil tankers in Kemaman Port. The facilities at the LPG Export Terminal cater for Petronas (National Oil Company) activities.

BALLAST: No slop reception facilities available.

DENSITY: 1023.

FRESH WATER: Fresh water is supplied at 50 metric tons per hour, and is pumped from a reservoir (at KSB) direct to vessel.

FUEL: Available by truck. Advance notice required.

FIRE PRECAUTIONS: Fire fighting tugs are compulsory for LPG vessels only.

CONSULS: The nearest consuls of most countries are located in Kuala Lumpur, the capital of Malaysia, which is about 350 km. from Kemaman Port.

REPAIRS: Minor repairs possible.

DRY DOCKS: The nearest dry dock is 150 km. away in Kuala Terengganu.

SURVEYORS: The Surveyors available nearby are Caleb Brett and Ranaco Marine in Kemaman Port area, and SGS in Kuantan Port area.

GANGWAY/DECK WATCHMEN: The employment of watchmen from shore is not compulsory.

HATCHES: Crew open/close hatches.

CUSTOMS ALLOWANCES: See "Kuantan".

AIRPORT: The nearest airports are Kerteh Airport, 40 km. distant, and Kuantan Airport, 75 km. distant.

TIME: GMT plus 8 hours throughout the year.

HOLIDAYS: Port works 365 days a year.

Overtime payments are payable on public holidays as determined by the Terengganu State Government and Government of Malaysia. Overtime payments are also payable for weekends and after office hours, in which for Kemaman Port the weekends are after 1245 hrs. Thursday, and the whole of Friday, and after office hours are from 1600 hrs. until 0800 hrs.

On public holidays, as listed below, a charge of an additional 50% for pilotage and towage, and additional 25% for mooring is imposed.

Public holidays for Kemaman:

New Year Day – 1st January.
Chinese New Year – varies from year to year.
Aidil Fitri – varies from year to year.
Aidil Adha – varies from year to year.
National Day – 31st August.
Christmas – 25th December.
Deepavali – varies from year to year.
Maal Hijrah – varies from year to year.
Maulidur Rasul (Prophet Muhammad's Birthday).
Sultan Terengganu – 21st March.
Coronation Day.
Sultan Terengganu's Birthday – 29th April.
Labour Day – 1st May.
Wesak Day.
King's Birthday.
Nuzul Quran.

POLICE/AMBULANCE/FIRE: Police 09-592222. Ambulance 09-593333. Fire 09-594444.

TELEPHONES: Telephones cannot be placed on board.

SHORE LEAVE: Shore leave is permitted.

IDENTIFICATION CARDS: Seaman's Book or Passport are sufficient.

GARBAGE DISPOSAL: Garbage disposal is compulsory at the East Wharf only. Drums are provided. Charges are as follows:

Ships under 750 g.r.t.: $10.00 per vessel per day or part thereof.
Ships 750 g.r.t. – 3,000 g.r.t.: $30.00 per vessel per day or part thereof.
Ships over 3,000 g.r.t.: $50.00 per vessel per day or part thereof.

WASTE OIL DISPOSAL: Available on request. Arrangements made with private contractors. Rates negotiable with contractors.

SEAMAN'S CLUBS: None.

CURRENCY: Malaysian Ringgit (MRG). U.S.$1.00 = 2.5 MRG (varies).

GENERAL: *Stores:* Provisions are plentiful.

Tides: Tidal range 3.2 m.

Wind/Sea: Maximum 25 knots during North East Monsoon with choppy sea from November to January.

DEVELOPMENTS: There are plans to develop the port into a distribution centre of bulk cargoes for the ASEAN region.

The port will be dredged to 17.0 m. by mid-1997, and the fenders will be up-graded to handle vessels of 200,000 d.w.t.

Liquid chemical berth to handle vessels up to 40,000 d.w.t., 175 m. LOA and 14.0 m. draft. To be completed late 1997.

West Wharf: Multi-purpose wharf of 800 m. is planned.

SHIPMASTER'S REPORT: November 1994.

Editor's Note: Master has called port Tanjung Sulung.

Charts: B.A. Charts No. 770 and 1374.

Approach: Tanjung Sulung is part of Tanjung Berhala, on the East coast of Malaysia, which comes under the jurisdiction of Kemaman Port, named after the local river.

The coast line is generally flat with low hills. The white LPG tanks of Tanjung Sulung, just South of the berth, are prominent.

Kuantan port, 17 miles to the South, is radar conspicuous. Tg. Gelang Lt. (LL 2857) close by is also conspicuous.

The Steel Mill on the North side of Tanjung Berhala is conspicuous, with a red flashing light in approximate position Lat. 04° 15.6′ N., Long. 103° 28.3′ E.

Anchorage: Tanker anchorage as indicated on B.A. Chart No. 1374. On our visit, we were the only ship in the anchorage and we were instructed to anchor in the Northern corner.

Tanjung Berhala Fairway Buoy is as charted.

The anchorage is very open to swells generated by typhoons to the North, although the immediate area is not in a T.R.S. path zone. There are lots of fishing nets/pots and stakes in the area. So approaching the area at night could be somewhat hazardous.

VHF: Call Kemaman Port Control on Channel 16, working on Channel 11, throughout 24 hours.

Pilot: The bulk section of Tanjung Berhala port has 24 hour pilotage. LPG ships generally only daylight berthings and departures, especially large vessels.

Pilot boards at channel entrance at Long. 103° 30′ E., not at Tanjung Berhala Fairway Buoy, from a red hulled cutter, and departs in same area. Pilot was competent and spoke good English.

Tugs: 2 tugs based at Berhala (1×2,000 h.p. and 1×3,200 h.p.). An additional tug of 3,200 h.p. comes from Kuantan, when required.

Two ship's lines required.

One tug at anchor off LPG berth whilst ship alongside.

Approach: The dredged channel depth of 15.0 m. C.D. is maintained until just inside the breakwater, then shoals to 13.0 m. C.D., basis echo trace taken both inwards and outwards. Pilots report maximum draft for LPG berth is 12.5 m. on H.W. and 12.0 m. any tidal state.

Draft for bulk carriers using the Steel Mill – East Wharf is reported by Pilots to be 14.0 m.

For all berths, vessels berth head out, swinging in the charted Turning Basin. Leading lights not operating on our visit.

Beacon No. 3 (O.G.) has been replaced by a buoy of same light character.

Berth: LPG berth is aligned 073° – 253°. GPS position agrees with berth charted position.

We found minimum depth to be 14.05 m. C.D. by hand lead line.

Berth is concrete pile construction with outlying mooring dolphins connected by catwalks, and is connected to shore by concrete pipeway/roadway of about 300 m. length.

Ships always berth port side to.

Ships' gangway used.

Moorings were 2-2-2 each end to quick-release hooks. Bow and stern lines are run by pilot boat.

Good fendering provided.

Berth completed in 1986 for Petronas Gas SDN BHD.

Density at L.W. was 1025.

Facilities: Strictly for straight run LPG Propane and Butane, both refrigerated and pressurised, to storage facility taking product from a refinery at Kerteh, some 20 miles to the North. The crude originating from fields in the South China Sea.

Four storage tanks available (2×C3 Propane at 30,000 cu.m. each and 2×C4 Butane at 25,000 cu.m. each).

Loading is by 4×12 in. 150 ASA hard arms, which can be interchanged between vapour and liquid, Propane or Butane.

1×3 in. 300 ASA line available for pressurised product.

Loading: In the past, it has been reported that initial product intake, especially Propane, has been warm. We loaded all at fully refrigerated temperature (C3) −42°C. Lines being recirculated.

Loading was started at 200 t.p.h., then increased to vessel's maximum. When the pressure in ship's tanks reaches 120 mbs., vapour return is opened, and vapour is returned to shore compressors for reliquifaction, free of charge.

Maximum loading rate is 1,000 t.p.h.

Bill of Lading is basis ship's tanks figures in vacuum. Various surveying companies available.

Propane density is 0.5083/15°C (−42°C).

Before loading, the vessel is subject to a comprehensive safety check, particularly if this is her first visit to the port. Normally this is carried out at the anchorage, but in our case, due to heavy swells, was carried out alongside after berthing. The check follows U.S.C.G. Gas Carrier Pre-Entry checks. Copies of all statutory and Line/Valve Pressure Testing Certificates are required.

The Loading Master is in contact by UHF radio, as are all jetty staff. A set is loaned to vessel.

Basically an efficient and helpful operation.

Stores: Not possible to get alongside vessel, so have to use hand trolley from area near administration building.

It is not advisable to take large quantities of stores, unless absolutely necessary.

Midship derrick will just plumb gangway landing area.

It is necessary to obtain Customs permission for bond supply, which can take 7 days.

Competitive prices, especially for beer, are available.

Fresh Water: Not available on LPG pier. Ship has to shift to Berhala Steel Quay (East Wharf).

Medical: We obtained very prompt attention for engine room casualty evacuation. Terminal arranged ambulance onto loading platform and evacuation to hospital.

Airport: Local airport at Kuantan, with flights to Kuala Lumpur International Airport.

Formalities: Easy going, but plenty of paperwork. Customs boarded latter and sealed bond.

The following documents were required:

1 copy of all statutory Certificates.
1 copy Last Port Clearance.
5 copies Crew List.
3 copies Stores/Bond List.
3 copies Personal Effects List.
5 copies Passenger List ("Nil").
5 copies Ports of Call List.
3 copies Arms and Ammunition List ("Nil").
1 copy Vaccination List.
1 copy Health Declaration.

1 copy Dangerous Drugs List.
6 copies Cargo Manifest in Transit/Discharge.
4 copies Vessel's Information Sheet.

No Seamen's Landing Cards provided. Seamen must take their Seaman's Books ashore as identification.

Immigration/Customs board before departure, and check that all seamen are on board.

AUTHORITY: Kemaman Port Authority, Teluk Kalong, Petit Surat 66, 24000 Kemaman, Terengganu Darul Iman, Malaysia. *Tel:* 609-8631590, 8631707, 8632045 (Port Authority), 8631706 (Port Control). *Telex:* PORTKM MA 51334. *FAX:* 609-8631599. *Contact:* Mr. Zulkifli Bin Idris.

KERTEH TERMINAL: 04.31 N. 103.33 E. (See Plan)

PORT LIMITS: The port area is enclosed between Latitudes 4° 30' N. and 4° 37' N. and between Longitudes 103° 26.8' E. and 103° 33' E.

LOCATION: The Kerteh Port Marine Terminal is situated off the East Coast of Peninsular Malaysia in the South China Sea approximately 13 miles South of Kuala Dungun.

The marine facilities consist of 3 single buoy moorings located in a 20 square mile Restricted Area which extends about 5 miles from the coast.

One CALM operated by Petronas Penapisan (Terengganu) Sdn. Bhd. (PP(T)SB), suitable for vessels up to 85,000 d.w.t. (limited by loaded draft of 11.1 m.) is used for loading refined products from the Petronas Refinery.

Two SALMs, operated by Esso Production Malaysia Inc. (EPMI) are used for loading crude oil from the Terengganu Crude Oil Terminal (TCOT).

DOCUMENTS: Masters are required to prepare documents prior to arrival in port such as:

Last Port Clearance.
Ship's Certificate.
Manifests (List of Cargo onboard).
8 Crew Lists.
8 Passenger Lists.
2 Stores Lists.
2 Personal Effects Lists.
2 Lists of Narcotics.
2 Vaccination Lists.
5 List of Arms/Ammunition.

Boarding and Duty Personnel: Tankers will be boarded, normally on arrival, by Mooring Masters, Loading Operators, Customs, Agents, Surveyors and Petronas Representatives. They will usually stay onboard till the vessel's departure and should be provided with meals and suitable accommodation. However, alcoholic beverages should not be offered to shore personnel, nor should vessel's personnel consume alcoholic drink during the vessel's stay at the terminal. A very serious view is taken of the matter which is an important aspect of vessel and terminal safety.

PREPARATIONS: Vessels should prior to arrival prepare:

(a) *Pilot Ladder:* Safely and securely rigged a combination of pilot ladder with 2 side ropes and ship's accommodation gangway, so arranged that personnel can first use the pilot ladder until part way up the vessel's side, and then transfer to the accommodation ladder. Vessels with less than 9.0 m. freeboard need only rig the pilot ladder with 2 side ropes. Air operated pilot hoists are not acceptable. A light heaving line should be ready to take the Mooring Masters' and Loading Operators' equipment onboard.

(b) *Derricks:* Derrick to be rigged on port side.

(c) *Bow Arrangements:* Vessels should be prepared to be moored to the SPM's and to make ready at forecastle: 1 coil of messenger rope of 2.5 in. circumference, minimum length 200 m., and one empty self-stowing drum.

(d) *Reducers:* The port side manifold is to be prepared for either 12 in. (PP(T)SB) or 16 in. (TCOT) hoses. In addition, 2 chain blocks SWL 2 tonnes and small wire strops to be available.

(e) Pilot hoist is not acceptable.

PILOTAGE: Two Mooring Masters normally board tankers at Pilot Station from a launch or tug.

Pilot Station No. 1 is located at N.E. Corner Buoy (position Lat. 4° 38' N., Long. 103° 33' E.).

Pilot Station No. 2 is located at position Lat. 4° 35' N., Long. 103° 33' E.

Masters should ensure that the Malaysian Flag together with the appropriate International signals are displayed for a vessel approaching port.

NAVIGATION: *Charts:* U.S. 71024, B.A. 770, B.A. 1374, B.A. 2660 (a), B.A. 2414, B.A. 3543 and Mal 6441 (Kerteh Port approach chart. Published by the Royal Malaysian Navy).

Approaches: Approaching the anchorage area from the N.E. – S.E. quadrant, there are no outlying dangers.

Pulau Tenggol, a steep-to 900 ft. high island, situated 20 miles N.E. of the terminal area, and Bukit Labohan, a 1,200 ft. high hill just South of the terminal, are excellent radar targets, easily identified.

The Kerteh Port Marine Control is equipped with a radar-based vessel tracking and traffic management computer system, and will advise vessels when VHF contact has been established.

CAUTION:

(i) Beware of the presence of fishing craft as normally they may not show any lights at night.
(ii) The refinery flare and gas plant flare are visible at a great distance, but should not be relied upon for position fixing purposes as they may not be burning at all times.
(iii) Vessels should give all structures and working vessels a wide berth and not approach closer than 2 miles.

Restricted Area: The Restricted Area is bounded by imaginary lines connecting the following points:

1. Lat. 4° 34' N., Long. 103° 28' E.
2. Lat. 4° 37' N., Long. 103° 31' E.
3. Lat. 4° 32' N., Long. 103° 33' E.
4. Lat. 4° 33' N., Long. 103° 28' E.

Vessels should under no circumstances enter the Restricted Area without the service of the Mooring Master.

NAVIGATION AIDS: In addition to the navigational aids noted on the Navigation Charts, the following Navigational Lights and buoys are placed:

1. Kerteh Port Sea Buoy:

Position	Lat. 4° 32' N., Long. 103° 34.9' E.
Shape	Pillar
Colour	Red and white vertical stripe
Light Characteristic	Fl. (W) every 10 secs.
Visibility	8 nautical miles
Radar Reflector	8 nautical miles

2. Paton Bank Buoy:

Position	Lat. 4° 32' 41" N., Long. 103° 31' 27" E.
Shape	Can
Colour	Red
Light Characteristic	Fl. (R) 5 secs.
Visibility	8 nautical miles
Radar Reflector	8 nautical miles

3. N.E. Corner Buoy:

Position	Lat. 4° 37' N., Long. 103° 31' E.
Shape	X
Colour	Yellow
Light	Fl. (4) Y 10 secs.

4. Tg. Labohan Light:

Position	Lat. 4° 31' 18" N., Long. 103° 28' 18" E.
Characteristic	Fl. (W) 4 secs.
Visibility	15 nautical miles

5. Danger Line Buoys:

These buoys are 1,000 m. apart and indicate the 15 m. (50 ft.) Admiralty Chart Datum line.

Shape	Pillar
Colour	Yellow
Light Characteristic	N1 – Fl. Y 4 secs. N2 – Gp. Fl. Y (3) – 5 secs. N3 – Gp. Fl. Y (4) – 10 secs.
Visibility	2 nautical miles

Positions as follows:

B-4 Danger Buoy N1	Lat. 4° 33' 33.7" N., Long. 103° 28' 46.7" E.
B-3 Danger Buoy N2	Lat. 4° 34' 06.5" N., Long. 103° 28' 38.3" E.
B-2 Danger Buoy N3	Lat. 4° 34' 35.9" N., Long. 103° 28' 29.1" E.

6. Refinery SBM:

Position	Lat. 4° 34' 32.2" N., Long. 103° 29' 02.1" E.
Colour	Orange with white superstructure.
Light Characteristic	White, Fl. Letter U (· · –) every 15 secs.
Visibility	2 nautical miles

7. SALM No. 1:

Position	Lat. 4° 34' 21.9" N., Long. 103° 30' 18.1" E.
Colour	Yellow with black vertical stripes
Light Characteristic	White, Fl. Letter U (· · –) every 7.5 secs.
Visibility	2 nautical miles

8. SALM No. 2:

Position	Lat. 4° 33' 26.5" N., Long. 103° 30' 45.4" E.
Colour	Yellow with black vertical stripes
Light Characteristic	White, Fl. Letter U (· · –) every 15 secs.
Visibility	2 nautical miles

The above buoys with the exception of the SBM and SALM's are subject to shift position and should not be relied upon for navigational purposes.

When approaching the Terminal, Kerteh Port Marine Control will advise if the above buoys are in position.

ANCHORAGE: The Anchorage area is 4 miles square bounded by Lat. 4° 30.0' N. and Lat. 4° 32' N., and Long. 103° 32.0' E. and Long. 103° 34.0' E.

Vessels are strictly prohibited to anchor in any position, whether inside or outside the Restricted Area other than in the designated Anchorage Area. Crude and gas pipelines and a telephone cable are laid in the vicinity and are not shown on all charts.

During severe weather conditions it is not advisable to anchor as holding ground is poor and vessel should slowly steam 5 to 10 miles off the coast, and remain within VHF radio range.

In the event VHF radio contact cannot be established, Masters are advised not to anchor but keep to seaward of the Anchorage Area and the Restricted Zone. Contact will then be made by the Terminal's Support Craft.

ACCEPTANCE CRITERIA:

PP(T)SB: (Product).

I-*SPM Limitations:*

(i) SPM is designed to handle vessels of 15,000 to 35,000 d.w.t. However, partially loaded vessels up to 85,000 d.w.t. can also be accommodated up to a maximum draft of 11.1 m.
(ii) SPM is equipped with 2 mooring hawsers fitted with 2 in. diameter chafing chains which requires Panama leads with minimum dimensions 450 mm. × 600 mm. Bollards with snotter wires and bow shackles (See III-(x)) can be used as an alternative to secure the chafing chains.
(iii) Maximum loading rate of 20,000 bbls.p.h.
(iv) Minimum flow rate of 3,100 bbls.p.h. is acceptable for initial loading and topping-off operations. The operation at this flow rate should not exceed 15 minutes.
(v) Maximum loading temperature 75°C.
(vi) Maximum allowable working pressure of hoses 225 p.s.i. (15.8 kg./sq.cm.).

(vii) Weather Limitation: Vessels to stop loading when wind speed reaches 22 knots. When wind speed reaches 27 knots and 12 ft. swell, vessel to disconnect hose and be ready to vacate berth. However, final decision to vacate the berth lies with the Mooring Master at the scene.

II-*Port Limitation Ex-Kerteh Refinery-Safe-Dimensions of Vessel:*

	Vessel Data	
	Min.	*Max.*
Size	20,000 d.w.t.	85,000 d.w.t.
Length	163 m.	265 m.
Width	20 m.	38 m.
Loaded Draft	8.8 m.	11.1 m.

III-*Tanker Requirements:*

(i) The tanker must be able to handle the hose rigging on the port side and must be able to lift and swing safely 5 ton over and above the ship's rail. Hose has to be lifted to a height of 4.5 m. – 6.0 m. above ship's rail.

(ii) The tanker must have sufficient clear deck area adjacent to the cargo manifold. Distance from manifold to ship's rail should be a minimum of 3.7 m. Free area around centreline of manifold must be 36 in. as the end of the rail hose near the loading flange has a 30 in. diameter.

(iii) Tanker must have 12 in., 150 p.s.i. ASA (or ANSI) manifold flange connection on port side to fit on a 12 in. Camlock coupling loading/discharge hose.

(iv) Tanker must have sufficient chain falls and rigging gear to secure the loading hose.

(v) Product tankers must be able to receive water plug of 300 bbls. in a segregated tank or clean slop tank prior to commencement of loading. The water plug to be pumped back on completion of the loading plus an extra 200 bbls. of clean water (if required by PP(T)SB.

(vi) On arrival all tankers must have adequate segregated or clean or permament ballast for safe manoeuvring at all times (i.e. Propeller must be adequately submerged without excessive trim).

(vii) Refinery cannot receive slop or oily ballast, therefore any ballast discharged must be absolutely clean.

(viii) Minimum 10 ton capacity port side derrick required.

(ix) Tanker's crew are responsible for mooring, hose connection and unmooring.

(x) Mooring of product tankers at Kerteh SPM: (PPTSB)

All product carriers proposing to use the SPM facilities at Kerteh should have available onboard in case of requirement the following:

2×12 m.×54 mm. dia. (for tankers up to 40,000 d.w.t.) or 2×12 m.×64 mm. dia. (for tankers above 40,000 d.w.t.) wire rope bridles (fibre core) with a thimbled eye at one end and a soft eye on the other end.

2×50 ton safe working load bow shackles.

1×200 m. × 30 mm. and 1×100 m. × 30 mm. messenger lines.

The Loading Operator, who is responsible for the loading operations, will inspect the ship on arrival to ensure the ship's compliance to Kerteh Terminal's requirements for final acceptance. PP(T)SB reserves the right to reject any non-compliance vessel at Kerteh Port.

TCOT: (Crude)

Tankers between 40,000 and 250,000 d.w.t. can be accepted at the TCOT SALMs provided they:

1. Re: Mooring equipment, etc. comply with "Recommendations for Equipment Employed in the Mooring of Ships at Single Point Moorings", published by OCIMF 1990, particularly Section 6.1 to 6.5., i.e. in brief:
   (i) Tankers of 140,000 d.w.t. or more are not acceptable during N.E. Monsoon (November to March). During other periods, these tankers must be accompanied by a tug of 6,000 b.h.p. or more, capable of operating in a pull/push mode and fitted with a towing line with stretcher rope and eye large enough for securing on bitts.

   Tugs to arrive 3 hours earlier than vessel for inspection prior to berthing operation.

   (ii) Tankers up to 140,000 d.w.t. to have bow mooring arrangements for connecting a single 76 mm. (3 in.) chain.

   (iii) Tankers over 140,000 d.w.t. to have bow mooring arrangement for connecting 2×76 mm. (3 in.) chains.

   (iv) Bow fairleads for 76 mm. (3 in.) chain to measure at least 600 mm. × 450 mm.

   (v) All tankers to have bitts, bollards, bow stoppers of minimum SWL:

Under 100,000 d.w.t.:	1×100 tonnes.
100,000 – 150,000 d.w.t.:	1×200 tonnes.
Over 150,000 d.w.t.:	2×200 tonnes.

   with adequate forward winch heaving capacity for heaving up corresponding chain system with buoy.

   Note: It is recommended that all tankers calling at this terminal be fitted with approved bow stoppers for safe and efficient mooring and unmooring operations.

   (vi) Tankers with one bow stopper to prepare one self-stowing drum and tankers with 2 bow stoppers to prepare 2 self-stowing drums to accommodate 1 or 2 × 150 m. (10 in.circumference) pick-up ropes.

   Note: Warping drum not to be used to heave up chain system on board for safety reasons.
2. Have 1×16 in. standard ANSI-B 16.5, BS 1560 Series 150 or equivalent flange ready at port side manifold, with bitts, straps, tuggers, etc. ready for connecting 1×16 in. over-the-rail hose to the manifold. The connecting 16 in. manifold flange shall be fitted to a spool piece of minimum length 200 mm. to allow sufficient space to connect the Camlock coupling of the hose end. Port side manifold arrangement to comply with OCIMF "Standard for Oil Tanker Manifolds and Associated Equipment" – Page 17.

   SWL of port side derrick to comply with ISGOTT (Appendix C.10.2 weight of hose strings) for single buoy moorings i.e.:

   Minimum SWL 10 tonnes for port side derrick is required.
3. Maximum vessel loaded draft at SALM-1 is 17.4 m. (57 ft.).

   Maximum vessel loaded draft at SALM-2 is 20.4 m. (67 ft.).
4. Have on arrival adequate clean or segregated ballast for safe manoeuvring and be able to limit freeboard by loading crude and discharge segregated/clean ballast simultaneously.

During the N.E. monsoon season (November-March), vessels must arrive with forward draft not less than 5.50 m., adequate ballast or cargo onboard to have propeller covered and with no more than 2.0 m. trim by the stern. Vessels with only CBT system on board must be able to retain ballast or to load and discharge simultaneously without any risk of pollution or cargo contamination.

NOTE: There are no ballast receiving facilities and ballast pumped overboard must be absolutely clean.

HEALTH: Radio Pratique should be requested through a local shipping Agent.

RADIO: All radio traffic to be channelled through Singapore Radio. Vessels to maintain radio watch on the same station.

(a) Cables for Petronas to be addressed to PP(T)SB, Kerteh. Telex: Petref MA 51326 and copy to "International Marketing, Petronas", Kuala Lumpur. Telex: Petron MA 30032 or MA 30696.

(b) Cables for EPMI to be addressed to TCOT, Kerteh. Telex: MA 51384 and MA 51397 with copies to Essosupply Kuala Lumpur MA 30621.

Singapore Radio works on the following frequencies:–

Call Sign	*Transmit (kHz)*	*Receives (kHz)*	*Watch (GMT)*	*Remarks*
9VG4	2182	2182	0000-2400	Call, replay and safety
9VG87	4125	4125	0000-2400	
9VG88	6215.5	6215.5	0000-2400	
9VG89	8780	8257	0000-2400	Common calling frequencies
9VG90	13162.9	12392	0000-2400	
9VG91	17294.9	16522	0000-2400	
9VG5	2760	2527	0000-2400	Working frequencies for passing of radio telegrams
9VG60	4369.8	4075.4	0000-2400	
9VG63	8728.2	8204.3	0000-2400	
9VG67	13156.6	12385.8	0000-2400	
9VG52	2780	2685	On demand	
9VG61	4376	4081.6	On demand	
9VG62	6509.5	6203.1	On demand	
9VG64	8762.3	8238.1	On demand	Connection to telephone system
9VG65	8790.2	8266.3	On demand	
9VG66	13147.3	12376.5	On demand	
9VG68	17270.1	16497.2	On demand	
9VG69	17356.9	16584	On demand	
9VG70	22630.1	22934.1	On demand	

Traffic lists will be transmitted on the following listed frequencies, except during transmitter maintenance periods when the list will be broadcast on the two frequencies consecutively.

Transmit (kHz)	*Receives (kHz)*	*Time (GMT)*
2760	2527	0005, 0405, 0805 and 1205
8728.2	8204.3	
2760	2527	1605
4369.8	4075.4	

Approximate geographical location of Singapore Radio Station is Lat. 01° 20′ N., Long. 103° 40′ E.

Notice of Arrival:

Upon departure from last port or immediately after having received instructions to proceed to Kerteh Port Marine Terminal, Master is requested to cable to either EPMI (if scheduled to load crude) or to PP(T)SB (if scheduled to load product) the following:

AAA	Vessel name, previous name (if any), call sign and flag.
BBB	ETA, date and local time (GMT + 8 hours).
CCC	Master's name and nationality.
DDD	G.r.t., n.r.t., d.w.t., s.d.w.t. and Light Displacement Tonnages.
EEE	Last discharge port and intermediate ports.
FFF	Next discharge port and intermediate ports.
GGG	Number of crew and nationality.
HHH	Number of passengers.
III	Grade and Quantity of cargo on arrival, previous cargo and cargo to be loaded at Kerteh Marine Terminal and loading rate per with 1×16 in. hose connection for crude loading and 1×12 in. connection for product loading.
JJJ	Whether previous cargo or any cargo on board has high H_2S contents and H_2S concentration in tank vapour spaces.
KKK	Malaysian light dues receipt number and date.
LLL	Arms on board.
MMM	Deballasting. Confirm that the vessel is able to load and deballast simultaneously.
NNN	Arrival drafts.
OOO	Any leaks which could cause pollution or affect loading.
PPP	Pratique Granted: Place/Date. If any sickness on board or of clean bill of health.
QQQ	Confirm inert gas system operational and whether all cargo tanks in inert atmosphere on arrival.
RRR	Length overall, breadth and bow to centre of manifold distance.

SSS Size of port manifold flange and confirm that 2×12 in. (150 p.s.i.) ASA flanges are available for product tankers on port side manifold or confirm that 1×16 in. 150 ASA flange is available for crude tankers on port side and able to connect Camlock couplings. Confirm that manifold arrangements comply with OCIMF standards for oil tankers manifold standard and associated equipment.
TTT Confirm that combination of gangway and pilot ladder ready on arrival. Only pilot ladder is required if freeboard is less than 9 m.
UUU If loading products, is vessel fitted with 2-valve separation for parcels?
VVV Is vessel fitted with segregated ballast tanks?
WWW Is vessel diesel or turbine powered?
YYY Confirm that vessel can moor to an SPM and indicate what bow connection equipment is available. (See "Berthing").
ZZZ What is SWL of port side derricks for hose hoisting.

Updated ETA to be reconfirmed 72, 48, 24 and 12 hours prior arrival.

VHF: When within range, vessels should contact Kerteh Port Marine Control initially on Channel 16 for berthing instructions and assignment of working channel. Working Channels are 9, 67, 69 and 73.

The language of the Terminal is *English*.

Arrival Procedures: Masters should endeavour to establish contact with Kerteh Marine Control as soon as they are within VHF radio range.

Instructions thereafter will be given for further approach procedures.

RADAR: Marine control tower has radar.

TUGS: A tug and mooring launch will be in attendance during mooring operation.

SBM: One tug of 2,600 h.p. and 2 launches.

SALMs: Two tugs, 3,500 h.p. and 1,000 h.p.

Note: See "Acceptable Criteria – TCOT – Section 1(i)" for tug requirements for tankers over 140,000 d.w.t.

BERTHING: *Petronas Penapisan (Terengganu) Sendirian Berhad (PP(T)SB) SPM:* The Catenary Anchor Leg Mooring (CALM) is located in 60 ft. of water in position Lat. 04° 34.5' N., Long. 103° 29' E. It is designated for 85,000 d.w.t. tankers on restricted draft. The SBM is fitted with 2 mooring hawsers and 2 strings of loading hoses, one for loading black oil and one for loading clean products.

CAUTION: The SBM is only a distance of 1 nautical mile from the beach. The bottom shelves from the SPM for a distance of approximately 5 cables (900 m.) to a Danger Line of 3 buoys in 50 ft. A.C.D. of water.

When the SBM is at maximum excursion, i.e. 2 mooring chains tight on the weather side, no vessels, such as tugs or standby boats, can approach this SBM closer than 50 ft. Otherwise, they will foul the anchor chain.

Therefore the terminal insists that vessel engines and crew are at all times on standby whilst moored to this SBM.

TCOT SALMs: SALM 1 is located in 26 m. of water in position: Lat. 04° 34.4' N., Long. 103° 30.3' E. It is designed for fully loaded 140,000 d.w.t. tankers.

SALM 2 is located in 28 m. of water in position: Lat. 04° 33.5' N., Long. 103° 30.7' E. It is designed for fully loaded 250,000 d.w.t. tankers with certain limitations.

Both SALMs are fitted with a single hawser system terminating in a 3 in. chafing chain. Vessels over 140,000 d.w.t. will be moored at SALM 2 and a second hawser, also terminating in a 3 in. (76 mm.) chain, will be fitted.

Berthing and Mooring: Prior to berthing the Mooring Master will discuss with the Master the berthing and mooring operations and ascertain that the vessel is fully manoeuverable. He will also inspect the vessel's ballast to ensure that only clean ballast is carried and its disposal overboard will be safely carried out simultaneously with the loading of cargo.

The second Mooring Master will discuss with the Officer on the bow the mooring operation and will via the Officer supervise the mooring operation performed by the vessel's crew.

After ensuring that the manoeuvring area is clear of other traffic and weather and sea conditions are suitable, the vessel will be manoeuvred for the approach to the mooring buoy. The heading of the vessel will normally be such that she will have the wind ahead but tidal effects may have to be taken into account. A tug of suitable power and a mooring launch will be in attendance. During the final approach, the mooring launch will pick up a messenger line from the vessel's bow and maintain station approximately 91 m. ahead of the vessel. When the mooring launch reaches the end of the mooring system's pick-up line, the vessel's messenger line will be made fast and the vessel's crew will heave in the slack as the vessel moves closer to the mooring buoy.

When the pick-up line is on board the crew will commence heaving on this line until the chafing chain is on board and secured.

The Refinery *SBM is fitted with 2×54 mm. diameter chafing chains* which require *Panama Leads with minimum dimensions of 450 mm. × 600 mm.* It is the vessel's responsibility to ensure that the 2 chafing chains on the Refinery SBM are brought on board in equal lengths in order to share the load equally between the 2 mooring hawsers which are seperate and not mated or secured together in any way.

The crude oil *SALMs are fitted 1×3 in. (76 mm.) diameter chafing chain,* which requires a Panama Lead with minimum dimensions of 450 mm. × 600 mm. Vessels greater than 140,000 d.w.t. will be berthed at SALM No. 2 and two chain mooring systems will be connected, which requires 2 Panama fairleads as per the OCIMF recommendations.

Chafing chains will be connected to the bow chain stoppers onboard the tanker. At the refinery SBM, an alternative connecting system will be used when vessels are not fitted with the connections mentioned above. Bollard with 6 m. long×64 mm. diameter snotter wire and bow shackles can be used as an alternative to secure the chafing chain.

HOSES: *Connection Hoses:* Once the vessel is moored, the floating hose(s) will be towed alongside and connected to the vessel's port manifold under the supervision of the Mooring Master.

Connecting and disconnecting of hose(s) will be the responsibility of the vessel's crew.

While vessels are moored, it is imperative that a careful watch is maintained on the mooring systems and cargo hose.

Main engines should be kept on standby and should be ready for immediate use in the event the vessel starts to ride up on the mooring buoys.

On the Refinery SBM the floating hose strings are 12 in. ASA on the rail and have a total length each of 230 m. Camlock couplings are fitted.

On the crude SALMs 1 floating hose string terminates in 16 in. ASA flange on the rail and is fitted with butterfly valve – lock arrangements with Camlock. (Also see "Radio" – SSS).

LOADING: *Loading Rate:* Prior to the commencement of loading operations, an agreed upon oil transfer plan must be established. This will include commencement, maximum and topping-off loading rates and emergency stop procedures.

Maximum loading rate at the Refinery SBM will be approximately 20,000 bbls.p.h. through one hose and at the crude SALM, approximately 40,000 bbls.p.h. Vessels should take maximum flow, with due regard to safety, in order to expedite turnaround time. Minimum bulk loading rate at the SALM shall not be less than 25,000 bbls.p.h. Care should be taken not to overload. Topping-up rate for products is between 2,100 – 3,800 bbls.p.h. Final topping-up rate for crude is between 10,000 – 14,000 bbls.p.h.

Vessels with or without permanent ballast tanks should retain ballast onboard until the vessel has taken sufficient cargo to be manoeuvrable, after which simultaneous loading and deballasting operations could commence. Such practice improves turnaround time and keeps the windage area down to acceptable levels. Vessels with excessive deballasting time may incur considerable delay in berthing. At crude SALM, no deballasting is allowed prior to loading.

Closing Valves Against Oil Flow: Warning is given of the danger of closing valves against an incoming oil stream. This will create excessive pressure which may result in damage to the loading hoses and Terminal facilities. Vessels will be held liable for damages resulting from failure to observe this precaution. The Refinery and TCOT will automatically stop pumping when back pressure reaches 200 p.s.i. and 220 p.s.i. respectively.

Electrical Storms: Loading will be suspended when severe Electrical Storms are in the near vicinity to prevent the possibility of cargo gases igniting.

SAFETY/FIRE/POLLUTION:

General: A Ship/Shore Safety and Pollution Check List is used at the terminal and all operations closely follow recommendations in the International Safety Guide for Oil Tankers and Terminals.

Fire: In the event of fire onboard: Immediately stop loading, advise the Mooring/Loading Master onboard and prepare to disconnect hoses and evacuate the berth. A well-equipped tug is standing by and may assist under the Mooring Master's guidance. In case of VHF communications failure sound 10 short blasts on the ship's whistle.

Pollution: The terminal is located in an extremely pollution sensitive area, a short distance from high amenity beaches with a valuable and vulnerable marine life. It is therefore imperative that all pollution of the sea is avoided. Master will be held liable for all clean-up-costs and third party claims and Owners promptly advised in case of pollution.

Deballasting: Ballast water pumped overboard should not contain oil or mixture containing oil (a mixture with an oil content of 100 parts or more in 1 million parts of the mixture) in accordance with the Section 27(1) of the Environmental Quality (Amendment) Act, 1985 (See "Below") with regard to Malaysian waters and Section 10(1) of the Exclusive Economic Zone Act, 1984 (See "Below") with regard to the exclusive economic zone.

Vessels ballast tanks will be carefully inspected. Vessels with dirty or doubtful ballast water will not be accepted unless analysis of water samples for oil content show otherwise.

Oil Spills: Should an overflow or hose leak occur during loading; immediately advise shore to stop loading and retain oil onboard and clean-up or recover oil.

The stand-by tug is equipped with spill-booms, skimmers and oil spill dispersant spraying booms. However, spraying of chemicals should only be done as a last resort after clearance from the relevant Authorities has been obtained.

Garbage Disposal: Dumping of garbage overboard, of whatever kind, is strictly forbidden.

Appendix:

SECTION 10(1), EXCLUSIVE ECONOMIC ZONE ACT, 1984

If any oil, mixture containing oil or pollutant is discharged or escapes into the exclusive economic zone from any vessel, land-based source, installation, device or aircraft, from or through the atmosphere or by dumping:

(a) the Owner or Master of the vessel, if the discharge or escape is from a vessel;
(b) the Owner or occupier of the place on land, if the discharge or escape is from land;
(c) the Owner or person in charge of the installation or device, if the discharge or escape is from an installation or a device; or
(d) the Owner or Pilot of the aircraft, if the discharge or escape is from an aircraft,

shall each be guilty of an offence and shall be liable to a fine not exceeding 1,000,000 ringgit.

SECTION 27(1), ENVIRONMENTAL QUALITY (AMENDMENT) ACT, 1985

No person shall, unless licensed, discharge or spill any oil or mixture containing oil into Malaysian waters in contravention of the acceptable conditions specified under Section 21.

NOTES: (i) SECTION 21, ENVIRONMENTAL QUALITY ACT, 1974

The Minister, after consultation with the Council, may specify the acceptable conditions for the emission, discharge or deposit of wastes or the emission of noise into any area, segment or element of the environment and may set aside any area, segment or element of the environment within which the emission, discharge or deposit is prohibited or restricted.

(ii) SECTION 2, ENVIRONMENTAL QUALITY ACT, 1974

"Mixture containing oil" means a mixture with such oil content as may be specified by the Minister or, if such oil content is not specified, a mixture with an oil content of one hundred parts or more in one million parts of the mixture.

MEDICAL: No doctor or clinic available, however in emergencies, exceptions may be permitted on humanitarian grounds.

DENSITY: 1025.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: None.

REPAIRS: Not possible.

Note: Vessels are strictly prohibited to carry out hot work or repairs of any kind which could cause fire hazard *or* immobilise engine at the berth or within the port area except at the designated anchorage area, with the approval of Terminal Superintendent or Representative.

SURVEYORS: Trident Malaysia Sdn. Bhd., Straits Trading Building, Lebuh Pasar Besar, Kuala Lumpur. Tel: 03-926410. Telex: MA 39551.

Caleb Brett Malaysia Sdn. Bhd., Room 301, 3rd Floor, Bangunan Yayasan Selangor, Jln. Bukit Bintang, Kuala Lumpur. Telex: MA 30579.

CUSTOMS ALLOWANCES: Usual allowance for ports in Malaysia.

REPATRIATION: Not possible.

TIME: GMT plus 8 hours.

WEATHER: The seasonal weather patterns are broadly divided into three types and the terminology used is consistent with that of S.E. Asia. These three types are:

1. S.W. Monsoon (May to September): Winds are generally from the South or S.W. during this period and can reach gale force in local squalls.
2. N.E. Monsoon (November to March): Intermittent bad weather occurs during this monsoon and high sea and swell conditions can persist for extended periods.
3. Transition Periods (April and October): Winds are generally variable during the monsoon transition periods but may freshen in the late afternoon and early evening with the sea breeze effect. Occasionally, local gale force squalls may occur but these are generally of short duration.

CAUTION: The severe squalls often occur suddenly without warning.It is therefore important whether at anchor or moored that an alert deck watch is kept.

Refer to China Sea Pilot – Volume 1 for further meteorological information.

TIDES AND CURRENTS: *Currents:* The tides off Kerteh vary widely, with periods of only one HW and one LW each lunar day, there are also marked inequalities in times and heights of high and low waters.

The tides at Kerteh are on average 30 minutes earlier than the standard Port of Tanjung Gelang but there are wide variations.

The ocean currents off the Kerteh Coast are the result of the monsoon wind pattern, setting South during the N.E. Monsoon and North during the S.W. Monsoon. The average currents are:

January	1.0 knot	180°
April	0.5 knots	170°
July	1.0 knot	010°
October	0.5 knots	variable

Combination Tide and Current: The strength of the current is dependent on the strength of the monsoon wind and when winds are strong the current can increase to 2 knots or more.

Thus in the N.E. Monsoon the combination of current and flood tide can produce a South running stream of 3 knots or more, and with a very weak North running stream. The same occurs in reverse during the S.W. Monsoon.

CAUTION: When at anchor it should be noted that with the tidal streams and currents in "conjunction" they can exceed 3 knots in strong winds and as the holding ground is not good, it is important that a very careful check is kept on the ship's position at all times.

EMERGENCY CO-ORDINATING CENTRE: Contact Kerteh Marine Control on VHF Channel 16 or other assigned working Channels 67, 69 and 73. Tel: 09-8271277, ext. 5233 (Kerteh Marine Control). Telex: MA 51384.

SHORE LEAVE: No shore leave.

GENERAL: *Language:* The language of the Terminal is English.

Mail: (a) Mail for tankers loading at PPTSB or Petronas cargoes at TCOT should be addressed to the ship's Agent.

(b) Mail for personnel on incoming crude tankers loading an Esso cargo may be sent to EPMI's Kuala Lumpur Office marked for the attention of the "TCOT Marine Superintendent" for transmission to the vessel when it arrives at Kerteh Port Marine Terminal.

Personnel: Only authorised personnel are permitted to board vessels while berthed.

Provisions: Not available.

Ballast: No dirty ballast or slop disposal.

Terminal: The Kerteh Port Marine Terminal is located off-shore and the only means of transportation available to the shore is by marine support craft to Tanjong Berhala Supply Base situated 24 miles to the S.E. As such, the terminal can offer no logistical support to the vessels calling at the Kerteh Port.

AUTHORITY:

(a) Petronas Penapisan (Terengganu) Sendirian Berhad (PP(T)SB),
24300 Kerteh,
Terengganu, Malaysia.
Tel: 09-8271244/8271234.
Telex: Petref MA 51326.

(b) Petroliam Nasional Berhad (Petronas),
International Marketing Division,
9th Floor, Menara Dayabumi,
P.O.Box 12444,
50778 Kuala Lumpur, Malaysia.
Tel: 03-2743833/2748011/2748022.
Telex: Petron MA 30032 or MA 30696.

(c) Esso Production Malaysia Inc.,
Terengganu Crude Oil Terminal (TCOT),
66th Mile Kuantan/Kuala Terengganu Highway,
24300 Kerteh,
Terengganu, Malaysia.
Tel: 09-8271277/8271278.
Telex: TCOT MA 53197 (24 hours).
FAX: 09-8271232.
Contact: Marine Supervisor.

(d) Esso Production Malaysia Inc.,
Komplex Esso,
P.O.Box 1,
24207 Kemasek, Terengganu, Malaysia.
Tel: 09-540400.
Telex: Ofprod MA 51744.

(e) Esso Malaysia Berhad,
Supply Department,
P.O.Box 10601,
50718 Kuala Lumpur, Malaysia.
Tel: 03-2485022.
Telex: Essosupply MA 30280.

AGENT: See "Port Kelang".

KOTA KINABALU (including Sapangar Bay), Sabah: 05.59 N. 116.00 E. (See Plan)

PORT LIMITS: Gaya Bay and waters to the S.W. bounded by a line joining Tanjong Aru and the Northern point of Pulau Gaya thence a line to Gaya Head including rivers entering same for a distance of 600 ft. inland from the mouth of the river.

DOCUMENTS:

Documents to be produced on arrival:
Port Clearance from Last port.
6 copies Inward Cargo Manifests.
2 copies Hatch List, *or* 1 copy Stowage Plan.
9 copies Crew Lists.
9 copies Passenger Lists.
2 copies Bonded Stores Lists (incl. Arms and Ammunition Lists).

In addition, the Master has to complete a Shipping Arrival Report Form and a Maritime Declaration of Health Form.

Notes: (a) If vessel arrives from any port outside those declared infected.

(b) These 2 copies (Inward Cargo Manifests) must be certified by the Master as follows: "I hereby certify that to the best of my knowledge and belief this manifest is complete and correct. . . . . Master".

To be supplied to Ship before Departure:
set Agents Outward Manifests.
2 copies Passenger Lists for Immigration.*
1 copy Passenger Lists for Customs.*
1 set Manifests for Customs.*

*To be supplied by Agent.

If vessel departs to a port outside Sabah, 2 copies outward crew list are also required for Immigration.

Where possible, cargo manifests and stowage plans should be forwarded in advance to local Agents and Port Authority ahead of vessels.

PILOTAGE: Not compulsory. Pilot normally available between 0600 hrs. and 1800 hrs. only. Applications normally made by Shipping Agents with advance notice of 24 hours prior to actual time that Pilot Services are required. Pilot boats are between 30 ft. – 40 ft. length and equipped with VHF/AM sets – 80.4 MHz frequency. Pilot station at Port Office (Marine Department) and location for vessel awaiting Pilot is within port limit. Marine Department Tel. 52213.

ANCHORAGES: (Also see "Health").

Special Anchorages and Prohibited Areas

(1) *Prohibited Anchorage:* No vessels shall anchor as to swing within 3,000 ft. of the F.R.G. Light on the N.N.E. end of the Authority Wharf in approx. position Lat. 05° 59' 51" N., Long. 116° 04' 30" E. Vessels under 150 ft. in length may anchor within this area, East of a line joining the F.R.G. Light and Gueritz Shoal Light Beacon.

(2) *Prohibited Area:* Except with the previous permission in writing of the Authority, no logs or timber shall be allowed to lie afloat within the area – Eastward of a line drawn in a 172° direction from Grieve Reef Beacon.

(3) *Explosives and Dangerous Goods Anchorage:* Vessels having explosives and Dangerous Goods on board shall anchor within a line drawn from a position in Lat. 06° 01' 21" N., Long. 116° 05' 45" E. thence in a 360° direction for 6.5 cables thence in a 270° direction for 10 cables thence in a 180° direction for 6.5 cables thence in a 090° direction for 10 cables to the starting point.

(4) *Dangerous Petroleum Anchorage:* A vessel having dangerous petroleum on board shall anchor within a line drawn from a position in Lat. 06° 00' 42" N., Long. 116° 05' 45" E. thence in a 270° direction for 10 cables thence in a 360° direction for 6.5 cables thence in a 090° direction for 10 cables thence in a 180° direction for 6.5 cables to the starting point.

(5) *Quarantine Anchorage:* A vessel which is required to proceed to a Quarantine Anchorage shall anchor within an area bounded by a radius of 3 cables from a position in Lat. 06° 01' 34" N., Long. 116° 03' 46" E.

RESTRICTIONS:

1. Entering. Vessels with dangerous cargo such as benzene are not allowed to stay alongside wharf or to berth after 1800 hrs. Vessels arriving from any port within hours of day-light not allowed to berth until they see the signals at the Customs House directing them. This applies equally to vessels arriving on schedule as well as unscheduled vessels and any infringement of these regulations can have very serious consequences.

Master of ship not sailing within 48 hours after port clearance to report to Harbour Master reason for not sailing, and, if so required obtain a fresh port clearance.

2. Shifting. The Authorities must be informed prior to shifting.

3. Immigration. No person may leave ship before clearance has been given by Customs/Immigration Officers.

4. Currency. No restriction on amount of currency which can be brought into this State but max. amount allowed to be taken out is MAL$100. Foreign exchange must be conducted through recognised banks.

MAX. SIZE: Max. size at general cargo berths is 20,000 d.w.t.

HEALTH: (Also see "Regulations"). *(a)* Sabah Government are signatories to WHO convention on Quarantine regulations. Port Health Doctor will not board unless vessel comes from infected port. Instead, Maritime Declaration of Health to be filled out and handed to Boarding Officer of Health Department who will require 1 copy of Crew List and 1 copy of Passenger List. Vessels should cable Agent prior arrival advising last port of call and whether vessel is healthy. Pratique normally cabled to ship but if unreceived, vessel need not proceed to Quarantine anchorage unless coming from infected port.

(b) Vessels arriving from ports outside the State will anchor until boarded by Authorities unless previously instructed by telegram to come alongside.

RADIO: Singapore Radio recommended. (Also see "Health"). Local radio call sign "Control K.K.".

Berthing Application: Application for berthing has to be made 24 hours prior to actual time when berthing is required.

Details and Requirements: Name of vessel, gross and net tonnage, length overall, draft (fore and aft) ETA at berth, ETD from berth, nature and tonnage of cargo to be discharged/loaded, number of gangs required, amount of water, Pilot requirements. Vessels given berth on first come, first served basis.

Tankers: As much notice of arrival as possible is essential.

(a) If first port in Sabah and communication is difficult send message through Singapore Radio.

(b) If to be second or subsequent port in Sabah ensure that Agent/Installation Representative in the previous port gets an accurate ETA before vessel's departure so that this can be passed on by telephone.

VHF: Port Control on VHF Channels 12 and 16 (office hours only).

To reach the Agents directly during office hours contact 9WH26 on VHF Channel 26. The call charges will be reversed by 9WH26 which is an unofficial telecommunications VHF station.

TUGS: Tug 280 h.p. available to assist vessels berthing and unberthing without a Pilot at inner berth. Ship's lines used.

BERTHING:

Berth No.	*Berth Length* (ft.)	*Depth* (m.)	*Capacity* d.w.t.
1	400	9.10	20,000
2	400	9.10	20,000
3	350	9.10	20,000
4	400	7.62	5,000
5	370	5.79	3,000
6	300	5.79	4,000
7	400	7.62	7,000
8	300	6.88	18,000
9	300	6.88	4,000
10	400	7.50	5,000
11	320	5.5 – 6.8	700
12	420	5.5 – 6.8	2,000

Note: The Old Wharf was closed to berthing and operations with effect from 31st December, 1987.

Ro-Ro: Facilities available at the Fast Erect Jetty. Max. size: LOA 180 m., beam 25 m. and max. draft 5.5 m.

CARGO: (Also see "Berthing".)

1. Tally: The Agent can provide tally clerks at ship's expense.

2. Inward cargo: Ship's responsibility ceases as soon as consignees take delivery ex-sling.

3. Transhipment cargo: Transhipment cargo handles via Port Authority Godown.

4. Outward cargo: All cargo is brought to the ship alongside wharf either by tractors and trailers.

5. Special cargo regulations:

(a) Dangerous Cargo: Vessels carrying explosives as cargo: All vessels arriving at, or remaining within the limits of, any port with explosives on board shall fly the gunpowder flag at the foremast.

No vessel having explosives on board shall, without the permission in writing of the Harbour Master, come or remain within 500 yards of the shore or any other vessel:

Provided that such a vessel may, with the written permission of the Harbour Master, come and remain within such limit where:

(i) such explosives are wholly and exclusively of Class V (Fulminate) or Class VI (Ammunition) or both such classes in the second schedule; and

(ii) the total quantity of such explosives does not exceed two thousand pounds; and

(iii) such explosives are carried in a properly constructed magazine duly certified as such by a British Board of Trade Surveyor or by an officer fulfilling similar functions appointed by a Government of any British possession or the vessel has a certificate from one of Her Majesty's Inspectors of Explosives or from an Officer fulfilling similar functions appointed by the Governments of Singapore, the Federation of Malaysia or Hong Kong and approved by the Governor that all the explosives on board such vessel have been properly stored and the Master of such vessel further certifies in writing that no other dangerous cargo is carried by the vessel; or where:

(iv) such explosives are wholly and exclusively explosives of one or any of Class III (Nitro-compound), Class IV (Chlorate mixture) or Class VII (Firework); and

(v) the total quantity of such explosives does not exceed three thousand pounds.

No such explosive shall be landed, shipped or transhipped between sunset and sunrise without the previous permission in writing of the Harbour Master. Any Master of a vessel offending against the provisions of this section shall be liable to a fine of MAL$1,000.

(b) Livestock: Pigs or cattle may not be loaded or discharged on any wharf without permission of the S.P.A.

CARGO HANDLING FACILITIES: *Cargo Handling Equipment:*

Equipment	*Manufacturer*	*No. of Unit*
Forklifts	Mitsubishi FD20	2
	Mitsubishi FD30	19
	Toyota 3FD30	41
	Komatsu FD30-8	8
	Toyota 3FD60	4
	Toyota FD190	2
	PGS M320	2
	PGS F1300	2
	Hyster Sech	1
Towing Tractors	Toyota TD20	25
Prime Mover	CPW Trailers	10
	Toyota TD35	13
Trailers (5,000 kg.)	Hargill (Volvo)	12
	T.S. Engineering	34
	Besi Asia Engineering	21
Trailers (20,000 kg.)	Hargill Malaysia	6
	Rumpun Hijau	2
	Wagon Engineering	9
Trailers (40,000 kg.)	Wagon Engineering	11
Straddle Carriers	Valmet	4
	TCM	1

Pallets, Pallet Bridles, Wire Net Slings, Car Slings and Lorry Sling are also available for hire.

Storage Facilities:

Godown 1: 6,689 sq.m.	
Godown 2: 8,328 sq.m.	
Godown 3: 4,549 sq.m.	
Godown 5: 2,880 sq.m.	
Container Yard (laden)	768 ground slots (TEU).
Container Yard (empty)	499 ground slots (TEU).
Paved Area	4.20 acres (1.70 hect.)
Open Storage Area 1 (between bridges)	6,420 sq.m.
Open Storage Area 2 (opposite canteen)	6,770 sq.m.
Wharf Deck Storage Area (Northern extensions)	2,700 sq.m.
Ideal for sawn timber (7 days' free storage)	16,500 sq.m.

STEVEDORES: Stevedores provided by SPA; labour supplied for working in ships' holds and on ships' winches (if required). For cargo delivered direct ex-wharf consignee provides wharf labour; cargo for Sabah Ports Authority godown labour provided by Sabah Ports Authority.

Arrangement of stevedores should be made with 48 hours' notice to Shipping Agent. Average gang performance is 20 tons per gang hour for conventional traffic (excluding vehicles) and 40 tons per gang hour for pre-palletised cargo (excluding vehicles). Cargo work is carried out in 3×4 hour periods namely:

1st Period	0730 – 1130 hrs.
2nd Period	1300 – 1700 hrs.
3rd Period	1800 – 2200 hrs.

Work outside these hours is by prior application.

MEDICAL: Medical Officer of Health: Medical Services Department, Tel. 204098. Vaccination and inoculation (incl. Yellow Fever) can be arranged via Agent at any time during working days. In case of death on board, Agent and Harbour Master as well as the Police to be informed.

TANKERS: The port operates on a "first come-first served" basis in allocating the jetty but palletised vessels will get priority. Port Rules state that no other vessel allowed alongside when tanker discharging A-class products. As cargo vessels stop discharging at 2200 hrs., tankers are normally allowed to discharge A-class cargo until the following morning at 0600 hrs.

Berth is timber piled with concrete deck jetty, continuous 650 ft. by 40 ft. wide. Maximum displacement allowed – 13,000 tons. Maximum draft allowed – 22 ft.

Vessels berth either port or starboard side alongside according to the weather and tidal conditions prevailing at the time of berthing. Tankers berth on the outer side of the jetty only.

Fresh water available from wharf only. Vessels to provide hoses. Advance notice of requirements advisable. Rate 25 t.p.h.

Shore Line System:

(a) For Mogas, 1,440 ft.×8 in.

(b) For Jet A.1/Kerosene 1,450 ft.×8 in.

(c) For Gas oil/Light Fuel Oil, 1,380 ft.×8 in. hoses used to connect ship and shore.

(d) For Bitumen, 1260 ft.×8 in.

Sapangar Bay Oil Terminal: *Location:* 06° 05' 10" N., 116° 07' 19" E.

Pilotage: Pilotage at Sapangar Bay Oil Terminal is optional. Vessel's Master is advised to contact the Marine Department at Kota Kinabalu with any enquiries. Pilot boarding and anchorage position is at the Petroleum Anchorage at Lat. 06° 01' 00" N., Long. 116° 05' 15" E.

Navigational Aids: 5 channel markers with flashing lights are provided at Sapangar Bay. Three of the markers have red flashing lights and two have green flashing lights. The location of all the markers are as follows:

Marker No.	*Location*		*Light*
1	6° 4' 39.5" N.	116° 6' 6" E.	Red
2	6° 5' 15" N.	116° 6' 46" E.	Red
3	6° 5' 30" N.	116° 7' 19" E.	Red
4	6° 5' 19" N.	116° 7' 34" E.	Green
5	6° 4' 39" N.	116° 7' 5.5" E.	Green

Jetty Head: The jetty head/main berth is located at Lat. 06° 05' 10" N. and Long. 116° 7' 19" E.

Restrictions: Berthing and unberthing possible daily between 0600 hrs. and 1800 hrs.

Max. Size: 30,000 d.w.t. Max. draft 36 ft. Max. LOA 815 ft.

Radio/VHF: Radio/VHF facilities not available, terminal uses Kota Kinabalu Marine Tower facilities only.

Tugs: Tugs not available. Shipping Agents are required to contact Marine Department or private company.

Berthing: Length of jetty head 82.32 m. Depth alongside 12.2 m. Tidal rise 2.3 m.

Pipelines: There are a total of 8 common users' pipelines and 1 single user pipeline between the jetty head and the individual user's boundaries.

Discharge pipeline – common users	*Max. discharge rate*
10 in. dia. Gasolene (Premium and Regular)	500 t.p.h. at 150 p.s.i.g.
10 in. dia. Diesel (DE 1)	500 t.p.h. at 150 p.s.i.g.
10 in. dia. Jet A-1 (DPKE)	500 t.p.h. at 150 p.s.i.g.
10 in. dia. Domestic Kerosene (DKE)	500 t.p.h. at 150 p.s.i.g.
10 in. dia. Light Fuel Oil (LFO)	500 t.p.h. at 150 p.s.i.g.
3 in. dia. LPG (V)	500 cu.m.p.h. at 150 p.s.i.g.
6 in. dia. LPG (L)	500 cu.m.p.h. at 150 p.s.i.g.
Discharge pipeline – Single users	
10 in. dia. Bitumen (B)	500 t.p.h. at 150 p.s.i.g.
Bunkering pipeline – Common users	
6 in. dia. Diesel (DE 2)	200 t.p.h. at 150 p.s.i.g.

Bitumen and bunkers handled through hoses and all other products by marine loading arms.

Security: The Authority provides its own security personnel.

Fire Fighting Facilities: 2 Tower Fire Monitors are available at the Jetty Head which are capable of delivery of sea water or foam at 1,350 U.S.g.p.m. each. The monitors are hydraulic powered and electrically controlled remotely at the foam making plant about 150 ft. behind the jetty head.

Medical: Medical facilities only available at Menggatal town about 11 km. from Sapangar Bay.

Fresh Water: Fresh water is available at the jetty head at a pumping rate of about 50 tonnes per hour.

Slop Facilities: Not available.

Authority: Sapangar Bay Oil Terminal, Pejabat Pengurus Terminal, P.O.Box No. A/150, Teluk Sapangar, 89357 Inanam. Tel: (088) 411069, 411079, 411090, 411070. Telex: Saport MA80074. Contact: Terminal Manager.

DENSITY: Average 1020.

FRESH WATER: Can be supplied from wharf. Supply rate is 20 tons per hose per hour.

FUEL: Not available.

CONSULS: Denmark, Indonesia, Japan and United Kingdom.

REPAIRS: Some private firms and workshops undertake small engine and deck repairs in Kota Kinabalu.

DRY DOCKS: See "Labuan" and "Sandakan".

GANGWAY/DECK WATCHMEN: Not necessary. Agents may exercise option.

OPENING/CLOSING HATCHES: Normally by stevedores.

CERTIFICATES: Registry, Load Line, Radio, Safety Equipment and Derat Exemption.

CUSTOMS ALLOWANCES: Tobacco, wine and/or spirits: No control, up to discretion of Officer of Customs and Excise.

CARGO GEAR: Ship's gear used, also for containers ex-feeder ships and heavy lifts in major ports.

REPATRIATION: Normally arranged by Agents.

AIRPORT: Some airports in State are between 4 km. to 10 km. from town centre.

TIME: Local time is 8 hours ahead of GMT. No alteration to clocks.

HOLIDAYS: Cargo work can be arranged if necessary during official holidays but not for Hari Raya Puasa, Chinese New Year and Christmas Day. Also see "Sandakan".

POLICE/AMBULANCE/FIRE: Police/Fire, Tel: 088-212222/211837. Hospital, Tel: 088-218166.

SERVICES: Tank cleaning services can be arranged with Agents. Marine Department deals with compass adjustments.

BANKS: Sabah Bank Berhad, G.P.O. W.D.T.132, Sinsuran Complex, 88999 Kota Kinabalu, Sabah, Malaysia. Tel: 088-218911. Telex: MA 80694. Fax: 088-231184.

Public Bank Berhad, Lot G. 06-G. 12, Karamunsing Complex, 88300 Kota Kinabalu, Sabah, Malaysia. Tel: 088-239611. Telex: MA 30780. Fax: 088-236630.

United Overseas Bank, Block 37, Lot 1 Jln. Perpaduan, 88000 Kota Kinabalu, Sabah, Malaysia. Tel: 088-243821. Telex: MA 80388 Tyehua. Fax: 088-223911.

Sabah Development Bank Berhad, Wisma Tun Fuad Stephens, Kota Kinabalu, Sabah, Malaysia. Tel: 088-232177. Telex: MA 80214 Sabank. Fax: 088-222852.

Hongkong & Shanghai Banking Corp. Ltd., 56, Gaya Street, 88817 Kota Kinabalu, Sabah, Malaysia. Tel: 088-212622. Telex: HBC 80031. Fax: 088-2133041.

TELEPHONES: Available.

SHORE LEAVE: Crew members allowed ashore after inspection by Immigration Officer.

IDENTIFICATION CARDS: Not required.

GARBAGE: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Malaysian Ringgit (MYR$).

REGULATIONS: *(a)* Arrival and Departure:

1. The Owner or Agent of every vessel other than a small ship intending to call at a port shall, as soon as possible, and in any case not later than 36 hours prior to the estimated time of arrival of the vessel, give notice in writing to the Authority of such arrival and, if so desired, the requirement for a berth at a wharf.

2. The notice under this regulation shall be in a form prescribed by the Authority and shall contain full particulars regarding the cargo to be discharged and loaded, the embarkation and disembarkation of passengers, heavy lifts, special or perishable cargo, hazardous and dangerous goods (whether to be discharged at the port or not), and any other matters of importance relating to the working or safety of the vessel in the port.

3. The Master of every vessel entering or leaving a port between sunrise and sunset shall cause to be hoisted the national colours and the signal letters, if any, of the vessel. The national colours shall be exhibited from 0800 hrs. to sunset whilst the vessel remains in port.

4. The Master of every vessel arriving from outside the State of Sabah shall exhibit the Immigration and Quarantine signals contained in the First Schedule and shall also at the request of a Customs officer hoist the Customs signals. Such signals shall remain exhibited until the appropriate officer has given permission for them to be lowered.

5. No vessel shall approach within 600 ft. of any other vessel exhibiting the Immigration, Health or Customs signals.

6. No person other than a Pilot may board or disembark from any vessel until the vessel is cleared inwards and the Immigration, Quarantine and Customs signals have been lowered.

7. Every vessel entering a port shall be anchored or efficiently secured to a wharf or buoy before commencing the loading or discharging of cargo and/or the embarkation or disembarkation of passengers.

8. No vessel shall leave any port unless in possession of a valid Port Clearance issued by or on behalf of the Director of Marine.

(b) Special signals.

Significance	*By Day*	*By Night*
Immigration (for ships not carrying passengers)	International Code Signal "2 5"	Two green lights, 6 ft. apart, hoisted vertically where best seen.
Immigration (for ships carrying passengers)	International Code Signal "3 4"	Two green lights, 6 ft. apart, hoisted vertically where best seen.
Quarantine (vessel is Healthy request Pratique)	International Code Signal "Q"	Nil
Quarantine (vessel is suspect)	International Code Signal "Q Q"	A red light over a white light and a separate hoist of red light over a green light and hoisted vertically 6 ft. apart where best seen.
Quarantine (vessel is infected)	International Code Signal "Q L"	
Quarantine (not received Pratique)	Nil	A red light over a white light 6 ft. apart hoisted vertically where best seen.
Request Police Assistance	International Code Signal "S T"	A green over a white light, 6 ft. apart hoisted vertically where best seen.
Request Medical Assistance	International Code Signal "W"	A red light over a green light, 6 ft. apart, hoisted vertically where best seen.

(c) Priority. First come first served.

DELAYS: Due to weather conditions only.

GENERAL: Ship Chandlers: All kinds of stores and provisions available.

Recreation facilities. Two cinemas in town which show English films frequently. Three tennis courts available and football matches may be arranged. Sports Club is next to town Padang, about half a mile from wharf and golf and yacht clubs situated on beach at Tanjong Aru, 4 miles from town.

Surveyor: Harrisons & Crosfield (S) Ltd. are Lloyd's Sub-Agents and can arrange a surveyor provided prior warning is given.

Fumigation: No facilities.

AUTHORITY: Sabah Ports Authority, Bangunan Ibu Pejabat LPS, Jalan Tun Fuad, Tanjung Lipat, Karung Berkunci No. 2005, 88617 Kota Kinabalu, Sabah, Malaysia. *Tel:* Kota Kinabalu 256155, 252140. *FAX:* 223036. *Contact:* Mohd. Sahib Nawab Khan, Secretary. James Sabinus, General Manager.

Office of Port Manager, Wisma Pelabuhan, Jalan Tun Fuad, Tanjung Lipat, 88617 Kota Kinabalu. *Tel:* 088-211511. *FAX:* 088-254089. *Contact:* Peter Wong Lieng Kiong, Port Manager.

KUANTAN, Malaya: 03.58 N. 103.26 E. (See Plan)

LOCATION: Kuantan Old Port: 03° 50' N., 103° 19' E. Located at Kuantan River. Kuantan New Port: 03° 58' N., 103° 26.4 E. Located at Tanjung Gelang.

PORT LIMITS: The seaward limits of Port of Kuantan are contained between Lat. 4° 11' N. and Lat. 3° 45' N. and Long. 103° 34' E.

DOCUMENTS: Following documents should be kept ready for submission:

Document	*Number of Copies* *Port*	*Customs*	*Immigration*	*SD Police*	*Harbour Master*	*Port Health*
Declaration of Health	–	–	–	–	–	1
Crew List	1	1	3	1	1	1
Passenger List	1	1	1	1	1	1
Vaccination Certificates	–	–	–	–	–	Orig.
Derat/Derat Exemption Certificates	–	–	–	–	Orig.	Orig.
Transit Order	–	–	–	–	–	Orig.
Crew Identification Documents	–	–	Orig.	R	–	–
Stowaway List	–	1	1	1	1	1
Bonded Stores/Personal Effects	–	1	–	–	–	–
Port Clearance	P.C.	Orig.	–	–	Orig.	–
Import Manifest	2	2	–	–	–	–
Transhipment Cargo Manifest	–	2	–	–	–	–
Arms/Ammo List	–	1	–	1	–	–
Drugs List	–	1	–	1	–	–
Certificate of Registry	–	–	–	–	Orig.	–
Safety Equipment Certificate	–	–	–	–	Orig.	–
Loadline Certificate	–	–	–	–	Orig.	–
Radio Safety Certificate	–	–	–	–	Orig.	–
Ship Construction Certificate	–	–	–	–	Orig.	–
Tonnage Certificate	–	–	–	–	Orig.	–
Ship's Articles	–	–	Orig.	–	Orig.	–

Note: Numerals indicate number of copies.
'Orig.' indicates original
'R' indicates on request
'P.C.' indicates photocopy

Identification documents should be arranged in the same sequence as Crew List.

APPROACH CHANNEL: A straight 220 m. wide channel aligned on 311°(T) leads from Pilot Boarding Station to Harbour Entrance. Length of this channel is 4.8 km. The dredged length (6.5 cables) is marked by 2 pairs of light buoys. Leading lights mark the centre line of the channel with minimum depth of 13.0 m. During N.E. monsoons underkeel clearance (allowance) of 3.5 m. is required.

The following navigational aids are available within the port approaches:

Designation *Channel Buoys:*	*Lat.* *(N.)*	*Long.* *(E.)*	*Light Characteristics*
No. 1	3° 57' 02"	103° 27' 57"	Fl. G. 5 secs.
No. 2	3° 56' 52"	103° 27' 50"	Fl. R. 5 secs.
No. 3	3° 57' 26"	103° 27' 29"	Gp.Fl. (2) G.10 secs.
No. 4	3° 57' 03"	103° 27' 36"	Gp.Fl. (2) R.10 secs.
North Breakwater Lt.	3° 58' 11"	103° 26' 37"	Gp.Fl. (4) G.Ev 12 secs.
South Breakwater Lt.	3° 58' 05"	103° 26' 25"	Gp.Fl. (4) R.Ev 12 secs.
Front Transit Lt.	3° 58' 56"	103° 25' 59"	Fl. Amber 1.5 secs.
Rear Transit Lt.	3° 58' 57"	103° 25' 36"	Fl. Amber 3 secs.
Tg. Gelang Lt. Ho.	3° 57' 49"	103° 26' 19"	Gp.Fl. (3)W. 10 secs.

Tidal streams: – During HW, direction is Southward and during LW, direction is Northward. Tidal range is 3.5 m. at springs.

PILOTAGE: Pilotage is compulsory. Ships should advise their ETA at least 48 hours in advance by telegram or telex Portku Ma 50305, marked for the attention of Marine Manager. ETA Pilot Boarding Station (Tanjung Gelang Lt. Ho 305°×3.9 miles) is to be reported to Port Control by VHF Channels 12 or 16 at least 2 hours in advance.

Pilot boats are painted international orange with white superstructure and the word "Pilot" written in black letters. Ships awaiting Pilot should display international code flag signals and sound or flash "G", if specifically requested by the port. Adequate anchorage is available. Pilot Boarding Station: Lat. 03° 55' 33" N., Long. 103° 29' 30" E.

Ships are expected to come up to the Pilot Boarding Station for the Pilot, provide a good lee for the pilot boat and rig the pilot ladder, manrope and light (at night) in accordance with IMO requirements (SOLAS 1977) and to be clear of all discharges and outlets and all outboard fittings which might foul the pilot boat.

During very bad sea conditions small vessels may be requested to follow the pilot boat and to pick up the Pilot inside the enclosed harbour.

Arriving/Departing vessels are required to produce Port Clearance to the Pilot for verification.

ANCHORAGES: Reserved anchorages are available for ships carrying general cargo, explosives and petroleum products, suspect or unhealthy ships and men-of-war (B.A. Chart No. 1379). Pilotage is compulsory except for men-of-war. Drafts of up to 11.5 m. can be accommodated safely.

RESTRICTIONS: The port is open 24 hours, but is subject to occasional restrictions due to weather during monsoon months of November – January or other similar constraints. Passage of ships drawing more than 11 m. is subject to tide.

MAX. SIZE:

Berth	*Length* (m.)	*Draft* (m.)	*Displacement* (tonnes)
Container/Ro-Ro	200	11.2	45,000
Multi-purpose	525	11.2	45,000
Palm Oil Berth (Outer)	250	11.5	54,000
Palm Oil Berth (Inner)	150	8.0	8,000
Mineral Oil Berth	150	8.0	8,000
Service Jetty	140	4.0	6,000
Berth 1A	70	8.0	8,000
MTBE Terminal *	240	11.4	53,000
Liquid Chemical Berth	240	11.4	54,000

* The Methyl Tertiary Butyl Ether Terminal was completed in 1995. It is a dedicated berth owned and used by the national petroleum company, Petronas.

HEALTH: Healthy vessels are brought to berth. Suspect or infected vessels are taken to Quarantine Anchorage to await clearance from Port Health Authorities. Automatic health clearance is not granted.

RADIO: All communication must be routed through Penang Radio, which provides telegram, telex and telephone facilities.

VHF: 24 hour watch is maintained on VHF Channel 12 and 16 by the Port Control, additional operational channel is Channel 20.

At least 2 hours before arrival at Pilot Station, following particulars are to be conveyed by VHF: Name, official number, nationality, g.r.t., n.r.t., LOA, Summer d.w.t., deepest arrival draft and arrival displacement, quantity and commodity of cargo onboard and dangerous cargo, if any. Last port of call, last port clearance number and date, ETA Pilot Station and special berthing requirements, if any.

Ships sailing are required to confirm their readiness by displaying "Pilot Required" signals and VHF report to Port Control at least 2 hours in advance.

Tugs and pilot boats work on Channel 12 but can switch over to other channels if required.

TUGS: The port operates 2 tugs of 2,800 b.h.p. Ropes are used from the ship or the tug as demanded by situation. Tug operations on VHF Channel 12.

BERTHING: Total quay wall length is 725 m. divided into 4 berths numbered from seaward. Berth Nos. 1, 2 and 3 handle general and bulk cargoes of all types and are provided with transit sheds and apron width of 25 m. Berth No. 4 handles container and Ro-Ro cargoes.

A crane is provided at Berth No. 4 to handle containers, heavy cargoes and bulk cargoes with maximum lift of 40 tons. A new multi-purpose crane, which can handle containers and heavy lifts up to 40 tons maximum, is available.

EQUIPMENT: The port has adequate numbers of forklifts, tractor heads and trailers for handling general cargo and containers.

4 front loaders/reach stackers with topping-lift to handle 20 ft. and 40 ft. containers; 2 mobile cranes with lifting capacity of 11 tons and 35 tons; 40 forklifts with lifting capacity ranging from 2 tons – 8 tons; 3 tugmasters; 4×40 ft. container trailers; 12 prime movers and 27 flatbed trailers of 20 – 40 tonnes capacity are available.

BULK CARGO FACILITIES: Bulk cargoes can be handled for direct delivery at any of the berths using portable hoppers and conveyors.

SPECIALISED CARGO HANDLING FACILITIES: Berth No. 4 (length 225 m.) is designed for container handling and other cargoes requiring open storage with priority berthing for container carriers. A container handling crane has been commissioned. Ro-Ro ramp (stern ramp) is fitted at the end of Berth No. 4.

Ro-Ro cargoes can also be handled by vessels fitted with side ramps.

DENSITY: 1025.

MEDICAL: Hospital and doctor/dentist are not available at the port. Government clinic and doctor are available in Balok about 5 km. away from Kuantan Port. Government hospital and doctor/dentist are available in Kuantan Town, which is about 25 km. from Kuantan Port. Private dentists and doctors are available at Balok and also in Kuantan Town.

TANKERS: Palm Oil Berth (POB) and Mineral Oil Berth (MOB) handle bulk edible oils (250-300 t.p.h.) and petroleum products (200 t.p.h.) respectively. Loading hose diameters are 10 in. for crude palm oil, 8 in. for refined palm oil and 6 in. for petroleum products.

FRESH WATER: Available at all berths at a rate of 25 t.p.h. Water barge supply not available.

FUEL: Vessels up to 177 m. length, subject to max. draft 9.0 m., can bunker at Mineral Oil Berth for diesel. Diesel can also be supplied through road tankers at all general cargo berths. Bunkering facilities for Heavy Fuel Oil are not available to date.

SURVEYORS: Caleb Brett, S.G.S. and Ritchie and Bissett maintain offices in Kuantan. Other surveyors may be contacted in Kuala Lumpur, Port Kelang or Singapore.

HATCHES: Mechanical hatch covers must be operated by ship's crew. Stevedores handle 'lift and place' type covers including beams, if any.

CUSTOMS ALLOWANCES: Cigarettes, tobacco, wine and liquor allowed by Customs per day as follows:

(i) Spirits/Liquor – 0.125 qt. per person per day or;
Wine – 1 qt. per person per day or;
Beer/Stout – 1 qt. per person per day.
(ii) 25 cigarettes per person per day or;
8 cigars per person per day or;
1 oz. tobacco per person per day or;
1 oz. snuff per person per day.

CARGO GEAR: Normal cargo handling gear is provided by stevedores but ships have to provide heavy lift and special cargo gear.

REPATRIATION: Facilities are available.

AIRPORT: Airport handling domestic flights is 41 km. (25 miles) from the port and international connections are available at Subang Airport, Kuala Lumpur and Singapore. It is also possible to drive to Subang Airport (5 hours) and Singapore Airport (7 hours). Taxis and buses operate at frequent intervals.

TIME: GMT plus 8 hours.

HOLIDAYS: Port works 365 days a year.

There is no extra charge for public holidays. The rate imposed is the normal rate as for any other working days.

POLICE/AMBULANCE/FIRE: Fire and ambulance assistance is provided by the Port Fire Department, Tel. (09) 433201 ext. 333, or (09) 433282. Nearest Police Station is at Beserah, Tel. (09) 587222.

TELEPHONES: Public telephone available in Port Area and can be used for international calls.

BANKS: Bank Bumiputra Sdn. Bhd. operates a branch in Kuantan Port providing full banking facilities.

STORING: Ships' stores can be taken over the wharf. Lorries can go alongside except at dolphin berths where they have to park about 100 m. away. Forklifts are available. Shore gangs may be used with prior arrangement.

GARBAGE DISPOSAL: Collection service available. Drums are provided. Request to be made via Agents at the berth meeting. Charges are as follows:

Ships under 750 g.r.t.: $10.00 per vessel per day or part thereof.

Ships 750 g.r.t. – 15,000 g.r.t.: $30.00 per vessel per day or part thereof.

Ships over 15,000 g.r.t.: $50.00 per vessel per day or part thereof.

Collection done in the morning only.

SHORE LEAVE: Ship's crew are permitted to land and are required to carry their passports.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Malaysian Ringgit (MRG).

Bank Bumiputera accepts all major currencies. Bank sited at the port.

REGULATIONS: No special regulations.

DELAYS: Average time from Pilot Station to berth is 1.5 hours. Minimal delay may be experienced in commencement of cargo loading due to Customs and Immigration formalities, normally 30 minutes.

GENERAL: *Signals:*

Significance	*By Day*	*By Night*
1. Immigration and Customs (for ships not carrying passengers)	International Code Signal "25"	Two all-round green lights, in vertical line, 2 m. apart seen all round the horizon at a distance of at least 3 km.
2. Immigration and Customs (for ships carrying passengers)	International Code Signal "34"	Two all-round green lights, in vertical line, 2 m. apart seen all round the horizon at a distance of at least 3 km.
3. Quarantine (vessel is healthy requests Pratique)	International Code Signal "Q"	Two all-round lights in a vertical line 2 m. apart, the top of which is red and the bottom white, seen all round the horizon at a distance of 3 km.
4. Quarantine (vessel requires health clearance)	International Code Signal "QQ"	Two all-round lights in a vertical line 2 m. apart, the top of which is red and the bottom white, seen all round the horizon at a distance of 3 km.
5. Quarantine (vessel is infected)	International Code Signal "QL"	Two all-round lights in a vertical line 2 m. apart, the top of which is red and the bottom white, seen all round the horizon at a distance of 3 km.
6. Request Police Assistance	CB 3	Two all-round lights in a vertical line 2 m. apart, the top light being red, and the lower light white, seen all round the horizon at a distance of at least 3 km.
7. Port is closed and vessel not allowed to enter the breakwater mouth	Answering Pennant	Two all-round lights in a vertical line 2 m. apart, the top of which is green and the bottom red, seen all round the horizon at a distance of 5 km.

Supplies: Provisions are available in Kuantan Town. General stores can be arranged through Ship Chandlers/Agents. Bonded Stores are not available.

AUTHORITY: Kuantan Port Authority, Tanjung Gelang, P.O.Box 161, 25720 Kuantan, Pahang, Malaysia. *Tel:* (09) 58-33201 (10 lines). *Telex:* Plara Ma 50234. *FAX:* (09) 58-33866. *Contact:* Tuan Haji Mohamed Awang Tera, General Manager. Tuan Haji Abdul Rauf Noh, Deputy General Manager. Wong Soon Fah, Traffic & Commercial Manager. Khairul Anuar Abdul Rahman, Corporate Services Manager. Captain Khudzri Mohamad, Marine Manager (Telex: Portku 50350. Fax: (09) 433588).

AGENT: Pesaka Jardine Shipping Agencies Sdn. Bhd., 1.5 and 1.6 Bangunan Perdagangan, Lembaga Pelabuhan Kuantan, 25720 Kuantan, Pahang Darul Makmur, Malaysia. Tel: 609-5833967, 5833893. Telex: MA50021. Fax: 609-5833539. Cables: "Jarship Kuantan".

Associated with Jardine Shipping Agencies.

KUCHING, Sarawak: 01.34 N. 110.21 E. (See Plan)

DOCUMENTS:

Port Clearance to be surrendered to Customs when boarding.

Crew Lists and Passenger Lists, 2 copies for Immigration Department, 2 copies for Kuching Port Authority, 3 copies for Customs, 1 copy for Port Health Officer.

List of Ship's Stores (2 copies for Customs).

List of Ammunition (3 copies for Customs).

Health Documents (Vaccination Certificates and Cholera Inoculation Certificates to be examined by Health Inspector).

Manifests (3 sets for Customs, 5 sets for Kuching Port Authority, 1 set for Health Inspector).

Ship Stowage Plan (2 copies for port).

Customs: Permit to go alongside a legal landing place or an ocean-going vessel within the port limits is required by Customs 24 hours prior to berthing.

APPROACHES: The Channel from the Pilot Station to the Wharf is buoyed and is restricted by the presence of two bars. The outer bar, of sand bottom is located about 2 miles East South East of Tg. Po Lighthouse with a depth of 5.2 m. above Chart Datum and the inner bar which lies approximately one nautical mile East by South of Tg. Muara Tebas, has a depth of 5.1 m. above Chart Datum.

Recent survey indicates that shoaling has occurred in certain parts of the river.

Vessels drawing more than 5.0 m. (especially during the N.E. Monsoon, October to March) on account of the swell, are advised to ensure an under-keel clearance of at least 2.0 m. when approaching and crossing the bars.

PILOTAGE: Pilotage services are provided by the Marine Department. Application for pilots could be made by giving at least 24 hours' notice of arrival by telegram to "Shipping Kuching" or telex to MA 70933. Vessels are requested to report to Marine Signal Station on Channel 20 at least 2 hours before arrival and listen on the above channel for information on pilotage and berthing information.

The Pilot Station is at one mile North East of Tanjong Po Lighthouse at Latitude 01° 44.2' N., Longitude 110° 31.8' E. During the North East Monsoon (October to March) the station is moved to the Embang and Senari Leads at location 01° 39.3' N., 110° 31.3' E. (Buoy 6).

ANCHORAGES: The existing Explosives Examination Anchorage is shifted temporarily to the bay opposite Tanjong Renard owing to the wreck at Kampong Sijingkat and is bounded by the following co-ordinates:

(i) 01° 36.60' N. 110° 27.54' E.
(ii) 01° 36.60' N. 110° 27.35' E.
(iii) 01° 35.70' N. 110° 27.75' E.
(iv) 01° 35.26' N. 110° 27.62' E.
(v) 01° 35.05' N. 110° 27.62' E.

Vessels loading logs under pilotage may anchor at the prohibited anchorage which is bounded by the following co-ordinates:

(i) 01° 35.10' N. 110° 27.22' E.
(ii) 01° 35.10' N. 110° 26.55' E.
(iii) 01° 35.35' N. 110° 26.55' E.
(iv) Along the coast of Batu Blat to the explosive and dangerous goods anchorage at Lat. 01° 34.69' N., 110° 24.63' E.
(v) Across the River to Tanjong Bako at 01° 34.55' N., 110° 24.86' E.
(vi) Along the coast to Tanjong Bako, Tanjong Buaya, Tanjong Sedup and the White Disc Beacon at 01° 34.86' N., 110° 27.22' E.

Vessels drawing less than 4.0 m. draft may anchor at Beting Tanju which is bounded by the following co-ordinates:

(i) 01° 35.55' N. 110° 27.46' E.
(ii) 01° 35.10' N. 110° 27.22' E.
(iii) 01° 35.10' N. 110° 26.55' E.
(iv) 01° 35.35' N. 110° 26.55' E.

The Explosive and Dangerous Goods Anchorage is 16 miles from the Pilot Station and is suitable for one vessel of not more than 100 m. in length.

RESTRICTIONS: Tide restriction and max. draft 5.18 m. at high tide. Not advisable to enter port at Tanah Puteh at night.

MAX. SIZE: Max. permissible length overall for vessel entering port at Tanah Puteh is 100 m. and max. draft 5.18 m. Max. overall length for oil carriers proceeding to oil installation at Baiwak Wharf, Pending Point is 110 m., and max. draft 6.4 m. At Pelabuhan Datuk Sim Kheng Hong (Pending), the LOA of ship permissible is 175 m. with a max. draft of 7.62 m. Max. permissible length for Sejingkat Terminal is 115 m. and max. draft is 7.5 m.

RADIO: ETA cable to ship's Agent can be sent to Department of Telecommunications, Kuching. Code words, Kuching Radio.

VHF: All ships equipped with the Hague Plan Radio Equipment and within 40 km. to 50 km. of the Kuching Port will be able to establish communications on the following channels:

Channel No. 16 – Safety, calling and distress: A 24 hour listening watch is maintained on this channel by Telekom Malaysia in Kuching. (Call sign: Kuching Exchange).

The same channel is also manned 24 hours by Jabatan Laut Sarawak or Marine Department (Call sign "Marine Signal") for search and rescue operations, including oil pollution control.

Channel No. 26 – All vessels fitted with Auto-link RT can direct dial the subscriber exchange without operator assistance.

Channel No. 24 – All ships after establishing initial contact with Kuching Exchange on Channel 16 can communicate to telephone subscribers via this channel.

Channel No. 20 – A 24 hour watch is maintained by Jabatan Laut (Call sign "Marine Signal") for pilotage, river traffic control, berthing information, search and rescue, oil pollution control. For search and rescue, the Marine Department also operates on HF 8124 (Call sign "Lima Kuching") and 2182 for emergency calls.

Channel No. 18 – Port Operations. For berthing and unberthing, loading and unloading of cargoes.

TUGS: 2 × 1,000 h.p. and 1 × 164 h.p.

BERTHING: Application for berth must be made by Agents at least 24 hours before berthing.

Tanah Puteh Terminal 244 m. wharf of the deck on piles with shore-bridge type with 13,600 sq.m. of covered storage space and 14,864 sq.m. of open storage space, depth at lowest water 5.18 m.; at *Pending Terminal* 613 m. marginal wharves, depth at lowest water 8.53 m. with 26,800 sq.m. covered storage space and 26,743 sq.m. of open storage. Feeder Container Services are available but ship must provide lift-on/lift-off gear for ship/shore and vice versa operations. Ro/Ro ramp, pontoon (40 m.×25 m.) and berth located at Eastern end of Pending Terminal.

Shore based container handling equipment:

Haulage Tractor: 2×15,000 kg. 5th wheel.
Terminal Tractor: 4×15,000 kg. 5th wheel.
Towing Tractor: 4×45,000 kg. drawer pull.
Semi-Trailer: 40 ft. – 9×35,000 kg.
40 ft. – 4×50,000 kg.

Skeletal: Drawbar Trailer: 20 ft. – 5×25,000 kg.
Drawbar Trailer: 40 ft. – 3×50,000 kg.
FLT c/w 20 ft. – 40 ft. Spreader: 3 high 1×42,000 kg.
FLT c/w 20 ft. – 40 ft. Spreader: 3 high 1×32,000 kg.
FLT c/w 20 ft. Spreader: 3 high 1×32,000 kg.
Reach Stacker c/w 20 ft. – 40 ft. Spreader: 4 high 1×41,000 kg.
Reach Stacker c/w 20 ft. – 40 ft. Spreader: 5 high 2×45,000 kg.
Empty Handler c/w 20 ft. – 40 ft. Spreader: 5 high 1×7,500 kg.

Sejingkat Terminal: 125 m. long by 20.8 m. wide reinforced concrete wharf deck with two approach driveways, each measuring 25 m. × 8.0 m. with 1,872 sq.m. of covered storage space and 12,070 sq.m. open storage yards. This terminal is designed to cater for vessels of up to 5,000 d.w.t. and a maximum draft of 6.7 m. at low water level.

CRANES: *Cargo Handling Equipment:* 15 units towing tractors. 1×8 tonne forklift truck. 5×6 tonne forklift trucks. 57×3 tonne forklift trucks. 7×3 tonnes low-mast LPG forklifts. 4×3 tonnes forklift trucks with paper-roll clamp. 25 units trailers (3 – 20 tonnes). 2×35 tonnes mobile cranes.

BULK CARGO FACILITIES: Handled at Pending Terminal and worked by contract gangs.

STEVEDORES: Normal port operating hours are as follows:

(a) Discharging and loading of cargoes: Weekdays including Saturdays and Sundays:

1st Shift: 0730 – 1530 hrs.
2nd Shift: 1530 – 2300 hrs.
3rd Shift: 2300 – 0600 hrs.

Fridays:

1st Shift: 0730 – 1130 hrs., 1430 – 1500 hrs.
2nd Shift: 1530 – 2300 hrs.
3rd Shift: 2300 – 0600 hrs.

The port works 365 days a year, except the 1st Shift of: Chinese New Year Day, Hari Raya Puasa and Gawai Day.

(b) Delivery of Cargoes/Receiving of export cargoes: Monday to Thursday: 0730 – 1200 hrs., 1300 – 1645 hrs.
Fridays 0730 – 1130 hrs. – 1430 – 1645 hrs.
Saturdays 0730 – 1145 hrs.

Arrangements can be made for delivery of perishable cargo during the weekends and public holidays provided prior approval of the Customs Department is obtained.

Tractor/trailer trains are used for transfer of cargoes within the port area while forklift trucks are used for stacking palletised/unitised cargoes and storage pallets.

Cargo handlers who are stevedores as well as longshoremen working under a fully integrated gang system are employees of the Authority. The Authority receives gang orders daily between 1400 hrs. and 1500 hrs. on normal working days and between 1000 hrs. and 1030 hrs. on the days preceding Sundays and public holidays. Gang orders are placed on a shift basis.

MEDICAL: Necessary for Agents to receive advance notice of required medical attention at least 24 hours before arrival. Hospital facilities available. Crew should possess Cholera inoculation and Vaccination Certificates.

TANKERS: Tankers berth at Biawak Oil Jetty for discharge of their oil. Diameter of pipeline 6 in. Two tankers can berth at a time and max. draft is 6.4 m.

Berthing carried out near to the time of High Water. Starboard side alongside using port anchor. No berthing during darkness. Unberthing on flood tide. Mooring boat required, supplied by Kuching Port Authority.

Shorelines:

Mogas and Avgas	Single 8 in. discharging line.
Gasoil	Single 8 in. discharging line.
Jet A1	Single 8 in. discharging line.
Bitumen 80/100	Single 8 in. discharging line.
LPG	Single 4 in. discharging line, 3 in. vapour line.
Light F.O.	Single 6 in. discharging line.

DENSITY: 1008.

FRESH WATER: Available and can be supplied to vessel alongside Authority's Wharf by hose about 25 t.p.h.

FUEL: High-speed diesel fuel oil can be supplied to vessel by making arrangement with either Petronas, Shell or Esso Oil Installation at Biawak.

CONSULS: Indonesia and China.

REPAIRS: Minor repairs to vessels only.

DRY DOCKS: Not suitable for sea-going vessels. Coastal vessels up to 220 ft. long.

SURVEYORS: Cargo Inspections:
Omix (M) Sdn. Bhd., Saybolt (M) Sdn. Bhd.

GANGWAY/DECK WATCHMEN: Usually available. Ship should also provide own watchmen.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: Ship should possess all relevant certificates on board in case required for reference.

CUSTOMS ALLOWANCES: Tobacco: 1 oz. tobacco or 25 cigarettes or 8 cigars permitted for each crew member daily. Up to three days ration in port. Wines and/or Spirits, 0.125 qt. bottle of spirits or 0.25 qt. of beer or 1 qt. of wines is permitted for each crew member daily. Up to 3 days' ration in port.

CARGO GEAR: Ship provides own gear especially for handling heavy lifts, vehicles, etc. Rope slings, pallets and safety nets, etc., will be provided by the Authority.

REPATRIATION: Facilities available.

AIRPORT: Airport about 10 km. from port at Tanah Puteh. It is served by MAS which operate daily flights to Kuala Lumpur, Singapore and Kota Kinabalu.

TIME: Local time GMT plus 8 hours.

HOLIDAYS: Port work can be arranged on all official holidays on overtime rates except Chinese New Year Day, Hari Raya Puasa Day, International Labour Day (1st May), Dayak Festival Day (1st June), and Christmas Day, during which the port at Tanah Puteh and Pending will be closed.

POLICE/AMBULANCE/FIRE: Police/Ambulance. Tel: 999. Fire. Tel: 994.

SHORE LEAVE: Crew members are allowed ashore provided permission is granted by Immigration Department.

IDENTIFICATION CARDS: Required.

GARBAGE DISPOSAL: Whilst at berth, garbage service can be arranged with the Port Authority.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: There is no Seaman's Club. However, the Port has a Social & Recreational Club whose members are employees of the Port. Games, e.g. football, basketball, volleyball, tennis, badminton, table-tennis, chess, etc. could be arranged with the Club. There is a coin-operated public telephone from which international calls could be made in the Operations Area. Postage and church services are located in the city and are within a radius of 10 km. from the Port. The ship's Agent or Port Authority would be most willing to help with any arrangements.

CURRENCY: Malaysian Ringgit (MYR$).

REGULATIONS: Refer to Sarawak Merchant Shipping Ordinance and Kuching Port Authority's Ordinance and Bye-laws.

DELAYS: At present ships can normally secure a berth within 24 hours of arrival if tide is right.

DEVELOPMENTS: Site preparation works involving site clearance and land reclamation, for the new deepwater port of Kampong Senari, covering an area of 120 acres under Phase I has been completed. Main civil work is now under construction and scheduled for completion by 1998 (See "Plan").

AUTHORITY: Kuching Port Authority, P.O.Box 530, 93710 Kuching, Sarawak, Malaysia. *Tel:* Headquarters and Pending Terminal – 082-482144 (10 lines). Tanah Puteh Terminal 082-333122 (5 lines). *Telex:* 70420 MA Kuport. *FAX:* 082-481696, 334776. *Cables:* Kuport, Kuching. *Contact:* The General Manager.

KUNAK, Sabah: 04.41 N. 118.15 E. **(See Plan)**

Sabah Government Requirements

(a) Customs will treat port as sufferance wharf as defined in Section 2 of Customs Ordinance (Cap. 33), with control from Lahad Datu. Agent will be required to make application to Customs for sufferance facilities in respect of each vessel, on appropriate form. Officer-in-Charge of Customs, Lahad Datu will arrange to send a supervising officer with ship; this officer will attend vessel's inward and outward Customs clearance. Transport, food and shelter of Customs Officer are for vessel's account, though it is envisaged that his transport can be concurrent with boarding and departure of the Pilot, i.e. per Marine Department launch.

(b) Immigration requires that vessel shall be cleared inwards and outwards in Lahad Datu. As Marine Department launch will be required to run mooring lines at Kunak, it will not be available to transport Immigration Officer who will *not* accompany vessel. His transport will therefore be a matter for Agent to arrange.

(c) Medical will grant Pratique by radio by Medical Officer, Lahad Datu: whose right to carry out full inspection is not affected thereby. This will only be exercised, it is anticipated, when vessel has called at an infected port within prescribed period. Radio messages should therefore give this information, e.g. "Malay Maru Hongkong Twentieth Tokyo Thirtieth Manila Second All Well Request Pratique Master".

(d) Marine Dept. In the case of a vessel arriving from foreign ports will ultimately place a Pilot on board in Lahad Datu, if requested.

(i) Pilot will receive vessel's arrival report and sight her last port clearance. Pilotage will commence at any such point on route as Master may request, at rates laid down in the Merchant Shipping (Fees) Regulations, 1961. The Pilot launch carrying berthing crew will arrive in advance of vessel at Kunak and assist in making fast.

(ii) As there is no accommodation available at Kunak, the Pilot it is hoped, can be accommodated on board ship during her stay.

(iii) Return to Lahad Datu will follow as in sub-para (i) with the Pilot issuing Port Clearance on completion of Immigration formalities.

(iv) Requests for Pilot should be made *at least* 24 hours in advance to Marine Sandakan via Sandakan Radio, 9WHZ1. Initially this service will be offered from Sandakan, and ships proceeding Kunak from there will retain the Pilot on board. Ships from foreign ports will be served by air; charges to their account. There is now a Pilot based at Tawau, who will berth vessels at Kunak.

For information the port limits of Lahad Datu are "a line drawn from Tanjong Melandong on the South-west point of Darvel Peninsula to the most Westerly point of Sakar Island and thence to the mainland, etc." From this it can be seen that large vessels need not enter the narrow waters of the inner bay.

MAX. SIZE: *Palm Oil Jetty:* 28,000 d.w.t.

BERTHING: 1. Wharf consists of:

(a) A raised cement platform 30 ft.×30 ft. on wooden piling.
(b) Three lazy piles with rubber fendering situated 20 ft. from the front edge of the platform and 125 ft. in each direction from the centre of the platform.
(c) Two cement mooring dolphins 20 ft.×20 ft. situated 350 ft. each side of the platform and 50 ft. from the rear edge of the platform.
(d) A metal jetty approach 10 ft. wide×350 ft. long.
(e) A coral bund 24 ft. wide at the base and approximately 16 ft. wide at the top.
(f) Mooring Buoy placed 600 ft. off head of jetty.

2. Depth of water alongside: Minimum depth of water outside the lazy piles is in excess of 35 ft. datum.

3. Bulk oil will be pumped from installation along a metal pipe via coral bund and metal jetty. At a point approximately 15 ft. before cement platform the pipe bifurcates and the two terminals are situated two-thirds the way along each side of platform. To these terminals will be attached a flexible steel hose for connection with ships. Hose will be provided by shippers, and is 400 ft. long if required.

4. Pumping capacity. Maximum overall rate of pumping palm oil will be 100 t.p.h. Palm oil pipe is of 6 in. diameter.

AUTHORITY: See "Kota Kinabalu".

Thomas Soon Min On, Port Manager, Tawau.

LABUAN, Sabah: 05.17 N. 115.15 E. (See Plan)

Island of Labuan is 12 miles long and 7 miles wide lying off N.W. coast of Borneo at entrance at Brunei Bay. It is off the State of Sabah and is only 4.5 miles from mainland and some 77 miles from the State Capital of Kota Kinabalu.

DOCUMENTS:

(a) On arrival, when vessel has arrived from ports outside Sabah, Health Officer, Boarding Officer, Customs and Immigration or their representatives will board vessel. Agent cannot board until ship has been cleared.

(b) Health Officer will require Maritime Declaration of Health duly completed together with 1 copy of Passenger List and 1 copy of Crew List whenever vessel's last port of call has been outside State of Sabah.

(c) Boarding Officer will require 1 copy of Shipping Arrival Report, 1 copy of Passenger List and 1 copy of Crew List. He will also inspect various Certificates such as Load Line, Life Saving Equipment, etc.

(d) Following is summary of documents required:

	Customs	*Immi-gration*	*Boarding Officer*	*Agent*	*M.O.*
Passenger List	2	2	1	1	1
Crew List	2	2	1	1	1
Stores List	2	—	—	1	—
Maritime Declaration of Health	2	—	—	—	1

(e) To be supplied before Departure:

Manifests as necessary.

Master's copies of Bills of Lading.

Port Clearance.

Customs Clearance.

Certificate of *(a)* Buoys and Lights Dues and *(b)* Port and Harbour Dues.

PILOTAGE: Pilot available if adequate notice given but pilotage not compulsory. Vessels normally berth between 0600 hrs. and 1800 hrs., unberthing at any hour, day or night, provided that notice of such movements received between 0800 hrs. and 1600 hrs.

Pilotage for SBM berthing is provided by Shell Berthing Master.

ANCHORAGES: Good anchorage for large vessels in a least depth of 5.75 fathoms South and S.E. of Beacon No. 6.

Quarantine: Vessels arriving from an unhealthy port should proceed to Quarantine Anchorage for Pratique. This anchorage is bounded on North by a line drawn 090° from Harbour Shoal Beacon to Eastern Harbour Limit; South by a line drawn between S.W. point of Papan Island and Enoe Beacon; on West by Eastern Boundary Limit of Explosives Anchorage (as under). If vessels arriving from healthy port and healthy themselves, they need not proceed to Quarantine Anchorage.

Explosives: No vessels having explosives on board may come or remain within 500 yards of shore or of any other vessel; such vessels shall fly Gunpowder Flag at foremast, and should anchor in Explosives Anchorage which is within a line drawn from Enoe Beacon to Harbour Shoal Beacon thence in 090° for 6 cables thence in 180° direction until it joins line between S.W. point of Papan Island and Enoe Beacon.

Dangerous Petroleum: A vessel having dangerous petroleum on board shall anchor within a line drawn from Harbour Shoal Light Beacon in a 360° direction for 2,500 ft., thence in a 090° direction for 3,600 ft., thence in a 180° direction to join Northern Boundary Limit of Explosives Anchorage.

Prohibited Anchorage: No vessel shall anchor within 2,000 ft. from the light of Southernmost dolphin of Liberty Pier.

TUGS: One tug, 750 b.h.p., twin screw, available to assist with berthing and unberthing.

BERTHING: 1. Wharves:

(a) Liberty Wharf: A permanent concrete wharf, measuring 800 ft. with dolphins 100 ft. off each end – least depth of water is 28.5 ft.

(b) Victoria or Small Ships' Wharf (marked on Chart as H. & C.'s Wharf): A wooden structure – length 270 ft. with min. depth of 12 ft. No longer usable except by kumpits. No vehicles allowed on wharf.

(c) New Shell Installation Wharf: Concrete jetty 170 ft. long with 2 dolphins at each end with a total length between of 700 ft., least depth of water 31 ft.

Shore Lines:

1. For Mogas 8 in. × 1,200 ft.
2. For D.P. Kero 8 in. × 1,250 ft.
3. For Gasoil 8 in. × 1,350 ft.
4. For Fuel Oil 8 in. × 1,350 ft.

8 in. hoses used to connect ship and shore.

(d) Brown & Root Jetty: A timber decked jetty with following dimensions:

Length of main jetty – 160 ft., width 40 ft.
Length of causeway – 476 ft., width 22 ft.
Least depth alongside approximate 28 ft.
Max. load (proven) – 800 lb./sq.ft.
Max. single approximate 100 short tons.

2. Buoys: No mooring buoys in Labuan.

3. Monsoons: N.E. monsoon prevails from December to April and S.W. monsoon from middle of May to middle of October. Harbour is well sheltered from both monsoons.

4. Flags and Berthing Signals:

(a) When entering port vessel should fly Signal Letters, Mail Flag if applicable, and "G" flag if requiring Pilot, and also Quarantine Flag.

(b) Berthing Signals: Following berthing signals will be used at Labuan and will be displayed from Flagstaff in Harbour Office in vicinity of Liberty Wharf, Victoria Harbour. A red and white chequered flag and International Code numbered pendant will indicate berth number allocated. Berth numbers have been allocated as follows:

(c) Berth and Pendant No.

1. Esso Wharf.
2. LCT. Landing Ramp.
3. Victoria Wharf (small ships) S.E. Section.
4. Old Liberty Wharf (inner section).
5. Old Liberty Wharf (outer section).
6. New Liberty Wharf (inner section).
7. New Liberty Wharf (outer section).
8. Brown & Root Jetty.
9. Shell Installation Jetty.
10. Anchor.

On receipt of berthing signal, vessel should acknowledge in the usual manner with the answering pendant and proceed to berth.

(d) Tidal Signal: A tidal signal consisting of a cone and ball is hoisted in conjunction with berthing signal showing state of tide at berth indicated. A cone point down signifies flood tide (West-going), a cone point up ebb tide (East-going), a ball slack water.

(e) Facilities: Max. single load without special precautions on Old Liberty Wharf is 25 tons and New Liberty Wharf is 650 lbs./sq.ft. i.e. 180 tons four axle vehicles. Any load over this figure will require to be distributed over two or more panels of 10 ft. by 10 ft. each according to weight. However, special arrangements must be made prior to discharge, and Agent should be consulted in advance.

RESTRICTIONS: Tides. Subject to diurnal inequalities but usually one HW and one LW a day. Average HW is 6.5 ft. and LW 3 ft. above datum of soundings.

Clearance: Port is open from 0600 hrs. to 1800 hrs. although vessels can be cleared later than 1800 hrs. on application provided they are sighted from Papan Lighthouse at 1800 hrs.

HEALTH: See "Regulations" and "Anchorages".

RADIO: Information required before ship's arrival. ETA Labuan, with as much prior notice as possible. Number of gangs required. Quantity of fresh water required. Whether Pilot required for berthing.

Labuan has no radio facilities and messages are received via Kota Kinabalu, Miri, Singapore, etc.

Port VHF Service operates on Channels 16 and 12, between 0530 hrs. and 2400 hrs. Also see "Tankers".

BULK HANDLING FACILITIES: Rancha Rancha Industrial Estate: One jetty for iron ore carriers up to 150,000 d.w.t. nearing completion. Unloading rate 2,000 t.p.h.

CARGO: 1. Inward: Inward cargo is tallied out of ship on to wharf or into lighter. Damaged cargo is surveyed on the spot, otherwise no liability of the vessel is acknowledged. Discharge is carried out after permission has been obtained from Customs after manifest of inward cargo has been deposited. Cargo is delivered to consignees against production of relative Bill of Lading. Ship's responsibility to consignees ceases at ship's side but, in the case of shortlanded cargo, reasonable proof must be given to Customs that the cargo has not been landed. A shortlanded Memo certified by the Chief Officer is usually accepted as proof.

2. Transhipment: After discharge of cargo from the 1st carrier, transhipment cargo is placed under supervision of Customs, unless it is possible to arrange direct transhipment into small coastal vessel. Customs do not accept responsibility for cargo in Customs Bond.

3. Refrigerated: Only small quantities of refrigerator cargo loaded or discharged.

4. Explosives: Explosives must be discharged into lighters under police escort and transported to an approved police store. A licence for their importation must be obtained from the police prior to arrival of cargo, and harbour and police authorities must be informed of arrival of explosives in port either for discharge or as through cargo.

STEVEDORES: Supplied by contractors as arranged by Agent. Working hours 0800 – 1200 hrs., 1300 – 1700 hrs. Working outside these hours on Sundays and Public holidays is overtime.

MEDICAL: Hospitals: Not possible for Government Medical Officer to visit ships but patients can be sent to Cottage Hospital. Four 1st class beds, 10 2nd class beds, 46 3rd class beds. Two private clinics, Dr. Chan Clinic and Dr. Wong Clinic, are located in town.

Dentist: A Government Dental Clinic, located in Cottage Hospital area. In addition, a dentist is available in town.

TANKERS: *Labuan Terminal (Shell):* The SBM is positioned at Lat. 5° 15' 59" N., Long. 115° 07' 08" E. and designed for tankers with max. s.d.w.t. 350,000, but currently fitted with hose strings to suit a maximum BCM of 540 ft. (165 m.).

The maximum water depth in the manoeuvring area is 72 ft. and the max. permissible draft 62 ft.

Port Restrictions: None. Berthing and unberthing is carried out day and night, weather permitting.

Sea Anchorage: A tanker anchorage 2 nautical miles in diameter is located approximately 2 nautical miles from the SBM in position Lat. 05° 15.0' N., Long. 115° 04.0' E.

Approaches to the Berth: References should be made to the appropriate charts for the berth. From seaward, various oil and gas exploration and platform installations are spread throughout Brunei and Sabah waters. Masters of vessels are advised to give such facilities a wide berth. At the SBM, there is a tapering of water depth to the East as well as to the South. Up to an approximate distance of 8 cables, there is sufficient water of 60 ft. (18.3 m.) in depth.

Pipelines and Cargo Hoses: A 48 in. submarine/land pipeline connects the SBM with the storage tanks on shore. Beneath the SBM, the pipeline terminates in a manifold (PLEM) for connecting the underwater hoses of the buoy. The PLEM is fitted with 2 non-return, non-slam "Mockveld' valves to eliminate potential leakage and surge pressure being built up from shore to the SBM.

Two underwater hoses, each 120 ft. in length, connect the SBM to the PLEM with a lazy 'S' configuration. Each string consists of 4×30 ft. lengths of hose.

Information Required Prior to Arrival:

Radio Advice: Vessel's Master should confirm estimated time of arrival (ETA) 72, 48 and 24 hours prior arrival. Messages should be sent to the local Agents and copied to Shell.

"Labuan Terminal" maintains a continuous radio listening watch on VHF Hague Plan Channel 14, and vessels are to contact "Labuan Terminal" when within VHF range.

Customs and Health Requirements: A detailed Shipping Report has to be completed for Government Marine Department. Local Agents will provide the necessary forms for completion. If the vessel originates from an infected port, or if the state of health is suspected, the Port Medical Officer may board the vessel, in order to inspect the crew and relevant International Medical Certificates.

Papers required on Arrival:

Master is required to provide the following:

(a) 1 copy Last Port Clearance
(b) International Maritime Declaration of Health.
(c) 9 copies Crew List.
(d) 3 copies Crew Manifest.
(e) 4 copies Stores List (Deck, Engine and Catering).
(f) 5 copies Arms and Ammunition List (if nil, no declaration required).
(g) 4 copies Cargo Manifest.
(h) 9 copies Passenger List.
(i) 2 copies Vaccination List.
(j) 3 copies Narcotics List.

Pre-Arrival Information: Prior to vessel's arrival at SSB/SSPC berths, 72 hours before her arrival, Master of vessel shall answer SSB/SSPC Questionnaire as outlined below.

Messages shall be sent to the local Agent and copied to Sarawak Shell Berhad/Sabah Shell Petroleum Company (Telex: MA74424/74425/74426. Fax: 085-454857).

AAA	Vessel's name, previous name (if any), call sign and nationality.
BBB	Master's name.
CCC	GRT, NRT and SDWT.
DDD	ETA, date and local time (GMT +8 hours).
EEE	Last Load Port/Discharge Port.
FFF	Next Load Port/Discharge Port.
GGG	Number of Crew.
HHH	Grade and Quantity of Cargo on arrival, previous cargo and cargo to be loaded at SSB/SSPC Terminal and tanker's maximum loading rate per manifold.
JJJ	Quantity of ballast in SBT and CBT and confirmation that the vessel is able to load and deballast simultaneously.
KKK	Arrival drafts.
LLL	Any defects that may cause pollution or affect loading.
MMM	Confirm vessel has a fully operational I.G. system and meets all SOLAS/IMO/OCIMF requirements.

All vessels loading at SSB/SSPC berths for the first time shall include the following additional information:

NNN	Length overall (LOA) and distance of bow to centre manifold (BCM).
PPP	Do manifolds meet OCIMF standards.
QQQ	What is the SWL of Tanker's starboard derrick.
RRR	Number and size of AKD bow chain stoppers.

Berthing Instructions: After ETA advice the following message will be transmittted to the Master.

AAA	Based on your ETA............present intention is to berth you on arrival.
BBB	Pilot will board at the boarding area 2 miles W.S.W. of SBM in the following position: Latitude: 05° 15' 00" N. Longitude: 115° 04' 00" E.
CCC	Confirm ETA at least 48 hours in advance. When within range you are required to confirm your ETA 3 hours prior to arrival to Labuan Terminal on VHF Channel 16 with Channel 14 as a working channel.
DDD	Please keep us advised of any changes in your ETA. Onus of ETA confirmation rests with vessel.
EEE	After having established radio contact on VHF you will receive further instructions.

Mooring Operation: Use of ship's anchors is strictly prohibited except in extreme emergency. In any case, the anchor must *never* be dropped anywhere within a distance of 400 ft. (121.92 m.) on either side of the submarine pipeline, for the entire length, *nor* closer than 0.5 miles (5 cables) radius from the SBM.

Floating Mooring Rope Assembly: The buoy to tanker mooring comprises 2×16 in. circumference×150 ft. nylon double braided ropes. At the buoy end, the hawsers are joined to the pad eyes of the Rotation Mooring Arm with heavy duty shackles. Each hawser of the dual floating mooring hawser is fitted with a 3 in. diameter chafing chain.

The pick-up assembly consists of:

(i) 10 in. circumference polypropylene pick-up rope with spliced eyes 2 ft. on each side. Length 150 ft.
(ii) Pick-up support buoy.

Mooring Craft: The pilot/mooring launch will be in attendance throughout the tanker's stay at the SBM. The launch is used to send the messenger end of the mooring ropes to the vessel. On completion of mooring, the launch assists in picking up the hoses for connection and remains at the vessel until the completion of loading.

Piloting Information: Piloting is compulsory and is operated by Sabah Shell Petroleum Company Limited. The Berthing Master, Mooring Assistant and Surveyors board the vessel approximately 2 nautical miles W.S.W. of the SBM. Masters are requested to provide a good lee for the pilot boat to facilitate the boarding by these persons and lifting of 2 radio sets and other equipment.

Mooring Procedure: The tanker is moored to the SBM by 2×16 in. circumference (8 strand plaited) mooring lines 150 ft. (45.72 m.) in length, each connected to a 3 in. (76 mm.) chafing chain. A pick-up rope 10 in. × 150 ft. in length is connected to the 2 in. chafing chain. A suitable standard mooring rope must be lowered down by the vessel to the mooring launch in order to hoist the pick-up ropes.

The starboard line will be the first line to be picked up as the tanker approaches the SBM.

Closing speed, when the vessel is within range of the pick-up rope (approximately 100 m. from the SBM), must not exceed 0.5 knots.

As the vessel slowly closes in on the buoy, the pick-up rope and chafing chain are hove on board until the chafing chain is in position in the fairlead (chain support buoy just outboard of the fairlead). The chain is then secured in the bow stopper.

While the starboard mooring is being tended to, the mooring boat clears the port mooring rope from the buoy. The rope is then hove on board and is connected in the same manner as the starboard one.

Note: The vessel should have 2 mooring ropes ready on the forecastle.

Cargo Loading Operations: Throughout the vessel's stay at the SBM, the Berthing Master will remain on board to co-ordinate ship/shore operations and one launch will remain at location as a safety precaution.

Connecting Hoses: Hose connection is carried out by ship's crew as advised and supervised by the Shore Mooring Assistant.

Position of Hose Connection: Two cargo hoses will be connected on the starboard side amidships. A 16 in. hose will be connected to the forward manifold, and a 12 in. hose will be connected to the aft manifold connection.

Length of hose 815 ft. (248.41 m.).

Loading Procedure: Labuan Crude Oil is loaded at Labuan Terminal. Approximate API 32.0 and temperature 30°C.

The Master shall provide cargo requirements, tanker loading rate and other pertinent information as required by the Berthing/Loading Master. The Terminal's maximum loading rate on 3 pumps is approximately 6,500 cu.m./hr., and a maximum back pressure of 120 p.s.i. (10 bars) at the Terminal's end. The Berthing Master also acts as the Loading Master and as the Terminal's Representative, and will attend to all cargo formalities. He will remain on board the vessel throughout the vessel's stay at the SBM.

After all pre-loading formalities have been attended to, the following steps will be taken:

(a) Joint inspection to be carried out by the ship and the Berthing/Loading Master to ensure all requirements on the Safety Check List are adhered to.
(b) Method of communication and emergency shut-down procedure between ship and shore is established and understood. Prior to commencement of operations, the radio communication shall be tested to ensure the system is operating satisfactorily.
(c) Ship and shore to confirm readiness to commence loading operations.
(d) Commencement of loading operations to be at slow rate.
(e) Once loading operation commences, manifold connections and loading hoses are checked for leaks, and faults rectified. The mooring launch shall patrol round the vessel and the SBM to check for possible leakages into the sea.
(f) Once the vessel has confirmed receipt of cargo, the Emergency Shut Down trip is tested. On completion of the trip test, pumping is resumed and the loading rate gradually increased to the agreed loading rate.
(g) Manifold connections, hoses and water around the vessel are again checked for faults and/or leakages.
(h) Lines are to be checked at frequent intervals, and the Berthing/Loading Master shall immediately be informed of any abnormality.
(i) Ship and shore figures are to be compared every 2 hours at agreed times, and any discrepancies investigated.

Ballast: For ships with Segregated Ballast Tanks (SBT's), Masters are advised to deballast concurrently with loading, to avoid excessive trim while at the same time taking stresses on the hull into consideration. The vessel must at any time be able to manoeuvre and vacate the SBM.

For vessels with combination Clean Ballast Tanks (CBT's) and SBT's, Masters are advised to confer with the Berthing/Loading Master for directions. Nevertheless, for vessels of 70,000 tonnes S.d.w.t. and above, the ballast/cargo configuration must at all times not be less than 25% of the vessel's S.d.w.t.

Suspension of Loading Operations: If loading operations are suspended for an excessive period (e.g. leakage, ship/shore breakdown, etc.) or due to impending heavy weather, the hoses shall be disconnected, blanks flanged and made ready for lowering into the sea.

The Berthing/Loading Master shall give the Master the instructions to do so after monitoring the situation.

Disconnecting Hoses: The "after" or outer hose is disconnected first. As soon as the hoses have been disconnected from the tanker's manifold, the blank flanges are fitted. Each hose is lowered over the side and towed clear from the ship's side by the mooring launch to prevent possible entanglement with the vessel's propeller.

Unmooring: Weight on the mooring lines may be taken off by using ship's engines. The polypropylene pick-up ropes, which remain connected to the triangular plates of the chafing chains, are lead to the winches. The weight is then taken off the bow stopper. The bow stoppers are then released and the moorings and pick-up ropes lowered to the water.

The port mooring is normally disconnected and lowered first. When both moorings have been let go, the tanker is given sternway until the bow is well clear of the hose strings. The mooring and hose connection equipment is then transferred to the mooring launch.

Facilities:

Bunkers and Lubricants	– Not available.
Fresh Water	– Not available.
Stores and Laundry	– Limited availability.
Tank Cleaning and Dirty Ballast Facilities	– None available.

Repair Facilities: Emergency minor repairs can be arranged through local Agents with Sabah Shipbuilding, Repairs and Engineering or Sabah Government Marine Dept., Engineering Works.

Special Regulations: None. Vessels are berthed day and night, weather permitting.

Other Points of Interest:

(a) Local time is GMT plus 8 hours.

(b) The Berthing/Loading Master, Mooring Assistant, Petronas Representative, Independent Cargo Surveyor(s) and Customs Officer remain on board throughout the vessel's stay at the SBM. It is possible that the vessel's Agent will also remain on board.

(c) Tanker's manifolds should conform to the standards recommended in the OCIMF publication "Standards for Tanker Manifolds and Associated Equipment".

(d) Tanker's mooring equipment shall be in line with the recommendations contained in the OCIMF publication "Standards for Equipment Employed in the Mooring of Ships at Single Point Moorings".

(e) Medical and dental services are available at Labuan through the local Agents.

(f) Crew members are not permitted shore leave.

(g) Ship's personnel given special permission to go ashore for medical treatment must be in possession of an identification card and/or passport.

(h) Ship-to-shore communication during loading operations is by way of a portable VHF radio set provided by the Terminal. Additionally, communication can be used by VHF Channel 14.

(i) Rig starboard derrick to maximum S.W.L.

Minimum acceptable:
16,000 – 60,000 S.d.w.t. : 10 tonnes.
Over 60,000 S.d.w.t. : 15 tonnes.

Weather: All the SBM's concerned are positioned in the open sea. The weather in the region is basically good for tanker operations.

The seasonal weather patterns are broadly divided into three and the terminology used is consistent with that of S.E. Asia. These three types are:

(1) S.W. Monsoon (June-October)
(2) N.E. Monsoon (December-March)
(3) Transitions between the monsoons.

Persistent bad weather occurs during the N.E. monsoon. High swell conditions can persist for periods of 3 to 4 days and in extreme conditions for up to a week. During the S.W. monsoon winds are generally light to moderate, but during brief surges (generally lasting less than 36 hours) winds are occasionally strong, and local gale force squalls are experienced. The most favourable time for tanker operations is during the transition periods. Winds are lighter and variable. Seas in this period are rarely more than very slight. The only troublesome times of the periods are the occasional severe squalls that originate from inland, which are associated with cumulonimbus clouds and thunderstorms.

The basic patterns of these squalls are vigorous thunderstorms inland, increasing as the storm approaches. Just before the onset of torrential rain, the wind backs rapidly towards the land and increases violently to the peak gust.

Immobilisation: Immobilisation of engines is not permitted at any time during the vessel's stay at the SBM.

Transmission of Ship's Radio: Use of the ship's radio transmitter is prohibited during the vessel's stay at the SBM.

Also see "Bintulu Terminal – General".

Operator: Sarawak Shell Berhad, Locked Bag No. 1, 98009 Miri, Sarawak, Malaysia. Tel: 085-454545. Telex: MA 74424/74425/74426. Cables: SAROILCO. Fax: 085-452030. Contact: Captain Pui Voon Sen, Acting Head of Marine and Land Transport Services.

FRESH WATER: Only available in small quantities (usually 30 tons maximum) and at restricted hours.

FUEL: Bulk furnace oil and high speed diesel usually available but 48 hours' notice of requirements must be given.

FIRE PRECAUTIONS: In case of fire, the Harbour Master, OCPD, and Agent should be telephoned immediately. A mobile gas turbine fire pump is available.

CONSULS: None.

REPAIRS: Marine Department operates engineering workshops at Labuan.

DRY DOCKS: Marine Department has 3 Slipways in Labuan which are capable of slipping vessels of 60 tons, 200 tons and 500 tons displacements.

A Government-owned shipyard/dry dock known as Sabah Building, Repairing and Engineering Sdn. Bhd. exists in Labuan to undertake full repairs services has been established for ocean-going vessels.

TIME: GMT plus 8 hours.

POLICE/AMBULANCE/FIRE: Medical Officer 224; Asst. Commissioner of Customs 201; OCPD 400; Police Station 297; Hospital 222.

REGULATIONS: *(a)* Arrival and departure:

1. The Owner or Agent of every vessel other than a small ship intending to call at a port shall, as soon as possible, and in any case not later than 36 hours prior to the estimated time of arrival of the vessel, give notice in writing to the Authority of such arrival and, if so desired, the requirement for a berth at a wharf.

2. The notice under this regulation shall be in a form prescribed by the Authority and shall contain full particulars regarding the cargo to be discharged and loaded, the embarkation and disembarkation of passengers, heavy lifts, special or perishable cargo, hazardous and dangerous goods (whether to be discharged at the port or not), and any other matters of importance relating to the working or safety of the vessel in the port.

3. The Master of every vessel entering or leaving a port between sunrise and sunset shall cause to be hoisted the national colours and the signal letters, if any, of the vessel. The national colours shall be exhibited from 0800 hrs. to sunset whilst the vessel remains in port.

4. The Master of every vessel arriving from outside the State of Sabah shall exhibit the Immigration and Quarantine signals contained in the First Schedule and shall also at the request of a Customs Officer hoist the Customs signals. Such signals shall remain exhibited until the appropriate officer has given permission for them to be lowered.

5. No vessel shall approach within 600 ft. of any other vessel exhibiting the Immigration, Health or Customs signals.

6. No person other than a Pilot may board or disembark from any vessel until the vessel is cleared inwards and the Immigration, Quarantine and Customs signals have been lowered.

7. Every vessel entering a port shall be anchored or efficiently secured to a wharf or buoy before commencing the loading or discharging of cargo and/or the embarkation or disembarkation of passengers.

8. No vessels shall leave any port unless in possession of a valid Port Clearance issued by or on behalf of the Director of Marine.

(b) Special signals:

Significance	*By Day*	*By Night*
Immigration (for ships not carrying passengers)	International Code Signal "2 5"	Two green lights, 6 ft. apart, hoisted vertically where best seen.
Immigration (for ships carrying passengers)	International Code Signal "3 4"	Two green lights, 6 ft. apart, hoisted vertically where best seen.
Quarantine (vessel is Healthy request Pratique)	International Code Signal "Q"	Nil
Quarantine (vessel is suspect)	International Code Signal "Q Q"	A red light over a white light and a separate hoist of red light over a green light and hoisted vertically 6 ft. apart where best seen.
Quarantine (vessel is infected)	International code Signal "Q L"	
Quarantine (not received Pratique)	Nil	A red light over a white light 6 ft. apart hoisted vertically where best seen.
Request Police Assistance	International Code Signal "S T"	A green over a white light, 6 ft. apart hoisted vertically where best seen.
Request Medical Assistance	International Code Signal "W"	A red light over a green light, 6 ft. apart, hoisted vertically where best seen.

GENERAL: *Surveyors:* Harrisons & Crosfield are Lloyd's Sub-Agents in Labuan and may appoint a surveyor as necessary.

Ship Chandlers: Fresh fruits, vegetables and fish available and price list can be obtained from ship chandler through Agent. Cold storage with limited supplies.

Recreation Facilities: If owners pay a monthly subscription to the Labuan Recreation Club, ship's crew are automatically members. Football and cricket, etc., can usually be arranged on application to Agent. Two cinemas in town which show American, English, Chinese, Malayan and Indian films.

Good beaches all round island, however, it is strongly recommended that bathers should remain in shallow water. It is not considered safe to bathe from the ship.

Victoria Hotel situated in town. All rooms air-conditioned and have private bathrooms or showers attached. Lodging house accommodation available in town for Chinese Crew members.

A newly constructed 12 storey Labuan Hotel is situated in the town. All rooms air-conditioned with bathroom attached.

A nine-hole golf course situated about 1 mile away from town.

DEVELOPMENTS: See "Bulk Handling Facilities".

AUTHORITY: The Director, Marine Department Office, P.O.Box No. 5, 87008 Federal Territory of Labuan, Malaysia. *Tel:* 087-412208. *FAX:* 087-413515.

LANGKAWI, Telok Ewa, Malaya: 06.26 N. 99.46 E.

(See Plan)

SHIPMASTER'S REPORT: December 1987 (Updated 1994).

Langkawi Port is one of the newest ports on the Malayan Peninsular. The port is designed to handle Bulk (both dry and liquid) petroleum products as well as general cargo. Major exports are clinker and bulk/bagged Cement. The port is approximately 80 nautical miles North of Penang Island, and in position Lat. 06° 25' 36" N., Long. 99° 46' E.

PORT LIMITS: All the waters enclosed within the area bounded by a line drawn from a point at Lat. 06° 30' N., Long. 99° 52' E. in a Southeasterly direction to Lat. 06° 25' N., Long. 99° 58' E., thence in a Southerly direction to Lat. 06° 08' N., Long. 99° 58' E., thence in a Westerly direction to Lat. 06° 08' N., Long. 99° 37' E., thence in a Northerly direction to Lat. 06° 27' N., Long. 99° 37' E. and thence in a Northeasterly direction back to Lat. 06° 30' N., Long. 99° 52' E. and any navigable waters therein.

DOCUMENTS: The following documents, together with ship's documents and certificates and copies of manifest, are to be presented to the Port Officer at time of report.

Crew List.
Vaccination List.
Stores List.
Personal Declaration.
Drug and Narcotic List.
Passenger List.
Last three ports of call.

PILOTAGE: Pilotage is compulsory for all vessels entering or leaving the port limits. Pilots are available throughout 24 hours and the boarding point is in position Lat. 06° 27.8' N., Long. 99° 45.5' E.

While rounding off Tanjung Chinchin it is preferable to keep North of the fairway during the N.E. monsoon as considerable S./S.W. set is experienced with strong and persistent E/N.E. winds.

ANCHORAGES: Anchorage area is situated East of Pilot boarding station marked on BA. Chart No. 3943.

MAX. SIZE: There is a restriction of 9.0 m. draft at present alongside. Permission to exceed 9.0 m. may be given under exceptional circumstances with a tug on stand-by during manoeuvres.

HEALTH: Health Official boards vessel when alongside. A close check is carried out on Vaccination List.

TUGS: No tug available (July 1994). It is only used during deep draft vessels unberthing. Usually ships berth heading into the wind/tide using the off-shore anchor.

BERTHING: See "Plan".

STEVEDORES: Arranged by Kedah Cement. They usually need notice of 7 days, 72 hours, 48 hours and 24 hours.

CRANES: For clinker and bulk cement, Kedah Cement, the operators of the terminal, use one shoot of about 500 t.p.h. capacity and for raw material imports such as Bauxite/Iron ore a grab crane of 11.2 tonnes SWL is in operation at present. For loading bagged cement, ship's own gear is used.

MEDICAL: There is a hospital, for minor surgery only, at Kuah which is 24 km. from the berth. For serious cases, patients to go to the mainland, one hour further by ferry.

DENSITY: 1020/1021.

FRESH WATER: Available at the berth, rate about 20 t.p.h.

REPAIRS: All repairs are carried out on the mainland.

AIRPORT: There are daily flights to Penang and Kuala Lumpur.

TIME: GMT plus 8 hours all year round.

STORING: Fresh provisions can be obtained locally but at least 2 days notice required as some items may have to be brought from the mainland.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: There is no seaman's club operating in the port, nor is there a church. There are duty-free shops in the port, international telephone service can be arranged at the large hotels. Transportation from the port to the town can also be arranged, postage service is available and sight-seeing can also be arranged.

CURRENCY: Malaysian Ringgit (MYR$).

DELAYS: None, except rain.

GENERAL: Well organised port with efficient and skilled labour and a very co-operative stevedore. No thefts reported on board. When nearing 9.0 m. draft it is preferable to check depths even though we found 9.6 m. up to chart datum at the general cargo berth.

AUTHORITY: Marine Department Peninsular Malaysia, Telok Ewa Port Office, 07000 Langkawi, Kedah Darul Aman, Malaysia. *Tel:* 04-9591505. *FAX:* 04-9591354. *Contact:* Baharin Bin Dato Abd. Hamil, Senior Marine Officer. Badrul Hisham Bin Umar, Assistant Marine Officer.

LIMBANG, Sarawak: 04.48 N. 115.05 E.

Limbang is the principal town of the Fifth Division and is situated 8 miles above the entrance of the Limbang River. There is an anchorage for ocean-going steamers 5 miles below the Limbang Bar Buoy with a least depth of 26 ft.

Depth on Bar. The least depth reported on the bar is about 2 ft. with a highest rise of 12 ft. The channel is marked by stakes with red/white and black/white top markers and a flashing light buoy Fl.1 sec. at the entrance.

Every vessel arriving in quarantine shall fly or show the appropriate International Quarantine Signal; and no person other than a Pilot, Port Officer, Port Health Officer, Immigration Officer or Officer of Customs shall board the vessel; and no person shall disembark therefrom until the vessel has been cleared by the Port Health Officer.

The Master of every vessel of over 15 tons about to depart from a port for any place outside Sarawak shall cause the "Blue Peter" (International Code Flag "P") to be hoisted, during daylight hours, for at least 12 hours before the vessel is due to sail, or if the vessel is in port for less than 12 hours, for the period of her stay in the port.

(1) The Master or the Agent of every vessel about to depart from a port shall, on demand by the Port Officer, produce for inspection the Port Clearance.

(2) The Port Clearance shall be in the form of an endorsement on the form of clearance prescribed under the Customs Ordinance or in such other form as may be approved by the Director.

A vessel arriving in, leaving from or shifting berth within a port shall hoist her signal letters, if any, whilst under way.

PILOTAGE: Pilot available at Muara Port, Brunei. No pilot available locally.

REPAIRS: Siong Hing Shipyard Company, Limbang, Sarawak.

SURVEYORS: Cargo inspectors available. Local marine surveyor available.

BANKS: Malayan Banking Berhad and Kongming Bank Bhd.

STORING: See "Prelims".

1. By truck.
2. —
3. Yes.
4. Yes.
5. —
6. Yes.

AUTHORITY: Marine Department, 98700 Limbang, Sarawak, Malaysia. *Tel:* 21130 (office), 22105 (home). *Cables:* Shipping Office, Limbang. *Contact:* Port Officer.

LUMUT, Malaya: 04.14 N. 100.38 E.

SHIPMASTER'S REPORT:

DOCUMENTS:

Customs:
4 Crew Lists.
2 Report of Arrival – Appendix "A".
1 Passenger List ("Nil" certificate required).
2 Dutiable Stores Statements.
5 Inward Manifests (prepared by Agent).
1 Personal Effects List.
1 List of Cargo in Transit.
1 Lists of Arms and Ammunition ("Nil" Certificate required).
Last Port Clearance.
2 Copies Loading Manifests.
3 Outward Manifests (prepared by Agent).
1 List of Narcotics ("Nil" certificate required).

Immigration:
2 Crew Lists.
1 Passenger List.
All Passports and Seaman's Books.

Boarding Office (Port Authority):
2 Reports of Arrival.
2 Reports of Departure (Forms provided by Agent).
2 Crew Lists.
Register, Load Line, Derat Certificate.
Radio, Safety Equipment and Safety Construction Certificates.

Port Health:
2 Vaccination Lists (Cholera).
2 Health Forms.
Derat Certificate.
All International Health Certificates (Yellow Books).

Traffic Control Officer:
1 Crew List.
1 Passenger List.
1 Arms and Ammunition List. ("Nil" certificate required).
1 Narcotics List.

Clearance of vessel carried out on arrival at Lumut Anchorage or berth before loading or discharging is allowed. Usually Customs', Immigration, Traffic Control Officer, Health will come together on board and Free Pratique issued by Health Officer.

PILOTAGE: Pilot boarding position Lat: 4° 10' 50" N., Long. 100° 35' E., which is 1 mile South of Pangkor Island S.E. Point light. Berthing and unberthing will only be carried out during daylight hours and at slack water or beginning of flood tide. Pilot comes from Penang for berthing and unberthing. Pilot leaves vessel at Hospital Rock on departure. Pilot launch painted blue with white superstructure and named "King Miller". Pilot rates: Launch fee M$400 in and out minimum M$750 – maximum M$2,800, depending on d.w.t. of vessel.

ANCHORAGE: Just inside harbour limits, 7 cables South of S.E. Point Light in about 12 fathoms. Bottom said to be sand and shells and reputed good holding ground.

MAX. SIZE: Max. length on grain berth 575 ft.

Max. draft into port 30 ft. 6 in. salt water on Spring tides. This is due to a bar at the entrance of Dindings River and a rather sharp turn around buoy of 125° to miss rocks marked by unlit buoy. (Lloyd Rocks, B.A. Chart 792 vicinity of River Passage).

HEALTH: See "Documents".

RADIO: *ETAs:* Sent through Penang or Singapore Radio to Flourmill Lumut, Flourmill Kuala Lumpur and ship's Agents. 72, 24 and 12 hours notice required. Agents will keep Flourmill Lumut and Pilots informed. Authorities like 5 days notice of a vessel's impending visit. Telex: MA 44285 Miller.

VHF: There are VHF communications in the port with pilot boat on Channel 12.

Reporting System of Merchant Vessel When Entering and Leaving Port of Lumut

1. Every Master of a merchant vessel when coming to Port of Lumut shall advise the Port Officer of Lumut as follows:
   (i) One hour before the arrival of the vessel to the Pilot Station (i.e. one nautical mile due South East Point Lighthouse) the following particulars:
   The name and the nationality of the vessel and the Master.
   The arrival draft.
   The gross and nett tonnage of the vessel.
   The nature of the cargo.
   The next and last port of call.
   (ii) When arriving at the Pilot Station and when the Pilot is on board.
   (iii) When the vessel is passing abeam of Dinding Buoy.
   (iv) When the vessel is at anchor or berthing at the jetty/wharf.

2. The same procedure is also applied to vessel when leaving the Port of Lumut.
   - (i) To advise the Port Officer of the sailing time of the vessel one hour before the departure.
   - (ii) When the Pilot is on board.
   - (iii) When the vessel is passing abeam of Dinding Buoy.
   - (iv) When the Pilot is away and when the vessel is abeam of South East Point Lighthouse.
3. The working hours of Port Office of Lumut are as follows:
   Monday to Friday: 0800 hrs. – 1615 hrs.
   Saturday: 0800 hrs. – 1245 hrs.
   The office is closed on Sunday and Public Holidays.
4. Calling: Marine Department Lumut
   or "Lumut Mardep".
   VHF Channel 16.

TUGS: There are no tugs at Lumut – nearest Penang (small) and Singapore (large).

BERTHING: Port side to at Malayan Flour Mill Private Wharf in position Lat: 4° 16' N., Long: 100° 39.5' E., ship's head in. Depth of water at wharf is 32 ft. 6 in. A modern wharf supporting two movable discharging elevators. Conveyor belt runs under wharf.

South side of dock is used by coastal tankers and has 20 ft. of water. Dock is of concrete construction with heavy wood and steel girder fendering which is rubber mounted. End of wharf has a separately fendered concrete construction which is fitted with rubber shock absorber.

STEVEDORES: Mill employs own stevedores and work continues throughout 24 hours. No cargo work on Sundays and Public Holidays unless requested by either party when the overtime charges will be borne by the said party. Discharge rate is about 118 m.t.p.h. with 2 suckers (wheat). Reported to be about 100 m.t.p.h. with corn.

MEDICAL: Doctor in Lumut and Sitiawan (7 miles from Lumut). Local hospital usually has large queue, therefore better to attend private doctor. Private doctor may be called onboard if necessary.

DENSITY: About 1022 at berth. Water is brackish both at anchorage and berth.

FRESH WATER: Available at berth, arranged through Flour Mill at $10.00 (local currency) per ton during working hours. 24 hours' notice required.

FUEL: By arrangement and brought to ship in road tankers. Cargo cannot be discharged while bunkering as the trucks are not able to pass under the grain discharger (Agent informs that one weeks' notice required for bunkers). Fuel and diesel supplies come from Shell installation at Batu Undan about 1.5 miles from mill.

REPAIRS: Minor repairs only at mills workshop, firms can be called in from Kuala Lumpur or Singapore or Ipoh.

SURVEYORS: Trident Malaysia Sdn. Bnd. in Penang.

GANGWAY/DECK WATCHMAN: Private wharf and protected area - no shore watchman required on board - only ship's watchman for ropes and safety. Shore mill patrol is armed with shotgun.

REPATRIATION: Can be arranged but make sure travel documents, i.e. passports are valid and air tickets are ready.

AIRPORT: Nearest local airport is Ipoh and then fly or by road to Kuala Lumpur International Airport. Ipoh is about 1 hour's drive and Kuala Lumpur 4 hours drive.

EMERGENCY CO-ORDINATION CENTRE: Harbour Master, Penang or Port Kelang.

TELEPHONE: On berth and in Flour Mill entrance hall during office hours only.

BANKS: The Chartered Bank, Jalan Lumut, Sitiawan, Perak; Malayan Banking Berhad, Lumut, Perak; Bank Bumiputra Malaysia, Lumut, Perak. Money Changer at Malaysia Raya Restaurant, Lumut.

STORING: See "Prelims".
1. Yes, both.
2. Yes.
3. Yes.
4. Yes.
5. Prior approval must be obtained.
6. No.

SHORE LEAVE: Local leave only, except with special permission and pass. Boats to be laid on by ship for crew shore leave to Lumut and this is about a 20 minute boat ride to shore. Charges – $25 per trip. A boat from the anchorage may be laid on. Also to Sitiawan about 7 miles from Lumut. To Ipoh 52 miles by taxi $6.00 per person one way. Special Immigration pass is required and can be arranged through Agent.

GARBAGE DISPOSAL: Can be arranged, contact Agent for service.

WASTE OIL DISPOSAL: Can be arranged, contact Agent for service.

SEAMAN'S CLUBS: None.

CURRENCY: Malaysian Ringgit (MRG).

GENERAL: The Flourmill is situated on the N.E. side of Lumut about 40 miles by road and 20 minutes by launch from Lumut town. There is a good canteen at the Flourmill which serves Chinese and Muslim foods and soft drinks. Ship's personnel are allowed and welcome to use these facilities.

There are 5 reasonable hotels in Lumut, Dindings Hotel which has only 3 rooms air conditioned, Lumut Villa Inn, Hotel Indah Lumut, Hotel MDM and Lumut Country Resort, a 3 star hotel with 40 air-conditioned rooms. If possible book in advance especially on Saturdays, Sundays and Holidays.

At Pangkor Island there are good hotels; Sea View Hotel, Beach Hut Hotel, Pan-Pacific Resort with 100 air-conditioned rooms and Pangkor Laut Resort, both are of International Standard. At Teluk Batik 10 chalets available, about 5 miles from Lumut town.

Dindings Soya and Multifeeds Sdn. Bhd. is a subsidiary of Flourmills and now in operation, using same facility of Flour Mill Wharf.

Customs: Allowances – 75 cigarettes per man for 3 days and one bottle of spirits for 8 men every 3 days. Customs office is at Lumut. One and sometimes two, Customs men remain on vessel throughout and accommodation is to be provided for them.

Immigration: Immigration clearance required.

Tide: Ebbs for 5.25 hours on berth. Tides times are based on Port Kelang – difference is minus 1 hr. 40 min. Rise and fall about 2 m. – see Admiralty Tide Tables and Admiralty N.P. 214, Malacca Strait and Southern Approaches to Malacca Strait. Atlas of Tides and Tidal Streams.

Provisions/Stores: Bonded items, beer and cigarettes and fresh provisions available but advisable to give 24 hours notice as some of the items come from outside Lumut. Fruit and vegetables are available in season from local supply and are reputed to be reasonably priced. Some fruit and vegetables imported and may be expensive. Chandlers can be arranged by Agent.

Laundry; Arranged by Chandler (see above), takes about three days.

Charts: BA 1009 Perak River & Approaches when approaching from South and BA 792 Dinding River & Approaches with inset covering flour mill wharf.

AUTHORITY: Port Office, Marine Department, 32200 Lumut, Perak. *Tel:* 05-935477. *FAX:* 05-913260. *Contact:* Meor Abd. Manap, Deputy Port Officer.

Operator: Malayan Flour Mills Berhad, Jalan David Sung, Batu Undan, Lumut, Perak, Malaysia. *Telex:* Miller MA 42285. *Cables:* Flourmill Lumut, Perak, Malaysia. *FAX:* 05-912296. *Contact:* Raja Toran Shahriman, Chief Administration Officer.

MALACCA (Tanjong Bruas), Malaya: 02.13 N. 102.09 E. (See Plan)

DOCUMENTS:

1. *Malacca Port Authority*
   - (a) Ship's arrival advice 72 hours prior to arrival stating estimated time of arrival and date.
   - (b) Ship's Manifest 48 hours prior to arrival with particulars of cargo.
   - (c) Berth and stevedore application for ship's working arrangement.
   - (d) Dangerous Goods Declaration (if any).
   - (e) Passenger List (if any).
2. *Harbour Master's Office*
   - (a) "Report of Arrival of Vessel" on prescribed form obtainable from Harbour Master's Office on arrival.
   - (b) One copy Passenger List, specifying names and nationalities.
   - (c) Port Clearance from last port and copy of Manifest of Cargo to be discharged.
   - (d) List of all arms and explosives on board.
   - (e) In the case of a British or Malaysian vessel and vessels belonging to a nation not having a Consular Officer at the port produce to Port Officer the Certificate of Registry and ship's Articles.
3. *Immigration Authorities*
   - (a) Crew List (3 copies).
   - (b) Passenger List (3 copies).
   - (c) Produce all Passengers Passports/Visas.
   - (d) Produce all Seaman's Cards/Books.
   - (e) Fill embarkation/disembarkation card obtainable from Immigration Department on arrival.
4. *Port Health*
   - (a) Crew List showing last date of vaccination.
   - (b) Passenger List, showing the last date of vaccination.
   - (c) Produce all Seamen's and Passengers' vaccination cards.
5. *Customs Department*
   - (a) Crew List (2 copies).
   - (b) Passenger List (2 copies).
   - (c) Personnel Effects List (2 copies).
   - (d) Cargo Manifests (4 copies).
   - (e) Last Port Clearance.
   - (f) Bonded Stores List (2 copies).
   - (g) Full and correct statement of dutiable goods carried as ship's stores (2 copies).
   - (h) Customs Form CD 15 obtainable from Customs Department on arrival.

APPROACHES: Approachable from all directions as port is located in an open-sea area. Harbour open all year round.

PILOTAGE: Pilotage service is compulsory for vessels entering or leaving port limits and during berthing/unberthing. Vessels to give Malacca Port Authority 12 hours' notice. Vessels from West take Pilot 2.75 miles W.S.W. of Tanjong Kling and vessels from East take Pilot 5 miles S.S.W. of Tanjong Kling. Pilot on VHF Channels 12 and 16.

ANCHORAGES: Located approximately 1 mile – 1.5 miles off the Malacca River mouth with depth of 3 fathoms – 6 fathoms. No specific prohibited anchorage.

TUGS: One 800 b.h.p. twin-screw tug available to assist with berthing and unberthing operation and emergencies.

BERTHING: One 'T' shaped jetty of 170 m. length, capable of accommodating one vessel of 125 m. LOA on the seaward side and one vessel of 65 m. LOA on the inner side at any one time. Least depth alongside is 9.0 m.

Storage Areas: 4 modern covered warehouses with a total storage area of 10,800 sq.m. for dry bulk and break bulk cargo. Two tank farms of 6,543 tonnes storage capacity for liquid bulk cargo.

STEVEDORES: Privatised stevedoring companies working on a two-shift basis with cargo discharging capacity per day of 1,500 tonnes for dry-bulk and 1,000 tonnes for breakbulk.

MEDICAL: Modern Government and private hospitals readily available in the town centre. There are private clinics in the vicinity of the port area.

TANKERS: See "Sungai Udang".

FRESH WATER: Available from elevated water tank of 50,000 gallons capacity through pipelines.

FUEL: Supply by road tankers with advance notice.
REPAIRS/DRY DOCKS: None.
CUSTOMS ALLOWANCES: Tobacco, cigarettes 25 in number per man per day, or cigars, 8 in number per man per day, or Tobacco, 1 oz. per man per day, or snuff, 1 oz. per man per day.

Wine and/or Spirit: Spirit, 0.125 quart per man per day, or wines, 1 quart per man per day, or beer or stout, 1 quart per man per day.
HOLIDAYS: *Port Closed Days:* Chinese New Year, Hari Raya Puasa (1 Syawal), Deepavali, National Day and Christmas Day.
AIRPORT: Batu Berendam, 15 km. from port, catering mostly for domestic flights.
GARBAGE DISPOSAL: Drums provided alongside the wharf by the Port Authority.
WASTE OIL DISPOSAL: No service available.
SEAMAN'S CLUBS: None.
CURRENCY: Malaysian Ringgit (MYR$).
AUTHORITY: Malacca Port Authority, Peti Surat, 75740 Melaka, Malaysia. *Tel:* 06-223552. *FAX:* 06-244611.

AGENT: Pesaka Jardine Shipping Agencies Sdn.Bhd., Lot 47, No. 136/2 Jalan Munshi Abdullah, 75100 Malacca, Malaysia. Tel: 60-6-2837850/2837381. Fax: 60-6-2848588. (Associated with Jardine Shipping Agencies).

MIRI, Sarawak (incl. Lutong Terminal, Kl. Baram, Kl. Niah & Kl. Suai): 04.26 N. 113.55 E. (See Plan)

Miri Roads is an open roadstead in a shallow bay, bounded at North by Tanjong Baram and at South by Tanjong Lobang.
PORT LIMITS: All navigable waters up to the high water mark and all land from the high water mark to the land boundary within the following limits:
Inner Limit:
Batang Baram within the high water lines, from the line delineating the Coastal High Water Line at the river mouth, upstream to the geographical parallel across the river at Lat. 3° 45' 00" N.
Outer Limit:

(i) From a point on the Coastal High Water line on the Sarawak/Brunei International Boundary, Lat. 4° 00' 18" N., Long. 114° 36' 27" E. (approx.)
(ii) Thence along the Coastal High Water Line in a generally Southwesterly direction to a point on the Miri/Bintulu District Boundary, on the N.E. bank of Sungai Selungun, Lat. 3° 35' 19" N., Long. 113° 20' 18" E. (approx.)
(iii) Thence along a line drawn in a 324° direction to its intersection with the limit of the Sarawak Territorial Sea, Lat. 4° 48' 30" N., Long. 113° 20' 18" E. (approx.)
(iv) Thence Northeasterly along the boundary of Sarawak Territorial Sea to its intersection with the International Boundary between Sarawak and Brunei on the Continental Shelf, Lat. 4° 48' 36" N., Long. 113° 57' 12" E. (approx.)
(v) Thence along the same International Boundary to the initial point defined in Clause (i) above.

DOCUMENTS: (a) Health. Vessels exempted from inspection (See "Health") should deliver to Agent on arrival, a Declaration of Health, Last Port Clearance and 2 Crew and Passenger Lists.
(b) Inward Clearance (Also see "Anchorage"). All vessels calling Miri Roads for passengers or cargo must be cleared by Immigration and Customs and, if necessary, by Port Health.

Inward Clearance effected only between 0600 hrs. and 1800 hrs. and following signals must be shown: if passengers carried, flags "3" and "4"; if no passengers carried, flags "2" and "5"; if Free Pratique requested, flag "Q".

Following papers will be required on arrival for inward clearance:
Port Health:
Declaration of Health.
1 Crew List.
1 Passenger List, inward and through.
Customs Boarding Officer:
As above, if not boarded by Health Officer, and 2 Inward Cargo Manifests.

(c) Outward Clearance. All vessels will be issued a Port Clearance by Customs Officer after the application has been verified by Port Officer at their respective office. Papers required are 2 Outward Manifests, 2 Crew Lists and, if any embarked, 2 Outward Passenger Lists.
APPROACHES: The loom of gas flares on Seria Oilfields 30 miles N.E. of Miri are a general guide at night but should not be used as a bearing because flares movable within area of oilfield and liable to be extinguished at any time. Following bearings exist. By night, three lighthouses:
(a) *Tanjong Baram:* Lat. 04° 35' 47" N., Long. 113° 58' 25" E., white single light 680,000 candle power, visibility 17 miles, elevation 120 ft. in grey steel lattice tower, group flash 3 every 20 secs.
(b) *Lutong:* Lat. 04° 28' 30" N., Long. 113° 59' 46" E., white single light, 13,500 candle power, visibility 10 miles, elevation 80 ft. in grey steel lattice tower, group flash 2 every 10 secs.
(c) *Tanjong Lobang:* Lat. 04° 21' 48" N., Long. 113° 57' 36" E., white single light 20,150 candle power, visibility 18 miles, elevation 155 ft. in grey steel lattice tower, 60 ft., flash 1 every 10 secs.

By day, above lighthouses difficult to distinguish and following may be used for day-time bearings:
(a) Lutong radio mast F.R 210 ft., position Lat. 04° 26' 25" N., Long. 113° 59' 54" E.
(b) Tanjong Lobang radio masts as marked on chart.
PILOTAGE: No official Pilot stationed at Miri but Shell Company provide Berthing Masters to moor vessels at their Lutong SBM's (See "Tankers").
ANCHORAGE: For tankers, please refer to "Tankers". For cargo, passengers or clearance, the outer area within an area to Northward of Lat. 04° 25' 42" N., Eastward of Long. 113° 55' E. and Southward of Lat. 04° 23' 42" N. It is recommended that vessels of less than 5 m. draft may anchor close inshore directly opposite Miri River Mouth, but caution must be exercised as sudden squalls and swell up to 1.5 m. can occur, for which allowance should be made. For logs at Kl. Baram it is recommended that vessels anchor close inshore S.W. of Baram River Mouth, but caution must be exercised as sudden squalls and swells up to 2 m. can occur, for which allowance should be made. Extra caution must be exercised not to intrude the prohibited anchorage area at the further end of S.W. of Baram River Mouth and the numerous submarine gas lines around the area. For logs at Kuala Niah and Kuala Suai it is recommended that vessels anchor close inshore directly opposite Niah River Mouth and Suai River Mouth, but caution must be exercised as sudden squalls and swell up to 1 m. can occur, for which allowance should be made.

Cargo usually worked into or from wooden lighters or steel dumb barges ranging from 30 tons – 300 tons capacity. Swell often restricts work to landward side only and swell or wind often make it difficult to work Hatch No. 1 in some vessels. Accommodation ladder should be lowered on landward side to enable shore personnel to board.

Prohibited Anchorage and Berthing Area. From *(a)* Lat. 4° 30' 54" N., Long. 113° 56' 19" E. in a 090° direction to the shore; and from *(a)* to *(b)* in Lat. 4° 27' 30" N., Long. 113° 47' 01" E., thence in a 090° direction to the shore.
HEALTH: Every vessel arriving in quarantine shall fly or show the appropriate International Quarantine Signal; and no person other than a Pilot, Port Officer, Port Health Officer, Immigration Officer or Officer of Customs shall board the vessel; and no person shall disembark therefrom until the vessel has been cleared by the Port Health Officer.

Free Pratique granted without health inspection to vessels calling, provided ship healthy. Vessels with unclean bill of health or vessels which have not declared themselves healthy in their arrival notice telegram are subject to normal Port Health inspection procedure. Therefore of utmost importance that arrival notice is sent not less than 24 hours before arrival and contains all information requested (See "Radio") in order to prevent unnecessary delay.
RADIO: Miri Radio, call sign 9 WW21, frequency 500 kHz, operates at following hours local time: 0800 – 0830, 0900 – 0930, 1200 – 1230, 1600 – 1630. Present station has a limited range and if difficulty is experienced making contact or contact outside the above hours, vessels should pass messages through other stations, such as Kuching Radio or Singapore Radio, or through other ships in close vicinity of Miri.

Arrival notice must be telegraphed at least 24 hours before arrival and should contain following information:
All vessels
(a) expected time of arrival (local time GMT plus 8 hours);
(b) name of last port of call and next port of call, if not previously advised;
(c) whether or not ship is healthy.
For cargo
(d) tonnage to discharge, if any;
(e) number of gangs required to load;
(f) number of winchmen required to load.
Passengers
(g) number of passengers to disembark.

Also see "Tankers" – Communications.
VHF: Vessels arrived at the anchorages and wishing to contact their local/abroad Agents should contact "Miri Control" by Channel 16 which will be subsequently transferred to either Channel 25 or 27 for through calls. "Miri Control" operates 24 hours daily.
BERTHING: Cargo vessels – see "Anchorage", oil carriers – see "Tankers".

Also see "Developments".
Current Facilities: Miri is a shallow general cargo port with offshore tanker facilities. Products handled: The major commodities are iron and steel, household goods and electrical appliances, machinery and heavy tractors, foodstuff and cereals, timber and petroleum products.
Services and Facilities: There are two mobile truck cranes with a maximum capacity of 7 tonnes; one mobile unit of 35 tonnes capacity; one 7 tonne forklift; one low mast forklift of 3 tonnes capacity; five 3 tonne high mast forklifts and four 4 tonne high mast forklifts.
Number and Length of Bulk Berths: Total length of 254 m. and 2.1 m. depth, able to accommodate 5 vessels up to 1,000 g.r.t.
Area: There are 4 transit sheds with a covered area of 2,165 sq.m., open storage of 1,133 sq.m. and a container yard of 1,000 sq.m.
MEDICAL: Treatment of urgent cases available on shore subject weather conditions. Early notice should be telegraphed of medical requirements.
TANKERS: SBM No. 5:

Miri Single Buoy Mooring (SBM No. 5) is positioned at Lat. 04° 26' 49" N., Long. 113° 53' 48" E., and is designed for tankers with a maximum S.d.w.t. of 150,000 tonnes.

The minimum water depth in the manoeuvring area is 64 ft. (19.5 m.), and the maximum permissible draft is 56 ft. (17.07 m.).
Information Required Prior to Arrival – Radio Advice: Standard message by the Masters of vessels calling at Miri SBM must be sent at least 96 hours before arrival at Miri. ETA at Miri shall be addressed to the local Agents and copied to "Saroilco Miri".

The Bill of Health should also be advised at least 24 hours prior to arrival.

Sarawak Shell maintains an Offshore Communications Station operating a 24 hours service (call sign "Lutong Radio") and listens on VHF Channels 18 and 22. Accurate ETA can be passed through this station when in radio range.

Alternately, if vessel is arriving during office hours on weekdays (0700 hrs. to 1600 hrs. local time, Mondays to Fridays), "Shell Marine" can be contacted direct on VHF Channel 18, and berthing instructions/prospects can be confirmed.

Pre-Arrival Information: Prior to vessel's arrival at SSB/SSPC berths, 72 hours before her arrival, Master of vessel shall answer SSB/SSPC Questionnaire as outlined below.

Messages shall be sent to the local Agent and copied to Sarawak Shell Berhad/Sabah Shell Petroleum Company (Telex: MA74424/74425/74426. Fax: 085-454857).

AAA	Vessel's name, previous name (if any), call sign and nationality.
BBB	Master's name.
CCC	GRT, NRT and SDWT.
DDD	ETA, date and local time (GMT +8 hours).
EEE	Last Load Port/Discharge Port.
FFF	Next Load Port/Discharge Port.
GGG	Number of Crew.
HHH	Grade and Quantity of Cargo on arrival, previous cargo and cargo to be loaded at SSB/SSPC Terminal and tanker's maximum loading rate per manifold.
JJJ	Quantity of ballast in SBT and CBT and confirmation that the vessel is able to load and deballast simultaneously.
KKK	Arrival drafts.
LLL	Any defects that may cause pollution or affect loading.
MMM	Confirm vessel has a fully operational I.G. system and meets all SOLAS/IMO/OCIMF requirements.

All vessels loading at SSB/SSPC berths for the first time shall include the following additional information:

NNN	Length overall (LOA) and distance of bow to centre manifold (BCM).
PPP	Do manifolds meet OCIMF standards.
QQQ	What is the SWL of Tanker's starboard derrick.
RRR	Number and size of AKD bow chain stoppers.

Berthing Instructions: After ETA advice the following message will be transmitted to the Master.

AAA	Based on your ETA..............................present intention is to berth you on arrival.
BBB	Pilot will board at Pilot anchorage area at the following coordinates: Lat. 04° 25' N., Long. 113° 54' E. Lat. 04° 27' N., Long. 113° 56' E.
CCC	Confirm ETA at least 48 hours in advance. When within range you are required to confirm your ETA 3 hours prior to arrival to Miri Terminal on VHF Channel 18 with Lutong Radio.
DDD	Please keep us advised of any changes in your ETA. Onus of ETA confirmation rests with vessel.
EEE	After having established radio contact on VHF you will receive further instructions.

Customs and Health Requirements: A detailed Shipping Report has to be completed for Government Marine Department. Local Agents will provide the necessary forms for completion. If the vessel originates from an infected port, or if the state of health is suspect, the Port Medical Officer may board the vessel, in order to inspect the crew and relevant International Medical Certificates.

Papers required on Arrival: Master is required to provide the following:

(a) 1 copy Last Port Clearance.
(b) 3 copies Crew List.
(c) 5 copies Passenger List.
(d) 3 copies Malaysian Crew List.
(e) 2 copies Stores List.
(f) 1 copy Ship Arrival Report.
(g) 1 copy Application for Port Clearance.
(h) 2 copies Narcotics List.
(i) 2 copies Arms and Ammunition List.
(j) 2 copies Crew Declaration List.
(k) 2 copies Vaccination List.
(l) 3 copies Inward Cargo Manifest.

Note: Vessels arriving from the Philippines require additional documents, and local Agents will advise.

Pilotage: Pilotage is compulsory and is operated by Sarawak Shell Berhad. The Berthing/Loading Master, Mooring Assistant and Surveyors board at or around the anchorage area (approximately 2.0 nautical miles South of SBM No. 5). Masters are requested to provide a good lee for the pilot boat to facilitate the boarding by these persons and lifting of gear and equipment.

Port Restrictions: None. Berthing and unberthing is carried out day and night, weather permitting.

Sea Anchorage: A petroleum anchorage is bounded by the following co-ordinates:

From	Lat. 04° 25' 42" N.,	Long. 113° 53' 00" E. to
	Lat. 04° 25' 42" N.,	Long. 113° 55' 00" E. to
	Lat. 04° 23' 42" N.,	Long. 113° 55' 00" E. to
	Lat. 04° 23' 42" N.,	Long. 113° 53' 00" E.

Masters are advised that anchoring is strictly prohibited within the area described, "See Caution" encompassing West Lutong oilfields, pipeline areas and SBMs on B.A.Chart No. 1949.

Approaches to the Berth: There are many oil production structures in the waters off the coasts of Sarawak, Brunei and Sabah, together with a large amount of exploration and drilling activities. Masters are advised to give such structures and activities a wide berth.

Anchors: Use of the vessel's anchor(s) is strictly prohibited except in extreme emergency. In any case, the anchor must never be dropped anywhere within a distance of 400 ft. (122 m.) on either side of the pipeline, its entire length, nor closer than 0.5 nautical miles (5 cables) radius from the SBM.

Mooring Craft: The mooring launch will be in attendance throughout the tanker's stay at the SBM. The launch is used to send the messenger end of the pick-up ropes to the vessel. On completion of mooring operations, the launch picks up the hoses for connection and remains at the vessel until the completion of loading operations.

Mooring Procedure: The tanker is moored to the SBM by 2×16 in. circumference (8 strand plaited) mooring lines 150 ft. (45.72 m.) in length, each connected to a 3 in. (76 mm.) chafing chain. A pick-up rope 10 in. × 150 ft. in length is connected to the 3 in. chafing chain. A suitable standard mooring rope must be lowered down by the vessel to the mooring launch in order to hoist the pick-up ropes.

The starboard (inner) line will be the first line to be picked up as the tanker approaches the SBM.

Closing speed, when the vessel is within range of the pick-up rope (approximately 100 m. from the SBM), must not exceed 0.5 knots.

As the vessel slowly closes in on the buoy, the pick-up rope and chafing chain are hove on board until the chafing chain is in position in the fairlead (chain support buoy just outboard of the fairlead). The chain is then secured in the bow stopper.

While the starboard mooring is being tended to, the mooring boat clears the port mooring rope from the buoy. The rope is then hove on board and is connected in the same manner as the starboard one.

Note: The vessel should have 2 mooring ropes ready on the forecastle.

Tugs: Not available.

Cargo Loading Operations: Mooring and hose connection is carried out by the vessel's crew as advised and supervised by the shore mooring assistant.

Position and Size of Hose Connection: 2×12 in. cargo loading hoses (length 840 ft.) will be connected on the starboard side amidships.

Loading Procedures: Miri Light Crude is loaded at Lutong Terminal (approximate API 32.0 and temperature of 32°C).

The Terminal's maximum loading rate on 3 pumps is 3,500 cu.m./hr., and a maximum back pressure of 120 p.s.i. (approximately 10 bars) at the Terminal's end. The Berthing Master also acts as the Loading Master and as Terminal's Representative, and will attend to all cargo formalities.

As soon as possible, the Master shall provide cargo requirements, tanker maximum loading rate and any other pertinent data as required by the Loading Master.

After all pre-loading formalities have been attended to, the following steps will be taken:

(a) Joint inspection to be carried out by the ship and the Berthing/Loading Master to ensure all requirements on the Safety Check List are adhered to.
(b) Method of communication and emergency shut-down procedure between ship and shore is established and understood. Prior to commencement of operations, the radio communication shall be tested to ensure the system is operating satisfactorily.
(c) Ship and shore to confirm readiness to commence loading operations.
(d) Commencement of loading operations to be at slow rate.
(e) Once loading operation commences, manifold connections and loading hoses are checked for leaks, and faults rectified. The mooring launch shall patrol round the vessel and the SBM to check for possible leakages into the sea.
(f) Once the vessel has confirmed receipt of cargo, the Emergency Shut Down Trip is tested. On completion of the trip test, pumping is resumed and the loading rate gradually increased to the agreed loading rate.
(g) Manifold connections, hoses and water around the vessel are again checked for faults and/or leakages.
(h) Lines are to be checked at frequent intervals, and the Berthing/Loading Master shall be immediately informed of any abnormality.
(i) Ship and shore figures are to be compared every 2 hours at agreed times, and any discrepancies investigated.

Ballast: For ships with Segregated Ballast Tanks (SBT's), Masters are advised to deballast concurrently with loading, to avoid excessive trim while at the same time taking stresses on the hull into consideration. The vessel must at any time be able to manoeuvre and vacate the SBM.

For vessels with combination Clean Ballast Tanks (CBT's) and SBT's, Masters are advised to confer with the Berthing/Loading Master for directions. Nevertheless, for vessels of 70,000 tonnes S.d.w.t. and above, the ballast/cargo configuration must at all times not be less than 25% of the vessel's S.d.w.t.

Suspension of Loading: If loading operations are suspended for excessive periods (e.g. leakages, ship/shore breakdown, etc.), or due to impending heavy weather, the hoses shall be disconnected, blanks flanged and made ready for lowering into the sea. The Berthing/Loading Master shall give the Master the instructions to do so after monitoring the situation.

Disconnecting Hoses: The "after" or outer hose is disconnected first. As soon as the hoses have been disconnected from the tanker's manifold, the blank flanges are fitted. Each hose is lowered over the side and towed clear from the vessel's side by the mooring launch to prevent possible entanglement with the vessel's propeller.

Unmooring: Weight on the mooring lines may be taken off by using ship's engines. The polypropylene pick-up ropes, which remain connected to the triangle plates of the chafing chains, are lead to the winches, and the weight is taken off the bow stopper. The bow stoppers are released, and the moorings and pick-up ropes lowered from the bow into the water.

The port mooring is normally disconnected and lowered first.

When both moorings have been let go, the tanker is given sternway until the bow is well clear of the hose strings. The mooring and hose connection equipment is then transferred to the mooring launch.

Facilities Available:

Bunkers and Lubricants	– Not available.
Fresh Water Facilities	– None.
Stores and Laundry Facilities	– Limited stores available.
Tank Cleaning and Dirty Ballast Facilities	– None available.

Repair Facilities: Small repairs of urgent nature can be undertaken by local ship repairers through the local Agents.

Special Regulations: None.

Points of Interest:

(a) Local time is GMT plus 8 hours.
(b) The Berthing/Loading Master, Mooring Assistant, Petronas Representative, Independent Cargo Surveyor(s) and Customs Officer remain on board throughout the vessel's stay at the SBM. It is possible that the vessel's Agent will also remain on board.

(c) Tanker's manifolds should conform to the standards recommended in the OCIMF publication "Standards for Tanker Manifolds and Associated Equipment".

(d) Tanker's mooring equipment shall be in line with the recommendations contained in the OCIMF publication "Standards for Equipment Employed in the Mooring of Ships at Single Point Moorings".

(e) Medical and dental services are available at Miri through the local Agents.

(f) Crew members are not permitted shore leave.

(g) Ship's personnel given special permission to go ashore for medical treatment must be in possession of an identification card and/or passport.

(h) Ship-to-shore communication during loading operations is by way of a portable VHF radio set provided by the Terminal. Additionally, communication can be used by VHF Channel 18.

(i) Rig starboard derrick to maximum S.W.L.
Minimum acceptable:

16,000 – 60,000 S.d.w.t.	:	10 tonnes.
Over 60,000 S.d.w.t.	:	15 tonnes.

Berth Limitations:

Maximum Draft	:	56 ft. (17.07 m.)
Maximum LOA	:	No restriction.
Maximum S.d.w.t.	:	150,000 tonnes. (Dependent on BCM – see below)
Hose Length	:	815 ft.
Maximum BCM	:	560 ft.

Pilotage: Pilotage is compulsory and is operated by Sarawak Shell Berhad.

Miri Products SBMs: There are 2 products SBMs in Miri. They are located about 1.1 miles apart and closer to the shore in more restricted water. These SBMs are meant for shipment of finished products from the Lutong Refinery for local consumption, export and importation of certain grades of products.

Coastal product tankers are berthed at these SBMs and at times ocean-going product tankers also.

Arrival procedures, pilotage requirements, customs and immigration requirements are the same as for vessels arriving for SBM No. 5 (see above).

SBM No. 1: *General Information:* This SBM is positioned at Lat. 04° 28.35' N., Long. 113° 56.3' E. There are 3 hose strings to this SBM, each for a different grade of product as follows:

Line 1A	–	Miri Tops	Connection: 6 in.
Line 1D	–	Mogas	Connection: 6 in.
Line 1C	–	Gas Oil/Kerosene	Connection: 6 in.

Minimum water depth in the manoeuvring area is 43 ft. (13.1 m.), and the maximum permissible draft is 37 ft. (11.27 m.).

Maximum S.d.w.t. that can be handled is 100,000 tonnes.

Berth Limitations:

Maximum Draft	:	37 ft. (11.27 m.)
Maximum LOA	:	630 ft. (192.0 m.)
Maximum S.d.w.t.	:	100,000 tonnes
Maximum BCM	:	315 ft. (96.01 m.)
Hose Length	:	520 ft. (158.5 m.)

Mooring Procedures: The mooring is carried out in a similar manner as discussed for SBM No. 5 (see above). The notable difference is that the tanker is moored to the SBM by 2×15 in. circumference single (8 strand plaited) mooring lines 150 ft. (45.72 m.) in length. The starboard line is connected to a 1.2 in. (30 mm.) chafing chain. For larger vessels, this will be changed accordingly prior to the vessel's arrival. The port line is connected to a 30 ft. long × 2.5 in. wire fitted with a large eye splice, so that it can be put over the vessel's forward bollard.

Generally for vessels below 40,000 tonnes S.d.w.t., only one line is connected to the vessel. For vessels above 40,000 tonnes S.d.w.t., both moorings will be connected to 2.1 in. (54 mm.) chain accordingly.

SBM No. 3: *General Information:* This SBM is positioned at Lat. 04° 29.4' N., Long. 113° 56.3' E. There are 3 hose strings to this SBM, each for a different grade of product as follows:

Line 4D – Waxy Residue (SWR)/LFO	Connection: 6 in./12 in.
Line 3B – Naphtha	Connection: 6 in.
Line 4B – Gas Oil/Kerosene	Connection: 6 in.

Minimum water depth in the manoeuvring area is 43 ft. (13.1 m.), and the maximum permissible draft is 39 ft. (11.89 m.).

Maximum S.d.w.t. that can be handled is 100,000 tonnes.

Berth Limitations:

Maximum Draft	:	39 ft. (11.89 m.)
Maximum LOA	:	804 ft. (245.05 m.)
Maximum S.d.w.t.	:	100,000 tonnes
Maximum BCM	:	400 ft. (121.91 m.)
Hose Length	:	795 ft. (242.31 m.)

Mooring Procedure: The mooring is carried out in a similar manner as discussed for SBM No. 5 (see above). The notable difference is that the tanker is moored to the SBM by 2×12 in. circumference (8 strand plaited) mooring lines 150 ft. (45.72 m.) in length, each connected to a 2.1 in. (54 mm.) chafing chain.

Weather: The SBMs are positioned in the open sea. The weather in this region is basically good for tanker operations.

The seasonal weather patterns are broadly divided into three and the terminology used is consistent with that of South East Asia. These three types are:

(1) S.W. Monsoon (June – October)
(2) N.E. Monsoon (December – March)
(3) Transitions between the monsoons.

Persistent bad weather occurs during the N.E. monsoon. High swell conditions can persist for periods of 3 to 4 days and in extreme conditions for up to a week. During the S.W. monsoon winds are generally light to moderate, but during brief surges (generally lasting less than 36 hours) winds are occasionally strong, and local gale force squalls are experienced. The most favourable time for tanker operations is during the transition periods. Winds are lighter and variable. Seas in this period are rarely more than very slight. The only troublesome features of the periods are the occasional severe squalls that originate from inland, which are associated with cumulonimbus clouds and thunderstorms.

The basic patterns of these squalls are vigorous thunderstorms inland, increasing as the storm approaches. Just before the onset of torrential rain, the wind backs rapidly towards the land and increases violently to the peak gust.

Immobilisation: Immobilisation of engines is not permitted at any time during the vessel's stay at the SBM.

Transmission of Ship's Radio: Use of the ship's radio transmitter is prohibited during the vessel's stay at the SBM.

Also see "Bintulu Terminal – General".

Operator: Sarawak Shell Berhad, Locked Bag No. 1, 98009 Miri, Sarawak, Malaysia. Tel: 085-454545. Telex: MA 74424/74425/74426. Cables: SAROILCO. Fax: 085-452030. Contact: Captain Pui Voon Sen, Marine Supervisor – Tanker Operations.

FRESH WATER: No fresh or boiler water available.

FUEL: Not available.

REPAIRS: Emergency deck and hull repairs can be carried out offshore. Please contact Harbour Master for arrangements if required. Tel: 085-32911 (office hours) or 085-33232 (outside office hours).

CUSTOMS ALLOWANCES: Bonded Store on vessels other than those berthing at Lutong Moorings for bunkers only and exempted from formal clearance, sealed by Customs after allowing a daily ration for duration of stay in port.

One Customs Officer will remain on board all vessels anchored in Miri Roads and accommodation, if necessary, should be arranged for them. The Agents' staff will remain on board throughout all cargo operations and it would be highly appreciated if meals could be supplied to them and to the Customs Officer in view of the long time occupied travelling by launch between ship and shore.

REPATRIATION: Crew changes and repatriation can be carried out at Marine Office, Kubu Road, Miri with little difficulty.

AIRPORT: Distant 10 km., daily, day and night flights.

TIME: GMT plus 8 hours. Permanent.

HOLIDAYS: New Year's Day; Chinese New Year; Good Friday; Labour Day; Wesak Day; Dayak Festival Day (Gawai); Yang Dipertuan Agong's Birthday; Hari Raya Puasa; T.Y.T. Yang Dipertua's Birthday; Natiomal Day; Hari Raya Haji; Awal Muharram; Prophet Mohammad's Birthday; Christmas Day.

Chinese New Year; Dayak Festival Day (Gawai); Hari Raya Puasa normally has 2 days holiday.

POLICE/AMBULANCE/FIRE: Tel: 999.

SHORE LEAVE: It is regretted that both passengers and crew must be dissuaded from coming ashore other than for medical attention, owing to weather and tidal restrictions.

IDENTIFICATION CARDS: Seaman's Record Book is sufficient.

LUBRICANTS: Generally, lubricants not available but in emergency certain grades sometimes obtainable in very limited quantities.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Malaysian Ringgit (MYR$).

PROVISIONS: Limited fresh provisions and ex-bond stores available for which vessels should give 72 hours notice of requirements so that arrangements can be made to secure the required supplies.

REGULATIONS: The Master of every vessel of over 15 tons about to depart from a port for any place outside Sarawak shall cause the "Blue Peter" (International Code Flag "P") to be hoisted, during daylight hours, for at least 12 hours before the vessel is due to sail, or if the vessel is in port for less than east 12 hours before the vessel is due to sail, or if the vessel is in port for less than 12 hours, for the period of her stay in the port.

(1) The Master or the Agent of every vessel about to depart from a port shall, on demand by the Port Officer, produce for inspection the port clearance.

(2) The Port Clearance shall be in the form of an endorsement on the form of clearance prescribed under the Customs Ordinance or in such other form as may be approved by the Director.

A vessel arriving in, leaving from or shifting berth within a port shall hoist her signal letters, if any, whilst under way.

DEVELOPMENTS: *Future Facilities (March 1997):* Miri port will move to a new centre at Kuala Baram in March 1997.

Located about 30 km. from the existing port, the new port is located strategically within an industrial park. With modern wharf and with deeper draft, better road access and huge land area for future expansion, Miri Port Authority is positioning itself to play her role as the gateway to the Northern Sarawak.

Facilities at Kuala Baram: Phase I is scheduled for completion in 1997. Facilities under the first phase of the development comprise 6 berths with a total length of 390 m.

Other facilities are as follows:

Facilities	*No.*	*Area/Length*	*Capacity*
Berths	6	390 m.	Ships of up to 5,000 g.r.t.
Transit sheds	2	5,400 sq.m.	
Container yard		16,000 sq.m.	328 ground slots
Reefer points	28		
Timber/General cargo yard		63,000 sq.m.	
Dangerous goods store		200 sq.m.	
Office block		5,796 sq.m.	

Phase II, which is scheduled for implementation in the year 2005, will comprise 7 berths with a total length of 445 m.

Deeper Approach Channel: When the approach channel to Kuala Baram is dredged to 5.0 m. at lowest tide, ships of up to 5,000 g.r.t. will be able to come alongside. Ships of such size can carry up to 350 containers or 17,000 tonnes of breakbulk cargo, a big contrast to current operations at Miri, where part of the cargo must be discharged into barges in the roads to meet draft requirements.

AUTHORITY: Marine Officer, Marine Department, Kubu Road, Miri, Sarawak, Malaysia. *Tel:* 085-32352; 085-32911, 085-33301. *Cables:* "Shipping Miri"

Miri Port Authority, Jalan Bendahara, Petit Surat 1179, 98008 Miri, Sarawak, Malaysia. *Tel:* 085-413673, 085-422481. *FAX:* 085-417191. *Contact:* Peter F. Siburat, General Manager.

PASIR GUDANG, Johor: 01.26 N. 103.54 E.

(See Plan)

LOCATION: The port is situated on the East Coast Southern tip of Peninsular Malaysia above the Straits of Johore, 10 nautical miles East of Johore Bahru Town. The approximate position is Lat. 01° 26' 06" N. Long. 103° 54' 25" E.

PORT LIMITS: The area is enclosed by the following imaginary lines:

(A) From a point of the coast at the Southernmost tip of Tanjung Datuk or Tanjung Penyusup at Lat. 01° 22.20' N., Long. 104° 17.05' E. direct to
(B) Lat. 01° 19.28' N., Long. 104° 15.78' E. thence to
(C) Lat. 01° 17.82' N., Long. 104° 07.43' E. thence to
(D) Lat. 01° 18.31' N., Long. 104° 06.78' E. thence following the boundary of the Malaysia territorial waters until reaching the Eastern side of the Johore Causeway to the coastline Eastwards and returning to position (A), including the Johor River up to the bridge where the Johor Bahru to Kota Tinggi road crosses the said river and all other navigable rivers and tributaries flowing into these waters and all piers, jetties, wharves, landing places, quays, docks and other similar works, whether within or without the high water mark and any portion of shore or bank within 45.72 m. of the high water mark, subject to any rights of private property therein.

DOCUMENTS:

Customs:

2 Personal Effects List,
2 Narcotics Lists,
2 Arms and Ammunition Lists,
2 Stores Lists made out on ships forms only, no special forms issued by the port. Customs Boarding Officer also requires a full and correct statement of all dutiable liquor and tobacco carried as ship's stores, the statement which is to be submitted in duplicate on forms provided by the Boarding Officer is to show in detail the quantities of dutiable goods held:–

(a) in the ship's stores, bars and shops;
(b) in the possession of Officers and Crew.

Immigration: 3 Crew Lists, all Crew Seaman's Books for entry visa stamp.
Port Health: 1 Vaccination List, Maritime Declaration of Health.
Police: 1 Crew List, 2 Narcotics Lists, 2 Arms and Ammunition and Explosives Lists.

APPROACHES: *Fairway:* There is no limitation imposed on size of vessels passing through the fairway except for the draft. The main channel in the East Johore Strait has a depth of water up to approximately 12.4 m. ACD up to the Port Waterfront and 11.4 m. ACD up to Sembawang Shipyard and 10.9 m. up to the causeway.

PILOTAGE: Pilotage is compulsory for vessels either exceeding 45 m. in length and/or with height structure above 30 m. or without any radio communication on board, entering or leaving the Port Water Limits. Pilotage is provided by Johor Port Sdn. Bhd. and licensed by Johor Port Authority. The pilot boarding point is 2 miles S.W. of Tanjung Stapa Lt. (01° 20.6' N., 104° 08.2' E.).

ETA to be sent to Harbour Master 24 hours prior to arrival, and to "Johor Port Control" 3 hours prior to arrival or departure.

ANCHORAGE: Anchorage areas have been designated within the port water limits and as indicated in all navigational charts for the following:

(a) General purposes.
(b) Dangerous goods and explosives.
(c) Quarantine.
(d) Petroleum.
(e) Lay-up.

RESTRICTIONS: A 24 hour pilotage service for all vessels entering or leaving Johore Port is provided. However, the following restrictions are imposed.

1. *Recommended Speed:*

(a) The maximum recommended speed should not exceed 12 knots and when passing Fairy Point, the speed should not exceed 6 knots.
(b) Vessels are required to slow down when passing Johore Port area, Malaysia Shipyard Engineering (MSE) and Sembawang Shipyard areas.

2. *Reporting:*

When entering, transitting or leaving the East Johore Strait, all ships of 2,000 g.r.t. and above or whose masts or superstructures exceed 30 m. above the waterline or where the vessel is under tow and the combined length of the towing vessel and the tow exceed 30 m. are requested to comply to the contents of the Port of Singapore Circular No. 23 of 1981 (See "Traffic Information") in providing the following data:–

(a) Name and Call Sign of vessel;
(b) Type of vessel (stipulate floating crane, oil rig, etc.);
(c) Max. height above waterline in metres;
(d) Destination (Sembawang port, name of shipyard, etc.);
(e) Point of origin (Sembawang port, Johore Port, Johore Shoal Buoy, etc.);
(f) ETA at Johore Shoal Buoy or ETD.

on VHF Channels 11, 21 and 63.

3. *Tugs:*

Tug services are available for towage, berthing and unberthing operations within the port's water limits. The tugs are mostly equipped with fire fighting and anti-pollution equipment.

(a) VLCCs or vessels of more than 280 m. in length are to be provided with at least 2 escort tugs when transitting the East Johore Strait.
(b) Vessels of more than 240 m. in length are required to be provided with 1 escort tug when transitting the East Johore Strait.

4. *General:*

(a) When a nuclear powered ship is underway in the East Johore Strait no vessel should be underway forward of her.
(b) Vessels above 180 m. in length will not be programmed to pass any vessel exceeding 280 m. in length transitting the East Johore Strait between Changi and Sembawang Shipyard.
(c) VLCCs or vessels of more than 280 m. in length will be programmed to transit the Fairy Point/Changi area during slack water or stemming the tidal current.
(d) Vessels of more than 240 m. in length will be permitted to transit the East Johore Strait only during daylight hours.
(e) Vessels of between 210 m. and 240 m. in length are permitted to transit East Johore Strait during non-daylight hours provided they have full use of engines and are programmed to transit during slack tide or stemming the tidal current.
(f) Anchoring is prohibited in the main channel. Any unauthorised anchoring must be reported immediately to Johore Port Control and Sembawang Control.
(g) During the hours of darkness, tows are generally not permitted to transit East Johore Strait.

For the purposes of the above guidelines:–

(a) A VLCC (very large crude carrier) is deemed to be a tanker of 150,000 d.w.t. and above.
(b) Length of vessel refers to her overall length.
(c) Daylight hours means from 0700 hrs. to 1900 hrs.

VHF: Vessels can communicate direct with the pilot control station tower via ship to shore VHF on the following Channels:

Channel	*Ship Stations*	*Shore Stations*
11	156.550 MHz	156.550 MHz
21 (Listening Frequency only)	157.050 MHz	161.650 MHz
63	156.175 MHz	160.775 MHz

VHF network links the tugs, launches and the Port personnel working on board vessels at the anchorages.

TUGS: See "Restrictions" and "Facilities".

FACILITIES: *Oil Jetty:* Depth of water 9.0 m. (inner berth), 11.0 m. (outer berth), T-shaped with 4 berths.

Dangerous Cargo Jetty: Depth of water: Jetty No. I – 11.0 m., Jetty No. II – 9.0 m., Jetty No. III – 12.0 m.

Ocean Wharves: Depth of water 12.5 m., length 1,093 m.
Coastal Wharf: Depth of water 6.0 m., length 107 m.
Lighterage Wharf: Depth of water 5.0 m., length 61 m.
Transit Shed: (2) 21,256 sq.m.
Godown: (3) 23,411 sq.m.
Open Storage Yard: 2.05 hectares.
Container Yard: 44,175 sq.m.
Container Freight Station: 7,750 sq.m.

Palm Oil Tank Installation: Present capacity for crude and refined palm oil 121,000 tonnes.

Petroleum and Petroleum Products: Storage capacity 63,000 tonnes.
Grain Silos: 72,000 tonnes.
Fertiliser Storage: 59,000 tonnes.
Clinker and Gypsum: 27,000 tonnes.
Timber Terminal: 4.36 hectares.

Other facilities, such as bauxite and ore jetties, as well as a shipyard (Malaysian Shipyard and Engineering) are available and operated by private companies. The shipyard undertakes repairs and docking to vessels up to 400,000 d.w.t.

Shore Equipment:

	Capacity	*Unit*
Forklift Trucks	8 tonnes	6
	6 tonnes	3
	3 tonnes	24
Towing Tractors		7
Trailers		20
Mobile Cranes	less than 200 tons	3
	200 tons	1
Level-Luffing Crane	15/400 tonnes/hr.	1
	35/400 tonnes/hr.	1
Mechanical Grab	5 tonnes	6
Container Cranes	36 tonnes	2
Container Cranes (post Panamax)	45 tonnes	2
October 1994	–	1
Reach Stacker		1
Straddle Carriers	36 tonnes	6
Transfer Cranes	45 tonnes	9
August 1994		2
Skeletal Semi-trailers		50
Container Terminal Tractors		35

Floating Equipment:

Tugs	2 – 3,200 b.h.p.
	1 – 2,600 b.h.p.
	1 – 1,220 b.h.p.
	1 – 1,084 b.h.p.
Launches	4 – pilot launches
	2 – security launches
	2 (for hire)

STEVEDORES: Stevedore and shore labour undertaken by the Port Contractors and shift times are as follows:–

0700 – 1500 hrs.
1500 – 2300 hrs.
2300 – 0700 hrs.

Stevedores may undertake work of opening/closing of hatches but rigging of gear must be done by the crew.

FRESH WATER: Fresh water connections are on the berth. The rate of supply being 20 t.p.h.

FUEL: All grades of Bunkers are available at short notice.

REPAIRS/DRY DOCKS: Situated in Pasir Gudang Industrial area is Malaysia Shipyard & Engineering Sdn, Bhd. MSE is a fully equipped up-to-date engineering establishment. With facilities for ship repairing, new-building up to 12,000 d.w.t. and general engineering works.

(1) Dry dock, length 395 m., width 80 m., depth 14 m., capable of handling ships of 400,000 d.w.t.

(2) No. 2 dry dock, length 270 m., width 46 m., depth 12.5 m. capable of handling up to 140,000 d.w.t.

(3) Newbuilding dock, length (approx.) 123 m., width 25 m., depth 8.0 m., capacity approx. 12,000 d.w.t.

Berthage: No. 1 quay, 390 m. long × 7 m. draft. 1 × 15 ton luffing crane. No. 2 quay, 268 m. long × 7 m. draft. 1 × 15 ton luffing crane. No. 3 quay, 268 m. long × 7 m. draft. 1 × 15 ton luffing crane.

SURVEYORS: Classification Surveyors are available from Singapore and Kuala Lumpur. Cargo Surveyors are represented locally by Caleb Brett, General Superintendents and Trident Malaysia.

GANGWAY/DECK WATCHMEN: The Port has a Security Division responsible for the general security of the port area. The force consists of a detachment of trained armed guards. Their services are available if requested through the Agents.

CUSTOMS ALLOWANCES: Spirits: 0.125 of a quart per man per day or wine 1 quart per man per day; beer 1 quart per man per day, cigarettes: 25 in number per man per day or cigars 8 in number per man per day or tobacco 1 oz. per man per day.

Customs will issue allowance for total of 3 days, and on request to a Proper Customs Officer the seal may be broken for further issues.

CARGO GEAR: All loading and unloading is carried out by either ship's derrick or shore equipment. Mobile cranes of varied capacities available for bulk cargoes, e.g. grains, fertilisers handling via conveyors or conventional method.

REPATRIATION: Ship's crew with valid or recognised International Passport are permitted to enter and sign-off through Malaysia/Singapore checkpoint at Causeway, provided they obtain a transit visa from the Malaysia Authorities through the ship's Agents. Ship's crew without International Passport, and only Seamen's Books must join/leave ships via Kuala Lumpur.

TIME: GMT plus 8 hours.

HOLIDAYS: The port is operational 24 hours a day, 365 days a year.

TELEPHONES: Available.

SERVICES: *Provisions:* 6 licensed ship chandlers are able to provide and attend to all requirements.

SHORE LEAVE: Shore leave for crew members is permissible. The nearest town centre is Pasir Gudang town centre, approximately 4 km. from the port. Business class hotel, dining facilities and business centres available. Johor Bahru is approx. 40 km. from the port by road. Crew members are allowed to cross the Causeway into Singapore, providing they obtain the Immigration Authorities permission through the ship's Agent.

DEVELOPMENTS: The new full fledged container terminal Phase 3 expansion project is fully operational.

The terminal measures 710 m. long, 400 m. wide, with 15.0 m. water depth, capable of handling 500,000 to 600,000 TEU's of containers annually.

Phase 4 expansion project started April 1994 and expected completion end of 1996. Under this phase, a further 1,000 m. quay line with 5 multi-purpose berths, back-up area of 48.5 ha., and will enhance the port's cargo handling capacity by a further 3.5 million tonnes, as well as creation of additional capacity at the other wharves.

TRAFFIC INFORMATION:

Port of Singapore Authority – Port Circular No. 23, dated 20th March, 1981.

To: Shipping Community

Traffic Information System for Ships Transitting Serangoon Harbour: 1. In exercise of the powers conferred by section 65 of the Port of Singapore Authority Act (Cap 173) 1970, I hereby direct that Masters of vessels entering, transitting or leaving the traffic information area shall, in the case of vessels having a gross registered tonnage of 2,000 and above or whose masts or superstructures exceed 30 m. above the waterline or where the vessel is under tow and the combined length of the towing vessel and the tow exceeds 30 m., comply with the new VHF reporting system which is given in this circular with effect from 1st June, 1981.

2. *Method of Communication:*

2.1 The VHF traffic is conducted on VHF Channel 21 and Masters of vessels are required to listen to this Channel continuously while their vessels are entering, transitting or leaving the traffic information area.

2.2 In the event that Channel 21 is inoperative, Channel 13 will be used. Masters of vessels are required to contact Port Operations on Channel 12 for confirmation of breakdown of Channel 21 prior to using Channel 13 for communication with the PSA Control Station.

3. *Notification:*

3.1 Master of vessels mentioned in paragraph 1 intending to enter or transit the traffic information area shall give at least 24 hours notice to the PSA Control Station. The information required together with this notice are:

(a) Name and Call Sign of Vessel;
(b) Type of vessel (stipulate floating crane, oil rig, etc.);
(c) Max. height above waterline in metres;
(d) Destination (Sembawang Port, name of shipyard, etc.);
(e) Point of Origin (Sembawang Port, Johore Port, JSB, etc.);
(f) ETA at Johore Shoal Buoy or ETD.

3.2 This notification may be given to the PSA Control Station by telephone, VHF, telex, public telegram or W/T.

3.3 Between 2 and 3 hours before arrival at Johore Shoal Buoy (approx. positon Lat. 01° 18' 53" N., Long. 104° 05' 00" E.) or 3 hours before departure from a berth within East Johore Strait, Masters of vessels mentioned in paragraph 1 shall notify and seek permission from the PSA Control Station on Channel 21. In seeking permission from the Control Station, the following information is required.

(a) Eastbound:
ETD from berth
ETA at Setia Jaya Jetty (approx. position Lat. 01° 26' 33" N., Long. 103° 53' 02" E.).
ETA at Malang Papan Beacon (approx. position Lat. 01° 24' 07" N., Long. 103° 59' 27" E.).
ETA at Malang Tiga Buoy (approx. position Lat. 01° 23' 09" N., Long. 104° 01' 33" E.).
(b) Westbound:
ETA at Johore Shoal Buoy (approx. position Lat. 01° 18' 53" N., Long. 104° 05' 00" E.).
ETA at Malang Tiga Buoy.
ETA at Malang Papan Beacon.
ETA at Setia Jaya Jetty (if applicable).

Following approval from the PSA Control Station, Masters of Westbound vessels when passing Johore Shoal Buoy and Angler Buoy (approx. position Lat. 01° 21' 06" N., Long. 104° 03' 07" E) shall confirm or update their ETAs at Malang Tiga Buoy and Malang Papan Beacon.

3.4 Masters of Eastbound vessels shall confirm or update their vessels' ETAs at Malang Papan Beacon and Malang Tiga Buoy when passing Punggol Beacon (position Lat. 01° 25' 19" N., Long. 103° 54' 48" E.) and Squance Buoy (approx. position 01° 23' 43" N., 103° 58' 00" E.).

3.5 Masters of vessels should check their vessels declared ETAs at Malang Tiga Buoy and Malang Papan Beacon when their vessels are between Angler Buoy and Squance Buoy. Should the new ETAs at Malang Tiga Buoy and Malang Papan Beacon differ by 5 minutes or more from the last declared ETAs, they should update their vessels' ETAs with the PSA Control Station.

4. Masters of vessels failing to comply with these directions shall be guilty of an offence punishable under Section 66 of the Port of Singapore Authority Act.

Signed: Port Master, Port of Singapore Authority.

SHIPMASTER'S REPORT: February 1979. (Updated 1994).

Documents: Agent: Last Port Clearance, Manifest, Bills of Lading, Ships Certificates, Crew Agreement (Articles).

Pilotage: Pilots board off Johore Shoal Buoy, request for Pilot to be made via Agents. Confirmation of Pilot boarding obtained from Johore Port Control, VHF Channels 11 and 63.

Pilot launch is a fast motor cruiser.

Pilotage is compulsory for all vessels over 45 m. in length.

Anchorage: Ships proceeding to call at any of the docks within Johore Port Limits, may be requested to use the anchorage to the East of the pilot boarding point.

Max. Size: The navigational conditions in the Straits are adequate for vessels of sizes expected to call at Johore Port as determined by depths at Ocean Wharf, Oil Jetty, and Coastal Wharf. No limitations on the size of vessel passing through the fairway except for controlling draft in the East Johore Channel of up to approx. 12.5 m. Large vessels up to 400,000 d.w.t. can navigate the Straits in ballast proceeding to Malaysia Shipyard also situated in Pasir Gudang.

Health: Vessels Agent to give advance notification to the Health Officer, if possible 48 hours prior to ETA of vessel, together with a list of ports visited within the preceding 14 days. Vessels from infected ports, or without valid Derat Exemption Certificates, or with cases of sickness or death on board, must fly the quarantine flag, and proceed to quarantine anchorage until boarded by the Port Health Officer.

Radio: Singapore Radio 9VG is the most reliable, and messages are telexed direct to local Agent in Johore Baru.

VHF: The base station is situated at Pasir Gudang, Channels presently in use are 11 and 63.

Tugs: Tugs normally meet vessels off the wharf. Tug's lines used.

Berthing: Oil Jetty: Depth alongside 10.2 m.; "L" shaped jetty, with 2 berths.

Ocean Wharves: Depth alongside 12.5 m.; length of wharf 1,093 m.

Coastal Wharf: Depth alongside 5.0 m.; length of wharf 107 m.

The Ocean berth is designed for general cargo vessels, and bulk carriers, of approx. 20,000 – 60,000 d.w.t.

All cargo work is carried out by ship's gear, shore equipment is available, e.g. mobile cranes, side loaders, vacuvators.

Specialised Cargo Handling Facilities: Oil Jetty capable of handling Palm oil shipment. Liquid chemical installation of 21,500 tonnes capacity. Grain silos, 72,000 tonnes capacity. Fertiliser storage 59,000 tonnes. Timber terminal 4.36 acres.

Medical: Medical service is available from the nearby town of Pasir Gudang, which is only a short distance from the port. There is a General Hospital situated in Johore Baru to attend to serious cases.

Fresh Water: Fresh water is available through hydrants installed at frequent intervals on the wharves and the breasting island of the oil jetty. Fire fighting hydrants are installed throughout the port area, using separate fresh water, and sea water systems. Fresh water may also be supplied to vessels in the anchorage if required by water barge.

Fuel: Bunkers are available by pipeline installed along the quay, or alternatively by barges. Bunkering is undertaken by Petronas.

Fire Precautions: The Port maintains a fire and rescue service, with trained firemen responsible for fire fighting on board, and on shore. The brigade is equipped with modern fire fighting appliances, and salvage equipment. Tugs are also equipped with fire fighting equipment, and anti-pollution equipment.

Consuls: Nearest Consuls are situated in Singapore, and arrangements can be made to obtain Visa to proceed to Singapore to carry out ships business.

Hatches: Preferably all opening/closing to be carried out by ship's crew, as the stevedoring labour is inexperienced.

SHIPMASTER'S REPORT: April 1979 (Updated 1994).

Position: The port is situated at the Southern tip of the Malaysian peninsula on the East of Johore Straits, about 10 miles East of Johore Bahru town. The straits separating Malaysia and Singapore provides good shelter and safe anchorage.

The exact position is Lat: 1° 26' 06" N., Long: 103° 54' 25" E.

Approaches: Pilot is picked up at Johore Shoal buoy. Pilots can be contacted on VHF Channels 11, 21 and 63. The access route for vessels proceeding to the port branches via the buoy off Johore Shoal, passes through Kuala Johore and the bend off Serangoon North of Pulare Ubin. From Serangoon the route leads straight N.W. of the port. The East Johore channel has a depth of 41 ft.

Berths: There are at present 13 berths in the port.

Boarding Officials: Since this vessel came from Singapore, all clearances were arranged by the Agent there. The Customs boarded to check the seal on the bond. The Immigration, Port Health, etc. also boarded for a cursory check.

Discharging: Discharging was carried out using grabs which were attached to the ship's cranes (1994: 6×5 ton grabs available). The grabs had no weight marked on them, hence it was insisted that the grab along with one full lift of cargo be weighed. This was done and the average weight of the grab was found to be 2 tons and the maximum cargo possible that could be lifted was 2.5 tons.

This port apparently handles a lot of fertiliser, but never in large parcels. This parcel of 6,000 tons was the second largest discharged. 4 cranes were used throughout and the discharge rate worked out to nearly 2,000 tons/day. The stevedores were initially warned against mishandling the cranes, and it was found that the operators handled the cranes very slowly and carefully.

Provisions: Available, but slightly more expensive than Singapore. No bonded stores available at this port.

Density: Varied from 1018 to 1021.

Shore Leave: There is no restriction on shore leave. No special permits/passes are issued, but the Agents suggested that persons going ashore should preferably carry their Passports/Discharge Books. The nearest city is Johore Bahru which is 20 miles away. Ample transport is available at moderate rates. About 4 miles away from the port there is also a village called Masai.

Medical: All types of normal medical attention available.

SHIPMASTER'S REPORT: December 1991 (Updated 1994).

Charts: B.A. Charts No. 2585 and 2586.

Documents:
- 8 copies Crew List.
- 2 copies Stores List.
- 2 copies Crew Personal Effects List.
- 2 copies Ports of Call List.
- 1 copy Maritime Declaration of Health.
- 1 copy Vaccination List.
- 1 copy Arms and Ammunition List, or "negative" Declaration.

Pilotage: Pilot boards between Angler Buoy and Johor Buoy from a fast pilot boat (4 units, each 18 knots). The pilot comes from Pasir Gudang. Berthing and unberthing take place throughout 24 hours. On departure the pilot leaves at Angler Buoy. Time from Johor Buoy to the Vegetable Oil Berths is about 1.5 hours.

Johor Control can be contacted on VHF Channel 11. Pilot requires 2 hours notice of arrival and 3 hours notice of departure.

Approaches: Tanjong Stapa Lighthouse is conspicuous on the S.E. shore of Johor Strait and Changi Airport control tower (Singapore) is conspicuous on the S.W. shore.

Singapore Strait VTS is in operation on VHF Channel 10 up to Johor Buoy.

Anchorages: Anchorages are as indicated on B.A. Chart No. 2569. Most vessels anchor in the "General Purpose" area to the South of the designated area.

The designated areas for different classes of vessels do not appear to be adhered to. The Southern end is very crowded. The holding ground is fair and in December and January there are sudden rain squalls.

VTS: Johor Control is on VHF Channel 11 throughout 24 hours and answers calls quickly. This station accepts orders for pilots from Shipping Agents only.

A Height Declaration (air draft) must be made before entering Johor Strait, when inbound and outbound, due to Changi Airport flight path over the shipping channel. Aircraft movements have priority and ships with air draft over 60.0 m. may have to wait for clearance.

Channel: Johor Channel is very busy with small craft and shipping going to the shipyards. It is also very busy in Pasir Gudang area. The tidal current runs at 1.5 knots. The normal maximum transit draft is 12.5 m.

Tugs: There are 5 tugs available and tugs lines are used. We used 1 tug forward.

Berths: Berthing and unberthing throughout 24 hours.

There are 4 vegetable oil berths on the jetty to the West of the general berths. The outer berths accept vessels up to 35,000 d.w.t. with draft 11.8 m. There is a new extension of jetty to the West.

The old section to the East consists of a berthing platform 70 m. in length with 2 berths (No. 1 Outer and No. 1 Inner). There are 2 breasting dolphins to the East connected by a catwalk. The platform has a roadway to the shore and a pipe gantry with hydraulic cranes serving both berths.

The Western extension has pipes on the jetty deck. The ship's gear is required for handling hoses.

Vessels berth either side alongside, depending on tide.

Fresh water is available at all berths at a good rate. The waterman ashore supplies the hoses.

Landing of the gangway is difficult at the old section as the stern overhangs and a long brow is required. Alternatively the pilot ladder can be used. There are large rubber fenders which keep the vessel 1.5 m. off the face. Moorings were 3 headlines and 1 spring forward and 3 sternlines and 1 spring aft.

Cargo: There are 10 lines to the jetty with flexible hoses. The old section is served by hydraulic cranes, and there are cranes on the new section, so ship's gear is not required.

Eight grades of vegetable oil are handled through 6 in. connections. The cargo is pumped from tanks about 0.5 miles away and the rate for each line is 220 t.p.h. We used 1 line for PKO and 2 lines for RBD Olein.

There are numerous terminal staff in attendance to adjust the lines. Short stoppages are required for line clearing.

General: It is about 2 hours by road over the causeway to Singapore city. The nearest large town is Johor Bahru, which is 12 miles to the West.

Developments: There is an extension underway with a new container terminal to the West and the area to the East of the general cargo berths is also being developed.

SHIPMASTER'S REPORT: November 1995.

Vessel: 45,000 d.w.t. – double hulled tanker.

Berth: Jetty No. 13.

Draft: Maximum allowable draft of 10.8 m., a little more, for a short period of 2-3 days later. Before arrival, ask Johore Port Control for maximum permitted.

AUTHORITY: Johore Port Sdn. Bhd., P.O. Box 151, 81707 Pasir Gudang, Johore, Malaysia. *Tel:* 07-2525888. *Telex:* MA 60192. *FAX:* 07-2510281 (Operations), 2510291 (Administration). *Cables:* Johan Pasirgudang. *Contact:* HJ. Nik Mohd Hashim Bin Nik Jaffar, Director – Operations.

AGENT: Pesaka Jardine Shipping Agencies Sdn. Bhd., 3A-04 to 3A-05 Floor, Lot 150 Jalan Cecair, Johor Port, 81700 Pasir Gudang, Johor Darul Takzim. Tel: 60-7-2528068, 2528028. Telex: MA65084 Jaship. Cables: Jarship Pasir Gudang. Fax: 60-7-2528005, 2528006.

Associated with Jardine Shipping Agencies.

PENANG, Malaya: 05.25 N. 100.21 E. (See Plan)

DOCUMENTS:

The Report of Arrival (provided in Marine Shipping Ordinance, 1952).
A copy of Passenger Statistics on prescribed forms.
A List of Crew Members.
A List of Passengers.
Evidence of last Port Clearance.
All Ship's Documents (Safety Equipment, Derat, Radio, Load Line and Register).
Maritime Declaration of Health.
International Health Certificate for passengers and crew.
Vaccination List, for Cholera, for passengers and crew.

Departures: Port Clearance Certificate signed by the Port Health Officer, to be shown to the Port Officer issuing clearance.

Clearance also required from Immigration.

For oil tankers, a copy of Ship's Manifest to be submitted. Ship carrying explosives, Master required to fill prescribed Form "D" stating quantity of explosive cargo ship is carrying together with copy of Ship's Manifest.

PILOTAGE: Vessel approaching port has to send telegram to Pilot Office direct (cable address "Pilots Penang") or to ship's Agent stating "ETA North Channel Light Float" or in case of South Channel "ETA Pulau Rimau". Draft of vessel to be given. The Pilot Office could be contacted direct on VHF Channel 12 or through Penang Radio Exchange on VHF Channel 16 to local telephone No. 3315006. At least 3 hours' advance notice should be given before arrival at Pilot point.

Pilot boat painted with International red colour hull with white upperworks with "Pilot" written in bold letters on both sides of boat and fitted with VHF which operates on Channel 12.

Pilot is usually taken onboard in vicinity of the North Channel Light Float in position Lat. 5° 35.9' N., Long. 100° 12.45' E. for vessels entering the harbour through the North Channel. For entry through the South Channel the Pilot will be taken onboard in vicinity of Rimau Wreck Buoy, 1 mile South of Pulau Rimau Lighthouse.

Vessels awaiting Pilot can anchor, in case of North Channel, in the Pilot waiting area within the following co-ordinates:

1.	Lat. 05° 35.8' N.	Long. 100° 10.9' E.
2.	Lat. 05° 34.3' N.	Long. 100° 10.9' E.
3.	Lat. 05° 32.7' N.	Long. 100° 13.0' E.
4.	Lat. 05° 34.2' N.	Long. 100° 13.0' E.

An approach channel of 10 nautical miles×183 m. wide for one line of traffic has been dredged at the North Channel. The available depth of water at the channel is periodically declared to port users. Current depth available is – 10.2 m. A.C.D.

Approach through the South Channel is restricted to vessels of 28 m. air draft - due to existence of the Penang Bridge. Current depth 5.8 m. A.C.D. Must comply to Merchant Shipping Ordinance 1952. Under Penang Port (Navigation within the area of the Bridge) Rules 1986.

Pilotage is compulsory for all vessels navigating in pilot district of Penang with the exception of fishing vessels and vessels of 600 g.r.t. and below.

ANCHORAGES: The Man of War, Petroleum, Quarantine, Explosive and local vessel anchorages are marked on Charts of the Penang Harbour (A.C. No. 3732).

There is no specific anchorage area in the harbour for vessels other than mentioned above. These other vessels are normally anchored South of Lat. 5° 26' N. and North of Lat. 5° 22.80' N. between the mainland and the island, clear of the berths, fairways and shallow areas.

RESTRICTIONS: No entry restrictions imposed other than those dictated by state of tide and draft of vessel.

Also see "Pilotage".

RADIO: Penang Radio, call sign 9MG. Channel 16 VHF for ship/shore telephone.

VHF: The Penang Port has various working Channels as follows:

Channel 16 – Watching Channel.
Channel 12 – Pilotage.
Channel 20 – Port Operations/ferries.
Channel 13 – Working Channel between tugs/Pilot.
Channel 8 – Ferry operations.

TUGS: May be required to berth vessels at all berths in the port. 3 tugs available, 3,540 b.h.p., 2,000 b.h.p. and 1,200 b.h.p.

BERTHING: Berthing facilities are available at Butterworth Wharves, Vegetable Oil Tanker Pier, Bulk Cargo Terminal, Prai (all of which are located on the Mainland) and Swettenham Pier on the island of Penang.

Conventional Cargo handled at Butterworth Wharves and Swettenham Pier.

Butterworth Wharves: 3 ocean berths with a total quay length of 649 m. Depth alongside 9.0 m. There are 3 transit sheds of 10,033 sq.m. and 6 storage godowns with an area of 21,181 sq.m. An open-sided timber shed of 4,738 sq.m. and an open storage area of 2,000 sq.m. are also available.

Swettenham Pier: 2 berths with a total quay length of 366 m. Depth alongside 10.0 m. There are 2 transit sheds of 4,464 sq.m. and 5 storage godowns of 10,900 sq.m. This terminal which is equipped with a modern passenger terminal also caters for cruise liners from all over the world.

Also see "Equipment".

BULK HANDLING FACILITIES: *Prai Bulk Cargo Terminal:* The Prai Bulk Cargo Terminal (PBCT) provides dedicated facilities for handling of dry bulk, non-edible liquid bulk and dangerous cargo.

The Terminal handles a variety of dry bulk cargo, such as grains, soya beans and raw sugar.

Pipelines convey liquid bulk cargo, such as Liquified Petroleum Gas and Vinyl Chloride Monomer to private onshore installations located outside the Terminal.

The terminal comprises 3 berths of 588 m. length with depth 10.0 m. (C.D.) and an inner berth of 154 m. length with depth 7.0 m. (C.D.). The terminal is serviced by a luffing crane and a high speed gantry crane, capable of handling 60 tonnes and 300 tonnes per hour respectively. The berths are linked to the storage area by a 1,219 m. access bridge. An area of 30.6 hectares forms the back-up for the storage sheds, stockpiling and tank farms.

Vegetable Oil Tanker Pier: A dolphin-type berth with length 167 m. and depth 9.0 m. (C.D.), used exclusively for the Butterworth Vegetable Oil Installations. Pipe-lines connect the tanks to the berth providing speedy and efficient loading and discharge of vegetable oil, particularly palm oil, direct to and from the vessels. Storage consists of 92 tanks with total capacity of 114,200 tonnes.

Also see "Equipment".

EQUIPMENT:

Butterworth Wharves:	*No. of Units*	*Capacity*
Conventional:		
Forklifts	4	16 tons each
	46	3 tons each
Trailers	12	12 tons each
Bulk Cargo Terminal		
High speed gantry crane	1	300 tons per hour
Kangaroo crane	1	12.5 tons (60 t.p.h.)

For liquid bulk cargo, pipelines connect the berths to the tanks, located outside the Port area.

CONTAINER HANDLING FACILITIES: *Butterworth Container Terminal:*

No. of berths	3
Length:	497 m.
Depth:	9.0 m. (C.D.).
Gantry cranes:	1×30 tonens, 2×35 tonnes and 1×40 tonnes.
Transfer cranes:	12×20-40 tonnes and 30.5-35.6 tonnes.
Front end loaders:	3×20-40 tonnes.
Forklifts:	16×3 tonnes.
Trailers:	75×20 ft. – 45 ft.
Reach stackers:	2×35.6 tonnes.
Prime movers:	28
Reefer points:	122
Container yard:	15.8 hectares (3,150 TEU ground slots).
Container freight stations:	2 (11,892 sq.m.).

North Butterworth Container Terminal:

No. of berths:	2
Length:	350 m.
Depth:	12.0 m. (C.D.).
Gantry cranes:	3×40 tonnes.
Transfer cranes:	8×40 tonnes.
Prime movers:	21
Trailers:	75×20 ft. – 45 ft.
Reefer points:	360
Back-up area:	42 hectares.
Container yard:	4,400 TEU ground slots.
CFS:	8,000 sq.m.

LIGHTERAGE: In the event of a vessel working in the Roads, lighterage is available for the transport of goods to and from the vessel. There are about 105 lighters operated by private companies.

BRIDGE: Channel width 156 m. Overhead clearance 28 m.

STEVEDORES: Stevedores and cargo handlers are obtainable from registered labour contractors. A Port Labour Board exists to register and control the employment of all categories of port labour.

Working Hours:

The Port operates round the clock. The working hours are as follows:

1st shift 0730 – 1530 hrs. (meal break 1130 – 1230 hrs.)
2nd shift 1530 – 2300 hrs. (meal break 1930 – 2030 hrs.)
3rd shift 2330 – 0730 hrs. (meal break 0330 – 0430 hrs.)

MEDICAL: Advance notice is necessary if medical attention is required so that arrangements can be made with Medical Department by Agents.

TANKERS: See "Fuel".

FRESH WATER: Fresh water is available at all times for supply to ships. Delivery can be through hydrants for vessels alongside wharf or by means of water-boats to vessels anchored in the Roads.

FUEL: Bunkering facilities are available from Shell Malaysia Ltd. and Esso Standard (M) Ltd., at their own wharves at Butterworth with a depth of 8.2 m. and from Caltex Ltd. at its wharves at Prai with alongside depth of 10.7 m.

Limited supply can be obtained by vessels anchored in the roads.

CONSULS: Danish Royal Consulate, Consulate of the Republic of France, Consulate of Germany, Honorary British Representative, Consulate of the Republic of Indonesia, Consulate General of Japan, Consulate of the Netherlands, Royal Norwegian Consulate, Swedish Consulate, Thai Royal Consulate General, Consulate of the Republic of Sri Lanka, Consulate of the Republic of Bangladesh and Consulate of the Republic of Turkey.

REPAIRS/DRY DOCKS: The Penang Port Sdn. Bhd. operates the Bagan Dalam Dockyard on the mainland for minor and urgent repairs of vessels up to 700 tons displacement. All floating craft of the Penang Port Sdn. Bhd. are serviced at the Dockyard. Two private dockyards available, capable of servicing vessels up to 700 g.r.t. and 8,000 g.r.t. respectively.

GANGWAY/DECK WATCHMEN: Services of a watchman recommended.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

REPATRIATION: Facilities exist for effecting crew changes and arranging necessary repatriation.

AIRPORT: Distance from port to airport approximately 18.3 km. Served by both international and local airlines.

TIME: 8 hours ahead of GMT. No alteration to clocks during year.

HOLIDAYS: Port works 365 days a year.

POLICE/AMBULANCE/FIRE: Dial 999 for Police and Ambulance. Dial 994 for Fire Brigade.

TELEPHONES: Available on request.

BANKS: Algemene Bank, Nederland NV, Bank Hin Lee Bank Bhd., Bank Bumiputra (M) Bhd., Bank Pusat Kerjasama Bhd., Chung Khiaw Bank Ltd., Citibank NA, Development & Commercial Bank (Ltd.) Bhd., Hong Kong & Shanghai Banking Corp., Lee Wah Bank Ltd., Malayan Banking Bhd., MUI Bank, Overseas-Chinese Banking Corp. Ltd., Overseas Union Bank Ltd., Public Bank Bhd., Southern Bank Bhd., Standard Chartered Bank, The Bank of Commerce, United Malayan Banking Corp. Bhd.

SERVICES: Some of the minor marine services provided by private firms are draft survey, general conditioning of ships, valuation of ships, accident survey, inspection of refrigeration, radar adjusting service, compass adjusting and tank cleaning.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Needed only when a crew member is discharged after hospitalisation or when he is repatriated.

REGULATIONS: When a vessel calls at port, Customs search party may go on board vessel to search for contraband goods.

DELAYS: Rain is only factor that may delay a ship's discharging or loading operations.

SHIPMASTER'S REPORT: January 1992 (Updated 1996).

Charts: B.A. Charts No. 1366 and 3732.

Documents:

6 copies Crew List.
2 copies Crew Effects Declaration.
2 copies Stores List.
1 copy Ports of Call List.
1 copy Maritime Declaration of Health.
1 copy Vaccination List.
Cargo Manifest ('nil' declaration if not discharging cargo).

Officials: Immigration required that all foreign crew signing-off must have flights booked before being allowed off the ship. Crew members are not allowed to travel overland to Kuala Lumpur Airport. Travel must be from Penang Airport.

Certified officers must have a relief on board before the Shipping Master will allow them to sign-off. Ship's articles must be presented to the Shipping Master.

Customs officials may visit the vessel at any time after arrival.

Pilotage: The pilot boards from a fast cutter with an orange hull at Buoy No. 1. The pilot departs at Buoy No. 4. The Pilot Station can be contacted on VHF Channel 12 throughout 24 hours.

A pilot is required when anchoring in the roads for vessels more than 600 g.r.t., and for berthing of vessels more than 200 g.r.t.

Anchorage: We anchored with Swettenham Pier bearing 348°×1.25 miles to work cargo from barges. Other vessels were working cargo from barges in the same area.

Approaches: Muka Head Light was not operating at the time of our call. The pilot reports that since its conversion to mains electricity power its operation has been unreliable.

North Channel Light Float is a buoy and is a dim light.

Penang Island was observed at 64 miles on the radar.

Channel: The channel is dredged to 9.7 m.

Tugs: Three port authority tugs of moderate power available.

Cargo: Latex is loaded from lighters via 1×4 in. hose, using the air pressure method. There are three lighters with 80 tonnes capacity and one lighter of 40 tonnes capacity which shuttle back and forth to the loading facility at Butterworth. There are small barge tugs to tow the lighters.

The total average loading rate was 80 tonnes/hr. The surveyor boarded at the start and completion of operations. No certificates required.

Airport: Penang Airport is at the South end of the Island. There are frequent flights to Kuala Lumpur.

AUTHORITY: Penang Port Sdn. Bhd., P.O.Box 1204, 10710 Penang, Malaysia. *Tel:* 604-2102211. *FAX:* 604-2634792. *Contact:* Managing Director, General Manager (Container), General Manager (Marine).

AGENT: Pesaka Jardine Shipping Agencies SDN. BHD., 29, 1st Floor, Lebuh Pantai, 10300 Penang, Malaysia. Tel: 604-2624144/5, 2634895. Telex: MA40073 Jarship. Fax: 604-2626531, 2629652.

Associated with Jardine Shipping Agencies.

PORT DICKSON, Malaya: 02.31 N. 101.47 E. (See Plan)

DOCUMENTS:

1. *Harbour Master's Office or Marine Department*
   - (a) "Report of Arrival of Vessel" on prescribed Form (Marine 28) obtainable from Harbour Master's Office on arrival.
   - (b) One copy, Passenger List, specifying names and nationalities and required to report any casualties, accidents, births or deaths that have occurred during the voyage to the passengers, crew, ship or cargo.
   - (c) Port Clearance from last port and copy of Manifest of Cargo to be discharged.
   - (d) List of all arms and explosives on board.
   - (e) In the case of a British or Malaysian vessel and vessels belonging to a nation not having a Consular Officer at the port, produce to Port Officer the Certificate of Registry and ship's Articles.
   - (f) All ship's certificates such as Safety Equipment Certificate, Radio Certificate, Load-line Certificate, Safety Construction Certificate, Ship's Registry, Passengers' Certificate, Derat Certificate and all Certificates of Competency of all Officers on board.
   - (g) Crew List.
2. *Immigration Authorities*
   - (a) Crew List (3 copies).
   - (b) Passenger List (3 copies).
   - (c) Produce all passengers passports/visas.
   - (d) Produce all Seaman's Cards.
   - (e) Forms A and B – "Immigrant and Emigrant" obtainable from Immigration Department on arrival.
3. *Port Health*
   - (a) Crew List showing last date of vaccination.
   - (b) Passenger List showing the last date of vaccination.
   - (c) Produce all seamen and passengers' vaccination cards.
4. *Customs Department*
   - (a) Crew List (2 copies).
   - (b) Passenger List (2 copies).
   - (c) Personnel Effects List (2 copies).
   - (d) Cargo Manifests (2 copies).
   - (e) Last Port Clearance.
   - (f) Bonded Stores List (2 copies).
   - (g) Full and correct statement of dutiable goods carried as ship's stores (2 copies).
   - (h) Customs Form C.D.15 obtainable from Customs Department on arrival.

APPROACHES: Deep water approach channel from N.W., marked by 5 light buoys, presents no difficulties and is clear.

PILOTAGE: The Port Dickson area does not constitute a Compulsory Pilotage District under provisions of Merchant Shipping Ordinance, 1952. Private pilotage services are, however, operated by Shell and Esso for vessels making use of their respective marine installations. Mooring Master boards tankers at Banbeck Shoal Buoy. Pilots on VHF Channel 19.

Ship's Officer's Report: Pilot boards one mile off Fairway Buoy. However, vessels of less than 30,000 d.w.t. holding Admiralty Chart No. 1140 may be requested to proceed inwards, Pilot boarding at No. 1 Buoy. Coasters proceeding to Headlands Jetties may be required to do own pilotage.

ANCHORAGES: *(a)* Good anchorage may be obtained in depths from 15 to 20 fathoms, Westward and South-Westward of Tanjong Kamunin. Small vessels may obtain anchorage in depths from 4 to 5 fathoms North-Eastward of Pulau Arang Arang, but holding ground is poor.

(b) Prohibited Anchorage Area indicated by pecked lines on chart and described under Port (Negeri Sembilan) (Amendment) Rules, 1963. This area contains a tanker SBM, with extensive ground tackle and floating hose attachments, which is connected to the shore by a submarine pipeline. Passage between the buoy and the shore is also prohibited.

RADIO: *Ship's Officer's Report:* Send ETA 96 hours and 24 hours in advance. Two hours before arrival keep listening watch on Channel 16. Shell Oil Terminal on VHF Channel 16 and 19. Cargo operations are carried out on Channel 9.

TUGS: No tug-boats available.

MAX. SIZE: Up to 49 ft. draft at S.B.M. terminal.

BERTHING: Port installations at Port Dickson comprise the following:

A small boat harbour contained in the curve of the stone approach to the Railway Jetty which affords little shelter against Southerly winds dries out at low water.

The Shell Jetty – property of the Shell Refining Co. (Malaysia) Ltd. (Private). Reinforced concrete jetty 700 ft. with "T" head 170 ft.×36 ft.

The Esso Jetty – property of the Esso Standard Malaya Ltd. (Private). Reinforced concrete island jetty 200 ft.×24 ft.

The Railway Jetty – property of the Malayan Railway Administration. Stone pier 600 ft. length terminating in a crosshead 150 ft. long with steel piling and wooden deck.

The Joint Shell/Esso single-buoy Tanker Mooring and Crude Oil Discharging Terminal (See "Tankers").

Stone ramp on foreshore usable by lighters at high water.

MEDICAL: District hospital with 150 beds.

TANKERS: *Cautionary Advice - Operating Conditions - Esso SBM:* Strong local winds, ("Sumatras"), often occur during darkness and without any advance warning. For this reason, it is essential that arrangements be made during the early part of discharge in order that a sufficient number of tanks are ready to receive ballast as soon as required.

In order to safeguard the SBM installation and the ship, no large crude carrier is permitted to fully discharge without having ballasted to at least 15% of her deadweight. For ships completing discharge and sailing during daylight hours, a 20% minimum deadweight is usually acceptable but all cases are treated on an individual basis, season of year, present weather conditions, tidal stream, etc. being considered.

If during discharge of cargo, stoppage of some hours is advised by the installation, then opportunity should be taken, after joint consultation between ship and shore, to ballast to normal sea ballast condition, to avoid a delay after the cargo discharge is finally completed, assuming that the Master wishes to take ballast additional to his permanent ballast prior to sailing.

Upon arrival, ullages and samples are taken by shore representatives. Prior commencing ballasting, tanks are certified dry by a shore representative. Likewise if ballast is taken on board prior to completion of cargo, tanks should be inspected.

Shore will instruct at what stage of the operation the compartments containing the residues and the load on top or parcels should be discharged.

Vessels moored at the SBM must keep engine ready on short notice. Immobilisation of engine is not permitted. Propeller of turbine engine should be turned at minimum revolutions. This point should be discussed and co-ordinated with the Marine Superintendent since higher revolutions may cause vessel to surge forward and damage SBM, hoses and ropes.

On approach of the "Sumatras" engine should be immediately put on standby. The critical moment is when a vessel lying with the tide is caught by the wind and swung around the buoy. During the swinging-process the vessel may gain great momentum and put the hawsers under heavy strain.

The Marine Superintendent does not remain on board the vessel during the discharge, but may be reached at any time via VHF Channel 9.

A launch remains in attendance at the ship for tending hoses, mooring, etc. In addition to the VHF radio operators, 2 workers, per shift, remain on board.

The terminal requires that a seaman from the vessel is stationed on the forecastle to watch moorings at all times and alert the Master whenever vessel's bow tends to touch the SBM and/or at anytime anything is going wrong with mooring arrangements.

General: The Shell/Esso SBM is located West of the town of Port Dickson. It is used for the crude discharge by Exxon controlled tonnage and by Shell for both crude discharge and fuel oil loading. The SBM is operated by Shell. In addition each company also operates a conventional type of wharf for export cargoes.

Communications: Radio traffic to and from vessels to be directed via Penang Radio. Vessels to monitor Penang Radio or Singapore Radio for traffic list.

Vessels should listen on VHF Channel 16 (alternate 9) 2 hours before arrival. Call sign "Shell Port Dickson".

Arrival Advice: Vessels should include in their arrival message, ETA at Fairway Buoy, draft forward and aft, Bill of Lading figures in barrels and Long Tons, number and location of tanks where slops were consolidated prior to loading and amount of water, residues and cargo loaded on top. Also include measurements of bow openings, cargo manifold and lifting capacity of ship's boom, if problem is foreseen. For crude oil washing request "Essoref PortDickson" well in advance for the COW questionnaire to be completed and cabled back to 'Essoref'.

Preparations: Crude vessels bound to SBM should have their accommodation ladder rigged on the starboard side. Port and Starboard derricks rigged. 2 good mooring ropes should be readily available on the forecastle head to be used as messenger lines. "Panama" centre fairlead to be uncovered.

Navigation: On approaching the Fairway Buoy moored in position Lat. 02° 30' 00" N., Long. 101° 42' 48" E.; the National Electricity Board Power Station chimneys provide a prominent landmark. The refinery flares also provide landmarks which can be easily identified. It should be borne in mind that the 2 gas flares may be extinguished at times. Position of NEB Power Station: Lat. 02° 31' 58" N., Long. 101° 47' 30" E. Painted white horizontal bands and red horizontal fixed lights at top and mid height. Height above sea level 307 ft.

Position of Shell flare: Lat. 02° 32' 02.3" N., Long. 101° 48' 45.3" E. The Esso flare is about 1 mile East of the Shell flare.

Fishing boats may be encountered in the approaches to the Fairway Buoy and they may present a navigational hazard.

Anchorages: It is sometimes necessary for vessels to anchor to await berth or suitable tides for berthing. Anchoring position for large crude carriers is 1 mile North of Fairway Buoy. If wait at anchorage is expected to be more than 3 days then vessel to anchor about 1.5 miles East of Fairway Buoy in order not to hamper navigation of other vessels in the Fairway Channel. Masters not familiar with this port should not enter the channel without a Pilot and should drop anchor outside at the Fairway Anchorage.

Product vessels routinely trading Port Dickson normally enter the channel and anchor about 0.5 miles N.E. of Buoy No. 2.

Pilots and Tugs: The Shell Refinery Marine Superintendent will board crude vessels for pilotage and mooring at the anchorages or 1 mile off the Fairway Buoy while underway if vessel is to berth on arrival. Anticipated time of boarding, etc. will be advised by Radio W/T or VHF. The Shell Marine Superintendent monitors VHF Channel 16 (alternate 9) on 24 hours basis. No tugs are available.

Esso/Shell SBM: General: The SBM is moored in position Lat. 02° 31' 19.6" N., Long. 101° 47' 03.5" E. (Pulau Arang Lighthouse bearing 122° 8 cables distance).

The SBM is moored in 16 fathoms of water and the least depth within a radius of 1,000 ft. from the SBM is 53 ft.

Berth Approach: Vessels from the anchorage proceed towards the SBM through the buoyed channel at the time established by the Marine Superintendent. Vessels up to 30,000 d.w.t. berth at any stage of the tide. Vessels in excess of 30,000 d.w.t. generally moor at SBM during ebb tide when N.W. tidal stream is running. There are no night restrictions for berthing.

Mooring: Vessels are moored to the SBM by means of 2×120 ft.×12 in. nylon ropes with a breaking strength of 125 tons each which are connected to 6 in. wire snotters secured on the ship's bollard. Hawser's chafing chains are, if possible, led through the ship's centre line "Panama" type fairlead. Large crude carriers may connect a third nylon preventer rope.

Mooring/unmooring is done by a shore gang, but assistance of the ship's crew will be required to operate all ship's equipment, winches, etc.

Certain mooring equipment, i.e. shackles, wires, snotters, etc. will be brought on board from the pilot mooring launch.

When the vessel is about 600 ft. from the SBM the mooring launch will run out to the vessel's port bow with one 12 in. nylon rope to which is connected a 10 ft. length of 2.25 in. diameter chain and a monkey face. To this monkey face, the launch will have connected a 500 ft. long 10 in. polypropylene pick-up rope. The tanker then lowers a ship's rope as a messenger from the port bow to the launch, which will connect the ship's rope to the polypropylene pick-up. The tanker will then heave up on the messenger and the pick-up until the monkey face is in-board when it will be shackled to the 6 in. wire snotters already fastened around the ship's bollards. When the launch has made fast the port messenger connection to the ship's rope, she will then run out the second ship's rope to the buoy and connect the second 12 in. buoy assembly line. Whether the third 12 in. nylon preventer should then be connected will be advised by the Marine Superintendent.

There is no night restriction for unberthing but awaiting of flood current is strongly recommended.

Cargo Operations: There are 2×16 in. hoses, each string 700 ft. long supported by flotation beads.

Each string terminates at the ship's end with a keystone valve having a flange of 12 in. ASA (150 psi).

Connecting and disconnecting of hoses is done by shore gang with the assistance of ship's crew and under ship's responsibility. A large crude tanker in empty condition is required to have derricks with safe lifting capacity of 10 tons to take the weight of a full hose. Hoses are fastened to the ship's main deck and are supported by means of chains. Connections from the SBM to the 30 in. diameter submarine pipeline to the shore is by means of 2×16 in. diameter submarine hoses. Hydraulically shore operated valves are fitted at the connecting points on the sea bed.

The line from the shore to the refineries is 31 in. diameter – about 2 miles long to Shell and 3 miles to Esso.

The shore system has proved capable of handling rates of 5,500 cu.m.p.h. but the governing factor at all times is the Ship's Rail Pressure. Ship's Rail Pressure must never exceed 120 p.s.i. (10 kg./sq.cm.).

Due to the SBM being a jointly owned facility, the system will on occasions contain oil owned by the other party, or another grade of crude oil. It is therefore often necessary for line clearing operations to be carried out before bulk discharge commences. Ship's manifold should remain closed when no cargo is being discharged as there may be static head back pressure of some 30 p.s.i. (2 kg./sq.cm.) once the shore lines are opened.

Line clearing involves the pumping of approximately 1,500 tons of cargo to shore tanks. The exact figure will be advised and controlled by shore; ships are, however, required to keep a close check in order that over clearance be avoided or in case radio contact is lost. Esso Refinery representative will board the vessel when berthed and will advise the quantity and procedures to be followed. Once line clearance has been completed and the necessary tanks lined up, readiness to receive cargo will be advised by shore. Discharge should commence using one pump first when oil is being received by shore, the ship will be advised to increase the pumping rate, until 120 p.s.i. at rail is reached.

Due to refinery operating requirements, it will sometimes be necessary to stop pumping during the change over of shore tanks. Shore will give ship at least 20 minutes notice before the ship is required to stop.

Advice to stop pumping will be confirmed 5 minutes before actual stoppage is required. If at that time, or any other time, radio contact is lost the ship should stop pumping until contact is re-established.

Every hour the quantities received ashore are advised by the refinery control. Ships are asked to check that these figures tally with the amount discharged.

The stripping and draining of cargo tanks should be commenced as soon as possible and every endeavour made to keep ahead of discharge, in order that no delay be incurred by draining. It is also essential that sufficient tanks be drained during the early part of the discharge, as it may at any time be necessary to suspend discharge and commence ballasting due to weather deterioration. This applies particularly to vessels without permanent ballast tanks or vessels whose permanent ballast is less then 20% of deadweight. In Port Dickson, experience has shown that a good trim is required for an efficient and quick draining. This is of particular importance for vessels stripping high vapour pressure crudes.

Two battery operated VHF radios on Channel 9, with an operator on a 6 hour shift, will be placed on board for all ship/shore contact throughout a vessel's stay at the SBM. It is suggested these should be sited in the ship's office or in some convenient room near the centre of operations (Cargo Control Room).

Ship/shore radio checks are to be made every hour, or more frequently if reception conditions are poor and if contact is lost cargo operations should cease immediately. Ship's VHF should be ready at all times to be used in case of failure of the portable sets.

Environmental Conditions: Strong local winds, known as "Sumatras" occur during the period May to October. They blow usually from a Southwesterly to a Northwesterly direction, are of short duration (1 to 4 hours average) and velocities of between 40 and 50 knots have been experienced. They are usually followed shortly after onset by very heavy rain.

Direction of the tidal current at the SBM is approximately 326°-146° with a maximum rate of 3 knots. The Northwesterly current (ebb) which normally flows for 6 hours starts 3-4 hours after HW and ends about 3-4 hours before HW. Port Dickson tides are semi-diurnal.

Density of water at the SBM varies between 1018-1023.

Safety, Fire and Protection: General: A Safety and Pollution Check List is used at each terminal and international accepted safety and pollution rules are strictly enforced. Discharge should be stopped immediately and the Marine Superintendent advised promptly in case of pollution incident.

Fire Fighting: In the event of fire on board, cargo operations should be stopped immediately, valves closed and terminal's superintendent advised.

No fire fighting facilities are available. The Marine Superintendent will be available to advise Masters and to assist if feasible in moving the vessel to an anchorage clear of the berth.

In case of breakdown of communications via VHF ships should use their whistle (six long blasts).

Security: No security problems have been reported, and shore leave is permitted.

Services: Fresh Water: Fresh water requirements should be cabled to the Agent prior arrival. It is supplied by a 180 ton steel barge.

Bunkers: All grades of bunkers are available alongside at both Esso and Shell Product Piers. No bunker barges are available to supply crude vessels at SBM or at anchor.

Provisions, Laundry, etc.: Fresh and dry provisions are available through a ship chandler. Limited selection of bonded stores also available. 24 hour laundry service available, if arranged prior to arrival. No deck/engine store available.

Tank Cleaning: There are no tank cleaning facilities. Facilities for receipt of dirty ballast are limited to Esso and Shell product piers.

Crew Change and Repatriation: Available through Kuala Lumpur airport.

Esso Product Jetty: Berth is constructed of reinforced concrete. The island jetty is 200 ft.×24 ft. with 4 off-lying mooring buoys inshore for mooring purposes. Accommodation for one vessel on outer face only.

Max. LOA 575 ft.; max. draft 34 ft.; max. size 19,500 d.w.t.

Shore connections:

1×20 in. black oil/ballasting
1×16 in. white oil line
1×10 in. LPG line
1× 4 in. inert gas line

1 crane to handle hose.

Report: December 1992.

New SRC Import/Export Facilities: Under development (See Plan).

Berth No. 1:

Max. Draft:	10.50 m.
Displacement:	14,000 tonnes.
LOA:	No restriction for the above displacement.
Beam:	No restriction for the above displacement.
Grades Handled:	Fuel Oil, Kero, Leaded and Unleaded Mogas, Naphtha, Gas Oil.
Cargo Arms:	"Kanon" 3×10 in. bolt flange connections.

Berth No. 2:

Max. Draft:	7.50 m.
Displacement:	7,500 tonnes.
LOA:	No restriction for the above displacement.
Beam:	No restriction for the above displacement.
Grades Handled:	Base Lube Oils (Import), Kero, Leaded and Unleaded Mogas, Naphtha, Gas Oil.
Cargo Arms:	"Kanon" 2×10 in. and 1×6 in. (lubes) bolt flange connections.

Berth No. 3:

Max. Draft:	10.50 m.
Displacement:	14,000 tonnes.
LOA:	No restriction for the above displacement.
Beam:	No restriction for the above displacement.
Grades Handled:	LPG, Fuel Oil, Kero, Leaded and Unleaded Mogas, Naphtha, Gas Oil.
Cargo Arms:	"Kanon" 3×10 in. with bolt flange connections and 1×6 in. for LPG with bolt flange connections and ESD and automatic release. N.B. No vapour return line for LPG.

Bunkers up to 180 cSt available at each berth.
Bunker gas oil available at each berth.
Fresh water available ex-barge at anchorage.

Fendering: Cylindrical fenders and rectangular panels are fixed to the Outer Breasting Dolphins.

Type: Bridgestone SUC 145OH. 2 fitted to the Outer Breasting Dolphins of each berth.

Mooring Hooks: Stevens Quick Release Mooring System.

Type: U4 03008D 01.
Hook SWL 30 tons.
Hook Proof Load: 45 tons.
Capstan Load 2 tons.; speed 30 m./min.

Made by N.V. Steditek, Diepenbeek, Belgium.

Gangways: One provided for each berth with craneage.

General: Each berth also equipped with remote controlled fire water monitor and Closed Circuit TV.

On completion of construction, SRC (Marine Department) intend to sound berths to obtain detailed soundings.

No bollards are fitted to the jetty structure. All vessel impact loadings are taken by the Mooring Dolphins, the Outer Breasting Dolphins and the Inner Breasting Dolphins.

Latitudes and Longitudes for the final jetty structure will be submitted shortly.

A study will be undertaken shortly to determine the feasibility of berthing a 30,000 tonne displacement tanker with a fuel oil import cargo.

Additionally 2 transit navigation lights have been placed in a North/South line to indicate the approximate line of the subsea pipeline. Visible range of these lights will be 2 nautical miles. They will be sector lights. The rear light will be 100 m. North of the jetty, and will be white with a 10° visible sector showing to the South. The forward navigation light will be located on the jetty trestle. It will also show a 10° visible sector white light to the South. In addition, it will also show a 5° red and green sector to each side of the white light. By day, the rear navigation light shall have a daymark of a triangle point downward, and the forward navigation light shall have a daymark of a triangle point upwards.

FRESH WATER: Available at Shell and Railway jetties.

FUEL: Bunker fuel oil available. No diesel.

REPAIRS/DRY DOCKS: None.

CUSTOMS ALLOWANCES: Tobacco, cigarettes 25 in number per man per day, or cigars 8 in number per man per day, or tobacco 1 oz. per man per day, or snuff 1 oz. per man per day. Wine and/or spirits, spirit 0.175 qt. per man per day, or wines 1 qt. per man per day, or beer or stout 1 qt. per man per day.

AIRPORT: No airport locally.

HOLIDAYS: Official holidays in the state as follows: New Year's Day, 1 day; Chinese New Year's Day, 2 days; Muslim New Year's Day, 2 days; Wesak's Day, 1 day; His Majesty's Birthday, 1 day; Prophet Mohammed's Birthday, 1 day; His Excellency Governor's Birthday, 1 day; Malaysia Day, 1 day; Deepavali, 1 day; Hari Raya Huji, 2 days; Christmas Day, 1 day. No cargo is worked on any of the above gazetted public holidays – port closed.

DEVELOPMENTS: Proposal to enlarge facilities and to provide deep-water berths.

AUTHORITY: See "Malacca".

AGENT: Pesaka Jardine Shipping Agencies Sdn.Bhd., Lot 47, No. 136/2 Jalan Munshi Abdullah, 75100 Melaka, Malaysia. Tel: 60-6-2837850, 2837381. Fax: 60-6-2848588. (Associated with Jardine Shipping Agencies).

PORT KLANG, Malaya: 03.00 N. 101.24 E. (See Plan)

PORT LIMITS: *Northern Limits:* A line from Beacon B running N.W. towards Pulau Angsa Lighthouse until it intersects Lat. 3° 07' 24" N., thence extending due East along this latitude till it meets the mainland; *Southern Limits:* A line from Tanjung Ru running West along Lat.2° 50' 21" N. till it intersects Long. 101° 14' 00" E., thence extending due North along this longitude till it meets Pulau Pintu Gedong;

There shall be included within the limits all waters in the Klang Straits, Selat Lumut, Sungai Puluh, Sungai Aur, Sungai Langat and other waterways contained within the Lat. 3° 07' 24" N. and 2° 50' 21" N., and Westwards towards the coast from Long. 101° 28' 30" E. (which passes through Connaught Bridge): including all piers, jetties, landing places, wharves, quays, docks and other similar works whether within or without the line of high-water mark and any position on the shore or bank within 45.72 m. of the high-water mark, subject to any rights of private property therein.

APPROACHES: Ships from and to Penang enter and leave the port by the North Klang Straits, and ships from and to Singapore enter and leave by the South Klang Straits. The entrance channel at the North Klang Straits is dredged to 11.3 m. below datum. A very large deep water anchorage for ships is available at the North Klang Straits. Ships can also navigate in and out of Port Klang through a secondary channel at the South Klang Straits. At all times the channel is dredged to 10.8 m. below datum.

DOCUMENTS: *(a) For Agent.* Vessels required to fill in arrival report which may be obtained from Agent at Singapore or Penang or Boarding Agent on arrival. This should be completed and handed to Boarding Agent together with last Port Clearance and one copy each of Crew List and Passenger Lists for submission to Marine Department.

Vessels should have ready and hand to Boarding Agent on arrival the following:

Arrival Report.
Last Port Clearance.
Two copies of Crew List.
Two copies each of Disembarking and Transit Passenger Lists (if any).
List of Explosives, dangerous cargo on board.

Following documents should also be handed to Boarding Agent on arrival and will be returned to vessel after perusal by Marine Department:

Malaysian Light Dues Receipt (if any).
Ship's Register.
Radio Safety Certificate.
Safety Equipment Certificate.
Load Line Certificate.
Derat Certificate.

Port Health Officer now requires all vessels arriving from foreign ports to submit an "Entry Declaration" on form Health 43, on the International "Maritime Declaration of Health" form or on a similar copy, and this should be handed to Boarding Agent, together with copy of Crew List, in cases where vessels are not in Quarantine, in which case doctor does not attend on board.

Note: Endorsement of Port Clearance must be obtained from Port Office at Marine Office before a fresh Port Clearance can be issued by local Customs Authorities and handed to vessel before sailing.

(b) Immigration

2 copies Crew List.
2 copies Passenger List (Disembarking and Transit).

(c) Customs

2 copies Customs List (CD.15).
1 Crew List.
1 Passenger List.

FLAGS: The Malaysian flag. Flag "Q" meaning Health Clearance required. *Flag 2/5 meaning no passengers on board, or *flag 3/4 meaning passengers on board. Pennant Zero is not required since Boarding Officers do not board the ship on arrival. Flag "H" meaning Pilot on board. (*Applies only to vessels arriving from foreign ports, which includes Singapore.)

Note: Except for vessels under way, no vessel in port may use its siren except in case of an emergency when no other means of communication is available. The Authorities strictly enforce this rule and vessels infringing it become liable to heavy fine.

Shipmaster's Report: June 1983 (Updated 1994): Flags 2/5 must be flown by day, or red light over white light (all round visibility), shown by night until Immigration clearance has been obtained, otherwise the ship is liable to be fined.

PILOTAGE: Available 24 hours a day. Pilotage compulsory.

(a) Application: Piloting carried out by Klang Port Management. Masters to cable "Pilots Port Klang" giving ETA and point of arrival, i.e. Pintu Gedong or Pulau Angsa and draft at least 4 hours before arrival, as Pilots will not leave shore until confirmation received from vessel or Agent. Both North and South Channels are well marked and Pilots consider it quite safe to arrive and depart at any hour.

Vessels approaching this port normally apply through Agent, giving ETA Pintu Gedong or Pulau Angsa, together with draft and port of departure.

(b) VHF: If vessels wish to communicate direct all pilot boats are fitted with VHF for use between pilot office, pilot boats, pilot boat to pilot boat and where necessary to vessels arriving at this port. Operated on Channel 12 of International Maritime VHF radio telephone bands, and of a range of 20–25 miles.

(c) Recognition: Pilot boats painted blue and have white superstructure.

(d) Boarding. Unless advised otherwise Pilots will be ordered to board vessels at Pulau Angsa (North Channel), or Pintu Gedong, East of Fairway Buoy (South Channel).

Pilot ladders should be of approved Standard pattern internationally used.

(e) Waiting for Pilot: Location for a vessel awaiting Pilot is at Pintu Gedong, 8 cables South of Temsan Buoy, at Pulau Angsa 1 mile East of Pulau Angsa Island, and at Deep Water Point where anchorage is available according to number of vessels already anchored.

ANCHORAGES: Per latest Admiralty charts. Vessels may load timber and LASH barges from privately owned junks at Deep Water Point Anchorage. In exceptional cases and with permission of Port Authority it is also possible to work with Authority Lighters at Deep Water Point.

Special Anchorages: The Port Authority provides an explosives anchorage and a LASH anchorage situated North of Tanjong Bakau in the North Klang Straits. The quarantine anchorage is located North-West of the North Port wharves.

RESTRICTIONS: (See "Max. Size"). At Pintu Gedong, the Southern Channel Pilot Station, there is a restriction which vessels will be advised of when giving their ETA.

The depth of the South Channel is 12.00 m.

MAX. SIZE: Maximum length of vessels using South Port is: Dry cargo vessels, 192 m. LOA and draft of 10.5 m.; tankers, up to 178 m. LOA and draft 10.5 m. Tidal conditions govern movements of all tankers over 90 m. LOA in the South Port but not at the North Port. At the North extension wharves container ships of 300 m. can be berthed.

HEALTH: Port Health Officer will board vessels arriving from infected ports, or carrying deck passengers at Deep Water Point at any time of day. All vessels should include in arrival cables confirmation that all well on board and also that all health papers in order. It should be understood that the health papers referred to include Derat, or Derat Exemption Certificate. Also it is necessary to furnish information on the last 5 ports called within 14 days and the expiry date of Derat Certificate.

RADIO: ETA cables normally routed via Singapore or Penang as no radio station in Port Klang. Such messages when received are transmitted by telephone to Agents/and or Pilots at Port Klang.

TUGS: Supplied by Klang Port Management and normally "stand-by" vessels berthing at wharves as and when required. Tugs use their own lines. 10 tugs available (800 h.p. – 3,200 h.p.) to assist in berthing and unberthing and are equipped with fire-fighting appliances and radio communications system. When vessels berth or unberth at wharf, tugs ordered by Agent in consultation with Pilots, and once in attendance are charged for whether used or not. Tugs are also used to swing vessels in stream which are stemming ebb tide on departure.

The West Port has 2 tugs supplied by Klang Multi Terminal.

VHF: (See "Pilotage"). Ship to shore telephones available at all berths at North Klang Straits, and VHF sets available for ships in moorings. Klang Exchange keeps a 24-hour watch on Channel 16 and will connect the vessel to any telephone receiver ashore (Channels 24, 26 and 27). For local calls the cost is RM 1.92 for three minutes (approx.).

BERTHING: There are 3 operational areas viz: the South Port, the North Port and the West Port. Vessels berthing in the South Port are governed by tidal conditions which vary considerably. Vessels over 160 m. LOA are usually berthed port side to on the ebb and then only when tides are favourable. Night berthing at South Port commenced in July 1992.

(a) South Port: 4 ocean wharves of 677 m. in length out of which 3 wharves are with 10.0 m. of water alongside, and 1 wharf with 9.5 m. of water alongside. 4 coastal shipping wharves of 402 m. length. Of these, 1 wharf with 6.0 m. of water alongside and 3 wharves with 5.5 m. of water alongside. Vessels of not more than 90 m. in length and with drafts of up to 4.0 m. can be accommodated at the North shore anchorage.

Berth Nos. 1 – 4 are for ocean-going vessels while Berth Nos. 5, 6, 7 and 7A are used principally by coastal vessels with a maximum size of about 6,000 deadweight tonnes. The wharf apron is 15.2 m. (50 ft.) wide and carries 3 rail tracks.

(b) North Port Wharves: There are 18 ocean wharves with a total length of 3,939 m. Of these, 6 are container berths with 13.2 m. of water alongside, 1 Ro/Ro berth with a depth of 11.0 m., 4 general cargo berths with 9.0 m. of water alongside, 3 general cargo berths with 11.5 m. of water alongside, 2 dry bulk berths with 11.0 m. of water alongside for bulk carriers of 36,000 d.w.t., and 2 dolphins for tankers up to 60,000 displacement tonnes.

There are 14 container cranes on the container wharves.

Depth of water alongside is 13.2 m. 68 acres of stacking area, capacity 10,800 TEU's (excluding 182 reefer points). Freight station measures 600 ft.×120 ft.

Container Handling Equipment: 8 container cranes of 35 tons capacity each.

52 straddle carriers of 30 to 35 tons capacity.
69 tractors and prime movers.
40 × 20 ft. and 44 × 40 ft. trailers.
27 trailers, capacity 50 tonnes.
5 Samsung rubber-tyred gantries.
61 forklifts with capacity 3 tons – 15 tons.

(c) General:

Facility	*Length* (m.)	*Depth Below New A.D.C.* (m.)
North Klang Straits Approach		11.3
Pintu Gedong Bar		10.8
Labohan Gurap Bar		8.2
South Port:		
No. 1 Wharf	177	10.0
No. 2 Wharf	177	10.0
No. 3 Wharf	177	10.0
No. 4 Wharf	146	9.5
No. 5 Wharf	107	6.0
No. 6 Wharf	107	6.0
No. 7 Wharf	94	6.0
No. 7A Wharf	94	6.0
North Port:		
No. 8 Wharf (Ro/Ro, Containers)	216	11.0
No. 9 Wharf (Containers)	320	13.2
No. 10 Wharf (Containers)	320	13.2
No. 11 Wharf (Containers)	226	9.5
No. 12 Wharf	226	9.5
No. 13 Wharf	152	9.0
No. 14 Wharf	179	9.0
No. 15 Wharf	244	9.0
No. 16 Wharf	213	11.5
No. 17 Wharf *	213	11.5
No. 18 Wharf *	213	11.5
No. 19 Wharf	213	11.5
No. 20 Wharf	213	11.5
No. 21 Wharf	213	11.5
No. 22 Wharf	213	11.5
No. 23 Wharf (Dolphin Berth)	213	11.5
No. 24 Wharf	213	11.0
No. 25 Wharf	213	11.0

* 2 General Cargo Berths converted to 2 Container Wharves by the end of 1996.

(d) Berth No. 8, is for Ro/Ro as well as container traffic. The Ro/Ro ramp at the Southern end of the berth is 45 m. (147 ft.) long and 8 m. (27 ft.) wide. The maximum gradient is 1:10 at tides between +0.3 m. (1 ft.) and +5 m. (17 ft.). There are 3 forklifts of 22.5 tonnes capacity specially for Ro/Ro operations, as well as 3 tractors and 3 trailers. The berth can cope with ships of up to 40,000 tonnes and is capable of accommodating vessels with 20 m. to 32 m. beams and 1.0 m. to 4.5 m. freeboards.

(e) West Port Wharves: There are 11 ocean wharves operational: 2 are for liquid bulk – 300 m. × 80,000 tonnes, 1 for liquid bulk – 150 m. × 10,000 tonnes, 2 for dry bulk – 300 m. × 80,000 tonnes, 2 for containers – 300 m. × 100,000 tonnes and 4 for general cargo – 300 m. × 80,000 tonnes.

Also see "Shipmaster's Report" dated January 1996.

(f) Cruise Terminal: A dedicated cruise terminal is situated on Pulau Indah. 3 berths are available on the T-shaped jetty. The inner berths can take up to two 200 m. × 80,000 tonnes vessels, while the outer berth can take up to one 300 m. × 100,000 tonnes vessel.

DENSITY: Varies considerably with state of tide and heavy monsoon rains.

BULK HANDLING FACILITIES:

South Port: The South Port caters mostly to coastal traffic between Peninsular Malaya and Sabah and Sarawak, as well as the major portion of Port Klang's bulk liquid cargo.

North Port: Located in the North Port are the Container Terminal, Breakbulk Terminal, Dry Bulk Terminal and the Liquid Bulk Terminal.

Container Terminal: This is a privatised terminal, managed and operated by the Klang Container Terminal. The second container terminal is operated by Klang Port Management (KPM).

Breakbulk Terminal: Berthing facilities (11 berths totalling 2,209 m.).

Liquid Bulk Terminal: Facilities at the terminal include a tank farm for edible oils and two fuel depots.

Storage Capacity:
Fimaly Bulking Services:
  20 edible oil storage tanks.
  37,000 cu.m., on a common user basis.
  13 tanks for chemicals, 9,900 cu.m.
Petronas (National Oil Corporation):
  3 tanks for aircraft fuel, 8,500 tonnes.
  8 tanks for petrol, fuel oil and diesel, 17,900 tonnes.
BP Malaysia:
  11 tanks for petroleum and related products, 35,879 tonnes.
  1 tank for styrene monomer, 700 tonnes.

Dry Bulk Terminal: This terminal is operated and maintained by a private company appointed by the Port Authority. The terminal is a free trade area to enable shippers to import, consolidate and re-export cargo at low cost.

There are 2 berths of length 426 m. with 11.0 m. of water alongside. Facilities include:

2 grab cranes, maximum lifting capacity 12 tonnes. The cranes have interchangeable grabs, one of 10.3 cu.m. and the other 6.9 cu.m. capacity; conveyor belt, 1,200 mm. wide and can convey between 800 – 1,200 tonnes of material per hour.
3 warehouses, 45,000 sq.m.
Maximum vessel's size, 45,000 tonnes displacement.

West Port: This is the third privatised terminal, managed and operated by The Klang Multi Terminal, located in the West Port. The new port will be the focus of development for Port Klang well in the 21st century.

Container Terminal: It has 3 container berths with a total length of 600 m., and an additional 3 berths will be built on a fast track basis to receive ships with displacement of up to 100,000 tonnes.

Breakbulk Terminal: Facilities at the terminal include 3 breakbulk/container berths with a total length of 600 m.

Liquid Bulk Terminal: Three liquid bulk berths with a total length of 756 m.

Dry Bulk Terminal: These berths are supplemented with conveyor belts, the total length of the conveyor belt is 1,500 m. and are capable of carrying 1,000 tonnes per hour. Currently they have 2 gantry grab unloaders which can discharge 2,000 tonnes per hour.

Cement Terminal: The cement facilities are supported by 8 pipes of 250 m. length. Pumping rate about 800 t.p.h.

STEVEDORES: Working hours throughout the port: 1st shift 0000 to 0800 hrs. (meal break 0300 – 0400 hrs.). 2nd shift 0800 to 1600 hrs. (meal break 1200 – 1300 hrs.). 3rd shift 1600 to 2400 hrs. (meal break 1900 – 2000 hrs.).

MEDICAL: A number of private doctors in Port Klang and it is often not necessary to give any advance notice of medical attention being required. In event of vessel requiring urgent medical attention on arrival, advisable for Master to cable Agent in advance. First class medical facilities available in Klang. As vessels arriving at Port Klang normally do so after calling at Penang or Singapore no inoculation, vaccination or fever certificates are required unless either Singapore or Penang is declared an infected port.

TANKERS: Tankers always berth port side to on ebb and near slack water. Vessels with bulk liquid cargoes to load or discharge will berth at Wharves 1, 2, or 3. When a number of pumping vessels in port, vessels will usually occupy these wharves only for the time it takes to complete pumping and may then have to shift to stream or another wharf. Three of the ocean wharves are provided with facilities for handling liquid cargo. Liquid cargoes now being handled are: latex, palm, coconut oil, petroleum products, alkane, tallow and fuel oil.

Shell Company has a private jetty on which vessels up to 90 m. in length with drafts not exceeding 6.0 m. can be berthed.

Also see "Bulk Handling Facilities".

FRESH WATER: 3 waterboats of total capacity 750 tons, available to supply vessels in South Port and at Deep Water Point with fresh water. As much notice as possible should be given if waterboat required. At North Port (North Klang Straits) and West Port, water available from wharf. Pumping rate about 20 – 25 t.p.h.

FUEL: Bunkers are available.

FIRE PRECAUTIONS: In respect of tankers loading or discharging inflammable cargo, necessary to have wharf cordoned off and "No Smoking" signs exhibited prominently. Port Fire Brigade required to be on stand-by at wharf whilst operation in progress. Vessel may not disable engines whilst alongside wharf and shall have axes ready in event has to leave wharf urgently and necessary to cut ship's lines. Port Fire Service on duty 24 hours a day throughout year. Service is capable of fighting all types of fire whether on land or on sea. Fire service has following equipment: 3 fire engines, 1 Land Rover fire engine, 2 trailer pumps, 3 fire fighting tugs, 1 elevated tank in South Port (capacity 200,000 gallons), 2 elevated tanks in North Port (capacity 200,000 gallons), 3 vans at the fire brigade station, 4 ambulances, fresh water hydrants at various points in the Ports.

CONSULS: Consulates/Embassies/High Commissions in Kuala Lumpur (28 miles from Port Klang).

Australian High Commissioner's Office.
Austrian Embassy
High Commission of the People's Republic of Bangladesh
Belgian Embassy
Embassy of the Republic of Bolivia
Consulate of Brazil
British High Commission
Canadian High Commission
Consulate of the Republic of China

Royal Danish Embassy
Embassy of the Arab Republic of Egypt
Consulate of Finland
Embassy of France
German Embassy
Indian High Commission
Embassy of the Republic of Indonesia
Embassy of the Republic of Italy
Embassy of the Republic of Iraq
Embassy of Japan
Embassy of the Republic of Korea
Myanmar Embassy (Burma)
Royal Embassy of the Netherlands
New Zealand High Commission
Consulate of Norway (at Penang only)
Consulate of Panama (at Penang only)
Pakistan High Commission
Embassy of Philippines
Embassy of the Polish People's Republic
Honorary Consul of Portugal
Embassy of the Romania Socialist Republic
Embassy of Russia
Singapore High Commission
Embassy of Royal Saudi Arabia
Royal Swedish Embassy
Sri Lanka High Commission
Embassy of Switzerland
Royal Thai Embassy
Turkish Embassy
Embassy of the United States of America.
Embassy of the Republic of Vietnam
Yugoslavia Embassy

REPAIRS/DRY DOCKS: There are no major ship repair facilities at the port. Klang Port Management operates 3 slipways for its own crafts.

Slipway No. 1 can accommodate vessels up to 27.4 m. long with a 3.10 m. draft and a displacement of 150 tonnes.

Slipway No. 2 designed for flat bottomed vessels, can cater only for craft up to 23.1 m. length, 2.1 m. draft and with a displacement of 100 tonnes.

Slipway No. 3 can accommodate vessels up to 45.7 m. in length, 4.4 m. draft and with a displacement of 450 tonnes.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CUSTOMS/IMMIGRATION: Customs Officer will board vessel soon after arrival to seal the "Bonded stores". For vessels staying in port some time it is usual to issue 3 days supply – a further issue may be made on request after 3 days.

Immigration Officer will clear vessels arriving from foreign ports on a 24 hour basis. No one may board or leave or approach within one cable length of such vessel without special permission until vessel has been cleared by Immigration Officer and Immigration Signal is hauled down. No Immigration formalities required for vessels arriving from or leaving for other West Malaysian ports (Malacca and Penang).

REPATRIATION: Crew changes and repatriation must be arranged by Agent. Harbour Master attends signing-on and signing-off of the crews on ship's articles.

AIRPORT: Subang International Airport approximately 20 miles from port on main trunk route to Malaysian capital of Kuala Lumpur and served by regular domestic flights and international flights.

HOLIDAYS: Port works 365 days a year.

TELEPHONES: At North Port (North Klang Straits) and West Port, wharves telephones installed on board if required. At wharves in South Port there is always a telephone within easy reach at Wharf Office.

VHF radio sets available to vessels at anchor.

IDENTIFICATION CARDS: Advisable that members of crew carry identification cards when leaving ship.

GENERAL: *(a)* Ship-Shore Communication. When vessels are berthed in stream or at Deep Water Point a 24 hour launch service can be supplied. Arranged by Agent in consultation with Master to suit requirements of ship.

Vessels permitted use own boats with proper navigation lights at night.

(b) Seamen's Club. "Mariner's Club" for officers and seamen outside No. 3 Gate of South Port. Club has swimming pool, bar, restaurant and accommodation.

(c) Diving. Diving services available for salvaging lost cargoes, examining underside of ships, etc. Divers capable of deep-sea diving down to 36 m.

DEVELOPMENTS: North Port: *Free Commercial Area:* In line with its role as trade facilitator, KPA has already set in motion plans to create a conducive environment, in which port users can carry out their business with minimal red tape.

The whole of the North Port is a Free Commercial Zone (FCZ) with minimum documentation and procedures, so as to encourage transhipment trade and to develop the port into a regional distribution centre.

Klang Port Authority has been gazetted as the Free Zone Authority to administer the FCZ.

Distribution Park: A distribution park (Distripark) is available within the FCZ. This is jointly developed by KPA and a private company.

Forty hectares have been earmarked for the initial development of the Distripark. Facilities being considered include coldrooms and a multi-storey warehouse.

The Distripark will offer a wide range of services, including cargo consolidation, grading, packaging, trading and other value-added activities.

West Port: *Phase III:*

7 container berths.
1 liquid bulk berth.
1 dry bulk berth.
9 general cargo/container berths.

All the berths are 200 m. in length and can accommodate vessels up to 80,000 displacement tonnes.

SHIPMASTER'S REPORT: May 1986.

The following advices were received from our Agents in Port Klang.

Water Supply to Ships: Owing to lack of facilities presently in the port, the Port Authority is unable to supply fresh water to vessels promptly.

Compulsory Pilotage in Port Klang: We would advise you that pilotage is compulsory throughout the pilotage district of Port Klang.

In order to ensure that the Pilot boards your vessel immediately on your arrival at the Pulau Angsa/Pintu Gedong Pilot Station (North/South Entrance Pilot Station), please cable us and "Pilot Portklang" advising your ETA, deepest draft and vessel's Readiness to Load (if berth required for that purpose) as soon as possible.

Panamanian Vessels: We would advise you that quite a number of Panamanian vessels have experienced extreme difficulties in obtaining Sailing Clearances from the Harbour Master, Port Klang, owing to expiry of Crew Rolls and/or absence of Panama Consul's endorsements on signed on/signed off entries in the Crew Rolls.

To avoid encountering this problem at Port Klang, please ensure that your Crew Roll is valid and in order.

For your information, there is no Panama Consulate in Kuala Lumpur. The nearest one in this region is in Singapore where you can have your Crew Roll validated, if necessary.

SHIPMASTER'S REPORT: December 1991 (Updated 1996).

Charts: B.A. Charts No. 3453, 2152 and 2153.

Documents:

8 copies Crew List.
2 copies Stores List.
2 copies Crew Personal Effects List.
1 copy Ports of Call List.
1 copy Maritime Declaration of Health.
1 copy Vaccination List.

Officials: Immigration boarded on arrival and Customs authorities boarded 5 hours later. The health authorities never visited the vessel.

All ships statutory documents are taken to Harbour Master's office.

Pilotage: South Boarding Station: Pilot boards off South Fairway Buoy.

North Boarding Station: Pilot boards off Angsa Lighthouse.

The pilot boat has a blue hull and pilotage to the North Port from the North or South entrances takes about 1 hour. Pilots require 3 hours notice of arrival.

Berthing is carried out throughout 24 hours at the North, South and West Ports, but vessels may be delayed at the South Port if vessel's length over 100 m.

Pilots available throughout 24 hours on VHF Channel 12.

Approaches: When approaching from the South, the leading marks on Pulau Pintu Gedong are conspicuous. The channel is 400 m. wide there are strong cross currents in the channel.

When approaching from the North, Pulau Angsa Island has a conspicuous lighthouse. Vessels with a draft of 12.0 m. plus tide may use this entrance when proceeding to the North Port. The maximum draft for proceeding to the Power Station Jetty is 13.0 m.

Anchorages: The Northern anchorage is North of Batu Penyu Beacon.

The North Port anchorage is as indicated on B.A. Chart No. 2152.

Deep Water Point Reserve Anchorage and Deep Water Point South Anchorage accept vessels up to a maximum of 120 m. LOA and 6.5 m. draft. The Deep Water Point Northern Anchorage accepts vessels up to 200 m. LOA and 10.0 m. draft maximum.

All anchorages experience strong currents.

There is a boat service from the inner anchorages to the South Port.

Tugs: The Port Authority operate 10 tugs (6×3,000 h.p. and 4×1,000 h.p.). Vessels usually use 2 tugs.

Berthing: There is 24 hour berthing at both ports. At the North Port vessels berth either side alongside, depending on the tide. At the South Port vessels swing off the town and normally berth starboard side alongside, head out.

All berths are well fendered. The tidal range is 3.0 m. The density of the water on a rising tide at Berth No. 22 was 1020.

Vegetable oil and latex are loaded in the North Port at Berths No. 22 and 23. Fuel oil is discharged at Berth No. 23.

Vegetable oils and latex are loaded in the South Port at Berth No. 2.

Berth No. 22 of the North Port has loading platforms of 35 m. in length with breasting dolphins North and South. The depth alongside at low water was found to be 12.0 m. The vessel lies against the dolphins with the loading face set back about 1.5 m. from the fender line. The dolphins and platform are connected by catwalks. Ship's brow gangway used onto the loading platform. A mooring boat was used to send moorings (3 headlines, 1 forward spring, 1 aft spring and 3 sternlines).

Berths in the South Port are generally for break-bulk cargoes and liquids and berths in the North Port are mainly for container and bulk traffic. The pilot reported that the container berths in the North Port (Berths No. 8, 9 and 10) have a depth of 12.0 m. at L.W.

The Power Station Jetty (Lat. 03° 06.5' N., Long. 101° 18.7' E.) handles bulk carriers of 240 m. LOA and 13.0 m. draft. Berthing takes place at slack water and vessels berth starboard side alongside.

Cargo: Vessels load latex at Berths No. 22 and 23 of the North Port. A naximum of 2 hoses were used straight into the tank hatches through flow control valves. The average rate per line was 70 t.p.h., which included short stops to clear the lines of blockages.

Shore personnel tend the hoses. Hoses and flow control valves are rigged quickly by the shore personnel. The whole operation is very efficient. On completion of latex loading it takes about 2 hours before shore tank figures are issued, this is due to tank settling, and figures are only approximate. Vegetable oils are also loaded at Berths No. 22 and 23. Loading is through flexible pipes from the shore manifolds.

On completion of loading latex at the North Port we proceeded to Berth No. 2 of the South Port and loaded palm oil at a rate of 240 t.p.h. through a 5 in. line.

There is a tanker lightening area off Angsa Bank light beacon (Lat. 03° 21.5' N., Long. 101° 00' E.).

Fresh Water: Fresh water available at all berths from a shore hose and rate was good (no meter).

SHIPMASTER'S REPORT: January 1995.
Pilotage: Pilot Station position: Lat. 02° 50.65' N., Long. 101° 19.3' E., Southern entrance Pintu Gedong.

Pilotage was efficient and as listed in publications.

Communications: By telex to Agents, who will advise which pilot station to use, North or South, and berthing prospects.

Three hours before arrival, contact Pilots as listed in ALRS.

Approaches: Although arriving from the North, the vessel was advised to use the South Pilot Station, as berthing had been arranged at the new West Port (See "Plan").

Navigation marks were in good condition and as charted on B.A. Chart No. 2153.

Tugs: 2 tugs with tug's lines were used on the port bow and quarter for berthing starboard side to.

Tugs also used for unberthing.

Berthing – West Port: A major port development is in progress on Palau Lumut, but at present, only 600 m. of berth has been completed and is in use, mainly for discharging steel cargoes, but is designated for containers and general cargo.

The berth is constructed on concrete piles, and the face is well fendered with steel facing on rubber supports. The fenders are 1.5 m. wide and the bollard spacing is 15 m.

There are 3 cargo sheds on the completed section, set back about 20 m. from the quay face.

Work is well advanced on a further 400 m. to the North of the completed berth, and piling has started for about 9 cables to the South.

By the year 2005, it is expected that 35 deep sea berths will be completed with a large port complex on the island.

At present, the approach roads are still unmade and no facilities are available.

There does not appear to be any provision for cranes to be sited on the new berths.

Cargo Work: The stevedores are new gangs and reported by the Agents to be more flexible than in the old port.

Working is on a 24 hour basis with part gang resting during the night.

All equipment has to be brought in from the North Port and Agents will request stowage and working prospects before arrival, in order to have the necessary equipment available on the vessel's arrival.

We discharged 7,474 tonnes of packages and rolls of steel plate. A rate of 123.3 tonnes per gang hour nett was achieved.

AUTHORITY: Klang Port Authority, Jalan Pelabuhan, Mail Bag Service 202, 42005 Port Klang, Malaysia. *Tel:* 03-3688211 (20 lines). *Telex:* MA 39524. *FAX:* 03-3670211. *Contact:* M.Rajasingam, General Manager/Chief Executive.

AGENT: Pesaka Jardine Shipping Agencies Sdn. Bhd., 145-145A Persiaran Raja Muda Musa, P.O.Box 34, 42007 Port Klang, Selangor Darul Ehsan, Malaysia. Tel: 603-3672810. Telex: MA 39477 Jaship. Fax: 603-3678341. Cables: "Jarship Port Klang".

Associated with Jardine Shipping Agencies.

ROMPIN (Kuala Rompin) inc. Pahang, Malaya: 02.43 N. 103.30 E.

DOCUMENTS:

Register.
Last Port Clearance.
7 copies Crew List and 4 for Agent.
5 copies Passenger List (if any).
5 copies Stowaway List (if any).
2 copies Stores List (including firearms and ammunition).
2 copies Dutiable Liquor and Tobacco List.
2 copies Crews Declaration List (cameras, radios, etc.).
1 copy Vaccination List.

Masters of vessels to fly the necessary following flags on arrival as required under Section 448 of the Merchant Shipping Ordinance and Sub-Section (9) of the Federation Port Rules, 1953.

(1) The Federation of Malaysia Flag.
(2) The Pennant "O" Flag (Request Port Officer).
(3) The "Q" Flag (request Port Health Officer).
(4) The Pennant "2"; "5" Flags if no passengers and "3"; "4" Flags if there are passengers on board (Immigration).

PILOTAGE: Compulsory to the loading berths. Extra charge for pilotage outside normal office hours and holidays.

LOADING. *(a)* Ladders. Masters particularly advised to see that a sound and adequate ladder provided at each lighter to allow labourers engaged in loading to pass to and from ship with no undue risk. Regulations are provided in the Merchant Shipping Ordinance, Section 445, Sub-Section (O) which takes care of this requirement and failure to take adequate precaution in seeing regulation is observed may result in serious consequence to those responsible.

Masters requested to ensure that in addition to ladders for labourers, an extra ladder, preferably a clean pilot ladder, be made available at all times for the Agent for boarding. This ladder should be made fast on lee side, just forward of any scuppers in vicinity, and a heaving line from ship's rail made fast to bottom rung. When ladder not in use, bottom of ladder can be pulled up a few feet with heaving line to prevent labourers from using it or damage from lighters.

(b) Winches. All winches must be in single gear at all times.

(c) Derricks. Practice to work 2 sets of derricks to 1 lighter where practicable.

(d) Trimming. No manual trimming undertaken.

(e) Damages. In the event of your vessel sustaining damage by stevedores during loading, you are requested to inform the clerk and foreman on board immediately and as soon as practicable confirm same in writing to the Eastern Stevedoring Co. Ltd., Kuala Rompin, with copies to Hong Kong & Eastern Shipping Co. Ltd., Hong Kong, and Malay States Shipping Ltd., Kuala Rompin. It is important that full details of damage are given, together with measurements whenever possible.

Minor damage has occurred on vessels due to hatch beams not being bolted or lashed. Masters therefore requested ensure all beams adjoining working parts of hatches either bolted or lashed, otherwise stevedores will repudiate liability for any damage incurred.

ANCHORAGE: On arrival, vessels required to anchor about 1 mile outside berthed ships to obtain pratique. An accommodation ladder must be rigged on lee side to allow Port Authorities to board.

READINESS: Notice of Readiness cannot be accepted until vessel is in Free Pratique, Customs Inward Examination completed, and in all respects ready to load.

OPENING/CLOSING HATCHES: Removal and replacement of hatch beams and covers must be done by ship's crew. Ship's Officers should see that any tween-deck beam removed is replaced before ore reaches that height.

CUSTOMS: Customs office hours 0830 to 1630 Monday to Friday, 0830 to 1300 hrs. Saturday.

HOLIDAYS: New Year's Day; Hari Raya Puasa, 2nd day; Chinese New Year, 2nd day; Hari Raya Haji, 2nd day; First Day of Muharram; Vesak Day; Birthday of Sultan of Pahang; Birthday of H.M. The Yang Di-Pertuan Agong; Birthday of Prophet Muhammad; Malaysia Day; Deepavali; Christmas Day.

Note: Where a holiday falls on a Sunday, the following day will be observed as a holiday, and if such latter day is already a holiday, then the day following shall be a public holiday.

SHORE LEAVE: No seaman may proceed more than 3 miles from Kuala Rompin Customs House. The Officer in Charge Customs, as acting Immigration Officer, has authority to limit or prohibit shore leave in all cases.

IDENTIFICATION CARDS: Every member of crew must produce Identity Document or Shore Leave Pass at Customs House when landing and again when returning to vessel.

GENERAL: *(a) Scrap Iron.* Steel mills in Japan complain from time to time of finding pieces of scrap iron in the iron ore cargoes. If this scrap is not found it will cause serious damage to the plant and occasion considerable delay to production: furthermore, should scrap iron enter the machinery there is always the possibility of it endangering life, and several fatal accidents have been attributed to this cause.

The assistance of officers and crew is requested in reporting any scrap iron they see being loaded, advising shippers into which hold it went and number of the lighter it came from to enable us to take appropriate action.

(b) Whistle, Radio. Wireless Transmitters, Whistles and Sirens etc., must not be used by vessels at anchor off Kuala Rompin.

(c) Stores. Bonded stores can be obtained from Kuala Lumpur and Kuantan at prices roughly same as Singapore. Essential, view Customs formalities, that Masters give Malay States Shipping Ltd., Kuala Rompin 6 days prior notice of requirements.

SABAH (Minor Ports):
KUDAT: 06.53 N. 117.51 E. (See Plan)
LAHAD DATU: 05.02 N. 118.20 E. (See Plan)
SEMPORNA: 04.29 N. 118.37 E. (See Plan)

DOCUMENTS: 8 copies all usual documents, i.e. Crew List, Passenger List, Manifest. Others include Store List, Stowage Plan, Sea Worthiness Certificate and Last Port Clearance Certificate. Where possible, Cargo Manifests and Stowage Plans should be forwarded in advance to local Agents and Port Authority ahead of vessels.

PILOTAGE: Applications normally made by Shipping Agents with advance notice of 24 hours prior to actual time that Pilot services required. Pilot boats between 30 ft. – 40 ft. length and equipped with VHF/AM Sets – 80.4 MHz frequency. Pilot station at Port Office (Marine Department) and location for vessel awaiting Pilot is within port limit.

ANCHORAGE: All ports within bays and they provide good safe anchorages.

RESTRICTIONS: No restrictions for vessels entering port at night.

MAX. SIZE: There is no limit on cargo vessels worked at anchorage. Also see "Berthing".

HEALTH: To obtain Pratique, arrange with Shipping Agent. Pratique for vessel entering, after calling at another port in same state, is not required. Anchor in quarantine anchorage if vessel is suspect and display following signals: *By Day:* International Code Signal "QQ". *By Night:* A Red light over a White light and a separate hoist of Red light over a Green light. Hoisted vertically 6 ft. apart where best seen.

RADIO: Singapore Radio recommended.

BERTHING: Application for berthing has to be made within 24 hours prior to actual time that berthing is required.

Details and Requirements: Name of vessel, gross and net tonnage, length overall, draft (fore and aft), ETA at berth, ETD from berth, nature and tonnage of cargo to be discharged/loaded. No priority for berthing ships and the turn is, first come first served.

Kudat: L-shaped wharf with 2 berths. Western berth – length 112 m., min. depth 6.4 m. Eastern berth – length 91 m., min. depth 6.4 m. Max. size 3,000 d.w.t.

Lahad Datu: Outer Berth: Length 152 m. Depth 9.3 m. Max. size 25,000 d.w.t.

Inner Berth: Length 90 m. Depth 6.4 m. Max. size 2,000 d.w.t.

Also see "Developments".

Semporna: T-shaped wooden wharf with 2 berths. Outer berth, length 46 m. min. depth 7.9 m. Inner berth, length 39 m., min. depth 6.1 m.

The wharf is operated by the State Government.

STEVEDORES: Arrangement of stevedores should be made with 48 hours' notice to Shipping Agent. Average gang performance is 20 ton-per-gang-hour for conventional traffic (excluding vehicles) and 40 ton-per-gang-hour for pre-palletised cargo (excluding vehicles). Cargo work is carried out in 3 × 4-hour periods namely:–

1st Period 0730 hrs. to 1130 hrs.
2nd Period 1300 hrs. to 1700 hrs.
3rd Period 1800 hrs. to 2200 hrs.

MEDICAL: Arranged on arrival by Shipping Agent.

DENSITY: Average density in the ports 1020.

FRESH WATER: Available at General Cargo Wharves at a rate of 20 t.p.h.

CONSULS: Consulates in Kota Kinabalu:

United Kingdom
Indonesia
Japan
Denmark

REPAIRS: Marine Department operates engineering workshops at Labuan and Sandakan. Some private firms and workshops also undertake small engine and deck repairs in Kota Kinabalu.

DRY DOCKS: Marine Department has 3 slipways in Labuan which are capable of shipping vessels of 60 tons, 200 tons and 500 tons displacements. One in Sandakan for vessel up to 120 tons.

GANGWAY/DECK WATCHMEN: Not necessary. Agents may advise option.

OPENING/CLOSING HATCHES: Normally by stevedores.

CERTIFICATES: Registry, Load Line, Radio, Safety Equipment and Derat Exemption.

CUSTOMS ALLOWANCES: Tobacco, Wine and/or Spirits: No control and up to discretion of Officers of Customs and Excise.

CARGO GEAR: Ship's gear used also for containers ex-feeder ships and heavy lifts in major ports.

REPATRIATION: Normally arranged by Agents.

AIRPORT: Most airports in State between 4 km. to 10 km. from the town.

TIME: Local time is 8 hours ahead of GMT. No alteration to clocks.

HOLIDAYS: Cargo work can be arranged if necessary during official holidays, but not for Hari Raya Puasa, Chinese New Year and Christmas Day. Also see "Sandakan".

POLICE/AMBULANCE/FIRE:

	Fire/Police	*Hospital*
Kudat	333	335
Lahad Datu	81999	81522
Semporna	SPA 599	SPA 522

SERVICES: Tank cleaning services can be arranged with Agents. Marine Department deals with compass adjustments.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Not needed.

DELAYS: Due to weather conditions only.

DEVELOPMENTS: LAHAD DATU PORT EXPANSION PROJECT: (See "Plan").

Introduction: The port of Lahad Datu is the biggest of the four existing minor ports in Sabah. Due to its demanding role in the port's industry, it is currently entering into a new era and fast becoming a next major port. This is evident based on the ever increasing volume of liquid bulk cargo handled and apparent cargo congestion at the port.

Existing Port Facilities: The existing port facilities are specifically used to cater for the needs of the Lahad Datu district proper and its hinterland. In addition, they also play a back-up role to the two major ports of Tawau and Sandakan in the event of future port congestion in both major ports.

Expansion Projects: These projects for Lahad Datu port's expansion are to be undertaken in two different phases (Phase I and Phase II) as outlined under the second SPA 20 years Masterplan (1995-2015).

Phase I: Phase I of the expansion project will commence in October 1994, and completion is projected in early 1996. A proposed new L-shape jetty is designed under this phase to handle dry cargo and containers. This jetty will eventually have 3 berths to be built which comprise the outer, river and side berths altogether.

Under this phase, the land side work will involve the reclamation of approximately 8 acres of foreshore land, which will be partly upgraded to container yard, a new gate and gatehouse plus some ancillary facilities. This phase will be constructed to cater for SPA needs until the year 2000.

The budget requirement for this Lahad Datu Port Expansion project – Phase I is estimated to be 64 million Ringgit. This amount will among others cover consultancy design, construction work, supervision and land acquisition.

Phase II: The second phase (Phase II) is projected to commence only by the year 2001, and bound for completion by latest the year 2003 A.D. The phase will again depend on a number of factors such as the increase in future traffic growth and other ports requirements.

AUTHORITY: Sabah Ports Authority, Jalan Tun Fuad, Tanjung Lipat, Locked Bag No. 2005, 88617 Kota Kinabalu, Sabah, Malaysia. *Tel:* 088-256155/088-252140. *FAX:* 088-223036. *Contact:* James Sabinus, General Manager.

Lahad Datu: Sabah Ports Authority, P.O.Box No. 60143, 91111 Lahad Datu, Malaysia. *Tel:* 881244, 881610, 881213. *FAX:* 089-882749.

Kudat: Office of the Assistant Traffic Superintendent, Kudat Port Area, P.O.Box 228, 89058 Kudat, Malaysia. *Tel:* 088-611261.

Semporna: See "Tawau".

SANDAKAN, Sabah: 05.48 N. 118.05 E. (See Plan)

FLAGS: Signal letters, Mail flag (if any mail on board for discharge); "Q" flag is essential if Sandakan is the first Sabah port at which a vessel calls. If ship carrying passengers it should fly Immigration Signal Nos. 3 and 4; if no passengers Nos. 2 and 5.

PORT LIMITS: The limits of the port of Sandakan shall be Sandakan Bay bounded by a line drawn in a West-South-West direction from the Northern point of Pulau Berhala to the mainland, and by another from the same point on Pulau Berhala to the most Eastern extremity of Tanjong Aru and thence to the opposite bank at the entrance of Trusan Duyong, including all passages and rivers entering the same for a distance of 600 ft. inland from the mouth of the river.

DOCUMENTS: 5 sets of Inward Manifest in the prescribed form to be airmailed to Agent to arrive at least 48 hours before the vessel.

(a) To be Produced on Arrival:

1 Sabah Lights and Harbour Dues form
2 Manifests in the prescribed form
3 Crew Lists
1 Last Port Clearance
3 Stores Lists
3 Passenger Lists
2 Arms Lists
3 Narcotics Lists
2 Parcels Lists

(b) Required by Agent:

2 sets of Inward Manifests for all inward cargo
5 sets of Transhipment Manifests for all cargo to be transhipped at Sandakan.
2 copies of Hatch List.
1 copy of Passenger List.
1 copy of Crew List.
1 copy of List of Arms and Ammunition.
1 copy Narcotics List.
1 copy Stores List.

(c) To be Supplied to Ship before Departure:

Manifests, as required by vessels.
Master's copy of Bills of Lading.
Port Clearance and Customs Clearance.
Sabah Lights and Harbour Dues form.

(d) Immigration: Immigration Officer will board vessel on arrival and clear her inward. No restrictions on crew and/or passengers going ashore. Immigration require 2 copies of Crew List and 2 copies of Passenger List. Vessels cleared inward until 1800 hrs. only. If there are special circumstances arrangements can be made to clear vessels inward after this time.

(e) Marine Department: Shipping Arrival Report to be signed by Master of Vessel.

PILOTAGE: Pilotage not compulsory but if required the Harbour Master acts as Pilot. Private pilots available by air from Kota Kinabalu. At least 24 hours' notice should be given and position where Pilot is required to embark (i.e. the bar buoy or within harbour limits) should be included in the message.

ANCHORAGES: For loading timber: A black and white conical buoy situated 1.2 miles S.W. from Government Wharf indicates the anchorage. It is important that vessels should anchor as close to this buoy as possible, when anchored further from shore it may take up to an hour longer for launches towing rafts of timber to reach ship and in addition there is less shelter from wind and weather and consequently raftsmen have to cease work earlier.

For discharging: Unless it is intended to come alongside the wharf, vessels discharging should anchor 4 cables due South of wharf. Wharf is 750 ft. long with dolphins placed 100 ft. from each end giving a total length of 950 ft. If discharging into lighters and loading log timber simultaneously vessels should proceed to Timber Anchorage.

RESTRICTIONS: *(a)* Shifting: Vessels may not berth alongside after dark without special permission but they may leave the wharf, having given prior notice.

(b) Special Cargo Regulations: No vessel with dangerous cargo may be alongside after sunset, except at discretion of Harbour Master. No dangerous cargo may be discharged simultaneously with general cargo except with permission of Harbour Master. Livestock: subject to approval of Veterinary Authority. Certain animals, including cattle, are prohibited imports and exports except under licence.

MAX. SIZE: 20,000 d.w.t. Draft restriction is 24 ft. on the Bar plus the height of tide, mean high water being about 6 ft.

HEALTH: (Also see "Radio" and "Regulations"). If Sandakan is first port of entry into Sabah a vessel must proceed to quarantine anchorage until cleared by Health and Immigration Officials.

The Sabah Government are signatories to the WHO convention on quarantine regulations. If vessel comes from outside State of Sabah then Port Health Authority will require to board in quarantine anchorage before vessel can proceed to wharf or timber anchorage. If, however, vessel is not coming from an infected port Pratique may be granted providing vessel cables Agent prior arrival advising last port of call and whether vessel healthy. Pratique normally cabled to ship but if unreceived, vessel must proceed to quarantine anchorage.

Port Health Authority require completed copy of Maritime Declaration of Health, and copies of Crew, Passenger and Narcotics Lists.

RADIO: Singapore Radio recommended.

(Information required before ship's arrival.) ETA, number of passengers, health situation, Manifest, amount of water required. Vessels not allowed to use their radio in port.

VHF: Marine signal station keeps watch on VHF Channel 16, from 0530 to 2000 hrs.

TUGS: A tug of 636 h.p. stationed at Sandakan.

BERTHING: (Also see "Anchorages").

(a) Mooring: The numbers of a vessel which is berthing alongside will be shown from signal station on Eastern end of Customs House. In

addition, a cone indicating tidal stream will be hoisted pointed end of cone down indicates flood tide and pointed end up indicates ebb tide. Linesmen are on hand to receive a vessel's lines, a mooring boat will be provided by Marine Department if it is necessary to send lines to dolphins. Old Government Wharf, least depth 19 ft.

(b) Buoys: No mooring buoys.

(c) Lighters: No lighter fleet. The timber companies have their own lighters and scows which can sometimes be hired if not being used by these companies.

Rectangular Island Wharf: The particulars of the berths are as follows:

Berth No.	*Length* (m.)	*Depth* (m.)
1	213	9.45
2	122	6.4 – 9.4
3	76.2	6.1
4	164	7.8 – 9.4

The berths were dredged in 1989.

The berths are constructed to receive containers.

Storage:

2 godowns 12,054 sq.m.

2 open storage areas 5,926 sq.m.

1 container yard 4,182 sq.m.

Equipment:

Container handling:

4 forklifts (6-25 tonnes).

2 tractors (3.5 tonnes).

4 trailers (20 tonnes/20 ft.).

Conventional cargo:

35 forklifts (2 and 3 tonnes).

4 tractors (2 tonnes).

41 trailers (5 tonnes).

CARGO: (a) Tally: Tally clerks supplied by Agent if required. Sawn timber tallied on to scows by timber companies' clerks and tallied into ship by ship's tally clerks. Ship responsible for total number of pieces of timber shown on Mate's receipts. Letters of Credit do not allow the clause: "A quantity said to be" to be inserted on the B/Lading. Log timber tallied into ship by checking against specifications supplied by timber companies.

(b) Inward Cargo: Is tallied out of ship on to wharf or into lighter. Local watchmen can be supplied by Agent if necesary but it is generally found to be more satisfactory if these duties are carried out by crew. Damaged cargo is surveyed on the spot, otherwise no liability of vessel is acknowledged. Discharge carried out after permission has been obtained from Customs after manifest of inward cargo has been deposited. Cargo is delivered to consignees against production of relative Bill of Lading. Ship's responsibility to consignees ceases at ship's side but, in the case of short-landed cargo, reasonable proof must be given to Customs that cargo has not been landed. A short-handed Memo certified by Chief Officer is usually accepted as proof.

(c) Heavy Lifts: Usually landed overside on flat-top scows for delivery to private jetties, where they are man-handled to required site. Occasionally consignees provide low-loaders.

(d) Transhipment Cargo: After discharge of cargo from first carrier, transhipment cargo placed under supervision to Ports Authority, unless it is possible to arrange direct transhipment into small coastal vessels.

(e) Outward Cargo: Main export is log timber and is towed out to loading vessels in rafts, each one accompanied by 2 raftsmen. Loading is on a single swinging derrick with gun tackle; the other derrick being used for pulling the logs into position in the holds. Vessels should have, if possible, 2 snatch blocks available at each hatch where log timber is being loaded. Sawn timber loaded in normal manner from scows and lighters. Documents required are shipping order issued by Agent and list of specifications supplied by timber companies. Other exports are rubber, copra, coconuts, palm oil, jungle and sea produce.

(f) Refrigerated cargo: Only small quantities of refrigerated cargo loaded or discharged. No formalities or certificates being required other than compliance with Customs and Agriculture Department Regulations. Inward fridge cargo is confined to foodstuffs, meat, etc., and outward to frozen prawns. 1×65 amp and 3×30 amp reefer points available.

(g) Explosives: Explosives must be discharged into lighters under police escort and transported to an approved police store. A licence for their importation must be obtained from police prior to arrival of cargo, and Harbour and Police authorities must be informed of arrival of explosives in port either for discharge or as through cargo.

(h) Damaged Cargo: Direct delivery/cargo surveyed at shipside. Cargo discharged into godowns surveyed jointly between Port Authority and ship's representative in damaged cargo lockers.

STEVEDORES: Stevedoring in hands of Port Authority who supply gangs as required.

(a) Working hours, 0730 – 1130, 1300 – 1700 and 1800 – 2200. Gangs ordered at least 12 hours before a vessel arrives.

(b) Overtime. When working in stream, overtime usually from 1100 to 1200 and 1800 to 2200 hrs. Application for permission to work overtime must be made to Customs not later than 1500 hrs. on the afternoon that overtime is to be worked or 1100 hrs. on Saturday for weekend overtime.

(c) Working Sundays and holidays. Work is normally carried out Sundays and it is sometimes possible to arrange for work on some public holidays. Application must be made to Customs for permission to work Saturday afternoons, Sundays and public holidays.

See "Holidays".

(d) Rate. Log loading is good, comparing more than favourably with other Borneo ports. Rate of loading about 800 cu. ft. hoppus (20 B/L tons) per gang hour for logs, and 6 B/L tons per gang hour for sawn timber. Discharging general cargo about 20 tons per gang hour. Palletised cargoes about 40 tons per gang hour.

MEDICAL: *(a)* Hospitals: Duchess of Kent Hospital will receive sick seamen or officers. Three classes of wards, also isolation wing. Hospital equipped to carry out normal surgery.

(b) Inoculation: PHO will vaccinate or inoculate crew members at Duchess of Kent Hospital.

(c) Death on Board: PHO and Police to be informed immediately. They will then make an investigation into cause of death. If satisfied that death was due to natural causes, a certificate will be issued, and arrangements may then be made for interning the body. Harbour Master must also be informed in the case of seamen.

TANKERS: Two bulk oil installations at Karimunting (Pavitt Point). Esso, with storage capacity of 2,080 tons and Shell, with storage capacity 15,730 tons.

Shell Jetty extends 550 ft. from shore, is 128 ft. long with mooring dolphins 125 ft. from each end. Min. depth alongside 24 ft.

S.P.A. Oil berth, 1,000 ft. length between dolphins, with central discharging pier (73.2 m.). Least depth alongside 31 ft. This berth also used for loading palm oil in bulk. Max. size 30,000 d.w.t.

FRESH WATER: Can normally be supplied from wharf at rate of 20 t.p.h. Private water boat available on request. Occasionally water is not available and, at such times, Agent warns Principals in advance.

FUEL: Lubricants can be obtained in drums and bulk diesoline available at Shell/Esso jetty. Approval must be obtained first from Customs Department and Ministry of Trade and Industry before loading.

FIRE PRECAUTIONS: No fire-floats and in case of a vessel alongside, fire brigade should be summoned by dialling 999. The OCPD should be informed also.

CONSULS: At Kota Kinabalu.

REPAIRS: Marine Department operates engineering workshops at Sandakan.

DRY DOCKS: One in Sandakan for vessels up to 120 tons.

A Government-owned shipyard/dry dock known as Sabah Building, Repairing and Engineering Sdn. Bhd. exists in Labuan to undertake full repairs services has been established for ocean-going vessels.

WATCHMEN: No regulations regarding use of watchmen, who, however, can be supplied if required. There have been only very isolated reports of pilferage in Sandakan.

OPENING/CLOSING HATCHES: Normally by stevedores.

CERTIFICATES: Registry, Load Line, Radio, Safety Equipment and Derat Exemption.

CUSTOMS ALLOWANCES: Tobacco, wine and/or spirits: No control, up to discretion of Officer of Customs and Excise.

CARGO GEAR: Ship's gear used, also for containers ex-feeder ships and heavy lifts in major ports.

REPATRIATION: Normally arranged by Agents.

AIRPORT: Some airports in State are between 4 km. to 10 km. from town centre.

TIME: Local time is 8 hours ahead of GMT. No alterations to clocks.

HOLIDAYS:

Closure of SPA Ports
During Sabah State Public Holidays – 1990:

All ports under the jurisdiction of the Authority shall be closed completely during the following public holidays:–

(a) New Year	Monday	1st January
(b) Chinese New Year	Saturday	27th February
(c) Good Friday	Friday	13th April
(d) Hari Raya Puasa * (2 days)	Thursday & Friday	26th & 27th April
(e) Labour Day	Tuesday	1st May
(f) Harvest Festival	Wednesday	30th May
(g) Hari Raya Haji *	Tuesday	3rd July
(h) Birthday of Sabah Head of State	Sunday	16th September
(i) Christmas Day	Tuesday	25th December

* Subject to alteration.

The ports will however remain open during other public holidays.

POLICE/AMBULANCE/FIRE: Ambulance: Duchess of Kent Hospital, tel. 2111; Police/Fire: Police Station Emergency, tel. 999.

TELEPHONES: Available.

SERVICES: Tank cleaning services can be arranged with Agents. Marine Department deals with compass adjustments.

IDENTIFICATION CARDS: Not required.

DELAYS: Due to weather conditions only.

REGULATIONS: 1. Arrival and Departure. The Owner or Agent of every vessel other than a small ship intending to call at a port shall, as soon as possible, and in any case not later than 36 hours prior to the estimated time of arrival of the vessel, give notice in writing by filling in Form "A" – "Notice of Arrival" to the Authority of such arrival and, if so desired, the requirement for a berth at a wharf.

2. The notice under this regulation shall be in a form prescribed by the Authority and shall contain full particulars regarding the cargo to be discharged and loaded, the embarkation and disembarkation of passengers, heavy lifts, special or perishable cargo, hazardous and dangerous goods (whether to be discharged at the port or not), and any other matters of importance relating to the working or safety of the vessel in the port.

3. The Master of every vessel entering or leaving a port between sunrise and sunset shall cause to be hoisted the national colours and the signal letters, if any, of the vessel. The national colours shall be exhibited from 0800 hrs. to sunset whilst the vessel remains in port.

4. The Master of every vessel arriving from outside the State of Sabah shall exhibit the Immigration and Quarantine signals contained in the First Schedule and shall also at the request of a customs officer hoist the Customs signals. Such signals shall remain exhibited until the appropriate officer has given permission for them to be lowered.

5. No vessel shall approach within 600 ft. of any other vessel exhibiting the Immigration, Health or Customs signals.

6. No person other than a Pilot may board or disembark from any vessel until the vessel is cleared inwards and the Immigration, Quarantine and Customs signals have been lowered.

7. Every vessel entering a port shall be anchored or efficiently secured to a wharf or buoy before commencing the loading or discharging of cargo and/or the embarkation or disembarkation of passengers.

8. No vessel shall leave any port unless in possession of a valid Port Clearance issued by or on behalf of the Director of Marine.

9. Special signals.

Significance	*By Day*	*By Night*
Immigration (for ships not carrying passengers)	International Code Signal "2 5"	Two green lights, 6 ft. apart, hoisted vertically where best seen.
Immigration (for ships carrying passengers)	International Code Signal "3 4"	Two green lights, 6 ft. apart, hoisted vertically where best seen.
Quarantine (vessel is Healthy request Pratique)	International Code Signal "Q"	Nil
Quarantine (vessel is suspect)	International Code Signal "Q Q"	A red light over a white light and a separate hoist of red light over a green light and hoisted vertically 6 ft. apart where best seen.
Quarantine (vessel is infected)	International Code Signal "Q L"	
Quarantine (not received Pratique)	Nil	A red light over a white light 6 ft. apart hoisted vertically where best seen.
Request Police Assistance	International Code Signal "S T"	A green over a white light, 6 ft. apart hoisted vertically where best seen.
Request Medical Assistance	International Code Signal "W"	A red light over a green light, 6 ft. apart, hoisted vertically where best seen.

GENERAL: *(a) Surveyors:* Harrisons & Crosfield (Sabah), Sdn. Bhd. are Lloyd's Agents, neither Bureau Veritas nor the American Bureau of Shipping are represented.

(b) Fumigation: No facilities.

(c) Ship Chandlers: All kinds of stores and provisions can be supplied at reasonable prices.

(d) Call Signals and Call Flags: (i) Continuous watch kept by signal station during day-light hours. In emergency such as serious injury or fire a ship should hoist appropriate International Code signal and blow whistle or siren to attract attention. Apart from these circumstances and for purposes of navigation vessels are prohibited from using sound signals for any other reason.

(ii) Signals for attracting Public Service Launch: By day: International Code Pendant No. 8. By night: Three red lights vertical. Owing distance of anchorage from jetty these signals often indistinguishable by hire launches unless they are cruising in the harbour. Regular launch services can be arranged if required by Master. No restrictions against a vessel using its own launch or motor lifeboat but it must not land anywhere other than at Customs wharf.

(e) Recreation Facilities: Three cinemas in town which show English-language films. Cricket, football, and hockey matches can be arranged with local teams and several tennis courts available. Only suitable swimming beaches at Berhala Island at mouth of harbour. Yacht Club and Golf Club for members only, but several Shipping Companies pay Corporate Membership fee which enables all officers and first-class passengers to use club. Recreation Club offers facilities for large variety of sports and entertainment; visitors must be accompanied by a member. Churches in town for Anglican, Catholic, Seventh Day Adventist and Lutheran worship.

AUTHORITY: Sabah Ports Authority, Pejabat Pengurus Pelabuhan, Peti Surat 1368, 90008 Sandakan, Sabah, East Malaysia. *Tel:* Sandakan (089) 612411-8 (PABX), 612751 (Direct line). *Telex:* MA 82013. *Cables:* Saports. *FAX:* (089) 612975. *Contact:* Francis Lee Fah Hin, Port Manager.

SARAWAK COASTAL PORTS

Coastal anchorages at Sibuti, Niah and Suai, 28, 30 and 47 miles S.W. of Miri respectively are being used increasingly for the export of round logs, good holding ground is to be found approximately 3.5 miles offshore in 30 ft. of water. Caution should be observed in the event of sudden wind squalls from the West.

Vessels destined for coastal ports should report to Miri for Customs and Immigration Clearance.

Every vessel arriving in quarantine shall fly or show the appropriate International Quarantine signal; and no person other than a Pilot, Port Officer, Port Health Officer, Immigration Officer or Officer of Customs shall board the vessel; and no person shall disembark therefrom until the vessel has been cleared by the Port Health Officer.

The Master of every vessel of over 15 tons about to depart from a port for any place outside Sarawak shall cause the "Blue Peter" (International code Flag "P") to be hoisted, during day-light hours, for at least 12 hours before the vessel is due to sail, or if the vessel is in port for less than 12 hours, for the period of her stay in the port.

(1) The Master or the Agent of every vessel about to depart from a port shall, on demand by the Port Officer, produce for inspection the port clearance.

(2) The Port Clearance shall be in the form of an endorsement on the form of clearance prescribed under the Customs Ordinance or in such other form as may be approved by the Director.

A vessel arriving in, leaving from or shifting berth within a port shall hoist her signal letters, if any, whilst under way.

AUTHORITY: Kuching Port Authority, P.O.Box 530, 93710 Kuching, Sarawak. *Tel:* (082) 482144. *Telex:* MA 70420-Kuport. *FAX:* (082) 481696. *Cables:* Kuport Kuching. *Contact:* General Manager.

SEJINGKAT (Sungei Sarawak), Sarawak: 01.35 N. 110.26 E.

Anchorage off Kampong Sejingkat approximately 14 miles from mouth of river and 3 miles below Pending Point. (See "Kuching".)

Main timber loading point for the First Division of Sarawak. Loading used to be seasonal due to log rafts having to be towed from felling areas along coast. Since this is not possible during North-east monsoon season shippers now stockpile during favourable weather and loading continues throughout monsoon period.

Vessels up to 580 ft. length and 25 ft. draft regularly use anchorage. No facilities for obtaining fuel. Fresh water obtainable through Marine Department.

Pilots may be picked up off Tanjong Po in the area marked "Pilots" on Admiralty Chart 1822 or at Sejingkat. In rough weather it may be necessary for a ship to follow or meet the pilot launch at the junction of Embang and Senari leads. Pilots for the Batang Lupar, Triso or Lingga Anchorages are also normally embarked off Tanjong Po by arrangement.

Every vessel arriving in quarantine shall fly or show the appropriate International Quarantine signal; and no person other than a Pilot, Port Officer, Port Health Officer, Immigration Officer or Officer of Customs shall board the vessel; and no person shall disembark therefrom until the vessel has been cleared by the Port Health Officer.

The Master of every vessel of over 15 tons about to depart from a port for any place outside Sarawak shall cause the "Blue Peter" (International Code Flag "P") to be hoisted, during daylight hours, for at least 12 hours before the vessel is due to sail, or if the vessel is in port for less than 12 hours, for the period of her stay in the port.

(1) The Master or the Agent of every vessel about to depart from a port shall, on demand by the Port Officer, produce for inspection the port clearance.

(2) The port clearance shall be in the form of an endorsement on the form of clearance prescribed under the Customs Ordinance or in such other form as may be approved by the Director.

A vessel arriving in, leaving from or shifting berth within a port shall hoist her signal letters, if any, whilst under way.

AUTHORITY: Kuching Port Authority, P.O. Box 530, 93710 Kuching, Sarawak, Malaysia. *Tel:* 082-482144. *Telex:* MA 70420-Kuport. *FAX:* 082-481696, 334776 *Cables:* Kuport Kuching. *Contact:* General Manager.

SIBU, Sarawak (incl. Bintangor, Sarikei and Sungai Merah): 02.24 N. 111.56 E. (See Plan)

Sibu is the second largest town in Sarawak. There are 2 navigable routes *(a)* via Paloh River and *(b)* via Rajang River and a third entrance from the North i.e. via Igan River, is uncharted. Sibu is 61 miles from the sea via Paloh, and 70 miles via Rajang.

APPROACHES:

(a) Paloh Channel: The bar was resurveyed in 1975 and shoaling was reported in 1981 to depths of 2.7 m. below chart datum at the middle of the Fairway and Inner Buoys. Masters of ships are advised to consult their tide tables before entering. The buoys are fitted with radar reflectors and the Fairway Buoy is visible for a distance of 10 miles. A conspicuous wreck in position Lat. 2° 28' N., Long. 111° 14.6' E. has 2 posts above chart datum, serves as a good approach to the Kuala Paloh entrance, and Tanjong Sedi which is on the North bank of the river is marked by a light beacon.

Vessels using this entrance are restricted to a maximum length of 152 m. and drafts of 6.0 m. during the S.W. Monsoon and reduce to 5.0 m. during the N.E. Monsoon period from November to March. During the N.E. Monsoon periods, vessels of 5.5 m. have entered the Paloh Channel but entrance depends on the state of the sea.

When crossing the Kuala Paloh Channel, strong currents and swell (especially during the N.E. Monsoon period) are liable to be encountered thus necessitating caution.

An Inner Bar with at least depth of 3.7 m. exists where the Paloh joins the Seredang at Tanjong Gelang. This crossing is marked by unlit transits and is sheltered.

(b) Rajang Entrances: Vessels intending to use the Rajang River to Sibu are restricted to 61 m. in length and 7.0 m. in draft as after Tanjung Manis deepwater anchorage, the river is winding, narrow and shallow. The depth of the bar is 5.8 m. below chart datum. 2 wrecks in position Lat. 2° 07.6' N., Long. 111° 7.25' E. and another in position Lat. 2° 8.7' N., Long. 111° 14.2' E. are marked by starboard hand buoys. There is a bar situated about 3 miles below Sarikei with at least depth of 3.9 m. below chart datum.

From Sarikei to Bintangor the river is winding with some shallow patches. Lebaan Corner which is 15 miles below Sibu has a charted depth of 2.2 m.

There is an obstruction off Tanjong Ensurai approximately 6.25 miles upriver from Lebaan with a depth of 4.6 m. Caution should also be exercised when rounding Tanjong Binjei due to 3 shoals across the river, one of which has at least depth of 3 m.

Vessels using this route to Sibu are advised to navigate with caution as tugs towing barges and logs of 100 m. or more are often encountered.

DOCUMENTS: Port Clearance to be surrendered to Customs when boarding.

Crew Lists and Passenger Lists, 2 copies for Immigration Department, 2 copies for Rajang Port Authority, 2 copies for Customs, 1 copy for Port Health Officer and 1 copy for Port Officer.

List of ship's stores (2 copies for Customs).

List of ammunition (2 copies for Customs).

Health Documents (Vaccination certificates and Cholera Inoculation Certificates to be examined by Health Inspector).

PILOTAGE: Pilotage is handled by the Marine Department. Although pilotage is not compulsory, large vessels are advised to have a Pilot on board when entering the port. Movements of vessels are restricted to daylight hours only. Ships requiring a Pilot enroute to Sibu must indicate the approach channel they will be using. Ships can contact the Pilot via the "Hague Plan" and communicate with the shore via Channel 18, both on VHF radio.

(a) Kuala Paloh. The Pilots embarked off Tanjong Sedi, at position Lat. 2° 25.5' N., Long. 111° 18' E. and application for Pilots should be made giving at least 24 hours notice of arrival to "Shipping" Sibu.

(b) Pilots for Sarikei, Bintangor and Sibu via this river normally embarked in buoyed channel West of Jerijeh Lighthouse but it may be necessary for a ship to follow the pilot speedboat to sheltered waters inside turning buoy. Application for Pilots should be made giving at least 24 hours notice of arrival to "Shipping" Sarikei.

ANCHORAGES: *(a)* Sibu Anchorage. Some foreign-going vessels load, with Customs permission, at the mid-stream anchorage.

(b) Restricted Anchorages.

(i) The Anchorage defined by a line running 045° 2.6 cables from position: Lat. 02° 16.89' N., Long. 111° 49.28' E. on Pulau Kerto, thence 135° 8 cables to position; Lat. 02° 16.5' N., Long. 111° 50.4' E. thence 225° 1.9 cables to shore on Pulau Kerto. For loading and discharging dangerous goods other than petroleum.

(ii) The berth alongside the Sungai Merah Oil Wharf in position approximately 2 miles downstream from the junction of the Rajang/Igan River on the true right bank. For loading and discharging petroleum.

MAX. SIZE: Largest vessel to berth Sibu was 10,077 gross tons.

Deepest drafted vessel to berth Sibu was 7.1 m.

Also see "Approaches".

HEALTH: Every vessel arriving in quarantine shall fly or show the appropriate International Quarantine signal; and no person other than a Pilot, Port Officer, Port Health Officer, Immigration Officer or Officer of Customs shall board the vessel; and no person shall disembark therefrom until the vessel has been cleared by the Port Health Officer.

BERTHING:

(a) Principal wharves at Sibu.

1. Rajang Port Authority Wharf 447.5 m. long with least depth of 8.5 m.
2. Sungai Merah Oil Wharf is a 48.8 m. long concrete wharf with at least depth of 4.6 m.

(b) Sarikei Wharf.

Rajang Port Authority Wharf 145.6 m. long with at least depth of 7.6 m.

(c) Bintangor Wharf.

Rajang Port Authority Wharf 48.5 m. long with at least depth of 4.6 m.

STEVEDORES: The Rajang Port Authority provide all labour necessary for loading and discharging at Sibu, Sarikei and Bintangor.

REPAIRS: Sibu is one of the major shipbuilding and repair ports in Sarawak and there are 8 shipyards with slipways of which one of them can accommodate vessels up to 2,000 gross tons.

GARBAGE DISPOSAL: All domestic disposals from vessels, if deposited and properly packed within the port are collected by the Sibu Municipal Council.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: No seaman's clubs are available, but Sibu town centre provides all the usual facilities.

CURRENCY: Malaysian Ringgit (MYR$). U.S.$ 1.00 = MYR$ 2.5280 (18.3.96).

REGULATIONS: The Merchant Shipping (Ports and Rivers) Regulations, 1961:–

8. The Master of every vessel of over 15 tons about to depart from a port for any place outside Sarawak shall cause the "Blue Peter" (International Code Flag "P") to be hoisted, during day-light hours, for at least 12 hours before the vessel is due to sail, or if the vessel is in port for less than 12 hours, for the period of her stay in the port.

9. (i) The Master or the Agent of every vessel about to depart from a port shall, on demand by the Port Officer, produce for inspection the Port Clearance.

(ii) The Port Clearance shall be in the form as prescribed under the Customs Ordinance or in such other form as may be approved by the Director.

10. A vessel arriving in, leaving from or shifting berth within a port shall hoist her signal letters, if any, whilst under way.

50. No oil, oily bilge water or substance containing oil of any description shall be discharged or allowed to escape from any vessel or allowed to run off any wharf, into any river or port.

GENERAL: Small quantities of diesel oil bunkers available, also provisions and fresh water. Principal exports rubber, pepper, timber and sago.

DEVELOPMENTS: See "Tanjong Manis".

AUTHORITY: Rajang Port Authority, 96000 Sibu, Sarawak, Malaysia. *Tel:* (084) 319009 (6 lines). *Telex:* LPR MA 72121. *FAX:* (084) 318754. *Cables:* Raport Sibu. *Contact:* Tuan Hj. Mohidin Hj. Seman, General Manager.

Marine Department, Sibu, Sarawak. *Tel:* 332754, 332752. *Cables:* "Shipping" Sibu.

SIPITANG, Sabah: 05.03 N. 115.31 E.

SHIPMASTER'S REPORT: February 1987.

LOCATION: A new jetty called the "SFI Jetty" has been built for vessels up to about 15,000 tons deadweight at Sipitang in Brunei Bay. Approximate position of jetty is Lat. 05° 02.7' N., Long. 115° 30.65' E.

DOCUMENTS: Before proceeding to Sipitang we called at Labuan Quarantine Anchorage to meet Authorities (Customs, Quarantine and Immigration Officers) after which vessel proceeded to Sipitang Anchorage. A pilot was not supplied for above manoeuvring.

APPROACHES: The light which should be in position Lat. 05° 03.65' N., Long. 115° 30.1' E. was not in position.

ANCHORAGE: When anchoring at Sipitang, vessels should not proceed nearer than 2.5 miles to 3.0 miles off the jetty as there are fishing stakes in the vicinity and 2 obstructions located at Lat. 05° 02.4' N., Long. 115° 29.35' E. and Lat. 05° 03.3' N., Long. 115° 29.4' E.

RESTRICTIONS: Great care should be taken when crossing Brunei Bay at night as there are many unlit laid-up tankers and small fishing boats in the area.

TUGS: One tug available.

BERTHING: When going alongside the tug makes fast aft. The starboard anchor was dropped to stop the bow and vessel berthed port side alongside.

Vessel Particulars:

Length	172.0 m.	
Breadth	25.9 m.	
G.R.T.	16,703	
Arrival Draft	Forward	28 ft. 00 in.
	Aft	31 ft. 00 in.

Cargo Discharged: Wood Pulp from West Coast U.S.A./Canada.

GENERAL: There are no banks or chandlers at Sipitang.

We obtained fresh fish and vegetables at the local market and rice, flour, sugar, eggs, cooking oil, etc., at a local store called Rocky Liam.

SUNGAI UDANG: 02.14 N. 102.08 E. (See Plan)

GENERAL: Sungai Udang Port is managed and operated by the Sungai Udang Port Sdn. Bhd. (SUPSB), a subsidiary of Petronas. The port serves the Refinery Petronas Penapisan (Melaka) Sdn. Bhd. (PPMSB) in handling crude oil and various petroleum products, including LPG.

The Sungai Udang Port is located on the West coast of Peninsular Malaysia in the Straits of Malacca, approximately 15 km. N.W. of the town of Melaka and lies between Tg. Panchor and Tg. Keling. The port has a "T"-shaped main jetty, extending 1,500 m. from the shore with a total berth length of 2,100 m., and has berthing facilities for vessels.

PORT LIMITS: The limit of the port is the area enclosed by the following imaginary lines:

(a) From the point on the coast at the tip of Tg. Panchor at Lat. 02° 16.3' N., Long. 102° 06.2'E., due S.W. to
(b) Lat. 02° 15.0' N., Long. 102° 04.5' E., thence due South to
(c) Lat. 02° 12.3' N., Long. 102° 04.5' E., thence due S.E. to
(d) Lat. 02° 11.0' N., Long. 102° 07.0' E., thence due N.E. to
(e) a point on the coast at Lat. 02° 14.3' N., Long. 102° 08.7' E., including the coast line, returning to position (a) and extending to high water mark and 50 yards beyond it, subject to any rights of private property therein.

DOCUMENTS: *Customs:*

Bonded Stores Declaration.
Drugs Declaration.
Personal Effects Declaration.
Plant and Animal Declaration.
Passenger List.
Parcels List.
Cargo Manifest.

Immigration:

Stowaway Declaration.
Crew List.

Port Health: See "Health".

Police:

Crew List.
Arms and Ammunition Declaration.
Drug List.

Marine Department:

Crew List.
Drug List.
Passenger and Cargo Manifest.

PILOTAGE: Pilotage is compulsory within the port limits of Sungai Udang Port.

Vessels are to advise their Agents 48 hours prior to arrival for pilotage services.

Pilot will board the vessel at the pilot boarding ground (at Fairway Buoy) Lat. 02° 11.0' N., Long. 102° 07.0' E., or at the anchorage.

Pilot ladder or a combination of the pilot ladder and gangway must be rigged on the leeside and the embarkation and disembarkation of the Pilot must be supervised by a responsible Officer. Lifebuoy with heaving line must be provided and adequate lighting must be provided at night. Pilot ladders must comply with SOLAS specification. Pilots can be contacted on VHF Channel 72.

APPROACHES: Vessels approaching Sungai Udang Port should proceed to Fairway Buoy (Long Fl. W. 10 sec.).

When proceeding towards Fairway Buoy:

(a) Vessels coming from the North must not enter into Sungai Udang port limits.

(b) Vessels coming from the South must not enter Melaka port limits.

Caution: Deep draft vessels approaching from the North should avoid a shallow patch of 15.8 m. at position Lat. 02° 14.2' N., Long. 102° 04.0' E., approximately 4.5 nautical miles N.W. of the pilot boarding ground.

ANCHORAGES: Anchoring within the Sungai Udang port limits is strictly prohibited, except with the approval and assistance of the Pilots at the designated anchorage areas.

The Ocean Anchorage Area is bounded by the following co-ordinates:

Lat. 02° 12.2' N., Long. 102° 06.5' E.
Lat. 02° 11.5' N., Long. 102° 06.1' E.
Lat. 02° 11.0' N., Long. 102° 07.0' E.
Lat. 02° 22.7' N., Long. 102° 07.4' E.

The Coastal Anchorage Area is bounded by the following co-ordinates:

Lat. 02° 13.0' N., Long. 102° 06.9' E.
Lat. 02° 12.2' N., Long. 102° 06.5' E.
Lat. 02° 11.7' N., Long. 102° 07.4' E.
Lat. 02° 12.5' N., Long. 102° 07.8' E.

The LPG Anchorage Area is bounded by the following co-ordinates:

Lat. 02° 15.0' N., Long. 102° 04.5' E.
Lat. 02° 15.5' N., Long. 102° 05.0' E.
Lat. 02° 14.6' N., Long. 102° 05.0' E.
Lat. 02° 14.2' N., Long. 102° 04.5' E.

RESTRICTIONS: Vessel movements within the port require the permission of the Marine Manager or the Sungai Udang Port Control. All vessels operating within the port limits are under the surveillance of the Port's Vessel Traffic Management System (VTMS).

There are restrictions of movement of vessels within the port. Berthing and unberthing will be carried out as follows:

(a) Coastal Berth: 24 hours, subject to Marine Manager's discretion.

(b) Ocean Berth: Daylight berthing, 24 hours unberthing.

(c) LPG: Daylight berthing and unberthing, or at the discretion of the Marine Manager.

However, berthing/unberthing operations are subject to prevailing weather conditions and other factors which may hamper the safety of the tanker/terminal.

The maximum draft permitted in the dredged channel is 17.3 m.

The dredged basin comprises:

(a) 300 m. width twin approach channels (North Channel and South Channel).

(b) 500 m. wide Berthing Basin.

Limits of the dredged area are marked with navigational buoys.

Bad Weather: In the event of bad weather, berthing/unberthing operations will cease. For vessels at the berth, no cargo operations will be carried out, engines are to be placed on stand-by and vessels would be informed accordingly by the Port's representatives. Wait for further instructions.

MAX. SIZE:

Berth No.	*Type*	*Max.Size* (d.w.t.)	*LOA* (m.)	*Max.Draft* (m.)
1 and 6	Coastal	2,000-7,000	76-120	5.1-7.3
2 and 5	Coastal	2,000-10,000	76-140	5.1-8.1
3 and 4	Ocean	20,000-120,000	164-297	9.5-17.3
7	LPG	1,000-6,000	61.3-116	4.0-7.5

HEALTH: Vessels must obtain Health Clearance before cargo work can commence.

Vessels coming from an infected area are required to fly the international quarantine signal (Flag "Q").

Vessels to notify Port Health Authorities at least 24 hours prior to arrival with the following information:

(a) Name of ship.
(b) ETA.
(c) Last Port.
(d) Derat Certificate/Derat Exemption Certificate and date and place of issue.
(e) List of Ports of Call of last 15 days.

When the Port Health Officer is on board, he will request to see the following documents:

(a) Maritime Declaration of Health.
(b) List of Ports of Call for the last 15 days.
(c) Derat Certificate/Derat Exemption Certificate.
(d) Crew List.
(e) Vaccination List.
(f) Cargo Manifest.

RADIO: *Arrival Advice:* Upon departure from the last port of call or immediately after having received instructions to proceed to Sungai Udang, Master is requested to notify SUPSB and PPMSB of the following information:

AAA	Vessel's name, previous name (if any), Call Sign and Port of Registry, year built.
BBB	ETA, date and local time.
CCC	Master's name and nationality.
DDD	GRT, NRT, DWT and Max. Displacement.
EEE	Last Port and Next Port of Call.
FFF	Number of crew and passengers, including nationality.
GGG	Arrival draft (forward and aft).
HHH	Grade and quality of cargo on arrival, previous cargo and cargo to be loaded/discharged at Sungai Udang Port.
III	Whether previous cargo or any cargo on board has high H_2S contents and H_2S concentration in tank vapour spaces.
JJJ	Firearms on board.
KKK	Deballasting. Confirm that the vessel is able to load and deballast simultaneously.
LLL	Pratique Granted: Place/date. If any sickness onboard or of clean Bill of Health.
MMM	Confirm inert gas system is operational and all cargo tanks are inerted on arrival, if applicable.

All vessels calling at Sungai Udang Port for the first time are to include the following additional information:

NNN	LOA, breadth and distance bow to manifold.
OOO	Confirm manifold arrangement complies with OCIMF standard for oil tankers. Manifold arrangement and associated equipment for LPG vessels showing liquid and vapour lines disposition.
PPP	Confirm that combination of gangway and pilot ladder are ready on arrival. Only pilot ladder is required if freeboard is less than 3.0 m. Position of accommodation ladder and state whether the lower end is facing forward or aft.
QQQ	If loading products, is vessel fitted with 2-valve separation for parcels?
RRR	Is vessel fitted with SBT?

Up-dated ETA to be confirmed 72 hours, 48 hours, 24 hours and 12 hours prior to arrival.

Port Clearance: Vessels are to advise their Agents at least 48 hours prior to arrival for the purpose of port clearance. Vessels may be delayed if appropriate notices are not given to the relevant Government agencies involved in clearing the vessel.

VHF: Udang Port Control on Channel 16, working 17, 9, 72, throughout 24 hours.

Communication languages are Bahasa Malaysia and English.

Arrival Procedures: Masters should endeavour to establish contact with Sungai Udang Port as soon as they are within range. Instructions thereafter will be given for further approach and berthing schedule.

RADAR: Vessel Traffic Management System (VTMS) port radar operational.

TUGS: 3×40 ton B.P. and 3×16 ton B.P.

2 mooring boats also available.

BERTHING: *Berths No. 1, 2, 5, 6 (CB1, CB2, CB3, CB4):*

Standard Mooring Arrangement:

Spring lines	2 lines forward and aft.
Breast lines	2 lines forward and aft.
Head/stern lines	2 lines each.

Ship's Manifold:

(a) Manifold standard: ANSI B 16.5 Class 150 or DIN 2633 ND.

(b) Distances:

(i)	Centre manifold to ship's deck (min.)	1,300 mm.
(ii)	Centre manifold to drip tray (min.)	900 mm.
(iii)	Manifold to ship's railing/side (min.)	2,500 mm.
(iv)	Distance between manifold-centre to centre	1,200 mm.
(v)	Free area behind flange neck	350 mm.

Custody measurement is by turbine meters.

Berths No. 3, 4 (OB1, OB2):

Standard Mooring Arrangement:

Spring lines	2 lines forward and aft.
Breast lines	2 lines forward and aft.
Head/stern lines	3 lines each.

All lines are secured to quick release mooring hooks.

Ship's Manifold:

(a) Manifold standard: ANSI B 16.5 Class 150 or DIN 2633 ND.

(b) Distances:

(i)	Centre manifold to ship's deck (min.)	1,500 mm.
(ii)	Centre manifold to drip tray (min.)	1,000 mm.
(iii)	Manifold to ship's railing/side (min.)	2,500 mm.
(iv)	Distance between manifold-centre to centre	1,600 mm.
(v)	Free area behind flange neck	500 mm.

Custody measurement is by tank gauging.

Berth No. 7 (LPG Berth):

Standard Mooring Arrangement:

Spring lines	2 lines each forward and aft.
Breast lines	2 lines each forward and aft.
Head/stern lines	2 lines each forward and aft.

All lines are secured to quick release mooring hooks.

Ship's Manifold:

(a) Manifold standard: ANSI 300 weld neck flange.

(b) Distances:

(i)	Centre manifold to ship's deck (min.)	700 mm.
(ii)	Manifold to ship's railing (min.)	2,000 mm.
(iii)	Distance between manifold-centre to centre	1,500 mm.

Custody measurement: A turbine meter is installed at the berth. However, since vapour return cannot be measured, vessel gauge system shall be used.

Inert Gas System (IGS): All vessels equipped with IGS must maintain the oxygen level in each tank at 8% or less. Vessels not meeting the requirement will be taken out to the anchorage until the oxygen level in all tanks is 8% or less.

Operating Criteria:

1. Loading/unloading will be shut down when winds are exceeding 30 knots or 14 m./sec.
2. Loading operations will cease when there is lightning and thunderstorms.
3. Loading will be shut down on sighting or receiving of information of an imminent Sumatra/squall.
4. Loading will be drained and disconnected when wind speed exceeds 35 knots or 16 m./sec.

Berthing/Unberthing: The Marine Manager will decide whether to berth or unberth a vessel due to unfavourable weather conditions.

Gangways and Accommodation Ladders: Vessels calling at Sungai Udang Port are not allowed to use their gangway/accommodation ladder. The facility will be provided instead by the port.

Mooring Arrangements: Vessels are to comply with OCIMF requirements. However, the final mooring arrangements will be under the discretion of the Pilot.

LPG: *Safety Agreement:* Throughout the vessel's stay in port, the Master is requested to observe the safety requirements as per acknowledgement by the Master.

Immobilisation of Main Engines: Immobilisation of main engines are not permitted, except with prior permission from the Marine Manager.

Tensioning Winches: Tension winches should not be used in the automatic mode when alongside. The brakes of tension winches should be applied, and the mooring tendered manually.

Loading Operations: Loading Arms: Connecting and disconnecting of loading arms will be carried out by PPMSB's personnel. The vessel's crew are requested to assist in aligning the vessel's manifold with the loading arm.

Loading Procedures: Prior to cargo operation, PPMSB's representatives will establish the working mode with the Master on the following:
(a) Loading/discharging procedures.
(b) Method of communications and emergency stop procedures.
(c) Ship/Shore Safety Check List.
Loading/discharging rate will be agreed on before cargo operations begin.

Pressure Surge: Warning is given of the danger of closing valves against an incoming hydrocarbon flow. This will create excessive pressure, which may result in damage to the loading arms and port facilities. Vessel will be held liable for damages resulting from failure to observe this precaution.

Cargo Spillage: Care should be taken to prevent cargo spillage of low temperature cargo, because of hazard to personnel and danger of brittle fracture. If spillage does occur, the source should first be isolated and the spilt liquid then dispersed. The presence of vapour may necessitate the use of breathing apparatus. If there is a danger of brittle fracture, water could be used, both to vapourise the liquid and to prevent too low temperature. If the spillage is contained in a drip tray, the contents should be covered or protected to prevent accidental contact. As liquified gases, this quiescent liquid could be mistaken for water, and due care and attention must be exercised as carelessness could be dangerous.

Suitable drip trays must always be used beneath manifold connections when transferring cargo or draining lines and connections. Care should be taken to ensure that the unused manifold connections are isolated, and if blanks are fitted, the flange surface should be clean and free of frost. Accidents have occurred partly due to incorrectly fitted blanks.

LOADING/DISCHARGING: *Loading Procedures:* Prior to cargo operations, PPMSB's representatives will establish the working mode with the Master on the following:
(a) Loading/discharging procedures.
(b) Method of communications and emergency stop procedures.
(c) Ship/Shore Safety Check List.

Loading/discharging rate will be agreed before cargo operations begins.

Crude Oil Washing: Crude oil washing is not allowed.

Tank Cleaning and Gas Freeing: No tank cleaning and gas freeing are allowed while vessels are in port.

Loading Arm: Connecting and disconnecting of loading arms are carried out by PPMSB's personnel.

State of Readiness of Vessels Alongside in the Port: No repair works which will render the vessel immobilised are allowed without prior approval from the Marine Manager. In general, such requests will be refused for the safety of the port and vessel. It is essential that the engines be kept ready, so that the vessel can leave the berth at short notice.

Berth No.	*Product*	*Operation*	*Size* (in.)	*Designed Flow rates* (cu.m./hr.)
1 (Coastal 1)	DPK	Loading	8*	1,590**
	Diesel	Loading	10*	2,230**
	Ballast water	Discharging	10*	2,230**
	Mogas	Loading	10*	2,230**
	MTBE	Discharging	10*	2,230**
2 (Coastal 2)	DPK	Loading/Discharging	8*	1,590**
	Diesel	Loading/Discharging	10*	2,230**
	Ballast water	Discharging	10*	2,230**
	Mogas	Loading/Discharging	10*	2,230**
	MTBE	Discharging	10*	2,230**
3 (Ocean 1)	LSWR	Loading/Discharging	16*	1,180
	Diesel/DPK	Loading/Discharging	16*	6,360*
	Crude/Cond.Ballast	Discharging	16*	6,360*
	Prem.Mogas/PCN	Loading/Discharging	16*	6,360/3,180*
4 (Ocean 2)	Diesel/DPK	Loading	16*	6,360*
	Crude/Cond.Ballast	Discharging	16*	6,360*
	Prem.Mogas/PCN	Loading	16*	6,360/3,180*
5 (Coastal 3)	DPK	Loading	8*	1,590**
	Diesel	Loading	10*	2,230**
	Ballast water	Discharging	10*	2,230**
	Mogas	Loading	10*	2,230**
	MTBE	Discharging	10*	795
6 (Coastal 4)	DPK	Loading	8*	1,590**
	Diesel	Loading	10*	2,230**
	Ballast water	Discharging	10*	2,230**
	Mogas	Loading	10*	2,230**
	MTBE	Discharging	10*	795
7 (LPG)	LPG	Loading/Discharging	8*	636
	LPG vapour return	Loading/Discharging	6*	636

* Flow rate per 2 loading arms at same berth.

** Flow rate for 2 loading arms at different berths (for simultaneous loading).

MEDICAL: One Government hospital and 4 private hospitals within 20 km. of port.

DENSITY: 1025.

FRESH WATER: Available.

FUEL: Not available.

CONSULS: Embassies and consuls in Kuala Lumpur, 200 km.

REPAIRS: Minor repairs of urgent nature can be undertaken in local workshops.

Note: No repairs or maintenance work of any kind involving the risk of generating sparks or other means of ignition shall be undertaken while in port.

CUSTOMS ALLOWANCES: Cigarettes 25 sticks per person per day, or cigars 8 sticks per person per day, or tobacco 28 grams per person per day. Spirits 142 ml. per person per day. Wine 1136 ml. per person per day.

Customs will board the vessel on arrival to check and seal the bonded stores. Vessels are advised to prepare the Bonded Stores List and prepare the stores for inspection.

REPATRIATION: Crew changes are allowed. Vessel's Agent must obtain all clearances from relevant Government agencies.

AIRPORT: Kuala Lumpur International Airport, 200 km.

TIME: GMT plus 8 hours.

HOLIDAYS: Holidays do not affect cargo operations.

POLICE/AMBULANCE/FIRE: Police Tel: 06-2822222. Fire Tel: 06-2838481. Ambulance: Tel: 06-2822344.

EMERGENCY CO-ORDINATION CENTRE: Tel: 06-3512444.

SHORE LEAVE: Passports required.

Crew members are not permitted to come ashore prior to vessel's clearance by Immigration Department.

GARBAGE DISPOSAL: No facilities.

WASTE OIL DISPOSAL: A slop barge is available (capacity 3,600 barrels).

CURRENCY: Ringgit. U.S.$1.00 = 2.46 Ringgit (August 1996).

WEATHER: The seasonal weather patterns are broadly divided into 3 seasons:
(a) Monsoon (May to September): Winds are generally from the South or S.W. during this period and can reach gale force in local squalls.
(b) Northeast Monsoon (November to March): Persistent rain occurs during this monsoon. Towards the Straits of Malacca, the sea will moderate as compared to South China Sea.
(c) Transition Periods (April and October): Winds are lighter and variable, but may freshen in the late afternoon and early evening with sea breeze effect. Occasionally, local gale force squalls may occur, but these are generally of short duration. Masters are to refer to Admiralty Sailing Directions for more information.

The following information was obtained from the 1992/1993 Oceanographic and Meteorological Data:
(a) Tide: The highest tidal data value recorded was 2.86 m. and the lowest was 0.12 m. in July. The variation throughout the months is between +0.1 m. to −0.1 m.
(b) Current: The currents at this location are generated by the tidal flows in a N.W./S.E. direction along the coast line with a speed of 0.6 knots – 1.8 knots.
(c) Waves: The highest wave height recorded was 2.9 m. in October 1992. The dominant wave direction is from South and S.W. with a variation from August to December, when the predominant direction is from the West.
(d) Wind: The highest wind speed recorded was 3 knots – 4 knots in August 1992. Usually from the S.W. and predominantly occurs between 0000 hrs. and 0600 hrs.

GENERAL: *Charts:* B.A. Charts No. 3946 and 3947.

Sailing Directions: NP 44, Malacca Straits and West Coast of Sumatra Pilot.

Inspection: Vessels calling at Sungai Udang will be subjected to an inspection by the port to ensure compliance with relevant IMO Conventions and local regulations. PPMSB's personnel will inspect the vessel to ensure compliance with the refinery requirement for final acceptance. SUPSB and PPMSB reserve the right to reject any non-compliance vessel at Sungai Udang.

The Master of the vessel will also be required to sign "Port of Sungai Udang Terms and Conditions of Use and Safety Requirements".

Support Services: The port is equipped with the following facilities:
(a) A dedicated Control Building at each berth.
(b) For each berth, the following standard ancilliaries are provided:
Speed of approach system and display located at each berth (radar type).
Quick release hook with capstan at Berths No. 3, 4 and 7.
Fendering system.
Loading arms.
(c) Environmental monitoring system (oceanographic/meteorological measuring equipment).
(d) Firefighting systems (elevated/monitor towers at each berth).
(e) Navigational aids (buoys, leading lights, beacon and obstruction light).
(f) Ballast and slop reception facilities.
(i) 100,000 bbls. ashore.
(ii) 3,600 bbls slop barge.
(g) Oil spill equipment (2,400 m. of various types of boom, skimmers, dispersants, etc.).

Security: The port is a restricted area. No person is permitted to be at or near the area without the permission of the Marine Manager or the security personnel.

Provisions: Fresh and dry provisions are available. Arrangements to purchase them should be made through the vessel's Agent.

Laundry: Laundry facilities are available at Melaka (Malacca).

Smoking Areas: Smoking is strictly prohibited, except in approved smoking areas as designated by the port.

Appropriate notices at strategic locations must be placed on board the vessel.

Electrical Storms/Bad Weather: The port reserves the right to stop loading due to bad weather conditions or during the approach of electrical storms.

Rat Guards: Rat guards must be rigged whenever vessels are alongside.

Impressed Cathodic Protection: Vessel impressed current cathodic protection must be positively isolated prior to loading arm connection.

OPERATOR: Sungai Udang Port Sdn.Bhd. (SUPSB), Batu 10, Jalan Pantai Tanah Merah, 76400 Tanjung Keling, Melaka, Malaysia. *Tel:* 06-517014, ext. 2908, 2935, 2939. *Telex:* MA 62461 Suport. *FAX:* 06-517185. *Contact:* Captain Mohd. Safi'Uddin HJ Ali, Marine Superintendent.

TANJONG MANIS, Sarawak: 02.09 N. 111.21 E. (See Plan)

APPROACHES: Rajang River entrance has at least depth of 5.8 m. below chart datum. The entrance is well lit by two lighthouses and one light beacon and the bar is marked by two light buoys.

There is a wreck situated at Lat. 2° 7.6' N., Long. 111° 7.25' E. which is approximately 8 cables S.E.×E. of the inner Fairway Buoy marked by a starboard hand buoy and about 7 miles further inwards South-West of Kampong Rajang another wreck at Lat. 2° 8.7' N. Long. 111° 14.12' E. which is also marked by a starboard hand buoy.

PILOTAGE: Pilots embarked, weather permitting in the buoyed channel West of Jerijeh Lighthouse but occasionally the Pilot will request ships to proceed into sheltered waters as they use 5 m. fibre-glass speedboats, fitted with VHF.

Application for Pilot should be made giving 24 hours notice of arrival to "Shipping Sarikei" and Masters can call "Rajang Pilot" before arrival.

ANCHORAGE: *Tanjong Manis Anchorage:* This is a deepwater anchorage 20 miles from the Fairway Buoy, used by vessels loading timber. The anchorage can accommodate approximately 3 vessels of 183 m. and 12 vessels of 120 m. – 150 m. in length.

Restricted Anchorage: Abeam of Loba Selemit on the North bank of the Rajang river in position Lat. 2° 08' N., Long. 111° 16' 35" E. is restricted to loading and discharging any dangerous goods.

MAX. SIZE: The maximum length of a vessel permitted is 183 m. and max. draft 8.4 m. and max. size 20,000 d.w.t.

DEVELOPMENTS: *Project Name:* Tanjung Manis Port Development.

Purpose: To provide deep water port facilities.

Location: N.E. corner of Tanjung Manis Timber Processing Zone (a distance of 30 km. from the estuary of Rajang River).

Main Components:

(a) Whart (200 m.).
(b) Transit Shed.
(c) Workshop.
(d) Container Yard.

Work Commencement: 12th September 1995.

Completion Date: September 1997.

AUTHORITY: Rajang Port Authority, 96000 Sibu, Sarawak, Malaysia. *Tel:* (084) 319004-9 (6 lines). *Telex:* LPR MA 72121. *FAX:* (084) 318754. *Cables:* Raport Sibu. *Contact:* Hj Mohidin Hj. Seman, General Manager.

Marine Department, Sibu, Sarawak. *Tel:* 332754/332752. *Cables:* "Shipping" Sibu.

TAWAU, Sabah: 04.14 N. 117.52 E. (See Plan)

PORT LIMITS: The Port of Tawau shall comprise the waters of Cowie Bay and Wallace Bay and rivers entering same contained within the following limits:

A line from Lat. 4° 13.3' N., Long. 118° 00.0' E. to the National boundary mark on the Eastern shore of Sebatik Island, thence to the National boundary mark on the Western shore of the said island, thence in a 270°(T) direction to the shores at Burs Point, thence in a 311°(T) direction to Lat. 4° 20.0' N., Long. 117° 25.9' E. thence in a 070°(T) direction to Lat. 4° 25.0' N., Long. 117° 40.0' E., thence in a 120°(T) direction to the point of commencement.

DOCUMENTS:

(a) To be Produced on Arrival:

Customs

2 Manifests in prescribed form.
2 Crew Lists.
1 Last Customs Clearance.
2 Stores Lists.
2 Passenger Lists.
2 Arms Lists.
2 copies Through Cargo Manifest.
2 copies Crew Personal Effects List.
2 copies Parcels List.
2 copies Narcotic & Dangerous Drugs List.
2 copies Customs Clearance (Last Port).
1 copy Ship's Arrival Report.
2 copies General Information or Vessel's Particulars.

Marine

1 Marine Dept. Boarding Report, required to be completed.
1 Last Port Clearance.
1 Crew List.
1 Passenger List.

Agent

4 (2 for SPA) Manifests in the prescribed form.
1 Crew List.
1 Passenger List.

Immigration

2 Crew Lists.
2 Passenger Lists.

Travel Control Office

2 each, Crew Lists and Passenger Lists.

(b) To be Supplied to Ship before Departure:

Manifests, as required by vessel.
1 Port Clearance and 1 Customs Clearance.
3 copies of Passenger List.

(c) To be supplied by ship prior to arrival:

Where possible, cargo manifests and stowage plans should be forwarded in advance to local Agents and Port Authority ahead of vessels.

PILOTAGE: Not compulsory. A Pilot is available from 0600 to 1800 hrs. for berthing vessels given reasonable notice (48 hours). Marine Department Tel: 73510.

Applications normally made by Shipping Agents with advance notice of 24 hours prior to actual time that Pilot Services are required. Pilot boats are between 30 ft. – 40 ft. length and equipped with VHF/AM sets – 80.4 Mc/s. frequency. Pilot station at Port Office (Marine Department) and location for vessel awaiting Pilot is within Port Limits.

ANCHORAGES: Good anchorage in 8 fathoms 1,000 yd. to 1,300 yd. W.N.W. of wharf; and 350 yd. South there is an anchorage in 8.5 fathoms.

Petroleum Anchorage: An area bounded by parallels of Lat. 04° 15' N. and Lat. 04° 16' N. and meridians of Long. 117° 51' E. and Long. 117° 52' E. This area is to be marked "Petroleum Anchorage".

Explosives Anchorage: An area bounded by parallels of Lat. 04° 12' N. and Lat. 04° 13' N. and meridians of Long. 117° 52' E. and Long. 117° 53' E. This area is to be marked "Explosives Anchorage".

Quarantine Anchorage: An area bounded by parallels of Lat. 04° 12.5' N. and Lat. 04° 13.5' N. and meridians of Long. 117° 54' E. and Long. 117° 55' E. This area is to be marked "Quarantine Anchorage".

RESTRICTIONS: *(a)* Communication ship/shore when lying on Roads: Regular launch services difficult to arrange if required by Master. No recognised signals for summoning a launch, as distance between small boat jetty and anchorage is too great for flag signals to be recognised. No restrictions against a vessel using its own launch or motor life-boat apart from fact that it must not land anywhere other than at Ports Authority Wharf.

(b) Explosives: No vessel carrying explosives shall come within 500 yards of shore or any other vessel except with written permission of Port Manager which will be given provided that:

(i) quantity does not exceed 2,000 lb. of explosives of Class V and VI and are carried in a certified magazine, and there is no other dangerous cargo on board as certified in writing by the Master.
(ii) quantity does not exceed 3,000 lb. and are exclusively of one of the following classes III, IV or VII.

Danger flag must be flown by day and a red light by night.

HEALTH: *(a)* Quarantine: The Sabah Government are signatories to WHO convention on Quarantine regulations. Port Health Doctor will not board, unless vessel comes from an infected port. Instead Maritime Declaration of Health is to be filled out and handed to Boarding Officer of Marine Department, who will require one copy of Crew List and one copy of Passenger List. Vessels should cable Agent prior arrival advising last port of call and whether vessel healthy.

(b) Immigration: Immigration officer will board vessel on arrival and clear her inwards. No restrictions on crew and/or passengers going ashore. Immigration will require 2 copies of Crew List and 2 copies of Passenger List. Vessels are cleared inward until 1800 hours only. If there are special circumstances arrangements can be made to clear vessels inward after this time.

RADIO: Singapore Radio recommended.

Application for berthing has to be made 24 hours prior to actual time when berthing is required.

Details and requirements:

Name of vessel, gross and nett tonnage, length overall, draft (fore and aft) ETA at berth, ETD from berth, nature and tonnage of cargo to be discharged/loaded, number of gangs required, quantity of fresh water required. Vessels given berth on first come, first served basis.

VHF: A Maritime VHF radio telephone service now operates in the Port of Tawau on Hague Plan Channels 16 and 12.

Continuous listening watch is kept on Channel 16 and the station is operative between the hours of 0600 and 2000 daily.

Vessels are requested to make use of the above facility for notifying ETA, pilotage requirements, etc. Berth availability will be notified on vessel's call.

TUGS: No tugs available.

BERTHING: *(a)* Wharf Light at Tawau in position on N.W. end of Old Wharf, Lat. 04° 14' 32" N., Long. 117° 52' 56" E.

(b) Tides/Linesmen. The numbers of a vessel which is berthing alongside will be flown from signal station. In addition a cone, indicating tidal stream will be hoisted, pointed end of cone down indicates flood tide and pointed end up indicates ebb tide. Linesmen are on hand to receive a vessel's lines; a motor boat can be hired to assist in berthing if prior advice is given.

(c) Old Wharf. Berths No. 1 and 2: Consists of a 220 ft. long approach causeway extending from a reclamation area and a 650 ft. long wharf, 40 ft. wide with a dolphin in line +100 ft. off each end.

New Wharf. Berths No. 3, 4, 5 and 6: Located 400 ft. North West of Old Wharf. 3 berths on the outer side (No. 3, 4 and 5) with a total length 1,000 ft. 1 berth on inner side (No. 6) with a length of 500 ft.

Berth No.	*Depth* (m.)
1	6.09
2	6.09
3	6.5
4	7.5
5	9.14
6	5.0

(d) Monsoon. During strong wind from S.E. and S.W. ships are liable to range alongside wharf, and during S.W. monsoon sea breeze may make it difficult for ships to leave wharf in the afternoon.

(e) Buoys: No mooring buoys in Tawau.

(f) Lighters: No lighters available except a few wooden and steel lighters owned by Bombay Burmah Trading Corpn. Ltd. and Borneo Abaca Limited. Hire of these lighters can be arranged when they are not being used by owners, which is seldom.

CARGO HANDLING FACILITIES: 41 Fork-lift trucks 3-6 tonnes capacity; 19 Towing tractors; 51 Trailers 5-7 tonnes.

Container Facilities: 1×40 tonne super stacker, 1×7.5 tonne Boss forklift truck, 2×40 ft. drawback container trailers, 8×5,000 kg. industrial trailers, 2 forklifts (25 tonne and 19 tonne), 6 trailers (20 tonnes) and 3 towing tractors.

CARGO: *(a)* Special Cargo Regulations: No vessel with dangerous cargo may be alongside after sunset except at discretion of Port Manager. No dangerous cargo may be discharged simultaneously with general cargo except with permission of Port Manager.

Heavy lifts usually handled at new wharf only. Customs bonded store is available with about 4,000 sq. ft. of space including Customs Liquor and tobacco store. There are no private bonded warehouses to date. There are no facilities for handling or storing bulk cargoes in any quantity.

Livestock: Subject to approval of Veterinary Authority, certain animals including cattle are prohibited imports and exports except under licence.

(b) Damage. Ship's survey should be carried out on all cargo discharged in a damaged condition and Chief Officer should note extent of damage, and sign, certifying same. Cargo coming alongside in a damaged condition should be noted and M/R claused accordingly. Chief Officers are reminded that it is most unwise to load any copra which is rain or salt water damaged.

(c) Tally: Tally clerks can be supplied by Agent if required, on receiving advance notice.

(d) Inward. Inward cargo is tallied out of ship onto wharf or into lighter. Damaged cargo surveyed on the spot, otherwise no liability of the vessel is acknowledged. Discharge carried out after permission has been obtained from Customs after manifest of inward cargo has been deposited. Cargo delivered to consignees against production of relative Bill of Lading. Ship's responsibility to consignees ceases at ship's side, but, in the case of short-landed cargo, reasonable proof must be given to Customs that cargo has not been landed. A short-landed Memo certified by Chief Officer is usually accepted as proof.

(e) Transhipment. After discharge of cargo from first carrier, transhipment cargo is placed under the supervision of the Customs, unless it is possible to arrange direct transhipment into small coastal vessel.

(f) Outward. When vessels berth alongside, packages are brought by motor transport and lighters; when in roads, by lighters.

(g) Refrigerator. Only small quantities of refrigerated cargo loaded or discharged. No formalities or certificates being required other than compliance with normal Customs Regulations. Inward refrigerated cargo is confined to foodstuffs, meat, etc., and outward to frozen fish.

(h) Explosives. Explosives must be discharged into lighters or immediately on arrival onto wharf under police escort and transported to an approved police store. A licence for their importation must be obtained from police prior arrival of cargo, and Harbour and Police authorities must be informed of arrival of explosives in port either for discharge, or as through cargo.

STEVEDORES: *(a)* Stevedoring in the hands of Sabah Ports Authority who will supply gangs as required.

(b) Working hours 0730 – 1130 hrs., 1300 – 1700 hrs., 1800 – 2200 hrs.

(c) Overtime: Overtime working hours are from 1800 to 2200 hrs. Application must be made to Customs 1 day in advance; double rate charged.

(d) Sundays and holidays: Work normally carried out on Sundays and holidays (See "Sandakan"). Application must be made to Customs for permission to work Saturday afternoons, Sundays and public holidays.

(e) Handling Rate: (Net).

Conventional Vessel : 25 t.p.h./gang
Palletised Vessel : 50 t.p.h./gang
Container Vessel : 150 t.p.h./gang

MEDICAL: *(a)* Hospitals. Government General Hospital is only hospital in town, and will receive any sick seamen or officers. 3 classes of wards, but first class ward can only accommodate 2 persons. Hospital is equipped to carry out normal surgery.

(b) Inoculation. Port Health Officer will vaccinate or inoculate Crew members at General hospital.

(c) Port Health Officer. General Hospital, General Office 73533, 72191. Medical Officer-in-Charge 71206. M.O.'s Residence 72239.

TANKERS: Shell Jetty: Least depth 14 ft.

S.P.A. Oil Jetty: Length 76.3 m. Depth alongside 9.75 m. The jetty is about 2.4 km. from the general cargo berths.

DENSITY: 1020 (approx.).

FRESH WATER: Can only be supplied at wharf. 24 hours' notice should be given of a vessel's water requirements. Usual rate of supply is about 15 t.p.h. A water barge is available but no guarantee of availability.

FUEL: Not available except diesoline in drums.

FIRE PRECAUTIONS: No fire floats and in the case of a vessel alongside catching fire, the fire brigade should be summoned by dialling 2999. The OCPD should also be informed.

CONSULS: At Kota Kinabalu.

REPAIRS: No facilities.

GANGWAY/DECK WATCHMEN: Not necessary. Agents may exercise option.

OPENING/CLOSING HATCHES: Normally by Stevedores.

CERTIFICATES: Registry, Load Line, Radio, Safety Equipment and Derat Exemption.

CUSTOMS ALLOWANCES: Tobacco, wine and/or spirits: No control, up to discretion of Officer of Customs and Excise.

CARGO GEAR: Ships gear used, also for containers ex-feeder ships and heavy lifts in major ports.

REPATRIATION: Normally arranged by Agents.

AIRPORT: Some airports in State are between 4 km. to 10 km. from town centre.

TIME: Local time is 8 hours ahead of GMT. No alteration to clocks.

HOLIDAYS: See "Sandakan".

POLICE/AMBULANCE/FIRE: *(a)* Police/Fire, Tel. 089-73111; Ambulance/Hospital, Tel. 089-73533.

(b) Accidents: Hoist a two-flag signal and give a blast of the whistle to call attention of signal station. Police and the hospital should be informed immediately of any untoward incident.

TELEPHONES: Available.

SERVICES: Tank cleaning services can be arranged with Agents. Marine Department deals with compass adjustments.

IDENTIFICATION CARDS: Not required.

REGULATIONS: *(a)* Arrival and Departure. The Owner or Agent of every vessel other than a small ship intending to call at a port shall, as soon as possible, and in any case not later than 36 hours prior to the estimated time of arrival of the vessel, give notice in writing to the Authority of such arrival and, if so desired, the requirement for a berth at a wharf.

2. The notice under this regulation shall be in a form prescribed by the Authority and shall contain full particulars regarding the cargo to be discharged and loaded, the embarkation and disembarkation of passengers, heavy lifts, special or perishable cargo, hazardous and dangerous goods (whether to be discharged at the port or not), and any other matters of importance relating to the working or safety of the vessel in the port.

3. The Master of every vessel entering or leaving a port between sunrise and sunset shall cause to be hoisted the national colours and the signal letters, if any, of the vessel. The national colours shall be exhibited from 0800 hrs. to sunset whilst the vessel remains in port.

4. The Master of every vessel arriving from outside the State of Sabah shall exhibit the Immigration and Quarantine signals contained in the First Schedule and shall also at the request of a Customs Officer hoist the Customs signals. Such signals shall remain exhibited until the appropriate officer has given permission for them to be lowered.

5. No vessel shall approach within 600 ft. of any other vessel exhibiting the Immigration, Health or Customs signals.

6. No person other than a Pilot may board or disembark from any vessel until the vessel is cleared inwards and the Immigration, Quarantine and Customs signals have been lowered.

7. Every vessel entering a port shall be anchored or efficiently secured to a wharf or buoy before commencing the loading or discharging of cargo and/or the embarkation or disembarkation of passengers.

8. No vessel shall leave any port unless in possession of a valid Port Clearance issued by or on behalf of the Director of Marine.

(b) Special signals:

Significance	*By Day*	*By Night*
Immigration (for ships not carrying passengers)	International code Signal "2 5"	Two green lights, 6 ft. apart hoisted vertically where best seen.
Immigration (for ships carrying passengers)	International Code Signal "3 4"	Two green lights, 6 ft. apart hoisted vertically where best seen.
Quarantine (vessel is Healthy request Pratique)	International Code Signal "Q"	Nil
Quarantine (vessel is suspect)	International Code Signal "Q Q"	A red light over a white light and a separate hoist of red light over a green light and hoisted vertically 6 ft. apart where best seen.
Quarantine (vessel is infected)	International Code Signal "Q L"	
Quarantine (not received Pratique)	Nil	A red light over a white light 6 ft. apart hoisted vertically where best seen.
Request Police Assistance	International Code Signal "S T"	A green light over a white light, 6 ft. apart hoisted vertically where best seen.
Request Medical Assistance	International Code Signal "W"	A red light over a green light, 6 ft. apart, hoisted vertically where best seen.

DELAYS: Due to weather conditions only.

GENERAL: *(a) Surveyors:* Harrisons & Crosfield (Sabah) Ltd., as Lloyd's sub-Agents, may appoint a Surveyor if a survey is requested.

(b) Fumigation: No facilities.

(c) Ship Chandlers: Fresh vegetables obtainable in limited quantities early every morning from vegetable market.

(d) Priority: Vessels are berthed on a "First come first served" basis. Vessels with 75% inward palletised cargo get priority.

(e) Watchmen: These can be supplied if required.

AUTHORITY: Sabah Ports Authority, Peti Surat 335, 91007 Tawau, Sabah, Malaysia. *Tel:* (089) 773700, 772852. *Telex:* MA 83127. *FAX:* (089) 761808. *Contact:* Thomas Soon Min On, Port Manager.

Republic of Maldives

MALE: 04.10 N. 73.31 E.

LOCATION: The Maldives, a group of islands, extend in a North-South direction from just below South of the Equator to approximately 8° N. to the S.W. of the Indian sub-continent. Male, the principle port, is centrally situated on the East side of the group.

PORT LIMITS: Water area bounded by:

1. Lat. 04° 10.86' N., Long. 73° 30.43' E.
2. Lat. 04° 12.60' N., Long. 73° 30.43' E.
3. Lat. 04° 10.70' N., Long. 73° 28.08' E.
4. Lat. 04° 12.60' N., Long. 73° 28.08' E.

DOCUMENTS:

Port Health:

1 copy Maritime Declaration of Health.

1 copy Crew and Passenger List.

Yellow Fever Vaccination List (only if the vessel called at a Yellow Fever area during last 30 days).

1 copy Manifest for vessels arriving from India/Sri Lanka.

Customs:

Last Port Clearance Certificate.

1 copy Crew and Passenger List.

1 copy Bonded Stores List.

1 copy Cargo Manifest.

1 copy "Nil" Delcaration of Animals, Plants, Arms, etc.

Immigration:

1 copy Crew and Passenger List.

Seamen's Books or Passports of each person.

Port Authority:

Arrival/Departure Declaration Forms (given by Maldives Port Authority).

4 sets Cargo Manifest with 2 sets of Bill of Lading copies (including Transit Cargo, if any).

2 copies Stowage Plan with Dangerous Cargo List, if any.

1 copy Crew and Passenger List.

Coast Guard:

1 copy Crew and Passenger List.

1 copy Cargo Manifest, including Transit Cargo.

1 copy Arms and Ammunitions List.

* Any Arms and Ammunition should be declared and handed over to Coast Guard which will be placed onboard before sailing.

PILOTAGE: Not compulsory. Normally provided by local agent, if requested.

ANCHORAGES: Safe anchorage with good holding ground in 50 m. water depth to the N.N.W. of the port.

Vessels discharging/loading cargo at Male are requested to anchor inside the boundaries below:

(a) Lat. 4° 10.86' N., Long. 73° 30.43' E.
(b) Lat. 4° 12.60' N., Long. 73° 30.43' E.
(c) Lat. 4° 10.70' N., Long. 73° 28.80' E.
(d) Lat. 4° 12.60' N., Long. 73° 28.80' E.

RESTRICTIONS: All vessels arriving at Male Harbour will be inspected by the Coast Guard upon arrival.

Vessels are not allowed to enter or depart from Male between 1800 hrs. and 0600 hrs. without obtaining permission from the Coast Guard on VHF Channel 16 (open 24 hours).

Passages:

1. Gaadhoo Koa ("Male Passage"): The passage between the reefs fringing Male and Hulule is 4 cables wide at its outer end and has a depth of 35 m. in the fairway at its inner end. The passage divides passing each side of Funadhoo with deep water in both channels. "The Gadhoo Koa" is the recommended approach to the anchorage North of Male for all vessel with good speed.
2. Bodukalhi (Kanduoiygiri Passage) is 8 cables wide at its outer end and has a depth of 40 m. in the fairway.
3. Male/Villingili Passage is another safe entrance to Male Anchorage. Mariners should exercise caution when using this channel as a shoal of 5.0 m. (Maa Thila) is in the centre of the channel. Vessels with less than 20 m. draft may use the passage on either side of this shoal.

Currents during flood/ebb tides may be quite strong, occassionally reaching 5 knots during Springs.

MAX. SIZE: Male Harbour has no restriction for size of vessels entering the harbour. Vessels of max. LOA 146 m. with draft of 11.0 m. can be accommodated alongside berth of length 74 m.

HEALTH:

(a) Any sick person or dead body on board should be notified to Port Health prior to entry.

(b) Yellow Fever Vaccination Certificate is required only if the vessel called at a yellow fever area during last 30 days.

(c) Permission to be obtained to bring in animals, including pets.

(d) Vessels entering the Maldives should display International Quarantine flag until Free Pratique is granted by Port Health Officers.

(e) Port Health Officers will board the vessels after Coast Guard grants security clearance.

RADIO: Male Radio, call sign "8Q2", frequencies MF 500 kHz, HF 4, 6, 8, 12, 16 MHz bands. Service provided throughout 24 hours.

VHF: Channel 16.
Tel: 00-960-182.
Fax: 00-960-392009.
Telex: 66069 Malrad MF.

Notice of ETA must be sent 48 hours prior rrival to the Port Authority. The following particulars shall be notified to the concerned authorities:

1. Name of Vessel.
2. Name of Master and Nationality.
3. Name of Owner.
4. Type of Vessel.
5. Port of Registry and registered number.
6. GT/NT.
7. Length/Breadth/Draft.
8. Call Sign.
9. Radio Frequencies.
10. Last Port and Date.
11. ETA (Date and time if known).
12. Commodities of Cargo on board for Maldives/Transit, if any.
13. No. of Crew/Passengers.

VHF: Port Authority on Channel 11 on Saturday to Thursday from 0730 hrs. until 2400 hrs. and on Friday from 1400 hrs. until 2200 hrs.

Coast Guard can be contacted on VHF Channel 16 (24 hours).

Male Coastal Radio (Male Radio) can be contacted on VHF Channel 16 (24 hours).

RADAR: At present, port radar service not available.

TUGS: Available from the Port Authority:

1 tug of bollard pull 5 tons.
1 tug of 160 h.p.
1 tug of 480 h.p.

BERTHING:

1. Northern Pier of Male Commercial Harbour: Length 74 m., draft 11 m. Vessels of 6,000 d.w.t.can be accommodated. Vessels load/discharge by ship's own gear. This berth is expected to be operational October 1996.
2. Eastern – Lighterage berth of Male Commercial Harbour: Length 110 m., draft 3.5 m. at quay side.
3. Western – Lighterage berth of Male Commercial Harbour: Length 174 m., draft 3.5 m. at quay side.

CRANES: Mobile cranes: 1×12 tons, 1×20 tons, 4×25 tons, 1 heavy lift crane of 40 tons maximum at 5.0 m. radius and 1 heavy lift crane of 60 tons maximum at 5 m. radius.

BULK CARGO FACILITIES: None.

SPECIALISED CARGO HANDLING FACILITIES: No special container/Ro-Ro traffic berths. However, containers are handled.

Container handling facilities are:

1×45 tons reach stacker, 1 mobile crane of 40 tons at maximum 5 m. radius. Mobile crane of 60 tons at maximum 5 m. radius. 2×25 tons forklifts, 1×12 tons forklift, 3×20 ft. container trailers, 1×40 ft. container trailer, 2×20 ft. container spreaders, and hooks.

BRIDGES: None.

STEVEDORES:

1. The Ports Authority is the sole stevedoring company. Stevedores available from Maldives Ports Authority, Male. Tel: 960-327102, 325240. Fax: 960-325293, 325240.
2. Vessel's ETA should be notified to the Ports Authority 48 hours prior to arrival (if possible) in order to arrange gangs. Port Working Hours are: Saturday to Thursday: 0800 – 2400 hrs. Friday: 1400 – 2200 hrs.
3. Average load/discharge rate is 800 tons per day, depending on type of commoditites, ship's gear and port situation.
4. Overtime is possible, Saturday to Wednesday for 2 hours after midnight, if the vessel is expected to complete its loading or unloading within 2 hours.

4.1 Overtime is possible on Thursday from midnight to 0800 hrs. if the vessel can complete within the additional 8 hours.

MEDICAL: Facilities available, including hospitalisation, medical examination and surgery.

TANKERS: No tanker terminal. However, tankers are handled at anchorage, also ship-to-ship transfer is possible. 2 mooring buoys are fitted near Hulule Island (Male International Airport) oil jetty, for vessels carrying oil to Male International Airport.

DENSITY: 1026 (Salt water at port).

FRESH WATER: Fresh water is in acute short supply.

FUEL: MDO/MGO available at the anchorage. Bunkers supplied by bunker barge/vessels.

FIRE PRECAUTIONS: Smoking is strictly prohibited in port premises, including sheds, and on vessels handling dangerous, hazardous or inflammable cargoes.

CONSULS: Honorary Consular Corps in the Maldives are Denmark, Germany, Norway, Sweden, Turkey and U.K.

REPAIRS: Workshops available for mechanical/electrical repairs. Limited fabrication/steel work is available.

DRY DOCKS: None. Slipway available for small vessels up to 50 tons.

SURVEYORS: None.

GANGWAY/DECK WATCHMEN: Ship's gangway and safety net required. Watchmen to be provided by vessel.

HATCHES: Normally opened and closed by ship's crew.

CUSTOMS ALLOWANCES: Items of total value not exceeding MRF 2,000.00 will be exempted, excluding wine, spirits, etc., for each crew member.

REPATRIATION: Facilities exist for effecting crew changes and arranging necessary repatriation.

AIRPORT: Male International Airport 2.5 km., served by many international airlines from India, Sri Lanka, Pakistan, Dubai, Singapore, Germany, Italy, Ukraine and Malaysia.

TIME: GMT plus 5.5 hours.

HOLIDAYS: Port Holidays:

1st Day of Ramazaan (Islamic Calendar).
Fithr Eid Day (Islamic Calendar).
Hajj Day (Islamic Calendar).
Al'Haa Eid Day (Islamic Calendar).
1st Day of Muharram (Islamic Calendar).
26th July, Independence Day.
12 Rabee-ul Awwal (Islamic Calendar).
11th November, Republic Day.

POLICE/AMBULANCE/FIRE: Police 119; Ambulance 102; Fire 118.

EMERGENCY CO-ORDINATION CENTRE:

1. Male Coastal Radio, VHF Channel 16.
   Calling Channel 606, 421, 821, 1221 kHz.
   R/T Distress and normal calling 2182 kHz.
   R/T Distress and Supplementary calling: 6215.5 kHz, 4125 kHz.

Range: Within Atlantic Ocean to Pacific.
Tel: 960-182. Fax: 960-392009. Telex: 66069 Malrad MF.

2. Male Coast Guard.
Tel: 960-325981, 325134.
Fax: 960-320427.
Telex: 66056 AMAN MF.

TELEPHONES: Arrangments exist for placing telephones onboard, if requested to the National Telecoms Company "Dhiraagu", Maldives. Tel: 960-322802. Fax: 960-2800. Telex: 896-77022 Dhiraagu Mf.

SERVICES: Radar/gyro and communications equipment repairs possible from "Maldives Electronic Service Company" (MESCO). Tel: 960-323536. Fax: 960-316741.

BANKS: Bank of Maldives Ltd. Telex: 77030 Bankom Mf.
State Bank of India Ltd. Telex: 66015 Sbi Male Mf.
Bank of Ceylon Ltd. Telex: 66080 Bc Male Mf.
Habib Bank Ltd. Telex: 66016 Hbl Male Mf.

STORING: Loading of stores onto a vessel alongside the jetty may be carried out only with the specific permission of the Port Authority and Customs.

SHIP SUPPLY SERVICE: Ship supply service can be arranged through the following parties:

The Silver Company Pvt.Ltd. Tel: 960-327814, 325621. Fax: 960-327808, 313369. Telex: 896-66325 Silver Mf.

Happy Market and Trading Pvt.Ltd. Tel: 960-313523. Fax: 960-313522.

SHORE LEAVE: Possible after inward clearance.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

GARBAGE DISPOSAL: Can be arranged through local Agents. The Port Authority does not provide reception facilities.

WASTE OIL DISPOSAL: Any type of waste, oil poisonous gases or any substances that may have harmful effects on the environment shall not be disposed of within the territory of the Maldives.

SEAMAN'S CLUBS: None.

CURRENCY: Maldivian Rufiyaa (MRF). U.S.$ 1.00 = MRF 11.82.

REGULATIONS:

1. Permission should be obtained from Ministry of Defence and National Security to bring the following items into the Maldives:
   - (a) Dogs.
   - (b) Dangerous animals.
   - (c) All forms of poisons, chemicals, sulphuric acid.
   - (d) Fog signals and fire crackers.
   - (e) Pyrotechnics (except for the use of the ship as per SOLAS Requirement).
   - (f) Spear guns.
2. Ships carrying the following are required to obtain permission from the Ministry of Defence and National Security to enter or transit through the Maldives:
   - (a) Weapons of war.
   - (b) Gun powder.
   - (c) Explosives.
3. Ships carrying stowaways are not allowed entry into any Maldivian ports without prior permission.
4. Completely prohibited items:
   - (a) Materials contradicting the principles of Islam.
   - (b) Idols used for worship.
   - (c) Pornographic materials.
   - (d) Pigs.
   - (e) Narcotics and psychotropic substances.

DELAYS:

(a) Delays can be expected if vessel is carrying direct delivery cargoes, due to unavailability of stacking storage space/or sheds within the port area.

(b) Lighters are allocated to vessels according to delivery rates from port.

(c) Cargo work of vessels is carried out on a first come first served basis.

DEVELOPMENTS: Feasibility studies are being made for development of additional ports within the Maldives.

Plans for extension of present berth in Male are being studied.

GENERAL: Navigational aids are expected to be fitted to mark "Gaadhoo Koa" by end of October 1996.

Vessels are requested to notify their anchor position with reference to the Airport Control Tower to Port Authority on VHF Channel 11.

SHIPMASTER'S REPORT: May 1982 (Updated 1986).

Approaches: Except in very heavy rain during the S.W. monsoon, the visibility is good and landfall can be made easily. The T.V. Tower, South of Male in position: Lat. 04° 10.2' N., Long. 73° 30.9' E. is visible at a distance of 30 miles. The dome of the Islamic Centre in position: Lat. 04° 10.7' N., Long. 73° 30.85' E. and the minaret of Grand Mosque (Islamic Centre) in position: Lat. 04° 10.69' N., Long. 73° 30.83' E. are also visible for approaching vessels.

Recommended entrance to Male is via East Male Passage. As many small fishing, passenger/pleasure vessels are crossing the passage, approaching vessels should be very careful and proceed at slow speed if necessary. Beacons mentioned below are still non-existent, therefore night approach should be avoided.

As there are a number of fishing vessels and other small vessels anchored at Male anchorage, Masters of vessels anchoring should give special care while approaching the anchorage.

The Northern route via Kaduoigiri Passage as described in the Sailing Directions was taken. Apart from a very strong Westerly set near the reef N.W. of Kaduoigiri Island no particulars were observed.

Beacons in the following positions non-existent:
A. Lat. 04° 11.75' N., Long. 73° 31.05' E. (West of Dunidu Island).
B. Lat. 04° 12.37' N., Long. 73° 30.43' E.
(Reef between Dunidu & Ferdo).
C. Lat. 04° 13.45' N., Long. 73° 31.54' E. (Vehamanafushi).

Mooring Buoy (private) in position: 04° 11.45' N., 73° 30.97' E. non-existent.

Navigation Warning: Unmanned/unlighted fishing vessel (approximately 60 tons gross) anchored in position: 04° 11.2' N., 73° 30.55' E.

Documents: Papers Required: Security: 1 Crew List (search party, search all cabins for weapons/pornographic material).

Doctor: Port Health Form (Male Issue), Vaccination List (Cholera Vaccinations).

Immigration: 2 Crew Lists (all passports checked).

Customs: Last Port Clearance, 1 Crew List, Cargo Manifests, Store List from Head of Catering. Customs will also check whether the vessel is carrying valid Safety Certificates on board, i.e. Safety Construction Certificate, Safety Equipment Certificate, Loadline and Safety Radio Telephony Certificate. Importing of alcohol without prior permission is prohibited. Whatever is on board may be sealed in the ship's bond. Import of Narcotic Drugs is totally prohibited into the Republic of Maldives. Whatever found on board will be confiscated, penalties levied and the Owner/Master and crew will be prosecuted. Customs also gave the ship a "Notice to Ships Calling at the Port of Male". See "Notice".

Agents: 1 Crew List. All passports taken ashore to be returned upon departure with Customs Clearance.

Cargo Handling: (Chief Officer's Report):

Arrived 20th May, 1982. Sailed 24th May, 1982. Port hours: 94 hours 11 minutes.

Three gangs are available in Male to work on board ships, of which 2 were supplied on 20th, 21st and 22nd May. One gang on 23rd May.

The gangs arrived diligently between 0750 hrs. and 0800 hrs. in the morning and worked till about 2220 hrs. except on the Thursday, when they worked till 1730 hrs. and on the 21st when work was interrupted from 1000 hrs. till 1415 hrs. being a Muslim religious festival.

No forklift trucks are available for work on board ships in Male and cargo stacked on pallets had to be dragged from the sides of the holds under the hook. This was the cause of damaged bags of flour and cartons of provisions.

There are 6 lighters available. Empty lighters were regularly supplied, except after rainy periods, when discharging of lighters alongside the wharf is interrupted.

Shore tally staff seemed to be very dedicated in their duties and were accompanied by a Customs Officer/Clerk.

Nett tonnages per hour:
Hatch No. 1: 12.1 t.p.h. (182 tons discharged).
Hatch No. 2: 12.2 t.p.h. (216 tons discharged).
Hatch No. 6: 16.8 t.p.h. (411 tons discharged).

A boat schedule was arranged upon arrival but a regular boat service was never carried out. The Agency appeared not to be in possession of any documentation (manifests, stowage plans, etc.) of the cargo to be discharged.

Developments: 1986: A new quay to bring lighters alongside, with Customs House and warehouses is under construction at N.W. end of Male, to be completed in 1986. On completion of the project the cargo handling will increase.

SHIPMASTER'S REPORT: August 1995.

Approach: Straight forward via Gaadhoo Koa (Between Male and Hulule Islands). Entry is forbidden between sunset and 0600 hrs. It is advisable, because of strong cross currents (especially in afternoon), to enter at full speed, keeping to the East side (closest to the airport) of the channel. Caution is required however, due to the number of small passenger craft crossing to the airport.

Anchorage: Anywhere inside the lagoon. There are many small coastal craft anchored inside.

Inward Clearance: First boarded by "National Security Service", but this appears to be a formality only, followed by Port Health, Customs, Immigration and Agent.

The following forms were requested:
1 copy Maritime Declaration of Health.
1 copy Vaccination List (Cholera and Yellow Fever).
1 copy Stores List.
1 copy Crew Declaration List.
10 copies Crew List.

For Outward Clearance the following documents/certificates were taken ashore:

Load Line, Safety Equipment, Safety Construction, Safety Radio, IOPP (being a tanker), Certificate of Registry, Ship's Articles of Agreement, all Officers certificates/licences, all passports and a further 3 copies of Crew List.

Shore Leave: Shore leave is permitted; but no one allowed to stay ashore after 2200 hrs. A launch service appears to be very hard to arrange.

Crew Changes: Crew changes and repatriation is readily arranged with a minimum of formalities. There are daily flights to Sri Lanka, India, Dubai, and less frequent flights to Singapore and Europe.

Fresh Water: Fresh water is generally not available – what little there is, is very expensive and can only be supplied in 3 tonne – 4 tonne lots.

Stores: Fresh provisions are readily available, at reasonable prices.

Garbage Disposal: Speedily arranged.

Time: GMT plus 5 hours.

Discharge: During discharge, one Customs Officer is on board at all times and if another vessel is alongside, a National Security Officer is also places on board.

AUTHORITY: Maldives Ports Authority, Boduthakufufaanu Magu, 20-01 Male, Republic of Maldives. *Tel:* (960) 327102, 325240, 325681, 317482, 327228. *Telex:* (896) 66109 MPA MF. *FAX:* (960) 325293, 325240. *Contacts:* Mr. Ali Abdullah, Managing Director. Mr. Mahdi Imad, General Manager. Mr. Abdul Shukoor Ahmed, Director Finance. Mr. Ahmed Solih, Deputy Director – Administration. Mr. Ali Ahmed, Assistant Director – Cargo Operations. Mr. Hussain Naeem, Mechanical Engineer. Mr. Ahmed Shihan, Civil Engineer.

Malta

MARSAXLOKK: 35.49 N. 14.33 E. (See Plan)

LOCATION: Marsaxlokk is situated on the South coast of Malta.

Malta Freeport is a Customs Free Zone and has a container terminal, an oil products terminal, and industrial warehousing facilities.

DOCUMENTS: The following documents (2 copies of each) must be presented by the vessel's Agent to Freeport Terminal (Malta) Ltd., 24 hours prior to arrival of vessel:

Container and cargo discharge and load lists with transhipment or domestic status marked in each case. On joint services, the line operating each container must be identified.

Stowage Plan/Hatch List.

Blank Bay Plan.

Hazardous Cargo Declaration.

Refrigerated Cargo Details.

Overweight/Out-of-Gauge Container and Cargo List.

The following documents (2 copies of each) must be presented by the vessel on arrival:

Immigration:

Crew List.

Passenger List.

Customs:

Crew List.

Passenger List.

Bonded Stores List.

Cargo Manifest.

Freeport Terminal (Malta) Ltd.:

Any items listed for Agent's action not mentioned above.

The following Certificates are also required for inspection by Freeport Terminal (Malta) Ltd. on request: Registry, Classification, Radio, Safety and Lifting Gear Certificate.

APPROACHES: The entrance to Marsaxlokk Bay is about 800 m. wide between Delimara Point and the end of the breakwater, which extends almost 1,000 m. from Benghisa Point.

The mid-channel depth of water is 20.0 m. – 25.0 m. About one nautical mile South of the entrance is Benghisa Reef, with 5.5 m. of water at low water spring tides. Delimara Point Light is located on a prominent tower 24.0 m. in height, painted with black and white band, standing near to the Southern extremity of the peninsula on the Eastern limit of the bay. The approach to the Terminal is dredged to at least 14.5 m. – 16.5 m.

PILOTAGE: Pilotage is compulsory for vessels exceeding 500 g.r.t. Arrangements must be made with the Director of Ports at Valletta.

The Pilot may board the vessel in the approaches to Marsaxlokk Bay.

ANCHORAGES: Except during strong S.E.'ly winds, Marsaxlokk Bay affords a safe anchorage with good holding ground. Anchorage within the territorial waters of Malta is limited to 4 anchorage areas, normally used for supplying bunkers.

HEALTH: The Port Medical Office grants Pratique after boarding vessels on arrival. Accelerated Pratique may be granted, provided crew are all in good health and ship has not called at any infected port.

RADIO: Malta Radio (Call Sign 9HD). Working frequency 2,625 kHz, listening watch 2,182 kHz.

Notice of Arrival: Accurate and timely advice of vessel's ETA at Freeport Terminal should be submitted to Agent, together with details of draft, LOA and cargo operations. F.T.M. will advise the Agent of berth availability by return. Vessels should contact the Marine Authorities on VHF Channel 16, when in range.

VHF: The Palace Tower Signal Station may be contacted on VHF Channel 12, 14 and 16. Call sign "Valletta Port Control".

Call "Valletta Port Control" on Channel 12 or 16, at least 2 hours prior to arrival at the Marsaxlokk pilot boarding postion with the following information:

(a) ETA at Marsaxlokk pilot boarding postion.
(b) Last port of call.
(c) LOA.
(d) Breadth.
(e) Gross tonnage.
(f) Net tonnage.
(g) Draft.
(h) Freeboard.
(i) Agent.
(j) Cargo.
(k) Vessel's flag.

Vessel should call "Valletta Port Control" again when within 5 nautical miles of the pilot boarding position.

TUGS: Available.

BERTHING: Terminal One:

Quay	*Length* (m.)	*Depth* (m.)
North	1,000	13.5 – 14.5
West	168	9.5

Container slots:	5,574.
Maximum handling capacity:	650,000 TEU's
Total area:	274,000 sq.m.
Reefer points:	420.

Quayside Cranes:

Type	*Capacity*	*Outreach*	*Backreach*
7 MGM	40.5 tons	42.5 m.	17 m.
1 Paceco	30.5 tons	33.5 m.	5 m.
1 Demag	30.0 tons	35.0 m.	10 m.
1 Liebherr	47.0 tons	11 m. – 18 m.	Mobile crane
1 Liebherr	104.0 tons	11 m. – 18 m.	Mobile crane

Yard Cranes:

Type	*Capacity*	*Remarks*
1 Rail mounted Peiner	40.5 tons	13 across, 1 over 4 stacking height.
2 Rail mounted MGM	40.5 tons	13 across, 1 over 4 stacking height.
3 Rubber tyred Paceco	35.0 tons	6 across, 1 over 3 stacking height.
11 Rubber tyred Ansaldo	40.5 tons	6 across, 1 over 4 stacking height.

Tractor Units: 22 Terberg and 32 others.

Forklift Trucks: 3 Kalmar × 42 tons, 1 Kalmar ×35 tons, 2 Kalmar × 16 tons, 4 Lansing × 35 tons, 4 Lansing × 5 tons and 4 Lansing × 2.5 tons.

Terminal Two: Under development.

Construction of Terminal Two commenced in November 1994. The first operational phase of 250,000 TEU's will be completed by the beginning of 1997, whilst the full design capacity of 600,000 TEU's will be complete in 1998. The infrastructure of Terminal Two will consist of a 660 m. South Quay and a 480 m. North Quay, both with a water depth of 15.0 m. The 20 hectare site of Terminal Two will accommodate 600,000 TEU's in 3,852 ground slots. A Ro-Ro facility will also be available at the N.W. side, capable of handling ships up to 280 m. in length. When completed, the Terminal will be able to handle 3 mother vessels, one feeder ship and a Ro-Ro vessel simultaneously.

Quay	*Length* (m.)	*Depth* (m.)
North	480	15.0
South	660	15.5
Ro-Ro	220	15.0
West	113	15.0

Container slots:	3,852.
Maximum handling capacity:	600,000 TEU's.
Total area:	210,000 sq.m.
Reefer points:	384.

Quayside Cranes: 8 Post-Panamax cranes capable of reaching 18 containers across. Capacity: 40.5 tonnes, outreach 54 m., backreach 15 m.

Yard Cranes: 16 rubber tyred gantry cranes (6 across, 1 over 4 stacking height).

Container Terminal Operator: Freeport Terminal (Malta) Ltd., Port of Marsaxlokk, Kalafrana, BBG 07, Malta. Tel: (356) 658131/2/3. Fax: (356) 682536, 684833. Contact: Marin Hili, Chairman. A.E. Aquilina, Deputy Chairman.

TANKERS: Oiltanking Malta Ltd. runs the oil products terminal. The oil terminal has attracted the investment of Oiltanking GmbH of Germany. Oiltanking Malta offers excellent services and advantages. The oil terminal's principal activity is the storage and blending of oil products. However, it provides other services as mentioned below. Additionally, the oil terminal facilities are in accordance with the latest safety and operational standards. Oiltanking Malta Ltd. received ISO 9002 Certification in May 1994. The oil terminal is set to expand its activities in the coming years in response to growing world demand for the Free Zone transhipment of oil based products.

Oiltanking Malta offers:

(a) Making bulk for long-haul destinations.
(b) Breaking bulk for Mediterranean ports.
(c) Value added activities like blending and treatment.
(d) Three safe berths for vessels and coasters up to 120,000 d.w.t.
(e) Efficient and safe handling of special products.
(f) Independent laboratory services at the Terminal (Saybolt).
(g) Low port costs.
(h) Operates 24 hours a day, 365 days a year.

Products Handled: Gasoline, gas oil, jet fuel, feedstocks, alcohol, heavy fuel and crude oil.

Special Services: Blending, butanising, additivation, tank-to-tank transfer, circulation transhipment alongside.

Tank Capacity: 359,000 cu.m. (2,260,000 bbls.). 18 tanks ranging from 5,000 cu.m. to 35,000 cu.m. Internal floating roof tanks, external floating roofs and cone roof tanks.

Jetties:

Jetty I:

Max. Size:	6,000 d.w.t.
Draft:	7.0 m.
LOA:	100 m.
Loading/Discharge:	White and black products.
Max. Rate:	1,000 cu.m./hr.
Loading Arms:	1×8 in. white products. 1×8 in. black products.

Jetty II:

Max. Size:	50,000 d.w.t.
Draft:	13.5 m.
LOA:	220 m.
Loading/Discharge:	White and black products.
Max. Rate:	2,000 cu.m./hr.
Loading Arms:	2×8 in. white products. 2×8 in. black products.

Jetty III:

Max. Size:	120,000 d.w.t.
Draft:	16.0 m.
LOA:	300 m.
Loading/Discharge:	White and black products.
Max. Rate:	White products – 2,000 cu.m./hr. Black products – 3,000 cu.m./hr.
Loading Arms:	2×8 in. white products. 2×8 in. black products.

Operator: Oiltanking Malta Ltd., Port of Marsaxlokk, Kalafrana, Malta. Tel: (356) 650230/4. Fax: (356) 650237. Contact: Captain K. Trinks, Director.

STEVEDORES: *Working Hours (Vessels):* The Freeport Terminal is available to work vessels at any time day or night with the exception of the following public holidays:

31st December 1600 hrs. – 2nd January 0800 hrs.
Good Friday 0800 hrs. (for 24 hours).
31st March 0800 hrs. (for 24 hours).
1st May 0800 hrs. (for 24 hours).
24th December 1200 hrs. – 26th December 0800 hrs.

MEDICAL: Treatment available at local hospital.

DENSITY: 1025.

FRESH WATER: Available in small quantities.

FUEL: Barge or road tanker deliveries are available through arrangements made with Agents. All deliveries must have prior approval from the Terminal Operator.

CONSULS: Consuls are available at Valletta.

REPAIRS: Available at Valletta. These services range from major conversions to hull cleaning, engine overhauls and underwater repairs.

DRY DOCKS: Docking facilities available at Valletta Harbour.

SURVEYORS: Saybolt.

AIRPORT: Airport at Luqa, 6 km. from Malta Freeport.

TIME: GMT plus 1 hour. Summertime from March to September.

HOLIDAYS: See "Stevedores".

BANKS: Bank of Valletta Ltd. is available at the Freeport Centre.

GENERAL: *Charts:* British Admiralty Chart No. 36, Admiralty Pilot NP 45.

Pollution: Port Authority is very strict about air and sea pollution.

Fumigation: Available.

Hazardous Cargo: The handling of dangerous or hazardous cargo within the Terminal shall be governed by the appropriate rules and regulations as specified by the International Maritime Organisation.

Mooring: The Terminal Operator will decide the berth position for each vessel. This information will be passed by the Terminal Operator to the Pilot Office. It is the duty of the vessel's Agent to arrange for the mooring party to be present.

Customs and Immigration: Immigration and Customs Officers board vessel on berthing to inspect Crew and Passenger Lists.

Tidal Variation: The normal tidal range is 23 cm. During February, March and April, the mean sea level in the central Mediterranean may fall as much as 0.5 m. below normal.

Prevailing Winds: Northwesterly.

Entry Restrictions: S.E. gale winds can make conditions very uncomfortable for entry in port.

Warehousing: 10 units of 2,400 sq.m., having 1,000 sq.m. of covered space (40 m. × 25 m. × 6.0 m. headroom).

Freeport Industrial Storage Malta Ltd. operates the industrial storage facilities within Malta Freeport. The industrial storage facilities available at Malta Freeport support logistic providers in their efforts to enhance the regional distribution of goods. These facilities provide extensive opportunities for strategic storage and related activities, including light assembly and elements of processing within a Customs Free Zone with fiscal benefits.

Given the sustained interest in Malta Freeport's industrial storage facilities and the high occupancy rate of the existing warehouses, Malta Freeport is developing some 150,000 sq.m. of prime site adjacent to the port for more industrial storage facilities. Malta Freeport's policy for the development of the hinterland will be more customer specific than the warehousing units on stream. Land which is supplied with basic infrastructural services will be leased to the Freeport's clients for development in accordance with their own requirements. The regulating law is attuned with EU Legislation and incorporates policies in favour of local and foreign investment with minimum bureaucracy.

SHIPMASTER'S REPORT: October 1991 (Updated 1996).

Documents:

3 copies Crew List.
1 copy Crew Declaration (personal effects).
1 copy Stores List.

The agent will supply the following forms:

1 copy Customs Declaration.
1 copy Malta – Pratique Deposition.
1 copy Fourth Schedule (Regulation 10).

The Cargo Gear Book is inspected by officials.

Pilotage: Pilotage is compulsory. Pilot comes from Valletta. The pilot will board close to the breakwater from a blue hull/white superstructure pilot boat. Vessels coming from the N.E. may also take the pilot near the Fairway Buoy at Valletta.

Anchorage: Except during strong S.E'ly or S'ly winds, Marsaxlokk affords a safe anchorage with good holding ground. Anchorage position is about 2 nautical miles S.E. of the entrance. Smaller vessels usually anchor close to the East shore.

Approaches: Marsaxlokk is easy to enter. The port is approached between Delimara Point and Benghisa Point breakwater. The entrance is 4 cables wide and has a depth of 20 m. – 27 m. in the mid channel (which is marked with cardinal buoys in channel and approaches).

British Admiralty Chart No. 36 used.

Radio/VHF: ETA messages to be sent to agent as soon as possible, at least 24 hours prior to arrival, or 48 hours, if vessel carries dangerous goods.

Signal Station should be contacted on VHF (Channels 16 and 12), 2 hours in advance and again when 5 nautical miles off the breakwater. The calls will be answered by "Valletta Port Control", who normally advise the vessel to wait 2 nautical miles off the breakwater until the pilot gives information by VHF from the pilot boat.

Berthing:

Quay	Length (m.)	Dredged Depth (m.)
Terminal 1 – South	200	8.00
Terminal 1 – West	168	9.75
Terminal 1 – North	640	13.75
Terminal 2 – West	460	16.50
Terminal 2 – North	500	17.00
Terminal 2 – East	435	12.75
Oil Terminal	640	17.00

A container terminal with 100,000 sq.m. storage area follows a breakwater of 1,000 m. in length. The breakwater has facilities for bulk carriers up to 80,000 d.w.t.

Freeport Terminal: The main quay has a length of 548 m., dredged to 13.75 m., and is in process of expansion to about 640 m. length.

The Freeport is a customs free area.

Medical: Treatment available at local hospital.

Repairs: See "Valletta".

Holidays: See "Valletta".

Regulations: The Port Authority is very strict about air and sea pollution.

AUTHORITY: Malta Freeport Corporation Ltd., Freeport Centre, Port of Marsaxlokk, Kalafrana, BBG 05, Malta. *Tel:* (356) 650200. *FAX:* (356) 684814. *Contact:* Marin Hili, Chairman, A.E. Aquilina, Deputy Chairman.

Malta Maritime Authority, Maritime House, Lascaris Wharf, Valletta, Malta. *Tel:* (356) 224577. *FAX:* (356) 226309.

AGENT: See "Valletta".

VALLETTA: 35.54 N. 14.31 E. (See Plan)

DOCUMENTS: On arrival the Master has to fill the Pratique Deposition, the Stores List, the Crew Declaration and the Crew List (two copies). The forms for the Pratique Deposition and for the Store List are supplied by the Customs Boarding Officer.

Arrival Notice: In accordance with the Port's Regulations Master or Agent of a vessel should give the ETA to the Ports Directorate on a form prescribed by the regulations as early as possible prior to arrival and 72 hours in the case of vessels carrying petroleum or other hazardous cargoes.

PILOTAGE: Pilotage is compulsory for vessels above 500 g.r.t. Pilots for Valletta and Marsaxlokk board vessels at Fairway Buoy, weather permitting. Pilots available round the clock all the year round. In bad weather Pilots board vessels inside entrance, subject to size of vessels, Master's knowledge of the port and Master's willingness to bring vessel up to Bighi Bay.

Vessels are expected to communicate their ETA at the boarding station at least 2 hours before arrival, and to re-confirm their ETA when they are 5 miles off the Fairway Buoy. The pilot boat is called when vessels are 2 miles off the Fairway Buoy.

The pilot boat is equipped with VHF Channels 12, 14 and 16.

ANCHORAGES: Anchorage in territorial waters and in other harbours is prohibited unless expressly authorised by the Ports Directorate.

RESTRICTIONS: Minimum depth at entrance is 16 m. Nature of bottom in entrance channel, rock and mud. Harbour channels – mud.

Harbour entrance and approaches affected by current. With North-Westerly winds there is a set of up to 0.5 knots from N.W. to N.E.

Port is subject to closure in gregale (N.E. gale) conditions – Winter months occasionally, not more than 4 times a year.

MAX. SIZE: Discharging Berths:

Deep Water Quay – 500 m. long, depth 10 m. The quay handles conventional cargo and is furnished with 3 sheds, totalling about 8,500 sq.m.

Berths No. 1, 2 and 3 have maximum depth alongside of 9.75 m. Maximum displacement tonnage of 15,000 tons.

Berth No. 4 has the same depth of water and can take maximum displacement of 25,000 tons.

Pinto Wharves 1 and 2: 264 m. long, depth 10 m.
Pinto Wharf 3: 160 m. long, depth 10 m.
Pinto Wharves 4 and 5: 250 m. long, depth 11 m.

These wharves are used mainly for cruise liners, naval vessels and ferries.

Flagstone Wharf: 217 m. long, depth 12.0 m. Can handle bulk coal carriers and tankers.

Magazine Wharf: Combined with Laboratory Wharf has total length of 440 m. Depth 12.2 m. – 15.0 m. The Kordin Grain Terminal is equipped to handle bulk grain carriers up to 70,000 d.w.t. Capacity of silos 86,000 tons. Maximum discharge rate 1,100 t.p.h. Maximum loading rate 1,250 t.p.h.

Laboratory Wharf has a length of 220 m. with a depth of 12 m. Two other small berths adjacent to the main wharf are used for Ro/Ro and direct deliveries.

Fuel Wharf has a length of 145 m. with a depth of 9.0 m. and handles direct deliveries.

Gun Wharf has a length of 90 m. with a depth of 7.5 m. and is used for ferry services.

There are other berths at Coal Wharf (length 110 m., depth 7.0 m.) used mainly for direct deliveries.

Anchorage areas within Valletta Port are at Bighi Bay and Barriera Wharf.

HEALTH: Port Medical Officer grants Pratique after boarding vessels on arrival. Accelerated Pratique may be granted through Agent provided crew are all in good health and ship has not called at any infected port during previous 15 days. Disposal of swill is to be carried out only under the direction of authorised Health Officials.

RADIO: Call sign 9HD. Radio telephone working frequency 2625 kHz. Listening watch 2182 kHz.

RADAR/VHF: The Palace Tower Signal Station may be contacted on VHF Channels 11, 12, 14 and 16 on call sign "Valletta Port Control".

Also see "Pilotage".

TUGS: Tug Malta Limited, which operates a fleet of 6 tugs, provides all tug assistance in the harbours and territorial limits of Malta on a 24 hour basis, 7 days a week. Lines are given at the discretion of the ship's Master under the advice of a Pilot.

BERTHING: Berthing conference held at the Ports Directorate daily at 1000 hrs. between Monday and Saturday when berths are allocated for expected ships. No specific requirements necessary. Once berth has been allocated by Ports Directorate vessels can berth at any time at the allocated berth (container and Ro/Ro berths are available).

Also see "Plan".

EQUIPMENT:

(a) One mobile crane maximum lifting capacity 250 tons.
(b) 2 mobile cranes with maximum lifting capacity of 75 tons.
(c) 6 electrical trucks.
(d) 2 diesel operated forklift trucks.
(e) 26 medium sized trailers.
(f) 10 cab tractors.
(g) Various other smaller forklift trucks and cranes.

STEVEDORES: Port workers for stevedoring are ordered by Shipping Agents and labour is allocated from a pool operated by the Manager of port workers.

Working Hours: Agents may order work according to one of the following three options:

(A) On a day's basis, commencing at 0800 hrs. up to 1700 hrs., with a one hour break from noon to 1300 hrs.;
(B) On a 14 hour shift basis: From 0800 hrs. to 1500 hrs. (day shift) and from 1500 hrs. to 2200 hrs. (evening shift);
(C) On a 24 hour shift basis: From 0800 hrs. to 1600 hrs. (day shift), from 1600 hrs. to 2400 hrs. (evening shift) and from 2400 hrs. to 0800 hrs. (night shift).

An extra allowance of LM 5.00 per head is payable to port workers engaged on night shift duties, and LM 10.00 per head for duties on Sundays and Public Holidays.

MEDICAL: Notice must be given to Agents as early as possible. Hospital facilities available. Crew must be in possession of inoculation/vaccination certificates.

TANKERS: Vessels for Valletta Port must be gas-free, except for the tank cleaning berth. Vessels carrying dangerous petroleum may enter Marsaxlokk Harbour to discharge or load petroleum products (See "Marsaxlokk").

FRESH WATER: Limited amount ex-barge subject to permission from Water Authority. Notice, as long as possible required.

FUEL: Mediterranean Offshore Bunkering Company Limited; Oiltanking (Malta) Limited; San Lucian Oil Company Limited. Grades handled include gas oil, fuel oil, thin fuel oil 30 cST up to 380 cST.

Bunkering may be carried out by barge or at Flagstone Wharf. Bunkers may also be supplied at any of the 5 anchorage areas available off the coast of Malta.

FIRE PRECAUTIONS: Precautions as laid down in Ports Regulations for cargo ships and as in Petroleum Ships Regulations for tankers. Civil tugs partly equipped with fire fighting equipment.

CONSULS:

Embassies in Malta for following countries:

Australia	338201/5	Korea (D.P.R.)	800003
People's Republic of China	334695	Kuwait	337131
Czech Rep.	511330	Socialist People Libyan Arab Jamaharija	334947
Arab Republic of Egypt	334769	Russia	515703
France	331107	Spain	514164
Germany	336531	Sudan	—
Israel	513094	U.K.	241285
Italy	241985	United States of America	241240

Consul Generals (and Honorary):

Austria	239182/627356	Netherlands	244858
Denmark	244858	Norway	245488
Japan	243977	Pakistan	237401
Liberia	243977	Sweden	244858
Republic of Korea	222372	Turkey	244306
Monaco	245488		

Consuls (and Honorary):

Belgium	228180	Portugal	246333
Brazil	225966	Senegal	220064
Greece	246788	Spain	238180
Honduras	—	Switzerland	244159
Iceland	241207	Thailand	330924
Mexico	245802	Tunisia	407000

Vice Consuls in Malta for following countries:

Austria	239182	Spain	238180

REPAIRS: Malta Dry Docks has the capability to carry out normal and specialised engine, hull and machinery repairs such as:

Engine, (diesel, steam, turbine)
Auxiliaries (turbine and diesel)
Turbine re-blading
Propeller servicing, repairs including re-tipping (tips cast in yard) and balancing
Dynamic balancing of rotors
Boiler and heat exchanger chemical cleaning
Rudder and tailshaft alignment and repairs
Gritblasting (internal/external) to all standards
Hull cleaning by high pressure water jet
Refrigeration system repairs
Replacement of lignum vitae stern tube bearings
Installation of Deutsche Werft Simplex stern tube sealings
Internal/external cathodic protection
Combustion control system repairs
Re-tubing of boilers, brickwork and lagging
Renewal of heating coils, cargo and stripping lines
Hull repairs (welded and rivetted)
Jumboizing.

Travelling Repair Parties:

Malta Dry Docks Travelling Repair Parties are available to carry out repairs at sea both as an emergency repair, or as a means of reducing lay-up time during normal voyage repairs or classification surveys.

It is possible to shorten the time of refits by employing a travelling repair party to commence work before entering or complete after leaving the Dry Docks, non-critical items being completed on passage.

Malta allows the maximum use to be made of Travelling Repair Parties, situated as it is in the centre of the Mediterranean, midway between Gibraltar and Port Said. It is ideally placed on the shipping lanes between the East and West and connected by daily air services to Europe and North Africa.

Malta Dry Docks Travelling Repair Parties are equipped to carry out the following work:

1. Repairs to main and auxiliary boilers, including re-tubing, renewal of brickwork and insulation and fitting of new furnaces in Scotch type boilers.
2. Overhauling and repairing deck and engine room auxiliary steam and diesel plant, cargo systems and valves.
3. Repairs or replacement of cargo tank heating and stripping line systems, in cast iron, steel or aluminium/brass.
4. "Metalock" cold repairs to castings by trained specialists.
5. Gas or electric welding to Classification Society requirements for steelwork repairs and reinforcements.
6. Repair or renewal of electrical wires and cables.
7. Overhaul or installation of any electrical machinery.
8. Repair or installation of all navigational aids, i.e., radar, radio, auto-pilots, gyros by qualified personnel.

Any enquiry will receive immediate attention by radio, telex or telephone.

SURVEYORS: Lloyd's Register of Shipping; The London Salvage Association; American Bureau; U.S. Salvage Association; Det Norske Veritas; Registro Navale Italiano; Bureau Veritas; Germanischer Lloyd; Panama Bureau of Shipping; Nippon Kaiji Kyokai.

DRY DOCKS: Malta Dry Docks.

Docking Facilities:

Dock Number	*Length* (m.)	*Inside Beam* (m.)	*Depth* (m.)	*Cranes Capacity* (tons)	*Other Facilities**
1	153.92	21.64	5.57	1×50 1×5	A–S–FW–SW
2	169.6	24.68	9.96	1×4 3×5 1×20	A–S–FW–SW
3	142.9	17.67	9.55	1×4 2×10 1×20	A–S–FW–SW
4	262.5	39.6	10.3	1×5 1×10 1×50	A–S–FW–SW
5	216.4	28.04	10.52	1×5 1×10 1×50	A–S–FW–SW
6	360.0	62.0	10.72	1×150 12×30	A–S–FW–SW O–P
7	100.0	35.35	4.32	1×150	FW–SW–A

*A – Compressed Air FW – Fresh Water O – Oxygen
S – Steam SW – Salt Water P – Propane

Capacity of No. 6 Dock 300,000 d.w.t.

GANGWAY/DECK WATCHMEN: Gangway recommended. Deck compulsory.

OPENING/CLOSING HATCHES: By ship's crew or shore labour.

CERTIFICATES: Ship's Register; Load Line Certificate; Derat Certificate; Factory Act Book.

CUSTOMS ALLOWANCES: 200 cigarettes for each crew member, plus one bottle spirits (officers only).

CARGO GEAR: Certificates of cargo handling gear have to be valid before cargo work can commence. Factory Act Book to be endorsed quadrienially and annually.

REPATRIATION: Facilities exist for crew changes and repatriation by air.

AIRPORT: Malta International Airport is 4 miles from port, served by Air Malta and other airlines. Daily flights to London and Rome. Also other flights to major cities in the Middle East, Europe, Africa, Russia and U.S.A.

TIME: GMT plus 1 hour in Winter. Summer time kept from last Sunday in March until last Sunday in September.

HOLIDAYS: New Year (1st January – no work); St. Paul's Shipwreck (10th February); St. Joseph's Day (19th March); Freedom Day (31st March); Good Friday (no work performed at all on this holiday); St. Joseph the Worker (1st May); Sette Giugno (7th June); St. Peter and St. Paul (29th June); Assumption of B.V. Mary (15th August); Victory Day (8th September); Independence Day (21st September); Immaculate Conception (8th December); 13th December (Republic Day); Christmas Day (25th December); (no work performed at all).

TELEPHONES: Can be arranged at the Dry Dock Berths, and on buoys.

SERVICES: Tank cleaning and underwater hull cleaning undertaken by Malta Dry Docks.

Ricasoli Tanker Cleaning Installation:

The tanker cleaning installation at Ricasoli accepts cleaning for dry docking, repairs and survey for upgrading tankers.

The jetty area consists of a 100 m. jetty, situated immediately inside the Grand Harbour, and capable of berthing tankers up to 100,000 d.w.t. at a maximum draft of 8.5 m. in 10 m. of water.

Tankers are assured of immediate attention on arrival from a trained crew of tank-cleaning personnel. Work is continuous 24 hours per day from the time of arrival of the vessel, together with a 24-hour security watch.

1. Washing: The installation supplies hot wash water at a temperature of 60°C and a pressure of 14 kg./sq.cm. to operate 4 washing machines simultaneously, with a delivery rate of 30 – 34 t.p.h. The discharge of slops and/or ballast is at a maximum of 1,200 t.p.h. Chemical cleaning is also undertaken and Malta Dry Docks holds stocks of well-known chemicals.
2. Gas-freeing: The installation operates 3 compressors and 6 Meco ventilators, together with trunking, are available for gas-freeing.
3. Steam Supply: This is available at the jetty when required. All associated tank-cleaning equipment is available for ship's use.

Full fire-fighting facilities are available at the jetty.

The installation also makes distilled water for sale to ships and a separate line is available at the jetty for the discharge of this product.

The reception and treatment area incorporates reception tanks, treatment tanks and an observation tank with separating baffles and oil sump. In addition there is an oil storage tank and a distilled water storage tank.

The boiler house accommodates 3 Scotch boilers with all associated auxiliary equipment. The steam supply is extensively used in the plant area for heating and treatment purposes. An evaporator-distiller is incorporated in the Boiler House for the production of distilled water.

The whole area has been designed to be perfectly safe and is to the standards laid down by the Institute of Petroleum Safety Codes for Installations storing Class A Petroleum. Strict safety regulations are applicable to the whole plant and the tank-cleaning crew has been thoroughly trained in these matters.

Mediterranean Oilfield Services Co. Ltd.:

Address: Manoel Island, Malta. Tel: 336408, 336409, 339656, 331411, 338195. Telex: MW1273, MW1485. Cables: Medserv, Malta.

24 hour service, 7 days a week.

Devoted solely to the oil industry. 800 ft. deep water quay frontage. 1,722 sq.ft. bonded warehouse. 40,000 sq.ft. covered storage. 20 acres open storage. Office space. Catering services.

One operation for loading mud, cement, water, pipes, fuel and other supplies. Labour contractors.

POLICE/AMBULANCE/FIRE: Police 191; Ambulance 196; Shore Fire Brigade 199.

BANKS: Bank of Valletta, Central Bank of Malta, Lombard Bank (Malta) Ltd., Mid-Med Bank Ltd., Melita Bank International Ltd.

SHORE LEAVE: There are no restrictions for crews to proceed ashore.

IDENTIFICATION CARDS: A personal identification card not required. Passports or seamen's books will suffice.

GARBAGE DISPOSAL: Garbage collection services are provided by private companies 24 hours per day.

WASTE OIL DISPOSAL: Tank cleaning is carried out at the Ricasoli Tank Cleaning Installation which is capable of berthing tankers up to 100,000 d.w.t. Tel: 828089.

SEAMAN'S CLUBS: None.

CURRENCY: One Maltese Pound.

GENERAL: Important that tankers are gas-free before entering, and that vessels do not carry explosives.

DEVELOPMENTS: The Sea Passenger Terminal at Gun Wharf has been extensively refurbished, with the aim of providing passengers with enhanced facilities.

Other infrastructural developments include a further extension to Pinto Wharf, the construction of a fourth quay along with an administration building at the Port of Mgarr, Gozo, and the construction of a fuelling jetty at Ta'Xbiex and the construction of a Security Gate Complex at the Deep Water Quay.

Also see "Marsaxlokk".

AUTHORITY: Ports Directorate, Malta Maritime Authority, Marina Pinto, Valletta VLT 01, Malta. *Tel:* 222203/4/5. *FAX:* 222208. *Contact:* The Executive Director (Ports).

AGENT: Kirton & Co. Ltd., 18/19 Floor 3, Europa Centre, Floriana, Malta. Cable address: "Kirton Malta". Tel: 234360. After hours 372787, 319861, 993331. Telex: MW 1241. Sole and exclusive Agents for Lambert Brothers Ship Agencies Ltd.

NOTES

Please also advise Shipping Guides Ltd.

Marshall Islands

MAJURO: 07.07 N. 171.10 E.

SHIPMASTER'S REPORT: December 1990.

The vessel departed Guam on December 12th 1990, bound for Majuro. Typhoon Russ hampered the vessel's progress and we did not arrive until 0800 hrs. on December 19th. Contact with the agent was not confirmed throughout the voyage. Although the agent's answerback was received and messages were transmitted, they did not illicit replies. Shell Singapore assisted by contacting the agent and confirmed the receipt of vessel's ETA's. Direct contact was made by VHF on Channel 16.

Marshall Atoll was detected on the radar at a range of 20 miles. A pilot boarded one mile from the entrance to the lagoon. The channel is marked by 6 pillar beacons, at the time of our visit the first beacon on the port side was missing. Coral heads were visible on the starboard side, the reefs on the port side were not. On both sides, the dangers extend beyond the marker beacons, therefore the vessel had to be lined up with the channel well before entering it. A strong N.W.'ly set was experienced off the entrance, which tended towards the coral heads. Once inside the lagoon the passage to the berth was virtually unobstructed. Distance from pilot to berth was 14 nautical miles.

The berth is owned by the Marshall Island Armed Forces and operated by the Marshall Islands Power Company. It is a continuous concrete wharf, with horizontal wooden fenders and vertical rubber fenders along its length. The depth of water was reported to be 43 ft. alongside, and the wharf was reported to be 320 ft. long. Prevailing winds are from the South and the jetty has been constructed on a line 084°/264°.

The wharf is used for general cargo imports, in addition to the importing of gasoil for the power plant. No other vessel is, however, allowed alongside when a tanker is using the wharf. The gasoil is received via a flexible hose to a caged manifold connected to the storage tanks. Size of reducer required is 8 in. The hose was positioned using a fork lift truck and the ship's crane.

There are no tugs and no evidence of repair facilities. No dirty ballast or slop facilities are provided. Mobil have a tank farm terminal and seem to be the main supplier of Mogas to the Island's garages. The Power Company sell some of the imported gasoil for bunkers to fishing vessels and local boat owners. There is a jet runway and seaplane service. Most flights are by the runway, the seaplane being little used. It was reported that there are frequent flights.

The vessel was boarded by Customs, Immigration and Health Officials on arrival at the berth.

The following documents were required:
5 copies Crew List.
1 copy Passenger List.
1 copy Vaccination List.
1 copy Previous Ports List (last four ports).
1 copy Crew Declaration.
1 copy Stores List.
1 copy Declaration of Health.
Clearance from last port.

There were no problems with the formalities and the ship's clearance was arranged in advance. The port has just established a double clearance procedure were the vessel must have both port and customs clearance before departure. Although the clearance was arranged in advance there was a delay whilst the agent brought the documents to the ship.

The Marshall Islands are part of a group known as Micronesia, however they use U.S. Dollars as the standard currency. There was little commercial activity in the port and on the Atoll. Robert Reimers Enterprises run the main hotel, bank, supermarket and most commercial activities on the Island.

SHIPMASTER'S REPORT: June 1992.

Although classed as a U.S. Trust Territory, the Marshall Islands are, in fact, independant and have their own flag.

Papers required for Port Officials are:
4 copies Crew List (Not U.S.).
Customs Declaration Form.
Stores List.
Derat/Exemption Certificate.

Considerable difficulty experienced in contacting Agents, Robert Reimers Enterprises, by telex. Although the List of Agents showed the Telex No: 7300930, vessel could only make contact using 7650930 and 7657300930, both giving "answerback" as "Comwriter Senior". After arrival, the Agent confirmed that the "answerback' was the Agency, but stated that only one message was received from the ship, this being the 24 hours ETA. Our telex machine confirmed receipt of all messages sent to Agent's number with "answerback", both before and after transmission. Having had no reply to questions raised in the first telex sent, a satellite telephone call was initiated and a successful connection made to Agents.

As Robert Reimers have several operations in Majuro, one has to request the shipping agency when telephone contact is made. Dialling the number direct gave a "no service" tone, and we evertually succeeded using the Australian Satcom. Operator. The telephone code used was 692 for Marshall Is., then 9 for Majuro, then the number. The first number in the List of Agents (3250) gave "no service", but the second number (3470) was successful.

Pilotage is daylight only and pilot boards at Calalin Channel. The pilot inwards was the Harbour Master and the Berthing Pilot. He also unberthed the ship and took us out through the channel.

In addition to information already supplied, the following is worth noting. There can be strong cross currents running across the channel from East to West, and it is recommended to ask the pilot to board outside the channel. Pilot boards using a small private motor boat. The current British Admiralty Chart is out of date, as the Calalin Channel Beacons are in different positions and the berth/cargo wharf is not shown. Most of the port hand beacons in the channel are missing, having been damaged in a previous typhoon. When going through the channel inbound, only Beacons No. 1, 3 and 5 are to starboard and No. 6 to port. Once inside, there are no major problems. The beacons shown on the chart are in position Lat. 07° 05.2' N., Long. 171° 21.9' E.

Vessel anchored overnight 2 miles WxN of the berth in 25 fathoms with a slightly sandy bottom. The berthing went smoothly, but without tugs, and the line boats were small motor boats, the same as the pilot used. Vessel berthed starboard side to and the bow overhung the end of the solid wharf by about 10.0 m. The port anchor was dropped approaching the berth and springs were run first. Anchor chain was slacked out as vessel moved in towards the berth, and then held on to bring the bow out and the stern in. Vessel ended up with 7 shackles out. Owing to the overhang, there was nowhere to lead proper headlines, except to the fishing wharf further up, and that would have required permission from the owners of the wharf and taken considerable time. As it was, the moorings were sent as breast lines and springs from the forecastle and headlines from the maindeck. The vessel was safely moored 2-2-2 in that manner.

Vessel discharged one grade, gas oil, through an 8 in. connection. Shore line was 16 in. to tanks close by. Overall discharge rate achieved was about 1,050 cu.m./hr.

Unmooring was conducted by letting go all moorings except one forward spring, with the anchor in gear. The vessel then steamed slowly forward against the spring, bowsing in the bow until the stern was well clear of the dock. The spring was then let go and with engine on dead slow astern, the anchor chain was then heaved in to pull the bow out and astern. In moving astern, the bow swung slowly to starboard with little or no weight on the chain. Once the anchor was aweigh and clear, the turn to starboard was continued, with the vessel still moving astern.

A point to watch here, is that there is a mooring buoy some 250 m. – 300 m. off the berth. This buoy, which is not on the chart, is used for unmooring in strong N.E. winds, when a mooring line is secured to it to heave the stern off the berth.

The turn to starboard was completed with engine changed to turning ahead and vessel proceeded seawards.

SHIPMASTER'S REPORT: December 1992.

General Information: Majuro Island is an atoll and is the main island of the Marshall Islands.

This vessel made the voyage to Majuro Island in the month of December 1992. In that period, a Northeasterly wind blows constantly with wind sometimes dying down unexpectedly, but also increasing to Force 8 during squalls.

Normal wind force in the month is 4-5, which makes unmooring rather difficult, and sometimes impossible, as the wind is then blowing on to the jetty.

Load port was Singapore, Guam first discharge port, Majuro second and Saipan third and last.

Arrival draft in Majuro was 8.50 m. even keel, and departure draft 4.65 m. forward and 6.90 m. aft.

Approach: Entering and leaving is only during daylight hours.

Anchoring outside not possible due to deep water.

Good radar echo at approximately 20 miles.

Calalin Channel is the approach channel, which is deep and wide.

Buoyage rather poor, but sufficient.

Coral reefs and shoals clearly visible and buoyed where necessary.

Charts used: B.A. 984 of no use, as scale is too small. U.S.C.G. 81782 is of large scale. This chart is not obtainable at Singapore, but when Guam is first port, then Guam Agent can obtain this chart, when requested, and is recommended.

Warning: On both charts buoys not charted correctly. Also shoals and reefs not as charted.

Calalin Channel and lagoon are free of dangers. If there is a shoal, it is buoyed, but not according to chart. This makes entering and leaving during daylight only, absolutely a must.

Strong cross currents experienced in Calalin Channel.

Pilots: Compulsory.

Pilot will board by a small motor speed boat.

When there is a heavy swell outside, which is often, Pilot cannot board outside, so will meet vessel in the lagoon.

Pilot will then talk ship in via VHF Channel 16.

Same will be done when outward bound.

Approach was made on course 175°, keeping the 3 green buoys on starboard side and the only red buoy on the port side. However, one cannot see the colour of the buoys at a distance, so Pilot will inform vessel.

It is essential to keep contact with the Pilot.

It may be possible that buoys will be changed at a later date, in order to meet the need for safe navigation, as shoals will change.

There are 2 Pilots, however one is mostly off the island, and the other one will then meet vessel.

Pilot to be ordered well in advance through Majuro Agent. Pilot is very competent, but he cannot board ship by pilot ladder, only by accommodation ladder.

One has to guess what side ship will berth, and consequently what side ladder has to be rigged.

During N.E.ly wind, berthing will be starboard side to.

Anchorage: Only possible in the lagoon, and according to Pilot not everywhere has good holding ground.

From the entrance channel to the jetty, vessel has sufficient time for accommodation ladder handling.

Jetty: The jetty is situated in the S.E. corner of the lagoon in position Lat. 07° 05.2' N., Long. 171° 21.8' E. Jetty direction is 080°.

Jetty is made of concrete, and has a horizontal top beam of wood, which is broken in some places, and heavy steel nails could cause some damage to hull.

Vertical rubber fender strips are placed regularly alongside the jetty. Bollards are placed at sufficient and regular intervals. This is not ideal, as an uneventful landing could therefore be on the concrete. High winds (squals of Force 8) could easily cause this.

Jetty length was estimated at at least 400 m.

Jetty is used for the inter-insular cargo ships (coasters) and visiting fishing vessels.

Jetty is not charted on both charts.

Berthing: No tugs or line handling boats are available. Ship will berth at the East end of the jetty, where the hose connection is located. In our case, we berthed starboard side alongside, with 8 shackles in the water on the port anchor.

As the ship's bow is close to jetty end, the forward ropes/breast lines are rather short. Aft ropes/breast lines were sufficient in length. 4 head ropes/breast lines and 2 forward springs were used. 5 aft ropes/breast lines and 2 aft springs were used. Due to the strong N.E.ly wind, one extra forward spring, leading forward, was used.

Other ships can moor close to the ship's stern.

It was very hard to get the bow alongside the jetty, due to the strong wind (Force 8) during mooring, and even with Force 4-5, it was difficult.

Draft: Various sources all issue drafts, ranging from 10.7 m. (Sietco), 10.50 m. (London) and 10.0 m. (Pilot). U.S.C.G. Publication 126, Sailing Directions for the Pacific Islands (obtainable in Singapore) states: Contact Local Authorities as depth may change and vary.

It took nearly 2 weeks to get a proper answer on the draft question, due to very difficult communications with Majuro.

Unmooring: Impossible during N.E.ly winds. Turning on fore springs with slow ahead and hard starboard rudder caused aft ship to turn away from jetty unsufficiently to get safe distance from jetty.

Any ship moored astern has to vacate jetty in order to avoid any touching with own ship.

Unmooring had to be abandoned and postponed to next day. Strong wind can last for several days. In that case, vessel has to seek assistance from any other vessel capable of towing.

There is a large buoy moored for the purpose of pulling the stern away. However, this is not recommended, due to the fact that 3 ropes have to be lashed together to reach the buoy.

Sometimes Pilot can arrange a launch to assist in pulling, but this is not always the case.

In our case, a visiting fishing vessel sent his skiff on our request and made fast and pulled the stern away from the jetty.

Special Regulations: Proceeding to and from Majuro requires navigation through the Kwajalein Missile Testing Area. This is a 200 miles radius area from Kwajalein (See B.A. Chart 761 Notice, and Pilot No. 61 and U.S. Publication 126).

In case vessel is unable to call Kwajalein Control Radio Station (ABK) by radio, then Guam Agent is able to contact the Military on Kwajalein on behalf of the Master and ask permission. Contacting the Military directly from ship, other than by radio, is impossible. There is no telex, and the telephone system is the Military telephone system, which cannot be penetrated by civil craft.

Typhoons: Majuro is situated in the region where most of the N.W. Pacific typhoons are generated. The track Guam/Majuro/Saipan is the most common track for these typhoons.

On this voyage, 2 typhoons of 945 mb. and 900 mb. were encountered within one week, all on the track Guam/Majuro. Normal typhoon warnings through the various meteo stations. There is one station which gives updates every minute. If vessel tunes to 15,000 kHz, it will have on line Port Collins in Colorado, which give warnings in human voice and the UTC time signal. After the UTC beep, updated and useful information is given for this area regarding tropical depressions, tropical storms and typhoons.

NOTES

Please also advise Shipping Guides Ltd.

Martinique

FORT DE FRANCE: 14.36 N. 61.04 W. (See Plan)

PORT LIMITS: The seaward limit of the port is the broken line joining the following points: Extremity of Pointe des Negres, South of Fort Saint Louis, Red Buoy No. 3, Black/Yellow Buoy S., Green Buoy No. 6L and Pointe Desgras.

DOCUMENTS:

Maritime Declaration of Health.
4 Crew Lists.
2 Provisions Lists.
2 Lists of Passengers in Transit.
5 Lists of Passengers Disembarking.
2 Lists of Crew Personal Effects.
2 Vessel's Particulars Declarations.
2 Cargo Manifests.

Tankers Only: Certificate of Insurance against Oil Pollution.

PILOTAGE: Call Pilot by International Code flag "G" or by sounding "G" on whistle. Pilot launches are painted black. The Pilot joins vessel on arrival at Pointe des Negres. If Pilot not available, vessel must anchor in the Baie des Flamands, East of Point des Negres to await Pilot.

ANCHORAGES: In Baie des Flamands in front of the town. Depths of 10 m. – 14 m.

MAX. SIZE: Length: 180 m. for vessels with one right hand propeller and without bow-thruster. 250 m. if vessel has two propellers and bow-thruster. See also "Tankers".

HEALTH: Request Free Pratique by radio or can be obtained on arrival when Master completes Health Declaration and presents Health Certificates.

RADIO: Fort de France Radio, call sign FFP. ETA message to Agent required 24 hours before arrival on working days or 48 hours on holidays. Message to include number of crew on board, flag, ship's name, tonnage, length, beam, max. draft on arrival, date and time of arrival.

VHF: Port Authority on Channel 16. Pilot on Channel 13.

RADAR: None.

TUGS: None available or required.

BERTHING:

Quay	*Length* (m.)	*Depth* (m.)	*Remarks*
Avisos – Arsenal	106	6.5	French Navy
Ouest	138.5	7.5	Naval repairs have priority
Tableau Ouest	93	6.5	
Bassin Radoub	200	8	Dry Dock
Oil Quay – Aux Huiles	88.5	7	French Navy
Grands cargos	135	8	Large cargo vessels
Darse	110	9	
Annexes	113	8.5	
Tableau Tourelles	83	11	
Tourelles	320	11	Cruise Ships have priority North end of Tourelles Quay
Poste Ro/Ro			
Battellerie	135	5.5	Fishing vessels have priority
Phares – Balises	50	4	Reserved for Lighthouse and Buoy Tenders
Hydrobase	390	11	
A conteneurs	250	12	2 Container Gantries

Container Quay: Length 250 m., depth 12.0 m. 2 Paceco gantry cranes with lifting capacity of 40 tonnes. Available on reservation 10 days in advance to Chambre de Commerce et d'Industrie de la Martinique (C.C.I.M.), 50 Rue Ernest Deproge, B.P. 478, 97205 Fort-de-France Cedex. Telex: Chamco 912633.

STEVEDORES: *Working Hours:* 0700 – 1100, 1300 – 1530. Overtime payable 1100 – 1200, 1200 – 1300, 1530 – 1730, 1730 – 1800 and 1800 – 2200. Night work can be ordered for 2200 – 0200 and 0200 – 0600. Double time payable for Sunday work.

CRANES: None available.

MEDICAL: Doctor and hospital facilities available.

TANKERS: *Petrol Pier:* Depth alongside 17 m., can accommodate tankers up to 300 m. length and 120,000 tonnes displacement. Crude discharge through 2×12 in. Chicksan Arms, capacity 4,500 t.p.h.

DENSITY: About 1028.

FRESH WATER: Available from quay in unlimited quantity except during dry season. Rate 50 t.p.h. – 80 t.p.h.

FUEL: All grades available subject to 12 hours' advance notice.

CONSULS:

Belgium
Canada
Colombia
Cuba
Denmark
Dominican Republic
Germany
Haiti
Italy
Mexico
Netherlands
Norway
Panama
Portugal
Senegal
Spain
Sweden
Switzerland
U.K.
U.S.A.
Venezuela

REPAIRS: Minor repairs possible.

DRY DOCK: 1×200 m. length, 21 m. wide. Equipment restricted.

SURVEYORS: *Lloyd's Agent:* Tel. 715566.

GANGWAY/DECK WATCHMEN: Recommended. Performed by crew members.

OPENING/CLOSING HATCHES: Can be performed by crew.

CUSTOMS ALLOWANCES: 200 cigarettes per man. All alcohol to be declared.

REPATRIATION: Facilities for crew change and repatriation.

AIRPORT: 9.5 miles from the port, served by regular airlines.

HOLIDAYS: 1st January, Shrove Tuesday, Ash Wednesday, Easter Monday, 1st May, Ascension Day, Whit Monday, 14th July, 15th August, 1st November, 25th December.

POLICE/AMBULANCE/FIRE: Police, Tel: 17 or 71 00 24; Ambulance, Tel: 17 or 71 59 58 or 70 36 48 or 71 48 88. Fire, Tel: 18 or 71 22 64.

TIME: GMT minus 4 hours.

TELEPHONES: Available in cruise ship reception building at Quai des Tourelles.

SERVICES: No tank cleaning equipment, tank-washing, or compass adjusting.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Seaman's Book.

DEVELOPMENTS: A third container gantry of 45 tons is to be installed.

Cruise ship terminal at Baie de Flamands available.

SHIPMASTER'S REPORT: December 1988.

Belle Fontaine: (See "Plans").

Vessel: LOA 150 m. Beam 21.0 m. Summer draft 9.05 m. 10,330 g.r.t. 5,584 n.r.t. 3 hatches.

After completion of cargo operations at Fort de France, the pilot boarded and vessel sailed for Belle Fontaine.

The Master takes command from Fort de France Pilot Station to about 1.5 miles before the berth at Belle Fontaine, when the pilot again assists. The regular pilot boat follows with additional crew from Fort de France and assists in taking the ropes to the dolphins and the jetty. Usually, and preferably, the pilot berths the vessel port side alongside against a slight current. The berthing is also done, preferably, in the early morning, due to absence of wind. The starboard anchor is dropped to 2 shackles on deck when the vessel is about 4 to 3 cables from the berth and is slacked away as required. The anchor is not of use for berthing but is for assisting unberthing. Under normal conditions the vessel makes fast with 2 long headlines and 2 stern lines to the dolphins and 2 springs each, forward and aft.

The berth is built of concrete on a solid foundation, the sea bottom is rock covered with boulders. The berth is very well fendered with 8 large tube-type rubber fenders of about 1.20 m. diameter and 1.50 m. length. Both corners of the berth are additionally protected with 4 smaller tube-type fenders on each side.

The berth is fitted with 2 modern loading arms for receiving fuel for the power station, to which the berth belongs. The berth is also used to receive equipment and spares for the power station, as well as shipping used parts. We loaded 150 tons of general, consisting mainly of oversized and heavy material, also some 40 ft. containers of up to 30 tons each. The space on the berth is limited and if the vessel has to work on a second hatch it has to shift. There is sufficient room to manoeuvre with 40 ft. trailers. The stevedores come from Fort de France.

If vessels are berthing at Belle Fontaine and come directly from overseas, the customs broker takes all documents to Fort de France to obtain Clearance. Usually the authorities do not come on board.

The pilot has to be ordered from Fort de France, and will await the vessel 1 mile Northwest of the berth. All regulations valid for Fort de France are valid for this berth. The official name of the berth is: Fort de France, berth Belle Fontaine.

If repairs or stores are requested it has to be organised through Fort de France companies. In an emergency small amounts of fresh water can be taken by a 1 in. pipeline.

The position of the berth taken by bearings and from official sources (B.A. Chart No. 371) differs slightly from the position taken from the satellite. The latitude shows no difference but the longitude obtained by satellite is 61° 10.47' W., whereas the position on the chart shows 61° 08.7' W.

600 m. inshore of the berth is a new power station with 2 conspicuous chimneys. They are illuminated at night by white lights and make a good landmark by day and night. The chimneys are in line 055°.

AUTHORITY: Direction Departementale de l'Equipment (DDE), B.P. 661, Boulevarde du General de Gaulle, 97262 Fort de France Cedex. *Tel:* 63 00 31. *Telex:* 912529 Mr. *Contact:* Monsieur Fourlon, Port Director.

Direction Departementale de l'Equipement, Arrondissement Special, B.P. 625, 97261 Fort de France Cedex. *Tel:* 63.40.74. *Telex:* 912854 Mr.

Capitainerie du Port, B.P. 625, 97261 Fort de France Cedex. *Tel:* 63.40.74, 70.20.73. *Telex:* 912854 Mr. *Contact:* M. Gibon, Port Captain.

Mauritania

NOUADHIBOU: (Port Etienne): 20.49 N. 17.03 W.

(See Plan)

(A) POINT CENTRAL
(B) NOUADHIBOU HARBOUR

(A) POINT CENTRAL

DOCUMENTS:
3 Crew Lists.
2 Stores Lists.
2 Crew Declaration Lists.
2 Passenger Lists (even if "NIL").
2 Ports of Call Lists of the last 30 days.
1 Health Declaration.
1 Vaccination List.

Maritime Gendarmerie: Officers of the Maritime Gendarmerie of Nouadhibou may come on board. They mainly control if the Mauritanian flag (must be flown day and night) is hoisted and check very closely the concordance between the Ship's Articles, the Seaman's Books and the Crew List.

If any difference is found between these three documents a fine may be given to the ship.

Immigration/Police: Crew members are not allowed to go ashore without a safe conduct given by the police. The list of the men asking to go ashore has to be given to Agent on arrival.

Money: On principle, foreign money is not allowed in Mauritania, but Agent may change money into local currency.

No Mauritanian money (Ouguiya) may be kept on board and if the crew have not spent their local money they have to give it back to the Agency (10 Ouguiya about 1 French Franc).

PILOTAGE: Compulsory for vessels calling at Point Central.

An outer Pilot Station is situated in the vicinity of No. 2 Buoy, bearing 037° distance 4.4 miles from Fairway Buoy No. 0 (Lat. 20° 40' N., Long. 17° 04' 30" W.). Also see "Shipmaster's Reports".

The inner Pilot Station is 1 mile from the Mineral Wharf bearing East.

ANCHORAGES: Ships waiting can anchor N.E. of No. 2 Buoy, distance 1 mile in 20 m. of water, good holding ground. Another anchorage on the roadstead, the wharf bearing N.W./N.N.W. distance 1 mile can be used by ships prior to berthing.

RESTRICTIONS: Minimum depth of water below chart datum is 17 m. in the buoyed channels and swinging area. Outer channel width is 400 m. but it varies from 250 m. to 400 m. for the inner channel; the radius of the swinging circle being 500 m.

MAX. SIZE: Not to exceed 310 m. in length and 47 m. in breadth, the extreme reach of the shiploader arm being 28.5 m. from ship's side. At the limit an extreme breadth of 48 m. could be accepted after advice from the DCFP. If possible drawing should be sent prior to acceptance for vessels of more than 100,000 d.w.t.

The recommended draft for large vessels in ballast, or partially loaded is 12 m. on arrival. Smaller ships should have on board a quantity of ballast equal to half their cargo capacity.

Maximum freeboard under shiploader arm is 14 m. With hatch covers opening crosswise (abreast) the maximum freeboard must be understood as the height from sea level to the upper part of hatch covers.

On departure a draft of 16.15 m. is usually admitted.

Essential: All vessels greater than 100,000 d.w.t., which have never visited the port before must have prior approval of the DCFP.

HEALTH: Free Pratique is usually granted after vessel has berthed. Yellow fever vaccination certificates required.

TUGS: None available.

BERTHING: SNIM Port:

Mineral Wharf: The ore loading terminal of "Societe Nationale Industrielle & Miniere de Mauritanie" (SNIM) is located at mid distance between Cap Blanc and Nouadhibou, geographical position: Lat. 20° 49' N., Long. 17° 02' W. It consists of a platform, 20 m. wide oriented North and South, resting on 8 dolphins, 13 m. in diameter each and 32 m. distant one from the other. The platform supports a conveyor belt and one single shiploader. The maximum travel of the shiploader from one end of the rails (railway) to the other is 165 m.; the virtual loading capacity would be 5,000 t.p.h. while the actual output varies from 2,000 to 4,000 t.p.h. according to ship's size and on condition there is only one quality and grade of ore to load.

To maintain a depth below LLWT (lowest low water astronomical tides) of 16 m. at the berth, ships are laid against 2 big outrigger pontoons leaning on the dolphins and protected on the ship's side by heavy but efficient rubber rollers acting as shock-absorbers.

Ships are generally made fast port side to the quay, coming alongside with the help of the anchors which should be kept at the ready.

Shipmaster's Report: March 1983.

Heavy lifts up to 24 tonnes were discharged alongside the berth with vessel's gear.

MEDICAL: There are hospital and medical facilities at the port.

TANKERS: Oil Wharf: It consists of a light platform placed on top of 3 dolphins of the same diameter as above but 64 m. apart, adjoining the mineral wharf to the Southward. A wooden decking supports the oil pipes which are connected abreast of dolphin No. 10 to the tanker lying port side to the quay, the stern is made fast to a mooring buoy.

DENSITY: Point Central 1026–1027.

FRESH WATER: *Shipmaster's Report:* March 1983. Fresh water available in limited quantities (approx. 100 tonnes) at a cost of U.S.$1.50 per tonne.

FUEL: Not available at the moment. An oil refinery has been built which will supply fuel from May 1994.

GANGWAY/DECK WATCHMEN: Recommended as stowaways try to board at night.

SURVEYORS: Bureau Veritas, Lloyd's, Salvage Association.

CUSTOMS: Regulations are very strict, and a careful declaration of all bonded stores must be made before berthing. Ships have been fined for quantities in excess or missing even when small.

GENERAL: (a) Radiotelegrams stating the date and ETA at Pilot Station and addressed to SNIM Nouadhibou should be transmitted 72 hrs. and 24 hours beforehand via Nouadhibou coast radio station (5 TA) working hours 0800 – 1800 or Dakar (6 VA), hours: Continuous.

Shipmaster's Report: 1977. Telegrams to Agents through Dakar Radio 6 VA only.

(b) It is of interest to Pilots when coming on board, to know whether the ship is powered by a steam-turbine or diesel engine whether the propeller is left or righthand and if it is a variable pitch propeller, how she behaves when the engine is running astern.

DEVELOPMENTS: Extensions to the Mineral Port are being studied.

SHIPMASTER'S REPORT: 1975. Vessel 169,000 d.w.t.

Iron Ore Marine Loading Terminal:—

Approach to Cap Blanc and Baie du Levrier: Approach was from the Southward. From Dakar the course was laid to cross the 100 fathom line at 20° 04' N., 17° 41' W., this being a precipitous shelf, when crossed with D.F. bearings from the Radio Beacon at Port Etienne gave a reasonable fix. Vessel then steamed across the main flow of North/South traffic at quite a broad angle heading for the landfall buoy 6 miles West by South of Cap Blanc. A dense concentration of fishing vessels extending Westwards from Banc Vilmorin offered little hindrance to our landfall. The light of Cap Blanc lighthouse was visually observed in the pre-dawn darkness at 26 miles and radar contact of Cap Blanc was established at 23 miles. The landfall buoy fitted with a radar reflector, gave radar contact at 15 miles.

Pilotage: A Pilot boards in the vicinity of No. 2 Fairway Buoy from a black-hulled, white superstructure, 40 ft. high-speed motor launch with "Pilote" written on the side. VHF contact is made on Channel 16, working frequency Channel 14. Call "Nouadhibou Pilot". The Pilot, a Frenchman, had a good understanding of English and proved to be very competent. The transit inwards and through the Passe du Levrier was at half speed but the last mile towards the berth only an occasional Dead Slow ahead movement was made to maintain steerage way.

Tide/Currents: Berthing for large vessels is on the ebb tide with a Southerly set of about 1 knot. South of the headland the set is to the Eastwards again about 1 knot i.e. directly across the channel. Unberthing is made on the flood tide setting Northerly along the jetty again about 1 knot. Rise and fall is in the region of 1.6 m.

Wind: Ranges from North by West to North by East (May). During darkness it abated to about Force 3 but from early morning through to sunset gusted up to Force 6 causing a short steep sea to run. The Pilot stated that in August and September Easterly winds often occurred hence the placing of 2 mooring buoys about 1 cable off the berth to assist vessels warping clear when leaving.

Tugs: None available.

Quay: Stout cylindrical rubber fenders are chained to the sides of 2 floating pontoons laying to the quay face. An adequate number of bollards are placed along the length of the quay. 3 dolphins, connected by a catwalk, extend the Southern length of the quayside for ship mooring purposes.

Moorings: When approaching and lying off the jetty 2 motorised mooring boats will run ashore 1 synthetic fibre rope (no wire ropes at this stage) from forward and 1 similar rope from the Poop. Vessel is then to warp alongside with these 2 lines aided by helm and small engine movements. Once alongside a spring from the after extremity of the Poop is to be sent away and a forward spring. Vessel secured to the berth with 1 headline to a mooring buoy North of the jetty, 3 forward breast lines, 1 forward spring, 2 stern lines, 2 after breast lines 1 spring from the Poop, and 1 spring from the normal position on the after deck.

Gangway: The accommodation ladder could not be used because of the space between the pontoons lying between ship's side and the quay. A pilot ladder was the means of access to the after pontoon from which access could be obtained to the quay.

Depths alongside: At the first low water soundings were taken around the ship and when reduced to chart datum — obtained from a monthly tide table loaned by the Pilot – a least depth of 16.2 m. was found on the inboard side with depths generally about 18/19 m. elsewhere.

Draft: Maximum permitted for berthing 12 m. Maximum permitted draft for sailing is 16.16 m. (53 ft.) at any state of the tide.

Airdraft: Maximum 14.5 m. In our case several thousand tonnes of hold ballast had to be taken once secure alongside, this delayed loading for 5 hours.

Shiploader: This is a single conveyor belt fed gantry having a range of travel of 165 m. along the quay but the loading arm has no facility to slew horizontally. It can only be luffed in the vertical plane. The maximum outreach was stated to be 23 m. which combined with the airdraft limitation of 14.5 m. made it extremely difficult to plumb the centre of the holds. For the majority of our loading period the ship had a port list (this was exaggerated by the free surface effect of the 4 ballasted holds). To keep the loading arm from fouling the ship's structure and assisting the arm to plumb centre all the port side side-rolling hatch lids were only partially opened.

Shifting: This had to be done on 2 occasions but was successfully achieved by hauling on the 2 spring wires aft and 1 headline to warp a distance of 6 m. forward and heaving on the forward spring and stern lines to warp 26 m. aft. The shifting was necessitated by the fact that the distance centre to centre of our extreme loading hatches was 191 m.

Agency: This was conducted by SNIM, Societe Nationale Industrielle & Miniers, their telegraphic address is "Snimport – Nouadhibou".

Documents: Required are:
4 Crew Lists.
2 Stores Lists.
2 Crew Declaration Manifests.
2 Vaccination Lists.
3 Passenger Lists.

3 Ports of Call of the Last Month Lists.
2 Ballast Manifests.

The latter 3 lists can be made on 1 sheet of paper (in triplicate). No Maritime Health Declaration was asked for. All these documents were passed to the Agent, no Customs, Port Health, Immigration or Police visited the ship. Although some crew members were without Yellow Fever vaccination certificates this posed no problem with the Agent, he declared no vaccinations can be done here. Nor can the Derat Exemption Certificate be renewed.

Port Restrictions: The Agent warned that crew members could not use pounds sterling, U.S. dollars, Dutch guilders or other foreign currency ashore for fear of confiscation by the "authorities". The local currency is the Ouguiya, 100 of which are on par with £1 (approx.).

Port Capacity: The Pilot stated previous largest ships had been:
(i) *"Atland"* OBO Swedish 84,229 g.r.t.
(ii) *"Thor"* Bulk German 79,270 g.r.t.
(iii) *"Lilyprima"* OBO Italian 72,68 g.r.t.
However, our claim to be the largest vessel to call being 169,080 d.w.t. is unsubstantiated. The Agent claims a shipment of 139,000 metric tonnes is the largest cargo exported from the port.

Loading Rate: The installation foreman claimed a rate of 4,000 t.p.h. Our rate, allowing for the frequent short stoppages, was 2,813 t.p.h.

Ore: The grade "Siliceous Iron Ore Fines XBF" was extremely dusty. About 10 grades of ore are available from 3 different mines.

Water Density: From our observations at low water 1024 ozs./cu. ft. and at high water 1025 ozs./cu. ft.

Cargo Figures: All tonnages quoted this port are metric tonnes. Ship's figure was about 1,300 tonnes less than the shore quantity, however, the ship's figure was accepted and the foreman stated the shore installations were usually 1% high of the ship figure. Ship was loaded to the maximum draft of 53 ft. but a great deal of difficulty was experienced reading the draft due to the seaway.

Unberthing: This was carried out on the flood tide. Single up to the 2 spring wires aft, using small astern movements and helm movements which aided by the anchor will cant the head from the quay. When the anchor is aweigh, slip the springs and steam ahead of the jetty then using full ahead power and starboard rudder followed by full astern power the vessel is swung well within the turning area to head seawards.

Depths in Channel: Except for the area of the channel abreast Cap Blanc lighthouse where less than 1 m. beneath the keel the remaining parts of the channel showed 3 m. – 4 m. underkeel clearance.

Conclusion: It would appear impractical to enter ships of a larger physical size than ourselves at this port because of airdraft/outreach limitations, draft restriction and manoeuvrability problems. Although we were fortunate in having a trouble–free berthing and unberthing procedure serious problems could be foreseen if a vessel had a main engine failure or a sudden deterioration of the weather occurred during these manoeuvres.

SHIPMASTER'S REPORT: June 1978. The following is a brief account of the port which is in addition to the information supplied in the "Guide", which may be read as being correct. The port, formerly Port Etienne, is in Mauritania, I found travellers are afforded every courtesy. There are two flights per week from Paris via Air Africa who are very good. The flights arriving here on Tuesday and Thursday. The plane returning from Dakar Wednesday and Friday. Spare parts can be landed here and taken out to the ship with minimum of Customs formalities though it would prove to be an expensive exercise. It must also be pointed out that it is not always possible for the plane to land here due to high cross winds and resultant sand storms at the runway, in which case the plane then proceeds to Dakar direct.

Custom Authorities are most interested in the amount of foreign currency brought in as there is a strict levy on this, care must be exercised in this respect. They are also most interested in the stores on board the ship and these must be strictly accounted for precisely.

The town itself of which I did not visit is a separate community from the mining town itself. The mining town itself is self-sufficient and both French and Mauritanians live here. There is a hotel, which is practical and clean with reasonable food. There is also a club with tennis courts, a post office, power station and cinema and a hospital where major surgery can be carried out. There is also an oil refinery which is uncompleted. Refined products are imported via a modern berth. Bunkers and fresh water are available here but in limited quantities and I would imagine costly.

There are no tugs. According to the Agent wireless telegraphy may be used alongside the berth although there is a Telex ashore. I found the Agent to be most helpful.

I was assured that seamen joining or leaving here do not require a visa only a passport and discharge book are required, which I personally was never asked to produce.

The iron ore mine is approximately 650 miles from the loading berth, all the ore coming by rail and attacks are frequent by bandits and guerillas. This can cause lengthy delays to the ship as very little ore is stockpiled.

Loading is carried out by one loading arm which pours approximately 4,000 tonnes per hour. Weights loaded can be measured ashore and have proved to be quite accurate, however it is normally the practice to accept the ship's figures.

SHIPMASTER'S REPORT: September 1986.
Vessel: Ore carrier – 117,600 d.w.t.
Telegrams: Telegrams to our Agents (SNIM) were sent through St. Lys Radio in France, and were received without delay at the Agency.
Water: Requirement should be stated in the 72 hour notice of ETA cable.
Navigation: 2 Pilots working this port now.
Still no tugs available.
All buoys in the Approach Channel are unlit.
Buoys No. 1 and 3, (B.A. Chart No. 1699, 1983 edition), are missing.
Cape Blanc Lighthouse unreliable as extinguished at times.

Stowaways: The possibility of stowaways still exists. Local guards have been placed on the quay to stop unauthorised people from getting aboard, but it is recommended to have ship's crew as watchmen as well.

SHIPMASTER'S REPORT: August 1987.
Vessel: 24,750 d.w.t. 170 m. length.
Location of Oil Terminal: 20° 49.8' N., 17° 01.75' W.
Documents:
6 copies Crew List.
3 copies Crew Personal Effects List.
2 copies Stores List.
1 copy Health Declaration.

Ship's documents not required. Vaccinations not possible. It is not possible to renew the Derat Certificate.

Pilotage: Not compulsory. Pilot may be contacted on VHF Channel 16.
Anchorage: Location clearly shown on chart.
Approaches: Vessels should only approach the Pilot station and fairway buoy in daylight hours.

The buoys are in the positions shown on the chart but are incorrectly numbered and are not lit at night. The lighthouse at Cape Blanco was not working. However, the African Pilot Volume No. 1 and the chart provided sufficient information for safe approach.

Approaching without an efficient radar is not safe as the visibility is normally very poor and many fishing vessels may be in the area.

The Channel from the Pilot Station to the oil pier is dredged to 15.5 m.

Restrictions: Berthing and unberthing during daylight hours only.
Max. Size: Max. draft 15.0 m.
Tugs: Vessel berthed without tugs as none available.
Berthing: Dolphin type berth with 7 Chicksan arms connected direct to the shore.

Dirty ballast can be discharged ashore.

Fresh Water: Not available.
Fuel: Not available.
Delays: Strong winds may delay tankers berthing.

SHIPMASTER'S REPORT: September 1987.
Documents:
4 copies Crew List.
3 copies Stores List.
3 copies Crew Declaration.
3 copies Passenger List.
2 copies Ammunition List.
2 copies Stowaway List.
3 copies Ports of Call List for the last 30 days.
2 copies Health Declaration.
3 copies Vaccination List.
2 copies Currency Declaration List.

The above documents, especially Crew Personal Effects List, Bonded Stores and Steward's Stores and Provisions List should be correctly declared, otherwise vessel will be fined by the Customs and other authorities.

Pilotage: Pilotage is compulsory for vessels calling at Nouadhibou. Vessel should anchor one mile South East of Buoy No. 2 if she has to wait for berth. Constant communication with the Pilot is necessary in order to determine time for berthing. Agent could not be contacted by VHF.

Approaches: If approaching Nouadhibou during the night a vessel must be very careful as there are scattered fishing vessels in the vicinity. The fishing vessels of various nationalities are found up to 30 miles from the shore and their nets are obstructions to navigation. Navigational aids in this port are very poor, Cape Blanco lighthouse and the (7) channel buoys are not lit. Buoy "A" or the Sea Buoy has moved 1.5 cables N.W. of the charted position, the others are in their charted position. The top mark of Buoy No. 2 is broken and was difficult to identify at a distance greater than 3 miles. All the buoys in the channel are unlit. Master was informed by the Pilot that there would be no movements during the night and pilotage service will be rendered only during day time. It is recommended by the Pilot that vessels arrive at Nouadhibou during daylight.

Restrictions: Depth of water in the buoyed channel is 16.0 m.. This was monitored by our fathometer during the passage. On the Oil Berth the Pilot usually docks the vessel on slack tide, and normally port side to, using the starboard anchor with two shackles in the water. Services of the Pilot are good and satisfactory.

Communications: When the vessel is at anchor and waiting for berth communication with the agent and the terminal is difficult. If you call them on the VHF they never answer, the language barrier is the problem. The service of the Agent was poor, he did not meet the vessel even when it was berthed. At The time of our departure we waited over an hour for our Departure Clearance.

Health: Free Pratique is usually granted when the vessel is on the berth. Cholera and Yellow Fever Vaccination Certificates are required.

Tugs: Not available. Vessels with bow thrusters have no problems.

Tanker Berth: The tanker berth is constructed of light materials and cement, the floor of the platform is wood, the length of the berth is about 165 m. It has 6 loading arms of 8 in. diameter. The fenders on the pier are hard rubber supported with springs. Two mooring boats will assist with the mooring lines of the vessel being berthed. A five man mooring gang will receive the lines. Slops or dirty ballast can be received ashore at the refinery facilities. Only the Loading Master could speak a little English, so language is the main problem with the operations.

Fresh Water: Not available.

Customs: Only 2 Customs Officers boarded the vessel,they scrutinize every paper or document presented to them, especially Bonded Stores List, Steward's Stores List, and Personal Effects Lists. If a mistake is found they will start to talk about fines to the vessel. It is therefore advisable to itemise the Declaration of the Bonded Store, Steward's Stores and Provision, and Crew Personal Effects Lists in order to avoid fine or any other problems. During our stay in port the Customs Officers boarded three times.

Gangway: The vessel has to provide her own gangway as there is no shore or terminal gangway provided. Ship's personnel should keep a constant watch on the gangway during the change of tide as the current is very strong and the range of tide is about 5 ft.

SHIPMASTER'S REPORT: June/August 1989 (Updated 1994).

Vessel's ETA to be sent through Dakar Radio. Contact with Dakar Radio was extremely difficult.

Land was picked up 18.8 miles away. An almost Easterly approach was made. Navigational aids are poor.

Cap Blanc Lighthouse (5fl. 5s. 23M) is inoperative. Most of the channel buoys were unlit without top marks and rusty.

Contacting Nouadhibou Pilots on VHF is difficult. We were asked to anchor off Buoy No. 2 and we did so in position Lat. 20° 44.7' N., Long. 17° 00.8' W. After a day, we were taken to the inner anchorage, with Point Central bearing 347° × 1.7 miles, and awaited berthing on completion of vessel loading alongside Point Central. After spending 2 days at the inner anchorage, we were taken alongside.

Vessels should have *sufficient quantity of fresh water* as a long wait can be expected. The ship prior to us was at the anchorage for 15 days.

Berthing: Berthing is carried out during daylight, during ebb tide and is port side alongside.

There is one African Pilot and one Asian Pilot. The latter, who is the Chief Pilot, boarded our vessel. He was not very sure of himself and gave unnecessary helm and engine orders.

No tugs are available.

A mooring boat takes 2 head lines (nylon) forward and a breast line/spring aft. These are placed on bitts and vessel has to heave alongside. The starboard anchor is also used.

Final moorings: Forward: 4 head lines, 2 breast lines and 2 springs.
Aft: 2 stern lines, 2 breast lines and 2 springs.

On berthing, the Customs Officer boarded the vessel. He did not seal the bonded store and was not particularly interested in looking at any papers. The Agent boarded the vessel the next day, possibly because a curfew was imposed from 2000 hrs. to 0800 hrs. Loading commenced 20 hours after berthing.

The loader is 2 years old and is in good condition (1994). The loader can take an air draft of 14.5 m. and remains high above the hold. As the cargo is very dusty, it flies all over the place. By the time we left, the decks were concealed with this cargo.

Machinery breakdowns are very frequent and of long duration. It took us almost 3.5 days to load 75,000 tonnes. The ship's figures are always accepted. There is no cargo survey, but at the discharge port a cargo surveyor on behalf of the shipper boarded the vessel.

A sharp watch for stowaways was always maintained.

Fresh water (hard) is available alongside in small quantities (50/60 tonnes).

A pilot ladder is used to get on the wharf. A terminal bus is available every hour to go to the nearby town of Nouadhibou, which is free of charge. Taxis charge 200 Ouguiya. (U.S.$1.00 = 70 Ougiya). Only change money in the bank. Never have any transactions with the terminal people as this is viewed very seriously by the Authorities.

Further observations made during vessel's visit to Point Central (Mineral Berth) in August 1989:

Contact with Nouadhibou Pilot was extremely difficult as the VHF set in the Pilot's office is also shared with the Agent (SNIM). The radio is only switched on when the Pilot is in the office or wants to make contact with a ship.

Visibility is reduced to less than 2 miles most of the time due to the haze caused by the particles of the light ore being carried all over, by breeze, when loading is in progress.

We remained at anchorage for 11 days and alongside the berth for 4 days.

Although the loading rate of the ore is about 3,500 metric tonnes per hour, the machinery breakdowns delayed the loading.

Shore Leave: It is advisable to get the local currency as cash advance from the Agent, it can then be returned if unused. In order to change foreign currencies at the local banks, the Customs' approval must be given.

Shopkeepers and cabs quote high rates to foreigners, so bargaining is necessary.

Knowledge of French is quite useful.

SHIPMASTER'S REPORT: July 1990. Also see "Shipmaster's Report" dated July 1994.

Documents:

2 Crew Lists.
2 Vaccination Lists.
2 Personal Effects Declarations.
2 Currency Declarations.
2 Ship's Stores Lists.
2 Provisions Lists.
2 Bonded Stores Lists.
2 Arms and Ammunition Lists.
2 Narcotics Lists.
2 Cargo Manifests.
2 Passenger Lists.
1 Health Declaration.

Approaches: A large number of fishing vessels were encountered off Cabo Corveiro and Cabo Dubouchage, but they generally kept clear. The coastline is easily identifiable on radar.

Buoyage/Nav. Aids: B.A. Chart No. 1699.

No. 0 Buoy was missing. No. 2 Buoy was out of position. It was seen in approximate position 20° 42.75' N., 17° 01.93' W. The topmark was broken and missing. No. 1 Buoy was out of position, approximately 0.2 nautical miles S.E. of charted position. No. 3 Buoy was about 0.1 nautical miles off charted position. No. 4 Buoy was found in charted position. No. 8 Buoy was missing.

None of the lights for the buoys were working.

Cap Blanc Lighthouse light was not working.

Anchorage: About 1.5 nautical miles N.E. of charted position of No. 2 Buoy, around position marked on B.A. Chart No. 1699. Holding ground is good.

Winds: At anchorage and alongside berth, mainly Northerly winds Force 4/5 were experienced, tending to increase during late evening.

Pilotage: Compulsory. Pilot boards and disembarks between No. 1 and No. 2 Buoys. Pilot boat has a black hull and white superstructure, and has "PILOTE" written on the hull. Only 2 pilots are employed in the port.

Health: Free Pratique is granted on berthing. Quarantine officials did not board the vessel.

Customs: Bond locker was not sealed. Customs officer carried out a check of the bond locker and provisions stores.

Radio: All messages to agents had to be sent via St.Lys Radio (FFL), as Nouadhibou Radio could not be contacted at all. Agents advised that Dakar Radio was not reliable, and vessel to use only St.Lys Radio.

VHF: Pilots available on VHF only when working on ships, in daylight hours. Port Control answers only during early hours of the morning (0700 hrs. – 0900 hrs. approx.). Message can be left with pilots, requesting agents to call back on VHF.

Tugs: No tugs available.

Berthing: Vessels usually berth on ebb tide and sail on flood tide. Although the pilots do carry out these operations at other times, to avoid loader being idle. Usually pilotage is not done after nightfall. In case a vessel has to be berthed at night, the loaded vessel is removed from the berth, and anchored just off the berth, in inner anchorage.

Generally vessels are berthed port side alongside.

Starboard anchor is dropped, about one shackle in water, to assist in hauling off.

Mooring: Two mooring boats in attendance for berthing. Two head lines are sent first, followed by 2 back springs from aft. Total lines used were 4 head lines, 2 breast lines and 2 springs from forward; 2 stern lines, 2 breast lines and 2 springs from aft.

Restrictions: Maximum draft allowed for berthing is 12.0 m. Maximum sailing draft allowed is 16.15 m. Maximum air draft permissible for loader to top of hatch coaming is 14.0 m., although we found about 1.0 m. clearance at an air draft of 14.1 m.

Stevedores: Stevedores work around the clock.

Density: 1025 – 1026.

Fresh Water: Usually no fresh water available. We received a small quantity by fire tender. Fire tender capacity was 6 tonnes, and the water was very expensive.

Fuel: Usually none available. Agents advised that 50 tonnes – 60 tonnes of gas oil can be supplied by trucks in an emergency.

Watchmen: Compulsory. No stowaway problems due to presence of watchmen, according to agents.

Telephone/Fax: Telephone lines were not clear. Fax available, but messages were received garbled by Hong Kong office.

Surveyors: No surveyors available for cargo quantity surveys. Ship's figures accepted for Bill of Lading.

SHIPMASTER'S REPORT: July 1994.

Vessel: This vessel is a 148,000 tonnes d.w.t. bulk carrier (LOA 264.8 m., beam 46.03 m.) with 8 holds and hatches.

Information was obtained from Pilot, Agent and stevedores and is updating July 1990 Report.

Documents: Same, additionally "Nil" Stowaways (Currency Declaration not produced).

Customs: Speak little English but do speak French and Spanish.

They appear to read all papers produced to them carefully, then go to check bond and provision stores. Interested in food stuff and cigarettes. Bond not sealed.

Navigation Aids and Approaches: B.A. Chart No. 1699.

Cape Blanc Light is working, but weak, 3 – 4 miles. Most buoy lights not working and topmarks missing. Most buoys are bad radar targets due to swell and sea. Recommended track up to Buoy No. 2 should be followed and daylight approach is easier, due to numerous unlit small craft, fishing traffic and gear.

Sea buoy missing. Found one red buoy in position Lat. 20° 40.1' N., Long. 17° 04.6' W., no marks or light.

Buoy No. 1 in position but unlit, no marks.

Buoy No. 2 in position, unlit.

Buoy No. 3 missing, and a very small unlit buoy about 100 m. West in position.

Buoy No. 4 in position, but unlit.

Buoy No. 6 unlit, and about 250 m. West of charted position.

Buoy "M1" in position.

Buoy "M2" now in line East of "M1", but unlit.

Buoy "M5" in position, but unlit.

On loaded passage outward following the route, lowest sounding on echo sounder obtained off Buoy No. 3 was 1.5 m. on draft 16.15 m. with tide of 1.9 m. (speed 6 knots).

Anchorage: We were asked by Pilot to anchor 1 mile East of Buoy No. 2. Later "Cape Size" vessels anchored all round us, good holding ground.

Pilots: Board off Buoy No. 2 or anchorage when they take you straight to Buoy No. 1. Combination ladder 1.5 m. above water, lee side is normally port side. 3 local Pilots available. They speak sufficient English, are confident and do a good job in difficult conditions. They are helpful and take it easy on engines. They draw and explain mooring order of ropes and anchor. They suggest less than 12.0 m. draft for berthing. Keep watch on VHF Channel 16. They can normally be contacted on VHF between 0830 hrs. – 1200 hrs. or when ship movements are taking place. They do try and give sufficient berthing notice and contact Agent for you on VHF. Pilots depart between Buoys No. 1 and No. 2.

Berthing: Procedure same as previous Report (July 1990), though we berthed starboard side alongside to flood which is rare, early morning so no wind. If wind picks up, vessel is to abort mooring and re-anchor.

First set of 2 lines (forward and aft) must be long, on drums and synthetic for boats. Later mooring arrangement to bollards to make it easier for shifting vessel during cargo operations.

After unmooring, vessels normally do short starboard turn with engines and anchor N.E. of berth as Turning Basin only 1,000 m. Vessels are taken to inner anchorage, off Buoy "M1". If other vessels sailing, it is touch and go for tide, otherwise direct to berth. Berthing rotation changes suddenly, depending on grades you are to load, and availability. Thus a long anchorage can be expected, up to a month, though normally 10 – 15 days. A vessel who came 4 days after us berthed on arrival.

Tugs: None available.

Tide and Currents: Tide calculations and times as per B.A. Tide Tables sufficiently correct, though Pilot's local calculations as per experience was about 15 cm. less on H.W. Current as given in sailing directions was similar in direction and velocity.

Berth Information: Agent's information:

Depth LLW 16.15 m.
Tidal range 2.0 m.
Max. arrival draft 12.0 m.
Sailing draft 16.15 m.
Max. LOA 300 m.
Beam 46 m. (claimed to have loaded 50 m.).
Loader upgraded 1991.
Travel distance 165 m., max. reach measured on board 25.5 m.
Distance jetty to fender measured 9.7 m.
Throw up to about 5.0 m. (sufficient to load us properly).
Loading rate max. 3,500 tonnes/hr. (experienced 3,200 tonnes/hr. maximum, but normally many breakdowns).
Airdraft 14.00 m.
Sufficient bollards and fenders.
Boarding on vessel done off fenders on pilot ladder or gangway, if in position.
Stevedores board via the loader on the hatch cover.

Fresh Water: By trucks (up to 150 tonnes). Cost about U.S.$ 4.00 – 3.60 per 100 tonnes – 150 tonnes respectively.

Provisions: None. Provisions/stores come from Las Palmas by Ro-Ro. Local fish and sea food can be arranged in small quantities.

Crew Changes/Spares: Agents advice – preferred via Las Palmas, as direct and less paper work and no visa required on Passport. Via Nouakchott need visa or CDC, and for spares someone from Agency has to go, with red tape and considerable delay and costs.

Vaccination: Possible at 7 days notice as vaccine to be flown in, so is costly.

Notice of Readiness: Time of arrival at Buoy No. 2 accepted, whether vessel able or unable to contact Pilot or Agent on VHF. To be sent on telex or via cable.

Bill of Lading and Draft Survey: No survey. Ship to do own and same figure accepted for Bill of Lading. Shore scale is said to be about 0.5% less. We got 1.7% less. With wind, swell and a current, especially at night, draft reading becomes difficult.

Stowaways: A problem exists. Watchmen on pier are strict (ships pay by pool). Agent and pilot information is that they come from sea side, up anchor or lines or ladders left overside and some times by grapnel. So normal watch and precautions to be taken at end of loading. Chief watchman comes aboard to search vessel with ship's staff and takes away a form and signs for "Nil Stowaways" and no liability.

Communications: Agent (SNIM Nouadhibou) received my messages on telex via Inmarsat, but never replied. He said to get action and reply better via SNIM Paris office (Agent: Telex: 974-4426. Fax: 2222-45237).

Stevedores keep watch on VHF Channel 6, and in port, call you on your working channel or vice versa.

AUTHORITY: Societe Nationale Industrielle et Miniere (SNIM), B.P. 42, Nouadhibou, Mauritania. *Tel:* 1945, 1946. *Telex:* 459 Snim Ndb, Snim 426 MTN. *FAX:* 45396/49027/49013. *Contact:* Mohamed Ould Boilil, Harbour Master/Chief Pilot.

(B) NOUADHIBOU HARBOUR

LOCATION: Position of Trading Port 20° 53' 48" N., 17° 03' 10" W.

DOCUMENTS:

3 Crew Lists.
2 Stores Lists.
2 List of Personal Effects.
2 Lists of Ports of Call.
Cargo Manifest, even if nil.
Manifest of Passengers Disembarking or in Transit, even if nil.
1 List of Foreign Currency held by ship and crew.

PILOTAGE: Not compulsory but recommended, effected by SNIM/Cominor. Pilotage not available at night.

RESTRICTIONS: Depth of buoyed Channel 24 ft. Anchorage strictly prohibited in the Channel.

RADIO: Nouadhibou Radio – Call sign 5TA. Hours 0800 – 1800 daily.

It is recommended that vessels advise their Agent of ETA 72 hours prior to arrival.

VHF: Request Pilot through Port Captain on VHF Channel 16.

TUGS: One tug, 150 h.p.

BERTHING: Pier of 125 m. length connected to shore by a 150 m. long bridge.

Outside general berth for ships with a 24 ft. draft and a 160 m. max. length. According to certain vessel's accommodations, the extreme hatches cannot be discharged through quayside.

Inside berth for ships with a 15 ft. max. draft and a 80 m. max. length.

The maximum payload authorised on the bridge connecting the pier to the warehouses and the storage areas being limited to 10 tons, all heavy lifts over 10 tons are to be compulsorily discharged on lighters.

Lighterage Piers: Southern Quay = length 80 m.; depth 10 ft. Western Quay = 180 m.; depth 10 ft.

The Southern Quay is connected to SNIM/Cominor railroad network, allowing the loading of heavy lifts on railcars.

2 covered sheds: total 3,500 sq.m.

1 area with macadamised roads offering 30,000 sq.m. of storage connected to SNIM/Cominor railroad system.

Lighterage: Compulsory for any ship whose characteristics do not allow a safe berth. Compulsory for any loading or unloading of heavy lift over 10 tons.

Not compulsory in case berths are occupied and if manpower and equipment are still available.

CARGO HANDLING EQUIPMENT: 1 lighter × 150 tons, 2 flat top lighters × 200 tons.

14 cranes × 4 tonnes.
2 cranes × 15 tonnes.
4 stacker trucks × 3 tonnes.
1 stacker truck × 8 tonnes.
6 tractors.
16 trailers.
1 rail mounted crane × 70 tonnes (SNIM Property).
1 mobile crane × 50 tonnes, available on request for heavy lifts.
2 cranes on rails for containers.

STEVEDORES:

Working Hours. Normal hours: from 0800 to 1200 and 1400 to 1800 from Saturday to Wednesday.

Overtime: Saturday to Wednesday: 1200 – 1400 hrs. 1800 – 2000 hrs. Thursday: 0800 – 2000 hrs. Fridays and holidays: 0800 – 2000 hrs.

Nightwork possible after 2000 hrs. in order to finish.

During the time of Ramadan work finishes at 1800 hrs.

There is no work on the following holidays: New Year's Day (Jan. 1); Tabaski (El Aid) (variable date); Day of Reunification, (Feb. 26); El Mouloud (variable date); Labour Day (May 1); Africa Liberation Day (May 25); Korite (El Fatar) (variable date); Independence Day (Nov. 28); Christmas (Dec. 25); 1st Moharam (variable date).

The holidays corresponding to the Islamic Religious holidays are calculated from Arabic calendar.

FRESH WATER: Available in small quantities.

FUEL: Available in small quantities.

SURVEYORS: Bureau Veritas, Lloyd's and Salvage Association.

CARGO GEAR: Ship's gear used.

GENERAL: *Winds:* Mainly N./N.E. in the morning, N./N.W. in the evening. Wind force: variable from August to January, rather strong from February to July. Tidal current running North during Flood, and South during Ebb (1.5 to 2.5 knots).

Swell: 0.80 m. max. Strong surge alongside all berths.

Rise and Fall: HW 2.35 m. LW 0.35 m. difference = 2 m.

AUTHORITY: Port Autonome de Nouadhibou, B.P. 236, Nouadhibou. *Tel:* 21-34, 22-35, 22-76. *Telex:* 441 Mtn.

NOUAKCHOTT: 18.02 N. 16.02 W. (See Plan)

NOTE: All information below, except the Shipmaster's Reports dated October 1987 and March 1988, is for the old port.

LOCATION: Nouakchott Wharf (old port) is situated in position Lat. 18° 02' 08" N., Long. 16° 01' 43" W., being about 7 km. S.S.W. of Nouakchott.

Vessels anchor off the port and movement of cargo is undertaken by barges and lighters.

WIND: The direction of the wind varies from N.N.W. to N.E. The predominant winds affecting navigation are from the N.N.W.

The rapid onset of bad weather should be noted. When conditions are bad vessels should weigh anchor and proceed seaward as the coast offers no natural shelter.

CURRENTS: There is an almost permanent North-South current running at about 0.5 knots; it reverses South-North on a few days during the year.

SWELL: 2 kinds of swell have been observed: Local swell due to the coastal winds, varying from North to N.W. in dry weather, and turning between N.W. and S.W. during the wet season.

ANCHORING ROADS CONDITIONS: The periods during which climatic conditions are liable to upset work are as follows: Strong swell, January/March; rain, July/August/September.

This virtually allows the port to be used during 200 days in the year.

WORKING CONDITIONS: Vessels must locate themselves as closely as possible, where they can anchor without risk, to the wharf, within the limits of their drafts (generally between 0.5 and 0.25 miles), in line. At the lighterage quay there is a depth of water of 7 m. – 8.5 m. It is preferable for a ring of lines to be placed in advance around the sides of the vessel to which barges may tie up.

Experience shows that the tonnage unloaded currently by the wharf is 400 to 500 t.p.d. where goods in sacks are concerned. It is possible to work 2 vessels at once, but each will only work half of this tonnage.

Work is currently carried out on board by private companies, and on land, in the launches and lighters by the Wharf Organisation personnel.

As far as wharf personnel are concerned, during working days, the normal working hours are from 0800 to 1600 hrs.

Overtime day hours are from 1600 to 1900 hrs.

Night time working is considered to apply between the hours of 1900 and 0600 hrs. (currently impossible).

It should be noted that there is an overtime hour at the beginning and end of work, which is the time required to launch or bring barges on to the landing-stage.

RECOMMENDATIONS TO MASTERS OF VESSELS: Vessels must be at all times capable of gaining the open sea rapidly, since bad weather comes up very quickly, and the coast affords no natural protection.

WHARF: The working platform is 86 m.×21 m. and lies in a N.W.-S.E. direction; it is connected to the shore by a gangway 246.5 m. length and 7 m. wide.

The wharf is designed to take a load of 2 lorries of 25 tons (2 axles of 10 tons and 1 axle of 5 tons) or an overload of 1 ton/sq.m.

The Wharf Manager's office together with Police, Customs and radio office are located on the shore.

FLOATING EQUIPMENT: 1 launch of 50 h.p., 2 launches of 100 h.p., 10 steel barges, internal dimensions 10 m.×3 m.×1.25 m. with capacity for 20 tons cargo. 1 steel barge, internal dimensions 13 m.×4 m.×1.35 m. with capacity for 30 tons cargo.

WHARF EQUIPMENT: 3 cranes with capacities of 20 tons, 8 tons and 5 tons respectively.

LAND EQUIPMENT: Goods are transported from the wharf to the storage area by 18 trailers each with a capacity of 8 tons. The port is also equipped with 2 tractors of 80 h.p. and 5 fork-lift trucks with capacity of 3.5 tons.

TANKERS: Dakar oil companies are presently building a hydrocarbon oil depot about 400 m. North of the wharf.

The depot will be fed from tankers by means of 2 sea-lines of 900 m. length.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Mauritanian Ouguiya (OM).

SHIPMASTER'S REPORT: August 1978 (Old Port).

The following is to be read in conjunction with the information above.

Currents: Reversal of current is unpredictable and may last for several days on each occasion.

Anchoring Roads Conditions: While in the main the holding ground is good, there appears to be patches of hard sand where the anchor cannot take hold.

Working Conditions: It is practical to work 4 vessels at once plus one of up to 5,000 d.w.t. at the new extension to the pier.

Present (August 1978) hours for ships at anchor are 0800 to 1600 hrs. (Ramadan) but Sunday overtime can be worked if vessel gives authority. It seems that this is very expensive as so many are involved.

At the pier extension work has been observed from 0800 to 2400 hrs. and a mobile crane is available there to assist ship's gear.

Wharf Equipment: There are 7 cranes with various capacities, two being used for lifting out barges for repairs and to house the tug launches at night. The mobile crane is backed up by some 8 small fixed jib carriers.

Tankers: The sea berth North of the pier is in operation.

Documentation: See "Nouadhibou".

Customs Control: The officer will not board until the Agent has entered the vessel with the necessary documents, hence there will always be a time interval between arrival and being boarded for inspection. So financial loss must be expected accordingly.

General Observations: Due to the lack of any VHF or similar communication system, it is difficult to assess the true performance of this port. It is most uncomfortable for any vessel of more than 7,500 d.w.t. unless the barges are prepared to come out to 7 or more cables from the pier. In the recommended anchorage the effect of swell and surf is such that the vessel frequently swings through a wide arc and the chances of breaking out the anchor are very real. The erratic current direction may also swing the ship towards the pier hence the above opinion. Other vessels may also anchor so as to swing across one's own cable and anchor.

SHIPMASTER'S REPORT: October 1979 (Old Port).

Anchorage: Vessel anchored in position Lat. 18° 02.2' N., Long. 16° 02.7' W.

(with the lighthouse tower on the jetty bearing 101° distance 3.3 cables).

General: City of Nouakchott (the capital) is in position Lat. 18° 05' N., Long. 15° 58' W. The port jetty is in position Lat. 18° 02.1' N., Long. 16° 01.55' W. being about 7 km. S.S.W. of the city. The official languages are Arabic and French. There are asphalt roads, one which leads to Dakar. There is an airport (close South of the city) with connections to Dakar and Casablanca. Scheduled flights being published in the daily newspapers.

Time: GMT.

Authorities: No authorities come on board on arrival, however, after a few days an agent's clerk comes on board and takes all port forms and documents ashore. No store rooms are sealed but stores list is to be filled in properly.

Documents: Two copies of each of the following are required:

(a) Crew List.
(b) Health Declaration.
(c) Vaccination List.
(d) List of Ports of Call.
(e) List of Arms and Ammunition.
(f) Ship's Register and Tonnage Certificate.
(g) Ship's Stores List.
(h) Crew's Personal Effects Declaration.
(i) Notice of Readiness/Manifest & Stowage Plans.

With regard to Notice of Readiness it is advisable to send cable via Dakar Radio. It is also advisable to ask the clerk for his identification card and ask him to sign a receipt for the above.

Shore Leave: Passports are needed for going ashore, only method of going ashore is by ship's own lifeboat or during working hours by the motor launches used for transporting barges.

Consuls: Germany, China and U.K.

Medical: All services can be arranged by Agent.

Stores: Limited amounts of vegetables, cereals, coffee (instant) and milk (condensed) can be arranged by agent (all items are imported). There is no ship chandler.

Repairs: No facilities.

Fresh Water: There is no possibility of supplying fresh water to vessels, therefore rationing of water is recommended on arrival due to the fact that turn of 30 – 40 days is normal for general cargo, bulk cargoes and bagged cargoes. Priority being given to vessels with cement cargo as construction of a new port is taking place 1.5 miles to the South. At most times there are 15 – 20 vessels at the anchorage.

Repatriation: Can be arranged by Agent via Dakar.

Weather: See "African Pilot", Volume 1 and supplements. During the time the vessel was at the port (mid-September to mid-October) there was hardly any rain. Temperatures ranged from 20°C to 42°C depending on the direction of the wind. The barometric pressure was 1008 mb. (min.) to 1012 mb. (max.). Winds normally from the North to N.W., being influenced by anticyclones in the Dakar and Casablanca areas. Occasionally winds were from the West, S.W., South, S.E. and East. The wind was from Force 3-5/6 for short periods which quickly caused deep swell and surf.

Easterly winds caused sand storms and visibility becomes poor.

The swell is reported to reach high levels in the first and last quarter of the year and vessels are advised to leave the anchorage when the rapid increase in wind appears. These winds come from two directions, namely, Northerly and Northwesterly.

Approaching/Pilotage: No Pilot available. Charts B.A. 3247 and B.A. 2078 Plan (1976/correction 1978). Vessels should approach the coast heading 090° from the 20 fathom line 9 miles to the West of the charted lighthouse (Chart B.A. 3247). The jetty is a good radar target at 37 – 40 miles and the radio beacon at Nouakchott "KC" on 297 kHz in position Lat. 18° 04.3' N., Long. 15° 58' W., is an excellent aid. The depths on this track are between 20 fathoms and a minimum of 30 ft., close to the shore line (0.25 miles offshore). There are no dangers or difficulties encountered approaching.

Navigational Aids: B.A. Chart 2078 Plan (1976/correction 1978) most charted buoys are not in correct position. The unlit wreck buoy in position Lat. 18° 01' 32.2" N., Long. 16° 02' 48.8" W., marks a wreck to the S.E., the wreck is not visible and the position is doubtful. For further information see the plan of the port made by the ship's officers.

Anchoring/Berthing: Anchorage is recommended in the area to the North of the green wreck buoy and between 0.25 and 0.5 nautical miles from the shore. A close anchorage is required during discharge to avoid long distances for the lighters and tugs. The jetty berth (N.W. end) could be used by vessels during calm weather and low swell. The berth is 52 m. in length and the jetty which runs in a N.W./S.E. direction is 86 m. long with a width of 21.17 m. If berthed alongside, good fenders must be available at all times and crew must stand by the mooring ropes.

Remarks: Receivers sometimes require a vessel to berth at the jetty but care should be taken, as if vessel causes any damage during the difficult approach or by swell, the authorities may sue the Master/Owners with high penalties and detain the vessel until payment is made. There has been an instance where a Master has been placed under "hotel arrest" and all papers and documents for the vessel kept ashore, resulting in a delay to the vessel of 40 days.

Stevedoring/Port Equipment: The stevedore company is So Ge Co Nouakchott, Societe Generale de Consignation.

The jetty wharf is connected to the shore by a 246.5 m. long bridge with two lanes each of 7 m. width. There is an old pipeline in the centre of the bridge between the two lanes. The bridge runs in a 104° direction to the shore. At the Southern side of the jetty-platform there are 7 cranes (one damaged) with lifting capacities of 12.5 to 25 tonnes.

There are 5 motor launches (50 – 100 h.p.) for towing lighters to and from the vessels. There are also 10 steel barges (lighters) with a capacity from 20 – 70 tonnes. At night the launches are lifted onto the jetty and the lighters are either moored alongside the jetty or at buoys.

In addition to the 7 cranes there are available on the jetty and wharf area 10 mobile cranes and 5 forklift trucks (3.5 tonnes) and 2 tractors for transporting goods on trailers (total 18), capacity of the trailers being from 8 – 20 tonnes.

Cargo is discharged into the barges and transported to the shore. Net slings mostly being used for bagged cargo and general cargo. There are stacking areas of 70,000 sq.m. and 45,000 sq.m. near the wharf. So Ge Co have 2 cold rooms (6 m. × 3 m.). There are 4 sheds, storage area 2,000 – 4,000 sq.m. capacity.

Signals: When loaded barges alongside the vessel are to be collected by the launches, vessel is to sound 2 long blasts on the ship's whistle.

Average discharge rate: Bulk cargo 7.5 tonnes per gang hour and bagged cargoes 15 tonnes per gang hour, however, this is dependent upon barges and launches. The average tonnage discharged per day/gang is for general cargo 15 – 35 tonnes and bagged cargoes 35 – 86 tonnes.

Working hours: Monday to Friday 0800 – 1600 hrs. Saturday 0800 – 1200 hrs. Sundays and local holidays are on overtime.

Note: It is compulsory that 1 hour prior to and 1 hour after working hours is counted as overtime for shore gear preparation.

Agency: Care should be taken when appointing Agents as agency fees, handling fees and port expenses can vary enormously.

SHIPMASTER'S REPORT: October 1987 (New Port).

Port: Port de L'Amitie.

Location: 3 miles South of Nouakchott Wharf.

Pilotage: Pilot (Chinese) boards between the first buoy and the wharf.

Anchorage: Vessel anchored 1.5 miles West of berth in a depth of 12.5 m.

Restrictions: No berthing on Friday.

Max. Size: Depth alongside 10.0 m. Vessel entered and sailed with a draft of 8.6 m. To the West of the port entrance there is a depth of 11.0 m.

Radio: ETA messages sent via St. Lys. It is not possible to telephone Nouakchott direct or through Nouadhibou Radio.

VHF: The Port Captain (Chinese) located at Nouakchott Wharf, 3 miles to the North, is on Channel 16 from 0800 hrs. – 1400 hrs. (except Friday). They will advise pilot and tugs of vessel's ETA.

The Agent (Compagnie Mauritanienne de Navigation) is on Channel 16 from 0730 hrs. – 1530 hrs. (except Friday).

Pilot and tugs on VHF when working.

Tugs: 2 tugs available.

Berthing: The approach jetty runs East–West and is 700 m. in length. The wharf at the western end is 585 m. long and 100 m. wide and lies in a NE'ly–SW'ly direction (060° – 240° T). The depth alongside is 10.0 m. The jetty head (length 100 m.) is protected from swell from the West.

Two buoys mark the land-side of the port limits. The wharf has an open storage shed of 50 m. length.

Stevedores: Fairly good at handling containers.

As there is a heavy swell it is preferable to use steel wire slings. Ship's derricks used as no shore facilities. Containers loaded direct on to lorries at Nouakchott Wharf (6 km.), by forklift trucks and transported to the berth.

Stevedores work from 0800 hrs. to 1700 hrs. with the possibility of overtime. No work on Friday.

Documents: Usual Declarations required plus a Foreign Currency Declaration. The Agent takes all documents ashore.

Customs: Customs make an inspection but do not seal any of the stores.

Port Captain: The Chinese Port Captain checks all Safety Certificates.

General: The port presents difficulties when there are strong trade winds as the vessel is poorly protected.

Because of the swell, the sea can come over the open storage area. Mooring should be frequently checked.

SHIPMASTER'S REPORT: March 1988 (New Port).

Please Note: The following Report translated from French.

Approaches: Coming from the North, landfall at 18° 02.5' N., 16° 28' W., then steer 100° to come to the South of the new port.

At 20 miles from the coast weak echoes from the town and a few buildings close to the pylon in position 18° 08.5' N., 16° 00.5' W. observed on the radar.

At 15 miles echoes from the new port and the old wharf appear. The coast only appears at 9 miles on the radar as the coast is dunes and swamps.

In the event of electricity power failure in the town, only the light at the end of the new port operates. This light was observed at 5 miles. This small lighthouse is a white pylon of concrete, about 10 m. high, and with a white light on top (2 secs. on, 3 secs. off).

The new port is 2.6 miles to the South of the old wharf (See "Plan" – "radar picture at 6 miles"). On land to the N.E. of the access to the port is a modern lighthouse with white and black stripes (See "Plan"). The light is Iso. white (5 secs. on, 5 secs. off). Height 37.1 m., range 16 miles (information obtained from authorities).

It is possible to distinguish an approach alignment (085°) formed by two iron pylons on top of which is a white and red diamond formation, and carrying lights (See "Plan" — "radar picture at 1.5 miles"). On this alignment and at 1.8 miles from the jetty, was a landing buoy (disappeared). The alignment brings the vessel close to the jetty.

Pilotage/Tugs: Pilot and Port Captaincy contacted on Channel 16. If entering, the Pilot requests vessels to anchor between 0.5 – 1 miles from the jetty(s). It is preferable to remain to the S.W. of the jetty at 0.8 miles. Depth of water from 9.0 m. – 10.0 m., and this for short duration of anchoring. The Pilot comes onboard when anchoring, and comes with a tug. The tug ties up near to the pilot ladder.

Do not lower the anchor until the pilot is on board (fairly long operation).

The port has 2 tugs of 980 h.p. (theoretical power), but they barely make 500 h.p. A single tug operates, and has a mixed Chinese-Mauritanian crew. There is one Chinese pilot and 2 Mauritanian trainee pilots.

NOTE: In the event of anchoring for a long time, remain in depths of 12 m. – 15 m., towards the old landfall buoy, at the North axis of the channel. No entry or sailing at night.

Port: A long arm of 750 m. is aligned East-West, followed by a 580 m. mole with 3 berths. This mole is equipped with red coloured cranes, of 10 tons lifting power. The mole runs at 240°. An 80 m. long breakwater orientated at 190° and formed by concrete blocks extends from this mole. Near to the end of this breakwater is the little white lighthouse (2 secs., 3 secs).

On land near to the access to the arm are 4 large light green sheds and a container park.

Two yellow-black and yellow-black-yellow buoys indicate the sand bank in the port. The marks are respectively N. and W. The indicator of the North buoy is partly broken away. Buoys are not lit.

Fairly strong undertow is experienced in the port, and vessel rolls almost continuously whilst at the quay. There are good fenders along the quay.

SHIPMASTER'S REPORT: August 1989 (New Port).

The new port, named "Port of Friendship", has been in operation since November 1987. The centre of the jetty is located in position Lat. 17° 59.35' N., Long. 16° 02.1' W., 15 km. S.S.W. from the capital city Nouakchott. The jetty is 585 m. in length and is 45 m. wide and lies in a 240°/060° direction and is connected to the shore by a 750 m. × 13 m. long bridge which lies in a 270°/090° direction.

There are 3 berths on the jetty:
No. 1: 149 m. Min. depth 9.8 m.
No. 2: 168 m. Min. depth 10.0 m.
No. 3: 190 m. Min. depth 10.3 m.

The port is designed to import and export 500,000 tons per year.

The jetty is equipped with 2 gantry cranes of 10 tons' capacity each, but handling of cargo is normally by ship's gear.

There is a breakwater from the N.W. corner of the jetty, extending about 200 m. in direction 200° (See "Plan"). A light beacon has been established at its S.W. extremity.

Two yellow buoys mark the East and South extremity.

One mooring buoy lies between the Naval Berth and extreme East buoy.

There is a pair of leading lights with diamond top marks in line 080°.

Several buildings, warehouses and 42,682 sq.m. of open storage area are located about 1 km. East of the jetty wharf.

The Port Office lies close South of the port gate.

The Pilot Station is on the N.E. corner of the jetty, near Berth No. 1. Two tugboats of 900 b.h.p. each berth alongside Berth No. 1.

A naval berth is under construction on the South side of the middle of the jetty bridge.

The main lighthouse, a white round tower with black bands, about 35 m. high, lies 200 m. N.N.E. of the extreme East of the bridge (approximate position Lat. 17° 59.5' N., Long. 16° 01.5' W.).

Anchoring is recommended in the area 1 mile West of the breakwater in approximate position Lat. 17° 59.3' N., Long. 16° 03.2' W. with depth 12 m., a sandy bottom and good holding ground. The current runs at less than 0.5 knots, ship's heading is nearly always against the wind. There are no dangers or difficulties encountered when approaching the anchorage. Occasionally, there are one or two vessels waiting to berth.

Normally, one tug assists vessel to berth or unberth, but in daytime only and in good weather. During bad weather with wind from S.E. – S.W. at Force 6 or more, the vessel may have to stay on the berth, even if cargo work has been completed.

The predominant swell is Northwesterly. It always affects the berths and causes vessels to range continuously. It is therefore important that double springs are used fore and aft and that spare lines are ready when bad weather is forecast. The records show that in the Winter of 1987, a vessel broke 21 ropes during strong Northwesterly winds, after which she left the berth to anchorage for safety.

Easterly winds cause sand storms and visibility becomes poor, sometimes as low as 20 m.

Handling rate: Average discharge rate for bagged sugar, wheat or cement is 20 – 25 tons per gang/hour, tea in cases 10 – 15 tons per gang hour and other general cargo averages 10 – 20 tons per gang/hour, however this is dependent upon the trucks and gangs.

Cargo is discharged from the ship and reloaded into the trucks at the same time, thence directly to the city. These trucks have a capacity of between 10 tons – 30 tons.

Net slings are mainly used for bagged cargo and general cargo.

Work is in 2 shifts per day: Day shift from 0800 hrs. – 1800 hrs., with 1500 hrs. – 1800 hrs. on overtime. Night shifting is 1800 hrs – 0530 hrs., all on overtime which is arranged and approved by the ship.

Friday is a holiday, but work is possible at overtime rates if vessel gives approval. Saturday and Sunday are normal working days.

Documents: See "Nouadhibou".

Customs control: For Chinese vessels the Port Officers do not board on arrival. They may board later to see the vessel but do not seal the bond. The Agent boards the ship to bring back the necessary documents after berthing. For other foreign vessels they will board ship after berthing and seal the bonded store as usual. They may take away some ship's certificates for checking and return them to the ship before sailing.

There is no stealing among the stevedores, even when discharging general cargo and there are no shore watchman here.

VHF: Port Control on Channel 16, working 24 hours a day. Pilot Station on Channel 6, working when berthing and unberthing only.

Berthing sometimes delayed when not ready in time.

There are 2 Chinese Pilots and 3 local apprentices.

Supplies: No ship chandler available. Limited provisions can be supplied through Agent. Fresh water can be supplied by water tank through Agent. Each tank has 13 tons capacity, average rate 10 t.p.h. (daytime only). Good quality but expensive, U.S.$12.00 per ton.

Repatriation: Can be arranged by Agent. Regular airlines to Dakar and Casablanca.

Medical: Can be arranged by Agent.

Shore Leave: Permitted. Passport or Seaman's Book required.

Fishing: Plentiful fish in the port and anchorage. Fishing is allowed on board only.

AUTHORITY: Monsieur le Directeur du Port de Nouakchott, Ministere de l'Equipement, Nouakchott, Mauritania.

Societe Nationale Industrielle et Miniere, P.O.Box 1260, Nouakchott. *Tel:* 522-74, 523-29. *Telex:* 551 Snim Nkc.

AGENT: Societe Mauritanienne de Peche et de Navigation (S.M.P.N.), Route de l'Aeroport, B.P. 40254, Nouakchott, Mauritania. Tel: 253638, 253709. Telex: 5847 MTN SMPN. Fax: 253787.

Mauritius

PORT LOUIS: 20.09 S. 57.30 E. (See Plan)

PORT LIMITS: The commercial area of the port is the area inside the port bounded by the Entrance Buoys and the shore line of the Inner Harbour. Vessels at the Outside Anchorage lie within the limits of the port defined by an imaginary line joining Pointe Aux Sables and Pointe Aux Piments. In this area commercial activities are restricted to bunkering, ship repair and the landing of passengers or personnel.

PILOTAGE: Compulsory for vessels over 100 n.r.t. Vessels are piloted inwards and outwards at any time of the day or night if circumstances permit. Inward bound vessels are met about 1 mile (1.6 km.) seaward of the Entrance Buoys though they may, in some circumstances have to be boarded at a greater distance offshore.

Both anchors should be ready for use and ships' lines prepared.

Anchors are often used to assist in turning vessels.

ANCHORAGES: Open roadstead with anchorages for vessels of any draft. Admiralty Chart No. 713 refers.

RESTRICTIONS: Vessels carrying highly inflammable products are only berthed during daylight hours.

MAX. SIZE: Harbour Entrance depths from 12.8 m. to 36.3 m. Channel dredged to 12.1 m. Also see "Berthing".

HEALTH:

1. Free Pratique by Radio.
2. Applications should be submitted to Port Health Inspector 48 hours prior to arrival of vessel by Agent.

Following Information Required:

I Name of ship.

II Expected time and date of arrival.

III First port of loading, i.e. port of departure.

IV Last port of call.

V Has any case of contagious disease, or of sickness suspected to be of a contagious nature, occurred on board during the last 15 days?
Indicate the number of cases of contagious disease(s) occurring.

VI Has any case of death from sickness due to contagious disease(s) or otherwise occurred on board during the voyage?
Indicate the number of deaths from sickness due to contagious disease(s) or otherwise occurring on board during the voyage.

VII Does the ship have a ship's surgeon on board?

VIII Number of crew (including Master) and number of passengers.

IX Indicate the number of crew members or passengers disembarking.

X Does the ship have in its possession a Derat Certificate or a Derat Exemption Certificate, also mention the date of expiry.

RADIO: The Port Master requires to be notified of the date of the vessel's arrival, the length and draft and purpose of call, by radio as soon as it is possible for Master to communicate with Harbour either:

1. By CW transmission through the Government Radio Station (3 BA) at Vacoas on 500 kHz.
2. By R/T transmission through Port Louis Harbour Radio Station (3 BB 3) on 2182 kHz.

VHF: Port Louis Harbour Radio Station is equipped with VHF and maintains 24 hour watch on Channel 12.

TUGS:

(i) 2,670 h.p. for deep sea towage and salvage. Fitted with fire fighting equipment, SSB and VHF.

(ii) 2,620 h.p. for deep sea towage and salvage. Fitted with fire fighting equipment, SSB and VHF.

(iii) 3 smaller tugs of 320 h.p. available for harbour work and fitted with VHF.

(iv) 2 tugs of 850 h.p.

BERTHING:

Quay No.1: Length 123 m., maximum draft 11 m. at any state of tide, vessels up to 183 m. overall length can be accommodated. This berth is designed mainly for discharging petroleum products, ammonia, bulk fertiliser and coal. General cargo vessels and passenger ships are occasionally berthed at the Quay. Maximum water displacement limited to 33,000 tons.

Ships approaching the berth from seaward in daytime are swung to port with the aid of tugs and berth starboard side to the quay. At night the berthing is always port side-to. The ship will be turned in daytime when leaving the port.

As winds are often fresh, and passing traffic can cause surging. Moorings should be carefully tended.

There is little or no resilience in the fendering rubber rollers so heavy landing must be avoided.

Quays No. 2-3: Aligned quays having a total length of 366 m.; maximum draft 11.0 m.; vessels up to 195 m. overall length can be accommodated. Berth No. 2 is used for general cargo operations whereas Berth No. 3 will be restricted as far as possible to container operations.

Quay No. 4: (Container Terminal): Length 183 m., can accommodate vessels up to 220 m. LOA, maximum draft 11.0 m. This berth is used exclusively for container operations. A Park of 6.6 hectares is available for stacking of containers.

Equipment:

3 × 35 tons Hyster (4 high).
3 × 35 tons Lancer Boss (4 high).
3 × 35 tons Lancer Boss (3 high).
3 × 32 tons Hyster (3 high).
2 × 26 tons Hyster (2 high).
1 × 18 tons Hyster.
2 × 10 tons Hyster. } Empty
2 × 7 tons Hyster. } Containers.
1 Ferranti 2K90 – 40 Tons.

Vertical operations carried out by ship's gear. Horizontal transfer carried out by tractor/trailer system.

Quay A and D: Quays A and D have recently been realigned as a multi-purpose berth, giving a total length of 380 m. Maximum draft 11.0 m. This is a multi-purpose berth for handling of edible oil, wheat, rice, molasses and fuel oil. The berth can also be used for containers, general cargo and passenger vessels.

Quay E: Length 135 m. Maximum draft 8.0 m. Vessels of up to 110 m. can be accommodated. This berth is used mainly for inter-island trade, passenger vessels, discharge of cattle, and also by fishing vessels.

Moorings: Wire moorings will be accepted, but for the ease of handling, fibre/synthetic tails are preferred.

Cautionary Advice:

(a) The quay is of concrete construction protected with modern rubber fendering. The fendering is not resilient and heavy landings must be avoided.

(b) The berth is little affected by passing traffic but fresh offshore winds may be experienced, especially during the afternoon.

Quay C: Decommissioned.

Sugar Terminal: Vessels up to 198 m. overall length can be accommodated at the terminal. Maximum draft for vessels loading sugar is 11 m. Two sheds capable of storing 175,000 tons of sugar each have been constructed. The Bulk Sugar Terminal is operated by the Mauritius Sugar Corporation. Maximum loading rate 1,400 t.p.h.

Facilities are also available on this quay for fuel oil discharge, which is connected by pipeline to storage tanks for the power station.

Ships approaching the berth from seaward are swung to starboard with the aid of tugs and berth head out.

Winds are often fresh and passing traffic can cause surging so moorings and anchors, if used, should be carefully tended.

Cement Dolphin: A bulk cement discharge point lies between Quay Nos. 1 and 2. Cement vessels up to 135 m. are regularly accommodated at this berth. Vessels up to 183 m. are accommodated at Quay E.

Buoy Berths: 1 berth – LOA 195 m., draft 11.0 m.
1 berth – LOA 150 m., draft 11.0 m.

Vessels are berthed/unberthed at any state of tide. Tidal range is about 0.8 m. maximum.

Fishing Quay: Length 162 m., maximum draft 5.0 m. Berth can take vessels of up to 70 m. length. New Fish Quay – Length 165 m., draft 5.5 m. Vessels of up to 102 m. length can be accommodated.

SPECIALISED CARGO HANDLING FACILITIES: The following types of bulk cargo are provided with specialised handling facilities:

(i) Petroleum Products.
(ii) Fertiliser.
(iii) Sugar.
(iv) Bitumen.
(v) Tallow/Caustic Soda.
(vi) Maize.
(vii) Cement.
(viii) LPG.
(ix) Liquid Ammonia/Tallow/Caustic Soda.
(x) Soya Bean.
(xi) Coal.
(xii) Molasses.

The Container Terminal provides for a fully fledged container service with the exception of quay cranes. However, private shipping companies are allowed to use quay cranes if available.

STEVEDORES: Undertaken by the Cargo Handling Corporation Ltd. (CHC Ltd.).

Working hours: Monday to Fridays from 0700 to 1500 hrs., Saturdays from 0700 to 1300 hrs. Sundays and public holidays from 0700 – 1100 hrs. Overtime work is carried out during weekdays as well as on Sundays and Public Holidays if necessary. However, a double-shift system has been introduced at Berth No. 4 with the following working hours:

Mondays to	1st shift – 0700 hrs. to 1500 hrs.
Fridays:	2nd shift – 1500 hrs. to 2300 hrs.
Saturdays:	No shift – 0700 hrs. to 1800 hrs.
Sundays:	No shift – 0700 hrs. to 1100 hrs.

Operates extended hours if and when required up to 2200 hrs.

TANKERS: There are no deballasting or slop facilities.

Bulk Sugar Terminal: Fuel oil is discharged through a single 8 in. hose with ASA bolted flange which forms the link between ship's manifold and the jetty. Ships' derrick should be plumbed mid-manifold for lifting the hose. Weight approximately 2 tons. Bunkers are supplied through the same line.

Quay A and D: 1×150 mm. gas oil and 1×250 mm. fuel oil pipe run under the quay and are connected to the oil depot. These are used for bunkering and unloading of fuel oil from vessels. In total there are 5 outlets for bunkering/reception of fuel oil/gas oil.

There are 2×350 mm. molasses pipes on these quays with a total of 4 loading points. There are also 2×150 mm. edible oil pipelines with 4 onloading points.

There is also an LPG line to Quay No. 4, the Shell Depot, Elf Antagaz and Esso from near the end of the quay, but this is only used for very small ships.

Quay No. 1: Cargo transfer facilities are not permanently installed on the jetty. 8 in. hoses are carried to the quay when required and connected to the single pipeline which is buried in the quay. No water flush of the line is required between the products. Max. rate for gas oil is 700 t.p.h. Max. rail pressure 100 p.s.i. Max. rate for Mogas 600 t.p.h. at the same pressure as gasoil.

Also see "Berthing".

MEDICAL: Arrangements for medical attendance should be made through ship's Agent. Private clinics available.

FRESH WATER: Fresh water supplied by barge at any berth between 0700 hrs. and 1600 hrs. Arrangements can be made for supply before 0700 hrs. and after 1600 hrs. on payment of overtime. The loading rate is about 25 – 30 t.p.h. One barge of 260 tons capacity available.

CONSULS: *Consulates:* Australian, Austrian, Belgian, Canadian, Danish, Dutch, Finnish, German, Norwegian, Portuguese, Spanish and Swedish.

Embassies: Egyptian, French, Malagasy, Pakistan, Peoples' Republic of China, Russia and U.S.A.

High Commissions: British and Indian.

FUEL: Gas oil, marine diesel and furnace oil obtainable (Arrangements must be made in advance between Owners and oil companies). The pumping capacity of the installations at Port Louis for furnace oil is between 150 t.p.h. and 200 t.p.h., and for marine diesel oil and gas oil 50 t.p.h. Marine diesel oil and furnace oil is supplied at Quays A and D. Gasoil – Quays A, B, D, 2, 3, 4 and Trou Fanfaron Fishing Port. Marine diesel – Quays A, D and E. Furnace oil – Quays A, D and E.

A 400 ton bunkering barge is available to supply vessels in harbour and outside anchorage.

REPAIRS: Almost any type of repair can be undertaken in Port Louis.

DRY DOCK: Stevenson Dry Dock. Largest vessel that can be docked: 100 m. × 15 m., with a max. draft of 5.0 m.; vessels of up to 109 m. × 15.3 m. can also be docked, but at least 15 days' notice should be given.

TIME: Local time GMT plus 4 hours.

HOLIDAYS:

New Year	1st January
New Year	2nd January
National Day	12th March
Labour Day	1st May
All Saints Day	1st November
Christmas	25th December

List of other public holidays is official only around the month of October every year, and in 1994, the dates were as follows (for guidance only):

Thaipoosam Cavadee	Thursday	27th January
Chinese Spring Festival	Thursday	10th February
Maha Shivaratree	Thursday	10th March
Id-El-Fitr	Monday	14th March
Ougadi	Monday	11th April
Ganesh Chaturthi	Saturday	10th September
Divali	Thursday	3rd November

POLICE/FIRE: Police Tel: 999. Fire Tel: 240-3741.

GARBAGE DISPOSAL: Collection service is available. Drums or skips are not provided on board or alongside. Tel: Port Louis Harbour Sanitary Services 2126710.

Charges: Garbage up to 6 cu.m. on normal days: Rs2,000, on Sundays: Rs4,000.

Collection time: Normally between 0700 hrs. and 1100 hrs.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: Merchant Navy Mariners Club, Joseph Riviere Street, Port Louis. Tel: 2422617. Facilities available: Postage facilities, all currencies exchanged, football matches arranged, paperback books exchanged, Honorary Chaplain appointed by Flying Angels Mission to Seamen available at the Club, a fully stocked bar with bar snacks available from 0900 hrs. to 2300 hrs. everyday. Attractive outdoor lounges with badminton, table tennis, darts and usual club games available.

CURRENCY: Mauritian Rupee (M.Rs.).

DEVELOPMENTS:

(1) Construction of a new Container Terminal at Mer Rouge.
(2) Construction of new Passenger Terminal facilities at Quay E.

SHIPMASTER'S REPORT: June 1982. (Updated 1990).

Off Limits Call for Stores, Mail and Crew Changes:

Documents: (All local forms – IMO standard documents in use(FAL conv. 1965)).

1 Parcels List, 1 Shipmaster's Report Inwards, 1 Ship's Record, 1 P.F. 102 – Certificate Finder Act No. 20 of 1973 for Immigration, 1 Maritime Declaration of Health, 1 Crew Declaration, 4 Crew Lists.

Anchorage: Possible but not necessary for the 2 hour stop.

Max. Size: No limit.

Health: Vessel is boarded by 2 Quarantine Officials who grant Free Pratique.

Radio: An amended ETA had not been received 6.5 hours after transmission.

VHF: Port Louis Harbour Radio very helpful and will pass messages. We were not able to contact them until about 30 miles to the West.

General: Vessel is also boarded by, 1 Customs Official, 1 Immigration Official and the Agent. After entry formalities are completed the ship-chandler boards together with any new crew. Despite cabled request our stores were not pre-slung and had to use ship's net slings. Require derrick amidships for stores and good lee, usually port side. Stores' boat is separate from Officials' boat.

SHIPMASTER'S REPORT: July 1982 (Updated 1996).

Port Limits: The commercial area of the port is the area inside the port bounded by the Entrance Buoys and the shore line of the Inner Harbour. Vessels at the outside anchorage also lie within the limits of the port defined by a line joining Pte. Aux Sables and Pte. Aux Piments. In this area commercial activities are restricted to bunkering, ship repair and the landing of passengers and personnel.

Documents: Immigration: 2 Crew Lists, 2 Passenger Lists, 1 Certificate under Act No. 20 of 1973 (Form PF102).

Health: 1 Declaration of Health, 1 Vaccination List.

Customs: 1 Customs Form (Form F24), 1 Parcel List (Form F17), 1 Ship's Report – Inward, 1 Narcotics List, 1 Arms and Ammunition List.

Agent: 2 Crew Lists, 2 Passenger Lists, 1 Ship's Record – Port of Port Louis.

Note: Declare ship's cameras, VHF's, TV's, etc. in bonded section of F17. If space allocated on F17 for crew "other items" is insufficient, use of a supplementary list is acceptable.

Clearance: Health, Customs and Immigration board on entrance. Clearance may be obtained at the Outer Anchorage but is subject to availability of personnel and may be limited to the purposes of anchoring listed in "Port Limits" above.

Approaches: Approach directions are well covered in the Sailing Directions and B.A. Chart No. 713. A white triangular concrete mark on Monneron Hill is easily recognised from considerable distance during the day. Closer in, the middle and lower ranges are visible, but the separation is not sufficient for good accuracy. The lower range is an orange daymark, located on Quay A. The Northern red buoy is large and makes a good radar target. The Southern green buoy is easy to pick up visually or with radar. There is a tidal current that sets across the channel and at right angles to it.

Pilotage: Compulsory for vessels over 100 g.r.t. Vessels are piloted inwards and outwards at any time of day or night if circumstances permit. Inward bound vessels are met about 1 mile seaward of the Entrance Buoys. The pilot boat is a white launch with a deck height of approximately 4 ft. There are 6 Pilots.

Anchorage: Open roadstead with anchorages for vessels of any draft. Consult B.A. Chart No. 713.

Radio: Government Radio Station 3BA at Vacoas is on 500 kHz. and also has high frequency Channels. Port Louis Harbour Radio Station has 2182 kHz. and VHF Channel 16. They do not have regular traffic lists but are easily reached, particularly around weather reporting times.

The Port Master requires to be notified of the date of vessel's arrival, length, draft and purpose of call, by radio, as soon as practical with the above stations.

Tugs: 2 tugs of 830 h.p. and 3 smaller units of 320 h.p. for inner harbour work, and two new multi-purpose high powered tugs of 2,670 h.p.

Berthing: There are numerous speciality docks and berths for smaller vessels. The main deep-draft berth has 2 sheds for unitised and general cargo with one open container section. This new dock has excellent fenders but the older docks have virtually nothing. Bagged goods are generally worked into lighters at mooring buoys.

When berthing to buoys, the vessel is berthed head-out on 2 anchors with additional headlines to a buoy. The stern is secured to the buoy by 4 ship's lines and a heavy shore wire. A messenger is necessary for taking the wire, and lashing straps to tie the eyes to the mooring rings must be supplied by the ship. The wire is taken through the centre stern chock, and one set of bitts must be kept free for it. Chafing gear on stern lines is advisable. Vessels berthed at the container berth may be required to send 4 lines to a buoy about 100 ft. off the corner of the dock. Vessels berthed at Quay No. 1, head lines to a mooring buoy 30 m. from end of quay.

Medical: Medical and dental facilities are available with arrangements to be made through the Agent. Repatriation can be arranged. Radio Pratique is not available. Cholera and yellow fever vaccinations are required for arrivals from infected areas.

Consuls: The U.S. Embassy is located about 200 yards outside the main harbour gates and is easily recognised. The office is on the 4th floor of Rogers House. Working hours are 0900 – 1200, Monday – Friday.

Watchmen: 3 shifts: 0700 – 1500 hrs., 1500 – 2000 hrs. and 2000 – 0700 hrs. Number is at discretion of ship, but heavy pressure is applied to the Chief Officer to employ extra, claiming these are "normal" or "routine". If cargo is *free out,* watchmen are hired and paid by receivers, with vessel only providing meals. Quality is poor to fair. If vessel is at Outer Anchorage, no watchmen are available. There have been frequent incidents of thefts by bum-boats, so an adequate crew watch is recommended.

Customs Allowance: On arrival, officers and crew may have in their possession, an 8 day allowance of tobacco products and 4 day allowance of spirits per daily schedule of: Master: 1 oz. tobacco, 0.25 pint of spirits, 1 quart of wine, 1 quart of beer: Other Officers: 0.75 oz. tobacco, spirits same; Crew: 0.5 oz. tobacco, spirits same. (200 cigarettes for the 8 days is accepted as within amounts listed). 2 Customs Officers will be assigned to vessel, usually just during working hours, with vessel expected to provide a suitable room and meals.

Supplies: General supplies are available through Agents and private ship chandlers, though prices can be expected to be high for consumable stores and equipment. Repairs can be performed, but the shipyard dry dock is too small for larger vessels. Foodstuffs are not recommended. Fresh water is about $2/ton via barge. Fuel is expensive, about $45/bbl. for Bunker C. Numerous ship chandlers will solicit the vessel, many falsely claiming to be sent or approved by the agency.

Time: GMT plus 4 hours.

Holidays: There are 13 official holidays, and numerous others are observed in various degrees due to the mixed Chinese, French and Indian heritages.

SHIPMASTER'S REPORT: October 1983 (Updated 1990).

Off Limits Call for Mail, Stores and Crew changes:

Documents: Documents required may be:

1 Shipmaster's Report Inwards – for Customs.
1 Parcels List Customs F.17.
1 Customs F.16 – Crew Declaration although they *may* accept ship's own form.
2 copies Master's Report for Mercantile Marine Office, also an addendum in duplicate, and these forms are taken ashore by the Agent.
1 P.F. 102 – Certificate Finder Act No. 20 of 1973 for Immigration.
3 Crew Lists on arrival.
2 Crew Lists on departure – to show newly joined personnel.

Immigration require international embarkation and disembarkation cards for all joining and departing personnel.

Port Health require Marine Declaration of Health.

All these papers are required, even though the vessel is only there between 1 and 2 hours.

Ship's Spares: Any package for the vessel arriving from abroad should preferably be at the airport at least 2 days prior to the vessel's arrival as it takes time to clear such packages through Customs.

General: The Mauritius Sailors Home Society will exchange paperbacks – arranged through Agents.

AUTHORITY: Mauritius Marine Authority, P.O.Box 379, Port Administration Building, Mer Rouge, Port Louis, Mauritius. *Tel:* (230) 240-0415. *Telex:* 4238 Mauport IW. *FAX:* (230) 240-0856. *Contact:* Director General.

Mexico

GENERAL:

DOCUMENTS: New Customs House Regulations are in effect, which stipulate that the following cargo and ship's documents must be submitted in a new Mexican format:

1. Crew List. *
2. Passenger List. *
3. Stores List.
4. Crew's Personal Effects Declaration.
5. Cargo Manifest. *

* Must also be visaed by the Mexican Consulate or Embassy.

Failure to comply with this new regulation can result in fines of up to U.S.$ 350.00 per document.

TIME: GMT minus 6 hours all through the year.
HOLIDAYS: The following holidays can only be worked in case of emergency: 1st January; 5th February; 21st March; 1st May; 5th May; 16th September; 12th October; 25th December; and in addition 23rd May, Anniversary of the Stevedores' Union.
POLICE/FIRE/AMBULANCE: Police Tel: 2.00.40; Fire Tel: 2.00.42; Ambulance (Red Cross) Tel: 2.02.41. and/or 2.00.88.
TELEPHONES: Cannot be connected on board the ship but Master may make calls from the quay.
SHORE LEAVE: Allowed. Crew List to be left with gate.
IDENTIFICATION CARDS: Not required.
AUTHORITY: Capitania de Puerto, Costera Miguel Aleman 306, 2 Piso, Edificio S.C.T., C.P. 39300, Acapulco, Mexico. *Tel:* 82-31-75. *FAX:* 82-20-67. *Contact:* Captain Idelfonso Carrillo Mora, Port Captain.

Coordinacion de la Unidad de Puertos y Marina Mercante (Mexican National Port Authority), Municipio Libre 377-12B, C.P. 03310, Col. Sta Cruz Atoyac, 03310 Mexico D.F. *Tel:* (525) 604-4249, 604-3829. *FAX:* (525) 688-9368.

ACAPULCO: 16.50 N. 99.54 W.

DOCUMENTS:
Health Clearance from previous port.
Health Pratique.
4 Stores Lists.
4 Lists of Crew's Personal Effects.
12 Crew Lists.*
2 Passenger Lists.*
12 Manifests of cargo for the port.*
*One copy to be visaed by Mexican Consul.
PILOTAGE: Pilot is ordered by Agent on the basis of Master's ETA, which should be given accurately at least 24 hours before arrival. Pilot boards at the port limits, approx. 1 mile from the entrance. Pilot station on VHF Channel 16 when vessel expected.
ANCHORAGES: Vessels may anchor in the middle of the bay as indicated by the Pilot. Depths up to 150 ft.
RESTRICTIONS: The Bay of Acapulco is a natural harbour surrounded by mountains, approx. 4 miles across at its widest part and 2.5 miles across at its narrowest. There are 2 entrances, 1 called Boca Grande and the other called Boca Chica.

Boca Grande is between Punta Siclata on Isla de la Roqueta and Punta Bruja. The channel is 3,000 m. wide with a depth of 31 fathoms in mid-channel.

Boca Chica Channel, between Isla de la Roqueta and the Peninsula of Las Playas is 300 m. wide with a depth of 14 fathoms in mid-channel.
MAX. SIZE: For berthing alongside max. draft 28 ft. 6 in.
HEALTH: When vessel arrives at the port the following Authorities will board: Port Health Authority, Customs and Immigration, accompanied by the ship's Agent.
RADIO: Coastal station of Acapulco receiving on 8374 kHz in daytime and on 4180 kHz at night. Transmitting on 8514 kHz in daytime and 4250 kHz at night. Radiotelephone receiving and transmitting on 2715 kHz during the day and on 2182 kHz from 2000 – 0600 hrs. local time.
VHF: Service available from 0630 hrs. to 2300 hrs.
TUGS: *Shipmaster's Report:* December 1984.
There are no tugs at Acapulco. Berthing and unberthing are unproblematic because of the use of anchor and aft buoy line and furthermore the help of mostly weak prevailing winds which blow parallel to the pier.
BERTHING:

	Length (m.)	*Depth* (m.)
Fiscal Quay	198	8.0
Coastal Quay	150	4.0
Passenger Quay	206	10.0
Fishing Quay	173	4.0
Yacht Quay	340	3.0

Storage Area: Warehouses 7,725 sq.m. Container Yards 10,414 sq.m. Cars 550.
Equipment: 18 forklifts, 2 cranes × 40,000 lb., 1 crane 25 tons, 1 forklift 70,000 lb. for containers, 3 tractor trucks for containers.
Cargo Rates: General cargo 47 t.p.h., unitised general cargo 100 t.p.h., containers 16 boxes per hour per vessel.
MEDICAL: Agent should be advised by radio in advance if any medical assistance required. Hospital facilities available.
TANKERS: Tanker moorings operated by Petroleos Mexicanos situated on the Eastern side of the bay. It is strictly prohibited to discharge oily residues in the bay or within 40 miles of the port.
FRESH WATER: Can be supplied from the quays using ship's hoses, rate about 15 t.p.h.
FUEL: Available.
CONSULS:

Denmark	Tel: 2.11.11	Norway	Tel: 2.19.56
France	Tel: 2.43.83	United Kingdom	Tel: 2.29.21
Italy	Tel: 2.25.10		

REPAIRS: Minor engine repairs can be effected. No dry docks, only a slipway for vessels up to 100 tons.

Vessels may carry out own repairs only after permission obtained.
OPENING/CLOSING HATCHES: Performed by stevedores.
CUSTOMS ALLOWANCES: Crew members are only allowed to retain cigarettes, tobacco and liquor sufficient for their own consumption while vessel is in port.
REPATRIATION: Can be arranged.
AIRPORT: International Airport situated 22 km. from the port, daily flights to all parts of the world.

CAYO ARCAS: 20.11 N. 91.59 W. (See Plan)

Note: See most recent "Report" first.

SHIPMASTER'S REPORT: January 1982.

DOCUMENTS: *Agents, Customs and Immigration:* The Charterer's Agent dealing with the paperwork when loading at Cayo Arcas are Benjamin Negroe Pawling, Consignatario de Buques, Calle 31 No. 1, Ciudad del Carmen, Campeche, Mexico. They only deal with the entry and clearance of the ship and preparation of the cargo papers. They also prepare and obtain a visaed Crew List irrespective of the fact that one might have been prepared and visaed at the previous discharge port.

The Customs and Immigration come by helicopter to the storage tanker and clear the ship when alongside. However, they will also clear the ship in the anchorage coming out on one of the tugs.
Papers Required: 6 Visaed Crew Lists (or plain Crew Lists with a letter from the Agent at the previous port stating that there was no Consul available).
2 Visaed Manifests for cargo on board.
2 Vaccination Lists.
4 Crew Declarations of Personal Effects.
2 Copies of Stores Lists.

During the 3 loadings at Cayo Arcas and the time spent at anchor off Coatzacoalcos no mention was ever made to the Work Permits which it was understood had to be obtained when working on the Pemex Charter. Perhaps these will be issued when the vessel loads at a port on the coast.
ANCHORAGES: 4 to 8 miles to the East of the flare in 25 fathoms, bottom sand, mud and shell. Good holding ground using 9 shackles of cable.
RESTRICTIONS: See "Loading".
RADIO: Radio communication via XFF2 . . . . Pemex Pajaritos, traffic list even hour GMT plus 30 minutes . . . . sometimes 5 to 10 minutes delay. No charges are made for any cables to Pemex.

Transmits:	Receives:
4346	4191
6442.5	6286.5
8690 (8690.5 Off Tune)	8382
12790 (12790.5 Off Tune)	12573
17075.5	16764

Always on 8 MHz, transmits on 12 MHz, receives 16 MHz.

During the course of the voyage, in addition to the arrival and departure cables, Pemex require the vessel's noon position each day, the ETA at the next port and any requirements such as bunkers and water. No acknowledgement is ever received and very few cables are sent to the ship by Pemex. Telex orders and instructions are routed via the Agent in the discharging port.

On approaching Cayo Arcas and the storage tanker, due to language problems (the Pemex operatives only speaking Spanish) all VHF calls are made through the English speaking officers on the tugs 'Eliska Theriot' and 'Martha Theriot' whose calling and working frequency is Channel 9. One of these English speaking officers also accompanies the Mexican Pilot-Berthing Loading Master and Pemex Representative to act as an interpreter when required and also when communication problems arise during cargo operations.

When at anchor off Cayo Arcas, information is usually obtainable via the 'Theriot' tugs.
BERTHING: Vessel moors port side to, alongside the storage tanker. This requires 8 parts of rope both forward and aft, 6 ship's lines and 2 from the storage tanker. All wires have to be fitted with rope pennants. Great care must be taken when going alongside to ensure that the ship's lines do not foul underneath the Yokohama fenders. Two tugs are in attendance, one forward and one aft using the tugs' lines. These are very heavy and require a messenger to heave them on board.
LOADING: Three lines are connected; these being 16 in. flexible rubber hoses with 12 in. reducers to the ship's manifold. They are connected by Pemex personnel but it is essential to have ship's staff operating the winch and the derrick gear. The API of the Maya Crude Oil is about 22.6 and the average loading temperature about 108°F. The maximum loading rate is 30,000 bbls./hr., however if the ship is receiving direct from the field, the rate drops to 15,000 bbls./hr.

It is advisable to leave the loading plan flexible as Pemex are likely to cease loading without prior warning and sail the vessel with deadfreight. The reasons for this can be due to the onset of bad weather or to ensure the ship leaves the storage tanker in sufficient time to enable the next ship to berth before dark. Unberthing is possible during the hours of darkness but the Pilots do not berth ships alongside the storage tanker between the hours of sunset and sunrise. The terminal requires 2 hours' notice prior to completion of loading and 10 minutes to stop operations. Communications between the ship and storage tanker is by a manifold watchman with a radio. These persons have a casual approach to their responsibilities and must be watched closely to make sure they are at the manifold when required.

Charles Martin (Surveyors) attend the vessel before and after cargo operations and insist on a visual inspection and manual dipping of the tanks. But they do not require water dips of the ship's tanks, a percentage allowance being noted on the Bills of Lading for these impurities.

Hydrogen Sulphide Content of Mexican Crude Oils: The H_2S content of the Maya Crude Oil is extremely high and all necessary safety precautions must be followed and adhered to.

FRESH WATER/FUEL: Fresh water, fuel oil and diesel oil are all available and are delivered to the ship by small coastal tanker or oil-rig supply tenders. They have to be ordered via Pemex preferably on the departure cable after leaving the discharge port. Whilst Pemex prefer to deliver bunkers when the ship is at the loading port, these commodities can be obtained in Curacao where Pemex have rented bunker storage facilities. Ships can avail themselves of this service when bunkers were not delivered in Mexico due to bad weather or some other cause.

DEVELOPMENTS: At the moment the only buoy in operation is No. 1 to which the storage tanker is moored. 'Boya Fija No. 3' and 'Boya No. 2' are in position as is the base for the hotel block 'HB CA1' and the degassing plant 'PBE-CA1'. It is understood the present completion date for these new installations is late March 1982 and production commencing some time after.

SHIPMASTER'S REPORT: May 1982.

DOCUMENTS:

Last Port Clearance.
5 Copies Crew List.
2 Copies Stores List.

PILOTAGE: Compulsory. Pemex Pilot boards 2 miles East of the berth.

ANCHORAGES: Depth 45 m. – 50 m. Bottom is sand.

RESTRICTIONS: Berthing daylight hours only. Unberthing at anytime.

MAX. SIZE: 350,000 d.w.t.

HEALTH: Pratique available day and night.

RADIO: Lantana Radio (WOE).

VHF: Terminal on Channel 11 only.

TUGS: 2 × 8,500 h.p. Both tugs required for docking and undocking.

BERTHING: Vessel berthed at No. 1 berth. Max. size permissible 110,000 d.w.t. Depth of water 42 m. Bottom is sand. Hoses connected on port side. No. 1 berth is alongside the storage tanker. However, after June 1st, 1982 the vessel will berth direct to the SBM.

Loading is through 3×12 in. hoses. Cargo is Maya Crude (API 22) which comes directly from oil production wells, through a gas separator. H_2S content is very high and dangerous.

The storage vessel is equipped with Yokohama fenders and also passes over 3 ropes forward and 1 rope aft.

Berth No. 2 (SBM): Max. size 250,000 d.w.t., hoses connected on port side.

Berth No. 3 (SBM): Max. size 350,000 d.w.t., hoses connected on port side.

No facilities for dirty ballast.

MEDICAL: Services available.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: Not possible.

SHIPMASTER'S REPORT: May 1984.

LOCATION: Lat. 20° 12.5' N., Long. 91° 57.5' W.

The port of Cayo Arcas Terminal is an open sea terminal located in the Campeche Bank, some 85 miles almost West of Campeche and 90 miles North of Puerto del Carmen. The Middle Cay is the biggest with a lighthouse (round concrete tower) elevation 75 ft., Fl. (2) 14 s. 14 M.

The terminal is formed by:

1. One platform gas stabiliser (called "Cabezal de Valvulas" on Chart 28260) located in position 20° 09.6' N., 91° 57.8' W., with a gas burning flare (conspicuous) visible at 30 miles equipped with Racon "C" (– · – ·).
2. One old gas burning structure located 1 mile S.W. of the above platform.
3. SBM No. 1 in position 20° 10.0' N., 91° 59.0' W.
4. SBM No. 2 in position 20° 08.8' N., 91° 59.0' W.
5. One fixed structure in 20° 11.4' N., 91° 59.5' W. to which is permanently moored the storage tanker "Venture Europe", capacity over 2 million barrels.

The platform and both storage tankers are very good radar targets at 24 miles.

DOCUMENTS: 6 Crew Lists visaed by the Mexican Consul of the last foreign port or 6 Crew Lists and a statement from the Agent at the last foreign port that no Consul in the area. 3 Ship's Stores Declarations and 4 Crew Declarations.

CLEARANCE/OUTWARD DOCUMENTS: The Agent will prepare on board after loading, all required documents already signed and stamped by the due Authority. The Agent will also prepare the Bill of Lading and Cargo Manifest with the quantities given by cargo and Pemex Inspectors.

PILOTAGE: Compulsory for berthing/unberthing. Pilot boards 2 miles S.W. of the platform and he remains on board during all operations. Accommodation and meals must be provided.

ANCHORAGES: Outside Prohibited Zone about 8 miles East of the platform or 4.5 miles S.S.E. of the platform in approximately 50 m. of water. Good holding with 9 shackles in winds up to 35 knots.

COMMUNICATIONS: ETA for Cayos Arcas Terminal: Send ETA to Pemex (Petroleos Mexicanos) Pajaritos via Pajaritos Radio Station, XFF2, working frequencies:

Transmits	*Receives*
4346	4191
6442	6286.5
8690	8382
12790	12573
17075	16764

Of the above frequencies only checked on 8 MHz.

Traffic list on even hours plus 30 minutes although some 5 to 10 minutes delay can be expected. Only listening to this station when South of Florida.

ETA to Pemex Pajaritos can also be sent via Lantana Radio Station, WOE when far from Cayo Arcas.

When close to Cayos Arcas communication with Port Control (stationed aboard "Venture Europe") via VHF on Channel 9.

ETA to Agent can first be sent via telex to Tampa Office relay Ciudad del Carmen and then by cable via Veracruz Radio Station, XFU.

BERTHING: When mooring at any of the SBMs have ready the port crane or boom to pick up gear. In the forecastle 1 mooring rope (not wire) with a tail of 3 fathoms length and 2.5 in. circumference to lash the shore rope. One gang of 10 men board the vessel with the Pilot to assist in mooring/unmooring and connection/disconnection of hoses. These 10 men remain on board throughout during vessel's stay and accommodation and meals must be provided.

2 Cargo Inspectors and 1 Pemex Inspector, and sometimes the Agent board the vessel with the Pilot. Accommodation and meals must be provided.

When mooring alongside the storage tankers, only 3 or 4 people remain aboard.

Mooring to Storage Tankers: Both storage tankers have Yokohama fenders on starboard side. Mooring port side alongside using 3 head ropes, 2 breast and 2 spring ropes fore and aft plus 2 breast ropes from the storage tanker forward. 2×12 in. hoses used.

Mooring to SBM Nos. 1 and 2: One tug is used (tug's wire) on starboard bow to assist in the mooring. One shore polypropylene rope 9 in. circumference to which a chain is attached must be heaved on deck. Minimum opening of the bracket or stopper 15 in. × 7 in., otherwise 2 shackles with a thick wire must be attached to the chain and passed around the bitt. 2×16 in. hoses used.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: Not possible.

REPATRIATION: Embarking crew have to get permission from Immigration at Ciudad del Carmen before joining the vessel.

Disembarking crew cannot disembark, even if the Agent makes a request, until Immigration has cleared the vessel.

GENERAL:

Authorities: By helicopter from Ciudad del Carmen to "Venture Europe" and then by tug. Accommodation ladder requested.

Agent: Consignaciones de Buques, Canega Inc., with offices in Tampa, Florida. Telex: 803757 Canega B and Ciudad del Carmen, Campeche. Cable Address: Negroe, Ciudad del Carmen.

Charts: U.S.N.O. 28031, 28260.

SHIPMASTER'S REPORT: March 1987 (Updated Sept. 1987).

VESSEL: 117,000 d.w.t.

DOCUMENTS:

5 Crew Lists.
3 Ship's Stores Lists (including Bond).
3 Personal Manifests.
Last Port Clearance.
Ship's Register.

Personnel: 1 Agent, 1 Immigration Officer, 3 Cargo Surveyors, 1 Loading Master and 10 Mooring/Pipe-line personnel join with Pilot. 1 Pilot, 1 Loading Master, 3 Cargo Surveyors and 1 Agent remain on board and require meals. Accommodation required only if night loading.

Departure Documentation: This takes up to 4 hours but the vessel must be ready to leave the mooring on completion of ullaging and sampling, drifting clear of the area whilst the cargo calculations are completed.

September 1987: Documentation took about 3 hours, but the vessel can start to unberth 2 hours after disconnecting.

PILOTAGE: Pilot boards from a supply boat about 2.5 miles S.W. of the platform.

APPROACHES: Normal direction of approach to berths is from the S.W. When proceeding to an SBM, the supply vessel lands all pipeline equipment on board (port side), approximate weight 500 kg.

Navigational lights marked on chart are extinguished. Flare marked on chart is also extinguished.

Racon on the oil platform S.S.E. of island showed well at 16 miles.

Approaching from the West, there were no problems when keeping well to the South of the 'Area to be avoided'.

September 1987: There is a radar watch on the platform, using a Norcontrol System. All headings and distances to reach the anchorage are given through "Marine Control". Anchorage this time 4 miles to the East of platform. Depth 47 m., mud bottom.

Chart: B.A. 2626.

TUGS: 5 tugs of varying sizes, 2 supply vessels also used as tugs and several work boats. All equipped with VHF.

BERTHS: There are 3 loading berths.

(a) Storage vessel "Texaco Veraguas" moored to SPM – Maya Crude.
(b) SBM No. 1 – Maya Crude.
(c) SBM No. 2 – Maya Crude.

Storage vessel ((a) above) has fenders in place on the starboard side and loading vessels berth port side to, using 1 tug on the starboard bow and 1 tug on the starboard quarter.

Moorings depend on the size of the vessel.

Maximum size vessel: 100,000 d.w.t.
Hoses: 2×12 in.
Loading rate: 5,800 t.p.h.

September 1987: Berth used this time: VLCC "Texaco Veraguas", port side to, 4 floating fenders and 1 bow/quarter fender. Connections 2×12 in., only used VLCC's boom.

Loading vessels berth bow on to SBM ((b) and (c) above) using 1 tug on the starboard bow. Vessel picks up 1×80 mm. diameter messenger which is attached to a mooring chain for use with a Smit Bracket/AKD stopper.

Maximum size vessel: 216,000 d.w.t.
Hoses: 2×16 in. on port side.
Loading rate: 3,300 t.p.h. direct from the oil well.
Loading temperature: Up to 45°C.

Berthing is done in daylight hours only, unberthing day or night.

Tugs/supply vessels use their own lines when making fast for mooring.

In calm weather 1 tug makes fast aft to hold vessel off the SBM.

The 10 man mooring/pipeline squad stand-by forward and by the manifold whilst the vessel is at the SBM.

Ship's personnel are required only to work the winches when mooring/unmooring, connecting and disconnecting the hoses.

RADIO: All ETA messages sent to ship's Agents.

Prior to arrival call 'Marine Control' on VHF Channel 16. Working Channels are 9 and 11, they were clearly heard at 20 miles. Vessel was instructed to anchor 5 miles East of platform, this was between the 'Area to be avoided' and the marked anchorage in approximately 42 m., mud bottom.

Information required by VHF: Nationality, draft, quantity of ballast and de-ballasting time.

After anchoring call 'Marine Control' with arrival time, anchoring time, quantity of bunkers and fresh water on arrival.

CARGO: *Caution.* Maya Crude has an extremely high Hydrogen Sulphide content.

MEDICAL: A doctor is available on the platform but facilities are limited.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: No facilities available.

GANGWAY: Accommodation ladder is required on the port side at SBM.

CUSTOMS: Customs allowance seems to be a 'reasonable amount'. There was no query over 200 cigarettes and 1 bottle of spirits per person.

The bond is not sealed but the Immigration Officer checked two or three items against the Ship's Stores List.

REPATRIATION: Personnel are taken by helicopter from Cayo Arcas to Ciudad del Carmen, 90 miles to the South, and then by plane to Mexico City where there is an International Airport. There is no limit on the number of personnel travelling.

TIME: GMT minus 6 hours all year round.

SHORE LEAVE: Not permitted.

GENERAL *Stores:* None available, but fresh prawns can be obtained from supply vessels/tugs.

Mail: Takes approximately 15 days to U.K./Europe but a courier service via the Agents is available taking only 5 days.

CHIEF OFFICER'S REPORT: August 1995.

The Pilot advised the following changes on our visit:

Delete:

1. Anchorage Area 'East' of Cayo Arcas:
   Lat. 20° 12.5' N., Long. 91° 50.0' W.
   Lat. 20° 12.5' N., Long. 91° 44.9' W.
   Lat. 20° 07.5' N., Long. 91° 50.0' W.
   Lat. 20° 07.5' N., Long. 91° 44.9' W.
2. Y (Yellow) Buoy P.A. 8 miles S.W. of Cayo Arcas:
   Lat. 20° 07.6' N., Long. 92° 04.5' W.
3. Pilot Boarding Area:
   Lat. 20° 08.0' N., Long. 91° 56.8' W.
4. Racon 'C' (3/10 cm.) on the Platform:
   Lat. 20° 11.2' N., Long. 91° 59.5' W.

Insert:

1. Anchorage Area joining following Positions:
   Lat. 20° 06.8' N., Long. 91° 53.2' W.
   Lat. 20° 06.8' N., Long. 91° 49.3' W.
   Lat. 20° 02.4' N., Long. 91° 52.2' W.
   Lat. 20° 02.4' N., Long. 91° 49.3' W.
2. Relocate Racon (3/10 cm.) on the Platform:
   Lat. 20° 09.6' N., Long. 91° 57.8' W. (Detected at 14 miles).
3. Pilot Boarding Area – 2.5 miles S.W. of Racon Platform:
   Lat. 20° 07.8' N., Long. 91° 59.7' W.
4. SPM Positions are:

Arcas No. 1	Lat. 20° 10.4' N.,	Long. 91° 58.8' W.
Arcas No. 2	Lat. 20° 08.7' N.,	Long. 91° 59.0' W.
Arcas No. 3	Lat. 20° 11.45' N.,	Long. 91° 59.43' W.

COATZACOALCOS: 18.08 N. 94.25 W. (See Plan)

PORT LIMITS: From the centre of the channel at the bar with a radius of 0.5 miles to seaward.

DOCUMENTS:

Customs:

Cargo Manifest, original and 4 copies visaed by Mexican Consul at place of origin. If no cargo carried for this port a certificate and 2 copies stating the fact.
Stores List, original and 1 copy.
Personal Effects List, original and 1 copy if vessel is arriving from another Mexican port. Customs release from that port must be produced.

Port Captain:

Clearance from Last Port.
2 copies Crew List.
3 copies Manifest of cargo for this port.

Immigration:

Crew List, original and 1 copy, bearing consular visa.
Passenger List, original and copy, visaed by consul.
All Crew Passports or I.D. Cards.

Health:

2 copies Crew List.
2 copies Passenger List.
Crew Vaccination Certificates.
Derat Certificate.
When vessels are anchored beyond the breakwater authorities board from the pilot launch.

The following must be made available for inspection.

Registration Certificate of Vessel.
Certificate of Inspection of Deck Machinery.
Certificate of Inspection of Machinery.
Freeboard Certificate.
Tonnage Certificate.
Radio Certificate.
Radio-telephony Certificate.
Emergency Procedure in the Case of Abandoning Ship.
Emergency Procedure in the Event of Fire.
Vessel Insurance Policy.
Copy of the Charter Party (where applicable).

Shipmaster's Report: November 1992.

Vessel berthed at Pajaritos, and Crew List, Stores List and Crew Declaration were required in Spanish language.

PILOTAGE: Compulsory. Pilot meets vessel off the jetties at Coatzacoalcos Estuary. Master should give Agent information not less than 24 hours prior arrival stating vessel's name, flag, and ETA as well as draft.

Pilot boat black hull, white housing and red deck. 2 launches, *Alcion* and *Vencedora.* The sound signal for calling the Pilot is 2 long blasts and 1 short blast. The light signal is a blue Bengal light.

There is a new cutter *Siriux.* The pilots' office has a VHF radio station, listening out on Channel 16.

ANCHORAGES: Ample anchorage grounds available outside the Bar of the Coatzacoalcos River.

Two anchorage areas have been established and are bounded by lines joining the following positions:

West Area:	A.	Lat. 18° 12' 30" N.,	Long. 94° 26' 57" W.
	B.	Lat. 18° 12' 30" N.,	Long. 94° 25' 54" W.
	C.	Lat. 18° 10' 54" N.,	Long. 94° 26' 57" W.
	D.	Lat. 18° 10' 54" N.,	Long. 94° 25' 15" W.
East Area:	A.	Lat. 18° 12' 32" N.,	Long. 94° 25' 22" W.
	B.	Lat. 18° 12' 32" N.,	Long. 94° 23' 46" W.
	C.	Lat. 18° 10' 54" N.,	Long. 94° 24' 51" W.
	D.	Lat. 18° 10' 54" N.,	Long. 94° 23' 22" W.

Anchorage exposed during Northerly winds when it is advisable to weigh anchor and proceed to sea.

RESTRICTIONS: *Access Channel:*

To Fiscal Zone: Length 800 m. Depth 11.0 m.
To Pajaritos Terminal: Length 2,500 m. Depth 13.1 m.

Main Navigation Channel:

Length 1,800 m. Depth 12.7 m.

Turning Basin:

Fiscal Zone: Length 250 m. Depth 11.0 m.
Pajaritos Terminal: Length 300 m. Depth 13.10 m.

MAX. SIZE: *Fiscal Zone:* 27,000 d.w.t. Max. length 185 m. Max. draft. 9.20 m.

Pajaritos: 59,000 d.w.t. Max. length 250 m. Max. draft 12.0 m.

HEALTH: Pratique never given by radio. Vessels granted Free Pratique when berthed alongside if no contagious illnesses aboard.

RADIO/VHF: Telegraphic transmitter type TH 600-M with an open sea range of 500 miles radius, frequencies of 512, 500, 432, and 419.5 kHz. Telephonic transmitter type TSB-500-Be with approx. range of 500 km., frequencies of 2182, 2270, 2542 and 2665 kHz. RDF transmitter type TT-1017-B with approx. range of 300 miles, frequency 312 kHz. Transmitter/Receiver for radiotelephony VHF type VFD-50PT/PR, with approx. range of 50 miles, frequencies in Simplex operation: Channel 12-156.6 MHz and Channel 16 International call-up 156.8 MHz. Duplex operation: Channel 26: Transmission 161.9 MHz, reception 157.30 MHz. Channel 27: Transmission 161.95 MHz and receiving channel 157.35 MHz. At the moment, there is a point to point link-up with national and coastal telegraphs, as well as teleprinters for national and international service No. 078-835 (the latter is said already to be installed and will shortly be operating normally).

Tankers: In addition local requirements are that ETA messages should be sent to Pajaritos PEMEX Terminal, Call Sign XFF2 as soon as possible after departure from the previous port and updated at least 72, 48 and 24 hours prior arrival, using following frequencies: 4191 kHz, 6286.5 kHz, 8382 kHz, 12573 kHz, 16764 kHz, 22253 kHz or 25094 kHz.

TUGS: The Free Zone has the "Servicios Portuarios del Istmo de Tehuantepec S.A de C.V.", who own the tugs *Quetzalcoatl* 2,400 h.p., *Olmeca* 1,600 h.p. and *P.L.M.8* with 600 h.p. for operations in the Free Zone and the Pajaritos Terminal, the first being able to undertake salvaging work due to extensive range of action.

A tug is obligatory for mooring, unmooring or changing position in the port. 1 tug for vessels of 2,500 g.r.t. and 2 tugs for vessels larger than 4,000 g.r.t. The signal for calling up tugs is 2 long and 2 short blasts on the vessel's siren. The signal for the tug to withdraw is 1 short, 1 long and 3 short. The tug will repeat the signal to indicate that it has been heard. Tugs are fitted with VHF radio listening out on Channel 16 and during working, on the channel which the tug captain is ordered to use.

BERTHING: 1,943 m. of quay for ocean-going vessels, 120 m. for coastal vessels.

Restrictions: Night service is suspended during times of strong currents in the Coatzacoalcos river.

CRANES: 300 ton crane for handling containers.

STEVEDORES: No ETA advice necessary. Free Port: Straight working hours: from 0800 to 1200 hrs. and from 1400 to 1800 hrs. Overtime 100% overcharged according Tariffs. Latest times to order gangs: 0730, 1330 and 1730 hrs. Straight time above hours Monday through Saturday. Sunday and holidays allowed to work except "Legal Holidays". Loading and discharging rates: 25 tons gang/hour using ship's derricks. No shore cranes available. Loading sulphur by conveyor belts at 500 t.p.h., working around the clock.

Private FFM Berth: Loading or discharging operations performed by their own personnel working 24 hours per day. Rate of loading by conveyor belt: 500 t.p.h. Rate of discharging 1,100 tons per day with ship's gear.

MEDICAL: Hospital facilities available. Inform Agent in advance if treatment required.

TANKERS: Tankers regularly moor in the Pajaritos Roads. There are 4 large quays for mooring 7 vessels up to 233 m., with max. depth at the quay of 33 ft.

The Provisional Quay has 2 lines of operation of 24 in. with 3×8 in. for crude oil.

Bunkers and Lubricants: Not available.

Fresh Water: Available at jetties but should *not* be used for drinking water.

Stores and Laundry Facilities: Available, but no bonded stores.

Limited dirty ballast facilities available. Vessels sould arrive with clean ballast. Failing to do so can result in excessive delays.

All tanks lids must be closed when entering or leaving the port.

It is strictly prohibited to emit excessive amounts of smoke from the funnel.

Shore leave is normally permitted by the local Immigration Authorities, however the shore passes are only valid inside the city limit. Severe penalties will be imposed for crew members found outside City Limits. Pajaritos crude oil contains hydrogen sulphide – H_2S.

During rainy season (May/June and November/December) currents of up to 6 knots can be experienced in the river.

Also see "Shipmaster's Reports", "Berthing" and "Rabon Grande".

DENSITY: Average 1012.

FRESH WATER: Available at berths in Free Port area, delivered by 1.5 in. hose. Loading rate about 8 t.p.h.

FUEL: Fuel can be supplied at Coatzacoalcos port by tank-trucks when vessels need small quantities. Petroleos Mexicanos (PEMEX) has, at Nanchital, a loading terminal which is about 3 miles up-river from Coatzacoalcos (max. draft 27 ft. 6 in.) where Bunker C fuel available.

Diesel oil only available at Minatitlan, about 17.5 miles up-river from Coatzacoalcos (max. draft 21 ft.). If vessel bunkers at Nanchital or Minatitlan there will be at least 1 day delay and heavy extra expenses.

Gas freeing equipment for Gas tanker at Nanchital.

CONSULS: Norway and Netherlands.

REPAIRS: Minor repairs may be effected. Electronic repairs possible.

DRY DOCK: No dry dock available.

CUSTOMS ALLOWANCES: No restriction for free use on board.

AIRPORT: At Minatitlan, about 40 minutes car drive away. 2 regular flights to Mexico City.

TIME: GMT minus 6 hours.

HOLIDAYS: No work performed on following legal holidays: January 1st; March 21st; May 1st; May 5th; September 16th; October 12th; November 20th; December 25th; and December 1st every six years when Federal Government changes President.

POLICE/AMBULANCE/HOSPITAL: Police Tel: 2 01 22, Red Cross Tel: 2 02 85; Hospital Tel: 2 00 30.

TELEPHONES: No facilities for placing telephones on ships.

SHORE LEAVE: Possible. Crew must have I.D. cards or passports. Passengers must have passports.

DEVELOPMENTS: The entrance channel up to Pajaritos roads has been dredged up to 42 ft. The quays in the Free Zone have been completely reinforced, vessels up to 31 ft. draft being able to come alongside. The warehouses for general cargo at quays 2 and 3 have been completed, with a covered area of 4,000 m. and normal loading capacity of 10,000 cu. m. There are sufficient open areas for positioning heavy loads or machinery. Apart from the lighthouse on the Gavilan Hill, in the Allende area (left bank), the port has light towers indicating the main entrance channel, another 2 to indicate the channel leading to Pajaritos roads. All 4 have flashing lights. The branch leading onwards to the Free Zone is indicated by a small tower with flashing white light. The lights of the promontories of the 2 headlands;— the East light is green, and the West light is red. The channel is marked with black coloured buoys with odd numbers, on the port side entering, and red with even numbers on the starboard side. Both sets of lights are of the flashing type. When continuing upstream towards Nanchital or Minatitlan, the bridge has to be passed under. Its characteristics are: Length 1,375 m. vertical clearance with the bridge up 35 m., with the bridge down 8.84 m. Horizontal clearance which can be used: 60 m. To have the bridge raised, vessels must give 3 long and 2 short blasts on the siren.

SHIPMASTER'S REPORT: October 1985 – LPG Carrier 35,800 cu.m.

Approaches: Present charts are not appropriately scaled, coming off Bay of Campeche chart to Chart 373 which is only a port plan, and does not extend out to the SBMs. This was partly overcome by a 'home-made' extension to Chart 373, which of course lacked soundings, but was only slightly in error by using the given Latitudes and Longitudes for marking the SBMs. The 4 fathoms rock indicated in sailing directions is said to be much closer to shore (by local knowledge) and is not close West of the new anchorage area for gas carriers. We anchored 4 miles due North of breakwaters in 28 m. of water, and soundings in the approach appeared uniform. This was just at the North limit of the dirty water from the river outflow, so vessels with a long waiting time needing to make fresh water would need to be about 6 miles off. Current was running to the East, fairly strong inside 5 miles off, at least 3 knots at times (despite freshening winds in squalls from the North, the vessel secured at No. 1 SBM was seen to be on a constant Westerly heading – a tug secured to the stern appears to be standard practice at the SBM, so it is possible the current changes at certain times). Radar targets were visible from 20 miles off, and the breakwaters were discernable on radar from 10 miles off, thus a good fix is obtainable well in the offing.

Anchorage: There were many ships at the anchorage, most of whom had taken up a position between 3 miles and 6 miles off in the N.E./N.W. vector. Holding appears to be good in this area.

Inward Transit: Pilot calls on VHF and asks vessel to meet him at the boarding ground. Pilot will accept hoist or combination ladder. Vessel is about 1 mile from breakwaters by the time Pilot reaches the bridge, so only a little time for discussion of berthing plan. Full ahead is needed to overcome outflow between breakwaters, where rate can reach 8 knots, (4.5 knots on this occasion). Good steering is essential at all points and ability to 'feel' sheer developing, but Pilots are steady and well experienced and know exactly when bow and then stern will be affected when crossing from river into Pajaritos Channel. Tugs meet vessel just after this crossing point and tie-up shoulder and quarter. Speed is reduced in the Cut to enter the basin at about 3 knots. As can be seen from chart, very little lining-up is needed for Pier 3. The same Pilot berths the vessel. This is a straight forward manoeuvre, springs first to final position, then tugs push vessel to maintain position.

Moorings: The dolphins are well placed/spaced and have good swivel slip-hooks, however there are no capstans available. The mooring gang appeared to be about 30 persons, and they eventually carried the aft back spring along the catwalk to the corner of the main platform. The mooring boat towed the messengers for the remainder of the after wires across the dolphins, while forward we used a running messenger and pulled the wires out to the hook.

Gangway: There are no shore gangways. Landing area for ships is very limited. Situation was made as safe as possible throughout, but far from comfortable.

Terminal: Pajaritos Terminal is situated within Laguna de Pajaritos which is entered via a cut-off channel from Rio Coatzacoalcos about 1.25 miles inside the breakwaters. The plan is to dredge it out to a uniform depth and face all four sides of the laguna, and build further finger piers. At present only the Western half (approx.) is in use.

Depths: It was reported that there is now a uniform depth of 42 ft. within the Western side of the laguna to a line joining the root of Jetty No. 9 with the E.N.E end of the fertiliser jetty, and outwards in the channel and river and on the leading lines outwards to the pilot boarding position, thence to seaward there are no lesser depths. This sets the controlling maximum draft for all tankers and gas carriers at 39 ft.

Berths: There are currently 10 berths in use for tankers, these being 1W, 1E, 3W, 3E, 4W, 4E, 5, 6, 7W and 7E. No. 2 has been destroyed and not yet re-built. No. 8 has not yet been built. No 9 has been built and all fendering is in position, but no pipelines yet connected, it is currently in use as a lay-by berth. All berths have modern hydraulic type fendering, adequate mooring sliphooks (but no capstans), and Chicksans of varying number and dimensions. Nos. 1, 3 and 4 are for products, with No. 3 currently temporary fitted up for LPG via hose. Nos. 5 and 6 have larger Chicksans for black products and crude blends etc., while No. 7 is currently for virgin crudes.

Berth Nos. 5 and 6 are at the Southern end of a continuous concrete jetty which extends the whole length of the Western side of the laguna from abreast the lower leading light to the S.W. corner, and the Northern part of this jetty is used for materials/pipes/service craft, etc. (The recessed berth shown on Admiralty Chart 373 is not now correct).

Vessels berth head-in, that is heading South on all berths with the exception of Nos. 7 and 9 where it is head North (thus nomination for 3E means starboard side to).

Tugs: There are 4 tugs currently on charter to Pemex, and it is normal to take 2 tugs in and out. Tugs are strapped up alongside 'American style' and are well fendered. 3 tugs were seen handling a 70,000 ton loaded tanker with comfort.

Pilots: Pilots come under the Harbour Master of Coatzacoalcos, but all movements to and from the Oil jetties are under the control of the Pemex Port Captain, who allocates berths. Night movement of LPG carriers is not permitted.

Customs/Immigration: Vessels are boarded on arrival alongside, Pratique being granted before any operations may commence. Pajaritos Oil Terminal is *not* part of the free port area. Vessels without Visaed Clearance/Crew Lists should produce a copy of diversionary telex. Shore leave without a pass system is normal, and boats are arranged by Agents from the stern dolphin of each pier to the town ferry landing.

Fuel: There is one header on each jetty for Fuel and Gas oil. However delays or shifting ships are possible if other vessels loading these grades.

LPG Cooldown: This is possible using slow loading method, not known whether there is a by-pass system at the pumphouse to control rate, there is no by-pass system on the jetty headers.

LPG Loading: Temporarily at Jetty No. 3 only, using 150 mm. flexible hose from base of jetty abaft the chicksans. No vapour return. Loading rate 450 cu.m/hr.

Standard Time: Nautical Almanac states Vera Cruz Province keeps a Summer Time. This is not so. Time here all year is 6 hours behind GMT.

SHIPMASTER'S REPORT: November 1985.

This report from sister ship confirms and updates report above dated October 1985.

Vessel was directed to proceed to Pajaritos to load a cargo of Butane and LPG Mix. The vessel arrived at Pajaritos anchorage and in keeping with the received instructions anchored well off the port to await orders. The anchorage chosen was in a position with Pajaritos breakwaters bearing 171°×13.6 miles, in 36 m. of water. 6 shackles were used and even though the wind freshened considerably during the time at anchor, no dragging occurred. That the wind did indeed freshen is made apparent by the fact that the port was closed for 3 days. When the port reopened, we were instructed by local Agents to proceed to the Pilot Station to take on a Pilot for berthing. This was duly done.

Approaches: As in the case of our sister ship a "home-made extension" was made for Chart No. 373, which chart is totally inadequate for approach to the port. I can confirm that a strong East-going current was encountered inside 5 miles off on the approach to the Pilot, but radar targets are good, especially the breakwaters which show up well. On this vessel's approach the port had, as noted, been closed, with a consequent build-up in ships awaiting Pilots.

Inward Approach: Once Pilot was safely on board vessel proceeded inwards. The approaches through breakwaters and into outer harbour are clearly marked with leading line beacons. Vessel had to enter between breakwaters at full ahead due to the strong outfall, estimated on this visit at about 5 knots. The Pilots however, are capable and very experienced, and inward passage to berth was similar to that of our sister ship. We entered the Laguna at about 3 knots, slowly reducing speed and with tugs in attendance forward and aft, on shoulder and quarter. The tugs are of ample power and well handled.

Vessel moved straight onto berth, in this case Berth No. 3 E, with no difficulties whatsoever being encountered. Berth was starboard side to and vessel moved into position immediately. Problems now arose however, due to the inability of shore mooring gang to handle the heavy mooring wires of the vessel's mooring complement. On this occasion no mooring boat was available and shore gang amounted to about 10 men, split fore and aft. As a result vessel resorted to running messengers to heave the wires ashore and onto the sliphooks. The jetty appears to be well constructed but alas no capstans are fitted to heave moorings to shore.

Gangway: Still no shore gangway available at this berth so ship's gangway used to the small area available, in a not wholly satisfactory position.

Cargo: Shore require vessel to present 1×10 in. (150 ASA) connection. No vapour return to shore available. 1×6 in. flexible cargo hose available, therefore only one grade at a time can be worked. For grade changes shore drain flexible hose to the sea via a small drain line on jetty, then disconnect shore end of hose and move on the jetty to the new grade shore manifold. This involves several men plus the use of ship's crane and takes from 2 hours – 4 hours.

There is no recirculation system on the shore line system, so when initially loading any grade the temperature can be anything up to 20° above normal loading temperature, resulting in a very high boil off. This can cause problems if trying to cool down a tank to load LPG Mix at −34°C, when tank had previously held Butane at −2°C. An estimated line clearance of 80-100 tonnes is received on board before liquid temperatures drop to normal, and certainly ships maximum reliquifying capacity is required during the initial loading phase, even at very low rates.

Once the bulk loading stage is reached, an average of 240 tonnes/p.h. was achieved on both Butane and LPG Mix parcels. The rate is controlled by shore pump house, working on shore line back pressure.

The vessel is required to fill in a shore document every 6 hours, giving amount of cargo received, rate, quantity remaining to load and estimated time of completion.

Loading can, and was, stopped if a Pemex priority ship berths on the adjacent jetty (No. 3W), as shore can only load one ship, one grade at a time. Shore will also stop loading when other ship connecting loading line. This vessel suffered stoppages amounting to 44 hours due to this reason, plus a change of grade to LPG Mix during the loading of the Butane parcel.

On this occasion the cargo surveyors employed by Charterers were Redwood, employing local staff. They had a reasonable command of English. These surveyors make the initial and final calculations and the Bills of Lading are based on these figures. No shore metering or tank gauging is possible as the two shore tanks are being filled continuously as the ship loads. Surveyors require 4-5 hours to calculate figures for arrival/departure.

As shore tanks are in use at all times, no shore tank densities are available. Redwood surveyors and Pemex chemists take samples from ships tanks loaded or loading at 50% to determine density of cargo loaded and for cargo analysis.

The surveyors are available throughout the loading on VHF Channel 16 and proved very helpful when communications with shore installation became difficult.

On completion, Redwood supply vessel with copies of ullage reports, density sheets and analysis reports.

On this occasion densities as follows:

LPG Mix: 0.5365 at 60°F in vacuum, loaded at −34°C

Butane: 0.576 at 60°F in vacuum, loaded at −6°C.

Communications: Initial contact with Agent is made via telex. However, whilst the Agent can receive telex messages, they are unable to send via telex to ships at sea. As an alternative, they send messages via Mobile Radio or Alabama Radio, call sign WLO, which station vessels should monitor until within VHF range of Pajaritos Agent. As Tomas Ruiz are also Pemex Agents ETA's etc., can also be sent to them. Agency monitors VHF Channel 16 and works on Channel 72.

There is no Health Clearance via radio for Pajaritos. Port officials board at berth, but no difficulties experienced.

Length/Draft: Informed by Agent that the following ship lengths/safe drafts apply:

Ship length	*Minimum safe draft* Forward	Aft
150 m. – 175 m.	12 ft.	22 ft.
175 m. – 200 m.	14 ft.	24 ft.
200 m. – 225 m.	16 ft.	26 ft.
225 m. – 250 m.	18 ft.	28 ft.

250 m. is the maximum length that can be handled.

Radio – Loading: Communications during cargo operations caused some problems and a Letter of Protest on this subject was issued to the shore installation. All stops/starts information etc. is given to ship and ship to shore via VHF radio on Channel 16 and working Channels 9 or 11, call sign Pemex Operations. Their operators have a reasonable command of English, but can be very hard to raise at times. Also vessel was supposedly able to communicate with loading supervisor and pump house directly on Channel 9, but this proved impossible as no English was spoken or understood by these operatives, hence the Letter of Protest. After this was sent to shore Pemex operations communicated directly with the ship instead of the loading supervisor and standards were markedly improved. Even so, on 2 occasions vessel observed that loading had been suspended without any information being given to ship.

For the completion of each grade an English speaking supervisor boarded vessel to assist should any language problems arise. However, when "stop loading" was given, the pump house reaction was immediate. Paperwork for cargo, safety etc., as per normal.

Once the language problems and frequent changes to loading programme were overcome, the loading operation ran very smoothly.

A further Letter of Protest was also issued due to the shore stopping loading before the requested quantity was received on board, there being no way they would restart loading to complete.

Outward Transit: No difficulties experienced leaving jetty. Vessel moved off stern first, assisted by a tug fore and aft, then swung in the laguna. The unberthing Pilot however took some time to become accustomed to the rapid swinging of the vessel. This was especially evident in the passage through the Outer Harbour and breakwaters, being accentuated by again a strong outfall of approximately 4 knots – 5 knots. After clearing entrance vessel was swung to the West to clear passage for incoming vessels and Pilot departed when West of breakwaters.

Points of Interest: At the time of our visit to Pajaritos there was an abnormal amount of plant and vegetable material both floating and in suspension in the water, from the Outer Harbour to the berths. This material resulted in frequent cleaning of sea intake filters, some of them on a daily basis. It is not known if this condition applies on a year round basis, but certainly it was a problem in November.

SHIPMASTER'S REPORT: Pajaritos. October 1987.

Pilotage: Pilot boards from a small open, orange painted launch that is of the same design as local fishing boats.

Restrictions: Agent advised that there is no berthing or unberthing between 1800 hrs. and 0600 hrs.

Shore Leave: There is a frequent ferry service from the oil terminal to the town which takes 30 minutes and is free.

Draft: The following letter was received from the terminal:

Quote:

Master .... Date ....

In Port........................ Pier Number....................

The Harbour Master has instructed us that the following minimum draft will be required for manoeuvring into and out of this port (including Pajaritos Lagoon):

Vessel's Length (m.)	*Minimum Draft* Fwd (ft.)	Aft (ft.)
50 – 100	4	14
100 – 125	8	18
125 – 150	10	20
150 – 175	12	22
175 – 200	14	24
200 – 225	16	26
225 – 250	18	28

Please comply with the above instructions, in any other condition Pilots will not manoeuvre your ship.

On behalf of Petroleos Mexicanos
....

Unquote.

SHIPMASTER'S REPORT: August 1990.

Berth: Pajaritos.

Charts: B.A. Charts No. 373 and 1225.

Approach: Do not confuse point in position 18° 20' N., 94° 31' W. for Pta. San Juan.

Breakwaters at Coatzacoalcos show up well on radar.

Anchorage: About 2.5 miles N.W. of breakwaters. Very exposed in Northerly winds. In strong winds, vessels invariably drag anchors. A short steep swell can develop. Wind force increase can be sudden and dramatic. Designated anchorage areas not enforced, probably due to light traffic.

Pilots: Both port closed from 1700 hrs. to 0600 hrs. Ships observed shifting inside Pajaritos Basin up to sunset.

Pilot boards in good weather, 2 miles North of breakwater from orange steel hulled cutter (fairly slow), and leaves outside breakwater. In poor weather, pilot often boards and leaves just inside breakwater. Gangway/ladder combination compulsory for boarding in ballast condition. Pilots fairly competent.

VHF: Pilots: Channels 16 and 10, difficult to make contact at night. 'Pemex': Channels 16, 17 and 9 (0900 hrs. – 0000 hrs.). Agent (Ruiz): Channels 16 and 72.

Channel: Official entry draft for tankers/gas carriers in ballast is minimum 14 ft. forward and 24 ft. aft, but is not enforced.

Full speed is used passing through the breakwater heads, due to the swell and strong West to East cross current.

Beware of small fishing boats around the entrance. Leading lights, which operate 24 hours, are very conspicuous. Once inside the breakwaters, speed is reduced, but beware of the Rio Coatzacoalcos outgoing current, which in autumn can be up to 7 knots. Due to the river current, which causes erosion, the buoyage is not to be relied upon, buoys also drift off station, due to weed and logs striking them. In summer and autumn, a lot of weed is encountered in channel and Pajaritos Basin, engine intakes should be monitored.

Pilots report many ships 'blacking out' in channel. Channel to Pajaritos about 100 m. wide and dredged to 45 ft. Dredging constantly in progress by large dredger (Hang Jun 6002), which has very conspicuous spoil boom on top.

The minimum depth found was 14.3 m., just seaward of the breakwater heads, generally greater than 15.0 m.

Tugs: 7 tugs, which also serve Coatzacoalcos, are available. 5 'Pemex' tugs (4×2,000 h.p. tractor tugs, 1×4,500 h.p. supply type tug) and 2 British 'Cory' tugs on hire to 'Pemex' ('Yewgarth' and 'Strongbow', both 4,200 h.p.). Tugs lines used throughout. Tugs berth near 'Pemex' Control Tower.

Rescue/fire fighting ship 'Pemex 652' also on stand-by near Control Tower. Believe built for SBM moorings and offshore oil fields.

Berths: Pajaritos Basin consists of 4 piers (No. 1 – No. 4) with 8 berths, and depths of about 40 ft. for handling LPG, Ammonia and certain products. Berth No. 1 handles Ethylene and VCM.

Two berths (No. 5 and No. 6) handle crude and products, and have a depth of 45 ft., size up to approx. 100,000 d.w.t.

Berth No. 7 handles crude only, depth 45 ft.

Berth No. 8, marked on B.A. Chart No. 373 never constructed.

Berth No. 9 built to handle crude, but only used as a lay-by berth.

One fertiliser berth of 40 ft. depth. One fertiliser pier (2 berths), East and West 39 ft. depth with loading gantries.

Pier No. 2 is being reconstructed, due to heavy damage as a result of LPG ship fire.

Coatzacoalcos is for general cargo, except a chemical tanker berth with tankage positioned at the South end near the Naval Base. Berth position 18° 07.55' N., 94° 25.05' W.

Moorings: Always head in at all berths. Vessels generally moor with 3-2-2 at each end.

Difficulty experienced handling mooring wires. After back spring gets caught up on fenders, especially at Berths No. 3 and No. 4. We had to obtain diver to free wire. Mooring gang both ends.

Gangway: Difficult to land. At Berth No. 1, we used conventional gangway with plank from bottom platform to mooring dolphin. At Berth No. 3, B.O.T. type gangway from manifold to Chicksan platform.

Cargo: Ammonia through Anaconda hoses at Berths No. 1 – No. 4 (8 in. 150 ASA). VRL available at Berth No. 3 East and West. No VRL at Berth No. 1. Ammonia cold −32°C.

Rate generally 800 t.p.h., but possible up to 1,200 t.p.h. with 3 shore pumps. Little control on rate apart from stopping and starting pumps. Chicksans for LPG, reported to be 10 in. ASA 150. Ammonia 'First Foots' stop 2 hours – 2.5 hours.

Fresh Water: Available at all berths. Apply through agent. Reported to be of poor quality.

Agent: Tomas Ruiz most generally used, and from reports the most attentive. We found them to be helpful and obtainable on VHF. Arranged diver within one hour. Tomas Ruiz S.A., Tel: 921 2 01 17, 921 2 01 30, 921 2 95 42. Telex: 78820. Fax: 921 2 65 78.

General: In Winter months, port often closed for days, due to strong Northerly winds.

Diesel fuel available at all berths, except No. 7 and No. 9, and fertiliser berths.

Fuel oil only by barge. Order fuel several days in advance.

Boat service can be arranged at about U.S.$ 3.00 per person from piers to Coatzacoalcos.

Most services can be obtained.

A number of chandlers board on arrival. Fresh salad and vegetables reported to be good.

No security at piers, boats come and go at will. Security/stowaway search advisable on departure.

Nearest airport at Minatitlan, about 20 km. away, local service to Mexico City.

Formalities: All officials board with agent on arrival. No particular difficulties. Sometimes passports are checked, and if no U.S. visa, passport will be held for duration of ship's stay.

Shore leave possible, no passes required.

Negative Visaed Crew List now required.

Clearance last port.

1 Maritime Health Declaration.
4 Stores Lists – U.S. forms acceptable.
4 Bond Lists – U.S. forms acceptable.
6 Crew Lists.
2 Vaccination Lists.

Ship's Register and Derat Certificate sighted.

Customs Officer and officials do not remain onboard. Bond not sealed.

On departure, Immigration and agent board with pilot, and issue vessel with final Clearance.

SHIPMASTER'S REPORT: May 1992.

Vessel: 5,000 d.w.t. chemical tanker, calling at Coatzacoalcos to discharge chemicals.

We came from a Northerly direction (Houston), and on the radar at 24 miles range, the coast near Coatzacoalcos is well recognisable, especially Punta Zapotitlan, which is approximately 30 miles N.W. of the port.

Contact was established on VHF Channels 16 and 10 with Marine Control Coatzacoalcos, who keeps the pilot informed of vessel's progress towards the Pilot Station.

We experienced an Easterly set when approaching the coast, but this may vary with prevailing winds.

The pilot boarded 1.5 miles from the breakwater, from a launch with a red hull. Pilot's launch not able to do more than vessel's dead slow speed, which is 3 knots.

A tide rip between the outflowing water of the Rio Coatzacoalcos, and the sea was encountered just before entering the breakwaters.

Continuous dredging operations are carried out in the roads and the port, by a dredger with a conspicuous sludge boom.

Pilots speak reasonable English. We berthed starboard side to on Berth No. 5, one of the (former) general cargo berths.

As vessel has a bow thruster, no tugs were used for berthing or unberthing.

When sailing, vessel swung easily off the berth with bow thruster, engine and rudder. Also the outgoing current in the river assisted in this manoeuvre. Larger vessels however would require 2 tugs for swinging. Also during increased wind, the use of one tug might be advisable for smaller vessels.

Tugs are available at Coatzacoalcos.

We had to discharge two parcels of chemicals. Two 6 in. hoses were provided from shore for simultaneous discharge of both parcels.

The hoses were connected to pipeline connections in a well in the quay. Underground pipelines run from there to the tank farm of Cia. Mexicana de Terminales S.A. (Mexterminals), about 1 km. away.

Attention has to be paid to nearby open air sulphur storage, as well as frequent cement handling on the quays.

With prevailing winds, dust of either commodities might be blown across the vessel, which could result in deposits or dust in cargo tanks being ventilated after tank cleaning or prior to loading.

Vessel was boarded by the Agent and Officials immediately after berthing. The party was made up of 4 Officials (Customs, Port Health, Immigration and Sanitary Inspection). They requested the following:

1 copy Maritime Declaration of Health.
1 copy Vaccination List.
4 copies Personal Effects List.
5 copies Stores List.
8 copies Crew List.
1 copy "Nil" Passenger List.
Clearance from Last Port.

All crew members, except the European Senior Officers, had to present themselves to Immigration, and all Passports were inspected.

Customs sighted three crew members cabins.

The Sanitary Inspector inspected vessel's provision store rooms.

On departure, the Agent and Immigration Officer boarded, and the crew were again summoned for outward inspection. All Passports again sighted.

Papers received on departure:

1 copy Sailing Permission from Harbour Master.
1 copy Sailing Permission from Immigration.
3 copies Visaed Outward Crew List.
1 copy Outward Customs Clearance.

Fresh water can be ordered, and will be delivered by truck (capacity 16 tons), which is filled from a filling stand behind the sheds. Filling and discharging time is about 45 minutes each.

Some fresh provisions were taken at Coatzacoalcos, which were of good quality.

The quay walls on all (former) general cargo berths are heavily fendered by cylindrical rubber fenders, which are placed with their axis at a 90° angle with the quay wall. Vessel's mooring lines, especially springs, easily get caught under them.

On arrival and departure, our Agent requested the time or passage of breakwaters to be passed on to him via VHF Channels 16/67. Outward, he also required the bunkers and fresh water on departure, in the same way. Also "Coatzacoalcos Marine Control" requests to be informed about bunkers and fresh water on departure, as well as port of destination and ETA; to be passed on by VHF Channel 10, when outside of the breakwaters.

Outward Pilot left inside of the breakwaters by red-hulled outboard motor launch, which was able to match up to vessel's half speed ahead (about 10 knots).

AUTHORITY: Empresa de Servicios Portuarios, Interior Recinto Fiscal Autorizada, Coatzacoalcos, Ver. Mexico. *Tel:* (921) 454-99, 451-30. *FAX:* (921) 467-58.

Coordinacion de la Unidad de Puertos y Marina Mercante (Mexican National Port Authority), Municipio Libre 377-12 B, C.P. 03310, Col. Sta Cruz Atoyac, 03310 Mexico D.F. *Tel:* (525) 604-4249, 604-3829. *FAX:* (525) 688-9368.

DOS BOCAS: 18.37 N. 93.10 W.

LOCATION: SBM No. 1, Lat. 18° 37' 33" N., Long. 93° 09' 37" W.
SBM No. 2, Lat. 18° 37' 36" N., Long. 93° 11' 00" W.

PILOTAGE: Compulsory. Pilot boards 2 miles N.W. or North of the SBMs. Accommodation ladder to be rigged 15 ft. above the water.

ANCHORAGES: North of SBMs in 20 fathoms.

The anchors should be secured with stoppers during loading and whilst manoeuvring.

RESTRICTONS: OBO's are not accepted and vessels over 15 years old are only accepted on spot approval.

MAX. SIZE: 250,000 d.w.t. Max. LOA 345 m.

VHF: Pemex on Channels 9 and 16.

TUGS: 1 tug available to make fast aft in an emergency. Tug keeps watch 24 hours on VHF Channels 16 or 9.

Mooring boats are only available for assisting with mooring, connecting, disconnecting the hoses and unmooring, no boat service available.

BERTHING: The terminal of Dos Bocas, Tabasco, Mexico, is equipped with 2 SBMs capable of loading vessels from 150,000 – 250,000 d.w.t.

The maximum LOA permitted is 345 m. (1,131 ft.) The maximum distance from bow to the ship's manifold is 183 m. (600 ft.) and the minimum distance is 149 m. (490 ft.).

SBM No. 1: Ships must have at the manifold 3 cargo connections each of 16 in. diameter (150 lbs.) with 1.4375 in. flange thickness (ANSI specifications) and should be able to receive Camlock connections.

SBM No. 2: Ships must have at the manifold 3 cargo connections each of 16 in. diameter (150 lbs.) with 1.4375 in. flange thickness (ANSI specifications) and should be able to receive Camlock connections.

The distance between centres of cargo connections must be at least 2,500 mm., and from cargo line to fuel line must be 2,000 mm. the min. distance from cargo manifold to the ship's side should be 4,600 mm.

The height from the centre of the cargo line to drip tray must be 900 mm., and to the deck 2,100 mm. maximum.

The height from deck to manifold will not be less than the height from deck to hose rail.

The cargo lines at the manifold must have one pressure gauge and drain valve.

The drip tray must be fitted with rounded edges to protect the hoses and must have Irving screen or similar.

The minimum S.W.L. of the booms should be 15 tons. The distance from deck to the top of the boom, not be less than 10 m. (33 ft.) in the working position.

The runner wire must have appropriate cargo hook.

Before vessel moors to the SBM, the boom has to be ready to work on the port side to lift the mooring equipment. The hoses will be connected on the same side.

The vessel must have 2 Panama Leads forward with a minimum clearance of 600 mm. by 450 mm. with a distance between centres of 2.0 m. – 3.0 m. The vessel should preferably have AKD chain stoppers.

The minimum distance, from the Panama Lead to the forward bitts should be not less than 2.7 m. (9 ft.) and not more than 8 m. (25 ft.).

The vessel has to supply a winch operator when vessel is mooring or connecting the hoses. In the event of mooring line damage the vessel has to provide lines as necessary.

Vessel will supply one messenger rope.

The terminal requests that vessel arrives with clean or segregated ballast.

Cargo and deballasting operations, must be planned in such a way that the vessel will be as close as possible to a safe draft for manoeuvring of the buoys in case of an emergency.

Vessels are requested to arrive with a trim not greater than 10 ft. by the stern.

The Loading Master and assistants have a portable walkie-talkie (VHF), to communicate with shore, however the vessels VHF set must also be available.

One of the riggers will be required to watch the deck from the wheelhouse for early warning of leaking or spillage and maintain communications with the shore terminal.

In the event of bad weather conditions, the Pilot may take the decision to stop the loading operations and take the vessel off the SBM. However, the Ship Master's responsibility will not cease.

Pilots, Loading Master and Mooring Personnel: When vessel moors, the Pilot, Pemex Loading Master and 10 riggers will board the vessel.

The vessel has to provide meals and cabins of officers standard for the Pilot and Pemex Loading Master. The riggers will have meals of crew standard. All will remain on board the vessel during all the loading operations.

The Loading Master is a Pemex representative and coordinates operations between shore and vessel and he has control of the operations. He will deliver to the Master or Chief Officer the cargo orders, the General Safety Regulations and the notice to avoid pressure surges. When Owners or Charterers and Pemex instructions disagree, agreement must be made prior to mooring.

On completion of loading operations the vessel will be disconnected from the buoy. Cargo calculations and clearance will be carried out whilst drifting or at anchor.

Tanks: 10 tanks for crude oil, each 500,000 barrels capacity.

DEVELOPMENTS: Project included supply port to service drilling rigs, petroleum port with 3 piers which will be able to load 12 vessels up to 60,000 d.w.t. simultaneously with liquid gas and petroleum products, 3 piers for loading crude carriers up to 100,000 d.w.t. and a container terminal.

SHIPMASTER'S REPORT: December 1984.

Shore Location: Lat. 18° 26.5' N., Long. 93° 11' W.

Sea Terminal: There are 2 SBMs 11 miles to the North.

SBM 1: 2 lines on port side of the ship, diameter 16 in.
SBM 2: 3 lines on port side, 16 in. diameter.

Documents: Customs Officer comes onboard with the Agent before mooring. Documents required:

Last Port Clearance.
6 Crew Lists with vaccination dates.
2 Passenger Lists.
2 Arms Lists.
3 Stores Lists.
3 Crew Personnel Effects Declarations.

Anchorage: See British Admiralty Chart No. 2626. Located between 5 miles and 10 miles to the North of the SBM. As it is not very good holding ground, pilots usually recommend a position to the N.W. 4 miles or 5 miles from the SBM, as less threatening in case of ship dragging (in Winter there may be Northerly gales).

Pilotage/Berthing: Before arrival call on VHF Channel 16 or 9 for Pemex Operations. Pilot boards at 1.5 miles West or N.W. of SBM with a tug bringing out mooring equipment and shore crew. The tug assists with mooring, then goes aft and passes a line to the poop. No berthing at night time.

Crude oil: Same as Rabon Grande. Loading rate 15,000 – 45,000 bbls.p.h.

Persons on board: During vessel's stay:

1 Pilot.
1 Loading Master.
1-2 Pemex representatives.
1 Inspector (Redwood, etc.).

9 or 10 crew required for mooring, connecting and loading watches (One man permanently on the forecastle deck and one on the bridge).

Repatriation: Crew changes may be arranged.

Shore Leave: It is not possible to have regular connection with the shore.

Ship Chandler: Available via pilot boat, but food very expensive.

SHIPMASTER'S REPORT: September 1985.

Location: The Pemex Oil Terminal at Dos Bocas consists of two SPMs.

Anchorage: Anchorage for vessels awaiting berth is centred on position Lat. 18° 45.25' N., Long. 93° 10.5' W., 7 miles North of the SPMs.

Documents:

5 copies Crew List.
Last Port Clearance.
2 copies Stores List.
2 copies Personal Effects Declaration.
1 copy Vaccination List.

Health: Radio Pratique is obtainable by forwarding the following information to the Agent at least 24 hours prior to arrival.

(a) Vessel's name and nationality.
(b) Master's name.
(c) Total number of crew onboard.
(d) Last port.
(e) Port and date of issue of Derat Certificate.
(f) ETA local time (GMT – 6 hours).

Radio: Vessel is required to send its ETA and cargo requirements to the Agent and Petroleos Mexicanos at least 72 hours in advance and thereafter the ETA is to be updated 48 hours and 24 hours in advance of arrival.

Loading: The standard hose connections are 16 in. SPM No. 1 has 2 hoses and SPM No. 2 has 3 hoses. The average loading rate is 40,000 bbls.p.h. There are no facilities for receiving dirty ballast ashore and vessels must arrive with clean ballast.

Completion of documents: On completion of loading a further delay of about 2 hours is expected before cargo papers are finalised. The vessel may either anchor or drift in the vicinity until these documents are completed.

Accommodation: The Mooring Master, Loading Master, two Cargo Surveyors and 10 crew for handling hoses. They expect accommodation and meals to be provided.

SHIPMASTER'S REPORT: July 1987.

Anchorage Area:

1.	18° 42' 30" N.	93° 08' 00" W.
2.	18° 47' 30" N.	93° 08' 00" W.
3.	18° 47' 30" N.	93° 13' 15" W.
4.	18° 42' 30" N.	93° 13' 15" W.

Location of Buoys:

Buoy No. 1: Lat. 18° 37' 35.2" N., Long. 93° 09' 57.29" W.
Buoy No. 2: Lat. 18° 37' 35.5" N., Long. 93° 10' 59.84" W.

Arrival Draft: Vessel size 135,900 d.w.t. Initially required 20 ft. forward and 34 ft. aft. This was later changed to 18 ft. forward and 30 ft. aft and was finally changed to 16 ft. forward and 30 ft. aft.

Radio: Vessel used radio stations WLO and WDP. ETA advices to be sent to the Agent and PEMEX, 72 hours, 48 hours and 24 hours prior to arrival. Any changes in ETA should be notified to Agent and PEMEX immediately. PEMEX (Exports) Telex No. 1773171/1773671, PEMEX (Maritime Transportation) Telex No. 1773986.

Pre-Arrival Information: The following must be advised with the vessel's ETA:

1. Name of Master.
2. Number of crew and nationality.
3. Gross and nett tonnage.
4. Arrival draft, fore and aft.
5. Approximate departure draft, fore and aft.
6. Type and amount of ballast on board and time required for deballasting.
7. Derat or Exemption Certificate, together with date and port of issue.
8. To whom Notice of Readiness to be tendered (for Agent).
9. Type of cargo and amount required.
10. Last port of call.
11. Discharge port for present voyage.

All of the above information is required in order that vessel may obtain berthing date and export licence from PEMEX.

VHF: Initial communications with PEMEX prior to arrival was made on VHF Channel 16. When at the terminal, communications are made on Channel 9 (calling) and Channel 8 (working Channel).

Berthing: Mooring of the vessel is supervised by a Government pilot and a shore gang of 8 persons. The shore gang connect and disconnect hoses and are assisted by the ship's crew. Whilst the vessel is loading the personnel maintain a watch on the forecastle, manifold and bridge.

Accommodation is required for one pilot, one PEMEX representative, one inspector and 8 crew. Mooring is carried out with the assistance of one tug which remains with the vessel at all times while cargo operations are under way. One rope is required aft for the tug.

Cargo Information: Grades available: Isthmus Crude and Maya Crude. Vessel loaded Isthmus Crude API 34.4, temperature on board 32.5° C. and Maya Crude API 22.0, temperature on board 44° C.

3×16 in. hoses were connected and the loading rate was 50,000-55,000 barrels per hour.

The Bill of Lading figures were established on board when the vessel was clear of the SBM. The ship's ullages were used to obtain the figures. Taking of ullages and paperwork takes approximately 5 hours and is prepared jointly by PEMEX inspectors, independent inspectors and ship's personnel.

General: Documents required on arrival are those required at other Mexican ports. If vessel has no Mexican forms on board they will be filled in by Agent from the ship's documents.

Repairs: Immobilisation of the engine not permitted while vessel is at the SBM.

Stores: A small amount of stores are available.

SHIPMASTER'S REPORT: November 1992.

Berthing: Pemex allow 20 minutes for berthing at the SBM's. This is from the time the messenger is taken onboard until the vessel is all fast. An additional charge of U.S.$ 1,000.00 is levied, if vessel is under 140,000 d.w.t. and U.S.$ 2,000.00 if vessel is over 140,000 d.w.t., if time taken is more than 20 minutes.

ENSENADA: 31.51 N. 116.38 W. (See Plan)

RESTRICTIONS: *Access Channel:* Length 900 m. Depth 9.7 m. – 10.0 m.

Turning Basin: Diameter 200 m. Depth 8.5 m. – 10.0 m.

MAX. SIZE: LOA 240 m., draft 9.8 m.

VHF: Port Authority on VHF Channel 16.

TUGS: 1×1,000 h.p.

BERTHING:

	Length (m.)	Depth (m.)
Coastal vessel quay	483.0	4.0 – 9.5
Deep sea quay	725.0	10.5

Storage: Warehouses 14,970 sq.m. Open areas 28,260 sq.m. Covered areas 30,789 sq.m.

Equipment: Cranes: 1×36 tons, 2×20 tons, 1×15 tons, 1×14 tons, 1×12 tons; 7 tractor-trucks; 12×500 lb. tractors; 4 chutes; 2 front-end haulers; 4 clams. Forklifts: 2×30,000 lb., 2×85,000 lb., 5×10,000 lb. – 20,000 lb. and 23×4,000 lb – 10,000 lb.

BULK HANDLING FACILITIES: Conveyor belt for handling limestone. Suction units for handling bulk cargoes at high capacity. Mechanical means for discharging tuna and anchovies.

MEDICAL: Hospital services available.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Mechanical, electrical and electronic repairs possible.

DRY DOCK: Floating dock for vessels up to 1,400 tons displacement.

AIRPORT: International airport at Tijuana.

SERVICES: Electricity, tenders, stores, laundry, garbage disposal, warehousing, fumigation, rental of equipment.

SHIPMASTER'S REPORT: July 1996.

Documents:

- 2 copies Crew List (and 3 additional copies from last Mexican port).
- 2 copies Vaccination List.
- 2 copies Ports of Call List.
- 2 copies Ship's Particulars.
- 1 copy Stowage Plan (if any cargo).
- 3 copies Personal Effects List.
- 3 copies Stores List.
- 1 copy (photocopy) of all basic ship's documents.

Pilotage: Compulsory. Pilot comes on board 7.5 cables from entrance of port from launch with black hull and white superstructure, and "Pilotas" on side.

Anchorage: One mile from breakwater, very good holding ground, depth 11.0 m. – 20.0 m.

VHF: Vessel to keep watch on Channel 16. Pilot on Channel 9.

Fresh Water: Available from berth.

AUTHORITY: Empresa de Servicios Portuarios, Blvd. Teniente Jose Azueta 224, Zona Franca del Recinto Portuario, C.P. 22800, Ensenada B.C., Mexico. *Tel:* (617) 817-20, 828-60. *FAX:* (617) 817-20. *Contact:* Fernando Castillo Menendez.

Coordinacion de la Unidad de Puertos y Marina Mercante (Mexican National Port Authority), Municipio Libre 377-12 B, C.P. 03310, Col. Sta Cruz Atoyac, 03310 Mexico, D.F. *Tel:* (525) 604-4249, 604-3829. *FAX:* (525) 688-9368.

GUAYMAS: 27.54 N. 110.52 W. (See Plan)

DOCUMENTS:

- 5 Crew Lists.
- 6 Passenger Lists.
- 5 Stowaway Lists.
- 1 Personal Effects Lists.
- 2 Stores Lists.
- 2 Provisions Lists.
- 2 Arms and Ammunition Lists (1 copy visaed).
- 4 Cargo in Transit Lists.
- Ship's Official Documents.
- Ballast Certificate.
- Clearance from last port.
- International Health Declaration.
- Derat Certificate.
- Manifest of Cargo for Discharge, visaed by Mexican Consul (original and 5 copies).

PILOTAGE: Compulsory. Pilot available throughout 24 hours. Pilot meets vessel at Fairway Buoy.

ANCHORAGES: Good anchorage in the vicinity of the Fairway Buoy. Depth 14.5 m. Bottom mud.

RESTRICTIONS: *Entry Channel:* Length 1,500 m., depth 12.0 m.

Turning Basin: Length 250 m., depth 11.0 m.

MAX. SIZE: 40,000 d.w.t., LOA 250 m., draft 12.0 m.

HEALTH: Free Pratique available by radio on arrival.

RADIO: Guaymas Coast Radio, "XFY". Receives on 425, 454, 468 and 480 kHz. Transmits on 429 and 489 kHz.

VHF: Pilot and Port Authority on VHF, but communications not reliable.

TUGS: 1×2,000 h.p.

BERTHING:

	Length (m.)	Depth (m.)
East Quay	577	10.5
South Quay	352	11.0

Storage: Sheds: 8,614 sq.m. Warehouses: 13,236 sq.m. Storage Yards: 181,000 sq.m. Tanks and Silos: 154,000 tons.

Equipment: 1×25 ton crane. Forklifts: 1×50,000 lb. – 92,000 lb., 1×20,000 lb. – 30,000 lb., 7×10,000 lb. – 20,000 lb. and 16×4,000 lb. – 10,000 lb. 3 tractor trucks; 18 tractors; 1 railway tractor; 35 clams; 22 chutes; 11 front-end haulers.

BULK HANDLING FACILITIES: The port has a specialised installation for the handling of dry bulk cargo, provided and operated by Almacenes Nacionales de Deposito S.A.

Characteristics: Warehousing capacity 68,000 tonnes. 36 silos arranged in 2 batteries. Conveyor belts permitting simultaneous filling of 4 holds of the vessel, with an absolute maximum rate of loading of 900 tonnes/p.h. Truck tipper. Hydraulic ramp for discharging road transport.

CARGO HANDLING FACILITIES: Loading and discharge of vessels is at the following rates:

General cargo – 25 tons/hr./hook.
Palletised cargo – 40 tons/hr./hook.
Dry bulk cargo – 80 tons/hr./hook (average).
Bales of cotton – average handling rate 100 bales/hr./hook.
Railroad and road transport up to alongside ship.

Vehicle ferries of Caminos y Puentes Federales de Ingresos, connect this port with La Paz and Santa Rosalia.

The port has equipment for handling all types of goods.

The Free Zone permits a more rapid transit of goods through the port, and a very great saving in Customs procedures.

Fumigation is provided for cargo, vessels, road and rail transport vehicles.

Lighting for night work permits work throughout 24 hours.

STEVEDORES: Working hours: 0800 – 0700 hrs.

MEDICAL: Doctors and hospital available.

TANKERS: Pemex Jetty – depth 10.0 m.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Mechanical, electrical and electronic repairs possible.

DRY DOCK: Slipway for vessels of less than 800 tons displacement (1,250 d.w.t.). Also see "General".

AIRPORT: International Airport in Guaymas, 10 km. from town.

SERVICES: Provisions, laundry, garbage disposal, communications, fumigation, equipment rental.

GENERAL: *Shipyards:* This is an important industry in the port with five shipyards handling the construction of fishing vessels for tuna, sardines and shrimps, with technology of international prestige. There is a slipway for repair of vessels drawing up to 15 ft., with a 135 m. long underwater ramp.

The Rodolfo Sanchez Taboada industrial zone managed by the National Fund for Port Development was created to activate industrial development in the port, and started with promoting industries allied to fishing, there being currently two fishmeal processing plants, a fishing vessel shipyard, and it is planned to install 25 more industries and a shipyard for construction of deep draft vessels covering an area of 173 ha. This complex has asphalted roads, electricity and drinking water supplies.

AUTHORITY: Delegacion de Puertos Mexicanos en Guaymas, Muelle Patio, Recinto Portuario, Zona Franca, C.P. 85430, Guaymas, Sonora, Mexico. *Tel:* (622) 253-60, 222-50. *FAX:* (622) 434-44.

Coordinacion de la Unidad de Puertos y Marina Mercante (National Port Authority of Mexico), Municipio Libre No. 377-12B, Col. Sta Cruz Atoyac, 03310 Mexico D.F. *Tel:* (525) 604-4249, 604-3829. *FAX:* (525) 688-9368.

Servicios Portuarios de Guaymas, S.A. de C.V., P.O.Box 197, Guaymas, Son., Mexico. *Tel:* 4-34-42, 4-34-43, 2-22-50, 2-53-60. *FAX:* 4-34-44. *Contact:* Ing. Jesus Roberto Hernandez Camalich, General Manager.

LAZARO CARDENAS: 17.55 N. 102.10 W. (See Plan)

PORT LIMITS: Area within limits of anchoring described below. For "Arrived Ship", pilotage limits 1 mile to seaward from breakwaters.

DOCUMENTS:

- 7 Crew Lists.
- 2 Vaccination Lists.
- 1 Sanitary Health Declaration.
- 3 Stores Lists.
- 2 Personal Effects Lists.
- Clearance From Last Port.
- Voyage Memorandum, showing also Ship's Registry.
- Derat Certificate and Cargo Gear Certificate regarding cargo.
- 5 Cargo Manifests.
- 5 Bills of Lading.

PILOTAGE: 24 hours advance notice through coastal station, addressed to "Puerto" Lazaro Cardenas, Mich. A VHF watch on Channel 16 is maintained Monday to Friday, 0800 to 1900 hrs. and at any time previously requested by ship's Agent. VHF range 45 miles. Pilot will board normally either at Sea Buoy (17° 53.1' N., 102° 09.6' W.) or at the anchorage, and at Master's request further out if required. In the event of heavy sea, vessel will be instructed accordingly via VHF.
ANCHORAGES: One mile West of Sea Buoy. Very good holding ground, care should be taken not to anchor on, or near leading line (304°) due to a submarine canyon with over 100 fathoms depths at 1 mile off the breakwater.
RESTRICTIONS: Vessels up to 200 m. LOA and up to 35 ft. salt water draft may enter or leave the port 24 hours a day, larger vessels or those with deeper draft only with daylight. Vessels with over 42 ft. salt water draft must wait for tide.
Access Channel: Length 1,500 m., depth 14.0 m.
Industrial Turning Basin: Length 500 m., depth 14 m.
Turning Basin: 700 m. diameter and 14 m. depth.
MAX. SIZE: 80,000 d.w.t. LOA 259 m., draft 13.2 m.
HEALTH: Pratique can be granted by VHF radio. Automatic Pratique is granted when coming from another Mexican port.
RADIO: Radio Maritima Manzanillo "XFM" and Radio Maritima Mazatlan "XMA" are recommended coastal stations through which to route ETAs. Initial contact on 2182 kHz.
VHF: At port; 25 watt 45 mile range. Channels 6, 16, 26, 11, 12, 13 and 69. Initial contact to be made on Channel 16, manoeuvring on Channel 6, port operations on Channels 11, 12 and 13.
RADAR: No radar service available.
TUGS: 1×1,000 h.p. and 1×4,000 h.p.
BERTHING:

	Length (m.)	Depth (m.)
Metal and Mineral Quay	650	14
Container Quay	284	12
General Cargo Quay	504	9.7 – 9.4

Shore cranes and sometimes ship's gear used for steel products. Significant cargoes are steel structure, coke-breeze, pig iron and finished steel products, also grain and sugar.
Equipment: 3 wharf cranes, 1×100 ton crane, 5×5-25 ton cranes and 7 cranes of various capacities; 31 tractor trucks; 12 tractors; 2 railway tractors; 10 chasis; 5 vacuums; 10 clams; 5 hydraulic clams; 10 chutes; 19 front-end haulers. Forklifts: 6×50,000 – 92,000 lb., 2×30,000 – 50,000 lb., 27×10,000 – 20,000 lb. and 25×4,000 – 10,000 lb.
Storage: Warehouses 33,974 sq.m. Yards 286,400 sq.m.
BULK CARGO FACILITIES: There is a shore crane clam-bucket type 250 t.p.h. capacity capable of loading and unloading. Clearance from boom to MLLW 35 m. Conveyor belt system in operation.
Also see "Developments".
SPECIALISED CARGO HANDLING FACILITIES: Berth No. 1 can handle containers and heavy lifts up to 40 tons. Berth No. 2 can handle bulk and ores.
BRIDGES: No bridges.
STEVEDORES: Agents will arrange for stevedores with Lazaro Cardenas Port Services Co.
MEDICAL: Advance notice required by Agents when medical assistance required, emergencies can be routed via VHF at Pilot Station (Channel 16). 2 hospitals and 2 clinics with a total of 40 beds available plus a new hospital with 50 bed capacity will accept seamen. Yellow fever and cholera vaccination desirable.
TANKERS: Mineral Wharf has 10 in. diameter lines to discharge fuel oil.
DENSITY: Highly variable, can range from 1024 in dry season to 1012 in rainy season.
FRESH WATER: Available. 3 in. pipe on Mineral Wharf (American standard thread), but is recommended to boil it for drinking purposes.
FUEL: Available.
FIRE PRECAUTIONS: Tankers should fit a good ground connection to quay and have 2 lines hanging fore and aft ready for emergency towing.
CONSULS: No consuls available at present.
REPAIRS: Small and medium size repairs can be done at the workshop of the steel works if previous advice sent to Agent and Port Services Company.
DRY DOCKS: No dry docks available.
SURVEYORS: Two independent surveyors available for draft surveys, on/off hire and damage, can be contacted through Agents.
GANGWAY/DECK WATCHMEN: Not necessary or recommended.
HATCHES: Normally done by crew members, or by stevedores at ship's request.
CUSTOMS ALLOWANCES: There are no regulations. It is according to the Master's judgement for his needs for the stay in the port.
CARGO GEAR: Normally done with ship's gear but shore cranes are available upon request. Heavy lift cranes up to 40 tons.
REPATRIATION: All facilities for crew changes.
AIRPORT: Zihuatanejo Airport, nearest 135 km. 5 daily flights to Mexico City with connections to all parts of the world.
TIME: GMT minus 6 hours.
HOLIDAYS: 1st January, 1st February, 5th February, 21st March, 1st May, 16th September, 20th November, 25th December, 1st December every 6 years when there is change of President
POLICE/AMBULANCE/FIRE: Police Tel: 2-0154. Ambulance Tel: 2-05-75. Fire Tel: 2-03-33 ext. 1020 and 1000
TELEPHONE: No shore connection available.
SERVICES: Only ship chandler and laundry.
SHORE LEAVE: Crew members allowed shore leave without any special permit.
IDENTIFICATION CARDS: Seaman's Book is sufficient.
REGULATIONS: No special regulations.
DELAYS: No delays expected.
SERVICES: Provisions, fumigations, garbage disposal, laundry.
GENERAL: Salinity in basin and docks always changing and subject to tides and river flow, recommend taking at least 5 samples from keel to surface to get an adequate average of salinity.
DEVELOPMENTS: Fertimex Berth: Phosphate rock, length 509 m., depth from 12 m. to 14 m. 1 screw unloader with capacity of 600 t.p.h. for rock and sulphur and 500 t.p.h. for salt. The facilities were damaged by an earthquake in September 1985 and repairs underway.
Grain Berth: 250 m., depth from 12 m. to 15 m.; "L" shaped berth, outside 250 m., inside 210 m. with depth 11 m. Silo with capacity 80,000 tons. Capacity of unloader 600 t.p.h.

SHIPMASTER'S REPORT: June 1996.
Documents:
2 copies Maritime Declaration of Health.
2 copies Voyage Memo.
3 copies Ports of Call List.
8 copies Crew List.
3 copies Crew Effects Declaration.
4 copies Provisions List.
3 copies Arms and Ammunition List (or "Nil" Declaration).
3 copies Drugs List (or "Nil" Declaration).
Port Authority requires one copy of the following ship's documents:
Load Line Certificate.
Ship's Register.
International Tonnage Certificate (1969).
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radiotelegraphy Certificate.
Oil Pollution Certificate (IOPP).
Additional information required: Master's name and crew nationalities.
On arrival, Port Authority check Cargo Gear Certificate if ship's gear used for cargo operations.
Pilotage: Pilot boards 1 mile from breakwater.
Fresh Water: Delivery by lorry at Fertinal Berth. Price about U.S.$2.50/tonne. Quality of water is not very good, high percentage of chlorine.
Deck Watchmen: Not necessary.
Shore Leave: No documents required, but if vessel at Fertinal Berth, Agent or factory representative will deliver shore passes.
Time: GMT minus 5 hours in Summer.
Currency: Peso. U.S.$1.00 = 7.0/7.55 Pesos.
General: One trip from city to port costs 20-25 Pesos.
Immigration Officer collects all passports on arrival and returns them before departure.
Harbour Office gives no warning of bad weather, so vessel to keep a good lookout.

AUTHORITY: Administracion Portuaria Integral de Lazaro Cardenas S.S. de C.V., Rio Tepalcatepel No. 29, Lazaro Cardenas, Mich. Mexico. *Tel:* (753) 220-65, 217-23. *Telex:* 01772873 Cplcme. *FAX:* (753) 221-30, 227-86.
Coordinacion de la Unidad de Puertos y Marina Mercante (Mexican National Port Authority), Municipio Libre 377-12B, C.P. 03310, Col. Sta Cruz Atoyac, 03310 Mexico D.F. *Tel:* (525) 604-4249, 604-3829. *FAX:* (525) 688-9368.

MANZANILLO: 19.03 N. 104.20 W. (See Plan)

DOCUMENTS:
14 Crew Lists.
20 Passenger Lists.
Derat Certificate.
Vaccination Certificate for each crew member.
Cargo Manifest and one copy to be visaed.
8 additional copies of Cargo Manifest, unvisaed.
10 Bills of Lading, one copy to be attached to each cargo manifest.
Also see 'Shipmaster's Report" dated February 1995.
PILOTAGE: Pilot station on VHF Channel 16, only keeps watch when vessel expected. Pilots are ordered by Agents basis Master's ETA.
Pilot boat is black with white wheel-house on which is painted letter "H". International Code signals used. Pilot normally boards vessel about 1 or 2 miles from breakwater but if requested in advance the pilot boat will come out to 5 or 6 miles. Pilot cannot board in rough weather. Vessels waiting for Pilot may anchor about 2 – 3 miles N.W. of breakwater in depths of 12-15 fathoms.
ANCHORAGES: Vessels may anchor in the whole North part of the Bay where depths are 12-15 fathoms at a distance of 1 – 2 miles from the coast.
RESTRICTIONS: Vessels may enter at any time day or night.
Access Channel: Length 450 m. Depth 12.0 m.
MAX. SIZE: No limitation for anchoring in the bay. For mooring: Fiscal Quay, max. length 200 m., max. draft 32 ft. Interior port, length no limit, max. draft 46 ft. Container Terminal, max. length 250 m., max. draft 46 ft.
Also see "Tankers".
HEALTH: Port Health Officer and Immigration Officers board vessel at anchorage. Passengers and crew may be required for inspection.
RADIO: Coastal station Manzanillo Radio, call sign XFM, operating 0600 – 1800 hrs. local time.
VHF: See "Pilotage".
TUGS: 1 tug available, compulsory to use tug when mooring alongside. Tug will join vessel as ordered by the Pilot.

BERTHING: Old Port:

Name	*Length* (m.)	*Depth* (ft.)
Muelle Fiscal Quay		
East Side	230	36 (Outer end) 16 (Inner end)
West Side	220	36 (Outer end) 20 (Inner end)
Coastal Quay	305	13 – 20
Naval Quay	165	13 – 37

Interior Port: Length 1,700 m., depth 40 ft. – 46 ft.

Container Terminal: Length 250 m., depth 46 ft. 2 Panamax cranes available.

Access channel and turnig basin have a depth of 46 ft.

STEVEDORES: Advise Agent in advance number of gangs required. Discharge rate approximately 20 t.p.h. – 25 t.p.h. per gang.

MEDICAL: Agent should be advised in advance if medical attendance required on board. Hospital facilities available.

TANKERS: 2 berths available, max. length 650 ft. No restriction on beam. Max. draft: N.E. side 31 ft. (Forward) and 38 ft. (Aft). S.E. side 33 ft. (Forward) and 38 ft. (Aft).

New Pemex Jetty: Located on the inner side of the west breakwater. "T" shaped berth with length of Approx. 110 m. on outer side. Depth alongside 52 ft. (inner) and 64 ft. (seaward end). 8 cargo arms available.

FRESH WATER: Should be ordered in advance. Rate of 10 t.p.h. Vessels must furnish own hose for pumping, 2 in. coupling. No barges available for delivery at anchorage.

FUEL: Should be ordered in advance. All grades available. May be expensive due Customs fees.

CONSULS: Nearest are at Colima and Guadalajara.

REPAIRS: Only repairs to auxiliary machinery can be effected with permission. At Guadalajara hull repairs may be effected provided dry dock not required.

GANGWAY/DECK WATCHMEN: No shore service available.

OPENING/CLOSING HATCHES: Normally performed by crew.

CUSTOMS ALLOWANCES: Each crew member may retain 1 carton of cigarettes, and 1 bottle wine/spirits for his own use. No alcohol may be taken ashore.

REPATRIATION: Can be arranged.

AIRPORT: Local airport only for internal traffic.

TIME: GMT minus 6 hours all the year round.

HOLIDAYS: The following holidays can only be worked in case of emergency: 1st January; 5th February; 21st March; 1st May; 5th May; 16th September; 12th October; 25th December; and in addition 23rd May, Anniversary of the Stevedores' Union.

POLICE/FIRE/AMBULANCE: Police Tel: 4; Fire Tel: 23; Ambulance Tel: 96.

TELEPHONES: Cannot be connected on board ships.

SHORE LEAVE: Permitted, except for crews of Russian, Cuban and Communist Chinese vessels.

Crew members left behind by vessel must be covered by 10,000 Pesos bond to guarantee repatriation expenses.

IDENTIFICATION CARDS: Not required. A Crew List should be left at the gate for checking crew.

DEVELOPMENTS: Improvements are in progress to accommodate vessels up to 30,000 tons with a draft of 40 ft.

Shipmaster's Report: December 1984. A new port is under construction in Laguna de San Pedrito close East of the Old Port. There are already piers to accommodate 4 medium size vessels, and cement poles are being rammed all around the Lagoon, also dredgers are dredging the Lagoon to an expected depth of about 14 m.

SHIPMASTER'S REPORT: May 1994.

Cargo: Loading of molasses.

Charts: B.A. Charts No. 516 and 1053.

Sailing Directions: NP 8-5.69 et seq. Guide to Port Entry 1993/94 Edition (P.1318).

Approaches: No difficulties. Manzanillo is conspicuous at night with the loom of the port lights showing up well. Pta.Campo Light is conspicuous, but is almost unnecessary as the power station complex just to the East is well lit.

In daylight, the power station chimneys (3 tall concrete structures, which appear to be about 400 ft. high, 2 thin ones serving one boiler house, and a thick one serving another. The third, apparently older, unit is served by short steel chimneys) and boiler houses are highly visible, not only because of their size, but also because combustion control seems to be very poor and the cloud of white-grey smoke is a constant mark. While the ship was alongside, smoke could be seen drifting over the town and the decks were quickly soiled with ash and soot. Power lines leading to the interior show clearly on the radar from the South.

As we were expected, communications with the Pilot on VHF Channel 16 were no problem, but on a previous passage when we stopped to aid a local fishing boat, it proved impossible to raise anyone.

The bay is wide and free from obstructions. The anchorage N.W. of the breakwater head is good.

Extensive tourist development is underway on the peninsula between the two bays and along the beach of Bahia de Manzanillo. A new marina is situated at the N.W. end of the beach. Bahia de Santiago has a small amount of tourist development at the North end.

Pilotage: Pilot boards about 1 mile from the breakwater head by boat or from a tug. Pilot boat is a fairly new launch capable of a reasonable speed and has a black hull with white cabin.

Tugs are modern and of adequate power and are well handled. One tug was used forward.

We berthed on the West side of Muelle Fiscale, a concrete deck on steel piles with a concrete warehouse (See plan in "Guide").

Depths are as noted in the "Guide".

Approach to berth was taken slowly and was without any difficulties. Berth is adequately supplied with bollards and truck tyre fenders.

Only one mooring buoy exists off the pier and this is to the East.

Cargo: 11,000 tonnes of molasses loaded using 2×8 in. hoses at an average rate of 220 cu.m./hr. Lines are under the deck of the pier and the connection is under a steel plate close to the edge of the dock at the manifold area.

Officials: Dealt with quickly. On our first visit, we had come from El Salvador and were boarded by a rummage squad from the Mexican DEA who carried out a thorough drugs search (supervised by a large Alsatian). On our second visit, we had come from U.S.A., and while the same squad boarded, they left without searching.

No matter how many copies of documents you have to hand, two more are required.

Routine items seem to require a lot of paperwork. A consignment of urgent main engine parts had to be delivered from Europe via Mexico City, but to get to us quickly, they had to be accompanied from Mexico City to Guadalajara by a member of the Agency staff at an additional cost of $800.

It was said that any personnel repatriated would have to be accompanied by Agency staff as far as Mexico City, but I cannot vouch for the accuracy of this.

Stores: Fresh provisions and bond items are available. Quality appears good, but prices quoted are very high compared with U.S.A.

Chandlers seem to start with a high quote and then come down, but still do not get down low enough for any significant orders.

SHIPMASTER'S REPORT: February 1995.

Vessel: Loaded tanker, 62,000 d.w.t.

Documents: The following were required on arrival:

6 copies Crew List.
1 copy Vaccination List.
1 copy Health Declaration.
3 copies Personal Effects Declaration.
5 copies Declaration of Ship's Stores.
5 copies Bill of Lading.
10 copies Cargo Manifest.
1 copy Clearance from Last Port.
3 copies General Declaration (Were taken, though not specifically requested).

If no passengers on board, then No Passenger List required.

On vessel's first call to that port each year, a photocopy of the major Trading Certificates are required (Register, Safety Construction, Safety Equipment, Safety Radio, Load Line and Tonnage Class Certificate).

AUTHORITY: Administracion Portuaria Integral de Manzanillo S.A. de C.V., Ave. Teniente Azueta No. 9, Fracc. Playa Azul, A.P. 235, C.P. 28200, Manzanillo, Mexico. *Tel:* (333) 230-61. 230-54. *FAX:* (333) 208-15.

Coordinacion de la Unidad de Puertos y Marina Mercante (Mexican National Port Authority), Municipio Libre 377-12B, Col. Sta Cruz Atoyac, 03310 Mexico, D.F. *Tel:* (525) 604-4249, 604-3829. *FAX:* (525) 688-9368.

MAZATLAN: 23.11 N. 106.26 W. (See Plan)

LOCATION: The port is located on the Pacific Ocean, at Lat. 23° 11' N., Long. 106° 26' 30" W., on Northwest point of Quevedo's Peninsula.

PORT LIMITS: Dockage charges commence when vessel is made fast to wharf.

DOCUMENTS: Basic Customs documents for entry:

2 copies Form for Formal Entrance at Customs House.
2 copies Master's Oath.
2 copies General Declaration.
2 copies Arrival Crew List.
2 copies Manifest of Cargo for Discharge.
2 copies Passenger List.
1 copy Clearance from Last Foreign Port (if applicable).
2 copies Crew's Effects Declaration.
1 copy Manifest of all Foreign Cargo onboard.
1 copy Dangerous Cargo Manifest.

(All to be stamped by Mexican Consul or a representative of a friendly country).

Valid Original Vessel documents.

(Note: For more information please refer to Mexican Navigation Laws).

On arrival the following officials * will board:

Port Health Authority.
Customs.
Agricultural Department Authority for checking ship's provisions, mainly vegetables.
Doctor for checking "meat" in the fridge room.
Immigration.
Ship's Agent.
Port Authority representative.

* They may also require documents.

APPROACHES: *Channel Entrance:* 1,500 m. in length; 11.0 m. in depth and 100 m. in width in the access channel. 350 m. length and 12.0 m. depth in Harbour Dock.

Secondary Channel to fishing port: Length 1,060 m., depth 7.0 m. and width 50 m.

PILOTAGE: Compulsory. Provided by Pilot's National Union, Av.Miguel Aleman No. 616-A14, Mazatlan, Sinaloa, C.P. 82000. Tel: (69) 816101. Fax: (69) 823396. Pilots communicate with vessel through VHF Channel 16. If no answer, ask Mazatlan Port Control to call Pilots on land line. Tel: (69) 833510. Notice of ETA and request for Pilot must be made to the Pilots Union at least 24 hours in advance.

ANCHORAGE: Anchorage is designated by the Bar Pilots, which in most instances is at sea. Recommended position is with Cerro del Creston Lighthouse bearing 310°, 2 miles in approximately 10 fathoms. The approach is clear with no obstructions, except Piedra Negra Rock, which is just 7 ft. above the water.

RESTRICTIONS: No movements of large vessels permitted at night or during strong tidal streams.

MAX. SIZE: Cargo vessels: LOA 190 m., draft 27 ft. or LOA 180 m., draft 33 ft. and attended by 1 tug. Cruise vessels: LOA 240 m., draft 30 ft. (if fitted with bow thruster and vessel has 2 engines and uses 2 tugs).

HEALTH: Depending on the specific problem, inoculations and vaccinations must be applied to the whole crew. After which, actions will be taken to determine the possible application of the pratique.

RADIO: Mazatlan has a Coastal Radio Station (functioning 24 hours a day), which can be reached on 500, 512, 451, 455, 461 or 479 kHz on medium frequency, 4250, 6484.5, 8470, 12,703, 17,151.5 kHz on high frequency, VHF Channel 16. Lighthouse Radio on 30,009 kHz.

VHF: All facilities in operation on the Port Channel 16. To make communication, just call the name of the party you wish to contact. Once contact has been made, vessel can agree another channel to continue the communication, leaving Channel 16 free.

RADAR: No port radar service. The Military Marine Zone has radar for its own use.

TUGS: One tug of 2,500 h.p. available to assist with berthing. Tug normally joins the vessel at the access channel. The charge for use of tug is minimum one hour; U.S.$375.00 per hour. There is a surcharge of 25% after the hour.

BERTHING: The port has 2 sections: Public Use and Exclusive Use.

All berths are in salt water.

Wharves	*Length* (m.)	*Depth* (m.)	*Use*
1	260	8.80	Load/discharge
2	185	7.60	Load/discharge
3	174	8.90	Load/discharge/cruises
4	168	10.00	Load/discharge/cruises
5	351	10.00	Load/discharge/cruises
Cruise	140	10.00	Cruises
Industrial Park	1,060	7.50	Tuna/fishing ships
Molasses	265	11.00	Vessels
Ro-Ro Berths	2 berths	10.00	Ferries
Pemex	22	9.00	Petroleum tankers

Supplementing the berths are 28,000 sq.m. of transit shed storage space. Approximately 60,000 sq.m. of open storage; 14,800 sq.m. of closed area; 3,500 tons of freight storage; 33,400 sq.m. of a container area; 30 electric points for freight fridge containers and 4,000 tons in tanks for blackstrap molasses.

All vessels, their Owners and Agents, desiring a berth at wharves, shall as far in advance of date of docking as possible, make application to port specifying date of docking, sailing, nature and quantity of cargo to be handled, cruise passenger lists and name of the vessel.

CRANES: Not available. Vessels are required to use their own gear.

Equipment: The following are available: 1×80,000, 1×30,000, 1×20,000, 1×18,000, 14×8,000, 4×6,000 and 4×4,000 lb. capacity forklifts; 14×1.5 cu.yard capacity payloaders; 22×5,000, 5×15,000 lb. capacity tractors; 1×80,000 lb. and 1×20,000 lb. capacity cranes.

BULK CARGO FACILITIES: See "Berthing". Quay length 1,125 m., depth 10.0 m. – 12.0 m. Maximum permissible draft 30 ft.

SPECIALISED CARGO HANDLING FACILITIES: Equipment for handling containers and blackstrap molasses available.

BRIDGES: No bridges in port.

STEVEDORES: The rates will depend on the cargoes. Recognised working hours (24 hours daily) from Monday to Saturday. There is a surcharge of 40% on Sundays and holidays.

MEDICAL: Full hospital facilities available without prior notice. Dentists available during normal working hours.

TANKERS: Only 10 in. diameter discharge lines available. No residue discharge facilities. One berth with 9.0 m. depth. Maximum permitted draft 30 ft. Shore gangways available. Facilities available to combat oil spills using containing fenders for prevention. No space for transfer facilities from ship to ship.

DENSITY: Average 1022.

FRESH WATER: Fresh water delivered to vessels at wharves or docks per tariff charge of U.S.$ 0.70 per cu.m.

FUEL: Private firms with trucks or barges available by prior arrangement through vessel's Agent.

FIRE PRECAUTIONS: Smoking is strictly prohibited in transit sheds, warehouses, or on apron of wharves and on vessels handling dangerous, hazardous or inflammable cargo. Smoking is also prohibited in any areas where gasoline or like materials are being handled.

Explosives and hazardous or highly inflammable commodities or materials may be handled over, or received on the wharves or other facilities of Port of Mazatlan by special arrangements with and at the option of the Port Director, and the receiving, handling or storage of such commodities shall be subject to Federal and State Laws, rules and regulations.

In all cases where explosives and hazardous or highly inflammable commodities or materials are to be handled, prior consent by the Mexican Port Authority must be received, and a copy of the consent filed with the Port Director. Responsibility for safe guarding of life and property will be the duty of the shipper. Proof of sufficient liability insurance must be presented to Port Director prior to arrival of such materials.

CONSULS:

Belgium.	Tel: (69) 851466.
Brazil.	Tel: (69) 813209. Fax: (69) 854053.
Canada.	Tel: (69) 137220 or 134455.
Denmark.	Tel: (69) 850578.
Finland.	Tel: (69) 813907 or 817560.
France.	Tel: (69) 828552 or 826048.
Germany.	Tel: (69) 135100.
Italy.	Tel: (69) 851478 or 814855.
Netherlands.	Tel: (69) 135155.
Paraguay.	Tel: 812877.
U.S.A.	Tel: (69) 852205 or 852207.

REPAIRS: Workshop for mechanical repairs. Electrical and electronic repairs possible. Repairs of very large fishing fleet or small freighters, afloat. No docking.

DRY DOCK: Shipyard and slipway for small vessels.

SURVEYORS: Lloyd's Register: Ing. Gustavo Abaroa Galvez, Alamo 268, Fracc. Alameda, Mazatlan, Sinaloa C.P. 82120. Tel: (69) 838551 (same number for Fax).

A.B.S.: Ing. Alfredo S.Troncoso Martinez, Rio Presidio 975 esp. Rio San Lorenzo, Mazatlan, Sinaloa, C.P. 82010. Tel: (69) 823320 or 813533. Fax: (69) 828442.

GANGWAY/DECK WATCHMEN: No requirement for watchmen, except for special vessel conditions or security reasons as determined by Port Director.

HATCHES: Normally opened and closed by ship's crew.

CUSTOMS ALLOWANCES: Mexican Customs Regulations apply.

REPATRIATION: Can be arranged via Mazatlan Airport or Mexico City. Several flights daily from local airport direct to Southern and Western U.S.A. airports.

AIRPORT: 12.5 miles from the port.

TIME: GMT minus 7 hours throughout the year.

HOLIDAYS: January 1st; February 5th; March 21st; May 1st; September 16th; October 12th; November 20th; December 25th; December 1st every 6 years (Presidential election year).

POLICE/AMBULANCE/FIRE: Police Tel: (69) 844499. Red Cross Ambulance Tel: (69) 851451 or 813690. Fire Department Tel: (69) 812769 or 813600.

EMERGENCY CO-ORDINATION CENTRE: Centracom Tel: 06 and Mazatlan's Fire Department Tel: (69) 812769 or 813600, radio frequency 461.950 MHz. Fire engine VHF Channel 16. Address: Av. Gabriel Leyva 1935, Mazatlan, Sinaloa, CP 82000.

TELEPHONES: Arrangements exist for placing telephones on board. A letter, detailing data regarding the telephone number in Mazatlan to which the charges will be referred, is required.

SERVICES: Fresh provisions. Salvage surveyor. Laundry service, groceries and meats, frozen vegetables, etc.

Fumigation: Fumigation service is available and provided alongside. Arrangements must be made through the Agent.

BANKS: Banks with foreign departments:

Banco Nacional de Mexico, Av. Benito Juarez esq. Angel Flores, Mazatlan, Sinaloa, CP 82000. Tel: (69) 827754. Fax: (69) 827434.

Bancomer, Av. Benito Juarez esq. 21 de Marzo, Mazatlan, Sinaloa, CP 82000. Tel: (69) 826732. Fax: (69) 817838.

STORING: Vessels can be stored by trucks or wagons.

Trucks and wagons can proceed alongside the berths.

The distance from the vessel can be as close or as far as needed.

Forklift trucks can be used on the jetty to handle stores.

Mexican Customs Regulations must be fulfilled regarding storing.

Local riggers can be employed to assist with storing.

IDENTIFICATION CARDS: Seamen's Books and a Crew List are sufficient.

GARBAGE DISPOSAL: Collection service is available and provided alongside. Arrangements must be made through the Agent.

SEAMEN'S CLUBS: None.

CURRENCY: Mexican Pesos and U.S.Dollars are accepted.

DELAYS: In mid-August, there could be delays due to weather, once the rain season starts.

GENERAL: Mazatlan is one of the largest ports in Mexico. There is a large resort with excellent hotels and large numbers of tourists. It is also the largest fishing port on the West Coast of Mexico. It has the second largest Natural Marina in the world.

DEVELOPMENTS: 100 hectares available for industry and another 365 hectares available for tourist development. Rail Road connects to Nogales, Mexicali and Mexico City.

AUTHORITY: Capitania de Puerto, Prolongacion Carnaval y Calle Carrizo, Mazatlan, Sinaloa, Mexico. *Tel:* (69) 828413. *FAX:* (69) 812204. *Contact:* Captain Jose Luis Woodward, Port Captain.

Port Operators: Administracion Portuaria Integral de Mazatlan, S.A. de C.V., Interior Recinto Fiscal S/N, Mazatlan, Sinaloa, Mexico 82,000. *Tel:* (69) 823019. *FAX:* (69) 821960. *Contact:* Alfonso Gil Diaz, Port Director.

MINATITLAN: 17.54 N. 94.35 W.

DOCUMENTS: See "Coatzacoalcos".

PILOTAGE: See "Coatzacoalcos – Pilotage". Port about 17.5 miles up–river from Coatzacoalcos. Vessels are piloted either up-river or down-river to and from Minatitlan.

ANCHORAGES: Only at Coatzacoalcos. At Minatitlan, river is narrow and anchorage not permitted.

RESTRICTIONS: Vessels may enter harbour only in daylight. Latest time for entry and sailing to and from Minatitlan is 1500 hours.

Access Channel: Width 70 m. Depth 7 m.

Manoeuvring Basin: 850 m. × 190 m. Depth 7 m. – 11 m.

MAX. SIZE: Max. LOA at Pemex berths: 475 ft. Max. LOA at Fiscal berth: 440 ft. No breadth restrictions at both. Max. draft permitted: 21 ft. in fresh water.

HEALTH: Pratique never given by radio. Vessels granted Pratique at anchor at Coatzacoalcos. Vessels must prepare accommodation ladder, to be boarded by port authorities.

TUGS: 1 tug required to accompany vessels past the Coatzacoalcos Bridge. Tugs rejoin vessels in the river on arrival at berth. Tug's lines used. For vessels over 2,000 g.r.t. 1 tug required; over 3,000 g.r.t. 2 tugs required.

BERTHING: Normally vessels dock starboard side to. Petroleos Mexicanos (Pemex) has 8 berths for tankers, where they can load crude, fuel oil, gasoline, benzene, xylene, metaparaxylene, toluene and other petroleum derivates. Fiscal berth has a length of 73 m. depth alongside of 7.5 m. Actually only used to discharge harmless bulk fertilisers. Discharge performed by elevator at a rate of 800 tons per 24 hours, also by ship's gear using buckets at a rate of 200 tons per day per hatch.

BRIDGES: See "Coatzacoalcos – Developments".

STEVEDORES: No ETA advice necessary. Agent of Receivers of cargo order gangs to discharge. Straight working hours from 0700 to 1500 Mondays through Saturdays. Latest time to order gangs 0645 and 1445 hrs.

TANKERS: No ballast to be discharged in the river. All ballast to be discharged to shore tanks through 2×6 in. pipelines.

PEMEX No. 1 Marginal Berth: Location 78 m. downstream from the South Face of the Lazaro Cardenas Refinery.
Arrangement: Marginal.
Length: 34 m.
Width: 12.4 m.
Useful Berthing Length: 34 m.
Height Above Average Low Tide: 3.43 m.
Depth: 3.5 m. at Average Low Tide.

PEMEX No. 2 Marginal Berth: Location: Immediately after Berth No. 1.
Arrangement: Marginal.
Length: 103 m.
Width: 9 m.
Useful Berthing Length: 103 m.
Height Above Average Low Tide: 3.43 m.
Depth: 3.5 m. at Average Low Tide.

PEMEX Quay No. 3: Location: 507 m. downstream from the South Face.
Arrangement: T Shaped.
Length: 12.5 m.
Width: 4.6 m.
Useful Berthing Length: 12.5 m.
Height Above Average Low Tide: 3.6 m.
Depth: 8.5 m. at Average Low Tide.
Services: Drinking water, 13 product loading and discharge lines.

PEMEX Quay No. 4: Location: 667 m. from the South Face.
Arrangement: Pier.
Length: 17.9 m.
Width: 14.8 m.
Useful Berthing Length: 37.8 m. with the aid of 2 Dukes of Alba.
Height Above Average Low Tide: 4 m.
Depth: 9.4 m. at Average Low Tide.

PEMEX Quay No. 5: Location: 824 m. downstream from the South Face.
Arrangement: Pier.
Length: 21.5 m.
Width: 15.6 m.
Useful Berthing Length: 31.6 m. with the aid of 2 Dukes of Alba.
Height Above Average Low Tide: 3.7 m.
Depth: 3.6 m. at Average Low Tide.

PEMEX Quay No. 8: Location: 1,063 m. downstream from the South Face.
Arrangement: Marginal.
Length: 91.7 m.
Width: 6.1 m.
Useful Berthing Length: 91.7 m.
Height Above Average Low Tide: 3.9 m.
Depth: 1.5 m. at Average Low Tide.

PEMEX Quay No. 9: Location: 1,178 m. downstream from the South Face.
Arrangement: Marginal.
Length: 240 m.
Width: 29.1 m.
Height Above Average Low Tide: 3.73 m.
Depth: 3.1 m. at Average Low Tide.
Services: Track for mobile crane, bitts, lighting and water (fresh), gas feed points.

Tanks: Tanks which PEMEX has within the General Lazaro Cardenas Refinery.

No. of Tanks	*Content*	*Capacity Millions of Litres*
10	Wax Crude	108.3
1	Non-wax Crude	5.3
10	Petrol	93.2
11	Diesel	94.7
7	Primary Paraffin	32.3
7	Turbosine	12.8
9	Fuel Oil	90.2
5	FR-3 Asphalt	20.3
11	Hexane Aromatics	8.8
2	Heptane Aromatics	0.9
1	Betolime	0.7
20	E. Benzine	13.1
7	Toluene	8.3
9	Xylene	6.8
2	Aromine	1.5
4	F.C.C. Catalytic	19.4
2	Heavy Aromatic	2.3
1	Reformed Naphtha	6.5
2	Formed Wood Spirit	11.6
1	Poli Gasoline	1.7
1	Refined	7.3
1	Primary G.	7.3
4	Absorption Liquid	7.6
3	Recuperated Oil	21.8
8	Neutral Lubricants	5.2
17	Finished Lubricants and those in preparation	2.2
9	Finished Lubricants and those in preparation.	1.5
11	Balance Tanks	81.0

MEDICAL: Hospital facilities available.

DENSITY: Averages 1006.

FRESH WATER: Available at all berths, but is not recommended.

FUEL: Marine diesel oil and Bunker "C" obtainable at Pemex berths. Bunker "C" also obtainable by barge, and diesel oil only by tank truck.

REPAIRS: No dry docks available, but small repairs can be done in shore repair shops.

CUSTOMS ALLOWANCES: No restrictions. Free use on board. 2 Customs guards remain on vessel while alongside.

AIRPORT: About 15 minutes' car drive away. Regular flights to Mexico City.

TIME: GMT minus 6 hours.

TELEPHONES: No facilities for placing telephones on ships.

DEVELOPMENTS: Constant programmes for more berths, sheds, dredging and equipment are under way, but rather slow.

AUTHORITY: Coordinacion de la Unidad de Puertos y Marina Mercante (Mexican National Port Authority), Municipio Libre 377-12B, C.P. 03310, Col.Sta Cruz Atoyac, 03310 Mexico, D.F. *Tel:* (525) 604-4249, 604-3829. *FAX:* (525) 688-9368.

MORRO REDONDO, Cedros Island: 28.02 N. 115.11 W. **(See Plan)**

LOCATION: Bulk Salt Terminal: Lat. 28° 02.8' N., Long. 115° 10.9' W.

DOCUMENTS:
2 copies International Tonnage Certificate.
9 copies Crew List (Ordinary).
3 copies Crew Effects Declaration.
3 copies Ship's Stores Declaration.
1 copy Ship's Particulars (General information).
Last Port Clearance.
Maritime Declaration of Health (Original).

The Authorities such as Port Health, Customs and Immigration together with the Agent will board after the vessel has berthed. Only in exceptional circumstances will the Authorities board at anchor or off the berth.

PILOTAGE: Pilotage available day and night. Pilot arranged by Agent on the basis of ship's ETA. Pilot boards when ship is within 1 to 3 miles of the berth, from a small MFV type pilot launch, painted black with red cabin.

ANCHORAGES: Good holding ground is found 1 – 3 miles North of the berth in 20 to 35 fathoms with the ship loading tower in line with the Morro Redondo Lighthouse.

RESTRICTIONS: None. Vessels enter and clear 24 hours a day on a first come first served basis. Height of chute above MLLW is 55 ft.

MAX. SIZE: Minimum depth alongside 18.5 m. Largest ship to date 160,000 d.w.t.

HEALTH: Pratique granted by Port Health Doctor who boards on arrival. Requires Crew Vaccination Certificates and Master's Declaration of Health.

RADIO: Vessels can transmit and receive through "KFS" San Francisco Radio or "KOK" Los Angeles Radio.

VHF: Loading installation calls VHF Channel 16 when ship is expected and gives any information at this time. VHF is normally manned on Channel 12 so further communication is available.

RADAR: None.

TUGS: 5 tugs are available ranging from 3,000 h.p. to 3,500 h.p. each. 2 tugs are normally used for berthing, 1 tug for unberthing. Tugs' lines at no extra charge.

BERTHING: One berth only, 710 ft. in length consisting of steel dolphins and wood facings, also large mooring buoys, 1 ahead and 1 astern, each about 600 ft. distance from berth. 2 mooring ropes must be bent together to reach buoys.

The large stockpile of salt at the root of the pier is conspicuous.

CRANES: None.

BULK CARGO FACILITIES: Port is solely for the purpose of loading solar salt in bulk. Loader is belt and spout type and is fixed in position. Vessel must be shifted from hatch to hatch by ship's crew.

STEVEDORES: No special requirements. Average loading rate 2,000 t.p.h.

MEDICAL: No advance notice required, doctor will attend on board at dock. Limited hospital facilities available.

DENSITY: 1026.

FRESH WATER: Not available.

FUEL: Not available.

FIRE PRECAUTIONS: No smoking allowed on dock.

CONSULS: None.

REPAIRS: No repairs possible.
GANGWAY/DECK WATCHMEN: Shore gangway only, electrically operated and tended by stevedores. Deck watchmen required.
HATCHES: Opened and closed by ship's crew.
CARGO GEAR: One fixed loader only, controlled by stevedores.
REPATRIATION: Possible, with advance notice to Agent.
AIRPORT: Close to berth. Average 3 flights per week to mainland.
TIME: Standard time GMT minus 8 hours. Daylight saving time GMT minus 7 hours from first Sunday in April to last Sunday in October.
HOLIDAYS: Cargo is worked every day of the week including Sundays and holidays.
TELEPHONES: No facilities for placing telephones on vessels.
TELEGRAPH: Government public telegraph services available in village about 11 km. from port.
SHORE LEAVE: Allowed. No special shore passes required.
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Mexican Pesos (MEP).
AUTHORITY: Exportadora de Sal S.A. de C.V., 3A Oeste, 17523-A Fracc. Garita de Otay, Tijuana, B.C. Mexico, Z.P. 22500. (U.S.A. Postal Address: P.O.Box 439054, San Ysido. CA. 92143-9054, U.S.A.). *Tel:* (66) 23-22-00. *Telex:* 566705 ESTIME. *FAX:* (66) 23-25-26. *Contact:* Mikki Izumi, Traffic Coordinator.
Cedros Island: Tel: (115) 8-50-90. FAX: (115) 8-51-00. Contact: Captain M. Orozco Valle, Operations Manager and Pilot.

NANCHITAL: 18.00 N. 94.27 W.

DOCUMENTS: See "Coatzacoalcos".
PILOTAGE: See "Coatzacoalcos Pilotage". Port about 3 miles up-river from Coatzacoalcos.
ANCHORAGE: See "Coatzacoalcos Anchorage".
RESTRICTIONS: Vessels may enter Coatzacoalcos only with daylight. Navigation from Coatzacoalcos to Nanchital remains closed from1630 hrs. to 0700 hrs.
HEALTH: See "Coatzacoalcos".
TUGS: When vessels proceed to Nanchital, 1 tug accompanies vessel to pass the Coatzacoalcos bridge, according to Port Regulations. Tugs again join vessels when arriving at Nanchital berths. Tug's lines used. For vessels over 4,000 g.r.t. 2 tugs used.
MAX. SIZE: Max. LOA 580 ft. No breadth restrictions. Max. draft permitted 27 ft. 06 in.
BERTHING: Normally vessels dock port side alongside. When current and circumstances permit vessel is turned around and docked starboard side to. There are 2 docks at Nanchital, called Old Pier and New Pier. Both to load crude oil, No. 6 fuel oil by pipeline of 6 in. and up to 10 in. Mooring, unmooring, connecting and disconnecting hoses performed by Pemex own labourers.

Old Pemex Quay:
Location: Right bank of Rio Coatzacoalcos 10.5 km. from the mouth of the port.
Built: 1950.
Arrangement: T-shaped.
Length: 88.3 m.
Width: 12.4 m.
Useful Berthing Length: 95 m. including Dukes of Alba.
Height Above Average Low Tide: 1.8 m.
Useful Depth: 8 m. at average low tide.
Services: Fresh water, lighting, bollards, fuel supply points.

New Pemex Quay:
Location: Facing the Pemex installations at Nanchital.
Built: 1969.
Arrangement: T-shaped.
Length of Platform: 32.4 m.
Width of Platform: 13 m.
Useful Berthing Length: 86.7 m. using 2 Dukes of Alba.
Height Above Average Low Tide: 2.71 m.
Depth: 9 m. at average low tide.
Services: Fresh water, lighting, fuel supply points, loading hoses.

Marginal Quay:
Location: On right bank of Rio Coatzacoalcos 11 km. upstream from port entrance.
Built: 1959.
Arrangement: Marginal.
Length: 239 m.
Width: 30 m.
Useful Berthing Length: 239 m.
Height Above Average Low Tide: 2.05 m.
Depth: 8 m. at average low tide.
Use: By Pemex.

Tanks: Used by Pemex:
3 for crude oil (8.2 million litres).
1 for fuel oil (15.2 million litres).
Located within inhabited area:
2 for diesel (1.59 and 8.7 million litres).
1 for fresh water (10.3 million litres).

MEDICAL: Hospital facilities available only at Coatzacoalcos.
TANKERS: See "Berthing".
BALLAST: Special regulation for tankers that no ballast water to be discharged in the river. Deballasting performed by 2 pipelines of 6 in. diameter to shore tanks.
DENSITY: Average 1006.
FRESH WATER: Available at both berths but is not recommended for drinking.
FUEL: Available only at the Pemex Oil Terminal at any time.
CONSULS: None.

REPAIRS/DRY DOCKS: No dry docks available, but small repairs can be done in shore repair shops.
CUSTOMS ALLOWANCES: No restrictions. Free use on board. 2 Customs guards stay on board. Vessel to provide them boarding and lodging.
AIRPORT: At Minatitlan, about 1 hour car drive away. 2 regular flights to Mexico City.
TIME: GMT minus 6 hours.
TELEPHONES: No facilities for placing telephones on ships.
DEVELOPMENTS: Constant programmes for more berths, sheds, dredging and equipment are under way, but rather slow.
AUTHORITY: Coordinacion de la Unidad de Puertos y Marina Mercante (Mexican National Port Authority), Municipio Libre 377-12B, C.P. 03310, Col.Sta Cruz Atoyac, 03310 Mexico, D.F. *Tel:* (525) 604-4249, 604-3829. *FAX:* (525) 688-9368.

PROGRESO: 21.17 N. 89.39 W. (See Plan)

PORT LIMITS: For port fees and freight contracts, port limits are considered as a zone within the area bounded by the meridian crossing Chicxulub port in the East, the meridian crossing Chelem port to the West, and the meridian passing through the Entrance Buoy (cylindrical beacon, painted with red and white stripes) situated in Latitude 21° 21' 03" N., Longitude 89° 41' 09" W.
DOCUMENTS:
7 copies of Crew List, visaed by Mexican Consulate.
6 copies of Ship's Stores List.
6 copies of Personal Effects Declaration.
6 copies of Bills of Lading.
Clearance from last Port.
Derat Certificate.
Tonnage Certificate.
Safety Certificates.
Loading Plan.
Stability Calculations.
PILOTAGE: Compulsory. The Pilot boards at the Entrance Buoy, his launch is identified by the international signal code day or night. Approximate arrival time must be notified by the consignee at least 24 hours before arrival, and confirmed 2 hours prior to arrival. Pilots monitor VHF Channel 16, and Telephone No. (993)-5-00-09, during office hours (0800 hrs. – 1800 hrs.)
ANCHORAGES: 1.5 miles N.W. of the Entrance Buoy in 30 ft. depth for vessels with over 20 ft. draft, and 2.5 miles N.W. of Pier No. 2, for vessels of 16 ft. draft or less, in 21 ft. depth.
RESTRICTIONS: There are no night time restrictions, except for vessels of over 16 ft. draft at Piers No. 1 and No. 2, and over 23 ft. draft at Piers No. 3 and No. 4.
MAX. SIZE: No restrictions, except for vessels over 23 ft. draft.
HEALTH: A representative of the Health Department checks the vessel on arrival.
RADIO: Progreso Coastal Radio Station (XFN) listens from 0600 hrs. to 1900 hrs. local time on 2182 kHz, Channel 16 VHF and 500 kHz. Arrival advice may be sent through the station 24 hours beforehand.
TUGS: Compulsory for vessels over 500 g.r.t. The port has 4 tugs, 2×800 h.p., 1×1,350 h.p. and 1×2,350 h.p.
BERTHING: The facilities are located 2 km. offshore in position 21° 18.25' N., 89° 40.3' W., and 6.5 km. offshore in position 21° 20.75' N., 89° 40.7' W.

Pier	*No.*	*Length* (m.)	*Official Draft* (ft.)	*Use*
Fiscal	1	204	16	General/Containers
Fiscal	2	204	16	General/Containers
Fiscal	3	240	23	General/Containers/Grain
Fiscal	4	140	23	General/Containers/Grain
Fiscal	5	140	23	General/Containers/Grain
Mooring Berth	1	170	16	Gasoline
Mooring Berth	2	170	18	Diesel (Pemex)

CARGO HANDLING EQUIPMENT:

	Capacity
2 Cranes	25 tons.
2 Cranes	18 tons.
1 Crane	120 tons.
12 Forklift trucks for stacking and unstacking	8,000 lbs.
4 Forklift trucks for stacking and unstacking	4,000 lbs.
9 Suction devices	50 tons/hour.
7 Suction devices	70 tons/hour.
6 Truck tractors	50 tons.
8 Flats for containers	40 tons.
1 Elevator	346 cu.m./hr.
3 Chutes	20 tons.
1 Forklift for container handling	80,000 lbs.
3 Conveyors for grain	250 t.p.h.
2 Buses	40 Passengers.
2 Forklift tractors	1 ton.
3 Forklift trucks	6,000 lbs.
5 Suction devices	120 t.p.h.

STEVEDORES: Service to be requested 24 hours in advance through consignee.
MEDICAL: Medical attention available at the port. There are hospitals in the city of Merida, 32 km. away.
TANKERS: There are 2 moorings or buoys, for unloading products with 8 in. and 12 in. lines.
DENSITY: 1015.

FRESH WATER: Safe drinking water available on piers through 2.5 in. pipes, or by tank trucks.

FUEL: Diesel can be supplied by truck, as well as grease and lube oil in drums. They should be requested 24 hours in advance by the consignee. Heavy fuel cannot be supplied.

WATCHMEN: These services are usually undertaken by vessel's personnel.

OPENING/CLOSING HATCHES: Usually performed by vessel's crew.

CERTIFICATES: See "Documents".

CUSTOMS ALLOWANCES: A carton of cigarettes and 2 bottles of whisky per week.

IDENTIFICATION CARDS: Not required.

CONSULS: Located at Merida, 30 minutes by road.

Cuba	Tel: 91-99-21.26.77
Germany	21.21.77
France	21.60.13
Lebanon	21.77.76
Switzerland	91-99-21.75.00
U.K.	21.67.99
U.S.A.	21.60.30

REPAIRS: Specialised shops can undertake repairs.

SURVEYORS: Lloyd's Register Agent: Manuel Mier y Teran. Tel: 91-993-5-00-29, 5-00-42 and 5-01-36. Fax: 50966. Telex: 753834 Reimme.

DRY DOCKS: Three docks (Astimex, Zena and Bonanza).

REPATRIATION: Possible.

AIRPORT: 37 km. from port, about 30 minutes driving time. Daily flights to Houston, Miami and New Orleans, also flights to Central America, Cuba, Jamaica, Germany, and connections via Can-Cun and Mexico City.

TIME: Central Standard Time (local time) GMT minus 6 hours.

POLICE/AMBULANCE/FIRE: Port Police, Tel: 5-00-48 and 5-00-90.
Ambulance, Tel: 5-04-94 (Navy Hospital).
Firemen and Municipal Police, Tel: 5-00-26.

EMERGENCY CO-ORDINATION CENTRE: Ninth Naval Zone (Yukalpeten Port) monitors VHF Channel 70, 2182 kHz and 500 kHz. Tel: 5-02-85.

SERVICES: Repairs to radar, Loran, echo sounders, gyros (any electronic device), inspections and underwater repairs.

HOLIDAYS: January 1st, February 5th, March 21st, May 1st and 5th, June 1st, September 16th, November 1st and 20th, December 1st (every 6 years), December 25th. It is possible to hire labour at 100% increase on these days.

SHORE LEAVE: No restrictions.

GARBAGE DISPOSAL: A garbage collection service is available. Waste bags and collector are provided. Tel: (91-993) 5-10-90, 5-27-10, 5-26-09. Collection time: 0800 hrs. to 1800 hrs., Monday to Saturday. Cost: About $ 8.19 (depending on currency rates) per drum or equivalent up to 200 kg.

WASTE OIL DISPOSAL: Available on all wharves. If incineration is required by any Health Authority, this will cost about $ 0.22 (depending on currency rates) per kg.

DEVELOPMENTS: The remote terminal is planned to be extended 4.5 km. Northwards with an area of 7,000 sq.m. and a 1,000 m. of lineal wharf.

AUTHORITY: Direccion General de Puertos Y Marina Mercante, P.O.Box 21, Calle 78 No. 146, 97320 Progreso, Yuc., Mexico. *Tel:* 5-00-90 and 5-12-55. Residence 40-39. *FAX:* 5-26-29. *Contact:* Captain Gilberto Andrade Castro, Captain of the Port.

Administracion Portuaria Integral de Progreso, S.A. de C.V., Calle 32, Entrada Muele Fiscal Lado Poniente, C.P. 97320, Progreso, Yuc., Mexico. *Tel:* (993) 521-74, 505-84. *FAX:* (993) 521-74.

PUERTO MADERO: 14.44 N. 92.25 W. (See Plan)

PORT LIMITS: A vessel is considered an "arrived ship" when it is alongside the berth.

DOCUMENTS:
- 10 Crew Lists (Spanish language), 3 stamped.
- 10 Passenger Lists (Spanish language) 3 stamped.
- 10 Stores Lists (Spanish language).
- 10 Cargo Manifest (Spanish language), 3 stamped.
- 3 Arrival Reports.
- 10 Bills of Lading.
- 3 Crew Customs Manifests.
- 1 W.H.O. Form.

All papers must be correct, Immigration Officer checks Crew List against all Passports/Seaman's Books.

Vessels are boarded on arrival by 7 officials.

PILOTAGE: Compulsory. Pilot will board vessel 1 mile S.E. of Fairway Buoy, depth approximately 8 fathoms.

Vessel must send ETA 24 hours in advance of arrival. Ship's Agent to request services of Port Pilot in advance. Pilot will reply by giving instructions to be followed on arrival.

ANCHORAGES: Call the Pilot on VHF Channel 16 and agree on the position of anchorage and the side where the gangway will be positioned.

As a secondary area, vessels may anchor about 2 miles to the S.W. of the Port Entrance in 10 fathoms of water.

The bottom is muddy at the anchorage and throughout the port.

RESTRICTIONS:
Channel between Breakwaters: Length 1,167 m. Width 80 m. Depth 9.7 m.
Manoeuvring Basin: Length 450 m. Width 80 m. Depth 9.5 m.
Channel to Main Dock: Length 350 m. Width 80 m. Depth 9.15 m.
Access Channel to Fish Dock and Navy Dock: Length 650 m. Width 60 m. Depth 7.0 m.

MAX. SIZE: Max. LOA 165 m. Max. beam 25 m. Max. draft 8 m.

Measurements are in accordance with the manoeuvring area and the depth of water throughout the port.

Tankers are not received in the port as there are no discharge lines, and the manoeuvring area does not permit it.

HEALTH: Request Free Pratique 48 hours and 24 hours in advance of arrival via Salina Cruz.

Report any suspicious illness to Agent prior to arrival in order that vessel may be directed to Quarantine Anchorage.

Health Officials require:
Health Declaration.
Derat or Exemption Certificate.
Crew Vaccination Certificates.
Crew List.

RADIO: Via Manzanillo or Salina Cruz, ETA 48 hours and 24 hours prior to arrival.

All vessels approaching the port to berth, and when effecting manoeuvres within the area of the port or when leaving the port, must effect all communications by VHF Channel 16.

Additional communication or for safety provided by the Naval (Coast Guard) on 500 kHz. International Call Sign for Aid to Fishing Vessels 2182 kHz on R/T or Channel 16 VHF.

VHF: Salina Cruz and Puerto Madero on VHF Channel 16.

RADAR: There is a radar system but it is only used by the Naval "Coast Guard", and no contact with this system is possible, although all vessels approaching this port are detected by this radar.

TUGS: There is a service tug (750 h.p.) which comes alongside the vessel at the port entrance, working with vessel until she is berthed alongside a quay. The services of the tug are compulsory for all shipping.

BERTHING: There are 2 reaches, an expansion basin, a turning basin and a general cargo berth 150 m. length, the depth is 9.2 m. at LW (salt water).

Vessels usually moor port side alongside and drop the starboard anchor with 3 or 4 shackles. The cargo handling is by means of ship's own gear and there are four conveyor belts for the handling of boxed bananas.

CRANES: The port has no cranes, discharge and loading has to be with the ship's derricks.

BULK CARGO FACILITIES: In the port is a single general cargo berth. Bulk cargo is handled directly from the hold to the lorry or railway trucks using hoppers and scoops and loaded into the hold and raised by the ship's derrick.

At present the port handles bananas and coffee outwards and bulk fertilisers (and in sacks) inwards. Also bagged cement and heavy machinery for hydro-electric stations.

SPECIALISED CARGO HANDLING FACILITIES: There is no equipment for handling container vessels.

BRIDGES: The entry of vessels is free, there being no bridges over the channel.

STEVEDORES: Masters of vessels must request the requisite number of gangs 24 hours in advance via the ship's Agent.
General cargo – 18 to 20 tonnes/p.h./hook.
Bananas – 3,000 cases per hour by the side-port system.

MEDICAL: 24 hours notice for requesting medical assistance.

A sick person can be hospitalised if the Master so requests by radio.

International Health requires certificates of vaccination and where necessary personnel can be vaccinated if required.

TANKERS: No facilities.

DENSITY: Average 1025.

FRESH WATER: The port quay has drinking water hydrants controlled by Administracion Portuaria Integral de Puerto Madero S.A. de C.V.

FUEL: It is possible to provide bunkers in small quantities via pipes, average supply 15,000 litres.

In cases of emergency, bunkers can be requested by radio from the ship's Agent.

FIRE PRECAUTIONS: Those normal for a cargo vessel.

CONSULS: There are no Consulates in the port. There is one in the town of Tapachula, Chiapas, 28 km. from the port.

Consul of Guatemala: 2a Calle Oriente No. 33, 30700 Tapachula, Chiapas. Tel: 6-12-52.

REPAIRS: It is possible to have repairs made to engines of small vessels in the town of Tapachula.

DRY DOCKS: None.

SURVEYORS: None.

GANGWAY/DECK WATCHMEN: It is necessary to post a watchman of the Immigration Service on the gangway when the vessel is berthed in the port.

HATCHES: Opening and closing of hatches by the crew or stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes or 50 cigars or their equivalent; 1 litre of spirits.

CARGO GEAR: Loading/discharging is carried out by means of the ship's derricks.

REPATRIATION: Possible.

AIRPORT: 12 km. from the port is the new International Airport of Tapachula.

Regular Flights:

Airline	Departure	Arrival
Mexico/Tapachula:		
Aeromexico	1100 hrs.	1230 hrs.
	2015 hrs	2145 hrs.
	0700 hrs.	0835 hrs.
Taesa	1950 hrs.	2120 hrs.
Aviacsa	1545 hrs.	1815 hrs.
Tapachula/Mexico:		
Taesa	0700 hrs.	0830 hrs.
Aeromexico	0702 hrs.	0837 hrs.
Aviacsa	0715 hrs.	0950 hrs.

Executive Air Services: To any part of the country and Central America.

TIME: Local time is GMT minus 6 hours throughout the year.

HOLIDAYS: 1st January, 5th February, 21st March, 1st May, 16th September, 20th November, 25th December, 1st December every 6 years when the Executive Power is transferred.

Loading and discharge services can be provided on these days, but it is considered as overtime.

POLICE/AMBULANCE/FIRE: Police Headquarters Tel: 6-10-93, Tapachula, Chiapas.

Mexican Red Cross Tel: 6-19-49, Tapachula, Chiapas.

Fire Brigade Tel: 5-20-65, Tapachula, Chiapas.

EMERGENCY CO-ORDINATION CENTRE: Headquarters of the 22nd Military Naval Area on 500 kHz. Also see "Radio".

TELEPHONES: There is no telephone service available in the port.

SERVICES: No tank cleaning or dirty ballast facilities.

BANKS: Bancomer, S.N.C., Central Poniente y 4a Avenida Norte, 30700 – Tapachula, Chiapas. Tel: 6-12-20. Telex: Bcchme – 77715, Bcchme – 77716.

Banamex, S.N.C., 4a Av. Central Norte No. 5, 30700 – Tapachula, Chiapas. Tel: 6-29-24. Telex: Bntpme – 77714.

Banca Serfin, S.N.C., 6a Avenida Norte No. 8, 30700 – Tapachula, Chiapas. Tel: 6-1/-70. Telex: Serfme – 77735.

Multibanco Comermex, S.N.C., 6a Avenida Norte y 5a Calle Poniente, 30700 – Tapachula, Chiapas. Tel: 6-15-22.

Banco de Credito Rural del Istmo, S.N.C., 6a Avenida Norte y 1a Calle Poniente, 30700 – Tapachula, Chiapas. Tel: 6-14-20.

Banco Mexicano Somex, S.N.C., Central Poniente y 2a Avenida Norte, 30700 – Tapachula, Chiapas. Tel: 6-27-60. Telex: Bmsome – 77731.

Banco Nacional Pesquero y Portuario, S.N.C., Central Oriente No. 42, 30700 – Tapachula, Chiapas. Tel: 5-03-52.

Banobras, S.N.C., 6a Avenida Norte No. 4, 30700 – Tapachula, Chiapas. Tel: 5-15-58.

Banco Internacional, S.N.C., 1A Poniente y 2a Avenida Norte, 30700 – Tapachula, Chiapas. Tel: 6-28-00. Telex: Bichme – 77733.

Banpais, S.N.C., 4a Avenida Norte y 1a Calle Poniente, 30700 – Tapachula, Chiapas. Tel: 5-00-31.

Banco del Atlantico, S.N.C., Central Norte No. 18, 30700 – Tapachula, Chiapas. Tel: 5-12-90.

SHORE LEAVE: Possible.

IDENTIFICATION CARDS: A Seaman's Book is sufficient for going as far as the town of Tapachula, Chiapas.

DELAYS: There are no delays, on arrival a Pilot proceeds to bring the vessel into port, and the work gangs are already on the quay, commencing work as soon as the vessel is secured.

GENERAL: The port is relatively new, it lacks port infrastructure for loading/discharge of goods. But in order to handle any type of cargo, equipment can be brought from the nearest port if the ship's Agent requests it 48 hours in advance and at the same time presents the list of cargo so as to ascertain the type of equipment required. With regard to the labour force, the gangs can alternate to provide 24 hour working.

DEVELOPMENTS: It is planned to extend the breakwaters.

AUTHORITY: *Port Captain:* Captain Mauro Hector R. Martinez Hernandez, Operations Office, 30830 Puerto Madero, Chiapas, Mexico.

Apartado Postal No. 117, 30700 Tapachula, Chiapas, Mexico.

Port Director: Lic. J. Rafael Reyes Ruiz, Operations Office, 30830 Puerto Madero, Chiapas, Mexico. Postal Address: Apartado Postal 214, 30700 Tapachula, Chiapas, Mexico. *Tel:* (962) 634-46. *FAX:* (962) 619-54.

RABON GRANDE: 18.14 N. 94.23 W.

SHIPMASTER'S REPORT: September & October 1982.

LOCATION:

SBM No. 1 Lat. 18° 13' 34" N., Long. 94° 23' 07" W. Light "S".

SBM No. 2 Lat. 18° 13' 34" N., Long. 94° 20' 29" W. Light "O".

PILOTAGE: Pilot boards in a position midway between the two buoys. Tug rendezvous in same position with mooring equipment which is loaded on the port side.

ANCHORAGES: Anchorage position as advised by the Pilot is to the N.W. of a line joining the 2 SBMs and about 2 miles distant. A point of note is that there were at least 20 vessels anchored to the North and West of the port entrance, mostly oil tankers awaiting berth in the inner harbour. A U.S. Government chart covers the port area and SBM berths but was not available through the local Agency.

While the vessel was lying off in the rendezvous position waiting for Pilot and mooring equipment a very strong set to the S.E. was experienced, the wind being Northerly, Force 6 throughout the afternoon. Also during the vessel's stay it was noted that the wind increased to Force 5 – 6 every afternoon and gusting to Force 6 – 7 during the night time squalls.

Shipmaster's Report: January, 1982. Not same vessel.

Anchorage 2 to 8 miles Northwards from the breakwater. Poor holding ground anywhere in the area due to the river discharge giving a muddy ooze bottom. Even with over 9 shackles out in 18 fathoms of water, ships drag anchor when subject to the gales which blow from the Northern quadrants.

The onset of these gales are sudden and fierce, blowing towards the shore. Apart from the very accurate weather reports advising that a front is approaching, it was noted that an appreciable rise in barometric pressure preceeded the gale. The normal practice in the event of a gale being forecast was to have the engines on 10 minutes' notice and if the vessel began to drag, the anchor was weighed and the vessel cruised off the area until the storm abated.

RESTRICTIONS: Mooring to SBM in daylight hours only but unmooring allowed at anytime. Both operations depending on prevailing weather conditions.

Recommended arrival drafts are as follows:

Length O.A. (m.)	*Draft Forward* (ft.)	*Draft Aft* (ft.)
175 – 200	14	24
200 – 225	16	26
225 – 250	18	28
over 300	20	32

RADIO: Communication between ship and shore is by vessel's VHF set and constantly monitored by shore personnel.

Radio Pratique is obtainable by forwarding the following information to the Agent at least 24 hours before arrival:

(a) Vessel's name and Nationality
(b) Master's name
(c) Total crew on board
(d) Last port.
(e) Derat Certificate – Port and date of issue
(f) ETA local time (GMT minus 6 hours.)

It is also advisable to establish as soon as possible which grade the installation require to load first.

Communications with the Agency was by Telex via Portishead and/or Mobile, Ala., the latter preferred by the Agency until within range of the local station.

Pajaritos Radio Station: Call sign XFF2: Station operated by Pemex.

Traffic lists are broadcast on the even hour plus 30 minutes. Weather forecast at 0830, 1430, 2030 hrs. local time. Local time is GMT minus 6 hours.

Ship (Tx.) kHz	*Shore (Tx.)* kHz	*Times*
4191.0	3700.0	Night only
6286.5	6442.5	Day and night
12573.0	12790.0	Day and night
8382.0	8690.0	Day and night
16764.0	17075.0	

It is advisable to pass cargo information, grades, quantities and order of loading through this station as sometimes the Agencies fail to pass on information received from vessels to Pemex, the operating oil company.

On this visit (October 1982) all radio traffic was passed through Mobile Radio Station Alabama, and was received within a reasonable time at Coatzacoalcos.

BERTHING/LOADING: The 2 SBMs are fitted with 2×16 in. hoses with connection to port side of vessel.

Two grades are available, Isthmus Crude and Maya Crude and the line clearing amount is 34,000 barrels.

Loading rates vary from 17,000 to 35,000 U.S. bbls./p.h. depending on stocks and number of vessels loading. During heavy squalls and/or electrical storms loading is suspended. While secured to the buoy engines required on immediate/minimum notice.

During loading operations and while secured to the buoy the Pilot, Loading Master, 2 Petroleum Inspectors and 8 Hose Crew remain on board and have to be fed and housed. The Hose Crew change every morning and the Loading Master every third day or thereabouts.

October 1982: Once again loading on the SBM. 2 grades of oil, Maya and Isthmus Crude oils. The rate of loading varied from 12,000 to 25,000 bbls./p.h.

SHIPMASTER'S REPORT: July 1984.

Vessel (140,000 d.w.t.) anchored 320° (T) 2.1 nautical miles from No. 2 SBM which flashes 'U' every 15 seconds. Bottom was glutenous mud. Accommodation required for 1 Pilot, 1 Loading Master, 2 Cargo Surveyors and 8 hosemen. The 8 hosemen work in shifts so only require 4 beds.

Agent receives all Immigration, Customs and Health Papers. Documents required were 4 Crew Lists (1 visaed), Personnal Effects Lists and Stores Lists.

Launch service to shore available at times agreed with Agent.

In the event of squalls/thunderstorms tug will tow from the stern.

Stores are available and from the quality of items seen ashore – mangoes, avocadoes and fresh fish appear to be of good quality.

SHIPMASTER'S REPORT: September 1985.

DOCUMENTS:

5 copies Crew List.
2 copies Stores List.
2 copies Personal Effects List.
1 copy Vaccination List.

FRESH WATER: Fresh water can be arranged through Pemex or vessel's agent.

ROSARITO: 32.22 N. 117.06 W. (See Plan)

PILOT'S REPORT: April 1993.

LOCATION: The PEMEX Rosarito Terminal facility is an open, unsheltered roadstead, located 7.5 miles West of South Coronado Island, and 20 miles S.S.E. of Point Loma (8 miles South of the international border).

The Terminal Sea Buoys are located approximately 1,600 ft. due West of Conventional Berth No. 1 and Conventional Berth No. 2. There are no continuous lights and no good references at night.

Rosarito is an uninhabited port, due to difficulty of transportation of personnel of the Mexican Government (Authorities). The nearest inhabited port is located approximately 55 miles South of Rosarito, and is called Ensenada. All ships agencies are located in Ensenada, except the PEMEX Ship Agency for attending their own ships, who are in Rosarito.

There are no local charts or any other publication with the approaches to Rosarito, but it is possible to use the conventional American or British charts.

Rosarito Pilots recommend all arriving ships to keep South of Coronado Island for fixing position.

Conventional Berth No. 1:
Lat. 32° 21' 43" N., Long. 117° 05' 49" W.
Conventional Berth No. 2:
Lat. 32° 22' 14" N., Long. 117° 05' 05" W.
SBM: Lat. 32° 20' 51.7" N., Long. 117° 06' 13.5" W.

DOCUMENTS: As for other Mexican ports, with correct number of copies. All documents must be sent to the Agency on shore, normally they will attend onboard ship. This is explained by the fact that due to heavy swell it is difficult and sometimes dangerous to clear the breakwaters with boats.

Clearance and ship's papers are returned to the ship about 5 hours before departure.

PILOTAGE: Pilot boards one mile N.W. of SBM, for mooring at the conventional berths or at the SBM. The Pilot will remain on board during all operations and in the anchorage awaiting good weather conditions for mooring (if PEMEX requests).

The pilot boat has a black hull with white superstructure, and is equipped with VHF, standing by on Channels 9 and 16.

The Pilot boards together with the Loading Master and Cargo Inspector (Caleb Brett or Saybolt). Both will remain on board during all operations. The Loading Master is the PEMEX representative, and is the contact with shore cargo receivers.

Pilot, Loading Master, pilot boat, mooring boats and tugs are at hand all the times.

ANCHORAGE: The best place for ships awaiting berth to anchor is 1.5 miles N.W. of the SBM, in approximately 15 fathoms. The bottom is sand/shells and mud, and is very good holding ground.

The location of the SBM is Lat. 32° 20' 51.7" N., Long. 117° 06' 13.5" W. The SBM is 1.5 miles from the nearest point on shore.

RESTRICTIONS: The Authorities cannot permit disembarkation of any crew member, except in cases of serious medical condition.

Mooring and unmooring is only permitted in daylight.

The above restrictions are for the safety of crew members, PEMEX staff on board, Pilot and ships during transfer operations.

Also see "Max. Size".

MAX. SIZE: *Conventional Berth No. 1:* Max. LOA 210 m., max. g.r.t. 26,500 tonnes, max. draft 34 ft.

During cargo operations, if wind exceeds 20 knots or swell exceeds 12 ft., hoses will be disconnected and vessel may go to the anchorage, if the Pilot recommends such action.

Conventional Berth No. 2: Max. LOA 171 m., max. g.r.t. 17,000 tonnes, max. draft 28 ft.

During cargo operations, if wind exceeds 15 knots or swell exceeds 8 ft., hoses will be disconnected and vessel may go to the anchorage, if the Pilot recommends such action.

SBM: Max. LOA 215 m., max. g.r.t. 35,000 tonnes, max. draft 50 ft.

During cargo operations, if wind exceeds 30 knots or swell exceeds 12 ft., hoses will be disconnected and vessel may go to the anchorage, if the Pilot recommends such action.

BERTHING: *Conventional Berth No. 1:* A 5 point mooring (See "Plan"), used for the transfer of light oils (diesel and jet oil) and fuel oil. It is located 1,535 m. offshore, 950 m. South of Conventional Berth No. 2 and 2,675 m. N.N.E. of the SBM.

There are 2 unlit spar buoys and two can buoys. The seaward can buoys mark the end of the submarine hoses.

Light Oil Hose: 9×30 ft. lengths × 12 in. diameter hoses and 12 in. connection.

The submarine pipeline is 16 in. diameter. The maximum pressure for transfer operations is 4 kg./sq.cm.

Fuel Oil Hose: 10×30 ft. × 12 in. diameter hoses with 12 in. connection.

The submarine pipeline is 20 in. diameter. The maximum pressure for transfer operations is 6 kg./sq.cm.

Conventional Berth No. 2: A 5 point mooring (See "Plan"), used for transfer of LPG only. It is located 1,315 m. offshore and 950 m. North of the Conventional Berth No. 1.

There is one unlit spar buoy and one can buoy. The seaward can buoy marks the end of the submarine hoses.

LPG Hose: 8×35 ft. × 8 in. diameter hoses with 12 in. connection.

The submarine pipeline is 10 in. diameter.

SBM: The SBM is located 3,100 m. offshore and 2,675 m. S.S.W. of Conventional Berth No. 1. It is used for the transfer of light oil (gasolines). There are two hoses.

Leaded Gas Hose: 19×30 ft. × 16 in. diameter hoses with 12 in. connection.

Unleaded Gas Hose: 20×30 ft. × 16 in. diameter hoses with 12 in. connection.

Samsom Ropes: There are 2 Samsom ropes of 100 m. length and 6 in. diameter.

CARGO OPERATIONS: *Hose Connection:* The connection/disconnection of the cargo hoses is handled by ship's crew with advice and assistance of the Loading Master.

Cargo Inspector: The Cargo Inspector remains on board during all transfer operations. He takes samples of the parcels to discharge and undertakes ullaging together with the Chief Officer.

Submarine Hose and PLEM Inspection: After heavy storm activity, the terminal will arrange for a diver to inspect the submarine hose and PLEM for damage, or see if hoses are covered by mud/sand.

MEDICAL: Only available in an emergency. Contact U.S.C.G. on usual frequencies, and they will send helicopter.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: *Agent:* It is possible to contact ships agencies in Ensenada through San Diego Marine Operator via VHF.

If the ship's Master requests, the Agent will come to Rosarito every day and will contact the ship.

Supplies: Provisions can be obtained in small quantities, but only during good weather.

WEATHER: *Winds:* From April to October prevailing light N.W. wind sometimes turn to the North or West, but the dominant directions are from the N.W. During the period of April/October good weather normally prevails. Swell is predominantly from the West with height above 3 ft. to 5 ft. It is the best period for mooring in the berths.

From October to April, special attention should be paid to weather forecasts, because it is considered the bad weather season in Rosarito. The winds are variable and sometimes very, very strong. When the storms come from South or S.W., it is impossible to keep the ship in position in the Conventional Berths and sometimes also at the SBM, because when the wind comes from the Southern quadrant, the swell increases up to 12 ft. During this period of bad weather in Rosarito called "The Santa Condition", strong winds coming from the N.W. with velocities up to 68 knots have been registered.

All winds from South or West or N.W. normally come with the Pacific storms during that period, and increase of the swells is dependent on the storm.

Current: Very light from South or S.W. during period April to October.

SALINA CRUZ: 16.10 N. 95.12 W. (See Plan)

RESTRICTIONS: *Access Channel:* Length 500 m., depth 13.0 m.

Turning Basin: Diameter 185 m., depth 10.0 m.

MAX. SIZE: 32,000 d.w.t., LOA 180 m. and max. draft 10.0 m.

TUGS: 4 tugs up to 9,450 h.p. available.

BERTHING: 759 m. for ocean-going vessels, 759 m. for coastal vessels, 210 m. for fishing vessels, 221 m. for naval vessels and 382 m. for shipbuilders, and depths up to 31 ft.

1 container berth with length 274 m. and depth 39.4 ft. One Panamax Portico crane available.

Equipment: Cranes: 1×18 tons, 2×20 tons, 1×300 tons and 4 cranes with various capacities (unknown); forklifts: 11×5,000 lb., 2×6,000 lb. and 17×8,000 lb.; 15 tractor trucks; 1 railway tractor; 6 chutes; 3 front-end loaders; 6 clams.

Storage: 11,529 sq.m. of warehouse space and 73,440 sq.m. of container storage yards.

MEDICAL: Hospital available.

TANKERS: Tankers of 250,000 d.w.t. berth at the Offshore Terminal.

Sea buoy: Lat. 16° 05' N., Long. 95° 11' W. Make the arrival to this location about 5 miles S.S.E. of breakwaters.

Charts: For approach H.O. No. 21441; for arrival and entry H.O. No. 21442; regular traders should have Mexican Chart SM No. 667 on board.

General: Salina Cruz is located on the West coast of Mexico, at the head of Gulf of Tehuantepec.

Note: North winds blow strongly from the Isthmus into the Salina Cruz coastal lowland, particularly during the winter. However, these Northern gales are not forecasted. The hurricane season is from June to October, the most common hurricane path is Westward, parallel to the coast, offshore.

South winds can be very strong in May and June, ships may have to leave the anchorage and the loading buoys.

The currents are unpredictable, in the Gulf of Tehuantepec and close inshore the set is either East or West.

Tanker Terminals: There are 2 tanker loading/discharging berths in the Inner Harbour, at Shed No. 4 and No. 5. There are 3 single point mooring buoys Southwestward of Salina Cruz: SPM No. 1 and No. 2 are used to load product tankers for domestic distribution up the coast. SPM No. 3 is used to export crude oils.

Communications: Standard communications procedures, through the local coast station at Salina Cruz.

Voice communications are via the Petroleos Mexicanos Marine Operations Office – Pemex Operations VHF, calling on Channel 16 or 9, the office is manned throughout 24 hours.

Caution: Internal communications within Mexico are occasionally delayed, therefore, ETA notices and other messages must be sent at the earliest possible time.

Pilotage: The Pilot boards from Pemex workboat either at the anchorage, or 1 mile South of the breakwaters, or 1 to 2 miles to the S.E. of the SPM location.

Anchorage: Tankers should anchor East of the entrance range line 346°, not closer than 0.5 miles. The holding ground is only fair. Anchorage is prohibited in the pipeline area within 0.75 miles of the SPMs and North to the coastline.

Tugs: 2 harbour tugs of about 2,400 h.p. each are kept at this port by Pemex. The tugs are used regularly to assist tankers berthing at Nos. 4 or 5 and at the SPMs. 2 workboats are available and are normally used when berthing at the SPMs. Tugs and launches are equipped with VHF.

Entering and Berthing: The short West Breakwater by the Outer Harbour Entrance was lengthened about 0.3 miles to the South; 2 new breakwaters, 0.4 to 0.2 miles long were built off the beach about 0.8 and 1.1 miles West of the Outer Harbour Entrance. Work in progress is not shown on available nautical charts.

Tankers berthing at the Inner Harbour Berth No. 4 (No. 5 used mainly by smaller ships) proceed on the leading range 346° with a tug aft. The tug should have a rope through the centerline fairlead proceed at minimum steering speed and drag the port anchor on a short scope of chain. As soon as the stern clears the entrance, the ship is turned to the E.N.E. with the assistance of the tugs, and the engine run astern to stop the ship. When the ship is stopped in the basin, she is then backed to her berth with the tugs working alongside, her bow close to the tip of the West pier. Tankers are normally moored with 5 ropes forward and 5 ropes aft. The dock fendering is of old tyres so it is imperative to berth the ship very softly.

Note: The opening between the East and West pier is 50 m., the stone and concrete tips of these piers are fendered with rotating tyre-like rubber fenders; however, precise positioning and control of the vessel, turning and stopping quickly once inside the basin is most important.

The basin is silted up along the North Quay face, sufficient depth for a tanker drawing 30 ft. may extend only 250 m. N.E. of the entrance. The basin is dredged to maintain depth and turning basin size, it is necessary to obtain up-to-date information from the Pilot, also to plan and agree on the manoeuvre, before entering.

Work in progress: (a) wharf building on the East side of other basin and on the N.E. corner of the Outer Harbour, (b) dredging at different locations, (c) construction of a new LPG berth in the N.W. side of the Outer Harbour. The Master should verify with the Pilot that works in progress do not interfere with ship's operations.

Restrictions: Entering and sailing during daylight hours only.

Hoses/Cargo: Normally gasolines, DO, FO, are loaded on tankers, through 8 in. hoses, for distribution along the coast. Isthmus crude can be loaded at No. 4 and 5 for export. Products and chemicals are occasionally received.

Note: Ships sailing from Berth No. 5 are frequently turned on the tip of the pier. This operation is undesirable; moreover it is not necessary as tugs are being used. The Master should discuss the unberthing/turning operation with the Pilot, making sure the ship will not be damaged.

Berthing at the SPMs: The 2 smaller SPMs No. 1 and No. 2 have been in use several years. Tankers in coastwise traffic only are berthed during daylight hours with the assistance of Pilot and one or two tugs and workboat. Cargo is normally gasoline, diesel oil and fuel oil.

The larger SPM No. 3 became operational in 1982, to load crude oils for export on large ships (from 100,000 to 250,00 d.w.t.) Tankers pull up 2 floating nylon hawsers (18 in. diameter and 50 m. long) with chafing chain. The use of mooring brackets is preferred, however, the ship's officer must supervise the seamen sent by Pemex to ensure the proper lead of messenger ropes and the proper use of brackets.

Note: The responsibility, for satisfactory moorings and proper use of the mooring brackets, rests completely with the ship's Master. Pemex provides a group of seamen, usually lead by a bosun and/or a young tanker's officer, to help and assist the tanker's crew in mooring, to handle equipment straps and shackles which may be shore supplied for mooring, and for the hose connections.

Combination accommodation ladder/pilot ladder should always be rigged ready when operating at the SPMs.

Hoses and Cargo: 3 floating hoses respectively of 910 ft., 945 ft., 980 ft. total length, carry flashing red marker lights. The connections are standard 16 in. quick coupling with valve. There is one crude oil pipeline 48 in. and 1×30 in. pipeline, length 15,000 ft. to the beach. Either crude, Isthumus or Maya, is loaded and the rate is from 40,000 bbls./hr. – 60,000 bbls./hr. Pemex expects that all large tankers shall be gas inerted and are able to load/deballast simultaneously.

Note: The 3 SPMs are fitted with flashing light and diaphone, however, reliance should not be placed on these navigation aids; this is valid for the other navaids as well, which do on occasion fail without being reported.

It is recommended to obtain from the local radio station the status of navaids, and also check the status with Pemex Operations on VHF.

SPM 1 – Flashing white, diaphone, letter R, 16° 8.5' N., 95° 12.9 W.
SPM 2 – Flashing white, diaphone, letter M, 16° 8.5' N., 95° 13.7 W.
SPM 3 – Flashing white, diaphone, letter U, 16° 6.9' N., 95° 13.3 W.

The approach to Salina Cruz should not be attempted during periods of heavy rain. The breakwaters, the port area and the hills behind the port give a good radar picture at greater than 10 miles distance.

Ballast: The SPM 30 in. pipeline is designated for ballast, however, it may well be used for cargo instead. Tankers should always arrive with clean ballast only. Tankers in ballast must adhere to usual requirements; i.e., draft and trim satisfactory for safe manoeuvring, taking into consideration the ever present strong wind.

Pollution Control: The Mexican rules against pollution are strictly enforced, however, very little equipment is available locally for prevention and clean-up. No oil dispersant in stock, nor are the tugs or workboats equipped for spraying. The Master must obtain, from the Agent and the Pemex representative a copy of local regulations relating to pollution prevention, and advice as to how to handle and report pollution.

Firefighting: The town fire brigade and the Navy are able to fight fires on ships berthed in the Inner Harbour. Ships at the SPM have to rely on their equipment only, with possible minor assistance from the tugs.

Services: Bunkers available at the Inner Harbour Berths, also at SPM Nos. 1 and 2. Fresh water is piped to Berth Nos. 4 and 5, but it is recommended that drinking water be taken only in emergency. Shore leave. Crew changes, delivery of spare parts, should not be scheduled at Salina Cruz. Small amounts of provisions and stores can be obtained. Minor repairs can be arranged with workshops. Surveyor, Divers, Mexican nautical publications must be requested before arrival.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Workshops for mechanical, electronic and electrical repairs.

DRY DOCKS: Drydock for vessels up to 21,000 tons displacement (25 ft. draft) and syncro-lift for vessels up to 8,000 tons displacement. Slipway for small craft.

SERVICES: Stores, laundry, fumigation.

DEVELOPMENTS: Breakwater under construction.

SHIPMASTER'S REPORT: May 1982.

Berth: New container terminal in Outer Harbour. Length 240 m., depth alongside by sounding 8.8 m. – 12.0 m.

Pilotage: Pilot boards 1 mile South of harbour entrance.

Wharf: Concrete structure on concrete piles, protected by rubber fenders.

Chart: B.A. Chart No. 659.

Tugs: 2 tugs available.

Berthing: To prevent damage to vessel and gantry crane it should be ascertained that the gantry crane has been moved to the North end of the wharf before berthing.

SHIPMASTER'S REPORT: October 1983.

Documents:

Last Port Clearance.
12 Crew Lists.
3 Vaccination Lists.
6 Ship's Stores Lists.
6 Crew Manifest Declarations.

The local Authorities will board vessel on arrival.

Approaches: The Lighthouse of Salina Cruz and the Pemex tanks are easily seen when Bahia de Bamba is abeam to port at a distance of 7 miles.

Pilotage: Pilot will board vessel at position Lat. 16° 08.15' N., Long. 95° 11.4' W., if berthing on arrival.

Anchorages: A good holding anchorage at position: 1 mile E.N.E. of Buoy No. 3.

Radio: All telegrams via Mazatlan Radio/XFM or MW Salina Cruz/XFQ.

VHF: VHF Channel 9 is for Pilots/Pemex Operations. VHF Channel 13 is working channel and Channel 16 is for the Agent.

Tugs: Two tugs are used for mooring. One of 4,500 h.p. and the second of 2,600 h.p.

On completion of mooring, the second tug will make fast astern in order to hold vessel away from SBM at all times. It is wise to have engines stand-by on 10 minutes' notice in case of sudden Southern winds and to prevent any damage to the SBM.

Berthing: There are 3 SBMs (Monobuoys). No. 1 has 12 fathoms, No. 2 has 15 fathoms and No. 3 has 20 fathoms depth.

Loading: Two lines of 16 in. each which are connected with the main line of 36 in. to the shore.

Though "Pemex" (suppliers) tanks are placed high above sea level in the mountains, Pemex use 6 loading pumps with a rate of about 12,000 bbls./hr. each.

Cargo is Mexican Blend Crude Oil. API 33.5, temperature 90°F (approx.).

Ballast: There are no facilities for discharging dirty ballast to shore tanks or pits. Vessels must arrive with clean ballast.

Medical: Local Hospital and a Navy Doctor from Pemex available.

Density: 1025.

Fresh Water: Available by barge.

Fuel: Can be obtained via Pemex.

Consuls: None.

Repairs: Available for vessels up to 13,000 gross tons.

Surveyors: Lloyd's Surveyor can be reached via the local Agency.

Repatriation: Repatriation can be arranged. One must take the bus to the "Capital" of the State (2 hours' ride). Thence to Mexico City by plane.

Time: GMT minus 6 hours (Standard Time).

Shore Leave: Pemex has a launch which will serve the vessel at certain hours. Agent to be notified of vessel's requirements. No shore-pass requested.

Developments: Port of Salina Cruz is now under construction. Calculated to be completed in three years' time.

General: N.N.E. winds are standard at Salina Cruz, rising up to 40 knots in Summer. Other seasons up to Force 5-6 (Beaufort).

Fresh provisions available at a very fair price.

The language is Castellanos (Spanish). Only "Pemex" representatives speak reasonable English.

REPORT: April 1985.

Tankers: 3 SBMs located in position Lat. 16° 06' 54.5" N., Long. 95° 13' 15.7" W. about 5 km. S.W. of Salina Cruz Inner Harbour Entrance. Max. depth at single point type mooring is 98 ft. Max. allowed d.w.t. 250,000. Maximum/minimum LOA allowed 338 m. – 320 m. No shore ballast facilities so vessel must have clean/segregated ballast. Manifold to be fitted with 16 in. (150 p.s.i.) reducers. Port side derrick/boom to have 15 tons capacity. Bow fairlead to have minimum diameter of 18 in. distance bow fairlead to forward bollard to be between 2.7 m. – 8.0 m. Average pumping rate 60,000 – 70,000 bbls./p.h.

Note: Buoy Nos. 1 and 2 are for handling domestic traffic (gasoline, diesel oil, heavy oil, etc.) up to 60,000 d.w.t.

SHIPMASTER'S REPORT: August 1993.

Charts: B.A. 659 and 1050.

Pilot Books: N.P. 8, (5.13)

Approaches: From S.W., port is very conspicuous from a great distance as loom of lights at the Refinery, which is situated a few miles to the East of the port, can be seen.

As both radars were out of action, I cannot comment on radar echoes, but the approach was no problem, taken with caution. The leading lights were as bright as the Morro de Salinas main light, being visible at more than 10 miles.

The 3 SBMs to the West of the port are visible at a useful distance.

Communications: On this charter, all ETA messages were sent to Mexico City. No replies to particular questions regarding berthing were answered. Salina Cruz Port Control was contacted on VHF Channel 16 at about 35 miles and gave the required information. We were directed to anchor to the East of the leads in 20 m. of water in company with 3 other tankers. Port Control assigns particular positions for anchoring.

On closer approach, Pemex (operations) contacted the ship and confirmed berthing information.

Once contacted, Port Control works on VHF Channel 6 and Pemex on Channel 9.

Berthing: Berthing is carried out in the harbour between 0600 hrs. and 1800 hrs. only.

Pilot boarded from black-hulled, white cabined fast launch.

Entrance to outer harbour is narrow and was made with great care. Tugs were in attendance as soon as we passed the breakwater entrance and were on hand to help line up for the 50 m. wide passage into the inner harbour.

Room is at a premium as soon as the gap is passed. The ship has to be stopped within a few metres and tugs do not waste time making fast.

Ship was swung to starboard and put alongside Berth No. 4 and backed to position at Berth No. 5. Berths are very well fendered with solid rubber fenders and large roller fenders.

Ships always berth starboard side to at Berths No. 4 and 5. Berths are clean and tidy and well supplied with fire fighting equipment. Lines are provided for a range of lighter fuel products and ballast. Fresh water is available.

Loading: Ship loaded 100,000 bbls. of gasoil. 1×10 in. and 1×8 in. hoses were provided.

Loading was by gravity from one tank on the hills above the port. Maximum rate was said to be 10,000 bbls./hr.

Inspection and loading operations were efficient and carried out with a minimum of fuss. Bunker survey was insisted upon.

Clearance: Port Control request arrival times and quantities. These are not passed on, so Pemex then ask for the same information, in the middle of berthing, and then the Agent wants the whole lot again. As we had been cleared "from San Francisco to Panama for orders" I had to produce telexes with new cargo orders and Log Books (Deck and Engine Book) for scrutiny by the Harbour Master.

On departure all papers were completed before departing the dock, except for the Harbour Master's Clearance and a visaed Crew List which local rules insist upon. These items were brought out to the ship an hour later.

Unberthing: With limited clearance in the inner harbour, the preferred routine is to walk the ship along the dock and use 2 headlines onto the last shore bollard to hold the bow while one tug eases the stern out until lined up for passage through the gap. This was accomplished without any difficulty or danger.

Services: As the port seems to be a major base for repair and storing for Pemex ships, it may be a good port for routine stores. The large shed on the dock were well stocked with a wide variety of engineering items for Pemex ships, so that people ashore may be used to dealing with more unusual engineering items.

The small dockyard was busy with small naval vessels. It has a moderate sized synchrolift and a small dry dock. A 20,000 tonne Pemex ship was alongside for some repairs.

At Berth No. 5, there is a rigging loft for wire and rope items needed at the SBMs, and it looked able to cope with most jobs.

Shipchandler boarded. No stores were bought as we had just stored in U.S.A., but he disposed of 1,500 litres plastic garbage for U.S.$100.00, which is better than San Francisco, where the quote was U.S.$600.00 minimum.

Developments: The new Eastern breakwater noted on the chart as being under construction (1986) seems complete, and 2 new jetty berths for large tankers are under construction about 2 cables to the West of this. A moderate Southerly swell was causing a heavy surf on the beach under Morro de Salinas, and whether this will affect the new berths, only time will tell.

Limits: Inner harbour: Length 180 m., beam 28 m.

Berth No. 4: Max. draft 31 ft.

Berth No. 5: Max. draft 28 ft.

A new berth is sited on the Western side of the outer harbour, equipped with 4 loading arms. Max. LOA 220 m., max. beam 32 m. Draft unknown.

AUTHORITY: Delegacion Coordinadora, Av. Tampico No. 39-B Altos. *Tel:* 4-04-36, 4-04-46.

Empresa de Servicios Portuarios, Recinto Portuario. *Tel:* 4-01-01 and 4-00-44.

Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5, Mexico, 11 D.F. *Tel:* 553-87-11.

SAN CARLOS: 24.47 N. 112.08 W. (See Plan)

PORT LIMITS: The limit of the port is up to parallel 24° 39' 41.5" N. which passes through the position of the East Buoy of the channel entrance on Mexican Chart F.H.614.

DOCUMENTS:

Port Captaincy:

Clearance from Last Port.

Crew List.

List of Passengers.

Voyage memorandum including dates and ports visited during the previous 3 months.

Port Operations:

Stowage Plan.

Certificate of cargo handling equipment on board.

List of peculiarities of the vessel.

Health:

List of Vaccination Certificates of the crew.

List of Vaccination Certificates of passengers for the port.

Derat or Exemption Certificate.

Immigration:

Visaed Crew List.

List of Passengers for the port, also visaed.

Maritime Customs: Vessels without cargo, and arriving from abroad:

Declaration of arrival in Ballast.

Vessels coming from abroad with cargo for the port:

General Manifest for the port.

List of Passengers for the port.

List of Explosives, Corrosives, Flammables for the port, visaed.

Vessels coming from a Mexican port to load:

Customs Clearance.

Vessels coming from a Mexican port to unload:

Customs Clearance.

Cargo Manifest, visaed.

List of Passengers for the port.

List of Explosives, Corrosives, Flammables for the port.

Inspection of Animal Health:

List of Meats (tinned or fresh or refrigerated or in deep freeze).

Vessels bringing animals to the port:

Veterinary Health Certificate.

Transport Permit.

List of Meats (See above).

Inspection of Vegetable Health:

When products are not brought for discharge:

Derat Certificate or Exemption.

When products brought for discharge:

Derat Certificate or Exemption.

Vegetable Health Certificate.

Importation Permit from the Secretariat of Agriculture and Cattle Breeding of Mexico.

PILOTAGE: The Port Captaincy has VHF Channel 16 for receiving ETAs. The Pilot comes on board vessels by motor launch from San Carlos within Magdalena Bay.

There is a Landfall Buoy in position Lat. 24° 38.6' N., Long. 112° 05.4' W., one mile from the entrance to the buoyed channel.

ANCHORAGES: Any location between meridians 112° 05.0' W. and 112° 03' W. and parallels 24° 38.5' N. and 24° 37.5' N. Depths approximately 105 ft., sandy bottom.

RESTRICTIONS: With 26 ft. draft, vessels may navigate the Channel between Buoys "9" and "10" to "11" and "12". With a tidal rise of 4 ft., vessels enter and leave with a draft of 30 ft. at high tide.

MAX. SIZE: LOA 600 ft., beam 100 ft. and draft 30 ft.

HEALTH: When coming from abroad, hoist the yellow flag. Inspection is effected when the vessel is berthed or at the Inner Anchorage. If the vessel is coming from another Mexican port, the Health Authority's visit is not necessary.

RADIO: La Paz Coastal Radio: Call sign "XFK".

VHF: Port Captaincy on VHF Channel 16, operates between 0800 hrs. and 1800 hrs.

RADAR: This service does not exist.

TUGS: None available.

BERTHING: The "L" shaped quay is made of concrete and has 102 m. of berthing length. There are two "Dukes of Alba" making up a length with the quay for berthing of 204 m. Also there are 2 mooring buoys, one at each end of the berth. The minimum depth at LW is 37 ft. in the berthing area. Loading and discharging is effected using the vessel's own gear. It is possible to work in 2 or 4 gangs, according to the type of vessel and cargo.

CRANES: None.

BULK CARGO FACILITIES: On the quay there are installations of "CONASUPO" with a tower for shipment of grain, located in the angle of the "L". The grain generally shipped is wheat at the rate of 200 t.p.h. The height of the end of the grain output tube above sea level at full tide is 12 m.

SPECIALISED CARGO HANDLING FACILITIES: Vessels berth at the same quay as above with ammonia, unloading by means of installations located in the angle of the "L". These installations are owned by Fertimex.

BRIDGES: None.

STEVEDORES: Vessel's Agent submits a request 24 hours in advance for stevedoring services through the delegate of Puertos Mexicanos. Four products are mainly handled in the port: Cotton at a rate of 90 bales per gang/hr. Bulk wheat at a rate of 200 t.p.h.; bagged at the rate of 25 t.p.h.; Fertilisers in bags at a rate of 25 t.p.h.; and fish (tuna) at an average of 25 t.p.h. Since the mechanical equipment on shore is sufficient for 2 gangs in the case of cotton, stevedores are requested for this number of gangs. As far as wheat is concerned, the loading rate drops to 80 t.p.h. when the warehouse has little wheat in it.

Stevedores work from 0800 hrs. to 0200 hrs. of the following day, i.e. they work 18 hours in 24 hours.

MEDICAL: There is a civil hospital in Ciudad Constitucion 45 minutes away from San Carlos. There is a telephone service available for calling ambulances. There are 6 doctors in the port.

TANKERS: There is a concrete quay with length 280 m. and depth 35 ft., owned by the Federal Commission of Electricity.

DENSITY: 1023.

FRESH WATER: This is supplied when the vessel is berthed. There are various 2 in. hydrants. The rate of supply is 10 t.p.h., and the approximate cost is 13,000 Mexican Pesos per ton.

FUEL: Moderate quantities of diesel oil can be supplied, and it is brought by road tanker from La Paz, the vehicles themselves pumping supplies to the vessel.

CONSULS: There are no consuls in the port.

REPAIRS: There are workshops at Ciudad Constitucion 45 minutes away by road.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: This service does not exist.
HATCHES: Hatches are opened and closed by the stevedores.
SURVEYORS: None.
CUSTOMS ALLOWANCES: Tobacco, wine and spirits are placed under seal.
CARGO GEAR: For loading and discharge, ships' gear is used. There are no cranes in the port.
REPATRIATION: There are Immigration Authorities in the port. There are 3 hotels in the city and several in Ciudad Constitucion and in La Paz. La Paz, is the capital of the State of Southern Lower California, and is approx. 3 hours away by road.
AIRPORT: None in the port. Airport at La Paz where there is an international airport called General Marquez de Leon.
TIME: GMT minus 7 hours. There are no seasonal time changes.
HOLIDAYS: 1st January, 5th February, 21st March, 1st May, 16th September, 20th November, 25th December, and 1st December (every 6 years). These dates are all obligatory.
POLICE/AMBULANCE/FIRE: In the port there are Municipal and Prison Police (Tel: 25) and ambulance. Fire fighting services come from Ciudad Constitucion.
TELEPHONES: No service for installing phones on board vessels, but in the port there is a telephone service for communications with any part of the world.
SERVICES: None available.
SHORE LEAVE: No restrictions.
IDENTIFICATION: Seaman's Book is sufficient.
REGULATIONS: No naked lights when there is cotton in the port or ammonia is being discharged.
DELAYS: As there is only one berth, there are times when the berth is occupied, but this does not occur often. Berthing is done in shifts.
GENERAL: *Post Office:* There is a Post Office in San Carlos.
Telegraph Office: There is a telegraph office but the service is not for maritime traffic. For such purpose, vessels must send their ETA via La Paz Coastal Radio Station.
DEVELOPMENTS: At the moment, there is no programme.
AUTHORITY: Capitania de Puerto de San Carlos, Apartado Postal No. 5, Puerto San Carlos, B.C.S., Mexico. *Contact:* Captain Felix Armas Ortiz, Port Captain.

Coordinacion de la Unidad de Puertos y Marina Mercante (Mexican National Port Authority), Municipio Libre 377-12B, C.P. 03310, Col.Sta Cruz Atoyac, 03310 Mexico, D.F. *Tel:* (525) 604-4249, 604-3829. *FAX:* (525) 688-9368.

SAN JUAN DE LA COSTA: 24.24 N. 110.40 W.

(See Plan)

SHIPMASTER'S REPORT: April 1985.

LOCATION: 4.1 miles South of Pta. Coyote in position: Lat. 24° 23.5' N., Long. 110° 40.4' W.
PILOTAGE: Compulsory. Pilot boards 1 mile to 2 miles East of berth.
ANCHORAGE: Vessels have to wait at anchor if wind exceeds Force 2 on the Beaufort Scale. Berthing only carried out in calm weather.
TUGS: Not available.
BERTHING: Open berth exposed to Easterly winds. Depth alongside 32 ft. Vessels berth port side alongside only.

There are 2 mooring buoys located about 140 m. from each end of the berth to the seaward side, used to make fast 2 slack ropes (1 forward and 1 aft) in order to assist vessel to sail, sailing mostly without Pilot.

Approach to berth is free of dangers.

On average 3 vessels a month load at the berth.
LOADING: Fixed loading installation (conveyor belt) with loading capability of about 600 – 700 t.p.h. Cargo loaded was rocky phosphate in bulk.

Vessel has to shift for loading each hold. During shifting special care should be taken as shifting is considered extremely dangerous, especially for loading extreme holds on account of short length of berth (for vessels above 180 m. in length) in combination with the prevailing winds.
FRESH WATER: Not available.
REPATRIATION: Can be arranged from the nearest port (La Paz).
GENERAL: *Provisions:* Fresh provisions not available.
AUTHORITY: Coordinacion de la Unidad de Puertos y Marina Mercante (Mexican National Port Authority), Municipio Libre 377-12B, C.P. 03310, Col.Sta Cruz Atoyac, 03310 Mexico, D.F. *Tel:* (525) 604-4249, 604-3829. *FAX:* (525) 688-9368.

TAMPICO (Including Altamira): 22.16 N. 97.47 W.

(See Plan)

PORT LIMITS: Vessels in Mexican ports are considered to be arrived vessels as soon as permission to moor has been granted by the Port Authorities.
DOCUMENTS:
7 simple copies of Crew List.
5 simple copies of Cargo Manifest.
1 Visaed Passenger List or visaed Statement to the effect of no passengers, and 5 simple copies.
7 copies of Stores List.
7 copies of Personal Effects List.
Derat Exemption Certificate.
Passports or Seaman's Books of all crew.
Clearance from Last Port of Call.
3 copies of lists of packages containing explosives, flammable or corrosive materials.
PILOTAGE: Pilot ordered by Agent who requires 24 hours' notice of vessel's arrival. Pilots board vessels 2 miles off the breakwater. Vessels may anchor about 2 miles off the breakwater waiting for Pilot. Pilots on VHF Channel 14. There are 9 port Pilots available.
ANCHORAGES: About 2 miles East of breakwater in 40-60 fathoms of water, clear of the prohibited area.
RESTRICTIONS: There are no restrictions for movements at night. The drafts of the vessels will be governed by the mooring zones in which they are working.

The depths at these berths are as follows:

Minera Autlan Quay	32 ft.
Metals and Minerals Quay	32 ft.
Petroleos Mexicanos Quay	32 ft.
Termimar Quay	31 ft.
Recinto Fiscalizado	30 ft.
Proteinas de Tamaulipas	30 ft.
Cementos Anahuac Quay	28 ft.
Terminales del Golfo	27 ft.

The depth is subject to constant dredger maintenance, the draft being reported monthly to the Ship Agents.
MAX. SIZE: The max. length is 735 ft. There are no restrictions for beam. The drafts will be those admissible in the corresponding berth used.
HEALTH: No Radio Pratique. Pratique granted after docking and presentation of documents to Port Authorities. In case of disease or fever on board, Master to give notice to Agent before arrival.
RADIO: Tampico has a coastal station with frequency 2182 kHz., as have the Harbour Master, the Pilots' Office and API Tampico Office. All have the same frequency and VHF Channel 16.
VHF:
Harbour Master : Channel 12.
API Tampico : Channel 68.
Pilot's Office : Channel 14.
Coastal Radio Station : Channel 12, 16, 26 and 27.
TUGS: 4 tugs are available, intended solely for port manoeuvres, comprising "Altamira" 1,700 h.p.; "SPTA-1" 4,352 h.p.; "SPTA-2" 3,200 h.p. and "SPTA-3" 4,352 h.p. The tugs belong to API Tampico and use VHF Channel 68.
BERTHING:
1 berth at the Tergosa Quay where bulk grain like corn, wheat, sorghum and others are moved with conveyor belt system, at the rate of 400 t.p.h.

1 berth at the Minera Autlan Quay where manganese derivatives are moved by moving belt at the rate of 700 t.p.h.

Petroleos Mexicanos have 6 berths where oil and its derivates are moved at the rate of 600-800 t.p.h., by means of 4 in., 6 in., 8 in. and 10 in. pipes. They also have a quay for general cargo.

1 berth at Termimar Quay where calcium sulphate and magnesium oxide are moved by moving belt at the rate of 500 t.p.h.

1 berth at the Proteinas de Tamaulipas Quay where bulk grain like soya beans are moved with conveyor belt system, at the rate of 250 t.p.h.

2 berths at the Anahuac Cement Quay, where bulk cement is moved by means of 10 in. pipes at one berth and by 2×16 in. ducts at another berth at a rate of 250 t.p.h. per pipe. This terminal also handles clinker by conveyor belt with a rate of 800 t.p.h.

Metales y Minerales Terminal has 2 berths of 152 m. and 154 m. Berth No. 1 moves export minerals like fluorite and ferromanganese with 2 conveyor belts with a rate of 500 t.p.h. Berth No. 2 handles steel products like plates and rolls.

8 berths at the Recinto Fiscalizado (Berths No. 1-8), where general cargo is moved at the rate of 20 t.p.h. per gang. This terminal also handles minerals and grain in bulk with conventional system like manganese, coke coal, fluorite, zinc concentrate and corn. Berth No. 9 moves mineral exports with 2 conveyor belts with a rate of 500 t.p.h.

Berth	*Length*	*Berth*	*Length*
1	215 m.	5	145 m.
2	145 m.	6	145 m.
3	145 m.	7	180 m.
4	145 m.	8	185 m.
		9	185 m.

Altamira: Approximate position: Lat. 22° 29' 32" N., Long. 97° 51' 45" W. It has 4 berths with a total length of 750 m. (Tepeal – 2 berths, Negromex – 1 berth and Tom – 1 berth, all for tankers) and depth up to 13 m. The navigation channel has a depth of 12.0 m. The port also has areas for storage and facilities for containers and Roll-on/Roll-off.

Pilot compulsory. Pilot boards 2 miles off the entrance.

Fresh water and fuel available from Tampico.

A dock side container crane of 30.5 tons is in operation, 3 gantry cranes with 40 ton capacity (and 2 cranes under construction) and 6 yard cranes are available, other miscellaneous equipment is available.

STEVEDORES: The Grupo Alijadores is the unique stevedore company in the port. No ETA advice necessary if Stowage Plans received in advance by Agent, otherwise ETA advice for gangs appreciated 48 hours prior to arrival. The port works 24 hours a day all year round.

MEDICAL: Doctors and hospitals available. Services to be arranged through Agent.

TANKERS: See "Berthing". Dirty ballast is received ashore.

DENSITY: Average 1006.

FRESH WATER: Available on written request from ship's Agent. Drinking water delivered by pump at the rate of 12 cu.m. per hour.

FUEL: Available at Terminal Maritime Madero.

CONSULS: Brazil, Denmark, Finland, Germany, Honduras, Italy, Lebanon, Norway, Spain, Sweden, U.K. and U.S.A.

REPAIRS: Hull repairs can be effected, as can work on steering system, machinery, marine auxiliaries and other equipment of less importance.

There are 2 private shipyards for navy vessels and for tankers of Petroleos Mexicanos, also the port has several shipyards for fishing boats and small vessels.

DRY DOCKS: Length 250 m., depth 9.5 m., width 37 m. Max. size 55,000 d.w.t. Only for tankers owned by Pemex.

CUSTOMS ALLOWANCES: No allowances to be taken ashore, but reasonable amounts of tobacco and spirits are allowed to be taken out of bond, but to be kept on board for use of crew and passengers only.

REPATRIATION: In the port there is an office of the Administrative Secretariat, where the repatriation of any crew member can be negotiated. This negotiation will be for the account of the ship's Agent.

GANGWAY/DECK WATCHMEN: No watchmen necessary. Customs guard keeps watch at gangway while vessel alongside.

AIRPORT: At a distance of 10 km. from the port. There are regular flights to Monterrey and Mexico City with connections in any direction.

TIME: GMT minus 6 hours.

HOLIDAYS: January 1st; February 5th; March 21st; April 14th; May 1st; September 16th; November 20th; December 25th; December 1st (every 6 years).

FIRE/AMBULANCE/POLICE: Fire Department Tel. 12-12-22; Red Cross Tel. 12-13-33; Police Tel. 12-11-57 and 12-10-32.

BANKS: Banjercito, located in the entrance to Recinto Fiscal Portuario. Tel: 190691, 190692.

Bancomer, Pedro J.Mendez Center Zone. Tel: 126917, 123903.

Serfin, Pedro J.Mendez Center Zone. Tel: 141538, 141697.

DEVELOPMENTS: Constant programming for more space at wharves, sheds, warehouses, continuous dredging and increasing capacity of operational equipment.

AUTHORITY: Administracion Portuaria Integral de Tampico, S.A. de C.V., Recinto Fiscal Portuario, Ex-Edificio de Marina 1er Piso, Tampico, Tamaulipas, C.P. 89000 Mexico. *Tel:* 124660, 192610. *FAX:* 125744. *Telex:* 14887 Cpdtme. *Contact:* Fernando Chavarria Solis, Director General.

TOPOLOBAMPO (Punta Mapam): 25.35 N. 109.03 W. (See Plan)

SHIPMASTER'S REPORT: January 1986 (Updated 1996).

PORT LIMITS: Precise limits could not be established, however any reasonable distance from the Fairway Buoy is acceptable. See anchorage positions below.

DOCUMENTS:

3 copies Crew Lists.
3 copies Crew Personal Declaration.
3 copies Bonded/Slop Chest Stores List.
3 copies Steward's Stores List.
3 copies Vaccination List.

Manifests not always necessary for Pemex purposes.

Bills of Lading, necessary, these included with Clearance from last port and from loading port. Clearance very important.

Ship's certificates, not asked for, except ship must have licence to trade coastwise, issued by the Mexican Authorities.

PILOTAGE: Compulsory. Daylight only. Pilot on VHF Channel 16. Pilot boat is a small yellow dinghy with an outboard motor. In rough weather Pilot boards from tug 'Pemex 45' or 'Lobo'.

Pilot boards in vicinity of Fairway Buoy.

ANCHORAGE: Not defined, but in vicinity of Fairway Buoy. A good anchorage has been found in position 25° 29.3' N., 109° 10.8' W. in 17.6 m. of water, with the Fairway Buoy bearing 032° by 0.87 miles. On another occasion vessel anchored in position 25° 28.99' N., 109° 12.05' W., with Fairway Buoy bearing 057° by 1.75 miles. Positions by Satellite Navigator.

RESTRICTIONS: *Access Channel:* Length 22,224 m., depth 14.0 m.

Turning Basin No. 1: In front of Container Dock. Diameter 450 m., depth 14.0 m.

Turning Basin No. 2: Diameter 300 m., depth 10.0 m.

Turning Basin No. 3: In front of Fishing Dock. Diameter 150 m., depth 5.0 m.

Turning Basin No. 4: In front of Pemex No. 2 Dock. Diameter 300 m., depth 14.0 m.

MAX. SIZE: 50,000 d.w.t., LOA 240 m. and max. draft 11.0 m.

RADIO: In our case Charterer's private radio station was used. For commercial purposes Guaymas Radio is probably best.

VHF: Pilot on VHF Channel 16.

TUGS: 2 tugs available, 2,320 h.p. and 4,352 h.p., both owned by Pemex.

BERTHING: One berth of length 790 ft. and 39.4 ft. depth, for handling containers (15 units per hour).

One berth of length 328 ft. and 32.8 ft. depth, for handling general cargo.

Storage: Warehousing: 3,869 sq.m. Yards: 144,800 sq.m. Sheds: 2,250 sq.m.

Equipment: Cranes: 2×18 tons and 2×8 tons. Forklifts: 2×6,000 lb., 6×8,000 lb., 1×30,000 lb. and 1×88,000 lb.; 5 tractors; 2 tractor trucks; 4 front-end loaders; 5×130 t.p.h. vacuums; 3 chutes (24 tons) and 8 chutes (12 tons); 20 clams.

TANKERS: Pemex Berth at Punta Mapam:

The berth is located 0.5 miles East of the derelict Pemex Berth in Topolobampo. The jetty is approximately 250 m. in length and aligned 087° – 267° with a depth of 14.0 m. on the South side.

Berthing at the Pemex Jetty:

North Berth: Port side to, head out to sea. Starboard anchor is let go off the berth.

South Berth: Port side to, Head in.

Unberthing from Pemex Jetty:

North Berth: Starboard anchor used to assist moving vessel off berth. HW not necessary but consider depths over the bar.

South Berth: Best just before HW when flood used to advantage to help move vessel off berth.

Currents at the Berth: Tidal stream currents set heavily across the berth so that on the flood, a vessel on the North Berth is pushed towards the berth and a vessel on the South Berth is pushed off the berth. When the tide is ebbing a vessel on the North Berth is pushed off and a vessel on the South Berth is pushed on to the berth.

Cargo Handling: Chicksan type cargo arms with 10 in. diameter for diesel oil and gasoline, sizes for other grades not checked but thought to be the same. In the case of our vessel (LOA 170 m.) the diesel arm was aligned with the manifold, but the gasoline arm was too far off forward of the manifold on the South Berth (and too far aft on the North Berth) and therefore a length of flexible 8 in. hose was used between the manifold and the cargo arm. Shore tanks were said to be 2 km. away and 42 m. above sea level.

FRESH WATER: Available, using international shore connection and ship's hoses from fire tower on jetty. Sailing directions recommend boiling before use.

FUEL: Available.

SURVEYOR: Can be arranged through Lloyd's in Mexico City.

CUSTOMS ALLOWANCES: Usual allowances for Mexico.

REPATRIATION: Possible via Los Mochis, 12 miles inland.

AIRPORT: At Los Mochis, 12 miles away. Los Mochis can be reached by bus or taxi.

TIME: GMT minus 7 hours throughout the year.

SHORE LEAVE: No restrictions, identification cards not necessary.

DELAYS: Departure from tanker berth dependant upon state of tide and in daylight only. Other berths unknown.

SHIP'S OFFICERS REPORT: Small scale B.A. Chart No. 2323 used for approach. Large scale B.A. chart for Topolobampo not available, therefore Mexican Chart S.M. 337 used.

When approaching from the vicinity of Cabo Corrientes, the best course has been found to be 327° to approximate position 25° 18.3' N., 109° 18.0' W. when Farallon de San Ignacio will be dead ahead by 10 miles. Course is then altered to 030° for 13 miles for the Fairway Buoy. On this course the Fairway Buoy should be in line with an identifiable hill (See "Plan"). The Fairway Buoy has been fixed using Satellite Navigator derived positions at anchor and visual bearings together with radar ranges and found to be in 25° 29.93' N., 109° 10.44' W.

In rough or rainy weather the buoy may be difficult to see. With radar the channel buoys present slightly better echoes and may be recognised by comparison with the channel shape from the chart.

SERVICES: Stores, garbage disposal, repairs, fumigation, warehousing.

GENERAL: *Agent:* Agencia de Buques Zamorano, Domicilio Conocido, Topolobampo, Sinaloa. Tel: 2-00-11.

AUTHORITY: Administracion Portuaria Integral de Topolobampo, S.A. de C.V., Acceso Parque Industrial Pesquero, Topolobampo, Sinaloa, C.P. 81370, Mexico. *Tel:* 91 (686) 20127, 20137. *FAX:* 91 (686) 20494. *Contact:* Lic. Cesar Madrazo Lozano, Port Director/General Manager.

Predio de la S.C.T., Domicilio Conocido, Topolobampo, Sinaloa, C.P. 81370, Mexico. *Tel:* 91 (686) 20128. *FAX:* 91 (686) 20588. *Contact:* Captain Alt. Mario J. Alverdi Carmona, Harbour Master/Port Captain.

TUXPAN: 20.57 N. 97.24 W. (See Plan)

SHIPMASTER'S REPORT: January 1982 (Updated 1994).

LOCATION: Tuxpan is situated on the North bank of the Rio Tuxpan. On the opposite side (the South bank) is situated part of Tuxpan called Santiago de la Pena.

The entrance of the Rio Tuxpan is situated at Lat. 20° 58.2' N., Long. 97° 18.1' W. Breakwaters on both sides of the river mouth. Approximately 100 m. and 120 m. seaward of the mole heads is a bar with quick changing depth over it. The bottom of the bar is sand, covered with a thin layer of mud. After a strong North wind the depth on the bar is one foot less than the day before. The permissible entering draft is 18 ft. – 20 ft. at HW and calm sea with nearly no swell. Occasionally vessels with 21 ft. draft can enter. Normally there is a low swell from the East all the year. After a strong North wind (Norte) you can expect a Northerly swell of 2 ft. – 4 ft. for 1 to 2 days. A dredger is working in the river entrance most of the time.

PORT LIMITS: One mile off all port installations and structures, including SBM and breakwaters.

DOCUMENTS:

1 original and 4 copies B/L's of all Tuxpan cargo.
12 Cargo Manifests.
1 Health Declaration.
8 Crew Lists.
8 Passenger Lists (even when none/nil – lists).
4 Stores Lists.
2 Personal Effects Lists.
(No special forms required/IMO-Forms are sufficient).

Documents which have to be shown to Port Authorities:

Tonnage Certificate.
Ship's Register.
Derat Certificate.
Seaman's Books or Passports.

PILOTAGE: Pilotage is compulsory. Pilot boards vessel approximately 2 miles to 2.5 miles East of entrance. Pilot boat: A white 20 ft. boat with white cabin and blue/white deck.

Equipped with VHF Channel 16. Pilot Office open from sunrise to sunset and listening on VHF Channel 16. Call: "Tuxpan Pilot".

The Pilot has to be ordered by Agent 24 hours in advance.

ANCHORAGES: East of breakwaters from 2 miles – 4 miles on a breadth of 1 mile North and 1 mile South of this line.

Caution: Many submerged gas and oil-pipes in the vicinity of entrance to Rio Tuxpan.

Best anchorage: North mole head bearing 270° (T) and 2.8 miles off. Ground: Muddy sand, good holding.

RESTRICTIONS: Entering port and river only in daytime. Departing vessels have to pass the bar at river entrance before sunset.

Access Channel: Length 7.0 km., depth 10.0 m.

Turning Basin: Diameter 240 m., depth 10.0 m.

MAX. SIZE: Length of ships handled is 190 m., always in accordance with the draft.

HEALTH: There is a hospital at Tuxpan. Surgeons and Dentists are available. No vaccinations can be done.

Meat and vegetable rooms are sealed and opened once a day to take provisions. Garbage has to be kept on board in watertight and covered containers.

RADIO: No radio station at Tuxpan. Closest Tampico or Vera Cruz. Good communication between Tuxpan and these radio stations.

There is no repair of radars, VHF or other electric and electronic equipment possible. If required, technicians and spare parts have to be ordered from Tampico.

VHF:

Port Authorities	Channel 16
Pilot	Channel 16
Pemex	Channel 16
Tecomar (Agency)	Channel 68

RIVER: Ground: Mud. Density of water: Approximately 1005.

The current in the river is nearly always outwards and is from 0.5 knots in the dry season up to 6.5 knots in rainy season.

At Tuxpan there is a stationary bridge, which can only be passed by very small ships.

TUGS: 1×4,000 h.p.

BERTHING:

Ocean-Going	460 m.
Fisheries	138 m.
Navy	22 m.
Pemex	480 m.
CFE	80 m.
Transunisa	228 m.

Storage: Yards: 90,000 sq.m. Warehouses and Silos: 24,300 sq.m. Tanks: 12,000 cu.m.

Equipment: Private equipment includes 1 crane, 12 tractors, 31 forklifts (4,000 lb. – 96,000 lb.), 3 front-end loaders, 4 clams.

STEVEDORES: Agent has to order gangs from Port Operations 24 hours in advance. Approximately 120 men available.

Working Hours: 0800 – 1600 hrs. = 1st shift
1600 – 2400 hrs. = 2nd shift
0000 – 0800 hrs. = 3rd shift

Saturday and Sunday also, but all at overtime rates.

TANKERS: Tankers up to 6,000 tons gross can be taken inside the river to the oil companies' small jetties.

Offshore there are 2 SBMs in position:

No. 2 = Lat. 21° 02.58' N., Long. 97° 17.43' W. and
No. 1 = 135° – 1.9 miles from No. 2 SBM.

Tankers with 55 ft. draft acceptable. These SBMs are mainly used by Pemex. 2 additional buoys are to be installed.

Also see Shipmaster's Report dated October 1992.

FRESH WATER: Drinking water available.

FUEL: Small quantities of clean diesel oil can be delivered by trucks. No marine diesel oil or heavy fuel oil available.

DRY DOCKS: None.

SHIPYARD: For fishing boats, some slipways available.

REPAIRS: Minor repairs can be done by the fishing boat shipyards.

REPATRIATION: Repatriation is possible via Tajin Airport to Mexico City. Tajin Airport is approximately 30 miles from Tuxpan and can be reached by a good road.

At Tuxpan on the left (North) riverbank is a small Airport (Fausto Vega Santander) only for VFR flights. Runway 1,600 m. No commercial flights.

HOLIDAYS: 1st January, 1st May, 5th May, 16th September, 25th December.

TIME: GMT minus 6 hours throughout the year.

TELEPHONE: No telephone connections at the piers.

Useful telephone numbers: Police, 40252; Port Captain, 40020; Pilot Office, 40043; Custom's Office, 40055.

Office Hours: Monday – Friday 0800 – 1500 hrs.

Some offices are also open on Saturday from 0800 – 1300 hrs.

SHORE LEAVE: Allowed without restrictions. No special identification cards required.

SERVICES: Stores, electricity, laundry, fumigation.

SHIPMASTER'S REPORT: July 1990.

Intensive dredging is under way. The offshore bar near the entrance can now be passed, on leading lights line 238° with 26 ft. 06 in. at all tides (dredged to 9.5 m.).

Pilotage available day and night.

The breakwaters are being lengthened.

3 miles up-river on the South bank of Rio Tuxpan, a well operated Container Terminal can accommodate 2 vessels at a time, each 160 m. in length. Berthing is port side to, or after turning (which is advisable) starboard side to head seawards.

In good weather conditions, no use of anchor required.

One tug and one mooring boat available. Sufficient fenders are in place.

Container handling: With ship's gear only for ship-to-shore, then handled with special hydraulic mobile lifters (40 ft./20 ft. containers) on to trucks, or direct to stacking area.

Stevedores available 24 hours.

SHIPMASTER'S REPORT: October 1992.

BERTH: No. 2 SBM.

CHARTS: B.A. 373 – 1/40,000. Limited coverage.
B.A. 376 – 1/500,000 scale too small to show detail.
DMA 28320 – 1/250,000.
DMA 28321 – Tampico 1/20,000.
Tuxpan 1/25,000.
Isla de Lobos 1/20,000.

APPROACHES: From the East, approach is very simple. Offshore oil rigs show clearly, even in very poor weather, and Racon on Bajo de Tuxpan shows well. Chart 376 notes that this lies 1.1 miles N.E. of charted position, and this is confirmed by radar distances from anchorage position midway between breakwater entrance and Bajo de Tuxpan. Distance from shore to Bajo de Tuxpan notes as 7.1 miles, which is different to charted distance, but chart scale is such as to make this almost meaningless. DMA charts are reputed to give better coverage, but we have not yet received them.

DETAILS: When we arrived, there was a Westerly gale blowing, which was augmented by a very heavy N.E. swell, generated by bad weather further out in the Gulf. With so little detail showing on the B.A. charts, I decided to remain outside cruising until the weather moderated, which it did some 12 hours later. The swell remained, and a ship on the Buoy No. 1 was noted to be rolling very heavily, and in fact had to suspend cargo operations and leave the buoy when the port was closed by the Port Captain.

An anchorage position is marked on the chart (B.A. 373) about 2 miles off the entrance. We anchored about 3.2 miles off on the leading lights and found good holding ground, although we were exposed to the swell. The dominant influence on the ship was the current which is constant, and sets down the coast (about 165° T) at a rate of 1 knot to 2 knots. This put us beam-on to the swell which was inconvenient.

The pilot later advised that a good anchorage can be found 1.2 miles S.W. of Bajo de Tuxpan, which is sheltered from the swell, and is used for ship-to-ship transfers.

Once the port was opened, we were advised of pilot boarding time and requested to heave up 30 minutes beforehand. As soon as we had made a lee, a Pemex launch came alongside, and the 12 man shore gang boarded with their equipment for connecting the hose.

The pilot then boarded together with Agent, Immigration, Port Health and Customs. The ship was cleared inwards on the way to the buoy, and all officials were happy to be left with the Radio Officer. Bond was sealed. Officials departed when finished.

Approach to the buoy was made on course of 345° at dead slow speed. Four strings of buoyant hoses (2 for crude, 2 for gasoline and products) extend about 200 m. from the buoy, which is a large structure, about 10 m. in diameter with a Qk. Fl. (W) light.

2×150 mm. diameter nylon braidlines are used for mooring, these have lighter messengers attached.

On approach, the mooring boat took one of our 52 mm. Karat ropes and the messenger was picked up with this. Slack was picked up as the ship approached, and the 150 mm. rope eventually came on board and the eye was placed over a set of bitts. The second line was made fast in the same way, and the ship settled down 50 m. from the buoy.

One hose was used. Although the hose is 12 in., the buoyancy provided makes it very bulky, and there was just enough clearance to rest it on the inboard pipe-rail and connect to our manifold.

Pilot advised that lift does not exceed 3 tonnes, and this seemed to be confirmed by the behaviour of the rig.

All mooring and connection was done by Pemex shore gang who remained on board throughout discharge. They were regularly relieved. One member of shore gang remained on bridge to keep VHF watch. Pilot remained on board throughout.

All were efficient and no trouble.

12,400 tonnes of MTBE were discharged in approximately 20 hours. Maximum back pressure 100 p.s.i.

GENERAL: Agents were contacted when about 30 miles from port, and were scrupulous in providing regular and accurate information.

On sailing from load port, Agents required faxes of Certificate of Measurement, Manifest, Crew List, Crew Effects Declaration, so that they have time to translate them into Spanish before arrival.

DEVELOPMENTS: SBM No. 3 being installed to the Northwest of SBM No. 2.

AUTHORITY: Coordinacion de la Unidad de Puertos y Marina Mercante (Mexican National Port Authority), Municipio Libre 377-12B, C.P. 03310, Col. Sta Cruz Atoyac, 03310 Mexico D.F. *Tel:* (525) 604 4249, 604 3829. *FAX:* (525) 688 9368.

VERA CRUZ: 19.12 N. 96.08 W. (See Plan)

PORT LIMITS: Area bounded by the reef lighthouses outside the breakwater.

DOCUMENTS: See "Coatzacoalcos".

PILOTAGE: Compulsory, advise Agent 24 hours before arrival giving name, flag, ETA and draft.

The Port Captain is to be given a minimum of 2 hours' notice by the Agent. This to be done between 0800 – 1800 hrs. (Pilot office hours). Orders for Pilots between 1800 – 0800 hrs. to be made between 0800 – 1800 hrs.

The Pilot normally boards 3 miles N.E. of harbour entrance, but if his services are requested outside such limits the Pilot will proceed to the location, i.e. the anchorage.

The pilot launch leaves from a "T" shaped pier when expected vessel is sighted. The launch has a black hull with white superstructure and false funnel painted black.

ANCHORAGES: In good weather, vessels may anchor in the outer area off the port, in the case of bad weather, to the South of Green Isle (Isla Verde) and East of the Isle of Sacrifices (Isla de Sacrificios). If the vessel prefers to anchor within the port limits, it must request the services of the Pilot and on anchoring for its own account within this sector must pay the fees due to the pilotage service.

RESTRICTIONS: In normal weather conditions there are no restrictions on entry and departure, the sole consideration being the draft of the vessel, since if this exceeds 31 ft. the time of the tide must be taken into consideration, and also after a strong North wind, a vessel drawing more than 24 ft. must wait for the tide. Depth in access channel 10 m. – 12 m.

MAX. SIZE: Length 381.65 m., at Berths No. 4 and 6 or the oil terminal.

HEALTH: The International Health Office gives a 24-hour service for the arrival and departure of vessels. To obtain Free Pratique on arrival of vessels there is a medical inspection, with submission of the Maritime Health Declaration, signed by the Master, and examination of documents of Derat Certificate, certificates of vaccination of the crew and passengers; cholera, yellow fever, (dependent upon the location from which the ship has come); examination of crew members or passengers who might be declared as suffering from contagious illnesses. With these formalities fulfilled, Free Pratique is granted. Free Pratique can be granted by radio, provided it is considered that the vessel's arrival will not give rise to the introduction or propagation of illnesses covered by the regulations, and that also the following requirements are fulfilled:

1. Exercise of greater epidemiological vigilance in respect of illnesses covered by International Health Regulations.
2. The Master's radiogram must be presented to the International Health Delegation 8 hours in advance and must invariably fulfil all the stipulations as set out in the attached form.
3. Without prejudice to the foregoing, the Health Doctor or whomsoever he may designate, and where it is considered appropriate, shall go on board for the purpose of receiving the Maritime Health Declaration so that enquiries and verifications as may be considered necessary may be carried out.

Once the vessel has called at a national port, in subsequent national ports the requirements for obtaining Free Pratique will not be required, provided there does not exist on board any alteration in the health conditions as established in the Maritime Health Declaration.

Medical service to crew members and passengers on board foreign flag vessels is provided by doctors and private hospital institutions, through the intermediary of the consignee ship's Agent.

For possible handling of disease covered by the Health Regulations (cholera, yellow fever, bubonic plague), there are isolation wards in the Official Hospitals "Aquiles Serdan" and "Regional de Veracruz".

The Office of International Health has immunisation services required for the diseases covered by the Regulation, which are certified on special international forms, with any cost, to crew members and passengers.

RADIO: Radio station Vera Cruz Radio, call sign XFU. Transmits on 420 and 451 kHz and listens on 425, 454, 463 and 480 kHz. Also VHF Channels 12, 16, 26 and 27.

VHF: Pilot on Channels 16, 12 and 20 throughout 24 hours.

TUGS: 4 tugs available, 1×4,300 h.p., 1×2,400 h.p., 1×2,350 h.p., and 1×900 h.p. Tugs' lines used at no extra charge. Tugs join vessels inside breakwater.

BERTHING:

Berth	*Capacity*	*Length (m.)*	*Depth (m.)*
No. 1	2 vessels	383.25	10
No. 2	3 vessels	432.40	9 – 10
No. 4	5 vessels	796.65	9 – 10
No. 6	5 vessels	724.00	9 – 11
No. 7	1 vessel	548.00	6 – 8
Marginal	2 vessels	407.00	10
Grain Quay	1 vessel	185.00	9 to 10
Container Quay	1 vessel	339.00	10
Pemex	2 vessels	958.00	10

CARGO HANDLING FACILITIES: Handling of grain at a mechanised plant, with storage capacity of 50,000 tons and an average discharge rate of 250 t.p.h. and loading rate of 400 t.p.h.

Handling of bulk sugar by mechanised installations, with storage capacity of 40,000 tons and an average loading rate of 800 t.p.h.

Handling of aluminium, coal brickettes, cement, latex, crystallised honey, chemical products, vegetable oils and crude oil.

The container terminal is equipped with 4 portainer cranes and 5 transtainer cranes.

STEVEDORES: *Handling rates:* General cargo, 133 tons/per hook hour. Bulk cargo, 200 – 300 tons/per hook hour.

TANKERS: Petroleos Mexicanos berth located in Northern part of port. Max. draft 28 ft. Berthing for 2 vessels of 170 m. LOA. Berth provides 5×8 in. lines for discharge of refined product and 2×12 in. lines for fuel oil.

DENSITY: 1025.

FRESH WATER/FUEL: Available.

Berth	*Location*	*Water connection*	*Diesel connection*
Pier No. 1	North	4 × 2.5 in.	
	Head		
	South	3 × 2.5 in.	
Pier No. 2	North	3 × 2.5 in.	3 × 6 in.
	Head	2 × 2.5 in.	1 × 6 in.
	South	3 × 2.5 in.	3 × 6 in.
Pier No. 4	North	7 × 2.5 in.	2 × 6 in.
	Head	2 × 2.5 in.	3 × 6 in.
	South	8 × 2.5 in.	4 × 6 in.
Pier No. 6	North	3 × 2.5 in.	
	Head	2 × 2.5 in.	
	South	6 × 2.5 in.	5 × 6 in.
Coasting	North	6 × 2.5 in.	
	Head	1 × 2.5 in.	
	South	5 × 2.5 in.	
Marginal	Single	4 × 2.0 in.	9 × 3 in. 1 × 2 in.
Pemex	Single	7 × 2.5 in. APL	6 × 8 in. refined
		1 × 4.0 in. (C/l) 2 × 3.0 in. (C/l) 4 × 2.5 in. (C/l)	10 × 12 in. fuel-oil

CONSULS:

Belgium
Brazil
Costa Rica
Cuba
Denmark
Dominican Republic
Ecuador
El Salvador
Finland
France
Germany
Guatemala
Honduras
Italy
Netherlands
Panama
Spain
Switzerland
U.K.
U.S.A.

MEDICAL: Doctors, dentists and hospital facilities available (See "Health").

REPAIRS: Hull and machinery repairs can be effected by "Talleres Navales del Golfo, S.A." (Vera Cruz Shipyard Company).

DRY DOCKS: "Talleres Navales del Golfo, S.A." has 5 docks, 2 floating and 2 dry docks. The largest of them is Floating Dock No. 4 with the following characteristics:

Length on stocks	169.210 m.
Internal useful beam	30.400 m.
Height of keel stocks	1.400 m.
Max. draft on keel stocks	8.200 m.
Lifting capacity	30,000 d.w.t.

Dock No. 2: With capacity for vessels up to 10,000 tons

Useful length	154.000 m.
Useful beam	19.400 m.
Draft	5.180 m.

Served by a 45 ton capacity crane

Floating Dock No. 3: With 3,000 ton capacity lifting capacity

Useful length	25.900 m.
Useful beam	13.550 m.
Draft	5.800 m.

Served by 2 cranes of 10 ton capacity each.

Dry Dock No. 1

Length	45.720 m.
Useful beam	7.920 m.
Draft	2.130 m.

New Floating Dock: Length 220 m., width 32.6 m. Capacity 28,000 tonnes.

SURVEYORS: Lloyd's, Norske Veritas and Germanischer Lloyd.

GANGWAY/DECK WATCHMEN: Available if required.

OPENING/CLOSING HATCHES: Mechanical hatches usually opened by crew, otherwise by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits per man and will attend as necessary for further issues.

CARGO GEAR: Piers 1 and 2, 4×20 tons, 6×10 ton, 3×5 ton and 10×4 ton mobile cranes. Various cranes at piers 4 and 6. 2 floating cranes available max. lift 46 tons.

REPATRIATION: Possible, arranged by Agent.

AIRPORT: 8 km. from Vera Cruz, flights daily to Mexico City.

TIME: GMT minus 6 hours all year round.

HOLIDAYS: During the year the following holidays are observed: 1st January, 5th February, 21st March, 1st May, 5th May, 16th September, 12th October, 20th November and 25th December.

POLICE/FIRE/AMBULANCE: Police – 2.28.23, Fire Brigade – 2.25.00, Red Cross – 2.01.40.

TELEPHONES: Available on most piers but not on vessels.

SERVICES: Provisions, laundries, and dunnage available. Garbage must be removed every 24 hours.

SHORE LEAVE: Possible.

GENERAL: *Government Secretariat – Local Administration Office*

In accordance with the stipulations of Article 75 of the General Local Administration Law, vigilance of foreign crew members in vessels of any nationality tied up in national ports, together with visits or stays by the said crew members will be subject to the following requirements:

I. Heads of Local Government will designate accordingly personnel who will carry out vigilance of the vessel, in accordance with the provisions of Section II of Article 29.

II. Crew members may visit ports during the stay of the vessel, provided they deposit at the Local Administration Office their identity documents which for such purpose may be issued to them and their passports and other documents, all of which will be returned to them on re-embarkation.

III. Shipping companies, their Agents or consignee firms, for all legal purposes shall be responsible for the complete embarkation of crew members and for the costs involved in repatriating any who may remain behind after the vessel sails. When a crew member wishes to stay in the country, he must obtain documentation in compliance with one of the categories as set out in the appropriate Law and Regulations.

DEVELOPMENTS: A new multi-purpose terminal (470 m.) is to be constructed.

A transtainer, portainer crane and other equipment will be acquired in the near future.

SHIPMASTER'S REPORT: Updated 1996.

Documents:

1 Visaed and 9 Plain Spanish Crew Lists.
1 Visaed and 5 Plain Passenger Lists.
1 Visaed and 2 Plain Spanish Stores Lists.
2 Crew Customs Declarations.
5 Cargo Manifests.
1 Arrival form.

The Customs require a complete list of all shop goods priced in U.S. Dollars, failure to produce this will cause confiscation and $10,000 fine. The Customs thoroughly check bond and beer locker and seal same. All storerooms are also checked.

The Agricultural Inspector insists that all dry stores are fumigated and kept under seal for 24 hours. All refrigerated stores – except U.S.A. meat is sealed up.

Pilotage: Pilot boards 1 mile W.N.W. of Angeguda de Adentro Light beacon from black boat flying pilot flag.

Tugs: 2 tugs available for berthing.

Restrictions: Port open day and night. Prevailing Northerly winds are sometimes too strong to allow ship's movement in harbour.

Health: Health authorities board after berthing.

Radio: ETA to be sent 48 hours in advance via XFB Cuidad de Carmen. Agent orders Pilot.

Fuel: Bunker C and Diesel are available. A mixing machine is being installed to supply intermediate. Bunkers are supplied from most quays and are expensive for foreign ships.

Consul: There is a British Consul.

Repairs: There are 3 drydocks and all repairs can be done.

Airport: The airport is 6 km. from Vera Cruz with 4 daily flights to Mexico City, 2 daily flights to Tampico, Monterrey and Villahermosa and one daily flight to Merida and Cancun.

SHIPMASTER'S REPORT: October 1991.

Chart: B.A. Chart No. 374.

Pilotage: Pilot available throughout 24 hours for berthing and unberthing but port is often closed when Northerly winds reach 11 m./sec. (Force 6).

Pilot should be ordered through the agent with a minimum of 2 hours notice. For night time movements (between 1800 hrs. and 0600 hrs.) orders should be placed before 1800 hrs.

The pilot boards from a slow black hulled launch with white and orange upper works.

The pilot works on VHF Channel 13 only and it is difficult to contact them unless a vessel is expected. The pilot office is not manned overnight or on Sundays.

If the vessel has arrived from sea the pilot boards off Arrecife Blanquilla in position Lat. 19° 13' N., Long. 96° 05.3' W. If the vessel is coming from the anchorage the pilot will board in position Lat. 19° 11.6' N., Long. 96° 04.2' W.

Approaches: Sacrificios Lt. (LL4278) is a powerful light and is visible at 25 miles. The Racon on the lighthouse was operating and the light shows up well against the backdrop of the city lights.

Arrecife Santiaquillo Lt. (LL4318) was visible at 20 miles but Racon was not operating.

The lights on the various reefs surrounding Vera Cruz Harbour were all operating and were conspicuous.

Vera Cruz Harbour and the city show up well on the radar at 48 miles.

The powerful and conspicuous red light on top of a radio mast near Pta. Mocambo shows up well against the city lights. The light is located in position Lat. 19° 08.5' N., Long. 96° 06.5' W.

Anchorage: We anchored with Isla Sacrificios Lighthouse bearing 270° × 3.5 miles, but this was not a very good anchorage as it was windy and there was a swell running. If possible vessels should anchor closer to the shore. A local vessel anchored with Isla Sacrificios bearing 270° × 1.5 miles.

Pilot advised that vessels should anchor under the lee of Isla Verde (320° × 1.5 miles) when Northerly winds are blowing.

Anchoring between the reefs is not advisable.

When awaiting tugs we anchored for a short time with Arrecife Blanquilla South Lighthouse bearing 360° × 0.17 miles (position Lat. 19° 12.7' N., Long. 96° 05.8' W.).

Radio: Ships are advised to monitor Vera Cruz Radio (XFU) on WT/HF before arriving and MF/VHF whilst at anchor. The agent usually uses the radio station to send berthing instructions to vessels.

Tugs: At present there are 2 tugs (2,000 h.p.) available and both are generally used. Tug's lines are used.

The pilot advised that an additional tug of 3,500 h.p. will be available in December 1991.

Pemex have their own tugs for vessels berthing at their piers.

Port: Vera Cruz is the largest port in Mexico and Mexico's second city.

The Pemex berth near the N.E. Breakwater is in continuous use.

The shipyard appears to be in a state of disrepair and the floating dock is no longer in use and will be scrapped, according to the pilot.

There are 2 floating docks capable of handling ships up to 30,000 d.w.t. (Eastern dock) and 10,000 d.w.t. (Western dock).

The coastline adjacent to the dockyard has been infilled and developed.

We found the depths by echo sounder and hand lead to be slightly greater than those charted.

Depths:

Pemex	31 ft. 06 in.
Fluids	31 ft. 00 in.
Others	29 ft. 00 in. to 30 ft. 00 in.

A minimum depth of 10.0 m. was found from the breakwater entrance to the Fluids berth.

Berthing: Fluids Berth (See "Plan") is located at the Eastern end of the container quay. The minimum depth of 28 ft. 02 in. was found approximately 100 m. N.W. along the quay. In general the depth alongside was 31 ft. 02 in. The tidal range is between 1.0 ft. and 1.5 ft.

The quay is of concrete construction and has good rubber fenders.

Vessels discharging liquids (vegetable oils, tallow, molasses and latex) generally have their sterns over hanging by at least 20 m., so all stern lines are springs.

Vessels normally berth starboard side alongside, head in.

The tanks for the various commodities are adjacent to the facility.

It was just possible to land the ship's aft accommodation ladder on to the corner of the quay.

There are 2 large container cranes at the N.W. end of the quay.

Cargo: Vegetable oils are pumped through 1×6 in. flexi-hose to adjacent shore tanks at a rate of approximately 250 tonnes/hr. and a maximum back pressure of 5 kgs. Airblow is required on completion.

There is a watchman in a hut on the quay. The surveyors, Caleb Brett, took great care with sampling and gauging and Tank Dry Certificate on completion.

Vegetable oils are also handled at the aluminium berth on the N.W. corner of the harbour, into rail tank cars with discharge rate reported to be very slow.

Density: 1024.

Fresh Water: Available by barge but very expensive.

Telephones: There is a telephone in the receiver's office behind the shore tanks.

General: There are many hotels in the town. Frequent flights available to Mexico City.

A stowaway search is well advised before departure, after which gangway should be watched closely, as numerous "visitors" find their way on board.

Officials: Many officials boarded the vessel. We had Mexican Visaed Crew Lists and Crew Manifests with which they found fault, so extra "presents" were required. Immigration officials were very formal and required all passports on arrival. On departure all Philippino crew members were lined up with their passports for checking off.

Regulations:

1. Bonded stores are sealed by Customs inspector. Heavy fine for breaking seal. Contact agent if an issue is required.
2. Crew are not allowed to sell cigarettes, liquor or souvenirs. If upon inspection, Crew Personal Effects List is different from that declared heavy fines will be imposed.
3. A Port Health garbage boat will visit the vessel every 48 hours.
4. Rat guards are to be placed on lines as soon as vessel is secure.
5. No ballast or waste of any kind is to be pumped overboard.
6. No "visitors" of any kind allowed onboard without passes.
7. Vessels are not obliged to supply food or accommodation to ANY personnel (authorities, gangway watchmen, cargo watchmen, stevedores, etc.). Custom's guards onboard receive cash compensation in lieu of food and accommodation.

Weather: Between November and April strong Northerly winds are prevalent and are accompanied by heavy swell. At this time the port may be closed for a few days and vessels may find it difficult to anchor.

AUTHORITY: Administracion Portuaria Integral de Vera Cruz S.A. de C.V., Marina Mercante 210, C.P.91700, Vera Cruz, Ver., Mexico. *Tel:* (52-29) 32-1319, 31-8300, 31-1445. *FAX:* (52-29) 32-3040, 32-4612. *Contact:* Juan Jose Sanchez, Port Director.

Coordinacion General de Puertos y Marina Mercante (Mexican National Port Authority), Municipio Libre 377-12B, C.P. 03310, Col. Sta Cruz Atoyac, 03310 Mexico D.F. *Tel:* (52-5) 688-8270, 688-7756. *FAX:* (525) 688-9368.

Federated States of Micronesia

POHNPEI: 06.55 N. 158.10 E.

DOCUMENTS:
Last Port Custom or Port Clearance.
Manifest and Bill of Lading.
Crew and Passenger List.
Health forms, such as Derat Certificate and Maritime Declaration of Health.
General Declaration.
Ships Particulars.

PILOTAGE: Compulsory. Vessels of 300 g.r.t. and over require a Pilot. Position of pilot station: Lat. 07° 00' 37.5" N., Long. 158° 10' 18.5" E. Pilot can be arranged through vessel's Agent.

APPROACHES: Lit and unlit beacons mark the channels to the pier.

ANCHORAGES: The anchorage point is about 1,000 m. from the channel entrance in position Lat. 06° 59' 27" N., Long. 158° 10' 22.5" E.

RESTRICTIONS: All vessels wishing to enter at night-time will bear the responsibility of any damage caused to the wharf or vessel.

MAX. SIZE: The largest vessel calling at the port (wharf) was 10,000 g.r.t. with a draft of 8.0 m.

HEALTH: All vessels requiring the attention of Health and Quarantine officials are boarded after the vessel is fast to the wharf. Health documents such as Derat Certificate and Maritime Declaration of Health should be available.

RADIO: The Port Authority monitors SSB radio frequency 5,205 kHz and 7,876.5 kHz.

VHF: Channel 16.

TUGS: Not available.

BERTHING: Pohnpei Commercial Dock: Length 300 m. and depth alongside 8.5 m.

CRANES: No gantry cranes. Cranes can be arranged through vessel's Agent.

BULK CARGO FACILITIES: There are 2 Butler type warehouses on the dock.

SPECIALISED CARGO HANDLING FACILITIES: Not available.

BRIDGES: None.

STEVEDORES: The official working hours are from 0800 hrs. to 2400 hrs., but sometimes the stevedoring company can work around the clock when requested.

MEDICAL: Pohnpei State Hospital.

TANKERS: There is only one oil company serving the island (Mobil). The average petroleum products received each month is between 1,500 tonnes and 2,500 tonnes.

FRESH WATER: Supplied alongside dock. Cost U.S.$1.00/ton.

FUEL: Available at the dock by truck or through pipelines.

FIRE PRECAUTIONS: Smoking is strictly prohibited on the dock.

CONSULS: None.

REPAIRS: Only minor repairs can be done at the dock.

DRY DOCKS: None.

SURVEYORS: None.

GANGWAY/DECK WATCHMEN: The vessel has to provide its own watchmen.

HATCHES: The hatches are opened and closed by ship's crew.

CUSTOMS ALLOWANCES: Similar to U.S. Customs Regulations.

CARGO GEAR: No shore gear available on the dock. Ship's gears mostly used.

REPATRIATION: Can be arranged through vessel's Agent.

AIRPORT: A few minutes from the wharf.

TIME: GMT plus 11 hours.

HOLIDAYS: New Year; Traditional Day (March 31st); Good Friday; FSM Constitution Day (May 10th); Liberation Day (September 11th); UN Day; FSM Independance Day (November 3rd); Pohnpei Constitutional Day (November 8th); Christmas Day.

POLICE/AMBULANCE/FIRE: Police and Fire are in the same department. Tel: (691) 320-2222.

EMERGENCY CO-ORDINATION CENTRE: Disaster Control Office.

TELEPHONES: Contact the local telephone company through vessel's Agent.

SERVICES: None.

BANKS: Bank of Federated States of Micronesia, Bank of Guam and Bank of Hawaii.

SHIP SUPPLY SERVICE: Can be arranged through vessel's local Agent.

SHORE LEAVE: Crew are allowed ashore to go shopping.

IDENTIFICATION CARDS: Passport or Seaman's Book.

GARBAGE DISPOSAL: Provided by the stevedoring company.

WASTE OIL DISPOSAL: No facilities.

SEAMAN'S CLUBS: None.

CURRENCY: U.S.Dollar.

REGULATIONS: There is a Seaport Rules and Regulations Book available that can be obtained through vessel's local Agent.

DELAYS: Rainy season from November to March (150 in. – 450 in. of rainfall per year).

GENERAL: Dockage fees commence when vessel is made fast to wharf and are based on the first 18 hours. 20% of the 18 hours plus the 18 hours should be applied to every hour in excess of 18 hours.

DEVELOPMENTS: A new Master Plan for both Sea and Airport Port are in place.

AUTHORITY: Pohnpei Port Authority, P.O.Box 1150, Dekehtik, Pohnpei, FM 96941, Micronesia. *Tel:* 691-320-2793. *FAX:* 691-320-2798. *Contact:* Akillino H. Susaia, General Manager.

TOMIL HARBOUR, Yap: 09.31 N. 138.10 E. (See Plan)

PORT LIMITS: Vessel is considered an "Arrived Ship" when abeam of Buoy No. 1. Laytime commences at this time.

DOCUMENTS: All necessary documents required by the Clearance Department shall be prepared before arrival. (e.g. Crew Lists, Passenger Lists, Customs, Health Documents, Manifests, Bills of Lading, Ship's Papers, Ship's Certificates, etc.)

PILOTAGE: All pilotage services must be requested by the Master or his Agent on their behalf 24 hours prior to vessel's arrival.

ETA messages for Pilotage are best routed through Port Control.
VHF: Channel 16. Tel: (691) 350-2229.
Fax: (691) 350-2229. Radio: 7876.5 kHz or 7978.5 kHz SSB.

ANCHORAGES: Inside Tomil Harbour, depth is 84 ft. MLW. Distance from dock, 3,000 ft.

RESTRICTIONS: Channel marked by lights and leading lights. Vessels can enter and leave, day and night, with approval of the Port Manager.

MAX. SIZE: The length of the channel is 9,600 ft., breadth is 300 ft. Max. size for any vessel entering the port is 10,000 d.w.t. Depth in the channel 78 ft.

HEALTH: Master of vessel or designated Agent should advise Port Authority 24 hours in advance of her arrival of any communicable diseases, sickness or injury found among its crew even if the vessel's last port of call was in the Federated States of Micronesia.

RADIO: Vessel should route her ETA via Yap Port Radio.
See "Pilotage".

VHF: Port Control Radio – Channels 16 and 13A.

RADAR: No port radar.

TUGS: None.

BERTHING: Dock is 820 ft. long, depth is 30 ft. MLW, max. size permissible at LW (salt water) is 10,000 d.w.t.

CRANES: None. Discharge is by ship's gear.

BRIDGES: None.

STEVEDORES: ETA advices required 24 hours before arrival in order to arrange Terminal personnel.

Terminal Operator: Waab Trans Co. Inc., P.O.Box 177, Yap, Western Caroline Islands 96943. Tel: 2301/2302.

MEDICAL: Advise Agent prior to arrival if medical assistance required.

TANKERS: Load/discharge lines are 6 in. diameter.

DENSITY: Average 95% salt water, 5% fresh water.

FRESH WATER: Available on pier apron using fire hose connected to fire hydrant for drawing fresh water.

FUEL: Advance notice required through Agencies' Offices in order to arrange fueling with Mobil Oil Inc. Plant. Fuel line available at the dock.

CONSULS: No consuls available.

REPAIRS: Facilities available.

DRY DOCKS: Slipway, capacity 75 tons.

SURVEYORS: Available.

HATCHES: Normally opened/closed by combination of crew and stevedores.

CUSTOMS ALLOWANCES: Each crew member is permitted to hold out of bond a maximum of 2 bottles of wine, 2 cartons of cigarettes, 12 cans of beer, etc.

CARGO GEAR: Discharge is by ship's own gear. Other relevant gear such as forklifts and trucks provided by the Terminal Operator (See "Stevedores").

REPATRIATION: Effecting of crew changes will be arranged by the proper Agency Office.

AIRPORT: Distance from Sea Port to Airport is 2.5 miles, served by regular airline with 3 flights per week on Wednesday, Friday and Sunday.

TIME: GMT plus 10 hours. No alterations made throughout year.

HOLIDAYS: Cargo work can be arranged on holidays, except Christmas Day and Yap Day (March 1st).

POLICE/AMBULANCE/FIRE: Police, Tel: 350-3333; Ambulance, Tel: 3446; Fire Department, Tel: 350-3333.

TELEPHONES: None available.

SERVICES: Tank cleaning equipment, discharge of slops, compass adjustment, etc., are not available in this port.

BANKS: Bank of Federated States of Micronesia and Bank of Hawaii.

STORING: See "Prelims".
(1) No.
(2) No barges for storing.
(3) —
(4) No.
(5) None.
(6) Yes.

SHORE LEAVE: Crew members are allowed ashore if no communicable disease found onboard.

IDENTIFICATION CARDS: Seamen's Book is sufficient.

GARBAGE DISPOSAL: Drums provided by requests on telephone (691) 350-2403 at the rate of $2.00 per drum.

WASTE OIL DISPOSAL: Available.

SEAMAN'S CLUBS: Marina, 2 minutes walk.

CURRENCY: U.S. Dollar is the local currency.

DELAYS: Usually depends on the quantity of cargo, especially bulk cargo.

AUTHORITY: Sea Transportation Office, P.O.Box 290, Colonia, Yap State, Federated States of Micronesia 96943. *Tel:* (691) 350-2403, 350-3668. *Cables:* Sto Yap. *FAX:* (691) 350-2267. *Contact:* Captain Serphen H. Single, Harbour Master.

Monaco

MONACO: 43.44 N. 07.26 E. (See Plan)

PORT LIMITS: The seaward boundaries of the port commence by the 2 breakwaters at the Eastern entrance.

DOCUMENTS:

2 Crew Lists.
2 Passenger Lists – 3 Landing Passenger Lists.
2 Stores Lists.
1 Manifest (cargo).
1 Bill of Health.
Ship's Register.

PILOTAGE: ETA via Monaco Radio – Channels 16, 12, within range. Pilot boat is a small white boat with a black "Pilote" painted on the side of the cabin. Pilot boards vessels 0.3 miles East of the harbour entrance.

Pilotage available: 1st May – 30th September (0800 hrs. – 2300 hrs.).
1st October – 30th April (0800 hrs. – 2000 hrs.).

Pilotage compulsory for all vessels over 30 m. LOA.

ANCHORAGE: One half mile East of the Southern breakwater lighthouse. Depth at the anchorage 68 m.

MAX. SIZE: Max. length 135 m. Stern to the pier on the West side or alongside the North quay, only from October to March and with 8 days' notice. Max. draft allowed: West Pier 8 m; North Quay, 7 m.

HEALTH: Health Declaration must be handed to the Customs. If coming from neighbouring countries (France, Italy, Spain) not requested.

RADIO/VHF: Monaco Radio (Tel. 93.30.13.13). VHF Channel 16. Port Operations Channel 12. Public telephone calls Channels 20, 22, 28 and 86.

RADAR: No port radar service.

TUGS: 1 tug boat 200 h.p. with notice.

BERTHING: All 3 quays plus inner sides of the breakwaters and Western "T" pier are available for mooring yachts stern to. The port may be congested during the Summer season. The possibility remains of anchoring off the dock.

CRANES: 1×10 tonne mobile crane.

MEDICAL: There is a state hospital fully equipped for surgery, etc.

FRESH WATER: Can be supplied at all berths alongside the quay. If vessel on Roads, water may be provided by barge up to 500 tons per day, with one week notice. Tel. Cannes 93.30.83.67.

FUEL: There is a fuel berth in S.W. area of port for ships up to 80 ft. LOA. Bunkers are available on the quay by truck but no heavy fuel available.

CONSULS: Most countries are represented in Monaco.

CUSTOMS ALLOWANCES: Same as in French ports.

REPAIRS: Only for yachts.

DRY DOCKS: 1 slipway × 100 tons, 1 slipway × 40 tons, 1 crane × 10 tons.

REPATRIATION: Good railway connections.

AIRPORT: Nice – Cote d'Azur. Distance 25 km.

TIME: GMT plus 1 hour. May to September GMT plus 2 hours.

HOLIDAYS: New Year; National Holiday, (Jan. 27th); Easter Monday, (May 1st); All Saints' Day; His Serene Highness' Birthday, Nov. 19th. Harbour services work on Sundays and Holidays.

POLICE/FIRE/AMBULANCE: Maritime Police, Quai Antonie 1st. Tel. 93.15.30.16; Ambulance/Police Secours Tel. 17; Fire brigade Tel. 18.

TELEPHONE: Available at some berths.

SERVICES: Engine repairs. Electronics. Maintenance for yachts. 220 volts available at all berths. TV aerial sockets at all berths free of charge.

SHORE LEAVE: Crew members allowed ashore.

REGULATIONS: *Recommendations to Ship-Owners, Masters and Crew Members:*

Ship-owners, Masters and Crew members are strongly requested not to dispose of hydrocarbon, household refuse and other rubbish into the Monaco harbour (i.e. cartons and mainly plastic containers).

Used motor oils and other petroleum residues must be transferred into tanks exclusively provided for this purpose at the beginning of the North and South jetties and on the landing stages facing the Rainier III swimming pool.

These tanks are signposted with panels bearing the words "Huiles Usees" (used oil) in red letters on a white background.

Household refuse and other rubbish is to be put into garbage containers located around the harbour throughout the year. Furthermore, during the Summer, special individual bags are made available free of charge to all in-coming vessels.

Those responsible for ships equipped with used water tanks or bilges are requested to empty these containers off the coasts of the Principality at a minimal distance of 6 miles.

Those whose ships are not equipped with these used water tanks are requested not to dispose of their used water during their stay in the Monaco harbour, and to use the sanitary installations and facilities made available to them within the harbour.

Offenders infringing the above provisions will be penalised in accordance with the stipulations of Law No. 954, dated April 19th, 1974, dealing with the fight against water and air pollution.

AUTHORITY: Directeur du Port et du Service de la Marine, 7 Avenue du President J.F.Kennedy, B.P.468, 98012 Monaco Cedex. *Tel:* 93.15.86.78. *Telex:* 489035 MC. *FAX:* 93.15.37.15. *Contact:* Captain Philippe Haquette, Harbour Master. Jean-Paul Darcis, Port Director.

NOTES

Please also advise Shipping Guides Ltd.

Morocco

AGADIR: 30.25 N. 09.38 W. (See Plan)

DOCUMENTS:

Health Declaration.
4 Cargo Manifests.
6 Stores Lists.
6 Crew Lists.
6 Passenger Lists.

PILOTAGE: Compulsory. Pilot boards at port entrance. International code signals used. Pilot on VHF Channel 16, day and night.

ANCHORAGE: Good anchorage in open roadstead.

MAX. SIZE: Up to 29 ft. draft. Max. LOA 160 m., however vessel with LOA 190 m. has been accepted.

HEALTH: Pratique given immediately after berthing when port doctor boards.

RADIO: Agadir Radio operates 24 hours a day.

TUGS: 3 tugs available, 1×350 h.p., 1×1,275 h.p., 1×1,500 h.p.

BERTHING:

No. of Berths	*Length* (m.)	*Depth* (m.)	*Remarks*
4	150	9.0	—
1	110	7.0	Ro/Ro.
3	100	6.0	Oil tankers and butane carriers.
1	—	6.0	Used by Moroccan tankers only.
1	120	5.0	Equipped with fish pumps.

CRANES: One Titan crane of 40 tons capacity.

STEVEDORES:

Working Hours: 0700 – 1200 hrs., 1400 – 1800 hrs. , 2000 – 0600 hrs. (With 24 hours' notice of ETA).

New times to be introduced but date not fixed: 0700 – 1500 hrs. and 1500 – 2300 hrs.

MEDICAL: Doctor and hospital facilities available.

FRESH WATER: Available from pipeline at berths.

FUEL: Fuel and gas oil available from pipelines at berths.

CONSULS:

	Tel.		*Tel.*
Belgium	217 00	Norway	238 40
France	228 29	Spain	221 26
Italy	226 66	U.K.	209 05 (Casablanca)

REPAIRS: Small machinery (up to 500 h.p.) and electronic repairs can be effected.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Performed by stevedores.

CUSTOMS ALLOWANCES: Crew allowed normal daily consumption of tobacco, wine and spirits.

POLICE/FIRE/AMBULANCE:

	Tel.		*Tel.*
Police	19	Hospital	224 77
Fire/Ambulance	15	Port Police	223 49

TIME: GMT. No changes.

HOLIDAYS: Fete du Trone, (Throne holiday); 3rd March; Fete du Travail (Labour Day); 1st May; Al Massira Al Khadra, 6th November; Fete de l'Independance (Independence Day) 18th November; Aid El-Fitr, (1st and 2nd Chaoual); 1st January; Aid Adha (10 et 11 Hija); Le Premier Moharrem (The first Moharrem) and Aid Maouloud Annabaoui (12 et 13 Rebia I).

Note: Chaoual, Hija and Rebia are months in the Muslim calendar.

The following days are movable feasts governed by the Arabian Calendar – 1/2 Choual, 10/11 Diahijja, 1 Moharram, 1/13 Rabia I.

Work may be arranged on all holidays.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Required.

DEVELOPMENTS: New port of Anza under construction in position Lat. 30° 26' N., Long. 09° 35' W. Facilities will include 3,500 m. of quays, a Ro/Ro terminal and ship repair facilities. Depths alongside 10.5 m. – 15.0 m.

SHIPMASTER'S REPORT: November 1979.

Documents:

3 Copies Crew's Personal Effects.
6 Crew Lists.
3 Stores Lists.
3 Vaccination Lists.

Anchorage: Vessel anchored 0.5 miles South of breakwater.

Pilotage: Compulsory. Pilot boards 0.5 miles S.W. of the outer buoy. 1 hour's notice required.

Restrictions: Vessel can enter and sail during hours of darkness and at any stage of the tide.

Max. Size: Max. LOA 600 ft. (approx.) and max. draft. 26 ft. (approx.). Size of vessel limited by the swinging room.

Radio: Agadir Radio.

VHF: Pilot and Port Authority on Channel 16.

Tugs: Two available.

Berthing: Vessel berthed at No. 8 berth on the South mole which is about 7 cables from the harbour entrance. Max. LOA approximately 600 ft. and max. draft approximately 26 ft. Least depth of water in channel from sea to berth is approximately 30 ft. The bottom at the berth is sand and mud and the density is 1025.

There are no special bulk handling facilities. There are 10 cranes with safe working load of 10 tonnes. Ro/Ro facilities available, no floating cranes. There is ample equipment for handling palletised cargoes also storage space for palletised and break bulk cargoes. Containers are handled by ship's gear and storage space for containers is limited.

Facilities: The following are available: Fresh water (poor quality), fresh provisions, small repairs, there is a small machine shop, airport, Lloyd's Surveyor and laundry service.

AUTHORITY: Ministry of Equipment, Agadir Port Directorate, Agadir, Morocco. *Contact:* M. Abdelali, Port Director.

AL HOCEIMA: 35.15 N. 03.55 W.

DOCUMENTS:

5 copies Crew List.
5 copies Passenger List.
5 copies Stowaway List.
Also see "Port Nador".

PILOTAGE: Compulsory. Pilot boards 0.5 miles from breakwater in daylight only. Pilot can be contacted on VHF Channels 16/14.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)
Commercial Quay	100	6.0
Fishing Quay	47	5.0

CRANES: 2×5 tons capacity and 1×13 tons capacity. 1×4 ton forklift available.

STEVEDORES: *Working Hours:* 0800 hrs. – 1200 hrs. and 1430 hrs. – 1830 hrs.

AIRPORT: International airport 10 km.

GARBAGE DISPOSAL: No facilities.

WASTE OIL DISPOSAL: No facilities.

AUTHORITY: ODEP, Al Hoceima Port, Al Hoceima, Morocco. *Tel:* (09) 983374, 984043. *FAX:* (09) 983047.

CASABLANCA: 33.36 N. 07.37 W. (See Plan)

PORT LIMITS: Vessels considered as "arrived" when passing Buoy CA 5 in position Lat. 33° 37' 05" N., Long. 7° 35' 02" W.

DOCUMENTS:

Certificate of Registration.
Cargo Manifests.
Stores List.
Crew Lists.
Passenger Lists.
Customs Declaration.
Bill of Health.
Ship's Entry Declaration.
International Tonnage Certificate.

All Stores Lists must be completed prior to arrival. If any errors found, vessel is heavily fined.

PILOTAGE: Compulsory for all merchant vessels of 100 tons and over, in the area between the meridians 7° 37' 10" W. (the foot of Jetee Moulay Youssef) and 7° 33' 50" W. (Table d'Oukacha) and South of the parallel 33° 37' 4" N. Pilotage is available day and night. The Pilot meets vessel at the CA5 buoy.

A red flag displayed at the signal station by day indicates that the Pilot cannot come out, on account of the sea, but vessels may enter the port at their own risk, and the Pilot will await them under the shelter of Jetee Moulay Youssef. Should bad weather prevent the Pilot from coming out, a vessel should not attempt to enter the harbour at night. The Master may contact the Pilot station for port radar service by VHF Channel 12.

ANCHORAGES: The anchorage outside Casablanca Harbour is partially protected from winds between South and West but a Westerly swell finds its way into the bay. With a heavy Westerly or Northwesterly swell the anchorage becomes dangerous.

The holding ground in most places outside the harbour is poor, but a berth with good holding ground may be obtained in a depth of 13 fathoms North of Jetee Moulay Youssef. There are numerous anchorage berths in the harbour, some at mooring buoys, in depths up to 12.8 m. (42 ft.).

MAX. SIZE: Max. length permissible, about 884 ft.; max. breadth permissible, about 105 ft.; max. draft permissible, about 32 ft.; but normally 30 ft. for berthing alongside. Tankers: Up to 37 ft. draft.

Report: A vessel's agent has reported that for tankers discharging crude oil at the Crude Oil Berth the Max. draft is 35 ft. and Max. LOA 250 m.

HEALTH: Masters must fill in the Declaration of Health and display the "Q" flag, to obtain Pratique. In the event of any suspected disease or fever on board, Masters have to warn their Agent before the ship's arrival.

RADIO: The name of radio station for ETA cables to Agents, receivers, etc., is Casablanca Radio.

VHF:

Pilot: Channel 12.

Port: Channels 16, 12 and 14 for Harbour Master and 12, 14 and 68 for VTS.

Harbour Manager: Channel 12.

Tugs: Channel 12.

TUGS: There are 7 tugs of 1,500 – 3,000 h.p. 3 of them are sea-going tugs fitted with modern salvage apparatus. Normally tugs join the vessel at port entrance. To call them, 4 long blasts and 1 short for 1 tug, 4 long blasts and 2 short for 2 tugs, etc. Ship's lines are mostly used.

BERTHING: To arrange berth, ETA message should be given 24 hours before the ship's arrival.

Mooring: When making fast to the jetty by the stern, the anchor should be let go at a sufficient distance from the jetty to allow for a good scope of hawsers.

Vessels are recommended to secure with special 10 in. coir hawser tailed with wire. It is recommended to moor head to the swell, but in bad weather a vessel should be ready to leave at short notice.

Pier/Jetty	*Berth No.*	*Total Length (m.)*	*Depth (m.)*	*Use*
Moulay Youssef Jetty	P3	120	11.00	Crude oil, Petroleum Products.
	F	200	10.00	Navy.
Tarik Pier	T2	140	6.00	Containers.
	10 – 13	390	8.20	Containers.
	A1,A2,A3,A4.	140	8.20	Car–Ferry and Ro-Ro.
Commercial Pier	20 to 24	572	9.10	Cereals, General Cargo, sugar.
	T3 – T4	250	9.70	General Cargo, Sugar, Cereals, Passengers.
	30 – 33	480	9.70	Passengers, General.
	34 – 36	400	9.70	
	R2 – R3	200	7.50	Fertlisers, Mineral Sand, Iron, General Cargo.
Citrus Products Berth	40 – 44	568	8.50	General Cargo, Fruit, including citrus products.
	T5 – T6	220	9.10	Citrus products.
	50 – 55	703	9.10	Citrus products, General Cargo, Sugar in bulk.
	R4 – R5	200	7.50	Iron - Scrap.
Phosphate Jetty	60 – 63	540	9.00-12.00	Iron, Ore, Coal, Phosphates
	64 – 66	510	9.00-12.00	Ore, Coal, Phosphates
	T7	125	9.00-12.00	Phosphates

CARGO HANDLING EQUIPMENT:

Dock Cranes:	64×5 – 10 tons
	2×12 – 15 tons
	2×25 tons
Mobile Cranes:	9×6 tons
	1×100 tons
Mounted Cranes:	3×6 tons
	5×10 tons
Gantry Cranes:	1×19 tons
	1×12 tons
	3×40 tons
Floating Crane:	1×50 tons, with 120 tons load capacity.
Forklifts:	138×1 – 44 tons
Tractors:	92× 25 tons
Grabs	32×2 – 5 tons
	13×6 tons
Straddle Carriers:	15×30 – 35 tons

SPECIALISED CARGO HANDLING FACILITIES:

Container Terminal: The container terminal was built in 1972 and is situated on the Tarik Pier in the West side of the port.

Total area: 18 hectares divided into 8 zones.

Total quay length 790 m.

5 berths are reserved for the container traffic.

Depth 7.0 m. – 9.0 m.

Storage capacity: The storage area covers 85,000 sq.m. This allows a minimum storage capacity of 5,000 T.E.U.'s at two high.

Equipment:

1 mobile crane on rails of 25 tons.
1 mobile crane of 100 tons.
2 mobile telescopic cranes for empty containers.
15 straddle carriers.
5 forklift trucks.
30 trailers.
21 tractors.

New Container Terminal: A new container terminal was built in 1995, and is situated to the East of the Phosphate Jetty, in the Eastern part of the port.

Total Area: 45 hectares.
Storage Capacity: 5,000 TEU at two high.
Total Quay Length: 380 m., depth 12.0 m.

3 berths are reserved for the container traffic.

1 floating pontoon for Ro-Ro cargo with a maximum load of 100 tons.

Grain Terminal: The Grain Terminal is located on the West side of the Commerical Pier. The terminal has a quay length of 250 m. and a depth of 9.5 m.

Capacity:

2 vertical silos of 30,000 tons storage capacity.
1 flat storage of 10,000 tons capacity.

Equipment:

3 gantries of 200 t.p.h. capacity each, reserved for import cargo.
2 gantries of 200 t.p.h. capacity each, reserved for export cargo.

Ro-Ro Terminal: The Ro-Ro facilities are located in the area of Berth A1, A2, A3 and A4 with 140 m. quay and depth 8.0 m.

Berth A5 is the new container terminal: 1 floating pontoon of 100 tons capacity. Quay length 160 m., depth 12.0 m.

2 Floating pontoons of 100 tons capacity.

2 Floating pontoons for Ro-Ro cargo with a maximum load of 35 tonnes.

1 freight station covering 20,000 sq.m.

Stuffing and unstuffing sheds and a parking area for TIR trailers.

Cold Storage: Two refrigerated warehouses on the Citrus Pier of 8,500 sq.m.

First warehouse is reserved for fruits, vegetables and any perishable produce, area 3,000 sq.m.

Second warehouse is intended for citrus and early vegetables, area 5,500 sq.m.

BULK HANDLING FACILITIES: *Phosphate Terminal:* 4 berths (64-65-66 and T7) located at the transversal jetty with a quay length of over 630 m.

Handling equipment:

2 conveyors of 2,500 t.p.h. for discharging railway wagons.
2 conveyors of 1,250 t.p.h. connecting the stockpile to the quays.
4 conveyors of 1,250 t.p.h. for loading purposes.
2 gantry cranes of 650 t.p.h. at Berth T7.
The storage capacity is 420,000 tons.

Iron Ore and Coal Terminal: 4 berths (60 to 63) with a quay length of 540 m.

Handling equipment:

1 gantry 12.5 tons.
1 new gantry of 600 t.p.h.
Storage area of 20,000 sq.m.

STEVEDORES: There are 13 stevedoring companies. Normal working days are in two shifts (from 0700 to 1500 hrs. and 1500 to 2300 hrs.). Ship's Agents arrange gangs in connection with stevedores. Two daily orders (at 1100 hrs. and 1600 hrs.) are made to fix the number of gangs.

MEDICAL: It is necessary for Agent to receive advance notice of required medical attention. Hospital facilities available.

TANKERS: There are 4 tanker berths, *(a)* Berth P3 for Import and Export of white products, max. permitted draft 37 ft. and 60,000 d.w.t. *(b)* Three berths for Import and Export of black products. These berths (No. 60, 61 and 62) are situated inside the harbour, vessel's draft should not exceed 30 ft. Security tug necessary when handling certain petroleum products.

Report: December 1982: Vessel with LOA 237 m. (77,000 d.w.t.) berthed at No. P 3 and parted 11 mooring lines. For this reason owners believe the berth is unsafe for a vessel of this size with a swell running.

FRESH WATER: Numerous feeders along berths. Also delivery by barges is possible.

FUEL: All grades available. Ex-wharf or by barge.

FIRE PRECAUTIONS: Two firemen remain on board tankers while vessel berthed alongside. One fireman is required for other vessels carrying dangerous cargo.

CONSULS: The following countries are represented by consuls in Casablanca:

Algeria
Argentina
Austria
Belgium
Brazil
Denmark
Finland
France
Germany
Greece
Haiti
Italy
Netherlands
Norway
Panama
Poland
Portugal
Spain
Sweden
U.K.
U.S.A.
Yugoslavia

REPAIRS: Only small repairs and dry docking works are carried out.

DRY DOCKS: One large dry dock, 152 m. long and 22 m. wide (lifting power 10,000 tons). Three slips for ships up to 700 tons.

GANGWAY/DECK WATCHMEN: It is necessary to have watchmen on board. They are hired by the ship's Agent.

OPENING/CLOSING HATCHES: This work is normally carried out by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes are permitted for each crew member to be held out of bond.

REPATRIATION: Facilities exist for effecting crew change and arranging any necessary repatriation.

AIRPORT: Distance from airport, 25 miles. International connections.

TIME: GMT. No changes.

POLICE/AMBULANCE/FIRE: Police, 2210-74 or 19; Ambulance, 15; Fire, 15.

TELEPHONES: Only arrangements for placing telephones on board passenger ships are possible.

SHORE LEAVE: Crew members are allowed ashore.

IDENTIFICATION CARDS: Needed.

AUTHORITY: Direction d' Exploitation du Port de Casablanca (D.E.P.C.) 2 Bd. des Almohades, Casablanca, Morocco. *Tel:* 031.61.11, 031.89.51. *Telex:* 46405, 46413. *FAX:* 031.57.21. *Contact:* Mr. Benabdennbi, Director.

EL JADIDA (Mazagan): 33.15 N. 08.31 W. (See Plan)

DOCUMENTS: As for "Casablanca".

PILOTAGE: Arranged by Agent, basis vessel's ETA given in advance. Pilot boards about 2 miles from the port entrance.

ANCHORAGES: About half a mile from head of North jetty in depths of 13 m. to 14 m. Hard rock bottom covered in sand. Holding ground is fair only.

RESTRICTIONS: The port comprises an entrance channel 50 m. wide and an outer harbour area 7 hectares, partially dredged to 3 m. depth to make a waiting basin. In the Southern part of the outer harbour is a quay, called the barge quay, 120 m. long, dredged to 6 m. depth.

MAX. SIZE: No limitations for vessels anchoring. For entering harbour, max. length 80 m., draft 5 m., entering at high water.

RADIO: No local radio station. Use Casablanca Radio for messages to Agent.

TUGS: Available. Normally join vessel 2 miles from port entrance.

CRANES: 2 electric cranes and 2 diesel cranes available.

MEDICAL: Hospital facilities available. Vaccinations can be arranged.

FRESH WATER: Available at the quay.

FUEL: Can be supplied subject to 24 hours' notice.

CONSULS: The only consular representatives are those of France and Portugal.

REPAIRS: Small repairs can be done on board, or parts sent to Casablanca. One small dry dock reserved for Port Authority vessels and fishing boats.

WATCHMEN: Recommended to employ watchmen.

OPENING/CLOSING HATCHES: Work performed by ship's crew.
REPATRIATION: Can be arranged via Casablanca.
AIRPORT: Nearest commercial airport is at Casablanca.
TIME: GMT. No changes.
HOLIDAYS: Sundays and holidays, except for National holidays, can be worked on payment of overtime.
POLICE/AMBULANCE/FIRE: Police, Tel: 19; Ambulance, Tel: 15; Fire, Tel: 15.
TELEPHONES: Cannot be connected to vessel, but telephone situated on the quay.
AUTHORITY: Arrondissement de L'Equipment et de la Promotion Nationale.

JORF LASFAR: 33.08 N. 08.38 W. (See Plan)

PILOTAGE: Pilot station at Jorf Lasfar Port. Pilotage compulsory at all times except for vessels under 100 g.r.t. Pilots are available day and night. There is no special arrangements. Pilot works under orders from the Port Authority. Tel: (03) 34-50-13. VHF: Channels 12 and 16.
APPROACHES: Safe depths in approaches. The 50 m. line is situated 3 nautical miles from breakwater and the depth in the entrance is 20.0 m.
ANCHORAGES: Safe anchorage 1.0 nautical miles North of jetty head. Max. permissible draft varies from 14.00 m. to 16.00 m.
RESTRICTIONS: There are no restrictions relating to movements. All ships can enter and leave port day and night, except ships carrying dangerous cargo.
RADIO/VHF: Jorf Lasfar Port Control is under the control of the Port Authority. VHF Channels are 12, 14 and 16.

Vessels are to send ETA 24 hours prior to arrival, directly to Harbour Master at Port Office. Telex: 78996M. Tel: (03) 34-54-20.
TUGS: Four tugs are always available at Jorf Lasfar, ready for manoeuvering at any time (24 hours).

"Aziz" 3,000 h.p. (Voigt Schneider),
"Said" 2,800 h.p.,
"Amir" 1,800 h.p.,
"Merzouk" 1,600 h.p.

The tug companies are SCRA (Societe Cherifienne de Remorqueurs). Tel: (02) 31-77-59. Contact Mr. Lachheb Aziz.

Offshore Maroc. Tel: (02) 27-21-77. Contact Mr. Rami Larbi.
BERTHING:

Berth No.	*Depth* (m.)	*Length* (m.)	*LOA permissible* (m.)
1	15.60	300	300
2	12.50	180	225
3	12.50	180	225
4	12.00	180	225
5	11.50	180	225
6	11.50	45	225
7	11.50	45	225
8	15.60	60	250
9	12.70	60	235
Q.C (10)	9.00	200	200
Q.T (13)	5.25	120	120
Ro/Ro	6.75	150	190
Q.S (11)	4.00	215	215

Berth No. 1: Berth for loading of phosphate and fertiliser. Two or three vessels, depending on length, can berth at this terminal.

Two chutes of 3,000 t.p.h. loaded directly from conveyor, which runs to stockpile 2 km. away.
Berth No. 2: Reserved for handling fertiliser in bags. In the future the berth will be extended by 300 m. Southward.
Berth No. 3: Reserved for handling coal. In the future the berth will be extended by 300 m. Southward.
Berth No. 4: This quay is reserved for discharging sulphur by 2 grabs, maximum rate 750 t.p.h. There is a conveyor running to stockpile of 4,000,000 tons.
Berth No. 5: See Berth No. 4.
Berth No. 6: Used for loading phosphoric acid and discharging ammoniac by 3 pipelines (1 for ammoniac and 2 for phosphoric acid). Loading capacity 1,800 t.p.h.
Berth No. 7: Used for loading phosphoric acid. Joined by 3 pipelines to the factory. Loading capacity 1,800 t.p.h.
Berth No. 8: Special berth for tankers but not presently equipped. At present, berth is used for the transhipment of grain from the mother ship to daughter. This operation started in 1986 and is only permitted in Summer time.
Berth No. 9: Used for discharging butane by pipeline to Somepi, whose tanks are situated about 6 km. from the berth.
Q.S. – Service Quay: This quay is reserved for tugs, pilot boats and dredgers.
Q.C. – Berth No. 10: Used for handling general cargo. There is one Ro/Ro berth with length 150 m. and depth 6.75 m.
Q.T. – Berth No. 13: Used for discharging (cement). Reserved for national lines traffic from Agadir to Jorf Lasfar, equipped with pipeline to the cement-silo of Simasfi. Stockyard capacity 250,000 tonnes.
CARGO HANDLING EQUIPMENT:

9	mobile cranes, capacity 6 tons at 25 m.
10	mobile cranes, capacity 4 tons.
2	chutes for discharging grain, rate 200 t.p.h.
11	tractors.
100	trailers.
2	travelling cranes for sulphur, 1,500 t.p.h.
2	travelling cranes for phosphate 3,000 t.p.h.
6	pipelines for phosphoric acid, 1,800 t.p.h.
1	pipeline for discharging butane, 100 t.p.h.
2	bagging machines for fertiliser.

STEVEDORES: There are 2 stevedoring companies.

ODEP is permitted to handle general cargo, grain, coal and butane.

OCP is the operator for the terminals reserved for handling phosphate, sulphur, ammoniac, phosphoric acid and fertiliser.
Working Hours: Monday to Saturday 0700 hrs. – 1500 hrs. and 1500 hrs. – 2300 hrs. (2 shifts per day).

During Ramadan, there are special shifts from 0500 hrs. – 1200 hrs. and 1200 hrs. – 1800 hrs.

On Sundays and holidays, 2 shifts are available from 0700 hrs. – 1500 hrs. and 1500 hrs. – 2300 hrs. at overtime rates, or compulsory overtime, depending on port situation.

For bulk handling by OCP (Office Cherifien du Phosphate), 3 shifts work per day all the week including Sundays and general holidays.
MEDICAL: There are 4 private clinics and 3 hospitals for the general public at El Jadida, about 20 km. from Jorf Lasfar.
FRESH WATER: Available in all the quays. Cost: U.S.$ 1.5/ton.
FUEL: Fuel and gas oil available with 48 hours notice to Mory-Shell, Total or Mobil.
REPAIRS: No facilities available at the port.

If repairs are required, companies from Casablanca or Safi undertake the work. They will require 24 hours notice from the ship's Agent.

Two small docks are envisaged for repairing vessels up to 75 m. LOA.
SURVEYORS: Available through the Port Office or Pilot Station. All pilots are surveyors.
AIRPORT: Mohamed V Airport at Casablanca, distance 120 km.
POLICE/AMBULANCE/FIRE: Police, Tel: 34-54-71. If ambulance or fire service are required, call Port Control on VHF or Tel: (03) 34-54-20.
TELEPHONES: Public telephone box available near Port Office.
GARBAGE DISPOSAL: The garbage collection service is compulsory. Drums are provided on board and received alongside. Collection time is 1000 hrs. daily. Contact Port Office, Tel: (03) 34-54-20.
WASTE OIL DISPOSAL: Not available as yet.
SEAMAN'S CLUBS: None.
CURRENCY: Moroccan Dirhams (DHS).
GENERAL: *Provisions:* Fresh provisions are available.
Weather: Winds: S.W. and N.W. (Winter) November to March, but it is rare for work to be suspended.
Tide: Rise and fall of tide in the harbour 2.15 m. – 3.80 m.

SHIPMASTER'S REPORT: May 1984.
Location: The Port of Jorf Lasfar is situated approximately 62 nautical miles by sea, and 120 km. by a good tar sealed surfaced road from the town of Casablanca, in Morocco. The natural deep water bay along the coast has afforded the development of an industrial complex, designed for the export of phosphates and minerals, also phosphoric acid and sulphuric acid.

The principal breakwater, (Outer Breakwater) extends in a direction N.W. from the shore, 1.75 miles S.S.E. of Cap Blanc du Nord, on which is erected a "Yellow" square tower 31 m. in height with a black top, the position of which is Lat. 33° 09.8' N., Long. 08° 37.6' W. The light exhibited from tower is occulting white and red 6 secs., eclipse 1.5 secs. White visibility 9 miles 018° – 190° (172°), red visibility 6 miles, 190° – 018° (188°). The breakwater then turns S.W. and S.S.W. for a total length of 3,100 m. The Contre Digue or Lee Breakwater extends 1,250 m. N.W. from the shore 1 mile S.S.W. of the root of the Outer Breakwater.

Light structures stand each side of the entrance, on the Outer Breakwater about 500 m. N.N.E. of its head, and on the head of the Lee Breakwater (Contre Digue).
Approaching: Noon, day before arrival: Position Lat. 33° 00' N., Long. 12° 59' W. Course 088°(T) allowed 2° set Gyro course 086°. Day of Arrival: 0139 hrs. Sat. Nav. fix Lat. 33° 04' N., Long. 09° 39' W., disallowed set.

Radar observation of the coastline was made when 43 miles off (radar JMA 159B/3 cm.) but no positive fix. Vessel running in on Sat. Nav. D/R position.

0443 hrs. Radar fix obtained of Cap Blanc du Nord, 25 miles.

As vessel had no port information or charts ETA given as 0700 hrs. (Sunrise 0612 hrs. GMT).

Called Casablanca Port Control on Channel 16 from 0530 hrs. Reception was poor and distorted.

Called Jorf Lasfar Pilot on Channel 12 . . . No reply.

About 7 miles off, the Principal Breakwater was clearly outlined on radar screen, and observed 1 small coaster at anchor off the port.

Weather was cloudy, visibility clear, a light Easterly wind was blowing, slight sea with low, heavy, Westerly swell.

When about 4 miles off, contact was made with the Pilot. Due to the berthing of the coaster, we were delayed, and vessel was turned around on reciprocal course. At 0745 hrs. turned vessel around and made approach to embark Pilot, on his advice.
Embarking of Pilot: Under normal circumstances a pilot launch is available. Unfortunately for us, the launch was under repair and Pilot came out to embark on a rather large tug. Not a very suitable proposition at the best of times.

No positive position for Pilot Boarding has yet been established and no Sea Buoy to indicate any approach.

Ladder was rigged on starboard side. The tug had great difficulty to manoeuvre to come alongside, but after several attempts and much helm and engine movements, further hampered by the heavy swell running for both vessel and tug, the Pilot (French) boarded without any incident.

I am of the opinion, that the Pilot should board approximately 1.0 to 1.5 miles off the Principal Breakwater Head, by pilot launch, with vessel's speed about 5 knots, to afford a good lee and counteract the swell. The tugs should be secured before the ship enters the port as there is about a 90° to 120° port turn to line up with the entrance, with very little room for error. Both anchors to be ready for letting go. Once the turn into the entrance is made, the way must be taken off the vessel quickly and stopped, to effect a port swing again of 90° to back into the berth, for starboard side alongside berthing at Quay No. 2 where vessel berthed.

The 2 tugs attending, "El Hafid" and "Casablanca", 2,000 h.p. and 1,600 h.p. respectively, were adequate under the prevailing conditions. Both tugs used ship's lines. Vessel was secured with 5 head and 5 stern lines also 2 springs forward and aft.

Whilst alongside with a heavy swell outside the harbour area, surge was experienced alongside. Rope springs are suggested for use, or wire springs with rope tails.

The foregoing was a deeply laden vessel, length 224.5 m., draft 38 ft. (salt water) even keel.

Port Limits: The seaward boundaries of the port have not yet been defined. There are no designated anchorages off the port for vessels carrying the various categories of cargo.

There is no designated Pilot Boarding Ground.

There is no Sea Buoy, or Channel Marker Buoys to indicate a safe Fairway.

Charterer's particular requirements to vessel's Agents to be sent through Casablanca Radio, CNP (8 MHz).

We were able to contact Casablanca Radio, 5 days prior to arrival (1,600 miles).

Preliminary "Notice of Readiness" was tendered to Agents and receivers of cargo by radio on arrival (0700 hrs.).

I prepared 5 copies of my own "Notice of Readiness" which was handed to the Agent on berthing. He signed in acknowledgement, for transmission to the receivers.

"Notice of Readiness" was accepted at 0830 hrs., which was office opening hours on our arrival day.

Documents:

Crew List, 6 copies.

Passenger List, 6 copies.

Customs Crew Personal Effects Declaration, 1 copy and 1 copy for Agent.

Ship's Stores List, 1 copy and 1 copy for Agent.

Ship's Manifests. If on board for delivery to Agent.

Bills of Lading. If on board for delivery to Agent.

Ship's Particulars, 1 copy for Agent's use.

Pilotage: Give ETA to Agent at Casablanca. He arranges Pilot and tugs. Pilot comes by road from Casablanca.

Apparently 1 tug is always stationed at Jorf Lasfar port, but is not manned. A second tug comes from Casablanca. (Ordered by Agent, who arranges time). Two tugs seemed adequate for this vessel under the prevailing conditions. Advise Agent accordingly if you require more. Pilots consider 2 tugs are adequate.

Minimum 24 hours' notice is required for Pilot and tugs.

Pilot Launch: Approximately 7 m. in length, black hull, white topsides, with the word "Pilote" painted in white bold lettering on each side. (Also see "Approaching".)

Anchorages: See "Port Limits".

Pilots recommended 2 miles off breakwater, keep entrance to harbour clear. Holding ground good. Obstructions not charted.

Keep well clear of Cap Blanc du Nord. I have seen heavy breakers 0.5 miles to 0.75 miles off this point in strong Westerly winds and heavy swell/sea.

Depth lines showing a 1 m. difference in soundings have been charted on locally produced chart.

Tugs: Tugs do not have their own lines, ship's lines are used.

Also see "Approaching" and "Pilotage".

Restrictions: Movements, entry and departure are restricted to daylight hours only. From observations (personal) tidal range at spring tides is approximately 8 ft. No tidal predictions are as yet available.

We entered with a draft of 38 ft. (11.58 m.) salt water even keel. No adverse effect, or ground effect noticeable. Be careful of lift and fall in heavy swell, and rolling which will increase draft. As previously stated, apart from the light on Cap Blanc du Nord, no other lights are as yet available as an aid to navigation.

Depths: Entrance Channel 17 m. No. 1 Berth 13.5 m. (phosphate).

Max. Size: Nothing yet stipulated by Port Authority.

Our vessel: Overall length 224.50 m. Moulded breadth 32.20 m. Max. Summer draft 12.956 m. Max. d.w.t. (Summer) 64,931. G.r.t. 35,417, N.r.t. 21,296. Panamax bulk carrier.

Also see "Restrictions" and "Cargo Gear".

Health: Pratique free from one Moroccan port to next Moroccan port.

Master to send cable 24 hours prior to arrival to Agent. Cable to include following information: Number of crew (including Master) on board, certify vessel free of infectious disease, all crew healthy, and in possession of valid health and travel documents (passports) and last port or ports of call (21 days prior) arrival, and request Agent to supply for Radio Pratique and Immigration Clearance.

Prepare Health Declaration Papers if on board, otherwise Agent will prepare on arrival at berth, for signature.

Vaccination Lists, 2 copies.

VHF: Use Casablanca. Call CNP2. Frequency Channels 16, 12 and 14.

When you know from the Agent that the Pilot will board on arrival at Jorf Lasfar, then call "Jorf Lasfar Pilot" on Channel 12.

Also see "Approaching".

Radio: "Casablanca Radio". Call sign CNP on 8 MHz.

We made contact 5 days (approximately 1,600 miles from Casablanca) prior to arrival.

Berthing:

Berth No.	Depth Alongside (m.)	Length of Wharf (m.)	Width of Wharf (m.)	Surface Area (sq.m.)
1	15.60	300	82.28	24,684
2 – 3	12.50	180	75.00	13,500
4 – 5	12.80 – 11.50	180	30.00	5,400
6 – 7	11.50	45	30.00	1,350
8 (Oil Berth)	15.60	45	15.00	675
9 (Oil Berth)	12.70	45	15.00	675
Q.C./10	5.25 – 6.75 – 9.00	360	20.00	7,200
Q.S.	3.50 – 4.00 – 5.00	215	20.00	4,200

Note: The above information has been obtained from the Port and Harbour Authority. The maximum permissible draft for our vessel at Berth No. 10 was declared as 26 ft. This information was given by the Pilot who shifted the vessel from Berth No. 2 to Berth No. 10 and agreed to by the Port and Harbour Authority. I requested this in writing before shifting the vessel.

From the above legend for the Quai de Commerce (Berth No. 10) the shallowest part is at the Eastern end near the Ro/Ro adjustable run-off. Berth No. 10 Surface unsealed, and consists of loose metal/sand/stones, many potholes, dry grass, and totally unsuitable for discharge of grain.

Note of Protest and Indemnification of Liability served on the receivers by the vessel's command through the Agents. Receivers accepted it without question.

I am led to understand that the port is to be divided into 2 sections.

Berth Nos. 1 to 7 will be privately operated, and the remainder of the port will be operated by the government.

On some plans, a grain silo is shown on the Southern side of "Quai de Commerce", adjacent to the Ro/Ro terminal. This I believe will now not be developed, and Jorf Lasfar will not be used as a grain port. At times vessels use Jorf Lasfar to lighten ship to 30 ft. and then proceed to Casablanca for further discharge.

Berth use (on completion of port):

No. 1	Phosphates	Nos. 8 & 9	Petroleum
No. 1 Bis	Coal	Nos. 10 & 10 Bis	General
No. 2	Phosphates	No. 11	Service
No. 2 Bis	Coal	No. 12	Fish
No. 3	Phosphates	No. 3	Ro/Ro
No. 3 Bis	Minerals	No. 14	Cereals
Nos. 4 & 5	Sulphur	No. 15	Containers
Nos. 6 & 7	Acid		

Cranes: There are no permanent cranes to speak of at any of the berths.

6 mobile cranes were made available for the discharge of our vessel.

Type: Gottwald/Dusseldorf, luffing and slewing, diesel/motors.

Capacity: 6 tons × 8 m., 6 tons × 25 m.

Outreach: With base spreaders out, and tyres afloat, and in position the cranes could not plumb further than the centreline of the ship. (Beam 32.2 m. max., fenders alongside wharf).

No heavy lift cranes ashore or afloat available.

While in port 3 vessels were seen discharging heavy lifts for the industrial complex with their own gear.

One vessel discharged machinery and general cargo with ship's cranes.

Note: 1. Gearless ships would be serviced by the above mentioned mobile shore cranes.

2. Vessels with their own gear would have no difficulty to discharge cargoes such as grain/ores/coal/fertilisers/sulphurs/copra, etc.

Specialised Cargo Handling Facilities: A container terminal is envisaged but at time of writing is non-existent, (wharf or cranes).

Berth is available for Ro/Ro vessels with adjustable ramp, (power facilities and terminal non-existent).

Berth for tankers (Berths No. 8 and 9), available but as yet no pipelines to storage tanks, behind the ridge of hills in the background of the port, have been laid on.

Berths available for liquid chemicals, (see plan), but no pipelines or facilities as yet available.

No facilities for LPG/LNG.

Bulk Cargo Facilities: Refer to legend of berths, cranes, and additional notes.

Bridges: None.

Stevedores: Agent will organise gangs with receivers.

Port Working Hours: Monday to Saturday inclusive 0700 – 2300 hrs. over 2 consecutive shifts 0700 – 1500 hrs. and 1500 – 2300 hrs. Overtime, Sundays and holidays when available and/or compulsory. A third shift overtime also possible when ordered by receivers and agreed by Port Authority (2300 – 0700 hrs.).

There appeared to be no "meal breaks" or "smokos".

There is a language barrier unless you speak French and/or Arabic.

Medical: See "Documents".

There is a private clinic, and 3 hospitals for the general public, available at a town called El Jadida, about 25 km. from Jorf Lasfar.

Notify Agents who will make the necessary arrangements. Preferably 24 hours' notice is required due to the fact that there is no communication available from the ship or wharves (telephone). There is a telephone available at the Port Authority Office some 1.5 miles distant from the wharf area, but the office is not open day and night, also the Agent lives at Casablanca some 120 km. distant. My crew were cautioned to exercise care in their work habits to avoid accidents. Shore labourers will request first aid from the ship for minor cuts and bruises.

Dental treatment is also available at El Jadida.

It is advisable to have Cholera/Yellow Fever inoculations. Some charterers include this as a must in their charter parties. There is a Port Health Officer stationed at El Jadida, who clears the vessel on arrival.

Tankers: Two berths. No pipelines laid at present.

Density: During vessel's stay, when cargo discharged, calculations and final draft survey by ship was necessary. The average salinity (density) corrected for temperature was 1027.5/1028. Temperature varies between 16°C – 25°C.

Fresh Water: No fresh water available at Jorf Lasfar, nor are there any facilities yet laid on the wharf for this purpose.

Vessel maintained consumption, average 12 tons per day (which included domestic, culinary, toilet flushing purposes and laundry) from the water made by evaporator at sea on passage and prior to arrival.

Agents advise me that in very urgent circumstances, fresh water is available by tug, approximately 40 tons maximum, from Casablanca, but very expensive. (Not less than U.S.$2,500 per 40 ton delivery.)

Fuel: Not available.

Fire Precautions: Normal ship safety fire precautions. No equipment available from wharf. Nearest available fire brigade is from El Jadida.

Consuls: None available at Jorf Lasfar, or El Jadida, nearest is Casablanca. British Consul will act for certain Marine matters for British registered vessels.

I was able to have an extension to the vessel's "Safety Equipment Certificate" done in 30 minutes.

Take your passport to the British Embassy to gain entry. This will be checked after you have filled in a small form to indicate the purpose of your call.

Repairs: There are no facilities available for ship repairs, deck or engine.

The nearest repair yards and facilities are available at Casablanca. From the port plan, it would appear that there is to be 2 small docks or slipways, with workshop attached.

Dry Docks: None.

Surveyors: 1. Cargo Surveyors/Inspectors not available at Jorf Lasfar.

2. Ship's Surveyors (Lloyds/ABS/BV) not available at Jorf Lasfar.

Agents will arrange for Surveyors from Casablanca to attend. I was able to get the Lloyd's Surveyor at Casablanca to extend vessel's "Safety Construction Certificate". It took 7 days.

Gangway/Deck Watchmen: Compulsory. Two per vessel, one for ship and one on the wharf. It was noticed that they do a 24 hour shift. It is not essential to victual them, but as there is food available, it would seem the best idea to feed them and get good co-operation and service. The watchmen are ex-seamen and understand English. Agent will sign the victualling voucher.

Hatches: Opening and closing by ship's crew.

Certificates: To produce Ship's Register, Safety Equipment, Ship Construction, Safety Radio, Tonnage Certificate, Derat Exemption.

Customs Allowances: 200 cigarettes and 750 ml spirits per man/per week. They will open the bond stores for further issue weekly. Cost of obtaining Customs Officials per week 600 Dirhams which is about U.S.$75.

Beer is not sealed.

If vessel's stay is to be an extended one, obtain permission and take out the required amount for the stay, on *arrival.* This will save you the charge each time the bond store is opened. The Agent only advised me of this after the first request for additional allowance.

Customs Officials will examine personnel and their baggage on leaving ship and returning from shore.

Cargo Gear: Discharge was effected by shore gear, as our vessel is a gearless vessel.

Grabs were used, of which there were 8. They leak like sieves. ("Note of Protest" for loss of weight/quantity was served on receivers). The grabs are not the automatic open release type. They were landed on the hopper steel framework to effect release. The crane hooks were not moused, thus several times the grab wires came unsecured.

6 hoppers, the sides were not high enough, hence constant spillage.

A corkscrew type shaft, with an 8 in. tubular outer casing powered with a small electric motor at its head, driven by portable mobile electric generator, is used as a mini-elevator to load the grain which is dumped on the wharf into trucks and transported to the various consignees is one of the methods employed.

Cargo is also bagged from this stockpile on the wharf and carried and stacked on flat top trucks (240 bags per truck average) for delivery to consignees.

Canvas tarpaulins are used to cover the grain, in the event of rain.

We experienced 2 heavy downpours lasting about 3 to 5 hours, when pools and deep puddles of water developed (Berth No. 10), and 2 to 3 light rain periods lasting about 1 hour.

Include in your protest on arrival "Ship not responsible for damage due to discharge in wet or inclement weather, or for contamination and deterioration". This will be accepted by the receivers without question.

Direct loading from grab to hopper to trucks is also carried on. There is no weighbridge for weight checking.

Also see "Port Nador" – "Report, January 1984".

Repatriation: Crew members are able to join vessels or be repatriated.

Visas are required for certain citizens, whose country of domicile do not have diplomatic reciprocal consulates. Therefore please check before effecting any crew replacement.

On arriving at "Mohammed V" Airport at Casablanca, Immigration Authorities will endorse your passport with an entry permit. Cable or advise Agent the flight number and request Agent to assist in Immigration entry facilities.

You will have a baggage check at the airport.

When cleared you have to proceed to El Jadida where the Immigration will again endorse your passport. You will possibly have another baggage check at Customs in El Jadida and then proceed to Jorf Lasfar. This is because Jorf Lasfar is outside the jurisdiction of Casablanca.

Airport: "Mohammed V" Airport is situated approximately 35 km. from Casablanca, allow 45 minutes driving time from the heart of the city. The airport is serviced by a great many airlines, to name but a few, Royale Air Maroc, Iberia, Air France, Sabena, K.L.M., Swiss Air, Aeroflot, Lufthansa, British Airways, Iraqi Airways, Kuwait Airways, Libyan Arab Airlines.

Internal domestic flights are available to Agadir (on the coast), Marakesh and Ouarzazate (inland), Rabat the capital city of Morocco and Tangier.

There is no airport at Jorf Lasfar.

Time: GMT. No changes.

Holidays: There are 5 official governmental holidays.

There are 3 religious holidays (movable dates).

New Year's Day (English calendar).

On the above days "No Work is performed". This is questionable as we did work and sail on May 1st (Labour Day), which is one of the supposedly official holidays.

Police/Ambulance/Fire: As yet there are no facilities available at the wharf in Jorf Lasfar. There are facilities at El Jadida 25 km. away.

No assistance will be afforded the Master if he wishes security escort or Immigration facility for discharging crew members who are being dismissed for offences aboard ship, and have to be lodged in hotels prior to repatriation. They will only assist if there has been criminal assault on board.

Emergency Co-Ordination Centre: None available at Jorf Lasfar. The Agent is your co-ordinator.

Telephones: None at all available on ship, or wharf, at time of visit.

Also see "Medical".

Overseas calls are possible from the Post Office at El Jadida or some of the 4 or 5 star hotels at Casablanca. There are no direct dialling facilities. Connections are made through Paris.

I had difficulty contacting my Owners at Singapore, so had to use the telex from the hotel and request them to call me, which did not take long.

Services: None available at Jorf Lasfar. Casablanca is the nearest town to offer facilities for radio and radar repairs, through the Agents.

Banks: None available at Jorf Lasfar. "Banque Credite Maroc" operates in El Jadida. Casablanca is the nearest city to offer any facilities for transactions.

Storing: Vessels can be stored by truck.

No barges available. No launches available, only the pilot launch. In due course when the port becomes fully operational storing from barge on the offside will be possible with ship's gear.

No regulations in force regarding storing at present.

Trucks can proceed alongside ship at the berths.

Fork lift trucks (2 available – 3 ton) belonging to the port. 1 front end loader rubber tyre was available.

Customs Regulations: Ship's machinery, spare parts, deck stores, goods shipped from overseas, are subject to Customs clearance.

VERY IMPORTANT: Declarations/invoices *must* be in the French language, proper, clear and precise nomenclature for *every item,* with the cost per individual item.

e.g. It took 9 days to clear a container (LCL) containing equipment for the installation of "Halon 1301" after the container was landed at Casablanca to be delivered to ship's side.

Shore Leave: Shore leave is permitted for ship's Officers and crew. Passes are issued by the Immigration Authorities, after the vessel has berthed.

You must be in possession of your Pass when ashore.

If intending to stay at an hotel in El Jadida or Casablanca take your passport to check in at the hotel, as without it, you might not gain entry. Your passport will be held at the reception desk until account settled prior to checking out.

There is no way to obtain a taxi *from* the port.

Cargo transport trucks, initially offered crew transportation to El Jadida or Casablanca. Transport is available (taxis) from Casablanca or El Jadida, to the ship. Cost varies (day or night). Normal fare: El Jadida to ship 50 Dirhams (U.S.$6). Casablanca to ship 350 Dirhams (U.S.$42). Small mini-taxis are available for short distance transport in Casablanca. They do not have meters, 10 Dirhams seem to be the normal fare, for reasonably short distances.

"Siesta Time" is from 1330 to 1500 hrs. Business Houses (offices) close from 1300 to 1430 hrs. Working hours from 0830 to 1300 hrs. and 1430 to 1830 hrs.

Hotels: Casablanca: Several from 3 star to 5 star and prices range from 135 – 300 Dirhams for a single. Hyatt, 500 – 600 Dirhams. Consult tourist guide for information.

El Jadida: 2 hotels, the "Salam" and "Dounia", on the beach front. The former is more modern.

Sunbathing and swimming permitted in and around the hotel swimming pools. Tennis courts, volley ball, archery, horse riding, indoor dance and disco.

Identity Cards: See "Shore Leave".

Regulations: No regulations as yet promulgated by the Port Authority. A Harbour Master was appointed 1 week before we sailed.

As mentioned earlier Pilots are ordered by the Agent and come from Casablanca. The Harbour Master will not be doing pilotage.

Delays: We had none, having berthed on arrival. However, I would expect some delay if the wharf area has not been cleared from the previous vessel's cargo.

Weather: April: During the vessel's stay in port, strong winds Beaufort Force 7 were logged, coming from a West to W.N.W. direction. Winds backed to South and East, Beaufort Force 5. Heavy rain showers accompanied the winds. Temperatures ranged from 15°C at night to a maximum of 25° – 27°C during the day. Heavy dew after sunset.

Agent: The Charterers and Owners both used the services of the same Agency.

Lasry Maroc, 30 Avenue de l'Armee Royale, Casablanca. Telex: 21949, 21092. Tel: 31.38.75, 31.19.54. Cables: Jolasry.

The above Agent has an office equipped with telex and telephone facilities at El Jadida.

Lasry Maroc, 2 Rue William Redman, El Jadida. Telex: Jolasry 78990 M. Tel: 3276, 3370. Cables: Jolasry, El Jadida.

Note: 1. The telex number at Casablanca we used was Sagnav 24646 M.
2. The telephone numbers at Casablanca shown above are those printed on Agent's visiting cards.

SHIPMASTER'S REPORT: April 1988.

We were contacted by the pilot from the Pilot Station at El Jadida. Pilot boarded the vessel one mile off breakwater. Due to heavy swell, a good lee has to be provided for the pilot vessel. Breakwater lights were found to be working, but the light (Occ.W.R.10, 6M.) was not functioning. 2 – 3 tugs are available for assistance. There are 2 mobile cranes fitted with grabs at Berth No. 4. Each grab discharges about 8,000 tonnes per day. Heavy surging of the vessel takes place alongside and continuous attendance to moorings and gangway is required. Gangway has to be rested on uneven surface of the wharf. Fresh water is available alongside at a cost of U.S.$1.00 per ton. Nearest place for provisions, medical assistance, etc., is El Jadida, which is about 25 minutes drive by taxi and costs U.S.$30.00.

AUTHORITY: Capitainerie du Port de Jorf Lasfar, c/o Direction Provinciale des Travaux Publics, El Jadida, Morocco. *Tel:* 03-34-54-20. *Telex:* 78982. *Contact:* Captain Med Rabaz, Harbour Master. Mr.Rochi, Port Director (ODEP). Mr.Trami Med, Port Director (T.P.). Farid Warrak, Governor of El Jadida.

KENITRA: 34.17 N. 06.30 W. (See Plan)

Situated on the left bank of the Oued Sebou, 17 km. from the Atlantic.
PILOTAGE: Pilotage is compulsory for entering and leaving port. Vessels must wait outside the port entrance for the tide. It is possible to enter from 2 hours before until 1 hour after HW during the night, and from 3 hours before until 2 hours after HW during the day. The Pilot boards vessels at river mouth. The Pilot will be on station 2 hours before HW.

On arrival at the Roads or after 0830 hrs., call the Pilotage Department and advise arrival time at the Roads and draft. Pilotage Department on VHF Channel 16 and 2182.

RESTRICTIONS: From the mouth of the river up to the port is a dredged channel. Depths are 4.20 m. during neap tides and 5.40 m. during spring tides. Height of tide during neap tide is 2.60 m. Height of tide during spring tide is 3.80 m. The constant is 1.60 m.

During the Winter it is recommended to stay outside the port in strong squalls. Ships are advised by Kenitra Port Radio of the possibilities for entering port.

Between November and April there is a total of 6 or 7 individual days when the port is closed to navigation, due to weather conditions.

Vessels are berthed and unberthed in daytime only at present time.

RADIO: Messages to ship's Agent should be sent through Casablanca Radio. In the ETA message to Agent, also advise vessel's draft. There is a radio station at Kenitra for port use only. Watch-keeping hours are only during HW, on 2182 kHz.

TUGS: Two tugs of 250 h.p. and one of 130 h.p.

BERTHING: The outer port used only by trawlers, and a mooring quay of 360 m. length belonging to the Royal Moroccan Navy. The length of main quay is 870 m. and includes 10 berths. In addition to the above there is a jetty for wine vessels, and a jetty for oil tankers.

FRESH WATER: Supplied alongside the quays.

FUEL: There are supplies of diesel oil, gas oil and petrol in the port. These products supplied by tanker lorry along the quay.

CONSULS: The Consular representatives at Kenitra are those of Belgium, France and Portugal.

REPAIRS: There are workshops for small running repairs in the port. There is a slipway for ships up to 400 tons.

AIRPORT: The nearest commercial airport is that of Rabat-Sale and there is a small airfield at Kenitra.

TIME: GMT. No changes.

AUTHORITY: Port of Kenitra, B.P.23, Kenitra, Morocco. *Tel:* 07371345 (Port Director), 07372158 (Port Captain). *Telex:* 92019. *FAX:* 07371345 (Port Director), 07372159 (Port Captain). *Contact:* M. Teffal, Port Director. A. Morhal, Port Captain.

LAAYOUNE (El Aaiun): 27.04 N. 13.28 W.

LOCATION: Lighthouse at phosphate terminal in Lat. 27° 03' 55" N., Long. 13° 27' 45" W.

DOCUMENTS: See "Casablanca".

APPROACHES: There is a light located at the end of the bulk phosphate terminal in position Lat. 27° 03' 09" N., Long. 13° 27' 07" W. at the top of mineral silos, at a height of 180 ft. 1 flash every 5 seconds, range 10 miles.

There is also a fixed green light located at the Northern part of the terminal, range 10 miles, and a fixed red light at the Southern part of the terminal, range 10 miles.

The phosphate terminal installations give a good radar target at a distance of 25 miles. Vessels approaching from the North should keep 10 miles off the coast until the pier is bearing 090° and then steer towards the pier.

At night the installation lights are always visible and with a clear atmosphere can be seen from 25 miles off the coast.

PILOTAGE: Compulsory. Pilot boards about 0.50 miles off the pier head.

ANCHORAGES: Good anchorages can be found in 10 fathoms of water. When waiting for the Pilot it is recommended to anchor 0.50 miles Westward of the pier. No shelter in strong winds. Service of powerful auxiliary boats is available when lying at anchor.

MAX. SIZE: Depth 17.0 m. at LWL at the phosphate terminal berth.

General cargo is handled at a berth 2 miles North of the Phosphate Pier. The berth is managed by "Odep Laayoune".

HEALTH: Valid Yellow Fever and Cholera Certificates are required. Otherwise, usual clearance.

RADIO: There is no coast radio station in Laayoune. VHF radio communication is being placed at the phosphate terminal to work on Channel 12.

Ships calling at the terminal are required to send ETA cables or telegraph 72, 48 and 24 hours prior arrival to "Phosboucraa Laayoune".

TUGS: 2 tugs, each 960 h.p., are available to assist vessels.

BERTHING: Laayoune Mineral Terminal located approx. 6.5 miles South of Laayoune City.

The terminal head is in a North-South direction. Vessels are moored alongside dolphins that cover the two loading stations for 40,000 and 20,000 d.w.t. ships. The loading pier has a height above water of 50 ft. and the dolphins approx. 20 ft.

Facilities consist of modern equipment available for handling phosphate in bulk at a loading rate of 4,000 t.p.h. in two of the stations, and 2,000 t.p.h. at the third. The phosphate is loaded by means of movable loading machines with telescopic spouts to permit perfect trimming.

No gangway to be rigged at this terminal. Communication from ship-to-shore is by means of elevator from the loading machines.

REPAIRS: No repairs can be effected at this port.

AIRPORT: Laayoune (30 km. from harbour).

TIME: GMT. No changes.

FUEL: No bunkers available.

PROVISIONS: Provisions may be obtained.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: No seaman's clubs, but two first class hotels with usual facilities.

CURRENCY: Moroccan Dirham (DHS).

SHIPMASTER'S REPORT: November 1990.
Phosboucraa Ocean Terminal for Phosphate Loading: Chart: B.A. No. 863.

On a recent call to the above phosphate loading facility, the following observations were made:

The pier is about half a mile long, running North to South, with 3 berths, N.W., S.W., S.E. The N.W. Berth has been seriously damaged in a storm from the Southwest. The berth is closed and will not be repaired.

The Southernmost dolphin is isolated because the catwalk has fallen into the sea. Thus both the North and South light beacons are extinguished.

The vessel anchored 1.5 miles S.W. of the pier, and waited 24 hours for the swell to reduce to an acceptable level. The vessel was then placed at the S.W. Berth, using the port anchor with 7 shackles on deck, and picking up a heavy buoyant sea-line on the port side aft. The Pilot asked for 4 head lines to the Northerly dolphin, and three to the dolphin aft, no back springs required. The largest vessel to berth was 233 m. long, with a beam of 33 m., i.e. about 70,000 d.w.t.

The position of final mooring was with the vessel some 6 ft. to 15 ft. clear of the four steel breasting dolphins. Of these only the third from North had wooden cladding on it, the others were bare steel. The bearing area is pivoted and bears against a small section of rubber buffer. These dolphins are the last ditch defence of the concrete pilings on which the quay stands.

The berth has 2 telescopic extending booms, pivoted from the inboard end. The forward end is carried on a carriage around an arc, giving a wide range of movement. The booms are currently capable of 1,200 tons per hour. However, the vessel was not positioned correctly, and Holds No. 1 and 4 could not be properly centralised.

The Loading Foreman took station in the centre window of the wheelhouse, with walkie-talkie communications to the boom drivers and the shore plant. There were 3 foremen initially, and the Loading Foreman asked for a cabin for their use. They were given use of the Pilot Cabin as they were working nearby in the wheelhouse. They were fed on board.

Access was by means of a "two man cage" lowered from the loading boom onto the deck. Thus for a shift change, the 'new' foreman lowered the cage for the 'old' foreman and hoisted him up. Then the 'old' foreman lowered the cage for the 'new' foreman onto the deck, before stowing it at the boom position. Thus little chance of casual boarders visiting the ship. The pier has a permanent garrison of troops bivouaced on it. No shore leave is normally allowed, in special circumstances, visas have to be obtained from the local military commander.

The inspection party comprised Charterer's Agent, Owner's protecting Agents and 5 officials (Customs, Health, etc.). 7 Crew Lists were required, otherwise as per Casablanca. On departure, there were 3 officials for the papers. No Port Clearance is issued, but an Export Manifest is issued. The American Immigration Crew Lists were sent to the Embassy in Casablanca for processing.

The prevailing current sets across the wharf by 20° – 30°, which puts a heavy strain on the sea-line. The rapid changes of trim, and equally rapid changes in direction and height of swell can 'upset' the balance of the moorings in only a few minutes.

The vessel was moving in a constant "cork screwing motion" throughout the time on the berth, rising and falling 3 ft. – 8 ft. against the loading boom, and rolling 5° – 10°.

Several times the ship set down onto the 4th dolphin from North, and rubbed steel to steel. Damage was suffered when the dolphin got under the main deck multi-roller fairlead, breaking the welding and buckling the brackets.

While trying to heave in the sea-line, yet one more time, the deck eyebolt pulled out when holding 2 stoppers. One seaman was caught across the hand by the sea-line as it jumped, he subsequently fainted from shock. Possibly 30 ft. of sea-line was hove in during the loading. *This was in good weather with winds of Force 3 or less from the N.W.*

Ship's engines must be at short notice to leave the berth, if the wind or the swell become dangerous. The berth is very dangerous with wind and swell from the S.W. There are two dangerous wrecks reported to lie 2 miles West and Northwest of the main pier.

The vessel was unable to obtain a British, Spanish, French or American chart of the port of Laayoune in Spain or Casablanca.

A request was sent by radio for a 'Draft Survey' to be conducted on Owner's Account. The advice was that no such independant service was available, and the cargo was sold on 'sellers measurement'.

At the draft check it was found that the shore scale had apparently underread by nearly 1,000 tons or 2%. A run of 800 tons was asked for, but in fact the ship may have received 1,060 tonnes. This effectively removed any safety factor for the restricted draft at the discharge berth. Density was found to be 1028 – 1029.

The Loading Foreman, Chief Officer and Duty Officer made independant readings of draft at 6 points, with wave heights of 4 ft. across the figures as the ship continued to corkscrew actively.

The Bill of Lading was made out for the cargo tonnage shown by the draft check, with 'Quantity and Quality unknown', as endorsement.

Disbursement Account and Demurrage Statement was endorsed "Subject to Owner's Approval".

On sailing it was intended to take up the slack of anchor chain, put the sea-line on the bitts, and then single up to one line each end. Unfortunately the forward dolphin let all lines go at once.

The ship was hove forward and outward by the windlass, and holding onto the sea-line. However, the sea-line became so tight that it was dangerous to approach, and a "Dead Slow Astern" was needed to take the weight off it. It is a remarkably long line. Altogether the sailing was a tense period. A tug stood by on arrival and on sailing.

Fuel and water are not available. Any provisions or spare gear would need to be delivered by boat on the offside, due to the movement of the ship.

It was 60 hours from "finish with engines" until "stand-by main engines", with some 5 hours for electrical power failure (when the ship could not have sailed with booms extended over the ship), for 47,000 tons.

The concrete piers are showing signs of wear and stress from the heavy battering from the S.W. gales each Winter. I understand that in the future a new port will be built, and this terminal abandoned. The conventional wisdom is that in Summer months it is not an unreasonable berth, but in Winter there is much waiting for sea and swell to subside.

AUTHORITY: Phosboucraa – Laayoune, B.P. 76, Laayoune, Morocco. *Tel:* 9-36-28, 9-36-29, 9-36-30. *Telex:* Phostel 26614, Fosayoun 26769. *Contact:* Port Manager.

Operator: DC/MR Casablanca, Telex: 22052/21008/21872 Comerfos.
DCN Paris, Telex: 620948 Ocfos.

MOHAMMEDIA: 33.45 N. 07.22 W. (See Plan)

DOCUMENTS:

Bill of Health.
Derat Certificate.
8 Crew Lists.
3 Passenger Lists.
3 Provisions Lists.
Ship's Certificates.
Personal Effects Lists.
Cargo Documents.
Dangerous Cargo List.
Clearance from Last Port.

ARRIVAL: *Pre-Arrival Information:* Check List to be answered and sent to the Harbour Master through the local Agent.

PILOTAGE: Compulsory for vessels entering or leaving the harbour or shifting berth. Pilot may be contacted on VHF Channels 16 and 11. Pilot Station. Tel: (03) 32-47-91.

For tankers for the new terminal, Pilots board the vessel at the Fairway Buoy, 2 miles North of the breakwater.

ANCHORAGES: Contact Mohammedia Pilot or Mohammedia Port Control on VHF Channels 11 and 16, with view to fixing the anchorage position. Anchorage usually used for tankers is N.N.W. of breakwater at a minimum distance of 3 miles.

During bad weather, it is necessary to drift at least 10 miles off the harbour.

RESTRICTIONS: Berthing daytime only, and all vessels can leave day and night without any restrictions.

MAX. SIZE: *Basin:* Max. LOA 120 m. Max. draft 6.7 m. (22 ft.).

New Terminal: Berth A: Tankers up to 100,000 d.w.t. Max. draft 16.0 m.
Berth B: Tankers up to 150,000 d.w.t. Max. draft 17.0 m.

Sealine: Mooring buoy removed. Berths not in use.
Berth No. 1: Tankers up to 100,000 d.w.t.
Berth No. 2: Tankers up to 120,000 d.w.t.

HEALTH: Port Sanitary Control Officer boards immediately after arrival for Pratique delivery. In the event of any suspected disease or fever on board, it is necessary to advise by radio to Agent 24 hours before arrival. Pratique is automatic after calling at another port of Morocco.

RADIO: Casablanca Radio Station.

TUGS: Tugs are necessary for berthing and unberthing as per Port Authority instructions. Tugs are available day and night. "Assalama" (1 & 2) 2×6,000 h.p. "Brahim" 1×2,400 h.p. "Sidi Ismail" 1×2,400 h.p. "Jalil" 1×360 h.p. "Yacoub" 1×2,200 h.p.

BERTHING: Vessels up to 120 m. in length and drawing up to 6.7 m. (22 ft.) at Spring tides and 5.4 m. (18 ft.) at Neaps.

Quay No. 1 has a length of 70 m. with a depth of 7.0 m. (23 ft.).

Quay No. 2 has a length of 170 m. with a depth of 6.20 m. Max. LOA 120 m. Max. draft 6.0 m.

Quay No. 6 has a length of 60 m. with a depth of 6.10 m. Max. LOA 90 m. and max. draft 6.0 m.

MEDICAL: There is the hospital and clinic in Mohammedia. Vaccinations can be arranged.

TANKERS: Vessels must be in good state of repair and all equipment properly functioning prior to proceeding to the berth.

Berth A (New terminal): LOA 180 m. – 260 m. Max. draft 16.0 m.
Berth B (New terminal): LOA 190 m. – 290 m. Max. draft 17.0 m.

Vessels may be berthed in daytime only, but can sail at night. Mooring is effected with 22 nylon ropes (10 head/stern lines, 4 breast lines and 8 spring lines). Wires may also be used, but must have nylon tails. Length of each wire 200 m. and cannot be run to same fair leads as the ropes. Also make ready at least 6 spare ropes.

Moorings should be inspected and renewed as necessary during commercial operations or during adverse weather conditions. They remain the responsibility of ship's Master throughout.

All vessels nominated for operations at the terminal must be subscribing members of TOVALOP (Tanker Owners Voluntary Agreement concerning Liability for Oil Pollution) or equivalent.

The port is fitted with anti-pollution equipment, positioned as recommended, and ready for operation.

All tankers must always have sufficient crew on board to be able, in case of emergency, to disconnect hoses, loading arms, and sail immediately without delay, if ordered to do so by the Harbour Master.

Ships with an abnormal trim or list, damage to the hull, windlasses, winches, cargo pumps, machinery, radio, radar, etc., must advise the Harbour Master's Office before entering the port.

Loading/Discharging/Transfer Systems:

Berth A:

Products	Loading Arms †	Pressures (Bar)	Temperatures (°C)	Rate cu.m./hrs.
Crude Oil	3×12 in.	12 – 17	15° – 30°	5,000 – 8,600
Fuel Oil	1×12 in.	12 – 17		600
Naphtha	1× 8 in.	12 – 15	15° – 20°	1,000
Jet	2×10 in.			1,000 – 2,000
Ballast	1× 8 in.	10 – 12		700
(*)	1×8 in flexible			

(*) The flexible is for discharging ballast or loading Naphtha.
(†) All arms are 150 ASA.

Berth B:

Products	Loading Arms ††	Pressures (Bar)	Temperatures (°C)	Rate cu.m./hrs.
Crude Oil	3×16 in.	12 – 17	30° – 60°	1,000 – 6,000
LPG	2×10 in.	30 – 33	40° – 60°	1,000 – 2,000
(*)	1×12 in. flexible			

(*) The flexible is for discharging Crude Oil.
(††) All arms are 150 ASA, except LPG which is 300 ASA.

Note: For any other flange size, reducers must be furnished and installed by the vessel.

Also see "Shipmaster's Report" and "Chief Officer's Report".

DENSITY: 1025.

FRESH WATER: Water can be supplied at any time in the basin and at the new oil terminal.

FUEL: Available from Casablanca at 48 hours' notice.

FIRE PRECAUTIONS: All tankers are confined by gates and watched over by special firemen.

CONSULS: There is no consul in Mohammedia. All are in Casablanca.

GANGWAY/DECK WATCHMEN: Watchmen are recommended.

OPENING/CLOSING HATCHES: This work is normally carried out by crew. When carried out by stevedores the cost is charged.

AIRPORT: The nearest airport for international flights is Mohamed V (Casablanca).

TIME: GMT. No changes.

HOLIDAYS: 1st January, 11th January, 3rd March, 1st May, 23rd May, 9th July, 14th August, 20th August, 6th November, 18th November, and any other religious holidays which are not at regular dates.

POLICE/AMBULANCE/FIRE: Police, 44.66; Ambulance/Fire, 15.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Passport and Police Permit required for leaving the harbour.

GARBAGE DISPOSAL: Available.

WASTE OIL DISPOSAL: Available. Contact Port Authority. Tank capacity: 3×5,000 cu.m. – 15,000 cu.m.

SEAMAN'S CLUBS: None.

WEATHER: Weather station located in Harbour Master's Office.

CHIEF OFFICER'S REPORT: (L.P.G.) May 1987.

Charts: BA. Charts No. 3257 and 806.

Anchorage: The anchorage used was that indicated on B.A. Chart No. 806. This anchorage being 1 mile off the outer leading lights and in 10 fathoms of water. There are unlit mooring buoys off the outer mole.

Pilotage: The Pilot boards from a black hulled launch off the inner harbour. Communications with the Pilot are on VHF Channel 11.

Berthing: Vessel berthed at the first berth inside the harbour on the starboard side. One tug is used to push the bow around to enable vessel to berth port side to with the bow out. The pilot boat runs the head lines to buoys. Vessel secures with 2 lines and 2 springs. The maximum draft at the berth is 20 ft. and the clearance is about 2 ft.

Berthing and unberthing is carried out at high water and in daylight hours only.

Ship's gangway used.

Cargo: A small arm 4 in., 300 ASA, is connected and disconnected by shore personnel.

Ethylene discharge at the berth (temperature −102.5°C). 3 pumps used with air back pressure of 3 Bar. Average rate of discharge 170 tonnes per hour.

Difficulties can be found when starting due to auto valve in shore line which closes in when the shore tank pressure is high. Pumps then trip out on low amps.

Ideally, vessel should start with 1 pump for 30 minutes so that shore can ascertain pressures.

Shore tank capacity 3,000 tonnes. The dewpoint was checked but no samples were taken.

There are 2 reliquefaction plants at the terminal.

Customs: The bond is sealed.

General: It is about 15 minutes walk to the town. There are a few small shops outside the gate which sell fresh vegetables and fruit, etc.

The fresh water supply on the quay is metered.

SHIPMASTER'S REPORT: (L.P.G.) April 1988.
Chart: B.A. Chart No. 860 and 861.
Port: Mohammedia. In some publications the port is known as Port Fedala.
Pilotage: The pilot boards from a black hulled launch off the inner harbour (Jetty Nord).

Pilot can be contacted on VHF Channel 11.
Anchorage: The anchorage is that indicated on B.A. Chart No. 861. Vessel anchored one mile NW of Point Sidi in a depth of 19.0 m. This anchorage was exposed.

The inner anchorage is about 0.5 miles N.E. of Jetty Nord but is very restricted.
Tugs: 3 tugs available. 1×3,000 h.p., 1×2,500 h.p. and 1 small pusher tug of 500 h.p.
Berthing: Vessel berthed at Berth No. 6 to discharge ethylene. Maximum draft over the bar is 6.6 m. at HW. Berth No. 6 accepts vessels up to 90.0 m. length. Depth at the berth is 7.0 m. at LW.

One tug used for berthing, ship's line. The tug pulls the vessel's bow round to starboard off the berth and vessel berths port side to, head out. The pilot boat runs the headlines to the buoy. Moorings forward consisted of 2 headlines and 3 springs. Similar moorings required aft.

Berthing is carried out during daylight hours only and at or near to high water, depending on draft. Berthing is carried out with a wind force up to Force 5.

Departure depends on draft but usually 3 hours either side of high water.

Ship's gangway used.

Berth No. 1, which is just West of Berth No. 6, handles vessels up to 125.0 m. LOA with a maximum draft inward of 6.6 m. The depth alongside the berth is 8.0 m. at low water. Berth No. 1 is used for chemical handling.
Cargo: Ethylene is discharged through 1×4 in. 300 ASA arm. Shore personnel connect and disconnect arm. The best discharge temperature is –102.5° C. The pumping rate varies with the temperature and ranges from 170 t.p.h. to 60 t.p.h. if the discharge temperature is high. The auto valve ashore closes if the temperature rises. The ethylene storage tank is a short distance from the berth and holds 2,800 tonnes. The tank is cooled to –103° C by vapour boil – off pumped by two Sulzer compressors to VCM production tank some distance away.

The discharge pressure again varies as temperature, but at full rate, back pressure was about 3 Bar.

When discharging, it is advisable to use one pump for about 30 minutes so that the shore can ascertain pressures. Trouble can be found when starting, due to the auto valve in the shore line, which closes when shore tank pressure is high, pumps then trip out at low amps.

About 1,500 tonnes of ethylene is imported each month.
Customs: The bond is sealed.
Shore Leave: Shore passes are issued, these are to be returned prior to departure. There is a guard on the gate.
General: It is about 15 minutes walk to the town.

The exchange rate for the Pound Sterling on our visit was 14 Dirhams to the Pound Sterling.

There are a few shops outside the gate which sell fresh vegetables, fruit, etc.

Fresh water available on the quay and is metered.

All services are available from Casablanca which is about 15 miles to the South.

Doctor available locally.
Developments: There is a new jetty for tankers inside the new outer breakwater. There are 2 berths for handling of LPG, chemicals, Naphtha and crude oil through Chicksan arms. Vessels berth head out.

SHIPMASTER'S REPORT: December 1988 (Updated 1992).

The following is an update of the Shipmaster's Report, dated April 1988.
Tugs: An additional tug of 2,500 h.p. is available.

Large tankers berthing at the Outer Harbour may require the assistance of an additional tug from Casablanca.
Berthing: Additional spring lines required if there is a large swell.

Daylight berthing only for LPG carriers. Product carriers berth between 0500 hrs. - 2000 hrs. Time depends on draft, but usually at or near HW.

Vessels at Berth No. 6 can sail at any time, depending on draft, but generally 3 hours either side of HW.

Pilot often unavailable between 2200 hrs. and 0600 hrs. (in December 1988 we sailed at 0100 hrs.).

Berth No. 1 used for chemicals and refined products.

Berth No. 2, inside of Berth No. 1, is used for refined products and loading salt. Depth about 7.0 m.
Cargo: Chicksan cooled with ship's condensate.
Watchman: Onboard throughout vessel's stay.
Officials: No Clearance at anchorage. In rare cases, crew changes are permitted at the anchorage.
Time: Summertime, GMT plus 1 hour, from June to September.
Airport: About 30 minutes by motorway to airport which is S.E. of Casablanca. West Europeans need "Negative Visas".

SHIPMASTER'S REPORT: October 1989 (Updated 1992).
Documents Required:
5 copies Crew List.
2 copies Stores List.
2 copies Crew Declaration List.
Cargo Manifest and Cargo Documents.
Pilotage: Pilotage is compulsory for tankers entering or leaving. Pilot boards about 2 miles N.W. of the breakwater in a pilot boat with "Pilote" written on the sides. Pilots keep watch on VHF Channel 11.
Anchorage: It is advisable to drift West or Northwest of the breakwater while vessel is awaiting berthing instructions as the holding ground is poor. Many ships have lost both anchors as the anchorage area is exposed to weather.
Restrictions: Berthing of tankers is carried out in daylight hours only. Vessels can sail anytime.

Vessels do not berth when the swell height is more than 3.0 m.
Tugs: Normally, 5 tugs are employed for berthing. The 3 small tugs belong to the Harbour Authorities (ODEP) and 2 tugs (one each tied up forward and aft with tug's line) of 2,500 b.h.p. each belonging to "Offshore Maroc". Tugs join vessel Eastward of the breakwater. Sufficent Notice of Arrival must be given to the Agent as these 2 tugs come from Casablanca.

During the months of December, January and February, a considerable amount of surging of the vessel is experienced while alongside due to an enormous amount of swell that builds up inside the breakwater. During this period, it may be necessary to employ at least 2 tugs to keep vessel alongside, otherwise the mooring ropes part.
Breakwater: The breakwater extends about 2,800 m. into the sea. (See "Plan").
Berthing: At present, 2 jetties are in operation:
Jetty "A": For tankers from 15,000 d.w.t. to 100,000 d.w.t.
Max. length of tanker 260 m. (Minimum 180 m.).
Max. draft 16 m.
3 × 12 in. Chicksans for discharging oil products.
1 × 8 in. Chicksan for loading naphtha.
1 × 8 in. Chicksan for receiving dirty ballast.
Jetty "B": For tankers from 25,000 d.w.t. to 150,000 d.w.t.
Max. length of tanker 290 m. (Minimum 190 m.).
Max. draft 17 m.
3 × 16 in. Chicksans for discharging crude oil.
2 × 10 in. Chicksans for discharging oil products.

There are plans to build 3 more jetties with a total wharfage of 470 m.

The ship's head is 044° when secured to the jetty.

The dirty ballast receiving facility can receive 15,000 cu.m. of dirty ballast.

There are 10 dolphins for securing vessel at each berth and vessel is moored with 4 head lines and 4 stern lines, 2 breast lines and 4 back springs forward and aft.
Fresh Water: Connection available on the jetties and there is no restriction on the amount of water that can be taken.
Gangway/Deck Watchmen: 3 deck watchmen belonging to a private company are necessary.
Identification Cards: I.D. cards are issued by the Immigration Authorities and are required for seamen going ashore. It is advisable to send the Crew List in advance to the Agent.
Shore Leave: Crew members wishing to go ashore have to walk about 2.5 km. to the main gate. There is no transport provided by the terminal up to the main gate. From the main gate, taxis and buses are available to go either to Mohammedia town or to Casablanca.

REPORT: November 1994.
Pilotage: Compulsory for vessels entering or leaving the harbour or shifting berth. Vessels may berth/leave day and night-time, except gas tankers who berth/leave in daytime only. All the movements in the basin to be effected when conditions are possible. Pilot on VHF Channels 16 and 11.
Anchorage: For vessels entering the basin, there are 3 good anchorages in depth of 6.5 – 11 fathoms, about 1 mile N.E. of the entrance.

Good holding ground, but due to the heavy swell and the comparatively shallow water, this anchorage becomes dangerous in bad weather.
Entrance: Entry from N.E. Leading lights and direction lights lead from the sea into the harbour. The bottom in the entrance is hard rock.
Restrictions: Vessels with a draft over 15 ft., wishing to berth in the basin, are obliged to wait for tide. Maximum length and draft are 120 m. and 6.7 m. respectively.
Tankers: New Terminal: The new Terminal is located in position Lat. 33° 43' 45" N., Long. 7° 23' 24" E. Diameter of swinging area is 1,000 m. Vessels may be berthed in daytime only, but can sail by night. Mooring is effected by 20 nylon ropes (8 head/stern lines, 4 breast ropes, 8 spring ropes). Wires can also be used, but must have nylon tails (200 m. length each).
Connections at the new Terminal:
Berth 'A': Length 260 m., 3 discharging arms of 12 in. diameter, with 15 Bars pressure, 1 loading arm 8 in. diameter and 1 deballasting arm 8 in. diameter.
Berth 'B': Length 260 m., 3 discharging arms of 16 in. diameter for crude and 2 discharging arms 12 in. diameter for LPG.
Tugs: There are 5 tugs. 2×6,000 h.p., 2×1,800 h.p. and 1×500 h.p.
Health/Medical: Sanitary Control Officer boards immediately after arrival for Pratique delivery. In the event of any suspected disease or fever on board, it is necessary to advise the Agent 24 hours before arrival by radio. Pratique is automatic after calling at another port in Morocco.

There is a hospital and clinics in Mohammedia, and others in Casablanca (16 miles away). Vaccinations can be arranged.
Radio: Mohammedia Port and Pilots maintain listening watch on VHF during office hours (Channels 16 and 11).
ETA: Vessel should advise Agent of ETA at least 24 hours before arrival.
Facilities: Towage, launch service, medical, fresh water, dirty ballast, rubbish collection, provisions, repatriation, surveys, radar/gyro and radio repairs.
Fire Precautions: All tankers are confined by gates and watched over by special harbour firemen.
Gangway/Deck Watchmen: Watchmen are compulsory.
Identification Cards: Passport and police permit required for leaving the harbour.
Consuls: There are no consuls in Mohammedia. All consuls are in Casablanca (16 miles away).

AUTHORITY: Office d'Exploitation des Ports, Direction d'Exploitation du Port de Mohammedia, B.P. 98, Mohammedia, Morocco. *Tel:* 32.47.92, 32.40.76, 32.40.77, 32.40.78. *Telex:* 22969 M. *FAX:* 32.40.75. *Contact:* Commandant de Port.

PORT NADOR (Beni Enzar): 35.17 N. 02.56 W.

DOCUMENTS:
9 copies Crew List.
5 copies Passenger List.
1 copy Cargo Manifest.
1 copy Check List.
2 copies Maritime Declaration of Health.
3 copies Stores List.
3 copies Personal Effects List.
3 copies Arms and Ammunition List.
1 copy Bills of Lading.

PILOTAGE: Compulsory. Pilot boards 0.5 miles N.E. of breakwater, and requires one hour's notice of arrival.

ANCHORAGES: East to N.E. of main breakwater at a distance of 0.5 miles – 2.0 miles.

RESTRICTIONS: Depth at the entrance 12.0 m. Depths alongside 5.0 m. – 13.0 m.

MAX. SIZE: 60,000 d.w.t.

HEALTH: Advise "Saniport Nador" via Agent 12 hours before arrival if sickness onboard or if coming from an infected area.

RADIO: All vessels to advise ETA 72 hours, 48 hours and 24 hours prior to arrival.

Arrival advice to include ship's name, call sign, nationality, g.r.t., n.r.t., LOA, draft on arrival, last cargo and if any dangerous cargo on board.

VHF: Contact Port Control on Channel 16, 3 hours prior to arrival.

TUGS: 1×1,800 h.p.

BERTHING:

	Berth No.	*Length* (m.)	*Depth* (m.)
Mole I	7, 8, 9	550	10.0
Mole I	10, 11, 12	307	7.0
Mole II	1, 2, 3	420	13.0
Mole II	4, 5, 6	600	10.0
Fishing Quay		280	5.0

CRANES: 5×10 tons capacity and 7×6 tons capacity.

SPECIALISED CARGO HANDLING FACILITIES: 2 Ro-Ro ramps on Mole I at Berths No. 7 and 12.

MEDICAL: Facilities available.

TANKERS: One berth of 100 m. for tankers and one berth of 100 m. for LPG on the main breakwater. Depth alongside 13.0 m. (designed depth).

DENSITY: 1025.

FRESH WATER: Available.

FUEL: Available by tanker lorry.

CONSULS: Spain. British and French at Oujda.

REPAIRS: Minor repairs possible.

SURVEYORS: Classification societies in Casablanca.

GANGWAY/DECK WATCHMEN: Compulsory.

REPATRIATION: Facilities available.

AIRPORT: Oujda, 140 km., and Melilla close by.

TIME: GMT.

BANKS: Facilities available.

GARBAGE DISPOSAL: Collection arranged by the Port Authority.

SHIPMASTER'S REPORT: November 1979.

Documents: 6 Crew Lists, 3 Stores Lists, Vaccination List.

Pilotage: Compulsory. Pilot boards off the breakwater and requires 1 hour's notice.

Anchorage: About 0.5 miles N.E. of the breakwater.

Restrictions: Vessel is able to enter and leave at any stage of the tide, day or night.

Max. Size: LOA 500 ft. (approx.). Max. draft 8.5 m. (approx.). Size of vessel limited by swinging room. Underkeel clearance of 1.5 m. required.

Radio: Nador Radio.

VHF: Port Authority and Pilot on Channel 16.

Tugs: One tug of 600 h.p. An additional tug of 1,500 h.p. may be available.

Berthing: Berth No. 1: The berth is close to the entrance and the max. size permissible is approximately 400 ft. LOA and approximately 8.5 m. draft. The least depth in the channel from sea to the berth is 13 m. The nature of the bottom at the berth is sand and mud and the density is 1025.

Cargo Facilities: There is 1 ore loader for small vessels. There are 4 mobile cranes with safe working load of 6 tonnes. No Ro/Ro facilities. There is ample mechanised equipment for handling palletised cargoes. There is storage space for break-bulk cargoes and storage for palletised cargoes, however, there is little covered space. There is no equipment for handling containers and there is no storage space for containers as there is no hard ground.

Facilities: The following are available: fresh water, fresh provisions, small repairs, small machine shop, airport (at Oudja 140 km.), Lloyd's Surveyor, Salvage Surveyor, laundry service, doctor and hospital, groceries and meats.

Consuls: Spanish Consul located in the port. British and French Consuls at Oudja.

Time: GMT. No changes.

General: Port Nador is situated next to Melilla, and the same entrance between the breakwaters is used for entering, although both ports are run entirely separately, Melilla being Spanish and Port Nador being Moroccan.

The port under construction is to have 14 berths, at the moment there are only 2 berths working, both of which are only partially completed. The only shed constructed is used for palletising and storing fruit.

Maximum intended draft when all is completed will be 13 m.

Developments: Port construction is taking place at the present time and eventually 14 berths will be available. There will be 1 oil/mineral berth with depth of 12.5 m., 2 berths with 8.5 m., 1 berth with 6.5 m. and 1 berth with 5 m. in the initial stages.

REPORT: September 1980.

This port is still under construction but for the last 2 years has been open for trade of iron ore, lead and citrus fruit (seasonal). There are 3 piers now in use as follows:

Mole No. 1 (S.W. side) for the shipping of iron ore.
Mole No. 2 (N.E. side) for lead and general cargo.
Mole No. 2 (S.W. side) for citrus fruit.

The N.E. side of Mole No. 1 will also be for minerals but is still under construction.

REPORT: January 1984.

Ships have discharged on voyage charter at Nador on two occasions with similar experiences in the discharge of grain. Ships berthed at an open quay and the cargo was 'dumped' by portable cranes of light construction which are fitted with anemometers, in an area too far from the side of the ship to allow the use of ship's cranes. When the wind reaches Force 4 it is considered too dangerous to continue discharge and work ceases.

Charterers claim that work is stopped by the Port Authorities and that such time lost does not count as laytime, claiming it is a non weather working day.

This method of discharge is used because of a shortage of lorries, which, if they were available, could be loaded using ship's gear alongside the ship during such stoppages for wind.

Whilst no delays have been experienced at the port of Jorf Lasfar, the Master informed us that the same method of discharge was used at that port.

Owners should endeavour to protect themselves when fixing business which is likely to include discharge at this port as the wind seems to reach Force 4 on many days and a lot of time is lost resulting in costly delays.

SHIPMASTER'S REPORT: December 1989.

On arrival at Port Nador all Passports for non-Moroccan crew were taken ashore by a representative from the Immigration Authorities. A non-Moroccan crew member wanted to go across the border to Melilla (the Spanish part of the harbour) and therefore wanted his Passport back, he was told by the Agent that the Passports would not be released until time of departure, in exchange for the shore passes issued on arrival.

When the Master spoke to the Agent to try to find out what the problem was, he was told that if we wanted to go to Melilla, we should have informed the Agent/Authorities on arrival, in order to have our Passports processed.

No laundry service available in the Port of Nador.

SHIPMASTER'S REPORT: April 1993.

Documents:
8 copies Crew List.
1 copy Maritime Declaration.
2 copies Arms and Ammunition List.
1 copy Passenger List.
2 copies Cargo Manifest.
1 copy Ship's Stores List.
1 copy Crew Personal Effects List.

Pilotage: Compulsory. Pilot boards about 1-1.5 miles N.E. of breakwater. Pilot is available between 0630 hrs. – 2200 hrs., and tug is available between 0630 hrs. – 2000 hrs. only.

Approaches: It is recommended that vessels approach at a minimum speed of about 2-3 knots when about 2 miles off breakwater and head for breakwater of Melilla (Spain).

Berthing: There is only one berth of 400 m., where large vessels can be berthed with max. draft of about 8.5 m. Our vessel (Panamax) is the longest in port in last two years. There is only one small tug of about 1,800 h.p. available, so it is very difficult to berth if wind is stronger than 10 knots, and especially if it is Westerly. It is advisable to berth with at least 4 lines, 2 breast lines and 2 springs, fore and aft.

Stevedores: The port is run by ODEP Stevedores Co., which is government-owned. Berth No. 1/2 has 4 mobile cranes. The cranes are very high and have good plumbing reach. The drivers are professional and can discharge up to 1,000 tonnes of wheat per 2 shifts. Normal shifts are 0700 hrs. – 1500 hrs. and 1500 hrs. – 2300 hrs. Sunday is a holiday, but overtime can be arranged. Cargo is either dumped directly on jetty or at times into trucks, which in turn dump a few feet away on jetty. Cargo lies in open space most of the time.

Medical: All facilities are available at nearest town Nador, which is about 15 km. away. Taxis are available at main road, which is about 2.5 km. – 3 km. from jetty.

Fresh Water: Available by shore connection. Cost is U.S.$1.0/ton. The loading rate is about 25 t.p.h.

Airport: Nearest airport in Morocco is Oujda, about 140 km. from port. The other airport which can be used is Melilla (Spanish territory). Visas may be required by persons belonging to certain countries, if they wish to go ashore.

Weather: In April, winds mostly from West or E.S.E. In December and January, it is very difficult to keep vessel alongside as strong gusty Westerlies blow and push vessel off berth. Many vessels had experience of mooring ropes being parted.

Watchmen: Compulsory by Harbour Master's order. Watchman normally expects food to be provided by vessel.

Provisions: Available, but need very careful checking of prices as all ship chandlers hike their prices to double normal price. One may need to go ashore with Agent to confirm prices of certain items, prior to getting reductions in their quoted rates.

General: As winds normally reach about 20 knots – 25 knots, crane drivers refuse to work if over 30 knots, depending on situation as to whether they are just dumping on jetty or have to align in funnels.

AUTHORITY: Direction d'Exploitation du Port de Nador, B.P. 88, Ben Ensar 62050 (Nador), Morocco. *Tel:* 608518. *Telex:* 65794. *FAX:* 608531. *Contact:* Harbour Master.

SAFI: 32.19 N. 09.12 W.

DOCUMENTS: Clearance procedure is very simple. 3 Crew Lists, 1 Personal Effects Lists, 3 Passenger Lists and 1 Stores Lists only are required. Other documents are presented on berthing.
PILOTAGE: Arranged by vessel's Agent, to whom a correct ETA should be given. There is VHF radio contact with the Pilot Station and Harbour Master's Office. The pilot boat is located inside the harbour and the Pilot boards in position Lat. 32° 19' N., Long. 9° 16.1' W. Pilot ladder only is required.
ANCHORAGE: Recommended anchorage is S.W. of harbour entrance. Safe holding ground for 25,000 d.w.t. vessels. Vessels should keep port entrance clear.
MAX. SIZE: Vessels with a draft of more than 28 ft. and up to a max. of 30 ft. enter and sail at high water.
Also see "Shipmaster's Report".
HEALTH: Health Officer boards shortly after berthing but Agent must be advised before arrival if suspected disease or fever on board. Health clearance in one Moroccan port holds good for the next.
RADIO: Casablanca Radio for normal traffic or Safi Radio for local R/T traffic. Harbour Radio VHF Channel 16.
TUGS: Tugs stand by vessel inside breakwater and, usually, ship's lines are used.
BERTHING: Vessels berth in order of arrival. Port used for export of manganese and barytes. No night entry after 1900 hrs.
STEVEDORES: Gangs are arranged by vessel's Agent. Night work is possible from 1800 to 2200 hrs. and, very exceptionally, until 2400 hrs.
MEDICAL: Advance notice of required medical attendance is advisable but not essential. Modern hospital and clinic are available. Vaccination is only necessary when vessels have called at cholera and yellow fever ports.
TANKERS: Only small tankers used in this port. White products and gas oil imported; no export. Ammonia tanker berth max. draft HW 30 ft.
DENSITY: Density varies between 1024 and 1026.
FRESH WATER: Availability not limited; by hoses from quay.
FUEL: Limited supplies gas oil; diesel available but must be stemmed. Fuel oil and large quantities diesel, gas oil can be delivered by tanking lorry from Casablanca.
CONSULS:

Denmark	Tel: 30.39	France	Tel: 27.97
El Salvador	Tel: 28.76	Portugal	Tel: 23.58
Finland	Tel: 31.40	Sweden	Tel: 29.06

REPAIRS: Major repairs not possible; small workshops only for repairing fishing boats.
GANGWAY/DECK WATCHMEN: Watchmen necessary. One watchman day and night.
OPENING/CLOSING HATCHES: Normally done by crew but can be arranged by stevedores with advance notice.
CUSTOMS ALLOWANCES: 200 cigarettes, and one open bottle of spirit allowed each man. Bond is sealed and heavy fines are imposed by Customs for smuggling.
REPATRIATION: Repatriation by air or sea through Casablanca, 150 miles away.
AIRPORT: Nearest at Casablanca, served by principal European airlines.
TIME: GMT. No changes.
HOLIDAYS: On the following holidays no work is possible: 1st January (New Year's Day); 3rd March (Coronation Day); 1st May (Labour Day); 18th November (Independence Day). Other Moslem and Christian holidays are subject to last minute decisions as far as tariff is concerned, but work can be arranged.
TELEPHONES: No telephones can be placed on board. Public telephone available on the quay during working hours only.
SHORE LEAVE: Police permits are required by crew and are delivered by Immigration Authorities.
IDENTIFICATION CARDS: These are needed.
GENERAL: Masters are strongly advised to take local currency from their Agent. Landing of foreign currency encourages black market transactions and incurs confiscation and heavy fines as well as delays by the Customs Authorities.

SHIPMASTER'S REPORT: January 1983.
Max. Size: Max. draft on entry was said to be 35 ft. (10.67 m.) on HW.
At Phosphate Wharf vessels loading to more than 8.8 m. must – due to berth/draft restrictions – work for completion on HW. Max. LW draft at inner end was given as 9.3 m. minus 0.5 m. for surge effect.
Air draft problems affect large vessels in ballast and it is advisable to keep tank ballast in until alongside.
Conveyor outreach limits can cause problems for wide beam twin hatch vessels.
Berthing: Restriction on night entry on longer vessels applicable. (This vessel sailed at 2300 hrs. on HW with a draft of 10.54 m. Pilot transferred to another large deep draft vessel which was to move into our berth after we cleared).
Stevedores: At Phosphate Wharf, 24 hour working to suit tides, via 2 conveyors each of capacity 750 t.p.h., weights found to be accurate.
General: Small amounts of foreign currency may be taken/used ashore; occasionally gate officials enter amount on back of landing permit.
Phosphate company generally require all final ships' paperwork to be signed in their office ashore.

AUTHORITY: Capitainerie de Port.

TAN-TAN: 28.29 N. 11.01 W.

The following is a translation of French Notices to Mariners.
The new fishing port of Tan-Tan is situated close to and to the S.W. of Cape Nachtigal. The main breakwater is 1,698 m. long, running N.E. for about 900 m. and then to the East towards the coast. The counter-dyke (230 m.) is perpendicular to the main breakwater at about 100 m. from its end. In the extension of the counter-dyke, and starting from the coast, the cross dyke is 548 m. long.
The port entrance faces S.W., the passage is about 100 m. wide between the ends of the counter-dyke and the cross dyke.
The port has 2 berths with 6 m. and 4 m. depth, one berth on the cross dyke and the other on the main breakwater. It also has a slipway 100 m. long and 50 m. wide.
Inside the port care must be taken when the winds are from West to North which produce a fairly strong undertow.
In October 1979 there were no lights or buoys. Arrival by day is recommended. A characteristic gap in the cliff and buildings to the N.E. of the port, together with a mountainous summit to the South will be seen. To the North of the main breakwater, the sea breaks over a barrier reef. Near the port the current runs Southwards.
Anchoring is possible in 12 m. – 13 m. of water, with sandy bottom and very firm, 1.2 miles to the W.S.W. of the end of the main breakwater.A shallow of 6.4 m. is located 0.5 miles to the West of the end of this breakwater.

TANGIER: 35.47 N. 05.48 W. (See Plan)

PORT LIMITS: To the South by the coast and port installations and to the North by a line joining Pointe de Malabata and the Mouth of L'Oued Elyhoud.
DOCUMENTS: Required on arrival:
Health Declaration.
2 Crew Lists.
7 Cargo Manifests.
5 Lists of Passengers Disembarking.
4 Lists of Passengers in Transit.
Required on departure:
5 Cargo Manifests.
5 Manifests of Passengers Embarking.
PILOTAGE: Pilotage is compulsory for ships of more than 50 g.r.t. for entering, leaving and shifting in harbour. Departure possible throughout 24 hours. Pilot on VHF Channel 16/12 throughout 24 hours. Vessels should advise arrival 6 hours and 1 hour in advance.
Pilot boards 0.5 miles North of head of breakwater.
ANCHORAGES: There are good anchorages to the East and Southeast of the breakwater head in depths of 10 m.–16 m.
RESTRICTIONS: The harbour area between the breakwater and the extremity of the main pier has a minimum depth of 9 m.
Wreck Buoy: It is very important that vessels keep the wreck buoy (35° 47.27' N., 05° 47.05' W.) on their port side when entering the port.
HEALTH: Apart from the international laws which must be obeyed, vessels coming from an infected area must send in advance (12 hours) a telegram to "Saniport Tangiers" describing the state of the vessel and persons on board.
Vessels having a sick person on board to be landed at the port must send a telegram as soon as possible to "Saniport Tangiers" with all details concerning the case to be brought ashore and await the corresponding reply.
Evacuation of sick persons is effected by ambulance, either municipal or private, after having advised the Port Health authorities.
RADIO: Tangiers Radio listens on 2182 kHz and VHF Channel 16. Weather forecast at 0915 hrs. and 1630 hrs. GMT on 1911 kHz.
TUGS: The port owns 1 tug of 1,500 h.p.
BERTHING: Mole de Commerce:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
TC	114	12.0	Large Cargoes
Quai C1 & C2	170	12.0	TC and Various
P1	130	9.0	Cereals
P2	100	6.0	Containers
P3	100	6.0	Containers
P4	100	4.0	Tugs
P5	100	2.5	Fishing Boats
P6	100	8.5	Liners
P7	100	8.5	Cruise Ships
P8	100	8.5	Various
T1	120	5.0	Small Car Ferries
T2	120	5.0	Small Car Ferries
T3	115	4.0	Small Car Ferries/Ro-Ro
T4	165	6.0	Large Car Ferries/Ro-Ro
Ro-Ro	130	6.0	Ro-Ro Terminal
Post Petrolier	115	9.0	Tanker Terminal
Quai Peche	270	2.0 – 3.0	Fishing
Quai Capitainerie	180	2.0 – 3.0	Fishing/Yachting
Quai Barcasse	190	2.0 – 3.0	Fishing
Quay Alyscaphes	160	2.0 – 3.0	Navy

CRANES:
2 rail mounted cranes with capacity of 10 tons.
4 rail mounted cranes with capacity of 6 tons.
2 mobile cranes, lifting capacity 6 tons.
1 mobile crane, lifting capcity 3 tons.
1 container crane with capacity of 45 tons.
1 crane, lifting capacity 30 tons.
1 autocrane for heavy goods with capacity of 30 tons.

STEVEDORES: Working hours: 0700 hrs. – 1500 hrs., 1500 hrs. – 2300 hrs.
MEDICAL: Hospital and clinics are available.
TANKERS: Length of berth 115 m. Butane gas carriers also handled.
FRESH WATER: Available.
FUEL: Only available to fishing vessels.
CONSULS:

Finland	932085	Spain	935625
France	932039	Sweden	935872
Italy	931064	Switzerland	934721
Netherlands	932145	United Kingdom	935895
Norway	937173	U.S.A.	935904
Portugal	931708		

REPAIRS: Slipway for fishing vessels.
GANGWAY/DECK WATCHMEN: Advisable, order through Agent.
AIRPORT: International airport 12 km. from port on the road to Rabat.
TIME: GMT. No changes.
TELEPHONE: Installation only possible at the jetty.
POLICE/AMBULANCE/FIRE: Police: Tel. 19; Town Ambulance: Tel. 932444, 934242 and 937683; Private Ambulance: Tel. 921089; Fire Brigade: Tel.15.
GENERAL: *Tides:* Height of Springs, 2.20 m. Height of neaps, 0.50 m. *Wind:* (October – May) W. and S.W., (May – October) E.N.E. (sometimes Force 8).
Swell: From the N.W. in Winter which creates fairly rough seas in the port.
Currents: Insignificant.
AUTHORITY: Direction d'Exploitation du Port de Tanger, B.P.305, Tangier, Morocco. *Tel:* 936040/45. *Telex:* 33690. *FAX:* 931505. *Contact:* Port Director (Tel: 936040). Port Captain (Tel: 931882). Commercial Division (Tel: 936040).

VILLA CISNEROS (Dakhla): 23.42 N. 15.55 W.

DOCUMENTS: *Foreign Vessels*
- Crew List.
- Health Pratique.
- Passenger List.
- Cargo Manifest.
- Safety Equipment Certificate.
- Radio Safety Certificate.
- Seaworthiness Certificate.

PILOTAGE: Pilot is necessary to cross the bar and for river navigation. Pilot joins at anchorage. Pilotage compulsory for all vessels over 50 g.r.t. Contact Pilot by radio-telephone, via Port of Villa Cisneros Radio operating on 2182 and 2626 kHz from 0800 to 1300 hrs. and from 1500 to 2000 hrs. GMT.
ANCHORAGES: In depths of more than 10 m. about 0.6 miles East of the breakwater head. This situation is well protected from swell from the S.W. but open to winds from the N.E. which are frequently strong creating difficult conditions for very small vessels. There are no mooring buoys.
Vessels loading transhipment cargo anchor in position with Punta Galera Light bearing 030°T, 1.2 miles off. The prevailing winds blow mostly from the North up to Force 3 with a long low swell mostly from a Northwesterly direction.
MAX. SIZE: Length 100 m., beam 12 m., draft 5 m.
HEALTH: Masters are required to complete a health certificate for the Port Captaincy declaring that the vessel has not called at any infected ports.
TUGS: None available, only one small launch which may assist.
BERTHING: Breakwater of 750 m. length extends towards the S.E., berths alongside the last 200 m., 1 concrete pier for small vessels, 3 small jetties enclosing 2 docks, can be used by vessels of medium size.
STEVEDORES: Employed by Port Authority and engaged by ship's Agent.
MEDICAL: Hospital available for any kind of medical attention; doctors and ambulance service available.
TANKERS: Moor at Jetty No. 2. Pipe-lines 4 in. diameter.
FRESH WATER: On the quays are 3 hydrants, capacity 3 t.p.h. and 4 of 2 t.p.h.
FUEL: Atlas Company can supply fuel subject to advance notice.
CONSULS: No local representation.
REPAIRS: Only facilities for very minor repairs.
OPENING/CLOSING HATCHES: Opened and closed by crew.
CUSTOMS ALLOWANCES: Crew are allowed to take only sufficient tobacco ashore for their own consumption. It is not permitted to take alcohol ashore.
REPATRIATION: Can be arranged provided that documentation is in order.
AIRPORT: Situated 1 km. from the port. 5 flights per week.
TIME: GMT is used all year round.
HOLIDAYS: Mohammedan Holidays: Aid el Queber (2 days); Aid el Mulud (1 day); Aid el Seguer (2 days).
POLICE/FIRE/AMBULANCE: Police Station situated 100 m. from the quays. Fire, Tel: 18. Ambulance, Tel: 17.
SHORE LEAVE: Allowed without restriction.
IDENTIFICATION CARDS: Seamen going ashore must take an identity card or a shore pass, issued by the Master.

NOTES

Please also advise Shipping Guides Ltd.

Mozambique

BEIRA: 19.46 S. 34.50 E. **(See Plan)**

PORT LIMITS: Vessels are considered to be "arrived ships" when they enter the pilotage area, i.e. when they enter within a radius of 5 miles from the "P" Buoy (Pilot Buoy). The custom of the port is that vessels are in "Free Pratique" only when they have entered port and have been cleared by the Immigration Authorities. Immigration will only clear vessels in port.

LOCATION: Centrally situated in Mozambique's Sofala Province, the port of Beira serves the Mozambican interior as well as the Republics of Malawi, Zimbabwe, Zambia and Botswana.

The port is located along the Pungue River, 17 km. from the mouth of the estuary.

The entrance to the port is 12 nautical miles from open waters to the Pungue River mouth along the 200 m. wide Macuti Channel, with a maximum draft of 31 ft.

Anchorage facilities for deep sea vessels are located near the entrance of the Macuti Channel, and another anchorage for shallow draft vessels is located near the port entrance at the Franquia.

DOCUMENTS:

- 7 copies Crew List.
- 6 copies Passenger List.
- 2 copies Supplies List.
- 2 copies Stores List.
- 4 copies Cargo Manifest.
- 3 copies Cargo Plan.
- 5 copies Ports of Call List.
- 2 copies Animal List.
- 2 copies Vaccination List.
- 1 copy Health Certificate.
- 1 copy Clearance from Last Port.

Above documents are to be completed and presented at the time of report to the local authorities.

PILOTAGE: The pilotage is compulsory. Pilots to be requested on VHF Channel 12 (or 16).

Advanced notice of ETA required at least 24 hours before arrival, through local Agents, and then 4 hours before arrival at Barre Anchorage, via VHF.

The pilot boat has a dark red hull with white superstructure. The area of boarding is usually at "P" buoy, except during periods of strong winds over 25 knots, when the pilot services will be suspended, unless the incoming vessel agrees to have one of the harbour tugs under Pilot's direction, steam ahead of the vessel.

The usual requirements for ladders are in force, and Pilot boarding requires the ladder to be about 3 ft. – 4 ft. above the water.

ANCHORAGES: Anchorage facilities for deep sea vessels are located near the entrance of the Macuti Channel (Barre Area), and another anchorage for shallow draft vessels is located near the port entrance (Franquia area).

RESTRICTIONS: Berthing is possible throughout 24 hours. Night navigation only for vessels up to max. LOA 140 m. and max. draft 7.5 m.

MAX. SIZE: Max. LOA 210 m. Max. draft 10.5 m. at Springs and 7.6 m. at Neaps.

HEALTH: International health regulations are to be observed.

Any vessel which is suspect should inform the Harbour Office as well as the local Agent.

RADIO: Cape Town Radio.

VHF: Beira Pilots and Beira Port Control on VHF throughout 24 hours.

New Port Traffic Control Centre is equipped with radar and in operation.

All early reports, ETA, etc., through the local Agents.

TUGS: Join incoming vessels at inner anchorage, about 1 mile distant from quays. Ship's lines used. 2 tugs available, up to 2,500 h.p.

BERTHING:

Quay	*Length* (m.)	*Depth* (m.)
Chiveve	448	4.5
Quay 1 (Fishing)	183	6.0
Quay 2 – 5 (M.C.T.)	646	12.0
Quay 6 – 10 (G.C.T.)	755	9.0 – 9.5
Quay 11 (Old Oil Terminal)	228	9.5
Quay 12 (New Oil Terminal)	264	13.0

CARGO HANDLING FACILITIES: *Multi-Purpose and Container Terminal (Berths No.2 – 5):* 200,000 sq.m. well illuminated container yard, with 144 reefer points.

Handling capacity 100,000 TEU/yard via 2 Ansaldo gantry cranes with 40 tons container handling capacity and 50 tons hook lifting capacity each, and 1 Kone rail-mounted transtainer with same capacities.

Container handling equipment consists of 3 Kalmar forklifts of 42 tons, 1 Kalmar forklift of 32 tons, 2 Kalmar forklifts of 28 tons, 2 Kalmar forklifts of 16 tons, 8 tugmasters, 10 heavy duty trailers, 35 terminal chassis are available and 20×20 ft. bolsters.

Stripping and stuffing operations of containers are available in a 8,100 sq.m. warehouse, where 6 forklifts of 1.5 tons are available.

Special dedicated areas are available for general cargo and breakbulk, as well as for dangerous cargo.

Ro-Ro Terminal: 21,000 sq.m. of paved area are available, handling capacity of 3,540 tons per day and with handling capacity of 425,000 tons per year.

Coal/Ore Terminal: The port has a coal storage capacity of 150,000 cu.m., and the Terminal can operate at a production speed of 700 tons per hour via one outgoing transport belt, while the discharge rate of the railway wagons will be 400 tons per hour at the stacking area.

Bulk Handling: One mobile bulk handling unit of 300 t.p.h. and 2 mobile bulk handling units of 90 t.p.h. each, as well as 4 bagging units of 120 t.p.h. each are available in the port, operated by well trained operators.

Eight grabs are also available for other bulk handling.

Cold Storage Facilities: For citrus fruit, 15 chambers with 1,100 tons capacity (1.5°C to 4.5°C) and 7 deep freeze chambers of 490 tons capacity (−9°C to −20°C).

5 electric forklifts with sideshift are available.

General Cargo Handling Facilities: The port has 45,000 sq.m. of covered warehouses and 69,725 sq.m. of transit sheds, as well as 10 bonded warehouses of 75,000 sq.m.

Along Quays No. 6 – 10 are 25 electric cranes, with capacities of 3 tons to 20 tons.

There are 23 caterpillar forklifts of 5 tons and 12 caterpillar forklifts of 3 tons available, as well as 2 forklifts of 1.5 tons. Also 2 mobile cranes of 15 tons each are available, 5 shunting tractors and 3 bob cats.

Direct discharge onto railway wagons possible, since all quays are equipped with double rail lines.

STEVEDORES: Ordered by Agent. Vessels should advise Agent their ETA at least 48 hours in advance.

Port Cargo Working Hours: (3 shifts throughout all days): 0700 – 1500 hrs., 1500 – 2300 hrs., 2300 – 0700 hrs.

From 1100 hrs. Saturday until 0700 hrs. Monday – all overtime.

MEDICAL: Only simple diseases and first aid emergency cases are handled at the local hospital. For more serious medical aid, evacuation by air to Harare or Johannesburg will be required.

TANKERS: At Berth No. 11, a pipeline system of 12 in., 14 in. and 22 in. for unloading, and 6 in. – 8 in. for loading. Maximum handling capacity 400 t.p.h.

New Oil Berth No. 11 was the offical tanker berth, but mooring is not always possible at this berth, due to strong tidal currents.

Berth No. 12 is the actual official tanker berth, fitted with pipelines for refined products, such as diesel, gasoline, jet, avgas, fuel, etc.

The Terminal has a reserved area for installation of specialised equipment to handle gas (LPG), as soon as the natural gas reserve of Pande (Inhambane) is exploited and marketed.

Also see "Shipmaster's Reports" dated January 1994 and February 1996.

DENSITY: 1004 – 1030.

FRESH WATER: Available by hose from the quay.

FUEL: Marine diesel is available, to be delivered either by lorry or direct delivery ex-pipeline along the quay.

CONSULS: Belgium, Netherlands, Portugal and Zimbabwe.

REPAIRS: Most types of deck and engine repairs are possible, but major repair jobs are not undertaken.

DRY DOCKS: 1 dry dock 115 m.×17 m.×8.5 m., suitable for ships up to 5,000 tons, LOA 377 ft. and max. beam 55 ft.

SURVEYORS: Cargo inspector as well as P&I surveyors are available through the local Agents. Lloyd's surveyors in attendance.

GANGWAY/DECK WATCHMEN: Compulsory to employ watchmen to prevent pilferage.

OPENING/CLOSING HATCHES: By crew.

CERTIFICATES: Tonnage Certificate to be produced to Pilot, as certain port dues are based on vessel's registered tonnage.

CUSTOMS ALLOWANCES: There is no restriction on crew member holding in his cabin any amount of tobacco/wine, spirits.

CARGO GEAR: All gear supplied by stevedores except rain tents and special spreaders for heavy lifts.

REPATRIATION: Facilities exist and a valid passport is necessary as Immigration Authorities do not recognise a Seamen's Book as a valid travel document.

AIRPORT: Beira Airport is an international airport with daily flights to Harare and Maputo for onward connections to overseas destinations, as well as inland destinations in Mozambique via charter flights.

TIME: Local time 2 hours ahead of GMT. No alterations made to clocks during year.

HOLIDAYS: January 1st (New Year's Day); May 1st (Labour Day); June 25th (Independence Day) and December 25th (Family Day). Vessels are requested to "dress ship" on these days.

POLICE/AMBULANCE/FIRE: Port Police (Tel. 22920); Ambulance (Tel. 22442); Fire (Tel. 22222).

TELEPHONES: No telephones placed on vessels. Public telephones at Post Office in city centre for local and international calls.

SERVICES: Services normally available for tank cleaning, compass adjusting, minor repairs to radar and radio.

BANKS: Central Bank of Mozambique, and 2 private banks.

SHORE LEAVE: Crew members and officers are allowed ashore, and shore passes are issued against Seaman's Book or Passport at the Immigration Office near Berth No. 6.

IDENTIFICATION CARDS: Required. Passport if possible, otherwise Seamen's Book.

DELAYS: Generally no delays, but sometimes 24 – 48 hours' delay following rain or bunching of arrivals.

GENERAL: Beira port works 24 hours per day, 7 days a week (except 25th December and 1st January). Overtime to be requested by vessel's Agent.

DEVELOPMENTS: A long term master plan is to be undertaken.

The plan includes a new coal terminal for vessels up to 125,000 d.w.t. and a new bulk terminal for sugar and cereals. The access channel will also be deepened in order to accommodate larger vessels.

SHIPMASTER'S REPORT: January 1994.

Approaches:

(1) New buoy Fl. 2 every 10 secs. (Racon "M") established in position Lat. 20° 08.98' S., Long. 35° 20.03' E.
This marks the shoal patches to Southwards.

(2) "A" Buoy operational (Racon "C").

(3) Following non-operational:
Savane Lt.
Macuti Lt.
Macuti D/F Beacon and Aero D/F Beacon.

Anchorage: All vessels, apart from shallow draft coasters, anchor to Eastwards of "A" Buoy whilst awaiting Pilot. Ample water available.

Pilotage: Pilots meet vessels between "P" Buoy and Buoy No. 2.

Beira Pilot can be contacted on VHF Channel 12 and Port Control on Channel 16.

Port meetings are held at 1030 hrs. local time every day, and berthing information is available from 1100 hrs. onwards.

Shoal Patch: Immediately before the buoys marking the Western end of the Macuti Channel, a sand spit has encroached into the channel from the North. This is marked by a green buoy. On passing this buoy, we had a 2.0 m. underkeel clearance at high water (draft 8.72 m.).

Berth: Tankers berth at Quay No. 11, but a new terminal is under construction some 5 cables up-river of No. 11, and according to information will be operational by the end of February 1994.

When mooring starboard side to at Berth No. 11, ropes are sent out in following sequence:

(1) 2 springs fore and aft.

(2) 4 breast ropes forward to buoy.
4 stern lines aft.

(3) 2 headropes forward to head buoy – These ropes have to be long ones.

During spring tides, the port requires a tug to hold up for approximately 4 hours during the worst of each ebb. This is because the outgoing tide runs off the bank and pushes the vessel away from the berth.

Discharge: The rate is good and we averaged 1,000 t.p.h. whilst discharging two grades.

Water: Difficult to obtain at Berth No. 11, as no pipeline, and would have to be delivered by road tanker. Hoses to be supplied by ship. At present, Beira only has water turned on for 2 hours daily.

SHIP'S OFFICER'S REPORT: September 1994.

Vessel: Tanker from Durban with part of cargo 18,800 tonnes of Avgas for discharge.

Anchorages: Ship's anchor without Pilot in the vicinity of Racon "C" (Lat. 19° 56.02' S., Long. 35° 02.85' E.), after Pilot has been contacted. The inner anchorage is not recommended.

Pilotage: The pilot boat is not (repeat is not) stationed in the position indicated on B.A. chart, but always remains in the harbour and joins vessel in the vicinity of "P" Buoy ("Papa" Buoy). It is compulsory for all merchant vessels, and vessels to be equipped with VHF Channels 16 and 12.

Approach; Coming from the South, it is best to proceed to Lat. 20° 26' S., Long. 35° 43' E., with a course of 360°, then steer 310° to approach the Racon "M" (Lat. 20° 10' S., Long. 35° 20' E.). Racon "M" is a good target detected by radar at 23 miles. From Racon "M" proceed on the same course until Racon "C". Racon "C" has been detected at 11 miles. Pay special attention to the strong Southbound current in this area.

Berthing: Daylight berthing only as the inner channel is not well buoyed. When advised by Pilot, the vessel should proceed from the anchorage to "Papa" Buoy. Do not confuse the "Papa" Buoy (Lat. 19° 52.55' S., Long. 34° 57.3' E.) with another buoy not charted and positioned approximately 0.6 miles South of "Papa" Buoy. Keep "Papa" Buoy one cable on port side and when passed, proceed at moderate speed (4 knots – 5 knots) steering 270°. Pilot boards on starboard side, using ship's pilot ladder 0.5 m. from the water. Entrance time is around 1430 hrs. local time.

Inner Channel: The Inner Channel is not well buoyed. Our draft on entering the Inner Channel was 5.00 m. forward and 5.15 m. aft, and the minimum under-keel clearance was about 2.0 m. Pay special attention to strong tide/current as the position of the buoys may change.

Tanker Berth: It is the last section of the dock (No. 10/11), 200 m. long and only one tanker may berth. Berthing is always starboard side alongside (See "Plan"). There are 2 shore connections, one with 3×12 in. arms at the extremity of the dock, and the other generally used with 6 in. hose and 12 in. shore connection (15 m. from ship's side). Shore tanks are situated 1,600 m. from the ship, and max. pressure allowed is 5/6 kg., with an average discharge rate of 450 cu.m./hr. Max. draft permitted is 31 ft. Pay special attention to the strong tide of about 6.0 m.

VHF: Beira Port Control and Pilot on Channels 16 and 12 (24 hour service).

ETA: Via Agent only. Beira Radio is not working (may be closed).

Free Pratique: When alongside only.

Tugs: Join incoming vessel at the Inner Channel. Ship's lines used on port side. On sailing, 2 tugs are used.

Density: 1013 (approx.).

Documents:

Customs Clearance from Last Port.
10 copies Crew List.
2 copies Passenger List.
2 copies Arms/Ammunitions List.
2 copies Narcotics List.
2 copies Vaccination List (Cholera and Yellow Fever compulsory).
2 copies Stores List.
2 copies Crew Declaration.
2 copies Cargo in Transit.
2 copies Stowaway List.

Customs: Very friendly.

Fresh Water: Not recommended, but available on dock only.

Fuel/Diesel: Small quantities available, but to be ordered well in advance.

Notice: From Agent to Master:

We welcome you to Beira, on behalf of our Principals, and assure you that everything possible will be done to make your stay and that of your Officers and Crew as pleasant as possible. However, we would like to draw your attention to the following points whilst you are in this Port:

1. Local Immigration Authorities require that your Officers and Crew be present personally for check-up with respective Passports or Seaman's Books at the time of Inward and Outward Clearance.
2. It is strictly prohibited to take any photographs and/or play games in the Port area.
3. No persons from shore are allowed to board to visit your vessel without the permission of the Immigration Authorities. Their office is situated at Wharf No. 6.
4. (a) No water outlets should be discharged onto the quay.
   (b) No rubbish or refuse should be thrown overboard.
   (c) No oily water should be discharged in the river.
5. Permission is required from Port Authorities to lower any boats or gear overside into the water or over the wharf.
6. No painting of the vessel's hull permitted without permission from the Maritime Authority.
7. You should not immobilise main engine or carry out engine trials until permission has been obtained from Port Authorities. The vessel is required to maintain sufficient steam for the engines to be used at short notice.
8. Report to us immediately when stevedores, crane drivers or any other person cause damage to you or your vessel.
9. All persons wishing to come ashore must be in possession of a valid Passport or Seaman's Book, which has to be surrendered to the Immigration Office, situated at Wharf No. 6., in order to obtain a pass which permits an Officer or seaman to leave or enter the dock gates and move in the town area within the prescribed time which is indicated below:

   Everyday 0800 hrs. to 2400 hrs.

   On completion of the visit, the pass has to be returned to the aforementioned Immigration Office, who will in turn return the documents left on deposit. This procedure covers every visit which must be completed by 2400 hrs. every day, and infringement is subject to a heavy penalty/imprisonment.
10. It is strictly prohibited to throw overboard any rubbish or refuse within 12 miles of the Port area or in the Port area itself.
11. It is strictly prohibited to transfer goods from one ship to another without permission from Customs Authorities.
12. It is strictly prohibited for all Officers and crew to purchase ashore or bring to the vessel any wood carvings, sea shells, skins, ivory, precious stones and any valuable items. If anyone is found in possession of any of these items, they are liable to be confiscated by the Authorities.
13. Gangway watchman will be on board day and night. This is compulsory in case of tankers. Vessels carrying dangerous cargo will have on board, day and night, gangway watchman and a Maritime Authority representative also.
14. Please be warned that there is a large incidence of stowaways in Beira. You are requested to take all measures to prevent unauthorised persons boarding your vessel.

SHIPMASTER'S REPORT: February 1996.

Berth: Berth No. 12.

Moorings: 3:2:2 each end and port anchor.

Let go port anchor to 1 shackle off the berth, and slack out as vessel moves in. One head line from the starboard bow first by mooring boat. Then springs by heaving line. Aft springs come from poop. Due to the rate of the tide, positioning can take a long time.

Tugs: One tug each end for berthing and for unberthing. Ship's lines used.

Gangway: Shore has a gangway for access. Starboard accommodation ladder has to be lowered out so the gangway can be landed, just forward of slop holding tank hatch.

Cargo Operations: Shore has 3×10 in. Chicksans in the following order from forward: DPK, Gas oil, Mogas. We had to discharge DPK and Gas oil first, and then drop the ship astern to connect up the Mogas line. There were problems disconnecting, due to the height of the tide. They could not clear the strongback, so had to wait till about 2 hours after HW.

Shore do all connecting and disconnecting. Sample tests are done onboard, though they require a lot of samples. Sampling took over an hour.

Shore provide one deck watchman, and vessel has to keep the crew on "6 on 6 off" with one member each end constantly, due to the tidal range of over 5 m.

Shore provide a radio for communications and come onboard every 2 hours to get rate, back pressure and quantity discharged.

Discharge Rate: Maximum for gas oil is 7 bar, and 6 bar for Mogas and DPK.

Average rates were Mogas: 700 cu.m./hr., and Gas oil: 600 cu.m./hr. or 1,200 cu.m./hr., depending on who's parcel it is. Petrolmoc have the small line (DPK: 400 cu.m./hr.).

Shore change tanks without advising vessel, so it is best to run the pumps in auto. If not, vessel needs to keep a good eye on the back pressure. Insist at the pre-discharge meeting that shore inform vessel of tank changes.

Many people come on board at the beginning, receivers, surveyors, port authorities, Loading Master, etc., and they all seem to have check lists to fill in. After that, very few people come on board, usually just the jetty crew for their meals.

The jetty is brand new in appearance and is quite well designed.

AUTHORITY: Portos e Caminhos de Ferro de Mozambique E.P., Direccao do Porto da Beira, P.O.Box 472, Beira, Sofala, Mozambique. *Tel:* 258-03-321034. *FAX:* 258-03-325200. *Contact:* Carlos Mesquita, Port Director.

AGENT: King and Sons (Pty.) Ltd., P.O.Box 224, Beira, Mozambique. Tel: (092583) 328620. Telex: 7438. Fax: (092583) 328619. Cables: Baronet, Beira.

MAPUTO: 25.59 S. 32.34 E. (See Plan)

DOCUMENTS:
6 Crew Lists.
1 Stores List.
6 Passenger Lists.
Last Port Customs and Port Clearance.
1 List of Ports of Call.
1 Health Declaration (given by Pilots on arrival).
1 Entrance Report (given by Pilot on arrival).
1 Customs Entrance (given by Agent on arrival).
1 Railway Statistics Form (given by Agent on arrival).

Shipmaster's Report: March 1981.
Same as Beira Report except:
6 Crew Lists (1 to Pilot).
1 Stores List.
6 Passenger Lists.
1 Crew Declarations.
1 List Ports of Call.
In Transit and Hazardous Cargo List is required.

Notes: Immigration requires all-hands muster with I.D. Card/Book on entering and sailing.

Immigration Clearance: Inwards: 0600 – 1800 hrs. only inside harbour proper. Outwards: 0600 – 2400 hrs. except in special circumstances.

N.B. Vessels at the Pilot Station cannot obtain Pratique because this includes Immigration Clearance and can therefore be considered as not having arrived or not being in all respects ready to load.

PILOTAGE: Compulsory. Available during daylight hours only.

Pilot granted only if 16 hours' notice of ETA given.

On arrival vessels can contact Pilot on VHF Channel 16 (working on Channel 14).

The pilot ladder is used together with the accommodation ladder in order that the Pilot has a climb of 9 ft. on the pilot ladder.

Pilot Boarding Position: Pilot boards at Buoy No. 4 (South).

ANCHORAGES: Inside harbour: One each for vessels drawing 33 ft., 31 ft., 27 ft. and 26 ft. respectively. Six for vessels between 17 ft. and 19 ft. Vessels delayed in berthing are brought in from Pilot Station at port's convenience.

RESTRICTIONS: Berthing and Unberthing only during daylight hours.

MAX. SIZE: Maximum draft is 7.5 m. plus height of tide (Max. 3.8 m. HWST) = 11.3 m. Also see "Berthing".

The controlling factor is the depth in Polona Channel, which in August 1988 was 35 ft.

HEALTH: Pratique granted by Pilot unless disease prevalent on board when Masters should telegraph "Saude" Maputo.

RADIO: Advice of arrival 16 hours before to the Harbour Master or Chief Pilot and Port Health should be sent through the station C9C (Naval), operating 24 hours on 500 kHz, replying on 487 kHz, also 2000 to 0500 hrs. GMT on 8356 kHz to 8376 kHz (replying 8642 kHz) and 0800 to 2000 GMT on 12534 kHz and 12564 kHz (replying 12990 kHz). All other non-official messages through station CRL, operating 0200 – 1800 GMT on 8 MHz at even hours, 0400 to 1800 GMT on 4 MHz at even hours plus 30 minutes (answering on 4259 kHz). Continues watch 0200 – 0400 GMT on 4 MHz. Radio telephone through CRL on 2132 kHz at even hours plus 45 minutes 0600 – 1700 GMT answering on 4415 kHz.

VHF: Pilot boat and Port Radio operate on Channel 16 (calling) and Channels 12 and 14 (working) from 0530 to 1830 hours.

TUGS: 2 tugs available, 3,200 h.p. and 2,300 h.p.

BERTHING: *Main Wharf:* All facilities owned and operated by Caminhos de Ferro de Mocambique (CFM), including stevedoring.

Dimensions: Wharf is in an uninterrupted line running roughly N.E./S.W., accommodating 12 – 15 vessels. Length: 3,275 m. Depth 9.0 m.

Grain: For loading or discharging bulk grain there are 2 Buhler machines at a berth with 33 ft. depth of water LWOST. About 120 t.p.h. A recent vessel averaged 2,900 tons per day. Bagging plants handle 1,000 bags per hour.

Bulk Loading Terminal: Length 210 m., depth 10.0 m. (max. sailing draft 11.3 m. (HWST) and 10.0 m. (HWNT). Terminal equipped with 2 shiploaders, 2 discharge/reclaimers, 2 wagon tipplers and conveyor system.

Coal: The best loading rate, in theory, is about 12,000 tons per day, however, in practice, allowing for shunting trucks, warping ship, etc., average rate is about 4,000 – 4,500 tons per day. In mid-1988 a vessel achieved 18,000 tons in 24 hours.

The length of the chute is 181 m. and it operates between angles of 46° and 58° to the perpendicular. At 46° the tip of the chute is 4.80 m. above wharf level and 9.50 m. from the wharf edge. At 58° the tip of the chute is 7.60 m. above wharf level and 11.80 m. from the wharf edge. At lowest spring tide the water at the coaling berth is 5.90 m. below wharf level and at highest spring tide 2.15 m., the difference between max. extremities being 3.75 m.

Sugar Terminal: Terminal equipped with 2 shiploaders and conveyor system from storage sheds. Sugar discharged from railway wagons by overhead cranes and grabs into hoppers which feed conveyors to storage sheds. The daily intake capability of installation is 2,000 tonnes and it has storage facilities in three sheds with a capacity of 40,000 tonnes each. Daily discharge rate 10,000 tons. Length of berth 200 m. Depth alongside 9.7 m.

Also see "Shipmaster's Report" – July 1988.

Steel Terminal: Adjacent to the Container Terminal. Length 200 m., depth 9.7 m. Terminal equipped with 4×20 tonnes electric quayside cranes and 20 tonnes capacity forklift trucks. Storage area for approximately 20,000 tonnes.

Container Terminal: Length 300 m., depth 9.7 m. Terminal equipped with 2×35 tonnes ship to shore gantry cranes for 20 ft. – 40 ft. containers, 1×35 tonnes and 8×20 tonnes forklift trucks, 10 MAFI/tugs and trailers and 3×40 ton heads/trailers. Storage capacity of terminal approximately 1,300 teu's.

LPG Carriers: Berth at Matola Ore Berth.

Timber: Vessels berth at Matola, Post No. 1 (P.I.). Max. draft 32 ft. Max. LOA, 600 ft. Vessels over 550 ft. LOA and draft over 25 ft. berth and sail during daylight hours only.

STORAGE CAPACITIES:
Ore and Coal Dumps: Gorjao Wharf.

	Tons
Coal	200,000
Ores	20,000
Copper	40,000
Vermiculite	4,000
Steel, Beams and Billets	100,000
Vanadium	7,000
Containers	1,000 TEU

Oil: Storage capacity 200,000 tons.
Molasses: 4 tanks, capacities 6,000, 9,000, 11,000 and 7,000 tons.
Fruit: 7,500 tons (1.133 cu.m./ton) in 100 chambers.
Fish: 200 tons.
Ore: Via Ro-Con unit attached to container cranes, rate 5,000 tons/day.
Sugar: See "Berthing".

CRANES: *Electric Cranes:* 75 units with capacity 3 tons to 60 tons.
Mobile Cranes: 15 units with capacity 3 tons to 20 tons.
Heavy lift crane with capacity of between 60 tons – 80 tons.

STEVEDORES: *Working Hours Monday through Sunday:*
0700 – 1100   1300 – 1700
1900 – 2300   0000 – 0600

All above periods are considered normal time.

MEDICAL: No advance notice required for medical attention, unless urgent assistance necessary. Hospital facilities available. Crew members and passengers should be in possession of valid yellow fever certificates (cholera certificate too if cholera area) on international forms. Vaccination/fever inoculations and certificates may be obtained ashore if required. Men for sick parade must first go through the port doctor whose hours are week-days 0800 – 1130 hrs. and 1400 – 1730 hrs.; Saturdays 1000 – 1130 hrs., but always available on an emergency call.

TANKERS: Matola Mineral Wharf, 35 ft. LWOST, max. length of vessel 200 m.

Tanker Terminal: "T" jetty, 60 m. in length with mooring dolphins. Depth alongside 10.0 m. Pipeline from jetty to oil storage farm.

Also see "Shipmaster's Report" dated February 1996.

DENSITY: Average 1022.

FRESH WATER: Available at all berths, not available ex-barge.

FUEL: Vessels can be supplied from pipelines whilst working at all berths, including the Matola Appliance and Tanker jetty, but excluding the new wharf extension, where pipes have been laid but the system is not yet ready for delivering bunkers. The rate of delivery varies between 300 t.p.h. and 500 t.p.h. depending on the type of vessel taking bunkers. At present, supplies of gas oil and marine diesel oil are not in very plentiful supply, recommended to stem as far in advance as possible.

CONSULS:
Belgium
Brazil
Bulgaria
China
Congo
Cuba
Czech Republic
Egypt
France
Germany
Greece
Guinea
Hungary
India
Iran
Italy
Korea
Lesotho
Libya
Netherlands
Nicaragua
Nigeria
Pakistan
Poland
Portugal
Romania
Russia
Spain
Swaziland
Sweden
Switzerland
Tanzania
United Kingdom
U.S.A.
Vietnam
Yugoslavia
Zaire
Zambia
Zimbabwe

REPAIRS: No dry dock except for small coasters. Facilities for most normal work, except underwater riveting, cutting and welding, and shaft balancing.

WATCHMEN: Strongly recommend employing services of a local watchman, who will also control visitors and labour passes.

OPENING/CLOSING HATCHES: Can be done by either crew or stevedores. Often done by crew.

CERTIFICATES: Tonnage Certificate to be produced to Pilot, as certain port dues are based on vessel's registered tonnage.

CUSTOMS ALLOWANCES: Bonded stores are usually not sealed.

REPATRIATION: Facilities exist for nationals of those countries maintaining diplomatic relations with Mozambique. A valid Passport and visa is necessary as Immigration Authorities do not recognise a Seaman's Book as being a valid travel document.

AIRPORT: Maputo International Airport 4 km. from port.

HOLIDAYS: No cargo work on 1st January, on other holidays, work continues normally in the port.

TIME: Local time GMT plus 2 hours. No alterations made to clocks during the year.

TELEPHONES: A telephone will be placed on board the vessel.

SHORE LEAVE: Crew are allowed ashore, from 0600 hrs. – 1700 hrs. excepting nationals of those countries not maintaining diplomatic relations with Mozambique.

IDENTIFICATION CARDS: Crew and passengers are issued with Immigration Boarding Permits and they must be carried at all times. (Such permits to be returned to Immigration Officer prior to sailing.)

GENERAL: Crew and passengers not to take photographs in the dock area. Permission through Agent required to lower any boats or gear overside into the water or on to the wharf.

Do not immobilise main engines or carry out engine trials at the wharf until permission has been obtained by the Agent as the Authorities require vessels to maintain sufficient steam for main engines to be used at 2 hours' notice.

Customs guards to be supplied with meals and accommodation whilst at Inner Anchorage and alongside the wharf otherwise cost per guard will have to be paid by Agent on Owner's behalf.

DEVELOPMENTS: New buoyage system being installed.

Dredging in progress.

SHIPMASTER'S REPORT: April 1987.

The following navigational problems were encountered when arriving from South:

Canal Do Sul: The Canal Do Sul is closed and the buoys indicated on BA. Chart No. 644 no longer exist. All ships have to proceed via Canal Do Norte.

Canal Do Norte: It is advisable to proceed in daylight only as most of the buoys are missing or out of position.

Pilot boarding position is at Buoy No. 4 (25° 56' S., 32° 45' E.). No pilot launch available during our visit so outbound and inbound ships sometimes exchange Pilot with their own lifeboats. If one of the tugs is in operation, pilot will embark with that tug.

Berthing and unberthing was made without tugs using one anchor.

Most of the cranes were non-operational.

Before departure a thorough search for stowaways is to be made.

Due to problems of pilot transportation, Masters are sometimes asked to proceed outbound without pilot through Canal da Polana, this means dropping Pilot at Buoy No. 15. This is not to be recommended as positions of buoys are doubtful and numerous small fishing craft cross the channel.

When a tug is available the Pilot disembarks at Buoy No. 10.

Special attention has to be paid to Xefina Bank which is extending southwards.

SHIPMASTER'S REPORT: July 1988.

Vessel: 20,900 d.w.t.

Cargo: Loaded 17,500 tonnes of bulk raw sugar at the Sugar Terminal. Vessel used 2 loaders alternately at 500 t.p.h.

Sailing Draft: Forward: 9.2 m. Aft: 9.3 m.

Approaches: North Channel: Navigation limited to daylight hours only as some channel buoys are missing and some are unlit. IALA system used, red to port and green/black to starboard.

B.A. Chart 644:

Lacerda lighthouse unlit.

Macomana lighthouse unlit.

Necessary care must be taken when approaching No. 2 N. Buoy for clearing Baixo Cutfield Shoals.

No. 2 N. Red buoy missing.

No. 4 N. Red buoy in position but unlit.

No. 1 N. Black buoy missing.

No. 3 N. Black buoy missing.

No. 6 N. Red buoy in position but unlit and rusted.

No. 3 Black buoy in position but unlit.

No. 3 A. Green buoy is a new buoy laid in position Lat. 25° 55.5' S., Long. 32° 51.2' E. (approximate).

After No. 3 Buoy, steer to pass close East of No. 3 A Green buoy and then with approximate course 268° to No. 4 Red buoy which is the Pilot's boarding position.

Pilotage: Pilots are experienced and cooperative. Pilot ladder required on the leeside, combination with accommodation ladder not needed.

Tugs: Two tugs available. One is used for mooring/unmooring and the other for pilot service at Buoy No. 4.

Watchman: Local watchman is compulsory. Special attention is required prior to sailing as stowaways may try to board.

Fresh Water: Plentiful supply, rate about 25 t.p.h.

Provisions: Fresh fruit and vegetables and good provisions available from local market.

General: Extreme caution must be taken when navigating in the North Channel when in a loaded condition, between Buoys No. 4N – No. 6N. In this area the echo sounder shows approximately 30 cm. under keel clearance.

Dredger was working in the Inner Channel, close to Maputo Port.

Passage close to Baixo Rebeiro Beacon not recommended, when in a loaded condition due to suspect depths and at times a strong current.

Most buoys of the Inner Channel was discoloured and rusted.

SHIPMASTER'S REPORT: March 1994.

Navigational: Approaching via Canal do Norte and leaving: Buoy No. 1 N was 3 cables to the North of the position on the Chart B.A. 644. The other small buoy, South of Buoy No. 1 N, was in position. Buoy No. 2 N and Buoy No. 3 N positions were correct, but Buoy No. 4 N was not in the position and was missing. Buoy No. 5 N was 3 cables N.N.E. from the position on the chart. Lacerda Lighthouse and Buoy No. 1 N were giving good Racons. All these positions checked out by GPS Navigator and fixing positions from Lacerda and Riberio Lighthouses.

Pilot embarked and disembarked just in the positions of the symbol on the chart.

After Pilot was dropped, outward bound vessel headed for Buoy No. 5 N and turned hard to port, keeping this buoy very close on the starboard side, then steered North by fixing position from Riberio Lighthouse. Very special attention to the Barra Norte, between Buoys No. 3 N and No. 4 N, as mud patches were seen in the wake, due to insufficient keel clearance. With a heavy swell, there is a danger of touching the bottom.

Berthing: The tugs were old and weak. One was under repair and the other not reliable or efficient. Ship came in to Matola to berth, dropped starboard anchor and turned in a narrow space with tug and propeller. It was a dangerous manoeuvre.

Loading: There was only one chute. The other had been blown into the sea during high winds several months ago. Average daily loading rate was 5,763 tonnes. Quantity calculated with draft survey. Shore scale was not reliable. Bill of Lading weight was fixed by survey calculations. The Matola Pier is also a tanker berth, and Port Authority gives priority to tankers for city supplies.

Density and Tide: Density changes rapidly, so needs to be read at the time of draft check. The cargo quantity to load depends on the tide. We completed the loading with a cargo of 23,052 tonnes, but if we had stayed one day more, we could have loaded another 1,000 tonnes (30 cm. of draft). The problem was Polana Channel's depth. The depth in channel was not reliable due to lack of surveying. The Port Authority required 1.0 m. underwater clearance through this channel.

SHIPMASTER'S REPORT: February 1996.

Approach to Maputo is via Canal du Norte. The buoyed approach is some 20 miles in distance before the pilot station is reached. All the buoys are in position and all lit with the exception of Buoy No. 1N, which still has its Racon working. The South Channel Racon on Buoy No. 3S is also inoperative, although the buoy is lit. The approach to the pilot station is straight forward and the under-keel clearance was never less than 7.0 m. (Time of arrival – high water, arrival draft 9.0 m.).

Pilot boards at pilot station from tug, by pilot ladder, 3.0 m. above the water.

First section of pilotage along Canal da Xefina and Canal da Polana buoyed channels (all buoys in position), vessel had minimum under-keel clearance at times, and suction to seabed reduced speed to 5 knots from 8 knots on occasions.

The remainder of the pilotage was satisfactory.

Only one tug made fast forward with ship's line for berthing.

Pilot was a Portuguese national and competent.

Vessel berthed alongside coal jetty as tanker berth has been out of commission for several years.

Welding operations and what appeared to be comprehensive repair work being carried out on tanker berth.

Berthed starboard side to, 4 and 2. Leads for head and stern lines are such that they are more like breast lines.

All lines passed by heaving line.

Ship's gangway used. No problem for sighting on jetty.

There are no lights of any kind on the jetty. At night, the place is pitch black, except for the illumination from the ship's lights.

Jetty manned at all times by several men, one of whom had a radio.

One watchman employed onboard.

No firefighting equipment or safety equipment of any kind on the jetty.

All documentation for local authorities straight forward and as per port information. Not necessary to muster all hands for ID presentation (As in Port Information).

Vessel required to pump gas oil, then Mogas, then Jet parcels ashore, one after another, down the same 8 in. line with a water plug after each grade.

Only one line ashore.

The four sections of flexible hose that connect the shore pipeline to the ship's manifold are in an extremely poor condition. One section was replaced before pumps were started, as it leaked without any pressure on the line. One section weeping through the casing of the hose and dripping oil onto the jetty, where it was being soaked up in the coal dust. Shore were informed of the leakage, but were unable to provide any more sections of hose to replace it. Vessel therefore instructed to continue discharge.

Vessel advised by charterers to record all sightings of oil in water, as attempts had been made previously to claim off vessel for pollution.

Berthing and sailing in daylight only. Draft of more than 7.8 m. then tide restricted, otherwise no restriction.

Chief Officer's Report: Same visit.

Moorings: 4 and 2 each end. Very short lead on two of the stern lines, so these have to be watched carefully. Tidal range if ±3.5 m. with a very strong rate.

Tugs: One forward for berthing and unberthing. Ship's line from port bow. Stern hook on tug released rope when tug started pulling upon departure. Tug tries to run away with line when making fast.

Gangway: Gangway used through gap in ship's rail, forward of manifold.

Discharging: Shore has 1×8 in. hose made up of 3 lengths for all grades. Hose condition is not very good, with one section weeping through the cover. As soon as shore opened their valve at the start, one of the flanges started leaking. Changed this section due to a poor flange. Shore do all connecting and disconnecting throughout.

Shore require plenty of samples, though these are tested onboard with hydrometer and thermometer. Shore were ready to start discharge as soon as we were connected. Max. BP 8 kg. at shore gauge.

Shore require a water plug between each grade, as there is only a single line to the tank farm. Usually pump for 40 minutes. Shore changed the line back to red manifold, so only one pump was used for water plug, keeping the others clear for next port.

Grade order: Gas oil – water plug – DPK – water plug – Mogas 93 – water plug.

Discharge rates: Gas oil 600 cu.m./hr.; Jet A-1 450 cu.m./hr.; Mogas 600 cu.m./hr.

A man is stationed on the jetty at all times with a radio. Usually there are 4 men. We had to ask them to stop smoking on our last visit.

General: We received a telex from Owner telling us to record all signs of pollution, as the authorities tried to blame a previous ship for all existing pollution. The shore personnel frequently drain hoses into the water.

Sailing draft up to 7.8 m. Unrestricted daytime sailing. If greater draft, vessel has to wait for the tide.

One shore watchman is provided to keep a watch at the top of the gangway. He is sometimes helpful for communicating with the pipeline gang.

It is a 20 minutes walk to the gate and a $10.00 taxi ride to the centre of town. Crew report that things are quite cheap. Anyone going ashore has to be back onboard by midnight, otherwise they will have problems with Immigration.

AUTHORITY: Mozambique Ports and Railways – CFM, E.P., P.O.Box 2158, Maputo, Mozambique. *Tel:* 01-427173, 421081. *Telex:* 6208 CFMS Mo. *FAX:* 01-427746. *Contact:* Paulo Auade, Port Director.

AGENT: King and Sons (Pty.) Ltd., P.O.Box 2902, Maputo, Mozambique. Tel: (092581) 430021. Telex: 6276. Fax: (092581) 422262. Cables: Baronet, Maputo.

MOZAMBIQUE: 14.58 S. 40.45 E.

DOCUMENTS:
Customs Clearance from last port.
Port Clearance.
Health Certificate.
6 Crew Lists.
6 Passenger Lists in Transit.
7 Passenger Lists Disembarking.
2 Stores Lists.
2 Lists Deck Stores.
2 Lists Cargo in Transit (main items of cargo only).
6 copies of Manifest of Mozambique Cargo.

PILOTAGE: One Pilot available, 24 hours pilot boat is black and grey. Ships take Pilot near Buoy No. 2 (Red Buoy) placed off Goa Island. At night ships should send Morse signals with Aldis lamp to the middle of Mozambique Island (location of port office). ETA should be given as soon as possible to Pilot Station off Mozambique Island and/or to ship's Agent.

ANCHORAGES: When waiting for Pilot, or due to their draft (more than 30 ft.) ships may drop anchor off red Buoy No. 2 (0.5 miles seawards). Depths between 60 ft. and 90 ft. Bottom with sand and some broken coral; current from North to South, sometimes up to 4 knots.

MAX. SIZE: Only ships with drafts less than 30 ft. can cross the bar and enter the Port.

HEALTH: Quarantine flag should be flown, even after calling at other ports in this country. Health Certificate given by Pilot.

RADIO: Radio Mozambique, call sign CRQ. Also available Maputo or Beira Radio Stations.

TUGS: Tugs are not necessary in this port.

BERTHING: No quay berths. Vessels work cargo at anchor.

STEVEDORES: All requirements on this purpose must be sent to the Agent.

MEDICAL: Medical assistance can be given at any time, even to vessels unable to cross the bar because of draft. Hospital with adequate facilities, and emergency services available.

FRESH WATER: Always available in any quantity. Supplied by barge of 40 tons capacity.

FUEL: Small quantities available.

CONSULS: No local representatives.

REPAIRS: Light repairs can be effected.

OPENING/CLOSING HATCHES: By stevedores.

CARGO GEAR: Vessels anchor in bay and load and discharge by lighter and barges.

HOLIDAYS: 1st January; 2nd March; 1st and 10th June; 15th August; 5th October; 1st November; 1st December; 8th December; 25th December. Cargo handling can be arranged on these days.

POLICE/AMBULANCE/FIRE: Maritime Police, Customs and Agents will always be on board during stay.

TELEPHONES: No telephones, but walkie-talkies are available; arrange with Agent.

IDENTIFICATION CARDS: Required.

AUTHORITY: Capitania do Porto de Mocambique.

NACALA: 14.32 S. 40.40 E. (See Plan)

PORT LIMITS: The line joining Ilha Goman to Cabo Columulomo Light at the entrance of Bay of Fernao Veloso.

DOCUMENTS:
6 Crew Lists.
6 Passenger Lists.
2 Supplies Lists.
2 Stores Lists.
4 Cargo Manifests.
3 Cargo Plans.
5 Ports of Call Lists.
2 Animal Lists.
2 Vaccination Lists.
1 Health Certificate.
1 Clearance from Last Port.
Cargo Manifest.
Bills of Lading.

These documents are to be completed, and presented, at the time of report to local authorities.

PILOTAGE: Compulsory. Request for Nacala Pilots with VHF radio on Channel 16, and then change to Channel 12 or 11.

Advance notice of ETA, hatch list and draft are required at least 72 hours, 48 hours and 24 hours before arrival, through the Agent, and then 4 hours before entering Fernao Veloso Bay, via VHF.

The normal area of boarding is usually 2 miles × 237° from the Nacala Lighthouse, except during the period of strong winds from N.E. to S.E., when Pilot will embark inside the Bay if Port Authority give permission. Usual requirements for ladders are in force, and Pilot boarding requires the ladder to be about 3 ft. to 4 ft. above waterline.

ANCHORAGE: After entering the narrow passage between Cape Fernao Veloso and Cape Sacamulo, in the outer anchorage Bay of Muananculo and the inner Bay of Bengo, away from the middle fairway to the harbour. Maximum size of the vessel permissible in the outer anchorage area is about 130,000 d.w.t., and 18.0 m. draft.

RESTRICTIONS: No night time restrictions. Berthing/unberthing might be possible 24 hours a day on request.

HEALTH: International health regulations are to be observed. Any vessel, which is suspect, should inform the Harbour Office.

RADIO/VHF: Pilot radio station works with VHF Channels 16, 12 and 68. Port Tel: 526389, 526715, 526744 (Office); 526631, 526297 (Home). Fax: 526390 (Area Code 06).

All early reports, ETA, draft, etc., through the Agent or Fax/VHF to the port.

Pre-Arrival Information: In terms of Port Regulations, the Owner or Agent must give written notification to the Port Authority, 72 hours prior to the expected arrival of a vessel.

In addition, the following information is required:
ETA (Date and time0.
Gross tonnage.
Length of vessel.
Draft, forward and aft.
Nature of services required.
Intended business.
Dangerous cargo for discharge or in transit (IMO Class).
Any other relevant information.
Name of person or agency requesting services.
Telex number.

Radio advice from the Master of a vessel must be directed to Nacala Port Control or Nacala Pilot.

RADAR: No radar installation in the port.

TUGS: 1×1,115 h.p.

BERTHING:

Quay	*Length* (m.)	*Depth* (m.)
Container Terminal	335	14.0
	37	12.0
General Cargo Terminal	300	9.7
	229	7.7
	90	7.0

CONTAINER HANDLING FACILITIES: 1,119 ground slots and connection possibilities for 26 reefer units. There is 1×22 ton and 1×5 ton crane for handling containers, and 1×25 ton rail-mounted transtainer for loading and unloading wagons and lorries.

For container handling, there is 1×42 ton front loader with flexible spreader (20 ft. – 40 ft.), and 2×32 ton front loaders.

For long distance transport, there are 3 tractors and 9 trailers with different dimensions.

Also stripping and stuffing operations available, in a 1,480 sq.m. container freight station.

GENERAL CARGO HANDLING FACILITIES: Nacala Port has a covered storage area of 21,000 sq.m., and an open area of about 25,000 sq.m.

For ships' operations there are 1×20 ton, 1×10 ton and 7×5 ton quay cranes.

Forklifts available, equipped also with bale clamps.

BULK HANDLING FACILITIES: Possibilities of handling bulk cargoes, such as grain, fertilisers, etc., at the North Quay.

STEVEDORES: Particulars of cargoes for discharge to be sent, with the ETA message, for arranging the gangs. Normally, the port is working in 3 shifts, from 0700 hrs. to 1500 hrs., from 1500 hrs. to 2300 hrs., and from 2300 hrs. to 0700 hrs. After 1100 hrs. on Saturdays, Sundays and public holidays until 0700 hrs. following day, the work is charged as overtime, and must be ordered at least 48 hours in advance.

MEDICAL: Nacala Hospital has 3 doctors.

TANKERS: Petrochemicals handled at the East end of the General Cargo Terminal (North Quay), with minimum depth of water 9.7 m., and a quay length of 190 m.

The pipeline diameter is 8 in. No slop discharge facilities available.

Maximum receiving rate of about 100 t.p.h. – 120 t.p.h.

DENSITY: 1025 inside the bay.

FRESH WATER: Available in limited quantities by hose from the quay.

FUEL: Marine diesel available, delivered by lorries.

Some delays are to be expected in bunkering operations, due to lack of lorries.

CONSULS: None.

SURVEYORS: Cargo inspectors available.

WATCHMEN: Should be ordered through the Agent, either from the port or other sources. An Immigration Gangway Watchman is always stationed onboard the vessel.

OPENING/CLOSING HATCHES: By crew members.

CERTIFICATES: Tonnage Certificate to be produced to Pilot, as certain port dues are based on vessel's registered tonnage.

REPATRIATION: Possible.

AIRPORT: In Nacala, there is a military air base, used by civil aeroplanes upon request. No regular service to the Nampula. The nearest commercial airport, about 190 km. from the port, with 5 weekly domestic flights to Maputo.

TIME: GMT plus 2 hours.

HOLIDAYS: January 1st (New Year's Day); February 3rd (National Heroes Day); April 7th (Mozambican Womens Day); May 1st (Labour Day); June 25th (Independence Day); September 7th (Victory Day, commemorating the Lusaka Agreements and the end of the war for independence); September 16th (Nacala Day); September 25th (Armed Forces Day and Revolution Day); December 25th (Family Day).

Vessels are requested to "Dress ship" on these days.

POLICE/AMBULANCE/FIRE: The port has its own Police Force and Fire Brigade. The local hospital has an ambulance.

TELEPHONES: No connections for ships alongside. Public telephones for local or international calls are located in the Post Office building, in the city centre, close to the port.

BANKS: There are branch offices of the following Banks: Bank of Mozambique, Commercial Bank of Mozambique, Standard Totta Bank and People's Development Bank.

SHORE LEAVE: Crew and passengers need an Immigration Shore Leave Permit when leaving the port area.

GARBAGE DISPOSAL: Available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: There are no seaman's clubs operating in Nacala. However, there is a local delegation of Club Ferroviario (which belongs to the Mocambique Ports and Railways organisation) and soccer or basketball matches can be arranged if requests are made to the Port Direction. In Nacala city center, which is very close to the port area, there are also religious services available for catholic, protestant and muslim religions as well as postage facilities.
GENERAL: The port authority hopes that the Shipmaster will give any reports about the lighthouses nearby.

SHIPMASTER'S REPORT: June 1988 (Updated 1992).
Port Limits: Vessel considered arrived when at entrance off Pta. Narenque. Free Pratique only granted after boarding by Immigration authorities at inner anchorage (off Baiai De Bengo) or at berth.
Documents: Last Port Clearance, 8 copies Crew Lists, Stores List, Crew Personal Property List, Manifest, Vaccination List and Agent's Forms (given on arrival). Shore passes issued at gate in exchange for Passport, shore leave up to 2200 hrs. only.
Pilotage: Available off Fernao Veloso, with prior arrangement. If B.A. Chart No. 649 on board, then advisable to move in without pilot, as delays are quite normal. Similarly, if outbound it is at Master's discretion (Small coasters only) to drop pilot off the berth or retain his services until past Pta. Narenque.

Pilots can be called on VHF Channels 12 and 16.

Advisable to approach at daybreak as lighthouses are unlit. For the same reason berthing/unberthing carried out in daylight hours only. A small pilot boat is available and Pilot is accompanied by a trainee.
Draft: Very deep water exists. Vessels with drafts up to 14.0 m. can berth at New S.W. Container Terminal. N.W. Quay has depths up to 9.5 m. and Berth No. 4 at N.E. end of N.W. Quay, used for product tankers, has depths of 12.0 m., depending on tide.
ETA: Messages to be radioed via Maputo Agents, who then inform Nacala branch by radio. At least 24 hours to be allowed for this information to reach Nacala.
Tug: One tug available, using ship's lines.
Medical: Minor medical complaints can be attended to by doctor arranged via agent.
Tankers: Discharge through 1×8 in. connection leading to storage tanks about 2 km. away. BP Mocambique in charge of liason, etc. We discharged 3,000 tons of jet fuel in 36 hours.
Fresh Water: Available ex-jetty, but as jetty infested by rats and cockroaches it is not advisable to use same for drinking.
Fuel: Not available.
Watchmen: As per Port Regulations, one watchman is compulsory.
Customs Allowance: No particular restrictions.
Ship's Certificates: Not required to be taken ashore.
Consuls: None.
Repairs: No facilities.
Time: GMT plus 2 hours throughout the year.
Provisions: Minimum amounts of fresh vegetables available locally at market. Currency must be changed officially through agent only and excess returned.

AUTHORITY: Portos e Caminhos de Ferro de Mozambique, E.P., Direccao do Porto de Nacala, P.O.Box 70, Nacala, Mozambique. *Tel:* 258-06-526389, 526385. *FAX:* 258-06-526390. *Contact:* Agostinho F. Langa Jr., Port Director.

PEMBA: 13.00 S. 40.28 E.

DOCUMENTS:
6 Crew Lists.
6 Lists of Passengers Disembarking.
6 Lists of Passengers in Transit.
1 Master's Declaration.
1 Stores and Provisions List.
1 List of Arms and Ammunition.
1 List of Dangerous Cargo.
1 Health Declaration.
5 Sets of Cargo Manifests.
2 Sets of non-negotiable Bills of Lading.
Clearance Documents from last port.
Valid Passports and Visas.
PILOTAGE: It is necessary to order by radio request to Agent 14 hours before arrival.
ANCHORAGES: Vessels may anchor South of the dock about 300 m. off. Other suitable anchorages will be indicated by the Pilot.
RESTRICTIONS: Vessels may enter with Pilot at any hour day or night.
MAX. SIZE: Draft up to 27 ft. 6 in. for berthing.
HEALTH: In case of contagious disease on board, the Port Health Authorities must be advised in advance.
RADIO: Send messages through Beira Radio.
TUGS: None available
BERTHING: One berth, length 182 m., depth alongside 28 ft.
STEVEDORES: In ETA message to Agent, indicate number of gangs required and advise quantity and description of cargo for discharge.
MEDICAL: In case of urgency advise Agent by radio before arrival. Hospital facilities available. Vaccinations can be performed.
FRESH WATER: Available.
FUEL: Available.
GANGWAY/DECK WATCHMEN: Not necessary as there is a permanent guard on board.
OPENING/CLOSING HATCHES: Performed by stevedores.
CUSTOMS ALLOWANCES: Bond is not sealed and no restrictions made.
REPATRIATION: Can be arranged.
AIRPORT: Situated 7 km. away. Flights to Beira and Maputo daily.
TIME: GMT plus 2 hours. No alterations during the year.
HOLIDAYS: No work performed from 1700 hrs. Christmas Eve until 0600 hrs. 26th December; no work performed from 1700 hrs. New Year's Eve until 0600 hrs. on 2nd January. Work may be arranged on the following holidays: 1st January, 3rd February, 7th April, 1st May, 25th June and 25th September.
POLICE/FIRE/AMBULANCE: Police, Tel: 2828; Hospital, Tel: 2211. Fire, Tel: 2223.
BANKS: Banco Popular de Desexivolvimento (BPD). Tel: 2451.
Banco Comercial. Tel: 2251.
SHORE LEAVE: Allowed. Except for nationals of countries not maintaining diplomatic relations with Mozambique.
IDENTIFICATION CARDS: Required by police.
CURRENCY: Local currency is Meticar (MT). U.S.$1.00 = 10,875.00 MT (July 1996).
AUTHORITY: Portos e Caminhos de Ferro de Mozambique, E.P., Direccao do Porto de Pemba, P.O.Box 97, Pemba, Cabo Delgado, Mozambique. *Tel:* 258-072-2710. *FAX:* 258-072-2453. *Contact:* Paulo Laite Milito, Port Director.

NOTES

Please also advise Shipping Guides Ltd.

Union of Myanmar (Burma)

YANGON (Rangoon): 16.47 N. 96.15 E. (See Plan)

LOCATION: The port of Yangon is located at Lat. 16° 47' N., Long. 96° 15' E., in the Yangon River, 32 km. inland from Elephant Point on the Gulf of Martaban.

PORT LIMITS: "Lanthaya" light vessel at channel entrance. Charges will be levied on all sea-going vessels whether they are directly moored to a buoy or to go alongside wharf.

DOCUMENTS:

Ship's Register.
Crew and Passenger List.
Dangerous Cargo List, if any.
Customs Declaration for Crew and Ship.
Lat Port Clearance.
Safety Radio Certificate.
Safety Construction Certificate.
Valid Cargo Gear Certificate.
International Load Line Certificate.

PILOTAGE: Compulsory for vessels of 200 g.r.t. and above.

Vessels bound for the port of Yangon should make for the *Dagon* Light Vessel (China Bakir) Lat. 15° 59.9' N., Long. 96° 14.5' E. and then proceed towards *Lanthaya* Light Vessel. Vessels of 26 ft. draft and over should anchor off *Dagon* Light Vessel due to insufficiency of depths at the Pilot Station at low water, and await instructions from the pilot vessel for embarking Pilot.

Vessels below 26 ft. draft may proceed direct to the pilot vessel for embarkation of Pilot.

The pilot vessel or its relief is normally cruising or anchored at Lat. 16° 11.0' N., Long. 96° 19.6' E., approximately 10 miles North of *Dagon* Light Vessel and approximately 2 miles East of Lanthaya Light Float and 42 miles from the Port of Yangon.

ANCHORAGES: Specific areas of the port are reserved for special anchorages as follows:

(a) *Petroleum Anchorage* at Liffey Reach just below Syriam, accommodating 2 vessels.
(b) *Explosives Anchorage* below Admiralty Jetty near Chokey Point.
(c) *Small Craft Anchorage* at King's Bank, accommodating 20 inland vessels and schooners, etc.

There are 3 fixed mooring (one for cargo vessels and 2 for tankers) and 14 single swinging moorings for midstream loading/discharging.

ETA: 48 hours advance notice of ETA required, confirmation to be made 24 hours later or one working day ahead of the ship's ETA to enable necessary arrangements to be made regarding Pilots. Information required in the advance notice are:

(a) ETA, *(b)* Fresh Water Draft, *(c)* Speed, *(d)* Gross tonnage, *(e)* LOA and LBP, *(f)* Flag, *(g)* Call Sign.

RESTRICTIONS: Generally on a flood tide between the time of LW to HW at the Pilot Station, depending on ship's actual draft and speed in order to obtain sufficient depths at the Outer Bar.

Navigation day and night during river passage, but entry into Inner Harbour is normally restricted to daylight hours.

The Master Attendant regularly issues Draft Forecasts to all vessels Agents advising them of the drafts to be obtained within the next month.

MAX. SIZE: The port is accessible to vessel of 548 ft. LOA, and draft up to 28 ft. at Spring tides. The draft of the vessel entering the river is controlled by the depth available at the Outer Bar, carrying 12 ft. depth at datum. Entry into the harbour is controlled by the Inner Bar off Monkey Point, carrying from 10 ft. to 12 ft. depth at datum. These depths are subject to seasonal variations and are least during the dry season from November to May.

HEALTH:

(a) Maritime Declaration of Health signed by the Master and also by a Ship's Surgeon if one is available.
(b) Valid Derat or Derat Exemption Certificate.
(c) Valid Vaccination Certificates against cholera for crew and passengers (if a certified list of date of expiry of these Certificates is available, the issue of Pratique will be expedited).
(d) Pratique is issued by the Medical Officer on duty, after examination of the crew and passengers of the ship. The Pratique is automatic if the vessel arrives after touching other ports in the country. NO RADIO PRATIQUE IS ISSUED.
(e) Quarantine Clearance on sailing is essential.

RADIO: International single operator watch period for Zone "C". Assigned frequencies are 425, 454, 468, 512, 500 kHz and 2.8, 4.26 MHz, call sign XYCZ.

In cases of inability to contact the pilot vessel by wireless, the Master should send cable to the Harbour Master "Portrust" via Yangon Radio Station, call sign XYR.

Within harbour limits contact can be made with Port Tower by light visual signalling. VHF contact can also be made with Port Tower, call sign XYU, Channel 16 (calling frequency). The working frequencies are Channels 14, 12 and 6 (Hague Convention).

TUGS: Generally not used for mooring and berthing purposes, but tug services may be requested to Master Attendant as and when required.

BERTHING: There are 11 wharf berths and 2 pontoon berths for seagoing vessels:

Rice and Farm Produce Loading Berths:

(a) *Hteedan Coal Berth,* length 480 ft., accommodating a vessel of 485 ft. LWOST varies from 23 ft. to 27 ft. approx.
(b) *Hteedan No. 1,* length 456 ft. accommodating a vessel of 460 ft. LWOST varies from 26 ft. to 30 ft. approx.
(c) *Ahlone Wharf,* length 440 ft. accommodating a vessel of 440 ft. LWOST varies from 26 ft. to 28 ft. approx.

General Cargo Berths:

Sule Pagoda Wharf, Berths No. 1, 2, 3, 4, 5, 6 and 7 accommodating five vessels ranging from 450 ft. to 520 ft. LWOST varies from 24 ft. to 30 ft. approx.

Container Berths:

Bo Aung Gyaw Street Wharf: Berth Nos. 1 and 2, accommodating two vessels of 450 ft. each. LWOST varies from 26 ft. to 29 ft. approximate. 2×40 ton container cranes, 54 reefer points and storage for over 1,800 TEU.

Passenger Berth:

The Port Health Station. A Pontoon Jetty equipped with a large floating pontoon 500 ft. length and accommodating vessels of 520 ft. to 595 ft. LWOST varies from 25 ft. to 28 ft.

Moorings: The port is equipped with 13 swinging moorings and 2 sets of fixed moorings in the Inner Harbour; 3 swinging mooring buoys at Hastings, and 2 fixed moorings for oil tankers. In addition, a number of mooring buoys are provided for small sized seagoing vessels.

Mooring and Berthing Procedure:

While in port, ships lie alongside wharves or moorings. The procedure is as follows:

(a) *Single Buoy Mooring* – Vessels moored with ship's own cable which is led through hawse pipe and shackled on to buoy cable. The shackle is provided by the Myanma Port Authority.

(b) *Fixed Mooring* – Same procedure as above but the vessel is moored to 4 buoys.

(c) *Berthing* – Normal ship's ropes and wires are used for berthing at wharves. In addition, wharves' mooring chains are also provided for securing to ship's bollards.

CARGO HANDLING EQUIPMENT: The heaviest lifting capacity of the port is a 36 ton crane at the Bo Aung Gyaw Street Wharf.

Heavy packages may be landed or shipped by a vessel's own tackle at the wharves, subject to prior notice being given to the Deputy General Manager (Traffic).

STEVEDORES: In two shifts of 0800 hrs. to 1600 hrs., and 2000 hrs. to 0400 hrs. Overtime work is arranged on special request from Agents. Stevedoring undertaken by Port Authority. To enable ship's Agents to order labour gangs in time, it is important to obtain in advance the accurate ETA of vessels. Latest time to order gangs is 1100 hrs. for booking for that night and the next day.

TANKERS: *Thanlyin Liquid Cargo Terminal:* Location: The Terminal is situated on the outskirts of Yangon (Rangoon) in the S.E. of the city, on the Bago River, a tributary of the Yangon River. The main imports are petroleum products, and it is also used for exports of methanol.

Berth:	*No. 2 Mooring Jetty.*	*Lube Oil Jetty.*
Type:	Buoy mooring.	Jetty.
Distance of Tanks:	2 miles (approx.).	1 mile (approx.).
Max. LOA:	115 m.	110 m.
Max. Draft:	7.0 m. (F.W.).	6.8 m. (F.W.).
Max. d.w.t. (approx.):	8,000 tonnes.	6,000 tonnes.
Facilities:		
Size of Pipeline A:	16 in.	8 in.
Product:	Crude oil.	Crude oil and fuel oil.
Size of Pipeline B:	10 in.	6 in.
Product:	Gas oil and gasoline.	Gas oil and gasoline.
Size of Pipeline C:	10 in.	10 in.
Product:	Fuel oil and ATF.	Lube oil.
Size of Hose:	2×6 in. flexible hoses.	2×6 in. flexible hoses.
Operating Pressure:	Min. 5.0 kg/sq.cm. Max. 6.0 kg/sq.cm.	Min. 5.0 kg/sq.cm. Max. 6.0 kg/sq.cm.

FRESH WATER: Available either directly alongside the wharves or in midstream, delivered by water boats.

FUEL: Fuel, diesel and gas oil (HSD) from Myanma Petroleum Products Enterprise. Fuel oil provided by barges of 150 tons to 180 tons capacity alongside vessel during daylight hours. Coal supplied by Government No. 3 Mining Enterprise.

FIRE PRECAUTIONS: A special land-based Port Fire Brigade is maintained by the Port Authority, supplemented by fire-fighting vessels "Nat-Min" and "Hyine Gyi".

CONSULS: The following countries are represented by consulates or embassies at Yangon:

Afghanistan
Algeria
Australia
Austria
Bangladesh
Belgium
Bulgaria
Cambodia
China
Cuba
Czech Republic
Denmark
Egypt
Finland
France
Germany
Hungary
India
Indonesia
Israel
Japan
Republic of Korea
Laos
Malaysia
Mongolia
Nepal
Netherlands
Nigeria
Norway
Pakistan
Philippines
Poland
Russia
Singapore
Sri Lanka
Thailand
U.K.
U.S.A.
Vietnam
Yugoslavia

REPAIRS: Deep-sea repairs are undertaken by MPA's engineers. The "Setsan Dry Dock", a tidal dock owned by the Myanmar Navy, can take vessels up to 1,000 tons and 250 ft. in length.

The Myanma Shipyards can take vessels up to 2,000 tons and 300 ft. in length.

GANGWAY/DECK WATCHMEN: Compulsory. Arranged by the Traffic Department of the Myanma Port Authority.

The working hours of a watchman are the same as the wharf working hours.

OPENING/CLOSING HATCHES: Undertaken by port labour for hatch boards and pontoon type covers only.

POLICE/AMBULANCE/FIRE: Port Police 295195; Ambulance 271111; Port Fire Brigade 246383.

HOLIDAYS: Ships may work on holidays on application to the Deputy General Manager (Traffic) and on payment of holiday fees.

GARBAGE DISPOSAL: For garbage disposal, suitable arrangements may be made with the Shipping Agency Department of Myanma Port Authority when called for. There is no fixed rate and transportation and labour charges are at cost and service fees will be added.

WASTE OIL DISPOSAL: Not available at present.
SEAMAN'S CLUBS: None.
CURRENCY: Myanma Kyats.

SHIPMASTER'S REPORT: July 1978 (Updated 1994).
Approaches: Approach was from the Malacca Strait, in generally overcast and rainy weather. The last reliable fix obtained prior to picking up the Dagon Light Ship at 1330 hrs. on 6/7/78 was at 0530 hrs. on 5/7/78. From 1330 hrs. on 5th, 2° were allowed for Easterly set, apart from a 2-hour period on the 6th, when only the Compass Error was allowed. This would seem to indicate that an Easterly set was experienced, but it is possible that what actually occurred was that the vessel was set to the Eastward by the tide, from about 0900 hrs. on the 6th until the Dagon Light Ship was picked up. We sighted the Dagon at about the time and on about the bearing we expected.

The tidal information provided on B.A. Chart 823, although depending on observations obtained during the dry season, was most helpful.

On clearing the Rangoon River, shortly after HW Elephant Point, there was a slight South-Westerly tidal set, as one would expect. The departure Pilot provided the following information, which we were not able to check:

B.A. Chart 823: "Thuriya" Light Buoy is in position Lat. 15° 19' N., Long. 95° 01' E., and not as charted. (Charted position: Lat. 15° 20' N., Long. 95° 10.5' E.).

The two dangerous wrecks about 38 and 40 miles South of Thante Light are no longer dangerous.

B.A. Chart 833: The dangerous wreck between Upper Western and Upper Middle Buoys is no longer dangerous. We passed between the buoys without any difficulty, drawing 19 ft. 03 in., fresh water. The following is from our own observations: Upper Spit Buoy is now in approximate position 290°(T) – 7 cables from its charted position. All buoys, from and including Upper Spit Buoy to the berth, with the sole exception of "C.M.B." Buoy, were unlit.

Naturally, vessels do not transit this portion of the river during the hours of darkness. With the exception of Upper Spit Buoy all buoys, light floats and the light ship appeared to be in their charted positions. When crossing the bars and during the river passage very close attention must be paid to the steering. With a top-class helmsman who is really concentrating, little difficulty would be experienced. In order to carry the tide up to Rangoon, it is important that a vessel should arrive at the Pilot Station not later than HW Elephant Point; we were in fact 10 minutes late, and would not have continued except that we were fortunate enough to have the most senior Pilot on board.

It was noticed on departure that an inbound vessel giving an ETA at the Pilot Station 30 minutes after HW Elephant Point, was directed to anchor.

Anchorages: Vessels may anchor in the vicinity of the Pilot Station shown on B.A. Chart 823 or in the petroleum or explosives anchorages shown on B.A. Chart 833.

Berthing: Vessel was originally placed at a buoy berth, the anchor cable down the hawsepipe and shackled on to the buoy.

As we have a short length of cable inboard of each anchor with a joining shackle, this operation presented little difficulty but took considerable time.

When we were placed at the buoy, it was dark by the time the operation was completed, but if we had gone straight alongside this could have been done under twilight conditions. Neither the Pilot nor I could understand why the vessel was not berthed on arrival, since our berth was then vacant. The explanation I received was that the shore lighting was poor and that, as a safety precaution, ships are only berthed in full daylight.

At 0625 hrs. the next morning, we commenced unshackling from the buoy and the vessel was secured alongside No. 1 Berth, Sule Pagoda Wharf at 0805 hrs. We berthed starboard side to, stemming the ebb tide and river outflow. The buoy anchor remained hung off until after berthing. When berthing, the offshore anchor is placed in a convenient position to assist in getting the vessel off again. When alongside and the cable slack, we had 4.5 shackles out on the port anchor. Moorings were as follows: Forward – 3 headlines, 1 ship's wire and a shore mooring chain, all leading ahead. No spring. The shore chain is brought on board and turned up on the ship's bitts. Aft – 1 breastrope, 2 sternlines and ship's wire leading aft. No spring.

Departure: The vessel leaves the berth on the last of the ebb and drops down the harbour stern first to a position North of the transit beacons on the South bank, where she anchors until there is sufficient water to cross the Inner Bar and proceed downstream.

Pilotage: Is compulsory. River Pilots take the vessel from the Pilot Station to the port or buoy and Docking Pilots do the berthing and unberthing, including dropping down to the temporary anchorage. The Docking Pilot remains on board while at anchor. River Pilots, when boarding and leaving, require pilot ladder, manropes and a boatrope. Ship comes under the stern, never ahead, of the cutter, with ladder rigged on the lee side. Docking Pilots board and leave by the gangway.

Communications: Rangoon Radio, call sign XYR, keeps regular watch schedules on 6 HF frequencies. However from departure Lae on 24th June to 2nd July, nothing was heard of this station.

Two-way contact was established on 3rd July, but after the station had instructed the Radio Officer to change frequency, it ceased working.

It was not until 0500 hrs. GMT on 4th July that traffic could be cleared. Later that day it became possible to work XYR on MF. All calls were then answered promptly and an efficient service provided.

An advice of bad propogation conditions from Portishead Radio was in effect during the period covered by the above remarks. This may have had some bearing on the difficulties experienced. The vessel arrived at the Pilot Station at 0830 hrs. GMT, 6th July, 1978.

VHF: The Pilot cutter, the Harbour Master's Office and the Agent's Office are fitted with VHF Channel 16. This is efficiently operated.

Telephone: I spent many hours in the Agent's office, attempting to contact London. We were unsuccessful. The hours, local time, during which one may attempt to call London, are: via Hong Kong – 0900 to 1430 hrs.; via India – 1630 to 1800 hrs. These hours are nominated by the Port and Telecommunication Corporation.

Telex: There are 2 telex machines in the Agent's office, and the Operator's normal hours of duty are 0930 to 1630 hrs. After office hours, the telex machines are open for auto-receiving of inward telexes, and special arrangements can be made for outward telexes on request.

Mail: Both to and from Europe and Australiasia, appeared to be reliable.

Agents: S.A.D. is a government corporation and handles every vessel that uses the port. All concerned are most charming, and very polite. All persons I came into contact with from S.A.D. spoke excellent English.

Documents: Required on arrival: 20 Crew Lists, 6 Crew Personal Effects Lists, 6 Ship's Declarations of Foreign Currency, 6 Crew Declarations of Foreign Currency, 1 International Health Declaration, 1 List of dates of Cholera Vaccinations.

Notes:

1. The Customs do an efficient rummage on arrival, and again on sailing. Their main concerns seem to be cigarettes, foreign currency, drugs and pornography.
2. It is most important that all paper money of any foreign country held either by the ship or by individuals is accurately declared and then placed in one or other of the ship's safes. The safes are then sealed and can only be opened with the approval of the resident Customs Officer. Time and trouble on arrival can be saved by collecting all foreign currency in advance. Some small amounts of foreign currency were found by rummagers, but a lenient attitude was taken and these sums were allowed to be placed under seal. The Penalties for attempting to evade the regulations with regard to foreign currency are severe.
3. All on board are required to be photographed, so that local shore passes may be issued. The passes are valid for 12 months from date of issue and cover subsequent calls at Rangoon or any other Burmese port. No shore leave is permitted until shore passes in quadruplicate have been processed. This happens quite swiftly and takes about 12 hours.
4. With the exception of the Health Declaration, there do not appear to be any pre-printed Burmese Forms, and the ship will have to make up her own.

Tugs: There are tugs in the port, but they are not powerful and are only used in an emergency.

Departure: At least 6 up-to-date Crew Lists are required. All shore passes must be collected prior to departure, they are stamped by Immigration and returned to the holders.

All 3 government departments involved with the vessel (Customs, Immigration and Quarantine) issue a clearance on departure. In addition, the Master is given a letter from the Burma Ports Corporation for the River Pilot, stating that all sailing documents have been produced and giving permission for the vessel to proceed to sea.

Register and supporting Certificates: (Load Line, Safety Equipment, etc.) are taken ashore by Agents on arrival, against a receipt, and returned immediately prior to departure.

Officials: Supervisors and Tally Clerks wear uniform with badges of rank. They must be provided with an office on board, and it is compulsory to provide these gentlemen with meals. Two Customs Officers live on board at all times and accompany vessel to anchorage or buoy berth. These Officers must be fed in the dining saloon and provided with accommodation. On arrival the Customs seal the bond and, if requested to do so, will also seal the dry stores, which is a wise precaution.

Beer is not put under seal. The Customs Officer will make an issue of bonded items daily if requested. The only thing to which restrictions are applied is cigarettes, where the daily issue is limited to 40 per man. Customs also exercise a tight control over all local currency drawn from the Agents and all must be accounted for prior to departure, even cash spent on Provisions.

Cargo Work: Two shifts of 8 hours are normally worked, that is, 0800 – 1600 hrs. and 2000 – 0400 hrs. Cargo can be worked at any time. Overtime hours being 1600 – 2000 hrs. and 0400 – 0800 hrs. Ship's gear was used for discharge. Two gangs were employed at each hatch, and rates of discharge were: No. 2 – 10.35 t.p.h. No. 3 – 14.46 t.p.h. The rate of discharge at No. 2 was remarkably good when one takes into consideration that No. 2 after crane, due to a winch breakdown, was not available after the first 1.5 days. Two gangs were employed throughout at this hatch. After the crane failure the after gang were employed in shifting cargo to where the forward crane could plumb it.

Weather permitting, discharge continued 24 hours a day. A total of 37 hours 40 minutes working time was lost due to rain. When one takes into consideration the many delays and the fact that the Watersiders were discharging a random stow, the rate of discharge was most creditable. Crane drivers and Watersiders were very satisfactory; Supervisors were helpful. Pilferage was nil, damage to cargo was slight and there was no damage to the ship.

Pratique: Granted on arrival. There are no facilities for Radio Pratique.

Provisions: Obtained through the Shipchandler. But very expensive. We purchased salad and bread at the local market at reasonable prices and of reasonable quality. This was done by the Purser/Catering Officer, going there with the Agent and paying cash. This is common practice and was condoned by our Customs Officer.

As we had no contact with the Official Shipchandler, we do not know what his prices were or what his product range is. Any future vessel calling at Rangoon should arrive with as much in the storerooms as possible.

Fresh Water: Obtainable either from water boats or the wharf. Give 2 days notice. It is expensive, 10 Kyats (about 79 pence) a ton. As a precaution, we treated what we took with chloride of lime.

Repairs: We employed some electricians from the machine shop of the Central Electric Service to assist in our investigations of the winch fault at No. 2 hatch. An Electrical Engineer and 3 Electricians were provided and appeared competent. Unfortunately, they did not trace the fault.

Currency: The unit of currency is the Kyat, worth approximately 12.69 to the Pound Sterling.

Weather: Hot and humid, with much rain, it being the season of the S.W. monsoon. Winds in the port were generally light. At the time of our stay, the river was just beginning to rise as a result of the monsoonal rains in the high country, but had not reached full flood. There was, however, a continuous outflow past the port at all states of the tide.

Health: Up to date Cholera Vaccination Certificates are required by the local Authorities and anti-malaria precautions should be taken. Mosquitoes and many other insects are numerous, especially in the wet weather.

General: Five watchmen were provided. When at anchor or at buoy berth, the ship must feed them. When alongside, they eat ashore. The security at the gate is very strict indeed and all local people leaving the port area are searched. No ship's gear or personal effects went missing. There is no garbage collection at Rangoon, so the ship must make her own arrangements for storing waste. Burmese people are unfailingly polite and courteous and naturally expect the same treatment in return. The vessel can work cargo on any day.

Repatriation: Possible but not recommended.

SHIPMASTER'S REPORT: August 1982.

Navigation: Dagon Light Vessel was showing Gp. Fl. (3) 20 sec. on the vessel's arrival, but was unlit on departure 10 days later. The Racon was not operating. The light vessel was in its charted position.

The pilot vessel "Thamada", call sign XYCZ, anchors around position Lat. 16° 13' N., Long. 96° 18' E. In August 1982 the pilot vessel's VHF was not operating, but they could be contacted by WT on 500 kHz and also by Aldis lamp. When picking up a Pilot the pilot vessel will be under way; boat rope, manropes and heaving line are required; the Pilot comes off by motor launch from the pilot vessel. If the anchorage is crowded extreme caution is advised while manoeuvring, due to very strong tides, estimated at 6 knots to 7 knots at Springs. Many collisions have taken place during embarkation of Pilots.

Lanthaya Light Float was observed to be 1.8' N.N.E. of its charted position. It is small and inconspicuous. Northwards of Lanthaya, buoys and light floats are moved as conditions in the channel require, and their charted positions should not be relied upon.

There are no navigational aids available which are useful in approaching the Pilot Station; however, acceptable results were obtained by taking RDF bearings of the Burma Broadcasting Service broadcast station operating on 955 kHz with antennae in position Lat. 16° 52' N., Long. 96° 10' E. (position from World Radio & TV Handbook 1982).

There is a Port Radio station at Rangoon Port, operating on VHF Channel 16, call sign "Port Tower".

Tugs: No tugs are available for berthing, however Pilots are very experienced and all were found to be excellent shiphandlers.

Formalities: Immigration require 4 photographs of each crew member and will issue shore passes; Agents can arrange a photographer to attend on board on arrival.

Customs Regulations are extremely strict, particularly with regard to foreign currency. All foreign currency must be declared and will be put under seal during the vessel's port stay. It has been reported that violations of currency regulations have resulted in severe prison sentences recently. Firearms and narcotics will also be placed under Customs seal. Shore-going crew must undergo Customs inspection at the Main Gate.

Derat is available.

Cargo: The vessel loaded a full cargo of 2,982 hoppus tons of Burmese round logs of mixed varieties; logs were very heavy, averaging out at 1.23 tonnes/cu.m. Cargo was brought alongside by trucks and loaded ex-wharf by ship's gear. Stevedores were inexperienced; stowage was poor and loading rate slow. Cargo was also found to be rat infested. Shippers originaly requested 600 (repeat six hundred) original B/L's, and when this request was dismissed they eventually agreed to 60, issued through Agents, covering 41 parcels of cargo.

Shippers also presented a proforma copy of "Burma Ports Corporation B/L Form" which they requested be issued instead of Owners' forms, stating that this was a standard Burmese B/L form. After studying the clauses contained in this B/L form it was rejected as being poorly written, badly printed, containing many misprints and having no provision for the inclusion of the "Clause Paramount". Masters are therefore advised to exercise caution in accepting a B/L for signature in this form, in order to safeguard Owners' interests.

General: There is a Philippine Embassy in Rangoon, where Filippino crew may renew or be issued with Passports conveniently. Call Embassy for appointment. Fresh water is available alongside or by barge. Bunkers are not available. Minor repairs can be undertaken, but are very expensive. Good medical facilities are available. Fresh provisions may be obtained at the local markets at very reasonable prices. The British Embassy is next door to the main post office. The Strand Hotel, near the British Embassy, provides good meals and adequate facilities at reasonable prices.

SHIPMASTER'S REPORT: August 1992 (Updated 1994).

Documents/Formalities:

Procedure for clearing the ship in the Port of Yangon (Rangoon).

(A) Official parties which come aboard for arrival formalities:

Quarantine (Health) Party	(2 – 4 persons)
Immigration Party	(4 – 6 persons)
Special Intelligence Party	(4 – 6 persons)
Naval Intelligence Party	(3 – 5 persons)
River Police Party	(3 – 5 persons)
Customs Boarding Officer	(1 person)
Customs Inspection Party	(2 – 5 persons)

Customs Search Party (Officers 4 – 5, ratings 10 – 15, but, as a rule, it is not less than 10 – 15 persons total).

Agent (Manager and 3 – 5 Assistants, including Superintendent, Operations Officer, etc.).

(B) Time and trouble on arrival can be saved by preparation in advance of all documents and forms which are required, also by collecting all foreign currency, ship's walkie-talkie, bonded stores (if any) in order that they may all be sealed.

With the exception of the Health Declaration, there does not appear to be any pre-printed Burmese forms, and the ship will have to make up her own.

Following papers should be duly prepared prior to the ship's arrival in the port:

1. For Quarantine Officers:

Maritime Declaration of Health	1 copy
Crew List	3 copies

Free Pratique granted on arrival. No Radio Pratique is issued. Quarantine clearance on sailing is essential.

2. For Immigration:

Declaration for Arrival/Departure Form	2 copies
Crew List	3 copies

All crew members photographs are required, in order that local Shore Passes may be issued. The Agent usually arranges this by photocopying the Seamen's Passports.

3. For Special Intelligence:

Certified Arrival Form	2 copies
Crew List	3 copies
Arms, Ammunition and Explosives List	2 copies

4. For Naval Intelligence:

Certificate of Arrival Form	2 copies
Crew List	2 copies
Arms, Ammunition and Explosives List	2 copies

5. For River Police:

River Police Department's Form	2 copies
Crew List	2 copies
Arms, Ammunition and Explosives List	2 copies

6. For Customs Boarding Officer:

History of the Vessel Form	1 copy
Crew List	1 copy
Declaration of Walkie-Talkie List	1 copy
Arms, Ammunition and Explosives List	1 copy
Bonded Stores List	1 copy
Private Property List	1 copy
Foreign Currency List	1 copy

Boarding Officer should be provided with these papers by Agent, but it is advisable to keep copies for Boarding Office separately, to avoid unwanted request of Boarding Officer during arrival formalities procedure, as sometimes the Agent is last to come on board (due to regulations).

Customs Boarding Officer lives on board at all times, and accompanies vessel to anchorage or buoy berth. This Officer must be fed in the messroom and provided with accommodation.

On arrival, the Customs Boarding Officer seals the bond, currency, ship's walkie-talkie, explosives (ship's pyrotechnics), and if required to do so, will also seal the dry stores, which is a wise precaution. Beer is not put under seal.

The Customs Boarding Officer will make an issue of bonded items daily, if requested.

7. For Customs Inspection:

Master's confirmation regarding ship's cargo, passengers and mail on board.

8. For Customs Search Party:

History of Vessel (in/out) Form	2 copies
Crew List	5 copies
Declaration of Walkie-Talkie List	2 copies
Arms, Ammunition and Explosives List	2 copies

The Customs Search Party do an efficient rummage on arrival, and again on sailing. Their main concerns seem to be drugs, cigarettes, foreign currency and pornography.

9. For Agent (of M.P.A. – Shipping Agency Department):

Myanma Port Authority Form of Import Manifest of Stores – Yangon	3 copies
Bonded Stores List	3 copies
Provision Stores List	3 copies
Deck Stores List	3 copies
Engine Stores List	3 copies
Arms, Ammunition and Explosives List	1 copy
Crew List	7 copies
Private Property List	3 copies
Foreign Currency List	3 copies
Ship's Particulars	1 copy

Ship's documents, which are given to the Agent for arrangements of clearance of the ship in and out:

Ship's Register.
Safety Equipment Certificate.
Safety Construction Certificate.
Safety Radio Telegraphy Certificate.
Load Line Certificate.
Port Clearance from Last Port of Call.

These documents are taken ashore by Agent on arrival, against a receipt, and returned immediately prior to departure.

3 Government Departments are involved with the vessel (Customs, Immigration and Quarantine), and issue Clearance on departure.

General:

1. Entertainment is extremely desirable. This is part and parcel of shipping life in Yangon.
2. Burmese people are unfailingly polite and courteous, and naturally expect the same treatment in return.
3. There are tugs in the port, but they were not used for berthing whilst our vessel in port. Pilots are very experienced, and all were found to be excellent ship handlers.
4. There is no garbage collection at Yangon, so the ship must make her own arrangements for storing waste.

5. Mosquitoes and many other insects are numerous, especially in the wet weather.

6. Navigation: Dagon Light Vessel was showing Gr. Fl. (3) 20 sec., but is sometimes not lit. The Racon is not operating.

7. Pilot vessel "Thamada" (call sign "XYCZ") anchors around position Lat. 16° 13' N., Long. 96° 20' E. It is equipped with VHF, and keeps watch permanently on Channel 16. To call on VHF, say "Pilot Vessel".

When picking-up a pilot, the pilot vessel will be underway, when the sea condition is rough.

Boat rope, manropes and heaving line are required. The pilot comes off by motor launch from pilot vessel.

If the anchorage is crowded, extreme caution is advised while manoeuvring, due to very strong tides, estimated at 6 knots to 7 knots at Springs.

8. Yangon Port Information, which is shown in "Guide to Port Entry", is correct.

SHIPMASTER'S REPORT: September 1992 (Updated 1994).

1. Time: GMT plus 6.5 hours. No alterations during the year.

2. Communications: Communication between vessel and harbour and Harbour Authority was carried out by Telex No. 21208, and Agency Department of Myanma Port Authority by Telex No. 21208 and 21447 via Inmarsat. Yangon Radio (call sign "XYR") does not keep watch schedules on HF (high frequency). All attempts to establish contact had negative results. The day before arrival at Pilot Station, contact was established with Yangon Radio (XYR) and pilot vessel (XYCZ) on MF. Yangon Radio keeps watch on MF according to schedule of Admiralty List of Radio Signals. The pilot vessel keeps a poor watch on 500 kHz. Pilot vessel keeps watch on VHF Channel 16 for calling another vessel, if it has any information from Harbour Master only, and does not answer other vessel's calls. Within harbour limits, contact can be made with Port Tower, call sign "XYU" on VHF Channel 16 (calling frequency).

3. ETA: Information required in advance of arrival: Exact ETA in local time, fresh water draft, speed, g.r.t., LOA, LBP, d.w.t., how many anchors on board, what is condition of radar. 48 hours advance notice of ETA required, confirmation to be made 24 hours later, or one working day ahead of ship's ETA.

4. Anchorages: At 0715 hrs., 31st August, vessel was anchored 3.5 miles S.E. of Lanthaya Light Float. At 1208 hrs., 15th September, vessel was unberthed during ebb flood, and anchored 1 mile from berth, and awaited tide up to Yangon, then proceeded via Inner Bar (near Monkey Point), and anchored at 1710 hrs. same day in New Explosives Anchorage to await daytime. Distance from coal berth to N.E. Anchorage – 14 miles. Distance from N.E. Anchorage to Pilot Station – 33 miles. Outer Bar located in the Western Channel (near Elephant Point).

5. Pilotage: Compulsory. River Pilots (3 men) took the vessel from pilot vessel (Pilot Station) to the Buoy No. 3, and Docking Pilots do the berthing and unberthing.

River Pilots, when boarding and leaving, require pilot ladder, manropes and boatrope. Ladder rigged on the lee side.

Docking Pilots board and leave by the gangway. Pilots are experienced.

6. Berthing: At 1045 hrs. on 2nd September, vessel was placed at Mooring Buoy No. 3 to obtain Pratique.

Anchor cable down the hawsepipe and shackled on the buoy.

At 1140 hrs. on 4th September, the vessel was secured alongside Sule Pagoda Wharf – Berth No. 4.

We berthed starboard side to, stemming the ebb tide and river outflow. Tugs are not used during berthing.

Sule Pagoda Wharf – Berth No. 4, is a berth for general cargo, and storage of cargo situated about 5 miles from ship.

At 1820 hrs. on 9th September, vessel was shifted to Hteedan Coal Berth.

7. Formalities: Required on arrival.

26 Crew Lists.
5 Crew Personal Effects Lists.
5 Ship's and Crew Declarations of Foreign Currency.
3 Deck Stores Lists.
3 Engine Stores Lists.
5 Bonded Stores Lists.
5 Stewards Provisions Lists.
5 Arms and Ammunition Lists.
10 Walkie-Talkie Lists.
5 History of Vessel Lists.
3 River Police Department Declarations.
3 Naval Intelligence Unit Declarations.
3 Special Intelligence Declarations.
1 International Health Declaration.
3 Ship's Particulars.
3 Mail Lists.
Ship's Register.
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radiotelegraphy Certificate.
Load Line Certificate.
Register of Ship's Cargo Gear and Lifting Appliances.
Last Port Clearance.
List of Dates of Cholera Vaccinations.

It is most important that all paper money of any foreign currency is accurately declared, and then placed in Master's safe under seal during the vessel's port stay.

Immigration require 3 photographs of each crew member and will issue Shore Passes.

Customs seal the bond, firearms (rockets), foreign currency and walkie-talkies.

One cabin required for Customs Boarding Officer, who lives and eats on board before sailing.

On arrival at Mooring Buoy No. 3, to obtain Pratique, the following Port Authority personnel came on board:

1. Quarantine Officals – 4 men.
2. Police Officers Special Intelligence, Naval Intelligence – 5 men.
3. Immigration Officials – 9 men.
4. Customs Inspection – 4 men.
5. Customs Search Gang – 25 men.

Time and trouble on arrival can be saved by collecting all foreign currency in advance, readiness of all papers, cigarettes, spirits, beer, soft drinks and food are required for entertainment (very important).

Required on departure:
20 copies Crew List.
2 copies History of the Vessel.

One cabin required for 2 policemen, who live and eat on board when the vessel awaits high tide at anchorage.

t8. Pratique: There are no facilities for Radio Pratique. Pratique granted on arrival at the harbour port limits.

9. Agency Department of Myanma Port Authority. Telex: 21208 and 21447. Cables: "Transagent Yangon". VHF: Channel 16 through Port Tower. Agency is Government company. Mr. Kyi Tha, the Agent, is experienced.

10. Cargo: The vessel loaded a full cargo of 5,901.55 tonnes of copper concentrate from 1450 hrs. on 4th September to 0100 hrs. on 15th September. Cargo was brought alongside by 8 – 11 trucks and loaded ex-wharf by ship's cranes. Each truck has 3 buckets with total capacity of 4.5 tonnes.

Loading rate is very slow as a lot of time was lost due to the following:

1. Rain – 49.3 hours lost, on average 4.7 hours per loading day.
2. No stevedores – 38.25 hours lost, on average 3.6 hours per loading day.
3. Very old technology for loading – on average loading rate was 565.8 tonnes per loading day.

All attempts to improve loading process (to use payloaders, to save time during changes of gangs, to use special hook for loading 2 buckets at one time, to use buckets of larger capacity) failed, as local regulations (Customs, Immigration, Port Authority, etc.) are extremely strict, and each problem/question requires a lot of time and efforts for agreement between different departments, and very difficult to reach positive results. Local Government is military, and all Departments are under military control.

11. General: Watchmen are compulsory. 4 or 5 watchmen were provided, when the vessel was alongside the wharf, they eat ashore.

There is no garbage collection at Yangon.

Fresh water is available by the barge, but expensive, 56 Kyats (U.S.$ 9.51) per ton, and from Wharf 12 Kyats per ton. Minimum quantity of fresh water supplied is 50 tons.

Medical facilities are available, but are very expensive.

Fresh provisions may be obtained at the local markets at reasonable prices.

AUTHORITY: Myanma Port Authority, P.O.Box No. 1, Yangon, Union of Myanmar. *Tel:* 283122, 283123, 283101/6. *Telex:* 21208, 21447 HQTAC BM. *Cables:* Portrust Yangon. *FAX:* (095) 01-95134. *Contact:* The Managing Director.

NOTES

Please also advise Shipping Guides Ltd.

Namibia

LUDERITZ: 26.39 S. 15.09 E. (See Plan)

PORT LIMITS: East of the line from Angra Pt. to a point 1,097 m. due North thereof, thence by a line from the latter point to the South shore extremity of N.E. Point.

DOCUMENTS:

1 copy Arrival Form T958 for Agent.
2 copies Crew List.
2 copies Passenger List.
Certificate of Ship's Registry.
Ship's Articles.
Manifests.
Charter Party.
Bills of Lading.
Official Log Book.
List of Dutiable Stores.
Ship's Radio Station Licence.
Safety Certificate.

PILOTAGE: ETA at least 72 hours in advance if possible; unless in an emergency. Cables addressed to Port Captain Luderitz.

All pilotage inside port limits is compulsory.

Pilot Boarding Positions: 1 mile North of Angra Point. Contact Pilot on VHF Channels 16 and 12.

Pilot Vessels: "Fisant": Black hull, white wheelhouse and yellow roof. "Pelican": Grey overall.

Specific Requirements:

2 manropes at ladder.
Lifebuoy at ladder.
Ship's officer in attendance when Pilot embarking or disembarking.
At night, the ladder is to be lit without blinding Pilot. No broken or slippery ladder rungs.

ANCHORAGES: Outside port limits: Shearwater Bay: Between Diaz Pt. and Angra Pt. Good holding ground. Depth up to 20 m.

Inside port limits: Luderitz Harbour: Between Angra Pt. and Shark Island. Good holding ground. Depth up to 16 m.

Robert Harbour: Between Shark and Penguin Islands. Good holding ground. Depth up to 9 m. Confined anchorage.

RESTRICTIONS: Docking and undocking may take place between 0600 hrs. and 2200 hrs. or at any other time in an emergency.

MAX. SIZE: Shearwater Bay: No restrictions. Luderitz Harbour: No length restrictions, draft 15 m. Robert Harbour: Length approx. 140 m., draft 7.5 m. Alongside main jetty: Length up to 105 m., draft 6.0 m. (In an emergency 6.1 m.)

HEALTH: Arrange for Pratique via Agent.

RADIO: Radio-telephone calls, cables etc. to Agents, Shippers, etc, through Walvis Bay Radio; call sign ZSV. Frequencies as per International Telecommunication Union list of Coast Stations.

VHF: VHF contact with Port Control on Channels 16 and 12. Working Channels: 6, 8, 9, 10, 11, 13, 14, 17, 67, 68, 69, 70, 71, 72, 73 and 74. Same VHF channels apply to Pilot and Tugs.

Diaz Point Lighthouse maintains a 24 hour watch on VHF Channel 16; with working channels as for Port Control. If no reply from port control, contact Diaz Point Lighthouse.

RADAR: No port radar service.

TUGS: Two small tugs are stationed at the Port: "Pelican", 12.5 tons bollard pull, length 26 m. and "Fisant" (diesel) of 220 h.p. length 14 m.

Tugs usually join vessel at head of the channel in Robert Harbour. Tugs lines' are used; at no extra charge.

Tugs are equipped with fire fighting hoses and salvage pumps.

BERTHING: Entrance Channel: Length 708 m., width 60.9 m., depth 6.1 m.

Turning Basin: 236 m. by 198 m., depth 6.1 m.
Main Jetty: Length 242 m. Two berths of 92 m. length, depth 6.1 m.
New Jetty: See "Plan".
Wooden Jetty: Length 168 m., depth 3.5 m.

One berth is available on each side of the main jetty for vessels up to 150 m. in length. A draft restriction of 6 m. at low tide exists. Sea bottom alongside berths and entire channel is soft mud and silt.

The wooden jetty is used mainly for the local fishing fleet of small wooden boats.

No specialised berths exist at Luderitz, at present.

CRANES: 2×4 ton cranes able to work over either side of jetty but unable to work in tandem. Any heavier lifts by ship's gear only.

STEVEDORES: 72 hours' notice is required in order to arrange gangs. Average rates: Frozen fish 18 t.p.h. General cargo 32 t.p.h. Timber 45 t.p.h.

MEDICAL: 2 doctors, one hospital (36 beds), one hospital (160 beds), notice of 4 hours required, except emergencies.

TANKERS: 5×4 in. lines.

DENSITY: 1025.

FRESH WATER: Available on jetty by pipeline through meter at approximately 25 t.p.h.

FUEL: Gas oil connections to 8×3 in. pipelines from shore tanks.

Gas oil bunkers points on the main jetty supply at approximately 25 t.p.h. 1,200,000 litres of gas oil are available.

Small quantities of gas oil by 6,819 litre capacity road tanker are also available at immediate notice.

CONSULS: None.

REPAIRS: Light engineering facilities exist. Underwater inspections and working divers available.

DRY DOCKS: One slipway of 400 tons capacity and 1×150 ton capacity. Used mainly by local fishing boats.

SURVEYORS: Department of Transport surveyor is available at Walvis Bay. Cargo surveys, underwater surveys and other independent surveys are available by Master Mariner (foreign-going).

GANGWAY/DECK WATCHMEN: Not necessary but available if required.

HATCHES: Opened and closed by crew.

CARGO GEAR: Alongside jetty by shore cranes (4 ton capacity) by ship's gear at anchor when using lighters. Eight lighters, 26 m. long, 150 ton capacity are stationed at the port.

REPATRIATION: Handled by Agent.

AIRPORT: 12 km. from harbour. 2 flights a week to and from Windhoek and Cape Town. Charter flights may be arranged.

TIME: GMT plus 2 hours.

HOLIDAYS: Cargo can be worked on any day.

POLICE/AMBULANCE/FIRE: Police: 10111, Ambulance: 2266, Fire: 2607.

SERVICES: Compass adjusting, diving and cargo surveys.

SHIP SUPPLY SERVICE: An Off-Shore Ship Supply Service is operated by the Namibian Transport Services (Harbours) by means of a small tug and (occasionally) by means of a launch.

If the vessel does not have an Agent at the port, a deposit is required before the service will be rendered. The service is provided on a 24 hour basis, provided (except in an emergency) the necessary arrangements are made during normal office hours.

The normal rendezvous position is approximately 3 miles N.E. of Diaz Point Lighthouse (Position of lighthouse: Lat. 26° 38.2' S., Long. 15° 05.6' E.) but the tug, by special arrangement, will proceed further to seaward if required. The depth of water at the normal rendezvous position is 22 m.

SHORE LEAVE: 24 hours at anchorage, launch available. No restrictions when alongside.

IDENTIFICATION CARDS: Seaman's Book.

GARBAGE DISPOSAL: Drums are available. Collection on request through ship's Agent or Port Control. Tel: 06331-2337.

WASTE OIL DISPOSAL: Drums are available. A 1 cu.m. mobile tank for use on wooden jetty is available. Contact Port Control, Tel: 06331-2337. Slop barge of 12.0 cu.m. also available.

SEAMAN'S CLUBS: None.

CURRENCY: Namibian Dollar.

DELAYS: No delays normally, except due to weather.

GENERAL: Fresh provisions, supplies and services available by arrangement with Agent.

Basic weather conditions: Summer – South to S.W. wind up to 35 knots frequently experienced. Winter – winds variable but mainly North up to 20 knots. Fog is frequently experienced West of Angra Pt.

Charts: BA. 3861 and 3863; South African Naval Charts: 1002 and 1003.

SHIP'S OFFICER'S REPORT: December 1983.

Medical: No facilities for blood tests; these can only be done when there is a direct flight to Cape Town.

Surveyors: Port Captain acted as Cargo Surveyor.

Customs: Very strict regarding magazines. These should be sealed in bonded store, otherwise fines payable.

Shore Leave: Possible from anchorage using tug.

Stores: Fresh vegetables available, but at very high prices.

AUTHORITY: Transnamib Harbours, P.O.Box 88, Luderitz, Namibia. *Tel:* 06331-2337. *FAX:* 06331-21228. *Contact:* Port Captain.

WALVIS BAY: 22.57 S. 14.30 E. (See Plan)

PORT LIMITS: The area bounded on the West by a line drawn from Pelican Point Lighthouse to a point North (true) for a distance of 4 km; on the North by a line from this point drawn East (true) to the mainland; together with the foreshore therein and the jetties, harbour works and harbour lands vested in the Government. For the purposes of calculating port charges a vessel is regarded as an "arrived ship" when it enters the dredged channel in Walvis Bay Harbour or when the vessel anchors in the port limits.

DOCUMENTS:

5 copies Crew List.
8 copies Passenger List.
2 copies Report Inwards/Outwards.
2 Certificates of Clearance DA3.
2 copies Transire DA4 for each port of call.
Manifest of Cargo in duplicate.
3 copies Manifest of Stores DA5.
1 Namport Clearance.
Proof of Payment of Light Dues.
Shipping Master's Certificate.
Immigration Certificate.
Post Office Certificate.
Income Tax Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Load Line Certificate.

PILOTAGE: Pilotage is compulsory. The vessel's Master must radio his ETA to his local Agent, who completes Form T.958 for submission to the Port Authority.

Channel 16 on VHF radio can be used to call the Port Control Office, working Channel 12.

The Pilot boards at a point approximately 0.5 miles North of the Fairway Buoy (Entrance Channel Buoy) in the direction of the Bell Buoy (Pelican Point Spit Buoy).

The pilot boarding ladder and manropes are required mainly on the port side for docking and on the starboard side for sailing, 1.0 m. above the water.

ANCHORAGES: Varying in depth from 13 m. – 14 m. at LWOST 1.0 miles North of Fairway Buoy. Bottom – sand and silt. (Also see "Africa Pilot" Vol. II).

RESTRICTIONS: The movement of Oil Tankers and vessels carrying explosives or dangerous goods are restricted to daytime hours (berthing 0600 hrs. – 2000 hrs., unberthing up to 2145 hrs). The maximum permissible draft is 10.0 m.

MAX. SIZE: Max. LOA 224 m., max. draft 10.0 m. with 0.6 m. under-keel clearance when manoeuvring (Tide +1.2 m. to –1.9 m.).

HEALTH: Master to contact Port Health via Walvis Bay Radio to request Pratique. Same procedure applicable if disease reported.

RADIO: Call sign Z5V. VHF radio in Port Captain's Office.

VHF: Port Control equipped with VHF Channels 16 – 12. Port working Channels 9 – 11.

RADAR: Radar is fitted to the harbour tugs and pilot boats. Master to contact Port Control for radar service.

TUGS: Two first-class tugs equipped with radar, radio telephone, direction-finding apparatus and salvage and fire-fighting appliances; 1 pilot boat and 1 launch.

Tugs normally join a vessel on Pilot's request in the entrance channel and are secured by means of the tugs' wires.

BERTHING: 8 berths available excluding tanker berth. Quay length 1,374 m., max. permissible draft alongside 10.0 m. (salt water). Load/discharge by shore cranes unless cargo of such nature that it is essential to use ship's derricks. Berths No. 1 – 6 general cargo, No. 7 container berth and No. 8 berth allocated to bulk loaders, also utilised as repair berth.

CRANES: 12 cranes available, 10×4 tons, 2×15 tons.

BULK CARGO FACILITIES: Berths No. 1 – 6 utilised if necessary. Berths No. 1 – 7 served by shore cranes. Max. draft 10.0 m. (salt water). Bulk cargoes at Walvis Bay consist of salt/petalite/coal/fluorspar.

SPECIALISED CARGO HANDLING FACILITIES: Berth No. 7 utilised as container berth. Ro/Ro vessels berthed at No. 6, liquid chemicals at Berth No. 5. Container stacking area and 2 container stacking cranes available. Ship's gear will still be required for loading and unloading containers. Liquid chemicals are handled in tank containers.

STEVEDORES: Stevedoring is undertaken by private enterprise and stevedores are appointed by Ships' Agents.

Port requires minimum notice 72 hours prior arrival. Main export salt in bags rate 18/25 t.p.h. depending on method of delivery to ship's side (rail/road).

Working Hours: Normal working hours (weekdays): 0700 hrs. – 1200 hrs. and 1300 hrs. – 1700 hrs.

Overtime until 2000 hrs.

Saturday and Sunday on request.

MEDICAL: Hospitals are available but prior arrangements have to be made with Agents for medical assistance.

TANKERS: Only one berth available. Max. length of vessel accommodated 192 m. Diameter of load/discharge lines 10 in. and 12 in. Discharge rate 10 in. – 240 t.p.h. and 12 in. – 350 t.p.h. Max. draft 9.9 m.

DENSITY: 1025.

FRESH WATER: Available and delivered by hose ex-wharfside – hydrant at 15 t.p.h.

FUEL: Gas oil only available, 12 hours' notice required. Delivery by pipeline at Berths No. 1 – 5, and by road tanker at Berths No. 6 – 8.

FIRE PRECAUTIONS: When berthed alongside a wharf or jetty, a ship having explosives or any other goods of a dangerous nature, the Master shall, if the Port Captain so directs, have a fireman in attendance, the cost whereof shall be borne by the Owner of the ship and the Master of any such ship shall also, at the expense of the Owner of the ship, adopt such other or further precautionary measures as the Port Captain may consider reasonably necessary for ensuring the safety of the harbour, the ship or the cargo.

CONSULS: France.

REPAIRS: All types of deck and engine repairs possible.

DRY DOCK: There are no dry-docks available at this port. A syncrolift with a lifting capacity of 2,000 tons, maximum permissible length of 72 m., max. beam 13 m., and a depth of 10 m. is operated by Namibian Ports Authority.

SURVEYORS: Lloyd's and N.V. represented.

GANGWAY/DECK WATCHMEN: Arrangements have to be made with vessel's Agents to secure services of gangway/deck watchmen.

HATCHES: Opened by crew or stevedores.

CUSTOMS ALLOWANCES: Officers: 200 cigarettes, wine 3 litres, spirits 1 litre, beer 2 litres.

Crew: 3 litres wine, 200 cigarettes.

Allowances are based on 4 day issues.

CARGO GEAR: Loading/discharging of cargo is effected by means of shore cranes. 30 ton mobile crane available in case of emergency (Private).

REPATRIATION: All facilities available.

AIRPORT: Situated 14 km. from Walvis Bay. Served by Air Namibia, 3 flights per week, Tuesday/Friday/Sunday.

TIME: GMT plus 1 hour (Winter). GMT plus 2 hours (Summer).

HOLIDAYS: New Year's Day (1st January); Good Friday; Easter Monday; Ascension Day; Day of Covenant (16th December); Christmas Day; Boxing Day (26th December).

Cargo worked on all holidays except Christmas.

POLICE/AMBULANCE/FIRE: Police Tel. 10111; Ambulance Tel. 3441; Fire Department; Municipal: Tel. 3117.

TELEPHONES: Arrangements have to be made with Post Office to have a telephone connected.

SERVICES: 24 hour launch service available, divers inspect fouling, underwater photography, tank cleaning, hold cleaning, compass adjusting, radar repairs, hull cleaning.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Seaman's Book sufficient.

GARBAGE DISPOSAL: Collection service is available by means of 2×10 tonne high side trailers on a daily basis or when required. 18 purposely designed skips per berth are on the quays. Charge for garbage disposal R24.20 per cu.m. or part thereof.

WASTE OIL DISPOSAL: Road transport service available at N$50 per hour. Capacity: 27,000 litres.

SEAMAN'S CLUBS: Mission to Seaman, 13th Road, Walvis Bay. Tel: 2594. Facilities include shop, telephone, church services, bus collection.

CURRENCY: Namibian Dollar (N$).

REGULATIONS: A copy of the Regulations are supplied gratis to Masters on arrival.

DELAYS: If any delays, caused by fog.

AUTHORITY: Namibian Ports Authority, P.O.Box 361, Walvis Bay 9190, Namibia. *Tel:* +264-64-208201, 208320. *FAX:* +264-64-208242, 208390. *Contact:* Captain J-D von der Fecht, Chief Executive Officer. Mrs.P. Reilly, Corporate Affairs Officer.

AGENT: King & Sons (Pty.) Ltd., P.O.Box 529 (174 3rd. Street East), Walvis Bay 9190. Tel: (092646420) 2771. Telex: 3529. Fax: (092646420) 3994.

NOTES

Please also advise Shipping Guides Ltd.

Republic of Nauru

NAURU: 00.32 S. 166.56 E. (See Plan)

PORT LIMITS: Vessels to arrive approximately 4 miles to the West of the island and establish contact with Nauru Port Control on VHF Channel 16 to obtain further instructions. Vessels are advised not to approach closer than 0.5 miles off the island, due to very strong and variable currents.

DOCUMENTS:
International Declaration of Health, 1 copy.
Clearance from Last Port.
Crew Lists, 2 copies.
Passenger Lists, 2 copies.
Manifest, 1 copy.

PILOTAGE: Pilotage is compulsory. The Pilot Station is 0.25 miles bearing 315° (T) from the Northern-most buoy ('A1') of the Northern (No. 2) cantilever, on the West side of the Island, which is approximately 0.5 miles offshore.

Masters should inform the Harbour Master on departure from last port, 72 hours and 24 hours before arrival. ETA messages should be sent through Radio Nauru (C2N) or through Sydney Radio to telegraphic address "Nauruphos Nauru" or telex No. ZV 33082 Nruphos for attention of the Harbour Master. On receipt of the second ETA message, Nauruphos will advise the Master through Nauru Radio or Sydney Radio of any messages for the vessel.

The Harbour office is open from 0700 hrs. daily, 0730 hrs. Sundays, and the Harbour Master will contact vessels on VHF Channel 16 or 2182 kHz regarding berthing instructions.

Vessels should fly the Nauru National flag when approaching the island.

A safe, clean pilot ladder with 2 manropes should be rigged on the port side of the vessel with the bottom rung 0.7 m. above the water. Vessels should approach the Pilot Station from the North on a heading of about 220° (T).

The pilot normally remains on board throughout the period that the vessel is made fast to the mooring system. The weather is extremely unpredictable and the vessel may be required to slip and sail at very short notice.

ANCHORAGES: No sea anchorage is available at Nauru due to extreme depths of water all around the island. Vessels unable to moor due to adverse weather, late arrival or berth occupancy drift off the port and return by daylight next morning, or when required to do so by the Harbour Master.

There are no known shoals offshore.

RESTRICTIONS: There are no restrictions on draft or tide. Onshore winds (Westerly) generate an onshore set which may make ship handling unsafe when the Harbour Master will declare a non-weather working day. Vessels are only brought in to the moorings during daylight hours. Sailing possible at anytime.

MAX. SIZE:
No. 1 (Southern) Cantilever: Condemned as beyond repair.
No. 2 (Northern) Cantilver:

Maximum arrival deadweight	20,000 tonnes.
Maximum sailing displacement	50,000 tonnes.
Maximum length	192.02 m.
Maximum beam	28.34 m.
Maximum airdraft	12.73 m.

HEALTH: Masters of vessels approaching Nauru are required to send a telegram or telex directly to the Quarantine Officer, Nauru, not more than 24 hours and less than 12 hours before arrival either through Nauru Radio or Sydney Radio. The quarantine message should state the name of the last port, the date of departure from the last port, the number of crew and passengers, and the presence of any infectious disease. If no reply is received from the Quarantine Officer, the vessel should call Nauru Radio on VHF Channel 16 and obtain pratique, after arrival off the island. The telex number of the Quarantine Officer is ZV 33086 NRUMIC.

RADIO: Nauru Radio. Call Sign: C2N.
Hours of operation: 0800 – 1300 (local time) 2000 – 2330 (UTC)
1300 – 1630 (local time) 0100 – 0430 (UTC)

For frequencies and schedules see 'Admiralty List of Radio Signals'. If difficulty is experienced in raising Nauru Radio, messages can be passed through Sydney Radio or any convenient Coastal Radio Station. Messages may also be sent to Nauru Radio on telex No. ZV 33086 NRUIMC or ZV 33081 GOVNRU.

There is a short wave radio in the Harbour Office and contact can be made on 2182 kHz. Other frequencies are 6215.5 kHz, 6221.6 kHz and 16590.2 kHz.

VHF: The Harbour Office (Nauru Port Control) has a VHF set with a range of 20 miles to the West of the island. Difficulty is experienced communicating by VHF with vessels to the East of the West side of the island.

Calling: Channel 16 – Working: Channel 14.

Nauru Radio Station is situated on the South side of the island. Some difficulty is experienced communicating by VHF with vessels to the North of the island. Nauru Radio operates on Channels 16, 11, 26 and 68.

RADAR: A radar set is installed in the Harbour Office for the purpose of monitoring rain squalls.

TUGS: No tugs available.

BERTHING: There are 2 sets of mooring buoys for the phosphate loading cantilevers. The mooring gear for making fast to the mooring system for vessels coming to load phosphate or discharge oil is supplied from ashore. Mooring gangs board the vessel at the Pilot Station to carry out the mooring operation under the direction of the duty Harbour Master (Pilot). All Harbour Master's are qualified Master Mariners. Ship's anchor cables are not used. The ship's forward and after cranes/derricks must be rigged on the port side for lifting the mooring gear on board.

A vessel is moored initially to the outer buoys which are anchored in approximately 600 m. of water and are then hove to an inner mooring system. In the loading position the vessel lies in about 30 m. of water and about 18 m. – 24 m. from the reef edge.

Loading of phosphate is from 2 cantilevers with a combined pour rate of 3,000 tonnes per hour.

Vessels handling containers or general cargo tie up to the outer buoys and use ship's lines. Lighters are brought alongside for the handling of cargo.

STEVEDORES: Supplied by Nauruphos, no advice required. When shore mooring ropes are used, the stevedore supervisors are in charge of the mooring gangs fore and aft. Cargo operations are conducted around the clock.

MEDICAL: Medical treatment can be given at short notice. There are 2 hospitals on Nauru and emergency surgery can be carried out. Cholera vaccinations are required if the vessel has come from an infected area.

If vessels are calling at the island solely for the purpose of obtaining medical assistance, the request for medical assistance should be sent directly to the Principal Immigration Officer, Nauru, on telex No. ZV 33086 NRUIMC or ZV 33081 GOVNRU.

TANKERS: Length and beam as for phosphate vessels. 8 in. discharge line, to storage tanks, capable of 60 p.s.i. discharge pressure.

Small tankers (less than 150 m.) usually use ship's lines for head and stern lines, but inner and outer breast lines are supplied from shore as for phosphate vessels.

DENSITY: The entire mooring system is in the open sea. Normal salt water at all states of tide and season.

FRESH WATER: A new desalination plant was built in 1993, and fresh water supply is now plentiful on the island. However, there are no water barges available, and ships can only get water in small quantities, and only in case of emergency.

FUEL: Island stocks are imported for use in the phosphate industry. Bunkers are not normally supplied. Limited quantities may only be made available in cases of extreme emergency.

CONSULS: Australian and Republic of China (Taiwan).

REPAIRS: Small repairs such as welding, brazing and lathe work may be carried out when such repairs are essential to allow the vessel to proceed on its voyage. Electronics technicians employed by the phosphate corporation may be able to effect repairs to electronic navigational aids providing that circuit diagrams are available.

Main engines may not be immobilised while the vessel is made fast to mooring system.

SURVEYORS: Nauru Phosphate Corporation is the appointed agent of Lloyd's of London. The Harbour Master performs the surveys. Draft surveys are the responsibility of the vessel.

GANGWAY/DECK WATCHMEN: The inshore gangway is usually used for labour to gain access to the vessel. The alighting platform of the gangway should be suspended about 2.0 m. above the water. A member of the crew should be available to raise or lower it as necessary.

OPENING/CLOSING HATCHES: Carried out by ship's crew.

CUSTOMS ALLOWANCES: No restrictions on crew consumption apply. Trading between ship and shore is prohibited.

CARGO GEAR: Cargo gear should be up to the standard demanded in Australian ports. Derricks and/or cranes must be topped and made ready for operation by the ship's crew who should instruct the winch/crane operators in their use. The handling of containers and general cargo is by ship's gear only.

REPATRIATION: Repatriation and crew changes can be arranged.

AIRPORT: Airport is 1 km. from the Harbour Office. Air Nauru operates regular flights to Australia, New Zealand, S.E. Asia and major locations in the Pacific.

TIME: GMT plus 12 hours. No alterations during the year.

HOLIDAYS: Christmas Day, New Year's Day, Good Friday and Easter Sunday are normally closed holidays. Other National holidays occur during the year but work normally continues on these days.

POLICE/AMBULANCE/FIRE: All emergencies are handled by the Harbour Masters.

TELEPHONES: Nauru International dialling code: 674.

No telephones are placed on board. The duty Harbour Master and Stevedore Supervisors carry radios for communication with the Harbour Office, wharf supervisors and plant operators. No radiotelephone facilities exist.

SERVICES: 2 good hotels (3 and 4 star) with all facilities.

BANKS: The Bank of Nauru is the only bank on the island. There are 2 branches of the bank, both within 0.5 km. of the Harbour Office.The main office is located in the Civic Centre. The currency of Nauru is the Australian dollar. Money transfers can be arranged directly with the bank, or through the Westpac Bank of Australia. Bank of Nauru, P.O.Box 289, Republic of Nauru, Central Pacific. Telex No. ZV 33085 BANKNRU. Telephone 5239 and 5240.

STORING: There are 2 large supermarkets which can supply foodstuff, hardware and clothing.

SHIP SUPPLY SERVICE: The Marine Department can provide a barge to ferry personnel to and from the ship in emergency cases. At all other times, use of the barges is subject to availability. A charge of A$50.00 is levied for the service.

SHORE LEAVE: This may be granted by the Master in consultation with the Harbour Master on board.

IDENTIFICATION CARDS: Some form of identification, Passport, Discharge Book, or I.D. card, should be carried by crew members.

REGULATIONS:

1. Unless otherwise advised, derricks and/or cranes must be rigged for discharging to or from lighters alongside the vessel.
2. The rigging and adjusting of derricks and cranes prior to, or during cargo operations is the ship's responsibility.
3. Shore crane drivers are supplied solely for the loading and discharge of cargo.
4. The opening and closing of hatches is the ship's responsibility.
5. Shore labour does not apply or release cargo lashings, except in the case of twistlocks within a container stow.

6. Hatch cleaning is not performed by shore labour as part of cargo operations.
7. The handling of ship's moorings is the responsibility of the ship's crew. Shore labour will handle the moorings when the vessel ties up alongside the phosphate loading cantilvers.
8. Normal hours are 0700 – 1900. Any variation is at the Harbour Master's discretion.
9. The pilot is to be provided with access to the wheelhouse at all times in order to operate the radar to detect rain squalls.
10. Mooring winches to be available at all times.
11. The engines are not to be immobilised, but are to be ready at 10 minutes notice. When notice is given, it is expected that the mooring winches will be immediately available.
12. The weather is extremely unpredictable. If the weather deteriorates, the vessel will be slipped from the moorings and put to sea *WHETHER OR NOT THE MASTER AND CREW ARE ON BOARD*. For this reason, it is imperative that the vessel is adequately manned at all times.
13. Barges may be provided to ferry crew ashore, subject to their availability. All requests should be referred to the pilot or Stevedore Supervisor.
14. Vessels must not approach the port unless requested to do so.
15. Trimming of bulk phosphate is not performed by shore labour.

DELAYS: Normally no delays should be expected. Vessels arriving in the afternoon usually berth the following day. One or two days delay may be experienced due to port congestion, but this is rare. Phosphate vessels usually take preference over other vessels which will be berthed after the phosphate vessels have tied up.

Delays can occur due to adverse weather, the duration of which is unpredictable.

GENERAL: The mooring system is in the open sea with no protection from the wind or waves from the West. Waves under the cantilevers are shorter and steeper than outside as a result of the shoaling effect of the coral reef. Vessels are continually rolling and heaving while under the cantilevers This makes it extremely dangerous for the ship's crew to open and close hatches with pontoons.

Vessels with derricks cause delays because it is usually not possible to swing the cantilevers between hatches for the various pours without heaving the vessel out on the moorings and back in again after shifting the cantilever.

Easterly trades predominate for most of the year when the mooring system is in the lee of the island. However, Westerly monsoons blow during the wet season from November to March. Westerly winds blow up to 45 knots and rain squalls are frequently experienced. Strong onshore currents remain for several days after the winds have eased. For this reason it is extremely dangerous to approach the buoyage system after Westerly winds.

During the monsoon season vessels should have sufficient fuel, fresh water and provisions for at least 30 days over and above the normal duration of the voyage.

Strong mooring winches are essential since no tugs are available and the vessel has to heave out on the mooring ropes before sailing.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Australian Dollar (A$).

AUTHORITY: Nauru Phosphate Corporation, Marine Department, Aiwo District, Republic of Nauru, Central Pacific. *Tel:* 5554192, 5554205 (after hours). *Telex:* ZV 33082 NRUPHOS "Attn. Harbour Master". *Cables:* Nauruphos, Nauru. *Fax:* Area Code 674, 555-4111. *Contact:* Captain R.N. Underdahl, Harbour Master (Tel. Office (674) 555-4189. Residence (674) 555-4205.

NOTES

Please also advise Shipping Guides Ltd.

Netherlands

GENERAL:

CUSTOMS: *Shipmaster's Report:* June 1993.

The Customs gangs who search vessels on arrival will confiscate protected animals, corals and products made out of materials from protected animals.

AMSTERDAM: 52.22 N. 04.54 E. (See Plan)

PORT LIMITS: Notice of Readiness will only be accepted (subject to C/P terms) if vessel has actually arrived at Amsterdam, which means that vessels have to enter from sea and pass the locks at Ymuiden, proceeding through the North Sea Canal to Amsterdam. There are various buoys and quays available where vessels can be moored waiting for final discharging berth.

DOCUMENTS:

Health Certificate. Forms obtainable from sea Pilot.

Crew List in triplicate.

2 copies of Crew Manifest for cigarettes, cigars, spirits, etc., belonging to crew.

Passenger List in triplicate.

1 copy of Manifest.

1 copy of Bills of Lading.

Dangerous Cargo List.

Ship's Register.

1 copy Stores List.

Also see "Rotterdam".

PILOTAGE: *Ordering a Pilot:* In order to avoid possible delay in obtaining a Pilot, all ships bound for the North Sea Canal range should send a standard message at least 6 hours in advance when inward bound, and 4 hours in advance when outward bound to:

Pilot VTS Ijmuiden, Traffic Centre, 19 Seinpostweg, 1976 BT Ijmuiden. Telex: 71169 Pl.VTS. Fax: 0255-532535. Tel: 0255-564500. Day and night service VHF Channel 12.

Messages regarding deep draft ships (more than 45 ft. in salt water) are expected 24 hours in advance, and are to be confirmed at least 8 hours before arriving in position Lat. 52° 30' N., Long. 03° 50' E.

Messages regarding licensed ships (draft range from 43 ft. to 45 ft., particular transports, etc.) at least 7 days before arrival at above mentioned position.

Vessels carrying dangerous goods at least 24 hours before entering Dutch territorial waters.

Delays of one hour or more have to be corrected.

The Master shall transmit his vessel's ETA via Scheveningen Radio (PCH), or any other suitable means of communication.

Communications: All arriving ships are requested to maintain continuous watch on VHF Channel 12 as soon as within VHF range, for Pilot messages and berthing orders, as well as for the locking process and other information. At the special request of Traffic Centre Ymuiden, ships should change to Channel 9.

Pilot Service Information:

1. Pilot Coordinator: Information about the boarding of the Pilot, pilot helicopter services, advice to deep draft vessels, etc., can be obtained 24 hours a day from the Pilot Coordinator at Traffic Centre Ijmuiden on VHF Channels 12 and 9, or by Tel: 0255-564503.

2. Pilots Corporation (Regionale Loodsencorporatie Amsterdam – Ijmond): Messages concerning the organisation of the pilot service, complaints, etc., should be sent to: The President of the 'Regionale Loodsencorporatie Amsterdam – Ijmond', 242 Kanaaldijk, 1975 AJ Ijmuiden, or during office hours by Tel: 0255-564501.

Operations:

1. Piloting of Ships with Draft up to 45 ft.:

Boarding generally takes place in an area around the Racon Buoy (Racon --.-) varying from one mile North to one mile South of the leading line 100°, depending on the tide and from 2 miles East to 3 miles West of that buoy, depending on type and size of the ship.

Pilot launches operate between the harbour and the vessels to be piloted. The hull of these ships is yellow, the superstructure white and the word 'Pilot' painted in black on sides. Vessels are equipped with radar and VHF. In order to perform a smooth piloting procedure, it is advisable to contact the launch on Channel 9.

2. Piloting of Ships over 45 ft.:

Ships exceeding this draft are boarded in the approach of the IJ-Channel (52° 30' 00" N., 03° 50' 00" E.) by helicopters. Outward bound debarkation takes place after passing Buoy 'Y 1'. The vessels concerned must be equipped in conformity with the safety standards of the International Civil Aeronautical Organisation (ICAO) as published in the 'Guide to Helicopter/Ship Operations' by the International Chamber of Shipping (ICS).

In view of the narrowness of the IJ-Channel, vessels which have to be restricted thereto are urged to use Government Pilots. To promote the safety of shipping, the Pilots work with a Decca electronic position finding system in combination with a Norcontrol computerised surveillance radar ashore.

3. Piloting suspended with Launches:

Boarding by launch is suspended when wind force is 7 or 8 Beaufort Scale (wave height exceeding 2.70 m.).

As a substitute, Pilots of the local Pilot Corporation Amsterdam-IJmond may embark by helicopter.

1. Ships with Helicopter Facilities:

Ships, due to arrive at the North Sea Canal area, should pay special attention to the weather situation, as piloting with launches is stopped when wind force increases to 7/8 Beaufort Scale. Helicopting is available on demand against a fixed tariff, but is a matter to be deliberated between Agents and the coordinating Pilot. Early consultation with Agents is desirable.

If helicopter pilotage is not possible, Pilots may embark in other ports under the following conditions:

2. By means of public transportation: At Rotterdam (4 hours), Antwerp and Flushing (5 hours) previous notice. Pilot can also board at other places.

3. Shore-based Pilotage (Remote Pilotage):

Pilot's information and advice for ships with a length overall up to 125 m. can also be obtained by means of shore based radar, when launches are not working outside the breakwater.

Shipping is notified of the fact that the existing radar equipment does not entirely meet the operational requirements for remote pilotage.

For this reason, it is mandatory that the Master explicitly states that he wishes to enter the harbour using RRP, and that there is no objection to do this under the terms of the conducted access policy.

Procedure:

(a) Traffic Centre IJmuiden (Channel 9) requests the ship to switch over to Channel 19.

(b) The ship has to proceed to a position 100° about 4 miles West from the breakwater prior to entering.

The following are to apply:

Reasonable contact ship-shore and vice versa.

Two good working VHF units.

Some manoeuvring data needs to be known ashore.

The Master of the ship is obliged to board the Pilot as soon as the ship is inside the breakwaters.

1. Pilot Launches:

Pilot launches engaged on their station on pilotage duty shall fly, exhibit, display, hoist or sound.

(a) By day: The pilot flag, a blue flag with white letter 'L' displayed from the foremast.

(b) At night: The lights as prescribed by Regulation 29 of the Regulations for Preventing Collisions at Sea.

(c) During fog, mist, snow, heavy rainstorms or any other weather conditions which in like manner cause visibility to deteriorate, the sound signal as prescribed by Regulation 35(a), (b), (f) and (i).

2. Pilot ladder:

Pilot ladders should be rigged on starboard or port side, depending on the weather situation, at a height of about 2.0 m. (6 ft. – 7 ft.) above sea level.

In cases of freeboard more than 9.0 m. (29 ft. 06 in.), the ladder should be made ready in combination with the accommodation ladder.

3. Hoist landings: (ICS Guide character 'D').

Hoist landings must meet the following conditions: Manoeuvring zone 27.5 m. (90 ft.) diameter. Broken white circle need not to be painted. Clear zone (solid yellow circle, with same centre point) not less than 4.6 m. (25 ft.) diameter. Maximum height of obstacle within manoeuvring zone 3.05 m. (10 ft.). Minimum height the helicopter will hover – about 10 ft. above the highest obstacle in manoeuvring zone.

All other deck markings as shown in the ICS Guide under 'A', 'D' and 'C' may also be used for hoist landings.

In order to prevent useless spending, Agents should be aware of the fact that ships without deck markings, as well as those which fail to comply with the operating recommendations, may be refused by the boarding Pilot.

Limitations:

Wind of more than 10 Beaufort Scale (55 km./hr.).

Visibility less than 800 m. at 150 ft.

Severe air turbulence, icing and extreme rolling and pitching of the ship.

Container ships:

Container carriers, which intend to request a Pilot by helicopter, shall provide, in advance to the helicopter company, drawings (preferably on an original deckplan), showing arrangements as outlined under "Operations" No. 2 and "Procedure" No. 2.

Maritime Traffic Act: Pilotage is mandatory for vessels over 65 m. LOA, and all vessels equipped for bulk transport which are not gas-free or are carrying dangerous cargo in bulk, regardless of the length.

1. Exemptions:

All sea-going vessels over 40 m. have to pay pilotage dues. The following vessels with a length of less than 65 m. are exempted from pilotage/pilotage dues.

(a) Tugs.
(b) Salvage vessels.
(c) Dredgers and vessels for conveyance of sand, mud and gravel.
(d) Fishing craft.
(e) Lifeboats.
(f) Pilot vessels.

Unless they are used for other purposes than specified above. When a vessel has failed to engage a commissioned Pilot, full dues are charged, unless it can be proved that a Pilot was not available.

Note: Revised legislation will come into force in the course of 1995.

2. Owners and Master are requested to note that neither the Pilotage Corporation or the Pilot can be sued for damage sustained or done to any other vessel or object by a ship carrying a commissioned Pilot.

Pilotage in all estuaries, seaports, rivers, navigable waterways and canals within the Netherlands is exclusively carried out by the commissioned Pilots of the local Pilots Corporations (Regionale Loodsencorporatie).

3. Pilotage dues are based on the draft of the vessel measured in decimetres. Fractions up to 0.5 are rounded off and fractions above 0.5 are counted as full in assessing pilotage dues. For rendering pilotage

service outside the limits of any pilotage district, retaining fees and travelling expenses are charged in addition to dues as specified in the tariff (other instances when retaining fees or travelling expenses become due are specified in the Addenda to the Traffic of dues).

Dues and other charges for both inward and outward pilotage services shall be paid before sailing outward, but in no case later than one month after the service was rendered. Custom-house officers shall refuse clearance of a vessel without a certificate of payment or of a lawful document authorising exemption from pilotage. Claims for readjustment of payment for pilotage services must be made within 12 months.

Also see "Ymuiden".

ANCHORAGE: Anchoring in Ymuiden outer harbour, North Sea Canal and in harbour of Amsterdam is prohibited.

RESTRICTIONS: Entry possible at night.

MAX. SIZE: Vessels proceeding to Amsterdam have to pass locks at Ymuiden. Dimensions of Northern lock (largest): 400 m. long, 50 m. width and 15.00 m. deep at N.A.P. (N.A.P. is 1.13 m. above LLWS.) Max. LOA 325 m. Max. width 42 m., max. draft 43 ft. (and with special permission up to 45 m.).

At max. width 45 m. the max. draft is 40 ft. salt water. Between 45 m. width and 42 m. width the draft increases gradually from 40 ft. till 45 ft. salt water. All these ships have to pass the locks with special permission.

The official max. draft to enter Ymuiden is 54 ft. salt water. Vessels with a draft of 43 ft. to 45 ft. salt water may enter Ymuiden and proceed to Amsterdam.

RADIO: Cable Agents giving ETA, draft, cash and other requirements via Scheveningen Radio/PCH.

RADAR/VHF:

VHF Channel	*Channel Use*	*Call Sign*	*Compulsory Monitoring*	*Compulsory Reporting Sea-Going Traffic*	*Compulsory Reporting Other Traffic*	*Remarks*
12	VTS-Channel	Traffic Centre IJmuiden	Yes	Yes	No	Area: IJmuiden approach within radar coverage as indicated on navigational charts (See "Plan"). Outside circle radius of 5 miles from piers.
9	VTS-Channel	IJmuiden Port Control	Yes	Yes	Yes	
11	VTS-Channel	Northsea Canal Traffic Centre	Yes	Yes	Yes	Westbound traffic with destination locks, switch to Channel 22 upon request by Northsea Canal Traffic Centre.
14	VTS-Channel	Amsterdam Port Control	Yes	Yes	Limited to vessels carrying 0, 1, 2 or 3 cones and push tows over 100 m.×22.80 m.	Strictly reserved for reporting, traffic information and instructions. Further information: Amsterdam Port Control – Channel 4.
4	Port Information Channel	Amsterdam Port Control	No	No	No	First establish contact on Channel 14.

TUGS: Sea-going tugs available between piers at Ymuiden assisting vessels, into locks or outer harbour. Harbour tugs available in locks assisting vessels to Amsterdam. The rates include use of tug hawser.

BERTHING: Possible at night. If no berth available vessels may be moored on buoys.

Quay	*Length* (m.)	*Depth* (m.)
Amerikahaven	810	15.00
Cacaohaven	320	4.50 – 7.50
Australiehaven	—	15.00
Tasmaniehaven	—	4.50
Aziehaven	250	12.00
ADM Haven	—	7.00 – 9.00
Westhaven	2,650	14.00 – 15.00
Sonthaven	188	9.50 – 13.00
Bosporushaven	400	5.00
Suezhaven	1,108	10.00
Beringhaven	190	9.00
Mainhaven	—	4.00
Moezelhaven	—	4.00
Hornhaven	537	10.00 – 12.50
Jan van Riebeeckhaven	170	4.50 – 12.50
Carel Reinierszhaven	90	4.00
Usselincxhaven	—	12.50
Adenhaven	200	10.00
Petroleumhaven	—	10.00 – 10.50
Coenhaven	3,450	10.00
Mercuriushaven	500	15.00
Vlothaven	1,910	15.00
Neptuneshaven	255	10.00
Minervahaven	240	6.50 – 7.50
Noordzeekanaal (Amfert)	310	10.20
Nieuwe Houthaven	90	6.50
Graansilokade	170	10.00
De Ruyterkade	190	6.00 – 8.00
Johan van Hasseltkanaal (West)	—	3.00 – 3.50
Kop O. Handelskade	80	3.00
Oostelijke Handelskade	1,800	7.70 – 9.80

CRANES:

	Capacity	*Number*
General cargo cranes	1 – 30 tons	58
General cargo cranes for inland craft	1.5 – 5 tons	3
Bulk-cargo cranes (shipping)	2 – 16 tons	10
Container cranes	50 tons	3
Mobile container cranes	35 & 45 tons	2
Container railway cranes	35 tons	2
Van carriers	30 tons	3
Table cranes	5 – 30 tons	7
Transporter bridges	7 – 50 tons	8
Floating bulk cargo cranes	2.5 – 16 tons	4
General cargo cranes (industry)	1 – 40 tons	13
Bulk cargo cranes (industry)	1.5 – 6 tons	11
Mobile cranes (shipping)	1 – 6.5 tons	12
Floating derricks	10 – 300 tons	12

CARGO HANDLING FACILITIES: Grain:

I.G.M.A. (Internationale Graanoverslag Mij. Amsterdam B.V.): The grain terminal, Situated in Vlothaven, is specially designed for the fast discharge and transhipment of grain and derivatives.

Depth alongside 49 ft. 3 in.

A fast conveying installation transports grain into the silos or to receiving ships. Capacity of the silos: 52,700 tonnes. Also soyabeans are transhipped to the soya oil extraction plant next to the I.G.M.A. silo.

Equipment: The installation has a main jetty of 1,200 ft. length to accommodate 2 vessels up to 100,000 d.w.t. The ships are unloaded by 2 mobile pneumatic suckers, with a capacity of 400 t.p.h., 2 screw grain dischargers with a capacity of 800 t.p.h. each and 1 floating elevator with a capacity of 200 t.p.h. for heavy grain. Two crane/weigh tower combinations with a capacity of about 400 tons heavy grain each. A floating crane, capacity 15 tonnes is available for handling stores, spare parts, etc.

Despatch: With the modern equipment and the efficient way of handling, a good despatch can be realised. If two or three discharge units are available, a bulk carrier with 30,000 tons will be completed within 2 days. Daily discharge capacity in total is about 40,000 metric tons.

Supplies: Water obtainable from ashore, stores must be transhipped on barge at the quay as jetty is not accessible to trucks; bunkers by barge.

Pier C: Alongside this berth bulk carriers and tankers can be accommodated to load directly ex-silo. Max. draft 30 ft., max. airdraft 30 ft. Loading capacity 2,000 t.p.d.

Cargill B.V.: Located adjacent to the IGMA Grain Terminal.

Importing vessels are berthed alongside the IGMA pier and the plant receives the soyabeans directly by conveyor belt.

The finished products are loaded into coasters which moor alongside the jetty of the plant along the Mercurius Harbour. Loading capacity: About 200 t.p.h.

Ore, Coal, Agricultural Products, Derivates, etc.:

B.V. Overslagbedrijf "Amsterdam": This stevedoring company for the transhipment and storage of all kinds of dry bulk cargoes is situated in the West Dock, only 10 miles from Ymuiden. Along the quay with a length of 2,600 ft., large bulk carriers with a draft up to 49 ft. 03 in. fresh water can be accommodated. Vessels up to 54 ft. can be lightened at Ymuiden to a maximum draft of 45 ft. salt water.

There are no restrictions as to the length, height or beam of the ships. Maximum outreach of loading/discharging gear over water: 164 ft.; maximum height of loading/discharging gear above water level: 80 ft. 5 in.

Equipment: 4 high speed gantry cranes, gross lifting capacity 3×30 tons (20 tons net) and 1×50 tons (30 – 33 tons net) with built-in electronic weighing system. The 3×30 tons gantries have a maximum outreach over water of 131 ft., allowing a maximum air draft of 50 ft., whereas for the 50 tons gantry the maximum outreach over water is 164 ft., allowing a maximum airdraft of 80 ft.

Double independent conveyor belt-system (length 5 km.) for simultaneous stockpiling/reclaiming into barges and/or railcars with separate cranes for that purpose.

Loading machines for (push) barges and sea-going vessels up to 18,000 d.w.t.

Discharging equipment for railcars. Double track rail connection with Dutch Railway System with automatic weighing equipment. Storage capacity up to 3 million tons.

Capacity: Total discharging rate of gear: For ore up to 100,000 tons per 24 hours; for coal up to 60,000 tons; for derivatives up to 25,000 tons. Loading rate of gear into seagoing vessels from stockpile: up to 2,000 t.p.h. Ex barges: depending on size of barges.

Supplies: Water, stores and bunkers can be delivered by truck and/or barge.

Havenbedrijf de Stuwer B.V.: Handles coal, minerals, ore, derivatives and fertilisers in the Western port area.

Equipment: 3 floating cranes with a capacity up to 16 tons;
Excellent rail connections and weighing bridge;
Screening installations for coal and coke;
Storage capacity up to 200,000 tons;
Vast paved storage areas.

Very reasonable dispatch. Capacity about 15,000 tons per running day; with combined working of gantries and floating cranes even more. Quays with length of 4,800 ft. can accommodate large bulk carriers with a draft of 35 ft. With the floating cranes, vessels drawing up to 45 ft. can be handled at any place in the Port of Amsterdam.

Supplies: Stores, bunkers can be delivered by truck, and/or barge.

Phosphate: *Amfert B.V.*

At the fertiliser works, rock phosphate is discharged and after manufacture the ready product (fertiliser) shipped in bulk.

Equipment and berth: The main jetty has a depth alongside of 35 ft. and 2 vessels of up to about 25,000 tons can be accommodated. With the 2 grab cranes a daily out turn of 5,000 tons phosphate is reached.

Container and Ro-Ro/Ferry Terminals:

Combined Terminals Amsterdam V.O.F. (C.T.A.): Combined Terminals Amsterdam V.O.F. offer a complete container terminal service on the West Terminal which is located in the Westhaven.

Container Freight Station and Intercontainer Railway Terminal incorporated on the terminal site.

Roll-on/Roll-off ramp especially constructed for heavy axle loads. Car terminal facilities for handling large quantities of factory automobiles/trucks.

Berths:
Berth No. 1: Length 250 m. Depth alongside 13 m. (42 ft.)
No. 2: Length 215 m. Depth alongside 11.5 m. (37 ft.)
No. 3: Length 140 m. (Ro/Ro) Depth alongside 11.0 m.(35 ft.)
No. 4: Length 290 m. Depth alongside 11.0 m. (35 ft.)

Equipment: 3 Portainers, with lifting capacity 50 tons each, outreach 36 m. (116 ft.), rail width 20 m. (65 ft.) and backreach 24 m. (80 ft.) with 20 ft., 30 ft., 40 ft. and adjustable spreaders, also to lift two 20 ft. containers simultaneously.

Four multi-purpose-rail mounted dock cranes with lifting capacity of 30 tons on 20 m. (66 ft.) and 12 tons on 40 m. (131 ft.) outreach.

Two rail mounted transtainers, capacity 35 tons and 45 tons with 28 m. (90 ft.) and 40 m. (129 ft.) span rotating and adjustable spreader serving 3 railway tracks.

Eight van carriers, terminal tractors and chassis and heavy lift trucks equipped for containers, steel coils and pulp.

Facilities: Container storage yard 165,000 sq.m.
Car park 140,000 sq.m. (28 acres).
Container freight station 3,000 sq.m. (33,000 sq.ft.) 46 doors.
Two transit sheds 16,000 sq.m. (172,000 sq.ft.).
Workshop for the maintenance and repair of containers and road chassis.
40 reefer receptacles at the required voltages.
Depot of lease containers and road chassis. Container railway terminal.

Working Hours: Usually around the clock, 7 days per week.

Supplies: Fresh water obtainable from the quay, bunkers by barge.

Verenigd Cargadoorskantoor: VCK operates 2 modern stevedoring terminals of which one is equipped for Ro/Ro and passenger traffic: the Scandia Terminal. Regular ferry services sail from there to Norway (Summer passenger service) and Finland (cargo service).

Scandia Terminal: Scandia Terminal in the Suezhaven and Beringhaven, 10.5 nautical miles from the sea-locks in Ymuiden. Total area 105,080 sq.m., marshalling area 84,785 sq.m., quay length 771 m., 3 Ro/Ro ramps, one in Suezhaven and two in Beringhaven, shed space 20,295 sq.m., modern passenger building.

Westport Terminal: 1 mobile container crane of 45 tons. 16 breakbulk cranes of 5 tons – 25 tons. Total area: 5,600 sq.m., quay length: 570 m., shed space: 13,700 sq.m. Marshalling area: 42,340 sq.m.

Also available on both terminals: side loaders (20 tons), tugmasters, slave trailers, flats, containers and forklift trucks.

P. Ter Haak & Zn. B.V.: Double berth Ro/Ro Terminal – Draft 39 ft. Regular Ro-Ro Service to East Coast of Sweden.

Molasses: Cargill – 2 jetties, max. draft 11.30 m. receiving capacity 1,000 t.p.h. Max. d.w.t. 65,000 tons (approx.). Connections 8 in.

Minerals: Eggerding & Co. B.V. Length of quay 400 m. Depth alongside 33 ft. Discharge is carried out by floating cranes.

STEVEDORES: In order to enable Agents to order gangs in time it is recommended to keep Agents duly informed about ETA. No ETA to stevedores necessary.

MEDICAL: If immediate medical assistance will be required in the locks at Ymuiden, Agents must receive advance notice.

TANKERS: *Oiltanking B.V.:* 1 jetty for 2 vessels of 100,000 tons. Max. LOA 310 m., depth 15.0 m., 2 jetties for 2 vessels of 3,500 tons, 1 jetty (used in case of fire). One jetty for 1 ship up to 45,000 d.w.t. Pipeline connection 6 in. and 8 in. Receiving rate 2,000 t.p.h. LPG loading rate 2,000 t.p.h. depending on grade and condition. Fresh water available from jetty, fuel by barge. Stores by barge or trucks. (Jetty not accessible to trucks). Dirty ballast by barge.

Mobil: 2 jetties, 1 for vessel of 30,000 tons and another for vessel of 80,000 tons. Max. LOA 255 m., depth 13.7 m. Pipeline connections 10 in. and 12 in.

The receiving rate for crude oil is 4,000 cu.m./hr. The loading rate varies from 400–1,900 cu.m/hr. depending on grade.

Fresh water available from jetty. Fuel available, pipeline 8 in. Facilities available for dirty ballast if vessel to load at berth. Max. capacity 10,000 tons. Stores by barge or truck (Jetty not accessible to trucks).

H.P.T.: 2 jetties, max. LOA 250 m., depth 10.5 m. Pipeline connections 6 in. – 12 in.

Receiving rate, up to 2,000 t.p.h. depending on grade and back pressure, if any. The loading rate is about 1,000 t.p.h. depending on grade.

Fresh water available by barge. Fuel available by barge. Stores mainly by truck (Jetties not accessible to trucks).

Comos: Two jetties, max. LOA 300 m., depth 15.0 m. Pipeline connections 8 in. and 12 in. Four jetties available for seagoing vessels and barges up to a max. draft 14 ft. 9 in.

The receiving capacity is about 2,000 t.p.h. and loading rate up to about 1,000 t.p.h.

Fresh water available by barge. Fuel available by barge or pipeline. Stores by truck. There are no facilities for dirty ballast.

Smid & Hollander: 2 berths for receiving crude oil, max. LOA 245 m., depth 12.5 m. Fuel available at berth. Fresh water available by barge. Stores by truck (Jetty not accessible to trucks). There are no dirty ballast facilities.

Noord Europees Wijnopslagbedrijf B.V.: One jetty, max. draft 41 ft. For wines, fruit juice and alcohol. Fresh water and fuel available by barge. Stores by truck.

TTS: Located in Petroleumhaven. Max. LOA 170 m., depth 10 m. Fresh water and fuel available by barge. No dirty ballast facilities.

De Humber: Located in Petroleumhaven. Max LOA 150 m., depth 10.0 m. Fresh water and fuel available by barge. No dirty ballast facilities.

G.E.Plastics: Located in Hornhaven. Max. LOA 100 m., depth 5.50 m. Fresh water and fuel available by barge. No dirty ballast facilities.

Schuurman: Located in Usselincxhaven. Max. LOA 180 m., depth 13.00 m. Receives molasses at up to 1,000 t.p.h. Fresh water and fuel available by barge. No dirty ballast facilities.

DENSITY: Amsterdam is not a tidal port. The water is brackish to fresh.

FRESH WATER: Drinking and boiler water can be supplied by barge, or if connection available, from shore. Price depends on quantity ordered.

FUEL: All grades of fuel are available and delivered mainly by barge. Advance notice 48 hours.

FIRE PRECAUTIONS: No repair work to be carried out to tankers without permission of Harbour Authorities. Usual non-smoking precautions, etc.

CONSULS: In Amsterdam only. Many countries represented in The Hague and Rotterdam.

C = Consul. C.G. = Consul-General.

Consulates and Embassies: Argentina (C.G.), Austria (C.G.), Bangladesh (C.), Belgium (C.), Benin (C.), Bolivia (C.), Brazil (C.), Central African Republic (C.), Chile (C.G.), Colombia (C.G.), Cyprus(C.), Czech Republic (C.), Denmark (C.G.), Ecuador (C.G.), Finland (C.G.), France (C.G.), Germany (C.G.), Ghana (C.G.), Great Britain (C.G.), Greece (C.), Haiti (C.), Iceland (C.G.), Italy (C.G.), Ivory Coast (C.), Jamaica (C.), Japan (C.G.), Luxembourg (C.), Malawi (C.), Mauritius (C.), Mexico (C.), Monaco (C.G.), Morocco (C.G.), Nepal (C.), Norway (C.G.), Panama (C.G.), Peru (C.G.), Philippines (C.G.), Senegal (C.), Spain (C.G.), Surinam (C.G.), Sweden (C.), Switzerland (C.G.), Thailand (C.), Togo (C.), Uganda (C.), U.S.A. (C.G.).

GANGWAY/DECK WATCHMEN: Not required. Dependent on commodity of cargo.

OPENING/CLOSING HATCHES: Liner vessels by crew or by stevedores, payable per man per hour. Tramp vessels as per Charter Party.

CERTIFICATES:
Ship's Register.
Usual Cargo Certificate.
Safety Radio.
Safety Equipment Certificate.
Crew Roll.
All usual certificates required for navigation.

REPAIRS: All types of deck and engine repairs are possible including gas-freeing and tank-cleaning.

DRY DOCKS: Ship and engine repairs. Maintenance, survey, damage repairs, lengthenings, conversions, voyage repairs to vessels lying at berths from Amsterdam to Ymuiden. Repair, maintenance and construction of offshore equipment.

At the site of Shipdock Amsterdam B.V. dry docks are available capable of taking vessels up to 70,000 d.w.t.

Maximum sizes of vessels to be dry docked.

Graving docks	Length×Breadth×Depth (in feet)	Dock capacity in D.W.
No. 1	439× 63 ×16.1	10,000
No. 2	518× 69.5×19.0	18,000
No. 3	639× 86 ×26.6	32,000
No. 4	803×117 ×24.3	85,000

Total quay length 5,500 ft.

Equipped with 9 cranes up to 60 tons. Floating crane up to 300 tons available.

Oranjewerf B.V.:

Floating Docks	*Length* (ft.)	*Breadth* (ft.)	*Depth on sill* (ft.)	*Lifting capacity* (tons)
1 floating dock	426	88	18	4,000
1 Transverse slipway	328	115	11	3,000

SURVEYORS: G.L., L.R., N.K.K., Panama Register and cargo surveyors available.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes per man or equivalent of tobacco or cigars. Wine and/or Spirits: 5 litres of wine per man. Spirits: total 5 litres for the whole ship.

CARGO GEAR: Usual cargo certificate.

REPATRIATION: Facilities for repatriation of crew to any destination are available.

AIRPORT: Distance to Schiphol Airport (served by regular airlines) 15 km.

TIME: GMT plus 1 hour. Summer time GMT plus 2 hours.

HOLIDAYS: 1996: New Year's Day; Good Friday; Easter Sunday; Easter Monday; Queen's Birthday (April 30th); Ascension Day; National Liberation Day (May 5th); Whit Sunday; Whit Monday; Christmas Day and Boxing Day.

Cargo can be worked during these days subject to labour being available at premium rates.

POLICE/AMBULANCE/FIRE: Police 222222; Ambulance 555555; Fire 212121.

SERVICES: Compass adjusting/direction finder calibration, representatives of all leading radio installations, radar and other nautical instruments available.

BANKS:

	Tel:
Alcredis Bank B.V., 541 Herengracht	5 20 49 22
Algemene Bank Nederland, 32 Vijzelstraat	29 91 11
American Express Int. Banking Corp., 13-15 Leidsegracht	22 93 22
Amsterdam-Rotterdam Bank N.V. (AMRO), 47 Rembrandtplein	28 93 93
Amsterdamse Crediet & Handelsbank N.V., 553 Herengracht	24 34 99
Banco de Brasil s.a., 457 Herrengracht	25 59 42
Banco de Jerez, 471 Keizersgracht	23 81 55
Banco de Viscaya, 479 Herengracht	26 30 33
Banco do Estado de Sao Paulo, 565 Keizersgracht	22 45 22
Banco Exterior Nederland N.V., 31b Leidseplein	26 12 61
Banco Popular Espagnol, 28/1 Rokin	26 15 51
Bank Kyowa Ltd., 1 Frederiksplein	26 91 31
Bank of America, 617 Keizersgracht	5 57 19 11
Bank of Tokyo, 603 Keizersgracht	5 20 89 11
Banque Chaabi du Maroc, 87 Rokin	23 47 05
Banque Paribas, 539-543 Herengracht	5 20 49 11
Banque de Suez Ned. N.V., 320 Herengracht	22 97 26
Banque National de Paris, 477 Herengracht	5 50 12 12
Barclays Bank Intern. Ltd., 500 Herengracht	26 22 09
A. de Bary & Co. N.V., 448-454 Herengracht	5 55 49 11
Canadian Imperial Bank, 79 Vijzelstraat	22 93 97
Chase Manhattan Overseas Corp., 478 Herengracht	25 56 44
Dai-ichi Kangyo Bank, 540 Singel	26 41 82
Daiwa Europe N.V., 344 Singel	22 99 77
First National City Bank, 545 Herengracht	26 44 55
Gilissen N.V., Theodoor, 12-14 Nwe Doelenstraat	24 73 73
Grenswisselkantoren, Hal Central Station	22 13 24
Hollandsche Bank-Unie N.V., 434-440 Herengracht	29 92 22
Hollandse Koopmansbank, P.O.Box 569	23 66 60
Hongkong and Shanghai Banking Corp., 499 Herengracht	22 02 67
Indonesian Overseas Bank, 662 Keizersgracht	5 51 77 11
Jugobanka, 512 Singel	24 92 74
Kas-Associatie N.V., 172 Spuistraat	21 25 21
Korea Exchange Bank, 31 Sarphatistraat	25 40 22
Labouchere & Co. N.V., 12 Tesselschadestraat	16 00 11
Lloyds Bank Int. Ltd., 29 Leidseplein	26 35 35
Mees & Hope, 548 Herengracht	5 27 91 11
Mendes Gans & Co. N.V., 619 Herengracht	23 81 81
Midland Bank, 26 Weteringschans	26 34 59
Nederlandsche Bank N.V., 1 Westeinde	5 24 91 11
Nederlandsche Credietbank N.V., 458 Herengracht	21 27 27
ndsche Middenstandsbank N.V., 2 E.v. Beinumstraat	5 43 91 11
landse Overzeebank N.V., 542 Herengracht	5 27 91 11
Nomura Europe N.V., 7 De Boelelaan	44 48 60
Philippine National Bank, 272 Herengracht	23 25 40
Pierson, Heldring & Pierson, 214 Herengracht	21 11 88
Ship Mortgage Int. Bank, 530 Keizersgracht	22 29 11
Slavenburg's Bank N.V., 179-181 Herengracht	22 72 20
Soc. Generale, 17 Museumplein	76 83 21
Tokai Bank, 431 Keizersgracht	23 96 25
Yamaichi International, 1 Frederiksplein	24 24 56

TELEPHONES: Telephone connections on board are only possible on certain quays (passenger ships). It is possible to rent portable mobile phones.

SHORE LEAVE: Crew members allowed ashore.

IDENTIFICATION CARDS: Not needed.

GARBAGE DISPOSAL: Can be arranged through ship's agent.

WASTE OIL DISPOSAL: *Berths:* One jetty can accommodate vessels up to 870 ft. in length, and has a depth alongside of 33 ft., which is a special advantage for tankpressing purposes.

One jetty is available for tankers up to 600 ft. in length, and has a depth alongside of 18 ft. One jetty for small tankers up to 260 ft. in length has a depth alongside of 16 ft.

The plant consists of:

Tank storage capacity of 27,000 tons.
Tanks for temporary storage of fuel and gas oil.
Waste water treatment plant.
Vacuum installations.
Vacuum trucks.
Barges available for taking over slops of contaminated oil.

Two modern automatic Stork E.V.W. boilers with a capacity of 36 tons per hour and pressure of 14 kg/sq.cm. to supply steam and hot water for butterwashing.

A comprehensive pipeline system is provided with the necessary pumphouse and pumps for handling the liquids pumped from the ships through this installation.

Additional Services: In addition to the shore reception and treatment facilities, the Company has trained personnel available for cleaning operations in cargo tanks and in other compartments of the vessel.

Air supply, pyrate washing machines, air-driven fans, hot water for washing purposes, steam supply, inerted gas for topping up inerted cargo tanks and fresh water, are also available for use onboard.

Operator: RCM Ruhr Carbo Milieu B.V., Petroleumhavenweg 8, 1041 AC Amsterdam. Tel: 020-6145679. Fax: 020-6138681.

SEAMAN'S CLUBS: Seamen's Welfare of Amsterdam is located at 14 Coenhavenweg, Havens West in Amsterdam. Tel: 020-6880574.

The Seaman's Club works in close cooperation with the Apostleship of the Sea and Deutsches Seemannsheim. Seamen's Welfare offers table tennis, billiards, a shop, television, telephone service, a bar and information about Amsterdam. It also organises excursions, football matches and other entertainment.

The German Seaman's Home (Deutsches Seemannsheim) is located at 733 Keizersgracht. Tel: 020-6220842.

It is possible to stay overnight at this club which also offers a wide range of services and information for the seaman, including arrival times and berthing places of ships, various magazines and newspapers, information about transportation and cultural and tourist attractions.

Churches: The Apostleship of the Sea works in close cooperation with the Seamen's Welfare Center. For assistance, conversation or religious services, Loodskotterhof 3. Tel: 020-6333537. Mass can be celebrated onboard.

The Church of England is located at 42 Groenburgwal, services every Sunday at 1130 hrs. and 1830 hrs. Tel: 020-6248877.

The English Reformed Church is located at 48 Begijnhof, services every Sunday at 1030 hrs. Tel: 020-6249665.

Deutsche Evangelische Gemeinde is located at 44 J.J.Viottastraat, services every Sunday at 1030 hrs. Tel: 020-6732522.

Roman Catholic Services are held at the Catholic Center for foreigners, 35 Begijnhof, in English every Sunday at 1200 hrs. and in French on Tuesday at 1100 hrs. For information about other languages and nationalities call Tel: 020-6258853.

CURRENCY: Dutch Guilder (Fl).

DELAYS: Usually no congestion.

AUTHORITY: Gemeentelijk Havenbedrijf Amsterdam. (Port Management of Amsterdam), De Ruyterkade, 7, 1013 AA Amsterdam, Netherlands. *Tel:* 20-5238600. *FAX:* 20-6209821. *Contact:* G.C.G. van den Heuvel, Executive Director. Captain C. Oudendijk, Harbour Master (Tel: 20-6221515).

AGENT: Vinke & Co.B.V., Corsicaweg 10, 1044 AB Amsterdam, The Netherlands (Postal address; P.O.Box 485, 1000 AL Amsterdam, The Netherlands). Tel: +31(0) 20-6119565. Telex: 11444 Vinkeco. Fax: +31(0) 20-6113704.

DELFZIJL: 53.20 N. 06.56 E. (See Plan)

LOCATION: On the estuary of the River Ems, opposite Emden.

DOCUMENTS: See "Rotterdam".

PILOTAGE: Pilot boats normally cruise at Wester-Ems Buoy. During bad weather they withdraw into estuary, but never further than Borkum Roads. Pilot boats listen on Channel 6 and 16 and Pilot Office on Channel 14 VHF; distance from Pilot Station to Delfzijl 36 miles. Pilot service compulsory for all vessels with a length over 60 m. Foreign vessels may call Pilot on 2182 kHz. Traffic between the cutter and the vessel will be held on 1657 kHz. Tel: 0596-614988. Telex: 53785.

Approaching vessels from sea should inform the Pilot Commissioner of their ETA in M.E.T. with a notice at least 12 hours in advance via a coastal radio station; the pilot cutter may be informed via VHF at least 4 hours in advance.

The ETA message should contain the following details: *(a)* ETA Pilot Westereems (time in M.E.T. in a group of 4 figures); *(b)* Draft; *(c)* Port of destination; *(d)* Name, Call Sign and Gross Tonnage.

Departing vessels should apply for a Pilot at least 1 hour before ETD; the request should be made to the Office of the Inspector of Pilotage.

Pilotage from Delfzijl to Emden is compulsory.

Boatman Service: Seagoing vessels with a length overall over 40 m. are required to use boatmen for mooring or unmooring operations, unless they use their own crew. Assistance of boatmen has to be applied for by the Master and/or Pilot at least one hour before arrival or departure at the berth via Delfzijl Port Control on VHF Channel 14.

ANCHORAGE: Vessels up to 4,000 tons d.w.t., which for some reason have to anchor outside the piers can do this East of the harbour entrance near Oterdum. Anchorage is situated within the following area: a line connecting the Buoys 53/PS-55-57 and PS2-BW28. Larger vessels should seek an anchorage in the Doekegat. There is no anchorage inside the harbour.

ENTRANCE: The harbour entrance lies opposite the former village of Oterdum. The entrance extends to reach the deep water of the Bocht van Watum, and lies opposite the dredged channel between the Bocht van Watum and the Oostfriese Gaatje near Paapsand Sud.

The harbour entrance has an initial depth of N.A.P. −10 m., and a bottom width of 208 m. The harbour channel has the same depth, and a width of 100 m.

Depths: All depths are indicated in relation to N.A.P. LLWS at Delfzijl lies 2.03 m. below N.A.P. (Normal Amsterdam Level).

Tides: The range at Springs is 3.26 m. and at Neaps 2.59 m. Tidal movement is diurnal with an average range of 2.99 m.

MAX. SIZE: The harbour entrance has a depth of 8 m. at LLWS. Vessels drawing up to 9.0 m. can enter under normal HW circumstances; a keel clearance of 10% of the draft will be maintained. Masters of vessels with large draft are recommended to contact the Port Authority in good time with regard to the water level to be expected near Paapsand-Sud and in the Zeehavenkanaal. In the harbour "always afloat" can be guaranteed along the entire length of the Handelskade West for vessels with a draft up to 8.7 m. See "Depths" above.

TUGS: 4 tugs up to 32 tons bollard pull available. Additional tugs can arrive within 3 hours from Emden.

RADIO: Cable to Agents via Radio Scheveningen (PCH) on VHF Channel 27.

VHF: The Pilot Office at Delfzijl and Eemshaven is equipped with VHF Channel 14. The station is constantly manned 24 hours a day.

The Port Office is working on Channel 14 for general information and Channel 66 for vessels sailing in the VTS area. All movements should be reported to the VTS Operator.

The Eemskanaal – Lockmaster's Office is equipped with a VHF installation, Channel 11, which is manned 24 hours a day.

For bridge passage of "Weiwerderbrug", call "Sea Locks Delfzijl" on VHF Channel 11.

"Heemskesbrug": For bridge passage call Port Office Delfzijl, Channel 14 (1 hour's notice).

RADAR: An integrated German/Dutch radar chain has been installed along the River Eems. The chain comprises the radar stations "Borkum" (German), "Oudeschip" (Dutch), "Emden" (German) and "Wybelsum" (German). The coordination of the stations has been centralised at Emden.

In the ports of Delfzijl and Eemshaven, radar assistance can be given from the Harbour Co-Ordination Centre "Eemsmonding" and stations "Delfzijl Radar" and "Eemshaven Radar".

Radar assistance can be given when visibility decreases to a distance less than 2,000 m. The radar stations are working on a regular basis. Guidance and assistance can be given according to the table.

Station	*Area*	*VHF Channel*
"Borkum Radar"	River Eems from Westereems Buoys 1/2 or Huibertgat Buoys H1/H2 to Buoy 35	18
"Knock Radar"	River Eems from Buoy 35 to entrance Port of Delfzijl Buoys 56/57	20
"Delfzijl Radar"	Port entrance to quays or locks.	66
"Wybelsum Radar"	River Eems from Buoys 56/57 to entrance Port of Emden (Buoy 86)	21
"Eemshaven Radar"	Port entrance to quays (only position information).	19

BRIDGES: Bridge to the Damsterhaven may always be worked. The Weiwerderbrug to the Oosterhornhaven and Heemskesbrug in the Oosterhornhaven are being worked continuously also. On Sunday bridge may be opened on special request at the Sea Locks Office.

BERTHING: The Outer Harbour is divided into 3 communicating basins: Handelshaven, Balkenhaven and Zeehavenkanaal.

Handelshaven, in the Western part of the Outer Harbour, has a deepwater quay, 570 m. long, with a depth of 11 m. alongside; A floating jetty (260 m. and 70 m. length – See "Plan") in a depth of 11 m. also jetties 110 m. and 130 m. in length, with a depth of 5.0 m. alongside.

In the Balkenhaven, East of Handelshaven, a new quay is under construction. Until it is ready, no traffic is allowed in the area.

Zeehavenkanaal is the Eastern part of the Outer Harbour and is being developed as a deep-sea harbour; it has a depth of 10.0 m. – 10.5 m. There are several private mooring facilities in the Zeehavenkanaal, from West to East:

a. Private quay of Wagenborg Terminal B.V. Length of quay 110 m. 1×35 ton crane. Depth 7.0 m.;
b. Private jetty of the Nedalco Factory. Tankers up to 25,000 d.w.t., LOA 200 m. and draft 9.0 m. can be accommodated. Loading capacity 250 t.p.h.; discharging capacity 350 t.p.h.;
c. Private jetty of N.A.M. Tankers up to 6,000 d.w.t. loading condensate can be handled. Vessels berth starboard side alongside. Depth alongside 9.5 m.;
d. Private jetty of AKZO-Nobel is equipped with a loading station with a loading capacity of 1,200 tons salt/hour. Ships up to 35,000 d.w.t. can be accommodated here; depth alongside 11 m.; vessels berth starboard side alongside.
e. Private jetty of Neste Resins equipped with a loading station with a loading capacity of 500 tons of methanol per hour. Tankers up to 200 m. LOA accepted. Vessels berth starboard side alongside. Depth 10.0 m.;
f. Private jetty of Aluminium Factory equipped with 1 crane and is able to accommodate ships up to 30,000 d.w.t., LOA 200 m. and draft 9.0 m. Discharging capacity 300 t.p.h.

The Oosterhornhaven behind the dyke is a basin with a total length of 3,100 m. and a width of 60 m.

Navigating Oosterhornhaven is prohibited for vessels having a LOA exceeding 75 m. and/or having a maximum beam exceeding 12.50 m. and or having a draft exceeding 4.50 m. or having a height of over 8.0 m., unless a special permission is obtained from the Sea Locks, subject to certain conditions.

Amongst others there are mooring facilities located in this canal alongside the yard of Azko-Nobel, Neste Resins, Dow Benelux, Norgips and ESD, equipped with loading installation and a tanker jetty of North Refining.

The Eemskanaal:

Several private mooring facilities are located here. These are the following:

Name	*Type*	*Suitable for*
Jonker's Terminal	Potatoflour, bulk term	Coasters
Aceco	Grain elevator	Inland vessels/Coasters
Terminal Delfzijl	Timber Terminal	Coasters
North Sea Petroleum	Oil storage	Inland vessels
O.M.D.	Oil storage	Inland vessels/Coasters
Eemsmond	Cement factory	Inland vessels/Coasters
Mulder/Marne	Grain elevator	Coasters
Cebo Holland	Mud/Cement Storage	Inland vessels/Coasters
Betoncentrale Eemsmond b.v.	Concrete mortar plant	Inland vessels/Coasters

The Sea Locks:

The link between the Outer Harbour and the Eemskanaal and also the Oosterhornhaven of the port area is formed by the provincial sea locks. Sea-going vessels up to 6,000 tons d.w.t. with a beam of 16 m., a length of 120 m., and a draft of up to 5 m. can use these locks. As this will generally apply to vessels in ballast, the locks for this size of vessel are only of importance for the Groningen Shipyards.

For loaded vessels, the limit lies between 2,000 and 2,200 d.w.t. In the Outer Harbour of the locks sufficient berths have been provided for vessels waiting to pass through the locks.

Dimensions of Locks:

The Western (small) Lock has a length of 123 m. at falling tide and 81 m. at rising tide, a width of 7 m., a depth of sill outside 4.2 m. inside 2.4 m.; across each lock head lies a bascule bridge. The Eastern (large) Lock has a length of 120 m., a width of 16 m., depth of sill 5.4 m.; across each lock head lies a drawbridge. The opening times of the locks are continuous on weekdays.

Sheds and Warehouses:

There are several sheds and warehouses (total capacity: 3,250 sq.m.); also open storage. Grain silo with a storage capacity of 2,000 tons loose and 500 tons in bags. Also several private sheds, warehouses and grain silos.

CRANES: There are 6 shore cranes at Handelskade West with capacities up to 30 tons for handling general cargoes and bulk commodities, a floating 60 ton crane and mobile cranes.

STEVEDORES: *Normal Working Hours:*

Morning shift	0800 – 1200
Afternoon Shift	1230 – 1600
Evening Shift	1630 – 2030
Night Shift	2100 – 0030

Work on Saturdays and Sundays: Work on Saturdays and Sundays can be arranged in the same manner as this is done in the ports of Rotterdam and Amsterdam, *viz.* in consultation with the stevedores.

DENSITY: Ranging between 1012 and 1018, depending on the tide and the season.

FRESH WATER: Water obtainable alongside the quays or can be delivered by a motor tanker, capacity 20 t.p.h.

FUEL: Fuels in limited quantities for coasters are always available. For bunkering of larger vessels, arrangements should be made in advance.

CONSULS:

At Delfzijl		*At Groningen*	
Denmark	Tel: 0596-615820	Belgium	Tel: 050-3141555
Finland	Tel: 0596-616016	France	Tel: 050-3345322
Norway	Tel: 0596-615820		

REPAIRS: Most engine and deck repairs can be carried out by a local shipyard.

DRY DOCKS: At the Eemskanaal at the inner side of the locks a dockyard for ships up to 3,000 tonnes d.w.t. and a draft not exceeding 32 dm. is available.

In the Southern part of the Handelshaven there are 2 floating docks. Ships with max. sizes of length 125.0 m.; breadth 19.0 m. and draft 7.2 m. can be accommodated in the dock on the East side. Lifting capacity of the dock is 5,000 tonnes.

The dock on the West side can accommodate ships of 162 m. LOA, 21.0 m. beam and 8.0 m. draft. Lifting capacity 6,000 tonnes.

For larger vessels, dry-docking facilities exist in the nearby Port of Emden (Germany).

GANGWAY/DECK WATCHMEN: According to Port Regulations, Master has to keep watchmen on board.

AIRPORT: Eelde (Groningen).

OPENING/CLOSING HATCHES: Normally carried out by ship's crew.

CERTIFICATES: The International Tonnage Certificate should be shown to Harbour Master on first call every year.

HEALTH, MEDICAL ATTENDANCE, HOLIDAYS, LOCAL TIME, CUSTOMS ALLOWANCES: See "Rotterdam".

GARBAGE DISPOSAL: A special collection service is not available. Garbage containers are situated on the quay, free of charge.

WASTE OIL DISPOSAL: In the Netherlands, port authorities are responsible for the provision of reception facilities in their ports.

The Port Authority of Delfzijl/Eemshaven has appointed "Eems Milieutechniek BV" (EMT) as the port reception facility for Delfzijl and Eemshaven. EMT, in which Tanker Cleaning Amsterdam BV, Niestern Sander BV (Delfzijl) and North Sea Petroleum (Groningen) participate, collects and processes oily residues delivered to the bilge boat and/or vacuum lorry.

For further information please contact: Eems Milieutechniek BV, Visserijweg 10, 9936 HB Farmsum, Tel: 0596-618803, Fax: 0596-618796.

SEAMAN'S CLUBS: None.

CURRENCY: Dutch Guilder (Fl).

REGULATIONS: *Regulations for Arrival and Departure of Sea-Going Vessels:*

1. The arrival of a sea-going vessel, other than vessels passing through the port, must be reported in writing by the Master, or his local representative at the Harbour Master's Office 24 hours prior to arrival;
2. The declaration of arrival must contain:
   a. name, call sign and flag of vessel;
   b. nature and amount of the cargo to be discharged and/or loaded;
   c. dangerous goods, according to the IMO Code;
   d. last port of call;
   e. ETA and next port of call;
   f. Maximum draft.
3. Declaration of Arrival must be made on the special forms to Fax No. 0596-630424 or by teleprinter (53299 Hsddz);
4. At least 3 hours before departure the Master, the shipping company or its local Agent must notify the Harbour Master's Office of the intended departure, stating the estimated time of departure and the destination of the vessel.

AUTHORITY: Port of Delfzijl/Eemshaven Authority, Noordersingel 1, 9934 AK Delfzijl or P.O.Box 20004, 9930 PA Delfzijl, Netherlands. *Tel:* 0596-640400. *Telex:* 53299 Hsddz. *FAX:* 0596-630424. *Contact:* A.J. Monster, Port Director. Captain J. Stokroos, Harbour Master.

DEN HELDER: 52.58 N. 04.47 E. (See Plan)

PILOTAGE: Not compulsory but advisable for Molengat and Schulpengat fairways.

Pilotage is compulsory East of Long. 04° 44' E. for most classes of vessels.

Request for Pilotage on Arrival: ETA messages should be sent to:

(a) Pilots Den Helder via:
Scheveningen Radio (PCH) or
Telefax: 0223-625880.
Telephone: 0223-617424.
VHF Channel 12 (Traffic Centre Den Helder).
or
(b) Pilots VTS Ijmuiden via:
Scheveningen Radio (PCH) or
Telex: 71169 PIVTS NL or
Telefax: 0255-564500
VHF Channel 12 (Traffic Centre Ijmuiden).

At least 6 hours before arrival at the Fairway Buoy SG (Schulpengat) or MG (Molengat), send message with following:

A-B-I-J-O-T-U-X (For explanation of the codes used see below).

A delay in the time of arrival of more than 1 hour is reported according to code: A-B-I-J-O.

As soon as the ship is within VHF range, the order for a Pilot should be confirmed.

Request for Pilot on Leaving/Shifting: ETD messages should be reported to:

Pilots Den Helder through:
Telefax: 0223-625880
Telephone: 0223-617424
VHF Channel 12 (Traffic Centre Den Helder).

(a) At least 1 hour before departure from Den Helder or from an anchorage on the roads.
(b) At least 2 hours before departure from Oude Schild or Den Oever.

Contents of message: As for arrival.

Explanation of Codes:

A	Name, call sign and ship's flag.
B	Date and time, in hours and minutes of the report; if deviating from UTC then by mentioning zone time used.
I	Name of destination port.
J	Pilot required yes/no; date and time, in hours and minutes, at which the Pilot will be required at the usual pilotage location or berth; if deviating from UTC then by mentioning zone time used.
O	Draft in metres and centimetres.
T	Name of Agent or Owner.
U	LOA in metres and centimetres; breadth in metres and centimetres; GRT.
X	Possible remarks.

Location of Pilotage: Near Fairway Buoys SG or MG or Den Helder Roads.

Communication with Pilot Boat: Via VHF Channel 12 "Den Helder Pilot Boat".

ANCHORAGES: *Anchor Locations Den Helder Approach:*

Den Oever	Lat. 52° 56.8' N.,	Long. 05° 02.4' E.
Den Helder	Lat. 52° 58.0' N.,	Long. 04° 47.1' E.
Oude Schild	Lat. 52° 02.4' N.,	Long. 04° 51.3' E.

RESTRICTIONS: Permission for entry must be granted by the harbour office from the Naval Base Control (Tel: 0223-656822, 652770).

MAX. SIZE: Max. draft 9.5 m. The largest vessel to visit the port was 300 m. LOA with draft 7.0 m.

RADIO/VHF: Pilot service on VHF Channel 12.

Naval Base Harbour Control and Municipal Port Control on VHF Channel 14.

V.A. Moorman Bridge on VHF Channel 18.

The locks are on VHF Channel 22.

VTS: Den Helder VTS Station on VHF Channel 12, call sign "Den Helder Traffic Centre".

Vessels are obliged to report on VHF Channel 12 when:

(a) Entering or leaving the VTS area.
(b) Mooring or unmooring.
(c) Dropping or raising anchor.
(d) Passing the Moormanbrug.

TUGS: 9 private tugs available, up to 95 tonnes bollard pull.

BERTHING: The port is a supply centre for North Sea oil and gas platforms. The port also has a naval base and fishing harbour with fish auction.

Industrial Harbour: For ships up to 70 m. LOA, beam 14.0 m. and draft 4.65 m.

Berths No. 39, 40, 41 and 42: Fish auction area. Accepts fishing vessels up to 50 m. LOA, beam 9.0 m. and draft 5.2 m.

Berths No. 43 – 55: Accepts vessels up to 70 m. LOA, beam 14.0 m. and draft 5.2 m.

Berths No. 36 – 38: Accepts vessels up to 120 m. LOA, beam 18.0 m. and draft 7.0 m.

Berths No. 31, 32, 34 and 35: Accepts vessels up to 100 m. LOA, beam 18.0 m. and draft 7.0 m.

CRANES: Cranes from 40 tonnes to 110 tonnes available. Larger cranes up to 300 tonnes capacity are available on request. There is also a floating crane with capacity of 100 tonnes at 10 m. and 45 tonnes at 18 m.

STEVEDORES: *Working Hours:* Port works throughout 24 hours.

MEDICAL: Hospital available nearby.

DENSITY: 1025.

FRESH WATER: Available.

FUEL: Available by barge.

CONSULS: Norway.

REPAIRS: Facilities available.

DRY DOCKS: There are 2 graving docks and 3 floating docks operated by the Navy. Diving services available.

REPATRIATION: Facilities available. De Kooy Airport 0.5 km., helicopter flights and small light aircraft flights to England and Norway.

AIRPORT: Schiphol Airport is 90 km. from the port.

TIME: G.M.T. plus 1 hour in Winter and G.M.T. plus 2 hours in Summer.

SERVICES: The following services are available: Radio and compass repairs, fumigation, dirty ballast facilities, garbage collection, provisions and launch service.

AUTHORITY: Gemeente Den Helder, Stadsontwikkeling en Beheer, Postbus 40, 1780 AA Den Helder, Netherlands. *Tel:* 0223-671476. *FAX:* 0223-671475. *Contact:* F. Romeijn, Harbour Master.

DORDRECHT: 51.49 N. 04.40 E. (See Plan)

LOCATION: At the junction of four important rivers, the "Merwede", which is the lower end of the Rhine and main route of all inland water traffic to Germany, France and Switzerland; the "Noord" leading to Rotterdam; the "Dordtse Kil" leading to Belgium and the "Oude Maas" giving Dordrecht its own open connection with the North Sea.

Entrance: The main entrance is via Maasmond (See "Rotterdam"), Rotterdam Waterweg and Oude Maas, a distance of 26 miles above Hook of Holland, with a least depth of 9.75 m. below NAP.

DOCUMENTS:

2 copies Cargo List.
2 copies Passenger List.
2 copies Stowaway List.
3 copies Crew List.
Health Certificate.
Also see "Rotterdam".

PILOTAGE: Compulsory. Vessels have to enter New Waterway at Hook of Holland and proceed to Dordrecht via this New Waterway and the River Oude Maas. Masters of vessels bound for Dordrecht should state destination in ETA message as Pilots for Dordrecht embark from pilot cutter at roads. Deep-drafted vessels may have to exchange Pilots just inside breakwaters at Hook of Holland. (See Rotterdam "Ordering a Pilot").

ANCHORAGE: At sea off Hook of Holland (See "Rotterdam"). No anchorage between entrance to New Waterway and Dordrecht.

RESTRICTIONS/MAX. SIZE: Maximum L.B.P.P. 175 m., beam 25 m., draft 31 ft. (MHW). Vessels exceeding maximum length or beam could be allowed to navigate the Oude Maas under certain conditions.

For dangerous cargoes, see "Rotterdam".

The Pilot will decide the number of tugs required for passage on the Oude Maas, usually a minimum of 3 – 4 tugs.

Vessels exceeding 135 m. LOA or 17.5 m. beam must give notice to the Harbour Co-ordination Centre (H.C.C.) before navigating the Oude Maas. (H.C.C. Tel: 010-4764855, Fax: 010-4773489, Telex: 27370 Drhcc NL.)

Notice should contain: Ship's name, call sign, nationality, g.r.t., length, beam and draft, first port of call and berth (port and berth in case of ships leaving or shifting berth), ETA in Oude Maas or time of departure if leaving/shifting berth, Agent's name.

Tides and Currents; The tides are diurnal, with a daily rise and fall of 0.80 m. The current turns about half an hour after HW and LW.

RADAR: Radar service provided by V.T.S. and Dordrecht Radar Post.

RADIO/VHF: Traffic Control on VHF Channels 4 and 19. Port on Channel 74. Also see "Rotterdam".

TUGS: Tugs ordered by Pilot when entering New Waterway. Tugs normally meet vessels at Dordrecht.

BERTHING: *Harbours:* There are 6 basins for sea-going vessels.

Wilhelmina Harbour: Has a water area of 21 hectares, can accommodate ocean-going vessels with a draft of about 31 ft. A 90 m. wide pier with railway connections, a spacious transit shed and an open storage site of 18,000 sq.m. for bulk cargo has been constructed. Furthermore, at a distance of 25 m. from this pier, there is a jetty 290 m. long and 10.0 m. wide with a depth alongside of about 9.44 m. below NAP. Rivercraft can moor either directly alongside the large vessels or in the basin between pier and jetty. The basin has a depth varying between 4.0 m. and 6.0 m. below NAP. There are 9 mooring buoys.

Juliana Harbour: This harbour with its 3 basins has a water area of 67.5 hectares and a depth of about 8.84 m. below NAP.

Basin No. 1 has a depth up to 8.23 m. below NAP and is used for handling chemicals and mineral oils. Paktank Chemical Nederland has a large tank storage installation with a capacity of 250,000 cu.m. The terminal has 7 jetties of which 6 are used for fast service to ocean-going tankers or river tankers and 1 jetty is used for river tankers only. The location is excellent for their distribution via river, rail and road to inland destinations.

Basin No. 2 has a depth up to 8.84 m. In this basin there are 3 smaller companies handling gasoline, petrol and lubricating oil. Silo Dordrecht, also situated in this basin, is a company which mainly handles agricultural products and sometimes general cargo for which they have 2 sheds with a capacity of 2,700 sq.m. A company called Trans Terminal Dordrecht, specialising in handling fertilisers, has an open storage area of 10,000 sq.m. and two sheds with a capacity of 4,000 sq.m. are also located here.

Basin No. 3 has a depth up to 5.18 m., this will be 7.92 m. in the near future. There are 2 sand/gravel jetties in this basin.

Mallegat: The Mallegat has 2 dock basins, and is enclosed by 2 dams. This has added about 16 hectares to the dock area in Dordrecht.

The Northern Basin of the Mallegat has been developed as an extension of the Wilhelmina Dock, and has a 300 m. long pier and an open storage area of 4,500 sq.m. The depth of this basin is now 7.93 m. below Normal Amsterdam Level.

The Southern Basin of the Mallegat has been under development on the Western side since the release of the Krabbepolder. A number of companies have now located here, including Guis Funderingstechniek B.V., Chem Care and Volker Stevin Materieel (VSM).

Principal Riverside Quays:	*Length*	*Depth – NAP*
Buitenkalkhaven	1,000 ft.	12 ft.
Hooikade	250 ft.	11 ft.
Groothoofd Passenger Landing Pier	290 ft.	15 ft.
Merwekade	1,000 ft.	16 ft.
Handelskade	450 ft.	16 ft.

Coasters can be accommodated at the Handelskade, Buitenkalkhaven and 2nd and 3rd Merwedehaven. For clearance of inward and outward bound coasters, the lower part of the Handelskade has been reconstructed. Mooring free of harbour dues is restricted to the time needed for clearance only.

Principal Harbours – Inland Vessels and Coasters:

	Length	*Width*	*Depth – NAP*
Binnenkalkhaven	800 ft.	230 ft.	11 ft.
Bomhaven	265 ft.	165 ft.	10 ft.
Wolwevershaven	1,000 ft.	165 ft.	8 ft.
Riedijkshaven	650 ft.	120 ft.	10 ft.
1st Merwedehaven	2,000 ft.	400 ft.	10 ft.
2nd Merwedehaven	2,000 ft.	600 ft.	16.5 ft.
3rd Merwedehaven	2,000 ft.	600 ft.	15 ft.

CRANES: 2 Transporting bridges 15 tons each, 2 Portal cranes 12.5 tons each, 1 Portal crane 7 tons, 1 cargo crane 5 tons capacity.

BRIDGES: Bridges across the River Oude Maas are opened day and night. Sea traffic has preference over shore traffic.

Immediately above its confluence into Nieuwe Maas, the Oude Maas is spanned by 2 lifting bridges:

1. The Botlek Bridge with a free width of 53.80 m.
2. The Spijkenisse Bridge with a free width of 80.00 m.

STEVEDORES: Working hours: 0730 hrs. on Monday until 1900 hrs. on Saturday.

TANKERS: Oil installation of Paktank has 7 tanker berths. Max. draft 9.0 m. There are other tanker berths for small tankers. No slop (residue) storage facilities.

DENSITY: Fresh water.

FRESH WATER: At oil installations fresh water can be supplied from shore or supply by waterboat. Fresh water can be ordered from the Harbour Master's Office.

FUEL: Available by barge, capacity 100 tons – 1,400 tons..

CONSULS: Denmark Tel: 6132177, Norway Tel: 6132177. Other consulates at Rotterdam at 20 km. distance.

REPAIRS: B.V. Scheepswerf en Machinefabriek "De Biesbosch" Maasstraat 24, 3313 CR Dordrecht. Tel: 078-614 7077, Telex: 29494 Biesb NL.

Machinefabriek L. Straatman B.V. Kuipershaven 61, 3311 AM Dordrecht. Tel: 078-614 2422.

B.V. Scheepswerf Hoebee, Merwedestraat 56, 3313 CS Dordrecht. Tel: 078-613 0088.

Machinefabriek C.P. Bolier B.V., Grevelingenstraat 21, 3313 LB Dordrecht. Tel: 078-616 4111. Telex: 29329 Bomak NL.

DRY DOCKS: Small dry dock available.

SURVEYORS: S.G.S. Tel: 31 (0) 6524232.

AIRPORT: Rotterdam and Amsterdam airports at a distance of 25 km. and 90 km. respectively served by regular airlines.

POLICE/AMBULANCE/FIRE: Tel. Police 6339911; Ambulance and Fire 6133333. General Emergency 06-11.

PILOT CUTTERS, HEALTH, MEDICAL ATTENDANCE, BUNKERS, CUSTOMS ALLOWANCES: See "Rotterdam".

HOLIDAYS: New Year's Day, Easter Day, H.M. Birthday (30th April), Ascension Day, Whit Sunday, Christmas Day.

TIME: GMT plus 1 hour. Summer plus 2 hours.

GARBAGE DISPOSAL: General Information: Dutch port authorities are responsible for the provision of reception facilities in their ports. They publish who have been designated to receive waste from ships in their port. It is forbidden to deliver waste to persons who have no official designation as a port reception facility.

Fees: The costs incurred as a result of the delivery and further processing of waste are to be paid by the ship to the receiving company.

Advance notice requirements: In Dutch ports, the ship's need for reception facilities must be reported 24 hours in advance.

Contact Port Authority for details.

WASTE OIL DISPOSAL: See "Garbage Disposal".

SEAMAN'S CLUBS: See "Rotterdam".

CURRENCY: Dutch Guilders.

AUTHORITY: Havendienst Dordrecht, Merdekade 56, 3311 TH Dordrecht, Netherlands. *Tel:* 078-6134211. *FAX:* 078-6312141. *Contact:* J. Maat, Harbour Master.

EEMSHAVEN: 53.27 N. 06.50 E. **(See Plan)**

LOCATION: On the Western shore of the River Eems, about 15 km. N.W. of Delfzijl.

DOCUMENTS: See "Rotterdam".

PILOTAGE: See "Delfzijl".

ANCHORAGE: Near the Western Mole of the Eemshaven is an anchorage with a depth of about 16 m.

RESTRICTIONS: The entrance channel Doekegatkanaal has a depth of 11.5 m. thus enabling ships with draft up to about 10.5 m. to enter at HW.

Tides: The range at Springs is 2.78 m. and at Neaps 2.13 m. Tidal movement is diurnal with an average range of 2.49 m. (all approx.).

Depths: All depths are indicated in relation to N.A.P. LLWS at Eemshaven lies 1.84 m. below N.A.P. (Normal Amsterdam Level).

RADIO/TUGS/RADAR: See "Delfzijl".

VHF: Channel 19: "Eemshaven Radar" – A VTS is operational in the Eemshaven. All ship movements should be reported to the VTS Operator.

Channel 14: Information channel and for ordering tugs, linesmen and pilot and weather information, etc.

BERTHING: The harbour is divided into 4 communicating basins:

Doekegatkanaal: Has a width at the entrance of 325 m. and a bottom width of 200 m. over the rest of the channel. At the end of the Doekegatkanaal is a turning basin with a diameter of 500 m. and a depth of 11.0 m.

Wilhelminahaven: East of the turning basin is a special basin for tankers with a depth of up to 15 m. and a bottom width of 200 m. This basin has a length of 600 m. There are 5 mooring bollards and 4 mooring buoys with SWL up to 300 tons for several berthing possibilities.

Julianahaven: Located West of the turning basin. This basin has a length of 1,200 m. and a width of 250 m. to 300 m. ultimately. The depth of this basin varies between 12.0 m. and 14.0 m.

To the South of this basin a quay has been constructed with a length of 1,150 m. and a width of 300 m. This private quay is operated by three stevedoring firms:

1. Transit Centre Eemshaven: Quay length 469 m. 4 electrical cranes up to 20 tons lifting capacity; storage area 100,000 sq.m.; 35,000 sq.m. shed space. Handling general cargo and containers. The Eemshaven Sugar Terminal is located on the premises of and is managed by Transit Centre Eemshaven. A bulk sugar silo of 136 m. × 65 m. × 33 m., with storage capacity of 100,000 tons. Reception possible by bulk rail wagon, bulk road truck and bulk barge.

Loading into sea-going vessels is via 2 spiral shiploaders (120 t.p.h.) or by a bulk-loader (750 t.p.h.).

2. Terminal Eemshaven: Quay length 554 m.; 3 electrical spiralveyors; 4 electrical cranes of 25 ton lifting capacity; several mobile cranes up to 200 tons lifting capacity. Handling general cargo, containers and Ro/Ro traffic. The Ro/Ro ramp has a capacity of 92 tons and a ramp width of 7.0 m.

General cargo shed of 6,500 sq.m.; air-conditioned cold store, divided into 12 boxes with a total capacity of 13,500 pallets. Each box can be cooled down to temperatures from −2° C. to 14° C. for all kinds of fruit.

3. Sealane Coldstorage B.V.: Quay length: 110 m. A multi-temperature public bonded cold store, ranging from +14°C to −30°C, with 6 different rooms and a total capacity of 75,000 cu.m., is owned and operated by Sealane Coldstorage B.V. The cold storage is classed with Lloyd's Register: Lloyd's RSC 10/80 URSI. The cold store is located on the quay, with direct access to the vessel's side.

There is a temperature controlled airlock of 15,000 cu.m. with dock shelters for loading trucks and access to a railway loading station inside the store.

On the N.E. side of this basin, a new bulk terminal operated by the Port Authority has been built. Length 200 m., depth 15.0 m. N.A.P.

Emmahaven: Has been constructed South of the quay and West of the swinging basin. This basin with a length of 600 m. and a width of 130 m. has been dredged to 10 m.

In the N.W. corner a Ro/Ro facility is operated by A. G. Ems-Nederland b.v., serving the island of Borkum and can also be used for International Ro/Ro traffic. For trailers and cars, a fenced parking area is available.

A floating jetty for inland ships with a length of 225 m. has been constructed on the S.E. side, and is operated by the Port Authority.

On the S.W. corner, a floating pontoon has been established for sectional building of vessels.

STEVEDORES: See "Delfzijl".

DENSITY: Between 1018 and 1021, depending on tide.

FRESH WATER: Water can be delivered by private companies on the quays. It is also available at the floating jetty.

FUEL: Supply should be arranged in advance.

AIRPORT: Eelde (Groningen).

GANGWAY/CERTIFICATES: See "Delfzijl".

SUPPLIES: Fuel oil and provisions should be arranged in advance.

REGULATIONS: See "Delfzijl".

GARBAGE DISPOSAL: A special collection service is not available. Garbage containers are provided on the quay.

WASTE OIL DISPOSAL: In the Netherlands, port authorities are responsible for the provision of reception facilities in their ports.

The Port Authority of Delfzijl/Eemshaven has appointed "Eems Milieutechniek BV" (EMT) as the sole port reception facility for Delfzijl and Eemshaven. EMT, in which Tanker Cleaning Amsterdam BV, Niestern Sander BV (Delfzijl) and North Sea Petroleum (Groningen) participate, collects and processes oily residues delivered to the bilge boat and/or vacuum lorry.

For further information please contact: Eems Milieutechniek BV, Visserijweg 10, 9936 HB Farmsum. Tel: 0596-618803. Fax: 0596-618796.

SEAMAN'S CLUBS: None.

CURRENCY: Dutch Guilders (Fl).

AUTHORITY: Port of Delfzijl/Eemshaven Authority, Noordersingel 1, 9934 AK Delfzijl or P.O.Box 20004, 9930 PA Delfzijl, Netherlands. *Tel:* 0596-640400. *Telex:* 53299 Hsddz. *FAX:* 0596-630424. *Contact:* Captain J. Stokroos, Deputy Harbour Master.

FLUSHING (Vlissingen): 51.27 N. 03.35 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
1 Store List.
1 Personal Effect List.
Ship's Register.
1 Manifest or Bill of Lading.
Also see "Rotterdam".

APPROACHES: Approaches to the Scheldt Estuary:

	MLLWS (m.)	*Rise Spring* (m.)	*Rise Neap* (m.)
South Channel:			
Wielingen	8.0	4.7	3.8
Scheur	13.9	4.7	3.8
North Channel:			
Oostgat	8.0	3.9	3.0

PILOTAGE: Position of pilot cutters in the Scheldt Estuary: Pilotage is compulsory.

Wielingen (Southern Approach) or via Scheur: Vessels approaching the Scheldt Estuary from the English Channel pass the light vessels Sandettie Banks and West Hinder. The Belgian pilot cutter *Wandelaar* is stationed near Buoy A1 at Lat. 51° 22' N., Long. 02° 53' E. This cutter has a black hull with a white number on her bow, a yellow funnel with black top and flies a red flag with the letter "P" in white.

A vessel bound for Flushing to discharge, bunker, load, to embark or disembark passengers or for repairs will be provided with a Dutch Pilot, who will take the vessel into harbour. Other vessels for Flushing (sheltering, awaiting orders, unplanned repairs, etc.) will be provided with a Belgian Pilot to Flushing Roads, where a Dutch Pilot comes on board to take the ship into harbour.

Oostgat (Northern Approach): Vessels approaching the Scheldt Estuary from the North can take a Pilot in the vicinity of the S.B.Z. Lightbuoy (Lat. 51° 42.3' N., Long. 03° 14.3' E.) where a Dutch pilot cutter is stationed, flying a blue flag with the letter "L" in white. As a rule vessels bound for Flushing are provided with a Dutch Pilot.

ETA Messages: Masters' telegrams via Scheveningen Radio, call-sign PCH, are passed on to Agents 24 hours a day, week-ends inclusive.

For this reason it is advisable that Masters communicate with Agents via Scheveningen Radio, via which station Agents also route their messages to vessels.

Vessels bound for the River Scheldt shall contact Pilot Stations below 6 hours prior to arrival (always advise changes of 2 hours or more) and advise the following information:

Inbound via Steenbank to Belgium port: "Pilot VTS Steenbank" via Scheveningen Radio (PCH) or Tel: 31-(0) 118-489600. Fax: 31 (0) 118-412321. Telex and Satcom: 37811.

Inbound via Wandelaar (A1) to Belgium port: "Pilot VTS Wandelaar" via Oostende Radio (OST) or Tel: 32- (0) 50-550801. Fax: 32- (0) 50-547400. Telex or Satcom: 81417.

Inbound to port in the Netherlands: "Pilotage Flushing" via Scheveningen Radio (PCH) or Tel: 31 (0) 118-489600. Fax: 31 (0) 118-412321. Telex or Satcom: 37811.

Information requested:
A Name, call sign, flag.
I Port of destination.
J ETA Pilot Station in UTC and name of Pilot Station.
O Draft in metres and centimetres.
P Cargo and IMO class.
T Agent.
U Dimensions (gross tonnage, LOA, beam).
X Miscellaneous.

Pilot cutters may be contacted on VHF Channel 64 (Steenbank) and Channel 65 (Wandelaar).

During bad weather both pilot cutters shift to Flushing Roads.

ANCHORAGE: The Roads of Flushing offer a safe and spacious anchorage with a sandy bottom. Vessels anchoring in the Roads are recommended to do so Southward of the Koopmanshaven (the Western harbour of Flushing) at not less than 0.75 miles from the Northern Coast. In this part of the Roads depths vary from 10 m. (33 ft.) to 26 m. (85 ft.).

The greatest depths and the strongest tides are encountered on the Southern part of the Roads. When lying there vessels are less exposed to the risk of collision in foggy weather etc. and are well away from vessels proceeding up and down the river, manoeuvring for the purpose of landing and/or embarking Pilots, and from ferry boats crossing between Flushing and Breskens.

At the Northern part of the Roads the tidal stream slackens gradually until HW is reached and under normal conditions of tide and wind the ebb stream is already felt along the shore from half an hour after HW until 1 hour after LW. From 1 hour after LW the flood tide sets in again and is felt until shortly after HW.

At the South side of the Roads the tidal stream is running until slightly over an hour after HW when the stream slackens and turns. 2 hours after HW the stream is running in N.W. direction gradually veering West.

A new anchorage Wielingen Noord, North of the line of the lightbuoys W6 and W10, is marked by yellow conical buoys. It is strongly recommended that vessels carrying dangerous cargoes anchor there, exceptional circumstances excepted and weather permitting.

MAX. SIZE: *Flushing East Harbour:* Max. draft 15.2 m.
Max. draft at Buoys 12.5 m. (2 berths).
Outer Harbour: West side, max. draft 9.5 m.
Inner Docks: Max. depth 7.3 m.
Total: Max. length 280 m., max. draft 15 m. (S.W.), max. d.w.t., 100,000 tons. However, draft is controlled by the depth in the approach channels.

HEALTH: No certficates required. In event of any disease or fever contact Agents.

RADIO: All messages to Agents via Scheveningen Radio.

Flushing Radio can be reached by VHF Channel 14.

VHF: Harbour tugs Channel 6. Also see "Pilotage".

TUGS: Join vessels in Flushing Roads. Vessel's lines usually used. Extra for tug lines. For contract holders 5% reduction.

BERTHING: *Outer Harbour:* West side, quay of 350 m. long, depth of water 11.5 m.. MLLWS. Quay height above sea level 2 m. at high tide and 7 m. at low tide. Opposite the West Side Quay is an oil jetty with depth of 9.5 m. alongside (MLLWS). The jetty is owned by the Oil Terminal Flushing. In Northern part of Outer Harbour a landing stage with length of 360 ft. Depth at low tide 6.0 m. Depth at HW 8.8 m.

Flushing East Harbour: The Sloeharbour has a quay length of 530 m., depth 11.3 m. MLLWS and 350 m., depth 13.3 m.

The Bijleveld Harbour, situated in the North West part of Flushing East Harbour has a public quay with a length of 800 m. and depth 9.0 m. MLLWS on the West side and a quay with a length of 800 m. and depth 10.5 m. MLLWS on the East side. The quay will be used for the transhipment of refrigerated products and steel.

The Kaloothaven Terminal, situated in the South part of Flushing East Harbour, has a quay with length of 1,100 m. and a depth of 16.5 m. with floating cranes and pontoon placed between vessel and quay. The terminal is a coal transhipment facility and can handle vessels of 150,000 d.w.t. Coal is handled by floating cranes of 25 tons capacity. The stockyard has a capacity for 600,000 tons.

Inner Docks: A double lock and sluice give access from Outer Harbour to inner docks and canal through Walcheren. Largest lock length 140 m., width 22 m., depth on still MLLWS of 5.4 m. The other lock is 65 m. long, 7.8 m. wide, and 3.0 m. deep.

STEVEDORES: Provided by N.V. Haven Van Vlissingen (Port of Flushing Limited). Tel: 0118-426000. Telex: 37837 A.

Stevedore Company – Westerschelde. Tel: 0118-460020. Telex: 37798.

Flushing Stevedoring. Tel: 0118-472800.

MECHANISED CARGO HANDLING: Quay length 920 m. equipped with 2 portainers (65 tons capacity), suitable for handling 20 ft. up to 40 ft. containers. Straddle carriers capacity 32 tons and forklifts capacity 32 tons available.

Roll-on/Roll-off service between Flushing and Sheerness and Dartford. Service twice a day. Vessels berth in the Outer Harbour at the Ro/Ro Terminal. At Flushing-East, Ro/Ro facilities for deep sea vessels, as well as Ro/Ro facilities for short sea Ro/Ro traffic.

LPG HANDLING FACILITIES:
Eurogas Terminal, Flushing East: The Eurogas Terminal is dedicated solely to storage and throughput of Liquefied Petroleum Gases and Chemical Gases.

Documents: Eurogas has been authorised by the Dutch Customs Authorities to prepare and complete all necessary Customs and transportation documents, which reduces waiting time to an absolute minimum.

Pilotage: In close co-operation with Eurogas, the shipping Agent and the Pilot, the Harbour Authorities control the arrival and subsequent mooring in the Quarles Harbour.

Max. Size:

				Facilities	
Vessel Size	*Length* (m.)	*Beam* (m.)	*Draft* (m.)	*Refr.*	*Press.*
Jetty 1	213	38	9.5	×	×
Jetty 2	295	44	13.5	×	×
Jetty 3	110	12	5.0	–	×
Jetty 4	110	12	5.0	–	×

The harbour has a depth of 16 m. NAP (13.50 m. LLWS) and is therefore accessible to all existing fully loaded LPG-carriers. Maximum drafts may also be dependent on the prevailing least depth in 'Het Scheur' and the near approaches to the jetties and are conditional on the agreed procedures and Port Authority requirements for the safe movement of LPG-carriers. For safety reasons loading/unloading can be stopped due to high wind forces depending on wind direction.

Berthing: Jetty 1: At which inland barges and ocean-going vessels with a max. draft of 9.5 m., overall length of max. 213 m., a max. bow to manifold distance of 115 m., a max. stern to manifold distance of 108 m. and a max. beam of 38 m. can safely reach and leave and at which such vessels can always lie safely afloat.

Loading and discharging shall normally be allowed to continue as long as the ship's manifold connection stays within the reach of the loading arm of Eurogas.

The reach of the loading arm can accommodate:
– max. height +14.0 m. NAP (Normaal Amsterdams Peil) which is comparable with approx. 11.5 m. above water-level at HW.
– minimum height −1.5 m. NAP which is comparable with approx. 1 m. above water-level at LW.
– range out of centre loading arm parallel to berthing line approx. 5 m.
– range out of – and perpendicular on berthing line approx. 7 m.

Jetty 2: At which inland barges and ocean going vessels with a draft of max. 13.5 m., overall length of max. 295 m., a max. bow to manifold distance of 150 m., and a max. stern to manifold distance of 150 m. and a max. beam of 44 m. can safely reach and leave and at which vessels can always lie safely afloat.

Loading and discharging shall normally be allowed to continue as long as the ship's manifold connection stays within the reach of the loading arm of Eurogas.

The reach of the loading arm shall be able to accommodate:
– max. height +28 m. NAP which is comparable with approx. 25.5 m. above water-level at HW.
– minimum height −1.5 m. NAP which is comparable with approx. 1 m. above water-level at LW.
– range out of centre loading arm parallel to berthing line approx. 7 m.
– range out of – and perpendicular on berthing line approx. 12 m.

Jetty 3/4: At which inland barges and coastal vessels with a draft of max. 5 m., overall length of max. 110 m., a max. bow to manifold distance of 40 m. (Jetty 3), and 55 m. (Jetty 4), a max. stern to manifold distance of 50 m. and a max. beam of 12 m. can safely reach and leave and at which vessels can always lie safely afloat.

Jetty 4 is also suitable for small coastal vessels (max. deadweight approx. 1,500 tonnes), ship size depending on manifold allocation.

Loading and discharging shall normally be allowed to continue as long as the ship's manifold connection stays within the reach of the loading arm of Eurogas.

The reach of the loading arm shall be able to accommodate:
- max. height +14.0 m. NAP.
- minimum height −1.5 m. NAP.
- range out of centre loading arm parallel to berthing line approx. 5 m.
- range out of – and perpendicular on berthing line approx. 6.0 m.

Discharging: Eurogas operate 24 hours a day, 7 days a week.

Eurogas and the independent surveyor check the facilities of the vessel and the quantity of the cargo before discharge commences.

Receiving Capacities at Various Jetties (all in cu.m./hr.)

	Into refrigerated tanks	*Into pressure tanks or to other jetties*
Jetty 1	1,000 (per tank)	500
Jetty 2	3,200 (per tank)	500
Jetty 3	—	500
Jetty 4	—	500

In order to minimise laytime on jetties, refrigerated propane and butane can be discharged simultaneously at Jetty 1 and 2.

Additionally, all pipelines on shore can be cooled down before the arrival of a vessel by means of separate cool-down lines. All jetties are equipped with vapour return facilities including a blower-system at Jetty 2.

Board/board transfers between all the jetties can be realised with or without the use of 2 heaters. These heaters have a capacity of 500 cu.m./hr. each, with a temperature differential of up to 47°C under all weather conditions.

Loading: 4 vessels/barges, 3 railcars and 4 road trucks can be loaded simultaneously with capacities as described below.

Railcars and road trucks are each loaded on a weighbridge. The consecutive loading of 2 products into 1 railcar/road truck can take place without disconnecting and reconnecting of loading arms and necessary shunting/shifting to another loading point.

Loading Capacities in cu.m./hr.	*Product.* *Refrig.*	*Press.*
1. From the refrigerated tanks:		
To Jetty 1 or 2 (per tank)	600	–
To Jetty 3 or 4	–	–
Via heater to pressure tank	–	500
Via heater to Jetty 1, 2, 3 and 4	–	500
2. From the pressure tanks:		
To Jetty 1, 2, 3 or 4	–	350
To each railcar loading point	–	120
To each roadtruck loading point	–	80

Storage: The terminal consists of 6 pressure tanks with a gross capacity of 3,369 cu.m. each, and 2 refrigerated tanks of 55,000 cu.m. each. Total capacity is therefore 130,000 cu.m.

The refrigerated tanks are constructed with double integrity steel inner tanks and a concrete outer wall capable of holding refrigerated product.

In the pressure tanks, chemical gases can also be stored.

Product List:

1. Refrigerated tanks: propane, butane and/or mixtures.

2. Pressure tanks: butane, isobutane, butadiene, butylene, isobutylene, cyclopropane, propane, propylene-oxide, propylene.

Products for the pressurised storage are:

Spheres 1, 2, 3, 4, 5 and 6. Butane, isobutane, butadiene, butylene, isobutylene, cyclopropane, propane, propylene-oxide, propylene. Spheres 4 and 5 also propylene.

A. Pressure tanks: Product stored in tanks 1, 2, 3 and 6 shall have a vapour pressure of less than 13.5 bar gauge at 30°C.

B. Pressure tanks: Product stored in tanks 4 and 5 shall have a vapour pressure of less than 16.5 bar gauge at 30°C.

C. Refrigerated tanks: 2% mol. max. ethane content in propane was the design basis for the refrigerated system. The tolerances on the compressors and the cooling system are the technical limitations on storage of products with higher ethane contents.

Safety: E.S.D. systems (Emergency Shut Down systems)

Activated by:
- (a) Gas detection system.
- (b) Loading arms limit switches.
- (c) Ship's E.S.D. system.
- (d) Control-room.
- (e) Local push buttons.
- (f) General E.S.D. pressure storage fill system.
- (g) Fill shut down (overflow).
- (h) Shut down sendout system.

Gas Detection System.

Sensors located at:
- (a) Annular space tanks.
- (b) Fan intake.
- (c) Roof tanks.
- (d) Relief valves' exhaustline.
- (e) Area general.
- (f) Process area.
- (g) Boiler house.
- (h) Office heating air intake.
- (i) Jetties.
- (j) Existing pressure storage.
- (k) Generators' area.
- (l) Expansion-tank water/glycol system.

Firefighting: The terminal site has been equipped with all sorts of fire-fighting apparatus like:

– 45 water guns, which can spray 1,600 litres per minute each over a distance of 70 m;

– sprinkler installations at all vital points;

– 2 separated pumping systems, to be sure of water supply under all circumstances; 1 at the harbour with 2 diesel-powered pumps with a total capacity of 2,000,000 litres water per hour, the other 65,000,000 litres at the pond which is constructed on the site.

– Eurogas has its own fire brigade, with a special fire-fighting truck which can also travel on rails. In this way every part of the terminal site and its perimeter can be reached with the greatest possible speed.

Operator: Eurogas Terminals C.V.

Office: Frankrijkweg 4, 4455 TR Nieuwdorp. Tel: 0113-615800. Telex: 55684. Fax: 0113-613444.

MEDICAL: Two hospitals available.

TANKERS: Vessels carrying over 4,400 gallons of combustible liquids with a flash point up to 21°C, or over 22,000 gallons with flash point up to 55°C require Harbour Master's permission for entry.

2 discharging berths alongside the quay. Discharge lines 3×8 in. diameter with capacity of about 2,000 t.p.h.

Total: See "Max. Size".

One jetty for tankers up to 100,000 d.w.t. and 3 jetties for barges and coasters with depth of 20 ft. and 30 ft.

Cautionary Advice: Due to adverse tidal conditions, vessels may tend to drift away from jetty during period before high tide. It is, therefore, very important that ships pay particular attention to moorings.

Connections:

Commodity	Loading arms
Fuel oil	2×12 in.
Clean products	2×10 in.
Bunkers (fuel oil only)	1× 8 in.

The two fuel oil loading arms can also be used for the discharge of crude oil. The loading arms are hydraulically operated.

Deballasting: One 12 in. and one 10 in. loading arm can also be used for the discharge of dirty ballast water in unlimited quantities at the rate of about 1,000 t.p.h.

Capacities: Discharging rate of crude oil 3,000 t.p.h. and the loading rate of fuel oil about 2,700 t.p.h.

Supplies: Water obtainable from jetty. Bunkers by barge. Stores by small vehicles max. axle load 12 tons.

DENSITY: About 1024.

FRESH WATER: Can be supplied either alongside the quay or by water boat. Possible to supply fresh water in Flushing Roads weather permitting.

FUEL: All grades obtainable from major oil companies and supplied by barge only.

Economical bunkering arrangements can be made at the sheltered anchorage Schaar van Everingen, a few miles up river from Flushing. No harbour dues. Max. draft HW Neaps 42 ft. Springs 45 ft.(S.W.).

CONSULS:

Belgium	Tel: 478892	France	Tel: 463590
Denmark	Tel: 412711	Germany	Tel: 0118-552618

REPAIRS: All repairs possible.

DRY DOCKS: Largest (Graving) Length 229 m., width 36.1 m., draft 8.5 m. (HW), 90,000 d.w.t. and 2 smaller docks.

A dry dock with 300,000 metric d.w.t. capacity is planned.

GANGWAY/DECK WATCHMEN: Available but not compulsory or necessary.

OPENING/CLOSING HATCHES: On liners by crew or stevedores, ship's option.

CERTIFICATES: On arrival, ship's register only.

CUSTOMS ALLOWANCES: 200 cigarettes for each member of crew and total on board out of bond 5 litres spirits and 100 litres wine.

CARGO GEAR: The port is equipped with modern mobile cranes, which can be used both in the outer harbour and in the inner docks, with the following capacities:

2 cranes – 30 tons
2 cranes – 25 tons
3 cranes – 12 tons
2 cranes – 10 tons
1 crane – 8 tons

Floating cranes are available with capacities of 225, 75, 40 and 8 tons.

REPATRIATION: All facilities available for crew changes; good railway connections.

AIRPORT: Rotterdam (Zestienhoven) 120 km.; Brussels (Melsbroek) 140 km.; Amsterdam (Schiphol) 180 km.

TIME: GMT plus 1 hour. Summertime, GMT plus 2 hours.

HOLIDAYS: New Year's Day (January 1st); Easter Monday; Queen's Birthday (April 30th); Ascension Day; Whit Monday; Christmas Day (December 25th); Boxing Day (December 26th).

Work can be arranged on above days, however dependent upon permission of the Docker's Inspection.

POLICE/AMBULANCE/FIRE: Police, Ambulance and Fire 06-11.

TELEPHONES: Possible to place telephones on board and for vessels berthing at the shipyard "De Schelde".

SERVICES: Compass Adjuster; Radio/radar services also calibration of the Direction Finder, Seamen's Home (Mission to Seamen); Lloyd's Sub–agents; Ship's Laundries.

SHORE LEAVE: After clearing inwards, crew members are allowed to go ashore without special permission.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Garbage container placed alongside on request by Wielemaker B.V. (Tel: 0118-552440). Charge depends on quantity.

WASTE OIL DISPOSAL: The shore reception facility is located at the ship repair yard owned by Martens B.V. (Tel: 0113-351775).

SEAMAN'S CLUBS: Missions to Seamen (The Flying Angel). Tel: 01184-67063.

AUTHORITY: Flushing Ports Authority, Engelandweg, Haven 1199, Vlissingen-Oost, P.O.Box 1056, 4388 ZH Oost-Souburg, Netherlands. *Tel:* 0118-468080. *Telex:* 37865 Haven Nl. *FAX:* 0118-467020. *Contact:* Captain E.A.v.d.Berg, Deputy Harbour Master.

AGENT: See "Rotterdam".

GRONINGEN: 53.15 N. 06.34 E. (See Plan)

The port is connected with the Ems Estuary via the Eemskanaal and the lock at Delfzijl.

DOCUMENTS: See "Rotterdam".

Clearing is done at Delfzijl.

PILOTAGE: For the approach of the lock see "Delfzijl".

The length of the lock is 120 m. and the width 16 m. Depth over sill at LW 3.9 m. and at canal level 6.07 m.

On the locks Canal-Pilots are available but pilotage on the canal is not compulsory. The length of the canal is 14 miles and it has a least depth of 5.2 m. There are 4 bridges all 16 m. wide.

MAX. SIZE: Maximum size for ships passing lock and navigating canal; beam 13 m. and draft 4.5 m. (Vessels with greater beam and draft possible with permission of the Canal Authority.)

TUGS: Available at Delfzijl and Groningen.

BERTHING: *Hunzehaven:* South side 300 m. quayage, railway connected, max. draft 4.5 m., 3 grab cranes 3.5 tons.

Deense Haven: 3 mooring buoys, max. draft 4.5 m. One private grab crane on wharf, capacity 8 tons.

Eemskanaal: Private silo. Max. beam 12 m., max. draft 3.6 m., private timber yard max. beam 12 m., max. draft 3.6 m.

Van Starkenborghkanaal: Private silo. Max. beam 9.6 m., max. draft 2.9 m., private timber yard max. beam 9.6 m., max. draft 2.9 m.

CRANES: Floating sheerlegs up to 250 tons.

STEVEDORES: Available.

MECHANICAL CARGO HANDLING: Silos with equipment for bulk-handling of grain on Eemskanaal and Van Starkenborghkanaal.

MEDICAL: 3 hospitals available.

FRESH WATER: Available from Delfzijl.

FUEL: By barge only.

CONSULS: Belgium, Tel: 3138222; Norway, Tel: 3189444; Spain, Tel: 3137879.

REPAIRS: All repairs possible at Delfzijl.

DRY DOCKS: Transverse slipway at Delfzijl.

CERTIFICATES: On arrival, Ship's Register only.

AIRPORT: Eelde, 10 km. from Groningen, daily services to Schiphol.

HOLIDAYS: New Year's Day, Easter Monday, Queen's Birthday (30th April), Ascension Day, Whit Monday, Christmas Day, Boxing Day.

POLICE/AMBULANCE/FIRE: Police Tel: 3121212; Ambulance Tel: 3123456; Fire Brigade Tel: 3123456.

TELEPHONES: No facilities.

AUTHORITY: Gemeentelijk Havendienst Groningen, Oosterkade 14, 9711 RS Groningen, Netherlands. *Tel:* 050-3673742, 050-3673743. *FAX:* 050-3143534. *Contact:* J. Legters, Harbour Master. Tel: 050-3144962 (Private).

MOERDIJK: 51.42 N. 04.38 E. (See Plan)

PORT LIMITS/LOCATION: Moerdijk is a large-scale industrial estate located in the Province of Noord-Brabant, between the main ports of Rotterdam and Antwerp, on the Hollands Diep, offering major docking facilities to both sea-going and inland vessels.

With direct access to the open sea, vessels coming from the Hook of Holland navigate the Nieuwe Waterweg, Oude Maas, Dordtse Kil, crossing the Hollands Diep to arrive at the Moerdijk dock area.

The dock area is located between the Gemeentehaven Moerdijk (Moerdijk Municipal Port Facilities) and the Noordschans Marina, bounded to the North by the Sassenplaat. Navigation into and from the dock area is allowed only through the East side of the Zuid-Hollandsch Diep.

When entering the dock area, over the port bow the Harbour Basin Roodevaart, the Central Harbour Basin and the Western Harbour Basin are observed in succession.

In the ports of the Moerdijk Port Authority, berthing fees are charged at a rate based on tonnage, class, vessel, duration and cargo.

DOCUMENTS: *Customs:*

2 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
1 copy I.T.C. bg.
2 copies Crew Manifest.
Also see "Rotterdam".

PILOTAGE: With respect to pilotage services and regulations, etc. – See "Rotterdam".

ANCHORAGE: Inside the Moerdijk port limits, anchorage is prohibited without the consent of the Harbour Service. Lay-by berths are available at mooring buoys located in the Zuid-Hollandsch Diep.

RESTRICTIONS/MAX. SIZE: *General Remarks (for Moerdijk):*

It is inadvisable, in poor visibility, to pass the bridges going with the current.

Draft signals Oude Maas exceeding 70 dm., Dordtsche Kil exceeding 55 dm. Length signal exceeding 135 m.

Delays may arise due to the presence of 6-barge push-towing and other substantial objects.

Max. clearance in relation to high voltage transmission cables 41 m. plus NAP if destined for Moerdijk.

Criteria for Navigability of the Oude Maas and Dordtsche Kil:

	Oude Maas	Dortsche Kil
Ship's length	175 m.	175 m.
Ship's beam	25 m.	25 m.

Deviation from above criteria may be permitted after consultation with the Waterway Controller and the Pilotage Service.

Particulars for Sea-Going Vessels destined for Ports of the Moerdijk Port Authority:

Obligation to register arrival and departure of vessels with Harbour Master H.M. (Moerdijk Port Authority), being in conformity with port regulations. Moerdijk Port Authority. Tel: 0168-453100 and Fax: 0168-452999.

Obligation to register to be addressed to the H.C.C. (Fax: 010-47-71800).

(a) Registration 24 hours in advance for dimensions exceeding 135 m. length and 17.50 m. beam.
(b) Ships with a draft exceeding 70 dm. for the Oude Maas and 55 dm. for the Dordtsche Kil must show in daytime one cylinder, and at night-time 3 red lights in vertical line.

Permits and Tide Arrangements:

For vessels up to certain dimensions, these can be obtained from H.C.C. on behalf of Head Traffic Service (Telephone number for tide arrangements: 010-42-51400, for normal orders: 010-42-51433).

R.V.C. Dordrecht (Tel: 078-13-24421).

Exemptions: By the H.I.D. of the RSW/H.C.C.

Dortsche Kil – Crossing Hollands Diep/Zuid-Hollandsch Diep:

Policy regarding access for sea-going vessels to HM
(Moerdijk Port Authority).

The RWS Chief Engineer – Director for the Directorate Zuid-Holland in Rotterdam, and the Managing Director of the Moerdijk Port Authority in Klundert

Announce

1. That the maximum draft for ships with destination Moerdijk Port Authority (HM), or as the case may be, departing from IHM, shall be 8.00 m. at a water level equal to NAP. Above mentioned draft may be increased, or as the case may be, to be decreased, proportional to the Moerdijk water level being above or below NAP.
2. That the maximum allowed draft shall basically not exceed 8.40 m.
3. That vessels are, at all times, to navigate intended waters with a keel clearance of 10%, that it is however permitted to reduce this keel clearance to 5% for the stretch Willemsdorp – HM, and vice versa, provided the conditions set by the Pilot on duty are complied with regarding tug assistance to ensure the vessel's navigability.
4. Incoming sea-going vessels with destination HM, or as the case may be, outgoing sea-going vessels coming from HM, shall be piloted in accordance with the guidelines set for that purpose (See Annex 1).
5. That sea-going vessels with a length exceeding 135 m., or sea-going vessels with a draft exceeding 5.50 m. showing the additional day signal, or the additional lights as intended in Article 10.03 of the Regulations Inland Waterways Police, shall enjoy a special right of way by virtue of Article 10.08 of the above described regulations.

Harbour Basin Roode Vaart: Length 1,100 m., width 240 m. and depth 35 dm. – 90 dm.

Central Harbour Basin: Length 1,850 m., width 240 m. and depth 90 dm.

After 900 m., there is a branch with length 900 m., width 154 m. and depth 90 dm.

Western Harbour Basin: Length 1,900 m., width 240 m. and depth 90 dm.

Annex 1: *Navigational Guidelines from and to the Moerdijk Port Authority:* The schedules given below have been computed in consultation with the Rijnmond Waterway Controller and Pilotage Service and are based on averaged tidal data and target depths maintained under the responsibility of the Controller of the navigation lanes.

Drafts are calculated in sweet water. (L = Length overall). Schedules and guidelines given below are for information purposes and under revision. To obtain accurate data regarding tidal windows, drafts, piloting time and such, you are to contact the H.C.C. (010-42-51400) and the Pilot Service Supervisor (010-42-51530).

Arriving at Moerdijk: (Note: HvH = Hook of Holland).

(1) Vessels with length under 150 m. and draft under 80 dm. – No limitation regarding piloting time.
(2) Vessels with length under 150 m. and draft between 80 dm. and 84 dm.: Pilot onboard from H.W. (HvH) −3.5 hours until H.W. (HvH) +1 hour.
    Please note: Negotiating Botlek Bridge under head current conditions.
(3) Vessels with length over 150 m. and draft under 80 dm.: Pilot on board from H.W. (HvH) +2 hours until H.W. (HvH) −2 hours.
(4) Vessels with length over 150 m. and draft between 80 dm. and 84 dm.: Pilot on board from H.W. (HvH) −3.5 hours until −2 hours.

Leaving Moerdijk:

(1) Vessels with length under 135 m. and draft under 80 dm.: No limitations regarding piloting time.
(2) Vessels with length under 135 m. and draft between 80 dm. and 84 dm.: Pilot on board from H.W. (HvH) +30 minutes.
(3) Vessels with length between 135 m. and 150 m. and draft under 84 dm.: Pilot on board form H.W. (HvH) +5 hours until H.W. (HvH) −1 hour.
(4) Vessels with length over 150 m. and draft under 84 dm.: Pilot on board from H.W. (HvH) −3 hours until H.W. (HvH) −1 hour.

Navigation to Moerdijk, in particular, is dependant on the river upper reaches drain-off volume and the Haringvliet Locks discharge programme. With reference to the daily RWS (Department of Public Works) tidal projections, maximum draft tolerances can be computed.

No night-time limitations are applicable.

TUGS: No tugs are stationed in the Moerdijk dock area.

Compulsory Use: Sea-going vessels with a length over 80 m., and in case they are not fitted with a properly functioning bow propeller, are obliged, when mooring, casting-off and warping at Shell Moerdijk No. 3, 4 and 6 manifolds positions, to make use of at least one tug, capable of delivering a minimum of 400 h.p.

On departure, should the vessel's bow be pointing in the departure direction, then the need for tug assistance is decided in consultation with the Pilot.

BERTHING: All harbour basins have banks with a rock-fill surface.

Various piers and quay walls are available, which are owned by established companies. Depths at the piers vary for each pier.

Information can be obtained from the operator in question.

Harbour Zuid-Hollands Diep is 6.0 km. in length, 550 m. wide, and has a lane for sea-going vessels indicated by buoys, being at the approach to the Zuid-Hollands Diep, 140 m. minimum width and 84 dm. – 100 dm. in depth.

TANKERS: See "Shipmaster's Report".

SPECIALISED CARGO HANDLING FACILITIES: Bulk goods, general cargo, containers, liquids, minerals and chemical solids.

MEDICAL: Doctors and dentists are available.

FRESH WATER: Drinking water is supplied from Dordrecht by barge.

FUEL: Orders can be placed for the delivery of lubricants and fuels by bunkering ship.

FIRE PRECAUTIONS: Smoking and naked fires are prohibited in a certain number of locations.

GARBAGE/WASTE DISPOSAL: List of Port Receiving Installations (HOI):

This annex lists the designated companies offering port receiving facilities in the dock area of the Port of Moerdijk Authority.

Company offering port receiving facilities, acceptance and processing of liquids containing oil and chemicals and ship cleaning locations (Marpol Annex I and II):

Afvalstoffen Terminal Moerdijk, Vlasweg 12, 4782 PW Moerdijk. Tel: 0168-332200. Fax: 0168-323197. Designation valid through 1st January 1997.

Companies offering port receiving facilities for the collection of, exclusively, oil residues and oil-containing mixtures (Marpol Annex I):

Afvaloliehandel (Waste Oil Trading) J.C.Jongen B.V., Uilenvliet 10, 3333 BT Zwijndrecht. Tel: 078-6123648. Carphone: 06-52738498. Designation valid through 1st January 1997.

Stroom en Visser B.V., Weerdestein 37, 3328 MK Dordrecht. Tel: 078-6213500. Designation valid through 1st January 1997.

Company offering receiving facilities for the collection of garbage from vessels (Marpol Annex V):

Van Gansewinkel, Rijksweg Zuid 11, 4735 TZ Zegge. Tel: 0165-552288. After office hours Tel: 0165-562374, or 076-5414850. Fax: 0165-669011. Designation valid through 1st January 1997.

SHIPMASTER'S REPORT: June 1987.

Documents:

6 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
3 copies Crew Manifest.

Pilotage: Pilot normally boards at the Maas Centre Buoy, except when there is very poor weather when small vessels that know the area (with hydrocarbons) can proceed inside the Hook of Holland breakwaters and embark the Pilot there.

There is a special Pilot for Dordrecht and Moerdijk.

The average pilotage time to Moerdijk, depending on the state of the tide, is 4 hours.

River Passage: Pilots sometimes take small vessels up river on automatic pilot. On reaching the Oude Maas bridges, about 10 minutes after Botlek, the Pilot requires a man forward and changes to manual steering.

Anchorage: Vessels use anchorages in the Hook of Holland area.

Tugs: Sea-going vessels are obliged to use a tug when berthing, leaving or warping at Berths No. 3, 4 and 6, unless the LOA is less than 80 m. and the vessel is equipped with a bow-thruster. When the vessel is leaving Berths No. 3, 4 and 6 with the bow in the direction of departure, a tug is in most cases not necessary. Also see "Berthing".

Berthing: Vessel berth at Shell Moerdijk at Jetty "T" where there are 5 berths for small vessels. The largest vessel handled is about 20,000 d.w.t. The maximum draft is 7.8 m. (there is a tunnel under the Oude Maas near Dordrecht).

Vessels with a draft of 6.5 m. can navigate at any state of the tide, there is a shoal patch near Moerdijk.

Larger vessels are berthed against flat face of the "T". Ethylene is handled at Berth No.2 on the "T". Normally vessels berth head in – port side to, without the use of tugs. However, should the vessel have to berth starboard side to, a tug is required.

Mooring consisted of 2 head/stern lines and 2 springs. A mooring boat is provided and the fenders are good. Shore gangway provided.

When entering and leaving, the pilot has to be very careful that the bow overhang does not hit the Chicksans on Berth No. 3.

Cargo: Vessels discharge ethylene. However vessels are also able to load at this berth.

If 2 vessels are carrying the same product, only 1 vessel is allowed to discharge at one time.

There is one Chicksan (8 in. 150 ASA) for discharge at both Berths No. 2 and 3. Rate of discharge 80 t.p.h.

Samples are taken about 3 hours after commencement of discharge.

Fresh Water: Fresh water is available on both berths from a hydrant and is metered. The charge is DFL 2.75 per ton.

General: All services are provided from Rotterdam. A telephone is placed on board but there is no meter. The meter indicating the total charges is at the gate office. Cost of call to U.K. is DFL 1.20 per minute and to Rotterdam DFL 0.25 per minute.

Vessel used Dirkzwager message agency at Maasluis (telex 26751 dirknl) for all communications with Pilot and Harbour Authority prior to arrival. This service can also be used for after hours messages to the agent, etc.

There is a lay-by berth available at Shell Moerdijk for small vessels.

Should the vessel be taking on stores, the truck is only allowed as far as the car park which is about 150 m. from the vessel.

The best way to Dordrecht from Rotterdam is by train from Lage Zwaluwe Station. Taxi from the car park to the station costs DFL 32.50.

Chart: B.A. Chart 137

SHIPMASTER'S REPORT: December 1988.

The following is an update on Shipmaster's Report, dated June 1987.

Berthing: Vessels with a draft of 7.5 m. (not 6.5 m.) can navigate at any state of the tide.

Normally vessels berth starboard side to at Berth No. 2 and port side to at Berth No. 3 without use of tug. Vessels can berth starboard side to at Berth No. 3 if a tug is used.

Cargo: Rate of discharge for ethylene is 110 t.p.h.

Generally, there is no surveyor. The terminal will not sign ullage sheet.

Make sure that the Loading Master signs the Statement of Fact on completion.

Time between completion and sailing is over 3 hours.

General: Lay-by Berth at Shell is suitable for vessels 100 m. LOA and 8.0 m. draft.

Developments: Loading/discharging facilities to be upgraded in 1989 with extra ethylene lines for faster turnarounds.

AUTHORITY: Havenschap Moerdijk, Plaza 3-5, 4782 SL Moerdijk, Netherlands. *Tel:* 0168-330055. *Fax:* 0168-330044.
Contact: G.C.A. Rodewyk, Harbour Master.

ROTTERDAM: 51.55 N. 04.24 E. (See Plan)

DOCUMENTS: The following documents have to be handed over to Customs and Immigration Authorities:

3 copies General Declaration.
2 copies Crew List on arrival, 2 copies on departure.
2 copies Passenger List.
2 copies Crew Personal Effects List.

In addition to the above, the following documents have to be available on board for inspection by Customs, Immigration Authorities and Netherlands Shipping Inspectorate:

Ship's Register or Certificate of Registry.
Cargo List, manifest or certificate.
Bill of Lading.
Log Book.
Crew List.
Stores List.
International Health Certificate or Declaration of Health.
Tonnage Certificate.
*Tanker Check List (to be handed over to the pilot).
*Tovalop Certificate.
*Dangerous Cargo List.
*Gas Free Certificate.
Safety Equipment Certificate.
Certificate of Depth.

* If appropriate, depending on the type of vessel.

Oil Pollution Damage Certificate: In Dutch ports, tankers carrying over 2,000 tons of oil or oil products in bulk have to produce a Certificate of Insurance in respect of civil liability for oil pollution damage (TOVALOP certificate). Fines will be imposed if vessels do not comply with these international regulations. Authorities will not allow such vessels to leave port.

Inspection of international statutory certificates: Surveyors of the Netherlands Shipping Inspectorate (NSI) will check certificates at random in accordance with the Memorandum of understanding on Port State Control (MOU).

If the required certificates are not on board or not valid, or if there are clear grounds for believing that the ship does not substantially meet the requirements of the relevant conventions, a more detailed inspection will be carried out.

On all tankships entering or leaving the port area of Rotterdam, the E.E.C. Tanker Check List has to be filled out and handed over to the pilot.

Pilots may report deficiencies to the NSI.

Shipmaster's Report: November 1988.

River Police: 2 copies Crew List on arrival and 2 copies Crew List on departure.

Agent	1 copy Stores List.
	1 copy Personal Effects List.
Customs	1 copy Personal Effects List.

PILOTAGE: Pilotage is compulsory for the following:

(i) Vessels with a length over 40 m. (without disciplinary measures).
(ii) Vessels sailing for or from berths along the Nieuwe Waterweg and the Nieuwe Maas with a length over 60 m. (with disciplinary measures).
(iii) Vessels sailing for or from berths along the Beerkanaal and Calandkanaal with a length over 70 m. (with disciplinary measures).
(iv) Vessels carrying dangerous goods.

Pilot cutters: Pilot cutters cruise continuously, day and night, off entrance to the New Rotterdam Waterway, one cruises North of line North Mole/ Maasbuoy and the other near Maas Centre Buoy.

Characteristic signals:

1. The distinguishing mark of the pilot cutter is the word "PILOT" on each side of the vessel.
2. By day: Pilot flag, being a blue flag with the letter 'L', displayed from the main top mast.
3. At night: Lights as prescribed by the Regulations for Preventing Collisions at Sea.
4. During bad visibility: The fog signal prescribed by Rule 35 of these Regulations.

Pilotage Authority: The Pilotage Authority for the Rotterdam Rijnmond region is the Regional Pilots Corporation Rotterdam-Rijnmond. The Pilots are supported by their company "Loodswezen Nederland B.V." which is responsible for equipment, etc.

Ordering a Pilot – ETA: Vessels with a draft less than 17.37 m. bound for the New Waterway must send an ETA 6 hours before arrival at Maas Centre.

ETA to be send to: 'PILOTVTS ROTTERDAM', via (in order of preference):

TOR or Satellite No. 26751 (dirknl)

Telegram Scheveningen Radio (PCH)

Sector Maas Approach by VHF Channel 1, 3 hours before arrival at the Pilot Station.

Contents of ETA Message:

- (a) Ship's name and call sign.
- (b) Date and time group transmission of ETA (first two digits: date; last four digits: time. State if local time or UTC).
- (c) Date and time group (see above) expected at boarding position and the words "Maas Centre".
- (d) Request pilot.
- (e) Deepest draft in metres and centimetres (4 digits).
- (f) LOA and GT or GRT.
- (g) Destination.

Consult Notice to Shipping No. 58/1988.

ETA-messages through your local agent *are not considered* to be a message according to these regulations.

Non-compliance with these regulations might cause delay to your vessel.

On arrival at the Pilot Station, vessels requiring a Pilot are to display the following signals, seperately or together:

1. *By day:* International code signal 'G', Pilot flag, vis., vessel's National Flag with white border from foremast.
2. *By night:* Morse signal 'G' by flash light. Blue lights at intervals of 15 minutes. A bright white light shown just above bulwark for 1 minute at short intervals.
3. *During bad visibility:* At least 3 seconds after the normal fog signal the international code signal 'G'. Pilot vessel will answer: the normal fog signals, followed after at least 3 seconds by international code signal 'H' (I have a Pilot on board).
4. Radio central VHF Channel 2 "Pilot Maas".

Pilotage for Deep Draft Vessels and Helicopter Service: Vessels drawing over 57 ft. (SW) must use the "Euro-channel" between the "Euro Buoy" and the "Maas Centre Buoy". Pilots board by helicopter in position Lat. 52° 00' N., Long. 03° 00' E. Helicopter may ask vessel to work on VHF Channel 9 or 16.

Radio communication (according P.J.M.O. recommendation):

1. HF frequency 5645 kHz: Ships will be informed by telegram of the time of departure from base and ETA of the Helicopter over the ship, which must be acknowledged. Listening watch should be maintained by the vessel on HF frequency 5645 kHz as from the advised departure time of the helicopter. Urgent messages for the vessel may be sent on this frequency by the helicopter and/or KLM helicopters home-base. The ship may close down listening watch on this HF frequency only after VHF contact with the helicopter has been established.

2. VHF frequency 156.30 MHz (Channel 9): The helicopter will contact the vessel on the VHF-FM voice frequency VHF Channel 9 or Channel 16, when within range (usually between 20 and 40 nautical miles distance from the ship). The helicopter may request the ship to change to another VHF Channel if radio traffic requires this. All instructions from the helicopter pilot to the vessel and vice versa will be on this VHF frequency. The call-sign of the helicopter is the word "helicopter" followed by the group of registration letters, of which the ship is informed in the departure telegram.

3. Operational information: As soon as VHF contact is established (normally initiated by the helicopter), the vessel shall advise the helicopter pilot of its position, courses, speed (when under way), the actual wind direction and speed over the deck, pitch, roll and condition of deck (e.g. dry, spray, wet, etc.). The helicopter pilot will confirm the acceptability of those conditions, or ask for a possible change in heading and/or speed.

Restrictions:

1. Min. visibility 800 m. at 150 ft. above sea level.
2. Max. wind Force 10 (55 knots).
3. Severe turbulence and icing conditions at or below 150 ft.

Pilot Ladders: Vessels with a freeboard over 9 m. must provide an accommodation ladder in addition to the pilot ladder. If boarding equipment does not strictly comply with the SOLAS provisions, Pilots must be embarked/disembarked by helicopter. Generally Pilots refuse to use the mechanical pilot hoists or other constructions which do not comply with the recommendations of the "International Maritime Pilots Association" (I.M.P.A.).

DEEP SEA PILOTAGE: See "Brixham" or "Cherbourg".

SHORE BASED PILOTAGE: In order to promote the safety and the smooth handling of maritime traffic, it is possible to provide "Shore Based Pilotage". This means that the Pilot, insofar as he is unable to board the vessel to be piloted, can also perform his task from another vessel or from the shore.

There are a number of conditions attached to "Shore Based Pilotage" of which the most important are stated below.

1. *Informative shore-based radar assistance:*

As a result of extension of the shore-based radar coverage outside, and an increase of range of the VHF Channels concerned in seaward direction.

The Shore-Based Radar Sectors, as seen from the sea are:

Maas Approach

Pilot Maas

Maas Entrance

1.1 *Maas Approach Radar:*

Communication VHF Channel 1.

The radar working area involves the sea area, including the anchorages within the sector with a radius of 23 nautical miles, calculated from the position of the light-platform Goeree (approx. position 51° 55' N., 03° 40' E.), with the exception of the working area of "Pilot Maas" situated within this sector.

"Maas Approach" gives general nautical information and renders (informative) shore-based radar assistance, up to the following shore-based radar sector "Pilot Maas", where the pilot cruising ground is, or up to the anchorages. In order to make early identification, c.q. information possible "Maas Approach" is to be contacted, if possible, 3 hours prior to arrival at the pilot cruising ground "Maas Centre", but in any case for traffic coming from the Southwest near the "M.W.1 Buoy" and for traffic coming from the North, near the platform "PD 15".

These rules do not alter the instructions for obtaining a Pilot in the Rijnmond District, as stated in the Notice to Shipping.

1.2 *Pilot Maas Radar:*

Communication VHF Channel 2.

The radar working area involves that part of the legally determined pilot-water in the sea area just off the Hook of Holland within which the pilot cruising grounds are located.

In the Pilot Maas-sector (advisory) shore-based radar assistance is rendered with respect to embarkation/ disembarkation of the Pilot.

1.3 *Maas Entrance Radar:*

Communication VHF Channel 3.

The radar working area involves that part of the legally determined pilot-water in the sea area off the Hook of Holland, East of the Sector Pilot Maas, Maas Entrance up to the Calandcanal and the Rotterdam Waterway up to kilometerpole 1031 (TCH traffic station).

Maas Entrance Radar provides the informative shore-based radar assistance.

2. *Shore Based Pilotage in the Rijnmond District:*

As a rule a pilot will embark a vessel in order to perform his task but, during periods in which pilot boats cannot be operational at sea on account of weather circumstances, it frequently happens that seagoing vessels enter or leave the Hook of Holland estuary without a Pilot.

Other vessels have to anchor in one of the anchorages, or will be kept outside, due to the impossibility of taking a Pilot on board.

In order to promote the safe and smooth handling of these vessels and other maritime traffic, the estuary of Hook of Holland has been provided with the so-called "Shore Based Pilotage".

This takes place according to the following principles:

2.1 During the periods from the moment that the Pilot Boat Service outside – on account of weather circumstances – will be suspended for "small vessels", until the time pilot service will be resumed.

Furthermore, "Shore Based Pilotage" can be used occasionally during normal weather conditions, in case the construction of certain vessels make it impossible to embark/disembark the pilot outside.

2.2 "Shore Based Pilotage" is carried out from the pilot cruising area outside to the Maas Entrance near TCH, and vice-versa.

2.3 The Pilots perform their tasks from the traffic stations Pilot Maas (VHF Channel 2) and Maas Entrance (VHF Channel 3).

2.4 In case the Master of a vessel with compulsory pilotage indicates that he wants to enter Maas Entrance during the period as described under 2.1, he will be informed by Traffic station Maas Approach that "Shore Based Pilotage" can be provided, taking into account all relevant factors of the admission policy for such a vessel.

The Master should explicitly accept this proposal, since the present Pilot Act does not yet provide a formal basis for this kind of pilotage.

The Master of a vessel with Non-Compulsory Pilotage can, at his request, also ask for "Shore Based Pilotage".

2.5 In view of the entire admission policy, it will be considered, with regard to each vessel, whether it is acceptable in view of the circumstances and taking into account all relevant legislation, rules and regulations in connection with the safety of shipping and surroundings – that the vessel concerned enters or leaves Maas Entrance without a Pilot, whether or not using "Shore Based Pilotage".

2.6 —

2.6.1 Sea-going vessels with Compulsory Pilotage should stay outside if they do not want to make use of the possibility to enter by means of "Shore Based Pilotage".

2.6.2 Sea-going vessels with Compulsory Pilotage on account of their cargo should in principle remain outside if they do not want to use "Shore Based Pilotage" for entering.

2.7 With respect to the vessels mentioned under 2.6.2. that should have a Pilot on board, it will be considered whether these vessels, dependent on among other things their size and the Master's knowledge of the area, can be allowed to enter Maas Entrance with "Shore Based Pilotage", all in view of the admission policy.

2.8 Large sea-going vessels can only navigate in Euro Channel, Maas Channel and Maas Entrance if a qualified and – for this purpose – trained Pilot is *on board* as stated in the Government Harbour Master's Notice to Shipping.

2.9 —

2.9.1 In principle, outbound sea-going vessels with Compulsory pilotage, in particular those with dangerous cargo, as mentioned under 2.6.2. should, also in view of 2.4 and 2.5, actually have a Pilot on board until the pilot cruising area.

2.9.2 In view of 2.4, 2.6.1. and 2.6.2., vessels with "Compulsory" pilotage should on no account disembark at the Berghaven.

2.10 Vessels or coupled vessels which, in view of among others The Inland Navigation Police Regulations art. 1.06 and 1.21 and the Special Rules and Regulations Rotterdam Waterway, are judged by the Government Harbour Master to be "Special Transport", should have a qualified Pilot on board.

2.11 Requests for "Shore Based Pilotage" should be made to:
Inward bound: Maas Approach Radar,
Outward bound: (before departure) Harbour Co-ordination Centre Rotterdam, Central Traffic Controller Rotterdam, (VHF Channel 11).

ANCHORAGES: The following 5 anchorages are available:

1. Long term anchorage for deep draft vessels (17.37 m. or more) North of North Hinder Junction.
2. Short term anchorage for deep draft vessels (17.37 m. or more).
3. "Maas Outer". Recommended max. draft 17.37 m.
4. "Maas West". Recommended max. draft 12.20 m. (North), 9.10 m. (South).
5. "Maas Noord". Recommended max. draft 13.70 m.

RESTRICTIONS:

Restrictions for entering:

Entry times: Depend on prevailing circumstances.

Europoort:

Tankers: Up to 74 ft. (SW) draft; some berth's have tide restrictions.

Vessels with a draft of 57 ft. (SW) or more and/or a length of 250 m. or more must comply with the "Shipping Rules for Large Vessels".

On entering Europoort, tugs are made fast just inside the breakwaters. At all times tug's hawsers must be used. The time at which deeply loaded vessels destined for Europoort enter the New Waterway depends on the prevailing circumstances and is always subject to agreements made between the Pilot Service and the Harbour Master.

Botlek and 3rd Petroleumharbour:

Max. draft 44 ft. (SW), exceptionally 45 ft. (SW), under certain conditions. Vessels exceeding 200 m. and/or drafts over 33 ft. are tidebound.

To obtain permission one should apply to the Harbour Master at Harbour Co-ordination Centre (H.C.C.).

Waalhaven:

Vessels with a draft of 36 ft. (SW), or a length of 200 m. or more should arrive at the entrance of the Waalhaven at slack water Rotterdam.

Basins at the right bank of the river Maas,Maashaven,Rijnhaven:

Vessels with a draft of 28 ft. or more and a length of 180 m. or more are generally tidebound. All harbours in Rotterdam can be entered at any time during day and night.

Shipping Rules for Large vessels:

Vessels drawing 17.4 m. (57 ft.) up to 22.52 m. (74 ft.):

These vessels must use the approach channels "Eurogeul" and "Maasgeul". Such vessels must report at least 8 hours prior to their arrival at the Pilot "rendezvous" position (52° N., 03° E.) by radio telegram to Harbour Co-ordination Centre (HCC) Rotterdam via Scheveningen Radio (PCH) or to Dirkzwager Maassluis (Telex No. 26751) if vessels equipped with "Telex Over Radio" and/or Inmarsat the following information:

(a) Name and call sign of the vessel.
(b) Tonnage in GT/GRT and deepest draft in salt water.
(c) ETA at rendezvous position.
(d) Confirmation of correct functioning of:
  1. Gyro compass-equipment.
  2. Radar.
  3. VHF, operational on Channels 1, 2, 3, 6, 11 and 13.
  4. Decca Navigator Mark XII or Mark XXI provided with a connection for the so-called Brown Pattern Indicator. (Brown Box Connection).

Vessels with a length of 250 m. or more but with a draft of less than 57 ft. (SW) (not bound to use the approach channels) must report, at least 6 hours prior to their arrival at the Maasbuoy, the information mentioned under (a), (b), (c), and (d) 1, 2 and 3.

The intention to leave Europoort must be reported by the Master or the Agents at least 3 hours prior to the departure to Harbour Co-ordination Centre, Rotterdam, giving the information mentioned under (a), (b), (c), and (d) 1, 2 and 3.

The 6 hours' report prior to arrival will also be considered the 6 hours' ETA message for obtaining a Pilot.

Vessels equipped with a "T.O.R." or Maritex installation can send their messages to Harbour Co-ordination Centre Rotterdam via Dirkzwager's message relay and ship's reporting station (Telex No. 26751 "dirk nl").

Outward bound vessels drawing 57 ft. (S.W.) or more, having to make use of the "Maasgeul" and "Eurogeul" must give 12 hours Notice of Departure to the Harbour Co-ordination Centre through their Agent.

Vessels drawing 20.7 m. (68 ft.) up to 22.52 m. (74 ft.):

These vessels, which must use the selected route via "The Straits of Dover" and the Southern North Sea to the "Eurogeul" are urgently recommended:

1. To act in accordance with the instructions of the manual "Deep Draft Planning Guide", Greenwich Buoy to Europoort.
2. Preferable to make use of the services of a certified North Sea Pilot as from Greenwich Buoy.
3. To report 24 hours prior to arrival at the rendezvous area near Cherbourg, by telegram to Harbour Co-ordination Centre, Rotterdam via Scheveningen Radio (PCH) or to Dirkzwager Maassluis (Telex No. 26751).

The telegram should contain:

(a) Name and call sign of the vessel;
(b) Tonnage in GRT and deepest draft in salt water;
(c) ETA Pilot-location near Cherbourg, at about 13 miles North of Cap de la Hague.
(d) The order for a chartered pilot for the "Eurogeul" to be embarked by helicopter near Cherbourg;
(e) Confirmation of correct functioning of:
  1. Gyro compass equipment.
  2. Radar.
  3. VHF, operational on Channels 1, 2, 3, 6, 11 and 13.
  4. Decca Navigator Mark XII or Mark XXI provided with a connection for the so-called Brown Pattern Indicator (Brown Box Connection).
(f) If necessary required expert assistance for equipment mentioned under (e).

4. To confirm or amend via Scheveningen Radio the telegram mentioned under 3, 12 hours before arrival "rendezvous" location Cherbourg or by T.O.R. and or Inmarsat via Dirkzwager Maassluis (Telex No. 26751).
5. To make use of Dutch sea charts issued by the Hydrographic Service:
No. 1971 – Sandettie to North Hinder.
No. 1972 – North Hinder to Europoort.

Shifting: Vessels which have lightened at Europoort/Maasvlakte terminals should arrive at Botlek entrance at about 30 minutes after high water at Rotterdam.

Shifting rules Europoort - Botlek:

Length overall:	Max.draft allowed:
up to 270 m. (885 ft.)	44 ft. S.W.
270 m. – 300 m. (885 ft. – 916 ft.)	42 ft. S.W.

Verolme maximum draft allowed: 27 ft. (3 ft. trim).

Dangerous Goods: Regulations are based on several Governmental laws and Municipal bye-laws.

The "Dangerous Goods Department" of the Municipal Port Management is the centre where all information on dangerous goods on board vessels is collected, administrated and distributed to those concerned.

Inspection on board vessels berthed in the Port of Rotterdam will be carried out mainly by inspectors of the Municipal Dangerous Goods Department, although in certain cases (e.g. explosives), Governmental Dangerous Goods Inspectors are in charge as well.

For detailed information the following Regulation should be consulted: Rotterdam Port Bye Laws (Havenverordening Rotterdam).

From these regulations the following significant obligations have been extracted:

1. *Signals:* Vessels carrying:
In Packages:
(a) More than 100 kg. gross of IMO class 1 hazard division 1.1 and 1.5
(b) More than 1,000 kg. gross of IMO class 1 hazard division 1.2, 1.3 and 1.4 or IMO class 5.2 in packages with an explosive label.
(c) More than 1,000 kg. gross of IMO class 2 with a poison label.
In Bulk:
(d) Any dangerous substances in any quantity. Also empty tanks which are not certified as being clean by an acknowledged expert, should hoist the following signals before entering Rotterdam Waterway area:
I. *by day* the international signal flag "B";
II. *by night* 1 red light.

2. *Prior Notification:* Masters of vessels carrying:
(a) Dangerous goods of IMO class 1 and 5.2 in packages.
(b) More than 1,000 kg. gross weight per substance of the other IMO classes in packages.
(c) Dangerous substances in bulk: Report these commodities to the Dangerous Goods Dept. of the Municipal Harbour Master 24 hours before arrival.

3. *Explosives:*
There is a restriction on the carriage of explosives by ships, dependent on kind, quantity and stowage of the explosives.
Permission to deliver explosives is given by the Minister of Transport.
Masters of vessels are advised to make sure whether such a permission has been granted.

4. *Dangerous Cargo List:*
Apart from these obligations the Rotterdam Port Bye-Laws prescribe that a vessel having any dangerous cargo on board is prohibited from being in the harbour unless there is a list on board and an identical list has been submitted to the Harbour Master (See "Port Authority"), stating the correct technical names, IMO class, gross quantities and the stowage of these materials.

5. *Operational Notice:*
Masters of vessels showing the signals as mentioned above ("B" flag or 1 red light) shall give notice to "Maas Approach" on VHF Channel 1 on arrival.
This notice shall be given at least half an hour but not more than 1 hour before the ship enters the Rotterdam Waterway area. Upon departure: on Channel 13 to "Regional Traffic Centre".
This notice shall contain: Ship's name, position, destination and expected time needed for passage in the port area.
When visibility is less than 500 m., ships are prohibited from navigating the Rotterdam Waterway, unless permission has been obtained from "Regional Traffic Centre" on VHF Channel 13. Navigation on the Rotterdam Waterway might be prohibited if circumstances make it necessary.

Combination Carriers (OBO's): Combination carriers must, as per Rotterdam Port Bye-laws, comply with the following regulations when calling to load and discharge dry cargo:

(a) The dry cargo holds may not contain combustible or remnant liquids.

(b) The spaces adjacent to the dry cargo holds:
  may not contain combustible or remnant liquids; or
  must be gas free; or
  must contain an inert gas under positive pressure.

(c) Slops or previously carried oil cargoes may not be stowed adjacent to a dry cargo hold and must contain an inert gas.

At least 24 hours prior to arrival the following information must be cabled:

1. The nature of the dry cargo;
2. Nature of operation (loading or discharging);
3. Where loading and discharging will take place;
4. The chemical or technical name of the last liquid cargo;
5. The date of discharging of the last liquid cargo;
6. The stowage of the cargo residues of combustible liquids;
7. Description of the atmosphere above the cargo residues referred to in 6;
8. Description of the atmosphere of all other spaces.

In case of repairs, tank cleaning or delivery of slops, a combination carrier is considered to be a tank vessel and should comply with the regulations applicable to this kind of ship.

Tidal Information.

The mean height of M.H.W. off the Hook of Holland 105 cm. above Datum (N.A.P.)

LLWS (Low Low Water Spring) 84 cm. below Datum

MLW (Mean Low Water) 64 cm. below Datum

All permissible drafts and depths of water mentioned are given at NAP unless otherwise mentioned.

Tidal Range:	Neap Tide:	Spring Tide:
Mean Rise above Datum	82 cm.	121 cm.
Mean Fall below Datum	64 cm.	63 cm.
Tidal Range	146 cm.	184 cm.

DEPTHS:

Location	*Max. Depth** (m.)
Wilhelminakade	10.65
Merwehaven	10.65
Keilehaven	4.65
Lekhaven	10.65
IJselhaven	10.90
Schiehaven	9.15
St.Jobshaven	8.65
Koningshaven	7.50
Rijnhaven	10.65
Maashaven	11.65
Waalhaven:	
Entrance and channel	13.50
Pier 1 and 2	10.65
Pier 3 and 4	13.15
Pier 8	6.15
Pier 6 and 7	14.15
Pier 5	11.65
Eemhaven:	
Entrance and Channel	13.50
1st Eemhaven	4.65
Prins Johan Frisohaven	10.65
Prinses Beatrixhaven	11.65
Prinses Margriethaven	13.65
Prins Willem Alexanderhaven	12.65
Pernis:	
2nd Petroleumhaven	12.00
1st Petroleumhaven	11.65
Botlek:	
Geulhaven	4.65
3rd Petroleumhaven	12.65
Botlek	14.50
Chemiehaven	12.65
St.Laurenshaven	14.50
Torontohaven	13.65
Europoort (East side):	
Seinehaven	6.50
Brittaniehaven	12.65
Europoort (West side):	
7th Petroleumhaven	21.65
Donauhaven	7.15
Wezerhaven	5.65
5th Petroleumhaven	21.65
4th Petroleumhaven	17.65
Scheurhaven	6.15
Beneluxhaven	21.65
Dommelhaven	4.65
Dintelhaven	5.65
Maasvlakte:	
6th Petroleumhaven	22.25
Amazonehaven	21.65
Mississippihaven	23.65
Hartelhaven	5.50
Europahaven	13.65
8th Petroleumhaven	24.00

* = N.A.P. (Normal Amsterdam Level)

HEALTH: The Master has to fill in and sign a Maritime Declaration of Health, which is handed to him by the Pilot. Vessels subject to medical inspection have to hoist flag signal according to Pilot's orders. In case of quarantine problems, the pilot will contact the head of the department of Infectious Diseases of the Municipal Health Service (GGD). Telephone (10) 4339419.

RADIO: *ETA messages and T.O.R./Maritex:* Masters' telegrams via Scheveningen Radio, call-sign PCH, are passed to Agents 24 hours a day, weekends inclusive. For this reason it is advisable that Masters communicate with agent via Scheveningen Radio, via which station they also route messages to vessels. Vessels equipped with "Telex Over Radio" may, outside office hours channel their messages to Agent via Dirkzwager's message relay and ships' reporting station at Maassluis, telex No. 26751, Answerback "dirk nl". Such messages are passed on to Agent immediately, also during weekends.

RADAR/VHF: A chain of 29 shore-based radar stations permits navigation during all weather conditions. Radio and radar station Maas Approach at Hook of Holland, communicates via VHF Channel 1 (Port Operations).

Masters are requested to call this station, especially during bad visibility, well in advance of arrival at Pilot Station. Maas Approach provides nautical information for vessels within range and acts as a link with pilot cutters.

Radio-Radar Station: The radio station "Traffic Centre Hook (TCH)" in Hook of Holland acts as a Communication Centre and as a Traffic Regulation Station near the entrance and on the New Waterway. The station provides weather forecasts on request by VHF Channel 13. Radar assistance is provided on VHF Channel 66 from "CA2-NW1" Separation Buoy into Europoort and vice versa.

Information on berths, Harbour Pilots, tugs and linesmen in Europoort can be obtained on VHF Channel 11.

VESSEL TRAFFIC MANAGEMENT SYSTEM: With the completion of the VTS system and the related Data Handling System, the Port Management now has one of the world's most advanced safety systems for the control of shipping. However, it is always open to improvement.

The Vessel Traffic Management System (VTMS) is in operation for the approaches to Europoort and the New Waterway; It covers an area from 45 miles West of Noorderhoofd up to 2 miles East of the van Brienenoord Bridge and 4 miles East of the Spijkenisse Bridge in the Oude Maas river, including all adjacent harbour basins.

The area is divided into three regions, each having its own Traffic Centre to communicate with the shipping (VHF Channel 13). The three regions are sub-divided into 12 sectors, each having a traffic attendant and a seperate VHF-channel.

Traffic Centre Hook of Holland:	
Maas Approach	VHF 1
Pilot Maas	VHF 2
Maas Entrance	VHF 3
Waterweg	VHF 65
Europoort	VHF 66
Traffic Centre Botlek:	
Maassluis	VHF 80
Botlek	VHF 61
Oude Maas	VHF 62
Traffic Centre City:	
Eemhaven	VHF 63
Waalhaven	VHF 60
Maasbruggen	VHF 81
Brienenoord	VHF 21

TUGS: Tugs normally join vessels on river when nearing the basin where vessels will be accommodated. The towing lines used are always from the tug.

BRIDGES: The New Waterway connects the Port of Rotterdam with the North Sea, without any locks or bridges. Only to reach some shipyards, situated East of Rotterdam, vessels have to pass the "Koninginnebrug" (Koningshaven).

The railway bridge remains open since the construction works of the tunnel are completed.

The "Koninginnebrug" is opened day and night on request (VHF Channel 18).

Barrage time during weekdays: 0730 hrs. – 0900 hrs. and 1630 hrs. – 1800 hrs.

To reach berths in Brittaniehaven, vessels have to pass the Calandbridge. To reach berths in Seinehaven and Neckarhaven, vessels have to pass the Rozenburg locks (between the Calandcanal and the Hartelcanal).

GENERAL CARGO/MULTI-PURPOSE FACILITIES:

C. Steinweg (Handelsveem) BV: Parmentierplein 1, 3088 GN Rotterdam. (P.O.Box 1068, 3000 BB Rotterdam). Tel:(10) 4879555. Fax: (10) 4879200. Telex: 22227. Management: E. de Werk (President), P.A. Govers (Director).

Quays in Operation: Rijnhaven, Waalhaven Pier 1, Beatrixhaven, Botlek, Beneluxhaven (Europoort).

Berth and Cranage: Total length 5,000 m., max. draft 12.50 m., max. lifting capacity 45 tons.

Nederlands Transport Bureau B.V.: Willemskade 17, 3016 DL Rotterdam. (P.O.Box 23068, 3001 KB Rotterdam). Tel: (10) 4145611. Fax: (10) 4129569. Telex: 22139. Board of Directors: L.L. Kolisch (Chairman of the Board), Tel: (10) 4138752. Ir.N.J.B. Edelhauser (Director), Tel: (10) 4224648. W. Laurs (Director), Tel: (1807) 21733. P.A. Moons (Director), Tel: (71) 618069.

Waalhaven North side: Container/general cargo handling, fertiliser in bulk.

Berth and Cranage: 1 berth – length 200 m., depth 12.0 m.; 1 berth – length 1,200 m., depth 10.0 m.; 1 berth – length 150 m., depth 9.0 m.

Terminal Facilities: 12 cranes, 3 transtainers.

Computer Systems: EDI.

Rail Facilities: 1,500 m. rail track.

Lehnkering Montan Nederland B.V.: Zweth 24, 2991 LH Barendrecht. (P.O.Box 350, 2990 AJ Barendrecht). Tel: (1806) 46400. Fax: (1806) 22212. Telex: 22175 NL.

Seinehaven (Europoort, East side):

Berths and Cranage: Total quay length 250 m., depth 6.5 m., served by 2 fixed cranes and 3 mobile cranes.

Terminal Facilities: Total area 9 ha., 1 transtainer and 2 sheds.

CONTAINER HANDLING FACILITIES:

Container Handling Statistics Rotterdam:

1991	3,782,595
1992	4,122,782
1993	3,955,000

ECT Terminals:

Terminal operating company: Europe Combined Terminals (ECT), Postbus 7400, NL-3000 HK Rotterdam. Contact: W. den Dulk, Chairman.

Delta Container Division, Europaweg 875, P.O.Box 7400, NL-3000 HK Rotterdam. Tel: 010-4916911. Telex: 28056 ECT NL. Contact: Ir.J.C.Rijsenbrij, Director – Delta Container Division.

Container Handling Statistics ECT:

1990	1,435,712
1991	1,478,000
1992	1,600,000
1993	1,700,000

Delta Terminal (Europahaven):

Berths and Cranage: Total quay length 1,550 m., depth 13.6 m., served by Nelcon container gantry cranes (55 tons – 67 tons), of which 2 are shared with Delta/Sealand Terminal (Europahaven).

Hartelhaven: One container barge berth, length 260 m., served by 2×50 tons/55 tons Nelcon container gantry cranes.

Direct Call Liner Services: ACL, CGM, CMB, Cosco, ECL, H-L, Hanjin, K-Line, Maersk, MISC, NL, NOL, Norasia, Nosco, OOCL, OPDR, P&OCL, Portlink, Rheintainer, S-L, Unifeeder, WCL.

Terminal Facilities: Total area 100 ha.; 366 electric reefer points; 29 Nelcon (35 tons) straddle carriers; 8 Kalmar/LMV 16/1200 (16 tons) front handlers; 36 DAF floor yard tractors; 75 floor yard chassis; 60 Buiscar trailer trains.

Computer Systems: Hardware Unisys A6/A12, DEC Vax; software in-house; functions multi-user container control system, ship planning, training, finance and systems development.

Rail Facilities: 4×600 m. rail tracks served by 2×50 tons/55 tons Nelcon rail mounted road/rail transfer gantries.

Future Plans: Development of the second and third phases will provide for a further 290 ha. with quay length of 2,390 m. available.

Delta/Sealand Terminal (Europahaven):

Berths and Cranage: Total quay length 970 m., served by 8 Nelcon container gantry cranes, of which 2 are shared with Delta Terminal Europahaven.

Direct Call Liner Services: NL, Norasia, OOCL, P&OCL, S-L.

Terminal Facilities: Total area 56 ha. Equipment: 576 electric reefer points; 25 yard gantries; 5 Nelcon straddle carriers; 5 Kalmar LMV 12-1200 front handlers; 10 DAF yard tractors; 30 yard chassis.

The terminal is also equipped with 50 Gottwald automatic guided vehicles and 25 Gottwald automated stacking cranes.

Computer Systems: Hardware DEC, Digital VAX 6000-610; software RDB 4GL:Ingres.

Europe Combined Terminals BV: Home Container Division, Seattleweg 7, P.O.Box 7400, NL-3000 HK Rotterdam. Tel: (10) 4916911. Telex: 28301 ECT NL. Contact: A. Stolk – Joint Director – Home Container Division.

Alexander Terminal (Prins Willem Alexander Haven/Prinses Margriethaven):

Berths and Cranage: Quay length 3,100 m. (Prins Willem Alexanderhaven 1,300 m., Prinses Margriethaven 1,800 m.), minimum depth 10.6 m. – 13.0 m., equipped with 2 Demag (53 tons/39 tons), 1 Peiner (42 tons), 8 Paceco (2×43 tons, 6×41 tons), 2 Nelcon (50 tons), 3 Conrad Stork (50 tons) and 1 Nelcon (45 tons) container barge cranes. Ro-Ro ramp on the North West side.

Direct Call Liner Services: ANZECS, B&I, Bugsier, Capricorn, CGN, CMB, Comar, Contemaris, Contship, CSC, CY, DSR, ECL, Evergreen, Feederlink, GNSL, Hapag-Lloyd, MDV, NOL, NYK, OPDR, P&OCL, Portlink, Red Sea Express, Rheintainer, SAECS, Sealand, Senator, Star Shipping, Unifeeder, WEC, WCL, YMTC.

Terminal Facilities: Prins Willem Alexanderhaven/Prinses Margriethaen: Total area 87 ha. (Alexander Terminal 81.5 ha.; Margriet Terminal 5.5 ha.). Equipment: 598 electric reefer points; 48 liquid nitrogen reefer points; 37 Nelcon straddle carriers; 20 Kalmar LMV (16 tons) front handlers; 70 DAF yard tractors; 535 DAF yard chassis; 6 Buiscar trailer trains.

Computer Systems: Hardware 2 Unisys A10/A12; software in-house; functions Sealand Terminal Container control system; finance and training.

Rail Facilities: 3×550 m. rail tracks on the Terminal, served by 2×41 tons Demag and 1×45 tons Nelcon rail mounted road/rail transfer gantries. ECT Venlo inland rail terminal (175 km. from Rotterdam). Total area 6.5 ha. Daily shuttle services with 42 wagons (84 TEU) to/from ECT Alexander and ECT Delta Terminals.

Botlek Terminal (1st Werkhaven):

Berths and Cranage: Total quay length 802 m., depth 11.6 m. Container and Ro-Ro facilities, served by 2 Nelcon 40 tons container gantry cranes.

Direct Call Liner Services: BCSL, Koala, Kersten, NMB, Samskip, Stork, Wilhelmsen.

Terminal Facilities: Total area 24.8 ha.; storage 3,000 TEU (3 high); reefer points on Terminal, front handlers various; 10 yard tractors DAF/SISU; 20 yard chassis.

Rail Facilities: Rail link available.

Margriet Terminal (Prinses Margriethaven/Prinses Beatrixhaven):

Berths and Cranage: Total quay length 2,700 m., depth 10.65 m., served by 4×30 tons level luffing portal cranes, 3×25 tons cranes, 4×17.5 tons cranes and 2×67 tons mobile cranes.

Direct Call Liner Services: A.C.S., Alianca, ALL, Bank, Black Star, Bore, Capricorn, CATM, CAVN, Euro-Caribe, Eurosal, FMG, G&C Line, GNSL, H-L, H-S, Hoegh, India SS, MSC, NMB, Red Sea Express, SAECS, SITM, SNTM, Star Shipping, Transinsular.

Terminal Facilities: Storage 2,000 TEU (5 high); 1 rail mounted Nelcon (45 tons) yard gantry; various front handlers (to 42 tons). Consolidation: CFS on Terminal. Covered area 5,700 sq.m.

Unitcentre Terminals: Terminal operating Company: Unitcentre B.V., Zaltbommelstraat 10, P.O.Box 5048, 3008 AA Rotterdam. Tel: (10) 4237911. Fax: (10) 4950806. Telex: 28325 Uccom nl. Contact: A.J. Kleijn, Commercial Director.

Unitcentre Container Handling Statistics:

1991	409,242
1992	457,832
1993	403,000 (estimated)

Waalhaven – Pier 7:

Berths and Cranage: 800 m. quay length, maximum depth 12.2 m., equipped with 4×35 tons Krupp container gantry cranes.

Direct Call Liner Services: See "Waalhaven – Pier 6".

Terminal Facilities: Total area 22 ha. Storage 10,000 TEU. Equipment: 160 electric reefer points; 80 Conair reefer points; 6 rail mounted Conrad Stork (35 tons) yard gantries; 15 yard tractors; 20 yard chassis; front handlers see "Waalhaven – Pier 6".

Consolidation: See "Waalhaven – Pier 6".

Computer System: See "Waalhaven – Pier 6".

Rail Facilities: See "Waalhaven – Pier 6".

Waalhaven – Pier 6:

Berths and Cranage: 750 m. quay length, maximum depth 13.5 m. equipped with 3×50 tons Nelcon container gantry cranes.

Direct Call Liner Services: (All Terminals) Ahlers, Alpina, Bishcoff, BSC, CCS, CFNR, CMA, Comar, Cosco, DSR, Dubbelman, ESC, Eurobarge, H-L, Iscont, JCS, KNSM, Latvian, LB, LP, MDV, MOL, MTA, Murmansk, NSC, NYK, POL, Portlink, Rhine Container, UASC, Unifeeder, ZIM.

Terminal Facilities: Total area 17.9 ha. Storage 8,000 TEU. Equipment: 160 electric reefer points; 2 rail mounted Liebherr (40 tons) yard gantries; 1 rail mounted Conrad Stork (35 tons) yard gantry; 8 Kalmar (7×42 tons and 1×12 tons) front handlers; 3 Hyco (45 tons) front handlers; 15 Terberg yard tractors; 20 yard chassis.

Consolidation: CFS 2 km. distant. Total area 2 ha., covered area 6,000 sq.m.

Computer Systems: Hardware Tandem VLX; software in-house; functions container control, invoicing, EDI.

Rail Facilities: 4 rail tracks over total length of Waalhaven Terminals, equipped with road/rail transfer gantry crane.

Future plans: Optional 4th Nelcon container gantry crane.

Multi-Terminals: Terminal operating Company: Multi-Terminals Waalhaven B.V., Pannerdenstraat 50, Postbus 5242, NL-3008 AE Rotterdam. Tel: (10) 4002922. Fax: (10) 4280263. Telex: 28023 Store NL. Contact: R. van der Sluijs, Commercial Manager. Quay number: 2200.

Multi-Terminals Container Handling Statistics:

1991	21,302
1992	36,018

Pier 2 Terminal:

Berths and Cranage: Multi-purpose Terminal with 1,500 m. of quays, providing 2 container/Ro-Ro berths. Quay cranes include 1 Takraf (60 tons), 9 Figee (2×36 tons, 2×16 tons, 4×8 tons, 1×5 tons), 3 Hensen (1×20 tons, 2×10 tons) and 2 Conrad Stork (17.5 tons).

Direct Call Liner Services: BSC, Cosco, Latvian, Navrom, Rickmers, van Aden.

Terminal Facilities: Total area 31.3 ha. (6,000 sq.m. stacking, 3.5 ha. covered). Equipment: 36 electric reefer points; 1 rail mounted Conrad Stork (35 tons) yard gantry; 1 Kalmar 42-1200 (42 tons) front handler; 1 Kalmar 32-1200 (32 tons) front handler; 1 Kalmar 25-1200 Ro-Ro (25 tons) front handler; 2 Kalmar 16-1200 (16 tons) front handlers; 28 various (6×8 tons, 7×5 tons, 4×4 tons, 11×3 tons) front handlers; 2 DAF 1301 DF yard tractors; 4 Terberg 200.4 yard tractors; 14 Mafi (40 ft. flatbed) yard chassis.

Consolidation: No CFS on Terminal.

Computer Systems: Hardware GEAC, IBM; software GEAC, Pakhoed/IBM; functions invoicing, management reports, equipment planning and reporting, administration, EDI.

Seaport Combi Terminal: Terminal operating Company: Seaport Terminals B.V., Merseyweg 70, NL-3197 KG Rotterdam (Botlek), P.O.Box 1197, 3180 AD Rozenburg. Tel: (1819) 44911. Fax: (1819) 12015. Telex: 29783 Brico NL. Contact: J.J. Erkamp, Deputy Director – Operations.

Seaport Combi Terminal Container Handling Statistics:

1991	140,196
1992	150,409
1993	152,500

Brittanie Terminal:

Berths and Cranage: Quay length 1,240 m., depth 12.6 m., providing 1 Kocks (70 tons), 2 Conrad Stork (38.5 tons) and 2 Bailey (25 tons) container gantry cranes and 1 Gottwald (50 tons) mobile crane.

Direct Call Liner Services: CGM, Eimskip, ELMA, Finncarriers, H-L, Olsen, OTAL, Star Shipping, TMM, Transroll, Wilhelmsen.

Terminal Facilities: Total area 32.5 ha. Storage 10,555 TEU. Equipment: 100 electric reefer points; 27 Conair reefer points; 3 Kalmar (14 tons) front handlers; 3 Lancer Boss (42 tons) front handlers; 6 PPM (40 tons) front handlers; 12 Svetruck (12 tons) front handlers; 3 various (28 tons) front handlers; 6 Sisu TR160 yard tractors; 9 Terberg R200 yard tractors; 15 Buiscar yard chassis and 60 various yard chassis.

Consolidation: CFS on Terminal. Total area 9,000 sq.m., covered area 2,500 sq.m. storage on Terminal. Reefer points on Terminal.

Computer Systems: Hardware Data General MV/7800 XP; software in-house; functions container stacking, planning and listing, Ro-Ro stacking area, depot control and container administration.

Rail Facilities: Rail connection.

Hours of Working: 0730 hrs. – 1600 hrs., 1600 hrs. – 0015 hrs., 0015 hrs. – 0730 hrs. on request.

Uniport Multipurpose Terminals: Terminal operating Company: Uniport Multipurpose Terminals B.V., Lloydstraat 35, NL-3024 EA Rotterdam. Tel: (10) 4789500. Fax: (10) 4760515. Telex: 21306 UPORT NL. Contact: W.A. Boer, Managing Director.

Terminal Merwehaven: Marconistraat 80, NL-3029 AK Rotterdam. Tel: (10) 4253222. Fax: (10) 4255215. Telex: 25488 UMTRD NL.

Uniport Multipurpose Terminals Container Handling Statistics:

1991	50,348
1992	48,574
1993	51,000

Berths and Cranage: Merwehaven: Quay length 335 m., depth 10.0 m., equipped with 1×Liebherr P115 (45 tons) container gantry crane and 1×Liebherr F1800 (45 tons) level luffing quay crane.

Direct Call Liner Services: Borchard, Caribtainer, EWIL, Montemar, NSC, SCI, WCL, WEC Lines.

Terminal Facilities: Total area 3.5 ha. (container marshalling 3.2 ha.). Storage 3,500 TEU. Equipment: 90 electric reefer points; 20 liquid nitrogen reefer points; 2 rail mounted Liebherr G200 SLR (35 tons) yard gantries; 2 Hyster H920B (42 tons) front handlers; 1 Hyster H350B (17 tons) front handler.

Consolidation: CFS on Terminal. Covered area 2,000 sq.m. Storage on Terminal; reefer points on Terminal; 2 Hyster H50XL (2.5 tons) forklifts.

Computer Systems: Hardware NCR 9050; software in-house; functions Terminal control, stacking system, gate control.

Rail Facilities: Available.

Hours of Working: 24 hours a day, 7 days a week.

Handico Terminal: Terminal operating Company: Handico Terminals B.V., Theemsweg 34, NL-3197 KM Rotterdam. Tel: (1819) 46200. Fax: (1819) 15147. Telex: 29805 HANDI NL. Contact: R. van Gelderen, Managing Director.

Handico Terminal Container Handling Statistics:

1991	42,000
1992	42,000
1993	42,000

Berths and Cranage: One berth, length 100 m., depth 6.0 m., served by mobile cranes.

Terminal Facilities: Total area 4.3 ha. Storage 3,000 TEU. Equipment: 10 electric reefer points; 2 Kalmar 16-1200 (16 tons) front handlers; 1 Kalmar 18-1200 (18 tons) front handler; 1 Caterpillar 12-1200 (12 tons) front handler.

Consolidation: CFS on Terminal. Covered area 2,500 sq.m. Storage on Terminal; Caterpillar (12 tons) front handler; 3 Kalmar front handlers; 3 Caterpillar (2.5 tons and 2.4 tons) forklifts.

Computer Systems: Hardware IBM AS400/B35; software in-house; functions depot and repair administration, accounting, transport detail, statistics and management information.

Rail Facilities: Available at Handico depot.

Hours of Working: 0730 hrs. – 2015 hrs.

Hanno Rotterdam: Terminal operating Company: Hanno Rotterdam BV, Postbus 51255, NL-3007 GG Rotterdam. Tel: (10) 4858244. Fax: (10) 4847404. Telex: 28965 HANRO NL.

Harbour No.: 1300-1307.

Berths and Cranage: Maashaven: Total quay length 1,850 m., minimum depth 11.7 m., served by 4 portal cranes (up to 39 tons) and 12 other portal cranes (5 tons – 25 tons).

Direct Call Liner Services: Baco, Bank, Camship, Cobalt, Contemaris, Cosco, DL, DSR, ENC, Ethiopian, FA, Interglobal, Ivaran, LP, MISR, OTAL, PNSC, Portline, Samatour, Sinotrans, SJSC, Unimex.

Terminal Facilities: Total area 14 ha. Storage 7,500 TEU. Equipment: 63 electric reefer points; 1 rail mounted Nelcon yard gantry.

Consolidation: CFS on Terminal.

Computer Systems: Hardware DEC; software CIG; functions container administration.

Hours of Working: Monday to Friday 0730 hrs. – 2400 hrs.; Saturday 0730 hrs. – 1600 hrs.; other times by arrangement.

Future Plans: Terminal to be equipped with container gantry cranes.

Waalhaven Terminal: Terminal operating Company: Waalhaven Terminal B.V., Postbus 5308, NL-3008 AH Rotterdam. Tel: (10) 4298122. Fax: (10) 4298869. Telex: 28076 WAAL NL. Contact: P.A. Kuyper, Managing Director.

Waalhaven Terminal Container Handling Statistics:

1991	143,000
1992	164,500
1993	170,000

Berths and Cranage: One container berth, length 185 m., depth 6.5 m., served by 1×20.5 tons Aumund container gantry crane.

Direct Call Liner Service: Born.

Terminal Facilities: Total area 8 ha. Storage 7,000 TEU. Equipment: 66 electric reefer points; 6 Kalmar 16-1200 (16 tons) front handlers; 3 DAF yard tractors; 3 Buiscar yard chassis.

Consolidation: No CFS on Terminal.

Computer Systems: Hardware DEC Vax 3400; software in-house; functions container tracking.

Rail Facilities: 200 m. rail track.

Hours of Working: 0700 hrs. – 2200 hrs. on working days.

Hoogewerff de Rijke Terminal: Terminal operating Company: Hoogewerff de Rijke Terminals B.V., Postbus 5145, NL-3197 ZG Rotterdam. Tel: (10) 2310310. Fax: (10) 4385777. Telex: 28574 HRT NL. Contact: H. Treffers, Managing Director.

Hoogewerff de Rijke Terminal Container Handling Statistics:

1991	107,554
1992	102,420
1993	115,360

Berths and Cranage: Quay length 250 m., depth 12.5 m., served by 2×75 tons Takraf quay cranes and 2 harbour cranes.

Direct Call Liner Services: Lykes, Lys, Maras, Senator.

Terminal Facilities: Total area 8.5 ha (container parking 5 ha.). Equipment: Electric reefer points; 2 rail mounted Kocks yard gantries; 1 Belott (40 tons) mobile crane; 2 Hyster (42 tons) front handlers; 3 various yard chassis.

Consolidation: CFS on Terminal, covered area 1.5 ha.

Computer Systems: Hardware Altos; software Softpak; functions yard control.

Rail Facilities: Rail connection available.

Future Plans: Anticipated purchase of yard chassis and automation of crane stacking.

Bell Lines Terminal: Terminal operating Company: Bell Lijn B.V., Brielselaan 85, Postbus 1035, NL-3080 AA Rozenburg ZH. Tel: (1819) 46899. Fax: (1819) 15923. Telex: 29589 BELL NL. Contact: J.W. van Zundert, Terminal Manager.

Bell Line Terminal Container Handling Statistics:

1991	240,000
1992	260,000
1993	260,000 (estimated)

Berths and Cranage: Britanniehaven: Total quay length 310 m., maximum depth 7.5 m., providing 3 container berths served by 1×35 tons Kone, 1×32 tons Paceco-Vickers and 1×45 tons Liebherr T77 Super container gantry cranes.

Direct Call Liner Services: ASMN, Bell, Containerships, Unifeeder, Van Uden.

Terminal Facilities: Total area 4 ha. Storage 2,000 TEU. Equipment: 65 electric reefer points; 3 Svetruck (1×42 tons, 2×16 tons) front handlers.

Consolidation: No CFS on Terminal. 1×4 tons Balkancar and 2 Hyster (3 tons and 2 tons) forklifts.

Computer Systems: Hardware DEC Vax 4100; software DEC/in-house; functions gate and terminal control.

Rail Facilities: 2×300 m. rail tracks and 3 shunt tracks.

Hours of Working: 24 hours a day, 7 days a week.

BULK HANDLING FACILITIES:

Grain/Coal and Ore:

European Bulk Services (EBS) BV, Brielselaan 85 (Rotterdam Port No. 1359), P.O.Box 59180, 3008 PD Rotterdam. Tel: (10) 4961800. Fax: (10) 4961888. Telex: 62066.

1. *EBS Vulcaanhaven Terminal Vlaardingen:* Schiedamsedijk 2a (Vlaardingen Port No. 610), P.O.Box 59180, 3008 PD Rotterdam. Tel: (10) 4457500. Fax: (10) 4457572. Telex: 23394.

Berths and Cranage: Quay length 440 m., max. draft 12.0 m., at LLWS. Tidal range 6.3 ft., min. depth 10.52 m. (LW). 3×16 tons gantry cranes, 1×6 tons level luffing crane, max. air draft 16.0 m. at LW.

Terminal Facilities: All kinds of dry bulk, which can be handled by grab. Discharging by grab direct overboard. Loading direct by grab and partly reloading via conveyor belt. Loading and discharging by floating grab is also possible.

Capacity: 25,000 tons per day based on discharge of phosphate.

Open storage 44.855 sq.m. Covered storage 132,630 cu.m. Sheds 25.859 sq.m. Silos 77,250 cu.m.

Bunkers and fresh water from shore not available.

2. *EBS Botlek Terminal:* Montrealweg 151, Botlek (Rotterdam Port No. 4260), P.O.Box 59180, 3008 PD Rotterdam. Tel: (10) 4904450. Fax: (10) 4904470. Telex: 20568.

Berths and Cranage: Maximum size 90,000 Summer d.w.t. Depth at discharging berth 13.0 m. at LLWS. Depth at loading berth 10.0 m. at LLWS (tidal range 6 ft. 4 in.). Water density 1020. Equipment: 3×16 tons floating cranes; 3×36 tons floating cranes. Max. outreach: Floating cranes 20 m. – 35 m., pneumatics on jetty 25 m.

Terminal Facilities: Bunkers and potable water available during the day. Capacity depending on cargo 20,000 – 30,000 tons per 24 hours. All dry bulk grades handled, agri and mineral. Storage available in silos up to 60,000 tons in 170 bins and 32,000 tons in 5 bins (flat storage), both for agribulk only. No air draft restrictions.

3. *EBS Sint Laurenshaven Terminal:* Montrealweg 50, Botlek, Rotterdam (Port No. 4310), P.O.Box 59180, 3008 PD Rotterdam. Tel: (1819) 43500. Fax: (1819) 43582. Telex: 29745.

Berths and Cranage: Length of quay: Discharging quay 832 m., West Quay 847 m., Reloading quay 180 m. Vessel's maximum LOA no restrictions. Vessel's maximum beam no restrictions, if cargo can be discharged via conveyor belt. Direct over board, maximum beam is 36 m. If necessary, discharge by floating cranes is possible. Maximum Summer d.w.t. 80,000 to 90,000 tons. Depth 13.7 m. at HW by consent of Harbour Authority only, 13.0 m. at LLWS. Water density between 1002 and 1005. Equipment: 2×32 tons gantry cranes; 1×16 tons gantry crane; 1×16 tons level luffing crane; 1×15 tons mobile crane. Discharging and loading by grab direct overboard or via conveyor belt.

Terminal Facilities: Night (un)berthing allowed. Bunkers and potable water from shore not available. Maximum air draft 25.0 m. above NAP. Maximum outreach of cranes 44.5 m. Discharge rate 35,000 tons per day, based on discharge of coal. Dry bulk grades handled; all kinds of dry bulk that can be handled by grab. Open storage 156,225 sq.m., covered storage 361,440 cu.m.

4. *EBS Europoort Terminal (I/II):* Elbeweg 139, Europoort, Rotterdam (Port No. 5843-5862), P.O.Box 59180, 3008 PD Rotterdam. Tel: (1819) 62988. Fax: (1819) 58154. Telex: 29881.

Europoort Terminal (I):

Berths and Cranage: Maximum Summer d.w.t. and length no restrictions. Maximum displacement no restrictions. Length/depth main pier (outside) 352 m./18.0 m., length/depth main pier (inside) 315 m./14.0 m., depth at the dolphins 21.0 m. Water density 1025. Maximum outreach of cranes 28 m. (no protruding equipment), travel distance of cranes 240 m.

Terminal Facilities: Night (un)berthing allowed. Bunkers from shore not available. Potable water on main pier available. Maximum airdraft 23.0 m. Method of (un)loading, pneumatic, mechanical and grab, 4 travelling pneumatic unloaders 1,000 tons per hour, 4 floating units 1,500 tons pe hour. Normal average discharge rate per day 50,000 tons. Dry bulk grades handled Agri bulk (grains, oilseeds, feeding stuffs).

Storage 110,000 tons in silos and floating storage; one complex of vertical storage.

5. *EBS Europoort Terminal (II):* (Port No. 5817-5838).

Berths and Cranage: Maximum length 300 m., maximum Summer d.w.t. 150,000 d.w.t., maximum depth (LLWS) 16.0 m. Water density 1025. 3 travelling pneumatic unloaders (1,000 t.p.h.), floating units up to 1,500 t.p.h. can be shifted from EBS Europoort Terminal I. Method of discharge: pneumatic, mechanical and grab. Travel distance of crane 180 m., no protruding equipment, maximum reach 23 m.

Terminal Facilities: No bunkers and no potable water available. Night (un)berthing allowed. Average discharge rate per day 15,000 tons (heavy grain). Dry bulk grades handled: Agribulk. Storage available, 100,000 tons in silos and floating storage.

Coal and Ore:

1. *EMO B.V. Maasvlakte:* Missouriweg Rotterdam-Maasvlakte (Port No. 8010), P.O.Box 9000, 3100 XA Maasvlakte Rt. Tel: (1818) 62611. Fax: (1818) 63435. Telex: 29632.

Europees Massagoed – Overslagbedrijf (EMO) B.V.: (European Bulk Transhipment Company).

Mississippihaven:

World's largest bulk transhipment and storage installation for ore and coal is situated on the Maasvlakte. 3 fully loaded bulk carriers up to 350,000 d.w.t. can be discharged simultaneously.

A conveyor belt system (20 km.) connects the discharging pier in the Mississippihaven with the barge loading section in the Hartelhaven, the shiploading quay in the Amazonehaven and with the storage area.

Berths and Cranage: Unloading capacity 150,000 t.p.d. Sea berth: Draft at MLW 24 m. (74 ft.), berth length 1,050 m. (3,445 ft.), maximum deadweight 350,000 d.w.t. Unloading equipment: 2×50 tons and 1×85 tons unloaders, outreach 45.0 m., grab clearance 30 m. (98 ft.).

Amazonehaven:

Loading Equipment: Loading capacity 50,000 t.p.d., continuous ship loader outreach 31.5 m. (103 ft.), quay depth 21.0 m. (68 ft.).

Terminal Facilities: Stockyard storage capacity, stockyard 6,000,000 tons, stockyard equipment 5 stacker reclaimers.

Barge Pier: Depth at MLW 6.0 m. (20 ft.), length 950 m. (3,120 ft.). Loading equipment: 3 continuous barge loaders, loading capacity up to 80,000 t.p.d., unloading equipment for barges 2×50 tons unloaders.

Wagon Loading: Loading capacity up to 2,500 t.p.h. (up to 10 full trains per day).

Blending Installation: 6 bunkers of 7,000 tons each.

Screening Installation: 4 semi-mobile Liewell units 150/200 t.p.h. per unit and 2 mobile units, washing installation for coal.

Hours of Working: Around the clock, including weekends.

2. *Europoort C.V.:*

Ertsoverslagbedrijf Europoort C.V.: Markweg 131 (Port No. 6250), 3198 NB Europoort Rt. Tel: (1819) 57899. Fax: (1819) 57703. Telex: 29728. Management: B.V. Stuwadoorsmaatschappij Kruwal.

This transhipment Company, specialising in the handling of iron ore, is situated between Caland Canal and Dintelhaven.

A conveyor belt system connects the discharging berth in the Caland Canal with the barge loading section in the Dintelhaven, both direct and via the stockpiling area.

Discharging Section: Quay length 645 m./395 m., depth at MLW 59 ft. (S.W.) – 74 ft. (S.W.). Equipment: 3 unloading towers conveyor belts, 4 stacker reclaimers. Discharging: Max. 6,900 tons/hr., average 4,500 tons/hr. Maximum outreach discharging gear 34.75 m. (114 ft.), maximum height of gear above MHW 24.0 m. (78 ft. 8 in.). Storage capacity 3.5 million tons.

Loading Section: Quay length 850 m., max. depth at MLW 20 ft. (S.W.). Equipment: 2 loading machines. Loading rate: Max. 6,000 tons/hr. Maximum outreach loading gear 18.1 m. (59 ft. 4 in.). Transhipment capacity 20 million tons a year.

Rail Facilities: None.

Hours of Working: 24 hours a day, 7 days a week.

SPECIALISED CARGO-HANDLING FACILITIES:

Fruit:

There are two modern fruit terminals in the Merwehaven:

1. Rotterdam Fruit Pier (R.F.P.): Galileistraat 32, NL-3029 AM Rotterdam. Tel: (10) 4763055. Fax: (10) 4763432. Owned and operated by the fruit importers: Velleman en Tas, Citronas and International Fruit Company.

Berths and Cranage: Quay length 260 m., max. depth 9.65 m.

Terminal Facilities: 5,000 sq.m. temperature-controlled transit shed (Temperature 4°C – 8°C). and 5,000 sq.m. for the cold storage.

2. Fruit Terminal Rotterdam (F.T.R.): Galileistraat 36, NL-3029 AM Rotterdam. Tel: (10) 4251251. Fax: (10) 4761373. Contact: Mrs. I. Van den Maagdenberg. Owned by Rotterdam Fruit Pier (R.F.P.) and Fruit Stevedores Rotterdam (F.S.R.).

Fruit Stevedores Rotterdam (F.S.R.) is acting as stevedores and Terminal operators on the Fruit Terminal Rotterdam.

Berths and Cranage: Quay length 600 m., max. depth 9.65 m., 2 pallet gantry cranes and 13 cranes (5 tons to 37 tons).

Terminal Facilities: Three temperature controlled transit sheds (temp. 4°C – 8°C), total area 32,400 sq.m., plus 13,500 sq.m. cold stores for fruit storage. Each temperature controlled shed can contain 6,000 pallets of fruit. The short side of each shed runs parallel to the quay side, whilst, via a row of doors in both long sides, 48 lorries can be loaded simultaniously per shed.

Rail Facilities: One rail track on the Terminal.

Future Planning: To take part in the Rotterdam Fruitport: Concentration of fruit activities and services is the basic idea of fruitport, a strategic combination of logistics services dedicated to the flows of fruit, vegetables and fruit juice cencentrates.

Hours of Working: 24 hours a day, 7 days a week (partly on voluntary basis).

Juice:

European Juice Terminal B.V. (E.J.T.):

Port Number 260.

IJselhaven Terminal: EJT stands for a modern equipped terminal (1984) handling the discharge and storage of Brazilian Orange Juice Concentrate (Brazil being the leading force in the world juice market).

At the terminal, storage takes place under −10° C in tanks having a capacity of 1,000 tons each.

Two bulk reefer carriers ("Orange Star" and "Orange Blossom") are purpose built and carry 12,000 tons concentrate each.

Thousands of road tankers are taking the concentrate to customers spread all over Europe. As a whole, Rotterdam handles 80% of all orange juice destined for consumption in Europe. About half of this goes into storage owned and operated by EJT, and the remainder is shipped directly to processing plants.

Cold Storage: *HIWA Rotterdam Port Cold Stores:* Van Maasdijkweg 15, 3088 EC Rotterdam. Tel: (10) 4294877. Fax: (10) 4296420. Telex: 28128. Contact: Mr. D. Zeddeman, Managing Director. Port No. 2330.

Specialists in handling and storing fruit juice concentrates and fruit juices. Decanting, drumming, defrosting and blending. Sophisticated laboratory for sampling and analysing.

Waalhaven Location: Capacity 65,000 cu.m. for freezing (−18°C) and chilling (+2°C).

IJsselhaven Terminal: Capacity 115,000 cu.m. for freezing (−18°C), capacity will be increased with 40,000 cu.m. in the course of 1994.

Berths: Max. depth 9.65 m., quay length 480 m.

L.A.S.H.: Vessels discharge and load on buoys in Waalhaven.

Length and depth between buoys:

Buoy	Length	Depth	
26	286 m.	13.15 m.	(LASH buoy)
27	286 m.	13.15 m.	(LASH buoy)
28	160 m.	13.15 m.	
29	300 m.	13.15 m.	
30	240 m.	11.65 m.	
34	250 m.	11.65 m.	

Ro/Ro Facilities:

North Sea Ferries Terminal: Terminal operating Company: Noordzee Veerdiensten (North Sea Ferries) B.V., Postbus 1123, NL-3180 AC Rozenburg ZH. Tel: (1819) 55333. Fax: (1819) 55215. Telex: 29652 NSF NL. Contact: P.M. Nagelkerke, Quay Superintendent.

North Sea Ferries BV Container Handling Statistics:

1991	44,196
1992	45,829
1993	46,100

Berths: Quay length 270 m., depth 7.0 m., with 3 Ro-Ro ramps.

Direct Call Liner Services: NSF.

Terminal Facilities: Total area 20 ha. Equipment: 6 electric reefer points; 1 Nellen (25 tons) mobile crane; 1 Caterpillar (42 tons) front handler; 1 Kalmar front handler; 1 Contchamp 4560RS front handler; 1 Steinbock (6 tons) front handler; 20 Douglas N58 yard tractors; 690 various yard chassis (20 ft./30 ft./40 ft. skeletal).

Consolidation: No CFS on Terminal.

Computer Systems: None.

Rail Facilities: Rail link to Terminal.

Future Plans: Additional Ro-Ro berth.

Stena Lline B.V. Terminal: Terminal operating Company: Stena Line BV, Postbus 2, NL-3150 AA Hoek van Holland. Tel: (1747) 83944. Fax: (1747) 87047. Telex: 32557 ZLDVZ NL. Contact: B. Severed, Managing Director.

Berths and Cranage: Quay length 580 m., providing one Ro-Ro berth.

Direct Call Liner Services: Stena Sealink, Stena.

Terminal Facilities: Total area 3 ha., 3 DAF yard tractors.

Computer System: None.

Hours of Working: 7 days a week (0700 hrs. – 2315 hrs.).

P & O European Ferries Terminal: Terminal operating Company: P & O European Ferries Rotterdam B.V., Postbus 1114, NL-3180 AC Rozenburg. Tel: (1819) 62366. Fax: (1819) 63463. Telex: 29760 POEF NL. Contact: J. Zevenbergen, Port Manager.

Berths and Cranage: One Ro-Ro berth, length 324 m., depth 7.0 m. with double deck Ro-Ro ramp. 1×32 tons Paceco Vickers container gantry crane and 1×25 tons mobile crane.

Direct Call Liner Services: P&OEF.

Terminal Facilities: Total area 14.5 ha., 2 front handlers and 10 yard tractors.

Rail Facilities: 200 m. of rail track.

TANKERS:

Installation	*Basin*	*No. of Berths*	*Max. Draft. SW* (ft.)	*Hoses* (in.)
Europoort:				
Shell (No. 104)	Beneluxhaven	1	68	3×16
Shell (No. 103)	4th. Petr. haven	1	55	2×16
Shell (No. 102)	4th. Petr. haven	1	51	3×12
Shell (No. 101)	4th. Petr. haven	1	45	3×12
Texaco/Esso	4th. Petr. haven	2	49	3×12
	5th. Petr. haven	1	72	4×16
		1	72	3×16
Kuwait Petroleum Corporation	5th. Petr. haven	1	72	8×(10-20)
		1	42	6×(10-12)
		1	32	4, 6, 8
		1	32	6, 8
Nerefco	6th. Petr. haven	2	74	4×12(1+2)
		1	39	4×10(5)
		1	41	5×10(4)
		1	41	5×10(3)
		1	35	8, 10(6)
MET/Mobil	7th. Petr. haven	2	72	4×16

Installation	*Basin*	*No. of Berths*	*Max. Draft. SW* (ft.)	*Hoses* (in.)
Europak	7th. Petr. haven	2	72	4×16 3×12 1×8
V.O.T.T. (Van Ommeren Tank Terminal)	7th. Petr. haven	1 1	51 49	6×16 5×12
MOT	8th. Petr. haven	2	74	4×20 2×16 2×24
Botlek:				
Esso	3rd. Petr. haven	2	39	Hardarms only
		1	25	6,8,10,12
TTR (Tank Terminal Rotterdam)	Torontohaven	1 1 1 1	42 20 20 34	6,8,10,12 6, 8 8 8,10,12
V.O.T.T.	3rd. Petr. haven	6	40	4, 6, 8, 12 and 16 in.
	Vlaardingen	3	41	6, 10
Paktank	3rd. Petr. haven	4	39	4,8,10,12
Nerefco	3rd. Petr. haven	1	40	
Pernis: (Max. LOA 810 ft.)				
Paktank	2nd. Petr. haven	2	39	6, 8
Panocean	1st. Petr. haven	2	41	4,6,8,10
	Chemiehaven	3	41	4,6,8,10
Shell	1st. Petr. haven	9	36	4×8
	2nd. Petr. haven	5	39	4×8
Nerefco	2nd. Petr. haven	1	38	3×12
		1	35	3×12
Mobil	2nd. Petr. haven	1	36	3, 6

acilities for discharging dirty ballast at Mobil (2nd. Petrol Haven), Texaco (5th Petrol Haven), Tank Terminal Rotterdam (Toronto Haven) and Paktank (3rd. Petrol Haven).

No bunkers (ex-installation) at Mobil Oil, Esso, Tank Terminal Rotterdam, Paktank, V.O.T.T. and Nerefco.

Moerdijk:

Dimensions of sea-going ships on the river Oude Maas: Vessels sailing for the rivers Oude Maas and Dordtse Kil with a length of more than 135 m. or a breadth of more than 17.5 m. must contact the Harbour Co-ordination Centre (H.C.C.).

The maximum length allowed is 175 m. (between perpendiculars).

The maximum breadth allowed is 25 m.

Passage with a length of more than 175 m. and/or a breadth of more than 25 m. is possible under certain conditions.

This permission must be applied for at the Harbour Co-ordination Centre in good time, in writing either by telex or fax.

"In good time" is to be understood: for incoming ships, at least 24 hours prior to entering the River Oude Maas. For outgoing ships and ships shifting berth, at least 24 hours prior to leaving berth.

The application for these ships should contain the following data:

1. Ship's name and call sign.
2. Nationality.
3. Length and breadth in metres.
4. Expected date and time of arrival at the Oude Maas, Dordtse Kil or departure from berth.
5. Gross tonnage and deepest draft on arrival. (Draft in fresh water.).

The address for permission is: Harbour Co-ordination Centre, 15 Galvanistraat, 3029 AD Rotterdam. Tel: 010 – 4251400. Telex: HCC-24045. Fax: 010 – 4771800.

Restrictions: Max. draft Oude Maas 31 ft.(FW), draft Dordtse Kil 25 ft. 6 in. (FW); max. length 175 m. (between perpendiculars), max. breadth 25 m., max. height 41 m., channel width (100 m. – 150 m.).

The use of tugs is compulsory for certain categories of vessels, the number of which depends upon length, draft and circumstances.

Also see "Moerdijk".

DENSITY:

Europoort: At high water 1025; at low water 1022.

Botlek: At high water 1014; at low water 1001.

Waalhaven and other basins in the Rotterdam port area: at high water 1004 and at low water 1000. All depending on the amount of fresh water carried down river.

STEVEDORES: Official office hours in Rotterdam are: Monday – Friday 0900-1700 hrs. Saturdays 0900-1200 hrs.

1. Bulk Cargoes other than Agribulk:
EMO B.V. and Europoort C.V.: Around the clock, weekends inclusive.
Bulk cargoes other than EMO BV and Europoort CV.
Monday 0730 hrs. – Saturday 1400 hrs. continuously. For work between Saturday 1400 hrs. and Monday 0730 hrs. permission is required from the labour authorities and unions. Labourers are only available on a voluntary basis.

2. Agribulk – European Bulk Services (EBS), Europoort Terminal I and II and Botlek Terminal:

Monday 0730 hrs. until Saturday 1530 hrs. Meal breaks: 30 minutes per shift.

In principle, no work is performed on Saturday nights, Sundays and official holidays.

Overtime: Work during weekends and holidays to be agreed with the management.

3. Containers: The large Container terminals ECT and Unit-Centre operate around the clock, weekends inclusive.

No work is permitted: 24th December 1530 hrs. – 26th December 0715 hrs., 31st December 1530 hrs. – 1st January 1515 hrs.

4. General cargo: The shift hours are as follows: Day shift 0730-1600 hrs. Evening shift 1600-0015 hrs. Night shift 0000-0730 hrs.

Normal working hours are during the day shifts and the evening shifts on Monday till Friday as well as the day shift on Saturday. Generally gangs will be allocated on basis, 2 for the day shift and 1 for the evening shift. For the night shift overtime has to be paid, as well as for work on Sundays and holidays, starting as from the end of the day shift on the preceding day until the beginning of the day shift on the next day.

5. Oil: At the oil refineries of Shell, Texaco, Esso, Kuwait Petroleum Europoort (K.P.E.) and Nerefco, tankers can discharge continuously, including weekends without extra charge. This also applies to the Maasvlakte Oil Terminal, Maatschap Europoort Terminal (Mobil) and Europak.

The oil storage companies operate around the clock at overtime rates:

Paktank	1st, 2nd and 3rd Petroleum Harbour and Chemie Harbour
V.O.T.T.	Vlaardingen and 3rd Petroleum Harbour
Tank Terminal Rotterdam	Torontohaven, Botlek.

MEDICAL: All medical facilities are available. Advance notice only in emergency or if attendance required during the weekend.

OPENING/CLOSING HATCHES: On liners by stevedores. On tramp vessels by crew; stevedores lift beams.

FRESH WATER: Fresh water can be supplied ex-quay at many berths. Where no shore connections are available and at buoys fresh water can be delivered by waterboat (Hatenboer-Neptunus. Tel: (10) 4767711. Fax: (10) 4771596).

FUEL: All types of oil bunkers can be supplied by means of barges or ex-shore installations for tankers. Coasters can take bunkers ex-installation during their inward or outward passage. Advance notice is required for vessels which are only 24 hours or less in port and for bunkering during weekends.

FIRE PRECAUTIONS: No craft are allowed alongside tankers during discharge or loading of dangerous cargoes and during ballasting.

GANGWAY/DECK WATCHMEN: Recommended.

CERTIFICATES: See "Documents".

CONSULS: Area code 010

Consul	*Street*	*Telephone*
Bangladesh	7 Veerhaven	4367636
Belgium	11 Koningin Emmaplein	4363633
Bolivia	57 Boompjes	4248600
Brazil	45 Stationsplein	4119656
Cape Verde Islands	326 Mathenesserlaan	4778977
Costa Rica	106 Meent	4130320
Cuba	45B Stationsplein	4128970
Cyprus	44c Beatrysstraat	4257087
Denmark	27 Westerkade	4360440
El Salvador	28 Parklaan	4361343
Finland	28 Parklaan	4365500
Germany	36 Parklaan	4365133
Greece	9 Westplein	4365600
Haiti	51 Mecklenburglaan	4138937
Iceland	57 Boompjes	4248600
Ireland	23 Willemskade	4143322
Italy	24 Eendrachtsweg	4139361
Japan	34 Blaak	4303716
Korea, Rep. of	65F Wijnhaven	4038482
Madagascar	97 Heemraadssingel	4255212
Morocco	11 Calandstraat	4366177
Monaco	180 Westblaak	2249224
Norway	12 Willemskade	4144488
Panama	723 Weena	4138512
Paraguay	38 Rozenburglaan	4532397
Peru	7 Veerhaven	4367575
Philippines	7c Westerkade	4363636
Portugal	18 Willemskade	4111540
Spain	19c Delftsestraat	4133400
Sweden	12 Willemskade	4144488
Tunisia	6 Vasteland	4000800
Turkey	67 Eendrachtsweg	4132270
Uruguay	75 Coolsingel	4118382

REPAIRS: A variety of shipyards and workshops are available for engineering and all types of repairs. Various yards are specialised in the construction of dredgers, ferry boats, offshore equipment, heavy derrick vessels and/or jumboizing vessels.

If VLCC's with a length of over 270 m. do not have full engine power for manoeuvering or have not made sufficient engine trials after repairs, they must be escorted to and from the repair yards by 2 tugs of sufficient capacity. The Municipal Harbour Master (also acting Government Harbour Master), must be notified in this respect 12 hours prior to arrival or departure.

For repairs on board any vessel outside a ship repair yard, permission from the Municipal Harbour Master is required. Depending on nature and location of repairs, a certificate may be required to be issued by a recognised marine chemist after inspection.

For sea-going vessels an application for permission shall be made by telex to the Harbour Master of Rotterdam (Harbour Co-ordination Centre, Dangerous Goods Department. Telex: GEVST 25720), containing the following information:

1. Ship's name.
2. Date of commencement of repairs.
3. Duration of repairs.
4. Berth.
5. Nature of repairs.
6. Location of repairs.
7. By whom repairs will be carried out.
8. Any cargo-operations, bunkering etc., during repairs.
9. Cargo on board and stowage.
10. Effect of repairs on ship's manoeuvrability and time and duration of immobilised situation.

The Municipal Dangerous Goods Department will contact the Labour Inspectorate, which organisation is in charge of the National law: Cleaning and repairing tank vessels.

Some shipyards are situated beyond the bridges across the River Maas, East of Rotterdam. They can be reached via the Koningshaven, where a traffic bridge, the "Koninginnebrug", has to be passed. Max. draft at HW: 21 ft. (FW.) LW: 17 ft. (FW.) For opening times see "Bridges".

YVC Bolnes B.V.:
Repair yard and Engine works, Oostdijk 25, 3077 CP Rotterdam, Holland. P.O. Box 9357, 3007 AJ Rotterdam, Holland. Tel: (10) 4799799. Telex: 20459. Fax: (10) 4793760.
Management:
K.R. Bosma, Managing Director
A. de Kock, Commercial Manager
J. Bakker, Production Manager
J.R. Godlieb, Project Manager
Repair yard and engineworks, capacity:
2 floating docks:
1 – 175 m. × 25.80 m. Lifting capacity 13,000 tons.
1 – 160 m. × 23.85 m. Lifting capacity 11,000 tons.
2 side slipways:
1 – 123 m. Lifting capacity 3,600 tons.
1 – 97 m. Lifting capacity 2,700 tons.
Repair quays: Total length 600 m.
Cranes: 4×15 tons, 2×12 tons and 1×6 tons.

Wilton Fijenoord B.V.:
P.O. Box 22, 3100 AA Schiedam.
Location: Admiraal Trompstraat 2, 3115 HH Vlaardingen. Tel: (10) 4269200. Fax: (10) 4732577. Telex: 21451/24436.
Port No.: 550.

Drydock facilities up to 160,000 d.w.t. Maintenance, repair and conversion of naval ships, merchant ships and offshore craft. Maintenance and repair work also throughout the Rotterdam port area. The open connection with the North Sea ensures accessibility for very large vessels and offshore constructions. Completely covered 40,000 d.w.t. building dock available.

Facilities include servicing and repairs to all types of engines. Wilton-Fijenoord is an authorised repairer for MAN - B & W engines, SEMT - Pielstick and Mitsubishi MET type turbo chargers. Specialised in stainless steel cladding of rudder stocks, tail shafts, rudder pintles, etc.
Company's Name: Dok- en Werfmaatschappij Wilton Fijenoord B.V.
Facilities: 4 floating dry docks, 3 graving dry docks, one covered.
Length:
Floating Drydock No. 2 LOA 111.24 m.
Floating Drydock No. 3 LOA 155.44 m.
Floating Drydock No. 4 LOA 231.33 m.
Floating Drydock No. 5 LOA 195.45 m.
Graving Drydock No. 6 LOA 210.83 m.
Graving Drydock No. 7 LOA 216.55 m.
Graving Drydock No. 8 LOA 307.37 m.
Entrance Breadth:
Floating Drydock No. 2: 17.48 m. (between fenders)
Floating Drydock No. 3: 23.16 m. (between fenders)
Floating Drydock No. 4: 36.57 m. (between fenders)
Floating Drydock No. 5: 29.26 m. (between fenders)
Graving Drydock No. 6: 28.35 m. (between fenders)
Graving Drydock No. 7: 28.35 m. (between fenders)
Graving Drydock No. 8: 46.13 m. (between fenders)
Max. draft:
Floating Drydock No. 2: 19 ft.
Floating Drydock No. 3: 14 ft. fwd., 20 ft. aft.
Floating Drydock No. 4: 25 ft.
Floating Drydock No. 5: 26 ft.
Graving Drydock No. 6: 26 ft. fwd., 28 ft. aft.
Graving Drydock No. 7: 26 ft. fwd., 28 ft. aft.
Graving Drydock No. 8: 28 ft. fwd., 30 ft. aft.
Lifting capacity:
Floating Drydock No. 2: 9,000 d.w.t.
Floating Drydock No. 3: 20,000 d.w.t.
Floating Drydock No. 4: 90,000 d.w.t.
Floating Drydock No. 5: 38,000 d.w.t.
Graving Drydock No. 6: 40,000 d.w.t.
Graving Drydock No. 7: 42,000 d.w.t.
Graving Drydock No. 8: 160,000 d.w.t.
Repair Quays – draft:
Berth 10 and 20: 28 ft.
Berth 12, 14, 16 and 18: 26 ft.
Berth 22 and 24: 26 ft.
Berth 29 and 30: 30 ft.
General Remarks: Graving Drydock No. 6 is covered and can be used for maritime and non-maritime projects.

Verolme Botlek B.V.:
Ship and offshore repair yard.
P.O.Box 1001, 3180 AA Rozenburg.
Location: Prof.Gerbrandweg 25, 3197 KK Botlek Rt. Tel: (1819) 14644. Fax: (1819) 18082. Telex: 29710. Contact: Ir.M.J. van der Wal, Managing Director. Port No.: 4550.

Verolme Botlek (UK) Ltd., 30 Hill Street, Mayfair, London WIX 7FU. Tel: 071-491-3646. Fax: 071-495-0243.

Verolme Botlek Norway A/S, Moellergaten 24 VII, 0179 OSLO I. Tel: 2.362684. Fax: 2.381176. Telex 74242.

Facilities:	Dock 5	Dock 6	Dock 7
Length:	230 m.	275 m.	405 m.
Breadth:	33.45 m.	40.38 m.	90 m.

Largest dry dock for vessels up to 500,000 d.w.t. with tank cleaning installation. See "Repairs".

Dry docking and ship repair facilities for all types and sizes of vessels and offshore structure. Port repair services throughout Rotterdam port.

Van der Giessen-de Noord:
Van Der Giessen-de Noord, Maritime Services Division B.V., P.O.Box 13, 2950 AZ Alblasserdam, Holland. Tel: (1859) 13700. Fax: (1859) 13514.
Ship repairs – Management:
After office hours, contact: H.J. Jurgens, General Manager. J. van Hecke, Project Manager. N. Zwijnenburg, Project Manager. J.P. Baas, Project Manager.
Shipyard longitudinal slips:
No. 1: 80 m. × 9.5 m., draft 3.3 m., lifting capacity 1,200 tons.
No. 2: 115 m. × 20 m., draft 5.10 m., lifting capacity 3,000 tons.
No. 3: 105 m. × 20 m., draft 4.70 m., lifting capacity 3,000 tons.
2 Shiplifts:
Sternlift No. 1: 125 m. × 13.80 m., draft 4.00 m., lifting capacity 500 tons.
Shiplift No. 2: 51 m. × 14 m., draft 6.00 m., lifting capacity 1,250 tons.
4 Repair quays. 2×20 ton and 1×15 ton cranes. Yard area: 73,000 sq.m.

Vlaardingen Oost Shiprepair:
Vlaardingen Oost Scheepsreparatie B.V., (P.O. Box 47, 3130 AA Vlaardingen), Schiedamsedijk 2, 3134 KK Vlaardingen. Tel: (10) 4342744. Fax: (10) 4340887. Telex: 22119.
Management: J.A. Ransdorp.

Voyage repairs throughout Rotterdam harbour and in other ports and abroad.
Location: Vulcaan Harbour No. 612, 12 miles inland, no locks.
Shipyard: Floating docks:
Dock No. 1: Lifting capacity 4,200 tons, length 110 m., breadth 20.3 m. draft over blocks 6.0 m.
Dock No. 2: Lifting capacity 5,300 tons, length 127 m., breadth 23.0 m., draft over blocks 7.0 m.
Dock No. 3: Lifting capacity 3,500 tons, length 130 m., breadth 15.8 m., draft over blocks 6.0 m.
Broadside slipway lifting capacity 3,500 tons, length 125 m., breadth 25.0 m.
Stand-by Berths: Available in Vulkaan Harbour, draft up to 13.0 m.
Mooring facilities: On the buoys for ships up to 80,000 d.w.t. with max.draft of 13 m.
Cranes: 8 cranes up to 17.5 tons.
Yard area/Outfit quays: About 11,000 sq.m./550 m.

Van Brink Shipyard B.V.:
Van Brink Shipyard B.V., Waalhaven Pier 8, Ophemerstraat 60, 3089 JE Rotterdam. Tel: (10) 4291511 (day and night). Telex: 28111 brink NL. Fax: (10) 4295923.
U.K. Agents: Ship Repairers and Shipbuilders Ltd., Station House, 150 Waterloo Road, London SE1 8SB. Tel: 071-928-5265/4302. Telex: 918828 SRS G. Fax: 071-928-5346.

All repairs to sea-going and inland vessels. Floating dry docks for sea-going vessels up to 110 m. length. Workboats and tugs for repairs in port, floating cranes up to 25 tons. Official representative for MAN B & W
Alpha Diesel Propulsion Systems.
Dry docking: 3 Floating docks.
90 m. × 20 m. × 5.20 m. Lifting capacity 4,000 tons; 95 m. × 17 m. × 5.20 m. Lifting capacity 3,200 tons; 67 m. × 14 m. × 3 m. Lifting capacity 700 tons.
Repair quays: 3.
Steel construction, mechanical workshop, carpentry.

D.van de Wetering B.V.:
Bunschotenweg 134, 3089 KC Rotterdam, Holland. Tel: (10) 4296255 (day and night). Telex: 28122 NL. Fax: (10) 4294035.
After office hours: Contact R.J.M. Horsten, Managing Director. Tel: (1854) 2987. R.B.J. Bomius, Project Manager. Tel: (78) 172491. D. Buys, Workshop Manager. Tel: (1854) 2184.
U.K. Agents: Carlden Marine and Industrial Agencies Ltd., Plantation House, 4th Floor, 23 Rood Lane, London EC3M 8AP. Tel: 071-4811744. Fax: 071-6231200.
Specialised work: Port repairs for hulls, deck and electrical equipment.
Lay-by berth facilities.
Other work: After-sales service and spare parts for: Daihatsu auxiliary diesel engines, Hansin propulsion diesel engines, Kvaerner Eureka pumps, Tanabe Air compressors, Naniwa pumps, Kvaerner Brug deck equipment, Ameron glassfibre piping, Tsuji deck machinery.

DRY DOCKS: Largest dry dock for vessels up to 500,000 d.w.t. with tank cleaning installation for the largest vessels. See "Repairs".

CUSTOMS ALLOWANCES: Spirits: 5 litres per vessel plus 1 bottle per man. Wine: 5 litres per man. Each crew member permitted out of bond for use on board only, 200 cigarettes or 25 cigars, or 500 gm. tobacco.
Each crew member is permitted to take 40 cigarettes if he goes ashore.

REPATRIATION: All arrangements for crew changes and repatriation can be made.

AIRPORT: Rotterdam Zestienhoven Airport (distance 6 km.) and Amsterdam Schiphol Airport (distance 70 km.) are served by national and international airlines.

TIME: During Winter GMT plus 1 hour. During Summer GMT plus 2 hours.

HOLIDAYS: New Year's Day, Easter Sunday, Easter Monday, Queen's Birthday (30th April), National Liberation Day (5th May), Whit Sunday (4th May), Ascension Day (25th May), Whit Monday (5th June), Christmas Day, Boxing Day.

POLICE/AMBULANCE/FIRE: Police Head Office. Tel: 4242911. Telex: 23587. Fax: 4241911. Address: Doelwater 5, 3011 AH Rotterdam.
General alarm, accidents, Ambulance, Fire. Tel: 06-11.
River Police. Tel: 4243410. Address: Sint Jacobsweg 6, 3024 EJ Rotterdam.
Emigration office. Tel: 4243480. Fax: 4241934.

TELEPHONES: A telephone is usually placed on board without extra charge at major shipyards, oil and grain terminals.

EMERGENCY CO-ORDINATION:
Emergencies/Disasters:
Contingency information: A disaster, aircraft accident, leaking tanker, explosion, poisonous gas dispersion or any other imminent danger where human life might be involved, happily seldom occur in the Netherlands. Nevertheless, there always remains a small chance, an accident can

happen. And even an occurence far away can affect the port area (e.g. Chernobyl).

The risks to which one is exposed nowadays have increased, especially when noxious and dangerous goods are involved. The government has to reduce the effects of a disaster. Although prevention is considered to be of great importance, every effort was made to set up an efficient contingency plan.

IF SIRENS ARE HEARD IT MEANS: ALARM!!!

If you hear the sirens, immediately enter (somewhere) and stay inside. This effects everybody. Close windows and doors and shut down the air conditioning.

Tune to Rotterdam Port Office and/or Radio Rijnmond. Rotterdam Port Office will inform you in both Dutch and English language on VHF Channel 11.

On FM 93.4 MHz on your radio you will be (mostly in Dutch language) informed about the danger and the activities: to stay inside or to evacuate. Also information will be given about the area affected. You will also be told when the situation is regarded safe. Also the Harbour Office (VHF Channel 11) can provide the necessary information.

If only a limited area is affected you will be informed by either patrol cars (police) or patrol boats (Port of Rotterdam) by means of loudspeaker installations.

If the advice is given to "remain inside" the advice says: Render help to others! Offer shelter. Inform other people who did not hear the alarm. If you hear via Radio Rijnmond (93.4 FM) or VHF Channel 11 that a gas dispersion or radioactivity exists, immediately:

extinguish open fires and boilers, also the pilot-flames;
close all air inlets and escapes;
choose accommodation, if possible in the centre; off the wind. If possible on the highest level, but without ventilation;
Take a radio with you and remain listening;
Radio Rijnmond will be your most important information source as telephones will probably refuse to assist due to an instant lack of capacity;
Keep wet cloths ready to cover nose and mouth if necessary;
Do not smoke and avoid exertion so as to limit the use of oxygen.
Stay inside until further notice.

It might happen that all people have to leave the area for some time, e.g. due to a gas dispersion.

A likely decision will be ordered by the mayor of the city and transmitted by the radio.

In that case:
Shut down all engines;
Take only the utmost necessities; valuables, passports, money, clothes, toilet articles, domestic animals and if possible a portable radio;
lock doors.

The municipality will provide public transport if possible. You will hear about this from the patrol cars or boats or via Radio Rijnmond.

Reception centres will be established for refugees. Sick and disabled people are if necessary transported by ambulance or wheelchair taxis.

Notice: On each first Monday every month the sirens are tested at 1200 hrs. If this day is an official holiday, the test will be carried out the next week.

The siren might go off due to technical trouble. Radio Rijnmond (93.4 FM) will inform if this is the case.

PORT RECEPTION FACILITIES:

Sources of waste on board ships: Any vessel has a wide variety of potential pollutants (harmful substances) on board, such as cargo, bunkers, stores, etc.

Each of these potential pollutants may generate waste materials in due course. Bulk liquid cargoes will also generate oily and chemical residues after cleaning cargo and bunker tanks, bunkers may make sludge during purification, leakages in and cleaning of engine rooms may generate bilge-water and residues from stores and packing material may form garbage.

In order to prevent the pollution of the marine environment by discharges into sea from ships of harmful substances or effluents containing such substances, MARPOL 73/78 was established. To achieve this aim, MARPOL 73/78 contains 5 annexes, in which detailed regulations are given with respect to the handling on board ships and the discharge into the sea of 5 main groups of harmful substances.

IN PORT ANY DISCHARGE INTO THE WATER OF POLLUTANT MATERIAL FROM SHIPS IS PROHIBITED.

Adequacy of reception facilities: Different sources of pollution should be checked in order to determine the need and the adequacy of reception facilities in port.

Ship related sources from which harmful substances may enter the water as a result of ship's operations are:

Any ship when disposing of fuel oil residues and oily bilges;
Any ship when disposing of garbage;
Tanker operations where harmful substances are discharged as a result of tank cleaning procedures and ballasting operations;
Ships, other than tankers during ballasting and cleaning fuel tanks and the discharge of this ballast and washing;
Chemical tankers where residues and mixtures of noxious liquid substances, which have been handled in port are required to be discharged to reception facilities;
Marine casualties such as stranding, foundering and collisions;
Terminal operations where harmful substances can be spilled during loading and unloading cargo and the bunkering of oil on all types of ships and barges;
Operations in transfering oil and noxious liquid substances from one vessel to another, such as in the case of lightering operations or bunker from barges.

It is clear that the adequacy of port reception facilities only should be related to the first 5 causes. The three other causes shall be dealt with by spill response operations. According to the Convention (MARPOL 73/78), ports are required to provide adequate reception facilities for residues and mixtures of harmful substances to such an extent that ships are not caused *undue delay* when discharging their residues and mixtures to reception facilities.

Spills into the marine environment in port: Harmful substances entering the marine environment, caused by marine casualties, leakages and spills, including overflows from bunkers and cargo tanks, will call for spill response operations.

Because of the rapid changes in spill location and conditions, a swift response to any spill, which floats on the surface, is necessary.

The Port Authority, in conjunction with other emergency services, employs facilities in case of marine accidents in port, where pollutant material enters the water.

A contingency plan for major spills includes the following actions, executed by the Harbour Co-ordination Centre (HCC) of the port:

Collect and disseminate information, follow up the evolution of the situation, estimate the scale of the spill;
Co-ordinate traffic and if appropriate, direct the clean-up operation;
Keep adequate and detailed records.

The contingency plan contains information regarding the availability of:

Means of assistance: towage, patrol boats, traffic control.
Means of action to contain and recover the spill: oil booms, recovery vessels equipped with skimming devices, vacuum trucks and transport barges.
Means of control of the source: leak containment equipment, pumping units, salvage equipment, etc.

Overflows as a result of bunker operations form a major part of accidental water pollution in the Port of Rotterdam. Because, in the Port of Rotterdam the vast majority of all bunker operations are carried out by self propelled tanker barges, protective measures to prevent such overflows are obvious and shall be applicable to all ship-to-ship operations in general and to bunker vessel/seagoing vessel operations in particular.

Protective measures are:

Effective deck watch in attendance on board both ships.
An agreed ship/ship communication system in operation.
Agreed procedures for bunker handling.
An agreed emergency shutdown procedure.
Certified bunker hoses, in good condition and properly rigged.
Effectively plugged scuppers on deck of both vessels and drip-trays in position.
Unused bunker connections shall be blanked.
Sea and overboard discharge valves, when not in use, shall be closed and lashed.

Disposal of ship's waste: The sea and inland waters are continuously in need of protection against the threat of pollution. It is obvious that the practice of disposing or dumping of waste in the marine environment must be stopped. Enforcement of the international MARPOL Convention is one way of protecting the sea against pollution. As a complement of the prohibition of disposing of residues and mixtures of harmful substances at sea, ports have to provide adequate reception facilities. Naturally these reception facilities are not only open to sea vessels but to inland barges as well.

According to Dutch Law (Act for the Prevention of Pollution from ships), port authorities are entitled to lay down regulations on the use of reception facilities in their own harbour.

On this basis the Port of Rotterdam has drafted a new chapter regarding port reception facilities in the Port By-Laws. These regulations have been used as a model for the Port By-Laws of all Dutch ports. The By-Laws stipulate the conditions under which the Port Management will designate facilities to receive both oily and chemical waste and garbage.

Five categories of facilities will be eligible for designation under certain conditions, provided these facilities are licenced under the Chemical Waste Act:

(A) Terminals with loading and unloading facilities for liquid bulk cargoes and ship repair yards. These companies may only receive those substances that are included in their chemical waste permit and have been handled during respectively cargo and repair operations by that particular company.

(B) Companies that are exclusively or primarily involved in the collection, storage , treatment, processing and disposal of harmful substances from ships. These companies must have permanent premises ashore and include the ship cleaning stations.

(C) Companies with mobile collecting facilities for liquid waste, such as barges and trucks, who possess no permanent premises ashore, with a permit for collection and delivery under the Chemical Waste Act, that obliges them to deliver their waste to companies designated under (B).

(D) Companies with permanent premises for the reception, processing and disposal of garbage and residues of dry cargo.

(E) Companies with mobile collecting facilities for garbage and residues of dry cargo, who are obliged to deliver this waste to the companies designated under (D).

Under the Prevention of Pollution from Ships Act, ships have been prohibited from discharging harmful substances to facilities of non designated companies. Reception by unauthorised units is likewise prohibited. Both contraventions are economic offences under Dutch Law.

The designation of a port reception facility shall be made with due observance of the proportion between the anticipated offer of harmful substances from ships on one hand and the reception capacity within the harbour on the other hand.

Waste disposal strategy: For the reception and treatment of oillike and chemical waste from ships, a strategy has been put up. In the first place the reception and treatment of harmful substances shall be useful to an appropriate disposal of this waste. This suitability principle has three elements:

Continuity, a responsible economic and technical functioning of a treatment plant will be of paramount importance for a continuous process chain in general and for a continuous reception of waste material in particular.
Disposal procedures, optimum environmental treatment methods and recycling has to be promoted, reduction of quantities and harmfulness of residues with responsible treatment must be realised.

Capacity and dispersion, treatment capacity has to harmonise with the delivery of harmful substances, optimum dispersion and placing of reception facilities has to be realised.

In the second place disposal activities must be executed by private companies, while any monopoly shall be prevented.

Aforementioned strategy plays an important role in the policy of the Ministry of Environment regarding the issuing of licences in accordance with the Chemical Waste Act for the collection, storage, treatment and final disposal of harmful substances.

Any licencee is obliged to accept all harmful substances, which have been offered to him. In this way it is always insured that a ship that wants to deliver harmful substances to a reception facility will be able to do so under the restrictions and requirements which have been communicated.

These conditions take into account:

The types of harmful substances that will be received;

The tariffs of the costs to be charged to ships that deliver harmful substances;

The reporting in advance of the intension of the ship to deliver harmful substances;

The reporting of the reception of the harmful substances on a so called transfer form by the reception facility.

Cleaning:

For cleaning and gas freeing, the Master has to report at least 24 hours prior to the arrival to the Harbour Co-ordination Centre (H.C.C.) the following in writing:

(a) Name and call sign of ship;
(b) Nationality and port of registry;
(c) Name of the agent, shipowner or charterer;
(d) Date and time of cleaning operations;
(e) Berth where cleaning is to be carried out;
(f) Indication of tanks to be cleaned;
(g) Chemical or technical name of the last carried products;
(h) Method of cleaning.

Tank Cleaning – Waste Water:

TCR Environmental Techniques (Tankcleaning Rotterdam) has a complete Port Reception Facility (MARPOL – Treaty) with floating and rolling equipment for all cleaning jobs and for the collection and processing of all kinds of dirty waste water, such as ballast water, slops and industrial chemical wastes. Shore installation at TCR (Rotterdam-Botlek).

SEAMAN'S CLUBS:

International Seaman's Centre – Heyplaat, Oostbroekweg 4, 3089 KL Rotterdam Heyplaat. Tel: (10) 4290702. Bar, barbeque, basketball, billiards, darts, information, library, mail service, money-exchange, shop, quiet room, snacks, soccer, swimming pool, table-tennis, telephone service, TV, Video, track, volleyball.

Seaman's Centre – "De Beer/Europoort", Europaweg 208, 3198 LD Rotterdam Europoort. Tel: 01819 – 63133/63343. Bar, barbeque, basketball, library, mail service, money exchange, shop, snacks, snooker, soccer, swimming pool, table-tennis, telephones, TV, Video, tennis, volleyball.

Seaman's Home – Rotterdam, Willemskade 13, 3016 DK Rotterdam. Tel: (10) 4119260/4148952. Restaurant, bar, shop, money-exchange, laundry, telephone service, mail service, information, social assistance, church, sports, billiards, table football, darts, radio, TV/Video, reading room.

HARBOUR DUES: Ports in the Rotterdam-Rijnmond area came to terms on harbour dues for sea-going vessels.

When ships call at two or three ports in the Rijnmond area, ship's Owners have to pay harbour dues only once. This agreement will come into force as from 1st September 1994. The following ports entered into the agreement: Schiedam, Vlaardingen, Maassluis, Dordrecht and Moerdijk.

DEVELOPMENTS: In 1992, the construction of the ECT/Sealand Terminal was completed at the Maasvlakte. This fully computerised Terminal, with a capacity of 450,000 containers a year, was put into operation in the first half of 1993.

Plans have been crystallised for further expansion of container transhipment on the Maasvlakte: The Delta Plan 2000-8.

In 1993, Rotterdam Municipal Council provided credit to allow a start to be made on the first phase of the construction of quay walls for eight new "dedicated" container terminals.

SHIPMASTER'S REPORT: September 1988.

Berth: Akzo Zout Chemie, Botlek.

Pilotage: Call "Maas Pilot" when approaching pilot boarding ground. The Pilot boards from a small boat which is sent from the large pilot cutter, or from a yellow launch in the vicinity of the Maas Centre Buoy.

Anchorage: The anchorage used by small vessels is to the South of the Maas Centre Buoy, outside the separation zone.

Tugs: Tugs not used.

Berthing: Akzo Zout Chemie, Botlek, is located in Chemiehaven. This is the South arm within the Botlek complex, on the East side. The berth is well fendered and low and is mainly used by small vessels and barges. Good leads for mooring lines are available.

The vessel is swung off the berth using the port anchor and berths starboard side to. Care should be taken when berthing as ships/barges are berthed at the Stolt (Panocean) Berths on the opposite side of the dock. Mooring usually consists of 2 head/stern lines and 1 spring at each end.

Cargo Operations: Initially the vessel had to purge with nitrogen. This was done on the berth, but with the nitrogen being supplied by Hoek Loes from trucks. The nitrogen was heated, both within the truck and by a heater at the manifold, to approximately 50°C. They can supply at 80°C if they can get trucks nearer to the ship. The nitrogen was supplied at 700 cu.m.p.h., but they can supply at up to 2,000 cu.m.p.h. if requested, but with corresponding drop in temperature.

Vessel loaded VCM through 4 in. (300 ASA) liquid line and 3 in. (300 ASA) vapour line (flexible hose attached to side of liquid arm). Shore supply and connect all reducers. Initially they required 1 ft. to be loaded into the tank, after which samples are taken. Analysis of each tank takes approximately 1.5 hours. As soon as first tank is cleared, vessel can commence loading, but only into that tank. Once all tanks are cleared, it is required that each tank is loaded individually so that the inhibitor can be added in the correct quantities. This takes approximately 2 minutes for each tank.

The maximum rate that shore can supply is 220 t.p.h. Cargo can be supplied at ambient temperature from pressure storage, or fully refrigerated.

Due to a mix-up between Charterers, cargo was initially supplied at ambient temperature and final 30 minutes at ambient temperature, due to the lack of refrigerated cargo. Refrigerated cargo was loaded at −15°C at the manifold and the final tank temperatures were −11.8°C.

Vapour is returned ashore and is passed through a scrubber before being vented. However, due to the size of the line (2 in. on the jetty) throughput is low. To increase this and reduce the tank pressures from 2 Bar down to 300 mb. prior to sailing, for the last 3 hours of loading, 2 compressors blowing ashore were used.

There is a control room at the head of the jetty which may be contacted by radio. Most communications were by word of mouth.

Caleb Brett have a surveyor permanently stationed within the plant. He handles all surveys and samples and the adding of inhibitor. In addition to taking samples at commencement of loading (first foot), samples are also taken when each tank is completed.

A telephone is placed on board the vessel.

Fresh Water: Available by barge.

General: Stores have to be manhandled along the jetty, but shore crane can be used to place large items aboard the vessel.

SHIPMASTER'S REPORT: May 1989.

Pilot ladder required 2 ft. above water.

Sea Pilot takes EEC Check List for tankers and Health Declaration.

Vessels with a draft of 9.0 m. and over are to display deep draft signals.

Vessels proceeding to Europoort display a green light.

Agent requires copies (for Customs Clearance) of Bills of Lading, Letters of Protest, ullage reports at loading port(s) and ullage report arrival Rotterdam.

Any duty free items purchased by crew must be locked up ready for Customs inspection.

AUTHORITY: Port of Rotterdam, 15 Galvanistraat, P.O. Box 6622, 3002 AP Rotterdam, The Netherlands. *Tel:* 31-10-4896911. *Telex:* 23077 Eurot NL. *FAX:* 31-10-4778240.

Harbour Co-ordination Centre, Traffic Control. Tel: (31) 10 4251501. Telex: 24045. Fax: (31) 10 4771800.

Dangerous Goods Department: Tel: (31) 10 4251505. Telex: 25270. Fax: (31) 10 4257334.

AGENT: Vinke & Co.B.V., Hofhoek 34, 3176 PD Poortugaal, The Netherlands. (Postal address: P.O.Box 1152, 3000 BD Rotterdam, The Netherlands). Tel: +31(0) 10.506.2666. Telex: 22241 Vinkeco. Fax: +31(0) 10.506.2709.

SCHEVENINGEN: 52.06 N. 04.16 E. (See Plan)

DOCUMENTS: See "Rotterdam".

PILOTAGE: For Pilot service via the Hook Tel: 010-2954686 and for service via Ijmuiden Tel: (02550) 64500.

MAX. SIZE: LOA 160 m., max. draft 6.80 m. (afloat).

VHF: Port Radar Services on Channel 21, Port Operations on Channel 14.

TUGS: Available up to 1,000 h.p.

BERTHING: First Harbour, depth 8 m.
Second Harbour, depth 4 m.
Third Harbour, depth 6 m. Two Ro/Ro berths available.

The Outport and the Adriaan Maaskade (Quay): Length 127 m., depth 8.0 m. (NAP).

The Outport, which is 190 m. in diameter, is also used to allow vessels to turn round.

Freighters and refrigerated ships of around 140 m. are regular visitor to the port. The record length at the moment stands at 152 m. This ship, which had a draft of 7.7 m., was able to sail in and out of the harbour without difficulty.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Possible.

AIRPORT: Amsterdam 58 km. and Rotterdam 16 km.

POLICE/AMBULANCE/FIRE: Dial 06-11.

SHIP SUPPLY SERVICE:

Rederij Vrolyk, Doorniksestraat 7, 2587 XJ 's-Gravenhage.

Rederij Trip, Dr. Lelykade 3, 2583 CL 's-Gravenhage.

G. de Ruiter's Scheepsagenturen, Statenlaan 156, 2582 GX's-Gravenhage.

Jaczon Offshore B.V., Vissershavenweg 38, 2583 DK 's-Gravenhage.

GARBAGE DISPOSAL: On request via Port Office (Tel: 070-3527701), or direct to Environment Sector (Tel: 070-3536175).

WASTE OIL DISPOSAL: On request via Port Office (Tel: 070-3527701).

SEAMAN'S CLUBS: Zeemanshuis Scheveningen, Adriaan Maaskade 1, Scheveningen. Tel: 070-3585357.

SERVICES: Ice factory.

CURRENCY: Dutch Guilder.

AUTHORITY: Gemeentelijke Dienst Stadsbeheer (Havendienst), Visafslagweg 1, 2583 DM Scheveningen, Netherlands. *Tel:* 070-3527700. *FAX:* 070-3505764. *Contact:* Captain Henk de Roo, Harbour Master.

SCHIEDAM: 51.54 N. 04.25 E.

DOCUMENTS: See "Rotterdam".
PILOTAGE: See "Rotterdam".
ANCHORAGES: See "Rotterdam".
RESTRICTIONS: See "Rotterdam".
MAX.SIZE:
Wilhelminahaven: Length 260 m., draft 24 ft.
Wiltonhaven (private): Length 305 m., draft 33 ft.
HEALTH: See "Rotterdam".
RADIO: See "Rotterdam".
VHF: See "Rotterdam".
RADAR: See "Rotterdam".

BERTHING: Offshore facilities operated by European Marine Contractors B.V. at the Wilhelminahaven (Tel: (10) 2466666. Fax: 2466667). Several berths for all kinds of offshore vessels are available.

H.S.M. Schiedam, Offshore production Yard, Westfrankelandse-dijk 9, P.O.Box 212, 3100 AE Schiedam. Tel: (010) 4279200. Telex: 27188 hcgsc nl. Fax: (10) 4279201. Jetty of 200 m. Available water depth 30 ft. All facilities available.

P.v.d.Kooij Transport, transport and transportation at Wilhelminahaven, Length of berth 100 m. Tel: (010) 4737422.

J. Soufflet Holland B.V. Tel: (10) 4267288. Fax: (10) 4737573. Import French and British cereals for transhipment at Wilhelminahaven. Length of berth 100 m.

CRANES: None.

BULK CARGO FACILITIES: Van Mannekus & Co. B.V. Tel: (10) 4091500. Fax: (10) 4762342. Magnesium imports. Berth of 150 m. length in Wilhelminahaven.

Bol Peat Import. Tel: (10) 4267666. Berth of 110 m. length on North bank of Nieuwe Maas.

SPECIALISED CARGO HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: None.
MEDICAL: Full hospital facilities available.
DENSITY: 1000.
FRESH WATER: See "Rotterdam".
FUEL: See "Rotterdam".

FIRE PRECAUTIONS: Specific precautions for tankers during repairs at Wilton-Fijenoord B.V. (Tel: (10) 4269200. Fax: (10) 4732577) are according to the Harbour Regulations Schiedam.

REPAIRS/DRY DOCKS: Largest dry dock 1,000 ft. long and depth of 35 ft. (graving dock). One graving dock 656 ft. length and 98 ft. wide at entrance with 2 building berths; 2 graving docks each 700 ft. long, 93 ft. wide at entrance, and with a depth of 32 ft.

One of the largest floating docks in Europe – extreme length 760 ft., width at entrance 128 ft., depth on blocks 33 ft.

There are 3 other floating docks with lifting capacities of 3,700, 12,500 and 21,500 tons respectively.

Stork Werkspoor Diesel engines and fuel injection components. Berth alongside workshop. Tel: (010) 4260055. Telex: 25037. Fax: (10) 4264571.

SURVEYORS: See "Rotterdam".
GANGWAY/DECK WATCHMEN: Not necessary.
CUSTOMS ALLOWANCES: See "Rotterdam".
REPATRIATION: See "Rotterdam".
AIRPORT: Zestienhoven, 6.4 km. (Rotterdam). Schiphol, 96 km. (Amsterdam).
POLICE/AMBULANCE/FIRE: Police. Tel: 4494499. Ambulance. Tel: 4333300. Fire, Tel: 4735544.
TELEPHONES: This service is available aboard vessels at all berths at the shipyard.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
GARAGE DISPOSAL: Service available.
WASTE OIL DISPOSAL: Service available.
SEAMAN'S CLUBS: Missions to Seamen, Admiral De Ruyterstraat 14, Schiedam. Tel: (10) 4269614. Services: Bar, football, shop, money exchange, international telephone and transport.
AUTHORITY: Municipal Harbour Master, Havenstraat 6, 3115 HD Schiedam. Postal Address: P.O. Box 79, 3100 AB Schiedam. *Tel:* (010) 2621000. *FAX:* (10) 4271962. *Contact:* A.J. Hertog, Sector Manager (Tel: 010-4465360). A. Boom, Operations Manager (Tel: 010-4465390).

TERNEUZEN: 51.20 N. 03.50 E. (See Plan)

LOCATION: At mouth of the ship canal from the River Scheldt to Ghent. Lat. 51° 20' 14" N., Long. 3° 49' 39" E.

DOCUMENTS: Customs Clearance takes place in the docks, except vessels bound for Belgium. Clearing of ships comprises the production of a document signed by the Master, accompanied by the following documents: Crew List (2 copies), Stores List (2 copies) and Cargo Manifests (3 copies).

Masters are requested to have Crew List completed beforehand to avoid delay in the lock.

Also see "Rotterdam".

PILOTAGE: Compulsory for all sea-going vessels entering, leaving, and navigating inland waterways. Sea Pilot meets inward vessels at Buoy A1, Lat. 51° 22.00' N., Long. 2° 53.24' E. for ships entering by Wielingen Channel; or at Middensteen Bank Buoy, Lat. 51° 39.30' N., Long. 3° 19.00' E. for ships entering by the Oostgat Channel.

In Wielingen Channel Belgian and Dutch Pilots available. In Oostgat Channel a Dutch pilot cutter is stationed. Belgian pilot boat carries at the masthead a red flag with a white letter "P", the Dutch pilot boat has a blue flag with a white letter "L". Communicate with pilot cutter by VHF Channel 6.

Also see "Ghent – Pilotage" in Belgium.

Warning: In approaches Masters may encounter fishing boats steaming a parallel course about 300 ft. apart. The net is being towed between the two vessels. If there is danger of fouling the net, the fishing vessels will display by day International Code flag "D", or by night a searchlight from each vessel.

ANCHORAGE: Vessels anchor outside fairway where depth is at least 49 ft. Mud bottom and good holding ground.

RESTRICTIONS: No restrictions on night entry.

MAX. SIZE: Controlling depth 31 ft. 4 in. Keel clearance 3 ft. 0 in. Height of tide 12 ft. to 15 ft. A vessel of max. draft 40 ft. 6 in. can reach Terneuzen in most circumstances.

Ships not exceeding the following dimensions are allowed to pass through West lock and canal: Length 256 m., breadth 34 m., draft in fresh water (canal) 12.25 m.

Vessels loading a maximum cargo for Ghent should not exceed 12.25 m. draft (Fresh water).

Also see "Ghent" – "Shipmaster's Report".
Also see "Berthing".

HEALTH: Arriving vessels are only subject to medical examination when arriving from countries where contagious diseases reported or when such cases suspected on board. Medical Officer will board in Terneuzen Roads or Outer Harbour.

RADIO/RADAR: Communicate via Traffic Control Terneuzen on Channel 3 between Buoys PvN/Spr and No. 35 including the Braakmanhaven West, East and Veerhaven.

Radar Control also operates between Buoys No. 17 and 35 on Channel 3. 24 hour watch maintained.

VTS: Vessel Traffic Service – Scheldemond:

Traffic Area/ Call Sign	*VHF Channel*	*Coverage (Buoys)*	*Radar Station/ Call Sign*	*Radar Station VHF Channel*
"Traffic Centre Wandelaar"	65	"A" Zuid - S2/A1 Bis	"Radar Zeebrugge"	4
"Traffic Centre Zeebrugge"	69	S2/A1 Bis - W4/W5	"Radar Zeebrugge"	4
"Centrale Vlissingen"	14	W5/OG13 - PvN/Spr-EzA	"Radar Vlissingen"	21
		PvN/Spr-EzA- 35	"Radar Terneuzen"	3
"Havendienst Terneuzen" (Dutch part)	11			
"Havendienst Gent" (Belgian part)	11			
"Centrale Zandvliet"	12	35 – 55	'Radar Hansweert"	65
		55 – 65	"Radar Waarde"	19
		65 – 76	"Radar Saeftinge"	21
		76 – 86	"Radar Zandvliet"	4
		86 – 100	"Radar Kruisschans"	66

Marinas and Locks:

VHF Channel	*Lock/Marina*
9	Nieuwpoort
14	Oostende Mercator Lock
71/13	Zeebrugge
13/9	Blankenberge
22	Vlissingen Locks
31	Breskens
3	Terneuzen
22	Hansweert
10	Upper Scheldt
68	Brussel Sea Channel (Wintham)
22	Royers Lock and Kattendijk
13	Imalso Yacht-Basin

Every hour plus 5 minutes a weather-bulletin, navigation reports and warnings are given.

Communicate on the Canal via Traffic Control Terneuzen, Channel 11.

TUGS: Towage compulsory for ships exceeding 180 m. LOA; also for car-carriers and ships exceeding 245 m. LOA there are specific rules. Tugs can be ordered from Terneuzen Tugboat Company or Towage and Salvage Union Ltd. respectively by Channel 72 and Channel 32. Both companies maintain continuous listening watch on Channels 3, 6, 11 and 14.

Slop barge can be ordered from tug companies.

BERTHING: The port has 4 outer harbours: Braakmanhaven, Westbuitenhaven, Oostbuitenhaven and Veerhaven. The Braakman Harbour is only in use for handling chemical products. There are 2 jetties, also see "Dow Chemical". Braakman Jetty 450 m. in length, max. length of ship 140 m. (East side) and 165 m. (West side). Ocean Dock 350 m.

length, least depth 14.5 m., max. length of ship 280 m. The West Harbour has 2 locks (West and Middle), which is mainly used by sea-going vessels. The East Harbour has 1 lock (East Lock) for inland craft, while the Veerhaven (no locks) is used mainly by fishing craft and yachts. Ships not exceeding the following dimensions are allowed to pass through the West Lock and Canal: length 256 m., breadth 34 m., fresh water draft (canal), 12.25 m. East Lock: ships of a length 200 m., breadth 23.0 m., draft 4.0 m. can pass. This lock is used by inland craft. Sea-going vessels with a max. length of 70 m. and a max. draft of 4.0 m. may also pass through the East Lock.

There are 4 harbours on the East bank of the canal situated about 1 mile South of Terneuzen Locks.

Noorderkanaalhaven (Northern Canal Harbour): Length of North Quay, 170 m., max. draft 5.50 m.; South Quay, 192 m., max. draft 5.50 m.; the middle of the harbour max. draft 7.50 m.

Zuiderkanaalhaven (Southern Canal Harbour): Length of North Quay, 225 m., max. draft 2 m.; South Quay, 230 m., max. draft 5.75 m.; in the middle of the harbour max. draft 8.25 m. and 5 m.

Massagoedhaven (Bulk Harbour): Length of North Quay 504 m., max. draft 12.25 m. and 7.50 m. Length of South Quay 275 m., max. draft 7.50 m.

Zevenaarhaven (Zevenaar Harbour): Length of North Quay 1060 m., max. draft 12.25 m.; South Quay, 790 m., max. draft 8 m., in the middle of the harbour max. draft 12.25 m.

· New terminal (August de Meyer B.V.) built by extending Zevenaar Harbour. The basin has been extended by 300 m. and deepened to 13.5 m. to provide accommodation for vessels, up to 65,000 d.w.t. The terminal is equipped with 2 Kangaroo cranes (36 tons capacity), each with a capacity of 440 t.p.h. and fitted with dust-free grabs. The 2 warehouses have a capacity of 130,000 tons in total.

Sluiskil (sub-port, about 4 miles South of Terneuzen) length of quay, 900 m., max. draft 10 m. to 10.50 m.

Sas van Gent (sub-port, on the canal about 7 miles South of Terneuzen) length of quay, 210 m., max. draft 7.00 m.

There are several sheds and warehouses, total capacity 160,000 sq.ft., also open storage, total capacity, 100,000 sq.ft. Grain silo with a storage capacity of 10,000 tons. Vessels up to 80,000 d.w.t. which for some reason have to anchor outside the piers can do so on the River Scheldt near Buoy No. 27. Ships with max. draft of 40 ft. 6 in. can reach Terneuzen under practically all circumstances.

Cranage: 10 movable cranes of 5 tons capacity; 4 floating cranes, 1×8.5 tons and 3×16 tons; 1 floating derrick of 40 tons. At Sluiskil there are 2 coke-loading plants, 3 cranes of 15 tons and 4 loading bridges. Sas van Gent has 2×5 ton cranes. Water and provisions available.

Container and Ro/Ro Facilities: Ro/Ro Harbour, width 24 m., max. draft 7.25 m. In Zevenaarharbour a Ro/Ro berth for 2 vessels, depth 9 m. and 8.50 m.

Ore and Bulk Cargo Facilities: Available at the Massagoed Harbour.

Dow Chemical: *On the Scheldt River – The Scheldt Jetty:* The Scheldt Jetty provides 1 berth only and is suitable for accommodating vessels, ranging from barge-size up to ocean-going ships with a maximum of 22,500 tonnes deadweight (d.w.t.).

The jetty has no draft limitations and the maximum allowable length of the vessels (LOA) is 200 m. Also see "Product Handling Facilities".

In the Braakman Harbour – The Barge and Coaster Docks: The Barge and Coaster Docks have 3 platforms, providing 5 berths for loading and unloading purposes.

Certain draft limitations as well as size restrictions for the various berths have to be taken into account. See "The Braakman Harbour". For product handling facilities at the Barge and Coaster Docks see "Product Handling Facilities".

In the Braakman Harbour – The Ocean Dock: The Ocean Dock provides 2 berths and is suitable for accommodating vessels, ranging from barge-size up to ocean-going ships with a maximum of 100,000 tonnes deadweight (d.w.t.).

Certain draft limitations as well as size restrictions have to be taken into account, see "Braakman Harbour". For product handling facilities at the Ocean Dock see "Product Handling Facilities".

Berthing: A seagoing vessel calling at the Ocean Dock has to be:

(a) Moored with the bow in N.W. direction. Except as otherwise agreed by the Harbour Master.

(b) Turned away from the Ocean Dock.

A seagoing vessel calling at the Barge and Coaster Dock has to make its turn to starboard unless wind or other circumstances justify a different decision.

Masters must ensure that their vessels remain afloat under all circumstances.

Masters must moor their vessel in such a manner that the berth can be left without delay, unless decided otherwise by, or on behalf of the Harbour Master. At least 1 steel cable must be positioned on both the bow and the stern of the vessel. Each cable must be properly attached and adjusted for easy pick-up by a tug.

General Facilities and Limitations: Bunkering facilities are not available.

Supplies of bunker oils, fresh water or large quantities of stores can be supplied with a barge alongside the vessel. In this case the cargo operations have to be interrupted for the time the barge is alongside. Depending on conditions in the port such operations will as a rule be limited to those vessels for which bunkering on the roads is legally not allowed (LPG vessels).

Bunkering at the berth requires 24 hours' notice and will be co-ordinated by the Loading Master. Limited quantities of stores can be taken on board via the jetties.

If for bunkering or any other reason a barge or boat has to moor alongside a ship, moored on one of the Dow Jetties, the Loading Master has to be informed 24 hours before the operation.

With the permission of the Loading Master it is allowed to transport cylinders with acetylene, nitrogen, helium, hydrogen, freon and oxygen from the jetty on board the moored ships and vice versa. By hoisting the cylinders it is obliged to use the specially made blue hoisting-containers from Dow. The cylinder valves must be protected by the screw-caps.

Slops or ballast water cannot be received at the jetty.

Tank cleaning of oil or chemical tankers is not permitted alongside the jetties. LPG vessels can be purged. Nitrogen and methane for purging purposes are available.

Vessels, moored at the Dow Jetties, have to comply with the International Ship/Shore Safety Check List and the additional Dow Marine Safety Regulations.

An intercom set and a telephone will be placed on board immediately after berthing. The intercom is for direct communication with the Loading Master

Charges for the telephone will be made via the ship's Agency. The telephone number of the set placed on board depends on the berth where the vessel is moored.

The following numbers are in use:

A West:	0115-672653
A East:	None
B West:	0115-672899
B East:	0115-672899
C:	0115-672679
OD North:	0115-673118
OD South:	0115-673118
Scheldt Jetty:	0115-619637/672211

The Braakman Harbour: General lay-out: See "Plan".

It should be noted that given water depths on the plans are valid immediately after dredging. A certain siltation should be taken into account. *The average rate of the siltation is unknown.*

Given water depths are translated to the General Mean Level for the Netherlands (N.A.P.). For the calculation of actual water depths, undermentioned tidal differences should be taken into account.

Tidal differences in metres:

High Water Spring (HWS) +2.7
High Water (HW) +2.0
Mean Level (N.A.P.) ±0.0
Low Water (LW) −2.0
Low Water Spring (LWS) −2.6

Barge and Coaster Docks:

Dock A (West) – Max. size 10,000 d.w.t. Depth 11 m.
Dock A (East) – Depth 7.5 m.
Dock B (West) – Max. size 15,000 d.w.t. Depth 11 m.
Dock B (East) – Max. size 8,000 d.w.t. Depth 9.5 m.
Dock C (West) – Max. size 10,000 d.w.t. Depth 11 m.

In addition to the information, given on the Plan, the following "General Directives" should be observed:

The overall length of vessels is restricted to a maximum of 140 m. at Dock A (East) and Dock B (East), and 165 m. at Docks A, B and C (West).

Mooring at Berth B (East) is limited to the port side only.

The Ocean Dock: North and South Berth: Max. d.w.t. 100,000 tonnes. Max. length 280 m. Depth 14.5 m. L.L.W.S.

In addition to the information, given on the Plans, the following "General Directives" should be observed:

Time of berthing at/or departing from the Ocean Dock depends on tidal conditions and max. d.w.t. or draft of each vessel and will be appointed by the pilotage.

The maximum allowable draft of vessels is determined by the water depth at the Scheldt River Entrance, at Scheur. At present max. draft is at least 43 ft. (approx.). New figures are published every month.

Berthing with ship's bow pointing seaward is compulsory.

Port Regulations: To maintain order and safety of Navigation and based on Article 4 of the Port Regulations, the Harbour Master of Terneuzen has announced the following with regard to the Braakman Harbour and the berths, situated therein:

Admittance into the Harbour:

1. The largest admissable lengths and/or widths are for:

Sea-going vessels:

– in the harbour : Length overall 280 m.
– along the Ocean Dock : Length overall 280 m.
– along the A, B and C Docks (West) : Length overall 165 m.
– along the A and B Docks (East) : Length overall 140 m.

Vessels exceeding 250 m. LOA should give ETA 36 hours in advance.

inland craft : Length 140 m.
push barges : Length 185 m.
Width 22.8 m.
An additional length of 8 m. is permitted, provided that the maximum length of the barge does not exceed 153 m. and the pushtug is lashed in the axis of the barge.
lashed barges : Length 110 m.
Width 22.8 m.

2. It is prohibited to enter the harbour with vessels or boats which:
   a. Do not have to load or unload in the harbour.
   b. Do not have to carry out any work.
   c. Are not equipped with an VHF radio, suitable for transmitting and receiving on Channel 3.

3. Dispensation from measurements and conditions as mentioned above can be granted by the Harbour Master or his Substitute, except for the max. admittable LOA of 280 m.

Dow Chemical Marine Department can be contacted by VHF radio on Channels 6, 8, 13 and 34. Constant radio watch is kept on Channels 13 and 34.

Traffic Control:

1. Traffic is controlled by the Terneuzen Traffic Control Station. Tel: 0115-695651. (Traffic leader Tel: 0115-612161). Telex: 55482. FAX: 0115-620527. VHF: Channel 3. Call sign: Radar Terneuzen.

2. The procedure of "Reporting in Writing" is also compulsory for inland craft, whereby the term of 3 hours also applies for the activities as mentioned below.

Masters of seagoing vessels and inland craft must report by VHF on Channel 3 to Terneuzen Traffic Control Station, call sign "Radar Terneuzen", when:

(a) On the Western Scheldt River with destination Braakman Harbour and:

Ascending the river: Entering the radio area "Radar Terneuzen" and in the neighbourhood of Buoy 17.

Sailing down the river: Entering the radio area "Radar Terneuzen" and in the neighbourhood of Buoy 22.

(b) Entering or leaving the harbour.

(c) After berthing and before unberthing.

(d) Changing berth.

4. All traffic inside the harbour or harbour entrance is obliged to have VHF radio tuned to Channel 3.

5. If necessitated by weather, or other circumstances, the required number of tug boats will be determined by the Harbour Master.

6. *Seagoing* vessels, having to carry the signals in accordance with Article 22 of the Decree of the Ministry of Transport and Public Works, dated 31/12/1971 Nr.A-5/071054 (Regulations for Dangerous Goods) are not allowed to enter the harbour if the visibility is 500 m. or less.

Inland craft, having to carry the signals in accordance with Article 10 of the Decree of the Ministry of Transport and Public Works, dated 31/12/1971 (Regulations of Dangerous Goods) are not allowed to enter the harbour if the visibility is 500 m. or less.

During approach under the above conditions vessels may be ordered by the Harbour Master, to berth or drop the anchor at a suitable place.

Dispensation from the paragraphs as provided above may be granted by the Harbour Master.

7. Entering and leaving the harbour is prohibited if a red light is shown below the green and red harbour lights.

Mooring:

1. Masters must ensure that their vessels remain afloat under all circumstances.

2. Masters must moor their vessel in such a manner that the berth can be left without delay, unless decided otherwise by, or on behalf of the Harbour Master.

At least 1 steel wire must be positioned on both the bow and the quarter of the ship. Each wire must be properly made fast and adjusted for easy pick-up by a tug.

Pilotage: Pilotage is compulsory for sea-going vessels, entering, leaving or manoeuvring in the harbour.

Dispensation may be granted by the Harbour Master.

Marking:

1. The entrance of the harbour is marked by a fixed green, and a fixed red light on top of piles on West side and East side of the white leading lights.

2. Night and day, the axis of the harbour entrance is marked by 2 synchronous interrupted white leading lights (iso 2 sec.) located on the Southern Harbour Dyke. Bearing is 191°.

3. The green and red harbour lights are located respectively 170 m. and 215 m. from the axis, indicated by the white leading lights.

The minimum width of the harbour entrance on either side of the axis, measured at right angles, is 112 m.

4. Night and day the centre of the turning-basin, West of the Ocean Dock, is indicated by interrupted green leading lights (3 sec. on, 1 sec. off). These lights are located on the Southern Harbour Dyke. Bearing is 211.5°.

5. The centre of the almost circular turning basin lies at the intersection of the green leading lights and the Westward lengthened axis of the Ocean Dock. The radius of the turning basin is 200 m.

6. During fog, 2 sodium fog-lights are lit underneath the green light of the harbour entrance.

One of these fog lights is directed towards the Scheldt River, the other one towards the harbour.

During the night and poor visibility, the piles, marking the harbour entrance are illuminated by floodlights.

7. The shoal in the harbour, extending from the South side of the Barge and Coaster Docks to further Southward is covered by 3 light buoys, located on a water depth of N.A.P. −7.5 m.

Depths:

1. The dredged bottom-depths in the harbour are:

In the Harbour Entrance	:	N.A.P − 15 m.
In the Turning Basin	:	N.A.P − 16 m.
The Western Berths of the B & C Docks	:	N.A.P − 11 m.
B & C Dock Berth B-East	:	N.A.P − 9.5 m.
B & C Dock Berth A-East	:	N.A.P − 7.5 m.

The above mentioned bottom depths are typical figures and certain deviations as a result of siltation can occur.

2. Information with regard to permitted draft can be obtained from the Harbour Masters' Office or from the Traffic Control Station.

Tugs: A sea-going vessel mooring, or leaving a berth has to be assisted by at least:

(a) 1 tug if the length overall is less than 100 m.

(b) 2 tugs with sufficient power if the overall length exceeds 100 m. unless the vessel is equipped with a functioning bow-thruster when only 1 tug is required.

(c) The number of tugs may be 1 less when leaving Berths B-West or B-East and when moored with the bow to the North.

Assisting tug must be attached to the towing lines on the sea-going vessel.

Loading/Discharging:

Manifold Position:

The manifold position for ships bound for Terneuzen should be:

- about midships.
- 2 m. minimum from rail.
- 1 m. minimum above deck.
- Flange connection 6 in. minimum.

A well supported manifold is required and the space around and above the manifold should be free of obstructions.

Product Handling Facilities and Capabilities:

Marine Loading Equipment: All LPG products are loaded/unloaded at the Barge and Coaster Docks. Butane and propane can also be loaded/unloaded at the Ocean Dock. The following equipment is available:

B & C (A-West): 2 stainles steel loading arms for propane, nominal diameter 6 in., minimum temp. −104°C.

1 carbon steel loading arm for butane and propane, nominal diameter 6 in., with integrated vapour return line, nominal diameter 4 in., minimum temp. −10°C.

B & C (A-East): 1 carbon steel loading arm for butane and propane, nominal diameter 6 in., with integrated vapour return line, nominal diameter 4 in., minimum temp. −10°C.

B & C (B-West): 1 carbon steel loading arm for butane and propane, nominal diameter 8 in., with integrated vapour return line, nominal diameter 4 in., minimum temp. −10°C.

B & C (B-East): 1 carbon steel loading arm for butane and propane, nominal diameter 8 in., with integrated vapour return line, nominal diameter 4 in., minimum temp. −10°C.

B & C (Dock C): 2 stainless steel loading arms for propane, nominal diameter 6 in., minimum temp. −104°C.

O.D. (South): 2 low temperature steel loading arms for butane and propane, nominal diameter 10 in., minimum temp. −50°C.

O.D. (North): 2 low temperature steel loading arms for butane and propane, nominal diameter 12 in., minimum temp. −50°C.

Except for the carbon steel loading arm on Berth A (West and East), all other arms are equipped with an emergency shut-off/disconnecting device and a fire fighting nozzle, directed on the ship's cargo line manifold.

On the Braakman Jetty a C-4 vaporiser and booster pump are available for C-4 unloading from barges which do not have own discharge facilities.

Propane can be unloaded with this booster-pump as well.

Nitrogen or methane supply from shore is necessary to produce enough over-pressure in the ship tanks, when unloading C-3.

Purging:

Purging of LPG vessels with nitrogen or methane can be carried out at the Barge and Coaster Docks. Maximum delivery rate of nitrogen is 2,000 N cu.m./hr., methane 1,800 N cu.m./hr.

Nitrogen can be heated to a temperature of +70°C to increase the drying effect of the vessel's cargo tanks which were waterwashed prior to the purge. Prior to loading LPG, vessels must meet the requirements as laid down in the "Guidelines for Cargotank Condition".

Conditions for unloading Propane and Butane:

All refrigerated propane and butane vessels should arrive with tanks over-pressure not exceeding 60 mb. to achieve maximum discharge rates.

Unloading of propane and butane is without vapour return.

Transfer Capabilities:

Discharge rates for refrigerated propane and butane are about 1,100 cu.m./hr.

Loading rates for refrigerated propane and butane are about 800 cu.m./hr.

Loading rates for pressurised propane and butane are about 250 cu.m./hr.

Storage:

Butane and propane are stored in refrigerated and pressurised tanks and loaded/unloaded at either ambient temperature or refrigerated. Refrigerated propane delivery is at −38°C and butane delivery is at −5°C.

LPG Storage Tanks:

2×50,000 cu.m. propane/butane fully refrigerated.

1×15,000 cu.m. butane fully refrigerated.

1×5,000 cu.m. butane pressurised.

2×3,000 cu.m. propane/butane pressurised.

Ventmasts must have clearly marked purge connections for either steam or nitrogen.

The vessel must have updated cargo-piping diagrams on board. Copies of drawings must be submitted to Dow on request.

Inspection – Visual Inspection:

Cargo tanks, pumps and refrigeration plants shall be easily accessible for inspection, and crew will upon request open the blinds, valves, drums, etc., as appropriate in accordance with vessel's safety practices.

Cargo Transfer Operations:

Loading or unloading will not start until the appropriate safety and operating procedures have been communicated by the Loading Master to the responsible ship's officer. The vessel must be securely moored alongside the jetty. If requested by the Loading Master additional mooring lines should be attached.

The Loading Master must be informed about the true set pressure of the cargo tank safety valves.

Non-used line ends must be blanked off. All bolt holes must be filled at all pipe connections.

Gas detection on board must be in good order. The Master must permit testing upon request. Master must allow the installation of additional shore gas detectors on deck during loading/unloading operations.

In case of inerted tanks and/or void-spaces, the Master is fully responsible for the necessary warning tags.

If a sprinkler test is requested by the Loading Master or Government Representatives, this must be permitted. If an ESD test is requested by the Loading Master or Government Representatives, this must also be permitted. Upon request the Master must state the valve closure time of his ESD system, to assure safe transfer at short ESD valve closing times. Dow reserves the right to the product transfer rates in order to keep the pressure, as a result of an activated ESD system, below the safety valve settings at no cost to Dow.

Pneumatic ESD connections for shore connections must be clearly marked.

(ESD = Emergency Shut Down.)

At the berth, the venting of gas through ventstacks is not permitted.

Upon request of the Loading Master, cargo pumps must be checked for proper functioning. Leakage of gas must not exceed a concentration of 30% LEL outside a circle of 25 cm. If the vessel's cargo compressors have to be used for loading or unloading operations, they will be tested as well. The Master must give full co-operation for these tests.

Safety:

1. Fire/emergency: In case of Fire/emergency (including personal accidents).

(a.) Inform jetty operator.

(b.) Dial 94982, report name, position, emergency situation and required help.

2. Communication: Ship to jetty and Marine office by means of portable telephone or intercom on board. Telephone: dial 18920, ext. 2563 Marine office, ext. 3165 Loading Master.

3. Use of intercom: Push button and call operator or office. Release button and wait. Always mention your ship's name. (If there are more ships alongside).

4. Emergency shutdown: Loading: To prevent overloading of ship's tanks and emergency shutdown can be carried out on deck by means of "the emergency shutdown switch" after which the shore-valve will immediately close.

5. Fire on board: Stop loading/unloading operations. Inform shore personnel.

6. Fire ashore or on other vessels: Stop loading/unloading operations. Make ship ready for departure. Wait for instructions.

7. Supervision: At all times during loading/unloading operations, adequate supervision must be carried out on deck and in the cargo-control room.

8. Tank cleaning: Tank cleaning or gas venting into the atmosphere alongside the jetty is strictly prohibited.

9. Deballasting: No deballasting of cargo tanks is allowed without permission of the Loading Master or his representative.

10. After loading: The loading arm will be blown with Nitrogen under pressure. You will receive approximately 3 cu.m. more.

Alarm signals: (Every Monday at 1200 hrs. there is an alarm test). Sounding of following signals:

Attention: 5 3 5 3 5 3 seconds: Stop cargo transfer, wait for instructions.

Evacuation: 1 1 1 1 1 1 seconds: Prepare ship for departure.

All clear: 20 seconds: Recommence operations (contact jetty operator). In case of loading: Loading will be stopped from: Ship/shore.

MEDICAL: One modern hospital available.

TANKERS: Slop tanker available. Also see "Berthing" – Dow Chemical.

FRESH WATER: Available from water barge.

FUEL: Fuel oil and lubricating oil available from lighter or tanker barge. Bunker coal available by prior arrangement.

CONSULS: Belgium, France, Finland, Norway and Spain.

REPAIRS: Terneuzen Shipbuilding Yard situated at junction of East and West Canal branches. Able carry out hull and engine repairs. Floating cranes and diving equipment available.

GANGWAY/DECK WATCHMEN: Available. Tariff increase 100% on Sundays and holidays.

OPENING/CLOSING HATCHES: Can be effected by crew or stevedores.

CUSTOMS ALLOWANCES: See "Rotterdam".

SURVEYORS: See "Flushing" or "Rotterdam".

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: See "Rotterdam".

SERVICES: Repairs of radio, radar, etc., can be effected.

EMERGENCY CO-ORDINATION CENTRE: Harbour-Control Terneuzen continuous watch on VHF Channel 11. Tel: 612161. Telex: 55482.

BANKS: Amsterdam-Rotterdam Bank, Herengracht 15, 4531 GM Terneuzen. Tel: 694041. Telex: 55249.

Raiffeisen-Boerenleenbank, Herengracht 1, 4531 GM Terneuzen. Tel: 694651. Telex: 55260.

Algemene Bank Nederland, Herengracht 11, 4531 GM Terneuzen. Tel: 695051. Telex: 55429.

STORING: Vessels can be stored by barge and truck. At Braakman Harbour only with special permission of Dow Chemical Company, and not during loading and discharging. Trucks can proceed alongside at the berth except at Braakman Harbour. Approximate distance from truck to ship at Braakman Harbour, about 300 m.

At Braakman Harbour, no forklift trucks can be used to handle stores.

For Customs Regulations, see "Rotterdam".

Local Riggers can be employed to assist with storing.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: General Information: Dutch port authorities are responsible for the provision of reception facilities in their ports. They publish who have been designated to receive waste from ships in their port. It is forbidden to deliver waste to persons who have no official designation as a port reception facility.

Fees: The costs incurred as a result of the delivery and further processing of waste are to be paid by the ship to the receiving company.

Advance Notice Requirements: In Dutch ports the ship's need for reception facilities must be reported 24 hours in advance.

Contact Port Authority for further information.

WASTE OIL DISPOSAL: See "Garbage Disposal".

SEAMAN'S CLUBS: Seaman's Friend Society, Varenscentrum, Westkolkstraat 17, 4531 AV Terneuzen. Tel: 0115-695373. Facilities include free transport, bar, souvenirs, reading and writing facilities, newspapers, TV, games, telephone, currency exchange and postal services.

CURRENCY: Dutch Guilders.

DEVELOPMENTS: Plans made to widen and deepen Outer Harbour.

SHIPMASTER'S REPORT: May 1988.

Chart: B.A. Chart No. 120.

Pilot: Vessels arriving from the West take Pilot at Wandelaar "A1" Buoy. Pilot on VHF Channel 6 and Telex No. 4682125.

If vessel arriving from the North, Pilot is taken at Steenbank. Pilot on VHF Channel 6 and Telex No. 4437811.

Gas ships with tank capacity over 1,500 cu.m., passage has to be via Schooneveld. If under 1,500 cu.m. the inside route via Oostgat can be used.

Under normal circumstances the Pilot taking the vessel to Terneuzen will also berth the vessel.

Anchorage: Vessels with dangerous cargo awaiting a berth at Terneuzen should anchor at Wielingen North Anchorage which is 3 miles West of Flushing, depth of water 7 fathoms.

Flushing Control monitors VHF Channel 21.

Everingen Anchorage, off Terneuzen, may be used for bunkers and repairs only. Loaded gas ships cannot wait at this anchorage.

If vessel awaiting orders she should stay to the North of "A1" Buoy.

Tugs: If berthing at Dow Chemical, vessels up to 100 m. LOA require 1 tug and if over 100 m. LOA, 2 tugs are required. We used 1 tug aft with the tug's line but the tug was too powerful for a small vessel.

Berths: For gas ships there are 4 berths available. These berths are both sides of Berth A and the West side only of Berths B and C. Vessels head North at all berths. Shore gangway used at all berths and the fendering was good. Depth alongside at low water 8.5 m.

Pilots advise that the maximum draft permissible at Ocean Pier is 14 m. and at any tide 10 m.

Cargo: Shore capacity for ethylene is 10,000 tonnes. Normal production 200 tonnes per day. Normally ethylene is exported from Terneuzen but at present there are problems with the production plant.

At present the shore reliquefaction plant is not working at full capacity and this is restricting discharge rate.

For handling of ethylene a 6 in. arm and a 4 in. vapour return line are used. Hot gas blown from ship on completion.

Berth C handles ethylene, propane, styrene, cumene, naphtha, resin oil and aromatic oil. Discharge rate for ethylene is 111 t.p.h. It takes about 3 hours for samples.

General: At present the maximum draft to Antwerp is 50 ft. if using 2 tides and 48 ft. if proceeding on 1 tide.

Fresh water is not available at Dow Chemical berths. Fresh water is provided by barge from Terneuzen.

Whilst at Flushing Anchorage, Ostend Radio is best for public correspondence, vessels can also use PCH. If anchored off Terneuzen it is best to use Antwerp Radio.

Barges with stores may proceed alongside before discharging, whilst sampling or after discharge. Stores can also be brought down the jetty with the aid of shore trolleys and crane. Bunkers may only be taken after completion of discharge.

Officials: Customs and Immigration board on arrival at the berth. There was also an immigration check whilst at anchor off Flushing as the vessel had Eastern Block crew.

AUTHORITY: Hoofd Sector Terneuzen Scheepvaartdienst Westerschelde, Zeevaartweg 11, 4531 PB Terneuzen, Netherlands. *Tel:* 0115-685800. *FAX:* 0115-615995.

Verkeerscenterale Terneuzen, Noordzijde Middenhavendam, Terneuzen, Netherlands. *Tel:* 0115-682400. *FAX:* 0115-630699. *Telex:* 55104. *Contact:* Captain E.E. Lubach, Harbour Master.

VLAARDINGEN: 51.54 N. 04.20 E.

On the Waterway about 5 miles from Rotterdam.

DOCUMENTS: See "Rotterdam".

PILOTAGE: See "Rotterdam".

VHF: Port Authority on Channel 20.

TUGS: Available.

BERTHING:

Old Harbour (Municipal): Berths No. 701-705. For tugs and inland craft. Depth at entrance 10 ft. at LW. Total length of quay 2,000 m.

Koningin Wilhelmina Harbour (Municipal): Berths No. 634-653. Depth 12 ft. to 17 ft. at LW. Length of quay 1,300 m.

Vulcaan Harbour (Private): Berth No. 601-620. Suitable for vessels up to a draft of 10.4 m. (34 ft.) at LW. Stevedoring by European Bulk Services (E.B.S.).

Length of quay for cargo handling 750 m. Phosphate loading jetty (on riverside) for barges 140 m. 3×16 ton electric cranes, 3×6 ton electric cranes and 2×5 ton mobile cranes. Belt conveyors on phosphate jetty. Large shed with a capacity of 30,000 tons and 6 storage tanks with a total capacity of 90,000 tons for various bulk cargoes.

Nieuwe Matex Wharves (Private): Berths No. 621-633. 3 berths for seagoing vessels on riverside up to 35 ft. draft at LW. Several berths for barges and coasters on inner side of jetty up to 22 ft. draft.

Large tank installation; bonded warehouses. 424 storage tanks (total) capacity 450,000 cu.m. for vegetable and mineral oils, molasses, latex and chemicals.

Lensveld Wharf (Private): Berth No. 654. For general cargo and timber. Max. draft 14 ft. at LW.

Lever-Sunlight Jetty (Private): Berth No. 712. Jetty 75 m. Max. draft 10 ft. at LW (no harbour dues).

Verto Jetty (Private): Berth No. 715. Length of jetty 70 m. Max. draft 10 ft. at LW. 1×3 ton electric crane.

Mostert Absorbents Jetty (Private): Berth No. 716. Max. draft 20 ft. at LW.

Hydro Agri Fertiliser Works Harbour (Private): Berths No.731-744. Length of harbour 300 m. Max. draft 11 ft. to 14 ft. at LW. Two jetties on riverside: Phosphate discharging jetty, max. draft 16 ft. and acid discharging jetty, max. draft 23 ft. at LW. Harbour dues by arrangement.

FRESH WATER: Available by barge.

FUEL: Available by barge.

REPAIRS: *Ship Repair Yard "Vlaardingen Oost":* All kinds of repairs undertaken. Outfitting quay of 1,100 ft. length. Anchor and chain factory. *Machinefabriek Kreber:* Builders and repairers of boilers, engines and various kinds of dredgers.

SURVEYORS: Saybolt Cargo Inspectors available at Vlaardingen, others (Caleb, Brett, Bureau Verwey, etc.) at Rotterdam. Lloyd's Register, American Bureau, Bureau Veritas and Det Norske Veritas Surveyors available at Rotterdam.

DRY DOCKS: Three dry docks (capacity 3,500, 4,200 and 5,300 tons) and one broadside slipway of 400 ft. (capacity 3,500 tons) in Vulcaan Harbour, (Western part).

AIRPORT: Rotterdam Airport (designed for international short and medium haul air traffic) lies at a distance of 10 km. from the Vlaardingen port area.

EMERGENCY CO-ORDINATION CENTRE: Alarmcentrale Politie. Tel: (010) 0611. VHF Channel 11 (Port of Rotterdam).

AUTHORITY: Port of Vlaardingen, Oosthavenkade 85a, P.O.Box 141, 3130 AC Vlaardingen, Netherlands. Harbour Number 660. *Tel:* (010) 4344700. *FAX:* (010) 4344373. *Contact:* Mr.S. van Berge, Harbour Master.

YMUIDEN (Ijmuiden): 52.28 N. 04.34 E. (See Plan)

Also refer to "Amsterdam".

DOCUMENTS:

2 Personal Effects Lists.
2 Stores Lists.
3 Crew Lists.
3 Passenger Lists.
Declaration of Health.

Also see "Rotterdam".

APPROACHES: The approach channel "IJ-geul" for navigation for ships with a draft of up to 54 ft. (16.5 m.). The channel leads to the Port of Ymuiden.

Approach Channel "IJ-geul": The navigation channel, officially known as the IJ-geul, has a width of 450 m. and is 23 km. long, when measured up to the piers at Ymuiden. The section of the channel within the piers is 4 km. long, and it is considerably narrower at some places.

Navigation: A number of measures have been taken to ensure a safe passage through the navigation channel. Ships which, due to their draft, need to use the new channel are obliged to take a Pilot on board. In other words it is prohibited to enter the channel without a Pilot. The Pilot boards the ship from a helicopter about 45 km. from the coast or is taken off at the Hook of Holland.

The deep draft ships can only sail in during a certain period of the tide (approx. 3 hours after flood-tide). Certain conditions (excessively high waves) can lead to a temporary closure of the channel. A special system has been developed to recognise and to forecast these conditions. A navigation plan that takes account of the water level prediction, weather and wave height forecasts and the draft of the ship in question is prepared and relayed to the Pilot. The conditions are continuously monitored and, if necessary, the plan is adjusted. Use is also made of a portable Decca receiver, which the Pilot takes on board with him. These portable receivers make use of more than the 2 customary transmitting stations, which means a considerable improvement in the determining of position – and as a consequence – improved navigation. Furthermore, these receivers are specially adapted to the situation at Ymuiden. Altogether this means that the Pilot can ascertain the position of the ship quite accurately, even at night or in fog, which leads to considerable improvement in safety.

A circular emergency anchorage area has been planned with a diameter of 1,600 m. about 10 km. from the pier. This emergency anchorage area is desirable because, should a disaster occur, the harbour mouth could suddenly become obstructed, preventing the ships in the channel from entering, whilst they would be unable to retrace their course back due to the approaching ebb-tide.

PILOTAGE: On entering and leaving Ymuiden pilotage is compulsory. Pilots will board ships at sea, being transported from shore to the pilot boarding position by means of a sea-going tender. The boarding position is in the vicinity of the outer buoy.

"Traffic Centre Ymuiden" (Telegraphic address "Pilots VTS Ijmuiden") can be informed via Scheveningen Radio or via VHF Channel 88. Pilotage and navigation are possible at night.

Pilot Ladders: Bottom of the pilot ladder should be 6 ft. above the water. Pilots strictly adhere to Regulation 17b, Chapter V of the International Convention for the Safety of Life at Sea, which reads as follows:

"Whenever the distance from sea level to the point of access to the ship is more than 30 ft. (9 m.), access from the pilot ladder to the ship shall be by means of an accommodation ladder or by another equally safe and convenient means".

Pilot from Helicopter: When the pilot service per pilot tender has been suspended owing to weather conditions it is possible to take a Pilot on board vessels by helicopter. Helicopter pilotage (fixed price DFL 2,000.0) is carried out for vessels which have an obstacle free hoisting area on deck of minimum 15 ft. in diameter. Deck plans should be provided in advance.

Vessels over 45 ft. draft always take helicopter pilotage at fixed price DFL 5,000.0.

Restrictions:

1. Minimum visibility 800 m. at 150 ft. above sea level.
2. Maximum wind Force 10 (55 knots).
3. Severe turbulence and icing conditions.

Remote Pilotage (RP): During periods that pilot service is suspended for (small) vessels, shipping approaching Ymuiden can obtain the information and advice of a pilot at the Port Operation Centre, under the following conditions and provisions:

1. RP is for shipping for which pilotage is compulsory and vessels which voluntarily wish to make use of the service of a pilot.
2. RP will only be provided when it is impossible to board a vessel because of the weather conditions or for other reasons.
3. The Master explicitly announces that he wishes to approach the harbour using RP and that there is no objection to this under the terms of the access policy conducted.
4. The Master is obliged to take the pilot on board between the breakwaters.

Pre-Entry Reports:

Note: All reports must be updated if vessel delayed one hour or more.

7 Days Before Arrival: (Vessels using lock system with draft over 13.1 m. up to 13.7 m. and/or beam over 42 m. up to 45 m. and/or length over 325 m. up to 370 m.).

To: Pilot VTS Ymuiden.
Giving: IMO SRS Items: Alpha Bravo Golf India Juliet Oscar Papa Quebec Tango Uniform X-Ray.
Via: Telex: 71169 PIVTS NL.
Fax: 0255-532535.
Tel: 0255-564500 or Agent.

24 Hours Before Arrival in Netherlands Waters: (Tankers, dangerous cargo and draft over 13.7 m. up to 16.5 m.).

To: Pilot VTS Ymuiden.
Giving: As previous report.
Via: Telex, Fax, Tel. or Agent.
Note: Tanker Check List, if appropriate to Pilot on boarding.

8 Hours Before Arrival: (52° 30' N., 03° 50' E.). (Draft over 13.7 m. up to 16.5 m.).

To: Pilot VTS Ymuiden.
Giving: As previous report.
Via: Telex, Fax, Tel. or Agent.

6 Hours Before Arrival at Outer Buoy: All ships.

To: Pilot VTS Ymuiden.
Giving: As previous report.
Via: Telex, Fax, Tel. or Agent.

ANCHORAGE: Vessels may anchor off Ymuiden. Recommended area is 2 miles N.W. of Outer Buoy.

RESTRICTIONS/MAX. SIZE: All drafts listed below have been calculated in salt water with a specific gravity of 1.026.

Maximum Dimensions of Vessels: The approach channel to the port mouth of Ymuiden (IJ-geul) and the fairway in the Outer Harbour of Ymuiden via the Northern fairway to the Outer Quay No. 2 of Hoogovens is accessible for vessels with a maximum draft of 54 ft. in salt water. The maximum length of a vessel with a draft of 54 ft. that must swing is 300 m. Before vessels with a length of 250 m. – 300 m. and a draft of 49 ft. 3 in. can swing, consultation should be made as to the time of the swing manoeuvre in connection with the water level. Maximum draft of vessels longer than 300 m. to a maximum length of 350 m., that must swing, is 39 ft. 9 in. Ships with a draft of more than 45 ft. must remain in the channel and therefore should, when making a sailing plan, report at least 48 hours before entering Dutch waters.

In addition to the above mentioned report vessels restricted to the channel should report at least 24 hours before passing the Western border of the approach area. This approach area is located between the co-ordinates:

Lat. 52° 31' 47" N., Long. 3° 48' 29" E. and
Lat. 52° 27' 25" N., Long. 3° 41' 20" E.

This report should be corrected if there is more than 30 minutes deviation, and should in any case be repeated at least 8 hours before arrival at the approach area.

Maximum dimensions for the North Sea Canal via the Northern fairway and the Northern Lock.

1. *Without a Licence:*
   Length: 325 m.
   Beam: 42 m.
   Draft: 131 dm. (43 ft.)
2. *With Licence:*
   Beam: 45 m.
   Draft: 137 dm. (45 ft.)

Note: Should the beam exceed 42 m., restrictions will apply regarding the maximum permitted draft. Applications of such a licence are judged on basis tentatively fixed criteria per case.

Licences to exceed the maximum permitted draft and/or beam, to sail with an irregular transport should be applied for at least 7 days in advance.

Address: Lock Coordination Centre, GHB Regio-West, Head Traffic Service, Middensluisweg 2, 1975 AL Ijmuiden. Tel: 0255-514457. Telex: 71169 PIVTS NL. Fax: 0255-535144.

HEALTH: Pratique granted automatically on arrival after completion of Maritime Declaration of Health. In case of suspected disease on board notify Agent by radio before arrival advising full details.

RADIO: *Obo-Carriers:* Masters of this type of vessel must, when calling to load and/or discharge dry cargo, cable at least 24 hours prior to arrival, the following information:

1. That vessel has no slops on board and is certified gas free or alternatively;
2. a. Correct name of liquid cargo carried last, with place and date of discharge.
   b. Stowage of cargo remnants (gases and/or liquids) and whether mixed with water or not.
   c. Whether non-gas free spaces are adjacent to dry cargo holds and if so, which holds.
   d. Which spaces contain inert gas.

Also see "Pilotage".

RADAR/VHF: The port is equipped with a shore based radar installation to facilitate navigation if necessary. Ymuiden has a VHF installation and Masters of vessels entering or leaving the port area must contact the Port Operations Centre (callsign – Ymuiden Port Control) by VHF to obtain information for safe navigation and rapid locking.

VHF Channels:

- In the approach area to Ymuiden seawards from the outer buoy: Channel 88 (Traffic Centre Ymuiden).
- From the outer buoy to the locks: Channel 61 (Ymuiden Port Control).
- On the North Sea Canal from the locks to kilometre 11.2: Channel 3 (Traffic Service North Sea Canal).
- On the North Sea Canal Eastwards at kilometre 11.2: Channel 14 (Traffic Service North Sea Canal).
- In the Port of Amsterdam: Channel 14.

TUGS: Available. Meet vessel in harbour entrance if required.

BERTHING: Steelworks Harbour (Private): Coal and ore cargoes discharged to Blast Furnace and Steel Works Company in Outer Harbour.

Quay 1: Length of quay: 1,360 ft. Depth alongside quay: 29 ft. 6 in. LLWS.

Opposite the quay there are 3 dolphins available where one vessel can wait for a loading/discharging berth (up to 34 ft. depth).

Equipment:

2 cranes, lifting capacity 30 tons, max. outreach 57 ft.
1 crane, lifting capacity 30 tons, max. outreach 63 ft.

Finished products such as rolling mill products, pig-iron, cast iron, steel ingots, slabs and coils are handled.

Supplies: Water obtainable from quay. Stores can be delivered by truck, bunkers by barge.

Quay 2: Length of quay: 1,800 ft. Depth alongside quay: 45 ft. (East) and 52 ft. (West) at LLWS.

Max. draft: The entrance to Outer Harbour is accessible to vessels up to 43 ft. draft and with special permission of the Harbour Authorities up to 45 ft. draft salt water.

Equipment:

3 bridge cranes, lifting capacity 40 tons each, max. outreach 115 ft.
2 conveyor belt systems (capacity 6,000 t.p.h.).

Despatch:

About 60,000 tons iron ore per 24 hours. About 50,000 tons coal per 24 hours.

Supplies: Water obtainable from quay. Stores can be delivered by truck, bunkers by barge.

Quay 3: Length of quay: 825 ft. Depth alongside quay: 31 ft. 6 in. LLWS. With special permission of the harbour authorities, max. sailing draft 34 ft. West of the quay are 4 dolphins available where a vessel can wait for a loading/discharging berth (up to 31 ft. 6 in. draft).

Equipment: 2 cranes with a capacity of 60 tons each. Outreach 70 ft.

Inner Harbours: These harbours are mainly used for loading or discharging smaller vessels having drafts between 11 ft. and 20 ft.

Finished products such as rolling mill products, pig-iron, cast iron, steel ingots, slabs, coils but also fertilisers are handled.

CRANES: Inner Harbour No. 1 – 1 portal crane.
Inner Harbour No. 2 – 1×7.5 ton portal crane.
Inner Harbour No. 3 – 3×30 ton portal cranes.

STEVEDORES: *Working Hours:* In the Outer Harbours round the clock, also on Sundays and holidays.

In the Inner Harbour round the clock except from 1400 hrs. on Saturdays until 0600 hrs. on Monday.

FRESH WATER: Available from quay.

FUEL: Available by barge.

CONSULS: And all general information; refer to "Amsterdam".

MEDICAL: Doctors, hospital and all services available.

REPAIRS: Possible.

CUSTOMS ALLOWANCES: 200 cigarettes for each crew member; 5 litres spirits for whole ship.

AUTHORITY: Gemeentelijk Havenbedrijf Amsterdam, Regio-West, Head of Traffic Service, Middensluisweg 2, 1975 AL Ijmuiden, The Netherlands. *Tel:* 0255-519027. *FAX:* 0255-537929, 535144. *Contact:* E.D.A. Lamberty, General Manager.

ZAANDAM (Zaanstad): 52.26 N. 04.49 E. **(See Plan)**

LOCATION: Zaandam lies on the Northern side of the North Sea Canal, near to Amsterdam. See "North Sea Canal" and "Amsterdam" plans. The Port of Zaanstad is divided into two parts by "Wilhelmina" sluice, the outer harbour being for large vessels and the inner harbour for coasters, etc.

PORT LIMITS: A line drawn from the Western side of W. Thomassenhaven entrance to the Eastern side of Zijkanaal "G" entrance defines the port limits.

DOCUMENTS: IMO Crew List, IMO Fal form 5, other Customs papers to be supplied by Agents.

PILOTAGE: Procedure, etc. same as for Amsterdam. Not compulsory, but recommended. Pilot will take vessels all the way to Zaanstad. Amsterdam Harbour Service should be notified on VHF Channel 14 of vessel's intentions, they will arrange for Zaanstad Harbour Service vessel to meet the vessel at the entrance to Zijkanaal "G" and direct it to its berth. When a vessel is leaving for sea, notice should be given to the Sluice Command via VHF Channel 11.

ANCHORAGE: It is prohibited to anchor in the port of Zaanstad.

RESTRICTIONS: Vessels with dangerous cargoes will not be handled at night.

All Zaandam harbours have direct unrestricted connection with the North Sea Canal.

LOCKS: Wilhelmina Sluice is 116.8 m. long, 12 m. wide and has a depth of 2.80 m.

MAX. SIZE: Max. draft 10.0 m.

HEALTH: Same as Ymuiden.

RADIO: Scheveningen Radio.

VHF: Wilhelmina Sluice – Channel 20. Alexander Bridge – Channel 18.

RADAR: No port radar service.

TUGS: Available.

BERTHING: (Docks)

Isaac Baarthaven: Length 900 m., width 70 m., depth 9 m. Quayage 370 m., with depths of 7 m. – 9 m. alongside. Ro/Ro quay at Houtcentrum with length 25 m. and depth 9.0 m.

Dirk Metselaarhaven: Length 600 m., width 112 m., depth 10 m. Quayage 180 m., for transshipping liquids only (Private).

Zijkanaal E: Length 400 m., width 45 m. depth 7 m. Quayage 40 m., for transhipping only.

W. Thomassenharbour: Length 700 m., width 130 m., depth 10.0 m. Vessels up to 10 m. draft can berth. Quay with length 200 m., 6 berths with approximate width of 35 m. and 2 mooring buoys. No bridges and no locks.

CRANES: Mobile cranes only.

BULK CARGO FACILITIES: None.

SPECIALISED CARGO HANDLING FACILITIES: Ro/Ro vessels can be discharged in Isaac Baarthaven.

STEVEDORES: *Working Hours:* Monday – Friday 0600 hrs. – 1700 hrs.

Overtime possible from 1700 hrs. – 0800 hrs. and Saturday and Sunday.

MEDICAL: Full hospital facilities available without prior notice. Tel. 075-6502911.

DENSITY: 1015.

FRESH WATER: Available.

FUEL: Arranged from Amsterdam.

REPAIRS: Possible.

DRY DOCKS: At Amsterdam, and Zaandam (Max. 90 m.).

CONSULS: All at Amsterdam (10 km.).

REPATRIATION: Possible.

AIRPORT: Schiphol Airport (Amsterdam) 20 km.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: Port holidays similar to major Dutch ports, plus 2 extra holidays (Whit Tuesday and 1st May).

POLICE/AMBULANCE/FIRE: Tel: 06-11.

GARBAGE DISPOSAL: General Information: Dutch port authorities are responsible for the provision of reception facilities in their ports. They publish who have been designated to receive waste from ships in their port. It is forbidden to deliver waste to persons who have no official designation as a port reception facility.

Fees: The costs incurred as a result of the delivery and further processing of waste are to be paid by the ship to the receiving company.

Advance notice requirements: In Dutch ports the ship's need for reception facilities must be reported 24 hours in advance.

Contact Port Authority for further details.

WASTE OIL DISPOSAL: See "Garbage Disposal".

SEAMAN'S CLUBS: Available at Amsterdam.

CURRENCY: Dutch Guilder (Fl).

GENERAL: *Dirty Ballast:* Facilities available at Amsterdam.

Provisions: Available locally.

Chart: No. 124.

Prevailing Wind: Westerly.

AUTHORITY: Municipality of Zaanstad, Westkade 2, 1506 BA Zaandam, Netherlands. *Tel:* 075-6816888. *Telex:* 19110. *FAX:* 075-6816799. *Contact:* P.C.C. Majoor, Harbour Director. (Tel. 075-6816522).

Netherlands Antilles

BONAIRE TERMINAL (Brasil): 12.13 N. 68.23 W.

(See Plan)

OPERATORS: Bonaire Petroleum Corporation N.V. Terminal is capable of handling all types of crude oil and heavy oils (bunker C and residual fuels). Heated and non-heated storage tanks are available for storage, blending and transhipment.

LOCATION: No. 1 Jetty is situated on the South coast of the Northern portion of the Island of Bonaire in Lat. 12° 13' 12.9" N., Long. 68° 23' 17.2" W.

DOCUMENTS:

5 Crew Lists.
2 Stores List.
2 Lists of Personal Effects of Crew.
5 Medicine and Drugs Lists.
1 Vaccination List.

PILOTAGE: Compulsory. The Pilot-Berthing Master will board the vessel at the established arrival point in Lat. 12° 12.3' N., Long. 68° 24.1' W., which is 1.5 nautical miles S.W. from No. 1 Jetty.

The Pilot will embark from one of the tugs or launches assigned to assist the vessel in the berthing operation. The Pilot will assist the Master in every way possible to manoeuvre the vessel from the arrival point into the berth with the assistance of 2, or in case of a VLCC/ULCC 3 to 4 tugs and utilising the services of 1 mooring launch to run mooring lines from the vessel to the mooring dolphins.

ANCHORAGE: There is no anchorage area at Bonaire for tankers; therefore, if the berth is occupied, vessels will be appropriately instructed to remain within radio/telephone (VHF Channels 16 and 13) radius pending advice with respect to a clear berth or other advices.

NAVIGATION: Navigable waters surrounding Bonaire Island are clear; however, the coasts of the Island are steep-to and should be avoided. The currents in the offing and off the points of the Island set Westward. On days with little wind a weak current sets to the Westward, generally parallel with the coast from Kralendijk Roads toward Wekoewa Point and parallel to the coast line in way of the jetty. It is urged that reference be made to the British Admiralty South American Pilot Volume V or United States HO Pub. 22 Sailing Directions for the West Indies Volume II or equivalent publication of the Netherlands Government.

Lacre Point, on which a light is shown, is at the Southern extremity of Bonaire. A light is situated on Boca Spelonk, the Eastern mid-point of the Island. Seroe Bentana Light, situated near the Northern extremity of the Island, is visible for approach from the N.E. through N.W. South of 250°/070° on the West side of the Northern end of the Island this light is obscured and then jetty lights and Radio Netherland Towers may be used for bearings.

Prevailing winds are the E.N.E. trade winds.

RESTRICTIONS: For tankers arriving in ballast, the following minimum drafts are required for manoeuvring under normal weather conditions:

Minimum Draft for Tankers in Ballast Entering the Harbour of Bonaire:

Gross Register (tons)			Draft (ft.)
upto		15,000	11 – 18
15,000	–	19,000	12 – 19
19,000	–	25,000	13 – 20
25,000	–	29,000	14 – 21
29,000	–	35,000	14 – 22
35,000	–	40,000	15 – 23
40,000	–	45,000	16 – 24
45,000	–	50,000	17 – 25
50,000	–	55,000	18 – 27
55,000	–	60,000	19 – 28
60,000	–	65,000	20 – 29
65,000	–	70,000	21 – 30
70,000	–	75,000	22 – 31
75,000	–	80,000	23 – 32
over		80,000	24 – 33

Draft may be more, but trim should not exceed 10 ft.

HAZARD ZONE: *Radio Transmitting Installation:* Vessels approaching Bonaire should remain clear of an area within a radius of 3 nautical miles from the Radio Netherlands Towers situated on the Island of Bonaire in Lat. 12° 13' N., Long. 68° 19' 15" W. This area is noted as a danger area due to strong radiation from the powerful radio transmitters on shore. Bonaire Terminal is situated sufficiently West of this area to be well clear of any radio radiation influence.

HEALTH: There are no health formalities.

RADIO: When a vessel leaves its loading port, the shipper should advise the date of anticipated arrival at Bonaire. For vessels departing from remote loading ports, the estimated arrival date should be revised at least once each week while the vessel is en route.

A government wireless/telegraph station operates daily from 0700 to 2130 hrs. local time (1100 to 0130 hrs. GMT). Vessels bound for Bonaire should route their messages for Bonaire through Curacao Radio (PJC).

Arrival Advice: The Master should advise his estimated time of arrival not less than 72 hours in advance, again 48 hours in advance and again 24 hours prior to arrival, and this last message should be revised if an unusual change in the ETA should occur. Wireless telegraph messages of this nature must be sent to the ship's Agent who, in turn, will immediately relay the information to the Terminal Management.

Tankers from Mediterranean, Africa and Middle East should give ETAs 10 and 5 days as well as 72, 48 and 24 hours.

The text of any one of the arrival advices should contain the following data in addition to the declared time of arrival:

1. Draft of vessel, fore and aft.
2. Available fittings, i.e. number and diameter of connections at deck manifold system for prompt connecting of 2×24 in. and/or 2×12 in. steel swivel loading arms.
3. Any conditions which may affect loading or unloading operations.
4. Any unusual condition which may require abnormal attention prior to berthing.
5. Quantity of ballast and estimated time of deballasting.

VHF: International VHF Maritime Band Communication should be commenced within a radius of 30 miles from the Terminal, or more, if possible. The Terminal may be called on International VHF Channel 16 (156.800 MHz). When radio/telephone contact with the Terminal has been established, communication should then be shifted to Channel 13 (156.650 MHz).

After initial radio/telephone contact has been established, radio/telephone communication with the Terminal will remain on Channel 13. This will include communication with the 2 tugs and the 2 mooring launches on standby, all of which will be available to assist the vessel into the berth.

Mooring, Unmooring VHF Communication: Communication on Channel 13 during the immediate approach and mooring procedure will be confined rigidly to berthing operations which includes all directives from the Berthing Master to the tugs, the mooring launches and the jetty. The only messages which may interfere with these communications will be those caused by an extreme emergency.

After the vessel has been secured in the berth and the Berthing Master has cleared all berthing operations, communication on VHF Channel 13 will be secured and all base VHF receivers will be returned to guard Channel 16 pending an emergency or when the Berthing Master resumes his function for a departing vessel. It is to be noted that hand radio/telephone sets transmit and receive only on Channel 13. The base sets in the Terminal Office (Control Room) and on each of the tugs and launches is equipped with radio/telephone equipment for transmitting and receiving on Channels 16 and/or 13.

Radio/Telephone UHF (Private Frequency): Communication between the platform and the vessel and the Terminal before, during and after transfer of product will be via portable intrinsically safe, hand carried, radio/telephones supplied by the shore on a private UHF frequency.

Radio/Telephone VHF Resume Use Departing: When the vessel is ready to depart and the Berthing Master has boarded and resumes his function, VHF radio/telephone communication will again be established on International Maritime Channel 13 between the vessel's bridge, the 2 or 3 tugs, the mooring launches and the jetty, so that the casting off operation may be properly accomplished.

Radio Telephone – Guard Call Channel 16: After the Berthing Master disembarks and the tugs are dismissed, and the vessel has departed full away, it is expected the vessel will resume a guard watch on Channel 16. The terminal station may be called on Channel 16 and/or 13.

Radio Repairs: A Radio Holland Service Engineer available and can be arranged through the Agent.

TUGS: Tug assistance is compulsory. Mooring launch is available.

Normally 2 tugs are used for ships up to 150,000 d.w.t., from 150,000 to 350,000 d.w.t. 3 tugs, and above 350,000 d.w.t. 4 tugs will be used for docking.

When 2 tugs are used both will make fast on the port side main deck fore and aft; using tugs' lines. In case of VLCC or ULCC whereby 3 or 4 tugs are required, the Pilot determines the position where the tugs are to make fast. When sailing only 2 tugs can be used under normal weather conditions.

CUSTOMS/IMMIGRATION: When the vessel is secure in the berth and the gangway is landed on deck, the Immigration Officer, the Customs Officer and the Agent will board to attend formal entry of the vessel. The Immigration Officer may act on behalf of the Quarantine Service.

Immigration: Two copies of the crew list are to be ready for presentation to the Immigration Officer. Crew List is to be delivered to the Terminal Gate for Security Control, therefore no Gate Passes are required.

Customs: The Customs Officer will require 1 Crew List, 1 Stores List, 1 List of Personal Effects for those crew men leaving the vessel at Bonaire and 1 List of all Medicines and Drugs. The Customs Officer with the assistance of the ship's Agent will prepare the Inward Clearance document. This document is to be signed by the Master. Upon completion of the above formalities, the vessel is declared free and shore leave may be granted.

BERTHING: Berth No. 1: Max. size vessels 500,000 d.w.t. on full draft and no restrictions for length and beam. Depth of water 97 ft.

Minimum size vessels approximately 25,000 d.w.t. due to distance between the Inner Breasting Dolphins Nos. BD2 and BD3.

Mooring Facilities: Berth No. 1 consists of an operating platform 132 ft. 10 in. (40.48 m.) long facing the sea and 94 ft. (28.65 m.) wide toward the shore with 2×24 in. and 16 in. swivel jointed steel loading arms for the transfer of petroleum products. Loading arms are equipped with hydraulic quick couplings and will fit on all standard ASA/DIN flanges. The 24 in. loading arms are constructed to fit on 16 in., 18 in. and 24 in. ship connections and the 16 in. loading arms are constructed to fit on 10 in., 12 in., 14 in. and 16 in. ship connections. The waterfront side of the platform is 22 ft. 3 in. (6.787 m.) inside and away from the ship's side.

Breasting Dolphins: There are 6 breasting dolphins, 4 of which are designed for the vessel to rest against and to which forward and back spring lines are to be secured to heavy quick-release mooring hooks. At each end of the system of breasting dolphins there is 1 landing dolphin offset to allow a vessel 5° off the parallel line to land against the berth system. These are noted "a" for the offset dolphin and the main dolphin is noted "b". The dolphins are numbered from No. BD1a and BD1b in the West and through BD2, BD3 and BD4 and BD4a to the East. The centre line of the berthing facility is 17 ft. 5 in. (5.3 m.) East of the centre line of the operating platform. This point is well marked on the seaward panel of the platform with a 4 in. wide white reflecting vertical stripe. BD2 and BD3 are each 135 ft. (41.148 m.) West and East of this white vertical stripe. BD1b is 80 ft. (24.4 m.) further West from BD2 and BD4 is 119 ft. (36.4 m.) further East from BD3.

Mooring Dolphins: Inshore 215 ft. (65.532 m.) perpendicular from the berthing line are 6 mooring dolphins. These dolphins are numbered from MD1 in the West to MD6 in the East, MD3 and MD4 are each 350 ft. (106.680 m.) West and East from the centre line of the mooring structure system noted by the white vertical stripe on the seaward face of the operating platform. MD2 and MD5 are each 250 ft. (76.200 m.) West and East respectively, from MD3 and MD4. MD1 and MD6 are each again 250 ft. (76.200 m.) West and East respectively, from MD2 and MD5.

Berth No. 2: Max. size vessels 135,000 d.w.t. with limited ballast or cargo quantity on board, down to 90,000 d.w.t. fully loaded. Max. depth of water on mooring line is 49 ft. 6 in. (Ship's Master reported depth as 51 ft. 6 in. in May 1987).

Minimum size vessels approximately 25,000 d.w.t. due to distance between the Inner Breasting Dolphin Nos. BD2 and BD3.

Mooring Facilities: Berth No. 2 consists of a triangular platform 49 ft. (14.94 m.) long, facing the sea and 42 ft. 6 in. (12.95 m.) wide towards the shore with 3×12 in. swivel jointed steel loading arms for the transfer of petroleum products. The waterfront side is 11 ft. 6 in. inside and away from the ship's side. All loading arms are equipped with hydraulic quick couplings and will fit on all standard ASA/DIN flanges of 10 in., 12 in., 14 in. and 16 in. on ship's manifold.

Breasting Dolphins: There are 4 breasting dolphins for the vessel to rest against and to which forward and back springs are to be secured to heavy quick-release mooring hooks. The dolphins are numbered BD1 and BD2 on the West side of the platform and BD3 and BD4 on the East side. BD2 is located 139 ft. 4 in. (42.5 m.) West of the centre line of the platform and BD3 is located 123 ft. (37.5 m.) East of the centre line. BD1 and BD4 are each 5.7 m. further West and East respectively from BD2 and BD3.

Mooring Dolphins: Inshore, 164 ft. perpendicular from the berthing line are 3 mooring dolphins of which 2 are on the East side and 1 on the West side to handle respectively the head and stern lines. These dolphins are numbered MD1, MD2 and MD3 from West to East. MD1 is 328 ft. (100 m.) West of the centre line of the operating platform. MD2 is 328 ft. (100 m.) East of the centre line of the operating platform, MD3 is 262 ft. (80 m.) East of MD2.

GENERAL INFORMATION APPLICABLE FOR BOTH JETTIES:

Capstans: On each of the breasting and mooring dolphins there is a small capstan with sufficient power to heave up on to the deck of the dolphin a ship's mooring line for securing to the heavy quick-release hooks.

Mooring Lines: Prior to coming alongside, the vessel must have all mooring lines on station and available on that side which will be to the berth (normally port side to). Bearing in mind that the product transfer is via steel swivel loading arms, it is imperative that the forward and back spring lines be adequate to maintain a minimum fore and aft motion of the vessel to remain within the limitation of the envelope of loading arms.

Spring, Breasting, Head and Sternlines: The first lines lead out are headlines to the mooring dolphin, immediately followed by the forward and back springs to the breasting dolphins. Hereafter respectively the forward and after breasting lines are lead out to the appropriate mooring dolphins and finally the sternlines to the mooring dolphin. The procedure may be altered in accord with physical equipment on the ship, weather and sea conditions, along with other circumstances, all subject to the Berthing Master's requirements and combined approval of the Master and terminal management.

Mixed Mooring Lines Prohibited: Mixed moorings are prohibited, i.e. a wire and a fibre rope in parallel service is undesirable due to unequal elasticity. All mooring lines must be so arranged that loss of effect cannot occur when slacking off or heaving in one line, as required, due to the rise or lowering of the vessel during discharge or loading of cargo.

Mooring Machinery – Deck Winches: All deck machinery used for the heaving in and control of mooring lines must be operable. A vessel having deck machinery in poor state of maintenance to that point where mooring lines cannot be hove tight or brakes that tend to slip under tension will be sufficient reason to require consideration of terminal management to refuse connecting of the steel loading arms, or if same are already connected and the mooring lines become insecure, all transfer of product will be stopped and the steel loading arms disconnected pending correction of the mooring situation.

Surge-Tension Controls Prohibited: Wire mooring lines not on winch drums are not to be used for spring lines. Mooring wires secured on surge and tension controlled winches are prohibited. All mooring lines must be secured positively, i.e. on winch drums with the brake properly drawn tight or properly secured on bitts.

Power to Deck Machinery: At no time during the period the vessel is in berth is the power to operate deck machinery to be shut off.

Motion of Vessel in Berth: The vessel, while loading arms are connected, must not be permitted any motion alongside or away from its proper position in berth.

Surveillance of Mooring Lines: Mooring lines must remain under constant surveillance during unloading and loading operations. Failure to ease tension on mooring lines during unloading or failure to maintain proper tension on mooring lines while loading will be sufficient reason to stop transfer of product.

Fire Warp – Emergency Towing Wire: After the vessel is all fast fore and aft, an emergency wire of suitable quality and strength to tow the vessel should be positioned on the offshore bow and the after offshore quarter of the ship. This towing wire should be secured so that the eye may be readily picked up by a towing vessel. It is required that the length of the wire hawser should be not less than one-half again that of the highest freeboard of the vessel at the point of its location on the ship where the ship end is well fast on bitts.

EMERGENCY SIGNAL: In the event of any form of emergency such as fire, bursting of transfer piping, Operating Platform emergency signal will be an intermittent signal on the general alarm system for not less than 15 seconds. Since a shore radio is supplied to the vessel for proper communication, this radio must be used in the event of an emergency to inform the Loading Master. The vessel will use its own emergency signals in the event of any emergency on board.

To co-ordinate any emergency procedure, the personnel on the Operating Platform must be advised of the vessel's emergency signals.

In the event of any emergency either on board the vessel or the operating platform all oil transfer must be stopped and all oil transfer valves closed.

LOADING: *Electric Bond – Earthing:* Prior to manoeuvring the loading/unloading steel mechanical loading arms toward the vessel from the Operating Platform, the electric bond wire must be connected to a clean metal contact on the vessel in the area of the manifold.

The electric bond wire shall not be disconnected until the loading/unloading mechanical arms have been disconnected and manoeuvred well clear of the vessel.

The flame proof switch on the jetty will remain open until the electric bond wire has been connected to the ship. Prior to disconnecting the electric bond wire from the ship, the flame proof switch on the jetty will have been opened.

Connection to Oil Transfer Piping System: On both jetties there are steel pipe swivel jointed loading/unloading arms. (See also "Berthing").

This equipment is controlled either from the deck of the Operating Platform or from the ship's deck by using a remote control panel. Connections of the fittings requires clean flat faced flanges on the vessel's manifold, using a O-ring gasket, to ensure a secure tight connection.

Cargo and Ballast Transfer: Before transfer of cargo or ballast may be started, the Chief Officer and the Terminal Representative will ensure that all necessary controls and safety measures have been attended. A Declaration of Inspection is to be signed by a responsible Ship's Officer and the Terminal representative certifying that all precautionary measures have been taken, that all equipment used in the transfer operation is in proper order and that all concerned are in agreement on the proper procedure of the operation.

Discharge of Cargo: Upon advice from the Terminal Loading Master to the Ship's Officer in charge that oil transfer may be started, the Officer will arrange for the initial flow to be slow with sufficient pressure to permit inspection of all transfer piping and connections for any leakage. When the terminal personnel advise they are receiving product, the flow may be increased to the rate agreed upon.

Completion of Cargo Discharge: After all cargo tanks have been drained and the pumps have lost suction and the discharge of cargo has been declared finished, the flow of product will have stopped. With the agreement between the Ship's Officer and the Terminal Marine Supervisor, the oil transfer valves on the Operating Platform will be closed. All product remaining in the unloading arms will be drained back into the vessel. If the vessel's pipeline system does not allow the complete draining of the unloading arm, then arrangements must be made to drain the arm into a container or via a drain hose led into a cargo tank. *No product will be permitted to drain out onto the open deck of the vessel !* After the arms have been completely drained, they may be disconnected and the ends blanked off to prevent any drippage of oil.

Loading of Cargo: Upon advice from the Ship's Officer in charge that oil transfer may be started, the Terminal Loading Master will arrange for the initial flow of product into the vessel. When the Ship's Officer advises that he is satisfied that product is flowing in accord with the loading programme, he will advise the terminal personnel and the flow will be increased to the rate agreed upon.

Communication, Audible, Visual: Constant contact with the personnel on the Operating Platform during the topping off procedure is mandatory ! The rate of flow of product is to be adjusted to that point where complete control is constant and that in the event of an emergency immediate shut down will not create any pressure surge on the shore transfer piping.

Topping Off of Cargo Tanks: Every precaution must be observed to avoid over-filling of any tank or causing any listing of the vessel. Observance of the trim by the stern shall be constant to avoid any undue strain upon the vessel's longitudinal structure. The cargo tanks and pipelines thereto on most tankers are segregated into groups. One tank in each group should be selected for the overflow relief tank by maintaining the level of liquid considerably lower than the other filling tanks to permit prompt relief of that tank reaching an overfilled level.

Completion of Loading: After all cargo has been loaded all product remaining in the loading arms will be drained into the vessel. If the vessel's pipeline system does not permit complete draining of the loading arms, then arrangements must be made to drain the arm into a container or via a drain hose led into a cargo tank. *No product will be permitted to drain out onto the open deck of the vessel !* After the arms have been drained they may be disconnected and the ends blanked off to prevent any drippage of oil.

CRUDE OIL WASHING: Crude Oil Washing (C.O.W.) must be requested before arrival to obtain approval of the Terminal Manager.

It is the terminal's intention to allow vessels to C.O.W. at the terminal. However, the vessel must strictly adhere to the International Safety Guide for Oil Tankers and Terminals Guidelines pertaining to C.O.W. procedures and a terminal representative will check the procedure before and during the C.O.W.

BALLAST: All vessels arriving at the Island of Bonaire, and have to discharge ballast water, shall comply with the following: The ballast waters to be discharged must have been taken at least 12 nautical miles offshore and constitute clear, ocean water, devoid of any obvious riverine or coastal influence. To confirm this, Masters have to sign a Ballast Water Declaration Form.

Ballast Loading: Should the vessel have permanent ballast tanks with entirely separate pipelines and ballast transfer system sea water ballast may be loaded in accord with the Master's requirements.

Sea water ballast is not to be loaded into any cargo tanks or through any oil transfer system while there is any cargo on board the vessel. In the event of an emergency, special arrangements must be agreed upon with the terminal management for the loading of ballast into any cargo tanks before all of the cargo has been completely discharged.

The vessel's Senior Officer in charge will personally supervise the arrangement of the pumproom system for the ballasting operation. The Public Cargo Inspector will accompany the Officer into the pumproom to break the seals on the sea suction valves.

No sea suction valve may be opened until all down coming pipelines have been drained and are completely free of product and the down coming valve closed. In most instances the pumps should be operating just prior to opening the sea suction valve.

Ballast loading will be under the entire control of the ship's personnel and it is expected that all normal loading precautions will be observed.

Deballasting: En route to Bonaire the vessel should have thoroughly cleaned certain appropriate tanks for the containment of clean ballast for discharge overboard. Only dirty ballast (oil contaminated sea water) and tank cleaning slops are to be discharged into the terminal's ballast receiving system.

Ballast, Oily Water, Discharge: Under no circumstances will dirty ballast water be discharged overboard within a radius of 50 miles from any Netherlands Antilles Island.

Ballast Discharge to Shore: After the steel loading arm to be used has been connected to the ship's manifold, the discharge of ballast water will be accomplished in the same manner as the discharge of cargo.

Tank Bottoms and Slops: Upon completion of the deballasting operation, all of the vessel's tanks will be inspected and approved for the reception of cargo. The sea suction valves will then be sealed in the closed position by the public inspector or by a Bonaire Petroleum Corporation N.V. representative. Any bottoms and slops remaining must have the approval of terminal management prior to "loading on top".

MEDICAL: Modern facilities are available for medical and dental treatment. A "Medical Service Request" form must be signed by the Master for crew members requiring medical or dental attention.

In the case of crew members having to be left behind at Bonaire for hospitalisation or otherwise, Master must sign authorisation guaranteeing expense of attention rendered and repatriation.

FRESH WATER: Fresh water on Bonaire is desalinised sea water and the supply is minimal, but available. 72 hours' notice is requested and maximum 100 tons can be supplied.

FUEL: Bunkers for steam propelled tankers are available.

Bunker Transfer: During the period of time the vessel is in berth, the transfer of bunkers from one tank to another is prohibited. All bunkers to be consumed while in port must be available in that tank from which bunkers are normally consumed.

Fuel: Not available. Limited Luboil available and supplied in drums.

REPAIRS: There are no repair facilities on the Island of Bonaire. Upon sufficient advance notice, special service personnel and minor mechanical repair work may be arranged from Curacao. Transportation for such service personnel is via scheduled airline.

POLICE/AMBULANCE/FIRE: Tel. 8000 via Terminal's Control Room or Office.

CARGO INSPECTION: Along with the Government Boarding Officers the representative of the petroleum inspecting organization mutually engaged by the Shipper and Bonaire Petroleum Corporation N.V. will board the vessel for the purpose of gauging the cargo tanks, obtaining the temperature of the cargo and obtaining required samples. His function is to protect the interest of the vessel as well as the Shipper and the consignee. Every assistance is to be rendered to expedite his function on board the vessel. An Officer should accompany the Inspector while on board and should assist by making available all information requested such as cargo tank calibration tables, etc. Cargo transfer may not be commenced without the approval of the Inspector.

Completion of Discharge of Cargo – Inspection: Upon completion of discharge of the cargo, the Inspector will examine all of the cargo tanks and will sign the tank inspection certificate.

Loading Cargo, Inspection: In the case of a vessel arriving to load cargo, the Inspector will examine all of the cargo tanks to determine the condition of the cargo tanks for reception of the cargo. Upon completion of loading all of the cargo, the Inspector will gauge the cargo tanks, take temperatures and samples as required.

Incomplete or Part Cargo: In the event the vessel does not complete the discharge of cargo, or does not load a full cargo, the Inspector will board the vessel to gauge the cargo tanks to record the amount of cargo in the vessel after transfer operations have been completed.

Cargo Pumproom Sea Suctions: Prior to loading or unloading the Public Inspector will certify that the sea suction valves connected to the vessel's oil transfer system are closed, lashed and sealed. *Do not lock these valves under any circumstances.* These valves are to be sealed in the *Closed* position and sufficiently lashed so they may not open due to vibration or any other reason.

STORES/PROVISIONS/LAUNDRY: All stores and provisions are available. There are no deck and engine stores available. Upon sufficient advance notice, all items not available on Bonaire may be obtained from Curacao.

Laundry service may be arranged through the ship's Agent and available for unlimited quantities. Advance notice required.

GARBAGE DISPOSAL: No service available.

WASTE OIL DISPOSAL: No service available.

SEAMAN'S CLUBS: None.

CURRENCY: U.S.$ 1.00 = 1.78 Nafs.

DEVELOPMENTS: The terminal now has the facility to handle up to 5 million barrels of heavy and/or residual oils.

AUTHORITY: The Harbour Master, Kralendijk, Bonaire, Netherlands Antilles. *Tel:* 599-7-8151. *FAX:* 599-7-8416.

Operator: Bonaire Petroleum Corporation N.V., Bopec Building, P.O.Box 117, Kralendijk, Bonaire, Netherlands Antilles. *Tel:* 8177 (Terminal). *Telex:* 1284 (Terminal). *FAX:* 8266. *Contact:* Jose R. Aulacio, Terminal Manager.

BULLEN BAY, Curacao: 12.11 N. 69.01 W. (See Plan)

LOCATION: Bullen Bay is an open bay on the South coast of Curacao, 8 miles N.W. of Willemstad.

DOCUMENTS: Documents and all General information, refer to "Willemstad".

PILOTAGE: Pilotage is compulsory and rendered day and night. There is no resident Pilot at the Bay. Ships arriving and leaving are piloted by government Pilots supplied from Willemstad.

Pilot Station: 1 mile S.W. of Cape St. Marie (that is the cape on the West side of Bullen Bay).

Communications: Ships destined for Bullen Bay are to inform Traffic Control at Willemstad (call "Fort Nassau" on VHF Channel 16) and also Isla Terminal at Bullen Bay (VHF Channel 11) of their approach. The Pilots at Bullen Bay operate on VHF Channel 9.

ANCHORAGE: There is no anchorage in the bay. Ships that have to wait for berth are to remain in the vicinity within VHF radio range.

MAX. SIZE:

Jetty No.	*Max. LOA* (ft.)	*Max. Draft* (ft.)
1	1,120	69
2	850	40-42
3	900	56
4	1,350	94
5	900	63
6	No limit	94

VHF: "Bullen Bay Operations" on Channels 9 and 11, with watch on Channel 11 throughout 24 hours.

"Smit Tugs" on Channels 9 and 11 throughout 24 hours.

TUGS: Compulsory. There are 2 tugs of 3,852 h.p. with 53 tons and 60 tons bollard pull stationed at Bullen Bay. 2 tugs will assist the tankers on their arrival and departure. 3 tugs will assist the VLCCs on their arrival and 2 tugs will assist on their departure. The third tug is called from Willemstad.

BERTHING: The terminal located at Bullen Bay facilitates economical trans-shipment of Eastern hemisphere crude arriving in very large crude carriers (VLCCs) for storage and on-carriage in smaller ships to draft restricted U.S. ports.

Jetties: Ships moor port side alongside.

Tanker jetties from East to West:

No. 1: 250,000 d.w.t. 4×12 in. connections, heading 196°
No. 2: 70,000 d.w.t. 4×12 in. connections, heading 176°
No. 3: 100,000 d.w.t. 4×12 in. connections, heading 148°
No. 4: 530,000 d.w.t. 4×16 in. connections, heading 128°
No. 5: 100,000 d.w.t. 4×12 in. connections, heading 127°
No. 6: 530,000 d.w.t. 4×16 in. connections, heading 125°

The tugboat jetty is located between Jetties No. 2 and 3.

Total tank capacity: 17,750,000 barrels.

1 – 1,000,000 barrels capacity – 1,000,000
16 – 750,000 barrels capacity – 12,000,000
6 – 375,000 barrels capacity – 2,250,000
38 – small tanks capacity – 2,500,000

Pipe-lines: Main track consists of 5 strings of 36 in. pipe. The jetties carry 2 strings of 36 in. pipe in a loop. The loading rate is up to 12,000 t.p.h. Tankers' discharge rate is up to 25,000 t.p.h.

Deballasting: Capacity 4,000 t.p.h. per jetty. Ballast treatment produces affluent of less than 20 parts per million (20 ppm) oil content.

Throughput:

Transhipment	1,200,000 barrels per day
Refinery import	250,000 barrels per day

Operator: Refineria Isla (Curacao) S.A., P.O.Box 3843, Emmastad, Curacao, N.A. Tel: 662700. Telex: 1441, 1442, 3400 ISLA NA. Fax: 662588.

FRESH WATER: Fresh water available at the piers.

FUEL: Bunker facilities for all grades are available at a rate of 3,800 bbls.p.h.

NAVIGATIONAL AIDS: There is a leading range of 043° True bearing on the West side of the bay for ships entering the bay, running 851 m. (approx. 4.5 cables) clear of the shore near Cape St. Marie, with red daymarks and a green and (yellowish) red light at night.

SHIPMASTER'S REPORT: February 1979.

Restrictions: Crude oil washing permitted subject to notice below. Tank wash piping must be tested before arrival and oxygen metres calibrated.

Health: As for U.S.A.

VHF: Channel 9 to give Notice of Readiness and for berthing with Pilot and tugs. Call Agent on Channel 25.

Berthing: Shore gangway at 2 largest berths.

Notice No. 1: Issued by Isla Curacao S.A.

Crude Oil Washing

Only tankers equipped with a well constructed inert gas installation and provided with fixed tank washing machines connected to the tank wash piping system by means of fixed steel piping may crude wash cargo tanks under the following conditions:

1. Oxygen content in cargo tank may not exceed 5% (*metres calibrated*).
2. Minimum inert gas pressure of 200 mm. water gauge must be maintained in the cargo tanks.
3. Continuous supervision by a specifically appointed and experienced operator is mandatory.
4. The "in-line" O_2 analyser must be arranged to allow for calibration during inert gas operation.
5. The hydrants of the tankwash piping must be equipped with screwed-on heads.
6. Tankwash piping must be tested for tightness.

7. Exceed of discharge time will be for ship's account.

For each "crude washing" a request for cleaning must be submitted to the Head of Operations of Isla.

Please sign for receipt: Isla Curacao S.A.
Signed.........................
Master
Operation Manager

Notice No. 2: Issued by N.V. Curacaosche Scheepvaart Maatschappij. Emmastad, Curacao, N.A.

CUSTOMS REGULATIONS
BONDED STORES

In connection with revised Customs Regulations for the ports of Curacao, we draw your attention to the following:

1. All stores on board of vessel on arrival, also personal effects, must be declared to Customs Officials when clearing in vessel.
2. While ship is in port, Customs Officials may seal bonded stores, e.g. beer, wine, spirits, cigarettes and tobacco.

   When sealing bonded stores, permission may be granted by the Customs Officials, to take out a certain amount of these stores, from the bonded store-room, before sealing the store-room.
3. Stores on board, which are *not* sealed by the Customs Officials, may be used on board vessels, but may not be taken ashore without permission of Customs.
4. All stores ordered in bond at the port of Curacao, MUST REMAIN UNBROACHED, until departure of vessel from Curacao, and it is more likely than not, that Customs Officials will board before departure for control. If bonded stores are found opened up, or missing, Customs will charge import duties, whilst the possibility exists that the ship may be fined for such breach of law.

SHIPMASTER'S REPORT: December, 1982.

Customs require one Narcotics List and will seal beer store if it contains more than 100 cases of beer.

If vessel requires to use shore crane for stores, etc., written permission must be obtained. This permission is supplied by Loading Master.

AUTHORITY: Harbour Master of Curacao. See "Willemstad".

AGENT: See "Willemstad".

CARACAS BAY, Curacao: 12.04 N. 68.52 W.

The port is temporarily out of operation and will no longer be used as an oil terminal.

LOCATION: Caracas Bay is an open bay on the South coast of Curacao, 5 miles S.E. of Willemstad.

DOCUMENTS: Documents and all general informations, refer to "Willemstad".

PILOTAGE: Pilotage is compulsory and rendered day and night. There is no resident Pilot at the bay. Ships at Caracas Bay are piloted by government Pilots supplied from Willemstad.

Pilot station: 1 mile S.W. of Lijhoek (that is the cape on the West side of Caracas Bay).

ANCHORAGE: There is no anchorage in the bay.

MAX. SIZE: Vessels with a max. overall length of 1,050 ft. and max. draft of 45 ft. can be accommodated. Max. displacement 100,000 tons.

VHF: Ships destined for Caracas Bay are to inform Traffic Control at Willemstad (call "Fort Nassau" on VHF Channel 16) of their approach. There is no VHF radio station at Caracas Bay.

TUGS: Tugboats operate from Willemstad. Tug assistance only for ships arriving. Tugs are automatically provided:

1 tug for cargo and passenger ships exceeding 16,000 g.r.t. and 600 ft. length.

2 tugs for cargo and passenger ships exceeding 30,000 g.r.t.

Ships leave without tug assistance.

BERTHING: 2 piers are at the East side of the bay, naturally protected from prevailing wind and sea, with depths up to 47 ft. alongside. Vessels dock directly with their port side along the piers.

Pier No. 2, with a depth alongside of 46 ft., and Pier No. 3, with a depth alongside of 46 ft., are modern concrete piers/quays, with enough platform to serve as a passenger terminal. The largest cruise ships moor along these piers regularly.

STEVEDORES: Lighters and longshoremen are supplied from Willemstad.

REPAIRS: Small repairs can be done at the bay through working barges alongside.

GENERAL: Clearance, port administration, port charges and regulations are the same as at Willemstad.

SHIPMASTER'S REPORT: March 1986. Vessel 95,000 d.w.t.

Pilots usually request access on port side (due prevailing wind) but will accept starboard side if given a good lee. Pilot boards from tug which then makes fast through centre lead forward. As vessel gets into the bay a second tug makes fast on the main deck forward, then first tug lets go and makes fast starboard main deck aft. Tugs lines used.

Berth is not designed for vessels over 800 ft. in length. Forward moorings: 3 headlines, 2 springs, 2 breasts in that order. Aft moorings: 2 springs, 2 breasts, 3 stern lines in that order. Only 1 mooring boat was available so forward end was made fast first. Shore gangway used and shore passes required. Fresh water is available U.S.$6.00/ton. No dirty ballast facilities. Trade wind normally prevails but is liable to change during hurricane season.

AUTHORITY: See "Willemstad".

FUIKBAY, Curacao: 12.03 N. 68.50 W.

LOCATION: Fuikbay, on the South coast of Curacao, 7 miles S.E. of Willemstad, is an inland bay with a 147 ft. wide navigable entrance. The depth of this harbour is 26 ft.

DOCUMENTS: Documents and general information, refer to "Willemstad".

PILOTAGE: Pilotage is compulsory.

ANCHORAGE: There is an anchorage area in the West side of the bay.

RESTRICTIONS: As a rule vessels only enter this port during daylight. Sailing can take place day and night.

MAX. SIZE: Vessels can enter and leave with a max. draft of 24 ft. and a max. length of 360 ft., exceptionally 380 ft.

BERTHING: This bay is mainly used as a loading terminal of the "Mining Company Curacao" for export of limestone mined out of the "Tafelberg".

There is one berth under the conveyor which transports the limestone from shore into the holds of the vessel alongside. Depth alongside is 28 ft.

There is also a 84 ft. berth available for handling explosives or other cargo, usually named Westwerf. Only small vessels with a max. draft of 12 ft. can come alongside. Vessels with a greater draft can moor with the help of floats between ship and quay.

The piers are privately owned by "Mining Company Curacao" situated on private territory of this company.

FUEL: This port has no bunker facilities, so vessels bound for this port must take bunkers in Willemstad before or after calling at this port if bunkers are desired.

GENERAL: Other services such as tugboats, repairs, power, etc. are rendered from Willemstad. 5 ton mobile crane available.

AUTHORITY: See "Willemstad".

KRALENDIJK, (including Salina) Bonaire: 12.09 N. 68.17 W. (See Plan)

PORT LIMITS: Within 3 miles of the Port.

DOCUMENTS:

	Customs	*Immigration*	*Agent*
Passenger List	1	2	2
Crew List	1	2	2
Personal Effects List of Crew	1		
Stores List	1		
Curio List	1		

PILOTAGE: Pilot service is compulsory. Pilot meets vessels 0.75 miles S.W. of the berths. Pilot boat flies "H" flag by day and red over white light at night. The pilot boat is either a small tugboat or a fast speed GRP boat, orange hull, white superstructure with words "Pilot" on both sides.

ANCHORAGES: Anchorage for small vessels between Playa Lechi and the North Pier only under pilotage and with the permission of the Harbour Master.

RESTRICTIONS: Notify the Agent at least 24 hours in advance. No tide. Also see "Ballast".

MAX. SIZE: Length 1,050 ft., also see "Berthing".

INWARD CLEARANCE: Inward Clearance is effected on board immediately on docking. Immigration Officer arrives on board immediately after docking. Passengers disembarking at Bonaire must present themselves for documents check.

Customs Officer boards immediately after docking and together with a representative of the Agency's Shipping Department the inward clearance document of the vessel (in ballast or with cargo in transit, as the case may be) is prepared and signed. This document must be signed by the Master. Occasionally the Customs Officer may insist that the Master sign in his presence. Only upon completion of the above formalities, usually carried out in a very short time, is the vessel declared free and passengers and crew may go ashore. It is recommended that one of the public rooms be made available for the purpose of inward clearance in order to avoid congestion in the Purser's Office.

HEALTH: Free Pratique is granted by the Pilot.

RADIO: The Government Harbour Pilot Office operates on VHF Channel 16, working on Channel 11, on a daily basis from Monday through Friday, between the hours of 0730 to 1200 and 1330 to 1700 hrs. Outside these hours and at weekends and official holidays the office remains unattended.

Any vessel bound to Bonaire after the normal working hours should route their messages to BOPEC Oil Terminal which operates VHF radio Channels 16 and 13 on a 24 hour basis, who in turn will relay the vessel's message to their Agent for pilot and berthing instructions. The Government Radio and Telephone Station maintains daily telephonic communications with Curacao, U.S.A., Europe, etc.

VHF: Call sign "Bonaire Pilots". Calling Channel 16, working Channel 11. Rescue operations Channel 6. Watchkeeping 0730 – 1200 hrs. and 1330 – 1700 hrs. except Saturdays, Sundays and holidays. Plans being made for 24-hour service.

RADAR: There is no Radar Port Control.

TUGS: 2×3,400 h.p. tugs are available. Vessels which require tug assistance for berthing should advise their Agent in advance in order to make necessary arrangements with the Bonaire Petroleum Company.

BERTHING:

North Pier:

Berthing space	225 ft.
Depth	30 ft. alongside at LW
Height	6 ft.

Max. permitted load factor on pier is 2,000 kilos per sq.m.

Vessels of max. length of 750 ft. are allowed to berth alongside.

North Pier is dedicated as a cruise pier.

Southern Pier:

Length	394 ft.
Width	46 ft.
Depth alongside	40 ft.
Height	6 ft.
Length of connecting bridge from shore to pier	199 ft.
Width of connecting bridge from shore to pier	68 ft.
Max. LOA	1,050 ft.

Mooring Facilities:
1: Double Mampaey easy-release electrical capstans (100 tons each)
2: Two (2) bollards 50 tons each
3: Double Mampaey easy-release electrical capstans (100 tons each)
4: Bollards of 50, 25 and 10 tons (every 20 m.)

Fendering: Vredestein Gigant Fenders; Block fenders and D-fenders (made of rubber).

Roll-on/Roll-off Facilities: At the South Pier a small Ro-Ro Platform for "coaster-size" ships and small "landing-craft" type. Max. permitted load factor 3,000 kg./sq.m. Depth 5.5 m.

Off the Harbour Office between the North Pier and the South Pier a Ro-Ro Pier for ships up to 3,000 gross and/or a max. length of 90 m. Max. permitted load factor 3,000 kg./sq.m. Depth 6 m. Max. size: LOA 300 ft. Draft 15 ft.

The mooring and unmooring at the pier is done by labourers of Kralendijk Port Services (KPS), at the expense of the shipping line. The KPS was founded in July 1993 as the common stevedoring company for the Port of Kralendijk. Motor-boats are available for running lines.

Salina: Position: Lat. 12° 05.3' N., Long. 68° 16.7' W. This port is situated 4 miles South of Kralendijk and is owned by the Akzo Nobel Salt Co. N.V., loading of salt in bulk only can be carried out at this pier. Pilot boards 0.75 miles from jetty.

Largest vessel accommodated is the M/V "Nelvana" of 74,973 tons d.w.t.

Depth alongside 45 ft. The Pilot will board vessels destined for this port 0.75 miles West of the jetty, from a motorboat displaying the signals as referred to for Kralendijk. Also see "Bulk Handling Facilities".

CRANES: In Kralendijk, there are 2 mobile cranes available, 1×18 tons and 1×24 tons lifting capacity.

BULK CARGO FACILITIES: Salt in bulk is handled at the Port of Salina. The pier consists of 5 breasting dolphins and 2 mooring dolphins. The loading chute is situated on the centre breasting dolphin. Loading rate approximately 1,000 t.p.h. The chute is fixed and for shifting ship there are 2 mooring buoys, one on each side of the pier. The total length of the pier is 614 ft. and the max. draft is 45 ft. Vessels of up to 70,000 tons d.w.t. can be accommodated.

SPECIALISED CARGO HANDLING FACILITIES: There are no liquid, chemicals and LPG facilities. For Roll-on/Roll-off facilities see "Berthing".

BRIDGES: There are no bridges in the port of Bonaire.

STEVEDORES: The KPS (Kralendijk Port Services) was founded in July 1993 as the common stevedoring company for the Port of Kralendijk, and has been operational since November 1993. Tel: (599-7) 5115. Fax: (599-7) 7313.

Working Hours: Monday-Friday 0700 – 1200 and 1300 – 1600. Overtime possible.

MEDICAL: Modern facilities are available for medical and dental treatment. A "Medical Service Request" form must be signed by the Master or other authorised officer for crew members requiring medical or dental treatment. In case of crew members having to be left behind at Bonaire for hospitalisation or otherwise, Master must sign an authorisation guaranteeing expense of treatment and repatriation.

TANKERS: See Bopec Terminal, Bonaire.

BALLAST: All vessels arriving at the Island of Bonaire, and have to discharge ballast water, shall comply with the following: The ballast waters to be discharged must have been taken at least 12 nautical miles offshore and constitute clear, ocean water, devoid of any obvious riverine or coastal influence. To confirm this, Masters have to sign a Ballast Water Declaration Form.

DENSITY: Average salinity of water is 1025.

FRESH WATER: Fresh water from the Government water distillation and power plant can be supplied at the pier.

FUEL: Gas oil can be delivered by truck.

FIRE PRECAUTIONS: No specific precautions.

CONSULS: Colombia, Spain and Venezuela.

REPAIRS: There are no facilities for carrying out major repairs. Qualified technicians are available for electronic instrument repairs.

DRY DOCKS: No dry dock facilities.

SURVEYORS: Inspeciones Petroleras Bonaire N.V. available in Bonaire for dry and liquid cargo. Tel: (599-7) 5175. Fax: (599-7) 7572.

IMB (Independent Maritime Bureau (Bonaire) Inc.) represents ICS, P&I Club nautical and technical inspectors, inspectors for Liberian Bureau and Marine Affairs. Tel/Fax: (599-7) 7383.

GANGWAY/DECK WATCHMEN: Watchmen are not compulsory but recommended; Overtime as usual.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: No specific regulations, customs allow only a reasonable quantity out of bond.

CARGO GEAR: Load/discharge operations always by ship's gear.

REPATRIATION: All facilities exist for crew changes. Good connections, several times a day to Curacao and several times a week to U.S.A. and Europe.

AIR SERVICES: There is a good daily air service between Bonaire and Curacao. 8 to 10 flights a day with good connections at Curacao with the international services to and from many parts of the world.

HOLIDAYS: New Year's Day; Monday after Carnival; Good Friday; Easter Monday; Queen's Birthday (April 30th); Labour Day (May 1st); Ascension Day; Bonaire Day (September 6th); Christmas Day and Second Christmas Day.

TIME: 4 hours behind GMT. No Summer Time kept.

CUSTOMS OFFICERS ON BOARD: 1 or 2 Customs Officers will remain on board during the vessel's stay in port. Such officer(s) must be furnished meals at regular meal hours.

POLICE/AMBULANCE/FIRE: Police Tel: 8000; Ambulance Tel: 8580; Fire Tel: 8580.

EMERGENCY CO-ORDINATION CENTRE: Nearest Emergency Co-ordination Centre is the Rescue Co-ordination Centre of the Royal Netherlands Air Force on Curacao. Tel: (599-7) 681628/637900. Fax: (599-7) 690476/637950.

TELEPHONE: Telephone connection on board is possible, to be arranged by ship's Agent in advance.

SERVICES: No tank cleaning equipment or facilities for discharge of tank washings. For compass adjusting, contact Shipping Inspection, Curacao. Tel: (599-9) 612361/611421. Fax: (599-9) 612964.

For marine consultants, draft, quantity and damage survey, and for survey of tanks and machinery, contact Independant Maritime Bureau and Inspeciones Petroleras Bonaire (See "Surveyors").

BANKS: ABN-Amro Bank, Kaya Grandi No. 2. Tel: (599-7) 8417 and 8429. Fax: (599-7) 8469.

Maduro and Curiel's Bank, Kaya L.D. Gerharts No. 1, P.O.Box 366. Tel: (599-7) 5520. Fax: (599-7) 8548.

Banco di Caripe N.V., Kaya Grandi 22. Tel: (599-7) 8295.

Interbank, Kaya Grandi 49. Tel: (599-7) 7660. Fax: (599-7) 7665.

McLaughlin Bank N.V., Kaya Almirante Luis Brion No. 12. Tel: (599-7) 4500. Fax: (599-7) 4510.

STORING: As a rule the vessel is stored by truck. Trucks can proceed alongside at the berth. Forklifts can be used on jetty to handle stores.

No particular Customs Regulations regarding storing.

Local people can be employed for storing, contact ship's Agent.

SHORE LEAVE: No restrictions for shore leave.

IDENTIFICATION CARDS: Passengers: No landing cards required, but some ships carrying a large number of passengers furnish landing cards to passengers for their own control of passengers returning on board. Crew: No landing cards required.

REGULATIONS: All ballast water discharged in the waters of the Island Territory of Bonaire should have been taken aboard at least 12 miles offshore and constitute clear, oceanic water devoid of any obvious riverine or coastal influence. Discharge of dirty ballast, garbage or petroleum is strictly prohibited and heavy fines may be levied.

DELAYS: As a rule there is no delay in berthing, loading or discharge. Delay in loading or discharging may be caused by rain.

GENERAL:

Live Animals: The importation of dogs, cats, horses and certain other animals is permitted, provided these animals are accompanied by a certificate issued at place of origin by a licensed Veterinarian, stating that the animal in question is free from any contagious disease.

Dogs must have, in addition, a Certificate of Rabies Inoculation. All animals imported (including birds) will moreover be examined on arrival.

Prohibited Imports: The importation of the following is strictly prohibited: Parrots and parakeets, absinth, explosives, firearms, ammunition and firework, except with prior permission from local authorities. All kinds of narcotics and drugs, the sale and use of which is regulated by International Conventions, except for legitimate use by and for sale to drugstores by duly accredited importers. Unauthorised reprints of copyrighted scientific and literary works of art. Copper, bronze and nickel coins, except for account of the Government of the Netherlands Antilles. Obscene printed matter.

Immigration Law: All passengers disembarking in Bonaire as temporary visitors, for business purposes, on vacation, or in transit to other destination, must be in possession of:
(a) Valid Passport/birth certificate.
(b) One Passport photograph.
(c) A return ticket, through ticket or passenger-order to next destination outside of the territory of the Netherlands Antilles.
(d) All documents and visas necessary for continuing to next destination or return to place of origin.
(e) Sufficient means to be able to support themselves during their stay in the territory.

No visa is required from a Netherlands Consul on any of the aforementioned documents.

DEVELOPMENTS: A port development plan has been prepared for the port of Kralendijk. The Netherlands is willing to finance expansion and improvement, but before that, a new port management organisation has to be founded.

AUTHORITY: Bonaire Port Authority, Harbour Office, Fort Oranje, Kralendijk, Bonaire, Netherlands Antilles. *Tel:* (599-7) 8151. *FAX:* (599-7) 8797. *Contact:* Captain L.O. Statie, Harbour Master/Chief Pilot. Captain R. Sint Jago, Pilot.

PHILIPSBURG, St. Maarten: 18.01 N. 63.03 W. (See Plan)

LOCATION: Philipsburg, capital of Netherlands St. Maarten, lies in a well-protected bay in the S.E. corner of the island. The only obstruction to the harbour is "Proselyte Reef" or "Man-of-War-Shoals", located Lat. 17° 56' N., Long. 63° 04' W., with a minimum depth of 2.5 fathoms. Entrance to the harbour can be accomplished by passing either to the North or the East of this reef.

DOCUMENTS:

Crew List: Immigration 1 copy.
Agent 1 copy.
Passenger List: Immigration 1 copy.
Agent 1 copy.
Stores List: None required.
Ship's Register: Pilot will require to see this document for obtaining the official tonnage.

Note: No special form is prescribed for the above documents, consequently these may be made out in Company's regular form. No consular visa required on any of the above documents.

Immigration: Immigration Officer boards ship immediately after docking. Passengers and crew are usually free to disembark immediately after boarding.
Agency Personnel: Agency personnel board immediately after vessel is docked together with Immigration Officer.
PILOTAGE: Pilotage is compulsory and performed by Government Pilots. Ships bound for the pier at Philipsburg should await the Pilot at a max. distance of 1 mile from the line Point Blanche-Fort Amsterdam. Pilotage service available day and night.
Pilot Ladder: Jacob's ladder, in clean and sound condition is sufficient.
Time to Berth: From Pilot Station to pier, about 15 to 30 minutes.
ANCHORAGE: Ample suitable anchorage area available with sufficient depths of water for several large ships simultaneously.

A good anchorage can be found in 40 ft. depth at the cross point of line joining the pier and Fort Amsterdam (Fl. ev. 4.5 secs.) and line joining radio masts and the mountain "Naked Boy".

If and when the pier is already occupied by another cruise-ship, cruise-ships can proceed to anchorage, in which case communications between ship and shore to be by ships' own launches.

For ships proceeding to anchorage, pilotage is also compulsory.
RADIO: The Government radio and telegraph service operates daily from 0700 L.T. to 2400 L.T. worldwide.
Radio Telephone: VHF Channel 16.
ETA Messages: ETA messages should be sent to Agent preferably in local time at least 24 hours in advance through Saba Radio (PJS), and any changes occurring thereafter should be advised.
Use of Ship's Radio in Port: Prohibited.
VHF: Port Authority and Pilot on Channel 12; Shell Terminal on Channel 9.
TUGS: 1×700 h.p.
BERTHING: *A. C. Wathey Pier:* Destroyed by hurricane in September 1995.
Ro-Ro Facility: The Ro-Ro facility is a concrete quay of length 110 m. with a depth of 6.0 m.
STEVEDORES: There are 3 gangs available. Each gang has a total of 9 workers.
MEDICAL: Government physicians are available in Philipsburg and there is also a small, but up-to-date hospital operated by the Netherlands Antillean Government. A "Medical Service Request" form must be signed by the Master or other Authorised Officer for crew members requiring medical treatment.

Dental facilities available.
TANKERS: See "Shipmaster's Report".
FRESH WATER: Available.
REPAIRS: No facilities for carrying out repairs except for radio and radar (Radio Holland).
SURVEYORS: There is a representative of Lloyd's on the island.
AIRPORT: The island is served by A.L.M. (Dutch Antillean Airlines), Air France, Eastern Airlines, K.L.M. (Royal Dutch Airlines), L.I.A.T. (Leeward Island Air Transport), Prinair.

There are direct almost daily flights to and from New York and Miami connecting to other major places.
TIME: GMT minus 4 hours.
HOLIDAYS: The following Official holidays are observed in St. Maarten: New Year's Day (January 1st); Good Friday (varies); Easter Monday (varies); Queen's Birthday (April 30th); Labour Day (May 1st); Ascension Day (varies); Whit Monday (varies); St. Maarten Day (November 11th); Kingdoms Day (December 15th); Christmas Day (December 25th); Boxing Day (December 26th).
TELEPHONE: Service from ship to shore is not available.
GARBAGE DISPOSAL: A garbage collection service is available *on request.*

Garbage should be properly packed into biodegradable plastic bags.

Garbage collection can be arranged through the ship's port Agent or directly with the Ports Authority on VHF Channel 12. Charge per trip is $ 22.00.
WASTE OIL DISPOSAL: No service available.
SEAMAN'S CLUBS: There is a Seaman's Club located at Upper Princes Quarters, about one mile from the port.
CURRENCY: Netherlands Antilles Guilders.
GENERAL:
Ship's Bars and Shops: No restrictions and these may remain open for business while in port.
Laundry: Available.
Wind: Prevailing winds on the island between the months of March and December are East to South, velocity 6 to 10 knots. Between December and March winds are generally North to East at a velocity of 8 knots to 15 knots.
Tide: The tidal range in Philipsburg is at most 2 ft., but regularly not more than 1 ft.
Current: The current outside Philipsburg Harbour changes from Easterly to Westerly, with a max. velocity of 2 knots. At the Pier the current generally runs from North to South, with an average velocity of 0.5 knots.
Gangways: No gangways are available from the pier and ship's gangways will have to be used.
Ship's Launches: There are no restrictions on the use of ship's launches.
Stores: Available.
Garbage: No disposal facilities available.
Port Health: No regulations or requirements.
Customs: None.

SHIPMASTER'S REPORT: November 1989.
Berth: Shell mooring at Cole Bay.
Chart: B.A. Chart No. 2038.
Pilotage: Not compulsory. Pilots are available from Philipsburg by prior arrangement with the ship's agent. Pilots are not generally available until after mid-morning as prior to this time they are occupied with berthing of cruise ships.

The pilot boards off Philipsburg and can be contact on VHF Channel 12.

It is advisable to use a pilot on the first visit to Cole Bay, but is not necessary for later visits as the water is deep.
Approaches: The Shell and Texaco moorings are located in Cole Bay which is approximately 5 miles West of Philipsburg. The location is identified by silver fuel tanks and the power/desalination plant.

The buoys are located in position Lat. 18° 01' N., Long. 63° 05' W.

When approaching the moorings, vessels should beware of the shoal patch 1.5 miles due South of the Great Bay.
Anchorage: Anchorages are located in Great Bay (off Philipsburg) or in Simpson Bay which is to the West of Cole Bay.
Mooring: Shell: When approaching the moorings, contact Shell on Channel 9 a few miles before arrival. On arrival the mooring boat will appear and station itself at the anchorage position. The boat is a work boat with an outward motor and is well handled. The vessel should make a broad approach towards the head buoy, leaving it fine to port and letting go the starboard anchor when the signal is given by the mooring boat. The stern will swing with the thrust and end up parallel to the hose buoys.
Texaco: Vessels proceeding to the Texaco mooring pass inside the Shell mooring and moor to 3 buoys and drop an anchor where indicated by the boat man. When berthing at Texaco the vessel should attempt to get as near as possible to the shore as ship's hoses are used.

Mooring at both berths is carried out in daylight only, but vessels may unmoor after dark.
Berth: The currents set towards the West and there is nearly always a swell with an Easterly breeze. The boat man advised us that it is only rarely calm at the berth and on occasions the weather conditions can stop vessels mooring.

The Shell mooring is the Westerly of the two moorings. The head buoy is painted orange and the stern port buoy is painted white and the stern starboard buoy is painted orange. In addition there are 5 hose marker buoys. All buoys have hooks. The minimum depth at the Shell mooring, reduced to datum, was found to be 9.5 m.

The Texaco mooring is to the East of the Bay and consists of 4 buoys, all of which are rusty.
Cargo Operations: Night time discharge is not permitted at Shell or Texaco.

Shell have under sea lines which radiate from a small pier near their tanks and terminate at 5 marker buoys. The Western marker buoy is connected to a 6 in. line for LPG, the centre marker buoy is connected to a 6 in. line for black oil and the Eastern marker buoy is connected to an 8 in. line for white oils. The other 2 buoys are pipeline markers. The LPG line is to be renewed in the near future.

The ship's port derrick is connected to the marker by cable and the hose is lifted from the sea bed. The mooring boat will assist with the operation.

The flange on the LPG hose is 4 in. and the pumping rate is approximately 55 t.p.h. The storage capacity at Shell is 200 tonnes in 4 tanks.
Formalities: One copy of the Crew List is required on arrival. At the time of departure, the agent leaves the Clearance at the Shell Office.
Ship Chandler: Chandlers are available in Philipsburg but it would be difficult to bring large quantities of stores aboard at the mooring.
Radio: Saba Radio was very good for public correspondence, use Channel 26.
Airport: There are international flights from the airport which is in the next bay to the West of Cole Bay.

AUTHORITY: Sint Maarten Ports Authority, Pointe Blanche, St.Maarten, Netherlands Antilles. *Tel:* (599-5) 22307/22348. *FAX:* (599-5) 25048.
Contact: Sonny H. Hoo, Harbour Master and Port Director.

ST. EUSTATIUS: 17.29 N. 63.00 W. **(See Plan)**

LOCATION: Statia Terminals N.V.'s jetty and shore facilities are located at Tumbledown Dick Bay on the Northwest shore of the island in position Lat. 17° 29' 39" N., Long. 63° 00' 28" W.

The jetty, berthing 246°, extends 920 m. seaward and can accommodate a vessel on each side.

Vessels of up to 175,000 tons can be accommodated in the Southern berth and up to 100,000 tons on the Northern berth.

A barge loading berth is located inshore of the platform on the South side of the pier.

An array of mooring buoys for barges is located North of the Pier, 0.25 miles offshore.

Sub-sea lines of about 2,700 ft. length have been constructed in a North West direction from the shore end of the Terminal Jetty. The sub-sea lines terminate in approximately 52 ft. of water depth at the Pipeline end manifold (PLEM). A set of hoses connects the PLEM to a Floating Dock.

Two vessels can be accommodated at the Floating Dock, one on the East side and one on the West side.

Vessels taking bunkers are usually bunkered by barge at the anchorage, which lies to the South of the jetty. The barges are 70 m. and 80 m. long, and are brought alongside by a tug on the port side of the vessel.

Vessels coming to take bunkers should prepare ship's mooring ropes (not wires) on the port side before arrival to secure the barge; 2 ropes forward of the bunker connection and 2 ropes aft. Also a derrick boom or crane to pick up the hose from the barge and a pilot ladder (or ladder combination on ships with high freeboard) on the port side to allow the Bunker Master to board the vessel before the barge is brought alongside.
DOCUMENTS:

2 copies Crew Lists.
2 copies Passenger Lists.

PILOTAGE: The Pilot will normally board vessels 1 mile from the end of the finger jetty.

Pilotage to the terminal berths and Government piers is compulsory.

Pilotage to the anchorage is not compulsory but is available on request.

Pilotage to and from the Floating Dock is available during daylight only. Pilotage to and from the Jetty is available round the clock.

Pilot ladder must conform to internationally accepted standards of construction. When vessels arrive at the Pilot Station, a good lee should be provided for the Pilot, who will normally board from one of the tugs attending the vessel.

SPM: Pilotage to and from the SPM Terminal is compulsory and available around the clock.

The Pilot will board incoming vessels 3 miles (4.8 km.) from the SPM manoeuvring area. The Pilot will remain onboard and serve as the Mooring Master. Communications with the Pilot/Mooring Master are by VHF radio, and contact should be made on Channel 9. When vessels arrive at the Pilot/Mooring Master boarding station, a good lee should be provided for the Pilot/Mooring Master, who will normally board from one of the tugs attending the vessel. The Pilot/Mooring Master ladder must conform to internationally accepted standards of construction.

APPROACHES: Except for the Saba Bank about 10 miles to the West of the island, the waters in the vicinity of St. Eustatius Island are generally clear of obstructions. However, vessels are advised to heed the cautionary notices on the charts of the area, regarding the existence of shoal patches, and should keep outside the 200 m. line where possible. The bottom slopes gently all around the Island, and in the Terminal Area the depth 1 mile off-shore is 150 ft.

The Island, and the neighbouring islands of St. Kitts and Saba, are steep and present excellent radar targets. The mountains on all 3 islands also provide good visual bearing during the approach. The Southern portion of the Island is dominated by an extinct volcano 600 m. high (the Quill), while a lesser hill 289 m. high (Boven) is located at the Northern end.

ANCHORAGE: The recommended anchorage is off the village of Oranjestad where a shelf with depths of up to 90 ft. extends almost 2 miles offshore.

Vessels approaching the anchorage to receive bunkers or to wait for berthing will be advised in what position they should drop the anchor.

The anchorage area provides good holding ground in water depths of 22 m. – 30 m., 0.5 miles from the shore.

MAX. SIZE: See "Berthing" and "Tankers".

HEALTH: Pratique will normally be granted when the Pilot boards. Masters must report on any communicable disease which may have occurred on board prior to arrival.

RADIO: ETA must be communicated 72, 48 and 24 hours prior to arrival by cable addressed to Staterm St. Eustatius via Radio Curacao (PJC). Thereafter if ETA varies by more than 2 hours, the terminal must be advised. The initial message should include the following:

Discharging Vessels:

1. Name of vessel, call sign.
2. ETA St. Eustatius.
3. Draft on arrival.
4. Gross barrels and temperature on arrival (by grade).
5. Expected discharge rate.
6. Number and size of manifold connections.
7. Ballast hours required after completion.
8. Bunker requirements: quantity and grade.

Loading Vessels:

1. Name of vessel, call sign.
2. ETA St. Eustatius.
3. Draft on arrival.
4. Ballast: Quantity and discharge time.
5. Last cargo carried.
6. Ability to load while deballasting.
7. Maximum loading rate.
8. Number and size of manifold connections.
9. Departure draft.
10. Bunker requirements: Quantity and grade.
11. Slops retained: Quantity and grade.

Bunkering Vessels:

1. Name of vessel, call sign.
2. ETA St. Eustatius.
3. Type of vessel (tanker, cargo ship, etc.).
4. Flag.
5. Gross tonnage.
6. Length overall.
7. Draft on arrival.
8. Bunker requirements: Quantity and grade.
9. Maximum bunker rate.
10. Size bunker manifold.
11. Distance bow to bunker manifold.
12. Distance waterline to rail.
13. Distance rail to bunker connection.

SPM: Hours of Operations: The Statia Terminals SPM facility operates 24 hours a day, 365 days a year.

Notice of Arrival: The Master of a tanker bound for Statia Terminals should send his first arrival message as nearly as possible to 7 days before his expected date of arrival, even if he is in port at the time. If his voyage to Statia Terminals is less than 7 days, he should also send another arrival advice as soon as possible after leaving his loading port.

His next arrival should be sent 72 hours before the estimated time of arrival (ETA). The arrival advice should be transmitted and updated again at 48 hours, and again not later than 24 hours before the estimated time of arrival. An arrival advice message can and should be sent at any time when there is a change of more than 1 hour in a previously estimated arrival time. These arrival advice messages should be sent to Statia Terminals N.V. Any delays getting into berth by reason of the Master's failure to supply such reports shall be for the tanker's account. The cost of any delays of a tanker getting into the berth as a result of the tanker Master's failure to supply the required notices of arrival shall be for the tanker's account. Statia Terminals will advise the Harbour Master of vessel movements within the territorial waters of St. Eustatius.

Vessels proceeding to St. Eustatius are required to radio "Staterm St. Eustatius" via Curacao Radio (PJC) with notices at 72, 48 and 24 hours off port. Four hours off port, vessels should contact Statia Terminals N.V. via VHF Channel 9 for instructions on anchoring or mooring. Telex notices may be made at above intervals to Statia Terminals N.V. (384-8029 Term NA), St. Eustatius or by Fax to 599-38-2259. The first message should contain, at a minimum, the following:

(a) Tanker's name, gross tonnage and call sign.
(b) Estimated time of arrival (ETA) at Statia Terminals.
(c) (a) Arrival draft fore and aft.
    (b) Fore and aft draft on completion of discharge or loading.
(d) Type(s) and amount(s) of cargo on board.
(e) Basic discharge/loading plan, times and pumping/loading rates.
(f) Cargo manifold size and type, if 20 in. presentation is not available.
(g) Lifting capacity of deck cranes.
(h) Type of mooring equipment installed.
(i) Any condition on the tanker that may impair its navigation, such as fire damage, malfunctioning propulsion machinery or steering equipment.
(j) Any leaks, structural damage or machinery malfunctions that may impair cargo transfer operations or cause a discharge of oil.
(k) Bow to manifold distance.

These messages can be sent by radio telephone. It is suggested that ETA advice also be sent to tanker's Agents with logistics requirements.

Pre-Arrival Instructions: A message will be sent to "first time" Statia Terminals bound tankers approximately 72 hours prior to their arrival, outlining arrival procedures and discharge planning recommendations.

Radio Communications at the Terminal: In addition to the above notices, radio communication on the International VHF Maritime Band (Channel 9) should be started at 4 hours out of port, and used for the final arrival notice, for communications with the Terminal and with the Pilot/Mooring Master until he boards the tanker.

VHF: Statia Terminal and the Pilot Station maintain listening watch on Channel 9. Channel 9 is used as a working Channel between ship, tugs and shore.

Vessels to make contact on Channel 9, 4 hours prior to arrival for berthing/anchoring instructions.

Also see "Radio – SPM".

TUGS: Two twin screw Kort nozzle tugs, of approximately 2,900 b.h.p., 34 tons bollard pull, assist vessels at the terminal. Tugs' ropes will be used.

SPM: The following vessels are operated by Statia Terminals for the primary purpose of assisting in escorting and emergency response to the tankers:

(a) Name: Jennifer L. Boudreaux.
(b) Length Overall: 89 ft. (27.0 m.).
(c) Beam: 28 ft. (8.62 m.).
(d) Draft: 12 ft. (3.62 m.).
(e) Propulsion: 2 GM 16V149 TIB engines, 1800 h.p. each.
(f) Bollard Pull: 50 tons.
(g) Firefighting Pump: 3,000 g.p.m.

(a) Name: Antonio T. Gambarella.
(b) Length Overall: 92 ft. (28.1 m.).
(c) Beam: 28 ft. (8.5 m.).
(d) Draft: 13 ft. (4.11 m.).
(e) Propulsion: 2 GM 16V149 TIB engines, 1,800 h.p. each.
(f) Bollard Pull: 50 tons.
(g) Firefighting Pump: 2,000 g.p.m.

The following vessel is operated by Statia Terminals for spill and fire response, diving support and maintenance:

(a) Name: M/V Megan D. Gambarella.
(b) Length Overall: 194 ft. (59.1 m.).
(c) Beam: 55 ft. (16.8 m.).
(d) Draft: 14 ft. (4.27 m.).
(e) Propulsion: 2 EMD 16-645E7, 5,750 h.p. total.
(f) Bollard Pull: 61 tons.
(g) Firefighting Pump: 10,500 g.p.m.

The following launches are also operated by Statia Terminals:

(a) Name: Miss Angie; Miss Cathy.
(b) Length Overall: 37 ft. (11.4 m.).
(c) Beam: 13 ft. (4.1 m.).
(d) Draft: 6 ft. (1.9 m.).
(e) Propulsion: 2 GM V8-71N engines, 260 h.p. each.

(a) Name: Edward I. Pancake.
(b) Length Overall: 45 ft. (13.72 m.).
(c) Beam: 18 ft. (5.48 m.).
(d) Draft: 6 ft. (1.83 m.).
(e) Propulsion: 2 GM 1271 N engines, 340 h.p. each.

BERTHING:

1. At Gallows Bay, a breakwater extends 152 m. into the sea in a direction of 258° and continues in a direction of 318° for 45 m. A green flashing light (Fl.G 5 sec. – 6 miles) marks the seaward end of the breakwater. The first 60 m. of this breakwater has been paved and gives access to the Government Pier, which extends from the breakwater in a direction of 318° for 100 m. The West side of this pier is made suitable to accommodate Ro-Ro vessels, and provides a quay length of 60 m. with a minimum depth of 4.3 m., and a 20 m. wide Ro-Ro landing platform.

   The East side of the pier provides a quay length of 85 m. with a minimum depth of 4.0 m.
2. A small Ro-Ro mole is situated North of the Government Pier, and is built with a recess on the North side for passengers to load and discharge from tenders or other boats. There is a depth of 5 ft. minimum for this area. This picturesque site is well gardened with coconut palms and abundant tropical flowers, and is below the restored historic Fort Oranje.

3. About 1.5 miles N.W. of the Government Pier is an oil jetty with depth 62 ft., extending about 5 cables into the sea in a direction of 245°. This Pier can accommodate tankers up to 175,000 deadweight tons. A white flashing light (Fl. 5 sec., 10 miles) marks the most seaward end of the Pier. Position Lat. 17° 29' 39" N., Long. 63° 00' 28" W. By night, the jetty and the loading platform show many yellow/orange lights. Also see "Tankers".
4. About 3.7 cables North of the oil jetty, 2 multiple mooring buoy systems have been installed to accommodate vessels up to 700 ft. LOA with a maximum draft of 47 ft. on the West berth, and vessels up to 350 ft. LOA with a maximum draft of 30 ft. on the East berth. Also see "Tankers".

TANKERS:

Berth	*Max. d.w.t.*	*Max. Draft* (ft.)	*Loading Arms*
No. 1 (South Berth)	175,000	55	5×12 in. 1×6 in.
No. 2 (North Berth)	100,000	55	5×12 in. 1×6 in.

Berthing: Vessels lie alongside flexible, woodfaced breasting dolphins fitted with Yokohama fenders on either side of the jetty. Vessel's mooring lines are secured to mooring dolphins fitted with quick release hooks. Spring lines are secured to the breasting dolphins.

The water inshore along the jetty shoals gradually. The tug and barge berths are at the landward end of the jetty.

Fire fighting monitors are installed on the loading platform.

Loading: Bunker "C", I.F.O. and M.D.O. can be handled at both berths.

Connection to the shore is by Chicksan loading arms which the vessel's crew will connect under the supervision of a responsible officer.

Discharge is by ship's pumps assisted by shore booster pumps as required.

Loading is by gravity and/or shore pumps.

Maximum discharge rate is 25,000 bbls./hr. and loading rate 30,000 bbls./hr.

The bunker "C" and I.F.O. arms on the jetties are fitted with 12 in. presentation flanges, and the diesel and gas oil arms are fitted with 6 in. presentation flanges.

Both berths are fitted with gangways for ships' use.

Floating Dock: Two berths are provided on either side of a Floating Dock, 3.7 cables North of the Terminal Jetty, by means of mooring buoys.

The Floating Dock services as a work platform to transfer products between the shore tanks and vessels via sub-sea pipelines and floating hoses.

Vessels are moored on mooring buoys, parallel to and at a distance of 100 ft. from the Floating Dock on the West Berth and 50 ft. on the East Berth. The West Berth can safely accommodate vessels of maximum 700 ft. LOA × 90 ft. beam. Maximum allowable draft is 47 ft. The East Berth can safely accommodate ocean-going product barges and tankers of maximum 350 ft. LOA × 60 ft. beam. Maximum allowable draft is 30 ft. Only polypropylene or nylon mooring lines are to be used.

Floating hoses from the Floating Dock to the vessel are used for the transfer of cargo.

1×150 lbs. and 4×20 lbs. BC-powder fire extinguishers are installed on the Floating Dock, besides remote sensing devices to detect gas leaks.

Ballast Facilities: The terminal can receive up to 63,000 barrels of dirty ballast, which is processed at 2,800 bbls./hr. The terminal will not accept ballast containing any chemical which may affect the processing systems.

SPM: *Offshore Components:* The Statia Terminals Single Point Mooring Buoy (SPM) is located near Tumble Down Dick Bay on the Western side of the island of St. Eustatius. The buoy location is approximately 1.5 miles (2.41 km.) North of the Statia Terminal jetty. The facilities include a Single Point Mooring with an associated Pipeline End Manifold (PLEM) and a 48 in. (1,219 mm.) submarine pipeline to shore. The SPM/PLEM is located in approximately 210 ft. (64 m.) of water, approximately 6,000 ft. offshore near Lat. 17° 31' N., Long. 63° 01' W.

Max. Size: 520,000 d.w.t.

Aids to Navigation: SPM Buoy: The SPM buoy is painted with a high visibility orange paint and is equipped with the following navigational aids:

(a) Marine Signal Light: A battery powered signal light is mounted on the buoy turntable. This light has a 5 mile (8.3 km.) visibility. The light is designed for 360° visibility, and is controlled with a photo-electric switch. The light includes an automatic lamp changer and is capable of unattended service for at least 90×12 hour working days. The light flashes Morse Code "A" at 15 second intervals.

(b) Fog Horn: The fog horn has an acoustic range of 0.5 nautical miles (0.9 km.). The horn sound is timed to provide a Morse Code "U" with a 30 second interval.

(c) Strobe Alarm Light: A strobe alarm light for the swivel leak detection system is mounted on the turntable. The light is red and has approximately a 1.0 mile (1.6 km.) visibility. The light is remotely controlled by the buoy telemetry system.

Charts: General: The following numbered chart from the Defense Mapping Agency (DMA) is recommended for use when approaching Statia Terminals: 25XHA25607.

The latest editions of DMA charts are listed in DMA's publication "Catalog of Charts, Maps and Related Products", which is available free from National Ocean Survey, Riverdale, Maryland 20840, USA. Tel: (301) 436-6990.

The Dutch Admiralty Chart No. 2716 is also recommended for use when approaching Statia Terminals.

Manoeuvring Area: The manoeuvring area is shown on the "Plan" as approximately two thirds of a 4,500 ft. (1.4 km.) circle centered about the mean position of the buoy. A circular manoeuvring area was modified to eliminate the area between 45° and approximately 160° where 0° is due North and angles are measured in a clockwise fashion. This area is bounded by a line running from the end of the jetty to the SPM and by a line running at 45° until it intersects the 100 ft. contour. This area is designated as the SPM Prohibited Manoeuvring Area. No vessel will approach the SPM from within the Prohibited Manoeuvring Area. Vessels may depart the SPM while lying within the Prohibited Manoeuvring Area.

Securing Anchors: Prior to approach and while at the SPM, anchors are to be positively secured with locking pawls and/or securing wires/turnbuckles. No work on windlass or anchoring gear which requires releasing the brake or removal of securing gear/pawls is allowed while at the SPM.

Physical Description:

1. The Statia Terminals crude oil facility consists of onshore and offshore elements.
2. The SPM consists of a Catenary Anchor Leg Mooring (CALM) type of Single Point Mooring (SPM). This type of mooring permits the vessel to swing 360° around the stationary buoy in response to the predominant force vector. Features of the Marine Terminal and its operational procedures are in accordance and compliance with recommendations published in the International Safety Guide for Oil Tankers and Terminals (ISGOTT).

   The buoy is 41 ft. (12.5 m.) in diameter and has an installed draft of 12 ft. 9 in. (3.89 m.). The buoy is anchoring with 6 legs of 3.4375 in. (87 mm.) chain. Each chain leg is 1,485 ft. (453 m.) long and terminates at a 20 metric ton high holding capacity anchor.
3. A single 48 in. (1,219 m.) submarine pipeline connects the onshore storage to the underwater pipeline end manifold (PLEM) of the SPM system. 2×24 in. (609 mm.) diameter underwater petroleum hose strings connect the PLEM to the underside of the buoy. Two floating hose strings connect the buoy to the tanker vessel. The crude oil floating hose strings are 24 in. (609 mm.) diameter hoses reduced to 20 in. (508 mm.) diameter over the rail hoses at the vessel. All hose flanges are ANSI 150 pound raised face type.
4. A restricted area has been established for the Statia Terminals SPM. The area, as shown on the "Plan" is bordered by the parallels of Lat. 17° 30' 00" N. and Lat. 17° 31' 30" N. and by the meridians of Long. 63° 00' 30" W. to Long. 63° 02' 00" W. No vessel may enter or manoeuvre within the Restricted Area without a Pilot and/or a Pilot/Mooring Master aboard, unless given specific clearance from the Crude Oil Storage Terminal Control Station.

MEDICAL: A qualified general practitioner practices on the island and there is a local hospital in Oranjestad.

In the case of more serious illness the patient can be evacuated for hospitalisation at St. Kitts or St. Maarten.

FRESH WATER: Not available.

FUEL: All grades of bunkers can be supplied at the terminal berths.

In addition, Statia Terminals operate 2 bunker barges which can deliver all grades of bunkers in the anchorage area. Pumping rate 500 t.p.h.

Also see "Location".

SAFETY/FIRE PRECAUTIONS: The provisions of the current edition of the "International Safety Guide for Oil Tankers and Terminals" will be observed by vessels alongside the terminal facilities, and a copy of the Company's "Terminal Information and Regulations" booklet will be given to the Master by the Pilot on boarding.

REPAIRS: There are very limited repair services on the island.

AIRPORT: Winair services the island with four flights per day to and from St. Maarten, where international connections can be made.

CUSTOMS: There are no Customs restrictions.

TIME: Local time is GMT minus 4 hours.

BANKS: Barclays Bank of the Netherlands Antilles N.V. operates a sub-office in Oranjestad, St. Eustatius. The address of the main office in St. Maarten is P.O.Box 141, Front Street, Philipsburg, St. Maarten, Netherlands Antilles. Tel: (599-5) 22567, 22491, 23511, 22877. Telex: 8022.

CURRENCY: The Netherlands Antilles Florin and the American Dollar are the local currency (NAPL 1.78 = U.S.$ 1.00).

GENERAL:

Currents: Currents in the vicinity of the island, and particularly at the jetty, have not been studied. Information indicates that the currents at the jetty are subject to change in direction and velocity. Experience has shown that the currents are generally to the North at approximately 0.5 knots.

Tides: The normal tidal range at the jetty does not exceed 2.5 ft.

Weather: The normal weather at St. Eustatius is fair, with the prevailing winds from the East.

In the months of June until November, hurricanes may develop in the Caribbean area, although St. Eustatius is considered outside the normal hurricane tracks. However, in the event a hurricane should threaten, all seamanlike precautions should be taken by vessels using the anchorage and terminal facilities.

AGENCY: Statia Chandlers N.V. is the exclusive Agent for Statia Terminals N.V.

SHIPMASTER'S REPORT: March 1986 (Updated 1990).

Tanker of 95,000 d.w.t. called for bunkers only.

Vessels normally berth with bow heading out. 2 tugs with tug's lines. Forward tug at port bow and after swinging, second tug makes fast aft.

When berthing on Eastern side of jetty use the port anchor. A strong Westerly set can be experienced and may appear during berthing.

Require ship's messengers fore and aft as there are no winches ashore.

Moorings: 6 lines (head/stern/breast lines), preferably ropes, not wires and 2 springs on either end of ship. Lines to be sent ashore with ship's messenger lines fore and aft as there are no winches ashore.

Ship's personnel not allowed on jetty. Shore leave permissible by boat.

SHIPMASTER'S REPORT: October 1990.

Vessel approached from the South (very good radar target).

VHF contact established with Statia Terminal at about 30 miles, initially Channel 16 and afterwards all communications on Channel 9.

Vessel had bunker fuel oil for discharge, and was instructed to anchor 5 cables West of Statia Terminal Jetty in Tumbledowndick Bay. The water depth was 47 m. and the holding ground good, vessel had 8 shackles on deck.

Discharge was into 3 barges, all made fast on vessel's port side, with 2 ship's wires forward and aft.

Berthing at the jetty was effected starboard side to, with vessel heading South and turning to port, prior to swinging. Two tugs made fast fore and aft, at break of forecastle head and forward of after accommodation – tugs lines with eye on deck.

Vessel swung through 360° and slid stern first into berth. Port anchor was used, and when in position, 5 shackles were in the water. Moorings forward were 3 head lines, 2 breast lines and 2 springs, and aft 2 springs, 2 breast lines and 4 stern lines. Mooring boat was out of action, so all lines were passed by heaving line. Head and stern lines to be ropes only.

Chicksan discharge arm and shore gangway used, but no ship's personnel allowed to use the jetty.

All shore communications (for shore leave and ship's business) had to be by the terminal tugs, fitting in with their schedule, as the boat usually used was out of commission.

All terminal, Pilot, tugs and agency communications and co-operation were of a high standard.

Caleb-Brett were terminal surveyors.

Vessel later returned to the terminal area for bunkers. We were instructed to anchor 5 cables South of the jetty and 6 cables from the shore, in 22 m. of water. Vessel lay to the South while bunkering operations were taking place.

Crew changes were effected while in the port. All outgoing and incoming personnel were routed via the Isle of St.Maarten.

St.Maarten Port Services were vessel's Agent on both islands.

Cash was obtained, but had difficulty with Bank transfer from St.Maarten to St.Eustatius.

All Customs and Immigration documentation handled by the Agent (2 copies Crew List, 1 copy Stores List, 1 copy Personal Effects List and Last Port Clearance).

After cargo discharged at the terminal, vessel anchored 1.6 miles South of the terminal to await port clearance, documentation, etc. Vessel anchored in 30 m. with 6 shackles in the water, on the line 078° to the Gallows Bay 'City Pier'.

Once clearance obtained, Netherlands Antilles Government charge approximately U.S.$350.0 per day "waiting fee", if vessel remains in the anchorage area off the island, so it is prudent to move away to the Saba Bank and wait.

OPERATOR: Statia Terminals, N.V., Staterm Building, P.O.Box 170, Oranjestad, St. Eustatius, Netherlands Antilles. *Tel:* (599-3) 82300, 82259, 82395. *Telex:* 384-8029 Term NA. *FAX:* 82259. *Contact:* Marine Superintendent.

Statia Terminals Inc., 800 Fairway Drive, Suite 295, Deerfield Beach, FL.33441, U.S.A. *Tel:* (954) 698-0705. *FAX:* (954) 698-0706, 570-6065. *Telex:* 6504-787851 Sterm.

SINT MICHIELSBAY, Curacao: 12.09 N., 69.01 W.

LOCATION: Sint Michielsbay, on the South coast of Curacao, 5 miles West of Willemstad, is an open bay, naturally protected from prevailing winds and sea.

PILOTAGE: Compulsory.

ANCHORAGE: In the bay 650 ft. out of the coast in 130 ft. water is laid a S.P.M. buoy, which gives a good anchorage to vessels up to 350,000 d.w.t. which, because of dangerous cargo, quarantine, size or because of a defect cannot enter another port of Curacao.

BERTHING: Vessels are moored with their stern to the buoy and their bow anchors are heaved out to hold the foreship from the coast.

REPAIRS: Repairs or handling cargo can be carried out by way of barges. A landing jetty for barges is available.

GENERAL: Other services as tugboats, lighterage, stevedoring, etc. are rendered from Willemstad.

AUTHORITY: See "Willemstad".

WILLEMSTAD/EMMASTAD, Curacao: 12.06 N. 68.56 W. (See Plan)

DOCUMENTS:

For Immigration:

2 copies of Crew List.

2 copies of List of Passengers. Passenger Lists should indicate full names, age, sex, civil state, and occupation. Passengers must show proof of citizenship (a passport, voter's registration or birth certificate is acceptable).

For Customs:

1 copy of List of Stores (deck, engine, narcotics, firearms and stewards department).

Manifest of Cargo for Curacao, if any, in duplicate, on special form called "Vrachtlijst" itemising the cargo by lots of the same mark and showing numbers, kind of packages, general description of contents and weights in kilograms or pounds of each lot.

Manifest of Cargo for Curacao, in transit, for transhipment through Curacao to other ports, if any, in duplicate for each different port separately on special form and itemised as indicated above.

Manifest of Cargo on board, in transit, if any, in duplicate on special form as indicated above, showing only the total number of packages on board, general description of the merchandise and total weight in kilograms or pounds; if the cargo is in bulk, this is indicated accordingly.

2 copies of tally books of cargo for discharge at Curacao, if any.

1 copy of Crew List, plus 1 copy of Personal Effects List.

1 copy List of Passengers landing at Curacao.

If the ship is in ballast, only the Stores List is required.

The Customs Officer will then make out his "Akte van inklaring" (Certificate of Entry).

The above documents have to be signed by the Master. They may be made out in Dutch, English, Spanish or French.

PILOTAGE: Pilotage is compulsory. Rendered day and night. Pilots are government officials and are stationed at Willemstad. The Harbour Master is also the head of the Pilot Service.

Vessels must provide a lighted, manned, properly secured and clean pilot ladder, fitted with sufficient spreaders.

A lifebuoy fitted with a Holmes light, as well as a reliable heaving line, should be placed close to the pilot ladder and the embarkation and disembarkation should be supervised by an officer. Vessels arriving or leaving with a freeboard exceeding 30 ft. must use the accommodation ladder in conjunction with the pilot ladder (Safety of Life at Sea Convention).

Vessels bound for Curacao should proceed to Willemstad Harbour except when they have specified orders for another bay.

Vessels in sight of Willemstad will be contacted by the signal station at Fort Nassau for further orders. From this same station, lights are shown to direct the traffic in port.

Vessels should stay 1 mile off shore S.W. of the harbour entrance to await Pilot. Both anchors should be ready for immediate use.

Defects of engines, steering gear, anchor gear and other defects which influence the manoeuvring ability of the vessel should be reported before entering to the Harbour Master.

The pilot motorboat is identified by a red light above a white light at night.

ANCHORAGE: As a rule there is no anchorage area in the harbour, but in the Eastern part of the Schottegat there is a dolphin with mooring buoy on each side available to await berth or orders for limited time, subject to permission and conditions from the Harbour Master.

4 vessels, 2 vessels alongside each other can be safely moored at these buoys. Depth: 40 ft.; distance between each buoy and dolphin 1,000 ft. Furthermore, in the Southern part of the harbour a set of 2 dolphins can accommodate 2 vessels with length up to 600 ft. and a max. draft of 20 ft.

RESTRICTIONS: The harbour of Willemstad consists of a 1,400 yd. long and min. 270 ft. broad channel, the Santa Anna Bay, with depths from 50 ft. to 79 ft. and an adjacent inner bay, the Schottegat, a 150-acre body of water with a depth of more than 10 ft. and a maximum of 79 ft.

The navigable portion of the entrance of the port is 865 ft. wide, marked on either side by a light-buoy, and the minimum depth is 50 ft.

Required minimum draft for tankers arriving, shifting and sailing:

g.r.t.	fwd. ft.	aft. ft.
up to 11,000	10	16
11,000-15,000	11	18
15,000-19,000	13	19
19,000-25,000	14	20
25,000-29,000	15	21
29,000-35,000	17	23
35,000-43,000	18	24
43,000-45,000	19	25
45,000-47,000	20	25
47,000-50,000	21	26
50,000-55,000	22	28
55,000-60,000	22	29
60,000-65,000	23	30
65,000-70,000	23	31
more than 70,000	24	32

Maximum trim for tankers: 10 ft. by the stern, 2 ft. by the head.

MAX. SIZE: Cruise ships up to 875 ft. Draft 45 ft. Vessels with a LOA of 1,000 ft. have been piloted in the harbour.

HEALTH: The Port Doctor will visit only if there is a case of quarantinable disease on board. The Netherlands Antilles Bill of Health is free of charge.

RADIO: VHF Radio-telegraph and radio-telephone. PJC Coast Station operated by the Netherlands Antilles.

Location	:	Curacao.
Call Sign	:	PJC.
Frequencies (Telegraph)	:	438/500 kHz, 4334, 8694, 13042.5 and 17170.5 kHz. Schedules as indicated in the List of Coast Stations.
Frequencies (Telephone)	:	2182, 2550, 4125, 4379.1, 8725.1, 13119.4 and 17251.5 kHz. Schedules as indicated in the List of Coast Stations.
Watchkeeping	:	24 hours.
Range	:	Mid-Atlantic and Caribbean area.

VHF: *Port Operations Station (Operated by Harbour Authorities):* Location, Fort Nassau. Call sign, Fort Nassau. Frequencies, International

Channels 16 (156.80 MHz), calling and safety; 12 (156.60 MHz), working, first choice; 14 (156.70 MHz). Watchkeeping, 24 hours on Channel 16. Type of operation, Simplex, Frequency modulated. Range, 20 to 25 miles.

Main Private Station. Operated by Isla (Refineria Isla Curacao S.A.): Location, Emmastad. Call sign, Refinery Isla Curacao. Frequency, international Channel 19 (receiving, 156.950 MHz); (transmitting, 161.55 MHz). Type of operation, Duplex working, frequency modulated; operated by remote control from Isla's telephone exchange; ask operator for connection with party desired. Range, 20 miles. Watch-keeping, 24 hours on Channel 19; normal daily business, 0730 hrs. till 2400 hrs.; urgent business only, 2400 hrs. till 0730 hrs.

Tug Base Station:

Location : Grote Werf.
Call Sign : Marine Department – For tug movements only and in an emergency to direct the tugs at Refineria Isla (Curacao) S.A. Watchkeeping during office hours on Channel 19.
Sleepboat Central Scharloo on Channel 14, or Fort Nassau on Channel 16 and 12.
Central Post – For tug movements only. Watchkeeping 24 hours on Channel 19.
Tugboat Jaro II/Tugboat Lima – For emergency calls to tugs on Channel 14 and Channel 19. Watchkeeping 24 hours on Channel 14 and 19. Telephone 612848/612849.
Frequency : International Channel 14 (156.700 mHz)
Operation : Simplex.

Tug Mobile Stations: Location, 1 on each tug. Call sign, Piku, Lima, Jaro II and Buni. Frequency, International Channels 16, 12, 14, 9, 8 and 6. Watchkeeping, 24 hours on Channel 14. Operation, Simplex – frequency modulated.

Curacao Drydock Co.

Location : Koningsplein (Schottegat Harbour).
Call Sign : Curacao Drydock.
Frequencies: International Channels 13 (156.650 MHz), and 6 (156.300 MHz).
Watchkeeping : 0730 hrs. till 2400 hrs.
Operation : Simplex.

TUGS: Compulsory for all tankers exceeding 3,000 g.r.t. Tankers exceeding 700 ft. LOA and all tankers which are not gas-free, must make one tug fast forward before entering.

S.I.A. (Smit International Antilles N.V.) has 2 modern powerful tugs stationed at Bullen Bay, for rendering services to tankers calling at Bullen Bay.

The "Piku", 4,000 h.p., 59 tons bollard pull, built in 1974.
The "Buni", 4,000 h.p., 59 tons bollard pull, built in 1975.

They are also used by "ship-to-ship transfer" in the coastal waters South of Curacao.

All tugs are provided with extensive firefighting and salvage equipment, and each tug carries some 25 tons of oil dispersant together with a spray system to be utilised in case of oil spill.

K.T.K. (Kompania di Tou Korsou) has 2 seagoing motor tugs stationed at Willemstad, and 4 pilot launches, of which two launches can be used as tugs (348 h.p.).

The "Lima", 2,250 h.p. GRT 162, bollard pull 30 tons.
Jaro II, 4,450 h.p., bollard pull 63 tons, built 1990.

The tugs can be engaged for rendering towage assistance both inside and outside the harbour. As a rule, however, all vessels dock or undock at all wharves and enter or leave the port without tug assistance. In case of abnormal circumstances or in case the Harbour Master may require tug assistance. Tugs lines are usually used, charge is U.S.$ 80.00.

Tugs can be requested by the Master for speeding up docking or undocking the vessel.

There are about 20 small harbour tugs available, varying from 60 h.p. to 300 h.p. and about 80 lighters, to receive cargo or bring it alongside a vessel, varying from 60 tons to 250 tons capacity.

Also see "Services".

BERTHING: There are berths on either side of the Santa Anna Bay, North of the pontoon bridge, with depths varying from 18 ft. to 33 ft. alongside, generally used for bunker, cargo and passenger ships.

On the Eastern side four wharves: the Handelskade, depth 18 ft.; the Kleinewerf, depth 24 ft.; Grotewerf, depth 31 ft.; and Salazarwerf, depth 24 ft.

On the Western side there are 6 wharves: the Matheywerf, depth 23 ft.; Westwerf I, 25 ft.; Westwerf II, 36 ft.; Nieuwewerf, 33 ft.; Motetwerf, 33 ft.; Oranjewerf, 19 ft.

In the Schottegat there are seven more berths, generally used for bunker, cargo or passenger ships.

Prins Hendrikwerf which closes the Western corner Santa Anna Bay/Schottegat, has a depth of 34 ft.; however, ships with a draft of more than 35 ft. can be moored by way of placing rafts of 10 ft. width between vessel and the quay.

At the Eastern part of the Schottegat are the Admiral Brion Wharves, which have 3,000 ft. docking space available with 33.5 ft. depth alongside.

In the Schottegat on the peninsula of Asiento are situated the 10 jetties owned by Isla, which are mostly used by tankers; however, other vessels are able to use these jetties for bunker facilities. Jetty No. 1 may be used for general cargo.

The Schottegat also has about 6,000 ft. of quay available for repairs. The names of the wharves, lengths and depths alongside are: Beatrix I and II, 1,300 ft. (each) – 20 ft.; Beatrix III, 400 ft. fore, 10 ft. aft – 35 ft.; Beatrix IV, 350 ft. – 31 ft.; Beatrix V and VI, 1,000 ft. (each) – 35 ft.; Repair Quay, 1,650 ft. – 35 ft.

There are sufficient covered and open storage places available on the wharves to load or unload a ship, generally dry cargo. Total covered storage area: 57,650 sq.ft., open storage: 500,000 sq.ft.

These areas can be used for transit as well as local cargo.

In the N.E. part of the Schottegat LASH lighters can be moored at 2 sets of buoys, depth 20 ft.

Storage capacity for liquid petrol products is 4,600,000 tons in tanks of Isla Refinery.

All Isla piers are modernly equipped to handle oil in bulk, safely, and speedily, in order to make the turn around of the vessels as short as possible. Sufficient hose connections are installed to load or discharge oil, water-ballast or residue, and to supply steam and fresh water.

The wharves in Santa Anna Bay and the Brion Wharves are all modernly equipped to supply different kinds of bunkers and also handle cargo simultaneously. General cargo is normally handled with ship's gear. Sufficient pallets and fork-trucks are available. Mobile cranes are available if needed up to 140 tons.

Docking of cruise ships and cargo vessels in Willemstad harbour: The following piers operated by Curacao Port Services Inc., are regularly used by cruise ships:

Nieuwewerf, Motetwerf: West side St. Anna Bay. Type: Quay. Construction: Sheet piling, concrete top, stelcon plates floor. Length: 1,200 ft. Draft: 33 ft. Height above water: 4 ft. One transit shed each: Nieuwewerf, width 65 ft., length 216 ft., area 14,000 sq.ft. Motetwerf, width 65 ft., length 216 ft., area 14,000 sq.ft. Open space area 200,000 sq.ft. One warehouse facility 6,500 sq.ft.

Oranjewerf: On West corner St. Anna Bay/Schottegat. Type: Quay. Construction: Iron piles, concrete top, concrete floor. Length: 418 ft. Draft: 19 ft. Height above water: 6 ft. Special bunker pier.

Prins Hendrikwerf: In the Schottegat near West corner Santa Anna Bay. Type: Quay. Construction: Iron piles, concrete top, concrete floor. Length: 690 ft. Draft: 34 ft. Height above water: 5 ft. One transit shed: width 65 ft., length 385 ft., area 25,000 sq.ft. Open space area 120,000 sq.ft. No warehouse facilities. Bunker facilities, water.

Admiral Brion Wharves: Nos. 1, 2, 3, 4, 5 and 6 situated at the East side Schottegat. Type: Quay. Construction: Sheet iron cells with concrete top, asphalt floor. Total length: 3×1,000 ft. Depth: 34 ft. Height above water: 5 ft. Two transit sheds; one with width 65 ft., length 680 ft., area 44,000 sq.ft.; one with width 65 ft., length 210 ft., area 13,650 sq.ft. Open space area 500,000 sq.ft. Two platforms for Ro-Ro ships are available. Max. draft 23 ft. – 33 ft.

Kleinewerf, Grotewerf, Salazarwerf: East side of St. Anna Bay. Type: Quay. Construction: Sheet piling, concrete top, asphalt floor. Total length wharf: 1,470 ft. Maximum depth alongside 24 ft. – 31 ft. Height above water: 2 ft. One transit shed, width 65 ft., length 330 ft., area 21,500 sq.ft. Open space area 154,000 sq.ft. No bunkering facilities.

Matheywerf: West side Santa Anna Bay. Type: Quay. Construction: Sheet piling, concrete top, asphalt floor. Total length wharf: 650 ft. Draft: 23 ft. Height above water: 4.5 ft. Open space area: 36,000 sq.ft.

Westwerf I: West side Santa Anna Bay. Type: Quay. Construction: Sheet piling, concrete top, asphalt floor. Length: 480 ft. Draft: 25 ft. Height above water: 4.5 ft. One transit shed: width: 61 ft., length: 396 ft. Area: 20,000 sq.ft. Open space area: Nil.

Westwerf II: West side Santa Anna Bay. Type: Quay. Construction: Sheet piling, concrete top, asphalt floor. Length: 430 ft. Draft: 36 ft. Height above water: 4.5 ft. Open space area: 18,000 sq.ft.

Bunker facilities. Water only available through fire hose from Nieuwewerf.

Container Terminal: This terminal offers a 500 m. (1,650 ft.) quay length with 1 Lo-Lo berth, 1 Ro-Ro berth and 1 combined Ro-Ro/Lo-Lo berth. The Ro-Ro berths are 25 m. length, each with a depth alongside of 40 ft.

At the terminal, an area of 100,000 sq.m. (about 25 acres) of container storage space, including reefers and modern repair and maintenance facilities is available.

Two very modern gantry cranes (capacity 50 tons) now handle approximately 25 moves per hour, in order to despatch ships as fast as possible. A mobile crane, with capacity of 40 tons under spreader, is also available.

The reefer parking area is to be equipped with 195, 220, 380 and 440 volt connections for 28 reefer containers.

Designed for up to 50,000 moves per year (with possibilities for further extension), the terminal is now handling 25,000 TEU moves each year.

Cruise Terminal: Located on the Mattheywerf in the Santa Anna Bay.

The terminal has a covered area of 745 m. (8,080 ft.) and is provided with all necessary facilities to embark and disembark passengers and has Customs and Immigration offices and counters, telephone (local and international) and tourist information office.

An extensive facelift is presently under way at the Matthey Cruiseship Wharf which is conveniently located within walking distance of the downtown area. When completed, facilities will include a covered open-air area with chairs, a snack bar and kiosks offering information on Curacao and booking for sightseeing trips, car rentals, etc., as well as restrooms.

Cargo handling and bunkering can be carried out simultaneously.

Besides the wharves mentioned above, there are 10 oil piers in the Schottegat for discharging crude oil and feedstocks for the Isla Refinery and loading products. These wharves are therefore used mainly by tankers. They are all equipped to provide bunkers.

All main grades of marine lubricants are stocked at the Port of Curacao. Shell Marine lubricants and Marine technical service with laboratory facilities for the examination of used oil samples are available 24 hours a day.

BRIDGES: Santa Anna Bay is crossed by 2 bridges, the Queen Emma floating pontoon bridge and the new Queen Juliana fixed bridge.

The pontoon bridge opens day and night for in and outgoing vessels. There will no longer be any waiting period at the harbour entrance. Automobile traffic will be diverted to the new bridge and those on foot will have continuous ferry service available. Ships will have overall preference for openings.

The fixed arch bridge, dominating Willemstad's skyline and the entrance to Schottegat Bay, is 185 ft. high, (clearance 180 ft.) enabling the biggest vessels to pass under. The bridge is of box girder construction and is open to automobile traffic only. Glare-proof lights are installed to prevent interference with light signals that harbour Pilots rely on when bringing a ship through the channels.

Tankers passing through the Santa Anna Bay must have all tank-lids properly closed, even if they are gas free. This is a harbour regulation.

STEVEDORES: Gangs must be engaged between 0600 and 0630 hrs. for the day, on weekends and Saturdays. For work on Sundays and holidays, gangs must be ordered between 0600 and 0630 hrs. on Saturday or the workday preceding the holiday. Masters of vessels carrying out cargo operations are consequently recommended to advise Agents their ETA well in advance of above deadlines.

MEDICAL: 600 bed hospital available.

TANKERS: Besides the wharves mentioned in "Berthing", there are 10 oil piers in the Schottegat. Pier No. 1 for discharge of chemicals for Isla Refinery, Pier No. 10 for discharge of slops and tank cleaning, and Piers No. 2 – 9 for discharging of crude oil, loading of products and supply of bunkers.

All main grades of marine lubricants are stocked at the port of Curacao. Marine lubricants and Marine Technical Service with laboratory facilities for the examination of used oil samples are available 24 hours a day.

Name	*L.W.* *Max. Draft* (ft.)	*Max. Displ.* (tons)	*Max. Length* (ft.)
Isla Jetty 1	27	25,500	580
Isla Jetty 2	31.5	25,500	575
Isla Jetty 3	33	25,500	575
Isla Jetty 4	38	54,000	775
Isla Jetty 5	45	100,000	850
Isla Jetty 6	39	54,000	750*
Isla Jetty 7	31	25,000	560
Isla Jetty 8	45	100,000	850
Isla Jetty 9	33.5	40,000	850
Isla Jetty 10	For'd 21 Aft 31	40,000	850

* Max. LOA at Jetty No. 6, when Jetty No. 7 is occupied, is 665 ft.

SLOP RECEPTION FACILITIES: Available at Jetty No. 10.

FRESH WATER: Fresh water for drinking and use in boilers is available day and night in sufficient quantities. Fresh water is distilled from sea water by one of the biggest distillation plants in the world. The quality is very good and chemically pure.

Fresh water is delivered alongside by means of water barges. 5 water barges are available. Each barge can deliver 50/100 tons of fresh water per hour. The rate of delivery depends on the quantity required and how many barges can simultaneously deliver fresh water to the vessel. It also depends on the amount of connections on board the vessel and the height above water to be lifted. Vessels must advise Agent of requirements in advance.

On the *Motetwerf, Nieuwewerf* and *Prins Hendrikwerf* water can be delivered by means of a pipeline.

FUEL: Besides the Isla Piers, there is one bunkering installation: namely the "Motet" bunkering installation comprised of 4 berths.

The bunkering facilities of the "Motet" installations in Otrabanda, which are comprised of 7 storage tanks and pumping facilities, are supplied through 2 pipelines of 12 in. and 6 in. diameter from the refinery. The rate of delivery, by gravity and pumps, is 600 t.p.h. for fuel oil and 500 t.p.h for diesel oil.

Modern fuel blending facilities are available at all installations in Willemstad.

Note: Vessels calling exclusively for bunkers have free wharfage, provided they do not discharge and/or load in total more than 2 tons of cargo, land and/or embark in total more than 5 passengers, and they vacate the berth within 2 hours of completing bunkering (Not valid at Refinery wharves).

CONSULS:

	Tel.		*Tel.*
Argentina	0602-781-8479	Haiti	612436
Belgium	615666	Honduras	615951
Bolivia	612792	India	612262
Brazil	615222	Israel	377068
Canada	613515	Italy	375973
Chile	615666	Japan	613075
Colombia	614663	Lebanon	684779
Costa Rica	375513	Liberia	375011
Denmark	614032	Mexico	614900
Dominica	373478	Norway	611119
Dominican Republic	375676	Panama	375013
Ecuador	613222	Peru	613319
El Salvador	375411	Portugal	688333
Finland	612104	Spain	615699/615888
France	70649	Suriname	611842
Germany	613433	Sweden	375409
Great Britain	371698	Uruguay	376615
Grenada	681446	U.S.A.	613066
Guatemala	375011	Venezuela	614140/613100

REPAIRS/DRY DOCKS: The Curacao Drydock Company Inc. has repair yards, 2 graving docks laid out in the Schottegat and 1×10,000 ton capacity floating dock.

The largest graving dock is 919 ft. long, width of entrance between wheel fenders 152 ft. and a depth of water over sill of 27 ft. Suitable for up to 155,000 d.w.t. Movable cranes of 25 and 75 tons lifting capacity are fitted alongside the dock.

The Curacao Drydock Company Inc. has 6,000 ft. of repair wharf with varying depths up to 40 ft. Cranes alongside up to 75 tons lifting capacity. Mobile truck cranes of 140 tons are also available.

Electric shore-power A.C., D.C. 110, 220 or 440 volts can be supplied directly from shore at wharves of Isla and at other wharves from generators on barges. Isla can also supply steam directly from the shore at a pressure of 8–15 kg./cm.

SURVEYORS: A.B.S., Lloyd's, N.V., B.V., R.I., G.L. and others.

Caleb Brett, Independent Marine Bureau, Aivepet, Saybolt, Chas. Martin, Caribbean Marine Consultants, J. Mesas and R. Lapre.

AIRPORT: There are daily international flights from Dr. Albert Plesman Airport.

ALM: Frequent daily trips to Aruba and Bonaire. Daily flights to Miami and New York. Regular air services to St. Maarten, Caracas, Maracaibo, Colombia, Haiti, Sto. Domingo, Puerto Rico, Trinidad and Paramaribo.

TAP (Air Portugal): 3 flights a week to Lisbon.

Servivensa: Daily flights to Punta Fijo, Maracaibo and Caracas.

Avianca: Daily flights to Colombia.

LAV: Many daily flights to Caracas.

KLM: Daily flights to Amsterdam, Lisbon, Madrid, Frankfurt, Zurich and Central and South America.

Ferry: Ferry's Del Caribe S.A. runs a regular service with a ferry which carries 120 automobiles. This ferry has regular service between Curacao and Coro, Venezuela on Monday, Tuesday, Wednesday and Thursday. On Thursday the ferry also goes to Aruba and Punto Fijo, Venezuela.

TIME: GMT minus 4 hours.

HOLIDAYS: New Year's Day, Carnival Monday (February), Good Friday, Easter Monday, Coronation Day (April 30th), Labour Day, Ascension Day, National Flag Day (July 2nd), Christmas Day, Second Christmas Day. "No work", holidays for cargo operations: New Year's Day, Good Friday, Labour Day and Christmas Day.

POLICE/AMBULANCE/FIRE: Police and Fire, Tel: 44444. Ambulance Tel: 625822.

EMERGENCY CO-ORDINATION CENTRE: Curacao is a major Search and Rescue Centre in the Southern Caribbean and has the following resources at its disposal:

Communications: Curacao Radio listens on the standard frequencies (VHF Channel 16) – (2182 kHz. (voice) and 500 kHz (morse). Fort Nassau (Channel 12 and 16) is the harbour traffic control centre.

Co-Ordination: RNLAF (Royal Netherlands Air Force) Rescue Co-Ordination Centre (Curacao Rescue) at the Dr. Albert Plesman International Airport. Tel: 681628 (24 hours service).

During the emergencies the following frequencies are being used: 2182 kHz and VHF Channel 16.

The Curacao RCC maintains a communication link with the United States Coast Guard RCC in San Juan (Puerto Rico) and can use the AMVER information.

Air Search: In case of a missing aircraft or vessels the following forces are available for conducting Search and Rescue missions under control of the Curacao RCC:

2 Fokker F-27 maritime aircraft of the RNLAF long range patrol type. (Both aircraft can communicate on Channel 16 and 2182 kHz).

Coast Guard Auxiliary (CITRO) short range aircraft. Consisting of single and twin-engined light aircraft flown by Civil Pilots under RCC direction. Some of them can communicate on Channel 16.

Helicopters are not available.

Rescue Units: Commercial tugboats. Coast Guard Auxiliary (Citizens Rescue Organisation of the Netherlands Antilles – CITRO), using private boats.

Royal Netherlands Navy. If available the station vessel (a frigate and a minesweeper) will be despatched for emergencies.

Merchant Navy ships, in general Merchant Navy vessels, which will be directed by the aircraft described before, to emergencies. This in accordance with the Mersar-booklet on Search and Rescue.

SERVICES: *Salvage, etc.:* A supply vessel is permanently stationed at Willemstad by "Smit Tak International Antilles N.V." on a 24 hours service base. She is provided with extensive salvage equipment such as pumps, hoses, burning and welding equipment and an hydraulic crane with a capacity of 10 tons.

Facilities for divers such as compressors, decompression tank, etc., are on board. The ship is furthermore very suitable for bringing stores, spare parts, packed oil products, crew on board, passing, or on the roads, waiting ships.

Underwater Cleaning/Underwater Services:

Cleaning of submerged hull sections of ships while afloat. This cleaning can take place while the ship is moored in the main harbour at Willemstad and also at other locations, such as Caracas Bay, Bullen Bay and St. Michiels Bay.

Cleaning of cruise ships takes place while bunkering and the passengers are ashore.

A local company has developed its own underwater cleaning apparatus which cleans ships up to 250,000 d.w.t. within 24 hours. Also the rudder and propeller are properly cleaned. The cleaning does not affect the paint but only removes the very thin upper layer of spent anti-fouling paint, leaving the active anti-fouling exposed.

The company carries out various kinds of underwater works, e.g. sealing off sea-intakes and ropeguard, all other kinds of cutting and welding works, underwater inspections, made by certified divers, which can be combined with photographing of bottom condition in colour and black and white. Closed circuit underwater television with video-tape recorder is available.

It is the largest professional salvage and underwater cleaning company in the Netherlands Antilles and has experienced divers able to make certified damage reports. (Contact via Curacao Drydock Co. Inc.).

Peteres Divers Company Ltd.: The following underwater services are carried out by Peters Divers Company Ltd. Underwater hull cleaning by means of the "Scamp" makes it possible to clean the largest VLCC's during loading or discharging.

The average cleaning time for a VLCC is 12 hours. Underwater T.V. system for underwater surveys and inspections are available.

Further underwater services are: welding, cutting, photographing of the bottom condition, etc. in colour and black and white, sealing of intakes, etc. All inspections are carried out by licensed marine engineers.

REGULATIONS: Both anchors should be ready for immediate use. Defects of engines, steering gear, anchor gear and other defects which influence manoeuvring abilities of the vessel should be reported before entering, to the Harbour Master.

Dangerous Cargo: Explosives, ammunition, fireworks, radio active material and other dangerous cargo.

All vessels carrying explosives or other dangerous cargo, for discharge at Curacao, for transhipment or in transit without transhipment, *require special permission in writing, obtained prior to arrival,* for entering any port in the island of Curacao. Full details must be furnished in advance.

Only limited quantities of explosives, etc., are permitted in the port of Willemstad. For calls with larger quantities outports are used. Details of the regulations in force on the subject will be furnished on request by shipping Agents.

Entry permit required for ships carrying dangerous and/or hazardous cargo. Cost of form including stamp is fls. 4.00. Additionally administration fee is charged on the following basis:

Cargo in transit not being off-loaded from the ship – Nil. Local cargo to be discharged from the ship:

Up to 500 kilos	NAfls. 5.00
500 kilos to 5 tons	NAfls. 15.00
5 tons up to 25 tons	NAfls. 30.00
25 tons to 50 tons	NAfls. 45.00
over 50 tons	NAfls. 60.00

Transhipment cargo landed from one ship and reloaded on another ship: Double the local charge, indicated above.

At the discretion of the Harbour Master a special guard may be assigned onboard vessels handling or having dangerous and/or hazardous cargo on board. The charge, if and when incurred, is NAfls. 15.00 per hour in straight time and NAfls. 30.00 in overtime. Please note that this happens very seldom.

GENERAL: Customs Officers remain on board on duty during the vessel's stay in port. They must be fed by the ship and are entitled to the equivalent of officers' mess or first-class dining saloon.

GARBAGE DISPOSAL: Possible. Contact Selikor, Parera. Tel: 5999-614500.

WASTE OIL DISPOSAL: The Refineria Isla (Curacao) S.A., refinery in the Schottegat area is able to receive pumpable hydrocarbon waste oil NOT containing chemicals. Ship's Agent will arrange for a slops disposal barge of a capacity of 60 cu.m., and a tow boat. Price of barge Nafl. 1,200; price of tow boat Nafl. 175 per hour with a minimum of 3 hours; Sundays and public holidays Nafl. 225 per hour with a minimum of 3 hours.

SEAMEN'S CLUBS: Emancipatie Boulevard c/2. Tel: 5999-375317.

CURRENCY: Netherlands Antilles Guilders, pegged to the U.S.$ since December 1971 at U.S.$ 1.00 = Naf. 1.790.

SHIPMASTER'S REPORT: November 1986.

For "off-limits" call at Curacao stores and spares come out on pilot boat. Customs official will be on boat, and Agent or ship chandler will board. No official papers required, just sign and stamp Customs' stores receipt.

SHIPMASTER'S REPORT: January 1990.

Charts: B.A. Charts No. 702 and 1412.

Approaches: No particular difficulties from any direction. Willemstad easily identifiable with its oil refinery, bridge over Sint Anna Baai and hotel on the S.E. entrance to Sint Anna Baai.

Anchorages: None. Aruba, which is approximately 60 miles to the N.W., has a shelf of about 24 m. at the N.W. end, some parts of which are under 'Port Control'. The S.E. shelf is very exposed to prevailing winds and swell.

There is an area 50 miles to S.W., off Venezuela, giving reasonable anchorage, but this is in Venezuelan waters.

Most vessels waiting drift off the South coast of Curacao. We drifted 7 miles off the coast, starting South of Caracas Bay, and in 11 hours drifted to about 6 miles South of Kaap St.Marie.

Pilot: Pilot boards from workboat with white and blue upperworks, 0.5 miles off Sint Anna Bay entrance.

Fort Nassau Signal Station on VHF Channel 12.

Procedure: Isla Refinery (VHF Channel 19) requires cargo grades and amounts, draft, agent, if gas-free, loading rate in cubic metres, tank preparation, facilities required (slops, bunkers, fresh water).

Note: Trim not to be more than 10 ft.

A tug is necessary if trim exceeds 10 ft. and/or vessel not gas-free, and if vessel over certain dimensions. Even if vessel advises necessary information, a tug often appears and should be rejected, otherwise vessel will be liable for a fee.

Tugs: Four tugs available. All are modern Smit harbour tugs, based in Sint Anna Baai, near the Pilot Station at Salazar Wharf.

Max. Size: Pilots reported that present maximum size of vessel to pass through Sint Anna Baai into the Schottegat, is length 936 ft., breadth 160 ft. and draft 45 ft.

Berth: Berth No. 9: For lube oils, maximum size 40,000 displacement tons (near to dockyard). Port side too. After rounding Berth No. 8 dolphin, approach head on with starboard anchor ready. Depending on pilot, a good or poor approach can be made with or without anchor. Care should be exercised aft, as vessel landed heavily on a fender support bracket, which thereafter penetrated the ship's side. Best to hold off and land very gently on large rubber fender.

Two headlines and 2 springs are compulsory forward and aft.

Berth No. 2: Gas oil and Av. Jet, starboard side too. West end of Schottegat.

Berth No. 3: Gas oil and Av. Jet, port side too. West end of Schottegat.

Berth No. 7: Gas oil and Av. Jet, port side too.

All berths have gangways. Mooring boat used at all berths.

Cargo: Berth No. 9: Lube oil. Vessel has loaded up to 6 grades through Chicksans, maximum 4 grades at any one time.

For No. 1 tanks, Chicksans landed on deck and connected to manifold by hoses, otherwise manifold liable to damage due to unsupported Chicksan weight.

Vessel should always request "First foots" and give letter to this effect on arrival. Tank Survey for lube oil is strict.

A lot of paperwork procedure on berthing. Delays can be expected in sampling. At completion sampling/documentation can take up to 5 hours.

As a guide, lube oil rate for large quantities around 2250 bbls./hr., for small quantities 1,000 bbls./hr. At Berths No. 2, 3 and 7 loading rate reported high.

Officials: Agent deals with most paperwork.

Water Police (Immigration) board on arrival.

Documents:

2 Crew Manifests.
2 Bond Lists.
2 Stores Lists.
1 Health Declaration (sited by Immigration).
2 Cargo Manifests.
4 Crew Lists.

If bond or beer being taken, Customs board to seal.

Shore passes required to pass through refinery (free service to be used, no walking inside refinery). Special forms made out by Master.

Two Customs Clearance Forms given by agent on departure, original to be handed to pilot.

General: Radio Holland will not board for repairs on Sundays and public holidays.

Refinery now owned by Curacao Government/Venezuelan partners with refining agreement until 1995.

New floating dry dock at Curacao dry docks (Berth No. B5).

Pontoon bridge across Sint Anna Baai out of commission, due East landing area being damaged by ship.

AUTHORITY: Curacao Port Authority N.V., Werf de Wilde Z/N, P.O.Box 689, Willemstad, Curacao, Netherlands Antilles. *Tel:* (9) 611133, 614422. *Telex:* 3339 CURPA NA. *Cables:* Harbour Office Curacao. *FAX:* (9) 613907. *Contact:* Mr. Ing. E. Voges, Managing Director. Mr.R. Lopez-Ramirez, General Manager.

AGENT: SEL Maduro & Sons (Curacao) Inc., Maduro Plaza, P.O. Box 3304, Willemstad, Curacao, Netherlands Antilles. Tel: 599-9-376564/376352, 376815. Telex: 1092 or 3393 Selms NA. Fax: (5999) 371266. Cables: "Maduroship".

NOTES

Please also advise Shipping Guides Ltd.

prevent interference with light signals that harbour Pilots rely on when bringing a ship through the channels.

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Isla Jetty	2	31.5	25,500	575
Isla Jetty	3	33	25,500	575
Isla Jetty	4	38	54,000	775
Isla Jetty	5	45	100,000	850
Isla Jetty	6	39	54,000	750*
Isla Jetty	7	31	25,000	560
Isla Jetty	8	45	100,000	850
Isla Jetty	9	33.5	40,000	850
Isla Jetty	10	For'd 21 Aft 31	40,000	850

* Max. LOA at Jetty No. 6, when Jetty No. 7 is occupied, is 665 ft.

SLOP RECEPTION FACILITIES: Available at Jetty No. 10.

FRESH WATER: Fresh water for drinking and use in boilers is available day and night in sufficient quantities. Fresh water is distilled from sea water by one of the biggest distillation plants in the world. The quality is very good and chemically pure.

Fresh water is delivered alongside by means of water barges. 5 water barges are available. Each barge can deliver 50/100 tons of fresh water per hour. The rate of delivery depends on the quantity required and how many barges can simultaneously deliver fresh water to the vessel. It also depends on the amount of connections on board the vessel and the height above water to be lifted. Vessels must advise Agent of requirements in advance.

On the *Motetwerf, Nieuwewerf* and *Prins Hendrikwerf* water can be delivered by means of a pipeline.

FUEL: Besides the Isla Piers, there is one bunkering installation: namely the "Motet" bunkering installation comprised of 4 berths.

The bunkering facilities of the "Motet" installations in Otrabanda, which are comprised of 7 storage tanks and pumping facilities, are supplied through 2 pipelines of 12 in. and 6 in. diameter from the refinery. The rate of delivery, by gravity and pumps, is 600 t.p.h. for fuel oil and 500 t.p.h for diesel oil.

Modern fuel blending facilities are available at all installations in Willemstad.

Note: Vessels calling exclusively for bunkers have free wharfage, provided they do not discharge and/or load in total more than 2 tons of cargo, land and/or embark in total more than 5 passengers, and they vacate the berth within 2 hours of completing bunkering (Not valid at Refinery wharves).

CONSULS:

	Tel.		*Tel.*
Argentina	0602-781-8479	Haiti	612436
Belgium	615666	Honduras	615951
Bolivia	612792	India	612262
Brazil	615222	Israel	377068
Canada	613515	Italy	375973
Chile	615666	Japan	613075
Colombia	614663	Lebanon	684779
Costa Rica	375513	Liberia	375011
Denmark	614032	Mexico	614900
Dominica	373478	Norway	611119
Dominican Republic	375676	Panama	375013
Ecuador	613222	Peru	613319
El Salvador	375411	Portugal	688333
Finland	612104	Spain	615699/615888
France	70649	Suriname	611842
Germany	613433	Sweden	375409
Great Britain	371698	Uruguay	376615
Grenada	681446	U.S.A.	613066
Guatemala	375011	Venezuela	614140/613100

REPAIRS/DRY DOCKS: The Curacao Drydock Company Inc. has repair yards, 2 graving docks laid out in the Schottegat and 1×10,000 ton capacity floating dock.

The largest graving dock is 919 ft. long, width of entrance between wheel fenders 152 ft. and a depth of water over sill of 27 ft. Suitable for up to 155,000 d.w.t. Movable cranes of 25 and 75 tons lifting capacity are fitted alongside the dock.

The Curacao Drydock Company Inc. has 6,000 ft. of repair wharf with varying depths up to 40 ft. Cranes alongside up to 75 tons lifting capacity. Mobile truck cranes of 140 tons are also available.

Electric shore-power A.C., D.C. 110, 220 or 440 volts can be supplied directly from shore at wharves of Isla and at other wharves from generators on barges. Isla can also supply steam directly from the shore at a pressure of 8–15 kg./cm.

SURVEYORS: A.B.S., Lloyd's, N.V., B.V., R.I., G.L. and others.

Caleb Brett, Independent Marine Bureau, Aivepet, Saybolt, Chas. Martin, Caribbean Marine Consultants, J. Mesas and R. Lapre.

AIRPORT: There are daily international flights from Dr. Albert Plesman Airport.

ALM: Frequent daily trips to Aruba and Bonaire. Daily flights to Miami and New York. Regular air services to St. Maarten, Caracas, Maracaibo, Colombia, Haiti, Sto. Domingo, Puerto Rico, Trinidad and Paramaribo.

TAP (Air Portugal): 3 flights a week to Lisbon.

Servivensa: Daily flights to Punta Fijo, Maracaibo and Caracas.

Avianca: Daily flights to Colombia.

LAV: Many daily flights to Caracas.

KLM: Daily flights to Amsterdam, Lisbon, Madrid, Frankfurt, Zurich and Central and South America.

Ferry: Ferry's Del Caribe S.A. runs a regular service with a ferry which carries 120 automobiles. This ferry has regular service between Curacao and Coro, Venezuela on Monday, Tuesday, Wednesday and Thursday. On Thursday the ferry also goes to Aruba and Punto Fijo, Venezuela.

TIME: GMT minus 4 hours.

HOLIDAYS: New Year's Day, Carnival Monday (February), Good Friday, Easter Monday, Coronation Day (April 30th), Labour Day, Ascension Day, National Flag Day (July 2nd), Christmas Day, Second Christmas Day. "No work", holidays for cargo operations: New Year's Day, Good Friday, Labour Day and Christmas Day.

POLICE/AMBULANCE/FIRE: Police and Fire, Tel: 44444. Ambulance Tel: 625822.

EMERGENCY CO-ORDINATION CENTRE: Curacao is a major Search and Rescue Centre in the Southern Caribbean and has the following resources at its disposal:

Communications: Curacao Radio listens on the standard frequencies (VHF Channel 16) – (2182 kHz. (voice) and 500 kHz (morse). Fort Nassau (Channel 12 and 16) is the harbour traffic control centre.

Co-Ordination: RNLAF (Royal Netherlands Air Force) Rescue Co-Ordination Centre (Curacao Rescue) at the Dr. Albert Plesman International Airport. Tel: 681628 (24 hours service).

During the emergencies the following frequencies are being used: 2182 kHz and VHF Channel 16.

The Curacao RCC maintains a communication link with the United States Coast Guard RCC in San Juan (Puerto Rico) and can use the AMVER information.

Air Search: In case of a missing aircraft or vessels the following forces are available for conducting Search and Rescue missions under control of the Curacao RCC:

2 Fokker F-27 maritime aircraft of the RNLAF long range patrol type. (Both aircraft can communicate on Channel 16 and 2182 kHz).

Coast Guard Auxiliary (CITRO) short range aircraft. Consisting of single and twin-engined light aircraft flown by Civil Pilots under RCC direction. Some of them can communicate on Channel 16.

Helicopters are not available.

Rescue Units: Commercial tugboats. Coast Guard Auxiliary (Citizens Rescue Organisation of the Netherlands Antilles – CITRO), using private boats.

Royal Netherlands Navy. If available the station vessel (a frigate and a minesweeper) will be despatched for emergencies.

Merchant Navy ships, in general Merchant Navy vessels, which will be directed by the aircraft described before, to emergencies. This in accordance with the Mersar-booklet on Search and Rescue.

SERVICES: *Salvage, etc.:* A supply vessel is permanently stationed at Willemstad by "Smit Tak International Antilles N.V." on a 24 hours service base. She is provided with extensive salvage equipment such as pumps, hoses, burning and welding equipment and an hydraulic crane with a capacity of 10 tons.

Facilities for divers such as compressors, decompression tank, etc., are on board. The ship is furthermore very suitable for bringing stores, spare parts, packed oil products, crew on board, passing, or on the roads, waiting ships.

Underwater Cleaning/Underwater Services:

Cleaning of submerged hull sections of ships while afloat. This cleaning can take place while the ship is moored in the main harbour at Willemstad and also at other locations, such as Caracas Bay, Bullen Bay and St. Michiels Bay.

Cleaning of cruise ships takes place while bunkering and the passengers are ashore.

A local company has developed its own underwater cleaning apparatus which cleans ships up to 250,000 d.w.t. within 24 hours. Also the rudder and propeller are properly cleaned. The cleaning does not affect the paint but only removes the very thin upper layer of spent anti-fouling paint, leaving the active anti-fouling exposed.

The company carries out various kinds of underwater works, e.g. sealing off sea-intakes and ropeguard, all other kinds of cutting and welding works, underwater inspections, made by certified divers, which can be combined with photographing of bottom condition in colour and black and white. Closed circuit underwater television with video-tape recorder is available.

It is the largest professional salvage and underwater cleaning company in the Netherlands Antilles and has experienced divers able to make certified damage reports. (Contact via Curacao Drydock Co. Inc.).

Peteres Divers Company Ltd.: The following underwater services are carried out by Peters Divers Company Ltd. Underwater hull cleaning by means of the "Scamp" makes it possible to clean the largest VLCC's during loading or discharging.

The average cleaning time for a VLCC is 12 hours. Underwater T.V. system for underwater surveys and inspections are available.

Further underwater services are: welding, cutting, photographing of the bottom condition, etc. in colour and black and white, sealing of intakes, etc. All inspections are carried out by licensed marine engineers.

REGULATIONS: Both anchors should be ready for immediate use. Defects of engines, steering gear, anchor gear and other defects which influence manoeuvring abilities of the vessel should be reported before entering, to the Harbour Master.

Dangerous Cargo: Explosives, ammunition, fireworks, radio active material and other dangerous cargo.

All vessels carrying explosives or other dangerous cargo, for discharge at Curacao, for transhipment or in transit without transhipment, *require special permission in writing, obtained prior to arrival,* for entering any port in the island of Curacao. Full details must be furnished in advance.

Only limited quantities of explosives, etc., are permitted in the port of Willemstad. For calls with larger quantities outports are used. Details of the regulations in force on the subject will be furnished on request by shipping Agents.

Entry permit required for ships carrying dangerous and/or hazardous cargo. Cost of form including stamp is fls. 4.00. Additionally administration fee is charged on the following basis:

Cargo in transit not being off-loaded from the ship – Nil. Local cargo to be discharged from the ship:

Up to 500 kilos	NAfls. 5.00
500 kilos to 5 tons	NAfls. 15.00
5 tons up to 25 tons	NAfls. 30.00
25 tons to 50 tons	NAfls. 45.00
over 50 tons	NAfls. 60.00

Transhipment cargo landed from one ship and reloaded on another ship: Double the local charge, indicated above.

At the discretion of the Harbour Master a special guard may be assigned onboard vessels handling or having dangerous and/or hazardous cargo on board. The charge, if and when incurred, is NAfls. 15.00 per hour in straight time and NAfls. 30.00 in overtime. Please note that this happens very seldom.

GENERAL: Customs Officers remain on board on duty during the vessel's stay in port. They must be fed by the ship and are entitled to the equivalent of officers' mess or first-class dining saloon.

GARBAGE DISPOSAL: Possible. Contact Selikor, Parera. Tel: 5999-614500.

WASTE OIL DISPOSAL: The Refineria Isla (Curacao) S.A., refinery in the Schottegat area is able to receive pumpable hydrocarbon waste oil NOT containing chemicals. Ship's Agent will arrange for a slops disposal barge of a capacity of 60 cu.m., and a tow boat. Price of barge Nafl. 1,200; price of tow boat Nafl. 175 per hour with a minimum of 3 hours; Sundays and public holidays Nafl. 225 per hour with a minimum of 3 hours.

SEAMEN'S CLUBS: Emancipatie Boulevard c/2. Tel: 5999-375317.

CURRENCY: Netherlands Antilles Guilders, pegged to the U.S.$ since December 1971 at U.S.$ 1.00 = Naf. 1.790.

SHIPMASTER'S REPORT: November 1986.

For "off-limits" call at Curacao stores and spares come out on pilot boat. Customs official will be on boat, and Agent or ship chandler will board. No official papers required, just sign and stamp Customs' stores receipt.

SHIPMASTER'S REPORT: January 1990.

Charts: B.A. Charts No. 702 and 1412.

Approaches: No particular difficulties from any direction. Willemstad easily identifiable with its oil refinery, bridge over Sint Anna Baai and hotel on the S.E. entrance to Sint Anna Baai.

Anchorages: None. Aruba, which is approximately 60 miles to the N.W., has a shelf of about 24 m. at the N.W. end, some parts of which are under 'Port Control'. The S.E. shelf is very exposed to prevailing winds and swell.

There is an area 50 miles to S.W., off Venezuela, giving reasonable anchorage, but this is in Venezuelan waters.

Most vessels waiting drift off the South coast of Curacao. We drifted 7 miles off the coast, starting South of Caracas Bay, and in 11 hours drifted to about 6 miles South of Kaap St.Marie.

Pilot: Pilot boards from workboat with white and blue upperworks, 0.5 miles off Sint Anna Bay entrance.

Fort Nassau Signal Station on VHF Channel 12.

Procedure: Isla Refinery (VHF Channel 19) requires cargo grades and amounts, draft, agent, if gas-free, loading rate in cubic metres, tank preparation, facilities required (slops, bunkers, fresh water).

Note: Trim not to be more than 10 ft.

A tug is necessary if trim exceeds 10 ft. and/or vessel not gas-free, and if vessel over certain dimensions. Even if vessel advises necessary information, a tug often appears and should be rejected, otherwise vessel will be liable for a fee.

Tugs: Four tugs available. All are modern Smit harbour tugs, based in Sint Anna Baai, near the Pilot Station at Salazar Wharf.

Max. Size: Pilots reported that present maximum size of vessel to pass through Sint Anna Baai into the Schottegat, is length 936 ft., breadth 160 ft. and draft 45 ft.

Berth: Berth No. 9: For lube oils, maximum size 40,000 displacement tons (near to dockyard). Port side too. After rounding Berth No. 8 dolphin, approach head on with starboard anchor ready. Depending on pilot, a good or poor approach can be made with or without anchor. Care should be exercised aft, as vessel landed heavily on a fender support bracket, which thereafter penetrated the ship's side. Best to hold off and land very gently on large rubber fender.

Two headlines and 2 springs are compulsory forward and aft.

Berth No. 2: Gas oil and Av. Jet, starboard side too. West end of Schottegat.

Berth No. 3: Gas oil and Av. Jet, port side too. West end of Schottegat.

Berth No. 7: Gas oil and Av. Jet, port side too.

All berths have gangways. Mooring boat used at all berths.

Cargo: Berth No. 9: Lube oil. Vessel has loaded up to 6 grades through Chicksans, maximum 4 grades at any one time.

For No. 1 tanks, Chicksans landed on deck and connected to manifold by hoses, otherwise manifold liable to damage due to unsupported Chicksan weight.

Vessel should always request "First foots" and give letter to this effect on arrival. Tank Survey for lube oil is strict.

A lot of paperwork procedure on berthing. Delays can be expected in sampling. At completion sampling/documentation can take up to 5 hours.

As a guide, lube oil rate for large quantities around 2250 bbls./hr., for small quantities 1,000 bbls./hr. At Berths No. 2, 3 and 7 loading rate reported high.

Officials: Agent deals with most paperwork.

Water Police (Immigration) board on arrival.

Documents:

2 Crew Manifests.
2 Bond Lists.
2 Stores Lists.
1 Health Declaration (sited by Immigration).
2 Cargo Manifests.
4 Crew Lists.

If bond or beer being taken, Customs board to seal.

Shore passes required to pass through refinery (free service to be used, no walking inside refinery). Special forms made out by Master.

Two Customs Clearance Forms given by agent on departure, original to be handed to pilot.

General: Radio Holland will not board for repairs on Sundays and public holidays.

Refinery now owned by Curacao Government/Venezuelan partners with refining agreement until 1995.

New floating dry dock at Curacao dry docks (Berth No. B5).

Pontoon bridge across Sint Anna Baai out of commission, due East landing area being damaged by ship.

AUTHORITY: Curacao Port Authority N.V., Werf de Wilde Z/N, P.O.Box 689, Willemstad, Curacao, Netherlands Antilles. *Tel:* (9) 611133, 614422. *Telex:* 3339 CURPA NA. *Cables:* Harbour Office Curacao. *FAX:* (9) 613907. *Contact:* Mr. Ing. E. Voges, Managing Director. Mr.R. Lopez-Ramirez, General Manager.

AGENT: SEL Maduro & Sons (Curacao) Inc., Maduro Plaza, P.O. Box 3304, Willemstad, Curacao, Netherlands Antilles. Tel: 599-9-376564/376352, 376815. Telex: 1092 or 3393 Selms NA. Fax: (5999) 371266. Cables: "Maduroship".

NOTES

Please also advise Shipping Guides Ltd.

New Caledonia

NOUMEA: 22.16 S. 166.27 E. (See Plan)

PORT LIMITS: *Port Area:* Main Harbour as far as entrance between Port Lestelle and Point Kongou.

Secondary Harbour and Orphelinat Bay as far as the entrance between Brun Islet and Point Denouel.

DOCUMENTS:

8 copies Cargo Manifest.
2 copies Manifest of parcels to be unloaded for New Caledonian Residents.
2 copies List of Personal Objects.
(detailing photographic material, audio-visual equipment, watches, etc.).
2 copies List of Foreign Currency.
2 copies List of Provisions.
2 copies Inventory of Consumable Matter.
2 copies List of Drugs and Narcotics.
(which *must* remain on board).
2 copies List of Weapons and Ammunition.
(under Master's responsibility).
4 copies List of Crew Members.
4 copies List of Disembarking Passengers.
(or notification of no Disembarking Passengers).
4 copies Transit Passenger List.
1 copy Maritime Health Certificate.
4 copies Declaration of Vessel's Specifications.
1 copy Submission Form.

PILOTAGE: Compulsory for foreign vessels (exemption for vessel with French Registery under 60 m. LOA), pilotage rendered day or night. Ladder to be 1.5 m. above water.

Pilot boats are wooden launches about 15 m. long, with black hull, equipped with VHF (permanent reception on Channel 16. Channels 12, 14 and 17 working). Pilot boats also transmit on 2182, 4072.3 and 8207.4 and receive on 2197.5, 4366.7 and 8731.3

Two access channels to Noumea through reef.

Boulari Channel: (Lat. 22° 30' S., Long. 166° 26' E.)

Pilot boards 1 mile off, on the Leads of Amedee Lighthouse.

Havannah Channel: (Lat. 22° 21' S., Long. 167° 03' E.)

Pilot boards off Goro Lighthouse on the Leads of Cap N'Dua by day, and off Port Boise at night.

In bad weather, pilot launches remain on leads as close as possible to entrance.

Pilot should be ordered at least 6 office hours before departure or moving.

ANCHORAGES: In Great or Small Road. Prohibited zone shown on chart in vicinity of underwater sealine.

RESTRICTIONS: Vessels may enter and anchor at any time, mooring may be effected at night, except for tankers at buoys.

MAX. SIZE:

Cargo Vessels: Max. draft 10.30 m.

Tankers: Max. LOA – 260 m. Max. draft 9.70 m.

HEALTH: If vessel is "healthy", Pratique is accorded by the Pilot at the entrance, or by the Harbour Master (VHF).

In the case of contagious disease or death on board the Harbour Master must be notified by radio (VHF) before entering inner reef and the vessel must anchor at the Quarantine Station at N'Die (East of Freycinet Islet in Dumbea Bay).

Port Regulations: All vessels must comply with current Quarantine Regulations and if necessary undergo fumigation and disinfestation before tying up.

Before docking, any vessel arriving from a country infected by Rhino Beetle (*Oryctes Rhinoceros*) must:

(a) Anchor 400 m. from the coast between sunrise and sunset, keeping holds closed.

(b) Be visited by a Quarantine Inspector and if necessary disinfested.

(c) Holds must remain closed 2 hours after fumigation.

Infected Countries: Fiji, Tonga, Samoa, Wallis/Futuna, Bismarck Archipelago (New Britain, New Ireland, New Hanover), Sarmi, Manokwari Sorenarwa (Western Irian Jaya), Palau Islands (Carolines), Indonesia, Philippines, Taiwan, Japan, Dominican Republic/Haiti, Cuba.

(d) Any ship coming from Japan is inspected to prevent contamination by *Papillia Japonica*.

(e) Any vegetable goods to be unloaded must be accompanied by a Quarantine Clearance Certificate.

(f) Special permit is necessary from the New Caledonian Agricultural Department prior to importation of plants and seeds, etc.

Hygiene: All ships alongside must be equipped with rat guards.

RADIO: All messages by Coast Station Noumea, call sign FJP. Harbour Master's Office equipped with VHF Channels 16, 12 and 14, operated during normal working hours.

Arrival Advice: To Agent 48 hours before arrival: Indicate: Arrival time at Pilot pick-up point; name of pass; overall length; forward and aft drafts of vessel; damage or mechanical problems, if any to vessel's apparatus and cargo; tonnage to be unloaded; dangerous cargo, explosives, etc.

Note: This information must be lodged with the Harbour Master's Office 24 hours before arrival.

VERY IMPORTANT: Tankers carrying hydrocarbons must notify their Agent as to whether they have or have not the International Certificate for Prevention of Pollution by Hydrocarbons.

To Agent and Pilot Station 24 hours prior to arrival: Confirmation of arrival time at Havannah Passage or passes outside the Southern Zone.

12 hours prior to arrival: Confirmation of arrival time at Boulari Pass.

Note: Application for a Pilot must be made to the Pilot Station during official office hours (Monday to Friday 0700 hrs. to 1100 hrs. and 1330 hrs. to 1730 hrs.; Saturday 0700 hrs. to 1100 hrs.), either by telephone or telegram by the ship's Master addressed to the Pilot Headquarters and transmitted to the Coastal Communications Centre (Tel: 27.32.74).

TUGS: Tug's service is compulsory for vessels over 60 m. LO 1×25 tonnes B.P. and 1×28 tonnes B.P. tugs available to ass Tugs equipped with VHF Channels 16, 12 and 14. Tel: 27.45.57.

BERTHING:

Petite Rade (Small Road):

Berth	*Length (m.)*	*Depth (m.)*
Cruise Ship Berth	110*	8.60
Coaster Wharf	190	3.50 – 5.50
Coastal Trader Wharf	140	3.50 – 4.50
Tourist Vessel Wharf	75 (with 2 dolphins 155 m. apart)	9.50 (For vessels up to 170.0 m. LOA

* The new berth for passenger ships will accept vessels up to 200 LOA.

Grande Rade (Great Road):

Berth	*Length (m.)*	*Depth (m.)*
Fishing Vessel Wharf	121	8.00
Coaster Wharf	140	3.80 – 5.00
Main Wharf (Berths Nos. 4–7)	694	10.00 – 10.5

Note: Access to Berth No. 4 limited to 8.80 m. by shoal 70 m. off wha

There is one mooring buoy 160 m. from the N.W. corner and in l with the main wharf.

BULK HANDLING FACILITIES:

Grain: 4 grain silos of 815 tonnes each, and mill with 5 silos and to capacity of 4,000 tons.

Cement Berth: Private berth located in Baie de Numbo (position: L 22° 15' S., Long. 166° 25' E.). Initially designed for vessels of LOA 135 but can handle vessels with a max. LOA not exceeding 168 m. and d not exceeding 9 m. Vessels berth alongside 3 dolphins 110 m. apart w mooring buoys fore and aft. Middle dolphin equipped with crane, hop and conveyor. Fresh water available.

Usine le Nickel: Private wharves with 3 berths for ore carriers, tank and freighters.

Quai Sud: 1 berth, length 170 m., depth 9 m. Equipped with 3 sh cranes for unloading ore carriers.

Quai Nord Ouest: 2 berths. Total length 397 m. Berth No. 3/4 de 9 m. Berth No. 5/6 depth 10 m. Loading of processed metal a unloading of tankers on behalf of Shell.

Also see "Tankers".

EQUIPMENT: Stevedore Company equipment:

Societe du Chalandage:

Forklift Trucks: 6×1.5 tons, 10×2.5 tons, 12×4.0 tons, 3×5.0 to 4×6.0 tons, 10×10.0 tons.

Forklift/Frames (for Ro-Ro/Spreaders): 1×30 tons, 1×25 to 2×22 tons, 1×12 tons.

Karry Crane: 5×3 tons (6 tons doubled).

Tractors for Vehicles: 2.

Cranes: Poclain P.P.M. automotive, 14 tons (4 – 5 tons useful loa Richier on carrier (jib 24 m.) 40 tons (at 3 m.).

Self-Loading Trailers for Container Vessels: 20 tons (1 contai 20 ft.). 30 tons (containers 20 ft. – 40 ft.)

Spreaders for Containers: 3 automatic for 20 ft., 1 automatic for 40

Trucks with Crane: 2 with jib 6 m., 7.5 tons/m., 1 with jib 7 9 tons/m.

Semi-Trailer: 10×12 m. long. 7 Espadon type.

SOFRAC:

Crane Belotti: 1×22 tons with directional spreader.

Forklifts: 2×22 tons with frontal frame.

Forklifts: 3×8.5 tons, 2×6.5 tons, 1×6 tons, 1×5 tons, 3×4 to 2×3 tons, 1×3 tons (lowered for unloading containers), 1×2.5 to (lowered for unloading containers), 2×2 tons (lowered for unload containers).

Karry Crane: 1×3 tons (6 tons doubled).

Semi-Trailers for Containers: 6 for 20 ft., 24 tons. 4 for 20 ft. – 40 24 tons.

Heavy Duty Tractors: 6 for loads from 38 tons to 60 tons.

Tank Trucks: 1×35 cu.m. (1 tank), 22 tons. 1×24 cu.m. (2 tank 22 tons.

Automatic Spreaders: 2 for containers 20 ft., 25 tons. 1 for contain 40 ft., 30 tons.

Suction Pumps for Grain: 1×140 t.p.h., nominal 40 – 45 t.p 1×35 t.p.h., nominal 25 t.p.h. 1×200 t.p.h.

Semi-Trailer with Worm: 1 for unloading grain containers.

S.A.T.O.:

Forklift Trucks: 2×2.5 tons (on board), 4×4 tons, 3×6 tons, 1×8 to 1×12 tons, 1×25 tons.

Karry Crane: 1×3 tons (6 tons).

Automatic Spreader for Containers: 1×20 ft., 25 tons.

TANKERS:

Baie des Dames: (Mobil Oil Australia). (Position: Lat. 22° 14' Long. 166° 24' E.).

1. 5 mooring buoys (max. distance between East and West Bu 361 m.) 2×8 in. lines for clean and black oils (each marked by a S Buoy and a Marker Buoy). Max. LOA 200 m., max. draft 10 m. The bu mooring is used to discharge Mobil/Total tankers and bunker ca vessels, liners and ore carriers.

2. "T" shaped jetty, length 9 m. 4 mooring dolphins and 2 moor buoys (110 m. apart). Max. LOA of tankers 100 m., max. draft 5 m. Be used for discharge of tankers and liquid gas carriers, bunkering vessels and loading of tankers.

Also see table.

SLN: Quay Nord-Ouest at Doniambo. Max. LOA 260 max. draft 9.7 m.

Products handled: Black oils and black fuel oil No. 2.

Oil Terminals:

	Bay des Dames		Doniambo (SLN)
	Mooring	*Anchorage*	*Shell Tankers*
Position	22° 14.3' S. 166° 24.1' E.	22° 14.5' S. 166° 23.4' E.	22° 15.6' S. 166° 25.9' E.
Controlling Depth	12 m.	12 m.	10 m.
Nature of Bottom	Mud	Mud	Mud
Description of berth	Berths at jetty/4 dolphins and 2 buoys	5 buoys	Berths/wharf
Companies using oil terminal	Mobil Shell Total	Mobil Shell Total	Shell
Tanker:			
d.w.t.	1,200	28,000	28,000
LOA (m.)	100	200	200
Beam (m.)	—	25	—
Draft (m.)	5	10	10
Grades handled	Light oil Black oil	Light oil Black oil	Light oil —
Max. weight cargo hoses (tons)		3	2
Pump Rate (t.p.h.)			
Discharging Clean oil	100	280	150/200
Discharging Black oil	80	340	—
Bunkering Clean oil	70	120	—
Bunkering Black oil	80	100	—
Min. quantity	50	50	—
Pressure kg/sq.m.			
Clean oil	7	7	7
Black oil	7	7	—
	These two terminals are operated by Mobil Oil and are used for discharging and loading tankers as well as for bunkering all types of vessels.		For tankers containing products for Shell.

LPG Terminal:

Gas carriers berth port side to wharf, against the jetty and the 4 dolphins which make up the Mobil Oil installations in Bay des Dames.

Limits: Overall length : 100 m. Draft: 5 m.

Capacity of reservoirs: 3,115 tons. Sphere No. 1: 330 tons; Sphere No. 2: 560 tons; Sphere No. 3: 2,225 tons.

All the spheres can be used for stocking butane.

Sphere No. 1 can also stock propane.

Average density of butane gas: 0.580.

Maximum pressure of liquid: 15 kg/sq.cm.

Normal delivery pressure: 7 kg/sq.cm.

Maximum vapour pressure: 5 kg/sq.cm.

Pumping speed: Maximum 70 t.p.h. Minimum speed: 10 t.p.h.

Hoses used by vessel: 1 hose for liquids 4 in. diameter; 1 hose for vapours 3 in. diameter.

Obligatory requirements for tankers carrying Hydrocarbons: Masters of all vessels carrying hydrocarbons and on the point of entering New Caledonian waters are under obligation to send to the Marine Commander in Noumea (F.U.J.), a message, indicating:

(1) Intended course.

(2) Navigation and manoeuvring possibilities.

6 hours before entering territorial waters.

6 hours before sailing.

Note: During sojourn or transit in New Caledonian waters, permanent radio contact is observed; international radotelephonic call frequency on the maritime metric band.

Tankers must use the following passes:

Havannah or Boulari: Tankers carrying less than 8,000 tons of petroleum products and less than 8 m. draft.

Pilot pick-up point 5 nautical miles off Boulari:

1. Entry via Boulari Pass if less than 20,000 tons of petroleum products and draft under 10 m. (night or day);

2. Entry via Dumbea Pass if more than 20,000 tons of petroleum products or more than 20 m. draft (daytime only).

Thio and Poro:

Tankers: Less than 20,000 tons of products and draft under 10 m.

Very Important:

Docking of tankers is in accordance with the possession of:

International Certificate for the Prevention of Pollution by Hydrocarbons; consequently:

This must be indicated to ship's Agent 48 hours prior to arrival.

Certificate must be shown to Pilot at the entrance, and to the Harbour Master or his representative upon docking.

STEVEDORES: Service provided by three private companies. 2 or 3 days' notice required to arrange work.

Working Hours: Normal Hours: Monday to Friday 0700 hrs. – 1100 hrs. and 1300 hrs. – 1700 hrs. Overtime: Monday to Friday 1800 hrs. – 2300 hrs., Saturday 0700 hrs. – 1100 hrs. and 1300 hrs. – 1700 hrs.

MEDICAL: Clinique de Magenta, Rue du 18-Juin, Magenta, Box H5. Tel: 28.49.29.

Clinique Magnin: Route Territoriale No. 13, Vallee des Colons, Box 64. Tel: 27.26.01.

Hospital Gaston-Bourret, Avenue Paul-Doumer, Noumea, Box C5. Tel: 27.21.21.

Polyclinique de l'Anse-Vata, Route de l'Anse-Vata. Tel: 26.14.22.

Note: Numerous dispensaries located in villages and mining centres of the interior. If necessary, urgent medical evacuation possible by plane or helicopter.

DENSITY: 1026.

FRESH WATER: Supplied by pipeline at the quays in the Commercial Port, S.L.N. and Numbo Private Cement Factory; rate, 40 t.p.h.

FUEL: Refuelling with marine diesel oil (M.D.O.) or bunkering fuel oil (B.F.O.) is possible.

Authorisation previously obtained by the shipowner from the Australian or French Head Offices of the 3 companies present in Noumea can aid local formalities:

Mobil Tel: 27.31.52
Shell Tel: 28.57.20
Total Tel: 27.52.91

"Light" fuels can be delivered by tanker, but "heavy" fuels must be loaded at the Mobil refuelling post, Bay des Dames.

Docking: LOA 100 m. draft 5 m.

Mooring to buoys: LOA 183 m., draft 10 m.

Note: When tying up to buoys: One must count 3/4 hours' lost time for the various operations. A derrick capable of lifting the hose (3 tons) is necessary.

CONSULS: Australia, 19-21 Avenue du Marechal-Foch, Noumea. B.P. 22. Tel: 27.24.14. Cables: Austcom. Telex: 087 NM.

Belgium, 13 Rue Jules-Ferry, Noumea. Box 2683. Tel: 28.46.46.

Indonesia, 4 Rue de Strasbourg, Noumea. Box 26. Tel: 28.25.74.

New Zealand: 4 Boulevard Vauban, Noumea. Box 2219. Tel: 27.25.43. Cables: Kereru. Telex: 036 NM.

REPAIRS: Many engine, hull and electronic repairs can be effected. Slipway for small vessels. One slipway, to lift vessels of 1,000 tonnes.

SURVEYORS: *Marine Surveyors:*

Bureau Naval Serve, 32 Rue du General-Gallieni, Noumea. Tel: 28.25.02.

Bureau Veritas, 21-23 Rue de l'Alma, Noumea. Tel: 27.20.31.

Lloyd's Register of Shipping, 7 Rue Anatole-France, Noumea. Tel: 27.20.83.

For all problems relating to cargo and/or vessel damages.

Draft surveys for estimation of nickel ore loads per ship.

Classification Societies:

Lloyd's Register of Shipping, Societe W. A. Johnston, 7 Rue Anatole-France, Noumea, Box 445. Tel: 27.20.83. Cables: Johnston. Telex: 070 NM.

Bureau Veritas, Societe des Etablissements Ballande, 21-23 Rue de l'Alma, Noumea, Box C4. Tel: 27.20.31. Cables: Ballande. Telex: 025 NM.

Germanischer Lloyd and Nippon Kaiji Kyokai. Bureau Naval Serve, 32 Rue Gallieni, Noumea, Box 2387. Tel: 28.25.02. Cables: Surveyor. Telex: Gemar 065 NM.

GANGWAY/DECK WATCHMEN: Recommended, but not compulsory.

OPENING/CLOSING HATCHES: Can be performed by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes per man(400 cigarettes at Outports). Additional allowance can be made after 10 days. Maximum 2 bottles of spirits per man. Wines and beer not limited. Landing of cigarettes, wines and spirits prohibited.

CARGO GEAR: Ship's gear normally used. Possibility of hiring cranes 10 tons – 104 tons.

REPATRIATION: All facilities available for crew change and repatriation.

AIRPORT: Tontouta Airport situated 50 km. from Noumea. Several connections a week to all parts of the world.

TIME: GMT plus 11 hours. N.B. Daylight saving is sometimes introduced between December and February.

HOLIDAYS: 1st January, Easter Monday, 1st May, Pentecost Monday, Ascension Day, Whit Monday, 14th July, 15th August, 24th September, 1st November, 11th November, 25th December. Work may be arranged on Sundays and holidays.

POLICE/AMBULANCE/FIRE: Police, Tel: 17; Fire, Tel: 18; Ambulance, Tel: 27.21.21.

EMERGENCY CO-ORDINATION CENTRE: Call "Noumea Marine" on VHF Channel 11.

BANKS: Banque de l'Indochine et de Suez, Corner of Rue de l'Alma and Avenue du Marechal-Foch, Noumea. Box G5 Tel: 27.22.12. Cables: Indosuez. Telex: 023 NM.

Banque Nationale de Paris/Nouvelle-Caledonie. 60 Avenue de la Victorie, Noumea. Box K3. Tel: 27.55.55. Cables: Natio Par. Telex: 022 NM.

Banque de Nouvelle-Caledonie Credit Lyonnais. 75 Rue de Sebastopol, Noumea. Box L3. Tel: 28.50.69. Cables: Calbank. Telex: 091 NM.

Banque de Paris et des Pays-Bas-Nouvelle-Caledonie. Corner Rue del'Alma et Rue Georges-Clemenceau, Noumea. Box J3. Tel: 27.51.81. Cables: Paribas. Telex: 086 NM.

Societe Generale Caledonienne de Banque. 56 Avenue de la Victorie, Noumea. Box G2. Tel: 27.22.64. Cables: Pacsoge. Telex: 067 NM.

STORING: See "Prelims".

1. By Truck.
2. None.
3. Yes.
4. Yes.
5. Duty Free.
6. Yes.

WEATHER: *Wind:* The prevailing wind is the South-Easterly Tradewind blowing regularly from June to October.

N.B.: The Tradewind freshens with the sun.

Close to shore: Maximum around 1400 hrs.

Open Sea: Maximum around 1800 hrs.

Cyclone Season: From November to April (variable winds, rain, gusty conditions).

Rainfall: Dry season: Minimum 50 mm./month.

From January to March: Heaviest rainfall owing to the Cyclone season.

Rainfall varies between coasts depending on their exposure to winds.

Temperature: Average temperature: 24°C.

The maximum temperatures are during the month of February: 34°C.

Tides: Semi-diurnal type affected by daily inequalities. The high and low April tides are on an average 0.40 m. higher/lower than the October tides.

SHORE LEAVE: Allowed.

New Caledonia

NOUMEA: 22.16 S. 166.27 E. (See Plan)

PORT LIMITS: *Port Area:* Main Harbour as far as entrance between Port Lestelle and Point Kongou.

Secondary Harbour and Orphelinat Bay as far as the entrance between Brun Islet and Point Denouel.

DOCUMENTS:

8 copies Cargo Manifest.
2 copies Manifest of parcels to be unloaded for New Caledonian Residents.
2 copies List of Personal Objects.
(detailing photographic material, audio-visual equipment, watches, etc.).
2 copies List of Foreign Currency.
2 copies List of Provisions.
2 copies Inventory of Consumable Matter.
2 copies List of Drugs and Narcotics.
(which *must* remain on board).
2 copies List of Weapons and Ammunition.
(under Master's responsibility)
4 copies List of Crew Members.
4 copies List of Disembarking Passengers.
(or notification of no Disembarking Passengers).
4 copies Transit Passenger List.
1 copy Maritime Health Certificate.
4 copies Declaration of Vessel's Specifications.
1 copy Submission Form.

PILOTAGE: Compulsory for foreign vessels (exemption for vessel with French Registery under 60 m. LOA), pilotage rendered day or night. Ladder to be 1.5 m. above water.

Pilot boats are wooden launches about 15 m. long, with black hull, equipped with VHF (permanent reception on Channel 16. Channels 12, 14 and 17 working). Pilot boats also transmit on 2182, 4072.3 and 8207.4 and receive on 2197.5, 4366.7 and 8731.3

Two access channels to Noumea through reef.

Boulari Channel: (Lat. 22° 30' S., Long. 166° 26' E.)

Pilot boards 1 mile off, on the Leads of Amedee Lighthouse.

Havannah Channel: (Lat. 22° 21' S., Long. 167° 03' E.)

Pilot boards off Goro Lighthouse on the Leads of Cap N'Dua by day, and off Port Boise at night.

In bad weather, pilot launches remain on leads as close as possible to entrance.

Pilot should be ordered at least 6 office hours before departure or moving.

ANCHORAGES: In Great or Small Road. Prohibited zone shown on chart in vicinity of underwater sealine.

RESTRICTIONS: Vessels may enter and anchor at any time, mooring may be effected at night, except for tankers at buoys.

MAX. SIZE:

Cargo Vessels: Max. draft 10.30 m.

Tankers: Max. LOA – 260 m. Max. draft 9.70 m.

HEALTH: If vessel is "healthy", Pratique is accorded by the Pilot at the entrance, or by the Harbour Master (VHF).

In the case of contagious disease or death on board the Harbour Master must be notified by radio (VHF) before entering inner reef and the vessel must anchor at the Quarantine Station at N'Die (East of Freycinet Islet in Dumbea Bay).

Port Regulations: All vessels must comply with current Quarantine Regulations and if necessary undergo fumigation and disinfestation before tying up.

Before docking, any vessel arriving from a country infected by Rhino Beetle (*Oryctes Rhinoceros*) must:

(a) Anchor 400 m. from the coast between sunrise and sunset, keeping holds closed.

(b) Be visited by a Quarantine Inspector and if necessary disinfested.

(c) Holds must remain closed 2 hours after fumigation.

Infected Countries: Fiji, Tonga, Samoa, Wallis/Futuna, Bismarck Archipelago (New Britain, New Ireland, New Hanover), Sarmi, Manokwari Sorenarwa (Western Irian Jaya), Palau Islands (Carolines), Indonesia, Philippines, Taiwan, Japan, Dominican Republic/Haiti, Cuba.

(d) Any ship coming from Japan is inspected to prevent contamination by *Papillia Japonica*.

(e) Any vegetable goods to be unloaded must be accompanied by a Quarantine Clearance Certificate.

(f) Special permit is necessary from the New Caledonian Agricultural Department prior to importation of plants and seeds, etc.

Hygiene: All ships alongside must be equipped with rat guards.

RADIO: All messages by Coast Station Noumea, call sign FJP. Harbour Master's Office equipped with VHF Channels 16, 12 and 14, operated during normal working hours.

Arrival Advice: To Agent 48 hours before arrival: Indicate: Arrival time at Pilot pick-up point; name of pass; overall length; forward and aft drafts of vessel; damage or mechanical problems, if any to vessel's apparatus and cargo; tonnage to be unloaded; dangerous cargo, explosives, etc.

Note: This information must be lodged with the Harbour Master's Office 24 hours before arrival.

VERY IMPORTANT: Tankers carrying hydrocarbons must notify their Agent as to whether they have or have not the International Certificate for Prevention of Pollution by Hydrocarbons.

To Agent and Pilot Station 24 hours prior to arrival: Confirmation of arrival time at Havannah Passage or passes outside the Southern Zone.

12 hours prior to arrival: Confirmation of arrival time at Boulari Pass.

Note: Application for a Pilot must be made to the Pilot Station during official office hours (Monday to Friday 0700 hrs. to 1100 hrs. and 1330 hrs. to 1730 hrs.; Saturday 0700 hrs. to 1100 hrs.), either by telephone or telegram by the ship's Master addressed to the Pilot Headquarters and transmitted to the Coastal Communications Centre (Tel: 27.32.74).

TUGS: Tug's service is compulsory for vessels over 60 m. LOA. 1×25 tonnes B.P. and 1×28 tonnes B.P. tugs available to assist. Tugs equipped with VHF Channels 16, 12 and 14. Tel: 27.45.57.

BERTHING:

Petite Rade (Small Road):

Berth	*Length* (m.)	*Depth* (m.)
Cruise Ship Berth	110*	8.60
Coaster Wharf	190	3.50 – 5.50
Coastal Trader Wharf	140	3.50 – 4.50
Tourist Vessel Wharf	75 (with 2 dolphins 155 m. apart)	9.50 (For vessels up to 170.0 m. LOA)

* The new berth for passenger ships will accept vessels up to 200 m. LOA.

Grande Rade (Great Road):

Fishing Vessel Wharf	121	8.00
Coaster Wharf	140	3.80 – 5.00
Main Wharf (Berths Nos. 4–7)	694	10.00 – 10.50

Note: Access to Berth No. 4 limited to 8.80 m. by shoal 70 m. off wharf.

There is one mooring buoy 160 m. from the N.W. corner and in line with the main wharf.

BULK HANDLING FACILITIES:

Grain: 4 grain silos of 815 tonnes each, and mill with 5 silos and total capacity of 4,000 tons.

Cement Berth: Private berth located in Baie de Numbo (position: Lat. 22° 15' S., Long. 166° 25' E.). Initially designed for vessels of LOA 135 m. but can handle vessels with a max. LOA not exceeding 168 m. and draft not exceeding 9 m. Vessels berth alongside 3 dolphins 110 m. apart with mooring buoys fore and aft. Middle dolphin equipped with crane, hopper and conveyor. Fresh water available.

Usine le Nickel: Private wharves with 3 berths for ore carriers, tankers and freighters.

Quai Sud: 1 berth, length 170 m., depth 9 m. Equipped with 3 shore cranes for unloading ore carriers.

Quai Nord Ouest: 2 berths. Total length 397 m. Berth No. 3/4 depth 9 m. Berth No. 5/6 depth 10 m. Loading of processed metal and unloading of tankers on behalf of Shell.

Also see "Tankers".

EQUIPMENT: Stevedore Company equipment:

Societe du Chalandage:

Forklift Trucks: 6×1.5 tons, 10×2.5 tons, 12×4.0 tons, 3×5.0 tons, 4×6.0 tons, 10×10.0 tons.

Forklift/Frames (for Ro-Ro/Spreaders): 1×30 tons, 1×25 tons, 2×22 tons, 1×12 tons.

Karry Crane: 5×3 tons (6 tons doubled).

Tractors for Vehicles: 2.

Cranes: Poclain P.P.M. automotive, 14 tons (4 – 5 tons useful load). Richier on carrier (jib 24 m.) 40 tons (at 3 m.).

Self-Loading Trailers for Container Vessels: 20 tons (1 container 20 ft.). 30 tons (containers 20 ft. – 40 ft.)

Spreaders for Containers: 3 automatic for 20 ft., 1 automatic for 40 ft.

Trucks with Crane: 2 with jib 6 m., 7.5 tons/m., 1 with jib 7 m., 9 tons/m.

Semi-Trailer: 10×12 m. long. 7 Espadon type.

SOFRAC:

Crane Belotti: 1×22 tons with directional spreader.

Forklifts: 2×22 tons with frontal frame.

Forklifts: 3×8.5 tons, 2×6.5 tons, 1×6 tons, 1×5 tons, 3×4 tons, 2×3 tons, 1×3 tons (lowered for unloading containers), 1×2.5 tons (lowered for unloading containers), 2×2 tons (lowered for unloading containers).

Karry Crane: 1×3 tons (6 tons doubled).

Semi-Trailers for Containers: 6 for 20 ft., 24 tons. 4 for 20 ft. – 40 ft., 24 tons.

Heavy Duty Tractors: 6 for loads from 38 tons to 60 tons.

Tank Trucks: 1×35 cu.m. (1 tank), 22 tons. 1×24 cu.m. (2 tanks), 22 tons.

Automatic Spreaders: 2 for containers 20 ft., 25 tons. 1 for containers 40 ft., 30 tons.

Suction Pumps for Grain: 1×140 t.p.h., nominal 40 – 45 t.p.h. 1×35 t.p.h. nominal 25 t.p.h. 1×200 t.p.h.

Semi-Trailer with Worm: 1 for unloading grain containers.

S.A.T.O.:

Forklift Trucks: 2×2.5 tons (on board), 4×4 tons, 3×6 tons, 1×8 tons, 1×12 tons, 1×25 tons.

Karry Crane: 1×3 tons (6 tons).

Automatic Spreader for Containers: 1×20 ft., 25 tons.

TANKERS:

Baie des Dames: (Mobil Oil Australia). (Position: Lat. 22° 14' S., Long. 166° 24' E.).

1. 5 mooring buoys (max. distance between East and West Buoys 361 m.) 2×8 in. lines for clean and black oils (each marked by a Spar Buoy and a Marker Buoy). Max. LOA 200 m., max. draft 10 m. The buoy mooring is used to discharge Mobil/Total tankers and bunker cargo vessels, liners and ore carriers.

2. "T" shaped jetty, length 9 m. 4 mooring dolphins and 2 mooring buoys (110 m. apart). Max. LOA of tankers 100 m., max. draft 5 m. Berth used for discharge of tankers and liquid gas carriers, bunkering of vessels and loading of tankers.

Also see table.

SLN: Quay Nord-Ouest at Doniambo. Max. LOA 260 m., max. draft 9.7 m.

Products handled: Black oils and black fuel oil No. 2.

Oil Terminals:

	Bay des Dames		Doniambo (SLN)
	Mooring	*Anchorage*	*Shell Tankers*
Position	22° 14.3' S. 166° 24.1' E.	22° 14.5' S. 166° 23.4' E.	22° 15.6' S. 166° 25.9' E.
Controlling Depth	12 m.	12 m.	10 m.
Nature of Bottom	Mud	Mud	Mud
Description of berth	Berths at jetty/4 dolphins and 2 buoys	5 buoys	Berths/wharf
Companies using oil terminal	Mobil Shell Total	Mobil Shell Total	Shell
Tanker:			
d.w.t.	1,200	28,000	28,000
LOA (m.)	100	200	200
Beam (m.)	—	25	—
Draft (m.)	5	10	10
Grades handled	Light oil Black oil	Light oil Black oil	Light oil —
Max. weight cargo hoses (tons)		3	2
Pump Rate (t.p.h.)			
Discharging	100	280	150/200
Clean oil			
Discharging	80	340	—
Black oil			
Bunkering	70	120	—
Clean oil			
Bunkering	80	100	—
Black oil			
Min. quantity	50	50	—
Pressure kg/sq.m.			
Clean oil	7	7	7
Black oil	7	7	—
	These two terminals are operated by Mobil Oil and are used for discharging and loading tankers as well as for bunkering all types of vessels.		For tankers containing products for Shell.

LPG Terminal:

Gas carriers berth port side to wharf, against the jetty and the 4 dolphins which make up the Mobil Oil installations in Bay des Dames.

Limits: Overall length : 100 m. Draft: 5 m.

Capacity of reservoirs: 3,115 tons. Sphere No. 1: 330 tons; Sphere No. 2: 560 tons; Sphere No. 3: 2,225 tons.

All the spheres can be used for stocking butane.

Sphere No. 1 can also stock propane.

Average density of butane gas: 0.580.

Maximum pressure of liquid: 15 kg/sq.cm.

Normal delivery pressure: 7 kg/sq.cm.

Maximum vapour pressure: 5 kg/sq.cm.

Pumping speed: Maximum 70 t.p.h. Minimum speed: 10 t.p.h.

Hoses used by vessel: 1 hose for liquids 4 in. diameter; 1 hose for vapours 3 in. diameter.

Obligatory requirements for tankers carrying Hydrocarbons: Masters of all vessels carrying hydrocarbons and on the point of entering New Caledonian waters are under obligation to send to the Marine Commander in Noumea (F.U.J.), a message, indicating:

(1) Intended course.
(2) Navigation and manoeuvring possibilities.
6 hours before entering territorial waters.
6 hours before sailing.

Note: During sojourn or transit in New Caledonian waters, permanent radio contact is observed; international radotelephonic call frequency on the maritime metric band.

Tankers must use the following passes:

Havannah or Boulari: Tankers carrying less than 8,000 tons of petroleum products and less than 8 m. draft.

Pilot pick-up point 5 nautical miles off Boulari:

1. Entry via Boulari Pass if less than 20,000 tons of petroleum products and draft under 10 m. (night or day);
2. Entry via Dumbea Pass if more than 20,000 tons of petroleum products or more than 20 m. draft (daytime only).

Thio and Poro:

Tankers: Less than 20,000 tons of products and draft under 10 m.

Very Important:

Docking of tankers is in accordance with the possession of:

International Certificate for the Prevention of Pollution by Hydrocarbons; consequently:

This must be indicated to ship's Agent 48 hours prior to arrival.

Certificate must be shown to Pilot at the entrance, and to the Harbour Master or his representative upon docking.

STEVEDORES: Service provided by three private companies. 2 or 3 days' notice required to arrange work.

Working Hours: Normal Hours: Monday to Friday 0700 hrs. – 1100 hrs. and 1300 hrs. – 1700 hrs. Overtime: Monday to Friday 1800 hrs. – 2300 hrs., Saturday 0700 hrs. – 1100 hrs. and 1300 hrs. – 1700 hrs.

MEDICAL: Clinique de Magenta, Rue du 18-Juin, Magenta, Box H5. Tel: 28.49.29.

Clinique Magnin: Route Territoriale No. 13, Vallee des Colons, Box 64. Tel: 27.26.01.

Hospital Gaston-Bourret, Avenue Paul-Doumer, Noumea, Box C5. Tel: 27.21.21.

Polyclinique de l'Anse-Vata, Route de l'Anse-Vata. Tel: 26.14.22.

Note: Numerous dispensaries located in villages and mining centres of the interior. If necessary, urgent medical evacuation possible by plane or helicopter.

DENSITY: 1026.

FRESH WATER: Supplied by pipeline at the quays in the Commercial Port, S.L.N. and Numbo Private Cement Factory; rate, 40 t.p.h.

FUEL: Refuelling with marine diesel oil (M.D.O.) or bunkering fuel o (B.F.O.) is possible.

Authorisation previously obtained by the shipowner from the Australia or French Head Offices of the 3 companies present in Noumea can ai local formalities:

Mobil Tel: 27.31.52
Shell Tel: 28.57.20
Total Tel: 27.52.91

"Light" fuels can be delivered by tanker, but "heavy" fuels must b loaded at the Mobil refuelling post, Bay des Dames.

Docking: LOA 100 m. draft 5 m.

Mooring to buoys: LOA 183 m., draft 10 m.

Note: When tying up to buoys: One must count 3/4 hours' lost time fo the various operations. A derrick capable of lifting the hose (3 tons) i necessary.

CONSULS: Australia, 19-21 Avenue du Marechal-Foch, Noumea B.P. 22. Tel: 27.24.14. Cables: Austcom. Telex: 087 NM.

Belgium, 13 Rue Jules-Ferry, Noumea. Box 2683. Tel: 28.46.46

Indonesia, 4 Rue de Strasbourg, Noumea. Box 26. Tel: 28.25.74.

New Zealand: 4 Boulevard Vauban, Noumea. Box 2219. Tel: 27.25.43 Cables: Kereru. Telex: 036 NM.

REPAIRS: Many engine, hull and electronic repairs can be effected Slipway for small vessels. One slipway, to lift vessels of 1,000 tonnes

SURVEYORS: *Marine Surveyors:*

Bureau Naval Serve, 32 Rue du General-Gallieni, Noumea. Te 28.25.02.

Bureau Veritas, 21-23 Rue de l'Alma, Noumea. Tel: 27.20.31.

Lloyd's Register of Shipping, 7 Rue Anatole-France, Noumea. Te 27.20.83.

For all problems relating to cargo and/or vessel damages.

Draft surveys for estimation of nickel ore loads per ship.

Classification Societies:

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Bureau Veritas, Societe des Etablissements Ballande, 21-23 Rue d l'Alma, Noumea, Box C4. Tel: 27.20.31. Cables: Ballande. Telex: 02 NM.

Germanischer Lloyd and Nippon Kaiji Kyokai. Bureau Naval Serve 32 Rue Gallieni, Noumea, Box 2387. Tel: 28.25.02. Cables: Surveyor Telex: Gemar 065 NM.

GANGWAY/DECK WATCHMEN: Recommended, but not compulsory

OPENING/CLOSING HATCHES: Can be performed by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes per man(400 cigarettes a Outports). Additional allowance can be made after 10 days. Maximun 2 bottles of spirits per man. Wines and beer not limited. Landing o cigarettes, wines and spirits prohibited.

CARGO GEAR: Ship's gear normally used. Possibility of hiring crane 10 tons – 104 tons.

REPATRIATION: All facilities available for crew change and repatriation

AIRPORT: Tontouta Airport situated 50 km. from Noumea. Severa connections a week to all parts of the world.

TIME: GMT plus 11 hours. N.B. Daylight saving is sometimes introduce between December and February.

HOLIDAYS: 1st January, Easter Monday, 1st May, Pentecost Monday Ascension Day, Whit Monday, 14th July, 15th August, 24th September 1st November, 11th November, 25th December. Work may be arrange on Sundays and holidays.

POLICE/AMBULANCE/FIRE: Police, Tel: 17; Fire, Tel: 18; Ambulance Tel: 27.21.21.

EMERGENCY CO-ORDINATION CENTRE: Call "Noumea Marine" or VHF Channel 11.

BANKS: Banque de l'Indochine et de Suez, Corner of Rue de l'Alma and Avenue du Marechal-Foch, Noumea. Box G5 Tel: 27.22.12. Cables Indosuez. Telex: 023 NM.

Banque Nationale de Paris/Nouvelle-Caledonie. 60 Avenue de la Victorie, Noumea. Box K3. Tel: 27.55.55. Cables: Natio Par. Telex: 022 NM.

Banque de Nouvelle-Caledonie Credit Lyonnais. 75 Rue de Sebastopol, Noumea. Box L3. Tel: 28.50.69. Cables: Calbank Telex: 091 NM.

Banque de Paris et des Pays-Bas-Nouvelle-Caledonie. Corner Rue del'Alma et Rue Georges-Clemenceau, Noumea. Box J3. Tel: 27.51.81 Cables: Paribas. Telex: 086 NM.

Societe Generale Caledonienne de Banque. 56 Avenue de la Victorie Noumea. Box G2. Tel: 27.22.64. Cables: Pacsoge. Telex: 067 NM.

STORING: See "Prelims".

1. By Truck.
2. None.
3. Yes.
4. Yes.
5. Duty Free.
6. Yes.

WEATHER: *Wind:* The prevailing wind is the South-Easterly Tradewin blowing regularly from June to October.

N.B.: The Tradewind freshens with the sun.

Close to shore: Maximum around 1400 hrs.

Open Sea: Maximum around 1800 hrs.

Cyclone Season: From November to April (variable winds, rain, gust conditions).

Rainfall: Dry season: Minimum 50 mm./month.

From January to March: Heaviest rainfall owing to the Cyclone season

Rainfall varies between coasts depending on their exposure to winds

Temperature: Average temperature: 24°C.

The maximum temperatures are during the month of February: 34°C

Tides: Semi-diurnal type affected by daily inequalities. The high and lo April tides are on an average 0.40 m. higher/lower than the Octobe tides.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Recommended that crew carry Seamen's Books.

SHIPMASTER'S REPORT:

Communications: Radio W/T. Short wave service and MF service very good. First message to state which passage used – Draft – Tonnage – and nature of dangerous cargo, this should be sent at least 24 hours before arrival, Agent and Harbour Master required this message.

Shore Telephone: Service available as receivers can be connected.

VHF: Available to Harbour Office and Pilot Station during office hours 0700 hrs. to 1100 hrs. and 1300 hrs. to 1700 hrs. Monday to Friday. Pilot vessel when at Havannah Passage keeps VHF watch 1 hour before the last given ETA. In our case we made contact with the pilot vessel when 12 miles from Havannah Passage. If at anchor VHF contact to Agents can be made via Harbour Office.

Pilotage: Boarding ground: Canal de Havannah. The Pilot boards the vessel when on the leads, but inside the reef, when the vessel is off Port Goro. The 3 leading lights stand out well at night time, each light is individually powered in case of failure, in our case they were seen 25 miles away. During strong S.W'ly winds the Pilot will board in the lee of Ioro Reef. As the leads do not stand out so well in day time, night time seems to be the best arrival time. This channel has been swept to a depth of 34 ft. Strong cross currents can be expected at the entrance to Havannah Passage.

Anchorages. See CHINPACS for area dangerous due to mines. Otherwise vessel anchors Grande Rade.

Quarantine. Pratique granted by Pilot, Health Signal not required unless notifiable sickness on board.

Controlling Factors: Berthing times: Vessels are now berthed at any time, the usual side to being Starboard side, a 1,200 h.p. tug being used to assist.

Length: No limit at berth.

Berthage: 700 m. at the New Wharves.

Stevedoring. Working time. 0700 hrs. to 1100 hrs. then 1300 hrs. to 1700 hrs. and overtime from 1800 hrs. to 2200 hrs. The labour will also clean out the hatches provided one gang is actually working cargo, otherwise they stop when cargo work is all finished. Saturday is not an overtime day. Only Sunday is an overtime day. Good Friday and Easter Saturday are considered normal working days. The Stevedoring is good, with a fast working rate, but I regret to state that some pillage took place. As regards unprotected cars, the most minor marks were claimed against the vessel, these were repudiated.

Documents:

1 Cargo Manifest.

1 List of Dangerous Cargo.

2 Crew Lists.

1 Crew Personal Effects List, this list to include currency held, (French Forms accepted).

1 Bonded Stores List.

1 Health Form.

OUTPORTS: (See Plans).

For Ore loading vessels:

Nepoui: Lat. 21° 20.1' S., Long. 164° 25.5' E.

LOA vessel 163 m. Draft 8.7 m. Telescopic shuttle clearance 12.5 m. Loading rate 1,250 t.p.h.

1 Launch available.

Tankers: 6 in. flexible hose, weight 2 tons, 8 in. pipeline. Pumping rate 200 t.p.h. Pressure 7 kg./sq.cm.

Thio: Lat. 21° 37.5' S., Long. 166° 15.5'E.

LOA vessel 170 m. Draft 10.8 m. Telescopic shuttle clearance 11 m. Loading rate 686 t.p.h.

1 Launch available.

Tankers: 6 in. flexible hose weight 2 tons. 6 in. pipeline. Pumping rate 130 t.p.h. Pressure 7 kg./sq.m.

Kouaoua: Lat. 21° 24' S., Long. 165° 49.8' E.

LOA vessel 150 m. Draft 8.5 m. Telescopic shuttle clearance 10.5 m. Loading rate 628 t.p.h.

2 Launches (1 shared with Poro) available.

Poro: Lat. 21° 19' S., Long. 165° 44' E.

LOA vessel 169 m. Draft 9 m. Telescopic shuttle clearance 11.05 m. Loading rate 900 t.p.h.

2 Launches (1 shared with Kouaoua) available.

Tankers: 8 in. flexible hose, weight 2 tons. Pipe-line 6 in. Pumping rate 130 – 150 t.p.h. Pressure 7 kg./sq.cm.

Baie Ugue: Lat. 21° 09' S., Long. 165° 33' E.

LOA vessel 170 m. Draft 11 m. Telescopic shuttle clearance 12 m. Loading rate 600 t.p.h.

1 Launch and 1 tug 400 h.p. available.

Loading of Ore by Lighters:

Vessels anchored in bays, sheltered from the ocean swell by the barrier reef, but not sheltered from heavy seas caused by wind.

West Coast: Poum/Paagoumene, Karembe, Teoudie, Poya, Bourail (anchorage and mooring buoy), Bay N'Go (anchorage and mooring buoy).

East Coast: Moneo, Kouaoua, Nakety, N'Goye, Ouinne (anchorage and mooring buoy).

Loading Operations: Loading is carried out under supervision of the miner and his stevedore who embarks and lodges part of his personnel on board the vessel.

1. Lighter train towed by a tug, runs a shuttle between the loading wharf and the anchored vessel. Very few powered lighters.
2. Trucks empty their load into lighters.
3. Lighters are emptied by unloading apparatus on board vessel.
4. Ore estimations (richness and humidity) are carried out on shore by the miner and a Japanese representative of O.M.I.C., and a sample is placed on board for the smelter, another sample being reserved for the Department of Mines.
5. Non-stop loading, except in some bays where tide flow inhibits loading lighters at low tide.

Loading rate: From 1,500 to 9,000 tons per day.

Depending on:

1. Whether port is sheltered or not;
2. Distance between loading point and anchorage.
3. Tide flow at lighter loading point;
4. Number of lighters and tugs used by the stevedore.

OFF-LYING ISLANDS: (See Plans).

Art Island – Wala Wharf: Lat. 19° 43' S., Long. 161° 19' E. Wharf orientated N.N.E./S.S.W., parallel to shore. Length 30 m. framed by 2 dolphins each 15 m. Width 7 m. Wharf top 3.50 m. above low tide. Depth 4 m. Roadway: 85 m. long, 2.7 m. wide with 2 footpaths 80 cm. wide, supporting vehicles of up to 19 tons (axle 13 tons).

Ouvea Island – Wadrilla Wharf: Lat. 20° 35' S., Long. 166° 33' E. Wharf orientated W.N.W./E.S.E., perpendicular to shore. Length 40 m. with mooring buoy 35 m. from the end. Width 7 m. Wharf top 3.5 m. above low tide. Depth 4 m. Roadway: 220 m. long, 2.7 m. wide with 1 footpath 80 cm. wide, supporting vehicles of up to 19 tons (axle 13 tons).

New Wharf: Max. LOA 75 m., max. draft 4.2 m.

Lifou Island – We Wharf: Lat. 20° 55' S., Long. 167° 17' E. Wharf orientated N.E./S.W., parallel to shore. Length 40 m. prolongated to the N.E. by a dolphin 15 m. away. Width 7 m. Wharf top 3.5 m. above low tide. Depth 5.5 m. Roadway: 90 m. long, 4 m. wide, supporting vehicles of up to 19 tons (axle 13 tons).

New Wharf: Max. LOA 75 m., max. draft 4.2 m.

Mare Island – Tadine Wharf: Lat. 21° 33' S., Long. 167° 53.5' E. Wharf orientated N.N.E./S.S.W. Length 48 m. with an adjacent wharf 13 m. long (150 in. lower). Width 2 m. Wharf top 2.8 m. above low tide. Depth 3 m.

New Wharf: Max. LOA 75 m., max. draft 4.2 m.

Isle of Pines – Kuto Wharf: Lat. 22° 39.7' S., Long. 167° 26' E. Wharf orientated W.N.W./E.S.E., parallel to shore. Length 30 m. framed by 2 dolphins 15 m. away. Width 11 m. Wharf top 3.35 m. above low tide. Depth 4 m. Roadway: 118 m. long, 2.70 m. wide with one footpath 80 cm. wide, supporting vehicles of up to 19 tons (axle 13 tons).

Touho Bay: Wharf orientated E.N.E./W.S.W., parallel to shore – 4 bollards. Length 12.6 m. Width 6.7 m. Wharf top 4 m. above low tide. Deep water at 20 m. from end of wharf.

Paagoumene Wharf: Lat. 20° 29.2' S., Long. 164° 10.5' E. Wharf orientated N.E./S.W. Length 15.6 m. N.E. section: Length 30.5 m. S.W. section: Length 43 m. Overlapping landing stage, 2.14 m. Wharf top 3.83 m. above low tide.

AUTHORITY: Port Autonome de Noumea, Avenue Cook, P.O.Box 14, Noumea, New Caledonia. *Tel:* (687) 27.59.66. *Telex:* 3838 NM. *FAX:* (687) 283772. *Contact:* Philippe Laffleur, Port Director. Jean Louis Boglio, Port Captain.

NOTES

Please also advise Shipping Guides Ltd.

New Zealand

GENERAL: All ports.

AGRICULTURE:

Masters of all vessels are required under the Biosecurity Act 1993 to notify the Ministry of Agriculture, located at the place of their expected arrival, a minimum of 12 hours before the estimated arrival time.

The New Zealand Ministry of Agriculture require the Masters of vessels carrying animals, i.e. cats, dogs, fish, birds, etc., to complete: The Requirements for Dealing with Risk Goods on Craft: Biosecurity Act 1993 (Form PP 70 I).

In addition, the Masters of vessels are required to complete in duplicate a Master's Certificate (Form AGL 36) declaring all meat on board. All prohibited meat in ship's meat lockers (chambers) and prohibited meat belonging to crew members held elsewhere on the vessel is sealed on arrival at the first port in New Zealand, and must remain sealed during the vessel's stay within New Zealand's Territorial Sea.

The discharge of garbage is restricted in New Zealand's Territorial Sea. Disposal arrangements for garbage will be advised to the Master on arrival at each New Zealand Port by the MAF Quarantine Officer.

All goods for landing must be declared to the MAF Quarantine Officer. A Biosecurity Clearance will be required for all risk goods.

A list of crew signing-off vessels in New Zealand must be given to the MAF Quarantine Officer. Each signing-off crew member will be required to complete a Biosecurity declaration.

Masters will be required to complete a vessel's Ballast Report Form (Form PP 70 J) which describes information about the vessel and ballasting operations, and indicates the origin of all ballast water carried on board. This information is required to enable MAF to carry out a risk assessment of ballast water.

Authority: Ministry of Agriculture Quarantine Service.

Auckland: P.O.Box 1254. Tel: (09) 377-3008. Fax: (09) 307-0124.
Wellington: P.O.Box 12-108. Tel: (04) 473-8996. Fax: (04) 473-2975.
Christchurch: Private Bag. Tel: (03) 379-4100. Fax: (03) 364-7926.
Contact: Regional Manager, Quarantine Service.

SHIPMASTER'S REPORT:

Health: Coming from an Australian port the clean Bill of Health was accepted.

Documents: 2 Poison Lists (if there is poison in the cargo). 2 Reports of Pillaged Cargo (marks and numbers).

Cargo Gear: When working general cargo with derricks "in union purchase" without preventer guys, ship (via Agent) must seek an exemption from Regulation 2 (a) of the General Harbour (Safe Working Load) Regulations 1935 Amendment No. 5 by applying for dispensation from the Chief Surveyor of Ships, Marine Department, Ministry of Transport, Private Bag, Wellington.

AUCKLAND: 36.51 S. 174.45 E. (See Plan)

PORT LIMITS: South of a line drawn from Toroa Point to the S.W. Point of Rakino Island.

DOCUMENTS:

3 copies Passenger List.
3 copies Crew List.
1 copy Search List (Form 2).
1 copy Stores List (Form 3).
1 copy Prohibited and Restricted Immigrants.
1 copy Poisons List.
1 copy Animals and Birds List.
1 copy List of Firearms (not cargo).
1 copy Arrival Manifest (Form 1), plus 2 for other ports visited (Reg. Form 16 refers).
1 copy of List showing the gross tonnage of cargo for discharge in New Zealand.
3 copies Shipmaster's Bond and Guarantee (Form Ag.L35).
2 copies Meat Locker Declaration (Form Ag.L36).

Ship's Register to be presented to the Harbour Master on first visit to the port.

Also see "Health".

Radio Officer's Report: March 1991.

1 copy Personal Effects List, stating make, model and serial numbers of radios, cameras, etc.
3 copies Master Certificates, stating the type and weight of the meat on board, country of origin and the port where loaded. (Agriculture will most likely seal the meat locker).
3 copies General Declaration, stating the particulars of the ship.
1 copy Maritime Declaration of Health.
1 copy Ships Stores List.
5 copies Crew List.
1 copy Particulars of Ship's Certificates List.
1 copy Shipmaster's Bond, and guarantee stating the particulars of animals, if any on board.

PILOTAGE: Vessel approaching port to give 24 hours' notice by radiotelegraphy and addressed "Shipping Services Manager Auckland". A second notice by radiotelephone confirming or amending first to be sent 4 hours before expected time of arrival. Signal Station on Mt. Victoria, call sign "Auckland Harbour Radio", calling frequency 2182 kHz., working frequency 2012 kHz. VHF, call sign "Auckland Harbour Radio", Channel 12 and 16. Continuous listening watch on Channel 16.

Pilot boat is 13.0 m. long "Stolkcraft", painted orange and white, speed 30 knots. Reserve pilot launch is 13.0 m. long, painted orange. Name is *Paerata.* Standard flag and lights are shown.

Pilots board 1 mile North of Rangitoto Beacon, but will proceed farther when necessity arises. Good pilot ladder with manrope required to within 1.5 m. of water-line with proper lighting at night. Heaving lines will be needed for mail.

ANCHORAGES: For vessels waiting Pilot: (Bearings and distances from Rangitoto Beacon). Gulf Anchorage No. 1 bearing 000° distance 2 miles; No. 2 bearing 006° distance 2.5 miles; No. 3 bearing 012° distance 3 miles.

All inner anchorages in pilotage area can be indicated by Pilot. All anchorages are in 11 m. – 18 m. with good holding ground.

RESTRICTIONS: Ships may enter harbour at any time of day or night. Main channel has least depth of 11 m. chart datum. Vessels with greater draft must wait for tide to make and enter at Harbour Master's orders. It is preferable for all vessels to have not less than 10% vessel's draft as under keel clearance. Tankers berth at Wynyard Wharf depot. Tankers may berth and sail at any time.

See "Bridges".

MAX. SIZE: No limits, within reason, on the length or breadth. Controlling depth at chart datum: entrance 11 m.; Rangitoto Channel 11 m.; anchorages 9.8 m. – 15.0 m.; berths 6.09 m. – 12.20 m.

HEALTH: 12 – 24 hours before arrival time, despatch message to Port Health, Auckland. Message to state ETA, last port, and date of departure therefrom, number of crew, number of passengers and state of health and indicate if there is a doctor amongst the crew. 12 hours before arrival confirm ETA.

Customs and Health formalities are usually carried out when vessel is alongside. Ship's gangway required for access by port officials.

Papers Required:

Completed Maritime Declaration of Health.
Derat Certificate.
Complete Crew List with dates of last vaccinations.
N.B. Crew and Passenger Lists to be certified as being correct by the Master.
List of Addresses of Disembarking Passengers.
List of Dangerous Cargo on board.

Pratique is granted initially, and covers all subsequent coastal movements in New Zealand for that voyage. Radio Pratique can be granted only after prior approval from New Zealand Health Department.

Vessels requesting Pratique should exhibit appropriate International Code Signals by day and night until Pratique is granted.

Shipmaster's Report: August 1994.

Request "Radio Free Pratique" via Taiaroa Heads.
Call Sign: "ZMH 32".
Tel: 3478-0868.
Fax: 3478-0744.

RADIO: See "Pilotage".

VHF: See "Pilotage".

RADAR: Radar station with range of 72 km. located on Mt. Victoria Lat. 36° 49' 42" S., Long. 174° 47' 57" E. Masters may call on radio telephone and request particulars of their bearing and range as shown on radar screen. Responsibility for the use of this information rests entirely with Master of vessel.

TUGS: 2 working tugs available, 1 on stand-by. Tugs join vessel East of Eastern Tide Wall. Tugs supply lines at no extra charge.

BERTHING:

Depth of Water:

Wharf	*Dredged Depth* (m.)
Wynyard East	7.0 – 13.0
Princes West	7.5 – 11.5
Princes East	7.0 – 13.0
Queens East	8.5 – 12.0
Captain Cook East	6.5 – 10.0
Bledisloe West	10.5 – 12.5
Bledisloe No. 1	7.5 – 10.0
Jellicoe West	8.5 – 13.0
Jellicoe East	8.5 – 12.0
Freyberg East	8.3 – 12.0
Fergusson West	10.6 – 13.5

CRANES: At Fergusson Container Terminal there is 1 twin lift container crane of 45.72 tonnes capacity, 2 single lift container cranes of 40.64 tonnes capacity and 1 Noell Post Panamax crane of 70 tonnes capacity. In the conventional cargo port quay-side cranes of 5 tonne capacity are provided at Freyberg only. At the bulk sugar berth there is a 10 tonne capacity gantry grabbing crane. At Bledisloe West berth there is a Samba crane with 35 tonnes capacity.

BULK CARGO FACILITIES: *Cement:* A special berth is provided where bulk cement is discharged pneumatically via pipeline to privately owned silos. Depth at chart datum 6.0 m., quay length 94 m.

Sugar: Bulk sugar is discharged at Chelsea Wharf. This wharf is equipped with a 10 tonne capacity gantry grabbing crane and a conveyor system connected to the refinery store. Depth at chart datum 9.9 m. Quay length 91 m.

4 other berths can also be made available for discharge of dry bulk cargo as required.

See "Bridges".

SPECIALISED CARGO HANDLING FACILITIES:

Tanker Terminals: 2 berths are at a continuous quay 486 m. long, depth at chart datum 9 m. – 11 m. The berths are connected by pipeline to adjacent tank farms.

Container and Ro/Ro Facilities: Fergusson Wharf Container Terminal: Quay length 610 m. Depth at chart datum 12.2 m. The terminal is equipped with 3 Vickers Hoskins/Paceco gantry container cranes, 1 single lift Noell Post-Panamax crane of 70 tonnes capacity, 2 single lifts of 40.64 tonnes capacity and a twin lift of 45.72 tonnes capacity. Total back-up area of the terminal is 26 hectares of which 17.41 hectares is used for container handling and storage and 4.30 hectares is used for container repairs and LCL containers. Included in the latter area is the Monash Street Container Base which provides 26,000 sq.m. of covered transit storage for LCL cargo. Rail exchange sidings are located immediately adjacent to the terminal. There are power outlets for 1,424 refrigerated containers. Container terminal equipment includes 17 straddle carriers as well as various tractors and forklift trucks. The terminal is operated by the Ports of Auckland Ltd.

Freyberg Wharf: A common user Ro/Ro berth for quarter ramp vessels up to 228 m. in length is provided at Freyberg Wharf.

Bledisloe Ro/Ro Terminal: Quay length No. 1 Berth 137 m., No. 2 Berth 224 m. Depth at chart datum 9.5 m. Each berth is equipped with a link span with a fork lift axle load capacity of 56.9 tonnes and a low loader capacity of 182.9 tonnes. No. 2 Berth can accept ships equipped with a port quarter ramp. A total back-up area of 4.8 hectares is provided including a cargo shelter of 4,000 sq.m. and rail exchange sidings.

Bledisloe West Wharf: Length 285 m. Depth alongside 12.3 m. Handles ships with unitised cargo, including container ships. A total back-up area of 5.2 hectares is served by 1× 35 ton Samba gantry crane and 4 heavy duty forklift trucks and Hyco reach stackers. A 1,000 sq.m. timber store and a 3,000 sq.m. empty container stacking area is also available.

BRIDGES: Navigation in daylight hours only under Auckland Harbour Bridge. Navigation span is 45.2 m. – 42.4 m. above MHWS for 76 m. each side of centre. Only ships berthing at Chelsea Wharf sugar berth need pass under the bridge.

STEVEDORES: Labour is available 24 hours, 7 days a week, by prior arrangement.

MEDICAL: In case of urgent medical attention being required, Agents can arrange for doctor to board in stream at any notice. Hospital and ambulance services available 24 hours.

TANKERS: See "Specialised Cargo Handling Facilities".

Any size pipelines can be used, oil companies have all reducing pieces needed.

No facilities for slop discharge.

DENSITY: Always 1025.

FRESH WATER: Fresh water always available. Delivery rate 40 t.p.h., through canvas hoses. Ports of Auckland supplies all equipment.

FUEL: Light fuel oil, diesel, gas oil and heavy fuel are available. To be ordered in ETA notice.

CONSULS: (Consuls, Trade Commissioners, etc.): Australia, Belgium, Brazil, Costa Rica, Denmark, El Salvador, Fiji, Finland, France, Germany, Greece, Ireland, Italy, Japan, Korea (South), Nauru, Netherlands, Norway, Peru, Philippines, Portugal, Sweden, Switzerland, Tonga, Turkey, U.K., U.S.A., Venezuela, Western Samoa.

REPAIRS: Ship repairs can be carried out. Private slipways are available.

DRY DOCKS: Max. size of vessel that can be accommodated in Calliope Dry Dock, operated by the Ministry of Defence, is 181.35 m. LOA and 19.8 m. beam. Water on sill at MHWS 10 m.

SURVEYORS: American Bureau of Shipping, Bureau Veritas (Paris), China Corporation Register of Shipping, Det Norske Veritas, Germanischer Lloyd, Lloyd's Register of Shipping, Nippon Kaiji Kyokai, Registro Italiano Navale, Russian Register of Shipping.

GANGWAY/DECK WATCHMEN: Watchmen are necessary. Best to use crew. Also see "Fire Precautions".

OPENING/CLOSING HATCHES: Crew open completely mechanical hatches only. All other hatches opened by waterside workers.

CERTIFICATES: Register, Derat, Load Line, Safety Equipment, Safety Radio, Articles of Agreement, are main Certificates required.

CUSTOMS ALLOWANCES: 1 bottle of spirits (in use) *or* 1 bottle of wine (in use) *and* 12 quart bottles (or the equivalent) of beer, 200 cigarettes *or* half a pound of tobacco *or* 50 cigars. For ship use only. To be declared on Search List. Also gifts up to a total value of $100.0 may be landed.

CARGO GEAR: Preventer guys must be entirely wire. All blocks and shackles must be moused. Safety strops on all heel blocks. All wires, ropes, chains and blocks to have Certificate of Test.

REPATRIATION: All facilities exist for repatriation.

AIRPORT: 23 km. from harbour to airport. Served by all major international airlines.

TIME: Local time is GMT plus 12 hours, add 1 hour for Summertime, October to March.

HOLIDAYS: The port works during all holidays except Christmas Day.

POLICE/AMBULANCE/FIRE: All emergency services are called through one telephone number. Dial 111 and state service required.

TELEPHONES: Telephones at all berths. Charges available on application.

SERVICES: Services include tank cleaning, compass adjusting, all cargo surveying, average adjusting, etc. Tank washings may be pumped to road tankers.

SHORE LEAVE: Crew members may go ashore.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Service provided daily by private contractor, NZ Medical Waste Ltd, Tel: 309-1381. Bins are provided by contractor and exchanged "empty" for "full" daily.

WASTE OIL DISPOSAL: Several private contractors operate in the port, using tanker trucks for collection of waste oil.

SEAMAN'S CLUBS: Several seaman's clubs in port. Regular football matches arranged, church services available. Contact Flying Angel Club, 14 Quay St., Tel: 7034-352.

CURRENCY: New Zealand Dollar (NZ$).

REGULATIONS: All guests aboard vessel in the evening must have passes signed by the Master. All visitors' passes expire at 2300 hrs. All ships in port are subject to the Rules and Regulations contained in the Harbours Act 1950, and the By-laws of Ports of Auckland Ltd. On first visit to the Port copies of these and other relevant Regulations are supplied to ships.

DELAYS: There are seldom any delays awaiting berths.

GENERAL: *Refuse Disposal:* It is important that no refuse be allowed to pass into tidal waters either directly or indirectly. This is covered by strict Government Regulation.

Refuse, which is to be kept in provided covered containers, is collected each morning by a road vehicle.

AUTHORITY: Ports of Auckland Ltd., P.O.Box 2353, Auckland, New Zealand. *Tel:* (09) 366-0055. *Telex:* NZ 2705. *FAX:* (064) (09) 366-0219. *Contact:* Robert Cooper, Chief Executive. Captain Ron MacKenzie, Marine Services Manager. G.J. Bissell, Secretary.

AGENT: Seatrans New Zealand Ltd., P.O.Box 4038, Auckland, New Zealand. Tel: (0064) (09) 309-0129. Telex: NZ 2484. Fax: (0064) (09) 309-1439. (Branches at all major New Zealand ports).

BLUFF: 46.37 S. 168.22 E. (See Plan)

DOCUMENTS: See "Auckland".

PILOTAGE: Pilotage is compulsory. Pilots board vessels from launch in position Lat. 46° 39' S., Long. 168° 21' E. Arrangements regarding boarding will be made by VHF Channel 16 with Bluff Harbour Radio, working Channel 14.

Vessels, other than those which are exempt from pilotage, must not proceed within the pilotage area without a Pilot.

A 24 hour pilotage service for tidal conditions. Vessels generally enter and leave the port at slack HW and slack LW.

Caution: Vessels stopping to pick up a Pilot are particularly warned not to approach entrance shoal too closely, especially during flood stream as stream sets strongly on to entrance shoal, North-Eastward.

Coastal Pilots: Coastal Pilots are available on 24 hours' notice for piloting service in the Fiordland Sounds.

Stewart Island Pilotage: The area within the Stewart Island Pilotage District is a Compulsory Pilotage District. The definition of this area can be obtained from the South Port NZ Ltd. who are the Stewart Island Port Authority and provide Pilots.

ANCHORAGE:

Southward of Stirling Point: In fine weather, vessels awaiting tide may anchor in 10 to 12 fathoms with Stirling Point lighthouse bearing about 356° and Dog Island lighthouse bearing about 108°.

Eastward of Dog Island: Anchorage for vessels delayed longer than 6 hours awaiting to enter Bluff is situated 5 miles East of Dog Island.

Safe anchorage in heavy Westerly weather may be found off the N.W. coast of Stewart Island between Otaku Point and Gull Rocks, position: Lat. 46° 47' S., Long. 168° 02' E.

RESTRICTIONS: The safest time to enter the harbour is at slack water. Strict attention should be paid to radio messages passed from the Harbour Authority Operations Office. No vessel should attempt to enter without a Pilot, unless possessing local knowledge.

Least depth in fairway is 8.53 m. on Northern edge of Channel Rocks; also 7.62 m. (about 1 cable West North-Westward of the tidal beacon).

MAX. SIZE: Length 198 m., beam 29 m. Vessels of over 198 m. length and/or 29 m. beam are restricted to HW arrival and departure. Vessels up to Panamax size 225 m.×33 m. will be handled at a reduced draft at the Manager – Operation's discretion.

Max. draft is 9.7 m. ordinary HW and up to 10.0 m. at HW Springs. LW max. draft is 7.0 m. up to 8.0 m. at Neap tides.

HEALTH: Radio Pratique available.

RADIO/VHF: A continuous watch is maintained by the Harbour Authority Operations Department and vessels can communicate by VHF. Call sign is "Bluff Harbour Radio". VHF radio calling Channel 16. A continuous watch is maintained on VHF Channel 16, working Channel 14.

TUGS: Two tugs are available. Both twin-propulsion Voith Schneider vessels of 1,200 i.h.p. and 15.3 tons static pull and 2,600 h.p. and 30 tons. Both vessels are equipped for fire fighting and salvage. Tugs supply towing lines.

BERTHING:

Wharves	*Length Wharf* (m.)	*Max. Length Vessel* (m.)	*Berth Depth MLWS* (m.)	*Max. Draft* (m.)	*Deck Above MLWS* (m.)
Island Harbour No. 1	160	150	8.0	7.7	4.37
Island Harbour No. 2	190	170	8.0	7.7	4.37
Island Harbour No. 3A	152	150	9.4	9.15	4.37
Island Harbour No. 3 Island Harbour No. 4	426	198	10.0	9.7	4.37
Island Harbour No. 6	135	90	8.0	7.6	4.37
Island Harbour No. 5	213	198	10.0	9.7	4.37
Island Harbour No. 7	100	90	9.1	8.5	4.37
Island Harbour No. 8	230	198	11.0	10.0	3.77
Town Wharf No. 11	210	192	10.0	9.7	3.46
Town Wharf No. 12	183	180	9.0	8.7	3.46
Town Wharf No. 14	157	140	8.3	8.0	3.46
Ferry Wharf	200	150	7.0	6.5	4.19
Tiwai Wharf – (273 m. including mooring dolphin)	200	250	11.5	11.0	5.68

Vessels of a greater length may berth at these berths at the Manager – Operation's discretion.

All Island Harbour Berths except Nos. 1, 6, 7 and 8 have rail access. No rail at Tiwai Wharf or Town Wharf.

The Port Company owns and operates a Liebherr mobile container crane capable of lifting TEU and FEU at 49 tonnes to 32 m.

Bulk phosphate or sulphur cargoes are discharged into hoppers thence road trucks.

A Ro/Ro linkspan is situated at Berth No. 1 (not in use).

A bulk grain facility serves Berth No. 2. Silo capacity 6,600 tonnes, maximum loading rate 500 tonnes/p.h. Bulk tallow is loaded at Berth Nos. 3 and 3A. Ten storage tanks with total capacity of 4,775 tonnes are connected to ship's side by a 300 mm. diameter heated pipeline giving a loading rate of 400 tonnes/p.h.

Three all weather meat-loaders are situated at Berth No. 5.

Berth No. 8 is a bulk woodchip loading facility (via conveyor) and also serves the log and sawn timber trade. Grain and coal are also loaded at No. 4 or No. 8 Berth via truck ramp to conveyor.

Bulk cargoes for Tiwai Aluminium Smelter are discharged at the Tiwai Wharf by a mobile twin unit pneumatic unloader with a capacity of 300 tonnes/p.h. A dedicated vessel "Altrans" discharges alumina via air slide to smelter at over 800 t.p.h.

STEVEDORES: Agents require ETA in advance to arrange labour for cargo handling. Two stevedoring companies are available.

MEDICAL: Port doctor available through Agents. Nearest hospital is at Invercargill City, 16 miles from Bluff. Medical service whilst at sea through Bluff Maritime Radio.

TANKERS: Tankers are berthed at Berth No. 11 Town Wharf. Side connections are to be used. Only 1 pipeline connection on wharf. Black products are handled through 250 mm. lines, white products through 200 mm. lines. Bitumen tankers discharge at No. 12 Berth.

Oil cargoes for Tiwai Point discharged at Tiwai Wharf via manifold and 300 mm. pipeline.

DENSITY: 1025.

FRESH WATER: Available alongside all berths, rate 20 tonnes/p.h.

FUEL: Bunkering facilities are available. Boiler fuel is supplied by 8 in. diameter pipeline located at Berth No. 11, Town wharf. Delivery rate 240 t.p.h. Limited quantities of coal, light diesel oil and lubricating oil can be arranged for delivery by road or rail to the wharves.

Gas oil available by pipeline at Berths No. 11 and 12 and by road tanker at all other berths.

GANGWAY/DECK WATCHMEN: Available.

OPENING/CLOSING HATCHES: Carried out by crew if automatic hatches. Otherwise by stevedores.

CUSTOMS ALLOWANCES: See "Auckland".

REPAIRS: Major repair work can be undertaken by various machine shops situated at Bluff and Invercargill. A diver is available for underwater inspections through Agents.

DRY DOCKS: The Port Company operates a "Syncrolift" docking facility capable of accommodating vessels with a displacement up to 1,000 tonnes on a platform 40.3 m. × 13.4 m.

REPATRIATION: Facilities exist.

AIRPORT: Internal air services from City Airport, Invercargill, 16 miles by road connecting with international airports of Christchurch, Wellington and Auckland.

TIME: GMT plus 12 hours. Summer Time GMT plus 13 hours from October to March (actual day may vary).

HOLIDAYS: The following days are not usually worked at Bluff: Christmas Day, New Year's Day, Good Friday and Anzac Day.

POLICE/AMBULANCE/FIRE:

	Tel. (Emergency)	*(Other)*
Ambulance	111	Inv'gill 2183099
Police	111	2128844*
Fire Brigade	111	2128050

* If no reply ring Invercargill 2144039.

TELEPHONES: All vessels can be connected with telephone system, through their agent.

SERVICES: Compass adjusting, refuse collection daily.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Drums for garbage available from South Port NZ Ltd. Garbage collected daily by port operating company and removed prior to sailing.

WASTE OIL DISPOSAL: Various waste and waste oil disposal companies by tanker truck. No special berth but port company permission required with usual precautions.

SEAMAN'S CLUBS: Small seaman's club with shop, telephone, TV lounge, gym equipment. Check with agent about opening times.

CURRENCY: New Zealand Dollar (NZ$).

AUTHORITY: South Port NZ Ltd., P.O.Box 1, Bluff, New Zealand. *Tel:* 03-212-8159. *FAX:* 03-212-8685. *Contact:* D. Cowie, General Manager. Captain J.A. Henderson, Manager Operations and Chief Pilot/Harbour Master.

GISBORNE: 38.42 S. 178.02 E. (See Plan)

PORT LIMITS: All of Poverty Bay within a line from the Northern point of Young Nick's Head to Tuaheni Point.

DOCUMENTS: See "Auckland".

PILOTAGE: Telegraphic address – General Manager, Gisborne. Advance notice – 24 hours before ETA. VHF Channel 16 and 12.

Pilot boat is painted white with word "Pilots" on both sides, 13.71 m. in length; exhibits pilot flag or lights. Pilot boards on line of leads (332°) 2 miles from breakwater light.

ANCHORAGE: Vessels awaiting Pilot and berth anchor with Tuaheni Light bearing 084° 3.2 miles in 18.29 m. of water.

MAX. SIZE: Maximum length 190 m. Beam, no restriction. Draft, 8.6 m. at HW, 7.0 m. at LW. Contact General Manager for current situation as there can be slight variations according to heights of tide and weather conditions.

HEALTH: Same procedure as "Auckland".

RADIO: Auckland Radio ZLD, Wellington ZLW.

VHF: Signal station not permanently manned. Listening watch Monday–Friday 0800 – 0815 hrs.; 1130 – 1145 hrs.; 1330 – 1345 hrs.; 1600 – 1615 hrs. Signalman in attendance 1 hour before vessel's arrival. Call sign: "Gisborne Harbour Radio", Channel 16 and 12.

TUGS: Tugs join vessels in channel outside breakwater. Normally use tug's lines, no extra charge.

A twin screw Schottel Rudder/Propeller 22 m. steel tug with bollard pull 14 tonnes (1,000 h.p.) and a 15 m. steel hulled twin-screw tug of 8 tonnes bollard pull (600 h.p.) are available.

BERTHING: 213.35 m. at 9.75 m. depth at LW; 426.7 m. at 5.49 m. – 6.1 m. depth at LW. Also see "Developments".

Moorings: Shore hawsers placed on vessels on arrival.

SPECIALISED CARGO FACILITIES: Two 1,000 tons silos for bulk grain, etc. behind Berth No. 7 and a conveyor for loading grain, etc. in ships. Loading rate 400 t.p.h.

STEVEDORES: Advice of ETA and particulars of stowage required in order that required number of gangs can be ordered. Stevedores can work 24 hours a day, 7 days a week.

MEDICAL: No advance advice required for medical attention. Full hospital facilities available.

TANKERS: Tankers discharge petrol and diesel oil.

DENSITY: 1025 at all stages of tide.

FRESH WATER: Available by 63 mm. (2.5 in.) hoses at approx. 20 t.p.h. per hose.

FUEL: Fuel is at present only available by rail tanker and should be ordered through ship's Agent in advance.

CONSULS: None.

REPAIRS: Normal maintenance repairs.

DRY DOCKS: One 400 ton slipway.

SURVEYORS: 1. Ministry of Transport Surveyors in Napier for grain cargo. Private surveyors available in Gisborne.

2. Lloyd's Register available on request, also A.B.S.

GANGWAY/DECK WATCHMEN: Ships provide own watchmen.

OPENING/CLOSING HATCHES: Stevedores normally carry this out.

CUSTOMS ALLOWANCES: See "Auckland".

REPATRIATION: Full facilities available for effecting crew changes and repatriation.

AIRPORT: 3.5 miles. Regular internal service.

TIME: Standard Time is 12 hours ahead of GMT. Daylight time GMT plus 13 hours from last Sunday in October to first Sunday in March normally.

EMERGENCY CO-ORDINATION CENTRE: Local Police Station for minor emergency operations otherwise all Search and Rescue Co-ordinated from Wellington.

Local Police	Tel: 06-8679059.
Wellington S.A.R.	Tel: 04-738890.

STORING: See "Prelims".

1. By truck or launch – only.
2. Not applicable.
3. Trucks can come alongside at berths, only restricted for Tankers.
4. Fork Lifts available and used.
5. Customs clearance required for bonded goods.
6. Yes.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Garbage cans placed on board. Contents burnt in company's incinerator.

WASTE OIL DISPOSAL: Collection available by tanker trucks. Contact Waste Management Services NZ Ltd., Tel: 06-868 9548.

SEAMAN'S CLUBS: None.

CURRENCY: New Zealand Dollar (NZ$).

DEVELOPMENTS: Berth No. 8 (See "Plan") length 150 m., depth 9.75 m., to be completed June 1996.

Capital dredging to commence 1997/1998 to depth of 11.5 m. at berths and in channel.

AUTHORITY: Port Gisborne Ltd., P.O.Box 549, Gisborne, New Zealand. *Tel:* (06) 86-85129. *FAX:* (06) 86-78084. *Cables:* Harbour Board. *Contact:* Mr. B.M. Tahata, General Manager.

LYTTELTON: 43.35 S. 172.42 E. (See Plan)

PORT LIMITS: All those tidal waters of the Port of Lyttelton comprised within the area enclosed by the arc of a circle having a radius of 3 nautical miles from the Northernmost point of Adderley Head.

DOCUMENTS: Customs procedure: Overseas vessels, on arrival in New Zealand, should have following papers ready to produce to Customs Officers:

Particulars of Ship's Certificates.
List of Persistent Oils (Tankers only).
Register.
Names of Owners and Agents.
Crew List.
Passenger List.
List of Prohibited or Restricted Immigrants.
Search List.
Stores List.
List of any stock or birds on board.
List of Poisons.
List of Firearms.
Declarations by Passengers arriving in New Zealand.
Baggage Declarations by Passengers for duty purposes.
On departure for overseas, Master or his Agent is required to produce:
Manifest of Cargo.
Stores List.
Crew List.
Passenger List (if any).

A home trade vessel under *transire* is required to produce her cargo book to Collector of Customs and such particulars as to passengers, crew, and cargo as the Collector may at any time demand. Cargo book shall contain name and port of registry of ship, Name of Master, and date of arrival at, and departure from each port. Particulars as to dates of arrival and departure must be entered not later than 24 hours after time of such arrivals and departures.

PILOTAGE: Required for all vessels over 100 g.r.t. Inward-bound vessels should give 24 hours notice of maximum draft and ETA. Pilot Fax: (03) 3287828.

Pilots will board vessels 2 miles from Godley Head Light (080° from lighthouse). Pilots embark and disembark on pilot ladders in accordance with New Zealand Pilot Ladder Regulations. Ladders should be rigged 1.0 m. above water. Speed 5 knots to 8 knots. Boatrope is not used, and the use of tripping line is strictly prohibited. In adverse weather, or for large bulk vessels, a helicopter may be used.

The pilot vessel "Canterbury" has the word " Pilot" on the cabin sides, and is painted orange.

ANCHORAGES: *Outside Godley Head:* A vessel awaiting the arrival of a pilot should anchor about 1.5 miles to seaward of Godley Head in depths from 16 m. to 18 m.

Camp Bay Anchorage: Permission must be obtained from the Marine Services Manager before using this anchorage, and draft of vessel is restricted to 8.5 m. All vessels drawing more than 8.5 m., whether awaiting Pilot or not, must use the outside anchorage. Vessels using Camp Bay Anchorage should anchor with the anchorage lighted leading beacon, situated on the Southern shore of Camp Bay, in transit, bearing 195.5°. Each beacon is painted white, and each exhibits a fixed red light. Vessels may anchor to the Westward of this bearing, but must not proceed Westward of a line bearing 345° from rear anchorage beacon. In fog, or poor visibility, Camp Bay shall not be used by vessels wishing to anchor.

Note: Anchoring in or near the dredged channel, which extends from 1 mile inside the heads, is not permitted.

RESTRICTIONS: Vessels can berth and depart at any time, unless restricted by draft.

The following are the controlling depths at mean low water springs, mud bottom in each case;

Entrance to port	14.6 m.	soft mud
Dredged channel	12.0 m.	
Camp Bay Anchorage	11.0 m.	
Inner Harbour Berths	9.8 m. – 12.6 m.	
Cashin Quay Berths	13.5 m.	

MAX. SIZE: Max. permissible draft for entering or leaving:

Cashin Quays No. 1, 2 & 3	12.20 m. at H.W. 10.80 m. at L.W.	(May be increased at Marine Operations Manager's discretion).	
Inner Harbour	11.30 m. at H.W. 10.00 m. at L.W.	Inner Harbour (Oil Harbour)	12.00 m. at H.W. 10.05 m. at L.W.

Maximum size permissible for entry is at discretion of Marine Operations Manager to the Inner Harbour and 294 m. at Cashin Quay, beam no limit.

HEALTH: Master of every ship about to enter a New Zealand port shall, not later than 12 hours and not earlier than 24 hours before expected time of arrival at that port, inform Port Health Officer by radio of last port of call, date of departure therefrom, and state of health of vessel.

Arrival of vessels: On arrival, vessel showing International Code quarantine signal, should proceed to inspection area to await arrival of Port Health Officer. Inspections are normally carried out at berth.

Radio Pratique: Certain ships may be granted Pratique by radio and hence need not be visited by a Port Health Officer, provided that medical officer carried as part of ship's complement.

Maritime Declaration of Health: Masters of all vessels arriving in New Zealand from any port beyond New Zealand shall complete and deliver to Port Health's Officer a Maritime Declaration of Health countersigned by the ship's medical officer, if required.

Crew List and Passenger List: Master of every ship liable to quarantine should be prepared to furnish Port Health Officer a list of all passengers, showing in respect of each passenger, name, sex, race, age, and port of embarkation; and a list of crew giving the name, nationality, and rating of each member.

RADIO/VHF: *Signal Station:* A signal station is situated on the tower of the Container Terminal Administration Building. It is connected by telephone to Lyttelton and Christchurch. On request, the Marine Operations Manager will arrange for the signalling of messages to vessels, circumstances permitting. Call sign is ZMH61, 2182 kHz and working frequencies.

Radio – Telephone: The station is equipped with a radiotelephone and VHF. The call sign is Lyttelton Harbour Radio, the calling frequency is 2182 kHz., and the working frequencies are 2012, 2045, 2129, 2162, 4125, 4146 and 4417 kHz. VHF Channels 16, 12 and 63.

VHF Channel 12 is used for the exchange of messages in or near the port relating to the operational handling, the movement and the safety of ships and in emergencies.

TUGS: The port company has 2 modern tugs fully equipped for harbour duties:

"Purau"	A twin Z–Peller right angle drive diesel tug powered by two 1,120 kW. engines, built in 1986. Fully equipped for harbour duties and fire fighting. Max. speed 11.6 knots, max. bollard pull 37 tonnes.
"Godley"	A twin Schottel right angle drive diesel tug powered by two 745 kW. engines, built in 1977. Fully equipped for harbour duties and fire fighting. Max. speed 11.5 knots, max. bollard pull 28 tonnes.

Communication with the tugs is by VHF Channel 12.

BERTHING: No vessel is to enter and take up a berth unless signalled to do so from the signal station. These signals may be sent either by radiotelephone or VHF.

All vessels to contact Signal Tower 5 minutes prior to sailing for clearance.

BERTHING FACILITIES: The Port of Lyttelton is able to offer a large number of berths suitable for all types of vessels and cargo handling requirements. Specialist facilities are available at a number of the berths as detailed below:

Cashin Quay: Cashin Quay is a linear berth of 855 m. in length, which may be subdivided into 4 berths.

Cashin Quay No. 1: Cashin Quay No. 1 is a 230 m. berth decked in heavy duty concrete with a water depth of 13.0 m. below MLWS. Cashin Quay No. 1 is a multi-purpose berth with transit shed and flat land for storage. The wharf provides a smooth heavy lift area for handling containers and has adjacent facilities for 102 refrigerated units. The berth is equipped with a shiploader and conveyor system with an operational capacity of 400 – 800 tonne per hour. Bulk commodities may be loaded directly from road or rail transport into a dump hopper and transported via conveyor to the ship. The Lyttelton grain silos, bulk materials stockpile area and weighbridge are all situated nearby. Although the loading system is used for the export of bulk coal, it is also suitable for the handling of other bulk products including woodchips and grain.

Cashin Quay No. 2: With a water depth of 13.0 m. below MLWS, this berth is suitable for handling the largest of multi-purpose vessels. The berth is 215 m. long with flat land behind for handling breakbulk, palletised or containerised cargoes.

Cashin Quay No. 3: Although this heavy duty concrete wharf is used in the main for working the container crane, it is also suitable for multi-purpose, quarter ramp and conventional vessels. Cashin Quay No. 3 has a berth depth of 13.0 m. below MLWS. Rails for a 46 tonne Paceco container crane run along the length of the wharf. Full cargo handling services, including 458 electrical points for refrigeration and pre-tripping of containers, are available through the Lyttelton Container Terminal, which is located immediately behind the berth.

Cashin Quay No. 4: A new heavy duty concrete berth suitable for handling container shipping, multi-purpose and Ro-Ro vessels. Container crane rails extend from Cashin Quay No. 3 onto Cashin Quay No. 4 to provide a dual crane operation extending over 410 m. of berth. A new 70 tonne Leibherr container crane commenced operation in February 1993.

Inner Harbour:

Z Berth: Located at the Eastern mole of the Inner Harbour, this berth is suitable for both general cargo and fishing operations. Two large privately owned coolstores are located behind the berth. With a total capacity of 3,000 tonnes, the coolstores are suitable for the storage of fish, meat or horticultural products. A stern linkspan suitable for container handling by forklifts is available. The berth is 160 m. long and has a water depth of 10.1 m. below MLWS.

Gladstone Pier: Gladstone Pier is 275 m. long with a water depth of 11.9 m. below MLWS. This berth has 2 heavy duty pads suitable for handling containerised cargo from quarter ramp and small lift-on/lift-off vessels.

No. 1 Breastwork: A general cargo berth regularly used for the discharge of bulk cement. Construction of a heavy duty pad for lift-on/lift-off vessels was completed in November 1992. Berth length is 159 m. and the depth is 9.5 m. below MLWS.

Wharf No. 2: This finger wharf is concrete decked to road transport standards (Class 1 Highway). In the main, it is used for the discharge of dry bulk import and general cargoes. Bulk cargoes, such as gypsum and fertilisers, are discharged by 5 tonne wharf cranes, or ship's cranes, into mobile hoppers. 4 mobile hoppers with capacities between 60 – 100 tonnes are available. The total berth area of 6,585 sq.m. provides a smooth cargo handling area and excellent working space for road transport vehicles. No. 2 East is 270 m. in length, and has a water depth of 12.0 m. below MLWS. No. 2 West is 169 m. in length, and has a water depth of 10.5 m. below MLWS.

Wharf No. 3: A finger pier of wooden construction, this berth is suitable for use as a lay-up/repair berth, or for light operations because of an axle loading restriction of 3 tonne. No. 3 East is 195 m. in length with a water depth of 10.0 m. below MLWS. No. 3 West is 223 m. in length with a water depth of 12.7 m. below MLWS.

Wharf No. 4: This finger wharf, constructed in timber, has an axle loading limit of 3 tonnes. There is a pad at No. 4 West which may be used for the stern loading of some Ro-Ro vessels. No. 4 East is 148 m. long with a water depth of 11.0 m. below MLWS. No. 4 West is 170 m. long with a water depth of 9.2 m. below MLWS.

Wharf No. 7: This wharf is maintained to road transport standards (Class 1 Highway). It is constructed in timber and equipped with a heavy duty pad at No. 7 East for quarter ramp vessels and stern Ro-Ro vessels. No. 7 West is equipped with a ramp for stern Ro-Ro vessels. The wharf is regularly used by coastal shipping services. In addition, the wharf has facilities for 18 refrigerated container points. No. 7 East is 187 m. long with a water depth of 9.9 m. below MLWS, and No. 7 West is 200 m. long with a water depth of 9.7 m. below MLWS.

Oil Wharf: See "Tankers".

Cattle Jetty: This wharf of timber construction is used in the main for bunkering of fishing vessels. The jetty is 60 m. long and has a depth of 7.0 m. below MLWS.

Weighbridge: The port has a public weighbridge for road transport (50 tonne maximum).

Ice Plant: The Lyttelton Port Company has combined with the local fishing industry to provide a waterfront site for an ice-making plant with 35 tonne storage capacity at No. 6 Jetty, and 2 ice plants at No. 5 Jetty (with associated fuel supplies).

STEVEDORES: Four companies with their own permanent labour provide stevedoring services in the port. Contact details are:

Lyttelton Port Company Limited	Tel: (03) 3328 8198.
Canterbury Stevedoring Services Ltd.	Tel: (03) 3328 7149.
Pacifica Shipping (1985) Limited	Tel: (03) 3328 8059.
BHP Stevedoring Ltd.	Tel: (03) 798487.

CARGO HANDLING FACILITIES: The Cargo Handling Division of the Lyttelton Port Company offers specialised cargo handling services for containers, bulk cargo, general stevedoring and plant hire.

Containers: The Port of Lyttelton has modern facilities, equipment and services for the safe and efficient handling of containers. Currently handling over 90,000 TEU's annually, the port is dedicated to providing the rapid turnaround of vessels and the speedy despatch of containers to their destinations.

Lyttelton is a deep water port and is able to service large container ships through modern heavy duty container berths, up-to-date equipment and a reliable and experienced workforce.

Containers are transported by road or rail to and from the port which is only minutes from Christchurch, the largest commercial centre in the South Island. Documentation can be processed very quickly with the appropriate Government agencies, the Ministry of Agriculture and Fisheries, Customs and the Ministry of Forestry, all conveniently located nearby.

The Lyttelton Port Company is committed to further improving the level of service and container handling facilities available for customers. This is demonstrated by the recent investment in a new container berth, a second container crane and a fully computerised container tracking system.

A technologically advanced container tracking system has been installed. It provides customers with a direct link for up-to-the-minute information on the status of their containers.

Facilities: The major facility for handling containers is the Lyttelton Container Terminal situated alongside Cashin Quay No. 3 and Cashin Quay No. 4.

The Terminal's container handling is highly efficient with a low berth usage, and vessels being turned around in one day. Key services include the direct ship exchange of containers, packing and unpacking, container washing, refrigerated container monitoring and storage. Container repair is also available at the port.

The terminal area currently occupies over 8 hectares and is completely fenced with entry restricted to those on official business. Within the Terminal, there is capacity for the storage of over 3,500 containers with specialised areas for imports, exports, refrigerated containers, repairs, container washing and empty containers. Containers are stacked 3 high and all areas are serviced by straddle carrier.

Specialised container handling facilities and services are also available at Cashin Quay No. 1 and No. 2, Gladstone Pier and Wharf No. 7.

Equipment: The ability to reduce the dwell time of shipping and cargo has been further improved with a second crane. The second crane and the new berth are providing customers with the flexibility of working 2 cranes on one ship, or 2 ships may be worked simultaneously utilising one crane each.

Cashin Quay No. 3 is equipped with a 46 tonne SWL Vickers Hoskins Paceco single lift portainer crane.

Outreach from fender: 32.38 m.
Total lift height: 39.32 m.

Cashin Quay No. 4 accommodates a new Post Panamax Liebherr crane which has a 70 tonne lifting capacity.

Outreach from fender: 40.63 m.
Total lift height: 46.50 m.

7 Clark straddle carriers, each with UHF radio, ISO IC spreader and maximum lift capacity of 30 tonnes, manoeuvre containers around the port. These diesel powered straddle carriers can stack ISO IC containers 3 high and ISO IA containers 2 high.

4 Valmet straddle carriers are now operating. These straddles have a maximum lift capacity of 40 tonnes. Each is fitted with a telescopic spreader to enable ISO IA, IB and IC containers to be stacked 3 high.

With the introduction of the new container tracking system, all straddle carriers are to be equipped with computer screens.

Other specialised equipment available for the handling of containers include 5 diesel powered forklifts with UHF radios. Telescopic side lifting, top lifting and fork or prong functions are available with a maximum capacity of 25 tonne.

All Port Company equipment is maintained and serviced regularly on site to a high standard.

Bulk Cargo: Lyttelton is a principal port for the export of coal which is railed from fields on the South Island's West Coast.

Lyttelton Port Company staff are able to arrange all bulk cargo handling requirements and facilities for fertilisers, gypsum and grains.

Complete facilities for the receipt, storage and shiploading of grain are available. The Port Company has 4 silos with a total capacity of approximately 12,000 tonnes, depending on the type of grain stored.

The silos are also used for the storage and delivery of imported grains.

Specialist equipment includes mobile hoppers, shiploader, conveyor systems and cranes.

MEDICAL: Hospital facilities are available at Christchurch, 12 km. from port, and international regulations apply in regard to inoculations, vaccinations, etc. Agents can be notified at any time of medical allocation required, preferably with 24 hours' notice.

TANKERS: *Oil Wharf:* The oil wharf is used for the loading and unloading of liquid bulk cargoes as well as bunkering.

All tankers berth at the Oil Wharf. Maximum draft 12.00 m.

Three 200 mm. nominal bore marine unloading units are provided: 2 units for "white" products and 1 unit for "black" products. These can be connected during hours of darkness; they are not allowed to be disconnected until daylight, unless permission has been given by the Marine Operations Manager. Slop or oily residue facilities are not available.

Boiler Fuel Oil: Suppied by 100 mm. and 150 mm. diameter hose.

Diesel Oil: Bunker hose connected to a 200 mm. diameter pipeline located on the Oil Wharf.

Delivery rate: Boiler oil 200 tonnes per hour. Diesel oil 60 tonnes/hr.

An LPG Marine unloading arm is situated on the oil wharf. LPG is pumped direct to Christchurch.

DENSITY: 1025, salt water.

FRESH WATER: Available at all berths at the Port of Lyttelton. Supply rate is approximately 20 tonnes per hour.

FUEL: See "Tankers"

FIRE PRECAUTIONS: Tankers are not permitted to immobilise engines at the oil wharf. Repairs may be carried out at other wharves with Marine Operations Manager's permission. Boiler and galley fires are not required to be extinguished when loading or discharging. All scuppers are to be plugged and cemented in case of spillages.

CONSULS: At Christchurch.

Belgium	3486772	Malaysia	3389059
Chile	3791197	Netherlands	3669280
Denmark	3895734	Norway	3798980
Finland	3661658	Spain	3660244
France	3516259	Sweden	3650000
Germany	3793193	U.K.	3655440
Italy	3597372	U.S.A.	3790040 or 3661097
Japan	3665680 or 3669030	Uruguay	3650000/3798606
Korea	3790040		

REPAIRS: A complete service for industrial or marine construction, steel fabrication, machinery design and repairs, and electrical contracting is available. Lyttelton has a long history as a port renowned for high quality repair work undertaken by private contractors.

DRY DOCKS: Lyttelton has the only graving dock in the South Island. It is used by various classes of coastal and overseas vessels. Its dimensions are: Floor length 137.15 m., width 14.0 m., top length 146.75 m., entrance width 18.90 m., maximum draft 5.00 m. Electric pumps take 4.5 hours to pump the dock dry.

SURVEYORS: Representatives of the major classification societies are available for survey examinations. Divers are available for underwater inspections.

GANGWAY/DECK WATCHMEN: All ships must be provided with a watchman whilst at oil wharf; a shore watchman is also required. Watchmen may be ordered at any time by contacting Maritime Employment Services, Tel: 328 7224.

CUSTOMS ALLOWANCES: 250 grams and/or 200 cigarettes per person, 1 bottle of wine and/or 1 bottle of spirits, 24 cans of beer per person on arrival. Every 10 days: 200 cigarettes per person, 12 bottles of spirits per ship (regardless of crew size) and 2 cans of beer per person per day.

REPATRIATION: Facilities available.

AIRPORT: Distance from Christchurch – 12 km., served by regular airlines.

TIME: Local time is 12 hours ahead of GMT. N.Z. daylight time from 0200 hrs. (NZST) on last Sunday in October until 0200 hrs. (NZST) on the 2nd Sunday in March – 13 hours ahead of GMT.

HOLIDAYS: 1st January (New Year's Day); 2nd January (Statutory); 6th February (Waitangi Day); Good Friday; Easter Monday; 1st Monday in June (Queen's Birthday); Second to last Monday in October (Labour Day); 2nd Friday in November (Canterbury Anniversary); 25th December (Christmas Day); 26th December (Boxing Day).

Many operations work on public holidays.

POLICE/AMBULANCE/FIRE: For emergency calls from ship's telephones, dial 111 and ask the operator for service required.

TELEPHONES: All vessels may be connected to the Telecom New Zealand system.

SERVICES: *Electricity:* Shore electricity is available. Type A.C., 50 Hz, 415 Volts, 3 phase or 230 volts single phase.

SHORE LEAVE: Crew members are allowed ashore.

IDENTIFICATION CARDS: Passes are necessary at oil wharf but not required otherwise.

GENERAL: *Hours of Work:* The Port of Lyttelton is open 24 hours a day, 7 days a week. The hours of operation vary according to the cargo being worked.

Security: A continuous listening watch is maintained on 2182 kHz and VHF Channel 16.

GARBAGE DISPOSAL: A garbage collection service is available. Drums are provided on board and collected each morning. The charge for this service is included in the berthing charge.

WASTE OIL DISPOSAL: Fleet of 100 tonne tanks available to collect waste oil from any berth. Current charge NZ$ 165.00/tonne. Contact Stark Brothers Ltd. Tel: 643-3288550. Fax: 643-3288791.

SEAMAN'S CLUBS: There are two banks, a post office, sports field, squash courts, tennis courts, swimming pool, library, shops, churches (Catholic/Anglican/Presbyterian), 7 public houses (taverns), a Seafarer's Centre and 13 eating places, all within 2 km. of port wharves.

CURRENCY: New Zealand Dollar (NZ$).

AUTHORITY: Lyttelton Port Company Limited, Norwich Quay, Lyttelton. Postal Address: Private Bag 501, Lyttelton, New Zealand. *Tel:* (3) 328-8198. *FAX:* (3) 328-7828. *Contact:* Captain W.T. Oliver, Marine Operations Manager/Harbour Master.

NAPIER: 39.29 S. 176.54 E. (See Plan)

DOCUMENTS: See "Auckland".

PILOTAGE: Pilotage is compulsory.

Pilot boards in position: Lat. 39° 28' S., Long. 176° 57.6' E. Refer to New Zealand Port Information Manual Part I, Admiralty Pilot No. 51 (New Zealand Pilot), Chart NZ 5713.

ANCHORAGES: No. 1 Anchorage – 2 miles East of breakwater with Southern Leading Beacons in line. 19.0 m. sand, mud.

No. 2 Anchorage – 1 mile N.E. of North Pania Buoy with Northern Leading Beacons in line. 21.0 m. sand.

RESTRICTIONS: Vessels are berthed at any time. Vessels up to 9.0 m. draft may berth at any state of tide.

MAX. SIZE: Max. LOA 230 m.; beam, no limit; draft, 10.4 m.

HEALTH: Cable Port Health Napier 24 hours before arrival. Port Health will board on arrival.

RADIO/VHF: 24 hour listening watch on VHF Channel 16, call sign "Napier Harbour Radio".

TUGS: Two tugs available (1×32 ton and 1×28 ton bollard pull).

BERTHING: Vessels at max. draft limited to HW for arrival and/or departure. Vessel's ETA must be given to Harbour Master, Napier, 24 hours before arrival or on departure from previous port if less than 24 hours, and amended 4 hours prior to arrival. Max. draft arrival to be included.

Vessels arriving during a weekend, ETA to be given by 1500 hrs. Friday and at 1500 hrs. on a day preceding a public holiday.

SPECIALISED CARGO FACILITIES: *Woodpulp Storage:* Adjacent Higgins Wharf, Shed Nos. 7 and 9. Total capacity, 49,000 tons.
Bulk Fertiliser Storage: Adjacent Higgins Wharf, Shed No. 8 – rock phosphate, capacity 60,000 tons; Shed No. 10 – fertiliser bases, capacity 32,000 cu.m.
Logs: Storage area 50,000 tons.
General Cargo Sheds: Adjacent Geddis, Herrick & Kirkpatrick Wharves, Shed Nos. 1, 2 and 3, total size 5,300 sq.m.
Container Packing/Devanning: Adjacent Kirkpatrick Wharf, Shed No. 5, size 3,000 sq.m. Shed No. 4 – 6,300 sq.m.

Electric power and storage for 240×20 ft. reefers. 4 acre paved dry box yard. Serviced cleaning yard for 70×20 ft. and 40 ft. reefers.

Tanks for tallow and edible oils.

Cement Silos.

Mobile Plant: 2 mobile container cranes, capacity 30 tons at 40 m. radius.
Installed Plant: 2 spiralveyor units. Integrated automated all weather materials handling system for import and export of cartonned, bagged and carcass products.

STEVEDORES: ETA required for discharging ships 24 hours before arrival. Loading ships 48 hours before arrival with proposed stowages and vacant spaces. Advise number of gangs able to work. All work done by ship's gear.

MEDICAL: No prior notice required for medical attention. Hospital facilities available. Advice would be needed of any contagious disease on board in advance, in accordance with Port Health Regulations.

TANKERS: Standard size discharge lines. All connections supplied by oil companies. 2 berths available: 1 berth, max. length 200 m., draft 10.4 m.; 1 berth, max. length 230 m., draft 10.0 m.

DENSITY: Variable, generally 1020 – 1025.

FRESH WATER: Available all berths 20 t.p.h. per hose.

FUEL: 220 and 1,000 sec. Oil available ex-pipeline at 110 t.p.h. Marine diesel and gas oil ex-road tanker. All at immediate notice. Lubricating oil available. 1 week's notice. Residue service available when tank vessels discharging/loading or having hazardous goods in transit.

FIRE PRECAUTIONS: Watchman supplied on wharf at ship's expense.

REPAIRS: First class service available.

GANGWAY/DECK WATCHMEN: All ships must have gangway watchmen. Cargo and deck watchmen available on request.

OPENING/CLOSING HATCHES: Hatches normally opened and closed by stevedores unless automatic type.

CERTIFICATES:
Ship's Register.
Health Certificate.
Cargo Safety Certificate.
Radio Safety Certificate.
Load Line Certificate.

CUSTOMS ALLOWANCES: See "Auckland".

REPATRIATION: On arrangement with Customs and vessel's Agents.

AIRPORT: Hawke's Bay Airport, served by internal airline 3 miles from port.

TIME: Winter GMT plus 12 hours. Summer GMT plus 13 hours.

HOLIDAYS: The port operates 24 hours a day and on all public holidays.

POLICE/AMBULANCE/FIRE: Emergency telephone 111.

TELEPHONES: Connections at all berths.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Drums are provided on board. Should ship exceed two drums, a charge will be made. Contact Tel: 06-834-4400.

WASTE OIL DISPOSAL: A1 Septic Tank Cleaners, 43 Thackeray St., Napier, N.Z. Tel: 06-8359767. Allens Tank Cleaners, P.O.Box 4021, Marewa, Napier, N.Z. Tel: 06-8436633.

SEAMAN'S CLUBS: Seafarers Centre, Breakwater Road, Napier. Tel: 06-8351906. Facilities include shop, international telephone service, chaplain on request, football matches arranged, postage facilities, games, TV.

CURRENCY: New Zealand Dollar (NZ$).

AUTHORITY: Port of Napier Limited, P.O.Box 947, Napier, New Zealand. *Tel:* (06) 834-4400. *FAX:* (06) 834-4408. *Contact:* G.J. Marshall, General Manager. F.J. Roil, Port Operations Manager.

NELSON: 41.16 S. 173.17 E. (See Plan)

PORT LIMITS: Within 3 miles radius of Old Lighthouse on Boulder Bank.

DOCUMENTS: See "Auckland".

PILOTAGE: Compulsory for vessels of 100 g.r.t. and over. 24 hours' notice of ETA to Harbour Master. Confirm ETA before 1500 hrs. Friday if arriving during weekend or public holiday.

Harbour Office maintains 24 hour watch on VHF Channel 16. Call sign is "Nelson Harbour Radio".

VHF on Channel 16 listening and Channel 12 working. Pilots board inward-bound vessels 2 miles to seaward of main entrance.

Anchorage awaiting Pilot in depth about 30 ft., and with Old Boulder Bank Lighthouse (conspic.) bearing 180° distance 1.8 miles. By night landfall light (K 4224) bearing 160° distance 2 miles. Pilot vessel 40 ft. planing hull, speed 19 knots, painted orange.

ANCHORAGES: Anchorage as indicated in pilotage or further seaward according to weather conditions, draft and length of stay at anchor.

RESTRICTIONS: Vessels may enter, berth, unberth, or leave during hours of darkness. Overseas vessels (over approx. 120 m.) enter port on flood tide and usually swing and berth port side to.

MAX. SIZE: Max. permissible length 200 m. Beam 32.5 m. Draft limits 9.2 m. Max. draft at Main Wharf is 8.7 m.
Note: Max. draft of 9.2 m. may be exceeded at Harbour Master's discretion.

HEALTH: Radio Pratique usually granted. Pratique automatic after clearance at first port. If suspected disease or fever on board advise Medical Officer of Health, Nelson, by radio and await instructions.

RADIO: ZLW Wellington Radio; ZLB Awarua Radio; ZLD Auckland Radio.

TUGS: Two tugs available, join vessel inside harbour. Tug's own line used on berthing. Tugs are equipped for fire-fighting.

Also see "Ship Supply Service".

SPECIALISED CARGO-HANDLING FACILITIES: Facilities are available at one general cargo berth for discharging motor spirits and oil. Another berth is used for loading wood chips pneumatically (the loading equipment is owned by Nelson Pine Forest Limited, Nelson). Common user Roll-on/Roll-off Linkspan.

STEVEDORES: Labour ordered 0700 hrs. for weekday work; 0900 hrs. Friday for Saturday work. ETA should be received by Agents before these times.

MEDICAL: Advise Agents of any medical attention required, giving up to 24 hours' notice. Hospital facilities are obtainable.

TANKERS: Diameter of discharge pipe, 10 in. white products; 8 in. black oil. No slop discharge facilities. Oil tanker berth, one only. Max. draft at berth 7.9 m.

DENSITY: Average sea water, 1025.

FRESH WATER: Obtainable at any time. Approximately 20 t.p.h. delivery rate.

FUEL: Marine fuel oil, gas oil. Notice required, 24 hours.

REPAIRS: Deck and engine repairs are possible. Limited underwater repairs available and hull cleaning service.

DRY DOCKS: Slipway available for up to 1,500 ton vessels.

GANGWAY/DECK WATCHMAN: Watchman necessary but usually provided by ship's crew. Shore watchman can be engaged if requested by vessel. Cost in accordance with national award.

OPENING/CLOSING HATCHES: By stevedores only.

CUSTOMS ALLOWANCES: See "Auckland".

REPATRIATION: Facilities exist.

AIRPORT: Distance 3 miles. Served by internal airline only.

TIME: GMT plus 12 hours. Daylight saving in Summer months, advance clocks 1 hour to GMT plus 13 hours.

HOLIDAYS: New Year's Day (1st January); 2nd January; Picnic Day (usually near end January); Anniversary Day (1st Monday in February); New Zealand Day (6th February); Good Friday; Easter Monday; Queen Elizabeth II Day (1st Monday in June); Labour Day (4th Monday in October); Christmas Day; Boxing Day.

POLICE/AMBULANCE/FIRE: Police 88309; Ambulance 88299; Fire 81589; Emergency calls, dial 111.

EMERGENCY CO-ORDINATION CENTRE: S.A.R. Emergency Centre situated in Wellington covers the whole country.

TELEPHONES: Can be connected on board.

STORING: Vessels can be stored by truck (no barges available) which may proceed alongside (except tankers). Fork lift trucks available, however no riggers available.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Not required.

SHORE POWER: 400 v., 3 h.p. 50 Hz, 60 amps maximum.

SHIP SUPPLY SERVICE: The Nelson Harbour Board operates 2 tugs and one pilot vessel. The larger tug, "Huria Matenga", is 3,000 h.p. Niigata Z pellar, the smaller tug, "W. H. Parr" is 1,500 h.p. Schottel, and the pilot vessel, "Waimea" is a 40 ft. planing hull vessel with a top speed of 19 knots.

Nelson also has a locally based helicopter firm of Helicopters (N.Z.) Ltd. based at Nelson Airport, who undertake contract work, as well as emergency work. Their helicopters also have marine VHF Channel 16.

GARBAGE DISPOSAL: Collection is available. Drums are provided. Tel: 0354-82099. Charges and collection time by arrangement.

WASTE OIL DISPOSAL: By arrangement through ship's agent.

SEAMAN'S CLUBS: Mission to Seamen, Kingsford Quay. Tel: 0354-87623. Facilities include comfortable lounge, pool tables, tea making. Other services by arrangement.

CURRENCY: New Zealand Dollar (NZ$).

AUTHORITY: Nelson Harbour Ltd., P.O.Box 844, Nelson, New Zealand. *Tel:* 03-5482099. *Telex:* Nelharb NZ 31066. *Cables:* Nelharbour. *FAX:* 03-5469015. *Contact:* D.H. Green, Managing Director. Captain B.J. Westbrooke, Harbour Master (After hours Tel: 5446877).

NEW PLYMOUTH, Port Taranaki: 39.03 S. 174.02 E. (See Plan)

PORT LIMITS: All waters contained within the area of a circle with radius 2.5 nautical miles whose centre is the trig station on Mount Moturoa in position Lat. 39° 03' 56.8" S., Long. 174° 01' 44.9" E.

DOCUMENTS: *Customs:* See "Auckland".
Agriculture: Shipmaster's Bond List. Meal Locker Declaration Form AGL 36 (2 copies).
Health: Maritime Declaration of Health (issued by Port Health Officer).

PILOTAGE: Compulsory. Advise ETA to "Operations Manager Westgate" (Telex: NZ 3500. Fax: 06-7510886) 24 hours prior to arrival, and confirm 6 hours and 2 hours prior to arrival. VHF Channels 16 and 12 (30 miles) and Channel 61 (60 miles). Radiotelephony 2182 kHz and 4125 kHz.

Pilot boat has orange hull with yellow cabin. Pilot boards 2.5 miles North of Main Breakwater. Ladder to be rigged 2.0 m. above water.

Pilot boat white with buff deckhouse and "Pilot" in black on side. Pilot taken onboard about 1.5 miles due North of Main Breakwater Head.

ANCHORAGE: Vessels can anchor to the West of a line due North from the Main Breakwater head seaward of the 10 fathom line. Good holding on sandy bottom. Not recommended in Northerly weather conditions.
RESTRICTIONS: Max. draft 10.0 m. Ships under 7.5 m. not affected by state of tide. In range 7.5 m. to 10.0 m., time of berthing relevant to high tide.
MAX. SIZE: Length 225 m. (can be extended with prior permission). Beam according to berth and draft.
HEALTH: Pratique granted by radio (Port Health, New Plymouth – Fax: 64-6-753-2023). Pratique automatic if vessel has already called at another New Zealand port.
RADIO/VHF: Radio telephone system operates watches for 15 minutes every 4 hours from midnight. Call sign "New Plymouth Harbour Radio", call frequency 2182 kHz. Working frequency 2012 and 2162 kHz. 24 hour watch maintained on VHF Channel 16. VHF Channels 12 and 61 also available.

Oil and chemical tankers must send cargo details 48 hours prior to arrival.
TUGS: 2 tugs available. 1×7 ton and 1×30 ton bollard pull.
BERTHING: In general all ships are swung in basin coming alongside berth stern first. Shore moorings are used.
Breakwater 1: Length 122 m., width 10 m., depth alongside LWOST 6.5 m. For use by oil field barges, supply vessels and fishing vessels. Road transport only.
Breakwater 2: Length 150 m., width 20 m., 6.5 m. LWOST.
Moturoa Wharf: Length 335 m., width 27.4 m.

East side of wharf: One berth 260 m. long, depth alongside LWOST 10 m. Urea loader with capacity 500 tonnes/hr. Storage 18,000 tonnes. One berth 76 m. long, depth alongside LWOST 6.5 m.

West side of wharf: One berth 137 m. long, depth alongside LWOST 7.5 m. Bunkering point on No. 2 berth. Road and rail transport may be used to load and discharge dry cargo.
Newton King Wharf: Tanker use only. Max. LOA 212 m. Motor Spirit, Bitumen, Oils, Caustic, Chemicals. Exports: Condensate, Methanol and LPG, Synthetic Petrol. Depth alongside LWOST 11.5 m.
Blyde Wharf: West side of the wharf: See "Container Handling Facilities".

East side of the wharf: Length 80 m., width 5.5 m. and 13.4 m., depth alongside LWOST 6.5 m. Road transport only. For use by oil field supply vessels.

Two mobile heavy lift cranes, capacity 70 tonnes each, available for use on Blyde Wharf and Breakwater Berth.

Cold storage with 5,000 tons capacity adjacent to Blyde No. 1 Berth, and dry storage with capacity 4,000 tons adjacent to Blyde No. 2.
CONTAINER HANDLING FACILITIES:
Berth: Blyde Wharf.

Length:	420 m.
Depth:	11.0 m.
Max. Draft:	10.0 m.

Equipment available for gearless ships:

2 crawler cranes with the following capabilities:
2 tons at 30 m. from berth face.
10 tons at 25 m. from berth face.
18 tons at 14 m. from berth face.
24 tons at 11 m. from berth face.
30 tons at 7.5 m. from berth face.

3×D.55 forklifts with 20 ft. and 40 ft. spreaders, max. lift 24 tons stack 3 high.

2×D.25 forklifts with side frames, max. lift 6 tons 3 high.

Gearless vessels of 900 T.E.U. regularly use the berth with exchanges of 500-700 T.E.U. and with careful attention to stowage weights do not have to turn around. On a mixed load and discharge of full boxes, average rate is 12 boxes per hour per crane, empties 20 boxes per gross hour per crane.

Storage for 76 reefer slots and 66 integrals are available plus storage for in excess of 2,000 T.E.U. A cleaning and repair facility is also available.

Operations possible 24 hours a day, 7 days a week.

F.C.L. boxes are delivered throughout the North Island within 24 hours of discharge.

Rail access to ship's side and yard.
STEVEDORES: Available 24 hours a day, 7 days a week. Agents should be advised ETA at least 24 hours, preferably 72 hours, in order arrange cargo if vessel loading.
MEDICAL: Hospital services available.
DENSITY: Sea water.
FRESH WATER: Available at all berths from main supply at about 100 t.p.h.
FUEL: Gas oil line at Blyde No. 3, Moturoa Berths and Newton King Wharf.
FIRE PRECAUTIONS: Tanker berths closed to public. Watchman in attendance.
TANKERS: *Newton King Tanker Terminal:*
Number of Berths: Two.
Operator and Owner: Westgate Transport Ltd.
Maximum Size:

	Max. LOA		*Max. Stern to Loading Arm*		*Max. Bow to Loading Arm*	
Berth	No. 1	No. 2	No. 1	No. 2	No. 1	No. 2
Condensate/ Crude (SBPT Loading Arm)	211 m.	211 m.	102 m.	92 m.	113 m.	113 m.
Synfuel	211 m.	211 m.	111 m.	101 m.	104 m.	104 m.
Methanol	211 m.	211 m.	125 m.	115 m.	90 m.	90 m.
LPG	–	–	–	62 m.	–	–

Maximum Displacement: 50,000 tonnes.
Max. Draft Arrival: 10.0 m.
Max. Draft Departure: 10.0 m.
Max. beam at 10.0 m. draft: No. 1 – 35 m. No. 2 – 35 m.

Hours of Operation: Dependent on draft/tide combinations. Loading/discharging on 24 hour basis.
Tugs: 1 Liaan Compass thruster tug, 30 tonne bollard pull.
1 Voith Schneider tractor tug, 7 tonne bollard pull.
Ballast Facility: Max. ballast receiving capacity 22,000 tonnes. Ballast must be lead free.
Special Conditions: Arrival drafts to be not less than normal sea-going ballast condition. No excessive trim at any time. All vessels use shore wire coirs. One ship's line each end only used for berthing/unberthing. Marine diesel is available. Fuel oil is not available. Fresh water is available.
Products Handled:

	Avg. S.G.	*Avg. Temp. (°C)*	*Loading Rate (t.p.h.)*	*Connection*
Kapuni	0.7658	19	1,300	Loading Arm
Maui (12 in.)	0.7468	19	1,300	Loading Arm
McKee	0.829	28	1,600	Loading Arm
Synfuel (12 in.)	0.7316	19	1,400	Loading Arm (dedicated)
Methanol (10 in.)	0.7924		1,000	Loading Arm (dedicated)
LPG (6 in. and 6 in.)	0.532	20	150	Loading Arm (dedicated)

In addition to the above, a variety of other products are also shipped, namely small parcels of caustic soda and other chemicals through flexible hoses. Tallow is also occasionally transhipped across the wharf.
CONSULS: None available locally. Nearest at Wellington or Auckland.
REPAIRS: All repairs except underwater work of a major nature.
SURVEYORS: Surveyors can be arranged.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
CERTIFICATES:
Normal Safety Certificates.
Ship's Register.
CUSTOMS ALLOWANCES: See "Auckland".
REPATRIATION: Facilities available.
AIRPORT: 7 miles from city, 10 miles from port. Served by domestic service only, 5 flights Northbound and Southbound each daily.
TIME: 12 hours ahead of GMT. N.Z. Daylight time observed.
HOLIDAYS: New Year's Day; 2nd January; Stevedores Picnic (4th Monday in January); Waitangi Day (6th February); Provincial Anniversary Day (2nd Monday in March); Good Friday; Easter Monday; Anzac Day (25th April); Queen's Birthday (1st Monday in June); Labour Day (4th Monday in October); Christmas Day; Boxing Day.
POLICE/FIRE/AMBULANCE: Telephone numbers respectively, 7575449, 7575505, 7575439.
EMERGENCY CO-ORDINATION CENTRE: *Emergencies:* Contact New Plymouth Harbour Radio on VHF Channels 16 or 12 or Tel: 06-7510516.
Port Alarm: Wailing siren with red flashing light on top of cement silo at inshore end of Newton King Tanker Terminal. Action – cease work, muster crew, open contact with Harbour Radio on VHF Channel 12 for instructions.
TELEPHONES: Can be connected on board.
STORING: By road or rail truck to shipside. Tankers by road to wharf gate and hand truck to shipside approx. 400 ft. Customs available. Ship's crew to be used for stores.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Garbage service provided (drums). Charges included in marine services charge. Collection time 1100 hrs., Monday to Saturday.
WASTE OIL DISPOSAL: Tanker trucks of various sizes available, arrange through Agent.
SEAMAN'S CLUBS: Seafarers Centre (Port Taranaki), Wharf Street, Port Taranaki. Tel: 7510012. Snacks, shop, money exchange and international telephone.
CURRENCY: N.Z.$.
GENERAL: Ship's garbage must be in covered containers supplied by Harbour Board and removed daily. Any meats on board vessel on arrival which have been supplied from other than Australia or New Zealand will be sealed off and fresh supplies obtained.
AUTHORITY: Westgate Transport Ltd., P.O.Box 348, New Plymouth, New Zealand. *Tel:* 64-6-7510200. *Telex:* NZ 3500. *FAX:* 64-6-7510886. *Cables:* Taragate. *Contact:* Captain R. Barlow, Harbour Master.

ONEHUNGA: 36.56 S. 174.47 E. (See Plan)

PORT LIMITS: All that area of water contained within an area bounded to seaward by an arc of a circle 4 miles radius from the Southern extremity of Paratutai Island.
DOCUMENTS: See "Auckland".
PILOTAGE: Not compulsory, but arrangements can be made with the Harbour Master at Auckland to supply the services of a Pilot if required. A Pilot will then board a vessel off Te Pirau, situated about 2 miles N.E. of South Head main light.
Pilotage District: All those waters of the Manukau Harbour contained within a line drawn 180° to the South shore from Jackie Hill on Kaiteke Point 015.5° – 2.85 miles approximately from the Southern extremity of Paratutai Island.

The signal station is equipped with both medium frequency and VHF radiotelephone. Call sign is "Manukau Harbour Radio" and VHF Channels 10, 11, 12, 13, 14 and 16.

Listening watches are maintained as follows:
0800 to 0830 – Call 2182 kHz, work 2012 kHz.
0830 to 0900 – Calling and working 2012 kHz.
1800 to 1830 – Calling 2182 kHz, working 2012 kHz.
1830 to 1900 – Calling and working 2012 kHz.
0800 to 0900 – VHF Channel 16.
1800 to 1900 – VHF Channel 16.
Other times by arrangement.

Note: Should a vessel be crossing the bar during the scheduled watch periods, the signalman will be working on 2012 kHz with that vessel and not listening on 2182 kHz.

Vessels equipped with radiotelephone must maintain contact with the signal station while crossing the bar.

Weather conditions permitting, information concerning bar conditions will be supplied on request from the signal station. Such information can only be regarded as a guide, as observations are made from the signal station which is situated about 5 miles from the bar and elevated 243.84 m. (800 ft.).

Radiotelephone – Onehunga: A radiotelephone is installed at the office of the Officer-in-Charge at Onehunga. The call sign is "Onehunga Harbour Radio" and the working frequency 2012 kHz.

Vessels equipped with radiotelephone, when within Puponga Point, must maintain a listening watch on 2012 kHz for information relative to berthing, harbour traffic or other harbour conditions.

No regular watches are maintained.

ANCHORAGES: After crossing the bar it is not advisable to anchor until after rounding Puponga Point, if proceeding to Onehunga; or after rounding Kauri Point (situated about 15 miles S.E. of Puponga Point), if proceeding to the Southward.

Prohibited Anchoring and Fishing Area: Within an area extending 2 miles from Destruction Gully front beacon in a 182° direction and having a width of 152 m. (500 ft.) on each side of the transit of Destruction Gully beacons.

Prohibited Anchorage: Within 91 m. (300 ft.) of a sewage submarine pipeline laid in a 152° direction across Wairopa Channel about 1 mile Westward of Onehunga Wharf. On the Northern shore, 2 white triangular beacons, each bearing the word "Sewer" in black letters, mark the middle of the Prohibited Anchorage. The pipeline lies approximately 3 m. (10 ft.) to the Eastward of the beacons when in transit.

Prohibited Anchoring and Fishing Area: Anchoring and fishing are prohibited within an area bounded by a line commencing at the South end of Renton Road (Lat. 37° 00.08' S., Long. 174° 45.2' E.); thence running 180° for 2,590 m.; thence 090° for 5,291 m.; thence 050° to the shore. The Northern boundary commences at Nganui Point (Lat. 37° 00' S., Long. 174° 48.4' E.); thence 090° to the opposite shore.

The above area, adjacent to Auckland International Airport, is marked by following lights and beacons, bearings and distances from Aero light (37° 00' 48" S., 174° 47' 31" E., approx.).
Light F. 058° 45' – 1,936 m.
Beacon 259° 30' – 3,185 m.
Beacon 220° 45' – 2,848 m.
Beacon 183° 15' – 1,890 m.
Beacon 143° – 2,317 m.
Light Beacon Qk.Fl. 239° – 3,642 m.
Light Beacon Fl.R.2 secs. 122° 45' – 3,466 m.
Light Beacon Fl.R.2 secs. 112° 45' – 3,261 m.
Light Beacon Fl.R.2 secs. 108° 30' – 2,453 m.

RESTRICTIONS: Berthing and unberthing during the hours of darkness is not recommended.

Controlling Depths Below Chart Datum		*Nature of Bottom*
Entrance to port (Southwest Channel)	5.48 m.	Sand.
Anchorages	5.486 m. – 7.62 m.	Mud, Shell, and Sand.
Channel	3.048 m.	
Approaches to berth	3.048 m.	
Berth (Onehunga)	3.3 m. – 4.7 m.	

MAX. SIZE: LOA, 95 m. Beam, No limit. Draft 4.7 m.
HEALTH: See "Auckland".
RADIO: See "Auckland".
VHF: See "Pilotage".
RADAR: A radar station having a maximum range of 72 miles is operated by Ports of Auckland Ltd. at South Head Signal Station Lat. 37° 03.2' S., Long. 174° 32.6' E. Masters may call on radio telephone and request particulars of their bearing and range as shown on the radar screen. Responsiblity for the use of this information rests entirely with the Master of the vessel.
TUGS: 1 twin screw tug is available. 52.5 tonnes gross, 400 b.h.p., static pull 3.5 tonnes. Tug is equipped with both medium and VHF Radiotelephone.
BERTHING: The principal wharf is situated at Onehunga and is a ferro-concrete structure 293 m. in length which includes a launch jetty of 17 m. at the Eastern end, and with a width of 49 m. A grid for the use of small craft has been constructed immediately North of the wharf. There is a small jetty at Cornwallis.

The deck level of the wharf is 6.401 m. above chart datum.

The wharf is connected to the railway system and the distance from the outside face of the wharf to the centre of the railway track is 3.73 m.

CRANES: No quay-side cranes. One 12.5 tonne capacity mobile crane available. For heavier loads cranes available for hire from outside port.
BULK CARGO FACILITIES: Eastern end of quay is equipped with a pipeline for the discharge of bulk cement to adjacent privately owned silos.
SPECIALISED CARGO HANDLING FACILITIES: Ro-Ro ramp with width 18.0 m. at the mid-length of the main quay.
BRIDGES: None.
STEVEDORES: Arranged by Agents. See "Auckland".
MEDICAL: See "Auckland".
TANKERS: No facilities.
DENSITY: 1025.
FRESH WATER: Available.
FUEL: Boiler fuel oil, diesel oil, and lubricating oil are available from tank wagons; delivery at the rate of 13,500 litres per hour through a 50 mm. hose. Coal is not kept in stock but can be obtained.
CONSULS: See "Auckland".
REPAIRS: Outside firms are available to do machine shop and foundry work.
DRY DOCKS: No facilities.
SURVEYORS: See "Auckland".
GANGWAY/DECK WATCHMEN: See "Auckland".
HATCHES: See "Auckland".
CUSTOMS ALLOWANCES: See "Auckland".
CARGO GEAR: See "Auckland".
REPATRIATION: Full facilities exist.
AIRPORT: 8 km. from port. Served by major international airlines.
TIME: See "Auckland".
HOLIDAYS: See "Auckland".
POLICE/AMBULANCE/FIRE: All emergency services are called through one telephone number. Dial 111 and state service required.
SERVICES: No special services.
SHORE LEAVE: Crew members may go ashore.
IDENTIFICATION CARDS: Not required.
REGULATIONS: See "Auckland".
DELAYS: Seldom any delays.
AUTHORITY: Ports of Auckland Ltd. P.O.Box 2353, Auckland, New Zealand. *Tel:* (09) 636-4739. *Telex:* NZ 2705. *FAX:* (09) 634-6599.
Contact: B. Jarman, Port Coordinator – Onehunga.

OPUA: 35.19 S. 174.07 E. (See Plan)

PORT LIMITS: Commencing at Northern extremity of Cape Wiwiki, thence by a straight line to the Eastern extremity of the Nine Pins, thence by a straight line to the North Western extremity of Cape Brett.
DOCUMENTS: See "Whangarei".
PILOTAGE: Compulsory Southward of a line from the Eastern extremity of Tapeka following a 350° True bearing to the Eastern extremity of the Black Rocks, thence in 271° True direction to the mainland. Pilots are available all hours day and night subject to prior minimum notice of 24 hours being received during normal weekday working day. Second notice confirming or amending first to be sent 4 hours before expected arrival. The Pilot supplies Harbour By-laws. Pratique, Agriculture and Customs clearance is normally undertaken on arrival at berth. Pilot from Whangarei, VHF contact possible.
ANCHORAGE: Renown Anchorage as per Bay of Islands Chart N.Z. 5122.
RESTRICTIONS: Veronica Channel: Restricted depth 6.0 m. at C.D.
MAX. SIZE: Max. draft 7.0 m. at H.W. and 6.00 m. at L.W.
RADIO: See "Whangarei".
TUGS: Available by arrangement with Northland Port Corporation, Whangarei. At least 72 hours' notice required.
BERTHING: Total length 214 m., width 12.5 m., overseas berthage on Eastern side of wharf. Depth at berth is 9.45 m. at MLWS.
CARGO HANDLING: Ship's own gear. 2 permanent gangs available subject to Stevedore requirements as per Whangarei.
MEDICAL: Hospital and Ambulance at Kawakawa, 12.8 km. (8 miles) from Opua. Port Doctor at Paihia, 8 km. (5 miles) away.
DENSITY: 1025.
FRESH WATER: Available.
FUEL: By arrangement with oil companies via road transport.
CONSULS: See "Whangarei".
SURVEYORS: See "Whangarei".
CUSTOMS ALLOWANCES: See "Whangarei".
REPATRIATION: See "Whangarei".
AIRPORT: See "Whangarei".
TIME: See "Whangarei".
HOLIDAYS: See "Whangarei".
POLICE/AMBULANCE/FIRE: See "Whangarei".
TELEPHONES: Telephones available.
SHORE LEAVE: See "Whangarei".
GARBAGE DISPOSAL: Service available. Limited to approximately 2 tonnes per day. 100 litre drums provided on board. Incinerator on wharf. Daily collection. NZ$ 10/hr. burning time.
WASTE OIL DISPOSAL: Not available locally. Can be arranged from Whangarei (70 km.) to be collected by road tanker (capacity 7,000 litre).
SEAMAN'S CLUBS: None.
CURRENCY: New Zealand Dollar (NZ$).
REGULATIONS: See "Whangarei".
DELAYS: See "Whangarei".
AUTHORITY: Northland Regional Council, Private Bag 9021, Whangarei, New Zealand. *Tel:* (09) 438-4639. *Telex:* NZ 2955. *FAX:* (09) 438-0012. *Cables:* "Harbour". *Contact:* Captain P.J.R. Wavish, Maritime Manager.
Port Company: The Owners/Managers of Opua Wharf are Far North Maritime Ltd., c/o P.O. Opua. *Tel:* (09) 402-7505. *FAX:* (09) 402-7763. *Contact:* Mr.J. Knappett, General Manager.

OTAGO, (includes Dunedin, Port Chalmers and Ravensbourne): (See Plan)

PORT CHALMERS: 45.49 S. 170.38 E.
DUNEDIN: 45.53 S. 170.31 E.

PORT LIMITS: The harbour limits are defined by a line extending from Heyward Point Trig Station in an 020°T direction for 3 miles thence 126°T for 1.75 miles thence 200°T to the shore off Howlett Point.

The entrance to Otago Harbour is situated in the bay between Heyward Point and Taiaroa Head.

Within the entrance the harbour extends about 13 miles South-Westward and at its head stands the city and Port of Dunedin. The town and port of Port Chalmers is situated about 6 miles within the harbour entrance.

About 1 mile Southward of Port Chalmers, the Portobello Peninsula, with Quarantine Point at its head, together with the adjacent Quarantine and Goat Islands, form a natural barrier across the Otago Harbour inlet. That part of the harbour which lies North-Eastward of this barrier is the "Lower Harbour" and that which lies South-Westward is the "Upper Harbour".

DOCUMENTS: See "Auckland".

APPROACHES: *Harbour Entrance Channel:* A sand bank extends about 1.25 miles Northward of Taiaroa Head, and the dredged entrance channel effectively divides this into Eastern and Western banks. There is a least depth of 21 ft. (6.4 m.) on the Eastern bank, and the sea can break dangerously over it in heavy weather. The Western bank has a least depth of 28 ft. (8.5 m.).

The entrance channel extends from the seaward (Northern) edge of the bank to a gap between North Mole and Taiaroa Head. The channel is dredged to 45 ft. (13.7 m.), and is 600 ft. (183 m.) wide – it is unprotected and sea and swell can cause vessels to pitch, roll, and lift bodily in the approaches.

North Mole, an artificial rock breakwater, extends about 4,000 ft. (1,219 m.) N.E. from the low sand spit on the Western side of the entrance. The underwater toe extends about 400 ft. (122 m.) N.E. of the visible head.

The tidal range in the entrance channel is 6.5 ft. (2.0 m.) at Springs, and 4.3 ft. (1.3 m.) at Neaps. Tidal streams run generally along the axis of the channel at rates up to 2 knots on flood and ebb but, near the harbour entrance, vessels may be set to the Westward on the flood stream, and to the Eastward on the ebb stream.

PILOTAGE: Address "Chief Pilot, Dunedin." Through coastal radio station ZMH 32 (Taiaroa Head) giving ship's name, draft, and ETA. First message 72 hours out, revise 24 hours out: if from another New Zealand port (coastwise) similar message as soon as possible after leaving that port. ZMH 32 (Taiaroa Head) maintains continuous listening watch on 2182, 4125, 6215 and 8255 kHz and VHF Channel 16. Pilot boat is 13.0 m., orange launch, also fitted with VHF frequencies, which meets vessels as required but does not remain on station otherwise. Boarding position is with Taiaroa Head Lighthouse bearing 180° distant 2.5 miles; good anchorage with Taiaroa Head Lighthouse bearing 160° – 2 miles, depth 14 fathoms. Pilots can board in this vicinity provided Master has ship under way at slow speed and obeys Pilot's instructions. Vessels arriving to work general cargo should endeavour to embark Pilot by 0500 hrs. in order to be alongside berth ready to take labour on board at normal commencing hour of 0700 hrs.

ANCHORAGES: *Anchorage Outside the Harbour Entrance:* A recommended anchorage which is considered safe in all winds except rare Easterly gales is, in a least depth of 13 fathoms (23.8 m.), sand, with Taiaroa Head Lighthouse bearing 160°T and Heyward Point Light Tower bearing 220°T.

Note: There is no anchorage inside the Harbour entrance, but in a case of emergency, vessels up to 500 ft. (152.4 m.) long may be able to anchor in the swinging basin at Port Chalmers.

Prohibited Anchorage: Anchorage is prohibited in the vicinity of a submarine power cable laid between Battery Point, Port Chalmers, and Quarantine Point at the North-Western end of Portobello Peninsula.

The cable is marked on its North-Western end by 2 beacons situated approximately 1.5 cables South by West and approximately 2.25 cables South by East from Observation Point. Both beacons are rectangular in shape and painted in green and white horizontal stripes. The latter beacon also serves as No. 31 channel beacon, and exhibits a flashing green light – these beacons when in line bearing 139.5° T indicate the route of the power cable across the channel.

RESTRICTIONS: Tankers proceeding to or from the oil jetty at Dunedin make passage of the upper harbour in daylight hours only. Also see "Max. Size".

Entering and Leaving: Any vessel wishing to enter, leave, or move within the Port of Otago must first obtain permission to do so from the signal station at Taiaroa Head, and this directive shall include any boat or yacht exceeding 11 m. in length wishing to enter the Upper Harbour.

Upper Harbour – Overhead Power Line: An overhead power line from Port Chalmers to Portobello crosses the channel via Goat and Quarantine Islands, supported by steel lattice-work towers painted in bands of orange and silver. The vertical clearance beneath the power line where it crosses the channel is 168 ft. (51.2 m.) at MHWS.

Upper Harbour – Submarine Power Cables: A power cable buried 10 ft. (3.1 m.) below the sea bed runs across Victoria Channel between beacons No. 40 and 41. From Beacon No. 41 the cable is laid on the sea bed in a 280°T direction to the shore. From Beacon No. 40, 3 cables are laid on the sea bed in 115°T, 118°T, and 131°T directions to the shore. Anchoring is prohibited in this vicinity.

MAX. SIZE: *Lower Harbour to Port Chalmers:* Vessels up to 850 ft. (259 m.) length overall, and 41 ft. (12.5 m.) draft can transit the Lower Harbour to and from Port Chalmers by day and night. Longer vessels may be handled by prior arrangement with the Chief Pilot.

The maximum draft permissible at LW is 36 ft. (11 m.) which may be further reduced to a minimum of 32.5 ft. (9.9 m.), if there is a heavy swell in the entrance channel.

Upper Harbour to Dunedin: Vessels up to a maximum of 607 ft. (185 m.) length overall, 95 ft. (29.0 m.) beam and 28 ft. (8.6 m.) draft can transit the Upper Harbour channel to Ravensbourne and Dunedin. Non gas-free tankers, and vessels over 550 ft. (167.6 m.) in length transit the Upper Harbour in daylight hours only, but all other vessels can be handled both day and night. The maximum draft permissible at LW is 21 ft. (6.4 m.).

HEALTH: Master to radio to Port Health Officer (entry port in N.Z. only) 24 hours before ETA requesting Free Pratique or declaring adverse state of health. Agents will advise Port Health Officer and Health Department inspectors who will board vessel on arrival, alongside actual wharf if Free Pratique requested. N.Z. regulations will require sealing of domestic meat chambers and purchase of local meats for use coastwise.

RADIO: Through Taiaroa Head – ZMH 32.

RADAR/VHF: A signal station is situated on Taiaroa Head about 1 cable Southward of the lighthouse. Vessels can communicate with the signal station by flashing lamp or radiotelephone.

VHF and MF radiotelephones are fitted in the signal station and continuous watch is maintained on VHF Channel 16 (156.8 MHz) and 2182, 4125, 6215 and 8255 kHz. The call sign is "ZMH 32".

If using VHF, initial contact should be made on Channel 16 (156.8 MHz), and Channels 14 (156.7 MHz) or 12 (156.6 MHz) should be used for subsequent working.

If using MF, initial contact should be on 2182, 4125, 6215 and 8255 kHz. 2162, 4146, 6227 or 8297 kHz should be used for subsequent working.

Notice of Arrival: Estimated times of arrival together with maximum draft must be passed to the Chief Pilot by radio 12 hours, and confirmed 4 hours, before reaching the Pilot Station. This is in addition to any previously submitted notification. Radar operated at station on request has range in excess of 20 miles to North and East.

BERTHING:

Berth	Length (m.)	Depth (m.)	Max. Draft (m.)	Height Above Datum (m.)	Decking	Cranes		
						No.	S.W.L. (tonnes)	Out-reach (m.)
Port Chalmers								
George Street No.1 (Container Terminal)	274.3	13.0	12.50	4.6	Concrete	2	46.0	32.4
George Street No.2 (Multi-Purpose)	296.1	13.0	12.50	4.6	Concrete			
Beach Street	412.5	12.0	11.6	4.6	Concrete	2	5.08	16.7
Dunedin								
Victoria Wharf – T & U	175.3	8.3	8.0	4.6	Concrete	1	5.08	16.7
Leith Wharf	152.4	8.3	8.0	3.8	Concrete	—	—	—
Rattray Street	254.8			4.6	Wood	—	—	—
Rattray Street Q		5.7	5.5					
Rattray Street Qa		5.7	5.5					
Rattray Street R		6.2	6.0					
Rattray Street S		6.2	6.0					
Victoria Wharf – X & Y (Fishing)	213.4	8.0	7.7	4.6	Wood	—	—	—
Birch Street (Fishing)	304.8	7.3	7.0	3.8	Concrete and Wood	2	5.08	16.7
Cement Wharf	137.2	5.5	5.2	4.1	Wood	—	—	—
Oil Jetty	219.5	8.3	8.0	4.6	Concrete	—	—	—
Ravensbourne (Fertiliser)	149.0	8.3	8.0	4.4	Wood	—	—	—
L.P.G. (Dolphins)	49.0	6.0	5.4	3.9	Concrete	—	—	—

Port Chalmers

Beach Street Wharf: 2 berths with a total length of 412.5 m., serve the forestry, woodchip and general cargo trade. A new shed of 2,300 sq.m. on the wharf assists with cargo storage facilities. Reclaimed land of 3.5 ha. is available for forest products storage and further reclamation is underway to double the area by 1995. Depth alongside 11.6 m. LWOST.

George Street No. 1: A 301.2 m. concrete wharf, and is the main container terminal berth. Depth 12.5 m. at LWOST.

George Street No. 2: A 296.1 m. concrete multi-purpose berth. Depth 13.0 m. at LWOST.

Both wharves are served by 2×46 ton container cranes with sufficient straddle carriers, toplift and forklift machines to service the 13.6 ha. back-up area.

Dunedin:

Wharves with a total length of 950 m. See table above for depths alongside. All berths have transit sheds with a total floor space of 3,600 sq.m. All berths have roads at sheds, Victoria Wharf has a rail connection. There are 6 × 5 ton electric cranes, 16 fork lift trucks and 10 tractors available for use at wharves.

Leith Wharf: The ex-Ro/Ro wharf has been upgraded to provide for shipments from the adjacent Apple and Pear Marketing Board cool store, plus general cargo. Depth alongside 8.3 m.

Ravensbourne Wharf: Situated 1 mile from Dunedin is available for the discharge of bulk phosphate and sulphur via hoppers and conveyor belt direct into works. Maximum size of ship for this jetty 184.1 m. overall. Depth alongside 8.0 m.

LPG Berth: A dedicated berth for coastal gas tankers has been constructed 300 ft. (91.5 m.)×106°T from end of Leith Wharf.

All berths in the port have fresh water connections, ample floodlighting and telephone facilities.

TUGS: 2 tugs, each 2,000 h.p. (30 ton bollard pull). Tug's used in vicinity of wharves turning, berthing and unberthing, etc. Tug's lines used without charge.

CRANES: The Container terminal is equipped with 2 Vickers Hoskins Paceco 46 tonne Mach Container Gantry Cranes with an outreach of 32.4 m. and a backreach of 10.67 m.

Also see "Berthing".

STEVEDORES: Services are provided by operators to handle any type of general, bulk or unitised cargo. Port Chalmers Container Terminal specialises in handling containers. Two shifts, each of 8 hours, are worked daily as required, and a 3rd shift may be available by prior arrangement.

MEDICAL: Emergency medical services and full hospital services always available at short notice. Emergency advice by radio available. Top priority given arrangements for landing urgent cases for medical treatment.

TANKERS: Diameter of lines 200 mm.; minor slop facilities only; one tanker discharge berth 220 m. long, 7.5 m. depth alongside at low water. Max. size 184 m. long.

DENSITY: Harbour density 1024 at all states of tide.

FRESH WATER: Fresh water is available at all berths. Delivery rates are approximately 15 tonnes/p.h. at Dunedin wharves and 25 tonnes/p.h. at Port Chalmers.

FUEL: Marine diesel, heavy and light fuel oils, and lubricating oils are usually available. Small quantities can be delivered to any berth by tank trucks, and larger quantities can be loaded by pipeline at the Oil Jetty at a rate of about 100 tonnes/p.h.

CONSULS: Consular Agencies: Denmark, France, Germany, Italy, Netherlands, Norway, Portugal, Sweden.

REPAIRS: Private companies capable of undertaking all forms of repair work are established in Dunedin and Port Chalmers. There is no dry dock, but a 500 tonne slipway capable of accommodating vessels up to 191 ft. (58.2 m.) long is available.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: Shore watchman not normally required except at entry to oil jetty, such watchman arranged for by ship's Agents. Ships required to maintain own gangway surveillance.

OPENING/CLOSING HATCHES: Automatic hatch gear may be operated by ship's personnel. Manual hatches by shore labour only.

CERTIFICATES: Normal cargo gear and equipment certificates as required for British ports; also Fumigation (Derat) or Exemption Certificate.

CUSTOMS ALLOWANCES: See "Auckland".

REPATRIATION: Repatriation arrangements can be made.

AIRPORT: Dunedin is served by all internal main airlines with connections to overseas via Christchurch, Wellington and Auckland. Airport 35 minutes (25 km.) from Dunedin City by car.

TIME: N.Z. Standard Time throughout year is GMT plus 12 hours, except that Summer time now operates from first Sunday in October to third Sunday in March. (Add 1 hour).

HOLIDAYS: As for all N.Z. ports, i.e. January 1st and 2nd; Good Friday and Easter Monday; Anzac Day (April 25th); 1st Monday in June; Labour Day (Monday, nearest October 24th); Christmas Day and Boxing Day; Waterside Picnic Day (Monday at end January). Where New Year and Christmas holidays coincide with Saturdays and/or Sundays, holidays are taken following Monday and/or Tuesday.

POLICE/AMBULANCE/FIRE: Police 4776011; Ambulance 4777111; Fire Brigade 4779119; Hospital 4740999; Emergency (serious) dial 111 and ask for any service needed.

TELEPHONES: Slot telephones can be put on board with all local calls free, others by cash in slot.

SERVICES: Radar and gyro compass technicians available. Good shop and providore facilities. Compass adjuster usually available. Divers employed by a private company are available for underwater inspections.

SHORE LEAVE: Crew members not restricted ashore.

IDENTIFICATION CARDS: Not required for British subjects. Alien identification cards to be retained on board in case of need.

GARBAGE DISPOSAL: A collection service is available, 24 hours a day, seven days a week. Drums are provided and are placed on board on ship's arrival. Servicing continues during daylight hours until ship's departure. Contact is through the Cargo Services Supervisor, Tel: Dunedin 474 0881, Ext.852. Charges are under review.

WASTE OIL DISPOSAL: B.J.Dakin Ltd. provide a service handling up to 40,000 litres at any one time. Tel: Dunedin 488 2437. Please note this service applies to waste oil disposal and not to bilge oil disposal.

SEAMAN'S CLUBS: Otago Seafarers' Society is affiliated to the International Sailors Society (New Zealand) and the British Sailors Society, London. Two club rooms operate, one at Port Chalmers and one at Dunedin. A ship visiting officer provides each ship with a notice and details of facilities.

CURRENCY: New Zealand Dollar (NZ$).

REGULATIONS: No special local regulations, but all N.Z. ports have very strict rules for garbage collection and disposal, etc. and against oil spillage.

GENERAL: No special moorings are required. Harbour, though tidal, is landlocked and there is no surge at any berth. Tide rise averages 6 ft. above datum (extremes 1.52 m. and 2.44 m.).

Harbour Chart: N.Z. 6612 Otago Harbour.

Adjacent Coastal Charts: N.Z. 64 Banks Peninsula to Otago Peninsula. N.Z. 66 Taiaroa Head to Nugget Point. N.Z. 661 Approaches to Otago Harbour.

Sailing Directions: New Zealand Pilot.

Communications: Dunedin and Port Chalmers are connected with the post, telegraph, telephone, and telex systems.

State Highway No. 1 and the main trunk railway line both pass through Dunedin. Regular road and rail services operate to other South Island towns.

DELAYS: Ample berths normally available. Occasional delays for labour shortage or wet weather (rainfall average 762 mm. per year). Small quantities bunkers available ex-tank wagons at any berth. Larger quantities obtainable by shifting to oil jetty outside cargo work hours or as otherwise convenient.

DEVELOPMENTS: Most development is at present centered on Port Chalmers which is the region's deep water port.

Beach Street Wharf extensions were completed in 1991 and planning is under way to extend the area for storage and facilities for forestry products.

George Street No. 2 (Multi-purpose wharf) was officially opened in 1992. Planning is now under way to extend storage facilities for container and general products.

AUTHORITY: Port Otago Ltd, P.O.Box 8, Port Chalmers, New Zealand. *Tel:* 03-4727890. *FAX:* 03-4727891. *Contact:* Captain K. Plate, Chief Executive. M.A. Bakx, Port Operations Manager. T.T. Riches, Marketing Manager. Captain J.M. Harger, Chief Pilot.

PICTON: 41.17 S. 174.00 E. (See Plan)

PORT LIMITS: Inside straight lines from Cape Jackson to Cape Koamaru and from East Head to West Head at Tory Channel Entrance.

DOCUMENTS: See "Auckland".

PILOTAGE DISTRICT: *Queen Charlotte Sound:* Inside a straight line drawn in a 303° direction from Paparoa Point on Arapawa Island to the opposite shore, and the arc of a circle radius 1 mile centred on West Head Light.

Pelorus Sound: Inside a straight line drawn in a 121° direction from Paparoa Point (East of Harding Point) to Alligator Head.

PILOTAGE: Pilotage is compulsory inside a straight line drawn in a 180° direction from Snake Point to the opposite shore, including all the waters of Tory Channel. Pilotage in the Outer Reaches of Queen Charlotte Sound and in Pelorus Sound is optional. Unless otherwise requested, Pilot will board vessels in a position 090°T, 0.6 miles from Motuara Island Light Tower. Pilots are available through Port of Wellington Pilot Services and Tasman Bay Pilots Ltd.

ANCHORAGES: Except during strong N.W. winds, there is a good anchorage Northward of Mabel Island in 16 fathoms for vessels of all sizes.

Quarantine Anchorage: Within the navigable area to Westward of Mabel Island enclosed between the foreshore and a line from Kaipupu Point 047° to the Western extremity of Mabel Island, thence 349° to Wedge Point. Vessels not in quarantine can use this anchorage.

RESTRICTIONS: Controlling depth in approaches to anchorage is 13 m. MLWOS.

MAX. SIZE: Max. length 201 m. Draft 11 m. aft, 8 m. – 10 m. forward depending on length. Vessels of this size can berth at any state of the tide. Longer vessels may be accommodated by arrangement with the Harbour Master.

HEALTH: First entry at a New Zealand port Pratique is granted after vessel berths provided she has a clean bill of health from her last port, otherwise vessel would anchor in the Quarantine Anchorage, where port Health Officer would board. Once clear at the first port in New Zealand no further Pratique is required.

RADIO: Port is equipped with medium frequency and VHF, call sign "Picton Harbour Radio", calling frequency 2182 kHz. Watch is maintained Monday to Friday, 0900 to 0933, 1140 to 1203, 1540 to 1603 hrs. daily and at other times by arrangement. In addition the following schedule is maintained for communication with the road/rail ferries: 0103, 1140, 1640, 2020, 2050 hrs. Sundays only: 1603 hrs.

TUGS: None.

BERTHING: One overseas wharf 240 m. length with accommodation for 2 vessels. Depth at wharf up to 11.58 m.

Two road/rail ferry berths 152 m. long with modern terminal facilities for Roll-on/Roll-off traffic.

STEVEDORES: Services can be provided by Port Marlborough New Zealand Ltd.

MEDICAL: It is necessary for Master to give his Agent as much advance notice as possible. Two doctors reside in the port. Hospital at Blenheim, 35 km. by road. Ambulance service available.

DENSITY: 1025.

FRESH WATER: Supplies available at 30 t.p.h. Cost 60 cents/tonne.

FUEL: By tank wagon only.

CONSULS: At Wellington.

REPAIRS: Small repairs undertaken by three companies.

SURVEYORS:

1. Cargo Surveyors available.
2. Lloyd's Register available. Other societies available from Wellington.

GANGWAY/DECK WATCHMEN: Required by general harbour regulations and is generally carried out by ship's deck hands.

OPENING/CLOSING HATCHES: Performed by crew.

CUSTOMS ALLOWANCES: See "Auckland".

CARGO GEAR: Marine Department control this and regulations are issued accordingly. These regulations are very similar to those in the United Kingdom.

REPATRIATION: Crew changes can be made.

AIRPORT: Woodbourne – 36 km. by road from Picton, served by feeder services to Wellington – Christchurch. Local seaplane service from Picton Harbour. Local airline to Wellington.

TIME: GMT plus 12 hours. Daylight saving time, plus 1 hour, in force from October to March.

HOLIDAYS: New Year's Day, Anniversary Day, Good Friday, Easter Monday, Labour Day, Sovereign's Birthday, Christmas Day, Boxing Day, Anzac Day, New Zealand Day.

POLICE/AMBULANCE/FIRE: Police Tel: 111. Ambulance, through doctor or in case of emergency Tel: 111.

EMERGENCY CO-ORDINATION CENTRE: S.A.R. Co-ordination Centre, Wellington. Tel: 881035. If in port contact Harbour Master.

TELEPHONE: Facilities exist to place telephones on board.

BANKS: Bank of New Zealand, High Street, Picton.

STORING: See "Prelims".

1. Storage from trucks only available.
2. No restrictions on storing.
3. Trucks can proceed alongside berth.
4. Forklift trucks can be used to handle stores.
5. Purchase of stores requires Customs Dept. approval.
6. Stevedores available for loading stores.

SHIP SUPPLY SERVICE: No ship supply services operate in this area.

Notwithstanding the above, there are a number of commercial operators in the district who have the capability to provide a variety of supply services.

There are sheltered areas in the outer reaches of the Marlborough Sounds which would be ideal for vessels transiting Cook Strait to take advantage of a ship supply service, incurring a minimum of delays in the process.

The Customs Department have advised that by prior arrangement it would be possible for a vessel in transit to take aboard mail and/or goods from a launch without completing full Customs formalities.

1. *Emergencies:*
   Contact: Port Marlborough New Zealand Ltd.
   Radio Call Sign: "Picton Harbour Radio".
   Radio frequencies: MF 2182 kHz or VHF Channel 16.
   Notice Required: 4 hours if possible.
   (NB: Helicopter available ex-Wellington).
2. *General Supply Services:*
   Various Commercial launch and barge services are available from Picton (Queen Charlotte Sound and Approaches) and Havelock, (Pelorus Sound and D'Urville Island). For further information contact Port Marlborough New Zealand Ltd.

Rendezvous points would depend on the needs of the vessel requiring the service, survey limits of the vessel providing the service and weather conditions prevailing at the time.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Limited service available. Drums are provided for on board use. All food waste must be kept in separate drums as this waste and any food contaminated garbage must be incinerated. Contact Port Company for details.

WASTE OIL DISPOSAL: Limited service available. Contact Port Company for details.

SEAMAN'S CLUBS: None.

CURRENCY: New Zealand Dollar (NZ$).

DEVELOPMENTS: 6 deep water berths may be built at Shakespeare Bay with depth alongside 20.0 m.

AUTHORITY: *Operator:* Port Marlborough New Zealand Ltd, P.O. Box 111, Picton, New Zealand. *Tel:* 03-573-8000. *FAX:* 03-573-7659. *Contact:* Mr.B. Fitzpatrick, Managing Director. Mr.M. Santaana, Manager Operations.

Statutory Authority: Marlborough District Council. *Tel:* 03-578-5249. *Contact:* Captain J. Clark, Harbour Master.

TAHAROA: 38.11 S. 174.42 E.

LOCATION: The Port of Taharoa is situated on the West Coast of the North Island of New Zealand, in Lat. 38° 10.7' S., Long. 174° 42.4' E. It is one of the few ports in the world where a solid cargo, ironsand, is pumped in a slurry form and loaded into ships moored at a single point mooring buoy.

Kawhia Extended River Limits: Taharoa Harbour lies within the Kawhia Extended River Limits, which is delineated by a straight line commencing near Taranaki Point in a 270° direction to the East Point of Gannet Island, then 180°×15.5 miles, thence 090° to the shore.

PORT LIMITS: The port limits is the arc of a circle radius 2 miles centred on the pumping station, Lat. 38° 10.7' S., Long. 174° 42.4' E. and the pilotage district is the arc of a circle of radius 3 miles also centred on the pumping station.

There are no known dangers in the pilotage district, and the sea bed depth increases at a reasonably uniform gradient from the beach seaward.

The Motunau Beacons, which are unlit, are established some 4 miles South of the SBM in line bearing 158° (T). This line passes 835 m. inshore of the SBM, and from the North to the point where it crosses the Southern prohibited anchorage line gives a least depth of 22 m.

A 1.5 m. diameter wave rider buoy, which is difficult to see, is positioned some 0.5 miles N.E. of the SBM.

PILOTAGE: Pilotage is compulsory in the Pilotage District. Application for a Pilot should be made to B.H.P. – New Zealand Steel Mining Limited, telegraphic address "Ironsands Taharoa", via Awarua Radio.

Pilots embark and disembark by helicopter. Ships awaiting the Pilot, should lie, head to wind, about 3 miles W.N.W. of the buoy.

Depending on weather conditions ships can be berthed by day or night though much better conditions are required for night berthing. As a general but not absolute rule, ships can be berthed with a significant wave height of up to 3.5 m. and a maximum wind gust of 40 knots. While at night the maximum wave height must be less than 2.0 m., and the wind gusts less than 15 knots.

Also see "General".

ANCHORAGE: Ships awaiting the berth are normally anchored about 2 miles W.N.W. of the buoy in good holding ground. The anchorage is exposed to the Westward, and in weather conditions in which it is not possible to moor, ships should head out to sea.

Prohibited Anchorage: All that area bounded by straight lines, commencing at the low water mark in position Lat. 38° 10.8' S., Long. 174° 42.4' E. Thence to Lat. 38° 11.1' S., Long. 174° 40.1' E. Thence to Lat. 38° 10.3' S., Long. 174° 42.15' E., thence to the point of commencement.

The Northern and Southern limits are marked by rectangular beacons painted in red and white vertical bands. The Northern Beacons are in line bearing 088° (T), and the Southern Beacons in line bearing 081° (T).

NAVIGATION: *Lights:* Taharoa Main Light, exhibited from a 47.5 m. high frame work tower painted in red and white bands, in position Lat. 38° 10.0' S., Long. 174° 42.3' E. has the characteristics group flash 2 white every 20 secs. A fixed red obstruction light is also exhibited on the tower.

The SBM has white light flashing every 5 secs.

The wave rider buoy light has the characteristics group flash 3 white every 15 secs.

The prohibited anchorage beacons each exhibit a fixed red vertical light.

RESTRICTIONS: Arrival draft should be: Forward – 3 per cent of the vessel's overall length and Aft – propeller submerged.

HEALTH: *Quarantine:* 24 hours before the expected time of arrival, ships must send to B.H.P. – New Zealand Steel Mining Limited for onward transmission to the Department of Health in Hamilton, a message detailing the last port of call, the date of departure, and the state of health on the vessel.

Vessels calling regularly at Taharoa are usually given Pratique by radio, though Quarantine Officers reserve the right to inspect the vessel at any time.

RADIO/VHF: *Communications:* Ship loading at Taharoa must advise New Zealand Steel Mining Limited of their departure from the last port before arriving in Taharoa, and give their ETA.

The ETA must be updated 7 days, 3 days and 24 hours before arrival.

The ETA 3 days before arrival is particularly important, as special shift patterns have to be set for loading, which by agreement with the unions, are based on this arrival time.

The Port Operations Centre, which is manned only when a ship is in port or expected, is equipped with radio. (Medium frequency 2182 kHz, single side band, and VHF Channels 9, 10 and 16).

Ships calling at Taharoa should maintain a listening watch on 2182 kHz, at 0833 hrs. and 1503 hrs. New Zealand standard time, the day before arrival, and call up the Port Operations Centre, call sign "Port Taharoa", on Channel 9 when 2 hours out.

Radio messages to B.H.P. – New Zealand Steel Mining Limited should be addressed to "Ironsands Taharoa", via Awarua Radio, or alternatively Auckland Radio.

BERTHING: The berth is a single point mooring buoy, 11 m. in diameter designed by SBM Inc., using a catenary anchor leg mooring (CALM), to secure it to the sea bed. It is capable of mooring ships up to 150,000 tonnes deadweight.

There are 6 anchor legs, arranged radially 60° apart, each consisting of some 347 m. of 102 mm. chain, attached to a 9,000 kg. Bruce Mk II anchor. Each leg is pre-tensioned to 220 tonnes, and has a holding power of 400 tonnes.

The buoy is 1.64 miles offshore in position: Lat. 38° 10.6' S., Long. 174° 40.25' E. The depth of water at the buoy is 30 m. at MWL.

Loading: Loading rate 1,200 dry tonnes/p.h. on each line. Sand density 4.64 average.

MOORING: *Mooring Rope:* The mooring rope is a 65 m. endless grommet of 168 mm. diameter two-in-one braided nylon rope, which has a breaking strain of 1,000 tonnes. One end of the grommet is attached to the buoy, and the other end, when the ship is moored, is placed over the ship's single centreline mooring post.

The ship's end of the rope has a 5.5 m. soft eye protected with a chafing sleeve. An heaving eye, which is attached to a 60 m. heaving tail of 80 mm. two-in-one braided polypropylene rope, breaking strain 76 tonnes, is attached 1.5 m from the crown on one part of the ship end eye.

Ship's Equipment: To moor at Taharoa, a ship should be fitted with a mooring post (700 mm. diameter) on the centreline, between 2.0 m. and 3.5 m. from the fairlead. The post should be about 750 mm. in height and the top should slope forward.

The centreline fairlead should have minimum dimensions of 1,400 mm.×1,700 mm., and the bearing surface lined with stainless steel; if this lining is not fitted, all paint should be removed from the fairlead, and the bearing surface coated with tallow, before the ship arrives. Tallow will be supplied by B.H.P. – New Zealand Steel Mining Limited, but the ship must provide a suitable bucket, so that it can be transported from the Operation Centre on the helicopter.

A roller on a stand, 1 m. in height, should be positioned about 2.0 m. abaft the mooring post, and set slightly off the centreline.

The ship should have a 300 m.×80 mm. strand polypropylene messenger line, either on a warping drum, or suitably flaked out. To one end of the messenger line a 16 mm. polypropylene heaving line should be attached. The heaving line is then passed through the centreline fairlead, and led down the ship's side, (usually the port side, though the Pilot will confirm this when he boards) to about the after end of No. 1 hatch, from where it will be passed to the service vessel.

MOORING PROCEDURE: The service vessel will have checked the buoy, mooring rope and hoses before the ship arrives, and when the Pilot boards will stand off and wait for the ship to close the buoy. The Pilot will manoeuvre the ship to approach the buoy usually along the line of the hoses, and when about 300 m. from the buoy will instruct the service vessel to pick up the heaving line. The service vessel will then manoeuvre close alongside abreast of where the heaving line is prepared. The heaving line should be thrown to the service vessel foredeck, from where the crew will pass it aft to their winch. When this is done, the service vessel will steam ahead, to a position about 100 m. ahead of the ship, winching in the mooring messenger until there is about 6 m. inboard.

As both the ship and the service vessel steam slowly towards the buoy, the line should be paid out so as to keep the rope slack at all times, but at no stage should the rope be allowed to run aft of the ship's stern.

When the service vessel is close enough, the messenger line will be connected to the heaving tail. As the ship will be moving ahead while this is being done, any slack should be picked up, but under no circumstances should the rope be lifted out of the water between the ship and the service vessel.

As soon as the connection between the messenger and the heaving tail is made, the service vessel will steam clear, and the rope should be heaved in at a steady rate. Normally, the mooring line is stored on a platform on the buoy, so that sufficient weight must be put on the messenger to heave the mooring line into the sea. Once the mooring rope is clear, it is important that as the ship closes the buoy, only the slack in the ropes is picked up.

When the ship is about 15 m. from the end of the main mooring rope, the ship's end eye and 2 flotation covers may be lifted out of the water. Gradually, as the ship moves closer to the buoy, a little more of the rope may be lifted out of the water, until with the ship end eye of the main rope at the bull nose, there is about 15 m. from the stem to the point where the rope touches the water. Should the bows pay off, or the ship move astern, the heaving tail should be slacked down immediately, so as to maintain a minimum distance of 15 m. from the stem to the point where the rope touches the water.

When the rope is actually being made fast, it should hang almost vertically from the centreline fairlead.

HOSES: *Equipment:* The ship's manifold should be on the starboard side, abreast No. 1 hatch, loading through either 1 or 2 lines. The flanges must be standard 150 lb. ASA 12 in. flange, with 12×1 in. holes, 1 hole at the exact top. The hose handling derrick should be capable of plumbing over the manifold with sufficient height to lift a 10.7 m. hose just clear of the deck, and have a SWL of 8 tonnes.

4×15 mm. wire pennants 3.0 m. long, and 4 chain blocks, or tackles, will be required to make fast the hose hang off chains.

Picking up the Hose: As soon as the ship is fast, the service vessel will put a dinghy in the water, to bring the No. 1 hose pick-up line to the ship's side. An heaving line should be passed to the dinghy, so that the pick-up line can be brought on board. The pick-up line, which is a 55 m. length of 56 mm. square line polypropylene rope is then used to winch the first hose of the string to deck level where the derrick hook can be attached, and the hose lifted to its full extent.

In marginal weather conditions, a second heaving line should be passed to the dinghy, while the first is still being heaved in. This, when attached to the No. 2 hose pick-up line, is secured to the rail, and can be heaved in later. The dinghy can then be released, reducing the time it has to spend in the water.

When lifting the hose, the derrick should be plumbed about 1.5 m. inboard from the ship's side. This keeps the hose against the ship's side thus reducing the oscillating effect in marginal weather conditions.

With the first hose in the string lifted to its full extent, the hang-off chains can be grappled, brought on board and secured to a 15 mm. diameter wire pennant, attached to a chain block or tackle, so that the length of the unit can be adjusted if necessary.

Letting go the Hose: A small wire strop is passed through one of the eyes on the hose nipple, and anchored by an 80 mm. long by 24 mm. diameter stainless steel bar, to which is attached a heaving line. The lifting wire is hooked into the strop, and when all the connecting bolts are removed, the hose is lifted to its full extent and wire pennants disconnected from the hang off chains. The hose is then lowered into the water and when the weight comes off the lifting wire, the bar can be pulled clear.

MEDICAL: There is no resident doctor or nurse. The nearest hospital is in Te Kuiti about 1 hour's drive away over a bad winding road.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: Not possible.

GENERAL: *Provisions:* Supply of provisions, which come from Hamilton, can be arranged if adequate notice is given.

Weather: The prevailing wind is Southwesterly. The winds are usually stronger in Winter and Spring than at other times of the year, though gales can occur at any time, from any direction.

The significant height of the combined sea and swell is above 1.5 m. for 50% of the time, and the maximum recorded sea height has been 12 m.

Customs and Agriculture: Officials from the Departments of Customs and Agriculture will clear the vessel on arrival, and before departure.

Regulations: The general harbour regulations for New Zealand are applicable.

Tidal Streams and Currents: The tidal stream sets Northward with a rising tide and Southward with a falling tide, but these are weak and generally do not affect mooring.

During Southwesterly weather an intermittent current sets Northward parallel to the coast, and can reach a velocity of 1.0 – 1.5 knots.

Agency: New Zealand Steel Mining acts as its own Agent, and will act for others when prior arrangements have been made.

Administration: The Port is under the jurisdiction of the Marine Division of The Ministry of Transport, but is leased to B.H.P. – New Zealand Steel Mining Limited, who own the buoy and the loading equipment.

The Pilots are contracted to B.H.P. – New Zealand Steel Mining Limited, and remain on board during the time the ship is moored, acting as Loading Masters. A change of Pilots usually takes place at 0630 hrs. and 1830 hrs.

OPERATOR: B.H.P. – New Zealand Steel Mining Ltd., Taharoa, Te Anga, Private Bag, Te Kuiti, New Zealand. *Tel:* 64-7-8767-859. *Telex:* NZ 21172. *FAX:* 64-7-8767-342. *Cables:* Ironsands Taharoa. *Contact:* C. Precious, Operations Manager.

TAURANGA (Mount Maunganui): 37.39 S. 176.11 E. (See Plan)

PORT LIMITS: The arc of a circle radius 2 miles centred on the summit of Mount Maunganui (Lat. 37° 37.9' S., Long. 176° 10.3' E.), from the N.E. Coast of Matakana Island to a position 093° from North Rock Light (4.25 cables N.N.E. of Mount Maunganui summit), thence 273° to the light and thence South to the coast of Mount Maunganui.

The Port of Tauranga, situated in the Bay of Plenty on the North Island's East coast, is the principal export port of New Zealand, and also the only natural deep water port between Auckland and Wellington providing safe berthage in all weathers.

DOCUMENTS:

6 Crew Lists.
1 General Declaration Form.
1 Search List (on regulation form).
1 Bonded Store.
1 Gift List (Parcel List).
1 M.O.T. Declaration of Safety Certificate.
1 Maritime Declaration of Health.
1 Cargo Manifest (for each Port of discharge).
1 Derat Certificate.
1 Clearance, Last Port.
1 Poisons on Board.
1 Firearms on Board.
1 Ship's Papers.
2 Master's Certificates (Form AGL36).
2 Master's Bond and Guarantee (only if animals are being carried).

PILOTAGE: Pilotage is compulsory for merchant vessels of over 100 tons gross tonnage; Pilot boards vessel about 2.5 miles N.E. of Mount Maunganui light structure. All vessels inward bound must give 24 hours' notice by radio of their ETA off the port limits. If bound from Auckland or near ports, vessels send their ETA immediately on departure from that port.

A second message confirming or amending the first is to be sent 4 hours before the ETA. Should, however, the vessel expect to arrive later than her 24-hour message, her 4-hour message shall be sent 4 hours before the ETA given in her original message. ETA is also required on Friday before 1600 hrs. for vessels arriving over the weekend.

All ETA messages may be forwarded through the vessel's local Agent or Tauranga Harbour Radio.

All communications, which should be addressed to "Operations Manager, Port of Tauranga", will be attended to at all hours of the day or night.

Pilotage Exemptions: Pilotage Exemption Certificates are the responsibility of the Harbour Master, who is employed by and represents the Bay of Plenty Regional Council.

1. All vessels of not more than 100 gross tons shall be exempted from compulsory pilotage.
2. Nothwithstanding sub-section 1 above, the Harbour Master may exempt from compulsory pilotage within his pilotage district any vessel of more than 100 gross tons but less than 500 gross tons.
3. Vessels more than 500 gross tons but less than 110 m. overall length may be granted a pilotage exemption, provided the Master has satisfied the Harbour Master that he has the required knowledge and experience.

Boarding Times: Generally inbound vessels are boarded 15 minutes before and up to 45 minutes after high/low water. Outbound vessels are boarded 1 hour before HW/30 minutes before LOW, and up to 45 minutes after slack water.

Pilot Ladder Arrangements:

Inbound vessels: Ladder to be rigged on lee side – 2.0 m. above the water.

Outbound vessels: In most cases, ladder to be rigged on starboard side (but check with Duty Pilot first) 2.0 m. above the water, 2 manropes of minimum size 20 mm., maximum size 32 mm. diameter.

Must comply with normal SOLAS regulations and ISO standards.

Pilot Launches: Two pilot launches. One with length 14.6 m. speed 9 knots, painted international rescue orange. And the other, length 13.7 m., speed 18.0 knots, aluminium hull, with cabin painted international rescue orange. Both fitted with radar, VHF standby on Channels 16 and 12. Working Channels 14 and 11 and R/T 2182 kHz, 2162 kHz and 2045 kHz.

ANCHORAGES: Good holding ground in most conditions can be found in a position about 3.0 miles N.E. of Mount Maunganui with depths of 30 m. The Quarantine Anchorage is in a position bearing 075° (T) distance 3.25 miles from Mount Maunganui Light. Prohibited anchorage on or near No. 1 Reach Leads.

APPROACHES: Entry and exit is generally at slack tide, day and night. Berthing normally takes place 30 minutes after negotiating the harbour entrance. Tankers will be berthed where practicable, starboard side alongside (bow out), to facilitate emergency departure. The entrance approaches are dredged, giving a minimum depth of 14.1 m. During Northerly and Easterly gales, breaking seas may be experienced in this vicinity, particularly on an ebb tide. Inner Harbour navigable channels have been dredged to 12.9 m. The Western Channel is now closed to shipping.

Approach Routes – Tankers: The Maritime Safety Authority of New Zealand has published a voluntary code for ships carrying oil or other harmful substances in bulk, as defined in Annexes I and II of MARPOL 73/78.

General: Ships are to keep at least 5 nautical miles off land, any charted danger, or any outlying island(s) until reaching the position where alteration is required to make port. A greater distance off may be necessary in adverse on-shore weather, or if it is known that the ship has any mechanical deficiency that might impair either the motive power or manoeuvrability.

Approaching Tauranga: From the North – Keep at least 4 nautical miles to the West of Mayor Island and thence to the Pilot Station.

From the East – Keep at least 5 nautical miles to the North of Volkner Rocks, thence 3 nautical miles to the North of Astrolabe Reef and thence to the Pilot Station.

RESTRICTIONS: Vessels can berth and unberth by day and by night, but those over 110 m. in length are generally handled at slack water.

MAX. SIZE: Max. length permissible is 290 m., no restrictions on beam. Max. arrival and departure draft at high water is 13.0 m. and at low water 11.7 m.

HEALTH: Radio notification to be sent to "Port Health Tauranga", regarding state of health of crew and ETA 24 hours before arrival requesting Radio Pratique.

Pratique is granted by Port Health Officer on arrival if Radio Pratique not requested or granted. Notification should be made by radio to Port Health in case of suspected disease or fever on board.

Pratique is automatic if vessel has been previously cleared at another New Zealand port.

RADIO/VHF: The port of Tauranga Signal Station, call sign "Tauranga Port Radio", call sign ZMH 70, is fitted with radar and VHF and is manned 24 hours a day. Listening watch on VHF Channels 16, 12 and 11.

BERTHING: The quay type concrete wharf at Mount Maunganui is 2,055 m. in length, (nominally 11 berths), and is fitted with wooden faced piling and rubber buffers. A linkspan is situated in the centre of the wharf area.

The quay type concrete wharf at Tauranga – Sulphur Point is 600 m. in length (nominally 3 berths), it is fitted with wooden faced piling and rubber buffers.

Berthing Facilities:

Commencing from the North, berths are numbered accordingly.

No.	Length (m.)	Distance from North End (m.)	Depth (m.)	Max. Draft at HW (m.)
Mt. Maunganui:				
1	170	0 – 170	10.4	9.8
2	170	170 – 340	10.4	9.8
3	170	340 – 510	12.5	11.7
4	170	510 – 680	9.5 – 12.5	11.7 – 9.0
5 Ro/Ro	228	680 – 908	9.5	9.0
6	150	962 – 1112	10.4	9.8
7	160	1112 – 1272	10.4	9.8
8	180	1272 – 1452	12.5	11.7
9	180	1452 – 1632	11.6	10.7
10	200	1632 – 1832	11.6	10.7
11	223	1832 – 2055	12.5	10.7 – 11.7
Cement/Tanker			13.0	12.0
Tauranga – Sulphur Point:				
23	200	001 – 200	14.5	13.2
24	200	200 – 400	14.5	13.2
25	200	400 – 600	14.5	13.2

Ro/Ro: Ro/Ro facility available at Common-User Berth. Linkspan ramp 8.6 m. trafficable width, forklift capacity 52 tons payload, front axle load 55 tons. A number of forklifts up to 40 tons capacity are available.

Berths No. 9, 10 and 11 can sustain a distributed load of 50 kPa (5 tonnes) per sq.m. and an axle load of 100 tonnes. Berths No. 1 – 8 can sustain a distributed load of 30 kPa (3 tonnes).

Cruise Terminal: Cruise vessels berth at Berth No. 1, no terminal available.

Private Wharves: Yacht marina with berthing facilities for 560 craft.

Cargo Storage: On-wharf cargo sheds are:

Mount Maunganui:

No. 1 North	1,835 sq.m.	(Transit Coolstores, Kiwifruit)
No. 1 South	1,835 sq.m.	+ 2,213 sq.m. (Verandahs)
No. 2	3,500 sq.m.	Dry Cargo
No. 3	4,000 sq.m.	
No. 4	5,517 sq.m.	(Private Lease)
No. 5	2,900 sq.m.	(Main Shed)
	1,383 sq.m.	(No. 5 North)
	1,383 sq.m.	(No. 5 South)
	570 sq.m.	(Verandahs)
Dry Timber Store	1,016 sq.m.	
Tent Shed	1,950 sq.m.	
Coldstore	22,500 sq.m. (20,300 t. cap.)	(Owned and operated privately.)

Woodchip storage 80,000 tons, log storage over 122,000 tons, a 3,000 ton grain silo, an 8,000 ton cement silo and container storage on 30 – 34 ha. open areas. 100 regrigerated container power points and a container wash are also available.

Off wharf, petroleum products tank storage, 115,000 tons, cement storage 2,250 tons, fertiliser storage 7 ha. Covered storage bulk storage for methanol and caustic soda. Salt refinery up to 60,000 tons annually.

Tauranga – Sulphur Point:

No. 11	10,000 sq.m.	
No. 12	12,136 sq.m.	(includes verandahs)
Dairy Industry		
Storage Shed 1	6,900 sq.m.	(private lease)
Storage Shed 2	8,342 sq.m.	(private lease)

and 25.5 hectares paved storage for containers and general cargo and 494 reefer points.

Principal Imports and Exports:

Imports: Cement, chemicals, fertiliser bases, grain, petrol products, salt, steel and general cargo.

Exports: Butter, cement, cheese, kiwifruit, livestock, logs, milk powder, steel, timber, woodchip, woodpulp and general cargo.

Consolidation: Full cargo forwarding service available by arrangement.

Computer Systems: Provided by stevedores/marshallers.

Rail Facilities: Transportation links are provided by roadways throughout the port region, and by major rail marshalling yards connected to the East Coast and Main Trunk railway systems, which are immediately adjacent to the wharf rail network.

TUGS: 3 tugs are available with bollard pulls of approximately 40, 28 and 15 tons. They usually join inward vessels in the vicinity of the Harbour entrance. Tug's lines are normally used, for which there is no extra charge.

CRANES: A 40 tonne lift SWL multi-purpose gantry crane for unit loads, bulk granular products, logs and containers, operates at the Southern end of the Mount Maunganui Wharf (from the 1,600 m. to the 2,055 m. point), electro-hydraulic grab available for gantry crane (40 tonne hook beam and 25 tonne 15 cu.m. clam shell grab). Other equipment, owned by private stevedoring companies, includes forklifts with up to 40 ton capacity, tower cranes, 2 Gottwald HMK 8029.S cranes and log handling equipment with up to 45 ton capacity. A weighbridge with 60.0 tonne capacity, and 10 hoppers including 2×300 ton capacity hoppers are available for bulk cargo discharge.

2×40 ton (55 ton post-Panamax) container cranes are operating at Tauranga – Sulphur Point Wharf.

Safe working loads as follows:

With pulley frame plus spreader: 40 tonnes.

With pulley frame plus hook beam: 55 tonnes (32 m. outreach).

Hoppers: The following hoppers are available:

2 Multi-purpose crane hoppers, 300 tonne capacity.

2 General purpose hoppers, 80 – 100 tonne capacity.

6 Napier tyre hoppers, 50 tonne capacity.

STEVEDORES: ETA to stevedoring companies is usually worked in conjunction with ETA to Agent.

Working Hours: 7 days a week, 0700 hrs. – 1530 hrs., 1530 hrs. – 2330 hrs., 2330 hrs. – 0700 hrs.

MEDICAL: Unless specifically required for arrival, Agents do not require advice. Local medical practitioners are consulted and services of one public and two private hospitals are utilised.

Mount Medical Centre	Tel: 0064-7-5753073
Dee Street Medical Centre	0064-7-5754057
Omanu Medical Centre	0064-7-5757188
Arataki Medical Centre	0064-7-5755077
BayCare Medical Centre	0064-7-5788111
Tauranga Medical Centre	0064-7-5789059

Tauranga Hospital is 12 km. from the port. Tel: 0064-7-5778000.

TANKERS: Discharge of black and white products is carried out at a specially built tanker berth, permissible draft presently 12.5 m. Both products are discharged through 250 mm. pipelines. The flexible connection to ship is 200 mm.

Products are discharged as follows:

White Oil through 300 mm. 100 p.s.i. pipe, discharge rate 650,000 to 850,000 litres/hour.

Bitumen through 300 mm. 125 p.s.i. pipe, 500,000 litres/hour.

H.F.O. through 250 mm. 125 p.s.i. pipe, 500,000 litres/hour.

Chemical tankers discharge and load at the same facility via 1×6 in. and 1×8 in. pipe.

Limited waste oil facilities available, removed by tank truck.

Cement/Woodchips: Bulk cement discharged via pipeline on tanker berth to adjacent silos via 16 in. line at 350 tonnes/hr.

Woodchip carriers loaded by conveyor across tanker berth from adjacent stockpile at a loading rate of approximately 750 tonnes/hr.

Molasses: Molasses is discharged through 1×14 in. pipeline.

DENSITY: Salt water, 1025.

FRESH WATER: Fresh water is supplied by pipeline at 20 tonnes/p.h., prior arrangements must be made with the Operations Manager for quantities in excess of 1,000 tonnes.

FUEL: Bunkering connections are placed at Berths No. 1 – 11 and Cement Tanker Berth. LMFO 40 and LMFO 180 are supplied through a 10 in. line to all bunker points at rates of up to 150 tonnes per hour. Marine gas oil is also available ex-road tanker.

FIRE PRECAUTIONS: The tanker berth is securely fenced and the gate is manned by the Company's Security Staff to prevent entry by unauthorised persons. A pass system operates. Normal precautions are taken. The berth is equipped with a remotely controlled foam monitor.

REPAIRS: All types of engine and deck repairs are possible. A slipway can take vessels of 610 tonnes displacement and up to 56 m. length.

SURVEYORS: *Registered Cargo Surveyors:* Cargo & Marine Services, P.O.Box 5001, Mount Maunganui South. Tel: 0064-7-5756988. Fax: 0064-7-5758777.

Classification Societies – Surveyors: American Bureau of Shipping: Surveyor N. K. Farell, P.O.Box 1974, Auckland. Tel: 0064-9-3031284. Fax: 0064-9-3095655.

Bureau Veritas (NZ) Ltd., 27 Bath Street, Parnell, Auckland. Tel: 0064-9-3098279. Fax: 0064-9-777633, exclusive Surveyor: G.Anderson.

Lloyd's Register of Shipping, P.O.Box 2682, Auckland. Tel: 0064-9-733311. Fax: 0064-9-3095786. Cables: "Lloydsreg". Principal Surveyor: L.Johansson.

United States Salvage Association Inc., Non-exclusive Representatives: G. W. Dunsford Marine Ltd., P.O.Box 46-216, Auckland. Tel: 0064-9-3781254/5/6/7. Fax: 0064-9-3781258.

OPENING/CLOSING HATCHES: Usually performed by stevedores and/or ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes or 250 grams tobacco or 50 cigars. A 1.25 litre bottle of spirits or 4.5 litres of wine and a case of beer. Vessels are entitled to an issue of duty free stores every 10 days while remaining on the coast.

REPATRIATION: All facilities exist.

AIRPORT: The airport is situated 1.6 km. from the wharf and is served with regular internal flights to other main centres (Wellington – 544 km., Auckland – 221 km.), where overseas flights may be connected with.

TIME: GMT plus 12 hours. GMT plus 13 hours during daylight saving.

HOLIDAYS: New Year's Day; 2nd January; Picnic Day and Anniversary Day, both in latter part of January; Waitangi Day, 6th February; Good Friday; Easter Monday; Anzac Day, 25th April; Queen's Birthday, early June; Labour Day, late October; Christmas Day and Boxing Day.

POLICE/AMBULANCE/FIRE: All connected through automatic exchange, Emergency No. 111.

EMERGENCY CO-ORDINATION CENTRE: When vessels are in port, any queries should be directed to the Port Company's Signal Station which is manned 24 hours per day. For specific emergencies (Fire, Police, Ambulance) dial 111.

TELEPHONES: Telephones are placed on board all ships when they arrive.

SERVICES: Local compass adjusters are available. Ship's stores can be provided by local Providore firms. Fumigation can be arranged. Ships' garbage is collected daily. Limited facilities for discharge of tank washings exist.

STORING: Vessels can be stored by truck – barges not used. Trucks can proceed alongside at the berth and remain close alongside if not interrupting cargo operations.

Forklift trucks may be used to handle stores but normally not necessary. Customs regulations in force when Bonded Stores are being loaded. Storing carried out by ship's crew and providores.

SHIP SUPPLY SERVICE: A small scale launch service is available when required for the ship-to-shore transport of personnel and/or essential stores and/or sick crew members. This can be arranged through local shipping agents.

SHORE LEAVE: No restrictions.

GARBAGE DISPOSAL: Drums provided for daily collection, 0500 – 0600, 1200 – 1300, 1600 – 1700 hrs. Port service charges cover the first 4 drums, excess NZ$ 32/drum. Service provided by Port of Tauranga Ltd.

WASTE OIL DISPOSAL: Service by road tanker. Charges NZ$ 70/hr. plus GST plus disposal charges.

Contact: Pete's Takeaways, P.O.Box 775, Tauranga. Tel: 0064-7-5441016.

NZ Marine Services Ltd., P.O.Box 5286, Mount Maunganui. Tel: 0064-7-5758445 or Mobile 025-980-570.

IDENTIFICATION CARDS: Not required, but Crew List should be handed to the Security Staff.

SEAMAN'S CLUBS: Bay of Plenty Seafarers Centre, Hull Road, Mount Maunganui. Tel: 0064-7-5756992. Services: Meals, snacks, shop, money exchange, international telephone and transport.

Galilee Mission, Wharf Road, Mount Maunganui. Tel: 0064-7-5758341.

CURRENCY: New Zealand Dollar (NZ$). U.S.$ 1.00 = NZ$ 1.46 (March 1996).

GENERAL: *Gyro/Radio Repairs:* Gyro/Radio Repairs services available.

Fumigation: Fumigation services available.

Consular Services: Consular services for most countries located at either Auckland or Wellington.

Tides: Tidal rise and fall is between 1.3 m. and 2.0 m., and ebb/flood tides flow at approximately 3 knots at Neaps and 5 knots at Springs through the entrance channel.

Prevailing Winds: Southwesterly.

Charts: Admiralty Chart Reference NZ 54, 541, 5412, 5413.

AUTHORITY: Port of Tauranga Ltd., Post Bag 1, Mount Maunganui, New Zealand. *Tel:* 0064-7-5751899. *FAX:* 0064-7-5751800, 0064-7-5751747 Operations, 0064-7-5751759 Signal Station. *Contact:* John M. Halling, Chief Executive. J.I. Mayson, Operations Manager. B.T. Wasley, Company Secretary and Marketing. Colin J. Boocock, Finance Manager. Mike P. O'Rourke, Sales and Marketing Manager.

AGENT: Seatrans New Zealand Ltd., Private Bag, Mount Maunganui, New Zealand. Tel: (0064) (07) 575-4099. Telex: NZ 2285. Fax: (0064) (07) 575-9540. (Branches at all major New Zealand ports).

TIMARU: 44.24 S. 171.19 E. (See Plan)

PORT LIMITS: 2.5 miles radius with centre at Eastern Extension Light.

DOCUMENTS: See "Auckland".

PILOTAGE: Pilotage is compulsory, and Pilots are available day and night. A vessel requiring a Pilot should remain 1.5 miles seaward of Eastern Extension Mole, near and to South of Fairway Beacon. Vessels should not proceed Northward of line of leading lights on Benvenue Cliff.

Contact Pilot on VHF Channels 16 and 9 ("Timaru Harbour Control"). Pilot boards vessel at Fairway Beacon.

ANCHORAGES: A vessel should anchor in a depth of not less than 12.8 m., sand, and Eastward of harbour light structure, and not within 1.5 miles of Eastern Extension Mole.

RESTRICTIONS: Swell and tidal conditions may affect time of entering harbour.

MAX. SIZE: Length, 200 m. (LOA 227 m. if fitted with bow and stern thrusters); Beam, no limit; Max. permissible draft 10.0 m. Time of berthing vessels of over 8.4 m. draft will depend on swell and tidal conditions and at Harbour Master's discretion.

HEALTH: Due to exposed nature of anchorage, incoming vessels are examined and Pratique is granted after a vessel berths. In event that vessel is quarantined, she will be required to return to anchorage without any contact being made with shore.

RADIO/VHF: Port of Timaru Ltd. has a radio telephone station equipped with both medium frequency and VHF installations.

Call sign "Timaru Harbour Radio", calling frequency 2182 kHz, working frequency 2162 kHz. VHF call sign is "Timaru Harbour", Channels 16 and 9.

TUGS: 1 tug, 2,238 kW. and Pilot launch/tug, 350 kW. available.

BERTHING: Berthing space available with depths alongside at LWOST, 190 m. with 10.25 m. depth; 400 m. with 10.00 m. depth; 545 m. with 9.75 m. depth; 212 m. with 9.5 m. depth; 195 m. with 8.0 m. depth and 160 m. with 6.0 m. depth., railway lines on most wharves. Rail to Christchurch and Dunedin.

SPECIALISED CARGO HANDLING FACILITIES: *All Weather Mechanical Loaders:* 4 all-weather mechanical meat loaders. Each machine is capable of loading 720 units per hour, to a max. of 2,500 units per hour. Also butter, cheese, frozen vegetables and fish can be handled. Can be used to unload suitable cargoes, e.g. fruit. Warehouse facilities available.

Ro/Ro - Lo/Lo Container Terminal: Terminal for handling Ro/Ro and container vessels. Mobile pedestal crane (SWL 47 tonnes) and forklifts for container handling, otherwise loading/unloading by ship's equipment. Port currently has services to Australia, Pacific Islands, Near East, Middle East and Far East, Europe, North and South America. Container cleaning and inspection facilities available.

BULK HANDLING FACILITIES: Grain silos and shiploader: 10 silos with total storage capacity 19,500 tonnes. Ship loading rate 700 tonnes per hour via conveyor/shiploader.

Bulk discharge equipment: 6 mobile hoppers (27 cu.m. capacity each hopper), normally used for discharge of fertiliser/sulphurs. Mobile pedestal crane equipped for loading/discharge by grab.

Bulk tallow facility: Storage capacity 6,000 tonnes, ship loading rate 300 tonnes per hour through 8 in. delivery pipe.

CRANES: One multi-purpose mobile pedestal crane equipped for handling containers, bulk and general cargoes. SWL 47 tonnes at 29 m. radius, 30 tonnes at 41 m. radius. Also 1×48 tonne crawler crane, 1×16 tonne crawler crane and 1 Hamilton Crane.

STEVEDORES: PTL Stevedoring – A subsidiary of Port of Timaru Ltd. Labour must be ordered before 0700 hrs. weekdays and before 1500 hrs. Friday for weekend work.

MEDICAL: Full medical facilities are available as required, including an excellent public hospital.

TANKERS: 1 tanker berth, discharge through 8 in. hoses.

DENSITY: Specific gravity 1025 at all states of tide.

FRESH WATER: Available at all berths, delivered at up to 25 t.p.h. (cost $0.53 per 1,000 litres).

FUEL: Bunkers available, heavy and medium fuel oil. 24 hours advance notice required.

FIRE PRECAUTIONS: When tankers are discharging, access to wharf is prohibited except to those holding passes. Fire-fighting equipment is placed in readiness on wharf.

REPAIRS: Most deck and engine repairs can be undertaken.

GANGWAY/DECK WATCHMEN: Available if required.

CUSTOMS ALLOWANCES: See "Auckland".

REPATRIATION: Facilities exist for effecting crew changes and arranging necessary repatriations.
AIRPORT: 8 km. from port. Daily flights to and from Christchurch and Wellington. 160 km. by road to Christchurch International Airport.
TIME: Approximately March-October New Zealand Standard Time (GMT plus 12 hours). Approximately November-February New Zealand Daylight Saving Time (GMT plus 13 hours). Actual dates of changeover to and from Daylight Saving Time decided annually.
HOLIDAYS: New Year's Day; 2nd January; New Zealand Day, (6th February); Good Friday; Easter Monday; Anzac Day (25th April); Queen's Birthday (first Monday in June); South Canterbury Anniversary Day (third Monday in September); Labour Day (last Monday in October); Christmas Eve; Christmas Day; Boxing Day. All days can be worked if arrangements made.
POLICE/AMBULANCE/FIRE: Emergency No. 111 and ask operator for service required. Other than emergency calls: Police, 6884199 Timaru; Ambulance, 6847129 Timaru; Fire Brigade, 6847089 Timaru.
EMERGENCY CO-ORDINATION CENTRE: If within the port area contact Harbour Master's Office, in Ritchie Street. Tel: 6844199.
TELEPHONES: Can be supplied to vessels at all berths, rental N.Z.$14.00 per day.
STORING: See "Prelims".

1. Storing by truck only.
2. N/A.
3. Yes.
4. If necessary.
5. None.
6. If necessary.

SHIP SUPPLY SERVICE: Port Company craft will assist with transfer of crew.
SHORE LEAVE: Allowed.
GARBAGE DISPOSAL: Garbage service available with drums supplied on board as required through Port Company. Drums placed on board on vessel's arrival, collected daily and finally prior to departure. Charges NZ$ 27.00/can per day, plus labour.
WASTE OIL DISPOSAL: Small quantities only by lorry (private company).
SEAMAN'S CLUBS: South Canterbury Seafarers Club, Ritchie Street, Timaru. Tel: 03-6848811.
CURRENCY: New Zealand Dollar (NZ$). U.S.$ 1.00 = NZ$ 1.33 (17.2.96).
IDENTIFICATION CARDS: Not required.
DEVELOPMENTS: Upgrading of heavy equipment, installation of additional reefer points and development of storing/marshalling areas for logs. Container tracking system being developed.

Port's North Mole facility and container freight station and Marine Services have ISO 9002 Certification.
AUTHORITY: Port of Timaru Ltd., P.O.Box 544, Timaru, New Zealand. *Tel:* 0064-3-6844199. *FAX:* 0064-3-6845615. *Contact:* I.J.F. Alexander, Manager - Corporate Services.

WANGANUI: 39.57 S. 175.00 E. (See Plan)

PORT LIMITS: Arc of a circle of 3 nautical miles radius centred at the flagstaff at Castlecliff, sited Lat. 39° 56' 49" S., Long. 174° 59' 23" E.
DOCUMENTS: See "Auckland".
PILOTAGE: If Wanganui is first N.Z. port, initial application for Pilot and vessel's ETA should be passed to local Agent by radio through one of three Post Office radio stations. If not first N.Z. port, this information should be given to local Agent by Agent at previous port. Final details settled when R/T contact made between Pilot Station and ship.

Pilot launch "Strathallen", LOA 48 ft. painted white, high midship wheelhouse. Pilot boards at anchorage position. International signals for Pilot should be used if no R/T contact made.
ANCHORAGES: One anchorage for vessels awaiting to enter.
RESTRICTIONS: Port worked day or night at HW when bar conditions are suitable.
MAX. SIZE: Length 120 m., beam 20 m., draft dependent on bar depths at particular time but usually 5.5 m. max. at HWS. No installations outside main port area.
HEALTH: See "Auckland".
RADIO: Wellington Radio ZLW. R/T frequencies 2182, 2162, 2012, 2045, 4419.5 and 6818.8 kHz.
VHF: Channels 16, 12, 9, 68 and 14.
TUGS: No tug available. Pilot launch used for swinging.
BERTHING: Berthing takes place at HW.
SPECIALISED CARGO HANDLING FACILITIES:
No. 1 Wharf: Pipeline for bulk cement connecting wharf with adjacent silos.

Direct handling into cool store. Fishing berth and fish unloader for hire and rail sidings.

Portable hoppers used for bulk cargoes to load directly into road trucks.

There are facilities for containers but no facilities for Roll-on/Roll-off traffic, liquid chemicals or LPG carriers.
CRANES: One mobile crane, capacity 4 tons. 3–20 ton from contractor.
STEVEDORES: Requirements for labour by arrangement.
MEDICAL: 24 hours' notice required if possible. Hospital facilities available. Inoculations, certificates, etc.
DENSITY: 1020 at HW. 1005 at LW. These figures vary greatly according to amount of fresh water in river.
FRESH WATER: Plentiful supply through wharf hose connections. Rate of delivery depends on height of ship's filling pipe above wharf level.
FUEL: All grades available but ship has to pump out of road tankers. Amount of notice depends on grade required.
REPAIRS: Minor deck and engine repairs possible.
GANGWAY/DECK WATCHMEN: Watchman necessary, either crew member or shore watchman.
OPENING/CLOSING HATCHES: Carried out by stevedores or crew.
CUSTOMS ALLOWANCES: See "Auckland".
REPATRIATION: Facilities exist but more easily accomplished at a main port.
AIRPORT: About 4 miles. Airport caters for internal services only which can connect with international services.
TIME: N.Z. Standard Time (12 hours in advance of GMT). N.Z. Daylight Time (13 hours in advance of GMT) is kept from last Sunday in October until first Sunday in March.
HOLIDAYS: As Auckland, except Anniversary Day holiday which is that held in Wellington Province.
POLICE/AMBULANCE/FIRE: Call 111 and ask for service required.
TELEPHONES: Arrangements can be made for placing telephones on board.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Drums available.
WASTE OIL DISPOSAL: Not available.
DELAYS: Fresh onshore winds could make entrance unworkable for a vessel waiting to enter. Cargo work stops in rain and in unusually strong wind. Bunkering would be slow if large amount of bunkers required.
DEVELOPMENTS: Development plan in course of preparation but as yet no details of size of any possible new installations or draft increases.
AUTHORITY: Ocean Terminals Ltd., P.O.Box 623, Wanganui, New Zealand. *Tel:* (06) 3447684. *FAX:* (06) 3447524. *Contact:* J.S.M. Blaikie, General Manager/Harbour Master.

WELLINGTON: 41.17 S. 174.47 E. (See Plan)

PORT LIMITS: All waters within an arc of a circle of 3.85 nautical miles radius having its centre at a point on Outer Rock at the South end of Barretts Reef.
DOCUMENTS:
Port Health:

Completed Maritime Declaration of Health (if Pratique not granted).
2 copies of Poison List, if there is poison in the cargo (i.e. Class 6, 7 or 8 substances) or a Declaration.
Crew List, stating name, rank, sex, nationality and dates of last vaccinations.
Current Derat Exemption Certificate.
List of addresses of disembarking passengers.
List of any dangerous cargo on board.

Customs:

3 copies Passenger List.
3 copies Crew List.
1 copy Search List (Form 2).
1 copy Stores List (Form 3A).
1 copy Poisons List or Declaration.
1 copy Animals or Birds List or Declaration.
1 copy List of Firearms (not cargo) or Declaration.
1 copy Arrival Manifest, plus 2 copies for other ports visited.
1 copy of Cargo List, showing gross tonnage of cargo for discharge in New Zealand or a Declaration.
1 copy Form 1A - General Declaration.
1 copy MOT Form - Particulars of Ships.
Certificates (see also "Certificates").
1 copy MOT Form 5743 - Declaration of Insurance (for Tankers only).

Agent:

Varies, but at least 1 Crew List.
1 copy Cargo Manifest.

Agriculture:

1 copy Crew List.
3 copies Shipmaster's Bond and Guarantee (Fm. Ag. L35).
2 copies Meat Locker Declaration (Fm. Ag. L36).

Customs: Wellington is a designated Customs port. The practice of boarding all commercial vessels arriving from and departing for overseas has been replaced by a selective system known as 'Discretionary Entry/Clearance'.

When the vessel's agent has been advised that the vessel has been afforded Discretionary Entry or Clearance, the Master, Owner or Authorised Agent is required to lodge all arrival or departure documents (known as the Inward/Outward Report) at the Customs Office.

Discretionary Entry is granted depending on the vessel's last port, crew and voyage history. It is applied in most cases for coastwise voyages.
PILOTAGE: Pilotage is compulsory within that area of the Pilotage District being Northward of a line drawn 090° from Gordon Point through the Rear Lead Light on Hope Shoal to the Eastern shore, for all merchant vessels over 500 tons gross, except vessels whose Masters have Pilotage Exemption Certificates and to which exemption applies.
Pilotage District: The outer limit of the Pilotage District is an arc of a circle 3.0 miles in radius centred on Outer Rock.
Notice for Requiring Pilot: All vessels requiring a Pilot are required to give 24 hours notice by radio of their estimated time of arrival (ETA), at the pilot boarding area.

An updated ETA is required 4 hours before arrival in every case and again 1 hour before arrival.

Vessels approaching Wellington from the North and East may contact Wellington Harbour Radio (Beacon Hill) for amending and confirming ETA's via the VHF repeater on Cape Palliser* (VHF Channel 4). The approximate range to the Northward is to Castlepoint.

If the vessel will be late arriving, a new ETA must be sent 4 hours before the original ETA.

ETA messages should be sent through a coastal radio station, or other means, addressed to "Pilots – Wellington".

Products are discharged as follows:

White Oil through 300 m. 100 p.s.i. pipe, discharge rate 650,000 to 850,000 litres/hour.

Bitumen through 300 mm. 125 p.s.i. pipe, 500,000 litres/hour.

H.F.O. through 250 mm. 125 p.s.i. pipe, 500,000 litres/hour.

Chemical tankers discharge and load at the same facility via 1×6 in. and 1×8 in. pipe.

Limited waste oil facilities available, removed by tank truck.

Cement/Woodchips: Bulk cement discharged via pipeline on tanker berth to adjacent silos via 16 in. line at 350 tonnes/hr.

Woodchip carriers loaded by conveyor across tanker berth from adjacent stockpile at a loading rate of approximately 750 tonnes/hr.

Molasses: Molasses is discharged through 1×14 in. pipeline.

DENSITY: Salt water, 1025.

FRESH WATER: Fresh water is supplied by pipeline at 20 tonnes/p.h., prior arrangements must be made with the Operations Manager for quantities in excess of 1,000 tonnes.

FUEL: Bunkering connections are placed at Berths No. 1 – 11 and Cement Tanker Berth. LMFO 40 and LMFO 180 are supplied through a 10 in. line to all bunker points at rates of up to 150 tonnes per hour. Marine gas oil is also available ex-road tanker.

FIRE PRECAUTIONS: The tanker berth is securely fenced and the gate is manned by the Company's Security Staff to prevent entry by unauthorised persons. A pass system operates. Normal precautions are taken. The berth is equipped with a remotely controlled foam monitor.

REPAIRS: All types of engine and deck repairs are possible. A slipway can take vessels of 610 tonnes displacement and up to 56 m. length.

SURVEYORS: *Registered Cargo Surveyors:* Cargo & Marine Services, P.O.Box 5001, Mount Maunganui South. Tel: 0064-7-5756988. Fax: 0064-7-5758777.

Classification Societies – Surveyors: American Bureau of Shipping: Surveyor N. K. Farell, P.O.Box 1974, Auckland. Tel: 0064-9-3031284. Fax: 0064-9-3095655.

Bureau Veritas (NZ) Ltd., 27 Bath Street, Parnell, Auckland. Tel: 0064-9-3098279. Fax: 0064-9-777633, exclusive Surveyor: G.Anderson.

Lloyd's Register of Shipping, P.O.Box 2682, Auckland. Tel: 0064-9-733311. Fax: 0064-9-3095786. Cables: "Lloydsreg". Principal Surveyor: L.Johansson.

United States Salvage Association Inc., Non-exclusive Representatives: G. W. Dunsford Marine Ltd., P.O.Box 46-216, Auckland. Tel: 0064-9-3781254/5/6/7. Fax: 0064-9-3781258.

OPENING/CLOSING HATCHES: Usually performed by stevedores and/or ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes or 250 grams tobacco or 50 cigars. A 1.25 litre bottle of spirits or 4.5 litres of wine and a case of beer. Vessels are entitled to an issue of duty free stores every 10 days while remaining on the coast.

REPATRIATION: All facilities exist.

AIRPORT: The airport is situated 1.6 km. from the wharf and is served with regular internal flights to other main centres (Wellington – 544 km., Auckland – 221 km.), where overseas flights may be connected with.

TIME: GMT plus 12 hours. GMT plus 13 hours during daylight saving.

HOLIDAYS: New Year's Day; 2nd January; Picnic Day and Anniversary Day, both in latter part of January; Waitangi Day, 6th February; Good Friday; Easter Monday; Anzac Day, 25th April; Queen's Birthday, early June; Labour Day, late October; Christmas Day and Boxing Day.

POLICE/AMBULANCE/FIRE: All connected through automatic exchange, Emergency No. 111.

EMERGENCY CO-ORDINATION CENTRE: When vessels are in port, any queries should be directed to the Port Company's Signal Station which is manned 24 hours per day. For specific emergencies (Fire, Police, Ambulance) dial 111.

TELEPHONES: Telephones are placed on board all ships when they arrive.

SERVICES: Local compass adjusters are available. Ship's stores can be provided by local Providore firms. Fumigation can be arranged. Ships' garbage is collected daily. Limited facilities for discharge of tank washings exist.

STORING: Vessels can be stored by truck – barges not used. Trucks can proceed alongside at the berth and remain close alongside if not interrupting cargo operations.

Forklift trucks may be used to handle stores but normally not necessary. Customs regulations in force when Bonded Stores are being loaded. Storing carried out by ship's crew and providores.

SHIP SUPPLY SERVICE: A small scale launch service is available when required for the ship-to-shore transport of personnel and/or essential stores and/or sick crew members. This can be arranged through local shipping agents.

SHORE LEAVE: No restrictions.

GARBAGE DISPOSAL: Drums provided for daily collection, 0500 – 0600, 1200 – 1300, 1600 – 1700 hrs. Port service charges cover the first 4 drums, excess NZ$ 32/drum. Service provided by Port of Tauranga Ltd.

WASTE OIL DISPOSAL: Service by road tanker. Charges NZ$ 70/hr. plus GST plus disposal charges.

Contact: Pete's Takeaways, P.O.Box 775, Tauranga. Tel: 0064-7-5441016.

NZ Marine Services Ltd., P.O.Box 5286, Mount Maunganui. Tel: 0064-7-5758445 or Mobile 025-980-570.

IDENTIFICATION CARDS: Not required, but Crew List should be handed to the Security Staff.

SEAMAN'S CLUBS: Bay of Plenty Seafarers Centre, Hull Road, Mount Maunganui. Tel: 0064-7-5756992. Services: Meals, snacks, shop, money exchange, international telephone and transport.

Galilee Mission, Wharf Road, Mount Maunganui. Tel: 0064-7-5758341.

CURRENCY: New Zealand Dollar (NZ$). U.S.$ 1.00 = NZ$ 1.46 (March 1996).

GENERAL: *Gyro/Radio Repairs:* Gyro/Radio Repairs services available.

Fumigation: Fumigation services available.

Consular Services: Consular services for most countries located at either Auckland or Wellington.

Tides: Tidal rise and fall is between 1.3 m. and 2.0 m., and ebb/flood tides flow at approximately 3 knots at Neaps and 5 knots at Springs through the entrance channel.

Prevailing Winds: Southwesterly.

Charts: Admiralty Chart Reference NZ 54, 541, 5412, 5413.

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TIMARU: 44.24 S. 171.19 E. (See Plan)

PORT LIMITS: 2.5 miles radius with centre at Eastern Extension Light.

DOCUMENTS: See "Auckland".

PILOTAGE: Pilotage is compulsory, and Pilots are available day and night. A vessel requiring a Pilot should remain 1.5 miles seaward of Eastern Extension Mole, near and to South of Fairway Beacon. Vessels should not proceed Northward of line of leading lights on Benvenue Cliff.

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ANCHORAGES: A vessel should anchor in a depth of not less than 12.8 m., sand, and Eastward of harbour light structure, and not within 1.5 miles of Eastern Extension Mole.

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MAX. SIZE: Length, 200 m. (LOA 227 m. if fitted with bow and stern thrusters); Beam, no limit; Max. permissible draft 10.0 m. Time of berthing vessels of over 8.4 m. draft will depend on swell and tidal conditions and at Harbour Master's discretion.

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BERTHING: Berthing takes place at HW.
SPECIALISED CARGO HANDLING FACILITIES:
No. 1 Wharf: Pipeline for bulk cement connecting wharf with adjacent silos.

Direct handling into cool store. Fishing berth and fish unloader for hire and rail sidings.

Portable hoppers used for bulk cargoes to load directly into road trucks.

There are facilities for containers but no facilities for Roll-on/Roll-off traffic, liquid chemicals or LPG carriers.

CRANES: One mobile crane, capacity 4 tons. 3–20 ton from contractor.
STEVEDORES: Requirements for labour by arrangement.
MEDICAL: 24 hours' notice required if possible. Hospital facilities available. Inoculations, certificates, etc.
DENSITY: 1020 at HW. 1005 at LW. These figures vary greatly according to amount of fresh water in river.
FRESH WATER: Plentiful supply through wharf hose connections. Rate of delivery depends on height of ship's filling pipe above wharf level.
FUEL: All grades available but ship has to pump out of road tankers. Amount of notice depends on grade required.
REPAIRS: Minor deck and engine repairs possible.
GANGWAY/DECK WATCHMEN: Watchman necessary, either crew member or shore watchman.
OPENING/CLOSING HATCHES: Carried out by stevedores or crew.
CUSTOMS ALLOWANCES: See "Auckland".
REPATRIATION: Facilities exist but more easily accomplished at a main port.
AIRPORT: About 4 miles. Airport caters for internal services only which can connect with international services.
TIME: N.Z. Standard Time (12 hours in advance of GMT). N.Z. Daylight Time (13 hours in advance of GMT) is kept from last Sunday in October until first Sunday in March.
HOLIDAYS: As Auckland, except Anniversary Day holiday which is that held in Wellington Province.
POLICE/AMBULANCE/FIRE: Call 111 and ask for service required.
TELEPHONES: Arrangements can be made for placing telephones on board.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Drums available.
WASTE OIL DISPOSAL: Not available.
DELAYS: Fresh onshore winds could make entrance unworkable for a vessel waiting to enter. Cargo work stops in rain and in unusually strong wind. Bunkering would be slow if large amount of bunkers required.
DEVELOPMENTS: Development plan in course of preparation but as yet no details of size of any possible new installations or draft increases.
AUTHORITY: Ocean Terminals Ltd., P.O.Box 623, Wanganui, New Zealand. *Tel:* (06) 3447684. *FAX:* (06) 3447524. *Contact:* J.S.M. Blaikie, General Manager/Harbour Master.

WELLINGTON: 41.17 S. 174.47 E. (See Plan)

PORT LIMITS: All waters within an arc of a circle of 3.85 nautical miles radius having its centre at a point on Outer Rock at the South end of Barretts Reef.
DOCUMENTS:
Port Health:

Completed Maritime Declaration of Health (if Pratique not granted).
2 copies of Poison List, if there is poison in the cargo (i.e. Class 6, 7 or 8 substances) or a Declaration.
Crew List, stating name, rank, sex, nationality and dates of last vaccinations.
Current Derat Exemption Certificate.
List of addresses of disembarking passengers.
List of any dangerous cargo on board.

Customs:

3 copies Passenger List.
3 copies Crew List.
1 copy Search List (Form 2).
1 copy Stores List (Form 3A).
1 copy Poisons List or Declaration.
1 copy Animals or Birds List or Declaration.
1 copy List of Firearms (not cargo) or Declaration.
1 copy Arrival Manifest, plus 2 copies for other ports visited.
1 copy of Cargo List, showing gross tonnage of cargo for discharge in New Zealand or a Declaration.
1 copy Form 1A - General Declaration.
1 copy MOT Form - Particulars of Ships.
Certificates (see also "Certificates").
1 copy MOT Form 5743 - Declaration of Insurance (for Tankers only).

Agent:

Varies, but at least 1 Crew List.
1 copy Cargo Manifest.

Agriculture:

1 copy Crew List.
3 copies Shipmaster's Bond and Guarantee (Fm. Ag. L35).
2 copies Meat Locker Declaration (Fm. Ag. L36).

Customs: Wellington is a designated Customs port. The practice of boarding all commercial vessels arriving from and departing for overseas has been replaced by a selective system known as 'Discretionary Entry/Clearance'.

When the vessel's agent has been advised that the vessel has been afforded Discretionary Entry or Clearance, the Master, Owner or Authorised Agent is required to lodge all arrival or departure documents (known as the Inward/Outward Report) at the Customs Office.

Discretionary Entry is granted depending on the vessel's last port, crew and voyage history. It is applied in most cases for coastwise voyages.

PILOTAGE: Pilotage is compulsory within that area of the Pilotage District being Northward of a line drawn 090° from Gordon Point through the Rear Lead Light on Hope Shoal to the Eastern shore, for all merchant vessels over 500 tons gross, except vessels whose Masters have Pilotage Exemption Certificates and to which exemption applies.

Pilotage District: The outer limit of the Pilotage District is an arc of a circle 3.0 miles in radius centred on Outer Rock.

Notice for Requiring Pilot: All vessels requiring a Pilot are required to give 24 hours notice by radio of their estimated time of arrival (ETA), at the pilot boarding area.

An updated ETA is required 4 hours before arrival in every case and again 1 hour before arrival.

Vessels approaching Wellington from the North and East may contact Wellington Harbour Radio (Beacon Hill) for amending and confirming ETA's via the VHF repeater on Cape Palliser* (VHF Channel 4). The approximate range to the Northward is to Castlepoint.

If the vessel will be late arriving, a new ETA must be sent 4 hours before the original ETA.

ETA messages should be sent through a coastal radio station, or other means, addressed to "Pilots – Wellington".

Vessels equipped with cell phones or fax can, in addition, repeat these messages to the port's 24 hour signal station (Beacon Hill). Tel: (04) 388-5470. Fax: (04) 388-4319.

Note: Port of Wellington is *not* fitted with Telex.

After hours the Coastal Radio Station receiving such ETA messages, direct these messages to Wellington Harbour Radio (Beacon Hill) for actioning – this station is manned 24 hours. It is preferable that all communications be directed through a Coast Radio Station but vessels with the appropriate equipment may use direct facsimile links.

Vessels coming from the North down the East coast of the North Island may contact Wellington Harbour Radio on VHF Channel 4.

Vessels approaching from the West through Cook Strait may contact Wellington Harbour Radio on VHF Channel 62.

Vessels fitted with cell (transportable) telephones may telephone such information to Wellington Harbour Radio direct on (04) 388-5470 or in office hours, direct to the Duty Pilot on (04) 495-3802. Wellington Harbour Radio is also equipped with a facsimile (04) 388-4319.

Note: If no Notice of Arrival is sent it may be up to 2 hours after a vessel is sighted by Beacon Hill before a Pilot can board.

Pilot Transfer Area – Launch: The transfer area is situated on the extension of the leading line (Front Lead and Rear Lead in transit) and approximately 3 miles from the entrance buoy, where the leading line extended meets Pilotage Limits.

Lat. 41° 24' S. Long. 174° 49.5' E.

This position provides adequate searoom for ship maneouvring under most conditions.

Vessels approaching for an inwards Pilot are requested to stay in the general area of this point, and in particular outside the 2 nautical mile range from Pencarrow Head Light, unless directed otherwise by Wellington Harbour Radio or the Pilot.

In heavy Southerly weather it is recommended to stay to seaward of the Pilotage Limit unless directed.

In heavy Southerly weather it may be necessary to embark or disembark the Pilot in smoother water between the Compulsory Limit and the Front Lead. The Master will be advised by the Pilot if this is necessary and a lead from the launch will be offered.

The Pilot launch "Tarakena" has a speed of about 18 knots.

Anchors should be cleared away before passing Pencarrow Light and remain on standby for berthing.

Note: In some extreme Southerly conditions, and particularly on an ebbing tide, a considerable short steep sea builds up at the entrance and in the outer part of the channel which may cause some handling problems to some vessels. Vessels will be advised by the Pilot if, in his opinion, this is the case and in the interests of safety these vessels may be advised to stand-off to seaward until conditions moderate or the tide changes.

Appraisal of Local Weather – ETA's: Vessels coming down the East coast of the North Island and not familiar with Cook Strait weather should consider local weather forecasts carefully when estimating times of arrival, particularly when in light draft or low powered. Experience has shown that in some circumstances only light Westerly winds may be blowing down the East coast until rounding Cape Palliser when a full gale from ahead may be experienced which may greatly influence the ETA.

Timing of Sending of ETA's – Pilotage and Exempted Vessels: Masters and Port users are reminded that vessels arriving over a weekend or holiday and requiring to berth before 0730 hrs. on a Monday or working day after a holiday, are required to advise their Estimated Time of Arrival (ETA) to "Pilots – Wellington", Tel: (04) 388-5470, Fax: (04) 388-4319 by 1430 hrs. on the Friday or last working day preceding a Public Holiday.

Such notification may be made directly to the Duty Pilot by the vessel's Port Agent.

This facilitates operational planning and the ordering of tugs and linesmen over the weekend or Public Holiday.

Although a basic gang of linesmen are available to service small vessels at short notice, extra linesmen to complement the mooring gangs have to be pre-ordered.

Under usual circumstances, once ordered, linesmen's time of commencing work cannot be brought forward.

Pilotage by Leading or Signalling: An extract from the Wellington Harbour Byelaws 1985, Part 3, 3.5 reads:

"3.5 Pilotage by Leading:

The leading of ships by or signalling to ships from a pilot boat under the conduct of a Pilot shall be pilotage which may be requested by a Master as a service for his ship if:

(a) by reason of adverse sea or weather conditions or otherwise the Pilot available to pilot the ship decides that he is not or will not be able with safety to board or disembark from the ship requesting his services.

(b) the number of ships requesting the services of a Pilot exceeds the numbers of Pilots available."

Pilot Launch Signals: In addition to the signal flag 'H', the pilot launch when leading by day will fly code flags 'UF' which is the International Code signal meaning 'you follow me'. By night the usual pilot boat signals only are displayed.

The pilot launch has a red hull, grey deck, white deck housing, diagonally disposed broad red band over housing, superimposed with the work "Pilot" in white lettering.

Pilot Leaving Times: When using the launch, the Pilot launch leaves its base at King's Wharf 35 minutes before the vessel's scheduled ETA.

When there is more than one arrival one hour or more apart which are to be serviced by launch, the Pilot for the second vessel may join the Pilot launch at Seatoun Wharf, approximately 30 minutes before the second or subsequent arrival.

If vessels are arriving less than 30 minutes apart, the Pilot for the second vessel will leave on the launch with the Pilot for the first vessel.

Convoy Movements: Due to the numbers of foreign fishing vessels which visit the port, these vessels, when numbers require, are sailed in a convoy system, usually at 1230 hrs. on Saturdays, Sundays and holidays, and at 1530 hrs. on weekdays.

Depending on convoy numbers and Pilot availability, a Pilot may be on the launch at the beginning of the convoy, with another Pilot or Pilots being on board selected vessels.

Mariners may meet such foreign fishing vessels proceeding inward to the anchorage on their own without waiting for a Pilot. Such vessels may or may not respond to VHF calls.

Pilot Transfer by Launch: Do not approach closer than 2 miles range from Pencarrow Head without Pilot's instructions.

Make a good lee for the Pilot launch with the wind and swell abaft the beam on the weather side and with a ship's speed of about 5 knots. The Pilot will advise you of an appropriate heading and boarding ground. The launch "Tarakena" has a service speed of about 18 knots, so Masters should bear in mind that their way needs to be reduced in good time down to the working speed required (8 knots).

Pilot Ladder: The Pilot ladder is to be constructed and rigged in accordance with IMO requirements, Regulation 17, SOLAS 1974 for Pilot ladders and The New Zealand Shipping (Pilot Ladders) Rules 1974. The ladder should be clean, properly fitted with spreaders, well clear of discharges and outlets, and all outboard fittings which may foul the Pilot Launch.

The ladder must be placed well amidships on the flat part of the hull. The Wellington launch is 25 m. in length and it requires a similar 25 m. length of flat hull to land astern of the ladder.

The bottom of the ladder should be 2.0 m. above the water.

Two *clean manilla* manropes of at least 20 mm. diameter are to be securely made fast to the ship and must not be made fast to the ladder at any point. *Manropes are to be without knots and be no longer than the ladder.*

ANCHORAGES: Depth in anchorages 15 m. to 22 m.

Fairway: Within portion of harbour lying inshore and to Westward of a line drawn from Post Point, the Easternmost point of Oriental Bay, in a 349° direction, to Kaiwharawhara Shore.

9*Inner Anchorage:* Within portion of harbour lying between the Seaward boundary of Fairway and a line drawn from Point Jerningham, in a 359° direction to Kaiwharawhara Shore.

Outer Anchorage: Within portion of harbour Eastward of Inner Anchorage.

Note: Vessels anchoring in Outer Anchorage should take up a position well up towards Kaiwharawhara.

Explosives Anchorage: Within that portion of the harbour contained in a circle with a radius of 0.3 nautical miles having as its centre a point bearing 000° true, distant 1.45 nautical miles from Point Halswell Light Beacon or in such other place within the Harbour of Wellington as may be specified by the Harbour Master on any occasion having regard to weather conditions.

Caution When Anchoring: It is advisable when anchoring (especially when in light draft) to anchor with 2 anchors well spread in a general West and East direction, as it frequently blows hard with heavy gusts of wind off the high land, causing a vessel to sheer about.

Depending on the vessel's draft, 7 shackles veered on one anchor and 3 shackles veered on the other will make the vessel lie much easier.

A strict visual and radio watch should be kept and the short anchor should be raised (and veered again later if required) should the wind change direction to a marked degree, for example when the wind backs from the Northwest to the South on the passage of a front.

Prohibited Anchorages:

(a) Anchorage is prohibited within 150 m. (500 ft.) of the jetty situated on the Northeastern side of Somes Island.

(b) Within one cable of any power or telephone cable.

(c) Within 50 m. of the Greta Point sea water intake, marked with a white triangle on the shore.

White triangular beacons, situated on the foreshore, mark the ends of the power cables.

RESTRICTIONS/MAX. SIZE: Entering and Leaving – Controlling Factors:

Maximum Draft: The maximum draft in the channel is 9.8 m. This maximum draft is when the tide gauge (Wellington) reads zero – that is, at Chart Datum.

The maximum draft for any time can be obtained by adding the current tide gauge reading to the 9.8 m. constant.

The tide gauge is situated at Waterloo Quay and Beacon Hill Signal Station is equipped with a remote tide gauge and can give readings on request.

The usual maximum drafts for channel passage are between 11.2 m. and 11.4 m., depending on the height of the tide, and providing there is no excessive swell condition in the area between Steeple Beacon and the Front Lead – Southerly swell conditions may affect these maximums.

Under Vessel Clearances:

In the entrance channel 1.5 m.

At the berth 0.9 m.

Length and Beam: Subject to any berth limitations there is no limit to length or beam for entrance to the Port.

Port Operational Hours: Subject to the operation of Port Operational Hours, vessels may enter or depart at any time.

The usual hours of operation of Pilots, tugs and linesmen are 24 hours.

Deep draft vessels which are subject to tidal constraints, vessels with emergencies, sickness, etc., are handled at any time, subject to any tidal constraints if the vessel wishes to enter the harbour.

Small non-commercial vessels (i.e. foreign fishing vessels requiring bunkering only or storing) are generally, but subject to other Port movements, only piloted within the pilotage hours of 0700 – 1800 daily.

Tides: Masters wishing to know the height of the tide at any time may direct their request to Wellington Harbour Radio (Channel 14).

For information concerning heights and times of high water refer to the New Zealand Nautical Almanac.

Tidal Range: Neaps 0.8 m. Springs 1.00 m.

Tidal stream in entrance channel: Min. 0.3 knots.
Max. 0.8 knots.

HEALTH: 24 hours before arrival, despatch message through a Coastal Radio Station, to Port Health, Wellington. Radio Pratique can be granted at the discretion of Port Health. The request for pratique is to state ETA, last port with date of departure, number of crew, number of passengers, state of health of all crew and passengers, and indicate if there is a doctor on board. Once pratique is granted it covers all subsequent coastal movements on that voyage.

Vessels requesting Pratique should exhibit the appropriate international signals until Pratique is granted.

Vessels are usually cleared by the authorities once berthed alongside.

Health Officers Examination Ground: Within that portion of the harbour contained in a circle with a radius of 0.2 nautical miles, having as its centre a point bearing 347° True, distant 0.56 nautical miles from Point Jerningham Lt. Beacon, or such other place within the Harbour of Wellington as may be specified by the Harbour Master on any occasion having regard to relevant circumstances. Until Pratique has been granted, vessels arriving from ports beyond New Zealand must not proceed inwards beyond the limits of this area.

RADIO: *Beacon Hill Signal Station:* A signal station (call sign 'Wellington Harbour Radio' and marked as 'SS' on Chart NZ 4633) is situated on Beacon Hill, at an elevation of 131 m., and about 2 miles North-Northwestward from Pencarrow Head.

A 24 hour watch is maintained on VHF Channel 16 and VHF Channel 14. Channel 14 is the local working channel. Channels 4 and 62 also available.

Shipping movements, berthing information, local weather and sea conditions at the entrance, tide heights and navigational information can be obtained on request.

Frequencies – VHF (Range 30 miles):
Calling – Channel 16 (international).
Channel 14 (local call).
Working – Channel 14 (local working).
Channel 13, 12 – (tugs, etc.).
Other Channels used – 10, 9, 62, 68, 71 and others.
Routine – Continuous service on M/F and VHF. Monitors VHF Channels 16 and 14.

RADAR: A radar with ranges 0.25 to 72 nautical miles is situated at the Signal Station.

The radar is installed for the information of the signalman only.

VHF: *Port Operations:* To avoid unnecessary VHF channel changing, all vessels within Wellington Harbour limits are requested to use VHF Channel 14 for receiving and transmitting harbour traffic.

All vessels arriving at the port are requested to make their initial call on Channel 16 and then change to Channel 14 and remain on that channel whilst in harbour limits (unless actually working with tugs).

Where possible they should also monitor Channel 16 as this still remains the International Safety Channel.

All Port Company floating plant will initially listen and transmit on VHF Channel 14.

The tugs/ship manoeuvring channel is Channel 13 or alternatively 12.

Beacon Hill Signal Station will inform the Masters of all ships arriving at the port of the need to remain on Channel 14 whilst in harbour limits.

The Duty Pilot can be contacted on Channel 14 during office hours (call "Port Operations Pilots Office"). Linesmen can also be contacted on this channel (call "Shipping Supervisor" or "Boatmen Mobile").

Also see "Radio".

BERTHING:

Berth/Commodity	*Length of Berth* (m.)	+ *Max. Draft* (m.)
City Wharves:		
Container Terminal **		
Berth 1	293	11.1
Berth 2	293	10.6
Multi-purpose/General Cargo/Dry Bulk Berths **		
Aotea Quay 1	183	9.8
Aotea Quay 2	183	9.0
Aotea Quay 3	183	9.0
Aotea Quay 4	183	8.9
Aotea Quay 5	183	8.4
Aotea Quay 6	183	8.9
Inter-Island Wharf 2	145	6.9
Glasgow Wharf 2	170	8.4
Glasgow Wharf 3	180	8.4
Overseas Passenger Terminal – Berth 3	215	9.2
Queens Wharf 1 – Berth 1	150	7.4
Bulk Liquid		
Aotea Quay 1, 4, 5 (Bunkering gas oil, diesel, light fuel oil)	See above	See above
Kings Wharf	250	9.4
Rail/Road Ferry Terminal */**		
Berth 1	144	9.0
Berth 2	147	11.0
Suburban Wharves		
Seaview (Petroleum products, chemicals)	250	11.2
Burnham (Bitumen and Jet A1 avgas)	250	8.2
Miramar	165	9.9

A number of other berths are available for ship lay-up, research vessels, ship-to-ship fish transfers, fishing vessels, etc.

* Linkspan facilities for stern door loading vessels.

** Wharves served by rail (Container Terminal back-up area only, served by rail).

+ The maximum drafts indicated are the drafts at chart datum (i.e. tide gauge reading zero). Low water tide predictions are generally 0.2 – 0.4 positive and may allow deeper drafts than those indicated.

Notes: Tankers use berths at Seaview, Burnham and Aotea Quay.

Harbour Service craft using King's No. 2.

Berths at Overseas Terminal to Police Jetty (inclusive) are owned by another Company, but are allocated an operating agreement by the Port of Wellington Ltd.

TUGS: The Port of Wellington Ltd. owns 2×2,700 h.p. (2,200 kW) Voith Schneider water tractor tugs, ('Kupe' and 'Toia'). Bollard pull is 28 tonnes and each has a free running speed of 11 knots, with a steaming endurance of approximately 9 days. Two tugs are equipped for fire fighting, deep water towage and salvage duties. The tugs are painted bright red.

The tugs are available for hire by the Port of Wellington Ltd., subject to the provisions of the standard form of Hire and Indemnification Agreement. The Port of Wellington Ltd. and the Harbour Master may also direct a vessel to take a tug and the Harbour Master may also direct the manner in which it is used.

Harbour tow lines (hawsers) are provided by the tug.

Tugs usually meet vessels approximately 40 minutes from the usual Pilot boarding area.

CRANES:

Wharf Cranes:

Wharf	*Distance of Centre First Rail Track from Outside Face of Berth*	*Cranes* No.	*SWL* (tonnes)	*Outreach Past Wharf Fender*
Glasgow 3	3.63 m.	3	3.0	18.5 m.
(Maximum radius 22.8 m. Minimum radius 6.1 m.)				
Thorndon Container Wharves	– (D crane)	1	46.00	32.2 m.
	– (C crane)	1	46.00	32.2 m.
	– (B crane)	1	52.83	32.2 m.
Aotea Quay 2 and 3 only	4.57 m.	4	4.5	15.5 m.
(Maximum radius 15.5 m. Minimum radius 7.6 m.).				
(3 cranes rigged for grabs with SWL 2 tonnes).				

Mobile Cranes: The Port of Wellington Ltd. has 3 mobile cranes available for cargo operations with capacities of 20,000 kg., 5,000 kg. and 4,000 kg.

CARGO HANDLING FACILITIES:

Thorndon Container Berth: This area comprises 2 berths with a total length of 585 m. Maximum draft alongside is 11.1 m. (SW). The berth is served by 3 container cranes with maximum lifting capacities of 46, 46 and 52.8 tonnes. Crane outreach is 32 m. The berth is served by a back-up area totalling 24 hectares. There is maximum storage for 6,284 containers, including 1,370 refrigerated containers.

Usual working hours within the terminal are 0730 – 2230 hrs. on weekdays, but the terminal has the capacity to operate on a 24 hour basis, including holidays.

The berth is a common user berth and operated by the Port Company.

Bulk Petroleum Products: Tanker terminals are provided at Seaview, Burnham and Aotea Quay. Maximum drafts alongside these berths (when tide is at chart datum) are Seaview – 11.2 m., Burnham – 8.2 m. and Aotea Quay – 9.8 m.

Also see "Tankers".

Roll-on/Roll-off Berths: There are two dedicated Roll-on/Roll-off berths provided for the inter-island rail ferry link. Vessels with quarter ramps may use Glasgow Wharf No. 3 (length 235 m. – max. draft 8.4 m. with open areas of 4,200 sq.m. with 2,000 sq.m. adjacent), Aotea Quay No. 4/5 (length no limit, max. draft 8.4 m. with open back-up area of 9,500 sq.m.) or Aotea Quay No. 1/Container Berth No. 2. There is also a dedicated Roll-on/Roll-off Inter-Island Wharf No. 2.

BULK CARGO FACILITIES: *Cement:* There are 3 dedicated cement manifolds at Aotea Quay No. 5/6, discharging to storage and packing areas.

Wheat and other bulk cargoes: There are available 2 wheeled mobile hoppers with a capacity of 25 tonnes. Three cranes at Aotea Quay are fitted with grabs, SWL 2 tonnes.

General: There are available several areas of open stacking area (see above under "Roll-on/Roll-off Berths" suitable for stacking of any bulk cargo and containers. Aotea Quay has 1 cargo shed with floor storage area of 5,120 sq.m., suitable for general cargo, served by internal cranes with a capacity of 5 tonnes.

STEVEDORES: There are 4 main stevedoring companies based in Wellington, one of which is a dedicated container terminal operator.

1. Port of Wellington Limited.
   Manager: Hans Wetendorf.
   Telephone: (04) 495-3800.
   Facsimile: (04) 495-3804.
2. Strait Shipping Limited.
   Cargo Manager: Sandy Sandom
   Telephone: 473-7289.
   Facsimile: (04) 472-3261.
3. Wellington Stevedoring Services.
   Manager: David Oliver.
   Telephone: 473-9088.
   Facsimile: (04) 499-2000.
4. Pacifica Shipping Ltd.
   Local Manager: Roger Grylls.
   Telephone: 472-8381.
   Facsimile: (04) 731-966.

From time to time stevedoring companies from other ports may operate in Wellington, mainly on specialised cargoes.

Stevedoring Equipment: Port Wellington owns most of the stevedoring equipment available in the port. This is hired out as required.

Major equipment available:

1 × 30 tonne forklift truck with 40 ft. (12.2 m.) and 20 ft. (6.1 m.) spreaders (SWL under the spreader is 25 tonnes).
1 × 28 tonne forklift truck.
1 × 25 tonne forklift truck with fork and 20 ft. side frame.
4 × 7 tonne forklift trucks.
6 × 4 tonne forklift trucks.
6 towing tractors with drawbar, capacities 7,000 kg. – 3,000 kg.
5 × 20 tonne trailers (TEU compatible).
20 × 2.5 tonne capacity trailers.
2 Mobile cranes with capacities ranging from 4 tonnes to 20 tonnes.
Also see "Cranes".

MEDICAL: Wellington is a main centre and all medical facilities are available. With adequate notice Agents can arrange the service required. Wellington Public Hospital is a main facility.

TANKERS: Tanker terminals are provided at Seaview, Burnham and Aotea Quay.

Aotea Quay No. 1 is primarily a general cargo berth. When used as a tanker terminal the berth is fenced off with barriers, and the overhead electric crane line isolated.

Tankers are berthed and sailed at Seaview and Aotea Quay during the hours of darkness – see "Restrictions/Max. Size" – "Port Operational Hours" for more specific detail on berthing and sailing hours. Tankers are also sailed from Burnham during the hours of darkness up to 2200 hrs. and after 0630 hrs., provided they are berthed bow North, that is, starboard side to, but are *NOT* manoeuvred for berthing during the hours of darkness in Evans Bay.

As Evans Bay is in the direct approach or departure route for aircraft using Wellington International Airport, all vessels moving in Evans Bay are required to report their air-draft to Wellington Harbour Radio who will forward this height to the airport Control Tower.

Depending on the strength of the prevailing weather, tankers are usually berthed starboard side to at Seaview, so as to utilise the solid apron for landing gangways. Vessels are also usually berthed starboard side to at Burnham, that is, they are swung on berthing so as to have their bows North. Vessels may berth either side to at Aotea Quay.

Oil Spills: Contact Wellington Harbour Radio (Channel 14 – 24 hours) with particulars. This station will advise the appropriate personnel.

General: Side hose connections are to be used at all berths, and ship's cranes or derricks are required for hose lifting and brow gangways (where used).

Boiler and galley fires are not required to be extinguished.

All precautions must be taken to avoid pollution of the harbour. Scuppers must be plugged and absorbent material kept at hand in the event of spillage.

The General Cargo Regs. (1968/240, para. 106) state that all tankers should have towing hawsers placed overside when berthed at any berth. These towing hawsers should be of such size as to be able to accept the tugs in the Port of Wellington. These tugs have a bollard pull of approximately 28 tons and considerably more in some 'indirect pull' situations.

Seaview Wharf: Seaview Wharf is exposed to the weather and in the event of a Southerly gale special attention must be paid to the vessel's moorings.

Cargo Operations in Hours of Darkness: Subject to approval from the Harbour Master or his representative, discharge of oil and chemical cargoes is permitted during the hours of darkness. During these hours pipelines must not be disconnected without first obtaining the permission of the Harbour Master.

Discharging to Road Tankers at Seaview Terminal: Direct loading to a road tanker may be undertaken at Seaview providing the following procedures are complied with:

1. The vessel is completely shutdown and engaged in no other cargo operations before road tankers are allowed onto the jetty.
2. The vessel remains completely shutdown for the duration of the transfer, i.e. no sampling of other tanks will take place.
3. The road tankers will stay as far away as practicable from the vessel.
4. No more than 2 road tankers to be at the T-head of the jetty at the same time with their drivers in attendance throughout.

Concurrent operations are not permitted. This is a safety measure due to the restricted access and manoeuvring area for large road trucks on the berth and its approach road.

Tanker Berth Pipelines:

Details of industry pipelines serving the tanker terminals are as follows:

Seaview Terminal:	
1 × 100 mm./4 in.	Industry Chemical S/S
1 × 100 mm./4 in.	BST Chemical S/S
1 × 100 mm./4 in.	BST Chemical S/S
1 × 150 mm./6 in.	Industry Chemical S/S
1 × 150 mm./6 in.	BST Chemical S/S
1 × 200 mm./8 in.	Industry White Oil
1 × 250 mm./10 in.	Industry Lube Oil
1 × 350 mm./14 in.	Industry White Oil
1 × 350 mm./14 in.	Gas oil
Aotea Quay:	
1 × 200 mm./8 in.	Light Fuel Oil
1 × 300 mm./12 in.	Gas Oil
1 × 300 mm./12 in.	Spare line – not in use
Burnham:	
1 × 250 mm./10 in.	Jet A1 – Mobil
1 × 200 mm./8 in.	Bitumen – Shell

DENSITY: Density in the harbour varies between 1032 and 1036.

FRESH WATER: Fresh water is available at all berths on application to the Port Services Manager and after hours through Wellington Harbour Radio on Channel 14.

Water can also be supplied in small quantities from Port Company tugs.

Water is supplied from the city system and average loading rates are about 25-30 tonnes per hour, per hose, depending on line pressures.

FUEL: The following fuels are available:

Aotea Quay No. 1:
Light Marine Fuel Oil 40.
Marine Gas Oil.
Aotea Quay No. 5:
Light Marine Fuel Oil 40.
Marine Gas Oil.
Aotea Quay No. 6:
Marine Gas Oil only.
Seaview Terminal:
Marine Gas Oil only (by special arrangement with the Oil Companies concerned).

Small quantities of bunker and lubricating fuel may be taken by road tanker at all berths (but not concurrent with tanker operations).

Bunker Loading Rates: Bunker loading rates depend mainly on the ability of the vessel to receive the product.

The product may be either gravity fed or pumped aboard.

As a guide, a maximum of about 100 tonnes per hour by pipeline can be supplied at Aotea Quay berths using 100 mm./4 in. hoses.

CONSULS: Consular Representatives or Embassies in Wellington: Australia, Austria, Canada, Chile, Republic of China, Cook Islands, Czech Rep., Denmark, Fiji, Finland, France, Germany, Iceland, India, Indonesia, Israel, Italy, Japan, Korea, Malaysia, Netherlands, Norway, Papua New Guinea, Philippines, Portugal, Russia, Singapore, Sweden, Switzerland, Thailand, U.K., U.S.A., Western Samoa, Yugoslavia.

REPAIRS: Major repairs can be undertaken. There are machine shops and foundries. Diving equipment and the services of trained divers are available for underwater inspections and repairs. Marine Radio and Radar Services, licensed compass adjusters.

Divers: Diving equipment and the services of divers are available for underwater video and photography inspections (with the provision of inspection reports), basic hull repairs, hull cleaning and underwater cutting (on wooden and metal hulls) using hydraulically operated and metal cutting equipment.

DRY DOCKS: None.

SURVEYORS: Marine Surveyors from the Ministry of Transport, Lloyd's Surveyors and private cargo surveyors are available.

GANGWAY/DECK WATCHMEN: Watchmen are available through Union Maritime Services who are the agents for the Shipping Federation of New Zealand who supply the watch personnel. Contact: Union Maritime Services, Wellington. Fax: (04) 384-5853.

OPENING/CLOSING HATCHES: Work normally carried out by stevedores. Only time crew are to open and close top hatches is when advised by stevedores. In case of hydraulic hatches in tweendecks, crew are to open and close, not stevedores.

HOLIDAYS: New Year's Day (1st January); 2nd January; Wellington Province Anniversary Day (22nd January); Waitangi Day, (6th February); Good Friday; Easter Monday; Anzac Day (25th April); Sovereign's Birthday Observance (first Monday in June); Labour Day (fourth Monday in October); Christmas Day (25th December); Boxing Day (26th December).

Note: Normal port operations during public holidays if services are required.

CERTIFICATES: Customs Department require Ship's Register on arrival.

Marine Division, Ministry of Transport require:
Load Line Certificate.
Tonnage Certificate.
Certificate of Registry.
Convention Certificates, i.e.
  Safety Equipment Certificate.
  Safety Radio-telegraphy Certificate.
  Safety Construction Certificate.
  Exemption Certificate (if any).
  If passenger ship, Passenger and Safety Certificate.
Cargo Gear Register.
Certificates for all Cargo Gear, i.e. runners, spans, shackles, swivels, etc.
Derat Certificate.
Oil Pollution Certificate.

CUSTOMS ALLOWANCES: See "Auckland".

REPATRIATION: Facilities are available for crew changes and arranging any necessary repatriations.

AIRPORT: Situated 7 km. S.E. of City Wharves by road; regular internal and Australian services.

TIME: Local time is GMT plus 12 hours in Winter, (Daylight saving of one extra hour during Summer months, October to March).

POLICE/AMBULANCE/FIRE:

	Routine	*Emergency*
Wharf Police	4723-000	Dial 111 and ask operator for service required
Ambulance	4722-999	
Fire Brigade	3850-188	

EMERGENCY CO-ORDINATION CENTRE: Contact Wellington Harbour Radio (Channel 14 – 24 hours) with particulars.

TELEPHONES: Vessels may be connected to the telephone system at all city berths on application to the Port of Wellington Ltd. (and attended to by the Shipping Services Co-ordinator). New Zealand coastal tankers only may be connected to the telephone system at the oil berths.

Depending on tonnage, up to three telephones may be connected per vessel, and these are included within the Port Tariff.

Telephones are usually provided for local calls only. Toll calls outside the local charge area may be made on selected telephones, but such calls are for the users account.

Telephones may be requested 'toll barred', where it is not possible to make toll calls, or 'toll free' calls.

SERVICES:

Shore Electricity: Available at all city berths on application to the Port of Wellington Ltd. – type AC/50 kHz, voltage 230 – 400 volts, amperage either 60 or 200 amps.

Storm Ropes: Two 96 mm. ropes with a breaking strain of approximately 72 tonnes are available for hire.

Weighbridge: A road weighbridge of 40 tonnes capacity is available on wharf.

Compass Adjusters: At least two licenced compass adjusters are available in the port.

Slop Removal: Small quantities of slop removal can be removed by road tanker. Arranged through private contractors.

Chart Supply: All New Zealand charts can be supplied at short notice.

Painting Punts: Small painting punts are available for hire through the Port of Wellington Ltd.

Steam Cleaning: The Port of Wellington has an industrial steam cleaning facility available.

Gangway: Brow gangways of varying lengths are available for hire.
Boat Hire: The Pilot craft "Tarakena" is available for hire to transport personnel or stores to vessels at anchor when not required for piloting duties.
Nautical Publications and Safety Equipment: There are several ships providores in the port who can supply these requirements.
BANKS: The following banks have branches and agencies in Wellington:

	Telex
ANZ Banking Group N.Z. Ltd	NZ 3385
Bank of New Zealand	NZ 3344
National Bank of N.Z. Ltd	NZ 31388
Westpac Banking Corporation	NZ 3884

STORING: Vehicles can proceed alongside ships to load and unload stores.
SHORE LEAVE: Crew members are allowed shore leave at all times.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Garbage cans are provided on board. Costs are included in port hire charges. Limit of 8 cans for vessels up to 10,000 g.r.t, and 10 cans over this size. Additional cans NZ$ 20 or NZ$ 40 for 44 gal. drums. Contact Port Authority for details.
WASTE OIL DISPOSAL: 24 hour service available via tanker truck.

Thurline Transport Services, P.O.Box 38668, Petone. Tel: 5682185. Fax: 5682185.

Anslows, P.O.Box 29003, Ngaio, Wellington. Tel: 4723140. Fax: 4723140.

SEAMAN'S CLUBS: Missions to Seamen, 25 Upland Road, Kelburn, Wellington. Tel: 4757293. Services: Shop, snacks and bar.

British Sailors Society, 121 Thorndon Quay. Tel: 4722259 or 4728311. Services: Shop, snacks, international telephone and transportation.

CURRENCY: New Zealand Dollar (NZ$).
GENERAL: For nautical and more detailed information on New Zealand ports, refer to the following publications which are kept up to date by the issue of Notices to Mariners in respect of nautical matters:

New Zealand Port Information Manual
New Zealand Pilot
New Zealand Nautical Almanac

These publications and up to date charts are available from New Zealand Government Shipping Offices.

Charts and Navigational Information:

NZ 4633	Wellington.
NZ 4634	Wellington Harbour Entrance and Plans of wharves.
NZ 463	Approaches to Wellington.
NP 51	New Zealand Pilot 1987.
(annually)	New Zealand Nautical Almanac.

Regulations:

Wellington Harbour Bylaws 1985.
General Harbour Regulations (Nautical and Misc.) 1968/239.
General Harbour Regulations (Ship, Cargo and Dock Safety) 1968/240.
Health (Quarantine) Regulations 1983/52.
Marine Pollution Act 1974.
Dangerous Goods Regulations 1985.
(plus amendments).

Garbage: Garbage may only be disposed of in accordance with strict N.Z. Government Regulations. Heavy penalties are provided for those breaching the regulations.

The responsibility for the collection and incineration of all refuse is carried out by the Port of Wellington Ltd. under the supervision of the Ministry of Agriculture and Fisheries.

All vessels, unless fitted with a garbage incinerator or holding tanks approved by the Ministry, will receive and have collected suitably approved refuse bins on a daily basis, Sundays and holidays excepted, unless so requested by the vessel or the Ministry.

Cans must not be placed on the wharf.

The following *must not* be placed in cans for incineration:

(i) Chemicals or any dangerously combustible or explosive material.
(ii) Fuel, lubricating or other oils.
(iii) Bilge scrapings, metals, concrete or other non combustible solids.
(iv) Oil soaked rags and wastes.

Garbage Incinerator: An incinerator facility is available within the port, capable of burning approximately 16 tonnes of refuse a day.
AUTHORITY: Port of Wellington Ltd., P.O. Box 794, Wellington, New Zealand. *Tel:* (04) 495-3800. *FAX:* (04) 495-3820 (Administration), 495-3819 (Shipping). *Contact:* Graham Mulligan, Managing Director. Volker Lankenau, General Manager – Operations. Captain R.J. Field, Executive Pilot.

WESTPORT: 41.45 S. 171.40 E. (See Plan)

LOCATION: The port is situated at the mouth of the Buller River and has a bar at its entrance. Two breakwaters approximately 155.5 m. apart form the entrance and farther within are 3 tide training walls.

Passage over the bar is considered impracticable when the river is in flood or during a N.W.'ly gale. In bad weather the sea breaks heavily over the outer part of the bar.

The town of Westport and wharves are situated on the Eastern bank of the Buller River, about 1.5 miles within the entrance.
APPROACHES: *Cape Foulwind:* A light flashing every 12 seconds, visible 21 miles (nominal range 14), is exhibited at an elevation of 70.40 m. (231 ft.) from a white concrete tower situated on Cape Foulwind, a headland about 6 miles Westward of the harbour entrance. The light is obscured when bearing more than 242°.
Main Harbour Light: A light flashing every 5 seconds (flash 1 sec.), visible 8 miles, is exhibited at an elevation of 19.8 m. (65 ft.) from a white lattice tower on the old signal station situated about 1.5 cables from the head of the Western breakwater.

Caution: At night, care must be taken not to mistake the powerful electric lights of a coal industry situated about 9 miles Eastward of Westport, or the lights of cement works about 3 miles Westward of Westport, for the harbour lights.
Directional Light (occasional): A fixed red, white, and green directional light is exhibited from the same tower as the Main Harbour Light as required – not always exhibited. This light is redirected to suit the best water over the bar. The arcs of the sectors from East to West are red 12°, white 2°, and green 6°, and their nominal ranges 12, 16, and 12 miles respectively.
Radio Masts: Red fixed obstruction lights are shown from radio masts situated about 8 cables S.S.W. and 5.5 miles Westward of the main harbour light.
Landmark: Three chimney stacks, each 60.7 m. (199 ft.) in height, close together with two adjacent silos, are situated about 4 miles Westward of Westport. They are of white appearance and are conspicuous from seaward.
Entering: When within 2 miles of the harbour entrance or on the Harbour Master's advice, steer to bring the main leading beacons on the Eastern Full-tide Wall in line. On entering between the breakwaters, the inner leads will be in line at approximately abeam of the old signal station and course should be altered to starboard to maintain the inner leads in line. Pass the white flashing light on the Western Half-tide Wall on starboard hand. These inner leads direct ships between the Western Half-tide Wall and the Eastern Full-tide Wall. When abeam of the fixed light on the Eastern Full-tide Wall, this light will change colour to fixed green; on observing this change steer for the wharves.

Note: Wharf working lights close to the line of the outer leads will be extinguished as and when required for vessels which have notified their intention to enter.
Floodlights: Two powerful floodlights are exhibited from two lattice-work towers, 29 m. (95 ft.) in height, situated in the railway yards at Westport. These lights, about 3.75 cables apart, are in line bearing 163°. They must not be used for navigational purposes.
PILOTAGE: Pilotage is compulsory. All vessels should notify the Harbour Master of their intention to enter at least 12 hours before arrival. No vessel must attempt to enter the port until authority to do so is received from the signal station. In the event of a Pilot being unable to board, a vessel will be led through the bar.
Pilotage District: All the waters comprised within the harbour of Westport having as their outward seaward limit the arc of a circle running from the landward boundary of the foreshore Westward of the Western Breakwater and thence into the Tasman Sea and thence to the landward boundary of the foreshore Eastward of the Eastern Breakwater such arc being the arc of a circle 1.5 nautical miles radius having as its centre the signal station on the Western Breakwater.
Old Signal Station: The old signal station is in a square concrete building with a white lattice signal mast and is situated about 1.5 cables within the head of the Western Breakwater. It has a large white diamond painted on the seaward wall and white horizontal bands on the East and West walls.
New Signal Station: The new signal station is situated at the harbour office at the northern end of the main wharf, 1.2 nautical miles within the harbour entrance. Vessels can communicate by radiotelephone, VHF, or by morse signalling lamp. Call sign: "Westport Harbour Radio".

Visual watches are maintained for pilotage purposes and for all vessels entering and leaving harbour (at the Harbour Office situated at the lower end of the Crane Wharf).
ANCHORAGES: Vessels can anchor in Buller Bay in depths from 18.3 m. to 23.7 m. (10 to 13 fathoms). A recommended berth is in a position 2 miles Northward of the old signal station.

Caution: There is poor holding ground Eastward of the entrance to the harbour and in the S.W. part of Buller Bay. Vessels should be prepared to proceed to sea directly there are signs of wind rising from the West to North quarter, as anchorage in Buller Bay is unsafe during N.W. gales. A falling barometer and lightning Westward and S.W. of Westport are almost certain indications of deteriorating weather conditions.
Quarantine Anchorage: In the open roadstead within the navigable area enclosed in a circle having a radius of 2 nautical miles from the old signal station, or such other position within the aforesaid area as may be indicated by the Westport Harbour Authorities in accordance with existing local weather conditions.
RESTRICTIONS: All vessels, may, depending on weather, bar and draft conditions, enter, berth, unberth, and depart during the hours of darkness. Vessels berth and unberth at or near HW.
MAX. SIZE: LOA 131.7 m. Beam 20 m. – 25 m., depending on bar condition.
Bar Depths: Depths over the sand and shingle bar vary between 1.8 m. (6 ft.) and 3.6 m. (12 ft.) at chart datum.
River Depths: There is ample depth in the river for all vessels which can cross the bar. Vessels up to 120 m. (393 ft. 08 in.) in length can turn in the harbour at HW neaps provided they do not draw more than 5.4 m. (17 ft. 08 in.) forward; vessels up to 131.7 m. (432 ft.) in length can use the port, but there is only swinging room if drawing not more than 4.6 m. (15 ft.) forward.
VHF: Westport Harbour Radio and tug on VHF.
RADAR: A radar station, operated by Westport Harbour Staff, has been established at the new signal station (position of scanner: Lat. 41° 44' 50.77" S., Long. 171° 35' 40.31" E.). Range 12 miles. Masters of vessels equipped with VHF or radiotelephone may request from the Harbour Master's Office, during conditions of restricted visibility, particulars of their bearing and range as shown on the radar screen. The information given will be in the following form:

According to my observation you are bearing .... degrees.......... miles from the Westport Radar Station.

TUGS: 1×420 h.p.

BERTHING: *Crane Wharf:* A quay-type wharf 670.6 m. (2,200 ft.) in length of wooden construction which has 243.8 m. (800 ft.) of usable berthage with depths of 5.8 m. (19 ft.) below chart datum alongside. The bottom is shingle.

The deck level is 7.2 m. (23 ft. 6 in.) above chart datum.

Merchandise Wharf: A quay-type wharf of wooden construction situated about 243.8 m. (800 ft.) farther Southward to Crane Wharf. Maximum berthage is 152.4 m. (500 ft.) with depths alongside of from 4.3 m. to 5.2 m. (14 ft. to 17 ft.) below chart datum. The bottom is shingle.

The deck level is 6.5 m. (21 ft. 3 in.) above chart datum.

In the inlet to the lagoon, from the seaward end of the Crane Wharf, there is a wharf used for Harbour Authority vessels.

CRANES: 1×12 tonne movable electric crane with 18.3 m. (60 ft.) outreach are situated on Crane Wharf.

MEDICAL: Local hospital for minor ailments. Base hospital at Greymouth. Dentist locally available.

FRESH WATER: Available.

FUEL: Diesel and lub oil available in limited quantities in drums.

REPAIRS: One machine shop for minor repairs.

SURVEYORS: Stationed at Christchurch.

GARBAGE DISPOSAL: Available on request. Drums provided for small quantities. Large quantities disposed of by arrangement.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: New Zealand Dollar (NZ$).

REGULATIONS: The Master of any vessel which touches the bar when outward bound shall inform the Harbour Master by radiotelephone, VHF, or morse signalling lamp after he is clear of the bar. This will be acknowledged by the Harbour Master or the watchkeeper on duty at the Harbour Master's Office.

GENERAL: *Berthing Signals:* These are given from the new signal station. Vessels drawing more than 2.4 m. (8 ft.) must inform the new signal station on arrival of their draft.

Tidal and Bar Information: All information regarding bar conditions and tides is communicated by radiotelephone, VHF, or morse signalling lamp.

Tides: Heights of tides above chart datum are:

MHWS	3.30 m.	(10.8 ft.)	MHWN	2.54 m.	(8.33 ft.)
MLWS	0.28 m.	(0.91 ft.)	MLWN	0.91 m.	(2.98 ft.)
Range	3.12 m.	(10.23 ft.)	Range	1.63 m.	(5.35 ft.)

A tidal gauge, situated in the Harbour Master's Office, shows automatically the depth above chart datum.

For information concerning heights and times of high and low water see New Zealand Nautical Almanac.

Tidal Streams and Currents: Outside the bar the flood stream sets Westward and the ebb stream Eastward. The rate of the tidal stream is least about the time of HW and during 1 to 2 hours before and after HW.

During river freshes, which may occur at any time of the year, the river current in the harbour attains a rate of from 8 to 10 knots.

The tides rise highest with Easterly winds and lowest with Westerly winds.

Currents set across the bar according to the direction and force of the wind. Strong winds from the West and S.W. cause Easterly sets with rates of up to 6 knots; Easterly winds cause sets to the Westward with less effect.

Berthing Light: A small quick-flashing amber light is placed on the berth at night to indicate where the vessel's bridge should be placed alongside.

Garbage: Refuse must be kept on board. No arrangement is made for its collection.

Communications: Westport is on the railway. For freight purposes only, there are connections to Christchurch and Greymouth and Nelson by bus on weekdays. The domestic airport lies South of the port with flights to Wellington daily.

Customs: Westport is a Customs sub-port controlled by the Collector of Customs, Christchurch.

AUTHORITY: Westport Harbour Authority Administered on their behalf by: Buller Port Services Ltd., P.O.Box 335, Main Wharf Harbour Office, Westport, New Zealand. *Tel:* 0064-3-7897249. *FAX:* 0064-3-7897739.

Contact: Captain Sean Bolt, Harbour Master.

WHANGAREI: 35.45 S. 174.21 E. (See Plan)

PORT LIMITS: From a point due South of the summit of Sentinel Rock, thence to a point 5 cables due East of Sentinel Rock, thence to a point 5 cables due East of Bream Head, thence to a point 5 cables due East of Tutukaka Head, thence to Tutukaka Head.

DOCUMENTS:

3 copies Passenger List.
3 copies Crew List.
1 copy Search List (Form 2).
1 copy Stores List (Form 3).
1 copy Prohibited and Restricted Immigrants.
1 copy Poisons List.
1 copy Animals and Birds List.
1 copy List of Firearms (not cargo).
1 copy Arrival Manifest (Form 1).
1 copy List showing the gross tonnage of cargo for discharge in New Zealand.

PILOTAGE: Compulsory. Pilots embark on the line of leads 141°/321° at the seaward extremity of Pilotage District, i.e. up to 1.5 miles South-Eastward of the Fairway Buoy. In heavy Easterly weather, it may be necessary for pilot vessel to lead ship in through the Outer Channel and embark in the lee of Frenchman Island.

Pilots are available all hours day and night subject to prior minimum notice of 24 hours being received during normal week-day working hours. Second notice confirming or amending first to be sent 4 hours before expected arrival or during the previous working day if possible. The Pilot supplies a set of Harbour bye-laws. Pratique, Agriculture and Customs clearance is normally undertaken on arrival at berth.

Pilot boats are equipped with VHF. Working frequency is Channel 19, but Channels 6, 8 and 16 are also fitted. Pilot vessels are *Ngapuhi* and *Kemp* – call sign ZM2146. Range approximately 20 miles. *Ngapuhi* painted blue, white housing, yellow capping rails. Pilot vessel *Kemp* has blue hull with yellow deckhouse.

Pilot ladder with manropes required.

ANCHORAGE: Situated 5 to 10 cables Eastward of the Fairway Buoy in 12 to 20 fathoms (21.63 m. – 36.57 m.) of water in the section enclosed by the Fairway Buoy bearing 225° T to 315° T. Holding ground good in fine sand, but exposed to Easterly weather.

Harbour Anchorage: At Marsden Point, 2 cables West of Passage Island Light, in 5 fathoms (9.14 m.) of water. Max. draft 7.31 m. (24 ft.). Good holding ground, sand and shell bottom.

RESTRICTIONS: Controlling depth in entrance channel 15.24 m. (50 ft.) MLWS. Depth in upper harbour channel maintained at 8.53 m. (28 ft.) MLWS.

MAX. SIZE: Marsden Point: Oil Refinery dolphin berths, LOA 304 m., draft 15.24 m. (50 ft.), Cargo berth LOA 182.88 m. (600 ft.), draft 8.52 m. (28 ft.)

Port Whangarei: LOA 190 m. (623 ft. 4 in.), draft 9.45 m. (31 ft.).

HEALTH: All vessels examined by Health Officer on arrival.

VHF: The station is Marsden Point, Whangarei. Call sign "Whangarei Harbour Radio" Continuous 24-hour watch is maintained on VHF Channels 16 and 19, range 40 miles.

RADAR: Tugs and pilot boats *Ngapuhi* and *Kemp* fitted with radar.

TUGS: Available. Tugs equipped with VHF. Tugs usually secure to vessels entering in vicinity of Frenchman Island. Numbers of tugs normally used are: 1 tug for vessels up to 25,000 d.w.t., 2 tugs for vessels from 25,000 – 70,000 d.w.t., 3 tugs for vessels over 70,000 d.w.t. Unberthing: 1 tug is normally required for vessels under 25,000 d.w.t., and 2 tugs for all other vessels, subject weather conditions. These parameters are under examination.

BERTHING: Marsden Point Oil Berths (2) – operated by the New Zealand Refining Company, Marsden Point. LOA 304 m. Max. draft 15.4 m. when berthing on H.W. and 13.1 m. maximum if berthing on L.W.

Marsden Point Cargo Berth (1), LOA 190 m., max. draft 8.53 m. at any state of the tide.

Port Whangarei berths (3), LOA 190 m., max. draft 9.45 m. when berthing on H.W. and 7.31 m. maximum if berthing on L.W.

Portland berths, bulk cement berth; LOA 82.89 m., max. draft 5.63 m. when berthing on H.W. and 4.26 m. maximum if berthing on L.W.

SPECIALISED CARGO HANDLING FACILITIES: Portland bulk cement loading jetty.

Port Whangarei, 7 portable hoppers for use discharge of bulk cargoes.

STEVEDORES: Confirmation of arrival time 4 hours before ETA or revised ETA, whichever is earlier is required. Notice of arrival during a week-end or public holiday must be given not later than 1400 hrs. on the last working day preceding arrival.

MEDICAL: Hospital and dental services available.

TANKERS: *ETA Advice:* Advise Agent on Departure from last Port. Agent will then telex/fax Refinery Check Lists to Master.

Confirmation of ETA to Agents and Port Corporation. If ETA is Saturday, Sunday or a Monday Public Holiday, notice must be given before 1400 hrs. on previous Friday. Also, advise that vessel is oil tight. 4 hours before arrival:

Final ETA to Port Corporation, confirming or amending 24 hour advice. Also see "VHF".

Berthing: Marsden Point Oil Berths – Vessels up to approximately 30,000 d.w.t. are berthed at any state of the tide and swing bow to tide before berthing.

Vessels in excess of 40,000 d.w.t. are berthed at high and low slack water only. Max. draft LW 13.1 m.; max. draft HW 15.24 m. Vessel's deadweight may be increased dependent on weather.

The Pilot will board 1 hour 15 minutes before H.W. and 2 hours 15 minutes before L.W. for vessels in excess of 50,000 d.w.t.

Restrictions: Due to limited operating height of hose gantry at both berths, vessels must at all time restrict the vertical distance from top of manifold to waterline to 15 m. or less.

During the ballasting operation a safe trim must be maintained and every care must be taken to ensure that no oil escapes into the waters of the harbour.

Loading/Discharging: Slop reception facilities are available. Diameter of load/dischage line 10 in. ASA.

Regulations: Vessels must be oil tight. Prior to entering an inspection is made by the pilot boat to confirm this.

All deck scuppers must be plugged and made oil tight.

DENSITY: 1025.

FRESH WATER: At Northland Port Corporation wharves by hose 15 – 20 t.p.h. at 40 cents per 1,000 litres. Refinery jetties 10 t.p.h. at NZ$1.50 per 1,000 litres.

FUEL: Available from Refinery berths (viscosities 3,500 secs. Red 1. 1,500 secs. Red 1 and MDO).

FIRE PRECAUTIONS: Tugs have fire-fighting capability. Tankers to have fire wires fore and aft.

CONSULS: None.

REPAIRS: Most repairs undertaken.

DRY DOCKS: None. One slipway capable of receiving vessels up to 1,500 tonnes/d.w.

SURVEYORS: 1. Cargo Inspectors are readily available and are employed by ships' Agents, usually in the form of a reputable Master Mariner working for the Harbour Authority.

2. Surveyors for Lloyd's, American Bureau, Bureau Veritas, etc., should be arranged through the offices of the surveyor required in Auckland.

OPENING/CLOSING HATCHES: Usually carried out by stevedores.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes or 250 gm. tobacco or 50 cigars permitted each crew member. Wine/spirit: one opened bottle wine/spirits for each crew member.

A New Zealand flag ship arriving from overseas may have a concessionary allowance.

REPATRIATION: Facilities exist.

AIRPORT: 12.8 km. (8 miles) from Port Whangarei; regular daily internal flights.

TIME: GMT plus 12 hours. Daylight saving time observed from early October to early March.

HOLIDAYS: The following are recognised holidays: New Year's Day; 2nd January; Anniversary Day (usually last week in January); Waitangi Day (6th February); Good Friday; Easter Monday; Anzac Day (25th April); Sovereign's Birthday (first Monday in June); Labour Day (fourth Monday in October); Christmas Day; Boxing Day; Waterside Workers Picnic Day.

POLICE/AMBULANCE/FIRE: Telephone 111 for emergency, and ask for service required.

EMERGENCY CO-ORDINATION CENTRE: Contact any harbour radio station or police station.

TELEPHONES: Available at wharves.

SERVICES: Tank cleaning, radio and radar repairs. Compass adjuster available locally.

SHIP SUPPLY SERVICE: Port Company craft will assist with transfer of crew and stores in an emergency.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Crew are to carry some form of indentification (Seaman's Book).

GARBAGE DISPOSAL: Garbage cans are put on board by port corporation work boat on arrival. These are changed daily. All overseas vessels must use bins provided as required by government regulations.

WASTE OIL DISPOSAL: Oily slops from tankers are accepted at refinery jetties up to a maximum of 15,000 tonne at Marsden Point. Tel: (09) 432-8311. At Whangarei facility limited to road tankers. Contact Allens United Cleaning Service. Tel: (09) 438-2203.

SEAMAN'S CLUBS: Flying Angel, P.O.Box 14, Ruakaka. Facilities include pool, table tennis, shop, telephone (international), foreign exchange. Tel: (09) 432-7987 or 432-7433.

CURRENCY: New Zealand Dollar (NZ$).

REGULATIONS: Issued by Pilot on arrival.

Should a vessel be berthed at Main No. 2, then other vessels are restricted to passing inwards and outwards from Main No. 3 during the top half of the tidal cycle.

DELAYS: Tidal delays and berth vacancies.

AUTHORITY: Northland Port Corporation (NZ) Ltd., P.O. Box 848, Whangarei, New Zealand. *Tel:* (09) 438-1279. *FAX:* (09) 438-7067. *Contact:* T.W. Archer, General Manager. P.T. Barling, Marine Operations Superintendent. 24 hour duty numbers: Tel: 09-4382253. Fax: 09-438430.

NOTES

Please also advise Shipping Guides Ltd.

Nicaragua

GENERAL

DOCUMENTS: *Consular Documents:*

The Consular Law of October 26, 1904, amended by a decree of September 5, 1952, provides that "Nicaraguan Consuls must, regardless of the flag of the vessel, visa, certify or draw up in conformity with the Master; the Crew List and the Passenger List, or the "no passengers" declaration, or changes in any of the lists, when for that voyage, the lists were visaed, certified or formulated by the Nicaraguan Consul, or where there is none, by the Consul of a friendly country".

There is much confusion in enforcing of the Consular Regulations, since often consular clearances in ports of loading that are not the last port of call before reaching Nicaragua are complete, that is with visa of all forms, not merely the manifest. Visa of the original bill of lading by the shipper is also required, a procedure that is later monitored by Customs through the import policy. The fine for failure to comply with this requirement is 100% of the FOB value of the goods.

Required Prior to Arrival:

Arrival Notice:

48 hours before the vessel's arrival in the Pilot Waiting Area, the Shipping Agency must submit to the Port Authority the form entitled "Arrival Notice" in 5 copies.

24 hours before, the ship's arrival is reported in writing to the Captain of the Port, Customs, Maritime Health and the Delegation of the Agricultural Ministry.

Information on Cargo for the Port:

The arrival notice is accompanied by a stowage plan, if any, plus a breakdown of the cargo to be unloaded. At least the total tonnage of cargo to be handled is to be reported.

Additional Requirements:

If the ship carries export cargo, that fact must be reported to the Port Authority 2 to 6 days in advance, according to the amount of cargo, so that the ship can tie-up at the pier most suitable for unloading its cargo.

On Arrival:

Type of Document	*Number and Distribution of Documents*						
Basic Forms	*Captain of Port*	*Customs*	*Security*	*Maritime Health*	*Agriculture*	*Port Authority*	*Total*
General Declaration	1	3	–	–	1	2	7
Cargo Manifest	2	2	–	–	1	2	7
Crew List	1	1	1	1	1	1	6
Passenger List	1	2	–	–	1	1	5
Ship's Stores List	1	2	1	–	1	1	6
Crew Effects Declaration	–	1(a)	1(a)	–	–	1(a)	3(a)
Maritime Health Declaration	–	–	–	1	–	–	1
Mail List	–	–	–	–	–	–	1
Additional Documents:							
Clearance from Last Port(b)(c)	1	1	–	–	–	–	2
Consular Manifests	–	3(d)	–	–	–	–	3(d)
Crew List(c)	–	1	–	–	–	–	1
"No Passenger" Declaration	1	2	–	–	1	1	5
List of Passengers or "No Passengers" Declaration(c)	–	1	–	–	–	–	1
Manifest of Missing or Extra Packages	5	–	–	–	–	2	7
Sets of Bills of Lading	–	–	–	–	–	1	1
Dangerous Cargo List	–	–	–	–	–	2	2
List of Cargo to be Loaded	–	–	–	–	–	–	1
Stowage Plan of Cargo to be Loaded	–	–	–	–	–	2	2
Tally Books	1	7	–	–	1	7	16

(a) This form is not required, but if it is available, carry 3 copies.
(b) Customs checks the clearance from the last port and remits it to the Captain of the Port.
(c) With consular visa.
(d) 3 visaed manifests for each port of loading are required, but 1 visaed and 2 without visa are acceptable.

Other Requirements:

In the port of Corinto, the following documents must be submitted: *Basic Forms:* Cargo Manifest, 20 copies, 3 of which must be visaed. Crew List, 8 copies, 3 of which must be visaed. Passenger List, 8 copies, 3 of which must be visaed. Ship's Stores List, 8 copies, 3 of which must be visaed. Maritime Health Declaration, 2 copies.

Additional Documents: Clearance from the last port, certified. Ballast Manifest, 12 copies, 5 of which must be visaed. Voyage Memorandum, 10 copies. Bill of Lading, 3 sets for each port of loading. Stowage Plan, 3 copies. List of Cargo Distribution, 4 copies. Tally Books, 10 copies.

Prior to Departure:

Before clearance, a report is submitted to Customs on export cargo, so that it can be compared with the export policies.

The vessel's clearance permit is requested from the Captain of the Port, which requires payment of 84 cordobas for this service, and for the official visit.

Customs considers the ship cleared and countersigns the clearance permit when the following payment vouchers have been submitted to it:

Mayor's Fee	300.00 cordobas
Municipal Welfare Fund	300.00 cordobas
Maritime Health Official Visit	56.00 cordobas
Agriculture Official Visit	30.00 cordobas
Customs Administration Fees	14.00 cordobas for unloading 21.00 cordobas for loading and unloading or, loading only

Certification that the vessel's documents were approved by the Nicaraguan Consul at the last port of call before arrival in the country. If there is no consulate, the Port Captain's declaration is accepted. If the documents are visaed and stamped "fees to be collected in Nicaragua" the fees amount to 207 cordobas (U.S.$31), which are divided as follows:

Clearance Permit	U.S.$ 9.00
Manifest	U.S.$10.00
Crew List	U.S.$ 6.00
Passenger List	U.S.$ 6.00

If consular visa is not obtained, Customs charges twice the rates mentioned.

If the cargo comes from other ports and is bound for Nicaragua, only a visaed manifest is required, which costs U.S.$10. Failure to comply with this requirement is punishable by a fine of U.S.$50 for each manifest.

PIRACY: Report dated 1982.

"Our vessel was off the East coast of Nicaragua at Lat. 14° 10' N., Long. 83° 07' W., on the morning of January 31st. The main engine was stopped for minor repairs when an armed motor boat with seven men and no identification attacked our ship, putting hundreds of bullet holes in the bridge, funnel and elsewhere but not injuring any crew. The attack commenced at 1115 hrs. and was broken off at 1145 hrs., when the vessel got back under way".

CORINTO: 12.30 N. 87.11 W. (See Plan)

ARRIVED SHIP: Vessels are considered as arrived only after having negotiated the entrance channel and are safely inside the proper harbour; vessels at the Pilot station are not considered as having arrived.

DOCUMENTS: (Also see "General" before first port).

For the official clearance, the following authorities will board the vessel:

The Port Captain
The Operations Chief
The Public Health Delegate
The Delegate from the Ministry of Agriculture and Livestock
A representative of the Port Authority
Two Customs Officers
A representative of the steamship agency.

Each vessel must present documents legalised by the Nicaraguan Consul from the port of origin of the cargo as well as from the last port of call before Corinto. The documents required are the following:

	Legalised	Non-legalised
From the port of origin of the cargo:		
Cargo Manifest	3	18
Bills of Lading	—	2
Tally Books	—	14
From the last port of call:		
Manifest	3	18
Clearance	1	—
Crew List	—	6
Passenger List	3	6
Stores List	—	6
Health Declaration	—	1
Voyage Memorandum	3	10

In the cases where there is no Nicaraguan Consul at the port of origin of the cargo or at the last port of call, the documents may be legalised by the Consul of a friendly nation or can be certified by some competent authority of the port certifying that there is no Nicaraguan Consul in said port. When a vessel brings cargo for Corinto from the last port of call, then it must also bring both sets of documents mentioned above, the manifest in the second group being replaced by the Cargo Manifest.

Once these documents are satisfactorily received, the vessel is declared in "Free Pratique" or rather, officially cleared and numbered by the Port Authorities.

Vessels are cleared, numbered and attended in their successive order of arrival with the exception of vessels loading perishable cargo (bananas). In Corinto there is no preferential treatment given to these vessels since they operate on their own special berth.

To clear the vessel for sailing, the only requirement is the presentation of a Customs Solvency Certificate and the Clearance for the next port of call extended by the Port Captain.

Customs: Customs assigns 2 Customs Guards to each vessel docked or anchored, the vessel being under the obligation to provide these guards with 3 meals daily. Besides meals, guards on anchored vessels must be given a cabin since watches are made in shifts.

PILOTAGE: The Port Authority must receive in writing from Agents advice regarding vessel's ETA 72 hours prior to vessel's arrival and a confirmation 12 hours prior to arrival. All advice must be sent through Agents by cable via Balboa or Limon Station. Pilotage is compulsory on all vessels exceeding 200 g.r.t or exceeding 7 ft. draft. Pilot boards 1 mile off Isla de El Cardon.

ANCHORAGES: The anchorage inside the harbour can accommodate 5 vessels, depending on size and draft.

RESTRICTIONS: The port is open 24 hours; however, entry is restricted in accordance with tide and vessel's draft. Access channel and turning basin dredged to 13.5 m. Due allowance should be made for heavy swell if necessary. Speed limit 8 knots in Corinto Bay, and 5 knots in the vicinity of berths or other craft.

MAX. SIZE: Maximum permissible length 650 ft., 80 ft. beam. Draft controlled by depth of water in approach channel and state of swell (typical draft 13.5 m.).

RADIO: ETA cables are generally routed via NBA Balboa Station or TIM Limon Station.

VHF: The Port Authority has a VHF station to communicate directly with all vessels nearing the port.

HEALTH: In the event of any suspected disease on board, the action to be taken will be given by the Representative of the Health Department. There is no automatic Pratique even though vessel is proceeding from another port in the same country.

The port is open 24 hours. All vessels are boarded by the Authorities immediately after they are berthed.

TUGS: Compulsory for berthing and unberthing. The tug joins vessel just after vessel passes Buoy No. 7. Tug's lines are generally used: however, at times ship's lines are used. There is no charge for use of tug's lines. 1 tug of 2,200 h.p. (30 ton bollard pull), 2 launches, one of 167 h.p. and the other of 180 h.p. available.

BERTHING: There is no preferential berthing, and berthing is indicated by the Port Authority. Vessels are attended to in the manner "first come first served".

Berthing facilities are as follows:

1. Container Pier, length 240 m. Depth alongside 13 m. (Designed for 25,000 d.w.t. vessels).
2. Concrete Pier (Container Pier extension of this Pier). Length 370 m. (2 berths). Depth alongside 12.1 m.
3. A special berth with conveyor-belt system for loading of carton boxes such as bananas, frozen meat, as well as the handling of inbound and outbound cargoes such as fertiliser and cottonseed meal. Bananas can be loaded into 4 hatches at one time. Depth alongside at LW is 9.0 m.

Port Authority equipment includes 2 forklift trucks 40 tons, 5 tractors 18 tons, 14 trailers 12 tons, 2 caterpillar tractors, forklifts 4×3 tons, 23×3.5 tons, 2×7 tons, 3 mobile truck loading hoppers, 4 grabs capacity 2.25 cu.m. weight 1.8 tons, 4 container trucks 40 tons, 10 trailers 40 tons.

CRANES: 1× 15 ton mobile crane and 1×45 ton crane for containers.

STEVEDORES: *Working Hours:* The Port gives service 24 hours a day under the following schedule:

From 0700 to 1500
From 1500 to 2300
From 2300 to 0700

Each shift is of 8 hours. Meal hours are from 1200 to 1300, 1800 to 1900 and 0000 to 0100. The first shift commences at 0700 and is completed at 1500; the second shift is from 1500 to 2300. The third shift is from 2300 to 0700; this third shift is overtime.

Average Cargo Handling Rates:	Tonnes per gang hour
Exports:	
Raw sugar in bulk	65
Coffee in bags	43
Sesame seed in bags	30
Cotton in bales of 250 kilos each	47
Bananas in boxes	47

	Tonnes per gang hour
Imports:	
Drums	40
Wire rolls	40
Bulk cargo (discharged by clam-shells)	94
Fertilisers – insecticides in bags	44
Vehicles (by weight)	30
Paper rolls	27
Wheat (by Buhler)	100
General cargo	15

MEDICAL: There are several doctors in the port and most of the Agents have a particular doctor in their service. Hospital facilities are also available. No particular inoculation is required.

TANKERS: There is one tanker berth; depth alongside 12.2 m. and each of the companies have their particular load/discharge lines (13 lines in total).

Loading rates:		*Tonnes per hour*
Molasses	12 in. pipe	140
Bunker or asphalt	8 in. pipe	409
Aviation gasoline	3 in. pipe	237
Hexane	6 in. pipe	240
Aromatics	6 in. pipe	203
Chemical Products (3 lines)	6 in. pipe	210
Turpentine	6 in. pipe	125
Coconut oil	4 in. pipe	60
Lubricants	4 in. pipe	45
Tallow (2 lines)	4 in. pipe	35

DENSITY: (Average) Rainy season 1014, dry season 1020.

FRESH WATER: Fresh water is available and is supplied from connections on the pier, by gravity, at a rate of approximately 10 t.p.h.

FUEL: Corinto cannot supply bunkers. In emergencies small quantities of bunkers and/or diesel oil may be supplied by private firms.

CONSULS: In Corinto:
Denmark, Ecuador and Germany.

REPAIRS: There are no shipyards; no large scale repairs available. Small motors and generators may be repaired in shops in Corinto and Chinandega.

GANGWAY/DECK WATCHMEN: After entering, 2 Custom Officers are placed on board all vessels and their meals must be furnished on board.

OPENING/CLOSING HATCHES: If vessel is equipped with regular hatch boards or pontoons, stevedores open and close hatches as well as swing out booms. However, if covers are of the MacGregor type or mechanical, the crew has to do the job.

CERTIFICATES: Ship's Registry Certificate is required from ships making their first call at the port.

CUSTOMS ALLOWANCES: There is no limit on tobacco allowance to be held out of Bond but crew members are only permitted to take 2 packages of 20 cigarettes ashore. Crew not permitted to take any alcohol ashore. Anyone trying to do so will be subjected to heavy fine through Master of their vessel.

REPATRIATION: Can be effected.

AIRPORT: The airport at Managua is approximately 150 km. from the port and served by regular airlines with daily flights.

TIME: Local time is Central Standard Time, GMT minus 6 hours. There are no alterations during the year.

HOLIDAYS: Official holidays are: January 1st (New Year's Day); Holy Thursday; Good Friday; May 1st (Labour Day); May 3rd (Local Patron Saint's Day); July 19th (Revolution Day); September 14th (San Jacinto Independence Battle Day); September 15th (Independence Day); December 25th (Christmas Day).

In accordance with regulations, no work will be done on these days, however, from experience, with the only exception of May 1st (Labour Day), all other holidays are workable under special arrangement.

POLICE/AMBULANCE/FIRE: Police 351; Ambulance 542; Fire 115-209.

SERVICES: *Provisions:* There are several ship chandlers operating in the port who are in position to supply vessels with provisions necessary and required by stewards, engine or deck departments.

Laundry: The same ship chandlers can take care of any amount of laundry. Drycleaning can be done by these suppliers in the nearby city of Chinandega.

Cleaning: There are special gangs of labourers in the port who work on vessels doing odd jobs such as cleaning, chipping, painting, etc.

Transportation: For anchored vessels, there is a very efficient ship-to-shore launch service.

There is taxi service available for transportation by day or night to any part of the country. There is an express bus service between Corinto and Managua under the following schedule:

From Corinto	0400 hrs.	arrive Managua	0645 hrs.
From Corinto	0600 hrs.	arrive Managua	0845 hrs.
From Managua	1445 hrs.	arrive Corinto	1800 hrs.

Hotels: There is a small third-class hotel in the port, however in the city of Chinandega there is the Hotel Cosiguina with all the modern conveniences and facilities desired. Chinandega is connected to Corinto by a modern highway.

SHORE LEAVE: Allowed. See "Identification Cards".

IDENTIFICATION CARDS: Crew members allowed ashore if they wish to do so after being previously identified by means of a Seaman's Book or a Passport. This document is kept by the Customs Guard at the foot of the gangway and given back to the crew member when he returns to the vessel.

SHIPMASTER'S REPORT: August 1981 (Updated 1996).

Documents:

12 copies Ship's Particulars.
3 Legalised and 7 without Visa Ballast Manifests.
3 Legalised and 7 without Visa Passenger Lists.
10 copies Negative List.
3 Legalised and 7 without Visa Crew Lists.
3 copies Crew Declaration List.
3 Legalised and 7 without Visa Stores Lists.
7 copies Mail List.
Vaccination List.
Health Declaration Form.

Pilotage: Compulsory. Pilot boards by Buoy No. 2. Notice required 72 hours.

Anchorage: 3 miles West of Isla Cardon Lt. Depth at LW is 48 ft.

Max. Size: LOA 700 ft., max. draft 28 ft., mean tidal range 8 ft.

Restrictions: Vessels may enter and leave anytime, day or night.

Radio: Limon Radio.

VHF: Port Authority on Channel 16.

Tugs: None available at time of visit.

Berthing: Vessel berthed at Banana Pier (Lat. 12° 28.6' N., Long. 87° 10.2' W.). Distance from entrance to berth is 4 miles. Max. LOA 600 ft., max. draft 33 ft. Least depth in Channel to berth 26 ft. 6 in. Density 1016.

Services: The following are available: Fresh water, fresh provisions, Lloyd's Surveyor, telex, diesel oil (expensive), doctor and hospital.

General: On arrival at the Pilot Station the Pilot will board accompanied by a member of the Quarantine Department who will insist on going into every cabin, Store Room, etc., armed with a pressurised can of insecticide for fumigation purposes. This will take approximately 1 hour. The vessel is not allowed in the channel until the Quarantine fumigation formalities are over so it is advisable to approach the Pilotage Station No. 2 Buoy at right angles to the channel.

Once safely secured and if in convenient position to lower the accommodation ladder it must be lowered or B.O.T. gangway rigged to one of the dolphins. Ensure that the Board of Trade ladder is in good condition and the wheels running free as the vessel tends to roll a little at the Banana Pier if there is any swell outside. No official or stevedore labour will climb a pilot ladder so it is essential to have one of these accesses ready on arrival.

The Doctor will board and after medical clearance the Port Officials (Army) and Immigration Officer will board. They will browse through the various documents whilst Immigration Officer will check all Passports, I.D. Cards, etc., and eventually he will physically check that everyone is on board. These Officials and Immigration Officer do not speak a word of English, the Agent is conversant in English and is most helpful.

On completion of Immigration formalities, 2 Ship's Officers are required to escort two groups of Port Authority Officials who will search every cabin except the Master's for drugs. On completion the Customs Officer will seal the bond and beer lockers. Beer is allowed out of the locker before it is sealed. There is no set allowance for cigarettes and spirits within reasonable bounds.

Time taken for clearance is approximately 2 hours.

Clearing vessel outwards most Immigration Officers want to physically check everyone on board, this takes 1.5 hours.

It is essential that rat guards are fitted to *all* ropes, if not a heavy fine will be imposed.

Navigation: Pilots are satisfactory. The depths of water on the Chart are dubious. Have echo sounder on at all times. If docking or undocking between tides, both Ebb and Flood tides are very strong and there is no tug.

At the Banana Pier there is an unprotected dolphin (solid concrete) at the North end and one at the South end, the others are fendered.

SHIPMASTER'S REPORT: February 1987.

1. On anchoring, the Pilot, doctor and assistant board the vessel. After inspecting vaccination lists, and all cabins are sprayed, permission is given to weigh anchor.

2. Pilot very capable. 1 tug available.

3. Documents required when alongside:
14 copies Manifest in Ballast.
17 copies Manifest of Cargo (3 copies visaed).
14 copies Bills of Lading.
17 copies Crew List (3 copies visaed).
17 copies Stores List (3 copies visaed).
8 copies Money List.
8 copies Personal Effects Lists.

4. During our stay at La Guaira the following were visaed: Crew Lists, Passenger Lists, Arms and Ammunition Lists, Narcotics List. The Nicaraguan Consul at Caracas charged U.S.$175.00 for this service.

5. Authorities were polite. Before sealing stores it was possible to take out immediate requirements (cigarettes, spirits, etc.).

6. All crew members to be present and passed by Immigration Officer one by one, in order to obtain shore passes.

7. Shore leave possible at following times: Master/Chief Officer/Chief Engineer from 0800 – 2400 hrs. Others 0800 – 2200 hrs.

8. All cabins and decks inspected by 1 Customs Officer and 2 soldiers.

9. It is possible to contact Agent 24 hours a day on VHF Channels 16 and 12, even on holidays.

10. Departure depends on Immigration Officer. All crew members to be passed by the Officer.

11. Pilot boards after clearance given.

12. It is possible to shift cargo, even containers, via the quay.

13. All stevedores equipment is up to date.

14. Consult "Guide to Port Entry" for further navigation details.

AUTHORITY: Administracion Portuaria de Corinto, Apartado Postal No. 11, Corinto, Nicaragua. *Tel:* 702, 724, 746, 780. *FAX:* 336. *Contact:* Orlando Fuentes Aviles, Harbour Master. Lic.Hugo Ruiz Ruiz, General Manager.

Empresa Nacional de Puertos, Apartado Postal No. 3570-2727, Managua, Nicaragua. *Tel:* 662545. *FAX:* 662555. *Contact:* Ing.Uriel Arguello Pasos, Director General.

EL BLUFF: 12.00 N. 83.41 W.

PORT LIMITS: Sea buoy at channel entrance. Dockage charges commence when vessel is made fast to wharf, and are on a 24 hours basis or fraction thereof.

DOCUMENTS: Basic documents for entry:
9 copies Manifest of Cargo for Discharge.
9 copies Bill of Lading.
9 copies Crew List.
9 copies Stores List.
6 copies Crew's Effects Declaration.
1 copy Clearance from Last Port.
4 copies Cargo List.

These documents will be distributed to Immigration, Harbour Master, Customs, Port Authority and Agent.

PILOTAGE: Compulsory for all vessels crossing the El Bluff Bar and for navigating the Escondido River. Pilots provided by Port Authority. Pilots board vessel at Southern Approach to Bluff Sea Buoys at pilot station.

Pilots communicate with vessel on VHF Channel 16.

Notice of ETA and request for Pilots must be made at least 24 hours in advance.

ANCHORAGES: Designated by the Bar Pilots. Port has one designated anchorage for shelter.

RESTRICTIONS: There is no pilots service or berthing during the night.

MAX. SIZE: Vessels up to LOA 102.62 m. with draft of 4.0 m. have used the facilities.

HEALTH: All vessels arriving at the pilot boarding area will be visited by the Health Office, in order to decide if there is any contagious illness onboard, after which other authorities will visit the vessel.

VHF: Port on Channel 16.

RADAR: Radar service not available.

TUGS: 2×300 h.p. tugs. Service is provided by the Port Authority.

BERTHING: One berth available. Length 121.92 m. Depth alongside is 4.0 m. Loading/discharging by ship's own gear.

CRANES: 1×20 ton Drott crane.

BULK CARGO FACILITIES: Not available.

SPECIALISED CARGO HANDLING FACILITIES: Not available.

BRIDGES: None.

STEVEDORES: The Port Authority supplies stevedores when vessels load or discharge cargo.

The port furnishes checkers/foremen to supervise release of cargo being loaded and/or check cargo being discharged.

MEDICAL: Full hospital facilities available at Bluefields, 9.6 km. from Bluff. Dentists available during normal working hours.

TANKERS: The port receives tankers each month in the 2,000 to 2,300 gross tons range. All petroleum tankers are boomed during pumping operations.

DENSITY: 1025.

FRESH WATER: Delivered to vessels at wharves by Petronic Company. Hoses supplied by vessels. Cost $0.90/ton. Minimum charge of $50.00.

FUEL: Private firms with dock available by prior arrangement through vessel's Agent.

FIRE PRECAUTIONS: Smoking is strictly prohibited in transit shed. Smoking also prohibited in any areas where gasoline or like material are being handed or equipment serviced.

CONSULS: Colombian Consulate available in Bluefields. Tel: +505-8222542.

REPAIRS: Repair companies available.

DRY DOCKS: Available for small vessels (250 g.r.t.).

SURVEYORS: Not available.

GANGWAY/DECK WATCHMEN: No requirement for watchmen.

OPENING/CLOSING HATCHES: Normally by ship's crew.

CUSTOMS ALLOWANCES: Nicaraguan Customs Regulations.

CARGO GEAR: Crane capacity can accommodate single lifts up to 15 tons. 3×3.5 tons forklifts also available.

REPATRIATION: Facilities exist for changes of crews and repatriation. Scheduled aircraft service from Bluefields to Managua International Airport (Augusto Cesar Sandino).

AIRPORT: 3 flights per day to Managua from Bluefields.

TIME: Local time GMT minus 6 hours.

HOLIDAYS: New Year's Day; Holy Thursday and Friday; Labour Day (May 1st); Revolution Day (July 19th); Independence Day (September 14th and 15th); Day of Happiness (December 8th); Christmas Day (December 25th).

POLICE/AMBULANCE/FIRE: Police Tel: 8222448, 8222447. Fire Department Tel: 8222298. Ambulance Tel: 8222582. Hospital Tel: 8222621, 8222391.

EMERGENCY CO-ORDINATION CENTRE: None.

TELEPHONES: Not available.

BANKS: Banco Nacional de Desarrollo in Bluefields. Tel: 8222777, 8222261, 8222775.

STORING: Vessel can be stored by barge, alongside the berth or by truck.

SHIP SUPPLY SERVICE: Not available.

SHORE LEAVE: Crew members allowed ashore.

IDENTIFICATION CARDS: Crew should carry their Immigration Card or Seaman's Book when proceeding ashore.

GARBAGE DISPOSAL: Garbage collection not available.

WASTE OIL DISPOSAL: All pollution of waste oil is strictly forbidden, and any signs of pollution should be reported to the Harbour Master.

SEAMAN'S CLUBS: None.

CURRENCY: Cordobas Oro. Exchange rate approximate C$ 8.10 Cordobas in relation to U.S.$ 1.00.

REGULATIONS: Women forbidden to board without previous written permission.

DELAYS: Delays in berthing, loading or discharging not normally expected.

DEVELOPMENTS: A dredging project at the entrance bar of El Bluff is underway. Main channel dimensions will be length 1,680 m., depth 5.5 m. and width 70 m.

This project includes the dredging of a manoeuvring basin to 5.5 m. depth, and dredging at the wharf to the same depth.

AUTHORITY: Empresa Nacional de Puertos, Apartado Postal 3570, Managua, Nicaragua. *Tel:* +505-222059, 663039. *FAX:* +505-266255. *Contact:* Uriel Arguello Pasos, General Director.

PUERTO CABEZAS: 14.01 N. 83.23 W.

DOCUMENTS: (Also see "General" before first port).
1 Clearance from Last Port.
10 Voyage Memorandums.
11 Crew Lists.
10 Passenger Lists.
10 Stores Lists.
1 Bill of Health.
12 Ballast Manifests.
13 Manifests of Cargo.
4 Bills of Lading.
10 sets Tally Books.

PILOTAGE: ETA required 24 hours before arrival at the port. The Pilot uses a boat with an outboard motor and boards about 1 mile off the port. Agent advises the Pilot the date of arrival, he goes out when he sees vessel.

ANCHORAGES: Vessels can anchor about 0.5 mile South of the wharf. Depths in anchorage 20 ft. – 22 ft.

MAX. SIZE: Max. length 400 ft. Draft 19 ft. 6 in. Difference between high and low tide is 18 in.

HEALTH: The inspection takes place on arrival. It is not necessary when the vessel comes from another port in Nicaragua.

RADIO: The Port has a radiotelephone for personal use, but they make contacts with vessels. The frequency is 2738 kHz.

TUGS: There is no tug service.

BERTHING: One wooden quay, length 683 m. Width 8.4 m. and depth 6.7 m. at the seaward end. There is wreck in front of the wharf. The location is: Lat. 14° 0' 57" N., Long. 82° 22' 4" W., 1,200 yd. from wharf end.

STEVEDORES: The Agent advises stevedores of arrival of vessel. They discharge 8 tons of general cargo each hatch (one gang) per hour.

MEDICAL: Not necessary to advise the need of a doctor, only for emergencies. One hospital and two other doctors, apart from the official doctor of the port.

TANKERS: There are 2 pipes of 6 in. diameter on the wharf. There is no special berth for oil tankers.

DENSITY: 1025.
FRESH WATER: Fresh water is carried to the wharf by truck or from one pipe on the wharf. Boiler water is carried to the vessel by the pipe on the wharf.
FUEL: Gasoline, diesel oil and lubricants are supplied by Texaco. Arrangements are made when the vessel arrives.
CONSULS: Only consul of Panama available locally.
REPAIRS: Minor repairs only can be effected.
GANGWAY/DECK WATCHMEN: Not compulsory. It is customary to have two Customs guards on the gangway.
OPENING/CLOSING HATCHES: The opening and closing of hatches is done together by the crew of the vessel and the stevedores.
CUSTOMS ALLOWANCES: Each of the crew can have 2 packs of cigarettes with the seal broken, and one bottle of wine or liquor opened.
REPATRIATION: It is possible and only a passport needed. Necessary to go to the capital by air, thence to any part of the world.
AIRPORT: Distance to airport from wharf is about 2 km. Service every day to the capital except Sundays and holidays. The name of the only airline is Aeronica.
TIME: Local time is Central Standard Time, GMT minus 6 hours.
HOLIDAYS: Holidays are 1st January; Holy Thursday; Good Friday; 1st May; 14th July; 14th and 15th September; 12th October and the 25th December.
SHORE LEAVE: The crew is allowed to go ashore after the vessel is received by the Authorities.
IDENTIFICATION CARDS: Not needed, just passport or Seaman's Book.
DELAYS: Delays in berthing can be expected due to bad weather.
DEVELOPMENTS: A hydrographic survey has been completed in the port zone and surrounding area to establish the best place for future port facilities or whether expansion should be made to the existing port. This survey is being effected in view of projected installation of paper and pulp industry and forthcoming development of agricultural and mineral products which could be exported through the port.

The Port Authority is taking the necessary steps to get technical and financial help to make a general survey of the zone in order to find an adequate and/or protected site to place the new port installations. Port plans are combined with the paper and pulp industry, which is supposed to be installed in the next few years.
AUTHORITY: Empresa Nacional de Puertos, Apartado Postal No. 3570, Managua, Nicaragua. *Tel:* 74430, 74452, 74383. *Telex:* 2422. *Contact:* Cesar Delgadillo Machado, Director General.

PUERTO SANDINO: 12.12 N. 86.46 W. (See Plan)

DOCUMENTS: (Also see "General" before first port).
Clearance from previous Port.
6 copies Voyage Memorandum.
6 Stores Lists.
6 Passenger Lists or negative declaration, 3 to be visaed.
6 Crew Lists.
8 Cargo Manifests, 3 to be visaed.
8 Tally books.
6 Lists of Mail, Explosives or Drugs if carried.

9 Crew Lists and 6 Stores Lists should be despatched by the Nicaragua Consul at loading port if possible, otherwise they are forwarded by Agents from the Panama Canal.
APPROACHES: *Shipowner's Report:* 1981. Charted positions of the mooring buoys, navigation aids and other coastal landmarks are unreliable and may be off by two miles.

It is strongly recommended that approach to the coast not be made at night-time unless radar-assisted navigation is possible. The radar should be used while making the approach. Vessels may anchor about one mile S.W. of the radar/light buoy No.1 which is positioned W.N.W. of the mooring buoys.

Vessels are cautioned against proceeding North and East of the radar/light buoy No.1. The recommended approach to the anchorage and the pilot boarding area is made on a course of 045° with volcano Momotombo dead ahead.

If a night-time approach to the anchorage is made, it is best to determine well in advance (using radar and visual means) that the sea-buoy is lighted. There have been reported instances of this light being extinguished on occasion.
PILOTAGE: Optional; by local Pilots. Leading lights are installed, at the entrance to the port, prominently sited on a hill. Several buoys indicate exact anchorage positions.
Tankers: A Pilot is provided by the oil company in agreement with the Panama Canal Authority. Pilot boards about 0.5 mile West of the sea berth.
ANCHORAGES: About 1.75 miles off port entrance, depth is 30 ft. at low water, and about 45 ft. at high water.
RESTRICTIONS: Port is open day and night without exception.
MAX. SIZE: Tankers at Sea Line Terminal up to 850 ft. length and 41 ft. draft.
HEALTH: Port Health Inspector boards all vessels on arrival.
RADIO: Nicaragua does not have a coast radio station. All traffic should be sent via Balboa. Ships transiting the Panama Canal bound for Puerto Sandino shall give the agent at the Panama Canal, prior to departure from Balboa, their ETA message for transmittal to Nicaragua.
VHF: The office of the Captain of the Port has a VHF. Normally Channel 6 and 16 are used for calling. If no answer try Channel 13 as this is usually the channel used for communication. If VHF communication cannot be established proceed to anchorage.
TUGS: Not available for manoeuvring vessels. 5 small tugs employed for shifting lighters.
BERTHING: No quays for ocean-going vessels. Vessels work cargo to lighters at the anchorage.

2 lighters (100 ft. × 30 ft.) each with capacity of 400 tons.
STEVEDORES: Port has 4 gangs of 40 men each for boarding vessels.
MEDICAL: Doctor available in case of emergency. Nearest hospital at Leon, 35 km. away.
TANKERS: *Sealine Terminal:* The sea berth is situated in approximate location Lat. 12° 10' N., Long. 86° 49' W., about 2 miles offshore in a depth of 47 ft. Discharge rate 7,500 bbls./p.h.

Strong winds may delay berthing or cause vessel to vacate the berth once moored. Sailing at night is not recommended for safety reasons. The discharge hose is lifted on the port side by ship's crew.
Mooring Masters: The services of a Mooring Master/Adviser is provided by Esso.

The Mooring Master will either board ship West of the sea berth or prior arrangements will be made with owners and/or Agent to have the Mooring Master embark and disembark at Balboa, and accompany vessel for the voyage.

The Mooring Master and Refinery Representative will remain aboard at all times while the vessel is moored in the berth. A mooring launch is kept standing-by the ship to let go lines in case it should become necessary to vacate the berth due to bad weather. It is imperative that this launch be kept at the ship at all times.
Moorings: The sea berth consists of 5 mooring buoys, 2 forward and 3 astern. Usually 4 to 5 lines are required forward and 8 lines aft. The approach to the berth with the Mooring Master on board is made on an Easterly course, turning Southward between Buoys No. 3 and 4. The ship's starboard anchor is occasionally dropped, to steady her head in the berth. One or two shackles of chain are used. 2 line boats take the ship's lines to the buoys, usually in the following sequence (See "Plan").
(1) 2 lines to Buoy No. 5; 2 lines to Buoy No. 1.
(2) 2 lines to Buoy No. 3; 2 lines to Buoy No. 2.

The crew should be ready to bend mooring lines together, so as to reach the forward buoys. Once berthed, the tankers should have the following mooring lines out:

Buoy No.	Nos. of Lines	Approximate Distance, Ship to Buoy	
1	2 – 3	855 ft.	250 m.
2	2	700 ft.	200 m.
3	2	330 ft.	100 m.
4	2	430 ft.	130 m.
5	4	300 ft.	90 m.

Steel mooring wires cannot be used as the size and capability of the line boats prohibit this.

Vessels moor and unmoor in daylight hours only.
Tugs: Not available.
Hoses and Ship's Boom: Ship's crew assists with hose connecting. A 12 in. diameter submarine hose is lifted on the port side.

The ship's boom (minimum 5 tons SWL) must be in readiness for hose lifting on the Port side.
Gangway: It is necessary to rig an accommodation ladder. A good clean pilot ladder is satisfactory. If the ladder is rigged on the port side, it must be shifted to starboard after vessel is secure in the sea berth.
Oil Pollution Prevention: The usual sensitivity as to oil pollution exists in this area. There are no oil dispersants or spray equipment available ashore. A customs guard remains aboard each ship during entire port stay and reports any oil spills to his supervisors ashore.
Bunkers and Fresh Water: Not available.
Fire Fighting: Ships should have all fire fighting equipment in readiness while in berth. There are no floating fire fighting units available in this area to assist tankers.
Repairs: No ship repair facilities are available. Divers can be made available with advance notice.
Ship's Stores and Provisions: No facilities.
FRESH WATER: Not available for supply to ships.
FUEL: Not available for supply to ships.
CONSULS: Nearest at Leon, 35 km. distant.
REPAIRS: Small items for repair can be sent to Leon.
OPENING/CLOSING HATCHES: Normally performed by stevedores. Mechanically operated hatches are opened by ship's crew.
CUSTOMS ALLOWANCES: Each crewman allowed two packets of cigarettes. No wine/spirits allowed to be taken ashore.
REPATRIATION: No facilities for crew changes. If crew member left behind, Agents are responsible for his repatriation at vessel's expense.
AIRPORT: Las Mercedes international airport at Managua, 75 km. away.
TIME: Central standard time, GMT minus 6 hours. No alterations.
HOLIDAYS: All holidays can be worked.
POLICE/FIRE/AMBULANCE: Police available locally. Nearest fire and ambulance stations are at Leon, 35 km. away.
IDENTIFICATION CARDS: Seaman's Book required for going ashore.

SHIPMASTER'S REPORT: 1978.
Approach: Coastwise from the North, no difficulties being encountered.
Anchorage: Vessel anchored in position with the rear leading light bearing 088°(T) – 2.1 miles, starboard anchor used, 4 shackles in 8 fathoms of water.

It is advisable to run in to the anchorage slightly to the North of the leading line, thus avoiding the shoal patches on and to the Southward of the line. The anchor should, however, be let go right on the leads, otherwise the vessel will be required to shift anchorage, as happened in our case.

Buoyage was as per B.A. Chart 1960.
Point Penas del Tiscuco: Now has a large power station on it, not shown on the Chart. This is a good land mark when making the port. The shape of the point, as observed on Radar, appeared slightly different from the shape shown on the Chart.
Pilotage: Pilot is available if required, but was not used. I would advise a deep draft vessel to take a Pilot.

Communications: For long distance communications, it is best to maintain radio watches.

The Charterer's Agents have a VHF set in their office at Corinto and contact can be maintained for day to day matters in this way.

Charterer's Agents: They have a resident water clerk at Pto. Sandino, who can be contacted on Channel 27, VHF. He is available from 0800 to 1200 hrs. and from 1400 to 1800 hrs.

Under normal circumstances, a representative from Corinto will meet the vessel on arrival and visit her prior to departure, but this was not possible on this occasion.

Documents required: As per "Guide to Port Entry".

Officials: Were helpful. 1 Customs guard is on duty at all times, but the Guards are regularly relieved from the shore and the ship is not required to provide accommodation for them.

Cargo Work: Continuous and fast. Large, modern lighters, towed by powerful tugs, were used. Due to the swell, these lighters ranged heavily alongside. Although the lighters were well fendered, several indentations were caused in the ship's side. Delays due to lack of lighters were minimal.

Rate of discharge, net of delays, was 60 tons per gang hour, steel coiled rod.

Pratique: Granted on arrival.

Provisions: Not purchased.

Fresh Water: Unobtainable.

Shore Leave: Under normal circumstances, can be arranged by using the lighters.

AUTHORITY: Empresa Nacional de Puertos, Apartado Postal No. 3570, Managua, Nicaragua. *Tel:* 74430, 74452, 74383. *Telex:* 2422. *Contact:* Cesar Delgadillo Machado, Director General.

SAN JUAN DEL SUR: 11.15 N. 85.53 W.

SHIPMASTER'S REPORT: December 1984 (Updated 1996).

DOCUMENTS:

10 copies Passenger Declaration.
10 copies Ballast Declaration.
10 copies General Declaration (Ship's Particulars).
6 copies Provision and Store Lists.
6 copies Personal Declaration.
1 copy Ammunition List.
12 copies Crew List.
Clearance from last port.

Authorities: The following Authorities board after anchoring: Customs, Immigration, Captain of the Port, Doctor, Military.

A Customs search will probably be made. It takes 4 hours to clear vessel.

APPROACHES: Straight in from sea on an 067° (T) course to anchorage. At the time of the vessel's visit the light on the headland South of the bay (Fl. 6 secs.) and red leading light were extinguished.

PILOTAGE: Pilot available. We arrived after dark and had to wait until 0600 hrs. the following day for the Pilot.

ANCHORAGES: Vessel anchored about 1.5 miles out in 15 fathoms to await Pilot.

Discharging anchorage is about 0.5 miles from the jetty in 5 fathoms. We anchored about 1 mile from the jetty in 10 fathoms as another vessel occupied the innermost anchorage. Walking back anchor to bottom and paying out cable as ship falls astern is recommended. When anchor was dropped in 15 fathoms area it took some time to hold.

The holding ground at the working anchorage was good, both vessels lying to 1 anchor in Force 6 – 7 winds and choppy seas.

TUGS: There is a small tug which is used to tow barges, also numerous launches.

EQUIPMENT: 2 barges of 350 tons, size about 32 m.×9 m.; 4 barges of 150 tons, size about 24 m.×9 m.; 4 barges are open flat-top type and are fitted with tyre fenders. Barges can also be obtained from nearby ports.

2 forklift trucks of 7 tons and 2 of 3.5 tons capacity.

3 mobile cranes, capacity 5, 17 and 22 tons for discharging barges ashore. There are also 2 tractors and 4×20 tons flatbed trailers.

Storage: There is a large storage shed and an unsurfaced storage yard.

STEVEDORES: Port Authority stevedores. The port works 24 hours a day as follows:

From 0700 – 1200 hrs. Straight time.
From 1300 – 1800 hrs. Straight time.
From 1900 – 2200 hrs. Straight time.
From 2200 – 0600 hrs. Double time.
Sundays and holidays double time.

Labour works 24 hours and are then replaced by other gangs.

Meal hours are from 0600 – 0700, 1200 – 1300 and 1800 – 1900 hrs., however, these hours are flexible often expanding to 2 hours. Labour take their meal breaks onboard.

The steel was discharged at about 35 tons per gang hour.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: None.

REPAIRS: Noted that barges were being constructed at San Juan and it is possible that steel work could be done in an emergency.

GANGWAY/DECK WATCHMEN: One armed military guard, an Immigration Officer and 1 Customs Officer live on the vessel during vessel's stay.

OPENING/CLOSING HATCHES: MacGregor hatches opened by the crew, we also used crew for pontoons.

CERTIFICATES: Certificates inspected on board, not taken ashore.

CUSTOMS ALLOWANCES: Not known. The Master of another vessel advised that the Customs were quite generous.

AIRPORT: At Managua some 2 hours by road.

TIME: GMT minus 6 hours.

SHORE LEAVE: Passes are issued to the crew. 3 senior officers are given 24 hour passes, other officers and crew required to be on board by 2200 hrs.

DEVELOPMENTS: It is planned to build a pier in order that vessels may berth alongside.

GENERAL:

Charts and Publications: General Chart B.A. 1049 – Ellana Bay to San Jose.

Harbour Chart BA 1960 – Plans on West Coast of Central America.

Port Information: Admiralty Sailing Directions Vol. 8, Eighth Edition, "Pacific Coasts of Central America" and United States Pilot.

Weather: Winds from N.E. Force 6 – 7 from December to February.

Winds from S.W. in July and August.

Squalls experienced in May and October.

Refer to Admiralty Sailing Directions.

Hotels: One small third class hotel and a number of boarding houses. A tourist hotel is being built but is not complete.

Communications: Post Office can place telephone calls internally and internationally, reception on international line bad.

The Post Office is equipped with an internal telex machine.

Operations: Good. The speed at which a vessel can be discharged depends on the availability of gangs and lighters. The turnaround time of barges is quite rapid and the gangs work well. We achieved 35 tons per gang hour and the other vessel, discharging bagged beans, did equally as well.

AUTHORITY: Empresa Nacional de Puertos, Apartado Postal 2727-3570, Managua, Nicaragua. *Tel:* 222059, 223837, 662545, 664271. *FAX:* 23553, 664622. *Contact:* C. de Ligt, Port Advisor.

NOTES

Please also advise Shipping Guides Ltd.

Nigeria

GENERAL

TERRITORIAL WATERS: The territorial waters of Nigeria shall for all purposes extend to 30 nautical miles from the coast of Nigeria (measured from low water mark), or the seaward limits of inland waters.

RADIO:
Accurate ETA Required:
The following circular has been received from the Nigerian Ports PLC:
Quote:

It is observed with regret that ships arrive in our territorial waters/roads long before their published Expected Time of Arrival, thus building up unnecessary congestion which Decree 40 of 1975 (now Act 40) was promulgated to check. The effect of this phenomenon is that the control built into the 'Ship Entry Notice' is neutralised and abused.

To give the desired effect to the control of ships inflow as intended in the 'Ship Entry Notice' no ships arriving 7 days earlier or later than their Expected Time of Arrival will be treated as Arrived Vessels and therefore will not be accorded berthing facilities. Action will be taken to clear such ships from our roads to the high seas and such Owners or Agents will be blacklisted.

With the Federal Government's relaxation of import restrictions which is followed by a progressive rise in the number of ships calling, the need for rigid application of the provisions of Act 40 cannot be over-emphasised. It will therefore be in the best interest of all concerned to co-operate in this direction with a view to controlling a possible build-up of waiting vessels.

Shipping companies are invited to take advantage of other ports outside Lagos and Port Harcourt, where facilities are under-utilised, such as Calabar and the Delta ports.

Fines will be imposed if vessels arrive early.
Unquote.

Notice: Issuance of Ship Entry Notice (SEN) and Decree (ACT) 40 of December 1975 (amended July 1986).

The following received from the Nigerian Ports PLC is for Principals information and guidance.

Efficient port operation which is necessary to give the desired quick turn round to ships can, among other steps, only be attained through effective allocation and use of available resources in terms of berthing facilities and other port inputs. In addition there is also the need on the part of all port users to abide with laid down rules and procedures for maximum benefit. In view of the foregoing and in order to rationalise sailings to all Nigerian ports, you are hereby reminded on the provisions of Decree (ACT) 40 of December 1975 which stipulates:
3 weeks' notice to be given for applications for ships scheduled to Nigeria before they could be considered for SEN (Ship Entry Notice).

You are also advised to take advantage of the facilities available at the under-utilised ports of Warri, Port Harcourt and Calabar, which equally have connecting links with the hinterland of the country.

Note: The SEN is not applicable to vessels carrying crude oil or petroleum products in bulk.

Notice: From Terminal Operator to vessel's Master (Dated August 1991).
ETA Reporting Procedure Nigerian Terminals:

For crude oil export planning, it is important that ETA's of tankers nominated to load at Nigerian terminals are known well in advance. For this purpose we request you to adhere to the following:

Vessels are required to report their ETA at the applicable Terminal anchorage or Fairway Buoy as follows:
(a) 7 days before estimated arrival, or upon clearing last port if there is less than 7 days steaming time before estimated arrival.
(b) 72 hours before estimated arrival.
(c) 48 hours before estimated arrival.
(d) 24 hours before estimated arrival.
(e) Any other time(s) between the 72 hours notice, 48 hours notice and 24 hours notice when estimated arrival is to be revised by more than 12 hours from that most recently notified.

As soon as vessels are within VHF range of the destination, the Terminal should be contacted on the applicable VHF channel for berthing information.

ANCHORAGE:
Thefts from Vessels at Anchorage: There have been recent reports of vessels being boarded and robbed of ship's stores (tarpaulins, paint, ropes, etc.) while the vessels were laying at anchor in the Lagos Roads and the Bonny River.

In some cases the thieves were seen to be armed.

We regret to have to caution Masters of the danger of theft, and to ensure attractive goods are kept under safe lock. Guards should be posted at night, whether in port or in the Roads. Alternatively, while in the roads, vessels could steam out a further few miles, out of reach of small boats. Also see "Bonny" – "Piracy".

CARGO GEAR: Nigerian Ports PLC inspect all cargo gear certificates on arrival.

SURVEYORS: If a Lloyd's Surveyor is required at any port other than Lagos at least 3 days' notice is required to make travel arrangements.

PILOTAGE: Compulsory Pilotage Districts (Establishment) Order: The Management of Nigerian Ports PLC hereby notifies all maritime operators and the general public of the establishment of 4 deep sea pilotage districts within the exclusive economic zones of Nigeria, with effect from January 30 th 1996, as contained in the Compulsory Pilotage Districts Establishment Order of 1996 in accordance with Nigerian Ports Decree 74 of 1993.

Summary of the order as made by the Minister of Transport is published hereunder for information and guidance.
(a) District A: Calabar River Oil Terminals: Comprising onshore, the mouth of River Andoni and Calabar River and the offshore positions, Lat. 03° 26' 30" N., Long. 07° 24' 25" E. and Lat. 04° 01' 48" N., Long. 08° 20' 25" E.
(b) District B: Bonny and Brass Offshore Oil Terminals: Comprising onshore, the mouths of River Andoni and Akasa Point and the offshore positions, Lat. 03° 28' 45" N., Long. 06° 00' 00" E. and Lat. 03° 26' 30" N., Long. 07° 24' 25" E.
(c) District C: North Apoi, Forcados and Escravos Oil Terminals: Comprising onshore, Akasa Point and Lat. 06° 00' 00" N. on Owoye Village and the offshore positions, Lat. 06° 00' 00" N., Long. 04° 30' 00" E. and Lat. 03° 28' 45" N., Long. 06° 00' 00" E.
(d) District D: Kuramo and Lekki: Comprising onshore positions, Lat. 06° 00' 00" N. on Owoye Village and Lat. 06° 23' 45" N., Long. 03° 10' 00" E and the offshore positions, Lat. 06° 00' 00" N., Long. 04° 30' 00" E. and Lat. 06° 00' 00" N., Long. 03° 10' 00" E.

Notes:
(I) Please note that the pilotage districts established pursuant to the order are delineated and described in the schedule below.
(II) For the purpose of Section 22 of the Nigerian Ports Decree 1993, the pilotage districts established pursuant to this order are compulsory pilotage districts.
(III) The order may be cited as the Compulsory Pilotage Districts (Establishment) Order 1996.

Schedule

The 4 compulsory pilotage districts are encompassed in a block bounded by a line drawn through the positions specified in this schedule and the adjacent coast lines.

District A	Lat. 04° 30' 20" N., Long. 08° 24' 07" E.
	Lat. 04° 01' 48" N., Long. 07° 20' 22" E.
District B	Lat. 03° 26' 30" N., Long. 07° 24' 25" E.
	Lat. 03° 28' 45" N., Long. 06° 00' 00" E.
District C	Lat. 04° 49' 07" N., Long. 05° 00' 00" E.
	Lat. 06° 00' 00" N., Long. 04° 30' 00" E.
District D	Lat. 06° 00' 00" N., Long. 03° 10' 00" E.
	Lat. 06° 23' 45" N., Long. 03° 10' 00" E.

(A) District A: All parts of the navigable area within the bounded block described in the first paragraph of this schedule and bounded by Long. 08° 24' 07" E. and Long. 07° 24' 25" E.
(B) District B: All parts of the navigable area within the bounded block described in the first paragraph of this schedule and bounded by Long. 07° 24' 25" E. and Long. 06° 00' 00" E.
(C) District C: All parts of the navigable area within the bounded block described in the first paragraph of this schedule and bounded by Long. 06° 00' 00" E. and Long. 04° 30' 00" E.
(D) District D: All parts of the navigable area within the bounded block described in the first paragraph of this schedule and bounded by Long. 04° 30' 00" E. and Long. 03° 10' 00" E.

For further information, please contact the Nigerian Ports PLC's Assistant General Manager (Harbours).

REPATRIATION/CREW CHANGES: Immigration Authorities now insist that expatriate crew members should obtain entry visa prior to coming into Nigeria to join any vessel trading within Nigerian Territorial Waters. The entry visa should be valid for 3 months and at the expiration can be extended for another 3 months and no more.

Notice: With effect from November 1995, all seamen travelling by air to Nigeria to join a vessel in a Nigerian port must have a valid appropriate visa stamped in their passports.

The right to enter Nigeria on a Seaman's Book has ceased to exist. Seamen arriving without a visa will be sent back to their point of origin.

DOCUMENTS: The Port Authorities have to be provided with 26 copies of the Cargo Manifest 14 days before the vessel berths (distribution: NPA 17 sets, Customs 5 sets, Agencies 2 sets and Container Control 2 sets).

From Port Manager – River Ports.
Central Planning and Information Centre: It will be mandatory on all Shipping Companies Agents and others intending to work their vessels in our ports to submit the underlisted documents to the Principal Traffic Officer in charge of C.P. & I.C. at the former office of the Deputy Dock Superintendent inside the wharf at least 7 days before the commencement of discharging operations of their vessels:
(a) Ship's Entry Notice (SEN).
(b) Ship's Manifest.
(c) Stowage Plan.
(d) Hatch List.
(e) Bulk Item List.
(f) Special/Valuable Cargo List.
(g) Hazardous/Dangerous Cargo List.

This stipulation came into effect as from 22nd August, 1983. It should be emphasised that as from that date preference is given to any ship which complies with the above stipulation.

Port State Control: The Surveyor of Ships, Federal Ministry of Transport, has issued the following circular letter:

"Following the ratification of SOLAS 1974 and Resolution A466 (XII) by the Federal Government of Nigeria, the Maritime Administration has decided to implement Port State Control which entails:

1. Maritime Surveyors boarding all flag state ships in the harbours for purposes of inspecting all international certificates of ships.
(a) International Cargo Ship Safety Certificate,
(b) International Cargo Ship Radio Telegraphy Certificate,
(c) International Load Line Certificate,
(d) International Safety Construction Certificate,
(e) Classification Certificate, and
(f) Certificate of Registry.

2. Manning: (a) particulars of Masters, (b) particulars of Chief Engineer.

3. General inspection – if the Surveyor considers the ship to be sub-standard and if found un-seaworthy, vessel will be detained until defects are rectified.

4. It is therefore pertinent that all shipping Agents bring this new dimension of safety inspection by national Surveyors to all their shipping Masters calling at any port in Port Harcourt and all other ports in Nigeria where we have our Surveyors".

Report: 1986.

Master's only to declare cargo for Nigerian port and not to include In-transit cargo in order to avoid difficulties with the Nigerian Ports PLC

TANKER CHECK LIST: January 1992.

The following "Check List", of items that need attention for tankers calling at Nigeria, has been compiled by associates in Nigeria.

1. At nomination of vessel to NNPC or Equity Holder as prospective lifter:
   (a) In Nigeria, we have what we call the 90% rule. This means, that all vessels loading at offshore terminals are obliged to load up to 90% of their deadweight. Since most lots of crude oil sold in Nigeria average around 900,000 barrels, vessels with d.w.t. of up to 140,000 are normally used as loaders (maximum size for Bonny Inshore is 135,000 d.w.t.).
   (b) At the Inner Terminal in Bonny, the rule is 60% of total d.w.t., unless vessel will top-up at another terminal up to 90%.
   (c) Vessels, partly loaded at other ports outside Nigeria, are accepted, provided the vessel sails from Nigeria with up to 90% capacity loaded.
   (d) Only if the vessel is loading at more than one Nigerian terminal, will they allow a loading of under 90%, but by the last terminal, the capacity of 90% must be met.
   (e) Sometimes vessels are remeasured by owners, in order for the deadweight to comply with this 90% rule. In such cases, the nominating party must submit original remeasurement certificates at the time of nomination. NNPC use the weekly Lloyd's Ship Movement List to determine the d.w.t. of any vessel, and if the remeasured tonnage is not shown therein, they will reject the nomination, unless they received confirmation from Lloyd's Register (irrespective of vessel's class) on original letterhead to the effect that the remeasurement has taken place.
   (f) If she performed badly at any previous call, the vessel could be rejected out of hand without explanation. Thus, Masters should report any performance lapses noticed, and steps should be taken to rectify them before vessel is nominated to call in Nigeria.
2. On acceptance of your vessel as a loader:
   (a) There are 3 clearances that must be obtained prior to loading any vessel. These are:
   NNPC Marketing Division.
   NNPC Inspectorate Division now known as D.P.R. (Department of Petroleum Resources).
   Navy Task Force for Crude Oil.
   (b) The Nigerian Ports PLC have recently dictated, that vessels will not be allowed to berth, unless the preliminary proforma bill is settled (which they now enhance by 25% for possible variations). Principals should thus endeavour to give Agents sufficient lead time between nomination and laydays to ensure no delays. For your guidance, it may take Nigerian Ports PLC accounts department several working days to raise the preliminary bill. The terminals affected by this directive are Bonny Inshore, Okrika, Warri and Lagos.
   (c) Once the vessel has been nominated, and is on any terminal's program, it is safe to enter Nigerian territorial waters (Nigeria define territorial waters as 30 miles from the furthest terminal – not the coastline).
3. On completion of loading:
   (a) EDP has been abolished at all terminals, except Qua Iboe and Antan, but Master can refuse even at those terminals, although vessel will be made to stand-off until the documents are ready.
   (b) Masters should refuse to sign any blank forms, especially Bills of Lading, for whatever reason.
   (c) Radio/communcation rooms should preferably be restricted with only authorised radio/telex operators of the vessels being allowed into them. There have been cases of fraudulent messages being sent on vessel radios.
   (d) Particular care should be given to the comings and goings of any unauthorised persons.
   (e) Prior to sailing, a thorough search of all spaces should be made for stowaways.
4. Piracy:
   Especially at Bonny Anchorage, piracy, in the form of armed groups of people coming on board to steal vessels' ropes, has been rampant. Thus any vessel in the area is advised to drift at least 30 miles offshore, and maintain watches on the deck. Water cannons should be made ready to repel boarders. The pirates gain entrance to the vessel by climbing the anchor chain, although they have been known to board vessels amidships on ropes thrown onto the deck.
5. Vessels, calling at Refinery Jetties or discharge facilities for refined products, should be wary of allowing anybody not authorised to board the vessel. Any visitors should be escorted at all times, while on board.

Above is a brief synopsis of the major points, that should be kept in mind, when sending vessels to Nigeria. We should point out that the situation is not static, and could change at any time. However, we trust you have been given a clear idea of the nature of the business in its current condition.

LOADING: *Oil Terminals:* A new regulation which took effect from 3rd December 1984, applies to all oil terminals in Nigeria. Vessels must load up to 90% of their deadweight. The remaining 10% being allowance for bunkers/water. Vessels are permitted to load part cargo at more than one terminal/port within Nigeria. This means that a vessel can load part cargo at one terminal and then complement loading at another terminal also within Nigeria. Vessels coming into Nigeria to load crude oil must arrive in ballast without part cargo from another country, otherwise such a vessel will not be allowed to load.

Since introducing the law that vessels with part cargo from another country cannot call at a Nigerian terminal the following new regulations have come into force.

Quote:

Tankers coming into Nigeria may now come in with part cargo provided that:

1. The quantity of the cargo to be brought in and its source are given at the time the tanker is nominated.

2. All details about the incoming cargo are declared to the Customs on arrival at the Nigerian terminal.

3. Such vessels will be fully loaded within the operational tolerance limit as set in (1) above before departing from Nigeria.

However, still in force is the 90% loading at offshore terminals of d.w.t. for tankers which arrived in ballast. Vessels are not permitted to load part cargo but can complement loading at more than one terminal provided within Nigeria.

Unquote.

Report: November 1989.

Vessels loading at offshore terminals are required to load to 90% of their deadweight. Vessels at inshore terminals are required to load to 60% of their deadweight due to draft restrictions.

FUEL: Some companies have now been licensed for the purpose of bunkering vessels. The stipulations in Nigerian Ports PLC Harbour Master's Notice No.2/83 (See "Lagos") must however be strictly adhered to. The Master should contact the Agent in this regard.

WATCHMEN: Compulsory. Tankers require 4 men and general cargo vessels 16 men.

SHIPMASTER'S REPORT: 1978.

No ship is to enter Nigerian waters unless issued with a Ship's Entry Number.

ANTAN TERMINAL: 04.13 N. 08.20 E. (See Plan)

LOCATION: Antan Oil Terminal is located offshore of Nigeria, at Lat. 04° 13' N., Long. 08° 20' E. in a water depth of 126 ft.

The terminal consists of the tanker-based floating production, storage and off-loading system "FPSO VI" of 285,000 d.w.t., moored by means of a stern yoke to a platform mounted single point mooring. The "FPSO VI" has a crude oil storage capacity of some 230,000 tons. The "FPSO VI" contains equipment necessary for production, storage and transhipment of crude oil. The Antan Marine Terminal offices, testing laboratory and accommodation for terminal personnel are also located on board the "FPSO VI".

To comply with international regulations, during the hours of darkness the "FPSO VI" will show lights with the distinctive characteristics of the Morse code letter "U". In periods of poor visibility the fog signal will sound the Morse code for the letter "U".

Vessels using the terminal will be moored in tandem, bow to bow, to the storage tanker and loading will be by means of a floating hose between the vessels.

DOCUMENTS: The following forms are required by Customs and Health Officials:

1 copy Vessel Registration Certificate
1 copy Last Port Clearance
8 copies (for past 6 weeks) Ports of Call List
3 copies Stores List
7 copies Arms and Ammunition List
4 copies Master's Declaration
9 copies Crew List
3 copies Crew Declaration List
9 copies Passenger List
9 copies Kroo Boy List
3 copies Stowaway List
3 copies Vaccination List
5 copies Animal List

Note:

(a) Also on arrival, 20 copies of Notice of Readiness.

(b) Before sailing and immediately upon completion of loading, vessel must provide 20 copies of Ullage Report. Government Officials representing various departments may, at their discretion, board the vessels in the Terminal area.

ESSENTIAL REQUIREMENTS: *Summary of most essential requirements to be met by tankers lifting oil at Antan Oil Terminal:*

1. Berthing and unberthing shall only be permitted at the discretion of SBM's Terminal Superintendent.

2. No dirty ballast disposal.

3. Advise arrival time by radio.

4. SBM's Mooring Master together with Custom Officials meet ships in suggested anchorage area.

5. Make a lee for SBM's Mooring Master and Officials to board.

6. Have ready: 2 messenger lines forward; ship's derrick on port side, port manifold with 16 in. connection.

7. Vessel's Master responsible for safety of own ship at all times.

8. Lifting vessel's crew performs all operations of mooring, connecting and disconnecting hoses, and unmooring aboard lifting vessel.

9. Do not close valves against crude flow.

10. Emergency flow stop signal if all communications fail will be a continuous sounding of ship's whistle from either lifting vessel or "FPSO VI".

11. No shore leave or crew changes are permitted.

12. When arriving: by day fly flag "Q"; by night display red light over white light for Quarantine Service.

13. Vessel's anchors to be secured against accidental use from the time the SBM Mooring Master boards.

14. All vessels must exhibit the Nigerian National Ensign from their foremast or other appropriate place while in the vicinity of the moorings.

15. Smit Bracket of lifting vessel if fitted, is free, greased and ready for use. A large 14 lb. hammer should also be available.

16. During loading: by day fly flag "B"; by night display red light.

17. Vessel must arrive with no less than 30% ballast/cargo on board and be able to maintain this condition during the loading period.

Note:

Antan local time is GMT plus 1 hour throughout the year.

No supplies of any kind or medical services (except in case of emergency and subject to a doctor being available), or other services of any kind are available at Antan Oil Terminal.

PILOTAGE: Pilot boards at the anchorage.

ANCHORAGE: Suggested anchorage area consists of a circle radius 1.5 miles, positioned 4 miles due South of the FPSO VI mooring platform, in postiton Lat. 04° 14' N., Long. 08° 19' E.

MAX. SIZE: The terminal is designed for tandem off-loading of shuttle tankers from 100,000 d.w.t. to 270,000 d.w.t. Although there is no specific allowable maximum draft, shuttle tankers berthing at the terminal are expected to have sufficient ballast/or cargo already on board of up to 30% deadweight.

Minimum size 100,000 d.w.t. Max. size 270,000 d.w.t. There is no draft restriction.

HEALTH: The vessel shall have a clean Bill of Health or equivalent document from the last port of call. The vessel's Master and all members of the crew shall possess International Certificates of Health showing such valid Vaccination Certificates as all required by current Nigerian Law. From time to time Cholera Vaccination Certificates may be required and it is, therefore, prudent that all crew members be in possesion of valid Cholera Vaccination Certificates.

RADIO: 1. It is most important that incoming tankers advise their ETA, 72 hours, 48 hours, 24 hours and 4 hours in advance of arrival, stating GMT or local time.

Call sign 3EYH3.

Terminal listens to Portishead Radio at 0900-1000Z and 2100-2200Z daily on 17236 kHz.

Local R/T Frequency: 6,992.1 A3J 24 hours.

Inmarsat Telex No: 1331763. Answerback 1331763 FPSO X.

Selcall No: 1C 21876.

VHF working channel: 6.

Once direct communication has been established, the terminal will provide a pre-arrival message.

The following information shall be included in the message given 72 hours in advance:

(1) Name of tanker and radio call sign.
(2) ETA.
(3) Cargo requirements.
(4) Deballast time.
(5) Maximum loading rate capabilities in t.p.h.
(6) Estimated draft on arrival.
(7) If there is any sickness aboard or clean bill of health.
(8) Last port of call.
(9) Any hull, bulkhead, valve or pipeline leaks on vessel which could negatively affect loading or cause pollution.
(10) Distance in feet from the bow to tanker's loading manifold, and from port rail to manifold.
(11) Agreement of Compliance with these Antan Oil Terminal user Regulations and Procedures.,

All vessels shall confirm ETA 24 hours and 4 hours distant or any time a 1 hour change of ETA is determined.

2. On receipt of the first message from the lifting vessel, Ashland Oil (Nigeria) Company will respond to the tanker giving preliminary requirements of the Terminal. Vessel's Masters will comply with these requirements in all details in order to facilitate Vessel turnaround and government formalities.

3. Once ships are within 4 hours of Antan Oil Terminal, communication should begin with the "FPSO VI" on VHF Channel 16. When contact has been made on this channel, further communication will be conducted on a mutually compatible channel, normally Channel 6.

4. The SBM Mooring Master will carry a VHF/FM Radio-Telephone when he boards the Tanker.

5. The 4 hour signal should confirm information on the time required to discharge ballast after arrival and should establish a better ETA.

6. Insufficient or inaccurate ETA messages can cause delays as Government officials have to come from elsewhere. Acceptance of Notice of Readiness may be affected by such insufficiency or inaccuracy.

RESTRICTIONS: Day and night-time mooring/unmooring of vessels at the terminal is possible. However, night-time mooring is permitted only at the sole discretion of the Terminal Superintendent, weather conditions permitting.

TUGS: *Mooring Launches:* The terminal maintains boats to assist in mooring and unmooring vessels. These boat are directed by the Mooring Master, to whom requests by the lifting vessel for action or assistance must be directed.

TERMINAL FACILITIES: 1. Vessels using the terminal will be moored bow to bow (tandem), to the "FPSO VI" by means of a 150 ft. nylon mooring rope. On the outer end of the mooring rope is a short length of chain ending in a triangle plate for connection to the lifting vessel's Smit Bracket. For vessels not equipped with a Smit Bracket or chain stopper, extra equipment consisting of a 82 ft.×17 in. snotter, with special shackle can be supplied.

2. During the period the lifting vessel is on the berth a tug/supply vessel furnished by the terminal will remain secured to the stern of the lifting vessel. The lifting vessel shall have no authority to direct or control the tug/supply vessel.

3. The loading hose connection is ASA 150 16 in. I.D.

4. Loading rates at the terminal will be governed by either the lifting vessel's maximum loading rate, or the maximum pumping rate of the "FPSO VI" whichever is the lesser.

5. The companies do not perform general agency functions. Owners or Charterers of vessels calling at the terminal must arrange for their own Agents.

BERTHING: 1. Lifting vessels will normally be accepted and berthed in chronological order of arrival provided such vessels have current nomination for cargo valid at the time of tender, carry clean ballast, if any, and have cargo tanks in a fit condition to receive cargo. Also, they must be in all respects properly equipped, manned and ready to moor. Should berthing be delayed on account of bad weather, vessels will keep their position in line.

2. Vessels required to leave the terminal area on account of bad weather should keep in contact with the terminal via the Radio Telephony Station at Antan Oil Terminal, in order that they may be available when the weather is fit for resumption of operations. SBM reserve the right to load vessels out of turn followng the return of good weather. Further, SBM reserves the right to decline to moor a specific vessel if its condition or facilities are unsafe for mooring or loading even though the terminal may be open to other vessels.

3. The decision of SBM's Terminal Superintendent on berthing will be final.

4. A lifting vessel will be expected to have ready on the forecastle head the following equipment: windlass ready for use, Smit Bracket free, open and greased: a large coil of messenger line and a large 14 lb. hammer.

5. On approaching the berth, the messenger line is lowered to a small boat. This boat will take the end of the messenger line and attach it to the end of a floating rope. SBM Mooring Master will then instruct the crew to heave in the ropes successively until the chafe chain is in the fairlead and the triangle plate is in a position to be fitted to the Smit connector.

6. Once the lifting vessel is connected to the mooring, its engines, on request of SBM's Mooring Master, may have to be run "very slowly" astern in order to avoid contact between the two vessels until the tug/supply vessel has been made fast to the stern of the lifting vessel.

VESSEL'S GEAR: 1. SBM's Mooring Master may reject a ship if it is not, upon inspection, properly equipped or if it is not suitably manned or if he deems it to have dirty ballast or tanks unsuitable for receiving the cargo. A vessel is suitably manned only if it has a full complement of officers and crew in a sober condition, competent and willing to carry out their duties and orders, and sufficient English is spoken so that SBM's Mooring Master can understand and be understood.

2. All vessels must be equipped with a good working propulsion unit as passed by an appropriate classification society. Inoperative vessels or partially inoperative vessels will be rejected. Should vessels become inoperative while on the berth, they may be removed from the terminal area by the Company at the expense of the Owners or Charterers of the vessel.

3. Additionally, a vessel must have both bower anchors and ground tackle in good working condition and in such sizes and amounts as to meet either "Lloyds" or "ABS" standards although they may be in fact classified by other societies. On instruction from SBM's Mooring Master, the vessel's anchors must be properly secured against accidental dropping.

4. All vessels must carry suitable stoppers for all manila or synthetic lines for mooring use.

5. All vessels must have suitable winches or capstans in good operating condition on the forecastle deck.

6. All vessels must be adequately equipped with a 10 ton derrick boom, blocks, tackles, wire runners and sundry equipment on both sides to efficiently hoist the hoses to the loading position. Sundry equipment should include wrenches, drift pins, nuts and bolts, wire and fibre strops, drip pans, gaskets, etc. To assist in vessel's turnaround, the vessel should have all necessary booms and cargo gear rigged and ready before being boarded by SBM's Mooring Master. All vessels which consider the lifting capacity of their gear to be marginal should strengthen their gear accordingly. This does not relieve the vessel of the necessity to provide adequate lifting gear as already described for Antan Oil Terminal operations.

7. The vessel's manifold should be prepared for 16 in. 150 ASA hose connection prior to the vessel's arrival. Where no crossover valves exist on loading manifolds it is recommended that loops between loading lines on the starboard side of these manifolds be fitted. Vessels equipped with smaller than 16 in. hose connections at the loading manifold should arrive with such hose connections suitably adapted for 16 in. hose so that maximum flow through the 16 in. cargo hose will be achieved.

Vessels equipped with larger than 16 in. hose connections at the loading manifold should provide their own reducers.

MOORING/UNMOORING:

1. The terminal is normally open 24 hours a day, 7 days a week, weather conditions permitting. The Terminal Superintendent shall be the final authority as to when the terminal is open or closed for normal working due to weather conditions. Night time berthing will only be permitted at the sole discretion of SBM's Terminal Superintendent.

2. Vessels to be moored, anchored or manoeuvred at Antan Oil Terminal will be boarded by SBM's Mooring Master in the close vicinity of the suggested anchorage area as shown in the "Plan Section". The anchorage area consists of a circle of radius 1.5 miles positioned 4 miles due South of the FPSO VI mooring platform in positionLat. 04° 14' N., Long. 08° 19' E. No lifting vessel may enter the terminal area unless SBM's Mooring Master is on board. SBM's Mooring Master will advise the vessel's Master on approaches to the berth, mooring, unmooring, tug handling, connecting and disconnecting the hoses and other operations within the anchorage and terminal area. All such manoeuvring of vessels shall be carried out only in accordance with the advice of SBM's Mooring Master, except where the vessel's Master believes such advice to be contrary to the proper navigation and safety of the vessel and crew, and subject to the understanding that in all cases and circumstances the Master of the vessel being manoeuvred shall remain solely responsible on behalf of his vessel's Owners or Charterers for the safety and proper manoeuvring of the vessel. The vessel's Master or

one of his designated qualified deck officers specifically appointed by him at the time must be on the navigation bridge at all times while the vessel is being manoeuvred.

3. Vessels will provide a lee for the SBM Mooring Master's boat while the Mooring Master is boarding and leaving. All vessels are requested to have a pilot ladder safely and securely rigged and ready for immediate use and long enough to reach the Mooring Master's boat. A combination of a pilot ladder and vessel's accommodation ladder so arranged that personnel can first use the pilot ladder part way up the vessel's side and then transfer to the accommodation ladder is recommended, especially on very large vessels. A light line should be ready to take aboard the Mooring Master's portable radio. There should be adequate lighting at night.

4. The SBM Mooring Master will be in direct control of all the vessel's communications while in the terminal area. Any unauthorised communications will at the option of SBM's Mooring Master be cause for the cessation of all operations except clearing of the berth, and the vessel's Notice of Readiness will immediately be nullified.

5. Raising, lowering, connecting and disconnecting of oil loading hoses, as well as all other labours and duties on board will be performed by the vessel's crew under advice of the SBM Mooring Master (See "Vessel's Gear").

6. The Mooring Master may refuse to accept a vessel for loading, if he considers the vessel's condition to be unsatisfactory. In the event the Master of lifting vessel and SBM's Master can not agree to a procedure by which the vessel can meet satisfactory loading conditions, both Ashland and the charterer of the vessel shall be immediately contacted so that corrections can be made. The time required to bring the vessel into satisfactory condition shall not count as used lay time.

7. The services of SBM's Mooring Master are provided without charge upon the express understanding and conditions that when the Mooring Master goes on board the vessel for the purpose of assisting such vessel, he becomes for such purposes the servant of the Owners or Charterers of the vessel, and the Companies shall not be liable for any damage or injury resulting from any advice or assistance or actions given or made by the Mooring Master.

8. SBM's Mooring Master may require the vessel to unmoor at any time he deems it necessary for the safety of the vessel or mooring or both, or for infringement of these Terminal Regulations.

9. Various combinations of wind, sea and tidal conditions, also the size, length, ballasted trim, and handling qualities of a vessel can affect the decision to berth a vessel at Antan Oil Terminal. All these factors have to be evaluated before a final berthing decision is made and agreed by the vessel's Master and SBM's Mooring Master. All time lost, as a result of weather conditions, shall count as half time in laytime or demurrage calculations.

HOSES: *Connecting Hoses:* 1. After the vessel is securely moored the cargo hose will be hoisted aboard, normally on the port side. The berth is equipped with a single 16 in. loading hose string, the weight of the hose lift being approximately 7 tons. Therefore, all lifting equipment and tackle should have a safe working load of at least 10 tons. The hose is lifted by vessel's gear and crew, and all connecting of the hose will be carried out by them. The lifting derrick, equipment, tackle, etc., should be topped off and ready on arrival. Terminal loading hoses are fitted with ASI 150 flat face flanges with Camlock couplings and vessels should have adapters and fittings to enable these hoses to be connected to the vessel's manifold. SBM's Mooring Master advises the vessel's personnel on hose lifting and connecting procedures; however, a vessel's Master or deck officer must be present and must direct the vessel's crew in all handling. SBM's Mooring Master may reject a vessel for unsatisfactory hose handling.

2. When SBM's Mooring Master is assigned to a vessel, the vessel at her cost will supply him with meals at the same time and in the same manner as for comparable personnel of the vessel. The vessel will also provide a suitable cabin and smoking facilities.

LOADING: *Loading Readiness and Arrival Time:* 1. SBM will make every effort to moor offtaking vessels upon arrival in daylight, weather permitting. Night-time berthing shall only be permitted at the discretion of SBM's Terminal Superintendent.

2. Notice of Readiness will not be accepted at the time of arrival unless the vessel is in all respects ready to load including compliance with all terms of these Antan Oil Terminal Regulations. Arrival time will be considered as the time when SBM's Mooring Master boards the vessel, or the time the vessel reaches the deep water Anchorage area, whichever occurs first. The approved Anchorage area is shown (See "Plan"). Notice of Readiness shall be in English.

3. During loading the International Code Flag "B" shall be displayed from a top-most signal halyard during daylight hours. During hours of darkness a red light shall be displayed; visible at a distance of at least one mile and show an unbroken light all around the horizon.

BALLAST: *Regulations require either:*

1. Segregated or dedicated ballast facilities.
   or
2. Ballast able to be discharged and cargo loaded concurrently.
   or
3. Tanker arrives partially loaded.

All vessels must maintain a minimum of 30% Summer deadweight at all times while at the terminal.

Disposal of Ballast: 1. Owners and Masters are responsible for complying with all International Conventions and Nigerian Laws concerning pollution of the sea, having particular regard for the offshore sector. The Nigerian Authorities are becoming increasingly concerned at the rising level of pollution in these waters and any infringement of the International Laws regarding pollution of the sea by oil will be dealt with most severely. Pollution of the sea by dirty ballast water, bilge discharge or any other means will result in heavy fines being imposed, and in severe cases may result in imprisonment or confiscation of the vessel concerned.

2. Vessels must arrive with clean ballast only. There are no facilities for disposal of dirty ballast. It is the Master's responsibility to see that no oil of any kind is pumped or spilled overboard from his vessel. This includes oily water from bilges, crude residue from previous voyages or any other matter that may result in pollution of the sea. Any fines imposed or third party claims shall be for the vessel's account.

3. In addition to the lights usually displayed, vessels discharging ballast or loading cargo during darkness will illuminate the area around the vessel to the satisfaction of the SBM Mooring Master, in order that any oil on the surface of the sea may be readily detected and appropriate action taken. Vessels unable to illuminate the sea satisfactorily may not discharge ballast during darkness. Vessels should provide suitable floodlights for work on deck during night operations.

4. If evidence of oil appears during deballasting, the vessel will be rejected forthwith and will not be accepted until satisfactory evidence is produced that such ballast was disposed of in a proper manner. If during inspection or during progress of loading it is revealed that the vessel's tanks are not tight or that oil is leaking from the vessel, the vessel may be rejected or refused further loading. The vessel will not be later accepted for loading, unless satisfactory evidence of repair is submitted, duly certified by "Lloyds", "ABS", or other recognised surveyors. Any vessel rejected because of dirty ballast or sea pollution will automatically nullify her "Notice of Readiness" and will lose any priority of position for loading. SBM at its sole discretion may suspend, delay or unberth any vessel which is under suspicion of oil pollution. The Companies will not be liable for any demurrage, loss claims or demands resulting from such suspension, delay or unberthing.

5. Vessel should have segregated ballast facilities and be capable of maintaining a minimum of 30% draft at all times and be capable of discharging clean ballast in accordance with MARPOL either concurrent with loading or separately.

6. If the vessel cannot comply with the above conditions then it should arrive at the terminal at least 30% laden with cargo.

7. All spillage of oil must be reported immediately to the SBM Terminal Superintendent and a detailed report must be written, signed and submitted by the Master of the lifting vessel concerned.

DENSITY: 1025.

SURVEYORS: Watson Gray and Caleb Brett available from Port Harcourt.

WATCHMEN: The Terminal Regulations stipulates the shuttle tanker is to have not less than 1 deck officer and 3 seamen on duty and available at all times. One of the seamen shall also keep watch at the bow to avoid shuttle tanker contact with FPSO IV (Antan Terminal).

GARBAGE DISPOSAL: Drums provided on board and sent on-shore for disposal.

WASTE OIL DISPOSAL: No facilities.

CURRENCY: Naira.

WEATHER: The navigator is referred to published sailing instructions for this area for information on winds, tides and currents, viz: The Defense Mapping Agency (DMA) Pub. 121, Sailing Directions (Planning Guide) for the South Atlantic Ocean, and Pub. 123, Sailing Directions (Enroute) for the Southwest Coast of Africa, published by the U.S. Government Printing Offices Washington D.C. British Admiralty: Africa Pilot Vol. 1, Published by the Hydrographer of the Navy London.

Tides: The maximum range of tide in this area is about 6.5 ft.

Currents: The general set of current in the area is Eastward except during the Harmattan season, from November to February, when it is Westward. Within depths of 50 ft. or 60 ft. the current is irregular with many eddies. Outside those depths the speed of the current is about half a knot.

Winds: The Guinea Monsoon is the prevailing Southwesterly to Westerly wind (average speed 5-10 m.p.h.) which is strongest in the months March through November (average speed 10-20 m.p.h.). During the months of July through September the Guinea Monsoon is strengthened in speed because of the Saharan heat blow. The Guinea Monsoon is moisture laden and causes heavy rainfall in Nigerian area. Waves and swell in the area are mostly Westerly.

Harmattan winds occur intermittently during December-February period. The Harmattan winds are dry and often laden with Saharan dust. They are offshore winds and do not develop waves of significant height.

Waves: Waves are generally from Westerly direction and average about 2 to 4 ft., increasing in height with the stronger Monsoon wind during the months of July through November when the average height is about 4 ft. to 6 ft.

Rainfall: The heaviest average rainfall is in July (442 mm.). During the Harmattan season in January the rainfall averages about 42 mm.

GENERAL: *Charts:* British Admiralty Charts Nos. 1357 and 1860 and U.S. Navy Charts No. 57160 and 57163.

Repairs: Should it be necessary to supply divers, a boat, materials, equipment or labour, to carry out repair work to enable the vessel to continue loading, any costs involved will be charged to the vessel's account at rates to be established at that time. These services will only be provided in emergencies.

Services: There will be no bunkers, no fresh water, no small boat hire, no shore leave, no shore services, and no medical assistance (except in cases of emergency) available at the Terminal. Information on port services in the area should be obtained from the vessel's Agents.

Shore Leave/Repatriation: Crew members cannot leave the vessel at Antan Oil Terminal except in cases of extreme urgency. Even in an emergency it should be noted that Seamen's books may not be valid under the local Government Law. A valid Passport is required. No crew changes will be permitted during the period a vessel is in the terminal area.

Documents: After each tanker lifting, the terminal will prepare all necessary loading documents. Documentation will be finalised on board the lifting vessel as soon as practicable after loading operations are completed.

Visitors: Visitors must obtain a special pass from the SBM Terminal Superintendent at least 48 hours before visiting the terminal. Visitors will be restricted to a minimum due to the hazards involved

OPERATOR: Ashland Oil (Nigeria) Company, P.O.Box 2629, Lagos, Nigeria. *Tel:* 2613334, 2614277, 2610631. *Telex:* 28970, attention General Manager. *FAX:* 2616816, 2621915. *Contact:* Managing Director.

BONNY: 04.11 N. 07.14 E. (Offshore Terminal)
(See Plan)

IMPORTANT NOTICE: Vessels lifting crude oil must comply with restrictions that may be generally imposed by the Government of the Federal Republic of Nigeria on vessels entering Nigerian Waters for any purpose whatsoever.

DOCUMENTS:
8 Stowaway Lists.
7 Crew Lists.
2 Vaccination Lists.
2 Maritime Declarations of Health.
8 Lists of Last Port of Call (6 weeks).
4 Lists of Birds & Animals.
5 Passenger Lists.
3 Stores Lists.
3 Personal Effects Lists.
8 Arms & Ammunition Lists.
3 Narcotics Lists.
2 Currency Declaration.
1 Embarkation List.
1 Disembarkation List.
3 Voyage Instructions.
3 General Particulars.
3 Kroo Boy Lists.
1 Clearance Last Port.

Agent: Requires Nigerian Ports PLC Lights and Buoy Dues form.

Special Regulations: Nigerian crude oil cargoes require to be cleared by relevant authorities before loading is allowed to commence, and laytime does not commence until these clearances are in place. An application for clearance is only approved when sales formalities are concluded. Delays may occur as a result of Letters of Credit. Buyers of Nigerian crude are therefore advised to process credit facilities in good time to avoid delays associated with such clearances.

PILOTAGE: Berthing Master will board vessel on arrival or at anchorage, and remains on board throughout and acts as Loading Master. On arrival at anchorage contact Berthing Master on VHF Channel 10, call sign "Offshore Pilot".

N.B. Also contact Bonny Terminal on Channel 8 on arrival at Offshore anchorage to ensure vessel's arrival details are recorded.

ANCHORAGES: 3 miles South of manifold platform in position Lat. 4° 11.2' N., Long. 7° 14.2' E.

Vessels must not proceed inshore of this position without a Pilot. When at anchor listening watch must be kept on VHF Channel 8 and this Channel must not be used for inter-ship communication.

RESTRICTIONS: Worst weather period June – September, when heavy swell may be encountered.

During the approach and mooring operations, environmental conditions should not exceed:
25 knots wind.
2 knots current.
3 m. significant wave height.

Limitations of loading operations:
Winds in excess of 30 knots: Ship's engine on stand-by.
Winds in excess of 40 knots: Stop loading, close valves, disconnect hoses.
Winds in excess of 45 knots/5.0 m. swell: Vacate berth.

MAX. SIZE: Min. SDWT 45,000 tonnes. Max. SDWT 320,000 tonnes. Max. length no restriction. Max. beam no restriction. Max. draft 22.8 m. (75 ft.).

Also see "Port Harcourt" – "Report".

RADIO/VHF: *Radio advice prior to arrival:* Vessels are required to report their ETA at the applicable anchorage or Fairway Buoy as follows:
(a) 7 days before estimated arrival, or upon clearing last port, if there is less than 7 days steaming time before estimated arrival.
(b) 72 hours before estimated arrival.
(c) 48 hours before estimated arrival.
(d) 24 hours before estimated arrival.
(e) Any other time(s) between the 72 hours notice, 48 hours notice and 24 hours notice when estimated arrival is to be revised by more than 12 hours from that most recently notified.

Vessels with destination Bonny should send their ETA messages to Shell Lagos, att. MRCL and PLWE/1, Telex: 21235 or via the Inmarsat system to Shell Lagos MRCL Tel: 234-1-1772142 (SHLT X) and Bonny Tel: 234-874-1772154, ext. 28531, or 873-1772154, ext. 28531.

As soon as vessels are within VHF range of the destination, the Terminal should be contacted on VHF Channel 8 for berthing information.

Upon arrival at the designated safe anchorage, or the Bonny Offshore Fairway Buoy or upon the time of boarding of the Berthing Master, whichever is the earlier, the Master of the vessel shall give the Terminal a Notice of Readiness (NOR) by radio or letter, as appropriate, confirming that the tanker is ready to load cargo, berth or no berth. Laytime will commence 6 hours after such NOR or completion of mooring, whichever comes first, on condition that the vessel arrives within acceptance range of the cargo to be lifted.

For vessels loading offshore, anchor 2 miles South of platform, which is in position Lat. 04° 11.2' N., Long. 07° 14.2' E., and call Bonny Offshore Pilot on Channel 10 and Bonny Terminal on Channel 8. The international VHF service station operates on Channels 14 and 16.

Stations:

Name	*Call Sign*	*VHF Channel*
Nigerian Ports PLC	"Bonny Signals"	14
Terminal	"Shell Bonny"	8
Bonny Offshore Pilot	"Bonny Offshore"	10
Terminal Contro Room	"Control Room"	68
Duty Marine Officer	"Marine Office"	8
Marine Radio Room	"Marine Office"	8

It is essential to pass time of arrival as soon as possible on arrival to "Bonny Signals" (NP PLC) on Channel 14.

HEALTH: "Q" flag to be shown on arrival, except if from another Nigerian port, yellow fever inoculations compulsory. In case of suspected disease on board, advance notice to Agent advisable. Valid Yellow Fever Certificates to be produced for all crew members. Also Derat Exemption Certificate.

TUGS: None available.

BERTHING: 2 SBMs fitted with 60 m. × 15 in. double nylon moorings and 1 hose string terminating in 2×16 in. diameter end hoses.

No. 1 SBM is S.S.W. of the Platform. No. 2 SBM is S.S.E. of the Platform.

Berthing effected under guidance of Berthing Master and a hose foreman who both remain on board throughout loading operations. Accommodation to be provided for Berthing Master and Assistant, Nigerian Ports PLC Pollution Officer and a Cargo Surveyor. Whilst berthed, a mooring launch remains secured at the stern (ship's polyprop rope), so that in the event of the vessel riding up on the SBM, she will tow to correct the situation.

Vessels must be equipped with hose handling derricks with a capacity of not less than 10 tonnes.

Vessels must arrive with clean ballast.

Load-on-top system operates at Bonny. Slops cannot be accepted ashore. Max. loading rate: 6,000 t.p.h. Grades handled: Bonny Medium and Light. Medium is handled as Sandwich loading.

HOSES: Port or starboard side amidships (dependent on which SBM is used). Vessels should endeavour to present 2×16 in. standard 150 ASA connections on arrival. Ship's crew are required to connect and disconnect the hoses under the advice of the Berthing Master and/or his assistant. A derrick SWL at least 7 tonnes must be rigged ready on both port and starboard sides and plumbed clear of the side. Derrick runner must be equipped with suitable hook.

Weight of Hoses: The following table gives the approximate weights of hose strings in tonnes (including fittings, floats and pick-up buoy) with all hoses full of crude oil S.G. 0.850. The assumed total lift is 7.5 m. (25 ft.) above deck level, with the tanker on light draft.

Size of Tanker *d.w.t.*	*16 in. I.D. Hoses* *tonnes*
500,000	11.4
330,000	9.4
270,000	9.1
200,000	8.7
100,000	7.5
70,000	7.1

SHORE LINE SYSTEM: Vessels load through SBM from shore through a 48 in. diameter line, thence through a 24 in. diameter floating hose which is terminated by a "Y" piece and two 16 in. diameter hose tails which connect to the ship's manifold. Loading rates up to 7,000 t.p.h. may be expected. The 48 in. submarine loading line to the shore is some 16 miles in length, therefore great care must be exercised during loading when ship's valves are manipulated to avoid pressure surges. Pressure recorders are normally fitted at the spool piece between ship's manifold and tail end of the hose string to monitor pressure changes generated on board the vessel.

BALLAST: No facilities for dirty ballast, no tank cleaning facilities.

MEDICAL: Hospital at Bonny. Also see "General".

DENSITY: Salt.

FRESH WATER: Available by barge at rate of 15 t.p.h. 48 hours' advance notice required as barge comes from Port Harcourt.

FUEL: Not available.

CONSULS: None.

REPAIRS: No facilities available. See "General".

WATCHMEN: Whilst berthed at the SBM a security watch must be kept on the forecastle head by member(s) of the ship's crew throughout the hours of darkness, to raise the alarm and advise the Berthing Master on the approach of local small craft. Instances have occured at Nigerian offshore terminals where a nylon mooring rope has been cut and stolen with the vessel in the berth. The Berthing Master should also be advised in the event that the vessel rides up to the SBM. Also see "Notice" and "Piracy".

CUSTOMS ALLOWANCES: 200 cigarettes per man per 7 days.

REPATRIATION: Not possible.

AIRPORT: 28 miles by river, to Port Harcourt, then 30 km. by road, flights twice daily to Lagos, 5 international flights per week to London, Rome and Amsterdam.

TIME: GMT plus 1 hour, no change.

POLICE/AMBULANCE/FIRE: Contact via Harbour Master, or Shell on VHF Channel 8.

SHORE LEAVE: Not permitted.

IDENTIFICATION CARDS: Crew to carry Passport or Seaman's Book whilst ashore.

GARBAGE DISPOSAL: No facilities.

WASTE OIL DISPOSAL: No facilities.

SEAMAN'S CLUBS: None.

GENERAL: Accommodation ladder must be rigged – used in conjunction with pilot ladder.

Limited medical assistance available but in extreme emergencies only. Treatment of minor ailments and vaccinations, etc. is under no circumstances available. It may be possible in the event of an accident to obtain medical advice (Contact Terminal on VHF Channel 8 in the first instance).

Pollution of the sea by dirty ballast, bilge discharge or any other means will result in heavy fines, or in severe cases, imprisonment.

Any attempt on the part of the boarding officers to persuade the Master to supply more than normal representation should be resisted. In the event of any problem arising over such a matter, full details should be *reported to the Agent and to the Terminal.*

Nigerian flag to be flown.

Air letter forms are not acceptable unless with Nigerian stamps.

There is no Early Departure Procedure.

Vessels anchor after loading for the Master to sign all typed Bills of Lading before departure.

Delays: Worst weather period May – October when heavy swell may be encountered.

Immobilisation of engines: Not permitted at SBMs. Not advised at sea anchorage due to indifferent holding ground and the existence of obstructions and foul ground in the vicinity.

Loading: Ships are required to load cargo as rapidly as possible by day and night in accordance with the terms of their charter parties.

This means that ships are expected to load as fast as the Company can supply or they can safely receive. The question of how fast a ship can load is the responsibility of the Master having regard to his Owner's instructions, the charter party and the experience of ship's personnel. However, as further guidance and in absence of any instructions to the contrary, ships are accepted by the Company on the understanding that ships will be able to accept a bulk loading rate per hour of not less than ten per cent of the summer deadweight of the vessel.

The Berthing Master acts as Loading Master during loading operations and is provided with walkie-talkie radio to ensure adequate ship/shore communication.

Loading Masters visit each vessel, and Masters are requested to co-operate in the completion of the Company's Tanker Port Performance Time Sheet by ship and shore personnel. Only crude oil is handled at Company's terminals, loading temperatures and specific gravities of Light and Bonny crude are usually within the following ranges:

Light 0.8400 – 0.8500 at loading temperature
Medium 0.8600 – 0.900 at loading temperature

Early Departure Procedure: There is no Early Departure Procedure.

Documents are brought to the ship for signature after completion at loading.

Customs and Agency representatives will normally board vessels before commencement of loading. Depending on other commitments of the offshore launch, it may be necessary to request Masters to provide temporary accommodation for these officials.

NOTICE: *Special Notice to all Masters:*

There have been recent cases of serious theft from vessels in the Port of Bonny. It appears that the intruders who invariably gain access to the vessel via the anchor hawse pipe have on occasions been armed.

In your own interest we would advise you to arrange to have a strong jet of water running down the hawsepipe of the anchor in use. The other anchor should be stowed in the pipe and not left hanging off. In addition, you should implement the normal standard precautions of augmenting deck watches and arranging over-board floodlights where possible. Jets of water around the stern will also deter intruders from gaining access by other means.

All the assaults on ships have been made from canoes; therefore we suggest that traders and other persons in canoes be discouraged from coming close to your vessel.

Should unauthorised persons gain access to your vessel, instruct Shell Company Radio Operator to contact the terminal who in turn will contact the local police. Also see "Piracy".

PIRACY: February 1986: An act of piracy took place at Bonny Offshore in February 1986. About 8-10 pirates were involved, they boarded the vessel via the hawse pipe. A seaman was bound hand and foot and guarded while the other pirates went to the ship's stores. It is suggested that Shipowners and Operators urge their ships' crews to take extra care when in this vicinity.

April 1987: Vessel attacked by 6 pirates at night whilst waiting to load.

August 1987: A vessel lying 15 miles South of Bonny Fairway Buoy was boarded by 30 armed men who attacked and seriously injured 2 crewmen and made off with some walkie talkies and the hawsers.

February 1988: Whilst waiting at anchor at Bonny River Fairway Buoy to proceed to Port Harcourt, vessel was boarded by a gang of about 10 pirates who broke the locks/chains to the Fore Peak strong room. The gang left the vessel when discovered by the vessel's watchmen who sounded the ship's whistle and flashed the searchlights.

Notice issued by Nigerian Ports PLC at Port Harcourt:

Sea Piracy at Bonny Fairway Buoy: While the Nigerian Navy is geared to combat the ugly situation of piracy on board deep sea vessels anchored offshore of Bonny awaiting berth, it is recommended that the Masters of such vessels should screen all the visitors accompanying Customs/Immigration and Security Agents and unscrupulous men be kept out of the vessels.

As a precaution against undesirables having easy access to the vessels, it is also recommended that the Pilot ladder is hoisted back aboard the vessel after use and not left hanging over the ship's side.

NOTE: April 1992.

Masters of vessels are always advised to drift within Radar (VHF) range instead of anchoring near the Fairway Buoy. This has resulted in a "Nil Attacks" report for the last 2 years. This is an advice given out by the Oil Companies Joint "Marine Operators" committee and is applicable to all Nigerian offshore terminals.

AUTHORITY: Nigerian Ports PLC.

Operator: The Shell Petroleum Development Company of Nigeria Ltd., Freeman House, 21-22 Marina, Private Mail Bag 2418, Lagos, Nigeria. *Tel:* 2601600 (17 lines), 2601820 (9 lines). *Telex:* 21235. *Cables:* "Shell, Lagos". *FAX:* 2636681. *Contact:* Captain G. Gerritse, Marine Co-ordinator – MRCL (Tel: 2634210 direct line. Fax: Ext. 65045).

BRASS TERMINAL: 04.04 N. 06.17 E. (See Plan)

LOCATION: Brass Terminal is an open mooring located 13.5 miles off the South Nigerian coast at: Lat. 4° 04' N., Long. 6° 17' 10" E.

Chart of the area is BA 1863.

PORT LIMITS: The limit within which a vessel is considered arrived is 3 miles seaward from Brass Terminal Buoy Operating Platform (BOP).

FLAG: All vessels are required to fly the Nigerian Flag on the foremast during daylight hours.

GENERAL:

Description: Brass Terminal consists of 2 SBMs. These buoys serve as a single mooring point for a tanker and enables it to freely rotate a full 360° angle while handling cargo. Each ground mooring anchor leg consists of 6 sets of 3.25 in. chain, each set is attached to an anchor pile. The 6 mooring legs are made of 3.25 in. diameter chain. Water depth is approximately 90 ft. Two strings of floating hoses connect each buoy with the header at the end of the sea line. The system is built to provide a safe mooring for tankers up to 300,000 d.w.t. under the following environmental conditions:

(a) Max. wind speed of 30 knots and max. significant wave height of 9 ft.

(b) Max. wind speed of 20 knots and max. significant wave height of 10 ft.

(c) Max. wind speed of 10 knots and max. significant wave height of 11 ft.

However maximum overall length should be 1,200 ft., and the minimum 720 ft.

Signals: Each single buoy is equipped with:

Radio Beacon – Racon (the ship's radar must operate at X band 3 cm., 9300 to 9500 MHz and with horizontally polarised radiation. The controls for radar gain, sea clutter and differentiator FTC should be set at normal position).

NOTICE OF READINESS: Notice of Readiness will be tendered on arrival provided that vessel is ready to load in all respects and after Free Pratique has been granted. Lay time will commence 6 hours after acceptance of Notice of Readiness for vessels arriving within agreed ETA range or when loading commences whichever is earlier.

DOCUMENTS: Brass Terminal is an open mooring located 13.5 miles off the South Nigerian coast at: Lat. 4° 04' N., Long. 6° 17' 10" E.

Chart of the area is BA 1863.

DOCUMENTS: To be submitted on arrival:

Maritime Declaration of Health, original and 2 copies.
3 copies Vaccination List.
6 copies Arrival Crew List.
6 copies port of call list – for the past 6 weeks or 3 previous ports with dates of Arrivals/Departures)
6 copies Passenger List
4 copies Animal or Livestock List
6 copies Arms and Ammunitions List
4 copies Stores List
4 copies Crew Declaration List signed by all crew members
Customs Clearance for last Port of Call.

The Naval Office in charge of the task force on crude oil liftings at Brass Terminal has advised that all tankers calling at Brass from other Nigerian Ports must obtain, in addition to the normal Customs Clearance, a Health Clearance Certificate from the first Port of Call.

APPROACHES: *Agbara Field:* One drilling Platform, has been installed in position 03° 56.5' N., 06° 23.8' E. (about 10.12 nautical miles, 138° from the NAOC (BOP) platform). This structure is equipped with necessary navigational aids including warning lights and fog horn. Listens on VHF Channel 6.

PILOTAGE: The Mooring Master will board the tanker in the anchorage area and all manoeuvring of ships within the Terminal area shall be done only in accordance with advice of the Mooring Master subject to the understanding that in all cases and circumstances the Master of the vessel being manoeuvred shall remain solely responsible for the safety and proper manoeuvring of the vessel and possible damage to the Terminal or service boats.

The Berthing Master/Pilot and a party of 3 Nigerians who assist with berthing and hose operations remain on board throughout the vessel's call at Brass. Suitable accommodation is required for the Berthing Master and Nigerian assistants and also from 2 or 3 Cargo Supervisors. One of the surveyors monitors for oil pollution infringements. Whilst the vessel is moored to the SBM, a 24 hour watch must be kept on the forecastle. For taking aboard loading hoses, a derrick of 15 tons SWL with a suitable hook must be rigged on the port side. Large combined blocks or crane hooks should be extended with a wire strop and equivalent hook.

ANCHORAGE: Vessels awaiting the Mooring Master should anchor in a position from the platform at least 2.5 nautical miles in a N.E.'ly direction. Depth of anchorage area range from 15 fathoms to 16 fathoms. Holding ground is fairly good.

Un-nominated Vessels: Tankers arriving at the terminal un-nominated, that is, not yet formally programmed to load at Brass River for that current month or vessels standing-by awaiting instructions from Owners/Charterers or under-going repairs are advised to anchor outside the terminal operational waters as given in "Port Limits".

RESTRICTIONS: Berthing during daylight hours only.

HEALTH: Masters are advised, for avoidance of delays, to have valid cholera and yellow fever papers before departure last port of call. However, medical and health requirements are to be included in notices of ETA transmitted to Agents. Such information is also to be confirmed by VHF Radio immediately on arrival to the port.

RADIO: VHF radio listening watch on Channel 16 and 14 in use 24 hours a day. Arriving vessels should call Brass Terminal on Channel 14 to advise Notice of Readiness, etc., and should keep a listening watch for berthing instructions. Terminal communications are enhanced with additional frequencies for loading and terminal operations.

Cablegrammes: Cables to Brass Terminal may be sent to LAGOS RADIO and addressed to AGIPOIL LAGOS and "GAC LOS NG".

Acceptance Procedures: The following vessels are not permitted to enter Nigerian territorial waters:

(a) Any vessel which is owned directly or through subsidiaries or chartered or managed by companies or persons in Israel, or is registered in Israel.

(b) Any vessel which has called at a port in Israel during a period of 6 weeks immediately proceeding her arrival off any of the Nigerian Terminals (a port call includes the calling off or near a port for the purpose of receiving services from the shore by helicopter or launch boat).

(c) Any vessel which has as officers, crew, passengers or supernumeries who are nationals or residents of Israel.

All vessels must give the Company at least 5 days' notice of arrival at Brass; this ETA to be updated 72, 48 and 24 hours prior to arrival by cablegramme sent via Lagos Radio and addressed to: AGIPOIL LAGOS and "GAC LOS NG".

The messages should specify cargo requirement, ANSI diameter of flanges used for loading connections, safe working load of port derrick, advise whether a Smit's towing bracket is available, last port of call and final (discharging) port, sickness on board if any.

Vessels should contact the Brass Marine Office by VHF as soon as possible.

Upon arrival of vessel off the Terminal, Government Authorities shall check to ensure that the above mentioned provisions, set in points (a), (b) and (c), have been adhered to. Any infringement of said provisions may have serious consequences for the Master, Owner or Charterer of the vessel.

Shipping Agents: Agents with offices in Brass are Gulf Agency and Elder Dempster. Gulf Agency office is situated within the Terminal and acts upon its behalf. Both have VHF capacity.

BERTHING:

Mooring: *Fore:* Each single buoy mooring is equipped with a mooring line system. The chaffing chain is fitted at the inboard end with a large open link able to accept either a Smit Bracket or to connect to emergency wire strops of 7.5 in. circumference. A 12 in. messenger is attached to the chaffing chain.

Aft: Whilst berthed, mooring rope must be ready on the poop deck so that the mooring launch (line boat) may in the event of the vessel riding up on the SBM make fast and tow to realign vessel. Whilst berthed at an SBM a security watch must be kept on the forecastle head by member(s) of the ship's crew throughout the hours of darkness to raise the alarm and advise the Berthing Master on the approach of any local small craft.

Instances have occurred at Nigerian offshore Terminals where a nylon mooring rope has been cut and stolen with the vessel in the berth.

LOADING: The line boat will tow the end of the floating hoses to the point below the tanker's port cargo manifold. The safe working load of the tanker's port derrick should be at least 7 tons.

Loading Operations can commence only after the Loading Permit is issued by the Custom Authorities and NNPC Inspectorate.

Ships are requested to load cargo as rapidly as possible by day and night in accordance with the terms of their Charter Party.

Ships are expected and nominations of vessels are accepted by NAOC on the understanding that ships will be able to accept a bulk loading rate per hour of not less than 10% of the Summer d.w.t. of the vessel or at the optimum terminal loading rate, whichever is lower.

It is extremely dangerous to close ship's valves against the oil stream as such operation may create excessive pressure in terminal piping and hoses.

Should damage result from failure to observe this precaution the Master of the vessel will be held responsible.

During the loading operations the following signals shall be displayed:

International Code Flag "B" during daylight. By night a red light, visible all round the horizon at a distance of at least 2 miles.

Brass Blend crude oil loading temperature is reasonably constant as well as API gravity at approximately:

Brass Blend 85°F 43.00 API R.V.P. 10.00 (approx.)

The approximate loading rate is 5,000 t.p.h.

Also see "General" before first port.

POLLUTION: Pollution of rivers and beaches by oil is a serious matter. The Mooring Master shall inspect tanker's ballast so that there will be no chance of even a small amount of pollution when the ballast is pumped out, thereby lessening any possibility of infringement of the pollution restrictions envisaged by Nigerian law.

Pollution of the sea by dirty ballast, bilge discharge or any other means will result in heavy fines or in severe cases, imprisonment.

Port Authority Inspector will board prior to loading and remains on board throughout loading.

MEDICAL: Although medical assistance is normally not available locally, Agency will provide medical assistance to the tankers' personnel when required in advance. In case of emergency the Terminal medical facilities will be at tanker's disposal.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: There are no facilities available in the Terminal for vessel repairs. However, in case of necessity contact Agent.

REPATRIATION: Permitted only in cases of emergency and only if the person concerned holds the necessary documents, i.e. Yellow Fever Certificates.

MAIL: Ship's mail and personal mail will be handed through vessel's Agent.

SAFETY:

Smoking, lighters, matches: Smoking is prohibited on board during loading operations except those areas in the accommodation jointly agreed to by the Master and the Terminal Representative. Personnel on board the vessel other than in the accepted areas, must not carry lighters or matches. Two proper closing doors must be in the closed position between approved smoking rooms and ship's exterior deck.

Portable equipment: Any electrical equipment which is not wholly within an approved explosion proof container, an approved air pressurised container or any equipment which is not intrinsically safe, must be disconnected from the power supply.

Hand Torches: Only those hand torches provided with a Certificate of Approval delivered by a recognised authority are allowed.

Radio transmitters, radar: The main transmitting aerials must be grounded. VHF apparatus are allowed provided their output power is not higher than one watt.

Portable radio transmitter must be of approved type for safe operation in flammable gas areas.

Radar must be switched off.

Doors and portholes: Amidship doors and portholes are to be kept closed during loading operations except for entering or leaving accommodation.

Doors and portholes on the fore-end of the after accommodation must be kept closed.

Access to the after accommodation may be from the stern or from the side doors.

Air conditioning: Central air-conditioning is allowed but air intakes must be shut off and full circulation must be adopted.

All window type coolers must be disconnected unless the units are safe to operate in flammable gas areas (as certified by a recognised authority).

Ventilators: Should any doubt arise that flammable gases may enter the area, ventilators must be completely closed.

Galley: Gas, oil or coal fires are prohibited. Only approved flame-proof electrical equipment or steam heated galleys are permitted.

Lights: During loading operations vapour-proof electric lights only are allowed.

Moored vessels discharging ballast or loading cargo during period of darkness will brilliantly illuminate the sea around the ship so that any pollution can be readily observed.

Cargo and unused connections: A deck officer is also requested to inspect cargo connections and hoses to ensure that they are in good condition.

All unused connections must be blanked.

Cargo tanks: All tank lids are to be kept closed. The method of venting requested by the terminal is the closed system.

Should the vessel not be equipped with a closed loading system, ullage tank openings may be opened only for sufficient time to check ullages and use sampling equipment, etc., and at all other times, such openings shall be protected with flame arresters.

Crude oil samples must not be taken into accommodation spaces.

Main engines: The ship's engines must remain ready for immediate use in case of emergency. Therefore no engine repairs or overhauling are allowed.

Boilers: Blowing of boiler tubes is forbidden whilst moored.

Vessel maintenance: During the time a vessel is moored at Brass Terminal, use of tools which may cause sparks or fire is forbidden in dangerous areas.

Fire fighting: The Master of the vessel must keep a continuous fire watch during loading operations. All fire equipment must remain ready for immediate use. All firefighting equipment should be equivalent to ISGOTT and MARPOL requirements.

Unsafe operations: The Master of the vessel will remain solely responsible for damage of any sort that may occur and which is due in whole or in part to infringement of aforesaid safety regulations.

Lifebuoys: Lifebuoys should be available in loading manifold area and at the entry and exit from ship, e.g. at the pilot ladder.

Scuppers: All scuppers must be plugged with leak-proof plugs, and remain plugged until all hoses are disconnected.

WEATHER: *Climate:* The weather is generally fine from November to April, but it is unfavourable during the remaining period of the year owing to the high humidity degree. The temperature varies comparatively little from 70° F to 100° F and averages over 80° F.

Winds: Most winds are from South-Westerly direction with a normal speed range 5 to 18 knots.

Tides: The tidal mean range is 4.6 ft. Main values (referred to chart datum) are as follows:

Mean LW spring level	0.2 ft.
Mean HW spring level	6.1 ft.
Lowest LW level	−0.6 ft.
Highest HW level	7.1 ft.

Currents: Maximum total strength of the current is up to 3 knots.

Direction: North-North Westerly for approximately 75% of the year, South-South Easterly for the remainder. The currents often reverse direction very quickly, especially following strong rain squalls, causing the tanker to swing heavily at the buoy.

SHORE LEAVE: Crew members cannot leave the vessel at Brass except in cases of emergency.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

CURRENCY: Naira. U.S.$ 1.00 = 85.00 Naira (February 1996).

SHIPMASTER'S REPORT: 1976.

Documents:

1 Maritime Declaration of Health.
2 Vaccinations Lists.
6 Crew Lists.
4 Passengers Lists.
2 Stores Lists.
2 Personal Effects Lists.
4 Arms and Ammunitions Declarations.
4 Lists of Animals and Birds.
4 Lists of Ports of Call (last 6 weeks).
Clearance from last port.

Approaches: Coast line is well defined on high definition radar at a distance of 12 miles to 15 miles and sounding machine will assist efficiently while approaching.

Terminal consists of a central platform showing 2 flashing lights (one red and one white) – letter "U".

Two SBMs: No. 1 situated 1 mile East of the platform is equipped with a Racon (letter "A"). No. 2 situated 1 mile West of the platform.

Pilotage: Berthing Master will board the vessel 2.5 miles North East of the platform. Contact "Brass Terminal" on VHF Channel 16 for berthing instructions and immediately on anchoring to ensure that vessel's arrival is recorded.

Anchorage: 2.5 miles N.E. of the platform.

Restrictions: Vessels berth in daylight hours only.

Max. Size: About 250,000 d.w.t.

Pratique: Agent, Health and Customs Officers board at same time as Berthing Master.

Radio: ETA to be given via Lagos Radio, 120, 72, 48 and 24 hours before arrival at the Terminal anchorage.
Tugs: None available.
Berthing: Effected under the guidance of Berthing Master assisted by a party of 4 Nigerian people and ship's crew.

Whilst berthed a mooring rope must be ready on the poop deck so that the mooring launch, in the event of the vessel riding up on the SBM, may make fast and tow to realign the vessel.

Each SBM is fitted with 2 nylon mooring ropes connected on a single chain and two hose strings with 16 in. end hoses. Position of hose connection: amidships port side. Vessel should endeavour to present on arrival 2×16 in. connections on port side. A derrick of 7 to 10 tons SWL with a suitable hook must be rigged ready on port side.
Medical: No facilities but assistance may be given on an emergency basis.
Density: About 1025.
Fresh Water: Not available.
Fuel: Not available.
Repatriation: No crew changes possible.
Shore Leave: Not permitted.
General: Crude oil handled is: Light Nigerian Crude API=44.0. Temperature about sea temperature, R.V.P.=10.5. Two of the four Nigerian crew stay on the forecastle head and maintain security watch throughout loading operations. Accommodation must be provided for Berthing Master and 2 men. Accommodation ladder is not required. Pilot ladder or pilot hoist are more suitable because of the swell. Immobilisation of engine is not permitted at SBMs.

Early Departure Procedure: Masters are required to sign all documents in blank. On completion of loading, seals are controlled by customs officer and Agents complete Master's and Consignee's copies of documents whilst ship is disconnecting and leaving berth.

SHIPMASTER'S REPORT: May 1980.
Documents: 5 each of Passengers or Nil passengers, Nil stowaways, Nil distressed seamen, Nil birds and animals, Narcotics List, Ports of Call, Clearance Last Port and 3 copies Deviation Cable.
Customs: All lengths of cloth to be placed under seal.

SHIPMASTER'S REPORT: July 1995.
Berth: SBM No. 2.
Operations: Loading.
Cargo: Crude.
Connection: Hoses.
General: Cargo loading rate consistent, but less than 5,000 t.p.h. Only one securing chain used to SBM, but considered sufficient. One floating loading hose of two has a badly damaged outer (buoyancy) layer. Work on hoses however appears to be progressing, as the second floating loading hose is as new in its entirety.

AUTHORITY: *Operator:* Nigerian AGIP Oil Co. Ltd. Head Office, P.O.Box 1268, Lagos, Nigeria. *Tel:* 600880/9 (10 lines) *Cables:* Agipoil – Lagos. *Telex:* 21268. *Contact:* Captain F. Astarita, Marine Superintendent.

District: New Base, Mile 4 – Port Harcourt, P.O.Box 923. *Tel:* 300400/20 (21 lines). *Cables:* Agipoil – Port Harcourt.

Base: Enerhen Road, P.O.Box 334, Warri. *Tel:* 231403. *Cables:* Agip Oil – Warri.

AGENT: Alraine (Nigeria) Ltd., 26 Creek Road, Apapa. P.O.Box 265, Apapa and P.O.Box 2206, Lagos. Tel: 234 1 877 580/873887. Fax: 234 1 874 542. Telex 21244 and 22330. Cables: "Freight Lagos".

BURUTU: 05.21 N. 05.31 E. (See Plan)

No commercial vessels are today using the Port of Burutu. Future developments include the construction of a major ship repair facility with graving dock, capacity 150,000 d.w.t.
PILOTAGE: To obtain a pilot, call "Niger Line Burutu" on VHF Channel 16.

Also see "General" – "Pilotage" before first port.

CALABAR: (See Plan)

Old Port: 04.58 N. 08.17 E.
New Port: 05.04 N. 08.16 E.

LOCATION: New Calabar Port (Lat. 05° 04' N., Long. 08° 17' E.) is situated about 84 km. from the Fairway Buoy in Calabar River going through a well marked channel by 58 buoys (IALA System). The channel is dredged to 8.0 m. chart datum with 150 m. width. Old Port is 74 km. from Fairway Buoy.
DOCUMENTS:
Nigerian Ports PLC:
7 copies Manifest.
1 copy SEN (Ship Entry Notice).
Agent to pay in advance for ship.
Clearing Agent to pay wharfage and wharfinger.
4 copies Stowage Plans.
4 copies Hatch Lists.
3 copies Hazardous Cargo Lists.
4 copies Container Lists.
8 copies Master's Declarations. (4 inward, 4 outward)
5 copies Passenger Lists.
Customs:
2 copies Crew Lists.
2 copies Stores Lists.
List of Ports of Call.
1 copy Animals List.
1 copy Arms and Ammunition List.
1 copy Passenger List.
1 copy Crew Personnel Effects List.
Quarantine:
2 copies Crew List.
1 copies Inoculation List.
2 copies Derat Certificates.
1 copy Clearance from Last Port of Call.
1 copy Stores List.
2 copies Vaccination Certificates.
PILOTAGE: Compulsory pilotage from anchorage area which is between Buoys No. 24 and 25 (near Parrot Island). Ship calls Calabar Port Control on VHF Channel 16 asking for advice from 0600 – 1800 hrs. Ship will be advised when the Pilot will board her, normally it takes about 1.5 hours for the Pilot to reach the ship. There is a pilot cutter flying "H" flag. The vessel is normally allowed to enter after the Agent books a Pilot, and dues are paid,.
ANCHORAGES: The area between Buoys No. 24 and 25 is a good area for anchorage. The depth is 8 m., with 3 – 4 shackles the ship holds well. There is a deeper area called "Parrot Deep" with depth 11.0 m. at C.D.
RESTRICTIONS: When a vessel arrives at the Fairway Buoy Lat. 04° 18' 31.7" N., Long. 08° 14' 51.3" E., which can be passed on either side, the vessel can call "Calabar Port Control" or "Harbour Master's Office" on VHF Channel 16 and if no contact made, vessel may proceed to Parrot Island. No night navigation in channel.
MAX. SIZE: Max. LOA 170 m. and draft 7.6 m.
RADIO/VHF: No radio service in Calabar at present. "Port Control" operates from 0600 – 1800 hrs. on VHF Channel 16. Steps are in hand to extend the service for 24 hours. S.S.B. 2182 kHz. also available.
RADAR: No radar service.
TUGS: 4 small tugs of 240 h.p. 1 manoeuvring tug of 2,400 h.p. Ship's lines to be used if towing, at a charge.
STEVEDORES: Supplied on request of Agent round the clock if required.
MEDICAL: Port Authority clinic and Government Hospitals. Swiss Air Ambulance also available for repatriation.
BERTHING: Old Port:
Ashland Oil Co. – Mellerio Wharf (Private): Length 51 m., max. draft 8 m. Can accommodate vessels up to 150 m. LOA.
Ashland Oil Co. – Jackson Wharf (Private): Length 27 m., max. depth 8 m. Can accommodate vessels up to 100 m. LOA.
Calcemco Wharf (Private): Jetty 75 m. but the depth is affected at the moment, and draft is restricted to 4 m. Can accommodate vessels up to 160 m. LOA.
MacIver Jetty (Private): 55 m. long, max. draft 5.5 m. Used by lighters.
New Port: Length of berth 860 m., can accommodate 4 – 5 vessels of 150 m. LOA with a depth alongside of 9 m. Distance between bollards 30 m.
Pool: 11 mooring buoys can accommodate 10 vessels, length between buoys varies from 220 m. to 130 m.
CARGO FACILITIES: 3 transit sheds, each 175 m. long by 40 m. wide. 2 warehouses of the same dimensions, fire station, fully equipped with up-to-date fire fighting appliances.
Cargo Equipment: 19 forklift trucks, 3 – 6 tons capacity. 6 mobile cranes, 25 tons capacity. 20 trailers of 40 – 60 tons capacity. 6 Mafi tractors. 3 freight lifters of 25 tonnes and 6 freight lifters of 13 tonnes. 6 Portal cranes 10 – 25 tons capacity. 2 tower cranes 36 tons capacity.

Modern Gear Store with new cargo handling gear including spreaders and wires for 20 ft. containers plus lorry and lifting gear. (Note: Shipping Companies should provide their own gear for heavy lifts and 40 ft. containers).
Barges and Pontoons: There are a number of barges and pontoons for seaward-side or mid-stream discharge – tonnages vary between 60 tons and 500 tons.
Container Areas:

A.	Pack I	5,500 sq.m.
B.	Pack II	4,000 sq.m.
C.	Pack III	4,000 sq.m. for empty containers only.

FRESH WATER: Can be supplied in the New Harbour. (2 water tanks, 2,400 litres each).
FUEL: Diesel oil can be supplied by motor tankers (30 tons each).
REPAIRS: Deck and engine repairs can be carried out. Under water repairs can be carried out on vessels not exceeding the following dimensions: Length 62.5 m., breadth 12.5 m. and draft 1.5 m.
DRY DOCKS: Graving dock available. Size: Length 62.5 m., breadth 12.5 m., draft 1.5 m.
Slipway: Capable of taking vessels up to 25 tons.
SURVEYORS: Lloyd's and Bureau Veritas are available.
WATCHMEN: Security men are compulsory and supplied by the Agent.
OPENING/CLOSING HATCHES: By crew.
REPATRIATION: A good air link from Calabar International Airport to different places in the world via Lagos, Douala and Libreville.
POLICE/AMBULANCE/FIRE: Ambulance: Contact Harbour Master. Fire: Port Fire Service operates on VHF Channel 14. Port Fire Officer Tel: 221573 (Office). Police: Tel: 221575 Office, 223196 House.
CUSTOMS ALLOWANCES: See "Lagos".
SHORE LEAVE: See "Lagos".
IDENTIFICATION CARDS: See "Lagos".
GARBAGE DISPOSAL:
(a) The Nigerian Ports PLC at Calabar provides garbage disposal facilities to vessels at the new port. Ship's Agents apply for such services on application forms.
(b) Collection of these services is solely by the Authority, and charges not fixed, and vary on mode of supply and regularity.

WASTE OIL DISPOSAL: No facilities available.
SEAMAN'S CLUBS: The Seaman's Club is in the making and being handled by "Port Working Committee". However, in the meantime, the Port Authority provides clubs facilities, such as recreational games, drinks and swimming pool, at their Harbour Village for seafarers, a distance of about 4 km. from the new port.
CURRENCY: The local currency rate of exchange against U.S.Dollar fluctuates daily at an alarming rate. There is no restriction whatsoever on exchange, and all major currencies are exchangeable.
DEVELOPMENTS: Steps in hand to bring the depth to 9 m. chart datum and to widen the channel.

SHIPMASTER'S REPORT: October 1986. (Updated 1994).
Re: "Buoyage System at Calabar River".

1. For a Vessel approaching Calabar Fairway from South it is very difficult to distinguish the Fairway Buoy at night, because of the density of oil platforms and pipes and also their dense illumination. On the other hand, for vessels approaching from Westwards (their draft permitting), it is easier sailing between the shoreline and the platforms determining their position by land and on their arrival at Fairway Buoy having a fix with the West Point. The Fairway Buoy lies near and S.E. of a platform the position of which is: Lat. 04° 21.70' N., Long. 08° 14.80' E.

Position of the Fairway Buoy: Lat. 04° 20.70' N., Long. 08° 15.30' E.

2. Because of the strong tidal currents prevailing in the area of the river's estuary, the lateral buoys constantly drift, and as a result of this, their charted positions are not to be relied upon and some of them do not even exist. (In March 1990, No. 11 Buoy was missing). Note: All channel buoys (total 54) being laid in April 1992.

3. The positions of the following buoys were altered as follows:
No. 6. Red. In position: Lat. 04° 27.38' N., Long. 08° 20.82' E.
No. 7. Green. In position: Lat. 04° 27.40' N., Long. 08° 20.63' E.
No. 13. Constantly drifts between the positions: Lat. 04° 32.17' N., Long. 08° 23.18' E. and Lat. 04° 32.27' N., Long. 08° 23.08' E. (Missing in March 1990). Note: In position April 1992.
No. 16. Red. In approx. position Lat. 04° 37.61' N., Long. 08° 22.35' E. (Missing in March 1990). Note: In position April 1992.
No. 17. In position.

4. The following buoys were found in their correct positions:
No. 18 Red. Lat. 04° 40.45' N., Long. 08° 21.75' E.
No. 19A Green. Lat. 04° 40.55' N., Long. 08° 21.90' E. (Missing in March 1990). Note: In position April 1992.
No. 19 Green. Lat. 04° 41.92' N., Long. 08° 21.32' E.
No. 20 Red. Lat. 04° 41.85' N., Long. 08° 21.20' E.
No. 21 Green. Lat. 04° 43.90' N., Long. 08° 20.55' E.
No. 22 Red. Lat. 04° 44.70' N., Long. 08° 20.11' E.

From Buoy No. 22 to Parrot Island the channel buoys are in their positions.

5. During the navigation from No. 19 buoy all the way through to Parrot Island anchorage, extreme caution is needed because of the floating tree trunks drifting outwards and inwards in the river following the current, of which only a small part is distinguishable above water.

6. Because of the doubtful positions of the buoys the safest way to navigate is determining the vessels' position by the river banks' line as shown on the radar. The following points are characteristically conspicuous on the radar screen especially with HW, all of them lying on the port side for inbound vessels:

1. West Point.
2. Okposo.
3. Tom Shot Point.
4. The edge of Red Cliff.
5. Jackdaw Point.
6. Sandy Point (on the starboard side).

AUTHORITY: Nigerian Ports PLC, P.M.B. 1014, Calabar, Cross River State, Nigeria.

Managed By: Port Manager *Tel:* 221179, 222429, 225111-5 Office; 223124 House. Traffic Manager Tel: 220189 Office; 221570 House. Chief Port Harbour Master Tel: 221562 Office; 222968 House. Pilot Office Tel: 225444 House. Calabar Exchange Code 087. *Telex:* Calport 65170. *Cables:* Genports, Calabar.
AGENT: Intertrans (Nigeria) Ltd. P.O.Box 10, Calabar. Tel: 087-222-554, 087-223-915. Telex: Via Lagos 21244. Attn: Calabar.

DEGEMA (Including Abonnema): 04.44 N. 06.46 E.

LOCATION: Degema and Abonnema are very close to each other on the Sonbreiro River and are divided by a Creek through which launches and small craft sail to Port Harcourt.
PILOTAGE: Compulsory through Boler Creek. Pilots embark at Bonny.
BERTHING: The ports are approached from Bonny via Boler Creek, which has a depth of 4.88 m. at HW. Anchorages for 3 vessels in harbour to load/discharge, max. draft 16 ft. (limited by depth of Boler Creek). Cargo is handled by lighters.

Bulk Oil Plants of Nigeria Ltd. operate a berth for the loading of bulk palm oil onto main line vessels.
AUTHORITY: Harbour Master, Port Harcourt.

ESCRAVOS: 05.30 N. 05.00 E. (See Plan)

DOCUMENTS:
8 Crew Lists.
7 Passenger or "Nil" Passenger Lists.
7 Animal Lists.
5 Narcotics Lists.
5 Arms and Ammunition Lists.
4 Stores Lists.
4 Crew Declaration Lists.
Documents concerning cargo if any aboard.

Following paper's, required by the terminal operating company, Chevron Nigeria Ltd., will be supplied by the Mooring Master:

The Master of tankers calling for the first time at Escravos will be supplied with the terminal information booklet.

The Master is requested to sign the "Conditions of Entry and Use of Escravos Terminal, Nigeria" and the "Safety Requirements" forms prior to start of berthing.

Before the loading operations are commenced, the Master must also sign two letters concerning the loading and stoppage of cargo procedured.

Other papers to be filled up and signed by the Master are:
Ship's Reports.
Master's Declaration.

At completion of loading, only in event of cargo ship/shore difference over ± 0.5%, the Master will be required to sign the "Certificate of Undertaking".
PILOTAGE: Compulsory. Boarding area is in a position approximately 3 miles W.N.W. of the Berth Operations Platform. Also see "General" and "General" – "Pilotage" before first port.
NAVIGATION AIDS: *Berth Operations Platform:* This is a conspicuous steel structure 85 ft. high (Position 05° 30' 32" N., 05° 00' 19.5" E.), between the berth and the shore. On top of this structure is a heliport, which at night is surrounded by red lights. In the event of a power failure a green intermittent light will be shown from one corner of the seaward side of the platform.

A RACON reflector is mounted on this platform for easy identification of the Chevron sea loading area. Radar transmission from the incoming vessel triggers the RACON Unit which responds with the Morse Code letter "G" (– – ·), followed by a solid tail. This signal is observed visually on the ship's radar screen and appears very close to the point where the radar echo of the berth operations platform itself should appear.

The racon is, however, most of time out of service. An RDF, located at the local airport for air traffic purpose, can be useful for Escravos Terminal approach in poor visibility conditions. Such RDF, working on 305 kHz frequency with ES (. ...)signal, is of limited power, being not an official navigational aid, and can be detected at a distance of about 30 miles.

Berth No. 2 – SBM: Light: White. Light 6.0 secs., Eclipse 4.0 secs. Range 5 miles. Radar Reflector.

Foghorn: Electric air oscillator. Range 0.5 miles, letter "U" every minute.

Berth No. 3 – SBM: Light: White. Light Fl. 10 secs. Range 4.5 miles. Radar Reflector.

Foghorn: Range 2 miles, letter "U" every minute.

Charts: B.A. 1862 and B.A. 3304.
ANCHORAGE: Vessels required to anchor on arrival will anchor in position approx. 3 miles W.N.W. of the Berth Operations Platform, i.e. in a position Lat. 05° 31' 00" N., Long. 04° 57' 30" E., or as otherwise instructed.

On approaching the terminal, VHF contact can be established with the Mooring Master on Channel 10, and the vessel will be advised of which berth has been nominated for her cargo. At the same time, the vessel will be advised where the Mooring Master will board. In cases where VHF contact is not made, the vessels will remain in the anchorage area until such time as contact is made by radio or the pilot boat. Vessels are advised to anchor only in the stated area due to the existence of submarine pipelines in other areas.

Mooring Master's office is presently equipped with Channels 10 and 16 for communications with the incoming tankers, but it is expected that in the future a marine set with all the VHF channels will be installed.

Anchorage is forbidden in the mooring area.
RESTRICTIONS: Mooring and unmooring operations will be undertaken by day and by night under normal weather conditions.

Notice of Readiness will be accepted by the Company representative on boarding, providing that the ship is in all respects ready to load.
MAX. SIZE: The Escravos Terminal consists of two Single Buoy Mooring Berths No. 2 and 3 only, the conventional Sea Berth (Berth No. 1) having now been de-commissioned.

The location of the Sea Terminal Berth No. 2 (SBM) for vessels up to 300,000 d.w.t. is off the North of the Escravos River in a position Lat. 5° 30' 37" N., Long. 4° 59' 25" E., and has a minimum depth of water of 65 ft. at LWS.

Berth No. 3 (SBM) is situated 4.25 miles W.S.W. of No. 2 berth in a position Lat. 5° 29' 29" N., Long. 4° 55' 54" E., and will accommodate vessels up to 300,000 d.w.t. in a minimum depth of 100 ft. at LWS on a year round basis.
RADIO: Vessels bound for Escravos must advise their ETA to Chevron, Lagos, 72 hours and 24 hours before arrival – the message to contain the vessel's name, ETA, Master's name. A 24 hour watch is maintained on VHF Channel 10, and ships are usually able to make contact on this Channel at a distance of 20 miles to 40 miles on the seaward side of the Berth Operations Platform. Channels 10 and 10A used for internal traffic and ship berthing operations. Also see "Anchorage".

Incoming vessels may be advised by the Mooring Master to keep outside Nigerian territorial waters where no official nomination or clearance has yet been received by the terminal. In such cases, the vessel is required to monitor continuously VHF Channel 10 and await permission to proceed to the anchorage.

HEALTH: Arriving vessels will be required to supply information for dispatch in the Inward Pratique to the local government agencies, such information (i.e. name of vessel, nationality, Summer d.w.t., arrival time, last port of call, next port of call, owner's name and address, quantity of cargo required, destination of cargo, crew nationality, home port, Master's name, Certificate of Registry, bunkers on arrival, draft on arrival, cargo on board) should be at hand on the bridge and passed by VHF Channel 10 at the Mooring Master's request.

MOORING: Before arrival at the pilot boarding area, it will be necessary to ensure that the following moorings are ready for use on arrival at the berths:

Forward: 200 m. × 25 mm. diameter messenger on forecastle.

When the vessel is within reasonable distance of the SBM, the ship's messenger rope will be attached to the terminal messenger rope and heaved aboard. As the buoy rope comes clear of the water it will be noted that a chain is attached to it. This chain is to be secured to a bow stopper. The chain is to be secured in such a manner that the mooring rope is outside of the extreme length of the vessel; i.e. so that the chain will absorb any chafing if the buoy line crosses the bow.

Because of the mooring chain weight, incoming vessels are requested to particularly check the efficiency of their bow winches.

Power must be available at all times on deck winches and windlass while vessel is at the berth.

Aft: A tug is made fast at the stern at all times, using the tug's wire. The vessel should have a messenger rope ready for connection.

There are no special arrangements for unmooring.

MEDICAL: Not available except in an emergency.

CARGO: Nigerian Light Crude - API 36.5° approx. Temperature 90°F. (fairly steady throughout the year).

HOSES: Lifting, connecting, disconnecting, lowering and other handling of hoses will be performed by the ship's crew, as advised by the Company representative, and the Company will provide a pipeline gang to assist the ship's crew. At all times a deck officer must be in attendance.

Port derrick must be rigged and ready for use on arrival and vessels are cautioned that the weight of each hose is at least 7 tons under favourable conditions. In any case, members of the ship's crew will be required to operate the winch or winches.

Particular care should be taken during the hose handling operations in order to avoid serious damage to the hoses, on the plate edges, rails, etc. The cargo hoses are fitted with fully bolted flanges and blank flanges. As no equipment will be supplied from the shore; it is essential that all vessels nominated for this port have an adequate supply of gaskets, nuts, bolts, spanners, tools, etc., in the standard sizes. Failure to have these items will lead to delay in berthing and could even lead to a situation where the vessel may no longer be accepted by the terminal. Such delays would be for the ship's account.

Before hose handling operations begin, materials must be near the manifold and remain near the manifold to cope with any escape of oil, i.e. drip trays, sand, detergent, etc., and must in the event of a spill be utilised as rapidly as possible.

Berth No. 2: Loading is through an SBM which is approx. 40 ft. in diameter and held in position by 8 chains secured with anchors. 1×24 in. floating hose is secured to buoy and has 2×16 in. tail pieces attached to it.

Berth No. 3: Same as No. 2 but with piles sunk into the seabed. There is 1×24 in. floating hose with 2×16 in. tail pieces.

There are 2 SBM Berths only at this terminal – the conventional berth (No. 1) has been de-commissioned. The max. loading rate is 30,000 b.p.h. (approximately 4,000 t.p.h.).

LOADING/BALLAST: All vessels must arrive with only clean or segregated ballast as there is no ballast reception facilities.

"Load on top" is accepted, and vessels are requested to arrive with the slops settled. A minimum 30% Summer d.w.t. is to be maintained by all vessels, while manoeuvering or moored at the terminal, either by simultaneous deballasting and loading, or by loading part cargo first, stopping the operation for deballasting and completing cargo.

The Nigerian Government has very strong views on pollution and vessels are warned that a very careful watch is kept at all times to ensure that pollution does not take place, or that if pollution should occur it is controlled as quickly as possible.

An Oil Pollution Monitoring Inspector is assigned to each vessel on behalf of Nigerian Ports PLC.

The vessel must maintain sufficient forward draft to ensure that the cargo hose cannot become trapped under the forefoot.

During the hours of darkness it is requested that searchlights from bridge wings and approved floodlights be used to illuminate the surrounding water to facilitate detection of oil and assist generally in loading operations. Vessels are advised that failure to supply sufficient lighting could result in cargo operations not being allowed during the hours of darkness. Such delay would be for the ship's accounts.

After the ballast tanks have been inspected and found to be satisfactory, deballasting will commence on the advice of the Cargo Surveyor. When all the ballast has been discharged, the tanks will again be inspected. In any case, cargo will be loaded when both ship and shore are ready to commence operations. In no circumstances will the vessel be expected to load at a faster rate than that requested by the Master. It is the ship's responsibility to check that the requested loading rate is not being exceeded. The Company for their part will make every effort to maintain the requested rate and will advise of any alteration of loading rate immediately; prior warning being given if circumstances permit.

Throughout the deballasting and cargo operations, a deck officer must be on deck with sufficient crew members to safely handle the operation. Company representatives will be on board throughout to co-ordinate terminal and marine operations and will be in constant communication with the terminal by portable and/or ship's VHF sets. Before loading commences the amount of cargo required must be given to the Company Representative in writing and the Terminal will, in conjunction with the vessel, arrange to stop the flow of cargo at this predetermined figure. *THERE ARE NO FACILITIES AVAILABLE TO DISCHARGE EXCESS CARGO SHOULD THE VESSEL OVERLOAD.*

When requesting the tonnage required in writing, a statement should be included, and will be deemed to include, that Chevron Nigeria Limited will not be held responsible for any errors or any costs or claims arising directly or indirectly from such errors. Such statement is a condition of loading. It is recommended that frequent checks are made on the loading speed and the quantities received and required so that, if possible, adjustments can be made.

The Company Representative will advise on the detailed procedure for shutting down and disconnecting, but briefly, after cargo is completed and oil has ceased to flow, loading valves on the shore and Berth Operation Platform (BOP) will be closed. Then and not before, the vessel's manifold valves may be closed.

Do not close ship's valves against incoming oil as such procedure creates excessive pressure which may damage hoses, terminal facilities, or ship's piping. Vessels will be held liable for damages resulting from failure to observe this precaution. In addition to the above, serious pollution could result which will involve the vessel in further claims and/or fines. Therefore, for the sake and safety of all parties concerned, please use the utmost care and vigilance when loading at this terminal.

Figures taken after completion will be passed to the shore by VHF and a ship/shore difference obtained. Full sets of cargo papers will be prepared and delivered to the Master as speedily as possible. However the briefer form of documentation can be used, but only with Master's acceptance, the remainder of the documents will be forwarded by airmail. At the same time the Company will arrange clearance for the vessel. Loading signal to be displayed is the International Code flag "B" from a conspicuous halyard during the hours of daylight. During the hours of darkness a red light visible all around the horizon at a distance of at least one mile is to be exhibited.

REPAIRS: No facilities of any kind are available at this port.

Under no circumstances are engine repairs or the immobilisation of main engines permitted within the port limits.

REPATRIATION: Not permitted except in grave emergency and then only if the person concerned holds all the necessary valid certificates and documents, e.g. valid Cholera and Yellow Fever Certificates.

WEATHER AND CURRENTS: Wind and swell are mostly from a South-westerly direction. The weather is generally good from November to May, but is unfavourable during the wet season, i.e. May to November. For approximately 75% of the year the current sets in a N.N.W. direction and for the remainder of the year it is reversed, i.e. S.S.E. The strength of the current varies from 0.5 to 1.5 knots, and the currents frequently reverse direction very quickly causing the vessel to yaw (swing) heavily at the berth.

FRESH WATER: Not available.

FUEL: Available. A fuel barge from Warri can go alongside vessels whilst still at anchor.

STORES: Stores are not available at this Terminal and urgent spares/equipment forwarded by air can take up to 3 weeks to clear formalities. In view of this it is essential that Chevron be advised of the airwaybill number at the earliest opportunity to avoid further delays.

NATIONAL FLAG: Available from the Company.

TIME: Local time is GMT plus one hour throughout the year.

SHORE LEAVE: In view of the isolated positions of the buoy moorings (approx. 15 and 19 miles from shore) Masters are strongly advised not to grant shore leave. The weather and swell conditions could result in persons being injured either embarking or disembarking from the vessel, and in addition the boat journey will take approx. 2.0 – 2.5 hours. Should the weather deteriorate, it could mean delay to the vessel as outward clearance would not be granted until all the crew were on board the vessel. As the terminal does not own any suitable boats, it would be necessary for the vessel to charter one for shore leave purposes.

In view of the foregoing, the terminal does not recommend shore leave being granted.

GARBAGE DISPOSAL: No facilities.

WASTE OIL DISPOSAL: No facilities.

CURRENCY: Naira (N.).

Quantities allowed out of the country limited to Naira 50.00 plus U.S.$ 5,000.00 or the equivalent in foreign currency.

GENERAL: In view of the exposed location of the berths, the Mooring Master, 2 surveyors and pipeline gang will have to remain on board throughout the vessel's stay at the berth and, therefore, it will be necessary for the vessel to arrange food and accommodation for this period. A pipeline gang will usually consist of 3 men, but this number may be varied at the discretion of the Company.

It is assumed that the Mooring Master will be accommodated in the Pilot Room; but where such a room does not exist on board, then accommodation equivalent to a minimum standard required for a Senior Officer is to be provided. In the case of meals, due allowance and provision is to be made for the fact that irregular hours of work by day and night may be involved.

AGENCY: Owners of vessels calling at the terminal must arrange for their own agents. Principle Agents are: Gulf Agency and Shipping Ltd., Lagos, and Elder Dempster Agency, Lagos.

OPERATOR: The Senior Mooring Master – Escravos, c/o Chevron Nigeria Limited, Kilometre 19, Lagos – Epe Expressway, Lekki. Postal address: P.M.B. 12825, Lagos, Nigeria. *Tel:* 2600600, Ext. 3370. *Telex:* 21314. *Cables:* Cogon, Lagos. *FAX:* 2600600, Ext. 4725. Inmarsat: 1772323, 1772324.

FORCADOS (Offshore Terminal): 05.10 N. 05.10 E.
(See Plan)

IMPORTANT NOTICE: Vessels lifting crude oil must comply with restrictions that may be generally imposed by the Government of the Federal Republic of Nigeria on vessels entering Nigerian Waters for any purpose whatsoever.

DOCUMENTS:

	Customs	*Health*	*Agent*
Vaccination List	–	3	–
Maritime Declaration of Health	–	3	–
List of Last Port of Call (6 weeks)	1	5	2
List of Arms and Ammunition	2	–	–
List of Animals and Birds	2	4	2
Crew List	1	4	2
Passenger List	1	4	2
Stowaway List	1	1	1
Stores List	1	–	–
Personal Effects List	1	–	1
Clearance from Last Port of Call	1	–	–
Derat Exemption Certificate (copies).	–	3	3

Vaccination Booklets for all crew to be sighted.

Officials: Vessel will be boarded on arrival by Customs, Immigration, Health and Agents for clearance. These officials will normally board during daylight, but Masters of vessels will be advised if night boarding by officials will be required.

APPROACHES: An efficient sounding machine and a high definition radar will assist in making the terminal for the first time. A heavy cluster of radar echoes from the Escravos area may be recorded on passing the 100-fathom line. On making the 20 fathom line from the West, it is reported that the coastline from North Point to Moore Point and from South Point to Ajamabri shows on the radar screen with good chart comparison.

Once the vessel's position is ascertained and the course for Forcados adopted, the first and most obvious sighting, at night, will be that of the platform, which is marked with numerous fixed lights at several levels. The platform, which also serves as a helicopter platform, is in close proximity to the two SBMs.

PILOTAGE: Berthing Master will board vessel on arrival or at anchorage, and remains on board throughout. Contact Forcados Terminal on VHF Channel 8, and they will advise pilots. Call sign "Forcados Offshore Pilots".

N.B.: Also contact "Forcados Terminal" on Channel 8 immediately on anchoring to ensure that vessel's arrival is recorded and that berthing turn will be in correct sequence.

Arriving tankers are to make a good lee for the embarking Pilot. Boarding facilities such as pilot ladders must not be made of nylon rope.

ANCHORAGES: 3 miles West of or 3 miles N.W. of Production Platform.

Vessels must not proceed inshore from these positions without a Pilot. Vessels should contact "Forcados Terminal" on VHF Channel 8 immediately on anchoring to ensure that vessel's arrival is recorded and that berthing turn will be in correct sequence.

When at anchor, vessel should maintain a constant listening watch on VHF Channel 14, which may not be used for intership exchanges.

Main engine must be ready at short notice.

Note: A 14 mile × 48 in. pipeline extends from the coast at South Point near Forcados to the manifold Platform and thence to the SBMs. Vessels are warned not to anchor in the vicinity of the pipeline.

RESTRICTIONS: Vessels berth at any state of tide, night or day.

Also see "Max. Size".

MAX. SIZE: Minimum size 45,000 tonnes Summer d.w.t. Max. size 320,000 tonnes Summer d.w.t. No restriction on length and beam. Max. draft 69 ft. at both SBM's.

PRATIQUE: Health and Customs Officers board at a convenient hour and come from Forcados, 20 miles distant from the buoys. Normally travel by high-speed launch, but may occasionally use helicopter.

RADIO: Vessels are required to report their ETA as follows:

(a) 7 days before estimated arrival, or upon clearing last port, if there is less than 7 days steaming time before arrival.
(b) 72 hours before arrival.
(c) 48 hours before arrival.
(d) 24 hours before arrival.
(e) Any other time(s) between the 72 hours notice, 48 hours notice and 24 hours notice, when estimated time of arrival is to be revised by more than 12 hours.

Vessels should send their ETA messages to "Shell Lagos MRCL". Telex: 21235, or via the Inmarsat System to "Shell Lagos" No. 1772142 (SRLTX) or Fax: 15636864.

Also see "General" – "Radio" before first port.

VHF: Vessels approaching Forcados are to give their particulars and receive instructions for berthing on Channel 8.

TUGS: No tugs available. A mooring launch assists in mooring and remains standing-by.

BERTHING: Effected under guidance of Berthing Master and local assistant who both remain on board throughout loading operations. Accommodation for both to be provided. Whilst berthed a suitable buoyant mooring rope must be ready on the poop deck so that the mooring launch (line boat) may, in the event of the vessel riding up on the SBM, make fast and tow to realign vessel.

Two SBMs each fitted with 2 OCIMF standard 15 in. × 195 ft. nylon grommet ropes and 2 hose strings some 900 ft. long with 2×16 in. end hoses. No. 1 SBM is South of platform and No. 2 is West.

Position of hose connections: Amidships on starboard side. Vessels should endeavour to present 2×16 in. (400 mm.) (150 ASA) connections on arrival. Ship's crew are required to connect and disconnect the hoses under the advice of the Berthing Master and/or his assistant. A derrick, SWL at least 10 tonnes, must be rigged ready on both sides and plumbed clear of ship's side. Derrick runner must be equipped with suitable hook.

In the case of vessels with a heavy multisheaved block a short wire strop of adequate strength with a hook should be provided.

Weight of Hoses: The following table gives the approximate weights of hose strings in tonnes (including fittings, floats and pick-up buoy) with all hoses full of crude oil of SG 0.850. The assumed total lift is 7.5 m. (25 ft.) above deck level, with the tanker on light draft.

Size of Tanker	*16 in. Inside Diameter Hoses*
500,000 d.w.t.	11.4
330,000 d.w.t.	9.4
270,000 d.w.t.	9.1
200,000 d.w.t.	8.7
100,000 d.w.t.	7.5
70,000 d.w.t.	7.1

Loading: Load-on-top system operates at Forcados. Slops cannot be accepted ashore. Vessels must arrive with clean ballast. Maximum loading rate 9,300 t.p.h.

A single grade of crude oil is handled which is known as "Forcados Blend".

Shore Line System: Vessels load through SBM from shore through 48 in. line to SBM. The 48 in. submarine line to the SBM is some 14 miles in length, therefore great care must be exercised during loading when ship's valves are manipulated to avoid pressure surges. Pressure recorders are normally fitted at the spool piece between ship's manifold and tail end of the hose string to monitor pressure changes generated on board the vessel.

Cargo Documents: On completion of loading, processing of documents takes 6 hours.

Depending on other commitments of the offshore launch, it may be necessary to request Master to provide temporary accommodation for the officials.

BALLAST: There are no facilities for the receipt of ballast. Vessels must arrive with absolutely clean ballast.

MEDICAL: Limited medical assistance available but in extreme emergencies only. Treatment of minor ailments and vaccinations, etc. is under no circumstances available. It may be possible in the event of an accident to obtain medical advice. Contact Terminal VHF Channel 8 in first instance.

DENSITY: 1025.

FRESH WATER: Not available.

FUEL: Available. Contact Agent.

REPAIRS: No facilities available.

CUSTOMS: See "Documents".

WATCHMEN: Whilst berthed at an SBM, a security watch must be kept on the forecastle head by member(s) of the ship's crew throughout the hours of darkness to raise the alarm and advise Berthing Master on the approach of local small craft. Instances have occurred at Nigerian Offshore Terminals where nylon mooring ropes have been cut and stolen with the vessel in the berth. The Berthing Master should also be advised in the event that the vessel rides up to the SBM.

REPATRIATION: Possible, but not advisable.

SHORE LEAVE: Not permitted.

GARBAGE DISPOSAL: No service available.

WASTE OIL DISPOSAL: No collection service available.

CURRENCY: Not applicable as no shore leave allowed.

GENERAL: Nigerian flag to be flown.

Air letter forms are not acceptable unless used with Nigerian stamps.

Loading: Ships are required to load cargo as rapidly as possible by day and night in accordance with the terms of their charter parties.

This means that ships are expected to load as fast as the Company can supply or they can safely receive. The question of how fast a ship can load is the responsibility of the Master having regard to his Owner's instructions, the charter party and the experience of ships' personnel. However, as further guidance, and in absence of any instructions to the contrary, ships are accepted by the Company on the understanding that ships will be able to accept a bulk loading rate per hour of not less than 10% of the summer deadweight of the vessel.

At Offshore Berth the Berthing Master acts as Loading Master during Loading Operations and is provided with "walkie-talkie" radios to ensure adequate ship/shore communication.

Loading Masters visit each vessel, and Masters are requested to co-operate in the completion of the Company's Tanker Port Performance Time Sheet by ship and shore personnel. Only crude oil is handled at the Company's terminal, loading temperature and specific gravity of the grade of crude, Forcados Blend is reasonably constant and is approximately 0.856 at loading temperature of 86°F.

Immobilisation of Engines: Not permitted at SBMs. Not advisable at sea anchorages as there are many obstructions if vessel drags anchor.

Restrictions Which May Cause Delays: Weather. Worst period May–October when heavy swell may be encountered.

Early Departure Procedure: There is no Early Departure Procedure at Forcados Terminal. Completed documents are brought to the ship for signature after completion of loading.

Customs and Agency representatives will normally board vessels during daylight hours. Government regulations require that all vessels are cleared inwards before commencement of loading. Depending on other commitments of the offshore launch, it may be necessary to request Masters to provide temporary accommodation for these officials. Any attempt on the part of the boarding officers to persuade the Master to supply more than normal representation should be resisted. In the event of any problem arising over such a matter full details should be reported to the Agent.

Stores: No facilities except those arranged through the Agent.

Tides and Currents: Seaward of the terminal, the general set of the current is S.E., rate about 0.5 knots, except during the Harmattan Season (November-February) when it is N.W. Within the 20 m. line (10 fathom line) the current is irregular and at times strong.

Wind and Sea: The prevailing wind is S.W. during the rainy season (May-October) and N.E. during the dry season (November-April). Worst period is June-September, when heavy swell may be encountered. Fog occurs during December and January, especially in the morning. Heavy rains begin in April and continue until October. Annual rainfall averages 4.5 m. (180 in.).

SHIPMASTER'S REPORT: December 1989 (Updated 1996).

EDP not in operation. On completion of loading, vessel leaves the SBM and anchors awaiting papers, normally about 8 hours. All documents prepared ashore to Shipper's advice, and delivered by launch to be signed on board. No security pinhole punch allowed. Destination terminal requires SCAC code before loading, and they put it on the Bills of Lading ashore.

Fourteen officials board before berthing to give clearance, Check last Port Clearance and Discharge Books, etc.

2 SBM's in use but only one loads at a time. SBM No. 1 and SBM No. 2 – hoses starboard side. Draft restrictions enforced (Max. draft 69 ft.).

Loading pumps ashore are turbines driven by gas from oilfields, so load rate fluctuates according to gas pressure ashore. The maximum is about 9,000 t.p.h.

Currents in the vicinity of the SBM's are irregular, and can cause problems during approach. Expatriate Loadmasters and local surveyors attended vessel.

SHIPMASTER'S REPORT: August 1991 (Updated 1992).

Contact made with "Shell Forcados" on VHF Channel 8 when 25 miles off the terminal.

Upon arrival vessel anchored 2 miles West of the platform in a depth of about 30 m. as instructed by terminal.

Despite coming from Bonny, vessel was boarded by 12 Port Officials to clear the vessel inwards. They checked Last Port Clearance, Health Books, CDC, etc. and issued Port Clearance for departure. Request for rather large amounts of "presents" made by the Port Officials, especially bonded stores/provisions/paint. Each person given one item as "present". Port Officials do not board the vessel at the time of departure.

Two SBM's in use, but as different loading rates cannot be given to 2 vessels loading simultaneously, only one SBM is used at a time for loading. Currents in the vicinity of the SBM's are very variable and make approach difficult.

Throughout our stay at the SBM a tug was made fast astern, with a ship's polypropylene hawser, to prevent the vessel from overriding the SBM.

Despite a request for a loading rate of 7,000 cu.m./hr., we achieved a rate of 5,800 cu.m./hr. Pilot advised that the loading depends upon gas pressure ashore, as the shore pumps are turbines driven by gas from the oilfields.

After completion of loading, vessel cast-off from the SBM and anchored 3 miles N.W. of platform to await documents, which takes about 8 hours to be prepared. EDP not being followed.

Accommodation is required for 4 persons (Pilot/Loading Master, local Mooring Master, local SGS representative and Nigerian Port PLC Surveyor).

We were able to pass ETA and cargo requirements to "Shell Lagos" – (Attention MRCL 1) via "Inmarsat" Telex No. 1772142 (SHLT X) which proved to be very helpful.

SHIPMASTER'S REPORT: March 1996.

Vessel found good anchorage 3.5 miles N.W. of platform, just outside restricted area.

Numerous fishing boats were working in the area when vessel arrived and throughout stay at Terminal.

Contact made with "Forcados Terminal" on VHF Channel 8, when 3 hours away from anchorage. Also Agents "Gacship Forcados" contacted on VHF Channel 8 when vessel anchored.

Vessel must maintain listening watch on Channel 8 throughout.

When moored to buoy, communications with Terminal on UHF handset supplied by Mooring Master, with ship's VHF as back-up. No problems encountered with communications.

Maintenance work had just been carried out on SBM No. 2. Terminal requested vessel to accept water plug which was in new hoses. Charterers rejected request, so vessel had to wait till 2 more ships were completed on SBM No. 1 before berthing and loading cargo.

Max. draft allowed at Terminal has been increased to following:

SBM No. 1: 21.0 m. (69 ft.) all weather.
22.0 m. (72 ft.) max. 3.0 m. waves.
23.0 m. (75 ft.) fair weather, tidal depart.
SBM No. 2: 20.0 m. (65.5 ft.) all weather.
21.0 m. (69 ft.) max. 3.0 m. waves.
22.0 m. (72 ft.) fair weather, tidal depart.

This follows a survey in 1993, which confirms more water around SBM buoys than charted.

Also work around buoys has increased the depth over the PLEM.

Max. size of vessels allowed is now:

SBM No. 1: 350,000 d.w.t. in fair weather and max. significant wave height of 3.0 m.
270,000 d.w.t. in max. significant wave height of 4.0 m.
150,000 d.w.t. within the berths operational limits.
SBM No. 2: 150,000 d.w.t. to 200,000 d.w.t. in 3.0 m. significant wave height.

Average loading rate received was 8,500 cu.m./hr.

Vessel experienced long delay awaiting papers after loading. A mistake had been made on the paperwork in Lagos, and this resulted in a 31 hour delay, as vessel completed loading on a Sunday and had to wait till Department of Petroleum Resources office in Lagos opened on Monday morning.

OPERATOR: The Shell Petroleum Development Co. of Nigeria Ltd., Freeman House, 21-22 Marina, Private Mail Bag 2418, Lagos, Nigeria. *Tel:* 2601600 (17 lines), 2601820 (9 lines). *Telex:* 21235. *Cables:* Shell, Lagos. *FAX:* 263-6681. *Contact:* Marine Co-ordinator.

Forcados Terminal, c/o Shell Petroleum Development Co. of Nigeria, P.O.Box 230, Warri, Nigeria. *Tel:* (053) 200100/119, extension 5530, 4280. *Telex:* 43482 Shell Warri. *Contact:* Terminal Superintendent or Head of Terminal.

KOKO: 06.01 N. 05.29 E. **(See Plan)**

DOCUMENTS: See "Lagos".

APPROACH: Escravos Fairway Buoy Lat. 05° 30' N., Long. 05° 04' E. for entry to Escravos River. Present draft limit 6.4 m. Dredging of channel from Escravos down to 10 m. expected to be completed soon.

PILOTAGE: See "General" – "Pilotage" before first port.

Compulsory for all vessels. Whenever ships are bound for Koko Port, Masters should send telegram at least 7 days in advance before ship's arrival at Escravos Fairway Buoy to Escravos Pilot Station, P.O.Box 368, Warri, Nigeria via 'Lagos (50W)' confirming Ship's name, Call Sign, Flag, LOA, Draft, Port of destination, Last Port and accurate ETA at Escravos Bar. When Escravos Pilot Station is aware of ship's ETA, it will arrange a reliable Pilot for the ship, before her arrival at Escravos Bar. On approaching Escravos Fairway Buoy, Masters should contact Escravos Pilot Station direct on VHF Channel 16 (Working on Channel 14) to report Vessel's arrival and request the name of the pilot boarding. After which the Pilot will be sent onboard outside the Breakwater to pilot the vessel up river to Koko Mid-Stream Anchorage, where the Sapele Harbour Pilot normally comes onboard to take vessel alongside. Berthing operations are carried out during daylight hours only.

The mouth of Escravos River (5° 31' 30" N., 5° 07' 20" E.) is the main entrance for the Niger Delta Ports of Warri, Burutu, Koko and Sapele. Before entering any of the rivers, creeks and channels from Escravos to the above Ports, vessels will embark a Pilot from the Pilot's Station before proceeding up river. Positions should be broadcast at frequent intervals and vessels should keep constant VHF listening watch on Channel 16. The Pilot Station at Escravos is located 0.5 miles South of the Escravos Beacon and operates from 0600 hrs. – 1800 hrs. daily. Pilot boards inward bound vessels about 2.0 miles S.W. of the Breakwater from a motor boat flying 'SG' in international code flags. Ships are advised to hoist the same 'SG' Flags on the Mast, on arrival at Escravos Bar. Positions and movements can be exchanged with other vessels in the vicinity on VHF.

In foggy weather periods, vessels are advised to proceed inside the Breakwater to the Pilot Station to embark a Pilot, as the pilot boat is not equipped with navigation aids. The IALA Maritime Buoyage System 'A' (Red to Port) is adopted after the entrance down the Escravos River. Vessels should sound 3 prolonged blasts followed by one short blast (– – – ·) on the whistle as "Pilot Call Signal" on arrival at Buoys No. 11/12, when proceeding to the Pilot Station at intervals of 10 minutes. In such cases, the pilot will board inward bound ships after 1.0 miles from Buoys No. 13/14. Vessels sometime drop anchor at the Pilot Station and wait for further instructions from Koko Port Control before proceeding up river to Koko Mid-Stream Anchorage. On arrival of vessel at the Pilot Station a pilot usually boards with one helmsman and they may stay onboard until the ship sails back to Escravos Pilot Station. In most cases, the helmsman stays onboard and the Pilot comes back when the ship is ready to sail.

RADIO: See "Lagos" for ETA advices to Agent. Warri Harbour Master at Warri, or Beach Master at Koko, to be contacted on VHF Channel 16.

VHF: Contact Pilot VHF Channel 16, working on Channel 14. Hours are 0600 – 1800 daily. Contact Agent in Warri on VHF Channel 16.

BERTHING: Two hard quay berths giving a total quay length of 137 m. and max. draft of 7.32 m. Berthing during daylight hours only.

MEDICAL: Facilities available.

FRESH WATER: Available and delivered by barge.

FUEL: Diesel oil available locally and delivered by barge. Fuel oil available by barge from Warri and arranged through Agent, both products in limited supply.

FIRE PRECAUTIONS: No local facilities.

REPAIRS: No local facilities. See "Warri".

GANGWAY/DECK WATCHMEN: Compulsory during the night while in port.

REPATRIATION: By road to Benin or Warri, both connected with Lagos by regular air service.

TIDE: Range approx. 2 m., and velocity up to 3.5 knots.

DENSITY: Salt.

SHORE LEAVE: See "Lagos".

IDENTIFICATION CARDS: See "Lagos".

TELEPHONES: Not available for placing on board. Available in Post and Telegrams Office in Sapele, and at Agent's Office at Warri.

SHIPMASTER'S REPORT: 1977.

Documents: Livestock List also required.

Pilotage: Request Creek Pilots through Escravos Pilot on VHF Channel 16. The Pilots are local fishermen and race each other to the vessel to offer their services. They will not proceed beyond the breakwater. Special care must be taken when entering, as many of the buoys are out of position.

A strong N.W. current runs by the breakwater, also there is a heavy swell which makes steering difficult.

Draft varies but seems to be not less than 18 ft. at LW to 24 ft. at HW. In Escravos not only a Pilot boards the ship but a helmsman too. The latter is quite useful especially in the narrow part of Nana Creek.

Koko has a VHF station Channel 16 for port operations.

Cargo shed capacity is insufficient, so more often than not this shed is full and cargo is discharged into "direct delivery". But because of the bad infrastructure of this port and the frequent lack of lorries, this discharge is a slow operation (sometimes less than 100 tons per day).

Ships waiting for berthing at Koko can anchor downstream or upstream of the berth. The anchorage is good and the "Creekpilots" stay onboard, i.e. they stay till the ship's return to Escravos, where they boarded.

Repatriation: By road to Warri and there by small plane to Port Harcourt or Lagos.

LAGOS (including Apapa and Tin Can Island): 06.27 N. 03.24 E. (See Plan)

DOCUMENTS:

Documentation Procedures:

(1) By Federal Decree 3 weeks prior to vessel's arrival the Agent requires certain information from Principals in order to register the vessel with NPA for obtaining the Ship Entry Notice (SEN). Not applicable to vessels carrying petroleum products in bulk, or in ballast.

Without SEN the vessel cannot enter Nigerian territorial waters (30 nautical miles).

Information required is as follows: Name of ship, nationality, g.r.t., n.r.t., draft, LOA, Port of Registry, Certificate of Registry Number, Owners and/or Agents in Nigeria, Port of Origin, Port(s) desired in Nigeria, ETA, Total Tonnage of Cargo to be Carried (Outward and Inward), Description of Landings and Loadings for which permission is sought, e.g. General Cargo, Containers (in container vessel or mixed cargo vessel). Cement, Bulk Liquid, etc.

In addition, for preparation of preliminary Manifest, the following are required: Shipper, name and address, Consignee, name and address, Cargo Marks, Cargo Quantities (numbers), Cargo Description, whether Freight Prepaid or Collect, Estimated Time of Departure from Port of Loading.

(2) 14 days prior to arrival Agent requires:
10 Manifests.
3 Stowage Lists.
3 Hatch Lists.

(3) On arrival at Lagos, Master must be prepared to present:
5 Ports of Call Lists (last voyage).
5 Crew Lists.
4 Kroo Boy Lists.
4 Animal Lists.
*4 Arms and Ammunition Lists (if none on board only 2).
1 Extra Manifest for transhipment (if applicable).
1 Stores List.
1 Crew Declaration List (personal effects).
1 Declaration of Health.
1 Vaccination List.
1 Narcotics List
1 Parcel List.
5 Passengers Lists.
1 Stowaway List.
1 Declaration – fuel in double bottom tanks.
Currency List (for National Safety Organisation). Foreign currency may have to be deposited ashore.

*Ship's Master allowed 1 gun and 100/150 rounds of ammunition.

Where not applicable all documents still to be prepared bearing the marking "Nil".

Other forms prepared by the Agent and furnished on arrival.

(4) For departure all documentation prepared by the Agent.

Berthing Procedures:

(1) Master to cable Agent via Lagos Radio ETA 7, 4, 2 and 1 day prior to arrival enabling Agent to declare vessel at the Berthing Committee Meeting well in advance.

(2) Master to contact Agent on VHF Channel 16 prior to arrival at anchorage (range approximately 30 miles).

(3) On arrival at anchorage Master to contact Lagos Port, Call Sign "East Mole Station" giving all vessel and cargo particulars, Agent's name, SEN No. and date of issue. Vessel also to cable Harbour Master's Office for identical information. Thereafter watch on VHF as per Agent's instructions.

(4) Only on arrival and strictly after declaration can Agent book Pilot and time for boarding will be advised.

(5) The Pilot Station (Call sign "Chief Pilot's Office") will contact vessel well in advance to allow her to proceed to the Fairway Buoy for boarding of Pilot.

(6) The Agent with the Health, Immigration and Customs and Excise Authorities board the vessel after berthing.

Unberthing Procedures:

(1) Agent prepares (outward) Customs clearance and delivers a copy to Master.

(2) Agent books Pilot and advises time for boarding.

(3) Vessel keeps continuous watch on VHF for instructions from the Chief Pilot's Office.

PILOTAGE: Compulsory. Hoist "G" flag. Contact Pilot by VHF Channel 16. No pilot boat stationed outside. Daylight service only (until 1600 hrs.).

Only on arrival, and strictly after declaration, can Agent book Pilot; time for boarding will be advised.

The Pilot Station (call sign "Chief Pilot's Office") will contact vessel well in advance to allow her to proceed to the Fairway Buoy for boarding of Pilot.

ANCHORAGES:

	Length	*Draft*
Pool 1	480 ft.	24 ft.
Pool 2	600 ft.	28 ft.
Pool 3	450 ft.	26 ft.
Pool 4	450 ft.	26 ft.
Badagry Creek	380 ft.	22 ft.

Vessels not permitted to remain at anchor at Pool 1 during hours of darkness due to poor holding ground.

4 vessels, maximum length 380 ft. can anchor at Badagry Creek Anchorage. Max. draft 22 ft.

RESTRICTIONS: Max. draft Pool Anchorage 8.23 m., Bruce Mooring Buoys 8.23 m., Marina Mooring Buoys 8.23 m., Apapa Hard Quay Nos. 1 – 14, 8.23 m., Apapa Hard Quay Nos. 15 – 20 10.50 m. and Tin Can Island Berth Nos. 1 – 10, 9.50 m.

MAX. SIZE: Max. draft 10.0 m. (salt water)

HEALTH: Port Health Officer boards vessel on arrival. ETA's must be advised by ship or Agent direct to Port Health. Pratique automatic when from Nigerian port. Also see "General".

RADIO: Master to cable Agent via Lagos Radio ETA 7, 4, 2 and 1 day prior to arrival, enabling Agent to declare vessel at the Berthing Committee Meeting well in advance.

Master to contact Agent on VHF Channel 16 prior to arrival at anchorage (range approx. 30 miles).

On arrival at anchorage, Master to contact Lagos Port, call sign "Signal Station" giving all vessel and cargo particulars, Agent's name, SEN No. and date of issue. Vessel also to cable Harbour Master's Office identical information. Thereafter watch on VHF as per Agent's instructions.

TUGS: No specific joining position, depending on tide and on Pilot's request, otherwise close to berth. Normally ship's line used. 1 tug 1,800 h.p., 1 tug 1,226 h.p., 1 tug 825 h.p. and several smaller tugs for towing lighters. 24 hour service available. Also see "General".

BERTHING: Daylight hours only.

No specific arrival time is required for berths, except for Petroleum Wharf where tankers need high water. Berthing on ebb tide required for Fish Wharf and Ijora Wharf.

Unberthing: See "Documents".

Apapa Berths: 19 general cargo berths, 1 bulk cargo berth at Ijora, 6 container berths including 1 Ro/Ro ramp. Also 3 petroleum berths, 1 gas oil, 3 bulk oil and 1 grain berth, 5 storage sheds, although no cold storage available. Quay cranes not operative. The third Apapa Wharf extension is now completed and in full use. Container Quay 1,600 m. 2 gantry cranes with 40 tons lifting capacity have been installed and are in use with stacking area for Ro/Ro and containers. General cargo quay 525 m. Depth alongside 10.5 m. Vessel's Agent to make arrangements for discharge of 40 ft. containers due to lack of equipment.

Tin Can Island Berths: Tin Can Island Port (TCIP) is situated N.W. of Apapa, North of Badagry Creek.

Draft Restrictions: Berths 1 – 10, 9.50 m.

Tugs: 2 of 1,400 h.p.

Accommodation: Area 73 hectares, quay length of 2.5 km. Extensive quay apron 40 m. wide with berthing capacity for 10 – 15 vessels, of which 2 for Ro/Ro, depending on size of vessels and one of which has fixed stern ramp. Bulk berth for handling bulk commodities. Two service berths for tugs and light craft.

Dredged Channel is 200 m. wide with turning basin.

Two fresh water wells (250 m. deep) with purification plant.

Ten quayside cranes – 8 of 6 tonnes at 28 m. radius, 2 of 10 tonnes at 25 m. radius, transit sheds and warehouse each of 7,000 sq. m. area.

No cold storage.

Midstream Berth: 8 Marina Buoys and 1 Bruce Buoy.

CRANES: 1 floating crane of 100 metric tonnes and 1 of 250 metric tonnes. Apapa and Tin Can Island equipped with mobile cranes, forklift trucks, tractors, freight lifters, conveyors, trailers and container handlers.

250 ton crane: 50 ton lift at 31 m.
100 ton lift at 28 m.
150 ton lift at 21 m.
250 ton lift at 10 m.

STEVEDORES: Available. First shift: 0730 – 1530 hrs.; 2nd shift: 1530 – 2230 hrs.; 3rd shift: 2230 – 0730 hrs. Overtime is paid for 2nd and 3rd shifts. Saturdays 0730 – 1530 hrs.

Overtime, Sunday and third shift not always worked as Nigerian Ports PLC making cutbacks.

MEDICAL: Agents to be given advance notice of medical attention required as early as possible. Hospital facilities available. International Certificates of yellow fever required.

TANKERS: 3 berths operated by the Port Authority. Length 177 m. Max. draft 7.62 m. No night berthing. Water and bunkers available. (Subject to tidal restriction).

Atlas Cove Berth: The Atlas Cove Jetty has 2 berths of LOA 180 m. and 80 m. and draft of 10.7 m. and 6.3 m. respectively.

Report: October 1981

Facilities for tankers discharging clean products.

(a) No Ship Entry Notice is required for tankers coming into Nigeria to load/discharge cargo.

(b) There are three main oil tanker jetties available in Lagos namely PWA, NOJ and BOP each with max. LOA of 175 m. and max. draft. 7.6 m. There is also another jetty called "Ijora Wharf" from which Mobil Oil mostly take delivery of their cargo. This jetty has max. LOA of 115 m. and 18ft. 6 in. draft.

(c) Bunkers are supplied to vessels at these jetties by pipeline as well as by barges.

(d) Fresh water is also available from both Nigerian Ports PLC and private barges but difficult in most cases.

DENSITY: 1012.

FRESH WATER: Delivery by barges at between 20 to 40 t.p.h. Advance notification needed. Available by pipeline at Tin Can Island.

Notice: February 1984.

It is hereby notified to Owners/shipping companies including their Agents that owing largely to the limited quantity of available fresh water in the port, the maximum quantity of fresh water to be approved to any vessel for one request is 50 tons only.

Other new requests for the same vessel will not be approved until all requests previously recorded before them are supplied. The Assistant Harbour Masters will not allow any request for more than 50 tons of fresh water to be paid for. Please ensure strict compliance.

FUEL: Fuel oil available by barge only, coal bunkers obtained from Ijora Wharf. A guarantee of sufficient bunkers to last the period of stay on a berth will be one of the conditions to be satisfied before a vessel is allocated a berth.

SEN also required for vessels taking bunkers only.

Also see "General – Notice No. 2/83".

FIRE PRECAUTIONS: Tankers and vessels with explosives: fire-boat always in attendance with fire-control depot ashore working in conjunction with the Harbour Master on VHF Channel 16. Port area tugboats also equipped for fire fighting.

CONSULS: Most countries maintain Embassies/High Commissions or Consuls.

REPAIRS: Major repairs available. Spares often in short supply.
DRY DOCKS: Authority maintains large, well-equipped dockyard, which, while primarily for maintenance of Authority's own fleet, provides facilities to commercial interests. There is a modern floating dock which has lifting capacity of 4,000 tons. Max. draft 18 ft. Synchro-lift available lifting capacity 100 tons max.

In addition to facilities offered by Authority's dockyard, major shipping agencies in port maintain dockyard installations, including slipways for taking smaller vessels and lighters; can provide first-aid repair for main line vessels.

Bull Nose – No. 1 – can accommodate a vessel of 380 ft. in length and max. draft 16 ft. 6 in.

Bull Nose – No. 2 – can accommodate a vessel of 250 ft. in length and max. draft 16 ft. 6 in.

GANGWAY/DECK WATCHMEN: Compulsory during night while in port. Recommended at night also for vessels anchored Lagos roads unless at least 20 miles offshore as pirates may attack vessel.

If vessel is attacked blow whistle continuously to attract attention of Security Agents, and call Port Authority on VHF Channel 16.

OPENING/CLOSING HATCHES: Stevedores/crew.
CUSTOMS ALLOWANCES: Tobacco allowance: 200 cigarettes per person, re-issue after 7 days. Wine/Spirit: 1 part bottle, re-issue to officers after 7 days.
REPATRIATION: Facilities available for effecting crew changes and arranging any necessary repatriations.
AIRPORT: Ikeja 14.4 km. from port, served by regular airlines.
TIME: GMT plus 1 hour.
HOLIDAYS: Fixed: New Year's Day (1st January); National Day (1st October); Christmas Day (25th December); Boxing Day (26th December). Variable: Good Friday; Easter Monday; Eid-El-Fitir Festival; Eid-El-Kebir Festival; Maolud Nabiyyi (Mohammed's Birthday). Port closed on National Day, Good Friday and Christmas Day.
POLICE/AMBULANCE/FIRE: Police Apapa 45798, Lagos Custom 20030; Ambulance Apapa 41341/227; Fire Apapa 41741, Lagos Custom 20777, General Emergencies 199.
TELEPHONES: No arrangements for telephones on board.
SERVICES: Small services available.
SHORE LEAVE: Crew members allowed ashore after clearance by Port Health and Immigration Authorities.
IDENTIFICATION CARDS: Passports or identity cards.
GENERAL: Notice issued by the Harbour Master in May, 1976:
Will all ships' Agencies note that from the date of this circular letter, Lagos Radio has been instructed to reject any telex messages from any ship addressed to the Harbour Authority unless the itemised particulars are included:

(a) Ship's name.
(b) Ship's call sign.
(c) Ship's Agent's name.
(d) Ship's length overall.
(e) Ship's tonnage loaded.
(f) Ship's draft.
(g) Nature of cargo (i.e. cement, general cargo, etc.).
(h) Last port of call.

Notice issued by the Nigerian Federal Ministry of Health in May, 1976:
Please communicate to all Masters that request for Radio Pratique either by international sanitary codes or otherwise must state clearly the following:

(a) Last port of call.
(b) Number of crew.
(c) Vaccination and inoculation of crew.
(d) Date and time of arrival.
(e) Condition of ship.
(f) Number of passengers onboard.
(g) Name of Agent.

Notice dated 1982 issued by Nigerian Ports PLC.
The following documents must be despatched with manifest from the last loading port in order to report vessel in advance to the Department of Customs and submit advance manifest to facilitate payment of Nigerian Ports PLC dues to berth vessel on arrival.

1. Crew Declaration.
2. Crew List.
3. List of Arms and Ammunition.
4. Passenger List.
5. Animals List.
6. List of Ports of Call.
7. Mail List.
8. Authority to Act as Agents.

Two copies of each of the documents are necessary.

Nigerian Ports PLC Harbour Master's Notice No. 2/83:
"BUNKERING IN PORT

Further to my previous circulars concerning bunkering in port, it is still observed that Masters/Agents of vessels calling at port of Lagos are not advising the Harbour Master before bunkering the vessel about their intention to bunker the vessel.

It is imperative that Masters/Owners of vessels/Agents should, before 'repeat' before bunkering the vessel, forward to the Harbour Master, the N.N.P.C. document showing that the supplier is an authorised one and the Nigerian Ports PLC Licence permitting the barge to supply vessels with bunkers.

This notice should also be in good time before bunkering the vessel to enable the Harbour Master to advise the Chief Fire Officer about the operation. This instruction should be carried out whenever a vessel is getting bunker to ensure that N.N.P.C. instructions and Nigerian Ports PLC regulations are complied with, failing which heavy fines must be imposed."

AUTHORITY: Nigerian Ports PLC, Private Mail Bag 12588, 26-28 Marina, Lagos, Nigeria. *Tel:* 600620 (12 lines). *Telex:* 21500, 213763. *FAX:* 630306. *Cables:* Genports, Lagos.

AGENT: Alraine (Nigeria) Ltd., 26 Creek Road, Apapa, Lagos. P.O. Box 265, Lagos. Tel: 877580, 873887. Cables: "Freight Lagos". Telex: 28239, 28248, 28242. Fax: 874542/47/71.

ODUDU TERMINAL (OML 100): 04.00 N. 07.45 E. (See Plan)

PORT LIMITS: *Arrived Vessel:* When vessel drops anchor in the anchorage area or time when Mooring Master boards, which ever occurs first.

Charts: B.A. Charts No. 1357, 1860 and 1863. U.S. Navy Charts No. 57160 and 57163. French Chart SHOM No. 7188.

Terminal Area: Lines joining the following points:

(A) 04° 04′ N., 07° 40′ E.
(B) 04° 04′ N., 07° 55′ E.
(C) 03° 50′ N., 07° 40′ E.
(D) 03° 50′ N., 07° 55′ E.

DOCUMENTS: *Customs and Health Requirements:*

1. Nigerian Government Customs, Immigration and Task Force officials will board the vessel at the same time as the SBM's Mooring Master. They will provide Inward Clearance and Free Pratique services. Nigerian Government Regulations are strictly enforced.

   Cigarettes, cigars, tobacco, matches, spirits, wines, perfumes, arms, ammunition and other restricted items must be locked under Customs seal from the time the vessel arrives until the time the vessel leaves Nigerian territorial waters.

   Each person is allowed 200 cigarettes per week of stay or the equivalent amount of tobacco or cigars in lieu thereof. Each person is allowed 1 bottle of spirits and 1 case of beer.

   Special allowances are made for Masters under special circumstances. If the slop chest and bonded stores are not combined in one locker, the Customs Officer must be informed.
2. The vessel shall have a clean Bill of Health or an equivalent document from the last port of call. The vessel's Master and all crew members shall possess international certificates of health showing such valid vaccination certificates as required by current Nigerian Law. From time to time cholera, smallpox and yellow fever vaccination certificates may be required, and it is therefore prudent for all crew members to be in possession of these certificates.
3. The following forms are required by Customs and Health Officials:
   1 copy Vessel Registration Certificate.
   1 copy Last Port Clearance.
   8 copies Ports of Call List (for last 6 weeks).
   3 copies Stores List.
   7 copies Arms and Ammunition List.
   4 copies Master's Declaration of Health.
   9 copies Crew List.
   3 copies Crew Declaration List.
   9 copies Passenger List.
   9 copies Kroo Boy List.
   3 copies Stowaway List.
   3 copies Vaccination List.
   5 copies Animal List.
   20 copies Notice of Readiness (on arrival).
   Also see "Certificates".

   Before sailing and immediately upon completion of loading, vessel must provide 20 copies of Ullage Report.

   Government officials representing various departments may, at their discretion, board the vessels in the Terminal area.

ESSENTIAL REQUIREMENTS: *Summary of the most Essential Requirements to be met by Tankers Lifting Oil at the Terminal:*

1. Charterer must give Elf and FSO a minimum of 10 days notice prior to loading, in order to allow time for the necessary clearances and approvals of the Nigerian Authorities.
2. Vessel must be fitted with a bow chain stopper, and fairleads suitable for 3 in. chain.
3. Vessel must arrive with not less than 30% ballast/cargo on board and be able to maintain this condition during the loading period.
4. Upon arrival, vessel's trim must not be more than 2.0 m. by the stern with the propeller nearly submerged.
5. Normally the Terminal towing vessel will provide a tow wire, but vessel must provide and make ready for use, a mooring line in good condition, suitable for towing at the stern.
6. Berthing and unberthing shall only be permitted at the discretion of SBM's Terminal Superintendent.
7. No dirty ballast disposal.
8. Advise arrival time by radio (See "Radio" for other required information).
9. SBM's Mooring Master together with Custom Officials meet ships in suggested Anchorage Area.
10. Make a lee for SBM's Mooring Master and Officials to board.
11. Have ready: 2 messenger lines forward, ship's derrick on port side and port manifold with 2×16 in. connections.
12. Vessel's Master responsible for safety of own ship at all times.
13. Lifting vessel's crew performs all operations of mooring, connecting and disconnecting hoses, and unmooring aboard lifting vessel.
14. Do not close valves against crude flow.
15. Current Nigerian Government Regulations require that export tankers depart fully loaded, although they may arrive partially loaded.
16. Emergency flow stop signal, if all communications fail, will be a continuous sounding of ship's whistle from either lifting vessel or storage vessel.
17. No shore leave or crew change is permitted, except in case of emergency.

18. When arriving:
    By Day: Fly International Code Flag "Q".
    By Night: Display red light over white light for Quarantine Service.
19. Vessel's anchors to be secured against accidental use from the time the SBM Mooring Master boards.
20. All vessels must exhibit the Nigerian National Ensign from their foremast or other appropriate place, while in the vicinity of the moorings.
21. During loading:
    By Day: Fly International Code Flag "B".
    By Night: Display red light (See "Readiness").
22. All cargo tanks must be fully inerted.

Note that:

Local time is GMT plus 1 hour throughout the year.

No supplies of any kind or medical services (except in case of emergency and subject to a doctor being available), or other services of any kind are available at the Terminal.

PILOTAGE: See "Berthing – Mooring/Unmooring".

ANCHORAGE: The tanker anchorage area consists of circle radius 1.5 miles which centre is positioned 5.5 miles, bearing 065°(T) from the FSO XV Domy. Centre of anchorage Lat. 04° 02' N., Long. 07° 50' E. (also see "Plans").

Also see "Berthing – Mooring/Unmooring – No. 2".

RESTRICTIONS: *Berthing:* Berthing undertaken day and night, weather permitting. Terminal Superintendent shall be final authority as to when the terminal is open or closed.

Unberthing: Day or night, no restrictions.

Also see "Readiness".

MAX. SIZE: *Arrival:* Not less than 30% of Summer d.w.t. Berth designed to accept 80,000 – 280,000 d.w.t. tonnes.

Departure: 280,000 d.w.t. tonnes.

Depth: 64 m.

HEALTH: See "Documents".

RADIO:

1. *Cable or Telex:* It is most important that incoming tankers advise their ETA, 72 hours, 24 hours and 4 hours in advance of arrival, stating GMT or local time. Also see "Essential Requirements – No. 1".

   Contact with the Terminal is as follows:

   Vessel Name: "FSO XV Domy".
   Call Sign: C6JZ4.
   Traffic lists from Portishead Radio and St.Lys.
   Working frequency 6992.1 kHz. (24 hours).
   Inmarsat Telex No. 61327.
   Inmarsat Phone No. 581/583 and 1103701. Ship Station Atlantic Ocean.
   VHF Frequency: Channels 16 and 72.

   This information is published in the Admiralty List of Radio Signals, Volume 6, and the Book of Beacons and Fog Signals, Serie C (SHOM).

   The following shall be included in the 72-hour message:

   (1) Name of tanker and radio call sign.
   (2) ETA.
   (3) Cargo requirements.
   (4) Deballast time.
   (5) Maximum loading rate capabilities in t.p.h.
   (6) Estimated draft on arrival.
   (7) If there is any sickness aboard or clean Bill of Health.
   (8) Last port of call.
   (9) Any hull, bulkhead, valve or pipeline leaks on vessel which could negatively affect loading or cause pollution.
   (10) Distance in feet from the bow to tanker's loading manifold, and from port rail to manifold.
   (11) Advise if vessel fitted with one or two bow chain stoppers.
   (12) Advise if bow chain stoppers are suitable for Terminal's 84 mm. mooring chain.
   (13) Acceptance and compliance with these OML 100 Oil Terminal User Regulations and Procedures.

   All vessels shall confirm ETA 24 hours and 4 hours distant or any time a one-hour change of ETA is determined.
2. The Terminal maintains a listening watch on 2182 kHz and VHF Channels 6 and 16.
3. On receipt of the first message from the lifting vessel, Companies will respond to the tanker giving preliminary requirements of the Terminal. Vessel's Master will comply with these requirements in all details in order to facilitate vessel turnaround and Government formalities.
4. Once ships are within 4 hours of the Terminal, communication should begin with the "FSO XV" on International Marine VHF Channel 16. When contact has been made on this channel, further communication will be conducted on a mutually compatible channel, normally Channel 6.
5. The SBM Mooring Master will carry a VHF/FM Radiotelephone when he boards the tanker.
6. The 4-hour signal should confirm information on the time required to discharge ballast after arrival and should establish a better ETA.
7. Insufficient or inaccurate ETA messages can cause delays as Government officials have to come from elsewhere. Acceptance of Notice of Readiness may be affected by such insufficiency or inaccuracy.

TUGS: The Terminal maintains boats to assist in mooring and unmooring vessels. These boats are directed by the Mooring Master, to whom requests by the lifting vessel for action or assistance must be directed.

READINESS: *Loading Readiness and Arrival Time:*

1. SBM will make every effort to moor off-taking vessels upon arrival in daylight, weather permitting. Night-time berthing shall only be permitted at the discretion of SBM's Terminal Superintendent.
2. Notice of Readiness will not be accepted as at the time of arrival, unless the vessel is in all respects ready to load, including compliance with all terms of these Terminal Regulations. Arrival time will be considered as the time when SBM's Mooring Master boards the vessel, or the time the vessel reaches the Deep Water Anchorage Area, whichever occurs first. Notice of Readiness shall be in English.
3. During loading the International Code Flag "B" shall be displayed from a top-most signal halyard during daylight hours. During hours of darkness, a red light shall be displayed; visible at a distance of at least 1 mile and show an unbroken light all around the horizon.

BERTHING: Terminal Facilities:

1. Vessels using the Terminal will be moored bow to stern of the "FSO XV" by means of a nylon mooring rope approximately 45 m. in length at the end of which is a short length of 3 in. diameter chain. The chain will be made fast to the lifting vessel by means of the lifting vessel's bow stopper.

   Note that the Oil Companies International Forum recommend that all ships securing to a single point mooring be fitted with one or two bow chain stoppers. Details of the bow chain stopper are given in the booklet "Recommendations for Equipment Employed in the Mooring of Ships at a Single Point Mooring" (OCIMF 1988, 2nd Edition). This recommendation became mandatory for tankers loading crude oil in Nigeria in July 1990.
2. During the period the lifting vessel is on the berth, a tug/supply vessel furnished by the Terminal will remain secured to the stern of the lifting vessel. The tug/supply vessel will be directed by the Mooring Master, to whom requests by the lifting vessel for tug/supply vessel actions or assistance should be addressed. Should the Master of the lifting vessel disagree with a Mooring Master's decision, it is requested that he supply his reasons for the disagreement, in writing, promptly to the Terminal Superintendent.
3. The loading hose connections are ASA 150 16 in. I.D.
4. Loading rates at the Terminal will be governed by either the lifting vessel's maximum loading rate, or the maximum pumping rate of the "FSO XV" (8,000 cu.m./hr. to 12,000 cu.m./hr.), whichever is the lesser.
5. The Companies do not perform general agency functions. Owners or Charterers of vessels calling at the Terminal must arrange for their own Agents.

Mooring /Unmooring:

1. The Terminal is normally open 24 hours a day, 7 days a week, weather conditions permitting. The Terminal Superintendent shall be the final authority as to when the Terminal is open or closed.
2. Vessels to be moored, anchored or manoeuvred at the Terminal will be boarded by SBM's Mooring Master in the close vicinity of the suggested Anchorage Area. The Anchorage Area consists of a circle of radius 1.5 miles which centre is positioned 5.5 miles, bearing 065° from the "FSO XV" with coordinates Latitude 04° 02' N., Longitude 07° 50' E. No lifting vessel may enter the Terminal area unless SBM's Mooring Master is on board. SBM's Mooring Master will advise the vessel's Master on approaches to the berth, mooring, unmooring, tug handling, connecting and disconnecting the hoses and other operations within the anchorage and Terminal area. All such manoeuvring of vessel shall be carried out only in accordance with the advise of SBM's Mooring Master, except where the vessel's Master believes such advice to be contrary to the proper navigation and safety of the vessel and crew, and subject to the understanding that in all cases and circumstances the Master of the vessel being manoeuvred shall remain solely responsible on behalf of his vessel's Owners or Charterers for the safety and proper manoeuvring of the vessel. The vessel's Master, or one of his designated qualified Deck Officers specifically appointed by him at the time, must be on the navigation bridge at all times while the vessel is being manoeuvred.
3. The embarkation and disembarkation of the Mooring Master is entirely the responsibility of the Master of the lifting vessel.
   (i) On all vessels, in which the distance from the sea level to the point which permits access to or departure from the vessel exceeds 9.0 m., it should be anticipated that the Mooring Master will embark and disembark by means of an accommodation ladder together with a pilot ladder on each side, unless it is not possible to carry one.
   (ii) The ladder should be orientated towards the stern. When it is utilised, the lowest extremity of the ladder should rest solidly against the side of the vessel, set back in relation to the midships part of the vessel and set back in relation to the half midships section and away from any discharge outlets.

   Configurations which conform better to particular types of vessels and which present the same degree of safety shall be acceptable.
   (iii) The length of the accommodation ladder should be sufficiently long, so that its gradient does not exceed 55°.
   (iv) The bottom landing of the accommodation ladder should be positioned horizontally when the ladder is in service.
   (v) Intermediate landings, if there are any, should automatically position themselves horizontally. The dimensions of the steps and the treads of the accommodation ladder should permit placement of the foot in a correct and sure fashion, given the gradient of the accommodation ladder.
   (vi) The ladder and the landing should be equipped with two stairway sides and rigid hand railing, but if ropes are utilised, they should be well tightened and correctly placed. The vertical space between the hand railing or the ropes and the side of the ladder shall be close enough for safety.

(vii) The pilot ladder should be positioned immediately alongside the bottom landing of the accommodation ladder and its top should be at least 2.0 m. above the bottom landing.

(viii) There must be a night light which permits proper illumination along the entire length of the ladder.

(ix) If a trap door in the bottom landing of the accommodation ladder is used to rig the pilot ladder, this door should be no smaller than 750 mm. × 750 mm. In this case, the aft part of the bottom landing should be enclosed as described in paragraph (vi) above, and the pilot ladder should extend from the bottom landing up to the level of the hand railing.

(x) The accommodation ladder, including the hoisting mechanism, must be approved by the vessel's country of registry.

4. The SBM's Mooring Master will be in direct control of all the vessel's communications while in the Terminal area. Any unauthorised communications will, at the option of SBM's Mooring Master, cause the cessation of all operations except clearing of the berth, and the vessel's Notice of Readiness will immediately be nullified.
5. Raising, lowering, connecting and disconnecting of oil loading hoses, as well as all other labours and duties on shipboard will be performed by the vessel's crew under advice of the SBM's Mooring Master (See "Loading – Connecting Hoses").
6. The Mooring Master may refuse to accept a vessel for loading, if he considers the vessel's condition to be unsatisfactory. In the event the Master of the lifting vessel and SBM's Mooring Master cannot agree to a procedure by which the vessel can meet satisfactory loading conditions, both Company and the Charterer of the vessel shall be immediately contacted, so that corrections can be made. Time required to bring the vessel into satisfactory condition shall not count as used laytime.
7. The services of SBM's Mooring Master are provided without charge upon the express understanding and condition that when the Mooring Master goes on board the vessel for the purpose of assisting such vessel, he becomes for such purposes the servant of the Owners or Charterers of the vessel, and the Companies shall not be liable for any damage or injury resulting from any advice or assistance or actions given or made by the Mooring Master.
8. SBM's Mooring Master may require the vessel to unmoor at any time he deems it necessary for the safety of the vessel or Terminal or both, or for infringement of these Oil Terminal Regulations.
9. Various combinations of wind, sea and tidal conditions, also the size, length, ballasted trim and handling qualities of a vessel can affect the decision to berth/unberth a vessel at the OML 100 Terminal. All these factors have to be evaluated before a final berthing/unberthing decision is made and agreed by the vessel's Master and SBM's Mooring Master.
10. In the event of a storm nearby, loading shall be suspended if necessary. In the event of a fire on board a vessel moored in the Terminal area, the Master shall give the alert by means of short and rapid blasts of the siren. He is responsible for making use of all methods at his disposal of fighting the fire. He shall take any measure to get underway if necessary.

Berthing:

1. Lifting vessels will normally be accepted and berthed in chronological order of arrival, provided such vessels have current nomination for cargo valid at the time of tender, carry clean ballast, if any, and have cargo tanks in a fit condition to receive cargo. Also, they must be in all respects properly equipped, manned and ready to moor. Should berthing be delayed on account of bad weather, vessels will keep their position in line.
2. Vessels required to leave the Terminal area on account of bad weather should keep in contact with the Terminal via the Radiotelephone Station at the Terminal, in order that they may be available when the weather is fit for resumption of operations. Companies reserve the right to load vessels out-of-turn following the return of good weather. Further, SBM reserves the right to decline to moor a specific vessel, if its condition or facilities are unsafe for mooring or loading, even though the Terminal may be open to other vessels.
3. The decision of SBM's Terminal Superintendent on berthing will be final.
4. A lifting vessel will be expected to have ready on the forecastle head an operational bow chain stopper with a minimum vertical and horizontal opening of 350 mm.
5. On approaching the berth, the messenger line is lowered to a small boat. This boat will take the end of the messenger line and attach it to the end of a floating rope. SBM's Mooring Master will then instruct the crew to heave in the ropes successively until the chafe chain is in the fairlead and in a position to be secured to the chain stopper.
6. Once the lifting vessel is connected to the mooring, its engines, on request of SBM's Mooring Master, may have to be run "very slowly" astern, in order to avoid contact between the two vessels until the tug/supply vessel has been made fast to the stern of the lifting vessel.

Vessel's Gear:

1. SBM's Mooring Master may reject a ship if it is not, upon inspection, properly equipped, or if it is not suitably manned, or if he deems it to have dirty ballast or tanks unsuitable for receiving the cargo. A vessel is suitably manned only if it has a full complement of officers and crew in a sober condition, competent and willing to carry out their duties and orders, and sufficient English is spoken, so that SBM's Mooring Master can understand and be understood. The Companies shall in no circumstances be liable for any loss, damage or delay arising or resulting from any decision, justified or not, by the Mooring Master to reject a ship pursuant hereto.
2. All vessels must be equipped with a good working propulsion unit as passed by an appropriate classification society. Inoperative vessels or partially inoperative vessels will be rejected. Should vessels become inoperative while on the berth, they may be removed from the Terminal area by the Companies at the expense of the Owners or Charterers of the vessel.
3. Additionally, a vessel must have both bower anchors and ground tackle in good working condition, and in such sizes and amounts as to meet either Lloyd's, ABS or Bureau Veritas standards, although they may in fact be classified by other societies. On instruction from SBM's Mooring Master, the vessel's anchors must be properly secured against accidental dropping.
4. All vessels must carry suitable stoppers for all Manila or synthetic lines for mooring use.
5. *All vessels must have suitable winches or capstans in good operating condition on the forecastle deck.*
6. All vessels must be adequately equipped with a 15 ton S.W.L. derrick boom, blocks, tackles, wire runners and sundry equipment on both sides to efficiently hoist the hoses to the loading position. Sundry equipment should include wrenches, drift pins, nuts and bolts, wire and fibre strops, drip pans, gaskets, etc.

   To assist in vessel's turnaround, the vessel should have all necessary booms and cargo gear rigged and ready before being boarded by SBM's Mooring Master. All vessels which consider the lifting capacity of their gear to be marginal should strengthen their gear accordingly.
7. The vessel's loading manifold should be prepared for 16 in. 150 ASA hose connection prior to the vessel's arrival. Where no crossover valves exist on loading manifolds, it is recommended that loops between loading lines on the starboard side of these manifolds be fitted. Vessels, equipped with smaller than 16 in. hose connections at the loading manifold, should arrive with such hose connections suitably adapted for 16 in. hose, so that maximum flow through the 16 in. cargo hose will be achieved.

   Vessels equipped with larger than 16 in. hose connections at the loading manifold should provide their own reducers.

LOADING: *Connecting Hoses:*

1. After the vessel is securely moored, the cargo hose will be hoisted aboard, normally on the port side. The berth is equipped with a single 20 in. loading hose string dividing into 2×16 in. hose lengths at the lifting vessel end, the weight of each hose lift being approximately 7 tons. All lifting equipment and tackle should have a safe working load of at least 15 tons. The hose is lifted by vessel's gear and crew, and all connecting of the hose will be carried out by them. The lifting derrick, equipment, tackle, etc., should be topped-off and ready on arrival. Terminal loading hoses are fitted with ASI 150 flat face flanges with Camlock couplings, and vessels should have adapters and fittings to enable these hoses to be connected to the vessel's manifold. SBM's Mooring Master advises the vessel's personnel on hose lifting and connecting procedures; however, a vessel's Master or Deck Officer must be present and must direct the vessel's crew in all handling. SBM's Mooring Master may reject a vessel for unsatisfactory hose handling.
2. When SBM's Mooring Master is assigned to a vessel, the vessel at her cost will supply him with meals at the same time and in the same manner as for comparable personnel of the vessel. The vessel will also provide him with a suitable cabin.

   Also see "Berthing – Terminal Facilities".

BALLAST: *Disposal of Ballast:*

1. Owners and Masters are responsible for complying with all International Conventions and Nigerian laws concerning pollution of the sea, having particular regard for the offshore sector. The Nigerian Authorities are becoming increasingly concerned at the rising level of pollution in these waters, and any infringement of the International Laws regarding pollution of the sea by oil will be dealt with most severely. Pollution of the sea by dirty ballast water, bilge discharge or any other means, will result in heavy fines being imposed, and in severe cases, may result in imprisonment or arrest of the vessel concerned.
2. Vessels must arrive with clean ballast only. There are no facilities for disposal of dirty ballast. It is the Master's responsibility to see that no oil of any kind is pumped or spilled overboard from his vessel. This includes oily water from bilges, crude residue from previous voyages or any other matter that may result in pollution of the sea. Any fines imposed on or third party claims against the Companies or any of them shall be for the vessel's account.
3. In addition to the lights usually displayed, vessels discharging ballast or loading cargo during darkness will illuminate the area around the vessel to the satisfaction of the SBM's Mooring Master, in order that any oil on the surface of the sea may be readily detected and appropriate action taken. Vessels unable to illuminate the sea satisfactorily may not discharge ballast during darkness. Vessels should provide suitable floodlights for working on deck during night operations.
4. If evidence of oil appears during deballasting, the vessel will be rejected forthwith, and will not be accepted until satisfactory evidence is produced that such ballast was disposed of in a proper manner. If during inspection, or during progress of loading, it is revealed that the vessel's tanks are not tight or that oil is leaking from the vessel, the vessel may be rejected or refused further loading. The vessel will not be later accepted for loading, unless satisfactory evident of repair is submitted, duly certified by Lloyd's, ABS, Bureau Veritas or other recognised surveyors. Any vessel rejected because of dirty ballast or sea pollution will automatically nullify her "Notice of Readiness", and will lose any priority of position for loading. Companies may suspend, delay or unberth any vessel which is under suspicion of oil pollution.

   The Companies will not be liable for any demurrage, loss claims or demands, resulting from such suspension, delay or unberthing.

5. Vessels should present themselves with sufficient clean ballast and correct trim, in order to be able to manoeuvre safely. Such ballast shall be not less than 30% of deadweight. Deballasting may only be carried out with the agreement of SBM's Mooring Master.
6. If the vessel cannot comply with the above conditions, then it should arrive at the Terminal at least 30% laden with cargo.
7. All spillage of oil must be reported immediately to the SBM's Terminal Superintendent, and a detailed report must be written, signed and submitted by the Master of the lifting vessel concerned.

MEDICAL: No facilities.

FRESH WATER: Not available.

FUEL: Not available.

SURVEYORS: Available from Port Harcourt.

CUSTOMS ALLOWANCES: See "Documents".

TIME: GMT plus 1 hour.

CERTIFICATES:

Certificate of Registry.
Safety Equipment Certificate.
Safety Radiotelephony Certificate.
Safety Construction Certificate.
Load Line Certificate.
I.O.P.P. Certificate.
International Tonnage Certificate.
Canal Tonnage Certificate(s).
Certificate of Insurance in respect of Civil Liability for Oil Pollution.
TOVALOP Certificate.
FMC Certificate of Financial Responsibility (Water Pollution).
Date of U.S.C.G. Letter of Compliance.
Derat Exemption Certificate.
Minimum Manning Certificate.

GENERAL:

1. Should it be necessary to supply divers, a boat, materials, equipment or labour, to carry out repair work to enable the vessel to continue loading, any costs involved will be charged to the vessel's account at rates to be established at the time. These services will only be provided in emergencies.
2. There will be no small boat hire, no shore leave, no shore services, and no medical assistance (except in cases of emergency) available at the Terminal. Information on port services in the area should be obtained from the vessel's Agent.
3. Crew members cannot leave the vessel at the OML 100 Oil Terminal, except in cases of extreme urgency. Even in an emergency, it should be noted that Seamen's Books may not be valid under the local Government Law. A valid passport is required. No crew changes will be permitted during the period a vessel is in the Terminal area.
4. After each tanker lifting, the Terminal will prepare all necessary loading documents. Documentation will be finalised on board the lifting vessel as soon as practicable after loading operations are completed.
5. The currency of Nigeria is the Naira.
6. The nearest international airport is Port Harcourt, although the main entry point into the country is at Lagos.

SAFETY: *Safety Precautions:*

1. The lifting vessel's personnel are responsible for the safety of the vessel, and must take all necessary precautions whether or not so advised by SBM's Mooring Master or other Terminal personnel. The Mooring Master may refuse to accept for loading, or may suspend or delay the loading of, or may unberth the vessel, when the conditions and/or the vessel do not comply with the OML 100 Oil Terminal User Regulations and Procedures, and/or safety precautions imposed by SBM's Terminal Superintendent. The time required to bring the vessel into compliance shall not count as used laytime. A responsible English speaking ship's officer is required to be on deck or in the control room at all times.
2. When a vessel is on the moorings or vicinity thereof, its engines must remain on stand-by with full power always available for immediate use. Deck machinery shall be kept at instant readiness. Positively no repairs of any sort affecting the availability of the vessel's machinery or engines will be permitted. Other repairs (including all painting), which present any hazard to the loading operation, are strictly prohibited. The vessel's whistle is to be at instant readiness at all times.
3. The Bridge and/or Control Area shall be kept unlocked and so arranged to allow immediate entry at all times by the Mooring Master.
4. The vessel shall be suitably manned. Not less than one deck officer and 3 seamen shall be on duty, sober, alert and available at all times. One of the seamen shall always be kept on the lookout on the bow to avoid contact with the "FSO XV", and at the same time report the presence of any suspect craft in the vicinity of the vessel to SBM's Mooring Master, who will take the necessary action.
5. No person under the influence of alcohol is to be allowed on deck. The opinion of SBM's Mooring Master on the sobriety of any individual will be final, unless an independent medical physician present at the time indicates otherwise.
6. No transistor radio sets or other electrical appliances may be used on deck, unless certified for use in hazardous petroleum areas and subject to the approval of SBM's Mooring Master.
7. All scuppers must be plugged and witnessed by SBM's Mooring Master and the vessel's Master. Refusal to plug scuppers will result in the ship being rejected. Drain trays and all materials necessary to clean up any oil spillage on deck are to be available for immediate use.
8. After complete discharge of ballast, SBM's Mooring Master and Petroleum Inspector (if any) will witness closing of Pumproom sea suctions and sealing of same.
9. The presence of unauthorised craft alongside the vessel will render the vessel unacceptable for loading. It is the duty of the vessel's personnel to see that the vessel's sides are clear of all such craft.
10. SBM's Mooring Master is authorised to shut-down loading operations during severe electrical storms, or if another vessel or craft of any description comes alongside the loading vessel, and under any other circumstances which in the opinion of SBM's Mooring Master may imperil the loading operations. The Companies shall not be liable for any demurrage loss, claims, or demands resulting from such shut-down.
11. Fire fighting equipment shall be in instant readiness throughout the vessel with additional equipment available at the loading manifold while in the berth. Water shall be available on deck service at all times, and fire hoses connected at all fire stations and flaked out for immediate use.
12. No radio transmissions will be permitted on board, except with the express permission of SBM's Mooring Master in each case. This regulation shall apply during the period the vessel is in the Terminal area or under the direction of SBM's Mooring Master.
13. When vessels are at the Terminal, boiler tubes are not to be blown. Every precaution must be taken that no sparks escape from the funnel or stack or from the galley stack. No ullage hole shall be left open, unless effectively covered with a gauge mesh wire spark arrester.
14. Smoking will not be permitted on deck while the vessel is moored, and will only be permitted in places approved jointly by the vessel's Master and SBM's Mooring Master. There may be occasions when smoking will be entirely prohibited. Cigarette butts should not be thrown overboard or through portholes at any time.
15. Lifebuoys shall be available throughout the vessel, and in particular in the loading manifold area and at all points of entry and exit, e.g. at pilot ladder.
16. All vessel personnel are to be adequately instructed by the vessel's Master, to avoid breathing gas escaping from tank ullage plugs while loading, and gas vents should be used. The vessel shall be equipped with fresh air masks, gas masks and resuscitators, which shall be kept in a conspicuous and readily accessible position ready for immediate use.
17. All accommodation doors, portholes and ventilators should be closed during loading operations, and doors and openings to machinery spaces in vicinity of vessel's tanks are to be closed.
18. If an emergency stop of loading is required and communications between the vessel and Terminal fail, the vessel's siren or whistle is to be continuously sounded. This signal stops all loading.
19. Vessel shall have "Fire Towing Wires" of suitable strength laid out and hung overside to sea level from the poop deck.
20. No swimming in the sea is permitted while vessels are on the berth.
21. No fishing is permitted in the loading berths or within the restricted navigation area.
22. When manoeuvring or during their stay in the Terminal area, vessels must comply with all aspects of the International Regulations for the Prevention of Collisions at Sea.

WEATHER: The navigator is referred to published sailing instructions for this area for information on winds, tides and currents, namely:

United States Hydrographic Office Publications 121 and 123 "Sailing Directions for the South Atlantic Ocean" and "Sailing Directions for the South West Coast of Africa", published by the U.S. Government Printing Offices in Washington, D.C.

British Admiralty: Africa Pilot Vol. 1, published by the Hydrographer of the Navy.

I.M. (SHOM) France Ref: Vol. V, series C, West African Coast, 2nd Volume.

Tides: The maximum range of tide in this area is about 2.0 m.

Currents: The general set of current in the area is Eastward, except during the Harmattan season, from November to February, when it is Westward. Within depths of 15.0 m. – 20.0 m., the current is irregular with many eddies. Outside those depths, the speed of the current is about 0.5 knots.

Winds: The Guinea Monsoon is the prevailing Southwesterly to Westerly wind (average speed 5 knots – 10 knots) which is strongest in the months March through November (average speed 10 knots – 20 knots). During the months of July through September, the Guinea Monsoon is strengthened in speed because of the Saharan heat low. The Guinea Monsoon is moisture laden and causes heavy rainfall in the Nigerian area. Waves and swell in the area are mostly Westerly.

Harmattan winds occur intermittently during the December – February period. The Harmattan winds are dry and often laden with Saharan dust. They are offshore winds and do not develop waves of significant height.

Waves: Waves are generally from a Westerly direction and average about 1.0 m., increasing in height with the stronger Monsoon wind during the months of July through November, when the average height is about 1.0 m. – 2.0 m.

Rainfall: The heaviest average rainfall is in July (442 mm.). During the Harmattan season in January, the rainfall averages about 42 mm.

Temperature and Humidity: The average temperature is between 28°C and 30°C. The daily average is from 22°C – 35°C. The humidity is as high as 75% – 85%.

AUTHORITY: *Operator:* Elf Petroleum Nigeria Ltd., Port Harcourt Office, Plot 25, Trans Amadi Industrial Layout, P.M.B. 5160 and P.O.Box 696, Port Harcourt, Nigeria. *Tel:* (084) 300310, 300311, 300312, 300313, 300314, 300315. *Telex:* 61261 Elf Ng. *FAX:* (Via Elf Lagos) 615722. *Contact:* Captain T. Whittaker and Captain S. Emms, Marine Superintendents – OPS/Logistic/Marine, Port Harcourt.

PENNINGTON OFFSHORE TERMINAL:

04.15 N. 05.36 E. **(See Plan)**

COURTESY FLAG: All vessels must exhibit the Nigerian National Ensign from their foremast or as appropriate while in the vicinity of the moorings.

LOCATION: The floating storage vessel, is the VLCC m.v. "Oloibiri" (272,535 d.w.t.) moored to SPM–A, one of two single point mooring berths.

1. SPM-A is located approximately 20 miles off the mouth of Fishtown River in a position

Lat. 4° 14' 35.2" N.
Long. 5° 36' 53.2" E.

2. The Export Tanker Buoy (SPM-B) is capable of accommodating vessels up to 250,000 displacement tons and is located at

Lat. 4° 15' 0.0" N.
Long. 5° 36' 10.5" E.

on a bearing of North 60° West and a distance of approximately 5,000 ft. from SPM-A. The minimum water depth at SPM-B is approximately 88 ft.

APPROACHES: Incoming tankers should make their terminal approach from a Westerly direction to a point not less than 2 miles Westward of the Export Tanker Berth. At this location the Mooring Master will board the vessel, or will direct the vessel to the Anchorage (2.5 miles S.W. of the terminal).

Pilot's Report: June 1986. B.A. Chart No. 1863. – 10 fathom depth reported by Pilot to extend 1.5 nautical miles to seaward of the charted position.

DOCUMENTS: Following documents required by Customs and Health Officials.

Last Port Clearance.
Ship's Register.
6 copies Vaccination List.
6 copies Stores List.
1 copy Crew Declaration.
15 copies Crew List.
4 copies Passenger List.
5 copies Animal List.
4 copies Ports of Call (last 6 weeks).
5 Arms and Ammunition List.
3 copies Stowaway List.
3 Crew Labour Lists.
20 Copies Dry Tank Certificate.

Also on arrival, 20 copies of Readiness Letters.

Before sailing and immediately upon completion of loading, vessel must provide 20 copies of Ullage Report.

Government Officials representing various departments may, at their discretion, board the vessels in the Terminal area.

PILOTAGE: (See "Approaches"). The Company Mooring Master, together with Customs Officials will board incoming vessel about 2 miles Southwestward of the Terminal Export buoy. Vessel's Master will be advised on approach to the berth details in respect of mooring, unmooring, connecting and disconnecting hoses, loading operations and departure from the berth.

Vessels are requested to have a combination ladder safely and securely rigged for immediate use, and long enough to reach the Mooring Master's launch. A light line should be ready to take on board the Mooring Master's radio and/or briefcase.

The Mooring Master will remain on board during loading operations and he will be in direct control of all ship communications while in Terminal area.

RESTRICTIONS: Operation of the terminal is on a 24 hour, seven days a week basis, weather and other circumstances permitting.

MAX. SIZE: Max. displacement 250,000 tons.

RADIO: Vessels proceeding to be loaded at the Terminal must cable their ETA to the Company (Cable Address: "Topcon – Lagos") 96 hours and again 24 hours prior to arrival. The Company in Lagos will then notify the Marine Superintendent Topcon, Warri. Also as early as possible prior to arrival, vessels should establish direct communication with the Terminal. The Terminal radio station watch keeping is for 5 minutes at 0700 – 1100 – 1500 – 1900 hrs. GMT.

Call Letters: 5 NDF (Oloibiri)
On A1 Listen on 8362 – 8365 kHz
On A2 Listen on 500 kHz.

Terminal equipped with Satcom No. 1772103 OLOI X (Atlantic).

Ship to Terminal communication while vessels are in the export tanker berth will be by portable VHF radio-telephone units, provided by Terminal.

The Company Mooring Master will advise ship's Master regarding emergency whistle signals set up for use in event radio-telephone units become inoperative. Use of ship's radio station and/or battery charging is prohibited while loading is in progress.

VHF: When in VHF range vessels shall contact the Terminal on VHF Channel 16 (156.8 MHz).

TUGS: *SPM Vessels:* The Terminal will have available 2 line handling vessels and one SPM-Hose maintenance vessel. These 3 vessels are under the control of the Mooring Master and are used to assist the mooring of the Tanker as required. These service vessels are not available to the Tanker for any other work.

READINESS: The Company will make every effort to load vessels upon arrival, or as promptly as berth is available, weather permitting.

"Notice of Readiness" will be accepted as at time of arrival, provided vessel is in all respects ready to load and subject to task force clearance.

Arrival time will be considered as at the time Mooring Master boards vessel, or at the time vessel anchors off the terminal, which ever occurs first.

The Mooring Master may reject a vessel if in his judgment she is not properly equipped or suitably manned, or if, upon inspection, he deems her to have dirty ballast or tanks unsuitable for cargo. However, Company will not issue any certificate or representation purporting to state that vessel's tanks, pipes and pumps and appurtenances are clean o acceptable for receiving cargo nor will the Company assume any responsibility for "contamination of cargo aboard ship caused by condition of ship's tanks, pipes, pumps or appurtenances".

The vessel shall have in readiness one nylon rope with a minimum diameter of 1 in., approximately 600 ft. long and terminated with a 2.25 in. joining shackle to attach and retrieve the SPM mooring line.

Vessels must be adequately equipped with blocks, tackle and booms to hoist the floating hose string in a safe, efficient and expeditious manner. Vessels must also have an adequate supply of nuts, bolts, gaskets and wrenches to connect cargo hoses system.

BALLAST: Absolutely no provision is made for dirty ballast. Vessels with dirty ballast will be rejected and all costs therefrom will be to the vessel's account.

It is the Ship Master's responsibility to see that no oil or oily ballas is pumped or spilled overboard. Drip pans must be used at all times and all scuppers must be plugged. The waters in and adjacent to the Termina must not be polluted, and only clean oil-free ballast and/or clean bilge water may be discharged at the Terminal.

As soon as practicable after arrival, and prior to acceptance for loading all vessel's tanks will be inspected for evidence of oil in ballast, and during discharge of ballast, similar inspections will continue. If evidence of oil appears at these inspections, the vessel may have to vacate berth Upon her return, vessel will be obliged to tender new "Notice o Readiness".

If, during the first inspection or during process of loading it is revealed that vessel's tanks are not oil-tight, she will be rejected, or refused furthe loading.

In addition to lights usually displayed, vessels discharging ballast o loading cargo during darkness will illuminate the area around the ship to satisfaction of the Mooring Master, in order that any oil on the surface of the sea may readily be detected and appropriate action taken. Vessels unable to illuminate sea satisfactorily may not discharge ballast during darkness. Vessels should provide suitable floodlights for working on deck during night operations.

In the event any vessel should accidently discharge dirty ballast o spill oil in the vicinity of the Terminal, the Company shall have the righ to take any action that may be necessary to clean up or remove any contamination or pollution resulting from such discharge of dirty ballas or spillage. In addition, the Company shall have the right to settle any claims of third parties arising from such contamination or pollution. Al costs and expenses incurred by the Company to carry out the cleaning up of such contamination or pollution or the settlement of third party claims, shall be the joint and several liability of the Vessel, its Owners and Managers, and the Company shall be entitled to claim reimbursement accordingly in any jurisdiction.

Vessels properly equipped will be encouraged to discharge clean ballast and load simultaneously.

BERTHING: All manoeuvring of vessels within the loading berth area is to be done only in accordance with advice of the Company's Mooring Master, subject to the understanding that in all cases and circumstances the Master of the vessel being manoeuvred shall remain solely responsible for the safety and manoeuvring of the vessel. Vessel's Master or a qualified Deck Officer must be on bridge at all times during manoeuvring.

EXPORT TANKER BERTH FACILITIES: The Export Tanker Buoy is a conventional SBM which is 10 m. in diameter and held in position by 6 chains secured to piles sunk in the seabed. One mooring hawser with one chain and a single floating hose string extend from the buoy.

CONNECTING MOORING LINES: When the vessel is within reasonable distance of the SPM-B, ship's line will be carried by a line handling launch to the floating buoy line and secured. This line will then be heaved aboard. As the buoy ropes come clear of the water it will be noted that the chain is attached to it. This chain is to be secured through chain stopper (able to accommodate 3.25 in. chain links), in such a manner that the nylon is outside of the extreme length of the ship; i.e. so that the chain will absorb any chafing if the buoy line crosses the bow. Power must be available at all times on all winches and windlass while vesse is at the berth.

HOSES: The hose system is 910 ft. long (26 sections)×16 in. hose.

CARGO: Crude API 35.8 at 60°F. Average temperature 82°F. – 85°F.

LOADING: During loading, the International Code Flag "B" shall be displayed from top-mast signal halyard during daylight hours. During hours of darkness, a red light shall be displayed, visible at a distance of at least 1 mile, and showing unbroken light all around the horizon.

Raising, connecting, disconnecting and lowering of the floating hose system will be performed by vessel's crew under direction and supervision of an appropriate vessel's Officer as advised by the Mooring Master, who will remain on board while the vessel is in moorings.

After the vessel is securely moored the floating hose will be lifted to the rail on the port side amidships. The weight of the lift is approximately 7 tons and is lifted with the vessel's gear. The Mooring Master advises the vessel's personnel in the lifting, connecting, disconnecting and lowering of the hose system. A vessel's Deck Officer must be present and direct the crew in all hose handling. There must be sufficient crew on deck to perform this work.

The vessel's Master is responsible for own vessel at all times. The max. loading rate is about 22,000 bbls.p.h. and the Company Mooring Master will advise in respect to loading pressures and hazards, but will not direct the loading except as may be necessary to protect the Terminal facilities. Manipulation of the vessel's valves is the direct responsibility of vessel's personnel.

Prior to commencement of loading, the Chief Officer will assure the Mooring Master that sea suction valves are *closed* and he will make note to that effect in Mooring Master's log before cargo loading is started. Final ullaging and computation of cargo will be done by an Officer of the vessel who will hand this information to the Mooring Master for transmittal to the Terminal for use in comparing metered-out cargo.

Caution: The incoming oil stream is controlled by the Terminal and it is extremely dangerous to close a cargo valve against the incoming stream. Such a procedure creates excessive pressure, which may damage hoses, piping or Terminal facilities. Vessels will be held liable for damages resulting from failure to observe this precaution.

Emergency Signal: When normal ship-to-Terminal communications fail, the emergency signal to stop the flow of oil will be a continuous blast on the whistle until oil ceases to flow. Steam or air should never be shut off from the whistle during loading. Whenever emergency whistle is used, all loading operations will be shut down until communications can be re-established.

Fire on Board of Export Tanker: The emergency signal must be given immediately to the Terminal. A vessel's Deck Officer with sufficient crew members must be ready and when so ordered by Mooring Master, close the manifold, disconnect the hose and standby on fo'castle ready to let go of the mooring line.

Terminal Stops: Request for the Terminal to stop the flow of cargo at a predetermined tonnage must be made in writing. Requests must include the statements that the Company will not be held responsible for any error and in case of overloading, the excess cargo cannot be pumped back to the Terminal. Some delays are always incurred when such a Terminal stop request is made.

SAFETY: The vessel's personnel are responsible for the safety of the vessel, and must take all necessary precautions whether or not so advised by the Mooring Master. Any safety precautions imposed by the Company Mooring Master and disregarded by ship's Officers or Crew, will be considered just cause for rejection of the vessel and all expenses and liabilities related thereto will be for account of the tanker.

Not less than 1 Deck Officer and 3 seamen shall be available on deck at all times while vessel is in the moorings.

One of those to be kept always on look-out on the bow to avoid contact with the SBM.

Power must be available at all times on deck winches and windlass while vessel is in the moorings.

The presence of unauthorised craft alongside is extremely hazardous and Masters are requested to require all unauthorised craft to clear the vessel's side prior to ballast pumping and cargo loading.

Mooring Masters are authorised to shut down loading operations during severe electrical storms, if another vessel or craft of any description comes alongside the loading vessel, and under any other circumstances which imperil loading operations.

MEDICAL: Medical assistance on an emergency basis only.

WEATHER/CURRENTS: Wind and swell are mostly from a Southwesterly direction. The weather is generally good from November to May but is unfavourable during the wet season months of May to November. The currents are irregular and at times strong. The Mooring Master will provide the Master with this information when boarding the vessel.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: No facilities of any kind are available. Pennington Offshore Terminal is considered an open roadstead and under no circumstances may engines be shut down for repairs while a vessel is moored in the Export Tanker Berth. The vessel must be able to depart from the berth immediately on instructions to do so.

STORES: Not available.

REPATRIATION: Not permitted except in grave emergencies.

SHORE LEAVE: Not permitted.

GARBAGE DISPOSAL: No service available.

WASTE OIL DISPOSAL: No service available.

SEAMAN'S CLUBS: None.

CURRENCY: Naira. All travellers, including seamen, can export up to a maximum of 50 Naira.

GENERAL: Cargo inspection services are available from several companies who have offices in Lagos. The use of this service will be for account of vessel or Consignee.

Cash and laundry service not available.

SHIPMASTER'S REPORT: December 1983 (updated 1988).

Radio: Export tanker radio transmits on 8385 kHz and receives on Channels 5/6. Advisable to give tanker a 2 day ETA.

Berthing: During vessel's stay 1 Berthing Master, 1 Cargo Surveyor and 2 Nigerians stay on board and require food and accommodation.

The 2 Nigerians keep a buoy watch together with the vessel's own watchman.

Loading: API is usually 36.9 at 60°F. Loading rate approx. 3,000 t.p.h at 84°F.

After loading there is no EDP and it is necessary to leave the berth, anchor and wait about 2 hours for paperwork.

Customs: Customs inspect store rooms.

SHIPMASTER'S REPORT: January 1986.

Vessel loaded 1,000,000 barrels of Pennington Light Crude Oil.

Documents: The authorities now require 6 copies Vaccination List, 4 copies Stores List and 11 copies Crew List.

Approaches: The Mooring Master boarded the vessel 1.2 miles West of the export tanker buoy.

Radio: The following Standard Messages were received from the storage tanker "Oloibiri":

Standard Message No. 1:

Quote

Note to Master –

On arrival have ready on starboard side the combination ladder (gangway plus pilot ladder) STOP on port side have boom ready to lift the mooring equipment STOP on forecastle have one 1 in. diameter messenger line 600 ft. long STOP on stern have towing line ready for handing to the tug STOP after mooring you will be connected with 1×16 in. hose on your port side STOP please call Pennington Terminal on VHF Channel 16 two hours before arrival STOP thank you STOP Pennington Terminal – MASTER Oloibiri/5NDF +

Unquote

Standard Message No. 2:

Quote

In addition to messages to Topcon Lagos please advise following information to this terminal –

1 – eta Pennington Terminal (4° 14' 35.2" N., 05° 36' 53.2" E.).
2 – cargo quantity to load.
3 – deballasting time.
4 – last port of call.
5 – next port of call.
6 – port at which cargo to be discharged.
7 – note – loading rate approximately 21,000 barrels per hour. Crude oil API 36.5. Approximate temperature 82° F. Any ballast to be discharged must be clear. – Topcon Warri – Master Oloibiri +

Unquote

Tugs: 2 tugs assist with berthing. 1 tug remains and tows aft throughout the entire stay at the SBM.

Hose Connecting/Mooring: In addition to the Mooring Master, 2 men board the vessel on arrival. They assist with mooring and connecting the hose. They stay on board all the time until the vessel is unmoored.

Surveyor: 1 cargo surveyor stayed on board whilst the vessel was at the SBM.

AGENCY: The Company does not perform general agency functions. Owners of vessels calling at the Terminal may arrange for their own Agents.

NOTE: Should any vessel or craft sink or become an obstruction in the vicinity of the Terminal or at the Terminal, the Terminal Operator shall be empowered and shall have the right to take any steps it may deem necessary to remove the obstruction without notice to the owners. All expenses of such removal shall be borne by the vessel or craft or by those owning it at the time of the accident causing the obstruction, and the Terminal Operator shall be entitled to reimbursement by them for any such expenses incurred by it.

OPERATORS: Texaco Overseas (Nigeria) Petroleum Company, P.O.Box 1986, 36 Gerrard Road, Ikoyi, Lagos, Nigeria. *Tel:* (01) 2690227-36. *Telex:* 21293 Topcon Lagos. *FAX:* (01) 2692367. *Contact:* J.R. Ortiz, Chairman and Managing Director.

PORT HARCOURT (incl. Okrika Refinery):
04.46 N. 07.00 E.

DOCUMENTS: Ship Entry Notice, See "Lagos".

14 days prior arrival Agent requires:

16 Manifests.
3 Stowage Plans.
3 Hatch Lists.

On arrival at Port Harcourt, Master to present:

7 Ports of Call Lists.
7 Crew Lists.
2 Kroo Boy Lists.
3 Animal Lists.
5 Arms and Ammunition Lists.
1 extra Manifest for transhipment is applicable.
4 Stores Lists.
3 Crew Declaration Lists (belongings).
1 Declaration of Health List.
4 Vaccination Lists.
3 Narcotics Lists.
2 Parcel Lists.
6 Passenger Lists.
2 Stowaway Lists.

Where not applicable, forms to be marked "nil". All other forms including departure documentation prepared by Agent.

PILOTAGE: Compulsory from Bonny Fairway buoy. The Pilot Station for Port Harcourt is at Bonny, 15 miles from Fairway Buoy, 28 miles from Port Harcourt. The Harbour Master keeps watch on VHF Channels 16 and 14 and on 2182 kHz from 0700 hrs. to 1800 hrs. Pilot boards at Fairway Buoy from pilot-cutter green hull, stone colour superstructure.

Position of Fairway Buoy: Lat. 4° 12' 56" N., Long. 7° 00' 28" E.

It should be noted that Bonny is an Oil Terminal and as such heavy traffic of tankers is continuous. In extreme circumstances vessels may be requested by Harbour Master to pass the channel from Fairway Buoy at Bonny, and anchor at Bonny without a Pilot, in which case latest Notices to Mariners should be studied in order not to damage oil pipelines in prohibited anchorage areas.

ANCHORAGES: Position West of Fairway Buoy, depths 8 – 9 fathoms. Also on Bonny River at Bonny Town.

RESTRICTIONS: Vessels for Okrika and Port Harcourt can only navigate during daylight.

MAX. SIZE: Also see "Berthing" and "Report". Max. draft is 7.32 m. at HW. Max. length 600 ft., no restrictions on beam. Ebb tide reaches a max. of 3 knots off the berths and 2.5 knots in the river, flood tide 2.5 knots off berths and in the river.

HEALTH: Q-flag to be shown on arrival, except if from another Nigerian port. Yellow fever inoculations compulsory.

RADIO: Master to cable "Agent" Lagos via Lagos Radio ETA 7, 4, 2 and 1 day prior arrival. Master to contact Bonny Harbour Master on VHF Channel 14 on arrival at anchorage giving all vessel and cargo particulars, Agent's name, SEN No., and date of issue.

Master also required to advise Port Harcourt Harbour Master identical information through Lagos Radio and to contact Port Harcourt Agent on VHF Channel 14, keeping watch on this Channel per Agent's instructions.

TUGS: 3 N.P.A. tugs of about 1,000 h.p.

BERTHING: *Port Harcourt:* 8 berths for general cargo at hard quays. Maximum practical draft 7.32 m.

8 dry cargo berths depth 33 ft. – 35 ft.

Mooring buoys, Dockyard Creek with 5 buoys, max. draft 7.62 m.; Dawes Island anchorage discharging for about 12 vessels, max. draft 8.23 m.; Pool 4 buoy berths max. draft 6.01 m.; Tanker buoy 1 berth.

B.O.P. Berth. This berth lies outside the Quay area, and is for the loading of palm oil by means of a direct pipeline from the installation of Bulk Oil Plants (Nigeria) Limited. It consists of a central "T" jetty with dolphins and is capable of berthing vessels up to 480 ft. in length. It is also used for the discharge of explosives as such cargo is not permitted to be handled across the general cargo Quay.

Oil is supplied by a 6 in. diameter pipe at a maximum rate of 250 t.p.h.

Coal Handling Facilities: Facilities for loading coal have been completed and a conveyor capable of loading about 60 t.p.h. is working. Max. draft at the coal berth is 7.62 m. This berth is situated at the Northern end of the port, berth No 8.

Okrika Oil Refinery: (Lat. 04° 44' N., Long. 07° 05' E.). Okrika lies on the Bonny River, 56 km. from the sea. The approach over the bar is by a channel 12.8 km. in length. Depth in channel: See "Bonny". The river from Bonny to Okrika has been dredged as necessary to a depth of 8.84 m. Chart Datum. The bar channel and river are well buoyed with light buoys, port and starboard. There are also beacons in the river. Jetty at the oil refinery suitable for berthing coastal and ocean tankers up to 33,000 d.w.t. The jetty is "L" shaped with a square dolphin at the end of the arm. Ocean tankers secure on the outside of the jetty making fast to two sets of mooring dolphins each end. The coastal vessels and barges are berthed on the inside of the jetty. Oil is supplied via gantry hoses on either side.

Max. draft limit for tankers sailing from port 9.67 m., draft for berthing 7.92 m.

Fresh water available from the jetty.

The tugs based at Port Harcourt are available if required.

Pilotage is compulsory from the Fairway Buoy to the Refinery Jetty except for Naval vessels and vessels of less than 1,000 tonnes whose Master holds a licence issued by the Nigerian Ports PLC. All vessels using the Refinery Jetty will berth and unberth on the flood tide only during daylight hours until further notice.

Also see "Report" and "Shipmaster's Report" dated October 1990.

STEVEDORES: Gang requirements and hatch distribution should be included in 48 hours ETA cable to Agent. Discharging general cargo 8 tons per gang/hour, cement 15 tons per gang/hour, bagged cargo 20 tons per gang/hour, loading produce 15–20 tons per gang/hour.

MEDICAL: Doctors available 24 hours, but limited supply of medicines available. Yellow fever vaccination required.

TANKERS: See "Berthing".

DENSITY: Approx. 1015.

FRESH WATER: Limited supply by barge.

FUEL: Most standard lubricants available, fuel and gas oil available by barge or road tanker. Requirements by 48 hours ETA cable.

REPAIRS: Only very minor repairs available, no spares.

GANGWAY/DECK WATCHMEN: Compulsory. Tankers take 4 watchmen and cargo vessels take 16 watchmen. Acts of piracy have taken place at the port. See "Bonny" – "Piracy".

OPENING/CLOSING HATCHES: Normally by crew.

CUSTOMS ALLOWANCES: 200 cigarettes per man per 7 days. 1 wine or 1 bottle spirits per officer per 7 days.

REPATRIATION: Possible via Lagos or Port Harcourt.

AIRPORT: Port Harcourt International Airport 30 km. from port. International and domestic flights.

TIME: GMT plus 1 hour, no changes during the year.

HOLIDAYS: See "Lagos".

POLICE/AMBULANCE/FIRE: All can be contacted by telephoning 999.

SHORE LEAVE: Allowed provided crew carry Passport or Seaman's Book.

IDENTIFICATION CARDS: Crew to carry Passport or Seaman's Book whilst ashore.

REPORT: September 1984.

(a) Okrika sailing draft now 31 ft. 9 in.

(b) Compulsory pilotage for all classes of vessels including service boats is now in force.

(c) All vessels are to direct radio messages/cables advising ETA's to the port of destination and not to Nigerian Ports PLC headquarters in Lagos to avoid delays.

(d) Station Tanker "Maryland" – 152,035 d.w.t., LOA 915.34 ft. Summer draft, 58 ft. and operating on max. draft of about 40 ft. with which she is capable of lifting 85,000 tonnes of product. Vessel's position is approximately Lat. 4° 25' N., Long. 7° 08' E. at Bonny Inner Anchorage.

SHIPMASTER'S REPORT: May 1982.

Documents: 6 Crew Lists, 5 Passenger Lists (or negative), 8 Arms and Ammunition Lists (or negative), 6 Livestock Lists (or negative), 7 Ports of Call Lists, 2 Bonded Store Lists, 5 Vaccination Lists, 2 Crew Declarations.

As we were a tanker in ballast we did not present any Manifests and Bills of Lading. However, the Immigration Officer asked for a declaration from Master that there were no stowaways on board. No special form used.

Pilotage: Pilot keeps watch on Channel 14 and all traffic passed from this Channel to others (12, 13). As there is a shortage of Pilots, sometimes one Pilot comes out at Fairway Buoy and boards the first vessel to enter. The two or three other vessels entering at same time are directed to follow the vessel with the Pilot on board through the entrance channel to Bonny. When no Pilot waits at "N" buoy, the Pilot on board the first vessel will direct the others to the anchorages at Bonny as far as Buoy 1A.

During our stay it was observed that sailing out was performed at any hour but sailing in was only performed during daylight hours.

As the channel from Fairway Buoy and Bonny is a one-way channel all traffic is controlled by Bonny Signal Station who keep watch on VHF Channel 14 continuously and gives permission to vessels who intend to use the channel regarding the other vessels who are using it.

The Pilot from Port Harcourt to Bonny will normally disembark at Bonny outward bound. However, if another vessel is waiting at the fairway buoy to proceed inward or if requested by Master, Pilot will take vessel to the Fairway Buoy.

Our Pilot left at Bonny Pilot Station and vessel can proceed to sea after getting permission from Bonny Signal Station to do so. If outward channel is not clear from inbound vessels you are requested to wait until the last vessel reaches "N" buoy. In some circumstances they will allow vessels to cross each other near "M" buoy but no further than that.

On this occasion it was noted that "L" buoy (starboard) was missing.

Tankers between Bonny and Port Harcourt can only proceed with Pilot and during daylight hours. When proceeding to Okrika the Pilot boards at Bonny Pilot Station or at Bonny Anchorage and conducts vessel up river to Okrika and berths vessel. If possible he starts from Bonny when tide begins flooding up river, it takes about two hours for tide to reach Okrika and vessels take about same time in steaming, so when we reached Okrika the tide begins flooding.

Tankers berth port side to and use starboard anchor to make the turn. Pass a line to a mooring buoy so that it will be on starboard bow when the vessel is berthed to assist the berthing. After completion of berthing this line is taken in, as it has no more use and on account of thieves. Vessels remain secured by 3 breast lines to dolphins forward and aft and 1 spring line to jetty forward and aft.

When sailing, after taking in all lines, the last ones being one breast line forward and aft, the starboard anchor will assist the vessel to leave the jetty and reach the middle of the channel.

Maximum draft for sailing out of Okrika Terminal is 32 ft. (9.75 m.), when berthed port side to the jetty. If berthed starboard side to the jetty the maximum sailing draft is 25 ft. (7.60 m.). It is convenient when sailing at maximum draft to go to the jetty always port side as if going starboard side to when loaded to 25 ft., vessel has to stop loading, unberth, turn and berth one more time and all these operations must be performed only during daylight hours and at special stages of tide.

Sailing out from Okrika with 32 ft. will be performed in daylight and vessels must leave jetty two hours before high tide at Bonny.

The channel from Okrika to Bonny has been kept dredged to the Chart Datum, it was well buoyed and was made by the vessel loaded without any difficulties. Our sailing draft was 32 ft.

Health: "Q" flag to be shown on arrival, on river and on berth, till the Health Authorities board the vessel and give clearance.

Okrika Jetty: Further to the information above there is a new jetty, down river, close S.E. of the former, which is ready as a normal quay, but will have to have oil loading facilities and pipelines, connected to the existing ones at the middle of the connection to shore of the former jetty. The new jetty is provided with six buoy fenders (cylindrical type), four of them in the middle, (the small type) and two (large type) near the extremities of jetty. It is expected that the mounting of pipelines, oil loading facilities and other facilities will take about 2–3 years.

Density: During our stay, May 6th – 9th, we experienced the following: at LW 1018; at HW 1019; water temperature 30°C.

Fuel: Fuel oil, diesel oil and gas oil are available. We took gas oil without difficulty but fuel oil takes a long time as occasionally they need to flush all lines and this takes time. Orders must be placed well in advance as it takes a long time to get confirmation from Lagos about the supply.

Shore Leave: No difficulties, but recommended in daylight hours.

Communications: Between Lagos and Port Harcourt are very poor. Telex lines were inoperative at time of our stay and all messages between Lagos and Port Harcourt Agency Offices were passed by radio or telephone with delays.

SHIPMASTER'S REPORT: October 1990.

Vessel: 50,000 d.w.t.

Berth: Okrika Refinery.

Report: The following is a copy of a telex received from a Master.

Okrika Pilot boards at Bonny Town. Daylight berthing only. River passage fairly well buoyed. There are two berths ('A' and 'B') on the East side of the river. Vessel berths portside to, so has to turn short round adjacent to berths. Tug "Limburgh" in attendance. After turning, starboard anchor used to check approach alongside. Tug was used as mooring boat. Tie up with 4 head/stern lines and 2 springs fore and aft. Berth 'A' is of good solid cement construction. Good fenders alongside berth at approximately 70 m. intervals. Dolphins for head lines have good leads, but aft dolphins give poor leads for stern lines and breast lines.

Berth 'B' (length 110 m.) is best berth. Also of good solid cement construction with very good fenders, leads to dolphins each end good. Both berths have 10 in. Chicksans. Density 1012 varies. Max. sailing draft 9.5 m. Communications overall chaotic, very difficult to get any information. One task force soldier onboard. We had no problems with pirates, but other vessels did. Pirates can be vicious and will come out 30 miles from coast. Port officials board at Okrika and Bonny. Vessel requires two complete sets of entry papers.

AUTHORITY: Nigerian Ports PLC, Private Mail Bag 5043, Port Harcourt, Nigeria. *Tel:* 300370/516. *Telex:* 61348. *Cables:* Genports. *FAX:* 335402. *Contact:* Port Administrator.

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QUA IBOE: 04.20 N. 07.59 E. (See Plan)

LOCATION: The Terminal is located on the Eastern side of the estuary of the Qua Iboe River in approximate position Lat. 4° 33' 00" N., Long. 7° 59' 30" E.

The crude oil storage facilities consist of seven tanks each of 500,000 barrels capacity.

Note: The eighth tank with same capacity is nearing completion. Also under construction are three condensate tanks of 670,000 bbls. capacity each.

IMPORTANT FEATURES AT QUA IBOE TERMINAL:

1. There are 2 loading SPM's for handling VLCC's up to 300,000 d.w.t.
2. Approximate average API 36.0, average loading temperature 89°F. to 92°F.
3. Vessels proceeding to the safe anchor area should approach from the Southeast, and when instructed to anchor should drop anchor 5 miles Southeast of the Berth Operation Platform (BOP). The BOP is equipped with a Racon, transmitting the letter "K".
4. The Pilot at Qua Iboe Terminal will moor/unmoor and supervise all other operations and movements of the vessel at the Single Point Mooring Buoy and at the anchorage.
5. Safety rules are strictly enforced. The safety requirements are based on the ISGOTT standard regulations.
6. Display of quarantine signals on approach to Qua Iboe Terminal must be maintained until Free Pratique is granted. By day the flag of Nigeria must be flown throughout the vessel's stay in the Terminal area.
7. SPM No. 1 (Berth No. 2): Single Point Mooring (SPM) buoy is located in position Lat. 4° 13' 05" N., Long. 8° 02' 45" E., approximately 19.4 nautical miles, 170° of the Terminal Tank Farm. Depth of water at the manifold is 85 ft.
   Vessel's max. draft 72 ft.
8. SPM No. 2 (Berth No. 3): Single Point Mooring (SPM) buoy is located in position Lat. 4° 13' 30" N., Long. 8° 03' E., approximately 18.8 nautical miles, 165° from the Terminal Tank Farm. Depth of water at the manifold is 85 ft.
   Vessel's max. draft 72 ft.

8a. *Proposed* SPM No. 3 (Berth No. 4): Single Point Mooring (SPM) to be positioned in Lat. 04° 13.3' N., Long. 08° 05.5' E., approximately 19.3 miles × 163° from Terminal Tank Farm. The depth of water at the manifold is 85 ft.

9. Charts and Publications: Masters of vessels proceeding to load at Qua Iboe Terminal should obtain the latest sailing directions, charts and hydrographic bulletins for the area.
   In this respect attention is drawn to the following editions of:
   (a) British Admiralty Chart: No. 1860.
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   (e) Latest edition of Guide to Port Entry.
   (f) Up-to-date and appropriate tide tables.

ESSENTIAL REQUIREMENTS AND QUESTIONNAIRE FOR TANKERS ARRIVING FOR LOADING:

1. No dirty ballast.
2. Nigerian time is GMT plus 1 hour.
3. All vessels must exhibit the Nigerian National Ensign while in the vicinity of the Qua Iboe Terminal moorings.
4. Vessel to radio the following information prior to arriving at Qua Iboe Terminal Anchorage:
   a. Tanker's name.
   b. Port of Registry/Country.
   c. Summer deadweight.
   d. Last port of call.
   e. Port of destination.
   f. Cargo requirements.
   g. Loading rate required.
   h. Deballasting time prior to commence loading.
   i. Arrival time at anchorage.
   j. Anchoring time.
   k. Master's name.
5. Vessel to have ready prior arrival:
   a. Port side derrick.
   b. Port side manifold for 2×16 in. hose connections.
   c. Combination ladder or pilot hoist.
   d. One floating ship's rope astern to tie-up tug.
   e. Two ship's ropes at the bow or a long 1.5 in. diameter nylon messenger.
6. Mooring Master and/or Government Officials will meet the vessel in the suggested Safe Anchorage Area.
7. Vessel to provide a good lee for the Mooring Master and/or Government Officials.
8. The Master of the vessel is fully responsible for the safety of his ship at all times.
9. Ship's crew to perform all operations of mooring/unmooring, connecting/disconnecting hoses on board the vessel.
10. Sufficient crews and at least one suitable deck officer must be on duty at all times while the vessel is moored to the SPM.
11. An Agent will be available, if requested by the Charterer/Ship's Operator.
12. The following services are not available:
    a. Shore leave.
    b. Crew changes.
    c. Supply of stores, fresh water, bunkers.
    d. Medical assistance, only on extreme emergency basis and will be debited to the vessel's account.
13. The following personnel live on board throughout the stay of the vessel: 1 Pilot, 1 Cargo Surveyor, 1 Nigerian Ports PLC Environmental Inspector.
14. Lineboat is tied up astern using a ship's rope.

DOCUMENTS:

The following documents are required by the Nigerian Government Customs Representative at Qua Iboe Terminal:

4 copies Crew List.
4 copies Ports of call within the last three months.
4 copies List of Birds and Animals.
4 copies Passenger List.
4 copies Stores List (with attached list of narcotics).
4 copies List of Arms and Ammunitions.
4 copies Crew Personnel Effects List.
4 copies Vaccination List.
1 copy Sailing Clearance, last port of discharge.
1 copy Loading Instructions (telex).

In addition the Task-force Officials and the Agent require one copy each of the above listed documents.

The Master must be aware of the Nigerian National Maritime Authority (NMA) levy on oil shipments to/from Nigeria.

PILOTAGE: Vessels loading at Qua Iboe will be boarded by a Company Mooring Master either at the anchorage or where directed.

The Mooring Master will advise the ship's Master in regard to the approaches to the berth; and the mooring, unmooring, connecting, disconnection of hoses, departure from the berth and loading operations.

All vessels must have upon arrival a pilot ladder in good, clean condition safely and securely rigged. A vessel arriving with freeboard of 30 ft. or more must use its accommodation ladder in conjunction with the pilot ladder unless a "pilot hoist" or similar arrangement is available.

In the event that a vessel is deemed by the Mooring Master to be improperly or insufficiently equipped with adequate mooring facilities, lines or gear, then he shall so inform the ship's Master. In such an event the vessel will not be brought into the mooring until satisfactory gear or equipment is provided.

ANCHORAGE: Numerous submarine pipelines and structures exist in the approaches and close vicinity of the loading berths.

Under no circumstances whatsoever should vessels anchor except in the approved anchorage described below.

The Anchorage Areas are as follows:

North-West Anchorage is bounded by lines joining the following points: 04° 13.0' N., 08° 03.0' E.; 04° 09.8' N., 08° 03' E.; 04° 13' N., 08° 05.5' E.

South-East Anchorage is bounded by lines joining the following points: 04° 10' N., 08° 04.3' E.; 04° 10' N., 08° 07' E.; 04° 12.5' N., 08° 07' E.

Vessels bound for the Qua Iboe Terminal should proceed with extreme caution from the S.E. to the safe Anchorage Area. If uncertain of the vessel's position because of poor visibility stay S.E. and clear of the safe Anchorage Area until visibility has improved.

HEALTH: Pratique may be granted by radio (Lagos Radio).

The vessel should have a clean Bill of Health or an equivalent document from the last port of call. The vessel's Master and all members of the crew shall possess International Certificates of Health showing valid Cholera and Yellow Fever Vaccination Certificates.

MAX. SIZE:

Berth	Length	Beam	Draft
No. 2 (SPM1)	No restriction	No Limit	72 ft.
No. 3 (SPM2)	No restriction	No Limit	72 ft.

RADIO: Cable address: Mobiloil Lagos. Telex: 21228, 22608 and 21801.

Vessels proceeding to load at Qua Iboe must radio:

1. Mobiloil, Lagos indicating their cargo requirements, last port of call and ETA 7 days prior to arrival. When their passage time is such as to not permit a 7 day ETA then the maximum possible advance notice must be given.
2. Mobiloil, Lagos, confirming or amending the ETA given in (1) above at 72 hours and 24 hours prior to arrival.
3. The Nigerian Government Port Health Officer at Lagos at least 72 hours before arrival advising the following:
   (a) Vessel's name and call sign.
   (b) ETA Qua Iboe Terminal.
   (c) Last port of call.
   (d) Cargo requirements.
   (e) Number of crew and whether healthy or not.
   (f) Whether or not a doctor on board.
   (g) Requesting Free Pratique.

The Port Health Official boards vessel on arrival. If the request has not been radioed to the vessel, the yellow flag "Q" by day or red over white lights by night must be displayed on arrival at Qua Iboe.

In addition, as soon as possible prior to arrival, vessels should establish direct communication with the Terminal ("Qua Iboe Control") on VHF international calling Channel 16 (156.8 MHz) or call on Channel 84 (Qua Iboe Terminal).

Vessels not equipped with VHF or whose equipment is not fully functional should advise Mobiloil, Lagos, at the time of their ETA messages previously referred to.

The (BOP) Berth Operation Platform is fitted with a Racon and transmits the Morse signal "K" (– · –). All vessels equipped with 3 cm. radar will be able to pick this up on their radar screen at a distance of approximately 17 miles – 20 miles.

After direct contact has been established with the vessel, Qua Iboe Control will transmit preliminary requirements and berthing instructions.

VHF: The primary system of communication with the terminal while in berth shall be through the Mooring Master by means of a portable VHF unit provided by the company.

TUGS: None. Terminal launches assist in berthing.

BERTHING: All vessels must be equipped with adequate on-deck and overside lighting. A spotlight should be rigged on the bridge when berthing during the hours of darkness.

To assist in the vessel's turnaround, tankers should have all booms and cargo gear rigged on the port side before the ship is boarded by the Mooring Master.

BERTHING: *Port Harcourt:* 8 berths for general cargo at hard quays. Maximum practical draft 7.32 m.

8 dry cargo berths depth 33 ft. – 35 ft.

Mooring buoys, Dockyard Creek with 5 buoys, max. draft 7.62 m.; Dawes Island anchorage discharging for about 12 vessels, max. draft 8.23 m.; Pool 4 buoy berths max. draft 6.01 m.; Tanker buoy 1 berth.

B.O.P. Berth. This berth lies outside the Quay area, and is for the loading of palm oil by means of a direct pipeline from the installation of Bulk Oil Plants (Nigeria) Limited. It consists of a central "T" jetty with dolphins and is capable of berthing vessels up to 480 ft. in length. It is also used for the discharge of explosives as such cargo is not permitted to be handled across the general cargo Quay.

Oil is supplied by a 6 in. diameter pipe at a maximum rate of 250 t.p.h.

Coal Handling Facilities: Facilities for loading coal have been completed and a conveyor capable of loading about 60 t.p.h. is working. Max. draft at the coal berth is 7.62 m. This berth is situated at the Northern end of the port, berth No 8.

Okrika Oil Refinery: (Lat. 04° 44' N., Long. 07° 05' E.). Okrika lies on the Bonny River, 56 km. from the sea. The approach over the bar is by a channel 12.8 km. in length. Depth in channel: See "Bonny". The river from Bonny to Okrika has been dredged as necessary to a depth of 8.84 m. Chart Datum. The bar channel and river are well buoyed with light buoys, port and starboard. There are also beacons in the river. Jetty at the oil refinery suitable for berthing coastal and ocean tankers up to 33,000 d.w.t. The jetty is "L" shaped with a square dolphin at the end of the arm. Ocean tankers secure on the outside of the jetty making fast to two sets of mooring dolphins each end. The coastal vessels and barges are berthed on the inside of the jetty. Oil is supplied via gantry hoses on either side.

Max. draft limit for tankers sailing from port 9.67 m., draft for berthing 7.92 m.

Fresh water available from the jetty.

The tugs based at Port Harcourt are available if required.

Pilotage is compulsory from the Fairway Buoy to the Refinery Jetty except for Naval vessels and vessels of less than 1,000 tonnes whose Master holds a licence issued by the Nigerian Ports PLC. All vessels using the Refinery Jetty will berth and unberth on the flood tide only during daylight hours until further notice.

Also see "Report" and "Shipmaster's Report" dated October 1990.

STEVEDORES: Gang requirements and hatch distribution should be included in 48 hours ETA cable to Agent. Discharging general cargo 8 tons per gang/hour, cement 15 tons per gang/hour, bagged cargo 20 tons per gang/hour, loading produce 15–20 tons per gang/hour.

MEDICAL: Doctors available 24 hours, but limited supply of medicines available. Yellow fever vaccination required.

TANKERS: See "Berthing".

DENSITY: Approx. 1015.

FRESH WATER: Limited supply by barge.

FUEL: Most standard lubricants available, fuel and gas oil available by barge or road tanker. Requirements by 48 hours ETA cable.

REPAIRS: Only very minor repairs available, no spares.

GANGWAY/DECK WATCHMEN: Compulsory. Tankers take 4 watchmen and cargo vessels take 16 watchmen. Acts of piracy have taken place at the port. See "Bonny" – "Piracy".

OPENING/CLOSING HATCHES: Normally by crew.

CUSTOMS ALLOWANCES: 200 cigarettes per man per 7 days. 1 wine or 1 bottle spirits per officer per 7 days.

REPATRIATION: Possible via Lagos or Port Harcourt.

AIRPORT: Port Harcourt International Airport 30 km. from port. International and domestic flights.

TIME: GMT plus 1 hour, no changes during the year.

HOLIDAYS: See "Lagos".

POLICE/AMBULANCE/FIRE: All can be contacted by telephoning 999.

SHORE LEAVE: Allowed provided crew carry Passport or Seaman's Book.

IDENTIFICATION CARDS: Crew to carry Passport or Seaman's Book whilst ashore.

REPORT: September 1984.

(a) Okrika sailing draft now 31 ft. 9 in.
(b) Compulsory pilotage for all classes of vessels including service boats is now in force.
(c) All vessels are to direct radio messages/cables advising ETA's to the port of destination and not to Nigerian Ports PLC headquarters in Lagos to avoid delays.
(d) Station Tanker "Maryland" – 152,035 d.w.t., LOA 915.34 ft. Summer draft, 58 ft. and operating on max. draft of about 40 ft. with which she is capable of lifting 85,000 tonnes of product. Vessel's position is approximately Lat. 4° 25' N., Long. 7° 08' E. at Bonny Inner Anchorage.

SHIPMASTER'S REPORT: May 1982.

Documents: 6 Crew Lists, 5 Passenger Lists (or negative), 8 Arms and Ammunition Lists (or negative), 6 Livestock Lists (or negative), 7 Ports of Call Lists, 2 Bonded Store Lists, 5 Vaccination Lists, 2 Crew Declarations.

As we were a tanker in ballast we did not present any Manifests and Bills of Lading. However, the Immigration Officer asked for a declaration from Master that there were no stowaways on board. No special form used.

Pilotage: Pilot keeps watch on Channel 14 and all traffic passed from this Channel to others (12, 13). As there is a shortage of Pilots, sometimes one Pilot comes out at Fairway Buoy and boards the first vessel to enter. The two or three other vessels entering at same time are directed to follow the vessel with the Pilot on board through the entrance channel to Bonny. When no Pilot waits at "N" buoy, the Pilot on board the first vessel will direct the others to the anchorages at Bonny as far as Buoy 1A.

During our stay it was observed that sailing out was performed at any hour but sailing in was only performed during daylight hours.

As the channel from Fairway Buoy and Bonny is a one-way channel all traffic is controlled by Bonny Signal Station who keep watch on VHF Channel 14 continuously and gives permission to vessels who intend to use the channel regarding the other vessels who are using it.

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Report: The following is a copy of a telex received from a Master.

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QUA IBOE: 04.20 N. 07.59 E. **(See Plan)**

LOCATION: The Terminal is located on the Eastern side of the estuary of the Qua Iboe River in approximate position Lat. 4° 33' 00" N., Long. 7° 59' 30" E.

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   i. Arrival time at anchorage.
   j. Anchoring time.
   k. Master's name.
5. Vessel to have ready prior arrival:
   a. Port side derrick.
   b. Port side manifold for 2×16 in. hose connections.
   c. Combination ladder or pilot hoist.
   d. One floating ship's rope astern to tie-up tug.
   e. Two ship's ropes at the bow or a long 1.5 in. diameter nylon messenger.
6. Mooring Master and/or Government Officials will meet the vessel in the suggested Safe Anchorage Area.
7. Vessel to provide a good lee for the Mooring Master and/or Government Officials.
8. The Master of the vessel is fully responsible for the safety of his ship at all times.
9. Ship's crew to perform all operations of mooring/unmooring, connecting/disconnecting hoses on board the vessel.
10. Sufficient crews and at least one suitable deck officer must be on duty at all times while the vessel is moored to the SPM.
11. An Agent will be available, if requested by the Charterer/Ship's Operator.
12. The following services are not available:
    a. Shore leave.
    b. Crew changes.
    c. Supply of stores, fresh water, bunkers.
    d. Medical assistance, only on extreme emergency basis and will be debited to the vessel's account.
13. The following personnel live on board throughout the stay of the vessel: 1 Pilot, 1 Cargo Surveyor, 1 Nigerian Ports PLC Environmental Inspector.
14. Lineboat is tied up astern using a ship's rope.

DOCUMENTS:
The following documents are required by the Nigerian Government Customs Representative at Qua Iboe Terminal:
4 copies Crew List.
4 copies Ports of call within the last three months.
4 copies List of Birds and Animals.
4 copies Passenger List.
4 copies Stores List (with attached list of narcotics).
4 copies List of Arms and Ammunitions.
4 copies Crew Personnel Effects List.
4 copies Vaccination List.
1 copy Sailing Clearance, last port of discharge.
1 copy Loading Instructions (telex).

In addition the Task-force Officials and the Agent require one copy each of the above listed documents.

The Master must be aware of the Nigerian National Maritime Authority (NMA) levy on oil shipments to/from Nigeria.

PILOTAGE: Vessels loading at Qua Iboe will be boarded by a Company Mooring Master either at the anchorage or where directed.

The Mooring Master will advise the ship's Master in regard to the approaches to the berth; and the mooring, unmooring, connecting, disconnection of hoses, departure from the berth and loading operations.

All vessels must have upon arrival a pilot ladder in good, clean condition safely and securely rigged. A vessel arriving with freeboard of 30 ft. or more must use its accommodation ladder in conjunction with the pilot ladder unless a "pilot hoist" or similar arrangement is available.

In the event that a vessel is deemed by the Mooring Master to be improperly or insufficiently equipped with adequate mooring facilities, lines or gear, then he shall so inform the ship's Master. In such an event the vessel will not be brought into the mooring until satisfactory gear or equipment is provided.

ANCHORAGE: Numerous submarine pipelines and structures exist in the approaches and close vicinity of the loading berths.

Under no circumstances whatsoever should vessels anchor except in the approved anchorage described below.

The Anchorage Areas are as follows:

North-West Anchorage is bounded by lines joining the following points: 04° 13.0' N., 08° 03.0' E.; 04° 09.8' N., 08° 03' E.; 04° 13' N., 08° 05.5' E.

South-East Anchorage is bounded by lines joining the following points: 04° 10' N., 08° 04.3' E.; 04° 10' N., 08° 07' E.; 04° 12.5' N., 08° 07' E.

Vessels bound for the Qua Iboe Terminal should proceed with extreme caution from the S.E. to the safe Anchorage Area. If uncertain of the vessel's position because of poor visibility stay S.E. and clear of the safe Anchorage Area until visibility has improved.

HEALTH: Pratique may be granted by radio (Lagos Radio).

The vessel should have a clean Bill of Health or an equivalent document from the last port of call. The vessel's Master and all members of the crew shall possess International Certificates of Health showing valid Cholera and Yellow Fever Vaccination Certificates.

MAX. SIZE:

Berth	*Length*	*Beam*	*Draft*
No. 2 (SPM1)	No restriction	No Limit	72 ft.
No. 3 (SPM2)	No restriction	No Limit	72 ft.

RADIO: Cable address: Mobiloil Lagos. Telex: 21228, 22608 and 21801.

Vessels proceeding to load at Qua Iboe must radio:

1. Mobiloil, Lagos indicating their cargo requirements, last port of call and ETA 7 days prior to arrival. When their passage time is such as to not permit a 7 day ETA then the maximum possible advance notice must be given.
2. Mobiloil, Lagos, confirming or amending the ETA given in (1) above at 72 hours and 24 hours prior to arrival.
3. The Nigerian Government Port Health Officer at Lagos at least 72 hours before arrival advising the following:
   (a) Vessel's name and call sign.
   (b) ETA Qua Iboe Terminal.
   (c) Last port of call.
   (d) Cargo requirements.
   (e) Number of crew and whether healthy or not.
   (f) Whether or not a doctor on board.
   (g) Requesting Free Pratique.

The Port Health Official boards vessel on arrival. If the request has not been radioed to the vessel, the yellow flag "Q" by day or red over white lights by night must be displayed on arrival at Qua Iboe.

In addition, as soon as possible prior to arrival, vessels should establish direct communication with the Terminal ("Qua Iboe Control") on VHF international calling Channel 16 (156.8 MHz) or call on Channel 84 (Qua Iboe Terminal).

Vessels not equipped with VHF or whose equipment is not fully functional should advise Mobiloil, Lagos, at the time of their ETA messages previously referred to.

The (BOP) Berth Operation Platform is fitted with a Racon and transmits the Morse signal "K" (– · –). All vessels equipped with 3 cm. radar will be able to pick this up on their radar screen at a distance of approximately 17 miles – 20 miles.

After direct contact has been established with the vessel, Qua Iboe Control will transmit preliminary requirements and berthing instructions.

VHF: The primary system of communication with the terminal while in berth shall be through the Mooring Master by means of a portable VHF unit provided by the company.

TUGS: None. Terminal launches assist in berthing.

BERTHING: All vessels must be equipped with adequate on-deck and overside lighting. A spotlight should be rigged on the bridge when berthing during the hours of darkness.

To assist in the vessel's turnaround, tankers should have all booms and cargo gear rigged on the port side before the ship is boarded by the Mooring Master.

BERTHING: *Port Harcourt:* 8 berths for general cargo at hard quays. Maximum practical draft 7.32 m.

8 dry cargo berths depth 33 ft. – 35 ft.

Mooring buoys, Dockyard Creek with 5 buoys, max. draft 7.62 m.; Dawes Island anchorage discharging for about 12 vessels, max. draft 8.23 m.; Pool 4 buoy berths max. draft 6.01 m.; Tanker buoy 1 berth. *B.O.P. Berth.* This berth lies outside the Quay area, and is for the loading of palm oil by means of a direct pipeline from the installation of Bulk Oil Plants (Nigeria) Limited. It consists of a central "T" jetty with dolphins and is capable of berthing vessels up to 480 ft. in length. It is also used for the discharge of explosives as such cargo is not permitted to be handled across the general cargo Quay.

Oil is supplied by a 6 in. diameter pipe at a maximum rate of 250 t.p.h. *Coal Handling Facilities:* Facilities for loading coal have been completed and a conveyor capable of loading about 60 t.p.h. is working. Max. draft at the coal berth is 7.62 m. This berth is situated at the Northern end of the port, berth No 8.

Okrika Oil Refinery: (Lat. 04° 44' N., Long. 07° 05' E.). Okrika lies on the Bonny River, 56 km. from the sea. The approach over the bar is by a channel 12.8 km. in length. Depth in channel: See "Bonny". The river from Bonny to Okrika has been dredged as necessary to a depth of 8.84 m. Chart Datum. The bar channel and river are well buoyed with light buoys, port and starboard. There are also beacons in the river. Jetty at the oil refinery suitable for berthing coastal and ocean tankers up to 33,000 d.w.t. The jetty is "L" shaped with a square dolphin at the end of the arm. Ocean tankers secure on the outside of the jetty making fast to two sets of mooring dolphins each end. The coastal vessels and barges are berthed on the inside of the jetty. Oil is supplied via gantry hoses on either side.

Max. draft limit for tankers sailing from port 9.67 m., draft for berthing 7.92 m.

Fresh water available from the jetty.

The tugs based at Port Harcourt are available if required.

Pilotage is compulsory from the Fairway Buoy to the Refinery Jetty except for Naval vessels and vessels of less than 1,000 tonnes whose Master holds a licence issued by the Nigerian Ports PLC. All vessels using the Refinery Jetty will berth and unberth on the flood tide only during daylight hours until further notice.

Also see "Report" and "Shipmaster's Report" dated October 1990.

STEVEDORES: Gang requirements and hatch distribution should be included in 48 hours ETA cable to Agent. Discharging general cargo 8 tons per gang/hour, cement 15 tons per gang/hour, bagged cargo 20 tons per gang/hour, loading produce 15–20 tons per gang/hour.

MEDICAL: Doctors available 24 hours, but limited supply of medicines available. Yellow fever vaccination required.

TANKERS: See "Berthing".

DENSITY: Approx. 1015.

FRESH WATER: Limited supply by barge.

FUEL: Most standard lubricants available, fuel and gas oil available by barge or road tanker. Requirements by 48 hours ETA cable.

REPAIRS: Only very minor repairs available, no spares.

GANGWAY/DECK WATCHMEN: Compulsory. Tankers take 4 watchmen and cargo vessels take 16 watchmen. Acts of piracy have taken place at the port. See "Bonny" – "Piracy".

OPENING/CLOSING HATCHES: Normally by crew.

CUSTOMS ALLOWANCES: 200 cigarettes per man per 7 days. 1 wine or 1 bottle spirits per officer per 7 days.

REPATRIATION: Possible via Lagos or Port Harcourt.

AIRPORT: Port Harcourt International Airport 30 km. from port. International and domestic flights.

TIME: GMT plus 1 hour, no changes during the year.

HOLIDAYS: See "Lagos".

POLICE/AMBULANCE/FIRE: All can be contacted by telephoning 999.

SHORE LEAVE: Allowed provided crew carry Passport or Seaman's Book.

IDENTIFICATION CARDS: Crew to carry Passport or Seaman's Book whilst ashore.

REPORT: September 1984.

(a) Okrika sailing draft now 31 ft. 9 in.

(b) Compulsory pilotage for all classes of vessels including service boats is now in force.

(c) All vessels are to direct radio messages/cables advising ETA's to the port of destination and not to Nigerian Ports PLC headquarters in Lagos to avoid delays.

(d) Station Tanker "Maryland" – 152,035 d.w.t., LOA 915.34 ft. Summer draft, 58 ft. and operating on max. draft of about 40 ft. with which she is capable of lifting 85,000 tonnes of product. Vessel's position is approximately Lat. 4° 25' N., Long. 7° 08' E. at Bonny Inner Anchorage.

SHIPMASTER'S REPORT: May 1982.

Documents: 6 Crew Lists, 5 Passenger Lists (or negative), 8 Arms and Ammunition Lists (or negative), 6 Livestock Lists (or negative), 7 Ports of Call Lists, 2 Bonded Store Lists, 5 Vaccination Lists, 2 Crew Declarations.

As we were a tanker in ballast we did not present any Manifests and Bills of Lading. However, the Immigration Officer asked for a declaration from Master that there were no stowaways on board. No special form used.

Pilotage: Pilot keeps watch on Channel 14 and all traffic passed from this Channel to others (12, 13). As there is a shortage of Pilots, sometimes one Pilot comes out at Fairway Buoy and boards the first vessel to enter. The two or three other vessels entering at same time are directed to follow the vessel with the Pilot on board through the entrance channel to Bonny. When no Pilot waits at "N" buoy, the Pilot on board the first vessel will direct the others to the anchorages at Bonny as far as Buoy 1A.

During our stay it was observed that sailing out was performed at any hour but sailing in was only performed during daylight hours.

As the channel from Fairway Buoy and Bonny is a one-way channel all traffic is controlled by Bonny Signal Station who keep watch on VHF Channel 14 continuously and gives permission to vessels who intend to use the channel regarding the other vessels who are using it.

The Pilot from Port Harcourt to Bonny will normally disembark at Bonny outward bound. However, if another vessel is waiting at the fairway buoy to proceed inward or if requested by Master, Pilot will take vessel to the Fairway Buoy.

Our Pilot left at Bonny Pilot Station and vessel can proceed to sea after getting permission from Bonny Signal Station to do so. If outward channel is not clear from inbound vessels you are requested to wait until the last vessel reaches "N" buoy. In some circumstances they will allow vessels to cross each other near "M" buoy but no further than that.

On this occasion it was noted that "L" buoy (starboard) was missing.

Tankers between Bonny and Port Harcourt can only proceed with Pilot and during daylight hours. When proceeding to Okrika the Pilot boards at Bonny Pilot Station or at Bonny Anchorage and conducts vessel up river to Okrika and berths vessel. If possible he starts from Bonny when tide begins flooding up river, it takes about two hours for tide to reach Okrika and vessels take about same time in steaming, so when we reached Okrika the tide begins flooding.

Tankers berth port side to and use starboard anchor to make the turn. Pass a line to a mooring buoy so that it will be on starboard bow when the vessel is berthed to assist the berthing. After completion of berthing this line is taken in, as it has no more use and on account of thieves. Vessels remain secured by 3 breast lines to dolphins forward and aft and 1 spring line to jetty forward and aft.

When sailing, after taking in all lines, the last ones being one breast line forward and aft, the starboard anchor will assist the vessel to leave the jetty and reach the middle of the channel.

Maximum draft for sailing out of Okrika Terminal is 32 ft. (9.75 m.), when berthed port side to the jetty. If berthed starboard side to the jetty the maximum sailing draft is 25 ft. (7.60 m.). It is convenient when sailing at maximum draft to go to the jetty always port side as if going starboard side to when loaded to 25 ft., vessel has to stop loading, unberth, turn and berth one more time and all these operations must be performed only during daylight hours and at special stages of tide.

Sailing out from Okrika with 32 ft. will be performed in daylight and vessels must leave jetty two hours before high tide at Bonny.

The channel from Okrika to Bonny has been kept dredged to the Chart Datum, it was well buoyed and was made by the vessel loaded without any difficulties. Our sailing draft was 32 ft.

Health: "Q" flag to be shown on arrival, on river and on berth, till the Health Authorities board the vessel and give clearance.

Okrika Jetty: Further to the information above there is a new jetty, down river, close S.E. of the former, which is ready as a normal quay, but will have to have oil loading facilities and pipelines, connected to the existing ones at the middle of the connection to shore of the former jetty. The new jetty is provided with six buoy fenders (cylindrical type), four of them in the middle, (the small type) and two (large type) near the extremities of jetty. It is expected that the mounting of pipelines, oil loading facilities and other facilities will take about 2–3 years.

Density: During our stay, May 6th – 9th, we experienced the following: at LW 1018; at HW 1019; water temperature 30°C.

Fuel: Fuel oil, diesel oil and gas oil are available. We took gas oil without difficulty but fuel oil takes a long time as occasionally they need to flush all lines and this takes time. Orders must be placed well in advance as it takes a long time to get confirmation from Lagos about the supply.

Shore Leave: No difficulties, but recommended in daylight hours.

Communications: Between Lagos and Port Harcourt are very poor. Telex lines were inoperative at time of our stay and all messages between Lagos and Port Harcourt Agency Offices were passed by radio or telephone with delays.

SHIPMASTER'S REPORT: October 1990.

Vessel: 50,000 d.w.t.

Berth: Okrika Refinery.

Report: The following is a copy of a telex received from a Master.

Okrika Pilot boards at Bonny Town. Daylight berthing only. River passage fairly well buoyed. There are two berths ('A' and 'B') on the East side of the river. Vessel berths portside to, so has to turn short round adjacent to berths. Tug "Limburgh" in attendance. After turning, starboard anchor used to check approach alongside. Tug was used as mooring boat. Tie up with 4 head/stern lines and 2 springs fore and aft. Berth 'A' is of good solid cement construction. Good fenders alongside berth at approximately 70 m. intervals. Dolphins for head lines have good leads, but aft dolphins give poor leads for stern lines and breast lines.

Berth 'B' (length 110 m.) is best berth. Also of good solid cement construction with very good fenders, leads to dolphins each end good. Both berths have 10 in. Chicksans. Density 1012 varies. Max. sailing draft 9.5 m. Communications overall chaotic, very difficult to get any information. One task force soldier onboard. We had no problems with pirates, but other vessels did. Pirates can be vicious and will come out 30 miles from coast. Port officials board at Okrika and Bonny. Vessel requires two complete sets of entry papers.

AUTHORITY: Nigerian Ports PLC, Private Mail Bag 5043, Port Harcourt, Nigeria. *Tel:* 300370/516. *Telex:* 61348. *Cables:* Genports. *FAX:* 335402. *Contact:* Port Administrator.

AGENT: Alraine (Nigeria) Limited, P.M.Bag 622, Port Harcourt. Tel: 084 222.531. Telex: 61120. Fax: 084-239-470.

QUA IBOE: 04.20 N. 07.59 E. (See Plan)

LOCATION: The Terminal is located on the Eastern side of the estuary of the Qua Iboe River in approximate position Lat. 4° 33' 00" N., Long. 7° 59' 30" E.

The crude oil storage facilities consist of seven tanks each of 500,000 barrels capacity.

Note: The eighth tank with same capacity is nearing completion. Also under construction are three condensate tanks of 670,000 bbls. capacity each.

IMPORTANT FEATURES AT QUA IBOE TERMINAL:

1. There are 2 loading SPM's for handling VLCC's up to 300,000 d.w.t.
2. Approximate average API 36.0, average loading temperature 89°F. to 92°F.
3. Vessels proceeding to the safe anchor area should approach from the Southeast, and when instructed to anchor should drop anchor 5 miles Southeast of the Berth Operation Platform (BOP). The BOP is equipped with a Racon, transmitting the letter "K".
4. The Pilot at Qua Iboe Terminal will moor/unmoor and supervise all other operations and movements of the vessel at the Single Point Mooring Buoy and at the anchorage.
5. Safety rules are strictly enforced. The safety requirements are based on the ISGOTT standard regulations.
6. Display of quarantine signals on approach to Qua Iboe Terminal must be maintained until Free Pratique is granted. By day the flag of Nigeria must be flown throughout the vessel's stay in the Terminal area.
7. SPM No. 1 (Berth No. 2): Single Point Mooring (SPM) buoy is located in position Lat. 4° 13' 05" N., Long. 8° 02' 45" E., approximately 19.4 nautical miles, 170° of the Terminal Tank Farm. Depth of water at the manifold is 85 ft.
   Vessel's max. draft 72 ft.
8. SPM No. 2 (Berth No. 3): Single Point Mooring (SPM) buoy is located in position Lat. 4° 13' 30" N., Long. 8° 03' E., approximately 18.8 nautical miles, 165° from the Terminal Tank Farm. Depth of water at the manifold is 85 ft.
   Vessel's max. draft 72 ft.

8a. *Proposed* SPM No. 3 (Berth No. 4): Single Point Mooring (SPM) to be positioned in Lat. 04° 13.3' N., Long. 08° 05.5' E., approximately 19.3 miles × 163° from Terminal Tank Farm. The depth of water at the manifold is 85 ft.

9. Charts and Publications: Masters of vessels proceeding to load at Qua Iboe Terminal should obtain the latest sailing directions, charts and hydrographic bulletins for the area.
   In this respect attention is drawn to the following editions of:
   (a) British Admiralty Chart: No. 1860.
   (b) British Admiralty sailing direction: African Pilot Vol. 1.
   (c) U.S. Naval Oceangraphic Charts: No. 2352, 2353.
   (d) U.S. Naval Oceangraphic sailing directions: No. 50 S-West Coast.
   (e) Latest edition of Guide to Port Entry.
   (f) Up-to-date and appropriate tide tables.

ESSENTIAL REQUIREMENTS AND QUESTIONNAIRE FOR TANKERS ARRIVING FOR LOADING:

1. No dirty ballast.
2. Nigerian time is GMT plus 1 hour.
3. All vessels must exhibit the Nigerian National Ensign while in the vicinity of the Qua Iboe Terminal moorings.
4. Vessel to radio the following information prior to arriving at Qua Iboe Terminal Anchorage:
   a. Tanker's name.
   b. Port of Registry/Country.
   c. Summer deadweight.
   d. Last port of call.
   e. Port of destination.
   f. Cargo requirements.
   g. Loading rate required.
   h. Deballasting time prior to commence loading.
   i. Arrival time at anchorage.
   j. Anchoring time.
   k. Master's name.
5. Vessel to have ready prior arrival:
   a. Port side derrick.
   b. Port side manifold for 2×16 in. hose connections.
   c. Combination ladder or pilot hoist.
   d. One floating ship's rope astern to tie-up tug.
   e. Two ship's ropes at the bow or a long 1.5 in. diameter nylon messenger.
6. Mooring Master and/or Government Officials will meet the vessel in the suggested Safe Anchorage Area.
7. Vessel to provide a good lee for the Mooring Master and/or Government Officials.
8. The Master of the vessel is fully responsible for the safety of his ship at all times.
9. Ship's crew to perform all operations of mooring/unmooring, connecting/disconnecting hoses on board the vessel.
10. Sufficient crews and at least one suitable deck officer must be on duty at all times while the vessel is moored to the SPM.
11. An Agent will be available, if requested by the Charterer/Ship's Operator.
12. The following services are not available:
    a. Shore leave.
    b. Crew changes.
    c. Supply of stores, fresh water, bunkers.
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14. Lineboat is tied up astern using a ship's rope.

DOCUMENTS:

The following documents are required by the Nigerian Government Customs Representative at Qua Iboe Terminal:
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1 copy Loading Instructions (telex).

In addition the Task-force Officials and the Agent require one copy each of the above listed documents.

The Master must be aware of the Nigerian National Maritime Authority (NMA) levy on oil shipments to/from Nigeria.

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The Mooring Master will advise the ship's Master in regard to the approaches to the berth; and the mooring, unmooring, connecting, disconnection of hoses, departure from the berth and loading operations.

All vessels must have upon arrival a pilot ladder in good, clean condition safely and securely rigged. A vessel arriving with freeboard of 30 ft. or more must use its accommodation ladder in conjunction with the pilot ladder unless a "pilot hoist" or similar arrangement is available.

In the event that a vessel is deemed by the Mooring Master to be improperly or insufficiently equipped with adequate mooring facilities, lines or gear, then he shall so inform the ship's Master. In such an event the vessel will not be brought into the mooring until satisfactory gear or equipment is provided.

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Vessels bound for the Qua Iboe Terminal should proceed with extreme caution from the S.E. to the safe Anchorage Area. If uncertain of the vessel's position because of poor visibility stay S.E. and clear of the safe Anchorage Area until visibility has improved.

HEALTH: Pratique may be granted by radio (Lagos Radio).

The vessel should have a clean Bill of Health or an equivalent document from the last port of call. The vessel's Master and all members of the crew shall possess International Certificates of Health showing valid Cholera and Yellow Fever Vaccination Certificates.

MAX. SIZE:

Berth	*Length*	*Beam*	*Draft*
No. 2 (SPM1)	No restriction	No Limit	72 ft.
No. 3 (SPM2)	No restriction	No Limit	72 ft.

RADIO: Cable address: Mobiloil Lagos. Telex: 21228, 22608 and 21801.

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2. Mobiloil, Lagos, confirming or amending the ETA given in (1) above at 72 hours and 24 hours prior to arrival.
3. The Nigerian Government Port Health Officer at Lagos at least 72 hours before arrival advising the following:
   (a) Vessel's name and call sign.
   (b) ETA Qua Iboe Terminal.
   (c) Last port of call.
   (d) Cargo requirements.
   (e) Number of crew and whether healthy or not.
   (f) Whether or not a doctor on board.
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After direct contact has been established with the vessel, Qua Iboe Control will transmit preliminary requirements and berthing instructions.

VHF: The primary system of communication with the terminal while in berth shall be through the Mooring Master by means of a portable VHF unit provided by the company.

TUGS: None. Terminal launches assist in berthing.

BERTHING: All vessels must be equipped with adequate on-deck and overside lighting. A spotlight should be rigged on the bridge when berthing during the hours of darkness.

To assist in the vessel's turnaround, tankers should have all booms and cargo gear rigged on the port side before the ship is boarded by the Mooring Master.

Berthing Requirements: Berth Nos. 2 and 3: All vessels proceeding to the SPM must secure their anchors with chain stoppers or compressors.

Floating hoses taken aboard on the port side.

The moorings have been designed in general accordance with the recommendations of the SPM Forum. The mooring lines consist of 2×18 in. braided nylon ropes each 160 ft. long with floats attached.

In order to heave the mooring lines aboard, the vessel must have ready on the forecastle a ship's rope or a rope messenger not less than 1.5 in. in diameter and a minimum length of 720 ft. The rope/messenger is led through a fairlead, large enough to permit the entry of a 3.25 in. diameter chafing chain, on port side or centre line (Panama Lead) down to the water clear of the ship's bulbous bow. This rope must have a good lashing attached to the eye.

The terminal line boat assisting in mooring, will proceed to the vessel, as soon as she is within her reach, to pick up the ship's rope and to make the connection with the terminal provided 12 in. circ. polypropylene rope. The ship will then heave steadily on the rope until the chafing chain lies across the fairlead of the vessel.

Tenders by vessels to load crude oil cargo at Qua Iboe, will be normally accepted and berths assigned to vessels in chronological order of arrival providing such vessels have current nomination for cargo valid at the time of tender, carry clean ballast, if any, and have cargo tanks in a fit condition to receive cargo. Also they must be in all respects properly equipped and ready to moor. Should berthing be delayed on account of bad weather, vessels will keep their position in line.

HOSES: Berth Nos. 2 and 3 SPMs are equipped with 2 floating hose strings, 870 ft. long on the left hand and 840 ft. long on the right hand facing the buoys. The over-the-rail hoses have a 16 in. ASA connection provided with a butterfly-valve at the end.

Tanker on Light Draft: Weights of Hose Strings for SPM: Indication of hose strings approximate weights of hose strings in *long tons* (including fittings and floats) with all hoses full of crude oil S.G. 0.850. Assumed total lift 25 ft. above deck level.

	Inside Diameter of Hoses
Size of Tanker	*12 in. – 16 in.×30 ft.*
285,000 d.w.t.	6.8 tons
200,000 d.w.t.	6.0 tons
100,000 d.w.t.	5.2 tons
80,000 d.w.t.	5.0 tons

LOADING: All vessels must be adequately provided with bollards or cruciforms and suitable leads to facilitate the hanging off of the hoses during the lifting operation.

The Mooring Master will inspect the vessel's cargo tanks and will sign the Dry Certificate prior to the commencement of loading.

The Mooring Master may reject a vessel if it is not upon inspection properly equipped or if it is not suitably manned or if deemed to have dirty ballast or tanks unsuitable to receive cargo. Any vessel rejected because of being insufficiently equipped, will automatically nullify her (NOR) "Notice of Readiness" and will not be accepted until satisfactory evidence is produced, that the vessel's gear is in good working condition.

The ship's Master or a suitable Qualified Officer must be on duty on the bridge at all times while the ship is manoeuvring, mooring and unmooring or whenever requested by the Mooring Master.

All mooring, unmooring and hose connection and disconnection must be carried out by the ship's crew under the supervision of a suitable Qualified Officer acting on the advice of the Mooring Master.

Ship's loading manifolds should be prepared for 2×16 in. hose connections prior to arrival at the Qua Iboe Terminal. Sundry equipment should include tools to connect the hoses, nuts, bolts, gaskets and rope strops as none of these items are supplied by the Terminal. All 16 in. hoses have ASA flanges.

The Notice of Readiness will be signed by the Mooring Master on behalf of the Company. The time for giving the Notice of Readiness is the time of the vessel's arrival at the usual anchorage, or the time of boarding of the Mooring Master, whichever is the earlier. Notice of Readiness will not be accepted unless the vessel is ready to load.

Loading normally commences with one booster pump until it is confirmed by the deck officer that the crude oil has entered the ship's tank, loading rate then will be gradually increased until the maximum or requested rate has been reached.

Pumping rate at both SPM's can be expected to be up to 53,000 bbls.hr.

The vessel must give 30 minutes notice to the Mooring Master prior to completion of loading and shall advise if a decrease in loading rate is desired. The Mooring Master will advise the vessel of the expected gross API and the approximate loading temperature.

Upon completion of loading, the vessel will be required to leave the berth immediately after disconnecting hoses to await shore figures and outward clearance at the anchorage.

Pressure Surges: Because of the long lengths and large diameters of the pipelines, ships' loading valves must not be closed against the flow of oil.

Vessels provided with mechanically or hydraulically operated valves whose closing time is less than 30 seconds must advise the Mooring Master accordingly. In such circumstances the loading rate may have to be reduced.

EARLY DEPARTURE PROCEDURE: Procedure discontinued.

BALLAST: *There are positively no facilities for disposal of dirty ballast.*

It is the ship's Master's responsibility to see that no oil of any kind is pumped or spilled overboard from the ship.

This includes oily water from bilges, crude residual from previous voyages or any other matter that may result in pollution of the sea. Any fines imposed shall be to ship's account.

As soon as it is practical, all vessels' cargo tanks will be inspected by the Mooring Master, Cargo Surveyor and Nigerian Ports PLC. Environmental Inspector, for oil in the ballast, and during discharge of ballast similar inspections will continue.

If evidence of oil appears at any of these inspections the ship will be rejected forthwith and will not be accepted until satisfactory evidence is produced that such ballast was disposed of in a proper manner. If during inspection or during progress of loading it is revealed that ship's tanks are not tight or that oil is leaking from the ship, the ship may be rejected or refused further loading.

Any vessel rejected because of dirty ballast or sea pollution will automatically nullify its "Notice of Readiness" and will lose any priority of position for loading.

A vessel must have sufficient ballast for safe handling, having due regard to existing weather and sea conditions. Through a careful watch of the weather and sea conditions, frequent exchange of information between ship and terminal, and by a knowledge of behaviour of his own vessel, the Master may come to the terminal with a minimum of ballast and thus lessen any possibility of infringement of sea pollution regulations.

Vessels are to maintain safe draft. If unable to load and deballast at the same time, then part cargo may have to be loaded before deballasting.

In addition to the lights usually displayed, vessels at the mooring discharging ballast or loading cargo during darkness will brilliantly illuminate the sea around the ship, so that any pollution will readily be noticeable.

Vessels equipped with a separate system of ballast tanks will be allowed to discharge ballast and load simultaneously, providing approval is first obtained from the Company Operations Superintendent.

DENSITY: 1015 – 1018.

FRESH WATER: Not available.

FUEL: Not available.

STORES: Not available.

MEDICAL: Only emergency medical facilities.

CUSTOMS ALLOWANCES: Nigerian Government Customs Officials will board the vessel as soon as possible after arrival to give inward clearance and "Free Pratique" service. Nigerian Government Regulations are strictly enforced.

Cigarettes, cigars, tobacco, matches, spirits, wines, perfumes, arms, ammunition and possible other items have to be locked under Customs seal from time of arrival of ship in port until time of leaving territorial waters.

Each person is allowed 200 cigarettes per week of stay or equivalent amount of tobacco or cigars in lieu thereto. Each person is allowed 1 bottle of spirit and 1 case of beer. Special allowances are made for Masters under special circumstances. If the slop chest items and the bonded store items are not combined in one locker, the Customs Officer has to be informed.

REPATRIATION: Crew changes not possible.

TIME: Nigerian local time is GMT plus 1 hour throughout the year.

SHORE LEAVE: Not possible.

GARBAGE DISPOSAL: No service available.

WASTE OIL DISPOSAL: No service available.

SEAMAN'S CLUBS: None.

WEATHER: *Tidal Streams and Currents:* Tidal streams and currents occur throughout the year in irregular directions, however, predominating in an Easterly/Westerly direction with occasional rates of 2 knots to 3 knots.

Winds: Southwesterly to Westerly winds predominate from May to September and at their strongest average between 25 knots and 30 knots. From October to April the winds are variable and unpredictable in force and direction. From December to February winds are mainly from the North and their weakest average is 5 knots to 10 knots.

Squalls: Squalls of varying intensity are common between March and November. These squalls are unpredictable in force and direction and are accompanied by torrential rain, thunder, lightning and sudden shifts in wind direction. During these squalls winds of 55 knots to 60 knots have been recorded.

Masters of vessels are therefore advised to keep a lookout for these unexpected changes in the weather conditions, keeping the engine on constant readiness to be able to leave the berth under full power on short notice.

Sea Swell: Throughout the year a long low Southwesterly swell is prevailing. During the wet season, June to October, this swell together with a rough sea becomes very high, especially during heavy squalls.

Rain: The rainfall is very heavy with a yearly average of about 3,700 mm. There are basically two seasons, a wet season from June to October and a dry season from November to May.

Fog and Visibility: Fog is virtually non-existent. Visibility is good except during heavy rains and during the dry season, when the visibility drops occasionally to 4-5 cables.

Temperature and Humidity: The average temperature is between 28° and 30° celsius. The daily range is from 22° to 35°. The humidity is high, 75% to 85%.

The surface sea temperature is between 26° and 28° celsius.

The sea bottom temperature is between 22° and 24° celsius.

GENERAL: *Agency:* The Company will handle documentation requirements for vessels loading at the Terminal. It does not carry out general vessel agency functions. Ship's mail and personal mail will be handled by Agent (Gulf Agency Company or Elder Dempster (Nigeria) Agencies).

"B" Flag: During loading, the International Code Flag "B" must be displayed from a topmast signal halyard during daylight hours. During hours of darkness a red all around light must be displayed where it can best be seen.

SHIPMASTER'S REPORT: December 1984 (Updated 1992).

1 Pilot, 1 N.P.A. Environmental Inspector and 1 Cargo Surveyor live on board.

Immigration and Customs Officials board for usual formalities and store room inspection.

Lineboat tows astern most of time using ship's line.

EDP discontinued, vessel does not obtain clearance until ship's figures checked against shore figures, after which, Customs Clearance is received. This can involve a wait of several hours. Vessel has to complete consignees' papers after sailing. Supernumeraries may cause difficulties with Immigration, it is best to have everyone signed on.

For vessels waiting, a good anchorage can be obtained in position 03° 55' N., 05° 46' E., taking care to avoid the 120 fathom hole in position 03° 55.5' N., 05° 42.9' E. When hove up, the cable was very clean with only a little mud on the anchor.

AUTHORITY: Nigerian Ports PLC, 26/28 Marina, PMB 15288, Lagos, Nigeria. *Tel:* 600620. *Telex:* 21500 ONPNPA NG. *Cables:* Genport. *Operator:* Mobil Producing Nigeria – Qua Iboe Terminal, Marine Office, c/o Mobil House, Lekki Expressway, Victoria Island, PMB 12054, Lagos, Nigeria. *Tel:* 619010, 619020, 619085, 619091. *Telex:* 21801, 21228 and 22608. *Cables:* Mobiloil, Lagos. *Contact:* Captain P.B. Etim, Marine Superintendent, Qua Iboe Terminal. Mr.Rudi Hanschitz, Operations Manager. Mr.S.O. Otori, Area Operations Manager – QIT Eket. Mr.Carl Burnett, Production Manager – Lagos.

SAPELE: 05.55 N. 05.42 E. (See Plan)

PORT LIMITS: Escravos Fairway Buoy.
DOCUMENTS: See "Warri".
APPROACHES: Escravos Fairway Buoy Lat. 05° 30' N., Long. 05° 04' E. for entry to Escravos River. Present draft limit 6.4 m. Dredging of channel 100 m. from Escravos down to 10 m. expected to be completed soon.
PILOTAGE: See "General" – "Pilotage" before first port.

Compulsory for all vessels. Whenever ships are bound for Sapele Port, Masters should send telegram at least 7 days in advance before ship's arrival at Escravos Fairway, to Escravos Pilot Station, P.O.Box 368, Warri, Nigeria, via 'Lagos (50W)' comfirming Ship's name, Call Sign, Flag, LOA, Draft, Port of destination, Last Port and accurate ETA Escravos Bar. When Escravos Pilot Station is aware of ship's ETA., it will arrange a reliable pilot for the ship, before her arrival at Escravos Bar. On approaching Escravos Fairway Buoy, Master should contact Escravos Pilot Station direct on VHF Channel 16 to report vessel's arrival and request the name of the Pilot boarding. Afterwhich the Pilot will be sent onboard outside the Breakwater to pilot vessel up river to Koko Mid-Stream Anchorage, where the Sapele Harbour Pilot normally comes aboard to take vessels alongside. Berthing operations are carried out during daylight hours only.

The mouth of Escravos River (5° 31' 30" N., 5° 07' 20" E.) is the main entrance for the Niger Delta Ports of Warri, Burutu, Koko and Sapele. Before entering any of the rivers, creeks and channels from Escravos to the above Ports, vessels will embark a Pilot from the Pilot Station before proceeding up river. Positions should be broadcast at frequent intervals and vessel should keep constant VHF listening watch on Channel 16. Pilot Station at Escravos is located 0.5 miles South of the Escravos Beacon and operates from 0600 hrs. to 1800 hrs. daily. Pilot boards inward bound vessels about 2.0 miles S.W. of the Breakwater from a motor boat flying 'SG' in international code Flags. Ships are advised to hoist the same 'SG' flags on the mast, on arrival at Escravos Bar. Positions and movements can be exchanged with other vessels in the vicinity on VHF.

In foggy weather periods, vessels are advised to proceed inside the Breakwater to the Pilot Station to embark a Pilot, as the pilot motor boat is not equipped with navigation aids. The IALA Maritime Buoy System 'A' (Red to Port) is adopted after the entrance down the Escravos River. Vessels should sound 3 prolonged blasts followed by one short blast (– – – ·) on the whistle as "Pilot Call Signal" on arrival at Buoys No. 11/12. when proceeding to the Pilot Station, at intervals of every 10 minutes. In such cases the Pilot will board inward bound ships after 1.0 miles from Buoys No. 13/14. Vessels sometimes drop anchor at the Pilot Station and wait for further instructions from either Koko or Sapele Port Control, before proceeding up river to Koko Mid-Stream Anchorage. On arrival of vessel at the Pilot Station, the Pilot usually boards with one helmsman and they may stay onboard until the ship sails back to Escravos Pilot Station. In most cases the helmsman stays onboard and the Pilot comes back when the ship is ready to sail.
ANCHORAGES: At Koko with max. LOA 170 m. and max. draft 6.4 m.
MAX. SIZE: Max. permissible length 170 m., draft 6.4 m., depth alongside berths 10.0 m.
HEALTH: See "Lagos".
RADIO: See "Lagos" for ETA advices to Agent.
VHF: Port Authority Sapele to be contacted on VHF Channel 16. Working hours 0700-1800.
TUGS: A tug is available as Koko to Sapele is a compulsory pilotage district.
BERTHING: Six berths (incl. one Ro-Ro) at new port. Mooring during daylight hours only.
MEDICAL: NPA Port Clinic with a doctor and a number of para-medical staff available Monday to Saturday.
FRESH WATER: Available in Sapele and supplied by water hydrant and by barge.
FUEL: Fuel oil available by barge from Warri. Diesel available locally. Both products in limited supply.
REPAIRS: No facilities.
DRY DOCKS: None.
GANGWAY/DECK WATCHMAN: Compulsory during hours of darkness while in port or at Koko Anchorage.
CLOSING/OPENING HATCHES: Either by crew or stevedores.
CUSTOMS ALLOWANCES: See "Lagos".
REPATRIATION: By road to Benin, or Warri, both connected with Lagos by regular air service.
TIME: GMT plus 1 hour.
POLICE/FIRE: Police/fire services are available in the port every day throughout the year.
TELEPHONES: External (P. & T.) and internal telephones are available in the port.
SHORE LEAVE: See "Lagos".
IDENTIFICATION CARDS: See "Lagos".
AUTHORITY: Nigerian Ports PLC, Sapele Port Complex, Private Mail Bag 4024, Sapele, Nigeria. *Cables:* Genports. *Contact:* The Port Manager.

AGENT: Alraine (Nigeria) Ltd., P.O.Box 4030, Sapele.
Tel. (234) 5441788. Telex: Lagos 21244.
N.B. Correspondence should be addressed to Warri office.

WARRI: 05.30 N. 05.44 E. (See Plan)

DOCUMENTS:
(a) Ship Entry Notice, SEN. (See "Lagos").
(b) 14 days prior arrival Agent requires:
12 copies of Manifest.
5 Stowage Plans.
5 Hatch Lists.
(c) On arrival Master to present:
7 Ports of Call Lists.
8 Crew Lists.
2 Vaccination Lists.
5 Animal Lists.
4 Arms and Ammunition Lists.
1 Extra Manifest for Transhipment (if applicable).
1 Stores List.
1 Crew Declaration List (crew belongings).
1 Maritime Declaration of Health.
2 Narcotics List.
2 Parcel Lists.
5 Passenger Lists.
1 Stowaway List.

All above to be prepared and if not applicable to be marked nil. Other forms prepared by Agent and furnished on arrival.
(d) Warri Ro/Ro Terminal Company require:
12 Copies of Manifest.
4 Copies of Dangerous/Hazardous Cargo List.
4 Copies of Discharge Plan.
2 Copies General Arrangement Plan for each vessel.
APPROACHES: Escravos Fairway Buoy Lat. 5° 30' N., Long. 5° 04' E. for entry to Escravos River. Present draft limit 6.4 m. Dredging of channel from Escravos down to 10 m. expected to be completed soon.
PILOTAGE: See "General" – "Pilotage" before first port.

Compulsory for all vessels. Whenever ships are bound for Warri Port, Masters should send telegram at least 7 days in advance before ship's arrival at Escravos Fairway Buoy to the Harbour Master, Nigerian Ports PLC, Central Zone, Warri, confirming Ship's name, Call-Sign, Flag, LOA, Draft, Port of destination, Last port and accurate ETA at Escravos Bar. When Escravos Pilot Station is aware of ship's ETA, it will arrange a reliable pilot for the ship, before her arrival at Escravos Bar. On approaching Escravos Fairway Buoy, Master should contact Escravos Pilot Station direct on VHF Channel 16 to report vessel's arrival and request the name of the Pilot boarding and find out if vessel has permission to proceed inwards. After which the Pilot will be sent onboard outside the breakwater to pilot vessel up river to Bennett Island, where the Warri Harbour Pilot normally comes aboard to take vessels alongside. Berthing operations are carried out during daylight periods only.

The mouth of Escravos River (5° 31' 30" N., 5° 07' 20" E.) is the main entrance for the Niger Delta Ports of Warri, Burutu, Koko and Sapele. Before entering any of the rivers, creeks and channels from Escravos to the above ports, vessels will embark a pilot from the Pilot Station before proceeding up river. Positions should be broadcast at frequent intervals and vessel should keep a constant VHF listening watch on Channel 16. The Pilot Station at Escravos is located 0.5 miles South of the Escravos Beacon and operates from 0600 hrs. to 1800 hrs. daily. Pilot boards inward bound vessels about 2.0 miles S.W. of the breakwater from a stand-by pilot cutter (colour buff and green) belonging to Nigerian Ports PLC. Inward-bound vessels to call pilot cutter on VHF Channel 16 for their Pilots. Positions and movements can be exchanged with other vessels in the vicinity on VHF.

In foggy weather periods, vessels are advised to proceed inside the breakwater to the Pilot Station to embark a Pilot, as the Pilot Boat is not equipped with any navigation aids. The IALA Maritime Buoyage System 'A' (Red to Port) is adopted after the entrance down the Escravos River. Vessels should call Escravos Pilot Station on VHF Channel 16 on arrival for Pilot's information. In such cases, the Pilot will board inward-bound ships after 1.0 miles from Buoys No. 13/14. A Harbour Pilot takes over at Bennett Island.

Nigerian Ports PLC (previously Nigerian Ports Authority) conducts pilotage right from the Escravos Fairway to all the Delta Ports of Warri, Koko, Sapele and Burutu.

Note: Harbour Master, Pilots and Pilot Cutter, stationed at Escravos Pilot Station. All vessels should report their arrival to this Station on Channel 16. No call from any other station should be entertained. In case of lack of response from Escravos Pilot Station, call "Warri Port Control".

ANCHORAGES: 1 anchorage known as "the pool", opposite Okorodudu Town; max. draft for pool anchorage 14 ft. MLWS. Further anchorage at Forcados for vessels waiting to proceed to Burutu or Warri.
MAX. SIZE: LOA 156 m., and due to Escravos bar max. draft 6.4 m.
HEALTH: International Pratique Regulations prevail. Pratique *not* necessary when coming from another port in Nigeria.
RADIO: See "Lagos" for ETA advices to Agent.
VHF: Contact Port Authority and Agent via VHF Channel 16.
TUGS: 2 tugs available.
BERTHING:
Warri: The new Warri Port facilities now include:
11 hard quay berths of which 1 equipped with ramp for Ro/Ro.
10 buoy berths. Berthing daylight hours only. New Warri Port quay length 1,600 m. and depth alongside 11.50 m. 4 new sheds with total 28,800 sq. m.
Warri Refinery: 2 oil loading jetties and 2 cargo jetties specially for refined products. Berthing only during daylight hours. Refinery jetties total quay length 121.2 m. and depth alongside 7 m. Products available for lifting: AGO, HPFO, LPFO, DPK, PMS, LPGO Butane and Propane. Fresh Water available.
Private Jetty: Delta Steel Corporation at Aladja can accommodate vessels with max. draft 6.4 m.
CRANES: NPA Warri has got one 250 metric tonne floating crane and portal cranes of 10 metric tonnes and 6 metric tonnes. Mobile cranes also available.
UNBERTHING: Agent prepares outward Customs Clearance Certificate and delivers copy to Master. Agent books Pilot and advises Master time of boarding. Vessel to keep continuous watch on VHF Channel 16 for instructions from Harbour Master and Agent.
STEVEDORES: See "Lagos".
MEDICAL: Facilities available.
TANKERS: See "Berthing".
DENSITY: Brackish.
FRESH WATER: Available; delivered by barge or via hydrant.
FUEL: See "Lagos".
FIRE PRECAUTIONS: Port Authority provides modern fire-fighting equipment.
REPAIRS: Minor repairs only. *N.B.* Spare parts in short supply.
GANGWAY/DECK WATCHMAN: Compulsory in port and at anchorage Bennet Island during darkness.
OPENING/CLOSING HATCHES: By crew.
CUSTOMS ALLOWANCES: See "Lagos".
REPATRIATION: Regular airline services between Warri and Lagos.
TIME: GMT plus 1 hour.
POLICE/AMBULANCE/FIRE: All these services available in port area.
TELEPHONES: Not available – see Agent.
SHORE LEAVE: See "Lagos".
IDENTIFICATION CARDS: See "Lagos".
AUTHORITY: Nigerian Ports PLC, Central Zone, Warri, Nigeria. *Contact:* General Manager.
AGENT: Intertrans (Nigeria) Ltd., 4 Khalil Road, POB 374, Warri. Tel: (234) 53232039. Telex: 43517.

NOTES

Please also advise Shipping Guides Ltd.

Commonwealth of the Northern Mariana Islands

SAIPAN (Commercial Port): 15.13 N. 145.44 E.
(See Plan)

PORT LIMITS: The Channel Entrance is marked by Buoys No. 2 and No. 3, 400 ft. wide, and the Freeway Channel marked by Buoys No. 4 and No. 5, and No. 6 and No. 7 extending 10,000 ft. length.

DOCUMENTS:
5 General Declarations.
5 Crew Manifests.
5 Passenger Manifests.
4 Crew Personal Effects Lists.
3 Sealed Stores Lists (food, medication, etc).
3 Cargo Manifests.
3 Dangerous Cargo Lists.
2 Crew Vaccination Lists.
2 Entry Permits.

Note: Entry Permit may be requested via cable to Northern Marianas Immigration or through local Agent.

PILOTAGE: Compulsory for vessels 300 g.r.t. and above. Vessels below 300 g.r.t. may request Pilot via Agent. Pilots are privately operated by Saipan Marine (Saimar). Tel: (670) 322-7345. Fax: (670) 322-7347, and Marianas Tugs and Barge (Martug). Tel: (670) 322-7788. Fax: (670) 322-5705. Private Pilot only available upon request with advance notice of at least 24 hours. Pilot boards at Tango Buoy (Pilot Station) at Lat. 15° 12' 07" N., Long. 145° 40' 20" E. Pilot communicates with Harbour Master and the vessels before entering or departing through VHF Channel 16.

ANCHORAGES:
Outside Anchorage: M (Mike): 100 ft. to 250 ft. depths with 800 yards radius, Lat. 15° 13' 00" N., Long. 145° 39' 13" E.

L (Lima): 50 ft. to 100 ft. depth with 600 yards radius, Lat. 15° 11' 50" N., Long. 145° 40' 30" E.

Inside Anchorage: N (November): 20 ft. to 40 ft. depths with 350 yards radius, Lat. 15° 13' 30" N., Long. 145° 42' 30" E.

RESTRICTIONS: No waste discharge within harbour or within territorial waters (3 miles). Harbour depth restricted to 30 ft. MSL.

MAX. SIZE: Vessels longer than 500 ft. require special permission from Port Superintendent.

HEALTH: No formal clearance required; however, authorities may demand proof of immunisation against certain communicable diseases if ship is coming from infected countries.

VHF: Saipan Port Control on Channel 16 for arrival and berthing assignment. U.S. Coastguard and Civil Defence on Channel 16 for emergency and distress.

RADAR: Not available.

TUGS: Saimar: 2×2,200 h.p. and 1×200 h.p. Martug: 1×2,500 h.p. (Also see "Pilotage").

BERTHING: Total length 1,427 ft., depth 35 ft.

CRANES: 1×50 tons, 1×120 tons and 1×165 tons.

BULK CARGO FACILITIES: None.

SPECIALISED CARGO HANDLING FACILITIES: None.

BRIDGES: None.

STEVEDORES: Available on request prior to arrival of vessel, at least 24 hours advance notice required.

MEDICAL: At least 48 hours advance notice for requests other than emergencies. Hospital facility is limited.

TANKERS: Discharge at Baker Dock with 6 in. × 1,500 ft. long floating hose.

FRESH WATER: Available by private water tanker.

FUEL: Mobil diesel fuel ASTM No. 2 D grade, flash point 150°, API 34 – 42, viscosity SSU at 100°F. 33 – 45.

REPAIRS: No repair facilities.

DRY DOCKS: None.

SURVEYORS: John Robinson and Larry I. Guerrero.

GANGWAY/DECK WATCHMEN: Available upon request.

HATCHES: Stevedore in charge.

CUSTOMS ALLOWANCES: 1 case beer; 0.6 gallons spirits; 3 cartons cigarettes, duty free for personal consumption.

REPATRIATION: Not possible.

AIRPORT: Approximately 9 miles from port. Continental Airlines, Air Mike Express, All Nippon Airlines, Northwest Airlines and Japan Air Lines serving Saipan from Guam and Japan.

TIME: GMT plus 10 hours.

HOLIDAYS: New Year's Day (January 1st); Commonwealth Day (January 9th); President's Day (February 19th); Covenant Day (March 23rd); Memorial Day (May 28th); Liberation Day (July 4th); Labour Day (1st Monday of September); Colombus Day (2nd Monday in October); Citizen's Day (November 5th); Veteran's Day (November 12th); Thanksgiving Day (last Thursday of November); Constitution Day (December 7th); Christmas Day (December 25th).

POLICE/AMBULANCE/FIRE: Police Tel: 234-6333 and 234-6431. Ambulance Tel: 234-6222 and 234-6115. Fire Tel: 234-9222 and 234-6222.

EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard Tel: 233-9495. Fax: 233-9493. Civil Defence Tel: 322-9528.

SERVICES: Scuba divers available.

BANKS: Bank of Guam, Telex: 607. Union Bank, Telex: 634. Bank of Saipan, Telex: 682. Bank of Hawaii, Telex: 621.

SHORE LEAVE: Crew members are allowed on shore once cleared by Immigration and Customs.

DELAYS: Due to limited berthing space, vessels are usually delayed until the berth is vacant.

SHIPMASTER'S REPORT: May 1991.

1. On this occasion, all ETA's and other required details were passed by Guam Agency, which, in most cases, is first port of discharge. On arrival at the berth, the vessel is visited by Customs and Immigration Officials. Forms and shore passes have to be made, which are later picked up by the Agent.
2. Mooring and unmooring only by daylight.
3. Pilotage compulsory.
4. Sea Anchorage: Close and East of Outer Buoy with good holding ground.
5. Approaches to the Berth: From the Outer Buoy to the first two buoys of the channel, steer 045° (approx.). The first two buoys are Buoys No. 2 and 3. When entering the channel, which is 60 m. wide, steer a course of 088° and keep to the North side of the channel. After passing Buoys No. 6 and 7, steer a more Southerly course and head for Pier B. When approximately 2 cables from Pier B, change course to 045° (approx.) with the help of 2 tugs. When abeam of Pier B, drop starboard anchor and move backwards. When 4 shackles are out on the starboard anchor, drop port anchor. With the assistance of the tugs, the vessel is moved in to a position heading 310° (approx.). The first ropes are sent from the starboard quarter, and the vessel is heaved backwards to a position approximately 40 m. from a line connecting Piers A and B. This line is clearly marked with orange buoys. When the ship is in a good position, she has approximately 10 shackles on the starboard anchor and 7 shackles on the port anchor. From starboard side aft 5 soft lines are sent to the shore (length 100 m. approx.), and from portside aft 2 soft lines of approximately 180 m. each.

Max. draft as advised by pilot is 7.0 m.
Max. draft in the berth is 9.4 m.
For berthing, wind speed not to exceed 20 knots.

When the vessel is in the berth, the wind speed is monitored, and when there is too much movement in the mooring, the vessel has to leave the berth. No exact wind speed is given.

One 6 in. floating hose taken on the portside.
Accommodation ladder on portside.
Discharge rate 350 cu.m./hr. (approx.) for white products.
On completion, and between different grades, there is a waterplug.

For approaching, B.A. Chart can be used. However, for proceeding to the berth, it is advisable to use U.S.A. Chart No. 81076.

SHIPMASTER'S REPORT: June 1991.

Our vessel discharged part cargo at Apra (Guam), leaving the following cargo on board for Saipan:
707 tonnes Unleaded Regular Mogas.
4,983 tonnes Gas Oil.

The planned draft for arrival at Saipan was 1.94 m. (forward) and 7.02 m. (aft). Shortly before completing discharge at Guam, the Agent delivered on board a Fax from the Saipan sub-agent requesting a maximum arrival draft of 22 ft. This Fax had been received by Agent in Guam one week before, but apparently no action had been taken to pass the information on. On arrival at Saipan Fairway Buoy, cargo was run to reduce the draft to 22 ft.; this was not possible earlier, as it placed the stress over seagoing limits.

There was a delay on arrival at Saipan Fairway. There is one tug based in Saipan; the second tug required for berthing comes from Guam, and it arrived one hour after us. It then had to berth for Inwards Clearance before it could work. The pilot also flew up from Guam (the same pilot berthed and unberthed the vessel at Guam and Saipan). He appeared to be the senior pilot, and was very good. He recommended berthing and unberthing during daylight hours only. I would agree with this as a requirement.

The berthing had been discussed with the pilot while in Guam, and proceeded more or less according to plan. The starboard anchor was let go earlier than originally planned, resulting in a shorter scope. The weather was reasonably good with the wind from E.N.E. It had blown up a little stronger with the passing of a rain shower, while the vessel was waiting at the Fairway Buoy, but did not give any problems during the berthing. Both tugs were used to push on the portside. Single length ropes were sufficient to reach to Dock B, but Dock A finished about 200 m. away, requiring ropes to be lashed end-to-end. When the ropes were made fast, the lashings were just outside the fairleads. Final mooring were as shown on the "Plan". Mooring took 1 hour 50 minutes, against a previous best of some 6 hours. If we were to go to Saipan again, I would plan not to use the polypropylene rope on the starboard quarter to Dock B, and would then be able to run it as a third line on the port quarter to Dock A.

The small yellow marker buoys appear to have shifted, and should be repositioned to mark the limit of shallow water.

There was one Shell boat used for all operations: A fibreglass speedboat powered by an outboard; it was adequate for running the moorings. There was one gang ashore to take the moorings. To get from Dock B to Dock A, they had to climb into their truck and drive up to the road, completely around the Shell tank farm. However, this did not particularly delay operations. The same boat was made available to ferry ship's personnel ashore. It was equipped with ship's lifejackets for the time in port (the boat handlers had their own lifejackets).

The weather remained fair throughout the port call. We were fortunately between tropical depresssions, one passing just before we arrived and Guam. The wind remained from the E.N.E. at about 12 knots, i.e. on the starboard beam.

The berth can only be described as a provisional arrangement. One 50 tonne bollard on each quarter (or possibly 2×50 tonne bollards, there were 2 bollard posts set in each block of concrete) can barely be adequate. Fortunately on Dock B, there is also what appears to be the shank of a buried anchor sticking up out of the ground, and one rope was taken to this as a back-up.

There were 2 floating strings of 6 in. hose, each said to be 1,400 ft. long. Initially discharging started with one grade on each hose. After completion of the Mogas parcel, the line was plugged with water, and then also used for gas oil. On completion of discharge, both lines were cleared with water and then blown with air. To blow with air, an air hose was connected at the vessel's manifold crossover vent connection, and air-blowing to the shore appeared very successful.

The gas oil discharged on one hose was received direct by the power station some distance away, at a bulk rate of 267 cu.m./hr. The unleaded Mogas on the second hose to Shell, discharged at a bulk rate of 351 cu.m./hr. With both hoses in use on gas oil, a rate of 585 cu.m./hr. was achieved.

SHIPMASTER'S REPORT: June 1992.

Saipan is part of the Northern Marianas Group, and is considered as U.S.Commonwealth. U.S.A. flag is flown.

Cargo orders indicated that Guam Agents (Atkins Kroll) would handle vessel at Saipan as well. However, they appointed Microl Corporation to handle agency work.

Microl is a sister company of Atkins Kroll, Guam.

Their details are as follows:

Microl Corp., P.O.Box 267, Saipan, MP 96950. Tel: 234-5911/18. Telex: 783-613 (answerback Microl Sp or Microl Spn). Fax: 234-6514.

Papers required for Port Officials are:

Customs Entry and Declaration (one per crew member, supplied by Atkins Kroll and delivered to vessel at Majuro).

Immigration Form 958, one per crew member (as above).

2 copies General Declaration.

2 copies Stores List.

2 copies Last Port Clearance.

4 copies Bill of Lading.

4 copies Cargo Manifest.

4 copies Standard Crew List.

Pilotage is daylight only, and pilot boards at Buoy "T", 2 miles S.W. of entrance channel.

There is a shoal area West of the Buoy "T", running N.E./S.W., about 5 miles long and 1 mile wide, average depth approximately 14 fathoms, where vessel could anchor whilst awaiting daylight. However, as Admiralty Sailing Directions indicated, that it is only suitable as a temporary anchorage for larger vessels, it was decided to drift off at a safe distance until pilot boarded at 0630 hrs. following day.

Pilots were American, and both efficient and friendly. The entrance channel buoys appeared to be in the correct positions. The channel was rather narrow, and with vessel drawing 7.0 m., there was 7.0 m. under the keel.

The berth area is approximately 0.5 cables N.W. of Pier A on B.A. Chart No. 1101 (Saipan Harbour Plan).

As vessel cleared Buoys No. 6 and 7, one tug was made fast on the port maindeck forward, using tug's line. The vessel then started a slow turn to starboard, to a position where vessel was North of the leading line markers on Pier B. The port anchor was then dropped, and cable slackened out to 8 shackles on deck as vessel moved forward, turning to port with tug pushing sideways. Then the starboard anchor was dropped and tug let go.

The tug re-secured on the port maindeck aft. The starboard cable was run to three and a half shackles, with vessel dropping astern into the berth, with the tug pushing the stern round. Cables were then slackened as required, until the stern was close enough to run the after lines.

There are marker buoys, not shown on the chart, which indicate the shallow water at the stern end of the berth area, and pilots advise it is safe to put the stern close to the buoys. The harbour bottom is also scattered with coral heads and wrecks, which can, at times, foul anchors and cables when berthing/unberthing. However, vessel did not experience any problems at either time.

The prevailing wind currently comes from the N.E., and standard aft moorings are 4 starboard quarter lines and 3 port quarter lines, or if wind likely to be strong, 5 starboard quarter and 4 port quarter lines.

Full length lines are needed as the leads are very long.

The tug continued to push the stern round towards Pier A to enable starboard quarter lines to be run to bollards on the end of the pier. Once these lines were out, the stern was brought back to port with the aid of the tug and wind, slacking on starboard lines as required to enable port quarter lines to be run to bollards on a concrete block, especially positioned on waste ground for the purpose. When the port lines were balanced for weight and secured, the tug pushed the stern back into the middle of the berth, and starboard lines were heaved up, balanced and secured. Weight was taken on both anchor chains to prevent the stern dropping back any further.

With the vessel in final position, Managaha Island is right ahead.

Vessel discharged 3 grades through 2×6 in. connections to 2×6 in. floating hoses. Length of shore lines 1,500 ft. Overall rates achieved were 327 cu.m./hr. for Premium ULG, 227 cu.m./hr. for Fuel Oil and 255 cu.m./hr. for Gas Oil. 500 barrels of Gas Oil was retained to flush the Fuel Oil line through, with water plugs as final line clearance after each grade.

As the tank facilities are limited here, line flushes are critical.

The terminal requested that the Gas Oil flush be down the ship's Gas Oil line into the Fuel Oil hose. This required changing the hose over. The reason for doing so was that on a previous ship's visit, a slug of Fuel Oil went down the line at the end of the Gas Oil line flush, after the terminal had changed back over to the Gas Oil tank. The ship was then issued with a Protest for Contamination.

The terminal is currently planning to install a Slop Tank which will help to alleviate such problems. It is also planning to install a Jet Tank.

Unmooring was fairly standard. The tug was initially made fast on the port maindeck aft to manoeuvre the stern across the berth. The port quarter lines were let go first, then starboard quarter lines. Once all after ropes gone, vessel commenced heaving the starboard anchor, and when all clear aft, the engine was started. The tug then transferred to the port maindeck forward and re-secured. When the starboard anchor was aweigh and clear, the port anchor was heaved up. Once the port anchor was sighted and clear, vessel then manoeuvred into position to enter the channel. No problems were encountered through the channel, and once clear, the pilots departed.

AUTHORITY: Commonwealth Ports Authority, P.O.Box 1055, Saipan, MP 96950, Commonwealth of the Northern Mariana Islands. *Contact:* Carlos A. Shoda, Executive Director. *Tel:* (670) 664-3500. *FAX:* (670) 234-5962. Ignacio T. Mendiola, Port Manager. *Tel:* (670) 664-3554, 3555. *FAX:* (670) 322-4710.

NOTES

Please also advise Shipping Guides Ltd.

Norway

GENERAL:

REPORTING:

Report No. 1:

Shipmaster's Note: July 1995.

On May 1st 1995, the Norwegian Military Guidelines on Prohibited Waters have been replaced by new "Calls at the Port Regulations for Norwegian Waters inside Territorial Boundaries".

Publications do not provide any information concerning the existence of these reporting procedure requirements. I have been informed recently about this matter by the Company's local Shipping Agent during frequent calls at Sture Oil Terminal.

The new regulations apply for foreign vessels "over a certain size" which have to give notice (Arrival Notice) to the Norwegian Military Authorities at least 24 hours in advance before entering inner Norwegian Waters. Notification is to be sent via a Norwegian Coast Radio Station. Vessels are advised to use special forms to answer the questionnaire. Items have to be answered strictly in chronological order according to the alphanumeric index. The two-page Arrival Notification form (including a Sailing Plan for Norwegian Territorial Waters) consists of a total of 15 items with different sub-paragraphs, the Reporting Point Notification form (one page) consists of 10 items to be answered.

Any pre-arrival information and notifications delivered to VTS stations and Shipping Agents *do not* replace above mentioned reporting procedures. Norwegian Authorities may reject the permission of entering Norwegian Waters for vessels which do not send notifications or send incomplete, invalid or not updated reports.

Full details on legislative basis, notification forms, instructions for their use, Coast Radio Stations and charges should be ordered from the local Norwegian Shipping Agent, who will usually get the information directly from the competent Norwegian Defence Command (in case of Sture/Mongstad: Forsarvskommando Sor Norge/Defence Command South Norway). Coast Radio Stations will also give assistance.

DEFENCE COMMAND SOUTH NORWAY
COASTAL SURVEILLANCE CENTRE

The "Arrival Notification" and "Rep Point Notification" is to be sent by the Ship's Master. If anyone else is sending these notifications instead of the Master, they will be considered as invalid. If the "Arrival Notification" is considered invalid, the ship will not be permitted to enter Norwegian Internal Waters. Furthermore, the "Arrival Notification" is to be sent through a Norwegian Coastal Radio Station at least 24 hours prior to the ship's entry into Norwegian Internal Waters.

If you have further questions, please call.

Information to Masters and Radio Operators

How to send an Arrival and Reporting Point Notification:

All notifications in connection with entrance and sailing in Norwegian Territorial Waters (NTW) are to be routed to a Norwegian Coast Radio Station.

The Coast Radio Station will distribute the notification to the appropriate Norwegian authorities.

The notifications can be delivered in 2 different ways:

1. Directly by radio to any of the Norwegian Coast Radio Stations, see attached information.
2. By any other means to one of the tele-numbers shown in the attached information.

About the Arrival and Reporting Point Notification:

You are advised to use the attached forms and supply the information in chronological order according to the number or alphanumeric index which identifies each item.

Items containing *no information* are not to be transmitted.

When using telegraphy or telex, the items are to be separated by a slash, (/), e.g. Arrival Notification/1. Atlantic Clipper/2. 3EAG3/3. GM11/4 ... etc.

Day/time group are to be transmitted as:

e.g.: 211545apr95 (21=date, 1545=time/UTC, apr=month, 95=year).

If *changes* in Arrival or Reporting – Point Notification, it is only necessary to repeat item 1., 2. and 4., and the items which are to be changed.

Charges:

There is a fixed charge per notification: SDR 20.55/NOK 197, when the notification is delivered directly by radio to any of the Norwegian Coast Radio Stations.

When delivered to one of the tele-numbers listed in the attached information, the sender will have to pay ordinary telecommunication charges in addition to the fixed charge.

Accounting Authority:

The Administration of the country that has issued the licence for a ship station (or the recognised private operating agency or other entity/entities designated by the Administration in accordance with the provisions L1 to L6 of CCITT Recommendation D.90/F.111) to whom maritime accounts in respect of ship stations licensed by that country may be sent.

Accounting Authority Identification Code (AAIC):

The discrete identification code of the accounting authority responsible for the settlement of maritime accounts (see Annex A to CCITT Recommendation D.90/F.111).

The Coast Radio Stations will be able to assist and give guidance during the transmission of the notifications.

Radio frequencies and tele-numbers to be used for Arrival and Reporting Point Notifications:

Radio Frequencies (kHz):

MF-telephony channels:

	Channel	Ship/Coast
Svalbard	273	2075/1731
Vardo	267	2138/1713
	3	2449/3631
Berlevag	261	2120/1695
Hammerfest	241	2060/1635
Tromso	254	2099/1674
Bodo	286	2114/1770
	277	2087/1743
Sandnessj.	266	2135/1710
Andenes	249	2084/1659
Jan Mayen	277	2087/1743
Orlandet	290	2126/1782
	13	3200/2635
Alesund	275	2081/1737
Floro	256	2105/1680
	19	3217/2649
Bergen	272	2072/1728
	3	2449/3631
Rogaland	260	2117/1692
	271	2069/1725
Farsund	291	2129/1785
	253	2096/1671
Tjome	251	2090/1665

Tele-numbers:

Telephone:	+47 51 62 09 00
	+47 51 67 30 11
Fax:	+47 51 67 50 25
Telex:	56 73 900 (rt lgb n)

All stations are equipped with 2182 kHz.

Digital Selcall (DSC):

2187.5 Distress/safety.

2189.5/2177 International calling channel.

MF-Telegraphy:

Vardo, Bodo, Orlandet and Rogaland are equipped with 500 kHz.

VHF:

Continuous coverage along the entire coast on VHF Channel 16 + various working channels.

Normal VHF coverage: 40 – 80 nautical miles off the coast.

For detailed information about radio frequencies see "List of Coast Stations".

Rogaland Radio:

HF-telephony channels:

Ship	Coast
4063.0	4375.0
4089.0	4381.0
4140.0	4432.0
6206.0	6507.0
8255.0	8779.0
12293.0	13140.0
16372.0	17254.0
22060.0	22756.0

HF-telegraphy channels:

4185.0	4241.0 LGW
8368.5	8574.0 LGB
12552.5	12727.5 LGJ
16736.5	17073.9 LGX
22282.5	22473.5 LFG

Arrival Notification:

Page 1

1. Ship name:
2. Call sign: 3. AAIC:
4. IMO ident.:
5. MMSI:
6. Flag:
7. Type of vessel:
8. Type of cargo:
8. (a) Quantity:
9. Measurements:
   (a) LOA: feet or metres
   (b) Beam: feet or metres
   (c) Draft: feet or metres
   (d) Tonnage: gross tonnes
10. Arriving from (foreign port)
   (a) Name of port:
   (b) Country:
11. Enroute to (foreign port)
   (a) Name of port:
   (b) Country:
12. Entering NTW in
   (a) Position:
   (b) at (dtg/UTC):
13. Leaving NTW in
   (a) Position:
   (b) at (dtg/UTC):
14. Sailing Plan in NTW
   (If more than 2 ports, continue on page 2). Editor's Note (See No. 14)
   (a1) Name of port:
   (b1) ETA (dtg/UTC):
   (c1) ETD (dtg/UTC):
   (d1) Purpose:
   (a2) Name of port:
   (b2) ETA (dtg/UTC):
   (c2) ETD (dtg/UTC):
   (d2) Purpose:

15. Norwegian POC
(If more than 2 agents/operators, continue on page 2) Editor's Note (See No. 15).
(a1) Name:
(b1) Address:
(c1) Telephone:
(a2) Name:
(b2) Address:
(c2) Telephone:
16. Communication:
(a) Inmarsat:
(b) Others:
17. Master:

Page 2

14. Sailing Plan in NTW (continued)	15. Norwegian POC (continued)
(a3) Name of port:	(a3) Name:
(b3) ETA (dtg/UTC):	(b3) Address:
(c3) ETD (dtg/UTC):	(c3) Telephone:
(d3) Purpose:	
(a4) Name of port:	(a4) Name:
(b4) ETA (dtg/UTC):	(b4) Address:
(c4) ETD (dtg/UTC):	(c4) Telephone:
(d4) Purpose:	
(a5) Name of port:	(a5) Name:
(b5) ETA (dtg/UTC):	(b5) Address:
(c5) ETD (dtg/UTC):	(c5) Telephone:
(d5) Purpose:	
(a6) Name of port:	(a6) Name:
(b6) ETA (dtg/UTC):	(b6) Address:
(c6) ETD (dtg/UTC):	(c6) Telephone:
(d6) Purpose:	
(a7) Name of port:	(a7) Name:
(b7) ETA (dtg/UTC):	(b7) Address:
(c7) ETD (dtg/UTC):	(c7) Telephone:
(d7) Purpose:	
(a8) Name of port:	(a8) Name:
(b8) ETA (dtg/UTC):	(b8) Address:
(c8) ETD (dtg/UTC):	(c8) Telephone:
(d8) Purpose:	

Instructions for use of the form "Arrival Notification":

Para 1 The name of the ship.
Para 2 The international call sign of the ship.
Para 3 The Accounting Authority Identification Code (AAIC).
Para 4 The IMO Register number or the official number used for the ship in the Ship Register where she is registered.
Para 5 The MMSI code of the ship.
Para 6 The nationality of the Ship Register where the ship is registered (Code taken from Annex 2. If no code exists, spell full name).
Para 7 The ship type code best describing the ship (See Annex 1).
Para 8 Short description of the cargo, given by IMO Classification if any, other than dry cargo.
Para 8a The amount of cargo in tonnes.
Para 9 The ship dimensions given as:
(a) LOA (Length overall).
(b) Beam.
(c) Draft (Maximum).
(d) Tonnage given as gross tons.
The length measure can be given either in metres or feet. Be sure to state which is used.
Para 10 (a) Name of the last port the ship sailed from, prior to entering Norwegian Territorial Waters.
(b) Name of the country the ship sailed from, prior to entering Norwegian Territorial Waters.
Para 11 (a) Name of the port the ship has as destination, after leaving Norwegian Territorial Waters.
(b) Name of the country the ship has as destination, after leaving Norwegian Territorial Waters.
Para 12 (a) The position where the ship (given in Lat./Long.) is to enter Norwegian Territorial Waters.
(b) The day/time group when the ship is to enter Norwegian Territorial Waters.
Para 13 (a) The position where the ship (given in Lat./Long.) where the ship is to leave Norwegian Territorial Waters.
(b) The day/time group when the ship is to leave Norwegian Territorial Waters.
Para 14 (a) The name of the Norwegian port the ship is to visit.
(b) The estimated time of arrival at the Norwegian port.
(c) The estimated time when the ship is to depart the port.
(d) The purpose of the port call given as i.e. "loading", "bunkering", "unloading", "ship repairs", "fish delivery", etc.
Para 15 (a) The name of the Norwegian agent POC to be used or other POC (point of contact).
(b) The agent's address.
(c) The telephone number of the Norwegian agent, POC, etc.
Para 16 (a) The ship's Inmarsat number.
(b) If any other communication system than Inmarsat, VHF, MF or HF is available on board, it is to be listed here (i.e. number of mobile telephone, VHF Selcall number).
Para 17 The name of the ship's Master.

Reporting Point Notification:

1. Ship name:
2. Call sign: 3. AAIC:
4. IMO Ident.:
5. MMSI:
6. Flag:
7. Position:
8. Enroute to (destination):
9. Name of NTW check point:
10. ETA check point (dtg/UTC):
11. Master:
or
9a. Name of next Norwegian port:
10a. ETA next Norwegian port (dtg/UTC):

Instructions for use of the form "Reporting Point Notification":

Para 1 The name of the ship.
Para 2 The international call sign of the ship.
Para 3 The Accounting Authority Identification Code (AAIC).
Para 4 The IMO Register number or the number used for the ship in the Ship Register where she is registered.
Para 5 The MMSI code of the ship.
Para 6 The nationality of the Ship Register where the ship is registered (Code taken from Annex 2. If no code exists, spell full name).
Para 7 The ship's actual position when sending the notification.
Para 8 The name of the next destination for the ship. Either the name of the next port, the position where the ship is to leave Norwegian Territorial Waters or the number of the next reporting point the ship is to pass.
Para 9 The name or the number of the reporting point, the ship is passing when within Norwegian Territorial Waters.

1	Kvitsoey	Lat. 59°05' N.
2	Statt	Lat. 62°10' N.
3	Roervik	Lat. 64°52' N.
4	Landegode	Lat. 67°27' N.
5	Tromsoe	Lat. 69°41' N.
6	Honningsvaag	Long. 026°00' E.
7	Passing the base line	When leaving NTW

Para 10 The estimated time when the ship will pass the reporting point.
Para 11 The name of the ship's Master.
If the ship will be unable to hold the earlier given ETA for the next port call, Para 12 and 13 can be used in order to notify Norwegian authorities.
Para 12 The name of the next Norwegian port, the ship is to enter.
Para 13 The estimated time when the ship expects to enter the next port.

Annex 1:

Ship Type Codes:

Merchant ships:	
Merchant ship, General	TM
Dry cargo, Break bulk	TMA
Bulk carrier	TMB
Container ship (non-self sustained)	TMC
Container ship (self sustained)	TMCS
Dredger	TMD
Ro/Ro ship (40 meters or more)	TME
Car/Passenger ferry	TMF
Lash	TML
Tanker (oil)	TMO
Replenishment oiler	TMOR
Tanker, Special liquid	TMOS
Tanker, Liquid gas	TMOT
Passenger/Cruise ship	TMP
Refridgerated ship	TMR
Yacht	YAC
Hovercraft	TJ
Ships related to fishery activity:	
Fishing vessel, General	TU
Fishing vessel, refridgerated	TUR
Factory ship	TUF
Fishing base ship	TUB
Fisheries research ship	TUS
Trawler	TRL
Special ships:	
Cablelayer	TMK
Diving tender	YDT
Floating crane	YD
Heavy lift	TMH
Icebreaker	TMGB
Ocean-going rescue tug	TMTR
Offshore support vessel	TMZ
Scient research/survey	TMGS
Submarine	SS
Training ship	TMX
Tug	TMT

Annex 2:

Nationality Codes:

Armenia	AM	India	IN
Algeria	AG	Indonesia	ID
Antigua and Barbuda	AC	Iran	IR
Argentina	AR	Ireland	EI
Australia	AS	Italy	IT
Azerbadjan	AJ	Jamaica	JM
Bahamas	BF	Japan	JA
Bangladesh	BG	Jordan	JO
Barbados	BB	Kazakhstan	KZ
Belgium	BE	Korea (North)	KN
Belize	BH	Korea (South)	KS
Bermuda	BD	Kuwait	KU
Brazil	BR	Latvia	LG
British Virgin Islands	VI	Liberia	LI
Bulgaria	BU	Libya	LY
Cambodia	CB	Lithuania	LH
Cameroon	CM	Malaysia	MY
Canada	CA	Malta	MT
Cayman Islands	CJ	Man, Isle of	IM
Cape Verde	CV	Morocco	MO
Chile	CI	Mexico	MX
China	CH	Monaco	MN
Colombia	CO	Myanmar	
Costa Rica	CS	Netherlands	NL
Cuba	CU	Norway	NO
Cyprus	CY	Pakistan	PK
Denmark	DA	Panama	PM
Dominican Rep.	DR	Philippines	RP
Equador	EC	Poland	PL
Egypt	EG	Portugal	PO
Ethiopia	ET	Puerto Rico	RQ
Estonia	EN	Russia	RS
Finland	FI	St.Vincent-Grenadines	VC
France	FR	Singapore	SN
Gabon	GB	Sri Lanka	CE
Georgia	GG	Switzerland	SZ
Germany	GE	Sweden	SW
Gibraltar	GI	South Africa	CT
Grenada	GJ	Spain	
Greece	GR	Taiwan	TW
Greenland	GL	Tunisia	TS
Guadaloupe	GP	Turkey	TU
Guatemala	GT	Ukraine	UP
Haiti	HA	United Kingdom	UK
Honduras	HO	USA	US
Hong Kong	HK	Vanuatu	NH
Iceland	IC	Venezuela	VE

Application Form for Entry Clearance:

Block Letters to be used throughout.

1. The Ship
(a) Ship name:
(b) Call sign:
(c) IMO Ident. (or ship register No.):
(d) Flag:
(e) Type of vessel:
(f) Measurements:
(i) LOA: feet/metres
(ii) Beam: feet/metres
(iii) Draft: feet/metres
(iv) Tonnage: gross tons
2. Period for which the application is requested to be valid:
3. Ports to be visited (If more than 2 port calls are to be made, information is to be given on separate sheet):
(a1) Name of port;
(a2) Arrival period:
(a3) Total of days in port:
(b1) Name of port:
(b2) Arrival period:
(b3) Total of days in port:
4. Arriving from (foreign port):
(a) Name of port:
(b) Country:
5. Captain:
(a) Name:
(b) Date of birth:
(c) P.E.C. (if none, state that):
6. Crew (If necessary give information on separate sheet):
(a) Nationality: No.:
(b) Nationality: No.:
(c) Nationality: No.:
7. Norwegian Point of Contact (POC) (If none, state that):
(a) Name:
(b) Address:
(c) Telephone No.: Fax No.:
8. Purpose of the entry into Norwegian Territorial Waters (If more space is needed, use separate sheet):
9. State whether or not the ship concerned holds a copy of this application: Yes No
10. State whether or not the ship's Master is knowledgeable of the regulations in the above mentioned Norwegian Royal Decree: Yes No
11. Applicant (State releasing Company):
(a) Name:
(b) Address:
(c) Telephone No.: Fax No.:
(d) POC:
12. Signature of the Applicant (State also name in Block Letters):

Report No. 2: July 1995.

The following is a newsletter from a Shipping Agent in Karstoe.

We have been informed by the Norwegian authorities that new regulations regarding foreign non-military vessels entering Norwegian waters will be effective as from 1st May 1995.

The following is a transcript from the booklet "Nye Los Og Anlopsregler 1.5.95".

Quote:

6. SUBSTANCE OF THE NEW REGULATIONS GOVERNING THE ENTRY OF FOREIGN NON-MILITARY VESSELS INTO NORWEGIAN TERRITORIAL WATERS.

All foreign Shipmasters are obliged to familiarise themselves with the regulations before they reach Norwegian Territorial Waters.

In the following we use the abbreviations Hq DEFCOMNON and Hq DEFCOMSONOR.

Hq DEFCOMNON stands for Headquarters Defence Command North Norway and Hq DEFCOMSONOR for Headquarters Defence Command South Norway, see 6.8 for further details.

6.1 *Geographical extent of the Regulations:*

These regulations apply to Norwegian Territorial Waters, i.e. to all waters inside the base line and 4 nautical miles beyond the base line. The base line consists of straight lines joining the outermost points of the entire coast. The regulations do not apply to waters of Svalbard, Jan Mayen and Norwegian dependencies.

Foreign non-military vessels are deemed to include all foreign vessels and Norwegian vessels with a foreign Master that do not fall within the regulations governing foreign vessels' entry into Norwegian Territorial Waters in peacetime. The regulations also encompass the equipment (lifeboats, landing craft, aircraft, etc.) belonging to the vessel. In some areas the regulations are stricter for vessels exceeding a certain size (longer than 24 metres or over 50 g.t.). The text makes clear which areas are involved.

6.2 *Passage through Territorial Waters outside the Base Line:*

The rules of innocent passage apply from the base line out to the territorial limit. All foreign non-military vessels have right of such passage. Stopping or anchoring is only permitted when part of ordinary navigation (e.g. while waiting for a Pilot to come onboard), or is made necessary by force majeure or distress, or for the purpose of giving assistance to others. If a vessel has to stop or anchor for other reasons, it shall report the fact to Hq DEFCOMNON or Hq DEFCOMSONOR without undue delay.

6.3 *General Rule governing the entry to waters inside the Base Line (Norwegian Internal Waters):*

As a general rule, foreign non-military vessels are entitled to enter Norwegian Internal Waters without obtaining permission in writing in advance. However, this right is confined to certain purposes, see 6.6.2.

Lay time in Norwegian harbours shall be limited to that required by the purpose of the call.

Norwegian authorities may refuse a vessel permission to enter internal waters if special reasons make this necessary.

6.4 *Special Regulations governing the Admission of certain types of Vessels to Waters inside the Base Line:*

6.4.1 Vessels required to apply for Admission:

Certain types of vessels must have permission in writing in advance from Norwegian authorities in order to enter Norwegian Internal Waters.

These are:

Research vessels.

Seismological vessels and other vessels carrying equipment used for surveying and charting the sea bed.

Special-purpose vessels, including self-propelled platforms, tugboats, dredgers, ice-breakers and floating cranes.

Vessels carrying aircraft onboard.

Non-military government vessels as well as stand-by and support vessels for warships.

Nuclear-powered vessels or vessels carrying nuclear material.

In case of doubt, Norwegian authorities will decide whether a particular vessel falls within one of these groups.

Exceptions from the requirement regarding permission in writing in advance are possible on the basis of agreement between Norway and the vessel's flag state.

Remarks: Under the EEA Treaty, Norway cannot demand that vessel whose flag state is a contracting party in the EEA shall apply in writing in advance. This does not however apply to the last two categories of vessels listed above.

6.4.2 The Application:

Applications, in writing, for permission to enter Norwegian Internal Waters shall reach Hq DEFCOMNON or Hq DEFCOMSONOR no later than 7 days before the vessel plans to arrive at the base line. Such applications may be sent to the Defence Command in question by telefax. Applications that arrive too late will not be considered.

Applications shall contain the information mentioned in 6.5 on notification in advance, and any other information which may be assumed to be of significance for entry. Norwegian authorities may demand further information, including details of any catch to be delivered in Norway. Applications shall be in Norwegian, Danish, Swedish or English.

A special application form will be prepared for this purpose. The form will be available during the Spring of 1995.

6.5 *Obligation to notify the Authorities before Arrival at the Base Line:*
The following vessels are required to give notification:

All vessels mentioned in 6.4.1 irrespective of size.

All other foreign non-military vessels larger than 50 g.t. or longer than 24 m., except passenger or car ferries on a regular schedule. The latter may instead send their schedule to Hq DEFCOMNON or Hq DEFCOMSONOR no later than 14 days before the service is put into operation, and they must notify Hq (etc.,etc.) if the service is withdrawn or if changes are made in the schedule.

Vessels required to give notification shall notify Hq DEFCOMNON or Hq DEFCOMSONOR in advance and no later than 24 hours before the vessel plans to cross the Norwegian base line. Notification should be in writing and *shall be sent by the Shipmaster* (i.e. the Master cannot leave it to the Agent or other person to send notification).

Notification shall contain:

The vessel's IMO Identification number.

The vessel's nationality, name, international radio call sign (signal letters) and mobile and satellite telephone numbers, if any.

The vessel's type, cargo, draft, and size stated in gross tons.

The purpose of entry.

Statement of the position in latitude and longitude where the vessel intends to cross the base line when entering and leaving.

Intended ports of call stating arrival and departure times.

Norwegian contact (agent, operator, shipowner, etc.).

6.6 *General Rules for Passage, etc., through waters inside the Base Line:*
The rules below apply to all foreign non-military vessels, irrespective of size, see however 6.7 on pleasure craft.

6.6.1 Prescribed Fairways:
When navigating in internal waters, foreign non-military vessels shall use the fairways prescribed by the Ministry of Defence. A separate overview of these fairways will be prepared. If a legitimate need arises to proceed outside the approved fairways, permission to do so shall first be obtained from Hq DEFCOMNON or Hq DEFCOMSONOR. There shall always be a Norwegian state pilot onboard during such passage.

6.6.2 Use of Norwegian Internal Waters:
Use of Norwegian Internal Waters is restricted for the following purposes:

Passage to and from Norwegian ports in connection with loading, unloading, re-stocking, bunkering, carrying out necessary repairs or fulfilling agreements with Norwegian interests.

Transit passage (between Norwegian ports).

To put into a harbour of refuge.

Stopping and anchoring are only permitted when part of normal navigation (e.g. dropping anchor owing to fog), when necessitated by force majeure (e.g. breakdown), by distress or for the purpose of giving necessary assistance to others. Vessels that stop or drop anchor shall always, and without undue delay, report the fact to Hq DEFCOMNON or Hq DEFCOMSONOR.

No recordings or measurements may be taken other than those necessary for safe navigation. Making charts or sketches of harbours, waters, airfields or seaplane ports, military installations or structures, is prohibited. Photographing or describing the two last mentioned items is also prohibited.

The Master and crew of foreign non-military vessels shall comply with existing Norwegian legislation, including regulations relating to the environment, health, customs, pilotage, traffic, ports, foreign nationals and rules of conduct. Norwegian regulations governing the use of communications equipment must be observed, see List of Coast Stations.

Vessels shall fly their national flag at all times during passage through Norwegian Territorial Waters. Vessels at berth or at anchor shall fly their flag in daytime.

6.6.3 Obligation to report:
Vessels shall report to Hq DEFCOMNON or Hq DEFCOMSONOR when crossing the base line on entering and leaving Norwegian Internal Waters and on passing report points stipulated by the Ministry of Defence. An overview of these report points will be published separately.

Such reports shall always state:

The vessel's name.

The vessel's radio call sign.

The vessel's position.

The vessel's destination.

The time at which the vessel expects to pass the next report point or to arrive at the next Norwegian port of call.

Any change made in the vessel's submitted navigation plan or difficulties in adhering to it shall be reported to Hq DEFCOMNON or Hq DEFCOMSONOR immediately.

6.7 *Special Rules for Pleasure Craft:*
Pleasure craft exceeding 24 m. or 50 g.t. are subject to the notification requirement described in 6.5 and shall use prescribed fairways as mentioned in 6.6.1. They may also be instructed to report to the authorities as mentioned in 6.6.3. Pleasure craft may otherwise move freely, provided they comply with the restrictions and orders mentioned in 6.6.2, as regards charting, etc. Foreign pleasure craft shall observe the same flagging rules as other foreign non-military vessels.

6.8 *Notification and reporting procedures:*
All notifications, reports, applications and other enquiries to Norwegian military authorities shall be directed to Headquarters Defence Command North Norway in Bodo (Hq DEFCOMNON) in connection with entry to and passage through waters North of 65°N., and to Headquarters Defence Command South Norway in Stavanger (Hq DEFCOMSONOR) in connection with entry to and passage through waters South of 65°N. Enquiries shall normally be routed via a Norwegian Coastal Radio Station in Norwegian, Swedish, Danish or English.

6.9 *Right to inspect Vessels and to give Instructions for proceeding:*
Officers on Norwegian warships or guard-ships and other officers of the Norwegian Armed Forces are entitled to inspect any foreign non-military vessel, including its documents, cargo, equipment and persons onboard. The Master of the vessel in question shall provide all possible assistance to facilitate the inspection, including placing the vessel's communication equipment at the disposal of the inspecting officer free of charge. The Master of the inspected vessel is obliged to comply with instructions for proceeding.

6.10 *Contravention and Penalties:*
If the regulations have been contravened, the vessel may be ordered to leave Norwegian Territorial Waters. In the event of serious contraventions of the regulations, vessels will be seized and handed over to the nearest police authority for investigation and possible prosecution.

Unquote.

Editor's Note:
The rest of the "Report" is not reproduced as it is similar to the content of "Report No. 1" above.

REGULATIONS:
The following was translated by Shipping Guides Ltd.

REGULATIONS FOR NAVIGATING AND APPROACHING THE MARITIME DISTRICT OF GRENLAND:

Compiled by the Fisheries Department on 21st January 1988 in accordance with Section 6 of the Law of 8th June 1984, No. 51 covering ports and navigable waters.

Section 1:
Geographical and Appropriate Scope of Effect:

The Regulations are valid for navigable waters to the North of a straight line through the Northernmost point of Molen and the Northernmost point on Sasteinen.

The Regulations are valid for vessels over 50 g.r.t. or where the vessel is not measured with the greatest length over 24 m. with lesser other dimensions as determined in the individual paragraphs. They are also valid for tugs with the greatest length or beam exceeding 24 m. Vessels which push, or those which are pushed shall be reckoned as a vessel in accordance with these regulations.

Within the category of vessels with hazardous cargoes shall also be included those which have very combustible gases on board with a flash point lower than 23° C and which in ballast are not gas-free.

For the transport of bulk chlorine on all occasions the special regulations appertaining thereto are also valid.

Section 2.
Definitions:

Vessels are deemed in these regulations, and as governed by the Law of 8th June 1984 covering ports and navigable waters, to be any floating installation which can be used as a means of transport, navigation, support, production or storage, including underwater vessels of every kind. Also included are hovercraft. The Department, on application will determine by individual resolution or further regulations, what may be determined as a vessel.

G.R.T. means gross registered tons in accordance with the Ships' Measurement Convention of 1947. Conversion of gross tons in accordance with the 1969 Convention to gross registered tons shall be effected in accordance with the Maritime Navigation Directorate Regulations of 14.6.1982 covering measurement of vessels, with subsequent amendments.

For vessels with International Measurement Certifications (1947 Conventions) showing two different gross registered tonnages, the greater tonnage shall be deemed to be valid.

Hazardous Cargo shall be termed as:

1. *Packed hazardous goods and solid bulk loads* which are covered by the terms set out in the International Maritime Safety Convention SOLAS 1974 Chapter VII, Part-A and which are listed in the respective code International Maritime Dangerous Goods Code (IMDG-code) and Code of Safe Practice for Solid Bulk Cargoes (BC-code) Appendix B, with subsequent amendments, the quantity of which is 10 tons or more.

2. *Liquid bulk chemicals* which are covered by the terms set out in the International Maritime Safety Convention SOLAS 1974, Chapter VII, Part B. The materials are set out in codes:

For new vessels (built after 1st July 1986) International Code for the Construction and Equipment for Ships Carrying Dangerous Chemicals in Bulk (IBC Code) Chapter 18 with subsequent amendments.

For existing vessels (built before 1st July 1986) Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH-code) Chapter 6 with subsequent amendments.

3. *Liquid gases in bulk* which are covered by the terms set out in the International Maritime Safety Convention SOLAS 1974 Chapter VII, Part C. The materials are set out in codes:

For new vessels (built after 1st July 1986) International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code) Chapter 19 with subsequent amendments.

For existing vessels (built after 31st October 1976, but before 1st July 1986) Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (Gas Carrier Code) with subsequent amendments.

For existing vessels (built before 31st October 1976) IMO Code for existing gas carriers with subsequent amendments.

Materials which have a flashpoint of 23° C or more shall not be considered as dangerous cargoes.

Furthermore, the following materials shall not be considered as hazardous cargoes.

Product name	*Chemical formula*	*UN No.*	*UN Class*
Ammonium nitrate	NH_4NO_3	1942	5.1
Amm. nitrate fertiliser		2067	5.1
Amm. nitrate fertiliser		2068	5.1
Amm. nitrate fertiliser		2069	5.1
Amm. nitrate fertiliser		2070	5.1
Amm. nitrate fertiliser		2072	5.1
Amm. nitrate fertiliser		2071	9
Argon	Ar	1006/1951	2
Potash lye	KOH	1814	8
Carbon dioxide	CO_2	1013/2187	2
Formic acid	HCOOH	1779	8
Magnesium granules	Mg	2950	4.3
Sodium hypochloride	NaOCl	1791	8
Sodium lye	NaOH	1824	8
Spent caustic			8
Nitrogen	N_2	1066/1977	2
Salmiac spirit	NA_4OH	2672	8
Nitric acid	HNO_3	2031	8
Salt acid	HCl	1789	8
Sulphuric acid	H_2SO_4	1830	8
Titanium trichloride	T_1Cl_3	2441	4.2

The Coastal Directorate will be able to determine whether new materials may be considered as hazardous cargoes. Their deliberations will be based on whether possible damage may result to the environment as the consequence of grounding, collisions, etc.

Section 3

Traffic Centre:

The Traffic Centre at Brevik can set in motion the safety measures considered to be necessary to afford maritime traffic the highest degree of safety at all times. The Traffic Centre cannot actively intervene in the sailing and navigation of a vessel. These regulations do not detract in any way from the responsibility of a Ship's Master for her movement, navigation and manoeuvring.

The Traffic Centre shall see to it that these regulations and orders are complied with.

Vessels approaching or already in navigable waters must address all information and inquiries concerning their sailing and navigation to the Traffic Centre by VHF radio telephone Channel 80, or by telephone or telex. Radio traffic concerning a vessel's commercial operations must be directed over the nearest coastal radio station.

Section 4

Permission:

Vessels wishing to use the navigable waters, must seek prior permission from the Traffic Centre. Permission must be requested in good time and at least 1 hour prior to the arrival of the vessel in the navigable waters or before leaving her berth, anchorage or other mooring installation in the navigable waters.

Vessels carrying hazardous cargo must, however, report their arrival in the navigable waters 24 hours in advance.

The Traffic Centre can, where necessary to ensure safe traffic development, amend, withdraw or set special conditions for permission.

The Traffic Centre can, in individual cases, give a vessel permission to use parts of the navigable waters.

When applying for permission, the following details must be given to the Traffic Centre:

(a) Name of Vessel.
(b) Call Sign.
(c) Nationality.
(d) Name of Master.
(e) Length Overall.
(f) Beam.
(g) Draft.
(h) GRT.
(i) Port of destination.
(j) Type of cargo.
(k) Amount of hazardous cargo in tons.
(l) Estimated time of arrival.
(m) Estimated time of departure.

Vessels are required to give further information which the Traffic Centre may deem essential for a safe and effective development of traffic or which the Master of the vessel considers to be necessary.

Section 5

Position reporting and requirements for listening:

Vessels intending to use the navigable waters, must be equipped with fully operative maritime VHF radio telephone.

Such VHF radio installations must be operated from the vessel's mains voltage, but must have the facility for rapid changeover to battery operation, or the vessel must be equipped with portable VHF with battery charger. Such portable VHF must have sufficient range.

All communications with the Traffic Centre on VHF Channels 80, 16, 14, 13 and 12 are automatically recorded on magnetic tape.

Vessels must send a position report on:

(a) Passing the Southern limit of the navigable waters.
(b) Leaving the quay, anchorage or mooring installation.
(c) Arrival at the quay, anchorage or mooring installation.
(d) Passing other positions which may be determined by the Traffic Centre.
(e) In the event of accident.
(f) The request of the Traffic Centre.

Reports must contain the following information:

On entry:

Name of vessel.

New time of passing the Southern limit of the navigable waters.

New estimated time of arrival at the quay, anchorage or mooring installation.

New time of arrival at the quay, anchorage or mooring installation.

On sailing:

Name of vessel.

Time of leaving the quay, anchorage or mooring installation.

Estimated time of passing the Southern limit of the navigable waters.

Actual time of passing the above limit.

On sailing within the navigable waters:

Name of vessel.

Sailing time from quay, anchorage or mooring installation.

Estimated time of arrival at the quay, anchorage or mooring installation.

Time of arrival at the quay, anchorage or mooring installation.

The position report must be addressed to the Traffic Centre on VHF Channel 80.

If this position report cannot be given directly to the addressee VHF station, it must be transmitted without delay by another means, in port by the use of telephone or telex, and at sea over Tjome Radio.

Vessels underway in the navigable waters must listen out continuously on VHF Channels 16 and 80.

This requirement is valid for all vessels equipped with VHF radio telephones, irrespective of the vessel's size.

Section 6

Limitation of visibility:

Where visibility is less than 1 nautical mile (1,852 m.) in the navigable waters or a part of them, the Traffic Centre will hold back all vessels with hazardous cargoes.

Where an anchored vessel with hazardous cargo has free visibility to the quay or mooring installation, the Traffic Centre may, nevertheless, permit her to proceed to such quay or mooring installation where the Centre considers it to be appropriate. The same holds good for movement from the quay or mooring installation to a nearby anchorage.

Section 7

Capacity limitations:

On passing Dypingen, Kalven and Brevikstrommen, no vessel may have an overall length, beam and draft exceeding those quoted below:

Dypinen:	
LOA	198.1 m. – 650 ft.
Beam – vessel with hazardous cargo	27.4 m. – 90 ft.
Beam – other vessels	30.5 m. – 100 ft.
Draft	10.4 m. – 34 ft.
Kalven:	
LOA	274.3 m. – 900 ft.
Beam	45.7 m. – 150 ft.
Draft	13.4 m. – 44 ft.
Brevikstrommen:	
LOA	198.1 m. – 650 ft.
Beam – vessel with hazardous cargo	27.4 m. – 90 ft.
Beam – other vessels	30.5 m. – 100 ft.
Draft	9.9 m. – 32.5 ft.

Pilots in Grenland can, in special circumstances, give vessels with a draft up to 10.4 m. (34 ft.), without hazardous cargo, permission to pass Brevikstrommen in daylight.

Section 8

Traffic separation:

The Traffic Centre indicates which course the vessel must use between Langsundsbukta and Brevik when she applies for permission to enter the navigable waters.

Section 9

Anchoring:

Vessels may only anchor if it is necessary. Before a vessel proceeds to an anchorage, permission must be obtained from the Traffic Centre. The Traffic Centre, on the grounds of safety, may indicate a specific anchorage to which the vessel may proceed. Anchoring, with undernoted exceptions, may only take place in the following areas and positions:

Helgerofjord:

A. Amlirogna Light in a straight bearing 062°, 0.6 nautical miles distant.

B. Amlironga Light in a straight bearing 046°, 0.4 nautical miles distant.

Eidangerfjord:

C. North on a line running East-West through Southernmost point of Orviktangen.

Frierflaket:

D. Ringsholmen Light in straight bearing 192°, 1.1 nautical miles distant.
E. " " " " 207°, 1.1 "
F. " " " " 202°, 0.9 "
G. " " " " 212°, 0.9 "
H. " " " " 219°, 0.7 "
I. " " " " 226°, 0.9 "

Herrebukta:

J. Rafsnes Quay No. 3 in straight bearing 125°,0.7 nautical miles distant.

K. Rafsnes Quay No. 3 in straight bearing 125°, 0.4 nautical miles distant.

Traffic Centre can in special cases indicate other anchorages.

A vessel may anchor outside these areas where it is necessary to avoid danger. The Traffic Centre must then be informed immediately.

The Traffic Centre can refuse to give vessels at anchor permission to leave the anchorage, and can order already expedited vessels to leave anchorages.

Section 10

Use of Tugs:

Vessels over 500 g.r.t. carrying liquid condensed gases and vessels over 2,000 g.r.t. carrying hazardous cargo in bulk as defined in these Regulations must have tugs attached during entry and leaving and during manoeuvring to and from quays, mooring installations or anchorages.

The Traffic Centre can instruct a vessel which is under the abovementioned tonnage limits and which is carrying gas or other hazardous cargoes in bulk to use tugs.

On entry, the tow lines must be connected immediately after the Pilot has come on board, insofar that wind and sea conditions do not prevent it. On sailing, tugs must be attached before vessels leave the quay, mooring installation or anchorge, and until they have passed Aroya.

The Traffic Centre can, when from a safety aspect it is deemed necessary, order the use of several tugs.

Vessels without hazardous cargo, but which exceed one or more of the following dimensions,

LOA	182.9 m. – 600 ft.
Beam	26.2 m. – 86 ft.
Draft	9.9 m. – 32.5 ft.

must have tugs attached when underway in a zone which in the South is limited by a line on bearing 045°/225° True, through Gjermesholmen Light and in the North limited by a line on bearing 270° True, through Saltbuodden Light.

Tugs used must have the capacity to control the movements of a vessel at all times.

Section 11
Tow lines:

During entry and sailing, vessels with hazardous cargo must have attached and lowered to the water fore and aft a spark-preventing and fire-resistant tow line with eye.

Section 12
Pleasure boat traffic:

Pleasure boats and open craft must refrain from entering the paths of large vessels and vessels navigating at night. They must as far as possible sail along the coast within a distance of 100 m.

Pleasure boats and open craft must not cross the path or course in such a way that the progress of a vessel which can only sail safely in such path or course is prejudiced. Sea Navigation Regulations 44 and 9 also apply.

The current section covers pleasure boats and open craft irrespective of their size.

Section 13
Dispensations:

In very special cases, the Coastal Directorate can give dispensation from these regulations. Application for dispensation must be submitted in writing to the Coastal Directorate as far as possible 1 month prior to the vessel's arrival. The Traffic Centre may in very special circumstances grant dispensation from the terms covering permission in accordance with Section 4.

Section 14
Penalties:

Where intentional or inadvertent transgressions of these regulations occurs, penalties in accordance with Penal Law Section 418 will be applied, unless stronger penalties are deemed necessary.

Section 15
Validity:

These Regulations enter into force on 1st March 1988. From that date, the Regulations covering entry in the port districts in Grenland as promulgated by the Fishery Department on 1st March, 1984, are cancelled.

(Coastal Directorate/Nautical Department, Oslo, 5th February 1988).

PILOTAGE:
REGULATIONS FOR THE USE OF PILOTS IN THE GRENLAND AREA

Issued by the Fishery Department 25th March 1988 in conjunction with the law governing the use of pilots of 9th April 1948. No. 2 Section 5, confirmed by Royal Resolution 29th April 1977.

Section 1

State Pilots must be used by vessels over 100 g.r.t. navigating in the waters to the North of a line through the North point of Molen – North point of Sasteinen. Furthermore, to the South of a straight line from Herreelva in Bamble to the Southern end of the Western Quay at Porsgrunn Factory.

Section 2

Vessels in these regulations are, in the law covering pilot usage of 9th April 1948 Section 1, also include lighters, loaded barges, pontoons, drilling platforms and similar floating installations, floating docks and dredgers.

G.R.T. means gross registered tons in accordance with the Ships' measurement Convention of 1947. Conversion of gross tonnage in accordance with the 1969 Convention to gross registered tons is effected in accordance with the Maritime Directorate Regulations of 14th June 1982 covering measurement of vessels, and subsequent amendments.

For vessels with International Measurement Certificate (1947 Convention) which indicates two different gross registered tonnages, the highest tonnage shall be taken as that valid.

Section 3

The Coastal Authority's No. 1 District or those which it authorises can give dispensation from the conditions in Section 1 for vessels under 500 g.r.t. which are not carrying hazardous cargo, when the ship's Master can prove that he frequently visits ports in the area and has therefore gained knowledge of the navigable waters and has always complied with the rules and conditions valid on each occasion for sailing and navigating in the navigable waters.

Furthermore, dispensation can also be given for vessels under 2,000 tons g.r.t. which are not carrying hazardous cargoes or cargoes covered by the rules in the International Convention governing the prevention of Pollution for ships MARPOL 73/78, where the Master or Chief Officer can prove that he has frequently visited ports in the area and has gained navigational knowledge of an adequate nature, and that he is well acquainted with the regulations and conditions which on every occasion are valid for navigation and sailing in the navigable waters. For Chief Officer it is required that in such cases they fulfil the conditions for acting as Masters of incoming vessels.

Dispensation may also be forthcoming on some strict conditions from the terms of Section 1 for vessels of 2,000 g.r.t. or more which are not carrying hazardous cargoes or cargoes which are covered by the rules in the International Convention covering prevention of Pollution from ships MARPOL 73/78. Ships' Masters or Chief Officer must in such cases also be able to prove that within the last 24 months they sailed in the navigable waters under the guidance of a State Pilot in the vessel in question or corresponding with at least 8 voyages in the navigable waters. Furthermore, ships' Masters or Chief Officer must present themselves to the Pilotage Authority in Grenland for examination concerning knowledge of the navigable waters and current regulations. The Coastal Directorate will give more precise details of this on application.

Requests for dispensation must be sent through the ship's Agent to the Pilotage Authority in Grenland. Dispensations given are valid for up to 2 years but can, however, be extended.

Section 4

When dispensation is used, there must be a navigator on the bridge who, in accordance with the conditions of Section 3, fulfils the requirements for navigation in the area without the use of a State Pilot.

Section 5

Where intentional or inadvertent transgressions of these regulations occur, penalties in accordance with Penal Law Section 418 will be applied, unless stronger penalties are deemed necessary.

Section 6

These regulations permit no alterations in the rules for the use of a state pilot for foreign non-military vessels over 50 g.r.t. as per Royal Resolution of 9th February 1968 covering forbidden maritime areas on Norwegian territory.

Section 7

These regulations come into force on 1st April 1988.

From the same date, the Regulations covering the use of pilots in the Grenland area as promulgated by the Fishery Department on 21st June 1978 with subsequent amendments are cancelled.

AUTHORITY: Coast Directorate (Harbour, Lighthouse and Pilotage Services), P.O.Box 8158, 0033 Oslo 1, Norway. *Tel:* (02) 11 40 90. *Telex:* 21555 KDIR N. *FAX:* (02) 42 48 35. *Cables:* Kystdirektoratet, Oslo, Norway.

AAHEIM: 62.02 N. 05.32 E.

SHIPMASTER'S REPORT: January 1989.

LOCATION: Aaheim, a small ore exporting village, lies in the Vanelvs Fjord. The berth is well sheltered by the islet of Torvhl in the West and the mainland to the South and East.

DOCUMENTS:

Ship's Register.
Stores List, 2 copies.
Private Property List, 2 copies.
Crew List, 2 copies.
Maritime Declaration of Health.

PILOTAGE: Give 24 hours notice of ETA to Kristiansund Pilots. (See "Notice"). When approaching from the South, the Pilot boards in position Lat. 62° 12' N., Long. 05° 18' E. When approaching from the North, the Pilot boards off Runde Island.

ANCHORAGE: None available outside. If due to strong winds vessel is unable to berth, then it is possible to anchor about 0.5 miles West of Fiskaahl Light (North of Slagnes).

MAX. SIZE: Max. permissible draft 13.5 m.

TUGS: One tug is available at all times. If a second tug is required, it may be called from Alesund.

BERTHING: Vessels normally berth port side to. The length of the quay available for loading is limited. Hence one shore fibre line has to be picked up and made fast at the stern. This acts as a stern line. As the stern extends outside the jetty, the remaining lines are all back springs. At least one breast line should be given due to the possibility of strong offshore winds.

LOADING: For loading lump olivine, only one shore loader is available, which runs on rails over a length of 75 m. The loader has an outreach of 16 m. The vessel has to be shifted frequently to enable loading at all hatches. The rate is claimed to be 1,000 tonnes p.h. but averages about 800 tonnes p.h. due to frequent conveyor breakdowns. For the finer grades (0 – 3 mm.) a rate of 2,500 tonnes p.h. can be achieved.

DENSITY: 1025.

FRESH WATER: Excellent drinking water available. No charge. Shore hoses available.

FUEL: Not available.

REPAIRS: Only minor repairs possible.

REPATRIATION: By taxi to Alesund and a 45 minute flight to Oslo.

CUSTOMS ALLOWANCE: 1 bottle spirits and 200 cigarettes per person.

GENERAL: Olivin (Magnesium Silicate + 7% Iron Ore). The world's largest deposit is found in Norway.

The annual world consumption of olivin is about 5 million tonnes and 2.1 million tonnes is shipped every year from Norway, thereby meeting almost 40% to 45% of the world's needs.

Holds/Tunnel Wash: No restrictions. Possible to wash down cargo holds and tunnel when alongside. However, the Agent has to be informed.

Stores: Not available.

NOTICE: Dated: July 1988.

INFORMATION ABOUT THE PILOT SERVICE IN MORE AND TRONDELAG:

The Coast Directorate has established new Regulations regarding ordering of pilot services.

As it will take some time before an official translation into English language is ready for distribution from the central authorities, we give below some information about the main points:

Vessels approaching from the sea, and vessels in port, which desire a pilot or due to national regulations are enjoined to use pilot in restricted areas, shall order the pilot with at least 24 hours notice. The order shall be confirmed 6 hours before arrival/departure and a final confirmation should be given 2 hours before arrival at the Pilot Station (boarding ground) or departure port.

When ordering a pilot the following information should be given about the vessel:

(a) Name.
(b) Call sign.
(c) Nationality.
(d) LOA and beam, or gross registered tonnage.
(e) Draft.
(f) Type of cargo.
(g) Destination.
(h) Purpose of call.
(i) ETA Pilot Station (boarding ground)/ETD port.
(j) Whether one or two pilots are required.

If the pilot has been ordered to report to a certain place at a certain time, but has to wait for the ship, waiting money has to be paid according to the Regulations for Coastal fees.

If long waiting time occurs, the pilot may be called back, due to lack of available pilots. A new pilot must then be ordered.

The new Regulations are implemented 1st August 1988.

More and Trondelag Pilot District includes the Pilot Stations Trondheim, Kristiansund N., Aalesund and Runde. The office is situated in Kristiansund and ordering of pilots from the stations mentioned should be given to Kristiansund.

Post address: Losoldermannen i More og Trondelag,
Kaibakken 1,
6500 Kristiansund N.,
Norway.

Telephone: 073 – 70800.

Out of office hours the pilot cutter, if the cutter is in port, receives orders for pilot on the same telephone number. If she is at sea, mobile telephone number 090 – 32997 may be used.

For direct communication between vessels and pilot cutter, maritime VHF radio-telephone may be used.

Signed: Pilot Master.

OPERATOR: A/S Olivin, N-6146 Aaheim, Norway. *Tel:* 070-24016. *Telex:* 42307. *Cables:* Olivine. *FAX:* 070-24266. *Contact:* Mr. H. Berget (private tel. 070-24152), Mr. S. Solheim (private tel. 070-24182).

AGOTNES: 60.25 N. 05.01 E. (See Plan)

DOCUMENTS:
1 General Declaration.
2 Cargo Declarations.
1 Stores List.
1 Health Declaration.
1 Personnel Effects.
2 Manifests.

PILOTAGE: Usual entrances to port at Korsfjord and Fedje.

Provisions for Advance Reports in connection with the ordering of Pilots. Issued by the Director of Pilotage.

1. Vessels approaching from the sea and desiring a Pilot should order the Pilot at 24 hours notice insofar as possible and confirm arrival at Pilot Station at 2 hours notice.

The advance order can be sent in the following manner:

(a) From ships at sea over radio direct to the sea pilot watch (calling frequency 2182 kHz from 2 minutes past until 10 minutes past each full hour, or over VHF-radio telephone, calling frequency 156.80 MHz, Channel 16).
(b) From ships at sea over coastal radio station to Pilot Station or pilot office.
(c) From broker or shipowner over telephone to sea Pilot Station or to any pilot office which will immediately convey the report to the sea Pilot Station.

2. Vessels lying in port and desiring Pilot will order the Pilot from the nearest pilot office during its office hours and if possible at 4 hours notice.

3. Vessels approaching from the sea as well as vessels lying in port shall, when making an advance order state the name and destination of the vessel and whether 1 or 2 Pilots are desired.

4. The Pilots will on the whole be despatched to the ships in accordance with the advance orders, and vessels are therefore requested to comply with the foregoing rules as far as possible in order to avoid having to wait for Pilot.

5. The international provisions for summoning Pilots by signal flags or blue lights, etc., are still in force, but should in future be used as a supplement to the radio communications or as the sole communication in emergencies.

ANCHORAGE: About 1,600 ft. North of CCB Quay, depths 29 m. – 74 m.

RESTRICTIONS: No special restrictions upon entry to the port.

MAX. SIZE: Water depths up to 60 ft. at quayside.

HEALTH: No Certificates required. In event of any disease or fever, contact Agents.

RADIO: All messages to Agents via Bergen Radio or Rogaland Radio.

VHF: Bergen Radio on Channel 16 or direct on Channel 10 (24 hour service).

TUGS: Available upon request. Vessel's lines usually used. No extra charge for tug's line.

BERTHING:
West side, quay of 235 m. long. Depth of water 60 ft.
East side, quay of 105 m. long, Depth of water 14 m.
North West side, quay of 120 m. long. Depth of water 7.2 m.
South side, 2 berths, each 60 m. long. Depth of water 10 m.

CRANES: 1 Mobile crane 350 tons lifting capacity. 4 Mobile cranes 50 tons – 100 tons lifting capacity.

BULK CARGO FACILITIES: For drilling mud and cement only.

SPECIALISED CARGO HANDLING FACILITIES: Loading/unloading carried out by mobile cranes and trucks.

BRIDGES: Bridge between Knarrevik and Drotningsvik. Height at mean level 50 m.

STEVEDORES: Provided by Coast Centre Base.

MEDICAL: 4 hospitals available (Bergen). No advance notice except serious illness.

TANKERS: Bunker line 6 in. No slop facilities.

DENSITY: About 1024.

FRESH WATER: Can be supplied alongside the quay, rate 70 t.p.h.

FUEL: New tank of 5,000 cu.m. 3 ships may take bunkers at the same time at a rate of 120 cu.m./hr.

No advance notice required.

CONSULS: (in Bergen). Austria, Belgium, Brazil, Denmark, Finland, France, Germany, Great Britain, Greece, Iceland, Netherlands, Panama, Peru, Portugal, Spain, Switzerland, Sweden, Turkey, Uruguay.

REPAIRS: All repairs possible.

DRY DOCKS: Available in Bergen. 3 Dry docks 365 ft. long with 12.5 ft. – 21 ft. depth on blocks.

1 floating dock for vessels up to 10,000 g.r.t. and 2 smaller floating docks. Largest vessel 51,839 g.r.t. Draft 34 ft. 4 in.

Drafts up to 35 ft. can be accommodated.

SURVEYORS: Lloyd's, A.B.S. and Norske Veritas.

GANGWAY/DECK WATCHMAN: Not necessary.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: 0.75 litres of spirit and 200 cigarettes for each member of the crew.

REPATRIATION: All facilities available for crew changes.

AIRPORT: 35 km. from Bergen Airport served by regular airlines.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: New Years Day (January 1st); Maundy Thursday; Good Friday; Easter Monday; May 1st; May 17th; Ascension Day; Whit Monday.

Cargo work can be arranged with special agreement.

POLICE/AMBULANCE/FIRE: Bergen 002; Bergen 003; Bergen 001 respectively.

EMERGENCY CO-ORDINATION CENTRE: Tel: Bergen 002.

TELEPHONES: No arrangements for connection on board ships. Telephone box on quayside.

SERVICES: Compass adjuster, Radio/Radar service. Also calibration of the Direction Finder, Ships laundries.

BANKS: Bergen Bank, 5364 Kystbasen – Agotnes.

STORING: See "Prelims".
1. Vessel can be stored by barge or truck.
2. No special regulations regarding storing.
3. Trucks can proceed alongside at the berth.
4. Forklift trucks are available.
5. No special regulations regarding customs.
6. Local riggers can be employed on request.

SHORE LEAVE: After clearing inwards, crew members are allowed to go ashore without special permission.

IDENTIFICATION CARDS: Not required.

REGULATIONS: No particular or unusual regulations.

DELAYS: No particular reason for delays.

DEVELOPMENT: A new Ro/Ro berth is planned at Dock No. 31.

AUTHORITY: KS Coast Center Base, P.O.Box 55-CCB, 5364 Kystbasen, Agotnes. *Tel:* 56323000. *Telex:* 42835 ccb n. *FAX:* 56335191, 56323109. *Contact:* Sjur Storaas, Managing Director. Hans Agotnes, Harbour Master.

ALESUND: 62.27 N. 06.09 E. (See Plan)

DOCUMENTS:
1 Crew List.
1 Passenger List.
1 Customs Documents.
1 Health Documents.
3 Manifests.
3 Bills of Lading.
1 Ship's Papers.
1 Stores Lists (provisions).

PILOTAGE: From open sea, Pilot is taken on board at Alesund Pilot Station. Watch 24 hours a day. To be called 3 – 4 hours before ETA by VHF 16, or radio.

ANCHORAGE: On the North side of the town in Valderhaugfjorden in depths of 20 m. – 60 m.; bottom, sand and mud.

On the South side of the town in Aspovagen in depths of 20 m. – 40 m., bottom mud.

RADIO/VHF: Orlandet Radio (Tel: 125) 2182 kHz and VHF Channel 16. Harbour Office (VHF Channels 16 and 12) is manned 24 hours. Tel: 21425.

TUGS: Meet vessel normally before entering the harbour, or by order.

BERTHING: *Storneskaia:* East side, length 85 m., depth 6 m. – 14 m. On this side Ro/Ro berth available ramp width 22 ft. South side, length 153 m., depth 10 m. – 14 m. West side length 60 m. depth 5.0 m. Warehouse capacity 1,600 sq.m.

Prestekaia: South side, length 220 m., depth 13 m. – 16 m. West side, length 40 m., depth 5 m. – 13 m. North side length 41 m. Depth 5 m. – 13 m. Warehouse capacity 4,100 sq. m.

Skutvika: Special quay for fishing vessels, length 330 m., depth 4 m. 6 m. Only mooring on N.E. side. Quay, length 80 m., depth 4 m. – 7 m.

Container terminal on S.W. side. Quay length 205 m. Depth 10.0 m. – 16.0 m. Container storage area 20,000 sq.m. 130 connections for reefer containers.

Sjogata: Mooring quay, length 210 m., depth 4.0 m. – 9.0 m. At Northern Harbour there is one commercial quay.

Skansekaia: North side, length 195 m., depth 10 m. – 13 m. West Side, length 60 m. Depth 4 m. – 8 m. South side, length 130 m., depth 4 m. – 5 m. This quay forms protection for a small inner harbour with several smaller quays.

Flatholmen: Length 50 m. Depth 7 m. Dirty ballast facilities available.

Brunholmkaia: Length 100 m., depth 4.0 m.

Skansegata: Length 200 m., depth 6.0 m.

Spjelkavik Kai: Length 80 m., depth 7.0 m.

STEVEDORES: Obtained by Agent who requires ETA 12 hours before ships arrival.

CRANES: Mobile crane to lift 30 tons available. Floating crane to lift max. 100 tons available.

MEDICAL: Doctor available.

FRESH WATER: Available. Tel: 70121425.

FUEL: Bunkering facilities from all major oil companies. Loading by barge or pipeline at berth.

CONSULS: Denmark, Finland, France, Germany, Iceland, Italy, Mexico, Portugal, Spain, Sweden and U.K.

REPAIRS: Available.

DRY DOCKS: 2 dry docks, lifting capacities 2,750 tons and 8,000 tons.

SURVEYORS: Det Norske Veritas. Tel: 071-25290.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: This work is normally carried out by crew.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes. Wine/Spirit: 1 bottle of spirits.

AIRPORT: Alesund Airport, Vigra. Frequent daily flights to and from Oslo. Trondheim, Bergen.

TIME: GMT plus 1 hour, GMT plus 2 hours in Summer.

HOLIDAYS: 1st May; 17th May.

POLICE/AMBULANCE/FIRE: Police 112; Ambulance 113; Fire 110.

EMERGENCY CO-ORDINATION CENTRE: Located at Sola. Tel: 51517000.

TELEPHONES: No arrangements for placing telephones on board.

IDENTIFICATION CARDS: Not required.

GARBAGE/WASTE OIL DISPOSAL: Services available. Contact Miljorens (Environmental Cleansing), Emblem 6013, Alesund, Tel: 70150184. Fax: 70150571. Facilities available for handling spilt oil, chemical waste, batteries,tank cleaning, and providing oil seperators, 20/40 ft. ISO containers and lifting equipment, and approved special waste containers. Contact Alesund Port Authority,Tel: 071-21425 or VHF Channel 16/12 for further details.

SEAMAN'S CLUBS: None.

AUTHORITY: Alesund Havnevesen, Skansekaia, 6002 Aalesund, Norway. *Tel:* 70121832 or 70121425. *FAX:* 70124084. *Contact:* Oddbjorn Humblen, Harbour Master. Tel: 70121832, 70142614.

ALVIK: 60.26 N. 06.24 E.

Alvik located in inner part of Hardangerfiord. Ferrosilisium works. Vessels from abroad may call Haugesund for Inward Customs' Clearance.

DOCUMENTS: See "Bergen".

PILOTAGE: Compulsory. Belonging to Bergen Customs' District.

BERTHING: Quay No.1: Length 80 m. 2 cranes, 7.5 and 9.5 tons. Quay No. 2: Length 90 m. 1 crane 7.5 tons. Depth alongside 7.5 m.

AUTHORITY: Alvik Port Authority, Bjolvefossen a/s, N-5614 Aalvik, Norway. *Tel:* 05-557200. *Telex:* 42146. *FAX:* 05-557305. *Cables:* Ferro Aalvik. *Contact:* Arvid Auganaes, General Manager.

ARDALSTANGEN: 61.14 N. 07.42 E. (See Plan)

LOCATION: Ardalstangen Aluminium works located in innermost part of Sognefiord. Lat. 61° 14' 03" N., Long. 7° 42' 28" E.

DOCUMENTS:

Receivers: Bills of Lading.
Manifests.

Customs: Crew List.
Bills of Lading.
Manifests.
Health Documents.
Ship's Certificates.
Ship's Papers.
Ship's Stores Declaration.
General Declaration.
3 Crew Lists.
Crews Personal Effects Declaration.
Inward and Outward Clearance.

PILOTAGE: Compulsory. Pilots belong to Bergen Customs District.

ANCHORAGE: Depth 500 ft.

RESTRICTIONS: No berthing after 2100 hrs. or before 0600 hrs.

RADIO: 12 hours notice of ETA required.

VHF: Channel 16.

TUGS: None available. Local lineboat available if required at a cost of NoK. 1,000.

BERTHING: One quay, length 600 ft., depth alongside 40 ft., 1×5 ton crane and 1×25 ton crane.

One quay, length 300 ft., depth alongside 36 ft. 1×30 ton crane. The berths are ice free.

STEVEDORES: No work Saturdays, Sundays and holidays.

MEDICAL: Advance notice required if medical attention needed. Tel: 47-56-65290.

DENSITY: 1026.

FRESH WATER: Available, cost NoK. 200 per filling.

OPENING/CLOSING HATCHES: By crew.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: 1 hour 20 minutes by ferry to airport at Sogndal.

CARGO GEAR: Loading/discharging by shore gear.

TELEPHONES: Available if required.

GARBAGE DISPOSAL: Service available daily and provided alongside. Contact Hydro Aluminium. Charges are included in port dues.

WASTE OIL DISPOSAL: Authorised service only available from Bergen.

SEAMAN'S CLUBS: None.

AUTHORITY: Hydro Aluminium Aardal, P.O. Box 303, 5870 Ovre Ardal, Norway. *Tel:* 056-59000 (47-56-59000). *FAX:* 056-59753/59555 (47-56-59753/59555). *Contact:* Anders Rudi, Port Manager (Tel: 47-56-59849).

ARENDAL: 58.28 N. 08.46 E. (See Plan)

DOCUMENTS: See "Bergen".

PILOTAGE: The pilot boat *Arendal* is stationed at Arendal. Contact may be made on VHF/RT or telephone (Pilot Office, Kristiansand (47) 3802411. Pilot Boat, Arendal (47) 37023900), or out of office hours via Kristiansand Radio or Tjome Radio.

ANCHORAGE: Safe anchorage ground is readily available and there are numerous mooring places for vessels not docking alongside the quays.

MAX. SIZE: *Arrival Advice:* Notice to be sent through Agent to Port Authority, or direct on Tel: (47) 370 13147, at least 24 hours before arrival.

TUGS: 1 tug 500 p.h.

Additional tugs can easily be requested from Kristiansand.

RADAR/VHF: Radar at pilot station. Pilot on VHF Channels 16 and 13. Port Authority on VHF Channels 16 and 12.

BERTHING:

	Depth (ft.)	*Length* (m.)
Nye Tollbodkaien	33	230
Batterrikaien	33	110
Hotellbryggen	30	77
Malmkaien	28	30
Stenkaien	26	110
Utstikkerkaien Barbu	24	58
Fryselagerkaien	22	76
Jaktekaien	20	50
Gamle Tollbodkaien	20	45
Kallevigs Brygge	20	43
Langbryggen	15	120
Ferjekaien	26	30

No tide, even in exceptional weather conditions increase in water level, ever exceeds 3 ft.

CRANES: 1×3 ton, 1×12 ton (mobile), 1×15 ton truck, 1×12 ton truck and 1 crane 75 ton capacity.

Several mobile cranes up to 60 ton can easily be arranged.

BRIDGES: One bridge crossing Tromoysund, height from sea level to bridge 37.0 m.

STEVEDORES: Available 24 hours and for 24 hours working.

MEDICAL: Hospital available with all facilities. Advance notice required for doctor and dentist.

FRESH WATER: Available all quays.

FUEL: Advance notice required.

FIRE PRECAUTIONS: Usual non-smoking precautions. Only when repair on tank vessels, or welding in engine room and other gas-free areas close to oil/chemical tanks, paint stores, etc., Harbour Office to be informed. Harbour authorities will arrange for firewatch onboard during works.

CONSULS: Sweden, Denmark and Finland.

REPAIRS: Port has well-equipped workshop to carry out engine repairs, as well as hull work above water line.

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: Crew or stevedores.

CERTIFICATES: Normal international Certificates required.

CUSTOMS ALLOWANCES: 200 cigarettes, 1 litre spirits.

AIRPORT: Kjevik 60 km.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Police 22030; Fire Station 22255.

TELEPHONES: Can be placed aboard.

SHIP SUPPLY SERVICE: Available. Storing when passing entrance to Arendal can be arranged.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Compulsory. Garbage container available at ship's expense.

AUTHORITY: Arendal Havnevesen, P O Box 33, N-4801 Arendal, Norway. *Tel:* (47) 370-13147 or (47) 370-13157. *FAX:* (47) 370-13157. *Contact:* Jurgen H. Sievers, Harbour Master.

BATSFJORD: 70.38 N. 29.44 E. (See Plan)

PORT LIMITS: Straight line from the light at 'Makkaur' to the 'Kolneset' defines the port limits.

DOCUMENTS:

3 copies Maritime Declaration of Health.
4 copies Cargo Declaration.
3 copies Ship's Stores Declaration.
3 copies Crew Effects Declaration.
3 copies Crew List.
2 copies General Declaration.
Clearance from last port.
3 copies Passenger List.

PILOTAGE: Not necessary. Harbour pilotage is optional, but if required, 24 hours' notice should be given.

ETAs to be reported 24 hours and 3 hours prior to arrival. Information given should include: (a) Name/call sign of vessel, (b) Nationality, (c) Length, draft and g.r.t.

Pilot boarding ground 2 miles off entrance.

ANCHORAGES: Unlimited anchoring available at the Outer Harbour. Very good anchor conditions for fishing vessels in bad weather.

RESTRICTIONS: No restrictions other than maximum draft.

HEALTH: Cable Agent with following information: Ports of call during voyage, nature of cargo, number of crew and passengers, port of destination and Agent, condition of health of all on board with details of any sickness.

RADIO: Vardoe Radio, VHF and MF.

VHF: Pilot and pilot boat use Channels 16 and 12. All communications with Harbour Authorities should be conducted on Channel 12.

TUGS: One tug available. Will be ordered by Pilot on request.

BERTHING: Pilotage optional. Berths are arranged by Harbour Master. Linesmen and boatmen are arranged through Harbour Office.

Berth Number	*Wharf Length* (m.)	*Depth at LW* (m.)	*Berth Number*	*Wharf Length* (m.)	*Depth at LW* (m.)
1	92	7	9	50	8
2	70	5	10	200	6-10
3	77	3	11	92	5.5
4	273	5-7	12	60	3
5	73	3	13	100	4
6	50	—			
7	110	6	14	32	3
8	60	5	15	90	6

CRANES: Mobile cranes available on request. Stationary cranes on most private piers.

STEVEDORES: Arranged through Harbour Authorities.

MEDICAL: No advance notice required except in case of serious illness which is to be included in arrival cable. Doctor and dental facilities available.

TANKERS: Discharge lines: 6 in. Slop removal possible.

DENSITY: 1025.

FRESH WATER: Available at all berths.

FUEL: Fuel delivered by pipeline at 4 berths, and by tank trucks at all other berths. Major grades of bunker fuel and diesel as well as marine lubricants can be obtained through suppliers.

REPAIRS: Most deck and engine repairs can be carried out.

DRY DOCKS: Size: 70 m. × 25 m.

SURVEYORS: Norwegian Ship Control Office.

GANGWAY/DECK WATCHMEN: Usually carried out by ship's crew, but watchmen available. Ship's gangway used, but shore gangway available.

HATCHES: Opening/closing by ship's crew.

CUSTOMS ALLOWANCES: Check with Agent.

REPATRIATION: Crew changes and repatriation can be carried out without difficulty.

AIRPORT: Distance 5 km. Served by 3 flights daily.

TIME: GMT plus 1 hour. Summertime kept.

HOLIDAYS: New Year's Day, "Skjaertorsdag" and Good Friday, Easter Monday, 1st May, 17th May, Whit Monday, Christmas (2 days).

POLICE/AMBULANCE/FIRE: Police: 83131. Ambulance: 83116. Fire: 51122. Area Code: 085.

EMERGENCY CO-ORDINATION CENTRE: Bodo Rescue Centre: Tel: 081-25000.

Rescue Vessel Station in Batsfjord: 83498 or VHF Channel 16.

TELEPHONES: No arrangements for telephone on board.

SERVICES: Compass adjusting, radar repairs, R/T repairs, gyro compass repairs, all types of electronic equipment repaired.

Divers available for surveys and underwater repairs. Several ship chandlers, ice delivery, freezing plant, Forwarding Agent, weekly arrival of UK-Continent liner.

BANKS: A/S Fiskernes Bank, P.O. Box 56, 9991 Batsfjord. Tel: 085-83451. Telex: 64378.

Ost-Finnmark Sparebank, P.O. Box 310, 9991 Batsfjord. Tel: 085-83369.

SHORE LEAVE: No restrictions.

SHIP SUPPLY SERVICE: The port renders full service for transport of passengers and goods.

For transport of sick and injured people from ships, the port is equipped with the rescue vessel m.v. "Sjofareren" all the year round.

Telephone numbers for these services are as follows:

Passenger/goods transportation: 085-83385 or 085-83607 also VHF Channels 16 and 12.

Sickness/injuries: 085-83498 also VHF Channel 16.

For helicopter services, this will be covered by the Rescue Station in Bodo, Tel: 081-21267.

Tug services will be carried out by the "Sjofareren" – see above.

AUTHORITY: Port of Batsfjord, P.O. Box 68, N-9991 Batsfjord. *Tel:* 047/85-83385 or 83607. *FAX:* 047/85-83789. *Cables:* Harbour Master, Batsfjord. *Contact:* Harald Aas, Harbour Master, Fjellvn. 2, 9990 Batsfjord. Tel: 085-83553.

BERGEN: 60.24 N. 05.19 E. (See Plan)

DOCUMENTS:

1 Provisions List.
1 List of Bonded Stores.
1 Health Declaration.
2 Manifests.
2 Crew Lists.
2 Passenger Lists.
Certificate of Tonnage.
Dangerous Cargo List.

PILOTAGE: Compulsory. Main entrance to port at Marsteinen Lighthouse (Pilot Station) Lat. 60° 24' N., Long. 5° 18' 50" E. 24 nautical miles from town, but vessels from South may enter at Skudesnes (88 nautical miles) and from North at Fedje Pilot Station (32 nautical miles). VHF Channel 16. Practically no tide. Port free of ice throughout whole Winter and well sheltered from all winds. Sound signals for Pilot, 3 long and 1 short. Harbour pilotage not compulsory but advisable.

ANCHORAGE: Puddefiord. Good holding grounds. Depth 10 fathoms to 50 fathoms of water.

RESTRICTIONS: Vessels can enter day and night.

MAX. SIZE: Max. draft 35 ft. Vessels up to 100,000 tons have been berthed at Dokkeskyaersquay. Oil installation up to 30,000 d.w.t.

HEALTH: See "Documents". If vessel carries quarantine flag on contagious diseases, radio communication should be sent to Agents for instructions, otherwise no special regulation.

RADIO: Communication to Agent should be sent through Rogaland Radio or Bergen Radio.

VHF: VHF radio for port operations. Call sign "Bergen Port Radio" on Channel 12.

TUGS: 2 tugs, 1×1,900 h.p. and 1× 1,000 h.p. available. Ship's lines to be used, contractors Bukser og Beredskap A/S. Tugs normally join vessel at Puddefiord or subject to requirements.

BERTHING: Berthing instructions from Harbour Authorities through Agent's office.

CONTAINER FACILITIES: Container terminal at Dokkeskjaerskai area. The quay is 210 m. long with a depth of 9 m. at MW. 1×50 ton container crane. It is intended for bow/stern loaders and is equipped with a Ro/Ro bridge with an axle load of 60 tons and 25,000 sq.m. area for storage and container handling.

BRIDGES: A bridge between Knarrevik and Drotningvik is completed. Height of bridge from the water is 50 m. at mean water level. Bridge position is 5 miles from harbour in the entrance to port from South.

STEVEDORES: Stevedoring arranged by Agents subject to requirements. 24 hours notice, important obtain in good time accurate ETA. Ordinary working hours at port 0730 hrs. – 1530 hrs. Saturdays until 1300 hrs.

CRANES: 2 shore cranes, lifting capacity 6 tons. One heavy lift crane 50 tonnes capacity.

MEDICAL: Masters to advise by radio prior arrival if medical attendance required on board. Hospital facilities available.

TANKERS: Discharge lines usually 6 in. and 8 in. No slop (residues) discharge facilities. Number of tanker berths 5: Shell, Esso, Fina, Mobil Oil, and BP. Max. drafts 30 ft.

DENSITY: Salt water.

FRESH WATER: From all quays and wharves with exception of some oil berths where water barge necessary.

FUEL: All grades of diesel, fuel and gas oil including lubricating oil available at all wharves in main entrance. Supplies also from barge subject reasonable notice.

FIRE PRECAUTIONS: No special precautions. Special harbour fire-fighting boat. As usual no smoking permitted during discharge operation.

CONSULS:

Austria	210 173	Netherlands	256 000
Belgium	233 873	Panama	200 011
Denmark	215 000	Peru	218 028
Finland	230 700	Portugal	218 140
France	230 050	Spain	214 192
Germany	219 984	Sweden	219 760
Greece	215 090	Switzerland	215 115
Guatemala	214 493	Turkey	210 105
Iceland	219 680	U.K.	210 990
Italy	218 135	Uruguay	213 307

REPAIRS: All repairs possible.

DRY DOCKS: Major: Bergens Mekaniske Verksteder. Minor: Mjellem & Karlsen Verksted A/S, Bergen. 6 patent slips and 1 dry dock, 365 ft. long. Floating dock for vessels up to 20,000 d.w.t.

GANGWAY/DECK WATCHMEN: Obtainable on request for 12 hours watch from 1900 hrs. to 0700 hrs.

OPENING/CLOSING HATCHES: Crew allowed to open and close hatches.

SHIP'S CERTIFICATES: All certificates to be on board. Ship's Tonnage Certificate to be produced to Custom Authorities upon arrival.

CUSTOMS ALLOWANCES: Tobacco, 20 cigarettes per day or 20 grams tobacco per crew member. Wine and/or spirit, 1 bottle spirit or wine for consumption on board allowed per crew member.

REPATRIATION: All facilities available.

AIRPORT: Flesland Airport, 12 miles outside Bergen. Bus service from town, daily connections with Europe and U.S.A.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: General holidays: New Year's Day (January 1st); Maundy Thursday; Good Friday; Easter Monday; Labour Day (May 1st); Ascension Day; National Holiday (Sunday in May); Christmas Eve (December 24th); Christmas Day (December 25th); Boxing Day (December 26th); New Year's Eve (December 31st).

POLICE/AMBULANCE/FIRE: Police 002; Ambulance 003 or 210 185; Fire 001.

TELEPHONES: Telephones may be installed on board during ship's stay at Dokkeskjaeskai or Skoltegrunnskai if required.

GARBAGE DISPOSAL: Arranged by Agent.
WASTE OIL DISPOSAL: Arranged by Agent.
SERVICES: Compass adjusting, laundry, ship chandlers for delivery of provisions and bonded stores. Radar servicing for following types: Decca, Nera, RCA, AEI, Raytheon, Kelvin Hughes, Therma Sperry. Service arranged through port agent.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
DELAYS: Under normal conditions, no special delay should be expected.
AUTHORITY: Bergen Og Omland Havnevesen, Slottsgt. 1., 5003 Bergen, Norway. *Tel:* 55-568950. *FAX:* 55-568986. *Contact:* Nils Standal, Port Director. Gunvald Isaksen, Harbour Master.

BODO: 67.17 N. 14.24 E. (See Plan)

DOCUMENTS:
Stores List.
Crew List.
1 List Crew's Personal Effects.
PILOTAGE: Sea Pilot North of Fleinvaer Island position Lat. 67° 12' N., Long. 13° 48' E. White Pilot boat with VHF Channel 16. Harbour Pilot outside breakwater head – 24 hours' notice.
ANCHORAGE: Outside breakwater. According instructions from Sea or Harbour Pilot. No draft limitation.
RESTRICTIONS: None – weather permitting.
MAX. SIZE: Max. gross tonnage for oil carriers 18,000 tons with max. draft 32 ft. Otherwise max. draft 22 ft. along quays for coal, salt and warehouse goods. New terminal quay has a depth of 9.0 m.
RADIO: Bodo Radio/LGP. VHF Harbour Office and Bodo Radio.
TUGS: Rescue Vessel/Tug available on 24 hours' notice.
BERTHING: Usually on arrival – otherwise Harbour Pilot will bring instructions from Agent or Port Authorities.

A new harbour with quay of 250 m. and 9 m. depth, together with a new terminal for warehouse goods.
STEVEDORES: Ordered by Agents – working day and night.
MEDICAL: 24 hours' notice of medical attention required. Hospital facilities available.
TANKERS: Shore lines, 6 in., 8 in. and 12 in., 2 berths, slop facilities not available, max. draft 32 ft. Fresh water available.
DENSITY: 1025.
FRESH WATER: Available all quays.
FUEL: All kinds of bunkers and oil without notice from 2 installations.
CONSULS:

Denmark	75525095
Finland	75520010
Germany	75520031
Netherlands	75521033
Sweden	75520115

REPAIRS: Minor deck and engine repairs possible.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Available, but not compulsory.
OPENING/CLOSING HATCHES: Normally by crew.
CERTIFICATES: Ship's Certificates.
CUSTOMS ALLOWANCES: 200 cigarettes or 150 gm. tobacco and half bottle of spirit.
CARGO GEAR: No additional requirements. Ship's gear to be used except for discharging coal, coke and salt where special cranes used.
REPATRIATION: Good facilities.
AIRPORT: 2 km. distant. Regular airlines.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: 1st May and 17th May (national holiday) Cargo work may be arranged.
POLICE/AMBULANCE/FIRE: Police 75531800; Ambulance 113; Fire 111.
TELEPHONES: No arrangements for placing telephones on board.
SERVICES: Compass adjusting, all kinds of nautical instruments. Ships' chandler.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
GENERAL: Imports oil, coal, coke and salt. Exports fish, herring meal, herring oil.
AUTHORITY: Bodo Havnevesen, Postboks 138, 8001 Bodo, Norway. *Tel:* 75581580; Harbour watch 75525800; Mobile telephone 948-10882. *Cables:* Havnefogden, Bodo. *Contact:* Harbour Master.

BREVIK: 59.03 N. 09.43 E. (See Plan)

PORT LIMITS: Port limits begin in Langesundfjorden, 2 nautical miles S.E. of Brevik.
DOCUMENTS:
Crew List.
Tobacco and Spirit List.
Cargo and Stores List.
3 copies of Manifest.
Declaration of Health List.
PILOTAGE: Vessels approaching from the sea and desiring a Pilot shall, as far as possible, order a Pilot 24 hours in advance and thereafter confirm arrival at Pilot Station 2 hours in advance.

Vessels lying in port and desiring a Pilot shall, as far as possible, order a Pilot 4 hours in advance and thereafter confirm departure from the port 2 hours in advance.

Orders for Pilots should be addressed to "Brevik Control" (Channel 80). Also see "Regulations".

Pilot boat located 1 mile S.E. of Langoytangen Lighthouse (position: Lat. 58° 59' 30" N., Long. 9° 45' 30" E.).
ANCHORAGE: At Helgerofjorden, 2 miles East of Langoytangen Lighthouse. Depths 15 fathoms – 25 fathoms.
RESTRICTIONS: No entry restrictions, except in bad visibility.
MAX. SIZE: Tankers: LOA 600 ft. Beam 85 ft. Max. Draft 34 ft.

New Bulk Terminal (Coal): LOA 900 ft. Beam 150 ft. Max. draft 46 ft. Others: LOA 600 ft. Beam 85 ft. Max. draft 34 ft.
HEALTH: Pratique obtained when alongside wharf; arranged by Customs.
RADIO: Cable Agents, giving ETA, draft and cash required via Tjome Radio/LGT or Farsund Radio/LGZ.
TUGS: Tugs not normally used in Brevik. 1 tug, 1,200 h.p. and 1 tug 3,000 h.p. used for tankers.
BULK HANDLING: 1 berth handling bulk cargo, situated at Norcem, half a mile North of Brevik. Cargo: Cement and cement-clinker. Length of berth: 200 m. Depth alongside 36 ft.

Coal Terminal: Operated by Norcem A/S. Berth length 200 m., depth 15.0 m., 2 cranes, average discharge rate 11,000 tonnes per day.

Also see "Max. Size."
STEVEDORES: 24 hours prior notice required for ordering gangs.
MEDICAL: No advance notice required for medical attention.
TANKERS: Discharging hoses 8 in. diameter. No slop discharge facilities. 2 tanker berths draft 32 ft.
DENSITY: Brackish water, density from 1012 to 1023.
FRESH WATER: Hoses from shore, capacity 10 t.p.h.
FUEL: All grades available.
REPAIRS: All types of repairs possible (deck and engine).
SURVEYORS: S.G.S. available.
GANGWAY/DECK WATCHMEN: Watchmen available but not compulsory.
OPENING/CLOSING HATCHES: Normally carried out by crew members.
CERTIFICATES: Ship's Register and Derat Certificate required.
CUSTOMS ALLOWANCES: 200 cigarettes per man. 1 bottle of spirits per man.
REPATRIATION: Can be arranged.
AIRPORT: Fornebu – Oslo airport – 100 miles, served by regular airlines.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Day before Good Friday; Good Friday; Easter Monday; May 1st; Ascension Day; May 17th; 25th and 26th December. No work done on these days.
POLICE/AMBULANCE/FIRE: Emergency Numbers: Police 112; Ambulance 113; Fire 110.
EMERGENCY CO-ORDINATION CENTRE: Brevik Control, VHF Channel 80 or telephone 35571233.
TELEPHONES: Can be placed on board at no extra cost.
BANKS: Sparebanken, Brevik. Tel: 35570822.
STORING: See "Prelims".
1. Yes.
2. No regulations.
3. Yes.
4. Yes.
5. Only bonded stores.
6. Yes.

SHORE LEAVE: Crew members allowed ashore.
IDENTIFICATION CARDS: Not needed.
REGULATIONS: *Regulations requiring the use of Pilot Services in the Grenland Area.*

In pursuance of Section 5 of Act No. 2 of 9th April 1948 relating to the Pilot Service, cf. Royal Decrees of 29th April 1977, the Ministry of Fisheries lays down the following regulations:
Section 1:
State Pilots shall be used by vessels of 100 g.r.t. and above navigating the waters North of a line through the North point Molen – North point Sasteinen.
Section 2:
The Coast Directorate or anyone it so empowers may grant exemption from the provisions in Section 1 in respect of vessels of under 500 g.r.t. which are not carrying dangerous cargo, provided that the Shipmaster is able to satisfy the authorities that he has obtained, through regular calls at ports in the area, a comprehensive knowledge of these waters and is conversant with the rules and regulations currently applicable with respect to passage and navigation in these waters. Requests for exemption shall be addressed to the Coast Directorate and forwarded via the Grenland Sea Traffic Centre.

Exemption thus granted may be revoked at any time.
Section 3:
Anyone wilfully or negligently violating these regulations shall be punished in accordance with Section 418 in the Penal Code, unless stricter penal provisions are applicable.
Section 4:
These regulations do not entail any changes to the rules concerning the use of State pilots for foreign non-military vessels of 50 g.r.t. and above laid down by Royal Decree of 9th February 1968 concerning provisions on prohibited zones in Norwegian territorial waters.
Section 5:
These regulations shall enter into force on 1st September 1978.

Also see "General" before first port.
AUTHORITY: Grenland Havnevesen, Stromtangen, Postboks 20, 3951 Brevik, Norway. *Tel:* 47-35571200. *Cables:* Porsgrunn Havnevesen. *FAX:* 47-35571703. *Contact:* Torjus Johnson, Port Director.

BRONNOYSUND: 65.30 N. 12.13 E.

DOCUMENTS: See "Bergen".

PILOTAGE: Pilot ordered through Sandnessjoen Pilot Station. Tel: 75 04 09 60. Fax: 75 04 39 92. VHF: Channel 13. Cable address: "Losforman".

ANCHORAGE: Prestoytaren. Lat. 65° 29.0' N., Long. 12° 11.5' E. Depth 28 ft. to 180 ft.

MAX. SIZE: Inner Harbour: Depth 18 ft. – 24 ft. Outer Harbour: Quay length 100 m., depth 60 ft.

RADIO: Orlandet Radio or Bodo Radio

VHF: Bronnoysund Port Radio. Channel 16 – 156.800 MHz; Channel 12 – 156.600 MHz primary work; Channel 14 – 156.700 MHz secondary work; Channel 13 – 156.650 MHz pilotage work.

TUGS: None.

BRIDGES: Bronnoysund Bridge, max. clearance – 33 m.

MEDICAL: Medical service ordered through Harbour Office. Small Hospital. Air Ambulance.

FRESH WATER: Delivered by hose to all Port Authority Berths.

FUEL: Delivered to all berths, 24 hour service.

CONSULS: None.

REPAIRS: Limited deck and engine repairs. Turner's shop and welder's shop available.

GANGWAY/DECK WATCHMEN: Watchmen at gangways optional.

CUSTOMS ALLOWANCES: Master 400 cigarettes or 40 grams tobacco; all other crew 200 cigarettes or 20 grams tobacco. Wine/spirits; Master 2 litres; all other crew 0.75 litre.

AIRPORT: 2 km. from port. Regular airlines. Helicopter base.

TIME: GMT plus 1 hour, GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Police 112; Ambulance 113; Fire 110.

IDENTIFICATION CARDS: Crew to possess identification card with passport photo.

AUTHORITY: Bronnoy Havnevesen, P.O.Box 65, 8901 Bronnoysund, Norway. *Tel:* 75 02 23 95. *FAX:* 75 02 04 23. *Contact:* H. Soro, Harbour Master.

DRAMMEN: 59.49 N. 10.13 E. (See Plan)

DOCUMENTS:
Bill of Health.
2 Crew Lists.
2 Passenger Lists.
2 Customs Lists for crew members and passengers.
Bills of Lading.
3 Manifests for every port of discharge.

PILOTAGE: Give 6 hours notice by R/T 2182 kHz or VHF Channel 16 to "Faerder Pilot". Coast stations "Tjome Radio" LGT or "Farsund Radio" LGZ can also be used. Harbour Pilots ordered through ship's Agents. Harbour pilotage is not compulsory.

ANCHORAGES: Pilot service supplies information regarding anchorages.

RESTRICTIONS: Svelvikstrommen Channel, depth 10 m., equipped with beacons and radar reflectors for safe navigation.

During ice-breaker season, which may last from end-December, to mid-March, ice breaker is in radio contact with port and with ships needing assistance.

MAX. SIZE: Max. draft for main harbour 30 ft., otherwise no restrictions.

HEALTH: International procedure followed to obtain Pratique. In case of suspected diseases or fever inform Port Authorities, Tel: 81 88 90. When arriving from a Norwegian port - Pratique automatic.

RADIO: Tjome Radio, call sign "LGT" Farsund Radio, call sign "LGZ". Oslo Port Radio or VHF Channel 16.

Port Authority maintains VHF radio-telephone watch: Monday – Friday 0630 hrs. – 1600 hrs. and Saturday according to requirement. Call sign "Drammenhavne Radio". Not on holidays.

RADAR/VHF: VHF Channel 16 and 12 when communicating with Drammen Port Authorities. No port radar service.

BERTHING: *Main Harbour*

Quays	*Depth* (m.)	*Length* (m.)	*Remarks*
Tollbukaia	7.0	110	Coastal/local traffic. Railway lines available.
Kranbrygga	7.0	200	General cargo. Railway lines available.
Myrakaia	7.0	155	General cargo and bulk. Railway lines available. Electric crane 23 tons for bulk cargoes.
Langbrygga	8.0	255	Paper, General cargo Railway lines available.
Tjomekaia	7.0	160	Paper. Railway lines available.
Holmen South	9.0	486	Gen. cargo. Air conditioned. Containers. Railway lines available.
Holmen South Ro/Ro Ramp S.E. end.	9.0	—	New Berth. Cars, Trailers. See "Container and Ro/Ro Facilities".
Holmen South Oil Berth	7.0	70	New Berth. Tankers. Size of vessel determined by water depth alongside.
Risgardkai Ro/Ro	10.0	151	Cars, Trailers
Holmen East Ro/Ro	7.0	60	Cars, Trailers
Kattegat Ro/Ro	10.0	168	Cars, Trailers,Containers. 1× 60 ton portal crane.

Container and Ro/Ro Facilities: Three Ro/Ro quays for containers, vehicles and trailers.

1. Holmen South Ro/Ro:
   Max. Depth 9.0 m.
   Length (Approx.) 486 m.
   Beam 20 m.
   Height of working ramp 0.5 m. – 2.0 m.
   Mooring boat advisable when berthing.
2. Holmen East Ro/Ro:
   Max. Depth 18 ft.
   Length (Approx.) 350 ft.
   (i) Inside ramp: Beam 30 ft., Height 5 ft.
   (ii) Outside ramp: Beam 30 ft., Height 1 ft. 6 in.
3. Risgarden Ro/Ro:
   Max. Depth 30 ft.
   Beam 105 ft.
   Length of vessels berthing depends on max. draft.
   Height of working ramp 6 ft.
4. Kattegatkaia Ro/Ro:
   Max. Depth 30 ft.
   Beam 70 ft.

Warm fruit storage of 3,600 sq.m. Air conditioned fruit-storage of 2,000 sq.m.

Also see "Tankers".

TUGS: Under normal conditions not necessary except for large vessels, but available on request. Normally ship's hawsers or lines used for towing. Tugs ordered through Agent.

DEPTHS: Chart depths vary only slightly owing tidal fluctuations. Exceptional conditions, such as snow melting in Spring, heavy rainfall and prevailing strong Southerly or Northerly winds will cause stronger currents and a variation in water levels.

CRANES: 1×60 ton portal crane, 1×50 ton portal crane, 2×23 ton portal cranes, one equipped for bulk handling, 1×20 ton portal crane and 6 portal cranes – 3 tons to 6 tons capacity. All cranes are electric.

9×3 ton electric cranes; 1×4 ton electric crane; 1×6 ton electric crane.

BULK HANDLING FACILITIES: The 23 ton crane "Hendrik" located at Myrakaia can be adapted for bulk handling with a capacity of approximately 1,000 tons per day.

STEVEDORES: Labour must be ordered latest 1500 hrs. day before arrival. Saturdays and Mondays before 1500 hrs. on Friday. Working hours: Monday to Friday from 0700 to 1500 hrs., with breaks from 1100 to 1130 hrs. and 1500 to 1530 hrs.

Saturday from 0700 to 1200 hrs. with break from 0900 to 0930 hrs.

Overtime can be arranged through Agent.

MEDICAL: In case of emergency, notice regarding required medical treatment must be given as soon as possible. First class hospital facilities available. No special inoculation or fever certificates necessary, except those according to international health regulations.

TANKERS:
Holmen South Oil Berth

Concrete quay, max. draft 7.0 m. Fresh water available.

Pipe-line connections: Gas oil 8 in.; light fuel oils 8 in.; paraffin 6 in. heavy fuel oil 4 in.

B.P. Berth, Solumstrand

9 m. wide quay at end of pier, max. draft 16.4 ft. (5 m.).

Pipe-line connections: Propane 2 in.

Folakroken Quay: New Berth: Gullaug explosives factory. Situated 6 nautical miles North of Svelvik Narrows on East side of Dramsfjorden.

Length 114 ft. (35 m.)
Depth alongside 19 ft. (6 m.)

FRESH WATER: Delivery by hose, available anywhere.

FUEL: Available at Holmen South. Fuel 2,000 sec. and marine diesel 200 sec.

FIRE PRECAUTIONS: International danger signals and precautions practised. Wires for towing must be ready for immediate use. In case of fire on board or in vicinity, vessel must leave quay and harbour as soon as possible.

CONSULS:
Denmark
Finland
Iceland
Monaco
Madagascar
Netherlands

All other consulates situated in Oslo.

REPAIRS: Shipyard facilities for all kinds of deck and engine repairs available.

DRY DOCKS: 2 floating docks, 20,000 tons and 3,000 tons capacity. Nearest dry docks in Horten and Oslo. Distance by sea respectively 24 miles and 46 miles.

GANGWAY/DECK WATCHMEN: Watchmen recommended, through Agent.

OPENING/CLOSING HATCHES: If necessary hatches can be opened or closed by stevedores, but usually by crew.

CERTIFICATES: Usual ship's certificates according to international regulations.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes/100 grams of tobacco allowed weekly. Wine or Spirits, 1 bottle wine or spirits usual weekly allowance.

CARGO GEAR: International Safety Regulations followed.

REPATRIATION: All facilities available.

AIRPORT: Nearest airport Oslo Airport, Fornebu, situated 16 miles by road from Drammen. Regular services to all parts of the world.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: On Saturdays work stops at 1200 hrs., but if ships can be finished, loading and discharging is continued to 1830 hrs.

All Sundays; 1st January; Maundy Thursday; Good Friday; Easter Monday; 1st May; Ascension Day (17th May); Whit Monday; Christmas Day; 26th December.

On Easter, Whit, Christmas, and New Year's Eve work stops at 1400 hrs.

POLICE/AMBULANCE/FIRE: Fire-alarm accidents 110; First-aid station 831585; Hospital 113; Police 112; Taxi 835060.

TELEPHONES: Telephones can be connected if ordered through Televerket. Tel: 832380.
SERVICES: Ice-breaker assistance available during Winter months.
SHORE LEAVE: No restrictions on shore leave when all formalities in order.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Service available at no charge. Galley waste must be sealed in plastic bags. Containers are painted green and are at 5 locations in the port (Port Authority letter handed to Master).
WASTE OIL DISPOSAL: No service available.
SEAMAN'S CLUBS: None.
DELAYS: Delays may occur, when very heavy traffic cause shortage of labour.
GENERAL: Notice will be given to local Agents regarding changes or new developments which can affect usual procedure in port.
AUTHORITY: Drammen Havnevesen, Hans Kiaersgaten 1A, N-3401 Drammen, Norway. *Tel:* 4732-818890-94. *Telex:* 473281. *FAX:* 4732-812704. *Contact:* Odd Maehlum, Port Captain.

EGERSUND: 58.27 N. 06.00 E. (See Plan)

DOCUMENTS: Health Certificate (forms obtainable from Customs when entering harbour). Crew List, Dangerous Cargo List, Ship's Register. Vessels bound for Egersund must be provided with document signed by Master, setting out specification of cargo to be discharged Egersund, also quantities all provisions and stores on board. Document must include name, tonnage, port of registration, last port, next port, and number of crew and passengers on board.
PILOTAGE: Pilot – if necessary – to be ordered latest 3 hours prior arrival Pilot Station. Order to be given to Pilot Office – telephone 51477377 or mobile 94584127, or to ship's Agent, giving ETA, name of vessel, gross tons, where Pilot required, draft in feet, and discharging/loading place. Vessels entering Egersund liable to inward and outward pilotage dues, mileage money according distance piloted; and pilot dues, whether services of Pilot used or not. Pilot station lying on Rekefjord – and Pilot available for Southern and Northern entrance, from pilot boat. Southern entrance mostly used, max. draft 37 ft. In case of using Northern entrance, ship has to pass bridge between Eigeroy and the continent. Max. height 23.5 m. Max. draft 16 ft.
ANCHORAGE: Any place in harbour available for anchorage. Especially used is Hovlandsviken – 36 ft. draft.
MAX. SIZE: Largest vessel which has entered Egersund – 45,000 d.w.t. Max. draft 31 ft. In harbour there are 2,000 ft. of quayage with 18 ft. – 27 ft. alongside.
RADIO: Rogaland Radio and Farsund Radio.
TUGS: Not available in Egersund.
BERTHING: 3,000 m. of quay frontage. Facilities for container and Ro-Ro vessels. 30 tonne fork lift.
STEVEDORES: Ordered by Agent – no ETA to stevedores necessary. Time for ordering gangs for next morning must be given by 1300 hrs. day before.
TANKERS: Esso Norge A/S bunkering station: Length 140 m. and depth 24 ft. The berth can accept vessels up to 3,000 g.r.t.
Statoil bunkering station: Located in middle of Egersund Harbour.
FRESH WATER: Can be delivered at most discharging/loading places.
FUEL: Gas oil and Light Marine Diesel oil available by truck or at bunkering station.
CONSULS: Denmark and Sweden.
REPAIRS: All minor repairs possible. Service station for electronic aids.
GANGWAY/DECK WATCHMEN: Available – but not compulsory.
OPENING/CLOSING HATCHES: Crew allowed to open and close.
CERTIFICATES: On first call Registered Tonnage Certificate necessary – thereafter not required unless gross/net tonnage changed.
CUSTOMS ALLOWANCES: (Dependent size – destination, etc.) each crew member is allowed 100 cigarettes, 20 cigars or 100 grams tobacco and one bottle spirits.
CARGO GEAR: No additional requirements. One 150 ton crane, one 30 ton crane and some mobile cranes 5 tons – 15 tons available.
HOLIDAYS: Work can usually be arranged on all holidays.
POLICE/AMBULANCE/FIRE: Police 51.49.16.00; Fire 51.49.15.00; Hospital/Ambulance Tel: 51.49.00.22.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Service available through Container Transport, Gronvikveien 5, 4365 Hellvik. Tel: 04-496915, 24 hour service.
WASTE OIL DISPOSAL: Service available through Statoil, Lindoy, 4370 Egersund. Tel: 04-491336/490530.
SEAMAN'S CLUBS: Sjomenns Leseverelse, Nygaten 8, 4370 Egersund. Tel: 04-491226, 24 hour service.
AUTHORITY: Egersund Havnevesen, Havnebygget, Strangt. 2, P.O.Box 117, 4371 Egersund, Norway. *Tel:* 51.49.13.28 or 51.46.83.60. *FAX:* 51.49.01.96. *Contact:* Odd Hansen, Harbour Master.

FIBORGTANGEN (Skogn): 63.43 N. 11.10 E. (See Plan)

PORT LIMITS: Holsandbukta.
DOCUMENTS:
1 Crew List
1 Passenger List
1 Crew Personal Effects List.
1 Stores List
1 List of Animals
Last Port Clearance
Safety Certificates:
Safety Equipment, Load Line, Radio, Construction.
PILOTAGE: Pilotage is compulsory for all foreign vessels.

Notice of ETA and request for Pilot can be made to the local Agents, not less than 24 hours before ETA at Grip Lighthouse.

Confirmation of ETA is required 2 hours before arrival at Grip Lighthouse.

Channel 16 VHF is continuously watched by Kristiansund Radio and Pilot boat.

The usual pilot boarding point is inside Grip Lighthouse Lat. 63° 16' N., Long. 07° 36' E.

Pilot boat has orange upper works, white hull with the word "LOS" on each side.

The usual international signals may be employed by vessel requiring a Pilot.

In case of bad weather the pilot boat will lead ahead to sheltered waters. There is no anchorage for vessel awaiting a Pilot.
ANCHORAGES: At the bay North and N.E. of the wharf in about 20 m. of water, bottom sand, good holding ground.

Electric power cables cross from Valoya – Hestoya, anchorage in this area is prohibited.
MAX. SIZE: Vessels up to 160 m. LOA (vessels with LOA 214 m. have berthed) and 10.40 m. draft can be accepted at the North side of the wharf. On the East side 215 m. LOA, 6.4 m. draft.
HEALTH: Vessels will be cleared alongside.
RADIO: Kristiansund Radio is the long range area station.
VHF: Kristiansund Radio and Orland Radio. Continuous watch. All calling should be on Channel 16. Pilot boat also monitors Channel 16.
TUGS: Can be ordered by the local Agents.
BERTHING: The wharf is made of concrete. The North berth is 141 m. long, depth 10.4 m. The East berth is 215 m. long, depth 6.4 m. Permissible wheel loading for standard type vehicles is 12 tonnes.
STEVEDORES: *Working hours:*

Monday – Thursday	0700 – 2400
Friday	0700 – 2030

MEDICAL: Full hospital facilities available without prior notice.
FRESH WATER: Good quality water is available in unlimited quantities at about 20 tonnes per hour per connection.
FUEL: Not available, but can be ordered from Trondheim.
SURVEYORS: Cargo Inspectors: Can be ordered by local Agents.

Bureau Veritas	Tel: 72585611
Norsk Veritas	Tel: 73903500
Lloyd's Register	Tel: 73520124

GANGWAY/DECK WATCHMEN: Can be ordered by the local Agents.
OPENING/CLOSING HATCHES: Normally handled by ship's crew.
CARGO GEAR: Discharging and loading is by ship's gear, however, some mobile cranes up to 30 tonnes capacity are available for extended hire at short notice.
REPATRIATION: Scheduled aircraft connected with direct overseas flights leaves from Trondheim Airport several times a day.
TIME: Local time is GMT plus 1 hour. Summertime is used.
POLICE/AMBULANCE/FIRE: All emergency services are available through the gate watchman.

Automatic fire alarms are installed at the wharf.
EMERGENCY CO-ORDINATION CENTRE: Call nearest radio station.
BANKS: Fokus Bank. Tel: 076-85163. Telex: 55219. Levanger Sparebank. Tel: 076-85137.
STORING: Vessel can be stored by truck during loading or discharging. Fork lift trucks can be used on the jetty to handle stores. Local Riggers cannot be employed to assist with storing.
SHORE LEAVE: When Immigration and Customs have been satisfied, there is no restriction on crew's shore leave as long as they rejoin the vessel before departure.
GARBAGE DISPOSAL: Containers for garbage distributed on the wharf.
WASTE OIL DISPOSAL: Collection of waste oil is not available. Special receivers can be ordered.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner (NKr).
AUTHORITY: Norske Skog A.S.A., 7620 Skogn, Norway. *Tel:* 74095744. *Telex:* 55216 Skogn N. *FAX:* 74087009. *Contact:* Gjermund Lyngfelt, Harbour Master (Private Tel. 74084244).

FLORO: 61.31 N. 05.02 E. (See Plan)

DOCUMENTS:
2 Manifests.
Crew List.
Provisions List.
Health Document.
Passenger List.
PILOTAGE: Pilotage is not compulsory when coming into Floro. Ships usually enter by Kvanhovden light. (See Admiralty Chart No. 3037). Vessels can also enter at Fedje.

Nearest station Fedje (Lat. 60° 51' N., Long. 04° 37' E.). Distance to Floro Harbour about 52 nautical miles. Pilot boat a white-painted cruiser-type marked "LOS" on both sides of bow.

Fixed watch on Fedje Island covers both Holmengra and Hellesoy. VHF Channels 8, 12 and 16. Listening first 10 minutes of every hour. ETA 24 hours before arrival. Telegram "Feielos". If bad weather, Pilot to be picked up on Eastern side of Fedje Island.

ANCHORAGE: No anchorages close to Pilot Station. Floro Harbour: space of about 1 sq.km., depths from 15 fathoms to 30 fathoms.

RESTRICTIONS: Tide difference about 1.5 m. Max. draft entering Floro Harbour 40 ft.

MAX. SIZE: Entering Floro Harbour: No restrictions in main harbour concerning length and breadth. Max. draft berthing: "Gunhildvagen" 25 ft. and length of 120 m., Ewos A/S produce feed for fish farms and Skaarfish A/S export fish.

NB. – "Gunhildvagen" lies outside main harbour, and has narrow entrance. Weather permitting, ships of 100 m. length and breadth 20 m. can pass.

BERTHING: *Vestlandske Kjopelag:* A bulk grain/molasses terminal for vessels up to 6,000 d.w.t. Berth length, 100 m. Depth alongside 7.0 m. Storage capacity 20,000 tons of Grain/Molasses.

Fugleskjaerskaia: The deep-sea pier to the West of Fugleskjaerskaia (61° 36' N., 05° 02' E.). Fugleskjaerskaia now offers 500 m. of pier frontage, depth from 16 ft. to 43 ft. New section: 36 m., 18 ft. depth; 140 m., 33 ft. depth; and 1 berth 43 ft. depth. Cranes of 30 ton and 45 ton capacity available.

The extension of Fugleskjaerskaia provided 21,000 sq.m. new cargo handling space. A Ro/Ro facility is also provided, max. axle load 60 tons, width 18.0 m.

Also see "Developments".

Fjord Base A/S: Located at Botnaneset. Address: P.O.Box 323, 6901 Floro. Tel: (057) 49200, 43-866. Fax: (057) 49346. Telex: 40189 fb n.

Quay A	Length 100 m.	Depth 10.0 m.
Quay B	Length 50 m.	Depth 18.0 m.
Quay C	Length 60 m.	Depth 8.0 m.
Quay D (Saga Petroleum)	Length 40 m.	Depth 10.0 m.

Mobile cranes with capacity 35 tons – 115 tons.

STEVEDORES: ETA before 1600 hrs. for gangs required next morning.

MEDICAL: Hospital close to harbour, and available any time.

TANKERS: Harbour is only used by small tankers, about 500 to 1,000 reg. tons.

FRESH WATER: Only available alongside berth. Delivery about 30 t.p.h., possibility of 60 t.p.h. At Fugleskjaerskaia fresh water available at a rate of 200 t.p.h.

FUEL: Available at Fjord Base.

CONSULS: None.

REPAIRS: Most repairs possible.

DRY DOCKS: None. There is a berth at Kleven Shipyard. Length 85 m. Depth alongside 14 m.

Also see "Developments".

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Mostly done by crew.

AIRPORT: Regular service with De Haviland Twin Otters, 2 flights to Oslo, 5 flights to Bergen and 2 to Aalesund each day. (Runway 860 m.).

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: Cargo work can be arranged any time, holidays included.

POLICE/AMBULANCE/FIRE: Police 42011; Ambulance 41011; Fire 001.

TELEPHONES: Can be arranged on board alongside wharf.

SERVICES: Servicing for all kinds of ships navigation instruments can be arranged, except adjusting radio bearings.

SHIP SUPPLY SERVICE: The port has 6 small passenger vessels (50 ft. – 60 ft.), all capable of 20 – 27 knots, one or more are vacant at any time, and willing to take on assignments.

Services can be ordered through K. Jansen, 6900 Floro. Tel: (057) 43555. Fax: (057) 43860.

Helicopters can obtained from Helicopterservice, Bergen.

SHORE LEAVE: Permitted.

CREW IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Generally open containers of 8 cu.m. are ordered through the Harbour Office. Cost of delivery of one such container comes to NKr.420. Closed containers are placed on quays, where "normal" quantities (up to approximately 3-4 cu.m.) can be deposited without extra charge.

WASTE OIL DISPOSAL: Statoil runs a slop-service from Fjord Base. Tel: 057-49366. Fax: 057-49212.

SEAMAN'S CLUBS: No seaman's clubs, but local clubs arrange events for crew members if requested and time permits.

DEVELOPMENTS: A new extension of Fugleskjerskaia is going out to tender. A 100 m. quay front will be constructed. 6,000 sq.m. of new space will result from this project. A new cargo shed is being contemplated.

A 42 ton capacity container truck has also been purchased.

AUTHORITY: Floro Havnevesen, P.O.Box 17, 6901 Floro, Norway. *Tel:* 057-41428. *FAX:* 057-40916. *Contact:* Nils A. Hovland, Assistant Harbour Master.

FRAFJORD: 58.51 N. 06.17 E. (See Plan)

SHIPMASTER'S REPORT: May 1979. Also see "Agents Report" below. Vessel loading stones.

The berth at Frafjord is situated at the Eastern end of the Fjord leading to Frafjordsoyr (Lat. 58° 50' 40" N., Long. 06° 17' E.) and consists of an angled quay 15 m. in length.

The Pilot is embarked at Kvitsoy Pilot Station and vessel then proceeds to Stavanger for Customs Clearance and Agency work due to the remoteness of the loading berth. Pilots are changed at Stavanger and this Pilot remains on board until Kvitsoy outwards.

Approach to the berth is made at right angles with 3 shackles out on the starboard anchor until the headline and forward spring can be passed to the quay, the vessel is then turned on the anchor.

The quay is made of wood and is in poor condition with one end and bollard damaged. On the quay a single fixed conveyor is situated with a mobile extending arm and this is fed from a bin filled by tip-up lorries. The approximate lorry load is 13 tonnes. The extending arm can be remotely controlled in and out but is not quite long enough to adequately fill the outboard side. If loading mixed stones the lighter stones can be projected outboard. The loading foreman tended to be inexperienced and care has to be taken not to let the height of the stow build up too much and also along the inboard side as a slight starboard list is preferable due to the shallow areas of water on the inboard side and slack ropes aft will facilitate a general movement to the deeper water, (by sliding off the bottom).

No. 2 hold is loaded completely and then the stern is canted into deeper water in order to load in No. 1. The sequence that was adopted by this vessel was to load 750 tonnes in the after end of No. 1 followed by 750 tonnes in the forward end of No. 2 and then 700 tonnes in the after end of No. 2. This increased the after draft to approximately 6.3 m. The stern was then canted out into deep water and the final 800 tonnes was loaded forward. The vessel has to be constantly moved along the quay in order to get an even stow height approximately one-third the way up the hatch coaming.

The bollards on the beach are very badly positioned and the ones on the quay which were used for the springs were on the verge of being ripped out, one already having done so on the damaged end of the quay.

Loading commenced at 1600 hrs. on 11th May and ceased at 2215 hrs. that day, resumed at 0720 hrs. on 12th May and completed at 1000 hrs. on 12th May. 3,010 tonnes of stone chippings were loaded, final draft being, forward 5.32 m., aft 5.66 m. No gangway can be used, only pilot ladder.

Little wind was experienced during our stay but I would consider that any adverse weather conditions during berthing, loading or unberthing must make this a dangerous operation.

AGENT'S REPORT: August 1984.

The Pilot can be embarked at Kvitsoy, Tananger or Skudesnes Pilot Station.

Vessel proceeds direct from Pilot Station to loading berth (Pilot stays on board during loading), which normally takes 6 hours for a vessel of 3,000 tons. Agency/Customs clearance is now performed at Frafjord.

The loading berth is now of concrete and extended – mooring points are new, and there is no need to use anchor when approaching the berth. Official draft limitation is 18 ft.

The max. length allowed at the berth is 95 m.

The loading foreman is now well experienced and is conducting the loading/shifting with professional skill.

GARBAGE DISPOSAL: No facilities available.

WASTE OIL DISPOSAL: No facilities available.

SEAMAN'S CLUBS: None.

FREDRIKSTAD: 59.12 N. 10.57 E. (See Plan)

Note: On 1st January 1993, the Ports of Fredrikstad and Sarpsborg amalgamated under the name of Borg.

DOCUMENTS:

Bill of Health.
2 Crew Lists.
2 Passenger Lists.
2 Custom List for Crew Members and Passengers.
Bill of Lading.
3 Manifests for each port of discharge.

PILOTAGE: Compulsory. Pilot boarding at Faerder Lighthouse, 59° 02' N., 10° 32' E. or between Tresteinene Lighthouse and Vidgr. Lightbuoy, 59° 01' N., 10° 56' E. Agents report vessel's ETA to Pilot Station and vessel to give 2 hours' notice by R/T 2182 kHz or VHF Channel 16 to Faerder Pilot and Fredrikstad Pilot (Herfol Pilot). Coast station Tjome Radio LGT or Farsund Radio LGZ can also be used. Harbour Pilot and tugs, when necessary, will be arranged by Agents to meet at Belgen.

ANCHORAGES: Safe anchorage for larger vessels Belgen, East entrance. For smaller vessels anchorage to be pointed out by Pilot or Harbour Master.

RESTRICTIONS: Max. draft, East entrance 36 ft.; West entrance, 17 ft. Otherwise no restrictions.

HEALTH: See "Documents".

If vessel carries Quarantine Flag for contagious diseases, radio communication should be sent to Agent for instructions, otherwise no special regulations.

RADIO: Communication to Agent through Tjome Radio or Rogaland Radio.

VHF: Borg Port Control, Ora Quay, Tel: 69-358900, Fax: 69-358920 or VHF Channels 16 and 12, during daytime.

TUGS: Three tugs, 750 h.p., 1,200 h.p. and 2,700 h.p. More powerful tugs can be ordered from Oslo if necessary.

BERTHING: As instructed by Harbour Master through Agent, depending on vessel's draft and size.

East River Berths:

Oera Quay:

Southern part, max. draft 36 ft.
Northern part, max. draft 28 ft. – 33 ft.

Denofa Lilleborg Quay:
Max. draft 33 ft. (5 m. off the quay).

Additional Facilities:
4 warehouses, each at 2,000 sq.m., 1 warehouse of 600 sq.m. and 1 warehouse of 10,000 sq.m.
1 ordinary crane up to 3 – 6 tons (radius 8 m. – 26 m.).
2 mobile harbour cranes up to 40 tons at 28 m. radius and 24 tons at 40 m. radius, with telescopic container spreaders, both cranes have mechanical grabs of 8.5 cu.m.
1 × 37 tons fork lift, with telescopic container spreader.
1 × 32 tons fork lift.
2 × 28 tons fork lifts.
2 × 30 ton fork lifts.
30 × 2 ton – 12 ton fork lifts, 8 equipped to handle bales and reels.
5 Tugmasters, capacity 120 tons.
2 Ro-Ro terminals with an open area of about 40,000 sq.m.

STEVEDORES: To be arranged by Agent subject to requirements. 24 hours' notice important to obtain in good time accurate ETA.

Ordinary working hours 0700 to 1530 hrs., Monday to Friday. Saturday from 0700 to 1400 hrs. 100% overtime and from 1400 hrs. for a minimum of 8 hours – 100% overtime.

Bulk cargoes are usually discharged in shifts until Saturday 2200 hrs.

MEDICAL: Master to advise by radio prior arrival if medical attendance required on board. Hospital facilities available.

TANKERS: Discharge pipelines usually 6 in. and 8 in. Slop discharge facilities available. Tanker berths are at NOROL and Denofa/Lilleborg.

Sulphuric Acid is loaded at Oera Quay.

DENSITY: Brackish water, 2.7% salt water.

FRESH WATER: From shore or by barge. Tel: 09-346027.

FUEL: All grades available. For larger quantities, delivery arranged by barge. Tel: 09-346027, mobile 094-51764.

CONSULS: Danish, French, Finnish, Netherlands, Swedish.

REPAIRS: All repairs possible.

GANGWAY/DECK WATCHMEN: Obtainable.

OPENING/CLOSING HATCHES: Crew members allowed to open and close hatches.

SHIP'S CERTIFICATES: To be produced to Customs Authorities on arrival.

CUSTOMS ALLOWANCES: *Tobacco:* 20 cigarettes or 20 gm. tobacco per man, per day.

Wines/Spirits: 1 bottle of spirits or wine for consumption on board per crew member.

REPATRIATION: All facilities available.

AIRPORT: Fornebo, Oslo, 110 km. from Fredrikstad. Frequent connection by train.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day (1st January); Maundy Thursday; Good Friday; Easter Monday; Labour Day (1st May); Constitution Day (17th May); Christmas Eve; Christmas Day; 2nd Christmas Day; New Year's Eve.

POLICE/AMBULANCE/FIRE: Police, Tel: 69395500; Hospital, Tel: 69393000; Fire, Tel: 693107091 or 111.

TELEPHONES: May be installed on board at the quay of Oera.

SERVICES: Compass adjusting, laundry, ship chandler for delivery of provisions and bond stores.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not required, except at the quay of Defona/Lilleborg, when Master, upon arrival, will receive a sufficient number of cards for filling-in for each crew member, to be shown when passing the gate.

GARBAGE DISPOSAL: Garbage container will be placed on quay alongside vessel on arrival by ship's agent. Container is free of charge.

WASTE OIL DISPOSAL: Waste oil can be delivered to tanker trucks. This service is provided by Ostfold Hoytrykkspyling. Tel: 09-347100. Fax: 09-346695. 24 hour service 094-55828. The charge for one litre is NKr.1.50.

SEAMAN'S CLUBS: No seaman's clubs. Most facilities are available in the city of Fredrikstad, 15 minutes from harbour.

CURRENCY: Norwegian Kroner (NKr.).

AUTHORITY: Borg Havnevesen, Oraveien 27, P.O. Box 1205, 1631 Gamle Fredrikstad, Norway. *Tel:* 69-358900. *FAX:* 69-358920. *Contact:* Sven-Jan Johansen, Port Captain (Tel: 69155188, 94315498).

GLOMFJORD: 66.50 N. 13.57 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
Customs List.
Shipping Manifest.
Health Statement.
Bill of Lading.
Ship's Certificate of tonnage.

PILOTAGE: Pilot station, approach from South, is Aasvaer, 66° 17' N., 12° 18' E. VHF Channel 16 and radio telephone, frequency 2182.

Pilot station, approach from North, is Fleinvaer, 67° 13' N., 13° 42' E. Order Pilot over Bodo Radio, Tel: Bodo 22115.

ANCHORAGE: No berth for anchoring in Glomfjord but possible anchor at Sandaabukten close to Glomfjord.

HEALTH: Health certificate – only for first port in Norway.

RADIO: Sandnessjoen or Bodo Radio station.

VHF: On quay. Call: Hydro Glomfjord Port Station on Channel 16.

TUGS: None.

BERTHING: No specific requirements relating to berthing. Quay length 317 m. and depth 8 m.

STEVEDORES: In accordance with Charter Party.

MEDICAL: Medical aid in Glomfjord, and hospital in Bodo.

TIDE: Difference between high and low water about 3 m.

FRESH WATER: Alongside quay.

FUEL: None.

CONSULS/REPAIRS/REPATRIATION: None.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: Usual certificates.

CUSTOMS ALLOWANCES: 200 gm. tobacco or 200 cigarettes per man. 0.75 litre spirits or 0.75 litre wine per man.

CARGO GEAR: Discharging and loading by conveyor.

AIRPORT: Airport in Bodo.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: See "Drammen".

POLICE/AMBULANCE/FIRE: Police station 52100 Meloy.

TELEPHONES: On quay.

IDENTIFICATION CARDS: Usual Passport necessary.

REGULATIONS: No particular or unusual regulations. Control by passing gate between dock area and surrounding field.

SHIPMASTER'S REPORT: 1976.

Anchorage: The nearest anchorage to the berth, which is part of Norsk Hydro's chemical plant is Sandabukta, about 6 miles away. It is safe and sheltered and the Agent will board there. Communication with Glomfjord is by VHF Channel 16 or via the local boatman with whom private arrangements for shore leave are possible.

Clearance: Ship is boarded on arrival at the anchorage by the Glomfjord Customs Officer who also acts as Immigration and Port Health.

Pilotage: There are no Harbour Pilots at Glomfjord. If proceeding direct to berth, Sea Pilot will put ship alongside. If awaiting berth at Sandabukta Anchorage, Pilot leaves there and it is normal for ships to complete the passage unaided. A Pilot can be obtained from Bodo but is not always available. If another ship is arriving at the anchorage, Pilot will transfer.

SHIPMASTER'S REPORT: September 1990.

Pilotage: Not compulsory, but advisable for foreign vessels and especially for tankers. When arriving from the South, Pilot boards 1.5 miles N.W. of Aasvaer Lighthouse, from a large cutter with a white hull and red deck house. It is similar in appearance to a fishing boat and can attain a speed of 14 knots.

Pilots have to be ordered through the Agent or through Lodingen Pilot Office, which is near Narvik. As much notice as possible is required, and notice should not be less than 2 hours when arriving, and 6 hours when leaving Glomfjord. When a vessel leaves the port, the Pilot arrives by car or by one of the attending tugs. The Pilot comes from Sandnessjoen Pilot Station by cutter, approximately 2 hours. Five pilots are stationed here for coastal duties and for berthing vessels at small ports up to Narvik.

No pilots are stationed at Aasvaer.

The distance from Glomfjord to Aasvaer is 65 miles, most of the passage is at near full sea speed and in sheltered waters through the islands.

Approaches: Lovunden Mountain in position Lat. 66° 22' N., Long. 12° 20' E., is 2,031 ft. above sea level, and can be seen from 45 miles on a clear day. It has a distinctive pinnacle. Sanna Island in position Lat. 66° 30' N., Long. 12° 02' E., is also conspicuous. Aasvaer Lighthouse is painted a distinctive red in colour, and has a very good Racon.

Charts: Charts used for approaching the port were B.A.Charts No. 3887 (3886/3885/2310).

Anchorage: There are no safe anchorages outside the pilotage district. Once inside the islands, numerous anchorages can be found. Pilot advised vessel to use Lillesjona anchorage in position Lat. 66° 13.5' N., Long. 13° 04' E. Pilotage is not compulsory for going to the anchorage, but it is advisable to use one, if you do not have local knowledge.

VHF: Pilots at Sandnessjoen monitor Channels 16 and 13. There is now no pilot VHF service at Aasvaer Lighthouse. Vessels should call Lodingen Pilot Office through Bodo Radio (Tel: 082-31104).

Norsk Hydro at Glomfjord listen continuously on Channels 16 and 12 from 0600 hrs. on Monday to 2200 hrs. on Friday. They do not listen at weekends or public holidays.

Tugs: 2 tugs are available, 1×1,500 h.p. and 1×2,000 h.p. One tug comes from Mo-i-rana and the other from Sandnessjoen, both these places are about 6 hours from Glomfjord.

Large vessels inward bound usually use 2 tugs and outward bound one tug, but if strong winds are blowing, 2 tugs should be ordered.

Ship's lines are used.

Berthing: Ammonia Berth: Ammonia Berth is to the West of the Fertiliser Berth, in position Lat. 66° 48.4' N., Long. 13° 56' E. The Ammonia Berth is of concrete pile construction with a berthing face of 30 m. length, with breasting/mooring dolphin to the West, which is connected by walkway giving another 25 m. of berthing face. The berth is set out 30 m. from the shore line.

When the vessel is berthed port side to, the ship's bow overhangs to the East so mooring is poor, no head or stern leads, only breasts and springs. There are electric capstans on the jetty and the fenders are good. Only a bridle can be used as a gangway. The berth is fairly well sheltered, except when high winds are blowing from the East, when the wind funnels from the mountains down the Fjord. At this time, the berth becomes very exposed to violent wind gusts, and in Winter long delays can be incurred with berthing and unberthing.

When approaching the berth, to berth port side to, starboard anchor is let go when approximately 100 m. off the berth, to 5 or 6 shackles in the water, to assist unberthing.

When vessel comes parallel with the berth, it is eased alongside by the tugs. This is due to shallow areas to the West of the berth. The mooring gang for the Ammonia Berth came from the fertiliser plant and do not like handling wires. For mooring, it is suggested that a vessel tries to moor with 3 head/stern lines, 2 breast lines and 2 springs at each end. This is particularly necessary during the Winter months. The rise and fall of the tide is approximately 2.0 m.

Vessels usually berth port side to at all berths. However, in my opinion, large ammonia gas tankers would be better berthing starboard side to, if the wind is calm, and using 2 tugs, thereby being in a more favourable position for leaving in ballast.

Largest vessel to berth at the Ammonia Berth was 30,000 cu.m. The Fjord is very deep, but the depth alongside at low water is 15.0 m.

Fertiliser Berth: The Fertiliser Berth has a straight quay of approximately 300 m. length. The berth can accept vessels up to 26,000 d.w.t. Depth alongside at low water is 8.5 m.

Cargo Operations: The berth is equipped with an 8 in. Chicksan (300 ASA) with clamps. It is possible to use a 150 ASA reducer. The maximum discharge rate is approximately 520 t.p.h. Discharge is to a storage cavern with a capacity of 42,000 tonnes, which is set in the hillside 60 m. below sea level. The cavern was blasted out in 1985/86. It is possible to receive warm product up to ambient temperature, but discharge is very slow.

Cavern storage compressors are in the Machinery/Control House, adjacent to the berth. Whilst the vessel is discharging, there is an operator on watch in the Control Room, and he is in continuous contact with the ship by Motorola VHF.

About 80,000 tonnes of ammonia are imported each year, and approximately 220 tons are taken from storage each day. Production at Glomfjord plant is 100,000 tonnes per year.

The surveyor from SGS is in attendance and helpful, no samples taken. A representative from Norsk Hydro is in attendance for arrival and departure survey.

Fresh Water: Available at the jetty at a good rate and is free.

Stores: A local chandler can deliver stores alongside. Fresh produce is very expensive, and the quality is poor.

Agent: Norsk Hydro have an office on the Fertiliser Quay, which is about 1 km. from the Ammonia Berth. They may be contacted between 0730 hrs. and 1500 hrs, Monday to Friday. They are very helpful when on duty, but are difficult to contact out of hours. There are two metered telephones in the office for the ship's use.

Documents: The Agent handles all documentation. Customs are based in Bodo, but do not normally attend on board. The following are to be prepared on Norwegian forms:

3 copies Crew List.
1 copy Master's Declaration, and 3 copies.
1 copy Cargo Manifest, and 2 copies.
1 copy Crew Declaration, and 2 copies.
1 copy Maritime Declaration of Health.

Radio: Bodo Radio. Melroy Radio is a slave station and can handle public correspondence. It was not possible to use the ship's satellite communicator whilst alongside, due to the high mountains surrounding the Fjord. The Agent reports that this is usually the case.

Airport: There are 5 return flights each day from Oslo to Bodo, which is 2.5 hours away by car.

General: Agent will lay on tour of the surrounding area which is interesting, especially to the glacier. The town of Glomfjord has one hotel and a few shops, but prices are high.

It is possible to make telephone calls from the hotel.

A minibus passes the berth at ten minutes to the hour on weekdays from 0700 hrs. to 0300 hrs.

Port State Control (Norwegian Coastguard) visited the vessel, they are based in Bodo. Bodo is the Northern administrative capital of Norway. They are very strict on pollution in the area.

AUTHORITY: Norsk Hydro a.s. Glomfjord, 8160 Glomfjord, Norway. *Tel:* (081) 52 321. *Telex:* 64061 Hydro N. *FAX:* (081) 52654. *Cables:* Norskhydro. *Contact:* Shipping and Clearance Office.

HALDEN: 59.08 N. 11.25 E. (See Plan)

DOCUMENTS: See "Bergen".
PILOTAGE: Pilot boat at Faerder light station. Ordering usually over Radio Land Station. Tjome Radio = LGT (also VHF). Signals according to ordinary international requirements. Exact area for Pilot boat: Faerder light station (Store Faerder); Hvasser Pilot Station.
ANCHORAGE: At Faerder light station in Oslofiord-Singlefiorden West side.
RESTRICTIONS: No special restrictions but larger vessels have to take necessary care with passing Svinesund. The tide current altering according to high and low water time.
MAX. SIZE: For the harbour inside Svinesund (Main Harbour) length 560 ft., beam 70 ft., draft. 25 ft.
HEALTH: Pratique, ordinary.
TUGS: If required tugs join outside Sponviksskansen light at the entrance to Svinesund. Usually ship's lines.
RADIO: All radio services over Tjome Radio-Land Station (use the ordinary international frequency — (600-705-800 m.).
VHF: Port Authority on Channels 16 and 12.
BERTHING:

Quay	*Depth* (ft.)	*Depth* (m.)
Ytre Molbrygge	23	7.2
Indre Molbrygge	23	7.2
Jernbanebryggen	22	6.9
Krankaien	27	9.0
Brokaien	23	7.2
Sundsbryge	16	5.3
Felleskjopet	16	5.0
Grain Elevator	12	3.8

FRESH WATER: Available; good quality.
FUEL: Available.
FIRE PRECAUTIONS: According to Harbour Regulations.
REPAIRS: Only small repairs carried out.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: Carried out by crew.
REPATRIATION: No facilities.
AIRPORT: Nearest Fornebu–Oslo.
POLICE/AMBULANCE/FIRE: Police 09-180111; Ambulance/Fire (09) 181212.
TELEPHONES: None available for shipboard use.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Required.
GARBAGE DISPOSAL: Drums provided alongside. Contact Halden Havnekontor. Tel: 09-183200, or Alf Rod AS. Tel: 09-182233.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
AUTHORITY: Halden Havnevesen, P.O.Box 184, Langbrygga 3, 1750 Halden, Norway. *Tel:* 69-183200. *FAX:* 69-180680. *Contact:* O. Johannessen, Harbour Master.

HAMMERFEST: 70.40 N. 23.40 E. (See Plan)

DOCUMENTS: See "Bergen".
PILOTAGE: Entering from sea: Pilot should be ordered 24 hours in advance, and boards ship at Melkoy (2.5 miles off Hammerfest Harbour).
ANCHORAGE: Anchoring as appointed by the State Pilot or Harbour Pilot.
MAX. SIZE: Alongside ships up to 30,000 g.r.t., with max. draft 30 ft. For anchorage no limitation.
RADIO: Vardoe Radio, equipped with VHF.
TUGS: One small tug, bollard pull 6 tons.
BERTHING:

Berth No.	*Length*	*Berth No.*	*Length*
1	138 m.	13	85 m.
2	75 m.	14 (not built)	265 m.
3	46 m.	15 (private)	37 m.
4	50 m.	16 (private)	25 m.
6 (private)	32 m.	17 (private)	170 m.
7	32 m.	18 (private)	30 m.
8	70 m.	19 (private)	60 m.
9	142 m.	20 (private)	30 m.
10	130 m.	21 (private)	60 m.
11	65 m.	22 (private)	18 m.
12	45 m.	23	60 m.

MEDICAL: Hospital facilities available at Hammerfest.
TANKERS: Discharge line 8 in.
DENSITY: Salt water.
FRESH WATER: Capacity 300 t.p.h. at Harbour Board Quay. No water barge available.
FUEL: All grades except heavy fuel oil available.
CONSULS: French, Danish, Finnish, Icelandic, Netherlands and Swedish Vice-Consuls.
REPAIRS: Slipway for smaller ships, up to 200 ft. Only minor repairs and radar repairs available.
DRY DOCKS: None.
CUSTOMS ALLOWANCES: See "Stavanger".
REPATRIATION: Daily connection by ship and air.
AIRPORT: Hammerfest Airport. Regular service several times a day.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Containers provided alongside, 24 hours notice to harbour authorities if disposal of more than 5 cu.m. is required. Charge: NKr.110 per cu.m. Collection on departure or whenever required.
WASTE OIL DISPOSAL: Tanker truck available. Capacity 20 cu.m. Notice required by harbour authorities. Charge: NKr.4,000/per cu.m.
SEAMAN'S CLUBS: "Velferd for Sjofolk og Fiskere", mostly indoor activities, skis and equipment available. Closed from June 1st until August 31st. Tel: 084-12231.
CURRENCY: Norwegian Kroner (NKr.).
AUTHORITY: Hammerfest Havnevesen, P.O.Box 123, 9601 Hammerfest, Norway. *Tel:* 784-11201/11202. *FAX:* 784-11571. *Contact:* Roll H. Stiansen, Harbour Master.

HARSTAD: 68.48 N. 16.39 E. (See Plan)

PORT LIMITS: Inside a straight line from Trondenes Church to Stangnes Light.
DOCUMENTS:

2 Crew Lists.
2 Passenger Lists.
Derat Certificate.

PILOTAGE: If entering via Andenes, 12 hours' advance notice of ETA in order to arrange Pilot. If entering via Lodingen, 2 hours' notice. VHF Channel 16 both at Lodingen and on pilot-cutter at Andenes. 24 hour watch maintained.
ANCHORAGE: Inside harbour limits, fairly good anchorages available, Pilot will assist.

RESTRICTIONS: No restrictions, except all foreign ships must have a Coast Pilot on board in inland waters.
MAX. SIZE: Any size vessel can anchor in harbour.
HEALTH: In case of suspected disease doctor has to be called by radio before entering. After calling at another Norwegian port and no disease, Pratique is not necessary.
RADIO: Routing of ETA cables to Agents at Harstad is best over Bodo Radio. VHF installed at Harbour Office.
TUGS: Two small tugs available.
BERTHING: Public quays of 680 m. Private quays of 1,200 m.
SPECIALISED CARGO-HANDLING FACILITIES: One coal bunkering station; draft about 24 ft.; equipped with crane.

Two mobile cranes, capacity 30 tons each.

Trucks: 1×20 tons, 1×10 tons. Also fork lift trucks between 1 ton and 6 tons.

MEDICAL: No advance notice required. Hospital facilities available. No medical information required if no suspected disease on board.
TANKERS: Two berths. Esso 33 ft. Norol 36 ft.
TIDE: Rise in tide about 6 ft.
FRESH WATER: Available at most quays day and night.
FUEL: All grades available. In the Winter 3 – 4 hours' notice required.
CONSULS:

British Vice-Consulate:
Strandgt. 7, Harstad. Tel: 77064631 or 77063093.
Danish Vice-Consulate:
Samasjovn 22, 9400 Harstad. Tel. 77066722 or 77064219.

REPAIRS: All types of repairs possible.
DRY DOCKS: 1 dry dock 110 m. long, 17 m. wide. Capacity: 8,000 d.w.t.
SURVEYORS: Cargo Inspectors available.

Lloyd's Register and Det Norske Veritas in Harstad.

GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: By crew.
CERTIFICATES: Usual international certificates.
CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes or equal amount of tobacco. Wine and/or Spirits: Spirit half a bottle per person.
REPATRIATION: Facilities available.
AIRPORT: Airport of Evenes, about 45 minutes (45 km.) drive from Harstad by road.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: Cargo work can be arranged on holidays, except 1st and 17th May, Easter Day and Christmas Day.
POLICE/AMBULANCE/FIRE: Police: 77069000; Ambulance: 003 or 77015000; Fire: 001 or 77061122.
EMERGENCY CO-ORDINATION CENTRE: The nearest emergency centre is Hovedredningssentralen in Bodo. Tel: 75521267/75525188.

Local contact in Harstad is the Harbour Office. Tel: 77062880 or 77062459, or Senja Police Office. Tel: 77069000.

TELEPHONES: Available, can be arranged by Agent or Dockyard.
SERVICES: Harbour Office: Tel. 77062880 or 77062459. The Norwegian Government has decided that Harstad is to be the main base for most of the oil activity North of 62° N., and the town and the harbour are under construction to meet future requirements in this connection.
BANKS: Den Norske Bank. Tel: 77063530.

Sparebanken Nord-Norge. Tel: 77013000.
Kreditkassen-Fiskernes Bank. Tel: 77066411.

STORING: See "Prelims".

1. Vessel can be stored by barge and/or truck.
2. No special regulations.
3. Trucks can proceed alongside the berth.
4. Fork lift trucks can be used on the jetty to handle stores.
5. No special regulations.
6. Local riggers can be employed to assist with storing.

SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Not needed.
DEVELOPMENTS: *Sor-Stangnes:* Sor-Stangnes is developed, and there is a quay of 120 m. with depth 11.5 m. – 13.0 m., and another of 30 m. with depth 8.0 m. – 10.0 m.
AUTHORITY: Harstad Havnevesen, Box 193, N-9401 Harstad, Norway. *Tel:* 77062459. *FAX:* 77061413. *Contact:* K. Kollstroem, Harbour Master.

HAUGESUND: 59.25 N. 05.16 E. (See Plan)

DOCUMENTS:

3 copies Maritime Declaration of Health.
4 copies Cargo Declaration.
3 copies Ship's Stores Declaration.
3 copies Crew Effects Declaration.
3 copies Crew List.
2 copies General Declaration.
Clearance from last port.
3 copies Passenger List.

PILOTAGE: 24 hours notice addressed to Kvitsoy Pilot Station, who keep a 24 hours watch on VHF Channel 16, working Channel 13.

Pilot boards vessels off Skudenes (59° 07' N., 05° 16' E.) in Skude Fjord, or off Rorver (59° 27' N., 05° 03' E.) in special cases only.

Vessels proceeding to the Lay-up Area at Bovaagen, take Pilot off Skudenes.

Shipmaster's Report: September 1990.

Pilot Station now centralised on Kvitsoy Pilot Station. Tel: 04-515397. VHF Channel 13.

Rorver Pilot Station is closed.

No pilot required if arriving or sailing to the North. Pilot is required if arriving or sailing from the South (Military Zone).

ANCHORAGE: Anchorage in Karmsundet off the city can generally only take place after agreement with the Harbour Office. Alternatively safe Anchorage is possible 1 mile North of Kopervik in 30 m. of water.
MAX. SIZE:

Entrance from the North: No restrictions as to height. Minimum depth in the Harbour is 23 m.

Entrance from the South: The bridge between Haugesund and Karmoy, crossing at Salhus, free height of 45 m. Minimum depth of water 11 m. (just North of the bridge).

RADIO: Rogaland Radio.
VHF: Rogaland Radio on Channel 16. Kopervik Pilot on Channels 16 and 13. Haugesund Harbour Office on Channels 16 and 12, throughout 24 hours.
TUGS: Two tugs available in the Port and further tugs can be called from Stavanger.
BERTHING:

Berth	*Length* (m.)	*Depth at LW* (m.)
Garpeskjar – West	418	10.0
Garpeskjar – North	213	7.0
Garpeskjar – East	268	7.0
Inner Harbour	220	6.4
Killingoy Offshore Base East	120	10.0
Killingoy Offshore Base South	111	10.0
Killingoy Offshore Base West	157	15.0

At Garpeskjar – West, there is a Ro/Ro Terminal with landing point for ships ramps with a width up to 15 m.

At Garpeskjar – East, there is a Reefer Store.

There are several private companies in the port with berthing facilities with depths between 5 m. and 7 m.

Lay-Up Areas: A well recommended Lay-up Area is situated at Bovaagen Bay, just to the South of the bridge between Haugesund and Karmoy (2 miles to the South of the city).

The Lay-up Area can accommodate vessels up to 250,000 d.w.t. The depth in Bovaagen Bay is from 23 m. to 40 m., with good holding ground. The Bollards are certified from 200 – 400 tons holding capacity.

There is a 380 volt current supply and telephone connections are available. Fresh water is supplied by boat. Entrance to the Lay-up Area in general takes place from the South, limited by a link-span 47 m. high.

To the West side of Storasundskjaerene is an excellent lay-up area for oil rigs. Bollard of 250 tons. 380 volt current supply, fresh water and telephone.

CRANES: Mobile cranes of all sizes available. Floating crane of 80 tons available.
STEVEDORES: To be ordered by local Agent in ordinary Office hours (07.30 – 15.30).
MEDICAL: Doctor and hospital facilities available at any time.
FRESH WATER: Available ex-wharf or by boat.
FUEL: Available ex-wharf and by boat or truck.
CONSULS: Denmark, Finland, France, Germany, Iceland, Sweden and United Kingdom.

Countries not mentioned above are in general represented in Stavanger.

REPAIR/DRY DOCKS: HMV Shipyard offers dry dock facilities for vessels up to 155,000 d.w.t.

Drilling rigs can be berthed alongside the yard's 100 m. long "deep water quays".

There are also several smaller repair yards in the Port.

At Killingoy (offshore base) there are repair facilities in general and also service on offshore underwater works (diving operations, etc).

AIRPORT: At Karmoy, 15 minutes drive from Haugesund.
GARBAGE DISPOSAL: Collection service available from local company. Arranged through local Agent or Harbour Office.

One garbage container (5 – 7 cu.m.) is charged about N.Cr.450.00.

WASTE OIL DISPOSAL: Waste oil disposal available by truck or at berth by local company. Contact: Haugesund Skipsbase. Tel: 04-724290. Fax: 04-716740.
AUTHORITY: Haugesund Harbour Authority, P. O. Box 186, N-5501 Haugesund, Norway. *Tel:* 52714744. *FAX:* 52712819. *Contact:* A.J. Simonsen, Harbour Inspector.

HEROYA: 59.07 N. 09.38 E. (See Plan)

DOCUMENTS:

Clearance documents – forms obtainable from Custom Officers on arrival.
Derat Certificate.
Bill of Lading.
Manifest.
2 Crew Lists.
Ship's Register.

PILOTAGE: Vessels approaching from the sea and desiring a Pilot shall, as far as possible, order a Pilot 24 hours in advance and thereafter confirm arrival at Pilot Station 2 hours in advance.

Vessels lying in port and desiring a Pilot shall, as far as possible, order a Pilot 4 hours in advance and thereafter confirm departure from the port 2 hours in advance.

Orders for Pilots shall be addressed to "Brevik Control" (Channel 80). Also see "Brevik – Regulations".

Pilot boat located 1 mile S.E. of Langoytangen Lighthouse (position: Lat. 58° 59' 30" N., Long. 9° 45' 30" E.).

ANCHORAGES: All anchoring at Frierfjorden. Also see "General" before first port (Agotnes).

RESTRICTIONS: No restriction on night entry except for large vessels when Pilots prefer daylight. Also see "General" before first port (Agotnes).

MAX.SIZE: Max. draft 32 ft. 6 in., max. length 600 ft. entering Kjorttingen between Langesund and Brevik. Also see "General" before first port (Agotnes).

HEALTH: See "Documents". Norwegian Health Certificate required on clearance inwards.

RADIO: Cable Agents giving ETA, draft and cash required via Tjome Radio/LGT or Farsund Radio/LGZ.

TUGS: Tugs join at berthing place. Ship's lines used.

BERTHING: No specific requirements relating to berth.

CARGO HANDLING FACILITIES: On the East side of the river, a berth of 800 ft. length, 20 ft. to 21 ft. alongside. A new quay for vessels up to 10,000 tons, 26 ft. to 27 ft. depth, specially for handling bulk cargoes.

No berth equipped for handling Ro/Ro traffic, but berth available for liquid chemical and LPG carriers.

Norsk Hydro A/S Oil Pier, vessels up to 20,000 d.w.t.

Norsk Hydro A/S Main Quay, length 1,838 ft., draft 26 ft. to 34 ft. 6 in.

Norsk Hydro A/S Western Quay, length 1,263 ft., draft 26 ft. to 32 ft. 6 in.

CRANES:

Norsk Hydro A/S Main Quay:

4 cranes reaching 10 m.-11 m. outside quay border capacity 6 tons.
2 cranes reaching 18 m. outside quay border capacity 6 tons.
3 elevators for loading of bagged cargo reaching 16 m.

Norsk Hydro A/S Western Quay:

2 cranes reaching 18 m. outside quay border capacity 7 tons.
1 crane reaching 15 m. outside quay border capacity 8 tons.
1 crane reaching 9 m. outside quay border capacity 3 tons.
3 elevators for loading of bagged cargo reaching 8 m.

Deep Water Jetty:

2 cranes reaching 16 m. outside quay border capacity 10/12 tons for bulk cargo only.
1 crane capacity 5 tons for handling of stores, etc.

BRIDGES: Brevik Bridge max. height 45 m. Porsgrunn Bridge (VHF Channel 12) only when proceeding to Menstad, Borgestad, Waterloo and Skien, liftbridge with breadth of 30 m. (maximum beam permitted 16.0 m.). Sound signals for passing bridge inward, 1 long and 2 short. Outward signals, 1 long and 1 short.

STEVEDORES: Ordered by Shippers/Receivers or Agents.

MEDICAL: All medical assistance to be arranged via Agents.

TANKERS: Discharge lines 4 in., 6 in., 8 in.

DENSITY: Brackish 4 in. – 6 in. allowance.

FRESH WATER: Obtainable various quays.

FUEL: All grades available.

FIRE PRECAUTIONS: Tankers discharging, smoking only by Officers in saloon, crew in messroom.

CONSULS: Belgium (03) 35520083 (Skien), Denmark (03) 35550069, Germany (03) 35525093 (Skien), Netherlands (03) 35522742 (Skien), Finland (03) 35552620.

REPAIRS: Repairs possible.

DRY DOCK: Draft 14 ft ., length 155 m., breadth 20 m., also 4 smaller docks.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Crew normally open and close. Otherwise according Charter Party.

CERTIFICATES: Registered Tonnage Certificate; Derat Certificate. Otherwise normal international certificates.

CUSTOMS ALLOWANCES: 400 cigarettes for the Master and 200 for each crew member. *Wine and/or Spirits:* 4 bottles spirit for Master and half bottle for each crew member.

CARGO GEAR: No additional requirements, but using vessel's rain tents.

REPATRIATION: Facilities exist for effecting crew changes and repatriation.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer (Last Sunday in March till last Sunday in September).

HOLIDAYS: New Year's Day, Maundy Day, Good Friday, Easter Eve (half day), Easter Monday, Christmas Eve (half day), Christmas Day, 26th December, New Year's Eve (half day).

POLICE/AMBULANCE/FIRE: Police 35560000; Ambulance 35550170; Fire 35551522. Other numbers: Pilot Station 35571233; Tug Station 35571144; Norsk Hydro Central 35562000; Porsgrunn Bridge 35552492; Custom House 35554540; Taxi 35556900; Harbour Office: 35571200.

IDENTIFICATION CARDS: Only necessary at quays belonging to Norsk Hydro. Special identification cards will be delivered to Master on arrival.

SHIPMASTER'S REPORT: December 1988.

Pilotage: Pilot boards about 2 miles South of Langoytangen Lighthouse (near Langesund), from a fast sea cutter painted orange. Call "Brevik Control" on VHF Channel 80, working Channel 13.

One pilot is used for the complete passage into Frierfjord, which serves Rafnes, Porsgrunn and Heroya.

When unberthing or sailing from the inner anchorage, the pilot and tugs require 2 hours notice through "Brevik Control".

Anchorage: The anchorage is located in Frierfjord off Versvik, in a depth of 20 fathoms. The anchorage is sheltered.

It is difficult to anchor outside the Pilot Limits as the water is deep and the coast is exposed to the prevailing winds.

The pilot advised that the only suitable anchorage outside is at Sasteinflak Bank, about 2.7 miles S.W. of Langoytangen Lighthouse. This anchorage is exposed to S.W. winds and swell. If vessel anchors at this location it is to report to "Brevik Control" prior to anchoring.

Approaches: The pilotage time to Rafnes via Brevik Fjord for vessels with a draft of less than 32 ft. is 1 hour. Due to restrictions at Kjortingen Passage and Brevik Bridge, vessels in excess of 32 ft. draft use Kalven Passage to the East of Brevikfjord. However, vessels can only go as far as Brevik.

The Pilot reports that the waters never ice over as the water is salt and currents are always running.

Tankers which are not gas free must have a minimum visibility of 1.0 nautical miles in order to make a passage.

Tugs: A safety tug is compulsory for all tankers which are not gas free. Large vessels require 2 tugs.

Tugs join vessels off Aroy Island and make fast astern with 2 ship's lines from the centre lead.

Fire wires are required, forward and aft, when proceeding from the Pilot Station to Rafnes, and vice versa.

There are 4×3,500 h.p. tugs available and one is always on stand-by at Rafnes when tankers are alongside. When vessels are alongside and not loading or unloading (cooling down does not count as loading) a charge of about £60.00 per hour is made for the stand-by tug and this is for the vessel's account.

Berthing: There are 3 berths for gas and product tankers at the Norsk Hydro Refinery at Rafnes, on the West side of the Fjord.

Largest vessel handled 32,000 cu.m. (gas vessel).

The main imports are propane and butane and the main exports are ethane, sodium and sulphuric acid.

The berths are No. 1, No. 2 and No. 3, from North to South. Berths No. 2 and No. 3 have a depth of 12.0 m. The berths are well constructed and have good fenders. The berths are 'T' shaped jetties with mooring dolphins connected by catwalks either side of the jetty.

Vessels normally berth port side alongside. Shore gangway provided.

There is a fairly strong South flowing current along the line of the jetties.

Cargo: Ethylene is loaded at Berth No. 3 from ethane Chicksan, at about 150 t.p.h. at −100°C.

The liquid and vapour Chicksans are 6 in. (150 ASA).

As handling of ethane and ethylene is through the same Chicksans, a period of 18 hours is required for shore line purge between products.

Ethylene is stored at −95°C. and is further cooled through expansion valves to −100.5°C. in order to arrive at the ship's rail at −100°C.

Stoppages for "First Foot" and "75% samples" varies due to shore loading requirement. We did not stop, due requirement for cold product and in order to avoid line heating.

Vapour return by ship's compressor, mainly at 100% compressor loading.

Ethylene is not normally exported, although it is sometimes imported. It is used for VCM, but not at the present time due to VCM cracker explosion.

Vessels are not normally allowed to stay alongside for cooling down as other vessels are usually waiting and there is a charge for a stand-by tug.

General: VHF: Whilst at anchor Tjome Radio, VHF Channels 25 and 62, was used.

Stores: Stores are expensive.

SHIPMASTER'S REPORT: October 1993.

Approaches: B.A. Chart 1327. Found to be as charted, and communications for Pilots and VTS as published.

Pilotage: Larger vessels go via Helgerfjorden, Haoyfjorden and Kalvsundet to Brevik. Smaller vessels use the channel between Geitraya and Kjortingen.

Two Pilots board and leave just inside the Pilot Station charted, but are in contact by VHF during the approach.

Pilots require 2 hours notice for shifting berth and departure. The Agent and Loading Foreman liaise with the vessel to reduce delays.

As the bulk fertiliser requires covering on completion of loading before the hatches are closed, allow about 2 hours for this work to be completed, and order Pilots when loading is completed.

Tugs: Larger vessels take a tug forward and aft, using 2 ship's lines to each tug. Tugs join just after clearing Kalvsundet inward and remain with the vessel until berthing is completed. Similarly outward, two tugs remain with the vessel until approaching Kalvsundet.

Tug's lines may be used.

Berthing is starboard side to on both the Main and West Quays.

Draft and Navigation Restrictions: Maximum draft on the berths is 10.2 m.

Density is 1002.

Large vessels are not taken in or out of the port in darkness, but moving between berths is permitted.

All movements are at the discretion of the Pilots.

Vessels of up to 200 m. LOA have entered the port.

Ice is not usual, but can be experienced in hard Winters.

Heroya: Heroya is a large factory complex handling compound fertilisers, ammonia and chlorine in bulk.

Main Quay: Well fendered and well fitted with mooring bollards. The apron of the quay for about 200 m. from the N.W. end is approximately 1 m. wider than the remainder, and the face of the quay is tapered over approximately 10.0 m.

A cooling water outlet discharges under the quay about 200 m. from the N.W. end, pushing the vessel off whilst berthing.

The bulk cargo loader on this quay has a nominal air draft of 12.0 m., but it was able to work over the top of side opening hatch covers, 0.5 m. from the ship's side, with an air draft of 13.06 m.

The loader has an outreach of about 16.0 m., and the trimming spout was able to make a reasonable stow on this vessel (31.0 m. beam), although a level stow was not achieved.

Loading rate for 8,000 tonnes of calcium nitrate was 302.3 tonnes/hr.

Stowage factor 0.9 to 0.93 cu.m./ton.

West Quay: Fendered and fitted as the Main Quay.

This vessel (188.4 m. length) berthed overhanging the quay at the after end by about 10.0 m., and stern lines were run to bollards ashore some 60 m. from the face of the quay.

No air draft was quoted for the bulk loader on this quay, but it was estimated at about 15.0 m., with an outreach of about 25.0 m. and capable of giving a level stow to any vessel which can enter the port.

The loading rate for 27,000 tonnes of NPK fertiliser was 463.86 tonnes/hr. (gross) and 483.76 tonnes/hr. (nett).

This vessel was taking the last of this grade available, so the loading rate was slow at the finish. Early loading was at about 570 tonnes/hr.

Stowage factor 0.87 to 1.05 cu.m./ton.

Loading: The bulk loaders at both quays are used on a 24 hour basis.

At West Quay, moving the loader between holds takes from 5 minutes to 10 minutes.

Holds not being loaded should be covered as the cargo is very liable to moisture damage.

On completion of each hold, the crew are required to cover the surface of the cargo with plastic sheeting to protect the cargo during transit. The necessary sheeting tape and wooden spikes are supplied by the shippers.

Clearance: Carried out by the Agent.

Customs officials may board during the vessel's stay, and a full search of the vessel, including accommodation, may be carried out using sniffer dogs.

Agents: Norsk Hydro (Agency Department), P.O.Box 1043, N-3902 Porsgrunn, Norway. Tel: 4735-564086 (Mobile 47-031-05260). Telex: 21368 Hydro N. Cables: Hydrosped Porsgrunn. VHF Channel 14. Fax: 4735-553655.

The Agents are a department of Norsk Hydro, who are the operators of the complex, as well as being the shippers of the cargo.

There is an Agency office on the Main Quay. Office hours are 0800 hrs. – 1600 hrs., but they are available 24 hours by telephone.

The Loading Foreman will assist if any difficulties are experienced in contacting the Agents.

AUTHORITY: Grenland Port Authority, Stromtangen, P.O.Box 20, 3951 Brevik, Norway. *Tel:* (47) 35571200. *FAX:* (47) 35571703. *Contact:* Torjus Johnsen, Port Director.

HORTEN (on West Side - Oslo Fjord): 59.25 N. 10.30 E.

DOCUMENTS: Health Certificate, Provisions List, etc., all forms obtainable from Customs Officer boarding on arrival. Ship's Register and 2 copies of Manifest (with or without freight).
PILOTAGE: Compulsory for foreign ships over 50 g.r.t. Pilot station at Hvasser (Sandosund) outer Oslofjord, Tel: Hvasser Pilot Station 33393217, Fax: 33393621, via Tjome Radio, VHF Channel 16 and RT 2182 kHz. Cutter or motor cruiser at Faerder Lighthouse bearing 3 miles N.N.E. White hulls with word LOS in black letters. Pilot usually ordered through Agent. Inner Harbour, Horten, compulsory Harbour Pilot ordered through Agent.
ANCHORAGE: Langgrunn outside Horten, any size vessel.
RESTRICTIONS: No restrictions night entry, but Inner Harbour at Horten only entered with Harbour Pilot on board.
MAX. SIZE: Ships up to max. length 900 ft. (anchored moorings outside jetty). Deep-water Wharf, length of N.E. side 530 ft. Draft 28 ft.
HEALTH: See "Documents". Advise Agent if suspect any disease or fever.
RADIO: Cable Agent giving ETA via Tjoeme Radio. Local Harbour Master's Office can be contacted by VHF Channels 16 and 12.
TUGS: Tugs if required use ship's line. Tugs ordered through Agent.
BERTHING: Max. draft alongside quay 28 ft.
STEVEDORES: Ordered by Agents.
MEDICAL: No special notice required, but preferred if urgent. Local hospital-Horten Sykehus Tel: 33043191.
DENSITY: About 1022.
FRESH WATER: Available at most berths and from lighter.
FUEL: All grades. Direct from Installation and also by lighter. If large quantities, give earliest possible notice.
FIRE PRECAUTIONS: Usual restrictions and no smoking inside Cleaning Installation gate.
CONSULS: Only Finnish Consul in Horten Tel: 33042189, but most Consulates in Tonsberg – 18 km. distant. British Vice-Consul, Tonsberg Tel: 33311605, Netherlands Vice-Consulate Tel: 33313224.
REPAIRS: Any kind can be carried out.
DRY DOCKS: Dry docks for vessels up to about 60,000 d.w.t.. at Horten Shipyard. Tel: 33047700.
GANGWAY/DECK WATCHMEN: Available, not compulsory.
OPENING/CLOSING HATCHES: Usually opened/closed by vessel's crew.
CERTIFICATES: Ship's Register and usual certificates.
CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes or 250 grammes tobacco, 200 cigarette papers for persons over 15 years only. Wine and/or Spirit, Spirit of max. 60% 1 bottle (1 litre) and 1 litre wine (1.25 bottle) – 2 litres of wine if no spirits and 2 litres of beer (for persons over 21 years only).
CARGO GEAR: No additional requirements except when extra heavy lifts (20 tons).
REPATRIATION: Crew changes, etc., can be arranged.
AIRPORT: Nearest international Airport is Oslo Airport (Fornebu) and Torp Airport (Sandefjord). Charter flights may be arranged to and from Sandefjord Airport – any size of plane. Distance to Sandefjord about 30 km.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Thursday before Good Friday; Good Friday; Easter Monday: 1st May; Ascension Day; 17th May; Whit Monday; Christmas Day; 26th December. 24th December is half holiday – work stops at noon or 1300 hrs.
POLICE/AMBULANCE/FIRE: Fire 110, Police 112 and Ambulance 113.
TELEPHONES: Can be placed on board at Deepwater Wharf, the Cleaning Installation and the Dockyard at comparatively cheap rates.
SERVICES: Adjusting of all kinds of ship's instruments.
SHORE LEAVE: Crew members are allowed on shore.
IDENTIFICATION CARDS: Not needed.

REGULATIONS: Compulsory harbour Pilot when calling at Inner Harbour.
GENERAL: Important Electronic Industry.
DEVELOPMENTS: Committee at present working with plans for building more berths for ferries and traffic.
AUTHORITY: Borre Havnevesen, Post Box 167, N-3192 Horten, Norway. *Tel:* 33031717. *FAX:* 33044727. *Contact:* Kjell Fjellin, Harbour Master. Odd Ramsland, Port Captain.

HOYANGER: 61.10 N. 06.04 E.

LOCATION: Hoyanger Aluminium Works located North of Bergen in outer part of Sognefiord. Lat. 61° 10' 18" N., Long. 6° 04' 07" E.
DOCUMENTS: See "Bergen".
PILOTAGE: Compulsory. Belonging to Bergen Customs District and unless otherwise arranged beforehand vessels from abroad must call Bergen for inward clearance.
BERTHING: Length of Quay: 600 ft. (approx.) Depth alongside: 36 ft. Cranes. Ice free.
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
AUTHORITY: Hydro Aluminium, Hoyanger Metallverk, Postboks 114, N-5901 Hoyanger, Norway. *Tel:* 57715287. *Telex:* 42584 hoal n. *FAX:* 57712967. *Contact:* Torfinn Laegreid, Transport Manager.

HUSNES: 59.52 N. 05.46 E. **(See Plan)**

DOCUMENTS:
3 Crew Lists.
2 Passenger Lists.
2 Bills of Lading
2 Manifests.
PILOTAGE: No pilotage in port. Sea Pilots in stations at Skudesnes (59° 05' N., 05° 19' E.), Kvitsoy (or Kopervik) and Utsira.
ANCHORAGE: Lat. 59° 53' N., Long. 05° 45' E. in 20 m.
MAX. SIZE: 70,000 tons.
HEALTH: Customs Authorities in Bergen to be advised on entrance.
RADIO: Best radio stations: Rogaland Radio. ETA to Receiver's cable address: "Soeraluminium, Husnes".
VHF: Vessels may contact harbour on Channel 9.
TUGS: Normally not necessary. If wanted, can be ordered from Bergen or Haugesund.
BERTHING: 240 m. Depth alongside: South 10 m., North 17 m. 2 cranes, on quay, each 8 tons at 20 m. and 1 pneumatic gear for discharging alumina. Capacity 5,000 tons per 24 hours.
STEVEDORES: Normal working time: Monday-Friday 0700 – 1500 hrs.
MEDICAL: Hospital at Stord (about 1 hour by ferry and car). Doctor at factory during daytime (0800 hrs. – 1500 hrs.).
TANKERS: Discharging line 9 in.
FRESH WATER: Available, direct from quay to ship.
FUEL: Not available.
CONSULS: None.
REPAIRS: Only small workshops.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Crew.
OPENING/CLOSING HATCHES: To be carried out by crew.
CARGO GEAR: Per Norwegian safety regulations for loading and discharging.
REPATRIATION: No facilities for obtaining new crew (Haugesund or Bergen).
AIRPORT: Bergen-Flesland. 2 hours – 2.5 hours from Husnes to Bergen by hydrofoil, and 0.5 hours by plane. Haugesund Airport 3 hours by car from Husnes.
POLICE/AMBULANCE/FIRE: Police 002; Ambulance 003; Fire 001.
TELEPHONES: Agent has one telephone in office on quay.
SERVICES: No services at quay. Tank cleaning at Bergen, compass adjusting at Haugesund.
SHORE LEAVE: Permitted. Crew required proceed direct from quay to gate of plant.
IDENTIFICATION CARDS: Crew need cards signed by Master.
GARBAGE DISPOSAL: No facilities.
WASTE OIL DISPOSAL: No facilities.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner.

SHIPMASTER'S REPORT: September 1979 (Type "Panamax").
Tugs: For large ore carriers 2 tugs ordered for arrival, and 1 tug on departure by Sor-Norge Aluminium A/S.
Stevedores: Normal working time for alumina carriers from Monday 0600 hrs. – Saturday 0600 hrs.
Fresh Water: Flat charge of Nkr. 800 for all water taken. Smaller vessels Nkr. 400.
Discharge Rate: The discharge rate for alumina is still in the region of 5,000 tonnes per day despite the reduction in working hours.

AUTHORITY: *Shippers/Receivers:* Sor-Norge Aluminium a/s.

AGENT: Sor-Norge Aluminium A/S P.O.Box 85, 5460-Husnes, Norway. Tel: 47-53-475093. Telex: 42420. FAX: 47-53-475015. Contact: Mr.A. Solbakken, after hours Tel: 53-471193.

KARSTO (Kaarstoe): 59.16 N. 05.30 E. (See Plan)

DOCUMENTS:

Quarantine:
Completed Declaration of Health.
Valid Derating Certificate.
International Vaccination Certificates.

Customs:
Crew's Effects Declaration (RG-223).
Ship's Stores Declaration (RG-104).
General Declaration (RG-110).
Crew List.
Passenger List.

APPROACHES: From Boknfjorden to Falkeidflaeet. The main entrance to Karsto is situated between Flate Rova and Austreflu marked by light beacons. In addition the entrance is marked with green leading lights situated on Ognekalven.

PILOTAGE: Compulsory. The sea pilot, also acting as harbour pilot, will board arriving vessels off Kvitsoey Lighthouse in position 59° 05' N., 05° 19' E. The pilot boat normally operates on VHF Channels 16 and 13 and medium wave radio telephone 2182 kHz.

Once the Pilot is onboard, he should immediately contact "Karsto Harbour Office" on VHF Channel 11, informing them that the vessel is underway to Karsto Harbour. Karsto Harbour Office will promptly advise whether the vessel is to be berthed or be anchored on arrival. The vessel will also be advised of any events at the Terminal, which might prevent or delay the vessel's loading of products.

ANCHORAGES: Vessels awaiting berth will be anchored at Falkeidflaeet or the Hervik Fjord. The place will be considered jointly between the pilot and the Terminal.

RESTRICTIONS: Normally no restrictions on berthing at night time.

Safety Zone: The Terminal is surrounded by a Safety Zone, both landward and seaward (See "Plan"). No vessel, regardless of size, is permitted to move inside the seaward Safety Zone, unless authorised by the Terminal. Safety Zone and specially designated seaward areas with limitations are established and marked with leading marks on Norwegian Chart No. 18.

MAX. SIZE: *LPG/Naphtha Jetty:* Max. length 210 m., max. draft 11.3 m.

HEALTH: Completed Declaration of Health and International Vaccination Certificates required.

RADIO: Rogaland Radio.

Pre-Arrival Information: LPG Carriers/Product Tankers: The Master shall send ETA via ship's Agent at least 72 hours prior to arrival. ETA shall be confirmed 48 hours, 24 hours and 12 hours prior to arrival. The Master shall thereafter advise of any changes in the ETA.

Also see "General" – "Reporting" before first Norwegian port.

Coasting Vessels: The Master shall send ETA via ship's Agent 24 hours in advance, if possible. Master shall thereafter contact Karsto Harbour Office on VHF Channel 11 no later than 30 minutes prior to arrival, for further berthing instructions.

VHF: Channel 11 for communication with the Terminal.

TUGS: Two tugs, each with 3,000 h.p. and bollard pull of 42 tonnes, are stationed at Karsto Harbour.

In general, all ships will be assisted by 2 tugs. The Terminal reserves the right to impose use of additional tugs, in the event of adverse weather conditions, where uncontrolled drift of the vessel may represent a hazard to the quays. Tugs' rendezvous will be at the main entrance to Karsto Harbour, about 1.5 nautical miles off the harbour.

BERTHING: The Terminal berthing facilities consist of two "T" product quays for handling LPG products, natural gasoline and condensate, and one dry cargo quay for handling general cargoes.

Water Depths:
Product Quays No. 1 and 2: 13.5 m.
Coaster Jetty: 7.7 m.
Ro-Ro Jetty: 7.5 m.

Tide: Difference between high and low water is small in the area, maximum 1.0 m., normally 0.6 m.

Current: Currents in the vicinity of the jetties vary in direction according to wind and tides. Measurements indicate average current of 0.4 knots at 5.0 m. depth. Maximum recorded current is 1.7 knots setting S.E. However, mariners are warned that surface flow of current exceeding this value may be expected during strong gales.

Wind:
Prevailing winds March-August: North-Northwesterly.
Prevailing winds September-February: Southeasterly.

Coaster/Ro-Ro Quay: *Arrival/Departure Procedures:* Mariners shall follow the guidelines and regulations laid down in Karsto Harbour Regulations and Information Handbook.

These regulations apply to all ships arriving at and departing from Karsto Harbour area.

Karsto Terminal enforces a Traffic Control Plan which requires clearance for all ships arriving and departing Karsto Harbour area. No vessel, regardless of size, is permitted to enter or leave the restricted area, unless authorised by Karsto Terminal.

Pre-Arrival Information: If possible, coasters shall send ETA 24 hours in advance, and they shall contact Karsto Harbour Office for berthing instructions on VHF Channel 11, no later than 30 minutes prior to arrival.

Vessel Alongside: It is of utmost importance for safe operations that the vessel is securely moored and maintained in the desired position at all times.

Loading/discharging shall take place only when weather conditions are considered safe.

Departure: Vessels ready for departure shall contact Karsto Harbour Office on VHF Channel 11 for clearance outward.

Also see "Tankers".

MEDICAL: No advance notice except in case of serious illness to be included in arrival cable. Hospital facilities available.

TANKERS: Product Quay No. 1:

Vessel Size: Minimum 2,500 cu.m. and LOA 80 m. Maximum LOA 210 m. Maximum draft 11.3 m.

Note: Vessels exceeding above stated maximum LOA must obtain special berthing permission from the Terminal, in advance.

Manifold Elevations: The minimum (loaded condition) and maximum (ballast condition) manifold elevations above waterline are:

Product	*Minimum*	*Maximum*
Propane/N-Butane	4.0 m.	19.8 m.
Iso-Butane	2.0 m.	19.8 m.
Naphtha	2.0 m.	12.3 m.
Condensate	2.0 m.	12.3 m.

Minimum Normal Loading Rate: In order to prevent excessive loading time, the following minimum loading rates are utilised at the Terminal:

LPG Vessels:

Vessel Size (cu.m.)	*Propane/N-Butane*	*Iso-Butane*
2,500 – 5,000	300 cu.m./hr.	300 cu.m./hr.
5,000 – 10,000	600 cu.m./hr.	600 cu.m./hr.
10,000 – 20,000	850 cu.m./hr.	850 cu.m./hr.
20,000 – 40,000	1,400 cu.m./hr.	1,400 cu.m./hr.
40,000 – 60,000	1,800 cu.m./hr.	1,500 cu.m./hr.

Oil Tankers:

Vessel Size (d.w.t.)	*Nat. Gasoline*	*Condensate*
5,000 – 10,000	450 tonnes/hr.	450 tonnes/hr.
10,000 – 20,000	700 tonnes/hr.	700 tonnes/hr.
20,000 – 40,000	1,300 tonnes/hr.	1,300 tonnes/hr.

Loading Arm Flange Sizes, Pressure Ratings: The Terminal's Product Quay No. 1 is equipped with following arms:

Arm Designation	*Product*	*Flange*	*Operating Pressure*
47 MU 102	N.Gasoline/Conden.	10 in. ANSI 150	1 – 8.6 bar
47 MU 103	Propane liquid	12 in. ANSI 150	1 – 8.0 bar
46 MV 103	Propane vapour	10 in. ANSI 150	0.7 bar (approx.)
47 MU 104	N-Butane liquid	10 in. ANSI 150	1 – 8.0 bar
46 MV 104	N-Butane vapour	8 in. ANSI 150	0.7 bar (approx.)
47 MU 105	I-Butane liquid	8 in. ANSI 150	1 – 8.0 bar
47 MV 105	I-Butane vapour	8 in. ANSI 150	0.7 bar (approx.)

Custody Metering by Dynamic Measurement: Custody transfer of all products loaded will be on the basis of onshore measurement and sampling. Each NGL product will be measured by its separate turbine flow meter station. The meter stations are calibrated using stationary meter provers. Primary means of measurement for products loaded aboard vessel is by the shore metering system.

The metering equipment is designed in accordance with the requirements and guidelines from the Norwegian Petroleum Directorate.

Product Loading: All NGL products are stored at near atmospheric pressure. Propane, iso-butane and normal butane are stored in fully refrigerated conditions. Loading of two products simultaneously is possible. At the Product Quay No. 1, there are separate vapour arms for propane, iso-butane and normal butane products. At the the Product Quay No. 2, vapour return arm is installed for propane only.

Such loading arms system can possibly cause delays for vessels which are not in a fully refrigerated condition on arrival. Therefore, the shippers shall endeavour to ensure that vessels arrive in fully refrigerated condition.

	Propane	*I-Butane*	*N-Butane*	*Natural Gasoline*	*Condensate*
Max. loading rate (cu.m./hr.)	3,500	1,500	2,500	2,000	2,400
Min. loading rate (cu.m./hr.)	100	100	100	100	300
Gasoline return capacity (cu.m./hr.)	11,500	4,200	6,300	N/A	N/A

The content of impurities in vapours that are to be returned from ship's tank to the shore tanks must not exceed the current measured concentration of impurities present in the vapour phase of the shore product tanks for the product concerned. Vapours not fulfilling this requirement are to be routed to flare.

Loading Arrangement: Minimum distance between liquid and vapour manifolds hooked up onboard vessel must be 1.50 m.

Product Quay No. 2: *Vessel Size:* See Product Quay No. 1.

Manifold Elevations: The minimum (loaded condition) and maximum (ballast condition) manifold elevations above waterline are:

Product	*Minimum*	*Maximum*
Propane	4.2 m.	19.8 m.
Butane	4.2 m.	19.8 m.
Naphtha	4.2 m.	19.8 m.
Condensate	4.2 m.	19.8 m.

Minimum Normal Loading Rate: In order to prevent excessive loading time, the following minimum loading rates are utilised at the Terminal:

LPG Vessels:

Vessel Size (cu.m.)	*Propane/N-Butane*	*Iso-Butane*
2,500 – 5,000	300 cu.m./hr.	300 cu.m./hr.
5,000 – 10,000	600 cu.m./hr.	600 cu.m./hr.
10,000 – 20,000	850 cu.m./hr.	850 cu.m./hr.
20,000 – 40,000	1,400 cu.m./hr.	1,400 cu.m./hr.
40,000 – 60,000	1,800 cu.m./hr.	1,500 cu.m./hr.

Oil Tankers:

Vessel Size (d.w.t.)	*Nat. Gasoline*	*Condensate*
5,000 – 10,000	450 tonnes/hr.	450 tonnes/hr.
10,000 – 20,000	700 tonnes/hr.	700 tonnes/hr.
20,000 – 40,000	1,300 tonnes/hr.	1,300 tonnes/hr.
40,000 – 60,000	1,300 tonnes/hr.	1,300 tonnes/hr.

Loading Arm Flange Sizes, Pressure Ratings: The Terminal's Product Quay No. 2 is equipped with following arms:

Product	Flange	Operating Pressure
Conden./Nat.Gasoline	12 in. ANSI 150	1 – 9.0 bar
Conden./Nat.Gasoline	12 in. ANSI 150	1 – 9.0 bar
Propane liquid	12 in. ANSI 300	1 – 8.0 bar
Propane vapour	12 in. ANSI 300	0.7 bar (approx.)
Butane liquid	12 in. ANSI 300	1 – 8.0 bar

Custody Metering by Dynamic Measurement: See Product Quay No. 1.

Product Loading: All NGL products are stored at the Terminal at near atmospheric pressure. Propane, iso-butane and normal butane are stored in fully refrigerated conditions. At the Product Quay No. 2, loading of two products simultaneously is possible. However, attention should be paid to vessels which are not in a fully refrigerated condition on arrival.

Butane vessels arriving with warm tanks will be alloted berthing at Product Quay No. 1 as Quay No. 2 is not equipped with sufficient vapour return arms.

	Propane	*I-Butane*	*N-Butane*	*Natural Gasoline*	*Condensate*
Max. loading rate (cu.m./hr.)	3,500	1,500	2,500	2,000	6,000
Min. loading rate (cu.m./hr.)	100	100	100	100	300
Vapour return capacity (cu.m./hr.)	11,500			N/A	N/A

Loading Arrangement: Minimum distance between liquid and vapour manifolds hooked up onboard vessel must be 1.50 m.

DENSITY: 1025.

FRESH WATER: Available.

FUEL: Bunkers are not obtainable at the Terminal. Marine lubricants can be obtained through supplier. Possible to supply bunkers in the area.

CONSULS: Denmark, Finland, Germany, Iceland, Sweden and United Kingdom.

REPAIRS: Hot work is forbidden. Any repair or maintenance work which may immobilise the vessel is prohibited unless approved by Terminal Manager.

DRY DOCKS: Available at Haugesund. Max. docking capacity 150,000 d.w.t. Max. LOA 283 m. Beam 45.3 m.

SURVEYORS: Lloyd's Agents: Bergesen d.y. A/S, N-4001 Stavanger.

(1) Cargo Inspectors: T.G.Soundings, Caleb Brett, SGS.
(2) Norske Veritas, Lloyd's Register.

WATCHMEN: Ship's crew.

CUSTOMS ALLOWANCES: Tobacco and cigarette paper may be freely supplied for consumption on board for up to 10 days as follows:

Master of vessel: 400 cigarettes or 400 grammes of other tobacco goods and 200 cigarette papers.

Other crew members: 200 cigarettes or 250 grammes of other tobacco goods and 200 cigarette papers.

Spirits – of which the volume percentages of alcohol must not exceed 60% – and wine may be freely supplied for consumption on board as follows:

Master of vessel: 2 litre altogether.

Other crew members: 1 litre of spirits and 1 litre of wine.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: Helganes Airport, Haugesund is located 45 km. from Karsto with several domestic flights daily.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

EMERGENCY CO-ORDINATION CENTRE: Terminal: Local emergency number 100.

SERVICES: Compass adjusting, radar repairs, R/T repairs, gyro compass repairs, all types electronic equipment repairs. Divers available for surveys and underwater repairs.

SHIP SUPPLY SERVICE: Several ship chandlers in the area.

SHORE LEAVE: Ship's crew and visitors will only be allowed to pass through the Terminal area from the jetty to the main gate when escorted by Terminal personnel.

CREW IDENTIFICATION CARDS: Not required.

HARBOUR REGULATIONS: The following are part of the regulations.

Traffic Regulations: No vessel, regardless of size, is permitted to enter the Karsto Harbour area, unless authorised by the Terminal. During arrival/departure, manoeuvring of product vessels is always of first priority. No vessel movements are permitted inside the seaward Safety Zone, until said vessel is either safely moored alongside the quay, or is unmoored and has left the Safety Zone outward-bound.

Mooring Arrangement: Vessel will normally berth starboard side to Product Quay No. 1 and port side to Product Quay No. 2.

Note: Arrangements must be made through the Harbour Office on each occasion in case of deviation from above stated mooring plan.

Both Product Quays have identical dimensions.

The Product Quays are equipped with quick release mooring hooks, which can be operated either from the Harbour Office or locally from the harbour area. Mooring arrangements on both Product Quays are identical, and consist of 16×100 tons (nominal) mooring hooks arranged in 10 bollard positions.

Mooring: It is of utmost importance for safe operations that ships are securely moored and maintained in the desired position at all times. The Master shall ensure that all the vessel's moorings are closely monitored and tended regularly to prevent undue movement of the vessel, and that all moorings on self-tensioning winches are secured with winch brakes in locked position. Use of self-tensioning winches in automatic position is strictly forbidden.

All mooring wires shall have rope-tail ends. All vessels, while secured alongside the Product Quay must provide and rig towing wires with sufficient length and strength on seaward bow and quarter, with eyes maintained just above the water level ready for emergency towing. The wires must be securely fastened to the ship's bollards.

Gangway Facilities: Following guidelines are accepted by the Terminal as suitable for vessel's use of the Products Quays fixed installed gangway arrangement:

Vessel size above 5,000 cu.m.: Gangway facilities available on request.

Vessel size less than 5,000 cu.m.: Gangway facilities not available.

Use of the Terminal's fixed installed gangway facilities will be considered in each individual case by the Terminal.

Condition of Pre-Acceptance: Vessel must have been properly cleared and accepted by Statoil in accordance with the appropriate nomination procedures.

Pre-Operational Procedures: Before operations commence, a pre-operations meeting shall take place between the representative from the Terminal and the Master or the officer-in-charge of the cargo operations. They will jointly:

Complete and sign the Ship/Shore Safety Check List.

Evaluate any deficiencies revealed by the Check List and decide whether additional precautions are required. The Terminal reserves the right to refuse to load a vessel if the requirements are not met.

Check vessel's loading/discharging records of the 3 previous cargoes and any tank purging/washing operations that have taken place during voyage.

Evaluate and agree upon which ship samples are required. The Terminal reserves the right to draw any tank samples considered necessary prior to, during and after loading. Loading will not commence if oxygen content in tanks exceed 2% by volume (LPG ships only).

Evaluate and agree upon a loading/discharging programme, including:

(a) Quantities and grades to be loaded/discharged including deballasting.
(b) Loading/discharging rate.
(c) Products temperature/pressure on shore and on board.
(d) Emergency procedures for shut-down of operations.
(e) Discuss and agree upon the means of communication to be used during operations.
(f) Connecting/disconnecting procedures.
(g) Purging requirement.
(h) Use of vapour return/flare system.
(i) Emergency procedures.

Third Party Independent Surveyor: The Terminal reserves the right to employ a third party independent surveyor for the sampling and measuring of cargo.

Cargo Handling Requirement: All operations shall generally be conducted in accordance with International Chamber of Shipping Tanker Safety Guide for Liquified Petroleum Gases and the International Maritime Dangerous Goods Code.

Chemist's Certificate: The Terminal reserves the right to have an independent surveyor to check the condition of the vessel's tanks or the quality of the contents of the tanks.

Emergency Shut-Down System: In order to protect loading arms and pipelines from dangerous stresses/surge pressure, the Terminal's shut-down system should be used, when necessary. The vessel's emergency shut-down system should not be activated except in extreme emergencies.

Operational Procedures: Loading/discharging will not commence until all the safety checks have been carried out and approved by the Terminal.

Before any operation is carried out, the ship is to be earthed. Vessels equipped with an electrical cathodic protection system must switch off the system one hour before the earthing cable is connected.

Connection of loading arms is undertaken by the operating personnel. Representative from the operating personnel and the responsible officer of the vessel are to agree that systems are correctly lined up before operations start. The quay loading arms will be pressure tested by nitrogen with minimum 8 bar and vapour return arms with minimum 2 bar.

Vapour return arms will be connected before operations commence to enable vessel to return vapour to flare. Charging of vapour return to flare will be at the ship's expense. Vapour return to storage tanks will only be permitted subject to quality of vapour being acceptable to the Terminal's standard.

Vapour return arms must always be used when loading Propane or when loading Butane (if vessel's tanks are "warm" or inerted). These vessels will be alloted berthing at Product Quay No. 1, which has a vapour return system for all LPG products.

Operating personnel will remain in quay area at all times during loading or discharging.

Responsible crew member with a good command of Scandinavian or English language must remain on deck at all times during loading and discharging.

The ship must give at least 10 minutes notice if it is necessary to stop or start pumping, unless in an emergency.

Operating personnel will clear the loading arms before disconnecting.

The cargo loaded will primarily be calculated according to the shore metering system.

An independent surveyor or representative from the Terminal will witness the ship's dip/ullage, and obtain from the Master the quantity loaded according to the ship's figures.

Rules to be Observed During Operations: During operations, adequate crew must remain onboard under continuous supervision of a responsible and experienced officer, in order to deal with routine operations and any emergency situation which may arise.

In addition, during operations, vessel should comply with the following rules:

A vessel shall by day fly Flag "B" of the International Signal Code, and by night exhibit a red light visible all round the horizon, situated above upper level of the superstructure.

All doors, portholes and openings leading from the main deck to accommodation or machinery spaces shall be kept closed. This applies to portholes and openings at any deck level above the main deck which overlooks the main deck.

All ventilators through which gas can enter shall be suitably trimmed, and mechanical ventilation and air conditioning units shall be stopped if a possibility exists of gas being drawn into the accommodation.

The venting of the vessel's tanks shall take place only through the vessel's fixed venting system (pressure/vacuum system) (Naphtha/Condensate tankers only).

Sighting and ullage ports must be kept closed when not in use. These may however be opened momentarily for taking samples or ullage/temperature in the event of failure of remote tank gauging equipment (Naphtha/Condensate tankers only).

If for any reason there is an unusual evolution of gas, loading shall be stopped or the loading rate into a particular tank or tanks reduced at the discretion of either the operating personnel or the responsible ship's officer (Naphtha/Condensate tankers only).

Overboard suction and discharge valves connected to the cargo or bilge system shall be sealed on arrival at the Product Quay by the operating personnel.

Except in an emergency, seals may be removed only with the approval of the operating personnel and in their presence.

The responsible officer-in-charge shall notify the operating personnel to commence the discharge of segregated ballast and again when this operation has been completed.

All vessels at the quay must be maintained in a state of readiness for vacating a berth at short notice, except in cases of approved repair work.

Ship's radio station transmission equipment, except low energy transmitters such as used for satellite and VHF communication, shall not be used at the quay and aerials shall be earthed.

The safety of loading operations requires that the operating personnel shall take into consideration whether loading of Naphtha/Condensate should be stopped under conditions of thunder or other unfavourable weather.

All cargo tank lids shall be kept closed and secured, and all cargo and bunker hose connections shall be blanked and fully bolted when not in use.

Wind Limitations: Master and Terminal should pay attention to the following wind limitations as given below as a guideline only. The given wind criteria do not limit the responsibility of the Master or the Terminal for safe and effective conduct during arrival, loading and departure operations. Assessment of smaller vessels from 2,500 cu.m. and over, which can be affected by environmental factors such as onshore wind, must be taken into consideration, to prevent undue movement while such vessels are at the quay.

Vessels up to 15,000 cu.m. are not allowed to go alongside the quay when the wind force exceeds 18 m./sec., or when the wave height exceed 1.0 m.

Vessels from 15,000 cu.m. to 28,000 cu.m. are not allowed to go alongside the quay when the wind force exceeds 16 m./sec., or when the wave height exceeds 1.0 m.

Vessels from 28,000 cu.m. to 54,000 cu.m. are not allowed to go alongside the quay when the wind force exceeds 14 m./sec., or when the wave height exceeds 1.5 m.

Vessels over 54,000 cu.m. will only be permitted to go alongside the quay in daylight with maximum wind force 10 m./sec. See "Tugs" regarding possibility to call for a third tug. Departure by night shall take place only when the weather conditions are considered to be safe.

Loading operations are to be stopped for all vessels when the wind force exceeds 22 m./sec. and wave height exceeds 1.5 m. The loading arms will be disconnected if weather conditions increase more than the above stated values. If necessary, the vessel will be prepared for departure or be secured alongside the quay with extra mooring ropes.

Inspection: The Terminal representative shall, at any time, have permission to board the vessel to ensure that Harbour Regulations are being complied with, and that cargo equipment is in good working order.

A special inspection will take place on LPG ships, prior to their first arrival at Karsto, in order to "pre-qualify" the ship.

This inspection must be repeated within 2 years after the first arrival. Further information can be obtained from the Terminal or the Agent.

Fully Pressurised Vessels: All requirements and implementation of measures concerning fully pressurised vessels will be considered in each individual case by the Harbour Office, based on information provided by the owner of the vessel.

Product Oil Tankers Equipped with Fixed Inert Gas System (IGS): Product oil tankers destined to load Naphtha or Condensate at the gas terminal at Karsto shall be aware that said tankers on the arrival at the Terminal with oxygen contents exceeding 8% in the cargo tanks will not be granted permission to load. This regulation applies to vessels subject to IMO's regulations concerning oil tankers equipped with fixed inert gas system (IGS) onboard.

Prior to commencement of loading, spot checks will be taken from the cargo tanks to confirm that the oxygen content does not exceed 8%.

In the event that the vessel does not comply with the above stated regulations, she will be required to vacate the Terminal and return to sea until an assurance can be given that the required level has been achieved. Prior to re-entering the Terminal, Notice of Readiness will have to be re-tendered. All relevant expenses due to vessel not being ready to load shall be for the account of the vessel.

Purging and Venting: Purging and venting from vessel's tanks/system into the atmosphere is not permitted at the quay. Oxygen content above 2% by volume will not be permitted to flare.

CO_2 inert gas is not permitted through the Terminal's flare system. If the LPG vessel is inerted on arrival with inert gas other than nitrogen, the ship has to load Coolant and do the purging in the open sea or at the anchorage.

Portable Instruments: The Terminal reserves the right to require intrinsically safe portable instruments to be placed on board during loading and discharging.

SAFETY REGULATIONS: The following are part of the regulations.

Repairs and Maintenance: Repair work involving either hot work or cold work or the use of naked flames is prohibited, unless the permission of the Terminal has been requested and granted in writing.

Repair work includes, but is not restricted to boiler tube cleaning, chipping and scraping, hull painting, testing or servicing of electrical equipment.

If permission is granted to undertake repairs, a list of specified repairs and a list of shore workmen to be employed on the vessel must be forwarded to the Terminal before work commences.

Repairs and other work, which might immobilise the vessel, should not be commenced without written prior approval from the Terminal.

Tank Cleaning/Gas-Freeing/Purging: Tank cleaning, cool down and gas-freeing will not be permitted while ships are alongside the Product Quays.

LPG vessels, arriving at the gas terminal at Karsto with only air contents in the cargo compartments, will not be granted permission to load.

However, an inerted vessel will be instructed to load sufficient coolant according to additional separate documents issued beforehand in accordance with the shipper's instructions.

According to above stated condition, vessels will then be required to vacate the Product Quay without delay to perform cool down operation in open sea.

Note: Under special circumstances, the Terminal may grant dispensation concerning cool down operation, provided that such an operation alongside the quay or at the anchorage does not cause any berthing delay for other vessels arriving at the gas terminal on schedule.

Intoxicated Persons: Persons apparently intoxicated will not be allowed into the Terminal area unless special permission is granted by the Terminal.

Movement of Craft/Tugs: During operations, no vessel, regardless of size, shall be allowed to come either alongside the quay, or closer than 150 m. to a vessel alongside the Product Quays, unless so authorised by the Terminal.

The vessel's funnel(s) shall be equipped with effective spark arrester. When tugs are alongside assisting a vessel, all cargo system openings must be closed and loading stopped.

POLLUTION: *Pollution:* Utmost care must be exercised when handling cargo, ballast and bunkers in order to avoid spills into the sea. Any pumping from bilges is prohibited.

Emission of smoke, including soot blowing is prohibited. Throwing any kind of waste/rubbish overboard is prohibited.

If, inspite of precautions, an oil spill should occur, this must be immediately reported to the Terminal, and measures to recover or limit the spill must be taken. Use of spill dispergents is forbidden unless authorised by Norwegian authorities. Assistance will be rendered from the Terminal with available equipment and manpower.

The Terminal will also report to the proper Norwegian authorities and request further assistance, if needed.

Violation of the Norwegian Pollution Regulations may result in heavy fines, both for responsible officers and ship.

In addition, the cost of the recovery/cleaning operation will be charged to the ship's account.

Ballast Water/Slops: Only clean ballast water contained in segregated ballast tanks will be permitted to be discharged into the sea at the Terminal harbour area.

Slops and contaminated ballast water, defined as such according to Norwegian Law, will not be permitted to be pumped overboard, but will have to be pumped ashore, to the Terminal's receiving tanks. All received slops will be on the vessel's account.

A request for discharging contaminated water ballast should, if possible, be sent together with the 72 hours ETA.

Tank Temperature: Notice of Readiness (NOR) will be accepted with "warm" tanks when the minimum normal loading rate is achieved.

Waste: No waste of any sort, either liquid or solid, shall be discharged overboard from a vessel, but shall be retained in suitable receptacles on board.

Arrangements for disposal of such garbage can be made before arrival, through the Agent. Disposal of oil, noxious liquid substances, marine pollutants in package form and some non-polluting liquids as defined or listed in annexes of the IMO Convention, is prohibited in this waste reception facility.

Rubbish, declared as food waste, but not for wood products, large tins and drums, must be disposed of in sealed plastic bags. Food waste bags must then be placed by the ship's crew in the waste container located on the quay.

Note: It is strictly forbidden to leave the harbour with remaining food waste bags on board.

GENERAL: *Transport to/from Gate/Ship:* No personnel, crew or visitors are allowed to proceed unaccompanied between gate and ship. Transport is arranged by the operating personnel or the gate security guard upon request.

The transport is free of charge.

Visitors are not allowed onboard vessels without permission from the Terminal and the Master of the vessel.

Passes: A pass system is in force, and boarding passes for ship's personnel will be supplied to the Master by the Agent or the Terminal.

Crew List: The Master shall provide the Terminal with list of crew members and a list of expected visitors.

Stores Handling: Stores must preferably be handled before or after cargo operations. Only small hand-carried items of ship's stores may be taken onboard during cargo operations. Drums, steel plates and any other heavy metal parts, capable of causing a spark, shall always be handled before or after cargo/ballasting operations.

Customs: Customs clearance is performed by the ship's Agent.

Launch Services: Request for launch service, if any, should be applied for via the ship's Agent.

TELEPHONE NUMBERS: The harbour will be continuously manned by operating personnel when vessels are moored at the quay. Communication between vessel and Terminal during loading should be maintained on UHF by calling "Karsto Control".

All vessels at anchorage or underway to or from the Terminal should contact "Karsto Harbour Office" within office hours (0800 hrs. to 1600 hrs.) on VHF Channel 11.

Outside normal office hours, vessels should call "Karsto Control" on same VHF channel.

Important telephone numbers and radio channels:

Fire Station	2500	
Main Control Room	2777	
Shift Superintendent	2777	
Harbour Coordinator	2682/2680	
Product Quay No. 1	2720/2721	UHF Channel 1
Product Quay No. 2	6505/6606	UHF Channel 1
Ballast Receiving Station	2728	
Laboratory	2512	
Operations Manager	2324	
Main Gate	2279	
Harbour Gate	2690	

AUTHORITY: Kystverket 2. Distriks, Strandgaten 171, Haugesund, Norway. *Tel:* 04-712555.

Operator: Statoil, P.O.Box 308, N-5501 Haugesund, Norway. *Tel:* 52-712555 (Karsto). *Telex:* 40807 Staka N. *FAX:* 52-721681 (Karsto).

Contact: Svein Brandt Andersen, Operating Manager.

KIRKENES (Bokfjord): 69.43 N. 30.03 E.

DOCUMENTS:

3 Crew Lists.
Bill of Health.
Bill of Lading.
Ship's Certificates.

PILOTAGE: If vessel is due to call at Kirkenes Harbour at any time, Pilot *must* be ordered through the Pilot's Head Office in Loddingen. Pilot must be ordered at least 1 week prior to arrival.

Pilot boards vessel at Oksebaasen, and to be contacted over Channel 16 VHF. Pilot vessel carries white flag "H".

Pilot Station Lodingen, P.O.Box 183, 8551 Lodingen, Norway. Tel: 769-31104, 800-31082. Fax: 769-31289.

Pilots at Kirkenes: Mr.Eilert Moe, Tel: 789-92686 (Private). Reidulf Pettersen, Tel: 789-92244 (Private). Pilot Boat, Tel: 948-99383 (On board), and VHF Channel 16.

Note: If you are due to call at Kirkenes harbour at any time and you intend to approach the harbour without a Pilot, you must notify the Fire Brigade in Kirkenes or Harbour Master, at least 24 hours in advance by calling:

Fire Brigade Tel: 789-77530.
Harbour Master Tel: 789-77400 (Switchboard).
Tel: 789-77498 (Office direct).

As from July 1996, the Fire Brigade is equipped with VHF Channels 16/13. They have 24 hours services 7 days a week.

Harbour Office working hours: 0700 hrs. – 1530 hrs. Monday through Friday.

This concerns all vessels and nationality: If you have an agency in Kirkenes, the Agent will take care of all the formalities.

Foreign ships *must* have a Pilot, and Pilot must be ordered through Lodingen Pilot Station.

If you need dock space outside the docks, which belong to the Municipality, you must contact the private owner of each dock direct.

ANCHORAGE: As directed by Pilot.

MAX. SIZE: Oil carriers 20,000 d.w.t., draft 33 ft. Iron ore carriers 120,000 d.w.t., max. sailing draft 51 ft. under optimal conditions.

Max. draft at Import Quay is 27 ft. at L.W.

HEALTH: If any contagious sickness quarantine to be informed by radio.

RADIO: Vardo Radio. Tel: 789-87228. Fax: 789-88331.

TUGS: One tug "Kraft Johansen" with 2,500 h.p. and 25 tons bollard pull. One tug "Hans Oscar" with 4,000 h.p. and 42 tons bollard pull. Tugs join vessel within harbour basin. Ship's lines to be used during towage.

BERTHING: In the harbour of Kirkenes, following quays are available:

No. 1: Jakobsnes Quay belongs to the Municipality of South Varanger.
No. 2: Prestoya Quay belongs to the Municipality of South Varanger.
No. 3: Kirkenes Trelast A/S belongs to a private owner.
No. 4: Gudvar Bye's belongs to a private owner.
No. 5: Kaerner Kimek A/S belongs to the shipyard and is also privately owned.
No. 6: A/S Sydvaranger belongs to a private owner.

No. 1 Jakobsnes Quay: This quay belongs to Sor-Varanger community and is made of steel reinforced concrete. In connection with the quay there is an industrial area with a storage capacity of 15 ha.

Any vessel which is going to call at this quay will have to advise its arrival 24 hours in advance to the Harbour Master between 0730 hrs. and 1530 hrs., Monday to Friday on Tel: 789-77400. Outside these hours, please contact the Fire Brigade on Tel: 789-77530, or VHF Channels 16/13 or Fax: 789-98693, or your local Agent.

Technical Data:

Length of quay	40 m.
Breadth	12 m.
Water depth at quay front on L.W.	6.5 m.
Height of the quay from above L.W.	5.0 m.
Useful load evenly distributed	4 tons/sq.m.
Point load	70 tons/sq.m.
Axial load	100 tons/sq.m.
Horizontal load	25 tons/sq.m. of quay front
Bollards (6 pieces)	50 tons

If water supply is needed, notify the Fire Brigade or local Agent. Fuel truck (light fuel) is available from Esso, Shell or Statoil. Notify your Agent 24 hours in advance.

Disposal of garbage: Notify Agent by telephone in advance.

No. 2 Prestoya Quay: This quay belongs to the Sor-Varanger community and is constructed of steel reinforced concrete.

Any vessel which is going to call at this quay will have to advise its arrival 24 hours in advance to the Harbour Master between 0730 hrs. and 1530 hrs., Monday to Friday on Tel: 789-77400.

Outside these hours, please contact the Fire Brigade at Tel: 789-77530, or VHF Channels 16/13, or Fax: 789-98693, or your local Agent.

Technical Data:

Length of quay	104 m.
Breadth	11 m.
Water depth at quay front on L.W.	6.5 m.
Height of the quay from above L.W.	5.0 m.
Useful load evenly distributed	4 tons/sq.m.
Point load	70 tons/sq.m.
Axial load	100 tons/sq.m.
Horizontal load	25 tons/sq.m. of quay front
Bollards	50 tons

If water supply is needed, notify the Fire Brigade or your local Agent. Fuel truck (light fuel) is available from Esso, Shell or Statoil. Notify your Agent 24 hours in advance.

Disposal of garbage: Notify Agent by telephone in advance.

No. 3 Kirkenes Trelast Quay: (Private Owner). This quay is constructed of timber with concrete cover. Any vessel which is going to call at this quay will have to announce its arrival to Harbour Master, and Kirkenes Trelast, attn. Mr. Hans M. Mollersen, between 0730 hrs. and 1530 hrs. daily, on Tel: 789-91731, or private 789-98358. After hours, please call Tel: 948-96809 (mobile).

On Saturday and Sunday, including holidays, please notify the Fire Brigade by Tel: 789-77530, or VHF Channels 16/13, or Fax: 789-98693. 24 hours services.

Technical Data:

Length of quay	10 m.
Breadth	15 m.
Water depth at quay front on L.W.	4.2 m.
Height of the quay from above L.W.	4.0 m.
Useful load evenly distributed	1.5 tons/sq.m.
Point load (0.4 m. × 0.4 m.)	7 tons/sq.m.
Axial load	7 tons/sq.m.
Bollards, 2 pieces	Normal

Water supply is available, notify Owner. After hours, notify Fire Brigade. Fuel truck (light fuel) is available from Esso, Shell or Statoil. Notify Agent 24 hours in advance.

Disposal of garbage: Notify Agent at least 24 hours in advance.

No. 4 Gudvar Bye's Quay: Private Owner. This quay is constructed of timber. In connection with the quay, there is a 2 storey building with a store and head office. They also have storehouse for general cargo. Any vessel which is going to call at this quay will have to advise its arrival to the Harbour Master Monday to Friday between 0730 hrs. and 1530 hrs.

On Saturday and Sunday, including holidays, please notify the Fire Brigade by calling Tel: 789-77530, or VHF Channels 16/13, or Fax: 789-98693.

24 hours services.

Also notify owner of the quay, Mr. Steinar Iversen. Tel: 789-93769 (work), 789-91877 (private), 948-05970 (mobile). Fax: 789-83157.

Technical Data:

Length of quay	50 m.
Breadth	10 m.
Water depth at quay front on L.W.	3.8 m.
Height of the quay from above L.W.	4.5 m.
Useful load evenly distributed	1.5 tons/sq.m.
Point load	1.5 tons/sq.m.
Axial load	1.5 tons/sq.m.
Bollards, 4 pieces	Normal

Water supply is available, notify Owner or Fire Brigade in advance. Fuel truck (light fuel) is available from Esso, Shell or Statoil. Notify Agent or oil company 24 hours in advance.

Disposal of garbage: Notify Agent at least 24 hours in advance.

No. 5 Kvaerner Kimek A/S Shipyard: The following information for Quay No. 5B-C and D concerns the private owned quays and also one quay which belongs to the Municipality of South Varanger.

There are 3 quays located on the area which belong to the Kvaerner Kimek A/S Shipyard.

Two of the quays are privately owned and one belongs to the Municipality of South Varanger.

The back area also consists of an open storage space on which general cargo can be stored.

Any vessel which is going to call at these quays will have to advise its arrival to the Harbour Master, Monday to Friday between 0730 hrs. and 1530 hrs. On Saturday and Sunday, including holidays, please notify the Fire Brigade on Tel: 789-77530, or VHF Channels 16/13. Fax: 789-98693.

24 hours services.

Also notify owner of the quays and the shipyard.

If fresh water is needed, please notify owner or local Agent. Also contact the Fire Brigade, if necessary.

Light fuel available upon request either by pipeline or by truck from Shell Norway A/S.

Light fuel can also be delivered by truck from Statoil Norway A/S or Esso.

Notify oil company direct or your local Agent at least 24 hours in advance.

Disposal of garbage is available upon request. Please notify your Agent direct at least 24 hours before arrival.

No. 5B Kvaerner Kimek A/S Quays:
Technical Data: The timber quay:

Length of quay	110 m.
Breadth	16.5 m. and 30 m.
Water depth at quay front on L.W.	4.9 m.
Height of the quay from above L.W.	5.0 m.
Useful load evenly distributed	1 tons/sq.m.
Point load	1.5 tons/sq.m.
Axial load	Unknown
Bollards, 8 pieces	Normal

No. 5C Kvaerner Kimek A/S Quays:
Technical Data: The concrete quay:

Length of quay	60 m.
Breadth	16.5 m.
Water depth at quay front on L.W.	4.7 m.
Height of the quay from above L.W.	5.0 m.
Useful load evenly distributed	5 tons/sq.m.
Point load	5 tons/sq.m.
Axial load	5 tons/sq.m.
Bollards, 3 pieces	Normal

No. 5D Kvaerner Kimek A/S Quay:

This quay belongs to the Municipality of South Varanger, and permission to use this quay must be granted either from the shipyard or from the Harbour Master.

Please contact Agent for further information.

The quay is made of steel reinforced concrete.

The quay also has a crane with a lifting capacity of approximately 50 tons.

Length of quay	119 m.
Breadth	20.0 m.
Water depth at quay front on L.W.	8.7 m.
Height of the quay from above L.W.	4.3 m.
Useful load evenly distributed	4 tons/sq.m.
Point load	70 tons/sq.m.
Axial load	50 tons/sq.m.
Bollards, 6 pieces	50/100 tons

The quay is also equipped with electrical power. Please contact shipyard for information.

No. 6 A/S Sydvaranger: Private Owner.

The following information concerns Quays No. 6A-B and C.

There are 3 quays located on the area which belong to A/S Sydvaranger.

One quay is the export dock, one is the import dock and the other is the tug/stand-by dock.

The import quay is also used by the Shell Oil Company. They deliver light fuel as bunkers and other oil products to ships with deepest draft of 9.0 m.

Other oil companies, such as Statoil and Esso, also deliver light fuel by truck to all 3 quays located in this area.

The import quay also has an open storage space on which general cargo can be stored.

Any vessel which is going to call at these quays will have to advise its arrival direct to the owner or to the local Agent, but also notify the Harbour Master.

A/S Sydvaranger office hours between 0700 hrs. to 1500 hrs., Monday to Friday.

Harbour Master's office hours are 0730 hrs. to 1530 hrs. On Saturday and Sunday, including holidays, please notify owner or local Agent.

If you are unable to make contact, please call the Fire Brigade on Tel: 789-77530, or VHF Channels 16/13, or Fax: 789-98693.

24 hours services.

If fresh water is needed, please notify owner or local Agent. Also contact the Fire Brigade.

Light fuel is available direct by pipeline from import dock, but can also be delivered by truck from Shell Norway A/S, Statoil Norway A/S and Esso.

Notify oil companies direct or local Agent at least 24 hours in advance.

Disposal of garbage is available upon request. Notify the owner or local Agent.

No. 6A A/S Sydvaranger Quay:
Export Dock: The quay is made of steel reinforced concrete and can accommodate ships up to 140,000 tons.

A/S Sydvaranger require Pilot on all vessels approaching the area and wish to use the quays.

Local Pilot available upon request. Please notify owner or local Agent. You can also contact the pilot boat direct by calling Tel: 948-99383 or VHF Channel 16.

If your are unable to make contact, please call the Fire Brigade.

Technical Data:

Length of quay	177 m.
Breadth	6.0 m. to 37 m.
Water depth at quay front on L.W.	13.1 m.
Water depth at quay front on H.W.	15.5 m.
Height of the quay from above L.W.	5.0 m.
Useful load evenly distributed	2 tons/sq.m.
Point load	12 tons/sq.m.
Axial load	Unknown
Horizontal load tons at quay front with max.	2.0 m. excentricity
Bollards, 5 pieces, alternative 1	100 tons horizontal
alternative 2	50 tons horizontal and 87 tons vertical

No. 6B A/S Sydvaranger:
Import Dock: The quay is made of steel reinforced concrete. The quay can accommodate ships with maximum draft of 9.0 m.

A/S Sydvaranger require Pilot on all vessels approaching the area and wishing to use the quays.

Local Pilot available upon request. Please notify owner or local Agent. You can also contact pilot boat direct by calling Tel: 948-99383 or VHF Channel 16.

If you are unable to make contact, please call Fire Brigade.

Technical Data:

Length of quay	100 m.
Breadth	35 m. to 40 m.
Water depth at quay front on L.W.	9.0 m.
Height of the quay from above L.W.	5.0 m.
Useful load evenly distributed	4 tons/sq.m.
Point load	70 tons/sq.m.
Axial load	100 tons/sq.m.
Horizontal load, same as Export Dock	
Bollards, 4 pieces, alternative 1	100 tons horizontal
alternative 2	50 tons horizontal 87 tons vertical

No. 6C A/S Sydvaranger: Private Owner.

The quay is made of timber. This quay usually accommodates tugs and pilot boats, but if the quay is free of traffic, it is used for bunkering ships by truck from any oil company.

A/S Sydvaranger require Pilot on all vessels approaching the area and wishing to use the quay.

Local Pilot available upon request. Please notify owner or local Agent. You can also contact the pilot boat by calling Tel: 948-99383 or VHF Channel 16.

If you are unable to make contact, please call Fire Brigade.

Technical Data:

Length of quay	59.5 m.
Breadth	13 m.
Water depth at quay front on L.W.	9.0 m.
Height of the quay from above L.W.	5.0 m.
Useful load evenly distributed	2 tons/sq.m.
Point load	Unknown
Axial load	Unknown
Horizontal load, Inwards/Outwards	2.5 tons
Alongside the quay	2.0 tons
Bollards, 4 pieces,	
3 pieces at quay front	50 tons
1 piece at rear of quay front	50 tons

CRANES: Mobile crane of 50 tons capacity available.

MEDICAL: Agents to receive advance notice of required medical attention. Hospital facilities available.

TANKERS: Diameter of load/discharge lines 8 in. Max. draft 33 ft.

DENSITY: 1011 – 1026 (brackish).

FRESH WATER: Available, delivered through pipes from quay.

FUEL: Heavy fuel to be ordered at least 1 week in advance from Shell in Oslo.

Suppliers:

Esso Norway A/S, Egne-hjemsvey 42, 9910 Bjornevatn, Norway. Contact: Mr. Kjell Thoresen, Tel: 789-99222 (Work), 948-02179 (Private/Mobile).

Norske Shell A/S, P.O.Box 199, 9901 Kirkenes, Norway. Contact: Mr. Hans Hakonsen, Tel: 789-92336 (Work), 789-99018 (Private). Fax: 789-92900 (Office).

Statoil, Norway A/S, Elvenes, 9900 Kirkenes, Norway. Contact: Mr. Bjornar Gjertmundsen, Tel: 789-90814 (Office), 789-92233 (Private). Fax: 789-90891 (Office).

Also see "Berthing".

CONSULS: Finland, Germany, Russia and Sweden.

REPAIRS: Repairs possible.

DRY DOCKS: Floating dock with capacity 8,500 tons.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Must be carried out by crew.

CUSTOMS ALLOWANCES: *Tobacco and cigarette paper:* May be freely disposed of for use on board for up to 10 days as follows:

Master of the vessel: 400 cigarettes or 400 grammes of other tobacco goods and 200 cigarette papers.

Other crew members: 200 cigarettes or 250 grammes of other tobacco goods and 200 cigarette papers.

Spirits: of which the volume percentages of alcohol must not exceed 60% – and *Wine* may be freely disposed of for use on board as follows:

Master of the vessel: 2 litres altogether.

Other crew members: 1 litre of spirits and 1 litre of wine.

Quantities above those specified must be deposited in the care of the Master and on his responsibility stored in a locked room. Other forms of storage are punishable under the Customs and Excise Act.

If according to regulations governing exemption from duty for travel equipment and luggage a member of the crew brings goods ashore without payment of duty or fees, a corresponding reduction shall be made in the quantity of goods which he may dispose of freely for use on board according to the provisions above.

CARGO GEAR: 2 cranes, 20 tons and 75 tons.

REPATRIATION: Facilities exist for crew changing, but normally no crew available. Arranging repatriation possible.

AIRPORT: Distance to airport 16 km. Airport served by regular airlines.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: January 1st, Easter Day, Whitsun Day, May 1st, May 17th, December 25th and 26th. Work carried out if permission given by the authorities.

POLICE/AMBULANCE/FIRE: Fire alarm 77530; Ambulance 91701; Police 91151.

TELEPHONES: Ship's telephone connections not available.
SHORE LEAVE: Crew members allowed ashore.
IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: Trucks and containers for disposal of garbage can be ordered from:

Wahlberg's Transport, Storgt. 46, 9900 Kirkenes, Norway. Contact Mr. Arnulf Wahlberg, Manager. Tel: 789-92520 (office/private), 789-92583 (garage), 945-68937 (mobile), 789-91411 (office/private).

The prices are as follows:

1. One trip from quay to disposal area (Kverna) daytime Monday to Friday from 0730 hrs. to 1500 hrs.	310.00
2. One trip from quay to disposal area (Kverna) daytime Saturday and Sunday, including holidays.	410.00
3. Extra payment for opening disposal area (Kverna) on Saturday and Sunday, including holidays.	210.00
4. Duty tax per cu.m. All prices are exclusive State tax 23%.	85.00

DEVELOPMENTS: An additional berth (Length 119 m., width 40 m. and depth 10.0 m.).
AUTHORITY: Municipality of Sor-Varanger, Radhusplassen 3, P.O.Box 406, N-9901 Kirkenes, Norway. *Tel:* +47 789-77400. *FAX:* +47 789-98693. *Contact:* Harbour Master.

KOPERVIK: 59.17 N. 05.19 E.
SKUDENESHAVN: 59.08 N. 05.16 E.

PORT LIMITS: Harbour entrance of each port constitutes their port limits.
DOCUMENTS:
Declaration of Health.
General Declaration for Customs.
Cargo Declaration.
Ship's Stores Declaration.
Passenger List.
Crew's Effects Declaration.
PILOTAGE: 24 hours notice for Pilot. Pilot boat and office maintain 24 hour watch on VHF Channel 16. Pilot boards vessels off Skudenes in the Skude Fjord. The Pilot office is in Kopervik.
ANCHORAGES: *Kopervik:* 1 mile North of the harbour in 30 m. of water. *Skudeneshavn:* Between Bakarholmen Island and Karmoy in depths of 6 m. – 7 m.
MAX. SIZE: *Kopervik:* Length 80 m., depth of water 10 m.
Skudeneshavn: Length 90 m., depth of water 5.5 m.
Fosen (for lay-up): 500,000 d.w.t.
RADIO: Rogaland Radio.
VHF: VHF sets operated by Rogaland Radio, Kopervik Pilot Office, Karmoy Harbour Office and Pilot boat.
RADAR: No port radar.
TUGS: Available from Stavanger and Haugesund with approx. 2 hours notice required.
BERTHS: Kopervik:
No. 1 Berth; length 55 m., depth 6 m.
No. 2 Berth; length 75 m., depth 6 m.
No. 3 Berth; length 55 m., depth 10 m.
No. 4 Berth; length 100 m., depth 6 m.
No. 5 Berth; length 200 m., depth 6 m.
Skudeneshavn:
2 Ro/Ro berths for regular ferry traffic.
One berth; length 60 m., depth 5 m.
CRANES: Mobile cranes available. At Skudeneshavn, there is one stationary heavy lift crane, lifting 50 tons maximum.
SPECIALISED CARGO FACILITIES: Refrigeration plants available at Skudeneshavn and Aakrehamn.
STEVEDORES: Arrangements to be made by Agents.
MEDICAL: Full hospital facilities at Haugesund.
DENSITY: 1026.
FRESH WATER: Available ex-wharf.
FUEL: Contact local oil companies.
FIRE PRECAUTIONS: Normal fire precautions.
CONSULS: None, nearest at Haugesund.
REPAIRS: There are several shipyards in the area able to carry out repairs.
DRY DOCKS: There is a dry dock at Skudeneshavn, with the following dimensions: Length 93 m., width 15 m. and depth 4.8 m. Larger dry docks are available at Haugesund and Stavanger.
SURVEYORS: None, nearest at Haugesund and Stavanger.
AIRPORT: At Karmoy and Haugesund.
EMERGENCY CO-ORDINATION CENTRE: Haugesund Police Tel: 527-11011.
BANKS: Local banks only.
STORING: See "Prelims"

1. Vessels are stored both by trucks and barges
2. No special regulations.
3. Trucks can proceed alongside at the berth.
4. Fork lifts can be used.
5. Bonded store to be sealed.
6. Local riggers can be employed.

AUTHORITY: Karmsund Interk. Havnevesen, P.O.Box 186, 5501 Haugesund. *Tel:* 04-714744. *FAX:* 04-712819.

Note: The ports of Karmoy and Haugesund merged on 1st January 1992.

KRAGERO: 58.52 N. 09.25 E.

DOCUMENTS:
Ship's Register.
Passenger List.
Crew List.
List of Articles – radios, cigarettes, tobacco, spirits, etc.
If on inspection, articles or quantities not in conformity or in excess, Master responsible, articles removed and heavy fine imposed.
PILOTAGE: Pilot station at Langesund. Pilot to be ordered by Agent on given ETA.
ANCHORAGE: Almost anywhere in the Fjord, watch out for sign of waterpipes and telephone cables.
RESTRICTIONS: Weather permitting, draft up to 30 ft.
RADIO: Tjome Radio Station or Farsund Radio Station.
TUGS: Only small tugs in harbour, tugs available from nearby town order to be given 24 hours in advance.
STEVEDORES: To be ordered by Agent. Notice to be given before 1530 hrs. for next morning, or 3 hours before work to start.
MEDICAL: Doctor and hospital facilities available.
FRESH WATER: Available at Centre Quay.
FUEL: May be available with trucks ordered from nearby town.
CONSULS: France Tel: 81555. Denmark Tel: 81055. Netherlands Tel: 81020.
REPAIRS: Small repairs may be available.
OPENING/CLOSING HATCHES: To be carried out by crew.
CUSTOMS ALLOWANCES: 100 cigarettes or 50 cigars. 1 bottle wine or spirits per man.
AIRPORT: Kristiansand 170 km. away. Oslo 200 km.
HOLIDAYS: Work can be arranged on most Holidays, except New Year's Day, Easter Day, 1st and 17th May and Christmas Day.
TELEPHONES: Police, 35982200. Ambulance, 35982000. Fire 001. On most berths telephones are available.
SHORE LEAVE: No restrictions.
AUTHORITY: Kragero Kommune – Havnestyret, P.O.Box 158, 3771 Kragero, Norway. *Tel:* 35981750. *FAX:* 35981750.

KRISTIANSAND S.: 58.09 N. 08.00 E. (See Plan)

DOCUMENTS:
3 Cargo Manifests for Customs.
Tobacco/Spirits List.
Bill of Health (if arriving from outside Scandinavia).
Passenger List for Immigration.
No Crew List required.
PILOTAGE: Oksoy Pilot Station. Compulsory pilotage for non-Norwegian ships, 2 hours notice minimum, contact on ordinary shipping Channel, or VHF call Channel 16 and 13, pilot boat marked "LOS" on each bow, international light or sound signals, Pilot boarding between Oksoy and Gronningen Lighthouse, no special anchorage for vessel awaiting a Pilot, but Pilots available around clock.
ANCHORAGE: Several good and safe anchorages in inner and outer harbour for vessels of any size.
MAX. SIZE: Any size in harbour.
RADIO: Farsund Radio LGZ.
VHF: Port Radio, Channels 16 and 12.
TUGS: Bukser and Sjotransport. Tel: 22590. 1 tug 1,600 h.p.; 1 tug 1,250 h.p.; 1 tug 650 h.p. and 1 mooring boat.
BERTHING:

Berth	*Depth at MLW* (ft.)
Railway and Car Ferry Terminal	20
Car Ferry Terminal	26
Car Ferry Terminal	26
Coastal Berths (4)	16–26
Roll-on/Roll-off Terminal	30
Fishing Harbour	20
Tug Terminal	12
Grain, Concrete and Overseas Terminal	33 (North end) 40 (Mid-section) 60 (South end)
Oil Terminal	40
Overseas Ro/Ro Terminal	30
General Cargo Terminal	30
Cruise Pier	24

STEVEDORES: ETA to Agents who arrange stevedoring.
MEDICAL: Hospital in Kristiansand. Doctor available around clock.
TANKERS: B.P. Bunker Station: 1 Berth depth 33 ft.
Shell Bunker Station Odderoy: 1 Berth depth 31 ft.
FRESH WATER: Available from quays.
FUEL: All grades up to 2,000 sec. available at short notice.
CONSULS:

Denmark	Tel. 23097	Netherlands	Tel. 29596
Finland	26990	Portugal	29616
France	26210	Spain	21040
Germany	22455	Sweden	26160
Greece	24446	United Kingdom	24452
Iceland	21068		

REPAIRS: All types of deck and engine repairs possible.
DRY DOCKS: Largest dry dock; length 689 ft. width, 100 ft. width at entrance, 95.9 ft. Depth 25 ft. for vessels up to 13,000 d.w.t.
GANGWAY/DECK WATCHMEN: Available if required.
OPENING/CLOSING HATCHES: Normally carried out by crew, but can be done by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes or equivalent tobacco for each crew member per 10 days and 1 bottle spirits.
REPATRIATION: Can be arranged.
AIRPORT: Situated 17 km. from harbour, served by regular air lines.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Police 112, Ambulance 113, Fire 110.
TELEPHONE: Possible to place telephone on board at some quays.
SHIP SUPPLY SERVICE: 2 tugs able to assist, contact Agent.
GARBAGE DISPOSAL: Contact Renovasjon Service A/S. Tel: 380-44204.
WASTE OIL DISPOSAL: Contact Seplileservice A/S. Tel: 042-86333. Mobile Tel: 094-80789. Fax: 042-86390.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner.
AUTHORITY: Kristiansand Havnevesen, Havnebygget, Gravane 4, P.O.Box 3, 4601 Kristiansand S, Norway. *Tel:* (380) 29552. *FAX:* (380) 27099. *Contact:* Odd Salvisun, Port Captain.

KRISTIANSUND N.: 63.07 N. 07.45 E. (See Plan)

DOCUMENTS:
1 Crew List.
1 Passenger List.
1 Customs Document.
1 Health Document.
1 Ship's Papers.
1 Stores List.
3 copies Manifest.
3 copies Bill of Lading.

PILOTAGE: Not compulsory. From open sea. Pilot is taken on board at Grip Lighthouse. Watch 24 hours a day. Vessels approaching from the sea and desiring a Pilot should order the Pilot at 24 hours' notice as far as possible.
ANCHORAGES: Several good and safe anchorages in inner and outer harbour for vessels of any size.
APPROACHES: Three entrances lead to the harbour:
Sorsundet: 90 m. wide, 12.2 m. depth.
Markusundet: 150 m. wide, 27.4 m. depth.
Nordsundet: 40 m. wide, 5.2 m. depth.

From the pilot station (Grip) the distance to the harbour is 12 nautical miles.
MAX. SIZE: Max. depth alongside quay 40 ft., length of all quays about 900 m.
RADIO/VHF: From ship at sea via Orlandet Radio (LGA) direct to the Sea Pilot. Watch calling frequency 2182 or by VHF radio-telephone, calling Channel 16. Harbour Office is manned day and night, Tel: 71671483.
TUGS: None, but small motor vessels assist when required.
BERTHING:
Main public wharves:

Wharf No.	*Length* (m.)	*Depth* (m.)
1, 2 & 3	175	4.5 – 5.0
4 & 5	140	9.0
6 & 7	113	6.0 – 9.0
8	90	12.0
9	95	10.0
10	90	5.5
11	80	7.3
12 & 13	205	9.0 – 13.0
Ro/Ro	38.5	15.0

In addition to the above, there are many private wharves and wharfside sheds at which ships can berth.

Vestbase (Oil Service Base): Located on the South side of Nordlandet (63° 06' N., 07° 47.5' E.).

3 Berths: Open storage area of 79,600 sq.m. and 3 storage sheds of 5,100 sq.m. Forklifts and mobile cranes up to 70 tons capacity. Fresh water, bunkers, drilling mudd, etc. available.
Berth No. 1: Length 50 m., depth 7.3 m.
Berth No. 2: Length 63 m., depth 10.0 m.
Berth No. 3: Length 40 m., depth 7.3 m.

CRANES: There are no fixed cranes on the wharves, but a large range of mobile cranes up to 75 tons capacity are available.
BRIDGES: Sorsund Bridge 140 m. wide, 38 m. high. Nordsund Bridge 50 m. wide, 28 m. high.
STEVEDORES: Obtained by Agents provided ETA given 12 hours before arrival.
MEDICAL: Doctor available.
FRESH WATER: Delivered from quay or from water boat.
FUEL: All grades available.
CONSULS: Following countries are represented at Kristiansund N.:
Denmark
Finland
France
Germany
Italy
Netherlands
Portugal
Spain
Sweden
United Kingdom
Uruguay

REPAIRS: All kinds of repairs may be effected, deck and engine. Patent-slips for vessels up to 250 ft. long, crane-lift up to 40 tons. Ice-free harbour.
SURVEYORS: Det Norske Veritas. Tel: 71581322.
GANGWAY/DECK WATCHMEN: Available but not necessary.
OPENING/CLOSING HATCHES: This work will normally be carried out by crew, but can be done by stevedores.
CUSTOMS ALLOWANCES: For each man – 200 cigarettes, 1 bottle of spirits for 10 days.
REPATRIATION: All facilities available.
AIRPORT: Kristiansund Airport, Kvernberget. Passenger flights 3 times a day to Oslo. 2 flights a day to Trondheim and Bergen. Situated about 4 miles from centre of Kristiansund N. (about 15 minutes by car).
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: 1st May and 17th May.
POLICE/FIRE/AMBULANCE: Police, Tel: 112; Ambulance, Tel: 113; Fire, Tel: 110.
TELEPHONES: May be installed during the ship's stay at the quay.
SERVICES: Laundry, ship chandlers for delivery of provisions and bonded stores, and servicing for all kinds of ship's navigation instruments can be arranged.
SHORE LEAVE: Allowed.
GARBAGE DISPOSAL: Garbage collection service available. Sufficient number of garbage containers (8 and 10 cu.m. open and covered) are available for ordinary garbage. Containers will be placed on the berth and collected upon request from the ship or agent. Contact Waage Transport. Tel: 716-72977. Charges: NKr.1,400/container.
WASTE OIL DISPOSAL: 12 small mobile tanks approximately 2 cu.m. for lub oil and engine room bilge water available on request from ship or agent. Contact B.Hansen. Tel: 716-73504. Charges on request.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner (NKr.).
IDENTIFICATION CARDS: Not required.
AUTHORITY: Kristiansund Havnevesen, Havnefogden, Kaibakken 1, N-6500 Kristiansund N., Norway. *Tel:* 716-74333. *FAX:* 716-78710. *Contact:* Jan Westad-Olsen, Harbour Master. Jan Olav Bjerkestrand, Operations Manager.

LARVIK: 59.03 N. 10.02 E. (See Plan)

PORT LIMITS: The official port limits for the Port of Larvik is a line from Sandefjord in the East to Porsgrunn in the West. Notices of Readiness for loading or discharging, however, will be accepted when the vessel is anchored in any of the anchorages in inner Larvik Fjord.
DOCUMENTS:
General Declaration.
Maritime Declaration of Health (vessels arriving from ports outside Scandinavia only).
Tolliste, i.e. Tobacco and Curio List, Crew List and Crew Effects List for total number of crew.
Varefortegnelse med Proviantliste, i.e. Cargo and Ship's Stores Declaration.
Fartoys Anmeldelse, i.e. Notice of vessel's arrival.
3 Ship's Manifest.
3 Bills of Lading.

Customs Officer will accept Tobacco and Curio Lists, also Provision Lists filled in on foreign forms, if all goods correctly stated.
PILOTAGE:

1. Vessels approaching from the sea and desiring a Pilot shall order the Pilot at 24 hours' notice insofar as possible and confirm arrival at Pilot Station at 2 hours' notice:
   (a) by telephone or telegram from ship to the pilot office concerned or sea Pilot Station over an official coastal radio station.
   (b) by telephone or telegram from broker/shipowner to the pilot office concerned or sea Pilot Station.
2. For direct connection between ships desiring Pilot and the pilot service, VHF-radio telephone Channel 16 (156.8 MHz) shall be used for calling and reply, and a VHF-radio telephone ship-to-ship Channel or harbour Channel shall be used for conversations. Ships not equipped with VHF-radio telephone may use the distress and calling frequency 2182 kHz for calling pilot vessel, but both the ship desiring Pilot and the pilot vessel shall in such cases immediately turn to ship-to-ship frequency. At such connections minimum transmission effect shall be used.
3. Vessels lying in port and desiring Pilot will order the Pilot from the nearest pilot office during its office hours and if possible at 2 hours' notice.
4. Vessels approaching from the sea as well as vessels lying in port shall, when making an advance order, state the name and destination of the vessel.
5. The Pilots will on the whole be despatched to the ships in accordance with the advance orders, and vessels are therefore requested to comply with the foregoing rules as far as possible in order to avoid having to wait for Pilot.
6. The international provisions for summoning Pilots by signal flags or blue lights, etc., are still in force but should in future be used as a supplement to the radio communications or as the sole communication in emergencies.
7. These provisions came into force on the 1st April, 1984.

Description of pilot boat: White painted, orange wheelhouse, 2 masts, "Los" on both sides of bow. The pilot vessel is situated in Langesund Harbour on watch 24 hours every day. Pilot boards ships S.E. of Langoytangen lighthouse (58° 59.4' N., 9° 45.8' E.).

The Agent must in general order Pilot before 1200 hrs. and before 1530 hrs. Friday when Pilot is required before Monday morning.
ANCHORAGES: Safe anchorages at end of fjord, West side. Masters should consult Pilots and/or charts before anchoring. Ample water and good holding ground for all sizes of vessels.
MAX.SIZE: Largest vessel berthed at Larvik Canal Quay, LOA 644 ft. 8 in., breadth 83 ft. 3 in., max. draft 32 ft. 6 in.
HEALTH: Advise Agents of any suspected disease or fever on board by radio or telephone before entering. Vessel will then anchor in anchorage and be boarded by state doctor. When vessel is healthy, Customs Officer will grant Pratique.

RADIO: Tjome Radio LGT, Rogaland Radio LGQ.
TUGS: No tugs at Larvik. Tugs to be ordered via ship's Agents from Fredrikstad or Porsgrunn. If tugs required by vessel or demanded by Pilot, Agents should be given 12 to 24 hours' notice. Tugs join vessel in fjord off harbour breakwater. Extra charges for use of tug's lines.
BERTHING: Insignificant tidal variances.
Revquay West: General cargo. Length 118 m. Depth alongside 9 m.
Warehouse 1,600 sq.m. and 10,000 sq.m. outside asphalted storage area. Also Ro-Ro ramp with berthing alongside dolphins. Max. length 170 m., depth 8.0 m.
A new Ro-Ro ramp will be available in 1996.
Revquay South (Revkaia Syd): Length 70 m., depth alongside 10.0 m. Storage area measuring 52,000 sq.m. partly asphalted. One portal electric crane with capacity 50 tons.
Kanalquay (Kanalkaia): Kanalquay North – Length 335 m. Depth. 10 m. Kanalquay West – Length 120 m. Depth 6 m. Kanalquay South – Length 90 m. Depth 5 m.
Facilities at Kanalkai North: Railway tracks. 3 portable cranes, capacities 6 tons – 50 tons. Warehouse. Grain discharging plant, capacity 85,000 tons. Outdoor storage 20,000 sq.m.
East Pier (Ostre Brygge): Length 130 m. Depth 8 m. New Ferry quay with Roll-on/Roll-off facilities. Car park for 560 cars or 52 lorries/trailers 18 m. Passenger terminal. Customs.
West Pier (Vestre Brygge): West side for visiting yachts.
Ferry quay with Roll-on/Roll-off facilities on West side. Good parking.
Private Wharves: Treschow-Fitzoe Pulp Quays – West side: Length 50 m. Depth alongside 5 m. East side: Length 90 m. Depth alongside 6.3 m. 1 portable electric crane capacity 5 tons.
STEVEDORES: Gangs to be ordered before 1600 hrs. and cranes before 1500 hrs. for following day. During office hours 2 hours' notice required.
MEDICAL: No advance notice required, unless in urgent medical cases and when ambulance needed. No particular inoculations required.
TANKERS: For larger oil-tankers for asphalt works, 8 in. connections required; for coasting vessels, 6 in. connections used. No slop tanks, one berth for tankers. Max. draft in berth 32 ft. 6 in.
DENSITY: Salt water, brackish at times.
FRESH WATER: Delivered by hose from quays. Cost Nkr. 5.0/ton plus handling charge.
FUEL: Fuel oil, gas oil, diesel oil, delivery rate by tank lorry 20 t.p.h.
FIRE PRECAUTIONS: Any vessel discharging benzine must have city fireguard on watch. 30 m. clearance required to next vessel.
Ships loading explosives require fireguards on watch on board.
CONSULS: Danish and French Vice-Consulates Tel: 33182030. Netherlands Vice-Consulate Tel: 33187800. Finnish Consulate Tel: 33181917. Swedish Consulate Tel: 33182090.
REPAIRS: Minor deck and engine repairs only.
GANGWAY/DECK WATCHMEN: Not compulsory, but recommended for larger overseas vessels.
OPENING/CLOSING HATCHES: Usually done by ship's crew.
CERTIFICATES: Vessels must have all usual International Certificates, no special certificates required.
CUSTOMS ALLOWANCES: Every crew member allowed one bottle wine or spirits, and 200 cigarettes out of bond for use in port. This allowance is for 10 days. After this period new tobacco allowance is granted, but no new spirit issue.
CARGO GEAR: No additional requirements.
REPATRIATION: Facilities for effecting crew changes and necessary repatriation by railway, continental ferry and by air.
AIRPORT: Distances from the port to international airports at Oslo 130 km. and Sandefjord 40 km.
Private airport open for small aircraft at Larvik.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Maundy Thursday, Good Friday; Easter Monday; May 1st & 17th; June 24th; Ascension Day; Whit Monday; Christmas Day; Boxing Day.
POLICE/AMBULANCE/FIRE: Tel: Police 112, Fire 111, Ambulance 113.
TELEPHONES: Onboard telephones not available.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: For garbage disposal Tel: 11130320.
WASTE OIL DISPOSAL: For waste oil disposal Tel: 11130320.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner (NKr.).
AUTHORITY: Larvik Port Authority, P.O.Box 246, 3251 Larvik, Norway. *Tel:* 33-181275. *FAX:* 33-181262. *Contact:* Oivind Blaasvaer, Harbour Master.

LILLESAND: 58.15 N. 08.23 E.

DOCUMENTS:
Health Certificate.
Crew List.
Cargo List.
Manifest.
Passenger List.
Bill of Measurement.
Derat Certificate.
PILOTAGE: Ships arriving from South and West cable: Okso Pilot Station, VHF Channel 16. Pilot to be taken on board at Okso Pilot Station or if bad weather, inside Okso.
Ships arriving from East cable: Merdo Pilot Station, VHF Channel 16. Pilot to be taken on board at Torungen, or if bad weather, inside Merdo. Pilot boat is 45 ft. long and marked "Los".
ANCHORAGES: Tingsakerfjorden – depth 40 m.
MAX. SIZE: See "Berthing".
RADIO: Cable Agent giving ETA via Farsund or Tjome Radio.
TUGS: Normally join at Kristiansand. Tugs lines to be used.
BERTHING: The Kokkenesquay – Kokkeneskaia. Length 80 m. with free water at both ends. Depth 10 m. There is 1 crane with a maximum lifting capacity of 30 tons. Petroleum-coke and sand discharged by crane and grab about 130 t.p.h.
The Langquay – Langbrygga. Length 70 m. with free water at the deepest end, depth 10 m. reducing at inner to 7 m. One crane 7.5 ton capacity.
The Fosbaekquay – Fosbaekkaia. Messrs. H. Bjorum – Norfloat A/S quay. Length 50 m. with free water at both ends, depth 10 m.
STEVEDORES: Gangs to be ordered before 1600 hrs. for the following day and day before holidays 1320 hrs. During office hours 3 hours' notice required.
FRESH WATER: Delivery by hose from quay.
FUEL: None available.
CONSULS: Denmark, telephone 262.
REPAIRS: Some small repairs possible and electrical repairs.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Available.
OPENING/CLOSING HATCHES: May be performed by ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes or 250 gm. of tobacco, 0.75 litre of spirits and 1 litre of wine.
AIRPORT: About 30 km. to airport.
HOLIDAYS: New Year's Eve no work after 1230 hrs.; New Year's Day no work; Maundy Thursday, Good Friday no work; Easter Eve no work after 1230 hrs.; Easter Sunday no work; Easter Monday, May 1st and 17th no work; Ascension Day no work; Whitsun Eve no work after 1230 hrs.; Whit Sunday 1st no work; Whit Sunday 2nd, Christmas Eve no work after 1230 hrs.; Christmas Day no work, and December 26th no work.
POLICE/AMBULANCE/FIRE: Police 170; Ambulance 18; Fire Brigade call the switchboard.
IDENTIFICATION CARDS: Not required.
AUTHORITY: Lillesand Havnevesen, 4790 Lillesand, Norway. *Tel:* 041-70033. *Contact:* Roald Hellenes, Harbour Master.

MAALOY: 61.55 N. 05.07 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
1 Health List.
3 Manifests.
1 Bill of Lading.
Goods Lists including Stores, 3 if general cargo and 1 if goods or oil in bulk.
PILOTAGE: Harbour Pilot available, ordered from Harbour Office, tel. 578-51278. No coastal Pilots in harbour. Coastal Pilots ordered from Bergen through Nor-Cargo Maaloy A/S (Tel. 578-51077. Fax. 578-50379), and must be requested at least 24 hours before arrival.
ANCHORAGE: Good holding ground in about 17 fathoms of water 300 m. off-shore from middle of harbour.
MAX. SIZE: Entrance from South through main channel 33 ft. and entrance from North about 60 ft.
RADIO: Nearest radio stations is Floro Radio.
VHF: Maaloy Harbour Radio on Channel 16, working Channel 12, from 0800 – 1530 hrs. every day except holidays. After hours call for "Maaloy Port Control" over Floro Radio.
TUGS: B/B Mammut, Mobile Tel: 94732260.
BERTHING: The main quay 160 m. long and from 24 ft. to 36 ft. deep alongside. No cranes available at the dock. Quay, length 110 m. Depth alongside 12 m. – 15 m.
Fisker Quay: Length 152 m. (+54 m.) Depth 10.0 m. – 12.0 m.
Ro/Ro Quay: Length 132 m. Depth 7.0 m. – 10.0 m.
CARGO HANDLING: Special berth equipped with a Ro/Ro berth in connection with quay 225 ft. long, from 18 ft to 36 ft. depth alongside.
STEVEDORES: Nor-Cargo Maaloy A/S or Maloyterminalen A/S.
MEDICAL: Nearest hospital Nordfijordeid Sykehus, 1 hour by car.
FRESH WATER: Available at main quay and delivered from a fresh-water line at quay.
FUEL: Bunkers available from Esso, Shell and Statoil. 3 bunker barges available.
CONSULS: None.
REPAIRS: Repairs of any kind possible by local yards.
SURVEYORS: Surveyors and Cargo Inspectors available from Bergen.
DECK WATCHMEN: Deck watchmen available in the harbour.
OPENING/CLOSING HATCHES: Done by crew.
CUSTOMS ALLOWANCES: Tobacco: Wine/Spirits: 200 cigarettes or 100 gm. tobacco. 1 bottle of spirit and 1 bottle of wine.
AIRPORT: Nearest airport Floro, 1 hour by boat, Sandane Airport 1 hour by car and Flesland Airport (Bergen) 4 hours (morning and afternoon) service by sea.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: 1st January; Easter Sunday; Easter Monday; Thursday and Friday before Easter; 1st May; 17th May; Whit Sunday and Whit Monday; Christmas Day and Boxing Day.
POLICE/AMBULANCE/FIRE: Police Tel: 112; Fire contact Tel: 111. Ambulance Tel: 113.
EMERGENCY CO-ORDINATION CENTRE: Contact Police Station Tel: 57850211.
STORING: See "Prelims".
(1) Both.
(2) Yes.
(3) Yes.
(4) Yes.
(5) No.
(6) Yes.

TELEPHONES: Can be placed on board and cost same as on shore.
SERVICES: No tank cleaning services available. Compass adjusting.
BANKS: Vagsoy Sparebank, Maaloy. Tel: 578-51433.
Den Norske Bank. Tel: 578-51111. Fax: 578-50646.
Kredittkassen. Tel: 578-50244. Fax: 578-50702.
SHIP SUPPLY SERVICE: For the transport of sick crew members and as such, by helicopter or launch/tug, arrangements have to be made with the nearest coast radio station. Tug/rescue vessel R/S "Platou" operates from Maaloy Harbour. The vessel can be contacted 24 hours directly by VHF Channel 16 or over Floro Radio.
SHORE LEAVE: No restrictions on shore leave.
GARBAGE DISPOSAL: Garbage containers available 24 hours, up to 10 cu.m. Contact Martin Blaalid. Tel: 578-51543. Charges: NKr. 600/container, garbage NKr.85/100 kg.
WASTE OIL DISPOSAL: Waste oil can be delivered to 3 bunker stations at Maaloy.
Mobil: Tank 10 cu.m., drums 200 l. Tel: 578-51711. Fax: 578-50390.
Shell: Tank 25 cu.m., drums 200 l. Tel: 578-51466. Fax: 578-50917.
Esso: Drums 200 l. Tel: 578-50722.
Charges: NKr.1.50/l.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner (NKr.).
AUTHORITY: Maaloy Havnevesen, P.O.Box 104, 6701 Maaloy, Norway. *Tel:* 578-51278, 51852. *FAX:* 578-50635. *Contact:* Kristoffer Stokke, Harbour Manager. Vidar Endal, Port Captain.

MANDAL: 58.02 N. 07.29 E.

DOCUMENTS:
Crew List.
Bill of Measurement.
General Cargo List (2 copies).
Maritime Declaration of Health.
Tobacco and Spirits List.
PILOTAGE: Pilot station on Oksoy Lighthouse outside Kristiansand. Telephone 32834 via Kristiansand Radio.
ANCHORAGES: Mannefjorden. Depth approx. 30 ft. Bankefjorden, shallow entrance with approx. depth 15 ft.
MAX. SIZE: New berth at Gismeroya outside Kleven can accept vessels up to 20,000 g.r.t. Oil carriers to installations outside main port area up to 50,000 tons.
HEALTH: Contact Agent for Pratique.
RADIO: Farsund Radio or Kristiansand Radio.
TUGS: Two tugs available.
VHF: Harbour Office equipped with VHF Channels 16 and 12.
BERTHING: Mandal main harbour is Gismeroya, situated 1 km. East of Mandal town. There is also a harbour in Mandal River, running through town. Entrance to Mandal River is dredged to 15 ft. In South-easterly strong winds it can be impossible to go up the river. Kleven Harbour is a good harbour in all weather conditions. There is 1 × 97 m. quay 30 ft. deep and 1 × 45 m. quay 17 ft. deep.
Gismeroya: New berth and warehouse at entrance to Kleven Harbour is now the main harbour. Length 170 m. Depth alongside 10.5 m.
CRANES: One floating crane with up to 50 tons capacity and a wide range of mobile cranes available at short notice.
STEVEDORES: 6 hours notice to Agents to arrange gangs.
MEDICAL: No advance notice required. Hospital facilities available.
DENSITY: 1026.
FRESH WATER: Delivered by local firemen. Rate of delivery 20 t.p.h.
FUEL: At Oil installation inside Harbour limit.
CONSULS: Sweden 382-62521; Finland 382-61288; Denmark 382-61799.
REPAIRS: All types of deck and engine repairs can be carried out.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CERTIFICATES: Certificate of Nationality.
CUSTOMS ALLOWANCES: Tobacco: 200 gm. or 200 cigarettes. Wine and/or Spirits: 2 litre alcohol for ship's Master, 0.75 litre for crew.
AIRPORT: Kristiansand Airport at Kjevik. Distance from Mandal 64 km. Airport served by regular airlines.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: The only holidays on which cargo work cannot be arranged are Christmas Eve (after 1400 hrs.), Christmas Day, Easter Day, 1st May, 17th May (Independence Day). The rest of the year cargo work can be carried out day and night.
POLICE/AMBULANCE/FIRE: Police 382-61211; Ambulance 382-61113; Fire 382-60799.
TELEPHONES: Telephones available at quay.
SERVICES: No services for tank cleaning. Compass adjusting and all kinds of electronic repairs.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: Containers placed alongside. Contact Tel: 094-63821 or 382-62361.
WASTE OIL DISPOSAL: Only possible for small quantities.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner (NKr.).
AUTHORITY: Mandal Havnevesen, P.O.Box 57, 4501 Mandal, Norway. *Tel:* 382-62011. *Cables:* Mandal Havnevesen. *FAX:* 382-63476. *Contact:* Captain A.O. Johannessen, Harbour Master.

MO-I-RANA: 66.19 N. 14.08 E.

PORT LIMITS: The vessel is considered to be an "arrived vessel" when within the Hauknes Port Lighthouse – about 2 nautical miles from the port.
DOCUMENTS:
1 Cargo List.
1 Stores List.
1 Sealing Certificate.
1 Health Certificate.
2 Crew Lists.
2 Passenger Lists.
(All Forms obtainable from Agent by clearance on board).
PILOTAGE: Asvaer Pilot Station Lat. 66° 17' N., Long. 12° 09' E. (lighthouse). Order preferably through Agent or direct to station 24 hours before arrival. Tel. 769-91104. 1 boat "L/K 083" painted white with red top. "LOS 083" painted in black on both sides. VHF Channel 16.

Pilots embark at Asvaer Lighthouse. Pilots advise alternative place or anchorage if necessary. Pilot compulsory unless vessel ballasting for loading at another port in Norway.

ANCHORAGE: In the fjord at Nesna or at Utskarpen Bay to be advised by Sea Pilot. Anchorage in the inner harbour to be advised by the Harbour Pilot.
HEALTH: See "Documents". No animals allowed on shore.
RADIO: From South; Rogaland Radio/LGQ, LGW, LGB. Within 24 hours off; Rorvik Radio/LGD. From North; Vadso/LGV or Hammerfest/LGI or Tromso/LGE or Bodoe Radio/LGP.
VHF: At Harbour Office call sign. "Mo Port Radio" Channels 16 and 12. At Rana Industriterminal A/S call sign. "Rana Industriterminal" Channel 9.
TUGS: Available and recommended for vessels above 10,000 d.w.t. 24 hours' notice to be given. Ships' lines used.
BERTHING: Harbour Pilot recommended but not compulsory for small vessels. Details given through Pilot/Harbour Pilot.

Rana Gruber A/S	
Iron Ore	37 ft. depth alongside
Bulkterminalen	36 ft. depth alongside
Town Pier (Toraneskaia)	25 ft. depth alongside
Rana Industriterminal A/S	26 ft. depth alongside
Andfiskaa Pier	23 ft. depth alongside

CARGO HANDLING FACILITIES: The harbour has the following facilities for handling cargoes:

Rana Gruber A/S depth 37 ft. Shiploader for loading of Iron Ore only, vessels up to 80,000 d.w.t.

Bulkterminalen depth 36 ft.; length 427 ft. and 295 ft., North and South side handling following cargoes: ore, coal, coke and oil.

Rana Industriterminal A/S: handling ore, coke, steel products and general cargoes. Length of quay, 823 ft.; depth 25 ft.

A/S Bleivassli Gruber Pier, length 115 ft.; depth 23 ft. Has equipment and elevator for handling pyrites – fast loading.

The Town Quay (Harbour Board Quay), length 823 ft. and depth 18 ft. to 26 ft., handling general cargoes of all kind, with up to 15 ton lifts.

STEVEDORES: Ordered by Agents preferably in office hours 0900 – 1600 hrs. Exact time for commencement of work to be arranged with Agent. Vessels to pay for waiting hours for workers if delay not reported. If such report after office hours, vessel to pay for 2 hours.
MEDICAL: If in need of doctor/dentist preferably inform Agent from sea if vessel stays only 1 day.
FRESH WATER: Available at all piers from shore installations.
FUEL: All types available.
GANGWAY/DECK WATCHMAN: Available but not compulsory.
OPENING/CLOSING HATCHES: Crew allowed to open/close.
CUSTOMS ALLOWANCES: Per 10 days in Norway per crew member – 200 cigarettes or 200 gm. tobacco and 2 packages cigarette paper, and 1 bottle spirits.
CARGO GEAR: Winchmen from shore required.
REPAIRS: Small repairs only.
AIRPORT: 12 km. to local airport "Rana Airport" connection with Bodoe (North) twice per day and Trondheim (South) twice per day.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Thursday before Good Friday; Good Friday; Easter Monday; Labour Day; National Day (17th May); Ascension Day; Whit Monday; Christmas Day and Second Christmas Day. No work can be arranged on any of these days.
TELEPHONES: Accidents/hospital: 51233; Ambulance: 51510; Fire: 51222 and Police: 51122.
GARBAGE DISPOSAL: Collection service not available. Drums are provided alongside. Contact Noronorsk Tankren A/S. Tel: 087-54008.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner (NKr.).
SHORE LEAVE: No restrictions.
AUTHORITY: Rana Havnevesen, P.O.Box 185, 8601 Mo-I-Rana, Norway. *Tel:* 087-50867, 50866. *FAX:* 087-51797. *Cables:* Havnevesen. *Contact:* Per A. Nygaard, Harbour Master.

MOLDE: 62.44 N. 07.10 E. (See Plan)

DOCUMENTS:
Health Certificate.
Crew Lists.
Passenger List.
Dangerous Cargo List.
Ship's Register.
PILOTAGE: Telegraphic address "Alesund Radio". Address of Pilot Station "Rundo".

ANCHORAGE: A well-protected harbour. Depth from 15 to 20 fathoms. Tide rises about 6 ft.
MAX. SIZE: Passenger vessels of 35,000 g.r.t. berth at Storkaia.
RADIO: Oerlandet Radio.
VHF: Molde Harbour Radio, Channels 16 and 12.
TUGS: None. Tugs called from Alesund.
BERTHING: Depths alongside quay 25 ft. to 32 ft. LW.

A new port, 2 km. from the town. Two quays with Ro/Ro ramps. Depth alongside No. 1 – 6 m. and No. 2 – 12 m.
CRANES: 150 ton crane and 20 ton mobile crane.
STEVEDORES: Available, ordered by Agents.
MEDICAL: Hospital available.
DENSITY: 1025.
FRESH WATER: By shore installation.
REPAIRS: Most repairs possible.
SURVEYORS: Norske Veritas.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: By crew or stevedores.
POLICE/AMBULANCE/FIRE: Police 71250500 or 002; Ambulance 71254300; Fire 001.
EMERGENCY CO-ORDINATION CENTRE: Telephone Police Station.
AIRPORT: Aaro Airport, 4 km. from town.
STORING: See "Prelims".

(1) By truck.
(4) Yes.
(6) Yes.

SHORE LEAVE: Possible, no restrictions.
IDENTIFICATION CARDS: Not required.
AUTHORITY: Molde Havnevesen, P.O.Box 281, N-6401 Molde, Norway. *Tel:* 71251860. *FAX:* 71255965. *Contact:* Alf-Kjell Kristiansen, Harbour Master.

MONGSTAD: 60.49 N. 05.02 E. (See Plan)

OPERATORS: Oil refinery and crude oil terminal operated by Statoil Mongstad, 5154 Mongstad, owned by Den Norske Stats Oljeselskap a.s., P.B. 300, 4001 Stavanger and Norsk Olje a.s., Postboks 1176, Sentrum, 0107 Oslo 1.
DOCUMENTS:

3 copies Crew List.
1 copy Crew Effects Declaration.
2 copies Ship's Stores Declaration.
1 copy Health Declaration.
1 Passenger List (if any).
IMO standard forms in most cases required.

On ship's arrival the following documents must be available: Letter of Registry, Outward Clearance from last port of call, Derat or Derat Exemption Certificate, and Certificates of Insurance for Civil Liability for Oil Pollution Damage. Non-member registered ships of the International Convention on Civil Liability for Oil Pollution Damage, 1969, must after 30th June, 1976, carry a Certificate issued by Maritime Directorate, P.O. Box 8123, Oslo-Dep., Oslo, Norway. Before this date Certificates issued by Denmark, Sweden and U.K. covering non-Convention registered ships, will be recognised.
PILOTAGE: Compulsory. Pilots listen on VHF Channels 13 and 16. Vessels will be berthed/unberthed by Pilots from Fedje Pilot Station (Position Lat. 60° 51' N., Long. 04° 39' E.). Contact Pilots on VHF Channel 16, 2 – 3 hours notice required.
ANCHORAGE: N.W. of refinery area. However, not well sheltered and holding ground not good. No anchorage for VLCCs.
MAX. SIZE:

Jetty (No.)	*Ship Size* (d.w.t.)
1	15,000 – 300,000
2	3,000 – 35,000
3	Up to 5,000
4	5,000 (Pet Coke)
	6,500 cu.m. (LPG)
7	40,000 – 180,000
9	5,000 – 50,000
10	Up to 10,000

HEALTH: International procedure followed to obtain Pratique. In case of suspected disease or fever on board, the Port Authorities to be informed in advance.
RADIO: Cable Agent ETA, cash, bunkers, personnel, bonded stores, or other special requirement. For the refinery's guidance also cable flange dimensions on ships' headers, cargo quantities acceptable and order of loading, quantity of clean ballast and estimated time for discharge, size of cargo to be discharged and max. pumping rates, max. acceptable loading rates, quantity of tank washings and estimated time for discharge.

Also see "General" – "Reporting" before first Norwegian port.
TUGS: Two tugs of 4,259 b.h.p. each (bollard pull 54 tons) situated at the refinery. Additional tugs available from Bergen.
BERTHING:
Berth No. 1 (Crude): Draft limitation 22 m., min. length 124 m., depth 125 ft.
Berth No. 2 (Products): Draft limitation 38 ft., min. length 69 m., depth 59 ft.
Berth No. 3 (Products/Coasters): Draft limitation 6.5 m., min. length 36.5 m., depth 25 ft.
Berth No. 4 (Pet. coke & LPG): Draft limitation 6.7 m., min. length 50 m.
Berth No. 7 (Crude): Draft limitation 19.7 m., min. length 120 m.
Berth No. 9 (Products: Draft limitation 16.4 m., min. length 80 m.
Berth No. 10 (Module Jetty): Draft limitation 10.3 m. at Ro/Ro part of jetty.
Berth No. 10 (Module Jetty): Draft limitation 4.9 m. at general cargo part of jetty, min. length 114 m.
CARGO HANDLING FACILITIES:
Berth No. 1: 4×16 in. plus 2×16 in./10 in. Woodfield Autoflow booms.
Berth No. 2: 4×10 in. plus 2×8 in. Autoflowbooms.
Berth No. 3: 2×8 in. plus 2×6 in. Autoflowbooms.
Jetty No. 4: 1×6 in. LPG Loading Arm.
Jetty No. 7: 4×16 in. and 1×10 in. Emco-Wheaton autoflow booms.
Jetty No. 9: 3×12 in. and 2×8 in. Emco-Wheaton autoflow booms.
BALLAST: Deballasting facilities available at Jetties No. 1, 2, 3, 7 and 9. Tankage capacity 99,999 cu.m. All ballast except SBT to be discharged ashore.
MEDICAL: Medical attention available. Hospital facilities at Bergen.
DENSITY: Salt water.
FRESH WATER: Available from all jetties except Jetty No. 10. Cost per ton Nkr. 2.50.
FUEL: All grades available.
FIRE PRECAUTIONS: Special safety regulation forms given when berthed.
CONSULS: Consuls available at Bergen from the following countries: Austria; Belgium, Brazil, Denmark, Finland, France, Germany, Greece, Iceland, Italy, The Netherlands, Panama, Peru, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, Uruguay.
REPAIRS: Repair shop facilities available. Repair work must not be commenced without the agreement of the Port Captain.
SURVEYORS: The following Classification Societies represented by Surveyor at Bergen: American Bureau of Shipping, Bureau Veritas, Det Norske Veritas, Germanisher Lloyd and Lloyd's Register of Shipping.
GANGWAY/DECK WATCHMEN: Available.
CUSTOMS ALLOWANCES: 200 cigarettes or 200 gm. tobacco and 1 bottle spirit or 2 bottles of wine, each man.
REPATRIATION: All facilities. Bus or Taxi transport to international airport.
AIRPORT: Flesland Airport, approx. 86 km. (54 miles) distance from Mongstad. Distance Bergen to Mongstad approx. 45 km.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Police, Tel: Knarvik 350504 and 350505. Ambulance and Fire fighting brigade available at the refinery.
TELEPHONES: No telephones on board. Long distance calls to be arranged via Agent. Local calls from Gatehouse.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Shore passes delivered on board on arrival.
GARBAGE DISPOSAL: Garbage containers are available on the jetties. Garbage to be delivered by ship's crew.
WASTE OIL DISPOSAL: Waste oil can be collected. Arrangements to be made with Terminal ADR Statoil Mongstad, 5154 Mongstad. Tel: 47-56-361100. Fax: 41-56-361671.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner.
PORT REGULATIONS: *Moorings:* Mixed moorings in the same direction are not allowed. Wire ropes shall have nylon "tails, forerunners" of about 10 m. – 15 m. Due to occasionally heavy swell in the fjord, particular attention is paid to the moorings.
AUTHORITY: Statoil Mongstad, N-5154 Mongstad, Norway. *Tel:* 47-56-361100. *Cables:* Stadimo. *Telex:* 42266 Stadm n. *FAX:* 47-56-361671. *Contact:* K.M. Heggertveit, Harbour Master.

MOSJOEN: 65.51 N. 13.11 E. (See Plan)

DOCUMENTS:

Health Certificate.
Crew List.
Passenger List.
Ship's Register.
Cargo List.
Bonded Store List.

PILOTAGE: Pilot station at Asvaer, location 66° 15' 9" N., 12° 18' 03" E. Telegraphic address: Pilot Station, Asvaer. VHF Channel 16. Telegraph ETA 24 hours prior to arrival. Piloting around clock.
ANCHORAGES: Hellesvik. Location 66° 01' 30" N., 12° 54' 20" E.
RESTRICTIONS: No restrictions on night entry. If draft above 33 ft. enter on high tide and commence discharging immediately.
HEALTH: Free Pratique given automatically when "Q" flag not to be flown.
RADIO: Bodo Radio.
TUGS: Stationed at Sandnessjoen. Have to be ordered through Agents 24 hours prior to arrival. Normally used by vessels above 20,000 d.w.t.
BERTHING: Drafts over 33 ft. berthed only on high tide and commence discharging immediately. No restrictions on length and breadth.

Crane for bulk cargo (alumina), capacity 300 t.p.h. Mosjoen Aluminiumverk, private berth. Maximum outreach from quay – 15 m.

No other special facilities (Ro/Ro facilities may be constructed).
STEVEDORES: Ordered through Agents. No ETA to stevedores necessary.
MEDICAL: Master to advise prior to arrival if medical attention required. Hospital facilities available.
DENSITY: Brackish in port.
FRESH WATER: Supplied from installations at berth.
FUEL: Gas oil, delivered by lorries.
CONSULS: None.
REPAIRS: Minor repairs possible.
GANGWAY/DECK WATCHMEN: Available, but not compulsory.

OPENING/CLOSING HATCHES: Performed by vessel's crew.
CUSTOMS ALLOWANCES: 1 bottle spirits, 200 cigarettes, 200 gm. tobacco.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Good Friday; Maunday Thursday; Easter Monday; Workers' Day (1st May); 17th May; Ascension Day; Whit Monday; Christmas Day; Boxing Day.
POLICE/AMBULANCE/FIRE: Fire Tel: 001; First Aid Tel: 003; Police Tel: 75172100.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Facilities available. Contact Tel: 751-71355 for details.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner (NKr.).
AUTHORITY: Mosjoen Havnevesen, Havnegaten 60, 8650 Mosjoen, Norway. *Tel:* 75175265. *Cables:* Harbour Master. *FAX:* 75170365. *Contact:* Oddvar Toender, Harbour Master.

NAMSOS: 64.28 N. 11.30 E. (See Plan)

DOCUMENTS:
Crew List.
2 Passenger Lists.
2 Health Certificates.
Manifests.
Ship's papers.
PILOTAGE: Pilot can be ordered by ship's Agent from Trondheim.
ANCHORAGE: Good anchorage inside harbour.
MAX. SIZE: Vessels up to 15,000 d.w.t. have entered harbour. 3 small oil berths with depth 5 m. LW.
HEALTH: Normal Norwegian regulations.
RADIO: Oerland Radio.
VHF: Channels 12 and 14.
TUGS: 1 tug of 16 tonnes bollard pull.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)
Tiendeholmen	55	8
S.T.K.	120	6
Jernbanekaia	95	8
Sandkaia	65	7
Ekspedisjonskaien	150	7/9
Lokalrutekaien	60	5
Private		
Norske Skogindustrier		
A/S Kai	120	8
Felleskjopet	50	5
Ole Morkved	100	5
Shell	20	5
Norsk Olje	20	5
Esso	20	5

CRANES: 50 ton mobile crane.
STEVEDORES: Notify day before arrival to arrange gangs.
TANKERS: 3 tanker berths with 5 m. alongside LW.
DENSITY: Average density 1020 in Spring, and in Summer 1015.
FRESH WATER: Available by hose. Capacity 10 t.p.h. – 15 t.p.h.
FUEL: Light grades available.
CONSULS: None.
REPAIRS: Small repairs available.
SURVEYORS: None.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Stevedores operate hatches.
CERTIFICATES: Usual international certificates.
REPATRIATION: Organised by Seamen's Office.
AIRPORT: 4 km. from town. Regular service 3 times a day South and North.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Police 72151; Ambulance 72500; Fire 72000.
TELEPHONES: Can be placed on board.
STORING: Vessels may be stored by truck. Trucks may proceed alongside the berth. Fork-lift trucks and riggers available.
SHORE LEAVE: Crew allowed ashore.
IDENTIFICATION CARDS: Not needed.
DELAYS: None expected.
GARBAGE DISPOSAL: Containers deposited alongside, 5.5 cu.m., open or closed. Contact H. Sunde Transport. Tel: 077-76600. Charges: NKr.800/container.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner.
AUTHORITY: Namsos Havnevesen, Postboks 117, 7801 Namsos, Norway. *Tel:* Office: 74272400, Private 74275423. *FAX:* 74272400. *Contact:* Arne Rostad, Harbour Master.

NARVIK: 68.25 N. 17.24 E. (See Plan)

The following information applies mainly to vessels arriving to load ore cargoes.

LOCATION: The Port of Narvik is located in position: Lat. 68° 25' 30" N., Long. 17° 24' 00" E.

DOCUMENTS: All ships arriving from a foreign port will be boarded by Customs.
The following documents should be completed prior to arrival:
Maritime Declaration of Health Form 1 – 1012.
General Declaration IMO Form 1 in quadruplicate.
Ship's Stores Declaration IMO Form 3 in triplicate.
Crew's Effect Declaration IMO Form 4 in triplicate.
Crew List in triplicate.
The above forms will be supplied by mail on request.

PILOTAGE: *Sea Pilot:* Sea Pilot will embark off Tranoy Pilot Station. Location: Lat. 68° 11' N., Long. 15° 34' E.
Distance from Tranoy to Narvik 46 nautical miles.
Note: All vessels exceeding 500 gross tons are required to use a state pilot in waters inside the base line (Norwegian internal waters).
The Sea Pilot will assist during undocking and leave the vessel off Tranoy Pilot Station.
Harbour Pilot: The use of Harbour Pilot is compulsory during docking. When docking on arrival, the Harbour Pilot will board the vessel from one of the assisting tugs inside the harbour limits.
Ordering of Pilots: Vessels approaching from the sea shall order the Pilot at 24 hours' notice in so far as possible and confirm arrival at Pilot Station at 2 hours' notice.
Provisions for Advance Reports in Connection with the Ordering of Pilots: Issued by the Director of Pilotage, 10th May, 1963, amended 1st January, 1971.

1. Vessels approaching from the sea and desiring a Pilot shall order the Pilot at 24 hours' notice in so far as possible and confirm arrival at Pilot Station at 2 hours' notice:
   (a) By telephone or telegram from ship to the pilot office concerned or sea Pilot Station over a coastal radio station.
   (b) By telephone or telegram from Broker/Shipowner to the pilot office concerned or sea Pilot Station.
2. For direct connection between ships desiring Pilot and the Pilot Service, VHF radio-telephone Channel 16 (156.8 MHz) shall be used for calling and reply, and a VHF radio-telephone ship-to-ship channel or harbour channel shall be used for conversations. Ships not equipped with VHF radio-telephone may use the distress and calling frequency 2182 kHz for calling pilot vessel, but both the ship desiring Pilot and the pilot vessel shall in such cases immediately turn to ship-to-ship frequency. At such connections minimum transmission effect shall be used.
3. Vessels lying in port and desiring Pilot will order the Pilot from the nearest pilot office during its office hours and if possible at 4 hours' notice.
4. Vessels approaching from the sea as well as vessels lying in port shall, when making an advance order, state the name and destination of the vessel and whether 1 or 2 Pilots are desired.
5. The Pilots will on the whole be despatched to the ships in accordance with the advance orders, and vessels are therefore requested to comply with the foregoing rules as far as possible in order to avoid having to wait for Pilot.
6. The international provisions for summoning Pilots by signal flags or blue lights, etc. are still in force, but should in future be used as a supplement to the radio communications or as the sole communication in emergencies.
7. These provisions come into force on 1st January, 1971.

Vessels in Port: Luossavaara-Kiirunavaara AB will notify the Sea Pilot in due time before completion of loading. LKAB will also arrange for Harbour Pilot to assist during docking or when otherwise required by vessel's Master.

ANCHORAGES: Anchoring must take place in the recommended areas as advised by the Pilot, i.e. inside the harbour basin or West of "Framnesodden".
Warning: The bottom usually gives good anchorage but vessels are requested to keep continuous watch while at anchor. Frequent anchor bearings must be taken during adverse weather conditions.
Vessels at anchor inside the harbour basin are especially exposed to gusting winds from S.E. (locally named "Beisfjord-winds").

HEALTH: The Master of a ship arriving from a foreign port, must hand to the Customs Officers a Maritime Declaration of Health form signed by the Master. If there is a ship's Surgeon on board, the declaration to be countersigned by this person.
A valid Derat Certificate to be presented to the Customs on request.

RADIO: *ETA Notices:*
1. Please cable ETA to Malmexport Stockholm 6 days prior to arrival at loading port and to MALMEXPORT NARVIK as follows:
Sailing from last port and 48 hours and 24 hours before arrival.
If any change in ETA of more than 1 hour occurs after transmission of the 24 hour ETA, the vessel must send a corrected ETA.
2. Following should be included in the 48 hours ETA notice:
   a. Tonnage of cargo required and quantity in each hold.
   b. Cash advance requirement.
   c. Order for repairs, bunkers, stores, charts, etc.
   d. In case of repatriation, please state name of crew member(s) to be repatriated, destination and date of departure preferred.
3. Docking instructions – prospects.
Request for docking instructions, loading time, etc. should preferably be included in the 48 hours ETA.
Docking instructions will also be advised by Pilot on arrival Tranoy Pilot Station.

4. Estimated time for ballast pumping after arrival should be advised with the 24 hours ETA.

Other Vessels: Cable Agents giving ETA, draft and cash required. Radio station: Rogaland Radio/LGB but other stations can be used.

NOTIFICATION TO NORWEGIAN AUTHORITIES: All foreign non-military vessels larger than 50 gross tons or longer than 24 m. are required to notify Norwegian Defence Authorities at least 24 hours before the vessel plans to cross the Norwegian base line.

Vessels bound for Narvik shall send the message in writing to: Hq DEFCOMNON Norway.

The notification shall contain:
- IMO identification number.
- Name, nationality and call sign.
- Vessel's type, cargo, draft and gross tonnage.
- Purpose of entry.
- Position where the vessel intends to cross the base line.
- ETA (and if known, ETD) Narvik.
- Name of Agent or other contact.

If the notification cannot be sent in writing, the Master may send it on VHF radio via the nearest Coast Radio Station. The Radio Station will forward the message to Hq DEFCOMNON.

VHF: Contact with LKAB can be obtained by VHF (Channel 14) on a 24 hour basis. Vessels at anchor are requested to keep continuous VHF watch. It is also advisable for vessels alongside to have the VHF switched on. Messages to the Agent should be given by VHF.

Local and long distance calls can be ordered via Bodo Radio on VHF Channel 65.

Other Vessels: Local and long-distance calls may be ordered through Bodo Radio on Channel 16 or 65.

Port frequency is Channel 14, on which vessels may communicate with the port ferry launch and Agent (ore-loading vessels).

TUGS: Tug service is compulsory at LKAB's Ore Berths.

Luossavaara-Kiirunavaara AB reserve the right to order the number of tugs (maximum 3) which they consider necessary to ensure safe mooring and unmooring of a vessel.

Vessels above approximately 70,000 d.w.t. will normally be assisted by 3 tugs.

Main particulars of tugs available: M/V "Svarta Bjorn", g.r.t. 277, b.h.p. 1,640, bollard pull 23 tons, 11 knots. Fluid couplings and single reduction gearing. Reverse gear to screwshaft.

M/V "Rallaren", g.r.t. 435, b.h.p. 3,800, bollard pull 43 tons, 12.4 knots. Two Voith-Schneider directional propellers.

M/V "Rombak" g.r.t. 440, b.h.p. 4,000, bollard pull 47 tons, 12.5 knots. Two Voith-Schneider directional propellers.

Tugowners: A/S Bukserbater, Narvik.

Towing lines will be provided from the tugs.

Normal communication between tugs and Pilot is by VHF. Operating Channel 6 (156.3 mHz.).

Bilge Pumps: The tugs M/V "Rallaren" and M/V "Rombak" are equipped with 2 transportable bilge pumps. Average pumping capacity of each pump: 2,000 litres per minute.

Fire Fighting: Tugs M/V "Rallaren" and M/V "Rombak" are equipped with foam/water guns for fire fighting.

Other Vessels: Must be employed for tankers, 3 tugs available, capable of assisting vessels up to 250,000 d.w.t.

LOADING:

Docking Data for Ore Berths: (Measurements in metres, unless otherwise stated).

	Berth No. 3	*Berth No. 4*	*Berth No. 5*
Building completed (year)	1950 (Caisson in 1967)		1977
Type	Concrete Pier		Concrete Caisson Berth
Length	214.00	214.00	208.00
Breadth	13.50	13.50	Min. 8.25, Max. 18.00
Depth alongside at LWOST	*13.50	13.00	27.50
Height under shiploader (Airdraft) on HWOST	13.00	11.00	26.00
Max. outreach of shiploader from fender line	15.00	11.00	43.00 When perpendicular to wharf
Number of shiploaders	2	2	1
Suitable ship's size in d.w.t. (approx.)	40-75,000	5-45,000	70-250,000
Max. ship's size in d.w.t. depending on type and construction	90-100,000	45-50,000	over 300,000
Limitation of ship's length from bow (bulb) to aftermost loadpoint	200.00	175.00	No limitation
Max. length between ship's foremost and aftermost loadpoint loadable without warping	152.00	152.00	220.00

*Note: Maximum guaranteed draft at Berth No. 3 is 13 m. on LWOST (minimum 0.5 m. under-keel clearance required).

Loading to draft exceeding 13 m. may take place during favourable tide and weather conditions.

Iron Ore Qualities/Average Stowage Factors:

Ore Qualities	*tons/ cu.m.*	*cu.m./ tons*	*tons/ cu.ft.*	*cu.ft./ tons*
KB (Kiruna B)	3.30	0.30	0.093	10.8
KBS (Kiruna BS)	3.00	0.33	0.085	11.8
KBF (Kiruna B Fines)	3.20	0.31	0.091	10.9
KD (Kiruna D)	3.05	0.33	0.086	11.6
KDF (Kiruna D Fines)	3.00	0.33	0.085	11.8
KPBO (Kiruna Pellets with Olivine)	2.05	0.49	0.058	17.2
MPBO (Malmberget Pellets with Olivine)	2.05	0.49	0.058	17.2
PF (Pellets Fines)	2.50	0.40	0.071	14.1
MAF (Malmberget A Fines)	2.95	0.34	0.083	12.0
MPRD (Malmberget Pellets Direct reduction)	2.15	0.465	0.061	16.4
Apatite	1.50	0.667	0.043	23.5

Weighing: The ore is weighed continuously during loading by electronic belt scales.

Margin of error maximum ±0.25%.

All weights as well as quantities issued in the Bills of Lading are expressed in metric tonnes (1,000 kg.).

Load Line Zones:

Winter: 1st November – 31st March.

Summer: 1st April – 31st October.

BERTHING:

General Description: The Ore Berths, hereinafter described as Berth Nos. 3, 4 and 5, allow 3 ships to be berthed simultaneously.

The ore is transported from the stockyards to the shiploaders on conveyor belts. Both stockpiling and loading is automatically directed from a central control station. On the way to the pier belts, the ore is transferred via sampling stations which also include computer controlled screen analysis for pellets.

After having passed the sampling station, the ore is weighed by electronic belt scales with a very high degree of accuracy.

Mooring: Ships usually berth:

Starboard side to Berth No. 3.

Port side to Berth No. 4.

Starboard side to Berth No. 5.

It is the responsibility of the Ship's Master to provide for and make sure that his ship has sufficient mooring ropes and wires ashore at all times, and that the moorings are properly and evenly tightened.

Ships berthing at Berth No. 5 should preferably use floating mooring ropes (nylon, polypropylene or similar) for head- and sternlines.

Berth Nos. 3 and 4: Consists of a slender reinforced concrete pier, supported by 13 heavy concrete pillars resting on steel piles which are rammed through clay and silt to solid rock some 30 m. – 35 m. below the pier deck, above which the superstructure, carrying the conveyor belts, rises about another 15 m.

The outer end of the concrete pier deck is based on a caisson, placed on a reinforced concrete foundation slab, resting on steel piles driven to rock base.

The caisson as well as the pier itself is equipped with heavy rubber fenders of Seibu type and with heavy rubber tyre fenders.

Shiploaders: There are 2 travelling boom loaders on each side of the pier with a working area of approximately 150 m.

If 2 ships are loaded simultaneously, only 1 shiploader can be used on each side.

Designed capacity of each shiploader is 4,500 tonnes/p.h., but the average capacity should be calculated between 3,000 tonnes/p.h. and 2,000 tonnes/p.h. depending on the kind of ore being loaded.

Berth No. 4 – Olivine discharge: A construction consisting of 2 discharging bins connected to a conveyor belt system allowing self-discharging vessels to discharge bulk cargoes at a max. rate of about 700 t.p.h. is mounted on Berth No. 4. The unloading facilities are intended for olivine which is being used in the pellet production (KPBO), but the discharging system can also be used for other bulk cargoes.

Berth No. 5: Is a concrete caisson berth, parallel to the shoreline.

The basement of the berth consists of 5 cylindric caissons resting on foundations connected to solid rock.

The face of the berth is fitted with heavy Seibu fenders, dimensioned to obtain pressure of a 40% ballasted ship of about 350,000 d.w.t., approaching at a speed of 0.15 m. per second.

The Shiploader: Is of a linear slewing type, turnable around a fixed point in the rear. The loader travels on rails along the berth in a length of 140 m. The shiploader boom can be elevated to any suitable height over a vessel's hatch coamings. Maximum horizontal loading range is 220 m.

Designed capacity is maximum 11,000 tonnes/p.h. for lumpy ore and fines, and approximately 7,500 tonnes of pellets per hour.

Apatite Berth: The berth is located between Berth No. 5 (East side) and shore. Minimum depth 12 m. Vessels up to approx. 10,000 d.w.t. can load Apatite in bulk at this berth. One shiploader with designed capacity 800 metric t.p.h. The cargo is stored in a silo of 7,035 cu.m., containing about 11,000 tonnes apatite.

Loading takes place via a closed and dust free system through special openings in vessel's hatchcovers.

Fagerneskaien: There is a deepwater quay, "Fagerneskaien", located to the South of the harbour.

Length of quay 280 m.

Depth alongside on LW 15 m.

The quay has easy access from the shore side and suitable for ships taking onboard heavy goods and provisions as well as for ships carrying out repairs.

The quay is directly connected to the main railway.

Fresh water is available with connections conveniently located.

STEVEDORES: Ordered by Agent. Not necessary to contact stevedores.

Working Hours: Ordinary working hours 24 running hours, except Saturday 2200 hrs. to Sunday 0600 hrs.

CRANES: Mobile cranes can be hired from local companies.

DENSITY: 1022.

FRESH WATER: Can be supplied from all berths. Connections are conveniently located with hoses available on the dock.

Fresh water can also be delivered by tugs. An extra fee will then be charged.

Capacity per delivery: M.V. "Rallaren" 93 cu.m.
M.V. "Rombak" 112 cu.m.

FUEL: Bunkers are available on an emergency basis only. Orders for fuel and diesel should preferably be given in due time directly to the supplier. Fuel oil can only be supplied from coastal-tankers.

Diesel oil can be delivered by the tug M.V. "Rombak" at the daily market rate and from the supplier used by the tugboat company.

Capacity per delivery about 100 cu.m.

An extra fee will be charged for the tug per delivery.

It is also possible to supply diesel oil by tank wagons. Capacity per delivery about 10 cu.m. – 12 cu.m.

Lubricants: Can be procured, but due notice must be given as all types are not kept in stock.

CONSULS: See "Telephone Numbers".
REPAIRS: Minor repairs can be effected by local repair firms.
SURVEYORS: Lloyd's representative and surveyor are available at the port.
DRY DOCKS: None.
GANGWAY/DECK WATCHMAN: Not available.
OPENING/CLOSING HATCHES: May be handled by ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes or 250 gm. tobacco and 1 litre spirits and 1 litre wine (or 2 litres wine only). Any excess of this quantity to be declared on Custom's List.
AIRPORT: Narvik Airport, 5 minutes by taxi from the port. Local commuter service with connection to the nearest major airports.

Evenes Airport, 1.5 hours by bus from Narvik. Regular service to Oslo (Fornebu Airport) and other major Norwegian airports.

REPATRIATION: Facilities exist for crew changes and repatriation.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Monday; May 1st; Ascension Day; May 17th (Constitution Day); Whit Sunday; Whit Monday; Christmas Eve (after 1200 hrs.); Christmas Day; Boxing Day.
POLICE/AMBULANCE/FIRE: Police 76923400; Hospital 76944044. Emergency Numbers: Alarm/Fire 110. Police 112. Ambulance 113.
TELEPHONE NUMBERS:

	Telephone No.	After Hours No.
Police Station	76923400	
Police – Emergency	112	
Fire Brigade	76942555	
Fire/Accidents	110	
Hospital	76944044	
Immediate Help	76943000	
Ambulance	76943600	
Ambulance (Emergency)	113	
Custom House	76941580	
Harbour Office	76922370	76922375
Harbour Master	76922371	76942796
Pilot Office (Lodingen)	76931104	
Lloyd's Agency	76923800	76944382
Det Norske Veritas Surveyor	76923700	76943685
British Vice Consulate (Harstad)	77064631	77063093
Danish Vice Consulate	76944015	76942232
Finnish Vice Consulate	76941150	76943528
French Consulate	76946050	76943555
German Consulate	76956707	76956707
Swedish Consulate	76923800	
Apostleship of the Sea "Stella Maris"	76941634	
International Seaman's Centre of the Swedish Church	76941414	
Telegraph/Telephone Inquiry	180	

TELEPHONES: Vessels at berth may hire a telephone. A telephone watch should then be kept on board.
LAUNCHES: The Agent will supply a time table and tickets on arrival. If a launch is required, the "B" flag or red light should be displayed from the signal mast. Alternatively, service launch can be called on VHF Channel 14.
SERVICES: Compass adjusting can be arranged when necessary.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Shore passes to be used when passing the LKAB gate will be supplied by ship's Agent.
GARBAGE DISPOSAL: Garbage disposal containers available on quay. Ship's agent or Port Authority should be contacted when disposal is required.
WASTE OIL DISPOSAL: Upon request, tanker trucks from Harstad (about 120 km. distant) will collect waste oil disposal direct from vessel. Due to transport distance, request for such disposal should be forwarded to ship's agent/Port Authority, prior to arrival.
SEAMAN'S CLUBS: Svenska Sjomanskyrkan (International Seaman's Centre), P.O. Box 145, N-8501 Narvik. Tel: 769-41414/43030.
CUSTOMS OF THE PORT:

1. The ships will generally be loaded in regular turn, providing they present with starting hatches opened and holds properly cleaned and do not have ballast pumping which will exceed expected loading time.

2. For establishing turn of vessels a ship will be considered "Arrived" at the time of passing a line between the S.W. point of "Framnesodden" and "Batberget", or if anchored outside the Harbour limit, at the time of anchoring.

3. The time of arrival stated in the Notice of Readiness shall be the time when a ship has moored alongside loading berth, (finished with engines) or when loading berth is not available, at the time of anchoring.

4. Notice of Readiness shall be given by the Master on arrival whether in berth or not any time SHINC with the exception of certain holidays.

5. Loading plans, duly dated and signed, stating quantity in each hatch and rotation of loading, must be presented to the Agent on arrival and to the loading foreman as soon as the ship has moored.

6. All weights shown on the Bill of Lading will be the same as recorded on the weighing facilities of Luossavaara – Kiirunavaara AB. The weights will be given in tonnes of 1,000 kilogrammes (metric tonnes).

7. Pilots and tugs will be ordered in due time before loading is finished. The ship must leave the pier upon completion of loading when the cargo documents have been received. If any delays occur in preparing the cargo documents, or on occasion of missing crew members, or in case of any dispute or otherwise, the ship must leave the pier immediately when so ordered by the shippers, and matters will be settled while the ship is waiting in the roads.

8. Ore – Oil and OBO vessels will not be accepted for loading unless gas-free certificate has been obtained.

9. *Working Hours:* 24 hours continuous work SHINC, except December 24th (1400 hrs. – 2200 hrs.).

Note: The above stipulated working hours are subject to alteration without notice.

GENERAL:

Tide: Range of tide: Maximum approximately 4.50 m.
Minimum approximately 0.50 m.
Average 1.75 m.

Currents: The existing currents are mainly caused by tide water. The average speed of the current varies from 1 knot – 3 knots.

During May – June there is a constant Northwesterly flood-current setting out from "Beisfjorden" (a narrow fjord to the South of the harbour). This current reaches an estimated speed of 4 knots – 5 knots when it coincides with the fall of the tide.

The direction of the current in the harbour basin is exposed to seasonal and local variations owing to snow-melting and changes in water temperature.

It is important that the Ship's Masters are aware of the fact that the existence of variable currents in the harbour may affect the manoeuverability and bring vessels at anchorage in the bay to turn in dissimilar directions.

Winds: The local fall winds from Southeast occur suddenly and unexpectedly but are most frequent and strongest during the Winter season, when winds force 30 sec./m. have been measured.

Harbour Charts: Norwegian Chart No. 461 and British Admiralty Chart No. 3753.

Garbage: Trucks will remove garbage from vessels at berth on request. Garbage can also be removed by lighter if necessary from ships at anchor.

Launch Service: A regular launch service is operated and administrated by the Harbour Authorities.

Port Passenger Ferry Service: Until further notice is given, the Narvik Port Authority's passenger ferry service to/from all vessels anchored on the inner/outer roads is scheduled as follows:

INNER ROADS

Weekdays: Departure Ferryquay: 0715 – 0800 – 0900 – 1000 – 1200 – 1300 – 1400 – 1600 – 1800 – 2000 – 2200 – 2400 – 0130.

Saturdays, Sundays and Holidays: Departure Ferryquay: 0800 – 1000 – 1200 – 1400 – 1600 – 1800 – 2000 – 2200 – 2400 – 0130.

OUTER ROADS (outside Framnesodden)

Every day: Departure Ferryquay: 0800 – 1000 – 1200 – 1400 – 1600 – 1800 – 2000 – 2200 – 2400.

The ferryboat will call at your vessel *only* if passengers are to be put on board, *or* if the ship by means of proper signals indicates that ferry service is required.

The proper "ferryboat requested" signals are:
In daylight: A red flag hoisted at the yardarm.
In darkness: A well visible red light.
Day and night: VHF Channel 14.

Pilot Ladders/Gangways: For safe embarkation/disembarkation of passengers to/from any vessel anchored on the roads, the following regulations should be observed:

1. Either pilot ladder or gangway to be rigged on the leeward side of the vessel. In rough weather, both a pilot ladder and a gangway must be arranged on the leeward side in such a way that the ladder can be reached from the embarking/disembarking platform of the gangway when lowered to the sea surface.

2. The pilot ladder is – when rigged – to be safely secured on the main deck, and extend to the sea surface. In order to prevent capsizing, every 4th rung of the ladder should be extended.

3. Properly secured on deck, 2 strong holding ropes should be arranged close to the pilot ladder, 1 on each side, and extend to the sea surface.

During darkness, proper lights to be rigged above ladder/gangway, so that embarkation/disembarkation may be carried out in a safe way.

4. The vessel's watchman should stand by the ladder/gangway during embarkation/disembarkation, in order to assist the passengers when necessary.

General: During unfavourable weather conditions, when the sea is rough, the captain of the ferryboat may have to cancel one or more scheduled calls at your vessel, until conditions have improved.

You may communicate with the ferryboat on VHF Channel 14.

With reference to the above regarding Ferryboat service, we regret that the last ferry from shore leaves at 2400 hrs.

Transport to the ship in the Roads between 2400 hrs. and 0715 hrs., respectively 0800 hrs. on Saturdays, Sundays and Holidays, can only be arranged in case of absolute emergency.

Officers and crew members on ordinary shore leave who miss the last ferry at 2400 hrs., will have to wait until the first ferry the following morning.

Provisions and Stores Available: Advance notice preferred.

Ship's Laundry: Can be taken care of.

Agency: Luossavaara-Kiirunavaara AB (LKAB) will handle the Agency and perform all normal service functions at this port. Tel: 769-41020. Cable address: "Malmexport Narvik". Telex: 64022. Answerback code: lkabn N. VHF (24 hour basis) calling Channel 14, Working Channels 12 and 14. Call sign: LKAB.

Advance funds sufficient to cover estimated compulsory port expenses and additional outlays, such as cash to Master, must be remitted prior to vessel's arrival.

Bank remittances should be sent to LKAB's account No. 6370.05.01045 with Christiania Bank og Kreditkasse Narvik. Cable address: "Kreditkassen Narvik". Telex: 64081. Answerback code: Cbknk n.

AUTHORITY: Narvik Havnevesen, P.O.Box 627, 8501 Narvik, Norway. *Tel:* 769-22372. *FAX:* 769-42981. *Contact:* K. Heggelund, Port Manager. A. Normann, Assistant Port Manager.

ORKANGER: 63.20 N. 09.52 E.

Also see "Thamshavn".

PILOTAGE: Contact Kristiansund N. Pilot Station.

MAX. SIZE: LOA 200 m. draft 11.0 m.

VHF: Port on Channels 16 and 12.

TUGS: Available from Trondheim.

BERTHING:

Quay No.	*Length* (m.)	*Depth* (m.)
1	48	5.0
2	83	12.0
3	33	12.0
4	33	9.1

STEVEDORES: *Working Hours:* 0700 hrs. – 2300 hrs.

MEDICAL: Hospital available.

FRESH WATER: Available.

FUEL: Available by truck from Trondheim.

AIRPORT: Vaernes Airport, 80 km.

TIME: GMT plus 1 hour. Summertime from late March until late September.

GARBAGE DISPOSAL: Available.

WASTE OIL DISPOSAL: Trucks available.

AUTHORITY: Orkanger Havn, Kommunesentret, N-7300 Orkanger, Norway. *Tel:* 72482722. *FAX:* 72482854. *Contact:* Tom Mardahl, Port Manager.

OSLO: 59.54 N. 10.43 E. (See Plan)

DOCUMENTS:

Maritime Declaration of Health.
Sealing Certificate.
2 Crew Lists.
2 Passenger Lists.
2 Lists Crew Personal Effects.
Provisions List.
3 Cargo Manifests.
Certificate of Tonnage.
Dangerous Cargo List.

PILOTAGE: Compulsory. Pilot boards at Faerder Lighthouse, 57 miles from docks. Give 24 hours notice "Faerder Pilot". Pilot station on VHF Channel 13.

ANCHORAGE: Good sheltered anchorage in Western and Eastern Harbour Basins, depths up to 20 m.

RESTRICTIONS: Vessels may enter at any time, except tankers with draft over 30 ft., which may only enter in daytime. Tankers over 35,000 d.w.t. are not allowed to enter the harbour. No tide or current.

MAX. SIZE: Vessels up to 31 ft. draft may berth at Filipstad Quay and 34 ft. at Sjursoya Quay.

Tankers: Up to 36 ft. draft at Oslo, or 38 ft. draft at Fagerstrand.

HEALTH: International procedure followed to obtain Pratique. In case of suspected disease or fever on board, inform the Harbour Master's Office in advance. When arriving from a Norwegian port, Pratique is automatic.

RADIO: Communicate through Tjome Radio, call sign LGO. Harbour Master's Office equipped with VHF Channels 16 and 12.

TUGS: Sufficient tugs available for all requirements.

BERTHING: Instructions given from Harbour Master. Masters of ships are requested to send their ETA to the Harbour Master's Office through Oslo Havne Radio, VHF Channel 12, one hour prior to arrival.

Filipstad Quay: Up to 10 m. depth alongside.
Sjursoya Quays: Up to 11 m. depth alongside.
Vippetangen: Up to 8 m. depth alongside.
Pipervika: Up to 11 m. depth at Akershus Pier.
Bjorvika: Up to 7 m. depth at Lang Quay, and up to 10 m. depth at Revier Quay.
Bispevika: Up to 10 m. depth at Sorenga Pier.
Gronlia: Up to 8 m. depth alongside.
Kongshavn Quays: Up to 8 m. depth alongside.
Bekkelaget: Up to 10 m. depth alongside.
Ormsund: Up to 9.0 m. depth alongside.

BULK CARGO FACILITIES: Container traffic handled at Filipstad and Ormsund.

Sorenga Pier equipped for palletised cargo handling and Ro/Ro.

15 berths for Ro/Ro traffic. 3 Container cranes for 20 ft. 30 ft. and 40 ft. units, up to 35 tons (net) and container handling equipment, quay cranes and mobile cranes and floating Ro/Ro ramp.

Sjursoya North: Cement, phosphate, grain and molasses.
Sjursoya South: Gasoline and oil and propane gas.
Bekkelaget North: Molasses, general cargo and oil.
Filipstad: General cargo and containers.
Sorenga: General cargo and Ro/Ro.
Kongshavn: Building material.
Ormsund: Containers.

STEVEDORES: Arranged by Agents. Working hours 0700-1600 hrs., Saturdays overtime is voluntary.

MEDICAL: All facilities available. Masters to advise by radio prior to arrival if medical attendance required on board.

TANKERS: Also see "Slagen".

Oslo: Oil pier at Sjursoya, depth alongside 15 m. or more. A tug required to stand by during discharge for tankers over 6,000 d.w.t.

Fagerstrand: Terminal operated by Norske Braendselolje A/S situated in Oslo fjord, 12 miles South of Oslo. 1 berth for tankers up to 30 ft. draft. One berth for tankers up to 38 ft. draft.

DENSITY: Salt water, 1025.

FRESH WATER Available by pipeline from all quays.

FUEL: All grades available, ex-wharf at many quays. Can be delivered by barge.

FIRE PRECAUTIONS: 2 boats fully equipped with fire-fighting equipment.

CONSULS: Following countries are represented at Oslo:

Albania
Argentina
Australia
Austria
Bahamas
Bangladesh
Belgium
Benin
Botswana
Brazil
Bulgaria
Canada
Chile
China
Colombia
Cook Islands
Costa Rica
Cyprus
Czech Republic
Denmark
Egypt
Estonia
Finland
France
Gambia
Germany
Ghana
Greece
Grenada
Guatemala
Guinea Bissau
Honduras
Hong Kong
Hungary
Iceland
India
Indonesia
Iran
Ireland
Israel
Italy
Ivory Coast
Jamaica
Japan
Jordan
Korea
Latvia
Lesotho
Liberia
Liechtenstein
Lithuania
Luxembourg
Madagascar
Malaysia
Mali
Malta
Mexico
Monaco
Morocco
Nepal
Netherlands
New Zealand
Pakistan
Panama
Papua New Guinea
Peru
Philippines
Poland
Portugal
Romania
Russia
Senegal
Seychelles
Singapore
Slovakia
South Africa
Spain
Sri Lanka
Sudan
Sweden
Switzerland
Thailand
Togo
Tunisia
Turkey
U.K.
U.S.A.
Uruguay
Venezuela
Yugoslavia

REPAIRS: All types of machinery repairs can be effected.

CUSTOMS ALLOWANCES: 200 cigarettes allowed weekly, 1 litre of wine and 1 litre of spirit weekly, for each man.

CARGO GEAR: International Safety Regulations to be observed.

REPATRIATION: All facilities available without restrictions.

AIRPORT: Fornebu Airport situated 8 km. from city centre. Regular services to Europe, South America, Far East and U.S.A.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: January 1st; Good Thursday; Good Friday; Easter Monday; May 1st; May 17th; Whit Monday; Christmas Day; Boxing Day.

No cargo work normally on Saturday, Sunday and Holidays.

POLICE/FIRE/AMBULANCE: Police, Tel: 669050 or 002; Fire, Tel: 114455 or 001; Ambulance, Tel: 117080 or 003.

TELEPHONES: Can be placed on board vessels at most quays.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not required.

DEVELOPMENTS: Extensions of the land areas in the port by approx. 200,000 sq.m. Quay extensions of 1,000 m. Storage halls in hills, 100,000 sq.m. or more, sheds and service buildings.

AUTHORITY: Oslo Port Authority, Vippetangen, N-0150 Oslo. Postal address: P. O. Box 230, Sentrum, 0103 Oslo 1. *Tel:* (22) 416860. *FAX:* (22) 416751, (22) 429528. *Cables:* Osloport. *Contact:* Per Mauritz Hanssen, Port Director.

RISOR: 58.43 N. 09.14 E.

DOCUMENTS:

3 Crew Lists.
3 Customs Lists.
Ship's Register.
Bill of Lading.

PILOTAGE: Contact Arendal Pilot.

ANCHORAGE: In 15 fathoms depth.

MAX. SIZE: 10,000 d.w.t., draft 28 ft.

RADIO: Farsund and Tjomoy Radio. VHF Channel 16. No radar.

TUGS: No tugs for berthing.

STEVEDORES: Available. 24 hours notice of ETA required.

FRESH WATER: Available by pipeline at berth.

FUEL: Not available.

CONSULS: French and Swedish.

REPAIRS: No shipyard.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: May be performed by ship's crew.

CUSTOMS ALLOWANCES: Tobacco: Wine/Spirits: 200 cigarettes per crew member for 10 days. 3 bottles spirit for ship's Master only for 10 days.

AIRPORT: 10 miles; every day service.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: Work can be arranged by 100% overtime.

TELEPHONES: Can be arranged on board.

IDENTIFICATION CARDS: Not needed.

AUTHORITY: Risor Radmannskontor, 4950 Risor, Norway. *Tel:* 371-50500. *Cables:* Havnekontoret, Risor. *FAX:* 371-50058. *Contact:* Kjell Skarheim, Harbour Master.

SANDEFJORD: 59.07 N. 10.14 E. (See Plan)

DOCUMENTS:
1 copy Crew List.
1 copy Stores List.
1 copy Customs Declaration (ship).
1 copy Customs Declaration (crew).
1 copy Health Declaration.

PILOTAGE: Compulsory, except for Norwegian flag vessels.

Pilot boards at Langesund (Lat. 58° 56′ N., Long. 09° 48′ E.). Distance to port 20 nautical miles. Pilot boat has a white hull and orange superstructure and operates throughout 24 hours.

ANCHORAGES: At Sigrunnen, depth 38 m. – 40 m.

MAX. SIZE: See "Berthing".

RADIO: *ETA:* Advise Port Authority of ETA at least 24 hours prior to arrival. Also advise name of vessel, draft, LOA and flag.

VHF: Harbour Office: Channels 14 and 16 (0800 hrs. – 1530 hrs.). Pilot: Channels 16, 13 and 80.

TUGS: 3×30/50 tonnes bollard pull. Ship's lines used.

BERTHING: 2 berths at Sandefjord (Thoroya and Pier II) and 2 berths at Framnes.

Berth	*Max. LOA* (m.)	*Max. Draft* (m.)
Thoroya	250	8.0 – 12.0
Pier II	100	8.0
Framnes		9.0 – 18.0 (depth)

STEVEDORES: *Working Hours:* 0700 hrs. – 1600 hrs. Overtime possible.

FRESH WATER: Available. Rate 24 tonnes/hr. per hose.

FIRE PRECAUTIONS: Rules in force when loading or discharging dangerous goods.

CONSULS:

Germany	22-552010	U.K.	22-552400
Greece	22-442728	U.S.A.	22-448550
Italy	22-552233		

REPAIRS: Available at Kaldnes Framnes.

DRY DOCKS: At Horten: 250 m. × 38 m. × 7.30 m. depth.

SURVEYORS: Det Norske Veritas.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Crew or stevedores.

CUSTOMS ALLOWANCES: Usual allowances.

CARGO GEAR: Can be arranged.

REPATRIATION: Possible.

AIRPORT: Torp International Airport. Several flights a day.

TIME: GMT plus 1 hour. GMT plus 2 hours (Last Sunday in March to last Sunday in September).

HOLIDAYS: May 17th; Easter and Christmas.

POLICE/AMBULANCE/FIRE: Police 112, Ambulance 113, Fire 110.

TELEPHONES: Can be placed on board at 10 days notice.

SERVICES: Drivers.

BANKS: Banking facilities at Framnes and Pier II, but not at Thoroya.

GARBAGE DISPOSAL: Available (containers of 3 cu.m. and 10 cu.m.).

WASTE OIL DISPOSAL: Available by tank truck or barge.

AUTHORITY: Sandefjord Havnevesen, Thor Dahlsgatan 1-5, 3210 Sandefjord, Norway. *Tel:* 334-56438. *FAX:* 334-62613. *Contact:* Bjornar Christiansen, Harbour Master.

SARPSBORG: 59.17 N. 11.07 E.

Note: On 1st January 1993, the ports of Sarpsborg and Fredrikstad amalgamated under the name of Borg.

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
1 Health Certificate.
3 Manifests.
1 Bill of Lading.
2 Tobacco/spirit Lists.

PILOTAGE: Pilot ordered by Faerder Losstasjon or Herfol Losstasjon via Tjome Radio. Harbour Office can be contacted by VHF.

Pilotage compulsory for all vessels of 100 g.r.t. and over above Huidstonodden Lt. (59° 16′ N., 11° 03.7′ E.).

ANCHORAGE: Between Struten Light and Stromtangen Light.

MAX. SIZE: 24 ft. draft.

HEALTH: No particular action necessary, but Agent to be informed.

RADIO: Tjome Radio.

VHF: Harbour Master's Office (Tel: 943-18061), Channels 16 and 12. Day and night service.

TUGS: Small harbour tug available.

BERTHING: A Roll-on/Roll-off berth has been built to handle vessels of up to 6,000 tons gross. Depth alongside 24 ft. Vessels will moor alongside the old Alvim Pier enabling them to work through the side doors and stern doors.

STEVEDORES: Ordered through Agent.

MEDICAL: If medical attention necessary Agent must be informed in advance.

FRESH WATER: Only at Alvim Kai, average 15 t.p.h.

FUEL: Fuel obtained only with tank cars.

CONSULS: Denmark, Finland, Iceland, Sweden and Greece have vice-consulates.

REPAIRS: Deck and engine repairs possible.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: No gangways from shore. Watchman can be obtained.

OPENING/CLOSING HATCHES: Carried out by crew.

CUSTOMS ALLOWANCES: 100 gm. tobacco or 200 cigarettes per crew member. Wine 1 litre per member or 1 bottle of spirit.

REPATRIATION: Facilities available.

AIRPORT: Fornebu Airport 110 km. from Sarpsborg. Served by regular airlines.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: 1st January; 1st May; 17th May; 25th/26th December. No work on these days.

POLICE/AMBULANCE/FIRE: Police 112; Ambulance 113; Fire 111.

TELEPHONES: No arrangements exist for placing telephones on board.

SHORE LEAVE: No restriction.

IDENTIFICATION CARDS: Have to be used for Melloes Quay only.

GARBAGE DISPOSAL: Garbage containers placed on all quays. Disposal free of charge. Emptied when required.

WASTE OIL DISPOSAL: No waste oil disposal.

SEAMAN'S CLUBS: Seaman's club operating in Fredrikstad.

CURRENCY: Norwegian Kroner (NKr.).

AUTHORITY: See "Fredrikstad".

SAUDA: 59.40 N. 06.22 E. (See Plan)

DOCUMENTS:
Health Certificate.
Crew List.
Derat Certificate.
Ship's Register.

PILOTAGE: Skudefjorden Pilot Station, Tel: 047-58337 (or pilot boat "Skudefjord" on VHF). Kvitsoy, position Lat. 59° 05′ N., Long. 05° 20′ E.

ANCHORAGES: Safe anchorages everywhere in Sauda Harbour area.

RESTRICTIONS: No restrictions on night entry – but Sea Pilots usually refuse to take in vessels over 10,000 d.w.t. between 1800 hrs. and 0600 hrs. during Winter time, October-March.

MAX. SIZE: *Sauda Smelteverk A/S* (Private Quays): Draft 30 ft. – but vessels over 30 ft. are allowed to get alongside at owner's own risk. Length no restriction. Breadth, 75 ft.

Official Quays: Length of quays – 230 ft. and 200 ft. Max. draft 13 ft.

RADIO: Cable Agents giving ETA, draft and cash requirement via Rogaland Radio.

VHF: VHF installed in Agents office, Channels 16 and 9.

TUGS: Not necessary.

BERTHING: May take place at any time provided quay available.

(1) Import Quay: 250 m. long. 2 unloading towers with a capacity of about 3,500 tons ore per day.

(2) Export Quay: 115 m. long. 2 loading cranes with a capacity of about 1,600 tons ferro alloys per day. One loading machine with capacity 400 t.p.h.

STEVEDORES: Ordered by Agents. Normal working hours 0700 – 2300. Saturdays and Sundays – No work.

MEDICAL: Masters to advise by radio prior arrival if medical attendance required aboard. Modern hospital.

DENSITY: Brackish in port area, average salinity 2.39%.

FRESH WATER: Good fresh water available, delivery irrespective of quantity.

FUEL: No fuel available at Sauda, must be ordered from Stavanger.

CONSULS: No consulates at Sauda. Nearest in Stavanger.

REPAIRS: Minor repairs possible.

DRY DOCKS: No dry dock at Sauda. Nearest in Stavanger and Haugesund.

GANGWAY/DECK WATCHMEN: Available, but not compulsory.

OPENING/CLOSING HATCHES: Crew allowed to open and close.

CERTIFICATES: Registered Tonnage Certificate required.

CUSTOMS ALLOWANCES: Master: 400 cigarettes or 400 gm. tobacco, 2 litres spirits/wine.

Crew: 200 cigarettes or 250 gm. tobacco, 1 litre spirits and 1 litre wine.

CARGO GEAR: No additional requirement.

REPATRIATION: Repatriation may take place.

AIRPORT: Stavanger and Haugesund.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Monday; Labour Day (May 1st); National Day (May 17th); Ascension Day; Whit Monday; Christmas Day; Second Christmas Day (December 26th) (no work on these days).

POLICE/AMBULANCE/FIRE: Police 04-783266; Ambulance 04-782811 or 04-782511; Fire 04-783222

TELEPHONE: Not available to vessels.

IDENTIFICATION CARDS: Not necessary. Crew List at gate.

REGULATIONS: Strictly prohibited to throw wastes or garbage into sea within port area, fjords and on Norwegian coast.

DELAYS: All vessels loaded/unloaded in turn, very seldom any congestion in port.

AUTHORITY: Sauda Havnevesen, Raadhusgaten, N-4201 Sauda, Norway. *Tel:* 04-782585. *Contact:* John Henning Hansen, Harbour Master.

SKIEN (including Menstad and Vollsfjorden): 59.12 N. 09.38 E.

DOCUMENTS:

Clearance documents, forms obtainable from Customs Officers on arrival.

Derat Certificate.
Bill of Lading.
Manifests.
2 Crew Lists.
Ship's Register.

PILOTAGE: Ship's Agent gives ETA Pilot Station 24 hours before arrival and direct to Pilots 2 hours before arrival. Telegraphic address: Pilot station, Langesund. VHF Channel 16 to be used when contacting Pilots. Pilot boards at Steingrunnen light buoy, Langesund Bay, (58°55' N., 09°44' E.). Flag, sound and morse signal "G". Pilotage compulsory for all foreign vessels but dispensation can be obtained for smaller Scandinavian vessels.
MAX. SIZE: Between Porsgrunn and Skien, Norsk Hydro have loading place, Menstad, for vessels up to 425 ft. length and max. draft 18.5 ft. Between Menstad and Skien Grain Silo for vessels with max. length 425 ft. and max. draft 18 ft. 06 in. At Skien vessel's length must not exceed 280 ft., breadth 46 ft. and max. draft 17 ft.

Dispensation can be obtained for vessels with a breadth of less than 46 ft.
RESTRICTIONS: No restrictions on night entry for vessels of above mentioned sizes.
BRIDGES: On passage from sea, vessels pass Porsgrunn where there is a lifting bridge with breadth 30 m. Signals for passing bridge inward: 1 long and 2 short sound signals. Outward signals, 1 long and 1 short sound. There is also a bridge at Brevik: Max. height 45 m.
RADIO: Tjome Radio/LGT or Farsund Radio/LGZ.
TUGS: Modern tugs available.
BERTHING: Also see "Max. Size".
Vollsforden:
Bridges: From sea vessels pass Brevik Bridge, max. height 45 m.
Overhead Cable: At Kjeoya there is an overhead cable which permits an airdraft of max. 37 m. Dispensation for airdraft up to 40 m. can be obtained for daytime entry.
Tugs: A number of modern tugs are available.
Berthing: 2 quays. No. 1: Length 135 m., depth from 8.5 m. to 11 m. No. 2: Length of quay 165 m. but open to sea with mooring pillar at 250 m. from Ro/Ro ramp. This quay has Ro/Ro facilities with ramp of 30 m. breadth, and depth of 11 m. for full length.
Cranes and Ro/Ro Materials: 2 stationary cranes of 6 tons capacity, any size of mobile crane and floating cranes up to 250 tons available. Container truck of 30 tons and 22 tons lift/capacity, 2 Tugmasters of 21 tons towing power, Forklifts from 3 – 6 tons, Warehouse 9,400 sq.m. Unlimited open space. 1×40 tonne container crane with automatic spreader for 20 ft., 30 ft. and 40 ft. containers.
MEDICAL: All medical assistance to be arranged via Agents.
STEVEDORES: Ordered by Agents.
DENSITY: At Menstad and Skien practically fresh water.
FRESH WATER: Obtainable.
CONSULS: Belgium, Netherlands, Sweden, Germany, Finland.
REPAIRS: All repairs possible. Dry dock: Lifting capacity: 2,000 tons. Radar/radio services can be arranged through Agents.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: By crew or stevedores.
CUSTOMS ALLOWANCES: 400 cigarettes and 4 bottles spirit for the Master. 200 cigarettes and half a bottle spirit for each crew member.
REPATRIATION: Facilities exist for effecting crew changes and repatriation.
AIRPORT: International at Oslo and Skien airport.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Eve (half day); Easter Monday; Labour Day (1st May); Ascension Day; National Holiday (17th May); Whit Monday; Christmas Eve (half day); Christmas Day; (26th December), New Year's Eve (half day).
AUTHORITY: Skien Havnevesen, Postboks 2634, 3701 Skien, Norway. *Tel:* 03-593184, 03-593160. *Mobile telephone:* (094) 50439. *FAX:* 03-593250. *Contact:* T. Holtan, Harbour Master.

SLAGEN: 59.20 N. 10.31 E. (See Plan)

LOCATION: Esso Norge a.s., Slagen Refinery is located on the West coast of the Oslo Fjord near Tonsberg, about 20 miles from the Ferder Lighthouse. The Marine Terminal, a finger pier, is located at Slagentangen, near the refinery.
DOCUMENTS:

Ship's Register (Certificate)	(For coastal examination)
SBT Certificate	(For coastal examination)
Derat Certificate	(For Customs examination)
Maritime Declaration of Health	(For Customs examination)
General Declaration, original and 3 copies	(For Customs examination)
Cargo Declaration, original and 1 copy	(For Customs examination)
Ship's Stores Declaration, original and 1 copy	(For Customs examination)
Crew's Effects Declaration, original and 1 copy	(For Customs examination)
Crew List, 3 copies	(For Customs and Terminal information)

NOTE: Crew List to show date and place of birth for each crew member.
APPROACHES: The approaches to the Oslo Fjord via the Skagerrak are free of any particular navigational dangers and there is deep water close to the Norwegian coast.

Tankers of 40,000 d.w.t. or larger are requested to keep a minimum distance of 15 nautical miles off the Norwegian coast until entrance to the Oslo Fjord, where traffic separation scheme is in force inside territorial waters.

There are no particular navigational difficulties in the Oslo Fjord, all depths of less than 35 m. (115 ft.) can be easily avoided. Laden crude and black-oil vessels above 20,000 d.w.t. bound for or leaving Slagen, will be escorted by a tug while navigating in the Oslofjord, due to safety and environment risks.
Navigation Aids: Esso Norge a.s. has provided two leading light/marks, one on the jetty itself and one on shore at Stubrekk. These lights when in line bear 309°(T) and mark a deep approach (least depth 25 m., 82 ft.) between Lysboye and the Slagen Terminal Jetty.
REPORTING: *Arrival and Reporting Point Notification:* The vessel has to forward an Arrival Notification to Norwegian Authorities through a Norwegian Coast Radio Station, at least 24 hours prior to entry into Norwegian Territorial Waters (NTW). In addition to this, the vessel is responsible for informing Norwegian Authorities when the vessel is crossing the Norwegian baseline sailing into or out of NTW (Reporting Point Notificiation).

Nearest Radio Station: Tjome Radio. Tel: 33 39 02 20. Fax: 33 39 07 00. Telex: 70579. VHF Channel 16 or 22. Radio: 2182 kHz.
PILOTAGE: Pilotage is compulsory for all foreign flag ships. The pilot service is provided by the Norwegian Government. Request for Pilot minimum 24 hours in advance through Agent or direct to Hvasser Pilot Station. Tel: 33393178 or Fax: 333-93496. The pilot boats lay in a harbour on Hvasser Island from where a radar and VHF watch is kept. The Pilot Station listens out on Maritime Channel 16 and 13 and when your ship is about 2 hours from Ferder Island (Store Faerder) contact should be made. You will be given instructions as to where and how the Pilot will board. The Pilot boards East of Ferder Island from a 20 m. long white boat marked "LOS" and capable of doing 18 knots. In bad weather, ships of less than 10,000 d.w.t. may have to proceed in as far as Fulehuk before a Pilot can board.

Choice Pilots are employed for berthing vessels of 20,000 d.w.t. or above and/or when tug assistance is required.
ANCHORAGE: North of pier head. Particulars regarding anchorage will be given by Pilot or by Slagen Harbour Office on VHF Channel 14.
MAX. SIZE: Tankers up to 350 m. length and 66 ft. draft can be berthed. Berth No.1 designed for vessels 250,000 d.w.t. Depth alongside 69 ft.
HEALTH: Clearance is effected on arrival. International procedure followed to obtain Pratique. In case suspected disease or fever on board inform port authorities in advance.
RADIO: 72 hours prior to arrival at Pilot Station, radio Agent ETA, cash, bunkers, dirty ballast, personnel, bonded stores, or other special requirements. ETA should be repeated 48, 24 and 12 hours prior arrival Pilot Station. When Pilot has embarked, contact should be established with Slagen Harbour Office via VHF Channel 16 or 14 for exchange of information prior to berthing, such as berth availability, current, wind, draft, ballast to be discharged, etc.
TUGS: A total of 8 tugs ranging from 1,100 to 5,200 b.p.h. can be made available to shipping at Slagen. However, none of the tugs are normally stationed at the terminal, except when a vessel of 20,000 d.w.t. or larger is discharging or loading. On such occasions one or two tugs will be kept on stand by at the terminal. If additional tugs are required they must be ordered from Horten or Oslo.

The number of tugs required for berthing are ordered by the Agent in accordance with the berthing Pilot's advice. All tugs are diesel powered, single screw, single rudder and suitable for towing on the hook or alongside. When on the hook, ship's towlines are used.

The tugs are normally made fast en route between the Slagentangen light buoy and the terminal.
Communications: All communications between Pilot, tugs and terminal should be on VHF Channel 14. Should there be any breakdown, ship's whistle will be used. It is very important that communications within the ship between bridge, forecastle head and poop be good, particularly on the larger ships.
BERTHING: The main effect on ship handling in the berth approaches comes from the current, which for most of the time sets S.E. across the jetty which is aligned North-South. Ships berthing on the West side of the jetty (Berth Nos. 2 and 3) will tend to set down onto the berth. The marine terminal has a current speed and direction meter and advises the Pilot.

A submersible oil boom enclosing the pier is anchored on the sea bed, and the boom and its system of anchorage will be damaged if vessel's anchors are dropped in the shaded area on "Plan". *Except in emergency situations anchors should not be used within the shaded area.* Manoeuvres to and from the berths should be discussed with the Harbour Office which will give you information on currents.

Ice affects navigation at the terminal about every 6 years, and Pilots use special manoeuvres to deal with ice situations.
The Terminal: The terminal consists of a finger pier. On the East side (Berth No. 1) the water depth is 21 m. (69 ft.) and vessels with max. length 350 m. (1,148 ft.) and max. draft 20.1 m. (66 ft.) can be accommodated. On the West side (Berth Nos. 2 and 3) there is a water depth of 11.5 m. (37 ft. 9 in.). The West side is mainly used for coasters and barges, but vessels up to a max. length of 175 m. (574 ft.) with max. draft 10.3 m. (34 ft.) can also be accommodated on this side of the pier.
Fendering: On Berth No. 1, the breasting face is protected with timber-faced gravity fenders and timber-faced panels backed by laminated rubber units. Berth Nos. 2 and 3 are fendered with timber-faced panels backed by rubber tubing.
Limitation on Berthing Speeds/Angles: On Berth No. 1, the *maximum* speed of approach ranges from 8.15 m. (26.5 ft.) per minute for a fully loaded 100,000 d.w.t. tanker to 5.19 m. (17 ft.) per minute for a fully loaded 250,000 d.w.t. tanker. (See "Plan"). For the larger tankers, the target should be 1 m. (3 ft.) per minute. The speed of approach is monitored by Doppler Radar and the Pilot is kept frequently informed of the speed. The angle of approach should be as small as possible, a parallel landing being the target.
Berthing: Tankers for Berth No. 1 are usually berthed port side to, by paying off the bow to starboard and having tugs push the ship bodily, against the prevailing current, on to the berth. Headlines are usually run out first to the Northern-most dolphin.

The larger ships berthing on Berths No. 2 and 3 usually go port side to berth with tugs on the hook holding the ship off against the current. The approach to Berth Nos. 2 and 3 is normally facilitated by the fendered sliding front.

Moorings: Moorings are taken ashore by mooring boats and lifted onto dolphin/jetty by power capstans.

Shore Moorings Used: On Berth No. 1 a 48 mm. (1.875 in.) diameter shore-based mooring wire is placed on board large tankers as an extra aft back spring. The wire has an eye which is put over the bitts after being taken on board by rope messenger. No shore moorings are used on Berths No. 2 and 3.

Gangway: At Berth No. 1, near the Southern end of the breasting island, there is a telescopic hydraulic operated gangway reaching a deck height of about 22 m. above sea level. Also a portable gangway is available to accommodate handy size vessels. Whenever the latter one or when the vessel's own gangway is used, the vessel shall provide a safety net under the gangway, and a lifebuoy with not less than 15 fathoms of line attached should be positioned near the gangway for use in an emergency.

Cautionary Advice, Mooring Supervision: Breast moorings at the jetty have a scope of only 25 m. (82 ft.). The offsetting current at Berth No. 1 makes the tending of moorings during the discharge of a tanker with large light freeboard a very important operation and should only be done under the supervision of a ship's officer.

The area dredged to 21 m. is limited, and a VLCC needs to take care that it does not get too far to the South. When in position, there is 25 m. (82 ft.) clearance between the stern and the edge of the dredged area. It is for this reason a shore wire backspring is provided.

It is of the utmost importance that large vessels, in particular, are moored adequately and that moorings are carefully tended.

Before hard arms are connected, the ship's moorings and the mooring equipment are checked by the terminal personnel.

Special Regulations: If the wind speed reaches 20 knots or offsetting current reaches 0.6 knots, the discharge of a VLCC is stopped and the arms drained. All tank lids and ullage plugs must be closed and a tug will be ordered to stand by.

If the wind speed reaches 25 knots or offsetting current reaches 0.7 knots, the arms will be disconnected and the ship ordered to stand by for possible departure.

Weather forecasts in addition to actual current and wind velocity readings are available from the terminal office.

Preparation of Manifold Area: All crude ships should arrive with manifold stripped to the outboard 12 in. flange. All derricks, stays, radio aerials, etc. should be removed from the vicinity of the manifold to be used.

Ullaging, temperatures, water finding, etc.: On arrival ullages, temperatures and water dips should be taken by ship's personnel in co-operation with terminal representative. Vessel equipped with an inert gas system will be requested to depressurise tanks sufficiently to allow for sampling, ullaging, temperature and water dipping on arrival, and for checking of oil and residues left on board after completion of discharge.

Deballasting Facilities: All ballast must be pumped ashore unless from segregated tanks. Maximum quantity receivable, if advanced notice given, is 8,500 cu.m.; any quantity greater than this will cause delays.

Ballast/slops, etc. mixed with any chemicals to be tested by the Refinery before discharge.

Any ballast/slops, etc. not accepted have to be discharged for owner's account. Advance notice to be given.

Restriction on concurrent loading, discharging, ballasting, deballasting. Max. back pressure at ship's manifold:

No concurrent loading, discharging, ballasting, deballasting is allowed unless the two systems are entirely separate. Should a discharging ship require to reduce her freeboard due to weather or hard arm/hose limitation, she will be required to stop all cargo operations while ballast is taken on. The responsibility for ensuring remaining cargo is not contaminated by water rests with the ship. Maximum back pressure at ship's manifold is 10.55 kg./sq.cm. (150 p.s.i.).

HOSES:

Grades of Cargo, Bunkers Handled, Connections and Lines:

Crude oil and most grades of clean and dirty products and pressurised LPG are handled at the terminal.

Berth No. 1: Crude oil is received/shipped via 4×12 in. fully counterbalanced hard arms with 12 in. ASA flanges. Maximum pressure at ship's rail 12 kg./sq. cm. (170 p.s.i.). The berth is also used for loading dirty products and reception of ballast water.

Clean products are handled through 3×10 in., dirty products and bunkers through 1×8 in. all fully counterbalanced hard arms. The 8 in. bunker arm can also be used for loading dirty products. LPG is handled through 1×4 in. hard arm.

Berth No. 2: Dirty products are handled through 1×10 in. and 1×6 in., clean products through 2×8 in. all half hose half metal arms.

Berth No. 3: (Coaster berth). Dirty products are handled through 1×6 in., clean products through 1×6 in. and 1×4 in. half metal arm. LPG is handled through 3 in. hose connection, or through 1×4 in. hard arm.

All flanges are to ASA Standard.

There is no vapour return.

There are no check (non-return) valves in the import lines; and, therefore, the contents of shore tanks which are situated on high ground will flow back into ship if allowed to do so.

The crude oil discharge rate is up to 10,000 t.p.h.

MEDICAL: Medical attention and hospital facilities available.

DENSITY: 1017 – 1020.

FRESH WATER: Fresh water is available ex-jetty at a rate of 30 cu.m. an hour. Water is supplied by 2 in. hose and is metered. Cost is $1 per ton. Quality is good. Quantity required must be included in arrival cable.

Distilled Water: Distilled water is not normally available and can only be supplied with great difficulty. Maximum notice must be given. It is expensive.

FUEL: All main grades of bunkers, lubricants and hydraulic oils are available. Quantities and specification required must be included in the cable of advice of ETA. Lubricants and hydraulic oil are available in bulk as well as barrels.

FIRE PRECAUTIONS: Special safety regulation forms given when berthed.

CONSULS: Denmark, France and Spain have representatives in Tonsberg. German Consul in Sandefjord. Most countries represented in Oslo.

REPAIRS: All kinds of ship repairs can be undertaken by nearby ship yards. Service for radio, gyro, radar, echo sounder, data bridge, etc. available.

No ship may immobilise its engines, steering gear, etc. while alongside the Slagen jetty.

DRY DOCKS: Available at Horten about 5 miles from Slagen, max. size is about 60,000 d.w.t.

SURVEYORS: S.G.S., Caleb Brett, N.V., Lloyd's Register and A.B.S.

GANGWAY/DECK WATCHMEN: Oil Pollution/Safety Inspector placed on board all vessels over 20,000 d.w.t.

CUSTOMS ALLOWANCES: 200 cigarettes or 200 gm. tobacco and 1 litre spirits and 1 litre wine for each man.

REPATRIATION: Changes of crew are available. Transportation by train and plane from Oslo (about 100 km. from Slagen), passenger lines from Oslo. Hotel accommodation available at Tonsberg (10 km. from Slagen).

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Monday; Labour Day (1st May) 17th May; Ascension Day; Whit Sunday and Whit Monday; Christmas 25th and 26th: Discharging/loading all days.

POLICE/AMBULANCE/FIRE: Ambulance/Fire local at the refinery. Police Tonsberg 333-44400.

TELEPHONES: Ship to shore connections available.

SHORE LEAVE: Shore passes are issued on board on arrival and each crew member must be in possession of a shore pass before he goes ashore.

GARBAGE DISPOSAL: Disposal of garbage into containers at berth, free of charge. Large amounts taken ashore by small boat. Manpower and boat hire for vessel's account.

WASTE OIL DISPOSAL: Waste oil not accepted by refinery ballast recovery. To be delivered into small boat either in drums or in bulk. Transportation and destruction for vessel's account. Advance notice for agent or Essoship on quantity and grade of oil.

SEAMAN'S CLUBS: None.

CURRENCY: Norwegian Kroner (NKr.). U.S.$ 1.00 = NKr.6.40 (2.96).

GENERAL: *Safety:* A safety inspector will attend the vessel upon arrival and complete a Safety Check List.

Oil Pollution, Clean-Up Facilities: A very serious view is taken of oil pollution of Norwegian coastal waters and every effort must be made to prevent it.

Should oil pollution occur, it must be reported and tackled at once.

The terminal has supplies of oil dispersant, spill booms, sawdust and two mechanical removal devices. These will be used to combat any oil pollution and costs will be billed to the ship if the ship is responsible for the pollution.

Firefighting Facilities: The terminal is equipped with comprehensive fire fighting facilities including an 800 cu. m./hour fire pump, a supply of foam compound, remote-controlled elevated foam cannons and other fire hydrants, hoses, etc. A tug which stands by the terminal has fire fighting facilities and other fire fighting tugs can be summoned in an emergency.

Shore Steam, Shore Electricity: Normally not available.

Stores: All regular ship's stores, laundry and other similar facilities can be supplied by local ship's chandlers.

Tank Cleaning: Tank cleaning and gas freeing are not allowed alongside.

AGENCY: Several shipbroker firms are established in Tonsberg and may be called upon as acting Agents for owners and/or charterers. Esso Norge a.s., S & T Dept. act as general Agent for all Exxon owned tonnage, cable address "Essoship" Tonsberg.

AUTHORITY: Esso Norge a.s., P.O.Box 2001, Postterminalen, N-3103 Tonsberg, Norway. *Tel:* 47-33377300 (Switchboard); 47-33377557 (Harbour Office). *Telex:* 70558 ERAFF N. *Cables:* Essoship. *FAX:* 47-33377558 (Direct line). *Contact:* B. Bergesen, Harbour Master.

SOLA (Tananger): 58.55 N. 05.35 E. (See Plan)

LOCATION: A/S Norske Shell's Sola Refinery is situated at Risavika Bay, on the West coast of Norway just West of Stavanger.

The Refinery, which was started up in 1968, has a capacity of about 2,500,000 tons a year of crude oil.

The Refinery's berthing facilities consist of a "T" head jetty situated in the following position: Lat. 58° 55' 28" N., Long. 5° 34' 45" E. The area is covered by a special issue of Norwegian Coast Chart No. 475.

There is another jetty in Risavika Bay at Shell's Tananger Depot in position: Lat. 58° 55' 42" N., Long. 5° 36' 10" E. This jetty is used for loading G.P.'s when Refinery Berth is occupied.

DOCUMENTS: One Crew List. Agent supplies Customs Forms on arrival.

READINESS: *International Transport Federation – Blue Card:* A ITF or bonafide certificate must be presented. Notice of readiness will not be accepted until such a document has been presented to Shell Refinery.

ACCEPTANCE: *Conditions of Pre-Acceptance:* Vessels must have been properly cleared and accepted by Shell in accordance with the appropriate nomination procedures.

Vessels must be able to receive/discharge cargo at bulk rates as laid down in the existing sale contract.

Ballast water to be discharged ashore must not exceed 30% of the quantity of cargo to be loaded.

Failure to meet the above conditions, due to the vessel's condition or equipment, will be accounted for and adjustments made accordingly to any demurrage claims.

All vessels nominated to load/discharge must be either subscribing members of "TOVALOP" (Tanker Owners Voluntary Agreement Concerning Liability for Oil Pollution) and "CRISTAL" (Contract Regarding and Interim Settlement to Tanker Liability for Oil Pollution) or have confirmed some equivalent form of insurance.

All crew must be covered by an ITF (International Transport Federation) agreement or a bonafide trade union agreement acceptable to ITF.

APPROACHING: *Additional signals to be exhibited and sound signals to be used by certain tankers navigating in waters outside Risavika off Stavanger:* Tankers of 40,000 d.w.t. or above when navigating within the territorial waters to and from Risavika shall in accordance with Rule 28 of the International Regulations for Prevention of Collision at Sea show:

By Night:

In addition to the lights prescribed in Rule 23 of the International Regulations for Preventing Collisions at Sea, and when these lights are exhibited, three red lights in a vertical line one over the other so that the upper and the lower lights shall be at the same distance from and not less than 2 m. above or below the middle light.

The lights shall be carried where they can best be seen and visible all round the horizon at a distance of at least 2 nautical miles.

By Day:

A black cylinder of not less than 0.6 m. in diameter and a length of not less that twice the diameter where it can best be seen.

In addition to the above signals these vessels may, whether by day or night, use a sound signal consisting of one long blast followed by two short blasts.

The above lights, shape and sound signal indicate that the vessel using them is hampered in her ability to comply with the Steering and Safety Rules of the Regulations and that other vessels must not impede her safe navigation.

PILOTAGE: Use of pilot on vessels to and from Risavika Bay, carrying dangerous or polluting cargo, is compulsory by law for all non Norwegian (non Norwegian Flag) registered vessels of 50 gross registered tons and above.

A combination of accommodation ladder and pilot ladder must be used. Pilot hoists are not acceptable, and the Pilot may refuse to board if one is offered.

The Sea Pilot, who also acts as a Harbour Pilot, will board arriving vessels off Feistein Lighthouse in position: Lat. 58°50' N., Long. 5°26'30" E.

The pilot vessel is painted white with orange superstructure and marked "LOS".

The Kvitsoy Pilot Station maintains a 24 hours watch on VHF Channel 16. The working frequency is Channel 13. Tel: 04-515397.

Feistein Pilot Cutter also operates on VHF Channel 16, with Channel 13 as a working frequency. Tel: 04-699170, or mobile Tel: 090-41511.

The Pilot, whilst serving on board incoming and departing ships, carries a walkie talkie, operating on VHF Channel 11. With this he maintains communications with mooring boats, refinery jetty supervisor and tugs.

The pilots require 24 hours, 4 hours and 2 hours notice of arrival.

For vessel's departure, the pilots require 2 hours notice.

ANCHORAGE: Vessels awaiting berth must anchor at one of the following anchorages:

Kalsmedgrunnen, South and North of the island of Roth, West of Oksefotskjaer in Risavika Bay or Amoyfjord, depending on the weather conditions and the ship's size. Pilot will give instructions on VHF.

RESTRICTIONS: Vessels over 40,000 d.w.t. normally berth and unberth during daylight hours only. The depth of water off the jetty is 16.5 m. (54 ft.). At Tananger Depot Jetty depth is 11.6 m. (38 ft.).

MAX. SIZE: Max. d.w.t. 240,000 tons. Max. draft 15.8 m. (52 ft.). Max. LOA 1,100 ft. Max. draft at Tananger Jetty is 10.5 m. (34 ft. 05 in.).

RADIO: Whilst engaged in Scandinavian coastal trade Masters are requested to keep the Agent well advised of changes in ETD/ETA.

All wireless/radio telephone messages are transmitted via Rogaland Radio (Tel: 04-67 30 11). Traffic lists being sent at following times (GMT). 0705, 1105, 1505, 1905 and 2305 hrs. This list is also sent out on VHF Channel 16. Working frequency of the radio telephone is 1729 kHz.

While the vessel is moored, the main transmitter may not be used.

Pre-Arrival Information: The Master shall via the ship's Agent send ETA at least 72 hours in advance of arrival. The 72 hours ETA shall be confirmed by 48 hours and 24 hours ETAs. The Master shall thereafter advise of any changes in the ETA:

The 72 hours ETA (local time and date) shall contain the following information:

(a) Ship's Name and Call Sign.
(b) Flag.
(c) Owner's Flag.
(d) S.D.W.T. and G.R.T.
(e) Last Port of Call.
(f) Arrival drafts, forward and aft.
(g) Manifold configuration.
(h) Cargo loading rates and loading sequences for the different cargoes.
(i) Quantities of ballast/slops to be discharged ashore and expected time of discharging.
Also whether ballast/slops water contains any chemicals at all, and if so, the type of chemical(s) present.
(j) Quantity of cargo to be discharged and expected discharging rates.
(k) Tank washing needs and time.
(l) Whether the inert gas system is operable with tanks inerted to a maximum 8% volume oxygen content.

VHF: Refinery VHF radio station: Risavika Port Radio. Calling: Channel 16, working: 11 – 12. The vessel can maintain communication with Rogaland Radio during stay in port over VHF radio.

Also see "Pilotage" and "Radio".

TUGS: Tugs are normally available. Tugs up to 2,700 b.h.p. (35 tons bollard pull) are normally available for larger vessels. The tugs are stationed in Stavanger and must be ordered in advance by the ship's Agent.

One or two mooring boats will be provided for both arrival and departure operations together with portable VHF and radio sets to enable radio links to be maintained between the ship, mooring boats, tugs, Pilot and Jetty Supervisor.

BERTHING: Vessels normally berth port side to, if weather permits them to turn on arrival. The decision on this matter will be taken by the Master after consultation with the Pilot.

For product carriers the decision on which side to berth to, should also be based on consideration of matching of vessel's and shore loading and bunkering arrangement. It is therefore important that all information regarding cargo and bunker connections are sent to the refinery prior to arrival.

At Tananger Depot jetty, vessels normally berth starboard side to, depending upon weather condition and loading pattern.

MOORING: It is of utmost importance for the safe operations that ships are securely moored and maintained in the desired position at all times in accordance with recommendations laid down in the OCIMF "Mooring Equipment Guide Lines" (1st Edition 1992).

Mooring lines should be kept tight and fore and aft springs doubled to prevent any undue movement at berth caused by changes in wind strength or direction, current or tidal stream flow or surging action created by a ship passing the berth. Any undue movement in berth, or breaking away, may result in the rupture of cargo arms, manifold fitting or loading arm and cause spillage of oil and serious fire hazard.

Excess strain on moorings resulting from variations in level between ship's deck and shore mooring point due to vertical movement caused by tide and cargo handling shall be adjusted at regular intervals to avoid damage to the fender system of the jetty.

Note particularly the vertical movement of the Yokohama fenders which must be adjusted from time to time to avoid the above mentioned damage.

The Master shall ensure that all moorings on self-tensioning winches are secured with winch brakes in locked position. Use of self-tensioning winches in automatic position is strictly forbidden.

All mooring wires shall have rope-tails connected with the proper mooring link. Wires and ropes shall not be mixed in the same service. All vessels, while secured alongside at the jetty, must provide towing wires with sufficient length and strength on seaward bow and quarter, with eyes maintained just above the water level, ready for emergency towing. The wires shall be securely fastened to the ship's bollards.

All vessels must, in addition to the normal number of mooring lines, have 2 extra lines forward and aft as spare.

Recommended Moorings: For ships of about 120,000 d.w.t., normally 4-2-2 at both ends is required. Vessels of 30,000 d.w.t. normally need 2-2-1.

Ships above 40,000 d.w.t. are recommended to use wire moorings. If polypropylene tails are used, the same size and type should be used on all lines run out in the same service (spring, breast, head lines, etc.).

If wire ropes are used, fibre ropes may be used as additional moorings, as long as it is realised that the fibres will not add to the final restaining capacity of the system.

Immobilisation of Engines: While alongside the vessel must be able if required to move under its own power. Permission to immobilise ship's boilers, main engine, steering machinery and other equipment essential for manoeuvring should be requested from the refinery beforehand, and if granted, would be given on the conditions that emergency towing wires are correctly positioned forward and aft and a suitable tug is on stand-by in Tananger Harbour or within Risavika Bay.

CARGO OPERATIONS: *Pre-Operational Procedures:* Before operations commence, a pre-operational meeting shall take place between the Company Representative and the Master or the Officer-in-Charge of the cargo operations.

They will jointly:

(a) Complete and sign the ship/shore check list for crude, product or LPG.
(b) Evaluate possible deficiencies revealed by the check lists and agree additional precautions required. The Company reserves the right to refuse to load/discharge a vessel if the requirements are not met.
(c) The vessel shall provide the loading/discharging records of the 3 latest cargoes and of any purging/washing that has taken place during passage.
(d) Evaluate and agree the ship samples that are required. The Company reserves the right to draw any tank samples, considered necessary prior to, during and after, loading.
(e) Evaluate and agree a loading/discharging programme including:
   1. Quantities and grades to be loaded/discharged.
   2. Loading/discharging rates, initial loading rates according to IMO Regulations.
   3. The contents of vessel's slop tanks may be discharged to ashore tankage, subject to agreement with the Company Representative.
   4. Product temperatures onshore and on the vessel.
   5. Procedure for emergency shut down of operations.
   6. Discuss and agree on procedures for controlling the segregated ballast water tanks and taking inert gas samples.
(f) Evaluate and agree the means of communications to be used during the operation.

(g) Evaluate and agree:
1. Connecting/disconnecting procedures.
2. Purging/washing requirements.
3. Crude oil washing.
4. Use of vapour return/flare system (LPG). Max. O_2 content of 2 vol %.
5. Emergency procedures.

Third Party Independent Survey: The Company reserves the right to inspect the ship's tanks and loading systems, or anything that may influence the quality or the quantity measurement of the cargo. The inspection may be performed by Shell or an independent surveyor.

Closed Loading Requirement: All vessels loading products from Shell Refinery shall be equipped with a closed loading system.

Closed loading is defined according to International Safety guide for oil tanker and terminals (ISGOTT) Chapter 7.6.3 as follows:

Unless the vessel's design dictates otherwise, the cargo must be loaded with the ullage, sounding and sighting ports securely closed. The gas displaced by the incoming cargo should be vented to the atmosphere via the vent stack and through high and constant velocity valves, either of which will ensure that gases are taken clear of the cargo deck.

Devices fitted to vent stacks to prevent the passage and flame must be regularly checked to confirm that they are clean, in good condition and correctly installed.

Vessels, which do not satisfy the above regulations, will be given a statement of temporary exception, after inspection and depending upon type of cargo.

Loading/Discharging Arms: All flanges are ASA flanges, 150 p.s.i. series. Arm No. 9 is the seawardmost arm.

Arm No. 1	(12 in.)	Fuel oil, crude oil, dirty ballast.
Arm No. 2	(12 in.)	Fuel oil, crude oil, dirty ballast.
Hose	(4 in.)	Bunker gas oil.
Arm No. 3	(12 in.)	Fuel oil, crude oil, dirty ballast.
Arm No. 4	(12 in.)	Fuel oil, crude oil, dirty ballast.
Arm No. 5	(8 in.)	Bunker F.O., fuel oil, dirty ballast.
LPG	(3 in.)	Vapour return connection.
Arm No. 6	(8 in.)	Gas oil.
Arm No. 7	(8 in.)	Mogas (unleaded).
Arm No. 8	(8 in.)	Mogas (leaded), ballast (white oil ships only).
Arm No. 9	(8 in.)	Jet A-1 Kero.

Connecting of Loading Arms: The connection of the loading arms is undertaken by the vessel's personnel. The Company Representative and the responsible officer of the vessel will agree that systems are correctly lined up before operations start. Crude oil vessels should arrive with 4×12 in. ASA manifolds for cargo and 1×8 in. ASA for bunkers ready for connection to the loading arms. The LPG jetty loading arm will be leak tested with nitrogen.

Product vessels should arrive with a 8 in. ASA manifold for white products and a 12 in. ASA manifold for fuel oil loading.

The jetty is equipped with all metal loading arms. It should be noted that the arms cannot be crossed. Simultaneous loading of different products and/or bunkering will often depend on the matching of ship's and shore's line-up. This matter should be studied before vessel is berthed, as in some cases reversal of the side of berthing may facilitate efficient handling. Vessels are recommended to discuss this matter over the radio with the refinery before planning the berthing operation.

A Jetty Operator will remain in jetty area at all times during loading/discharging. A responsible crew member with a good command of Norwegian or English must remain on main deck at all times during connecting/disconnecting/loading/discharging.

The vessels shall give a minimum of 10 minutes notice of the requirements to start/stop pumping, unless there is an emergency. The Jetty Operator will clear the loading arms before disconnecting. The cargo loaded/discharged will be calculated according to the shore metering system.

Vessels which are equipped with Inert Gas systems shall have the system tested and in operation during loading/discharging. The Company will enforce the IMO regulations with respect to the Inert Gas systems.

White and black products are blended in the pump stations of the refinery directly into the ships.

Crude oil is received into underground storage or, about 20% of the time, into a tank above ground.

Ship's crew will be responsible for hose/arm coupling duties. Jetty operator will present the hoses or arms to the ship so that connection may be made to manifold, but it is emphasised that labour beyond this point, will not be available from the shore.

Leakage of oil or vapour from unused cargo/bunker connections constitutes a hazard and all such connections on ship and on shore should be properly blanked.

Tank Temperature: Notice of Readiness (NOR) will not be accepted with "warm" tanks when the temperature of the remaining liquid is in excess of 10°C above atmospheric boiling point of the liquid products to be loaded. It is not the policy of the Company to permit inerting while alongside the berth, and in most cases the vessel will not be permitted to berth or will be requested to leave the jetty if moored.

Loading/Discharging Rates: Max. receiving rate for crude is 14,000 cu.m.p.h. Max. loading rate for fuel is 2,000 cu.m.p.h., White products 800 – 1,200 cu.m.p.h. and LPG 400 cu.m.p.h.

De-Ballasting: The ballast tank ashore is sometimes limited in the quantity it can receive. For this reason and in order to minimise the de-ballasting time Masters are requested to arrive with the minimum quantity of ballast on board consistant with weather conditions prevailing.

De-Ballasting into the harbour is prohibited.

Max. ballast receiving rate is 1,500 cu.m.p.h. Max. back pressure 150 p.s.i. Max. ballast receiving capacity 16,000 cu.m.

Cargo Handling: When discharging or loading the vessel should fly signal flag "B" from sunrise to sunset, and from sunset to sunrise show an all round red light.

The Master must take all necessary precautions to prevent the vessel's tanks from overflowing during loading/tank transfers. The Master will be held responsible for damages incurred when an oil spill may be traced back to his vessel.

A refinery operator will supervise jetty/ship operations and should maintain contact with the Officer nominated by the Master to supervise the ship operations. Safe and efficient operations will depend on good co-operation at this working level, if it fails both the ship and shore are entitled to suspend operations until the situation is corrected.

Ship-to-Ship Transfers: In ship-to-ship transfers, both tankers should comply fully with the safety precautions required for the normal cargo operation.

If the safety precautions are not being observed on either vessel, the operations should not be started, or should be stopped.

Description of the safety aspects of this transfer operation must be in accordance with ICS/OCIMF (Ship-to-Ship Transfer Guide – Petroleum) to which reference should be made before starting the transfer.

POLLUTION: The refinery is located in an area which is very sensitive to pollution matters. Waters are confined and used by fishermen for keeping live fish and lobster, and any emission of smoke is visible over a wide range.

The utmost care must be exercised in handling cargo, ballast and bunkers in order to avoid oil spilling into the sea. Deck is not to be washed down during stay in port.

Scuppers must be plugged.

Scrubbing of the ship's underwater hull is not allowed.

Discharge of ballast or contents of bilges into the harbour is prohibited. Contaminated water should be retained on board or discharged into the shore de-ballasting system.

Sea valves to be shut and sealed during loading/discharging.

Emission of smoke must be kept at a minimum by proper combustion control.

Soot blowing of boilers is prohibited.

Disposal of garbage into the sea is prohibited.

In case an oil spill occurs the refinery should be notified immediately.

Violation of Norwegian Regulations on Pollution is likely to result in prompt action from local Authorities.

Oil Spills: Oil spills caused by ships moored alongside refinery jetty will be *the ship's* responsibility, but the refinery will take action as if the spill had been caused by the refinery, and the refinery personel will immediately start trying to limit the spill, and start cleaning up. All such work will be for the ship's account.

If an oil spill occurs while alongside the Tananger Depot jetty, the refinery will give assistance if asked by the person in charge of the Depot.

Several contractors will be available with manpower, in case refinery duty personnel and maintenance crew are insufficient.

The following equipment is available at refinery and Depot:

1 × 25 ft. boat with tank for oil. This boat can be used for setting of oil booms, towing, etc.

2 × 14 ft. boats.

1 vacuum truck at refinery.

Boats, barges and vacuum trucks are available from contractors.

1 aluminum raft.

1 Komara skimmer.

1 Skimmy skimmer.

Pumps and ejectors.

1,600 m. oil booms.

EXPANDI, WSA and T.T.

Oil absorbent.

Oil dispersents are available but will *not* be used without special permission from the Norwegian Authorities.

MEDICAL: Hospital at Stavanger, 16 km. away.

DENSITY: Average density off the jetty is 1028.

FRESH WATER: Available at jetty (2.5 in. flange).

FUEL: All grades of gas oil, diesel oil, heavy fuel oil, and lubricating oil available, at the jetty.

Notify agent of requirement with original ETA.

REPAIRS: Hot work such as welding, burning etc. is only allowed on board if covered by a written permit issued by the refinery.

SURVEYORS: *Cargo Inspectors:* Caleb Brett Tel: 51697922; SGS Tel: 51690340, 51871104; Saybolt Tel: (095) 46-31540610 (Sweden). *Classification Societies:* Det Norske Veritas Tel: 51535030 (after hours 51418553, 51699566, 94672466. Lloyd's (at Bergen) 51122002.

AIRPORT: International airport at Sola, 3 km. away.

GANGWAY: Upon arrival and when securely moored alongside refinery jetty, a gangway will be provided to tankers.

The gangway which is fasten to the gangway tower (on dolphin S.2) will be adjusted according to the vessel's height and deck space available.

For small ships where deck space is limited, a small gangway will be provided. This gangway will be landed on jetty deck and vessel's rail.

A safety net must be provided by vessel for the gangway. Also a small stepladder from vessel's rail to deck should be provided by the vessel.

EMERGENCY CO-ORDINATION CENTRE: At Sola Airport.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Police Tel: 51899000, Emergency 112. Ambulance Tel: 51533333, Emergency 113.

TELEPHONES: For personal calls, a coin operated telephone connected to Stavanger exchange is placed in a kiosk at the refinery gate.

If requested by the ship, a telephone (No. 51696769) is available to be placed onboard. The Agent reads the meter and charges the ship. Before departure the ship's crew must place the telephone in the jetty house.

The jetty operator will keep contact with the control room by means of walkie talkie.

Also see "General".

SHORE LEAVE: See "General" – "Shore Transportation/Regulations".

GARBAGE DISPOSAL: Garbage container service at most berths provided by jetty owners. If special service required, containers (size 3.0 cu.m. – 10.0 cu.m.) can be hired at a fixed price of NOK.700 (delivery/collection included). Price based on daytime service. Company name: System-Transport, Stavanger. Tel: 51894020, after hours 94671383. Special containers of 15 cu.m. – 30 cu.m. available on request.

WASTE OIL DISPOSAL: Shore tank max. capacity 2,000 cu.m. Boat max. capacity 70 cu.m. Truck max. capacity 16.0 cu.m.

Rates for boat hire: NOK.650/hr. (daytime), NOK.830/hr. (evening), NOK.1,010/hr. (night). Rates for truck hire: NOK.390/hr. (daytime), NOK.480/hr. (evening), NOK.570/hr. (night). Disposal fee: NOK.600/cu.m. based on engine slop (no chemicals).

Special fee on request for tank cleaning water (mostly dirty water).

Company name: Henriksen Oljetransport, Stavanger. Tel: 51-531190, 94-532220 (mobile). Fax: 524332 (The Company has a private berth with draft 5.5 m.).

SEAMAN'S CLUBS: No Seamen's Club in the Stavanger area.

CURRENCY: Norwegian Kroner (NOK.). No local currency restrictions placed upon seafarers.

GENERAL: *Stores:* It should be noted that all deliveries to the ship while handling cargo is limited by restrictions against approach by both powered road vehicles and powered boats, suitable arrangements for alternative transport, manpower, etc. must be made in advance.

Ship Stores Handling: Stores must preferably be handled before or after cargo operations. Only small items of the ship's stores, if carried by hand, may be taken on board during cargo operations. Cranes can be used during discharging if the ship has an inert gas system in operation.

Drums, steel plates and any other heavy metal parts likely to cause a spark, shall always be handled before or after cargo/ballasting operations.

Shore Transport/Regulations: Ship's crew will only be allowed to pass through the refinery area when possessing a pass. The pass will be handed to the Master by the Agent on arrival for issue by the Master. Photography in the refinery is prohibited.

Unauthorised or intoxicated persons are not to be admitted onboard. Such persons may be ordered from the jetty. Vessels are expected to undertake their own precautions in respect of intoxicated persons appearing on deck. Ship's personnel are not allowed to walk through refinery.

For taxi see "Useful Telephone Numbers".

Visitors are not allowed on board vessels, except with permission from the Shift Manager and the Master of the vessel.

Motorised road traffic on the jetty and powered boats are not allowed to approach the vessel nearer than 50 m. (distance measured from the loading manifold and/or open hatches of ship's tanks into which oil is loaded/discharged) while cargo operations are in progress.

Launch Service: Whilst at anchor in the roads no launch service is available. In an emergency the Master can contact the Pilot Station or the pilot vessel, for transport to the shore.

In emergency, helicopter transport is available.

Services: Services such as stores, laundry, doctor, etc. should be ordered in advance through the Agent. It should be noted that all deliveries to the ship, while handling cargo, is limited by restrictions against approach by both powered road vehicles and powered boats. Suitable arrangements for alternative transport, manpower, etc., must be made in advance.

Steam and compressed air are not available at the jetty.

Current: Risavika being confined waters, currents are usually small, however influenced by strong winds. Highest measured velocity 0.7 knots in entrance of bay, setting to the North.

Tide: The average tidal range is 0.7 m. (2 ft. 3 in.). Highest observed level +1.6 m. and lowest −0.11 m.

Wind Directions: Prevailing winds are: April – October: Northwesterly. October – April: Southwesterly.

Emergencies: From the "Bird's nest telephone" fire/emergency can be reported by dialling 188 (Control Room). On the "railing" is attached a press button for remote stopping of all refinery's loading pumps, particularly intended for quick stoppage of loading operations in case of emergency onboard.

Fire: The refinery is equipped with fixed and wheeled equipment for applying foam, water and dry powder to fight fires. Floating firefighting equipment is normally not readily available, but some tugs and supply vessels are equipped with water pumps, monitors and foam making equipment and may be called in on short notice.

Safety: No loading/discharging to take place between the refinery and a tanker berthed at the jetty, if another tanker comes alongside for transfer of cargo.

The refinery representative will when boarding the ship bring the safety check list for joint examination with the ship's Officer in Charge.

Useful Telephone Numbers:

Taxi: Tananger Drosjeholdeplass:	51-69 96 00
Sola Drosjeholdeplass:	51-65 04 44
Stavanger Drosjeholdeplass:	51-88 41 00
Weather Bureau, Sola Airport:	51-65 81 65 or 82 07 20 40
Scandinavian Airlines System:	51-65 89 00 51-65 10 55
Braathens SAFE Airlines ticket office:	51-51 10 00/51-65 90 00
Kvitsoy Pilot Station:	51-73 53 97
Tananger Pilot Sation:	51-69 91 70
A/S Norske Shell	51-69 30 00

Long distance and international calls must be arranged on the ship's VHF radio via Rogaland Radio, or on telephone supplied by Agent upon request.

AUTHORITY: A/S Norske Shell, Postboks 144, N-4051 Sola, Norway. *Tel:* Stavanger 47-51-693000. *Telex:* 33091 Sraff N. *FAX:* 47-51-693805. *Contact:* Line Geheb, Port Captain.

STAVANGER: 58.58 N. 05.44 E. (See Plan)

DOCUMENTS:

Declaration of Health, 1 copy.

List of Goods, including stores, 1 copy.

Crew's Lists of Goods liable to duty, 1 copy.

List of Goods, 2 copies for each port of discharge. All Bills of Lading to be entered with marks, numbers, weight and quantity.

General List of Goods, 1 copy.

A form for entering ports of call where discharging will take place.

PILOTAGE: Vessels approaching from sea and desiring a Pilot should order at least 24 hours' notice in so far as possible and confirm arrival at Pilot Station at 2 hours' notice. All requests for Pilots to Kvitsoy Pilot Station on VHF Channels 16 or 13 or Tel: 51735397.

Vessels lying in port and desiring Pilot will order Pilot during office hours and if possible at 4 hours notice.

Vessels approaching from sea as well as vessels lying in port shall when making an advance order state name and destination of vessel and whether 1 or 2 Pilots are desired.

Pilot will be despatched to ships in accordance with advance orders, and vessels are therefore requested to comply with foregoing rules as far as possible in order to avoid having to wait for Pilot.

International provisions for summoning Pilots by signal flags or blue lights, etc., are still in force, but should in future be used as a supplement to radio communications or as sole communication in emergencies.

Pilots are taken on board at:

A. Feistein Lighthouse, 19 miles South of Stavanger, or in bad weather 6 miles North of lighthouse under the lee of Rott.

B. Skudefjorden, 18 miles N.W. of Stavanger. In bad weather under the lee of Karmoy or Kvitsoy, as weather permits.

Pilot boats are stationed at Tananger and Skudesneshavn. No boats are out cruising.

ANCHORAGE: Found in the Byfjord, 3 nautical miles North of Stavanger. Pilots recommended when anchoring.

MAX. SIZE: Greatest depth alongside goods and passenger quays is 30 ft. Also see "Berthing" and "Tankers".

RADAR/VHF: Radar service for inner harbour.

TUGS: Normally used.

BERTHING: The port has a total quay length of approximately 3,400 m. The coasting and the foreign trade is located in the East and West harbour, comprising the 3 main quays namely the Bekhus Quay, the Skagen Quay and the Strand Quay. These quays measure 2,000 m. with depth alongside 24 ft. – 30 ft.

New Deep Water berths:

Mokjarvik: Length 250 m., depth 15.0 m. 1×50 ton crane.

Sirisker: Length 95 m., depth 15.0 m.

Cranes: 1×50 tons, 1×28 tons and 1×3 tons travelling cranes, 3×20-70 tons mobile cranes and 1×100 tons floating crane.

Grain: Rogaland Felleskjop: Capacity for storing 72,000 tons quay length 190 m., depth alongside 48 ft. Discharging capacity 200 t.p.h. Stavanger Havnesilo: Storing capacity 140,000 tons, quay length 170 m., depth alongside 51 ft. Discharging capacity 500 t.p.h.

Roll-on/Roll-off: Traffic is offered by a ferry berth constructed for ships up to 10,000 g.r.t., depth alongside 30 ft.

Containers: Sandvika Container Quay. Length 170 m., depth alongside 40 ft., also fitted with Ro/Ro facilities for vessels up to 20,000 g.r.t.

Offshore oil-exploration base: Aker Base, Dusavik.

STEVEDORES: No particular ETA advices required.

MEDICAL: Agents should get advance notice to secure speedy service. Hospital facilities available.

TANKERS: *Norske Shell A/S:* See "Sola".

Norske Braendselolje A/S: 7 nautical miles South of the central harbour at Sandnes Harbour.

Hydro-Texaco: 1 nautical mile from central harbour, depth alongside 25 ft.

A/S Kulimport: Coal and coke. Length of wharf 116 m., depth alongside 27 ft.

DENSITY: 1025, no change in relation to state of tide.

FRESH WATER: Delivered from quay or from water boat.

FUEL: Normal grades available without advance notice.

CONSULS:

	Tel. No.		*Tel. No.*
Belgium	555334	Greece	525030
Denmark	57001	Iceland	532025
Finland	532030	Netherlands	520080
France	527500	Sweden	527500
Germany	522594	United Kingdom	525801

REPAIRS: All kinds of repairs available.

DRY DOCKS: One, 545 by 75 by 24 ft. Marine slipway up to 1,500 d.w.t.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Usually carried out by crew.

CUSTOMS ALLOWANCES: Tobacco: 20 cigarettes per day. Wine and/or Spirit: 2 bottles of wine or 1 bottle of brandy.

AIRPORT: 10 km. from port. Airlines to Continent, U.S.A. and U.K.

TIME: GMT plus 1 hour in Winter. Summertime GMT plus 2 hours.

HOLIDAYS: 1st January; Maundy Thursday; Good Friday; Easter Monday; 1st May; 17th May; Whit Monday; Christmas Day and Boxing Day.

POLICE/AMBULANCE/FIRE: Police Tel. 112 or 51899000; Ambulance 113; Fire 110.

TELEPHONES: There are arrangements for placing telephones on board.

SHORE LEAVE: No restrictions.

AUTHORITY: Stavanger Interkommunale Havnevesen, Nedre Strandtg. 51, 4005 Stavanger, Norway. *Tel:* 51-507800. *Cables:* Stavanger Havnevesen. *FAX:* 51-507822, 51-507821. *Contact:* O.M. Odland, General Manager.

STURE: 60.37 N. 04.51 E. (See Plan)

LOCATION: The Sture Crude Oil Terminal is located at Hjeltefjorden on the East side of Alvoy in the position Lat. 60° 37.2' N., Long. 04° 51.5' E.

The terminal is owned by a consortium of companies, and is operated by Norsk Hydro a.s.

The Sture harbour area is defined as the terminal's jetties with facilities, and the total sea area inside the seaward safety zone.

DOCUMENTS: See "Mongstad".

APPROACHES: Two approach channels with very deep water, give good access to the Sture Terminal. The main approach is through Fedjeosen, South of Fedje. The other approach is North of Holmengra.

The approaches to the pilot area and the Sture Terminal are covered by Norwegian Chart No. 120.

PILOTAGE: Pilotage is compulsory for all vessels calling at the terminal. The pilot will embark in the vicinity of Fedje or Holmengra.

The terminal recommends that all Norwegian and NIS vessels also use a pilot.

ANCHORAGE: There is no safe anchorage in the vicinity of the terminal. If the jetties are occupied, arriving vessels must wait outside the pilot area. Further particulars may be obtained from the Pilot Station.

RESTRICTIONS: Berthing and unberthing day and night, weather permitting.

All ships shall comply with IMO and Terminal Regulations. All ships calling at the terminal must confirm that they are fully I.T.F. approved and members of Tovalop.

The following ship types can be accepted:

1. Conventional tankers and product/crude combination carriers in the range from 30,000 d.w.t. to 300,000 d.w.t.
2. OBO/OO Carriers are subject to prequalification according to the Terminal's "Procedures for Approval of OBO/OO Carriers", valid from 1st March 1992.

The vessel shall be able to accept a minimum loading rate per hour: For vessels of up to 89,999 tons s.d.w.t.: 7.5% of s.d.w.t. per hour.

For vessels of between 90,000 tons s.d.w.t. and 179,999 tons s.d.w.t.: 6.6% of s.d.w.t. per hour.

For vessels of 180,000 tons s.d.w.t. and above: 5.8% of s.d.w.t. per hour.

Prior to any vessel's first acceptance for loading at Sture, the "Questionnaire For Crude Oil Tankers" must be filled out by the owners/operators of the vessel and sent to the terminal. Incorrect information given in the questionnaire may result in rejection of the vessel.

Traffic Regulations: No vessel, regardless of size, is permitted to move inside the Sture Harbour Area, unless authorised by the terminal.

Wind Limitations: Vessels up to 180,000 d.w.t. will not be allowed to go alongside when the wind force exceeds 14 m./sec. (10 min. average) from unfavourable directions. For vessels from 180,000 d.w.t. – 300,000 d.w.t., the wind limitation is 12 m./sec. (10 min. average).

In the period from 1st October till 31st March only vessels up to a maximum of 200,000 d.w.t. will be accepted at Sture.

MAX. SIZE: The terminal's berthing facilities consist of 2 jetties for handling of crude oil.

Jetty No. 1:	DWT min/max:	30,000 d.w.t. – 300,000 d.w.t.
	Depth alongside:	26 m.
	Max. allowed draft:	23 m.
Jetty No. 2:	DWT min/max:	50,000 d.w.t. – 150,000 d.w.t.
	Depth alongside:	26 m.
	Max. allowed draft:	23 m.

HEALTH: See "Mongstad".

RADIO: An arriving vessel must give proper notice through the agent or directly to the terminal by cable or telex.

The vessel must have received approval from the terminal to proceed inside Fedjeosen or Holmengra to the dedicated jetty.

Vessels proceeding inwards should communicate with the terminal on VHF Channel 9.

During berthing operations, the vessel is in contact with the Shift Supervisor on VHF Channel 9 through the pilot's radio.

Pre-Arrival Information: 72 hours before arrival, the Master shall inform the terminal about the following, either via his Agent or direct to the terminal on Telex No. 40314, or Fax. No. 56-389420.

A. Ship's name (and ex-name), call sign and Official Number.
B. Flag/nationality.
C. Name of Master.
D. Owners.
E. Gross Registered Tonnage.
F. Summer Deadweight.
G. Draft, fore and aft.
H. Last port of call.
I. Confirm ETA (local time and date).
J. Whether loaded/part loaded or in ballast. If loaded, nature and quantity of cargo. If ballasted, type (segregated/oily) and quantity to be discharged ashore and estimated deballasting time.
K. Quantity of cargo to be loaded, and requested loading rate.
L. Length overall and beam, number, size, distance from bow to connections and position (above water line and from ship's side) of vessel's manifold connections.
M. Defects in vessel or equipment affecting the safe operation of the ship.
N. Confirmation that an inert gas system is fully operational, and that the oxygen content of all tanks does not exceed 8% by volume.
O. Last three cargoes.
P. Mooring equipment.
Q. OBO/OO Carriers:
    Confirm tightness of cargo tank covers and tank pressure minimum 500 mm./wg. on arrival.
    Confirm common tank venting system and capacity of same.
    Confirm that segregated ballast is clean.
R. Is vessel equipped with Bow Thrusters? (Y/N)
    Bow . . . . . . Stern . . . . .

Also see "VHF".

VHF: The Sture Crude Oil Terminal will be manned 24 hours a day and can be contacted on VHF Channel 9.

V.T.S. in operation on Channel 9.

When moored alongside the jetty, a vessel shall communicate with the terminal by means of a UHF radio handset provided by the terminal.

The Agent can supply mobile telephone if required.

Each jetty is equipped with two telephones for internal use.

Communications: A portable radio hand set will be supplied by the terminal to the vessel for use during loading operation. A receipt will be required for the radio hand set. The radio will be used for contact with the Jetty Operator during normal loading operations and for notification of an emergency condition. The radio must be returned to the terminal operator when the documents are delivered onboard.

TUGS: The use of tug boat escort is compulsory for all tankers calling at the terminal.

There are 2×50 tons and 1×35 tons bollard pull tugs available for handling berthing/unberthing operations at all times. Under normal circumstances, tugs towing hawsers will be used. Tugs have fire fighting and oil recovery equipment.

Two mooring boats are available for handling of mooring lines.

BERTHING: *Mooring Facilities:* The loading platforms and mooring dolphins are equipped with mooring hooks and pulleys. The hooks and pulleys have quick release facilities and capstans to haul in mooring lines. The release can be done locally or remotely from the control room.

The jetties are equipped with monitoring systems comprising:

(a) Wind and sea current sensors, detecting speed and direction.
(b) Berthing aid system, monitoring the tanker's approach velocity, distance to jetty and angle of approach during the final stage of berthing.
    Approach velocity max. 0.10 m./sec.
    Approach angle max. 7°.
(c) Sensor in the mooring gear to detect mooring line loads.
(d) Measurement of tanker surge movements and sway, when the loading arms are connected.
(e) Closed circuit television cameras.
(f) Area radar display.
(g) VHF/UHF radios.

All data from the monitoring systems are displayed in the control room.

The berthing aid data are available when the ship is at a distance of approximately 100 m. from the jetty.

Mooring Arrangements: It is of the utmost importance for safe operation that ships are securely moored and always kept in the correct position. Minimum requirement is 16 mooring lines, of which at least 10 mooring lines must be permanently installed on mooring winches/drums.

Vessels must be equipped with 2 wire spring lines at each end.

For vessels over 200,000 d.w.t., a minimum of 14 moorings on winches/drums is required.

The Master of the vessel shall ensure that his vessel's moorings are closely watched to prevent undue movement of the vessel. Ensure that all moorings on self-tension winches are secured with winch brakes in locked position. Use of self-tension winches in automatic position is strictly forbidden.

All mooring lines leading in the same direction shall be of the same type and have the same working strength.

All mooring wires shall have rope tail ends, with minimum the same working strength as the wires.

Mooring diagrams for small, medium and large size vessels are shown in the "Plan Section".

Safety Towing Wires: Vessels, while secured alongside the jetty, must provide and rig towing wires with sufficient length and strength on seaward bow and quarter, with eyes maintained just above the water level, ready for emergency towing.

The wires must be securely fastened to the ship's bollards.

LOADING: *Jetty Details:* Each jetty has 4 loading arms which can be either locally operated from a fixed jetty head console or from a portable remote control panel.

Each loading arm is equipped with the following facilities:

(a) Loading arm stripping pump with 30 cu.m.p.h. design capacity.
(b) Hydraulically operated valves, couplings and quick release ("PERC") arrangements.

Loading Arms Flange Sizes and Safe Working Ranges:

Loading arms are equipped with adjustable flanges in the range of 12 in. – 16 in.

Ship's manifold connection must meet loading arm envelope configuration and must provide space and support on which to place loading arm support legs.

	Min.	*Max.*
Distance from ship's side:	1.145 m.	8.145 m.
Height of centreline to deck or suitable working platform:	1.3 m.	2.4 m.

Min./Max. Loading Rates:

Loading rates:	Min.	800 cu.m.p.h.
	Max.	15,000 cu.m.p.h.
Loading arm design capacity:		3,750 cu.m.p.h.

Also see "Restrictions".

Pre-Operational Meeting and Inspection: Before any operations commence, a Pre-operational Meeting will take place between the terminal representative and the Master or the officer-in-charge of cargo operations. They will:

(a) Complete and sign the Ship/Shore Safety Check List.
(b) Discuss any deficiencies shown up by the above Check List and agree on any additional precautions required.
    The terminal reserves the right to refuse to load a vessel if the requirements are not met.
(c) Discuss and agree on procedures for taking ballast tank samples (See "Ballast"), and inert gas samples (See "Inert Gas Systems").
(d) Agree on a loading/discharging programme that includes:
    Quantities of cargo to be loaded.
    Loading rates.
    Deballasting procedures and rates.
    Procedures for emergency shut-down of operation.

(e) Discuss and agree on the means of communication to be used during the operation.
(f) Discuss and agree on connecting/disconnecting procedures.
(g) Discuss actions to be taken in the event of an emergency. This should include both communication and emergency procedures.

Operational Procedures: Loading/discharging will not commence until all the safety checks have been carried out to the satisfaction of the terminal representative and the Master or the officer-in-charge.

(a) Before any operation is carried out, the ship will be earthed.
(b) The jetty operator will be responsible for connecting the loading arms to the vessel's manifold as indicated by the officer-in-charge.
(c) The jetty operator and the ship's officer-in-charge must agree that systems are correctly lined up before operations can begin.
(d) Loading operations will be closely watched from the terminal control room.
(e) The vessel must give at least 10 minutes notice if required to stop or start any operation, unless under emergency conditions.
(f) The jetty operators will empty the loading arms onboard before disconnecting.
(g) A representative from the terminal and/or independent surveyors will witness the ship's dip/ullage/water dip/temperature/samples and quantity loaded according to ship figures.
(h) Preferably the ship must give notice to the terminal control room before any shut down operation is carried out.

Cargo Quantity Calculations: The cargo loaded will primarily be calculated according to the shore metering system, and the same figures will be entered on cargo documents.

Emergency Shut-down: If the vessel is loading, and it becomes necessary to manually initiate an emergency shut-down, the jetty system should, if possible, be used.

In the event of an emergency, jetty personnel should immediately be alerted to the situation, and the emergency stop, which is placed on the gangway, activated.

Manifold valves should not be closed until so advised by jetty personnel.

Inert Gas Systems: All vessels must have a fully operational Inert Gas System. Prior to arrival, the vessel must confirm that all empty cargo tanks and those containing dirty ballast have been fully inerted and have an oxygen content of 8% or less by volume.

If the vessel does not comply with these regulations, she will have to leave the berth without delay and return to sea in order to complete the inerting of tanks.

In such an event, Notice of Readiness will have to be re-tendered prior to re-entering the port.

Weather Precautions: Operations shall be stopped during severe electrical storms and all cargo valves and valves in the gas line riser shall be closed.

During periods of high winds above 18 m./sec., cargo operations shall be stopped and loading arms disconnected.

BALLAST: Only clean ballast water contained in segregated ballast tanks will be permitted to be discharged into the waters in the terminal area. Random samples can be taken from segregated ballast tanks.

Ballast water carried in vessel's cargo tanks has to be pumped ashore to the terminal ballast water storage.

In order to minimise the de-ballasting time, Masters are requested to arrive with minimum ballast on board for safe navigation. For safety reasons, vessels are not allowed to exceed their arrival freeboard.

Ballast water and slops containing any oil or product other than crude oil residues (such as engine sludge, hydraulic oil, luboil, solvents or other chemicals) are not permitted to be pumped into the shore storage, but have to be considered as MARPOL waste, and will be handled separately on vessel's own account. Arrangements for the discharge and reception of above referred effluents are to be made by vessel's agent.

MEDICAL: Medical requirements for ship's personnel should be arranged through the vessel's agent prior to arrival. Emergency medical services while berthed at the terminal may be arranged through either the vessel's agent or terminal operating personnel.

DENSITY: 1025.

FRESH WATER: Potable water can be delivered at a rate of 30 tonnes p.h. Ship's hoses are to be used.

FUEL: No bunkers of any kind are obtainable at the terminal and bunker barges are not permitted to deliver bunkers at Sture.

FIRE PRECAUTIONS: In case of fire on board, the ship's responsible officer should:

1. Activate the ship's fire alarm.
2. Notify the terminal by UHF/VHF or other established line of communication.
3. Make a signal in the form of a series of prolonged blasts on the vessel's whistle.

In case of fire on the jetty or the terminal, the jetty operator will inform the ship's responsible officer accordingly.

In all events of fire, whether on board or onshore, all jetty operations will cease and loading arms be prepared for disconnection.

Fire Fighting Equipment on Jetties: Each jetty is equipped with 4 infra-red detectors which will automatically stop loading pumps on the outbreak of fire. Additionally each jetty is equipped with 4 remotely controlled fire foam/water monitors. These monitors are electrically powered and remotely controlled, either from the main jetty fire fighting control panel, or a local control panel located on the jetty causeway.

On each jetty you will also find the following equipment:

Two fire hydrants for water and foam.
Fire hoses.
200 litres of foam.
Powder extinguishers of 12 kilos and 56 kilos.
International ship/shore connection.

CONSULS: At Bergen, 60 km.

REPAIRS: Hot work or any other repair work including tube cleaning, chipping and scraping, hull painting, testing or servicing of electrical equipment (including radar, radio and domestic electrical equipment), is prohibited on the vessel unless a written application, specifying the repair work to be carried out, has been submitted to the Terminal Manager and written permission granted.

If permission is granted, a list of specific repairs and a list of shore workmen employed on the vessel, must be given to the Terminal Manager before work commences.

Repairs and other work which may immobilise the vessel, must not be commenced without prior approval, in writing, from the Terminal Manager.

In all cases, adequate fire fighting equipment should be ready for immediate use.

SURVEYORS: S.G.S. Surveyor based at the terminal.

CUSTOMS ALLOWANCES: See "Mongstad".

REPATRIATION: Possible.

AIRPORT: Bergen, 60 km.

TIME: Norway uses Central European Time, therefore local time is one hour ahead of coordinated universal time (UTC). During the Summer period Norway uses local Summer time, which is 2 hours ahead of UTC.

STORING: Stores must be handled before or after cargo operations. Only small items of ship's stores, if carried by hand, may be taken on board during cargo operations.

Vehicles will only be allowed on the jetty approach roadway or jetty head after permission from the terminal.

Close to the jetties there are designated parking areas for visiting vehicles.

SHORE LEAVE: Permitted.

GARBAGE DISPOSAL: Garbage container placed on jetties. – See "General" – "Garbage"

WASTE OIL DISPOSAL: Facilities available, contact Agent.

SEAMAN'S CLUBS: Nearest clubs are at Bergen, 60 km.

WEATHER: *Tides:* Tide is semi-diurnal.

Normal tidal variance is of the order 0.9 m. – 1.0 m.

Max. astronomical tidal difference is in the order of 1.6 m.

Highest difference between extreme high and extreme low water is 2.6 m.

Tidal Currents: Tidal-generated currents in Hjeltefjorden have a maximum rate of 1.2 knots. The average rate is 0.4 knots. The dominant directions of the current are from South-Southeast and North-Northwest.

Wind: Prevailing winds are from South-Southeast and North-Northwest.

GENERAL:

Movement of Tugs and Other Craft: During operations, no vessel or small craft shall be allowed alongside the vessel unless authorised by the Terminal Manager or Shift Supervisor and agreed by the Master.

When tugs or authorised craft are alongside or assisting a vessel, all cargo system openings must be closed unless all tanks are gas free.

Garbage: No garbage and materials, either solid or fluid, shall be discharged overboard from a vessel.

Garbage from vessels' galley and other non-hazardous waste are to be disposed of into containers placed on the jetties.

Hazardous garbage/waste, such as:

Oil products
Solvents
Paint, thinner, alcohol products, tar, etc.
Products containing mercury, cadmium (batteries)
Acid, caustic and other corrosive products
Any other products classified as hazardous to health and environment
All waste contaminated by above material

must be properly and separately packed and labled. The above materials are to be placed in dedicated containers on the jetties. Before any landing of hazardous waste, the Terminal Shift Supervisor must be notified.

SHIPMASTER'S REPORT: June 1990 (Updated 1994).

Operator: Norsk Hydro A/S.

Documents:

3 copies Crew List.
1 copy Crew Manifest (only the amount in excess of allowances to be shown).
2 copies Stores/Bond List.
1 copy Health Declaration.

Agents and Customs board and check ship's papers. None are taken ashore and there is no port clearance.

Cargo Manifest and Bills of Lading completed by the terminal.

Pilotage: Compulsory. Pilot boards South of Fedje Island (one mile S.E. of Hellisoy Lighthouse) or if weather does not permit, to the North of Holmengra.

Anchorages: None. Vessels must drift if berth is occupied.

Radio: Communications: ETAs to be sent 7 days, 3 days, 2 days and 1 day in advance to the Agent, or terminal direct (Telex 40314 Hydro N), who also require the following pre-arrival information before permission is granted to enter.

1. Ship's Name and Call Sign.
2. Flag/Nationality.
3. Master's Name.
4. Owner/Charterer.
5. Shipper of Cargo.
6. Voyage Number.
7. Gross Register Tons.
8. Summer Deadweight.
9. Draft forward and aft (Arrival/Departure).
10. Last Port of Call.
11. Loaded or in ballast condition; if in ballast, type segregated/dirty and quantity to be discharged ashore (dirty ballast facilities available). If loaded, type and quantity of cargo.
12. Estimated deballasting time required (usually 2 connections).
13. Quantity of cargo to be loaded and required rate of loading.
14. Length overall; beam; number of connections and size, distance from bow to manifold; height above water line of manifold; distance from rail to manifold.
15. Any defects in equipment affecting cargo work and navigation, etc.

16. Confirm IG system is fully operational, and all cargo tanks are under 8% oxygen content.
17. Last 3 cargoes carried.
18. Mooring arrangements/equipment.
19. Confirm ETA.

Tugs: Two stern drive type tugs available with bollard pull of 50 tons. Tugs have fire fighting and oil recovery equipment onboard.

Harbour Regulations require that a tug escorts the vessel at all times whilst in the pilotage area, arranged by terminal.

Berthing: Always head to wind at time of berthing. 3 tugs used, tug lines. No mixed moorings allowed in same direction and mooring wires must have rope tails. 4 head/stern lines, 2 breast lines and 2 back springs are the usual requirements. Jetty well fendered. Tower type shore gangway used.

Berths: There are 2 jetties, both have depths of 26 m. alongside and max. allowed draft of 23 m. Each jetty has 4 loading arms with adjustable flanges from 12 in. to 16 in. and designed loading capacity of 3,750 cu.m/hr. Jetty No. 1 to North is for tankers of 30,000 d.w.t. to 300,000 d.w.t. and Jetty No. 2 is for 50,000 d.w.t. to 150,000 d.w.t.

Tankers: Conventional tankers and product/crude combination carriers from 30,000 d.w.t. to 300,000 d.w.t. can be accepted.

Vessels are expected to be able to accept a minimum bulk loading rate of Summer d.w.t. per hour:

For vessels up to 89,999 s.d.w.t. – 7.5% of s.d.w.t. per hour.

For vessels between 90,000 s.d.w.t. – 179,999 s.d.w.t. – 6.6% of s.d.w.t. per hour.

For vessels of 180,000 s.d.w.t. and above – 5.8% of s.w.d.t. per hour.

Vessels must have onboard at all times approximately 33% of Summer d.w.t., so vessels first load this amount of cargo before loading is stopped. Once this amount of cargo is aboard, vessel is allowed to deballast ashore from cargo tanks. On completion of deballasting, loading is resumed. During the deballasting, stores from quay are allowed to be taken, using the shore crane if required. Any stores can be carried up the gangway at any time. No stores allowed onboard by crane during the loading operation.

Cargo: Osberg Blend – API 34.1. Density 0.8542. Loading temperature about 8°C – 9°C.

Medical: Terminal will arrange on an emergency basis only. Agent needs plenty of notice to arrange a doctor, 24 hours if possible.

Fresh Water: Available from shore by ship's hose, rate 30 t.p.h.

Fuel: No bunkers are available.

Fire Precautions: As per terminal instructions and usual safety regulations.

Consuls: At Bergen.

Surveyors: At Bergen and Mongstad.

Watchmen: Not required.

Repatriation: All facilities available via Bergen.

Time: GMT plus 1 hour in Winter and GMT plus 2 hours in Summer.

Telephone: Agent supplies a mobile telephone on request for ship. Telephone also on quay in terminal office.

Stores: Available from ship chandlers in Bergen and locally through Agent.

Shore Leave: Shore passes supplied by terminal. Distance to Bergen about 60 km. (1.5 hours by car).

Agent: We used Ole R. Olsen, P.O.Box 65, N-5330 Tjeldstoe, Norway. Telex: 40610. Telephone (56) 389430. Mobile Telephone: 946-83530. (The Head Office is in Bergen).

AUTHORITY: Norsk Hydro Sture Terminal, 5330 Tjelsto, Norway. *Tel:* (56) 386000, Main Control Room (56) 386111, Shift Supervisor (56) 386222, Emergency (56) 386333. *Telex:* 40314 and 40192 Hydro N. *FAX:* (56) 389409. *Contact:* T. Aagotnes, Terminal Manager. H. Schutt, Marine Superintendent.

SUNNDALSORA: 62.41 N. 08.36 E.

DOCUMENTS:

2 Crew Lists
2 Passenger Lists
Declaration of Health
General Declaration
Cargo List
Cargo Manifest
Personal Effects List

PILOTAGE: Telegraphic address of Pilot Station: "Grip Pilot". Description of Pilot Boat: White hull, orange wheelhouse, length 43 ft., speed 18 knots. The Pilot has to be taken on board 1 nautical mile East of Grip Lighthouse (Lat. 63° 14' N., and Long. 07° 37' E.), no alternative area. No anchorage for vessel awaiting Pilot.

ANCHORAGE: Poor conditions in the Sunndalsfjord. Possible to anchor at Freifjord and Bolgsvaet West of Kristiansund.

RESTRICTIONS: No restrictions.

MAX. SIZE: Max. draft 33 ft.

HEALTH: "Declaration of Health" to be issued before arrival.

RADIO: Rogaland Radio and (20–30 hrs. before arrival) Alesund Radio.

VHF: For inner harbour on Channel 16 (normally in use when mooring).

RADAR: No Port Radar Service.

TUGS: Not available in Sunndalsora. Nearest Alesund, steaming time about 12 hours. Tugs only required when Pilot/Master find it necessary.

BERTHING: Length of quay: 1,007 ft. Max. draft 33 ft. Load/discharge by shore equipment.

CRANES: 1×15 tons and 1×25 tons.

BULK CARGO FACILITIES: 1 grab crane 400 t.p.h.

SPECIALISED CARGO HANDLING FACILITIES: None.

BRIDGES: None.

STEVEDORES: No notice required.

MEDICAL: Doctors available in Sunndalsora. Nearest hospital: Kristiansund or Molde (60 miles from Sunndalsora).

TANKERS: The usual rules for tankers to be complied with.

DENSITY: Average density of the port 1019 – 1020.

FRESH WATER: Available.

FUEL: Available in smaller quantities (from Mobil and BP).

FIRE PRECAUTIONS: No specific precautions.

CONSULS: None. Nearest at Kristiansund: Denmark, Finland, France, Germany, Netherlands, Portugal, Sweden and United Kingdom.

REPAIRS: Only small repairs can be carried out.

DRY DOCKS: None.

SURVEYORS: Nearest Kristiansund (Norske Veritas) and Bergen (Lloyd's).

GANGWAY/DECK WATCHMEN: Not required.

HATCHES: Opening/closing to be carried out by crew.

CUSTOMS ALLOWANCES: Quantity permitted for each Crew member to be held out of bond: 200 cigarettes or 200 gm. tobacco, 1 bottle spirit and 1 bottle of wine.

CARGO GEAR: Load /discharge effected by shore gear.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: Kvernberget (Kristiansund) and Aro (Molde), both at 60 miles distance and with regular air service.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: May 1st and May 17th. No cargo work can be arranged on those days.

POLICE/AMBULANCE/FIRE: Police Tel.: 91166, Ambulance (doctor) 91346, Fire 001, Lifeguard 91933.

TELEPHONE: In harbour office.

SERVICES: Not available. Nearest Kristiansund or Molde.

SHORE LEAVE: Crew members allowed ashore.

IDENTIFICATION CARDS: Sunndal Verk a.s. demands identification cards, obtained from Dock Master.

GARBAGE DISPOSAL: Service available. Garbage must be divided between burnable and non-burnable. Two small containers on the quay, free of charge.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Norwegian Kroner.

REGULATIONS: Forbidden to take photographs within boundaries of Hydro Aluminium Sunndal A/S property.

DELAYS: Usually no delay if notice of arrival given to Agent in good time.

GENERAL: No cargo on Saturday and Sunday.

AUTHORITY: Hydro Aluminium Sunndal A/S, 6600 Sunndalsora, Norway. *Tel:* 716-93000/93453. *Telex:* 15222 Sual N. *FAX:* 716-93607. *Cables:* H.A.Sunndal, Sunndalsora. *Contact:* Port Manager (Tel: 716-93453) or Quay Foreman (Tel: 716-93332).

SVOLVAER: 68.14 N. 14.35 E.

DOCUMENTS:

2 Crew Lists.
2 Passenger Lists.
Custom Documents.
Stores List.
Manifest.
Bill of Lading.
Ship's Papers.
Valid Derat Exemption Certificate.

Ships arriving from Finland, Denmark, and Sweden need Customs permit from last port.

PILOTAGE: Vessel approaching Svolvaer may call Bodo Radio, 2182 kHz. by radio asking for Svolvaer harbour pilot. Telegraph ETA Svolvaer 24 hours before arrival. All communication with harbour pilot boat on VHF Channels 16 and 12. Exact position for pilot boat is Lat. 68° 11' 13" N., Long. 14° 36' 00" E. Different types of pilot boats are used, but usually the pilot boat flies pilot flag. No special requirements for boarding, except usual pilot ladder.

ANCHORAGES: Boundaries for safe anchorage Lat. 68° 13' 36" N., Long. 14° 37' 00" E.; Lat. 68° 13' 48" N., Long. 14° 36' 12" E. Depth in area about 25 fathoms.

MAX. SIZE: Max. permissible length 520 ft., draft 30 ft. in the Oil Harbour.

HEALTH: Pratique is automatic, given by radio. Vessel only required fly yellow flag. In event of any suspected disease or fever on board call Svolvaer Harbour Master by telephone via Bodo Radio (2182 kHz).

RADIO: Call Bodo Radio by R/T 2182 kHz or VHF-Channel 16. Svolvaer Harbour office VHF-Channel 16/12.

TUGS: Small tugs available.

STEVEDORES: All information regarding gangs, loading and discharging rates can be obtained by calling ship's Agent in Svolvaer via Bodo Radio.

MEDICAL: Hospital facilities available.

TANKERS: There are discharging berths for oil carriers in Svolvaer. Diameter of lines at berth 6 in. and 8 in.

DENSITY: Density in port is 1025.

FRESH WATER: Delivered from piers by hose with a rate of about 20 t.p.h.

FUEL: All kinds of fuel oil are available.

CONSULS: Swedish and Italian Consulates.

REPAIRS: Nearly all types of engine and deck repairs. Both for internal combustion and turbine engines.

DRY DOCKS: No dry docks in port, only slipways for ships up to 240 ft.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally done by ship's crew but can also be done by stevedores.
CERTIFICATES: Ship's Register.
CUSTOMS ALLOWANCES: Tobacco: Quantity for each crew member is 20 cigarettes or 20 gm. tobacco and 20 leaves cigarette papers per day. Wine and/or Spirit: For crew members 1 bottle spirit or wine (0.75 litre) and for each passenger 0.25 litre.
REPATRIATION: Facilities for effecting crew changes are available.
AIRPORT: 4 km. from town. Nearest main airport is Bodo.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: Official holidays stated by Norwegian Government.
POLICE/AMBULANCE/FIRE: Tel. 70177.
TELEPHONES: Telephones on pier.
SERVICES: Compass adjusting.
IDENTIFICATION CARDS: Not required.
GENERAL: Svolvaer is the main port in Lofoten Island, and a typical fishing harbour. Radar, Decca, Radio and VHF service, and all other electrical services can be executed.
AUTHORITY: Vaagan Havnevesen, P.O.Box 121, 8301 Svolvaer, Norway. *Tel:* 76 07 10 11. *FAX:* 76 07 10 02. *Contact:* Ragnar Bergvoll, Harbour Master.

THAMSHAVN (Thamshamn): 63.20 N. 09.52 E.

DOCUMENTS:
Health Certificate.
Crew List.
Passenger List.
Stores List.
Bill of Lading.
3 Manifests.

PILOTAGE: 24 hours prior arrival Grip, Pilots can be ordered by cable to "Loskontoret, Kristiansund N." or by telephoning Kristiansund Pilot Office, tel. 74333 during office hours, and 74595 private. Pilots can also be ordered by radio through Kristiansund Radio or through Agents. Use Channel 16 for VHF., contact to Kristiansund Pilot Office, or pilot boat. Pilot boat equipped with radio telephone 2182, carries red and white flag during day and white and red light during night.
ANCHORAGES: Vessels should anchor 150 m. off piers where depth between 26 m. and 30 m. Anchoring between piers and buoys is not permitted.
MAX. SIZE: Depth at Import Quay 24 ft. MLW. Max. LOA 200 m. Max. Beam 23 m.
RADIO: Vessel should route ETA cables to Agent through Rogaland Radio or Aalesund Radio.
TUGS: No tugs needed or available.
BERTHING: Berthing only between 0700 hrs. and 2300 hrs.
CARGO HANDLING: 1 berth is specially equipped for handling of concentrates in bulk. Ships of 28 ft. draft can load at the pyrites quay. Loading by conveyor. There are no berths equipped for containers or Ro/Ro traffic, nor berths handling liquid chemicals or LPG carriers.
STEVEDORES: Arranged by Agent. No ETA to stevedores necessary.
MEDICAL: Hospital facilities available.
FRESH WATER: Available, delivered at berth.
FUEL: No fuel supplies available. Nearest port for such supplies is Trondheim.
CONSULS: Nearest consul available in Trondheim.
REPAIRS: Only small repairs can be carried out.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Not compulsory, and this service is left to the discretion of the Master.
OPENING/CLOSING HATCHES: By crew.
CERTIFICATES: Ship's Register.
CUSTOMS ALLOWANCES: Each crew member allowed 20 cigarettes on shore. When leaving ship, 200 cigarettes and 1 bottle of wine and 1 bottle of spirit permitted.
AIRPORT: Nearest airport, Vaernes, 62 miles N.E. Served by regular airlines with several flights per day.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: January 1st; Easter Holidays; Ascension Day; Whit Monday; 1st and 17th of May; December 25th and 26th.
POLICE/AMBULANCE/FIRE: All mentioned services obtained through Agent or by contacting local telephone exchange.
TELEPHONES: No facilities for placing telephones onboard ships.
SERVICES: Provisions available.
BANKS: Forretningsbanken A/S, 7300 Orkanger, Norway.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Not required.
AUTHORITY: (Private Wharves): Thamshavn Verk A/S and Co., P.O.Box 10, 7301 Orkanger, Norway. *Tel:* (074) 80400. *Telex:* 55628. *FAX:* (074) 81930. *Cables:* Thavn, Orkanger. *Contact:* Arne Lauritzsen, Shipping Manager.

TONSBERG: 59.16 N. 10.25 E.

DOCUMENTS:
Ship's Register.
Crew Lists.
Customs Manifest for each crew member (cigarettes, spirits, etc.).
Stores List. Cargo Papers. Health Certificate.

PILOTAGE: Sea Pilots obtainable from Ferder Pilot Station. Pilots normally take vessels to berth.
ANCHORAGES: Good anchorages at Byfjorden and Traela; anchorages for large vessels are found in Narverodbukten and Husoyflaker.
MAX. SIZE: 18 ft. draft for East entrance and 24 ft. draft for West entrance. Up to 30,000 tons in ballast.
RADIO: Cable ETA via Tjome Radio prior arrival.
TUGS: Available.
BRIDGE: 1 bascule bridge over East entrance. Working days open 0730 to 2000 hrs., holidays 0900 to 1700 hrs. Signal 1 long and 2 short to open bridge. Opening can also be arranged by VHF Channel 12. Horizontal clearance 88 ft., depth 22 ft.
MEDICAL: Medical, dental and hospital facilities available.
DENSITY: Occasionally brackish.
FRESH WATER: Available from hydrants at quays.
FUEL: Delivered by lorry.
CONSULS: (Vice-Consuls) France, Netherlands, Finland, Denmark, Sweden and Spain.
REPAIRS: All types of repairs available.
DRY DOCKS: Located at Horten and Drammen.
GANGWAY/DECK WATCHMEN: Available on request.
CUSTOMS ALLOWANCES: 200 cigarettes or tobacco and 1 bottle spirits, for each man.
REPATRIATION: Possible. Regular flights from Torp (5-7 flights daily) to Copenhagen, Stavanger, Bergen and Trondheim.
AIRPORT: Torp, 20 km. Oslo Airport, 100 km.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Monday; Labour Day (1st May); 17th May; Ascension Day; Whit Monday, Christmas (25th and 26th December). Mostly no working.
POLICE/AMBULANCE/FIRE: Police 112; Ambulance 113; Fire 110.
TELEPHONE: Lines available on board vessel.
SERVICE: Mostly all services or equipment available from Tonsberg or Oslo. Inform prior arrival.
SHORE LEAVE: Crew members allowed to go ashore.
DELAYS: Ice during January and February, but port kept open by ice breakers.
AUTHORITY: Tonsberg Havnevesen, Nedre Langgate 36 B, N-3100 Tonsberg, Norway. *Tel:* 33348850. *Cables:* Tonsberg Havnekontor. *FAX:* 33319917. *Contact:* Per Svennar, Harbour Master.

TROMSO: 69.39 N. 18.58 E. (See Plan)

LOCATION: The main port is located on Tromsoe Island, towards Tromsoesundet. Tromsoesundet is open to N.E. and S.W.
Prostneset Terminal: Located S.W. of Tromsoe Bridge, being the old harbour, it is located in front of the city centre. It is sheltered by two breakwaters. The main jetty is 300 m. long with depths of 6.5 m. to 7.0 m., widely used for cruise vessels during Summer season. There are also a number of jetties for smaller vessels and marinas for pleasure craft.
Breivika Terminal: Located N.E. of Tromsoe Bridge, about 3 km. N.E. of the city centre. The terminal has one continuous jetty of 300 m. with depths 10.4 m. to 11.0 m., and one jetty of 182 m. with depth 7.5 m.
Tromsdalen Terminal: Located on the mainland across Tromsoesundet opposite Prostneset Terminal. The Terminal is connected to Tromsoe centre via Tromsoe Bridge. The Terminal has a jetty of 65 m. with depth 4.8 m.
PORT LIMITS: From Rystraumen to S.W. to Tonsnes Light to the N.E.
DOCUMENTS:
Trade Certificate.
Tonnage Certificate.
Certificate of Nationality.
Number of Crew and Passenger Lists.
Customs and Health Documents.
Manifest and Bills of Lading.
Crew List.
Passenger List.
Derat Certificate.

PILOTAGE: Pilot Station maintains 24 hours (Tel: 47-77682245. Fax: 47-77681214). Contact can be made via Bodo Radio or Vardo Radio. Telegraphic address of Pilot Station is "Tromso Pilot Station". Order latest 24 hours before arrival.
ANCHORAGES: There is safe anchorage with good holding ground in Tromsoesundet, from 0.4 miles to 1.5 miles North of the bridge, in the red sector of Tromsoe Bridge Light (Lat. 69° 39.03' N., Long. 18° 58.8' E.). Depth is 30 m. to 40 m.

Anchoring in the white sectors from Tromsoe Bridge Light is strictly prohibited.

Smaller vessels may anchor in the green sector from the same light, depths 15 m. to 30 m.

Care should be taken not to impede the safe passing and manoeuvring for vessels entering or leaving berths along Tromsoe Island.

Anchoring South of South Breakwater is not recommended, consult Port Authority.

Tidal range/set/drift in Tromsoesundet: 2.3 m./S.W.-N.E./3 knots.

Prevailing winds: South Westerly.

APPROACHES: *Fairways:* Sandnessundet, to the N.W. of Tromsoe Island, is the main fairway for vessels passing Tromsoe.

Maximum displacement for passing Tromso Bridge (See "Bridges") is 5,000 tonnes. Therefore, vessels calling Tromsoe Port might have to circumnavigate Tromsoe Island via Sandnessundet, depending on arrival direction and destination.

Maximum speed in Tromsosundet upon passing the harbour is 6 knots.

RESTRICTIONS: No restrictions on night entry.
MAX. SIZE: No limit on size for entry, except draft limitation.
HEALTH: International procedure for obtaining Pratique followed. In case of suspected disease or fever onboard, inform the Port Authority in advance. When arriving from a Scandinavian port, Pratique is automatic.
RADIO: Bodoe Radio, call sign LGP and Vardoe Radio, call sign LGV. All kinds of radio services available on VHF, as well as short and medium wave.
VHF: The Harbour Office monitors VHF Channel 12. Vessels arriving shall call the Harbour Watch for confirmation on berthing as soon as within radio range. Tromsoe Pilots monitor Channel 13. All movements within the port, such as arrival, departure, shifting, shall be reported to the Harbour Watch prior to commencement.
TUGS: Tugs up to 1,550 h.p., 20 tonnes pull (200 h.p. bow thruster) available. Ordered through Agent.
BERTHING:

1,300 m. of quay with depth 4.5 m. – 7.5 m.
210 m. of quay with depth 10.5 m.
100 m. of quay with depth 11.0 m.

All depths are at LWS.

Containers: Handled at Breivika Terminal. Container park for 1,000 TEU's and reefer plugs of 380/220 Volts.
CRANES: 9 mobile cranes with capacity up to 40 tonnes.
BRIDGES: Tromsoe Bridge: Maximum displacement for passing is 5,000 tonnes. Height above High Water Spring is 36.5 m., width 60 m. In case of meeting situation near the bridge, Southbound vessel to give way and let Northbound vessel pass the bridge first.

Sandnessundet Bridge: 120 m. wide, 41 m. height above High Water Spring. Dredged depth 10.4 m. No restrictions to navigation, other than physical size of vessel.
SPECIALISED CARGO HANDLING FACILITIES: Ro-Ro ramp, length of berth 200 m. Forklifts up to 22 tonnes.

The Port Authority has no cranes, but mobile cranes with capacity up to 40 tonnes are available.
STEVEDORES: Ordered by Agent.
MEDICAL: Large hospital with all kinds of medical services offered. Tel: (+47) 776260. Fax: (+47) 77626042. For emergencies: VHF Channels 16 or 12 or telephone 113.

Master preferably to advise prior to arrival if medical services are needed on board.
TANKERS: The port receives tankers each month in the 18,000 to 21,000 gross ton range.

All petroleum berths have booms, but tankers are not normally boomed during cargo operations. The Port Authority has also an extensive stock of booms. Slop facilities by tank trucks or barges.

The current through Tromsoesundet and Rystraumen, 5 miles South of Tromsoe Port, runs at rate of up to 5 knots. Counter current and eddies may be encountered, especially at Rystraumen. Therefore, vessels should have full manoeuvring power available and a competent helmsman at the wheel. Assistance by tug is not compulsory, but recommended. The Port Authority, however, may impose the use of tugs if considered necessary for safety reasons.

There are 4 oil berths:

Norol – 6.4 m. depth.
Bunker Oil – 6.4 m. depth.
Esso – 10.0 m. depth.
Shell (at Skjelnan) – 11.9 m. depth.

DENSITY: 1025.
FRESH WATER: Most berths supplied by pipeline. Rate 20 t.p.h. per hose.
FUEL: All grades except heavy fuel available.

Heavy fuel supplied by coastal tankers, advanced order to be made through Agent or direct to oil company.
FIRE PRECAUTIONS/DANGEROUS GOODS: No local regulations for fire precautions. Vessels carrying dangerous cargo, ref. IMDG-code, to advise Port Authority 24 hours prior to arrival.
CONSULS:

Belgium	77 68 15 93	Iceland	77 68 30 24
Finland	77 68 20 60	Netherlands	77 68 45 50
France	77 68 76 47	U.K.	77 68 48 00
Germany	77 66 55 50		

Note: When calling from abroad, please dial +47 before dialling the above numbers.
REPAIRS: Extensive range of repairs, both deck and engine.
DRY DOCKS: No dry docks, but the following slipways available:

Tromsoe Skibverft: 65 m., 2,000 tonnes maximum, draft up to 6.0 m. Repair berth: Length 110 m., draft 6.5 m.

Tomek: 40 m., 300 tonnes maximum. Repair berth: Length 70 m., draft 6.0 m.
SURVEYORS: Lloyd's Agency. Tel: (+47) 77686520.

Det Norske Veritas. Tel: (+47) 77683164.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: Crew allowed to open and close.
CUSTOMS ALLOWANCES: 200 cigarettes *or* 20 cigars *or* 250 gm. tobacco, 1 litre of spirits and 1 litre of wine, *or* 2 litres of spirits. In addition, 6 bottles of beer.
CARGO GEAR: By ship's gear, truck to truck (side ports) or Ro-Ro.
REPATRIATION: Good facilities for crew repatriation, arranged through Agent.
AIRPORT: 5 km. from harbour. Domestic, with daily connections to international airports.
TIME: GMT plus 1 hour. Summertime from March to October, GMT plus 2 hours.
HOLIDAYS: 1st January, Maundy Thursday, Good Friday, Easter Monday, Ascension Day, Whit Monday, 1st May, 17th May and 25th December.
POLICE/AMBULANCE/FIRE: Police 110; Ambulance 113; Fire 112.
SERVICES: Compass adjusting, stores, etc.
BANKS: Several banks available.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Not required. Seaman's Book.
GARBAGE DISPOSAL: Available, both alongside and in the roads.
WASTE OIL DISPOSAL: Available both by truck and barge. Arranged through Agent.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner (NOK). U.S.$ 1.00 = 6.5 NOK (March 1996). No restriction on amounts less than 25,000 NOK.
DEVELOPMENTS: New berth under construction at South Breakwater. Completion expected end 1996.
AUTHORITY: Tromso Havnevesen, P.O.Box 392, Kirkegt. 1, N-9001 Tromso, Norway. *Tel:* (+47) 77681191, 77683374. *FAX:* 77658529, 77611975. *Contact:* Captain Knut A. Mortensen, Port Director. Captain Per Jensen, Port Captain.

TRONDHEIM: 63.25 N. 10.24 E. (See Plan)

DOCUMENTS: See "Bergen".
PILOTAGE: Pilotage is compulsory for all foreign flag ships. The pilot boats lie in Kristiansund Harbour, where a VHF watch is kept. The Pilot Station listens on Channel 16. When vessel is about 10 miles from Grip Lighthouse, contact should be made. Vessel will be given instructions as to where and how the Pilot will board. The Pilot boards from a 20 m. long, white boat marked 'LOS', capable of doing 10 knots. In bad weather vessel will be advised by VHF regarding Pilot procedures. The pilotage service is provided by the Norwegian Government. All the Pilots are recruited from the Norwegian Merchant Navy after they have obtained a 1st Mate's Licence.

Note: When approaching Trondheim from the North, ship will be in coastal trade with Pilot on board. Vessel will enter the Trondheim Fjord East of Halten Lighthouse.
RESTRICTIONS: The fjord is very deep and easy to enter. The channel is clear and ice-free throughout the year.

There are no speed limitations from Grip to Trondheim, but consideration should be given to small ships and the narrow water.
MAX. SIZE: Controlled by depth at berth.
HEALTH: Free Pratique arranged by Agent.
RADIO: Orlandet Radio (also VHF).
VHF: Harbour Pilot: Havne Kontoret, Tel: 73-528015 or VHF Channel 16.
TUGS: Arranged by Agent.
BERTHING:

Pier 1: Ro/Ro Berth: Length 442 ft., depth 26 ft. New Quay: Length 460 ft., depth 26 ft.

Pier II-River Harbour	Quays 4–15	Depth alongside up to 26 ft.
Outer Harbour	Quays 16–17	Depth alongside up to 18 ft.
Inner Harbour	Quays 19–24	Depth alongside up to 20 ft.
Ilha Pier	Quays 26–32	Depth alongside up to 34 ft.
Pier I	Quays 1– 2	Depth alongside up to 27 ft.
Ladehammer Quay	Length 760 ft.	Depth alongside up to 16.5 ft.
Strandvei Quay	Length 1190 ft.	Depth alongside up to 16.5 ft.
Transit Quay	Length 780 ft.	Depth alongside up to 26 ft.
Coal Crane Pier	Length 700 ft.	Depth alongside up to 26 ft.
Cruise Ship Terminal	Length 320 ft.	Depth alongside up to 43 ft.

BRIDGES: Skansen Bridge, Jernbanebrua, and Brattor Bridge divide Inner Harbour and Nidelven Bridge divides the river harbour.
STEVEDORES: Available.
MEDICAL: All facilities available.
TANKERS: Berth depth 9 m. – 12 m. Total length of quays 270 m. easy access. Mobil, Esso, Norsk Olje (Norol) and Shell installations.
Berth Approaches: The main effect on ship handling in the berth approaches comes from the current, which always sets along the jetty. Current direction depends on the tide.
Berthing: All tankers usually berth with port side alongside and with tugs on the hook. An anchor may be used under unfavourable conditions. With wind Force 8 and above from an Easterly direction, vessels will not be allowed to go alongside due to risk of damage to ship and jetty.
FRESH WATER: By hose from quay.
FUEL: Available.
CONSULS:

Belgium	Tel: 73 959600	Italy	Tel: 73 532080
Denmark	Tel: 73 581500	Netherlands	Tel: 73 524560
Finland	Tel: 73 549911	Sweden	Tel: 73 967722
France	Tel: 73 532600	U.K.	Tel: 73 968211
Germany	Tel: 73 521120		

REPAIRS: All types of deck and engine repairs are possible.
DRY DOCK: 113 m. × 20 m. × 8.0 m.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle spirit, 1 bottle wine allowed each man.
REPATRIATION: Can be arranged.
AIRPORT: 35 km. away from port. Regular airlines.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: Christmas (2 days); Easter, (4 days); 17th May; Ascension Day; Whitsun, (2 days).
POLICE/AMBULANCE/FIRE: Police 73 899090 or 002; Ambulance 003; Fire 73 547600 or 001.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Required.
GARBAGE DISPOSAL: Collection service available (Tel: 73-547037).

(1) Alongside dock: Containers.
(2) At anchor: Barge.
(3) Telephone: 73-547037.
(4) Charge and collection: Container: Transport 460 NOK plus 435 NOK per ton plus 20%.
(5) Collection time: Monday – Friday, 0700 hrs. – 1500 hrs.

WASTE OIL DISPOSAL: Service by tanker trucks at any berth. Contact Borstad Transport, P.B 204, 7501 Stjorda. Tel: 74-827700. Fax: 74-827743.
SEAMAN'S CLUBS: None.
CURRENCY: Norwegian Kroner.
DEVELOPMENTS: Plans for reconstruction of Outer Basin with new bridges planned.
AUTHORITY: Trondheim Havn, Pir-Senteret, N-7005 Trondheim, Norway. *Tel:* 73-528015. *FAX:* 73-509480. *Contact:* Wollert Krohn-Hansen, Harbour Master.

VADSO: 70.04 N. 29.45 E. (See Plan)

DOCUMENTS:
Trade Certificate.
Tonnage Certificate.
Certificate of Nationality.
Number of Crew and Passenger Lists.
Customs and Health Documents.
Manifests and Bills of Lading.

PILOTAGE: Vessels approaching from sea and desiring Pilot should order at 24 hours' notice and confirm arrival to Pilot Office, Vadso, at 2 hours' notice. The advance order can be sent over Coastal Radio Station Vardo to Vadso Pilot/Harbour Master in Vadso, Tel: 789-51318. Vadso Harbour Pilot on VHF Channel 16, working Channel 12.

The Harbour Pilot usually boards vessels within 0.5 miles of the harbour entrance, in fine weather conditions.

ANCHORAGE: West of harbour between Vadsoya and Lille-Vadsoy in depths of 16 m. – 20 m. The holding ground is good.
APPROACHES: *New Entrance:* Entrance from the West is between 2 breakwaters 180 m. apart.

A 475 m. long, 180 m. wide and 6.5 m. (21 ft.) L.L.W.S. deep dredged and lighted channel leads from outer to inner harbour.

RADIO: Call via Vardo Coastal Radio Station.
VHF: Harbour Master's Office on Channel 16, working Channel 12, during working hours (0800 hrs. – 1500 hrs. local time).
TUGS: 1×6 ton bollard pull. Larger tugs can be ordered if necessary.
BERTHING: Traffic/Cargo Quay: Length 250 m., depth alongside 7.0 m.

Fishing Port: 4 quays, length 65 m. – 105 m. Depth alongside 5.5 m. – 6.5 m.

STEVEDORES: Vadso Skipsekspedisjon A/S, 9800 Vadso. Tel: 789-51395 or 789-51137, Telex: 64222, Fax: 789-51314. Stevedores arranged by vessel's Agent.
TANKERS: There is a discharge berth for tankers. Max. size 2,500 g.r.t. Length of jetty 125 m. Depth of water 18 ft.
FRESH WATER: Fresh water is available at the Traffic Quay, rate 100 t.p.h. Water is also available at the fishing port (Quay No. 1) at a rate of 30 t.p.h. at the fuel berth. No water barge available.
FUEL: Fuel oil, gas oil and diesel oil available direct from oil-installation of Norske Shell A/S at Vadsoya. Tel: 789-51869.
CONSULS: Finnish Vice-Consul in Vadso. Tel: 789-51225.
REPAIRS: Minor deck and engine repairs possible. No dry docks or slipways available.
GANGWAY/DECK WATCHMEN: Watchmen not necessary. If required, the Master may use ship's crew as gangway and deck watchmen.
CUSTOMS ALLOWANCES: Allowance for 10 days: 200 cigarettes or 200 gm. tobacco and 0.25 litres of spirits per crew member.
AIRPORT: Vadso Airport is 4 km. from the Traffic Quay and Vadso town centre. There are 4 flights a day to Oslo.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Police, Tel: 112 or 789-50500. Ambulance, Tel: 113 or 789-51999. Hospital, Tel: 789-51691. Fire, Tel: 110 or 789-51554.
SERVICES: Ship chandlers are available for supply of provisions and arranging laundry. If service required for vessels instruments, this can be arranged by contacting Varanger Skipselektronikk A/S, Tel: 789-52290.
GARBAGE DISPOSAL: Garbage disposal is available when ships are alongside.
WASTE OIL DISPOSAL: Waste oil disposal service is available.
SEAMAN'S CLUBS: Velferds Klubben, Tel: 789-52290.
CURRENCY: Norwegian Kroner (NKr.).
AUTHORITY: Vadso Havnevesen, P.O.Box 39, 9801 Vadso, Norway. *Tel:* 789-51318. *FAX:* 789-54310. *Contact:* Rolf Chr. Nilsen, Harbour Master.

VARDO (Svartnes): 70.22 N. 31.05 E.

DOCUMENTS:
Crew List.
Passenger List.
Customs Documents.
Health Documents.
Stores List.
Manifest of all Foreign Cargo onboard.
Manifest of all Cargo for Discharge.
Dangerous Cargo Manifest.
Vessel's Documents.

On arrival, vessel shall report all cargo to be discharged to Port Authority.

PILOTAGE: Compulsory. Pilot boarding positions:
No. 1 – Lat. 70° 24.5' N., Long. 31° 06.5' E.
No. 2 – Lat. 70° 22' N., Long. 31° 10' E.

Request for Pilot and ETA must be sent to Pilot at least 24 hours in advance. Pilots communicate with vessels on VHF Channels 16 and 12.

Harbour Pilot: Tel: 789-87276, 789-87275. Fax: 789-87828.

ANCHORAGES: Contact Port Authority.
MAX. SIZE: LOA 150 m. with draft up to 7.0 m.
RADIO: Vardo Coastal Radio Station.
VHF: Vardo Radio – Channels 22, 24, 26 and 28.
Pilot – Channels 12 and 16.
TUGS: 2 small tugs available.
BERTHING: *Vardo Harbour:* Bulk/general cargo wharf: Length 180 m., depth at L.W. 7.5 m.

Svartnes: Industrial Quay: Lenth 60 m., depth 7.5 m. There is a large area for heavy bulk cargo. Fresh water available on quay.

CRANES: Two small cranes available. Larger mobile cranes available on request.
FRESH WATER: Available. Cost 11 Kr./ton.
FUEL: Available from Esso, Shell or Statoil.
REPAIRS: Possible. Underwater repairs also possible. Tel: 789-88078.
GANGWAY/DECK WATCHMEN: Arranged by Harbour Office.
AIRPORT: Vardo Airport, 3 km.
POLICE/AMBULANCE/FIRE: Police Tel: 789-88500. Ambulance Tel: 113. Fire Tel: 110.
BANKS:
Kreditkassen. Tel: 789-87552.
Sparebanken – Nord – Norge. Tel: 789-87407.
STORING: See "Prelims".
(1) Truck.
(2) –
(3) Yes.
(4) Yes.
(5) –
(6) Yes.
AUTHORITY: Vardo Havnevesen, Postboks 50, 9951 Vardo, Norway. *Tel:* 789-87276 (Harbour Office), 789-87275 (Harbour Control). *FAX:* 789-87828 (Harbour Office). *Contact:* I. Eriksen, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Sultanate of Oman

GENERAL:

ANCHORING:
Notice to Mariners No. 1/84:

All vessels anchoring South of Latitude 24° parallel and within the territorial waters of Sultanate of Oman (12 miles), for the purpose of waiting for orders or in order to carry out engine repairs, should anchor within Lat. 23° 40' N., and Long. 58° 10' E. and Long. 58° 27' E.

No vessel shall anchor in any other part of Mina-Al-Fahal except when actually loading/discharging on SBM buoys. All cargo ships should call at Port Sultan Qaboos when handling cargo or at anchorage West of Fahal.

Signed: Superintendent General Maritime and Ports Affairs.

Notice: Received from ship's Agent.

Vessels can anchor within Lat. 23° 53' N. and the coastline of Oman and between the meridians of Long. 58° 10' E. and Long. 58° 28.5' E., which is West of Fahal Island. On arrival contact Mina Qaboos Port Control on VHF Channel 16 or 14 for reporting arrival and request anchoring position giving vessel's particulars. Vessel not permitted to lower life-boat or unauthorised boats to lie alongside. Agent requires 5 copies Crew List, 1 Stores List, 1 Crew Declaration List and 1 Vaccination List. Distance to anchorage being such we have to commute by tugboat hired at O.R. 55/– per hour or part thereof. Launch service possible only during daylight hours and weather permitting. Following particulars of vessel should be furnished in advance:

1. Flag/port of registry.
2. D.w.t./g.r.t./n.r.t./call sign.
3. Ports of call including last port and next port.
4. Nationality of Master and Crew.
5. Whether any dangerous/hazardous cargo on board.

Vessels on arrival should be cleared through Immigration, Customs and Health by an Agent.

MINA-AL-FAHAL: 23.40 N. 58.30 E. (See Plan)

DOCUMENTS: Required on arrival (provided by vessel):
6 copies Crew List (2 copies required by Berthing Master).
2 copies of Vaccination List.
2 copies Stores List.
1 copy Bonded Stores List.
1 copy Personal Effects List.

All other necessary papers will be supplied on arrival by the Berthing Master.

P.D.O. employ the "Early Departure Procedure" for completion of cargo documentation.

PILOTAGE: The Berthing Master will board the vessel off Fahal Fairway Buoy as directed by VHF. The portside derrick should be rigged and crew standing-by ready to lift hose securing equipment from the launch when Berthing Master and Assistant come on board. Harbour steaming is deemed to start at this point.

The pilot access should be in good condition, clean and ready on the leeward side. The Pilot will board by accommodation ladder only unless the vessel's freeboad makes the use of a combination accommodation ladder and pilot ladder necessary, or the vessel is advised otherwise. The use of a pilot hoist is not permitted.

The Berthing Master's Assistant, acting as shore representative, stays on board vessels at the SBMs. Vessels are requested to provide him with proper accommodation and meals. As Oman is a Muslim country the appropriate type of food, i.e. no pork or pork products, should be supplied. Any failure to comply with this request may result in delays to the vessel and complications with the local authorities.

Also see "Ship Supply Service".

ANCHORAGES: *Tankers:* Before anchoring tankers should contact "Fahal Control" on VHF Channel 12 for a designated anchorage.

In all cases tankers are required to anchor at least 2 miles West of Fahal Island and at least 2 miles clear of the Omani coastline.

Ships proceeding to an anchorage within the Port Area should pass North of Fahal Island and under no circumstances enter the prohibited area unless instructed to or accompanied by a Mina-al-Fahal Berthing Master.

Note: The following positions are foul due to lost anchors and cables:

1. Fahal Island Light 121°×2.95 miles.
2. Fahal Island Light 150°×3.4 miles.
3. Fahal Island Light 126°×1.16 miles.
4. Fahal Island Light 144°×2.5 miles.

Anchors: In order to prevent damage to SBM moorings and submerged pipelines, anchors are to be secured in the seagoing condition before the ship enters the Restricted Area. Under no circumstances is the seagoing security of the anchors to be altered whilst the vessel is moored to the SBM.

RESTRICTIONS: Open sea approaches.

All tankers calling at Mina-al-Fahal must be equipped with inert gas system in good working order and arrive with all cargo tanks fully inerted and empty tanks to be loaded purged down below 2% H.C.

Arrival Draft: All vessels scheduled to berth at an SBM must arrive with the propeller fully immersed. The forward draft should be deep enough in order to:

(a) Allow safe handling of the ship in all operational weather conditions for the area.
(b) Prevent the bow riding above the fendering on the SBM.
(c) Allow connection of the mooring hawser, whilst maintaining a safe distance from the SBM.

An example of a safe arrival ballast draft for a vessel of 250,000 tonnes loaded displacement is:

Forward	7.00 m.
Aft	11.00 m.

MAX. SIZE:

Berth	*Max. d.w.t.* (tonnes)	*Max. Draft* (m.)
SBM No. 1	350,000	19.5
SBM No. 2	600,000	N/A
SBM No. 3	100,000 *	14.0

There is no LOA or beam restriction.

* Max. loaded displacement 125,000 tonnes.

Also see "Berthing".

RADIO/VHF: Initial ETA should be sent 72 hours before arrival and confirmed 48 hours and 24 hours before arrival. ETA messages should be sent to "Petromar Muscat" (Telex No. 5212 ON; Fax: 675150), or via Muscat Radio (call sign A4M). If no contact can be established with Muscat Radio, the message should be sent through an alternative coast station such as Bahrain Radio.

72 Hours Message Details: The 72 hours message should contain the following information:

(a) ETA in local time and date in plain language.
(b) Time vessel will tender NOR, if different from above.
(c) Confirmation that vessel is fully inerted to PDO requirements.
(d) Last port of call.
(e) Next port of call.
(f) Quantity of cargo required.
(g) Time required for deballasting prior to loading.
(h) Maximum draft on arrival and trim.
(i) Maximum draft on departure.
(j) Hose handling crane or derrrick SWL.
(k) Number, type, size and S.W.L. of bow stoppers for securing SBM mooring chains.
(l) Vessel's Flag of Registry.
(m) Master's name.

VHF communications should be established as soon as possible, and at least 2 hours prior to arrival, with "Fahal Control" on Channel 12. A 24 hour watch is maintained on Channel 12 only. The range of the station is approximately 50 miles, but may be reduced to 20 miles when approaching from the Eastwards due to the screening effect of the mountains. This station may call ships on Channel 16, but a watch will not be maintained on Channel 16. All vessels when in port or laying off Mina-al-Fahal should keep watch on Channel 12. The mooring launches are also equipped with Channel 12.

HEALTH: When advising ETA, include in message whether any sickness on board.

Port Health Officer, Immigration and Customs board with Agent; Port Officer will carry out any necessary vaccinations. 'Q' flag to be flown until Pratique granted.

TUGS: None available and not required.

BERTH DESCRIPTION: 3 single buoy moorings with floating hose strings. SBM lights are Iso.W.

SBM No. I: Crude export and Long Residue.

This buoy is served by 2×30 in. submarine crude lines each 3,139 m. long.

The floating crude hoses are 2×265 m. long × 20 in. reduced to 16 in. for manifold connection.

SBM No II: For crude and bunker export and is served by 1×40 in. submarine crude line and 2×10 in. submarine fuel oil lines each 4,261 m. long. The floating crude hoses are approx. 2×302 m. long × 20 in. reduced to 16 in. at manifold connection. Bunkering is by a single 12 in.×311 m. floating hose.

SBM No. III: Products imports and exports of only (Gas Oil, Mogas, Jet-A1) served by 2×10 in. submarine pipelines, length 2,439 m. Floating hoses are 201 m. in length with 8 in. manifold connections.

Unless instructions are given to the contrary, both mooring ropes are to be used.

Loading/Discharge Rates:
Crude oil export by gravity only; maximum rate 8,000 cu.m./hr.
Long residue export by gravity only; maximum rate 3,000 cu.m./hr. (SBM 1).
Bunker fuel export by pump; maximum rate 500 cu.m./hr.
White product import (SBM 3); maximum rate 500 cu.m./hr.
White product export (SBM 3); maximum rate 350 cu.m./hr.

Coastal Tanker Mooring:

There are also 2 inshore berths for coastal tankers.

The maximum draft permissible is 4.5 m. Vessels moor using both anchors forward and ropes to a buoy on each quarter. The hose is usually connected to the vessel's stern discharge line.

Approximate density of water: 1026.

Coastal tankers should approach the berths from Westward of Fahal Island.

BERTHING: Vessels berth head on to a single buoy mooring system comprising 2 nylon grommet-type mooring lines which terminate with chafe chains for securing on board using the vessel's bow chain stoppers. Vessels which are not fitted with approved tongue or hinge-type bow stoppers will not be accepted for loading operations at Mina-al-Fahal Terminal. A suitable messenger of 25 mm. minimum diameter should be provided by the ship to lift the end of the 200 m. × 80 mm. diameter polypropylene pick-up rope from the mooring boat. It is advisable to have 2 good mooring lines available forward. The Terminal require the vessel to arrive with 2 main winch reels on the forecastle clear of mooring ropes and wires for the pick-up of the mooring hawsers so long as suitable leads exist. No moorings are used aft. A Berthing Master and one assistant board the vessel for mooring and will advise the details of the mooring procedure.

HOSE CONNECTIONS: Hose connections will be made on the port side amidships. Crude loading ships should fit 2 × 16 in. reducers. The derrick should be rigged with equipment in good condition and have a minimum SWL of 10 tonnes.

Hose connection and disconnection is carried out by the ship's crew with advice from the Berthing Master's Assistant.

LOADING: Every 2 hours ship-shore check has to be made via the Loading Master.

Private radio channels in the UHF band are used for ship/shore/launch communication during all operations.

BALLAST: No facilities for reception of dirty ballast.

Tankers should arrive with clean ballast, lines and pumps and no oil should be released into the sea.

MEDICAL: Medical and dental treatment can be arranged via local agent. Radio advise with details 24 hours before arrival. Patients are taken ashore through Port Sultan Qaboos.

Patients should be able to speak Arabic/English/Dutch or be accompanied by a competent interpreter and should bring their passport. To avoid delay to patients, a form containing the following information must be sent in triplicate with every patient:

Name, address and telex address of ship's owners.
Name of ship.
Rank and name of patient.
Nature of complaint (in general terms).

DENSITY: Approximately 1026.

FRESH WATER/FUEL: Fresh water and gas oil available by barge "Nizwa", arranged via vessel's agent. 24 hours notice required. Barge capacity, fresh water 280 tonnes, minimum quantity 100 tonnes. Gas oil 270 tonnes.

Marine fuel oil is available at SBM 2. Marine lubricants are available, supplied in drums.

A wide range of marine lubricants is available and is supplied in drums. At least 24 hours' notice is required for supplying lubricants.

Also see "Shipmaster's Report".

REPATRIATION: Crew changes are possible at Mina-al-Fahal provided the Agent receives at least 7 days' notice giving full particulars of embarking/disembarking crew, such as full name, nationality, place and date of birth, Passport/Seaman's Book number with date and place of issue and expiry date, and also destination for repatriation of disembarking crew members, to enable Agents to obtain necessary permits (visas) and arrange air passages.

Notice for crew change to be given as soon as possible as the issue of N.O.C's. (Non Objection Certificates) can take up to 7 days.

N.B. If the information required as above is received on a Thursday or a day preceding a holiday, the time mentioned of 72 hours will not be sufficient as no permits can be obtained from the Authorities during holidays.

REPAIRS: It is not permitted to immobilise main engines whilst moored to the SBMs. Engines are required to be maintained at 10-15 minutes notice whilst vessels are berthed. Under no circumstances should the propeller be turned in the ahead direction.

TIME: GMT plus 4 hours all year round.

SERVICES: There are 24-hour laundry facilities. Stores (fresh, frozen and bonded) are available, but at least 24 hours notice is required.

Agents offer a garbage reception facility, but only collection and receipt while the vessel is out of the Mina Al Fahal restricted area, i.e. at anchor or after the vessel has left the berth.

SHORE LEAVE: Not possible.

SHIP SUPPLY SERVICE: The Port of Mina-al-Fahal is operated by Petroleum Development Oman, and they have 3 launches, 2 of which are on 24 hours' duty every day. These launches would assist in a marine emergency, but are normally used for ships loading at Mina-al-Fahal. Mina-al-Fahal Pilots keep watch on VHF Channel 12.

NOTICES: *Circular No. 9/85:* Prohibited Area Off Mina-al-Fahal.

All vessels leaving or entering Port Sultan Qaboos should stay well clear of the prohibited area off Mina-al-Fahal.

Masters are required to pass at least 1 nautical mile to the Eastward of the Mina-al-Fahal Fairway Buoy on arrival and departure.

Charts affected: B.A. 3522, 2851, 2869.

Signed: Acting Superintendent General, Maritime and Ports Affairs.

REGULATIONS: The import of liquor or alcohol of any sort into the Sultanate is strictly prohibited. Therefore nobody is permitted to bring any liquor ashore from vessels in the port, and under no circumstances should liquor, or other items, be traded with local fishermen in exchange for fresh fish, under penalty of suspension of operations and removal from the buoy.

The ship's main transmitter and radar must not be used while the vessel is moored to the SBM.

The Sultanate of Oman is one of the countries subscribing to the Israeli Boycott.

SAFETY REGULATIONS: During approach to the berth, the Berthing Master's assistant will test two cargo tanks to ensure that oxygen content is below 8% and H.C. in tanks to be loaded is less than 2%, using vessel's equipment.

"In-Port" safety regulations apply as per ISGOTT, and as per the Safety Check List.

Two suitable fire-wires should be prepared, one forward standing-by on deck to avoid fouling the SBM, and one aft rigged from the starboard side poop deck and hanging 1.0 m. above the water.

SHIPMASTER'S REPORT: October 1987.

Fresh Water: Available by waterboat at a cost of Rial 2/ton. Minimum quantity 50 tons, maximum 250 tons, to be ordered 24 hours beforehand if possible. No transportation cost charged. Delivery possible 7 days a week. The quality of the water is very good.

Fuel: Gas oil is available by barge. Minimum order, 50 tons.

AUTHORITY: Petroleum Development Oman L.L.C., P.O.Box 81, Muscat, Sultanate of Oman. *Tel:* 677230, 677231, 677232. *Telex:* 5212 Petro On. *Cables:* Petro Muscat. *FAX:* 677106, 675093. *Contact:* Captain Rashid Al Hajri, Port Captain. C.R. Love, Port Operations Supervisor.

AGENT: See "Port Sultan Qaboos" (Mutrah).

PORT RAYSUT (Salalah): 16.56 N. 54.01 E. (See Plan)

PORT LIMITS: Going on the level of HW, the water limits of the port are bounded by:

1. Crossing of coastline with Long. 54° 04' E.
2. Then in the True South direction to Lat. 16° 55' N.
3. And to the West the limits, follows the coastline interception with Lat. 16° 55' N., and along the coast to the starting point.

DOCUMENTS:

5 copies of Crew Lists and Passenger List (if any).
2 copies of List of Personal Effects of crew and passengers.
2 copies of Ship's Stores List.
Valid Vaccination Certificate.
Valid Derat Certificate.
Last Port of Clearance.
Customs Documents.
5 copies of Manifest.
Ship's Papers and Ship's Certificates.
2 copies of Stowage Plans.
2 copies of Hatch List.
2 copies of List of Dangerous/Hazardous Cargo for Discharge.
2 copies of List of Dangerous/Hazardous Cargo in Transit.
2 copies of List of Heavy Cargo which requires special equipment.
2 copies of List of any Wine, Spirits and Narcotics or cargo of such nature on the vessel and its location or, in the absence of which, a nil return.
A Declaration of Type of Reefer Cargo.
An Application for Discharge Permit.

PILOTAGE: Compulsory for vessels of more than 150 n.r.t., except Port Authority craft and naval ships of Oman. Pilots wait near the East Breakwater, vessels are to proceed to the entrance of the harbour on request either from Pilot or Harbour Control. Pilot boat has a green hull with white superstructure and an Oman National Flag on the mast. Boats keep VHF radio watch on Channel 12. The entrance of the harbour is marked with a Buoy-Flashing Green light for a duration of 1 second in every 5 seconds.

ANCHORAGES: The Roads of Raysut offer an open sea anchorage with a sandy bottom. The depth at the Entrance Buoy is 13 m. and North-Eastward it increases, however anchorage position at present is given to all vessels upon reporting by VHF radio. Anchorage positions are set with 0.5 miles between each ship in a minimum of 10 m. of water for large vessels, less depth of water as required for coasters.

Anchorage Area:

1. Lat. 16° 57' N., Long. 54° 04' E.
2. Lat. 16° 55' N., Long. 54° 04' E.
3. Lat. 16° 55' N., Long. 54° 02' E.
4. Lat. 16° 57' N., Long. 54° 02' E.

RESTRICTIONS: Berthing and unberthing throughout 24 hours.

Prohibited Area: Within 2 square miles in front of the Royal Palace towards the sea is a prohibited area either for entry or for anchorage.

MAX. SIZE: Max. draft for cargo vessels is 9.5 m. and tankers about 12 m. Vessels will be brought to the berths regardless of the tide conditions since the port operates as a year round all weather port.

HEALTH: Quarantine procedures are followed and all ships upon arriving must fly flag "Q" until completion of quarantine procedures. Public Health requires certificates of vaccination for cholera and yellow fever. Derat Certificate also required.

RADIO: Muscat Radio or Bahrain Radio.

VHF: For advance ETA data the Harbour Control listens on 2182 kHz and works on 2023.5 kHz. VHF watch is kept on Channel 16 and other Channels available are 12, 10 and 6. The service is available around the clock. Area weather available on request.

Radio Muscat on Channels 16, 26 and 27.

RADAR: None available at present.

TUGS: Join vessels with the Pilots. 2 powerful tug boats (1,700 h.p. and 2,250 h.p.) of harbour/ocean going type, fitted with fire fighting facility, also 2 small mooring tugs equipped with 2 engines: 120 h.p and 220 h.p. respectively.

BERTHING: The harbour provides a quay of 522 m. with a depth of water 10 m. Also available: 200 m. length with 8 m. depth and 460 m. length with 4 m. depth. An oil terminal, dolphin type, 130 m. length with 12 m. depth. 1 ramp for small landing craft.

Berth No.	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)
1	173	10.0	9.5
2	173	10.0	9.5
3	173	10.0	9.5
4	200	8.0	7.5

CRANES:

2×15 ton capacity fixed quay-side cranes.

2×6 ton capacity fixed quay-side cranes. (Operated on Berths No. 1, 2 and 3).

1×35 ton capacity gantry crane for containers – operated on Berths No. 1 and 2.

1×150 ton rated mobile crane.

9 mobile cranes, rated capacities 12 tons – 58 tons.

1 forklift truck (container handling), capacity 35 tons.

23 forklift trucks, capacities 3 tons – 10 tons.

BARGES: 350 d.w.t. barge is available.

SPECIALISED FACILITIES: Ro/Ro services are carried out in the port. Such vessels must meet the standard requirements for entry to the berth. There are no bulk handling facilities.

BRIDGES: None.

STEVEDORES: Arrangements must be made through the Agent for maximum notification of arrival to arrange gangs. Minimum notification 24 hours. Normal working hours from Saturday to Wednesday 0700 hrs. – 1530 hrs., 1530 hrs. – 2330 hrs., 2330 hrs. – 0700 hrs. Thursday and Friday 0700 hrs. – 1200 hrs. and 1400 hrs. – 1900 hrs. (work could be extended up to 2300 hrs. subject to prior notice).

Notes:
1. The above hours are subject to change during the month of Ramadan.
2. Overtime is applicable after 1530 hrs.
3. Friday and Public Holiday working shall be at special overtime rate.
4. Port Authority reserve the right both to allocate the gangs to vessels at their discretion and decide the extent of overtime to be worked.

MEDICAL: Agents handle all medical matters. A hospital is available in the town of Salalah (17 miles away). Also see "Health".

TANKERS: Tankers up to 35,000 d.w.t. are accommodated at the Oil Pier which is 130 m. in length and about 12 m. in depth. 2×6 in. Chicksan arms available.

FRESH WATER: For vessels at berths, fresh water is available ex-pipeline.

FUEL: Available to ships at the berth by tank truck, must be arranged by the Agent.

FIRE PRECAUTIONS: Fire hydrants available alongside berths.

CONSULS: None available.

REPAIRS: No facilities.

DRY DOCKS: None available.

SURVEYORS: Lloyd's representative is Oman United Agencies in Salalah.

GANGWAY/DECK WATCHMEN: Not required except as deemed necessary by the Master of the vessel and then he must supply his own.

HATCHES: Opening and closing hatches is normally done by the crew but arrangements may be made with the port for provision of this service. Agents can advise.

CUSTOMS ALLOWANCES: 200 cigarettes or 50 cigars or 250 gm. of tobacco. 1 bottle (1 litre) alcoholic spirit. 1 bottle (1 litre) wine. 24 cans of beer and various used personal effects such as radios, cameras, etc.

CERTIFICATES:
- Construction Certificate.
- Registration Certificate.
- Classification Certificate.
- Safety Equipment Certificate.
- Radio Safety Certificate.
- Load Line Certificate.
- Cargo Gear Book.
- Israel Boycott Declaration.

CARGO GEAR: Normally handled by shore equipment and shore gear. Any special lifting equipment required must be provided by the vessel. Ships in the anchorage are normally expected to supply all gear required. The port has rental gear for those vessels requiring same.

REPATRIATION: Permitted, arrangements may be made by the Agent for this service. Crew changes may be effected at this port.

AIRPORT: Salalah International Airport. Distance 25 km.

TIME: Time local is GMT plus 4 hours.

HOLIDAYS: All Muslim holidays are observed. Working hours are reduced during the period of Ramadan. Special National days celebration is held on 18th November each year. Working of overtime may be arranged during most of the holiday periods, Agents can advise.

POLICE/AMBULANCE/FIRE: The port has Police available at the port at all times. Ambulance service is also available at the port. The port has the only telephone service and the Police located within the port also maintain telephone service. Required numbers are familiar to all persons in these two areas.

A complete fire fighting system is installed in the Port with 20 fire hydrants (4 in.) distributed through the jetty capable of handling all kinds of fire. The new tug boats are fitted with fire fighting facilities.

TELEPHONES: For any long distance calls G.T.O. maintains office and card telephone cabins everywhere in Raysut and Salalah where calls may be placed and paid for. For local calls the port will permit the use of Port phone on a limited basis.

SERVICES: None available.

SHORE LEAVE: Master, First Officer and Chief Engineer are permitted restricted shore leave but all other members of the crew are restricted to the ship or port area.

IDENTIFICATION CARDS: Seaman's Book or Passport are sufficient for those persons going ashore.

GARBAGE DISPOSAL: Collection service is available by port truck every morning. The charges are R.O. 2.250/day. Contact Tel: 219002.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Rial Omani (R.O.).

REGULATIONS: No vessel shall enter the port area unless authorised by the Harbour Master. The Harbour Master may at his discretion refuse to allow vessels, with the exception of vessels in distress, to enter the port, and may order from the port any vessel with the exception of vessels unfit for sea, which does not have business within the port, or is in breach of these Regulations.

No vessel shall anchor, or weigh anchor or move within the port area except when and where required by the Harbour Master.

No unclean water ballast which is not free from oil or other harmful contaminants, shall be discharged into the waters of the port area. In case of the pumping of bilges or pollution by oil or harmful contaminants into the waters of the port area, the vessel will be responsible for any fines imposed by the Port Authority and any compensation or other damages according to Port Rules and Regulations.

Should fire break out aboard any vessel the Master should make an immediate signal either by a continuous sounding of long or short blasts on the ship's whistle or siren or by ringing of a fire bell.

In cases of adverse weather it is the sole responsibility of the Harbour Master to decide whether the sea conditions are suitable for handling cargo with barges in the Anchorage or whether the day will be declared a "Weather non-working day".

Masters shall be responsible for the adequate provisions of safety equipment and lights on board whilst cargo is being handled.

Conveyance of alcoholic liquor, other than manifested cargo under Customs supervision, from any vessel to the shore or from one vessel to another is prohibited.

No unauthorised person may enter the port area. Visitors to vessels are prohibited except by permission of the Harbour Master.

Ship's personnel and passengers are not permitted ashore except by permission of the Immigration Authorities and the Harbour Master.

Every merchant vessel in port shall fly her national flag, and the national flag of Sultanate of Oman, between sunrise and sunset.

GENERAL: The port operates on a year round basis with the exception of vessels requiring barging. All barging is closed from mid-June to late September depending on the sea state.

DEVELOPMENTS: Feasibility study is taking place for more facilities for transhipment cargo.

SHIPMASTER'S REPORT: 1978 (Updated 1994).

Radio: Send ETA, draft, LOA, g.r.t., n.r.t., cargo to discharge, last port, to: General Manager, Port Raysut, Salalah, Sultanate of Oman, giving 48 hours', 36 hours', 24 hours' notice.

Labour: A gang consists of 10 men.

Fresh Water: Available on all berths. Not available at anchorage.

Provisions: Supplied by Agent.

Airport: Daily flight to Muscat.

Telex-Telephone-Cable-Posts: Available by "Cable & Wireless" offices.

Hospital: Very good.

Workshop: Not available.

Fuel Oil: Not available.

REPORT: September 1985.

Approach Procedure: Vessels approaching Port Raysut should advise Agent of their ETA at least 96 hours in advance confirming same 24 hours prior to arrival. The first ETA message should also include LOA, draft, g.r.t., n.r.t. and details of cargo distribution.

No quarantine message need be sent if the vessel has a clean bill of health but if there is illness on board the Master should advise Agent Salalah in his ETA message.

Pilotage: Pilotage is compulsory. Vessels arriving at the anchorage should request an anchorage position from the Harbour Master prior to anchoring.

Quarantine: It is recommended that crew members should have valid certificates of innoculation against Cholera, which is sometimes necessary, if there has been an outbreak in the area.

Extension of Derat/Exemption Certificates are not possible and vessels arriving with expired certificates are liable to a fine of RO 50,000.

Gangways: Vessels at the anchorage should rig a safe and efficient accommodation ladder on the lee side. During rough weather a good pilot ladder should be ready for use on the lee side. When berthed a safe and efficient accommodation ladder must be rigged at all times.

Readiness: Notice of Readiness to be handed to Agents Representative, to be presented to Receivers in accordance with Charter Party terms and conditions.

Priority: Vessels on liner voyages normally obtain discharge priority over charter vessels.

Turn: Subject to 'priority' above vessels are worked on a "first come first served" basis.

Customs: Bonded and other goods will be placed under Customs seal, on arrival in port. Allowances for consumption during stay in port will be provided. See "Customs Circular".

Dangerous and Inflammable Cargo: Details of all dangerous cargo on board should be included in the vessels ETA message, as this information has to be furnished to the Port Authority.

General Regulations: No liquor may be brought ashore or sold to shore staff. Ship's crews, except the Master, Chief Officer and Chief Engineer are not permitted ashore. Other normal port regulations apply.

Air Services: There are daily flights from Salalah to Seeb Airport, Muscat where international flight connections can be arranged.

Ballast: Oily ballast must not be discharged within 50 miles of "Oman" coastline.

Banks: International banking facilities are available in Salalah. The local currency is the Rial Omani which is subdivided into one thousand baizas.

Bunkers and Lubricants: Limited supplies of gas oil and lubricants can be obtained for vessels berthed alongside only. No IFO available and no facilities for supply at anchorage.

Buoys: There are no mooring buoys for vessels.

Cranes: Usage of the 4 quayside cranes is optional.

Heavy Lifts: Heavy Lifts must be discharged with the vessel's own gear and should be taken delivery of direct from vessel. Lifts in excess of 30 tons should not be accepted without prior reference to Agent.

Hotels: There is one hotel of international standard and accommodation is normally not difficult to obtain. There are also 3 other private hotels.

Labour: All labour is supplied to vessels by the Port Authority, and the vessel must provide drinking water and toilet facilities for the labour, while discharging operations are in progress.

Launch Hire: Port Launch can be hired for visiting vessels at anchor.

Laundry Facilities: Laundry facilities can be arranged by Agent, but minimum delivery time 48 hours.

Lighterage: Barge of 350 tons capacity available at the port.

Passport and Visas: All persons entering Oman require a valid Passport and Visa/Non Objection Certificate. Omani visas can be obtained from a Sultanate of Oman Embassy subject to receipt by that office of a Non Objection Certificate from Sultanate of Oman. Non Objection Certificate can be obtained from Agent in Muscat, these usually take between 3 and 4 weeks to obtain.

Post and Telegraphs: Airmail letters usually take 5 to 7 days from Europe and 7/8 days from the USA. There are telephone, telegraph and telex links with all parts of the world via satellite.

Reefer Cargo: There are 28 units of reefer container facilities available. For larger consignments, arrangements are usually made to discharge as late as possible in the evening, enabling delivery to consignees transport with least possible lapse of time from cargo leaving ship's cool room to reaching consignees freezers.

Refuse/Rat Guard: Vessels should not dump refuse at the anchorage. There are compulsory shore facilities for the landing of refuse for vessels which have berthed, at a charge of RO 2.250 per day. Rat guards are compulsory.

Roads: Road connections with outside territories are available but are usable by non-Arab nationals only with permission from the Royal Oman Police.

Ship Chandler: Available.

Spare Parts: Can be forwarded by air to Salalah. Agent should be advised in advanced of Airway Bill No. and flight details, etc.

Stores and Provisions: Most provisions and fresh vegetables are available. Engine stores can be arranged if prior notice is given.

Surveyors: there are no classification surveyors at Salalah. Lloyd's Surveyors are available at Muscat, but costs for their services at Salalah, to be borne by the vessel.

Transhipment: Transhipment of cargo is allowed.

Water: Fresh water is available to vessels which can berth. No facilities available for the supply of water at anchorage.

Notice: Royal Oman Police – Customs Department, Dhofar Customs Salalah to all Shipping Agents

Customs Control – Port Raysut: With effect from 1st May, 1980, under instructions from Director General of Customs.

stituted On arrival in the Port, Ship's Master will be required to produce to the Customs boarding Officer the following documents:–

1. A copy of the cargo manifest.
2. A declaration made by members of the crew stating the dutiable goods in their possession.
3. A list, signed by the Captain, of the dutiable Ship's stores on Board.

Vessels will no longer be permitted to have free use of their stores (Tobacco goods, Alchohol etc) whilst in the confines of the Port.

On arrival in Port, an allowance will be given by the Customs Boarding Officer and the surplus stores will then be placed under Customs seal. The allowance will be:

1. 200 cigarettes or 50 cigars or 250 gms. tobacco.
2. One bottle (1 litre) alcoholic spirit.
3. One bottle (1 litre) wine.
4. 24 cans beer, and
5. Various used personal effects such as radios, cameras, etc.

Should a vessel remain in Port for more than 4 days, an issue of stores will be given upon request being made to the Customs Authorities. It is hoped that in the initial stages of these changes any inconvenience will be kept to a minimum and your co-operation is requested.

May I suggest that you acquaint any vessels you visit in the near future with details of the forthcoming changes.

Shipping Agents are reminded that their representatives should not board a vessel in advance of the Customs Boarding Officer.

Signed: Officer in Charge, Dhofar Customs.

AUTHORITY: Directorate General of Ports and Maritime Affairs – Port Raysut, P.O.Box 369, Salalah, Sultanate of Oman. *Tel:* 219295. *Telex:* 7640 (M Raysut On). *FAX:* 219279. *Contact:* Port Manager, Port Raysut.

AGENT: Gulf Agency Co. (Oman) L.L.C., P.O.Box 1346, Salalah 211, Sultanate of Oman. Tel: 294662, 290405, after hours 292003. Telex: 7647 ("GAC SAL ON"). Fax: 294827. Cables: "Confidence", Muscat or Salalah.

PORT SULTAN QABOOS (Mutrah):

23.37 N. 58.34 E. **(See Plan)**

Muscat has ceased to be a commercial port and instead vessels now call at Port Sultan Qaboos.

PORT LIMITS: From the level of HWS at a point near Ras Kab at Long. 58° 33' 12" E. on a line due North to Lat. 23° 41' N.;

Thence due East to Long. 58° 35' 36" E.;

Thence due South to Jazirat Muscat;

Thence in a generally Southerly direction by the line of H.W.S. on the Western side of Jazirat Muscat to Pinnacle Rock;

The anchorage area between coast line of Oman and Lat. 23° 53' N. and between the Longitudes 58° 10' E. and 58° 38.5' E.

Thence South-West to the West to the Easternmost point of Siraz al Gharbiyah

Thence by the line of H.W.S. to the point of commencement.

DOCUMENTS: *Required on Arrival:*

Clearance from Last Port.
4 copies Crew List.
1 copy Maritime Health Declaration form with ports of call from commencement of voyage.
3 copies of Crew Personal Declaration List.
3 copies of Ship's Bonded Stores List.
2 copies Vaccination List.
6 copies Passenger List.
3 copies In-Transit Passenger List.

To be Airmailed in Advance:

3 copies Hatch List, and other details of vessel (Flag, Draft, LOA, Last Port, Next Port, G.R.T., etc.).
3 Hazardous Cargo Lists.
3 Heavy Lift Lists.
5 copies Cargo Stowage Plans.
9 copies Cargo Manifest.
1 copy Freight Manifest.
2 copies Bills of Lading.

Customs and Immigration Requirements for Vessels Entering and Leaving Ports: 24 hours' advance notice, Cargo Manifest, Passenger List and Crew Personal Declaration. No cargo vessel is allowed to discharge until health, customs and immigration formalities are completed.

APPROACH: Port Sultan Qaboos has a very open approach with a deep water anchorage. The hilly coast is radar conspicuous. Lights on Fahal Is., Jazirat Muscat and the Breakwater make night navigation fairly simple. There is no appreciable current once inside the bay.

Shipmasters calling at Port Sultan Qaboos are advised that vessels navigating under their charge and approaching Port Sultan Qaboos whether from East or West must first pass 5 cables Eastwards of Mina-al-Fahal Fairway Buoy before making final approach to Port Sultan Qaboos Anchorage or Breakwater Head for picking up Pilot.

Prohibited Entry Area: The whole of the bay of Khawr Muscat, South of a line between Ras Kalbuh and Ras Muscat.

PILOTAGE: Compulsory for vessels other than exempted vessels as defined in Port Rules and Regulations and Port Tariff.

Arrival notice requirements: ETA, LOA, draft 72 hours, 48 hours, 24 hours before arrival. Berthing and unberthing – 24 hours a day.

ANCHORAGES: Vessels should anchor Northwest of the breakwater within the area enclosed by the following perimeters:

1. A line extending 060° (T) from Port Sultan Qaboos Breakwater.
2. The Westernmost extremity of Port Sultan Qaboos.
3. A line extending 325° (T) from Muscat Forward Leading Light after crossing perimeter (1).

All areas described above are clearly defined in the current edition Admiralty Chart No. 2869.

Temporary Anchorage West of Fahal: See "Laying-Up" before "Shipmaster's Reports".

Prohibited Anchorage Area: The area enclosed by the following perimeters is a Prohibited Anchorage Area:

North Boundary:	The parallel of Lat. 23° 41' 00" N.
East Boundary:	The meridian of Long. 58° 36' 00" E.
South Boundary:	Sultanate of Oman coastline.
West Boundary:	Muscat Forward Leading Light bearing 145° (T) from seaward and Port Sultan Qaboos Breakwater Light bearing 240° (T) from seaward.

Severe penalties are imposed for vessels infringing the above prohibited area.

MAX. SIZE: Depth of entrance channel 10.4 m. at LAT. Also see "Berthing".

Present maximum length allowed is 785 ft.

Berths No. 1 and 2: Multi-purpose/Container Terminal. After port development completed, depth 13.0 m.

Berths No. 4 and 5: Container Terminal, present depth 9.1 m. After development and hydrographic survey, depth data will be announced.

For your guidance only, vessels with good engines and extra manoeuvrability powers of bow thrust and stern thrust will be given clearance.

HEALTH: International Health Regulations apply. Pratique may be granted by the Port Health on receipt of following information:

1. All Cholera vaccinations valid.
2. Valid Derat Certificate.
3. No sickness on board.
4. No sickness at last Port.
5. Country of origin and date of departure.

Port Health normally board alongside and issue Health Form. They require:

1 Crew List.
1 Vaccination List.
Valid Derat Certificate.
Last Port Clearance.

RADIO: Port Control can be contacted on VHF Channel 16 or 14. 24 hour operation, including Fridays and holidays.

Notice of Arrival: Vessels should advise their Agents of their ETA, LOA and draft. The Agents will in turn inform Port Services Corporation SAOG. ETA from Masters of vessels should also be cabled direct to Harbour Master, Port Services Corporation SAOG (Telex No. 5233 ON) 72, 48 and 24 hours in advance of arrival.

Three hours prior to arrival off the port, vessels should contact Port Sultan Qaboos Signal Station on VHF Channel 16 and working Channel 14 and request berthing instructions, etc.

VHF: Muscat Radio on Channels 1, 3, 4, 16, 26 and 27. Coast Guard on Channel 11.

Also see "Radio"

BERTHING: There are 9 deep water berths, 3 coaster berths and 1 berth for launches. The berths vary in length from 76 m. to 228 m. and are sheltered by a breakwater on one side and cliffs on the other.

Supporting the berths are 4 modern transit sheds facing broad uncluttered aprons, providing both covered (5,214 sq.m.) and open storage space (175,000 sq.m.) and 1×6,000 sq.m. shed for C.F.S. Two berths make up a container terminal front directly on to a large container yard ideally suited for rapid discharge of containers. The container yard has an area of 4.7 hectares, holding 1,044 dry and 192 reefer ground slots, plus a new area has been converted as multi-purpose berth and a 14 hectares storage area reclaimed from the sea, holding 984 ground slots, out of which 222 are equipped with electrical power points for reefer connections.

Berth	*Length*		*Depth at LAT*		*Max. draft*	
No.	(ft.)	(m.)	(ft.)	(m.)	(ft.)	
1	900	275	42.7	13.0	42.7	Multi-purpose
2	600	183	42.7	13.0	42.7	
3	750	228	32	9.8	31.5	
4	600	183	30	9.1	30	Container Terminal
5	600	183	30	9.1	30	
6	650	198	30	9.1	30	
7	600	183	30	9.1	29.5	
8	600	183	30	9.1	28	
9	400	122	13	4.0	13	
10	600	183	13	4.0	13	
11	600	183	30	9.1	30	
12	250	76	10	3.1	10	
13	500	152	7	2.2	7	

Berths No. 1 and 2, 4 and 5, 7 and 8 are "in line", therefore larger vessels can occupy part of a second berth when necessary.

Area of the Port:

Transit sheds – total area 27,000 sq.m.

Open storage area – total area 143,000 sq.m.

Cold Storage Warehouse (Oman National Fisheries Co.): Capacity 3,000 tons with cold rooms, blast freezing and ice making facilities. The Port provides reefer cargo facilities.

Fish processing plant belonging to Oman National Fisheries Co. (S.A.O.G.) is in the immediate vicinity of the Port.

TUGS: Four tugs available, including two Voith Schneider propulsion tugs of 3,000 h.p. each. Tugs normally join vessel 1 mile N.N.W. off breakwater light.

SPECIAL HANDLING FACILITIES: *Grain Silos:* Capacity 120,000 tons supplied by quayside underground conveyor from the berth. In conjunction, 2 km. from the port, a highly automated mill produces various flour and animal feed products for local consumption and export.

Containers: The port has modern container and Ro-Ro handling equipment, including a Mafi-type roll trailer system, backed up by 9×35 ton forklifts, and 2×25 ton Ro-Ro forklifts.

The container terminal is equipped with 2 highly sophisticated 35 ton gantry cranes supported by 9 heavy duty forklifts and 7 empty container handlers. The terminal has a large storage yard to accommodate about 1,236 slots and 984 ground slots at Shutaify Bay. The container handling system has changed to chaises system, backed by 8 rubber tyre gantry cranes (transtainers) in the yard, and 2 additional new quayside gantry cranes.

Multi-Purpose Berths No. 1 and 2 are equipped with 2 quayside gantry cranes (3rd is expected to be commissioned by end 1996) with 41 tonnes capacity, 36 m. outreach and 14 m. backreach.

Containers are also accepted from self-sufficient vessels. Containers are transported by trailers and handled in stacking area by mobile crane or forklift truck. Reliance Mercury Tractors of 160 b.h.p. with Mafi-type trailers are available for Ro/Ro vessels. LASH and BACAT service.

Bitumen Storage: Capacity 2,000 tons.

CRANES:

2×41 tons gantry cranes (An additional 41 tonne gantry crane is expected to be commissioned by end 1996).

2×35 tons gantry cranes.
8 RIG transtainers.
27 Prime movers.
35 trailers.
1×150 tons (rated) mobile crane.
1×70 tons (rated) mobile crane.
12 mobile cranes, capacity 3 tons – 25 tons.
9 forklift trucks (container handling), capacity 35 tons – 42 tons.
55 forklift trucks, capacity 3 tons – 7 tons.
7 forklift trucks, capacity 7.5 tons (empty container handling).
12 tractors } Ro-Ro
39 trailers }
2 Ro-Ro forklifts, capacity 25 tons.

STEVEDORES: Large pool of deligent, disciplined and skilled labour is employed by the Port. Requests for labour for vessels should be made daily by Agents to Director General (Operations and Traffic).

Landing rates: Bagged cargo 500/700 tons (3 gangs, 16 hours); general cargo 400/600 tons (3 gangs, 16 hours); timber 700/1,000 tons (3 gangs, 16 hours) during fair weather provided no congestion on jetty and if cargo stowed in more than 3 hatches.

Working Hours – Conventional:

1st Shift	Saturday-Wednesday:	0700 – 1500 hrs. (with half-hour break, which will be adjusted amongst the gangs).
	Thursday:	0700 – 1400 hrs. (without any break).
2nd Shift	Saturday-Wednesday:	1500 – 2300 hrs. (with half-hour break, which will be adjusted amongst the gangs). 2300 – 0300 hrs. (overtime if required).
	Thursday:	1400 – 0100 hrs. (overtime if required).
	Fridays/Public Holidays:	Overtime (subject to availability of labour).

Container Terminal:

Day Shift	Saturday-Wednesday:	0700 – 1500 hrs. (with half-hour break, which will be adjusted amongst the gangs). 1500 – 1900 hrs. (overtime if required).
	Thursday:	0700 – 1400 hrs. (without any break). 1400 – 1900 hrs. (overtime if required).
Night Shift	Saturday-Thursday:	2000 – 0600 hrs. (with half-hour break, which will be adjusted amongst the gangs).
	Fridays/Public Holidays:	Overtime (subject to the confirmed arrival of container vessels).

Deliveries of Cargo – Conventional:

1st Shift	Saturday-Wednesday:	0700 – 1500 hrs.
2nd Shift		1500 – 2300 hrs.
1st Shift	Thursday:	0700 – 1400 hrs.
2nd Shift	Thursday:	1400 – 2100 (overtime if required).
	Fridays/Public Holidays:	Overtime (subject to availability of labour).

Container Terminal:

	Saturday-Thursday:	0700 hrs. – 1900 hrs.

Note: Direct delivery of cargo will be as usual, on request.

MEDICAL: Port Clinic and Government hospitals available.

FRESH WATER: Available at all berths and at the anchorage, 72 hours' notice required for barge supply (capacity 250 tons).

FUEL: Diesel oil available at Berths No. 6, 7, 8, 9, 10 and 11 at the anchorage by bunker barge of 250 tons capacity owned by the port, 72 hours' notice required. Other fuels can be supplied by arrangement with Owner's Agent. Marine lubricating oils available.

CONSULS:

Embassies in Oman:	*Telex No.*	*Fax No.*
Algeria	5754	
Austria		
Bahrain		605072
Bangladesh	3800	
China	5114	564602
Egypt	5047	
France	5223	
Germany	3440	
India	3429	
Iran	5066	
Iraq	3471	
Italy	5450	
Japan	5087	
Jordan	5518	
Korea	3132	
Kuwait	5746	
Malaysia	3747	
Morocco	5560	
Netherlands	3050	799020
Pakistan	5451	
Qatar		
Russia	5493	
Saudi Arabia	3253	
Somalia	3253	
Sri Lanka	5158	
Sudan	5088	
Sweden	3871	
Syria	5029	
Thailand	5210	697053
Tunisia	5251	
Turkey	5571	
United Arab Emirates	5299	736040
United Kingdom of Great Britain	5216	
United States of America	3785	
Yemen	5109	
Consulates in Oman:		
Belgium	5430	564905
Chile	5336	
Colombia	3636	
Cyprus	5242	
Denmark	3214	
Finland	73278	
Greece	3229	
Mexico	5336	
New Zealand	3022	
Norway	3214	
Philippines		
Spain	5235	
Switzerland	5586	
International Organisations in Oman:		
U.N.I.C.E.F.	5719	
U.N.D.P.	5234	
W.H.O.	5680	

AIRPORT: Seeb International Airport is located 45 km. from the Port.

GANGWAY/DECK WATCHMEN: To be provided by vessel.

Security: Port Security is undertaken by the Royal Oman Police. Port Services Corporation provides watchmen on 24 hour patrol. Watchmen can also be supplied to vessels.

REPATRIATION: Is now possible if Masters give full particulars of the seamen to be repatriated by telegram at least 72 hours earlier. This also applies to embarking crew members. The 72 hours' notice is not enough in the case of a Friday, or any other holiday which falls in between.

Also see "Laying-Up".

CUSTOMS ALLOWANCES: Vessels will no longer be permitted to have free use of their stores (Tobacco goods, Alcohol, etc.) whilst in the confines of the port.

On arrival in port, an allowance will be given by the Customs Boarding Officer and the surplus stores will then be placed under Customs Seal. The allowance will be:

200 cigarettes or 50 cigars or 250 gm. tobacco.
One bottle (1 litre) alcoholic spirit.
One bottle (1 litre) wine.
24 cans beer.
Various used personal effects such as radios, cameras, etc.

Should a vessel remain in port for more than 4 days, an issue of stores will be given upon request being made to the Customs Authorities.

These Regulations also apply to ships at the Anchorage.

SERVICES: Fresh and dry provisions from chandler. Limited availability of ship and engine room stores. Radio, radar and electrical repairs possible.

SHORE LEAVE: Crews are only allowed ashore between the hours of 0700 – 1900.

GARBAGE DISPOSAL: Skips are provided at berth. Collection of garbage is done every day by Muscat cleaning contractor appointed by Port Services.

Port Services to be contacted for any service required from the cleaning contractor. Charge: R.O.3.0/per skip per day.

WASTE OIL DISPOSAL: Not provided by port, but road tankers can be arranged through Agents on request.

SEAMAN'S CLUBS: None.

CURRENCY: Baizas 0.388 = U.S.$ 1.00.

GENERAL:

Ships Arriving at Port Sultan Qaboos:

Ships may approach Port Sultan Qaboos without a Pilot as far as the perimeter of the limits of the port. No ship shall proceed through the entrance to or from the port without the permission of the President or the Harbour Master.

All ships, other than expected ships, shall be under the pilotage of a Pilot appointed by the Port Authority when underway within the limits of the port. The ship shall have rigged and ready for use a pilot ladder of modern pattern, in good repair and provided with reliable manropes. Such pilot ladder shall be well illuminated between dusk and daybreak.

No ship shall enter or leave Port Sultan Qaboos unless her draft marks are correctly shown and clearly visible.

Every ship shall at all times when entering, navigating in or leaving the port have both anchors ready for immediate use.

Ships proceeding to berth at the port premises shall have no list and shall be trimmed upright.

Before entering Port Sultan Qaboos every ship shall hoist the following flags: The ship's signal letters. The "Q" flag, International Code, unless the Port Health Officer has previously given Pratique. The "H" flag, International Code, denoting that a Pilot is on board. The "I" flag, International Code, if the ship is carrying passengers.

Until Pratique has been granted communication between ship and shore shall be made by: Flag hoist, using the International Code of Signals, Morse Code, by signal light, or radio-telephone on approved frequencies, which will be promulgated for use for such purpose.

Conduct: The Master or Owner of every ship shall be held directly responsible for the proper conduct and behaviour of the crew of such ship while in the port and for strict observance of the laws of the Sultanate of Oman, particularly those laws concerning the sale, transference or consumption of any narcotic or alcoholic or intoxicating drink of any kind.

Flags: Every merchant ship within Port Sultan Qaboos between the hours of sunrise and sunset shall fly her national flag and the national flag of the Sultanate of Oman.

Repairs: The Master of any ship wishing to carry out major engine repairs or adjustments, which will affect the mobility of the ship whilst in the port shall make written application to the Harbour Master to do so. The Harbour Master shall give his permission or otherwise in writing.

Safety of Ships and Persons: The Master of every ship anchored or moored in the port or berthed at the port premises shall, unless the Harbour Master concede some relaxation in this port rule, at all times retain on board sufficient crew to work or move the ship.

Ships Berthed or Anchored Within Port Limits: No person shall swim from any ship berthed at the port premises.

No person shall make fast or anchor any country craft or boat of any kind at any quay, wharf, pier or landing place or at any steps provided thereat in the port premises except with the prior permission of the Harbour Master.

Pollution: It shall be unlawful for any person, or corporation to deposit, place, or discharge into the waterways of Port Sultan Qaboos, either directly or through private or public sewers, any sanitary sewage, butcher's offal, garbage, dead animals, gaseous liquid or solid matter, oil, gasoline, residium of gas, calcium chloride, trade waste, tar or refuse or any other matter, which is capable of producing floating matter or scum on the surface of the water, sediment in the bottom of the waterways, or the odours and gases of putrefaction.

Vessels discharging ballast, oil from bilges or tanks or solid matter into the waters of Port Sultan Qaboos will be reported to the Pollution Control Officer and be subject to a fine of R.O. 500.00 for each offence, imposed by and payable to Port Sultan Qaboos. Such fine shall be in addition to any other fines, which may be levied for the same offence by the Sultanate of Oman.

Hygiene: The port provides garbage bins at various points for use by vessels. The use of these bins is compulsory and a charge for this facility will be made whilst the vessel is alongside.

Rat Guards: The use of rat guards on all mooring ropes and wires is compulsory whilst vessels are alongside. Vessels without their own rat guards will be required to hire from the Corporation.

Ships Leaving Port Sultan Qaboos: Port Rules applying to ships arriving at Port Sultan Qaboos apply equally, in so far as they are relevant, to ships leaving the port.

Merchant ships shall fly the "P" flag International Code, for 24 hours before sailing from the port.

The Port Authority may refuse to give the Master of any ship Outward Clearance, unless and until all charges due in respect of the ship and any penalties, to which the ship or her Master are due, have been paid or secured to the satisfaction of the Port Authority.

Transhipment: Due to the advantageous geographical location of Port Sultan Qaboos outside the War Zone it provides very appropriate transhipment base for most shipping companies. Many international shipping lines are using Port Sultan Qaboos as a base for their transhipment operation to the Arabian Gulf, Karachi and the Indian sub-continent.

Working of Cargo at Port Sultan Qaboos: Ships may be permitted to discharge or load cargo in the anchorage if a berth is not available at the port premises or if in the opinion of the Port Authority the ship's cargo is more suitable for handling to or from barges or lighters.

The Master or Owner of any ship shall be held responsible for any loss or damage arising from careless or improper slinging of cargo onboard such ship.

Any cargo, cargo-handling equipment or ship's gear, which may be dropped overboard shall at once be reported by the Master or appointed Officer to the Port Authority and shall be immediately recovered by the ship's personnel if it is reasonably possible so to do. Failing this, it may be recovered by the Port Authority at the ship's expense. The Port Authority shall not be responsible for any damage to or loss of cargo, equipment or gear so recovered.

The Master of every ship discharging or loading cargo in the port, whether at anchor or berthed alongside shall provide drinking water for all cargo handling labour and all other persons appointed and directed to be on board such ship in connection with the discharge or loading of cargo.

If the labour or transport allocated or engaged for the purpose of landing, loading or transhipping cargo from or to any ship is not fullycontinuously employed by reason of a fault or action attributable to such ship, the expenses incurred thereby shall be paid by such ship.

In the event of any accumulation of cargo or goods upon the quay or jetty or in a lighter for any cause that may appear reasonable to them, the Port Authority may require the ship discharging such cargo or goods to suspend or reduce the rate of discharge of such cargo or goods.

The Port Authority may refuse to permit cargo to be landed from any ship until suitable shed or open storage space or other accommodation is or becomes available for such cargo.

Delivery of cargo or goods shall not be deemed to have been made to the Port Authority until such cargo or goods have been brought into the port premises and until the Port Authority accepted delivery of such cargo or goods and have issued an official receipt therefor to the Master of the ship discharging such cargo or goods or to the ship's Agent or to any other person duly authorised so to do, conveying such cargo or goods to the port premises.

LAYING-UP: Vessels can anchor within the limit Lat. 23° 53' N. and the coastline of Oman and between the parallels of Long. 58° 10' E. and 58° 28.5' E.

Port dues of 1.0 Baisa per g.r.t. per period of 1 month or part thereof is payable for lay-up anchorage at West of Fahal. Vessels on arrival should be cleared through Immigration, Customs and Health by an appointed Agent. Distance being such that Agents have to commute by hired tugboat (minimum 4 hours required for a trip and back). Launch service permitted only during daylight hours and weather permitting.

No vessel shall temporarily lay-up in the "Waiting Anchorage" for more than 3 months without the permission of the Harbour Master, Port Sultan Qaboos.

No vessel shall temporarily lay-up without its full complement of crew and sufficient power to handle any emergency.

Crew Change: While anchored within Omani Territorial Waters crew changes can be effected through Port Sultan Qaboos only and not from any other neighbouring country. Vessels are also not permitted to lower lifeboat or allow unauthorised boats to lie alongside.

For purpose of effecting crew changes Passport or Seaman's Book particulars should be furnished in advance for obtaining Visas for crew to join/leave vessel. Issuance of Visas will take minimum 7-10 days. Particulars required are as follows:

Full Name.
Nationality.
Passport or Seaman's Book Number.
Date of Issue.
Date of Expiry.

And only after obtaining confirmation that Visas are obtained can crew be sent to Muscat failing which they will not be permitted to land and will be deported at Owner's expense.

Mail/spare parts/provisions, etc. can be delivered to vessels at anchorage. Invoices should be attached along with spare parts arriving by air and consigned to: Master (vessel's name), c/o Agent, "Ship's Spares in Transit".

DEVELOPMENTS: Proposed development involves the following:

(i) Conversion of Berths No. 1 and 2 into container berths and providing 3 additional gantry cranes.
(ii) Dredging of entrance channel and basin to the depth of 13 m. chart datum.
(iii) Reclamation and development of Shutaify Bay, adjacent to Port Sultan Qaboos, by using the dredged material and blasting of mountains to provide storage area of 15 hectares for containers.
(iv) Procurement of rubber tyred gantry cranes, tractors, trailers, low-mast forklifts, etc.
(v) Re-allocation of available space by dismantling/re-erecting sheds, container freight station, terminal offices and other buildings, including cold storage for upgrading the existing facilities.
(vi) Develop entry/exit gates, provide additional road communication within Port Sultan Qaboos, etc.

Procurement of the following additional cargo handling equipment for which tenders will be invited soon is envisaged in the project:

3 container gantry cranes.
8 rubber tyred gantry cranes.
27 tractors.
19 trailers.
11 low mast forklifts.

The entire project is likely to be completed by end of 1996.

SHIPMASTER'S REPORT: January 1986.

Vessel awaiting orders: Authorities require vessel to drift or anchor at least 12 miles from coast. Good anchorage 12.5 miles to N.W. of the port using 7 shackles.

SHIPMASTER'S REPORT: December 1988.

Pilotage: Inward pilot boards from a tug. The pilot ladder must be 2.0 m. from the water. According to local Regulations, the vessel's freeboard should not be greater than 8.0 m. if pilot ladder only is to be utilised. If the freeboard is greater than 8.0 m., the gangway should be rigged in conjunction with the pilot ladder.

Shore Leave: If ship's crew are granted permission to leave the port area (this permission is not automatically given) in order to visit the town or city, this permission is restricted to the hours between 0700 hrs. – 1900 hrs. These times are strictly enforced.

Each individual officer and rating must present himself, with passport, at the Immigration/Police desk in the Port Quarantine Office, for written approval to issue a pass. This initial authority can cover more than one person.

The Authority for Approval is then taken to a Marine Police Station at the main gate, where the Authority of Approval and passports are handed over and the crew member is given a Royal Oman Police Coast Guard Pass to complete. This pass is retained by the crew member until the day of departure and must be stamped and signed at the main gate, each day before leaving the port. All passports are retained by the police until such time as an individual makes his final return to the vessel from ashore, at which time the pass is exchanged for the passport.

If individuals are unable to leave the vessel to exchange their passports for the Gate Passes the agent will usually do this on their behalf.

The wearing of shorts of any description (i.e. showing bare legs) is not permitted outside the port enclosure.

Smoking is not permitted in any area where cargo is worked either ashore or aboard vessels.

Crew members are not permitted to wear "Seaman's Knives" whilst on deck.

Stevedores: The official cargo working hours are 0700 hrs. – 1500 hrs., with a 1 hour break for a meal, not always taken, and 1500 hrs. – 2300 hrs.

Telephones: Not placed on board.

Departure Pilotage: The Pilot requires 2 hours Notice of Departure via the vessel's agent. Vessel is to call pilot 30 minutes prior to departure on VHF Channel 16/14. At this time the pilot will wish to know the vessel's Outward Customs Clearance Number.

AUTHORITY: Port Services Corporation S.A.O.G., P.O.Box 133, Muscat 113, Sultanate of Oman. *Tel:* 714000-6. *Telex:* 5233. *FAX:* 714007. *Contact:* Awad Bin Salim Al Shanfari, The President. Captain Ahmed Said Al Busaidy, Harbour Master. Saud Bin Ahmed Al Nahary, Operations Manager. Salim M. Samhan, Marketing Manager.

AGENT: Gulf Agency Co. (Oman) L.L.C., P.O.Box 740, Ruwi 112, Sultanate of Oman. Tel: Mutrah (968) 605155. After Hours 952402. Telex: 5616 ("Gacship ON"). Fax: 602561. Cables: "Confidence", Muscat. VHF Channel 16. Call sign "Confidence Muscat".

NOTES

Please also advise Shipping Guides Ltd.

Pakistan

KARACHI: 24.49 N. 66.59 E.

DOCUMENTS:
Required Before Vessel's Arrival:
2 copies Freight Manifest.
2 sets Bills of Lading.
3 copies Stowage Plan.
2 copies Passenger Manifest.
3 copies Cargo Manifest.
3 copies Hatch Lists.
1 copy Exception Lists.
6 copies Passenger Lists.
With Vessel:
2 copies Cargo Manifest.
Last Port Clearance Certificate.
6 copies each Passenger List, disembarking and transit.
2 copies List of favour parcels.

The following special Pakistan forms are brought on board by Agent for completion on arrival:
2 copies Arrival Report.
2 Opium and Dangerous Cargo Certificates.
2 Ship's Currency Lists.
6 Deck Cargo Certificates.
1 Company's Arrival Report.
1 Ship's Crew Advance (if required).
1 Expiry date of Ship's Certificate.
1 Same Bottom or In Transit Cargo.
1 Water Indent.
10 Crew Lists.
3 Stores Lists.
3 Crew Effects Lists (including cameras, radios, etc.)
7 Cargo Gear Information Forms.

Metric weights and measures to be used on Particulars of Cargo, Tonnage Certificates, Stevedoring Bills, Manifests and Bills of Lading.

Immigration:
(i) Masters should ensure that all crew are in possession of valid health documents. Pakistani nationals must be in possession of Seaman's Books and joined ship by signing on through shipping office.
(ii) All nationals require visas for entry into Pakistan. Ship's crew can enter and leave Pakistan on Seaman's documents for purposes of joining vessel and/or on repatriation, for which Agent requires Seaman's Book/flight details one working day prior to arrival.
(iii) Seaman Books/Passports are required to be collected from Immigration authorities prior to sailing of vessel on surrender of the shore passes.
(iv) Taiwan, Israel and Indian nationals are not allowed ashore.

PILOTAGE: Pilotage is compulsory for vessels of 200 n.r.t. and upwards. Pilot boards at the Outer Anchorage.

Vessels are piloted day and night, subject to tides, length and draft, to berths lying on the East and West of the fairway, which is 4.27 miles long. Pilotage distance is about 5 to 6 miles.

ANCHORAGES: Outer Anchorage where ships await berth safe, except during the S.W. monsoon from mid-May to September. During monsoon no anchorage is recommended. Normally vessels should anchor a safe distance outside the breakwater with Lighthouse bearings 045° and 025°. Depth of water at the anchorage is about 20.0 m.

RESTRICTIONS: Datum depth is 30 ft. Dry cargo vessels with a draft in excess of 32 ft. are not permitted to enter Karachi due to dredged depths at berths.

Berthing can be done at any time during day/night, except vessels over 560 ft. in length having bridge aft, which are permitted in daylight only. Also vessels to berth or sail from Berths No. 25 to No. 28, only get Pilot during daylight. Berthing of tankers with LOA more than 650 ft. at oil berths is done during daylight only.

MAX. SIZE:	*Length*	*Draft*
Bulk carriers and general cargo (dry cargo)	945 ft.	32 ft.
Bulk oil tankers, white oil products	750 ft.	35 ft.
Bulk oil tankers, black oils	750 ft.	35 ft.
Oil Pier No. 4, crude oil	850 ft.	39 ft.
Oil Pier No. 5	850 ft.	39 ft.

HEALTH: The Port Health Authorities give automatic clearance on receipt of a "clean" standard quarantine message and this will be conveyed by the Pilot. However, ships from Yellow Fever areas must be cleared during daylight hours by the Port Health Officer on arrival alongside. On sailing to ports outside India and Pakistan, a medical inspection takes place on the day before sailing. It is, in theory, necessary for a member of the crew to be present at this inspection, although usually the inspection is only a formality.

All vessels which have touched any port or ports between Port Sudan and Durban, on the East Coast of Africa, including these ports, are considered "suspected" vessels on account of Yellow Fever and Jigger and may not have communication with the shore till cleared at berth by the Port Health Officer, who attends only between sunrise and sunset, except in special circumstances. The incubation period for Yellow Fever under the rules is given as 9 days, but vessels arriving later than 9 days are still not free from quarantine because there is no incubation period for Jigger.

RADIO/VHF: Port Authorities equipped with VHF radio-telephone, calling Channel 16, working Channel 12. Control Station call sign "Manora Pilot Control".

Vessels should establish radio contact with control station as soon as they are within VHF range.

Use of Channel 12 is restricted to the following: Ships while entering harbour are to maintain watch on Channel 12 as soon as Pilot boards. Ships in harbour scheduled to sail are to keep a listening watch half an hour before sailing till their clearance from the port.

"Intercommunication with the ships, other than Pilot Control, at Outer Anchorage or ships in harbour on Channels 12 and 16 is strictly prohibited. The Manora Pilot Control Station is equipped with multi-channel VHF Radio Telephone sets which are operating on International Maritime Channels 8, 9, 11, 12 and 16 subject to above restrictions."

Vessel's Registration: All vessels calling at Karachi are to notify, via VHF, the arrival time, vessel's name, flag/cargo, anchor time and position and name of local Agent. This anchoring time is taken for both berthing turn and also serving N.O.R. (In case of Charter vessel) to receiver/shippers.

TUGS: There are 8 diesel tugs owned by Port Trust. Four tugs have bollard pull varying from 10 tons to 18 tons, 2 tugs have 27 tons bollard pull and 2 (Voith Schneider) tugs have 35 tons bollard pull.

Towage inside the harbour is rendered by Port Trust on signal from Pilot. Towage is not provided outside the breakwater except in very special circumstances at the discretion of the Deputy Conservator, subject to weather permitting and availability of tugs on special terms and conditions.

BERTHING: There are 17 berths at East Wharves, total quayage 8,622 ft. Berth Nos. 1 to 17 are on a concrete quay wall of the latest type. All berths are rail-served. Berth lengths vary from 470 ft. to 550 ft. Available depths vary from 28 ft. to 32 ft.

There are 13 berths at West Wharf and their length varies from 550 ft. to 700 ft. Depths available vary from 30 ft. to 32 ft.

There are Oil Piers which can accommodate tankers of overall length between 525 ft. and 850 ft. Also see "Tankers".

Moorings: Three moorings of 700 ft. each and one LASH mooring of 1,000 ft. have been laid and are commissioned for accommodating the vessels of sizes between 600 ft. and 850 ft. respectively.

Bulk Wheat: Discharged by bulk evacuators at Berth No. 17.

Passenger Vessels: Berth No. 24.

Fertiliser: Discharge at Berths No. 20 and No. 22. Bagging machines installed.

Vessels with LOA 900 ft. and over berth at Nos. 16 and 17.

CRANES: All berths except Nos. 5, 6, 7, 17, 25, 26, 27 and 28 are equipped with electric cranes. Floating crane available up to 100 tons S.W.L.

STEVEDORES: Port working hours as under (Friday is holiday):

Day Shift:	0700 – 1600 hrs.
Night Shift:	1930 – 0300 hrs.
Break-Day:	1130 – 1200 hrs.
Break-Night:	2300 – 2330 hrs.
Overtime:	
Day:	1130 – 1200 hrs.
	1600 – 1830 hrs.
Night:	2300 – 2330 hrs.
	0330 – 0630 hrs.

TANKERS: Mineral oils discharged at the Bulk Oil Pier, 3 berths, and at West Wharf Berth No. 20. Heavy grades may be discharged at the steamer wharves but dangerous petroleum only at the Oil Piers.

Vegetable oils are handled at both the terminals mentioned above.

Oil Pier No. 1: Max. Draft 35 ft., LOA 750 ft., beam 100 ft. and 50,000 tonnes displacement. Berth to be upgraded and dredged to accept vessels up to 75,000 d.w.t. Completion expected August 1997.

Product handled: All types of mineral oil (Excluding crude oil), i.e. gas oil/Mogas/K/Oil, jet oil, etc.

Berth No. 20 – West Wharf: Max. draft 32 ft.

Products handled: Vegetable oils (15,000 tons – 18,000 tons of cargo).

Oil Pier No. 4: Max. LOA 850 ft., max. beam 130 ft., max. loaded draft 39 ft., max. size 95,000 tonnes, max. gross displacement.

Products handled: Crude oil, fuel oil, gas oil and kerosene.

New Oil Pier No. 5: OP-5 is capable of accommodating vessels with the following parameters:

Maximum draft	35 ft. (10.67 m.)
LOA	850 ft. (259.08 m.)
Beam	130 ft. (39.62 m.)
Displacement	95,000 tonnes
Deadweight	75,000 tonnes

OP-5 has a main jetty platform, housed with 9 loading arms, manually operated by quick universal connect couplers. The terminal can handle 8 million tons of liquid bulk cargo a year, consisting of all major products being imported into and exported from Pakistan.

Apart from loading arms which connect direct to ship's manifolds, there are various pipelines which have jetty manifolds for connection with ship's manifolds by using flexible hoses. The loading arms and other manifolds on the jetty are connected to shore manifolds, which provide connections to all common users.

The pipelines from jetty platform to shore are given below:

No.	*Diameter (in.)*	*Product*	*Connection*
1	30	Crude oil	via loading arm.
1	20	Furnace oil	via loading arm
1	18	Deballasting	via loading arm
1	12	Lubes and additives	via hose connection/ piggable
3	8	(SS) chemicals of all types	via hose connection/ piggable
1	24	Naphtha	via hose connection
1	20	POL white products	via loading arm
1	24	Gas/diesel oil	via loading arm
4	24	Molasses	via loading arm interchangeable/piggable
6	16	Edible oil/fats/tallow	via loading arm interchangeable/piggable
2	8	Bunker supply to vessel	via hose connection
1	8	Fresh water to vessel	via hose connection

Slop Reception Facilities: None.

Also see "Berthing".

FRESH WATER: Available alongside and at outer anchorage by private barges.

At times due to water shortage vessels are required to arrive with sufficient water for duration of stay.

FUEL: In addition to coal, 3 grades of petroleum are available – furnace oil, light diesel oil and high speed diesel oil. Furnace oil and MDO/HSDO can be supplied at berth and at anchorage by barge. Only fuel oil supplier is PSO (Pakistan State Oil).

DRY DOCKS: The Karachi Shipyard and Engineering Works Ltd. have 2 dry docks. One of 609 ft.×90 ft.×18 ft. above keel blocks which can accommodate vessels up to 25,000 d.w.t. and the second dry dock measuring 560 ft.×80 ft.×16 ft. above keel blocks and can dock vessels up to 18,000 d.w.t. Prior booking of the dry dock is essential.

REPAIRS: Repairs can be carried out at the anchorage, except in the monsoon season. Two ship repair jetties are available in the port. In addition, Karachi Shipyard and Engineering Works Ltd. provide all kinds of repair and ship-building facilities.

Immobilisation of Main Engine: Requests for immobilisation must be included by the Master of the vessel in their arrival messages so that the permission of the Deputy Conservator, Karachi Port Trust may be obtained for the period required to carry out maintenance and necessary repairs. Oil tankers are not permitted to immobilise engines, particularly at oil pier berths.

CARGO GEAR: *Cargo Gear Certificate:* The Dock Labour Safety Officer (Government Department) is very strict and requires all gear/ derricks/ winches and accessories to have valid certificates. In the event their certificates are out of date, delays will be incurred before cargo discharge operations are allowed to commence.

AIRPORT: Karachi Airport, 7 miles from city. International connections to all parts of the world.

TIME: GMT plus 5 hours all year round.

HOLIDAYS:

	Bank Holiday	1st Ramadan
*	Eid-ul-Fitr	4th – 5th March
	Pakistan Day	23rd March
	Labour Day	1st May
*	Eid-ul-Azha	11th – 12th May
*	Moharram	9th – 10th June
#	Bank Holiday	1st July
*	Eid Milad un Nabi	10th August
	Independence Day	14th August
	Defence Day	6th September
	Quid's Death Anniversary	11th September
	Allam Iqbal Day	9th November
	Quad's Birthday/Christmas	25th December
#	Bank Holiday	31st December

* Subject to appearance of moon.

# For Banks only.

SHIP SUPPLY SERVICE: There are privately operated services for transportation of personnel and some essential stores, etc., for ships lying at Outer Anchorage to inside the port. These services are of a small scale and carried out by small launches, only during good weather. In bad weather such as monsoon season these services are suspended.

SERVICES: Brokers, Stevedores Bagging and Lighterage Contractor. Contact: Seatrade Private Ltd., 71 Al-Badar, Kokan Muslim Housing Society, Hayder Ali Road, Karachi. Tel: (9221) 4931362/4937370/ 4933501. Mobile telephone 0321-331002, 0321-223322. Fax: (9221) 4938007. Telex: 24839 Cargo Pk. Cables: Cargohook Karachi.

SHORE LEAVE: Shore passes are granted by Immigration Authorities when they first go on board and must be returned on departure of the vessel. These passes permit entry/exit to the docks until 2200 hrs.

Indian, Taiwanese and Israeli crew are not allowed ashore except in emergency. An Immigration Policeman will remain on board in port where these nationals are carried. This policeman will ask for some sort of accommodation. This need only be given if it does not cause inconvenience to the ship.

GARBAGE DISPOSAL: This service is privately arranged by ship's agent through licenced contractors.

WASTE OIL DISPOSAL: This service is privately arranged by ship's Agent through licenced contractors. The wastage oil is collected in tanker lorries at dry berth as lorries do not have access to oil berth, so this facility is not available for tankers.

SEAMAN'S CLUBS: None.

CURRENCY: Pakistani Rupee (P.Rs.).

GENERAL: The Karachi Port Authorities advise that in order to avoid delays to ships requiring abreast berths for working cargo, it has been decided not to berth more than 1 vessel for receiving supplies of fresh water and bunkers. Ships due to call at Karachi are therefore *recommended to arrive with sufficient fresh water and bunkers to last for 2 or 3 weeks from the date of arrival at the Outer Anchorage.*

DEVELOPMENTS: Modern integrated container terminal for third generation vessels to be built. Initially 2×900 ft. berths with depth of 42 ft. are planned.

Two container cranes already commissioned at Berth No. 24 for gearless container vessels. These cranes belong to APL, and APL vessels get priority at this berth.

Also see "Tankers – Oil Pier No. 1".

SHIPMASTER'S REPORT: January 1980: Survey Vessel.

Approaches/Pilotage: There were a large number of ships anchored in the approaches – even in the "Prohibited Anchorage Zone".

Port Control System: Contact must first be made by Aldis lamp, and a vessel's arrival is not acknowledged until this has been done. On our first visit we had some trouble as the actual Signal Station is not at the position marked "Signal Station" but at Lat. 24° 48.8' N., Long. 66°57.0' E. marked F.S. on the Chart. I was politely informed on the VHF that unless I contacted them by Morse lamp, they would not be able to speak to me on the VHF.

The Pilot boards 2 miles S.W. of the breakwater – if vessel comes closer it will be sent out again. Manropes are required for the ladder.

Quarantine: The normal message should be sent 24 hours before arrival. A doctor boarded on arrival alongside, and required Vaccination Lists, together with the Maritime Declaration.

Port Officials: Immigration/Docks/Customs: A vessel bound for Karachi would do well to get a set of local forms from the Agent in advance.

The main Customs Declaration is very detailed.

Ship's own Personal Effect Declaration Lists showing, in addition, beer, watches, cameras, and foreign currency, were accepted.

At least 12 copies of the Crew List on arrival are required, plus 2 Sailing Crew Lists.

When all other Officials have finished, the Customs seal up the Bond.

Special Warning: Pakistan is a Muslim country. Notices should be displayed warning that it is prohibited:

1. To use cameras.
2. Give alcohol to locals.
3. Change money without obtaining a proper receipt.

Berths: We called at Karachi twice, and each time, in spite of a very full port, Agent managed to obtain a berth alongside.

Explosives: Loaded ex-barge, whilst alongside. No problems. Shore stevedore gang used.

Bunkers: Ex-road wagon, well organised and quick.

Water: Ex-quay. Good rate. Good quality.

Lub Oils: Received 2 drums of Stern Tube Oil, which we had not been able to obtain elsewhere.

Divers: The services of a diver were used to clear fouling from engine cooling water intakes.

Ship Chandler: Only fresh vegetables and some chickens were purchased, but these were good quality.

Laundry: Good and fast.

Watchmen: Supplied by shipwrights. With the rise and fall of tide in Karachi, the gangway needed constant attention. Nothing was reported stolen.

Repatriation: Possible.

SHIPMASTER'S REPORT: May 1989.

Documents: When the Pilot boards the ship he will provide the Master with two forms to be filled in. The total cargo on deck is requested, as well as the cargo on deck for Karachi and the cargo on deck in transit, both in measurement tons.

Agent:

2 copies Crew List.

5 forms stating the amount of deck cargo.

1 form stating: (a) Number of passengers.
(b) Amount of ship's foreign currency.
(c) Number of favour parcels on board.
(d) No opium nor dangerous drugs on board.

2 forms stating: Names of the officers, together with their Seaman's Book number, their Certificate of Competency number and date and place of issue.

2 copies Arrival Reports.

2 copies Vessel Stores Lists, stating amount of explosives and rockets.

The Agent will provide all the forms.

Customs:

5 copies Crew List.

2 copies Personal Effects List, showing crew's currency and ship's currency.

2 copies Stores List (make sure the figures are correct as the Customs Officer will actually count everything in the bonded stores).

All cameras should be placed in the bonded stores.

Quarantine:

1 copy Maritime Declaration of Health.

1 copy Crew List.

Immigration:

5 copies Crew List.

VHF: When making a VHF telephone call through Karachi Radio, they require permission from the Agent, so have the telephone number of the Agent ready.

Shore Leave: Shore passes are obligatory and shore leave is prohibited between 2200 hrs. and 0600 hrs.

OPERATOR'S REPORT: September 1991.

Karachi has 2 oil berths presently in use, these being Bulk Oil Pier No. 1 (OP 1) and Bulk Oil Pier No. 4 (OP 4). The former Bulk Oil Piers No. 2 and 3 are being demolished and a new berth Bulk Oil Pier No. 5 (OP 5) will be constructed on the site.

The oil berths are situated within the entrance to Karachi Port on the East Breakwater. The entrance channel is narrow and movement of shipping is controlled to avoid vessels passing in the channel. There is a turning basin off the oil berths. The oil berths are adjacent to the Keamari District of Karachi which contains the petro-chemical and vegetable oil storage tank installations.

Berthing of tankers to the berths is restricted by tidal conditions, and larger tankers, as well as those with bridge aft, are berthed during daylight hours only.

Bulk Oil Pier No. 1: This berth is the Southern finger of the 'T' Jetty formed with OP 2, which in turn was connected to OP 3. The face of the jetty is parallel to the main channel.

The maximum size of vessel that the jetty can accommodate is 35,000 d.w.t. or 50,000 tons loaded displacement, and this figure is strictly adhered to. There is a draft limitation of 35 ft. (10.66 m.).

The jetty is used for the handling of white oil products, base oils, chemicals as well as vegetable oils. It was reported that there are 67 lines on the jetty to accommodate all products for the various receivers in the area.

It was not possible to determine the exact number of lines available for white oil products (although reported to be 12), as there are common lines, as well as company owned lines. In addition there are lines dedicated to an oil product as well as lines that are water flushed between grades. Flexible tanker rail hoses are provided by the installation receiving the product, and it was reported that all are stored on the jetty head.

The condition of the jetty was very poor, with a noticeable 'sagging' of the jetty at the jetty head. The pipelines as seen were in a very poor condition and with apparent little order to pipe siting on the support racks. Welded repairs over a flange were noted as well as corrosion and leakage from others.

The jetty is owned by the Karachi Port Trust, but the lines are owned by the various receivers.

Bulk Oil Pier No. 4: This pier is adjacent to and situated South of OP 1. It is a 'T' jetty configuration designed to handle larger vessels carrying crude oil and petroleum products only.

The maximum size vessel permitted on the jetty is 75,000 d.w.t. or 95,000 gross displacement tons. As for OP 1 this figure is strictly adhered to. The maximum permissible draft is 39 ft. (11.9 m.).

The jetty is equipped with Chicksan arms for connection to the ship's manifold, and in addition to the crude oil lines it has a 20 in. fuel oil line and a 20 in. white oil line. The white oil line has a 'pigging' facility and can be used for multigrade white products.

This jetty was in apparent good condition, although the fendering required attention.

Bulk Oil Pier No. 5: Construction of this berth has commenced and it is estimated that it will take 2 years to complete.

A crane barge was working in the vicinity of the oil jetties OP 2 and OP 3. It was reported that this was the commencement of the work by a contracting company in removing the remains of the old oil jetties prior to constructing OP 5 on the same location.

It was not ascertained whether the new jetty would be an extension of OP 1, and hence utilise the lines at the jetty head of OP 1, or if it would be a completely new 'T' jetty having new lines directly to the shore. It was reported that initially it would be provided with lines for petroleum products only, but other users would be permitted to construct lines for their own facilities.

The jetty is being designed to accommodate vessels of up to 75,000 d.w.t. but the draft restriction was not specified.

Berth Utilisation: Both berths in Karachi are suffering from over utilisation, and as a result essential maintenance is not being carried out.

OP 1: Berth used for such wide ranging products as vegetable oils, chemicals, base oils as well as black and white petroleum products is in constant use. The Deputy Conservator of the Karachi Port Trust advised that priority is given to tankers carrying petroleum products. Tankers carrying vegetable oils were suffering berthing delays of up to 14 days.

The delays to vessels on OP 1 are a result of the restrictions in the reception facilities in the tank farms, as well as poor standard of vessels that use the port. Both contributing to the extended port turnaround times. This was particularly true of the vegetable oil trade. Similarly, delays are compounded by the restrictions imposed by the port authority in timing the berthing of vessels to suit the tide as well as daylight hours.

The Port Authority were very concerned about the utilisation of the berth and delays to vessels, but believed that the commissioning of OP 5 would alleviate the problem.

The oil companies were less concerned about the congestion caused by the number of vessels using OP 1 as they relied on their influence to ensure that petroleum oil tankers had priority. Despite this, petroleum product tankers do suffer delays awaiting berth, up to 5 days being recorded.

OP 4: This berth does not suffer congestion to the same degree, although berth occupancy was believed to be in excess of 60%, and may be as high as 80%. The Port Authority advised that there are approximately 7 crude oil imports per month through the jetty, and allowing a 2 day turnaround per vessel this gives approximately 50% occupancy. Added to that are the imports of fuel oil and gasoil, which gives credence to an estimated occupancy rate approaching 80%.

This berth is the sole import facility for crude oil, and crude oil tankers have priority in the berthing programme. It was noted that product vessels have discharged part cargoes at both Berth OP 4 and then moved to OP 1.

Pipelines: The oil pipeline network in both cases lead from the jetty heads to the shoreline on pipe racks mounted on the jetties. From the end of the jetty they pass beneath the road at OP 1 (the jetty end of OP 4 was not seen) and from there run down open pipe trenches alongside roads into the network of tankfarms in the Keamari District.

SHIPMASTER'S REPORT: October 1994.

Anchorage: Outer anchorage is large and open, and vessel can safely anchor anywhere from S.E. of Fairway Buoy to N.W. of Fairway Buoy. However, care is required in respect of number of wrecks at Outer Roads, some of which are marked by buoys. During bad weather, there is a very good chance of buoys being out of position and thus not marking the wrecks truely. Area around approach channel is marked "Anchoring Prohibited". However, a number of ships can be seen anchored within this prohibited area and even Port Control/Pilots do not seem to mind this contravention of port regulations.

During S.W. monsoons, anchoring is not recommended by Port Control, Sailing Directions or the "Guide". During S.W. monsoons, S.W.'ly swell off Karachi can increase up to 6.0 m. and vessel can expect heavy rolling while at anchor. If riding the swell, cable at regular intervals stretches to very long stay and takes excessive weight. For this reason, obviously, a good scope of cable must be paid out to avoid rapid shocks/jerks to cable, and needless to say that windlass brake and cable stopper should be in efficient condition.

Our vessel safely rode through the S.W.'ly monsoon at anchorage for 10 days. Apart from our vessel, there were about 25 other ships safely anchored, and no information was heard about any ship dragging her anchor. Also no ships were seen steaming up and down awaiting berthing, in spite of Port Control reminding the arriving ships that anchoring is not recommended.

During monsoon, prolonged anchorage can be expected as, due to heavy rains and wind, City Roads are flooded and transport system is disrupted and there are frequent power breakdowns. These factors slow down cargo handling and even oil movements through pipelines from port are greatly restricted.

Arrival Formalities/Inward Clearance: For Inward Clearance, following documents should be faxed to Agent in advance or sent by courier from last port to avoid delay after berthing:

(A) Form MMD I: Date of issue, expiry, place of all statutory Certificates.
(B) Form MMD II: Details of Certificates of Competency of all Officers and Certificates of Crew and details of Pyrotechnics.
(C) Safe Manning Certificate.
(D) Crew List.
(E) Ship's Particulars and Arrival Information.

Health message is to be sent to Port Health Officer via Agent.

Agents do not reply to any messages as there is no facility to send telexes to ships (Inmarsat) from Pakistan. If anything is urgent or important, Agent will send telexes to Owners or Charterers, which in turn is relayed to vessel. Agents can however contact ship via Karachi Radio.

Berthing/Unberthing/Pilotage: Pilot boards off Fairway Buoy. Two tugs are used for berthing. Vessel berthed at "OP4". Tugs used were underpowered and one of them broke down at a critical time. Because of low-powered tugs and awkward shape of jetty, putting vessel alongside took a very long time. Port anchor usually dropped a short distance off jetty, when berthing starboard side alongside, to facilitate pulling vessel off when unberthing. Pilot disembarks inside the harbour of Buoy "S9". The channel is about 1.5 cable wide and well marked, except during monsoons, when some buoys are invariably adrift/out of position. Very often, the buoys which have been adrift, and subsequently recovered, are temporarily positioned close to the channel (not in their original position). Information regarding missing or additional buoys should be obtained from Pilot before he disembarks, to avoid confusion while transitting channel outbound. While departing and turning in channel, off breakwater, care should be taken in respect of large number of country craft/fishing vessels which obstruct the channel while moving in and out of harbour.

Berthing of tankers and other large ships is done during daytime only. Unberthing at any time.

Terminal Facility: Crude oil and all products are handled at OP4. Max. rate at which vessel can discharge at OP4 is 1,800 tonnes/hr. for products. OP4 is equipped with Chicksans, and 10 in. connections are provided for products. Ship's radio is given to Terminal for ship/shore communication.

Bunkers are available by pipeline and barge.

Due to design and disposition of jetty, most ships cannot position their gangway on jetty. Offshore side gangway is lowered and access to and from ship is by a boat which shuttles between jetty and ship's gangway, as and when required.

General: Friday is a holiday.

Watchmen are compulsory.

Being a naval port, photography is strictly prohibited.

Port regulations state that giving liquor to any local official is prohibited.

Details of signing-off crew must be sent to Agents well in advance. Similarly, flight schedule of joining crew (Indians) has to be sent in advance, so that Agent can take permission from Customs/Immigration. Police escort is attached to Indian crew signing-off or joining.

Making contact with Manora Control by Aldis (as mentioned in "Guide" and Sailing Directions) does not seem to be valid any more, and VHF serves the purpose.

Agents advised that due to political unrest in the country, going ashore is not safe, as shoot-outs in the city are common.

Against general belief, Indians are not restricted from going ashore. On the contrary, Officials were extremely friendly.

AUTHORITY: Karachi Port Trust, (P.O.Box 4725, Karachi 74000), Eduljee Dinshaw Road, Karachi 2. *Tel:* 92-21 205887-2062242. *Telex:* 2739 Kpt Pk. *Cables:* Portconser, Karachi. *FAX:* 2415567. *Contacts:* Rear Admiral Mumtaz Wali Khan, General Manager Operations. Captain Hassan Khursheed, Deputy Conservator. Captain Mansoor Shahab ud Din, Dock Master. Captain Nauman Alvi, Harbour Master.

AGENT: G.A.C. Shipping Pakistan (Pvt.) Ltd., 4th Floor, K.D.L.B. Building, 58 West Wharf Road, Karachi, Pakistan. Tel: (92-21) 2311010. After hours: (92-321) 5842337, 8112787. Telex: 20096 GAC Pk. Fax: (92-21) 2310714, 2310736. Cables: Gacshipping, Karachi.

PORT MUHAMMAD BIN QASIM: 24.46 N. 67.21 E. (See Plan)

PORT LIMITS: Seaward Boundaries: Area enclosed within the following geographical co-ordinates:

(a)	Lat. 24° 35' N.	Long. 67° 00' E.
(b)	Lat. 24° 35' N.	Long. 67° 02' E.
(c)	Lat. 24° 32' N.	Long. 67° 00' E.
(d)	Lat. 24° 32' N.	Long. 67° 02' E.

DOCUMENTS:

1. Freight Manifest (4 copies).
2. Bills of Lading (4 copies).
3. Stowage Plan (4 copies).
4. Passenger Manifest (4 copies).
5. Cargo Manifest (4 copies).
6. Hatch List (4 copies).
7. Exception List (4 copies).
8. Passenger List (4 copies).

With vessel:
9. Cargo Manifest (4 copies).
10. Last Port Clearance Certificate (4 copies).
11. Passenger List, Disembarking and Transit (4 copies).
12. List of Favour Parcels (4 copies).

The following special Pakistan forms are brought on board by Agent for completion on arrival:
13. Customs Arrival Report (4 copies).
14. Opium and Dangerous Cargo Certificate (4 copies).
15. Ship's Currency List (4 copies).
16. Deck Cargo Certificate (4 copies).
17. Company's Arrival Report (4 copies).
18. Ship's Crew Advance, (if required), (4 copies).
19. Expiry dates of Ship's Certificates (4 copies).
20. Bottom or In-Transit Cargo (4 copies).
21. Crew List (4 copies).
22. Stores List (4 copies).
23. Property List (4 copies).
24. Cargo Gear Information Forms (4 copies).
25. Advance Arrival Note (4 copies).
26. Application to enter port (4 copies).
27. Permission to enter and berth (4 copies).
28. Ship's Documents Check List (4 copies).
29. Officers – Certificates of Competency.
Ratings – Proficiency Certificates.

PILOTAGE: Compulsory. Pilot boards about 1.5 miles S.W. of Fairway Buoy. Give 48 hours' notice to Port Qasim Control by cable and later contact them by VHF Channel 16, about 6 hours before arrival.

ANCHORAGES: Outer anchorage is bounded by limits mentioned in "Port Limits".

Holding ground is good but during S.W. monsoon heavy swell persists and it is advisable to anchor in Western part of the outer anchorage and pay out extra cable.

RESTRICTIONS: Channel is well marked but not lit, therefore night pilotage is not provided at present. Vessels must dock before dark and sail out in sufficient time to clear the channel before dark, and allow pilot launch to return to wharf before darkness.

MAX. SIZE:

Berth No.	*Permissible Draft (m.)*	*LOA (m.)*	*Beam (m.)*
FOTCO (QP-1)	10.0 + 0.5 (conditional)	225	32.2
IOCB	10.0 + 0.5 (conditional)	225	32.2
MW-1	9.5	183	25.0
MW-2 to 5	10.0	183	25.0
MW-6	10.0 + 0.5 (conditional)	183	25.0
MW-7	10.0 + 0.5 (conditional)	183	25.0

The above restrictions, particularly draft, are subject to seasonal variations (See "Notices" below). Port Qasim Authorities release the circular every 3 months mentioning and revising these restrictions. In case vessel's parameters are in excess of limitations, Owners are to contact their Agents to see if special permission can be arranged.

Notice:

Periods	*Berths*	*Max. Draft (m.)*	*Max. LOA (m.)*	*Max. Beam (m.)*
(i) Monsoon				
15th May to 15th September	IOC Berth	10.5	201.0	25.3
	MW Berths			
	1 to 4	10.0	183.0	25.0
	5 to 7	10.5	183.0	25.0
(ii) Non-Monsoon				
16th September to 14th May	IOC Berth	12.0	225.0	32.0
	MW Berths			
	1 to 4	10.0	183.0	25.0
	5 to 7	11.0	183.0	25.0

Note: 1. Draft is subject to change monthly and without any notice.
2. Minor deviation permissible at the discretion of Port Qasim Authority on submission of Indemnity.
3. Maximum permissible draft/dimensions are promulgated through Notices to Mariner. Normally ships up to 50,000 d.w.t. can be handled during non-monsoon period and 25,000 d.w.t. during monsoon period.

Also see "Shipmaster's Report" dated October 1985.

Notice:

Notice to Mariners: 173(T) – Port Muhammed Bin Qasim – Permissible Draft from 1st October 1988 – 31st December 1988.

Maximum permissible drafts for ships calling at Port Muhammed Bin Qasim between 1st October 1988 and 31st December 1988 will be as follows:

Period	*Berths*	*Max. Draft (m.)*	*Max. LOA (m.)*	*Max. Beam (m.)*
1st October 1988 to 31st December 1988.	IOC Berth	11.0	225.0	32.2
	M.W. Berth 1	9.5	183.0	25.0
	M.W. Berth 2 – 4	10.0	183.0	25.0
	M.W. Berth 5 – 7	10.5	183.0	25.0

2. Ships on arrival at outer anchorage to intimate drafts and specification of the vessel.
3. Cancel PNM No. 150(T)/88 on 30th September 1988.

WARNING: In July 1994, the maximum draft declared by the Port Authority was 9.5 m.

All Owners and Operators should check draft limitation with Port Authority before vessels are loaded.

HEALTH: Pratique granted only after berthing.

RADIO: Send all messages via Karachi Radio, call sign ASK,MF 500 kHz, 466 kHz, HF 8644 kHz, 1302 kHz, 3024 kHz, 8361.2 kHz, 12541.8 kHz and 8658 kHz.

Karachi Radio can also be contacted on Radio telephony on following frequencies:

Channel	*MHz*
16	158.80 VHF
10	156.50 VHF
07	160.95 VHF
02	160.70 VHF
05	160.85 VHF

VHF: Contact should be made with Port Qasim Control as soon as within VHF range and ETA transmitted. Berthing and boarding of Pilot instructions are given on VHF by Port Qasim Control on following Channel/Frequencies:

Channel	*MHz*
16	156.800 VHF
10	156.500 VHF

Round the clock watch on above Channels is maintained.

RADAR: No port radar service available.

TUGS: 3 tugs namely "Chara", "Gharo" and "Kadiro" assist vessels and they join the vessel about 1.5 miles off the jetty. Each tug 3,500 b.h.p., bollard pull approximately 40 tons. In addition two light tugs each 1,000 b.h.p. are available. Ship's lines are usually used.

BERTHING: There are 7 multi-purpose berths for handling general and bulk cargo along a 1,400 m. long wharf for ships drawing 10.0 m. – 11.0 m. draft. Iron Ore and Coal Berth 225 m. long is used for importing bulk raw material for PAK Steel for ships drawing 10.0 m. – 10.5 m. draft. Also see maximum permissible draft information under "Max. Size" and "Tankers".

Two permanent fixed mooring systems were established during the period from November 1989 to May 1991 for 25,000 d.w.t. and 50,000 d.w.t. vessels respectively within the Port limits. A fixed mooring for 25,000 d.w.t. vessels was established near Iron Ore and Coal Berth in the Gharo Creek on the Western bank of the Channel, and the other fixed mooring for 50,000 d.w.t. vessels was established in the Channel at Phitti Creek opposite Buoys No. "P-2" and "P-4".

CRANES: Two cranes with grabs each weighing about 11 tons. Together they can discharge bulk coal at approximately 15,000 tonnes per day of 24 hours. Cargo is carried directly to the Steel Mill by conveyor belt about 2 miles long.

BULK CARGO FACILITIES: *Grain:* 2 automatic unloading and bagging plants with a total capacity of 4,000 tons per day are available.
Iron Ore and Coal: Iron ore and coal jetty owned by Pakistan Steel Mills for importing coal and iron ore for the steel plant. Jetty is 900 ft. long and depth alongside 10.5 m.

Also see "Berthing" and "Cranes".

SPECIALISED CARGO HANDLING FACILITIES: None at present.

BRIDGES: None.

TANKERS: Marginal Wharf: The temporary tanker discharge facility has been constructed at the most Easterly of the Dry Cargo Wharves. Berth No. 1: This has been achieved by laying an 18 in. line to the Power Station Tankfarm, a distance of approximately 2.5 km., and the construction of a manifold arrangement on the jetty. Flexible hoses are used for connection to the vessel's manifold.

It was reported that the designed receiving rate was in excess of 1,000 tonnes/hr.

The maximum size of vessel permitted is 30,000 d.w.t., but draft is the major limitation and at present is restricted to 9.5 m. on the berth.

Berthing is carried out in daylight only.

Tankers have priority at this berth, and there is therefore very little time awaiting berth.

Oil Storage Facilities: The sole receivers of the fuel oil in Port Bin Qasim is K.E.S.C. (Karachi Electricity Supply Company) for use in the Power Station.

The tankfarm consists of 6 tanks. Four tanks were reported to be of approximately 20,000 tonnes – 25,000 tonnes capacity and the two smaller tanks which were used as setting tanks. Of the larger tanks, it was reported that only 2 have been calibrated, and as a result only these are used for receipt of imported oil.

The oil at present is being supplied in 20,000 tonnes parcels, approximately 5 shipments per month, this being the optimum size tanker that can enter the port.

Oil Berth Information: Marginal Wharf No. 1:

Berth Operator and/or User	: Port Qasim Authority / Karachi Electricity Supply Company (KESC).
Maximum LOA	: 183 m.
Maximum Beam	: 25 m.
Maximum Summer Deadweight or Displacement	: 30,000 d.w.t. (approximately).
Maximum Draft	: 9.5 m.
Minimum Depth at Berth	: 10.5 m.
Under-keel Clearance Required	: 1.0 m.
Water Density	: 1025.
Night Berthing/Unberthing	: Not possible.
Bunkers	: By truck or barge.
Fresh Water	: From jetty or by barge.
Limitation on Freeboard	: None.
Type of Berth	: General Cargo Wharf.
Minimum Size of the Vessel	: No restrictions.
Lighterage	: Not possible.
Grades of Cargo Handling	: Fuel Oil.
Dirty Ballast Facilities	: None.
Tugs	: 3×3,500 h.p. (40 tons bollard pull).
Airdraft restriction caused by Bridges, etc.	: None.
Pilot Boarding Areas	: Off the Fairway Buoy in Good weather. Off Buddo Island in heavy swell.

FOTCO Oil Terminal: The Terminal is located in the Kadiro Creek about 22 nautical miles from the Port Qasim – Phitti Creek Fairway Buoy Entrance, about 35 km. by road from Karachi City and 2 km. seaward from the Iron Ore Coal Berth.

Principals Dimensions of Terminal and Docking Aids: The Terminal is designed to accommodate tankers from 25,000 to 75,000 d.w.t. The main platform is 46 m. long and 20 m. wide with breasting dolphins on either side at a distance of 39 m. The mooring dolphins have quick release hooks with a total of 6 windlass.

Firefighting Facilities: Two fire monitors with foam, installed at each end of the berth and remotely controlled from the control room. International fire main connection for potable water.

Disposal of Slops and Ballast Water: No facilities available at the Terminal.

Loading/Discharging Arms: Served by 2×16 in. marine loading/discharging arms with automatic connection/disconnection arrangement by cable connected remote control for operation from ship's deck.

Gangway Facility: Walkway for access to the ship's deck available.

Tanker Dimensions which can berth:

Tankers Deadweight	tonnes	25,000	45,000	75,000
Average Payload	tonnes	22,500	42,000	71,000
Displacement	tonnes	33,000	60,000	95,000
Length Overall	(m.)	175-190	205-225	235-245
Beam	(m.)	24.70	30.00	36.00
Depth Moulded	(m.)	12.75	15.10	18.75
Draft Fully Laden (See "Warning")	(m.)	10.00	11.80	13.60
Windage Area Abeam	(sq.m.)	2,350	3,265	4,300

Warning: FOTCO Terminal is operated by Fauji Foundation, or by their operators, but it comes under the jurisdiction and limit of Port Qasim Authority, and the tankers' berthing and unberthing are governed by parameters issued by Authority from time to time and must be confirmed before fixing vessel for calls at FOTCO through local Agents.

Also see "Reports".

STEVEDORES: 3 cargo handling companies appointed by the Port work as terminal operators for handling the cargo at multi-purpose berths. Average handling rate per hook hour for following commodities is:

Rice	: 43.0 tonnes
Pig Iron	: 38.0 tonnes
Cotton	: 12.0 tonnes
General Cargo	: 10.0 tonnes
Wheat	: 25 – 50 tonnes

12 hours' advance notice to be served in order to arrange gangs.

Working Hours: 0800 – 1600, 1600 – 2400, 2400 – 0800. The shifts are named Shift A, Shift B and Shift C respectively.

MEDICAL: Medical centre with first aid facilities is available round the clock in the port area. Adequate medical facilities and hospitals are available in Karachi, (the nearest one within 20 km.). Medical facilities can be arranged by the Ship's Agent on Master's request.

DENSITY: Average density of water is 1025.

FRESH WATER: Available through shore connection.

FUEL: Arranged by Agent and available through local oil companies, delivered by oil barge or road tankers.

FIRE PRECAUTIONS: Normal fire precautions, fire hydrants are located at Marginal Wharf and IOC Berth. Port has two fire tenders (water and foam) plus 5 fire trailers (heavy duty) with water and foam to fight fires.

CONSULS: Available at Karachi.

REPAIRS: All types of repairs can be carried out through private contractors of which prior notice, with details, must be given to Agent in good time. Repairs are subject to Port Authority's permission, keeping in view availability of berth, other safety precautions, prevailing rules, etc.

DRY DOCKS: None at Port Qasim, however, available at Karachi Port.

SURVEYORS: Cargo Surveyors available, services if required can be arranged through local Agents; also Classification Surveyors of various societies such as Lloyd's Register, American Bureau, Bureau Veritas, etc., have local offices in Karachi.

GANGWAY/DECK WATCHMEN: Advisable, but at Master's discretion. However, it depends on Master/Owner/Charterer, but if Indian, Taiwanese or Israeli crew onboard, it is necessary to keep watchman onboard, in order to avoid any complications with Port Authorities, Customs and Immigration.

HATCHES: Opening and closing by ship's crew.

CUSTOMS ALLOWANCES: One bottle of spirits and 200 cigarettes per week before arrival. Master must collect all cameras as they must be placed under seal by Customs.

CARGO GEAR: Heavy lift cargo and normal loading/discharging carried out by ship's gear. Mobile cranes available for hire on request.

REPATRIATION: Possible. Advisable to give Agent notice 24 hours prior to arrival to complete formalities.

AIRPORT: Karachi International Airport (Jinnah Airport) is approximately 25 km. from Port Qasim and is served by regular national and international airlines.

TIME: GMT plus 5 hours throughout the year.

HOLIDAYS: See "Karachi".

POLICE/FIRE/AMBULANCE: Can be contacted through Port's PABX telephone exchange 7737601 (10 lines).

EMERGENCY CO-ORDINATION CENTRE: Pakistan Navy frequencies – 500 and 8364 kHz. on HF and 282 and 243 MHz. on VHF.

TELEPHONES: Facilities located on jetties.

SERVICES: All facilities such as compass adjusting, radio and radar repairs, tank cleaning, etc., can be arranged through respective shipping Agents.

BANKS: 4 local banks are available.

STORING: See "Prelims".

1. Yes.
2. Yes, except when disallowed for safety reasons.
3. Yes.
4. Yes.
5. Prevailing Customs rules are to be observed.
6. Can be arranged through ship's Agent.

SHORE LEAVE: Allowed. Shore passes issued by Immigration Authority to ship's crew (except for Indian, Taiwanese and Israeli nationals).

IDENTIFICATION CARDS: Only valid shore passes used as identification.

GARBAGE DISPOSAL: The Port does not provide any garbage disposal service. However, if the vessel desires to dispose of garbage, the same may be communicated to the vessel's local Agent, who will arrange disposal with private labour after approval from the Port Authority.

WASTE OIL DISPOSAL: At present there is no service provided.

SEAMAN'S CLUBS: None.

CURRENCY: Rupee.

REGULATIONS: As per Gazette of Pakistan notification No. S.R.O. 42 (KE)/81 dated: 17th October, 1981 – Part IV (Safety Regulations).

DELAYS: None.

DEVELOPMENTS: Establishment of integrated Container Terminal is in hand.

SHIPMASTER'S REPORT: September 1982 (Updated 1988).

Port Limits: A vessel is considered to be an arrived ship when she is in the anchorage marked on the chart West of Fairway Buoy. Vessel must register with Port Bin Qasim Control as an arrived ship and only when same confirmed by the port can the Master tender notice of readiness. Pilot boards about 1 nautical mile off Fairway Buoy.

Documents: Same as for Karachi. Keep extra Crew Lists at hand. Private property declaration must contain serial numbers, make, etc., wherever possible. All currency must be declared.

Pilotage: Give 48 hours' and 24 hours' notice to Bin Qasim Pilot Control by cable and later contact them by VHF Channel 16, about 12 hours before arrival.

Anchorage: Outer anchorage is in area bounded by positions A, B, C and D. See "Port Limits".

Holding ground is good but during S.W. monsoons heavy swell persists and it is advisable to anchor near Western proximity and pay out extra cable.

Restrictions: No night pilotage. Vessel must dock before dark and similarly must sail out in sufficient time to clear the channel before dark. Draft restrictions as per tide. Heavy swell/tide runs across the channel at S.W. monsoons.

Max. Size: Presently max. size is 50,000 d.w.t. but main limiting factor is the depth of water in the channel which varies with the tide.

Health: Pratique granted only after berthing. Radio Pratique not possible.

Radio: Send all messages via Karachi Radio. Contact should be made with Bin Qasim Port Control as soon as within VHF range on Channel 16 and ETA given. Berthing instructions are given on VHF.

Tugs: Port has 3 tugs and they join the vessel about 1.5 miles from the jetty. Usually ship's lines are used for tugs.

Berthing: Iron ore and coal jetty owned by Pakistan Steel Mills for importing coal and iron ore for the steel plant. Jetty is 900 ft. long, 12.80 m. depth alongside.

Cranes: Two cranes with grabs each weighing about 11 tons. Together they can discharge bulk coal at approximately 15,000 tonnes per day of 24 hours. Cargo is carried directly to the steel mill by conveyor belt – about 2 miles long.

Bridges: None.

Stevedores: Pakistan Steel Mills personnel.

Medical: No facilities exist in Bin Qasim. All medical facilities in Karachi.

Density: Salt water.

Fresh Water: Available by shore connection. Costs about Pak. Rs.45/– per ton.

Fuel: Not available.

Consuls: At Karachi.

Repairs: Only very minor repairs possible by workshops from Karachi. Prior notice with details must be given to Agents in good time.

Dry Docks: None.

Surveyors: Available from Karachi.

Gangway/Deck Watchmen: Not necessary.

Hatches: Opening/closing carried out by crew.

Customs Allowances: One bottle spirits and 200 cigarettes per week. Before arrival Master must collect all cameras to be placed under seal by Customs.

Cargo Gear: Shore gear is used.

Repatriation: Possible. Advisable to give prior notice to Agents to complete all formalities prior arrival.

Airport: Karachi International airport is about 35 miles from Port Bin Qasim.

Time: GMT plus 5 hours throughout the year.

Telephone: Available on jetty only.

Shore Leave: Shore passes issued by Immigration and crew allowed ashore.

Delays: Usually none.

General: All the information above is for Iron Ore and Coal Jetty at Port Bin Qasim only.

I called at this port on 25th with 27,100 tonnes of coal in bulk from Newcastle (N.S.W.) and sailed out on 27th.

I was asked to arrive at a maximum draft of 10.00 m. For deep drafted vessels Pilot normally boards about 2.5 hours before HW so that vessel docks alongside at HW. The channel (about 25 miles) is dredged to 11.30 m., while alongside berth and in the turning basin off the berth the depth is 12.80 m. However, in my case the Pilot boarded about 2 hours after HW and by the time vessel tied up alongside it was almost LW. All along the channel I noticed that there was at least 2 m. clearance under the keel at all times.

SHIPMASTER'S REPORT: October 1985.

Max. Size: In October the following maximum drafts and sizes were permitted for vessels calling at Port Bin Qasim:

Pakistan Steel Mills Wharf (IOC berth): Draft 11 m., LOA 223 m., beam 31.1 m.

Main Wharf, Berths No. 1 to 4: Draft 10 m., LOA 183 m., beam 25 m.

Main Wharf, Berths No. 5 to 7: Draft 11 m., LOA 183 m., beam 25 m.

Health: All crew to have valid cholera vaccination.
Shore Leave: All crew should be back on board by 2200 hrs.
Provisions: Delivery by trucks alongside main wharf but extra charges for transportation as everything has to come from Karachi, 75 km. away.
Fresh Water: Available by shore connection at all berths. Delivery rate 15 to 20 t.p.h. Good quality.
Bulk Cargo Handling (Main Wharf): Bulk grain discharged by vacuators into bagging machines. No elevators.
General Cargo Handling: All cargo normally handled by ship's gear. Some mobile cranes available in emergency, SWL not known. Containers not normally handled at Bin Qasim. This port is mainly used for large consignments of bulk grains and bagged rice for export.
Stevedores: Normally round-the-clock basis with only 3 meal breaks. Loading rate of bagged rice: Up to 1,000 tonnes per hatch per 24 hours.

SHIPMASTER'S REPORT: March 1986.
Chart: No. 1284.
Pilotage: Compulsory. Pilot boards in vicinity of Fairway Buoy 24° 33' N., 67° 03' E. and likes to disembark from outgoing vessels between Buoys No. 7 and 8. Vessels handled during daylight hours only. Pilot boat "Lahoot" steel motor boat, equipped with Radar and VHF. Distance from Fairway Buoy to berths 24 miles.
Anchorage: In vicinity of Fairway Buoy or Quarantine Anchorage close by, good holding ground.
Drafts: For iron ore and coal berths (4 berths), 10 m. For multi-purpose berths (7 berths), 11 m.
Radio: Karachi Radio ASK (a very busy station). Port Qasim Control maintains continuous VHF watch on Channel 16, working 10, can be contacted from a great distance and advises vessels for berthing. It is a very helpful station.
Tugs: There are 3 well equipped sea going tugs of 3,500 b.h.p. with a bollard pull of 40 tons to assist vessels for berthing/unberthing. Ship's lines always used.
Cranes: Loading/discharging carried out by ship's gear. Mobile cranes of 24 tons lifting capacity available at extra cost.
Specialised Cargo Handling Facilities: Bulk unloading facilities for iron ore and coal. Mechanised bulk wheat handling facilities.
Bunkering: Available through local oil companies, delivered ex-barge or truck, ample time required for stemming bunkers.
Classification: Surveyors for Classification and cargo available (from Karachi).
Airport: Karachi International Airport situated approx. 30 km. from Port Qasim.
Consuls: None at Port Qasim, all reside in Karachi approx. 65 km.
Fresh Water: Available at all berths. Good quality. Supplied through Port Authorities on very short notice. Stevedores usually take care of it.
Tides: Approximately 1 m.
Future Development: Future dredging of the Channel in order to take vessels fully laden up to 75,000 d.w.t. Also plans for navigating the channel day and night.
Rice Cargoes: Vessels loading rice (which is the main export cargo in this port) are inspected at Fairway Buoy prior to berthing by a total of five Government Inspectors who issue relevant Certificate.

OPERATOR'S REPORT: September 1991.

Port Qasim opened in 1980 with imports of bulk iron ore and coal at the IOC berth (iron ore and coal). The port was fully commissioned with an additional 7 dry cargo berths by 1983.

There is no tanker berth in the port, but a temporary discharge facility has been built at one of the dry cargo berths (Marginal Wharf No. 1) in order to supply fuel oil to the local power station.

Plans have been drawn up for the construction of a tanker jetty and it was reported that preliminary tests have been made to assess the suitability of the proposed site. It is not anticipated that the jetty will be available prior to 1995.

Marginal Wharf No. 1: The temporary tanker discharge facility has been constructed at the most Easterly of the dry cargo wharves, Berth No. 1. This has been achieved by laying an 18 in. line to the power station tank farm, a distance of approximately 2.5 km., and the construction of a manifold arrangement on the jetty. Flexible hoses are used for connection to the vessel's manifold, although it was not determined how many are used.

It was reported that the designed receiving rate was in excess of 1,000 tonnes/hr., but the average rate achieved by vessels has been in the region of 600 tonnes/hr. This gives a turnaround time for optimum size tankers of 2 days.

The maximum size of vessel permitted is 30,000 d.w.t., but draft is the major limitation and at present is restricted to 9.5 m. on the berth. Dredging is being carried out and in time the maximum permissible draft will be 10.0 m.

Berthing is carried out in daylight only.

Tankers have priority at this berth and there is therefore very little time awaiting berth.

Oil Storage Facilities: The sole receiver of the fuel oil in Port Qasim is K.E.S.C. (Karachi Electricity Supply Company) for use in the power station.

The tank farm consists of 6 tanks, 4 of which were reported to be of approximately 20,000 – 25,000 tonnes capacity, and 2 smaller tanks which were used as settling tanks. Of the larger tanks it was reported that only 2 have been calibrated and as a result only these are used for receipt of imported oil.

The oil at present is being supplied in 20,000 tonne parcels, approximately 5 shipments per month, this being the optimum size tanker that can enter the port.

Oil Berth Information:

Berth: Marginal Wharf No. 1.	
Berth Operator and/or User:	Port Qasim Authority/Karachi Electricity Supply Company (K.E.S.C.).
Maximum LOA:	183 m.
Max. beam:	Not specified.
Maximum Summer deadweight or displacement:	30,000 d.w.t. (approx.).
Max. draft:	9.5 m. (temporary) will be dredged to 10.0 m.
Minimum depth at berth:	10.5 m.
Underkeel clearance required: ...	1.0 m.
Water density:	1025
Night berthing/unberthing:	Not possible.
Bunkers:	By truck or barge.
Fresh water:	From jetty or by barge.
Limitations on freeboard:	None.
Type of berth:	General cargo wharf.
Minimum size of vessel:	No restriction.
Lighterage:	Not possible.
Grades of cargo handles:	Fuel oil.
Dirty ballast facilities:	None.
Tugs:	3×3,500 h.p. (40 tonne bollard pull).
Airdraft restrictions caused by bridges, etc.:	None.
Pilot boarding areas:	Off the Fairway Buoy in good weather. Off Buddo Island in heavy swell.

SHIPMASTER'S REPORT: February 1996.
Approaches:
1. Racons on Surveyor's Sand and Buddo Island not operational.
2. Following channel buoys missing: No. 7, 9, B-11, B-12, P-1, P-4, P-6, P-11, G-1, G-2, G-3, G-4, G-6, G-8, G-9, K-12, K-15, K-16, T-1, T-2, T-3.
3. Following light buoys have been replaced by unlit, low profile can buoys (all rusty and covered in guano): B-4, B-5, B-7, B-8, B-9, P-2, P-5, P-7, P-8, P-10, P-12, P-13, P-14, K-1, K-4, K-5, K-6, K-7, K-8, K-10, K-11, K-13 and T-6.

Only day navigation, so no plans to maintain buoys.

Ship entered channel with 11.0 m. even-keel draft, and berthed on H.W. Echo sounder at no time showed less than 2.0 m. under-keel. Due to displacement of passing deep draft vessel, a tanker at Fauji Oil Berth may experience surging.

Tugs/Berths: Tugs "Gharo" and "Kadiro" use ship's lines. Vessel remained at Berth 6/7 throughout and discharged wheat with about 26 diesel evacuators and 2 shore-based mobile suction discharge machines at about 8,300 tons per day. Cargo discharge spouts are directed into several portable hoppers, with bagging and truck loading arrangements.

Gangs load the 70 kg. bags very efficiently onto a continuous convoy of trucks.

Berth No. 7 will soon be equipped to handle containers, 2 portainers are expected soon.

Note: As diesel evacuators (about 4 tons weight) are placed on hatch covers for 2 or 3 holds, these covers may not be easily closed in rain.

AUTHORITY: Port Qasim Authority, P.O. Box 5771, Port Bin Qasim, Pakistan. *Tel:* 7737601-10. *Telex:* 2633 Qasim Pk. *Cables:* Port Qaty. *FAX:* 7737638, 7737639. *Contact:* Captain Mohsin, General Manager Operations. Captain Habib, Deputy Conservator. Captain Faheem, Harbour Master.

AGENT: See "Karachi".

Republic of Panama

AGUADULCE: 08.14 N. 80.30 W. (See Plan)

LOCATION: The Port of Aguadulce is located 7 km. from the coast on the Palo Blanco inlet in the Bay of Parita, Pacific coast of Panama.

The port consists of a single quay 70 m. long used mainly for shipment of bulk sugar and molasses to ports in the U.S..

DOCUMENTS: The same documents are required and the same procedures are followed as for Almirante, Puerto Armuelles and Bahia Las Minas. See "Almirante".

PILOTAGE: There is an official pilotage service with Pilots available 24 hours a day. Pilotage is compulsory for all vessels greater than 150 g.r.t., wishing to enter and leave the port. To request the Pilot, the vessel's Agent must make arrangements with the National Port Authority. The Pilot Station is in Aguadulce. Vessels can also ask for Pilot by calling the National Port Authority on Channel 12 VHF.

ANCHORAGE: Vessels must await the Pilot at the anchorage located near the sea buoy which is painted white with a white light flashing every 2 seconds. Position of the buoy is Lat. 08° 13' N., Long. 80° 25' W. Depth of water at the buoy's location is 7.4 m. (22 ft.), average low tide, and in places 1 mile to the N.E. it increases to 10.14 m. (30 ft.).

RESTRICTIONS: The port is on an inlet. It has an access channel 13 km. long from the sea buoy. The width of the channel varies from 200 m. in its widest part down to 75 m. at its narrowest.

The channel is marked by buoys which are lit and coming from the sea the buoys on the starboard side are red with even numbers and red lights and those on the port side are green with odd numbers and green lights.

The port is tidal and vessels may only enter and leave on the high tide. At low water the access channel has depths of less than 1 m. (3 ft.) for which reason the maximum draft permitted in the port is 6.4 m. (19 ft.) with 6.1 m. (18 ft.) high tides. Furthermore, inside the inlet there are fairly sharp curves which do not permit entry of vessels greater than 100 m. overall length and 2,500 g.r.t. In the future it is planned to dredge the access channel to provide minimum depths of 3.3 m. (10 ft.) at low tide.

HEALTH: As with other Panamanian ports, the doctor boards the vessel with the other officials of the reception commission. If there is any infectious illness on board, the Master must communicate this to the Port Authority by VHF Channel 12.

VHF: The Port Authority has VHF equipment. Call on Channel 12. It operates throughout the day.

TUGS: None available.

BERTHING: There is a main quay 70 m. long with an average low water depth of 3.3 m. (10 ft.) There is also a small quay 30 m. long which is not used. The quay has a fender system. There is also a dolphin type quay for shipment of molasses with depth 2.7 m., and a 50 m. berth for sugar carriers, which has automatic sugar loaders, depth 2.7 m.

No loading equipment available. Unloading must be by ship's gear. There are belt type sugar loaders. Mobile cranes can be contracted in Aguadulce.

There are two storage tanks for molasses of 1,000,000 and 500,000 gallons capacity respectively.

There are also open air facilities for storage of general cargo.

STEVEDORES: Loading and unloading work is carried out by a gang of local workmen contracted by the ship's Agent, via their representative.

MEDICAL: Hospital in Aguadulce.

DENSITY: Approximately 0.9971 gm./c.c. at 85°F.

FRESH WATER: Available via tanker lorries. No supply via pipes.

FUEL: Not available.

CONSULS: None; the nearest are in Panama City, 193 km. from the port by road.

REPAIRS: No facilities.

CUSTOMS ALLOWANCES: See "Almirante".

PROVISIONS: Supplies available in Aguadulce.

COMMUNICATIONS: The port is connected to the town of Aguadulce by an asphalt highway 5 km. long.

Aguadulce is connected to Panama City by road, the capital being 193 km. distant.

REPATRIATION: There are Immigration Officials on the quay. Repatriation presents no difficulty.

AIRPORT: At Aguadulce there is a small airstrip. There is an airport at Chitre 60 km. from Aguadulce and where a local airline effects two trips between this town and the airport of Paitilla in Panama.

TIME: GMT minus 5 hours.

POLICE/AMBULANCE/FIRE: Available in Aguadulce 5 km. from the port.

TELEPHONES: Telephone communication from the port by public telephone by micro-wave to any part of the world. No facilities for phones on board vessels.

SHORE LEAVE: No restrictions.

AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 23-3997, 64-4021. *Telex:* 2765. *FAX:* 69-6992, 69-7432. *Contact:* Jerry Salazar, Director General.

National Ports Authority – Aguadulce, Carretera del Puerto, Aguadulce, Provincia de Cocle, Panama. *Tel:* 97-4264. *Contact:* The Port Administrator.

ALMIRANTE (Bocas del Toro): 09.18 N. 82.23 W. (See Plan)

LOCATION: Located in Almirante (Bocas del Toro) Bay, on the N.E. end of the Atlantic coast of Panama.

The Port of Almirante consists of a pier 204.5 m. long used for loading bananas. The port is used principally by reefer vessels coming from Europe and bound for European ports.

The port was built by the United Brands Company and later transferred to the Government. Currently, it is rented by United Brands but is administered by the National Port Authority.

DOCUMENTS:

1 General Declaration.
1 Clearance from Last Port.
5 Cargo Manifests, or Declaration that no cargo is carried.
4 Crew Lists.
3 Passenger Lists, or Declaration that no passengers are carried.
3 Stores Lists.
2 Crew Personal Effects Declarations.
1 Maritime Health Declaration.
1 Mail List.

The above documents must be presented in Spanish language by the Master of the vessel, when the National Port Authority boards the ship.

Once the National Port Authority finds the documents correct, Free Pratique is given, enabling the vessel to commence operations.

PILOTAGE: Pilotage is compulsory for vessels entering Almirante.

The service is provided by a private Pilot who has his station in the town of Bocas del Toro. To request his services, the Agent must make arrangements with the Port Administration. Vessels using Almirante frequently take the Pilot on board in the Bay of Almirante, in front of the town of Bocas del Toro. The pilot cutter is blue with white superstructure, and has VHF radio. To communicate with the cutter, call up on VHF Channel 12 and Channel 16, with SSB fitment.

The Port Authority has established an official pilotage service, and all arrangements for the services of the Pilot must be made with the Port Authority. For vessels arriving for the first time in Almirante, they must anchor outside the entrance of Bocas del Toro aligned at 150° to 180° to Toro Point and 8 cables off. At this point, they must await the Pilot.

ANCHORAGES: Within the Bay of Almirante there are good locations with depths up to 27.4 m.

In front of the quay there is space to anchor with depths of 15.2 m. – 18.3 m.

RESTRICTIONS: The entrance channel has a minimum depth of 9.2 m. and is marked by buoys and light floats as indicated on the Port Nautical Charts. Also see "Developments".

Shipmaster's Report: The water depths on passing Bocas del Toro are greater than 9.2 m. as you follow the charted course lines.

Proceeding at a reduced speed consisting of "dead slow" and "stop", with enough manoeuvrability, to minimise the vessel's pitching, you can enter or leave the Bocas del Toro with a draft of 7.9 m. without any difficulties.

On entering and leaving I was forced by cargo circumstances to berth with a 7.9 m. deepest draft, and never had less than 3.05 m. below my vessel's keel (deepest section), at low water.

MAX. SIZE: There are no restrictions as to beam and size of vessel; but as far as draft is concerned this must not exceed 9.2 m.

Bocas del Toro can be entered and left with drafts of 8.84 m. without difficulty.

HEALTH: The doctor on boarding the vessel with the Reception Commission receives his documents and declares Free Pratique.

In the event of illness on board, Agent must be advised by VHF radio and this will be passed on to the doctor.

RADIO: Cables for and from the Agent are sent by radio operated by Tropical Radio Telegraph Co. The Port Authority has VHF and SSB equipment. The SSB equipment operates on the call-up frequency of 7447.5 kHz.

VHF: VHF communications can be made on Channel 12 at a distance of 30 miles from the port. Furthermore, United Brands Co. has VHF equipment which receives calls on Channel 16.

TUGS: None available.

BERTHING: A banana quay 204.5 m. long with a single mooring frontage and with 4 automatic banana loaders. It is recommended that vessels moor on the starboard side. Also there is a general cargo quay 103.05 m. long which has pipes for discharge of refined oil. The depth at the quay is 7.3 m. – 9.7 m.

Equipment: 4×4 tonne forklift trucks, 1×5 tonne mobile crane.

STEVEDORES: Loading work is carried out by the local Workers Union. The Agent must make contact with United Brands Co. for these workers.

MEDICAL: A modern hospital is available in Changuinola 20 km. from Almirante. Almirante also has a small hospital.

TANKERS: Quay No. 2 fitted with pipes for discharge of refined products.

DENSITY: 1022.

FRESH WATER: Available throughout the year. The pumping capacity is 2–3 t.p.h.

FUEL: Not available.

CONSULS: Costa Rica, El Salvador, Honduras, Nicaragua.

REPAIRS: No facilities for repairs to vessels.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: The Customs offices are in the port vicinity. Permitted quantities are 2 packs of cigarettes of 20 packets each per crew member and 2 bottles of whisky or other alcoholic drink per crew member for consumption on board.

REPATRIATION: Can be effected without difficulty.

AIRPORT: There is a small airport at Changuinola 21 km. from Almirante, which connects the province of Bocas del Toro with the rest of the Republic. There are 2 flights a day between the airport of Changuinola and Tocumen in Panama City. Changuinola is connected with Almirante by railway.

TIME: GMT minus 5 hours.

POLICE/AMBULANCE/FIRE: Available in Almirante.
TELEPHONE: There is a micro-wave telephone service to Panama and other places in America. The Port Authority has telephones in their offices, but there are none available for installation on vessels.
PROVISIONS: Obtainable in the local market; but it is preferable for provisions to be obtained in Colon.
SHORE LEAVE: No restrictions.
DEVELOPMENTS: It is planned to reposition the buoys marking the port entrance channel for the purpose of obtaining a minimum depth of 9.7 m. along the whole of the port access channel.
AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 23-3997, 64-4021. *Telex:* 2765. *FAX:* 69-6992, 69-7432. *Contact:* Jerry Salazar, Director General.

National Port Authority, Entrega General, Almirante, Changuinola, Bocas del Toro, Panama. *Tel:* 78-3711. *Contact:* Port Administrator.

BAHIA LAS MINAS : 09.24 N. 79.49 W. (See Plan)

LOCATION: Situated 11 km. to the East of the entrance of the Panama Canal on the North Coast.
DOCUMENTS:

2 General Declarations.
1 Clearance Certificate from last port of call.
5 Cargo Manifests, or Declaration to the effect that no cargo is carried.
4 Passenger Lists, or Declaration that no passengers are onboard.
2 Supply Lists, or Declaration that no supplies are carried.
2 Lists of Crew's Personal Effects, or Declaration that none carried.
1 Maritime Health Declaration.
2 Mail Lists or Declaration that no mail is carried.
2 Crew Lists.

PILOTAGE: Compulsory for all vessels entering the port and is offered by the Pilots of the Marine Department of the Refineria Panama S.A.

Vessels must await the Pilot beyond Buoy No. 1 painted white, with a flashing white light every 3 seconds. The best position for anchoring is near Buoy No. 1 in position Lat. 09° 25' 30" N., Long. 79° 40' 35" W. where there is a depth of 63 ft. to 66 ft.

Vessels wishing to enter the port may call up the Port Authority on VHF Channel 12 or Refineria Panama on VHF Channel 16.

The Pilot craft has a black hull and white superstructure. When weather conditions are bad, a tug is used for boarding vessels.

The boarding ladder is placed in accordance with conditions of the sea.

Vessels may also ask for a Pilot via their Agents who will communicate the request to Refineria Panama. In this case, they must give an ETA 12 hours in advance.

RESTRICTIONS: The Port of Bahia Las Minas is mainly an oil port, specialised in importing crude oil and exporting refined products, being operated from an oil aspect by Refineria Panama S.A., and administered by the National Port Authority.

Apart from the tanker quays, there is a small quay for handling general cargo, length 90 m. This quay is administered and operated by the National Port Authority. The access channel to the port has a width varying from 300 m. in its widest part to 100 m. in its narrowest part, and a minimum depth of 40 ft. at the tanker quays. However, the general cargo quay can only take vessels of up to 23 draft. Tidal variation in this port is less than 1 ft., and so there are no restrictions for entry and leaving relating to tides.

MAX. SIZE: The port can be used by vessels up to 240 m. LOA at its tanker installations and their draft may not exceed 40 ft.

The general cargo quay can be used by vessels up to 152 m. LOA and 23 ft. draft. However, restrictions in vessels' lengths vary when the quay is used by Ro/Ro vessels which tie up by the bow or the stern, and in this case vessels up to 600 ft. length are permitted.

HEALTH: When a vessel arrives it must hoist the yellow flag of the International Signalling Code. Free Pratique will be granted by the Reception Commission after handing over of documents (See "Documents"). In the case of illness on board, this must be communicated to the vessel's Agent so that he may pass on the information to the Authorities. The vessel may not moor or carry out any operations until the doctor has come on board and verified that the illness does not constitute any danger.

RADIO: Vessels may communicate via the coastal station of the Panama Canal. Generally speaking, the same ships' agencies operating in the Canal are those who represent vessels arriving at Bahia Las Minas.

VHF: The Port Authority has VHF equipment at Colon which operates 24 hours a day on Channels 12 and 16.

For calls to the Port Authority, Channel 12 must be used. Refineria Panama also has VHF radio equipment and calls must be made via Channel 16.

RADAR: There is no radar service.

TUGS: Refineria Panama S.A. supplies this service to vessels which may require it. There are 4 tugs available. Generally, tugs work at the bow and stern of the ship, and lines must be fixed by the vessel's crew.

BERTHING:

Quay	*Length*	*Depth (Average low tide)*
Tanker quay	140 m.	40 ft.
2 lighter quays (refined products)	75 m. each	20 ft.
General cargo quay	90 m.	23 ft.

CRANES: There is no cargo handling equipment on the general cargo quay. All unloading must be by ship's gear.

SPECIAL CARGO FACILITIES: The dry cargo quay is used by Ro/Ro vessels making regular trips between Miami and Panama. The port offers unloading and loading services to these vessels.

The oil quays have special equipment for unloading and loading oil and its derivates.

STEVEDORES: These are provided by the Colon Port Workers' Union, and must be contracted by the ship's Agent. Working hours: 0700 – 1500 hrs. and 1700 – 0100 hrs.
MEDICAL: Hospital available in the town of Colon 15 minutes from the port.
DENSITY: 1.0212 grams per cu.cm. at 85°F.
FRESH WATER: Available.
FUEL: Pipe-lines are available at all oil quays, but no such facility is available at the general cargo quay.
CONSULS: Denmark, Finland. Norway, South Africa, Sweden, U.K.,
REPAIRS: Refineria Panama S.A. has a machine shop for minor repairs.
PROVISIONS: These can be obtained in the town of Colon via local suppliers, the Agent making the necessary arrangements.
REPATRIATION: This can be done without difficulty via the Immigration offices.
AIRPORT: There is a small runway at Colon. At Panama, 90 km. from Colon, is Tocumen Airport, which is an international airport, served by the main world airlines.
TIME: Local time is GMT minus 5 hours.
HOLIDAYS: 1st January, 9th January, Mardi Gras, 1st May, 11th October, 2nd and 3rd November, 4th November, 8th and 25th December.
POLICE/AMBULANCE/FIRE: Available in Colon. Refineria Panama has a small fire brigade, and also in the town of Colon, 15 km. away, there is a fire brigade.
TELEPHONE: None available for connection to vessels. Available in the Port Authority offices. Tel: 42-1658.
SERVICES: No special services offered. In the ports of the Canal it is possible to have compass adjustments, laundry, chemicals, etc.
SHORE LEAVE: No restrictions; but due to the distance between the port and Colon, a taxi service must be used.

SHIPMASTER'S REPORT: November 1989.
Chart: B.A. Chart No. 1300.
Documents:

2 copies Crew Manifest.
2 copies Stores List.
6 copies Crew List.
6 copies Cargo Manifest.

Officials: Port officials boarded the vessel one hour after berthing, due to local holiday. All formalities were carried out quickly.

Pilotage: The pilot boards at the Fairway Buoy from a launch with a black hull and white superstructure. The pilot office is near the root of the South tanker jetty and can be contacted on VHF Channel 16, working on Channels 10, 12 and 14.

Approaches: The port is 5 miles to the West of Cristobal and is identifiable by the silver coloured tanks on the shore and ships anchored off the port.

Buoys: See plan of Bahia Las Minas on B.A. Chart No. 1300.

The following changes were observed:

A. Buoy No. 1 is painted white and has been reclassified as the Fairway Buoy.
B. Buoy No. 3 has been renumbered No. 1 – the light and colour are as charted.
C. Buoy No. 5 has been renumbered No. 3 – the light and colour are as charted.
D. Buoy No. 7 has been renumbered No. 5 – the light and colour are as charted.
E. Buoy No. 9 has been renumbered No. 7 – the light and colour are as charted.
F. Buoy No. 11 has been renumbered No. 7B – the light and colour are as charted.
G. Buoy No. 10 has been repositioned in position Lat. 09° 23.85' N., Long. 49° 21' W.
H. There is a new buoy, No. 7A, Fl.W. (painted black) in position Lat. 09° 23.7' N., Long. 79° 49.0' W.

All other buoys are as charted.

Anchorages: The anchorages are in the vicinity of the Fairway Buoy in a depth of 10 fathoms. there is a small ground swell running.

Tugs: There are 3 U.S. type tugs available and one small tug. The small tug is quite suitable for small vessels. The tugs tie up alongside in the standard "U.S. method".

Berthing: There are 2 tanker berths, one barge dock and one dry cargo berth available. The tanker berths are standard "T" type jetties with mooring dolphins at each end and are connected to the shore by catwalks. Both berths are orientated 163°/343°. The original (South) jetty has a 24 m. straight face with large vertical wooden fendering. The platform is about 5 m. above chart datum. This berth handles all products, including the LPG and small crude tankers.

The newer berth, which was constructed in about 1977, is 0.25 miles North of the original berth. Crude oil imports only are handled at this berth by a 16 in. Chicksan arm.

There are currents running at the berth after heavy rain when the outflow from the Alejandro River has an effect. This also causes silting at the berth. In the dry season there is little or no current running.

The pilot advises with the maximum draft is 39 ft. and the depth alongside 45 ft. We found the least depth in the channel at chart datum to be 40 ft., except off the Southern tanker berth where 31 ft. was found in position Lat. 09° 23.6' N., Long. 79° 49.05' W.

The depth alongside the Southern tanker jetty was found to be 44 ft. at chart datum. The tidal range was about 1.5 ft. The maximum size vessel that can be accepted at the berth is 750 ft. LOA and 100 ft. beam.

Vessels berth port side alongside with the bow to seaward. Small vessels use 2 head lines and 2 stern lines and one spring forward and aft.

Oil pollution booms were sited but were not used.

The shore gangway (bridal type) is available at the South berth.

Cargo Operations: Only ambient Butane is received into the Horton Sphere and 5 horizontal cylinders. The total capacity is 20,000 bbls. The maximum shore back pressure is 100 p.s.i. (7 Bar). We pumped at our maximum rate of 700 bbls./hr. The hoses which were connected and disconnected by shore personnel are 4 in. – 300 ASA (liquid and vapour).

The Surveyor boards the vessel after the vessel is cleared inwards. Samples are taken and cargo operations cannot commence until analysis has been completed.

Fuel: Bunkers are available at both berths and by barge, which is owned by the refinery, at the anchorage. IFO is also available on the North berth.

At the time of our visit bunkers were not available at Cristobal, either alongside or at the inner anchorage, this was however only a temporary restriction.

Fresh Water: Available at the South Tanker Pier.

General: It is about 5 miles to Colon/Cristobal and the taxi charge is U.S.$5.0. It is possible to telephone for a taxi from the dock office.

U.S. Dollars are the only currency used and are obtainable from the agent with prior notice.

The local radio station is "Intelmar Panama". A good VHF service is in operation but is expensive and long delays with connections can be expected.

AUTHORITY: National Port Authority, P.O.Box 8062, Panama 7, Republic of Panama. *Tel:* 23-3997, 64-4021. *Telex:* 2765. *FAX:* 69-6992, 69-7432. *Contact:* Jerry Salazar, Director General.

National Port Authority, Bahia Las Minas, Colon, Republic of Panama. *Tel:* 42-1658, 47-9181. *Contact:* Port Administrator.

BALBOA: 08.58 N. 79.34 W. (See Plan)

(N.B. For items not listed below, see "Panama Canal".)

DOCUMENTS: See "Panama Canal".

PILOTAGE: Pilotage in the Port of Balboa is compulsory, and is effected by Pilots of the Canal Commission.

Vessels arriving for the purpose of using the port area in order to make use of a port facility must also pay for the pilotage service, which will be requested by the Agent.

Vessels of 65 ft. or less do not require a Pilot.

When due to "force majeure" a vessel may have to enter the waters of the port area, this may be done without using a Pilot.

With regard to pilotage, furthermore, the vessel must comply with the 4 points in the Notice to Shipping which appear under the heading "Pilotage" in the port of Cristobal.

Also see "Cristobal".

ANCHORAGES: Vessels must anchor in the various allocated areas for the port.

(a) *Anchorage for Merchant Vessels:*

This area is limited by the following co-ordinates:
Lat. 8° 51' 50" North, Long. 79° 30' 00" West
Lat. 8° 54' 30" North, Long. 79° 30' 46" West
Lat. 8° 54' 46" North, Long. 79° 30' 00" West
Lat. 8° 53' 26" North, Long. 79° 31' 22" West
and continuing out to sea.

(b) *Prohibited Anchorage Area:*

This is limited by the following co-ordinates:
Lat. 8° 51' 50" North, Long. 79° 30' 00" West
Lat. 8° 52' 47" North, Long. 79° 31' 38" West
Lat. 8° 52' 58" North, Long. 79° 32' 31" West
Lat. 8° 54' 15" North, Long. 79° 33' 36" West
Lat. 8° 55' 12" North, Long. 79° 32' 25" West
Lat. 8° 54' 17" North, Long. 79° 30' 52" West
Lat. 8° 53' 26" North, Long. 79° 31' 22" West
and from here to the initial point.

(c) *Anchorage Area for Vessels Carrying Explosives:*

This area is defined by the following co-ordinates:
Lat. 8° 52' 47" North, Long. 79° 31' 38" West
Lat. 8° 51' 52" North, Long. 79° 31' 38" West
Lat. 8° 51' 52" North, Long. 79° 33' 00" West
Lat. 8° 52' 36" North, Long. 79° 32' 31" West
and from here to the initial point.

RESTRICTIONS: Port open throughout 24 hours.

MAX. SIZE: Harbour limitations generally unrestricted as to length and beam. Depth about 40 ft. low water. Vessels in excess of 38 ft. 6 in. draft not handled during period 2.5 hours before and 2 hours after low water. Average tide 3.97 m. (13 ft.).

Tankers working cargo restricted to 700 ft. length and 36 ft. salt water draft.

Berth No.	*Max.Draft** (m.)	*Max.LOA* (m.)
6 A	8.3	213
7 A	9.2	259
7 B	9.0	
8	8.3	162
14 A + B	9.6	236
15 A	10.1	305
15 B	9.4	305
15 C	9.2	305
16 B	9.1	183
18 A	9.75	152
18 B	8.1	152
18 C	11.1	152
18 D	9.3	137
18 E	7.8	58

* Max. draft with 0.9 m. U.K.C.

VHF: Vessels must make contact with the Port Entry Coordinator via VHF Channel 12. Commercial telephone calls and messages to Agents must be made via Panama Radio or Intel Mar Radio on VHF Channel 16.

TUGS: Available and assigned for berthing by Pilot. Tug's lines used at no extra charge.

BERTHING: No specific requirements as to arrival times. Nine berths available.

(Pleasure yachts, under 65 ft. length, may be permitted to dock at Panama Canal Yacht Club or Balboa Yacht Club after clearance by Boarding Officer and after Master has received permission from Port Captain, Customs Authorities and Yacht Club Officials concerned. Chief Customs Inspector shall have authority to grant or deny such permission at his discretion.)

Rodman Naval Station: Piers can accommodate vessels of 700 ft. length and up to 39 ft. draft for oil discharge, bunkers or stores.

NPA Dock:

Berth No.	*Length* (m.)	*Average Depth at MLWS* (m.)	*Use*
6 A	226	9.2	Passenger/Bunkering.
7 A	322	10.1	Breakbulk, Chemicals,
7 B		9.9	Passenger, Bunkering.
8	143	9.2	Shipyard
14 A + B	236	10.5	Container, Breakbulk (ship's gear only), Bunkers.
15 A	349	11.0	Containers, Bunkering.
15 B		10.3	
15 C		10.1	
16 A	226	10.4	Container, Breakbulk (ship's gear only), Bunkers.
16 B		10.0	
18 A	152	10.65	General Cargo, Bunkering.
18 B	152	9.0	Tuna Fishing Vessels, Bunkering.
18 C	152	12.0	General Cargo, Passenger and Bunkering.
18 D	152	10.2	
18 E	61	8.7	Tuna Fishing Vessels and Bunkering.

STEVEDORES: In Balboa there are 7 ship gangs and 4 shore gangs, who are available every day of the year, 24 hours a day.

Endeavour to arrange arrival to avoid cost of "stand by" as Agent arranges gangs for 0700 hrs. or 1700 hrs. commencement. Working Hours: 0700 –1500 hrs., 1700 – 0100 hrs. Overtime possible between 1500 – 1700 hrs. and 0100 – 0700 hrs.

CARGO HANDLING EQUIPMENT: The Port of Balboa has various equipment for handling cargo. To handle general cargo and containers, there are cranes with capacities of 2, 4, 10, 15, 30 and 40 tons, chassis, internal lorries, tractors of the agricultural towing type, roller platforms. Bulk cargo handling is by conveyors and suction pumps.

CRANES: Dock 15 has a container crane with 32.5 tons capacity. The crane is owned by the National Port Authority. Mobile cranes of 10 tonnes and 18 tonnes available.

The Dry Dock Department has 4 cranes: A "D-4", steam crane, with max. capacity of 50 tons, and a "D-19" diesel electric crane with max. capacity of 30 tons. These 2 cranes run on rails alongside Dry Dock No. 1, and along Docks 8 and 13, also providing service to Docks 2 and 3.

Apart from cranes "D-4" and "D-19", the Dry Dock Department has two petrol-electric portable cranes with max. 5 ton capacity.

MEDICAL: Medical attention on arrival at the port of Balboa can be immediate, since there is a First Aid Clinic with a doctor and nurse on duty by day. At night there is a nurse on duty.

TANKERS: Max. draft 36 ft. (Under certain conditions 40 ft. draft can be accommodated). Tankers receive preferential treatment at Dock 6, and at Quays 1, 2 and 3 of the Rodman Naval Station.

DENSITY: The density of the water in the anchorages in the Port of Balboa is 1.01219 gm./cu.m., at a temperature of 85°F (63.87 lbs./cu.ft. at 85°F).

FRESH WATER: Available at Docks 6, 7, 14, 15, 16 and 18.

FUEL: Bunker "C", marine diesel, petrol, light diesel, paraffin, HDO, LDO and FO are available at Quays 6, 7, 14, 15, 16, 17 and 18. At some of these quays, only certain of the mentioned products are available.

Rate of discharge of fuel is 2,000 – 4,000 bbls./p.h. Crew members are required to connect and disconnect fuel lines on board vessels. The vessel provides the accessories for necessary coupling adjustment to U.S. standard of 4 in. and 6 in. 150 lb. flanges.

A bunkering area has been established in the Pacific Anchorage.

REPAIRS: Emergency repairs possible. The most current repairs are: Machinery in general, welding, different kinds of painting, hull cleaning and sand blasting.

International Repair Services S.A., Balboa. Tel: (507) 69-5834, 69-5097, 69-5201. Telex: 2515, 3415. Fax: 69-5679.

INREPSA represents Alaska Diesel Electric Inc., Lugger Marine Engines (60 h.p. – 1,300 h.p.) and Northern Lights Marine Generators (5 kW – 75 kW), and services/repairs this equipment on board vessels transiting the Panama Canal.

DRY DOCK: There are 3 docks, of which the main one is Dry Dock No. 1 (60,000 d.w.t.). Characteristics of Dock Nos. 1, 2 and 3 are:

Dry Dock	*Total Length* (m.)	*Width* (m.)	*Depth Max.* (m.)	*Depth Av.* (m.)	*Depth Min.* (m.)
No. 1	318.21	33.59	12.77	8.88	8.35
No. 2	111.56	28.04	8.05	4.09	3.62
No. 3	71.73	14.94	5.76	1.87	1.31

AIRPORT: Tocument International Airport is located 32 km. (approx.) by road. This airport has flights to different parts of the world.

POLICE/AMBULANCE/FIRE: All quays have special connections for water to be used in fire-fighting.

The telephone numbers of the departments of police, ambulance and fire brigade which are nearest to the port are:

Police	Tel: 104
Ambulance	64-3871 (Social Security)
Hospital Santo Tomas	25-1436
Red Cross	28-2786 and 28-2787
Fire Brigade	52-2592 (Balboa)

TELEPHONES: Telephone services can be installed on board by arrangement between the Master and the Port Administrator.

SHORE LEAVE: Generally permitted, landing card required.

CUSTOMS: Customs and Immigration Inspection Service available Monday to Saturday from 0700 to 1700 hrs. Charges for such service after hours and on Sundays and holidays. Number of Inspectors required will be determined by Chief Customs and Immigration Inspector of port.

GARBAGE DISPOSAL: There is a daily collection service from 0600 to 1400 hrs., when needed, by the local sanitation department (DIMA). Tanks of 4, 6, 8 cu.yd. are provided alongside the vessel at a cost of $ 3.50/cu.yd. DIMA's Tel: 32-5918.

WASTE OIL DISPOSAL: Collection service is performed by Environmental Protection Services, using two barges, one of 90,500 gals. capacity and the other of 136,000 gals. capacity, or a 8,000 gals. tanker truck, or a 3,000 gals. vacuum truck. Barging fee is $ 1,000 plus a minimum of 2,000 gals. at $ 0.20/gal. of oily water and $ 0.42/gal. for sludge. The trucking fee is $ 250.00/trip. Contact: EPS. Tel: 63-9533. Fax: 63-9493/9495.

SEAMAN'S CLUBS: None.

CURRENCY: Panamanian Balboa ($). U.S.$ 1.00 = $ 1.00.

DELAYS: Delays in berthing, load or discharge or bunkering are minimal and infrequent. Eight hours is considered excessive.

AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 69-5442, 32-5574. *Telex:* 2765. *FAX:* 32567. *Contact:* Jerry Salazar, Director General; Jose A. Reyes, Director of Operations. Mariano Sosa, Port Administrator. Angel M. Solano, Deputy Administrator.

Balboa Port Administrator. *Tel:* 32-5442.

AGENT: C. Fernie & Co., S.A. Apartado (P.O.Box) 212, Balboa, Ancon, Republic of Panama. Cable Address: "Fernie Balboa". Telephone Nos.: 262-1372, 262-2018, 262-2019 or 262-2021. After office hours telephone numbers: 250-0030 or 230-0823. VHF: Standby Channels 16 and 12.

All communications should be directed to Cristobal, Republic of Panama.

CHIRIQUI GRANDE: 08.56 N. 82.07 W. (See Plan)

LOCATION: Petroterminal de Panama S.A. (PTP) general cargo and transhipment terminal is located in the Laguna de Chiriqui, West of the town of Chiriqui Grande, in position Lat. 08° 56' N., Long. 82° 07' W., on the North coast of the Republic of Panama.

DOCUMENTS: The following documents are required for entry and clearance:

2 copies General Declaration.
1 copy Clearance from Previous Port.
5 copies Cargo Manifest or Declaration that no cargo is carried.
3 copies Crew List.
4 copies Passenger List or Declaration that no passengers are carried.
2 copies Stores List or Declaration that there are no supplies.
2 copies Crew Personal Effects Declaration.
1 copy Maritime Health Declaration.
2 copies Mail List.
1 copy Bill of Lading.

APPROACHES: The Terminal is approached from a N.E. direction between the Valiente Peninsula and Cayo de Agua through the Canal del Tigre. Depth in channel 120 ft.

PILOTAGE: Compulsory. Berthing Master boards in position Lat. 09° 12' N., Long. 81° 59' W. If at the SBM, Berthing Master remains on board throughout loading operations. ETA should be advised at least 72 hours prior to arrival.

ANCHORAGES: Vessels may anchor on the coastal shelf outside the lagoon. Suggested anchorage location in area Lat. 09° 12' N., Long. 82° 00' W., where the mud bottom provides good holding ground. At the Master's option, the vessel may proceed to the lagoon anchorage. Vessels inbound are requested to make a VHF traffic call before entering the channel, and give priority to vessels outbound. The area to the East of the SBM is probably the most convenient area for anchoring. The bottom of the lagoon is reported to be soft mud. Vessels should keep at least 2 miles clear of SBM if at anchorage. Suggested anchorage location between Lat. 08° 59' N. and Lat. 09° 00' N., Long. 82° 00' W. and Long. 82° 04' W.

MAX. SIZE: At the SBM, tankers up to a maximum of 150,000 d.w.t. have used these facilities. At the pier, vessels up to 600 ft. in length with a draft of 36 ft. can be accommodated.

HEALTH: In accordance with standard international practice, ships are required to display international code signals for vessels requiring Free Pratique, and these should be displayed until Pratique has been granted. Note: The Autoridad Portuaria Nacional (APN) permits employees of PTP to board vessels (before the ship receives Free Pratique) for the purpose of setting loading hoses. Discharge of ballast may commence in case of a vessel with ballast. Loading or unloading of cargo is not permitted. Employees of PTP are not permitted in ship's accommodation areas before clearance.

RADIO: *ETA:* All communications should be in local time. ETA should be received at least 72 hours prior to arrival, and any variation of more than 4 hours should be advised.

ETA should be sent via ship's Agent, who will notify the Terminal.

The ETA cables should include the following:

1. Name of vessel.
2. ETA Chiriqui Grande.
3. Draft on arrival, fore and aft.
4. For unloading vessels: Bill of Lading and/or Cargo Manifest.
5. Any condition which will affect loading or unloading operations.
6. Bunker and/or water request, if any.

Notice of Readiness: Notice of Readiness is considered to be received by the Terminal if either:

1. Vessel tenders the Notice of Readiness to load or unload upon arrival at the pilot station.
2. When a berth is not available and a vessel elects not to close the port, it may tender its Notice of Readiness at a distance of 15 miles from the Terminal. In this case, Notice is considered received at this time *plus 2 hours.*

Nothing in these rules will interfere with any business arrangements made by PTP and the user in respect of lay-time, demurrage, and other contractual obligations.

VHF: Vessels approaching the Terminal should establish VHF communication as soon as they are within range (about 50 miles).

The Terminal keeps a listening watch on Channel 16; call sign "Rambala Control". Vessels which have to lay-off the Terminal should maintain a listening watch on Channel 16.

The Terminal also uses Channels 11, 13 and 14.

The Terminal line handling boats are also equipped with Channels 11, 13 and 14.

The Terminal radio monitors Channels 11, 13, 14 and 16 at all times.

Frequency Allocation:

Channel	*Use*
13	Cargo handling only.
14	Pilots and boats working channel.
(11)	(Alternative channel for cargo).
16	Call-up channel. All vessels at anchor maintain a listening watch.

Always identify calling vessel and station being called.

Communication with Agents: Vessels may contact their Agents by using Channel 16 (using the bridge set) and shifting to a working channel other than No. 11, 13 or 14.

Do not use the cargo radio for any ship's business, except cargo operations.

Communications while at Berth: The Terminal will provide a portable radio for the use of the vessel's Person-in-Charge of loading or unloading operations.

The Person-in-Charge must maintain the radio in his possession at all times, and it must not be changed to any other channel unless instructed to do so by "Rambala Control".

The dock-hand is equipped with a portable radio on the cargo working channel.

A third radio is permanently installed in the dock shed.

All communications are conducted in English.

TUGS: Not available.

BERTHING: Two single buoy moorings capable of accommodating tankers up to 150,000 d.w.t in a depth of 72 ft., and a general cargo pier 600 ft. in length with a draft of 36 ft. Supplementing the berths, there are 3 conical tanks on shore for the reception of products, 184,500 cu.ft. of transit shed storage space, and approximately 17 acres dedicated to container handling. All vessels, their Owners or Agents, desiring a window for berth, shall as far in advance of date of docking as possible, make application to port, specifying date of docking, sailing, nature and quantity of cargo to be handled, and name of the vessel (Also see "Radio").

Petroterminal – Berth Description:

	SBM (North and South)	*Pier **
Maximum vessel size:	150,000 d.w.t.	90,000 d.w.t.
Type of berth:	SBM	Fixed loading platform.
Deck level of berth:	–	10 ft.
Maximum draft:	72 ft.	36 ft.
Hoses (number and size):	2×20 in. with 12 in. adaptors.	–
Maximum rate loading:	48,000 bbls./hr.	
Maximum ship manifold pressure:	Not to exceed 275 psi.	–
Emergency shut-down:	Can be initiated by shore operator or by Control Room. Shut-down complete within 15 seconds after initiation.	See "Safety".
Access to ship:	By launches.	–
Potable water:	Not available.	Limited.
Bunker facilities:	Not available.	Limited.

* These facilities will be in service starting January 1997.

BALLAST: When alongside, ballast should be handled by type, as per international convention, as follows:

Segregated: All ballast in segregated ballast tanks should be visually inspected prior to discharge. After inspection, segregated ballast may be discharged overboard according to standard shipboard procedure.

Dedicated Clean: All ballast in dedicated clean ballast tanks should be visually inspected prior to discharge. After inspection, dedicated clean ballast tanks may be discharged overboard in accordance with IMO Regulations.

Treated: Ballast water which has been chemically treated (with detergents, emulsifiers, etc.) must be retained on board.

Ballasting: Before ballasting, the cargo lines shall be drained back into cargo tank. Ballast pumps shall be started before sea valves are opened.

MEDICAL: Doctor wil only board vessel in case of emergency. There are limited medical and dental services available. Treatment should, when possible, be arranged via ship's Agent in advance.

DENSITY: Offshore salinity is 1025. Salinity (specific gravity), due to river run-off, is about 1010 close to the shore during the rainy season (November through March). During this period, substantial changes may occur. Sea temperature varies between 80°F and 83°F.

FRESH WATER: Fresh water can be supplied at the shore pier. Prior notice is requested. Cost per connection $25.00. Water $2.50 per metric ton.

FUEL: Bunkers and diesel can be supplied to vessels via the jetty connections only at the shore pier. Tariff according to PTP list of prices.

SURVEYORS: *Inspection:* This will be carried out by inspectors appointed by the user (SGS Redwood, Saybolt, Caleb Brett, etc.).

TIME: GMT minus 5 hours (Daylight saving time is not observed).

SAFETY: Whilst petroleum loading/discharging operations are being carried out, no other cargo will be handled at the SBMs without permission of the Terminal Representative. Explosives and hazardous or highly inflammable commodities or materials may be handled over, or received on the Terminal facilities by special arrangements with and only at the option of PTP.

No welding, cutting, etc., is permitted on any vessel in the Terminal. Blowing or cleaning of boiler tubes in vicinity of the Terminal is prohibited.

Smoking Regulations: Smoking is prohibited in the following locations:

1. Entire Terminal area.
2. Aboard launches.
3. At the pier and in motor vehicles inside the Terminal, except inside designated buildings.
4. On tankers, except in places designated by the Master and agreed by the Terminal Representative, in accordance with IOTTSG, two locations only will be established in the after end of the vessel.

Note: If an oil spill occurs at the SBM or ship, all smoking will be prohibited until the spill has been removed.

Emergency Procedures: For cases of fire on vessel, in addition to the normal ship's alarms, Masters are requested to sound a prolonged blast on the main whistle of not less than 10 seconds duration. If the vessel is loading or unloading, it should:

1. Immediately cease operations.
2. Initiate firefighting procedures.
3. Be prepared to unberth at short notice.

If loading cargo, the Terminal will, on hearing the signal, immediately stop all operations and:

(i) Initiate firefighting procedures from jetty.
(ii) Put Terminal emergency plan into effect.
(iii) Disconnect hoses (if at the SBM).
(iv) Order launches to vessel and make preparation for unberthing.

Vessels at the berth should also cease operations and be prepared to put to sea.

SHIP SUPPLY SERVICE: Launches are available to assist with transportation of stores and crew, on an emergency basis only.

SHORE LEAVE: *Launch Service:* The launches at the Terminal are intended for Terminal use only. They may be hired by prior notice, depending on operational requirements. Crew members and visitors use the launches at their own risk.

Shore Leave: Shore leave is permitted by the local authorities. Crew members should check in at the Customs Gatehouse leaving and returning to the Terminal area. Masters should take reasonable steps to ensure no alcoholic drinks, drugs, etc., are supplied or conveyed to any unauthorised person.

GENERAL:

Charts and Publications: Charts Ref. USHO 28042 and 28041. British Admiralty 1793.

Sailing Directions: USHO Publication 144 – Sailing directions for Caribbean Sea; British Admiralty Pilot.

Tides: The maximum tidal range is 2.1 ft. The mean range is 0.8 ft. The tidal flow in the Lagoon is weak.

Currents: Cross currents of varying velocity have been observed entering Canal del Tigre. At the offshore anchorage, prevailing currents are predicted to be from the E.N.E.

Weather Conditions at Chiriqui Grande:

(A) Wind: The seasonal normal wind regime occurring at the lagoon is as follows:

1. November-March: Wind speed greater than 19 m.p.h. occurs 20.4% of the time in February. The predominant directions are from North and N.E. (72.2% occurrence in February). This is the primary windy season. February is the windiest month.
2. April-June; Wind speeds exceed 19 m.p.h. 3.3% of the time in June. The predominant wind directions are North, N.E. and East (58.3% occurrence in June). This season is the secondary calm season.
3. July-August: Wind speeds exceed 19 m.p.h. 8.8% of the time in July. The predominant directions are North, N.E. and East (71.2% occurrence in July). This season is the secondary windy season.
4. September-October: Wind speeds exceed 19 m.p.h. 2.3% of the time in October. Predominant wind directions are North and N.E. (28.4% occurrence in October), and South and S.W. (27.6% occurrence in October). This season is the primary calm season.

(B) Waves: The seasonal wave height is:

1. November-March: Significant wave height exceed 1.9 ft. 36.2% of the time in February at Location 1. North and N.E. wave directions predominate, occurring 72.2% of the time in February. This is the roughest season. February is the roughest month.
2. April-June: Significant wave height exceed 1.9 ft. 7.8% of the time in June. North, N.E. and East wave directions predominate, occurring 58.3% of the time in June. This is the secondary calm season.
3. July-August: Significant wave height exceeds 1.9 ft. 19.7% of the time in July. North, N.E. and East wave directions predominate, occurring 71.2% of the time in July. This is the secondary rough season.
4. September-October: Significant wave height exceeds 1.9 ft. 3.9% of the time in October. North and N.E. wave directions occur 28.4% of the time, and South wave directions occur 14.6% of the time in October. This is the primary calm season.

Flag: Every vessel shall fly her national flag and the flag of the Republic of Panama between sunrise and sunset.

Rubbish: The dumping of trash and other garbage is prohibited. Any trash or garbage so dumped will be removed, and the expenses involved for the vessel's acount.

AUTHORITY: Petroterminal de Panama, S.A., Apartado 8-169, Panama 8, Republic of Panama. *Tel:* (507) 263-7293, (507) 263-7469, (507) 263-7777. *FAX:* (507) 263-9949. *Contact:* Louis Roquebert, General Manager.

Chiriqui Grande: *Tel:* (507) 757-9676. *FAX:* (507) 775-3087, (507) 775-4958.

AGENT: Fernie (Puerto Armuelles) S.A. VHF: Standby Channel 16. See "Puerto Armuelles".

COCO SOLO NORTH: 09.22 N. 79.53 W. (See Plan)

LOCATION: The port is located on the Atlantic Coast in Manzanillo Bay, 2 miles N.E. of Colon.

DOCUMENTS: See "Bahia Las Minas".

PILOTAGE: Private Pilot available.

ANCHORAGES: See "Panama Canal".

MAX. SIZE: Max. LOA 140 m., max. draft 5.0 m.

BERTHING:

Pier No.	*Length* (m.)	*Depth** (m.)	*Use*
1 A	175	7.0	General and Timber
1 B	175	9.0	Containers
1 C	175	7.0	Timber
2 A	150	6.0	General Cargo
2 B	150	6.0	General Cargo
3 A	150	6.0	General Cargo
3 B	150	6.0	General Cargo
4 A	120	6.0	Vehicles and Containers
4 B	160	9.0	Vehicles and Containers

* Depths given are for a distance of 10.0 m. from pier.

FRESH WATER: Available at Piers No. 1 and 4.

FUEL: Available at all piers.

SERVICES: Pilotage, tugs, launch service, bunker supply, ship chandlers, repairs, etc., all available from private companies.

AUTHORITY: National Port Authority, P.O.Box 8062, Panama, Republic of Panama. *Tel:* 23-3997, 64-4021. *FAX:* 69-6992, 64-7432. *Contact:* Jerry Salazar, Director General.

COLON: 09.21 N. 79.55 W. (See Plan)

LOCATION: Located in the Bay of Limon, the port of Colon constitutes Quay No. 3 in the area of Fort Lesseps.

DOCUMENTS: The same documents are required and the same procedures are followed as at Bahia Las Minas.

PILOTAGE: No pilotage service at Colon. Vessels berth and unmoor under the orders of their Masters.

RESTRICTIONS: The port is restricted to vessels of length not greater than 100 m. due to the size of the quays. Draft at the berths varies from 2.6 m. to 6.1 m., which also restricts the size of vessels.

Aids to Navigation: The port entrance channel has no aids of its own for navigation. Maritime accesses are however marked clearly by the Panama Canal Commission.

HEALTH: Same as Bahia Las Minas.

RADIO: Vessels can communicate with the Port Administration on Channel 12 VHF.

TUGS: None at Quay No. 3, but they may be contracted in the Canal.

BERTHING:

Berth	*Length*	*Depth (average low tide)*
Quay 2	75 m.	4.9 m.
Quay 3	58 m.	2.05 m.

MEDICAL: In the town of Colon.

STEVEDORES: All loading and unloading operations are carried out by the Union of Port Workers of Colon. The ship's Agent must make the necessary arrangements.

CRANES: None.

DENSITY: 1.0212 grams cu.cm. at 85°F.

FRESH WATER: Available.

FUEL: Available at the quay by pipeline. Also Refineria Panama supplies fuel in the Bay of Colon by means of lighters.

CONSULS: Denmark, Finland, Norway, Sweden, U.K.

PROVISIONS: Available in Colon.

TIME: GMT minus 5 hours.

POLICE/AMBULANCE/FIRE: Available in Colon.

TELEPHONE: Available in the offices of the National Port Authority. Tel: 47-9181.

GENERAL:

Shelter: All the quays are protected from the sea by the breakwater which protects the canal entrance in the Atlantic sector.

General Description: The Port of Colon (Quay No. 3) is used by small vessels of length not greater than 100 m. engaged in coasting trade between Colon and Bocas del Toro, and international trade between Colombia and Panama.

Port Maritime Access: The Colon port access is the same as that which leads to the port of Cristobal in the Canal.

Nature of Bottom: Soft mud and clay.

AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 23-3997, 64-4021. *Telex:* 2765. *FAX:* 69-6992, 69-7432. *Contact:* Jerry Salazar, Director General.

CRISTOBAL: 09.21 N. 79.55 W. (See Plan)

(N.B. For items not listed, see "Panama Canal".)

PORT LIMITS: Ship's arrival time is normally determined by their passage between the breakwater lights. Those that anchor outside the breakwater by arrangement with the Port Captain are timed as arrived when they drop anchor.

DOCUMENTS:

(a) Documents are to be presented by vessels in transit; who do not embark or disembark passengers; or handle cargo, to the Canal Commission.

General Declaration Form: 2 copies
Crew List: 3 copies
List of Passengers: 2 copies
Local Cargo Manifest: 1 copy
Stores or Supply List: 1 copy
Mail List: 1 copy
Clearance Outwards Certificate from last port visited: 2 copies

(b) Documents which vessels must present when they embark or disembark passengers, or handle cargo, to the National Port Authority.

General Declaration Form: 2 copies
Local Cargo Manifest: 4 copies
Crew List: 3 Copies
List of Passengers: 4 copies
Stores or Supply List: 2 copies
Crew Effects List: 2 copies
Maritime Health Declaration: 1 copy
Mail List: 1 copy

PILOTAGE (Also see "Panama Canal"): Pilotage into Cristobal not compulsory, although services of Pilot outside breakwater are available on request.

Vessels arriving outside Cristobal Breakwater who have requested an outside Pilot are required to *heave to and make a good lee.*

A pilot ladder rigged with appropriate spreaders and well illuminated at night to be provided by vessel. Accommodation ladders not acceptable for embarking Pilots outside breakwater.

Notice to Shipping:

1. A vessel shall, weather permitting, have both an accommodation ladder and a pilot ladder rigged and ready for use upon arrival in Canal Waters.
2. The pilot ladder shall conform to Regulations of the International Convention for the Safety of Life at Sea (SOLAS) and to all additional recommendations of the International Maritime Organisation (IMO).
3. The accommodation ladder may be turned in and secured after the Pilot has boarded the vessel in the anchorage, provided the freeboard does not exceed 9 m. (30 ft.). If the freeboard exceeds 9 m., the accommodation ladder may not be turned in until the last Panama Canal employee boards prior to arrival at the locks.
4. A pilot hoist may be used provided the design and construction of the hoist and ancillary equipment are of such a standard as to ensure an effective and safe means of embarkation and disembarkation. The pilot hoist should only be used when:
   (a) A conventional pilot ladder is rigged and ready for immediate use but triced up well clear of the hoist;
   (b) A lifeline attached to a safety stop and a lifebuoy fitted with a self-igniting light are ready for immediate use.

ANCHORAGES: Vessels will ordinarily proceed to anchorage area according to length and draft unless otherwise directed. Arriving vessels expected to anchor as far to South and inward from main channel in their anchorage area as is consistent with safety. Vessels anchoring in non-designated areas may be required to move.

Anchorage Area "A". For all ships with a deep salt-water draft of not less than 10.4 m.(34 ft.) and not in excess of 11.9 m. (39 ft.). Minimum charted depth is 42 ft. MLW.

This area starting at	Lat. 9° 23' 21" N.,	Long. 79° 55' 21" W.,
thence to	Lat. 9° 22' 48" N.,	Long. 79° 56' 15" W.,
thence to	Lat. 9° 22' 14" N.,	Long. 79° 56' 15" W.,
thence to	Lat. 9° 21' 56" N.,	Long. 79° 55' 48" W.,
thence to	Lat. 9° 21' 25" N.,	Long. 79° 55' 48" W.,
thence to	Lat. 9° 21' 25" N.,	Long. 79° 55' 21" W.,

thence due North to starting-point. However, restricted area North and West of Buoy 2, as charted, must be observed. Explosive sector charted in this area to be avoided whenever possible.

Anchorage Area "B". For all ships with salt-water draft under 9.7 m. (32 ft.) Minimum depth is 32 ft. MLW. Explosive sector restricted to vessels carrying explosives or specially designated vessels. All ships of such length are under no circumstances swing into Anchorage Area "A".

This area starting at	Lat. 9° 22' 48" N.,	Long. 79° 56' 15" W.,
thence to	Lat. 9° 22' 32" N.,	Long. 79° 56' 41" W.,
thence to	Lat. 9° 21' 42" N.,	Long. 79° 56' 41" W.,
thence to	Lat. 9° 21' 52" N.,	Long. 79° 56' 00" W.,
thence to	Lat. 9° 21' 25" N.,	Long. 79° 56' 00" W.,
thence to	Lat. 9° 21' 25" N.,	Long. 79° 55' 48" W.,
thence to	Lat. 9° 21' 56" N.,	Long. 79° 55' 48" W.,
thence to	Lat. 9° 22' 14" N.,	Long. 79° 56' 15" W.,

thence due North to starting-point.

Anchorage Area "C". Required pilotage waters for inbound vessels. Minimum depth 42 ft. MLW.

This area starting at	Lat. 9° 21' 25" N.,	Long. 79° 55' 21" W.,
thence to	Lat. 9° 21' 25" N.,	Long. 79° 56' 00" W.,
thence to	Lat. 9° 20' 48" N.,	Long. 79° 55' 57" W.,
thence to	Lat. 9° 20' 27" N.,	Long. 79° 55' 27" W.,

thence due North to starting-point. Restricted area East and South of Buoy 2, as charted, must be observed.

Anchorage Area "D". For all ships of over 106.7 m. (350 ft.) in length. Minimum depth 35 ft. MLW.

This area starting at	Lat. 9° 23' 19" N.,	Long. 79° 55' 15" W.,
thence to	Lat. 9° 22' 55" N.,	Long. 79° 54' 21" W.,
thence to	Lat. 9° 22' 22" N.,	Long. 79° 54' 21" W.,
thence to	Lat. 9° 22' 02" N.,	Long. 79° 54' 55" W.,
thence to	Lat. 9° 22' 02" N.,	Long. 79° 55' 15" W.,

thence due North to starting-point.

Anchorage Area "E". For all ships less than 106.7 m. (350 ft.) and small craft. Minimum charted depth of water is 7.3 m. (24 ft.)

This area starting at	Lat. 9° 22' 55" N.,	Long. 79° 54' 21" W.,
thence to	Lat. 9° 22' 27" N.,	Long. 79° 53' 54" W.,
thence to	Lat. 9° 22' 22" N.,	Long. 79° 53' 54" W.,
thence to	Lat. 9° 22' 22" N.,	Long. 79° 54' 21" W.,

thence due North to starting-point.

Anchorage Area "F". For small craft and yachts. Pilotage for this area will be decided by Cristobal Port Captain, based on merit of each individual case. Under no circumstances may a vessel proceed to this area prior to being cleared by Boarding Officials. (Bounded by Channel Buoy "3" by a direct line through Buoys "A," "B," "C," "L4," "L2" and return to Buoy "3".)

Outer Anchorage Area. Established N.W. of Cristobal breakwater has the following co-ordinates: Commencing at Lat. 09° 23' 14" N., Long. 79° 55' 21" W. (West breakwater light); thence to Lat. 09° 24' 40" N., Long. 79° 56' 00" W. (Buoy "A", whistle sea buoy); thence to Lat. 09° 24' 40" N., Long. 79° 57' 00" W.; thence to Lat. 09° 23' 14" N., Long. 79° 57' 00" W.; thence due East to starting point.

During periods of harbour congestion, large, deep-draft vessels and/or any vessel so directed may anchor outside the breakwater in the approved area. Such vessels must advise Cristobal Signal Station, by VHF Channel 12, the time of passing sea buoy, in order to establish order of transit. Masters will be given a definite time to enter the breakwater, where the vessel will be met by transit Pilot(s) and Boarding Officials.

Vessels must strictly adhere to the breakwater entry times as given, in order that transit schedule can be maintained.

Prohibited Anchorage. Eastern side of channel, Canal waters South of Lat. 9° 22' 02" N. to Mole Buoy in order to give clear access to Colon Harbour. Also, no vessel or craft may proceed South of Lat. 9° 21' 25" N. prior to being cleared by Boarding Officials. No vessel may anchor with any part of the vessel in the main channel or closer than 274 m. (900 ft.) to either East or West breakwater lights.

In cases due to harbour congestion, any vessel may be directed to anchor to Westward outside breakwater entrance and given an order as to the time it is to pass through the breakwater entrance.

RESTRICTIONS: Port open throughout 24 hours.

MAX. SIZE: Harbour limitations generally unrestricted as to length and beam. Draft 12.2 m. (40 ft.).

HEALTH: The Official who comes on board has to verify that the vessel complies with the requirements of the Republic of Panama as far as International Health, Animal and Agricultural Health, Migration and Customs are concerned. If there is any violation, non-fulfilment or omission in respect of any of the International or National requirements concerning human, agricultural health and Customs, the granting of Free Pratique will be suspended until the Competent Authority has been informed and has finally decided as to whether or not Free Pratique can be granted. Also, the respective Authority has to inform the authorities of the circumstances, evidence or a reasonable indication that on board the vessel there is danger to human, animal and vegetable life.

RADIO/VHF: The Port Captain (Port Entry Coordinator) may be contacted via VHF Channel 12. Commercial telephone calls and messages to Agents may be made via Panama Radio, VHF Channel 16.

TUGS: Available and assigned for berthing by Pilot. Tug's lines used at no extra charge.

BERTHING: No specific requirements as to arrival times. Fifteen cargo and bunkering berths. No limitation on beam.

Dock	*Berth*	*Usable Length* (m.)	*Depth M.L.W.* (m.)	*Max. Lgth. of Ship at Max. Draft* (m.)	*Total Lgth. Avail. of Dock Face* (m.)	*Remarks*
6	AB	314.0	12.2		314.0	FO, HDO, Water, General Cargo, 20 ft. Containers
6	B		10.4			
6	CD	314.0	13.0		314.0	FO, HDO, Water, General Cargo, 20 ft. Containers
7	AB	298.0	13.4		298.0	FO, HDO, Water, General Cargo, 20 ft./40 ft. Containers
7	B		13.0			
7	CD	304.8	12.2		304.8	FO, HDO, Water
7	E	76	11.2		73.2	Water
8	AB	302.0	12.8		301.7	FO, HDO, Water, General Cargo
8	B		10.7			
8	CD	308.0	12.8		307.8	FO, HDO, Water, General Cargo
9	AB	325.0	11.8		325.5	Gasoline, DO, FO, Water, Containers
9	B		10.5			
10		129.0	9.8	183.0	129.0	FO, HDO, Gasoline, Water, General Cargo and Containers.
16	AB	326.0	13.7		326.1	FO, Water, Gasoil, Gasoline
16	CD	326.0	12.9		326.1	FO, HDO, LDO, Water, Gasoil, Gasoline (no Gasoil at 16D), Clinker, Cars
16	E	140.0	9.8	91.4	139.6	Water, Gasoil, Gasoline, Diesel, Clinker, Cars

STEVEDORES: Endeavour arrange arrival to avoid cost of "stand-by" as Agent arranges gangs for 0700 hrs. or 1700 hrs. commencement.

CARGO HANDLING EQUIPMENT: The Port has all kinds of equipment for handling cargo arriving at the quays.

To handle container and other types of cargo, there are 2×40 ton gantry cranes, dock lorries, chassis, forklift trucks of varying capacities (4, 8, 10, 15, 30, 35, 40 tons), agricultural type towing tractors, rolling platforms, and other smaller aids.

CRANES: The only crane in the port is at the pier end of Quay No.8 at Berth A. It has a steel arm capable of lifting 40 tons to a height of 90 ft.

MEDICAL: Medical attention on arriving in the Port of Cristobal can be immediate, since the port contains a first aid clinic in which a doctor and a nurse are present during the day, and a nurse at night. In the town of Colon there are hospitals and private clinics.

TANKERS: Four berths available.

FRESH WATER: Available from piers.

FUEL: Bunker "C", diesel, light fuel and light diesel available at Government wharves from commercial companies. Rate of delivery 2,000 bbls. per hour.

The Southern part of Anchorage C, Cristobal Harbour, has been designated a limited bunkering area for vessels whose draft is too great to use the East breakwater bunkering area.

Pilotage is compulsory out and into this area for vessels and bunkering barges.

Also see "Balboa".

REPAIRS: Emergency repairs possible.

DRY DOCK: (Not available for commercial activities). Length 117.6 m. (386 ft.), breadth 18.3 m. (60 ft.), depth over blocks 6.2 m. (20 ft. 6 in.) MLW.

POLICE/AMBULANCE/FIRE: Police 104, Fire 103.

TELEPHONES: May be placed aboard through arrangement with Agent.

SHORE LEAVE: Generally permitted.

CUSTOMS: Customs and Immigration Inspection Service available Monday to Saturday from 0700 hrs. to 1700 hrs. Charges for such service after hours and on Sundays and holidays. Number of inspectors required will be determined by Chief Customs and Immigration Inspector of port.

DELAYS: Delays in berthing, load or discharge or bunkering are minimal and infrequent. 8 hours is considered excessive.

AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 23-3997, 64-4021. *Telex:* 2765. *FAX:* 69-6992, 69-7432. *Contact:* Jerry Salazar, Director General.

Cristobal Port Administrator: *Tel:* 41-4848 (Ext. 112).

AGENT: C. Fernie & Co., S.A. Apartado (P.O.Box) 5042, Cristobal, Republic of Panama. Tel: 245-1133 (7 lines). After Hours Tel: 442-4770, 441-4246, 445-2278, 442-3100. Telex: 8520, 8542, 8814 or 9211. Fax: 441-4168, 441-7508, 445-1724. Cable Address: "Fernie Cristobal". VHF: Standby Channels 12 and 16.

PANAMA CANAL (entering Cristobal or Balboa)

(See Plan)

§ Indicates Panama Canal – Code of Federal Regulations Number (Title 35).

REGULATIONS: The following are some of the important Canal Regulations.

§101.1 Signal Stations at the Canal entrances:

The Panama Canal Commission maintains established signal stations at both the Atlantic and Pacific entrances of the Canal. A vessel arriving at the Canal must communicate with the signal station which is located at the entrance of the Canal at which that vessel arrives. Vessels required to be equipped with a radiotelephone pursuant to Part 123 of this subchapter must, upon arrival, communicate with the appropriate signal station on Channel 12, 156.600 MHz. All other vessels may use International Code and flashing light. Such stations are also utilised to assist and coordinate vessel movements within the Pacific and Atlantic Anchorages.

5. The cross reference which follows *§101.1* is revised as follows:

Cross Reference: See Part 123 for provisions respecting radio communication by vessels prior to arrival and while they are in Panama Canal waters.

§101.2 Boarding of arriving vessels:

(a) Unless otherwise directed, all arriving vessels will anchor in designated anchorages to await Boarding Officers. No person other than Boarding Officers of the Panama Canal Commission and the Republic of Panama may go on board or leave any vessel until such vessel has been entered by the Commission and, where applicable, by the Republic of Panama.

(b) Arriving vessels that are subject to inspection for compliance with Panama Canal shipping and navigation regulations will normally be boarded upon arrival inside the breakwater at the Atlantic entrance of the Canal or off the seaward end of the dredged, marked channel at the Pacific entrance. When such vessels are not boarded immediately upon arrival, they shall anchor in a designated anchorage area and await the Boarding Official. Weather and sea conditions permitting, the boarding of vessels may take place outside of these areas. Boarding will be performed by a Commission Boarding Official in accordance with the procedures established under this part.

(c) Admeasurement functions shall be performed on arriving vessels either while at anchor or during transit.

§101.3 Definitions and functions of the Boarding Officer:

(a) Boarding Officer means any official or employee of the Panama Canal Commission who is duly assigned the functions of a Boarding Officer, including admeasurement and sanitation.

(b) The Commission Boarding Officer shall perform the functions of admeasurer for the purpose of determining Panama Canal tolls and shall make inspection for the purpose of insuring compliance with Panama Canal shipping, navigation and sanitation regulations.

§101.4 Measurement of vessel making maiden transit:

A vessel that arrives after 2000 hrs. and is to make her maiden transit will normally be admeasured on the following day.

§103.4 Load and trim:

(a) A vessel shall not be permitted to transit the Canal if she:

(1) Has a list of more than 10 degrees; (2) Is so tender or otherwise so loaded as to dangerously affect her stability or manoeuvrability; or (3) Is so trimmed as to dangerously affect her manoeuvrability.

(b) A vessel having a list of between 3 degrees and 10 degrees, or which is so loaded or so trimmed as to adversely affect her manoeuvrability, may be permitted to transit at the discretion of the Canal Operations Captain or his designee. If such vessel is allowed to transit, however, it may do so only at its own risk and, to the extent and in the proportion that such failure to meet the requirements of this section proximately causes or contributes to a casualty and resulting damages, the Master of such vessel on behalf of said vessel, her Owners, Operators, or any other persons having any interest in her, and for himself, will be considered to have released the Panama Canal Commission and the United States from, and to have indemnified them against, any loss, damage, or liability incurred by the Commission, or the United States under or in respect to:

(1) Sections 1411 – 1416, inclusive, of Pub. L. 96 – 70, 93 Stat. 485 – 87.

(2) Property of the Panama Canal Commission or the United States;

(3) Panama Canal Commission employees under the Federal Employees' Compensation Act, 5 U.S.C. 8101, *et seq.*, or any other employee compensation system.

The Master of the vessel that fails to meet the requirements of this section may be required to execute, in the presence of a Commission official, a form undertaking to release the Panama Canal Commission and the United States from liability in case of an accident and to indemnify the Commission and the United States for any damages sustained. The failure of the Master of a vessel to sign such a form, however, will not relieve the vessel, her Owners, or any other person having an interest in her from liability incurred as a result of the vessel's failure to meet the requirements of this section.

(c) Nothing shall be done, or permitted to be done, by the Master or any member of the crew, which would alter the trim or draft of a vessel while transiting the Canal, without the prior, express approval of the Pilot.

§103.7 Temporary holding of vessels:

The Canal authorities may hold a vessel for the purpose of investigating a marine accident under Parts 115 or 117. A vessel may also be denied transit until, in the opinion of the Canal Authorities, its tenderness, trim, list, cargo, hull, machinery, and equipment have been put into such condition as will make the vessel reasonably safe for her passage through the Canal. No claim for damages shall be allowed or considered because of any such temporary holding of vessels.

§103.8 Preference in the transit schedule; Order of transiting of vessels:

(a) *General:* Except as provided in §103.9 of this part, and subject to the limitations imposed by Article III of the 1901 Treaty to Facilitate the Construction of a Ship Canal, entered into by the United States and Great Britain, and by Articles II and VI of the 1977 Treaty Concerning the Permanent Neutrality and Operation of the Panama Canal, between the United States and the Republic of Panama, vessels arriving for transit of the Canal will be placed in the transit schedule in accordance with the rules in this section.

(b) *Definitions:* As used in this section:

(1) *Booked for transit* means that a vessel has been assigned a date on which it will be moved through the Panama Canal.

(2) *Regular transit* means the movement through the Canal of a vessel that has not been booked for transit.

(c) *Transit bookings:* There will be two periods during which bookings may be made for a given date. In the first period, a limited number of bookings (not to exceed 7) will be available between 21 days and 4 days prior to the date of intended transit. In the second period, an additional number of bookings (not to exceed 9), plus any first-period bookings not taken or any bookings which have been cancelled, will be available on the third and second days prior to the date of transit. The Canal authorities may cease accepting requests for bookings during times of high traffic congestion at the Canal. If there is a loss in Canal capacity, the number of bookings available may be reduced. The specific order of transit will be determined by the Canal authorities. Except as provided herein, a vessel may not transit prior to the date for which it has been booked, unless the Canal authorities determine that an early transit would promote efficiency of the Canal and would not result in delay for any regular transits. In the event that a vessel transits prior to the date for which it is booked, the fee will be retained by the Commission. Substitution of booked transits will be permitted under conditions specified by the Canal authorities.

(d) *Preference:* If, on any day during the first period, or on either day of the second period, requests exceed the number of bookings remaining available, preference for the remaining bookings will be given in the following order:

(1) First, vessels carrying primarily perishable cargoes, in the order of frequency of transit during a specified period;

(2) Second, all other vessels in the order of frequency of booked transits during a specified period.

(3) If two or more vessels are found to have equal number of booked transits under the procedure above, then preference will be given in the order of frequency of transit during a specified period.

(4) If two or more vessels are still found to have equal number of transits under the procedures above, then preference will be given to the vessel having transited most recently.

(e) *Fees:* The fee for booking shall be $0.26 per PC/UMS. The minimum fee for any vessel is $1,500.

(f) *Penalties:* (1) When a vessel that is subject to transit restrictions (e.g. clear-cut; clear-cut daylight), has been booked for transit and does not arrive at a terminus of the Canal by 0200 hrs. of the day of the transit, the booking fee will be forfeited. Similarly, the fee will be forfeited if a booked vessel, that is not subject to such transit restrictions, does not arrive by 1300 hrs. on the day of the transit. In either case, upon arrival, the vessel will be placed in the regular transit schedule. This forfeiture will not occur if late arrival is due to humanitarian reasons or a natural event of major proportions, which is not caused by the intervention of man, and which could not be reasonably predicted in advance. The booking fee will also be forfeited if the vessel arrives on time but cannot or, at the operator's election, does not, transit as scheduled when the agency is ready to proceed. In these latter cases, the Canal authorities shall have discretion to waive the forfeiture where it is established that the delay was due to external causes that the vessel operator could not reasonable have anticipated.

(2) Failure to provide complete and accurate information on the request form may result in rejection of the booking and forfeiture of the fee.

(3) If the vessel does not begin its transit on the day for which it has been booked due to a decision by the Canal authorities, its operator thereafter, at any time prior to the day that the vessel has subsequently been scheduled to make a delayed transit, may elect to receive a refund of the fee, in which case the vessel will be listed on the regular transit schedule. In the alternative, the operator may elect to have the Commission retain the fee, in which case the vessel will be transited on a preferred basis.

(4) When a vessel booked for transit is delayed by a decision of the Canal authorities, and that delay could result in the vessel's failure to arrive on time for a subsequent transit which was booked before the delay was encountered, the vessel's Agent may, within 24 hours of completion of the delayed transit request:

(i) Change of the second booking to another date (if bookings are available on the requested date); or

(ii) Cancellation of the second booking, without charge, and inclusion in the regular schedule.

(5) A vessel will be deemed to have transited the Canal on the day for which it has been booked if it arrived at the first set of locks prior to 2400 hrs. that day and its in-transit time (ITT) is 18 hours or less. In-transit time begins when the vessel enters the first set of locks at either terminus of the Canal, and ends when the vessel departs the last set of locks at the opposite terminus. The booking fee will be refunded whenever ITT, through no fault of the vessel, exceeds 18 hours.

(g) *Cancellation:* A transit that is booked may be cancelled if notice of cancellation is received by the Canal authorities prior to the required arrival time. A charge will be assessed for such cancellations, however, in accordance with the following schedule.

Date of cancellation	*Cancellation charge (the greater of)*
Over 10 days prior to transit	20% of booking fee or $500.
10 to 7 days prior to transit	40% of booking fee or $750.
6 to 2 days prior to transit	60% of booking fee or $1,000.
1 day or less	80% of booking fee or $1,250.

Failure to cancel prior to scheduled arrival time on the date of intended transit will result in forfeiture of the booking fee.

(h) *Regular Transits:* Vessels which are not booked for transit will be dispatched through the Canal in the order determined by the Canal authorities. Priority of arrival at a terminal port does not give a vessel the right to pass through the Canal ahead of another that may arrive later; however, the time of arrival will be a consideration in fixing the order of passage. Generally, regular transits will equal or exceed one-half of the total number of vessels moved through the Canal on any given day.

(i) *Suspension:* The Canal authorities may suspend or discontinue, in whole or in part, the transit booking system established by this section if they determine that its continuation may adversely affect the safe or efficient operation of the Canal.

§103.10 Vessels required to be equipped with certain indicators:

(a) All vessels in excess of 150 ft. in length shall be equipped with properly operating rudder-angle and engine-revolution indicators in the wheelhouse so located and illuminated as to be readily visible to a Pilot.

(b) All vessels with beams in excess of 80 ft. shall be equipped with properly operating rudder-angle and engine-revolution indicators in the wheelhouse and on each bridge wing so located and illuminated as to be readily visible to a Pilot.

(c) All vessels in excess of 150 ft. in length which are equipped with variable pitch propellers shall have properly operating pitch indicators in the wheelhouse so located and illuminated as to be readily visible to a Pilot.

(d) All vessels with beams in excess of 80 ft. which are equipped with variable pitch propellers shall have properly operating pitch indicators in the wheelhouse and on each bridge wing so located and illuminated as to be readily visible to a Pilot.

(e) Any vessel which fails to meet the requirements of this section may be denied transit. If the Canal authorities decide that a vessel can be handled without undue danger to equipment or to personnel, notwithstanding her failure to comply with other requirements of this section, and permit her to transit, such vessel may do so only at its own risk and, to the extent and in the proportion that such failure to meet the requirements of this section proximately causes or contributes to a casualty and resulting damages, the Master of such vessel, on behalf of said vessel, her Owners, Operators or any other persons having any interest in her, and for himself, will be considered to have released the Panama Canal Commission and the United States from, and to have indemnified them against any loss, damage or liability incurred by Panama Canal Commission or the United States under, or in respect to:

(1) Sections 1411 – 1416, inclusive, of Pub. L. 96 – 70, 93 Stat. 485 – 87;

(2) Property of the Panama Canal Commission or the United States;

(3) Panama Canal Commission employees under the Federal Employees' Compensation Act, 5 U.S.C. 8101, *et seq.*, or any other employee compensation system.

The Master of the vessel that fails to meet the requirements of this section may be required to execute, in the presence of a Commission official, a form undertaking to release the Panama Canal Commission and the United States from liability in case of an accident and to indemnify the Commission and the United States for damages sustained. The failure of the Master of a vessel to sign such a form, however, will not relieve the vessel, her Owners, or any other person having an interest in her from liability incurred as a result of vessel's failure to meet the requirements of this section.

§103.27 Clear view forward from the bridge and steering light requirement for certain vessels:

(a) A vessel may not be navigated in Canal waters unless there is a clear, unobstructed view from the bridge.

(b) All vessels over 100 m. (328 ft.) in length shall have installed at or near the stem, a steering range equipped with a fixed blue light which shall be clearly visible from the bridge along the centerline. If said range and light so placed would be partially or completely obstructed, then two such ranges and lights must be installed at an equal distance from the centerline and shall be clearly visible from the bridge along lines parallel to the keel.

(c) Naval or military vessels exempted from the requirements of Part 111 of this chapter shall also be exempt from the requirements of paragraphs (b), (d) and (e) of this section.

(d) The light required by this section shall be capable of being illuminated and extinguished by a suitable control switch located either on the navigation bridge or on the forecastle deck, or both.

(e) The use of this steering light shall be at the discretion of the Panama Canal pilot who has control of the navigation and movement of the vessel.

§109.5 Ship's gear to be ready during transit; test:

Before beginning transit of the Canal, a vessel shall have hawsers, lines and fenders ready for passing through the locks, for warping, towing, or mooring as the case may be; and shall have both anchors ready for letting go. The Master shall assure himself, by actual test, of the readiness of the vessel's main engines, steering gear, engine room telegraphs, whistle, rudder-angle and engine-revolution indicators, and anchors. During the transit, at all times while a vessel is underway or moored against the lock walls, her deck winches, capstans, and other power equipment for handling lines, as well as her mooring bitts, chocks, cleats, hawse pipes, etc., shall be ready for handling the vessel, to the exclusion of all other work.

DOCUMENTS: *§101.10* (a) *Documents for Commission Boarding Officer.* All documents listed below shall be ready for immediate delivery to the Boarding Officer when he boards the vessel upon each arrival of the vessel at the Canal.

Documents Required:

1. Ship's Information and Quarantine Declaration (Panama Canal Form 4398) – 1 copy.
2. Cargo Declaration (Panama Canal Form 4363) – 1 copy.*
3. Crew List (Panama Canal Form 1509) – 1 copy.
4. Passenger List (Panama Canal Form 20) 1 copy.
5. Dangerous Cargo Manifest – 1 copy.†
6. Loading Plan – 1 copy.‡
7. Panama Canal Tonnage UMS Net Certificate – 1 copy.*
8. Ship's Plans (general arrangement, capacity, mid-ship, etc.) – 1 copy.*

*Required only if vessel transits Canal.

†Required only if vessel is carrying packaged, dangerous goods.

‡Required only if vessel is carrying dangerous cargo in bulk.

(b) *Documents for Examination Only.* The following documents shall be available for inspection by the Commission Boarding Officer:

1. Ship's log,
2. All ship's documents pertaining to cargo, classification, construction, load lines, equipment, safety, sanitation, and tonnage,
3. SOLAS Certificate, for ships carrying dangerous cargo in bulk,
4. An International Oil Pollution Certificate, for ships carrying dangerous cargo in bulk, and
5. Certificate showing compliance with the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW), if the nation of registry has implemented the conventions standards. If the nation of registry has not implemented the STCW convention, then certifications issued or accepted by the registry nation attesting to the qualifications of officers and crew will be accepted by the agency. Certification requirements will apply only to officers and crew responsible for the safe handling of the vessel.

(c) *Crew List.* For the purposes of additional identification of crew members, the Crew List required by this section shall include for each seaman the serial number of his certificate of identification, continuous Discharge Book, Passport or other satisfactory identifying documentation. In addition, the given name and middle initial, as well as the family name, shall be shown for all seamen.

(d) *Passenger List.* The Passenger List required by this section shall be in accurate and legible form and shall be delivered to the boarding officer. The list shall show passengers in alphabetical order.

(e) *Dangerous Cargo Manifest.* The Dangerous Cargo Manifest for vessels carrying packaged dangerous goods, as defined in *§113.2*(m) see below, of this title, shall show the correct technical name, United Nations number, International Maritime Organisation class, storage location, and quantity for each packaged dangerous goods carried as cargo.

(f) *Loading Plan.* The Loading Plan for vessels carrying dangerous cargoes in bulk, as defined in *§113.2*(f) see below, of this title, shall show the location of cargo tanks or holds and the correct technical name, United Nations number, International Maritime Organisation class, and quantity of dangerous cargo carried in each cargo tank or hold.

§113.2(f) "*Dangerous Cargo in Bulk*" means any dangerous substance, carried without any intermediate form of containment, in a tank or cargo space which is a structural part of a vessel or in a tank permanently fixed in or on a vessel.

(m) "*Packaged Dangerous Goods*" means any dangerous cargo contained in a receptacle, portable tank, freight container or vehicle. The term includes an empty receptacle, portable tank or tank vehicle which has previously been used for the carriage of a dangerous substance unless such receptacle or tank has been cleaned and dried, or when the nature of the former contents permits transport with safety.

Documents Required for Maiden Transit:

Please Provide the Following for Panama Canal Admeasurer:

1. National Register.
2. Panama Canal Tonnage Certificate.
3. Suez Canal Tonnage Certificate (if available).
4. International Load Line Certificate.
5. 1969 International Tonnage Certificate and Calculations.
6. General Arrangement Plan.
7. Capacity Plan.
8. Engine Room Plans.
9. Midship Section Plan.
10. Tank Sounding Tables for L.O. & F.O. tanks.
11. Lines Plan.

PILOTAGE: *§105.4 Pilotage Charges:* Pilotage for vessels in transit through the Canal is free, but whenever any vessel requires a Pilot for other than transit, it is liable for the applicable pilotage charge.

§105.5 Pilotage Beyond Atlantic Breakwater

Should a vessel desire a Pilot to meet it outside the Atlantic breakwaters, such vessel shall remain there and make signal to that effect.

§105.6 Status and Function of Pilot

The Pilot assigned to a vessel shall have control of the navigation and movement of such vessel.

§105.1 Pilots Required

(a) Except as provided by *§105.2* and *§105.3*, or by paragraph (c) of this section, no vessel shall pass through, enter or leave the Canal or manoeuvre in the Canal or waters adjacent thereto, including the ports of Cristobal and Balboa, without having a Panama Canal Pilot on board.

(b) Normally, a vessel will, unless advised to the contrary by the Canal Operations Captain or his designee, be boarded by the Panama Canal Pilot inside the breakwater at a point North of the Mole Beacon at the Atlantic entrance and in the Merchant Vessel Anchorage to seaward of Buoys 1 and 2 at the Pacific entrance.

(c) In conformity with past practice, vessels anchored in Anchorage Area C and Anchorage Area F, as shown in the Pilot Handbook, Limon Bay Chart, may proceed to sea without a Panama Canal Pilot on board. All such vessels, prior to getting underway, must obtain permission to depart from the Cristobal Signal Station.

(d) Whenever the Administrator finds there is a critical shortage of Certified Panama Canal Pilots available for movement of vessels in Canal waters, he may suspend the rule on compulsory pilotage set out in paragraph (a) of this section. The Administrator shall impose such conditions upon the suspension of the rule, with respect to any given vessel, as are reasonable and appropriate to protect human life and property and to safeguard the facilities of the Panama Canal.

§103.19 Requirements for Pilot Platforms and Shelters on Certain Vessels

(a) Suitable platforms and shelters, port and starboard, must be provided by certain vessels for assisting pilots. Vessels with extreme beam of 30.48 m. (100 ft.) or more and a length of 190.5 m. (625 ft.) overall or more, may require more than 2 pilots when transitting the locks of the Panama Canal:

(1) Vessels with the bridge in the extreme afterpart of the vessel (assisting pilot and platforms will be forward).

(2) Vessels with the bridge in the extreme forepart of the vessel (assisting pilot and platform will be aft).

(b) Platforms must afford shelter suitable to protect assisting pilots from rain and sun. A sketch of a simplified pilot platform acceptable to the Panama Canal Commission can be seen in the "Plan Section".

(c) Each platform is to be erected directly over the furthest point forward of the extreme beam at the waterline, and not more than 6 in. inboard from the outside of the vertical plane of the shell plating. For vessels where the bridge is located forward, these pilot platform shelters will be required to be erected directly over that position, which is the furthest point aft of the extreme beam at the waterline, and not more than 6 in. inboard from the outside surface of the vertical plane of the shell plating.

(d) In addition, all vessels whose extreme beam is 24.38 m. (80 ft.) or more, are required to provide bridgewing shelter platforms for the protection of control pilots. A sketch of a bridgewing shelter platform acceptable to the Panama Canal Commission can be seen in the "Plan Section". Alternate arrangements, including portable shelters, which provide equivalent or better protection and visibility, may be acceptable.

(e) The awning indicated in the "Plan Section" is to be made of suitable material to provide shelter from the sun and rain. The deck of the pilot's platform is to be made of wood or other material with non-skid surface, sufficient to provide dry footing at all times. Overhead awing should be rigged to avoid spilling water inside the framework of the shelter during rain.

(f) Further inquiries on this subject should be directed to the Canal Operations Captain.

§103.18 Pilot Ladders, Hoists and Side Ports

(a) A vessel shall, weather permitting, have both an accommodation ladder and a pilot ladder rigged and ready for use upon arrival in Canal waters.

(b) The pilot ladder shall be constructed and rigged in accordance with Regulation 17, Chapter V, International Convention for Safety of Life at Sea, 1974, TIAS 9700, except that;

(c) When the distance from the water line to the point of access of the vessel exceeds 9 m. or 30 ft., a combination pilot ladder and short brow accommodation ladder must be provided for boarding purposes.

(d) A mechanical pilot hoist may be used for Boarding Officials and Pilots only at their discretion, and provided that the design and construction of the hoist and ancillary equipment are in accordance with Regulation 17, Chapter V, International Convention for Safety of Life at Sea, 1974.

(e) When a mechanical pilot hoist is used, a ring buoy fitted with a lifeline and self-igniting light shall be available and ready for immediate use. The pilot ladder required by *§103.18* (a) shall be in close proximity to the pilot hoist, ready for immediate use but lashed up so as not to interfere with the pilot hoist.

(f) When the side ports are used for boarding, the minimum vertical distance between the waterline and the bottom of the side port at any draft shall be 6 ft.

ANCHORAGES: No vessel shall anchor within the navigable waters of the Canal in other than a designated anchorage, except in an emergency, and no craft shall tie up to any aid-to-navigation in Canal waters.

§ 101.8 Vessel Anchorage Areas

The following areas are designated as authorised anchorages within Canal waters.

(a) *Atlantic Entrance.* – (1) *Merchant-Vessel Anchorage:* An area to the West of the Canal channel bounded as follows: Starting at a point "A", located in position 9° 21' 25" N., 79° 55' 31" W., and marked by lighted Buoy No. 2, thence 900 yards 270° True to a point "B" located in position 9° 21' 25" N., 79° 55' 58" W., thence to lighted Buoy "I", thence to lighted Buoy "H", thence due North to a point "C" located in position 9° 22' 07" N., 79° 56' 41" W., thence 2,800 yards 59° True to a point "D" located in position 9° 22' 50" N., 79° 55' 29" W., and thence to the starting point. The line extending due West from the Cristobal Mole through lighted Beacon No. 1 and lighted Buoy No. 2 (9° 21' 25" N.) marks the southern limit of the anchorage area. Except as provided by *§105.3*, no vessel shall pass this line without having been passed by the boarding officer and without having a Canal Pilot on board.

(2) *Outside Explosive Anchorage.* An area bounded by a line from Point A at position 9° 23' 53" N., 79° 56' 29" W. thence to Point B at position 9° 24' 40" N., 79° 56' 29" W. thence to Point C at position 9° 24' 40" N., 79° 57' 00" W. thence to Point D at position 9° 23' 53" N., 79° 57' 00" W. thence to Point A.

(3) *Inside Explosive Anchorage.* The area included in a rectangle 1,000 yards wide immediately South of the West breakwater, the rectangle extending 2,000 yards along the West breakwater from a point on the West breakwater 1,000 yards from the West breakwater light.

(4) *Small-Craft Anchorage.* An area to the East of the Canal channel bounded as follows: Starting at Buoy "A", a flashing amber Buoy located in position 9° 20' 43" N., 79° 55' 10" W., thence 1,075 yards 066° True, through fixed amber lighted Buoy "B" to fixed amber lighted Buoy "C", thence 375 yards 143° True, thence 1,760 yards 233° True to the East prism of the Canal channel, thence due North 410 yards to flashing special anchorage Buoy "3", thence 525 yards 023° True to the starting point at Buoy "A".

(b) *Gatun Lake Anchorage:* An area immediately East of the Canal channel line, bounded by a line extending from the South end of the East wing-wall of Gatun Locks, thence 450 yards 120° True, thence 676 yards 146° True to flashing special anchorage Buoy "A", thence 1,415 yards 078° True to flashing special anchorage Buoy "1", thence 1,199 yards 155° True to flashing special anchorage Buoy "3", thence 2,314 yards 225° True through special anchorage Buoy "5" to special anchorage Buoy "7", thence 901 yards 220° True to special anchorage Buoy "9", thence 952 yards 205° True to the Canal channel line at flashing Buoy "11", the channel prism line being the Westerly boundary line of the anchorage area.

(c) *Pacific Entrance* – (1) *Merchant-Vessel Anchorage:* An area bounded as follows: Beginning at a point in position 8° 51' 50" N., 79° 30' 00" W., marked by a lighted, whistle buoy which is painted with alternating black and white vertical stripes and which shows short-long flashing white light every 8 seconds, (i.e. light 0.4 seconds, eclipse 0.4 seconds, light 1.6 seconds, eclipse 5.6 seconds), thence due East to Long. 79° 28' 00" W.; thence due North to 8° 54' 31" N., thence due West toward Flamenco Island Light to a point 8° 54' 31" N., 79° 30' 46" W.; thence Southwestward touching the Northwest corner of San Jose Rock to position 8° 53' 27" N., 79° 31' 23" W., marked by canal-entrance lighted Buoy No. 2, thence Southwestward to the point of beginning.

(2) *Explosive Anchorage.* An area South of Naos Island bounded on the East by a line drawn South (True) from canal-entrance lighted Buoy No. 1; on the South by a line drawn East (True) from Tortolita Island, and in the North and West by the curve of 30 ft. depth.

(d) If there are any discrepancies between the designated anchorage areas as described in this section and the anchorage areas described in paragraph 4 of Annex A of the Agreement in implementation of Article III of the Panama Canal Treaty of 1977 and the attachments thereto, the description in the treaty documents shall govern.

Also see "Cristobal" and "Balboa".

MAX. SIZE/RESTRICTIONS:

§103.6 Size and Draft Limitations of Vessels

Panama Canal Commission:

Marine Director's Notice to Shipping No. N-1-96 (Dated 1st January 1996) corrected to Revision No. 2, dated 12th July 1996.

To: Steamship Agents, Owners, Operator

Subject: Vessel Requirements

Editor's Note: Not all subjects have been included, so the full text of this notice should be obtained from your Owner, Operator or Agent.

Purpose and Scope:

The purpose of this document is to inform the shipping community of the procedures and amplifications found necessary to implement the Panama Canal Regulations published in Title 35, Code of Federal Regulations (35 CFR). *Non-compliance with Canal rules and regulations may subject vessels to unnecessary delays or denial to transit.* Deviations from these rules may be ordered by appropriate Canal authority if special circumstances so warrant.

Effective Date and Cancellation:

(a) This notice cancels Marine Director's Notice to Shipping No. N-1-95, and N-1-95, Rev. 1, and is effective on the date of issue. Par. 2.b(1) was changed for clarification. Par. 2.f(12) was added. Paras. 5.g, 5.h, 9.a, 10.c(3)(c) and 12.f(4) were also modified.

(b) A revised notice will be issued in January of each year or when otherwise required.

Organisation and Responsibility:

(a) The Marine Bureau (Telephone 272-4500, Fax: 272-3892) under the direction of the Marine Director is the organisational unit of the Panama Canal Commission responsible for the control of maritime traffic through the Canal and its terminal ports, and through which all Commission services to shipping are handled. Following is a summary of Marine Bureau units which, due to their function, often require contact with Agents, Operators and Owners:

  (1) Admeasurement Division (Tel: 272-4567, Fax: 272-7901) headed by the Director of Admeasurement, is responsible for ascertaining the correct Panama Canal tonnage of vessels transiting the Canal, boarding and clearing of vessels for medical surveillance, gathering information for the Ship Data Bank and generating billing invoices for transits and related services.

  (2) Board of Local Inspectors (Tel: 272-3403, Fax: 272-3548) headed by the Chairman, Board of Local Inspectors, is responsible for the official inquiry and examination into the circumstances surrounding marine accidents which occur in the Canal operating area, harbours, Canal anchorages and areas adjacent thereto, involving Commission personnel and/or equipment, and the certification of marine credentials of Commission employees.

  (3) Canal Operations Unit (Tel: 272-4211, Fax: 272-7688) headed by the Canal Operations Captain, is responsible for the immediate direction of daily maritime operations, maritime emergency reaction and recovery, supervision and enforcement of rules and regulations governing the navigation of the Canal, approval of new construction including chocks and bitts, boarding facilities, wheelhouse design features and visibility requirements and for ensuring that vessels arriving for transit are properly equipped. The Canal Operations Captain's responsibilities are exercised through the Duty Operations Captain and the Canal Port Captain.

  (4) Marine Safety Unit (Tel: 272-4243, Fax: 272-3015) headed by the Special Assistant to the Director for Marine Safety, is responsible for matters involving the safety aspects of vessel traffic flow and control, vessel material conditions and inspections, hazardous cargo, Canal physical conditions, marine personnel qualification, marine environmental protection and industrial health, and certification of Commission floating equipment.

  (5) Traffic Management Division (Tel: 272-4220, Fax: 272-3976) headed by the Chief, Traffic Management Division, is responsible for processing ETA information, preparation of the daily transit schedule, monitoring and coordinating all vessel movements within Canal operating areas and administration of the Panama Canal Transit Booking System.

(b) Transit of vessels is a joint effort. In addition to the responsibilities outlined above, vessel Owners, Operators, Agents, officers and crew are responsible for compliance with Canal rules and regulations. The cooperation of all concerned parties is necessary to ensure safe and efficient transit.

Communications: Direct communications with Marine Bureau units may be established by the following means:

(a) Mail – address to:	Panama Canal Commission (Name of Division) Unit 2300 APO AA 34011 U.S.A.
(b) Telex – address to:	(Name of Unit) 3023 PCCMTCC PG
(c) Fax:	(Name of Unit) (Fax number listed above by unit)
(d) Telephone:	(Telephone number listed above by unit)
(e) International access code (for fax and telephone):	(507)

Vessel Requirements

1. Definitions

(a) *Barge:* A flat-bottomed vessel of full body and heavy construction without installed means of propulsion.

(b) *Commercial Vessel:* A self-propelled vessel other than a naval, military or other public vessel.

(c) *Dangerous Cargo:* Any material which is explosive, flammable, radioactive or toxic to humans or the environment.

(d) *Integrated Tug-Barge Combination:* A barge that is specifically configured to receive a tug and with the tug becomes, for navigational purposes, a single self-propelled unit with normal ship characteristics, that meets all PCC regulations for transit, and can operate under all conditions in which a ship of equivalent size can operate.

(e) *Maximum Authorised Transit Draft:* Deepest point of immersion in TFW of a particular vessel permitted at anytime, Gatun Lake level and Canal restrictions permitting.

(f) *Maximum Authorised Draft:* Lesser of the maximum authorised transit draft or the maximum tropical fresh water draft by Load Line Certificate.

(g) *Maximum Beam:* The maximum breadth (width) of the hull between the outside surfaces of the shell plating.

(h) *Maximum Length:* The distance between the forward and after extremities of a vessel, including the bulbous bow and protrusions (also length overall – LOA).

(i) *Maximum Width:* The extreme width of a vessel, including protrusions, at its widest point.

(j) *Non-Self-Propelled Vessel:* A vessel which either does not have an installed means of propulsion, or has an installed means of propulsion which is not functioning during transit. Also referred to as dead tow.

(k) *Protrusion:* Anything that extends beyond any portion of the hull of a vessel, whether it is permanent or temporary.

(l) *Published TFW Maximum Draft:* Deepest point of immersion in Gatun Lake waters as promulgated by the Marine Director, taking into account the water level of Gatun Lake and other limitations deemed necessary because of restrictions in the Canal.

(m) *Tropical Fresh Water (TFW):* Tropical fresh water of Gatun Lake, density 0.9954 gms./cc. at 29.4°C (85°F) (Transition to fresh water frequently alters the trim of large vessels 7.5 cm. to 10 cm. (3 in. to 4 in.) by the head).

2. Size and Draft Limitations of Vessels

(a) *Maximum Length:*

  (1) The maximum length overall including bulbous bow for commercial or non-commercial vessels acceptable for regular transit is 289.56 m. (950 ft.), except passenger and container ships which may be 294.13 m. (965 ft.) in overall length. Vessels transiting the Canal for the first time at an overall length exceeding 274.32 m. (900 ft.), whether newly-constructed or newly-modified, are subject to the requirements of inspection and prior review and approval of vessel plans. Vessels not receiving advance approval and/or not complying with Canal requirements, may be denied transit.

  (2) The maximum length for integrated tug-barge combination acceptable for regular transit is 274.32 m. (900 ft.) overall, including the tug. A tug-barge combination must transit together as one unit with the tug supplying the propelling power.

  (3) The maximum aggregate overall length for non-self-propelled vessels acceptable for transit is 259.08 m. (850 ft.), including accompanying tugs. Accompanying tugs must lock through with the non-self-propelled vessel. One-time only transits, that exceed these limitations, may be permitted on a case-by-case basis with prior approval of the Canal Operations Captain and subject to requirements listed in paragraph 2(k) of this section.

(b) *Maximum Beam:*

  (1) The maximum beam for commercial or non-commercial vessels and the integrated tug-barge combination acceptable for regular transit measured at the outer surface of the shell plating is 32.31 m. (106 ft.).

  (2) Wider commercial vessels including integrated tug-barge combination up to a beam of 32.61 m. (107 ft.) may be permitted, with prior approval of the Canal Operations Captain or his designee, to transit on a one-time delivery basis only if the deepest point of immersion does not exceed 11.28 m. (37 ft.) TFW.

  (3) The maximum beam for non-self-propelled vessels (other than integrated tug-barge combinations) acceptable for transit is 30.48 m. (100 ft.). One-time transit of wider vessels may be permitted with prior approval of the Canal Operations Captain and subject to requirements listed in paragraph 2.(k) of this section.

(c) *Maximum Width:*

  (1) No vessel with a maximum width exceeding its maximum beam may transit the Canal without prior review and approval of vessel plans. Vessels not receiving advance approval and/or not complying with Canal requirements, may be denied transit.

  (2) Vessels which carry cargo within 2.5 cm. (1 in.) or less of the extreme beam must have approved provisions, such as rubbing bands, to protect the cargo, should the vessel rest alongside the wall while in the chamber. The maximum beam of 32.31 m. (106 ft.) should not be exceeded by the cargo protection method. This is brought about by the large number of container vessels which are designed to load containers virtually to the extreme beam. If the ship lands on the wall in a heeled condition or where the locks' wall fendering, or the miter gate fendering protrudes, damage may occur.

(d) *Protrusions:*

  (1) Anything which extends beyond a vessel's hull shall be considered a protrusion and subject to all applicable laws and limitations.

  (2) The Commission is not responsible for damages to protrusions whether permanent or temporary.

(3) Vessels with protrusions may be permitted to transit, provided that such protrusions will not interfere with the safe transit of the vessel, or present a hazard to Canal structures as determined by the Canal Operations Captain. In either case, before transit is permitted, Masters of vessels will be required to execute a form undertaking to release the Panama Canal Commission from liability in case of accident and to indemnify the Commission for damages sustained to or as a result of protrusion.

(4) Vessels with permanent protrusions must, prior to proceeding to the Canal, furnish detailed information about the protrusion(s), including plans, and request authorisation for transit. Advance information will minimise the possibility that transit may be delayed or denied. For detailed information contact the Canal Operations Captain.

(5) Vessels with protrusions extending beyond the maximum length and beam limitations specified in paragraphs 2.(a) and 2.(b) above, may, on a case-by-case basis, be permitted transit, provided that approval is obtained in advance from the Canal Operations Captain, that protrusions do not present a hazard or interfere with lock structures, equipment and/or operation, and the Master executes a form releasing the Panama Canal Commission from liability (See paragraph 2.h).

(e) *Maximum Height:* The allowable height for any vessel transiting the Canal or entering the Port of Balboa at any state of the tide is 57.91 m. (190 ft.), measured from the waterline to its highest point. With prior permission from the Canal Operations Captain, height may be permitted to 62.48 m. (205 ft.) on a case-by-case basis with passage at low water (MLWS at Balboa). Maximum Height Restrictions are due to the tide and the unpredictable upward movement of water from swells, surges, waves, etc., and the maintenance equipment suspended beneath the bridge at Balboa.

(f) *Draft:*

(1) The maximum permissible draft for Panama Canal transits has been set at 12.04 m. (39 ft.06 in.), Tropical Fresh Water (TFW) at Gatun Lake level 24.84 m. (81 ft. 06 in.) or higher (Gatun Lake density is 0.9954 gm./cc. at 29.4°C (85°F)). This provides a safe navigational margin of at least 1.50 m. (5 ft.) over critical elevations in the Canal proper, and a clearance over the South sill of Pedro Miguel Locks of 0.52 m. (1 ft. 08 in.) at Miraflores Lake level 16.61 m. (54 ft. 06 in.).

(2) Prior to the initial transit of a vessel whose transit draft will exceed 10.82 m. (35 ft. 06 in.), Owners, Operators, or Agents must supply in full the information required in 35 CFR 103.6, and request the maximum authorised transit draft for the vessel (deepest point of immersion TFW) from the Canal Operations Captain not later than two weeks prior to the loading of the vessel. This request will be returned with the approved maximum authorised transit draft stamped thereon.

(3) The initial transit is permitted at or under the approved maximum authorised transit draft. After the initial transit, unless the vessel's Agent or Owner is notified of any restrictions imposed by Canal authorities, this maximum authorised transit draft will remain in effect.

(4) All vessels transiting the Canal should have sufficient ballast to permit safe handling during transit.

(5) A vessel whose ballast draft does not meet the minimum draft requirements established by this section may be accepted for transit on a regular basis, provided the vessel operator is granted permission after submitting the following information to the Canal Operations Captain.

(a) Principal dimensions of the vessel.

(b) Deepest attainable minimum draft (fore and aft).

(c) Limitations on visibility fore and aft from the navigation bridge.

(d) Necessary excerpts from the vessel's plans, drawings and manoeuvring data that relate to the vessel's suitability for transit.

(6) Table 1 provides the minimum salt water drafts for vessels anticipating transit. Drag must not adversely affect manoeuvrability.

Table 1 – Minimum Salt Water Drafts:

Length	*Minimum Drafts*
Up to 129.54 m. (425 ft.)	Trimmed so Pilot can see the ranges over the forecastle from centre of navigation bridge.
Over 129.54 m. (425 ft.)	2.44 m. (8 ft.) forward, 4.27 m. (14 ft.) aft, TSW
Over 144.78 m. (425 ft.)	5.49 m. (18 ft.) forward, 6.10 m. (20 ft.) aft, TSW
Over 160.02 m. (525 ft.)	6.10 m. (20 ft.) forward, 6.71 m. (22 ft.) aft, TSW
Over 176.78 m. (580 ft.)	6.71 m. (22 ft.) forward, 7.31 m. (24 ft.) aft, TSW
Over 190.50 m. (625 ft.)	7.31 m. (24 ft.) forward, 7.92 m. (26 ft.) aft, TSW

(7) Figure 1 (See "Plan Section") provides the limiting drafts due to bilge radius. On an off-centre lockage with the vessel touching the lock wall, the turn of the bilge will clear the locks wall batters at the most critical point as shown in the table.

(8) A vessel having received permission to transit at less than the minimum required draft will be inspected by Canal authorities upon its first visit under ballast conditions. If the vessel is acceptable for transit at less than the prescribed minimum draft, the Operator will be notified that transit on a regular basis is authorised, provided the vessel meets the special minimum draft specified in that notification, and the Master executes a form releasing the Panama Canal Commission from liability.

(9) If the vessel is found not to be acceptable for transit on a regular basis, a single transit may be authorised, at the discretion of the Canal Operations Captain, subject to imposition of special conditions that may be required for reasons of safety or continuance of regular Canal Operations.

(10) Vessels are expected to arrive at the Panama Canal properly trimmed and with a draft which, when in fresh water, its deepest point of immersion will not exceed either the published TSW Draft, the Maximum Authorised Transit Draft established by PCC for that particular vessel, or the maximum allowable draft established by classification society, whichever is less.

(11) Vessels with drafts exceeding these figures, when in Miraflores Lake, are subject to denial of transit. Northbound vessels found by actual reading to be overdraft would be required to turn around and proceed back to sea. That transit would be considered completed. Southbound vessel will be held in the Gatun Anchorage. The transit will be reinitiated only after the Canal Operations Captain considers it is safe to proceed.

(12) Masters of vessels are reminded that personnel from transiting vessels are not permitted to climb or hang over the side of the vessel from ladders or boatswain's chairs while the vessel is in the lock chamber. Personnel are prohibited from disembarking onto the lock walls at any time for any purpose. Draft readings are obtained from the locks through the Pilot.

(g) *Potential Seasonal Draft Restrictions:*

(1) In the event of an unusually dry season (nominally, 1 out of 10 years), draft restrictions might become necessary.

(2) During the rainy season (May – December), Gatun Lake and Madden Lake, the upstream reservoir for the Canal and the municipal water supply of Panama are filled to capacity. During the dry season (December – May), the Madden Lake reserve is drawn off to keep Gatun Lake at an optimum level. In an unusually dry season, the Madden Lake reserve is exhausted and the Gatun Lake level continues to decrease. As the Gatun Lake level is depleted below 24.84 m. (81.5 ft.), it becomes necessary to reduce the maximum allowable draft to preserve the safe navigation margin. The reductions are made in 15 cm. (6 in.) decrements, with 3 week advance notice where possible, based on computer-assisted lake level and precipitation forecasts made by the Commission's hydrologist and meteorologists. Ships already loaded to a prevailing draft limitation at the time of promulgation of a new draft restriction are waived for transit, subject to overriding safety considerations. Ships loading after promulgation of a new draft restriction are held to a tolerance of not more than 15 cm. (6 in.) above that restriction and may be required to trim ship or off-load to achieve safe transit draft.

(h) *Release from liability:*

(1) Masters of vessels will, prior to transit, be required to execute a form undertaking to release the Panama Canal Commission from liability in case of accident and to indemnify the Commission for damages sustained in the following instances:

(a) When a vessel transits at less than the minimum drafts in paragraph 2.(f), has a list in excess of 3°, or is so loaded or trimmed that manoeuvrability is adversely affected.

(b) When a vessel has protrusions.

(c) When visibility from the navigation bridge of a vessel presents a hazard, as determined by the Canal Operations Captain (See Section 4).

(d) When the vessel's chocks, bitts or other equipment does not meet Panama Canal requirements as determined by the Canal Operations Captain (See Section 8).

(e) When a vessel transits on a one-time delivery basis with extreme beam exceeding 32.31 m. (106 ft.).

(2) Master of vessel will be required to execute a form undertaking to release the Panama Canal Commission from liability in case of accident for the identified problem when a vessel is to be docked, dry docked, or berthed by a Panama Canal Commission Pilot. This requirement is due to the conditions of the Inner Harbour areas of the Port of Balboa and inadequate fendering or lighting in the Piers of Balboa and Cristobal. Pilots are requested to have the Master of the vessel sign the form prior to docking vessels exceeding 10.97 m. (36 ft.) draft, or when a vessel is to be berthed on a pier that has inadequate or absent fendering and/or lighting.

(3) A refusal to sign such release may result in a delay of transit.

(i) *Approval of Plans and Delivery Transits:*

(1) Vessel plans for new construction or newly modified vessels should be submitted to the Office of the Canal Operations Captain for review prior to modification or construction. Failure to do so may result in delay or denial of transit because of unsuitable or unsafe features.

(2) The numerous constraints affecting the transit schedules of vessels and tows make it important that information provided in advance of the initial transit of the vessel include a capacity plan, general arrangement plans, engine room plans and, whenever possible, photostatic copies of its National Register, Loadline Certificate and Panama Canal Tonnage Certificate. This advance information will minimise the possibility that transit might be denied due to non-compliance with Canal regulations. For detailed information contact the Canal Operations Captain.

(3) Vessels which have had the appropriate plans approved will normally retain such approval unless it is determined by the Canal Operations Captain that modifications are necessary to ensure safe transit.

(j) *Denial of Transit:* The Canal authorities may deny any vessel passage through the Canal when the character or condition of the cargo, hull, or machinery is such as to endanger the structures pertaining to the Canal or which might render the vessel liable to obstruct the Canal, or whose draft at any part of the vessel exceeds the maximum allowable draft in the Canal as designated from time to time by Canal authorities. Other specific circumstances under which a vessel shall be denied transit are:

(1) When the vessel's maximum point of immersion exceeds its maximum authorised draft as determined by its bilge keel radius.
(2) When the vessel's maximum point of immersion exceeds the published TFW maximum draft then in effect.
(3) When the vessel's mean draft exceeds the maximum allowable mean draft as provided by the most current Loadline Certificate.
(4) When the length overall including bulbous bow exceeds that stated in paragraph 2.(a) above.
(5) When the maximum width or extreme beam exceeds that stated in Section 2.(b) above by any amount, unless the vessel was approved for regular transit prior to 10th March 1981.
(6) When a vessel has protrusions which will interfere with the safe transit of the vessel or present a hazard to Canal structures as determined by the Canal Operations Captain.
(7) When the vessel has a list of 10° or more.
(8) Unusual vessels requiring both lock lanes simultaneously.
(9) When visibility from the navigation bridge of a vessel does not meet minimum requirements as stated in paragraph 4.(e), and/or when in the judgement of the Canal Operations Captain, transit would present an extreme hazard.
(10) Vessels whose list, trim or handling characteristics are such as to endanger themselves, Panama Canal appurtenances and/or a third party, may have such further limitations placed on them as Canal authorities deem necessary to insure reasonable safety.

3. Requirement for Pilot Platforms and Shelters on Certain Vessels

(a) As required by 35 CFR 103.19, suitable platforms and shelters must be provided by certain vessels for assisting Pilots. Based on current operating experience, the following vessels with extreme beam of 30.48 m. (100 ft.) or more, and a length of 190.5 m. (625 ft.) overall or more, may require 2 or more Pilots when transiting the locks of the Panama Canal. Control Pilots will position assisting Pilots where they can best contribute to vessel control, which may be at any of the existing pilot platform locations:
  (1) Vessels with the bridge in the extreme afterpart of the vessel (assisting Pilot platforms will be forward).
  (2) Vessels with the bridge in the extreme forepart of the vessel (assisting Pilot platforms will be aft).

(b) Platforms must afford shelter suitable to protect assisting Pilots from rain and sun. Figure 2 (See "Plan Section") is a sketch of a simplified pilot platform acceptable to the Panama Canal Commission.

(c) Each platform is to be erected directly over the furthest point forward of the extreme beam at the waterline and not more than 6 in. inboard from the outside of the vertical plane of the shell plating. For vessels where the bridge is located forward, these pilot platform shelters will be required to be erected directly over that position which is the furthest point aft of the extreme beam at the waterline and not more than 6 in. inboard from the outside surface of the vertical plane of the shell plating.

(d) In addition, all vessels whose extreme beam is 24.38 m. (80 ft.) or more, are required to provide bridgewing shelter platforms for the protection of control pilots at conning positions No. 4 and 5. Figure 3 (See "Plan Section") is a sketch of a bridgewing shelter platform acceptable to the Panama Canal Commission. Alternate arrangements, including portable shelters, which provide equivalent or better protection and visibility may be acceptable.

(e) The awning indicated in the sketches in Figures No. 2 and 3 of this section is to be made of suitable material to provide shelter from the sun and rain. The deck of pilot platforms shall be made of wood or other material with non-skid surface, sufficient to keep a dry footing at all times. Overhead awning should be rigged to avoid spilling water inside the framework of the shelter during rain.

(f) Further inquiries on this subject should be directed to the Canal Operations Captain.

4. Navigation Bridge Features Required of Transiting Vessels

(a) *Authority:* The following vessel bridge design rules are issued under Authority of Title 35, Code of Federal Regulations sections 103.2, 103.10, 103.27 and 123.3. Vessels not meeting the requirements of these rules after 1st January 1980 may, at the discretion of the Canal authorities, be allowed transit after execution of an undertaking and release. This undertaking and release is to be made on behalf of the Owners, Operators, Masters, and all other persons having an interest in the vessel, and shall provide that in case of damage of any sort proximately resulting from non-compliance with these rules, the Panama Canal will be released from any liability, and will be indemnified for any damage or expense incurred.

(b) *Wheelhouse:* Wheelhouse windows shall be:
  (1) Of sufficient size and number to provide a clear view.
  (2) Of clear safety glass. Tinted windows must be removable.
  (3) Arranged so as to include a centre window.
  (4) Equipped with efficient mechanically operated rain wiper blades on windows at normal bridge conning positions as described in paragraph 4.(d).

(c) *Bridgewings:* Bridgewings shall extend to the maximum beam of the vessel and shall provide a clear, unobstructed passage along their forward portions from the wheelhouse doors to the extreme ends of the bridgewings. If it is impossible to extend these bridgewings the full breadth of the vessel, they shall extend as far as possible and swing-out or portable platforms shall be provided as follows:
  (1) Extending to the maximum beam of the vessel.
  (2) Of adequate size, strength, and rigidity to hold 2 persons.
  (3) Equipped with horizontal safety handrails and a toe board around the deck, 4 in. high minimum.
  (4) Platforms shall be safe and secure and maintained in good condition.

(d) *Normal Conning Positions:* (See Figure 4 in "Plan Section")
  (1) Conning Position No. 1 is located directly behind and close to the forward centre wheelhouse window.
  (2) Conning Position No. 2 is located to port of Conning Position No. 1 directly behind and close to the nearest window thereto that provides a clear unobstructed view ahead.
  (3) Conning Position No. 3 is located to starboard of Conning Position No. 1 directly behind and close to the nearest window thereto that provides a clear unobstructed view ahead.
  (4) Conning Position No. 4 is located at the extreme end of the port bridgewing and must provide a clear and unobstructed view fore and aft of the vessel's port side.
  (5) Conning Position No. 5 is located at the extreme end of the starboard bridgewing and must provide a clear and unobstructed view fore and aft of the vessel's starboard side.
  (6) No equipment or instrumentation shall block the close approach to the forward windows and the forward and after portions of the bridgewing ends. Bridgewing controls shall be positioned so that the operator does not interfere with the pilot visibility.

(e) *Minimum Visibility Requirements:*
  (1) If the vessel is laden, objects on the surface of the water shall be visible from the navigation bridge (Conning Positions No. 1, 2 and 3) a minimum distance of one ship length forward in all conditions of trim (See Figure 4).
  NOTE: Vessels billed at the laden rate are considered laden for the purposes of this requirement.
  (2) If the vessel is in ballast, objects on the surface of the water shall be visible from the navigation bridge (Conning Positions No. 1, 2 and 3) a minimum distance of one and one-half ship lengths forward in all conditions of trim (See Figure 4).
  (3) If visibility from normal conning positions is obscured by cargo gear or other permanent obstructions forward of the beam, the total arc of obstructed visibility from Conning Position No. 1 shall not exceed 15°.
  (4) The side hull plating at the vessel's waterline, fore and aft, shall be visible from bridgewing conning positions.
  (5) Vessels shall be required to execute an undertaking and release if visibility from the bridge is considered by the Canal authorities to present a hazard.

(f) *Indicators:* All vessels over 45.72 m. (150 ft.) in length shall be provided with:
  (1) Rudder Angle Indicators as follows:
    (a) On vessels less than 24.38 m. (80 ft.) in beam, at least one of such design that it can be easily read by day or night from all normal conning positions and from the steering station.
    (b) If of 24.38 m. (80 ft.) or more in beam, at least one inside the wheelhouse and one on each bridgewing of such design and placement so that at least one can be easily read by day or night from each conning position and from the steering station.
    (c) They shall show in degrees clearly and accurately the position and direction of the rudder or rudders.
  (2) Propeller Revolution Tachometers or Variable Pitch Propeller Indicators as follows:
    (a) On vessels less than 24.38 m. (80 ft.) in beam, at least one for each propeller, of such design as to be easily read by day or night from all normal conning positions.
    (b) If of 24.38 m. (80 ft.) or more in beam, at least one for each propeller, located inside the wheelhouse and one for each propeller located on each bridewing, of such design and placement so that at least one can be easily read, by day or night, from each conning position.
    (c) Indicators shall show revolutions per minute clearly and shall accurately indicate the direction of the propeller or propellers.
    (d) All vessels with variable pitch control indicators will have them so located as required in (a) and (b) of this subsection.
  (3) Indicators must be operational: Vessels with missing or broken indicators may expect delays in transit.

(g) *Very High Frequency (VHF) Radio:* Every power-driven vessel of 300 gross tons or over, every power-driven vessel of 100 gross tons or over carrying one or more passengers for hire, and every commercial towing vessel of 7.92 m. (26 m.) in length or over shall be equipped with at least one VHF transceiver as follows:
  (1) Must be operable from the navigational bridge and located near Conning Position No. 1.
  (2) Must be equipped with International Channels 12 (156.00 MHz), 13 (156.650 MHz) and 16 (156.800 MHz).

(h) *Whistle Controls:* Vessels shall be provided with whistle controls as follows:
  (1) On all vessels, one within easy reach on the navigational bridge from Conning Positions No. 1, 2 and 3 as described in paragraph 4.(d).
  (2) If the beam of the vessel is over 15 m. (49.2 ft.), additional controls shall be provided at the extreme end of bridgewings, at Conning Positions No. 4 and 5.
  (3) Controls shall make it possible to regulate precisely any required whistle signal.

(i) *Steering Light:*

(1) All vessels over 100 m. (328 ft.) in length shall have installed, at or near the stem, a steering range equipped with a fixed blue light which shall be clearly visible from the bridge along the centreline. If said range and light so placed would be partially or completely obstructed from Conning Position No. 1, then two such ranges and lights must be installed ahead of Conning Positions No. 2 and 3. The wheelhouse position directly aft of the steering lights shall be marked with a small labelled plaque on the window sill, which can be located in the dark by feel.

(2) Naval or military vessels exempted from the requirements of 72 COLREGS (See 35 CFR Section 111.1) shall also be exempt from the requirements of this section.

(3) The light required shall be capable of being illuminated and extinguished by a suitable rheostat or control switch located either on the navigation bridge or on the forecastle deck, or both.

(4) The use of this steering light shall be at the discretion of the Panama Canal Pilot who has control of the navigation and movement of the vessel.

(j) *Bow/Stern Thrusters:* Vessels equipped with bow/stern thrusters should provide controls located at the extreme ends of the bridgewings, as well as inside the wheelhouse.

(k) *Compass:* A magnetic compass (properly compensated at least in the previous 12 months) or properly functioning gyro compass shall be positioned where it can be easily read from Conning Position No. 1. Vessels not complying with this requirement should expect transit delays during periods of fog or inclement weather, a common occurrence in Panama coincidental with the rainy season (May to December).

(l) *Course Recorders:* Vessels fitted with devices for recording engine orders and responses, movement of the rudders, and changes in ship's heading, shall have them operating while navigating in Canal waters.

(m) *Bridgewing Spotlights:* A spotlight or searchlight capable of illuminating the side of the vessel at the waterline is required to be fitted at the extreme end of each bridgewing on all vessels whose maximum beam is 30.00 m. (98.4 ft.) and over. For all vessels, such lights should be mounted below the bulwark on the after portion of the bridgewing. Lights should be hinged to allow them to be swung out of the way, behind the bridgewing, when not in use. The normal work position of the Pilot when on the bridgewing is at the forward outboard corner, where he can look forward and down as well as over the side and aft. Lights, bearing repeaters and other equipment must not interfere with the Pilot's ability to do that.

5. Requirements for Non-Self Propelled Vessels

(a) Non-self-propelled vessels, other than integrated tug-barge combinations, will be accepted only on an individual basis; advance permission for initial transit as a non-self-propelled vessel is required. Displacement of these vessels is limited to 35,000 tons and the draft requirements of paragraph 2.(f) of this document are applicable.

(b) The draft of non-self-propelled barges 167.64 m. (550 ft.) or more in length may be limited, when in the opinion of Canal authorities such limit is necessary to insure reasonable safety.

(c) Upon arrival, the tug will break up the tow and secure the bridle, so no part of it extends below the surface of the water.

(d) Tows should have the capability of anchoring.

(e) All tows will be inspected before being scheduled for transit. For safety reasons and to ensure that important details are not overlooked, inspections will normally by performed in the inner harbour and during daytime.

(f) Agents, Operators and/or Owners will be responsible to make any required alterations or additions to equipment or stowage.

(g) Boarding facilities will comply with Regulation No. 17, Chapter V, International Convention for Safety of Life at Sea (SOLAS). For tows with freeboards of 9.0 m. (30 ft.) or more, this also includes provisions for a 9.0 m. rig as described in Par. 10(3)(b) and Section 10 of this Notice.

(h) There must be a clear passage, free of obstructions, from the boarding facility to all working areas; otherwise, catwalks with handrails and steps must be provided. Figure 5 is a sketch of a catwalk and ladder acceptable to the Panama Canal Commission (See Section 10 – see "Plan Section").

(i) The working area near chocks and bitts on all dead tows must be clear of obstructions and fitted with safety rails or lines at the vessel's sides.

(j) Tows must provide a pilot shelter with a clear view forward, on the centreline, about midway between the bow and stern. This shelter may be permanent or portable, but must protect the pilot from the elements. All tows with beam in excess of 24.35 m. (79 ft.) shall provide pilot shelters, at the extreme beams from which the pilots may readily view the vessel's sides.

(k) Dead tows must be equipped with the chocks and bitts as set forth in 35 CFR 109.6.

(l) Tows must provide mooring and heaving lines, in good condition, and have mooring arrangements, and bitts or cleats for securing tugs that do not interfere with those chocks and bitts required for locomotive wires.

(m) All barges will be fitted so that a pusher tug can be secured with its stem held firmly to the centreline of the barge. Pushing tugs are to be equipped with wire cable snubbers and springs.

(n) Barges with poor visibility forward will be assigned additional tug assistance for their transit. The commercial tug may be placed in the notch or on a hawser at the discretion of the Canal Operations Captain. The determination of what constitutes poor visibility will be made by the Canal Operations Captain. The suitability of additional commercial tugs used in the transit will also be determined by the Canal Operations Captain.

(o) Riding crews must be provided in sufficient numbers as required by the Canal Operations Captain, to safely handle tows' lines and boarding ladders, and to assist in mooring. While underway in Canal waters, anchors shall be manned and ready to be dropped in case of emergency.

(p) Agents, Operators and Owners of dead tows are urged to contact the Canal Operations Captain as early as possible but not later than 48 hours prior to ETA, so that particular requirements essential to planned transits can be met without delay.

6. Deckload Cargo

(a) As provided in 35 CFR 103.5, a vessel carrying a deckload shall have it so stowed as to be sufficiently clear to provide safe working space around all chocks, bitts, and other gear used in transiting, and so arranged as not to obstruct any direct lead from chock to bitts.

(b) Deck cargo shall so stowed to provide safe passage to and from necessary working areas. If access to working spaces is necessary over a deckload, as with lumber, a catwalk will normally be required, unless a level, continuous surface free of encumbrances such as lashings is already provided. When catwalks are required, they shall be at least 0.90 m. (3 ft.) in width and provided with adequate guard rails. Where the deck cargo is sufficiently level for gangway purposes without a catwalk, the guard rails, or life lines, spaced not more than 30 cm. (12 in.) apart vertically, must be provided on each side of the deck cargo to a height of at least 1.20 m. (4 ft.) above the cargo.

(c) If deck access is provided on deck adjacent to deck cargo, a level continuous passage at least 0.90 m. (3 ft.) in width shall be provided. This access shall be unencumbered by shoring, lashings or other obstacles deemed hazardous to normal passage. Height over passageway may not be less than 2.10 m. (7 ft.).

(d) When personnel are required to traverse over deck cargo, ladders adequate for safe access must be provided between the deck and top of deck cargo. Such ladder must be provided with guard rails or safety lines as previously described for catwalks.

(e) Deck cargo shall be stowed securely to prevent any shifting or displacement during access to working spaces by personnel.

(f) Vessels may transit with deck cargo protruding over one side only not to exceed 4.57 m. (15 ft.), but the maximum beam, including protrusions, must not exceed 25.90 m. (85 ft.).

(g) An adequate bulwark or railing shall be provided between deck cargo and ship's side.

(h) All sharp edges and projections on deck cargo adjacent to normal accesses shall be adequately protected to prevent injury to personnel.

(i) Sufficient lighting shall be provided by the vessel to illuminate deck accesses and working spaces during hours of darkness.

(j) Figure 5 (See "Plan Section") is a sketch of a catwalk and ladder acceptable to the Panama Canal Commission.

7. Sanitary Facilities

(a) Vessels which transit the Canal should have suitable sanitary facilities for the pilot(s). This is particularly important for barges, handlines and other vessels which are not normally so equipped and whose progress is slow.

(b) If a transiting ship does not have adequate sanitary facilities, the interval for which each pilot is assigned will be shortened, and significant delays could result.

8. Construction, Number and Location of Chocks and Bitts

(a) A vessel passing through the locks shall normally be assisted by electric towing locomotives using steel towing wires. At the discretion of the Canal Operations Captain, certain vessels, usually those under 38.10 m. (125 ft.) in length, may be handled with their own lines either against the lock wall or from both walls in the centre of the chamber. Vessels transiting the Canal are required to have chocks and bitts as follows:

(1) All chocks for towing wires shall be of heavy closed construction and shall have a convex bearing surface with a radius of not less than 180 mm. (7 in.). The convex surface shall extend so that a wire from the bitt, or from the towing locomotive through the chock, shall be tangent to the 180 mm. (7 in.) radius at any angle up to 90° with respect to a straight line through the chock.

(2) No part of the vessel which may be contacted by the towing wires, at any angle, shall have less than a 180 mm. (7 in.) radius.

(3) Chocks designated as single chocks shall have a throat opening of not less than 650 sq.cm. (100 sq.in.) in area – preferred dimensions are 305 mm. × 230 mm. (12 in. × 9 in.) – and shall be capable of withstanding a strain of 45,000 kg. (100,000 lbs.) on a towing wire from any direction.

(4) Chocks designated as double chocks shall have a throat opening of not less than 900 sq.cm. (140 sq.in.) in area – preferred dimensions are 355 mm. × 255 mm. (14 in. × 10 in.) – and shall be capable of withstanding a strain of 64,000 kg. (140,000 lbs.) on the towing wires from any direction.

(5) Use of existing roller chocks is permissible provided they are not less than 15 m. (49 ft.) above the waterline at the vessel's maximum Panama Canal draft and provided they are in good condition, meet all of the requirements for solid chocks as specified in paragraphs 8.(a)(1), 8.(a)(2), 8.(a)(3) and 8.(a)(4) of this section, as the case may be, and are so fitted that transition from the rollers to the chock body will prevent damage to towing wires. *Starting 1st January 1994, roller chocks will not be accepted in drawings of new constructions submitted for approval as per paragraph 2.(i) of this Notice.*

(6) Each single chock shall have an accompanying bitt capable of withstanding a strain of 45,000 kg. (100,000 lbs.).

(7) Each double chock located at the stem and at the stern, in accordance with paragraph 8.(a)(8) of this section, shall have two pairs of accompanying heavy bitts with each bitt of each pair capable of withstanding a strain of 45,000 kg. (100,000 lbs.). Other double chocks shall have a pair of accompanying heavy bitts with each bitt capable of withstanding a strain of 45,000 kg. (100,000 lbs.).

(8) All vessels, except vessels not requiring locomotives, shall be fitted with a double chock set athwartships right in the stem and another double chock set athwartships right in the stern, except that on vessels of less than 22.86 m. (75 ft.) beam, 2 single chocks may be substituted for each double chock required by this subsection; on vessels of over 22.86 m. (75 ft.) beam, two double chocks may be substituted. If such substitution is made, the chocks shall be placed port and starboard not more than 2.50 m. (8 ft.) abaft the stem or 3 m. (10 ft.) forward of the stern, provided that these chocks are not more than 3 m. (10 ft.) from the centreline of the vessel.

(9) Vessels under 60.96 m. (200 ft.) in length and not exceeding 9.14 m. (30 ft.) in beam shall have a double chock or 2 single chocks at the stem and stern. If the vessel is equipped with the 2 single chocks they shall be placed, port and starboard, not more than 2.50 m. (10 ft.) off the centreline (See Figure 6 – see "Plan Section").

(10) Vessels 60.96 m. to 121.92 m. (200 ft. to 400 ft.) in length and not exceeding 22.86 m. (75 ft.) in beam, shall have a double chock at the stem and at the stern or 2 single chocks at the bow and stem, port and starboard, not more than 2.50 m. (8 ft.) abaft the stem or 3 m. (10 ft.) forward of the stern and not more than 3 m. (10 ft.) off the centreline, and shall have 2 additional single chocks, port and starboard, 9 m. to 16 m. (30 ft. to 50 ft.) abaft the stem and 9 m. to 16 m. (30 ft. to 50 ft.) forward of the stern (See Figure 6 – see "Plan Section").

(11) Vessels 121.92 m. to 173.74 m. (400 ft. to 570 ft.) long and not more than 22.86 m. (75 ft.) in beam, shall have a double chock at the stem and stern or 2 single chocks at the bow and stern, port and starboard, and in addition shall have a double chock port and starboard, 12 m. to 16 m. (40 ft. to 50 ft.) abaft the stem, a single chock port and starboard, 24 m. to 28 m. (80 ft. to 90 ft.) abaft the stem, and a single chock port and starboard, 12 m. to 16 m. (40 ft. to 50 ft.) forward of the stern (See Figure 6 – see "Plan Section").

(12) Vessels over 173.74 m. (570 ft.) long or 22.86 m. (75 ft.) in beam or over, shall have a double chock at the stem and stern, a double chock port and starboard, 12 m. to 16 m. (40 ft. to 50 ft.) abaft the stem, a single chock port and starboard, 24 m. to 28 m. (80 ft. to 90 ft.) abaft the stem, a double chock port and starboard, 12 m. to 16 m. (40 ft. to 50 ft.) forward of the stern and a single chock port and starboard, 24 m. to 28 m. (80 ft. to 90 ft.) forward of the stern.

(13) Vessels with large flared bows or unusually high freeboard such as container vessels or vehicle carriers will be required to provide single chocks located further aft than those required in paragraph 8.(a)(12) of this section for correct positioning of assisting tugs or may be required to fit recessed tug bollards into the hull, so that tugs can work without coming in contact with the bow flare or without requiring extra long lines and/or inefficient leads (See Figure 6 – see "Plan Section").

(14) Where recessed hull bitts are installed in the hull, they shall be installed not less than 3.7 m. (12 ft.) nor more than 4.6 m. (15 ft.) above the vessel's waterline. Vessels which have an appreciable variation in draft may be required to install 2 sets of recessed hull bitts, so that one bitt is located over the other bitt. Also, the recessed hull bitts are to be installed in the hull as far forward as possible, both port and starboard sides, where the bow flare does not exceed 25° as measured from the vertical line of the vessel's side. This position may require locating the chocks and bitts further aft than 24 m. to 28 m. (80 ft. to 90 ft.) abaft the stem as in paragraph 8.(a)(11) above. This position will allow PCC tugs to work safely under the bow flare without the tug's mast or pilothouse coming in contact with the vessel's hull.

(15) A vessel not requiring locomotives shall have a chock arrangement similar to that described in paragraph 8.(a)(9) of this section, except that the chocks need only be single chocks or, if approved by the Canal authorities, of lesser strength.

(16) Any vessel which fails to meet these requirements may be denied transit. If the Marine Director or his representative decides that the vessel can be handled without undue danger to equipment or to personnel, notwithstanding her failure to comply with other requirements of this section, the vessel may be allowed to transit after executing a release. The Master of the vessel must sign an undertaking for said vessel, her Owners, Operators, or any other persons having any interest in her, and for himself, releasing the Panama Canal Commission from and indemnifying it against, any loss, damage or liability incurred by the Panama Canal Commission to the extent and in the proportion that such failure to meet the requirements of this section proximately causes or contributes to the casualty and resulting damages.

(17) For further information contact the Canal Operations Captain.

9. Mooring Lines

(a) Vessels are required to have on deck 6 manila or synthetic mooring lines forward and 6 aft prior to commencing transit. The size and strength suitable for the vessel to dock, moor at a lock approach wall or secure in a lock chamber are the vessel's responsibility. Master shall inform the Boarding Official whether or not the vessel complies with the above, so that he may advise Marine Traffic Control. Wire ropes, and ropes composed of both wire and fibre or filaments, are not acceptable for Canal operations.

(b) These lines are required to be on deck prior to commencing transit and ready for immediate use. Each line shall be at least 75 m. (250 ft.) in length and shall have an eye of at least 1.50 m. (5 ft.) spliced *in each end*. They shall be in good condition. Non-compliance with this requirement could result in transit delay.

10. Boarding Facilities

(a) The Panama Canal Commission considers proper boarding facilities to be an absolute necessity to insure that safety of our operating personnel and others using these facilities in Panama Canal waters. Poorly constructed, installed, maintained, or operated boarding facilities are not acceptable for use in Panama Canal waters. Requirements for boarding facilities are defined in Part 103.18 of Title 35 of the Code of Federal Regulations. Vessels with unsafe or inadequate boarding facilities will be required to correct such deficiencies before transit. Lengthy delays may result. Figure 7 (not reproduced) is a pictorial representation of acceptable boarding facilities which comply with Panama Canal standards.

(b) Safe boarding facilities should be available through full transit for Pilots and Linehandlers. Improper accommodation ladder may require use of a tug to hold the vessel dead while boarding or disembarking. This is considered a vessel deficiency, therefore tug will be charged to the vessel.

(c) Boarding facilities of vessels arriving the Panama Canal shall comply with the requirements shown below, which conform with Regulation 17, Chapter V, International Convention for Safety of Life at Sea (SOLAS).

(d) General:

(1) All arrangements used for Pilots and/or linehandlers transfer shall efficiently fulfil their purpose of safely enabling embarking and disembarking. The appliances shall be kept clean, properly maintained and stowed and shall be regularly inspected to ensure that they are safe to use. They shall be used solely for the embarkation and disembarkation of personnel.

(2) The rigging of the transfer arrangements and the embarkation and disembarkation of Pilots and/or linehandlers shall be supervised by a responsible officer having means of communication with the navigating bridge who shall also arrange for the escort of the Pilot by a safe route to and from the navigating bridge and the linehandlers to and from their designated work stations. Personnel engaged in rigging and operating any mechanical equipment shall be instructed in the safe procedures to be adopted. All boarding equipment shall be tested in operating position by ship's personnel prior to use by Commission personnel.

(e) Transfer Arrangements:

(1) Arrangements shall be provided to enable the Pilot or the linehandlers to embark and disembark safely on either side of the ship.

(2) When it is intended to embark and disembark Pilots or linehandlers by means of the accommodation ladder, or by means of mechanical pilot hoists or other equally safe and convenient means in conjuction with a pilot ladder, the ship shall carry such equipment on each side, unless the equipment is capable of being transferred for use on either side.

(f) Safe and convenient access to, and egress from, the ship shall be provided by either a pilot ladder, an accommodation ladder or a combination of these appliances. Mechanical pilot hoists or other boarding devices must be approved by the Commission and may be used at the option of the Pilot or linehandlers.

(1) *Pilot Ladders:*

(a) The ladder shall be safe, convenient and efficient for the purpose of enabling the Pilots to embark and disembark safely, kept clean and in good order and may be used by officials and other persons while a ship is arriving or leaving a port.

(b) The ladder shall require a climb of not less than 1.5 m. (5 ft.) and not more than 9.0 m. (30 ft.) above the surface of the water.

(c) The ladder shall be so positioned that it is clear from any possible discharges from the ship, that it is within the parallel midbody length of the ship and, as far as is practicable, within the mid-ship half length of the ship.

(d) Each step shall rest firmly against the ship's side; where constructional features, such a rubbing bands, would prevent the implementation of this provision, special arrangements shall be made to the satisfaction of the Panama Canal Commission to ensure that persons are able to embark and disembark safely.

(e) A single length of ladder shall be used capable of reaching the water from the point of access to, or egress from, the ship; in providing for this, due allowance shall be made for all conditions of loading and trim of the ship and for an adverse list of 15°. Whenever the distance from sea level to the point of access to the ship is more than 9.0 m. (30 ft.), access from the pilot ladder to the ship shall be by means of an accommodation ladder or other equally safe and convenient means.

(f) The securing strong points, shackles and securing ropes shall be at least as strong as the side ropes.

(g) The steps of the pilot ladder shall comply with the following requirements:

If made of hardwood, they should be made in one piece, free of knots or other defects. If made of material other than hardwood, they should be of equivalent strength, stiffness and durability to the satisfaction of the Commission.

The 4 lowest steps may be made of rubber of sufficient strength and stiffness or other material to the satisfaction of the Commission.

Steps shall have an efficient non-slip surface, and shall not be painted an opaque colour or with high gloss paint. The grain and character of the step shall be visible in order that any cracks or defects may be readily visible to the person using the ladder.

Should have not less than 400 mm. (16 in.) between the inside surfaces of the side ropes. Steps should be not less than 115 mm. (4.5 in.) wide, and 25 mm. (1 in.) in depth, excluding any non-slip device or grooving.

Should be equally spaced not less than 300 mm. (12 in.) nor more than 380 mm. (15 in.) apart and be secured in such a manner that each will remain horizontal.

(h) No pilot ladder shall have more than 2 replacement steps which are secured in position by a method different from that used in the original construction of the ladder, and any steps so secured shall be replaced as soon as reasonably practicable, by steps secured at position by the method used in the original construction of the ladder. When any replacement step secured to the side ropes of the ladder by means of grooves in the sides of the steps, such grooves shall be in the longer sides of the steps.

(i) Pilot ladders with more than 5 steps should have spreader steps not less than 1.80 m. (6 ft.) long, provided at such intervals as will prevent the pilot ladder from twisting. Such spreader steps or battens shall be made of the same material and construction as the other ladder steps. The lowest spreader step shall be on the fifth step from the bottom of the ladder and the interval between any spreader step and the next shall not exceed 9 steps.

(j) The side ropes of the ladder shall consist of 2 uncovered ropes not less than 18 mm. (0.75 in.) diameter on each side. Each rope shall be continuous with no joints below the top step. Two manropes properly secured to the ship and not less than 28 mm. (1 in.) in diameter shall be kept at hand ready for use.

(k) Side ropes shall be made of manila or other material of equivalent strength, durability and grip which has been protected against actinic degradation, and is satisfactory to the Commission.

(l) A lifebuoy equipped with a self-igniting light should be kept at hand ready for use, as should a heaving line. Lifebuoys should not be attached to the ship.

(m) Lighting should be provided such that both the pilot ladder overside and the position where any person embarks or disembarks on the ship are adequately lit.

(2) *Accommodation Ladders:*

(a) Accommodation ladders should be sited leading aft, that is, with the lower platform at the after end. Accommodation ladders which lead forward or which do not rest firmly against the vessel's side are not considered safe for use by Panama Canal Commission employees. When in use, the lower end of the accommodation ladder should rest firmly against the ship's side within the parallel mid-body of the vessel and within the midship half-length and clear of all discharges. A pilot ladder complying with the provisions of Par 10.f(1) shall be kept on deck adjacent to the hoist and available for immediate use.

(b) The lower platform of the accommodation ladder shall be kept in a horizontal position when in use, and it should be held at a distance above the water equal to the deck of the boarding launch. The boat spar shall be extended. Intermediate platforms, if so fitted, shall be self-levelling. Treads and step of the accommodation ladder should be so designed that an adequate and safe foothold is given at the operative angles.

(c) The ladder and platforms shall have vertical safety stanchions and rails or lines equipped and rigged on both sides. If hand ropes are used, they should be tight and properly secured. The vertical space between the handrail or hand rope and the stringers of the ladder should be securely fenced.

(d) The length of an accommodation ladder used in combination with a pilot ladder should be sufficient to ensure that its angle of slope does not exceed 55°. The pilot ladder should be rigged immediately adjacent to the lower platform of the accommodation ladder and be secured at the edge of the lower platform with the pilot ladder hanging vertically. The pilot ladder should extend at least 2.0 m. (6 ft. 8 in.) above the lower platform and shall rest firmly against the ship's side within the parallel midbody of the ship and, as far as is practicable, within the mid-ship half length and clear of all discharges. The lower platform must be held at a level to allow for the height of the launch deck, plus the height of a person standing on the deck, plus the rise and fall due to swell; normally 7.0 m. (23 ft.) above the water is sufficient.

(e) Lighting shall be provided at night such that the full length of the ladder is adequately lit.

(f) If a trapdoor is fitted in the lower platform of a combination accommodation ladder/pilot ladder to allow access from and to the pilot ladder, the aperture should not be less than 750 mm. × 750 mm. (30 in. × 30 in.) and of a design approved by the Commission. In this case the after part of the lower platform should also be fenced as specified in Paragraph 10.f.(2)(c), and the pilot ladder should extend above the lower platform at least 2.0 m. (6 ft. 8 in.). The aperture on the lower platform must be open to the side of the ship's hull to allow the pilot ladder to lay flat against the hull.

(g) Accommodation ladders, together with any suspension arrangements or attachments fitted, and intended for use in the Panama Canal must be arranged to the satisfaction of the Commission.

(3) *Mechanical Pilot Hoists:*

(a) A mechanical pilot hoist, if provided, shall be so located that it is within the parallel body length of the ship and, as far as is practicable, within the mid-ship half length and clear of all discharges.

(b) A mechanical pilot hoist and its ancillary equipment shall be of a type acceptable by the Commission. It shall be designed to operate as a moving platform or of a ladder to lift and lower one person on the side of the ship. It shall be of such a design and construction as to ensure that the Pilot can be embarked and disembarked in a safe manner, including a safe access from the hoist to the deck and vice versa. Such access shall be gained directly by a platform securely guarded by handrails.

(c) The ladder shall consist of two parts. The first, a rigid upper part not less than 2.50 m. (7.75 ft.) in length, for the safe transportation of personnel upwards or downwards. The second and lower part consists of a short length of pilot ladder to allow personnel to climb from the pilot launch to the upper part and vice versa.

(d) The rigid ladder part should be equipped in such a way that the person carried can maintain a safe position whilst being hoisted or lowered. It should include sufficient non-slip steps to provide safe and easy access to and from the platform and safe handholds capable of being used in all conditions. The lower end of the rigid part must have a spreader, not less than 1.80 m. (6 ft.) in length and equipped with rollers which roll freely on the ship's side during the entire operation of embarking or disembarking. It must be fitted with an effective guard ring, suitably padded, so positioned as to provide physical support for the person carried without hampering movement. There must be adequate means of communication between the person carried and the officer who supervises the embarkation or disembarkation of the person carried.

(e) A hoist designed to operate as a lift platform should have a platform with a non-skid surface at least 750 mm. × 7560 mm. (30 in. × 30 in.), exclusive of the surface area of any trapdoor in the floor. The platform should be limited to one person per square meter of floor area or fraction thereof, exclusive of the area of any trapdoor. If a trapdoor is provided, it should be at least 750 mm. × 750 mm. (30 in. × 30 in.), so arranged that a pilot ladder may be rigged through the trapdoor, extending and of a design approved by the Commission. In this case, the platform should be fenced as specified in Paragraph 10.f.(2)(c), and the pilot ladder should extend above the lower platform at least 2.0 m. (6 ft. 8 in.). The aperture on the lower platform must be open to the side of the ship's hull to allow the pilot ladder to lay flat against the hull. Each gate in the fence should have a latch to keep it securely closed. The lower platfom must be held at a level to allow for the height of the launch deck, plus the height of a person standing on the deck, plus the rise and fall due to swell; normally 7.0 m. (23 ft.) above the water is sufficient.

(f) Efficient hand gear shall be provided to lower or recover the person carried, and kept for use in the event of power failure.

(g) The hoist shall be securely attached to the structure of the ship. Attachment shall not be solely by means of the ship's side rails. Two separate wire falls shall be used. The falls should be made of flexible steel rope of adequate strength, resistant to corrosion in a salt laden atmosphere and of sufficient length to allow for all conditions of freeboard likely to be encountered in service and to retain at least 3 turns on the winch-drums with the hoist in its lowest position. Proper and strong attachment points shall be provided for hoists of the portable type on each side of the ship. The falls should be so arranged that the ladder or lift platform remains level if one fall breaks.

(h) If belting or rubbing bands are fitted in way of the hoist operation, such obstructions shall be cut back sufficiently to allow the hoist to operate against the flat of the ship's side.

(i) A pilot ladder complying with the provisions of Paragraph 10.f.(1) shall be kept on deck adjacent to the hoist and available for immediate use so it is available from the hoist at any point of its travel. The pilot ladder shall be capable of reaching the sea level from its own point of access to the ship.

(j) The position on the ship's side where the hoist will be lowered shall be indicated.

(k) From a standing position at the control points, it should be possible for the operator to have the hoist under continuous observation between its highest and lowest working points.

(l) Adequate lighting shall be provided to illuminate the position on deck where a person embarks or disembarks and the controls of the mechanical pilot hoist.

(m) A lifebuoy equipped with a self-igniting light should be kept at hand ready for use, as should a heaving line. Lifebuoys should not be attached to the ship.

(n) Two manropes properly secured to the ship and not less than 28 mm. (1 in.) in diameter shall be ready for immediate use if required by the Pilot.

(4) *Shipside Doors:*

Shipside doors used for Pilot transfer shall not open outward. The point or ingress or egress must be not less than 1.5 m. (5 ft.) above the surface of the water. The opening used for embarking or disembarking shall not be less than 1.5 m. (5 ft.) wide and 2.2 m. (7.2 ft.) tall.

(5) *Access to Deck:*

(a) Means shall be provided to ensure safe and convenient and unobstructed passage for any person embarking on or disembarking from the ship between the head of the pilot ladder, or of any accommodation ladder or other appliance provided and the ship's deck.

(b) Where such passage is by means of a gateway in the rail or bulwark, adequate handholds or stanchions shall be provided.

(c) If passage is over the bulwark, a bulwark ladder shall be provided. The bulwark ladder shall be securely attached to the deck or bulwark to prevent overturning. Two handhold stanchions shall be fitted at the point of embarking or disembarking from the ship on each side.

(d) Handholds and handhold stanchions should not extend beyond the hull of the ship, should be free of protrusions, such as loops, welded bars or padeyes, and be designed to allow the human hand to grasp any portion and slide up and down, as necessary, without removing the hand or releasing the grip. Handholds and stanchions should be not less than 0.7 m. (2 ft. 3 in.) and not more than 0.8 m. (2 ft. 7 in.) apart. Each stanchion shall be rigidly secured to the ship's structure at or near its base and also at a higher point. Handholds and stanchions shall not be less than 32 mm. (1.25 in.) and not more than 50 mm. (2 in.) in diameter, and shall extend not less than 1.20 m. (4 ft.) above the top of the bulwarks or point of ingress. Stanchions or handrails should not be attached to the bulwark ladder.

(e) Adequate lighting shall be provided to illuminate the position on deck where a person embarks or disembarks.

11. Deck Loaded Containers on Ships not Purpose-Built for Container Carriage

(a) *General:* Transits with deck-loaded containers by ships not designed for container trade have become more frequent in recent years. Many of these ships are smaller general purpose, breakbulk, liquid or dry bulk carriers. When such a ship carries deck-loaded containers well forward or aft of the bridge, the Pilots's view can be obstructed, tug and locomotive sound signals can be blanketed, and risk of damage to the ship and Canal structure and equipment is increased. Failure to meet minimum visibility requirements can disrupt overall Canal operations, and can delay the vessel's transit by a day or more.

(b) *Approval for Transits:* In some cases, ships not meeting minimum visibility requirements may, at the discretion of Canal authorities, be allowed the instant transit after execution of a proper release that relieves the Panama Canal Commission from liability, and indemnifies the Commission for damage or expense incurred, in case of damage of any sort immediately resulting from non-compliance with the visibility requirements. Additional tugs may also be assigned at the vessel's expense. Permanent waivers cannot be granted, and any future transits are expected to be in compliance with visibility requirements.

(c) *Advance Notice and Inspection:*

(1) Ships not container-designed but carrying deck-loaded containers are requested to include in their Canal ETA messages information on the number and location of deck-loaded containers. As a minimum, ships should provide location of deck-loaded containers by hatch or tank; the number of containers loaded abeam, fore and aft, and how high they are stacked; and whether containers are oriented athwartship or longitudinally.

(2) Such ships transited for the first time or that only transit occasionally with deck-loaded containers will be checked by boarding officers or Port Captains, or both, to determine the need for visibility waivers.

(3) Such ships transiting regularly with deck-loaded containers will be advised of any limitations on the number and configuration of deck-loaded containers necessary to satisfy minimum shipboard visibility requirements.

12. Dangerous Cargo Requirements

(a) *General:* Panama Canal Commission regulations require a minimum of 48 hours notice of intent to transit with dangerous cargo (35 CFR 123.4). The specific characteristics of the dangerous cargo, whether in bulk or packaged, are the primary factors which determine what, if any, precautionary measures shall be taken by Canal authorities. Cooperation in this matter will help in applying PCC resources for the benefit of all customers, and assure appropriate levels of safety for all vessels in transit.

(b) *Test of Equipment on Board:* Vessels carrying dangerous materials are also required to test all dangerous cargo alarms, safety devices, and fire fighting equipment as specified in 35 CFR 113.4. An entry shall be made in the ship's log stating that such tests were conducted and that the systems were found in proper working condition or, if not in proper order, a detailed listing of discrepancies shall be included within the log.

(c) *Holding due Non-Compliance:* Vessels are also reminded that a dangerous cargo hold ("H") will be imposed on vessels not providing the required advance dangerous cargo information, and that continuing non-compliance will result in not scheduling the vessels for transit until cleared by a PCC Boarding Officer. This can result in delay to the ship.

(d) *Tankers Claiming Cargo Tanks as "Gas Free" or "Inert":* In order to standardise the term "gas free" for applicability of 35 CFR 113, Dangerous Cargoes, and its interpretation when used by tankers in item GOLF of the pre-arrival radio message to Marine Traffic Control required by 35 CFR 123.4, the following policy is established:

(1) The term "gas free" is widely used within the shipping industry and the level of being gas free has several values depending on the application. For PCC dangerous cargo regulations, the definition of "gas free" requires that all cargo tanks, including cargo slop tanks, be free from dangerous concentrations of flammable or toxic gases. The goal is to have a vessel which, while in transit or at dock, is safe enough to endure a collision and not risk an explosion.

(2) To bring this definition to a working application for transiting or docking vessels, empty tanks shall be tested by the crew and verified safe for entry and hot work. When applicable, Masters will report in GOLF of their pre-arrival radio message the following: *"All cargo tanks and cargo slop tanks are gas free and considered safe for entry and safe for hot work".*

(3) Vessels with inert gas systems on board shall provide the following information in paragraph GOLF of their pre-arrival radio message:

(a) If cargo tanks have been stripped of cargo and are inert.
(b) If inert gas system is operational.
(c) The last cargo carried.

(e) *Reporting Shipments of Direct Reduced Iron:*

(1) Vessels transporting Direct Reduced Iron (DRI) in any of its forms, hot or cold moulded briquettes, lumps or pellets, are required to report the shipment by its correct technical name and International Maritime Organisation (IMO) number of the Traffic Management Divison in vessel's advance radio messages.

(2) DRI has been classified by IMO as belonging to the "Materials Hazardous only in Bulk, MHB" class and is listed in the IMO "Code for Safe Practice for Solid Bulk Cargoes (BC), Appendix B". The IMO number for cold moulded briquettes, lumps or pellets is "BC No. 15" and for hot moulded briquettes is "BC No. 16".

(3) Additionally, the following advance information should be provided to the Marine Safety Unit (MRRM):

(a) Copy of Certification that DRI is suitable for loading.
(b) Copy of Certification that DRI conforms to IMO requirements.
(c) Statement from Master or Shipper that IMO precautions as listed in the IMO "Code of Safety Practices for Solid Bulk Cargoes" for cold or hot moulded briquettes have been followed.
(d) Copy of procedures to be followed by the ship to ensure safety of ship and cargo in the event the cargo gets wet.
(e) Copy of current U.S. Coast Guard permit, if issued.

(f) *Precautionary Measures due to Dangerous Cargo:*

(1) The Commission takes precautionary measures for vessels carrying dangerous cargo, which vary depending on the ship and other factors. The specific characteristics of the cargo, and whether in bulk or packaged, are the primary factors which determine what, if any , precautionary measures shall be taken.

(2) Information on dangerous cargo on board shall be provided by the vessel no less than 48 hours in advance of arrival, and verified by the Commission Boarding Officer upon arrival.

(3) Based on this information, a Precaution Designator (PD) is assigned to the vessel. "PDs" are numbers (1, 2, 3, 4, 5, 6 or 0) or letters ("N" or "H"), where "PD-1" is the most hazardous, and "PD-0" the least. "PD-N" means no dangerous cargo is aboard.

(4) When a vessel does not provide the necessary information as required by the regulation, an "H" or "HOLD" is assigned. This means that the vessel will not be allowed to transit or dock until the cargo information is made available.

(5) The "PD" assigned to each vessel sets forth the imposed precautionary measures due to cargo that will be taken for that vessel while in Canal waters, which include actions such as the level of pilot assignment; docking, clear-cut or channel restrictions; special precautions while at the locks, or whether or not a fire truck will stand-by at the locks during lockage.

(6) While the precautionary measures taken by the Commission are internal actions to ensure a safe transit or docking to every vessel, it is important that Masters provide exact and timely information as there is a direct relationship between the type of cargo and the way the vessel is scheduled for transit or for docking at Cristobal or Balboa.

(7) *Failure to provide proper information could result in delays to the vessel.*

13. Manning Requirements

Vessels Agents and their principals are requested to remind ships' personnel that sufficient personnel must be available for a safe operation while in Canal waters. The Canal Operations Captain or his designee may deny transit if, in his opinion, the vessel is insufficiently manned. These requirements include:

(1) A full watch on deck and in the engine room while underway in Canal waters.

(2) Sufficient officers and crew forward and aft to handle lines expeditiously when approaching a lock, while moored temporarily to a lock or wall, when in a lock chamber, or when so requested by the pilot.

(3) Sufficient seamen to receive and let go of tug lines.

(4) When a vessel is entering or leaving a lock, getting underway, berthing, unberthing, shifting berth, anchoring, or is underway in Gaillard Cut, the Master shall be on the bridge and all other officers shall be at their regular stations.

(5) As otherwise required by 35 CFR §107.

(6) Should Canal officials or vessel's Agent require the Master's presence or attention, the request may be granted by the Pilot, provided the Master's presence is not momentarily essential and a qualified representative remains on the bridge. The Master shall remain or return to the bridge at the Pilot's request.

HEALTH: Application for Radio Pratique is available to all vessels arriving in Panama Canal waters. Radio Pratique is a quarantine clearance by radio, based upon information from the vessel prior to its arrival at Balboa or Cristobal and past experience with the vessel and its personnel. A limited number of vessels will be sampled for compliance with the required standards of health and sanitation on board. The sampling will generally be done on a random basis and will provide a measure of the success of the programme.

It should be emphasised that Radio Pratique applies only to the quarantine section of the required forms and documents for the Panama Canal. All vessels must still complete the required boarding forms, and in most cases, be prepared to receive the Panama Canal Boarding Inspector on arrival in Canal waters. Such forms as crew and passenger lists, ship's information forms, and the cargo declaration must always be completed for presentation to the Panama Canal officials.

Attached is a listing of the items to be reported prior to arrival in the Canal waters. The information is similar to that now required of vessels requesting Radio Pratique in U.S. ports. In addition, there are some special circumstances that make additional information necessary.

The manner of reporting the information required should be clear and orderly as specified in 35 CFR, section 123.4, listing information required in advance. The request for Radio Pratique should originate from the Master and can be submitted directly by radio or through the vessel's local Agent. The local Agent should submit his request with all the required information to the Admeasurement Office at the port of arrival of the vessel. The local Agent will be notified when Radio Pratique is granted or refused and the Agent will communicate this information to the ship.

It is hoped that vessels will take advantage of Radio Pratique when arriving for transit and that in as many instances as possible it may be able to grant this time saving privilege.

Radio Pratique Programme

1. *General*

(a) The granting of Radio Pratique is an Office of Health and Safety responsibility designated to the Occupational Health Division. (35 CFR 61.264) see below.

§61.264 Radio Pratique; vessels only.

The Medical Officer in charge may grant Pratique by radio to a vessel upon the basis of information regarding the vessel, its cargo and persons aboard, received prior to arrival of the vessel, when in his judgement, and in accordance with instructions by the Chief, Occupational Health Division, the entry of the vessel will not result in the introduction, transmission or spread of communicable diseases.

(b) In order to process the details of this programme more expeditiously, communication may be held between the quarantine offices and the ship's Steamship Agent representing the vessel hereinafter called local Agent.

(c) All vessels coming to the Panama Canal may request Radio Pratique by means of the ETA radio message or through the ship's local Agent.

(d) Requests for Radio Pratique must be submitted to the Admeasurement Office at the port of arrival not less than 48 hours in advance.

2. *Specific Requirement for Each Voyage*

(a) The vessel will be maintained free from rats and vermin.

(b) The Derat Certificate or Derat Exemption Certificate must be valid (i.e. date of issue not more than 180 days prior to date of arrival at the Panama Canal).

(c) Vessels arriving within 15 days from the ports designated in the Aedes Aegypti Indices Bulletins must be disinfected with the aerosol described in the Aedes Aegypti Indices Bulletin No. 8, 1970.

(d) The restrictions imposed in 61.281 through 61.302, "Importation of Certain Things", Title 35 CFR, must be strictly adhered to and followed.

3. *Action taken by the Medical Officer in Charge**

(a) Radio Pratique *may* be granted by the Admeasurement Office upon request from the vessel or through the ship's local Agent representing the vessel provided it is documented by ship's radio.

(1) If the information requested in the Appendix hereto is complete; *and,*

(2) If the Medical Officer in charge* is of the opinion that the vessel is reasonably free from any condition either from a health or sanitation standpoint that might introduce illness into the Canal.

(b) Radio Pratique may be denied by the Medical Officer in charge:

(1) If the requested information is incomplete; or,

(2) If the Medical Officer in charge* feels that medical or sanitary reasons prevail requiring careful inspection upon arrival of the vessel.

*Or designated representative.

4. *For Sampling and Surveillance of Compliance Purposes*

After the information supplied by the Shipmaster has been reviewed the Medical Officer in charge* will advise the ship's local Agent concerned whether Radio Pratique has been granted or denied and if any restrictions or limitations have been imposed. He will also inform the Marine Traffic Controller.

*Or designated representative.

5. *Action taken by Ship's Local Agent*

(a) The ship's local Agent may submit requests for Radio Pratique to the Admeasurement Office if the vessel has not done so by radio. The information required is listed in the Appendix hereto. Such requests should be submitted, properly documented by ship's radio, not later than 24 hours before the vessel is scheduled to arrive nor earlier than 48 hours before the expected arrival of the vessel.

(b) The ship's local Agent will advise the vessel which he represents whether Radio Pratique has been granted or denied; and any restrictions or limitation imposed.

6. *Action taken by Panama Canal Commission Boarding Inspectors*

On vessels that have been granted Radio Pratique, the Panama Canal Commission Boarding Inspector will:

(a) Ascertain that the Ship's Master has completed the Ship's Information and Quarantine Declaration (Form 4398) *except* the "quarantine data" portion at the bottom of the form; and,

(b) Otherwise process the vessel (e.g. for Admeasurement, and any other non-quarantine requirements) and any further questioning on quarantine matters. This processing will be in the bay. Passengers that are disembarking from vessels may be processed by the Panamanian Authorities at the docks.

(c) Vessels that are denied Radio Pratique or have failed to request Radio Pratique, will be cleared through Quarantine by the Panama Canal Commission Boarding Inspector in the prescribed routine manner.

7. *Action taken by Shipmasters*

(a) Shipmasters should request Radio Pratique directly by radio or through the Agent representing them in the Panama Canal and supply the information requested in the Appendix hereto.

(b) Shipmasters should take cognizance of the requirements listed in paragraph 2, "Specific requirement for each voyage", above.

(1) If granted Radio Pratique, they may enter the anchorage area flying the quarantine flag; they must however comply with any restrictions or limitations imposed by the Medical Officer in charge.

(2) Vessels *must* await boarding by a representative of the Panama Canal authority.

(3) If denied Radio Pratique, vessels must be cleared for Quarantine in the prescribed routine manner; that is enter the Canal waters flying the quarantine flag and must await processing by the Panama Canal Commission Boarding Inspector.

(4) It is important that the Shipmasters remember that in all instances all forms regularly required are to be completed prior to arrival for presentation to the Boarding Inspector.

Appendix

Information required by Quarantine Officer in Charge from Shipmaster requesting Radio Pratique through ship Agency representing him at the Panama Canal.

Full name of vessel.

Country of registry.

International radio call letters.

Estimated date of arrival and port.

Whether docking at Balboa or Cristobal and reason therefor.

List of ports of call within past *15* days prior arrival.

Report any illness or communicable diseases on board.

Report any death occuring on board since departure from last port and cause, if known or suspected.

Report the number of passengers to be disembarked and port of disembarking (e.g. Cristobal or Balboa).

Report the date of the Derat Certificate or Derat Exemption Certificate.

Record the number, kind, and origin of all animals aboard and if any are scheduled for disembarking.

Report the origin or source of the meat in the ship's stores.

Only vessels in the following categories need still be subject to "on board" public health clearance upon arrival:

A. Vessels which, during the 15 days prior to arrival in the Canal ports, have or have had on board passenger or crews with any of the following conditions or symptoms of illness:

1. Temperature of 100° F (38° C) or greater *(a)* which persisted for 2 days or more: or *(b)* which was accompanied or followed by any one or all of the following: rash, jaundice, glandular swelling; *or*
2. Prolonged diarrhoea (lasting 1 full day or more).

B. Occurrence of death on board for any reason.

C. Vessels which have been in a country infected with plague in the 60 days prior to arrival in the Canal.

RADIO: Balboa Naval Radio NBA.

Signal Stations: (a) Visual-signal stations established for communication on arrival Canal approaches by International Code and/or flashing light, at top of Building 1105, Cristobal, and at Flamenco Island at Pacific entrance.

(b) Flamenco Island and Cristobal Signal Station also contactable on VHF Channel 12 frequency 156.6 MHz, and R/T 2182, 2638 and 2846 kHz – call letters WHC.

(c) Vessels awaiting transit at Balboa anchorage should keep VHF radio watch on Channel 12 for transit orders.

(d) Arriving ships may communicate with Port Captain's Office, Cristobal through Cristobal Signal Station. Radio communication is maintained on international maritime VHF Channel 12 (156.6 MHz) through "Cristobal Radio".

§123.4 Advance information required by radio from vessels approaching Canal:

(a) Vessels approaching the Panama Canal shall communicate by radio to the Traffic Management Division not less than 48 hours in advance of arrival at the Canal (or earlier if radio communication is practicable at an earlier time), the information required by this section unless this information has been previously communicated to the Canal Authorities by other means. Symbols of the phonetic alphabet shall be used to identify each item and the word "NEGAT" shall be used after the items that can be answered "no", "none", or "not applicable".

The following information shall be provided:

ALFA – The Panama Canal Identification Number of the vessel. If the vessel does not have a Panama Canal Identification Number, or if it never transited the Panama Canal, provide the following information:

(1) ITC 1969 Length.

(2) ITC 1969 Breadth.

(3) ITC 1969 Depth.

(4) ITC 1969 Gross Tonnage.

(5) ITC 1969 Net Tonnage.

(6) Length Overall (LOA).

(7) Extreme Breadth, measured at the widest part of the hull below the main deck to the outside of the plating or rubbing stakes, etc.

(8) Summer Loaded Displacement.

(9) Summer Loaded Draft.

BRAVO – Estimated date and time of arrival, port of arrival and request for Canal transit if desired.

CHARLIE – Estimated draft upon arrival, in feet and inches (fore and aft), in tropical fresh water.

DELTA – Any changes in the vessel's name, country of registry, structure, or use of fuel oil tanks that have occurred since the vessel last transited Panama Canal.

If the vessel has been structurally altered since it's last transit, provide the information as requested in ALFA items (1) through (9).

ECHO – Will the vessel dock at Balboa or Cristobal? What is the reason for docking? If it is for cargo operations, fuel or water, give the tonnage involved in each case. Is there any other reason the vessel will not be ready to transit upon arrival? What is the reason?

FOXTROT – The nature and tonnage of any deck cargo.

GOLF – Is the vessel carrying any explosives or dangerous cargo in bulk, as classified in 113.3? If yes, state the correct technical name, quantity (in metric tons), United Nations Number, the International Maritime Organisation class and division (include compatibility group for explosives only), and the stowage for each dangerous cargo carried. Report flash point of cargoes. Report use of inert gas in cargo and cargo slop tanks. Tankers claiming to be gas-free shall report "cargo tanks including cargo slop tanks are safe for hotwork and safe for entry". List last cargo of empty tanks not gas-free. If the vessel is a tanker in ballast condition and not gas-free, state the technical name, United Nations number and International Maritime Organisation class and division of the previously carried cargo. Tankers reporting "Golf:Negat" shall, in addition, state the technical names of non-dangerous cargos carried.

HOTEL – Is the vessel carrying any packaged dangerous goods (as specified in 113.3) other than explosives? If yes, state the International Maritime Organisation class and division and the total quantity (in metric tons) within each class.

INDIA – Quarantine and Immigration information:

(1) Is Radio Pratique desired?

(2) State the ports at which the vessel has called within 15 days preceding its arrival at the Canal.

(3) State all cases of communicable disease aboard and the nature of the disease or diseases, if known.

(4) The number of deaths which have occurred since departure from the last port and the cause of each death, if known.

(5) The number of passengers disembarking and their port of disembarkation.

(6) The number of ports of origin of any stowaway and a brief description of the identity papers of each stowaway.

(7) The number, kind and country of origin of any animals aboard. Are any animals to be landed?

(8) The country of origin of all meat, whether carried as cargo or as ship's stores.

(9) Has the vessel called at a port in any country, infected with foot-and-mouth disease or rinderpest during its present voyage?

Rinderpest or foot-and-mouth disease exists in all countries of the world, except Australia, Bahamas, Barbados, Bermuda, Belize, Canada, Channel Islands, Chile, Costa Rica, Denmark, Dominican Republic, El Salvador, Fiji, Finland, France, Great Britain (England, Scotland, Northern Ireland, Wales and Isle of Man), Greenland, Guatemala, Haiti, Honduras, Iceland, Ireland, Jamaica, Japan, Mexico, Netherlands, New Caledonia, New Zealand, Nicaragua, Norway, Panama, Papua New Guinea, Poland, Spain, Territory of St. Pierre and Miquelon, Sweden, Tobago, Trinidad and Trust Territory of the Pacific Islands.

(10) (a) Specify whether the vessel has a valid Derat Certificate or a Derat Exemption Certificate issued 180 days prior to arrival.

(b) The following additional information shall be transmitted via radio to the Traffic Management Division from all vessels as applicable:

(1) Vessels approaching from the Pacific shall report actual time of passing Cape Mala, or the latitude of Cape Mala, and the vessel's speed.

(2) Vessels approaching from the Atlantic shall report 12 hours prior to arrival at Cristobal any change of 1 hour or more in the expected time of arrival.

(3) Any other matters of importance and interest.

(c) Timely receipt of the above information will facilitate the transit or docking of arriving vessels. Failure to comply with these reporting requirements may subject a vessel to delay since vessels which do comply will receive priority of service and handling over those which do not.

VHF: *§123.3 Radiotelephones required.*

(a) Except for vessels operated by the Panama Canal Commission or another agency of the United States, the following vessels shall comply with the requirements of this section:

(b) A vessel of a type described in paragraph (a) of this section shall be equipped with a radiotelephone which can be operated from the navigation bridge and which can be used to communicate on the following Channels in the 156 – 162 MHz frequency band:

(1) Channel 12, 156.600 MHz;
(2) Channel 13, 156.650 MHz;
(3) Channel 16, 156.800 MHz.

(c) A vessel of a type described in paragraph (a) of this section, which has notified the Canal Operations Captain or his designee that it is ready to transit or otherwise navigate in Panama Canal waters and requires a Panama Canal Pilot, shall, until a Pilot boards the vessel, maintain a continuous watch on Channel 12. Channel 12 will be used for notification to vessels of their transit time and for advisory harbour control communication in Limon Bay.

(d) A vessel of a type described in paragraph (a) of this section shall maintain a continuous watch on Channel 13 when underway in Panama Canal waters without a Panama Canal Pilot aboard, and shall use Channel 13 only for ship-to-ship or ship-to-coast navigational communications. When such vessels have a Panama Canal Pilot aboard, Channel 13 may be used only by the Pilot or at his direction for navigational communications.

(e) The signal stations on Flamenco Island and in Cristobal may be called on Channels 12 and 16. Channel 16 may also be used by all vessels for ship-to-coast communications with steamship Agents or other commercial businesses.

VTS: Vessel Traffic Management System in operation.

TANKERS: *Transit Restrictions:* Vessels carrying combustible liquids in bulk having a flash point above 61°C (141°F.) are not considered to be dangerous by virtue of their fire hazard.

Special rules apply to vessels carrying dangerous cargo or not gas free. These rules concern the conduct of navigation in the Canal and in the approaches to the locks. Generally it may be assumed that vessels carrying a dangerous cargo shall:

(a) Not overtake.
(b) Not be overtaken.
(c) Meet oncoming vessels at a safe speed.
(d) Avoid meeting oncoming traffic at turns.
(e) If required to anchor, anchor well clear of the channel and other vessels.
(f) Take a tug at locks and Gaillard Cut if required by the Pilot.

DANGEROUS CARGO REQUIREMENTS:

(a) *General:* Panama Canal Commission Regulations require a minimum of 48 hours notice of intent to transit with dangerous cargo (35 CFR 123.4). The specific characteristics of the dangerous cargo, whether in bulk or packaged, are the primary factors which determine what, if any, precautionary measures shall be taken by Canal authorities. Cooperation in this matter will help in applying PCC resources for the benefit of all customers, and assure appropriate levels of safety for all vessels in transit.

(b) *Test of Equipment on Board:* Vessels carrying dangerous materials are also required to test all dangerous cargo alarms, safety devices, and fire fighting equipment as specified in 35 CFR 113.4. An entry shall be made in the ship's log stating that such tests were conducted and that the systems were found in proper working condition or, if not in proper order, a detailed listing of discrepancies shall be included within the log.

(c) *Holding due Non-Compliance:* Vessels are also reminded that a dangerous cargo hold ("H") will be imposed on vessels not providing the required advance dangerous cargo information, and that continuing non-compliance will result in not scheduling the vessels for transit until cleared by a PCC Boarding Officer. This can result in delay to the ship.

(d) *Tankers Claiming Cargo Tanks as "Gas Free" or "Inert":* In order to standardise the term "gas free" for applicability of 35 CFR 113, Dangerous Cargoes, and its interpretation when used by tankers in item "Golf" of the pre-arrival radio message to Marine Traffic Control required by 35 CFR 123.4, the following policy is established:

(1) The term "gas free" is widely used within the shipping industry and the level of being gas free has several values depending on the application. For PCC dangerous cargo regulations, the definition of "gas free" requires that all cargo tanks, including cargo slop tanks, are free from dangerous concentrations of flammable or toxic gases.

(2) To bring this definition to a working application for transiting vessels, the Master must report in "Golf" of their pre-arrival radio message the following: "All cargo tanks and cargo slop tanks are gas free and considered safe for entry and safe for hot work".

(3) Vessels with inert gas systems on board shall provide the following information in paragraph "Golf" of their pre-arrival radio message:

(a) If cargo tanks have been stripped of cargo and are inert.
(b) If inert gas system is operational.
(c) The last cargo carried.

(e) *Reporting Shipments of Direct Reduced Iron:*

(1) Vessels transporting Direct Reduced Iron (DRI) in any of its forms, hot or cold moulded briquettes, lumps or pellets, are required to report the shipment by its correct technical name and International Maritime Organisation (IMO) number to the Traffic Management Division in vessel's advance radio messages.

(2) DRI has been classified by IMO as belonging to the "Materials Hazardous only in Bulk, MHB" class and is listed in the IMO "Code for Safe Practice for Solid Bulk Cargoes (BC), Appendix B". The IMO number for cold moulded briquettes, lumps or pellets is "BC No. 15" and for hot moulded briquettes is "BC No. 16".

(3) Additionally, the following advance information should be provided to the Marine Safety Unit (MRRM):

(a) Copy of Certification that DRI is suitable for loading.
(b) Copy of Certification that DRI conforms to IMO requirements.
(c) Statement from Master or Shipper that IMO precautions as listed in the IMO "Code of Safety Practices for Solid Bulk Cargoes" for cold or hot moulded briquettes have been followed.
(d) Copy of procedures to be followed by the ship to ensure safety of ship and cargo in the event the cargo gets wet.
(e) Copy of current U.S. Coast Guard permit, if issued.

DENSITY: On several occasions vessels arriving for transit have been found to be over authorised draft after entering Gatun Lake. Overdrafts in these instances have been caused, it is believed, by assuming fresh water densities different from what actually exists in Canal.

Using distilled water as 1.000 at 3.98° C, water densities have been determined to be as follows:

	Density	
Location	*Gm./cc. 85° F*	*Lb./cu.ft 85° F*
(a) Gatun Lake	0.9954	62.21
(b) Miraflores Lake	0.9971	62.32
(c) Balboa Anchorage	1.0219	63.87
(d) Cristobal	1.0212	63.76

FRESH WATER: Available at Balboa or Cristobal.

BOILER WATER: May be taken without charge from Gatun Lake subject Pilot's permission and draft.

CONSULS: (Colon or Panama City).
Argentina, Australia, Austria, Belgium, Bolivia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Cuba, Cyprus, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Finland, France, Germany, Greece, Guatemala, Haiti, Honduras, India, Israel, Italy, Jamaica, Japan, Korea (South), Libya, Malta, Mexico, Netherlands, Nicaragua, Norway, Paraguay, Peru, Philippines, Portugal, Spain, South Africa, Sweden, Switzerland, Thailand, Turkey, U.K., U.S.A., Uruguay, Vatican, Venezuela, Yugoslavia.

CERTIFICATES: See "Documents".

CUSTOMS: Allowances: Tobacco, Wine and/or Spirits at Master's discretion sufficient for immediate consumption. Alcohol not permitted to be taken ashore.

REPATRIATION: Possible. Advise Agent in ample time in order to prepare necessary documentation.

AIRPORT: Tocumen International Airport is located outside Panama City, 18 miles from Balboa; 48 miles from Cristobal, served by all major scheduled international airlines operating in Southern hemisphere.

TIME: EST. No alterations to clocks necessary throughout the year.

HOLIDAYS: January 1st; January 9th; Good Friday; Carnival Tuesday (day before Ash Wednesday); May 1st; August 15th (Pacific side only); October 12th; November 3rd; November 5th (Atlantic side only); November 28th; December 8th; December 25th.

LOCKS: Gatun Locks (Atlantic side) raise and lower vessels 85 ft., Miraflores (nearest to Pacific) 54 ft. and Pedro Miguel (Pacific side) 31 ft.

NOTICE:

Notice to Shipping No. N-2-95 – Harbour Operations:
Dated 1st January 1995.

1. Arriving and Departing the Anchorages:

Vessels arriving or departing the Atlantic or Pacific Anchorages are required to contact the Port Entry Coordinator (PEC) in the corresponding Signal Station on VHF Channel 12 before the evolution takes place.

2. Harbour Tug Services:

The harbour tugs operating at Balboa and Cristobal is a service contracted by the National Port Authority (NPA). The following rules shall be followed regarding this service.

(a) Only Panama Canal Commission's Marine Traffic Control (MTC) has the authority to dispatch the required tugs for harbour service. This will be done via harbour radio.

(b) All docking and undocking jobs are to be performed by NPA tugs with the following exceptions:

  (1) Dead tows from the piers to the Canal. Panama Canal Commission (PCC) tugs will continue to make up at the pier before proceeding to the Canal.

  (2) All dead tows proceeding from the Canal to the piers will be taken to the piers by PCC tugs.

  (3) All dead tows, either Northbound or Southbound, proceeding to sea will be taken to the usual "cast off points", where the ocean towing tug usually makes up to the tow. From the dock at either Cristobal or Balboa, NPA tugs will be used. If coming from transit, PCC tugs will be employed. The Balboa "cast off point" is in the area South of Buoys No. 1 and 2. In Cristobal, this is in the area between the Mole Buoy and Cristobal breakwater entrance.

  (4) All docking and undocking operations at Mindi Dock, and Rodman Piers, and docking and undocking operations of U.S. Navy vessels at Pier 16, Cristobal, will be done by PCC tugs, if available.

  (5) The turning around of large "supers" in Cristobal Harbour will be done by PCC tugs, if available.

  (6) PCC tugs will be used, when available, for primary response to emergency situations in the harbour and anchorages.

(c) These operational guidelines to not cover unusual circumstances that may arise requiring special tug assignments. The Canal Operations Captain (COC) or his designee will decide on a case-by-case basis what constitutes an emergency, whereby a substitution or exchange of tugs between port and transit functions may be made.

3. Docking and Mooring Restrictions

(a) Vessels classified as Precaution Designator-1 (PD-1) or PD-2 will not be allowed to berth at Dock 6 in Balboa. Vessels which must go to the dock to discharge such cargo, which resulted in their being classified as PD-1 or PD-2, will do so at Dock 7, 14 or 15.

  (1) The Commission takes precautionary measures for vessels carrying dangerous cargo, which vary depending on the ship and other factors. The specific characteristics of the cargo, and whether in bulk or packaged, are the primary factors which determine what, if any, precautionary measures shall be taken.

  (2) Information on dangerous cargo on board shall be provided by the vessel no less than 48 hours in advance of arrival, and verified by the Commission Boarding Officer upon arrival.

  (3) Based on this information, a Precaution Designator (PD) is assigned to the vessel. "PDs" are numbers (1, 2, 3, 4, 5, 6 or 0) or letters ("N" or "H"), where "PD-1" is the most hazardous, and "PD-0" the least. "PD-N" means no dangerous cargo is aboard.

  (4) When a vessel does not provide the necessary information as required by the regulation, an "H" or "HOLD" is assigned. This means that the vessel will not be scheduled for transit or docking until the cargo information is made available.

  (5) The "PD" assigned to each vessel sets forth the imposed precautionary measures due to cargo that will be taken for that vessel while in Canal waters, which include actions such as the level of pilot assignment; docking, clear-cut or channel restrictions; special precautions while at the locks, or whether or not a fire truck will stand by at the locks during lockage.

  (6) While the precautionary measures taken by the Commission are internal actions to ensure a safe transit or docking to every vessel, it its important that Masters provide exact and timely information, as there is a direct relationship between the type of cargo and the way the vessel is scheduled for transit or for docking at Cristobal or Balboa.

  (7) Failure to provide proper information could result in delays to the vessel.

(b) Vessels over 213.4 m. (700 ft.) LOA are not allowed to berth at Dock 6 in Balboa. Vessels which are more than 183.0 m. (600 ft.) LOA and have a beam of 30.5 m. (100 ft.) or more will require approval of the office of the Canal Operations Unit prior to that evolution taking place.

(c) The routine docking of a second vessel at Docks 7 and 8 in Balboa with a vessel already present at the opposite pier may be accomplished with the following restrictions:

  (1) For movements occurring during daylight, the combined beam of both vessels will not exceed 45.7 m. (150 ft.).

  (2) Movements of vessels with a combined beam exceeding 33.5 m. (110 ft.) will be approved on a case-by-case basis by the Duty Canal Operations Captain (DCOC).

  (3) Movements occurring during darkness will be approved on a case-by-case basis. However, in these instances the combined beam of both vessels will not exceed 33.5 m. (110 ft.).

  (4) An omnidirectional tug will be used when available.

  (5) The tidal current is approximately slack.

  (6) The tidal level provides sufficient water for deeper ships (especially critical for Dock 8, and

  (7) Dry dock entries/exits will be accomplished during daylight only.

(d) A large vessel mooring alongside a smaller vessel which is being used as a fender at any dock, is not considered by PCC to be a safe procedure in waters under Canal Operation Control. PCC will require both vessels to sign Form 4323, "Undertaking to Release and Indemnify" (Not reproduced), before proceeding with mooring that requires a Pilot employed by PCC.

4. Periodic Surveys at Balboa and Cristobal

The Surveys Branch of PCC's Engineering Division periodically conducts routine hydrographic surveys of the Channel, the pier areas adjacent to Rodman Naval Station, and the general and inner harbour areas of the ports of Balboa and Cristobal. When these surveys reveal that the general and inner harbour areas of the ports have significantly silted, Pilots and customers will be notified of the conditions of the areas and of the approved procedures to be followed.

5. Balboa Harbour Conditions

(a) *Purpose:* To direct the attention of the shipping community of the conditions in the general and inner harbour areas of the Port of Balboa, and to inform of the steps taken by PCC as a result of these conditions.

(b) *Depths and Drafts in Balboa:* The depths in Table I (See below) refer to amount of water available at Mean Low Water Springs (MLWS) in the Port of Balboa. The attendant draft figures are the allowable drafts at the respective docks at any stage of the tide. *They allow for an under-keel clearance of approximately 0.90 m. (3 ft.).*

Table I – Depths and Drafts in Balboa

Dock	*Depth*	*Draft*
6	9.20 m. (30' 02")	8.30 m. (27' 03")
7-A	10.10 m. (33' 01")	9.20 m. (30' 02")
7-B	9.90 m. (32' 06")	9.00 m. (29' 06")
8	9.20 m. (30' 02")	8.30 m. (27' 06")
14-A	10.50 m. (34' 05")	9.60 m. (31' 06")
14-B	10.50 m. (34' 05")	9.60 m. (31' 06")
15-A	11.00 m. (36' 01")	10.10 m. (33' 02")
15-B	10.30 m. (33' 10")	9.40 m. (30' 10")
15-C	10.10 m. (33' 01")	9.20 m. (30' 02")
16-A	10.40 m. (34' 01")	9.50 m. (31' 02")
16-B	10.00 m. (32' 10")	9.10 m. (29' 10")
18-A	10.65 m. (34' 11")	9.75 m. (31' 11")
18-B	9.00 m. (29' 06")	8.10 m. (26' 07")
18-C	12.00 m. (39' 04")	11.10 m. (36' 06")
18-D	10.20 m. (33' 06")	9.30 m. (30' 06")
18-E	8.70 m. (28' 06")	7.80 m. (25' 07")

  (1) Requests for vessels wishing to dock, whose draft exceeds these limits, will be reviewed by the Canal Operations Unit on a case-by-case basis. Depending on the state and stage of the tide, docking may be permitted. Generally, vessels whose drafts exceed by 1.50 m. (5 ft.), those identified for their respective piers in Table I, will not be allowed to dock. The nature of the cargo being carried may require more stringent applications of the previously stated conditions.

  (2) All vessels which arrive with a draft in excess of 8.10 m. (26' 07"), or which expect to load to a draft in excess of that amount, will be required to execute Release Form No. 4323 "Undertaking to Release and Indemnify" (Not reproduced). Such execution acknowledges that the vessel's draft may exceed the available depth of water at the assigned dock; that tide fluctuation in Balboa is such that with a minus tide, the under-keel clearance of 0.90 m. (3 ft.) referred to in Paragraph 5.b, could be lost; and, that because of that risk, shifting of these vessels will only be performed after a review of the new conditions the vessel will move into, and approval by the COC or his designee.

  (3) The reason for the above precautionary measures is that negative tides up to a maximum of 0.90 m. (3 ft.) occur in the port twice a month, for several days at the time. Using the "worst case" scenario for cargo berths (Pier 18-B), removes the necessity of signing a difference release for each berth, or for having a new release executed if the vessel is to be shifted.

(c) *Docking in Balboa:* When vessels are moored at Dock 6 in Balboa, the ship's Master should be reminded to have his crew tend the mooring lines and keep the lines tight, especially during the ebb tide when the lines may go slack. Keeping the mooring lines tight will help prevent a surge of the vessel when ship traffic moving in the Canal channel passes close to Dock 6. *Pilots are instructed to proceed with caution and at a safe minimum speed when passing Dock 6.*

6. Bunkering/Fuelling Vessels at the Docks in Cristobal or Balboa

Bunkering/fuelling a vessel at any dock from a tank vessel moored alongside the offshore side of that ship is not considered by PCC to be a recommended practice in waters under Canal Operation Control. The COC may allow exceptions on a case-by-case basis. However, if this is done, PCC will require both vessels to sign an "Undertaking to Release and Indemnify" form before proceeding with mooring that requires a PCC Pilot.

7. Vessel Movements in Balboa and Cristobal

(a) No movement either into or out of Dry Dock 1 will be authorised if there are vessels moored to both Dock 7 and Dock 8.

(b) Any docking or undocking involving the use of tugs to either Dock 7 or Dock 8 when there is a vessel berthed on the other of those two docks will be reviewed and authorised in advance by the CPC on duty. Dockings involving vessels with a combined beam exceeding 33.5 m. (110 ft.) will only be authorised on a case-by-case basis.

(c) *Lighting on Piers 9/10 Cristobal Harbour:* A quick-flashing green light is available at the corner of Cristobal Piers 9/10 to assist ships docking at Pier 16. Should this light be extinguished or should additional lighting be required for a particular job, the NPA Dockmaster will provide the additional lighting requested. The Dockmaster may be contacted through the Cristobal Harbour Controller located in MTC, Balboa.

(d) *Inadequate Lighting or Fendering:* Form 4323, "Undertaking to Release and Indemnify" will be required to be signed when a vessel is to be berthed on a pier deemed to have inadequate or absent lighting or fendering at Balboa or Cristobal Harbours.

8. Vessel Movements Control for Small Ships in the Ports of Balboa and Cristobal

On certain small vessels, such as those involved in local bunkering operations, specially designated by the Canal Operations Captain, the Master and crew may be allowed to complete docking manoeuvers after the first mooring line is made fast ashore. In these cases, the Pilot may yield control of, and responsibility for, the vessel to the vessel's Master once the vessel is no longer being piloted or navigated. This would occur after the first mooring line is made fast at the Pilot's direction, provided that any assisting harbour tugs have been dismissed. At this point, the Pilot may allow the vessel's Master to assume control. The Pilot will retain control of the vessel if the Master so desires or as long as harbour tugs are made fast or standing by to assist.

9. Vessel Movements into and out of the Dry Dock

(a) Movement to and from the dry dock will normally be made from the wet dock adjacent to that facility. Panama Canal Pilots will pilot a vessel destined to enter the dry dock from sea to the wet berth associated with that dock. If no wet berth is available, then the Pilot will continue to exercise his authority until the first part of the vessel crosses the dry dock sill. At that point, the Pilot's responsibility will terminate, and he will relinquish control. When departing the dry dock, the Pilot will undertake control of the vessel from the wet dock to sea. If there is no wet dock available, the pilot will assume control when the last part of the vessel crosses the sill on the way out. When arriving from sea, a vessel will be considered docked at the wet berth when the first mooring line is made fast ashore at the Pilot's direction.

(b) When docking at the wet berth and preparing to enter the dry dock, the Pilot will yield control of, and responsibility for, the vessel at a time mutually agreed upon with the vessel's Master. When proceeding directly into or out of the dry dock, the Pilot will yield or accept control of the vessel at a time mutually agreed upon with the appropriate Astilleros Braswell employee. Normally, this will occur when the first line is made fast ashore or the last line is cast off and the vessel is in a safe condition. If such mutual agreement cannot be reached, the evolution will be terminated and the vessel returned to its starting location or to safe anchorage, at no cost to the Canal.

(c) The Pilot will be responsible for determining the number of tugs required, for calling tugs and for directing their activities. Two tugs are normally assigned.

(d) A step-7 Pilot will be assigned to any vessel moving directly to a dry dock. Vessels which are bound for the dry dock, but will be warped into that facility at a later time, will be assigned a Pilot qualified for that size vessel.

(e) The direct movement of vessels into or out of the dry dock will be made only during daylight. Warping the vessel into or out of the dry dock from the adjacent wet dock without PCC assistance or support may be performed anytime it is safe and efficient to do so.

(f) If the vessel is simply going to or from the wet dock, and not immediately involving the dry dock, then the docking/undocking will take place in the normal manner.

(g) Good radio communications should exist between the ship, Dockmaster and tugs during the docking operation. Working channel is 4B.

(h) Shipyards line handlers should be positioned to receive and shift lines as soon as the ship is within heaving line range of the dock entrance. If required and if the berth is cleared, the vessel could be positioned alongside Pier 8.

(i) The vessel should provide lines, line handlers and should operate winches as directed by the Pilot or Dockmaster.

(j) When making the approach, the state of the tide, currents and wind should be considered. The wind generally blows from the North or N.N.W. at variable speed.

10. Vessel Coordination and Procedures at the Atlantic Entrance

(a) *Purpose:* To direct the attention of the shipping community to improved vessel coordination and procedures implemented to reduce the risk of accidents at the Atlantic entrance.

(b) *Responsibility and Authority:* The Canal Operations Unit and the Traffic Management Division are the Marine Bureau elements responsible for coordination of vessel movements at the Atlantic entrance. The Assistant Canal Operations Captain (ACOC), Cristobal, is the senior representative of the Canal Operations Unit at the Atlantic Terminus and has authority to direct Signal Station personnel to meet the requirements of this notice.

(c) *Communications:*

(1) As provided by 35 CFR 123.3, all vessels of 300 gross tons or over; of 100 gross tons or over when carrying one or more passengers for hire; and every commercial towing vessel of 8 m. (26 ft.) in length or more shall be equipped with a radiotelephone which can be operated from the navigation bridge, and shall maintain a continuous watch on VHF Channel 12 until the PCC Pilot assumes control.

(2) As provided by 35 CFR 101.1, the above vessels must, when arriving and before entering the breakwater, communicate with the Signal Station on VHF Channel 12. The Port Entry Coordinator (PEC) shall contact vessels when they are 5 miles off the breakwater, if they have not previously called, to determine their intentions. Channel 12 will be used to notify vessels of their transit time and for harbour coordination communication between ships and the PCC Signal Station.

(3) A vessel of a type described in Paragraph 10.c(1) of this section shall maintain a continuous watch on Channel 13 when underway in Panama Canal waters for bridge-to-bridge navigational communications only. One Watt maximum power shall be used on that frequency, except that in emergencies or unusual circumstances more power may be used. When such vessels have a Panama Canal Pilot aboard, Channel 13 may be used only by the Pilot or at his direction for navigational communications.

(4) All communications between the Signal Station and vessels shall be in English.

(d) *Procedures:*

(1) Atlantic anchorage entry/exit and harbour movements will be coordinated.

(2) Only vessels having valid reasons, such as listed in Paragraph 10.d(5), will be authorised to enter the breakwater.

(3) Vessels inside the inner anchorage may be required to return to the outer anchorage after their business is completed if the space is needed for other vessels.

(4) Large vessels (Length over 213.4 m. (700 ft.), or beam over 30.5 m. (100 ft.)) and vessels assigned a dangerous cargo PD listed below in Paragraph 10.e(1) of this notice will normally be required to anchor in the outer anchorage.

(5) Priority for use of inner anchorages will normally be granted to vessels in the following order:

(a) Vessels requiring stores, crew change, bunkering, etc., shortly before commencing Southbound or immediately following Northbound transit.

(b) Transiting vessels, in order of scheduled transit.

(c) Other vessels.

(6) Transiting vessels anchored in the outer anchorage must enter the breakwater in sufficient time to complete the boarding process without incurring a delay at the locks. After confirming that arrangements have been made for a Pilot to meet the ship just inside the breakwater, the PEC will inform such vessels when they are to enter.

(7) Normally, vessels shall not meet at the Cristobal breakwater entrance; every effort shall be made to maintain one way traffic. The PEC shall arrange the order in which vessels will be authorised to enter/exit the breakwater.

(8) When a Northbound vessel is required to slow or hold for a Southbound in accordance with Paragraph 10.d(7), the following procedures shall be followed:

(a) Cristobal Signal Station shall, to the extent possible, give the Pilot of the Northbound ship ample advance notice of delays due to a Southbound. Normally, this information will be provided when the Northbound clears Gatun Locks.

(b) The Northbound ship shall remain South of the Mole until a PCC Pilot takes control of the Southbound.

(c) The PCC Pilot aboard the Northbound shall retain control until a PCC Pilot takes control of the Southbound and a satisfactory meeting is arranged.

(d) Necessary tug assistance will be provided to the Northbound at no charge.

(e) Normally, the Transit Pilot will be relieved by a Harbour Pilot, one hour after clearing Gatun, when greater delays are anticipated due to this rule.

(9) The order of entry/exit shall be communicated from the PEC to affected vessels in such a manner as to ensure that each vessel knows which vessel it is to follow or which vessel must clear before it proceeds.

Examples:

"PACIFIC STAR, 2 vessels will depart the breakwater before you may enter. You may enter when the TOYAMA and EAGLE have departed".

"RAINBOW LEADER, the SEA BREEZE will enter the breakwater before you may depart."

(10) Pilotage is required for vessels departing Anchorage Area C until the vessel is safely in the channel clear of oncoming traffic.

(11) Other specific vessels, such as dead tows and vessels anchoring for bunkers, may require pilotage when deemed necessary by the Cristobal CPC or, in his absence, the DCOC.

(12) Vessels should not enter, depart or move within Limon Bay and the inner harbour without a Pilot, unless they have first contacted the Signal Station and obtained authorisation. Authorisation shall be given by the PEC only for a specific time. If the vessel does not proceed at the appointed time, she may not proceed without first obtaining authorisation for another underway time from the PEC.

(13) Vessels authorised to move in accordance with the provisions of Paragraph 10.d(12) will be given a detailed account of vessel movements, imminent or in progress, by the PEC. Similarly, all other vessels underway or preparing to get underway will be advised of the intended movement of the unpiloted vessel.

(14) Bunkering may be permitted for light draft vessels near the East breakwater and for deep draft vessels at the inner explosive anchorage. Bunkering operations require approval of the Cristobal COC or, in his absence, the DCOC. Bunkering operations will not be permitted in other anchorage areas. Pilots are required to anchor all vessels, either arriving from sea or departing the Canal, which will be taking on bunkers within the confines of Limon Bay. Exceptions to this rule may be made by the Cristobal CPC or, in his absence, the DCOC.

(e) *Special Procedures for Vessels with certain Dangerous Cargoes:*

(1) *Applicability:* This paragraph applies to all vessels assigned dangerous cargo PD1, 2, 3, 4 and 5.

(2) *Procedures:*

(a) The PEC will arrange the entry of vessels in accordance with the provisions of this notice.

(b) Vessels authorised to enter in accordance with this paragraph require Pilots who shall embark as near the breakwater as practicable.

(c) Vessels assigned a PD listed in Paragraph 10.e(1), whether from sea, the Canal or dock may anchor inside the Cristobal breakwater only when specifically authorised by the Cristobal CPC or, in his absence, the DCOC, and then only in the designated explosive anchorage.

(d) Vessels arriving for transit on the Atlantic side and assigned a PD listed in Paragraph 10.e(1) will anchor in the outside anchorage. These vessels shall not enter the breakwater until authorised to do so. Authorisation will be radioed to the ship by the Signal Station only after a Pilot is at the boathouse, available to board the vessel, and there will be no outbound traffic at the time of entry.

(e) Outbound vessels assigned a PD listed in Paragraph 10.e(1) and any vessel leaving Anchorage Area C must be piloted.

(f) *Dead Tows:* Requirements for dead tows vary greatly, depending on size and configuration of the tow, time of arrival, traffic conditions and other circumstances. For these reasons, the Cristobal CPC will exercise direct control and coordination over the movement of dead tows. *Pilots are required for all arriving dead tows.*

(g) *Vessel Responsibility to Abide by Navigational Rules:* Due to the volume of ship traffic and the confined navigation area, vessels must navigate with extreme caution. The Master retains full responsibility for the safe navigation of his vessel until a Panama Canal Pilot assumes control. The Master shall insure full compliance with all applicable Navigation Rules. All vessels must maintain a proper lookout, proceed at a safe speed, use all available means to determine if risk of collision exists, and take timely positive action to avoid collision as required by Navigation Rules 5 – 8. The Navigation Rules are mandatory and may not be relaxed to meet the coordination measures set forth in this directive. When the Master of a vessel determines he cannot comply with the coordination advice received from the Signal Station, and still meet the requirements for safe navigation set forth in the Navigation Rules, he shall immediately advise the Signal Station of the circumstances and his intended course of action.

NOTE: The Navigation Rules applicable upon the navigable waters of the Canal operating areas are set forth in 35 CFR 111. These provisions incorporate most of the Rules of the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS) and the manoeuvring and warning whistle signals of the Inland Navigational Rules Act of 1980, supplemented by rules of particular application in the Panama Canal and shall be applicable to vessels and seaplanes upon the navigable waters of the Canal operating areas, as the same are described in Annex A of the Agreement in Implementation of Article III of the Panama Canal Treaty of 1977, and as they are depicted on Attachment 1 to that Annex, between a line connecting the East Breakwater Light and West Breakwater Light at the Atlantic Entrance to the Canal in Limon Bay, and a line passing through Channel Buoys 1 and 2, extended to the Canal boundary lines at the Pacific Entrance in Panama Bay, and in the ports of Balboa and Cristobal.

(h) *Navigational Caution:*

(a) Many factors combine to make the Atlantic Terminus of the Panama Canal a difficult area to navigate safely. Mariners must be alert for frequent vessel movements not only to and from the Canal, but also to and from anchorages inside and outside the breakwaters.

(b) Traffic to and from the local port can be expected. Recently, traffic to and from Manzanillo Bay began moving through a newly opened section of the Cristobal breakwater. *Ships that are either arriving or departing the Panama Canal should be aware that traffic to or from Manzanillo Bay may cross their path.*

(c) Ships calling at the Manzanillo Bay, which then wish to transit the Canal, are required to exit through the Manzanillo Bay breakwater entrance and proceed to the Panama Canal Atlantic Sea Buoy before proceeding to the Canal anchorage or entrance.

(d) Rain squalls which suddenly reduce visibility may be encountered. An Easterly set across the channel outside the jetties is normally encountered. Shallow water effects frequently cause seagoing vessels to respond in ways not anticipated by the Master. At night, background lights make it difficult to identify aids to navigation and the navigation lights of other vessels.

(e) To insure safe navigation, extreme caution must be exercised by vessels navigating this region. The mariner must be alert and expect the unexpected. *Masters who feel they need assistance outside the Atlantic breakwater may request a Pilot to meet the vessel outside in accordance with 35 CFR 105.5.*

(i) *Exceptions:* Special circumstances may arise for which it may be appropriate for PCC to apply more restrictive or less restrictive procedures than established by this Notice to Shipping. Each such instance must be well reasoned, appropriate to existing circumstances and shall not result in significant unnecesary risk. The Cristobal CPC shall exercise authority under this rule when appropriate. However, the COC shall be advised as soon as possible, and when practicable, beforehand.

(j) *Compliance:* Non-compliance with any of the requirements set forth in this directive shall be reported to the Cristobal CPC or, in his absence, the DCOC.

11. Exemption from Compulsory Pilotage

(a) *Purpose:* In order to standardise the applicaton for exemption from compulsory pilotage under 35 CFR 105.2 for all locally operated commercial vessels, the following policy is established.

(b) *Application for Exemption:* Vessel Owners/Operators desiring to operate their vessels without PCC Pilots in the Canal operating waters of the approaches and harbours of Cristobal and Balboa shall make application to the COC following the policy guidelines below. Owners/Operators with previous exemptions must reapply under this policy in order to continue to operate without a Pilot. All exemptions issued under this policy will remain valid for one year and, if a continuation of the pilot exemption is desired, a new request shall be submitted within one month before expiration of the exemption.

(c) *Vessel Categories:* Exemption from compulsory pilotage may be requested for commercial vessels within the following categories, provided such vessels comply with requirements specified in 35 CFR and Marine Director's Notice to Shipping 'Vessel Requirements'. *Specific mechanical engineering and safety requirements will also be established by the Office of Canal Operations Unit.*

(1) Self-propelled vessels not more than 1,000 Panama Canal gross tons, other than (2) and (3).

(2) Self-propelled hazardous cargo vessels (bulk or package) not more than 500 Panama Canal gross tons.

(3) Self-propelled passenger vessels not more than 500 Panama Canal gross tons.

(4) Tow boats without tows.

(d) *Operating Requirements:* The following are operating requirements for pilot exemption vessels:

(1) *Permission to Move:* Vessel must obtain permission from the CPC prior to any movement in/out of harbour, including arrival or departure, and when shifting berths. The vessel is also required to contact the Watch Supervisor at MTC, through the appropriate Signal Stations or by telephone at 272-4201, prior to initiating any authorised movement. Vessel must obey any instructions that the Watch Supervisor may give at the time contact is made and will maintain a watch on VHF Channel 12 to receive any further instructions while manoeuvring.

(2) *Licensed Masters/Operators Experience:* A person seeking permission to navigate in the waters of the Canal Operating Area without a Pilot must have in his possession a valid document, issued by competent authority, which authorises the holder to navigate a vessel of the size for which this permission is being requested. He must have at least 10 voyages/trips with a PCC Pilot. This will be a self-certification program and Owners will be held responsible to ensure that their Masters/Operators receive the required trips prior to operating the vessels without a Pilot. Owners must maintain records of these Masters/Operators qualification trips, and be able to produce these records upon request. Non-licensed Masters or Operators will not be exempted from pilotage.

(3) *Canal Channel from Entrance to Harbour and Return:* Pilots must be utilised if available. If the CPC authorises movement without a Pilot, the vessel shall establish communications on Channel 12 with the appropriate Signal Station and maintain watch on the channel throughout movement.

(4) *Crossing Canal Channel:* Pilot not required. However, the vessel shall establish communications on Channel 12 with the appropriate Signal Station and maintain watch on Channel 12 throughout crossing.

(5) *Harbour Movements or Movements not involving the Canal Channel:* Pilots normally not required; in these instances the vessel shall establish communications on Channel 12 with the appropriate Signal Station and maintain watch on Channel 12 throughout movement. However, Pilots are required for bunkering operations in the harbour or for moving dead tows in/out and within the harbour.

(e) *Boarding for Inspection:* All pilot exempted vessels are subject to boarding and inspection by personnel from the Marine Safety Unit, Canal Operations Unit, or Admeasurement Division at any time for compliance with this policy. Any vessel's Owner/Operator found not in compliance will have their exemption revoked and will not be reconsidered for a period of one year after the non-compliance was discovered.

11a. Arrival and Departure Times for Manzanillo Bay

Notice: Dated 1st May 1996.

The following operational procedures apply for vessels proceeding to or departing Manzanillo Bay to determine the arrival and departure times for scheduling purposes:

(a) Traffic coordination through the Manzanillo Bay Breakwater entrance will be the entire responsibility of the National Port Authority (NPA).

(b) All vessels proceeding to or from Manzanillo Bay must utilise the Manzanillo Bay Breakwater entrance. Vessels movements through the East Inner Anchorage in Limon Bay are prohibited. Small local coastal vessels can utilise this passageway as long as they move outside the anchorage limits.

(c) *Booked Vessels* proceeding from Manzanillo Bay for Canal transits will be considered as *arrived* by the PCC Cristobal Signal Station when the vessel reports itself passing the Manzanillo Bay Breakwater entrance on a Northbound course (outbound) and this is confirmed visually or on radar by the PCC Port Entry Coordinator. This arrival time will be used to determine the order in which such vessel will be scheduled in compliance with *Booking Arrival Requirements.*

(d) *Booked Vessels* proceeding from Manzanillo Bay must comply with the 0200 hrs. and 0300 hrs. arrival requirements as established in the Booking Rules. The *sighting time* for such vessels will be the time determined as per Paragraph (c).

(e) *Non-Booked Vessels* proceeding to Manzanillo Bay, for later Canal transit, will be considered as *arrived* (for scheduling purposes) by the PCC Cristobal Signal Station when the vessel reports itself passing the NPA seabuoy on a Southbound course (inbound) and this is confirmed visually or on radar by the PCC Port Entry Coordinator. This arrival time will be used to determine the order in which such vessel will be scheduled.

(f) *Non-Booked Vessels* proceeding from Manzanillo Bay on the planned day for Canal transit must re-arrive at the NPA seabuoy outbound no less than 4 hours before the scheduled Gatun lockage time. This shall be confirmed visually or on radar by the PCC Port Entry Coordinator. Failure to adhere to this requirement will subject the vessel to lose scheduled transit turn.

(g) ETA's provided for Canal transit, from vessels arriving or departing Manzanillo Bay, must be based on the estimated times established on Paragraphs (c) and (e) above.

(h) Northbound vessels proceeding to Manzanillo Bay after a Canal transit, and later returning for a Southbound Canal transit, must comply with the same requirements as provided above. Such vessels will require PCC boarding as any other vessel proceeding from sea for Canal transit.

12. Attachments

The following forms and charts are provided for reference:

(a) Form 4323, Undertaking to Release and Indemnify, Ship Dry Docked, Docked, or Berthed by PCC Pilot (Editor's Note: Not reproduced.).

Form 4323 waives liability for the identified problems when a vessel under the navigational command of a Panama Canal Commission Pilot is to be: Dry docked; moored outboard of a smaller vessel at any dock; berthed on a pier deemed to have inadequate or absent lighting or fendering; docked in Balboa with an arrival draft in excess of 8.10 m. (26.07 ft.) TSW, or expecting to load to a draft in excess of that amount. Pilots are requested to have the Master of the vessel sign this form prior to docking a vessel under the above conditions.

(b) Atlantic Anchorage (See "Plan Section").

(c) Cristobal Inner Harbour (See "Plan Section").

(d) Pacific Anchorage (See "Plan Section").

(e) Balboa Harbour (See "Plan Section").

Notice to Shipping No. N-7-95 – Panama Canal Transit Booking System: Dated 1st January 1995.

1. Introduction

This section sets forth rules regulating the Panama Canal Transit Booking System, a system for advance scheduling of vessels. These rules are reviewed/revised annually, as required.

2. Transit Booking System

(a) *Allocation of Bookings:*

(1) Bookings are made available as follows:

Vessel	1st Period Booking 21-4 days before transit date	2nd Period Booking 3-2 days before transit date
Large vessels (91 ft. beam and over)	3	3
Small vessels (under 91 ft. beam)	4	6
Total of 16	7	9

(2) Any first period booking not reserved, or any bookings which are cancelled, may be made available during the second booking period.

(3) No more than 4 large vessels will be booked for transit in the same direction on any given day.

(4) Totals for the "Small Vessel" category may not include more than 2 vessels under 91 ft. beam that are under restriction; e.g. Clearcut, Daylight, Daylight in the Cut.

(5) When sustained Canal capacity is expected to be reduced, a corresponding reduction in the number of bookings available may be made by the Marine Director. The total number of bookings offered will normally approximate 40% of expected Canal capacity. The following table indicates that proportion of bookings allowed at various capacity levels. During Condition 2, one half of bookings will be made available in the first period and one half in the second period. If at the time Condition 2 is implemented more than one half of the bookings have already been taken, second period bookings will be reduced by a corresponding amount.

Condition		Large	Small	Total
1	Represents normal condition.	6	10	16
2	Represents a significant reduction in capacity.	4	8	12
3	Represents a severe reduction in capacity (e.g. slides, collisions or other unusual circumstances.	0	0	0

(6) Whenever the number of vessels awaiting transit is projected in 48 hours, to exceed 90, the Marine Director may suspend acceptance of booking requests. Once this action is taken, 48 hours' notice will be given before acceptance of booking requests is resumed.

(7) Decisions to reduce, suspend, or resume acceptance of bookings will be based on various operational factors, including the waiting times for vessels, the Canal traffic forecasts, and Canal capacity, both at the time of decision and projected for the immediate future. Unless precluded by circumstance, the Marine Director will endeavour to provide 48 hours advance notification of changes.

(8) If, at any time during either booking period, requests exceed the number of bookings remaining available, preference for the remaining bookings will be given in the following order:

(a) Vessels carrying primarily perishable cargo, in the order of frequency of transit during the 12-month period prior to the beginning of the preceding calendar month. A vessel is carrying primarily perishable cargo if at least 50% and a minimum of 700 tons of its cargo is non-frozen, perishable goods.

(b) All other vessels in the order of frequency of booked transits during the 12 month period prior to the beginning of the preceding calendar month.

(c) If two or more vessels are found to have equal number of booked transits under the procedure above, then preference will be given in the order of frequency of transit during the 12-month period prior to the beginning of the preceding calendar month.

(d) If two or more vessels are still found to have equal number of transits under the procedures above, then preference will be given to the vessel having transited most recently.

(9) A booking assigned to a vessel will not be reassigned by the Commission, unless such booking is subsequently cancelled by the vessel's Agent or the vessel is involved in a substitution pursuant to Paragraph 2.f, below.

(b) *Transit Schedules for Booked Vessels:*

(1) The specific order of transit for booked vessels on any given date will be determined by Canal authorities.

(2) A vessel may not transit prior to the date for which it has been booked, except when the Canal authorities determine that an early transit would promote efficiency of the Canal and would not result in delay for any regular transits.

(c) *Vessels Excluded from Booking System Participation:*

(1) Dead tows.

(2) Vessels not meeting all transit and safety requirements.

(d) *Reservation Procedures:*

(1) To participate in the Booking System, each steamship agency must furnish a letter containing the names and sample signatures of persons designated to authorise payment.

(2) To request or cancel a transit booking, the vessel's Agent must complete and personally deliver a "Request for Transit Booking or Cancellation" to Marine Traffic Control. The request must be signed by a representative of the steamship agency who is designated to authorise payment of the booking fee. A copy of the approved request will be given to the Agent as confirmation of the booking or cancellation.

(3) Requests for booking will be received at Marine Traffic Control beginning at 0900 hrs. daily, but processing will not begin until 0915 hrs. Requests received between 0900 hrs. and 0915 hrs. will be treated as having been received at the same time. Thereafter, requests will be processed on a first-come first-served basis. Bookings will not be accepted from 1145 hrs. to 1245 hrs., after 1530 hrs. Monday through Friday, nor after 1400 hrs. on Saturdays, Sundays and holidays.

(e) *Arrival Requirements:*

(1) Large vessels and small restricted vessels must arrive at a Terminus of the Canal by 0200 hrs. of the day of transit.

(2) Small vessels must arrive at a Terminus of the Canal by 1300 hrs. of the day of transit.

(3) For booking purposes, a vessel shall be deemed arrived when a Panama Canal Commission Signal Station establishes radio contact with it, and:

(a) The vessel is visually sighted,

(b) The vessel is identified by location, speed and course on radar at a distance not to exceed 8 miles, or

(c) In case of a vessel departing from a port in Manzanillo Bay, when that vessel is visually sighted or identified on radar while crossing the Manzanillo Bay breakwater entrance on a Northbound course.

(f) *Substitution:*

Substitution or "swapping" of vessels within the Booking System will be allowed, subject to the following conditions:

(1) Both vessels must have bookings for transit on consecutive days;

(2) Both vessels must be transiting in the same direction;

(3) Both vessels must be similar in size and be subject to the same transit restrictions and arrival requirements;

(4) Both must be operated by the same Operator;

(5) The request for substitution must be received no later than 24 hours prior to the day of first transit; and

(6) A vessel may participate in only one substitution per booking.

3. Fees

(a) *Booking Fee:* The fee for booking shall be $0.26 per PC/UMS net ton for vessels that are assessed tolls based on the Panama Canal Universal Measurement System (PC/UMS), and $0.23 per Panama Canal gross ton for vessels measured and last certificated by the Panama Canal Commission according to the rules prevailing between 23rd March 1976 and 30th September 1994 inclusive. The minimum fee for any vessel is $1,500.

(b) *Cancellation Charge:* A transit that is booked may be cancelled and a refund received if notice of cancellation is received by Canal authorities prior to the required arrival time. A charge will be assessed for such cancellations in accordance with the following schedule:

Date of Cancellation	Cancellation charge (the greater of)
Over 10 days prior to transit	20% of booking fee or $500
10 to 7 days prior to transit	40% of booking fee or $750
6 to 2 days prior to transit	60% of booking fee or $1,000
1 day or less	80% of booking fee or $1,250

(c) *Forfeitures, Refunds:*

(1) Vessels which have failed to arrive at a Terminus of the Canal by the required arrival time and are not ready to proceed at the time fixed for transit, shall forfeit the booking fee. Such vessels will be placed in the regular transit schedule as if they had not been booked. This forfeiture will not occur if:

(a) Late arrival is due to humanitarian reasons or a natural event of major impact, which is not caused by the intervention of man, and which could not reasonably be predicted in advance (hurricanes, earthquakes, floods, etc.). The delaying event must be verifiable. Typical bad weather or heavy seas are considered routine and will not be considered as a major event. Requests for relief under this section must be justified to the Marine Director, in writing, at the time the delaying event occurs.

(b) Failure to transit as scheduled is due to delay in port operations in Balboa or Cristobal, and a written statement is received from the National Port Autority (NPA), certifying that the delay was not the fault of the vessel.

(2) A vessel that must transit with restrictions not previously anticipated, because it does not conform with the information provided at the time the request for booking was made, will not be allowed to transit as booked, except when it is determined by Canal authorities that such transit would not adversely affect the transit schedule. The booking fee, in any event, will be retained by the Commission.

(3) (a) If a vessel, other than one described in Paragraph 3.c(2), does not transit on the day for which it has been booked due to a decision by the Canal authorities, the agent may:

- (i) elect to receive a refund of the fee, in which case the vessel will be listed on the regular transit schedule, or;
- (ii) elect to have the Commission retain the fee, in which case the vessel will be transited on a preferred basis.

(b) When a vessel booked for transit is delayed by a decision of the Canal authorities, and that delay could result in the vessel's failure toarrive on time for a subsequent transit which was booked before the delay was encountered, the vessel's agent may, within 24 hours of completion of the delayed transit, request:

- (i) change of the second booking to another date (if bookings are available on the requested date) or;
- (ii) cancellation of the second booking, without charge, and inclusion in the regular schedule.

(c) In the event that a vessel transits prior to the date for which it is booked, the booking fee will be retained by the Commission.

(4) A vessel will be deemed to have transited the Canal on the day for which it has been booked if it arrived at the first set of locks prior to 2400 hrs. that day and its in-transit time (ITT) is 18 hours or less. In-transit time begins when the vessel enters the first set of locks at either Terminus of the Canal and ends when the vessel departs the last set of locks at the opposite Terminus. The booking fee will be refunded whenever ITT, through no fault of the vessel, exceed 18 hours.

4. Guarantee/Payment of Fees

(a) *Notification of Booking for Financial Purposes:*

(1) If payment is to be made through a guarantor (financial institution), the Shipping Agent or other responsible party must notify the guarantor at the time booking is made.

(2) Marine Traffic Control will notify the Office of Financial Management (Agents Accounts Branch) at the time each booking is made.

(b) *Time of Placing Guarantee or Making Payment:* In addition to tolls and ancillary transit costs, the booking fee must be guaranteed or paid in advance of transit, in accordance with existing law and practice.

(c) *Amount of Guarantee:* Transit costs guaranteed by the financial institution and/or to be covered by a security deposit established with the Commission include all normal and regular transit costs and all booking charges, when applicable.

5. Suspension

Canal authorities may suspend or discontinue the Transit Booking System, in whole or in part, if it is determined that such action is necessary for the safe or efficient operation of the Canal.

Marine Director's Notice to Shipping No. N-10-96: Dated 1st January 1996.

Subject: Operational Equipment Tests.

1. Effective Date and Cancellation

This notice is effective on the date of issue and cancels Marine Director's Notice to Shipping No. N-10-95. A revised notice will be issued in January of each year or when otherwise required. Paragraph 4(b) was added and a note on *Mooring Lines* in the attached Test and Verification Procedure chart.

2. Authority

This document is issued under the authority of rules published in Title 35, Code of Federal Regulations (35 CFR), Marine Director's Notice to Shipping N-1-94, and the International Convention for the Safety of Life at Sea ((1974 SOLAS). The American Bureau of Shipping (ABS) rules are cited when required as good seamanship practice, essential for transiting the Panama Canal.

3. Purpose and Scope

(a) Failure of operational equipment prior to or during transit is a problem of increasing concern to the Panama Canal Commission because of its potential to affect the safety of transiting vessels as well as Canal facilities and equipment. These incidents frequently result in delays to shipping and/or inefficient use of Panama Canal resources.

(b) Testing of navigational and safety equipment critical for a safe transit prior to starting is devised as a joint effort between the Master and Canal officials to ensure the vessel is ready to start, and is provided a timely, safe and expeditious transit. Tests should help to identify problems before they impact negatively on an operation which requires that all equipment on board be ready to repeatedly carry out manoeuvers very seldom performed during ocean voyages.

(c) The purpose of this document is to inform the shipping community of the procedures found necessary to implement published regulations requiring the Master to ensure, by actual test, the readiness of his vessel before a transit starts. Also to ensure that the vessel's navigational and safety equipment comply with Canal and International Regulations.

(d) Recording a test as successful does not relieve the vessel of the responsibility of having all equipment ready and operational during the full transit.

4. Procedure

(a) The Master shall assure himself, by actual equipment test and verification of compliance with Canal and international regulations, of the readiness of his vessel to transit safely, as per attached Test and Verification Procedure chart.

(b) In addition, a Canal official may board the vessel while in transit to verify the operational condition of the equipment.

5. Reporting Deficiencies or Non-Compliance of Equipment

(a) At least 2 hours prior to the "Pilot time" assigned by Marine Traffic Control, the Master shall notify the Cristobal or Balboa Signal Station that all equipment has been tested; is in operational condition and the vessel is ready to proceed (§109.5).

(b) Prior to commencing the transit evolution, the Master shall confirm to the Pilot that all equipment has been tested; is in operational condition and the vessel is ready to proceed (§109.5).

(c) Masters of vessels with deficiencies, including equipment which does not perform as designed or required by standards, shall immediately notify the Cristobal or Flamenco Signal Station of the deficiencies, describing the type of problem (§103.3).

(d) The Canal Port Captain on duty will evaluate the vessel's conditions and determine if it will proceed to transit or be delayed until the deficiencies are corrected. If delayed, a new "ready to transit time" will be assigned when all deficiencies have been corrected to the satisfaction of the PCC (§103.2 and §103.7).

(e) Failure to perform the operational equipment test and/or report the vessel's condition may lead to transit delays until the Canal is satisfied that the vessel is safe to transit the Canal (§103.7).

Signed: Marine Director.

Test and Verification Procedure

(Applicable Rules from 35 CFR, Notice to Shipping N-1-96, 1974 SOLAS, or American Bureau of Shipping (ABS) are indicated in brackets for immediate reference).

Verify upon Arrival at the Anchorage:

Maximum Draft: Verify arrival draft, fore and aft in Tropical Fresh Water (TFW), the Minimum Salt Water Draft (TSW), and the Transit Draft in TFW is scheduled to work cargo or take bunkers (§103.6).

Load, Trim and List: Verify that the load, trim and list are within safe limits (§103.4).

Transit Draft: Ensure that the vessel will be properly trimmed when in fresh water, and will not exceed at any point the Canal's Published TFW Draft limit, the Maximum Authorised Transit Draft established by PCC for the vessel, or its Maximum Allowable Draft established by a classification society.

Vessels working cargo or taking bunkers shall confirm the *Transit Draft*, fore and aft, in TFW to the Signal Station as soon as possible prior to starting the transit.

Vessels anticipating a *Transit Draft* exceeding 12.04 m. (39 ft. 06 in.) or the Maximum Authorised Transit Draft established for the vessel, shall immediately inform the Signal Station of this condition (§103.6, Notice N-1-96, 2.f(1)). *Vessels with drafts exceeding these figures are subject to denial of transit.*

Perform within 24 hours prior to Transit, but before Pilot boards:

Steering System: Shift from 35° on one side to 35° on the other. Record actual angle readings (1974 SOLAS, II-1, C-29).

Shift from 35° one side to 30° on the other in 28 seconds or less. Record actual time (1974 SOLAS, II-1, C-29).

Observe the steering gear linkage and motors in the steering room while conducting the above two tests, also verify the bridge rudder angle indicator accuracy with the steering gear (§103.7, §103.10, §109.5).

Operate the steering from each available position on the bridge (§103.7) and, if required to be so equipped, verify that *Rudder Angle Indicators* are easily ready, lighted and operational (§103.10 and §109.5).

Verify that steering pumps are operational (§103.7 and §109.5).

Propulsion: Test reversing propeller once if this does not require stopping and reversing the main engine, twice if the engine must be stopped to reverse (1974 SOLAS, II-1, C-28).

If required to be so equipped, verify that *Propeller RPM and the Pitch Indicators* are easily read, lighted and operational (§103.10 and §109.5).

Air Reserve: Ensure that air capacity in reservoirs is capable, without recharging, of producing for each engine a minimum of 12 consecutive starts for reversible engines and 6 for non-reversible (ABS 34.37.2).

Manoeuvring Fuel: If so equipped, *change from heavy to light prior to entry into Canal approach channel.*

Exercise and/or verify satisfactory Operation within the last 24 hours:

Anchors and Deck Machinery: Exercise and verify that they are operational. Ensure anchors can be retrieved (§109.5).

Clocks: Ensure bridge and engine room clocks are synchronised (§103.7).

Communication: Verify that voice communications with bow, stern and engine room are working (§103.7, 103.11, 109.5).

Emergency Generator: Verify that it is operational (§103.7, 1974 SOLAS, II-1, D-43).

Emergency Lighting: Verify that it is operational (§103.7, 1974 SOLAS, II-1, D-40 and 41).

Emergency Steering: Verify that it is operational (§103.7, 1974 SOLAS, II-1, C-29).

Engine Telegraphs: Verify that they are operational (§103.11 and §109.5).

Firefighting: Operate the fire pump for 5 minutes and place an effective stream of water from the hose farthest from the pump and one hose near the bridge (§103.7, 1974 SOLAS, II-2, A-4).

General Alarms: Verify that they are operational (§103.7, 1974 SOLAS Reg. II-2, 13.1).

Gyro Compass: Verify that gyros and repeaters are operational and accurate within 2° of each other, and error is less than 2° (§103.7, 1974 SOLAS V-12).
Radar: Ensure all radars are operational (§103.7, 1974 SOLAS, V-12).
Radio: Verify that required frequencies (Channels 12, 13 and 16) are operational, and monitor Channel 12 (§123.3).
Ship's Whistle: Verify that it is operational (§109.5).
Steering Light: When required, verify that it is operational (§103.27).
Thrusters, Bow or Stern: If so equipped, verify that they are operational (§103.7, Notice N-1-96, 4.j).

Verify Satisfactory compliance with Canal Requirements:
Deck Passages and Working Spaces: Verify that they are not obstructed (§103.5).
Deck Working Lights: Verify that they are operational (Notice N-1-96, 6.i).
Engine Room Mechanical Signals: Verify that the system is operational (§103.11).
Engine Order Records: Verify that bell book is available or that automatic recorder is operational (§103.32).
Load, Trim and List: Verify that they comply with requirements (§103.4).
Manoeuvring Characteristics: Verify that they are displayed in the wheelhouse (§103.42).
Manning: Verify that the vessel is sufficiently manned (§107.1).
Mooring Lines: Verify that they are on deck, ready and in good condition (6 forward and 6 aft) (§109.5, Notice N-1-96, Par. 9).
Pilot Shelters: Verify that they are erected prior to starting the transit (§103.19).
Pilot and Accommodation Ladders: Verify that safe boarding facilities are rigged and in compliance with regulations (§103.18).
Protrusion: Verify that no protrusion extends beyond the vessel's hull. Vessels with protrusions shall report this condition to the Signal Station for evaluation by the Canal Operations Captain (§103.5, Notice N-1-96, 2.d).
Sparks, Smoke or Noxious Gases: Verify that necessary precautions have been taken to avoid issuance of sparks, smoke or noxious gases (§103.21).
Visibility: Veify that the vessel complies with the minimum visibility requirements for safe transit (§103.27, Notice N-1-96, 4.e).

SHIPMASTER'S REPORT: (Southbound) November 1991.
Charts: B.A. Charts No. 3111, 1300 and 1299.
Approaches: A strong Easterly flowing current was encountered when approaching Cristobal. The Racon on Cristobal East Breakwater was conspicuous. The breakwaters and vessels at the Atlantic anchorages showed up well on the radar.
Signal Station: Vessels should call "Cristobal Signal" on VHF Channel 12.
Anchorages: Depending on the size of the vessel and if the vessel is carrying dangerous cargo, vessels either anchor outside the breakwaters in the Atlantic anchorages or inside the breakwaters in the Areas A, B or D and generally without a Pilot. The Signal Station will advise which area to use. The Pilot is available at an extra charge and the anchorages are often very crowded.
Canal Transit: The standard draft for transit is 39 ft.6 in. in tropical fresh water (density 0.9954). This is decreased in the very dry season but this is normally only once every 10 years. Transit time is about 10 hours.

Moderate sized vessels normally take one Pilot for the transit and vessels arriving before 1100 hrs. generally transit on the same day. It usually takes about 20 minutes to pass through each lock but time for transitting Gatum Lock is about 1 hour as it has 3 chambers. Occasionally vessels have to anchor in Gatum Lake if there are large vessels transitting Northbound.

Our vessel's d.w.t. is 12,750 tonnes and we used 4 locomotives in each lock (2 either side). The lock crews handle all wires.

An officer and crew members should standby forward from Gamboa until clear of the Canal.
Officials: The Agent and Boarding Officer boarded the vessel at the inside anchorage soon after anchoring. They will not board if the vessel is outside the breakwaters.

All documentation is completed on standard canal forms and is generally undertaken very quickly.
Repatriation: Crew changes are possible through the international airport at Panama, no particular problems reported.
Shore Leave: Shore leave was not advised at the time of our visit.

SHIPMASTER'S REPORT: (Southbound) April 1992.
The following observations were made for the passage through the Panama Canal on 3rd March 1992 on Panamax size vessel with max. draft of 39 ft. 06 in. (TFW) from Cristobal to Balboa.
Approach: Anchoring instructions were given only when the vessel was 5 miles off the breakwater.
Anchorage: Though the chart and other sources of information indicate a pilot boarding ground just inside of the breakwater at Cristobal, the vessel was not provided with a pilot and was asked to anchor without a pilot in Anchorage Area ("A").

It is a difficult place to anchor for a Panamax sized vessel as the anchorage area is very small, and due to very little underkeel clearance, it is difficult to turn around to face the strong winds from the Atlantic. The vessel needs to be turned practically through 180°.

Our vessel arrived around 0900 hrs. local time. The anchorage area had only two other vessels, but later in the evening the anchorage became quite crowded and it was observed that other ships had difficulty in manoeuvering into the anchorage. A tanker loaded to maximum draft, trying to get into the Explosives Anchorage took more than 1.5 hours to manoeuvre into position and turn around in the Explosives Anchorage.

The practice of not providing pilots for vessels coming into the anchorage seemed to be highly dangerous. A lot of confusion and anxious conversations were overheard throughout the day with ships of different nationalities unable to communicate effectively.
Panama Canal Inspection: The Panama Canal inspection went off smoothly and the inspectors were very cordial. In the locks, drafts were carefully checked.
Customs: The bond locker was not sealed.
Health: Radio Pratique was applied for by the vessel.
Provisions: Fresh vegetables and fruits were found to be reasonably priced and of satisfactory quality.
Passage through Canal: The passage was without any difficulties but a shortage of tugs for some vessels was observed. A Panamax sized vessel following had to wait for tugs from our vessel.

The vessel was asked to anchor in the Explosives Anchorage for bunkering.

The depths in the Explosives Anchorage marked on B.A. Chart No. 1299 being insufficient, the vessel anchored in position S.W. of Fairway Buoy, about 1.5 miles off.

SHIPMASTER'S REPORT: (Southbound – First time transit). June 1996.
Anchorage: 2 hours before arrival outer roadstead Cristobal, vessel must contact "Cristobal Signal Station" on VHF Channel 12, then again at a distance of 8 miles from West Breakwater. When reporting to "Cristobal Signal Station", 3 miles from Atlantic Buoy, station gives information to ship about anchoring place in inner or outer roadstead.

If vessel to drop anchor in inner roadstead, "Cristobal Signal Station" gives name of area (Example "Delta", "Echo", etc.). Vessel drops anchor without Pilot, but after dropping anchor, ship must report to station – Name area for dropping anchor and dimensions, type of vessel and cargo onboard. Vessel must keep watch on VHF Channel 12/16 at all times.
Authorities: Usually board after dropping anchor. Two representatives visit the ship. If first time visit, they check navigation bridge, all fittings on it and suitability for Panama Canal requirements.
Ship's Documents:
1 copy Crew List.
1 copy Suez Canal Certificate (photocopy).
3 copies Port of Call during last 3 months.
1 copy International Tonnage Certificate.
If first call, Panama Canal Commission require originals of:
Panama Canal Certificate.
Middle Section of Ship.
Capacity Plan.
General Arrangement Plan.
These documents will be returned after one week by mail.
Panama Canal Commission require following to be completed:
Blank Form for Pilot to list electronics equipment (3 sheets).
Undertaking to Release and Indemnify (2 copies/1 copy for Pilot).
Ship's information sheet.
Quarantine Declaration.

If first time visit, the Canal Authorities will issue card with Panama Canal Identification Number.
Flags for Transit of Panama Canal: If vessel entering from Atlantic Ocean, after Pilot on board, vessel must hoist up "Hotel", two flags (ship's number in convoy), fourth flag if vessel's dimensions allow it to be in lock with other vessel, and courtesy flag. Vessel received this information from Pilot.

If vessel proceeds from Pacific Ocean, number in convoy (usually two flags), "Hotel" and Courtesy flag.
Ship Supply Service: By launch, transport fees U.S.$50.0 – 60.0.

SHIPMASTER'S REPORT: (Northbound – Not first transit). July 1996.
Anchorage: Vessel should contact "Flamenco Signal Station" on VHF Channel 12, 2 hours before arrival at outer anchorage at Balboa.

"Flamenco Signal Station" will advise vessel where to drop anchor. If vessel is to bunker, she must drop the anchor in the "Explosives Anchorage".
Authorities: Officials come onboard on arrival, after dropping anchor, usually 2 officers of the Panama Commission. They always check all ship's documents and that ship's equipment is in working condition. If notes were made on previous visit with regard to condition of equipment, these will also be checked.

Barges are prohibited from berthing alongside until the officials have completed their work. On completion of inspection, the Panama Canal Commission officers issued "Undertaking to Release and Indemnify", 2 copies. Officers inform signal station about completion of checking. If vessel receives remarks but is not noted on "Undertaking to Release and Indemnify", crew must fulfil requirements before moving and Master must report to signal station. If vessel changes draft after bunkering, etc., after completion of operations, Master must inform signal station of new salt and fresh water draft in feet and inches.
Ship's Documents:
1 copy Crew List.
2 copies List of Ports for last 3 months.
2 copies Stores List.
Other documents only required for checking. They do not require photocopies (only on first time visit).
Radio: Call "Panama Radio" on VHF Channel 67 for telephone connections.

AUTHORITY: Panama Canal Commission, Balboa, Republic of Panama. Postal Address: Panama Canal Commission, Canal/Operations Unit, Unit 2300, APO AA 34011-2300, U.S.A. *Tel:* (507) 272-4500 (Marine Bureau), (507) 272-4211 (Canal Operations Unit), (507) 272-4220 (Traffic Management Division). *Telex:* 3023 PCCMTCC PG. *FAX:* (507) 272-3892 (Marine Bureau), (507) 272-7688 (Canal Operations Unit), (507) 272-3976 (Traffic Management Division). *Contact:* Captain George T. Hull, Marine Director. Carlos A. Alvarado, Deputy Marine Director. Captain G.A. Markham, Canal Operations (Fax: (507) 272-7688, Telex: 3023, 3028).

AGENT: See "Cristobal".

PEDREGAL: 08.23 N. 82.26 W. (See Plan)

LOCATION: The Port of Pedregal is 7 km. to the South of the City of David, Chiriqui Province, in the West part of the Pacific coast of the Republic of Panama. The port is at the head of an estuary of the River Garibaldo.

DOCUMENTS:

General Declaration, 2 copies.
Cargo Manifest, 5 copies.
Crew List, 3 copies.
Passenger or Negative Passenger Declaration, 4 copies.
Stores or Supplies List, 4 copies.
Crew Personal Effects, 3 copies.
Health Documents, 1 copy.
Maritime Health Declaration.
Derat Certificate.
Crew Vaccination Cards.

PILOTAGE: There is no official Pilot in the port. The pilotage service is covered by persons who are duly licensed and who have much experience, since they work full time on ships in this area. When their services are requested, they ask permission of their employers if it is during normal working hours (private undertakings). They obtain a launch which has no means of communication at all with the port.

ANCHORAGE: Vessels intending to enter the port must anchor near the Fairway Buoy installed at the Port Entrance at San Pedro Mouth. Around this buoy are depths of 70 ft. and 80 ft.

RESTRICTIONS: All vessels entering port must do so on high tide. Vessels are not allowed to enter or leave the port area at night. Entry and departure is only allowed if a Pilot is on board. Vessels must advise their local Agents 48 hours in advance of their intended arrival.

MAX. SIZE: The length of the quay is 86 m. and the width is 6 m. at the part where there is a buoy, with 4.2 m. along the rest of it. The max. depth of water for a vessel entering the port is 18 ft.; but the draft of the vessel must not exceed 15 ft.

HEALTH: The vessel is boarded by a Quarantine Inspector, who will inspect the entire vessel, and if there is no suspicion of illness or contamination, and all health stipulations as covered by Panamanian Laws are met, Free Pratique is granted. If there is any suspicion of illness or contamination, the vessel is immediately fumigated far from the quay, with the crew being forbidden to come ashore.

VHF: There is a radio unit for VHF communication and calls are made on Channel 16, passing then to another available channel. This equipment receives calls on frequency 156.8 MHz.

TUGS: None available.

BERTHING: The port consists of a single marginal quay 86 m. long, made of reinforced concrete (both surface and uprights).

The quay has depths of 3.35 m. (11 ft.) and 4.27 m. (14 ft.) at its ends, and in the centre 5.18 m. (17 ft.).

To one side of the quay is a building of reinforced steel covered with sheets of corrugated zinc with an area of 360 cu.m. and a free internal height of 6 m.

CARGO HANDLING: For handling purposes, there are only a few hand trucks, and vessels are obliged to utilise their own resources.

Cranes: Loading and discharge is by the ship's own gear, excluding shipment of sugar which is done by land-based equipment.

STEVEDORES: There is a stevedores' syndicate which is independent of the National Port Authority.

MEDICAL: There is no doctor in the port; but there is a medical centre not far away.

FRESH WATER: There are water installations available for supplies to ships.

FUEL: There are no pipelines. Oil is supplied by road tankers.

FIRE PRECAUTIONS: None.

REPAIRS: No repairs are carried out on ships.

AIRPORT: The National Airport of David is some 5 km. away on the road between Pedregal and David. It has commercial flights only at national level.

POLICE/AMBULANCE/FIRE: In the port there are no services; 5 km. away in the City of David there are services, and their telephone numbers are: Police 75-1446 or 75-2210. Fire Brigade and Ambulance 75-4216.

SHORE LEAVE: Allowed.

DELAYS: Any delays are caused by the tides, another vessel occupying the quay or arrival at night.

GENERAL:

Observations: The quay of the Port of Pedregal is in a bad state in every respect, both the top surface and the water side supports, and some of the piles need to be repaired.

Shelter: The Port of Pedregal, being at the head of an estuary, is not affected by the sea or swell.

Tides: The average tidal difference (average tide) in the port is 2.5 m. (8.2 ft.) and the average Spring tide is 3.05 m. (10 ft.).

Common Operations in the Port: Pedregal is a port whose operations are on a small scale, handling cargo such as fertilisers, general cargo, bulk commodities, and local fishing. International vessels arrive at the port very sporadically, due to the reduced depth of water and the poor state of the quay.

AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 23-3997, 64-4021. *Telex:* 2765. *FAX:* 69-6992, 69-7432. *Contact:* Jerry Salazar, Director General.

PUERTO ARMUELLES: 08.17 N. 82.52 W. (See Plan)

SECTION A: GENERAL CARGO PORT.
SECTION B: OIL TERMINAL.

SECTION A: GENERAL CARGO PORT.

LOCATION: Puerto Armuelles is located on the Pacific coast of the Republic of Panama.

Puerto Armuelles is a port solely used for the export of bananas, it is operated by United Brands Co., and administered by the National Port Authority of Panama.

DOCUMENTS: Same documents and the same procedure as Almirante.

PILOTAGE: United Brands Company has a Pilot who is available 24 hours of the day. Pilotage consists in mooring the vessel at the quay from the anchorage, for which the vessel must position a ladder on the port side. The pilot launch is white and has no VHF radio. The mooring operation is fairly complicated and United Brands provide a gang of men who board the vessel and manipulate the cables used in the mooring process. Mooring at the quay is always done on the starboard side of the vessel and the bow must be pointing out to sea.

The Pilot must be contacted by the ship's Agent and requested by the vessel by VHF radio on Channel 12 to the Port Authority or Channel 16 to United Brands Co.

ANCHORAGE: Vessels may anchor half a mile from the pier, where there are depths of 36.6 m. (120 ft.). However, due to the great depth of water in front of the quay, care must be taken in letting out the anchor, it being necessary to find places where the water is not so deep.

It is recommended that for Masters of vessels arriving for the first time in the port ask for the Pilot when anchoring.

There are no aids to navigation indicating the best place to anchor.

RESTRICTIONS: Puerto Armuelles is located in the Bay of Charco Azul, where there are great depths making it unnecessary to have aids to navigation. Access to the port is free of sandbanks or any other obstruction to navigation. There are therefore no restrictions for vessels wishing to enter the port, except on the quay itself.

On the quay proper, restrictions are as follows: Ships are not to be moored during bad weather and mooring is permitted in daytime only, unless there is an emergency. Bad weather usually prevents securing and mooring cannot be performed.

HEALTH: The vessel is boarded by the doctor in the operation of clearance. In the event of illness on board, the Port Authority must be advised on VHF Channel 12 and the vessel must wait at the anchorage for the doctor's visit.

RADIO: A radio service exists via telegraphic cables operated by Tropical Radio Telegraph Co. The Port Authority has VHF/FM equipment which receives calls on Channel 12. United Brands Co. also has VHF and receives calls on Channel 16. The range of these stations is 50 nautical miles. The Port Authority also has SSB equipment which takes calls on frequency 7447.5 kHz.

TUGS: None available.

BERTHING: The quay consists of a pier with a single berth 137 m. long and 12.2 m. (40 ft.) minimum depth. Vessels must moor on the starboard side.

The quay has 4 banana loaders with a loading capacity of 42 boxes of bananas per minute, each weighing 42 pounds. There is no other type of loading equipment.

Since the quay is located in a position open to the sea a set of 3 mooring buoys is used to keep vessels away from the N.E. side of the pier.

CRANES: 1×5 ton rail mounted crane.

STEVEDORES: Loading and discharging work is carried out by the Union of Port Workers. The vessel's Agent must contract the services of the workers via United Brands Co.

MEDICAL: There is a modern hospital in Armuelles.

DENSITY: 1.0219 gm./c.c. at 85°F.

FRESH WATER: Supplied at the rate of 2 t.p.h.

FUEL: Not available.

CONSULS: Colombia, Costa Rica, Nicaragua.

REPAIRS: Facilities for painting, cleaning, ship and machinery repairs are available.

OPENING/CLOSING HATCHES: Carried out by port workers.

CUSTOMS ALLOWANCES: See "Almirante".

PROVISIONS: Shipchandler facilities available. Can be obtained locally or in the town of David 100 km. away.

REPATRIATION: Can be effected without difficulty.

AIRPORT: Armuelles has a small airstrip for light aircraft. However, the town of David 100 km. away by road from Armuelles has a larger airport. There are 2 daily flights by local commercial lines between David and Tocumen in Panama; thus repatriation can be effected without difficulties.

TIME: GMT minus 5 hours.

POLICE/AMBULANCE/FIRE: Available in Armuelles.

TELEPHONE: Micro-wave connects Armuelles with any country in America or Europe. No facilities for telephones on board vessels.

SHORE LEAVE: No restrictions.

AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 23-3997, 64-4021. *Telex:* 2765. *FAX:* 69-6992, 69-7432. *Contact:* Jerry Salazar, Director General.

Puerto Armuelles Port Administrator: *Tel:* 75-1230.

AGENT: See "Section B".

SECTION B: OIL TERMINAL.

LOCATION: The PTP transhipment Terminal is located on the Western side of Bahia de Charco Azul in position Lat. 8° 12.5' N., Long. 82° 53' W., on the Eastern side of the Burica Peninsula, approximately 8.5 miles North of Punta Balsa and 3.5 miles South of Puerto Armuelles.

DOCUMENTS: The following documents are required for entry and clearance:

2 copies General Declaration.
1 copy Clearance from Previous Port.
5 copies Cargo Manifests or Declaration that no cargo is carried.
3 copies Crew List.
4 copies Passenger List or Declaration that no passengers are carried.
2 copies Stores List or Declaration that there are no supplies.
2 copies Crew Personal Effects Declaration.
1 copy Maritime Health Declaration.
2 copies Mail List.
1 copy Bill of Lading.

APPROACHES: Approaches to the Terminal are from the South to the S.E. (See "Plans").

Lights:

1. Isla Burica Lat. 08° 01.5' N., Long. 82° 52.5' W., flashing every 10 secs., 12 miles, white light exhibited from a metal framework tower which is 34 m. high and solar powered.
2. Puerto Armuelles (Banana Pier) Lat. 08° 16' N., Long. 82° 52' W. An occulting light is exhibited from the head of the pier in combination with a fixed red light.
3. At the Terminal, flashing lights are exhibited from the extremities of the berths.
   No. 1 Berth: Flashing red every second.
   No. 2 Berth: Flashing red every second.

There are no leading lights.

PILOTAGE: Pilotage to and from the Terminal Jetties is compulsory and is available on a 24 hour basis.

Vessels should not approach the immediate vicinity of the Terminal without being authorised.

The outgoing or unberthing vessel will have priority over the incoming vessel providing the normal rules of navigation are not infringed.

For discharging vessels, Pilot Station is 3.5 miles S.E. of Jetty No. 2. For loading vessels, Pilot Station is 3 miles East of Jetty No. 1.

Ships should make a lee for the Pilot and the ladder should conform to normal international standards. Discharging vessels should place the ladder on the starboard side when on Northerly heading. Loading vessels should place ladder on the starboard side when on a Westerly heading.

Vessels with a freeboard of 30 ft. or more shall provide suitable accommodation ladder, in addition to pilot ladder.

Vessels shall have both anchors ready for use.

Masters will advise Terminal, before berthing, of any damage or disability to his vessel.

ANCHORAGE: The area immediately to the East of the Terminal is very deep.

The North East area of the Bahia Charco Azul is believed to be the appropriate area to anchor. The holding ground is reported to be good.

Radio contact should be maintained with the Terminal via VHF Channel 16.

MAX. SIZE: 265,000 d.w.t.

HEALTH: In accordance with standard international practice, ships are required to display International Code Signals for vessels requiring Free Pratique and these should be displayed until Pratique has been granted.

N.B. The Autoridad Portuario Nacional (A.P.N.) permits employees of P.T.P. to board vessels (before the ship receives Free Pratique) for the purposes of setting loading arms. Discharge of ballast may commence in case of a vessel with ballast. Discharge of cargo *is not* permitted. Employees of P.T.P. are not permitted in ship's accommodation areas before clearance.

RADIO: *Notices/Time of Arrival:*

ETAs: All communications should be in local time. ETAs should be received by the Terminal at least 72 hours prior to arrival and any variation of more than 4 hours should be advised.

ETAs should be sent via ship's Agents who will notify the Terminal. The ETA cables should include the following:

1. Name of vessel.
2. ETA Puerto Armuelles.
3. Draft on arrival, fore and aft.
4. For discharging vessels: B/L, gross and net barrels of oil to nearest 1,000 barrel.
   For loading vessels: ballast for discharge ashore to nearest 1,000 barrels.
5. Any conditions which will affect loading or unloading operations.
6. Deviations from the recommended deck fittings. (See "Berthing/Loading").
7. Water request, if any.

Notice of Readiness: Notice of Readiness is considered to be received by the Terminal if either:

1. Vessel tenders the Notice of Readiness to load or discharge upon arrival at the Pilot Station.
2. When a berth is not available and a vessel elects not to close the port, it may tender its Notice of Readiness at a distance of 15 miles from the Terminal. In this case notice is considered received at this time *plus 2 hours.*

Nothing in these rules will interfere with any business arrangements made by P.T.P. and the user in respect of lay-time, demurrage, and other contractual obligations.

VHF: Vessels approaching the Terminal should establish VHF communication as soon as they are within range (about 50 miles).

The Terminal keeps a listening watch on Channel 16; call sign "Petroterminal Control". Vessels which have to lay-off the Terminal should maintain a listening watch on Channel 16.

The Terminal also uses Channels 11, 12, 13, 14.

The Terminal tug boats and line handling boats are also equipped with Channels 11, 12, 13 and 14.

The Terminal radio monitors Channels 11, 13, 14, 16 at all times. Also see "Chiriqui Grande" – re-skip.

Frequency Allocation:

Channel	*Use*
13	Cargo handling ONLY.
14	Tugs and berthing.
(11)	(Alternate channel for cargo).
16	Call-up channel. Vessels at anchor maintain listening watch.

Always identify calling vessel and station being called.

Communication with Agents: Vessels may contact their Agents by using Channel No. 16 (using the bridge set) and shifting to a working channel other than Nos. 11, 13 or 14.

Do not use the cargo radio for any ship's business except cargo operations.

Communications While at Dock: The Terminal will provide a portable radio for the use of the vessel's Person-in-Charge of petroleum and ballast transfer operations.

The Person-in-Charge must maintain the radio in his possession at all times, and it must not be changed to any other channel unless instructed to do so by "Petroterminal Control".

The dock-hand is equipped with a portable radio on the cargo working channel.

A third radio is permanently installed in the dock shed.

All communications are conducted in English.

TUGS: 3 tugs of more than 4,200 h.p. are available and usually will make fast alongside. Tug's lines are used for making fast to vessel.

When working tugs alongside, ullage plugs shall be closed.

Tugs available throughout 24 hours.

BERTHING/LOADING: Also see "Table" overleaf.

The Terminal Representative will direct where and when a vessel is to berth.

A. Mooring & Connecting

1. *Mooring Pattern:* At both Berth No. 1 and No. 2 the normal mooring pattern will be:

FORWARD	AFT
3 Head Lines	3 Stern Lines
3 Breast Lines	3 Breast Lines
2 Spring Lines	2 Spring Lines

Discharging vessels will normally berth with port side to Berth No. 1. Loading vessels will normally berth port side to No. 1 or No. 3, and starboard side to No. 2 Berth. Any variation will be advised by the Berthing Master and Masters should advise any preference prior to arrival.

Mixed moorings are undesirable, e.g. a wire and fibre rope in parallel service is undesirable due to unequal elasticity. All moorings must be arranged so that loss of effect cannot occur when slacking off or heaving in on one line, as required, due to the rise or fall of the vessel during loading or discharge operations.

It is imperative that spring lines be adequate to maintain a minimum fore and aft movement of the vessel to remain within the limitation of movement of the loading arms.

Wire ropes may be used and are preferred for spring lines.

Marine Manager's Notice to Mariners: Our experience has shown that vessels using synthetic tails on the end of their wire mooring lines have considerably reduced their mooring time at this Terminal.

If your vessel's wires are not already fitted with tails we request they be fitted for your next visit to our Terminal.

Some vessels fitted with 'End Less' tails at the end of their wires do not have the two parts lashed together at the shackle, the tail is then free to pull through the shackle, this also causes difficulties with mooring.

The diagram (See "Plan") shows type of shackle we have found most suitable, also length of synthetic tail required.

Your attention to this matter would be appreciated.

Pre-Transfer Conference: The Pre-Transfer Conference will be held between the Control Room/Supervisor and responsible Officer prior to commencement of operations. (IOTTSG Chapter No. 5) to agree on procedures for deballasting and loading, including:

1. Communications between ship/shore/Control Room/Supervisor.
2. Deballasting procedures.
3. Cargo start-up procedures.
4. Any deviations from normal procedures.
5. Loading rates, initial, maximum, and topping off.
6. Notice times required to change rates and shutdown procedure.
7. Emergency shutdown, moorings failure, oil spill, etc.
8. Any ship's deficiencies to be made known.
9. Any Terminal deficiencies to be made known.
10. Completion of loading.
11. Designated smoking area.
12. Galley and appliance limitations.
13. Emergency assistance.
14. Vessel will be ready to move under her own power at all times while moored at the SBM.

Prior to the start of operations, the Supervisor and responsible Officer will complete the Safety Check List.

Where any disagreement arises between the vessel personnel and the Berthing Master regarding some aspect of Terminal procedure, the procedure to be followed will be that which provides closest compliance with guidelines established by the latest edition of International Safety Guide for Oil Tankers and Terminal, published by the International Chamber of Shipping, Oil Companies International Marine Forum.

Flow Rates: Terminal can receive crude oil at 100,000 b.p.h. or more. Berth No. 1, individually, can receive approximately 60,000 b.p.h. Terminal can receive ballast water at 30,000 b.p.h. or more. Discharge pressure of 125 p.s.i.g. at ship's rail is permitted. The crude oil loading rate is 48,000 b.p.h. by pumping. Higher rates can be given on request.

Cargo operations shall not commence until the Master or Mate has informed the Port Representative that all necessary valves are opened and the vessel is ready to discharge or receive cargo and regulations being complied with.

In the event of a vessel requesting a shore-stop, Masters should understand that Petroterminal accepts no responsibility for any errors in quantity.

Loading Arm Connections: (See also Section B and C).

Bonding cable shall be secured to a clean surface before loading arm connection.

Ship's crew must be available to assist in connection and disconnecting loading arms to the manifold of the ship.

a. Preferred connections at Berth No. 1 for discharging vessels are 4×16 in. ANSI 150# Weldneck flanges on the port side (3×16 in. at Berth No. 2). *Standard flanges are required.*

(1) Non-standard flange thicknesses and/or non-standard outside diameters may prevent loading arm couplings from functioning.

(2) At least 8 in. of straight pipe (free of supports, lugs, or reducer) is required behind the flange for coupling clearance.

(3) The preferred flange spacing fore and aft is 3.0 m. – 3.0 m. – 3.0 m. (10 ft. – 10 ft. – 10 ft.), or less between centres. In no case can the distance be less than 1.6 m. (5 ft. 3 in.), 1.1 m. (3 ft. 7 in.), 1.6 m. (5 ft. 3 in.).

b. Preferred connections for loading vessels are 4 each 12 in. ANSI 150#
Weldneck flanges on the starboard side. *Standard flanges are required.*

(1) Non-standard flanges thicknesses and/or non-standard outside diameters may prevent loading arm couplings from functioning.

(2) At least 8 in. of straight pipe (free of supports, lugs, or reducers) is required behind the flange for coupling clearance.

(3) The preferred flange spacing fore and aft is 3.0 m. – 3.0 m. – 3.0 m. (10 ft. – 10 ft. – 10 ft.), or less between centres. In no case can the distance be less than 1.6 m. (5 ft. 3 in.), 1.1 m. (3 ft. 7 in.), 1.6 m. (5 ft. 3 in.).

(4) Disconnection of loading arms: Once cargo transfer is complete the loading arms will be drained and then disconnected by shore personnel.

B. Berth No. 1 (See Plan).

Berth No. 1 is designed for discharging or loading vessels of 28,000 to 265,000 d.w.t., without draft restrictions. Least depth alongside is 80 ft. Jetty head is connected to shore by trestle.

Gangway: Hydraulically operated telescoping gangway from loading platform to ship's deck is provided.

Loading Arms: 4 Mannesmann 16 in. size fully powered loading arms are installed. They are fitted with positive locking hydraulic couplers for 16 in., 14 in. and 12 in. standard flanges. All arms are capable of transfer of crude oil and ballast water.

Crane: A 1 ton capacity crane for handling of supplies, etc., is installed.

Breasting Dolphins: Four single steel tube breasting dolphins equipped with pivoting timber-faced fenders are installed. The two outer dolphins are spaced approximately 380 ft. apart and are equipped with double quick release hooks and power capstans. The two inner dolphins are spaced approximately 260 ft. apart and are similarly equipped.

Mooring Dolphins: There are four mooring dolphins. All are equipped with 3 quick release hooks and power capstans.

C. Berth No. 2 (See Plan).

Berth No. 2 is designed for discharging or loading vessels of 28,000-270,000 d.w.t. without draft restriction. Least depth alongside is 77 ft. Jetty head is connected to shore by a trestle.

Gangway: A hydraulically operated telescoping gangway from loading platform to ship's deck is installed.

Loading Arms: 3 Mannesmann 16 in. size fully powered loading arms are installed. They are fitted with positive locking hydraulic couplers for 16 in., 12 in. and 10 in. standard flanges.

Crane: A 1 ton hydraulic crane for supplies, etc., is installed.

Breasting Dolphins: 4 each single steel tube breasting dolphins equipped with pivoting timber faced fenders are installed. The distance between dolphins is 375 ft. Each dolphin is equipped with two quick release hooks and a powered capstan.

Mooring Dolphins: There are four mooring dolphins, all are equipped with 3 quick release hooks and power capstans.

BALLAST: When alongside, ballast should be handled by type, as per international convention, as follows:

1. *Segregated:* All ballast in segregated ballast tanks should be visually inspected prior to discharge. After inspection, segregated ballast may be discharged overboard according to standard shipboard procedure.

2. *Dedicated Clean:* All ballast in dedicated clean ballast tanks should be visually inspected prior to discharge. After inspection, dedicated clean ballast tanks may be discharged overboard in accordance with IMO Regulations.

3. *Treated:* Ballast water which has been chemically treated (with detergents, emulsifiers, etc.) must be retained on board.

4. *Others:* All other ballast water will be pumped ashore prior to loading. The Terminal has 3×120,000 barrel tanks for the reception of dirty ballast. The ship will advise the Terminal of the quantity of ballast to be discharged ashore prior to commencing discharge.

Ballasting: Before ballasting, the cargo lines shall be drained back into cargo tank. Ballast pumps shall be started before sea valves are opened.

CRUDE OIL WASHING: Crude oil washing may be done during discharge if this does not cause delay to other vessels awaiting berth.

The Terminal should be kept fully advised of any extra time required in order to comply with IMO Regulations.

MEDICAL: Doctor will only board vessel in cases of emergency. There are limited medical and dental services available. Treatment should, when possible, be arranged via Ship's Agent in advance.

DENSITY: Offshore salinity is 1.025. Salinity (Specific Gravity), due to river run-off, is about 1.010 close to the shore during the rainy season (July-November/December). During this period, substantial changes may occur.

Sea temperature varies between 80° and 83°F.

FRESH WATER: Fresh water can be supplied, as available, via the jetty connections. Prior notice is requested. Maximum delivery is 200 tons.

FUEL: There are no bunkers available.

EARLY DEPARTURE PROCEDURE: All loading vessels are requested to use an Early Departure Procedure. (E.D.P.).

(A) If the Master of a vessel consents to use the E.D.P. it will be implemented in the following manner:

1. The Master will sign a letter agreeing to the use of E.D.P.
2. The cargo documents and other relevant forms will be placed aboard the vessel.
3. On completion of loading, the vessel's tanks will be gauged by the vessel's appointed cargo inspector, whose inspection is expected to be completed prior to sailing.
4. The vessel will sail.
5. The Terminal will transmit Bill of Lading figures to the vessel by VHF radio. The cargo documents are to be completed by the Master.
6. Written confirmation of these figures will be provided by the vessel's Agent in the Canal Zone.

Petroterminal – Berth Description:

	Berth No. 1	*Berth No. 2*
Vessel size (design)	28,000 – 270,000 d.w.t.	28,000 – 275,000 d.w.t.
Type of berth	Fixed loading platform	Fixed loading platform
Deck level of berth	40 ft. MLLW	40 ft. MLLW
Depth alongside at MLLW	80 ft.	77 ft.
Loading arms (number and size)	4×16 in. also 14 in. and 12 in. adapters	3×16 in. also 14 in. and 12 in. adapters
Max. rate loading	48,000 bbls.p.h. plus	48,000 bbls.p.h. plus
Max. design flow rate (per berth)	100,000 bbls.p.h.	90,000 bbls.p.h.
Loading arm spacing on operating dock/minimum ship manifold spacing	9 ft. 4 in. (4)	9 ft. 4 in. (3)
Quick disconnect coupling size (QDC)	16 in.	16 in.
Manifold size range acceptable to QDC (#1)	16 in., 14 in. and 12 in.	16 in., 14 in. and 12 in.
Max. ship manifold pressure	PSIG – not to exceed 125	PSIG – not to exceed 125
Emergency shutdown	Can be initiated by berth operator or by Control Room. Shutdown complete within 6 seconds after initiation.	Can be initiated by berth operator or by Control Room. Shutdown complete within 6 seconds after initiation.
Access to ship	69 ft. aluminium gangway	69 ft. aluminium gangway
No. of mooring dolphins	4	4
No. of breasting dolphins	4	4
Mooring/breasting hooks	1 triple hook per mooring dolphin/4 double hooks per breasting dolphin	1 triple hook per mooring dolphin/4 double hooks per breasting dolphin
Potable water	Limited	Limited
Bunker facilities	None	None
Public telephone	None available	None available

Notes:

1. Although all berths are designed to handle vessels in the 25,000 d.w.t. size, loading arm size requires ship's manifolds to be a minimum of 12 in. in diameter for Berths No. 1 and 2.

2. Vessels in the 250,000 d.w.t. range will be acceptable only if dock/deck machinery and mooring leads allow an efficient bow and stern mooring line pattern plus bow to manifold distance.

3. Preferred flange spacing fore and aft is 10 ft. – 10 ft. – 10 ft. (or less) between centres, however, in no case can the distance be less than 5 ft. 3 in. – 3 ft. 7 in. – 5 ft. 3 in.

ANSI No. 150 Weldneck Flanges.

(B) If the Master of a vessel does not agree to use E.D.P. the vessel will be unberthed immediately after loading and should proceed to the Pilot Station. Terminal's Representative will bring papers by launch or tug.

(C) Vessels will be requested to unberth once loading arms have been disconnected regardless of the time set on the sailing board. A terminal launch will be available for returning crew to vessel.

(D) If a vessel fails to vacate its berth upon completion of operations or causes delay to cargo operations because of mechanical breakdown, inadequate loading/discharging rates, lack of adequate crew, non-compliance with these rules, the vessel will be responsible for:

1. Jetty demurrage at the applicable rates.
2. Hold P.T.P. harmless against demurrage detention or loss of any nature incurred as a result of other vessels awaiting berth.
3. Cost of tugs requested to stand-by the vessel by the Terminal Representative if, in his opinion, he considers it necessary.

TIME: GMT minus 5 hours.

INSPECTION: *Petroleum/Tank Inspection:* This will be carried out by Inspectors appointed by the User (SGS Redwood or Saybolt).

Valdez – Crude Oil Characteristics:

Specific Gravity	0.888 @ 60°F
API Gravity @ 60°F	26.6°
Pour Point	+15°F
Viscosity	7.3 SSU @ 100°F (22 centistoke) 160 SSU @ 60°F (68 centistoke)
Reid Vapour Pressure	3.8 at 100°F
Sulphur Content	0.99% by weight
Waxing	85 – 117°F (begins to precipitate) 50 – 55°F (bulk of wax begins to come out of solution)
Mercaptan Sulphur	Approximately 20 p.p.m.

SAFETY: No dangerous cargo shall be permitted to be shipped or landed at the jetties. Whilst petroleum loading/discharging operations are being carried out, no other cargo will be handled without permission of the Terminal Representative.

No welding, cutting, etc., is permitted on any vessel in the Terminal.

Blowing or cleaning of boiler tubes in vicinity of the Terminal is prohibited.

Smoking Regulations: Smoking is PROHIBITED in the following locations:

1. Entire Terminal area.
2. Aboard Launches.
3. On Jetties and in motor vehicles inside the Terminal, except inside designated buildings.
4. On ships except in places designated by the Master and agreed by the Terminal's Representative. In accordance with IOTTSG, two locations only will be established in the after end of the vessel.

N.B. If an oil spill occurs on Jetty or ship, all smoking will be PROHIBITED until the spill has been removed.

Emergency Procedure: For cases of fire on vessel, in addition to the normal ship's alarms, Masters are requested to sound a prolonged blast on the main whistle of not less than 10 seconds duration. If the vessel is discharging or deballasting it should:

1. Immediately cease operations.
2. Initiate fire fighting procedures.
3. Be prepared to unberth at short notice.

If loading cargo, the Terminal will, on hearing the signal, immediately stop all operations and:

(i) Initiate fire fighting procedures from Jetty.
(ii) Put Terminal emergency plan into effect.
(iii) Disconnect loading arms.
(iv) Order tugs to vessel and make preparations for unberthing.

Vessels at other berths should also cease operations and be prepared to put to sea.

Fire Protection System: Each jetty is equipped with:

1. Water spray system underneath.
2. Hydrant system on platform.
3. Two 500 g.p.m. remote operated monitors. These are connected to discharge with either water or foam.

The plant water supply is by diesel driven pumps at two locations and the total water flow is 7,000 g.p.m.

SHIP SUPPLY SERVICE: 3 large tugs and launches available to assist with transportation of stores and crew, on an emergency basis only.

Helicopter can easily be hired.

SHORE LEAVE: *Launch Service:* The launches at the Terminal are intended for Terminal use only. They may be hired by prior notice, depending on operational requirements. Crew members and visitors use the launches at their own risk.

Shore Leave: Shore leave is permitted by the local authorities. Crew members should check in at the Customs Gatehouse leaving and returning to the Terminal area. Masters should take reasonable steps to ensure no alcoholic drinks, drugs, etc. are supplied or conveyed to any unauthorised person.

GENERAL: *Charts and Publications:* Charts Ref. USHO 21580, 21581, 21584 and 1018 and BA 1928.

Sailing Directions: USHO PUB 153. B.A.N.P. No. 8 Pacific Coasts of Central America and United States Pilot.

Tides: The maximum tidal range is 12 ft. The mean range is 7.6 ft. The tidal flow in this area is, at present, ill defined.

Strong tides in North-South direction have been experienced close to the docks. At times these are unpredictable.

Currents: Currents in the area are not well defined.

Weather Conditions in Bahia de Charco Azul:

(A) Wind: The seasonal normal wind regime occurring in the Bahia de Charco Azul is:

1. December-March: Wind speeds greater than 14 m.p.h. occur approximately 8% of the time in January. The predominant directions are from W., N.W., N. and N.E. Winds are W., N.W., N. and N.E. approximately 70% of the time in January.
2. December-April: Is considered to be dry season.
3. April-May: Winds exceed 14 m.p.h. 6% of the time in April. The predominant wind directions are S. and S.W., and N. and N.W. Winds are S. and S.W., and N. and N.W. approximately 60% of the time in April.
4. June-August: Wind speeds exceed 14 m.p.h. approximately 13% of the time in July. The predominant directions are S., S.W., and W. (approximately 60% occurrence) in July.
5. June-November: Is considered to be the rainy season.
6. September-November: Winds exceed 14 m.p.h. approximately 22% of the time in October. Predominant wind directions are S., S.W., W. and N.W. Winds are S., S.W., and W. and N.W. approximately 86% of the time in October.

(B) Waves: The seasonal wave height is:

1. December-March: Significant wave height exceeds 3.9 ft. 1% of the time in January N.E., E. and S.E. wave directions predominate, occurring 84.9% of the time in December.
2. April-May: Significant wave height exceeds 3.9 ft. 1.6% of the time in April. N.E., E. and S.E. wave directions predominate, occurring 85.5% of the time in April.
3. June-August: Significant wave height exceeds 3.9 ft. 6.4% of the time in July. N.E., E. and S.E. wave directions predominate, occurring 82.9% of the time in July.
4. September-November: Significant wave height exceeds 3.9 ft. 11.3% of the time in October. N.E., E. and S.E. wave directions predominate, occurring 81.0% of the time in October.

Flag: Every vessel shall fly her national flag and the flag of the Republic of Panama between sunrise and sunset.

Rubbish: The dumping of trash and other garbage is prohibited. Any trash or garbage so dumped will be removed and the expenses involved for the vessel's account.

AUTHORITY: Petroterminal de Panama, S.A., Apartado 8-179, Panama 8, Republic of Panama. *Tel:* 263-7293, 263-7469, 263-7777. *FAX:* 263-9949. *Contact:* Luis Roquebert, Operations Manager.

Puerto Armuelles: P.O.Box 26. *Tel:* 770-7261. *Fax:* (Area code 507) 775-4958 or 775-6993.

AGENT: Fernie (Puerto Armuelles), S.A., Apartado (P.O.Box) 22, Puerto Armuelles, Chiriqui, Republic of Panama. VHF: Standby Channel 16. Telephone: 770-7301. After hours Tel: 770-8993. Cables: "Fernie Puerto Armuelles". Fax: 770-7403.

With the exception of times vessels are actually in or approaching Puerto Armuelles (i.e. within V.H.F. range) all other communications should be directed to "Fernie Cristobal".

VACAMONTE: 08.51 N. 79.40 W. (See Plan)

LOCATION: The fishing port of Vacamonte is located 27 km. S.W. of Panama City, in Arraijan District, Province of Panama.

DOCUMENTS:

Voyage Documents:

General Declaration (1 original and 5 copies)
Cargo Manifest (4 copies)
Crew List (4 copies)
Passenger List (4 copies)
Stores/Supplies List (4 copies)
Crew Effects List (2 copies)
Maritime Health Declaration (Derat) (1 copy)
Mail List (1 copy)

Ship's Documents:

Certificate of Registration
Certificate of Civil Security
Certificate of Radio Safety
Oil Record Book
Safety Construction Certificate
Civil Responsibility Insurance Certificate
Radio Licence Certificate (date of expiry)

Documents Requested from Tuna Vessels:

General Declaration (obligatory)
Crew List (obligatory)
Cargo List (if available)
Clearance from Last Port (obligatory)
List of Stores/Supplies (if available)
Derat Certificate (obligatory)

Documents Required from National Shrimp Vessels:

Clearance from Last Port of Call
Consular and Vessel Clearance Certificate
Monthly Invoice or Last Invoice for Marine Resources
Clearance Documents from the main Treasury Office

APPROACHES: *Disposal Area:* There is a dumping site approximately 1.5 km. from the port access channel (to the S.W.). The average depth in the dump is 6.1 m. at MLWS (varies from 5.5 m. to 7.0 m.). It is located in position:

1.	Lat. 08° 50' 04" N.	Long. 79° 39' 17" W.
2.	Lat. 08° 49' 50" N.	Long. 79° 38' 48" W.
3.	Lat. 08° 49' 43" N.	Long. 79° 38' 51" W.
4.	Lat. 08° 49' 57" N.	Long. 79° 39' 21" W.

PILOTAGE: Pilot is compulsory for any vessel greater than 150 g.r.t. that enters or leaves the Port. Pilot can be contacted on VHF Channel 15.

ANCHORAGE: Located in Lat. 08° 50' 14" N., Long. 79° 38' 45" W. in the area of the Fairway Buoy near Melones Island.

MAX. SIZE: The Port can receive vessels up to 3,000 tons with maximum length of the vessel of 120 m. and with draft of 7 m. Access channel dredged to 6.0 m. in 1992. Average tide variation 3.96 m.

HEALTH: When vessels arrive in port, they are received by a Health Official who comes on board to examine documents. The Quarantine Officials inspect stores and store rooms and these are sealed in the event of any anomaly (foodstuffs in poor condition, meats which originate in countries with outbreaks of aphthous fever, etc.).

In the event of illness on board, this must be communicated to the Ship's Agent, who will transmit the information to the Authorities. The vessel must not be moved until the doctor determines whether or not the illness represents a danger for persons on land.

RADIO: S.S.B. with the following frequencies:

2182.00 – Channel 1
4139.50 – Channel 4
2638.00 – Channel 2
4358.80 – Channel 5
2738.00 – Channel 3
7447.50 – Channel 6

For calling use Channel 1.

VHF: Station has 55 channels. Calling use Channel 15 (156.750 MHz). Station in operation throughout 24 hours.

TUGS: 2 tugs of 700 h.p. each.

BERTHING:

Tuna Fleet Facilities: Pier: Head-length 132 m. Width of pier 12.5 m. 2 inside berths each 60 m. The "T" head pier can accommodate 4 tuna vessels at the same time. Depth at Pier A-3 is 8.4 m., and depth at Pier A-4 is 6.4 m.

Potable water and fuel obtainable at the pier.

Shrimp Fleet Facilities: 2 piers which are able to receive 8 vessels at any one time, depth 4.5 m. Fuel and potable water available.

There are 2 additional piers where vessels are able to undertake repair operations.

Fresh Fish Market: 1 marginal pier which is able to accommodate 8 vessels at one time, depth 4.2 m. – 5.3 m. Adjacent to the pier is a fish cleaning station and 2 cold rooms.

Freight Elevators: 1 freight elevator of 10 tons capacity. 10 freight elevators of 2 tons capacity.

EQUIPMENT: 4 fixed cranes (shrimp quays) × 1.5 tons. 12 × 2 ton fork lift trucks. Cold storage for 3,000 tons of tuna.

STEVEDORES: The National Port Authority does not offer a stevedoring service in the port. In case of need, the Ship's Agent is able to contract one or more private gangs to carry out the work.

MEDICAL: There is a doctor in the port for first aid treatment. There is also an ambulance to transport urgent cases to the nearest medical centre.

FRESH WATER: The NPA offers a service of water supply to vessels requiring it. The port has a water tank with a capacity of 600,000 gallons which meets all the needs of the port.

FUEL: For supplies to vessels, the port has a modern fuel pumping system and two tanks of good capacity.

FIRE PRECAUTIONS: The port has its own corps of fire fighters and a modern fire engine. The aqueduct system for drinking water has numerous hydrants spread throughout the port area.

REPAIRS: Vacamonte has a modern yard for repairs to vessels, including a synchro-lift with 200 tons capacity, and berths for repairing 20 vessels engaged in the national fishing industry, covering an area of 18,000 sq.m. which includes future space for four additional construction berths. There is also a vessel repair workshop with an area of 700 sq.m., and vessel repair offices and shops with an area of 1,000 sq.m.

WATCHMEN: The NPA has a complete security corps working throughout 24 hours and permanently guarding the port entrance.

AIRPORT: Vacamonte is only 25 minutes from Panama City and 25 minutes from there is Tocumen International Airport.

POLICE/AMBULANCE/FIRE: Police 510360; Fire Brigade 51-2550; Ambulance Tel: Port Authority.

SERVICES: In the port is a ship chandler, an electricity system capable of generating 4,687 kVA, Ships' Agents' Offices, Post Office, Defence Force Member, Customs, Ministry of Health, Warehouse (marine hardware, materials, and accessories) and Banks.

SHORE LEAVE: Officials of the Migration Authority grant a provisional card for coming ashore, including leaving the port area.

DEVELOPMENTS: The NPA has 100 hectares of land adjacent to the port for industrial development. Here the industrial area will have plots of land from 2,000 sq.m. upwards for installations. The plots of land will be obtained by concession and those in Industrial Area No. 1 have already been acquired.

AUTHORITY: National Ports Authority, Apartado 8062, Panama 7, Panama. *Tel:* 23-3997, 64-4021. *Telex:* 2765. *FAX:* 69-6992, 69-7432. *Contact:* Jerry Salazar, Director General.

NOTES

Please also advise Shipping Guides Ltd.

Papua New Guinea

GENERAL:

APPLICABLE TO ALL PORTS IN PAPUA NEW GUINEA

(See also details under individual ports) **(See Plan)**

NOTICE: The following Notice to Mariners No. 36/90 issued by the Government of Papua New Guinea is quoted in its entirety:

Overseas vessels are advised to stand clear of the Islands of Bougainville and Buka, and to remain outside Territorial Waters, extending 12 nautical miles from the coast of Bougainville, and immediately adjacent Islands, but excluding Solomon Islands territory, and excluding the groups of Islands or Atolls known as Feni, Green, Nuguria, Carteret, Mortlock and Tasman. Any vessel entering the waters adjacent to Bougainville or Buka will be subject to stop and search powers. This Notice to Mariners is effective immediately (22 May 1990 EST) in respect to overseas shipping. Papua New Guinea coastal vessels will be restricted as of midnight local time 20 May 1990.

Restrictions will continue for an indefinite period.

Charts affected: B.A. 214, B.A. 2766, B.A. 3419, B.A. 3420, B.A. 3830, B.A. 3994, I.N.T. 604 and Aus 4604.

Issuing Authority: Department of Transport, Port Moresby, Papua New Guinea.

DOCUMENTS: International conditions, i.e. at the first port of call in Papua New Guinea the following inward Customs documents are required to be handed to Customs Department within 24 hours of ship's arrival.

3 copies Inward Passenger List.
7 copies Inwards Customs Manifest.
3 copies List of Crew.
3 copies Articles in private possession of officers and crew, Form 5.
3 copies Stores List.
2 copies Immigration Restriction Ordinance List (Form 6) being complete list of passengers disembarking and in transit.

If other than first port of call:

3 copies Inward Passenger List.
7 copies Inwards Customs Manifest.
Outward Customs Clearance from last port of call.

PILOTAGE: *Coastal Pilotage:* Pilotage services through China Strait, Raven Channel, Goschen and Ward Hunt Straits are conducted by pilots of Australian Reef Pilots Ltd. and Queensland Coastal Pilot Service Pty.Ltd. See "Australia" – "Torres Strait" for details.

RESTRICTIONS: Night berthing is not recommended, but is subject to weather conditions in Lae, Rabaul and Port Moresby.

HEALTH:

(a) Vessels arriving directly from Australia. Pratique is given by radio to vessels which voyage directly from Australia to a Papua New Guinea port, Master of vessel notifies Quarantine Officer at the port of entry to which he is proceeding of ETA, the number of passengers and crew and whether there is any sickness aboard. This notification from Master is sent not longer than 24 hours and not less than 12 hours of ETA. If there is no sickness aboard a reply is sent stating that Pratique is granted, and when a vessel arrives the actual pratique form is delivered to Master of vessel or to Collector of Customs to hand to Master. Full Pratique is given.

(b) Vessels arriving from a Foreign Port. All vessels which arrive from a foreign port must anchor in the designated position and await arrival of a Quarantine Officer who boards the vessel by himself – no other person (except a Pilot) is to be allowed on board vessel until Pratique has been granted. If a Pilot is on board he must remain on board until Pratique is granted.

Cholera: All passengers and crew are required to be inoculated against cholera if the vessel is expected to arrive at a port in the country within 7 days of leaving an area where cholera is either endemic or is present.

Note: The presence on board of a qualified doctor will normally assist in the granting of Pratique.

VHF: VHF services are available at:

Port Moresby	– Channel 16 and 12 Call Sign "Moresby Harbour Control"
Lae	– Channel 16 and 12 Call Sign "Lae Harbour Control"
Rabaul	– Channel 16 and 12 Call Sign "Rabaul Harbour Control"
Kieta	– Channel 16 and 12 Call Sign "Kieta Harbour Control"
Madang	– Channel 16 and 12 Call Sign "Madang Harbour Control"
Anewa Bay	– Channel 6, 12 and 15 Call Sign "Anewa Bay Pilots"
Kimbe	– Channel 16 and 12 Call Sign "Kimbe Harbour Control"
Alotau	– Channel 16 and 12 Call Sign "Alotau Harbour Control"
Vanimo	– Channel 16 and 12 Call Sign "Vanimo Harbour Control"
Wewak	– Channel 16 and 12 Call Sign "Wewak Harbour Control"
Oro Bay	– Channel 16 and 12 Call Sign "Oro Bay Harbour Control"
Kavieng	– Channel 16 and 12 Call Sign "Kavieng Harbour Control"
Daru	– Channel 16 and 12 Call Sign "Daru Harbour Control"
Buka	– Channel 16 and 12 Call Sign "Buka Harbour Control"

Normal working hours are 0800 till 1621 hrs. local time, except for Anewa Bay where hours are 0700 till 2300 hrs. local time.

RADIO: 2 radio stations are available.

(a) Port Moresby Radio – Call sign P2M operating between the hours of 2100 – 1000 hrs. GMT.

(b) Rabaul Radio – Call sign P2R operating 24 hours per day.

These stations are generally used for all contact with agents or Government Departments, etc.

RADAR: No port radar services exist in Papua New Guinea.

TUGS: Berthing. Tugs are available in Port Moresby, Lae and Anewa Bay.

CRANES: There are no wharf mounted cranes in Papua New Guinea, however, mobile cranes are available in most main ports capable of lifting up to 20 tonne containers. Shippers are advised though to check this before shipping and with heavier loads prior advice and approval must be sought from the relevant Port Authority.

BULK CARGO FACILITIES: Except for Anewa Bay (copper concentrate) and the Jant Wharf at Madang (Woodchip), no bulk cargo facilities exist in Papua New Guinea. (Details of the above are given in the appropriate port summaries).

MEDICAL: Medical attention is available in most Papua New Guinea Ports, however as much advance notice as possible should be given by contacting the nearest radio station.

CONSULS: The following Consulate and Commission services are available.

	Tel.
American Consulate General, P.O.Box 3492, Port Moresby.	21-1447
Australian Consulate General, P.O.Box 1180, Lae.	42-3000
Australian High Commission, P.O.Box 9129, Hohola.	25-9333
Austrian Honorary Consul, P.O.Box 850 Port Moresby.	21-2588
British High Commission, P.O.Box 739, Port Moresby.	21-2500
People's Republic of China Embassy, P.O.Box 1351, Boroko	25-9856
French Embassy, P.O.Box 1155, Port Moresby.	25-3740/25-1323
German Honorary Consulate, P.O.Box 1549, Boroko.	25-6311
Indonesian Embassy, P.O.Box 7165, Boroko.	25-3116
Italian Consulate, P.O.Box 276, Lae.	42-3987
Embassy of Japan, P.O.Box 3040, Port Moresby.	21-1800
Korean Embassy, P.O.Box 381, Port Moresby.	25-4755
Malaysian High Commission, P.O.Box 1661, Port Moresby.	25-1506/25-2663/25-2076/25-2201
New Zealand High Commission, P.O.Box 1144, Boroko.	25-9444
Philippines Embassy, P.O.Box 5916, Boroko.	25-6577
Sweden Consulate, P.O.Box 1228, Boroko.	25-5411
Swiss Consular Agency, P.O.Box 136, Port Moresby.	21-1307

DRY DOCK: No dry dock or major repair facilities exist in Papua New Guinea.

GANGWAY/DECK WATCHMEN: Not usually necessary.

HATCHES: Opening/closing usually carried out by crew.

CUSTOMS ALLOWANCES: Entry regulations permit 200 cigarettes or 1lb. of tobacco, and 40 oz. of wines or spirits.

Crew members may hold 200 cigarettes and 1 carton of beer (or 1 bottle of spirits) out of bond per week.

CARGO GEAR: Wharf equipment supplied by stevedores, load/discharge by ship's gear.

REPATRIATION: Possible, frequent scheduled air services to Australia, Hong Kong, Manila, Singapore and USA via Guam.

TIME: Local time in all ports is 10 hours ahead of GMT.

HOLIDAYS: The only days on which cargo cannot officially be worked are Good Friday and Christmas Day.

TELEPHONES: Not available at present for ship to shore connection.

SHORE LEAVE: Crew members are allowed ashore.

IDENTIFICATION CARDS: Generally a Seaman's Book is held at the main entrance to the port. Individual passes are not normally required for crew.

BERTH RESERVATIONS: A berth reservation system applies for all overseas vessels at all Papua New Guinea Harbours Board ports.

Samarai does not handle overseas traffic.

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 671, Stanley Esplanade, Port Moresby, Papua New Guinea. *Tel:* 21 1400 (8 lines) *Telex:* NE 22243 (A/B Harbours). *FAX:* 211546. *Cables:* Harbours, Port Moresby. *Contact:* The Managing Director.

AITAPE: 03.08 S. 142.21 E. **(See Plan)**

(See General section on Papua New Guinea ports).

PILOTAGE: Not compulsory.

Pilot Boarding Place: Lat. 3° 08.25' S., Long. 142° 23.9' E.

TUGS: Not available.

RADIO: Communications not available.

BERTHING: Position of wharf, Lat. 03° 08.51' S., Long. 142° 21.24' E. Length of berthing head 18.3 m. (60 ft.). Width 6.2 m. (20.3 ft.). Height of deck above LAT 2.5 m. (8.3 ft.). Minimum depth of water at LAT at wharf head 4.3 m. (14 ft.) – subject to seasonal change. Maximum tidal range 1.4 m. (4.6 ft.)

STEVEDORES: *Working Hours:* 0700 – 1200 hrs., 1300 – 1800 hrs.

MEDICAL: Hospital facilities 3 miles from port can attend to minor cases.

FRESH WATER: Not available to ships.

FUEL: Available in 200 litre drums.

CUSTOMS ALLOWANCES: 200 cigarettes or 250 grams tobacco. 1 litre of spirits or 1 litre of wine or 6 beers (total 4.5 litres) for each 7 days. Aitape is not a port of entry.

AIRPORT: Distance 1 mile, daily flights to Wewak and Vanimo.

GENERAL: *Chart:* AUS 652

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 3, Aitape, Sandaun Province, Papua New Guinea. *Tel:* 872044, 872052 (after hours). *Cables:* Portman, Aitape. *FAX:* 872125. *Contact:* Robert Parer, General Manager, W. & R. Parer Pty. Ltd., Agent for P.N.G. Harbours Board.

ALOTAU: 10.19 S. 150.27 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary: From a position in Lat. 10° 20' S., Long. 150° 26' E. bounded on the West by a straight line due North to the coastline. From the same point bounded on the South by a straight line due East to a position in Lat. 10° 20' S., Long. 150° 28' E. thence bounded on the East by a straight line due North to the coastline.

DOCUMENTS:
Customs:
Crew Declaration.
Last Port Clearance.
Inward Ship's Stores List.
Inward Cargo Manifest.
Crew Personal Effects List.
Crew List.
Passenger List.
First Aid List.
Health:
Pratique Request.
Ports of Call List.
Declaration of Health of all on board, with details of any sickness and whether all vaccinated.

PILOTAGE: Pilotage is not compulsory. There are no pilots stationed at Alotau but a pilot will attend from Port Moresby given 48 hours notice of the ship's estimated time of arrival.

Pilot boarding ground: Lat. 10°19.2' S., Long. 150° 26.75' E.

ETA to be sent not less than 12 hours prior to arrival via Port Moresby Radio (P2M) and to be confirmed not more than 5 hours and not less than 4 hours prior to arrival.

ANCHORAGE: There are no recommended anchorage areas for large vessels in the vicinity of Alotau. There is a safe anchorage in the harbour.

RESTRICTIONS: There are no restrictions.

MAX. SIZE: LOA about 130 m., with max. draft 20 ft.

HEALTH: Quarantine Officer Tel: 61 1049. Health Officer Tel: 61 1164.

RADIO: None.

VHF: "Alotau Harbour Control" on Channels 16, 12 and 8 during working hours and when vessels are expected during non-working hours.

RADAR: Not available.

TUGS: Not available.

BERTHING: Overseas Wharf is 93 m. long and 18.0 m wide, height of deck above L.A.T. 2.4 m., minimum depth of water at face at L.A.T. 10.0 m.

Vessels may berth either port or starboard side to at the discretion of the Port Authority.

Coastal Wharf: Length 55.8 m. (183 ft.) Width 9.8 m. Minimum depth of water 4.9 m. (16 ft.). Height of deck above L.A.T. 2.1 m.

Barge Ramp available.

Load/discharge is by ship's own gear (except under special arrangement).

CRANES: Vessels are required to use their own gear, as no cranes available on the Overseas and Coastal Wharves.

BULK CARGO FACILITIES: Only at Overseas Berth, where copra in bags is handled, these are cut open onboard vessels using ship's gear.

SPECIALISED CARGO HANDLING FACILITIES: Overseas Berth handles containers and could handle Ro/Ro Traffic.

BRIDGES: None.

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required.

MEDICAL: At least 48 hours notice required by Agent to arrange for medical attention at the General Hospital. Dental facilities also available at the General Hospital.

TANKERS: Facilities for tankers at Coastal Wharf with draft of 14 ft. maximum.

DENSITY: 1010.

FRESH WATER: Available in limited quantities and restricted during periods of the year. Prior application to be made to the Port Manager.

FUEL: Available by road tanker. Supplier: B.P. Also through pipeline. Arrangements through Reno Pty. Ltd. Tel. 61-1159.

FIRE PRECAUTIONS: None, other than the usual non-smoking precautions, etc.

CONSULS: None.

REPAIRS: No facilities available.

DRY DOCKS: No dry docks available at Alotau.

SURVEYORS: Not available in Alotau.

GANGWAY/DECK WATCHMEN: Usually ship's crew/ ship's gangway.

HATCHES: Opening/closing of hatches by ship's crew preferred.

CUSTOMS ALLOWANCES: 200 cigarettes, 1 litre spirit or wine for 7 days. Tobacco should be equivalent to 200 cigarettes for 7 days.

CARGO GEAR: Load/discharge effected by ship's gear.

REPATRIATION: No facilities exist at Alotau for effecting crew changes or necessary repatriation.

AIRPORT: Gurney Airport approximately 20 km. away from Alotau town is served regularly but not daily.

TIME: GMT plus 10 hours.

HOLIDAYS: Christmas/Boxing Day, New Year's Day, Good Friday, Queen's Birthday, Independence Day. Cargo work can be arranged on these days except on Christmas Day.

POLICE/AMBULANCE/FIRE: Police: 61 1222. Hospital (No separate ambulance): 61 1308 and Fire: 61 1055.

EMERGENCY CO-ORDINATION CENTRE: Not available.

SERVICES: None available.

BANKS: Westpac Bank, P.O.Box 135, Alotau. Tel: 61 1003.
PNG Banking Corporation, P.O.Box 260, Alotau. Tel: 61 1197.

STORING: No facilities available.

SHIP SUPPLY SERVICE: Not available.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not required.

REGULATIONS: Berthing Applications and Indemnity to be submitted to the Port Authority 48 hours prior to berthing of vessel.

DELAYS: Delays at Alotau are most unlikely.

GENERAL: *Storage:* Covered Storage Area for Overseas Cargo – 1,874 sq.m. Open Storage Area – 7,640 sq.m.
Chart: AUS 629.

DEVELOPMENTS: Proposed Palm Oil mill to the North of Overseas Berth, no fixed dates set for commencement or completion.

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 42, Alotau, Papua New Guinea. *Tel:* 61 1276. *Telex:* NE 22243. *Cables:* Portman Harbours, Alotau. *Contact:* Port Manager.

ANEWA BAY: 06.11 S. 155.33 E. (See Plan)

PORT AND MINE CLOSED LATE 1989 AND NOT LIKELY TO OPEN AGAIN IN NEAR FUTURE.

(See General Section on Papua New Guinea Ports).

PORT LIMITS: Seaward Boundary – a line joining the Southern end of Takanupe Island and Karikiberia Shoal.

DOCUMENTS: Crew List – 4 copies; Ship's Store's List – 2 copies (P.N.G. forms); Crew Declaration Form – 2 copies of P.N.G. Form 5; Vaccination Certificates of all crew members for sighting; International Declaration of Health.

PILOTAGE: Compulsory. Boarding station 06° 07' S., 155° 35.3' E., from a tug 'Masthead' or a launch 'Kuruki', normally between the hours of 0600 and 2200, or in certain circumstances, as per arrangement. ETA advices 72, 48 and 24 hours in advance via Rabaul Radio or Port Moresby Radio to Boucop Loloho NE95812; when in close vicinity, VHF Channel 12.

ANCHORAGE: Available at Port Authorities advice, but safe anchorage exists 1 mile N.E. of Dakome Pt. in 30 fathoms of water.

APPROACHES: 3 km. wide channel runs in a Southerly direction between Kuruki Reef and Banaru Reef, to between Takanupei Island and Karikiberia Shoal. The depth of this channel is in excess of 180 m. After crossing the 180 m. line, depths exceed 35 m. until adjacent to the wharf. The only hazard near the approach is Bara Shoal, 1.6 km. Southward of Takanupei Island.

MAX. SIZE: Maximum draft permitted alongside is 12 m. (40 ft). The longest vessel yet to have berthed measured 270 m. (partly loaded tanker). It is envisaged that vessel to load copper concentrate should ensure that, on berthing, hatch coamings are not more than 11.5 m. (38 ft.) above water line, to enable ship loader to be positioned on board.

HEALTH: Vaccination Certificates required. Quarantine Officer boards either with Pilot or at the berth. When anchoring, Free Pratique will be granted then. Code of signals 'Q' flag should be exhibited on arrival off Port. Pratique is automatic for vessels arriving from other P.N.G. ports, New Zealand and Australia. In certain circumstances Radio Pratique may be granted (check with local Agent).

RADIO: ETAs are best routed through either Rabaul Radio, Port Moresby Radio or Sydney Radio, who in turn will relay to Pilots and Agents.

VHF: The Port Control operates Channels 6, 12 and 16, but normally, messages between Vessels, Pilots, Port Control, Tug and Lines Boat are relayed on Channel 12. Therefore a vessel should use this channel when approaching. VHF services are available between 0700 hrs. and 2300 hrs. daily.

TUGS: 'Masthead' – 28 tons bollard pull – 1600 b.h.p., equipped with hydraulic warping winch and fire fighting equipment. Pilot may join incoming vessels from tug. It is common to use the tug's lines. Charges, etc. on application.

BERTHING: Wharf (Position Lat. 06° 11.1' S., Long. 155° 32.7' E.) is 77 m. long with mooring dolphins located 59 m. and 107 m. Eastward and 59 m. Westward of main wharf. Maximum draft is 12 m. This berth is used for all vessels and normally starboard side alongside. Loading/discharge of general cargo, containers, etc., by ship's own gear.

CRANES: 127 tonnes mobile crane can be made available if required.

BULK CARGO FACILITIES: Bulk loading gantry for copper concentrate situated just Eastward of the main berth. Nett loading rate approximately 800 – 1,200 tonnes/p.h. Please note that gantry is a fixture and vessels are required to shift to facilitate loading.

SPECIALISED CARGO HANDLING FACILITIES: 2 × 25 ton forklifts available for handling of containers. Berth has proved suitable for certain Roll-on/Roll-off traffic. Westward of berth are provisions for discharge of white oils, black oil, and M.I.B.C. Small L.P.G. carriers anchor in position Lat. 06° 11.4' S., Long. 155° 32.7' E., and by way of hoses connected up to shore facilities.

STEVEDORES: The Port Authority (Bougainville Copper Limited) operates its own stevedoring function. Working Hours: from 0700 – 1500 and 1500 – 2300 hrs., 7 days a week. ETA advices as per "Pilots".

MEDICAL: Hospital facilities and medical clinic exist.

TANKERS: Heavy oils: 2×30 cm. marine connections to a 56 cm. main discharge line, giving a maximum discharge rate of 4,000 tonnes/p.h.

Light oils: 1×25 cm. marine connection to a 20 cm. discharge line giving a maximum discharge rate of 700 tonnes/p.h.

FRESH WATER: Available, but limited at times.

FUEL: Only small quantities of gas oil by road tanker.

CONSULS: None.

REPAIRS: Not available.

CUSTOMS: As per P.N.G. Regulations.

AIRPORT: Aropa Airport, 34 km. distant. Regular services to other P.N.G. centres, connecting to overseas centres.

TIME: GMT plus 10 hours.

HOLIDAYS: *Local Holidays:* As for Papua New Guinea. Port is normally closed Christmas Day and Good Friday.

POLICE/AMBULANCE/FIRE: Initially B.C.L. controlled within Port area, otherwise 95 1222 (Police), 951333 (Fire), 951666 (Ambulance).
DELAYS: Estimated and advised as per weekly shipping schedule.
GENERAL: *Chart:* Aus. 683.
Provisions: Small quantities generally available through local Agents.

SHIPMASTER'S REPORT: 1975 (Updated 1988).
Documents:
Crew List. (2 Copies of Papua & New Guinea forms to be filled in on arrival at Pilot Station).
Ship's Stores List. (2 copies of P.N.G. forms to be filled in on arrival at Pilot Station).
Crew Declaration Form: – (2 copies of P.N.G. Form 5 – Articles in Private Possession of Officers & Crew to be filled in on arrival at Pilot Station).
Vaccination Certificates of all crew members for sighting.
International Declaration of Health.
Pilotage: Two Pilots, employees of the Bougainville Copper Company Ltd., are available 24 hours a day. Pilot boards in position Lat. 06° 07' S., Long. 155° 35' 18" E. Pilot vessel is a tug called the "Masthead", which has a dark blue hull and white superstructure or launch "Kuruki". Pilots listen on VHF Channels 12 and 16. ETA's will have been passed to the Pilots by the ship's Agents, as per charter party, but pilot boat should be advised by VHF when vessel is 2 hours and 1 hour respectively from Pilot Station. Channel 12 is monitored by Pilots daily 0700–2300 hrs. and when vessels are expected. Pilotage is compulsory.
Max. Size: Restriction mainly on draft. Least water on berth is 40 ft. Although the problem has not as yet arisen, max. length is also restricted to about 885 ft.
Pratique: Immigration Officer boards as vessel berths. International Code of Signals "Q" flag should be exhibited on arrival off port. Same officer deals with customs clearance.
Radio: ETA's to Pilots are best routed through Rabaul Radio, call sign P2R, who will pass the message direct to the Pilot Office. Port Moresby Radio may also be used for messages to the ship's Agents.
Tugs: Only one tug, the "Masthead", 28 tonnes bollard pull, is available, Tug's line always used.
Berthing: Only one berth in the port, with a least depth of 40 ft. alongside. The berth is used for the loading of copper concentrates and the discharge of general cargo and containers. Vessels intending to load copper concentrates should ensure that their hatch coamings are not more than 38 ft. above the water line on arrival, to enable the loader to be positioned over her holds. In some cases ballast hatches may have to be left filled until after loading has commenced. The berth is approached at an angle of 45° and a mooring boat will take one head rope ashore first. The back spring should be sent ashore by heaving line as soon as possible. All vessels berth starboard side to the quay. The berth itself is 250 ft. long. Dolphins stand 175 ft. Westward and 135 ft. and 310 ft. Eastward of the ends of the wharf. The ore loader is not a movable fixture, and vessels are required to shift up and down the wharf to facilitate loading concentrates at the requisite hatches. When leaving the wharf the vessel is sprung off, using one head rope and the backspring.
Stevedores: Normal cargo hours for vessels loading are 0600 – 2300 hrs. but in cases where required cargo will be worked 24 hours a day. Stevedores are employees of the Bougainville Copper Company. Approx. loading rate for concentrates 750/1,000 t.p.h. Stevedores will render all possible assistance in shifting ship. For vessels discharging, mobile cranes capable of lifting up to 127 tonnes are available. Shore gangway is normally used.
Medical: There are good hospital facilities in nearby Arawa. Advanced notice of required medical attention not normally necessary.
Tankers: Tankers are also discharged at Anewa Bay's only wharf. As with other vessels, draft is restricted to 40 ft., and length to about 885 ft.
Density: Varies between 1022 and 1025 according to season and amount of rainfall recently experienced.
Fresh Water: Available on the wharf except during periods of drought. Supplied by 3 in. hose at approximately 60 t.p.h. Can only be supplied at main wharf (not at Dolphins) and it is therefore sometimes necessary when loading concentrates to wait until after hatches are being loaded before hose can be put aboard.
Fuel: Only small quantities of MDO (Gas Oil) by road tanker.
Repairs: No facilities.
Dry Docks: None close by.
Surveyors: None.
Hatches: Steel hatch covers to be opened and closed by crew.
Customs Allowances: 200 cigarettes and 1 bottle spirits or 12 bottles of beer (4.5 litres) per person.
Repatriation: Regular flights from Kieta Airport (34 km. distant) to Port Moresby, where possible to link up with international flights. Repatriation can therefore easily be arranged from this port. Also possible via Honiara.
Time: GMT plus 10 hours.
Shore Leave: All crew members are allowed ashore. No shore passes required.
Delays: No delays normally experienced, but possible up to 24 hours max.
General: Berth very exposed to S.E'ly winds. Moderate ground swell experienced on berth at times. Considerable rain experienced throughout the year, mainly during the night and early morning.

AUTHORITY: Bougainville Copper Limited, P.O.Box 155, Arawa, N.S.P., Papua New Guinea. *Tel:* 972100. *Telex:* NE95812. *FAX:* 972180. *Cables:* Boucop, Loloho. *Contact:* Captain H. Bailey, Port Manager – Shipping, Air and Port Services (Ext. 152) after hours 95-1627. Captain B. P. Ross, Superintendent – Marine Operations. Captain M. G. Hairsine, Superintendent Stevedore Operations. W. R. Ledwidge, Superintendent Port Services.
Bougainville Copper Limited, P.O.Box 1274, ANG Haus, Hunter Street, Port Moresby, Papua New Guinea. *Tel:* 21-2044, 21-2152. *Telex:* NE 22129. *FAX:* 21-3634.

BUKA: 05.26 S. 154.40 E. (See Plan)

(See General Section on Papua New Guinea Ports)
PILOTAGE: Not available. Not compulsory.
RADIO: Not available.
VHF: Call "Buka Port Control". Channels 16 and 12.
TUGS: Not available.
BERTHING: Wharf position: Lat. 05° 26' S., Long. 154° 40.4' E. Length 31.4 m. (103 ft.) Width 5.2 m. (17 ft.). Berthing dolphins 9.2 m. (30 ft.) off each end. Height of deck above LAT. 2.22 m. (7.3 ft.). Minimum depth of water at LAT. 3.65 m. (12 ft.). Tidal range 1.5 m.
FRESH WATER: Not available.
FUEL: Not available.
CUSTOMS: Not Port of Entry.
POLICE/AMBULANCE/FIRE: Police Tel: 96 6022. Ambulance Tel: 96 6012.
GENERAL: *Chart:* Aus 643.
Storage: Shed No.1 – 165 sq.m. Open – 1,000 sq.m. (approx.)
Currents: Strong currents in Passage.
AUTHORITY: Papua New Guinea Harbours Board, P.O. Box 19, Buka, Papua New Guinea. *Tel:* 96 6017. *Cables:* Portman, Buka. *Contact:* Port Manager.

DARU: 09.04 S. 143.12 E. (See Plan)

(See General Section on Papua New Guinea Ports).
PILOTAGE: Not compulsory. Available from Port Moresby on 48 hours notice.
Pilot boarding position: Lat. 9° 06.9' S., Long. 143° 19.4' E.
HEALTH: Quarantine Officer Tel: 659033. Health Officer Tel: 659108.
RADIO: Not available.
VHF: Call "Daru Port Control". Channels 16 and 12.
TUGS: Not available.
BERTHING: Position of wharf: Lat. 09° 04' S., Long. 143° 12.6' E.
Length of wharf head 29.6 m. (97 ft.). Average width 12.2 m. (40 ft.). Height of deck above LAT – 4.8 m. (15.7 ft.) min. depth of water LAT 2.4 m. (8.0 ft.) Tidal range 4.0 m.
The wharf head is connected to the shore by a wharf bridge length 120 m. (394 ft.) and causeway 220 m. (720 ft.).
FRESH WATER: Available in limited quantities.
FUEL: Available in drums. Suppliers – Caltex and Mobil.
POLICE/AMBULANCE/FIRE: Police Tel: 659022. Ambulance Tel: 659064.
CUSTOMS: Port of Entry. Customs Tel: 659114
GENERAL: *Chart:* Aus 840.
Currents: Strong currents off wharf.
Storage: Open storage 1,000 sq.m. (approx.)
AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 137, Daru, Western Province, Papua New Guinea. *Tel:* 659025 (Office) 659144 (after hours). *Cables:* Portman, Daru. *Contact:* B. Favave, Port Manager.

KAVIENG: 02.35 S. 150.48 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary.
Large vessels should approach from the Nusa Channel where the port limits are as follows:
From the beacon on Cape Siwusat by a straight line 220° (T) to the extreme North point of Usien Island thence by a straight line due West to position in Lat. 2° 37.87' S., Long. 150° 44.57' E., thence by a straight line due North to the Western extremity of Edmago Island. From the Eastern extremity of Edmago Island the line of the port limit crosses the Eickstedt Passage in the direction 253° (T) to the Southern extremity of Nago Island.
PILOTAGE: Pilotage is not compulsory but a Pilot will attend from Rabaul given 48 hours notice of the ship's estimated time of arrival.
Pilot Boarding Ground: Within 300 m. radius of a position with Eastern extremity of Edmago Island bearing due North 900 m.
ETA to be sent not less than 12 hours prior to arrival via Rabaul Radio (P2R) and to be confirmed not more than 5 hours and not less than 4 hours prior to arrival again via Rabaul Radio (P2R).
ANCHORAGE: Anchorage may be obtained in sand with depth 20 m. in a position East Reef Light structure bearing 042° (T) distant 890 m.
HEALTH: Quarantine Officer Tel: 942243. Health Officer Tel: 942179.
VHF: Call Kavieng Port Control on Channels 16, 12 and 6. Listening watch maintained during working hours and when ships are expected during non-working hours.
TUGS: Not available.
BERTHING: Overseas Wharf is 93.8 m. long, height of deck above LAT 2.7 m., minimum depth of water at face at LAT 7.0 m. Tidal range 1.2 m.
Vessels may berth port or starboard side to at the discretion of the Port Authority.
Load/discharge is by ship's own gear.
STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required. Working hours: Day shift: 0800 – 1200 hrs., 1300 – 2000 hrs. and 2100 – 2400 hrs. Gang shift: 0800 – 1200 hrs. and 1300 – 1600 hrs. (day shift), 1600 – 2000 hrs. and 2100 – 2400 hrs. (evening shift).
Licensed Stevedores: Buntings Stevedores. Tel: 942125. Telex: 91905. Fax: 942041.
MEDICAL: Kavieng Hospital – Tel: 942040.
Advise agents at least 24 hours in advance if medical attention is required.
Dental facilities available.

FRESH WATER: Available in limited quantities, provided prior application made with the Port Manager.
FUEL: Diesel available through pipelines at the wharf. Suppliers: Shell, Mobil and B.P.
REPAIRS: No facilities available.
CUSTOMS: Port of Entry. Office, Tel: 942163. Residence, Tel: 942130.
AIRPORT: Kavieng Airport is some 2.8 km. from the wharf and is served by Air Nuigini and Talair.
POLICE/AMBULANCE/FIRE: Police: 942222. Ambulance: 942040. Fire: 942000.
BANKS: Papua New Guinea Banking Corporation, Kavieng. Tel: 942084.

Westpac Bank, Kavieng. Tel: 942180.

Banks are 1.25 km. from the wharf.
GARBAGE DISPOSAL: The port authority does not provide this service, but can provide garbage cans on request.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Papua New Guinea Kina (K).
DELAYS: Delays at Kavieng are most unlikely.
GENERAL: *Storage:* Covered Storage Area: 750 sq.m. Open Storage Area: 3,000 sq.m.
Chart: Aus. 667.
DEVELOPMENTS: A new wharf has been proposed on which the feasibility studies are being carried out. (See "Plan").
AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 127, Kavieng, New Ireland Province, Papua New Guinea. *Tel:* 942182. *Telex:* NE 940. *Cables:* Portman, Kavieng. *FAX:* 941408. *Contact:* Sakeus Gem, Port Manager.

KIETA: 06.13 S. 155.38 E. (See Plan)

(See General Section on Papua New Guinea Ports).

PORT LIMITS: Seaward Boundary

By a straight line bearing 328° (T) from a point in Lat. 6° 10' S., Long. 155° 42.3' E., on the seaward edge of Gero Reef to a point in Lat. 6° 07.1' S., Long. 155° 40.4' E., thence due West to a point at the Northern most extremity of Banaru Reef.
PILOTAGE: Compulsory – Pilot service available 24 hours. (Pilot, Tel: 956049 (office), 956308 (residence).

Pilot boarding ground: Within 400 m. radius of Lat. 6° 07.6' S., Long. 155° 40.3' E.

ETA pilot boarding ground not less than 12 hours prior to arrival via Port Moresby Radio (P2M) or Rabaul Radio (P2R). Confirm or amend ETA not more than 5 hours but not less than 4 hours prior to arrival again via Port Moresby or Rabaul.
ANCHORAGE: There are 2 recommended anchorages for large vessels in Kieta Harbour.
HEALTH: Quarantine Officer, Tel: 956073. Health Officer, Tel: 921266.
VHF: Call: Kieta Port Control on VHF Channels 16, 12, 8 and 6. Listening watch maintained during working hours and when ships are expected during non-working hours.
TUGS: Tug "Boroko" 1,200 b.h.p. and 450 b.h.p. Tugs available for hire from Bougainville Copper Pty. Ltd., at Anewa Bay.
BERTHING: Overseas Wharf 122 m. long, height of deck above LAT 3.0 m., minimum depth of water at face at LAT 8.5 m. Tidal range 1.7 m.

Vessels may berth either port or starboard side to at the discretion of the Port Authority.

Berth No. 2 (coastal): Length 58 m., depth at LAT 4.8 m.

Berth No. 3 (coastal): Length 58 m., depth at LAT 4.8 m.
STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required. Working hours: Day shift 0800 – 1200 hrs., 1300 – 1600 hrs. Evening shift 1600 – 1900 hrs., 2000 – 2400 hrs.

Licensed Stevedores: North Solomons Stevedoring Co., P.O.Box 37, Kieta. Tel: 956350.
TANKERS: Discharge carried out at Anewa Bay.
FRESH WATER: Not available to overseas vessels. Coastal vessels may be supplied depending on availability and following prior arrangement with Port Manager.
FUEL: Diesel available from road tankers. Suppliers: Shell and Mobil.
CUSTOMS: Port of Entry. Collector of Customs, Tel: 956067.
AIRPORT: Aropa Airport is some 19 km. from the port and is served daily by Air Nuigini.
POLICE/AMBULANCE/FIRE: Police Tel: 956222. Ambulance Tel: 951266. Fire Tel: 951333.
DELAYS: Delays rarely occur at Kieta but if so are of fairly short duration, rarely exceeding 48 hours.
GENERAL: *Storage:* Covered Storage: 2,780 sq.m. Open Storage: 14,720 sq.m.
Chart: Aus. 683.
AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 149, Kieta, North Solomons Province, Papua New Guinea. *Tel:* 956066, 956063, 956447. *Telex:* Harbours NE 95905. *Cables:* Portman, Kieta. *Contact:* Karo Karo Ilo, Regional Port Manager.

KIMBE: 05.33 S. 150.09 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: *Seaward Boundary:* Commencing at a point Latitude 5° 30' S., Longitude 150° 6' 24" E., thence in direction 079° to Grabo Reef light beacon, thence in a direction 100.5° to a point in Latitude 5° 30' S., Longitude 150° 20' E., then following the meridian to the point 10 miles East then following the meridian to the point 10 miles perpendicular distant landward.
PILOTAGE: Pilotage is compulsory with 4 hours' notice of ETA and 6 hours' notice of ETD and amend at least 2 hours before both for Kimbe and Buluma – SBLC log port some 11 nautical miles East of Kimbe port.

Pilot boarding ground: Lat. 5° 30.5' S., Long. 150° 13.5' E.
ANCHORAGE: There are no recommended anchorage areas for large overseas vessels outside the compulsory pilotage area.
HEALTH: Health Officer, Tel: 935142. Quarantine Officer, Tel: 935002.
VHF: Call Kimbe Port Control on VHF Channels 16, 12 and 6. Listening watch maintained during working hours and when ships are expected during non-working hours depending on advance notice given by the respective shipping agents.
TUGS: Not available.
BERTHING: Overseas Wharf is 116 m. long, height of deck above LAT 3.1 m., min. depth of water at outer face at LAT 15.0 m. Tidal range 1.2 m.

Vessels may berth either port or starboard side to at the discretion of the resident Pilot depending on the wind or current.

Load/Discharge is by ship's own gear.
STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required. Working Hours: 0800 – 1200 hrs., 1300 – 1800 hrs., 1900 – 2400 hrs. (If handling large quantity of bulk cargo stevedores may by request in writing to the Port Manager grant permission to work around the clock to complete).

Licensed Stevedores: I. S. O'Hanlon, P.O.Box 27, Kimbe. Tel: 935107.

Meto Investments, P.O.Box 108, Kimbe. Tel: 935399, 935369.
FRESH WATER: Available.
FUEL: Diesel is available by road tanker. Suppliers: Shell and B.P.
CUSTOMS: Port of Entry. Collector of Customs, Tel: 935056.
AIRPORT: Hoskins Airport is approx. 50 km. distant and is served by Air Nuigini and Talair several times a week.
POLICE/AMBULANCE/FIRE: Police: 935022. Ambulance: 935142. Fire: 935411.
GENERAL: The town shopping centre and banking facilities are 0.5 km. from the port.
Storage: Covered Storage: 1,490 sq.m.
Open Storage: 12,025 sq.m.
Chart: Aus. 674.
DEVELOPMENTS: A new port at Bialla is in use to cater for large oil tankers to load palm oil. Bialla is some 100 km. by road East of Kimbe.
AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 65, Kimbe, Papua New Guinea. *Tel:* 935134, 935355. *Telex:* NE 93144. *Cables:* Portman, Kimbe. *FAX:* 935609. *Contact:* K.Kent Tausi, Port Manager.

KUMUL MARINE TERMINAL (Kutubu): 08.06 S. 144.34 E. (See Plan)

LOCATION: The Kumul Marine Terminal consists of one single point mooring berth and one operations platform.

The location of the berth is off the South coast of Papua New Guinea (Gulf of Papua) in position Lat. 08° 06' 00" S., Long. 144° 33' 49" E.

The area within a radius of 1 nautical mile from the buoy must not be entered without a Chevron Niugini Pty.Limited Mooring Master on board.

Kumul Marine Terminal is the export crude facility of the Kutubu joint venture. Chevron Niugini Pty. Limited is the operator of the project on behalf of the joint venture participants.

Crude oil from various onshore fields is transferred to export tankers berthed on the export SPM (Single Point Mooring).
DOCUMENTS: See "Shipmaster's Report".
PILOTAGE: The Mooring Master boarding area for the terminal is 1.5 nautical miles South of the SPM.

Use of a Mooring Master is compulsory. Masters of tankers are reminded to comply with statutory rules and are requested to comply with the following:

The officer responsible for the embarkation or disembarkation of the Mooring Master is to be a watch-keeping officer.

The access ladder is properly secured.

The access ladder and immediate areas are adequately illuminated at night.

Means are to be provided to enable the Mooring Master to pass safely and conveniently from the head of the ladder into the ship and onto the ship's deck. Portable stanchions, if used, should be independently secured to the rail or deck, one on each side of the ladder.

The ladder is in good condition and its treads remain horizontal throughout the embarking or disembarking. Tread to have a non-slip surface.

The length of the ladder should not exceed 30 ft. Whenever the distance from sea level to the point of access is more than 30 ft., a combination accommodation ladder/pilot ladder or other equally safe and convenient means for embarking or disembarking the Mooring Master is to be used.

The pilot ladder will be rigged in such a manner that each step rests firmly on the ship's side.

Spreaders are to be positioned at intervals of no more than 10 ft. apart.

Pilotage services between Kumul and Torres Strait via the Great North East Channel are available from Australian Reef Pilots Ltd. See "Australia" – "Torres Strait".

NAVIGATION AIDS: *SPM:* The SPM berth is fitted with a yellow light flashing every 15 seconds. Range 5 nautical miles, characteristic 'U' and a foghorn with a range of 2 nautical miles, characteristic 'U'.

Operations Platform: This is a conspicuous steel structure 31 m. high in position Lat. 08° 03' 47" S., Long. 144° 33' 35" E.

The platform is in a water depth of 20 m. and 2.0 nautical miles N.W. of the SPM, and provides the crude flow control facilities for the SPM berth. A helideck is located on this structure.

The platform is fitted with white lights flashing 'U' every 30 seconds, visible at a distance of 10 nautical miles and a foghorn, characteristic 'U', range 2 nautical miles. There is also a Racon fitted.

ANCHORAGES: The recommended area is South of the SPM and is centred on a position Lat. 08° 08' 00" S., Long. 144° 33' 49" E.

Anchorage within the terminal limits (within 1 nautical mile radius of the SPM) is strictly prohibited.

APPROACHES: *Approach to the Anchorage/Mooring Master Boarding Area:* When within VHF communication range, Masters of export tankers should ascertain berthing prospects from the terminal.

Tankers in ballast should approach the terminal from the South.

Should it be necessary to anchor, then the tanker should proceed to the recommended tanker anchorage area, which is approximately 3.5 nautical miles South of the platform (See "Anchorages").

Tanker Masters are reminded, that when passing through the Torres Strait, local pilots are compulsory.

Arrival at Anchorage/Boarding Area: A safe means of access to the tanker should be provided in accordance with the requirements of SOLAS, and early advice will be given by the Chevron Mooring Master, indicating the side of the vessel, that access should be provided.

During night operations, the access area shall be adequately illuminated to allow the safe approach and boarding of the Chevron Mooring Masters and Government officials.

The conditions of entry into and use of the Kumul Marine Terminal form will be presented to the Master of the tanker, and shall be signed prior to commencement of berthing operations.

The Notice of Readiness will only be accepted provided the Chevron Mooring Master is satisfied that the tanker is in all respects ready to berth and load.

Notice of Readiness will not be accepted during a period when the terminal is closed due to adverse weather.

The foregoing paragraph notwithstanding, in no event shall a Notice of Readiness, whether previously accepted or not, be valid or binding on the terminal unless the tanker, her tanks and equipment, are in fact in every respect ready to receive cargo.

TERMINAL ACCEPTANCE:

MINIMUM STANDARD OF ACCEPTANCE:

Size: Maximum 150,000 d.w.t. (displacement 186,000 tons).

Maximum distance bow to centre manifold 146.3 m. (480 ft.).

Loading tankers must comply with latest SOLAS and MARPOL conventions and protocols. Tankers found to be seriously deficient and substandard in any safety requirements will be refused to berth and load.

Inert Gas System: All tankers must be equipped with an inert gas system conforming to the SOLAS Regulations (Tanks 8% or less by volume, line supply 5% or less, ref. SOLAS Regulation 62). This must be operable throughout the tanker's operations at Kumul Marine Terminal. Tanks are to be monitored by the tanker crew to ensure the correct atmosphere is maintained. The terminal will check the condition of the tanks on arrival and throughout the operations. In the event of failure of the system or, when the tank atmospheres depart from industry accepted limits, the tanker will be removed from the berth. The Mooring Master will check oxygen content of cargo tanks.

Air Conditioning: Due to the climatic conditions of the area, tankers not fitted with a working air conditioning system, pose a threat to the safety of loading operations. Only in exceptional circumstances, when a tanker has demonstrated its ability to comply with all conditions of the ISGOTT safety check list, will a tanker without air conditioning be accepted for loading.

Crew: Tanker crew must be qualified to the requirements of the International Convention on Standards of Training Certification and Watchkeeping for Seafarers 1978. If any infringement of safety regulations or the inability of the tanker's crew to operate safely and efficiently is noticed, then the tanker will be removed from the berth.

Insurance: The owner of the vessel or bareboat charterer is to be a party to TOVALOP and have insurance covering liabilities under the International Convention of Civil Liabilities for Oil Pollution Damage 1969 (C.L.C.); the cargo to be loaded will be covered by CRISTAL and/or the International Convention on the Establishment of International Fund for Compensation for Oil Pollution Damage 1971 (C.L.C.).

RESTRICTIONS: The Kumul Marine Terminal will operate 24 hours a day, 7 days a week. Tankers will be berthed at any time, day or night, provided conditions are favourable.

MAX. SIZE: The berth is designed to accommodate fully loaded vessels up to 150,000 d.w.t. in a minimum water depth of 25 m. at LWS under normal operational conditions. Maximum draft is restricted to 17.1 m.

RADIO/VHF: Tankers bound for Kumul Marine Terminal are required to advise their ETA to Chevron Niugini Pty.Limited (To be advised on receipt of approval permits from PNG). These messages are to be sent on departure from their last port of call and 72 hours, 48 hours and 24 hours prior to arrival at the Terminal, and should initially contain the following information:

Name of vessel.
ETA in local time (GMT + 10), at the Anchorage Area.
Name of Master.
Estimated arrival draft, fore and aft.
Cargo requirements, and destination of cargo.
Any anticipated delays.
Last port of call.
Confirm that vessel has a clean Bill of Health.
If there is any sickness on board, give all available information as to the possible type of sickness.
Distance in feet from the bow to the tankers' loading manifold.
Confirmation that cargo tanks are inerted to 8% or less by volume and IGS is operational.

A 24 hour watch is maintained on VHF Channel 16 (Channel 74 – working) at the Operations Platform, and tankers should make contact on this channel at a distance of 20 – 40 miles on the seaward side of the platform. VHF channel (to be advised after approval) is used for internal terminal traffic and berthing operations.

Messages should be sent to Chevron Niugini Pty. Limited, P.O.Box 842, Port Moresby, Papua New Guinea. Tel: 211088. Telex: NE 22305. Fax: 675-225588; and to Kumul Marine Terminal. Fax: (675) 596173, Inmarsat 872-155-3233. Telex: 578-155-3232.

TUGS: Support craft available. Also see "Shipmaster's Report".

BERTHING: *Order of Berthing:* Tankers will normally berth in order of arrival with due regard to nominated date ranges.

Mooring Procedure: The Mooring Master will board tankers at either the anchorage area or an agreed location. The Mooring Master will advise the tanker's Master on approach to the SPM, mooring and unmooring, connecting and disconnecting hoses, and all other operations within the terminal area, including all manoeuvring of the tanker. The Master must be on the bridge at all times while the tanker is being manoeuvered.

Support vessels assist in mooring tankers. These are under the direct control and supervision of the Mooring Master. Any service and/or facilities provided by the terminal including, but not limited to, the services of Mooring Master, support vessels or other services and facilities, shall not be construed to be, or give rise to, a personal contract.

Tankers not fitted with OCIMF standard chain stoppers, commensurate with the vessel size, will not be permitted to berth.

The Mooring Master will normally board tankers from the support vessel, which serves as line boat during mooring/unmooring and hose connection/disconnection. Immediately after the Mooring Master has boarded, the support vessel will proceed to the port side derrick area of the tanker, where mooring and hose connection equipment will be lifted on board. Sufficient crew must be available on deck to transfer the equipment, as no shore mooring/hose connection gang is supplied.

From time to time, the Mooring Master and Government officials may board by helicopter, in which case the International Guide to Helicopter/Ship Operations should be adhered to.

The following equipment, provided by the tanker, shall be ready for use when the Mooring Master boards:

Forward at forecastle: 1×10 in. circumference 220 m. long mooring rope of polypropylene or other man-made fibre (nylon or any rope which does not float is unacceptable); 1 messenger line of 1 in. diameter × 600 ft. of polypropylene or other man-made fibre.

Aft at stern: 1×10 in. circumference 220 m. long mooring rope of polypropylene or other man-made fibre and one messenger.

At manifold area on port side: A selection of shackles, chain blocks, wire and rope strops and hammers.

During the approach of the tanker towards the SPM berth, the tanker's crew, with the advice of the Mooring Master, will prepare the forecastle for the mooring operation. This will include passing the 1 in. messenger line through the centre bow fairlead, taking the end to the after starboard corner of the forecastle and, from this point, lowering the end to sea level.

Upon the close approach of the tanker's bow, the support vessel manoeuvres alongside the starboard shoulder, and attaches the mooring pick-up rope to the tanker's messenger line. The tanker will then heave up the messenger and pick-up rope, carefully picking up the slack as the tanker approaches the SPM. The tug, another support vessel, stationed at the end of the floating hose, will have towed the hose string upstream, clear of the SPM, during the tanker's approach.

The pick-up rope (10 in. circumference) should be continually hove in as the tanker nears the SPM, until the mooring hawser chafe chain is brought on board. Once the chafe chain is onboard, it will be made fast by closing the chain stopper.

After the connection to the mooring is made, it may be necessary to run the engines astern to ensure the tanker does not contact the SPM. The Mooring Master will then advise the tug to be made fast at the stern of the tanker with a tug's line.

At no time during the tanker's stay at the terminal shall the tanker's engines be immobilised. Ten minutes notice is required throughout.

Vessels should make every endeavour to arrive with propeller and rudder fully submerged, and trim should not exceed 10% of the aft draft. Masters should note that in the event of arrival with excessive trim or too light in draft, Notice of Readiness will not be accepted, and berthing will be refused.

Unmooring Procedure: Immediately after the loading hose is disconnected and transferred to the custody of the support craft, unmooring of the tanker will commence. The support vessel/tug at the stern of the tanker will be released, but will remain on location to assist if required. On advice from the Mooring Master, the mooring hawser will be hove in by the tanker, the chain stopper will be released and the chafe chain and hawser is then lowered to the sea. In some cases it may be necessary to steam the tanker ahead to relieve the weight on the moorings.

As soon as the moorings are released, the tanker's engines will be ordered astern and the tanker will back away from the SPM. During the move astern, the mooring hawser and pick-up rope will be lowered into the water.

When the tanker is safely clear from the SPM, all terminal mooring equipment will be transferred from the tanker to the support boat.

Any cargo calculations and paperwork will be completed before the tanker sails. When such paperwork is completed, the Mooring Master will disembark, and the tanker is cleared to proceed to sea.

LOADING: Tankers loading at the Kumul Marine Terminal must comply with the latest SOLAS and MARPOL protocols. Tankers which are found to be seriously deficient in any way will be refused permission to berth or load.

Cargo Information: Oil loaded at the Kumul Marine Terminal is Kutubu Light Crude with an average API gravity of 44.2°. The loading temperature will be approximately 80° – 85°F, pour point 36°F, BS&W less than 0.5%, viscosity 2.0 cst at 77°F, minimum vapour pressure 8 p.s.i. at 80°F.

The loading rate will vary from 80,000 bbls. per day up to 205,000 bbls. per day. Average daily rate 150,000 bbls.

1×12 in. floating hose string will be connected to the tanker manifold by Camlock coupling.

Hose Connection: Upon completion of the mooring operations, the loading hoses will be connected to the tanker's port side manifold, which must have been prepared to accept 1×12 in. 150 ASA flange prior to berthing.

Depending on the freeboard of the tanker, the weight of the hose to be lifted could approach 10 tonnes, and all tankers calling at Kumul Marine Terminal must have a derrick or crane with 15 tonnes S.W.L. (Safe Working Load) capacity.

A support vessel will tow the tanker end of the hose to a position below the manifold area and connect the tanker's cargo runner to the hose pick-up chain. The hose will then be lifted to a position above the main deck so that the hang-off chain can be made fast to the hose bitts in such a way that the hose flange will closely align with the required manifold flange. The hose end will then be lowered to the deck for the blind flange to be removed. The hose flange will be connected to the manifold by a Camlock coupling.

When the hoses are connected, the length between the tanker manifold and rail will remain supported on 2 slings by the tanker's derrick. This is to ensure that there is no undue strain on any part.

Hose connection will be made by the tanker's crew, who must be under the supervision of a responsible deck officer. The Mooring Master will advise on the correct procedures to be adopted.

Manifold reducers to suit the above 12 in. connection should be supplied by the tanker.

Cargo Operations: The Chevron Mooring Master will remain on the tanker throughout the transfer operation, and will co-ordinate all activities on the tanker with the terminal.

When the Officer-in-charge on board the tanker has declared the tanker ready to load, with all necessary valves open, the hose and butterfly valve will be opened, and the Mooring Master will instruct the terminal to commence loading at a slow rate. The loading rate will not be increased until the tanker has confirmed that the hose connections are tight, that cargo is being received in the selected tanks and that no leakage is taking place through the sea valves. Thereafter the loading rate will be increased, on request by the tanker, to the max. rate available.

Throughout the loading, a responsible deck officer shall be in charge of operations on the tanker, either on deck, or in the cargo control-room. In addition, an efficient deck watch in constant contact with the cargo control-room must be maintained at all times. Additionally, one crew man must be stationed on the forecastle at all times to observe and report on the mooring conditions, i.e. the state of moorings and the distance and attitude of the tanker relative to the SPM.

At any time during the loading operations, the rates can be reduced on request. Except in an emergency, 10 minutes notice should be given to the terminal when rate reduction is required. *As is normal tanker practice, valves must not be closed against the oil flow without permission from the terminal.*

If, for any reason, radio communications between tanker and terminal are lost, the terminal will stop the loading until communication is re-established.

In the absence of radio contact, oil flow can also be stopped by the tanker blowing her whistle to attract the attention of tug astern. The tug will then call the terminal to stop loading.

The volume of oil loaded is accurately available at all times from the terminal, and periodic comparisons should be made between tanker and terminal readings.

The question of tanker or terminal responsibility to stop cargo on loading the required quantity will be discussed and agreed before loading commences. Request for the terminal to stop the flow of cargo at a pre-determined volume must be in writing. The request must include a statement by the tanker's Master that the terminal cannot be held responsible fo any error, and that in the case of a tanker being overloaded, the excess cargo cannot be pumped back to the terminal. The tanker's Master will also be held responsible for any spills caused by this request.

It is recommended that every tanker should be equipped with a marine VHF set in the cargo control-room.

In order to minimise rolling in the berth, the tanker should endeavour to load only 2 tanks at any one time, thereby keeping free surface effect to a minimum.

Hose Disconnection: On completion of loading, and when the tanker is informed by the terminal that all flow has ceased, the hose end butterfly valves will be closed first, followed by the tanker's manifold valve.

The hose will then be disconnected from the manifold (sufficient drip trays must be available to contain any oil remaining in the spool pieces) and the blind flange will be replaced on the hose. The weight of the hose will be taken on the derrick and pick-up chain to allow the hang-off chain to be disconnected from the hose bitts.

The hose will then be lowered to the water, where a support vessel will be in attendance to remove the cargo hook and tow the hoses clear.

Inspection: Immediately upon completion of loading, the official Bill of Lading quantity will be relayed by radio to the Master via the Mooring Master. In the event of dispute, the tanker will be requested to recheck the measurement and calculations of the quantity. After both ship and shore figures have been verified, should an appreciable difference still exist, receipt of a Letter of Protest will be acknowledged by the Mooring Master.

Notes of Protest, if any, should be handed to he Mooring Master for further delivery to Chevron Niugini Pty. Limited. Please note that the Mooring Master will acknowledge receipt only of the Note of Protest, and is not authorised to accept such letters.

From time to time owners, charterers, consignees or other interested parties may appoint third party oil inspectors to survey the loading operations on their behalf. Any delays caused by oil inspectors shall be considered "tanker delays".

Cargo Documentation and Inspection: Documents such as Bills of Lading, Certificate of Quality, Certificate of Quantity, Certificate of Origin, Cargo Manifest, Harbour Report (Time Sheet), Receipt for Samples, Receipt for Documents, etc., are prepared at Kumul Marine Terminal when the tanker has been loaded. The documents will be completed and taken aboard the tanker for the Master's signature. Signing of these documents by the Master will take place at the same time final departure clearance formalities are being carried out.

Early Departure Procedure (EDP): Provided the tanker's Master is agreeable, an Early Departure Procedure is available, under which the following documents shall be transmitted to the consignee via the tanker's Master:

One copy Master's Request for EDP.

One incomplete non-negotiable copy of the Bill of Lading placed on board for Master's completion from radio shore figures plus one non-negotiable copy for consignee.

Samples and Receipt for Samples, one copy each Master and consignee.

Certificate of Authenticity, one copy each Master and consignee.

Time Sheet (Harbour Report), one copy each Master and consignee.

Master's Receipt for Documents, one copy each Master and consignee.

Certificate of Ullage, one copy each Master and consignee.

Certificate of Tank Inspection, one copy each Master and consignee.

BALLAST: There are no ballast or slop reception facilities at Kumul Marine Terminal, therefore all tankers must arrive with clean ballast suitable for discharging directly into the sea in accordance with the standards set by the International Conventions. Tankers arriving with ballast unsuitable for discharge to the sea will be rejected for loading. Any tanker rejected because of contaminated ballast or sea pollution will automatically invalidate her Notice of Readiness and will lose any priority of loading. Tankers discharging contaminated ballast to the sea will be subject to the anti-pollution laws of Papua New Guinea.

Tankers arriving at Kumul Marine Terminal should have sufficient ballast to ensure safe handling and manoeuvering in the prevailing weather and sea conditions and in accordance with good seamanship practice.

Any tanker unable to maintain 30% deadweight ballast condition during loading will not be accepted at the terminal. Alternatively a tanker may be allowed to load-deballast-load in order to maintain the 30% deadweight requirement. Tankers requiring to deballast prior to loading will be rejected by the terminal.

Shippers are required to reasonably endeavour to utilise tankers with segregated ballast tanks.

MEDICAL: Medical assistance is only available in an extreme emergency.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: No facilities available.

REPATRIATION: See "Shore Leave".

SHORE LEAVE: Due to the exposed location of this terminal, Masters are advised that shore leave is not permitted. Masters and Owners are advised that crew changes are only permitted in emergency situations, and when personnel involved hold all necessary valid certificates and documents.

SAFETY: *Safety Check List:* On completion of berthing and prior to the commencement of cargo loading, the Kumul Marine Terminal safety check list will be completed following a joint inspection by the Mooring Master and a responsible tanker officer. The Chevron Niugini Pty.Limited safety check list is based on the recommendations of the "International Safety Guide for Oil Tankers and Terminals" (ISGOTT).

Inert Gas System: Should it be necessary for tanks to be inspected, then it should only be done on a tank-by-tank basis. The system shall be maintained at a pressure of about 200 mm. water gauge, except for the individual tank to be opened which, if possible, is to be isolated from the system and the sighting port opened with care. On completion of inspection, the tank shall be secured and re-pressurised. The next tank is not to be isolated and opened until the preceding tank is secured and open to the I.G. system.

All gauging, sampling, water dips and temperatures will be taken either through special fittings provided; or if it is necessary, to open up tanks for this purpose, then this will be done one tank at a time as described above.

Conditions during Transfer/Deballasting: A responsible, English speaking ship's officer, is required to be on deck or in the control-room at all times. A continuous deck watch is to be maintained to ensure moorings are carefully tended and cargo hoses are under observation at all times.

Towing-off wires shall be made fast to bitts as far forward and aft as possible on the starboard side. The wires shall be in good condition, at least 1.125 in. (28 mm.) diameter, and secured with at least 5 turns or have the eye on the bitts. The outboard eye shall be maintained at a height of between 1.0 m. and 2.0 m. above the water at all times using a small diameter heaving line for this purpose.

WEATHER: The terminal is situated between two opposing seasonal prevailing winds, the N.W. monsoon and the S.E. trades. The N.W. monsoon usually lasts 3 months, from December to March, and the S.E. trades dominate from May to October. The two seasons are separated by brief periods of 4 – 6 weeks, when light variable winds are characteristic, and poor weather conditions are common.

The Kumul Marine Terminal is an open unsheltered mooring. On occasions there may be circumstances which may preclude mooring operations. In these circumstances, good judgement should be used by the tanker's Master, in conjunction with the Mooring Master's advice as to what action to take.

Currents: During N.W. monsoon, set is towards the E.S.E. at up to 1.5 knots and during S.E. trades, set is towards the N.W. at up to 2.0 knots (currents affected by tides and outflow from Aird Delta).

GENERAL: *Flag:* The national flag of Papua New Guinea shall be permanently displayed by tankers while at the terminal.

Charts: Australian Chart No. 378 and B.A. Chart No. 1039.

Stores: Not available.

Accommodation: The Mooring Master will stay on board throughout the loading. The accommodation provided should therefore be commensurate with that of a senior officer.

Agency: Suggested Shipping Agencies:

Century Shipping Agencies, Musgrage Street, P.O.Box 1403, Port Moresby, Papua New Guinea. Tel: 229264. Telex: 22116. Fax: 229201.

Steamships Shipping Agencies, Stanley Esplanade, P.O.Box 634, Port Moresby, Papua New Guinea. Tel: 220370. Telex: 22198. Fax: 211174.

SHIPMASTER'S REPORT: July/August 1992 (Updated 1994).

The Terminal comprises one single point mooring buoy, and one operations platform. Communication is by helicopter from the platform to Kopi Camp, thence by helicopter to Kikori Airport, and from there by light aircraft to Port Moresby, which lies about 180 miles to the Southeast.

Port Limits: None are defined, either on the chart (Aus. 378) or in the Kutubu Marine Terminal Handbook (KMTH).

Documents: Customs and Quarantine Officers, with an Agency representative, will normally board at anchor before berthing, to clear the vessel inward. A tug or support vessel brings them from the Terminal platform out to the anchorage. In our case, bad weather prevented them boarding from the tug, and the following documents and details were subsequently collected by support boat and delivered to the platform:

6 copies List of Crew.
1 copy Crew Declaration of Personal Effects.
1 copy Ship's Stores List.
Clearance from previous port.
Maritime Declaration of Health.
Valid Derat/Exemption Certificate (details).
Vaccination List.
Voyage Memo (List of previous Ports of Call/dates).
Summary of Vessel's Principal Particulars.

Pilotage: No pilot is required for anchoring on arrival. Two Mooring Masters board the vessel from the Terminal platform by tug or supply boat to berth the vessel at the SPM Buoy, and remain on board until the vessel sails. Call the Terminal when within VHF range to confirm ETA, anchoring position and berthing prospects.

Anchorage: Vessels should anchor in the designated anchorage, which is of one mile radius, centred on the position 08° 08' S., 144° 33.8' E., just over 2.0 miles South of the SPM. It is a rather small anchorage, but vessels may anchor further East or West of the anchorage limits, provided they remain at least one mile clear of the SPM, but check with the Terminal first. The depth of water in the anchorage and adjacent water varies from 15 to 20 fathoms, but the bottom consists of heavy mud, and is good holding ground.

Restrictions: Vessels are berthed around the clock, day or night, 7 days a week, subject only to weather conditions. The present limiting criteria is wind speeds in excess of 30 – 35 knots, and a swell height greater than 4.0 m. – 4.5 m. at the SPM.

Health: Radio Pratique is available via Agent.

Radio: The vessel's Agents should be instructed to keep the Terminal and Chevron Niugini advised of the vessel's ETA.

VHF: The Terminal platform listens on Channels 16, 72 and 74. During our prolonged stay, the working channel was 74.

Radar: There is no port radar service or V.T.S., nor any necessity for either at this time.

Approaches: B.A. Chart No. 1039, Aus. No. 378.

There is a clear deep water approach from E.S.E. through South to S.S.W. with no navigational hazards. The Terminal platform is equipped with a Racon, which we detected when some 8 – 10 miles to the Southeast.

Tugs: There is one twin-engined 9,600 h.p. tug, said to have a bollard pull of some 94 tonnes, named "Nakari Tide". In addition, there is one support boat in attendance, "Kikori Tide".

Berth: The berth consists of one single point mooring buoy, which can accommodate vessels up to 150,000 tons d.w.t. It is equipped with a single 20 in. hawser of 200 tons S.W.L. and a breaking strain of 500 tons. Maximum draft is 17.1 m. Engines may not be immobilised while the vessel is secured to the SPM. There is one 12 in. hose string only, and the average loading rate is 150,000 barrels per day of Kutubu Light crude oil, averaging 44.0° API gravity, and a loading temperature of 80°F. – 85°F. The prevailing wind is S.E.'ly from May to October, and N.W.'ly from December to March. There is a strong tidal current with a rate of 2 – 3 knots at Springs, which may be markedly affected by the outflow from the Aird River Delta.

Medical: Medical services are not available, except in emergency.

Density: 1025 during the flood, dropping to 1017 in the ebb stream.

Stores/Fresh Water/Fuel: Not available.

Services: There are no repair facilities available at the Terminal. The attendance of Cargo and Class Surveyors can be arranged in advance, normally via Port Moresby.

Customs Allowances: These were not specified. Because of bad weather, the Customs did not attend on board until the day before the vessel's departure, to issue the Outward Clearance, and the Bond was not sealed at that time. During a stay of 24 days, prolonged mainly by bad weather, which prevented berthing, permission was obtained by radio from the Customs Officer on the Terminal platform to make an interim bond issue.

Repatriation: Possible only in exceptional circumstances, and subject to the following tariff:

(1) Helicopter from Terminal platform (or possibly the vessel) to Kopi Camp U.S.$ 1,400.00.
(2) Helicopter from Kopi Camp to Kikori Airport U.S.$ 100.00.
(3) Cessna charter flight from Kikori Airport to Port Moresby International Airport U.S.$ 1,300.00.

Port Moresby connections: To Singapore – twice weekly, To Hong Kong – once a week, To Manila – once a week.

There are also daily Qantas flights to either Brisbane or Cairns.

Emergency Co-Ordination Centre: Contact Kumul Marine Terminal Operations Platform.

Berthing/Unberthing Procedures: The approach to the SPM Buoy begins at a distance of about one mile, after lining up the vessel to stem the predominating tidal stream or weather. One Mooring Master is stationed on the bridge to manoeuvre the vessel into close proximity with the SPM Buoy, and the other is stationed on the fo'c's'le head, and they work together in the approach. When sight of the SPM has been lost from the bridge under the bow, the Mooring Master forward takes the con and conveys engine and helm orders to his colleague on the bridge for the final approach. At this stage, a support boat comes in to the starboard shoulder with a 10 in. buoyant polyprop pick-up line, which is attached to the SPM hawser. The ship's crew lower into the support boat a similar 10 in. polyprop, with a shackle for bending it on to the buoy pick-up line. When the connection is made, both the ship's line and buoy pick-up line are hove up and stowed on a previously cleared winch-spool, while the vessel is brought ever closer to the buoy, until finally the chafing chain of the SPM hawser is brought on board and secured in the bow stopper. Astern engine movements may then prove necessary until the tug is made fast on a centre lead aft. The tug remains fast until the vessel leaves the SPM and is used to keep the vessel from riding up on the buoy, and for changing the vessel's head into the swell as required, in order to prevent rolling in the berth.

During our two periods in the berth, there was a coincidence of a strong steady wind, which generated and sustained a swell up to 3.0 m. – 4.0 m. in height, and a tidal current estimated at 2 – 3 knots. The wind direction stayed S.E.'ly throughout, while the tidal stream flooded and ebbed in roughly N.W.'ly and S.E.'ly directions respectively. The exact direction of the tidal/current stream was undetermined, and as it changed direction between ebb and flood, the vessel regularly settled on a heading, which put the swell on or near the beam. Rolling inevitably followed to an extent which varied with the height and period of the swell, on one occasion reaching 15° either side of the vertical and imposing high snatch loads on the buoy hawser. During the first of the two periods in the berth, a support boat was secured aft, instead of a tug, to keep the vessel clear of the SPM, and haul the stern round as required, to realign the vessel heading into the swell. However, it lacked the power to accomplish this, and when rolling reached 10° – 12°, loading was stopped and the hose disconnected, so that the vessel was ready to leave the berth, if conditions persisted or worsened. We had one stoppage and hose disconnection during the first loading period, and then subsequently had to leave the berth because of the weather and the support boat's inadequacy as a substitute tug. Following repairs, the Terminal tug was available for the second period in the berth and successfully kept the vessel in position. This coincided with much improved weather, and loading was completed without further incident. The Mooring Masters worked a 6 hour watch system. If the vessel started to roll or ride up on the buoy after a change of tide, a man was required on the bridge to pass compass headings to the duty Mooring Master on the bow, and on occasions to run the main engine as necessary, while the stern tug realigned the vessel as directed.

The Mooring Masters specified the following equipment requirements for the berthing operation, which differ slightly from those prescribed in the KMT Handbook, viz:

1. One 10 in. buoyant polyprop rope, with a connecting shackle.
2. One 3 in. nylon messenger, minimum 300 ft. in length. This was not needed, but must be ready in case the pick-up using the ship's rope fails.
3. One crowbar.
4. Grease to lubricate the chafing chain where it passes through the vessel's fairlead.

Except for the crowbar, the same requirements apply aft, for picking up the stern tug's tow line.

The unberthing procedure is straightforward and brief. First, the hose is disconnected and lowered into the water, leaving the hose messenger rope secured on board. The SPM pick-up rope on the winch spool is then hove up to take the weight off the buoy hawser chafing chain, using a kick ahead on the engines, if necessary. After releasing the chain from the bow stopper, the buoy pick-up rope is paid out until the shackle connecting it to the ship's rope comes clear. The buoy pick-up rope is then stoppered off to disconnect the shackle, before finally letting it go. The stern tug is then cast-off, and comes round to pick up the hose messenger line and tow the hose string clear of the vessel and the bow. Engines are then run astern until the vessel is well clear of the SPM.

Hose Connection Procedures: In addition, the Mooring Masters' equipment requirements for this operation are as follows:

1. Crane of 15 tons S.W.L. ready on the portside, topped to position the hook midway between the rail and the manifold, and lined up with the ship's hose connection.
2. Three half ton chain blocks.
3. Three rope and three wire strops.
4. Two large adjustable spanners.
5. One large hammer.
6. Two C-clamps.

Miscellaneous Requirements: For the embarkation of the Mooring Masters, a combination accommodation ladder/pilot ladder is required, about 1.5 m. above the water. A good lee is required, if there is either a strong wind or a heavy swell, or both.

Both Mooring Masters remain on board from the time of boarding the vessel at the anchorage until the vessel sails. Accommodation may also be required for an independent cargo surveyor, but no other representatives or port officials live on board the vessel. The Mooring Masters will monitor cargo operations to ensure that closed loading is maintained, and that the oxygen content of the cargo tanks is less than 8%.

Summary of Vessel's Movements and Delays: The vessel arrived and was anchored in the Kumul Marine Terminal designated anchorage at 1106 hrs. on 13th July 1992. Notice of Readiness to load was tendered at 0001 hrs. on 15th July. The SPM Buoy was occupied by another vessel for periods interrupted by bad weather and the failure of the buoy's main hawser, until the morning of 25th July.

Two Mooring Masters boarded at 0940 hrs. on 25th July, but because of bad weather, an attempt to berth the vessel did not begin until 1526 hrs., and was then abandoned at 1742 hrs., when the SPM hawser was found to be foul.

Conditions for berthing were not judged suitable again until 1000 hrs. on 26th July, when the vessel weighed anchor. She was secured to the SPM Buoy at 1236 hrs., but hose connection was postponed until 1500 hrs., because the vessel was rolling in a beam swell. Loading began at 1518 hrs. and was stopped from 2308 hrs. to 0336 hrs. on 27th July, because the vessel began to roll heavily in the berth, and the support vessel "Pacific Hawk", acting as a stern tug, was unable to turn the vessel out of the beam swell, or keep it clear of the SPM Buoy. Loading was again stopped at 1106 hrs. on 27th July, and the vessel was taken off the buoy at 1135 hrs., because of heavy rolling in the berth, and the ineffectiveness of the stern tug. The vessel was then anchored at 1216 hrs. to await an improvement in the weather.

The weather had improved on 30th July, but no tug was available that day or the next day, when the weather had again deteriorated. On 1st August, the weather was suitable, and the vessel left the anchorage at 0912 hrs. when the 9,600 h.p. tug "Nakari Tide" became available, although with only one of two engines operational. The vessel was secured to the SPM Buoy at 1124 hrs., and loading recommenced at 1300 hrs. The weather remained good throughout the remainder of the loading operation, which was completed at 0600 hrs. on 5th August. The vessel left the berth at 0819 hrs., then lay off until 1133 hrs., awaiting delivery of the cargo documents, and finally sailed at 1212 hrs.

We were the fourth vessel to load at the Terminal since it was commissioned. The prolonged delays were mainly a result of adverse weather, complemented by various operational teething problems and equipment breakdowns or failures.

AUTHORITY: *Operator:* Chevron Niugini Pty.Ltd., P.O.Box 842, Port Moresby, Papua New Guinea. *Tel:* 211088. *Telex:* NE 22308. *FAX:* (675) 225588.

Kumul Marine Terminal: *Tel:* (675) 596171-2. *Telex:* 578-155-3232. *FAX:* (675) 596173. *Contact:* Captain M.C. Cobb, Marine Terminal Superintendent.

LAE: 06.44 S. 146.59 E. (See Plan)

(See General Section on Papua New Guinea Ports)

LOCATION: Port is located at the N.W. end of Huon Gulf, approximately 1 km. East of the Markham river mouth.

PORT LIMITS: West of a line drawn between Voco Point and the N.E. point of Salamaua Peninsular.

DOCUMENTS: Basic Customs documents for entry:

1 copy Cargo Manifest.
1 copy Passenger Manifest.
1 copy Disembarking Passenger Manifest.
1 copy Embarking Passenger Manifest.
1 copy Crew Manifest.
1 copy Stores List.
1 copy Customs Declaration (Ship).
1 copy Customs Declaration (Crew).
1 copy Customs Declaration (Passenger).
1 copy Health Declaration.

Also see "General" before first port.

PILOTAGE: Compulsory. Pilotage service operated by Port Authority (Papua New Guinea Harbours Board). Notice of ETA must be given at least 12 hours in advance. Pilot boarding ground is in position Lat. 6° 44' 50 " S., Long. 147° 00' 33" E. Pilot launch is fitted with VHF radio and operates on Channels 12 and 16.

Coastal Pilotage: Pilotage services through the Great North East Channel to Torres Strait, through China Strait to Rabaul, and through China Strait and Raven Channel to Lae are conducted by pilots available from Australian Reef Pilots Ltd. and Queensland Coastal Pilot Service Pty.Ltd. and See Australia – "Torres Strait" for details.

Pilotage recommendation: The Great North East Channel is covered by a recommendation on pilotage by IMO. See Australia – "Torres Strait" for details.

ANCHORAGE: Recommended anchorage position: Lat. 06° 47' S., Long. 146° 58' E.

RESTRICTIONS: Berthing and sailing are normally restricted to between 0600 hrs. and 2200 hrs.

MAX. SIZE: The largest vessel to use th port and berth was the "Queen Elizabeth 2". Vessels with length overall in excess of 200 m. regularly use the port.

HEALTH: Quarantine Tel: 42 4199. Health Tel: 42 2033.

RADIO/VHF: Arrival information to Agents can best be routed through either Rabaul Radio or Port Moresby Radio. The port is equipped with VHF radio and may be contacted by calling Port Control on Channel 16. Working channel is Channel 12, or is allocated by Port Control. A listening watch is maintained during normal working hours and when ships are expected outside normal hours.

TUGS: One tug of 780 h.p. is available, and the use of a tug is mandatory for all vessels of 75 m. LOA and over when berthing.

BERTHING: A wharf 466 m. in length with a minimum depth alongside of 11.00 m. In addition, 2 coastal wharves of 54 m. and 35 m. in length with depths alongside of 4.90 m. and 2.70 m. respectively. A dedicated liquid bulk facility 100 m. in length, having a wharf face of 33 m. and a minimum depth alongside of 14.10 m., is situated 100 m. to the East of the Main Wharf. This facility is used by tankers and LPG tankers.

There are no facilities specially equipped for handling Ro-Ro traffic.

Storage: Covered storage totalling 14,890 sq.m. and open storage totalling 63,500 sq.m. is available for use.

CRANES: There are no cranes available at any of the wharves, and all vessels using the facilities must be self-sustaining.

STEVEDORES: Stevedoring is carried out by private contractors who are licenced by the Board. Normal working hours are from 0800 hrs. to 1600 hrs., Monday to Friday. However, stevedoring operations can continue outside normal hours by arrangement with the stevedoring contractor concerned. At least 24 hours notice must be given to the stevedoring contractor to arrange labour.

Licensed Stevedores:

Riback Stevedores Pty. Ltd. Tel: 422688. Fax: 423802.
Rabaul Stevedores Pty. Ltd. Tel: 421915.
United Stevedores Pty. Ltd. Tel: 422548.
Meto Investment Stevedores Pty. Ltd. Tel: 424976.

MEDICAL: Maximum possible notice should be given so that full arrangements can be made with regard to hospitalisation, etc. Full hospital facilities are available approximately 2.5 miles from the wharf.

TANKERS: New tanker berth with depth 14.0 m. completed. The berth will accommodate vessels of 40,000 d.w.t.

Discharge and bunkering facilities are available for all ship requirements.

FRESH WATER: Available, rate of 30 t.p.h.

FUEL: Diesel and distillate available by road tanker.

REPAIRS: No repair facilities available.

SURVEYORS: Lloyd's Agent.

CUSTOMS: Port of Entry. Collector of Customs, Tel: 424899.

AIRPORT: Lae Airport at Nadzab is approximately 40 km. distant. Serviced daily by Air Niugini flights.

HOLIDAYS: The port is closed to normal work on Christmas Day and Good Friday. The port is also subject to closure unofficially on New Year's Day, Independence Day and Provincial Days, depending on the willingness, or otherwise if the Waterside Workers and Seamen's Union work on these days.

POLICE/AMBULANCE/FIRE: Police: 422222. Ambulance: 426095. Fire: 424333.

Fire alarms are connected to the Gatehouse which has a direct telephone link to the Police station for emergency purposes.

BANKS: Papua New Guinea Banking Corporation, Coronation Drive, Lae. Tel: 42-2244.

Westpac Bank – PNG Limited, P.O.Box 325, Lae. Tel: 21-1066. Fax: 42-6421.

ANZ Bank, ANZ House, Central Avenue, Lae. Tel: 42-4655. Fax: 42-6135.

Bank of South Pacific Limited, 6th Street, Lae. Tel: 42-1944. Fax: 42-2701.

CURRENCY: Currency unit is Kina.

DELAYS: Lae is the largest and busiest of the country's ports and at times delays for up to 48 hours can be expected.

GENERAL: *Chart:* AUS 574. BA 2054.

SHIPMASTER'S REPORT: 1978 (Updated 1988).

Approaches: No difficulties were encountered either approaching or leaving. There is deep water close to the shore. Muddy water from the outflow of the Markham River is encountered off the port, but is of no navigational significance.

Wharf: Modern, well-fendered and convenient. Currents and tides alongside are irregular and unpredictable, being almost entirely influenced by the discharge from the Markham River. A tanker berth, consisting of concrete dolphins, is under construction close Eastwards of the main wharf and a pile-driving barge is operating. When berthing, some vessels use the off-shore anchor but under normal conditions this appears to be unnecessary and can in fact be something of an embarrassment when leaving. We did not use either anchor or tugs, weather conditions being good. Powered line boats are available and were used. There is a depth of water alongside of about 11 m.

Anchorage: The usual anchorage is as described in Pacific Islands Pilot Vol. 1, 9th Edition and Supplement No. 5 of 1976. We lay quietly to the port anchor in 30 m. of water, with 4.5 shackles in the water, in position with the Northern of the 2 beacons shown on Chart Aus. 385 bearing 268°(T) distant 2.1 miles approximately.

It is not customary to take a Pilot for the anchorage.

Pilotage: Compulsory when berthing and unberthing.

Tugs: There are 3 in the port, privately owned. As most of their income is derived from sources other than berthing and unberthing ships, their availability is uncertain. No doubt a vessel requiring a tug or tugs would be able to make advance arrangements.

Communications: Vessel came from Gladstone, Queensland, and our advices were sent through P2M, Port Moresby Radio, no difficulties being encountered.

Pilots and Harbour Control are available on Channel 16 VHF, when shipping movements are expected.

Documents Required:

5 Passenger Lists.
5 Crew Lists.
7 Inward Customs Manifests.
3 Lists of Crew Effects.
3 Stores Lists.
2 Arms and Ammunition Lists.

We were able to obtain local forms prior to arrival, and experienced no problems. Also see 'Pratique'.

Officials: The Bond and Beer Rooms are sealed on arrival. The Customs stuck rigidly to the rules and confiscated any undeclared goods, particularly alcohol, cigarettes and what they judged to be pornographic literature. No fines were levied nor charges brought.

The Port Authority allocates berths and decides priorities for vessels.

During our stay, and for a considerable period prior to then, the port had been very busy.

Depending upon the nature of her cargo and the rate of discharge, it is possible for a vessel to reserve a berth in advance.

Because such a vessel arrived when we were alongside and neither our cargo nor our rate of discharge brought us into the berth reservation category, we were obliged to go out to anchor until a berth again became available.

Cargo Working: Our cargo for Lae consisted of 1,524 tonnes of bulk wheat in No. 1 hatch and 9 containers, the heaviest of which was 19.76 tonnes, on No. 2 hatch. The containers were discharged in 3 hours 20 minutes by ship's gear, no problems being encountered.

Our grain cargo was discharged in 36 hours, including time taken rigging and unrigging the sucker and adjusting the length of the suction pipe. Thus, an average rate of 42.3 m/t.p.h. was achieved.

Grain is discharged by means of a portable sucker, weighing approximately 3.5 tonnes, placed on the hatch lids, where it stays throughout discharge. From the sucker, the grain is transferred to a hopper ashore and from there to lorries that transport it to the Mill, about 1 km. away. No significant delays on account of a lack of transport were encountered.

Working Hours: The standard working day is from 0800 hrs. to 2400 hrs. On 2 occasions, once successfully, attempts were made by receivers to start work at 0700 hrs.

The vessel being on Voyage Charter, receivers made strenuous efforts to arrange for discharge after midnight, but without success. They are also investigating making grain discharge an all-weather operation. This could easily be achieved by rigging a tent over the sucker and open portion of the hatch, but whether Union and/or Government Rules would permit this is another matter.

Pratique: If coming from Australia or New Zealand, Pratique is not required, nor is a Health Declaration. Nevertheless, Radio Pratique was requested but no reply was received.

Provisions: Available but very expensive. We stocked up prior to departure Gladstone and this proved to be a wise decision.

Fresh Water: Available from the wharf, at a rate of 25 t.p.h. – 30 t.p.h. This is well water and not used by the local residents, who collect the rainwater off their roofs. To be on the safe side it was treated with Chloride of Lime.

Repairs: Only minor repairs can be undertaken. We called in a local firm for some non-urgent burning and welding work, but they were unable to do anything due to a products tanker discharging astern of us. The Chief Engineer reports that appearances suggest that competent work would be done, but that prices would be rather high.

Weather: Was hot and humid, with temperatures ranging from 23.2°C to 28.2°C. During the afternoons a South-Easterly breeze, about Force 2-3 usually came up, dying away in the evenings. Rain showers were prevalent, night and morning.

Health: Local residents confirmed that malaria is present at Lae and the usual precautions were taken on board.

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 671, Port Moresby, Papua New Guinea. *Tel:* (675) 211400. *Telex:* NE 42414. *FAX:* (675) 211546. *Contact:* Sakeus Gem, Operations Manager.

Regional Port Manager, P.O.Box 563, Lae, Papua New Guinea. *Tel:* (675) 42-2477. *FAX:* (675) 42-2543.

LORENGAU: 02.01 S. 147.16 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary.

From the Eastern extremity of Hauwei Island by a straight line due North for 2,050 m., thence by a straight line due East for 2,920 m., thence by a straight line due South for 2,000 m. to the Old Light House on Ndrilo Island.

PILOTAGE: Pilotage is not compulsory but a Pilot will attend from Madang given 48 hours notice of the ship's intention to call at Lorengau.

Advice from an officer of the PNG Defence Force may be obtained for ships proceeding to Lombrum Naval Base.

Pilot Boarding Ground: Lat. 01° 56.6' S., Long. 147° 18.3' E.

ETA to be sent not less than 12 hours prior to arrival via Port Moresby Radio (P2M) or Rabaul Radio (P2R) and to be confirmed at not more than 5 hours and not less than 4 hours prior to arrival. No VHF facility.

ANCHORAGE: Anchorage may be obtained in soft mud in depths of about 30 m. anywhere in Seeadler Harbour but an anchorage in position Bear Point 210° (T) 2,600 m. is recommended.

HEALTH: Contact Port Manager if Quarantine Office or Health Officer required.

TUGS: Not available.

BERTHING: Nabu Wharf is now regarded as a run down wharf as it has been ruled as unsafe for working cargo – break bulk, containers, etc, with the exception of Bulk Fuel products.

Coastal vessels still use the facility for handling of seafarers only.

Salasia Wharf is 40 m. long and 20 m. wide. Height above deck is 1.5 m., minimum depth of water below LAT is 1.4 m. The facility caters for all coastal ships. Overseas vessels rarely utilise the facility.

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required.

R. L. & V. J. Knight, P.O.Box 108, Lorengau. Tel: 409159

FRESH WATER: Not available.

FUEL: Diesel available by road tanker at Salasia Wharf. Suppliers: Shell Agencies.

CUSTOMS: Port of Entry. Collector of Customs Tel: 409034.

AIRPORT: Momote Airport is some 45 km. from Lorengau and is served by Air Nuigini but not daily.

POLICE/AMBULANCE/FIRE: Police and Fire: Lorengau 409122. Ambulance: 409055.

DELAYS: Delays at Lorengau are most unlikely.

GENERAL: *Storage:* Covered: None. Open: 1,000 sq.m.

Chart: AUS 662.

DEVELOPMENTS: Salasia Wharf has an open storage area of 1,000 sq.m., and a transit shed with 100 sq.m. storage space.

Future redevelopment of the Salasia Wharf will consist of resheeting of sheet piling and possible sealing of wharf apron.

AUTHORITY: Port Manager, P.O.Box 21, Lorengau, Papua New Guinea. *Tel:* 409078. *Cables:* Portman, Lorengau. *Contact:* R.C.Ruhuwamo, Port Manager.

MADANG: 05.13 S. 145.49 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary is 2.0 km. East of entrance to Dalman Passage.

DOCUMENTS: Basic Customs documents for entry:

1 copy Cargo Manifest.
1 copy Passenger Manifest.
1 copy Disembarking Passenger Manifest.
1 copy Embarking Passenger Manifest.
1 copy Crew Manifest.
1 copy Stores List.
1 copy Customs Declaration (Ship).
1 copy Customs Declaration (Crew).
1 copy Customs Declaration (Passengers).
1 copy Health Declaration.

Also see "General" before first port.

PILOTAGE: Compulsory. Pilotage service operated by Port Authority (Papua New Guinea Harbours Board). Notice of ETA must be given at least 12 hours in advance. Pilot boarding ground is in position Lat. 5° 13.6' S., Long. 147° 50.6' E. Pilot launch is fitted with VHF radio and operates on Channels 12 and 16.

ANCHORAGE: In a position Lat. 5° 12.35' S., Long. 145° 48.8' E. Depth of water 43 m.

RESTRICTIONS: Berthing and sailing are normally restricted to between 0600 hrs. and 2200 hrs.

MAX. SIZE: The largest vessel to berth at the port's facilities was the "Statendam" with an LOA 220 m.

HEALTH: Quarantine clearance compulsory on arrival from foreign ports. Routine inspection carried out on arrival from local ports (Plants/Animals).

Quarantine Officer Tel: 82 2193. Health Officer Tel: 82 2224.

RADIO/VHF: Arrival information to Agents can best be routed through either Rabaul Radio or Port Moresby Radio. The port is equipped with VHF and may be contacted by calling Port Control on Channel 16. Working channel is Channel 12, or as allocated by Port Control. A listening watch is maintained during normal working hours and outside normal hours when ships are expected.

TUGS: None available.

BERTHING: Overseas Wharf (Berth No. 1) 137.1 m. long, height of deck above LAT 3.1 m., minimum depth of water at face at LAT 10.1 m. Tidal range 1.2 m.

Berth No. 2 for coastal vessels has a length of 52 m. and depth 5.0 m.

Vessels may berth either port or starboard side to at the discretion of the Port Authority.

Load/discharge is by ship's own gear (except under special arrangement).

A separate facility to serve woodchip vessels and Caltex tankers only is situated within Binnen Harbour West of the main wharf facilities.

STEVEDORES: Stevedoring is carried out by private contractors licensed by the Board. Normal working hours are from 0800 hrs. to 1600 hrs., Monday to Friday. However, stevedoring operations can continue outside normal hours by arrangement with the stevedoring contractor concerned. At least 24 hours notice must be given to stevedoring contractor to arrange labour.

TANKERS: Discharge at main wharf for both Shell and Mobil. Caltex discharge by floating pipeline while moored at the Jant woodchip facility.

FRESH WATER: Limited supply available.

FUEL: Diesel and distillate are available from road tankers. Suppliers: Shell, Mobil and Caltex.

REPAIRS: A coastal slipway at Madang but only minor deck repairs P.O.Box 605, Madang.

AIRPORT: Madang Airport is 6 km. from the port and is served daily by Air Nuigini.

CUSTOMS: Port of Entry. Collector of Customs Tel: 82 2253.

POLICE/AMBULANCE/FIRE: Police: 82 2222. Ambulance: 82 2022. Fire: 82 2777.

HOLIDAYS: The port is closed to normal work on Christmas Day and Good Friday. The port is subject to closure unofficially on New Year's Day, Independence Day and Provincial Days, depending on the willingness, or otherwise if the Waterside Workers and Seaman's Union to work on these days.

BANKS: Papua New Guinea Banking Corporation, P.O.Box 448, Madang. Tel: 82-2477.

Westpac Bank – PNG Limited, Nuna St., Madang. Tel: 82-2479. Fax: 82-2917.

ANZ Bank, Coast Watchers Drive, Madang. Tel: 82-22866. Fax: 82-24408.

CURRENCY: Currency unit is Kina.

DELAYS: Although there is only one overseas berth at the main wharf, Madang delays are not common and are of short duration when they do occur.

DEVELOPMENTS: When traffic justifies expenditure an extension of the overseas wharf Eastward will be undertaken.

GENERAL: *Storage:* Covered Storage: 2,700 sq.m. Open storage: 8,800 sq.m.

Chart: AUS 648.

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 671, Port Moresby, Papua New Guinea. *Tel:* (675) 211400. *FAX:* (675) 211546.

Regional Port Manager, P.O.Box 273, Madang, Papua New Guinea. *Tel:* (675) 822352. *FAX:* (675) 823097.

ORO BAY: 08.54 S. 148.29 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary.

From the extreme North point of the mainland on the South side of the entrance to Port Harvey by a straight line due North for 2,935 m. thence by a straight line due West for 2,760 m. to the coastline.

PILOTAGE: Pilotage is not compulsory but a Pilot will attend from Port Moresby given 48 hours notice of the ship's intention to call at Oro Bay.

Pilot Boarding Ground: Within 300 m. radius of a position with the North corner of Oro Bay wharf bearing 225° (T) distant 1,850 m.

ETA to be sent not less than 12 hours prior to arrival via Port Moresby Radio (P2M) and to be confirmed not more than 5 hours and not less than 4 hours prior to arrival.

ANCHORAGE: In sand and mud at 15 m. depth may be obtained on the leading marks 239° (T) distant 400 m. from the North corner of the wharf.

VHF: Call Oro Bay Port Control on VHF 16, 12 and 6. Listening watch maintained during working hours and when ships are expected during non-working hours.

TUGS: None available at present. Arrangements may be possible via Kamusi Timber if tugs required.

BERTHING: Wharf is 60.3 m. long, height of deck above LAT 2.5 m., minimum depth of water at outer face at LAT 11.4 m. Tidal range 1.3 m.

Vessels may berth either port or starboard side to at the discretion of the Port Authority.

Load/discharge is by ship's own gear (except under special arrangement).

Berthing may be delayed during the N.W. season, December – March.

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required.

Licensed Stevedores: New Guinea Forwarding Agencies: P.O.Box 77, Popondetta Tel: 297050/297268. Carnell Carriers: P.O.Box 151, Popondetta Tel: 29 7095, 297257.

FRESH WATER: Not available.

FUEL: Diesel is available by road tankers. Suppliers: Shell and Mobil.

AIRPORT: Popondetta Airport is 40 km. from the port and is served by Air Nuigini daily.

POLICE/AMBULANCE/FIRE: Police: 29 7122. Ambulance: No service available. Fire: 29 7144.

DELAYS: Delays at Oro Bay are most unlikely.

GENERAL: *Storage:* Covered Storage: 739 sq.m. Open Storage: 4,645 sq.m.

Chart: AUS 520.

DEVELOPMENTS: The area around Popondetta is being developed as major palm oil plantations. Overseas Wharf to be lengthened.

On completion, palm oil tankers and general cargo vessels of 40,000 d.w.t. will be handled.

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 160, Popondetta, Papua New Guinea. *Tel:* 29 7295. *Cables:* Portman, Popondetta. *Contact:* Port Manager.

PORT MORESBY: 09.29 S. 147.09 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary of port limits is the entrance to Basilisk Passage.

DOCUMENTS: Basic Customs documents for entry:

1 copy Cargo Manifest.
1 copy Passenger Manifest.
1 copy Disembarking Passenger Manifest.
1 copy Embarking Passenger Manifest.
1 copy Crew Manifest.
1 copy Stores List.
1 copy Customs Declaration (Ship).
1 copy Customs Declaration (Crew).
1 copy Customs Declaration (Passengers).
1 copy Health Declaration.

Also see "General" before first port.

PILOTAGE: Compulsory. Pilotage service operated by Port Authority (Papua New Guinea Harbours Board). Notice of ETA must be given at least 12 hours in advance. Pilot boarding ground is in a position with Basilisk Beacon bearing 065°(T), distant 1,500 m. Alternative boarding ground in bad weather is in a position with Basilisk Beacon bearing 220°(T), distant 950 m. Pilot launch is fitted with VHF radio and operates on Channels 12 and 16.

Coastal Pilotage: Pilotage services through the Great North East Channel to Torres Strait, through China Strait to Rabaul, and through China Strait and Raven Channel to Lae are conducted by pilots available from Australian Reef Pilots Ltd. and Queensland Coastal Pilot Service Pty.Ltd. See Australia – "Torres Strait" for details.

Pilotage Recommendation: The Great North East Channel is covered by a recommendation on pilotage by IMO. See Australia – "Torres Strait" for details.

APPROACHES: The outer entrance lies through a gap in the barrier reef which has a navigable width of 600 m.

ANCHORAGE: In a position Lat. 9° 30.5' S., Long. 147° 9.5' E. Depth of water 26 m.

RESTRICTIONS: Berthing and sailing are normally restricted to between 0600 hrs. and 2200 hrs.

MAX. SIZE: The largest vessel to berth at the port's facilities was the "Rotterdam" with a length overall of 229 m.

HEALTH: Health Officer Tel: 3255566. Quarantine Officer Tel: 3211475.

RADIO/VHF: Arrival information to Agents can be routed through either Port Moresby Radio or Rabaul Radio. The port is equipped with VHF and may be contacted by calling Port Control on Channel 16. Working channel is Channel 12, or as allocated by Port Control. A listening watch is maintained during normal working hours and outside normal hours when ships are expected.

TUGS: Two tugs of between 550 b.h.p. and 750 b.h.p. are available for hire from private operator.

BERTHING: Old Port:

	Length (m.)	*Width* (m.)	*Water Depth Below LAT* (m.)	*Deck Height Above LAT* (m.)
Berth 1 (Main Wharf):	106	18.2	8.5	4.4
Berth 2 (Main Wharf):	107	18.2	8.5	4.4
Berth 3A (Coastal):	67	18.2	3.8	4.4
Berth 3B (Coastal):	113	18.2	4.5	4.4

Barge Ramp 1: Width 6 m. Grade 1 in 8
Barge Ramp 2: Width 9 m. Grade 1 in 8

Storage: Shed 1: 1,790 sq.m. (73.2 m. × 24.4 m.)
Shed 2: 1,790 sq.m. (73.2 m. × 24.4 m.)
Shed 3: 1,110 sq.m. (30.4 m. × 36.5 m.)
Coastal Shed: 650 sq.m. (36 m. × 18 m.)
Open (Old Port): 3,100 sq.m.
Open (APC): 3,250 sq.m.

New Port:

	Length (m.)	*Width* (m.)	*Water Depth Below LAT* (m.)	*Deck Height Above LAT* (m.)
Berth 4A (Container):	125	25.3	10.0	3.6
OK Tedi Jetty: (Berth 4B)	25	5.0	3.0	2.0

Storage: Shed 4: 5,110 sq.m. (140 m. × 36.5 m.)
Open: 28,400 sq.m.

Load/discharge is by ship's own gear.

STEVEDORES: Stevedoring is carried out by private contractors licensed by the Board. Normal working hours are from 0800 hrs. to 1600 hrs., Monday to Friday. However, stevedoring operations can continue outside normal hours by arrangement with the stevedoring contractor concerned.

At least 24 hours notice must be given to stevedoring contractor to arrange labour, but 72 hours notice preferred.

TANKERS: Tankers mainly use mooring buoys N.W of the wharf area, max. draft 13 m. The discharge is through submarine pipelines. Tankers also discharge at Berth 4A.

FRESH WATER: Available at all berths.

FUEL: Diesel and distillate can be supplied by road tanker, pipeline or mini-barge (100 tonnes). Suppliers are Shell, Mobil and B.P.

REPAIRS: A small slipway for coastal vessels only is situated adjacent to the old main wharf.

CUSTOMS: Port of Entry. Collector of Customs Tel: 3214428.

AIRPORT: Jacksons Airport, Papua New Guinea's only international airport is 13 km. from the wharf and is served by flights to and from Australia daily, to Manila, Hong Kong, Japan, Singapore and Honolulu weekly as well as almost daily flights to all main internal centres.

POLICE/AMBULANCE/FIRE: Police Tel: 000. Ambulance Tel: 3256822. Fire Tel: 3225169.

HOLIDAYS: The port is closed to normal work on Christmas Day and Good Friday. The port is subject to closure unofficially on New Year's Day, Independence Day and Provincial Days, depending on the willingness, or otherwise of the Waterside Workers and Seaman's Union to work on these days.

BANKS: Papua New Guinea Banking Corporation, P.O.Box 78, Port Moresby. Tel: 322-9700. Fax: 321-1954.

Westpac Bank – PNG Limited, Douglas Street, Port Moresby. Tel: 322-0700. Fax: 321-3927.

ANZ Bank, Douglas Street, Port Moresby. Tel: 321-1666. Fax: 321-4896.

Bank of South Pacific Limited, Douglas Street, Port Moresby. Tel: 321-2444. Fax: 321-3741.

CURRENCY: Currency unit is Kina.

DELAYS: The port now has 3 overseas berths although only 1 of these is capable of handling direct container traffic. Some delays can be expected at peak times.
GENERAL: *Storage:* See "Berthing".
Chart: AUS 621.
AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 671, Port Moresby, Papua New Guinea. *Tel:* (675) 3211400. *FAX:* (675) 3211546.
Regional Port Manager, P.O.Box 384, Port Moresby, Papua New Guinea. *Tel:* (675) 3211637, 3211634. *FAX:* 321-3606.

RABAUL: 04.12 S. 152.10 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary of port limits is a line between the Eastern extremity of Matupit Island and Raluana Point.
DOCUMENTS: Basic Customs documents for entry:
1 copy Cargo Manifest.
1 copy Passenger Manifest.
1 copy Disembarking Passenger Manifest.
1 copy Embarking Passenger Manifest.
1 copy Crew Manifest.
1 copy Stores List.
1 copy Customs Declaration (Ship).
1 copy Customs Declaration (Crew).
1 copy Customs Declaration (Passengers).
1 copy Health Declaration.
Also see "General" before first port.
PILOTAGE: Compulsory. Pilotage service operated by Port Authority (Papua New Guinea Harbours Board). Notice of ETA must be given at least 12 hours in advance. Boarding ground is in position Lat. 4° 15' S., Long. 152° 13.75' E. Pilot launch is fitted with VHF and operates on Channels 12 and 16.
Coastal Pilotage: Pilotage services through the Great North East Channel to Torres Strait, through China Strait to Rabaul, and through China Strait and Raven Channel to Lae are conducted by pilots available from Australian Reef Pilots Ltd. and Queensland Coastal Pilot Service Pty.Ltd. See Australia – "Torres Strait" for details.
Pilotage recommendation: The Great North East Channel is covered by a recommendation on pilotage by IMO. See Australia – "Torres Strait" for details.
APPROACHES: Depth at entrance to Simpson Harbour is in excess of 100 m.
ANCHORAGE: There are no recommended anchorage areas for large ships, but anchorage in approx. 30 m. of water may be obtained in good holding ground in a position with lower leading light bearing 015° (T) distant 1,110 m.
RESTRICTIONS: Berthing and sailing are normally restricted to between 0600 hrs. and 2200 hrs.
MAX. SIZE: The largest vessel to berth at the port's facilities was the "Europa" with a length overall of 200 m.
HEALTH: Quarantine Officer and Health Officer Tel: 92 1416.
RADIO/VHF: Arrival information to Agents can be routed through Rabaul Radio. The port is equipped with VHF and may be contacted by calling Port Control on Channel 16. Working channel is Channel 12, or as allocated by Port Control. A listening watch is maintained during normal hours and outside normal hours when ships are expected.
TUGS: None.
BERTHING: There are two overseas berths. Bay Road Wharf (Berth No. 2) is 152.4 m. long, height above LAT 2.8 m., min. depth of water at LAT 10.2 m.
Blanche Street Wharf (Berth No. 1) is 121.9 m. long. Height of deck above LAT 2.8 m. Minimum depth at LAT 7.9 m.
Vessels may berth either port or starboard side to at either wharf at the discretion of the Port Authority.
Load/discharge is by ship's own gear (Except under special arrangement).
STEVEDORES: Stevedoring is carried out by private contractors licensed by the Board. Normal working hours are from 0800 hrs. to 1600 hrs., Monday to Friday. However, stevedoring operations can continue outside normal hours by arrangement with the stevedoring contractor concerned. At least 24 hours notice must be given to the stevedoring contractor to arrange labour.
TANKERS: Discharge facilities are available for overseas vessels at the Blanche Street Wharf only.
FRESH WATER: Available at a rate of 25 t.p.h., supply sometimes restricted.
FUEL: Diesel fuel and distillate available by road tanker. Suppliers: Shell, Mobil and B.P.
REPAIRS: Only light deck repair facilities available.
SURVEYORS: Lloyd's Agent, Burns Philp (N.G.) Ltd., P.O.Box 87, Rabaul.
CUSTOMS: Port of Entry. Collector of Customs Tel: 92 1173.
AIRPORT: Rabaul Airport is 4 km. from the port and is served daily by Air Nuigini.
HOLIDAYS: The port is closed to normal work on Christmas Day and Good Friday. The port is subject to closure, unofficially, on New Year's Day, Independence Day and Provincial Days, depending on the willingness, or otherwise of the Waterside Workers and Seamen's Union to work on those days.
POLICE/AMBULANCE/FIRE: Police: 922222. Ambulance: 7333. Fire: 921411.
BANKS: Papua New Guinea Banking Corporation, P.O.Box 85, Rabaul. Tel: 92-1788.
Westpac Bank PNG Limited, Mango Avenue, Rabaul. Tel: 92-2844. Fax: 922820.
ANZ Bank, Mango Avenue, Rabaul. Tel: 92-1299. Fax: 923192.
Bank of South Pacific Limited, Mango Ave, Rabaul. Tel: 92-1266. Fax: 921240.
GARBAGE DISPOSAL: Garbage services are provided by Rabaul Town Council, P.O.Box 1133, Rabaul. Tel: 922522. Charges: Every year rates vary from K.10.00 to K.20.00. Collection time: Only when requested, whilst ships are in port.
WASTE OIL DISPOSAL: No companies dispose of waste oil, however, Shell Company does provide one road tank for mixture of oil and water, whereby the oil product is put back into tank storage and then blended. Contact: Shell Company, P.O.Box 226, Rabaul. Tel: 922606.
SEAMAN'S CLUBS: None.
CURRENCY: Local currency Kina and Toea. Exchange rates fluctuate every day. Rates can be seen in daily paper.
There is no local restriction on Kina and Toea as is nationally used in rural and urban areas.
All major overseas currencies are accepted, *except* Taiwanese currency which is not accepted by P.N.G. banks.
DELAYS: Delays at Rabaul are unlikely, except for union activities from time to time.
GENERAL: *Storage:* Covered Storage: 6,890 sq.m. Open Storage: 20,300 sq.m.
Chart: AUS 680.
AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 671, Port Moresby, Papua New Guinea. *Tel:* (675) 21-1400. *FAX:* (675) 21-1546.
Regional Port Manager, P.O.Box 592, Rabaul. *Tel:* (675) 92-1317. *FAX:* (675) 92-1367.

SAMARAI: 10.36 S. 150.39 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward boundary.
From a point on the Northernmost point of Samarai Island due North for 800 m. thence due West for 1,300 m. thence due South for 1,000 m. thence due East for 1,000 m. to a point on the N.W. coast of Samarai Island.
PILOTAGE: Not available.
Coastal pilotage services for the approaches to Samarai from other ports are available from Australian Reef Pilots Ltd. See Australia – "Torres Strait" for details.
ANCHORAGE: There are no recommended anchorage areas for large vessels in the vicinity of Samarai.
HEALTH: Quarantine Officer Tel: 62 1257. Health Officer Tel: 62 1225.
TUGS: Not available.
BERTHING: Berth No. 1. (Main Wharf). Length 28 m. Depth at LAT 7.8 m. Tidal range 1.0. m.
Vessels may berth either port or starboard side to at the discretion of the Port Authority.
Load/discharge is by ship's own gear.
STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required.
Licensed Stevedores: Murina Stevedoring Company, P.O.Box 33, Samarai.
Osiri Trading Co., P.O.Box 1, Samarai. Tel: 62 1238.
TANKERS: Discharge only at main wharf.
FRESH WATER: Not available.
FUEL: Diesel available by pipeline. Supplied by Shell.
CUSTOMS: Port of Entry. Collector of Customs Tel: 62 1226.
AIRPORT: There is no airport at Samarai. The nearest airport is at Gurney, outside Alotau.
POLICE/AMBULANCE/FIRE: Police Tel: Samarai 62 1222. Ambulance Tel: 62 1225. Fire: No service available.
DELAYS: Delays at Samarai are most unlikely.
GENERAL: *Storage:* Covered Storage: 950 sq.m.
Open Storage: 140 sq.m.
Chart: AUS 625.
AUTHORITY: Papua New Guinea Harbours Board, (Through Agents – Milne Bay Fishing Authority), P.O.Box 86, Samarai, Papua New Guinea. *Tel:* 621348. *Cables:* Fisheries. *Contact:* N. Stanton, Port Manager.

UMUDA: 08.29 S. 143.54 E.

PILOTAGE: Pilotage services between Umuda and Torres Strait via the Great North East Channel are available from Australian Reef Pilots Ltd. See Australia – "Torres Strait" for details.

SHIPMASTER'S REPORT: January 1994.
Vessel: 24,000 g.r.t. 42,000 d.w.t.
Umuda Station: So called "Umuda Station" is M/V "Karabi" which is anchored at approximate position Lat. 08° 29.5' S., Long. 143° 54.5' E. in the estuary of the Fly River in Papua New Guinea. The M/V "Karabi" is anchored abeam of the most Southern island in the mouth of the river, which has no name. Umuda is closest to this place/island with a proper name. M/V "Karabi" is anchored in depth of 12.0 m. at MLW (Chart AUST. 378).

M/V "Karabi": It is a vessel built in 1972. LOA 218 m., beam approximately 30.0 m., max. draft approximately 12.5 m. with 4×25 tonnes cranes situated on her starboard side. She has 7 holds but only 6 are in use. Hold No. 1 is inoperative, as a helicopter platform is located above the Hold No. 1. Six Yokohama fenders are floating on chains alongside her starboard side, also tractor tyres are fixed as fenders on her starboard side, just below railings. Hull is rusty and has lots of minor damage. Starboard lifeboat is missing (was crushed some time ago during berthing of a vessel). M/V "Karabi" is anchored with her port anchor, 10 shackles in the water. She looks like metal scrap, but is well equipped. She has GPS system, two good radars, gyro, sat nav system, satcom system, computer weighing system (connected with grabs) and good mooring lines. Each grab takes about 10 tonnes of cargo. Average loading capacity is about 175 tonnes/hour/crane.

Cargo: Wet concentrate of copper has allowed transportation content of water 10.3%. They have laboratory which continuously monitors water content and at the end of loading gives to the vessel a certificate showing actual water content (less than 10.3%). Cargo is extremely expensive. Content of gold inside each ton of concentrate is about one ounce plus other rare metals, plus natural copper.

Cargo is delivered from mines, which are about 500 miles up the river, by small vessels (2,000 – 3,000 d.w.t.). They have problems with delivery of the cargo during dry season (May – September), as river becomes very shallow and not navigable, even for these small vessels.

Navigation Aids: No lighthouses, marks or buoys exist in the approaches to the estuary of the Fly River and M/V "Karabi". The place is not described in the Pilot Book. The only way for our vessel to fix the ship's position was by radar observations of the island abeam of "Karabi". As shoals on both sides of "Karabi" are not marked with buoys, we had to fix ship's position, even during berthing, up to close approach (5 cables) from the stern of "Karabi". In this situation, a GPS system would have been of great assistance.

Preparations: We had to wait at anchor for 3 days for collecting enough cargo (30,500 tonnes). Torres Pilot was on the vessel as it was cheaper for Charterers to pay additional days for Pilot than to take him back by helicopter and to send him to the vessel again after loading (one way helicopter trip costs U.S.$ 3,000 – 4,000). The Pilot was not a port pilot, but he had 50 years experience in sea practice. So combining his 50 years and my 35 years practice, we evolved a plan of approach to the "Karabi" and mooring.

Authorities: Local Authorities (Quarantine Officer, Customs Officer and Shipper's representative) arrive on the vessel by helicopter. Customs Officer collects Customs documents and sealed Bonded Stores. He is most interested in "magazines" which he collects and puts under seal also. Quarantine Officer checks that the ship hoists "Q" flag before helicopter arrival. Supervisor gives full information about loading, documents, etc. He also advises on how to moor. It is important to listen to his advice, but not to follow it as he is not a seafarer. When there is no Pilot, the supervisor acts as advisor during mooring. The supervisor can be used to maintain contact with the Master of "Karabi" on VHF Channel 12.

Mooring: The Master of the "Karabi" nominates the time of approaching alongside. The idea is to have about 2 knots of current. This is a very important matter which fully depends on the experience of the Master of the "Karabi".

We approached the "Karabi" on ebb tide (to avoid coming around "Karabi" on flood tide). Ebb heading of "Karabi" is about 330° – 340°, and flood tide heading is about 130° – 140°. Our course was about 10° less than course of M/V "Karabi", and we steered a little ahead of her forecastle. When 6-7 cables off the stern of the "Karabi", we stopped the engine, later we used only kicks. We approached to a distance of 30 m. – 40 m. off on a parallel heading. Though we arrived 15 minutes before time fixed, the current was already 3 knots and increased quickly.

Method of giving first 2 head lines is as follows:

"Karabi" fires rocket with line.
Crew takes the line, then messenger.
Fix messenger to head lines.
Crew of "Karabi" takes the messenger, then ship's lines.
Put them on "Karabi" bollards.
Vessel's crew takes the slack of head lines.

Naturally it takes a lot of time and the best distance to fire rocket is 80 m. – 100 m. between ship's bows. Master of "Karabi" gives the command to fire rocket. These 2 moments (strong current and late giving of ropes) made mooring even more dangerous. Using engine, helm and later on head lines, we succeeded in getting alongside safely.

The current between ship's hulls is quicker than outside current and it's speed increases all the time when the vessels become closer. At a distance of between 10 m. – 15 m., the speed of this current became 5-6 knots, pressure dropped and force of suction arose. Vessel came on to "Karabi" very quickly. This phenomena is known about from literature and "Karabi" advised us about the matter before mooring. So we succeeded in making our hull parallel to "Karabi" at this moment and lay alongside on many Yokohama fenders.

Loading/Lying Alongside: We had to load cargo in two places (Amamapare and Umuda) and at Umuda for two Consignees. As a result we had to make 2 shiftings, 20 m. back each time, and "Karabi" could only use 2 cranes on each stage of loading. It doubled time of loading and risk accordingly. The most dangerous time during loading is swinging when tide changes. It happens 4 times a day. After mooring, we greased all Panama leads (naturally ropes were sent only through Panama leads) and put burlap material (tarpaulin, old bags, etc.) on mooring ropes in the places of contact with metal parts on our vessel and on the "Karabi". All ropes were very tight and had same tightness.

Our crew kept sea watches (officer and 2 seamen on deck). It was rainy season, so sailors worked with mooring ropes and closed/opened hatches. When swinging we made all hands on deck, engine on stand-by and chief engineer and electrical engineer in the engine control room. We had swell from S.S.E. at 2.0 m. – 2.5 m. During each swing, both vessels rolled up to 9° on both sides and their periods of rolling did not correspond. Mooring ropes and fenders took very big strains. Due to all precautions, only 2 ships' ropes were broken and immediately changed. When swinging, it is impossible to work with cranes and they stop loading.

Another problem is during ebb tide, which is naturally stronger (about 4 knots) than flood in river. This vessel is too big for the "Karabi", so her anchor dragged on full strength current. Usually drift did not exceed 1-2 cables, but on one occasion, "Karabi" dragged her anchor for 2 miles to S.E., notwithstanding working with her engine dead slow ahead, sometimes (kicks) slow ahead. All this time, "Karabi's" crew and our crew were at mooring stations and we were ready to depart.

Nobody calculated holding force of "Karabi" anchor and strength of her chain. Our experience showed that holding ability of "Karabi's" anchor is not enough for 2 vessels, and without any calculations, I can tell that in bad weather "Karabi's" anchor chain would have broken.

Weather: April – September is the worst season at Umuda Station, as it is season of S.E. Monsoon. Umuda Station absolutely open to S.E.-S.S.E. winds and swell.

They consider November to March the best season for loading, as it is N.W. Monsoon season (wind from shore). The only problem is cyclones which pass the area, most often in December, January and February (usually 5-6 cyclones in these 3 months). From arrival up to January 30th 1994, cyclone "Sarah" crossed Coral Sea. That is why we experienced S.S.E. swell. On January 30th-31st 1994, cyclone "Sadie" was in the Gulf of Carpentaria. As a result, West winds were over the area and swinging lasted 1.5 – 2 hours instead of 0.6 – 1 hours.

Unmooring: As unmooring was totally controlled by our vessel, it was much easier and safer than mooring. We let go all ropes except 2 head lines and 2 stern springs, then started to pay out head lines and made rudder 20° to starboard. Stream entered between hulls, bow began to go to starboard, we let go everything forward, rudder midships. Started to pay out stern springs. When bow about 10 m. and stern about 5 m. off "Karabi", we gave dead slow ahead and let go all aft.

Conclusions: Umuda is an unsafe place from any point of view – contractual, practical, logical, etc.

Vessels of this size must not be loaded at Umuda in my opinion. Vessel of any size is at risk when mooring/loading/unmooring at Umuda. Naturally smaller vessels reduce the risk. In my opinion, the biggest vessel which could relatively safely be loaded at Umuda is 30,000 – 35,000 tonnes d.w.t. The ideal case is when vessel has bow thruster.

In any case, the following to be done to increase chances of safe completion:

Master of the vessel must receive all possible information about Umuda before departure from some previous port to have possibility to make preparations for this trip.

Vessel must have full supply of fresh water and provisions.

Charts could be obtained through Agent in Australia and delivered by Torres Strait Pilot.

Vessel must have sufficient good mooring ropes and tarpaulins, or other materials could be used as burlap materials to protect ropes.

Vessel must have some good fenders to protect ship's constructions (superstructure, wing, etc.), if necessary.

Cargo plan should be for loading of all 5 hatches (1 port of loading) or at least 4 hatches (if 2 loading ports). It gives possibility to load 30,000 tonnes of cargo in about 50 hours.

Pilot is compulsory. If no Pilot at Umuda (on "Karabi"), it is necessary to use assistance of Torres Pilot. There are already at least 3 Torres Pilots who have been to Umuda. Master of the vessel which has been to Umuda could also be used as a Pilot.

When berthing, it is necessary to try to approach the "Karabi" with a slight current (1-2 knots) when ebb tide.

"Karabi" must fire rocket with line at a distance at least 70 m. – 80 m.

When alongside, full scale watch must be kept on deck in any weather. Most dangerous moments are swinging when tide changes and when ebb current has maximum speed.

Utmost attention to be payed to the mooring ropes. They must be tight at all times.

The ship must lie alongside as parallel as practicable to touch as many Yokohama fenders as possible.

NOTICE: Ok Tedi Mining Limited.

Guidance Notes and Responsibilities for Masters of Export Vessels Loading Ok Tedi Copper Concentrates at Umuda Station:

Dear Captain

On behalf of Ok Tedi Mining Limited, we are pleased to welcome you to Umuda Station, Papua New Guinea, and our transfer and loading terminal M/V "Karabi".

The following Notes are to assist you in the mooring, loading and unmooring of your vessel at "Karabi".

For your information, apart from what is already described in the Charter Party between your Owners/Disponent Owners and Ok Tedi, your responsibilities whilst at Umuda Station are as follows:

1. Notwithstanding any pilotage advice or assistance given by "Karabi", the Master of the export vessel is at all times responsible for it's safe navigation.
2. To provide a sufficient quantity of good quality ropes (wires or nylon ropes, which can snap without warning will NOT be handled by "Karabi") to ensure that the vessel can be safely berthed and remain alongside.
3. Nominating the holds to be loaded and quantity of cargo to be loaded into each hold (as per governing Charter Party Clause 7B). This will be the subject of discussion with the Charterer, but will in no way relieve the Master of his responsibilities.
4. To ensure at the end of loading of each hold, directions are given to the Deck Officers of your vessel to stand-by at the hold and inform us for trimming if required (Cahrter Party Clause 7B). See paragraph below "Trimming Cargo".
5. To ensure vessel is maintained in seaworthy trim and condition, and safely and properly loaded, having regard to the International Loadline Certification (Charter Party Clause 7B).
6. To ensure mooring lines are properly tended throughout the time alongside "Karabi".

7. To ensure vessels crew maintain the hatch covers in working order and open/close them as necessary during the loading, and in particular if required to do so in the event of adverse or threatening weather.
8. To provide accommodation and board for one Customs Official throughout your stay.
9. To ensure the vessel is at all times maintained in a state of readiness to unberth from "Karabi" at short notice in the event of an emergency or adverse conditions (See paragraph 12 below "Engine Readiness").
10. To maintain a continuous watch on VHF radio, Channels 16 and 12. See also paragraph 26 below.
11. To pilot your vessel to safely unberth and depart from "Karabi".
12. Berthing:
    "Karabi" is fitted with Yokohama fenders on starboard side, and large ore-truck tyre fenders attached to the sheer strake. No fenders are required on your vessel.
13. There is no Pilot at Umuda Station, you have to pilot your vessel alongside "Karabi". We normally berth vessels on flood tide and heading into the wind. However, if the wind is not too strong, we may ask you to berth with wind astern, always heading into the tide. we may also ask you to berth at night, if conditions are favourable, subject to the Master of "Karabi" and yourself being in agreement. The tides can be very strong, at times running at 3 – 5 knots.
14. Do NOT (unless in an emergency) drop your anchor approaching "Karabi". It will only give you serious manoeuvring problems, resulting in you possibly striking the Terminal Ship.
15. Approach "Karabi" on almost parallel heading, either approximately 140°T on flood tide, or 315°/320°T on ebb tide. Stay well clear of "Karabi" when approaching. If you come too close to the stern area, the wind and current will set you down, bearing in mind your vessel is in ballast and will be prone to leeway.
16. When sufficiently close, "Karabi" will fire a rocket line to your vessel's foc'sle with a messenger rope attached. Heave these lines on board and attach your mooring lines (two headlines if possible) to the messenger rope. Please ensure that your ropes are prepared, your winches are professionally manned and heaving lines ready and available. Speedy and efficient making fast of these two head lines is of utmost importance. The aft spring is next, and then later we will double up on this aft spring, as it and the headlines take all the weight of your ship against the current and wind. Again, the "Karabi" will NOT handle wires or nylon ropes.
17. If at all possible, all ropes should go through your Panama leads (not roller leads), otherwise when your vessel is loaded, and your freeboard is much less than the "Karabi" freeboard, your ropes may jump off the roller leads, resulting in damage to your ship's structure, or breaking the lines, causing your vessel to part from the Terminal Ship.
18. Unberthing:
    Please take careful note of the following paragraphs relating to unberthing of your vessel:
    Recently there have been two potentially serious incidents during the unberthing operations. The "Karabi" suffered minor damage, but the anchor chain was at great risk of being cut. *Both export vessels suffered extensive damage.*
    The incidents were identical in nature, and these guidance notes are offered in an attempt to ensure it will not happen again.
    When proceeding to unberth from the "Karabi", it is normal to single up to 2 head lines forward and 1 or 2 back springs aft. The two headlines are let go and the bow allowed to separate from "Karabi's" bow prior to kicking ahead on your engines and letting the back springs(s) go. Patience and calm is of the essence to accomplish a proper separation.
    It is absolutely essential that the bows separate before going ahead on your engines.
    If you go ahead without this separation having taken place and whilst still in contact without fenders, you will just take us with you and as our anchor cable draws tight astern, it will keep us pressed firmly together. The inevitable result being that as you gradually draw ahead, you will take a sheer to port across our bow and your bridge wing area will impact on the break of our foc'sle head with the additional grave risk of fouling your propeller/rudder on our anchor cable.
    The tide is sufficiently strong to virtually guarantee that this separation will take place with little problem, providing no attempt is made to depart while the vessel is swinging to the change of tide. We recommend that you should wait about an hour after the swing before departing, in order to allow the tide to gain sufficient velocity to guarantee the separation.
    Once separated from the "Karabi", keep a good distance off and in case of need, avoid crossing the "Karabi" bow until well ahead of us, bearing in mind that the tide will set your vessel down towards the "Karabi" and her anchor chain.

Other:

19. Trimming Cargo:
    On completion of loading of each of your holds, we will, if required, do utmost to trim the top off the cargo using our grabs. To assist us in this, we suggest that when about 300 tonnes balance remain to be loaded in that hold, your Duty Officer directs these last approximate 30 grabs to whatever area of the hold they are required, e.g. forward/aft, port/starboard. If after loading any further trimming is required, your Duty Officer is required to stand-by at that hatch and direct our crane driver accordingly, or pass the information to our Desk Officer by VHF who will inform the crane driver.
20. Deballasting:
    Please consult the Master of "Karabi" before you commence pumping out ballast tanks. We may require limited air draft on your vessel to permit us to reach the offside of your hatches.
21. Engine Readiness:
    Please ensure that whilst alongside "Karabi", your main engine is kept at readiness for use at 15 minutes notice or less. Should this be impracticable, or should you wish to carry out maintainance work on the main engine, kindly consult with the Master of "Karabi".
22. VHF Communication:
    We keep VHF watch on Channel 12 if you or your Officers wish to communicate with "Karabi's" Master, Deck Officer or the Ok Tedi Terminal Supervisor.
23. Agency:
    A Papua New Guinea Customs Official remains on board your vessel throughout your stay. Please provide him with suitable cabin and board. He will sign the Loading Manifest on completion of loading, sight the Bills of Lading prior to you signing, and give you Port Clearance. The Terminal Supervisor handles all Agency matters, inwards/outwards, cargo documents and assists the "Karabi" Master in your vessel loading. Do not hesitate to call on the Supervisor for assistance in any Agency matter. It should be noted, however, that in addition to the Pilots and tugs not being available, there are no services such as provisioning, fresh water, bunkers, crew changes, medical, mail, telex, fax, available at "Karabi".
24. Fishing Lines:
    The Master of "Karabi" insists that no fishing lines are permitted between the two vessels. Fishing from our vessel's starboard side may take place only. The "Karabi" fenders have on occasions been found coated with fishing lines and hooks, resulting in damage and collapse of fenders, with repair bills running into thousands of dollars. If any of your crew members are seen fishing, we have to advise you that photographs (film dated) will be taken, and your Owners will be put on Notice by Owners of "Karabi", holding you responsible for any damage to the fenders and cost of repairs to same for your Owner's account.
25. Radio Silence:
    Due to heavy traffic in the Fly River area, you are requested to keep Radio Silence (unless in an emergency) between 0800 hrs. – 1000 hrs. and 1500 hrs. – 1800 hrs., to facilitate communication between river vessels and the Mine Operation Centres.
26. Progress of Loading:
    The amount of cargo loaded at any time can be read off our loading computer and passed to you. These figures are in any case passed to you daily at 0700 hrs. and 1800 hrs. Subject to weather conditions, loading time is of course depending on the amount of cargo your vessel is loading. However, as a rule, an average of 175 tonnes per crane per hour is obtainable, with faster loading in the early stages and slowing down towards the end of the loading. If any queries, you are welcome to contact the undersigned. In the meantime, we wish you a pleasant stay in Papua New Guinea.

Signed:
Terminal Supervisor
Ok Tedi Mining Limited.

VANIMO: 02.41 S. 141.18 E. **(See Plan)**

(See General Section on Papua New Guinea Ports).

PILOTAGE: Pilotage not compulsory. Pilot available from Madang on request at 48 hours notice. Pilot Boarding Place: Lat. 2° 39' S., Long. 141° 18' E.
HEALTH: Quarantine Officer Tel: 87 1210. Health Officer Tel: 87 1196.
VHF: Call Vanimo Port Control on VHF 16 and 12. Listening watch maintained during working hours and when ships are expected during non-working hours.
TUGS: None available.
BERTHING: *Papua New Guinea Harbours Board:* Position of wharf: Lat. 02° 41.09' S., Long. 141° 17.84' E. Length, 18.7 m. (61.5 ft.); width 6.1 m. (20 ft.). Minimum depth alongside at LAT 4.9 m. (16 ft.). Tidal range 1.6 m.
Vanimo Forest Products: Position of wharf: Lat. 02° 40.85' S., Long. 141° 17.36' E. Length 75 m. Storage 3,000 sq.m. Minimum depth 8.00 m. Max. draft 7.5 m. Contact: General Manager, P.O.Box 41, Vanimo. Tel: 87 1018.
FRESH WATER: Not available to ships.
FUEL: Distillate available by road tanker. Supplier: Mobil Oil (NG) Ltd. Tel: 87 1221.
CUSTOMS: Port of Entry. Collector of Customs Tel: 87 1192.
POLICE/AMBULANCE/FIRE: Police Tel: 87 1022. Ambulance: 87 1080.
GENERAL: *Storage:* 1 Shed – 135 sq.m.
Chart: AUS 389.
AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 71, Vanimo, Papua New Guinea. *Tel:* 87-1024. *FAX:* 87-1024. *Cables:* Portman, Vanimo. *Contact:* Port Manager.

WEWAK: 03.34 S. 143.39 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary.

From Wewak Point by a straight line due North for 2,900 m. thence by a straight line due East for 3,725 m. thence by a straight line due South for 4,780 m. to a point 800 m. due East of Cape Boram, thence to Cape Boram.

PILOTAGE: Pilotage is not compulsory but a Pilot will attend from Madang if given 48 hours notice of the ship's intention to call at Wewak.

Pilot Boarding Ground: Lat. 3° 32' S., Long. 143° 39.4' E.

ETA to be sent not less than 12 hours prior to arrival via Port Moresby Radio (P2M) or Rabaul Radio (P2R) and to be confirmed not more than 5 hours and not less than 4 hours prior to arrival.

ANCHORAGE: There are no recommended anchorage areas for large vessels in the vicinity of Wewak.

HEALTH: Quarantine Officer Tel: 86 2586. Health Officer Tel: 86 2166.

VHF: Call Wewak Port Control on VHF Channels 16, 12, 6. Listening watch maintained during working hours and when ships expected during non-working hours.

TUGS: None available.

BERTHING: Overseas Wharf is 73.1 m. long, height of face above LAT is 3.5 m., min. depth of face at LAT is 6.7 m. Tidal range 1.3 m.

Vessels may berth port side to only.

Load/discharge is by ship's own gear.

Berthing may be delayed during the N.W. season December – March.

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required.

Working Hours: Day shift: 0800 – 1200, 1300 – 1600. Evening shift: 1600 – 1900, 2000 – 2400. 2 hours extension to finish possible.

Licenced Stevedores: Sepik Coastal Agencies, P.O. Box 118, Wewak. Tel: 86 2464. Kreer Development Corp.Ltd., P.O.Box 695, Wewak. Tel: 86-2869.

TANKERS: No overseas discharge or bunkering facility exists.

FRESH WATER: Not available.

FUEL: Diesel available from road tankers. Suppliers: Mobil and Shell.

CUSTOMS: Port of Entry. Collector of Customs Tel: 86 2591.

AIRPORT: Wewak Airport is 5 km. from the port and is served regularly by Air Nuigini.

POLICE/AMBULANCE/FIRE: Police: 86 2222. Ambulance: 86 2166. Fire: 86 2122.

DELAYS: Delays at Wewak are unlikely but if they do occur are of short duration.

GENERAL: *Storage:* Covered Storage: 2,200 sq.m.

Open Storage: 11,500 sq.m.

Chart: AUS 651.

DEVELOPMENTS: The port development plan which is unlikely to take effect for a few years, calls for a land backed facility off the causeway joining the land to the existing wharf.

AUTHORITY: Port Manager, P.O.Box 270, Wewak, Papua New Guinea. *Tel:* 86 2298. *FAX:* 86-2506. *Cables:* Portman, Wewak.

NOTES

Please also advise Shipping Guides Ltd.

Paraguay

GENERAL:

DOCUMENTS: *Consular Documents:*

If ports of embarkation are non-Paraguayan, the Agency must submit an original Cargo Manifest and two copies, as well as three copies of the Crew List to the Paraguayan Consulate. The Consul returns the original and one copy of each of these documents, and the Agency must ensure that these papers are mailed, time permitting, or delivered to the vessel.

Prior to Arrival:

Arrival Notice:

The time and date of the vessel's arrival shall be reported at least 24 hours in advance to the following Authorities: Port Authority (National Navigation and Port Administration), the General Prefecture of Ports (National Navy), Customs, Migration, and Maritime Health.

Information on Cargo for the Port:

The shipping Agency must receive duly in advance the following documents for presentation to the Authorities and for the preparation of the tally books: Cargo Manifest and Stowage Plan. It is of the utmost importance that manifests be received duly in advance, even if by telex, to avoid any delay in servicing the vessel.

The manifests and a written request that may be submitted 72 hours prior to the arrival of the vessel, must be delivered to Customs. Customs opens a Customs file and allocates a number to the vessel to expedite the processing of the import documents.

Requests for Port Services:

A request must be submitted to ANNP, indicating the expected time of arrival (ETA) of the vessel, to obtain clearance for berthing and port services. 5 copies of the manifests giving the number assigned by Customs to the vessel and 1 copy of the Stowage Plan must be presented, as well as copies of the tally books, and a list of container contents.

In the absence of manifests, clearance for berthing will not be given and, therefore, the cargo cannot be handled.

On Arrival:

Type of Document	*Number and Distribution of Documents*						
Basic Forms	*Gen. Pref. Ports*	*Customs*	*Immi-gration*	*Marit. Health*	*Veterin-arian†*	*Agency*	*Total*
1. General Declaration(a)	1	–	–	–	–	1	2
2. Cargo Manifest	1(b)	1(b)	–	–	1	1	4
3. Crew List	1(b)	1(b)	1	–	–	1	4
4. Passenger List	1	1	1	–	–	1	4
5. Ship's Stores List	–	1	–	–	1	2	4
6. Crew Effects Declaration	–	1	–	–	–	1	2
7. Maritime Declaration of Health	–	–	–	1	–	–	1
8. Mail List	–	–	–	–	–	1(c)	1
Additional Documents:							
9. In-ballast Declaration	1	1(b)	–	–	–	1	3
10. Bills of Lading	1	1(b)	–	–	–	1	3

†Transitory provision of the Ministry of Agriculture, of November 1978.

(a) If the vessel has the forms, LAFTA/OAS Form 1 should be employed; if not, Agencies use their own form, containing data on 1 through 10 and 11A of the General Declaration.

(b) Visaed by the Consulate of Paraguay.

(c) For the Postal service.

Prior to Departure:

A Departure Request must be filed with Customs, to which the Export Cargo Manifest and the Provisional Export Permit must be attached. This procedure cannot be started until the entire cargo has been loaded.

After this request has been recorded by the Registration Division and the Cashier's Office, the Customs Administration issues the safe-conduct for departure.

Once the safe-conduct is obtained from Customs, this is attached to the Crew List and submitted to the General Prefecture of Ports, which authorises clearance, and designates the Pilots who are to guide the ship on the stretch Asuncion-Confluencia.

NOTES

Please also advise Shipping Guides Ltd.

Peru

GENERAL:

FLAG: The Peruvian Flag must be hoisted at all times whilst vessel is in Peruvian Waters until time of leaving Peruvian Waters.

DOCUMENTS:

Prior to Arrival:

Arrival Notice:

Notice of a vessel's arrival must be sent 24 hours in advance to the Captain of the Port, Customs, International Police, Migration and Public Health.

Information on Cargo and Passengers for the Port:

The Agency must have received the following documents by air, sufficiently in advance to submit them by the deadlines indicated in the following paragraph, and to prepare the tally sheets:

5 sets Cargo Manifest.
2 sets Freighted Cargo Manifest.
1 copy Passenger List.
6 copies List of Container Contents.
5 copies Dangerous Cargo List.
2 copies List of In-Transit Dangerous Cargo.
2 copies Stowage Plan.

Deadlines for Submission of Documents:

(a) Vessels from South American and Pacific coast ports are exempt from submitting documents by air mail in advance. However, the Agency must receive by telex, in sufficient time to prepare and submit before initiating tally sheet operations, the following information on regional cargo: marks, numbers, amount, class and weight of cargo, its location on board, shipper and consignee.
(b) Vessels from Panama and Colombian ports on the Atlantic. 24 hours before the vessel's arrival. Fine for failure to comply with the deadline.
(c) Vessels from Central American ports. 48 hours before the vessel's arrival. Fine for failure to meet the deadline.
(d) Vessels from any other port. 72 hours before the vessel's arrival. Fine for failure to meet the deadline.

Request for Port Services:

24 hours before the vessel's arrival, the request for pilotage and berthing, and port services shall be submitted to the marine terminal of the Peruvian National Ports Agency (ENAPU) on special forms.

On Arrival:

On entrance of the vessel, the following documents must be submitted:

Type of Document	*Number and Distribution of Documents*						
Basic Forms	*Captain of Port*	*Customs*	*ENAPU*	*Police*	*Migration*	*Public Health*	*Total*
1. General Declaration	1	2	2	–	–	–	5
2. Cargo Manifest	1	2	4	–	–	–	7
3. Crew List	1	2	–	1	1	1	6
4. Passenger List	1	2	2	1	1	1	8
5. Ship's Stores List	–	2	1	–	–	–	3
6. Crew Effects Declaration	–	2	–	–	–	–	2
7. Maritime Health Declaration	–	–	–	–	–	1	1
8. Mail List	–	2	2	–	–	–	4
Additional Documents:							
9. Clearance from last Port	1	–	–	–	–	–	1
10. In-transit manifest	1	1	–	–	–	–	2
11. "No Passengers" Declaration	1	2	2	1	1	1	8
12. List of Passengers In-transit or "No In- transit Passengers" Declaration	1	2	2	1	1	1	8
13. List of Passengers Baggage or "No Baggage" Declaration	–	4	4	–	–	–	8
14. List of unaccompanied Baggage or "No unaccompanied Baggage" Declaration	–	4	4	–	–	8	16
15. Bill of Lading	–	1	2	–	–	–	3

Prior to Departure:

Clearance Documents:

The Clearance Permit must be duly paid for at the Bank of the Nation. Receipts therefore must accompany the request for clearance.

The Clearance Permit is requested from the Captain of the Port on a special form in triplicate, accompanied by 3 sets of the General Declaration, the Crew List and the List of Passengers on board, In-Transit or "No Passengers" Declaration.

At the time of clearance, a representative of the Captain of the Port returns on board a stamped set of these documents.

In addition, the following must be submitted before clearance:

Documents:

	ENAPU	*Migration*
Crew List		1
List of Passengers Embarked or "No Passengers" Declaration	1	
List of Passengers Baggage or "No Baggage" Declaration	1	
Bill of Lading for all cargo loaded	2 sets	

Within 24 hours after clearance, Customs must be given a copy of the Export Cargo Manifest or a set of the Bills of Lading for all export cargo.

Request for Pilotage:

Requests for unberthing, including the request for pilotage shall be submitted daily at 1500 hrs. to the ENAPU on a special form.

SHIP REPORTING: The following was received from a ship's agent in November 1991.

POSITION AND SAFETY INFORMATION SYSTEM IN PERUVIAN WATERS:

National and foreign merchant and fishing ships of more than 1,000 g.r.t., are obligated to report their positions by radio to Coast Guard General Director, via Peruvian Coast Stations of Paita, Mollendo or Callao, if they enter, stay or depart from Peruvian waters. The nonfulfillment of this procedure is subject to fines up to U.S.$5,000.

Peruvian Water Boundaries:

Northern: Lat. 03° 25' S.
Southern: Lat. 18° 20' S.
Western: 200 nautical miles offshore.

Structure of Message Information:

Message Identification: SHIPREP.

Model:

A. A group of two or three letters.
"EPW" (Entrance notification into Peruvian waters).
"PR" (Notification of position).
"FR" (Final notification).
"DPW" (Sailing out of Peruvian waters notification).
B. Vessel name, call sign and nationality.
C. Date and local time, a group of 6 figures to indicate the day of the month (first 2 figures), hour and minutes (last four figures).
D. Situation, port of origin.
E. Position, a group of 4 figures to indicate the Latitude in degrees and minutes, with the 'N' or 'S' suffix and a group of 5 figures to indicate the Longitude in degrees and minutes with the suffix 'E' or 'W'.
F. Course, a group of 3 figures.
G. Speed, a group of 2 figures.
H. Port of destination.
I. ETA at port of destination, a group of 6 figures, to indicate the day (first 2 figures) and to indicate the hours and minutes (last 4 figures).

Model Examples: All messages have to be sent to: "Director General de Capitanias y Guardacostas".

1st Case:

EPW Information on Entrance to Peruvian Waters that the vessel must send at the moment of entering Peruvian waters.
SHIPREP/A/B/C/D/E/F/G/H/I.
Example:
SHIPREP / EPW / Smederevo – YTJ6 – Yugoslav / 281257 / Oita – Japan / 10325S – 07750W / 150 / 12 / San Nicolas 300500.

2nd Case:

PR Position Report of the vessel at 0800 hrs. and 2000 hrs. (local time) each day that the vessel is navigating in Peruvian waters.
SHIPREP/A/B/C/E/F/G/H/I.
Example:
SHIPREP / PR / Smederevo – YTJ6 – Yugoslav / 282000 / 10401S – 07730W / 148 / 11 / San Nicolas 300600.

3rd Case:

FR Final Report. Information to be sent one hour before arrival at destination port.
SHIPREP/A/B/C/H.
Example:
SHIPREP / FR / Smederevo – YTJ6 – Yugoslav / 300500 / San Nicolas.

4th Case:

DPW Information on Departure from Peruvian Waters to be sent at the time the vessel leaves Peruvian waters.
SHIPREP/A/B/C/E/H.
Example:
SHIPREP / DPW / Smederevo – YTJ6 – Yugoslav / 030500 / 1820S / Bar – Yugoslavia.

Coastal Station Frequencies: Frequencies to be used to contact Coastal Radio Stations.

Name	*Call Sign*	*Frequencies Transmits (kHz)*	*Frequencies Receives (kHz)*	*Type of Emission*	*Working Hours*
Paita	OBY2	8527	8363.2 – 8366.4	0.1 A1A	24
Radio		2182 – 2738	2182	H.3E/J3E	24
		156.70 MHz	Channel 14 VHF	F3E	24
		156.80 MHz	Channel 16 VHF	F3E	24
Callao	OBC3	460 – 500	500	0.1 A1A	24
Radio		8546	8363.2 – 8366.4	0.1 A1A6	24
		13015.5	12544.8 – 12549.6	A1A	24
		2182 – 2738	2182	H3E/J3E	24
		156.60 MHz	Channel 12 VHF	F3E	24
		156.70 MHz	Channel 14 VHF	F3E	24
		156.80 MHz	Channel 16 VHF	F3E	24
		Telex No.	26069 COASTCAL		
Mollendo	OBF4	8490	8363.2 – 8366.4	0.1 A1A	24
Radio		2182 – 2738	2182	H3E/J3E	24
		156.70 MHz	Channel 14 VHF	F3E	24
		156.80 MHz	Channel 16 VHF	F3E	24

Messages to be addressed to: Director General de Capitanias y Guarda Costas, Telex No. 26071 DICAPI.

Remarks: If the vessel cannot make contact with Paita or Mollendo coastal stations, she can make contact with Callao radio station.

If contact is not made, the Master must submit a detailed written report explaining the causes or reasons why there was no communication with the above coastal stations.

Master's report will be inspected by the Port Captain in order to determine whether there is a responsibility or not.

The radio information has to be transmitted when the vessel is in position or before.

Nonfulfillment of the above regulations will be cause for a fine of U.S.$1,000 to U.S.$5,000. The amount of fine will depend on the Port Captain's office.

Shipmaster's Report: If possible, send messages by telex in order that you may obtain an answerback for photocopy and proof that messages were sent and received.

Also see "Shipmaster's Report".

OFFICIALS: Master must be at gangway to greet authorities. If he is not there, Harbour Master may impose a fine.

HEALTH: Vessels are cleared before entering port.

Ratguards must be in place at all times. Harbour Master will check hourly, and if any ratguards not in position, vessel will be fined.

In 1991, Cholera was a problem (see below).

RADIO: Vessels are to maintain radio contact with the Port Authorities at all times whilst in Peruvian Water, until vessel has left Peruvian Waters.

Cholera: *New Regulations on the Peruvian Coast:*

Please be advised following telex received from Peruvian Port Authorities:

Quote

We are pleased to inform you, that recently the United States Government has detected the "Vibrio Cholera" bacteria in the ballast water of 3 vessels proceeding from Latin American ports, hence U.S.A. has extremed the warning measures in order to avoid the reach of Cholera epidemic at North America coasts. Therefore, the Peruvian Port Authorities, through the Coast Guard, have decided, as from this date on, and for an indefinite time, to forbid the ballasting in Peruvian ports and coast, for all vessels dedicated to the international maritime traffic, being able to make this duty only 12 nautical miles from the coast, registering same in the Deck Log, detailing the starting and finishing time.

Unquote.

The following is a circular letter to Masters from Callao Agent (dated 2nd March 1992):

Re: Vibrio Cholerae

Dear Sir,

We refer to our previous letter on the subject and now transcribe complementary instructions on ballasting and deballasting, as received from the Port Captain today:

(a) Ballasting effected within 12 miles must be deballasted during the transit to the next port of call.

(b) In the event vessel requires to ballast in navigation to the next port, the ballast water obtained at the port from where vessel sailed, must be interchanged in transit, in order that on arrival to that port the tanks may only have water taken 12 miles off the coast.

(c) These tasks should be recorded in the Log Book, indicating date/hour and position at the beginning and completion of same.

Master's Note: It all comes down to recording in the ship's Log Book, where each tank has been ballasted, in order to prove/show that all ballast is from outside the 12 mile zone.

If the vessel has to ballast in or near any port, this is to be changed at sea outside the 12 mile zone, before reaching the next port.

SHIPMASTER'S REPORT: June 1995.

Peruvian Ship Reporting:

Very Important: The first thing the Port Captain asked for was a copy of all messages, and they asked to see the Deck Log Book to see if any entries made there of failed transmissions. Therefore keep a record of everything.

Regulations in ALRS Volume 1, Part 2 (NP.281(2)) now much modified as below.

All messages (June 1995) addressed to "Dicapi Callao" via Telex numbers: 00 36 26069 (Answerback PE Costcal) main number; 00 36 20143 reserve number.

All messages reached their destination via one of the above numbers within 5 minutes of transmission. Problem was you never know which number will get through. As a result, all messages were sent to both numbers, it was sometimes several hours before any "unsuccessful" message was received. Also a good idea to copy message to the Agents as they asked for a copy by Fax later.

Shiprep Peruvian Reporting System
Directorial Resolution No. 0313-94/DCG.
In force from 2nd October 1994.

Messages to be sent to Admiral Director of Port Captaincies (Dicapi) through Peruvian coastal stations.

Format of messages:

EPW Entering Peruvian Waters.

Shiprep / EPW / name of vessel / call sign / flag / date and time entering Peruvian Waters / last port / latitude / longitude / course / speed / next port of call / ETA / route to be followed / agency name.

DR Change of Route Report (only to correct any report):

Shiprep / DR / name of vessel / call sign / flag / date and time of change of route etc. / latitude / longitude / course / speed / next port of call / ETA / route to be followed / agency name / reason for change.

FR Final Report (to be sent on arrival destination):

Shiprep / FR / name of vessel / call sign / flag / date and time of arrival destination port / destination port.

SP Sailing Plan (Can only be submitted via Agents on special forms prior to departure from port) comprises:

Shiprep / SP / name of vessel / call sign / flag / port of departure / date and time departure / initial course / speed / next port / ETA / route to be followed with times at waypoints.

DPW Departure from Peruvian Waters:

Shiprep / DPW / name of vessel / call sign / flag / date and time departure Peruvian Waters / latitude / longitude / next port of call / ETA.

Callao Port Captaincy – Circular V.200-246
Date 3rd February 1995.

(A) A one and only set of sailing tracks is stabilised for every merchant vessel, according to the following points:

Point	Latitude	Longitude
A	03° 25' S.	82° 00' W.
B	07° 00' S.	81° 40' W.
C	12° 00' S.	78° 00' W.
D	14° 15' S.	77° 10' W.
E	16° 00' S.	75° 45' W.
F	18° 21' S.	72° 00' W.

(B) On departing a port, the vessel will sail on heading true course 270° up to the point where the track crosses the above route, when she will then follow the above route.

(C) On arriving at the port, the vessel shall deviate from the route in Para (A) once she is abeam of the port, heading on true course 090°.

Master's Note: By following the above, it is no longer necessary to report in every 12 hours as was the case previously.

Callao Port Captaincy – Circular V.200-431.
Dated 9th March 1995.

(A) Vessels with foreign flags navigating in Peruvian Waters as from parallel 10° towards the South can transit using their usual commercial route of navigation as per their shipowners instructions.

(B) As from parallel 10° towards the North (Lat. 10° 00' S., Long. 79° 30' W.), vessels will follow the route indicated in Para (A) of Circular Letter V.200-246, dated 3rd February 1995 (See above).

Master's Note: June 1995, checked the meaning of the above with Coast Guard Callao. It applies only to vessels *not* calling at a Peruvian port, i.e. in transit through Peruvian Waters, and those vessels must still comply with the earlier reporting requirements, i.e. Directorial Res. 0313-94/DCG (above). Any vessel calling at a Peruvian port must follow the recommended track, as per Circular Letter V.200-246 (above).

Further Important Points to remember:

At least 72 hours prior to arrival in Peru, Agents must receive a copy of cargo documentation (Including Cargo and Freight Manifests), Crew List and a copy of Tonnage Certificate, so that it can be visaed. As mail in and out of Peru unpredictable, we arranged for the Panama Canal Agents to send the details to Agent in Lima by Fax during our Canal transit. Although Peru Regulations require originals, everybody was happy with the faxed copies.

Vessels must contact "Tramar" at port of arrival by VHF, when 20 miles off, giving ETA, etc. Local language is Spanish, and officially all communication must be in Spanish. If nobody can speak Spanish, then vessel supposed to use abbreviations in "Manual for Use of the Maritime Mobile Services by Satellite", issued by the International Communications Union.

At Callao – Station answered in English, so no problems there.

At Matarani/Mollendo – Station answered in Spanish, attempts to communicate using above abbreviations totally impossible, and eventually someone who could speak English was called to the Port Control ashore.

Keep a comprehensive record in the Bridge Movement Book of all calls made to any Peruvian Station, both successful and unsuccessful calls. This can be inspected by Port Authorities.

Vessel's speed when within 4 miles of a Port Control area to be not more than 5 knots.

Master must meet the Port Captain at the gangway. This was closest we got to being fined, as I met him when he had already stepped on board.

Rat guards must be marked with ship's name and fitted to all mooring lines.

Even if vessel already received Free Pratique and Clearance at a Peruvian port, it is necessary to apply for it at each subsequent port, so the "Q" flag must be flown on arrival at all ports, and at night a red light over a white light must be shown.

Flag "P" must be flown on day of departure.

Failure to comply with any Peruvian requirements can attract heavy fines, for example, failure to comply with Shiprep requirements can result in fines of up to US.$20,000.00 and failure to use rat guards U.S.$200.00 per unprotected mooring line.

SHIPMASTER'S REPORT: August 1996.

Fishmeal loading from Peruvian and Chilean Ports: Fishmeal is the principal export of Peru. Until a few years ago, Chile was the single largest exporter of fishmeal, but it its said that Peru now has the distinct honour of being No. 1, exporting about 10 million tonnes of processed fishmeal annually.

Fishmeal is usually shipped in polypropylene bags of 50 kg., but is sometimes loaded in bulk (by bleeding bag method). The fishmeal is categorised as Class 9 of IMDG, and poses a fire hazard due to its self-heating property.

Prior to loading fishmeal in bags, it is necessary to have the hatches well cleaned which are then surveyed by the shippers' surveyors. Dunnage is laid fore and aft (2 in. × 3 in.) and flat dunnage athwartships (on top of fore and aft dunnage). On the extreme ship's sides, if there are no cargo battens, flat dunnage is laid vertically to prevent the bags coming into direct contact with frames. Kraft paper is laid on all bare steel.

Special precautions are taken to have a distance of 30 cm. – 40 cm. between the cargo and engine room bulkhead. Greater clearance may cause the cargo to lean/collapse against the bulkhead. Flat dunnage is laid in a fore and aft direction against the engine room bulkhead every 3 tiers of bag fishmeal and continue doing so as cargo is built up.

There are 2 methods of stowing fishmeal which depend upon the requirements of the consignee at discharge ports. Usually for South African ports (and possibly for some other places), the bags are stowed in blocks with ventilation channels. We loaded for Constanza, Bourgas, Izmir and Bandirma, which required compact stowage (no ventilation channel). The processed fishmeal is in powder form with anti-oxidant added to minimise the risk of self-heating, giving rise to combustion. It is said that in order to have a good effect of anti-oxidant, the cargo should be stowed tight, so as to minimise trapping of oxygen between the bags which tends to "eat away" the anti-oxidant. No natural or mechanical ventilation should be carried out during the transit period on board.

In order to monitor the temperature of the cargo in every hatch and at different heights, bi-metal sensing wires are individually numbered and placed at 6 different locations for every 300 tons of cargo. These wires are then connected to a control unit which has a graduated rotating knob and is sequentially numbered. An electronic portable, battery operated thermo-couple thermometer is plugged in to the unit, and temperature readings of each sensor are displayed digitally on the thermometer. As the control knob is rotated, the temperature reading from various sensors are taken, and a proper log is maintained for every point of each hatch. These readings are taken three times a day. If the temperature of one or more sensor reaches 55°C, it should be assumed that self-heating of cargo in that region has increased to the maximum safe level, and hence CO_2 should be discharged in that particular hatch until the temperature of the cargo falls down due to cooling effect of CO_2 and expulsion of oxygen. However, this may need quite some time before significant cooling becomes noticeable. Under no circumstances should the concerned hatch be opened or ventilated during transit. There is a possibility of cargo being damaged due to self-heating/combustion, necessary fire precautions must be taken in comformity with local regulations at port of discharge before opening the affected hatch.

Before commencement of loading, the shippers provide a Pre-Shipment Certificate from a recognised laboratory which states the moisture and fat content, and also certifies that the analysis has been performed in accordance with the AOAC (Association of Analytical Chemistry) and conforms with the prescribed limit set by IMO regulations for IMDG Class 9 cargo. All the bags are marked with a red circle of 5 in. diameter, probably to indicate random laboratory analysis of the lot has been done and found to conform with the regulations. Bagged fishmeal was stowed at 1.55 – 1.59 cu.m./ton on this vessel.

It is necessary to ensure that on completion of loading, the hatches are fumigated by the shippers, and thereafter all the hatches are battened down properly, all ventilator doors and any other openings properly closed to prevent any free access of oxygen/air. No hot work should be done on deck during the period the cargo is on board.

This report is written in good faith to assist anyone who may be keen to know about the way fishmeal is loaded.

ATICO: 16.14 S. 73.43 W.

Atico is an open roadstead and unprotected. The main activity is the loading of fishmeal.

PILOTAGE: Not available.

ANCHORAGE: Vessels anchor in the open roads.

TUGS: 1 available.

LIGHTERS: 3 available, 100 tons each.

CRANES: None.

STEVEDORES: See "Pimentel" for working hours and overtime rates. There are 2 gangs available.

MEDICAL: Available at Mollendo.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: *Swell Period:* Heavy swell in the Winter months, June-September.

CALLAO: 12.03 S. 77.10 W. (See Plan)

PILOTAGE: Compulsory. 24 hours advance notice of ETA required. Pilot boards at anchorage after vessel has been granted Free Pratique. Various pilot launches painted white, black and red.

RESTRICTIONS: Vessels of up to 32 ft. draft may enter at any time. Vessels of more than 32 ft. draft must enter at high water. Pilots available 24 hours.

MAX. SIZE: Length and breadth practically unlimited, draft 32 ft. plus height of tide making allowance for keel clearance.

HEALTH: Cable Agent requesting Free Pratique. Agent must be notified in advance if any illness or disease suspected on board. Free Pratique is hardly ever given unless Health Officer and Captain of the Port and other Officers board.

Also see "General" – "Health" before first port.

DOCUMENTS:

Airmail copies must be presented to Port Authorities 72 hours before arrival of vessel as otherwise vessel will be fined. No docking is allowed until Cargo Manifests and Cargo Plan are presented.

Vessel copies to be delivered on clearing vessel inbound on arrival when Health, Customs and other Authorities board.

	By Air	*By Sea (With the Vessel)*
Cargo Manifests, including additionals. Must be faithful copies of Bills of Lading descriptions	5	7
Same Manifests, but freighted	5	2
Cargo Manifests covering cargo shortshipped but manifested on previous vessels calling at Callao	5	7
(If Master Stencils are airmailed, the required number of Manifests will be printed)		
Transit Cargo Manifests	–	3
Freighted copy of each Bill of Lading	–	4
Lists of Containers with their numbers	2	2
Content List, each Container, properly identified with marks, numbers and Bills of Lading numbers	2	2
Dangerous Cargo Lists showing complete description of goods, Flash Point, IMO Classification, Type of Label, marks, numbers and Bills of Lading numbers	3	3
Transit Dangerous Cargo Lists	3	3
Mail Manifests	5	5
Passenger Lists	1	10
Transit Passenger Lists	–	10
Tally Books	–	16
Stowage Plan	3	–
Consolidated Stowage Plan, prepared or checked on board	–	3
Visaed Tonnage Certificate or General Declaration from First Port receiving cargo for Peru and every port of call thereafter	–	1
Health Clearance, last port of call	–	1
Vaccination List	–	1
General Declaration	–	7
Crew List	–	10
Crew Personal Effects Declaration	–	3
Stores List	–	4
Sealed Consular Documents addressed to Customers, in envelope	–	1

Also see "General" before first port.

Shipmaster's Report: September 1991.

The following documents should be presented to Authorities on arrival:

	Total	Presented by Agents
General Declaration		5
Cargo Manifest	2	5
Cargo in Transit Manifest	2	
"IMO Cargo" Manifest	2	
"IMO Cargo" in Transit Manifest	2	
Crew List	10	
Passenger List or "Nil" Declaration	2	
List of Passenger in Transit or "Nil Declaration	2	
Ship Stores List (including radios, refrigerators, etc.)	3	
Crew Effects Declaration	3	
List of Passengers Baggage or "Nil" Declaration		
List of unaccompanied Baggage or "Nil" Declaration		
Maritime Health Declaration	1	
Vaccination List	2	
Mail List or "Nil" Declaration	1	
List of Arms and Ammunition or "Nil" Declaration	1	
List of Animals or "Nil" Declaration	2	
Ports of Call List (last 30 days)	1	
Last Port Clearance	1	

Before sailing, 3 copies of "Sailing Plan" have to be presented to Authorities.

ANCHORAGE: Very large area to the West of entrance buoys.

Shipmaster's Report: December 1988.

The following is part of the telex received with the above ("SHIP REPORTING").

Re: Port of Callao

The Port Captaincy of Callao has appointed the following official anchorage places for arriving vessels:

	Latitude:	Longitude	
1.	12° 02' 00.0" S.	77° 11' 49.5" W.	(These are the corner
2.	12° 02' 11.3" S.	77° 10' 41.5" W.	points of Anchorage "A",
3.	12° 01' 10.0" S.	77° 11' 41.5" W.	as per B.A. Chart
4.	12° 01' 21.0" S.	77° 10' 33.5" W.	No. 1853)

NON-FULFILLMENT OF THESE INSTRUCTIONS WILL RESULT IN A HEAVY FINE.

RADIO: Radio Costera, OBC3, 460, 500, 8546, VHF 16 and 14 (Peruvian Navy 24 hours).

Arrival Advice: 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.

Shipowner's Report: October 1982.

Please note there is a new regulation for vessels calling Callao. All ships must send 1 hour prior to arrival at Callao Roads a telegram addressed to "Costera Callao" indicating their revised ETA. If this is not done and Authority gets notice of this, vessel will be fined (A copy of this telex is to be produced when vessel is being cleared at the anchorage).

As per experience this telegram arrives at "Costera Callao" after vessel has departed. Sometimes Authority asks for presentation of telegram copy.

Radio Officer's Report: September 1982.

During a recent call at Callao and Pisco at the beginning of September 1982, only slight difficulties were experienced in establishing radio contact with Callao Radio – OBC3.

However, Callao Radio seems mostly to be listening only on 8364 kHz HF, answering calls on its working frequency 8546 kHz. Also the station seems to be using "QRY-operation". Ships' radio operator will get his turn number, whereafter Callao Radio calls back in due time for QSO.

Even at a very close range, no answer was obtained on 500 kHz. However, a call on VHF Channel 16 was answered at once, and vessel was advised to shift to the above mentioned HF frequency for QSO.

VHF: Port Captain on Channel 16. Working on Channel 12. All communications carried out in Spanish.

TUGS: Port Authority Tugs join vessel once inside mole, 1 or 2 as required, using vessel's lines, later passed to pier. 4 tugs available; 2 at 175 h.p., 1 at 500 h.p. and 1 at 800 h.p.

BERTHING: There are 9 piers with a total of 24 berths, 22 for large vessels, and 2 for coasters.

The various berths of the port can be subdivided into areas for their appropriate usage as follows:

	Quays	*Berths*
General cargo	1, 2, 3, 4, 5	1A, 1B, 2A, 2B, 3A, 3B, 4A, 5A, 4B.
Dry bulk cargo	11, 9	11A, 11B, 11C, 9A, 9B, 9C.
Liquid bulk cargo (Oil derivates)	7	7A, 7B.
Minerals	5	5B, 5C, 5D, 5F.
Logistic supplies and coastal vessels	9, 10	9D, 10A, 10B.

All piers except the petrol pier are connected to railway system for unloading and loading to railway wagons.

Within port limits anchorages can be used for discharge of livestock, scrap and occasionally for general cargo after permission obtained from the Port Authorities.

Berths 5B, 5C, 5D and 5E are equipped with conveyor belts for shipping granulated bulk ore.

Berths 9A, 9B and 9C have a conveyor belt for shipping fishmeal in pellets.

For discharge of grain, there are three pneumatic mobile suction towers and silos with a capacity up to 23,000 tons. The average rate of discharge of the pneumatic towers is 2×100/150 t.p.h. and 1×300 t.p.h.

STEVEDORES: No particular advice necessary but Agent must receive Stowage Plan beforehand to advise Port Authority of planned operation.

Working Hours: 1st shift 0700 – 1200 hrs. and 1300 – 1600 hrs. 2nd shift 1700 – 2400 hrs. Both are compulsory, except 2nd shift on Sundays and Holidays. 3rd shift 0100 – 0700 hrs., optional, except after Sundays and Holidays when not worked. There is an additional charge of 25% for the 3rd shift.

Lighters: In the port, a lighter service is provided by private concerns to enable vessels to discharge at moorings, and thus reduce the time they are at the quays.

CRANES: There are a number of cranes with lifting capacity from 4 tons to 50 tons. The Callao Naval Base has a floating crane with a lifting capacity of 80 tons, which can be called upon if necessary.

MEDICAL: Advance information as to sick crew members not required but helpful. Ample first class facilities in the Lima area.

TANKERS: Petroleum Pier: Pier No. 7: Max. depth 35 ft., however, depth in approaches to berth is 33 ft. at HW and 31 ft. at LW,max. length about 200 m.

There are numerous loading and discharge pipelines of different diameter to handle oil derived products.

These lines can be used simultaneously at the Berths A and B, but also depending on store facilities on shore or delivery into trucks.

Discharging pressure of the lines: 100 lb./sq.in. for 12 in. to 22 in. lines. On the pipeline of 6 inches it is possible to reach a pressure of 250 lb./sq.in., for discharge of LPG.

Connections: There are connections from 4 in. to 10 in. for all kind of flanges.

Water: Supply of water is possible, 40 t.p.h.

Discharge of ballast or slops inside mole prohibited. Tankers loading fish oil must arrive free of ballast.

DENSITY: Sea water.

FRESH WATER: Available at Oil Pier No. 7 only. Cost U.S.$ 3.14 per cu.m.

FUEL: Available from Petroleos del Peru in an emergency only. Arrangements take a long time and cost is high.

FIRE PRECAUTIONS: Use of Port Authority Fire Equipment mandatory during discharge of petroleum products with charge for service. Safety equipment charge applied to all vessels on tonnage moved.

CONSULS:

Argentina
Austria
Belgium
Bolivia
Brazil
Canada
China
Colombia
Costa Rica
Denmark
Dominican Republic
Ecuador
Egypt
El Salvador
Finland
France
Germany
Greece
Guatemala
Haiti
Honduras
India
Israel
Italy
Japan
Jordan
Lebanon
Mexico
Netherlands
Nicaragua
Norway
Panama
Paraguay
Poland
Portugal
Russia
Spain
Sweden
Switzerland
Uruguay
U.K.
U.S.A.
Venezuela
Yugoslavia

REPAIRS: Normal Deck and Engine repair facilities available through private companies in Lima and Callao.

DRY DOCKS: Major repairs can be undertaken by the Naval Industrial Department, including careening and repairs in dock.

(a) Dry dock – length 632 ft., width 82 ft., depth 21 ft.
(b) Floating dock 107 – length 408 ft., width 48 ft., depth 20 ft.
(c) Floating dock 106 – length 288 ft., width 46 ft., depth 14 ft.

SURVEYORS: Lloyd's Register of Shipping, ABS, R.I., and N.V.

GANGWAY/DECK WATCHMEN: Recommended. Ship's crew should supplement the watchman service.

PIRACY: *Report:* October 1990.

The pirates were armed with knives and daggers, and managed to steal various articles such as mooring ropes.

CERTIFICATES: All vessels arriving at Callao must have updated certificates, this refers especially, and as per MARPOL agreement, to Oil Pollution Certificate and Engine Log Book.

If these certificates are not in order, the vessel will be heavily fined. All may be required but normally only the Derat Certificate is asked for. If ratguards are not used on all lines, vessel is liable to fines.

CUSTOMS ALLOWANCES: Any amount over normal consumption usually causes difficulties, including searching.

CARGO GEAR: No additional requirements.

REPATRIATION: All foreign crew members who do not have Peruvian Visas, which only obtainable abroad, must be repatriated by quickest means (Air) by Agent, paying all detention expenses. Peruvian and foreign crew members available.

AIRPORT: Lima/Callao within city limits has regular direct international service North and South America, Europe and Far East.

HOLIDAYS: Only 1st May when work is not possible.

SHORE LEAVE: Permitted.

Officers and crew should not walk alone at night whilst in the city, and should not wear jewelry or carry valuables.

IDENTIFICATION CARDS: Supplied by Agent and stamped by Immigration. Authorisation required for all crew members.

DEVELOPMENTS: Quay No. 5 is being converted to a container terminal.

SHIPMASTER'S REPORT: September 1980.

Navigational Notice: All vessel navigating in Peruvian waters to a distance of 200 nautical miles from the coast are required to radio their position, course, speed and destination every 12 hours to: "Capitania General de Costera y Capitania de Puerto Callao" via Callao Radio, which is very difficult to contact as naval traffic appears to be their main concern. Other coastal radio stations are even less available.

Documents: Cancel all reference to LAFTA documents which are now obsolete and also there is no longer any visaed or consular items to obtain. The requirements for air mailed copies still remains for Bills of Lading, Cargo Manifest and Contents List where applicable. The remaining requirements are the same as listed.

Pilotage: The Pilots boarding station is 1.25 miles 095° from that marked on BA Chart 1853.

Anchorage: Very large area to the North and West of entrance leading line. The area to the South is reserved for Peruvian naval and merchant vessels which navigate therein without lights on occasions.

Restrictions: The maximum draft dictated by the entrance channel is 33 ft. 10 in. (10.30 m.). On occasions with a maximum tide, vessels in excess will be docked but the chances are based upon the Pilot's willingness. With a 3 ft. (1 m.) rise this vessel charted a minimum under keel clearance of 1.3 ft. on a draft of 34 ft. 3 in. within the channel outside the breakwaters.

Density: This was checked daily and found to be 1027.5 to 1028 in Berth No. 11.

Berthing: For discharge of grain there are 3 pneumatic suction towers on rails with 3 suction pipes to each. The two Southern units are reserved for loading road trucks while the third and most Northern discharges onto the silo belt only. Thus delays may be experienced due to lack of trucks and subsequent order of discharge regulated to accommodate this factor. There is a minimum depth of 36 ft. by hand lead at this berth.

Fresh Water: Very early request via Agent and follow up. Max. 10 t.p.h.

Gangway/Deck Watchmen: The strictest watch must be maintained at ALL hours for persons who board to steal. The worst are those whose identity card is for "Tribulante" indicating a seafarer, for they know where most ship's officers stow gear and where the keys to the chartroom are, etc. A patrol is required as well as a static gangway watch. Cargo thieves are very well organised.

Ashore, no person should travel alone in Callao or Lima.

Port Authority Permits: These are required for repairs, overside painting, etc., and a 3 man inspectorate will board to check progress and conditions.

SHIP'S OFFICER'S REPORT: January 1985.

Hull maintenance only possible after permission obtained from Port Captain.

A very extensive cabin search made on sailing day and articles not declared on arrival were taken away (if possible).

The following were not declared on arrival (but should have been declared): Cabin refrigerators, portable cabin heaters, Loadmaster computer.

In our case all charges and fines were waivered after consultations. Therefore if in doubt all items should be declared.

Make sure all ratguards are marked with ship's name otherwise they may be stolen and resold to the ship.

Ensure correct courtesy ensign is flown otherwise a fine will be imposed.

SHIP'S OFFICER'S REPORT: October 1990.

Documents: Vessel's copies to be delivered on clearing vessel inbound on arrival, when Health, Customs and other Authorities board.

Cargo Manifests, including additionals. Must be faithful copies of Bills of Lading descriptions (Manifiesto de carga para puerto).	4
Same Manifest, but freighted.	Nil
Transit Cargo Manifests (Manifiesto de carga en transito).	3
Cargo Manifests, covering cargo shortshipped but manifested on previous vessels calling at Callao (Manifiesto de carga de transbordo).	2
Bills of Lading, full set and copies.	3
Dangerous Cargo Lists (Lista de carga peligrosa para puerto).	2

Transit Dangerous Cargo Lists (Lista de carga peligrosa en transito).	2
Mail Manifests (Guia de correos).	2
Passenger Lists (Pasajeros para puerto).	6
Transit Passenger Lists (Pasajeros en transito).	6
Tally Books.	Nil
Stowage Plan	Nil
Consolidated Stowage Plan, prepared or checked on board.	Nil
Visaed Tonnage Certificate or General Declaration from first port receiving cargo for Peru and every port of call thereafter.	1
Health Clearance, last port and a Declaration of Health (Declaracion de sanidad).	1
Vaccination List (Lista de vacuna).	1
General Declarations (provided in port).	7
Crew Lists (Rol de tripulacion).	8
Crew's Personal Effects Declarations (Declaracion de effectos de la tripulacion).	3
Stores Lists (Declaracion de suministros del buque).	3
Baggage Declarations (accompanied) (Equipajes acompanades).	4
Baggage Declaration (unaccompanied) (Equipajes no acompanades).	Nil

Remarks:

(a) The vessel considered, is a general cargo vessel, without passengers or mail on board.
(b) No containers were unloaded at Callao, and therefore no container lists.
(c) There was no transhipment cargo on board.
(d) It seemed preferable to prepare the documents in Spanish for the good reason that "everything ran smoother".

SHIPMASTER'S REPORT: May 1992.

Arrival Procedure: Vessel to call "Tramar" on VHF Channels 12, 16 and 70, and request permission to enter the Control Area (10 miles around San Lorenzo Lt.). State ETA and request permission to proceed to anchorage for clearing by Authorities.

"Tramar" will indicate where to anchor, vessel to reduce speed to 5 knots when 4 miles from the anchorage.

After Free Pratique has been granted, vessel to inform pilot, and pilot will request vessel to proceed to Pilot Station. Before doing so, vessel to request permission to proceed from "Tramar" (max. speed again 5 knots).

Fines are imposed if vessel does not follow these guidelines.

SHIPMASTER'S REPORT: June 1995.

Officials: Authorities comprised of Harbour Captain, one Customs Officer, one Immigration Officer, one Port Health Inspector and Agent.

Inward Clearance took approximately 30 minutes to complete. Even though vessel was officially cleared in at previous Peru port, everything had to be checked again at Callao.

Documents: The following papers are required:

Last Port Clearance.
8 copies Crew List.
3 copies Crew Effects List.
1 copy of Derat Exemption.
2 copies International Maritime Declaration of Health.
2 copies List of Vaccinations.
2 copies List of Ports of Call.
3 copies Tonnage Certificate.
3 copies Bonded Stores.
3 copies Slop-Chest Stores.
2 copies all Cargo Documentation.

Mooring Operations: Two tugs used to assist during swing in harbour, ship's lines used. Tugs had a habit of doing what they wanted and not what the Pilot wanted. Vessel berthed at Jetty 7A, starboard side alongside. Final moorings each end were 2-1-2. Springs run first by heaving lines, then head and stern lines by mooring boat.

Ship's gangway required, very little room when vessel is in light condition.

Cargo Operations: We used 1×8 in. hose which leads into 1×14 in. shore line. Shore gang to connect up. Average bulk discharge rate 640 cu.m./hr. at a maximum 7 kg. on shore hose. On completion of discharge, vessel had to pump water for one hour, apparently on occasions this can be for up to 3 hours.

Sailing: Peruvian Sailing Plan must be completed prior to departure, and only when sighted by Harbour Master is clearance completed.

Also see "General" before first port, and "Shipmaster's Report" dated June 1995.

SHIPMASTER'S REPORT: June 1996.

Pilot boarding position: Lat. 12° 03' S., Long. 77° 10' W.

Callao is the principal port of Peru. Documents required for arrival clearance inward is not much different from what is normally required for all other ports. But one point must be borne in mind, that vessel must explicitly follow and comply with the Peruvian reporting system as laid down in ALRS, Vol. 1. It is usually very difficult to contact the coastal station on W/T. We sent all our position reports by telex. The authorities upon boarding the vessel on arrival take away copies of all position report telexes (signed by Master and affix ship's stamp). Any non-compliance is liable to heavy fine.

On approaching the port of Callao, we discovered a Fairway Buoy with racon in approximate position Lat. 12° 01.98' S., Long. 77° 13.51' W. This racon buoy is not visible when approaching from South, as it is obscured by mountains of Isla San Lorenzo. There are many charted racons, but none of them was operational as was observed on arrival Callao.

The communications on VHF with Callao port must be in Spanish (conversation in English only possible if the Port Control Operator wishes so). I tried communication with them, combining English with a little Spanish (all the time emphasising on the word "por favor"). Seeing my desperation, the Operator abandoned Spanish and communicated in broken English. But his knowledge of English was as restricted as mine of Spanish. But between us, we were able to convey/exchange arrival information.

I am writing below a few standard sentences in Spanish, which should be sufficient to appease the Operator of your effort to speak in Spanish (probably to satisfy the regulations which state "All communication must be in Spanish").

English:	Spanish:
This is M.V.	Este es buque . . . . .
Call sign	Characteristics international . . .
ETA . . . hrs.	ETA . . . hrs.
Length overall . . . m.	Eslora . . . . metro
Max. breadth . . . m.	Maximo manga . . . metro
Max. draft . . . . m.	Calido maximo . . . . metro
Port of Registry	Puerto de Registro . . . . .
Cargo . . . . tons	Carga . . . . . tons
What time Pilot boarding?	A que hora abordars practico?
Request permission to enter.	Solicito permiso entrar.
Control . . . . this is M.V. . . . . calling. Please come in.	Control . . . . esta es buque . . . . que llamb por favor adelante.

When approaching the Fairway Racon Buoy (Control refers to it as "Sea Buoy"), it should be passed on your port side when approaching and also on leaving Callao port. The vessel was ordered to anchor in charted anchorage area.

After dropping anchor at 1224 hrs., authorities boarded the vessel, along with the Agent to clear the vessel inwards. The food inspector also boarded to take samples of rice from each cargo hatch which were meant for discharge in Callao. No infestation was found and a clean permit was given to the vessel.

Vessel was due to berth at 1700 hrs., but by that time dense fog had set in and the port was closed. Fog is quite frequent during the evenings and mornings at this time of the year. The fog lifted by about 2200 hrs., but started again at about 0400 hrs. next morning, but not so dense this time. The Pilot boarded at 0500 hrs. and we berthed at Pier No. 2. Our draft was 9.3 m. forward and 9.4 m. aft. Maximum permissible draft is 10.36 m. (34 ft.), but should be verified for the sake of safety and good order.

Callao port and also anchorage are high risk areas for theft of cargo and ship's property. Prior to arrival at Callao, we had removed all lifeboat equipment, fire hoses, nozzles, liferafts, lifebuoys, etc. Liferafts were kept in the hospital and fore peak store. Flat iron bars were welded to all port holes on the bridge deck, similar cross bars were securely screwed down to wheelhouse wing doors from inside, also used padlocks. All access doors leading to accommodation were completely shut, except for one entry door near the gangway with one seaman at all times manning the gangway. No persons were allowed inside accommodation, except for official business, which was after necessary verification and confirmation. The ladders on the poop deck leading to all the decks were sealed-off by placing gratings and plywood and fastening old and used ropes around the handrails (created as many hurdles as possible). In addition to all above mentioned precautions, we maintained security watch on deck. Despite all the precautions, the labourers stole some small shackles from various attachments and a heaving line.

Another area of concern was theft of rice by labourers. On the first day of discharging, it was observed that they were deliberately damaging some bags and putting the spilled rice in their personal bags. When our Duty Officer tried to stop them, they retaliated in an intimidating manner. This matter was then reported to the Agent, stevedores and Charterers. Thereafter, the quantity of theft reasonably subsided. As one person from Agent was usually on board, he was instructed by us to be present at the gangway, especially at change of shifts to identify the incoming labourers, and also check the handbags of the outgoing gangs, and invariably we recovered substantial quantities of rice.

In the port of Callao, regulations are quite cumbersome, especially for sending anything ashore and likewise for its return. We had to send 3 liferafts and one foam extinguisher of 45 litres ashore. It took one day to service, but 4 days to clear the items out and in. Liferaft servicing is done by M/S Amsumar, and they are the only approved Agent for almost all makes of liferafts. There are too many ship chandlers thronging to the vessel. Fresh provisions are plentiful and reasonably priced. If paying cash, fresh fruit and provisions become even cheaper. But bread and bonded stores are very expensive.

Good divers are available. We carried out underwater video inspection at Callao Anchorage and some underwater plugging and cementing of a hole in way of No. 1 deep tank. The job was approved by Lloyds.

Lloyds Register Surveyor is available, and we carried out full term renewal of safety equipment, safety radio and some Company safety manual items.

There are frequent cases of hold-ups and muggings on the streets in the vicinity of port area, where drugs and drug addicts thrive. Slightly distant places like San Miguel and Miraflores are relatively safe to walk about in and shop.

AUTHORITY: Port Captain, Terminal Maritimo de Callao.

AGENT: Ian Taylor – Peru, Av. Central 643, 11th Floor, San Isidro, Lima 27, Peru. Tel: 51-1-4217517, 4217519. Telex: 21026. Fax: 51-1-4218900.

CHANCAY: 11.35 S. 77.16 W. (See Plan)

Chancay is an unprotected open roadstead about 31 miles North of Callao. The main activities are the loading of fishmeal and discharging of fertilisers.

PILOTAGE: Compulsory. The Port Captain currently acts in this capacity.

ANCHORAGES: There is a good anchorage, in 5 and 8 fathoms of water, on a sand and mud bottom, located in the outer area of the bay, which is 1 mile long by 0.5 miles wide.

RADIO: *Arrival Advice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.

TUGS: 2 Tugs of 56 h.p.

BERTHING: There is a pier for loading barges.

LIGHTERS: 12 lighters with a capacity of 40 tons each.

CRANES: 2×14 tons capacity.

STEVEDORES: The same system applies here as throughout the Republic, the tariff only altering according to the number of workers employed.

3 shifts and 2 more if necessary.

MEDICAL: Medical consultations possible.

FRESH WATER: Not available.

FUEL: Not available.

AUTHORITY: Port Captain.

CHIMBOTE: 09.05 S. 78.37 W. (See Plan)

Chimbote is a port with possibilities to load and discharge from and into lighters if berths are not available. Main activity: Loading of fishmeal and minerals; discharging of iron, steel, and general cargo.

DOCUMENTS:

For Entry

2 Entry Declarations (Form No.1).

1 Departure Licence of the last foreign port en route.

1 Maritime Health Declaration (Form No. 2).

2 Passenger Lists with entry baggage (Form No. 3).

1 Consular Roll of the last foreign port en route.

1 Consular Passenger List of the last foreign port.

Customs Administration

1 Original Cargo Manifest(s) with the Consular stamp. (Form No.4).

The envelope(s) from the Consul, enclosing copies of the Consular invoices, Bill of Lading and Cargo Manifest for the port with the Consular stamp.

1 Cargo Manifest (Form No.4).

1 Cargo Manifest of cargo, but with further destination for another national or foreign port (Form No. 4).

1 Cargo Manifest in transit.

1 Gross or Net Tonnage Certificate, with Consular visa.

1 Unaccompanied Baggage List (Form No. 5).

Customs

1 Entry Declaration (Form No. 1).

1 Cargo Manifest(s) for port without Consular visa (Form No. 4).

1 Manifest of Cargo for port, but with further destination for another national or foreign port, without Consular visa (Form No. 4).

2 Passenger Lists with entry baggage (Form No.3).

2 Unaccompanied Baggage Lists (Form No. 5).

1 Crew Personal Effect List.

1 Stores List, food and spirits.

1 Mail List.

Port Administration

1 Entry Declaration (Form No.1).

1 Passenger List with entry baggage (Form No. 3).

1 Unaccompanied Baggage List (Form No. 5).

3 Cargo Manifests for the port, without the Consular visa (Form No.4).

3 Manifests of Cargo for port, but with further destination for another national or foreign port, without Consular visa (Form No. 4).

3 Sets of Bills of Lading.

Also see "General" before first port.

PILOTAGE: Compulsory. Official Pilot boards vessels at entrance to bay and leads ship to appropriate anchorage according to draft. Private Pilot to moor to the quays of the "Corporacion Peruana del Santa" and to "Sogesa". Vessels enter the inner roadstead through Southern side of each channel. Depart through Northern side of channel.

ANCHORAGES: Good anchorages in bay according to draft. Anchorages are of mud and sand. Best place to anchor ship of medium draft is inner side of Paso del Norte, 6 fathoms deep, near port and safe. Another good anchorage for ship of medium draft is with Island bearing 170° and Rosas Blancas bearing 275°, 6 fathoms deep.

HEALTH: Health Authorities board on arrival.

RADIO: Hablanaves Radio at Talara and Trujillo (Buenos Aires), Radio Costera at Callao.

Arrival Advice: 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.

TUGS: 6 private, 3 of 80 h.p., 1 of 60 h.p. and 1 of 165 h.p. and 1 of 180 h.p. The Port Authority has two tugs, 1 of 400 h.p. and 1 of 200 h.p.

BERTHING: 3 Piers available.

No. 1 Pier: Length 158 m., width 16 m., depth alongside 27 ft. – 28 ft.

No. 2 Pier: Used only for the loading and discharge of lighters (fishmeal). Length 54 m., width 18.40 m. Average depth 4.5 m.

No. 3 Pier: Operated by Siderperu. Length 265 m., width 25 m., depth alongside 28 ft. – 31 ft. There are two bridges for discharging coke and minerals by clamp. (Total capacity 300 t.p.h.)

LIGHTERS: 12 for dry cargo: 2 at 150 tons and 10 at 50 tons. 10 tank lighters with a total capacity of 1,300 tons.

CRANES: 5 cranes: 3×17 tons, 1×13.8 tons and 1×6.25 tons capacity.

STEVEDORES: See "Callao".

MEDICAL: Agent arranges emergency attention. Hospital and private clinic available.

TANKERS: Three zones for load/discharge of fish-oil and lubricants. Ship loads fish-oil by barges at anchor. Discharge of fuel when ship anchored to buoys by means of submarine lines.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: Only the Vice-Consul of Spain and Panama.

REPAIRS: Only minor repairs are possible.

DRY DOCKS: "Sima" have a 15,000 ton floating dock.

GANGWAY/DECK WATCHMEN: Watchmen are necessary.

OPENING/CLOSING HATCHES: This job is carried out by stevedores.

CUSTOMS ALLOWANCES: Tobacco: 10 packets per person per week. Wine and/or Spirits: With approval of Customs, within normal consumption.

CARGO GEAR: Vessel's derricks used, the quay has fixed crane for 50 tonnes and 3 mobile cranes for 15 tons.

REPATRIATION: Facilities for crew changes and arranging any necessary repatriation.

AIRPORT: Port has airstrip, but it is only for national use, not for international flights.

TIME: GMT minus 5 hours, all year round.

HOLIDAYS: Cargo work can be arranged on holidays with an extra 100% charge over basic pay. The only exception is 1st May, on which cargo work cannot be arranged.

TELEPHONES: No arrangements for placing telephones on board. They are about 50 m. from ship.

SHORE LEAVE: Crew members allowed ashore.

IDENTIFICATION CARDS: Needed for both crew and passengers.

REGULATIONS: Not allowed to use wireless when ship is in port. Nor allowed to put any boat on the water without permission of Capitania del Puerto. Not allowed to throw any waste or litter into bay. Not allowed to make unnecessary sound signals.

GENERAL: *Swell Period:* February/March and June/October.

DEVELOPMENTS: New quays to be built.

AUTHORITY: Capitan de Puerto – Direccion Capitania de Puerto Chimbote.

AGENT: See "Callao."

CONCHAN: 12.15 S. 76.56 W. (See Plan)

Note: All of the following information with the exception of "Tankers" and the "Shipmaster's Report" was supplied by South Shipping (See "Agent").

LOCATION: The pier is located at Playa de Conchan (Conchan Beach) at Km. 24.5 of Carretera Panamericana Sur (South Panamerican Highway).

Geographically, the Muelle de Conchan (Conchan Pier) is located S.E. of Punta Chira, between the Callao Port to the N.W. and the buoy mooring post that belongs to the Conchan Refinery to the East, at Lat. 12° 15' S., Long. 76° 56' W.

It is an offshore terminal, located in an area which has 10 miles of open sea, and no geographical accidents.

The pier and nearby areas were inspected in 1989 by the Hydrography and Navigation Bureau of the Peruvian Navy.

PILOTAGE: Pilotage is mandatory for dock operations.

No vessel is allowed to moor at the pier if not under the control of an authorised Pilot.

If the Pilot is already on board, once having received permission from the Pier Operator, he may proceed to moor the vessel.

The Pier shall maintain a stand-by launch for transporting personnel or for emergency sailings.

During periods of heavy, but controllable swell, at the request and for the account of the vessel, the Pilot shall remain on board and/or in the pier area until the loading/unloading operations have terminated.

APPROACHES: *Position Information System and Safety in Peruvian Territorial Waters:* There are very precise Maritime Traffic regulations governing navigation in Peru's territorial waters, the movement of vessels in and out of Peruvian ports, pilotage, etc., details of which should be given in good time to the Shipowner/Master of the vessel by his Agents. Failure to comply with these regulations is penalised by the Maritime Authorities with heavy fines for both the ship and its Agents.

Navigation Aids:

(a) An intermittent red light located on pier head in Lat. 12° 15' 02.6" S., Long. 76° 56' 14.5" W. Characteristics: One red flash every 3.5 sec., light 0.5 sec., eclipse 3.0 sec. Height of light above sea level 12.0 m., visibility 3 miles, sector illuminated 360°.

(b) The cement storage silos are situated 1 km. from the pier head and on either side of the pier. A flashing red light has been installed at a height of 55 m. above sea level on top of the No. 2 Silo, which is approximately 20 m. N.W. from the pier's centre line.

(c) Following the line between the flashing red light at the pier head and on top of No. 2 Cement Storage Silo, a line of fixed white lights 520 m. long is installed.

Basic Instructions upon Arrival: Ships heading directly for the Conchan Pier must fly their national, Quarantine and Peruvian flags; and once at the Pier, after reception, their national and Peruvian flags.

If the vessel carries on board any type of explosive material and/or other kind of cargo which may be considered dangerous, it must fly flag "B", according to the International Signal Code.

It is forbidden to discharge garbage, mechanical wastes, or any other type of polluted material or dirty ballast into the sea.

It is forbidden to hunt sea birds or throw explosives into the sea, or use pyrotechnic objects on board, except in cases of emergency, which will be duly verified by the Maritime Authorities.

Vessels may only make underwater repairs if previously and expressly authorised by the Pier Operator and Maritime Authority.

It is strictly forbidden to put main engines out of service for maintenance works while the ship is alongside.

RESTRICTIONS: The Maritime Authorities have established that mooring of vessels may only be carried out between 0700 hrs. and 1630 hrs., while sailings may be made at any time.

MAX. SIZE: *Maximum Ship Characteristics:* Ships intending to operate at the Conchan Pier must have the technical acceptance of the Pier Operator. To obtain this, they must submit the ship's characteristics together with a General Arangement Plan sufficiently in advance. The Pier Operator will accept the ship as long as its dimensions are no larger than the maximum capacity permitted by the pier, and providing that they are suited to the type of operation to be carried out.

Ships proposed for unloading operations must be self-unloading ships, with cranes, derricks and grab buckets in keeping with their dimensions.

The capacity of the Conchan Pier permits the following maximum characteristics:

Length Overall	185 m.
Breadth	30 m.
Draft	11.0 m.
Dead Weight Tonnage	35,000 tons.
Exterior measurement between first and last hatchway	120 m.

RADIO: *Notice of Arrival:* Every ship that comes to perform loading and unloading operations at the Conchan Pier, must report to the Pier Operator the estimated time of arrival (ETA), 5 days, 48 hours and 24 hours before arrival, through the ship's Agent.

Any special instructions to be given by the Pier Operator to the ship and/or consulted with the ship, relating to mooring, loading/unloading operations, special connections, etc., will be transmitted via coastal radio stations and/or through the appointed ship's Agent.

Any changes in the vessel's ETA or any other delays which are not communicated in due time, and for which the ship is responsible, and cause an increase in the pier operations costs, will be charged to the Shipowner.

All ships with cargo for Conchan Pier must arrive first at Callao Pilot Station where authorities will board the vessel for reception purposes, and where Pilot will take vessel to Conchan Pier.

VHF: Call Pier Operator, call sign "Conchan Pier" on Channel 16, 4 hours prior to arrival.

BERTHING: *Pier and Mooring Facilities:* The pier is an offshore terminal, located in an open beach, obstacle-free, and heading in an almost North–South direction.

Access to the pier consists of a 528 m. long and 6.5 m. wide trestle type carriageway, and it is necessary to have a minimum draft of 13.0 m., as required for ship manoeuvring and stay.

The carriageway, in addition to having a conveyor belt, allows one-way traffic, and only small cars can turn; trucks must enter the pier in reverse.

The pier head is 181 m. long and 10.3 m. wide and its platform is located 7.0 m. above mean low water.

Maximum sea depth at the pier head is 20.0 m. at low tide and 13 m. at the inner road.

The pier only allows vessels to moor on the West side, where the following mooring points are located:

6×60 ton quick release hooks.
3×40 ton double bitts.
5×40 ton single bitts.
2×50 ton bitts.
2×Yellow mooring buoys, 3.2 m. in diameter.

These mooring points are distributed in such a way as to allow the safe mooring and operation of vessels up to 35,000 d.w.t.

The system of fenders is located in 2 dolphins, jutting out from the pier 22 m. long and 3.2 m. wide. 5 sliding platforms, which jut out 1.5 m. past the dolphin are connected to the concrete by rubber shock absorbers which absorb the pressure of the ship's hull.

This system of fenders allows the ship to bear on the pier smoothly, because the pressure exerted by the ship's hull due to water movement is absorbed by the rubber as it contracts.

In addition, in order that the ship's hull may be supported over a larger area by fenders, 16 sets of double tyres, of 2.8 m. and 1.8 m. diameter, have been placed in the areas adjacent to and above the fenders of the dolphins.

Ship Docking: Ships arriving at the Conchan Pier to carry out loading and/or unloading operations, may only moor at the West side of the pier, port side alongside (bow to sea).

To carry out the mooring manoeuvre, it is generally recommended to start the approach to the pier from the West on a heading of 090° towards the pier head. At a distance of approximately 150 m. from this point, the starboard anchor should be dropped; paying out cable all the time, the vessel should continue forward, heading for a point about 50 m. from Buoy No. 1 situated in front of the pier. Here the bow is slowly turned seawards, so that it continues to approach the line at the West side of the pier, and moves away from the buoy towards the sea. When the bow crosses the West line of the pier, the vessel should drop its port anchor. Thus, with anchors down, the ship will move astern, slowly paying out both port side and starboard chains keeping them tight, until the ship's stern closes with the pier.

At the same time, a motor launch will be used to pass the bow mooring lines to Buoy No. 1 and the pier head bitt, and the stern lines to Buoy No. 2 and the mooring post bitt. These lines will be heaved in simultaneously and evenly to bring the ship safely alongside.

Once the vessel is in the right position, which will be reported to the Pilot by the Pier Supervisor, the port side anchor must remain tight while the starboard anchor should be slightly slack; both anchors should have no less than 8 shackles in the water. Basically, the vessel is moored with at least 4 long lines and 2 springs to the pier at bow and stern, as well as 2 lines each to Buoys No. 1 and No. 2. A minimum of 12×3 in. and 4 in. diameter nylon lines or their equivalent in polypropylene are required.

Basic Conditions to remain at the Pier: The ship will moor at an offshore terminal; it must therefore have a minimum of 12×3 in. to 4 in. diameter nylon mooring lines, in good condition to be distributed to the pier bitts and the two mooring buoys.

The use of wire ropes as mooring lines is forbidden, unless connected to constant tension winches or working with nylon rope tails no less than 20 m. long.

The ship's anchors must have the regulation chain strands, because port and starboard anchors are dropped in such a way that at the end of the manoeuvre they each have at least 8 shackles in the water. It is essential that the port side chain be kept tight, and the starboard one slightly slack.

Under no circumstances should the main engines be taken out of service while the ship is moored at the pier; on the contrary, they must be kept on permanent stand-by.

The ship shall maintain a sufficient number of crew members on guard duty on deck, to make sure the mooring lines are kept taut during the course of the maritime operations, according to sea conditions. The pier has a mooring party available 24 hours a day to help the ship with maintenance of the mooring lines; and if need be, they will remain on board to adjust and/or reposition the mooring lines with the help of a motor launch.

If the ship's Master would like the Pilot to remain on board, he should coordinate this with his Agent.

The ship shall provide the necessary facilities for the Agent's stevedores to carry out the Loading/Unloading Plan.

While the ship is moored at the pier, a Deck Master shall remain on board as representative of the ship's Agency, to coordinate between the ship's and the pier personnel, in order to make sure that the loading/unloading operation is carried out efficiently.

While the operations are being carried out, the ship must keep sufficient ballast on board so that variations or increase in freeboard are kept to a minimum.

Before starting unloading, the hatch covers of the holds to be unloaded must be completely open to allow free entry of the open hydraulic grab, which measure 4.5 m.× 3.5 m.

The ship shall provide the necessary number of hold lamps to give sufficient light for work to be carried out safely at night in the holds.

The self-unloading ships must have their cranes and grabs operational to unload at least Holds No. 1 and No. 2, and the other holds if the situation so requires, and also to effect the payload transfer manoeuvres pier-deck-hold and vice versa, from hold to hold, etc., and generally speaking, all the equipment and material manoeuvres relating to the operation. This ship's crew must be ready both to operate the cranes and attend to repairs of same, at any time.

LOADING/UNLOADING: *Unloading System:* When there is a ship alongside, attention is provided 24 hours, in 12 hour day and night shifts, including Saturdays, Sundays and holidays.

In each work shift, there are technical personnel specialised in the pier's operation of the loading/unloading systems.

For the unloading of bulk material such as coal, lime, mineral concentrates, cereals, etc., the pier has a Kangaroo crane which allows a hydraulic grab to extract the bulk material from the ship's hold and deposit it in a hopper attached to the crane itself.

This material is then deposited by a plate feeder into a 1 km. reversible conveyor belt, which takes it to the storage yard.

The pier also has 2 mobile hoppers for the bulk material which the self-unloading ships, using their own cranes and grabs, extract mainly from Holds No. 1 and No. 2, and eventually from the other holds. The material deposited in these hoppers is fed simultaneously into the principal conveyor belt through small belts and chutes.

There are also 3 automatic mechanical grabs, operated by one-hook cranes of self-unloading ships which do not have enough operational grabs, or to replace grabs which are out of working order for long periods of time, etc.

TANKERS: Tanker Buoy berth about 17 miles S.E. of Callao.

Documents: Tankers calling at Conchan must first call at Callao anchorage to be received and cleared by Authorities. Not necessary to call at Callao after discharge as clearance is simultaneous with reception.

Pilotage: Private Pilot boards vessel at Callao anchorage and either remains on board or returns to take vessel out, as required by Master.

Berthing: Vessels moor to buoys. Depth 60 ft. One submarine line of 16 in. reducing to 12 in. at vessel's connection, running 1,000 m. from shore opposite Conchan refinery.

Launch: Launch service between Conchan and Callao or Conchan and Fish Pier at Barranco, southern suburb of Lima, during vessel's stay in port.

General: Two Customs police and two refinery employees board at Callao and remain on vessel during discharge.

GENERAL: *Inspection by Port Authorities:* There are Customs Authorities and Harbour Master's Representatives at the pier, and they control strict compliance with port regulations.

When the Port Authorities go on board, the accommodation ladder should be rigged leeward of the vessel, and the ship's Master or Chief Officer must receive them at the gangway.

The Port Authorities may go on board at any time, day or night, whether the ship is anchored or at the pier, to inspect the vessel and/or verify any documentation they may deem necessary.

The official hours of the Port Authorities are as follows: 0700 hrs. – 1100 hrs. and 1300 hrs. – 1800 hrs., Monday to Friday.

Regardless of this official timetable, the Port Authorities will appear on board when required at any time, day or night, including Saturdays and Sundays.

The control exercised by the Port Authorities is very strict and any attempt at smuggling will be subject to a heavy fine, as well as any non-compliance with the international port regulations, such as pollution, putting ashore crew members without shore pass, crew disturbance, etc.

Regardless of the control exercised by the Port Authorities at the pier, relating to their respective duties, the pier has a Vigilance and Security Body which strictly controls transit of people, including crew members, and also all merchandise entries and clearance.

Oceanographic Conditions: Prevailing wind direction is S.W. (230°) during 12 months of the year, at an average speed of 6 knots – 8 knots; becoming higher particularly during the months of December and January.

Furthermore, maximum speed occurs during the daytime (1100 hrs. – 1800 hrs.).

The currents registered in the area indicate variations both in directions and speed, on the surface as well as in depth, but are not significant in magnitude.

The maximum speed recorded for currents is 1.5 knots at a depth of 1.0 m., and the direction thereof varies from 120° – 220°, depending whether the tide is rising or falling.

Tides vary from −0.1 m. to 1.0 m., in respect to mean low water mark (MLW).

The variations in the tide are similar to those of the Callao Port. In order to determine the tide levels at Conchan, the predictions for the Callao Port contained in the tide tables published in the International Tide Tables must be taken as reference, adding 4 minutes to high tide time and 3 minutes to low tide times.

SHIPMASTER'S REPORT: October 1995.

The pier is used for discharge/loading coal and clinker and is located 0.5 miles N.W. of the tanker buoy. Our ship was loaded with 34,014 tonnes of clinker from Manzanillo (Mexico). Pilot boarded at Callao. After clearance, vessel proceeded to Conchan. We dropped both anchors, 6 shackles but needed more (8/9). 2 ship's lines sent to the buoys and 9 shore ropes (4 in.) to the pier. No tugs used. 6 mooring men remained on board and are assisted by ship's crew for heaving the ropes. One Coordinator/Deck Master coordinates the ship's and the pier personnel.

Conchan Pier is affected by Southerly heavy swell, July is the worst season. In July 1995, one vessel remained at Conchan Pier or in and out to the anchorage for one month during discharging. The mooring men control the ropes and slack them to avoid breaking them, but this increases swinging. The ship swings, rolls and pitches moderately to heavily forward and backwards, and also sideways. During discharging to avoid heavy swinging from swell, vessel has to maintain sufficient draft with ballast.

Damage to the ship's side may occur during heavy swell, so vessel has to move to anchorage until the weather improves.

Access from pier to the ship is by shore crane with basket.

Discharge by shore crane 250 tonnes per hour. By using ship's cranes (No. 1 and No. 2) increase rate up 400 tonnes – 500 tonnes per hour, if good weather and no swinging.

Fresh water available by trucks. Cost $7.5/tonne.

AGENT: South Shipping Ltd., Chinchon 830 Of. 303-304, San Isidro, Lima 27, Peru. Tel: (51-1) 442-2644, 442-5820, 442-4580. Telex: 21446 PE Souship. Fax: (51-1) 442-7419. Cables: Southship.

ETEN: 06.56 S. 79.52 W. (Port closed)

Eten is about 348 miles North of Callao. The port is an unprotected open roadstead. All cargo operations are undertaken by lighters. The main activities are the export of sugar and import of fertiliser and general cargo.

PILOTAGE: Not available.

ANCHORAGE: Vessel anchors about 0.5 miles off the Mole Head in 7 – 8 fathoms.

RADIO: *Arrival Notice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.

TUGS: 4 tugs of 80 h.p. each.

LIGHTERS: 13 lighters with a total capacity of 635 tons.

BERTHING: There is a pier for handling barges.

CRANES: 3 steam cranes, 2×2 tons and 1×15 tons. 1 diesel crane of 3 tons capacity.

STEVEDORES: See "Pimentel".

MEDICAL: There is a hospital at Chiclayo 15 km. from the port.

FRESH WATER: Not available.

CONSULS: Vice-Consul of the Netherlands.

GENERAL: *Swell Periods:* Eten being an unprotected open road port it frequently occurs that the port has to be closed due to heavy swell. The swell comes up suddenly and is not subject to any specific period, but it occurs more frequently during June/September and the Easter week.

GENERAL SAN MARTIN: 13.48 S. 76.17 W.
PISCO: 13.43 S. 76.14 W. (See Plan)

PILOTAGE: Compulsory.

RADIO: *Arrival Advice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.

Also see "Callao" – Radio Officer's Report.

TUGS: 16 tugs available. 10 h.p. – 800 h.p.

BERTHING: 1 quay with 4 berths each 175 m. in length. Max. draft 32 ft. (25,000 tons). Cargo is loaded by portable conveyor belts.

LIGHTERS: 28 wooden lighters for general cargo, total capacity 1,800 tons. 5 steel lighters (not immediately available), total capacity 600 tons. 3 lighters for liquid cargoes, total capacity 500 tons.

CRANES: 1×13.61 tons, 1×22.68 tons and 1×6.25 tons capacity.

STEVEDORES: *Working Hours:* 0800 hrs. – 1200 hrs., 1300 hrs. – 1700 hrs., 1800 hrs. – 2400 hrs., 0100 hrs. – 0700 hrs.

109 stevedores available.

MEDICAL: There is a hospital available.

TANKERS: *Submarine Pipe-line:* The pipeline belongs to Petroperu. Position Lat. 13° 36' 20" S., Long. 76° 15' 54" W. Length of pipeline 700 m., diameter 8 in. Pilotage is compulsory. Depth of water 7.5 fathoms. Pumping rate 70-75 t.p.h.

FRESH WATER: Not available.

FUEL: Not available.

SHIPMASTER'S REPORT: June 1996.

The port of Pisco is situated at Pto. San Martin in Bahia Paracas. It is a new port situated in approximate position Lat. 13° 48' S., Long. 76° 17.3' W., which is about 45 minutes drive away from the small town of Pisco. It has 4 berths with a large asphalted open storage area. Length of pier is about 700 m.

Principal exports are bagged fishmeal and imports are rice and bulk grain. There are no shore cranes as such, ship's gears used for loading and discharging, except for bulk grain, which is discharged by vacuators placed on board by the port. All loading and discharging is by trucks, and there is a constant flow of large trucks of normally 30 tons capacity. Port also has portable conveyor belt, but unsure if it is in working order. There is a weighbridge just inside the entrance gate.

Pilotage is compulsory and Pilot boards in approximate position Lat. 13° 47' S., Long. 76° 17' W. It is better to use Peruvian Chart No. 2171 for the sake of clarity. In the event of requiring to drop anchor, it is always better to ask the Agent to confirm anchoring position. Port control has a VHF station, but language problems are inevitable. However, the Pilot speaks good English. Two tugs are available and they are of good power. The maximum draft alongside is said to be 32 ft. (9.75 m.), which should be verified with the Agent. We berthed with 8.8 m. draft.

Fresh water is said to be available, but I cannot confirm this with certainty.

It is imperative to take part in Peruvian Reporting System, and copies of all position reports sent should be signed by the Master and stamped, and handed over to the Authorities when they board to clear the vessel inward (Refer ALRS Vol. 1 for Peruvian Reporting System). Any non-compliance of reporting procedure is dealt with seriously.

When approaching Pisco, vessel is liable to encounter many fishing boats, and as such a cautious lookout must be kept, as they seem to impede normal routes of navigation and do not make way or give room to approaching vessels.

Thefts are seldom, but it is better to maintain strict watch, and do not allow anyone inside the accommodation or on ship without genuine official business.

This port is a paradise for anyone interested in fishing. The harbour seems to be full of fish and squid, but they all disappear at the slightest sight of stray sea lions, which venture near the vessel.

Sea lions are said to be thriving in this bay, and there is a guided boat ride available from Paracas Hotel early in the morning for the enthusiastic visitors/tourists, keen to observe various sea creatures inhabiting the shores of a nearby island. The tour ends at about 1100 hrs. as by this time, the wind starts blowing daily from North, which by the afternoon shifts to South with fairly strong velocity. However, it does not affect the vessel berthed alongside.

Also see "Shipmaster's Report", dated August 1996, in "Peru – General" for comments on loading fishmeal and radio procedure.

AGENT: See "Callao".

HUACHO: 11.07 S. 77.37 W.

Huacho is an unprotected open roadstead about 69 miles North of Callao. The main activity is the loading of fishmeal and minerals and discharging of fertilisers.

PILOTAGE: Not available.

ANCHORAGE: Vessels anchor in open roads.

RADIO: *Arrival Advice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.

TUGS: 4 tugs available, 1 each at 50, 60, 72 and 180 h.p.

LIGHTERS: 29 lighters, total capacity 1,450 tons.

BERTHING: There is a pier for mooring barges, length 223 m.

CRANES: 3×13.60 tons each.

STEVEDORES: See "Pimentel" for working hours and overtime rates.

4 gangs of 9 men each available.

MEDICAL: Assistance available.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: *Swell Period:* Frequently during the Winter months (May-September).

SHIPMASTER'S REPORT: June 1996.

Huacho is an unprotected/unsheltered open anchorage, and is very vulnerable to S.W.-Westerly swell which may be very dangerous in the Winter months.

We dropped anchor in position Lat. 11° 06.5' S., Long. 77° 34.5' W., which is about 0.5 miles from the beach. The B.A. Chart is very inadequate for approaching. If I had known earlier that we were loading from here, I would have procured appropriate Peruvian chart.

Morning and evening fog in Winter months is quite usual. I would suggest approach to this anchorage port in daylight hours, for two reasons, specially for those approaching Huacho for the first time. The first reason is, that vessel has to anchor too close inshore into the bay, and secondly, the G.P.S. derived position does not match the radar fix (despite correcting the G.P.S. position in accordance with relevant correction to the B.A. Chart No. 3083). I noted a discrepancy of about 0.2 miles, which is surely a great distance, considering the close proximity of shore. One is obliged to anchor as close as possible (safety of vessel permitting) if the vessel has to work cargo.

We loaded 1,050 tonnes of bagged fishmeal which was brought alongside by barges. The barges toss heavily due to heavy swell, which was at least 3.0 m. lashing into the bay. The gang shift is 0700 hrs. – 2000 hrs. and loading rate is excellent. We loaded nearly 800 tons with 3 gangs in less than 7 hours. One has to continuously observe the cargo (not to be wet or torn bags), and also the ship's gear. We had to stop cargo at times to ask the derrick/crane operator to go a little easy with the cargo as it would swing wildly and bang here and there, as the vessel/barge would roll and pitch. No cargo work between 2000 hrs. – 0700 hrs.

Huacho is also a port where theft cannot be ruled out. It is said that mooring ropes are the primary target for theft. It is recommended to stow the ropes underdeck, and also maintain full security watch from bow to stern. We kept only one entry point to the accommodation open with one seaman on duty at all times. Only known persons were allowed inside.

Upon request, Agent provides motor boat for crew to go ashore. There is a small hospital with all immediate facilities. No local workshop, fuel or fresh water available. Nearest principal port is Callao, which is about 80 nautical miles away. There are good buses going to Callao frequently (about 2.5 hours). Workshops from Callao can attend vessel at Huacho, if required.

Also see "Shipmaster's Report", dated August 1996, in "Peru – General" for comments on fishmeal stowage and radio precedure.

HUARMEY: 10.06 S. 78.10 W.

Huarmey is an unprotected open roadstead for the loading of fishmeal.
PILOTAGE: Not available.
ANCHORAGE: Vessels anchor in the open roads.
RADIO: *Arrival Notice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and Agent.
TUGS: 4 tugs available, 2×145 h.p. and 1 each at 120 h.p. and 165 h.p.
LIGHTERS: 18 at 50 tons each.
CRANES: 1 of 2 tons capacity and 1 mobile crane.
STEVEDORES: See "Pimentel" for working hours and overtime rates.
3 gangs of 9 men each available.
MEDICAL: Assistance available.
FRESH WATER: Not available.
FUEL: Not available.
GENERAL: *Swell Period:* June to August.

ILO: 17.39 S. 71.21 W. (See Plan)

DOCUMENTS: Original Cargo Manifest to be sent by Agency from loading port.
6 Crew Lists.
4 Personnel Effects Lists.
4 Stores Lists.
4 Narcotic Lists.
3 Passengers to Disembark Lists.
3 Passenger Lists.
3 Passengers in Transit Lists.
3 Mail Lists.
3 Vaccination Lists.
1 Maritime Declaration of Health.
Also see "General" before first port.
PILOTAGE: ENAPU Pilot (Port Authority) on VHF Channels 16 and 12. Practimar Pilot on Channels 16 and 68. Pilots to be ordered 2 hours in advance by Agent.

Ilo Pilot (Captain Cesar Ulfe Herrera) may be contacted on Tel/Fax: 51-781495.

Pilot boards at anchorage 0.8 miles from extension of the SPCC Quay.
Shipmaster's Report: July 1986. Tanker.

Pilot compulsory. All Pilots for tankers calling Peruvian ports are situated in Callao. An accurate ETA to Callao Agent is very important in order to provide Pilots with sufficient time to fly to the appropriate port of call.

Pilot boards approximately 1 mile off the berth. The Pilot stays onboard the vessel if 2 or more ports are called at in Peru.
ANCHORAGES: See chart.
RESTRICTIONS: Port closed during heavy swell. Berthing and unberthing day and night.
MAX. SIZE: See "Berthing".
HEALTH: Pratique given by Customs. In cases of suspected illness a doctor should be requested in advance. When the ship arrives from another Peruvian port Free Pratique is automatic.
RADIO: Cables connect with National Communications network. ETA sent to Port Authority and to Agencies.
TUGS: 1×690 h.p. tug available.
BERTHING: Berthing anytime. There are two piers, one belonging to Southern Peru Copper Corp. and one to ENAPU.
SPCC: Two vessels are able to berth alongside. Length of pier 520 ft., width 60 ft. Depth alongside varies from 35 ft. to 50 ft.
ENAPU: Length of pier 300 m., width 27 m. Depth alongside varies from 23 ft. to 60 ft. Vessels able to berth both sides. South side depth 23 ft. at inner end, 54 ft. at outer end. North side depth 28 ft. inner end, 60 ft. outer end.
STEVEDORES: Stevedores are ordered by Agents.
Loading Rates: Copper sheets loaded 65 tonnes/p.h. Fish-flour loaded at 100 tonnes/p.h. in a 6 hour shift.
Working Hours: 0000 – 0600, 0600 – 1200, 1200 – 1800, 1800 – 2400 hrs.
MEDICAL: Medical assistance ordered by Agents. Hospital "El Centro de la Salud", and the Saint Geronimo Hospital.
TANKERS: *Ilo:* Discharge line diameter 10 in., 2 lines, connection to the ship's manifold 8 in. Connection and flexible line working pressure 100 lb. A buoy mooring berth.

Depth of water 40 ft. Vessels of Petroperu have preference.
Also see "Shipmaster's Report" – July 1986.
Pesca Peru Buoys for loading fish oil. Depth 50 ft.
Punta Tablones: Discharge line diameter 12 in., connection to the ship manifold 8 in. Flexible connection line, working pressure 100 lb. or 400 b.p.h. A buoy mooring berth.
Max. length 750 ft. Depth of water 40 ft.
DENSITY: Salt water.
FRESH WATER: Available by truck.
FUEL: Not available.
CONSULS: None.
REPAIRS: Some minor repairs.
GANGWAY/DECK WATCHMEN: Watchmen provided by Agents when necessary.
OPENING/CLOSING HATCHES: By crew or stevedores.
CERTIFICATES: When the ship comes from foreign port it is compulsory to produce Certificate of Gross Tonnage.
CUSTOMS ALLOWANCES: Tobacco: 10 packets per person. Wine and/or Spirits: Sufficient for meal times. Normal crew consumption only.
REPATRIATION: There are facilities for effecting crew changes and arranging any necessary repatriation. Those who are going to be repatriated must have a permit from the Port Authority to be allowed ashore.
AIRPORT: Ilo Airport, 8 km. Scheduled flights twice a week on Tuesdays and Saturdays. Regular airport in Tacna, 1.5 hours by taxi, scheduled flights twice daily to Lima.
TIME: GMT minus 5 hours. No alterations during the year.
HOLIDAYS: 1st January (New Year); Maundy Thursday and Good Friday; 1st May (Labour Day); 29th June (Saint Peter and Saint Paul); 28th and 29th July (Motherland Days); 30th August (Saint Rosa of Lima); 1st November (All Saints Day); 8th December (Our Lady); 25th December (Christmas).
POLICE/AMBULANCE/FIRE: Southern Peru Copper Corporation operate fire service. Police, tel. No. 3; Ambulance, tel. No. 3.
TELEPHONES: No arrangements for placing telephones on board.
SHORE LEAVE: Crew members allowed ashore and identify themselves with cards signed by Capitania del Puerto given through ship's Agents.
IDENTIFICATION CARDS: Agents arrange for cards to be signed by Port Authority for each crew member.
DELAYS: Only delays when quay is occupied by 2 ships. In the load/unload operations the port can attend to 4 ships simultaneously and 4 more when new quay (now being built) is completed.
GENERAL: Tank cleaning and well cleaning must be done 5 miles leeward of port. Explosive cargoes may be unloaded if written authorisation is obtained.
DEVELOPMENTS: Terminal quay of 900 ft. long is now being built.

SHIPMASTER'S REPORT: July 1986.
Anchorage: Approximately 1.2 miles, 280° from the Cape in front of the hotel.
Approaches to the Berth: No difficulties encountered.
Immobilisation of Engines: Permitted.
Brief Description of Berth: Conventional buoy mooring.
4 buoy berth.
3 buoys astern and 1 port side ahead.
Both anchors to be used.
Starboard anchor 8 to 9 shackles and port anchor approximately 6 shackles in the water.

2 lines to each buoy. The 2 headlines and the first line aft (centre buoy) to be long and of good quality.

Maximum draft 12.0 m. to 12.5 m. and this making allowance for swell as the minimum depth of water in the area of the stern buoys is 15.2 m.
Charts: Approaches to Matarani and Ilo, U.S. chart No. 22182.
Peru Hidronav Chart No. 2359.
Tugs: None.
Berthing: Vessel to be moored in an S.E. direction.
Density: 1025.
Description of Shore Line System: Position of connections amidships on port side. 2×8 in. hoses available. Connecting and disconnecting of hoses is carried out by shore gang.

Maximum back pressure at the manifold allowed by Petroperu is 7.0 kg./sq.cm.

Discharge rate approximately 1,150 cu.m.p.h. Lines to be flushed with water after completion of discharge.
Availability of Bunkers, lubricants and water: None.
Availability of Provisions: Fresh vegetables and fruits in limited supplies.
Points of Interest: All documents, oil record books and cargo papers are checked very carefully by the Authorities.
Shore leave is possible by launch to Ilo port.

SHIPMASTER'S REPORT: April 1988.

We berthed at night without problems, but the buoys are unlit and the mooring boat had no searchlight. Bridge wing projectors or the Suez light would assist in securing lines to the mooring buoys. These are fitted with hooks and lashings are not used.

Following moorings were used:

Starboard Anchor – 6 shackles.
Port Anchor – 3 shackles.
2 lines to port head buoy (60 m.).
2 lines to port quarter buoy (60 m.)
2 lines to stern buoy (25 m.).
1 line to starboard quarter buoy (60 m.)

Ship's head in berth 237°. Depth in berth 20 m. aft, 23 m. forward.

2×8 in. hoses were connected on the port side.

The berth was well sheltered from South Easterlies by the headland, but quite open to the North and West.

AUTHORITY: Empresa Nacional de Puertos S.A. (ENAPU), Terminal Maritimo de Ilo, Calle Zepito s/n, Ilo, Peru. *Tel:* 781520. *FAX:* 781215. *Contact:* Roberto Espinosa Espinosa, Manager.

Capitania de Puerto, Ilo, Peru. *Tel:* 781151. *FAX:* 781151.

AGENT: See "Callao".

LA PAMPILLA: 11.55 S. 77.09 W. (See Plan)

Tanker Buoy Berth about 30 miles North of Callao.

DOCUMENTS, ETC.: As for Callao.

Tankers calling at La Pampilla must first call at Callao Anchorage to be received and cleared by Authorities. Not necessary to call Callao after discharge as clearance simultaneous with reception.

PILOTAGE: Pilot boards vessel at Callao anchorage and either remains on board or returns by launch to take vessel out, as required by Master.

BERTHING: Vessels moor to buoys. 1 submarine line of 18 in. reduced to 10 in. at vessel's connection running 1,500 m. from shore opposite La Pampilla refinery. Max. size 200,000 d.w.t. or 250,000 d.w.t. with part load.

LAUNCH: Launch service between La Pampilla and Callao during vessel's stay in berth.

GENERAL: 2 Customs police and 2 refinery employees board at Callao and remain in vessel during discharge.

SHIPMASTER'S REPORT: December 1991.

The Oil Terminal consists of two moorings, one for products and the other for crude oil.

On arrival into Peruvian waters all merchant ships must send "Reporting Messages". Non-compliance can lead to fines and delay for the vessel. When clearing inwards, the Harbour Master's representative requires certified Xeroxed copies of these "Reporting Messages".

For Pilots and Clearance Inwards, vessels must proceed to Callao anchorage (about 10 nautical miles S.S.W. of La Pampilla), where after clearance, pilot boards and then proceeds to La Pampilla.

Considerable swell is experienced at moorings and the vessels head S.W'ly. The current is predominantly N.E'ly.

Position of Moorings:

No. 1 (Product): Lat. 11° 55.0' S., Long. 77° 09.0' W.
No. 2 (Crude Oil): Lat. 11° 55.9' S., Long. 77° 11.2' W.

When mooring at No. 2, both anchors are used. In addition there are four buoys aft and one buoy on the port bow to which mooring ropes are made fast (See "Plan"). The first lines out have to be doubled (two lengths joined together) and at least 2 ropes forward and 4 ropes aft should be doubled and ready.

There are 2 hoses (2×12 in.) at No. 2 made fast on the port manifold, which lead to a 34 in. submarine pipeline. Very little back pressure is experienced.

About 8 shore representatives have to be provided with meals during vessel's stay and three single cabins are also required. The shore personnel were very cooperative.

All services to vessel are from Callao and the boat ride is about 1 hour.

For departure from moorings, pilots come from Callao and require 12 hours accurate notice to arrange launch, etc. Pilot disembarks just off moorings.

Mooring and unmooring is possible 24 hours. No tugs are available.

Berth Particulars:

	Sea Berth No. 1	Sea Berth No. 2
Cargo Handled	Black and white products	Crude oil
Number of Sealines	2 (one black, one white)	1
Diameter of Sealine	16 in.	34 in.
Distance to Shore	1.5 km.	4.5 km.
Manifold Connection	2×8 in.	2×12 in.
Depth at Berth	53 ft. – 59 ft.	63 ft. – 64 ft.
Max. Draft	39 ft.	47 ft.
Max. d.w.t.	32,000	70,000
Berth Heading	–	210°
Max. LOA	700 ft.	930 ft.

MATARANI, including Mollendo: 17.00 S. 72.07 W. (See Plan)

Matarani is a berth port. Main activity: loading of minerals, wool, coffee, skins, tin-ingots, discharging general cargo. Matarani is an important transhipment port for cargo to and from Bolivia.

PILOTAGE: Compulsory.

RADIO: *Arrival Advice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent through Radio Station in Naval Station, frequencies as per Callao.

TUGS: 1×780 h.p., 1×690 h.p. and 1×800 h.p.

BERTHING: 1 quay with 4 berths. Length 540 m., width 20.15 m. Vessels of 570 ft. length can berth. Depth alongside 30 ft.

Berth 1A, 1B and 1C each 150 m. length. Berth 1D length presently 90.50 m., but being lengthened to 132.9 m. length.

CRANES: 5×10 tons, 4×6.25 tons and 1×20 tons lifting capacity.

MEDICAL: A hospital is available.

STEVEDORES: *Working Hours:* 0800–1200, 1300–1700, 1700–2400, 0000–0600 hrs.

9 gangs available of 15 men each.

TANKERS: Buoy Berth at Mollendo. See "Shipmaster's Reports".

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: *Swell Period:* From June to August.

DEVELOPMENTS: A Ro/Ro berth is under construction at the Southern end of Muelle de Atraque.

SHIPMASTER'S REPORT: July 1986.

Berth: Mollendo – Conventional buoy mooring in Position Lat. 17° 02' 18" S., Long. 72° 00' 19" W.

Radio Advise prior to Arrival: In order to avoid heavy fines Master must send a cable or telex to Paita, Mollendo or Callao Radio Stations according to Peruvian Regulations (for details see "General" – before first Port).

Copies of these cables to be handed over to Harbour Master on arrival. It is difficult to contact the above mentioned station by telegraphy.

Telex is recommended. Callao/OBC3. Telex: 0036-26069PE Costcal. Mollendo/OBF4. Telex: 0036-59644PE Kececomo.

Documents: Original Cargo Manifests to be sent by Agency from loading port.

6 Crew Lists.
6 Personal Effects Lists.
6 Stores Lists.
6 Narcotic Lists.
6 Passengers to Disembark Lists.
6 Passenger Lists.
6 Passengers in Transit Lists.
6 Animal Lists.
6 Mail Lists.
1 Vaccination List.
1 Maritime Declaration of Health.

Pilot: Compulsory. All Pilots for tankers calling Peruvian ports are situated in Callao. An accurate ETA to Callao Agent is very important in order to provide Pilots with sufficient time to fly to the appropriate Port of Call. Pilot boards approximately 1 mile off the berth.

Restrictions: Berth is closed during heavy swell. Berthing recommended during daylight only. Unberthing day and night.

Anchorage: Approximately 1 mile off the berth.

Approaches: No difficulties.

Immobilisation of Engines: Permitted.

Description of Berth:

Conventional buoy mooring.
4 buoy berth.
3 buoys astern and 1 port side ahead.
Both anchors to be used.

Starboard anchor approximately 8 shackles and port anchor approximately 6 shackles in the water.

2 lines for each buoy. The 2 headlines and the first line aft (centre buoy) to be long and of good quality.

Maximum draft approximately 16 m. This draft makes allowance for heavy swell as the depth of water is approximately 21 m.

Charts: Approaches to Matarani and Ilo U.S. Chart No. 22182.

Peru Hidronav No. 2337.

Tugs: None.

Berthing: Vessel to be moored in a S.E. direction.

Density: 1025.

Shore Line: Position of connections midships, port side. 2×8 in. hoses available.

Connecting and disconnecting of hoses is carried out by shore gang.

Maximum back pressure at the manifold allowed by Petroperu is 7.5 kg./sq.cm. Discharge rate approximately 930 cu.m.p.h.

Lines to be flushed with water after completion of discharge.

Bunkers, Lubricants, Water and Stores: None.

Tank Cleaning/Dirty Ballast Facilities: None.

Points of Interest: All documents, oil record books, and cargo papers are checked very carefully by the Authorities.

Shore leave possible by launch to Matarani.

SHIPMASTER'S REPORT: April 1988.

Berth: Mollendo.

We berthed at night and the same remarks apply (See "Ilo", Shipmaster's Report, dated April 1988) and are even more relevant. The mooring boat was a small, open, double ended fishing boat, not fitted with means for going astern. It is doubtful if this launch could handle mooring wires, since it can only handle one rope at a time. Mooring buoys are unlit and fitted with hooks. Lashings are not used.

The following mooring was used:
Starboard Anchor – 8 shackles.
Port Anchor – 7 shackles.
2 lines to port head buoy (80 m.).
2 lines to port quarter buoy (140 m.).
2 lines to stern buoy (100 m.).
1 line to starboard quarter buoy (140 m.).

Ship's head in berth 187°. Depth in berth 24 m. aft.

This is an open sea berth, subject to swell. Moorings are liable to chafe. 2×8 in. hoses were connected on the port side. We discharged Diesel No. 2, other grades handled are fuel oil, Jet, Mogas and gas oil.

Peruvian ports in general do not accept Crew Lists, etc., in English, the agent will provide the appropriate forms in Spanish.

The port officials board with the pilot.

SHIPMASTER'S REPORT: June 1995.

Clearance: Vessel has to proceed to Matarani for clearance by the authorities and to pick up a Pilot, before moving to Mollendo.

Charts:
Matarani: Peru Chart 2336 – Pto. Matarani.
B.A Chart 3084 – Ports on Coast of Peru.
U.S. Chart 22182 – (Acc. to Port Info Book).
Mollendo: Peru Chart 2337 – Pto. Mollendo.

Approaches: The leading marks into the bay were obscured at a distance of over 3 miles by the hazy conditions, although they were conspicuous at close range. The bay is protected by "Islotes Alvizuri" to the South.

There was still some swell within the bay. The vessel was requested to anchor 2-3 cables off the jetty for clearance. Even at this distance off, water depth was over 60 m., holding ground was good, although the anchorage is not recommended for a prolonged stay. There was no noticeable current in the bay.

Officials: Authorities comprised of Harbour Captain, 2 Customs Officers, one Immigration Officer, one Port Health Inspector, Agent and Pilot for Mollendo (Pilots now based in Mollendo and not Callao). Inward Clearance took approximately 1 hour to complete.

Documents: The following papers are required:
Last Port Clearance.
6 copies Crew List.
3 copies Crew Effects Declaration.
1 copy Derat Exemption Certificate.
2 copies International Maritime Declaration of Health.
2 copies List of Vaccinations.
2 copies List of Ports of Call.
3 copies Tonnage Certificate.
3 copies Bonded Stores List.
3 copies Slop-Chest Stores List.
1 copy all Cargo Documentation.
All Passports were sighted.

Vessel arrived at Matarani late afternoon, and was not berthed at Mollendo until following day. Permission was given by Port Captain for vessel to move around to Mollendo to anchor. This permission must be obtained before leaving Matarani, as that is first port of call, and vessel not allowed to move in Peru ports without Port Captain's permission.

Also see "General" before first port, and "Shipmaster's Report" dated June 1995 in "General".

AGENT: See "Callao".

PACASMAYO: 07.24 S. 79.35 W.

DOCUMENTS:
3 copies Voyage Log Extract.
2 originals and 5 copies of Entry/Exit Declaration, endorsed by Consul.
8 copies of Passenger Lists for the Port.
8 copies of Transit Passenger List.
4 copies of Stores List.
4 copies of Personal Belongings Manifest.
13 copies of Cargo Manifest.
Maritime Health Declaration.
2 Crew Lists.
1 Vaccination List.

When this is the first Peruvian port, Gross Tonnage Certificates.

When having cargo for the port, Statement of Cargo, endorsed by Consul.

When Pacasmayo is the first or last port called, Lists or Manifests of Cargo in Transit (2 copies each).

Also see "General" before first port.

APPROACHES: Reference points are the lighthouse of Cruz Punta Pacasmayo with a range of 12 miles, and during the day the cylindrical tower of cement factory with a height of 50 m. situated in the S.E. of the bay. On the head of the quay there is also a small iron tower of 9 m. height with a permanent red light of 2 miles visibility. The quay is very old and only flat boats can moor.

PILOTAGE: The port has no Pilots as it is an open bay.

ANCHORAGE: To the South of an East-West line from the quay, as there are obstacles to the North.

MAX. SIZE: Wide anchorage without problems concerning length or breadth. Recommended draft 24 ft., but it is possible to find 6, 8 or 10 fathoms towards the West. Current from South to North at an average of 6 knots.

HEALTH: Sanitary control is carried out by the health doctor who comes on board with port officials. Normally, Masters notify any suspected illness or any other information by telegraph.

TUGS: They only bring in or take out flat bottomed barges to the vessel once the vessel is anchored.

BERTHING: Vessels anchor in open bay. There is an Iron Quay for the use of barges, length 533 m., width 10 m., depth at West end 3 m.

LIGHTERS: 9 lighters with a total capacity of 400 tons.

CRANES: 1×1 tons, 2×3 tons.

STEVEDORES: Agents order the number of gangs required. These gangs work at a tariff hour/ton and the amount is controlled by the Port Captain. The number of gangs (9 men each) depends on loading/discharging speed required and on the number of holds and winches available. For overtime rates see "Pimentel".

MEDICAL: Can be provided by Centro Preventivo del Area de Salud or by Hospital Regional de Chepen, 35 km. from port (150 beds).

DENSITY: Salt water.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: There are no Consuls in the port.

REPAIRS: There is a small workshop in the port for minor repairs such as soldering, etc. There is no foundry.

DRY DOCKS: Nearest at Callao.

OPENING/CLOSING HATCHES: Carried out by the stevedores.

SHIP CERTIFICATES: Derat or Fumigation Certificate; Vaccination Certificates for Crew and Passengers; Tonnage Certificate when coming from abroad.

CUSTOMS ALLOWANCES: Only tobacco, wines, spirits required for normal consumption, which must be included in vessel's Stores List.

CARGO GEAR: Ship's gear used.

REPATRIATION: Members of crew and passengers can be repatriated subject to Port Authorities' permission and passport control.

AIRPORT: There is a small emergency airport 2 km. from the port where planes can land.

TIME: GMT minus 5 hours.

HOLIDAYS: Holidays have been restricted. The national official holidays are: 27th and 28th July (National Independence Days); 1st January (New Year); 25th December (Religious Fete); Maundy Thursday and Good Friday; variable days and 1st May (Workers' Day).

POLICE/AMBULANCE/FIRE: Police 2126; Ambulance 2225; Fire 2081.

TELEPHONES: It is not possible to install telephones on board. Communication by walkie-talkie radio.

SERVICES: There is no tank-cleaning equipment and the discharge of tank washing and any other kind of garbage is forbidden, as the bay is a bathing area.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Not required unless leaving the vessel.

DELAYS: The vessel is anchored on arrival. Delays can occur due to heavy sea or rain in case of cement loading.

GENERAL: Fresh and dry provisions can be supplied, such as meat, poultry, vegetables and fruits.

DEVELOPMENTS: When the mines of Micchiquillay (copper) start working, the loading capacity of the port has to be 100,000 tons per month. Consequently it is planned to build a quay for minerals or a floating island 6 miles from the port for loading raw materials by pipelines.

AUTHORITY: Captain of the Port.

PAITA: 05.05 S. 81.07 W. (See Plan)

DOCUMENTS:
13 Copies Peruvian "Declaracion de Entrada".
13 Crew Lists.
5 Cargo Manifests, from each port where cargo loaded, or negative.
5 Copies of each Bill of Lading.
3 Personal Effects Lists.
13 Stores Lists.
1 Tonnage Certificate from first and last port.
1 International Maritime Health Certificate.
13 Passenger Lists, disembarking, or negative.
13 Passenger Lists, in transit, or negative.
1 Clearance from last port.
1 Sealed envelope from Peruvian Consulate addressed to Customs.
(Documents should be visaed by Peruvian Consulate.)

Also see "General" before first port.

PILOTAGE: Compulsory. There are two Pilots, on 24 hour service. Arranged by Agent. The boat is an old disembarking launch, hoisting blue flag with a white "P" Pilot will board at anchorage after Free Pratique has been granted by Port Captain and Health Authorities.

ANCHORAGE: Recommended in Lat. 5° 03.5' S., Long. 81° 06' W.

RESTRICTIONS: Draft restricted to 31 ft. at low water.

MAX. SIZE: Length and breadth practically unlimited.

HEALTH: Agent will notify Health Authorities about the vessel's arrival.

RADIO: Recommended Balboa Radio.

Arrival Notice: 24 hours' Notice of Arrival should be sent to the Captain of the Port and Agent.

VHF: Pilots on Channel 16, working on Channel 14.

TUGS: 1 tug of 850 h.p., 1 tug 360 h.p. and one launch 60 h.p. used by the Pilot.

BERTHING: One finger pier, length 475 m. width 36 ft. Four berths available, depths are as follows:

No. 1A (North-West Berth)	32.0 ft.
1B (North-East Berth)	32.0 ft.
1C (South-West Berth)	23.8 ft.
1D (South-East Berth)	22.9 ft.

A safety margin of 3 ft. should be observed. It is advisable to request (from Pilot) Berths "B" or "D", if empty, due to the prevailing winds. The berths have good fenders.

Cranes with capacity of 25,000, 15,000 and 10,000 lbs. available.

STEVEDORES: Arranged by Agent at 24 hours' notice.
Working Hours: 0800 – 1200, 1300 – 1700, 1700 – 2400 and 0000 – 0700 hrs.
Night Work: Possible, as long as it is ordered in plenty of time.
10 gangs of 9 men each available per shift.
MEDICAL: There is a local hospital with all facilities.
TANKERS: There are 4 mooring buoys 0.25 m. East of the finger pier. Facility is the property of Petroperu. Oil loaded and discharged by submarine pipeline.
DENSITY: 1030.
FRESH WATER: Not available.
FUEL: Not available.
FIRE PRECAUTIONS: Port Authority fire equipment stationed at the end of the pier.
CONSULS: Ecuador.
REPAIRS: No facilities.
STORES: Fresh provisions available.
GANGWAY/DECK WATCHMEN: Available on request.
CERTIFICATES: Not requested.
CUSTOMS ALLOWANCES: Two cartons and one bottle per person.
CARGO GEAR: No additional requirements.
REPATRIATION: Allowed on request to the Port Captain.
AIRPORT: Piura Airport 55 km. with domestic flights to Lima International Airport.
HOLIDAYS: 1st May only.
IDENTIFICATION CARDS: Not required.
GENERAL: Painting and chipping ship's side restricted. Very strict concerning rat-guards, disposal of garbage, etc.
AUTHORITY: Captain del Puerto.
AGENT: See "Callao".

PIMENTEL: 06.50 S. 79.56 W. (See Plan)

Pimentel is an unprotected open road port, loading/discharging only from/into lighters. Clearance is possible day and night, including Sunday and holidays, but of course with overtime additional. Main activity: Sugar export, import of fertilisers and general cargo.
PILOTAGE: Not available.
ANCHORAGES: Vessels usually anchor about 1.5 miles off the Pier Head in 7 – 8 fathoms.
RADIO: *Arrival Notice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.
TUGS: 2×82 h.p., 2×120 h.p. and 2×134 h.p.
LIGHTERS: 15 lighters with a total capacity of 1,170 tons.
CRANES: On the mole there are 3 diesel cranes each 3 ton capacity, 3 steam cranes with 4, 6 and 15 ton capacity. Maximum dimensions of cargo handled 27 ft. (length)×15 ft. (wide)×21 ft. (height).
STEVEDORES: *Working Hours:* 0700 – 1100 and 1300 – 1700 hrs. Overtime (plus 100%) 1100 – 1300 and 1700 – 2400 hrs. Overtime (plus 200%) 0000 – 0700 hrs.

On Sundays and holidays an additional 100% to the above-mentioned tariffs.
MEDICAL: There is a hospital at Chiclayo 15 km. from the port.
TANKERS: *Submarine Pipe-line:* Diameter 8 in. max. draft 18 ft. 1 pipeline for clean products and 1 for dirty products. Length of pipeline 1,770 m.
FRESH WATER: Not available.
FUEL: Not available.
CONSULS: Vice-Consul of the Netherlands.
SURVEYOR: Mr. Manuel S. Reyes H., sub-agent of Lloyd's of London.
GENERAL: *Swell Periods:* Pimentel being an unprotected open road port it frequently occurs that the port has to be closed due to heavy swell. The swell comes up suddenly and is not subject to any specific period, but it occurs more frequently during June-September and the Easter week.

PUERTO BAYOVAR: 05.47 S. 81.03 W. (See Plan)

SHIPMASTER'S REPORT: December 1985.

Puerto Bayovar is operated by both, Petroleos Del Peru (PETRO-PERU) and Empresa Nacional de Puertos S. A. (ENAPU). No breakwater as is a natural sheltered harbour. However, there is a constant mild swell which causes the vessel to gently surge continuously at the berth. The current is mild and at the berth flows in a direction of about 300°. The port consists of a jetty, shore tanks and the main office building. There are no facilities of any kind nearby. The nearest town is Piura, which is 125 km. away (2 hours by car).

The port has 15 steel tanks to store approximately 1,700,000 barrels of crude. In addition there is a basin with 50,000 tonnes capacity for dirty ballast.

All the surrounding land is barren and dusty, and according to the Pilot there is negligible rainfall throughout the year.

Except for the Saybolt Inspector, nobody else speaks passable English. However, they understand all the technical terms and loading was not a problem. They keep a strict log of all timings and every small detail is put in the Time Sheet.

DOCUMENTS:
4 copies General Statement (these will be made out by the Agent after he boards along with the Authorities).
5 copies Cargo Manifest. If none then "Nil" lists.
5 copies Cargo Transit Manifest. If none then "Nil" lists.
10 copies Crew List.
10 copies Passenger List.
10 copies Crew Declaration.
10 copies Ship's Stores List.
10 copies Accompanied/unaccompanied Baggage Lists. If none then "Nil" lists.

In addition the vessel must have ready:
Insurance Policy on Hull and Machinery.
Covering Contract of P & I.
Oil Record Book.

IMPORTANT: 1 copy of the statutory cables sent to the Direccion General de Capitanias y Guardacostas regards entering and plying within Peruvian waters. If these messages not sent, a fine of U.S. $1000 – 5000 is levied by the Peruvian Authorities.
See "General – Ship Reporting" before first port.
PILOTAGE: Pilotage is compulsory for berthing the vessel. However, pilotage is *not* compulsory for proceeding to the anchorage within the boarding area, or elsewhere. Frequently, when sending the ETA messages by cable to the Harbour Authorities they assume that a pilot is required to anchor the vessel. This implies an extra charge of U.S.$1000. Since the anchoring is straightforward, a Pilot is not necessary, and the Master should specifically state that a Pilot is not required if the vessel is to proceed to anchor. Also, the Master must refrain from asking any information about pilotage in his ETA messages. When berthing the Pilot will board within the boarding area.
ANCHORAGE:
Boarding Area: There is a boarding area bounded by the following co-ordinates:

Latitude (South)	Longitude (West)
5° 46' 08"	81° 00' 54"
5° 45' 43"	81° 00' 54"
5° 45' 43"	81° 01' 24"
5° 46' 08"	81° 01' 24"

The vessel must be within these co-ordinates for the Harbour Authorities to board and clear the vessel. If vessel is asked to anchor, it is better to anchor directly in the boarding area.

The depth in the boarding area is approximately 26 m., rocky bottom. We used 7 shackles on deck to be safe. The wind sometimes worked up to Force 4 – 5, but, coming from land, caused no heavy swell.
MAX. SIZE: 250,000 d.w.t. Max. LOA 400 m. Max. draft 21.95 m. No limit on beam. No restriction as to minimum size of vessel.
HEALTH: Authorities board at the anchorage.
RADIO: We sent our ETAs to our Agent and asked them to inform all parties, which they did.
TUGS: 3 Tugs available. 'Oro Negro' and 'Bappo' 1,852 h.p. and 'Corvina' 150 h.p.
BERTHING: *Mooring:* Vessels are always moored port side to, except in extreme cases. Reason is that after being loaded it is very difficult to turn the vessel because of the tugs power, wind and current.

Tugs made fast were 'Corvina' on starboard bow, and 'Oro Negro' on starboard quarter, one ship's line to each tug. The forward tug was ineffective.
Note: The tugs cause considerable pollution around the vessel and it is good to bring this to the notice of the Terminal if the vessel is to avoid difficulties later on.

When 100 m. off the berth, starboard anchor was let go to 2 shackles on deck and then paid out as necessary while coming alongside until 5 shackles on deck. After letting go anchor, the tugs will then push the vessel gently onto the berth. As it was a calm day, mooring was easy, but according to the Pilot, when the wind blows (mostly from a direction of 170° – 140°), it builds up the current in the same direction which sets the ship's stern onto the berth. Pilot wanted the mooring arrangement as 2 head/stern lines, 2 breast and 2 springs, but we changed it to 3/3/2, due to the constant movement of the vessel at the berth. Moorings have to be regularly tended. First ropes sent out are 2 breast ropes each forward and aft.
Berth: There is only one berth. It is a "T" shape with the manifold at the head and 8 platforms (4 on each side) along the arms. When the ship is moored she will head in a direction of 322°. There are quick-release hooks on each platform, and also an electric capstan on each. The fenders are good and keep the vessel 2 m. off the pier. There are 4 loading arms, they are modern Chicksan hydraulic type. No ships derricks are required. Due to a constant mild swell, the ship continually surges gently at the berth. The pier is provided with an elevator-type gangway and also an MOT ladder. We used the MOT ladder for fear of damaging the other which was previously damaged by another vessel and took a long time to repair.
LOADING: *Cargo:* There is only one type of cargo exported which is Loreto Crude.
Source: Received through a pipeline 825 km. long, into the shore tanks on top of the hill next to the jetty.
Loading Rate: Loading rate through each of the 4 loading arms is 25,000 bbls.p.h., making a total capacity of 100,000 bbls.p.h. However usually only 2 – 3 arms are connected.
Method: Loading is by gravity only, from the shore tanks. The rate is readily adjusted to suit the vessel's requirements.
Flanges: Flange sizes are 16 in. diameter.
API: Varies between 22 – 24. Very occasionally API 21. We loaded API 23.4.
Load Temperature: Varies around 84°F.
B S & W: 0.2%
Flash Point: +15°C
Pour Point: −5°C

After cargo is loaded, there is a usual delay for inspection, calculations and waiting for shore papers to arrive, amounting to 5 hours. Thereafter 1 long blast is given on the ship's whistle to call the Pilot and the tugs.

BALLAST: Dirty ballast facilities available.
MEDICAL: There is a First Aid post only. All hospitalisation and other cases must be sent to Piura.
DENSITY: Sea Water, 1025.
FRESH WATER: Not available.
GANGWAY/DECK WATCHMEN: See "General-Security".
REPATRIATION: *Transportation/Repatriation:* Agent must be given advance notice so as to arrange car/bus to come from Piura to pick-up personnel. Takes about 2 hours. There is a daily flight from Piura/Lima which takes about 1.5 hours.

Charges for transportation to Piura are as follows:
1 car for 5 passengers approx. U.S.$80.00
1 bus for 12 passengers approx. U.S.$150.00
Waiting period per hour approx. U.S.$6.00

Agent said these charges were for a round trip, but cannot be sure. Agents report that they have carried out quite a few crew changes successfully, but advance notice must be given.
AIRPORT: At Piura, distance 125 km.
GENERAL: *Security:* No one except the terminal representatives must be allowed on board. Keep all unused accommodation and stores doors locked. Absolutely no one must be allowed to stroll around in the accommodation, especially at night, no matter what their excuse. Only 1 shore guard may be allowed on board and he must be kept at the gangway. During our stay, at night, while the Master was on deck attending to problems, 3 guards entered his cabin. 2 guards kept a lookout while the 3rd guard was rummaging through the drawers. They were caught by surprise and taken to a room and searched. After that they were made to leave the ship. No case was made.
Note: Nobody boards the vessel while at anchor.
Cash: As much advance notice as possible required. 2% will be deducted from the amount to be delivered to cover special insurance for theft, assault, etc.
Fresh Provisions: Restricted quantities available from Piura, but Agent must have as much advance notice as possible.
Sea Water Temperature: Just prior to arrival the sea water temperature was 26°C. After anchoring, and throughout our stay the temperature was around 18°C – 19°C.
Agent: Our Agents were extremely helpful, and very prompt in their telex replies.
Fines:

1. If vessel comes alongside pier without previously informing the Port Authority of having Dangerous cargo aboard U.S.$2,000.
2. If vessel does not immediately inform the Port Authority of any emergency on board the vessel U.S.$500.
3. If vessel discharges any bilge water U.S.$1,000.
4. If vessel throws any garbage overside, in each case U.S.$500.
5. If vessel discharges water onto the pier U.S.$500.
6. If vessel discharges water onto any warehouse U.S.$500.
7. If any repairs carried out which immobilise the vessel U.S.$1,000.
8. If vessel berths, unberths, shifts or comes alongside another vessel without Pilot's assistance, in each case U.S.$500.
9. If vessel uses welding machines on deck, paints or scrapes hull without Port Authorities' permission U.S.$500.
10. If vessel does not have rat-guards on each line, for each unguarded line per day U.S.$20.
11. If vessel does not have 1 man constantly at duty to attend to any emergency on board U.S.$100.
12. If vessel's auxillary pumping equipment not functioning U.S.$150.
13. If vessel does not have cargo protection nets during loading or unloading, for each net not rigged per day U.S.$20.
14. If vessel's Master sets aside the Pilot's assistance in spite of the Pilot being on board U.S.$500.
15. If vessel's anchoring system is not working U.S.$200.
16. If vessel's fire-fighting equipment is not working U.S.$250.
17. If unused anchors are not housed during loading or unloading of inflammable cargoes in bulk U.S.$70.
18. For pollution of pier or water with funnel soot U.S.$200.

SHIPMASTER'S REPORT: January 1995.
The following telex was recevied from main Agent in Callao:
Quote:
The following are required on arrival:
(AAA) Clearance from last port for Bayovar.
(BBB) Crew List (Original and 6 copies).
(CCC) List of Personnel Effects (4 copies).
(DDD) Stores List (Original and 3 copies).
We will prepare ashore official forms:
Entrance Declaration.
No Cargo Manifest for the Port.
No Cargo in Transit.
No Baggage.
No Mail.
No Passengers.
All this for your signature at the moment of entry formalities.
Please advise Register Port and Register Number.
We remind you to call Tramar (Costera Paita) via VHF when approaching Bayovar.
For your information, Bayovar is not a city, but only a worker encampment. There is only a pier and tanks. The nearest city is Piura, 2.5 hours by road. No taxi facilities in Bayovar, only in Piura.

PUERTO CHICAMA: 07.42 S. 79.26 W.

Puerto Chicama is about 295 miles North of Callao. Fishmeal is loaded from lighters in an open roadstead.
PILOTAGE: Not available.
ANCHORAGE: Vessels anchor about one mile from the Mole.
RADIO: *Arrival Advice:* Advise general Agents in Lima who will telephone Port Agents.
TUGS: 3 tugs available, 1 of 65 tons and 2 of 80 tons each.
BERTHING: 1 Pier, length 324 m.
LIGHTERS: 20 lighters with a total capacity of 1,000 tons.
CRANES: 4 cranes, 2 of 2 tons, 1 of 4 tons and 1 of 6 tons.
STEVEDORES: Working hours are from 0700 – 2400 hrs. These hours may be exceeded to complete loading. Five gangs of 9 men are available.
FRESH WATER: Not available.
FUEL: Not available.
GENERAL: *Swell Period:* During the months of June, July and August.

SALAVERRY: 08.13 S. 78.59 W. (See Plan)

DOCUMENTS: See "Callao".
PILOTAGE: Compulsory.
RESTRICTIONS: Harbour entrance is sand and liable to silting. Advisable to check draft requirements in advance, as depths are subject to latest dredging. Designed depths: Entrance channel 11.0 m. Basin 10.0 m. Berths 11.0 m.
MAX. SIZE: Approx. 25,000 d.w.t. with up to 29 ft. draft. Draft varies greatly and quickly due to heavy constant sanding, although dredging is practically continuous.
HEALTH: Cable Agent requesting Free Pratique. Agent must be notified in advance if disease suspected on board.
RADIO: *Arrival Advice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.
TUGS: 4 tugs available, 1 each at 690 h.p., 190 h.p., 85 h.p. and 40 h.p.
BERTHING: *No. 1 Pier:* Length 225 m. Vessels able to berth both sides. Max. draft 28 ft. There are pipes installed for the discharge of liquids and loading of molasses and alcohol.
No. 2 Pier: Length 230 m. Vessels able to berth both sides. Max. draft 28 ft. This pier is specially for the loading of sugar in bulk, 2 loading bridges available, loading rate 300 tonnes/p.h. each.
CRANES: 1×22.68 tons, 1×13 tons, 2×6.25 tons and 1×4.5 tons.
STEVEDORES: *Working Hours:* 0700 – 2300 hrs. Sugar and molasses in bulk loaded 24 hours a day. 10 gangs available of 9 men each.
MEDICAL: At Trujillo, 15 km. from the port.
TANKERS: *Submarine Pipe-line:* Length 700 m., diameter of 10 in., depth 26 ft.
FRESH WATER: Not available.
FUEL: Not available.
CONSULS: Nearest at Callao/Lima.
REPAIRS: Workshops available.
GANGWAY/DECK WATCHMEN: Recommended.
CUSTOMS ALLOWANCES: Any amount held over normal consumption may result in Customs search being imposed.
HOLIDAYS: Only 1st May when work is not available.
IDENTIFICATION CARDS: Supplied by Agent and stamped by Immigration. Required for all crew members.
GENERAL: Due to constant swell and undertow which, during Winter months, May/September, may even close port, it is recommended vessel moor with greatest possible number of synthetic lines which must be constantly adjusted, otherwise usual line breakage will increase.
AGENT: See "Callao".

SAN NICOLAS: 15.14 S. 75.14 W. (See Plan)

LOCATION: The port of San Nicolas Bay is located between the parallels of 15° 09' 30" S. and 15° 14' 30" S.

The harbour and its approach were surveyed in 1987 by the Peruvian Navy Hydrographic Office. The following Peruvian charts were revised that year: Chart No. 2218, shows the San Juan and San Nicolas Bay, Chart No. 2219 shows the Southern section and pier area of San Juan Bay and Chart No. 2220 shows the Southern section and the pier area of San Nicolas Bay.

A vessel is considered to be an "arrived vessel" when, after entering San Nicolas Bay, she has arrived at Pilot Station (1 mile North of Pier Head).
DOCUMENTS:
Port Authorities Inspection: As the Peruvian regulations indicate, the Master of the vessel should receive the Harbour Master on deck (by accommodation ladder) when anchored. If the vessel is under way or manoeuvring, the Chief Officer or 2nd Officer should receive the Harbour Master on deck. Nonfulfillment of this rule will cause fines of about U.S.$1,000.

Official hours for port officials are from 0700 hrs. – 1100 hrs. and from 1300 hrs. – 1800 hrs., Monday to Friday. Upon request Port Officials will board vessels at any time, day or night, Sundays and holidays included.

Reception official hours are 0700 hrs. – 1100 hrs. and 1300 hrs. – 1800 hrs., Monday to Friday. Upon request, reception is carried out at any time, day or night, Sundays and holidays included. Authorities overtime fee is about U.S.$2,500 for a vessel of 60,000 g.r.t.

Masters must be sure to get the corresponding clearance from the previous port and complete the official forms provided by the Agent.

If the vessel has no forms on board, they will be completed after arrival, an extra set of forms will be provided by the agent prior to departure for the next voyage.

Controls are very strict and any attempt to smuggle goods is heavily fined, the same applies for any breach of the port regulations, which are internationally known, such as anti-pollution measures, use of radio while anchored, bad behaviour of crew members, etc.

Normally, you can change foreign currency in local banks. Any crew member or passenger going ashore with foreign currency should change money at the bank. There is no strict regulation as there was previously. In the interest of security it is better to change currency at a bank or at the Agency office. The Agency will help the Master with any Peruvian cash advances he may require, or will direct the crew member's through proper channels to local banks but, in case of emergency, be sure that the currency is being changed in a reliable place.

The following documents should be available for inspection:

Vessel's Certificates.
Clearance from Last Port of Call,
Valid fumigation or Exemption Certificate.
Crew's identity documents.
International Vaccination Certificates of all persons on board.
International Oil Pollution Prevention Certificate.
Oil Record Book, fully up to date.

This book must be strictly completed according to Marpol 73/78 (Annex I, Chapter II, Regulation 9 and 20). If vessel is other than a tanker, she must record code letter and item number in the Oil Record Book Part I – Machinery Space Operations (instructions for all ships). If your vessel is a combined carrier, i.e. O/O or OBO type vessel, in addition to Part I she must also record code letter and item number in Oil Record Book Part II – Cargo/Ballast operations (additional instructions for oil tanker) when such cargo/ballast operations have been carried out.

All operations must be recorded continuously, so do not leave empty spaces between any two operations recorded. Vessel should also keep on board the last Oil Record Book with operations. When incorrect data is found, vessel will be subject to very severe fines.

Sewage Treatment Plant Certificate and/or latest report of inspections.
International Tonnage Certificate.
P & I Policy Number.
Hull and Machinery Policy Number.
The following completed forms:
2 copies Health Declaration*.
5 copies General Declaration*.
5 copies Cargo Manifest*.
5 copies Manifest Cargo in Transit.
6 copies Crew List*.
6 copies Passenger List*.
5 copies Passenger's Effects Declaration.
4 copies Stores Declaration.
4 copies Crew's Effects Declaration.
2 copies Postage Manifest.
List of Ports of Call in last 4 months.
* Forms supplied by Agent.

PILOTAGE: Pilotage is compulsory for berthing and unberthing. When approaching the pier, the docking speed should not be more than 50 cm. per second, or about 1 knot. Vessel will not proceed to the pier until permission to berth has been granted.

While loading or during periods of heavy swells and surge, a Pilot will be on board permanently. Masters are requested to make arrangements and facilities available.

Upon arrival in port, vessels must wait for Pilot. The starboard accommodation ladder must be rigged for Port Officials and Agency representatives. Ships approaching San Nicolas must fly their national, Peruvian, call letters and quarantine flags. If vessel is carrying any type of explosive material, she must fly "B" flag.

ARRIVAL ADVICE: All vessels proceeding to San Nicolas Port will telex to Shougang Hierro Peru S.A., Telex: 20005PE Shougang; and Consorcio Empresarial Agnav S.A. – "Agnav", Telex: 21410PE Agnav; her ETA, 5 days, 48 hours and 24 hours prior to arrival.

When vessels are within or outside the 200 miles of jurisdictional Peruvian waters, they have to contact Paita (OBY2), Callao (OBC3), or Mollendo (OBF4) coastal stations, in order to transmit their messages; a Pre-Stowage Hatch List has to be transmitted to Agnav giving tonnage per hatch and loading sequence.

Berthing instructions and other messages from port Agent at San Nicolas will be transmitted by the above coastal stations.

The port Agency is Agnav, Telex: 21410PE.

Changes in ETA should be transmitted as soon as possible.

Vessels can get in contact by VHF communication system (Channel 16) 4 hours before arrival at San Nicolas by calling Agnav.

Also see "Radio" and "General" before first port.

BREAKWATER: A 808.6 m. (2,653 ft.) long breakwater has been built in order to reduce the effects of the swell alongside the pier. The breakwater is at the West side of the pier 800 m. off and does not run parallel to the pier, but at a N. 36° 35' 28" E. angle. The North end of the breakwater is 435.84 m. (1,430 ft.) from the North end of the dolphin, but the perpendicular distance from the pier to the closest point of the breakwater is only 322.22 m. (1,090 ft.)

At the North end of the breakwater there is a light with the following characteristics: Fixed red light, visible 3 miles.

AIDS TO NAVIGATION:

(a) San Juan Lighthouse, located on Pt. San Juan, Lat. 15° 21' 27.2" S., Long. 75° 10' 49.1" W. Characteristics: 2 W.Fl. ev. 22.5 secs. light 0.4 secs. eclipse 3.6 secs. light 0.4 secs. eclipse 18.1 secs. Height of light above sea level 85.03 m. vis. 22 miles. Sector illuminated 360°. Type of building: Circular concrete tower, white.

(b) San Nicolas Lighthouse, located on Pt. San Nicolas in Lat. 15° 15' 11.0" S., Long. 75° 15' 20.6" W. Characteristics: 1 W.Fl. ev. 4 secs. Height of light above sea level 58.60 m. vis. 20 nautical miles. Sector illuminated 360°. Type of building: Square steel and plastic tower, painted 2 black stripes and 2 white stripes.

(c) Fixed red light, vis. 3 nautical miles, located at the North end of the breakwater.

(d) Fixed red light, vis. 3 nautical miles, located on the head of San Nicolas Pier.

(e) Fixed green light located at the South end of the pier, used as a leading light for berthing purposes.

(f) Around the dolphin which is North of the pier head, there are 9 red lights, 3.048 m. (10 ft.) above the water level and lower than the dolphin deck, visible only from 1 mile distance.

(g) There is a radio beacon located at Lat. 15° 21' 27" S., Long. 75° 10' 09" W., transmitting on 395 kHz – 24 hours and signal letters SJN.

(h) In position Lat. 15° 14' 36.5" S., Long. 75° 14' 08.5" W. exists a luminous buoy with following characteristics: white flash ev. 4 secs. (light 0.4 secs. eclipse 3.6 secs). Sector illuminated 360° vis. 3 miles. Height 1.52 m. (5 ft.).

ANCHORAGES: The anchorage areas recommended for vessels waiting for berth are:

(1)	Lat. 15° 14' 00" S.,	Long. 75° 14' 00" W.
(2)	Lat. 15° 13' 52" S.,	Long. 75° 14' 29" W.
(3)	Lat. 15° 13' 31" S.,	Long. 75° 14' 07.5" W.
(4)	Lat. 15° 13' 23" S.,	Long. 75° 14' 38" W. (only for vessels having dangerous cargo on board).

When anchoring, it is essential to leave sufficient sea room, about 0.75 miles for ships to manoeuvre in and near the berth.

Wreck of M/S *Templar* lies in position: Lat. 15° 13' 27" S., Long. 75° 15' 01" W., or 341° from the pier head, distance 1.6 nautical miles. The obstruction lies in approximately 150 ft. of water. Clearance above the obstruction is 18.29 ft. (60 ft.). Do not anchor in the vicinity of the wreck.

MAX. SIZE: The following are the maximum permissible vessel's characteristics at the Shougang Hierro Peru – San Nicolas Loading Pier:

LOA – 320.02 m. (1,050 ft.)
Max. beam – 49 m. – 53 m. (161 ft. – 174 ft.) if it is previously co-ordinated.
Max. draft – 17.98 m. (59 ft.)
Max. airdraft – 12.26 m. (40 ft. 3 in.)

Loading boom belt speed has been increased and maximum beam approved is 53.0 m. if it is previously co-ordinated. Also LOA has been increased to 335 m., provided maximum distance from bow to aft end of last hatch coaming is no more than 266 m. Vessels whose distance from port side hull to port side hatch coaming is greater than 16.76 m. (55 ft.), previous co-ordination will be required to see if it may load.

General Arrangement Plan must be submitted well in advance, indicating measurements of the hatches and clear height at loading draft.

RADIO: Coast Radio Station "OAS" is located in port of San Juan and serves both San Juan and San Nicolas. This station listens on 500 kHz, 1200 – 2200 hrs. GMT each day. It handles traffic on 410, 425, 444, 448, 454, 468, and 480 kHz.

There is a new transmitter with the following frequencies schedule:
8,680 kHz – 1600 – 1630; 2000 – 2030 hrs. GMT
16,978 kHz – 1330 – 1400; 1630 – 1655; 2100 – 2200 hrs. GMT

TUGS: 2 small tugs available at 300 h.p. each

BERTHING: *Pier and Mooring Facilities:* The pier is located at the South side of the bay and is built in a North-South direction. It is constructed of pre-stressed concrete and steel tubes with deck 304.79 m. (1,000 ft.) long and 15.24 m. (50 ft.) wide. The deck is 3.43 m. (11 ft. 3 in.) above MLW.

At the pier head, a 15.24 m. (50 ft.) diameter mooring dolphin has been constructed to make fast the stern lines of any vessel bigger than 274.31 m. (900 ft) overall length. Distance from Northern end of pier to Northern end of dolphin 60.35 m. (198 ft.)

There are 3 big bollards, 2 pelican hooks and an electric winch to make fast the stern lines. There is also a connecting bridge from the pier to the dolphin, which is 45.11 m. (148 ft.) long.

There is a fendering system on both sides of the pier consisting of wood pilings and a continuous rail of laminated lumber and rubber cylinders which keep vessels 1.52 m. (5 ft.) from the concrete pier. On the West side of the pier (ore-loading side) there are 28 mooring cleats, 12 bollards and 3 double mooring bitts. At the centre of the pier-head there is one bollard. On the East side of the pier there are 23 cleats, 2 bollards and one double mooring bitt.

The depth of the loading berth at the West side of the pier is 18.9 m. (62 ft.) alongside the pier and up 91.44 m. (300 ft.) Westward from the pier fender, except in the place known as "anchor pocket" which is located between the pier-head and the dolphin. The anchor pocket is 21.33 m. (70 ft.) deep, 76.20 m. (250 ft.) long and 91.44 m. (300 ft.) wide. When docking the 2 anchors are let go in that pocket where enough water exists to prevent any collision of the ship with her own anchors when she is fully loaded.

The East side of the pier still has the original depth, which is 12.5 m. The bottom alongside is mud and sand. The ore ship loader has a pier straddle clearance height of 4.27 m. (14 ft.) and width of 3.66 m. (12 ft.) when the gantry is positioned inshore thus restricting the size of cargo parcels placed on the pier.

Berthing and Mooring: Vessels calling at San Nicolas for the discharging of general cargo must berth on the East side of the pier with the starboard side of the ship to the pier.

Ore vessels berth at the West side of the pier. Wires are not permitted as moorings to the pier except when attached to tension winches.

VERY IMPORTANT: While vessels are alongside the pier, engines must be ready for immediate use. Sufficient crew must be on deck at all times to tend mooring lines and heave in the slack as loading progresses. Failure to do so may result in a stoppage of loading and the vessel being moved out from the berth.

LOADING: Prior to commencement of loading the Master or Chief Officer will deliver to the Port Agent a pre-stowage plan with the following information:

Total cargo required, calculated tonnage per hatch, sequence of loading, fuel on board, water and stores on board in long tons, and calculated draft and trim upon completion of loading.

Loading is generally carried out at a rate of about 4,000 long tons per hour, depending on cargo type and size.

Tonnage on board at any stage of the loading is available from the Loading Master, or at the scale house at the upper end of the pier. In order to avoid last minute delays, it is very important that a constant check be made of vessel's draft, ballast left to discharge and cargo on board during the entire loading.

Any change in tonnage of cargo required must be reported to the Port Agent or Loading Master not later than when there is approximately 2,000 long tons remaining for completion of loading, and always in writing.

It is convenient to check drafts, ballast and tonnage of cargo on board each time the loading gantry shifts from one hatch to the next.

While loading is actually in progress in a hatch, no loading interruptions are permitted, except in case of emergency. At the termination of each pouring, a slip stating cargo loaded and draft readings, will be delivered to the Chief Officer.

It should be remembered that cargo is spout trimmed only.

No trimmers/bulldozers are available at San Nicolas.

Vessels will depart from the pier immediately upon completion of loading.

The Pilot will take the vessel out from the berth. If the Master wants to anchor in San Nicolas Bay prior to proceeding to sea, he must advise the Pilot who will in turn advise suitable anchorage. The Master will advise the Pilot of the estimated time of departure in order that this may be reported to the Port Authority.

Delays of port operations, as well as delays of other vessels waiting to berth, caused by a vessel which for any reason is not prepared and able to move from the pier when so ordered by the Port Operator, *are chargeable to the vessel which causes the delay.*

Clearance papers, Bills of Lading, Statement of Facts and all necessary papers for clearance of the vessel will be delivered shortly after completion of loading. This can be accomplished while the vessel is being moved from the berth, or at anchor, *but never alongside the pier when other vessels are waiting for loading turn.*

CRANES: None.

STEVEDORES: *Working Hours:* 0800 – 1200, 1300 – 1700, 1800 – 2400, 0100 – 0700 hrs.

MEDICAL: Medical attention may be arranged through the port Agent's office. No person will be attended to unless he is provided with a letter from the Master authorising such treatment. All costs incurred will be for the vessel's account.

Send radio message advising how many people require medical attention in order to make proper appointments with doctors at San Juan Hospital. Otherwise the medical inspection will be very difficult.

TANKERS: On the West and East side piers there are 3 raisers to which 3×8 in. diameter hoses can be connected to a main pipeline of 16 in. diameter for the discharging of Bunker C. Flanges are U.S. Standard (ASA). Location on the pier is for midship connection on vessels.

Maximum pressure permissible is 125 p.s.i. and maximum temperature 135°F. The length of the 16 in. pipeline from the manifold on the pier to the storage tanks is 1475 m. (4,840 ft.).

There are 3 storage tanks of 7,000 bbls., 67,000 bbls. and 252,000 bbls. Total capacity 326,000 bbls. The height of the tanks above MLW is 43.28 m. (142 ft.) to the bottom and 57.91 m. (190 ft.) to the top of the tanks. The intakes to the tanks are at the top.

Diesel oil is discharged in San Nicolas.

There is a crew on the pier to sling the hoses; the vessel's crew is required to operate the winch, boom, hoist the hoses on board, and connect same to vessel's manifold.

BALLAST: Special attention is called to ballast requirements of vessels which do not need ballast in order to enter under the loading boom. Such vessels are required to carry sufficient ballast for safe handling during berthing. It is permissible to discharge clean ballast in the bay.

A ballast discharge rate of 4,000 long tons per hour is recommended. Any delay in loading operations due to slow deballasting, is not only on account of the vessel, but if any other vessel is waiting for loading turn, the vessel slowing down the loading process is liable to be undocked in order that the vessel waiting for turn to load may be docked. All time lost and expenses for undocking and redocking the vessel is for Owner's account.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: At Lima.

REPAIRS: Except in extreme emergency, ship repairs cannot be effected at this port.

CARGO GEAR: The loading boom extends 18.29 m. (60 ft.) from face of pier fender, and can be retracted from this position to a minimum length of 9.45 m. (31 ft.). Gantry with loading boom is mobile. Range of its mobility is 272.56 m. (900 ft.) starting at a point 33.52 m. (110 ft.) from the head of the pier. Shifting of vessels during loading is therefore not required. When not loading, the gantry is parked at the inner end of the pier with its boom and the loading conveyor belt in a vertical position. In the most vertical position the boom has a clearance of about 1.22 m. (4 ft.) inside the face of the dock fender.

After the gantry has been moved into loading position, the boom is lowered to horizontal position. Height from water level to underside of boom is 12.5 m. (41 ft.).

Vessels must be ballasted so that height of any coaming or any other objects in the vicinity of the hatch where loading is to start will not exceed 12.25 m. (40 ft.) above waterline.

GANGWAY/DECK WATCHMEN: Recommended by crewmen to prevent stowaways.

OPENING/CLOSING HATCHES: Stevedores/crew.

REPATRIATION: In cases where crew changes are to take place in San Nicolas, at least 7 days' advance cable notice is required to obtain the necessary Immigration Authorities' permission. The advance cable must set forth name, nationality and passport number. If the above is not complied with, crew changes cannot be carried out. The above applies also to passengers.

TELEPHONES: Available, Masters are able to communicate with any port in the world.

SHORE LEAVE: Shore leave may be granted at the Master's discretion. All crew members must possess gate passes before proceeding ashore. These must be shown to the Immigration Authorities when required. Peruvian laws and Immigration Regulations must be strictly adhered to in order to avoid unnecessary difficulties. Crew members are not permitted to travel 100 km. outside of San Nicolas – San Juan port areas without written authorisation or pass from the Master approved by Immigration Authorities.

IDENTIFICATION CARDS: Required (Seaman's Book or Passport). Also see "Shore Leave".

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Nuevos Sole.

WEATHER: There is generally a prevailing S.E. wind which may vary from a light breeze to a strong wind. The months of May, June, July, August and September are Winter months. Swell and surge are occasionally experienced in the port.

CONDITION OF CARGO HOLDS: Cargo holds must be properly cleaned. Special care must be taken when vessel, prior to her arrival at San Nicolas, has carried the following cargoes: Gypsum, phosphate, pyrite, coal, sulphur, silica, aluminium, sand, gravel or quartz, or any other ore containing arsenic, phosphorous, silica, aluminium or copper.

Prior to commencement of loading, cargo holds will be inspected by a Representative of the Shippers. Furthermore, Master is requested to present a list of cargoes loaded in the last 6 months.

MAIL: All mail received by the port Agent will be delivered to the vessel upon arrival. For quickest delivery, mail should be addressed as follows: c/o Consorcio Empresarial Agnav S.A. – Agnav, Apartado 1229, Lima 1, Peru.

Officers or crew members should be advised that taxes could be charged by the Peruvian Customs Authorities, depending on the contents of parcels mailed to them at Peruvian ports. Outgoing ship and crew mail will be accepted ONLY directly from the Master. The vessel will be billed the corresponding amounts for postage.

GENERAL: It is forbidden to throw out garbage, debris or any kind of dirty ballast in the Bay.

It is forbidden to hunt seabirds; to throw out explosive material or to use any pyrotechnic object on board.

Vessels can do underwater work only with Port Captain's permission.

Emergency Signals: A number of short blasts on the whistle indicates an emergency. The whistle will not be used except for emergency in accordance with Peruvian regulations.

Provisions: Fresh provisions are available at San Juan and Nazca. Vessels may acquire provisions on shore by themselves, by advance written notice to the agent and the Customs House.

Stowaways: Unauthorised persons should not be allowed on board the vessel. Cases of attempted stowaways have occurred. Masters must take all necessary care and precautions to insure against unauthorised personnel being on board while in port.

Stowaways aboard on arrival should be reported to the Port Captain in order that the necessary steps be taken to prevent their unauthorised landing. It should be noted that all costs for the repatriation of stowaways is for account of the vessel concerned.

Crew Replacement/Deserters: Masters are requested to have ready identity documents and lists of personal effects (in triplicate) prepared for delivery to Port Agent as soon as possible covering deserters and hospitalised crew members.

A letter of authorisation is required when the Port Agent is expected to provide hotel accommodation, meals, medical attention, transportation, travel expense, and/or cash advance to the disembarking crew for account of vessel.

No crew member may be paid off from a foreign vessel without prior permission from the Port Captain. Under Peruvian Law, Agents are responsible for repatriation of all foreign seamen left in Peru.

Authorisation for crew replacement requires at least 7 days' prior notification by radio/telex. The notification must provide names, passport number, age and nationality of persons to be embarked or disembarked.

Fumigation: Facilities are not available at this port.

Visitors: Visitors to vessels at San Nicolas may board only at the Master's request, who will deliver a list with the guest's names to the agent, in order to obtain the corresponding pass from Port Authorities.

When visitors are on board, they are the sole responsibility of the Master.

Drugs: Drug trafficking is forbidden and strictly punishable under Peruvian Law.

Master, Officers and Crew should take necessary steps to avoid drug traffic. Any misunderstanding or breach of the measurements of international (IMO) recommendations to prevent drug traffic could be understood by the authorities as being collaboration with the trafficker, causing the Master and officers to be arrested until the case is clarified.

SHIPMASTER'S REPORT: March 1992 (Updated 1996).

General: Reports are to be made to Peruvian Authorities (Coast Guard) upon entering, transitting and leaving Peruvian waters. Authorities are very strict about this, and non-compliance can invite a fine of up to U.S.$ 10,000.00.

Reporting limits, i.e. boundaries of Peruvian waters, are as follows:

Northern limit: Parallel of latitude 03° 25' S.
Southern limit: Parallel of latitude 18° 20' S.
Eastern limit: 200 nautical miles.

Copies of all "SHIPREP" messages are to be handed over to Harbour Master upon arrival.

Apart from Coast Radio Stations through which "SHIPREP" messages can be sent, following are the latest telex numbers for ships with satellite communications – 20143 PE, 20671 PE.

Approaches/Anchorages: Approaching from North or South, it is best to come to parallel of 15° 14' S., and enter port heading on a course of 090°.

Vessel can anchor 1 mile North or N.N.E. of pier head in depth of 50 m. (vessel anchored in position pier head dolphin bearing 190° × 9 cables).

Free Pratique/Arrival Formalities: Radio Free Pratique is not granted. Upon arrival, vessel must anchor off pier head, where Harbour Master and other Authorities board vessel. Starboard side accommodation ladder should be ready for Authorities. As per Peruvian regulations, Master has to receive Harbour Master at gangway.

Free Pratique is granted by Harbour Master after inspecting certificates and documents.

Apart from usual documents, the following are important: P & I Policy Certificate, Hull & Machinery Insurance Policy Certificate (copy), Sewage Treatment Plant Certificate, Oil Record Book, List of Ports Called in last 4 months, Port Clearance from previous port.

Berthing: Ore loading berth is West side of pier, always port side alongside.

Pilot boards at anchorage. Berthing is carried out without tugs, and both anchors are used. From anchorage position North of pier head, vessel heads directly towards dolphin at pier head. Approach speed is always kept to below 2 knots. Both the anchors are lowered to 2 shackles and kept ready on brakes. When bow is just about a ship's length away from the dolphin, vessel is allowed to cant to starboard (hard over to starboard). When stern is in line with dolphin, vessel is swung to port and Officer forward must stand-by on anchors. As vessel becomes parallel to pier, both the anchors are dropped, just when bow is in line with pier head (i.e. about 20 m. – 30 m. off dolphin), both cables are laid out to 9 shackles and vessel moves forward. Between dolphin and pier head, the bottom is deeper and serves as an anchoring pocket. If by any mistake or communications gap between bridge and forward, anchors are not dropped in time in the anchoring pocket, there will be a risk of a deeper draft, vessel sitting on her own anchor towards final stages of loading.

Recommended mooring is 4+2+2 forward and 4+2+2 aft. However, continuous offshore winds were experienced, and significant continuous swinging resulted in parting of 3 ropes. More ropes were passed later to keep vessel in position, final moorings were 11 ropes forward and 11 ropes aft. Breakwater does not provide much protection from swell. Wind can suddenly freshen, and a vessel breaking her ropes will land on breakwater. Tidal range is small.

Loading: Loading is through travelling conveyor loader, and shifting of vessel is not required. Large vessels will invariably have to take extra hold ballast to meet the airdraft restriction of 41 ft.

Shougang Hierro Peru S.A. are the shippers. Pilot usually acts as the representative of the shippers, and signs Hold Inspection Certificate, ship's Draft Survey Forms, etc. Cargo is shipped directly from the processor, which is close to mines right on the mountains, through a conveyor system, which is about 25 km. long. Each time the loader shifts, Loading Master on duty gives a slip to the vessel, stating amount of cargo poured in hold. Bill of Lading figures are taken from shore weightometer, and 1% difference from ship's figures is usual.

Departure Formalities/Documentation: Usually vessel is instructed to depart from berth immediately after completion of loading, and loading documents are prepared while she is casting-off. Harbour Master boards again off the berth by boat to give Port Clearance. Master, however, can request formalities and documentation to be carried out whilst alongside, if there are no ships waiting for berth.

A sailing plan showing route and alteration points has to be submitted before departure.

Agency: The only Agency is Consorcio Empresarial Agnav S.A. – Agnav. Agents have their branch office at the end of pier. Language difficulty is frequently experienced as most people only speak Spanish.

AGENT: Consorcio Empresarial Agnav S.A. – Agnav, P.O.Box 1229, Lima. Tel: 411493, 418314. Fax: 51-14-411493. Telex: 21410 agnav pe or 20005 hierrope pe.

San Nicolas Port Office: Superintendent – Tel/Fax: 034-223511. Assistant Superintendent – Home Tel: (San Juan) 476. Chief Traffic – Home Tel: (San Juan) 481.

All documents relating to vessels calling at San Nicolas and San Juan should be addressed to the head office in Lima.

SUPE: 10.48 S. 77.45 W.

Supe is about 84 miles North of Callao. Cargo operations are undertaken in an open unprotected roadstead. The main activities at the port are the loading of fishmeal and discharging of fertilisers, cellulose and chemical products.

PILOTAGE: Not available.

ANCHORAGE: Vessels anchor in the open roads.

RADIO: *Arrival Advice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.

BERTHING: There is a pier for mooring barges, length 331.5 m.

LIGHTERS: 32 (14 of wood and 18 of steel) for dry cargo only. The capacity of the lighters varies from 50 to 100 tons. Total capacity being 2,100 tons.

CRANES: 3×9 tons and 1×11 tons.

STEVEDORES: See "Pimentel" for working hours and overtime rates. 5 gangs of 9 men available.

MEDICAL: There is a hospital at Barranca.

TANKERS: *Submarine Pipe-line:* One line 10 in. diameter for dirty products and one line 8 in. diameter for clean products. Depth of water 48 ft. At Paramonga there is a 10 in. line, depth 36 ft.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: *Swell Period:* June/August.

SHIPMASTER'S REPORT: June 1996.

Supe is an anchorage port in Bahia Supe. It is an open and unsheltered anchorage, well exposed to wind and swell. For the sake of clarity, we used Peruvian Chart No. 1356.

Prior to arrival, anchoring position must be obtained from Agent. As we were to load fishmeal, we were asked to drop anchor at Lat. 10° 47' S., Long. 77° 45.5' W.

Authorities boarded along with the Agent on arrival. It is important to note that vessels entering Peruvian waters must take part in the Peruvian Reporting System (See ALRS, Vol. 1 for details). Copies of the reporting telexes duly signed by Master and stamped were handed over to the Authorities.

Soon after the vessel was cleared inwards, the inspectors carried out hatch inspection, and we did not face any problems as our hatches were very clean.

The loading was carried out round the clock and cargoes were brought in by small barges. The loading rate was quite good (90 tonnes – 100 tonnes per gang per 8 hour shift). A strict eye had to be kept on cargo to ensure rejection of any wet or torn bags. It is however paradoxical as any rejected cargo may return on the next barge and be loaded on board. There is usually one man in each hatch with a needle and twine to stitch any bleeding bags. Necessary dunnage and craft paper were provided by the Shipper, as being FIOS cargo.

In case of strong wind and/or heavy swell, which is predominant from June to August, cargo work may be suspended, and if necessary, vessel should shift anchor to a position deeper into the sea, as there are chances of being driven on to lee shore. However, prior to shifting, inform Agent to notify the Harbour Master.

The Supe anchorage is very prone to theft, as such it is imperative to maintain strict security watch. We also removed liferafts, lifebuoys, boat equipment, fire hoses and all other loose gear to a secure locked place. Only one entry point to the accommodation was kept open, but manned all hours, and no unauthorised personnel were allowed inside accommodation.

Labourers embark and disembark by pilot ladder, which is liable to be crushed due to the barge being alongside, constantly rolls and pitches. One can expect to sacrifice one ladder if loading continues for 2 – 3 days.

It is important to bear in mind that no tugs, Pilots, fresh water, workshop facilities and fuel are available. There is one small hospital in the nearby town of Baranca.

Fresh fruit and vegetables are available in abundance, and it is possible to arrange provisions through the Agent. Boat service is available on payment. The Agents are equipped with VHF, and international fax and telephones are possible. Our Agent did not have telex, and so is the case with other Agents as far as I know. These Agents are normally sub-Agents to the principal Agents, who are usually located in Lima/Callao.

Also see "Shipmaster's Report", dated August 1996, in "Peru – General" for comments on fishmeal loading and radio procedure.

TALARA: 04.35 S. 81.17 W. (See Plan)

DOCUMENTS, and all general information, refer to "Callao".

PILOTAGE: Compulsory. Pilots are provided by Petroleos del Peru on notification by the ship's Agent. Vessels should proceed to 3 miles N.W. of Punta Parinas, and no nearer as there are offshore oil drilling platforms 2.5 miles West of Punta Talara.

ANCHORAGES: Anchorages are assigned by the Maritime Authority.

RESTRICTIONS: *Buoy Berth:* Berthing during daylight only.

Berth No. 1: Berthing and unberthing day and night.

MAX. SIZE:

Buoy Berth:

Max. d.w.t.:	55,000 tons
LOA:	234 m.
Max. draft:	10.67 m.

Berth No. 1:

Max. displacement:	35,000 tons
Max. LOA:	190 m.
Min. LOA:	64 m.
Max. draft:	11.0 m.

HEALTH: Free Pratique is obtained from the National Sanitary Centre in Talara.

RADIO: Radio station "OAH" on 500 kHz from 0800 hrs. – 2400 hrs.

Arrival Notice: Captain of the Port and Agent require a minimum of 24 hours notice of arrival.

VHF: Channel 14 is used for most communications.

RADAR: No service available.

TUGS: 2×20 tons B.P.

Tugs are provided by Petroperu on advice of the ship's Agent, and are compulsory for tankers from Buoys No. 3 and No. 4 inward.

BERTHING: *Buoy Berth (Submarine pipeline):* Vessels berthing at the buoys require 12×250 m. mooring lines (no wires) of 2.5 in. – 3 in.

Berth No. 1: Vessel berths at platform (length 130 m.) with lines to dolphins forward and aft. 18/20 mooring lines (no wires) of 250 m. length are required. Anchors should be ready for use.

Embarkation Jetty: Heavy equipment, spare parts and machinery are unloaded from ships at anchor. Launches are unloaded by mobile cranes. Storage area of 3,000 sq.m. available. Max. draft 5.0 m.

CRANES: 4 mobile cranes 20 tons – 300 tons capacity. A mobile crane of 500 tons capacity is available at 7 days notice.

STEVEDORES: 24 hours working, with overtime paid on Sundays and holidays.

MEDICAL: 3 medical clinics and one national hospital. Dental facilities available without prior notice.

TANKERS: *Buoy Berth:* Berth for loading and discharging hydrocarbons.

Berth No. 1: Berth for loading and unloading hydrocarbons with 6 articulated loading arms (1×10 in. gasoline, 1×6 in. lubricants, 1×10 in. kero/turbo jet, 1×10 in. diesel, 1×12 in. residual crude/black products and slops, 1×6 in. LPG). Tetraethyl lead also handled. Facilities available to receive 56,000 barrels of dirty ballast.

FRESH WATER: *Buoy Berth:* Available by barge. Cost of good quality distilled water for boilers is U.S.$ 15.00/ton.

Berth No. 1: Available by 3 in. pipeline. Cost U.S.$ 11.42/ton.

FUEL: Available at Berth No. 1 by 12 in. arm or 4 in. hose, and by barge at the Buoy Berth.

REPAIRS: Workshops for minor repairs.

SURVEYORS: Saybolt, A.B.S., Bureau Veritas.

GANGWAY/DECK WATCHMEN: No requirement for watchmen, except for special vessel conditions or security reasons as determined by Port Captain. There are private companies that offer this service 24 hours a day.

OPENING/CLOSING HATCHES: By ship's crew or stevedores.

CUSTOMS ALLOWANCES: Normal allowances.

CARGO GEAR: Crane capacity can accommodate single lifts. Load/discharge operations can be performed by ship's gear or shore gear, and special cargo equipment, heavy lift cranes, etc.

REPATRIATION: Facilities available.

AIRPORT: One daily flight to Lima, usual departure time is 1600 hrs. Distance to airport 4 km.

HOLIDAYS:

New Year's Day.
Talara's Day (April 16th). *
Saints Week. (April 3rd and 4th (1997)).
Labour Day (May 1st).
Saint Peter, Saint Paul and Saint Rose Festivity. *
Independence Day (July 28th).
All Saint's Day (November 1st).
Christmas Day (December 25th).

* When any one of these holidays falls on a Sunday, the following Monday is observed as a holiday.

POLICE/AMBULANCE/FIRE:

National Police Department of Peru. Tel: 302515, 381533.

Local medical clinics have ambulance service.

The National Air Force and Talara Refinery have fire departments for emergencies.

EMERGENCY CO-OPERATION CENTRE: Captain of Talara Port. Tel: 074-381704, or via VHF Channel 16.

Port Agents know the Co-ordinators in emergency matters.

Port Administration Petroperu. Telex: 074-383038.

SERVICES: There are private firms with special services available, e.g. tank cleaning equipment, facilities for washing clothes, compass adjusting, radio repairs, Notices to Mariners, safety equipment, possibility to obtain certificates, etc.

BANKS: Wiese Bank, Centro Civico 265. Tel: 381150. Fax: 074-381179.
Continental Bank, Centro Civico 159. Tel: 382611.
Credit Bank, Centro Civico 147. Tel: 382671. Fax: 074-382857.
International Bank. Tel: 381291. Fax: 074-382317.
Regional del Norte Bank, Centro Civico 293. Tel: 381603.

STORING: Vessel can be stored in the berth. The transportation of loads is performed by launches. For heavy loads, launches are used, they can be discharged directly to trucks on land with previous advice at least 15 days beforehand.

SHIP SUPPLY SERVICE: Ship supply services are available. This service is supplied by the Agent.

SHORE LEAVE: Possible, with previous notice to Maritime Authority.

GARBAGE DISPOSAL: There are private companies that provide garbage collecting services.

WASTE OIL DISPOSAL: A collecting service is available by private companies. Co-ordination is done by the ship's Agent.

CURRENCY: Nuevo Sol. U.S.$ 1.00 = 2.5 Nuevos Soles (August 1996).

DELAYS: Average time for vessels/tankers to berth at Berth No. 1 is 2 hours, and at the submarine terminal for petroleum and derivatives the average time is 3.5 hours.

DEVELOPMENTS: Construction of a new terminal for vessels of 25,000 d.w.t. under consideration. Increase in the number of tanks to store petroleum and petroleum derivates.

AUTHORITY: Captain of the Port.

Petroleos del Peru, Grau Avenue s/n, Talara/Piura, Peru. *Tel:* 074–383032 *FAX:* 074–383038. *Contact:* Pedro Mendez Milla, Refinery Manager.

NOTES

Please also advise Shipping Guides Ltd.

Philippines

GENERAL

DOCUMENTS: *To be Submitted in all Government and Private Ports:*

1 copy of Quarantine Pratique.
6 copies of the Inward Cargo Manifest for all cargoes to be discharged in the Port.
2 copies of Cargo Storage Plan or Hatch List.
3 copies of Stores List.
3 copies of Passenger List.
4 copies of the Crew List.
4 copies of the Crew Declaration List.
3 copies of Bonded Stores List.
3 copies of Firearms and Ammunition Inventories.
3 copies of List of Drugs and Narcotics.

Original copies of all Through Cargo Manifests destined to other ports to be deposited with the Customs Inspector on board and to be returned to the Master prior to the departure of the vessel.

Clearance from the last port.

TIME: GMT plus 8 hours. Daylight Saving Time (1990) GMT plus 9 hours from April 21st until August 31st.

SHORE LEAVE: Nationals of countries with whom the Philippines maintains diplomatic relations are allowed ashore after securing a pass from the Immigration Officer in the Port.

REGULATIONS: We quote below pertinent sections of PPA Administrative Order No. 13 – 77 regarding PPA General Port Regulations on Arrivals/Departures of Vessels and Berthing Regulations:

Article II – Arrivals and Departures

Section 4. *Notice of Arrival* – The Owner or Agent of every vessel other than a vessel of 100 g.r.t. or less, intending to call at a port shall, within the time specified in Section 29 of these Regulations, prior to the ETA, give notice in writing to the Authority of its arrival, and make application for a berth if it is intended to berth at the wharf, pier, or anchorage within the Port, Port District or harbour limits.

Section 5. *Particulars to be Furnished* – The notice of arrival and the Application for a Berth shall be a form prescribed by the Authority and shall contain full particulars regarding:

(a) Name of vessel and its flag.
(b) The Gross Registered Tonnage (g.r.t.) and Nett Registered Tonnage (n.r.t.).
(c) Draft, LOA, and beam.
(d) Names of the Owner, Master, ship's Agent in the port of call.
(e) ETA and ETD of vessel.
(f) Tonnage of cargo to be discharged and loaded.
(g) Dangerous Cargo (Whether to be discharged or not).
(h) Number of passengers, disembarking and embarking.
(i) Any other pertinent information relating to the working (e.g. heavy lifts) or safety of the vessel in the port.

Section 6. *Hoisting of National Colours* – The Master of every vessel entering or leaving a port between sunrise and sunset shall cause to be hoisted its national colours and signal letters, if any. The national colours shall continue to be exhibited while the vessel remains in port.

Section 7. *Immigration and Quarantine Signals* –

(a) The Master of every vessel arriving from a foreign port shall exhibit the Customs, Immigration and Quarantine signals as prescribed by those government agencies. Such signals shall remain hoisted until the proper officer has given the permission to lower those signals.
(b) No vessel other than an authorised vessel shall approach within 200 m. to a vessel which is exhibiting the Immigration, Health, or Customs signals. An authorised vessel shall mean an Immigration, Health, Customs, Pilot Launch, or Philippine Coast Guard (PCG) vessel.
(c) No person other than a Pilot or authorised government officer(s) may board or disembark from any vessel coming from a foreign port until the vessel is cleared by the Immigration, Quarantine, Customs and PCG officers and the respective signals have been lowered.

Section 8. *Securing of Vessel before Discharge/Loading* – Every vessel entering a port shall be anchored or properly secured to a wharf, pier, or buoy before commencing the loading or discharging of cargo, and/or the embarkation or disembarkation of passengers.

Section 9. *Port Clearance* – No vessel shall leave a port unless in possession of a valid PPA Port Clearance issued by, or on behalf of, the Authority, in addition to the requirements of other government agencies and the final clearance issued by the PCG.

Article IV – Berthing

Section 29. *Berthing Regulations* –

(a) The allocation of a berth belonging to, or operated by, the Authority shall be at the Authority's discretion.
(b) A vessel shall be considered for berthing allocation only after the Agent of said vessel has filed an application for berth.
(c) All applications for berthing at pier/wharf/anchorage shall be submitted 24 hours before arrival for vessels on scheduled runs and 36 hours for tramping vessels (without regular schedules). In either case application should be filed within sufficient allowable time.
(d) All applications received after berthing meeting shall be deliberated upon the following day before the actual arrival of the vessel.
(e) No vessel shall be berthed or unberthed alongside a wharf or pier belonging to, or operated by, the Authority without its permission or contrary to its directions, nor shall any vessel occupy a berth other than the berth allocated to said vessel.
(f) First-come-first-served basis shall be the general rule in determining berthing priorities of vessels, subject to the exceptions hereunder provided. Vessel's arrival will mean the time a vessel drops anchor at the Anchorage Area when there is no available area or the time a vessel reaches the Port's Boarding Area when a berth is available.
(g) When the available berthing space is inadequate for berthing a larger vessel having the priority to berth, the smaller vessel next in priority which can be accommodated shall be allowed to berth on condition that should additional space be made available such that the larger vessel can be accommodated, the smaller vessel shall be moved to the anchorage to allow the larger vessel to berth.
(h) The Pilot manoeuvring a vessel to berth shall be advised by the Authority as to the position or berth which the vessel will occupy and the vessel shall comply with the directions or instructions therefor of the Authority and/or the Pilot.
(i) When a vessel scheduled to berth encounters some mechanical troubles thereby restraining said vessel from docking, an allowance of one (1) hour shall be given for repairs. If after the lapse of this grace period, said vessel is still inoperative, the priority to berth shall be passed on to the vessel having the next priority to berth.
(j) Vessels with berthing priority but scheduled to depart the following day shall be allowed to berth to allow passengers to disembark. Provided, however, that said vessel shall pull-out from berth to give way to passenger vessel scheduled to depart on the same day.
(k) Any vessel intending to berth solely for the purpose of loading fresh water, bunkering or victualling, before such vessel will be able to depart for another port, shall be given priority over other vessels, provided that such stay shall not exceed the time fixed by the Authority.
(l) Government-owned vessels on official business, vessels of foreign government not engaged in foreign trade, vessels under stress, and vessels carrying perishable articles or goods shall be given berthing priority over other vessels.
(m) Whenever practicable, passenger liner or tourist vessel shall, subject to the discretion of the Port Manager/OIC, also be given priority of a limited number of hours stay at berth over purely cargo vessel.
(n) Berthing priority of any vessel shall not be waived in favour of another vessel.
(o) Vessels waiting for cargoes shall be moved to anchorage to allow the next vessel to berth. However, said vessel shall be allowed to berth again, provided that cargoes for loading are ready, unless another vessel is allowed to take the berth temporarily by the Authority.
(p) Domestic vessels may be allowed by the Authority to dock at berths designated for foreign vessels if there are no other vessels waiting to dock at such berths.
(q) Shut-down time caused by heavy rains and other major calamities or accidents which will stop work on a vessel shall be excluded from the time limitation prescribed herein. However, breakdown of lifting gear and also loading of fresh water, bunkering and victualling which should be done simultaneously with cargo handling operations shall not be considered as reason for time extension.

AUTHORITY: Philippines Ports Authority, P.O.Box PA62, Manila. *Telex:* 40404 (ITT) and TABX 0203. *Cables:* Phports Manila.

ANTIMONAN, Luzon: 14.00 N. 121.55 E. (See Plan)

SHIPMASTER'S REPORT: 1976.

Berth in position Lat. 14° 00' 30" N., Long. 121° 55' 30" E. Vessel required to be ballasted to one third deadweight. Tidal range 6 ft. Nature of bottom at berth, mud and sand. Density 1025. Anchorage 0.5 miles S.E. of jetty.

Terminal Information: Ship's hoses used to rail only. Length of shoreline, 3,000 ft. diameter 8 in. Products handled at the berth, coconut oil and pellets of copra.

Port Information: Pilotage compulsory. Notice of 24 hours and 12 hours required. Pilot boards from a small catamaran flying the pilot flag. Boarding position 2 miles S.W. of the port. Vessel is able to enter or leave at any stage of the tide. Vessel cannot enter after dark and it is not advisable to leave after dark as some of the piles on the sea bed near the jetty are broken. Also there are no navigation lights in the bay and many vessels are fishing. Max. LOA 650 ft. Max. beam 100 ft. Max. draft 44 ft. No tugs available. Radio station used, Manila, though messages delayed in receipt at Antimonan.

Facilities Available: Fresh water in small quantities for cash. Fresh provisions, groceries and meats in small amounts, doctor and hospital.

No repair facilities, laundry, fuel or slop facilities.

Improvements: The face of the jetty is being piled and breasting dolphins created.

At the present time a barge is inserted between the ship and jetty as the piling is broken.

APARRI (Including Port Irene, San Vicente, Mission, Abulog, Maconacon and Divilacan), Luzon: 18.22 N. 121.38 E. **(See Plan)**

See "General" before first port.

PORT LIMITS: Quarantine anchorage or loading point.

DOCUMENTS: *Before the Vessel's Arrival:*

Submit/transmit to Philippine Ports Authority – Aparri Terminal/Irene Terminal, the vessel's Notice of Arrival, at least 48 hours before ETA for foreign vessels and 24 hours before ETA of domestic vessels.

Upon Vessel's Arrival:

Aparri Terminal/Irene Terminal Safety Officer will inspect cargo handling gear of all incoming vessels.

Submit to Aparri Terminal/Irene Terminal a copy of the following documents:

Inward Foreign Manifest (for foreign vessels); Coasting Manifest (for domestic vessels).
Passenger Manifest.
Crew List.
Stowage Plan/Hatch List.
Transit Cargo Manifest (if any).
Oath of Master.
Vessel's Roll Book – to be temporarily filed.
Vessel's Information Sheet – to be completed.

Before Vessel's Departure:

Submit to Aparri Terminal/Irene Terminal a copy of the following documents:

Outward Foreign Manifest (for foreign vessels); Coasting Manifest (for domestic vessels).
Passenger Manifest.
Transit Cargo Manifest (if any).
Oath of Master.

Entrance and clearance formalities in the traditional sense of the terms of foreign and domestic vessels shall remain with the Bureau of Customs until Aparri Terminal/Irene Terminal's own clearance is duly stamped in the Manifest and after all port charges, fees, dues and other charges had already been paid.

Payment of charges leviable against the vessel and cargo shall be made either in cash, Manager's or Cashier's Cheque to the Aparri Terminal/Irene Terminal.

Notice must be transmitted to Aparri Terminal/Irene Terminal of Aparri when Export Entry is processed and Wharfage fee is paid to the Philippine Ports Authority – Aparri Terminal/Irene Terminal of PPA HO.

PILOTAGE: ETA to be sent to Aparri Pilotage Station, Aparri, Cagayan, one day before vessel's arrival.

Pilot Boat is a motorised launch.

ANCHORAGES:

Port of Aparri: Boundaries – Lat. 18° 22' 39" N., Long. 121° 35' 33" E. Depth – 11 fathoms.

Port Irene: Boundaries – The portion between Nulton Pt. and Batulinao Pt. This bay known as Casambalangan. Depth – 12 m.

San Vicente Port: Boundaries – Lat. 18° 30' 43" N. Long. 122° 08' 26" E. Depth – 15 fathoms.

Port of Divilacan: Depth – 11 fathoms.

Mission Port (Cagayan): Boundaries – Lat. 18° 17.5' N., Long. 121° 54.2' E. Depth – 8 fathoms.

Abulog Port (Cagayan): Boundaries – Lat. 18° 28.8' N., Long. 121° 26.5' E. Depth – 9 fathoms.

Maconacon Port (Isabela): Boundaries – Lat. 17° 24.25' N., Long. 122° 14.75' E. Depth – 7 fathoms.

RESTRICTIONS: Aparri: Enter channel with Pilot's assistance and at daytime only. Abulog, Mission, Maconacon: Enter channel with Pilot's assistance.

RADIO: RCPI. TELEFAST. PT & T. TELECOM. All in Aparri, Cagayan.

VHF: RCPI. TELEFAST. PT & T. TELECOM. All in Aparri, Cagayan.

RADAR: Pagasa Weather Bureau Radar, located in Bukig, Aparri, Cagayan.

TUGS: Available at Claveria, Aparri, Port Irene, Abulog, Mission, Maconacon and Divilacan.

BERTHING:

Port of Aparri: Anchorage area. Ship's side loading and ship's own gear. Cargoes handled at Shipper's log pond.

Port Irene: Two available berths. Ship to pier with ship's derricks. Cargoes to be handled at a specified reclaimed area.

San Vicente: Anchorage area.

Port of Divilacan: Anchorage area. Ship's side loading and ship's own gear. Cargoes handled at Shipper's log pond.

Mission Port: Anchorage area. Ship's side loading and ship's own gear. Cargoes handled at Shipper's log pond.

Abulog Port: Anchorage area. Ship's side loading and ship's own gear. Cargoes handled at Shipper's log pond.

Maconacon Port: Anchorage area. Ship's side loading and ship's own gear. Cargoes handled at Shipper's log pond.

CRANES: Truck mounted cranes.

BULK CARGO FACILITIES: None.

SPECIALISED CARGO HANDLING FACILITIES: None.

BRIDGES: No bridges.

STEVEDORES: North Luzon Port Services Inc. – Aparri, Cagayan; Krisandra Services Corp. – Port Irene; ACME Group of Companies – Maconacon, Isabela; Basco Arrastre and Stevedoring Services, Basco, Batanes.

MEDICAL: Aparri Emergency Hospital.

TANKERS: River stream-draft 16 ft. Discharge lines are through depot discharging pipelines Aparri, Cagayan.

FRESH WATER: Not available.

FUEL: Diesel, gasoline and kerosene.

FIRE PRECAUTIONS: None.

CONSULS: None.

REPAIRS: No facilities.

DENSITY:

Port of Aparri: 30%.
Port Irene: Salt.
San Vicente Port: 30%.
Port of Divilacan: 30%.
Abulog Port: 30%.
Mission Port: 30%.
Maconacon Port: 30%.

DRY DOCKS: None.

SURVEYORS: None.

GANGWAY/DECK WATCHMAN: Available from Stevedore in Aparri

HATCHES: Normally carried out by crew and stevedores.

CARGO GEAR: Cranes.

REPATRIATION: With permission of Bureau of Immigration, Apar Cagayan.

AIRPORT: Tuguegarao Airport – Flights Monday, Wednesday an Friday. Aparri Airport – Flight temporarily suspended.

POLICE/AMBULANCE/FIRE: Aparri Integrated National Police, Tel: 2222; Aparri Emergency Hospital, Tel: 2-2233; Aparri Fire Departmen Tel: 2-2014. All in Aparri, Cagayan.

TELEPHONES: PLDT.

SERVICES: None.

SHIP SUPPLY SERVICE: *Water Taxi Services:*

There are 3 private operators engaged in the ship-to-shore transpo of personnel duly registered by the The Port Authority, namely:

1. O. Ragonjan Water Taxi Services – Orlando Ragonjan (Operato Owner).
2. G. Alveza Water Taxi Services – Gregorio Alveza (Operator/Owne
3. J. Ragonjan Water Taxi Services – Julio Ragonjan (Operato Owner).

The business addresses of the above operators are all located Punta, Aparri, Cagayan.

All the above listed operators are based in Aparri, Cagayan. Howeve special arrangements could be made with any of them for precise detai and other conditions relative to the services required includir rendezvous positions. They could be contacted through loc telecommunications systems available in the locality such as RCF PT & T, and the Philippine Long Distance & Telephone Co., Inc.

Ship Supply/Shipchandling Services: None.

SHORE LEAVE: Request permission from the Bureau of Customs.

IDENTIFICATION CARDS: Issued by the Bureau of Customs ar Philippine Ports Authority.

REGULATIONS: See "General" before first port.

DELAYS: Weather conditions.

AUTHORITY: Philippines Ports Authority, Aparri Terminal/Irer Terminal, Aparri, Cagayan. *Tel:* 2-2134. *Contact:* Jerome A.Balisi, Apa Terminal Supervisor. Ruben M.Santos, Irene Terminal Superviso Captain Bonaparte Casenas, Chief Pilot.

Head Office: Philippines Port Authority, Marsman Buildin South Harbour, Port Area, P.O.Box No. PA62, Manil *Telex:* 40404 (ITT), 0203 (Tx Bx). *Cables:* Phports, Manila.

BATAAN (Limay - Mariveles), Luzon: 14.30 N. 120.38 **(See Pla**

(A) BATAAN (Including Mariveles).
(B) BATAAN – CBM.
(C) BATAAN – SBM.
(D) PRODUCT PIER.
(E) LPG PIER.
(F) PLANTERS PRODUCTS INC. PIER.
(G) LAMAO.
(H) BATAAN STORAGE CORPORATION PIER.

SECTION (A) – BATAAN

See "General" before first port.

DOCUMENTS: See Section (B).

PILOTAGE: Pilotage is compulsory, Pilots assigned by the Manila Pilo Association. Pilot boards vessel just off the berth.

ANCHORAGE: There is a good anchorage with depth of 9.1 m. – 11.3

Designated Lay-up Area: In Mariveles Bay in Lat. 14° 25' 36" Long. 120° 29' 30" E.

RESTRICTIONS: Approaches are open deep water. Vessels may ber and unberth at any hour and any stage of the tide. Keel clearance 10 ft. required.

MAX. SIZE: LOA 1,000 ft. Max. draft 52 ft. at conventional buoy moorin See "Section B".

HEALTH: Port Health Officials board with the Pilot. Radio request Free Pratique can be made prior arrival.

RADIO: Manila Radio. At the berth, shore communication with vocali JRC 475 transceivers on 465 MHz.

VHF: Vessels can advise their ETA via "Lamao Pilots" on Channel or via the Refinery by calling "Limay 1" or "Limay 2" on Channel 67

TUGS: Available.

BERTHING:

	Length (m.)	Width (m.)	Depth (m.)
Lamao National			
Public Pier	90.00	9.00	4.50
Petron Bataan Refinery	343.20	15.90	9.90 to 30.00
Planters Products Inc.	317.99	—	14.60
LPG Pier	24.60	3.00	5.40
Bataan Storage Corporation			
Sea Berth	261.00	40.00	10.97
Finger Pier	60.97	3.66	3.30
Baseco/PDC/7-R			
Shipyard	850.00	7.90 to 9.10	8.50

Also see "Repairs/Dry Docks".

DENSITY: 1025.

MEDICAL: Doctor and hospital facilities available. Advance notice required of any medical attention needed.

TANKERS: *Products Pier:* Inner berth depth 13 ft. Outer berth depth 32 ft. Can accommodate vessel up to 530 ft. length. No slop discharge facilities available. Also see "Shipmaster's Report – September 1980" and "Sections B, C, D, E and H".

FRESH WATER: Available at Lamao Pier and PPI Pier.

FUEL: Bunkers, fuel and diesel, obtainable from berth, advance notice required.

REPAIRS/DRY DOCKS: Repair facilities available at Baseco Shipyard, located at Mariveles Bay, about 20 km. away.

Mariveles Shipyard Corp. Port: Two integrated bulk handling terminals rae currently being constructed at this port. Total berth length of about 850 m. with maximum depth of 30 ft. Along the berths are air and water pipes. A graving dock can accommodate a 10,000 d.w.t. vessel. There are 15 repair buildings, shops and 4 warehouses with a total floor area of 7,500 sq.m. or volume capacity of 20,000 cu.m. with large vacant areas, which in the past have been used for storage of containerised cargoes. Along the wharf are 3 fixed 30 ton Dolby cranes, a fixed 60 ton gantry crane and a rolling 45 ton crane at the graving dock. At the PDC side are the 80 ton and 60 ton gantry cranes.

Foreign vessels docking at the Shipyard are boarded by the Pilot at the Mariveles Anchorage and guided to their assigned berths alongside the pier or wharf the conventional way. Any shifting of the vessels at the private ports does not require PPA's approval. Usually, it is Shipyard that informs PPA's office beforehand of any vessel that is arriving at the shipyard for repair or dry docking. Ship's Agents do this when there is any cargo handling involved.

SURVEYORS: (1) Cargo Inspectors available.

(2) Surveyors such as Lloyd's Register, American Bureau, etc., have offices in Manila.

CERTIFICATES:

Certificate of Registration.
Certificate to Operate.
Certificates of Officers and Engineers (Licences).
Officers and Seaman's Books.

CUSTOMS ALLOWANCES: 200 cigarettes for each crew member, and 1 bottle of liquor for each crew member.

REPATRIATION: Effecting crew changes and arranging necessary repatriation are carried out by the Immigration Office in the port with the assistance of the ship's Agent and the Foreign Embassy concerned.

HOLIDAYS: New Year's Day (1st January); Bataan Day (9th April); Holy Thursday (variable); Good Friday (variable); Labour Day (1st May); Independence Day (12th June); Republic Day (4th July); All Saints' Day (1st November); National Heroes Day (30th November); Christmas Day (25th December); Rizal Day (30th December). When any holiday falls on a Sunday, the following day (Monday) is by law considered a public legal holiday. Employees of the Philippines Port Authority – Port of Manila, Limay Sub-Port, report for work on Saturdays, Sundays and Holidays.

EMERGENCY CO-ORDINATION CENTRE: For emergencies, please contact Philippine Ports Authority, Port District Office Manila, PDO-Manila Building,South Harbour, Port Area, Manila. Tel: 47-34-41 to 49.

BANKS: No American or European banks are operating in the area. Excellent banking facilities and services available at Manila.

STORING: See "Prelims".

(1) Vessels can be stored by barge or "water taxi".

(2) Vessels can be stored by barge only after discharging at the anchorage.

(3) Not applicable.

(4) Not applicable.

(5) Companies which sell stores to ships calling at Limay must secure clearance from the Philippine Ports Authority – Port of Manila, Limay Sub-port and from the Bureau of Customs.

(6) Local riggers may be allowed to assist in storing.

IDENTIFICATION CARDS: Essential.

GARBAGE DISPOSAL: No facilities.

WASTE OIL DISPOSAL: No facilities.

SEAMAN'S CLUBS: None.

CURRENCY: Philippine Peso.

GENERAL: Customs Inspector and 2 guards accommodated on board during vessel's stay.

SHIPMASTER'S REPORT: September 1980.

Locally the port is known as Limay, Bataan. VHF Channel 11 appears to be used for all communications. 7 copies each of all forms.

If any crew members being repatriated then Agents require their full names, nationality, ages, and Passport or Seaman's Book number in advance.

Hand soundings alongside South side of jetty indicated 38 ft. and 34 ft. at Eastern end and about 450 ft. Westward (inshore) respectively at LW.

Liberty boat from vessel to shore as crew personnel are not allowed through refinery. Vessel loaded Mogas at rates of between 250 and 450 t.p.h. Good holding ground in the anchorage off berth in Manila Bay.

SBM for VLCCs being constructed in approximate positionLat. 14° 31.7' N., Long. 120° 38.8' E. (See "Section B").

Experienced a strong Southerly current, about 4 knots, the day after a typhoon passed about 100 miles to the North. This current due to flood waters leaving the bay.

3×500 h.p. tugs used for berthing, only pushing, do not make fast. 2.5 hours to Manila by bus. No shore passes required. Fresh water by barge from Manila but very expensive. I was advised that the first 137 tons would cost £285.00 including tug. For the next 163 tons tug and barge would cost £841.00.

SHIPMASTER'S REPORT: April 1981.

Ship to ship transfer into m/t "Petron Gasul".

Approaches: Chart BA 976. The approach is straightforward with good fixes being available by radar and visual means. The light on La Monica is extinguished. Ample water and there is nothing to be gained by using the South Channel.

Advised that the transfer position would be 14° 31' N., 120° 37.5' E., although this may be altered slightly to suit "Petron Gasul" and may be affected by the amount of shipping at anchor off the refinery.

PNOC carry out a number of lightening operations in the area and awaiting tankers may be encountered between Lat. 14° 28' N. to Lat. 14° 34' N., and bounded by Long. 120° 40' E. (This anchorage area is not official). Besides the buoys marked on the chart there is a mooring buoy in approximate position Lat. 14° 31.8' N., Long. 120° 38' E. This red buoy has a pipeline attached and you are advised to anchor well clear to allow PNOC vessels access to the buoy. There is a large white cross on Mt. Samat which is not marked on the chart and affords a good reference point for anchor bearings.

Large numbers of unlit fishing vessels may be met in the bay and the approach channels and especially so at sunset and sunrise. These fishing boats also haunt the anchorage area.

Advised by Agents that movements were limited between sunrise and sunset but this appears to depend upon the local Pilots. The anchoring on arrival was done without a Pilot.

Documents:

Clearance from Last Port of Call.
8 copies Crew List – visaed, if possible, at departure port.
List of Passengers.
Lists of Animals, Narcotics, Firearms, mails.
List of Bonded Provisions, including Deck and Engine Stores.
List of Animals, etc., were simply 'nil' statements and were perfectly satisfactory.

Formalities are unlikely before 0800 hrs., and were straightforward. Bonded stores sealed and application may only be made after 10 days for an issue of cigarettes, etc.

Health: The doctor who clears for Pratique is a local doctor and will carry out any necessary vaccinations. Very helpful. Crew requiring specialist or hospital treatment must go to Manila.

Shore Access: By means of small outrigger launch. The daily charge for 3 journeys to and from the ship was 800 pesos.

Agents: The main agency (C. F. Sharp) is in Manila although they station a representatitve locally ashore in Limay. Attendance was very good and only hampered by local communications by telephone, telex and VHF. Our visit coincided with the Easter holidays and this seriously disrupted communications to and from U.K. As an urgency measure radio messages were sent via Manila Radio. VHF contact to Manila was easy via Channel 16 and thence to working channel.

Transfer: Contact may be made with "Gasul" on Channel 13. The "Gasul" in effect is used as a storage vessel by PNOC and delays may be expected due to the status of her tanks on arrival and the availability of fenders. This last is serious since there only appears to be one set of fenders for all lightening operations and this includes oil tanker transfers.

Small local gas tankers take the product from "Gasul" and as these are few in number this can also lead to considerable delay. A certain amount of blending of propane and butane is sometimes necessary into these craft and on the whole tends to lead to a very confused situation as regards the probable time of commencement of transfer. Estimates varied wildly from day to day and perhaps the most reliable estimates may be gleaned direct from "Gasul".

The Master and Chief Officer will board to discuss the transfer and decide on the final transfer position.

A Pilot will board to shift to the new position. "Gasul" is manoeuvred alongside by a Pilot and 2 tugs. If necessary another tug may take a line from your stern to hold the vessel steady during berthing. Three of her lines each end further supplemented by our own moorings.

"Gasul" was well fendered with three (3.3 m.×6.5 m.) and two (2.5 m.×5.5 m.) fenders.

Reputed to have a full range of hoses and reducers on board but some have 300 ASA flanges.

The transfer was completed without any difficulties although "Gasul" can only accept one grade at a time necessitating shifting lines from one manifold to another. VRL used.

Surveyors: SGS attended with PNOC surveyor. Figures based on our vessel's outturn since the gauging devices and temperature recorders on "Gasul" are suspect.

Pilots are reluctant to unberth during the hours of darkness and this decision will also be affected by the prevailing weather conditions. Two Pilots for the operation.

SHIPMASTER'S REPORT: January 1994.

Communications: Arrival notices to the Agents who will make all arrangements for Pilots and tugs.

Limay Port Radio and Quarantine can be contacted, when in range, on VHF Channel 16, working Channel 13, and will give anchorage instructions for clearance.

Clearance: Carried out at anchor with up to 15 officials attending, but is informal and courteous.

Customs: A Customs Officer remains on board the vessel throughout the stay in port and requires food and accommodation.

Port Health: Officials carry cholera vaccine and will make good any expired certificates. Yellow fever vaccinations are not obtainable.

Immigration: Request a visaed Crew List from the Philippine Embassy in the previous port, but will accept a letter explaining that there was insufficient time at the port for the visas to be obtained.

Shore leave passes are not issued.

Shore leave is by boat from the offshore gangway.

Coast Guard: Officials inspect all Philippine Seamen's Books.

Approaches: B.A. Chart No. 976 and 3545 found to be as charted with the following exceptions:

(1) The pier in position Lat. 14° 29' N., Long. 120° 36.9' E. is in ruins, and the 4 mooring buoys close to it do not exist.

(2) The beacon, F.R. 18 ft. (occas) in position Lat. 14° 29.34' N., Long. 120° 36.9' E. does not exist.

(3) The wrecks in position Lat. 14° 30.41' N., Long. 120° 37.4' E. and Lat. 14° 30.62' N., Long 120° 37.4' E. are reported to have been blown up and to have a depth of 9.0 m. over them.

(4) The two buoys, R. P.D. in position Lat. 14° 30.95' N., Long. 120° 37.4' E. do not exist.

Anchorage: The vessel anchored for clearance in position Lat. 14° 30' N., Long. 120° 38' E., although requested to anchor North of this position, the presence of other vessels at anchor and fishing boats made this impractical.

Pilotage: The Pilots and tugs come from Manila and board the vessel at anchor after Inward Clearance has been granted.

Approach to the berth is from the South, with tugs on the starboard bow and quarter made fast with ship's lines.

Berth: Position Lat. 14° 31.4' N., Long. 120° 36.8' E., the 'T' Pier on B.A. Chart No. 3545, noted with ‘crane" is for discharge of bulk cargoes, mainly cement clinker.

The head of the 'T' was originally constructed of 9 dolphins on steel piles with a fixed gantry crane on the centre, larger, dolphin.

The Northern and Southern dolphins are not fitted with fenders and are used for mooring ropes only.

The third dolphin from the Southern end is damaged and only the piles remain, which causes problems when shifting astern to work Holds No. 1 and 2, as it is necessary to stop the stern swinging in to either sit on the jagged piles of the missing dolphin or land on the penultimate Southern dolphin.

The fenders on the dolphins are not even, the centre (crane dolphin) being about 0.5 m. wider than on the others, which increases the danger of the stern swinging in onto the missing dolphin.

Depth: The echo sounder gave 4.8 m. under-keel at 10.56 m. draft, however, there is a build-up of cargo under the centre dolphin which was hand sounded at 8.0 m., and which keeps the vessel about 1.5 m. off the fenders until partly discharged. At loaded draft, engines are required to move the vessel between holds, but at light draft warping with moorings is sufficient.

Current: The Pilot reported a tidal current of up to 3 knots on the South-going tide, but only about 0.5 knots on the North-going tide.

Cargo Working: The gantry crane has seen better days and is equipped with a 6 ton capacity grab, discharging 38,500 tonnes of cement clinker, a discharge rate of 215.6 tonnes/hr. was achieved, excluding stoppages for rain, breakdowns and shifting.

In addition to the gantry cranes, barges were put alongside the off-shore side, and about 6,000 tonnes was discharged to these using a shore grab on ship's cranes.

Gantry outreach is about 14.0 m. when the vessel is alongside the fenders, which results in the vessel taking an off-shore list which has to be compensated with ballast until enough cargo is cleared to put in payloaders to discharge the off-shore side. The discharge is very dirty, even though the hatch covers are swept regularly.

Air Draft: Air draft of the crane is about 15.0 m.

Fresh Water: Available from the pier at about 3 tonnes per hour.

Provisions: Available from chandlers in Manila.

Guards: Six armed guards are employed round the clock in groups of three and require meals, but not accommodation.

Draft Surveyor: Remains with the vessel throughout discharge and requires food and accommodation.

AUTHORITY: Philippines Port Authority, Port Management Office – North Harbour, Fronting Pier 8, Marcos Road, North Harbour, Tondo, Manila, Philippines. *Tel:* 27-34-19, 26-22-15. *Contact:* William A. Enriquez, Port Manager.

SECTION (B) — CBM.

LOCATION: The Seaberth of Petron Bataan Refinery is located at Limay Town in Bataan Province.

The berth is a conventional buoy mooring (CBM) system and is located in position 14° 32.1' North., 120° 35.9' East.

The enterprise is owned by Philippine National Oil Company and operated by Petron Bataan Refinery.

Products handled: Crude Oil, IFO, Naphtha, Diesel, Fuel Oil and Kerosene.

Also see "Single Buoy Mooring".

DOCUMENTS: *Immigration:* Vessels coming from countries where Filipino Consular Authority is available are required to have, on arrival, visaed Crew Lists. However, in the event that the vessel, for some reason, is not able to obtain a visaed Crew List, this requirement is waived, provided the Agent furnishes a guarantee for payment of the visa fee.

When the vessel has on board personnel from countries without political relations with the Republic of the Philippines, at least 2 Immigration Officers remain on board during the vessel's stay in port and food and spare cabin should be provided for them. These personnel are forbidden to leave the vessel and are not granted shore leave.

The following documents are required by Immigration on arrival:

Visaed Crew List (1 original and 1 copy).

Ordinary Crew List (12 copies).

Customs: Bonded lockers containing spirits, cigarettes, etc., are required to be sealed. Each crew member is allowed to retain 1 carton of cigarettes. Cigarettes in excess should be placed in bonded lockers.

A Customs Inspector and 2 guards will remain on board throughout the vessel's stay in port. Food and a spare cabin should be provided for them.

The following documents are required by Customs:

Crew Personnel Effects List (6 copies).

Stores List (6 copies).

Firearms and Ammunitions List (6 copies).

Bonded Stores List (6 copies).

Narcotics List (6 copies).

Currency belonging to Crew and Ship List (6 copies).

Last Port Clearance.

Ship's Register.

Tonnage of Cargo for Discharge.

Duly Accomplished Certificate of Lading (6 copies).

The following documents are required by the Authorities at Bataan, Bataan C.B.M. and Bataan S.B.M.

Notice of Arrival.

Application for Berth.

Inward and Outward Foreign Manifests.

Oath of Master.

Statistical Supplement.

Application for Assessment.

Clearance.

All of the above to be available and submitted by the Agent.

Outward Clearance: This clearance is granted by the Customs officials who board the vessel prior to departure and effect clearance on board. Also, an Immigration Inspector goes on board, just prior to departure, and musters the crew and verifies that all crew members are on board.

The following documents are required for the Outward Clearance:

Port Clearance.

Immigration Clearance.

Customs Clearance.

Coast Guard Clearance.

The above documents are prepared and arranged by Agent.

APPROACHES: *From End of Sea Passage to Pilot Station:*

Manila Bay is entered between Limit Point and Cochinos Point. The entrance is divided into 2 channels, named South Channel and North Channel, by Corregidor and Caballo Islands; both these channels are deep and clear of dangers in the fairway.

As a general rule, vessels use the channel which provides the shortest route into the bay. Entry is not recommended during darkness or periods of poor visibility if vessel is not equipped with radar.

Vessels entering Manila Bay through the North Channel shall pass midway between La Monja Island and Guardia Shoal and shall proceed directly through the middle of the channel between Corregidor Island and the mainland, steering 070° until 1 mile distance from the shore is cleared. The same route shall be followed by vessels when leaving Manila Bay through the North Channel.

Vessels entering Manila Bay through the South Channel should not approach any shore closer than 1 mile and shall keep South of the restricted area, South of La Monja, Corregidor and Caballo Islands, which is embraced within The North section of the following bearings: 296° from El Fraile Island and 236° from Caballo Island lighthouse. Furthermore, on the Southern side of the channel, vessel should not approach the line joining El Fraile and the N.W. point of Limbones Island closer than 1 mile. The same restriction applies to vessels leaving Manila Bay through the South Channel.

Deep draft laden crude tankers should always enter through the Southern Channel, which is wider and deeper.

After having entered the channel, vessels should make for the Pilots embarking point. Pilot boat usually waits 2 miles off Lokanin Point. During the approach to the above position, vessels should steer clear of land for at least 1 mile.

Many fishing boats are operating in the area and very often they are without lights and unable to move from their fishing position as they have nets laid down. Therefore, utmost caution should be exercised; radar watch and visual lookout should be maintained and a wide berth, to the maximum possible extent, should be given to any fishing boat.

When entering or leaving the port, especially during hours of darkness, we suggest to consider having the tanker preceded, at a close distance, by a service boat or a tug boat. This boat steaming right ahead of the vessel could clear the vessel's way of fishing boats or other craft or could at least warn the tanker in advance of any danger laying ahead.

ANCHORAGE: Vessels awaiting berth should anchor about 0.5 miles S.E. of the Conventional Buoy Mooring (CBM).

RESTRICTIONS: *Controlling Depth:* Entry Channel more than 66 ft. below MLLW. Approach Channel 64 ft. below MLLW. Alongside Berth 64 ft. below MLLW.

LOA Limitation: 1,000 ft.

Breadth Limitation: 160 ft.

Berthing and Unberthing: No particular restriction applies and vessels are berthed and unberthed at any stage of the tide; also during hours of darkness except during particularly severe metereological conditions. Following unberthing, ship is expected to move out, with assistance of tugs instead of using her own power. The strong turbulence created by the ship's propellers tends to get the hoses entangled with each other.

MAX. SIZE: Below are the maximum vessel sizes that are acceptable at the Petron Bataan Refinery – Crude Seaberth:

DWT	120,000 tons
LOA	890 ft.
Beam	135 ft.
Draft	52 ft.

However, crude tankers greater than 120,000 d.w.t. with LOA and beam up to 1,000 ft. and 160 ft., respectively, could be accepted at the sea berth if the tanker is partially loaded, such that draft does not exceed 50 ft. and if the prevailing climatic condition warrants safe berthing.

HEALTH: The Quarantine Doctor boards the vessel in the outer roads during her approach to the port. After Pratique is granted, the Pilot, Customs and Immigration Officers, the Loading Master, the Petron Bataan Refinery representative, and the hose gang are allowed to board. *No Radio Pratique is contemplated.*

The following documents to be ready prior to arrival of health officials:

Maritime Declaration of Health.

Vaccination Lists (4 copies).

Health papers of all ratings.

Derat Certificate (vaild for 6 months).

RADIO: Whilst at sea, vessel is to communicate with "Philippine National Oil Company – Manila" via Manila Radio. VHF Channel 67 is the working frequency of PSTC, owners of tugs and service boats assisting the mooring.

In the arrival message, Master to include: ETA, forward and aft drafts, confirmation that instructions contained in port information are understood and will be adhered to, any requirement.

It is most essential that vessel confirms ETA 72, 48 and 24 hours before arrival.

Communications between vessel, tugs, mooring gang and refinery are well established by various portable VHF sets supplied by the refinery and contractors and working is on several channels.

VHF: Channel 71 is the working channel of Petron Bataan Refining.

BERTHING: The Sea Terminal consists of 8 mooring buoys of 16 ft. dia.

Buoys 2, 3, 4 and 6 are fitted with 1 self-releasing Pelican hook and Buoys 1, 5 and 8 are provided with 2 Pelican hooks each.

Mooring/Unmooring: Currents usually set in a North-South direction at the berth, and vessel always approaches and enters the berth from South. However, berth is so designed that tankers, depending on prevailing wind and/or current direction, could enter from the North, if necessary. Mooring and unmooring may take place also during hours of darkness, provided meterological conditions are fair and visibility is good. Currents are weak and berthing or unberthing takes place at any state of the tide.

Berthing of vessels should be assisted by a Pilot, Petron Bataan Refinery's Maintenance Superintendent or Supervisor, a Mooring Master, and a Radio Operator, the latter two of PNOC Shipping and Transport Corp., which also provides the mooring gang. The Radio Officer brings along his own portable VHF radio set for communicating with the mooring crew and service boats.

Vessels usually approach the berth from a S.S.E. direction and are stopped some 3,000 ft. off the South end. From this point vessels proceed to and enter berth at dead slow speed between Buoys 5 and 6. Just before entering, the starboard anchor is usually dropped. This anchor is dragged or paid out accordingly in order to check the vessel's bow. The bow is brought abeam of Buoys 1 and 2 where the port anchor is dropped. Lines are then given ashore and the vessel is backed into final position approximately 40 ft. abeam of the floating beacon marking the pipe-end manifold. When using anchor, caution should be exercised so as not to foul the buoy legs or cargo pipes and hoses.

Usually, 2 powerful service tugs are in attendance for mooring plus 2 large tugs with capacities of not less than 2,000 h.p. for assisting tankers. These tugs are suitable for handling the heavier wire ropes. Usually, 2 lines are run on Buoys 1, 2, 7 and 8 and one to Buoys 3, 4, 5 and 6. There is no particular requirement on whether ropes have to be of wire or nylon. Pilots indicated that they may require, at times when wind from S.E. is particularly strong, additional lines to be run to Buoys 3 and 5.

Night berthing is carried out with the assistance of the service boats, which tie up alongside Buoys 1, 7 and 8 and indicate quite effectively the approach and entry to the berth.

Vessels calling at the CBM should make use exclusively of wire ropes of suitable dimensions, quality and condition.

When leaving, vessel must be towed and engine of tanker shall be at standstill to prevent kinking of hoses caused by strong current generated by the tanker/vessel propeller.

HOSES: Presently, 5 strings of hoses are used.

(a) Two strings consist of 3 lengths of 20 in. diameter × 30 ft. and 4 lengths of 16 in. diameter × 30 ft. each. The two over the rail lengths are provided with a 12 in. ASA 150 hand operated butterfly valve.

(b) One string consists of 7 lengths of 10 in. diameter × 30 ft. provided with a 10 in. ASA 150 hand operated butterfly valve with separate manifold.

(c) Two strings consist of 3 lengths of 14 in. diameter × 30 ft. and 4 lengths of 12 in. diameter × 30 ft. each.

The submerged pipe end manifolds can be connected to each other by a 'Y' spool piece for shipboard connections and flushing of lines.

The end of each hose is marked by a buoy consisting of 2 cans welded together. When resting on the sea bed, the ends of the hoses are attached to these buoys by means of a chain. For lifting the hoses onboard, divers disconnect the chain from the cans and pass them to the vessel's derrick hook. The marker buoys remain on the water.

The hoses are connected and disconnected by a shore gang supplied by a contractor. It takes, on the average, about 1 hour 30 minutes to have 2 hoses connected and cargo started. Ullages and cargo calculations are carried out concurrently with connecting of cargo hoses. It takes about 30 minutes to 1 hour for disconnecting, but this is done concurrently with ballasting operations after discharge.

In order to expedite turnaround time, vessels should arrive with both derricks rigged for a minimum safe working load of 7 tons.

Blanks at 2 connections of the port manifold should be removed prior to arrival and 2 reducers, if available, should be installed to have the manifolds ready for the 12 in. ASA hose connections.

Safe working load and connections available should be notified to Petron Bataan Refinery prior to arrival.

Minimum acceptable manifold height above deck is about 20 in. Minimum spacing of ship's cargo manifold for connecting hoses to adjacent manifolds is about 18 in.

The hoses when in operation are not suspended from ship's gear but are fastened to the vessel's superstructure by means of chains.

There are no specific guidelines for disconnecting in emergency. The hose gang remains on stand-by throughout the operation and can be readily available.

Hoses are to be connected to the vessel's reducers with bolts and nuts fastened to every second hole of the flange.

The maximum pressure requested at the vessel's manifold is 150 p.s.i.

LOADING: *Description of Cargo System:*

Crude is presently received at the 8 buoy seaberth, located about 2,100 ft. off the end of the Product Pier. The current crude receiving facilities consist of a 28 in. dia. line. The line from the tank to the berth is about 4,700 ft. long. This includes the submerged section from the pier head to the berth of 2,040 ft. The end pipeline manifold is fitted with 2 outlets. Each outlet is provided with a 20 in. butterfly valve, a 20 in. check valve and a 20 in. Chicksan swivel joint where currently 2 strings of 3×20 in. dia.×30 ft. and 4×16 in. dia.×30 ft. hoses are connected. The butterfly valves are manually operated by divers. The other facilities for diesel/kerosene, napthta and fuel oil loading and unloading consist of 3 lines of 14 in. diameter each from the manifold product lines at the pier end to the berth of about 2,040 ft. The submerged pipe end manifold consists of 7 lengths 10 in. dia.×30 ft. hoses which can be connected to each other by a 'Y'-spool for shipboard connection and flushing of line.

The pipe manifold is marked by a 'T' buoy, and in order not to put hoses under strain, the vessel's manifold should be abeam of this marker at a distance of about 20 ft.

MEDICAL: The Agent will arrange for transportation to and from Manila for crew members requiring elaborate medical or dental attention; otherwise, they will be attended to in Bataan.

FRESH WATER: Supply by barge. Requirements should be included in arrival message. Ample notice is required if water supplied by barges.

FUEL: Bunkering is by barge. Bunkering may take place concurrently with discharging operations. Ample advance notice required.

REPAIRS: There are several repair firms in Manila that can undertake minor repairs. Requirements for repairs should be passed on to the Agent, and briefly outlined in ETA message. Major classification societies available.

GANGWAY: For vessels at the CBM, gangway to be prepared and rigged prior to arrival, on port side.

STORES: Stores and provisions can be supplied by ship chandlers in Manila. Master should radio requirements at least 36 hours before arrival to the Agent so that stores can be transported from Manila to the ship on time. Bonded stores are unavailable, except for local beer. Laundry requires a minimum of 36 hours.

WEATHER/WIND/TIDE: *General:* Although the Petron Bataan Refinery is only 26 miles across the bay from Manila, rainfall data is not exactly the same for both of these locations. This is partially due to the mountain directly behind the refinery, which tends to precipitate the S.W. monsoon immediately as they come over the mountain, dissipating them to some extent by the time they reach Manila.

The average rainfall for the Petron Bataan Refinery is about 98 in. per year varying from 56 in. to 136 in. per year. Maximum and minimum air temperature are about 102°F and 58°F respectively.

Wind and Typhoon: During the typhoon season, from June through September, the winds are predominantly from the S.W. and are known as the S.W. monsoons. In October through January, the winds are from the N.E. For the month of February, the winds are predominantly from the East and in March through May, from the S.E.

The typhoons are frequent during their season and bring with them high winds and heavy rains. The typhoons generally go up the East coast of Luzon, however, late in the year, they cross the land mass.

Range of Tide: For Lamao, data obtained from the coast and geodetic survey of the Philippines are:

Extreme High Water	5.60 ft. (58 year record)
Mean Higher High Water	2.99 ft.
Mean High	2.54 ft.
Mean Tide Level	1.41 ft.
Mean Sea Level	1.36 ft.
Mean Low Water	0.29 ft.
Mean Lower Low Water	0.00 ft.
Extreme Low Tide	2.00 ft.
Mean Tide Range	2.25 ft.

There are no unusual weather conditions associated with these tides.

Intensity and Direction of Currents: A hydrographic survey in February and March, 1958 indicated that current, at its greatest strength, to be not exceeding 1 knot. However, there was sufficient indication that the current is of the reversing type; that is, tidal in nature. Current varies from day-to-day, principally in accordance with the range of tide, its diurnal inequality, and its daily routine, whether diurnal or semi-diurnal. The rising tide is counteracted, to some extent, by the water which enters Manila Bay from rivers, and thereby lessening its velocity. The ebb tide is assisted by this water and accounts for the maximum recorded velocity, which, however, seems always to be less than 3 knots.

Water Density: Salinity varies from a high of 36.1 parts per thousand to a low of 4.6 parts per thousand during a monsoon. The mean salinities are 14 in June, the lowest month, and 34 in May, the highest.

The surface temperature of the sea water adjacent to the site ranges from about 76°F to 90°F.

Tankers arriving at Petron Bataan Refinery in laden condition should not consider this density variation, which is very difficult to predict and to determine.

Waves: About 2 ft. to 3 ft., based on information given by Pilots.

Sea Bottom: Upper layer of sea bottom is soft mud.

SECURITY: Serious security problems may arise during nightime and strict surveillance and alertness must be exercised at all times. Guards supplied by a local contractor and arranged by the Agent should be employed at all times. Stores and cabins should be kept under lock.

Vessel's Master, at all times, should take positive steps to prevent smuggling and keep native boats away from the ship and watch for pilferage while the vessel is approaching or is in port. We believe that security guards may be of help and we recommend Masters to use them at all times.

Shore leave may be arranged by Agent. Crews are ferried to and from the CBM to the near local village. Tug service is arranged by the Agent.

Crews of vessels moored at the product pier or LPG pier have also to go ashore by boat since nobody is authorised to pass through the refinery.

EMERGENCY PROCEDURES: Petron Bataan Refinery is not provided with an anemometer nor specific procedures to vacate the berth under severe metereological conditions. Should weather conditions deteriorate, the vessel's Master, in consultation with the Pilot, Mooring Master, and Petron Bataan Refinery representative, take the decision to vacate the berth.

A close watch should be maintained for typhoon and weather forecast. At all times, vessels should maintain a state of readiness and engines should be kept on standby and at short notice. No repairs or tank cleaning should be allowed alongside.

PBR REPRESENTATIVE: An employee of a third party surveyor, (representing Petron Bataan Refinery) boards the vessel after quarantine clearance to co-ordinate unloading operations. A ship-to-shore portable radio is placed on board for communication and controlling ship's discharge only. The Petron Bataan Refinery representative remains onboard throughout discharge and liaises between shore and ship. During the pre-discharge, sounding and final inspection after discharge, a Petron Bataan Refinery operator boards and accompanies the third party surveyor.

SHIPMASTER'S REPORT: June 1982.

Pilotage: Arranged by Manila Agent.

Health: Doctor will board and give Free Pratique and perform vaccinations.

Radio: Arrival message to include Master's name and number and nationalities of all crew.

VHF: Contact was made Channel 11 at 25 miles from S.W.

Tugs: One tug stands by during vessel's stay and 1 service boat is available for transportation to and from the shore.

Berthing: The sea berth has 4 buoys each side, with hoses on port side, derrick required and shore hose gang for connecting. Buoys to starboard are numbered 1 to 7 buoys and to port are numbered 2 to 8 from forward to aft in both cases and these numbers are referred to by Pilot when berthing. There is also a Loading Master on the bridge who liaises for ship's positioning regarding hoses. 2 tugs for pushing and 1 tug puts line aboard. 2 service boats for running lines. It is best to have wires without rope tails and service boats are quite powerful enough to run the wires. 1st lines are headline to No. 1 Buoy and stern line to No. 7 Buoy. Then usually No. 2 and No. 8 Buoys, followed by No. 4 and No. 5 Buoys. Usual final moorings are 3 lines each to Nos. 1, 2, 7 and 8 Buoys and 1 each to 3, 4 and 5 Buoys. No. 6 Buoy not normally used unless there is a strong offshore wind. It is advisable to keep a note of the order of putting out ropes in case of letting go during the hours of darkness. On approaching berth it is usual to let go starboard anchor to 2 shackles. The anchor is hove up before commencing to single up on departure.

Medical: If Doctor boards for vaccinations then he will attend to any patients.

Tankers: For Sea berth 2×12 in. reducers, for SBM 2×16 in. reducers.

SECTION (C) — SBM.

LOCATION: The sea berth of Petron Bataan Refinery is located at Limay Town in Bataan Province.

The berth is a single buoy mooring (SBM) system and is located in position Lat. 14° 31' 32.47" N., Long. 120° 37' 48.90" E.

The enterprise is owned by Philippine National Oil Company (PNOC) and operated by Petron Bataan Refinery.

DOCUMENTS: See Section (B).

RESTRICTIONS: *Water Berth:* 94 ft.

Max. Operating Conditions: Wave height 8 ft. Wind speed 55 m.p.h. and current 3 knots.

VHF: See "Section A".

MAX. SIZE: 300,000 d.w.t. 1,120 ft. LOA. 175 ft. beam and 70 ft. draft.

Shipmaster's Report: March 1987.

Vessel discharged at the SBM.

The characteristics of the vessel are as follows:

LOA 343 m.
Breadth 53 m.
DWT 283,400 tonnes.
Arrival Draft 22 m.

We were allowed to enter with the above draft and did not experience any difficulties on entering through the Southern entrance or at the SBM itself.

At all times we had more than 3.0 m. keel clearance. There is therefore a minimum draft of at least 22 m. at this port.

BERTHING: The SBM is installed in Manila Bay, approximately 1 mile offshore. From the surface, all that is visible is the top of the 23 ft. diameter mooring buoy and 2×800 ft. long strings of floating loading hose. The mooring buoy is painted orange, yellow and white and the hose strings are orange and black spiral stripes. At night the buoy is marked by a white flashing light and the hose strings are marked by 8 white flashing lights. The hose strings will generally float in the direction of current but they may be influenced by the wind direction.

Preparation of the Tanker: Usually, 2 powerful service tugs are in attendance for mooring plus 2 large tugs with capacities of not less than 2,000 h.p. for assisting tankers. Additionally, 2 small tugs of not less than 250 h.p. each will be needed for mooring lines and hose handling.

All tools and materials required for the mooring and hose hook-up operations should be placed aboard the hose handling and mooring launches in readiness for passing to the tanker.

Prior to the approach of the tanker, the Pilot or other terminal personnel should ascertain the size of the tanker's cargo manifolds, the capacity of its hose lift derricks, and the arrangement and capacity of its forward fairleads, bollards and winches. If spool pieces, lines and special fittings are required, these should be made ready.

The hoses may be brought to either side of the tanker, although it is customary that they be brought to the port side. The appropriate derrick should be rigged for lifting the end of each hose string. The lift to the manifold of a loaded tanker will be approximately 4 tons. However, a lift capacity of approximately 11 tons will be required to lower each hose string from the tanker in a light condition (based on 70 ft. draft amidships).

A clear area is required adjacent to the manifold for storage of the pick-up buoys. Cables and come-alongs should be rigged to strong points in the vicinity of the manifold to tie-off the hoses.

A boarding ladder should be rigged on the tanker side opposite the operating manifold. Boat ropes should be rigged along each side of the tanker. Messenger lines should be made ready on the forecastle for picking up the hawsers.

The arrangement of fairleads, fittings and obstructions should be studied carefully to determine the best means of securing the tanker to the mooring.

The mooring fittings should be capable of withstanding the appropriate loads. If the environment should worsen to the capacity of the mooring or the tanker fittings then the tanker should apply ahead power, suspend discharging, lower the hoses and leave the mooring.

Each mooring line is provided with chafing chain assembly which is used for 100,000 d.w.t. to 300,000 d.w.t. tankers having chain stoppers or no conventional mooring fittings. The use of Smit Bracket (or pin type) is very risky particularly during strong winds and current.

At the end of the chain assembly is a secondary triangular plate for connection of the 500 ft. polypropylene pick-up ropes. These ropes are incorporated in the assemblies, strictly for the purpose of winching the mooring assemblies on board the vessel and should on no occasion be used for mooring. The chains must be brought partway through fairleads on the forecastle and secured to towing brackets, bitts or other fittings on the deck of the tanker.

Experience has indicated that no standard means of securing the chain can be advised since a wide variety of arrangements are apt to be encountered on a tanker forecastle. It is recommended that the chains are secured to Smit towing brackets or chain stoppers if these are available. Otherwise wires or ropes will have to be improvised to secure the chains to ship's fittings. It is important that, whatever means and fittings are used, the arrangement must be adequate to withstand severe loads.

Fairleads as close to the stem as possible should be used to pass the chafing chains. If available, a lead in the centre of the bow should be used to pass both lines. Arranging the mooring lines through fairleads as close together as possible will assure that loads are equally distributed between the lines and will minimise the possibility of parting a line.

Mooring: Prior to making the approach to the mooring, the Pilot and tanker Master should carefully study the wind, waves and current to determine the best approach direction. The approach should be made in the direction in which the tanker can best be handled at very low speed and can best be held stopped in the water. There is adequate depth to manoeuvre a loaded 300,000 d.w.t. tanker (70 ft. draft) within a 3,360 ft. (1025 m.) radius of the mooring buoy.

The side to which the hoses should be brought should also be determined. This is preferably the port side for tankers with conventional right hand screws as the tanker will then move away from the hoses as the tanker moves forward out of the mooring. At the single anchor leg mooring the hoses may be brought to either side of the tanker. In cases where it is evident that the hoses will tend to string to starboard of the tanker during the entire unloading operation, it may be preferable to bring the hoses to the starboard manifold.

The instructions given here assume that the hoses are to be brought to the port manifold. These instructions should be reversed if the hoses are to be brought to the starboard manifold.

The tanker may, if necessary in an emergency, drop an anchor or anchors while approaching the mooring. Anchors should not be dropped, however, within 200 ft. of the mooring buoy, or along the route of the submarine pipelines. If an anchor is dropped during an approach to the mooring, it may not be left down after the mooring is completed. A tanker may not remain moored to both the mooring buoy and its own anchor during unloading. Care must be taken not to foul the hose strings or mooring lines in dropping or lifting an anchor.

Just prior to the approach of the tanker to the mooring, the hose launch should pull the hoses to a position to port of the direction of approach. In making the approach the tanker must stay well clear of the hose. During the final approach the tanker should take a course which would pass to starboard of the buoy so that, if the tanker moves too far forward it would safely pass the buoy and not endanger the hoses.

As the tanker approaches the mooring, a messenger line should be passed from the forecastle to the mooring launch. The mooring launch should then proceed ahead and to port of the tanker and make the messenger fast to the port mooring pick-up line. If the large messenger line marker buoys are in position they should be removed from the line and stowed on the launch. The small buoys can pass through the ships fairlead and may therefore be left in position.

At this point the tanker should have only enough headway to carry it within about 150 ft. of the mooring buoy. As soon as the launch is clear, the messenger should be winched aboard the tanker as rapidly as possible. As the mooring pick-up line is winched on deck, it should be coiled on deck. When the chafing chain passes through the fairlead, it should be snubbed in the best manner possible to secure ship fittings.

Stern movement should be used if necessary to avoid overrunning the mooring. The tanker should be allowed to settle back slowly on the port mooring line. Meanwhile, the mooring launch should take another messenger line from the forecastle and secure it to the starboard mooring line messenger. As soon as the launch is clear, the starboard messenger should be winched aboard and the chafing chain made fast to ship's fittings.

Once the tanker is secured to the mooring, the engines should be placed on stand-by. Grease may be applied to the chafing chains at the fairlead to prevent wear. The mooring lines, chafing chains and other mooring gear should be inspected frequently while the tanker is at the mooring.

Connecting the Cargo Hoses: As soon as the tanker is securely moored, the hose launch may tow the ends of the floating hoses to a position beside the tanker manifold. The necessary tools and fittings should be made ready on the tanker deck. The manifold derrick runner should then be lowered to the launch and secured to the pick-up buoy of the hose nearest the tanker.

The hose should be lifted approximately 20 ft. above deck level and the end swung inboard. Make sure the hose is not lying over sharp edges at the rail. Anti-chafing material may be necessary to protect the hose. The hose should be securely tied-off with cables and come-alongs to strong points on the tanker.

Remove the blind flange from the hose end. There should be no danger of oil spillage because the hose remains sealed by the butterfly valve. Check the "O" ring seal on the quick coupling. The hose can now be connected to the tanker manifold by the quick coupling. The hose lifting chain may now be lowered and the hose marker buoy stowed near the rail. the second hose may now be lifted and connected to the manifold in the same manner.

Fit the hand wheels to the butterfly valve gear operators. The tanker manifold valve and butterfly valves may now be opened. *The butterfly valves should be locked in the open position. Under no circumstances should the hose end butterfly valves be operated while oil is flowing through the hose.*

The shore station should be notified that the tanker is prepared to begin discharging. When instructed by the shore station, pumping should begin. Pumping should begin slowly at first until crude oil is recorded reaching the shore station and it is determined that the whole system is operating satisfactorily. The hose launch should inspect the hose strings and the area around the mooring buoy for evidence of leakage.

When it is certain that the entire system is operating correctly, the pumping rate may be increased to the maximum rate prescribed by the shore station. The pumping pressure must not exceed 200 p.s.i. During discharge, periodical inspections should be made of the manifold connection, the entire hose system and the area around the mooring buoy. This inspection may be made from the deck and forecastle of the tanker during daylight hours, night or when visibility is poor, the inspection should be made from a launch.

At regular intervals the pressure at the manifold and the quantity of cargo discharged from the tanker should be recorded. These figures should be compared with those recorded by the shore station. Any marked discrepancy between quantities should be investigated immediately.

It is inadvisable to allow the tanker to get to a completely light condition. Ballast should be taken aboard as necessary to keep the tanker near ballasted trim with the screw completely submerged at all times.

Disconnecting the Hoses and Departing the Mooring: When discharge is completed, the butterfly valves and tanker manifold valves should be closed and the hand wheels removed and returned to the hose launch. Beginning with the hose string further from the tanker, connect the derrick to the hose pick-up chain with the marker buoy in place, and take up the weight of the hose. Depending on the freeboard of the tanker, the lift load may be great. Disconnect the manifold connection and replace the blind flange on the quick coupling. A small amount of cargo may spill into drip pans during this operation.

The hose securing lines should now be released. After both hoses are released the hose launch should pull the hoses away from the side of the tanker.

After the hoses have been disconnected and released and the tanker has taken on sufficient ballast, the tanker may leave the mooring by disconnecting and lowering the mooring lines. The mooring pick-up line should be attached to the chafing chain and the assembly should be lowered until the end of the chain is at the water surface. The mooring pick-up lines may then be dropped. The tanker should get up steam and may use power to move forward before dropping the lines.

Once the lines are dropped, the tanker may either drop slowly astern until clear of the floating hose or may proceed forward and to starboard to pass beside the mooring buoy on the side opposite the hoses. The tanker may then proceed on its voyage.

SHIPMASTER'S REPORT: September 1983.

Prior to Arrival: Prior to arrival Agent requests (if using SBM) height from deck to centreline of manifold, distance of manifold flange faces from side railings and the flange diameter PCD and bolt size manifold or reducers. Also requires dimension of fairlead opening, distance of Smit lock pin to fairlead, bracket clearance of Smit lock assembly and pin diameter.

Berthing: Our vessel (140,000 dwt.) berthed at SBM during SW Monsoon. We picked up one line from the buoy while larger vessels take two lines. PNOC officials will inspect vessel's Smit lock or other mooring arrangement. Used one tug for berthing with tug's line starboard.

Require Customs clearance before commencement of discharge.

Fuel: Bunker suppliers wanted payment or Agent's guarantee thereof before supplying.

Circular: Following letter received on arrival:
M/T……………………………………Port of Limay, Bataan
Attn: M/T…………………………….The Master/Chief Engineer
Gentlemen:

As in ports all over the world, the quality of the environment has become a matter of vital concern to the government. Thus, the Port of Manila Authorities have promulgated regulations covering water pollution, oil spillages and indiscriminate dumping of waste.

Our Company, VRV Resources Corporation, in line with the government's ever continuing campaign to keep Manila Bay and the waters surrounding the Philippine archipelago clean from oil pollution, service inter-island and ocean-going vessels on the *safe handling of slops, used oil* and *contaminated fuel.*

To service our ever-increasing clients, we have a fleet of self-propelled barges and trained personnel ready to receive and safely dispose of potential water pollutants efficiently and without any delay to the ships' schedule. This service is our contribution to the government's effort to keep Manila Bay clean without any expense to the vessel, that is *free of charge.*

SECTION (D) – PRODUCT PIER: **(See Plan)**

The pier is an open concrete structure, finger shaped, extending 840 ft. in an East/West direction from a 280 ft. long causeway. The piling is of steel pipes covered by concrete from the pier deck to just below the lower tide level. There are 3 loading stations on each side (North-South) of the pier equipped with 20 marine loading arms terminating in an 8 in. or 6 in. ASA flange. Ship should be properly installed with required manifold ready for connections.

The structural strength of this pier is sufficient to safely handle up to 30,000 d.w.t. vessels. Stations 5 and 6 are provided with a fendering system consisting of panels made up of vertical members and horizontal walers faced with wooden rubbing strips and backed up by Resilie & T Rubber (Bridgestone) fender buffer units. At the other stations, fender panels, faced with rubbing strips and backed by resilient fender buffers, are used. Stations 5 and 6 are provided with 2 bollards of cast steel material of 50 tons capacity and 3 others of 25 tons which should be sufficient to handle fully loaded "Kure Class" vessels.

The fendering system is designed to absorb the impact of 18,000 d.w.t. approaching at a speed of 1 knot and it is suitable to contain the impact energy of the smaller vessels and barges using this pier.

Barges and vessels' Masters should carry out proper manoeuvring, limiting their approach speed to 0.5 knots and coming alongside almost parallel or at a small angle of incidence (10° max.).

Should Masters be unable to manoeuvre properly, assistance of a service boat or tug boat should be sought and charged to the vessel's Owners. Vessels of about 2,000 d.w.t. capacity should be berthed only with tug assistance.

Berthing operations are normally witnessed by a Petron Bataan Refinery representative and claim for any damage is properly filed holding owners of vessels responsible. A fully loaded "Kure Class" vessel, down at her tropical mark and drawing 31 ft. 6 in. may be accommodated at this berth. Vessel would come alongside with her starboard side to, but special care should be exercised for the aft mooring arrangements since the stem of the vessel would be over the pier by about 50 ft. Approach to the pier is somewhat obstructed by the CBM. When going alongside either the North or South side of the pier, use the offside anchor for keeping the bow under control.

Considering the limited width of the dredged basin and presence of cross currents, 2 tugs of 400 h.p. each are recommended to manoeuvre in an out of this berth.

The Northern slope of the – 35 ft. below MLLW basin extends seaward parallel to the South face of the pier. In front of the jetty head, close to and parallel the to North slope of the basin the submarine pipes running to the CBM are laid down. The depth of water above these pipes is not well defined but is certainly less than that of the dredged basin. Deep draft laden tankers leaving or entering Station 5 should at all times avoid passing North of the Northern slope of the basin since a danger of running aground and hitting the submarine system exists.

Masters and Pilots should be aware and read poster placed at the pier end warning mariners of this danger.

Smaller tonnage should also make use of the Pilots and assistance of a service boat (100 h.p.) in view of cross currents when manoeuvring alongside or off Berths No. 5 and 6.

Product Pier Data:
Number of berths: Six.
Berths No. 3 and 4 can handle tankers up to 17,000 bbls. capacity.
Berths No. 5 and 6 can handle all vessels up to 120,000 bbls. capacity.
Barges can be handled at all six berths.
Fixed berth time (time exclusive of loading) is 3 hours per barge.
Fixed berth time for 120,000 bbls. vessel is 8.5 hours.
Fixed berth time for 70,000 bbls. vessel is 7.0 hours.
Fixed berth time for 30,000 bbls. vessel is 5.5 hours.
Fendering system: Load 18,000 d.w.t. at 1 knot speed.
Bollards: 2×50 tons and 3×25 tons.
Pier average draft: 32 ft.
Marine loading arm envelopes:
NW/SW Stations (Berths No. 1 and 2): 19.22 ft. × 16.8 ft.
NC/SC Stations (Berths No. 3 and 4): 19.22 ft. × 19.1 ft.
NE/SE Stations (Berths No. 5 and 6): 26.21 ft. × 43.575 ft.
Distance of vessel from pier edge: 6 ft. (plus 5 ft. allowance).

Safety Fire Fighting:
At the Product Pier, foam protection is provided by 13×6 in.×2.5 in. double hydrants in the berthing area at 100 ft. – 150 ft. centres. Some of them are fitted with hydrofoam nozzles, specifically those located near the NE and SE stations. Two 500 gpm. foam-water monitors are also permanently stationed on this pier. They can be connected directly to the fire main or can be supplied with foam solution from 1,000 gpm. fire trucks. Also, there are 6 fixed water monitors directly connected to the fire water line.

Two manually started diesel engine driven pumps, each rated at 750 gpm., situated at the far end of the Refinery pier, may be used for pumping salt water into the mains should other Refinery fire water facilities fail. Additional foam can be supplied by a 4,000 gallon capacity foam nurse truck.

In addition, 3 completely equipped foam hose carts with cellar nozzle, 2.5 in. and 1.5 in. diameter fire hose lines, 2.5 in. and 1.5 in. diameter nozzles, foam eductors and foam nozzles and 2×150 lbs. wheeled dry chemical extinguishers are provided.

The LPG pier is protected by one fixed monitor with 2.5 in. hose connections.

Total foam liquid storage at Refinery will be maintained at 7,500 U.S. gallons.

SECTION (E) — LPG FACILITIES.

Alongside the breakwater, there is a "T"-shaped jetty designed to accommodate LPG vessels. The pier consists of 2 breasting and 2 mooring dolphins. The breasting dolphins are provided with a fendering system consisting of a panel made up of vertical steel members and horizontal waler faced with wooden rubbing strips and backed up by rubber arch fenders.

Maximum dimensions of vessels received at this berth are as follows: LOA 210 ft., beam unlimited, d.w.t. 700 long tonnes. Energy of absorbtion, maximum displacement and speed of approach are not available.

The approach basin to and alongside this berth has been dredged (in 1971) and sounding revealed a minimum depth below MLLW of 18 ft. Therefore, a max. draft of 16 ft. appears safely acceptable at all tidal conditions.

Because of the limited size of the basin and lack of any beacon or buoy indicating its extent, assistance of Pilot should be sought. Also, it would be advisable to request the assistance of a 100 h.p. service boat to enter and leave the basin since the approach and the clearing of the berth has to be made in a parallel direction to the axis of the berth.

LPG is loaded through a Niigata Chicksan loading arm which carries both the liquid and vapour lines. Liquid line is connected directly on the loading arm with a bolted 4 in. flange. The vapour line is connected by a section of 2 in. diameter × 5 ft. long hand rubber hose terminating in a 2 in. ASA flange. An additional 2 in. rubber hose is available should vessel's vapour and liquid connection be more than 5 ft. apart.

AUTHORITY: *Operator:* Petron Bataan Refinery, 7901 Makati Avenue, MCC P.O.Box 1053, Makati, Metro Manila, Philippines. *Tel:* 85-90-61/85. *Telex:* 22259 PNO PH, 63667 PNOC PN, 45270 PNOC PM, 14817 PNOC PS. *Cables:* Bataanref-Manila.

Plant Site: Limay, Bataan. *Tel:* 85-69-30/39.

SECTION (F) — PLANTERS PRODUCTS INC.

SHIPMASTER'S REPORT: November 1979 (Updated 1992).

PORT: Limay: Lat. 14° 34' N., Long. 120° 36' E.

DOCUMENTS: 3 copies of Visaed Crew List. The form for the Crew List should be in the approved form and these are available from the Philippines Embassy at the loading port.

4 copies of Ships Stores List.
7 copies of Ordinary Crew List.
1 copy of Maritime Declaration of Health.

APPROACHES: This is a very minor port with 1 berth for discharging dry cargo and 1 berth for tankers. The only conspicuous land mark is a single gantry crane. Limay Port Authority has a VHF station and can be contacted on Channel 13. The vessel has to clear Health and Immigration prior to berthing. The quarantine anchorage and pilot boarding ground is between 14° 30' N. – 14° 31' N. and 120° 37' E. – 120° 38' E. Immigration and Health Authorities board the vessel (generally only during daylight, especially since the weather deteriorates at night) on arrival and clear the vessel.

PILOTAGE: Pilotage is compulsory. 2 Pilots are available. The Pilots are from Manila and they are stationed at Limay for 2 weeks duration on rotation.

TUGS: 2 tugs are available. They are normally stationed at Manila and brought to Limay when vessel berthing/unberthing at Limay. 6 hours notice has to be given. The large tug is 750 b.h.p.

As per "Pilot" during the months of October-November the surface current runs North-South and the undercurrent which is very strong runs East-West. Due to this, it is very "tricky" while berthing and unberthing. Tankers are not berthed or moored during night. Dry cargo vessels may be berthed at night if weather is good. The pier is not very well lit. Moreover very often empty barges, etc., may be in the fairway to the berth and thus makes berthing or unberthing more difficult.

BERTH: The dry cargo berth is about 500 m. long consisting of 3 concrete dolphins on either side of the crane. The crane is gantry type with 6 tons SWL grabs. The berth juts out from the land and the discharged cargo is directly taken into the factory by conveyor. If there are no breakdowns cargo can be discharged at up to 2,000 tonnes per day.

Bulldozers are used to collect the cargo in the hold. The crane is fixed and the vessel has to be warped fore and aft if cargo has to be discharged from more than one hold. Stevedores work 24 hours. Berth is mainly used by the Farm Products Co., which imports muriate of potash and urea. They export NPK fertiliser. The maximum depth found alongside by hand lead and line was 48 ft. and minimum 41 ft. (Planter's Products Inc. is not operating, facilities now leased to Teletrade Corporation).

There is one wreck near the dry cargo berth where a tanker blew up and sank. The position of the wreck is approximately Lat. 14° 30.3' N., Long. 120° 37.3' E. which is marked by an unlit buoy.

DENSITY: Between 1017 and 1020 reducing during rains.

FRESH WATER: Available at berth and at Government Pier at Lamao.

FUEL: Can be arranged from Manila.

REPAIRS: Not available.

STORES: Available but expensive compared with Manila.

WATCHMEN: It is advised to take watchman due to piracy which was reported recently. Generally watchmen are arranged by the Agents.

HATCHES: To be opened by the ship's crew.

CUSTOMS ALLOWANCES: 1 bottle of spirits and 200 cigarettes per crew member.

CARGO GEAR: Not required.

REPATRIATION: Can be arranged. The nearest airport is at Manila which is 2 hours by car.

SHORE LEAVE: Shore leave is allowed. But no crew are allowed to pass through the factory. Boat has to be arranged to take crew to the nearest village next to the factory. The nearest town is Balanga which is the capital of the District. Small mini buses run frequently between Limay and Balanga which is about 20 miles away by these buses.

MEDICAL: Good medical facilities are available at Manila.

SECTION (G) — LAMAO.

DOCUMENTS: See Section (B).

BERTHING: Government owned pier with 2 berths. Depth alongside 13 ft. General cargo loaded and unloaded from small vessels.

STEVEDORES: Contractor has to be notified in advance. A meeting is held at the P.P.A. Office with Agent and Charterer.

Working Hours: 0600 – 1800 and 1800 – 0600.

FRESH WATER: Available alongside and at anchorage by barge.

FUEL: Available.

SERVICES: Trucking, ships stores, ferry, car rental, ship chandler, mooring/unmooring.

SECTION (H) — BATAAN STORAGE CORPORATION.

Bataan Storage Corporation is engaged in the storage of liquid bulks and petroleum products at Lucanin Point, Mariveles, Bataan. The company also provides the facilities and manpower services of customers who come with tankers for loading and unloading through the use of pipelines and submarine hoses.

Five mild steel vertical cylindrical tanks with capacities of: Tanks No. 1 and 2 135,000 barrels; Tank No. 3 – 3,081,690 litres; Tank No. 4 – 1,320,204 litres and Tank No. 5 – 3,220,466.54 litres.

Pipe trestle consisting of 3 pipes, 2×10 in. diameter and 1×6 in. diameter with average receiving and discharging capacities of 350,000 litres per hour, utilising 3 GM engines with model 353 pumps. With mooring array consisting of 4 main mooring anchor buoys and 2 intermediate buoys capable of handling tankers with a maximum draft of 36 ft. There is also 1 barge loading pier capable of handling a maximum of 1,000 tons with 3×6 in. diameter discharging lines and with average loading rate of 65,000 litres per hour for petroleum products.

At the Bataan Storage Corporation Pier, loading of imported oil products belonging to Union Refinery Corporation takes place at the finger pier, where small tankers could berth alongside and receive cargoes from the storage tank ashore through large hoses.

BATANGAS (including Tabangao), Luzon: 13.45 N. 121.03 E. **(See Plan)**

See "General" before first port.

PORT LIMITS: Batangas Harbour embraces all waters of Batangas Bay extending seaward up to an imaginary line connecting Cazador Point and Matuco Point.

DOCUMENTS: Upon arrival, the following papers should be forwarded to the Authorities:

2 Crew Lists (visaed).
3 List of Stores, Deck, Engine, Stewards Dept.
3 List of Stores, Firearms, Medicine and Narcotics.
6 Personal Effects Declaration.
6 Inward Manifest.
8 Ordinary Crew List.
Clearance from last port of call
Also see "Shipmaster's Reports".

APPROACHES: "Suggested Approach": From the South between Matuco Point and Malajibomanok Islands, with an opening of 3.5 miles. White flashing beacon on Malajibomanok Island duration 0.3 seconds every 10 seconds visible for 8 miles in clear weather. Islands and point can be approached within 0.5 mile.

Landmarks and Coastal Lights: Government Pier at Bo. Sta. Clara may be approached safely from either direction paralleling its face. Batangas church dome, Bauan church bell tower, refinery stacks and columns and wharves are good landmarks. Batangas Lighthouse is Gp. Fl. (3) green every 5 seconds.

PILOTAGE: Pilotage for shifting from Quarantine Anchorage, docking and undocking compulsory for all vessels engaged in foreign trade. The vessel is met by the harbour pilot approximately 2 miles South of the wharf. Pilotage for entering the Batangas Harbour and anchoring in the Quarantine Anchorage is optional but pilotage for shifting therefrom or changing in the stream is compulsory for vessel engaged in foreign trade. At least 48 hours before ships arrival, advise ship's Agents of estimated time of arrival (ETA).

Visual Signals, "I need a Pilot" – The single hoist of the International Code flag "G".

Sound Signals – "I need a Pilot" – the International Morse Code "G" or 2 prolonged blast, followed by 1 short blast of the ship's siren.

Pilot Launch: 25 g.r.t. white with a black "P" at both sides of bow and with International Code Flag "H" hoisted. At night time, all around white light on top of a red light in a vertical line, with green and red sidelights.

ANCHORAGE: All vessels entering Batangas Harbour shall show their colours and signal letters shall be kept flying until the vessel is boarded by the proper Officials within 2 miles before arriving at the designated Quarantine Anchorage.

1.	13° 45' 06" N.	121° 02' E.	Quarantine
2.	13° 45' 13" N.	121° 02' 14" E.	for vessels less than 1,000 g.r.t.
3.	13° 45' 06" N.	121° 02' E.	for vessels over 1,000 g.r.t.
4.	13° 45' 30" N.	121° 01' 55" E.	for vessels over 3,000 g.r.t.
5.	13° 45' 30" N.	121° 01' 42" E.	
6.	13° 46' N.	121° 01' 15" E.	for Caltex wharf
7.	13° 43' 35" N.	121° 02' 50" E.	for Shell wharf
8.	14° 42' 54" N.	121° 03' 06" E.	for Pacific Flour Mills Pier
9.	14° 46' 18" N.	120° 58' 15" E.	for Batangas Bay Terminals, Inc. Pier.

MAX. SIZE: See "Berthing" and "Tankers".

TUGS: Tug service is not furnished by the two oil refineries. The use of a tug for berthing and unberthing is required. Although a tug is normally available at Batangas it may be necessary to dispatch a tug from Manila. Accordingly, it is important for Masters of vessels to provide at least 48 hours advance notice of ETA to ensure availability of the tug boat.

BERTHING: Berthing may be done any time during the day or at night and Masters should exercise their own judgement in this respect. Vessels moor either port or starboard side to, depending on prevailing conditions.

Batangas Govt. Pier:

	Length (m.)	*Width* (m.)	*Depth* (m.)
Pier I	127.5	15	10.5
Pier II	105.0	15	10.0
	48.0	12	
Pier III	84.0	15	5.0

Bauan and Mainaga Pier:

Bauan: Lat. 13° 46' 48" N., Long. 121° 04' 06" E.
Mainaga: Lat. 13° 35' 48" N., Long. 120° 57' 12" E.

Alternative loading or discharging ports, but only in cases when there is congestion at the government piers at the Port of Batangas.

Pacific Flour Mill: Location: The area contained from the Southernmost pile of the Shell Refinery to the area West of Little Tabangao River extending 1 mile Westward.

Max. Size: LOA 492 ft., draft 45 ft.

Pier: Length 93 m. with 142.5 m. causeway, width 7.5 m., depth 14 m.

Special Regulations:

(A) That a navigational and mooring area of 0.5 mile from the Northernmost and Southernmost mooring dolphins of the PFM Pier be free from fish traps and other fishing devices.

(B) That a freeway from incoming and outgoing vessels from the PFM Pier be kept free from all fish traps of any forms, and/or any other fishing devices that may obstruct navigation for a distance of 0.5 mile North and South of the PFM pierhead outside of the 50 ft. depth contour approach to the pier.

Purefoods Corporation – Flour Mill:

Location: Mabini, Batangas.

Position: Lat. 13° 43' 08" N., Long. 120° 53' 07" E.

Pier:
Causeway 75 m.
Pierhead length 40 m.
width 29 m.
Depth 20.0 m. – 11.5 m.

Max. Draft: 11.5 m. (approx.).

Discharge Equipment: High speed pneumatic suction system and a network of chain conveyor and bucket elevator.

Discharging Rate: 250 tonnes per hour/6,000 tonnes per day.

Storage Capacity: Total capacity 30,000 tons, in 33 silos.

Owners: Purefoods Corporation, Greentop Building, Ortigas Avenue, San Juan, Metro Manila, P.O.Box 2695, Manila. Tel: 722-0411/16, 721-6171/74. Telex: 42282 PFC. Fax: 722-4619.

Pilotage: Compulsory. Pilot will board the vessel at Quarantine Anchorage.

Tugs: 2×3,500 h.p. Vessels of 100 m. LOA or more have to use a minimum of 2 tugs. Tugs are available at Sta. Clara Pier, Batangas.

Line Handling: There are 12 line handlers for docking/undocking.

Line Boats: Two line handling boats of 120 h.p. are available for assisting with docking/undocking.

Water: No water available at the pier. Fresh water is delivered by water truck or by water barge or tugs.

Batangas Bay Terminal, Inc: Pier facilities: 3 breasting dolphins 80 m. apart; 2 fender piles (wooden) and 2 mooring dolphins. Causeway 290 m. long.

Max. Size: LOA – 700 ft. Draft – 39 ft.

Location: The Batangas Bay Terminal, Inc. located at 13° 47' 00" N. and 120° 59' 02" E. It is in Bo. Bolo, Bauan, Batangas, the total area (shoreland) is 5.5 hectares and 18 hectares (foreshore) land.

Special Regulations:

(A) That the area contained between the S.W. site of the BBTI for a distance of 1 mile from shoreline North and South be entirely free permanently from all forms of fishing devices.

(B) That a distance of 100 yards around the pier be entirely free from all forms of fish traps, fish corrals, fish weirs, etc. and it be "Off Limits" to all unauthorised persons, including fishermen and those travelling by bancas underneath the said pier.

PNOC Shipping and Transport Corp.:

Max. Size: LOA 340 ft., draft 14 ft. Pier: Length 97 m., width 4.87 m.

PNOC Energy Supply Base:

Max. Size: LOA 426 ft., draft 25 ft.

All vessels proceeding to Batangas should radio either Caltex or Shell, whichever is their destination, their estimated time arrival at Batangas as early as possible, but not less than 96 hours before arrival, amending this ETA subsequently if it varies more than 2 hours from the original estimate in order to arrange towing gangs with the Luzon Stevedoring Corporation.

Vessels loading sugar: See "Iloilo – Shipmaster's Report".

STEVEDORES: Stevedoring is usually handled by Luzon Stevedoring Corporation.

MEDICAL: Both refineries have small hospitals for handling emergency cases. Should any ship's personnel need prolonged hospitalisation, arrangement will have to be made to transfer the patient to Manila or to the Provincial Hospital of Batangas where suitable medical attention is available. Dental treatment can be obtained from local dentists in the town of Batangas.

TANKERS: *Shell Refinery, Tabangao:*

Jetty No. 1:	
Length	336 m.
Width	9.0 m.
Depth	15.0 m.
Hoses	2×10 in.
Jetty No. 2:	
Length	700 m.
Width	9.0 m.
Depth	15.0 m.
Loading Arms	4×12 in.
Max. Size	75,000 d.w.t.
Jetty No. 3:	
Max. Size	20,000 d.w.t.
Max. LOA	165 m.
Max. Draft	9.3 m.
Grades Handled	Crude LPG (pressurised) Mogas Kerosine Gas oil Fuel oil
Jetty No. 4:	
Max. Size	320,000 d.w.t.
Max. LOA	348 m.
Max. Draft	23.0 m.
Grades Handled	See "Jetty No. 3".
Shore Connections	Crude: 4×16 in. hard arms. LPG: Hard arms (Contact Shell on advice on adaptability). Liquid – 6 in. 300 ASA. Vapour – 3 in. 300 ASA.

LPG: Report: Dated June 1984.

1. Send ETA to "Shell Gas Manila".
2. Vessel to dock port side alongside.
3. Shore manifolds from stern to bow – Butane – Butane Vapour – Propane Vapour – Propane.
4. Shore flange characteristics:
   Butane liquid 12 in. diameter ANSI 150 lb. flat flange.
   Butane vapour 8 in. diameter ANSI 150 lb. flat flange.
   Propane vapour 8 in. diameter ANSI 150 lb. flat flange.
   Propane liquid 12 in. diameter ANSI 150 lb. flat flange.
5. Appropriate cross-overs and reducers for simultaneous discharge of propane and butane (both with vapour return) should be installed by ship prior to arrival.
6. Vapour will be returned to ship while discharging.
7. Cargo must arrive as cold as possible, propane at −43°C and butane at −10°C, during discharge. Ship's tanks back-pressure against vapour return must not exceed 80 millibars gauge. To achieve the above conditions, the ship may have to operate its refrigeration equipment at full capacity during the inward voyage and while discharging cargo at the port.
8. The ship should provide an accommodation ladder or gangway.

Also see "Shipmaster's Reports" dated April 1990 and August 1990.

Caltex Refinery Wharf: The Caltex Refinery including the island wharf is located North of the government pier and at night can be distinguished by illumination lighting on its structures and red aviation warning lights at the top of the columns. A gas flame at the top of the 150 ft. flare stack is also visible several miles from shore. The Caltex Wharves are adequately lighted to facilitate night berthing or unberthing operations if desired. LOA 755 ft., draft 41 ft. Jetty designed for 45,000 d.w.t.

Location: Lat. 13° 48' 24" N., Long. 121° 01' 00" E.
Lat. 13° 46' 12" N., Long. 121° 01' 36" E. (Service Wharf)

Construction: 2 wharves with the following dimensions:

T-Head: Length 84 m., width 13 m., depth 14 m., with 2 mooring buoys 244 m. apart parallel to the berths facing the shoreline.

Island Wharf: 2 breasting dolphins 91 m. apart. Length 16 m., width 12 m., depth 27 m., with unloading platforms installed in between the dolphins and provided with 2×125 ton quick release hooks and 2×125 ton bollards.

Crude oil is delivered by 200,000 d.w.t. to 300,000 d.w.t. supertankers.

Special Regulations:

(A) That a distance of 100 yd. around each of the 2 wharves (including island wharf) be entirely free from all forms of fishing devices such as "bonbons" fish corrals, fish weirs, etc., and that it be "Off Limits" to all unauthorised persons, including fishermen and those travelling by bancas within the areas.

(B) That a navigational and mooring area of 0.5 miles North and South respectively of the limits stipulated be likewise free from fish traps and other fishing devices, but with option to fishermen to fish with hooks or with bancas within the said area provided that they do not come within 100 yd. around the jetty.

(C) That a freeway for incoming and outgoing vessels from the Shell Refinery piers be kept free from "bonbons" and/or any other fishing devices that may obstruct navigation for a distance of 0.5 miles North and South of the jetty head outside of the 50 m. depth contour approach to the jetty. See "Shipmaster's Report" dated June 1982.

DENSITY: 1026.

FRESH WATER: Fresh water is available to vessels loading, unloading or bunkering at Batangas Port. It is delivered to the vessel through hose connections. The water satisfies the physical and chemical requirements for drinking water.

FUEL: Bunkers are available from the 2 refineries. Prior advice should be given through the ship's Agent.

FIRE PRECAUTIONS: At both refineries smoking or open fires are prohibited on the wharves or on vessels alongside or within 100 yards of either wharf. Furthermore, each vessel's personnel is responsible for the safety of its own ship at all times.

CONSULS: Consulates are located in Manila.

REPAIRS: *Keppel, Philippines:* (Finger Pier) Total berth of 300 m. with deep water, provides facilities for repair of vessels of up to 5,000 d.w.t.

Cranage: 1×5 ton travelling crane on floating deck; 2×37 ton crawler cranes; 1×12 ton mobile crane.

Hull shop: 80 m.×22 m. covered workshops equipped with 2 units 10 ton overhead travelling crane; 1×750 ton×6 m. long flanging press; 1×500-ton hydraulic portal press.

Machine shop: 80 m.×14 m. covered workshop equipped with 1×5 ton overhead travelling crane, 1×10 m. long×800 m. swing lathe, other lathes, milling machines, drilling machines, etc.

Electrical shop: Facilities for electrical repairs, rewinding, insulation repairs, etc., other shops are pipe and carpenter shop to give full range of services for new constructions and repairs.

PNOC Marine Corporation: Principal Facilities:

Shiplift Drydock:
Lifting Capacity: 7,500 long tons.
Length of Platform: 172.5 m.
Width of Platform: 28 m.
Maximum Draft Liftdock at MLLW without Keel Blocks: 7.97 m.
Elevation at Top of Pier at MLLW: 4.6 m.

Transfer System Parameters:
Total Rated Lift Capacity: 7,500 long tons.
Maximum Lift Capacity: 11,300 long tons.
Keel Block Bogie Jacks: 164 units (maximum).
Outrigger Bogie Jacks: 46 units (maximum).
Rail Lift Cylinders: 120 units (maximum).

Work Berths:

New Construction Berth No. 9: Capacity 7,500 long tons (light displacement weight). Length 168.3 m. Width 27 m.

Repair Berth No. 8: Capacity 7,500 long tons (light displacement weight). Length 168.3 m. Width 27 m.

Repair Berth No. 7: Capacity 5,000 long tons (light displacement weight). Length 108 m. Width 27 m.

Repair Berth Nos. 1 – 6: Capacity 2,700 long tons (light displacement weight). Length 108 m. Width 21 m.

Other Facilities, Buildings and Shops:

Lift Control Building. New Construction/Erection Area. Gantry Crane (50 ton capacity). Whirley Crane (42 ton capacity). Receiving and Control Building. Covered Fabrication Area. Steel Fabrication Shop. Open Storage. Carpentry Shop and Mold Loft. Vehicle Repair Shop. Power Plant. Propane Storage Pad. Flammable Storage. Oxygen Plant. Water Storage Tank. Pump House. Crane Control House. Warehouse. Gate and Control Building. Parking Area. Administration/Clinic Building. Employee Service. Canteen. Outfitting Shop. Piping Storage. Foundry Shop. Transfer Area.

DRY DOCKS: Keppel, Philippines has its floating dock with the following data of information: Max. length of vessels, 110 m.; Max. beam of vessels, 19 m.; Max. draft of docking, 5 m.

CUSTOMS ALLOWANCES: Sufficient for crew's use in port.

REPATRIATION: Pre-arrangement by ship's Agent and/or Master of the vessel and the Immigration Officer assigned on board the vessel.

AIRPORT: At Manila.

HOLIDAYS: New Year's Day (January 1st); Holy Thursday; Good Friday; Labour Day (May 1st); Independence Day (June 12th); R.P.-U.S. Friendship Day (July 4th); Bonifacio Day (November 30th); Christmas Day (December 25th); Rizal Day (December 30th); Special holidays declared by the President of the Philippines are also included. If any other legal holiday falls on Sunday the following day is observed as a holiday. Cargo handling work can be arranged on any or all holidays with the vessel's Agent.

POLICE/AMBULANCE/FIRE: PPA Port Police: 725-2882. National Customs Police: 725-2971. Batangas City Police: 725-2125. Ambulance: 725-2890. Fire Department: 725-2470.

TELEPHONES: At present placing telephones on board foreign vessels is not available; however, telephone service is available on the jetty of both refineries.

IDENTIFICATION CARDS: Not required in the Port of Batangas. Pedestrian and vehicle passes required.

GENERAL: *Discharge of Ballast:* No dirty ballast may be dumped into the territorial waters of the Republic of the Philippines. The refineries have provisions for off-loading a limited amount of oil water ballast.

Rat Guards: Rat Guards shall be placed on all mooring lines to the wharves and piers.

Parking Facilities: 7,226 sq.m.

DEVELOPMENTS: New coal discharge terminal to be completed for vessels of 100,000 d.w.t., discharge rate 1,600 t.p.h.

Passenger terminal and concrete wharf (550 m.) to be constructed.

SHIPMASTER'S REPORT: June 1982.

Caltex Island Wharf:

Prior to arrival call "Luzsteveco" (Luzon Stevedoring Co.) on Channel 16 or 11 for berthing information. Berthing is slow as pilot boat runs lines and is not powerful enough to handle big wires. Moorings are 3, 2, 2. We were advised 16 in. reducers but they prefer 14 in. which are more suitable for their hydraulic clamps. 4 surveyors on board for cargo. Boat required to get ashore.

SHIPMASTER'S REPORT: January 1987.

Daylight berthing only at BBTI Pier as berthing dolphins (2) are only 60 m. apart. Also lighting is insufficient. Pilot advises that depth at pier is 45 ft.

SHIPMASTER'S REPORT: May 1987.

On arrival, the Port Officials, Pilot and Agent board the vessel from a tug in the vicinity of Batangas Town and the ship then drifts while they clear the ship before proceeding to the berth. The number of officials are numerous and include the Plant Quarantine Officer who requires a list of all pot plants onboard.

They depart on the tug after completion of formalities.

The following documents are required by Port Authorities on arrival at Tabangao:
9 copies Crew List.
6 copies Crew Declaration List.
6 copies Crew Vaccination List.
6 copies Vessel Information List.
8 copies Stores List.
7 copies Provisions List.
6 copies Narcotics List.
7 copies Plant and Animal List.
6 copies Ammunition List.

Distribution of documents is as follows:

Medical Quarantine Doctor - 1 copy of Crew Vaccination List.

Customs - 5 copies of each document.

Immigration - 2 copies of Crew List.

Plant Quarantine Officer - 1 copy each of Stores List, Provisions List and Plant and Animals List.

Animal Quarantine Officer - 1 copy each of Stores List, Provisions List and Plant and Animals List.

Narcotics Police - 1 copy of Narcotics List.

Coast Guard - 1 copy each of Crew List, Crew Declaration List, Stores List and Ammunition List.

Agent - 1 copy each of Crew List and Vessel Information List.

SHIPMASTER'S REPORT: April 1990.

The following is a copy of a telex received from Pilipinas Shell in Manila.

Quote:

Please advise following information:
(a) Number and Nationality of Crew.
(b) D.w.t. / Beam / Draft on Arrival / Call Sign.
(c) Flag / Port of Registry / Year Built / Owners / Speed.
(d) Voyage No. / Next Port of Call after Batangas.
(e) Last Port of Call / Date Sailed Last Port of Call.
(f) Bill of Lading Details: Figures / Shipper / Bill of Lading Date.

The following documents are required by Port Authorities on arrival at Tabangao:
1. 12 copies Crew List.
2. 6 copies Crew Declaration List.
3. 6 copies Crew Vaccination List.
4. 6 copies Vessel Information List.
5. 8 copies Stores List.
6. 7 copies Provisions List.
7. 6 copies Narcotics List.
8. 7 copies Plant and Animal List.
9. 7 copies Ammunition List.
10. 5 copies Stowage Cargo Plan.
11. 1 copy Derat Certificate.
12. 5 copies Bills of Lading.
13. 6 copies Port of Call or Voyage Memo.
14. 5 copies Cargo Manifest.
15. 5 copies Parcel List.
16. 10 copies Passenger List.

Grateful if you could arrange distribution of documents before arrival Tabangao as follows:
1. Medical Quarantine Doctor: one original copy of Items 3, 11, 13.
2. Customs: 5 copies each of all documents, except 11.
3. Immigration: 5 clear copies of Items 1 and 16.
4. Plant Quarantine Officer: 1 copy each of Items 5, 6 and 8.
5. Animal Quarantine Officer: 1 copy each of Items 5, 6 and 8.
6. Narcotics Police: copy of Item 7.
7. Agent: 1 copy each of Items 1, 4 and 12.
   Please ensure that a copy of the Bill of Lading is given to the attending Agent to enable us to satisfy Government Regulations on freight remittance.
8. Coast Guard: 1 copy of Item 1.

Please be advised that the following procedure is being applied in port formalities:

(a) Medical Quarantine Officer: Will board the vessel before Customs and Immigration Officers. Kindly prepare to show him your crew's yellow fever/cholera vaccination cards, properly segregated into those with expiring vaccination and those with new vaccination. Also please show him your latest Derat Certificate. You will be required to fill up a form "Maritime Declaration of Health". After Pratique is granted, you can lower your yellow flag.

(b) Customs Boarding Officer: Hand over 5 copies of all documents requested above and your Last Port Clearance. If none, please prepare an explanation why you do not have any Customs Clearance at last port.

He will further brief you with current port regulations, especially the strict regulation against illegal and unauthorised boarders. For your information, the penalty for illegal boarders or unauthorised boarders like women, vendors, is ten thousand pesos.

Kindly ensure that this regulation is strictly followed to avoid any problem and ensure maximum safety of your vessel.

For your information, agents of the communist rebels may pose as hospitality girls with intention to sabotage vessel or terminal. Also, the terminal will not allow berthing with illegal boarders on board your vessel. Further, 3 Customs Officials will be staying onboard the vessel until operation is completed.

(c) Immigration Boarding Officer: Please hand over all travel documents: Passport and Seaman's Book of crew members for verification. If you do not have a valid crew visa on board issued by the Philippine Consulate, kindly prepare a brief explanation as to why you do not have a Crew Visa, and address your letter to the following:

Commissioner of Immigration and Deportation.
Through the Alien Control Officer.
Port of Batangas.

The Immigration Officer will be inquiring whether you need to have shore passes. Accept the Immigration Officer's offer of shore passes for all crew. Please advise early of any intended crew changes at Batangas (crew signing on/off). If you have any signing-off crew members for repatriation, please prepare a referral letter on your ship's letterhead with the following format:

Quote
To whom it may concern.
Dear Sir,
The following personnel will be paying off the vessel at Tabangao:

Name Rank Passport No.
This is a certification of their seamen's status and good for whatever purpose it may serve them.
Yours faithfully,
(Master) M.V."........"
Unquote.

Also, please hand over travelling documents of the signing-off crew to the Immigration Officer for stamping/verification, and give same to Agent, who will forward it to Manila to secure their plane tickets if required.

(d) Plant Quarantine: Please hand over required above-mentioned documents.

(e) Animal Quarantine: Please hand over required above-mentioned documents.

(f) Narcotics Police: Please hand over Narcotics List. He will inspect/seal your narcotics cabinet. Ensure that all narcotics are declared in the Narcotics List.

(g) Coast Guard: Please hand over one copy of Crew List.

Please send us your Crew and Vaccination Lists, and your requirements (cash advance, bunkering, crew changes, provisions, expected mails/spares delivery from owners, etc.) in advance to avoid delays due to holidays, etc.

For LPG tankers, there is no land transport between Jetty No. 2 and the Jetty Gate, a distance of approximately 1 km. Crew wishing to go ashore will have to walk this distance. Therefore to avoid inconvenience, joining and signing-off crew should join/disembark the vessel while at anchorage. Also, delivery of requirement should be done before or after discharge, at anchorage. This is due to strict safety regulations of terminal for LPG operations.

SHIPMASTER'S REPORT: August 1990 (Updated June 1992).

The following is a copy of a telex received from Pilipinas Shell in Manila.

Quote:

A. Please prepare following documents and arrange distribution as follows:

1. 12 copies Crew List (5 copies for Customs, 5 copies for Immigration, 1 copy for Coastguard, 1 copy for Agent).
2. 6 copies Crew Declaration List (5 copies for Customs).
3. 6 copies Crew Vaccination List (1 copy for Quarantine Doctor, 5 copies for Customs).
4. 6 copies Vessel Information List (5 copies for Customs, 1 copy for Agent).
5. 8 copies Stores List (5 copies for Customs, 1 copy for Plant Quarantine, 1 copy for Animal Quarantine).
6. 7 copies Provisions List (5 copies for Customs, 1 copy for Plant Quarantine, 1 copy for Animal Quarantine).
7. 6 copies Narcotics List (5 copies for Customs, 1 copy for Narcotics Police).
8. 7 copies Plant and Animal List (5 copies for Customs, 1 copy each for Plant and Animal Quarantine).
9. 6 copies Ammunition List (5 copies for Customs).
10. 5 copies Stowage Cargo Plan (5 copies for Customs).
11. 1 copy Derat Certificate (for Medical Quarantine).
12. 6 copies Bill of Lading (5 copies for Customs, 1 copy for Agent).
13. 7 copies Ports of Call or Voyage Memo (1 copy for Medical Quarantine, 5 copies for Customs, 1 copy for Agent).
14. 5 copies Cargo Manifest (5 copies for Customs).
15. 5 copies Parcel List (5 copies for Customs).
16. 10 copies Passengers List (5 copies for Customs, 5 copies for Immigration).
17. Last Port Clearance: Please hand over to Customs.
18. Vessel Arrival Condition Report (1 copy for Agent).

B. Following is the normal procedure with Port Formalities:

1. Medical Quarantine will board your vessel first. Please prepare your yellow fever/cholera vaccination cards with expired cards separated.
2. Customs/Immigration/Plant and Animal Quarantine will board vessel upon advice of the Quarantine Doctor.
3. Customs Boarding Officer will brief you on the current Port Regulation against illegal boarding, specially "women". For your information, penalty for illegal boarding is ten thousand pesos. 3 Customs Officials will stay on board until vessel sails.
4. Immigration Boarding Officer: Please hand over all crew's Passport/Seaman's Books for verification. If vessel does not have Valid Crew List Visa, kindly prepare brief explanation addressed to the following:

Commissioner on Immigration and Deportation.
Thru Alien Control Officer.
Port of Batangas.

The Immigration Officer will ask if you need shore passes. Please accept the offer of shore passes for all the crew. If you have crew for repatriation, kindly prepare referral letter on ship's letterhead in the following format:

Quote
To whom it may concern.
Dear Sir,
The following personnel will be paying off the vessel at Tabangao:
Name Rank Passport No.
This is a certification of their seaman's status and good for whatever purpose it may serve them.
Yours faithfully,
(Master)
Unquote.

Master's Note: A total of 15 officials boarded and required all the copies prepared and more. Fortunately extra copies had been prepared.

C. Quarantine Anchorage at Lat. 13° 45' 06" N., Long. 121° 02' 00" E.

AUTHORITY: Philippine Ports Authority, Port of Batangas, Batangas City, Philippines. *Tel:* 725-2862, 725-3793. *Contact:* Salvador L. Reyna, Port Manager.

AGENT: See "Manila".

BISLIG, Mindanao: 08.14 N. 126.22 E.

See "General" before first port.

PILOTAGE: Vessel should send direct advice to the Pilot or through its Agents 48 hours prior or at the very least 24 hours before ETA by commercial telegraphy.

There is no VHF operated by the Pilot.

Pilot boat is painted black (hull) and white (bridge and mast). International Code Signals used to call Pilot.

Pilot station is located at Lat. 8° 11.4' N., Long. 126° 21.2' E.

Pilot boat will be located (if by prior advice/arrangement by Master requiring specific service of meeting vessel outside of entrance and conducting vessel through channel to inner harbour) at Lat. 8° 16.85' N., Long. 126° 26.50' E. or 340°, 2.35 miles off Sanco Pt. Lighthouse.

Pilot will always board a vessel (outside of entrance) via the Pilot's or Jacob's ladder on the leeward side of the vessel.

ANCHORAGE: While waiting for a Pilot, the recommended anchorage (at entrance) is at Lat. 8° 16.1' N., Long. 126° 26.1' E. on or about this position and/or within an area of 0.5 miles radius from this point.

Quarantine anchorage or inner harbour is based on the point Lat. 8° 12.9' N., Long. 126° 22.0' E. to within 0.25 miles radius from this point as centre, otherwise 1 mile North of BBLCI Pier's end.

Working anchorage at stream. When vessel is through with all the port formalities, she has to go to a working area for loading/unloading operations, thus:

BBLCI: Vessels will anchor at least within a 0.5 mile radius from the tip of BBLCI Pier.

PICOP: Is especially preferred during N.W. monsoon at least within a 0.5 mile radius from the foot/base of PICOP breakwater.

Bislig Bay: In general is bounded by a line from *(a)* Sanco Pt. to *(b)* Mawes I. to N.W., thence to *(c)* town of Bislig to the S.W., thence to *(d)* the village of Mangagoy to the S.W., and back to *(a)* Sanco Pt.

MAX. SIZE: 30 ft. at PICOP Pier.

HEALTH: Any vessel can be given Free Pratique if upon inspection everybody is healthy, vessel is clean and all certificates of vaccination are complete. However, if there is a suspicious quarantinable disease, a probationary Pratique should be issued and after 6 days, if it was found out that there was no quarantinable disease at all, Free Pratique will be issued.

RADIO: RCPI, Clavecella and CRC.

TUGS: Tugs normally meet vessel with Pilot at the 5 miles limit and assist Pilot in docking, using ship's lines. 5 available. 4 at 225 h.p. and 1 at 112 h.p.

BERTHING: Berthing is on a first-come first served basis. During the N.E. monsoon berthing is in daylight only for precautionary measures.

BBLCI and PICOP maintain 2 piers and 1 marginal pier.

BBLCI: Pier Position Lat. 8° 11' 51" N., Long. 126° 21' 55" W. This is an all concrete pier 800 ft. long and 30 ft. wide with berthing space of 550 ft. on each side. Max. draft 28 ft. at seaward end, 22 ft. at shore end. Both sides are protected by dolphins constructed of pile fenders and large tyres as absorbers. Largest vessel to berth at pier at present is 18,500 tons gross. Lumber, veneer, plywood and logs are loaded at this pier.

BBLCI Marginal Pier. For vessels of less than 1,000 tons gross and 10 ft. draft.

PICOP Piers:

	Length (m.)	*Width* (m.)	*Depth* (m.)
Pier I (concrete)	244	8.0	8.8
Pier II	130	17.7	9.1

There are several patches of reefs projecting N.W. of the channel from Sanco Point to the fairway leading to the PICOP Piers. The port therefore should be entered only during daylight.

January, February and March, the season of the N.E. monsoon, makes it difficult for approaching and securing ship because of strong winds and heavy seas.

CARGO HANDLING FACILITIES: Both companies have ample equipment. Fork lifts, lighters, mobile cranes max. lift 50 ton (BBLCI), and 75 ton (PICOP), sideloaders, trucks and trailers.

STEVEDORES: ETA should be advised 2 days before ship's arrival stating workable hatches and gang requirement for berthing and gang arrangement.

20 gangs available, shifts change at 0600 and 1800 hrs. when port is full. If only few ships in port change at 0600, 1500 and 2300 hrs.

MEDICAL: It is necessary for the Agent to receive advance notice if there is serious medical attendance and hospitalisation. However, less serious medical attendance does not need notification. Port of Bislig has hospital facilities with complete cholera, El Tor and typhoid vaccine available.

DENSITY: About 1025 with tendency to become heavier during dry season and on flood tide.

FRESH WATER: Available at East end of BBLCI Pier. The connection is 2 in., situated 100 ft. from the approach, discharge rate 20 g.p.m.

FUEL: Small quantities available. BBLCI maintain 3 tanks for Caltex.

1. Bunker oil tank	30,000 bbls.
2. Diesel oil tank	11,300 bbls.
3. Gasoline tank	5,100 bbls.

Tank trucks available to deliver oil and gasoline.

REPAIRS: May be made to ship's gear and equipment by arrangement with BBLCI. The company has an engine repair shop, machine shop and foundry.

GANGWAY/DECK WATCHMEN: P1.00 per hour for at least 3 men.

OPENING/CLOSING HATCHES: Rigging of booms is done by ship's crew, while opening and closing of hatches is carried out by stevedores.

AIRPORT: 5 km. distant; daily flights.

HOLIDAYS: On Christmas Day; New Year's Day and Good Friday. Cargo work may be arranged.

IDENTIFICATION CARDS: Needed.

GENERAL: Engineering supplies available from BBLCI and PICOP. Dunnage available through BBLCI. Provisions available through chandler or market 1 km. from BBLCI Pier.

DEVELOPMENTS: More berthing facilities are on the programme for the next 3 years when the pulp and paper mill is in operation. Installation of more log-processing plants to increase shipments.

SHIPMASTER'S REPORT: June 1978

Bislig Bay – East coast of the Philippines – 8° 15' N., 126° 25' E.

Apart from the B.A. Charts, Philippine Charts 4627 and 4664 were used. (Available at Manila).

Directions: Experienced an insetting current along the coast before entering the bay. For High and Low water Bislig Bay see A.T.T. Hinatuan, No. 5057.

(a) The tower at Sanco Point has been destroyed though the foundation (5 m. high) is still visible when not obscured by trees when entering the bay.
(b) All buoys have disappeared.
(c) Beacon B was blown away but Beacons A & C are conspicuous.
(d) Prominent Hill of 920 ft. in the direction of 230° was invisible because of morning mist.

Kept Beacon "A" on bearing 205° till Beacon "C" was 130° and the small island of Agonoy 270°. One way of keeping clear of the shallow depths near the entrance.

Altered course to 230° and steered for the Quarantine Anchorage when Agonoy was 320°.

There is one Pilot available. Pilotage is compulsory. He embarked halfway between Sanco Point and the anchorage from a prao, displaying a large "H" flag.

Berthed starboard side to at the East side of the pier with starboard anchor one shackle in the water slacking away when necessary. Observed a noticeable swell on the other side of the pier.

Moored with 3 headlines and 1 spring forward. Two springs from Hatch 6 leading forward and 2 lines from the fore-end of Hatch No. 5, Hatch No. 6 could not be accommodated alongside the wharf. Inferring not to stow any Bislig cargo in that hatch. It is possible but this hampers the despatch as cargo has to be driven by fork lift truck from the deck of Hatch 6 to Hatch 5.

Two small mooring boats assist in the berthing. On departure these 2 boats assisted in pushing the vessel around.

The normal Quarantine telegram, as for other countries, is not necessary for the Philippines.

Two cabins are required for Immigration and Customs.

Connection with shore: Via the offside gangway and prao. There is a curfew from midnight till 0600 hrs.

Cargo handling: The width of the wharf and the lack of forklift trucks slowed down operations. Another factor is the presence of another discharging or loading vessel alongside the other side of the pier.

Agency: Agent from Manila Office flew from Manila to assist the local offices.

Fruits and vegetables available.

AUTHORITY: Philippines Ports Authority, PMO Surigao, Surigao City 8400, Philippines. *Tel:* 87366, 87361. *Contact:* Fernando A. Almeda, Jr., Port Manager.

CAGAYAN DE ORO, Mindanao: 08.32 N. 124.40 E.
(See Plan)

See "General" before first port.

DOCUMENTS:

Application for Berth.
Vessel's Information.
Inward and Outward Manifests.
Passenger Lists.
Oath on entering Vessel from Foreign Port.
Oath of Clearance of Vessel.
Crew Lists.
Store Lists.
Personal Effects Lists.

PILOTAGE: Pilotage is compulsory for vessels engaged in foreign trade of 100 tons or over, docking or leaving at or leaving the Government Wharf or any privately owned wharf in the Port of Cagayan de Oro.

Notice of ETA should reach the Pilot Association of Cagayan de Oro 24 hours before vessel's arrival. Call Pilot on VHF Channel 16, 3 hours prior to arrival. For purposes of berthing allocation, foreign vessel's ETA should be received by PPA 72 hours before arrival. Approaching vessels are required to blow whistle (2 long and 1 short blast) stop the engine and wait for the Pilot to come. A foreign vessel is met by the Harbour Pilot approximately 2 miles from the wharf except for vessels docking at Philippine Sinter which requires the Pilot to meet the vessels 5 miles from the PSC wharf.

ANCHORAGE:

Quarantine Anchorage:	Lat. 8° 30.5' N.,	Long. 124° 40.5' E.
Anchorage Area No. 1:	Lat. 8° 29.2' N.,	Long. 124° 40.7' E.
Anchorage Area No. 2:	Lat. 8° 29.0' N.,	Long. 124° 41.0' E.
Anchorage Area No. 3:	Lat. 8° 29.0' N.,	Long. 124° 41.5' E.
Anchorage Area No. 4:	Lat. 8° 28.8' N.,	Long. 124° 42.0' E.
Anchorage Area No. 5:	Lat. 8° 36.8' N.,	Long. 124° 45.0' E.

MAX. SIZE: Max. draft of 13 m. alongside, 80 m. from the Northern portion of the quay; the rest 10.5 m. along the quay side.

HEALTH: Foreign ships will clear quarantine on arrival at Cagayan de Oro Harbour. Quarantine officers will board the vessel before the pilot's boat meets the vessel.

RADIO: It is not wise to send ETA of vessel through the radio station. ETA could be best transmitted through the different telegram offices in the city such as RCPI, PT&T, Telefast, Clavecilla and Globe Mackay which is worldwide.

VHF: PPA Port Radio on Channel 16, Pilots on Channels 16 and 12.

TUGS: 4×3,200 h.p. tugs for hire, available through Cagayan Harbour Pilots Inc. Tug assistance is compulsory for vessels over 1,500 g.r.t., docking and leaving the Government port of Cagayan de Oro.

BERTHING: Berthing may be done any time during the day or during the night. Max. permissible ship's draft along the 80 m. portion from the North of the quay is 13 m. and 8.5 m. along the rest of the quay. The present quay is 982 m. in length, giving a total of 11 berthing spaces.

CARGO HANDLING FACILITIES: The port has two cargo handling operators. Phase I is operated by The Gold City Integrated Port Services, Inc. (INPORT). The company has 18×3 ton forklifts; 1×5 ton forklift, 1×20 ton forklift, 1×25 ton forklift; 1×35 ton forklift; 1×10 ton crane; 1×24 ton crane; 4× 6-wheel trucks.

Phase II is operated by the Continental Arrastre and Stevedoring Company (CASCO).

CASCO Cargo Handling Equipment:

Unit No.	*Description*	*Capacity* (tons)
1	Toyota Model 2FD25	2.0
2	Toyota Model 2FD30	3.0
3	Toyota Model 2FD35	3.5
4	Toyota Model 2FD35	3.0
5	Toyota Model 2FD35	3.5
6	Toyota Model 2FD60	6.0
7	Mitsubishi Model S4E-15404	3.0
8	Mitsubishi Model FD50	5.0
9	TCM Model FD35	3.5
10	Mitsubishi Model FD30	3.0
11	TCM Model FD35	3.5
12	TCM Model FD35	3.5
13	Mitsubishi Model FD30	3.0
14	Mitsubishi Model FD35	3.5
15	Mitsubishi Model FD1500	15.0
17	TCM Model FD40	4.0
18	Komatsu Model	3.0
19	TCM Model FD1800	18.0
20	TCM Model FD25	2.5
21	Mitsubishi Model FD35	3.5
22	Mitsubishi Model FD35	3.5
23	Mitsubishi Model FD35	3.5
24 20A	Mitsubishi Model FD200	20.0
25 20B	TCM Model FD200	20.0
26	Mitsubishi Model FD250	25.0
27 "A"	Hyster Model 800	35.0
28 "B"	Hyster Model 800	35.0
29	Kubota Truck-mounted Crane	20.0
30	Komatsu Paydozer Model D21S	GW 5,790 kg.
31	Mitsubishi Dockmule Towing Car	
32	Fuzo Prime Mover	
33	Peterbilt Prime Mover	
34	2 units Trailers, 40 footer	
35	3 units Trailers, 30 footer	
36	3 units Dolleys	
37	1 unit TCM Model FD30	3.0
38	2 units TCM Model FD25	2.5

MEDICAL: Hospital facilities are available in the City of Cagayan de Oro.

FRESH WATER: The Philippine Ports Authority supplies water at the Cagayan de Oro Port. Water is delivered through hose connections direct from PPA's underground water tank. There are 8 outlets at Phase I and 6 outlets at Phase II.
FUEL: Vessels are required to apply for bunkering at PPA with a bunkering fee of P25.00 per vessel. Fuel oil is supplied by the local distributors of Caltex, Petrophil and Shell.
REPAIRS: Minor repairs, not to exceed 2 hours, may be allowed for vessels at berth upon approval by the Philippine Ports Authority. Major repairs have to be done at the anchorage.
SURVEYORS: None locally. Available from Manila and Cebu.
HATCHES: Opening and closing of hatches is carried out by the stevedoring companies.
CUSTOMS ALLOWANCES: Sufficient amount for crew's consumption whilst in port.
AIRPORT: Lumbia Airport is 15 km. from the baseport and is served by regular airlines.
HOLIDAYS: New Year's Day (January 1st), Araw Ng Kagiting (April 9th), Holy Thursday, Good Friday, Labour Day (May 1st), Araw ng Kagitingan (May 6th), Independence Day (June 12th), Bonifacio Day (November 30th), Christmas Day (December 25th), Rizal Day (December 30th).

Special Holidays declared by the President of the Philippines are included. If a legal holiday falls on a Sunday, the following day is a holiday. Normally, the integrated port service works on the vessel regardless of the day except for a 4 hour break in the afternoon of Good Friday, Christmas and New Year's Eve.
POLICE/AMBULANCE/FIRE: Police, 166; Fire, 112; Northern Mindanao Regional Hospital, 113; JR Borja Memorial City Hospital, 72-34-00; Cagayan de Oro Community Hospital, 72-21-45; Cagayan de Oro Medical Centre, 72-22-56; Capitol College General Hospital, 72-43-26; Madonna and Child, 72-32-30; Maria Reyna Hospital, 72-52-10; Maternity Hospital, 72-33-94.
EMERGENCY CO-ORDINATION CENTRE: Philippine Coast Guard Station, Port Area, Cagayan de Oro City. No telephone.
STORING: See "Prelims".

1. Truck.
3. Yes.
4. Yes.
6. Yes.

SHIP SUPPLY SERVICE: The following Chandlers operate in the Port: Sea Lion Ship Chandler; Magada Shipping Agency; King Ardies; RPR Marketing; Sceptre Marketing; Virginia Pelaez Chandling Services.
IDENTIFICATION CARDS: Seaman's Book and/or Passport, Shore Leave or Liberty Pass.
GARBAGE DISPOSAL: Service provided by City General Services Department, Cagayan de Oro City. Tel: 72-22-42. Skip hoist lorries available.
WASTE OIL DISPOSAL: No registered waste oil disposal facilities. However, vessels may upload waste oil in drums with proper clearance from the Bureau of Customs.
SEAMAN'S CLUBS: None, however, Philippine Ports Authority, PMO Cagayan de Oro, has basketball and tennis hard courts which can be utilised by seafarers at P10.00/hour.
CURRENCY: Philippines Pesos (P).
GENERAL: *Lay-Up Area:*

1. Cabulig Bay, Jasaan Area: Lat. 08° 38.5' N., Long. 124° 45.5' E.
2. Tagoloan Area: Lat. 08° 31' 24" N., Long. 124° 44' 42" E.

SHIPMASTER'S REPORT: June 1978 (Updated 1988).

Anchored 4.75 cables, 337° from the lighthouse. (F.R. 58 ft.) lowered 4 shackles into the water and after dropping slacked away to 7 shackles in the water in 50 fathoms of water.

Moored port side to owing to the distribution of the cargo in hatches Nos. 5 and 6. The Pilot prefers to berth starboard too.

Fore and aft springs, use nylon ropes (no wires, to facilitate the handling by the boat crews). Small tugs push vessel alongside. Anchor lowered with 1 shackle in the water, slacking away when necessary.

Cargo handling was good. Pallets were nicely stacked on the wharf. Provisions, vegetables and fruit, available.
Recommendation: Arrivals at daylight only. Consult Agents before signing papers.

AUTHORITY: Philippine Ports Authority, Port of Cagayan de Oro, Port Management Unit, Port Area, Macabalan, Cagayan de Oro City, Philippines 9000. *Tel:* 72-26-97, 72-60-26. *FAX:* 72-60-26.
Contact: Bienvenido P. Basco, Port Manager.

CALACA, Luzon: 13.55 N. 120.47 E.

SHIPMASTER'S REPORT: November 1995.

LOCATION: Lat. 13° 55.8' N., Long. 120° 47.2' E.
DOCUMENTS: The following papers (10 copies of each) must be prepared and ready on arrival to facilitate fast formalities.

Innoculation List.
Crew List.
Stores List.
Parcel/Money List.
Passenger List.
Guns and Ammunition List.
Plant/Animal List.
Crew Declaration of Baggage.
Voyage Memorandum.

APPROACHES: This is a very minor port with one berth for discharging coal. The only conspicuous landmark is the Napocor tower, painted white with a horizontal red stripe.

The vessel has to clear Health and Immigration prior to berthing. Port Authorities board the vessel at pilot station in position Lat. 13° 54' N., Long. 120° 46.5' E., while the vessel is drifting. Colours and signal letters shall be kept flying until the vessel is boarded and cleared by proper officials.
PILOTAGE: Pilotage is compulsory for all vessels engaged in foreign trade. The vessel is met by the Harbour Pilot approximately 2 miles South of Napocor Wharf. At least 48 hours before ship's arrival, advise the Pilot through Agents of estimated time of arrival (ETA).
TUGS: Three tugs assisted during berthing manoeuvers and 2 tugs were employed during unberthing. Tugs are normally stationed at Batangas City and at Manila, and are brought to Calaca when there is a vessel berthing/unberthing at Calaca. Six hours notice has to be given to the Tug Company, in order to arrange and dispatch on time.
BERTHING: Only one berth for discharging coal. It is suitable for handling Panamax size vessels. The crane is gantry type of 2 units with grabs. The cargo being discharged is taken directly into the storage area by conveyor. The actual average discharging rate was about 900 tonnes/hr.

Bulldozers are used to collect the cargo in the holds. The crane is mobile and therefore there is no need to shift the vessel fore and aft. Steverdores work continuously throughout 24 hours.

The controlling draft of vessel is 13.5 m.
MEDICAL: Good medical facilities are available at Batangas City or at Manila.
DENSITY: 1025.
FRESH WATER: Not available at berth.
FUEL: Can be arranged from Manila.
REPAIRS: Not available.
STORES: Available at neighbouring town of Balayan and Lemery, but expensive compared with Manila.
WATCHMEN: Crew gangway watch is sufficient. There are a number of security guards at the bottom of the gangway and at the main gate of the installation provided by the Napocor.
HATCHES: To be opened by the ship's crew.
CUSTOMS ALLOWANCES: 1 bottle of spirits and 200 sticks of cigarettes for each crew member.

Electronics equipment and other taxable goods are strictly forbidden to be landed by crew, except for those who are signing-off.
REPATRIATION: Repatriation can be arranged.
AIRPORT: The nearest airport is at Manila, which is about 2 hours ride by car.
VISITORS: Visitors are allowed, but they require a boarding pass from the Bureau of Customs in Batangas City.
PROVISIONS: Good fresh provisions such as fish, meats and vegetables are available at neighbouring towns of Balayan and Lemery, at reasonable prices.
TELEPHONES: Telephone service for local and international calls is available at Balayan and Lemery.
AUTHORITY: Philippine Ports Authority, Port of Batangas, Batangas City, Philippines.

CEBU, Cebu Island: 10.18 N. 123.53 E. (See Plan)

See "General" before first port.
GENERAL:
Port of Cebu City: General Description:

Situated at the city frontage between Cebu and Mactan Island. 4,474 m. of quayside (including international and domestic zones).

3 finger piers at 155 m.×32.8 m. The international zone has a length of 451 m., excluding the 2 finger piers.

3 government transit sheds on each pier with a total area of 6,264 sq.m.

Total port area is 423,245 sq.m.
Port District of Cebu:

(a) The National main Port of Cebu.
(b) Aside from the main Port of Cebu, there are 11 other ports within Cebu Harbour namely:

1. The Ludo Private Port.
2. The Mandaue Municipal Wharf.
3. Ouano Private Wharf.
4. San Miguel Corp. Private Wharf.
5. Fil Oil Depot Private Pier.
6. General Milling Corp. Private Wharf.
7. Matimco Private Wharf.
8. Opon Municipal Wharf.
9. Mobil Oil Depot Private Wharf.
10. Caltex Oil Depot Private Wharf.
11. Shell Island Depot Private Wharf.

PORT LIMITS: The Port Limits of Cebu: Cebu Harbour as that part of the Strait between Mactan Island and the Island of Cebu within the following boundaries: an imaginary line extending from Bantolinao Point, Mactan Island, due North (true) to the Island of Cebu; and an imaginary line extending from Lawis Ledge, Mactan Island, to Lipata Point, Island of Cebu.

DOCUMENTS: *For Entry:*
7 copies of the Inward Foreign Manifest listing therein all cargoes to be discharged in the port.
4 copies of the Cargo Stowage Plan.
3 copies of the Stores List.
3 copies of Bonded Store List.
3 copies of Firearms and Ammunition List.
3 copies of List of Drugs and Narcotics.
3 copies of Passenger List.
3 copies of Crew List.
The original copy of the Manifest for all through cargo destined for other ports to be deposited with the Customs Inspector on board.
For clearance:
3 copies of Post Office Clearance (for mail discharged or loaded).
3 copies of Request for Clearance.
5 copies of B.C. Form 101 (Customs Inspector report on departing vessel).
5 copies of B.C. Form 98 (Clearance of Vessel to Foreign Port).
5 copies of B.C. Form 198 (Oath of Master).
3 copies of Quarantine Clearance.
1 copy of Plant and Animal Quarantine Clearance.
7 copies of B.C. Form 88 (Outward Foreign Manifest).
6 copies of B.C. Form 88–A (Statistical Supplement).
5 copies of Master's Oath covering list of officers on board.
5 copies of Crew List.

PILOTAGE: At least 48 hours before arrival, the Shipmaster shall transmit to the ship's Agent in Manila through the Coastal Station, Manila Radio (DSZ, operated by the Association of International Shipping Lines), a message indicating the ship's position and the estimated time of arrival (ETA).

In turn, the ship's Agent shall pre-arrange the meeting time at the designated boat station through a telegram to the Cebu Harbour Pilots' Association.

Boat Station No. 1:

1 mile off Black Buoy No. 1 in the vicinity of Bantolinao Lighthouse, Mactan Island for foreign vessels coming from the North of Cebu Harbour.

Boat Station No. 2:

1 mile off Lauis Ledge, Mactan Island for foreign vessels coming from the South of Cebu Harbour.

Visual Signals: Request for Pilot. The single hoist of the international code flag "G".

Sound Signals: Request for Pilot. The international morse code "G" or 2 prolonged blasts, followed by 1 short blast of the ship's whistle.

Pilot Boats:

During night-time:
1. All around white light on top of a red light in a vertical line.
2. Side lights.

During daytime:

A motor launch of approximately 20 gross tons, with the single hoist the international code flag "H".

APPROACHES: *Fairway:* Vessels can enter the harbour through the narrow strait either from the Northeast or from the South. With the construction of the Cebu-Mactan Bridge, large ocean going vessels have to take the South entrance. The Northeast channel is narrow. It has a navigable width of at least 50 m. and a controlling depth of 8.8 m. It is comparatively straight and properly marked with beacons, buoys and lights for navigational guides. The channel from the Southern approach is wider. It is 805 m. or 0.5 miles wide at the narrowest point.

Navigational Aids: To achieve maximum safety to sea navigation, the port is equipped with the following safety facilities:

The Cebu North Channel: Black Buoy No. 1, Red Buoy No. 2, Bantolinao Light Beacon No. 3 and White Beacon Fronting Pier No. 1.

The Cebu South Channel: Lawis Lighthouse and Red Buoy No. 1, Black Buoy C No. 3, Black Buoy C No. 1, Red Buoy C, Beacon No. 2, Capitol Light, Ludo Wharf, San Nicolas Church Red-Lighted Cross.

ANCHORAGE: *North Stream:*

(a) 1st Anchorage: In front of Pier 3 in position, Lat. 10° 17.8' N., Long. 123° 54.90' E. Depth MLLW=4 fathoms.

(b) 2nd Anchorage: In front of William Lines Warehouse in position, Lat. 10° 18.0' N., Long. 123° 55.25' E. Depth MLLW=5 fathoms.

(c) 3rd Anchorage: In front of Abotiz Terminal in position, Lat. 10° 18.2' N., Long. 123° 55.5' E. Depth MLLW=6 fathoms.

South Stream:

(a) 1st Anchorage: Opposite Ludo Wharf in position, Lat. 10° 16.88' N., Long. 123° 53.43' E. Depth MLLW=6 fathoms.

(b) 2nd Anchorage: N.E. of Kawit Island in position, Lat. 10° 16.54' N., Long. 123° 53.33' E. Depth MLLW=8 fathoms.

(c) 3rd Anchorage: Lat. 10° 16.17' N., Long. 123° 53.28' E. Depth MLLW=6 fathoms.

(d) Explosive Anchorage: South of Lipata Point, West of Lawis Ledge.

Anchorage Instructions:

(a) Only 3 vessels of 600 ft. overall length can anchor at the anchorage with a safety margin for dragging and swinging during bad weather with 4 shackles in the water recommended for safe anchorage.

(b) For each vessel of 600 ft. overall length with 4 shackles of anchor chain in the water, approximate turning circle radius is 960 ft.

RESTRICTIONS:

1. Foreign ships are not allowed to pass the North Channel, due to the bridge between Madaue and Opon. However, ships of 80 ft. vertical height from MLW and length of 300 ft. may pass with utmost care.

2. Draft limitation of 40 ft. for Cebu Channel while port established berthing spaces vary from 10 ft. up to 30 ft.

3. Ballast, oil are prohibited to be discharged within the Cebu Harbour and Philippine waters.

MAX. SIZE: See "Berthing".

HEALTH: Pratique obtained after Quarantine personnel have boarded, mustered crew and passengers, and examined ship's health documents. Pratique automatic if vessel coming from another Philippine port.

RADIO: Globe Mackay & Radio Corp. Call letters DZM. (Other call letters and frequencies available).

Working Frequencies: 4328 kHz, 6492 kHz, 8656 kHz, 12984 kHz.

Listening Frequencies: 425 kHz and 500 kHz; 6258.5 – 6265.5 kHz; 8354 – 8374 kHz; 12531 – 12561 kHz.

Master may contact Cebu Stevedoring Company through Channel 1 (156.7 MHz) and Channel 2 (157.8 MHz) VHF.

VHF: Harbour Pilots may be contacted on VHF Channel 16.

Vessels are to call "Cebu Pilots" 2 hours prior to arrival advising them if coming from the North or South.

TUGS: The Cebu Harbour Pilots Association has available tugs of varying h.p. When additional h.p. is required, National Stevedoring and Lighterage Corporation can provide for more powerful tugs of varying capacities.

BERTHING: Berthing may be done at any time during the day or at night and Masters should exercise their own judgment in this respect. Vessels moor either port or starboard side to, depending on prevailing conditions.

Port of Cebu: Berthing of vessels engaged in foreign trade are limited to moor only at the following berthing areas.

(a) Cebu International Port:

Berth Number	*Length of Berthing space* (m.)	*Draft Limitation* (ft.)
1	172.5	30
2	172.5	30
3	172.5	30
4	172.5	30

2×45 ton gantry cranes, 1×35 ton and 1×25 ton level luffing cranes for containers; 3×25 ton forklifts; 3 toploaders × 20 tons capacity; 49 reefer points; 14 trailers; 2 prime movers; C.F.S. of 6,480 sq.m.; open storage area of 10,000 sq.m.

(b) Ludo Private Port: Berthing of vessels engaged in foreign trade at Ludo Private Port are moored to concrete dolphins running N.E. or S.W. of the Ludo Pier. Draft limitation: 40 ft.

Port Establishment of Mandaue: Berthing of vessels engaged in foreign trade are not allowed at Mandaue. Draft limitation: 12 ft.

Port Establishment of Mactan: Berthing of vessels engaged in foreign trade are allowed at General Milling Corporation Private Wharf, and Shell Island Depot Private Wharf.

Port District	*Draft Limitation* (ft.)
General Milling Corp. Pvt. Wharf	25
Opon Municipal Port	15
Mobil Oil Depot	25
Caltex Oil Depot	25
Shell Island Depot	30

Cebu is a principal port of entry open to both foreign and domestic trade.

Other Ports of Entry under PMU-Cebu.

I. Mactan. Another port of entry, N.E. of the Port of Cebu City. Considered as an industrial port, it has jurisdiction over all of Mactan, Shell and Olango islands. Average ship call is 145 vessels (foreign and domestic) per month.

Other ports of entry under the jurisdiction of PPA-Mactan but owned by private entities are:

General Milling Corporation – A 275 m. private marginal wharf with an average depth of 12.20 m. Foreign vessels usually carry raw wheat materials for processing at GMC mills.

Mobil Oil Philippines – 97 m. long with an average depth of 9.90 m. Has total storage capacity of 424,162 bbls. Used exclusively by tankers.

Caltex – Shell – 156.34 m. long with total storage capacity of 273,750 bbls.

II. Tagbilaran. Tagbilaran City is the capital and commercial centre of Bohol. It has a population of 56,000 out of Bohol's total of 0.9 million.

The port of Tagbilaran is the biggest and main port of Bohol. It is situated right in the heart of Tagbilaran City at the narrow channel formed by a cove on the S.W. end of Maribojoc Bay and Panglao Island, the later providing a natural barrier that protects the port from adverse weather.

Tagbilaran is 41 nautical miles from Cebu City (approximately 4 hours sailing). The whole of Bohol is provided with a coastal and central road network which makes travel around and across the island possible.

Pilotage is compulsory which is handled by the Tagbilaran Harbour Pilots Association.

Philippine Sinter Corporation (PSC) Private Port: Situated in Garcia Hernandez, S.E. of Bohol and is 53 km. from Tagbilaran City.

Port Facilities:

245 m. of berthing.
14 mooring bitts.
10 rubber fenders.
41 rubber tyre fenders.
2 fixed Ro-Ro ramps.

Draft of 8.0 m. alongside; 6.0 m. at the entrance channel (below MLLW).

Storage and back-up area of 18,200 sq.m. and 13,300 sq.m. respectively.

Transit shed of 300 sq.m.

Passenger Terminal of 200 sq.m., complete with amenities.

Central water system with 16 cu.m. elevated water tank and underground reservoir.

Stevedores: Cargo handling services is provided by Tagbilaran Maritime Services Inc.

Equipment:

No.	Description
3 × 2 ton	Forklifts
1 × 3.5 ton	Forklift
2 × 6.0 ton	Forklifts
6	Freight trucks

Authority: Efren B. Bollozos, Port Manager. Philippines Port Authority, PMO Tagbilaran. Tel: 411-2519, 411-2686.

III. Other Private Ports which also serve as Ports of Entry.

Atlas Consolidated Mining & Development Corporation (ACMDC) at Sangi, Toledo. Under the jurisdiction of the PPA Sub-port of Toledo, this private port caters to ocean-going vessels which unload imported machinery and equipment, anhydrous ammonia, sulphuric acid among others. While those exported are copper concentrates and pyrite cinders.

Durano Private Port in Danao, Cebu.

APO Cement Corporation Private Port in Tina-an Naga, Cebu.

Philippine Mining Service Corporation Private Port, located at the Municipality of Dalaguete, Cebu caters to foreign vessels to load dolomite with the use of conveyor belts.

National Power Private Port, located at Tina-an Naga, Cebu caters to foreign and domestic vessels to load or unload coal.

Total Bulk Corp. in Mandaue City.

Prime White Cement in Asturias, Cebu.

Petrophil Corp. in Mandaue City.

CRANES: Level-luffing cranes of 25 tons and 35 tons are available at Cebu International Port only.

2×45 ton container quay cranes (Mitsubishi) operated by Oriental Port and Allied Services Corp. (OPASCOR). Rate of 20/25 boxes per hour per crane.

BULK CARGO FACILITIES: Bagging hoppers available. Discharging/loading of break bulk 15 tons/net gang hr. For containers 11 boxes/hr. Quay crane outreach maximum of 7 rows of containers.

BRIDGES: The Opon-Mandaue Bridge crossing the North channel is completed and open to traffic. According to Cebu Pilots Association, clearance is 76 ft. at HW and 80 ft. at LW.

STEVEDORES: Ordered by Agents, no ETA to stevedores necessary from Master.

Cranes (50 ton floating crane), forklifts, trucks, tugs, barges and lighters are used for cargo handling and are mostly owned by private contractors.

MEDICAL: No advance notice to Agents needed. Hospital facilities available anytime.

TANKERS: See "Berthing".

DENSITY: 1030.

FRESH WATER: Most berths supplied by shore installation, otherwise by barge or trucks.

FUEL: Fuel oil can be obtained by arrangement with the different oil installations on Mactan Island (Shell, Caltex and Petrophil).

FIRE PRECAUTIONS: Tankers discharging: Smoking only allowed in saloon (officers), crew in the messroom.

CONSULS: Norwegian 9-77-20; Chinese 7-45-85; American 7-31-51.

REPAIRS: Minor repairs possible.

DRY DOCK: Cebu Shipyard – Dry dock: 160 m.×30 m.×6.0 m. on sill. 6 slipways, max. size 6,000 d.w.t.

SURVEYORS: Jardine Surveying Services.

GANGWAY/DECK WATCHMEN: Services of watchmen necessary subject Master's recommendation.

OPENING/CLOSING HATCHES: Stevedores, with aid of ship's crew.

CUSTOMS ALLOWANCES: (Tobacco) 1 carton a week for each crew member. (Wine and/or Spirits) 1 bottle a week for each crew member.

REPATRIATION: Facilities available.

AIRPORT: Distance 7 miles from port and regularly served by all domestic airlines.

HOLIDAYS: Cargo can be arranged on following holidays: Holy Thursday; Bataan Day (April 9th); Labour Day (May 1st); Independence Day (June 12th); Republic Day (July 4th); Bonifacio Day (November 30th); Rizal Day (December 30th). No work on Christmas Day, Good Friday or New Year's Day.

SERVICES: Compass adjusting services available. Contact Captain Chong at G.P. Shipping Lines or Captain Basa at Aboitiz Shipping Lines.

SHORE LEAVE: Possible. Nationals of Communist countries require clearance from Immigration Office.

IDENTIFICATION CARDS: Required by Immigration Authorities.

GARBAGE DISPOSAL: Garbage disposal can be arranged with the Port Management Office, Philippines Port Authority, Port of Cebu.

WASTE OIL DISPOSAL: There is no collection service available. Each shipping line has its own waste oil disposal.

SEAMAN'S CLUBS: There is no Seaman's Club operating at the port. However, Fr. Roland Doriol is in the process of organising a club in the Port of Cebu. Tel: 21-64-79 or 9-54-92.

CURRENCY: Local currency is Peso. Under Central Bank Circular No. 1318 dated 3rd January 1992, Chapter II Section 11, maximum local currency imported/exported into or out of the Philippines should not exceed P.5,000.00 without Central Bank authorisation.

DELAYS: Berthing on North side of piers depends upon tide and current. South side of piers, vessel can dock any time.

DEVELOPMENTS: *Future Port Development:*

Reclamation of an additional area in the shallow basin Northward of the existing port will serve as the room for expansion of the proposed facilities. The area is divided into three development stages with varying implementation schedules, depending on its viability.

The proposed reclamation will have wider potential back-up areas, less constraints in layout design and the availability of the areas for Stages II and III for future expansion of cargo handling facilities. The disadvantages include the shortage of suitable fill materials, the probable settlement in the newly reclaimed areas and longer construction. (Detailed surveys and soil investigations have already been completed for these sites).

AUTHORITY: Cebu Port Authority, CIP Complex, North Reclamation Area, Cebu City 6000, Philippines. *Tel:* 231-6856, 9-99-54. *FAX:* 231-6848. *Contact:* Mr. Raul T. Santos, General Manager.

AGENT: See "Manila".

DADIANGAS (General Santos City), Mindanao: 06.06 N. 125.09 E. (See Plan)

See "General" before first port.

PORT LIMITS: Port of General Santos embraces all that portion of Saranggani Bay bounded by an imaginary line extending across the bay from Tampuan Point to Sumpang Point, thence along the shoreline until the point of commencement (Lat: 06° 06' N., Long: 125° 09' E.). This shall include all foreshore areas and delineated port area of Makar Wharf.

DOCUMENTS: Vessels calling at General Santos are required upon entry to submit to the Philippine Ports Authority the following: 2 copies of Inward Manifest, Passenger and Crew Declaration List, 1 copy of Cargo Storage Plan, Hatch List and Vessel Particulars.

APPROACHES: At sea, navigating towards Dadiangas, there is only 1 navigational marker (Tinoca Point in Saranggani Strait) and that is an approach from the open Pacific, about 40 miles from Dadiangas. There are no buoys, beacons or other radar targets. The sea and harbour approaches are open and free of obstructions, and there is deep water almost to the beach, all the way into Saranggani Bay.

PILOTAGE: Pilotage is compulsory for all vessels of foreign registry of 100 g.r.t. and over, and domestic vessels of 50 g.r.t. or over. The Pilotage District covers the waters and harbours of the Port of General Santos, Saranggani Bay, Glan, Kiamba and other ports of South Cotabato.

Pilot Boarding Ground: One mile East of Dole Pier by a red and white pilot launch flying the "H" flag. Privately owned pilot launches are used by the Harbour Pilots in serving vessels calling at General Santos. The pilot launches are painted white and red with the marking "Pilot" at their bows and fly a small Philippine flag and the red and white flags. These launches are stationed at the Western end of the quay at Makar Wharf.

One Pilot and one stand-by Pilot are on duty on a 24 hour basis.

Docking Priority: As a general rule, the port has adopted the "first-come-first-served" basis in determining berthing priorities of vessels, subject to the exceptions hereinafter provided. Vessels arrive at pilot boarding area which is one mile East of Dole Pier.

Navigation Signals:

The following signals are recognised by all Pilots:

The pilot jack hoisted at the fore.
The international code signals or P.T.
The international code signal P.T. by flashing lights.

ANCHORAGE: Vessels drop anchors at the designated area along the Saranggani Bay Cove near Barangay Bula Zone and just off the city. Vessels proceed immediately to pilot boarding area where Pilot boards vessel for anchorage or for berth at the public or private wharves or to wait for Customs boarding formalities and quarantine.

Anchorage of vessels is prohibited at the Fairway area, between the Dolefil Pier and Makar Wharf.

RESTRICTIONS: No restrictions on entering the harbour limits even at night time, but shipping Agents must notify and secure permits from the Authorities before incoming vessels are allowed to enter.

MAX. SIZE: Makar Wharf: Draft 8.0 m. – 10.0 m.

HEALTH: Foreign vessels calling at the port are inspected by Immigration Officers to determine whether the vessels observe quarantine rules and regulations or whether the vessels are free from any quarantinable or communicable diseases.

RADIO: There is one privately owned radio installation in Dadiangas and one communication system from Dadiangas Harbour Pilots Association, which should be listened to for special instructions and late priority needs.

Dadiangas	– Dole/Stanfilco Marine
Call Sign	– DXA2
Frequency	– 8722
Power	– 250 to 300 watts
Open	– 0630 to about 0700 hrs. daily. – Special arrangement can be made provided the station has been advised earlier.
Pilot	– Pilot Office inside port area maintains VHF radio on Channel 16.
Power	– 100 watts
Open	– 24 hours.

When at anchorage, 1 hour's notice of berthing is to be given on VHF Channel 16 by the ship sailing into the wharf.

Estimated Time of Arrival (ETA) Notices:

The Master of the vessel sends a radio message to the ship's Agent in Manila containing advance shipping information as follows: name of vessel, port of destination, discharging/loading point (public or private wharf, at anchorage or at berth), ETA, LOA (length overall), estimated draft while alongside (in metres), nature and tonnage of cargo for discharging, and special berthing or cargo handling gear/equipment requirement.

The ship's Agent relays this shipping information at the earliest possible time to the shipping line branch/agency or Agent either by telegram, long distance or radio message which in turn, the branch Agent applies for berthing and/or anchorage allocation at the PPA, Port of General Santos. In the case of foreign or domestic vessel where it has no local Agent, messages are sent to the Harbour Pilot and to the government concerned agencies and its supervisor usually comes to arrange with agencies involved in the berthing/anchorage allocation of the vessel.

TUGS: Two tugs available.

BERTHING: Berthing of vessel is done by Harbour Pilot and assisted by tugboat anytime during the day or night.

Generally, the length and breadth of a vessel entering the approaches of the Port of General Santos do not pose any problem.

	Length (m.)	*Width* (m.)	*Depth Alongside* (m.)	
Public Berth:				
Makar Wharf	561	20	8.5 – 11.0	MLLW
Private Berths:				
Dole Pier	145	18	11.5	
GMC Wharf	47	9	12.6	
Agro-Techs (dry or liquid)	47 (with dolphin)	9	12.6	
Fishing Wharves:				
Congson Pier	47	9	12.6	
R.D.Fishing Industries	47	9	12.6	

BULK CARGO FACILITIES: Bulk cargoes can be discharged/loaded at Makar Wharf, Dole Pier, GMC Wharf and Agro-Techs.

Port Services:

a. Port facilities servicing the banana, fish and pine industries with the use of refrigerated cargo container equipment are at the Dolefil Pier.

b. Port facilities servicing copra/by-products and other agricultural products are at Makar Wharf, GMC Pier and Agro-Techs.

c. Port facilities handling containers using the vessels' cranes or booms are at Makar Wharf, Dole Pier and GMC Pier.

CRANES: 2×40 tons.

SPECIALISED CARGO HANDLING FACILITIES: Ro/Ro ramp at Makar Wharf. Conveyor at Agro-Techs.

BRIDGES: None.

STEVEDORES: Agent of incoming vessel should advise and arrange gangs with cargo handling contractor at last 24 hours before arrival.

MEDICAL: There are three hospitals in General Santos City: Doctors' Hospital, St. Elizabeth Hospital and the General Santos Emergency Hospital. Shipping Agent makes arrangements with hospitals concerned in advance.

TANKERS: There are no available discharge facilities for tankers at the port except at the designated anchorage area where devices are installed by oil companies to allow vessels to discharge their cargo.

DENSITY: Variable.

FRESH WATER: Supply of fresh water is available alongside the quay. The Authority (PPA) has its own water system capable of supplying fresh water simultaneously to all vessels lying alongside the wharf. Present rate is P20.00 per ton for domestic vessels and P25.00 per ton for foreign vessels.

FUEL: Supply of fuel or bunkering is done privately by local oil companies. A vessel shall be allowed to refuel at berth provided prior permit from the Authority is secured.

FIRE PRECAUTIONS: As a precautionary measure, vessels intending to refuel at the port are required to provide fire extinguishers for use in case of emergency. Vessels with dangerous cargoes are not allowed to berth alongside, but will be provided with a special area in the anchorage.

CONSULS: None.

REPAIRS: Minor repairs at berth may be allowed provided that a permit is secured from the Authority.

DRY DOCKS: 2 dry docks for fishing vessels only.

SURVEYORS: None available locally, but can be arranged from Manila or Davao.

GANGWAY/DECK WATCHMEN: Shipping Agents arrange with private security agencies the hiring of gangway/deck watchmen when the service is needed.

HATCHES: Stevedores usually open and close hatches. But when a vessel is of different model and the hatches are constructed differently, Crew members are requested to assist stevedores.

CUSTOMS ALLOWANCES: Quantity of goods permitted for each Crew member to be held out of bond are goods the crew can use for personal consumption.

CARGO GEAR: Special cargo equipment used in the discharge or loading of heavy lifts can be arranged with private contractor.

REPATRIATION: Shipping Agent can arrange this with the Bureau of Immigration Office.

AIRPORT: There are 2 airports intended for domestic flights: Buayan Airport located 10.5 km. N.E. from the port; and the Allah Valley Airport in Surallah, South Cotabato is located 75 km. from Makar Wharf. Flights from Buayan Airport: Monday, Tuesday, Wednesday, Friday and Sunday 0745 hrs.; Thursday and Saturday 1040 hrs. Daily afternoon flights are at 16.25 hrs.

HOLIDAYS: There are about 11 public holidays in the Philippines. Cargo work can be arranged with the contractor during any of these holidays.

POLICE/AMBULANCE/FIRE: Use telephone system.

		Telephone No.
Police:	Desk Sergeant	119
	Chief of Police	3011
	Makar Sub-Station	2534
	Lagao Sub-Station	4427
Ambulance:	Doctor's Hospital	3141; 4714
	GS Emergency Hospital	115; 2811
	St.Elizabeth Hospital	3162; 4784
Fire:	Desk Officer	113; 4013
	Fire Chief	3013

SERVICES: Aside from the usual services rendered by the port, other ancillary services which are performed by private contractors are bunkering, re-watering, victualling, tug assistance, mooring, ship chandling, etc.

SHORE LEAVE: Crew members are allowed ashore provided that at all times there are sufficient personnel on board to attend in case of movement/shifting of vessel lying alongside the wharf.

IDENTIFICATION CARDS: Seaman's Book or shore pass is sufficient.

GARBAGE DISPOSAL: Garbage collection is available anytime, and performed by the dock workers. This can be secured or negotiated through the PPA operations personnel or the stevedoring contractor. Negotiations determine the charges as there is no permanent or franchised company to perform the services.

WASTE OIL DISPOSAL: There is no firm rendering this kind of service in the port of General Santos. However this can be performed anytime by the cargo handling operator through proper negotiation with the Philippine Ports Authority.

SEAMAN'S CLUBS: None.

CURRENCY: Philippines Pesos (P).

REGULATIONS: PPA gate pass system is enforced to regulate and control the movement of vehicles and pedestrians in the port zone.

DELAYS: Work stoppages due to rain/iclement weather/strikes/waiting for cargo.

GENERAL: The Port of General Santos is considered the country's first modern port and is equipped with the newly introduced cylindrical rubber fenders fixed to the wharf's cope line which serve as protectors to both berthing vessels and the wharf.

Three transit sheds with an area of 6,480 sq.m. and a 26,820 sq.m. open storage area with lighting are available.

AUTHORITY: Philippine Ports Authority, Port of General Santos, P.O.Box 53, General Santos City, Philippines. *Tel:* 4446, 4484, 4705. *Contact:* Manuel C.Albarracin, Port Manager.

DAVAO, Mindanao: 07.04 N. 125.38 E. (See Plan)

See "General" before first port.

PORT LIMITS: Vessels enter the port through the Southern entrance of Pakiputan Strait. A vessel is considered to be an "arrived ship" and laytime will commence (subject to Charter-Party Terms) at the Pilot's boarding position located approximately 3 miles off the lighthouse at Sta. Ana Pier.

DOCUMENTS: Required on entry

The Philippine Ports Authority (PPA):

3 Inward Foreign Manifest.
1 Cargo Stowage Plan and Hatch List.
1 Passenger List.
1 Crew Declaration List.

The Bureau of Customs (BOC):

7 Inward Foreign Manifest.
5 Cargo Stowage Plan and Hatch List.
5 Stores List.
5 Bonded Stores List.
5 Firearms and Ammunitions List.
5 Drugs and Narcotics List.
5 Passenger List.
5 Crew Declaration List.
Clearance from last port of call.

PILOTAGE: The Pilot Station is furnished with a copy of the approved Application for Berthing/Anchorage Permit filed with the Port Authority 36 hours prior to ship's arrival, serving as a notice for meeting an incoming vessel.

ETA Notices: The Master of the vessel sends a radio message to the ship's Agent in Manila through the coastal radio station (DSZ) Manila, operated by the Association of International Shipping Lines containing the advance shipping information as follows:

Name of vessel.
Port of destination and discharging/loading point.
ETA.
LOA.
Estimated draft whilst alongside.
Nature and tonnage of cargo for discharging.
Special berthing or cargo handling gear/equipment requirement.

The ship's Agent in Manila consequently relays this shipping information to the local Agent at the Port of Davao either by long distance telephone, telegram or telex. Where the vessel does not have a local Agent, necessary messages are sent to the Harbour Pilot and GovernmentAgencies directly involved; the supercargo normally comes a day ahead of the vessel's ETA.

Signals: The following signals are recognised by all Pilots:

To ask for Pilot by day:

The pilot jack hoisted at the fore.

The International Code Signals or P.T.

To ask for a Pilot by night:

The pyrotechnic light, commonly known as blue light, flashed every 15 minutes.

A bright white light, flashed or shown at short or frequent intervals just above the bulwark for about a minute at a time.

The International Code Signal P.T. by flashing lights.

Pilot Launches: A total of 6 launches are regularly used by the Harbour Pilots distinctively painted red and white with a number preceded by "P" at their bows and fly a small Philippine flag and a red and white flag. 3 Pilots are posted to attend to all pilotage needs of vessels on an 8 hour shift scheduled for 24 hours. The pilot launches are stationed at Sta. Ana Pier, Sasa Wharf and Hijo Wharf.

The Pilot's boarding position is at 7° 02.0' N., 125° 39.0' E.

Shipmaster's Report: June 1987.

Call "Davao Pilots" on VHF Channel 16, 2 hours before arrival, and advise them that you are arriving from the North or South.

RESTRICTIONS: There are no particular restrictions in entering the harbour limits, even at night time, after prior advices have been served and prescribed berth/anchorage permit has been secured from the Port Authority.

MAX. SIZE:

Name of Port Facility	Location	Controlling Draft (m.)	Length Overall (m.)	Approx. Heading/ Position	MLLW Elevation (Sea Level) (m.)	Remarks
A. Principal Ports. (Port of Entry).						
1. Sasa Wharf	Sasa, Davao City	9.0	920.0	007°/187°	3.05	General cargo, Foreign, Domestic.
2. Sta. Ana Pier	Sta. Ana Davao City	4.0	N–104.4 S–88.5	270°	2.65	General cargo.
B. Sub-port of Entry						
1. Mati Wharf (Also see Mati)	Mati, Davao. Oriental	6.5	81.0	—	—	General cargo.
C. Private Ports. (Port of Entry).						
1. Caltex Jetty I	Sasa, Davao City	7.0	66.0	030°/210°	—	Oil berth.
Caltex Jetty II	Sasa, Davao City	9.7	55.18	041°/221°	—	Oil berth.
2. NIDC Wharf	Sasa, Davao City	9.3	205.0	042°/222°	4.3	Coco oil, general cargo. Foreign only.
3. Shell Jetty.	Sasa, Davao City	10.4	42.98	032°/212°	—	Oil berth.
4. Tefasco Wharf	Ilang, Davao City	10.0	400.0	017°/197°	3.0	General cargo.
5. MTBS Wharf	Ilang, Davao City	8.8	101.0	347°/167°	—	General cargo, banana berth.
6. DUCC Wharf	Ilang, Davao City	7.0 9.5	142.0 131.0	— —	3.0 3.0	Cement, coils, coal, slag, gypsum, clinker.
7. Pacinter Wharf	Bayawa, Panabo, Davao	12.0	110.0	050°/230°	3.6	General cargo, banana berth.
8. Tadeco Wharf	Bayawa, Panabo, Davao	12.0	258.5	050°/230°	4.3	General cargo, banana berth.
9. HPI Wharf	Madaum, Tagum Davao,	13.0	270.0	318°	4.3	General cargo, banana berth.
10. URC Wharf	Sasa Davao City	8.7	44	7° 05' N. 125° 37' E.	3	Wheat Products.
11. Petron Jetty	Sasa Davao City	7.0	–	7° 06' N. 125° 37' E.	3	Oil.
12. Legoil Wharf	Sasa Davao City	9.5	205	7° 06' N. 125° 39' E.	3	Oil, General cargo.
13. Interco Wharf	Mati Davao Oriental	12.5	195	6° 56' N. 126° 13' E.	3	Oil.
D. Municipal Ports						
1. Dawis Pier	Digos, Davao del Sur	5.0	27.0	6° 45' N. 125° 30' E.	2.5	General cargo, domestic only.
2. Malalag Wharf	Malalag, Davao del Sur	10.0	30.0	6° 36' N. 125° 35.5' E.	5.0	Cane molasses and general cargo.

MAX. SIZE: Generally, length and breadth of any vessel does not pose a problem in entering the approaches of the Port of Davao, however, berthing in individual ports varies on the ports' facilities and characteristics as listed above.

ANCHORAGE: General Anchorage.

Sta. Ana Anchorage: Vessels awaiting berth availability, anchor about 450 yards N.E. or S.E. of Santa Ana Pier in 12 fathoms, mud. The anchorage is well protected except during the S.W. monsoon.

Loading Anchorage.

Maco Anchorage: Anchor in 50 fathoms with the sawmill bearing 057°, the white plantation house near the mouth of Madaum River bearing 288°, and, the Western tangent of Bassa Point bearing 223°. The bottom is mud and evidently is good holding ground.

Tambongon Anchorage: Anchorage can be taken in 10 to 20 fathoms with good holding ground.

Bunawan Anchorage: Vessels anchor Eastward of the ruined pier in 8 to 15 fathoms.

Tibungco Anchorage: Vessels anchor Eastward of the ruined pier about 0.5 mile offshore in 12 to 15 fathoms.

Talomo Anchorage: Vessels anchor at the Southwestern part of the bay in 20 fathoms, mud bottom. It is open to the S.W. monsoon.

Daliao Anchorage: Vessels anchor about 300 yards Southeastward of the ruined pier in 8 to 15 fathoms. This anchorage is exposed to Easterly winds and sea.

Tagabuli Anchorage: A deep inlet, 0.9 mile long and about 500 yards wide, is 2.3 miles Northward of Digos Point. The anchorage is protected from winds, except those from E.S.E., is in the middle of the bay in 16 to 20 fathoms, mud bottom, where the width of the bay is about 400 yards between the edges of the reefs.

Malalag Anchorage: Anchorage for vessels of any size and with more protection is Northeastward of the pier in 16 to 19 fathoms, mud bottom. Vessels entering the bay for shelter will find good protected anchorage between the islet near the head of the bay and the North shore in 20 fathoms mud.

HEALTH: Vessels arriving from foreign ports are subject to quarantine inspection at their first port of call in the Philippines. A vessel inspected and granted a Pratique in a Philippine port is not subject to quarantine inspection at its next Philippine port of call except when during the trip there has been a case of illness or death on board or its last Philippine port of departure is infected with a quarantinable disease.

Vessels from the U.S.A., Canada, Australia, or New Zealand are permitted to enter a port, disembark and commence operations provided they have complied with the provisions of the Controlled Free Pratique.

The following are required from the Master:
1. Maritime Declaration of Health duly signed by the Master.
2. Crew List.
3. A valid Derat and/or Exemption Certificate.
4. Cargo Manifest.

For any suspected disease or fever on board, the following will apply:
1. For quarantinable disease, special measures by the Quarantine Medical Officer will be undertaken to prevent its entry.
2. For a non-quarantinable disease, patients should be disembarked and hospitalised and the local Health Officer notified. For non-landing patients, they should be isolated on board and treated.

RADIO: Other than those mentioned under "Pilotage", all messages from vessels to Agents can be sent via Apo Communication Service in Davao City, HF frequency DXF and VHF, DXF-6.

VHF: Radio communication linking Pilot to Philippine Ports Authority uses VHF Channel 16. Everett Steamship Corp. have VHF Radio set capable of connecting a ship in port to local office communications.

RADAR: No radar facilities available.

TUGS: Tugs are available for vessels entering the Port.

BERTHING: For details of available berths and types of cargoes handled respectively thereat, see table of port facilities under "Max. Size". Normally, discharging and loading of cargoes are by ship's gear.

CRANES: 65 ton, 35 ton and 25 ton cranes are available at Sasa Wharf and 30 ton cranes at Legoil and Tefasco wharves.

BULK CARGO FACILITIES: Bulk cargoes, if any, are handled at general cargo berths. Loading rate is 15 tonnes per net gang hour at Sasa Government Wharf and various banana berths.

SPECIALISED CARGO HANDLING FACILITIES: Facilities for handling bananas and cement.

BRIDGES: The fairway is clear of bridges.

STEVEDORES: Upon arrival, the Arrastre Stevedoring Company is furnished a copy of the Application for Berthing Permit which is filed 36 hours prior to ship's arrival. Based thereon, gangs are mobilised as would be necessary to service the size of cargoes to be handled.

Conventional cargoes are worked at the rate of 14 tons per net gang hour at Sasa Government Wharf.

MEDICAL: There is 1 government hospital and 5 private hospitals in the area equipped with adequate medical services and facilities.

TANKERS: Diameter of discharge lines at oil berths range from 1.5 in. – 8.0 in.

DENSITY: Average salinity – 1025.

FRESH WATER: Fresh water is available and delivered by tank lorries or barges.

Point of Delivery	*Distance (Nautical Miles)*	*Minimum Delivery (Tons)*	*Method of Delivery*
1. Source	—	—	
2. Sta. Ana	10	50	Barge
3. Sasa	12	50	Barge Lorry
4. Panacan	16	50	Barge Lorry
5. Panabo	24	100	Barge
6. Madaum	29	100	Barge
7. Maco & Malalag	31	200	Barge

FUEL: All grades available – bunkering and other special fuel.

Mindanao Trucking Corp., Lanang, Davao City. Tel: 7-55-15, 7-41-33.

Caltex (Phils) Inc., Sasa, Davao City. Tel: 2343038.

Shell Chemicals Co., (Phils) Inc., Sasa, Davao City. Tel: 64-35, 7-91-17.

FIRE PRECAUTIONS: At the oil berths, there are no specific fire precautions other than the usual non-smoking precaution.

CONSULS: Japanese Consulate Tel. No. 7-37-81

Indonesian Consulate General Tel. No. 7-84-86

REPAIRS: Engine overhaul; all types of deck repairs; underwater bottom cleaning.

DRY DOCKS: Temporarily non-operational; capacity – 1,600 g.r.t.

SURVEYORS: R. J. del Pan Mindanao Surveyors, Inc. representing Lloyd's, A.B.S., N.K.K., Cargo and Marine Engineers, P&I Club, G.L. and Cargo Gear Bureau.

GANGWAY/DECK WATCHMEN: Watchmen necessary and recommended. Minimum cost per watchman – Philippine P.4.75 per hour; overtime P.6.41.

HATCHES: Normally, opening/closing of hatches is carried out by the stevedores.

CUSTOMS ALLOWANCES: Crew members are allowed to bring out supplies to be held out of bond but not to cost more than P.10.00 per article. Generally, sufficient amount for crew's consumption while in port is permitted.

CARGO GEAR: Ship's gear usually used in loading and discharging. When shore cranes are needed, vessel's notice to Agent should contain the requirement.

REPATRIATION: The Immigration Station can effect crew changes and likewise, allow the disembarkation of alien seamen for repatriation to their countries of origin, provided, they possess valid travel documents. Final repatriation shall be effected in Manila after securing the necessary immigration clearances.

AIRPORT: Davao International Airport, 3 km. from Sasa Wharf. Regular daily jet flights to Manila and other major cities. Turbo-prop services available for other points.

HOLIDAYS: New Year's Day (Jan. 1st); Araw Ng Kagitingan (April 9th); Holy Thursday; Good Friday; Labour Day (May 1st); Independence Day (June 12th); National Heroes Day (Aug. 31st); Bonifacio Day (Nov. 30th); Christmas Day (Dec. 25th); Rizal Day (Dec. 30th). Special holidays declared by the President of the Philippines. Work can be arranged on any holiday with the exception of New Year's Day, Good Friday and Christmas Day.

POLICE/AMBULANCE/FIRE: Police Tel: No. 7-26-48; Ambulance Tel: No. 7-27-31; Fire Tel: No. 07.

EMERGENCY CO-ORDINATION CENTRE: Philippine Port Authority, Sasa Wharf, Davao City 8000, P.O.Box 501, Philippines. Main office: Tel: 78461-63; Sasa Terminal Office: Tel: 7-95-86; Sta. ANA Sub Office: Tel: 7-49-54. Mati Sub-port: Tel: 596.

TELEPHONES: No facilities for placing telephones onboard.

SERVICES: Cleaning on board is done either by stevedores or hired deckhands with the use of ship's equipment.

Catering, laundry, Ship chandling also available.

SHIP SUPPLY SERVICE:

Launches Services:

Arcal Development Inc., Corner Guzman & 3rd Ave., Davao City. Tel: 7-69-32, Gen. Manager: Mr. Rafael N. Garcia.

Coco Traders Inc., Corner 2nd Ave., Sta. Ana, Davao City. Manager Mr. Ricardo Ng Suy.

Garcia's Water Transportation, Dona Rosario Bldg., Guzman St., Davao City. Tel: 7-66-60. Manager: Antonio D. Garcia.

SHORE LEAVE: Crew members are issued shore pass by the Bureau of Immigration Officers.

IDENTIFICATION CARD: Seaman's Book is sufficient.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: Mary Star of Sea Centre (Seaman's Centre).

CURRENCY: Philippines Pesos (P).

REGULATIONS: All vessel's movements and works thereof are regulated by the Port Authority.

DELAYS: Usual causes of delays are due to non-availability of berth and rain.

GENERAL: Malalag Wharf, Sasa Wharf, St. Ana Pier, and Mati Wharf are government port facilities; the others are privately-owned.

DEVELOPMENTS: Construction of passenger terminal proposed. Clean bulk terminal and an additional Ro-Ro ramp to be built.

SHIPMASTER'S REPORT: September 1977 (Updated 1996).

Berthing (for bananas):

1. HPI Wharf – Del Monte, Banambo, Fruiti Rita bananas
2. Tadeco Wharf – Chiquita bananas
3. Pacinter Wharf – Dole bananas
4. MCP Wharf – Del Monte bananas.

Berthing (for general cargo):

Sasa Wharf: Max. draft North 14.8 m., Centre 11.0 m. and South 13.5 m.; max. length 920 m. with 1 Ro-Ro berth, 2 container berths and 4 general berths.

Documents:

14 copies Inward Foreign Manifest
12 copies Crew List
8 copies Passenger List
8 copies Narcotic List
8 copies Personal Effects List
10 copies Store List
5 copies Vessel's General Information
8 copies Money List
8 copies List of Arms and Ammunition
8 copies Parcel List
1 copy Clearance from last port
2 copies Quarantine Declaration
8 copies Plant List
8 copies List of Animals

Note: Narcotic List, Money List, List of Ammunition and Arms, List of Plants and Animals may be on the same sheet.

Radio/VHF Communications:

APO Communications DXF and Marphil Radio. The Agent, Everett Steamship Company is equipped with VHF in their office.

Hospital: Davao Medical Centre (government-owned); Brokenshire Memorial Hospital, San Pedro Hospital, Davao Doctors' Hospital, Medical Mission Group Hospital, Ricardo Limsu Medical Centre. All hospitals located in Davao City.

Identification Card: Not required.

Shore Leave: Curfew hours from 2400 (0000) up to 0400 hrs.

Repatriation: Expensive. Crew to be escorted by one Immigration Officer from Davao City to Manila and all expenses including overtime of Immigration Officer to be charged to Owner's account.

Holidays: New Year – Jan. 1st; Araw Ng Kagitingan – April 9th; Bataan Day – April 19th; Labour Day – May 1st; Independence Day – June 12th; All Saints Day – Nov. 1st; Bonifacio Day – Nov. 30th; Christmas Day – Dec. 25th; Rizal Day – Dec. 30th.

Bunkers: Fuel, diesel and lube oils available, clearance takes only a short time.

Shipchandler/Laundry: Available, prices reasonable.

Working Gangs for Painting Cleaning, etc (1986): Foreman: regular time – Peso 5.50/hour; overtime – Peso 7.50/hour. Ordinary workers: regular time – 4.88/hour; overtime – 6.58/hour.

Other charges: Meals. Foreman require 3 meals per day; ordinary require 2 meals per day. Transportation included in working hours.

Repairs of Ship's Instruments: Radar – any type; Radio – any type; Gyro – any type.

Ship Repairs: Minor.

Time: Standard time minus 8 hours on GMT (but 1977 was the first year with Summer time which commenced in March until September.)

AUTHORITY: Philippine Ports Authority, Port District of Southern Mindanao, Dakudao Avenue (Corner A.Loyola Avenue), Bo. Obrero, Davao City; Port Management Office, P.O.Box 502, Sasa Wharf, Davao City 800, Philippines. *Tel:* 78461-63; Sta. Ana Terminal 7-49-54, Mati Sub-Port Terminal 596. *Telex:* ITT 48200 or 40104 PPA-Davao. *Cables:* PPA-DAVAO. *FAX:* 234-2330. *Contact:* Ernesto J. Fernando, Port District Manager. Ferdinand C. Piencenaves, Port Manager. Romulo C. Andres, Port Services Division Manager. Edgardo V. Estarija, Harbour Master.

AGENT: See "Manila."

DUMAGUETE, Negros: 09.15 N. 123.18 E.

Bacong Ammonia Terminal.

PILOTAGE: Pilots/Port Officials come from Dumaguete City, which is approx. 10 km. North of Bacong Terminal.

MAX. SIZE: Max. draft 12 m., max. d.w.t. 20,000 tons.

TUGS: No tug assistance.

BERTHING: Length of pierhead – 40 m. Wooden fenders fore and aft, 40 m. from pierhead.

HOSE CONNECTION: 6 in. single manifold. Pipe-line 6 in. diameter, 300 m. long, leading to shore tank with 6,000 tonnes capacity.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Philippines Pesos (P).

AUTHORITY: Philippine Ports Authority, Port Management Office, Port Area, Dumaguete City 6200, Philippines. *Tel:* 32-52, 25-58, 40-41. *Contact:* Prudencio B. Mercado, Jr., Manager - Port Management Office. Raul V. Merecido, Manager - Port Services Division.

GINGOOG, Mindanao: 08.50 N. 125.06 E. **(See Plan)**

BERTHING: *Gingoog Municipal Port:*

Location: Gingoog City.

Position: Lat. 8° 50' N., Long. 125° 06' E.

Berthing: Reinforced concrete pier, 114 m. long × 12 m. width, with timber pile fenders on both sides. Depth alongside 2.0 m. – 12.0 m.

Indophil Port:

Location: San Luis, Gingoog City.

Position: Lat. 8° 53' 26" N., Long. 125° 02' 23" E.

Berthing: Reinforced concrete pierhead (6.0 m. × 6.0 m.) for foreign and domestic export cargoes. There are breasting and mooring dolphins either side of the pierhead. Depth alongside 10.0 m. There is a 140 m. catwalk to the shore with a 135 m. long conveyor and 8 in. pipeline for coconut oil.

Close by to the export pier is an import pier (4.0 m. × 10.0 m.) for receiving copra from domestic vessels. Depth alongside 4.0 m. The berth is equipped with a hopper, 110 m. long copra conveyor and a jib crane.

SHIPMASTER'S REPORT: October 1982.
The loading berth for Copra expeller pellets is situated in position Lat. 8° 52.5' N., Long. 125° 02.6' E. This is not marked on the Admiralty Charts. There is deep water all around and the approach is fairly safe. The Pilot boards about 1.5 miles N.E. of the berth and approaches in a mechanised canoe with outriggers. Vessel is berthed either side alongside depending on the flood or ebb. No night pilotage. The loader height is sufficient and deep water at the berth. No VHF facilities. Repatriation not possible. Neither fresh water or bunkers can be supplied at this berth. No piracy or thefts but vigilance of security should not be neglected.

SHIPMASTER'S REPORT: January 1990.
Chart: B.A. Chart No. 3810.
Location: The port of Gingoog is situated on the West side of Gingoog Bay on the North coast of Mindanao (position Lat. 08° 53' N., Long. 125° 03' E.). The port is about 1.5 miles S.E. × S. from Medina Lt. (Fl.G.5s.). The terminal is owned by Indophil Oil Mills Inc. of San Luis, Gingoog City and is used for the export of copra pellets and coconut oil.
Documents: Visaed Crew List: Vessels arriving from abroad to any Philippine port must be in possession of a Visaed Crew List, issued by a Philippine Consulate at last foreign port. Failure to have such a document can result in the vessel being fined. In addition to Name, Date and Place of Birth, Nationality, Passport No., etc., they require physical details such as complexion, colour of eyes and hair, also height and weight.

An Immigration Officer will stay onboard throughout the vessel's stay in and between all Philippine ports, at the Owners expense.
Note: The number of Immigration Officers staying on board is governed by the number of crew members (one Immigration Officer for every ten crew members).
Officials: At the first port of arrival in Mindanao Island a Supercargo from the Manila Agents, together with a Cargo Surveyor, board the vessel and travel with the vessel to all loading and discharging ports. At each port of call an Immigration Officer and 2 Customs Officers will remain onboard after formalities have been completed and will require food and accommodation.
Pilotage: Compulsory. Pilot comes from Cagayan de Oro. Vessels should send their ETA to main agent in Manila at least 36 hours prior to arrival to enable Manila agent to order the Pilot and Port Authorities.

The pilot boards the vessel about 2 miles from the berth from an outrigger type canoe with an outboard motor. The pilot requires the accommodation ladder to be rigged as the outrigger cannot get alongside a normal pilot ladder.
Anchorage: There are not suitable anchorages so vessels normally drift in the Bay awaiting a berth.
Tugs: None available.
Berthing: Vessels berth port or starboard side alongside dependent on the weather and tidal conditions. An outrigger canoe is used to run the ship's lines to the mooring dolphins so no wire ropes are allowed.
Berth: The berth consists of 4 dolphins orientated 163°/343° with a distance between dolphins of approximately 50 m. giving a berthing face of approximately 150 m. The berth is 150 m. from the shore and the loading tower is 100 m. high with a span of 12 m.

In addition to the 4 mooring dolphins there are concrete dolphins 100 m. either side of the outer berthing dolphins which are set back about 100 m. from the mooring line. The depth alongside the berth at MLLW is 15 m.
Loading: The single fixed loading gantry is fed by the covered conveyor into a flexible steel spout and has a reach of about 12.0 m. The conveyor belt is supported by steel pylons and is angled up to the loading tower which is 100 m. high.

There is a small discharging berth about 70 m. North of the main loading gantry which also has a covered conveyor belt which is fed by a crane and is used by small coastal craft for discharging copra.

The gantry tower, which is 150 m. from the shore, also carries an 8 in. (20 cm.) diameter pipe for the loading of coconut oil.

Vessels up to 60,000 g.r.t. have berthed and the dolphins are well fendered.
Exports: Copra pellets and coconut oil. The pellets are loaded at a rate of approximately 150 t.p.h. – 200 t.p.h., but loading stops for rain or if there is a threat of rain. Coconut oil is loaded through 2 × 6 in. hoses at a rate of up to 300 tonnes per hour.
Cranes: There is a small crane at the end of the discharge pier for unloading small coastal vessels.
Medical: There are 2 hospitals in Gingoog City.
Fresh Water: Only brackish water available.
Fuel: Not available.
Repairs: No facilities available.
Airport: Not available.
General: Communications: There is no telephone or telex at the plant. The local plant uses R/T via Manila Radio for communications. (The agent from Manila had to travel to Cagayan de Oro in order to telephone his office in Manila).
Security: Large scale thefts are prevalent in all Philippine ports. It is advisable to hire private security guards. The cost is not high.
Rescue and Distress: No centre locally.
Ship Chandlers: None available.
Authorities: The port is officially administered from Cagayan de Oro in Macajalar Bay which is about 130 km. by road. They make a special journey to meet each ship. (Also see "Documents").

AUTHORITY: See "Cagayan de Oro".

HONDAGUA, Luzon Island: 13.56 N. 122.14 E.

SHIPMASTER'S REPORT: 1974.

APPROACHES: B.A. Charts 3806 and 3475, neither of which are of very much assistance. There are no navigational marks by night, but the water is deep and we made a comfortable approach by Radar.
PILOTAGE: Minimum 12 hours' notice required. Pilot boards at Siain, a village 10 miles West of Hondagua on the North coast of the mainland. Pilot boat is a small dug-out canoe fitted with outriggers and an outboard motor, and by day exhibits the pilot flag, and at night a single white light similar to a normal fishing canoe. Pilot shouts to attract attention when close to the vessel at night.
DOCUMENTS: Officials embark at Siain but not before 0630 hrs., due to curfew. Accommodation ladder required. All documents required as for first port of entry, excepting quarantine which is not performed twice.

10 Ship's Stores Lists.
8 Crew Personal Effects lists.
12 Crew Lists.
3 Health Declarations.
2 Visaed Crew Lists.
2 Plant Quarantine Lists.
2 Animal Lists.

Officials disembark again at Siain with the exception of the 3 Customs Officers, who remain on board and who require meals and accommodation.
TUGS: Not available.
BERTHING: One berth only, for grain discharge and for coastal tankers supplying fuel to the Mill. Berth lies East/West with approx. depth at LW East Dolphin 28 ft., Elevator about 34 ft. 6 in., and West Dolphin about 39 ft. The berth is thought not to be suitable for vessels exceeding 500 ft. LOA. The dolphins are of timber-pole construction, and the elevator is concrete. Arrival and departure from the berth is during daylight only. Mooring arrangement is 2 head ropes to buoy, 2 breast ropes to shore, spring-wire to bollard on elevator, 4 stern lines to concrete dolphin, and 1 spring-wire to bollard on elevator. An old landing-barge is used as a mooring boat, but this has only one engine on the port side and is not very manoeuvrable. A motorised dug-out canoe also assists, but is not powerful enough to pull a line very far. The elevator has two discharging suckers, but these are fixed and the vessel has to be shifted hatch to hatch. Combined capacity about 80 t.p.h. which could be improved, but foundations of conveyor-belt system damaged by earthquakes.
FRESH WATER: Available at berth but not of very good quality. Ship's hoses required.
AIRPORT: None. There is a train service to Manila, about a 6 hour journey.
CURFEW: Area is under Martial Law. Curfew from 2300 hrs. to 0600 hrs.

ILIGAN, Mindanao: 08.14 N. 124.14 E. (See Plan)

DOCUMENTS:

8 copies Foreign Outward Manifest – Last Port of Call.
8 copies Slop Chest – Bonded List.
8 copies Crew List.
8 copies Crew Declaration List.
8 copies Money List (Currency List).
8 copies Arms and Ammunition List.
8 copies Through Cargo Manifest.
8 copies Stowage Plan.
8 copies Ship's Arrival Condition.
8 copies Ship's Property List.
8 copies Parcel List.
8 copies Itinerary of Travel.
12 copies Inward Foreign Manifest.
12 copies Pre-Pratique.

PILOTAGE: Pilotage for docking and undocking at government and privately owned piers/wharves for foreign vessels is compulsory. The Harbour Pilot meets the vessel 1 to 2 miles N.W. of the pier. Vessels coming from foreign ports intending to dock at any of the private piers will first anchor at designated anchorage area for boarding formalities.

For docking vessel, at least 24 hours advance notice of the ETA is required. For undocking, at least 3 hours notice is needed. Tel: 20858, or VHF Channel 16.
ANCHORAGES: Anchorage in the Iligan area is almost anywhere at a distance of about 0.5 to 1 mile from the coastline. The average depth varies from 37 m. to 56 m. At a distance of more than half a mile from the coastline, anchorage is difficult due to the deep water that runs to over 180 m., which has caused several vessels to lose their anchor. The characteristic of the bottom near the beach is muddy and hilly. Beyond 0.5 miles, there is good holding ground with sand and gravel. In case of strong S.W. winds, vessels may resort to natural protection of Initao and Kiwalan, called the "Quinalang Cove".
RESTRICTIONS: See "Berthing".
MAX. SIZE: Max. LOA 240 m. Max. draft 25 ft. and 15,000 g.r.t. at the R.C.Wharf (For foreign-going vessels).
HEALTH: Vessels clear quarantine upon arrival from foreign port. Health Officer boards the vessel 2 miles off the pier at designated area.
VHF: Port Office on Channel 16.
TUGS: The Iligan Harbour Pilot's Association owns 2 tugs both serving the domestic and foreign vessels. The use of tug is necessary, especially when docking and undocking vessels on government and private piers. Additional tugs are also available if the Harbour Pilot thinks necessary. It is important that the Masters of vessels/shipping Agents notify the Harbour Pilot at least 48 hours in advance of vessels arrival to ensure the availability of tugs.

BERTHING: Berthing for domestic vessels may be done anytime of the day or night. Foreign-going vessels berth during daylight hours and undock at anytime.

	Length	*Width*	*Depth*
Pier No. 1 (Concrete)	96 m.	12 m.	5.4 m.
Pier No. 2 (Concrete)	96 m.	12 m.	5.4 m.
R.C. Wharf	240 m.	15 m.	7.62 m.
Ro/Ro Wharf	15 m.	10 m.	5.4 m.

There are also 8 private ports along the coast of the City of Iligan. (See "Plan").

CRANES: The cargo handling contractor has a 25 ton mobile crane. A 100 ton capacity crane is available at nearby private port of National Steel Corporation.

BULK CARGO FACILITIES: None in the Government Port of Iligan, but available in nearby private ports.

SPECIALISED CARGO HANDLING FACILITIES: None for foreign vessels, domestic Ro/Ro wharf (15 m. × 10 m.).

BRIDGES: None.

STEVEDORES: The cargo handling contractor is the Iligan Merged Arrastre/Stevedoring Company (IMASCO). At least 24 hours advance notice is needed by them to assign sufficient number of men to work on the vessel.

Labour Productivity:

Foreign	35 tons per net gang hour.
Domestic	30 tons per net gang hour.

Overtime is possible upon arrangement.

MEDICAL: Medical and dental facilities are available in the city.

TANKERS: No facilities.

FRESH WATER: Fresh water is only available at night. It is supplied to the vessel through a 4 in. pipeline (Cost: P 38.00 per ton).

FUEL: Bunkers are available, provided prior notice is given through the ship's Agent.

CONSULS: In Manila.

REPAIRS: No facilities.

DRY DOCKS: None.

SURVEYORS: Available locally.

GANGWAY/DECK WATCHMEN: There should be sufficient men to man or take care of the vessel. Watchmen available for hire.

HATCHES: Opening/closing of hatches is carried out by stevedores.

REPATRIATION: Local Immigration takes care of any repatriation or disembarkation, provided advance notice is given together with the names and destination of each crew member.

AIRPORT: Baloi Airport 15 km. Lumbia Airport, Cagayan de Oro City 110 km.

TIME: GMT plus 8 hours.

HOLIDAYS: New Year's Day (January 1st); Araw ng Kagitingan (April 9th); Holy Thursday and Good Friday (movable); Labour Day (May 1st); Independence Day (June 12th); National Heroes Day (August 30th); Bonifacio Day (November 30th); Christmas Day (December 25th); Rizal's Day (December 30th).

Special holidays declared by the President of the Philippines and the Regional Autonomous Government are included.

Cargo work can be arranged on any holidays, except Good Friday and New Year's Day.

POLICE/AMBULANCE/FIRE: Police 101; Fire Department 103; City Hospital 21558; Mindanao Sanitarium Hospital 20558; Dr.Uy's Hospital 20818; Iligan Medical Centre 21253.

EMERGENCY CO-ORDINATION CENTRE: Philippine Ports Authority. Tel: 21013, 21780, 21022.

TELEPHONES: Placing of telephones on board foreign vessels is not available at present.

SERVICES: Special services are available, provided advance notice is given by the ship's Agent to the service contractors accredited by the Authority.

BANKS: Allied Banking Corp., Juan Luna Cor. del Pilar St., Iligan City. Tel: 21712, 21213.

Bank of the Philippine Island, Juan Luna Cor. de Leon St. Tel: 21152, 21269.

Far East Bank and Trust Co., Quezon Avenue Cor. Lluch St. Tel: 21768, 20780, 21804.

Al Amanah Islamic Investment Bank of the Phils., Roxas Avenue. Tel: 21027, 20950.

PCI Bank, (1) Quezon Avenue. Tel: 20083, 21771.
(2) Del Pilar Cor. Labao St. Tel: 20666, 20677.

Security Bank and Trust Co., Quezon Ave. Cor., Labao St. Tel: 21135, 20147.

Philippine National Bank, Gen. Aguinaldo St. Tel: 20664, 20665, 21843.

Development Bank of the Phils. – Noria Mahayahay. Tel: 20566, 21424.

Interbank, Quezon Avenue, Iligan City. Tel: 21006.

STORING: See "Prelims".
1. Yes, through local chandlers.
2. No, interference with cargo work.
3. Yes.
4. Yes.
5. Yes.
6. Yes.

SHIP'S SUPPLY SERVICE: The ship's Agent usually contacts the local supply service contractors accredited by the Authority.

SHORE LEAVE: Crew members are usually allowed ashore.

IDENTIFICATION CARDS: Not compulsory, but helpful, if crew members have to identify themselves to the Authority.

GARBAGE DISPOSAL: No service available.

WASTE OIL DISPOSAL: No service available.

SEAMAN'S CLUBS: None.

CURRENCY: Peso.

REGULATIONS: None.

DELAYS: Only bad weather.

DEVELOPMENTS: None at present.

SHIPMASTER'S REPORT: 1974

Approaches: B.A. Chart 3426. This is of not very much use as an approach chart as the scale is too small. However, the water is deep and therefore it does not matter too much. On this voyage we made an approach in darkness and solely on Radar, the only navigational light, a fixed red, being very hard to distinguish.

Pilotage: The Pilot boards about 1 mile N.W. of the piers. Pilot boat is a river-type launch about 50 ft. in length with a grey hull and a white funnel.

Anchorage: 2 cables from old harbour piers. 7 shackles in 50 fathoms.

Radio: No VHF facilities.

Officials: Iligan is a Port of Entry. Officials board at the anchorage. Accommodation ladder required. Usual procedures take about 1 hour to 1 hour 30 minutes.

Documents:
- 20 Ship's Stores Lists.
- 14 Crew Personal Declarations.
- 3 Vaccination, and inoculation dates.
- 3 Ports of Call and dates for previous 3 months.

Immigration: Before leaving last foreign port for the Philippines, obtain 4 official Crew List Forms from the Philippine Consul. Complete these forms and have them visaed by the Consul who will retain 2, and return 2 to the ship. Passes are required for crew members going ashore.

Customs Allowance: 1 bottle and 200 cigarettes per person. 3 Customs officers live on board all the time, and require accommodation and meals.

Tugs: Up to 4 tugs available if required, but it is advisable to give notice of requirements well in advance, since these tugs may be engaged in towing barges elsewhere around the island.

Berthing: Quinalang Cove: 1 grain discharge berth. Depth at berth 40 ft. and ample room for a vessel of 600 ft. L.O.A. Discharge is by sucker direct to the Silo. There are 2 suckers with a combined average discharge rate of 100 t.p.h., but suckers are located in fixed positions requiring the vessel to be shifted hatch to hatch. Berth is well-fendered, with a shore gangway. Stevedores supply a good hatch-tent for working in the rain. 1 bulk-copra loading berth, 600 ft. in length and draft said to be 32 ft. 1 bulk-cement loading berth, reported to be capable of accommodating vessels of 25,000 g.r.t.

Camp Overton: Located South of Iligan, there is reported to be a steel-loading berth to accommodate vessels of 750 ft. length, and 36 ft. draft.

Fresh Water: Available at most berths.

Repairs: Only very minor repairs can be undertaken.

Airport: About 20 miles distant. Daily flights to Cebu and Manila.

Stores: Fresh fruit available, also good supply of seafood.

Time: GMT plus 8 hours.

Shore Leave: Crew members should take special care when proceeding ashore, and should not carry cameras or wear wrist watches, etc. It is advisable to return aboard before darkness.

SHIPMASTER'S REPORT: September 1976 (updated 1988).

Coconut Oil Berth: Located at "Quinalong Cove" 08° 17' N., 124° 15' E. Least depth of water in channel from sea to berth – 40 fathoms. Mean tidal range 5 ft. Density 1025. Nature of bottom at berth – mud. Vessels can berth in daylight only, unberthing anytime. This private facility is owned by San Miguel Corporation Iligan Coconut Oil Company.

Anchorage: 3 cables S.W. of City Pier. Depth at LW 70 fathoms, cable should be "walked out".

Vessel's hoses used, length of shore line 300 m., size 12 in. No shore booster pumps used. Products handled, coconut oil and coconut products.

Pilotage: Compulsory. Pilot requires 24 hours' notice and boards 1 mile N.W. of City Pier.

Max. size of vessel that can enter the port of Iligan is 100,000 d.w.t. and draft 45 ft. Keel clearance required, about 2 ft.

5 small and medium size tugs available.

Nearest consuls are in Manila.

Facilities available: Fresh water, 5 t.p.h. Fresh provisions. Laundry.

No slop tanks, surveyor, repair facilities, fuel.

Documents:
- 2 Visaed Crew Lists (Philippine) from previous port. If diverted at sea, a copy of the diversionary cable required.
- 6 Ordinary Crew Lists.
- 6 Personnel Effects Lists.
- 6 Stores Manifests.
- 6 Parcel Lists.
- 6 Arms Lists.
- 6 Mail Lists.
- 6 Narcotics Lists.
- 6 Animal Lists.
- 6 Plant Lists.
- 6 Cargo Manifests.
- 6 Transit Manifests.
- 6 List of Ports.
- 6 Currency Lists.

There is a cabin search by 4 Customs Officers, accompanied by 2 Ship's Officers. They collected an undeclared radio and 2 cameras. They did not impose any fine, as they said they had been courteously treated, and this was the vessel's first visit.

3 Customs Officers remain aboard, and have to be fed.

SHIPMASTER'S REPORT: June 1989.

Pilotage: Contact Pilot on VHF Channel 16, 3 hours prior to arrival and give your amended ETA. Pilot will meet foreign vessels to anchor at suitable anchorage for quarantine and customs formalities, prior to berthing at designated piers.

Radio: Radio Telephone (Marine SSB-Voice) available soon.

VHF: Our Agent (OROSHIP) on VHF Channel 16 for Agent's vessel only. Harbour Pilot Station has Channel 16 but for emergency assistance you can call through their facilities.

Medical: There are 6 private hospitals with modern facilities for crew.

Fresh Water: Available at all berths, or by trucks.

Watchmen: Recommended.
Surveyors: Local marine cargo surveyor is Del Pan.
Repatriation: Crew changes can be arranged by local Agent and will exit through Manila International Airport, which is about 1 hour 25 minutes by air from Cagayan de Oro/Iligan Airport.
Banks: Philippine National Bank; Philippine Commercial & Industrial Bank; Development Bank of the Philippines; Far East Bank and Trust Co.; Family Bank of the Philippine Islands; United Coconut Planters Bank.
Services: Oro Shipping Agency offers the following services: Chandling, laundry, chipping / painting, hold cleaning, lashing / shoring gangs, launch service and crew repatriation.

AUTHORITY: Philippine Ports Authority, Port Area, Iligan City, Philippines. *Tel:* 21013, 21022 and 21780. *FAX:* 76-4224.
Contact: Benigno V. Magpale, Jr., Port Manager. Pedro A. Riego, Port Services Division Manager.

ILOILO, Panay: 10.41 N. 122.35 E. (See Plan)

See "General" before first port.
PORT LIMITS: Also see "Anchorage" – last paragraph. Iloilo Harbour is defined as that portion of Iloilo Strait within the following boundaries: an imaginary line extending from the Northern bank of Dumangas River, Island of Panay, across Iloilo Strait to Navalas Point on the Northern coast of Guimaras Island; thence along the N.W. and West shore of Guimaras Island to Luzaran Point thence along an imaginary line extending from Luzaran Point to the South bank at the mouth of Siuaragan River in the municipality of San Joaquin, Province of Iloilo, Island of Panay. Thence along the Southern shore line of the Island of Panay to the North bank of Dumangas River, the point of commencement.
DOCUMENTS:
Bureau of Customs:
1. On Arrival:
   7 Inward Foreign Manifests.
   3 Crew Lists.
   3 Personal Effect Lists.
   3 Stores Lists.
   3 Arms and Ammunition Lists.
   3 Narcotics Lists.
   3 Mail Lists.
   3 Bonded Stores Lists.
   3 Passenger Lists.
   3 Storage Plans (if vessel has cargoes to be discharged).
   2 Bills of Lading.
   1 Clearance from last port of call.
2. On Departure:
   4 Statistical Supplement (for vessels leaving directly for a foreign port).
   7 Outward Foreign Manifests.

Philippine Ports Authority:
1. On Arrival.
   2 Inward Foreign Manifests.
   2 Passenger Lists.
2. On Departure:
   2 Outward Foreign Manifests.
   2 Statistical Supplements.

PILOTAGE:
1. Application (notice) for pilotage services is usually made by a shipping Agent at least 24 hours before the vessel's arrival. Notice may also be tendered via a commercial telegraph office addressed to Iloilo Harbour Pilot Association, Muelle Loney St., Iloilo City. The Pilot Association is on VHF Channel 16.
2. The Pilot Association owns 5 standard-designed pilot boats, with one being utilised as water taxi for vessel's crew intending to go on shore leave.
3. Request for pilotage services may be done in either of the following ways:
   (a) 2 long and 1 short blast of the vessel's whistle.
   (b) Continuous flashing of blue light during night-time.
   (c) Display of the international "G" flag during daytime.
4. There are 2 Pilot Stations where the Pilot may be taken aboard, namely:
   (a) Sinapsapan Point at the South entrance, 8 miles from the port.
   (b) Nabalas Point at the North entrance, 12 miles from the port.
5. With respect to the boarding and safety measures, the Pilot requires a sturdy and reliable pilot ladder.

VHF: Call "Iloilo Pilots" on Channel 16 advising that vessel wishes to take Pilot at Sinapsapan or Nabalasa.
ANCHORAGE: (proposed)
The anchorage of the Port of Iloilo is that portion of Iloilo Strait within the following boundaries: an imaginary line extending from Balabago Point, Island of Panay across Iloilo Strait up to Cabugao Point on the Northern Coast of the Island of Guimaras, thence along N.W. and West shore of Guimaras Island to Bondulan Point; thence along Southern shore line of the island of Panay to Balabago Point, the Point of commencement.
Note: A vessel is considered "arrived" after it drops anchor at any point within the boundaries described above.
RESTRICTIONS: Generally, a vessel may enter the port from the Pilot Station at any time of the day or night. However, said entrance of the vessel is restricted by the draft of the vessel and the tide at the time of entrance. At MLLW, only vessels with a maximum draft of 28 ft. may enter or depart from the port. At HW (5 ft.) vessels with a maximum draft of 33 ft. may enter or depart from the port.
MAX. SIZE: Iloilo Commercial Port Complex: Total length 400 m. Depth at MLLW 10.5 m. Max. draft 10.1 m.
HEALTH: The port has 1 Quarantine Doctor. Quarantine formalities are done while vessel is at the Quarantine Station. Notice for quarantine formalities is usually given by the shipping Agent 24 hours before the vessel's arrival.

The following documents are necessary for presentation to the Quarantine Officer on arrival.

A. On Arrival:
   1. Derat Exemption Certificate. (If expired or about to expire, the same could be renewed at the port for a period of 6 months).
   2. International Certificate of Vaccination. (If expired or about to expire, vessel crew could be vaccinated locally).
   3. Maritime Declaration of Health. (Form to accomplish available locally).

Above documents are necessary for the issuance of Free Pratique.

B. On Departure:
   1. Quarantine Clearance for Outgoing Vessels. (A fee of P4.00 or approximately $0.53).

Free Pratique is issued at the first port of call. It becomes automatic if the vessel intends to call at another port within the Philippines.
RADIO: Coastal Marine Radio Station:

Location:	Lat. 10° 41.4' N., Long. 122° 32.8' E.	
Call Sign:	DYV	
Frequencies:	8632 kHz.	0000 GMT – 0400 GMT
		0600 GMT – 0900 GMT
	12948 kHz.	0900 GMT – 1130 GMT
VHF	Channel 16	

Also private telegraph companies with international relaying stations; Central Radio Communications, Radio Communications of the Philippines., Inc.
VHF: Retransco on Channels 16 and 13.
TUGS: Tugs usually join vessels for docking and undocking operation. The services may be provided by the pilot's boat or tugs of the Visayan Stevedoring & Transportation Corp. The charge is P150.00/tug during daytime and P180.00/tug during nightime.
BERTHING: Also see "Shipmaster's Report".

Usually, loading and discharging are done with the use of the vessel's own gear, except catch-all nets and crane for heavy lift cargoes which may be provided by the Stevedore operator.

The Arrestre Operator is capable of handling general and heavy lift cargoes, cargoes in bags (like sugar, fertilisers, cements, copra cake, etc.). Bulk loading may be done also by "bleeding" cargoes in bags directly into the vessel's hold.
Commercial Port Complex: New facility of 400 m. length for container vessels and Ro-Ro vessels with depth 10.5 m. (MLLW). One mobile crane and 3×28 ton fork lift trucks available.
CRANES: 1 crawler crane with 15 ton capacity owned by private Arrestre. The Ministry of Public Highways has 4 heavy-lift cranes of 25 tons capacity.
BULK CARGO FACILITIES: Within the harbour limit of the port is sugar bulk-loading installation situated at Jordan, Guimaras Island. The berth is capable of accommodating a vessel with a LOA of 182 m. and a draft of 35 ft. at MLL.

Loading is done with the use of a mechanical conveyor which has a rated capacity of 400 – 500 tonnes per hour. The discharging gear has a maximum height of 30 ft. above HWL.

Cargo handled in this berth is exclusively sugar in bulk.
SPECIALISED CARGO HANDLING FACILITIES: The port is *not* specially equipped for handling containers or Ro/Ro traffic.

LPG facilities at Petron.
STEVEDORES: An advice of 24 hours before the vessel's ETA is required to prepare the gangs necessary to perform stevedoring services. Stevedoring services can average at the rate of 900 – 1,000 tonnes of loading/unloading per 24 hours.
MEDICAL: The port itself does not own any medical facilities. However, within the City itself are 6 modern hospitals which could be used by the vessel's sick crew. Vaccinations and inoculations may be done by the Quarantine Doctor who also issues corresponding certificates for the same.
TANKERS: Bunker is handled through 6 in. pipelines; however, Petron load bunker through a 4 in. pipe. "White oil products" are handled through 8 in. pipes. There are 2 privately owned oil-water separators.

Types of oil available: premium, regular, automotive diesel fuel oil, kerosene, and bunker C; rate of delivery: 10–12 t.p.h.
FRESH WATER: Fresh water can be supplied by a private supplier, Springwater Marine Services, Iloilo City. Water is supplied to the vessel while at anchorage or at berth from a water barge at the rate of 15 – 20 tonnes/hr. cost is P16.00 ($2.13) per tonne. Water is safe and potable.
FUEL: Bunker fuel and fuel oil (of any desired viscosity) are available and can be supplied by Philippine Shell Petroleum Corp., Lapuz, Iloilo City. It can be delivered either by barge or by road tanker at the rate of 10 – 12 t.p.h. An advance notice of 24 hours prior to delivery is necessary.
CONSULS: British, at Hongkong and Shanghai Bank, Ledesma Street, Iloilo City, Tel: 7-50-86.
REPAIRS/SERVICES: The Iloilo Dock and Engineering Company offers the following major services: Marine construction and repairs, conversion, machine shop, electronics navigational equipment installation and repairs, steel fabrication, sand blasting, engineering and project consultation. Other services offered: Marine salvage, stevedoring and longshoring, lighterage, towing-harbour, inter-island and ocean warehousing and in-transit handling.
Radar: Repair of ship's radar may be done by Louman & Sons Technical Service Inc. The company is capable of repairing radar, radio transmitter and receiver, fathometer and steering system. Usually contacted by the ship's Agent.
DRY DOCKS: Largest dry dock at Ideco is Shipway 1: Length 587 ft., width 56 ft. depth (draft at MLLW, 10 ft. without keel blocks), capacity 2,500 L.T. There are 4 other smaller docks, and several side berths.

SURVEYORS: Local Marine Surveyor, Delpan.

WATCHMEN: Watchmen are optional, however if the Master so desires, watchmen can be hired.

HATCHES: Opening/closing of vessel's hatches and securing the vessel's derricks, are usually done by the stevedores.

CUSTOMS ALLOWANCES: Vessel's crew are permitted an individual allowance of 1 bottle of whisky and 1 carton of cigarettes per week. However, if necessary, the Master may request the Collector of Customs through the Customs Inspector on board for a further issue within the week.

CARGO GEAR: Load/discharge is effected by ship's gear. There is no special cargo equipment except for heavy lift cranes.

REPATRIATION: Crew changes and repatriation may be effected by the local Regional Office of the Immigration Commission with the approval of its head office in Manila.

AIRPORT: An all-weather airport situated about 7 km. from the pier. Regular Iloilo – Manila flight is 3 times a day. Other flights to Cebu, Davao, Puerto Princesa, Palawan and General Santos.

HOLIDAYS: *Legal Holidays:* Sundays, January 1st (New Year's Day); April 9th (Bataan Day); May 1st (Labour Day); June 12th (Independence Day); July 4th (Phil.-American Friendship Day); November 30th (National Heroes Day); December 25th (Christmas Day); December 30th (Rizal Day).

Note:

1. Special Public Holiday may be issued by the President.
2. Under Philippine Law, if a legal holiday falls on Sunday, the following day (Monday) is also a holiday.

Regular working days in the Philippines are Monday through to Friday. Holidays notwithstanding, the Master/Agent may request continuance of stevedoring work after proper notice has been made with the stevedoring company.

POLICE/AMBULANCE/FIRE: Police Tel: 7-55-21; Fire Tel: 7-30-11; 7-49-89; Ambulance Tel: 7-25-61; 7-24-41.

TELEPHONES: PLDT (Tel Co.) can install a telephone on board a vessel at berth with the following charges:

P200.00	Deposit for the instrument, refundable upon return of the instrument.
74.41	rate/month
45.00	for services
3.00	electrician's fee
322.41	Total charges

Port Authority Telephone Numbers: Manager's Office: 7-69-45; Operations: 7-60-73; Administration: 7-76-43; Security: 7-29-79.

SERVICES: See "Repairs".

SHORE LEAVE: Shore leave is granted after the issue of shore passes by the local official of the Commission on Immigration.

DELAYS: Occasional congestion of the port may delay vessels berthing. Bunkering may be done whether the vessel is at anchorage or at berth.

IDENTIFICATION CARDS: Identification card is not necessary for the issue of shore passes. Visaed Crew List will suffice.

GENERAL: Vessel's ETA has to be relayed to Philippines Ports Authority, Iloilo at least 24 hours before arrival.

DEVELOPMENTS: The Iloilo Commercial Port Complex is fully operational. It is situated approximately 1 km. from the existing port, the Old Foreign Pier and the Marginal Wharf.

Proposed Development: Old Foreign Pier: Proposed Ro-Ro Facilities:

Ramp Movement		Reference Deck Elevation – 25 m.
Upward (max.)	:	2.00 m.
Downward (max.)	:	1.50 m.
Line Load (max.)	:	88 tons
Vessel Beam Consideration	:	12.6 m. to 20.6 m.
Vessel LOA Consideration	:	68.8 m. to 132 m.

Proposed Apron Widening: Widening of existing apron at RC from 12.0 m. to 18.0 m. toward the sea.

Proposed Reclamation: Reclamation of the open space area between Old Foreign Pier and the National Road, approximately 1.7 hectares to be used as back-up area.

SHIPMASTER'S REPORT: 1977

There are 3 ports where bulk sugar loading facilities exist, Pulupandan (which see), Iloilo and Batangas Bay. Ships first call at Pulupandan on Negros Island, approximate position Lat. 10° 31' 30" N., Long. 122° 47' 36" E. and load up to a draft (SW) of 29 ft. The rate of loading by using 1 trimmer is about 300 – 400 tonnes per hour. Pilotage is compulsory and the Pilot boards in a position (approx.) Lat. 10° 27' 24" N., Long. 122° 46' 12" E. After completion of port formalities, the vessel is berthed alongside the Bulk Sugar Installation with a stationary conveyor.

The vessel then proceeds to Iloilo for loading up to 32 ft. This vessel, which is 675 ft. in length, loaded bulk sugar in hatches 2, 4, 6, 7 and 8. It was possible to load in hatch No. 1 also. The loading is done from a fixed conveyor with 2 trimmers and the loading rate is between 400 – 500 tonnes per hour. Finally the vessel proceeds to Batangas Bay and after the usual formalities, goes alongside the Batangas Bay Terminals Inc. (BBTI) at Bolo – Bauan – Batangas, where there is no draft restriction. The loading rate is about 300 – 400 tonnes per hour. Loading is done from a fixed conveyor with one manually operated trimmer. Pilotage is compulsory and ships awaiting Pilots can anchor either at Santa Rita or Santa Clara (Batangas City) or Tabangas.

The main sugar crop is brought to Iloilo, known locally as Sugar City, because it is the main sugar exporting port, from Negros Island, where most of the sugar farms and factories are situated. The sugar for export at BBTI is brought from factories around Laguna Bay by trucks. The Stowage Factor for bulk sugar worked out to between 40 – 41.

AUTHORITY: Philippine Ports Authority, PMO – Iloilo, Iloilo Commercial Port Complex, Brgy Loboc, La Paz, Iloilo City. *Tel:* 7-69-45, 7-77-91, 7-77-92, 7-77-93. *FAX:* 7-69-45. *Contact:* Bienvenido P. Basco, Port Manager.

ISABEL, Leyte: 10.54 N. 124.25 E. (See Plan)

SHIPMASTER'S REPORT: July 1987.

See "General" before first port.

DOCUMENTS: See "General" before first port. Vessels anchor in bay prior to berthing and Officials board for Formalities. As there is no local Immigration or Customs post, there are occasionally delays waiting for the necessary officials to come from either Manila or Tacloban. Permits from Customs and Immigration are required for most things, but usually arranged by vessel's agent. 3 Customs Officers and 4 Immigration Officers stayed on board throughout vessel's entire stay. On vessels which cannot accommodate them, it is apparently possible for them to stay somewhere on shore in shifts.

The fact that this vessel has crew mainly from Eastern Bloc countries may have had something to do with large Immigration presence.

APPROACHES: Clear in deep water from seaward, BA. Chart No. 3825 rather small scale, but all features show up well on radar, and port is a blaze of light at night owing to extensive industrial installations on eastern shore of bay, which is frequently well occupied with anchored vessels.

PILOTAGE: Generally available on a 24 hour basis, pilots have Channel 16 and 12, but can be difficult to contact until quite close to. Pilot boat is a launch of fairly robust metal construction, but it is very slow, so ships should reduce speed in sufficient time.

Pilot generally meets large vessels about 0.75 miles off Catiyana Point, whether berthing or proceeding to anchor.

ANCHORAGE: Although chart does not indicate the fact, there is a fair amount of space for vessels in the bay. Vessels anchor in vicinity of 0.5 miles S.E. to E. of Sacay Point, in depths of 25 fathoms and decreasing to 15 fathoms. Smaller vessels can proceed closer inshore to shallower water.

Holding ground is fair in good weather, but reportedly poor in adverse conditions. The Admiralty Pilot recommends that 2 anchors should be used. This vessel, a 14,000 gross ton LPG Carrier, anchored for 2 days in good weather with 6 shackles on one anchor, on local Pilot's advice without any problems.

RESTRICTIONS: Berthing/Unberthing is apparently at Pilot's discretion, depending on weather conditions, but during vessel's stay in good weather, continuous movements were taking place on a 24 hour basis.

HEALTH: Quarantine Officer boards with Pilot and checks documents at anchorage and issues Free Pratique Certificate. He requires Maritime Declaration of Health, Vaccination Certificates (Cholera) and Crew List. It is possible to have Cholera vaccinations done at this port, but not Yellow Fever.

TUGS: There are 2 tugs, of standard Japanese design, adequate to assist all vessels capable of entering the port. Tugs ropes used.

BERTHING: The Terminal is operated by Philippine Phosphate Fertiliser Corporation, and main quay has 2 large gantry-type grab cranes for discharging phosphate on to a continuous conveyor belt. Other parts of the quay appear to be used for loading bagged fertiliser by ship's gear.

At Southern end of main quay are several Chicksan connecting arms for the discharge of Liquid Ammonia, Sulphuric Acid and Phosphoric Acid.

There is an additional small quay just south of main quay fitted with a large grab-crane, hopper and conveyor belt, which is mainly used by small local bulk carriers.

MEDICAL: There is a small hospital where non-serious cases can be treated, serious cases require transportation either to Ormoc City or Tacloban.

FUEL: Vessel was supplied with both Fuel Oil and Diesel Oil by barge which came from Cebu. It is possible to bunker ex-barge either at anchorage or alongside. Customs Permits required for bunkering.

REPAIRS: No commercial repair facilities available.

REPATRIATION: Possible via Tacloban Airport, about 3 hours by car from Isabel, thence to Manila on local flight to connect with International flights. If crew from Eastern Bloc countries (as has this vessel) it is necessary for Immigration Permits to be issued, and leaving/joining seamen require Immigration escort to and from Isabel to Manila.

AIRPORT: Tacloban Airport.

SHORE LEAVE: Permitted. Obtain pass from Immigration in return for passport.

GENERAL: Apart from pilot boat, all other communications between ship and shore whilst at anchorage was carried out by local fishing skiffs, which are fitted with large outriggers, thus making it impossible for them to come properly alongside pilot ladder or gangway. This makes any transfer of personnel or spare parts, etc., somewhat hazardous, even in calm conditions.

Provisions: Local Ship chandler available, prices for fair quality local fruit and vegetables is reasonable. The chandler has a fair selection of other items but anything imported or transported from elsewhere can be expensive.

Communications: All communications via main agent in Manila, who sends sub-agent to attend locally.

SHIPMASTER'S REPORT: October 1988.

VESSEL: 19,846 d.w.t.

LOCATION: Lat. 10° 56' N., Long. 124° 26' E.

For identification purposes the port is referred to as Isabel, Leyte.

DOCUMENTS:

Port Health:

- 3 copies Crew List.
- 1 copy Vaccination List (all crew members must have valid vaccination cards).

Immigration:

- 4 copies Crew List.
- 2 copies Visaed Crew List (General Visa/Visaed Crew List to be obtained from Philippines Embassy before entering Philippines waters).

Customs:
4 copies Crew List.
3 copies Crew Personal Effects Declaration.
3 copies Narcotics and Medicine List.
20 copies Cargo Manifest.
1 copy Declaration of Cargo/Favour Parcels on boards on prescribed forms supplied by Boarding Officer.

Accommodation: Accommodation is required for 1 Customs Inspector, 2 Customs Guards, 1 Immigration Officer or Assistant Immigration Officer and 2 Guards.

If accommodation and food cannot be provided on board it is to be arranged ashore on Owner's account.

PILOTAGE: Pilotage is available throughout 24 hours. Pilot boarding position is at Lat. 10° 53.5' N., Long. 124° 25' E., this is about 1.5 miles South of Sacay Point.

ANCHORAGE: Anchoring is carried out under Pilot's instructions. Vessels anchor in depth of 15 fathoms – 40 fathoms, depending on size of vessel and space available.

Our vessel anchored in a depth of 25 fathoms at a distance of 7 cables from Sacay Point.

TUGS: There are 2 tugs of approximately 6,000 b.h.p. Both tugs are used for berthing and unberthing. There is a mooring boat available to run lines.

BERTHING: *PHILPHOS:* 5 berths with a total length of 760 m.

Depth alongside: No. 1 – 12.0 m.; No. 2 – 9.0 m.; No. 3 and 4 – 7.0 m.; No. 5 – 5.0 m.

PASSAR: 1 berth with length 90 m. and depth 12.0 m.

CARGO HANDLING FACILITIES: Bulk, bagged and liquid cargoes handled.

PHILPHOS: 2 grab cranes used for discharge of cargo to chute and conveyor belt.

2 cranes available for loading bagged/bulk cargoes from chutes. 3 mobile cranes also available.

PASSAR: One crane available.

STEVEDORES: Cargo work carried out day and night on 3 shifts, 0800 hrs. – 1600 hrs., 1600 hrs. – 2400 hrs. and 2400 hrs. – 0800 hrs.

Our vessel loaded bagged fertiliser (DAP) by ship's gear at an average rate of 18 t.p.h. per gang. The Chief Supervisor of the stevedores claimed that the average loading rate was 30 t.p.h. per gang in perfect conditions.

MEDICAL: PHILPHOS and PASSAR have clinics available for their employees. Ship's crew can receive treatment at these clinics.

In cases of serious accident or illness, patients are sent to Ormoc or Tacloban.

FRESH WATER: Available.

FUEL: Fuel is not available locally but can be arranged by Philippines Petroleum, who can supply bunkers by barge, which is towed from Cebu. Fuel is also available by road tanker from Ormoc.

REPAIRS: No facilities locally.

SURVEYORS: Classification Society Surveyors can be arranged from Manila. Representatives of Admiral Adjuster and Surveyor, Manila and SGS Far East Ltd., Manila attend to cargo surveys at Isabel. They inspect holds and cargo during loading and unloading.

AIRPORT: Tacloban Airport with 2 daily flights to Manila is the nearest.

Ormoc is about 50 km. away. There are 2 weekly flights from Ormoc to Cebu and daily ferry services from Ormoc to Cebu.

Cebu is about 50 nautical miles by sea. The journey by ferry takes about 6 hours.

SHORE LEAVE: Permitted. Immigration Officers issue Shore Passes.

GENERAL: *Provisions:* There are 3 ship chandlers who attend vessels in turn, to provide provisions.

Telephone: Long distance (Domestic and International) calls can be made through the Passar Guest House between the hours of 0900 – 1400 and 1700 – 2200 local time.

Service Boat: There is a service boat available for taking crew from anchorage to the town, max. capacity 15 – 20 people.

Publications/Charts: Philippines Pilot, page 226. B.A. Charts No. 3810 and 3825. Philippines Chart No. 4426.

Agent: No agents maintain offices in Isabel. Agents representatives come from Manila to attend the vessel. Ship's telexes or telegrams are passed by telephone or telegram from the local post office to Manila, thereafter passed by telex to their destination.

Berth Operators: PHILPHOS (Philippines Phosphate and Fertiliser Corporation), Leyte.

PASSAR (Philippines Association of Smelting and Refinery Corp.), Leyte.

SHIPMASTER'S REPORT: March 1992.

DOCUMENTS:

Port Health:
2 copies Crew List.

Immigration:
4 copies Crew List.
2 copies Visaed Crew List (obtained from Philippines Consul in Fiji).

Customs:
4 copies Crew List.
3 copies Crew Personal Effects Declaration.
2 copies Narcotics List.

PILOTAGE: The pilot boat is a river-type tug of about 60 ft. length, with black hull, flying the "H" flag.

Pilot Boarding Ground: One mile S.E. of Sacay Pt. Pilot on Channels 16 or 12. At least 48 hours before arrival, Master shall send ETA to the ship's Agent in Manila, through a coastal station.

ANCHORAGE: See "Plan". Vessels anchor in Isabel Bay in depth of 15 – 40 fathoms.

Our vessel anchored in a depth of 23 fathoms, at distance of 6 cables East of Sacay Pt. There were 6 vessels of 5,000 d.w.t. – 30,000 d.w.t. at the anchorage. Our position Lat. 10° 54.66' N., Long. 124° 25.41' E.

TUGS: 2 tugs for hire available through the Harbour Pilots. Our vessel used 2 tugs for berthing, and 1 tug for unberthing. A mooring boat is available to run lines.

BERTHING: Philphos: Berths No. 1 – 5 with a total length of 760 m. Depth alongside 12.0 m. – 5.0 m. (See "Plan").

Pasar: 1 Berth – length 90 m., depth 12.0 m. (Berth No. 6).
1 Berth – length 30 m., depth 5.0 m. (Berth No. 7).

CARGO HANDLING FACILITIES: Philphos: Bulk, bagged and liquid cargoes handled.

Pasar: One crane available. Our vessel unloaded 7,300 tonnes of copper concentrate in 34 hours.

Berth No. 7 only for loading of slag by conveyor belt.

FRESH WATER: Available. Rate 5 t.p.h.

FUEL: Fuel is not available, but can be supplied by barge from Cebu, but is very expensive.

GENERAL: *Agent:* No Agents maintain offices in Isabel. Agents representatives come from Manila. Ship's telexes or telegrams are only by Fax.

Service Boat: There is a service boat available for taking crew from anchorage to the town, maximum capacity 15 people. Price about U.S.$ 8.00 – 12.00.

SHIPMASTER'S REPORT: August 1994.

Philipos cargo discharge facilities: Fertiliser Plant No. 1 and 2 Wharves. See "Plan".

Bulk cargo discharge wharves with 2 gantry cranes with grabs, running conveyor to factory of 10 tonnes capacity each.

Berths No. 3 and No. 4 have automatic bag loading facilities.

Berth No. 5 is a general cargo berth with mobile crane of about 10 tonnes capacity.

Imports are sulphur, phosphate acids and liquid ammonia.

Exports are bagged fertiliser and gypsum (Byproduct).

Berth No. 6 (Pasar Copper Smelter): Copper concentrate discharge with one movable jib crane with grab with conveyor to factory for discharge.

Berth No. 7: Slag loading fixed loader. Vessels normally tied-up port side to, and dolphins forward and aft for lines. Not a very good berth, especially during strong Southerly winds. Maximum hatch coaming airdraft 7.2 m., so vessels of about 12,000 d.w.t. have to ballast one hold to get under the loader. Not a very good situation when vessel loading No. 1 Hold and stern sticks out, almost unsupported by stern lines, which almost become spring/breast lines to aft dolphins.

Imports are copper concentrate.

Exports are copper products, copper slag and gold (gold goes by air).

Both Pasar and Philipos keep watch on VHF Channel 16 for Pilot and other information.

Anchorage available is about 30 m. deep, keeping the 3 points, the fixed light (Sakay Point), Isabel Finger Jetty and Airstrip Point 5 cables away and paying out about 6 shackles of cable (vessel anchored without Pilot).

Vessel berthed with 2 tugs and Pilot from Tacloban who rotates every 5 days with another Pilot.

The drive from Isabel to Ormoc is worthwhile with a good seafood restaurant by the sea in Ormoc City and basic shopping.

There is a small guesthouse in Pasar for making international calls. Entry is restricted to senior staff of the ship. Passes arranged by Agent.

JIMENEZ, Mindanao: 08.19 N. 123.52 E. (See Plan)

SHIPMASTER'S REPORT: January 1990.

LOCATION: The berth is located in Iligan Bay on the island of Mindanao, in position Lat. 08° 19.38' N., Long. 123° 51.69' E.

Charts: B.A. Charts No. 3810, 3811 and 3426.

APPROACHES: From the East steer a Westerly course to about 4.5 cables South of Tabu Pt. This will put the vessel in the middle of the channel between the reefs. When clear of the North reef, alter course to 308° (approximately) until 150 m. from the pier.

The fixed red leading light mentioned in Volume F of the Light Lists (1989) is non-existent.

Chart No. 3426 (Plan of the Port of Jimenez): This does not show the reef South East of the reef on the plan, with a now non-existent red conical buoy, so the actual width of the channel (approach) to the loading pier is not shown in its entirety.

PILOTAGE: Pilotage is compulsory. The pilot comes from Ozamiz City and boards 1.5 miles East of the reefs from a 22 ft. white pilot cutter.

Pilot should be ordered through vessel's main agent in Manila.

The pilot has a portable VHF set.

ANCHORAGE: There is no anchorage in Iligan Bay. Vessels may anchor for a few hours only, South of the "T" pier. The holding ground is poor.

RESTRICTIONS: Berthing and unberthing in daylight hours only.

MAX. SIZE: Max. draft 10.0 m. (33 ft.). Maximum size 28,000 g.r.t.

TUGS: There are no tugs available. The pilot cutter and canoes will assist in the running of mooring lines.

BERTHING: *New Concrete Pier:* The berth is for the export of coconut oil and copra products from the Jimenez Oil Mill, Inc. About 30 – 40 product tankers call each year to load coconut oil and about 12 – 15 bulk carriers call each year to load copra pellets. The pier head is 18.6 m. long and has mooring dolphins 100 m. off either end. Vessels berth port side alongside. The depth alongside at MLW is 10.67 m.

The covered loading conveyor is expected to be in operation August 1990.

Wooden Pier: There is a wooden pier adjacent to the new concrete pier mentioned above. This pier has been cut back in order to accommodate the new concrete pier. There is an 8 in. pipeline for coconut oil, pumping rate up to 300 tonnes per hour.

CRANES: None available.
MEDICAL: There is a doctor available locally and a hospital in Ozamiz City.
FRESH WATER: Available direct from the mill but the rate varies as the mill has priority. We loaded 100 tonnes in 2.5 days. At the present time vessels have to use their own hoses all the way from the shore to the ship.

When the new loading conveyor is completed there will be a 65 mm. pipeline to carry the fresh water from the seaward end of the pier to the shore.
REPAIRS: No facilities available.
GENERAL:
Hull/Tank Cleaning: No facilities available.
De-Rat Certificate: Health officials are based in Ozamiz City.
Ship Chandler: A limited amount of provisions are available.
Transport: There is a bus service during daylight hours between Jimenez and Ozamiz.
Communications: There are no telephones in the port. Telephones are available in Ozamiz City for long distance calls.
Authorities: All authorities are based in Ozamiz City.

SHIPMASTER'S REPORT: January 1991.

LOCATION: Approximate position of copra loading berth: Lat. 08° 19.4' N., Long. 123° 51.7' E.
DOCUMENTS:
Prepared by Agent:
- 10 copies Inward Foreign Manifest.
- 10 copies Outward Foreign Manifest.
- 10 copies Oath of Master.

Prepared by vessel:
- Last Port Clearance.
  - 6 copies Crew List.
  - 3 copies Stores List.
  - 3 copies Personal Effects List.
  - 3 copies Animals List (even if 'nil').
  - 3 copies Arms and Ammunition List (even if 'nil').
  - 3 copies Plants List (even if 'nil').
  - 3 copies Narcotics List (even if 'nil').
  - 3 copies Passengers List (even if 'nil').
  - 3 copies Ports of Call List.
  - 2 copies Ship's Particulars.

If Jiminez is the first Philippine port:
- 1 copy Health Declaration.
- 2 copies Vaccinations List (Cholera and Yellow Fever).

PILOTAGE: Compulsory and during daylight only.

The Pilot comes from Ozamiz (about 20 minutes by car) and boards the vessel from the mooring boat between 1 mile and 1.5 miles East of Tabu Point lighthouse.

The vessel enters the port South of the small reef, which is noted as 'awash at L.W.' on B.A. Chart No. 3426. The red buoy noted on the chart is missing and only 2 bamboo sticks indicate the southern end of the reef. At the Northeastern side of this reef and the Southeastern side of the Madre Reef are 2 fixed beacons which could easily cause navigation errors as this is not the entrance to the port and is only suitable for small boats to pass.
ANCHORAGES: At Pilot's discretion. There is no anchorage for large vessels. Vessels should drift about 3 miles – 4 miles off shore when waiting for the Pilot. Pilot is furnished with a walkie talkie on VHF Channel 16 from which he can call the vessel to the boarding position.
BERTHING: Vessels are berthed port side to only and use the starboard anchor, with up to 6 shackles, to make unberthing an easier operation.

There is a concrete berth with a length of about 30 m. with a wooden pier connected to it. Depending upon the size of the vessel it is possible to load with 2 derricks. The cargo arrives in trucks with each truck carrying 2 buckets with a weight of 5 – 6 tonnes. The loading rate with one derrick is about 21 tonnes/hr.
Loading Facilities: A conveyor is under construction on the concrete berth which is hoped to be ready in mid-1991.

The conveyor will have an air draft of 17 m. and it's loading capacity will be 200 tonnes/hr.
RESTRICTIONS: As advised by Pilot. Maximum sailing draft is 35 ft.
FRESH WATER: Not available.
REPAIRS: Not possible.

JOLO (Jolo Island): 06.03 N. 121.00 E. (See Plan)

See "General" before first port.
DOCUMENTS: 4 copies each of Crew Lists; Passenger List; Import Cargo Manifest; Oath of Master and a copy of Vessel's Information Sheet.
PILOTAGE: Pilots are stationed at nearby Zamboanga City. Advice of ETA at least 3 days before is requested to facilitate arrangement of pilotage service.
ANCHORAGE: Anchorage areas are N.W. of Jolo Wharf and West of Caltex Depot.
MAX. SIZE: Main Wharf; Draft 4 m. LOA 60 m. At Caltex, Mobil and Petron Oil depot: LOA – no limit; Draft 6 m.
HEALTH: Ships will be cleared by quarantine officers upon arrival at anchorage.
RADIO: Presently SSB radio of Local Port Authority is waiting for re-installation. However ships may send message through Philippine Coast Guard Station at port or through local telecommunications like RCPI, PT & T and Post Office Telecom.
BERTHING: Berthing space at main wharf is reserved for large foreign vessels and domestic vessels. Max. permissible draft at MLLW is 4 m. (SW); Cargo handling by ship's own gear; Cargo may be worked at open storage and direct delivery only.
STEVEDORES: 24 hours advice before ETA is required. Stevedores provided by Sulu Dockhandlers and Forwarders, Inc.
MEDICAL: Sulu Public Hospital and Integrated Provincial Health Office.
TANKERS: The private wharf of Sulu Agro Industrial Corporation within the port limit is designed to handle crude coconut oil.
FRESH WATER: Water system has been installed at wharf with 4 in. piping and supplied by Local Waterwork Utility Administration (LWUA).
FUEL: Supplied by Petron and Caltex Philippines, Inc.
FIRE PRECAUTIONS: Dangerous cargoes are worked at assigned berthing area.
CONSULS: In Manila.
REPAIRS: Minor repairs may be undertaken by and within the vessel itself after permission is sought and granted by the Port Authority.
GANGWAY/DECK WATCHMEN: Customs Guard and Customs Inspector are on routine and continuous guard.
HATCHES: May be opened by stevedores and port workers.
CUSTOMS ALLOWANCES: Minimum quantity for personal use permissible only on board.
AIRPORT: Jolo Airport, flights to Zamboanga only, 2 flights a day.
HOLIDAYS: Cargoes are worked on holidays.
POLICE/AMBULANCE/FIRE: Central telephone system connects Port Authority with Police, Ambulance and Fire Departments.
BANKS: 6 banks available; Philippine National Bank, Metro Bank, Allied Bank, Producers' Bank, Land Bank of the Philippines and Philippine Amanah Bank.
SHORE LEAVE: Curfew hours are from 2200 hrs. to 0400 hrs. Crew members are allowed ashore. Identification cards not necessary.
GARBAGE DISPOSAL: Vessels are to provide their own containers/drums.
WASTE OIL DISPOSAL: No service available.
SEAMAN'S CLUBS: None.
REGULATIONS: No discharge of ballast oil in any territorial waters of the Philippines.
DELAYS: Delays in cargo handling: Rain.
DEVELOPMENTS: Reclaimation and wharf extension in progress.
AUTHORITY: Philippine Ports Authority, Port of Jolo, Jolo, Sulu, Philippines. *Contact:* Sisali B.Arap, Port Manager.

JOSE PANGANIBAN, Luzon: 14.18 N. 122.40 E. (See Plan)

See "General" before first port.
DOCUMENTS:
- Inward Coasting Manifest.
- Hatch Plan or Stowage Plan.
- Vessel's Information Card.

PILOTAGE: Pilotage is compulsory. ETA advise should be sent to the Harbour Pilot Association, Legazpi City at least 36 hours before vessel's arrival. The vessel is met by the Harbour Pilot about 2 km. from the wharf aboard a boat displaying a pilot flag.
ANCHORAGE: Within Tanay Strait but not less than 500 m. from existing wharf.
RESTRICTIONS: Present port facilities could only allow large vessels at anchorage considering the draft limitation and length of the pier.
MAX. SIZE: LOA 230 m. Draft 30 ft.
HEALTH: Vessels clear quarantine on arrival at Jose Panganiban Harbour. Quarantine Officers will normally board the vessel 2 km. from the wharf.
BERTHING: Only 75 m. of the wharf is usable for berthing purposes. Length of quay 75 m., width 12 m. Max. depth of water 30 ft. Quay height above sea level 2 m. at high tide and 5 m. at low tide. Average rate of loading/discharging 18 tons per gang hour. Storage area 1.15 hectares.
CRANES: The port is not provided with shore cranes. Each vessel calling at the port is required to use her own gear.
STEVEDORES: Bicol Port Services.
MEDICAL: 1 government hospital located in the town about 3 km. from the wharf.
FRESH WATER: Can be provided by means of lorries and pipelines.
FUEL: All grades obtainable from major oil depots and supplied by lorries alongside.
GANGWAY/DECK WATCHMEN: Available but not compulsory or necessary.
HATCHES: Opening and closing of hatches are part of stevedores' work or at the Master's option.
REPATRIATION: All facilities available for crew changes; good land and air connections.
AIRPORT: At the capital town of Daet, Camarines Norte.
HOLIDAYS: New Years Day (Jan. 1st); Holy Thursday; Good Friday; Labour Day (May 1st); Independence Day (June 12th); Bonifacio Day (Nov. 30th); Special holidays declared by the President of the Republic of the Philippines are also included. Cargo work can be arranged on any or all holidays with the vessel's Agent.

SHORE LEAVE: Crews are allowed ashore in company of an Immigration Agent.
GENERAL: Vessels intending to call at Jose Panganiban shall apply for a berth space at least 24 hours before arrival. No dirty ballast may be dumped into the territorial waters of the Philippines. Rat guards shall be placed on all mooring lines. Berth allocation is on a first-come-first-served basis.
DEVELOPMENTS: Repairing of damaged wharf and water pipelines. 3 sets of fender pile clusters installed.
AUTHORITY: Philippine Ports Authority, Pier Site, Legazpi City, Philippines. *Tel:* 20-12, 29-96. *FAX:* 05221-243-431. *Contact:* Edgar C. Pilar, Port Manager.

LEGAZPI, Luzon: 13.10 N. 123.45 E. (See Plan)

See "General" before first port.
DOCUMENTS:
Inward Coasting Manifest.
Hatch Plan or Stowage Plan.
Vessel's Information Card.
PILOTAGE: Pilotage is compulsory. ETA advise should be sent to the Harbour Pilot Association, Legazpi City at least 24 hours before vessel's arrival. The vessel is met by the harbour Pilot about 2 km. N.E. of the wharf aboard a boat displaying a pilot flag.
ANCHORAGE: Within the Albay Gulf outside the imaginary line within the vicinity of Legazpi Port from San Roque Lighthouse to the East breakwater with depths varying from 80 ft. to 100 ft. with good holding grounds. The bottom is generally of sand and coral.
MAX. SIZE: Legazpi Port: LOA – 120 m.; Draft – 25 ft.
Leg Oil Company: LOA – 230 m.; Draft – 35 ft.
HEALTH: Vessels clear quarantine on arrival at Legazpi Harbour. Quarantine Officers will normally board the vessel 2 km. N.E. of the wharf.
TUGS: No tugs available. Motor launch is used to attend to mooring and unmooring. Arrangement for tugs can be made in Manila and Batangas.
BERTHING: Only the end of the wharf is usable by foreign vessels considering the draft limitation and constricted manoeuvring area. Legazpi Oil Company, Private Pier is, however, capable of accommodating vessels of any type and tonnage.
Legazpi Port: Length of quay 328 m. Width 30 m. Max. depth of water 30 ft. Quay height above sea level 2 m. at high tide and 5 m. at low tide. Average rate of loading/discharging 15.95 tons per gang hour.
Legazpi Oil Company, Private Pier: Length of quay 100 m. Width 10 m. Max. depth of water 60 ft. Quay height above sea level 3 m. at high tide and 6 m. at low tide. Average rate of loading/discharging 83.33 tons per gang hour. Facilities are suitable for handling of bulk copra, pellets, copra cakes and copra crude oil by conveyor and pipelines.
CRANES: The port has no shore cranes. Mobile cranes are provided by the Arrastre Operator to load/unload cargoes on non-sustaining vessels.
STEVEDORES: *Legazpi Port:* Provided by Regal Arrastre and Stevedoring, Incorporated. Tel: 2187 and 3107.
Legazpi Oil Company, Private Pier: Provided by Northern Carriers Inc.
MEDICAL: 1 government hospital and 6 private hospitals available.
TANKERS: See "Berthing".
FRESH WATER: Can be provided by Regal Arrestre and Stevedoring Inc. (See "Stevedores").
FUEL: All grades obtainable from oil depots and supplied by lorries alongside.
GANGWAY/DECK WATCHMEN: Available but not compulsory or necessary.
HATCHES: Opening and closing of hatches are part of stevedores' work or at the Master's option.
REPATRIATION: All facilities available for crew changes; good land and air connections.
AIRPORT: 5 km. from port area. Flights to Manila twice a day.
HOLIDAYS: New Year's Day (January 1st); Araw Ng Kagitingan (April 9th); Holy Thursday; Good Friday; Labour Day (May 1st); Independence Day (June 12th); Bonifacio Day (November 30th); Special holidays declared by the President of the Republic of the Philippines is also included. Cargo work can be arranged on any or all holidays with the vessel's agent.
POLICE/AMBULANCE/FIRE: Police, Tel: 4222; Ambulance, Tel: 4432; Fire, Tel: 2666, 5222.
TELEPHONES: Placing of telephones on board can be arranged with the local telephone company (MATELCO).
SHORE LEAVE: Crews can be allowed ashore in company of an Immigration Agent.
GARBAGE DISPOSAL: Garbage truck from the city will collect garbage on request.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Philippines Pesos (P).
GENERAL: Vessels intending to call at Legazpi shall apply for a berth space at least 24 hours before arrival. No dirty ballast may be dumped into the territorial waters of the Philippines. Rat guards shall be placed on all mooring lines. Berth allocated is on a first-come first-served basis.
DEVELOPMENTS: Dredging of port basin to an average depth of 25 ft.

SHIPMASTER'S REPORT: April 1981.
Berth: Legazpi Oil Co. Jetty. Vessel loaded Copra Expeller Pellets in bulk.

For all details regarding control, pilotage, harbour installations, documents, etc., see "B.A. Pilot No. 33" and "Guide to Port Entry".

The docking manoeuvres were effected from an Easterly direction. The anchor was let go with 1 shackle prior to berthing. This served later, together with the rear cross buoy, to hold the vessel away from the pier (bad condition), and to heave off during the undocking manoeuvres.

The mooring buoys are secured to the bottom by 3 anchors each and 1 concrete block. However, their positions are not finite.

The vessel is to be maintained about 1.5 m. from the Dukes of Alba at the end of the pier, and therefore damage to the deteriorating pier is avoided.

A landing stage was positioned from the land, and was positioned likewise by the vessel on runners, since the vessel was rolling considerably in the persistent swell.

According to the Pilot, the swell in January is at its worst, and then the berth is not safe. During July and August, it is at its quietest in Albay Gulf. From October to December it is "Typhoon Time" and during November/December it is the heaviest rainy period, however, during the time we were in port there was considerable rainfall.

The Pilot Station has no VHF. The Pilot is ordered via the Agent, who was most co-operative. The pilot vessel brings the lines from the shore and to the buoys.

The copra expeller pellets were stored in a warehouse of approx. 80 m. × 50 m. According to the statement of the loader they were consistently loaded. The fresh goods, which came from the press at a temperature of approx. 44°C, were always loaded straight on top of the cargo already loaded. On board, temperatures of 32°C to 45°C between surface and core were measured.

According to the opinion of the loader, the high cargo temperature is not dangerous, but he was emphatic that a danger existed through wetness.

The expeller was brought to the weighbridge by lorry and then moved to the pile.

The conveyor belt is not covered, and the nozzle reached right up to the landside hatch coaming on the vessel.

The wet conveyor belt was "operated dry" with expeller and the wet material piled on deck, where it was bagged and shipped back to land. Also where due to sudden rainfall the cargo in the hold became wet, this was carefully segregated by the trimmer, and sent back to the land.

A trim extractor is available, and was partly used. The main trimming work is carried out by a gang of approximately 25 men.

Every instruction given from the ship was promptly executed by the conveyor belt personnel.

Delivery rate: 55 t.p.h. (approx.).
Stowage factor: 1.7 cu.m. to the ton (approx.).
Working time: Around the clock.

The loaders made sure that no chemical additive such as benzene, benzol or hexane had been used to extract the oil, and handed over a certificate with the following values:

Moisture content: 9.6%; Oil content: 6.2%.

The certificate of an independent surveyor showed 8.51% humidity and 7.15% oil content.

SHIPMASTER'S REPORT: October 1982.
Our ship was an 63,770 tons d.w.t. gearless bulk carrier of overall length of 225.03 m. which loaded 3,500 metric tons of Copra expeller pellets in bulk and stowing at an S.F. of 1.6 cu.m./ton. The loading terminal of the Legazpi Oil Company is situated in Lat. 13° 11.5' N., Long. 123° 45.4' E., which is unmarked on the Admiralty chart. There is over 54 ft. of water at the berth but the height of the loader is only 40 ft. hence it is important that ships do not arrive with a greater air draft than 39 ft. The port does not have VHF facilities or tugs. The Pilots are well experienced and normally meet vessels about 2 miles N.E. of the berth. The loader is protected by, recently constructed, 4 concrete dolphins and the vessel normally berths starboard side alongside. Two lines are passed to the shore side dolphins fore and aft, one line each to the seaward buoys and one line each to axis buoys and one spring fore and aft. The buoys are situated over 1,000 ft. from the axis of the berth and may necessitate joining of the mooring lines. The loading rate is about 80 t.p.h.

While we were at this berth we had the misfortune of encountering tropical revolving storm "Typhoon Irwing" which passed directly overhead. Berth was vacated when the storm was 150 miles from us to the East. Shelter was sought at an anchorage off the Legazpi harbour breakwater (bearing 230° – 1.0 mile from us). The eye of the typhoon passed directly over us within 24 hours and winds reached a velocity of 75 m.p.h. maximum. The holding ground was good and we rode out the typhoon with 9 shackles of chain out with engines going dead slow ahead when the winds increased to over 40 knots. With the aid of the doppler log on ground tracking and satellite navigator we were able to remain rock steady in the strongest gusts.

Wave heights at this anchorage was never more than one metre. The loading berth is directly exposed to sea and had we remained at the berth the vessel would have been pounded against the dolphins.

The Port Authorities are co-operative. There were no incidents of piracy or thefts.

AUTHORITY: Philippine Ports Authority, Port of Legazpi, Pier Site, Legazpi City, Philippines. *Tel:* 20-12. *FAX:* 05221-243-431 *Contact:* Edgar C. Pilar, Port Manager.

LORETO, Dinagat: 10.22 N. 125.36 E. (See Plan)

SHIPMASTER'S REPORT: April 1996.

LOCATION: The port of Loreto is located in Looc Bay in position Lat. 10° 22.1' N., Long. 125° 35.6' E., on the N.W. coast of Dinagat Island (B.A. Chart No. 3826).

APPROACHES: When approaching from the North, it is necessary to steer 168° to proceed in the middle, between Puyo Island and West coast of Looc Bay.

PILOTAGE: Not available.

ANCHORAGE: In accordance with Port Authorities information, all vessels are usually loaded at anchorage.

Best safety anchorage can be found in position Lat. 10° 22.3' N., Long. 125° 34.7' E., keeping distances to:

Puyo Island – 6 cables.
West coast of Looc Bay – 6 cables.
South coast of Looc Bay – 6 cables.
Kayasa Island (to North off Looc Bay) – 3.0 nautical miles.
Depth water: 25 m. – 35 m.

Anchorage is not protected from Northerly winds and swell.

VHF: It is very difficult to contact Port Authorities on Channel 16.

BERTHING: Loreto may be identified when abreast of Puyo Island only and consists of one berth, used for loading of barges.

One barge "Christine" is available for loading of vessels at anchorage. The barge, with forward ramp, is usually loaded with 900 tonnes – 1,000 tonnes. It takes about 5 hours, including steaming time to/from vessel. The barge is equipped with rubber tyre fenders which stay alongside the vessel. It takes about 6 hours for loading of vessel from each barge. Ship's cranes are used for cargo handling. There are two bulldozers on the barge for shifting cargo. Ship's grabs (if any) are also used for loading.

FRESH WATER: Not available.

GENERAL: To complete port formalities, Port Authorities and Agent embark at anchorage. According to Port Regulations, 3 watchmen and 2 Customs Officers are compulsory during stay at anchorage, and meals and cabins are to be provided.

Draft Surveyor is available.

Tidal current is to be considered when approaching Looc Bay, normal directions N.E./S.W.

Very limited amounts of provisions can be purchased in the food market.

MANILA, Luzon: 14.35 N. 120.58 E. (See Plan)

See "General" before first port.

PORT LIMITS: Manila Harbour is defined as that portion of Manila Bay within the following boundaries:

A line extending from the Vitas Estero due West (270°) to its intersection with a line running South (180°) to Sangley Point Light, thence along this latter line towards Sangley Point Light until its intersection with a line running E.N.E. (075°) to the N.W. corner of the airport site to the shore to the mouth of the Vitas Estero, the place of commencement.

Port of Manila jurisdictional district includes that of North and South Harbour and the Manila International Container Terminal.

Under the Port Management of North Harbour's jurisdiction are the smaller ports called sub-ports, namely Subport of Bataan and Subic. The operational jurisdiction of Port Management of South Harbour includes the Terminal Management of Pasig.

DOCUMENTS:

Customs:

General Declaration (6 copies) – APAA Form.
Cargo Manifest.
Crew List.
Ship's Stores List.
Passenger List.
Crew Effects Declaration.
Maritime Declaration of Health.
Transit Passenger List.
Plant and Animal List.
Arms and Ammunition List.
Mail List.
Parcel List.
Drugs and Narcotics List.
Stowaway List.
Foreign Currency List.
Dangerous Goods List.
Stowage Plan.
Sequence of Loading and Unloading.

Immigration/Customs Boarding Officer:

Crew List.
Passenger List, if any.
Seaman's Books.
Passports.
Oath of Master.
Inward Foreign Manifest.
Parcel List.
Stores List.
Medicine List.
Crew List.
Passenger List.
Plant List.
Animal List.
Crew Declaration List.
Narcotics and Dangerous Cargo List.
Arms and Ammunition List.
Ship's Clearance from Last Port of Call.
Through Cargo Manifest.
Through Parcel List.
Foreign Currency List.

Quarantine:

Innoculation List of Crew.
Innoculation List of Passengers, if any.
Health Certificate from Last Port of Call.

Note: Above documents are requirements depending if there is such cargo on board vessel.

In order to avoid delay, the Owner, Master or Agent of a ship bound for the Port of Manila must notify the following government and private entities at least 24 hours prior to ship's arrival for regular vessels and 48 hours for non-regular vessels/tramping vessels.

1. Philippine Ports Authority – PDD Manila
   Attention: 1. The Port Manager, for PMO - South Harbour
   2. Office of the Harbour Master,
   Int'l Container Terminal Services Inc.
   for M.I.C.T.
2. Bureau of Customs – Boarding and Inspection Section
   Attention: Boarding Officer
3. Bureau of Quarantine
4. Commission on Immigration and Deportation
5. Bureau of Plant Quarantine
6. Bureau of Animal Quarantine
7. Philippine Coast Guard Boarding Team
8. Manila Pilots' Association (Private)
9. Cargo Handling Contractor (Private)
   Marina Port Services, Inc.

PILOTAGE: Pilotage in and out of Manila Harbour and to the piers and into the Pasig River is compulsory.

Agents or owners of vessels calling at the Port of Manila shall inform the Pilot of their vessel's arrival.

Agents can contact the Pilots Association through Channel 16, 24 hours a day, including Sundays and Holidays. Pilots are available day and night.

The pilot boat is a white vessel with a big letter "P" and the number of the boat painted red at the forward end of the vessel. It is usually located in the vicinity of Quarantine Anchorage where port formalities are conducted.

During bad weather, the pilot boat is located inside the breakwater upon the expressed permission of Port Authorities.

Foreign vessels are boarded outside the breakwater while inter-island vessels at Buoy No. 1, near the entrance to the Pasig River and off the lighted buoy North of North Breakwater.

Notice of vessel's arrival shall be made at least 24 hours before their arrival.

Lights exhibited when a vessel has a Pilot on board are white over red together with other regular navigational lights. Otherwise, only navigational lights are displayed.

During typhoons and bad weather, Pilots require vessels to rig the pilot or accommodation ladder on the lee side.

ANCHORAGES: *Quarantine Anchorage:* The Manila Quarantine Anchorage is bounded as follows: Beginning at the Manila Outer Harbour Lighted Buoy 1, approximate position Lat. 14° 33' 09" N., Long. 120° 54' 04" E. thence 000°, 2,360 yards to position Lat. 14° 34' 23" N., Long. 120° 54' 00" E., thence on a range of 076° 24' (Customhouse in line with City Hall Tower), 4,000 yards to approximate position Lat. 14° 34' 50" N., Long. 120° 56' 14" E., thence 242° 30', 4,440 yards to the Manila Outer Harbour Lighted Buoy 1, the point of commencement.

Prohibited Anchorage: In that portion of Manila Bay known as the Cable Area which is defined as follows: From a point approximately at Lat. 14° 33' 42" N., Long. 120° 59' 05" E., the junction of the breakwater forming the South side of the Yacht Basin with the shore of Manila Bay, thence along the breakwater to its end, from its end 255° to 3.65 miles North of Sangley Point Light, thence 066° to the shore of Manila Bay.

Explosives Anchorage: Vessels having gasoline, dynamite or other highly inflammable or explosive compounds on board are not permitted to berth at piers or wharves until such cargo has been discharged. Such cargo must be discharged into lighters from vessels at the anchorage within the circle with a radius of 175 yards centred in Lat. 14° 35' 15" N., Long. 120° 54' 05" E.

RESTRICTIONS:

1. No explosives or dangerous goods shall be loaded or discharged between 1800 hrs. and 0600 hrs. without the permission of the Authority.
2. No vessel or harbour craft with explosives or dangerous goods on board shall remain alongside any other vessel or craft, pier or wharf or other physical landing place between 1800 hrs. and 0600 hrs. without permission of the Authority.
3. No person shall smoke and no fire or naked light, other than navigation or signal lights prescribed by the Collision Regulations, shall be allowed on board any vessel or harbour craft which has or is about to receive on board any explosives or dangerous goods.

MAX. SIZE: The maximum permissable draft inside the port is 9.75 m.

HEALTH: There are 3 types of Pratique that can be obtained at the port: Free Pratique, Provisional Pratique and Radio Pratique.

Foreign vessels calling at the port are inspected by Immigration Officers. When all the quarantine rules and regulations are complied with and the vessel is found free of any quarantinable or communicable diseases, Free Pratique is obtained by the vessel.

On the other hand, if some of the conditions above are not satisfied, a Provisional Pratique is given by the Quarantine.

Radio Pratique is provided to army and navy ships on the following grounds:

1. A doctor is among the crew of the ship.
2. There is no member of the crew sick with any disease.
3. Vaccination Certificates of the crew are in order and valid.

4. The vessel is not from a sick area.

For vessels calling at the Port District of Manila, but already coming from another port of entry in the Philippines, Pratique is automatic. However, if somebody aboard the vessel is sick during the voyage, Pratique shall still be obtained.

RADIO: DZM, DZO and DZJ.

Radio Officer's Report: August 1980.

Radio: Intercom Manila Radio, call sign (DZF) operated by the International Radio Communication Philippines. Serving ship to shore and vice versa, domestic and international communications, on HF, MF, and HF radio telephone on 24 hours operation.

VHF: The only coastal station equipped with VHF radio telephone listening on Channel 16 international calling frequency. Simplex and duplex operations on working Channels, for a direct contact with Agents.

Also accepting radio calls on land locally and international link via their local telephone network (PLDT).

VHF: Port Operations, calling Channel 16.

(1) Reporting of anchoring time and position.
(2) Reporting of shifting and movements.
(3) Reporting of departure or sailing time.

RADAR: No existing Port Radar Service.

TUGS: Tugs normally join vessel inside the breakwater.

Minimum number of tug required: 1×2,000 h.p. Ship's line are normally used.

Service is provided by:

(1) Malayan Towage at South Harbour, located at La Paz Building, corner Herrera and Salcedo Streets, Legaspi Village, Makati City. Tel: 810-19-51. VHF Radio Channel 9.

(2) At MICT, service provided by Transpacific Towage Inc., located at 2444-A Taft Avenue, Malate Metro Manila. Tel: 521-09-90. VHF Radio Channel 80.

BERTHING: There are 5 finger piers at South Harbour.

Pier No.	*Pier Length* (m.)	*No. of Berths*	*Depth* (m.)
3	389	4	10.70 – 11.35
5	390	5	9.35 – 11.35
9	393	5	9.00 – 11.68
13	454	7	6.71 – 10.06
15	397	4	10.70 – 11.35

Container Berths: PMO - South Harbour: There are 2 container berths at Berths No. 3 and 4 of Piers 3 and 5, length 375 m. and 326 m. respectively.

One fixed Ro/Ro berth at Pier 13, of 50 ton capacity, 40 ft. loaded.

CONTAINER HANDLING FACILITIES:

Manila International Container Terminal:

Address:	International Container Terminal Services Inc., (ICTSI), ICTSI Administration Building, MICT South Access Road, North Harbour, Manila, P.O.Box 279, Manila Central, Philippines.
Telephone No.:	245-41-01.
Fax:	245-22-45.
Location:	North of the mouth of Pasig River off Pier of the PMO-North Harbour.
Navigational Approach:	The Fairway Channel has a length of 4,000 m. and a width of 250 m. Controlling depth is 12.2 m.
Tidal Range:	Mean Range – 0.763 m. Diurnal Range – 1.021 m.
Total Berth:	Length: 1,300 m. Width: 420.28 m. Depth alongside: 13.0 m.

Facilities

Container Yard 1 paved area	290,321 sq.m.
Rated capacity	19,000 TEUs
Monthly average throughput	39,000 TEUs
Reefer Facilities	40 Outlets×220 Volts 170 Outlets×440 Volts
Container Freight Station Area (CFS 1 - 3)	27,238 sq.m.
Rated Capacity	114 container vans may be handled at any one time.
Average Tonnage Stored Daily	8,000 tons
Berths	5
Total Length	1,300 m.
Average Depth at Berth	13.0 m.
Average Length per Berth	237 m. except Berth No. 5 which has a length of 300 m.
Operational Berthing Space	1,300 m. (can accommodate 5 vessels at any given time with 200 m. LOA per vessel).
Berthing Hours	Anytime, with 24-hour notice
Working Hours	24 hours

Equipment

Shore Gantry Cranes	8 (All electrically powered)
Capacity	35 tons (Cranes No. 1, 2 and 3) 44 tons (Cranes No. 4, 5, 6, 7 and 8)
Travelling Distance	645 m.
Waterside Outreach	35.05 m.
Back Reach (Landside)	10.66 m.
Upper Lift	1 container over 4 containers above deck
Lower Lift	8 tiers below deck
Straddle Carriers	14 Units (8 Valmet, 6 MHI)
Prime Movers	64 Units (4 Hino, 55 Ottawa, 5 capacity)
Forklifts	55 Units (47 Toyota, 1 MHT, 6 TCM, 1 toplifter MHI)
Yard Transfer Cranes	21 Units (19 MHI; 2 Mitsui/ Keppel)
Chassis	141 Units (67×20 ft./40 ft. combination type; 29×20 ft.; 442×40 ft.; 2×40 ft. flat bed; 1×60 ton low bed).
Super Stackers	9 Units stackers (Kalmar) 2 empty stackers (Kalmar) 3 side lifters (MHI) 3 side lifters (MHI)
Straddle Carriers	14 Units (6 MHI; 8 Valmet)

Other Facilities

Weighbridges		2
Back-Up Area DASSAD	For dangerous cargo	5,000 sq.m. with 2 CFS at 1,500 sq.m. each
NAWACO	For overstaying containers	28,000 sq.m. with 8 CFS at 1,254 sq.m. each
APEX	For overstaying containers	28,840 sq.m. with 1 CFS
Truck Holding Area		2.8 ha.

CRANES:

	No. of Units	*Description*	*Capacity*
Container Terminal:			
Container Cranes (Liebherr)	3	Electric-powered with telescopic spreader for 20 ft., 30 ft. and 40 ft.	35 tons
Container Crane (MHI)	1	High operating speed, latest technological innovations	
Yard Transfer Cranes	2	Mitsubishi Rubber Tyred Gantry Cranes, 20/40 ft., telescopic spreader-bar	40 tons SWL
South Harbour:			
Container Cranes	3	Electric-powered	35.86 tons
	1	Electric-powered	20.5 tons
Rubber tyred Gantries (RTGs)	3		30 tons
	8		40 tons
Reach stackers	1		20 tons
	4		45 tons

CONTAINER/GENERAL CARGO STORAGE FACILITIES:

Transit Shed	*Number*	*Use*	*Capacity*
Pier 15	1	Transit shed – temporary storage for import and export	3,000 tons/ 2,924 sq.m.
Pier 13	1	Transit shed – temporary storage for import and export	3,000 tons/ 3,100 sq.m.
Pier 9	1	Transit shed – temporary storage for import and export	4,048 sq.m.
Pier 5	1	Transit shed – temporary storage for import and export	3,000 tons/ 4,305 sq.m.
Container Yards	3	Asphalt paved and partially concreted CY 1, CY 2 and CY 3	189,470 sq.m. 17,340 TEU
Container Freight Station	2	For stripping/stuffing, storage purposes	10,000 tons
Open Storage Area	5	Asphalt paved	24,300 sq.m.
Car Compound (STALAG)	1	For cars and other small vehicles	4,000 tons
Warehouses	5	Storage of import/export cargo	23,162 sq.m.
Chassis Parking	1	Asphalt paved	2,000 TEUs, approx. 2 hectares

Liquid cargoes are handled at South Harbour, at the anchorage only through ship to ship or in to lighters.

STEVEDORES: Arranged by vessel's Agent prior to arrival.

MEDICAL: Notice from shipping Agents is required at least 24 hours in advance.

For quarantinable diseases, there is a 12-bed hospital, the Quarantine Isolation Centre is located at the airport.

Hospitals: Manila Doctors Hospital, Medical Arts Center, 664 T.M. Kalaw. Tel: 59-16-11

Hospital, 667 United Nations Avenue. Tel : 50-30-11.

Medical Center Manila, 1122 General Luna. Tel: 59-16-61, 59-09-21, 59-00-21.

TANKERS: Tankers are accommodated at Limay Sub-port.

Rosario: Filoil Refinery Sea Berth: Located at the entrance to Manila Bay in position: Lat. 14° 26' 30" N., Long. 120° 46' 40" E. This position is 2.5 miles off the shore of Rosario, Province of Cavite.

The mooring area is marked by 6 mooring buoys. A ship's guide buoy marks the point where the ship's starboard anchor will be dropped upon entry into the berth. 4 other buoys inside the berth at midport mark the end of the submarine pipeline, centre of ship's manifold and the hose ends respectively. The bearing of the centre of the berth is N. 65° E. The depth is 50 ft. at high tide and 45 ft. at low tide approximately.

The weather is quite good during the dry season, but is unfavourable during monsoon season (May to November). Wind and swells are mostly from a S.W. direction and usually prevalent during monsoon season.

It is emphasised that vessels moored at the berth must be in good condition to clear the berth immediately in case of an emergency. Ship's engines and gear must be ready with full power for immediate use. Ship's personnel should be at their stations at all times during mooring, unmooring and cargo unloading operations.

Radio: Filoil Makati Office may be contacted by dialling telephone Nos. 87-40-61 and 87-40-71. The Rosario Refinery may be contacted by dialling telephone Nos. 47-95-51 and 47-95-53.

Communication from the Sea Berth with the Refinery, Filoil's launch and Filoil Representative on board is through VHF radio. If VHF radio fails, the Filoil launch will be despatched to bring message either way.

Filoil Representative on board maintains a radio watch and constant communication with the shore for general purposes and emergencies.

Luzon Stevedoring Company tugboats also maintain a constant radio communication with their representative at the shore. In case of emergency, messages can be relayed via these tugs.

Ship's Agent: All vessels carrying crude or other cargoes for discharge at Filoil Refinery Sea Berth must appoint their local ship's Agent who will provide them with the necessary ship husbandry services.

Notice of Arrival: They must report their ETA to Filoil Refinery Corporation, cable address "Filoil", Manila, Philippines, 3 days after leaving port of loading and 72 hours before arrival at Manila.

Pilot and Boarding Parties: Pilots are arranged for by the ship's Agent. Generally, Pilots board the tanker at the Manila Anchorage to assist the Master to moor in the berth and leaves at the Sea Berth after berthing.

Filoil Representative boards the tanker 1 mile before the Sea Berth, but if it is the first voyage, he boards the tanker together with the Port and Government Authorities at Manila Anchorage.

Tugs: Tugboat service is arranged for by ship's Agent. Tugs generally come from Manila. Give at least 48 hours' notice when ordering tugs.

Quarantine, Customs and Immigration: Manila is the port of entry for the Rosario Sea Berth. Therefore, entry and clearance must be arranged by the Ship's Agent at Manila. Boarding Officers board the vessel in the Quarantine Anchorage prior to arrival within the mooring area. Pertinent Government Officials should be given sufficient time, usually not less than 24 hours Monday to Friday, and 48 hours Saturday and Sunday. Generally, entry and clearance can be arranged by the Agent who should advise Customs well in advance of the vessel arrival.

Ballast, Bilge and Garbage Disposal: There are no ballast facilities at the refinery. Masters are advised that in Manila Bay, the Harbour-Pollution Regulations are rigidly enforced. Therefore no bilge water, oil contaminated water, garbage or similar refuse which may pollute the sea water in any way, is to be discharged overboard while the vessel is within Manila Bay and approaches thereto. The staff at Rosario are required to report any violation of this Philippine Merchant Marine Regulation.

Launch Service: Regular launch service for crew transportation is not available and has to be arranged through ship's Agent. The Luzon Stevedoring launch is used to run lines, assist in picking up cargo hoses, etc. Filoil's owned or hired launch is for the exclusive use of Filoil Representative and personnel boarding the vessel; however, transportation may be arranged through Filoil Representative in cases of emergency.

Medical: Medical attention can be arranged by the ship's Agent. There is a clinic at the refinery. The nearest hospital is 0.5 miles.

Heading for the Sea Berth: As soon as government clearance (Pratique) is granted, vessel weighs anchor and heads for Rosario Sea Berth, a distance of about 16 land miles from Manila Anchorage.

Vessel Mooring Gears and Facilities: The vessel's bow is secured in the moorings by the use of both bower anchors. Therefore, ship must have both bower anchors ready for immediate use, each with a minimum of 150 fathoms of chain. Anchors, chains and anchor windlass must be in good condition and capable of heaving ship ahead with the chain or letting one chain go out on the run while heaving in on the other. Mooring Buoy No. 6 can be used instead of port anchor if 3 mooring lines are hooked up.

Vessels must be equipped with 10 in. manila or better mooring lines of not less than 8 in. circumference and not less than 90 fathoms in length of each line. 2 lines are required for each of 6 mooring buoys, 5 of which are aft to secure the ship's stern. Therefore, 5 lines are to be available on the fantail for mooring to Buoy Nos. 1, 2, 3, 4 and 5.

Vessels having wire moorings secured on warping winches with surge valve and brake are acceptable. Warping winches must be adequate to handle mooring line under heavy strain. Efficient stopper lines must be readily available to "stop" mooring lines for transfer from winch to bitts without loss of tension.

All chocks other than roller (if free) shall be fitted with chafing gear to protect lines before berthing operation commences, endeavouring to install chafing gear after the ship has been moored has proven impracticable. Old fire hoses or substitute is suggested.

If in the opinion of the Pilot, the vessel's mooring facilities lines and/or gear are inadequate, he will inform the Master and Filoil Representative, and in such event the vessel will not be allowed to enter the moorings until such conditions are deemed satisfactory.

Docking Procedure: To moor, the vessel approaches the mooring heading due South. When in proper position, the starboard anchor is dropped and the chain allowed to run until vessel crosses the mooring area to a point where the port anchor is let go or when the mooring lines are dropped to Buoy No. 6. Then the engines are backed and the vessel with the assistance of the tug, manoeuvred into the mooring area where after lines are run to the 5 mooring buoys and then the anchor chains are brought tight simultaneously with the securing of the stern to the mooring buoys. The vessel is then heading due West parallel with the tide current flow.

When secured in the berth, vessel should not be closer than 10 m. from the end of the submarine pipeline. Bower anchor chains should have spread of not less than 30° on either side of the ship's imaginary fore and aft line extended forward. Stern buoy moorings should be set as taut as possible and anchors form an approximate angle of 300° with water line.

Submarine Hose Lifting Gear and Manifold Connection: The derrick on the port side in way of the hose connection must be rigged to lift not less than 5 tons. The topping lift shall be available to raise or lower the boom as required and the winch and whip shall be of a quality and nature to lift the hose exactly and evenly. The hose and fittings are considered to weigh 3 tons. The hose connecting gang and its supervisor are from Luzon Stevedoring Company and are under contract to Filoil. They will use the ship's machinery to raise the 2×10 in. hoses from the bottom and secure same to the ship's side. They will also disconnect the hoses and lower same to the bottom of the sea after completion of discharging of cargo. The ship's manifold must have 10 in. flanges for connection to 10 in. submarine hoses.

Safety Rules and Regulations:

Mooring lines must be in good condition and kept tight at all times.

Sparking smoke stacks must not be permitted. If for any reason a stack catches fire or emits live sparks, cargo operations must be stopped immediately on this and adjoining vessels.

Throw nothing overboard from deck or portholes while at Sea Berth.

During cargo and/or ballast operations, vessels shall show red flag by day and red light by night. No smoking amidships during cargo and/or ballast operations.

No chipping, repairs, welding or hot work is allowed on any vessel while at sea berth unless special permission is given and a safety permit obtained. The ship must always be ready to sail out at a moment's notice. The Authority decides when vessels at pier side and Inner Anchorage be shifted to Outer Anchorage during Typhoons.

Pumping crude oils must be stopped during electrical storms or if lightning appears in close vicinity.

In case of fire, shut down all pumping and sound alarm. Disconnect hoses so as to be ready to shift from berth. All vessels at berth must have main engines ready for use. Water, foamite and steam are never to be used on electrical fires. Use dry chemical or Pyrene. Use foamite, water fog, steam CO_2 or dry chemical on oil fires.

Avoid spilling oil on deck. If any oil is spilled, it must be cleaned immediately. Gasoline or naphtha is not to be used for cleaning.

Only Underwriter's laboratory approved flashlights permissible use in methane and air mixtures by the U.S. Coast Guard are to be used for loading, discharging, ballasting and/or repair work on vessels.

Ullage screens are to be kept in place during cargo and/or ballast operations.

No extension cord or portable cables which are connected to an electric power source shall be used on deck in way of cargo or fuel tanks unless vessel is certified gas-free.

Fire hose shall be laid out and suitable fire extinguishers available. Failure to comply with any of the above rules will result in the vessel being shut down. Sufficient copies are to be presented to the Master so that they may be posted in various places about the vessel. It is the Master's responsibility to see that these rules and regulations are enforced.

Discharge of Cargo: After hoses are connected the Filoil Representative will, after communication with the refinery, advise commencement of pumping. In the beginning the rate is to be slow and the Filoil Representative will advise when pumping rate is to be increased to maximum. Discharge of cargo may be stopped due to adverse weather conditions. In which event, the hoses are disconnected and the submarine hose lowered to the sea bottom. Cargo discharge will be resumed when the adverse weather moderates.

Crude oil discharge through 2×10 in. hoses 255 ft. long through a 10 in. check valve and 10 in. gate valve then into the 24 in. pipeline which is 2.5 miles in length. The height of the shore tanks (foundation) above sea level if 15.5 ft. Pressure at the ship's side must not be less than 60 lb. Maximum pressure allowed is 120 lb. at the ship's side.

Stripping – Tank Draining: To keep a discharge time to a minimum, tanks should be stripped into one of the ship's tanks and the final stripping shall be from only one tank.

Board and Lodging Accommodation: Sufficient accommodation and meals are requested to be available and prepared for the Filoil's Representative in the Officers' quarters. He will remain with the vessel until casting off or until relieved to be of assistance to the crew.

DENSITY: Variable.

FRESH WATER: Fresh water is available from barges and tanker trucks.

FUEL: This depends upon the requirement of the vessel. However, as to the quantity, the Philippine Government can only sell vessels sufficient for it to reach the next port of call.

FIRE PRECAUTIONS: The "Absolutely Non-Smoking Area" signs to be exhibited. Permission must be obtained from the Authority before following undertaken – welding work, onboard repairs, vessel imobilisation.

REPAIRS: Only minor repairs possible.

DRY DOCKS: *Bataan Shipyard and Engineering Co. Inc.:*

1 Graving Dock with max. length 164 m., breadth 23.16 m. and depth 12.19 m. Max. size 16,000 d.w.t.

1 Synchrolift for vessels up to 2,000 d.w.t.

Philippine Shipyard and Engineering Corp. (Philseco): Located at Subic Bay.

1 Graving Dock, 350 m.×65 m.×12.5 m. Capacity 300,000 d.w.t.
1 Berth, length 300 m., depth 9 m.
1 Jetty, lengths 185 m. and 135 m., depth 9.0 m.
1×80 ton crane and 1×30 ton crane.

Keppel Philippines: 2 dry docks:
1. 110 m.×19 m.×5.0 m. on sill.
2. 110 m.×15 m.×5.5 m. on sill.

SURVEYORS: Lloyds' Register, A.B.S. and others located in the city. Cargo inspectors available.

GANGWAY/DECK WATCHMEN: This service is available whenever needed.

HATCHES: Stevedores usually open and close hatches. In special cases, when the vessel is of a different model and the hatches are constructed differently, crew members are requested to assist stevedores.

CUSTOMS ALLOWANCES: The only allowable quantity of goods to be held out of bond is that which the members of the crew can use personally. Usually, one or two bottles of wine and a pack of cigarettes. Those brought out from the vessel beyond this will be considered for commercial consumption and will therefore be charged tax.

REPATRIATION: Shipping Agent can arrange this with the Bureau of Immigration.

AIRPORT: The nearest airport is the Nimoy Aquino International Airport, about 8 km. from the Port District of Manila. This is served by regular airlines.

TIME: GMT plus 8 hours.

HOLIDAYS: There are about 12 national holidays in the Philippines. Working days are from Monday to Friday, for government employees, and Monday to Saturday, for private employees. However, the Port of Manila does not observe any of these holidays. Operations at the port are on a day-to-day basis.

Work stoppages on the following holidays:
Good Friday (1900 hrs. Thursday – 1900 hrs. Friday)
Christmas Eve (1900 hrs. 24th December – 1900 hrs. 25th December)
New Year's Eve (1900 hrs. 31st December – 1900 hrs. 1st January)

POLICE/AMBULANCE/FIRE: Police Tel: 59-90-11, 59-43-44, 59-63-36. Ambulance Tel: 62-38-58, 61-53-76, 61-53-89. Fire Tel: 47-43-24, 48-37-34, 58-11-76.

EMERGENCY CO-ORDINATION CENTRE: Philippine Coast Guard Tel: 483257 (Operations).

TELEPHONES: Arranged by vessel's Agent from the Philippine Long Distance Telephone Co.

BANKS:

Far East Bank, Far East Bank Complex, Muralla St., Intramuros, Manila. Tel: 40-10-21/30.

Land Bank of the Philippines, South Harbour, Port Area, Manila. Tel: 47-43-48.

Philippines National Bank, Port Area, Bureau of Customs Compound. Tel: 48-54-88, 40-31-48.

SHORE LEAVE: Crew members are allowed ashore as long as sufficient members of the crew are left on board to manage the vessel in case of unforeseeable incidents. This is necessary in order that the vessel can be removed from berth or anchorage.

IDENTIFICATION CARDS: Shore passes are issued by the Bureau of Immigration.

GARBAGE DISPOSAL:

(a) Bunag Garbage Services,
253 Banalo, Bacoor, Cavite,
Philippines

(b) Capt. TVD Marine Services & Gen. Mdse.,
Nena Samio Building
1356 Gen. Luna St., Paco, Manila.
Philippines.
Tel: 521-45-42

Charges: P. 1,423.10 (alongside), P. 1,552.30 (anchorage).
Collection Time: Monday, Tuesday and Friday, or it depends on the vessel.

WASTE OIL DISPOSAL:

(a) CNR Enterprises,
S513 Downtown Center Building,
516 Quintin Paredes St., Binondo, Manila,
Philippines.

(b) Cristina Lee,
367 Rizal Avenue Extension,
Caloocan City, Metro Manila,
Philippines

(c) Oil Link Services & Enterprises,
Mez., Mary Bachrach Building,
25th St., Port Area, Manila,
Philippines.

SEAMAN'S CLUB: United Seaman's Service, Manila International Seaman's Center, Box 165, Bonifacio Drive, 8th Street, Port Area, Manila, Philippines 1002.

CURRENCY: Philippine Peso.

REGULATIONS: No particular or unusual regulations are observed at the port.

DELAYS: The expected delays are: During inclement weather, some difficulty may be encountered in berthing and when some of the specialised cargo handling facilities have failures.

DEVELOPMENTS: Manila South Harbour Piers (except Pier 13) were rehabilitated in 1991 to 1994, including renovation of transit sheds and installation of new area lighting, the upgrading of Mulle de San Francisco which serves as the immediate access road to pier zones, new street lighting and efficient drainage facilities.

In 1995, the container yard expansion project was completed. By the second quarter of 1996, the construction of an additional berth length at Pier 5 was started.

The cargo handling contractor for South Harbour, Asian Terminal Inc. (ATI), has also constructed and presently operates a land-based Bulk Grain Terminal at their site in Mariveles, Bataan, which is also under the jurisdictional area of the Port District Office of Manila.

Other development projects for Manila South Harbour are contained in the PPA 25-Year Port Development Plan, among which are South Harbour Port Expansion Project (which cover the expansion of Piers 3 and 5), and South Harbour Expanded Port Zone Development Project.

Commitment to Port Development – MICT: The container yard will be expanded by approximately 13 hectares, and an additional back-up area of 8.28 hectares will be developed and is expected to be operational by 2003. A new container freight station will also be built. The wharf extension project, which involves the construction of a fifth berth of about 300 m., complete with rail extension, a depth of 14.5 m and equipped with gantry cranes, was completed and inaugurated in March 1996 and is now in operation. This will increase the berthing capacity of MICT and will boost the volume of container traffic it can handle.

A new reefer rack to accommodate the increasing number of live reefers has recently been completed, and it will provide MICT with approximately 10,000 sq.m. of live reefer storage, accommodating 720 TEUs stacked four high.

The MICT Expansion Project included in the PPA 25-Year Port Development Plan involves the reclamation of water areas along the breakwater. In addition, it will include construction of additional container berths, land development including roads and pavements, construction of vertical structures (e.g. container freight stations), installation of other amenities and appurtenant facilities.

Another important short term development project is the construction of International Container Terminal Services Inc. (ICTSI) of the railway link from the MICT to its inland container depot in Cabuyao, Laguna.

AUTHORITY: Philippine Ports Authority (Head Office), Marsman Building, South Harbour, Port Area, Manila, Philippines. Mailing Address: P.O.Box 438, Manila, Philippines. *Tel:* 527-83-56/58. *Telex:* 40404 (ITT). *Cables:* PHPORTS Manila. *Contacts:* Commo. Carlos L. Agustin, General Manager. Tel: 527-48-56. Fax: 527-48-53. Commo. Francisco L. Tolin, Assistant General Manager for Operations. Tel: 527-47-52. Fax: 530-12-55.

Mr. Leopoldo F. Bungubung, Port Manager, Port District Office – Manila. Mailing Address: P.O. Box 1397, Manila. Tel: 527-76-01 to 08, 527-44-16, 527-44-14. Fax: 527-44-21. Ms. Erlinda G. Abelardo, Chief, Marketing & Licensing Services, Port District Office – Manila. Tel: 527-76-01 to 08, locs. 216 and 264; 527-83-56 to 58, locs. 428 and 429.

AGENT: Jardine Davies Transport Services Inc., 6F, Jardine Davies Building, 222 Sen. Gil J. Puyat Ave., Makati City 1200, (P.O.Box 1298, Manila). Tel: 63-2-8445051-58. Telex: 23589, 45507, 14927 JARSHIP. Fax: 63-2-8191671. Cables: Jarship Manila.

Associated with Jardine Shipping Agencies.

MASBATE, Masbate Island: 12.35 N. 123.31 E.

(See Plan)

DOCUMENTS:

Inward Coasting Manifest.
Hatch Plan or Stowage Plan.
Vessel's Information Card.

PILOTAGE: Pilotage is compulsory. ETA advise should be sent to the Harbour Pilot Association, Legazpi City at least 36 hours before vessel's arrival. The vessel is met by the Harbour Pilot about 2 km. from the mouth of the channel of Masbate Bay aboard a boat displaying a Pilot's flag.

ANCHORAGE: Within Masbate Pass, but not greater than 500 m. from the mouth of the channel leading to Masbate Bay. The area within the Masbate Bay could only be used during emergencies and typhoons.

MAX. SIZE: LOA 300 m.; Draft 40 ft.

HEALTH: Vessels will clear quarantine on arrival at Masbate Harbour. Quarantine Officers will normally board the vessel once it is inside Masbate Bay.

BERTHING: The entire berth length of the wharf could be utilised for the loading or unloading of cargoes. Length of quay 189.0 m. Width 12 m. Max. depth of water 13.0 m. Quay height above sea level 2 m. at high tide and 4 m. at low tide. Average rate of loading/discharging 20 tons per gang hour.

CRANES: Mobile crane available.

STEVEDORES: Provided by Masbate Consolidated Arrastre, Inc.

MEDICAL: One government hospital and three private hospitals.

FRESH WATER: Not available.

FUEL: All grades obtainable from Caltex depot in the area and supplied by lorries alongside.

GANGWAY/DECK WATCHMEN: Available, but not compulsory.

HATCHES: Opening and closing of hatches are part of the stevedores' work or at the Master's option.

REPATRIATION: All facilities available for crew changes; good sea and air connections.

AIRPORT: 3 km. from port area. One flight to Manila and Legazpi daily.
HOLIDAYS: New Year's Day (January 1st); Holy Thursday; Good Friday; Labour Day (May 1st); Independence Day (June 12th); Bonifacio Day (November 30th); Special Public Holidays declared by the President of the Republic of the Philippines is also included.

Cargo work can be arranged on any or all holidays with the vessel's Agent.

POLICE/AMBULANCE/FIRE: Police and ambulance can be contacted through the local PPA office.
TELEPHONES: Placing of telephones on board can be arranged with the local telephone company (PILTEL).
SHORE LEAVE: Crews can be allowed ashore in company of an Immigration Officer.
GENERAL: Vessels intending to call port at Masbate shall apply for a berth space at least 24 hours before arrival. No dirty ballast may be dumped into the territorial waters of the Philippines. Rat guards shall be placed on all mooring lines. Berth allocation is on a first-come first-served basis.
DEVELOPMENTS: Extension of the wharf by 80 linear metres.
AUTHORITY: The Supervising Officer, Philippines Ports Authority, Masbate, Philippines. *FAX:* 05221-243-431. *Contact:* Edgar C. Pilar, Port Manager, Legazpi (Tel: 2012).

MASINLOC, Luzon: 15.32 N. 119.57 E.
(Port Closed)

SHIPMASTER'S REPORT: June 1988.

DOCUMENTS:
6 copies Crew List, these being in addition to visaed Crew Lists supplied in advance.
3 copies Stores List.
3 copies Bonded Stores List.
3 copies Crew Declaration.
1 Summary of Ship's Particulars.
1 copy Maritime Declaration of Health.
1 copy Manifest of Transit Cargo.
1 copy each of Passenger List, Livestock, Arms and Ammunition Declaration or "Nil".
Last Port Clearance.

PILOTAGE: Pilot boards in position 15° 33' N., 119° 53' E. In view of the absence of navigational aids (buoys) it is recommended that the vessel waits for the Pilot to fetch the vessel inside to the anchorage. The depth outside is too great for anchoring. We drifted, 8 miles offshore, for a period of 14 hours whilst awaiting the Pilot and experienced very little drift.

The Pilot boards from an outrigger fishing canoe exhibiting a large 'H' flag. For berthing, normal pilotage hours are from 0500 – 1000 hrs., but this may be extended in calm weather conditions. No docking or undocking during the hours of darkness.

The Pilot was competent in berthing the vessel, using a starboard anchor (7.5 shackles out when alongside) and a mooring boat to run lines to the jetty, buoys and dolphins.

ANCHORAGE: The anchorage is about half a mile from the berth in position 15° 32.5' N., 119° 56' E., depth of water 11 fathoms.

Clearance is sometimes carried out at the anchorage.

RADIO: All communications are via Manila Radio as there is no direct link with Masinloc.
VHF: No VHF communications possible with the port or pilot.
BERTHING: The bulk loading jetty is located in position 15° 32.9' N., 119° 56.3' E., depth alongside 31 ft.

Starboard anchor was used for berthing. Lines were run to buoys ahead, astern and starboard quarter. Breast lines were run to dolphins and springs were run to the jetty (See "Plan").

Loading: Loading is by conveyor and shoot which can be deflected slightly forward and aft. Rate 100 tonnes per hour – 120 tonnes per hour.

Access gangway provided from the jetty.

Loading is suspended in heavy rain and hatches are covered.

STEVEDORES: Loading is carried out throughout 24 hours.
MEDICAL: Consultations can be arranged.
FRESH WATER: Not available.
FUEL: Not available.
CONSULS: Nearest Consuls are at Manila.
REPAIRS: No facilities available.
SURVEYORS: Based in Manila.
REPATRIATION: Repatriation can be effected through Manila which is about 3 hours by car.
AIRPORT: At Manila.
GENERAL: *Chart:* B.A. Charts No. 3806 (approach), 3559 (plan).
Notice of Arrival: To be sent to Agent in Manila.
Telephones: The nearest telephone is 1.5 hours away by car.
Accommodation: There is a local lodging house, but no air conditioning available so probably more comfortable aboard the vessel.
Stores: Available at local market.

SHIPMASTER'S REPORT: January 1989.

PORT LIMITS: Notice of Readiness tendered showing the time we reached the Pilot Station (Lat. 15° 33' N., Long. 119° 53' E.), and it was accepted without objections.

DOCUMENTS:
8 copies Crew List.
8 copies Passenger List.
3 copies Personal Effects List.
3 copies Stores List.
1 copy Vaccination List.
1 copy Cargo Manifest (cargo to be discharged – obviously always "Nil").

PILOTAGE: Pilot boarding position Lat. 15° 33' N., Long 119° 53' E.

There is only one pilot available. No VHF equipment available. ETA should be sent through Manila Agent.

As all buoys and beacons are missing, the ship can proceed, assisted by Pilot, in daytime only, whether for berthing, unberthing or anchoring.

The latest time the Pilot will board, all year round, is 1800 hrs.

In the calm season, a place for temporary anchorage is located 2 to 3 cables from that recommended by B.A. Pilot. (This one, in my opinion, is too close to the bank).

The Pilot recommends waiting outside and drifting, from April till October, as the anchorage is unreliable.

ANCHORAGE: The inner anchorage can accommodate 2 vessels. During the typhoon season, vessels should seek shelter in other places in the North or in the South.

RESTRICTIONS: Daytime only for berthing and anchoring.

No restrictions for shifting the ship by her own ropes at the wharf, at any time, for loading purposes.

HEALTH: Radio Free Pratique requested in advance, but of no advantage. Authorities boarded for the formalities and the whole process for Free Pratique was performed then.

RADIO: No local radio station; Agent's representative will make contact through his Manila office.

RADAR: Not available.

TUGS: Not available.

BERTHING: Only one berth, owned by Benguet Co., for loading chrome ore, exclusively by shore equipment (See "Plan").

BULK CARGO FACILITIES: There is a conveyor belt feeding a "shuttle". The maximum reach of the shuttle is 48 ft., measured from the outer border of the horizontal fender in the wharf. Its overall length if 57 ft. 3 in.

Onshore, a payloader and bulldozers are used for handling of the ore.

The shuttle can move backward and forward following the axis of the wharf (See "Plan"), somewhat oblique to the fore/aft line of the ship.

There is a flat spout at the end of the shuttle that, according to how it is positioned, permits direct loading in four different fixed directions.

Nevertheless, the trimming of cargo is performed by 15 to 20 men with shovels.

Maximum air draft for the hatch coaming: 35 ft. (low water).

Maximum loading rate: 200 tonnes/hour.

The ore arrives by rail cars from the milling plant some 27 km. away and is stocked while no ship is berthed.

CRANES: No cranes available.

STEVEDORES: Regular employees of Benguet Co., working 24 hours a day.

MEDICAL: For emergency cases there is one hospital 10 km. from the port.

DENSITY: 1022 to 1025.

FRESH WATER: Not available at present.

GANGWAY/DECK WATCHMEN: Compulsory.

REPATRIATION: Through Agents via Manila.

AIRPORT: Ninoy Aquino International Airport (formerly "Manila International Airport").

HOLIDAYS: Only holiday is Good Friday when work ceases from 0700 hrs. – 0700 hrs. the following morning.

POLICE/AMBULANCE: From Masinloc City, 1 km. from the port.

DELAYS: Only delays caused by force majeure (typhoons or another vessel already berthed).

SHORE LEAVE: Shore passes are sufficient, there are no restrictions regarding time. For receiving visitors, Master should ask the Authorities for permission in advance. The best opportunity is during clearance formalities.

GENERAL:
(a) Agents, surveyors, workshops and ship chandlers come from Manila. It is therefore very important to make all arrangements well in advance, even the ETA to Pilot.
(b) Boat service: When at the anchorage, whether for bringing the crew ashore, spares or parts for repair, small boats with 2 stabilizers are commonly used in many places in Philippines. One of these boats is used for handling the first lines to the berth and when shifting ropes from one bit to another.
(c) Length of the pier: 207 ft. 7 in. (bridge and dolphin excluded).
(d) Distance from tunnel portal to pier end: 640 ft. 7 in.
(e) Dredging is in progress. After completion the guaranteed draft will be 34 ft. maximum. Before starting, it was 31 ft.
(f) Maximum permissible draft at LW is 34 ft.
(g) During the stay in port and at the anchorage, 2 Customs Officers live on board; a cabin and meals are required for them.

SHIPMASTER'S REPORT: May 1989.

VESSEL:

LOA:	119.6 m.
Beam:	18.5 m.
D.W.T.:	9,262 tons
G.R.T.:	5,373 tons
N.R.T.:	3,082 tons
Loaded Draft:	Forward: 7.4 m. Aft: 8.3 m.

CARGO: Chrome Ore.

DOCUMENTS: The following are required:

1 copy Last Port Clearance.
6 copies Crew List.
4 copies Crew's Personal Declaration.
4 copies Stores/Narcotics List.
2 copies Animal List.
2 copies Plant List.
2 copies Firearms Declaration.
2 copies Vaccination List.

Derat Certificate should be ready for inspection. If any crew changes then 2 copies of amended Crew List are required.

PILOTAGE: Compulsory for all foreign vessels. Pilotage is restricted to daylight hours, and in good weather only. There are 2 pilots for the port (one was on leave during our call). Pilot boat is a wooden fishing boat with 3 m. long spreaders on either side for boarding. There are many fishing boats in the vicinity and therefore it is difficult to distinguish the pilot boat from other boats. It is only when close by that you notice a small pilot flag on the boat. Pilot has a walkie-talkie with Channel 16 (it was malfunctioning during our call). Pilot boards 1.5 miles North West of Alupihing Point (Salvador Is.). Pilot was very experienced.

ANCHORAGES: Owing to numerous reefs, shallow waters and restricted manoeuvring space it is recommended that vessels remain underway in the offing at least 2 miles off the coast. There was a negligible drift in 4 hours whilst we were awaiting daybreak.

RESTRICTIONS: Port is entered during daylight hours and only in good weather. Buoys No. 1, 2, 3 and 4 are missing. Beacons (wooden piles) exist as marked on the chart (BA. Chart No. 3559). Leading beacons were white slatted top marks with front metal triangles. At present, they are very rusty and are very difficult to sight unless one is dangerously close. I gave the Pilot some white paint so they could be painted. All reefs are noticeable as discoloured water. Please refer to China Sea Pilot for further details. There is very little range of tide at Masinloc.

MAX. SIZE: According to Pilot 32 ft. draft is the maximum. Length of pier is 66 m. only. There is a new pier under construction which is due to be commissioned in July of this year.

HEALTH: Free Pratique is requested by the Agent at Manila. Doctor comes from Manila, remaining quarantine officials operate from Masinloc. Usual inspection is carried out upon arrival.

RADIO: No radio at Masinloc, all communications through Manila Agent.

VHF: No VHF communications available.

RADAR, TUGS: Not available.

BERTHING: Channel is surrounded by tree-covered mountains. Tying up procedure takes about an hour from the first line to the last line. There is only one berth, a T-head concrete pier, 66 m. long with a steel bridge extending at the S.E. end. A dolphin is used for breast lines forward and aft. Loader, red in colour, is stationary with maximum horizontal extension of 14.5 m. Trimming of cargo is done by hand by inexperienced labour. When shifting vessel fore and aft it is very important that vessel remains parallel to pier at all times as there is less water beyond the line of pier. Air draft was 12.2 m. Cargo from this port is chrome ore only. Ore is brought by railway wagons from mines to the storage area, where it is put on to a conveyor belt by earthmovers and finally loaded on to the vessel. Conveyor belt is about 200 m. long. We averaged a load rate of 140 tonnes/hr.

Draft surveyors work out quantities twice a day, along with the Chief Officer.

Shore load scale was found to have a difference of about 2% on the high side. During total loading operation of 70 hours, we had chute trouble for 6 hours and 3.5 hours was utilised in 3 shiftings.

We were port side to with starboard anchor 7 shackles in water.

Notice of Readiness is accepted after holds are passed for loading.

FRESH WATER, FUEL: Not available.

DENSITY: 1023, constant during our stay.

REPAIRS, DRY DOCKS: Not available.

CONSULS: None at Masinloc, only in Manila.

SURVEYORS: Can be arranged from Manila only. Sufficient notice should be given as it is a 5 hour drive.

CUSTOMS ALLOWANCES: 1 bottle of spirits and 200 cigarettes per person.

REPATRIATION: Possible via Manila.

TELEPHONES: Only possible from Subic City (an American Naval Base), which is 120 km. from the port (about 2 hours' drive). Even domestic calls are not possible from Masinloc.

SHORE LEAVE: Allowed. Shore passes are issued and must be carried at all times.

GENERAL: Watchmen (2) are recommended by the Agents, though I found the port safe in all respects. 2 Customs Officers stay on board at all times, accommodation and food is to be provided. No ship chandlers at Masinloc. No deck or engine stores available, same can be arranged through Manila Agent, but would be expensive owing to transportation costs. Some fresh provisions can be purchased at Olangapo City, 140 km. from port (20 km. from Subic City). Seafood was relatively cheap compared with other places. Masinloc is a small town with a few ordinary hotels, accommodation is always available. Main mode of transportation is bus.

AGENT: There are no agents at Masinloc. Agent comes from Manila and remains at Masinloc during vessel's stay and is available whenever required.

AUTHORITY: Philippines Port Authority (PPI).

MATI, Mindanao: 06.56 N. 126.14 E. (See Plan)

SHIPMASTER'S REPORT: August 1990.

Also see "Davao".

DOCUMENTS: Entry formalities require 30 officials to clear vessel, and 6 copies of the following are required (these stapled together into small booklets to reduce confusion, with all officials taking papers simultaneously).

(a) Customs Inward Foreign Manifest.
(b) Ship's General Particulars and Information.
(c) List of Ports of Call.
(d) Crew List.
(e) Crew's Declaration Manifest.
(f) Ship's Bonded Stores List.
(g) Ship's Provisions List.
(h) Arms and Ammunition List – Nil.
(i) Animal List – Nil.
(j) Plants List – Nil.
(k) Mail List – Nil.
(l) Currency List – Nil.
(m) Passenger List – Nil.

Note: (h) to (m) can be included on one list to save paper.

APPROACHES: As it was the vessel's first visit, arranged arrival time to coincide with sunrise for approach into Pujada Bay. No navigational marks or aids seen at all.

Radar parallel index approach is possible, as land on either side steep to and good radar targets, as are Pujada and Uanivan Islands.

Pujada Bay is over 200 fathoms deep in places with plenty of space. Vessel entered Bay, and altered to leave a conspicuous white building (shown as "Mill" on chart, and is an old plywood mill, redundant) ahead.

Numerous small fishing pirogue dug-outs in Bay.

Actual loading berth is a dark, pyramid shed, with 3 oil tanks adjacent, which lie further to starboard.

PILOTAGE: Pilot comes from Davao, which is 4 hours away by bus, so plenty of advance warning to agent required. Vessel's Agent in Manila, so everything co-ordinated from there.

No VHF facilities to contact anyone locally.

ANCHORAGES: Anchoring not recommended without extensive local knowledge, as require to be close to shore, and there are underlying reefs off the town of Mati.

Vessel stopped, and waited for Pilot just inside the 100 fathom line, which is about 1.5 miles off the berth.

RESTRICTIONS: Do not shift too far ahead or astern when changing holds, as reef astern and shallow water ahead.

MAX. SIZE: 18,000 g.r.t. (about 180 m. LOA).

TUGS: None available locally. Tug available from Davao, but has to be ordered via Manila, and lots of paperwork required.

BERTHING: Pilot comes out in small yellow coloured boat, with top speed about 3 knots. This boat then serves as line handling boat for berthing, so vessel has to wait for it to return to berth before approaching.

Berth in daylight only and with no wind, any wind over 3 knots would be too dangerous. Use port anchor and berth port side to. Anchor will run to about 3.5 – 4 shackles, and great care should be taken, so as not to snatch bow and pull stern up onto reef.

Send spring first onto dolphin.

Best to let vessel pass final position, then bring back on lines once alongside, as reef also close astern (See "Plan").

STEVEDORES: All are copra mill employees and arranged by same through Agent. All pellets trimmed by hand.

CARGO: Coconut by-products; expeller pellets (by extraction method) and the oil (palm/coconut) from the process.

Bulk cargo as pellets and oil, both from same berth, by a conveyor belt running out from shore with a pipeline beneath, to a small elevator dolphin.

A smaller jetty alongside serves coastal vessels discharging the copra (coconut kernels), using a mobile crane into a lorry.

LOADING: A maximum airdraft to coaming of 39 ft. is required by mill, but vessel estimates 40 ft. 06 in. would have been possible (height of tide about 4 ft. at the time).

From dolphin loading tower, there is a fixed loading arm, the end spout of which can be manipulated by ship's crane to give some trimming.

Vessel has to shift under loading arm to load other holds, and would only permit loading up to No. 2 hold (vessel 180 m. LOA), as to load No. 1 would have put ship very close to reef astern. Similarly, to load No. 5 would have put vessel too close to shallow water ahead.

Loading rate of 90 t.p.h. – 100 t.p.h., as governed by pay-loader in shed feeding conveyor.

DENSITY: 1024.

FRESH WATER: Available by barge from Davao, but expensive. Coasters supplied by fire engine from mill.

FUEL: By barge from Davao.

FIRE PRECAUTIONS: No smoking on deck.

CONSULS: None locally.

REPAIRS: No facilities available.

SURVEYORS: None locally. Surveyor came from Manila to do On-Hire Survey and Draft Survey, and remained on board for surveys at other ports.

HATCHES: Operated by crew, and closed at first sight of rain, so cargo did not get wet.

WATCHMEN: Employment of local armed watchmen strongly advised as a deterrent. Ship's crew also used.

AIRPORT: Nearest airport at Davao.

SHORE LEAVE: No restrictions. Shore passes not required.

GENERAL: *Chart:* B.A. Chart No. 415.

Gangway: Access extremely difficult, as only loading tower dolphin connected to shore and insufficient space on this to use B.O.T. Gangway, etc. Crew had to climb up onto overhanging loading arm, or down pilot ladder onto some part of loading tower structure.

Stores: Very difficult to get through mill gate, and to get onto vessel equally difficult. Small amounts of fresh provisions possible via dug-out, but quality questionable.

SHIPMASTER'S REPORT: January 1991.

LOCATION: Approximate position of copra loading berth: Lat. 06° 56.0' N., Long. 126° 14.2' E., about 3 km. S.E. of the town of Mati.

DOCUMENTS:

Prepared by Agent:
- 12 copies Inward Foreign Manifest.
- 12 copies Outward Foreign Manifest.
- 12 copies Oath of Master.

Prepared by vessel:
- Last Port Clearance.
- 8 copies Crew List.
- 3 copies Stores List.
- 3 copies Personal Effects List.
- 3 copies Animals List (even if 'nil').
- 3 copies Arms and Ammunition List (even if 'nil').
- 3 copies Plants List (even if 'nil').
- 3 copies Narcotics List (even if 'nil').
- 3 copies Passengers List (even if 'nil').
- 3 copies Ports of Call List.
- 1 copy Ship's Particulars.

If Mati is the first Philippine port:
- 1 copy Health Declaration.
- 2 copies Vaccinations List (Cholera and Yellow Fever).

PILOTAGE: Compulsory and during daylight only.

The Pilot prefers daybreak for berthing and unberthing as there is normally no wind at that time.

The Pilot boards from a small orange coloured, open boat about 1.5 miles off shore. Vessels should wait for the Pilot at the 100 fathom line shown on B.A. Chart No. 415.

There is no VHF link with the pilot boat or shore. The Pilot comes from Davao (about 4 hours by bus) and must be ordered via agents.

ANCHORAGES: The Pilot advises that there are no safe anchorages for larger vessels.

RESTRICTIONS: Pilot advises maximum sailing draft is 14 m.

BERTHING: The berth consists of 3 concrete platforms in line with a distance of 60 m. between them. A fixed conveyor is installed on the central platform. Berthing is port side to.

There is a platform for the stern lines behind the first platform, about 60 m. to 80 m. away in a Northwesterly direction. In front of this platform is very shallow water which extends over the berth range. There is also a shallow water area in front of the whole berth, the Westerly end being marked by a cone buoy. This area is shown on B.A. Chart No. 415 with the symbol of underwater rock and stake. This area is wider than that shown on the chart. The distance between both shallow areas is 142 m., as advised by the Pilot, and the vessel has to berth/unberth at an angle of 30° to 40° to the platforms to avoid the shallow areas. The starboard anchor, with upto 4 shackles, will be used for berthing.

When unberthing the vessel goes astern dragging the anchor with one shackle until the bow is clear of the coned buoy. The vessel can then swing to starboard until Tataidaga Point is right ahead (about 222°). This heading should then be maintained until the vessel is 2.5 miles off Tataidaga Point when the vessel is then clear from the shallow water on the port side and can then proceed directly out to Pujada Bay.

MEDICAL: Facilities at Mati.

FRESH WATER: Available, but analysis should be carried out as the Agent advises that sometimes fresh water is mixed with sea water.

REPAIRS: Very small repairs possible at the factory workshop.

NASIPIT (Including Masao and Butuan), Mindanao: 09.06 N. 125.22 E. (See Plan)

See "General" before first port.

(Port Management Office of Nasipit) PMO-Nasipit presently covers the Baseport of Nasipit, PTO-Butuan and PTO-Masao.

PORT LIMITS: From Diwata Point up to the coastal limits at Bolo-Bolo Point, the territorial boundary between the Provinces of Agusan del Norte and Surigao del Norte.

DOCUMENTS:
- 3 Crew Lists.
- 3 Passenger Lists.
- 2 Stores Lists.
- 2 Stowage Plans.
- 2 Personal Effect Lists.
- 3 Inward and Outward Cargo Manifests.
- 1 Ship's Information sheet.
- 1 Statistical Supplement.
- 1 Cargo Bill of Lading, if any.

PILOTAGE: Compulsory.

ETA: Ocean going vessels – 24 hours' notice.
Coastal vessels – 12 hours' notice.

Pilot Boat Description: Upper structure white; lower structure black with a letter "P" at the bow. During night time, when a vessel requires a Pilot, particular light used is permanent red at the uppermost portion of the boat and a flashing white light.

Location of Pilot Station: Masao Harbour Pilot Association, 2nd Floor, St.Joseph Drugstore Building, Corner Lopez Jaena and Concepcion Streets, 8600 Butuan City.

For the Port of Masao, situated at Barangay Lumbocan, Butuan City, there is no alternative area in the event of bad weather as it is an open sea. However, at the Baseport of Nasipit, vessels can seek shelter during bad weather because of its natural cove which protects the vessels against strong winds and heavy seas.

Pilot Boarding Station:

Nasipit – One nautical mile N.E. of Nasipit Lumber Company Lighthouse, port side from seaward of the Nasipit Cove entrance.

Masao and Butuan – Two nautical miles North of the Pilot Station Tower at Barrio Lumbocan, Butuan City.

ANCHORAGES: Depth of safe anchorage: 20 m. – 75 m. deep along the shore line.

Masao Anchorage Berth:

Anchorage No. 1:	Lat. 9° 01' 05" N.,	Long. 125° 29' 50" E.
Anchorage No. 2:	Lat. 9° 01' 00" N.,	Long. 125° 29' 40" E.
Anchorage No. 3:	Lat. 9° 00' 55" N.,	Long. 125° 29' 30" E.
Anchorage No. 4:	Lat. 9° 00' 45" N.,	Long. 125° 29' 20" E.
Anchorage No. 5:	Lat. 9° 00' 35" N.,	Long. 125° 29' 00" E.
Anchorage No. 6:	Lat. 9° 01' 15" N.,	Long. 125° 29' 45" E.
Anchorage No. 7:	Lat. 9° 01' 10" N.,	Long. 125° 29' 35" E.
Anchorage No. 8:	Lat. 9° 01' 04" N.,	Long. 125° 29' 25" E.
Anchorage No. 9:	Lat. 9° 00' 55" N.,	Long. 125° 29' 05" E.
Anchorage No. 10:	Lat. 9° 00' 50" N.,	Long. 125° 28' 55" E.

RESTRICTIONS: Port of Butuan: Entrance and exit of vessels are controlled by the tide, particularly at the mouth of the Agusan River which is 3.5 m. deep at H.W.

MAX. SIZE: Masao: No limit.

Nasipit: Maximum possible length of vessel is 550 ft., breadth 65 ft., maximum mean draft is 25 ft.

Butuan: Maximum draft is 3.5 m.

HEALTH: For all 3 ports: Cable Quarantine Officer with name and nationality of ship, ports of call during voyage, number of crew and passengers, condition of health of all on board and, if any, type of sickness.

RADIO: (DWP 934 NAGOV) 8,776.4 kHz.

VHF: 140.88 MHz.

TUGS: Ports of Butuan, Masao and Nasipit: Tug assistance available from private companies upon request, on a rental basis (only small tugs available).

BERTHING:

Port of Butuan:

Butuan Government Wharf.

Area:	12,000 sq.m.
Berth length:	138.0 m.
Cargo Shed (semi-concrete):	540 sq.m.
Passenger Terminal:	75 sq.m.
Administration Building:	1 unit.
Amenity Building:	1 unit.
Load Capacity:	500 lbs./sq.ft.
Present draft alongside berth at MLLW:	5.0 m.
Distance from mouth of the Agusan River:	7 nautical miles.
Depth at the mouth of Agusan River at low tide:	8 ft.
1991 Cargo Throughput:	141,945 tonnes.

Port of Masao:

Government Wharf at Lumbocan, Butuan City.

Causeway:	280 m. (paved).
Berth Length:	32 m.
Depth alongside:	7 m.
Distance by road from Butuan:	14 km.
Load Capacity:	100 lbs./sq.ft.
1991 Cargo Throughput:	142,350 tonnes.

Port of Nasipit:

Berth Length:	299.35 m.
Length of Navigable Water:	800 m.
Width of Navigable Water:	200 m.
Width of the Entrance to the Nasipit port:	150 m.
Load Capacity – Container Berths:	830 lbs./sq.ft. (40 KPa).
Load Capacity – Ro-Ro Berth:	625 lbs./sq.ft. (30 KPa).
Open Storage Areas (paved):	9,600 sq.m.
Cargo Shed (paved):	1 unit.
Passenger Terminal Building:	1 unit.
No. of vessel to be accommodated at a given time:	4 domestic vessels. 2 foreign vessels.
Present draft alongside berth:	8.0 m.
1991 Cargo Throughput:	619,878 tonnes.
Distance by road to Butuan City (paved roads network):	27 km.
Cargo expected by 1992:	994,591 tonnes.

CRANES: None owned by the Authority nor by any cargo handling operators, but can be hired from the Department of Public Works and Highway or from private contractors companies.

BULK CARGO FACILITIES: Nasipit Port: Bulk oil / fuel pipeline owned by the Philippine National Oil Company (PNOC).

Nasipit Depot: Oil / fuel pipeline at Cabinet, Cabadbaran and Agusan del Norte owned by Pilipinas Shell Corporation.

SPECIALISED CARGO HANDLING FACILITIES: Ro-Ro ramp is available at Nasipit Port. A berth is allocated to handle oil products at the Southern portion of the wharf.

BRIDGES: None.

STEVEDORES: Masao and Butuan: Concord Arrastre and Stevedoring Services Corporation (CASCOR).

Nasipit: Nasipit Integrated Arrastre & Stevedoring Services, Inc. (NIASSI).

MEDICAL: No advance notice needed except in case of serious illness or injury. Hospital facilities available:

1. Government hospitals:
   - (a) Butuan General Hospital
   - (b) Butuan Maternity and Children's Hospital
   - (c) City General Hospital and Medical Centre.

2. Private hospitals:
   (a) Butuan Doctors Hospital
   (b) M.J.Santos Hospital.

TANKERS: See "Bulk Cargo Facilities".

DENSITY: Average density of water in the port and surrounding anchorage area is 1010 – 1012.

FRESH WATER: Masao: The supply of fresh water can only be made by water tanker trucks.

Butuan: Licensed water supply operators.

Nasipit: Nasipit Water District, through water pipes.

FUEL: Oil delivered by tank trucks at all berths.

REPAIRS: Only minor repairs can be undertaken whilst in port.

GANGWAY/DECK WATCHMEN: Service of watchmen is optional.

HATCHES: Opening or closing of hatches is normally carried out by stevedores.

CUSTOMS ALLOWANCES: Tobacco: Each man 1 pack per day. Wine and Spirit: Each man 1 bottle per week.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: Bancasi Airport, approximately 7 km. from Butuan City, caters for domestic daily flights to and from Cebu and Manila.

CARGO GEAR: Gear provided by shipping, arrastre and stevedore operators.

HOLIDAYS: New Year's Day (January 1st); Bataan Day (April 9th); Holy Thursday, Good Friday and Easter Sunday; Labour Day (May 1st); Independence Day (June 12th); National Heroes Day (November 30th); Christmas Day (December 25th); Rizal Day (December 30th).

Cargo-handling operations, however, can still be arranged on these days.

BANKS: Philippine National Bank, Montilla Blvd., Butuan City. Tel: 23-12; 23-11.

Bank of the Philippine Islands, Montilla Blvd., Butuan City. Tel: 31-12; 31-13.

Family Bank, Juan Luna Street, Butuan City. Tel: 33-97; 33-98.

Rural Bank of Butuan City, Juan Luna Street, Butuan City. Tel: 30-42.

PCI Bank, Corner of Juan Luna and Zamora Streets, Butuan City. Tel: 20-13; 21-42.

Development Bank of the Philippines, Zamora Street, Butuan City. Tel: 35-21; 35-20; 35-22; 39-22.

Metro Bank, Corner of P.Burgos and San Francisco Streets, Butuan City. Tel: 33-44.

City Trust, Zamora Street, Butuan City. Tel: 33-82.

Allied Bank, Corner of P.Burgos Street and Montilla Blvd., Butuan City.Tel: 31-95.

POLICE/AMBULANCE/FIRE: Police: 115; Fire: 114; Ambulance: 24-14.

TELEPHONES: Not possible to place telephones on board.

SERVICES: Shipchandling Services, Mooring/Unmooring Services, Laundry, Water-Taxi, Cargo-Checking, Carpentry, Forwarding, Bunkering. All ancillary services operators are duly licensed by PPA.

STORING:
1. Trucks can proceed alongside the berth.
2. Forklifts can be used on the jetty to handle stores.
3. Local riggers can be employed to assist storing.

SHIP SUPPLY SERVICE: None.

SHORE LEAVE: After entry formalities are completed, crew members are allowed to go ashore without special permission.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

WASTE OIL DISPOSAL: Not available.

GARBAGE DISPOSAL: No garbage collection service available. Garbage disposal regulated under Section 39(b) of PPA Administrative Order No. 13-77 known as the General Port Regulations of the Philippine Ports Authority, stating "No dirt, ash or rubbish of any description may be landed on any wharf or pier except in the receptacles provided for the purpose".

SEAMAN'S CLUBS: None.

CURRENCY: Philippines Pesos (P).

REGULATIONS: General Port Regulations promulgated and implemented by PPA.

DELAYS: Berth not available; Weather constraints, Tidal constraints, Lack of Equipment, Breakdown of Equipment, Pilot not available, Tug not available, cargoes for loading not ready.

DEVELOPMENTS: Butuan: Concrete paving of the back-up area at the Southern end portion of the wharf.

Masao: Extension of wharf to 205.30 m.; Reclamation (3 ha.) for back-up area; Office Building.

AUTHORITY: The Philippine Ports Authority, Port Management Unit of Nasipit, Butuan City, Agusan del Norte. *Tel:* 31-98, 34-29. *Contact:* Ferdinand C. Piencenaves, Port Manager. Oscar M. Beluan, Manager, Port Services Division.

PAGBILAO, Luzon: 13.51 N. 121.45 E.

BERTHING:

Length:	300 m.
Depth:	16.0 m. (Dredging underway to 19.8 m.).
Max. size:	100,000 tonnes d.w.t.

Cargo handled: Coal.

There are no restrictions on LOA, beam, GT or air draft, and no maximum distance from waterline to the top of the hatch-coaming.

The discharge rate is 8,000 tonnes per weather working day, but it is estimated that this will increase to 12,000 tonnes per weather working day, once the port is fully operational.

Two shore cranes, designed for geared and gearless vessels, will be in use.

The first trial shipment will be in March 1996.

OPERATORS: Slipform Marine.

POLLOC, Mindanao: 07.21 N. 124.13 E. (See Plan)

LOCATION: The Port of Polloc lies on the Southern coast of Polloc Harbour which, itself, is located N.E. of Illana Bay at about 14 km. in straight line North of Cotabato City. It is situated at Lat. 07° 21' 12" N., Long. 124° 13' 27" E.

PILOTAGE: Pilotage available 24 hours.

ANCHORAGE: Polloc Anchorage is contained between Lalayang Point and Polloc Island and provides a clear manoeuvring area some 3 km. in diameter with deep water along the marginal shallows which front the low cliffs of its Southern shore.

The anchorage along the Southern margin of Polloc Harbour also provides the port shelter and water depth as well as the best land and water frontage for the development of port facilities and of port-orientated industries.

Bongo Island, 6 miles long, is situated in the North Eastern part of the bay and affords some protection from the Westward to the Mindanao River Delta Area and Polloc Harbour.

RESTRICTIONS: None.

HEALTH: Quarantine anchorage at Lat. 7° 22' N., Long. 124° 14' E.

BERTHING: Main marginal wharf – 400 m. long.

Depth alongside – 10.5 m.

Lighter dock – 67 m. long on both sides.

2 government transit sheds – 11,960 sq.m.

Total port area – 102,350 sq.m.

Total area for open storage – 42,940 sq.m.

Total area reserved for private warehouses – 75,645 sq.m.

CRANES: 1×54 ton, 1×36 ton and 1×60 ton.

FRESH WATER: Available by pipe from P.P.A.

FUEL: Diesel oil available by road tanker.

GARBAGE DISPOSAL: Service not available.

WASTE OIL DISPOSAL: Service not available.

SEAMAN'S CLUBS: None.

CURRENCY: Peso.

GENERAL:

Terminal Ports: Cotabato City and Kalamansig City. The latter is situated at Sultan Kudarat with coordinates of Lat. 06° 33' N., Long. 124° 03'E., N.E. of Moro Gulf, South Coast of Mindanao Island which also caters to large ships loading logs at anchorage.

Tides: The tidal cycle is semi-diurnal and synodic form. The characteristics are as follows:

Highest Astronomical Tide = EL +2.3 m.
Mean High Water Springs = EL +1.9 m.
Mean High Water Neaps = EL +1.5 m.
Mean Low Water Neaps = EL +0.6 m.
Mean Low Water Springs = EL +0.2 m.
Lowest Astronomical Tide = EL −0.3 m.

Storm Occurrences: Mindanao is below the main typhoon belt and only minimal effects have ever been observed at Cotabato as a result of occasional typhoons over the island. This is thought to be due to the consistent nature of typhoons in this region which travel S.E. to N.W.

In the sheltered area of Polloc Harbour at the Easterly side of the Port of Polloc, the max. fetch of 8 km. is to the N.W. and only with winds of 40 knot during a storm will waves of 1.2 m. (4 ft.) be experienced. With an "onshore" typical wind of 15 knots from N.W., wave heights will be about 0.3 m. (1 ft.).

Port Site Description: West of the Haines Point which marks the Western Sarmiento boundary is the site of the port. A frontage of some 2 km. can ultimately be reclaimed from the shallows along this shoreline to provide land backing to the wharves of the port.

The Eastern half of the Southern shoreline is occupied by the extensive plywood factory of Eversun Development Ltd., part of Vicwood Group of Companies, which has developed its industrial complex on land reclaimed over the sand foreshore with filling from the high land behind.

Main Sub-ports: The Philippine Ports Authority took over in October, 1977, the Cotabato City Wharf and Parang Pier. The former is a port with a depth restriction on the bar resulting in ships anchoring in the open sea of the North Mindanao River mouth and there being served by lighters, ferry boats and barges; while the latter caters to large ships which load logs and plywoods at anchor. It contains a deep water pier at the East shore of the bay and also a submerged marine pipeline for pumping ashore petroleum products into a Tank Farm at Parang.

The Cotabato City Wharf also services inter-island watercraft such as passenger/cargo motor launches and other small sea transports.

Access Roads: The Port of Polloc is accessible by land to Cotabato City through a 13 km. modern concrete pavement which winds up at Simuay Junction at the Cotabato-Davao National Highway extending some 9 km. more to reach the commercial centre. From this point, the port is accessible by all forms of land transport facilities to any place in the Cotabato area.

The port is also expected to serve the Southern-most principalities of the Province of Lanao Sur with the improvement of the Ganassi Road connecting the province with main artery of the Cotabato area.

SHIPMASTER'S REPORT: July 1984 (Updated 1996).

Port Limits: Entrance to bay.

Documents: Usual for Philippine Ports.

Pilotage: Pilot available. Port used by coastal cargo and passenger vessels, and foreign vessels.

Anchorage: 5 cables off the berth.

Health: Pratique granted on completion of formalities, normal inspection.

Radio: Manila.

VHF: Not available.

Radar: None.

Tugs: None. One man with small private tug produced certificate that he had piloted vessel alongside even though he had only guided through bay in front of vessel and neither towed vessel or handled lines. He did not speak English.

Berthing: 400 m. of well fendered wharf. No shore cranes, ship's gear only – plywood in crates, sawn lumber and bulk copra are the main export cargoes.
Cranes: None.
Bulk Cargo Facilities: None.
Specialised Cargo Handling Facilities: Copra buckets.
Bridges: None.
Stevedores: Good – but have a bad habit of smoking down holds, which is prohibited. Used small forklift trucks down hold to stack cargo pallets of plywood – very competently handled.
Medical: Doctor and dentist available at Cotabato City.
Tankers: No facilities.
Density: 1025.
Consuls: None.
Repairs: No facilities available.
Dry Docks: None.
Surveyors: None.
Gangway/Deck Watchmen: Customs and Immigration officials on board throughout vessel's stay.
Hatches: Opening and closing by crew.
Customs Allowances: Normal allowance. Bond sealed.
Cargo Gear: Ship's gear only.
Repatriation: Possible – but not advisable.
Airport: South of Cotabato City (Awang, Dinaig, Maguindanao) with daily connections to Manila, Cebu, Iligan and Zamboanga.
Time: GMT plus 8 hours.
Holidays: Usual Philippine holidays.
Police/Ambulance/Fire: No telephones.
Telephones: None.
Services: None.
Shore Leave: Allowed. Shore passes arranged with Immigration Authorities. Going ashore advisable in daylight only – at night it is dangerous.
Identification Cards: Shore passes issued but identity card advisable.
Delays: Subject to berth availability.

AUTHORITY: Philippine Ports Authority, Port Management Office of Polloc, P.O.Box 163, Cotabato City, Parang, Maguindanao, Philippines. *Tel:* 21-10-37, 21-11-43. *FAX:* 21-10-37. *Cables:* PPA-PMO, Polloc. *Contact:* Ali L. Arumpac, Port Manager.

PUERTO PRINCESA, Palawan: 09.44 N. 118.43 E. (See Plan)

See "General" before first port.
Puerto Princesa, a large irregular inlet between Bancao-Bancao Point and Panagtaran Point, is 2 miles wide at the entrance, extending about 6 miles in a N.W. direction. Coral reefs about 0.5 miles wide making out on the entrance points narrow down the navigable width of the channel to about 1 mile, depths of 34 fathoms (62.2 m.), shoaling to 9 fathoms (16.5 m.) in the vicinity of the pier. The major portion of the Northwestern and Western part of the bay is mostly shoal. The shoreline is generally fringed with mangroves and fronted by mud flats. The surrounding land consists of extensive wooded plain, backed by a high mountain chain. Several small rivers navigable by launches and small boats empty into the bay. The inner part of the harbour is a good typhoon anchorage.
PORT LIMITS: About 1 mile South of the pier. This is the entrance to the inner harbour of Puerto Princesa.
PILOTAGE: Pilots can be contacted by radio message through the shipping Agent not less than 24 hours before ETA indicating among others the following information:
1. Name of vessel.
2. Name of shipping lines.
3. Country vessel is registered.
4. Type of vessel.
5. Overall length.
6. Draft.
7. G.r.t.
8. Volume of cargo to be discharged and storage required.
9. Nature of cargo.
10. Passengers disembarking, transit and embarking if any.

Pilot boat is a small pump-boat painted in white and named "Pilot". Sound signals requesting a Pilot are 2 long blasts and 1 short blast. The location of vessel at anchorage while awaiting a Pilot is a safe area, even during bad weather. When Pilot is not at usual station, vessel may proceed to berth after securing clearance from authorities to proceed to berth and after one hour waiting time at anchorage.

When Pilot is aboard the pilot boat, an international flag "P" will be seen flying at her foremast.
ANCHORAGE: Vessels not going alongside the T-shaped pier may anchor Southwestward of Princesa Point in 12 fathoms to 16 fathoms (21.9 to 29.2 m.), mud bottom. A better protected anchorage may be had in 9 fathoms to 10 fathoms (16.5 to 18.3 m.) about 400 yards Northward of the end of the pier.
RESTRICTIONS: At night, in approaching Puerto Princesa from offshore, the lights in the vicinity of Canigaran, Northward of the entrance, may cause some confusion to strangers as they are visible long before the Puerto Princesa Light can be seen. The port light which is fixed red, visible 7 miles over an area of 041°, only becomes visible close in and just off the mouth of the harbour. At daytime a course Southward of the range Thumb Peak-Tidepole Point clears the reef on the North side of the entrance. Mount Beaufort on range with Tidepole Point clears the reef on the South side.
MAX. SIZE: Vessels not going to dock alongside the pier may anchor in 9 fathoms to 10 fathoms or 12 fathoms to 16 fathoms. For vessels going to dock alongside the T-shaped pier, permissible draft is 27 ft. (8.2 m.)
HEALTH: Quarantine doctors are assigned in the Port to board the vessel and check any suspected disease or fever.
RADIO: Vessels at sea usually send their radio messages through the Association of International Shipping Lines in Manila to their Agents.
VHF: Not available.
RADAR: No radar station in the port.
TUGS: Tug service can be obtained by communicating with the local shipping Agent.
BERTHING: The City has a T-shaped concrete pier with a berthing face of 192.43 m. Depths 27 ft. (8.2 m.) alongside and 31 ft. (9.4 m.) about 6 yards off the face. The Northern and Southern ends of the "T" have depths of 11 ft. (3.3 m.) and 15 ft. (4.5 m.) respectively. The inshore arms of the "T" have depths of 11 ft. (3.3 m.) at each berth. Sailboats and other shallow vessels berth on each side of the concrete approach. Typhoon signals are exhibited from a pole on the rooftop of the PPA Building.

Open storage and 2 warehouses (12 m. × 56 m. each) available.
CRANES: 20 ton crane available. Forklifts of 10 tons – 16 tons available.
STEVEDORES: Advise Agent on volume of cargo to be discharged, storage required and nature of cargo. PCBSI (Prudential Customs Brokerage Services Inc.) is the authorised cargo handling operator.
TANKERS: May drop anchor at anchorage area.
FRESH WATER: Available, rate 10 t.p.h. – 15 t.p.h. Cost P.45.00/cu.m.
FUEL: Diesel oil, gasoline and kerosene may be purchased.
FIRE PRECAUTIONS: No smoking is allowed when vessels are refuelling within a radius of 100 m.

An improvised 3 in. hydrant is installed at the pier. The lines used to supply fresh water could be used in case of a fire.
CONSULS: Consuls from foreign countries in Manila.
REPAIRS: No repair facilities.
DRY DOCKS: No facilities available.
SURVEYORS: Lloyd's and other classification societies in Manila, none locally.
GANGWAY/DECK WATCHMAN: Watchman can be hired from local Security Agencies of the Port.
HATCHES: Opening/closing of hatches is usually done by stevedores.
CUSTOMS ALLOWANCES: Quantity permitted for each crew member to be held out of bond are the following: Cigarettes – 5 packs. Liquor – 1 bottle.
CARGO GEAR: Loading/unloading is effected by ship's gear.

A 20 ton crane and 2 forklifts (10 tons and 16 tons) are available for renting.
REPATRIATION: No facilities.
AIRPORT: The airport is about 2 miles from the pier with a schedule of 2 flights from Manila and back daily.
HOLIDAYS: The following are the Philippine National Holidays: January 1st – (New Year's day), Maundy Thursday, Good Friday, April 9th – (Bataan Day), May 1st – (Labour Day), June 12th – (Independence Day), July 4th – (Fil-Am Friendship Day), November 1st – (All Saint's Day), November 30th – (National Heroes Day), December 25th – (Christmas Day). Cargo handling operations may be arranged on these days at overtime rates.
POLICE/AMBULANCE/FIRE: Puerto Princesa City has all these facilities. There is a provincial hospital in Puerto Princesa. Private practising physicians and drugstores are available.
TELEPHONES: Pilipino Telephone (Piltel) services the City throughout 24 hours with a long distance call between the Port and Manila anytime of the day. Telephone connections for vessels alongside the quay can be arranged with the Telephone Company.
SERVICES: Mooring/unmooring, laundry, supply of ice.
BANKS: Philippine National Bank. Tel: (48) 4332341, 4332321, 4332521.
Land Bank of the Philippines. Tel: (48) 4332820, 4332823.
Bank of the Philippine Islands. Tel: (48) 4332083.
Far East Bank and Trust Co. Tel: (48) 4332875, 4332786.
Metrobank. Tel: (48) 4332238, 4332779.
Rizal Commercial Banking Corp.
Philippine Commercial and Industrial Bank. Tel: (48) 4332491, 4332679, 4332713.
Development Bank of the Philippines. Tel: (48) 4332538, 4332358.
Palawan Development Bank. Tel: (48) 4332489, 4332589.
UCPB Rural Bank. Tel: (48) 4332066.
UCPB Savings Bank. Tel: (48) 4332811.
Rural Bank of Coron. Tel: (48) 4332608.
STORING: See "Prelims".
(1) Truck Only.
(2) N.A.
(3) Trucks may proceed alongside.
(4) Yes.
(5) Regulations not applicable.
(6) Riggers available.
SHORE LEAVE: Crew members are allowed ashore provided they always carry with them their Seaman's Book or Passport.
IDENTIFICATION CARDS: Seaman's Book is sufficient for crews to identify them when ashore.
GARBAGE DISPOSAL: Garbage collection is performed by the City Engineering Office. Garbage at the port is collected every day.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Philippines Pesos (P). U.S.$ 1.00 = P26.16 (3.96).
DELAYS: Due to lack of some Port facilities, delay in berthing, loading, discharging and bunkering is sometimes experienced.
DEVELOPMENTS: A proposed 150 m. R.C. wharf extension on the Northern end and reclamation at the Northern foot of the approach, construction of transit sheds, fence, office, road networks, etc.
AUTHORITY: Philippine Ports Authority, PMO Puerto Princesa, Port Area, Poblacion, Puerto Princesa City 5300, Palawan, Philippines. *Tel:* (48) 4332351, 4332716. *FAX:* (48) 4332716. *Contact:* Buenaventura O. Robles, Port Manager. George A. Alfonso, Harbour Operations Officer.

PULUPANDAN, Negros: 10.30 N. 122.46 E. **(See Plan)**

See "General" before first port.

PORT LIMITS: The Pulupandan Pilotage District embraces the waters from the approach of the North and South Channel to Pulupandan Government Wharf including Philippine Bulk Corporation Wharf and also Banago Wharf and approaches. (Please take note that this definition of port limits is for the coverage of Pulupandan Pilotage District).

The seaward boundaries of the port within which a vessel is considered to be an *arrived ship* is bounded from the South Buoy at Lat. 10° 27' N., Long. 122° 46' E. and the North Buoy Lat. 10° 33' N., Long. 122° 46' E.

The "Notice of Readiness" is presented after quarantine and port formalities are completed after which acceptance laytime commences. Any deviation from this is subject to charter-party terms.

DOCUMENTS: The Master of the vessel should prepare the following documents in order to ensure a speedy clearance:

Clearance of a Vessel to a Foreign Port.
Oath on Entering Vessel to a Foreign Port.
Master's Oath.
Crew Lists.
Passengers Manifests (Disembarking and Embarking).
Cargo Manifests (Inward and Outward).
Advance Notice for ETA (Telegram).
Application for Berth.
Vessel's Information Sheet.
Identification Permit to PHILSUCOM (in case of exporting molasses and sugar).
Authority to Load (Telegram).
Guarantee Payment for Wharfage.
Charter Contract (Agreement of shipper and shipping company as to the activity of operations).

PILOTAGE: With the vessel's ETA, the Pilot can only presume that the incoming vessel is entering the port because most vessels usually wait beyond the harbour limits approximately 7 miles to 11 miles from the port. This is due to the restriction in the P.C. & G.S. Chart 4416 which is marked by red lines indicating "Anchorage Prohibited".

The area of "Anchorage Prohibited" is enclosed by the square red line bounded by Lat. 10° 30' N. to the North side and Lat. 10° 23' N. on the South side and Long. 122° 40' E. to the West side and Long. 122° 50' E. to the East side.

If a vessel anchors 10 miles from the pilot boat station, only the silhouette of the vessel can be seen so there is no guarantee that it is really the expected vessel. In this connection, the Agent makes assurances to the Pilot that it is the vessel expected in order for the Pilot to meet the vessel.

The telegraphic address is "Pulupandan Pilots", Pulupandan, Negros Occidental, Philippines. The required advance notice of ETA must be 48 hours before arrival. A follow-up notice of ETA must be sent 24 hours before arrival and if necessary an amendment of ETA if the vessel is further delayed. VHF is not available in the port of Pulupandan.

The pilot boat is 45 ft. in length with a wooden hull and superstructure painted white. The name "Pilot No. 3" painted in black on a white background is located at the upper portion port and starboard side.

At night time, a white light over the red light can be seen aside from the regular side lights. Sound signals requiring a Pilot are 2 long and 1 short blast on whistle and/or a display of pilot flag "H" during daytime.

ANCHORAGES: Though the Pilot boarding point is within the enclosed area of "Prohibited Anchorage", the vessel can drop anchor at this point and wait for the Pilot, depth 9 fathoms. Another anchorage area recommended for awaiting a Pilot is at Lat. 10° 33' N., Long. 122° 46' E. This point has a depth of 39 ft. Two miles North or West of this point is a good anchorage area, the depth ranging from 6 to 7 fathoms with a good holding ground.

The pilot boat is always stationed at the South end of the government pier South of Pandan Pt., for the look-out of incoming vessels. As soon as the expected vessel is sighted, the Pilot proceeds to the pilot boarding point Lat. 10° 27' N., Long. 122° 46' E. about 5 miles from the station. If the vessel cannot proceed to the boarding point, the Pilot will meet her beyond this point.

The specific requirement in boarding is a strong and well balanced Jacob's ladder to be placed on the leeward side of the vessel. A manrope is a necessity.

RESTRICTIONS: Entry to this port has no restrictions except in the case of bad weather when the pilot boat cannot proceed to meet the vessel. Since the loading point of a foreign vessel is mostly at Philippine Bulk Corporation Wharf, the docking and/or undocking is scheduled according to tide and current.

MAX. SIZE: The max. permissible length of a vessel handled at this port area particularly docking at PBC Wharf is 186 m. to 200 m. The controlling draft forward is 26 ft. and 30 ft. aft and after dredging a controlling draft of probably 30 ft. Vessels of this length are usually docked from slack to flooding and undocked from slack to ebbing.

HEALTH: Pratique procedure is a requirement for vessels calling at the port. The shipping Agent arranges Pratique procedure with the Department of Health, Department of Animal Industry and Department of Plant Industry. If there is a disease on board, the doctor of the Department of Health and the Plant and Animal Quarantine Officers will take the necessary action in curing the disease and preventing the spread of an epidemic.

RADIO: There is no radio facility available in this port.

VHF: VHF radio facility is not available at this port, hence, there is no communication with vessels approaching the port and also when manoeuvring within the port area.

RADAR: Radar facility is not available.

TUGS: There is no tugboat available at this port that can be readily used in case necessity demands. The Pilot usually requests the Agent and/or Master to hire a tugboat for docking and/or undocking. In most cases, tugs cannot be taken from Iloilo or Cebu. If ever, tugs can be hired from Cebu, the vessel having to wait for 3 days to 5 days.

In this regard, the Pilot will dock the vessel without tug assistance as requested by the Agent and/or Master in order not to delay the vessel. The Pilot encounters difficulties and risks in this situation but the Agent gives to the Pilot an additional bonus for his efforts.

BERTHING: The berth length of the Government Pier is 424 m., providing 241 m. as berthing space for secondary vessels and 183 m. for primary vessels. Secondary vessels usually handle molasses, sugar, lumber and fertilisers. Primary vessels handle as much as twenty-five commodities. Of these commodities, consumer goods, general cargo, metal and metal products, chemicals, live animals and empty bottles are the most common cargo handled.

CRANES: Cranes for cargo handling are not available.

BULK CARGO FACILITIES: The port area of Pulupandan includes the facilities and equipments of private piers of Philippine Bulk Corporation and Total Bulk Corporation.

The berth at PBC Wharf measures 189 ft. and the quay measures 442.09 ft. Conveyor gantry is the berth equipment used in handling molasses and sugar in bulk for exports. The max. height of the discharging-gear above HW level is 128.4 ft. at the discharging rate of 600 t.p.h. Max. loading depends on the draft of the vessel and max. draft is 22 ft. (salt water).

The quay of TBC measures 19.201 m. It has 1 tanker berth 40 ft. depth at MLLW. It has 5 mooring fender piles spaced at 13 m. with 2 mooring bollards 58 m. from both ends of fender piles. 25 ft. is the max. permitted draft.

Cargoes handled for exports through pipelines are molasses and alcohol. Load/discharge lines for molasses are 10 in. diameter, 8 in. diameter and 6 in. diameter while that of alcohol is 4 in. diameter. Max. loading/discharging rate for molasses is 350 m.t./h. and for alcohol is 70 m.t./h.

SPECIALISED CARGO FACILITIES: LPG and containerised cargo are also handled at the Government Pier but the port does not have facilities specially equipped for handling containers or liquid chemicals.

BRIDGES: There are no bridges in the harbour passage of Pulupandan port.

STEVEDORES: The shipping Agent should arrange with the arrastre/stevedoring office regarding the arrastre/stevedoring service to be rendered to the vessel. This can be facilitated by giving to the arrastre/stevedoring operator the schedule of the vessel's ETA. After the Customs Formalities which vary from 3 hours to 2 days are completed, the Agent should give to the arrastre/stevedoring office Notice of Readiness to discharge/load. When the Notice of Readiness is accepted, the arrastre/stevedoring workers can discharge/load cargoes from/to the vessel. The monthly average cargo tonnage discharged per vessel is 300 tonnes and 95 tonnes for loaded cargo. Cargo loaded and discharged at the government pier is mostly cargo from domestic vessels.

MEDICAL: Hospitals are not available in the port area but government and private hospitals can be easily reached by public vehicle as they are located in Bacolod City, 30 km. from Pulupandan.

A vessel is not allowed to berth and its crew and passengers not allowed to go ashore should there be fever, epidemic or any suspected disease on board. Inspection undertaken by the doctor of the Department of Health and the quarantine officers of the Department of Animal Industry and the Department of Plant Industry, by whom medical attention is given when needed.

TANKERS: See "Bulk Facilities".

DENSITY: Average salinity of water in the port is 1022 – 1023.

FRESH WATER: Water can be supplied by Nepoteco. Water from deep wells is delivered through a trucking service. The rate of delivery is 1 truckload per hour which costs P15.00 per ton.

FUEL: Fuel can be made available to the Master of a foreign vessel by notifying the shipping Agent of its need for fuel. The shipping Agent applies to the Department of Energy in Manila for the supply of fuel to a foreign vessel. If the application is approved, arrangement is made by the shipping Agent with the supplier.

FIRE PRECAUTIONS: Fire extinguishers are required for every office and establishment in the vicinity of the port.

CONSULS: Consuls are not available in the port of Pulupandan.

REPAIRS: There is no dry dock facility in the port.

SURVEYORS: The nearest surveyor is the Del Pan Sugar Surveyors in Bacolod City.

GANGWAY/DECK WATCHMEN: The need for the service of watchmen depends upon the discretion of the Master of the vessel. The cost of their service is P4.50 per hour for the Port District of Iloilo of which the Sub-port of Pulupandan is included.

HATCHES: Opening and closing of hatches carried out by both the crew and the stevedores.

CUSTOMS ALLOWANCES: The quantity of tobacco, wine and spirits allowed for each crew member to be held out of Bond must not be more than for personal consumption.

CARGO GEAR: The loading/discharge of cargo to/from the vessel is effected by the ship's gear.

REPATRIATION: There is no repatriation office in the port.

AIRPORT: The Airport is located in Bacolod City which is 30 km. from Pulupandan. Average number of flights is from 6 to 7 per day to different cities in the Philippines (Manila, Cebu, Iloilo and Davao).

All international flights commence at Manila International Airport.

HOLIDAYS: The following are National Holidays which are also observed in Pulupandan.

January 1st (New Year's Day), Holy Thursday and Good Friday (these religious holidays have no specific dates but often fall in March or April), May 1st (Labour Day), June 12th (Independence Day), July 4th (Fil-American Friendship Day), September 21st (Declaration of Martial Law), November 30th (Bonifacio Day), December 25th (Christmas Day, religious holiday), December 30th (Risal Day).

Official holidays of legal nature are usually working days for the port users due to the nature of work, while holidays of religious nature are often non-working days even for the port users.

POLICE/AMBULANCE/FIRE: The following are the telephone numbers of fire and police departments and government hospital where an ambulance can be made available.

Fire Department: San Juan 066, 2-31-91; Rodriquez Ave. 065; Lopez Jaena 064.

Police Department: 067; 062; 069.

Ambulance: 068; 2-30-96.

These departments are located in Bacolod City. There is a police department in this town but it does not have telephone facilities.

TELEPHONES: There is no telephone facility at this port.

SERVICES: Special services for tank-cleaning equipment, facilities for discharge of tank-washings, compass adjusting, etc., are not available in this port.

SHORE LEAVE: Crew members are allowed to go ashore.

IDENTIFICATION CARDS: Identification cards are not required as shore passes.

REGULATIONS: Refer to PPA Port Rules and Regulations.

DELAYS: Delay in berthing is due to the draft limitation of the port and the position of the port in case of bad weather.

DEVELOPMENTS: Extensive repair, complete rehabilitation of Northern portion of the pier and demolition of rock filled jetty.

AUTHORITY: Philippine Ports Authority, Sub-port of Pulupandan, Port District of Iloilo. *Tel:* 7-69-45.

RIO TUBA, Palawan: 08.30 N. 117.26 E.

SHIPMASTER'S REPORT: February 1989 (Updated 1996).

VESSEL:	(1989)	(1995)
D.W.T.	23,800 tons	45,232 tons
G.R.T.	13,250 tons	25,027 tons
Duration of Stay	26 days	7 days

DOCUMENTS: See "General" before first port.

Officials come from Puerto Princesa.

Immigration require a visaed Crew List.

APPROACHES: There are 2 leading lights (Red) on approximate bearing of 301° from Sea Buoy in approximate position, Lat. 08° 25.2' N., Long. 117° 31.5' E.

PILOTAGE: Compulsory. Pilot comes from Puerto Princesa. It takes about 10 hours by public bus, 6 hours by taxi and 1 hour by private airplane. For this reason, the Master should send ETA at least 24 hours before arrival and much better to adjust speed to time according to ETA cabled.

Pilot Boat: Pilot comes by canoe. Pilot uses ship's accommodation ladder to come on board, not pilot ladder.

VHF: Not available.

Pilot Station: Approximately 0.5 miles off from Sea Buoy.

ANCHORAGES: Vessels always anchor in approximate position, Lat. 08° 28' N., Long. 117° 26' E. (1.1 miles off from the first leading light). Depth is approximately 18 m.

MAX. SIZE: Largest vessel: In 1994 M.V. "Azusa", 26,057 g.r.t., 45,210 d.w.t., LOA 225 m. Cargo 43,244 tonnes.

HEALTH: Free Pratique is granted after inspection of Vaccination Cards.

VHF: No facilities.

BERTHING: No facilities.

LOADING: By ship's cranes and grab buckets from barges.

Loading Rate: Depends on condition of ship's gears. If equipped with 3 cranes/grab buckets (6.5 cu.m.), it is possible to load approximately 5,300 tonnes per day.

Cargo: Beneficiated Nickel Silicate Ore in bulk.

Shipper: Rio Tuba Nickel Mining Corporation.

STEVEDORES: 24 hours per day. No holidays.

MEDICAL: Mining company hospital nearby.

FRESH WATER: Not available.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Not required as loading carried out at anchorage and stevedores are Mining Company Personnel. It is necessary to lock all cabins and stores for safety.

REPAIRS: No facilities available.

TIME: GMT plus 8 hours.

TELEPHONE: No international facilities on shore.

GENERAL: *Chart:* Not available.

Notary Public: Not available.

AGENCY: No Agents in Rio Tuba. The Agent comes from Manila. Agent and other officials always stay on board until loading completed.

Sub-Agent is PCBSI (Prudential Customs Brokerage Services Inc.), also the authorised cargo handling operator at this private port.

AUTHORITY: Philippines Ports Authority (PPA), Port Area, Poblacion, Puerto Princesa City, Zip Code No. 5300, Palawan, Philippines. *Tel:* 433-2716, 433-2351. *FAX:* 433-2716. *Contact:* Buenaventura O. Robles, Port Manager. George A. Alfonso, PMO – Harbour Operations Officer.

SAN FERNANDO, Luzon: 16.37 N. 120.18 E.

(See Plan)

See "General" before first port.

DOCUMENTS:

Vessel's Particulars.
Inward/Outward Foreign Manifest, 3 copies each for P.P.A.
Bill of lading (1 copy).
Crew List.
Passenger List.
Customs Documents.
Health Documents
Ship's Repairs List.
Ship's Certificates.

APPROACHES: Vessels enter the harbour through a channel marked by 2 buoys and 2 range lights 144.5° (fixed green and red light flashing every 3 seconds.).

PILOTAGE: Pilotage is compulsory. Vessel is met at mouth of harbour by pilot boat that flies a red flag with letter "P" in white. Pilot then brings the vessel to Quarantine Anchorage. Conventional signals are used to call Pilots.

Harbour Pilot Boarding Station: Lat. 16° 38.6' N., Long. 120° 17.6' W.

ANCHORAGE: Located at centre of the bay with 8 fathoms to 9 fathoms and good holding ground. In the event of rough weather or strong monsoon wind, vessels in the harbour are brought here for safety.

MAX. SIZE: Size of vessels that could be serviced is controlled by depth along quay:

Pier	*Depth Pier Head* (ft.)	*Depth Shore End* (ft.)	*Length* (ft.)	*Width* (ft.)
Philex Conveyor	32	–	656	10
PNOC Coal Conveyor	49	2	460	19
Government Pier (Old)	54	2	656	62
Pier I (New)	50	2	492	69
Pier II (New)	47	2	492	69
Timber Trestle	16	10	95	55
Government Ramp	11	10	187	144

Notes: 1. The old Government Pier is under renovation by Bacnotan Consolidated Industries Inc., and has been leased to BCII for 25 years.
2. Depths are based on MLLW.

HEALTH: Immediately after vessel anchors at Quarantine Anchorage, Quarantine Officers board and clear vessel. Imported grain will be fumigated on board vessel at anchorage.

Boarding Formalities: Members of party are Bureau of Customs Inspector and guards, Immigration and Philippine Coast Guards. Pratique is then issued to indicate vessel as "arrived" and subject to Charter Party terms, laytime will commence.

RADIO: No direct radio communication system with vessels at sea is available in the locality. Ship Masters report ETA to Agent in Manila who relay message to San Fernando by telex or commercial radiogram. The PMO – San Fernando may be reached by Long Distance telephone 41-25-57.

Arrival Advice: 48 hours before ETA, ship Agent files request for berth at PMO office indicating: ETA, draft, LOA and breadth, consignee or shipper, type of cargo and stowage, dangerous cargo (if any). Heavy lifts (if any), number of hatches to be worked, vessel is self sustaining or not.

24 hours before arrival or earlier, upon receipt of Master's advice by telegram, a berthing schedule is issued by the PMO. Copies are furnished to: Pilot, Consignee/Shippers, Arrastre/Stevedoring Contractor and Ship's Agent.

TUGS: 1 tug owned by Philex Mining Corporation, of 1,100 h.p., engine equipped with Kort Nozzle, is available for assisting, docking and undocking and launch service. Tug assistance during docking and undocking at the Philex Pier is compulsory while its use at the Government Piers No. 1 and No. 2 is at the option of the Harbour Pilot. A shipping company may bring in tugboat to assist its own vessel.

Tug lines are available at no extra cost. Conventional signals are used by Pilot and Master of tugboat.

Tug assistance rates: 0800 hrs. to 1700 hrs, regular time – others, overtime.

BERTHING: See "Max. Size"

STEVEDORES: Stevedores, longshoremen, checkers and watch-men for Government Piers No. 1 and 2 are provided by Northern Carriers Corporation.

Stevedores, checkers, etc. are non-union members. Any number of gangs can be ordered on 3 hours' notice. Stevedores work on 3 shifts:

1st Shift – 0000 hrs. to 0800 hrs.
2nd Shift – 0800 hrs. to 1600 hrs.
3rd Shift – 1600 hrs. to 2400 hrs.

Sundays, holidays and nights, stevedores are paid overtime rates. Christmas, New Year's Day, Easter Sunday, Good Friday and Maundy Thursday, stevedores will work on double pay.

TANKERS: The 3 oil terminals maintaining tank farms in the port zone are Petrophil, Caltex and Shell. They operate a common set of pipelines for white and black oil product passing under the old Government Pier. PMO policy is 1 tanker discharging at a time. A "boom" is available at the quay side.

MEDICAL: 3 modern hospitals staffed by trained physicians and specialists and 8 clinics. They are open 24 hours.

FRESH WATER: Fresh water available at old Government Pier via road tanker. Pumping rate: 8 t.p.h – Summertime. 12 t.p.h. – Rainy season.

FUEL: Bunker and others, POL product obtainable and supplied by lorries.

FIRE PRECAUTIONS: The oil terminals in the area maintain chemical fire fighting equipment, a "boom" to contain oil spillage and "light water". Voice of America and the Airport are within a 3 km. radius to the piers and maintain modern fire trucks.

No naked flames and no hot works on board while motor tankers alongside pier.

REPAIRS: Atlantic, Gulf and Pacific Co. of Manila at Batangas operates ship repair facilities.

SURVEYORS: Poro Point Shipping Services of San Fernando are available on request. Surveyors also available from Manilla, 270 km.

GANGWAY/DECK WATCHMEN: Available from Arrastre contractor upon request of Ship's Agent.

OPENING/CLOSING HATCHES: First open and last close normally carried out by crew. Stevedores operate the hatches when it rains.

CARGO GEAR: Arrastre operators maintain complete loading/discharging gear for bulk, general cargo and heavy lifts. Also available are:

11 units – Forklifts, 1 to 8 tons capacity.
2 units – Mobile cranes, 25 tons capacity.

AIRPORT: San Fernando Airport is 3 km. South of Pier. No regular flights.
HOLIDAYS: New Year's Day (January 1st); Holy Thursday, Good Friday; Labour Day (May 1st); Independence Day (June 12th); All Saints Day (November 1st); Bonifacio Day (November 30th); Christmas (December 25th); Rizal Day (December 30th).
POLICE/AMBULANCE/FIRE: Police, Tel: 41-25-77. Hospital, Tel: 41-28-44, 41-23-55, 41-26-16; Fire Department, Tel: 41-24-88; Philippines National Police, Tel: 41-25-28.
TELEPHONES: Vessels docked at the port zone may request telephone connection from PLDT at PPA-PMO San Fernando Office.
SHIP SUPPLY SERVICE: The following authorised ship supply service operators with addresses in this port are:

1. A. Neral Chandling and Laundry Services, 32 Mabini Street, San Fernando, La Union, c/o Mrs. A. Neral (privately owned).
2. La Union Chandling and Laundry Service, Catbangen, San Fernando, La Union, c/o Mrs. Caridad Tabisola (privately owned).
3. Bureau of Quarantine, PPA Compound, San Fernando, La Union, (launch services – government owned).
4. Philex Mining Corporation, Poro, San Fernando, La Union, (launch services – privately owned).
5. Poro Point Shipping Services, PPA Compound, Poro, San Fernando, La Union (Shipping agency, chandling, cargo checking and other related port services).

SHORE LEAVE: Crew members are allowed to go ashore without special permission.
IDENTIFICATION CARDS: For control of persons inside the port zone and for security, I.D. should be available when requested by guards.
GARBAGE DISPOSAL: The Municipal Goverment of San Fernando through the Municipal Administrator can be requested in writing to provide this service. The garbage should be put in plastic bags or covered cartons, but never in drums. Tel: 41-26-01.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: There are several night clubs/bars/night spots operating in the vicinity of the port but no official Seaman's Club.
CURRENCY: Philippines Pesos (P).
GENERAL: *Discharge of Ballast:* No dirty ballast may be dumped into the territorial waters of the Republic of the Philippines.
Rat Guards: Rat guards shall be placed on all mooring lines to the pier.
Accessibility: Port is accessible by road and air transportation.
Provisions: Fresh vegetables can be supplied directly from the vegetable capital of the Philippines (Baguio City).
Rest, Recreation: Beach resorts with miles of clean beach just minutes away by car. First class hotels with swimming pools, air conditioned rooms. Baguio City, Summer Capital of the Philippines is 70 km. East and 5,500 ft. above sea level. A golf course at Camp John Hay, the R & R centre of U.S. Servicemen, can be used by civilians.
Other Ports: PMO San Fernando has administrative jurisdiction over Currimao Port, Ilocos Norte; Salomague, Cabugao, Ilocos Sur; Sulvec Port, Narvacan, Ilocos Sur; Masinloc Port, Zambales; Acoje Wharf, Sta. Cruz, Zambales, Port of Aparri, Aparri, Cagayan and Port of Irene, Sta. Ana, Cagayan.
AUTHORITY: Philippine Ports Authority, Port Management Office, San Fernando, La Union, Philippines. *Tel:* 41-25-57. *FAX:* 41-25-57. *Contact:* Adolfo LL. Amor Jr., Port Manager.

SANGI, Cebu Island: 10.23 N. 123.39 E. (See Plan)

MAX. SIZE: 50,000 d.w.t.
TUGS: 1 small tug (15.53 g.r.t.) owned and operated by ACMDC.
BERTHING:

Pier No.	*Length (m.)*	*Depth At LW (m.)*	*Remarks*
AFC No.1	98.0	5.0	Load/Unload General and Bulk. Max. load on wharf 90 tons.
ACMDC No.2	7.85	7.75	Loading conveyor for concentrates. Max. load on wharf 20 tons.
ACMDC No.3	80.0	16.0	Ship unloader and conveyor system. Max. Load on wharf 250 tons.

CRANES: ACMDC own a truck mounted crane with lifting capacity 20-25 tons. Crane available for renting.
SPECIALISED CARGO HANDLING FACILITIES: Liquid cargoes may be loaded/unloaded by pipeline at No.1 Pier and unloaded by pipeline at No. 3 Pier.
STEVEDORES: Advise before 0700 hrs. in order to commence operations at 0800 hrs. or 1500 hrs. same day.
MEDICAL: ACMDC operate a private hospital and priority given to employees. Hospitals and facilities available in Cebu City, distance 60 km.
DENSITY: 1023.
FRESH WATER: Available. Requests should be made to Agent or Supercargo.
FUEL: Available. Delivery by tank truck, which is to be ordered through Agent.
FIRE PRECAUTIONS: No smoking on piers or on vessels.
CONSULS: None.
REPAIRS: Most deck and engine repairs can be carried out.
DRY DOCKS: None.
SURVEYORS: Available from Cebu City.
GANGWAY/DECK WATCHMEN: Usually ship's gangway used. Deck watchmen are available through Agent.
HATCHES: Normally by crew, occasionally stevedores will open and close hatches.
CUSTOMS ALLOWANCES: See "Cebu".
CARGO GEAR: In the case of coal and concentrates discharge is effected by shore gear (ship unloader) and conveyor for loading. General cargo loaded and unloaded by ship's gear.
AIRPORT: No local airport.
HOLIDAYS: New Years Day, Holy Thursday, Good Friday, Labour Day, Valour Day, Independence Day, Fil-American Friendship Day, National Heroes Day, Bonifacio Day, Christmas Day.
POLICE/AMBULANCE/FIRE: Using AFC telephone.
Toledo Fire Department Tel: 70.
Police department do not have a telephone. They are located along the shore.
Government ambulance can be contacted personally as they are located along the shore.
TELEPHONES: International telephone service available 1.5 km. from pier, at TMSI.
EMERGENCY CO-ORDINATION CENTRE: Coast Guard station along the shore but no telephone.
SERVICES: Available through Agent.
BANKS: Philippine National Bank and Rural Bank in Toledo City.
SHORE LEAVE: No restrictions.
IDENTIFICATION: Required.
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Philippines Peso.
DELAYS: None
DEVELOPMENTS: None.

SHIPMASTER'S REPORT: September 1991.
Location: The port of Sangi is located in the Western part of the island of Cebu in position Lat. 10° 22.07' N., Long. 123° 38.2' E.
On British Admiralty Charts it is either not indicated or is indicated incorrectly. It is located on the chart in the position of the town of Toledo and in many Philippine documents it is shown as Sangi-Toledo.
Documents:
7 copies Crew List (IMO forms).
3 copies Crew List (Philippine forms).
5 copies Arms and Ammunition List.
7 copies Bonded Stores List.
7 copies Stores List.
5 copies Ports of Call List and Intended Ports of Call.
1 copy Philippine General Declaration.
1 copy Maritime Declaration of Health.
Clearance from last port.
Manifest and Bills of Lading.
7 copies No Narcotics, No Animals, No Money, No Parcels and No Passengers if there are none on board.
Clearance is effected on board the ship when secured alongside.
Approaches: Several tall chimneys and prominent buildings can be seen on the approach to the port. We encountered many piroques and catamarans on our approach and this hindered our progress considerably.
Radio: ETA is required by VHF Channel 16, 4 hours prior to arrival.
Berthing: We berthed at the Cement Quay (See "Plan") which has very good cargo handling facilities and is called Berth No. 3. Depth of water alongside the berth is 50 ft. – 60 ft.
Cargo Operations: Work is carried out in 3 shifts throughout 24 hours. Loading and unloading of coal is by crane at Berth No. 3, coal being discharged on to a conveyor system.
Fresh Water: Fresh water is not available locally but is available from Cebu by barge, which is on the other side of the island so it is very expensive. Alternatively fresh water is available by trucks with 10 tons capacity. The quality of water varies greatly and may only be fit for washing.
Officials: At the request of the Port Authority we were expected to feed between 8 – 10 men, which was made up of Customs, Agent, Clerks and Police. On most occasions 6 persons were being fed.
With regard to carrying out formalities, the Port Authorities were very correct and friendly. The customs officers maintained a presence on board at all times as did the armed guards who were posted aboard to handle any serious attack upon the vessel.

AUTHORITY: Philippines Ports Authority.
Operator: Atlas Consolidated Mining & Development Corporation, ACMDC Minesite, Don Andres Soriano, Toledo City, Cebu, Philippines (P.O.Box 7066, Manila International Airport, Manila, Philippines). *Tel:* 819-0251/90. *Telex:* (ITT) 7425014; (RCA) 7222170; (Eastern) 3539; (ITT) 45642. *FAX:* 815-3089. *Contact:* Fernando S. Verde, Vice President – Production (Cebu Copper Operations).

SUBIC BAY (Olongapo), Luzon: 14.49 N. 120.18 E.

(See Plan)

(A) GENERAL CARGO FACILITIES
(B) TANKER TERMINAL

(A) GENERAL CARGO FACILITIES

DOCUMENTS: The Subic Bay Metropolitan Authority (SBMA) requires the following documents 48 hours prior to a vessel's arrival:

Ship/Vessel Registry.
International Load Line Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Radio Telegraphy Certificate.
P&I Coverage Certificate.
Marpol/IOPP Certificate.*

* For tankers only.

Owners and/or Masters should fax the above documents to Agent in Manila, minimum 48 hours prior to a vessel's arrival at Subic Bay.

BERTHING:

Piers in the Subic Bay Area:

1.	Alava Pier	– (Waterfront)
2.	Bravo Pier	– (SRF)
3.	Rivera Point	– (SRF)
4.	Sattler Pier	– (NSD)
5.	Marine Terminal	– (NSD)
6.	POL Pier	– (NSD) – Also see Section (B)
7.	Boton Pier	– (Cubi)
8.	Leyte Pier	– (Cubi)
9.	Nabasab Pier	– (Navmag)
10.	Kamayan Pier	– (navmag)

The main commercial port will be at the Sattler Pier and the Marine Terminal Pier located at the former NSD.

The other piers in the area will complement and support the main commercial port.

SBMA Container Port: Container Pier (Sattler):
Length 600 ft. Width 80 ft. Draft 42 ft.
20 moves per hour. 40 tons maximum per lift.

Covered Pier (Marine Terminal):
Length 750 ft. Draft 46 ft.
90,000 sq.ft. (L-600 ft. × W-150 ft.) Transit shed.
Capacity: 4 cargo ships at one time.

Freight Workload:
2,300 container lifts per months.
1,300 container (loaded) vans per month.
8 ships per month – 12 hrs. load time per ship.

Note: The Port Authority have several portal cranes at the Alava and Bravo Piers which could load/unload cargoes, but land vehicles are needed to transfer the cargoes to/from the container port.

Container Marshalling Yard:
Length 900 ft. Width 250 ft. = 225,000 sq.ft. or 20,903 sq.m.

Storage Compound: 99 acres.

	700,000 sq.ft. covered storage area.
Building 1026	132,000 sq.ft.
Building 1022	135,000 sq.ft.
Building 1027	152,000 sq.ft.
Building 1012	32,000 sq.ft. – freeze warehouse.
Building 1035	26,000 sq.ft. – transhed.

1 million sq.ft. of open storage also available.

REPAIRS: Dry dock and ship repair yard available, operated by Subic Shipyard and Engineering Inc.

AUTHORITY: Subic Bay Metropolitan Authority, Building 229, Waterfront Road, Subic Bay Freeport, 2200 Philippines. *Tel:* (047) 222-5456. *FAX:* (047) 222-5278.

AGENT: See "Manila".

(B) TANKER TERMINAL

LOCATION: Coastal's Subic Bay Terminal is located in the Subic Bay Freeport Zone on the S.E. shore of Subic Bay at Lat. 14° 48' 38" N., Long. 120° 17' 37" E. Coastal is the only operator of the Petroleum, Oil and Lubricants (POL) Pier, and the Subic Bay Metropolitan Authority (SBMA) is the operator of the Subic Bay Port.

DOCUMENTS: See "Section A".

PILOTAGE: Pilotage is provided by Coastal, and is compulsory for all vessels when entering and leaving Coastal's Subic Bay Terminal or anchoring in the Subic Bay en-route to Coastal's Subic Bay Terminal, except for small launches and other craft regularly utilising Coastal's Terminal, or if waived by the Terminal Manager.

Masters of ships anchoring or leaving the Subic Bay Anchorage may do so without the assistance of a pilot, but those unfamiliar with the anchorage are strongly advised to use the services of a pilot before anchoring. Coastal does not provide a pilot for anchoring at the Subic Bay Anchorage.

Masters must sign the pilot's Indemnity Certificate before pilotage commences. Ships using Coastal's Subic Bay Terminal are liable for any damage caused by the ship to any of Coastal's property or to any other vessel lying therein, whether or not a Coastal pilot is assisting at the time.

Pilot Boarding and Landing Offshore: All pilots shall be boarded or landed from a ship not located alongside a berth by means of a pilot ladder when the freeboard does not exceed 30 ft., or a combination of accommodation ladder and pilot ladder when the freeboard exceeds 30 ft. All pilot ladders shall conform to the requirements of SOLAS 1974 Chapter V, Regulation 17. A pilot may refuse to board a ship if the means of access does not conform to the above. If the pilot agrees, a pilot hoist may be used in lieu of an accommodation ladder and pilot ladder, but a standard pilot ladder shall be immediately available in the event of a failure of the pilot hoist. As it is essential that ship's engines be stopped whilst the pilot is transferring between pilot boat and ship, the ships' Masters should not approach the coast too closely for boarding the pilot. As a general rule, pilot should board about 1.0 – 2.0 miles off the Coastal Subic Bay POL Pier.

ANCHORAGE: If, for any reason, a ship is required to anchor prior to or after berthing at Coastal, the anchorage must be coordinated with the SBMA Port Authority.

Use of Anchors: If an anchor is used during the berthing manoeuvre, it shall be hove home on completion of the mooring. No ship may lie alongside a berth with an anchor on the bottom. Loaded ships should not drop an anchor near the POL Pier berths as bottom clearance is limited with the danger of running over the anchor which could pierce the hull.

RESTRICTIONS: *Depths/Clearance:*

Minimum depth of water in approaches	60 ft.
Under Keel Clearance in approaches	20 ft.
Minimum water depth alongside	41 ft.
Under Keel Clearance alongside	4 ft.

Loaded and Ballast Draft Requirements: Each of the berths at the Coastal Subic Bay POL Pier is dredged and the maximum allowable draft will be advised by the pilot. It shall be recognised that loaded ships may be draft restricted at the next scheduled port after Subic Bay.

For safe handling of tankers at all the Coastal Subic Bay POL Pier berths, the following minimum drafts are recommended:

D.W.T.	*Draft Forward*	*Draft Aft*
5,000 – 10,000	6 ft.	14 ft.
10,000 – 20,000	8 ft.	18 ft.
20,000 – 30,000	10 ft.	20 ft.
30,000 – 40,000	14 ft.	22 ft.
40,000 – 50,000	14 ft.	24 ft.
50,000 – 90,000	16 ft.	26 ft.
90,000 and over	18 ft.	28 ft.

Note that ships arriving or sailing with part cargo only are also recommended to conform to the above minimum draft and maximum of 10 ft. trim by the stern. In special circumstances and in very good weather conditions, it may be possible to safely handle ships with less draft and/or a different trim than those recommended above. In these cases, Masters should consult with the duty Dispatcher and Pilot.

Bow to Centre Manifold Restrictions at the Berths: The allowable bow to centre manifold distance at each of the berths is as follows:

Berth	*Maximum BCM*
1 and 2	85 ft.
3 and 4	288 ft.
5 and 6	450 ft.

In common for all berths, the distance from the tanker's most forward underwater point to the centre manifold has to be known accurately by Coastal to insure that there is sufficient length of deep water at the berth forward of the loading arm (hose) positions. All ships using the POL Pier must advise Coastal of their accurately measured horizontal distance from extreme bow (including the bulb bow) to the centre of their manifold connections, so that each ship is allocated a berth with sufficient length of deep water forward of the loading position.

MAX. SIZE: 100,000 d.w.t., maximum LOA 853 ft. and maximum draft 41 ft. Max. displacement 120,000 d.w.t.

RADIO: *ETA Requirements:* All ships shall advise their ETA at Coastal's Subic Bay Terminal 72, 48 and 24 hours in advance of arrival "via Manila Radio", and be able to communicate with "Coastal Subic Bay" on VHF Channels 16, 8 and 79 when within range. See "Pre-Arrival Information" required on cargo, bunker and ballast operations.

If a ship has received damage and/or is leaking oil, this must be advised in the ETA advice, so that the ship can be inspected by Coastal personnel before entering the port.

Pre-Arrival Information: All ships scheduled to load or discharge at Coastal's Subic Bay Terminal should, at least 48 hours prior to arrival, radio the following information to Coastal via Manila Radio (attention Operations Supervisor). If passage from last port is less than 24 hours, this information should be transmitted to Coastal on VHF as soon as in range.

(a) Clean Ships to Load Clean Products:

AA	Cargo Nomination (grades, volumes at 60°F).
BB	Proposed cargo layout.
CC	Last 3 cargoes carried in each tank.
DD	Cleaning done (hot wash, cold wash, descaling, draining, mopping) since last grade and between previous 2 grades.
EE	Condition of coating, if any.
FF	If gas-free, tanks of ships scheduled to load Kerosene and Turbo Fuel *must*, unless those tanks last cargo was also Kerosene or Turbo Fuel and have not carried ballast, be gas-free for entry and tanks scheduled to load Gas Oil or Heating Oil *must* be gas-free to below 40° of LEL (LFL) – Lower Explosive Limit (Lower Flammable Limit).
GG	Number of ballast tanks in which ballast will be carried on arrival.
HH	Estimated time to deballast and prepare ballast tanks ready for loading.
II	Any slops on board, if so, quality and quantity.
JJ	Any transit cargo on board, grade, volume, tank numbers.
KK	Preferred sequence of loading, grades which can be loaded simultaneously.
LL	Number of manifold connections (from forward) to be used for each grade (8 in.)
MM	Maximum loading rate.
NN	Maximum sailing draft.

(b) *Clean Ships to Discharge Clean Products:*
AA Bill of Lading quantity, gravity, temperature of each grade to be discharged.
BB Any discrepancy in Bill of Lading and ship's figures at loading port.
CC Quantity and grade of any transit cargo on board.
DD Number of ship's pumps available and estimated discharge time.
EE Number of manifold connections required (8 in.).
FF Estimated ballast time required at completion of discharge.

(c) *Dirty Ships to Load Dirty Products:*
AA Cargo nominations (grades, volumes at 60°F).
BB Last cargo carried, if crude oil what grade (source of origin) and what cleaning done.
CC Grade and quantity of any transit cargo on board.
DD Quantity of dirty ballast to pump ashore * and estimated time to deballast.
EE Quantity of slops to pump ashore *.
FF If more than one grade to be loaded, can grades be loaded simultaneously, if not, why not and preferred loading sequence of loading.
GG Maximum loading rate.
HH Maximum sailing draft.
* Note: The deballasting and slops system can handle only low Mercaptan sulphur slops. If previous cargo was "sour", it may not be possible to discharge slops at the Terminal.

(d) *Dirty Ships to Discharge Dirty Products:*
AA Bill of Lading quantity, gravity, temperature of each grade to be discharged.
BB Any discrepancy in Bill of Lading and ship's figures at loading port.
CC Grade and quantity of any transit cargo on board.
DD Number of ship's pumps available and estimated discharge time.
EE Quantity of ballast which can be loaded simultaneously with discharge, if agreed by Coastal.
FF Estimated residual ballasting time required.

(e) *Crude/Dirty Ships to Load Crude Oil:*
AA Cargo nomination (grades, volumes at 60°F).
BB Last cargo carried, if crude oil what grade of crude (source of origin).
CC Quantity and grade of any transit cargo on board.
DD Quantity of dirty ballast to pump ashore, estimated time to deballast.
EE Quantity and type of slops on board, to "Load-on-Top", segregate on board or pump ashore.
FF If more than one grade to be loaded, preferred sequence of loading.
GG Maximum loading rate.
HH Maximum sailing draft.

(f) *Crude Ships to Discharge Crude Oil:*
AA Bill of Lading quantity, gravity, temperature of each grade to be discharged.
BB Any discrepancy in Bill of Lading and ship's figures at loading port.
CC Grade and quantity of any transit cargo on board.
DD Number of pumps available for discharge, estimated time of discharge.
EE Does ship require crude washing of tanks during discharge, if so, reply to Crude Wash Check List.
FF Quantity of ballast which can be loaded simultaneously with discharge, if agreed by Coastal.

(g) *Speciality Ships:*
(1) Ships to Discharge Butane or Propane:
AA Bill of Lading quantity, quality and temperature of gas.
BB Any discrepancy between Bill of Lading and ship's figures at loading port.
CC If temperature of gas is much below ambient, what is the maximum temperature gas can be raised to on discharge (minimum discharge temperature acceptable is 60°F).
DD What is the minimum discharge pressure (maximum at manifold is 175 p.s.i. for Butane and 225 p.s.i. for Propane). Note: The terminal does not have a return line.
EE What is the estimated discharge time.
FF What is the size of the ship's manifold connection.
(2) Acid Ships to Discharge:
AA Bill of Lading quantity, quality and temperature of acid.
BB Any discrepancy between Bill of Lading and ship's figures at loading port.
CC Size of ship's manifold connection.
DD Does ship have acid hoses on board, if so what number and size.
EE Maximum discharge rate at 100 p.s.i. at manifold.
(3) Ships to Load Acid:
AA Nominated quantity.
BB Last 3 cargoes carried in nominated ship's tanks with cleaning done since each was discharged.
CC Type of coating in ship's tanks to be loaded and its condition.
DD Are heating coils in tanks to be loaded completely disconnected and blanked off?
EE Is loading system from ship's manifold to tank(s) completely segregated from all other systems?
FF What grades are loaded or to be loaded in tanks adjacent to the tank(s) to be loaded with this acid? Do any of these tanks require heating?
GG What size is ship's manifold connection.
(4) Ships to Discharge Strong or Spent Caustic:
AA Bill of Lading quantity, quality and temperature of cargo.
BB Any discrepancy between Bill of Lading and ship's figures at loading port.
CC Quantity and grade of transit cargo on board.
DD Size of ship's manifold connection.
EE Estimated time required for discharge (maximum pressure at manifold – 100 p.s.i.).

TUGS: Tugs are provided by Coastal and their use is compulsory. Towlines are provided by the tugs. Masters must sign the tugs' Indemnity Certificate presented by the pilot on boarding before tugs are made fast. The ship is liable for any damage to or caused by the tugs whilst assisting.

Communications between ship and tugs during manoeuvring are normally carried out on VHF Channel 8, the English language shall be used.

In case of a loss of VHF contact, the following signals shall be made on the ship's whistle or siren:

Forward Tugs (alongside or on hook):
1 short blast – ship's head to starboard.
Tug alongside port side – push.
Tug alongside starboard side – pull on beam.
Tug on hook – pull starboard bow.
2 short blasts – ship's head to port.
Tug alongside port side – pull on beam.
Tug alongside starboard side – push.
Tug on hook – pull port bow.
5 or more short blasts – stop.

After Tugs (alongside, tractor or on hook):
1 prolonged blast followed by 1 short blast – ship's head to starboard.
Tug alongside port side – pull on beam.
Tug alongside starboard side – push.
Tractor tug – pull on port-quarter (in).
1 prolonged blast followed by 2 short blasts – ship's head to port.
Tug alongside port side — push.
Tug alongside starboard side – pull on them.
Tractor tug – pull on starboard quarter (out).
1 prolonged blast followed by 5 or more short blasts – stop.

All Tugs:
3 short blasts – stop ship.
Tug on hook forward – stop.
Tug alongside – pull back (alongside).
Tractor tug aft – pull right aft.

It is emphasised that whistle signal form of communication between ship and tugs is for emergency use only and that, if possible, manoeuvres should be aborted or suspended until VHF contact is again possible.

TANKERS: POL Pier:

Berth	*Length* (ft.)	*Draft* (ft.)	*Controlling Depth* (ft.)
Southside	844	42	42
Northside	844	39	39

Mooring Operations: Ships berthing at the POL Pier berths shall have an adequate supply of heaving lines available for use. The forward spring lines are usually the first lines ashore.

The use of "rat guards" is mandatory.

All lines must be rope, or if steel, must have at least 150 ft. of rope leader for feeding to the dock line handlers.

Safety of Moorings: All ships must be securely moored to the satisfaction of the pilot. No cargo or bunker arms or hoses will be connected until the ship is securely moored. Moorings on winch drums shall be *securely braked off, self tensioning devices are not allowed.* On split drum winches, the number of layers of wire is taut and the ship in a fully loaded condition. Moorings of a different character (e.g. wire and fibre) shall not be sent out to the same dolphin or set of hooks/bollards. Moorings shall be monitored and kept taut by the ship's crew, and the ship maintained in her correct position and in contact with the berth fendering throughout the loading/discharging/ballasting/deballasting/bunkering operations. The Berth Assistant Operator is fully authorised to stop operations and disconnect cargo/bunker arms and hoses if moorings are seen to require attention, or if the ship is not kept in position and in contact with the fendering, or if the ship violates any other safe mooring practice.

Emergency Towing-off Wires: On completion of mooring, each ship at Coastal's Subic Bay Terminal shall provide towing-off wires, of adequate strength and condition, secured to the offside bow and quarter bollards with the eyes run out and maintained near the water line. The aft emergency towing-off wire shall be led through the central aftermost lead.

LOADING/DISCHARGING: POL Pier – Southside – Dock manifold data:

Number of Connection	*Diameter of Line* (in.)	*Product Handled*	*Maximum Discharge Rate* (bbls/hr.)	*Maximum Load Rate* (bbls/hr.)
4	6	F76	3,500	3,000
4	8	F76	15,000	15,000
		(2)		(Marine loading arm manifold)
2	6	JP5	3,500	3,000
6	8	JP5	9,800	7,800
		(2)		(Marine loading arm manifold)
1	6	JP4	3,500	3,000
2	8	JP4	10,000	7,000
		(2)		(Marine loading arm manifold)
1	6	MJM	3,500	3,000
3	8	MJM	5,500	4,500
		(2)		(Marine loading arm manifold)
2	6	IFO	3,500	N/A
2	8	IFO	4,500	N/A
2	6	SLOP	3,500	N/A
1	8	SLOP	3,500	N/A

POL Pier – Northside – Dock manifold data:

Number of Connection	*Diameter of Line* (in.)	*Product Handled*	*Maximum Discharge Rate* (bbls/hr.)	*Maximum Load Rate* (bbls/hr.)
3	6	F76	3,500	3,000
5	8	F76	15,000	15,000
		(2)		(Marine loading arm manifold)
2	6	JP5	3,500	3,000
6	8	JP5	9,800	7,800
		(2)		(Marine loading arm manifold)
2	6	JP4	3,500	3,500
2	8	JP4	10,000	7,000
		(2)		(Marine loading arm manifold)
1	6	MUR	3,500	3,000
3	8	MUR	5,500	4,500
		(2)		(Marine loading arm manifold)
2	6	IFO	3,500	N/A
2	8	IFO	4,500	N/A
3	6	SLOP	3,500	N/A

Notice of Readiness: Notice of Readiness will be signed for acceptance by the Operations Shift Supervisor after inspection and calculations are completed, and the vessel is in all respects ready to load or discharge.

If it is subsequently found that the ship was not, in all respects ready to load or discharge; in the case of loading, due to excessive deballasting time or unsuitability of tanks which, on inspection, require further cleaning or preparation for the nominated cargo; or in the case of discharging due to unavailability of pumps or inadequate temperature of cargo, a *Notice of Protest* will be delivered to the ship which will automatically cancel Coastal's initial acceptance of the Notice of Readiness. In such cases, the ship must prepare a revised N.O.R., cancelling the first one and stating a time tendered in accordance with its actual readiness.

Classifications of Petroleum: For the purpose of these regulations, the following classifications of petroleum products are established at Coastal's Subic Bay Terminal:

Clean Products:	Gasoline, Kerosene, Turbo Fuels, Gas Oil, Heating Oils, Light Diesel Oils. The ships which carry these products are designated "Clean Ships". Marine Diesel Oil (MDO) may be either a clean or dirty product.
Dirty Products:	All grades of Fuel Oil, Asphalt, Vacuum Gas Oil, Heavy Diesel. The ships which carry these products are designated "Dirty Ships".
Crude Oils:	All grades of crude oil including "Spiked" Crude. "Sour" Crudes are those crudes which contain appreciable amounts of hydrogen sulphide and/or Mercaptans. All Persian Gulf Crudes are classified as "Sour Crude". Ships which carry crude oil are designated as "Crude Ships". "Crude Ships" and "Dirty Ships" may be interchangeable.
Speciality Products:	Butane, Sulphuric Acid, Naphthenic Acid, Caustic Soda, Spent Caustic, TEL, Anti-Icing. Ships which carry these products are designated "Gas Ships", "Acid Ships" "Napacid Ships", etc., as the case may be.
Low Flash Petroleum:	Flash point below 60°C (140°F) as determined by the closed cup method of testing.
High Flash Petroleum:	Flash point of 60°C (140°F) or above as determined by the closed cup method of testing.

Manifold Requirements: Ships whose cargo and bunker manifolds conform to the OCIMF "Standards for Tanker Manifolds and Associated Equipment" will have no difficulty at Coastal's Subic Bay Terminal. Any ship which has a manifold construction other than steel, or has valves outboard of the supporting stool, must advise Coastal by VHF prior to arrival so that the manifold can be examined by Coastal Supervision and suitable precautions taken before and during connecting the arms.

Basic requirements for manifolds at Coastal's Subic Bay Terminal are:

Ships for the POL Pier (where ship may be portside or starboard side to berth): All products, clean or dirty, for ships up to 120,000 d.w.t. loaded to 42 ft. draft.

Cargo manifolds 2×8 in. ASA made of steel.

Bunker manifold 1×6 in. hose 150 p.s.i. rated flanges.

Distance from rail minimum 6 ft., maximum 10 ft.

All valves to be inboard of support stool or otherwise supported.

Distance apart of manifolds, including bunker, flange edge to flange edge, minimum 36 in., maximum 60 in.

If spill tank under manifold extends more than 24 in. outboard of connecting flange, the arm jacks will have to land on it.

Minimum height of lower edge of flange above spill tank (where fitted, or above deck if not fitted) 24 in., maximum 50 in.

If ship's connecting flanges are not made of steel, maximum allowable unsupported cantilever length of 24 in. will apply. Terminal Supervisor should be consulted.

Maximum Pressure at the Manifold: Never exceed the maximum allowable working pressure, as indicated below, at ship's rail, and make sure the loading rate is fully agreed.

Crude and refined products	–150 p.s.i.
Butane	–175 p.s.i.
Acids and caustics	–100 p.s.i.
Propane	–225 p.s.i.

Deballasting: Ships must not commence deballasting overside until the clean ballast has been inspected by a Coastal representative. If any oil is seen on top of the ballast, the Coastal representative will advise on what quantity of water may be discharged overside and what quantity has to be discharged ashore. Generally, clean ballast which has any oil floating on it should not be discharged overboard, after the tops of the suction pipelines in the tanks are uncovered. The responsibility for avoiding pollution during discharge of clean ballast overside remains with the ship. The shore deballasting system has a check valve in every lateral to prevent flow back. The ship should advise the Berth Operator and Coastal Operations Supervisor at least 30 minutes before completion of deballasting, so that tank inspection can be arranged without delay.

Tank Cleaning, Gas-Freeing Alongside: Permission to tank clean and/or gas-free alongside a berth must be obtained from the Operation Supervisor or his authorised deputy before commencing operations. Generally, this will not be refused unless in the opinion of the Operation Supervisor:

1. The weather or other conditions are considered unsatisfactory.
2. The equipment being used, the method employed, the experience or attitude of the officers and crew members involved are considered unsafe.
3. The length of time required to tank clean or gas-free is excessive.
4. The berth is needed for loading or discharging another ship. (See "General" – Vacating Berth).

No electrical equipment such as lighting and ventilation fans may be used unless certified flame or explosion proof and in good physical condition. Washing machine hoses must be tested for electrical continuity before washing commences. All tank cleaning and gas-freeing must be under the personal supervision of a senior ship's officer, who must always be in the vicinity of the tank cleaning operations.

Inert Gas System: It is important that inerted ships do not attempt to discharge cargo or ballast if their inert gas system is not functioning, or able to keep positive pressure on all tanks with less than 8% oxygen gas. Incoming air could cause pyrophoric iron to glow or ignite with resulting fire or explosion.

Also see "Safety".

Tank Preparation for Loading at Coastal's Subic Bay Terminal: Unless otherwise specified, the ship's tank preparation for cargoes to be loaded at Coastal's Terminal shall conform to the Tank Cleaning Guidance Chart (See "Appendix").

Tank Inspection: Ships should call for tank inspection in good time to avoid delay.

1. Before loading clean cargoes: Tanks will always be inspected with lids open except those designed for low flash cargoes and which may not, therefore, be gas free. Tanks to be loaded with Turbo Fuel or Kerosene will always be entered (unless last cargo in tank was Turbo Fuel or Kerosene and has not carried ballast), and must therefore be gas free for entry. The inspector may need to witness an explosimeter and oxygen analyser reading of any tank before entering.

   A ship's officer must always be present when tanks are being inspected. Tanks for clean products must have main and stripping valves in each tank open during inspection. Ships scheduled to load clean cargoes, particularly Turbo Fuel, Kerosene and Heating Oil, may be required to anchor in the Bay for inspection prior to berthing. When inspection is done from the tank lid, and all tanks cannot be seen clearly, the inspector may ask for some tank cleaning plates to be removed. Ship's manifold valves on both sides of the ship will be required to be opened, and the pipelines visually inspected. Where draining of lines is done into the pumproom bilges, the inspector may ask to see the drain valves or plugs opened, and also see the drain cocks on the pumps opened.
2. Before loading dirty products or crude oil: Tanks will normally be inspected with tank lids closed, however, in cases of doubt, the inspector may ask for the tank lids and/or the tank cleaning plates to be opened.
3. Tanks will normally be inspected with tank lids closed, but the inspector may ask for a tank cleaning plate to be opened. If measurable quantities of the previous cargo are seen, hand dips will be made and an ROB quantity computed (See "Cargo Measurement"). This will be included in the Dry Certificate. A Note of Protest will be issued if the ship cannot reduce the ROB quantity and it is considered excessive.

Dry Certificates: Coastal Supervisors will sign Dry Certificates on presentation, but they are instructed to endorse them with observations of any free water or previous cargo seen, and to the effect that the contents of the pipelines are unknown. Coastal does not accept any liability as to the actual condition of the cargo tanks inspected.

Static Electricity Precautions: For all static accumulator products having a flashpoint of over 100°F (Kerosene, Turbo Fuel, Gas Oil and Heating Oil), tanks shall be gas-freed to below 40% of the LEL (LFL) before loading. No other static electricity precautions will therefore be necessary, unless these products are stored at a temperature near or above their flashpoints. The loading rates will be restricted until the ship's tank piping is covered, and special precautions in ullaging, sampling and taking temperatures will be enforced. For all static accumulator products having a flashpoint of less than 100°F (Naphthas and Gasolines), the main precaution to be taken is that ullaging, dipping and sampling equipment shall be firmly grounded (earthed) to the structure of the tank to be loaded prior to its introduction into a tank, and remain grounded until after its removal.

OBO Ships – Precautions in Cargo and Ballast Handling: Due to the problem of the effect of large free surfaces and the stability of OBO's, the minimum number of tanks are to be slack at any one time. Generally, when ballast and cargo are being handled simultaneously, only one cargo tank should be slack at one time, otherwise a maximum of two cargo tanks should be slack at one time, and the loading rate shall be calculated accordingly. If a ship's Master can demonstrate that the ship's stability is adequate without more stringent precautions, he should consult with the Coastal Supervisor on this and all free surface problems. If a list develops during loading or discharging, operations will be stopped and arms/hoses disconnected and remain so until the free surface in the ship has been reduced and the list corrected. OBO's arriving with part cargo to complete loading should ensure that they have no slack tanks on arrival.

Commencement of Loading: On being advised by Coastal's Tank Inspector that the ship's tanks are satisfactory to load, all tank lids and tank cleaning plates must be closed and secured, unused manifold connections blanked off and the ship's system, with the exception of the manifold valves, lined up for loading. Flame screens must be in place in each ullage hole. When the shore indicates it is ready to load, open the appropriate manifold valves and advise the shore that you are ready to load by gravity. If loading more than one grade, start each grade off separately. Do not ask for a pump to be put on until you are sure the cargo is flowing into the intended tanks. Agree with the Berth Operator on the number of pumps to be put on and on the stand-by time he requires for pumps to be cut out (See "Emergency Stopping of Pumps"). Communications with the shore will normally be by UHF radio, but the Berth Operator can also be contacted by shouting to the berth. Cargo tanks are to be checked before commencement of loading of each grade of cargo.

Topping-Off: If you require a reduction in loading rate for topping-off, arrange this with the Berth Operator.

Emergency Stopping of Pumps: To stop shore pumps in an emergency, use UHF Channel 1, making sure to identify ship's name and berth number before requesting "Stop Pumps – Emergency", repeat several times. All ships at the Terminal are on the same UHF channel, and unless you identify your ship's name and berth, the Operator will not know which ship is requesting a stop.

Discharging: If a ship is inerted, all deck openings shall be sealed and tanks under positive pressure. On non-inerted ships, flame screens must be in place in all ullage holes. Open manifold valves and start pumps only after you have been told by the Berth Operator that the shore is all lined up, open and ready. Maintain continuous watch on the UHF Channel 1 allocated to your ship, as this will be the means the shore will use to request you to stop pumps in an emergency. If, for any reason, you temporarily stop discharging or drastically reduce the discharging rate, you must advise the Berth Operator.

Loading of Bunkers: Where possible, bunkers will be loaded simultaneously with cargo operations. The ship's officer in charge of bunkering should contact the Berth Operator as soon as possible after arrival alongside to arrange a convenient time for bunkering, topping-off requirements and any requirements for samples and/or sighting bunker meter readings.

Generally, bunkers are loaded through meters and a ship's representative is invited to witness opening and closing readings. Where it is not possible to load bunkers through a meter, shore hand gauged quantities will be used or, in case of small ships taking small quantities, a ship's inspection or "Bunker Survey" will be carried out by a Coastal representative. Ship's officers are invited to witness gauging of shore tanks upon start and completion of bunkering if meters are not used.

Cargo Measurements: The accurate measurement of cargo discharged or loaded at Coastal's Subic Bay Terminal is essential to the Company's business. Contract Inspectors are engaged to measure each cargo discharged or loaded, and ship's officers are requested to give every assistance to these inspectors to take the necessary measurements and samples. Inerted ships will need to depressurise the inert gas to the extent, that up to 3 ullage plugs can be opened at any one time for handgauging, sampling and inspection. All tanks will be hand gauged/dipped, temperatures and samples taken and waterfinding done by the Contract Inspectors, who will require to be advised of the reference calibration tables to compute the cargo loaded or to be discharged. Otherwise, the inspectors will use their own equipment. A ship's officer must witness the taking of ullages and temperatures.

Normally, Vessel's Experience Factors are not used by Coastal in computing ship's cargo quantities, but if available, the Contract Inspector will record the VEF. Where slops from a previous cargo are retained on board, they will be measured and, unless commingled, with Coastal's agreement, with incoming cargo, again after completion of loading.

In cases of discrepancies of over 0.5% between the computed ship's cargo loaded or discharged and the shore computed quantities, the ship will, in the case of loaded cargoes, be held at the berth or at anchorage for re-ullaging and examination, until the reason for the discrepancy is discovered or some other agreement with the cargo owner is reached.

Particular attention should be given to ensure that the ship's pipeline system used during the loading is full on completion of loading or, if drained into tanks, what portion is drained. It is helpful if the capacity of these lines is known. In the case of discharged cargoes, where the discrepancy between ship's and shore computed cargo quantities is greater than 0.5%, the ship will be examined and re-dipped. Ship's officers must calculate their cargo quantity independently of the inspectors.

It is emphasised that the ship should not start ballasting into cargo compartments during or on completion of discharging, unless authorised to do so by a Coastal representative (NOT the Contract Inspector).

ROB quantities will be computed from dips of the wedges of all 9remains in each tank. Trim correction will *not* be applied when the liquid does not entirely cover the bottom of the tank. If available, wedge tables will be used. In cases of large discrepancies between discharged ships and shore quantities, the quantity of oil floating on top of the ballast taken into cargo tanks might be measured to determine a more accurate ROB. A ship's officer will be required to sign for the quantity computed as ROB *"without" correction for trim,* the actual quantity ROB will be agreed upon later. A Note of Protest will be served on a ship which has an excessive pumpable ROB and a claim filed.

In cases of large ship/shore discrepancies and/or cargo contaminations, a ship's Master may wish to appoint an independent inspector to act on the ship's behalf.

Logging of Times of Operations: The Berth Operator/Dispatcher keeps a log of events during your ship's stay alongside. As this will be compared with the ship's port log before the latter is signed on behalf of the Terminal, it will save unnecessary differences, if the ship will cross-check with the Berth Operator, times of stopping and starting all cargo, bunker and ballast operations, and reasons for delay whether caused by ship or shore. This information exchange may be carried out by use of the UHF radio put on board your ship, calling berth number from ship (name) to raise the Berth Operator. Ship's officers on duty are not required to leave their ship for this information exchange.

Loading of Bulk Materials: No facilities exist at the Coastal POL Pier for the loading of bulk materials. Only stores as defined herein will be permitted to be loaded while alongside.

Lightering Operations in Subic Bay: Lightering operations, i.e. transferring of oil products or crude oil from one ship to another in the Subic Bay, must be approved by the Port Authorities, The Subic Bay Freeport Authority. Coastal will maintain all the equipment required for this operation, which is done in support of the Terminal.

It is emphasised that all vessels, that are ordered to load by lightering in Subic Bay, must arrive with all clean ballast for pumping overside without causing pollution.

Ship-To-Ship Transfers at the Dock: When it becomes necessary to transfer cargo directly from one ship to another via headers and pipelines, it is essential that a proper communications system is set up between the two ships, so that the receiving ship can regulate the flows of oil it is receiving, and stop it when necessary. Because of language and radio channel difficulties between ships, Coastal will set up a communications system, stationing on each ship an operator with a radio on a special frequency which cannot be interrupted. These operators will remain on board during the entire transfer operation.

BALLAST: *Deballasting Facilities:* All dirty ballast must be discharged into shore tankage, however the capacity of the shore reception facilities is limited. All clean, oil free ballast should be discharged overside. The responsibility for avoiding oil pollution rests with the ship. As a general guideline, ships arriving in ballast should have no more than 8% of their summer deadweight, as dirty ballast requiring to be pumped ashore (e.g. a 50,000 d.w.t. tanker should have no more than 4,000 long tons of dirty ballast). The remaining ballast needed to conform to the minimum draft requirements (See "Restrictions") must be clean for pumping overboard without causing pollution. Ships may be required by their Operators/Charterers to arrive with clean ballast and consolidated slops.

Also see "Loading/Discharging".

Note: Ballast Facilities not yet available (October 1993).

MEDICAL: Hospital located in Olongapo City.

FRESH WATER: Fresh water is available for sale at all berths at the POL Pier at Coastal's Subic Bay Terminal for delivery to ships. The ship should advise Coastal of its water needs in advance of its arrival.

FUEL: It is essential that ship's Masters include their bunker requirements in their arrival cable, and confirm their requirements by VHF when in range, but note that for Coastal to be able to supply bunkers, a bunker nomination must have been received from Coastal Marketing Miami or Singapore.

Also see "Loading/Discharging".

AIRPORT: Cubi (Subic) or Manila.

GENERAL:

Applications of Regulations and Requirements: Coastal's Subic Bay Terminal means: The POL Pier and the waters immediately adjoining it to a distance of 100 m. Ship at anchorage within the Subic Bay and destined to berth at the Coastal Subic Bay Terminal shall also be deemed to come within the scope of these Regulations. These Regulations and Requirements herein described shall be strictly observed within Coastal's Subic Bay Terminal, by all persons including personnel of ships, barges, tugs, launches, mooring boats and other craft. In the event of any conflict between these Regulations on the one hand and any SBMA or Government Law on the other hand, then latter shall prevail to the extent to which they are in conflict with the Regulations.

Knowledge of Regulations: The Master or person in charge of any vessel, whilst within Coastal's Subic Bay Terminal, shall have adequate knowledge of these Regulations and Requirements, and ensure that his crew members are fully informed of all requirements. In the case of small craft operating within Coastal's Terminal, the Owners must ensure that their employees know and will obey these Regulations and Requirements. Additional copies of these Regulations can be obtained from the Terminal's POL Pier Office, located at the head of the Pier or from ship's Agents.

Inspection: Subject to the agreement of the SBMA Customs and Immigration Authorities, any authorised representative of Coastal shall have the right to board any vessel within Coastal's Subic Bay Terminal and/or Subic Bay at any time for the purpose of ensuring that these Regulations are being observed.

Permission to Enter Coastal's Subic Bay Terminal: No ship, tug, barge, launch or other craft shall enter Coastal's Subic Bay Terminal without first obtaining the permission of the Terminal Manager or his authorised deputy as well as notifying the SBMA Port Authority of their arrival.

APPENDIX: *Tank Cleaning Guidance Chart:*

Last Cargo If grade last carried does not fall within general specifications of grades given below, seek special instructions.	*Cargo to be Loaded*										
	Avgas	Mogas	Lo Lead Naphtha	Kerosene Turbo	Gas Oil Heating Oil	Esso Heating	Belco Diesel	Marine Diesel	Vacuum Gas Oil	Fuel Oil	Crude Oil
Avgas	AD	D	C	HGSM	HG	HGM	HSF	HG	HG	H	D
Mogas	CSM	AD	C	HGSM	HG	HGM	HSF	HG	HG	H	D
Naphtha	CSM	D	AD	HGSM	HG	HGM	HSF	HG	HG	H	D
Kerosene/Turbo Fuel	CSM	D	B	AD	B	HM	B	B	D	D	D
Gas Oil/Heating Oil	HSM	B	B	HSMW	AD	BH	B	B	D	D	D
Marine Diesel	HSM+	B+	B+	HSMW+	U+	HGM+	HSF	AD	D	D	D
Vacuum Gas Oil	X	X	X	X	X	X	HSF	SH	AD	D	D
Fuel Oil	U	U	U	U	U	U	HSF	HS	H	AD	D
Crude Oil	U	U	U	U	U	U	HGF	HGS	HGS	See Note below	AD

For explanation of symbols see opposite.
+ Assumes MDO carried in clean ship. If not, substitute U.

Ship to Vacate Berth on Request by Coastal: As a condition of entry in Coastal's Subic Bay Terminal, a ship must vacate a berth promptly on being requested by Coastal (See "State of Readiness whilst Alongside").

Security of Buoyancy: When entering or leaving Coastal's Subic Bay Terminal in a loaded condition, it is important that the tanker's buoyancy is secured against ingress of water due to damage. Fore peak and pump room openings, including all ullage plugs, must be securely closed during the entire inward or outward passages.

Gangways: It is the ship's responsibility to provide and maintain a safe means of access between ship and shore. At the POL Pier berths, the ship must provide rig and tend a safe gangway or accommodation ladder, normally abaft amidships. The use of the shore hoist, where available, to assist in putting out or taking in a ship's gangway, is only allowed if the permission of the Berth Operator is given, and *if a Coastal employee is available to operate the hoist. Ship's personnel are not permitted to operate Coastal's equipment.* Coastal will accept no liability for damage caused by the failure of the hoist, and will bill the ship's Owner for any damage to the ship's gangway. If the ship's deck is higher than 10 ft. above the pier deck, a safety net must be rigged underneath the gangway. Particular attention must be given to providing safe access between the gangway and the ship's deck when the ship is high and the gangway is steep. Customs, Immigration, Quarantine and Coastal personnel will refuse to board a ship which does not have a safe gangway and access, with resulting delays for the ship's account.

State of Readiness of Ships Alongside: No repairs or work which will make the ship unable to move under its own power may be commenced without the written consent of the Coastal Terminal Manager or his authorised deputy. In general, such consent will be refused as, for the safety of the port, it is essential that ships maintain their propulsion, steering and other equipment required for unmooring and manoeuvring fully operational throughout their stay alongside. In cases where, through Force Majeure, a ship becomes immobilised whilst alongside, the Master must immediately advise the Berth Operator and the Operations Supervisor of the facts, so that a decision may be made on the advisability of continuing with cargo operations, and so that special precaution can be taken.

Ship/Shore Communications whilst Alongside: The Pilot, on boarding before berthing, will bring with him a portable UHF radio which he will use during the mooring operation and, before leaving the ship, will place under the care of the ship's Master. This radio will remain on board throughout the ship's stay alongside, and must then be handed back to the Pilot who sails the ship. Channel F1 on this radio is to remain open, so that the Berth Operator and Shore Operations Supervisor can contact the ship as necessary. The Berth Operator and the Operations Supervisor can be contacted on Channel F1 on this radio and overall control of loading/discharging can be maintained. This radio can also be used to advise time ballast is out, tank inspection is required, discharging is finished, stand-by or stopping loading pumps, ordering of pilots, etc. The radio must not be used for agency matters, nor for communicating with other ships and must be used responsibly. Should the radio be damaged or lost whilst under the care of the ship's Master, the cost of replacement will be billed to the ship's owner. The ship should call the Berth Operator or the Operating Supervisor if there is evidence that the battery is getting low or the radio is operating unsatisfactorily.

Appointment of Agent – Agency Services Available: No ship is allowed to enter Coastal's Subic Bay Terminal unless it has a duly appointed Agent or representative through whom all disbursements and ship's business can be channelled.

Also see "Safety".

SAFETY:

Ship/Shore Safety Check List: The Ship/Shore Safety Check List used at Coastal's Subic Bay Terminal is in general based on the ISGOTT Check List. It is Coastal's intent to check every ship as soon as possible after arrival. The Check List should also be used to self examine ship's safety, without waiting for Coastal personnel to perform a check.

Anchors: No ship may lay alongside a berth with an anchor on the bottom.

Emergency Towing-off Wires ('Fire Wires'): Fibre rope is not acceptable as an emergency towing-off wire.

Emergency Pilot Ladder: As soon as berthed, each ship at the POL Pier must put a pilot ladder over the offside just forward of the poop and keep the end just above the water level throughout the stay alongside, so that in an emergency, which makes boarding from the berth impossible, a pilot could board the ship.

Inert Gas Systems: All ships, having an inert gas plant (IGP), must before entry into Coastal's Subic Bay Terminal, confirm that the IGP is working correctly, i.e. maintaining positive pressure on all tanks with oxygen content of the inert gas less than 8% by volume. On arrival alongside, ships will be asked to depressurise tanks sufficiently to allow up to three ullage ports to be open at any one time for the purpose of gauging, sampling, waterfinding, temperature taking, tank inspection, etc., but ullage ports must be re-secured before cargo or ballast handling is commenced. During discharge of cargo or ballast, the IGP must be capable of producing sufficient inert gas of 8% or less oxygen quality to prevent air from entering the tanks. If necessary, the discharge rate must be regulated accordingly. *If the IGP is not operable, discharge will not be allowed to commence or, if during discharge of cargo or ballast, the IGP fails, the discharge must be stopped until the plant is again operational or, if this is likely to take more than 24 hours, until the ship's Owners and/or Charterers have been contacted, and a safe discharge plan agreed.*

When loading or ballasting into an inerted tank, the inert gas displaced must be vented through the ship's vent system and not the ullage plugs. The ullage plugs should only be opened during loading or ballasting for sighting, ullaging and sampling and personnel warned to keep upwind while carrying out these duties. If tanks which have been inerted have to be entered, after gas-freeing, for inspection, the inspectors must not enter the tanks until they are tested for oxygen content in addition to the normal test for hydrocarbons.

Loading Overall: Loading overall (through an open tank hatch or ullage plug) of any product is prohibited at Coastal Subic Bay Terminal.

Delivery of Stores over Coastal's Berths: The normal method of storing ships lying alongside Coastal's berths will be by stores launch. Minor amounts of stores defined as "dry goods" (no alcoholic or soft drinks) of a harmless nature in stout containers, which can be safely hand-carried up a ship's gangway with a total quantity of not more than 250 kg. or 4 cu.m., may be allowed to be put on board via the berth, but the supplier must first obtain a written permit from the Operations Supervisor. A shore crane will not be available for storing. The supplier will be responsible for clearing away any debris on the berth caused by the storing operation.

Repairs and Other Works, Storing by Launch, Hull Cleaning, etc., on Ships at Coastal's Subic Bay Terminal – Work Permits: All work performed on a ship alongside Coastal's Subic Bay Terminal by shore contractors must be with the permission of Coastal's Supervisor. Work requiring a cold work permit includes any cold work to be performed on the weather decks or hull of a ship alongside a berth at Coastal's POL Pier. Work performed by divers, including hull cleaning, and any work requiring a boat or a barge to lie alongside, including storing and lube oil delivery, requires a work permit to be issued prior to commencement of work. Hull cleaning by divers or machinery is *not* permitted when a ship is lying at a berth. Any diver working on the hull, rudder or propeller of a ship whilst alongside a berth must be accompanied by a helper and proper communications with the ship and Coastal established and maintained. All work requiring hot work, whether to be performed by contractors or ship's crew, on the weather decks or hull of ships alongside a berth at Coastal's Subic Bay Terminal, must be with the agreement of the Operations Supervisor, and done under the conditions of the Hot Work Permit issued by the Operations Supervisor. These permits are valid for 8 hours only, and must be renewed if work continues beyond an 8 hour period.

Tank Lids, Ullage Ports, Flame Screens, Tank Cleaning: All tank lids and tank cleaning plates shall be securely closed whilst loading, bunkering, discharging and ballasting. A tank cleaning plate may be opened during discharging where it is found safe to do so for the purpose of measuring remaining oil, water or sediments at the after section of a cargo tank. Only one plate shall be open at any time, and shall be closed immediately after the measuring is completed. Flame screens shall be in place in all ullage openings, and ullage ports shall be closed (and secured if ship is inerted) except when sighting, ullaging, sampling, etc. All lids of tanks not gas-free must be closed.

Chipping, Scraping and Painting: Chipping and scraping is not permitted on the weather decks or hulls of ships alongside a berth at Coastal's Subic Bay Terminal. Painting of ships' hulls from the deck, or fendering of a berth or from a position which can cause paint to fall onto the berth or its fendering, is not permitted. The painting of jetty fittings, pipelines, decks, etc., by ships' crew is strictly forbidden, and Coastal will bill the offending ship's Owner(s) with the cost of removing any such disfiguration.

Explanation of Symbols used in Tank Cleaning Guidance Chart:

A	When similar cargo to the last cargo carried is nominated, and no ballast is carried in tanks or cargo system concerned, no preparation, other than draining, may be necessary unless advised to the contrary.
B	Tank bottoms, cargo lines and pumps to be waterwashed; tank lines and pumps to be completely drained, special attention to be paid to deadends and low points, including deck lines and manifolds. Valves to be opened to drain lines of excess water.
C	Tanks, lines and pumps to be cold water machine-washed; tank lines and pumps to be completely drained, special attention to be paid to deadends and low points, including deck lines and manifolds. Valves to be opened to drain lines of excess water.
D	Tanks, lines and pumps to be completely drained of cargo and/or water, special attention to be paid to deadends and low points, including deck lines and manifolds.
F	Fresh water rinse large tanks, lines, pumps and risers to remove traces of salt.
G	Tanks must be gas-free to below 40° of the lower explosive (or flammable) limit.
H	Tanks to be hot water machine-washed, lines and pumps to be hot washed; tanks, lines and pumps to be completely drained paying special attention to deadends and low points, including deck lines and manifolds. Valves to be opened to drain lines of excess water.
M	After gas-freeing for entry, tank bottoms to be mopped dry of all water after valves have been opened, prior to loading.
S	After gas-freeing for entry, all loose scale and sediment to be removed.
W	Spot tank cleaning machines where necessary to cover shadow areas, under beams and plate stiffeners, etc.
X	Special cleaning instructions required from Owners/Charterers.
U	Not suitable for this grade to follow.
Note:	1. Hot wash water temperature (H) should be in accordance with coating manufacturers recommendations, but not less than 95°F. 2. If changing from dirty to clean trade special chemical cleaning is necessary.

Crew Access between Ship and Terminal Gates: The crew members of ships at the POL Pier berths are allowed to walk to the main POL Pier compound gate. The ship's Agent must arrange for transportation from there to the main Subic Bay Freeport gate going into Olongapo City. The Agent shall submit a Crew List to the SBMA and to Coastal (Operations Department).

Crew Passes and Crew Lists: Crew Lists must be submitted to Coastal's Operations Supervisor by ship's Agent, and crew members on shore leave must carry some means of identifications, so that they can be checked off against their ship's Crew List at the POL Pier main gate and at the SBF main gate.

Ship's Agent must make arrangements for crew members joining a ship at Coastal's Terminal to be issued with a pass to enter the SBF to join a ship.

Intoxicated Persons: No person who appears to be in an intoxicated condition or under the influence of drugs will be allowed within Coastal's Subic Bay Terminal. If a crew member in such condition arrives at the POL Pier gate, he will be refused permission to enter until the Master or an officer in charge of his ship provides an escort to supervise him between the gate and the ship.

Vehicular Traffic: No vehicles, except those delivering stores, will be permitted to enter Coastal's Subic Bay Terminal.

Ship Visiting: In general, the visiting of ships berthed at Coastal's Terminal by other than bona fide crew members, Owner's representatives and contractors having business on board (not seeking business) is not allowed or encouraged. In special cases, the Master may make arrangements with the Coastal Terminal Manager or his designee for others to visit his ship. Agents are not authorised to make these arrangements. Coastal Supervision and the Berth Operator will visit the ship from time to time in connection with their business, but in no circumstances should any Coastal representative visiting a ship be offered alcoholic beverages or gifts.

Fire Alarm: The Terminal fire alarm is situated on the POL Pier Office Building No. 1423 at the shore end of the POL Pier. The general fire alarm, which will be sounded in the event of a fire involving Coastal's Subic Bay Terminal or any ship or other craft at the Terminal, will be 8 short blasts on the fire siren repeated 3 times. The Terminal fire alarm will be tested on the first Monday of each month at 1100 hrs. All ships in the Terminal will be notified beforehand. Pull alarms are located at each station on the pier.

WEATHER/WIND/TIDE:

Tidal and Current Information: The tides are diurnal with a maximum amplitude of 4.7 ft. (1.43 m.) at the Spring solstices, but a normal average is 1.0 ft. to 1.8 ft. (0.31 m. to 0.55 m.). The datum used is MLW, and the water level is not likely to fall more than 7.2 in. (182 mm.) below this. The current at the POL Pier is non-existant. There can be some small current in the Bay during periods of high rainfall due to fresh water run off.

Electrical Storms: Severe electrical storms are not common in Subic Bay, but should one pass in the near vicinity during the handling of low flash cargo or loading or ballasting into non gas-free tanks, inert gas purging, tank cleaning and gas-freeing operations shall be temporarily stopped, and all tank openings and vent line valves closed until the storm has passed.

Heavy Rain Storms: Should a heavy rain storm, usually of short duration, occur during the topping-off operations in loading cargo or bunkers, the Berth Operator should be asked to stop the loading until the heavy rain has stopped.

Strong Winds: Although Subic Bay is a well protected natural harbour, strong winds can occur during typhoons and other strong storms. When wind speeds exceed 30 knots, ships will, depending on the wind direction and general weather synopsis, be alerted that cargo/deballasting/bunker operations may have to be suspended and arms disconnected. The Terminal has the responsibility of determining when wind conditions are reaching the limit of the design criteria for continued operation of the cargo arms.

Typhoons/Hurricanes: Coastal will monitor the movement of all tropical storms in the South China Sea and the Western Pacific. Ships will be alerted when weather conditions might affect the cargo operations, and based on the reported proximity and severity of the storm may be required to:

Suspend loading/discharging/deballasting operations and disconnect arms/hoses.

Keep engines and other equipment in a state of immediate readiness, should it be necessary to vacate the berth.

Ships at anchorage in the Subic Bay will be advised by the Subic Bay Freeport Authority what, if any, action should be taken.

Loading Fuel Oils after Crude Oils: Where unpumpable bottom residues, sediments or BS&W remain from the previous cargo of crude oil, tank bottoms must be machine-washed, hot or cold according to the removability of the sediments, lines and pumps flushed and all water and residues completely stripped from tanks, cargo lines and pumps into a single tank for pumping ashore prior to loading any residual type fuel oils. If appreciable sediments remain in ballast tanks on completion of discharge of dirty ballast ashore, it may be necessary to bottom wash these tanks. The slop tank, if being used to load fuel oil, after discharge ashore, must be hot machine-washed and stripped dry of all water and sediment, pumping directly ashore.

Note: If last cargo was a "sour" crude, see "Radio – Pre-Arrival Information – (c)".

AUTHORITY: Subic Bay Metropolitan Authority (See "Part (A)").

Operator: Coastal (Subic Bay) Terminal Inc., Building 8344, Sulu Road, Subic Bay Freeport Zone, Philippines 2222. *Tel:* 63-47-52-8888. *FAX:* 63-47-252-8856. *Contact:* Gordon Hartman, Terminal Manager.

AGENT: Jardines Shipping Agencies (See "Manila").

SURIGAO, Mindanao: 09.49 N. 125.29 E. **(See Plan)**

PORT LIMITS: A vessel is considered an "arrived ship" when 1 mile N.E. of Lighthouse.

DOCUMENTS:

Crew List.
Passenger Manifest.
Record of Vessels Boarded.
Statement of Facts.
Voyage Memo.
Ship's Particulars.
Coasting Manifests.
Statistical Supplement.

PILOTAGE: Pilotage is compulsory for all vessels.

Maasin-Surigao Harbour Pilots Association, through Captain C.Toledo, is informed 24 hours before expected arrival of the vessel by telegram, or as the vessel approaches the port limits or anchorage area. The pilot is contacted through VHF Channel 16. The pilot boat is painted orange, and the Pilot Station is located at the side of the lighthouse. Pilot boat's docking area is located at the Northernmost portion of the baseport of Surigao, adjacent to Berth No. 1.

Harbour Pilots Boarding Station:

	Latitude	Longitude
Foreign Vessels	09° 51' 30" N.	125° 28' 30" E.
Domestic Vessels	09° 47' 43" N.	125° 30' 40" E.

ANCHORAGES: Vessels can anchor in 30 m. with sand bottom in a position 0.25 miles East or S.E. of Surigao Light. Anchorages are exposed to N.E. monsoon.

RESTRICTIONS: There are at present no tide or draft restrictions for entering the harbour for anchorage purposes for formalities. It is not recommended to transit through Hinatuan Passage for purposes of docking at Nonoc Pier at night, due to unpredictability of the current.

MAX. SIZE: Vessels maximum permissible length at baseport is 150 m., and maximum draft not to exceed 8.0 m. at M.L.L.W.

RADIO: Port Management Office (PMO) of Surigao is equipped with Vodex telephone, Fax and Single Side Band (SSB), which is used as the communication link between PPA – PMO Surigao and Head Office and all other PMOs throughout the country. The call sign is simply "PMO Surigao".

VHF: *Vessels Traffic System (VTS):* Part of the Port Operations Radio Traffic System is the Vessel Traffic System (VTS), where vessels arriving at baseport of Surigao establish voice contact with the Philippine Ports Authority (PPA) – PMO Surigao, through VHF Channel 16 and 148.57 MHz. Any information vital to docking, required cargo handling service, dangerous cargo warning, etc., are relayed to the base, whose call sign is "Blue Gee Base", or any of the following: Bollard Master: Port Manager. Bollard One: Operations Manager. Bollard Two: Terminal Supervisor.

TUGS: No tugs available. For tug requirements, please contact PPA Cebu or Manila.

Note: Tugs on stand-by in the locality could be arranged for towage.

BERTHING:

Main Berth (Northern Portion): 354 m. long. 15.0 m. wide (working area).

At M.L.L.W., maximum permissible drafts are as follows:

Berths No. 1 – 1.5	4.0 m.
Berths No. 1.6, 2, 3 and 4	8.0 m.
Berths No. 5, 6 and 7	6.0 m.

Bulkhead (Southern Portion): 172 m. long; where smaller crafts like pump boats and motor bancas from the islands dock. Maximum permissible draft for Berths No. 8, 9 and 10 is 2.0 m.

Berths are numbered from 1 to 10, starting from the Northern portion of the wharf.

The port has no attached shore equipment or quay cranes, but it is capable of handling cargo/heavy lifts with the following equipment:

1 crane with S.W.L. 15 tons.
4 forklifts of 5 tons capacity.
1 forklift of 15 tons capacity.
27 units trucks.
4 LCT's for loading/unloading midstream.

Regulations: First come first served basis is the general rule in determining berthing priorities.

STEVEDORES: 24 hours before arrival of vessels, the cargo handling operator is informed, through a copy of the Application for Berth, to give ample time for the preparation of gang complement. One hour after vessel's failure, to arrive as scheduled, could mean settlement of laborers' stand-by time; unless the vessel's representative is able to file an amended schedule.

Cargo handling efficiency/performance is assured by the implementation of the Vessel's Operations Commitment (VOC), which serves as sort of contract between the carrier and cargo handler.

MEDICAL: Surigao Provincial Hospital, Miranda Family Hospital, Surigao Medical Center and Grace Christian Clinic of Surigao City service major and minor injuries. Laboratory facilities are also available.

FRESH WATER: The baseport of Surigao provides water at P.48.00 per cu.m. The fresh water at the port of Surigao is one of the factors that increases vessels' calls.

FUEL: Available.

FIRE PRECAUTIONS: The port has a well organised Fire Brigade and Evacuation Committee. It is equipped with fire extinguishers, sand drums, shovels, and axes at strategic areas of the port.

GANGWAY/DECK WATCHMAN: Provided by the security force of PMO – Surigao, as the port adopts the concept of Unified Security Command. During arrival of passenger vessels, or any vessel that requires security, security guards on tour of duty are augmented with those not on regular tour. On watch for any pilferage of cargo or any behavioural problem, the security guards, PPA Operations Officers, and members of Brazo sa Pantalan work as a team.

HATCHES: Opening/closing of hatches performed by dockhands and monitored by PPA Operations Officer-on-Duty.

AIRPORT: Airport is 4 km. away from the Baseport of Surigao City. Flight schedules of Philippine Airlines are as follows:

Tuesday, Thursday and Saturday: Arrival 0945 hrs., departure 1010 hrs.

Monday, Wednesday and Sunday: Arrival 0730 hrs., departure 0745 hrs.

BANKS: There are no banks within the port area, but all banks within the City are very accessible from the port area at a maximum distance of 1.0 km. These are the PNB, Far East Bank, PCI Bank, DBP, UCPB, BPI Family, BPI, Allied Bank, RCBC, Rural Bank, Land Bank and Metro Bank.

DELAYS: Delay is a very remote possibility, as the baseport has only an average berth occupancy rate of 40%.

GENERAL: *Port Management of Surigao:* One of the focal points of foreign and domestic shipping in Southern Philippines is PMO – Surigao. Port of Surigao is the principal port serving the provinces of Surigao del Norte, Surigao del Sur, including Bislig Port, Siargao and Dinagat Islands, Agusan del Sur and Southern Leyte.

AUTHORITY: Philippine Ports Authority, Port of Surigao, Port Area, Surigao City, Northern Mindanao, Philippines. *Tel:* 87366, 87361. *Contact:* Fernando A. Almeda, Jr., Port Manager.

TABACO, Luzon: 13.41 N. 123.58 E. (See Plan)

DOCUMENTS:

Inward Coasting Manifest.
Hatch Plan or Stowage Plan.
Vessel's Information Card.

PILOTAGE: Pilotage is compulsory. ETA advice should be sent to the Harbour Pilot Association, Legazpi City at least 24 hours before vessel's arrival. The vessel is met by the Harbour Pilot about 2 km. from the wharf aboard a boat displaying a Pilot's flag.

ANCHORAGE: Within the Tabaco Bay but not less than 500 m. from the existing facility.

MAX. SIZE: LOA 300 m., draft 40 ft.

HEALTH: Vessels clear quarantine on arrival at the Tabaco Harbour. Quarantine Officers will normally board the vessel 2 km. from the existing wharf.

BERTHING: The existing facility can accommodate two foreign-going vessels of regular size at one time. Length of quay 300 m. Width 23 m. Storage area 2 hectares. Max. depth of water 10.0 m. Quay height above sea level 2 m. at high tide and 5 m. at low tide. Average rate of loading/discharging 22 tons per gang hour.

CRANES: 2 mobile cranes available with capacities of 20 and 25 tons. For heavy lifts, vessels are required to use their own gear.

STEVEDORES: Provided by Tafworks Arrastre Corporation.

MEDICAL: 1 government hospital and 2 private hospitals.

FRESH WATER: Can be provided by pipeline or hoses from the port facilities.

FUEL: All grades obtainable from major oil depots at Legazpi City which is approximately 27 km. from the port area and supplied by lorries alongside.

GANGWAY/DECK WATCHMEN: Available, but not compulsory.

HATCHES: Opening and closing of hatches is part of the stevedores' work or at the Master's option.

REPATRIATION: All facilities available for crew changes.

AIRPORT: At Legazpi City.

HOLIDAYS: New Year's Day (January 1st); Araw Ng Kagitingan (April 9th); Holy Thursday; Good Friday; Labour Day; (May 1st); Independence Day (June 12th); Bonifacio Day (November 30th); Special Holidays declared by the President of the Republic of the Philippines are also included. Cargo work can be arranged on any or all holidays with the vessel's Agent.

POLICE/AMBULANCE/FIRE: Police and Fire, Tel. 222; Ambulance, Tel. 215.

TELEPHONES: Placing of telephones on board can be arranged with the branch office of the local telephone company (MATELCO).

SHORE LEAVE: Crew allowed ashore in company of an Immigration Agent.

GENERAL: Vessels intending to call at the port of Tabaco shall apply for a berth space at least 24 hours before arrival. No dirty ballast may be dumped into the territorial waters of the Philippines. Rat guards shall be placed on all mooring lines. Berth allocation is on a first-come first-served basis.

DEVELOPMENTS: Passenger Terminal; 5 sets cluster lights; fenced and concrete open storage area.

AUTHORITY: Terminal Supervisor, Philippines Port Authority, Port of Tabaco, Tabaco, Albay. *Tel:* 378.

Philippine Port Authority, P.O.Box 164, Legazpi City 4500, Philippines. *Tel:* 2012. *FAX:* 05221-243431. *Contact:* Edgar C. Pilar, Port Manager.

TACLOBAN, Leyte: 11.15 N. 125.00 E. (See Plan)

See "General" before first port.

DOCUMENTS: *Entrance Formalities:* For submission to PPA Harbour Section:

3 copies Inbound Coasting Manifest with enclosed or attached on each copy the following:

Crew List.
Oath of Master.
Passenger List (passenger vessels only).
Import Declaration (foreign vessels only).
Pratique (foreign vessels only).

Roll Book for presentation and clearance from last port of call also required.

Exit Clearance:

3 copies Outbound Coasting Manifest with attached or enclosed on each copy the following:

Crew List.
Oath of Master.
Passenger List (passenger vessels only).
Export Declaration (foreign cargo vessels).

PILOTAGE: The following signals from vessels requiring a Pilot are:

By day:

(a) The pilot jack hoisted at the fore.
(b) The International code signals or P.T.
(c) 2 long blasts followed by 1 short blast on ship's whistle.

By night:

(a) The pyrotechnic light, commonly known as blue light every 15 minutes.
(b) A bright white light, flashed or shown at short or frequent intervals just above the bulwarks for about a minute at a time.
(c) The International code signals P.T. by flashing lights.

Telegraphic address is Tacloban Harbour Pilot's Association, Tacloban City. 24 hours notice of ETA is required before arrival of vessels. No VHF in pilot boat or Pilot Station.

All pilot boats in general are painted white above the waterline and black below, with the letter "P" not less that 12.5 cm. in length on both bows above the waterline.

During the day, boat in use shall carry at the mast a red and white flag not less than 6 decimeters wide and 9 decimeters long.

The exact location where the Pilot has to be taken on board when entering Tacloban through San Juanico Strait is at Canauay Island about 2 miles N.W. of said Island. For vessels entering Tacloban Port through San Pedro Bay, the Pilot may be taken on board a mile North of Mariquitdaquit Lighthouse.

In case of bad weather, vessels are advised to drop anchor about 3 miles South of Dio Island when waiting for the Pilot.

With respect to safety measures while Pilot boarding vessels, it is suggested that the Master put his vessel to windward in a postion where the pilot boat is protected from big waves and strong winds. They must lower their accommodation ladder or rope ladder.

The location of anchorage for vessels awaiting a Pilot is either 1 mile North of Mariquitdaquit or 2.5 miles S.E. of Dio Island.

ANCHORAGES:

Dio Island Anchorage:

Position – 2 miles S.E. of Dio Island
Depth – 6 – 7 fathoms
Area – 4 square miles

Basey Anchorage:
Position – 1.6 miles West of Jinamoc Lighthouse
(Lat. 11° 15' 36" N., Long. 125° 04' 32" E.)
Depth – 4.5 fathoms
Area – 0.8 square miles
Tacloban Quarantine Anchorage:
Position – 0.5 miles South of Binatac Point
0.7 miles North of Panirungan Point
Depth – 4 – 5 fathoms
Area – 1 square mile.

RESTRICTIONS: Controlling draft for vessels entering Port of Tacloban via San Pedro Bay is 19 ft.

Due to numerous shoals, reefs and fish traps which abound in the area along the channel, vessels arriving at night must drop anchor either at the point 1.5 miles North of Mariquitdaquit or at the point 2 miles S.E. of Dio Island. The Pilot will conduct the vessels in at daybreak.

Tides in Tacloban show great inequality, mostly at HW. Mean range of tide is about 1.6 ft., whereas the Diurnal range is 2.3 ft. Flood current sets in a Northeasterly direction, while ebb current sets Southeasterly with a maximum velocity of 3 knots.

MAX. SIZE: See "Berthing".

HEALTH: Pratique is only necessary and required in the first port of entry; it is automatic when entering ports in the same country or state.

RADIO: Radio communication of the Philippines, Inc., Manila.

TUGS: Tugs normally join the vessel when inside Tacloban Harbour. For docking, tugs usually use the vessel's lines.

BERTHING: Inform local office of Philippine Ports Authority at least 24 hours before ETA if vessel on scheduled voyage and 36 hours before ETA if a tramping vessel.

Length of quay – 1,048.8 m., with 217.3 m. allotted for foreign vessels, 585.5 m. allotted for domestic vessels and 246 m. allotted for pump boats.

Maximum permissible ship draft at low water (sea water), Foreign vessels – 6 m.; Domestic vessels – 4 m. – 6 m.

Note: Actual depth along berth for foreign vessel at LW, 7 m.; Domestic, 4 m. – 7 m.

Load/ Discharge – Usually by ship's own gear but shore equipment available for rent.

BULK CARGO FACILITIES: See "Berthing" for berth details.

Cargoes handled: Copra, grain, abaca, sugar, rattan, lumber, drinks, goods in cartons, crated products, heavy lifts, steel bars, etc.

Facilties: Rope nets, rope slings, cable slings, spreader sets, sliding boards and pallets.

STEVEDORES: ETA advices should be furnished to stevedores through ship's Agent.

MEDICAL: Advance notice of required medical attention to ship's Agent essential.

TANKERS: No facilities.

FRESH WATER: Fresh water available through local supply.

FUEL: Only available to domestic (small) vessels.

FIRE PRECAUTIONS: Fire station in port area.

CONSULS: None.

REPAIRS: Not possible.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: Necessary for safety of vessel. Ship's Agent makes all necessary arrangements.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CERTIFICATES: All documents required by International Shipping Rules and Regulations.

CUSTOMS ALLOWANCES: One carton cigarettes per week for each man. Wines/spirits at the discretion of the Collector of Customs.

CARGO GEAR: Load/discharge affected usually by ship's gear but shore equipment available for hire.

REPATRIATION: Immigration Officer effects crew changes and arranging necessary repatriations.

AIRPORT: Distance from airport, 9 km., and is regularly served by airlines.

HOLIDAYS: Depending upon agreement with stevedores, work may be performed during holidays.

POLICE/AMBULANCE/FIRE: All departments are within one minute's call from the harbour.

TELEPHONES: Can be connected on board if required.

SERVICES: No special services available.

SHORE LEAVE: Crew members allowed ashore.

IDENTIFICATION CARDS: Needed for inspection by Immigration Officer.

GARBAGE DISPOSAL: Garbage disposal is available upon request from the City Government of Tacloban.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: No seaman's clubs organisation exists, however facilities such as telephone, church services, shopping centers exist, while other services can be arranged in coordination with local clubs such as YMCA, JAYCEES, Lions, Rotary and other organisations.

CURRENCY: Philippines Pesos (P).

REGULATIONS: No unusual regulations.

DELAYS: Berthing: When all berths are occupied upon arrival. Loading/ discharging: Limited number of available haulers due to simultaneous operations of vessels at berth. Bunkering: Simultaneous bunkering of vessels.

SHIPMASTER'S REPORT: January 1991.

Documents:

Prepared by Agent:
12 copies Inward Foreign Manifest.
12 copies Outward Foreign Manifest.
12 copies Oath of Master.

Prepared by vessel:
Last Port Clearance.
12 copies Crew List.
5 copies Stores List.
5 copies Personal Effects List.
5 copies Animals List (even if 'nil').
5 copies Arms and Ammunition List (even if 'nil').
5 copies Plants List (even if 'nil').
5 copies Narcotics List (even if 'nil').
5 copies Passengers List (even if 'nil').
5 copies Ports of Call List.
3 copies Ship's Particulars.

If Tacloban is the first Philippine port:
1 copy Health Declaration.
2 copies Vaccinations List (Cholera and Yellow Fever).

Pilotage: Vessels entering from the South (San Pedro Bay) are strictly recommended to take the Pilot at a position about 1.5 miles North of the Mariquitdaquit Lighthouse, as all buoys shown on B.A. Chart No. 3840 are missing. In addition, the Pilot does not follow the recommended track on the said chart, he gives a wide berth to the West of the Egbert Shoals which are not marked by buoys.

The Pilot can be contacted by VHF on Channel 16.

The Pilot only works with visible landmarks, if they are obscured by rain and/or fog the Pilot anchors the vessel. Pilotage is carried out during daylight only.

Berthing: There are no tugs available. The Pilot will not berth and/or unberth the vessel during strong winds.

Vessels are berthed port side to.

Maximum allowed draft is 19 ft., but sailing with this draft is only possible at high water.

AUTHORITY: Philippine Ports Authority, Port Management Office, Port Area, Tacloban City, Philippines. *Tel:* 321-2469, 321-3373, 321-3374. *FAX:* 325–7248. *Contact:* Alex T. Cruz, Port Manager.

TAGALOAN, Mindanao: 08.32 N. 124.44 E. **(See Plan)**

SHIPMASTER'S REPORT: February 1989.

LOCATION: Lat. 08° 31' 50" N., Long. 124° 44' 21" E.

The wharf is in Macajarlar Bay and is aligned 150°/330°.

The wharf is private and operated by Ferrochrome Philippines Inc., Tagaloan Misamis Oriental, P.O. Box 249, Cagayan De Oro City 9000, Mindanao, Philippines.

PORT LIMITS: The Agent declared vessel as "arrived" when in position Lat. 08° 32' N., Long 124° 40' E., which is the position given for picking up the Pilot (Cagayan De Oro), but the consignee considers the vessel arrived only when berthed.

DOCUMENTS: Fifteen Port Officials boarded the vessel at Cagayan De Oro and once vessel was cleared, after one hour, vessel proceeded to berth at Tagaloan.

Officials from Customs / Immigration / Quarantine / Plant and Quarantine / Health / Coast Guard / Agent and two separate officials boarded from Manila as vessel had People's Republic of China crew, whom the Philippine Authorities class as restricted crew for landing purposes.

Following documents were required:
4 copies Crew Personal Declaration.
4 copies Provision, Engine Room and Deck Stores.
4 copies Narcotic List.
4 copies Bonded Stores.
3 copies Cargo Manifest.
4 copies Plant and Animal Declaration.
4 copies Vaccination List.
3 copies Ship's Particulars.

PILOTAGE: Pilots were arranged by Agent from Manila. Vessel had given 7/5/3/2 and 1 day's notice of ETA to Agent. Vessel requested to pick up Pilot at Cagayan De Oro in position 08° 32' N., Long. 124° 40' E. Vessel did not send separate message to Pilots.

Anchorage only in deep water of about 90 m, vessel remained underway near the Cagayan De Oro until port officials had cleared the vessel.

The same Pilot will berth the vessel at Tagaloan, but had to proceed at very slow speed, as the Pilot launch had to keep up with the vessel and it is used for line handling at the berth.

Pilots at Cagayan De Oro are a private organisation and service the whole of Macajarlar Bay.

Address: Cagayan Harbour Pilots Inc.
Port Area Macabalan, Cagayan De Oro City
Tel: 24-47. Telex: 7789 (PT & T).

RESTRICTIONS: Pilotage available 24 hours, depending on weather conditions, as no tugs available.

MAX. SIZE: Max. draft 10.0 m., and max. deadweight 40,000 tons. Size restriction is due to stresses imposed on pier equipment when vessel is shifting alongside.

HEALTH: Free Pratique is granted on arrival. No Radio Pratique available.

VHF: Cagayan De Oro Pilots operate on VHF Channel 16 and work on Channel 6. Contact with Pilots was made at a distance of 35 miles when approaching from the West.

TUGS: Not available, but tugs can be obtained through Agents of the "Villanueva", 3,000 h.p., but very expensive. Pilot informed us that one tug of 1,000 h.p. will be available late 1989.

BERTHING: Max. draft 10.0 m., depth alongside 12.0 m.

Only one shore crane available with S.W.L. of 12.5 tonnes, reach 22.5 m., height of lift 26.0 m.

Conveyor capacity – 140 tonnes/hr. – 200 tonnes/hr.

Cleaning of holds is done by small skid loader. Conveyor not designed for lumpy ore and maximum size that can be discharged is 150 mm.

Discharging done by shore crane and vessel has to move alongside the berth, the only problem was when discharging the extreme end hatches, the leads for the lines were very short. Loading done by ship's gear and should be at least 15 tonnes SWL, as the buckets used, when loaded, weigh approximately 14.5 tonnes.

Rates given by pier operators were as follows:

Discharging	Chrome Ore (Fine)	2,000 tonnes/day.
	Chrome Ore Lumps	1,000 tonnes/day.
	Coke	2,000 tonnes/day.
Loading	Ferrochrome	1,500 tonnes/day.

For our vessel discharging Chrome Ore (fine), a rate of 3,400 tonnes per day was achieved.

STEVEDORES: Pier operators have their own stevedores.

MEDICAL: Medical and hospital facilities available at Cagayan De Oro City, which is 30 minutes by car.

DENSITY: 1023 – 1025.

FRESH WATER: Can be arranged by road tankers, but requires a very long hose of 200 m. at least, and therefore not recommended.

PROVISIONS: Good quality provisions can be arranged from Cagayan De Oro City.

GENERAL: At present, about 3 – 4 ships call at this port each month for discharging chrome ore, coke and other raw materials for the Ferrochrome plant. Main cargo loaded is Ferrochrome (finished product), about 80% to Japan and the rest for Europe. An average of about 2 or 3 ships call each month for loading the finished product, and quantities loaded do not exceed 5,000 – 7,000 tonnes at any one time.

The Ferrochrome Plant is a joint venture between the Philippines and an Austrian Company.

TANAUAN, Leyte: 11.06 N. 125.01 E. (See Plan)

SHIPMASTER'S REPORT: 1976

N.I.D.C. Coconut Oil Pier: Location of berth Lat. 11° 06' 15" N., Long. 125° 01' 30" E. The berth is 7 miles from the Pilot boarding point. Least depth of water in channel from sea to berth, 32 ft. At berth bottom is mud and sand. Density 1025. Docking and undocking in daylight only at any stage of tide.

Anchorage 1.5 miles North of Mariquitdaquit Light. Terminal Information: Use shore hoses. Length of pipeline – 3,000 ft. connection at manifold – 8 in. Shore-booster pump not used. No steam. Product handled, coconut oil.

Port Information: Pilotage compulsory. Pilot requires 12 hours' and 24 hours' notice. Pilot boards 1 mile North of Mariquidaquit Island and comes from Tacloban. It is unsafe to enter and leave after dark. Vessels can enter and leave any state of tide. Max. LOA 1,000 ft. Max. beam 90 ft. Max. draft 31 ft. No tugs available. Vessel able to berth andunberth without aid of tugs.

Facilities available: Fresh provisions available from Tacloban, a small town, 20 km. away. Chandler requires payment in cash for goods.

Airport at Tacloban. Doctor and hospital available. Groceries, meats and laundry available.

No fresh water, repairs, Lloyd's Surveyor or fuel available.

TOLONG (Santa Catalina), Negros Oriental: 09.20 N. 122.51 E. (See Plan)

SHIPMASTER'S REPORT: March 1995.

VESSEL:

Deadweight	17,300 tonnes.
LOA	145.5 m.
Beam	21.0 m.
Summer Draft	9.48 m.

DOCUMENTS:

10 copies Crew List.
5 copies General Declaration (Stores).
5 copies Personal Effects List.
5 copies "Nil" List.
5 copies Ship Particulars List.

Officials: Tolong was our second port of call in the Philippines. As there is no local Immigration, Customs and Quarantine Station, all Officials come from Dumaguete (3 Customs Officers, 2 Immigration Officers, 1 Quarantine Officer, 1 Plant and 1 Animal Officer).

Accommodation: Accommodation is required for 3 Customs Inspectors and one Immigration Officer. If this can not be provided on board, it may be arranged ashore on Owner's account.

PILOTAGE: The vessel is met by the Pilot about one nautical mile S.S.W. of the pier at Tolong. He boards from a slow, small motorised fishing canoe. Contact with Pilot is on VHF Channels 16/6. Pilot usually boards at Dumaguete.

APPROACHES: See B.A. Chart No. 3811.

This chart is not much use as an approach chart as the scale is too small. However, the water is deep, and therefore it does not matter too much. It is not recommended to approach closer than one nautical mile without a Pilot on board. The shallow water near the beach is marked by bamboo poles.

ANCHORAGE: The safe anchorage is 0.2 – 0.35 m. nautical miles S.E. from head of pier and 0.25 nautical miles off coast line, with 8 shackles of cable in water for our vessel. The nature of the bottom is sand.

RESTRICTIONS: Port open during N.E. Monsoon only.

Also see "Berthing".

MAX. SIZE: Depth of 10.0 m. MLLW along the berth, after dredging.

TUGS: Not available.

BERTHING: One berth only, for loading of raw sugar in bulk. The pier and dolphins are concrete, but well fendered.

Arrival and departure from berth is during daylight only.

Vessels always berth head in, starboard side to, due to depth of water limitation and restricted manoeuvring area.

On approach to the dock, the port anchor is walked out and dropped when about 70 m. from the pier.

Small motorised fishing canoes are used as mooring boats.

Mooring arrangement:

Forward:	2 long head lines to dolphin.
	2 breast lines to dolphin.
	2 spring lines to pier/dolphin.
Aft:	2 long stern lines to dolphin.
	2 breast lines to dolphin.
	2 spring lines to pier/dolphin.

Warning: It is strongly recommended to sound the depth of water around the vessel after berthing and after every shifting. On arrival, Pilots and Pier Manager declared the depth of water from 10.0 m. – 11.0 m., but actual depths were from 6.0 m. – 9.0 m. Vessel had to stop loading and wait at anchorage 5 days for completion of dredging. As per Agent's information, the berth should be dredged every few months.

BULK CARGO FACILITIES: Loading conveyor belt system (with trimmer) is fixed and the vessel has to shift from hatch to hatch. Loading rate 200 tonnes/hr. Warehouse capacity about 6,500 tonnes.

STEVEDORES: Cargo work carried out day and night.

MEDICAL: All medical and hospital facilities are available in Dumaguete. One doctor is on duty at Santa Catalina.

FRESH WATER: Available by truck, at cost of U.S.$4.50 tonne.

FUEL: Not available.

GANGWAY/DECK WATCHMAN: Shore gangway. Watchman recommended, arranged with private security agencies from Dumaguete.

OPENING/CLOSING HATCHES: Carried out by the ship's crew.

REPAIRS: No facilities locally.

CUSTOMS ALLOWANCE: Sufficient amount for crew's consumption. Bond sealed.

REPATRIATION: Arranged by ship's Agent through Immigration Post at Dumaguete.

AIRPORT: At Dumaguete, about 100 km. by road from Tolong. Regular daily jet flight to Manila.

TIME: GMT plus 8 hours.

TELEPHONES: Facilities available for domestic calls in Santa Catalina. Facilities for international calls in Dumaguete only.

PROVISIONS: Only available from Dumaguete. Master can purchase vegetable, fruits and seafood locally.

SHORE LEAVE: Advisable in daylight only.

IDENTIFICATION CARDS: Not required. Movement area is Santa Catalina/Dumaguete.

VILLANUEVA, Mindanao: 08.35 N. 124.44 E. (See Plan)

DOCUMENTS, etc.,: See "Cagayan de Oro".

MAX. SIZE: Max. LOA 340 m., max. draft 21.5 m., max. beam 55 m.

BERTHING: Max. workable length allowed without shifting 248.5 m., max. height of hatch coamings above waterline 17.0 m., max. width of hatch coamings 16.8 m., outreach of grab from fender line 33.0 m., mean (F.W.) depth alongside 23.55 m., length of berth 351.0 m., depth at MLW 23.28 m., depth at MHW 24.38 m., distance from pier face to MHW level 4.45 m., distance from grab to MHW 22.25 m.

SHIPMASTER'S REPORT: May 1980.

Location: The Port of Villanueva is situated in Macajarlar Bay on the North coast of Mindanao Island in position Lat. 8° 34' 45" N., Long. 124° 44' 22" E. and has a clear deep water approach.

Pilotage: The Pilot and possibly Quarantine Officials board in position Lat. 8° 35' N., Long. 124° 40' E. by launch from Cagayan de Oro City.

Approaches: When approaching from the East, passage through the Surigao Strait creates no difficulties as there is deep water. There are good radar targets and no excessive tides or currents. Passage between Camiguen Island and the coast is also clear and deep. Numerous fishing vessels encountered throughout the area as well as frequent passings of coastal traffic.

Anchorage: Although there is very deep water to close inshore there is an anchorage position, recommended by the Pilots, in position Lat. 8° 37' N., Long. 124° 44' 30" E. which is 1 mile offshore.

Tugs: There are at least 4 tugs to assist with berthing, all modern efficient vessels of over 3,000 h.p. Tug's ropes used for towing.

Berthing: Berth is in position Lat. 8° 34' 45" N., Long. 124° 44' 22" E. and is aligned 050°/230°. The berth is 350 m. in length and fendered with 7 'Yokohama' balloon type fenders. Vessels of up to 300 m. in length berth port side alongside, vessels over 300 m. LOA berth starboard side alongside. Depth alongside 23 m. – 29 m. Daylight berthing only but reported able to leave at any time.

Moorings: Standard mooring equipment used, line boat used to run head and stern lines.

Moorings usually 4 head/stern lines, 2 breast lines and 2 springs at each end of vessel.

Loading: Loading is carried out by 1 loading unit with a capacity of over 4,500 t.p.h. The product, sinter ore, is a finished product with a stowage factor of 23 cu.ft.–24 cu.ft. per ton relatively clean and not much dust. The product can be loaded into holds previously containing coal without cleaning.

Discharge facilities exist on the same berth where there are 2 units using 60 ton grabs.

A thorough draft survey is carried out on arrival and again after loading completed.

General: After berthing the vessel is boarded by 14 port officials of various departments from plant quarantine to immigration, paperwork takes about 2 hours on arrival and again before departure after loading completed.

Fresh stores, including fish, are available of good quality and a reasonable price.

There is no VHF communication but telex service to Manila is reliable.

While alongside 3 Customs Officers/Inspectors remain on board and require food and accommodation on a 24 hour basis.

SHIPMASTER'S REPORT: January 1981.

Vessel: LOA 259.0 m., beam 39.6 m., draft 52 ft. 6 in.

Discharged 109,000 tonnes of iron ore at Philippine Sinter Corp. Pier.

General: The pier of Philippine Sinter Corporation at Villanueva is located at the S.E. end of the "J"-shaped bay of Macajalar, in position Lat. 08° 34.45' N., Long. 124° 45.24' E., on the North coast of the Philippine island of Mindanao, in the province of Misamis Oriental. Villanueva is only a very small village. The nearest city is Cagayan de Oro, 24 km. (45 minutes) by car from the plant. Our Agent and almost all other offices of importance, are located there.

Documents: The Authorities and the Agents' representatives boarded the vessel at the anchorage (14 persons). The following were required:

10 Crew Lists.
8 Cargo Plans.
2 Vaccination Lists.
1 Maritime Declaration of Health.
6 Ship's Stores Lists.
6 Personal Effects Lists.

In addition, there were other lists, but the Agent had all of them made out in advance.

Telegraphic Free Pratique is obtainable. A telegram sent to the Agent 24 hours before arrival stating the number of Filipinos and Europeans is also compulsory.

Upon departure, no Filipino crew member is allowed to depart if his Seaman's Book has expired, so all Seaman's Books must be renewed before departure. Filipino citizens who are not seamen (wives, etc.) are not allowed to join the vessel in a Philippine port and stay with the vessel to its next port of call. Visiting was no problem, except that a special Customs Permit must be obtained.

Pilotage: Pilotage is compulsory both when anchoring and at docking/undocking. The Pilots have a portable CB radio, but no VHF. The pilot cutter is about 50 ft. long, with a large (for its size) white superstructure. Pilot boarding ground Lat. 08° 37' N., Long. 124° 42' E. for inbound vessels. For outbound vessels, Pilot leaves as soon as the vessel is turned, and is about 5 cables off the pier.

Anchorage: The Bay of Macajalar is a deep water bay, with the exception of a shallow area centered at Lat. 08° 40.75' N., Long. 124° 41.5' E., and a strip of shallow water extending generally less than 0.5 miles off the coast.

The Villanueva Anchorage is the one exception on the East side of the bay. It is a ledge of less than 100 m. depth extending 1.4 miles Westward from Lat. 08° 37' N., Long. 124° 45.5' E. on the shoreline, and it is 3.5 cables wide. The recommended anchorage is 8 cables due West of Lat. 08° 37' N., Long. 124° 45.5' E. The depth here is 70 m. or less than 40 fathoms. We anchored here and found it to be good holding ground. Not being more than 0.8 miles from the reefs in a "J" shaped bay, consequently open to wind and sea from West to North, I would not like to anchor there in any strong Northwesterly wind.

In our case the wind was from N.E. to S.E. which, according to the Pilot, were the prevailing wind directions. We did, however, experience quite a bit of swell.

Berthing/Unberthing: Docking and undocking is only done during daylight. There are 4 tugs available in Villanueva, each of 3,500 h.p. The Pilot brought the vessel parallel to the pier about 0.2 miles off, and the 3 tugs we used (1 forward, 1 amidships and 1 aft) pushed us alongside without difficulty. We docked starboard side to. There was, according to the Pilot, no preference for docking starboard or port to, that is, for vessel's discharging.

Vessels loading must always dock port side to due to the construction of the shiploader.

The docking sonar had, in my opinion, the big fault that the Pilot had to rely upon verbal information via the CB radio. A display board visible from the bridge would have enabled us to form instant opinions.

Undocking was a reverse operation; we were pulled by 2 tugs until 0.2 miles off the pier, then the third pushed us around.

Cargo Handling Facilities: The pier is a concrete structure that rests on several large pipes that are sunk down to bedrock. It lays in direction 049° – 229°. There is a "gangway" connecting the pier to the shore. The pier itself is 380 m. long and about 50 m. wide. Large airfilled bags are used as fenders, 6 m. – 7 m. long with a radius of 1.5 m. – 2.0 m. So, even with a relative heavy swell, the ship lays very nicely alongside this cushion.

We tied up with 4 head/stern ropes, 2 spring and 2 breast ropes. The discharging cranes are of the same type as "Kawasaki" have in the port of Chiba, max. 6 tonnes with clamshells of 30 tonnes, portable cranes. Hourly average capacity on lump ore 1,100 tonnes per crane, and on fine ore 1,400 tonnes. We averaged 2,794 tonnes with 2 cranes.

The discharging operation was impressive, with regard to speed and precision.

The ship loader was a normal type conveyor belt with an airdraft of about 40 ft. Loading capacity 4,000 tonnes p.h. Free rail area at pier about 280 m., no shifting while loading for a ship of our size.

Services: There is good drinking water available at the pier. Bunkers are obtainable but at what quantity and price I was not able to find out.

As of repair facilities, I had the impression that only simple repair work could be carried out.

The city of Cagayan de Oro has an airport with a twice daily direct flight to Manila, and once a day connections with Cebu and Davao. There are no international flights.

International telephone service is extremely poor. One must make the call directly from the telephone company's office, and a 2 hour – 3 hour waiting time for Europe and the U.S.A. must be expected. A call to Manila may come through in less than an hour. The Agent had telex and this is the only sensible communication with Cagayan de Oro.

With mail from Europe and the U.S.A., one must reckon on 2 weeks to 3 weeks. It seems that all communications go through Manila, with the delays that this automatically causes.

The Agent had a minibus service from the plant to Cagayan de Oro. This proved a necessity, as taxis are scarce.

The ship chandler could only obtain foodstuff.

SHIPMASTER'S REPORT: December 1988.

The vessel arrived at Villanueva for loading Iron Ore Sinter for discharging at Sparrows Point, Baltimore, U.S.A. The information pertaining to port facilities and conditions have been collected and compiled during this call.

General: The Philippine Sinter Corporation (PSC) is one of the biggest single foreign investments in the Philippines today. This industrial joint venture between Kawasaki Steel Corporation of Japan and PSC was incorporated in 1974. Sinter production started in April 1977.

Mindanao Sinter Plant – Product and the Process:

The "Sintering" consists essentially of mixing fine iron ore with solid fuel, normally coke and flux such as limestone, and burning the mixture under controlled conditions to produce hard but permeable lumps which are ideal blast furnace feed. The mixture is spread evenly over a continuous train of pallets of the sinter machine in a uniform bed thickness and ignited under induced pressure provided by huge blowers. The blended material is agglomerated into big blocks of sintered ore. A hot crusher breaks these blocks into 150 mm. lumps, which are then cooled. The rest of the process involves screening to remove mediums and fines which are recycled.

PSC is diversifying into a new project which involves construction of drying plant to treat pineapple pulp into suitable cattle feed. The drying plant is located adjacent to existing sinter plant and will utilise the recovered waste heat from the sinter plant.

The Mindanao Sinter Plant has three main components.

1. The Ore Yard.
2. The Sintering Facilities.
3. The Port Facilities.

1. THE ORE YARD:

The 18 hectare ore yard is made up of 4×45,000 sq.m. yards with an aggregate storage capacity of 1,500,000 tons. The yards are equipped with a Wing stacker and reclaimer, etc.

The ore yard facilities are:

4 Ore yards, (50 m.×900 m.), for iron ore, sintered ore, limestone and coke breeze.
2 Stacker-Reclaimers, 3,600–6,000 t.p.h. and 3,600–1,500 t.p.h., rail mounted.
1 Wing stacker, 800 t.p.h., single wing and rail mounted.
8 Bulldozers.
6 Mobile truck cranes.

2. THE SINTERING FACILITIES:

These consist of one sinter machine with a 450 m. grate area, rated at 5 million tons per year and other ancillary equipment for limestone crushing, screening, coke grinding, material blending, mixing, storing, feeding and processing.

The equipment of the sintering facilities is:

14 Blending Hoppers, 600 cu.m. capacity.
1 Sinter Machine, 450 sq.m. grate area, Dwight-Lloyd type (90 m.×5 m.).
1 Sinter cooler, 400 sq.m. bed area, 15,000 cu.m./minute circular type.
2 Main blowers, 18,000 cu.m./minute, double suction type.

In addition other facilities include:

(a) De-dusting system equipment.
(b) Power equipment.
(c) Fuel tanks and deepwell.
(d) Maintenance shop for mechanical, electrical and instrumentation works.
(e) Laboratory for physical, chemical, bacteriological and environmental analysis.
(f) Instrumentation and control facilities.
(g) Communication facilities.

3. THE PORT FACILITIES:

The port has a main berth and a cargo berth. The 351 m. long main berth has a depth of 25 m. It can easily accommodate 300,000 d.w.t. bulk carriers and is equipped with 2 bulk unloaders with a capacity of 1,800 t.p.h. each and 1 shiploader with a capacity of 6,000 t.p.h. The cargo berth is 230 m. long with a depth of 5.5 m.

The following floating equipment is available:

2 tugs of 3,200 b.h.p., twin screw Z-peller.
2 tugs (pusher boats) of 3,200 b.h.p., twin screw.
2 barges each 6,000 d.w.t.
1 lineboat, 390 b.h.p., twin screw.

PORT INFORMATION:

Location: The Port of Villanueva is situated on the North coast of Mindanao Island, in Macalajar Bay, on the Eastern side in position Lat. 08° 34' 45" N., Long. 124° 44' 22" E.

Charts:

B.A. Chart No. 3811 – this chart is small scale for approaches.

U.S. Chart No. 92290 – this chart is fairly large scale and more useful.

Philippine Charts No. 4648 and 4649 – these charts were published by PC&GS in 1976 and are available from Philippine Sinter Corporation and may be obtained through Villanueva or Manila agents.

Port Limits: There is no specific demarcated port limit. Southern half of Macalajar Bay could be considered within port limits. However, entire bay is under control of Harbour Master of Cagayan De Oro Port, which is located on the Western side of the bay.

Pilotage: The Pilot and at times Quarantine Officers board vessels in position Lat. 08° 35' N., Long. 124° 40' E., by launch from Cagayan De Oro. Pilotage of Villanueva is carried out by pilots of Cagayan De Oro and is controlled by its Harbour Master.

Presently, there are 4 pilots at Cagayan De Oro for both ports. Usual arrival messages to be sent to Agent. VHF station at Cagayan De Oro keeps 24 hours' watch on VHF Channel 16. At least 6 hours prior to arrival, contact should be made with Port Authorities, calling "Cagayan Pilot Station" and give ETA, etc. Pilot boards vessel anytime, day or night, unless weather is bad, due to strong wind and rough seas hampering motor launch manoeuverability. Anchoring, berthing and unberthing at Villanueva is carried out anytime day or night on a 24 hour basis.

Anchorage: The Bay of Macalajar is a deep water bay. A strip of shallow water extends generally less than 0.5 miles off the coast. The Villanueva Anchorge is about 3 miles to the North of the berth, along the Eastern side of the bay. The recommended anchorage is in the vicinity of approximately 8 to 9 cables due West of position Lat. 08° 37' N., Long. 124° 45.5' E. In this area there is room for only 3 large vessels from Panamax size to 300,000 d.w.t. for safe distances whilst at anchor. The depth of water in this area is from 70 m. to 150 m. Anchoring is carried out by pilots anytime, day or night, however, it is preferable to anchor in daylight hours. On account of close proximity of coastline, during Northerly or North-Westerly winds, added precautions and vigilance would be needed to remain safely at anchorage.

While approaching the anchorage area, starboard anchor was lowered to 4 shackles in the water and the windlass was kept in gear. Vessel approached to within 1.15 miles of the coastline in position Lat. 08° 38' N., Long. 124° 44.5' E., ship heading 093° True, when echo sounder showed depth of 157 m. When vessel reached 0.77 miles off the coastline, cable was gradually lowered in gear up to 8 shackles in the water and subsequently was brought up when 0.68 miles off the coastline and water depth was 140 m. After swinging around with vessel heading on a Westerly bearing, water depth showed about 90 m. Holding ground was found to be good. There are no lights or buoys for checking anchor bearing. One has to improvise, using certain landmarks and conspicuous shore objects for ascertaining position by radar.

Approaches: Passage from East through Surigao Strait is safe as there is deep water. Most of the lights are either not working or are on low power. The passage through these waters can be made with good radar for night transits and impaired visibility periods during rain squalls. Numerous fishing vessels are encountered throughout the area, as well as coastal traffic. Also large vessels make use of Surigao Strait to and from Pacific.

Documents: The following documents were required and prepared by vessel:

10 copies Crew Lists.
4 copies Personal Declaration and 4 copies Stores List.
2 copies Vaccination List.
1 copy Maritime Declaration of Health.

In addition, there were other documents and Philippine forms which Agent had prepared in advance for Master's signature.

Vaccination List was not required by the Quarantine Officer.

Visaed Crew List: As informed by Agent, Visaed Crew List is a requirement. Prior to arrival at previous port, a telex message was received from Manila Agent advising that Crew List should be visaed by Philippine Embassy or Consulate. Therefore, 3 copies of Philippine Crew List forms were obtained from Philippine Embassy through Agent, which were then duly completed and sent for Visa. The visaed Crew List was forwarded by Agent to Villanueva in due course. Although it did not reach Villanueva when vessel arrived, Immigration authorities issued shore passes to crew without difficulty. Visaed Crew List reached Agent's office on day of departure (sent from Japan).

Health: Usual Radio Pratique message to be sent to Agent for presenting to Quarantine Officials. However, Pratique was granted by Quarantine Officer who boarded the vessel upon anchoring.

Boarding Formalities: Upon anchoring, 23 persons boarded the vessel, which comprises agents and representatives of various authorities:

Quarantine	1
Agents	3
Immigration	4
Customs	7
Plant and Animal	4
Coast Guard	4

Agent requested lunch and refreshments for all above officials.

Restrictions: There are no restrictions. Vessels up to 300 m. LOA and 250,000 d.w.t. are berthed at Villanueva for discharging iron ore and loading iron ore sinter. Maximum draft alongside berth is 25 m.

Radio/VHF: There is no radio or VHF station at Villanueva. Cagayan De Oro has a VHF station which keeps continuous watch. Vessels should send ETA messages through Manila Agent or directly by telex to Villanueva Agent.

At least 6 hours prior to arrival, contact should be made with "Cagayan Pilot Station" (Channel 16) for ETA notices and instructions.

Berthing Facilities: There are 4 motor launches for pilots at Cagayan De Oro which are painted red and are numbered "M.L. Pilot No. 2". "M.L. Pilot No. 3", "M.L. Pilot No. 4" and "M.L. Pilot No. 5". Launch No. 1 has been scrapped. There are 2 tugs of 3,200 b.h.p. and 2 pusher tugs of 3,200 b.h.p. There is 1 line boat of 390 b.h.p.

The main berth is 351 m. long with berthing capacity for vessels up to 300,000 d.w.t. and water depth of 25 m.

The main berth is used for discharging and loading operations. Berth is in position Lat. 08° 34.45' N., Long. 124° 44.22' E. and is aligned 050°/230°. The berth is protected by 7 "Yokohama" balloon type fenders. For discharging vessels there is no preference for docking starboard side to or port side to, whereas for vessels loading, docking with port side to is required due to location and movement of shiploader. Mooring lines are usually 4-2-2 at each end.

Cargo Facilities: For discharging there are 2 grab unloaders, rail mounted rope trolley type, each with a capacity of 1,800 t.p.h. These unloaders are adjacent to each other and are located on the Southwesterly side (i.e. after the shiploader).

For loading, there is one shiploader, rail-mounted luffing shuttling type, with a capacity of 6,000 t.p.h. However, in practice, average loading rate was found to be 4,500 t.p.h.

Air draft at berth is 40 ft. No shifting required while loading for Panamax size vessels. Iron ore sinter cargo stowage factor is 23 to 24 cu.ft. per ton. The cargo which was loaded was found to be very dusty, containing white-grey coloured powder (presumably limestone). Upon sailing, this powder was found to be sticking to hatch covers, main deck, pipelines, etc. and at some places use of scrapers was required as it could not be removed by hose washing. The dry powder remains could be swept more easily than removing when wet as it became sticky and hardened with water.

Fuel: HFO and DO can be supplied by trucks only, in any quantity. There is no pipeline facility for bunker supply at Villanueva.

Medical: Cagayan Medical Centre at Cagayan De Oro City is equipped with full medical and hospital facilities.

Stores and Provisions: A limited variety of deck, engine and catering stores are supplied from Cagayan, small quantities only can be supplied. Fresh provisions are also available at Cagayan De Oro. Prices of most items are normal, however certain items are expensive.

Surveyors: A.B.S. are stationed at Cebu. Surveyors of other Classification Societies are available from Manila with sufficient notice. Cargo surveyors at P.S.C. plant at Villanueva are from PNKKK, for carrying out draft surveys, etc.

Watchman and Safety: At anchorage, very efficient deck patrolling is necessary as pirates board unguarded vessels in dark hours. Loss of private property, ship's stores, ropes, paints, etc. are often reported. In addition to crew on deck, 3 armed guards, supplied by the Agents, patrol at night whilst at the anchorage.

Holidays: Government Offices, including Immigration and Customs, work 5 days a week. Agents and other commercial offices work half days on Saturdays.

Mail Service: Delays of up to 10 days to 15 days are normal as all mail is routed through Manila.

Telephones: Telephones are not provided on ship at berth. However, P.S.C. office located near the main berth has telephone for making domestic and International calls. Long delays for any International telephone calls from Villanueva, as well as Cagayan De Oro are normal.

Telex: Telex services to and from Villanueva were found to be normal.

Shore Leave: Immigration Authorities issue shore passes for crew to go ashore and crew can go to Cagayan De Oro. Agents arrange minibus for transportation to and from ship to Cagayan. Private taxis are also available. Travelling alone at night is not very safe.

Airport: Cagayan Airport is located 10 km. from Cagayan De Oro City and about 40 km. from Villanueva. Regular domestic flights are operated to and from Manila and Cebu.

Repatriation: Crew joining and leaving is possible, via Manila.

Time: GMT plus 8 hours throughout the year.

Consuls: Consulates of most countries are located in Manila and a few are located at Cebu.

Radio and TV Stations: AM/FM radio stations. Two TV channels from 1100 hrs. – 0000 hrs., programmes are in English and Tagalog.

Languages: English is widely understood and spoken. Visayas is the main language spoken on Mindanao Island. Tagalog, Spanish and English are taught in schools. Tagalog is the main language of Luzon.

Currency: The peso is the currency of Philippines. Exchange rate is linked to the U.S. Dollar. During ship's call, the exchange rate was U.S.$ 1.00=21.20 Pesos. However, in shops and stores, exchange was available at 20 pesos to U.S.$ 1.00.

AUTHORITY: See "Cagayan de Oro".

Operator: Philippine Sinter Corporation, Port Operations, Villanueva, Misamis Oriental, Philippines. Postal Address: P.O.Box 90, Cagayan Do Oro City, Philippines. *Tel:* 33-28. *Telex:* ITT-48406. *Contact:* Captain Emiliano Ea Duran.

WEST LINAPACAN, Palawan: 11.49 N. 119.07 E.

(See Plan)

LOCATION: *Location and Description of Terminal:*

1. West Linapacan Oil Terminal is located off the Western side of Palawan Island, at Lat. 11° 49' 08.19" N., Long. 119° 07' 00.75" E., in a water depth of 1,140 ft.

2. Navigation charts for the area are as follows:

British Admiralty Charts No. 967 and 3820, and U.S. Navy Charts No. 92490 or 14316.

3. The Terminal consists of a production and storage tanker called "FPSO II" of 125,000 tons, moored by means of a stern yoke to Single Point Mooring.

This vessel contains equipment necessary for production, storage and transhipment of crude oil. It is also the headquarters and accommodation of Terminal personnel.

To comply with international convention, during the hours of darkness, the vessel will show lights with the distinctive characteristics of the morse code letter "U". In periods of poor visibility, the fog signal will sound the morse code for the letter "U".

4. Vessels using the Terminal will be moored in Tandem, bow-to-bow, to the storage tanker, and loading is by means of a floating hose between the vessels.

ESSENTIAL REQUIREMENTS: *Summary of Most Essential Requirements to be met by Tankers Lifting Oil at West Linapacan Oil Terminal:*

1. No dirty ballast disposal.
2. Advise arrival time by radio.
3. Mooring Master meets ships 2 miles West of Oil Terminal.
4. Make a lee for the Mooring Master to board.
5. Have ready: 2 messenger lines forward, ship's derrick on port side, port manifold with 12 in. connection.
6. Vessel's Master responsible for safety of own ship at all times.
7. Lifting vessel's crew perform all operations of mooring, connecting and disconnecting hoses, and unmooring aboard lifting vessel.
8. Do not close valves against oil flow.
9. Emergency flow stop signal if all communications fail will be a continuous sounding of ship's whistle from either lifting vessel or "FPSO II".
10. No shore leave or crew change is permitted.
11. When arriving:
    By day: Fly flag "Q".
    By night: Display red light over white light for quarantine service.
12. Vessel's anchor to be secured against accidental use from the time the Mooring Master boards.
13. West Linapacan local time is GMT plus 8 hours throughout the year.
14. No supplies of any kind of medical services (except in case of emergency, and subject to a doctor being available), or other services of any kind are available at West Linapacan Oil Terminal.
15. Smit Connector or bow chain stopper of lifting vessel should have a minimum 76 mm. horizontal and vertical opening, and be properly greased and ready for use. A large 14 lb. hammer should also be available.

PORT LIMITS: The export vessel is considered "an arrived ship" when she has entered the territorial water of Palawan.

DOCUMENTS: Documents for arriving export vessel are:
Vessel's Last Port Clearance.
Crew Declaration.
Stores List.
Cargo Manifest.
Storage Plan (deleted if no storage is on board).
Health Quarantine Certificates.

PILOTAGE: Usual procedure is to advise export vessel to approach 2 miles West of the Oil Terminal, and wait for the supply vessel for pilot boarding.

Also see "Berthing" – "Mooring/Unmooring".

ANCHORAGE: West Linapacan Oil Terminal has no anchorage area. As water depth is in the region of 1,200 ft., arriving tankers are advised to drift outside of the 5 miles radius restricted area.

RESTRICTIONS: Port restrictions:
D.w.t.: 100,000 tons.
Arrival Displacement: 30% – 35% d.w.t.
LOA: No restriction.
Draft: No restriction.

HEALTH: The vessel should have a clean Bill of Health or equivalent document from the last Port of Call. The vessel's Master and all members of the crew shall possess International Certificates of Health showing such valid Vaccination Certificates as required by current Philippine Law. From time to time, Cholera Vaccinaton Certificates may be required, and it is therefore prudent that all crew members are in possession of valid Certificates.

RADIO/VHF: *Communications:*

1. Cable or Telex: It is most important that incoming tankers advise their ETA 72 hours, 48 hours, 24 hours and 4 hours in advance of arrival, stating GMT or local time.

Messages are to be sent as follows:
Cable Address: Alcorn Philippines.
Telex: 454371/22209/64293.
Attention: SVP Operations.

The following information shall be included in the message given 72 hours in advance:

(1) Name of tanker and radio call sign.
(2) ETA.
(3) Cargo requirements.
(4) Deballasting time.
(5) Maximum loading rate in barrels per hour.
(6) Estimated draft on arrival.
(7) If there is any sickness aboard or clean Bill of Health.
(8) Last Port of Call.
(9) Any hull, bulkhead, valve or pipeline leaks on vessel, which could negatively affect loading or cause pollution.
(10) Distance in feet from the bow to tanker's loading manifold, and from port rail to manifold.
(11) All vessels shall confirm ETA 24 hours and 4 hours prior to arrival, or any time a one-hour change of ETA is anticipated.

2. On receipt of the first message from the lifting vessel, Alcorn Philippine's office will respond to the tanker giving preliminary requirements of the Terminal. Vessel's Masters will comply with these requirements in all details, in order to facilitate vessel turnaround and Government formalities.

3. Radio Facilities:

Operating frequencies: West Linapacan Oil Terminal: IM/VHF/FM Storage vessel 6 ZMR (local call sign "FYPSO").

4. Once vessels are within 4 hours of West Linapacan Terminal, communication should begin with the "FPSO II" on VHF Channel 16. When contact has been made on this channel, further communication will be conducted on a mutually compatible channel, which would normally be Channel 6.

5. Mooring Master will carry a VHF/FM radio telephone, as he boards the tanker.

6. The 4 hour signal should confirm information on the time required to discharge ballast after arrival, and should establish a more exact ETA.

7. Insufficient or inaccurate ETA messages can cause delays as Government Officials have to come from Puerto Princesa. Acceptance of Notice of Readiness may be affected by such insufficiency or inaccurancy.

READINESS: *Loading Readiness and Arrival Time:*

1. The Terminal will make every effort to moor/load vessels upon arrival in daylight, weather permitting.

2. Notice of Readiness will not be accepted as at time of arrival, unless the vessel is in all respects ready to load. Arrival time will be considered at the time the Mooring Master boards the vessel, or the time the vessel reaches the deep water anchorage area, whichever occurs first. Notice of Readiness is to be in English.

If a vessel arrives while the Terminal is closed, Notice of Readiness will be accepted from the time the Terminal re-opens.

3. During the loading or unloading, the international code flag "B" shall be displayed.

TUGS: *Mooring Launches:* The Terminal maintains boats to assist in mooring and unmooring vessels. These are under the direct supervision and control of the Mooring Master.

BERTHING: Terminal Facilities:

1. The West Linapacan Marine Terminal offices, storage and testing laboratory are located on board the 125,000 ton Liberian registered Floating Production Storage and Offloading vessel called "FPSO II", which is stern moored to a Single Point Mooring. This vessel has a crude oil storage capacity of some 134,000 cu.m.

2. Vessels using the Terminal will be moored bow-to-bow (Tandem), to the "FPSO II", by means of a 45 m. nylon snotter. On the outer end of the snotter is a short length of chain, ending in an open pear shaped link, which is attached to the lifting vessel's Smit Connector or guillotine-type stopper.

The vessels should have bow chain stopper with minimum vertical and horizontal opening of 76 mm.

For vessels not equipped with a Smit Connector, extra equipment, consisting of a 25 m. × 16 in. snotter, two short lengths of chain, one fitted with a triangle plate and the other with special shackle, can be supplied.

3. During the period the lifting vessel is in the berth, a tug/supply vessel furnished by the Terminal will remain secured to the stern of the lifting vessel, in order to prevent the vessel from jack-knifing. The lifting vessel shall not have the authority to direct or control the tug/supply vessel.

4. Loading hose connection is ASA 150 12 in. I.D.

5. Loading rates at the Terminal will be governed by either the lifting vessel's maximum loading rate, or the maximum pumping rate of the FPSO II (approx. 15,000 b.p.h.), whichever is the lesser.

Berthing:

1. Lifting vessels will normally be accepted and berthed in chronological order of arrival, provided such vessels have current nomination for cargo, valid at the time of tender, carry clean ballast, if any, and have cargo tanks in a fit condition to receive cargo. Also they must be in all respects properly equipped, manned and ready to moor. Should berthing be delayed on account of bad weather, vessels will keep their position in line.

2. Vessels, required to leave the Terminal area on account of bad weather, should keep in contact with the Terminal via the Radio Telephone Station at West Linapacan Oil Terminal, call sign FYPSO, in order that they may be available when the weather is fit for resumption of operations. The Terminal reserves the right to load vessel out of turn following the return of good weather. Further the Terminal reserves the right to decline to moor a specific vessel, if its condition or facilities are unsafe for mooring or loading, even though the Terminal may be open to other vessels.

3. The West Linapacan Oil Terminal Mooring Master's decision on berthing will be final.

4. A lifting vessel will be expected to have ready on the forecastle head the following equipment:
Windlass ready for use.
Smit Connector free, open and greased.
A large coil of messenger line.
A large 14 lb. hammer.

On approaching the berth, a messenger line attached to a Norwegian buoy on mooring is recovered on forecastle, and line taken in until main recovery line is on deck. This line is placed on winch and brought in until mooring chain on deck, this chain then being secured in bow stopper, Smit Connector or any other suitable, safe, mooring arrangement. On completion of mooring, a supply vessel will then be secured to stem of tanker using ship's rope or wire, and this vessel will normally exert a minimum pull at all times to avoid contact of any sort between ship and "FPSO II".

MOORING/UNMOORING:

1. Vessels to be moored, anchored or manoeuvered at West Linapacan Oil Terminal, will be boarded by the Mooring Master. No lifting vessel may enter the Terminal area, unless a Mooring Master is on board.

The Mooring Master will advise the vessel's Master on approaches to the berth, mooring, unmooring, tug handling, connecting and disconnecting the hoses and other operations within the Anchorage and Terminal Area. All such manoeuvring of vessel shall be done only in accordance with the advice of the Mooring Master, except where the vessel's Master believes such advise to be contrary to the proper navigation and safety of the vessel and its crew, and subject to the understanding that in all cases and circumstances, the Master of the vessel being manoeuvered, shall remain solely responsible on behalf of his vessel's owners or charterers for the safety and proper manoeuvring of the vessel.

The vessel's Master, or one of his designated qualified Deck Officers specifically appointed by him at the time, must be on the navigation bridge at all times, while the vessel is being manoeuvered.

1. Vessels will provide a lee for the Mooring Master's boat while the Mooring Master is boarding and leaving. All vessels are requested to have a pilot ladder safely and securely rigged, and ready for immediate use and long enough to reach the Mooring Master's boat. A combination ladder, so arranged that personnel can first use the pilot ladder part way up the vessel's side, and then transfer to the accommodation ladder, is recommended, especially on very large vessels. A light line should be ready to take aboard the Mooring Master's portable radio. There should be adequate lighting at night.

3. The Mooring Master will be in direct control of all vessel's communications while in the Terminal area. Any unauthorised communications will at option of the Mooring Master be cause for the cessation of all operations except clearing of the berth, and the vessel's Notice of Readiness will immediately be nullified.

4. Raising, lowering, connecting and disconnecting of oil loading hoses, as well as all other labours and duties on shipboard, will be performed by the vessel's crew under advice of the Mooring Master.

5. The Mooring Master will report unsatisfactory conditions to the West Linapacan Oil Terminal Superintendent, who may at his discretion, reject the vessel until corrections are fully made. All costs or liabilities accruing therefrom will be to the vessel's account.

6. The services of the Mooring Master are provided without charge upon the express understanding and conditions that when the Mooring Master goes onboard a vessel for the purpose of assisting such vessel, he becomes for such purposes the servant of the owners or charterers of the vessel, and the companies shall not be liable for any damage or injury resulting from any advice or assistance or actions given or made by the Mooring Master.

7. The Mooring Master may require the vessel to unmoor at any time he deems it necessary for the safety of the vessel, or mooring or both or for infringement of these Terminal Regulations.

8. The West Linapacan Oil Terminal Superintendent shall be the sole authority, as to when the Terminal is opened or closed for normal working due to weather conditions.

9. Various combinations or wind, sea and tidal conditions, also size, length, ballasted trim, and handling qualities of a vessel, can affect the decision to berth a vessel at West Linapacan Oil Terminal.

All these factors have to be evaluated before a final berthing decision is made, and agreed by the vessel's Master and the Mooring Master. Delays to lifting vessels, due to the Terminal being closed because of bad weather conditions or statutory holidays, are not to be computed as "used lay time" when compiling a vessel's turnaround time.

Vessel's Gear:

1. The Mooring Master may reject a ship if it is not, upon inspection, properly equipped, or if it is not suitably manned, or if he deems it to have dirty ballast or tanks unsuitable for receiving the cargo.

A vessel is suitably manned if it has full complement of officers and crew in a sober condition, competent and willing to carry out their duties and orders and proficient English is spoken, so that the Mooring Master can understand and be understood.

2. A vessel must be equipped with a good working propulsion unit, as passed by the appropriate survey society. Inoperative vessels, or partially inoperative vessels, will be rejected. Should they become inoperative while in berth, they may be removed from the Terminal area.

3. Additionally, a vessel must have both bower anchors and ground tackle in good working condition, and in such sizes and amounts to meet either "Lloyd's" or "A.B.S." standards, although they may be in fact classified by other societies. On instruction from the Mooring Master, the vessel's anchors must be properly secured against accidental dropping.

4. All vessels must carry suitable stoppers for all Manila or synthetic lines for mooring use.

5. *Vessels must have suitable winches or capstans in good operating condition on the forecastle deck.*

6. Vessels must be adequately equipped with a 5 ton boom, blocks, tackles, wire runners and sundry equipment on the port side, to efficiently hoist the hoses to the loading position. Sundry equipment should include wrenches, drift pins, nuts and bolts, wire and fibre straps, drip pans, gaskets, etc.

To assist in vessel's turnaround, the vessel should have all necessary booms and cargo gear rigged and ready, before being boarded by the Mooring Master.

Vessels, which consider the lifting capacity of their gear to be marginal, should strengthen their gear accordingly. This does not relieve the vessel of the necessity to provide adequate lifting gear as already described for West Linapacan Oil Terminal operations.

7. Vessel's loading manifolds should be prepared for 12 in. 150 ASA hose connection prior to vessel's arrival. Where no crossover valves exist on loading manifolds, it is recommended that loops between loading lines on the starboard side of these manifolds be fitted. Vessels, equipped with smaller than 12 in. hose connections at the loading manifold, should arrive with such hose connections suitably adapted for 12 in. hose, so that maximum flow through the 12 in. cargo hose will be achieved (12 in. ASA 150 flange).

Vessels, equipped with larger than 12 in. hose connections at the loading manifold, should provide their own reducers.

Connecting Hoses:

1. After the vessel is securely moored, the cargo hose will be hoisted on the port side. The berth is equipped with a single 12 in. loading hose string, the weight of the hose lift being approximately 3 tons. Therefore, all lifting equipment and tackle should have a safe working load of at least 5 tons. The hose is lifted by vessel's gear and crew, and all connecting of the hose will be done by them. The lifting derrick, equipment, tackle, etc., should be topped off and ready on arrival. Terminal loading hoses are fitted with ASA 150 flat face flanges, and vessels should have adapters and fittings to enable these hoses to be connected to the vessel's manifold. The Mooring Master advises the vessel's personnel on hose lifting and connecting procedures; however, a vessel's Master or Deck Officer must be present, and must direct the vessel's crew in all handling. The Mooring Master may reject a vessel for unsatisfactory hose handling.

2. When a Mooring Master is assigned to a vessel, the vessel at her cost will supply him with meals at the same time and in the same manner as for comparable personnel of the vessel. The vessel will also provide a suitable cabin and smoking facilities.

BALLAST: *Disposal of Ballast:*

1. Owners and Masters are responsible for complying with all International Conventions and Philippine Laws concerning pollution of the sea, having particular regard for Offshore Palawan area.

2. There are positively no facilities for disposal of dirty ballast. It is the Shipmaster's responsibility to see that no oil of any kind is pumped or spilled overboard from his vessel.

This includes oily water from bilges, crude residue from previous voyages or any other matter that may result in pollution of the sea. Any fines imposed or third party claims shall be for the vessel's account.

3. If evidence of oil appears during ballasting, the vessel will be rejected forthwith, and will not be accepted until satisfactory evidence is produced that such ballast was disposed of in a proper manner. If during inspection or during progress of loading, it is revealed that the vessel's tanks are not tight, or that oil is leaking from the vessel, the vessel may be rejected or refused further loading. The vessel will not be accepted for loading, unless satisfactory evidence of repair is submitted, duly certified by "Lloyds", "A.B.S.", or other recognised surveyors. Any vessel, rejected because of dirty ballast or sea pollution, will automatically nullify her "Notice of Readiness", and will lose any priority of position for loading.

4. A vessel must have proper trim and sufficient ballast and/or cargo already on board for safe handling, having due regard to existing weather and sea conditions (normally 30% – 35% of d.w.t.). The vessel's Master shall maintain a careful watch of the weather and sea conditions, and a frequent exchange of information between vessel and Terminal. Through his knowledge of the behaviour of his own vessel, the Master, if satisfied that it is safe to do so, may come to the Terminal with a minimum of ballast, and thus lessen any possibility of sea pollution or infringement of regulations.

5. Vessel equipped with a separate system of ballast tanks will be allowed to discharge ballast and load oil simultaneously, providing approval is first obtained from the West Linapacan Oil Terminal Superintendent.

6. Load-on-Top Method: Most responsible ship owners have adopted a system of tank cleaning using circulatory methods of transfer of tank washings on ship aboard, and treating these washings with chemicals. The result is that no oil is discharged into the sea, and the oil separated is collected in a slop tank. With the written permission of off-taking companies, the Terminal will "Load-on-Top" of such slops. To avoid pollution, this system is highly recommended.

7. All spillage of oil must be reported immediately to the West Linapacan Oil Terminal Superintendent, and a detailed report must be written, signed and submitted by the Master of the lifting vessel concerned.

MEDICAL: No medical assistance available, except in an emergency.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: The nearest Consuls are in Manila.

REPAIRS: No repair facilities at the Terminal.

SURVEYORS: SGS has acted as the independent surveyor for the liftings to date. Surveyor is nominated by the buyer and Alcorn.

CUSTOMS: Three Customs Officials are assigned to the export vessel, and will be onboard during the duration of the lifting. 2,000.00 Phils. Pesos per day is charged (U.S.$ 85.00) for their allowances and per diem. Customs' transportation is for the buyer's account.

EMERGENCY CO-ORDINATION CENTRE: All oil spills or emergencies are co-ordinated by the Coast Guard located in Manila.

REPATRIATION: Not possible.

TIME: GMT plus 8 hours throughout the year.

SHORE LEAVE: Not permitted.

Crew members cannot leave the vessel at West Linapacan Oil Terminal, except in cases of extreme urgency. Even in an emergency, it should be noted that Seamen's Books may not be valid under the local Governmment Law. A valid Passport is required.

SHIP SUPPLY SERVICE: A supply boat is available 24 hours a day.

This supply boat is the same boat assisting the export tanker. Once export tanker is secured, this supply boat is heaving and tied-up to aft of export tanker – so it will not be available for 24 hours a day.

GENERAL: After each tanker lifting, the Terminal will prepare all necessary loading documents, in accordance with the consignee's instructions. Documentation will be finalised on board the lifting vessel, as soon as practicable after loading operations are completed.

Visitors must obtain a special pass from the Company's Terminal Superintendent. Visitors will be restricted to a minimum due to hazards involved.

IMPORTANT NOTICE:

The attention of owners, charterers and Masters of vessels which visit the Terminal, is drawn to the importance of taking every precaution to ensure, that no oil of any kind is discharged or allowed to escape overside.

If there is any such discharge or escape, any resultant loss or expense to the companies will be for the account of the owners or charterers of the vessel.

The West Linapacan Oil Terminal is located within the Territorial Waters of the Philippines. Visiting vessels will therefore be subject to the Laws of the Republic of the Philippines.

SAFETY: *Safety Precautions:*

1. The lifting vessel's personnel are responsible for the safety of the vessel and themselves, and must take all necessary precautions whether or not so advised by the Mooring Master or other Terminal personnel. Any safety precautions imposed by the West Linapacan Oil Terminal Superintendent and disregard by the vessel's Master, Officers, or crew, will be considered just cause for rejection of the vessel and all expenses, losses, claims or liabilities related thereto will be for the account of the vessel.

2. When a vessel is in the moorings or vicinity thereof, its engines must remain on standby with full power always available for immediate use. Deck machinery shall be kept at instant readiness. Positively no repairs of any sort, affecting the availability of the vessel's machinery or engines, will be permitted in the moorings. Other repairs (including all painting), which present any hazard to the loading operation, are strictly prohibited. Vessel's whistle is to be at instant readiness at all times.

3. The bridge and/or control area shall not be locked or otherwise arranged to prevent immediate entry at all times by the Mooring Master.

4. Not less than one Deck Officer and three Seamen shall be on duty, sober, alert and available at all times. No person under the influence of alcohol is to be allowed on deck. The Mooring Master's opinion on the sobriety of any individual will be final, unless an independent medical physician present at the time indicated otherwise.

5. No transistor radio sets or other electrical appliances may be used on deck, unless certified for use in hazardous petroleum areas and subject to approval of the Mooring Master.

6. All scuppers must be plugged and witnessed by Mooring Master and the vessel's Master. Refusal to plug scuppers will result in the ship being rejected. Drain trays and all materials necessary to clean up any oil spillage on deck are to be available for immediate use.

7. After complete discharge of ballast, the Mooring Master and Petroleum Inspector (if any) will witness closing of pumproom sea suctions and sealing of same.

8. The presence of unauthorised craft alongside a vessel will render the vessel unacceptable. It is the duty of the vessel's personnel to see that the vessel's sides are clear of all such craft.

9. Fire fighting equipment shall be in instant readiness throughout the vessel, and additional equipment available at the loading manifold while in the berth. Water shall be available on deck service at all times, and fire hoses connected at all fire stations and flaked out for immediate use.

10. No radio transmission will be permitted on board, except by the express permission of the Mooring Master in each case; this to apply only during the period the vessel is in the Terminal area, or under the direction of the Mooring Master.

11. When vessel is at the Terminal, boiler tubes are not to be blown. Every precaution must be taken that no sparks escape from the funnel or stack or from the galley stack. No ullage hole shall be left open, unless effectively covered with a gauge mesh wire spark arrester.

12. Smoking will not be permitted on deck while in the moorings, and will only be permitted in places approved jointly by the vessel's Master and the Mooring Master. There may be occasions when smoking will be entirely prohibited. Cigarette butts should be thrown overboard or through portholes at any time.

13. Lifebuoys shall be available throughout the vessel, and in particular in the loading manifold area, and at all points of entry and exit, e.g. at pilot ladder.

14. All vessel personnel are to be adequately instructed by the vessel's Master to avoid breathing gas escaping from tank ullage plugs while loading, and gas vents should be used.

The vessel shall be equipped with fresh air masks, gas masks and resuscitators, which shall be kept in a conspicuous and readily acccessible position, ready for immediate use.

15. All accommodation doors, portholes and ventilators should be closed during loading operations, and doors and openings to machinery spaces in vicinity of vessel's tanks are to be closed.

16. If an emergency stop of loading is required, and communications between the vessel and Terminal fail, the vessel's siren or whistle is to be continuously sounded. *This signal stops all loading.*

17. Vessel shall have "Fire Towing Wires" of suitable strength laid out and hung overside to sea level from Poop Deck.

18. No swimming in the sea is permitted while vessels are in the berth.

19. No fishing is permitted in the loading berths or within the restricted navigation area.

20. The attention of the Master is drawn to the off-loading documents, in particular those documents that relate to the safety of the operation, i.e.:

Safety Requirements.
Ship/Terminal Safety Check List.
Fire Instructions.
Safety and Fire Regulations.
H_2S Instructions.

21. The attention of the Master is drawn to the fact that the West Linapacan crude oil is sour, and gives off H_2S gas, which may, during loading operations, give rise to hazardous accumulations in or in the off-loading tanker. The Master is therefore to be aware of this possibility, and of the drill to follow as laid down in the H_2S Instructions if greater concentrations of 10 ppm. of H_2S are detected. The Mooring Master will carry an H_2S detector with him at all times to assist in detecting such concentration.

WEATHER: *Tides, Currents, Wind and Weather and Seas:*

1. The navigator is referred to published sailing instructions for this area for information on winds, tides and currents, viz:

United States Hydrographic Office, Publication No. 92, Vol. 3, "Sailing Directions for the Philippine Islands", published by the U.S. Government Printing Office, Washington D.C. or British Admiralty equivalent."

2. The information on currents, wind and weather and seas in this area is meagre.

Currents: The general circulation offshore Palawan is wind driven, and displays the monsoonal direction reversal. The speed has been observed from 0.25 to 1.0 knots.

Wind and Weather: The Palawan offshore environment is controlled by monsoonal meteorological variations.

Winter Monsoons – Wind from Northeast.
Summer Monsoons – Wind from Southeast.

The Winter monsoon with wind from the Northeast quadrant is the more severe of the two. It is fortuitous, however, that some sheltering is provided by Palawan and other islands to the Northeast, limiting the fetch, and thereby reducing the effect of the wind during this period. The Summer monsoon from the Southeast experiences a greater fetch by lesser wind velocity, which together yield generally smaller wave heights.

Typhoons are not a major threat to operations in this area, as the strongest ones normally pass North of Palawan. However, the location has been affected by eight typhoons within 200 miles over a ten-year period, which have occurred predominantly during the late Winter months. Tropical depressions in the South China Sea affect the area more than typhoons.

Visibility limitations are not a normal problem in the area, but may be experienced. The Winter months contain the poorest visibility conditions. The worst monthly average visibility from available data was 12.4 miles during December. The remaining months display generally good visibility with distance of 16 – 18 miles.

Waves: The waves are controlled by the monsoonal winds, and reflect the winds variation in the direction and intensity. The Spring transition (April – June) generally has lower wave heights. The Winter monsoon (December – March) with waves from the Northeast is more severe than the Summer monsoon (July – September). Wave heights from 2 ft. to 4 ft. are expected for 45% of the year, while heights of 4 ft. to 8 ft. are expected for 20% of the year. Waves in excess of 8 ft. are estimated for 5% of the year. A heavy swell, generally from the North, is raised by any typhoon or tropical depression passing through the Philippines, and this is liable to cause delays in operations.

AUTHORITY: See "Puerto Princesa".

Operator: Alcorn (Production) Philippines Inc., 19th Floor, Pacific Star Building, Corner Sen.G. Puyat Avenue and Makati Avenue (P.O.Box 2283, MCPO, Makati, Metro Manila, Philippines). *Tel:* 817-6021. *Telex:* 45371/22209/64293. *FAX:* 817-4643. *Contact:* Eduardo F. Hernandez, General Manager.

ZAMBOANGA, Mindanao: 06.54 N. 122.04 E.

(See Plan)

See "General" before first port.

PILOTAGE: Vessels approaching the port use International Code Signals for calling Pilot.

Pilot Station: Telegraphic address is Zamboanga Pilots, Zamboanga City. Estimated time of arrival (ETA) must be radioed 24 hours in advance. Pilots always on duty. Pilot boat is wooden launch painted white with red trimmings and displaying the pilot flag. The exact area where a Pilot will board vessel is in the vicinity of Little Sta. Cruz Island, for vessels coming from West, and near the vicinity of Rio Hondo for vessels coming from East. Alternative area in the event of bad weather is in the vicinity of Zamboanga Pier at a distance of at least 1 mile either way. Vessels awaiting Pilot should not necessarily drop anchor, provided 24 hours' notice of their ETA is given by local Agents or the Master, to the Zamboanga Pilots, for a Pilot is *always* on duty.

ANCHORAGES: Owing to the steep bank, strong currents and hard, uneven bottom, there are no good anchorages off Zamboanga. However, anchorage may be made anywhere Southward of the wharf at a distance of about 3 cables from shore Eastward of an imaginary line from the Tide Indicator, at a depth of between 25 fathoms and 30 fathoms and giving 7 shackles of chain in the water. This will hold vessel even at strongest current of 6 knots. In the event of very bad weather the vessel should transfer her anchorage to Caldera Bay, which is approximately 7 miles West of the anchorage area.

MAX. SIZE: No limits for anchoring. For berthing, up to 10.0 m. draft.

HEALTH: Quarantine Officer will board the vessel for the necessary inspection of all crew on board. Thereafter he issues Pratique, if and when he finds that there is no disease or fever on board. The Pratique is valid until after the vessel departs to a foreign port.

RADIO: Philippine Telegraph & Telephone Corp. (PT & T), Universal Telecommunication Services (UTS), Radio Communications of the Philippines (RCPI), Central Radio Communications (CRC), Capitol Wireless Inc., (CWI), Telefast Communication and the Bureau of Telecommunication operated by the National Government for receiving and transmitting radio messages. Night and day services.

TUGS: The position where tugs normally join the vessel is in the stream and the usual ship's lines or tug's lines are used. There is no charge collected for the use of the tug's lines.

BERTHING: The Zamboanga Government Wharf is 1,363 linear metres long with a depth at the latest survey of the following: East end 5.0 m.; mid-section 7.0 m. and West end 10.0 m. at MLLW. There is a private wharf at Baliwasan and vessels of 27,000 g.r.t. can dock there with the following limitations: Draft forward must not exceed 32 ft.; draft aft must not exceed 36 ft., upon completion of loading. Vessels docking at this wharf can only be docked at *flood* tide (current running East to West) and can only be undocked in the same manner.

2 anchors must be used in berthing and vessels lay alongside the concrete pier port-side-to. This wharf in Baliwasan is for loading coconut oil and copra pellets only.

Also see "Developments".

STEVEDORES: The Master of the vessel shall cable to the local Agents so that contract could be made with the shipper to arrange gangs.

MEDICAL: It is necessary for Agents to receive advance notice of required medical attention. Hospital facilities are available at all times. Inoculations are also required by the Quarantine Officer upon boarding a vessel.

TANKERS: There are 4 oil depots at Gavilan Pt. and at Baliwasan. (Shell, Mobil, Esso and Caltex.) Max. tonnage of 4,000 gross with a draft of not more than 18 ft. can be moored for discharge.

FRESH WATER: Fresh water can be obtained any time of the day. There are 5 water outlets strategically distributed at the new quay.

FUEL: Fuel, diesel, and crude oil available.

FIRE PRECAUTIONS: Smoking is entirely prohibited on board a tanker entering this port. The Master must advise all persons boarding his vessel.

GANGWAY/DECK WATCHMEN: The services of watchmen are necessary to stop looters from boarding the vessel.

OPENING/CLOSING HATCHES: Normally opening and closing by the crew, and if done by stevedores the vessel has to pay.

CUSTOMS ALLOWANCES: 200 cigarettes per man. Upon arrival in port the cigarettes are sealed in a bonded store by the Customs Authorities, and can be opened only upon permission granted by the Collector of Customs.

CONSULS: None available.

REPATRIATION: Effecting crew changes and arranging necessary repatriation are carried out by the Immigration Office in the port with the assistance of the ship Agent and the foreign Embassy concerned.

AIRPORT: Distance from Zamboanga Pier to the airport is 3 km. Served by regular airlines. There are 2 flights daily (0920 hrs. and 1930 hrs.) from Zamboanga to Manila by Philippine Air Lines (PAL). Airport is also open to International flights.

HOLIDAYS: Cargo work can be arranged with the Stevedoring Company through the shipper to work during holidays, including Sundays.

POLICE/AMBULANCE/FIRE: Police Department, Tel. 119; Ambulance, Zamboanga Regional Hospital, Tel. 25-11; and Fire Department, Tel. 110.

TELEPHONES: Telephones cannot be installed on board when docked at the pier as is not allowed by the City Government.

SERVICES: Special services may be available, e.g. tank-cleaning equipment, facilities for discharge of tank-washings, compass adjusting, through representations to be made with the shipper or local Agent of the vessel.

IDENTIFICATION CARDS: All crew members to have identification cards for immediate identification in case of trouble while the crews are on shore.

DEVELOPMENTS: A new quay 220.44 m. length and 10 m. depth is in operation.

New Facilities:

a. New Quay:	220.44 m.
b. Ferry Pier:	20 m. wide × 49.9 m. length of reinforced concrete.
c. Closed Transit Shed:	40 m. × 126 m. with two 6 m. × 15 m. office spaces and a 24 m. × 40 m. Passenger Terminal.
d. Gate House:	18 m. × 30 m. with 2 × 50 ton capacity weighbridges, through booths and 2 guardhouses.
e. Equipment Shed:	15 m. × 60 m.
f. Maintenance and Fire Station Building:	15 m. × 66 m.
g. Passenger Terminal Building at Eastern Section:	30 m. × 54 m.
h. Amenity Block:	6.5 m. × 10 m.
i. Generator Shed/Power House:	15.4 m. × 25 m.
j. Administration Building:	Three storeys (1,296 sq.m.)
k. Open Storage Area:	40 m. × 135 m.
l. Container Marshalling Yard:	100 m. × 137 m.

AUTHORITY: Philippines Ports Authority, PMO-Zamboanga, Port Area, P.O.Box 360, Zamboanga City 7000, Philippines. *Tel.* 2991-2995,7156.
Contact: Prudencio B.Mercado, Jr., Port Manager.

AGENT: See "Manila".

NOTES

Please also advise Shipping Guides Ltd.

Poland

GDANSK: 54.21 N. 18.39 E. (See Plan)

ICE: Efforts made to keep port open all year round. Only in very severe Winter are difficulties experienced.

DOCUMENTS:

8 copies Cargo Manifest.
1 copy Bill of Lading.
Passports or Seaman's Books.
Ship's Register.
Maritime Declaration of Health.
5 copies Ship's Articles/Crew List.
Derat Certificate or exemption from Sanitary Certificates, covering food cargoes and/or of animal origin, destined for discharge here.
Specification of Dangerous Cargo, even if in transit.
2 Stowage Plans.
Trimming Class Certificate.
Crew Effects Declaration.
Bonded Stores Declaration.

PILOTAGE: Compulsory. Advance notice of 12 hours required prior to arrival and 2 hours notice required prior to departure. Boarding in Gdansk Roads. Gdansk Pilot Station available on VHF Channel 14.

Also see "Baltic Deep Sea Pilotage".

ANCHORAGES: Gdansk Roads. Anchorages No. 1, 2 and 3 for ships up to 738 ft. LOA.

Anchorages: No. 1 draft 29 ft. 06 in.; No. 2 draft 34 ft. 05 in.; No. 3 draft 39 ft. 04 in.; No. 4 for bulk carriers with max. draft 52 ft. 06 in.; No. 5 for large tankers with max. draft 63 ft. 11 in. No tides.

RESTRICTIONS: On arrival or if moving or in every case of emergency conditions contact Harbour Master's Office on Channel 14. Tel: 43-07-10.

MAX. SIZE: Baltimax size for ships entering North Port. Max. size of ships permitted to enter inner port: Draft 10.20 m. brackish water, max. LOA 225 m. Also see "Berthing".

HEALTH: Maritime Declaration of Health to be presented on arrival. In the event of suspected disease, the vessel should cable to "Quarantine Gdansk", or via Agents.

RADIO: Messages should be sent via Gdynia Radio.

RADAR/VHF: Port Radar Service acting with Pilot Station, can be contacted on VHF Channel 14. Also see "Gdynia".

Polish Notice No. 202/86: Ship Reporting System: The following are required to report by VHF to the Harbour Master of destination on crossing the latitude of 54° 45' N. (Repline Hel) in the entrance to the Gulf of Gdansk:

All vessels – if on account of special circumstances they may cause a risk of collision or pollution.

Vessels bound for Gdansk – of 150 g.r.t. and above.
Vessels bound for Gdynia – of 500 g.r.t. and above.
The report should include:
REPHEL (abbreviation of Repline Hel)
Name and call sign
Date and time
Position
Destination and ETA
Type and quantity of cargo
Draft
Any deficiencies, e.g.
(a) Overloading, or excessive heel or trim.
(b) Faults affecting manoeuvring capability.
(c) Uncleaned tanks, etc.
(d) Anything which might cause pollution.

The consent of the Harbour Master must be obtained before entering the roadstead of the port of destination.

TUGS: 14 tugs available. Join in Gdansk Roads. Vessel's lines must be used. Tugs compulsory for all vessels over 2,000 g.r.t. Tugs available up to 2,500 h.p.

BERTHING: Max. draft mentioned below is to be taken as normal water level. No tide. Max. difference from mean level is plus/minus 3 ft., subject to wind direction.

Name of Quay	*Length* (m.)	*Max. Draft* (m.)	*Max. LOA* (m.)
Inner Port:			
WOC 1	610	8.40	170
WOC 2	220	8.40	170
Ziolkowskiego	125	6.50	127
Oliwskie	600	10.20	225
Westerplatte	700	8.60	225
Obroncow Poczty Polskiej	285	10.10	235
Weglowe	840	8.80	225
Rudowe	695	10.20	225
Administracyjne	124	5.20	80
Wislany	869	10.20	225
Chemikow	210	10.20	225
Przemyslowe	235	6.40	145
Port Polnocny/Northern Port:			
Liquid Fuel Terminal	335	15.00	280
Coal Terminal	354	15.00	300
Ore Terminal	300	12.00	200

BULK HANDLING FACILITIES: Coal Handling Facilities at Northern Port Coal Terminal capable of receiving vessel up to max. draft 15.0 m. Daily loading rate 50,000 tons. Also Inner Port-Weglowe Quay equipped with 8, 10 and 16 tons cranes for vessels up to 9.6 m. draft. Bulk and liquid sulphur handled at Obroncow Poczty Polskiej Quay. 20 tons grab cranes and conveyor system for fertilisers in bulk at Chemikow Quay.

Grain elevator: Grain is also discharged by grabs. Conveyor system for loading salt and sodium in bulk.

Timber handling facilities at Rudowe and Westerplatte Quays.

CRANES: Quay cranes up to 40 tons; mobile quays up to 60 tons and floating cranes of 60 tons, 100 tons and 300 tons.

Also see "General Cargo Handling Facilities".

STORAGE FACILITIES:

Coal yard: 650,000 tons.
Phosphate shed: 60,000 tons.
Grain elevator: 8,000 tons.
Solid sulphur store: 20,000 tons.
Warehouses: 100,000 sq.m.
Open storage: 550,000 sq.m.
Refrigerated warehouse (Oliwski Quay): 5,000 tons.

GENERAL CARGO HANDLING FACILITIES: Passenger cargo/Ro-Ro terminal at Ziolkowskiego Quay.

Port is equipped with new Ro-Ro floating berth which can operate at every general cargo quay.

Westerplatte Quay: Warehouse and open storage yards. Handling of general cargo and packaged pulpwood. This quay is also used for waiting.

Oliwskie Quay: Warehouses on quay can handle general cargo, fruit and vegetables. Open storage yards for general cargo and packaged pulpwood.

Gorniczy Basin: Ore bridges have been dismantled. Max. draft up to 10.2 m. Handling general cargo and steel products.

Wislany Quay: Equipped with 3-16 ton portal cranes for general cargo and 7-8 ton cranes for bulk cargo, a grain elevator and special suction installations. Warehouses and open storage for general cargo and bulk cargo. Handling general cargo, steel products and heavy units.

STEVEDORES: As gangs for the following day must be ordered before 1100 hrs., vessel's ETA should reach the Agents relevantly in advance.

Stevedores work 24 hours per day, which is considered to be between 2300 hrs. – 2300 hrs. following day. First shift from 2300 hrs. – 0700 hrs., second shift from 0700 hrs. – 1500 hrs., third shift from 1500 hrs. – 2300 hrs.

Timber, general cargo and heavy lift operations are usually performed in two shifts only between 0700 hrs. and 2300 hrs. Sulphur, superphosphates, phosphorites, apatites, grain and other awkward dusty cargoes worked in 4 shifts of 6 hours each.

Port works Sundays, holidays and free Saturdays at premium rates. 1 in 4 Saturdays are worked.

MEDICAL: No special notice required. Full hospital facilities available.

TANKERS: Liquid Fuel Terminal at Northern Port.

Location: Southern part of the Gulf of Gdansk, 54° 25' N., 18° 43' E. approximately. Advisable route via "ZN" Beacon, to "ZS" Beacon, then anchorage on No. 5 Beacon 54° 27' N., 18° 53' E.

Facilities: 1 L-shaped jetty for berthing consists of 1 main platform and 4 main dolphins, fitted with quick release hooks. The main platform is fitted with gangway tower and 7 movable handling arms for loading and discharging purposes. Only 1 mooring place available. The jetty accessible for vessels having minimum 150 ft. (about 10,000 d.w.t.) and maximum 1,000 ft. (150,000 d.w.t.) length and 49 ft. 03 in. draft.

No facilities for liquefied gases.

For towing purposes there are 3×2,500 h.p. and 2×1,650 h.p. diesel tugs available, if necessary further 1,200 h.p. tugs are at hand. All tugs equipped with fire fighting equipment.

Cargo Handling Equipment: The 7 mobile handling arms, Luceat Production, are used as follows: No. 2, 3 and 4 for discharging of crude oil, rate about 10,000 cu.m./hr. No. 1 and 5 for loading bunker oil and water, rate about 2,000 cu.m./hr. No. 6 and 7 loading liquid fuels and refined products, rate 2,000 – 2,500 cu.m./hr. Loading pressure of vessel's pumps should not exceed 14.5 kg./sq.cm. at any time.

Facilities for handling of vessel's ballast water available.

Services: Marine diesel and fuel oil available at the jetty. Storage tanks located in the neighbourhood of the terminal and connected with central pipeline system of Poland. Laboratory for testing purposes and repairing facilities available.

DENSITY: Salt content: Below 0.3%

FRESH WATER: Available at hydrants, and delivery to vessels in roads.

FUEL: Heavy, intermediate and thin fuels, marine diesel oils and gas oils available ex-shore installation or lighter. 48 hours' notice required.

CONSULS:

Chinese People's Republic Consulate General, Tel: 41-64-76.
German Consulate General, Tel: 41-43-66
Russian Consulate General, Tel: 41-06-13.

At Gdynia:

Belgian Consulate, Tel: 20-39-83.
Brazilian Consulate, Tel: 21-61-31.
Italian Vice-Consulate, Tel: 21-51-15.
Swedish Consulate, Tel: 21-62-16.

At Sopot:

Finnish Consulate, Tel: 51-50-52.
Also representing other Scandinavian countries.

REPAIRS: All types of deck and engine repairs performed by specialised ship repair yard.

Floating docks: No. 1, 6,400 tons lifting capacity, dimensions 135×25.20 m. No. 2, 8,000 tons lifting capacity, dimensions 156×27.20 m. No. 3, 11,000 tons lifting capacity, dimensions 176×28.00 m. 1 floating jack of 1,700 tons capacity and 3 minor docking pontoons.

GANGWAY/DECK WATCHMEN: Recommended and available.

OPENING/CLOSING HATCHES: Normally carried out by stevedores, crew allowed to handle.

CERTIFICATES:

Load Line Certificate.
Cargo Gear Certificates.

CUSTOMS ALLOWANCES: For 3 days – 160 cigarettes or 30 cigars or 150 gm. tobacco per crew member. Master is allowed double ration. 1 bottle wine and 1 bottle of spirits per crew member for each 3 days. Master is allowed double ration.

REPATRIATION: Crew changes and repatriation can be arranged by Agent.

AIRPORT: Gdansk Airport.

TIME: Middle European Time, which is 1 hour ahead of GMT.

HOLIDAYS: New Year's Day (January 1st); Easter Sunday (movable); Easter Monday (movable); Labour Day (May 1st); Constitution Day (May 3rd); St.Mary's Day (August 15th); Corpus Christi (movable); All Saints' Day (November 1st); Christmas Day (December 25th); Boxing Day (December 26th). On Christmas Eve and New Year's Eve, work stops at 1500 hrs. In justified and approved cases, overtime on Sundays and holidays can be arranged.

POLICE/FIRE/AMBULANCE: Police: Gdansk-Nowy Port, Wladyslawa IV-3, Tel: 31-48-61; Ambulance: Gdansk-Wrzeszcz, Al. Zwyciestwa 49, Tel: 41-10-00; Fire: Gdansk-Nowy Port, 57 Na Zaspe Street, alarm phone Tel: 41-22-22.

TELEPHONES: Available on most general cargo quays.

SERVICES: Collecting of oily ballast water to Ballast-water Treatment Plant. Cleaning of holds, bilges and ship's tanks.

STORING: Baltona ship chandlers supply ships with provisions, cabin, deck, bonded stores as well as spare parts for main and auxiliary engines. "Duty Free" shops for crew convenience.

IDENTIFICATION CARDS: Each crew member must be in possession of a valid Discharge Book/Seaman's Book, and will receive a separate shore permit issued by the Immigration Authorities, entitling him to go ashore within the area of Gdynia/Sopot/Gdansk.

GARBAGE DISPOSAL:
1. Port Service Ltd. Tel: 20-07-21. Fax: 20-85-98. Telex: 59219. Disposal. Tel: 21-50-42, 20-85-71 (Cell: 226 or 277). Collection time 24 hours. Charges: U.S.$ 7.8 for 1 bag (0.3 cu.m.), minimum charge for 5 bags, all to Port of Gdansk tariff.
2. Grudel SC. Tel: 32-15-25.
3. Comal Ltd. Tel: 41-56-26. Telex: 051-2965.
4. Ship Service Ltd. Tel: 20-26-62.

WASTE OIL DISPOSAL:

1. Port Service Ltd. (data given above). Special tankers collect waste oils. Non-toxic oils permitted. Charges depend on kind of fuel (oil) and grade of contamination. Transformer oil and those containing PCB are not accepted. Transmission and engine oils in any quantity are accepted. Special tankers collect oily dirty ballast water for transportation to Ballast Water Treatment Plant situated in North Port (Tel: 43-71-41). Facilities: Tanker, barges and drums.

2. Comal Ltd. (data given above). Collect oily ballast water with barges and tank lorries.

SEAMAN'S CLUBS: No Seaman's Clubs in Gdansk. The nearest Club is in Gdynia. Shipchandler Baltona has duty free shops at Ziolkowskiego Quay, and at 16 Wolnosci Street in Nowy Port.

CURRENCY: Zloty.

DEVELOPMENTS: 2×40 ton shore cranes have been installed at Szczecinskie Quay.

Szczecinskie is being adapted for container handling and Ro/Ro vessels. Storage space of 20,000 sq.m. and container handling equipment will be available.

AUTHORITY: The Port Authority of Gdansk, Joint Stock Company, 18 Zamknieta Street, Nowy Port, 80-955 Gdansk, Poland. *Tel:* 439-600. *Telex:* 0512324 MPH PL, 512846 MPH PL. *Cables:* Geoport. *FAX:* 439-549. *Contact:* M.Switek, General Manager. R. Zdeb, Commercial Director.

AGENT: See "Szczecin".

GDYNIA: 54.32 N. 18.34 E. (See Plan)

ICE: On average, during most of the Winter periods both port and the roads are ice-free. Only prolonged and severe frosts may result in ice cover formation in basins and in the roads outside. Winds of gale force may shift some drifting ice floes from other parts of the bay and render navigation in the roadstead difficult. In such cases the approach channel and the port basins are kept free of ice and unobstructed to navigation by icebreakers of the Polish Ship Salvage Company and powerful tugs of the Port Authority. The cost of icebreaking is borne by the Port Authority. These phenomena, however, are rather rare, since Winters are usually mild in those areas.

PORT LIMITS: A vessel is an "arrived ship" and laytime commences from time of ship's entry into the roads.

DOCUMENTS:
- 11 copies Cargo Manifest.
- 2 copies Bills of Lading.
- Discharge Books to be collected for presentation.
- Ship's Register.
- Ship's Articles/Crew List.
- Maritime Declaration of Health.
- Derat Certificate.
- Sanitary Certificates covering food cargoes and/or of animal origin, destined for discharge here.
- Specification of Dangerous Cargo (even if in transit).
- 2 Stowage Plans.
- Load Line Certificate.
- Cargo Gear Certificates.

PILOTAGE: Compulsory. Pilots to be ordered 12 hours prior to arrival and 2 hours prior to departure. Boarding in Gdynia Roads. Gdynia Pilot station available on VHF Channel 12. Traffic around the clock.

Also see "Baltic Deep Sea Pilotage".

ANCHORAGES: Gdynia Roads at Buoy GD, up to 200 m. – 500 m. off port entrance. No tides.

RESTRICTIONS: Depth in main entrance 11.42 m.

MAX. SIZE: No limit on length, max. draft 11.42 m.

Also see "Berthing".

HEALTH: Maritime Declaration of Health to be presented on arrival. In the event of suspected disease the vessel should cable "Quarantine Gdynia", "Radio Medical Gdynia" or via Agents.

RADIO/VHF: Message should be sent via Gdynia Radio. Port Radar Service acting with the Pilot Station, can be contacted on VHF Channel 12, Gdynia. Contact Agent VHF Channel 7. Gdynia Radio on Channel 16, working on Channels 12, 24, 26 and 27. Traffic lists at 0035, 0835, 1235, 1635 and 2035 on Channel 26.

TUGS: 9 tugs available. Join vessel in Gdynia Roads. Vessel's lines must be used.

BERTHING:

Basin	*Quay*	*Length* (m.)	*Max. Draft* (m.)	*Remarks*
I	Pomorskie	626	7.90	Waiting Quay
II	Slaskie	467	8.40	—
III	Szwedzkie	713	10.50	—
	Dunskie	314	6.60	—
	Dunskie Pirs Poludniowy	118	6.60	—
	Holenderskie	399	10.80	—
	Belgijskie	—	—	—
Outer	Francuskie	512	12.80	—
IV	Finskie	209	9.00	—
	Polskie	1,112	10.70	—
	Rotterdamskie	334.9	7.90	Ro-Ro
	Indyjskie	1,009	10.70	Grain silo – capacity 26,000 tons
V	Stanow Zjednoczonych	819	8.30	—
	Czechoslowackie	246	8.50	—
	Rumunskie	879	10.70	—
VI	Wegierskie	252	9.40	Waiting Quay
South Channel	Wendy	168	7.10	Waiting Quay
Port Channel	Jugoslowianskie	182	8.90	Waiting Quay
Port Channel	Helskie I	798	10.10	Containers & Ro-Ro
	Helskie II	178	8.10	Ferry Terminal

CARGO HANDLING FACILITIES:

Terminal	*Roofed Storage Area*	*Open Air Storage Area*	*Total Area*	*Handling Equipment*
Baltic Container Terminal Gdynia Ltd.	23,180 sq.m.	209,012 sq.m.	662,316 sq.m.	3×40 ton, 2×35 ton and 7×30.5 ton gantry cranes.
Baltic Grain Terminal Gdynia Ltd.	26,000 tons	—	20,508 sq.m.	Buhler Portalink Combi 300 type, rate 250 – 400 t.p.h.
Baltic General Cargo Terminal Gdynia Ltd.	153,714 sq.m.	133,508 sq.m.	561,021 sq.m.	13× 16 ton, 49×6.3 ton, 6×6 ton and 7×3 ton general cargo cranes. 29 mobile cranes with capacity 15 – 33 tonnes.
Maritime Bulk Terminal Gdynia Ltd.	10,949 sq.m.	83,074 sq.m.	251,514 sq.m.	4×16 ton, 7×10 ton and 17×8 ton grab cranes.

STEVEDORES: Gangs for the next day must be ordered by 1100 hrs., vessel's ETA should reach the Agents relevantly in advance.

1 in 4 Saturdays are worked.

MEDICAL: No special notice required. Full hospital facilities available.

TANKERS: Berth in No. 3 Basin. Up to 35,000 d.w.t., brackish water. Bunkering Station (Reloading Station) length 200 m., depth 10.1 m.

DENSITY: Salt content: 0.73%.

FRESH WATER: Available ex-hydrants or by water barge, arranged by Agent.

FUEL: All kinds of fuel available ex-shore installation or lighter. 48 hours' notice via Agent required. Lubricants available by truck.

CONSULS:

Austria	Tel: 211993
Belarus	Tel: 410026
China	Tel: 415600
Denmark	Tel: 311339
Finland	Tel: 216852
France	Tel: 314444
Germany	Tel: 414366
Italy	Tel: 201561
Netherlands	Tel: 537618
Norway	Tel: 216216
Russia	Tel: 411088
Sweden	Tel: 216216
Ukraine	Tel: 460690
U.K.	Tel: 414365

REPAIRS: All types of deck and engine repairs performed by specialised ship repair yard. Container repairs performed by Radunia Repair Yard, branch office in Polska Street (Extension tel. 49-32).

SURVEYORS: Polcargo: Head Office, 81-963 Gdynia, Zeromskiego 32. Tel: 20-77-78.

Supervise: Head Office, 81-369 Gdynia, Derdowskiego 7, Tel: 20-08-46.

Shipcontrol: Head Office, 81-334 Gdynia, Polska 21, Tel: 20-70-96.

Polski Rejestr Statkow, 80-557 Gdansk, ul.Marynarki Polskiej 59. Tel: 311987. Fax: 311987.

Lloyd's Register of Shipping: 80-958 Gdansk, ul. Marynarki Polskiej 177. Tel: 315958, 315841. Fax: 397806.

DRY DOCKS: 3 floating docks of a lifting capacity of 4,500, 3,500 and 1,200 tons. 12 slipways of 1,500 tons lifting capacity each.

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: Opening/closing hatches normally carried out by stevedores, but crew allowed to handle.

CERTIFICATES:
- Load Line Certificate.
- Cargo Gear Certificates.

CUSTOMS ALLOWANCES For each 3 days – 150 cigarettes or 30 cigars or 150 gm. of tobacco per Crew member. Master is allowed double ration. 1 bottle wine and 1 bottle spirits per Crew member for each 3 days. Master is allowed double ration.
REPATRIATION: Crew change and repatriation can be arranged.
AIRPORT: Gdansk-Rebiechowo Airport, situated 35 km. from Gdynia. Daily flights to Warsaw to connect with international flights.
TIME: Middle European Time, which is 1 hour ahead of GMT is kept in Autumn and Winter; East European Time, 2 hours ahead of GMT, is kept in Spring and Summer.
HOLIDAYS: New Year's Day (January 1st); Easter Sunday (movable); Easter Monday (movable); Labour Day (May 1st); Constitution Day (May 3rd); Corpus Christi (movable); Roman Catholic Church Holiday (August 15th); All Saints' Day (November 1st); Independence Day (November 11th); St. Barbara Day (December 4th, for coal workers only); Christmas Day (December 25th); Boxing Day (December 26th). On Christmas Eve and New Year's Eve, work is generally suspended at 1500 hrs. In justified and approved cases, overtime on Sundays and holidays can be arranged against extra payment.
POLICE/FIRE/AMBULANCE: Emergency Numbers: Police 997, Ambulance 999, Fire 998.
EMERGENCY CO-ORDINATION CENTRE: Urzad Morski, Gdynia 81–338, Chrzanowskiego 10, Telex: 054285; Tel: 20-69-11; Alarm: Gum Radio. Tel: open 24 hours: 21–61–62, VHF Channel 16.
TELEPHONES: Available on most general cargo quays.

Placing of telephones on board is according to current costs per 24 hours.
IDENTIFICATION CARDS: Each crew member must be in possession of a valid Discharge Book and will receive a separate shore permit issued by the Immigration Authorities entitling him to go ashore within the area of Gydnia-Sopot-Gdansk.
GENERAL: Cargo is handled around the clock in 3 shifts of 8 hours each. Work on 3 Saturdays per month is paid by addition of 100 per cent. Sunday and holiday interruptions last from 2300 hrs. on Saturdays or days before holidays and terminate at 2300 hrs. on Sundays or holidays.

Transhipment of cargo at port rates. Extra fast despatch can be arranged at additional charges.
DEVELOPMENTS:

1. Ferry Terminal.
2. Reconstruction of the Francuskie Quay.
3. Enlarging storage capacity of the Baltic Grain Terminal Gdynia Ltd. up to 26,000 tons.
4. Duty Free Zone.

AGENT'S REPORT: September 1991.
Oil:
Berth Operator: Morski Port Handlowy Gdynia, except Oksywie which is Polish Navy base.
Breakwater: Crude oil, gas oil, gasoline, max. LOA 210 m., max. draft 12.50 m.

Fresh water can be supplied by barge only.
Danish Quay: Gas oil, gasoline. Max. LOA 100 m., max. draft 7.30 m.
Dutch Quay: Gas oil only. Max. LOA 200 m., max. draft 10.50 m.
Swedish Quay: Gas oil only. Max. LOA 200 m., max. draft 9.10 m.
Oksywie: Gas oil only. Max. LOA 100 m., max. draft 8.00 m.

No tides at Gdynia Port.
Max. depth in approaches 11.30 m.
Water density 1,005.
Berthing/unberthing 24 hours per day.
Bunkers available on prior arrangement.
Fresh water delivery from all piers by hydrants.
Type of berths: Concrete.
No minimum size of vessel restriction.
Dirty ballast/slops removing accepted, only to the barge.

One tug compulsory for vessels over LOA 90 m. Two tugs over 131 m. or draft 8.0 m. Three tugs over 166 m. or more than 9.0 m. draft. Four tugs compulsory over 200 m. One tug can be added by Harbour Authorities for vessels carrying dangerous/inflammable cargoes.

No air draft restrictions caused by bridges, etc.
No pilot boarding area on roads.

Agents are obliged to inform all parties concerned regarding flash point, and IMO class of cargo, which will be discharged.
Dry Bulk Cargoes:
Silesian Pier: Max. LOA 200 m., max. draft 8.50 m., max. outreach of cranes from jetty face across vessel 12.0 m.

5 cranes with capacities 7 tons and 10 tons.
Travel distance of cranes 400 m.
Loading rate for coal: 5,000 – 6,000 tons per day.
Loading rate for coke: 3,000 – 4,000 tons per day.
Dry bulk cargoes handled: Coal, coke, iron ore, bauxite and grain.
2 open storage areas of 80,000 tons available.
Dutch Pier: Max. LOA 200 m., max. draft 10.50 m.

Max. outreach of cranes 22.0 m.
6 cranes with capacities 10 tons and 16 tons.
Travel distance of cranes 360 m.
Loading rate from open storage: 10,000 tons per day (maximum).
Dry bulk grades handled: As above.
2 open storage areas of 23,000 tons.
Indian Pier: Alumina discharged via floating elevator to warehouse with capacity 8,000 tons. Discharge rate 3,000 tons per day.

SHIPMASTER'S REPORT: November 1994.
Pilot Station: Position Lat. 54° 32.1' N., Long. 18° 40.0' E.
Charts: B.A. Charts No. 2377 and 2384.
Distances: From Skagen Rev via The Sound 423 miles and via The Belt 543 miles.
Communications: Notices to Agents by telex as required by charter party, then contact Pilots on VHF as per A.L.R.S. B2640.
Approaches: Found to be as charted.
Buoys: The four buoys in position Lat. 54° 33.9' N., Long. 18° 37.7' E. were not seen.

Seven orange pillar buoys were noted in the prohibited area off Cypel Oksyioski Pier (Lat. 54° 33.0' N., Long. 18° 34.15' E.) on a bearing of 095° from the pier head, 4 buoys close East of the pier head and 3 buoys 3 cables from the pier head.
Pilots: Pilots board at the charted pilot station or a little to seaward.
Tugs: Three tugs come out with the pilot vessel, one making fast each end with 2 ship's lines through the centre lead (2 SLCL) and the third tug standing-by to push as required.
Berth: The vessel went on to Berth No. 19 in the Avant Port, where a minimum of 4 and 2 moorings are recommended.
Clearance: Friendly and efficient. The bonded store is sealed but an issue can be arranged every 3 days.
Cargo Working: Loading steel beams and billets.

Shore cranes were used throughout with occasional use of ship's cranes.

Working is on a 3 shift basis, round the clock.

Stevedoring is very good with a tight level stow being obtained, suitable for working on top with forklift trucks.

A stowage factor for beams of about 1.13 cu.m./tonne was achieved and an overall loading rate of 71.17 tonnes per gang hour was achieved for both commodities.
Surveyor: A Cargo Surveyor from W.K. Cargo Survey Ltd. attended throughout and passed suggested notations for the Mate's Receipts to the Chief Officer.
Departure: Three tugs are used, one each end with 2 SLCL and the third standing-by to push as required.

The vessel turned short round off the berth and the after tug let go when the turn had been completed. The forward tug lets go outside the breakwaters and the Pilot leaves at the entrance buoys.

AUTHORITY: Port of Gdynia Authority, ul. Rotterdamska 9, 81-337 Gdynia, Poland. *Tel:* 20-10-01. *Telex:* 054221. *Cables:* Gdyport. *FAX:* 274578. *Contact:* Jerry Czartowski, President.

Harbour Master's Office, *Tel:* 216636 and 202853. *FAX:* 200591.
AGENT: G.A.C. Norpol Shipping Ltd., Sp.Z.O.O., Ul. Slaska 17, P.O.Box 226, 81-319 Gdynia, Poland. Tel: (48-58) 201274, 204597, 202102 (Ext. 256). After hours 223833. Telex: 54243 (GACNO PL). Fax: 204597.

POLICE: 53.34 N. 14.34 E.

PILOTAGE: Compulsory for vessels over 150 g.r.t.
MAX. SIZE: LOA 200 m., beam 26 m. and max. draft 9.15 m.
VHF: Port on Channel 12.
TUGS: Compulsory for vessels over 2,000 g.r.t.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
Sea Port Quay	415	9.15	
Mijanka Quay	200	8.40	Max. LOA 140 m.
Barkowy Quay	200	3.80	Max. LOA 75 m., max. beam 12.0 m.

CRANES: Sea Port Quay: 2 "Kone" grab cranes and 2 additional grab cranes.

Barkowy Quay: 3 grab cranes.
BULK CARGO FACILITIES: "MVT" shiploader at Sea Port Quay.
SPECIALISED CARGO HANDLING FACILITIES: Facilities for loading liquid ammonia and sulphuric acid at Mijanka Quay.
STEVEDORES: Work around the clock, except Saturdays, Sundays and holidays.
DENSITY: 1000.
FRESH WATER: Available at Sea Port Quay. Cost U.S.$ 3.90/tonne.
AIRPORT: At Goleniow, 50 km.
TIME: GMT plus 1 hour.
POLICE/AMBULANCE/FIRE: Contact Harbour Master.
EMERGENCY CO-ORDINATION CENTRE: Contact Harbour Master.
AUTHORITY: Port Police, Zaklady Chemiczne Police S.A., ul. Kuznicka 1, 72-010 Police, Poland. *Tel:* (48-91) 174330. *Telex:* 425257 BHZP PL. *FAX:* (48-91) 171519, 173446.

SZCZECIN: 53.25 N. 14.32 E. (See Plan)
Including Swinoujscie, 53.55 N. 14.15 E.

DOCUMENTS: Basic Customs documents for entry:

12 copies of Cargo Manifests.
2 copies Bills of Lading.
International Tonnage Certificate.
International Load Line Certificate.
Vessel's Safety Certificates.
4 copies of Crew List.
Passenger List.
Maritime Declaration of Health.
Derat Certificate.
Specification of Dangerous Cargo (even if in transit).
2 copies Stowage Plans.

PILOTAGE: Contact Pilot Station, VHF Channel 12 and 14, also 26 or 27. Harbour Master's office, Channel 12. Light and sound signals used according to international rules. The Pilot is taken on board at the anchorage. Pilot compulsory for all vessels over 40 m. LOA.

Also see "Baltic Deep Sea Pilotage".

RESTRICTIONS: Vessels exceeding LOA 176 m. or draft 8.99 m. enter/leave port during daylight only.

Power Cable: An overhead power cable (clearance 64 m.) has been established in position Lat. 53° 31.55' N., Long. 14° 37.88' E. to Lat. 53° 31.72' N., Long. 14° 38.35' E.

MAX. SIZE: The depth at the operating berths in Szczecin enables loading and unloading ships of draft up to 9.15 m. and length up to 210 m.

The relationship between permissible length, breadth and draft for ships of overall length over 160 m., entering the port of Szczecin, is shown in the following table:

Overall length of ship in metres	*Maximum breadth of ship in metres*		
	up to 25 m.	up to 28 m.	up to 31 m.
	Maximum draft in fresh water in metres and feet		
160 – 176	8.99 m. (29 ft. 06 in.)	8.84 m. (29 ft. 00 in.)	8.69 m. (28 ft. 06 in.)
176 – 186	8.76 m. (28 ft. 09 9in.)	8.61 m. (28 ft. 03 in.)	8.46 m. (27 ft. 09 in.)
186 – 196	8.61 m. (28 ft. 03 in.)	8.46 m. (27 ft. 09 in.)	8.31 m. (27 ft. 03 in.)
196 – 210	8.46 m. (27 ft. 09 in.)	8.31 m. (27 ft. 03 in.)	8.15 m. (26 ft. 09 in.)

HEALTH: All ships arriving Szczecin from South of Cape Finistere are subject to sanitary inspection.

RADIO: Szczecin Radio, SPE, 2182 kHz. Medium frequencies.

TUGS: 15 tugs with capacity 800 h.p. – 1,500 h.p.

In ports Szczecin and Swinoujscie:

For ships over 85 m. – 1 tug compulsory.
For ships over 120 m. – 2 tugs compulsory.
For ships over 160 m. – 3 tugs compulsory.
For ships over 180 m. – 4 tugs compulsory.

Service is provided by Zaklad Uslug Zeglugowych Sp. z.o.o., Ludowa 16, 71-700 Szczecin, Poland. Tel: 48 91 305 559. Fax: 48 91 347 700.

BERTHING: Use of mooring service is compulsory, boatman must be ordered through vessel's Agent.

Szczecin:

Name of Quay	*Length (m.)*	*Depth (m.)*	*Designation*	*Equipment*
Katowickie	434	9.15	Bulk cargoes	3×10-ton cranes, 3×16-ton cranes, 7,022 sq.m. cargo bins. Pneumatic equipment for loading bulk cement directly from wagons into ships.
Chorzowskie	290	9.15	Coal and ore	2×10-ton bridge cranes, 2×16-ton cranes, open storage 10,000 sq.m.
Gliwickie	260	9.15	Bulk and general cargo	3×16-ton, 1×10-ton cranes, 3,000 sq.m. cargo bins.
Bytomskie	342	9.15	Bulk cargo	3×10-ton, 2×8-ton cranes, 3,770 sq.m. cargo bins.
Pirs Tasmowiec	E-188 W-185	9.15 9.15	Coal Coal	Shiploader with loading capacity 700 mt./hr. wagon tipper. 35,000 sq.m. open storage for 170,000 tons of cargo.
Walbrzyskie	256	8.8	Coal	1×10-ton and 2×20-ton cranes, 5,406 sq.m. cargo bins. Terminal for handling liquid tar pitch.
Gornoslaskie	286	9.15	Bulk cargo and general	1×16-ton, 3×10-ton cranes, 13,300 sq.m. cargo bins, 87,000 sq.m. open storage.
Parnica	300	6.5	Bulk cargo	2×8-ton, 1,646 sq.m. cargo bins. Pneumatic equipment for handling bulk cement (wagon-ship directly).
Huk	268	7.9	Bulk cargo and timber	3×10-ton, 1×8-ton cranes, 17,900 sq.m. open storage.
Noteckie	283	6.0	Timber and general cargo	3×6-ton cranes, open storage.
Regalica	220	5.7	General cargo	3×6-ton, 59,120 sq.m. open storage, 10,000 sq.m. dutch barn.
Zbozowe	220	9.15	Grain	Grain silo of 73,000 cu.m. (working import and export).
Czeskie	420	9..15	General cargo	3×16-ton, 3×6-ton cranes, Container Mobile Crane 50 t. Container terminal, Ro-Ro ramp, 8,000 cu.m. warehouses, storage yards for about 100,000 tons of cargo.
Slowackie	565	9.15	General cargo	Warehouse of 10,030 sq.m., storing yards for about 100,000 tons of cargo, 2×16-ton, 3×6-ton cranes.
Polskie	425	9.15	General cargo	3×16-ton, 1×25-ton cranes, 7,268 sq.m. open storage.
Belgijskie *	240	8.8	General cargo	4×6-ton, 1×16-ton cranes, 5,800 sq.m. warehouse, 1,200 sq.m. open storage.
Holenderskie *	161	8.20	General cargo	2×6-ton cranes, 5,300 sq.m. open storage
Luksemburskie *	53	9.15	Lay-by berth	
Wegierskie	562	8.7	General cargo	7×6-ton, 3×3-ton cranes, 12,000 sq.m. open storage, 10,150 sq.m. warehouse.
Rumunskie	600	6.9	General cargo	3×6-ton cranes, 3,740 sq.m. warehouses, 1,470 sq.m. open storage.
Albanskie	89	6.5	General cargo	No cranes. 2,380 sq.m. warehouse for dangerous goods.
Rosyjskie	323	7.7	General cargo	6×3-ton cranes, 23,800 sq.m. warehouse, 3,500 sq.m. open storage.
Starowka	620	6.5	General cargo	1×10-ton, 1×8-ton, 1×7 ton, 3×3-ton, 5×2-ton cranes, 5,600 sq.m. warehouse, 8,100 sq.m. open storage.
Greckie	627	5.6-5.8		Anchorage for ships and barges.
Jugoslowianskie	95	1.9-7.7	General cargo	No cranes, 3,280 sq.m. open storage.
Swinoujscie:				
Portowcow	215	10.60	Bulk cargo, general cargo.	2×16-ton cranes, 4,200 sq.m. open storage.
Gornikow	260	12.80	Coal	2×10-ton cranes, coal terminal capable of accepting vessels upto 65,000 d.w.t. Shiploader with daily capacity of 30,000 tons. Fully mechanised open coal storage area equipped with rubber-belt conveyors for transport of coal at the storage areas. Storage capacity 700,000 tons.
Wladyslawa IV	554	10.0		The quay is used for lighterage and as a lay-by berth.
Chemikow	282	12.8	Bulk (ore)	2×20-ton gantry cranes. Import raw chemical materials such as phosphates. Covered storage for 100,000 tons of cargo. Handling rate of 10,000 tons daily. Barges and wagons can be loaded directly ex-ship or ex-store with capacity of 500 tons.
Hutnikow	329	12.8	Ore	1×40-ton gantry crane and 1 shiploader (capacity 630 t.p.h.) for handling ore, aggregate and heavy general cargoes. Open storage of 5,200 sq.m.

Note: * New Quays.

In Swinoujscie there is also a defreezing plant for railway cars and railcar dumpers.

BULK HANDLING FACILITIES: See "Berthing".

CRANES: Shore cranes: 93×6 tons – 20 tons. Floating cranes: 1×16 tons, 1×90 tons, 1×200 tons. Mobile container crane of 50 ton capacity.

Also see "Berthing" for quay cranes.

STEVEDORES: 24 hours ETA required to arrange gangs.

1 in 4 Saturdays are worked.

MEDICAL: Doctors and hospital facilities available.

TANKERS: All empty tankers have to give 24 hours ETA advice whether they are gasfree and name of last cargo carried. No residue discharge facilities.

DENSITY: 1000.

FRESH WATER: Fresh water supplied from hydrants on quays or by water tanker. The minimum charge is for 5 tons of water. For supply of water on Sundays and holidays a surcharge of 100% is levied. Cost per ton – via hydrant $3.90, via barge $7.80.

FUEL: All grades of Shell fuel oil and Castrol marine lubricants.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Normally opened by crew.

CUSTOMS ALLOWANCES: Each man – 160 cigarettes and 1 bottle of spirit. Master allowed double.

CARGO GEAR: No additional requirements; all gear supplied by stevedores except rain tents.

CONSULS: Swedish Consulate (represents Denmark and Norway), Russian Consulate, Czech Rep. Consulate, German Consulate and Cuban Consulate.

REPAIRS: *Shipyards:*

Stocznia "Odra" (Odra Shipyard), ul. Heyki 14, 71-631 Szczecin. Tel: (48-91) 337-822, 489-965. Telex: 422473 Stor Pl. Fax: (48-91) 345-911.

Szczecinska Stocznia Remontowa "Gryfia" (Szczecin Ship Repair Yard "Gryfia"), ul. Ludowa 13, 71-700 Szczecin. Tel: (48-91) 242-364, 242-219. Telex: 422726. Fax: (48-91) 242-319.

Stocznia Szczecinska S.A. (Szczecin Shipyard Ltd.), ul. Hutnicza 1, 71-642 Szczecin. Tel: (48-91) 232-434, 592-732. Telex: 422106. Fax: (48-91) 233-262, 592-466.

Stocznia Remontowa "Parnica" Sp.z.o.o. (Shiprepair Yard "Parnica"), ul. Gdanska 36, 70-952 Szczecin. Tel: (48-91) 624-252. Telex: 425108 Srp Pl. Fax: (48-91) 623-131.

Morska Stocznia Remontowa S.A., ul. Ludzi Morza 16, 72-600 Swinoujscie. Tel: (48-936) 3491, 4253. Telex: 0422341. Fax: (48-936) 2344, 4253.

DRY DOCKS: Szczecin Ship Repair Yard "Gryfia", floating docks: 1×650 tons; 3×1,450 tons; 1×5,200 tons, 1×7,200 tons and 1×15,000 tons.

Morska Stocznia Remontowa S.A.: 1×3,500 tons and 1×4,000 tons.

SURVEYORS: Krajowa Izba Gospodarcza Biuro Procedur i Legalizacji. Zespol Legalizacji i Informacji Gospodarczej w Szczecinie, pl. Batorego 4, 70-207 Szczecin. Tel:/Fax: 339 393. Telex: 422225.

Komisariat Awaryjny (Average Agent's Office), Lloyd's Agents. Tel: 393-93. Telex: See above.

Lloyd's Register (Poland) Ltd., ul. Hutnicza 1, 71-642 Szczecin. Tel: 346974, 59143. Fax: 233227.

Germanischer Lloyd (Polen) Ltd., ul. Kyskowskiego 16, 70-966 Szczecin. Tel:/Fax: 223733. Telex: 592499, 592330.

Det Norske Veritas: Represented by Polish Register of Shipping, Plac Batorego 4, 70-952 Szczecin. Tel: 461-28. Telex: 0425371 Prss Pl.

Polcargo International Ltd., ul. H. Poboznego 5, 70-900 Szczecin, Poland. Tel: 48 91 345 612. Fax: 48 91 337 765.

REPATRIATION: Crew changes and arranging repatriation can be done.

AIRPORT: 45 km. from Szczecin. Regular flights to Warsaw. From Warsaw communication to every main airport in Europe. Berlin Airport is 140 km. from Szczecin.

TIME: GMT plus 1 hour; GMT plus 2 hours in Summer.

HOLIDAYS: Port Authority holidays in Szczecin-Swinoujscie in 1996:

January	1	New Year
	6, 20, 27	free Saturdays
February	10, 17, 24	free Saturdays
March	2, 16, 30	free Saturdays
April	6, 13, 27	free Saturdays
	7	solemn holiday
	8	holiday
May	1	holiday
	2, 3	solemn holiday
	4, 11, 25	free Saturdays
June	6	holiday
	1, 8, 22, 29	free Saturdays
July	13, 20, 27	free Saturdays
August	3, 17, 31	free Saturdays
	15	holiday
September	7, 21, 28	free Saturdays
October	15, 19, 26	free Saturdays
November	1, 11	holiday
	2, 9, 30	free Saturdays
December	21, 28	free Saturdays
	24 from 2 pm, 26, 27	holiday
	25, 31 from 2 pm	solemn holiday

POLICE/FIRE/AMBULANCE: Police, 997; Ambulance and First Aid Station, 999; Fire Brigade, 998.

EMERGENCY CO-ORDINATION CENTRE: Rescue Co-ordination Centre at Swinoujscie, ul. Nab. Wladyslawa IV, 72-601 Swinoujzcie. Tel: (48-936) 5929 (day and night). Telex: 422632 Pro Pl.

TELEPHONES: Telephone exchange of the Port Authority Szczecin 308 999/Trunk service connections with ships in the port. Port telephone numbers:

Port Fire Bridge	308 355, 308 455.
Port Office of the Police	533 935, 539 919.
Port Officer on duty	533 944.
Port District Medical Dispensary	344 582, 344 662.

SERVICES: "Shipservice" – Enterprise for Maritime Services, ul. Przejazd 1, 70-607 Szczecin. Tel: 337-162, 342-471. Fax: 338-284. Telex: 422282 Ship Pl.

Marine Radio Service: "MORS" Morska Obsluga Radiowa Statkow. All services to any radar, radio or navigation equipment – orders via Morska Agencja Szczecin.

Compass adjusting available. Chart corrections possible. British Admiralty and Polish charts available.

STORING: See "Prelims".

1. Vessel can be stored by barge/motorboat/or truck.

3. Trucks can proceed alongside at the berth. Vessel can store from barge/trucks during loading/discharging operation using her derricks or port crane.

5. Customs Office must be informed about storing.

6. Local riggers (strictly port's workers) can be employed to assist with storing.

SHIP SUPPLY SERVICE: Supplied by Agent.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Each crew member must be in possession of a valid Discharge Book and will receive a separate shore permit issued by the Immigration Authorities entitling him to go ashore within the city area.

GARBAGE DISPOSAL: Shipservice, ul. Przejazd 1, 70-607 Szczecin, Poland. Tel: 337-162, 342-471. Telex: 422282. Fax: 338-284.

Clean Up Service II, ul. Komuny Paryskiej 32c/8 Szczecin. Tel: 520-322.

WASTE OIL DISPOSAL: See "Garbage Disposal".

SEAMAN'S CLUBS: Sailor's Home, 10/12 Malczewskiego Street, 70-612 Szczecin, Poland. Tel: (48-91) 240-001. Telex: 425159. Fax: (48-91) 228-578.

CURRENCY: Polish Zloty (Zl). U.S.$ 1.00 = 2,548 Zl. (March 1996).

DEVELOPMENTS: The Szczecin port has been in the main developed as a general cargo port. A main investment effort has been directed toward an establishment of a modern general cargo potential. New berths and terminals working on the "Roll-on/Roll-off" and "Lift-on/Lift-off" system will be built. The investment will comprise: berths, storage space, cranes, trucks and the other equipment for transhipment of conventional and containerised general cargo.

The Port of Swinoujscie is still being built in as a bulk cargo harbour, capable of serving large vessels. Simultaneously the port will be developing ferry services. A modern ferry terminal built in 1972-1973 is under further development and a target project stipulates 4 berths and 10 arrivals and departures per day.

Fertiliser plant under construction at Police. For vessels up to 38,000 d.w.t.

SHIPMASTER'S REPORT: November 1994.

Pilot Station: At Anchorage No. 2, in position Lat. 54° 03.4' N., Long. 14° 15.0' E.

Chart: B.A. Chart No. 185.

Distances: From Skagen Rev via The Sound 272 miles and via the Belt 372 miles.

Communications: All communications are through the Agent at Szczecin, and to the Pilots 24 hours in advance by telex, then by VHF when in range.

Approaches: Found to be as charted, except that the Racon on Buoy N-2 was inoperative and Buoy N-5 was missing.

When within VHF range, the Pilot will advise which anchorage to use or if the vessel is berthing on arrival.

Pilot: The Pilot boards at the pilot station at Anchorage No. 2 or a little closer inshore.

When berthing at Szczecin, the Pilot will take the vessel to Debina (Approx. Lat. 53° 30' N., Long. 14° 13' E.), where the Pilots change, and a second Pilot takes the vessel to the berth and alongside.

When leaving Szczecin, if the vessel is berthing in Swinoujscie, the same Pilot remains with the vessel throughout.

If the vessel is proceeding to sea or going to anchorage to await a berth at Swinoujscie, Pilots will change at Swinoujscie (Approx. Lat. 53° 54.5' N., Long. 14° 16' E.), the second Pilot taking the vessel to anchorage or leaving at Buoys No. 5/6, when going to sea.

Tugs: Four tugs are used for berthing, one made fast each end with 2 ship's lines through the centre lead and 2 tugs pushing as required.

When berthing at Szczecin, the tugs join and make fast fore and aft shortly after changing Pilots, and when released will put the lines ashore.

On departure, 4 tugs are used, one each end with 2 SLCL and 2 tugs assisting until the vessel has turned and is heading downriver, when the 2 tugs pushing and stern tugs are dismissed. The bow tug remains made fast aft until Debina, where it is released.

Berthing – Szczecin: The vessel berthed port side to Berth No. 65. The starboard anchor was required to be ready, but was not used.

Restrictions: For this vessel – LOA 188.4 m., beam 31 m. and draft 8.31 m., in variable density, on this occasion 1005, the draft available may change with wind conditions.

Daylight transit of the river only.

Two miles visibility for the whole transit is required.

Cut-off time for departure in November was 1300 hrs.

Passage Time: Szczecin to Swinoujscie takes about 5 – 6 hours.

Szczecin – Cargo Working: We loaded steel products in 3 shifts, round the clock, with ship's cranes.

Berth No. 65 is equipped with luffing cranes which can be rigged for grab or hook working and can be used for bulk cargoes. There are stock pile areas on the quay for steel, etc.

A good stow is obtained by using mobile cranes in the holds to reach the wings and overhang areas with bundles and coils of plate.

Securing with steel strapping is a continuous process throughout loading.

Berthing – Swinoujscie: Vessel berthed starboard side to at Chemikow, which is used mainly for bulk cargoes, and is served by 2 gantry cranes.

Tugs: Four tugs are used for berthing and departure, one each end made fast with 2 SLCL and 2 tugs pushing. The tugs join when approaching the berth.

On departure, the stern and pushing tugs are dismissed when clear of the berth, but the forward tug remains made fast until the vessel is clear of the breakwaters.

Pilots: Pilot disembarks at Buoys No. 5/6.

Swinoujscie – Cargo Working: We loaded steel products in 3 shifts, round the clock, by ship's cranes throughout, with occasional assistance from the shore cranes.

The cargo was shipped down from Szczecin by barge and some cargo was landed ashore to be loaded using the shore gantry cranes, but mostly loaded direct from the barges alongside the port side, using ship's cranes.

On this occasion, stevedores came down from Szczecin to supplement the local gangs. The Szczecin stevedores are more experienced with this type of cargo.

If Szczecin gangs are used, it is appreciated if accommodation is made available for the foreman who remains with the vessel throughout.

Stowage in the holds is by mobile crane and a good tight stow is achieved, securing with steel strapping being carried out throughout the loading.

Cargo loaded was packets and rolls of plate and wire rod coils. A stowage factor of 1.26 cu.m./tonne was achieved for wire rod coils. The overall loading rate for both ports and commodities was 53.24 tons per gang hour.

This berth is close by the river entrance, and loading delays can be experienced due to strong winds.

The cargo weights are given on the loading lists as gross. However, the draft survey weight for all cargo loaded in Poland was 2.9% greater than the Bill of Lading weight, which could cause problems when loading to the marks.

Surveyor: A Cargo Surveyor is in attendance throughout and passes the suggested notations direct to the Agents for inclusion on the Mate's Receipts, after discussion with the Chief Officer.

Medical: Medical attention is arranged by the Agent, and in Swinoujscie, the Port Health Authority Chief Medical Officer will attend on board and arrange any shore treatment required.

Clearance: Clearance inwards is friendly and efficient and applies for both berths.

Shore Leave: Shore passes are issued on arrival at the first berth and collected before departure.

Extracts of Szczecin Port By-Laws:

122. The ship moored to a port quay at night or in periods of limited visibility should show white lights located on the water side at the height of the ship's deck as follows:
Ship's length less than 50 m. – one light at ship's middle part.
Ship's length 50 m. – 100 m. — 4 lights at ship's bow and stern.
Ship's length over 100 m. – 3 lights at ship's bow, stern and middle part.

68.4 Mooring ropes should be provided with rat guards.

86.1 Ship's laying at a quay or other similar construction should have safe and properly fixed connections with land (gangway, ladder, platform, etc.). Before fixing such connection with land, the traffic between the ship and land is forbidden.

.2 In the place of the ship's connection with land should be positioned a lifebuoy with a heaving line.

.3 The ship's connection with the land should be well lit at night.

.4 Without ship's connection, the gate in the ship's bulwark should be closed and pilot ladder not outside vessel.

.6 It is forbidden to use ship's connection with land if it is damaged.

87.1 The gangway should be sufficiently strong and with both sides secure.

.4 The gangway should be protected by a net.

88.3 Outlet openings for impurities and for pumps onboard the ship should be protected to prevent water pollution and splashing of the quay and passing persons.

89.1 The Master of the ship or his deputy and the sufficient number of crew should be onboard for performing the port watches, and particularly for supervising the vessel.

90.1 Engine test mooring trials can be performed at the testing stations only, or other place determined by Harbour Master.

91. Maintenance works, as well as minor repairs to the ship's outside hull when she is moored at a quay or at some mooring place, can be performed after receiving Harbour Master's permission.

113.2 Oily water, polluted with crude oil derivative substances or with a concentration greater than 15 ppm. should be delivered from the ship to a proper receiving installation before ship sails out.

.4 Waste – Solid food waste and waste materials should be landed before the ship sails out.

.7 In case only small quantity of impurities, mentioned in Section 2 and 4, is collected on the ship, the Harbour Master can withdraw the obligation of their landing, provided ship's Master makes a statement that the ship's free storage capacity assures their storage on a ship without throwing them into the Baltic Sea.

114. Szczecin Maritime Office may seal the ship's bilge system valves after their closing, for all time of ship's stay in the port.

75.1 All ships of over 150 gross tons are obliged to use the port wharfmen at quay.

77.2 When making notice of an international navigation ship's entry, it is necessary to submit Tonnage Certificate, Crew List, Cargo Manifest and Passenger List.

.3 The Harbour Master's office has the right to keep the ship's Tonnage Certificate for time of the ship's stay in the port.

80.1 It is forbidden to leave port if:
1. Overloaded or showing a large list – until it is partly unloaded or list is reduced.
3. Ship's safety documents are not valid.
4. Ships do not meet the requirements stated in the safety documents, as regards number and qualification, of crew, equipment, etc.

§15.2 The enterprises performing agency and broking services are obliged to inform Masters of ships they serve, about the port bye-laws and upon their demand to deliver them the properly prepared copies of the port bye-laws.

AUTHORITY: Szczecin – Swinoujscie Authority Joint Stock Co., ul. Bytomska 7, 70-603 Szczecin, Poland. *Tel:* 308-999. *Telex:* 422108. *FAX:* 48-91-624-842. *Contact:* Dionizy M. Popik, President (Tel/Fax: 48-91-623-412). Z. Zelman, Marketing and Development Director (Tel/Fax: 48-91-624-145). M. Banaszek, Technical Director (Tel/Fax: 48-91-624-507). Marketing Dept. (Fax: 48-91-624-842. Tel: 48-91-308 750, 48-91-308-240, 48-91-308-656, 48-91-308-842).

AGENT: G.A.C. Norpol Shipping Ltd. Sp. z o.o., Starego Wiarusa Street 32, 71206 Szczecin, Poland. Tel: (48-91) 73754, 70302, 71436. After office hours 877780, 221007. Telex: 422797 Gacno Pl. Cables: "Confidence", Szczecin. Fax: 73697.

NOTES

Please also advise Shipping Guides Ltd.

Portugal

AVEIRO: 40.39 N. 08.45 W. (See Plan)

PORT LIMITS: A vessel is considered "arrived" when she is 3 miles from the piers.
DOCUMENTS:

5 Crew Lists.
4 Lists of Passengers Disembarked.
2 Lists of Passengers in Transit.
5 Cargo Manifests.
1 Manifest of Cargo in Transit.
1 Provisions List and Spares.
2 Health Certificates.
2 Dangerous Cargo Lists (when applicable).
2 Lists of Articles held by the Crew.

PILOTAGE: Compulsory for vessels of 200 g.r.t. and above. Pilots address: Departmento de Pilotagem do Porto de Aveiro - Barra - 3830 – Ilhavo. Hours: 0800 – 1200 and 1400 – 1800.

Telephone: 369 429.
Telex: 37338 Inppda p.
Telefax: 369244.
VHF: Channels 14 and 16.

At least 3 hours notice of ETA required by VHF or telephone.

In normal conditions of weather and sea, the area of boarding is usually 1 miles N.W. of North Pier. If not possible to board in this area the pilot boat will guide the vessel across the bar. If weather and sea do not allow this, vessel will be guided by VHF Channel 14 and take the Pilot between piers.

There are 3 pilot boats, one of 18 m. and the other 12 m. length, both have black hull and white superstructure, identified with a "P", and another fast boat totally white. All boats display a white flag sorrounded by narrow blue strip, with a black "P" in the centre.

ANCHORAGE: West of North Pier, at a distance of about 1.5 miles.
RESTRICTIONS: Depth at bar 8.0 m. to 11.0 m. Tidal variation 3.0 m. Entering and sailing only during daylight. No entry during thick fog.

It is expected that 24 hour entering and sailing will commence soon.

MAX. SIZE: LOA and draft are regulated by Port Captain's Notice No. 5/89.

North Terminal: Length 130 m., draft 7.0 m.
South Terminal and Industrial Port (tankers): Length 90 m., draft 5.2 m.

HEALTH: Usual international health regulations to be observed. Free Pratique automatic for vessels coming from other Portuguese ports.
RADIO: Aveiro Pilots Radio on VHF Channels 14 and 16. Radio station is Lisbon Radio.
VHF: See "Pilotage".
RADAR: Pilot boat has radar that can assist vessels during approach to harbour entrance.
TUGS: 1×145 h.p., 1×400 h.p., 1×475 h.p. and 1×800 h.p.
BERTHING:

	Length (m.)	*Depth at LW* (m.)
North Terminal	650.00	10.0
South Terminal	400.00	6.5
Chemical Terminal:		
No. 20	35.00	8.0
No. 21	49.00	8.0
No. 22	41.50	8.0
Fishing fleet port	25.90 – 45.00	3.0 – 6.0

CRANES: *North Terminal:* 6×12 ton and 1×39 ton electric cranes.
South Terminal: 4×6 ton and 2×12 ton electric cranes.
Mobile cranes: 2×3 ton, 6×7 ton, 7×16 ton, 1×50 ton, 1×100 ton.
BULK CARGO FACILITIES: Petro chemicals at Chemical Terminal. Grabbing cranes at North and South Terminals of up to 9.0 cu.m. capacity.
SPECIALISED CARGO - HANDLING FACILITIES: There is a Ro/Ro berth at the Northern part of North Terminal.
STEVEDORES: Advise agent 24 hours before vessel's arrival.
Working hours: 0800 – 2400 hrs., overtime possible.
MEDICAL: Hospital and clinics in town. Advance notice not required. Required vaccination certificate, and when ship comes from affected regions, also yellow fever certificate.
TANKERS: Private quay of Petrogal/GALP used by small-sized tankers. Two Port Authority quays for tankers, wine, liquid combustibles and chemicals. No facilities for dirty ballast.
DENSITY: About 1025.
FRESH WATER: Supplied from quay at 20 t.p.h. or by road tanker.
FUEL: Only diesel available. Smaller quantities supplied from road tankers. Otherwise, from Petrogal's private quay (pipeline).
CONSULS: Nearest Oporto, 60 km.
REPAIRS: All types of repairs can be carried out.
DRY DOCKS: 1 Dry dock (100 m.×18 m.) for vessels up to 3,000 d.w.t. and 1 floating dock for vessels up to 1,200 d.w.t.
SURVEYORS: Cargo and ship surveyors available.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: By crew.
REPATRIATION: Possible. If crew member has letter from Master of vessel, 40% discount allowed on fare.
AIRPORT: Oporto Airport (Pedras Rubras) at about 80 km. Lisbon Airport (Portela) at about 250 km. Both served by regular airlines covering all the world.
TIME: From October to April: GMT; April to October: GMT plus 1 hour.
HOLIDAYS: New Year's Day; Local Holiday (movable – Monday after Easter); Liberty's Day (25th April); Worker's Day (1st May); Portugal's Day (10th June); Religious Holiday (15th August); Corpus Christi (movable); Proclamation of the Republic (5th October); All Saint's Day (1st November); Independence of Portugal (1st December); Immaculate Conception (8th December); Christmas Day. No work allowed on Christmas Day and New Year's Day.
CUSTOMS ALLOWANCES: 125 grams tobacco, and 1 bottle wine/spirits for each man.
POLICE/FIRE/AMBULANCE: Call 115 for all services.
TELEPHONES: Not available on board.
SERVICES: Ship repairs, fresh water, towage, provisions, repatriation, gyro/radio repairs, fumigation, bunkering, medical, surveys, divers.
BANK: Lloyd's Bank and Portuguese Banks.
STORING: See "Prelims".

1. Yes.
2. No interference with cargo work.
3. Yes.
4. Yes.
5.
6. Yes.

SHIP SUPPLY SERVICE: Available. Contact agent.
SHORE LEAVE: Crew allowed ashore.
IDENTIFICATION CARDS: Crew members going ashore will need a special card issued by Customs Officer and Maritime Authority. Ship's Agent takes these cards aboard, where they are completed in accordance with Crew List. See "Lisbon".
GARBAGE DISPOSAL: Service available, 0.8 cu.m. containers, provided alongside by Port Authority.
WASTE OIL DISPOSAL: Slop reception, according to MARPOL.
SEAMAN'S CLUBS: Club Stella Maris, Av. Bacalhoeiros 354, Gafanha da Nazare, 3830 Ilhavo, Tel: (034) 361150.
CURRENCY: Portuguese Escudos (PTE).
DELAYS: As a tidal port, arrivals and sailings are subject to tides. Delays may occur owing to bad weather, especially during the Winter months.
DEVELOPMENTS: Construction of container terminal.
AUTHORITY: Junta Autonoma do Porto de Aveiro, Edificio 9, Forte da Barra, P.O. Box 91, 3830 Gafanha da Nazare, Portugal. *Tel:* (034) 390 33 00. *Telex:* 37379 Japa P. *FAX:* (034) 390 33 99. *Contact:* Eng. Lauro Ferreira Marques, Port Director. Eng. Jose Mota, Port Engineer. Alberico Henriques, Dock Foreman.

Capitania do Porto de Aveiro, Forte da Barra, P.O.Box 5, 3830 Gafanha da Nazare, Portugal. *Tel:* (034) 366 250. *Telex:* 37348 Capiav P. *Fax:* (034) 366 247. *Contact:* Captain Rodrigues Pereira, Harbour Master.

AGENT: A. J. Goncalves de Moraes, Lda, 49 Av. Dr. Lourenco Peixinho, 3808 Aveiro Codex. Tel: (34) 24550. Fax: (34) 29134. Telex: 37590. Cables: Amoras. After hours Tel: (34) 24666. Shipping and Forwarding Agents, Chartering and Brokers, Insurance Agents, Stevedoring.

FARO: 37.00 N. 07.55 W. (See Plan)

DOCUMENTS:

1 copy Maritime Declaration of Health.
1 copy Vaccination List.
1 copy Crew List.
1 copy Passenger List (In Transit).
1 copy Passenger List (Disembarking).
1 copy Dangerous Cargo List (EEC Directive 93/75 dated 13th September 1993).
1 copy Ship's Register.
International Tonnage Certificate (1969).

PILOTAGE: Compulsory. Notice of ETA and request for Pilot must be made at least 24 hours in advance to Nacional Institute of Port Pilotage, Ave. 5 de Outubro No. 66-9º, 8000 Faro. Tel: 351-89-804605. Fax: 351-89-812903.

Pilots on VHF Channels 16 and 14.

ANCHORAGE: Anchorage "ZV" (Sta. Maria Cable – 323°) and (East Breakwater – 264°).
MAX. SIZE: LOA 110 m., max. draft 6.4 m.

Vessels over 110 m. LOA must obtain permission from Port Authority before berthing.

VHF: Contact radio station on Channel 14, Channel 29 for private calls. Pilots on Channels 16 and 14.
TUGS: 2×400 h.p.
BERTHING: One cargo berth: Length 200 m., depth 7.9 m.
CRANES: 2×6 tons and 1×12 tons capacity.
STEVEDORES: Ordered by Port Operators.
MEDICAL: Faro Hospital, 1.5 km.
TANKERS: One tanker berth: Length 110 m., depth 7.0 m.
FRESH WATER: Available.
FUEL: Available.
FIRE PRECAUTIONS: Two fire engines available.
REPAIRS: Repairs possible.

Contact: Pesrep, S.A. Tel: 702162. Fax: 702192.
Rodrigues and Almeida, Ltd. Tel: 705280.

SURVEYORS: Peritosul – Superintendencia e Peritagens, Lta., Cais Comercial, Apt. 77, 8003 Faro Cedex. Tel: 803551. Fax: 27711.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits per man.
REPATRIATION: Possible.
AIRPORT: Faro Airport, 8 km.
HOLIDAYS: Local holiday: September 7th (City Day).
POLICE/AMBULANCE/FIRE: Police, Tel: 822022. Ambulance, Tel: 822122. Fire, Tel: 822122. Emergency, Tel: 115.
AUTHORITY: Junta Autonoma dos Portos de Sotavento do Algarve, Rua Conselheiro Bivar 68, 8000 Faro, Portugal. *Tel:* 351-89-822025. *FAX:* 351-89-812758. *Contact:* Luis Manuel Pedro Ines, Port Director.

FIGUEIRA DA FOZ: 40.09 N. 08.52 W. (See Plan)

DOCUMENTS:

Health Certificate (Pilot supplies form).
5 Crew Lists.
4 Lists of Passengers Disembarking.
2 Lists of Passengers in Transit.
5 Cargo Manifests.
1 Manifest of Cargo in Transit.
Provision and Spares List.
2 copies each Bill of Lading.

PILOTAGE: Compulsory. Send ETA to Agent by cable 24 hours before arrival. Vessels should arrive 2 hours before high tide. Call Figueira Pilots on VHF Channels 16 and 14, from 0900 hrs. – 1200 hrs. and 1400 hrs. – 1700 hrs.

Await Pilot 0.5 miles from the piers.

ANCHORAGES: South of N.W. Azimuth of North Pier, at a distance of more than 0.5 miles.

RESTRICTIONS: No service available at the following times:

1st October – 30th April, between sunset and sunrise.
1st May – 30th September, midnight to sunrise.

MAX. SIZE: Max. draft 15 ft. (16 ft. weather and tide permitting). Max. length 100 m.

HEALTH: Free Pratique authorised for vessels coming from other Ports in Mainland Portugal. For vessels coming from other countries, Health Declaration supplied by the Pilot must be filled in.

RADIO: Radio Foz listens on VHF Channel 16, Monday – Friday from 0900 hrs. – 1230 hrs. and 1400 hrs. – 1730 hrs.

Figueira Pesca listens on VHF Channels 16 and 3, from 0600 hrs. – 2400 hrs. Monday – Friday and 0600 hrs. – 1300 hrs. Saturday.

TUGS: 1×396 h.p. Tugs not compulsory for berthing and unberthing.

BERTHING: The port is in the mouth of the Mondego River. The anchorage is in sand and outside the harbour.

Concrete Quay: Length 462 m. Depth 16 ft.
Lay-up Quay: Length 250 m. Depth 16 ft.
Depths on Bar: MHW 7.0 m. MLW 4.30 m.

There is about 2,000 m. of quayage for small ships and fishing craft.

CRANES:

4×6 tons at 24 m. (electric)
12 tons at 20 m.
3×3 tons at 24 m. (electric)
6 tons at 20 m.
1×1.5 tons at 24 m. (electric)
3 tons at 16 m.
1×2.3 tons at 16 m. (mobile)
16 tons at 3 m.
1×52.5 tons at 23 m. (normal operation) or
72.5 tons at 17 m. (maximum – mobile), with spreaders for containers up to 40 ft.
20×3/25 ton forklift trucks.

STEVEDORES: Advise Agent 24 hours before arrival.

MEDICAL: No prior advice is necessary. All medical facilities available.

DENSITY: About 1020.

FRESH WATER: Each quay has its own installations.

FUEL: Only diesel available.

CONSULS: France, Spain and United Kingdom.

REPAIRS: There are two shipyards and repair facilities, also a slipway for ships up to 3,000 tons.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Work usually done by crew.

CUSTOMS ALLOWANCES: No limit, but must be declared.

REPATRIATION: No difficulty in crew repatriation.

TIME: From last Sunday in September till last Sunday in March GMT and the rest of the year GMT plus 1 hour.

HOLIDAYS: New Year's Day; Good Friday; 25th April; 1st May; Corpus Christi (movable); 10th June; 24th June; 15th August; 5th October; All Saint's Day (1st November); 1st December; 8th December; 24th December; 25th December.

POLICE/FIRE/AMBULANCE: Police 22022; Ambulance 115; Fire 22122 and 22030.

SHORE LEAVE: Crew allowed ashore.

DELAYS: As a tidal port, arrivals and sailings subject to tides. Delays may occur owing to bad weather, especially during Winter months.

IDENTIFICATION CARDS: See "Lisbon".

GARBAGE DISPOSAL: Available.

WASTE OIL DISPOSAL: Available.

SEAMAN'S CLUBS: Stella Maris.

CURRENCY: Escudos.

DEVELOPMENTS: Construction of a new bulk terminal started early 1996, and is expected to be completed early 1997. The terminal will be served by railway.

AUTHORITY: Junta Autonoma do Porto da Figueira da Foz, Avenida de Espanha, 3080 Figueira da Foz, Portugal. *Tel:* (033) 22365, 22366. *FAX:* (033) 23945. *Contact:* Joao de Oliveira Barrosa, Port Director. Captain Rocha Cabecas, Harbour Master.

AGENT: A. J. Goncalves de Moraes, Lda., 262-Rua da Republica, 3080 Figueira da Foz – Portugal. Tel: (33) 22584. Fax: (33) 20543. Cables: Amoras. After office hours: (33) 25016 and (34) 24666 ("Aveiro" network). Shipping and Forwarding Agents, Chartering and Brokers, Insurance Agents, Stevedoring.

LEIXOES and OPORTO (Douro River): (See Plan)
Leixoes: 41.11 N. 08.43 W. Oporto: 41.09 N. 08.37 W.

DOCUMENTS:

Health Certificate.
6 copies Crew List.
2 copies Stores List.
2 copies Crew Effects List.
Maritime Declaration of Health.
Ship's Register.
Safety Equipment Certificate.
Load Line Certificate.
Safety Radio Certificate.
5 copies Manifest and 1 copy of each Bill of Lading concerning cargo to be discharged.
1 copy Transit Manifest, if cargo in transit exists.

APPROACHES: *Leixoes:*

By day: Vessels coming from the North should take due heed of the Orca Rock situated 1,300 m. beyond the Northern Quay on the parallel 41° 10' 37" N. and should pass to the South of the breakwater light.

By night: Vessels approaching the port should be guided by the lights of the breakwater and then by the lights of the lighthouse, positioned at the heads of the North and South Moles of the Port, placing the Leca lighthouse in the middle of them.

Entrance Channel: The width of the port entrance between the heads of the breakwaters is 220 m.; in the foreport the channel widens to 500 m., from the entrance for 240 m. and is reduced again towards the entrance of Dock No. 1 to 113 m. By dredging, the depths are maintained at 10 m. The width of the entrance to Dock No. 2 is 58 m.

PILOTAGE: Pilotage is compulsory for entry and leaving, with the exception of coastal vessels and national flag craft up to 500 g.r.t., coastal and local fishing vessels and pleasure craft. Available day and night in Leixoes, but in Oporto only between sunrise and sunset, and then dependent upon sea conditions. Vessels must communicate their ETA a minimum of 12 hours ahead and confirm again 4 hours in advance. Departures must be communicated 2 hours ahead between 0800 and 1800 hrs. This must be done via the Radar Station.

Pilot boat recognition:

By day – black hull, with the letter "P" painted in white. Also a flag may be hoisted which is white, lined in blue, and with a black letter "P" in the centre.

By night – a white light at the top of the mast forward and lower down a red light.

Call-up signals by ship's siren:

To call Pilot – Letter "G" in morse, or Letter "O".
To call pilot launch – Letter "O" in morse.

VHF: Pilots on VHF Channels 9, 12, 13 and 16.

ANCHORAGES: *Douro River:*

Outside the port: Vessels may await entry, anchoring to the North of the alignment of the bar entrance lights of the Douro River in an area defined by the alignments of the Leca lighthouse, and the N.W. side of the Leixoes mole. In this area the depths vary between 16 m. and 21 m.

The anchorage is not safe in certain weather conditions.

Inside the port: Vessels can anchor with 2 anchors at the bow and 1 small anchor at the stern, and even by passing lines ashore at the following points: Alfandega, Cabrea, Pedras, Bicalho, Gas, Lugan, Carbonifera, Gaia and Monchique.

Leixoes:

Outside the port: Vessels can await entry, anchoring outside a radius of half a mile from the head of the breakwater to the West, and with an Eastern limit as the alignment of the Leca lighthouse with the breakwater light itself.

Anchorage is not safe during bad weather.

Inside the port: Vessels can anchor in the foreport.

MAX. SIZE: *Douro River:* Permitted draft on entering the port, variable with the state at the bar is from 18 ft. to 19 ft. (HWST) and 16 ft. to 17 ft. (HWNT).

The height of the tide of the port is: Average during Spring tides 2.30 m; average during Neap tides 1.80 m.

At times and particularly during the months of January, February and December, normal movement of vessels is affected by the rough sea which in conjunction with the river current causes frequent variation, both in the width and in the depth of the access channel, and necessitates annual dredging in order to guarantee conditions of navigability.

Leixoes: Cargo vessels 31 ft. Also see "Tankers".

RESTRICTIONS: *Douro:* Subject tide and bar conditions.

The main alignments of the bar, are as follows:

1. Tres Orelhas (a pillar with 3 battlements on the upper part, located at Sobreiras) or Marca Nova do Mato, on the Anjo (an archway on the Tower of S. Miguel da Cantareira);

2. Tres Orelhas by Marca Nova da Cantareira (light on iron column).

Marking of navigation channel – The channel is defined by 7 buoys.

HEALTH: Free Pratique authorised for vessels coming from other ports in mainland Portugal. For vessels coming from other countries Health Declaration supplied by the Pilot must be filled in, and delivered to the Agent. Radio Pratique also available.

RADIO: *Leixoes Naval Radio Station:* Operated by the Leixoes Port Captaincy, working with permanent listening-watch on 2182 kHz for aid to navigation; receives and listens on frequencies 2182, 2097, 2566, 2657, 4474.5 and 7510 kHz. Transmits weather report and Notices to Mariners by radiotelephony for the coastal strip for a distance of 50 miles to seaward of the coast of Portugal at the times 0735 Z, 1005 Z, 1935 Z, 2205 Z, on frequency 2657 kHz.

It listens out permanently on VHF Channel 16 (156.80 MHz) for aid to navigation and has working Channels 11, 13, 19, 39 and 60.

RADAR/VHF: *Leixoes Radar Station:* Operated by the Administration of the Ports of the Douro and Leixoes, it is equipped with radar for control and support to navigation, and has a range of 18 miles. It also has VHF equipment, permanently listening out, working on the 156 – 175 MHz band, it being possible for any vessel, up to a distance of 50 miles to contact this station for identification, port matters and meteorological information. The permanent listening channels are 12 and 16. The working channels are 9, 10, 11 and 68.

TUGS: Normally join the vessel.

At Leixoes: 7 tugs, 1,300 – 2,800 h.p. In the outer harbour up to 700 g.r.t., no tug required; from 700 up to 1,800 g.r.t. 1 tug compulsory. Over 1,800 g.r.t., 2 or more tugs required.

Report: 1994.

Large vessels require 4 tugs (2×35 ton B.P. from Port Authority and 2×45 ton B.P. from Petrogal).

At Douro River: As a rule service necessary on arrival/sailings. Thus they join the vessel after passing the bar.

BERTHING: *Douro River:* Gaia Quay: Length 280 m. Depth 18 ft. Estiva Quay: Length 140 m. Depth 11 ft. – 17 ft. Porto A Quay and Alfandega Quay are for small craft only.

In addition there are private facilities of Secil (4 cement silos, total capacity 12,000 tons), Leiria Cement Company and Mobil.

Outer Harbour: The depth of water at the entrance and in the centre of the outer harbour is 10.00 m. at MLWST; Maximum rise of tides 3.99 m.; Minimum rise of tides 0.07 m.; Total water area 117.36 ha.; Breadth of entrance (harbour) 220.05 m.; Breadth of entrance (Dock No. 1) 113.00 m.

Dock No. 1: Length of North Quay 487 m.; South Quay 551 m.; Maximum draft 29 ft.

Dock No. 2: Length of North Quay 670 m. and South Quay 743 m.; Maximum draft 31 ft.

South Mole: Length of Quay 370 m.; Depth 19 ft.

Ro/Ro Terminal: Quay with a usable length of 145 m. and max. depth of water of 18 ft.

Dock No. 4: Length of quay 500 m., max. draft 30 ft.

CONTAINER HANDLING FACILITIES: *South Side:* 440 m. of usable quays with a depth of 9.3 m. The total open storage area for containers is 3.4 hectares. It is equipped with a gantry crane of 35 tons capacity, 2 transtainers with 35 tons capacity and 2 straddle carriers of 30 tons capacity.

Equipment used at both terminals include 2 forklifts of 25 tons capacity and 2 container handlers with front line spreaders of 7 tons capacity for empty containers.

North Side: 360 m. of usable quay with a depth of 9.1 m. Its usable open area for containers is 1.97 hectares. It is equipped with 2 gantry cranes of 35 tons capacity and 5 transtainers with a capacity of 35 tons. Also see "South Side" above.

CRANES: *Leixoes:* Dock No. 1: 1×94 tons on the North side and 6×5 tons on the South side.

Dock No. 2: 11×5 tons and 2×5/15 tons on the North side, and 1×31.8 tons, 2×12/24 tons and 13×5 tons on the South side.

Dock No. 4: 2×5 tons and 2×15 tons.

South Mole: 3×5 tons.

Douro: Gaia Quay: 2×1.5 tons, 1×3 tons and 1×5 tons.

TANKERS: *Terminal Operator:* Petroleos de Portugal E.P. (Petrogal).

Pier A: Max. d.w.t. 120,000 tons. Depth of water: 14.0 m. Max. draft: 44.5 ft. (with dredging). Max. length: 250 m. Daylight berthing only.

Products Handled	Capacity t.p.h.	Hoses (in.)
Crude Oil	10,000 disch/2,000 load	4×12
Gas Oil	1,500 load	1×12
Fuel Oil	2,000 load	1×12, 1×10
Naphtha	1,200 load	1×10

Pier B: Max. d.w.t. 27,000 tons. Max. draft: 30 ft. Max. length: 200 m. Berthing at night possible. Depth alongside 9.0 m. Depth in approaches 7.7 m.

Products Handled	Capacity t.p.h.	Hoses (in.)
Crude Oil	4,000 load	2×10
Gas Oil	1,500 load	1×10
Fuel Oil	2,000 load	1×12, 1×8
Gasoline	700 load	2×10
Petrol (Jet)	400 load	1×8
Lub Oil	300 load	1×6
Benzine	350 load	1×8
Toluene	350 load	1×8
Octoxylene	350 load	1×8
Paraxylene	350 load	1×8

Pier C: Max. d.w.t. 5,000 tons. Max. draft 19 ft. Max. length 100 m. Berthing at night possible. Depth alongside 5.7 m.

Products Handled	Capacity t.p.h.	Hoses (in.)
Fuel Oil	2,000 load	2×8
Gas Oil	1,500 load	1×8
Gasoline	700 load	2×8
Petrol (Jet)	400 load	1×8
Lub Oil	300 load	1×6
LPG	200 load	1×6
LPG/B	200 load	1×6

Moorings: Vessels are to be moored with following lines, as a minimum:

Pier	Head Lines		Breast Lines		Springs	
	Fore	Aft	Fore	Aft	Fore	Aft
A	4	4	2	2	2	2
B	3	3	2	2	1	1
C	3	3	–	–	1	1

BRIDGES: Bridge at Leixoes between Docks 1 and 2 opening regularly.

STEVEDORES: Ordered by Agents according to berth and cargo.

MEDICAL: Masters to advise by radio prior to arrival if medical attendance is required on board. Hospital facilities available.

DENSITY: 1026.

FRESH WATER: Available at any quay.

FUEL: Available from Shell, Petrogal, Mobil and B.P.

REPAIRS: All types of deck engine and electrical repairs can be carried out.

DRY DOCKS: None.

OPENING/CLOSING HATCHES: Work always done by crew.

CONSULS:

	Tel.		Tel.
Bangladesh	6188912	Iceland	322587
Belgium	2005956	Italy	2006243
Bolivia	2007888	Japan	6090961
Brazil	2004463	Korea	6099527
Cape Verde	2002777	Morocco	2008877
Colombia	2002744	Norway	322587
Dominican Rep.	695785	Paraguay	563950
Finland	6102396	Spain	563915
France	694805	Sweden	320736
Germany	6102336	Turkey	9022694
Guinea Bissau	321471	U.S.A.	6063094/5

CERTIFICATES:

Ship Register.
Safety Radio.
Safety Equipment.
Load Line and Derat Certificates.

REPATRIATION: No difficulties for crew changes or repatriation.

AIRPORT: Distances: Oporto 17 km., Leixoes 7 km. Airport served twice a day through Lisbon Airport.

TIME: GMT plus 1 hour.

HOLIDAYS: Date varies from year to year.

Local Holidays: Tuesday after Whit Monday.

Public Holidays: 1st January, Good Friday, 25th April, 1st May, 10th June, 15th August, 5th October, 1st November, 1st December, 8th December and 25th December.

POLICE/AMBULANCE/FIRE: Leixoes Police 9951706; Ambulance 115; Fire Brigade Leixoes 995 3334, 5750.

TELEPHONES: Only available on certain quays.

SERVICES: Limited tank cleaning may be performed. Discharge of tank washings subject port authorisation. Compass adjusting possible. Diver service available.

SHIP SUPPLY SERVICE: Provided by the Port Administration. Tel: 9953000. Telex: 22674 P.

SHORE LEAVE: Crew allowed ashore.

IDENTIFICATION CARDS: See "Lisbon."

DEVELOPMENTS: *Leixoes:* Ro-Ro terminal to be constructed at the North East side of Dock No.2.

Routine dredging of the docks, Douro Bar and manoeuvring area and approaches to Tanker Berth "A".

AUTHORITY: Administracao dos Portos do Douro e Leixoes, Av. da Liberdade, 4450 Leca da Palmeira, Portugal. *Tel:* 9953000. *Telex:* 22674 P. *FAX:* 9955062. *Contact:* Eng. Jose Monteiro de Morais, President.

AGENT: A. J. Goncalves de Moraes, Lda., 18 Rua Nova da Alfandega, P.O.Box 4636, 4011 Porto Codex. Tel: (2) 323741. Fax: (2) 323217. Cables: Amoras. After office hours: (2) 9620694. Shipping and Forwarding Agents, Chartering and Brokers, Insurance Agents, Stevedoring.

LISBON: 38.42 N. 09.11 W. (See Plan)

LOCATION: Lat. 38° 42' 30" N., Long. 9° 11' 10" W. Capital and principal port of Portugal.

PORT LIMITS: A vessel is considered to be an "arrived vessel" when, after entering the Tagus Estuary, she has left behind the alignment between the Torre of S. Juliao and the Torre of Bugio.

DOCUMENTS:

Health Certificate.
6 Crew Lists.
10 Passenger Lists.
2 Lists of Articles held by the crew: cameras, binoculars, radios, cigarettes, spirits, etc.
2 Stores Lists.
All to be signed by ship's Master.

Certificates for vessels up to 500 tons: – Tonnage Register, Loading and Navigation Certificates.

For vessels over 500 tons: – Tonnage Register; Load Line; Radio; Safety Equipment and Navigation Certificates.

Cargo Documents:

10 Manifests.
3 sets of Bills of Lading.
For cargo in transit: 2 Manifests.

APPROACHES: The Port of Lisbon is situated on the Tagus estuary which is 25 km. long and between 2 km. and 14 km. wide with a highest tidal rise of 4.4 m. At the bar which gives access to the port is a channel with a depth of 13 m. (16 m. at HT).

PILOTAGE: Compulsory. Cascais is the main station for Pilots at Lisbon. There is another station on the Tagus, near Belem Tower. The charge varies according to the tonnage of vessel, from $100.00 in or out for vessels up to 100 tons to $4,000.00 for vessels of 185,000 tons. At night, plus 50%. These charges are obligatory whether Pilots are employed or not (tourist vessels half rate). Exemptions from payment are as follows: Vessels calling solely to land sick crew or passengers, or vessels made to shift by order of the Port Authority, half rates for pilotage in creeks of River Tagus. Reduction of 50% as follows: (1) Tourist vessels; (2) vessels calling solely for supplies of provisions, fuel or water; (3) vessels calling for shelter only. The attendance of Pilots at all movements inside the River Tagus is compulsory.

For this assistance (mooring or unmooring and shifting in the harbour) the charge varies.

MAX. SIZE: See "Berthing".

HEALTH: Ordinary visit made at central area with vessel anchored, from 0800 hrs. to 1900 hrs. Master may ask for Free Pratique to get ship

moored immediately c
Authorities, addressin
Rocha do Conde de (
prior to the ship's arri
Inderne" (means "N
signed by the Maste

RADIO: ETA to be a
ship's arrival.

VHF: Channels 1-
Authority on Chan
Ship on Channels

TUGS: 5×420 h.p

BERTHING:
Accommodation:
on the North Ba
On the South B
depths of fron
220,000 sq.m.
RIGHT BANK:
Berth/Dc

Pedroucos (Ex
Pedroucos (In
Alcantara Doc

Rocha
Rocha-Alcan

Rocha (Inte
Santos
Navy Dock
Navy Dock
Jardim do
Santa Apc

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Seixalinho
*Possible depths are shown.
times the Port Authority should be consulted.
**Berth has dolphins which permit vessels of up to 25,000

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iver: Between 0800 hrs. and 1800 hrs.

800 hrs. and 1300 hrs. on Saturdays, Sundays and olidays to communicate by telephone or on VHF with the "Estacao de Pilotos de Setubal" at least one hour beforehand, giving the name of the ship, the time and place where the Pilot is required and the service needed.

Only in cases of emergency will requests be accepted outside these hours.

To effect requests for Pilots, the Pilots use the following means of communication:

VHF — Listening permanently on Channel 14 being able to reply on any of the following Channels as requested: 11, 12 and 16.

MF — Listening in permanently on 2182 kHz, replying on 2132 kHz, their working frequency. Once contact has been established ships must change to this frequency. Communications can be made in SSB or AM according to the equipment of the ship.

Telephone No. (065) 522914.

Fax: (065) 526404.

The Pilots embark by motor launch based in Setubal and wait near the fort at Portinho da Arrabida when necessary and the weather permits.

To increase speed and safety on embarking and disembarking, ships of more than 4,000 tons gross, when light, and those of greater capacity in any condition, unless they have a door in the side or other modern means for Pilots to board and leave, and if the weather permits, should lower the gangway to about 3 m. above sea level and fix a rope-ladder so that it stays alongside the lower platform of the gangway.

Bad weather from the South, causing breaking waves at the edge of the shoals, sometimes prevents the pilotage service from operating.

In such conditions, ship must contact the Pilots to discover the state of the bar and limitations imposed on the pilotage service.

ANCHORAGES: Only inside harbour with a Pilot aboard.

RESTRICTIONS: No restrictions on night entry. At low tide vessels only up to 25 ft. draft. Max. draft 31 ft. 6 in., length/breadth no restrictions.

HEALTH: Free Pratique automatically given when ships come from other Portuguese port. Otherwise, Health Certificate is to be handed over to Health Authorities during clearance procedures.

Maritime Health: This station is located next to the Commercial Dock, Avenida de Luisa Todi 80. Apart from normal sanitary visits, observation of sick crew members, etc., the station issues Derat Certificates to vessels of all nationalities. Tel: 2 39 22.

RADIO: Call through Lisbon Radio.

Coastal radio station known as "Setubal-Pesca", with call sign CUX 9. Listens out permanently on 2182 kHz and replies on 1848 kHz. On receipt of the reply, vessels must change to 2284 kHz.

The station transmits weather bulletins and Notices to Mariners at 1105 hrs. and 1405 hrs., and makes general calls at 0205, 0505, 0805, 1105, 1405, 1705, 2005, and 2305 hrs.

TUGS: 12 available.

BERTHING: All installations are along the right (North) bank of the Rio Sado Estuary.

Fontainhas Terminal: Length 530 m. Depth 9.5 m. – 10.5 m. Used for general cargo. 12 electric cranes, 3 tons – 25 tons capacity.

Ro-Ro Terminal: Length 215 m. Depth 10.5 m. 2 berths with one side ramp and one stern ramp.

Container Terminal: Length 165 m. Depth 10.5 m. 1 gantry crane (20 ft. – 40 ft.); maximum capacity 65 tons at 30 m.

All the terminals are connected to the international highway and railway network. Water and electric power points available.

Equipment: 3 mobile cranes, capacity 2 tons – 45 tons, 1 reach stacker (1×22 tons for 20 ft. containers). Private equipment also available including 1×50 ton Coles mobile crane, 23 forklift trucks and 9 loading shovels.

Private Facilities:

Secil – Companhia Geral de Cal e Cimento: Length 104 m. Depth 11 m. Products handled: cement, clinker, coal and sand.

Ford/VW: Ro-Ro Terminal used for exportation of the automobile production from the Ford/VW factory near Setubal. Length 365 m., depth 10.5 m.

Propam – Consorcio Portugues de Panificacao, S.A.R.L.: Depth 6 m. Pontoon quay.

Pirites Alentejanas, S.A.R.L.: Length 125 m. Depth 9 m. Products handled: Pyrites.

Sapec – Societe Anonyme de Produits et Engrais Chimiques du Portugal: Pontoon – Length 80 m. Depth 5.5 m. Quay – Length 100 m. depth 9.0 m. Products handled: Pyrites, clay, phosphates.

Mague – Construcoes Metalomecanicas: Length 91 m. Depth 9 m. Products handled: Cranes, rolling bridges, alternators. Quay can take loads of 10-20 tons/sq.m.

Solisnor: Construction and repair of vessels. Depth 8.0 m. – 10.0 m.

Lisado: Pontoon quay. Gas freeing and tank cleaning.

Eurominas – Electro-Metalurgia, S.A.R.L.: Length 130 m. Depth 11.5 m. Products handled: Ferro-manganese and silicon manganese.

STEVEDORES: Ordered by the Agent some time in advance.

MEDICAL: Prior to arrival and in order not to delay ship's clearance, Master should inform by radio if medical assistance required, this only in case of contagious or epidemic diseases.

TANKERS: Shell Maritime installation with private pier. Discharge lines 4 in., 6 in. and 8 in.

Port Authority equipment for local oil spill response (skimmers, booms, transfer pumps, sorbents, storage tanks, etc.) available.

DENSITY: About 1026.

FRESH WATER: Supplied from shore to all piers.

FUEL: Supply available on request.

FIRE PRECAUTIONS: Repairs such as cutting, welding and other types of hot work shall be limited, as far as practical, at marine terminals and piers.

t works are not permitted:
(a) During gas freeing operations.
(b) Within 30.5 m. (100 ft.) of bunkering a
involving hazardous materials.
Smoking only allowed in designated areas a
the Port Authority. Open flames and smoking
30.5 m. (100 ft.) of hazardous materials storag
Permits must be issued for hot, electrical and
in hazardous and dangerous areas. Fire wat
fighting equipment must be available.
Ship's watchman must be on duty at all times

CONSULS:

Finland	Tel. 26018
France	" 24612
Spain	" 22018

Many countries represented in Lisbon (40 km.)

REPAIRS: All types available. Solisnor Shipyard a
building and repairs for very large ships in the est
The facilities consists of: 1 dock for ships up to 7
for ships up to 350,000 d.w.t. and 1 berth for ships
GANGWAY/DECK WATCHMEN: Available but no
OPENING/CLOSING HATCHES: By crew unless o
C/P. Stevedores usually help.
CUSTOMS ALLOWANCES: About 200 cigarettes ar
per man.
CARGO GEAR: Supplied by stevedores.
REPATRIATION: All facilities.
AIRPORT: Nearest at Lisbon, about 50 km. away.
TIME: GMT from late September to late March. From
September – GMT plus 1 hour.
HOLIDAYS: January 1st, April 1st and 25th, May 1st, J
August 15th, September 15th, October 5th, Novembe
1st, 8th and 25th.
Movable holidays: February 15th (Carnival), Februa
17th, May 27th, April 3rd and May 22nd.
POLICE/AMBULANCE/FIRE: Tel: 115.
IDENTIFICATION CARDS: Supplied and filled in by t
members cannot leave Three Castles area (Setubal-Pal
without a special permit from Customs Guards obtained t
WASTE OIL DISPOSAL: A 10 cu.m./hr. oil treatment stat
mobile tanks are available at the Solisnor Shipyards.
CURRENCY: Escudo.
DEVELOPMENTS: The entrance has been dredged to 1
North Channel to 12.0 m.
AUTHORITY: Administracao dos Portos de Setubal e Ses
da Republica, 2900 Setubal, Portugal. *Tel:* (06
Telex: 43200. *FAX:* (065) 30992.
AGENT: A. J. Goncalves de Moraes, Lda., 5 Trav. Traba
Mar, 2900 Setubal. Tel: (65) 522399. Fax: (65) 524205. T
Cables: Amoras. After office hours: (65) 2188753. Sh
Forwarding Agents, Chartering and Brokers, Insuranc
Stevedoring.

SINES: 37.57 N. 08.52 W.

(Se

PORT LIMITS:
North: Parallel 38° 03' N. West: Meridian 8° 55' W
South: Parallel 37° 52' N. East: Shore Line.
Vessels considered to be "arrived" when 3 miles off West bre
head.

DOCUMENTS:
6 Crew Lists.
3 Stores Lists.
3 Crew Personnal Effects Lists.
1 Health Declaration.
3 copies Bill of Lading
3 copies of Manifest.
Ship's papers for clearance:
Tonnage Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Load Line Certificate.
Report on inspection in accordance with the Memorandum
Understanding on Port State Control (M.O.U.).

PILOTAGE: Compulsory. Pilot service available 24 hours a day. To
ordered by Agent. Pilot station keeps permanent watch on V
Channel 12.
Notice of ETA and request for Pilot must be made to the Pilot Stati
at least 24 hours in advance and confirmed 2 hours before enteri
Pilotage Area.
The Boarding Area for Pilot must be adjusted by VHF, depending o
weather conditions.
Address: Sines Pilot.
Tel: 069/634041, 069/634042.
Fax: 069/635043.

ANCHORAGES:
Vessels up to 20,000 d.w.t.:
(C) 37° 56.8' N. 8° 52.0' W. (E) 37° 56.0' N. 8° 52.4' W.
(D) 37° 56.8' N. 8° 52.4' W. (F) 37° 56.0' N. 8° 52.0' W.
Vessels from 20,000 d.w.t. to 150,000 d.w.t.:
(C) 37° 56.0' N. 8° 52.4' W. (E) 37° 55.5' N. 8° 51.5' W.
(D) 37° 56.0' N. 8° 52.0' W. (F) 37° 55.5' N. 8° 52.4' W.
Vessels of more than 150,000 d.w.t.:
(E) 37° 55.5' N. 8° 51.5' W. (G) 37° 54.0' N. 8° 52.4' W.
(F) 37° 55.5' N. 8° 52.4' W. (H) 37° 54.0' N. 8° 51.0' W.
Vessels are advised to contact Sines Pilot Station to confirm positions.

ONS: Vessels of more than 100,000 d.w.t. berth in daytime good weather conditions berth any time.

: Max. LOA 350 m. Max. draft 22.5 m.

s Port Control" always keeps watch on Channels 12 and 16.

nels available.

35 ton bollard pull and 3×25 ton bollard pull.

S: See "Tables" on Pages 1781 and 1782.

RES: Stevedores available for handling of stores, spares and of cargo. Application for stevedores should be made to the gent.

: Doctor available in Sines and Santiago do Cacem (17 km.). in Sines.

ls at Santiago do Cacem (17 km.), Setubal (95 km.) and Lisbon

S: See "Tables" on Pages 1781 and 1782.

: 1025.

ALLAST: Facilities available for receiving ballast and residue No. 2, 3, 4, 5, 6, 7, 9 and 10. Notice of quantity and quality given in advance.

VATER: Available on all berths. Rate of delivery about 40 t.p.h. upplied by the refinery. Application to be made to the vessel's uel oil, MDO, GO and BK also available by barge.

S: Repair shops available in Sines. Authorisation for repairs be previously obtained from the Port Authority and Safety ent. Application for repairs should be made by the vessel's

YORS: Bureau Veritas, S.G.S., Saybolt and others are available.

MS REGULATIONS: Same as other Portuguese ports.

RIATION: Possible.

RT: At Lisbon 165 km. distance. Airfield at S. Torpes (15 km. e). Heliport in Sines (Port Authority).

GMT plus 1 hour. In Summertime (from last Sunday of March to nday of September), GMT plus 2 hours.

AYS: The Terminal works all days except Christmas Day and ear's Day.

AGE DISPOSAL: Service available free of charge. Ships should st the service through local agent as soon as possible or on arrival Terminal Representative.

TE OIL DISPOSAL: Service available at oil and petrochemical als – Piers No. 2 – 7, 9 and 10. Ships should request the service gh the local agent as soon as possible or on arrival to the Terminal esentative.

MAN'S CLUBS: Clube Stella Maris de Sines, Av. Domingos Pablo. 633941. Casa do Marinheiro, Lg. Gago Coutinho 56. Tel: 633965.

RENCY: Portuguese Escudo (PTE). U.S.$ 1.00 = 156.806 PTE 96).

RE LEAVE: Possible. Shore passes issued by Customs.

AYS: In Winter, vessels may suffer delays due to bad weather.

ETY: The following are some of the safety rules.

ding and Discharging Operations:

oading and discharging operations can be commenced only after the ster or his Deputy fills out and signs the Safety Check List.

. The loading or discharging of static accumulator products such as: as oil, Kerosene, Jet fuel, Naphtha, Gasoline, etc., should commence ccordance with the following scheme (a cargo plan of the ship should produced to the Safety Inspector who, together with the Operations am Supervisor, will analyse it).

Any loading or discharging shall begin at a slow flow rate (not higher n 1 m./sec.):

(a) In case of loading, and until the ship's lines are full, free from air d water, and the product height in the tank bottom is sufficient etween 0.6 m. and 1 m.) to prevent both air dispersed product particles d liquid surface turbulence.

(b) In case of discharging, until the ship lines and loading arms are ll and Refinery confirms that the product is rising in the tank.

Only after beginning in accordance with (a) or (b) above, may the oading or discharging speeds be increased up to 5 m./sec. or to the aximum the ship and Terminal can support, in the event that ship/ erminal cannot reach that limit.

2. *Non static accumulator products* (crudes, fuel oil) loading or ischarging should commence at a slow rate until:

(a) In case of discharging, the Refinery confirms that the product is filling the tank.

(b) In case of loading, the Chief Officer confirms that product is entering the tank or tanks in accordance with the cargo plan.

As soon as the above conditions are sustained the flow rate can be raised to the required rate.

3. *Loading or Discharging Operations Completion – Pressure Surges:* The line length between Terminal and Refinery is about 8 km.

The following precautions should be taken while pumping in or off cargoes at high flow rates:

(a) The cargo pump rate should be slowly reduced when finishing or whenever there is a stoppage.

(b) Flow rates should change slowly by controlling the cargo pumps r.p.m.

(c) If the flow rate reductions of loading/discharging operations interruptions are controlled by valves they should be slowly reduced or closed.

Usually motor-valves have an acceptable closing speed which does not cause pressure surges when flow rate reductions of loading/discharging interruptions take place.

Simultaneous loading and deballasting operations are permitted if a previous agreement has been settled between Master and the cargo loader or receiver, with terminal agreement.

Ballast: Ballast in the cargo tanks cannot be pumped out into Sines Harbour waters.

On arrival Masters must declare the ballast loaded in the cargo tanks.

Ballast will be pumped out into inland ballast tanks or will remain on board. Port Authority Safety Inspector may request the ballast tank measurements together with the ballast valves sealing.

The permanent ballast can be pumped out to the sea. Before pumping the permanent ballast into the sea, the Master must be sure it is not contaminated. Terminal Safety Inspector may require a sample of the ballast which will be sealed in the presence of the Master or his Deputy.

Crude Oil Washing – Inert Gas: Sines Port Authority gives permission for crude oil washing (C.O.W.) during discharging. Permission to be requested through Agent 48 hours in advance.

However, this operation can only be permitted if the ship has an inert gas system in good working condition.

The tank atmosphere will be considered inert when the percentage of oxygen in it is not higher than 8%. Nevertheless, during operations, the oxygen percentage in the tanks cannot be higher than 6%.

If by any means the oxygen percentage increases to over 8% or its evaluation is doubtful, the washing procedures should cease at once.

The washing operations also cease if there are leakages or traces of leakages in the deck lines.

If the condition of the pipes is not satisfactory under a visual inspection the washing is not permitted.

Transhipment: This type of operation in the Sines Harbour is subject to the permission of the Maritime Authority and A.P.S. (Port Administration) who will set up the conditions by which the transhipment should be performed.

When this operation is a ship-to-ship transfer the correct functioning of the inert gas system is compulsory.

During approaching and mooring manoeuvres, ballast, deballasting, internal cargo transfers, bunkering, etc., are not permitted.

If there will be a gas concentration over the ships or the wind velocity is lower than 4 knots, the transhipment will cease.

Also there will be a stopping of the transhipment and separation of the ships if the weather conditions become unfavourable for that type of operation.

All the applicable safety rules should be strictly followed during the transhipment.

Gas Freeing and Cleaning of Ship's Cargo Tanks: Under previous permission of A.P.S. and the Maritime Authority, gas freeing and cleaning can be performed by a ship at anchor.

With bad weather threatening or wind velocity lower than 4 knots these operations should cease.

Cleaning of tanks alongside is possible for ships equipped with inert gas system and fixed washing systems.

Entry of persons inside cargo tanks for cleaning or drying operations not permitted whilst vessel alongside.

LPG tankers can inert tanks on Piers No. 9 or 10. The owner should contact Neste Chemicals, S.A., to agree to the operation.

Bad Weather: When there is bad weather threatening, all operations must cease, the tank lids must be closed and secured and the loading arms disconnected. In the case of bad weather, when it is likely the ship will exceed the safety limits of the loading arms, all operations should be brought to a stop.

Masters are requested to strictly follow the Operations Team Supervisor and/or the Terminal Safety Representative instructions.

Even with surplus mooring lines, there will still be a threat to the ship and/or the Port, and vessel must prepare to unberth.

In the case of a thunderstorm threatening from windward about 5 km. away the operations should cease and tank lids be closed.

Undertow: The Port of Sines, as with any other open port, is subject to the undertow effects. The phenomenon is due to waves which may have their source either in the North or South hemispheres.

At Sines the undertow effects show up between November and March. During that period the Masters must be more concerned about their ship's mooring. If necessary and taking into account the weather forecast for the laytime, Masters will be supplied with special safety instructions.

Foodstuff, Lubricants or Spares: Foodstuff, lubricants or spares can be shipped aft if permission is granted by A.P.S. and the Maritime Authority, after ascertaining that there are no operations on board, that involve tank lids opening or zones with gas concentrations (next to the pump house, blowers, etc.).

With ship alongside, shipping of foodstuff and spares can be done over the quay when the packages can easily be carried by hand.

Metallic objects or steel banded packages should be handled with care to avoid direct contact with the steel deck plate.

A ship with an inert gas system can receive heavy packages for shipping at the stern while loading, discharging or ballasting. If there is no inert system in the ship, packages to be loaded must be held until after loading.

Shipping of foodstuff, spares, etc., whether the ship is alongside or anchored can only be made with permission of A.P.S. and the Maritime Authority.

Watchmen and Crew: Master must maintain permanently on duty, sufficient number of qualified members of the crew to ensure the execution of manoeuvres, operations, to face an emergency and stand guard at the gangway.

Visitors: Persons who are not crew such as family, visitors, technicians, etc., must carry a special permit issued by the ship's Agents.

Permits issued by the Port Safety Authority are to be used for circulation in the Terminal premises only.

Visitors on board are the Master's responsibility.

During loading, discharging or ballasting operations visitors are not allowed to stay on the forecastle or amidship, especially women and children.

Crew Identification and Circulation in the Terminal: Crew are requested to keep with them their IDs (especially the yellow pass given by Customs) which must be shown on request to any Terminal Officials.

Crew and visitors are not permitted to walk around the Terminal Zone and when in it Safety Rules in force should be strictly followed.

Mooring Lay Time: The ship is not permitted alongside more than 2 hours after operations are completed.

GENERAL: The anchorages are provisional. No difficulties arise in Summer. In Winter, the decision to anchor is at the option of the Master. It is recommended that in the event of bad weather, anchorage be suspended and that vessels should heave to off the coast.

SHIPMASTER'S REPORT: October 1987 (Updated 1996).
Chart: BA. Chart No. 3276
Documents:
6 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
6 copies Cargo Manifest.

Bond not sealed. Shore passes are issued by Customs/Immigration and have to be returned before departure.

Approaches: The approaches are visually identified and on the radar.

Anchorage: Small vessels anchor under the direction of Port Control in approximate position Lat. 37° 56.5' N., Long. 08° 52.2' W. between the Petro Chemical Terminal and the new Coal Harbour breakwater. The anchorage is relatively sheltered.

In fine weather the Pilot boards off the Molhe Oeste Buoy and in bad weather inside the main breakwater. The Pilot boards from a pilot boat and is available throughout 24 hours for berthing and unberthing. Pilot may be contacted on VHF Channels 16 and 12.

The Pilot reports that berthing is undertaken in most weather conditions.

Tugs: 5 × 2,400 h.p. stationed at the port. A minimum of 1 tug is required for all vessels and it is too large and too powerful for handling small vessels.

Berthing: Vessel berthed at the Petro Chemical Terminal (B.A. Chart No. 3276).

The depth at both berths was approximately 12.0 m. but the pilot reports maximum draft normally allowed is 10.0 m.

For ethylene loading and discharging, Berth No. 10 on the East side is used. Vessel berths head out, starboard side to.

For propylene and "C4" discharge, Berth No. 9 on the West side is used. Vessel berths head out, port side to.

It is possible to berth head in if this is required for manifold connections. The concrete quay is very high and has large fenders.

There is a swell running in the harbour even when conditions are calm in Winter time.

Tidal range is approximately 2.5 m.

Berthing and unberthing undertaken throughout 24 hours. Moorings consisted of 2 head/stern lines, 2 breast lines and 2 springs at each end. These were secured on to hooks.

2 mooring boats are provided. Shore gangway provided.

Cargo: Berth No. 10: Vessel loaded ethylene. The liquid and vapour arms are 8 in. 150 ASA.

We loaded at a rate of approximately 100 tonnes per hour with two plants. Manifold temperature −99°C.

The charterers were concerned at the temperature due to discharge port temperature requirements and only 20 hours steaming. Just before completion of loading the shore agreed to connect the vapour arm and we loaded an extra 20 tonnes to take account for a vapour return. Two plants are required and shore compressor drew from manifold.

It took 8 hours to return 20 tonnes and reduce temperature from −99°C to −101.9°C.

Bill of Lading figures are calculated using the weight of Air not Vacuum. Shore personnel connect and disconnect arms.

Berth No. 9: Vessels discharge propylene (Refrigerated storage). Shore requested maximum of 3 pumps which gave discharge rate of 150 tonnes per hour.

The Terminal like the product very cold. Ours being at −48°C created no difficulties. However some ships arrive with the product at around −40°C and this can cause difficulties.

The liquid arm is 8 in. No vapour return line. It was not used due to product contamination.

It was requested that we berthed starboard side to in order to connect to our extended starboard manifold but this was not satisfactory as the Chicksan arm was too close to the catwalk, so we had to shift around and berth port side to.

Shore tank pressure maximum 90 mbs.

Shore nitrogen is used to purge the Chicksan arm upon completion. They do not allow a vessel to "hot gas" purge ashore.

Bureau Veritas Cargo Surveyor attended.

Fresh Water: Fresh water is available from the quay at a good rate and is metered. The waterman supplies shore hoses.

Stores: It was difficult to store at both berths as the lorry can only proceed to the car park which is about 100 m. from the ship. From there a hand truck is to be used and there is no shore crane.

General: Personnel are not allowed to walk through the Terminal. The use of transport is compulsory and this is arranged through the agent.

The new Coal Harbour to the East of the oil port is very conspicuous.

The breakwater is completed and has navigational lights: Fl. G. 6 sec. on the N.W. head; Fl. Y. 6 sec. on the S.E. head, and Fl R. 4.5 sec. on fishing harbour breakwater. Breakwater leisure harbour – Fl. G. 4 sec.

Berth construction is finished and operations start in 1992.

AUTHORITY: Administracao do Porto de Sines – A.P.S., Apartado 16, 7521 Sines Codex. *Tel:* (069) 860600, 860605 (24 hours). *Telex:* 12027 Sinmar P. *FAX:* (069) 860690, 862114 (24 hours). *Contact:* Eugenio Fialho Borralho, President of Administration. Luis Antonio Cabral Lopes Arroz, Commercial Director. Edgar Eugenio Pacheco, Terminal Director. Manuel Dinis Costa Dias, Planning Director, Almiro Esteves Moreira, Financial Director. Vasco M.M.F. Pitschieller, Port Superintendent.

NOTES

Please also advise Shipping Guides Ltd.

BERTHING: (Sines)

Oil Terminal:

Berth	LOA		Deadweight		Depth of Manoeuvring Basin	Depth of Berthing Basin	Maximum Draft	Height of Manifold above Water Line		Products handled (see "Legend")	Facilities
No.	Maximum (m.)	Minimum (m.)	Maximum	Minimum	(m.)	(m.)	(m.)	Maximum (m.)	Minimum (m.)		
2	350	240	350,000	100,000	23.5	28.0	22.5	23.0	5.60	CR	Fresh water Ballast Bunkers
3	282	135	135,000	10,000	16.0	17.0	16.0 17.0-Tide	17.0	3.80	CR, FO, GO, GAU	Fresh water Ballast Bunkers
4	295	135	150,000	10,000	16.0	18.0	16.0 18.0-Tide	17.0	2.50	CR, FO, GO, GAU, GA, JET, NA, PYFO, NAQ	Fresh water Ballast Bunkers
5	282	120 LPG 110	135,000 LPG 45,000 cu.m.	10,000 LPG 15,000 cu.m.	16.0	17.0	16.0 17.0-Tide	17.0 LPG 14.0	2.50 LPG 5.20	CR, FO, GO, GAU, GA, JET, NA, NAQ, LPG (BU, PR)	Fresh water Ballast Bunkers
6	106	70	Limited by LOA		8.0	10.0	8.0 10.0-Tide	9.0 LPG 9.0	2.50 LPG 3.30	FO, GO, GA, JET, NA, GAU, LPG (BU, PR), REF1/BBR	Fresh water Ballast Bunkers
7	106	70	Limited by LOA		8.0	10.0	8.0 10.0-Tide	9.0 LPG 9.0	2.50 LPG 3.30	FO, GO, GA, NA, LPG (BU, PR)	Fresh water Ballast Bunkers

Legend:

CR	Crude	GAU	Gasoline (unlead)
FO	Fuel Oil	NAQ	Naphtha (Neste)
GO	Gasoil	PR	Propane
GA	Gasoline	BU	Butane
JET	Jet	REF1/BBR	Raffinate 1/BBR
NA	Naphtha	PYFO	Carbon Black

Also see "Tankers".

Petrochemical Terminal:

Berth	LOA		Deadweight		Depth of Manoeuvring Basin	Depth of Berthing Basin	Maximum Draft	Height of Manifold above Water Line		Products handled (see "Legend")	Facilities
No.	Maximum (m.)	Minimum (m.)	Maximum	Minimum	(m.)	(m.)	(m.)	Maximum (m.)	Minimum (m.)		
9	160	78	1,000	3,000	10.0	11.0	9.0 10.0-Tide	14.1 (Light)	2.00 (Load)	Propylene Butadiene Raffinate 1 BBR Crude C4 Aromatic Mix.	Fresh water Bunkers Nitrogen
10	172	78	20,000	3,000	11.0	12.0	10.0 11.0-Tide	14.6 (Light)	3.00 (Load)	Ethylene Aromatic Mix. MTBE Methanol	Fresh water Bunkers Nitrogen

Also see "Tankers".

Multipurpose Terminal:

1	295	162	160,000	16,000	18.0	18.0	17.0	7.0*	2.80*	Coal 2×1,800 t.p.h. unloaders	Fresh water Bunkers (by barge)

** Height of deck above water line.*

General Cargo Terminal:

Berth	Length (m.)	Max. LOA (m.)	Depth (m.)
North Berth	180	125	6.0
South Berth	115	90	7.0

Report: 1994.

Loading Arm No.	BERTH NO. 2	3	4	5	6	7	9	10
1	MBK 12 in. GBK BKC	MBK 10 in. GBK BKC *	MBK 12 in. GBK * BKC BW FO CR	MBK 12 in. GBK * BKC BW FO CR	NA 6 in. GAU GAR BWG	NA 6 in. GAU GAR BWG		Etileno (L) 8 in.
2	BW 20 in. CR	GO 12 in. GAU BW	FO 12 in. CR BW	FO 12 in. CR BW	GBK 6 in. GAP GO BWG	GBK 6 in. GAP GO BWG	Butadieno (L) Ref 1 FR C4 M.Aromat. 8 in.	Etileno (Flare) M.Aromat. MTBE Methanol 8 in.
3	BW 20 in. CR	BW 12 in. CR FO	BW 12 in. CR FO	MBK 10 in. GBK * BKC	MBK 6 in. BKC FO BWG	MBK 6 in. BKC FO BWG	Propileno (Flare) 8 in.	MBK 4 in. GBK 4 in. BKC 6 in. (Flex.)
4	BW 20 in. CR	BW 12 in. CR FO	BW 12 in. CR FO	NA 12 in. GAU BW NAQ	BU 8 in. PR 8 in. LPG 3 in.	BU 8 in. PR 8 in. LPG 3 in.	Propileno (L) 8 in.	
5	BW 20 in. CR	BW(a) 12 in. CR FO GO *	MBK 10 in. GBK BKC *	NA 12 in. GAU BW NAQ	BU 8 in. PR 8 in. LPG 3 in. REF1 * 8 in.	BU 8 in. PR 8 in. LPG 3 in.	MBK 4 in. GBK 4 in. BKC 6 in. (Flex.)	
6	MBK 12 in. GBK BKC	MBK 10 in. GBK BKC	NA 12 in. GAU BW NAQ	GO 12 in. GAP BWG BW				

	BERTH NO.							
Loading Arm No.	2	3	4	5	6	7	9	10
7			GO 12 in. GAU BW NAQ	GO 12 in. GAR BWG BW				
8			GO 12 in. GAP BWG BW	MBK 10 in. GBK BKC *				
9			GO 12 in. GAR BWG BW	BU 8 in. PR 8 in. LPG 3 in.				
10			MBK * 10 in. GBK * BKC	BU 8 in. PR 8 in. LPG 3 in.				

Abbreviations:

CR	Crude	MBK	Bunkers (Marine Diesel)
FO	Fuel Oil	GBK	Bunkers (Gasoil)
GO	Gasoil	BKC	Bunkers (Fuel)
GAU	Gasoline (unlead)	BW	Ballast (Unlead)
GAR	Gasoline	BWG	Ballast (Lead)
GAP	Gasoline	Etileno	Ethylene
JET	Jet Fuel	Propileno	Propylene
NA	Naphtha	FR.C4	Crude C4
NAQ	Naphtha (Petrochemical)	M.Aromat.	Aromatic Mixture
PYFO	Carbon Black	(L)	Liquid
BU	Butane	(Flare)	Flare/Vapour
PR	Propane	*	Not available
LPG	LPG (Vapour)	(a)	Loading Arm inoperational
REF1	Raffinate 1		

TANKERS: (Sines).

Berth	*Diameter Loading Arms*	*Diameter Loading Arm (Bunkers)*	*Maximum For Loading Arm*	*Rate (cu.m.p.h.) Maximum Start/End*	*Rate (cu.m.p.h.) Maximum During Load*	*Rate (cu.m.p.h.) Maximum During Unloading*
Oil Terminal:						
Post 2	20 in. – CR	12 in. – GO BK	6,400	CR – 4,000	——	18,000
		12 in. – MD BK				
		12 in. – IFO 180				
		12 in. – BKC				
Post 3	20 in. – CR	10 in. – GO BK	2,250	CR – 4,000	5,000	9,000
	20 in. – FO	10 in. – MD BK		FO – 1,000/2,300	5,000	
	12 in. – GO	10 in. – IFO 180		GO – 350/1,000	1,750/2,500	
		10 in. – BKC				
Post 4	12 in. – CR GO	10 in. – GO BK	2,250	CR – 4,000	5,000	9,000
	12 in. – GA JP4	10 in. – MD BK		FO – 1,000/2,300	5,000	
	12 in. – NA KE	10 in. – IFO 180		GO – 350/700	1,300/2,500	
	12 in. – FO	10 in. – BKC		GAs – 600	1,670	
				GAn – 260	1,250	
				JET – 600	1,200	
				NA – 260/450	750	
Post 5	12 in. – CR FO	10 in. – GO BK	2,250	CR – 4,000	4,500	4,500
	12 in. – GO NA	10 in. – MD BK		FO – 1,000/2,300	5,000	
	12 in. – GA KE	10 in. – IFO 180		GO – 350/700	1,300/2,500	
	12 in. – JP4	10 in. – BKC	LPG 300	GAs – 600	1,670	
	8 in. – BU PR			GAn – 260	1,250	
	3 in. – LPG			JET – 600	1,800	
	return			NA – 260/450	750	2,350
				BU – 150	300	
				PR – 150	300	
Post 6/7	6 in. – JP4 NA	6 in. – GO BK	550	FO – 65/110	350/550	
	6 in. – KE GO	6 in. – MD BK		GO – 65/110	330/550	
	6 in. – GA FO	6 in. – IFO 180	LPG 300	GAs – 110	550	
	8 in. – BU PR	6 in. – BKC		GAn – 65	330	
	3 in. – LPG			JET – 110	550	
	return			NA – 65	330	
	**8 in. – CR C4 (at Post 6)			BU – 150	300	
	** Refinado 1 (at Post 6)			PR – 150	300	
Petrochemical Terminal:						
Post 9	8 in. –	4 in. – GO BK	800	150	Propylene	800
	Butadiene	4 in. – MD BK	Prop. @ −48°		Butadiene	800
	Propylene	6 in. – IFO 180	Buta. @ −04°		Pygas	450
	Fraction C4	6 in. – BKC	Fraction C4		Fraction 4	450
	8 in. – Pygas	(Flexible)	Pygas NAQ		NAQ	
			at Ambient			
			Temperature			
Post 10	8 in. – Ethylene	4 in. – GO BK	800	150	Ethylene	800
		4 in. – MD BK	Ethylene		Methanol	450
	Pygas	6 in. – IFO 180	@ −104°		MTBE	450
		6 in. – BKC				
		(Flexible)				

Legend:

GA	Gasoline	GO BK	Gasoil Bunkers	KE	Kerosene	IFO 180	Fuel Bunkers
JP4	Jet Fuel	MD BK	Marine Diesel Bunkers	BY	Butane	BKC	Fuel Bunkers
NA	Chemical Naptha			PR	Propane	CR C4	Crude C4

VIANA DO CASTELO: 41.41 N. 08.50 W. (See Plan)

DOCUMENTS:
- Health Declaration.
- 3 Crew Lists.
- Provision List (ship's and individual).
- Tobacco Declaration and Entrance Forms supplied by Agents on arrival.
- 2 Manifests and 1 copy of each Bill of Lading concerning cargo to be discharged.
- 1 Transit Manifest if cargo in transit exists.

PILOTAGE: Pilotage compulsory. ETA should be given to Agent with ample notice. Signals; during the day Flag "G" of International Code, and at night 3 long blasts. Boats black with white cabins. Pilots to be taken on board in outer or inner harbour respectively with good or bad weather.
ANCHORAGES: Outer or inner harbour according to weather conditions.
RESTRICTIONS: Entering and sailing only during daylight unless exceptionally good weather. Depth in entrance 6.5 m.
MAX. SIZE: Max. draft 26 ft. on HWST.
HEALTH: Free Pratique authorised for vessels coming from other Portuguese ports. For vessels coming from other countries Health Declaration must be filled in and delivered to the Agents.
RADIO: Call Viana do Castelo Pilots frequency 2182 kHz and listen on 2132 kHz.
TUGS: 3 tugs of 1,160 h.p., 400 h.p. and 1,400 h.p.
BERTHING: Over 1,500 m. of Commercial Quays with 500 m. of Commercial Quays with depth of 9.0 m.
Ro/Ro Terminal: Max. LOA 160 m. Max. draft 7.6 m. Length of quay 233 m. Terminal equipped with 3×40 ton capacity Tugmasters, 1×56 ton at 12 m. mobile crane, 1×42 ton forklift and small forklifts of 2 tons – 7 tons capacity.
BRIDGES: 1 bridge which allows entrance/sailing at any time.
CRANES: 1×5.5 tons, 2×12.5 tons, 2×18 tons, 6×12 tons, 1 × 40 tons and 1×56 tons.
STEVEDORES: Ordered by Agents 8 hours in advance.
MEDICAL: No prior advice is necessary.
FRESH WATER: Supplied by shore installations.
FUEL: Only small quantities of gas oil can be supplied.
CONSULS: France 22412. Spain 23018.
REPAIRS: All types of deck, engine and electrical repairs can be carried out.
DRY DOCKS: Three dry docks available.

	Length	*Breadth*	*Draft*
Dock 1	203 m.	34.0 m.	18 ft.
Dock 2	127 m.	18.5 m.	18 ft.
Dock Eng. D. Pacheco	104 m.	11.0 m.	16 ft.
Fitting Dock	190 m.	65.0 m.	21 ft.

No special equipment for tank washing is available.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: Work usually done by crew.
CUSTOMS ALLOWANCES: No limit, but must be declared.
REPATRIATION: No difficulties for crew repatriation.
AIRPORT: Nearest is Oporto Airport, 55 km.
TIME: From end September to end March – GMT. From end March to end September – GMT plus 1 hour.
HOLIDAYS: 1st January; Holy Friday; 25th April; 1st May; Corpus Christi; 10th June; 15th August; 5th October; 1st November; 1st, 8th, 24th and 25th December.
POLICE/AMBULANCE/FIRE: Tel. 115.
SHORE LEAVE: Crew allowed ashore.
IDENTIFICATION CARDS: Required.
DEVELOPMENTS:
1. Roadworks.
2. Marina.

AUTHORITY: Junta Autonoma dos Portos do Norte, Rua do Marques No. 65, 4900 Viana do Castelo, Portugal. *Tel:* 058-829096/7/8/9. *Telex:* 32609 Porvia P. *FAX:* 058-829106. *Contact:* Jose Monteiro de Morais, Managing Director. Captain Z. Cavaco, Harbour Master. (*Tel:* 058-22168).

VILA REAL DE SANTO ANTONIO: 37.10 N. 07.26 W.

DOCUMENTS:
- 2 Health Certificates.
- 3 Crew Lists.
- 1 List of Passengers in Transit.
- 2 Lists of Passengers Disembarking.
- 2 Dangerous Cargo Lists.
- 1 Ship's Register.
- 1 Tonnage Certificate.

PILOTAGE: Black boat, wooden hull, white "P" at bow. Stationed near buoy No. 1 (harbour entrance). All sea-going vessels entering or leaving harbour are obliged to avail themselves of the services of a Pilot. Latest 24 hours before arrival cable "Corporacao dos Pilotos de Vila Real de Santo Antonio" or to Agent. Departing vessels should apply for their Pilots at least 6 hours before the time of departure.
MAX. SIZE: Entrance channel 4,000 m. long, has a depth of 4 m. (12 ft.) at LW. Vessels drawing up to 5.5 m. (16 ft.) can enter under normal circumstances 1 hour before HW, a keel clearance about 1 ft. will be maintained.
TUGS: Tugs up to 105 h.p. available.
BERTHING: 1 pier 300 m. long. Depth at pier 20 ft.
STEVEDORES: Ordered by Agents. ETA to stevedores is necessary. No work allowed on Sundays.
MEDICAL: Inoculations in hospital Marques Pombal - Vila Real de Santo Antonio.
FRESH WATER: Obtainable alongside quay.
FUEL: Gas oil can be supplied in small quantities.
CONSULS:
Finland, Avenida da Republica, 133
France, Avenida da Republica, 114
Greece, Avenida da Republica, 109
Italy, Avenida da Republica, 11
Netherlands, Avenida da Republica, 73
United Kingdom, Rua Dr. Oliveira Salazar, 4

REPAIRS: There is 1 small ship repair yard at Vila Real de Santo Antonio.
GANGWAY/DECK WATCHMEN: Compulsory.
OPENING/CLOSING HATCHES: Crew allowed to open and close.
CUSTOMS ALLOWANCES: About 200 cigarettes and 1 bottle of spirits per man.
HOLIDAYS: 1st January; Holy Friday; 25th April; 1st May; 10th June; 15th August; 5th October; 1st November; 1st December; 8th December; 25th December.
POLICE/AMBULANCE/FIRE: Police 66; Ambulance 202; Fire 202.
AUTHORITY: Junta Autonoma dos Portos de Sotavento do Algarve, Rua Conselheiro Bivar 68, 8000 Faro. *Tel:* (089) 22025, 22049. *Telex:* 56117 Japsa P. *Contact:* Eng. Jose Domingos Mendonca de Sousa, Director.

NOTES

Please also advise Shipping Guides Ltd.

Puerto Rico

AGUADILLA: 18.26 N. 67.10 W.

DOCUMENTS: See "San Juan".
PILOTAGE: Mayaguez's Pilots provide service in Aguadilla. At least 24 hours advance notice required.
RESTRICTIONS: Open port, very deep, safe in good weather. Cold fronts from North cause very heavy swells. Vessels cannot berth during this kind of weather.
MAX. SIZE: 600 ft. long, 36 ft. draft.
HEALTH: Free Pratique granted on arrival.
BERTHING: *Harbour:* 1 mile North of the town is a conveyor pier with 1 dolphin berth at its head. Least depth alongside 12.2 m. (40 ft.). Length of mooring lines not less than 180 m. (600 ft.). Vessels tie up to 4 mooring buoys, with spring lines to 2 bollards at the loading tower. 10 in. connection to molasses line. 1 off-shore tanker berth with 9 m. (30 ft.) depth consists of mooring buoys and pile clusters, connecting platform and pipelines for discharging aviation gas for Borinquen Airport.
MEDICAL: 24 hours' notice preferred; local hospital available.
TANKERS: See "Berthing".
FRESH WATER: Available. 2 in. pipeline with meter.
CONSULS: No local representation.
GANGWAY/DECK WATCHMEN: Usually crew members are used.
OPENING/CLOSING HATCHES: Performed by stevedores.
CUSTOMS ALLOWANCES: U.S. Customs Regulations. For Customs service Aguadilla is under the jurisdiction of the Mayaguez Custom House.
REPATRIATION: Can be arranged.
AIRPORT: 20 minutes' drive. Regular airlines.
TIME: Atlantic Standard Time, 4 hours less than GMT. No alterations during year.
HOLIDAYS: Refer to "San Juan".
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Required to go ashore.
DELAYS: No delays unless another ship is already berthed.
AUTHORITY: Puerto Rico Ports Authority. See "San Juan".
Captain of the Port, Mayaguez. Tel: 832-3375.

GUANICA: 17.57 N. 66.54 W.

DOCUMENTS: See "San Juan".
GENERAL INFORMATION: Refer to "Ponce".
PILOTAGE: Port operations are under the control of the Captain of the Port. Pilot services are available day and night, by previous arrangement with Mayaguez Pilots.
ANCHORAGES: Harbour is located 8 miles Westward of Guayanilla Bay. Though small, it is one of the best hurricane harbours in Puerto Rico.
TUGS: Available from Guayanilla.
BERTHING: Bulk sugar, bulk fertiliser and bulk grain handling facilities. Length 700 ft.; depth alongside 28 ft. During recent years, operations at the port have been practically nil.
MEDICAL: Medical assistance is available; if hospitalisation is required for any crew member, it will probably be necessary to arrange for admittance to a Ponce hospital.
FRESH WATER: Available in limited quantities for emergencies only.
FUEL: Available by trucks from Ponce.
CONSULS: None available locally, nearest at Ponce.
AUTHORITY: Puerto Rico Ports Authority. See "San Juan".
Captain of the Port, Guanica. Tel: 821-2860.

GUAYANILLA (incl. Tallaboa Bay): 18.00 N. 66.46 W.

(See Plan)

DOCUMENTS: See "San Juan".
PILOTAGE: Port operations are under the control of the Captain of the Port and Pilot services are available day and night. Pilots stand-by on VHF Channel 16 and operate on Channel 14. Arrangements should be made with at least 4 hours advance notice.
ANCHORAGES: Guayanilla is the largest hurricane harbour and one of the best in Puerto Rico. It has protected anchorage for 5 vessels. Maximum draft permissible is 42 ft. It is protected at its entrance by extensive reefs which extend a mile or more offshore. The entrance channel between these reefs is about 1.5 miles long and about 0.4 miles wide.
HEALTH: Pratique is not necessary. In case of continuous high fever or contagious disease, Agents must be notified prior to vessel's arrival. Agents will immediately contact Public Health for proper action.
RADIO: Chatham Radio (WCC) – Chatham, Massachussetts. Equipped with RCA automatic land line circuit direct to New York, N.Y., San Francisco, California and Washington, D.C.
TUGS: Available 24 hours daily from South Puerto Rico Towing Co., Tel: 809-835-2795, as requested by vessel.
BERTHING: The Union Carbide Company has berthing facilities for barge operations and LPG.

New port facilities for Pittsburgh Plate Glass are owned by the Puerto Rico Ports Authority. 2 berths at jetty, each 240 m. length. Depth alongside 35 ft.

Berths were recently dredged and actual restrictions are as follows:

**Refinery Dock – Guayanilla:*

DWT	80,000 tons	
LOA	830 ft.	
BCM	400 ft.	(Critical)
Draft	42 ft.	(South Face, Berth No. 5)
	42 ft.	(North Face, Berth No. 4).

**Petrochemical Dock – Guayanilla:*

DWT	50,000 tons	
BCM	449 ft.	
Draft	36 ft. 06 in.	(South Face, Berth No. 3)
	30 ft.	(North Face, Berths 1 & 2) Ships only
	28 ft.	(North Face, Berths 1 & 2) Barges only

*Commonwealth Oil Refining Co. Ltd. facilities.
Texaco: There is a private pier owned and operated by Texaco for the receipt of clean petroleum products. Berth 650 ft. long and 24 ft. deep being dredged to 36 ft. Diesel bunker available.
Punta Gotay Pier: 1 berth at dolphins with depth 38 ft.
Punta Pepillo Pier: 1 berth at dolphins with depths 12 ft. – 28 ft.
Tallaboa Bay: 1 dolphin berth with depth 20 ft. and 1 jetty with depth 38 ft.

Also see "LPG".
LPG: Dolphin berth at Cayo Rio in Tallaboa Bay in Lat. 17° 59' N., Long. 66° 44.5' W.
Report: February 1984.
Max. Size: Vessel's dimensions not to exceed: length overall 965 ft. Max. draft 41 ft. Max. beam no restriction.
Manifold Position: The manifold must be positioned within 50 ft. fore or aft of the midpoint of the vessel's overall length.
Dock: The dock has been designed to accept the breasting load from a ship (or ships if vessel to vessel discharging is arranged) of up to 109,000 long tons total loaded displacement.
Depths: Depth of the docking area and approaches has been increased by dredging to over 44 ft. Due to swell and tidal actions, the maximum allowable vessel draft has been set at 41 ft. This draft has been approved by the U.S. Coast Guard and nautical charts affected are being updated accordingly.
Mooring Basin: The docking area is 450 ft. wide and is designed to handle a 125,000 cu.m. (145 ft. beam) vessel and a 75,000 cu.m. (120 ft. beam) vessel moored side by side.
Hose handling: Although connecting hoses and supplying the equipment necessary for doing so is the vessel's responsibility, receivers can, at their discretion, make such connections provided that the carrier's manifold elevation above water plus its manifold distance inboard plus its manifold distance from the midpoint of the carrier's overall length is 60 ft. or less. If it is more than 60 ft. the carrier would have to provide hose handling assistance including a crane to lift the end of the loading hose to the deck.
Carrier/loading platform access: An accommodation ladder will be provided for those carriers that have a deck height of 25 ft. or less above the water and are accessible from loading platform. Carriers that cannot meet the above must provide their own accommodation ladder. Transportation from their accommodation ladder will be provided.
Sanitary waste removal: Dumping of sanitary wastes into Tallaboa Bay is not permitted. Therefore, for those carriers that stay in port for 20 days or more, removal of sanitary wastes by barge will be provided. The carrier must provide the means (to be approved by Union Carbide Company) of transferring the wastes from the carrier to the barge.
Potable water: Potable water is not available at berth, but fresh water is. A fresh water connection is available on the loading platform. The carrier must provide his own hose for hook up. Should the carrier wish to purchase such water a release must be executed.
Bunkers: Bunkers are not available.
Night navigation: No U.S. Coast Guard regulation prohibits the berthing or unberthing of LPG carriers at night unless the incoming/departing vessel is being moored alongside another (storage) vessel.
MEDICAL: Medical service is available; hospitalisation at Ponce, which is only 15 minutes distant.
FRESH WATER: Available whenever requested by the vessel. Water delivery very slow (3 to 5 tons per hour).
FUEL: Available only whenever arranged by Owners of the vessel and/or charterers prior to arrival.
Fuel Dock: Length 680 ft. with deep water alongside. Mooring dolphins and moorings buoys installed to assist with clearing the dock.
CONSULS: None available locally; nearest at Ponce.
REPAIRS: Various marine contractors available in Ponce upon request. Minor repairs available in Guayanilla and Ponce. No drydock facilities in the area. For drydock facilities and other major repairs refer to "San Juan".
Radar: For radar technician contact local Agent prior to vessel's arrival. Various technicians available in San Juan.
REPATRIATION: Arranged by ship's Agents.
AIRPORT: International Airport in outskirts of San Juan served by regular airlines. Small airport in Ponce connects with San Juan.
CUSTOMS: For Customs service, Guayanilla is under the jurisdiction of the Ponce Custom House.
SHORE LEAVE: Foreign crew members are allowed to go ashore through U.S. Immigration.
IDENTIFICATION CARDS: Shore passes are sufficient for shore leave.
AUTHORITY: Puerto Rico Ports Authority. See "San Juan".
Captain of the Port, Guayanilla. Tel: 835-2647.

JOBOS (Aguirre): 17.56 N. 66.13 W.

DOCUMENTS: See "San Juan".
GENERAL INFORMATION: Refer to "Ponce".
PILOTAGE: The Port of Jobos is served by the Pilots of Ponce. Services must be arranged in advance.
ANCHORAGES: A fine land-locked harbour, located on the South coast, approx. 42 nautical miles Eastward of Ponce and 20 miles West of Point Tuna. Anchorage inside the bay is Southward of the pier in depths of 19 ft. – 24 ft., soft mud bottom.
RESTRICTIONS: The principal entrance is from Westward between Morrillo Cay and Ratones Cay.
TUGS: No tugs available.
BERTHING: To the West of the sugar pier (not in use and not buoyed) is an open concrete barge dock 632 ft. in length with a buoyed access channel for the receipt of fuel oils for the Water Resources Authority.
MEDICAL: Medical assistance is available; if hospitalisation is required for any crew member, it will probably be necessary to arrange for admittance to a Ponce hospital.
TANKERS: See "Las Mareas".
FUEL: No bunkers are available.
CONSULS: None available locally; nearest available at Ponce.
AUTHORITY: Puerto Rico Ports Authority. See "San Juan".

Captain of the Port, Jobos. Tel: 821-2860.

LAS MAREAS: (Guayama) 17.55 N. 66.10 W. **(See Plan)**

The Puerto de Las Mareas Terminal is located on the South side of the island of Puerto Rico. It is located approximately 26 nautical miles East of the port of Ponce. The nearest city is Guayama.

All vessels calling at Phillips Puerto Rico Core Inc., Puerto de Las Mareas Terminal should be consigned to Phillips Puerto Rico Core Inc., and all official documents for such ships should show them so consigned. In conformance with port regulations, no vessel will be allowed to tie up alongside a pier without having first obtained a berthing permit from the Ports Authority Captain of the Port.

DOCUMENTS: The following documents are required by the Customs and Immigration authorities for entry and clearance:

Master's Oath (original and 1 copy) Entry and Clearance.
General Declaration (original and 1 copy) Entry and Clearance.
Stores List (original and 2 copies) Entry.
Crew Purchases List (Curio List) (original and 2 copies).
Cargo Declaration (original and 1 copy).
Crew List (1 copy certified and 2 copies not certified).
Clearance from Last Port (if arriving on an international voyage).
Crewmen Landing Permits (for each crew member without the Plastic Form 1-14).
Passenger List (if any passengers).
All permanent documents of the vessel.
Also see "Customs" and "Firearms".

Passenger Lists: The Passenger List must show full names, sex, age, nationality, and occupation of passengers landing at Puerto de Las Mareas. The ultimate destination of in-transit passengers must also be shown in the Passenger List.

Outward Clearance: In most cases, outward clearance and cargo documents will be delivered on board by the ship's Agent, making it unnecessary for Masters to obtain such clearance in person from the U.S. Customs Office (Ponce).

APPROACHES: The harbour is entered through a channel 250 ft. in width at its narrowest portion, bearing 025.6° (T). It is protected on the Eastern side by a rubble mound breakwater extending approximately 700 ft. from the shore line. The dredged channel extends out to the 40 ft. depth contour and has a width at this contour of approximately 900 ft., narrowing to 250 ft. approximately 2,100 ft. inshore from the 40 ft. contour. The 250 ft. wide portion of the channel is approximately 1,000 ft. long. At the inshore end of the 250 ft. wide channel, the harbour itself extends for a length of 2,300 ft. and a maximum width of 1,100 ft. The harbour has a depth of 38 ft. below MLW but the maximum draft allowable for inbound and outbound vessels is 37 ft. The above dimensions are given to the bottom of the channel; the sides of the channel and the harbour are sloped at 1 in 3.

PILOTAGE: The use of Pilots is compulsory for all vessels. Vessel's Agent will arrange for Pilot, upon receipt of the arrival notice. Pilot will board inbound vessels off the entrance to the harbour about 1 mile offshore.

When approaching the dock and channel, vessels must have one anchor, to be designated by the Pilot, free of the hawse pipe and ready for quick release if necessary to stop the vessel.

Note: Every vessel arriving or departing must provide, properly secured, a pilot ladder which conforms to the standards of construction normally accepted by international safety standards.

Also see "Pilot's Report".

NAVIGATIONAL AIDS:

A. Lighted Buoy LM: This sea buoy is located 300 ft. West of the centre line of the channel, 2 miles offshore from the end of the rubble mound breakwater. It displays a white light through 360° flashing Morse code letter "A". (0.5 seconds on, 0.5 seconds off, 2.0 seconds on, 0.5 seconds off). The buoy is painted with black and white vertical stripes and is fitted with a radar reflector. Water depth is 70 ft.

B. Channel Marker Buoys:

(1) Buoy 1: This buoy has 360° green light flashing 0.6 seconds on and 3.4 seconds off. It is painted black and has a green retro-reflective tape in buoy superstructure panels. Water depth is 40 ft.

(2) Buoy 2: This buoy has 360° red light flashing 0.5 seconds on and 2.0 seconds off. It is painted red and has red/orange retro-reflective tape in buoy superstructure panels. Water depth is 40 ft.

C. Channel Marker Navigation Lights: There are 4 channel marker navigation lights, 3 are located on piling, and 1 on the end of the rubble mound breakwater.

(1) Channel Marker Number 3: This marker is located on a single pile 400 ft. West from the centre line of the channel, 2,024 ft. inshore from the channel marker buoy No. 1. The light is located 25 ft. above MLW, and is displayed through 360°. It is a green light, flashing 0.6 seconds on and 3.4 seconds off. The marker is fitted with 3 ft. square dayboards with green retro-reflective centre and dark green reflective border, numeral 3.

(2) Channel Marker Number 4: This marker is located on a tower at the end of the rubble mound breakwater, 50 ft. above MLW. The light is displayed through 360°, red, flashing 0.5 seconds on and 2.0 seconds off. The marker has 4 ft.×4 ft. triangular dayboards with red retro-reflective centre and dark green reflective border, numeral 4.

(3) Channel Marker Number 5: This marker is located 175 ft. West from the centre line of the channel, 1,000 ft. inshore from the end of the rubble mound breakwater. It is on a single pile 25 ft. above MLW and displays a green light through 360° flashing 0.4 seconds on and 0.6 seconds off. The marker is equipped with 3 ft. square dayboards with green retro-reflective centre and dark green reflective border, numeral 5.

(4) Channel Marker Number 6: This marker is located 175 ft. East from the centre line of the channel, 1,295 ft. inshore from the end of the rubble mound breakwater on a single pile 25 ft. above MLW. It displays a 360° red light, flashing 0.4 seconds on and 0.6 seconds off. The marker is equipped with 4 ft.×4 ft. triangular dayboards with red retro-reflective centre and dark reflective border, numeral 6.

D. Obstruction Light: This light is mounted on the protective dolphin at 10 ft. above MLW and displays 3 fixed red lights through 360°.

E. Range Lights: LLNR 1380.55 front range light is mounted on a tower located on the centre line of the channel 3,500 ft. inshore from the end of the rubble mound breakwater. It consists of a quick flash white light 86 ft. above MLW and visible on range line only. The tower is fitted with a 6 ft.×12 ft. KRW dayboard, covered with red/orange reflective coating with an 18 in. white stripe down the centre.

LLNR 1380.56 rear range light is mounted 104 ft. above ground on a tower located on the centre line of the channel 5,500 ft. inshore from the end of the rubble mound breakwater. It consists of an equal interval, white, 3.0 seconds on and 3.0 seconds off. The tower is fitted with a 6 ft.×12 ft. KRW dayboard covered with red/orange reflective coating with an 18 in. white stripe down the centre.

RESTRICTIONS: The entrance channel has a depth below MLW of 40 ft. and the harbour itself has a depth of 38 ft. Hence vessels using the port are limited to a maximum draft of 37 ft.

Vessels are required to have a minimum draft of 14 ft. forward and 24 ft. aft when entering or leaving the port.

MAX. SIZE: 55,000 d.w.t., LOA 221 m. (725 ft.). Beam 32.3 m. (106 ft.) and draft 11.28 m. (37 ft.).

HEALTH: Free Pratique is not required for vessels arriving at Puerto de Las Mareas, except when cases of communicable disease are on board. In such cases, U.S. Public Health Service doctors are available, and should be requested through the Agent 48 hours prior to arrival.

RADIO: Agents of vessels or Owners or its representatives should advise Phillips Puerto Rico Core Inc. by telex, cable or telephone, 72 hours, 48 hours, and again 24 hours before their expected arrival at the sea buoy.

ITT Telex No. 3451056 "Philcorgya".
Telephone (809) 864-1515.

Incoming vessels should advise the Agent by radio 48 hours and again 24 hours before their expected arrival at the sea buoy.

Coast stations available for such advice are:

Lantana Radio (WOE) - Lake Worth, Florida. (Equipped with RCA automatic land-line circuit direct to New York City, San Francisco and Washington, D.C.)

Transmits Traffic Lists at (GMT) 0005, 0205, 0405, 0605, 0805, 1005, 1205, 1505, 1605, 1805, 2005 and 2205. Transmits weather bulletins at (GMT) 0105 and 1600.

New York Radio (WNY) - New York City. (Equipped with RCA automatic land-line circuit direct to New York City, San Francisco, Washington, D.C.)

Transmits Traffic Lists at (GMT) 0010, 0210, 0410, 0610, 0810, 1010, 1210, 1410, 1610, 1810, 2010 and 2210. Transmits weather bulletins at (GMT) 1000, 1400, 1600 and 2200.

Also equipped with teletypewriter (TWX) for direct communication with steamship companies in the United States having this equipment.

Chatham Radio (WCC) - Chatham, Massachusetts. (Equipped with RCA automatic land-line circuit direct to New York City, San Francisco and Washington, D.C.)

Transmits Traffic Lists at (GMT) 0050, 0450, 0850, 1250, 1650 and 2050. Transmits weather bulletins at (GMT) 0100, 1300 and 1700.

In addition to the above commercial radio facilities, incoming vessels may contact the port through radio facilities on tugs stationed at the port. These facilities are as follows:

VHF radio: range 30 miles. Channel 16 (156.8 MHz), working frequency Channel 14 (156.7 MHz).
SSB radio: 12 MHz, 8 MHz, 4 MHz.
Call letters: WA 6617 and WS 6560.

Diverted Vessels: Vessels diverted to Puerto de Las Mareas must furnish the required 48-hour and 24-hour notices of arrival, unless notice of diversion is received less than 48 hours before anticipated arrival, in which case the notice of arrival will be given as soon as notice of diversion is received. In such cases, however, Phillips Puerto Rico Core Inc. reserves the right to refuse to load or unload such vessels if tankage is not available for the cargo, or if cargo is not available to loading.

TUGS: The use of tugs is compulsory for arriving and departing vessels. Two tugs are stationed in the harbour to assist in docking, undocking and turning. Arrangements for the use of tugs should be made through the Agent well in advance of the vessel's arrival. A minimum of 2 tugs required for berthing and a minimum of one tug required for unberthing.

Tug Operator: McAllister Brothers Inc. Tel. (809) 721-8888, 722-8111.

BERTHING: The dock at the terminal consists of a finger pier approximately 800 ft. in length inside the harbour with a tanker loading berth on each side. The finger pier consists of a cargo platform 45 ft. by 90 ft., fitted with fender piling and dolphins (3 breasting dolphins, 2 mooring dolphins and 1 protective dolphin). The cargo platform is connected to shore by a driveway 12 ft. 6 in. wide. The mooring and breasting dolphins outboard of the cargo platform are connected to each other and to the platform by a walkway. No launches are required to handle mooring lines. The top of the cargo platform is 12 ft. above MLW level. Water depth alongside the finger pier is 38 ft. at MLW. There is no current at the dock or in the harbour.

Bollards for mooring lines are provided on the breasting dolphins, the mooring dolphins and the turning dolphins.

Turning Basin: Turning basin 1,100 ft. wide and 1,060 ft. long, outboard of the turning dolphin, is provided. The turning basin has a depth over its entire area of 38 ft. at MLW. Normal procedure will be for vessels to enter the harbour and turn prior to docking.

Vacating of Berths: Vessels will be required to vacate berths promptly on completion of loading or discharging cargo. Permission to use a berth when not loading or discharging cargo may be granted under special circumstances, and must be requested through the Agent.

If the vessel fails to vacate the berth on the expiration of the allowed time, it will be held liable for payment of any demurrage and/or damages incurred by Phillips Puerto Rico Core Inc., as a result of delays to other vessels waiting berths, or for any other consequence of its failure promptly to vacate the berth.

HURRICANES: The South coast of Puerto Rico is subject to winds of hurricane force, accompanied by abnormally high tides, during the late Summer and Autumn. In the event of such abnormal conditions, vessels may be required to put out additional moorings, or if necessary, to suspend all operations and put to sea until normal conditions prevail.

MEDICAL: Medical assistance or hospitalisation arrangements should be made through the Agent. If hospitalisation is required for any crew member, arrangements should be made through the ship Agent with hospitals located in the Municipality of Guayama. Ambulance service can be furnished upon request to the Agent.

TANKERS: The various cargoes available at the Puerto de Las Mareas terminal include motor fuel, cyclohexane, benzene, paraxylene, orthoxylene, mixed xylenes, paraffinic naphtha, and other special products. Feedstock for Phillips Puerto Rico Core Inc. facilities is naphtha, and there is a fuel oil unloading line.

Cargo handling is accomplished through various sizes of lines, as follows:

Product	*Hose size (each side of dock)* No. (in.)	*Line size* (in.)	*Loading/ discharging rate with one pump* b.p.h.
Naphtha Feedstock	3 × 8	20	13,700
Motor Fuel Regular	3 × 8	20	10,000
Motor Fuel Premium	2 × 8	12	5,700
Motor Fuel Unleaded	1 × 8	14	7,000
Benzene	1 × 8	12	3,800
Cyclohexane	1 × 8	10	4,000
Paraxylene	1 × 8	12	5,000
Orthoxylene	1 × 6	8	2,200
LP-7 Raffinate	2 × 8	16	7,500
Mixed Xylenes	1 × 6	8	2,000
Toluene	1 × 8	8	800
Fuel oil	1 × 8	12	3,500
Ballast	1 × 8	12	6,000
Domestic water	1 × 2	2	3
Butane	1 × 6	16	2,000

CONNECTING/DISCONNECTING HOSES: Service will be provided by the terminal to connect and disconnect hoses on the ship. Vessels are requested to have blanks removed from the cargo lines and hose handling booms rigged on arrival at the dock.

READINESS: Notice of Readiness to load or discharge is warranty that the vessel is in all respects ready to receive or discharge cargo, and that the vessel's equipment is ready and capable of loading or discharging petroleum or petrochemical products. Phillips Puerto Rico Core Inc. reserves the right to refuse to accept such notice of readiness if, upon inspection, the vessel is found not to be ready to receive or discharge cargo. Vessels may tender Notice of Readiness upon arrival, berth or no berth, according to the terms of the charter party or contract of affreightment under which they have been engaged.

BALLAST: Ship's Masters are reminded that they are prohibited by Puerto Rico law from pumping dirty ballast overboard when within the Puerto Rican limits. Facilities are provided for disposing of dirty ballast ashore at Puerto de Las Mareas. U.S. Coast Guard Regulations are enforced for any discharge of dirty ballast, and any violations will be quickly detected and reported.

Ballast is pumped ashore (when authorised by Terminal) through a 12 in. line, capable of receiving at a pressure at the ship's rail of 100 p.s.i. The ballast facilities are sufficient to accommodate 100,000 barrels of dirty ballast. Vessels are requested to arrive with minimum of dirty ballast.

FRESH WATER: Available at the dock in limited quantities.

FUEL: No bunkers are available at Puerto de Las Mareas. However, arrangements for bunkering at any other ports in the island can be made through the Agents.

STORES: May be ordered through the ship's Agent for delivery at the terminal.

CONSULS: No consular representatives are located in the vicinity of Puerto de Las Mareas. Some nations maintain consular representatives in San Juan. Further information can be obtained from the Agent.

REPAIRS: Complete repair and dry dock facilities are available in San Juan. Limited facilities for emergency repairs are available at Ponce. Requests for such services should be made through the Agent.

SURVEYORS: There are no classification society surveyors stationed at Puerto de Las Mareas, but they are available on call from Ponce or San Juan. Requests for survey services should be made through the vessel's Agent at least 24 hours prior to arrival.

FIREARMS: All firearms and ammunition should be shown on the stores list and will be removed from the vessel during its stay in Puerto Rican waters. Any violations of this regulation will result in fines and confiscation of firearms and ammunition.

CUSTOMS: U.S. Customs and Immigration Authorities will board vessels at the dock, except in unusual circumstances, in which case they will board the vessel at anchor outside the harbour. The vessels will be required to furnish an accommodation ladder.

American Flag vessels will not require Customs entry or clearance unless arriving from or departing to a foreign port.

SAFETY: The provisions of Part 35 "Operations" of the Rule and Regulations to Tankvessels, Sub-chapter D (CG-123) published by the U.S. Coast Guard are in force at Puerto de Las Mareas, and must be observed under penalty of fine and imprisonment as provided therein.

Particular attention is called to the following safety precautions:

(1) Vessels must be, and remain, in readiness to sail from the dock at any time. In the event of engine repairs, which might interfere with such readiness to sail, being required, written permission must be obtained from the Harbour Master before such repairs may be undertaken.

(2) Scuppers must be plugged during cargo-handling operations.

(3) Absolutely no smoking or open lights will be permitted on the dock or open decks.

(4) Screens in good conditions must be used over gauging hatches when not actually gauging.

(5) Operations may be suspended at the discretion of the Master, or may be required to be suspended by the Harbour Master, during severe electrical storms.

(6) In the event of a breakdown of communications between dock and the shore terminal during loading operations, and the need to shut off the flow of cargo to the vessel, an emergency signal consisting of a continuous sounding of the ship's whistle shall be given. The signal shall not be discontinued until the flow of cargo has been shut off.

(7) An electrical bonding cable will be provided from the dock to the ship. This bonding cable must be firmly secured to a clean metal surface of the vessel's hull or cargo piping before hoses are connected, and must remain in place until the hoses are disconnected.

(8) The vessel must moor bow to seaward when feasible and be prepared to get underway on short notice. A towing cable shall be made ready forward and aft with the bight at water's edge.

(9) Each foreign flag vessel must be in possession of a valid Letter of Compliance issued by the Commandant, U.S.C.G. for the carriage of the specific products to be loaded or discharged. All vessels must possess a Certificate of Financial Responsibility and be able to produce the same upon demand.

(10) Ship to ship transfer of cargo within the harbour is not permitted.

(11) All persons considered to be intoxicated or under the influence of drugs shall not be allowed to board the ships or enter the facilities during cargo operations.

Violations of these and other safety regulations, as described in Parts 35 of Sub-chapter D will result in the suspension of cargo-handling operations by the Harbour Master, or the PPRC dock personnel or safety inspectors, without recourse. Such suspension of cargo operations will continue until the violations are corrected or the safety hazards removed.

POLLUTION: *Oil Spill Avoidance:* All vessels must comply with the latest Commonwealth and Federal laws and regulations regarding prevention of oil spills. Such laws absolutely prohibit any discharge overboard of oily water, oily ballast or oil in any form. Since the harbour is an enclosed area with no flow of water through it, any violations, no matter how small, will be quickly detected and reported to the U.S. Coast Guard. VIOLATORS WILL BE VIGOROUSLY PROSECUTED AND ARE LIABLE FOR HEAVY FINES.

Sanitary Regulations: Pollution laws and regulations concerning sanitation apply to the harbour of Puerto de Las Mareas. Trash and galley waste will not be dumped into the waters of the harbour and must be kept on board until the vessel has sailed. Discharge of toilets and bathrooms into the waters of the harbour is prohibited. Sanitary facilities are provided on the dock for use by crew members while their vessels are at the berth.

MAIL: Official and personal mail may be addressed to the vessel care of Agent, and will be delivered to the vessel by the Agent on arrival. The Agent will accept official and personal mail from the vessel, and will ensure its delivery to the local U.S. Post Office, upon receipt of a mail transmittal slip to support disbursements.

SHORE LEAVE: When the vessel is berthed at Puerto de Las Mareas there normally are no restrictions on shore leave. In order to avoid delay in sailing, Masters are requested to ensure that all crew members are on board their vessel at sailing time. There are no facilities to provide shore leave from vessels at anchor awaiting berth.

Crew members from foreign vessels must carry their crewman's landing permit, Form I-95A, when on shore leave.

GARBAGE DISPOSAL: Service available from Ponce Waste.

WASTE OIL DISPOSAL: No facilities for dirty ballast.

SEAMAN'S CLUBS: None.

CURRENCY: U.S.Dollar.

GENERAL: *Charts:* The general area and the harbour of Puerto de Las Mareas is shown in U.S. Hydrographic charts number 25677 and 25640.

Tides: Tides in the general area of Puerto de Las Mareas have an average yearly range of 0.8 ft. from MLW to MHW.

SHIPMASTER'S REPORT: February 1988.

The Oil Port is called Jobos, Phillips Oil Terminal. Guayama is the nearest town, and La Salinas is just nearby.

British Admiralty Charts for the area are inadequate, U.S. Chart No. 25687 is of greater assistance.

The Pilot, using a tug, boards at Lat. 17° 54' N., Long. 66° 11' W. This position is very close to the Fairway Buoy.

This vessel, a 218.5 m. LOA tanker, proved to be one of the largest ever handled at the terminal.

Berthing for large vessels takes place in daylight only, close to the daybreak or before sunset, when the wind subsides.

Max. draft requested was 36 ft. 06 in. Vessels berth heading seaward.

Entering the port and making the turn with such a large vessel is not easy. We had to put our bulbous bow on the Eastern bank in order to stop the vessel for the tugs to change side.

The jetty is built for smaller vessels so our ropes were either short, or had to be crossed.

Vessel discharged 335,000 bbls. of naphtha, through 2 × 8 in. hoses tested for 118 p.s.i., and flow requested not to exceed 18,000 bbls./hr.

Discharging was smooth, with slight difficulty during stripping because of the high back pressure.

We had good co-operation with the Authorities, Terminal and Agent. Chas. Martin Inspector attended. According to new Company's policy, the inspector refused to sign any documents other than Chas. Martin's Forms.

U.S.C.G. did not board, even though the vessel had not been to a U.S.A. port for about 2 years.

Provisions were of U.S. quality and were expensive. No bonded stores available.

PILOT'S REPORT: March 1993.
Approaches: Extreme caution should be exercised when approaching the port, in particular for anchoring at night.
Restrictions: Inbound and outbound traffic during daylight hours only. Local pilots will advise ship's Master accordingly upon arrival at the port.
Anchorages: Vessels may anchor at a distance of at least 1 mile E.S.E. from the Lima Mike (LM) Buoy. It is recommended that anchorage positions be obtained from the local Harbour Pilot on arrival or from the vessel's Agent.
General Information:

Vessels bound for Las Mareas should prior to departure from previous port obtain U.S.C.G. Chart No. 25677.

Local Government Regulations require that vessels inbound remain at least 1 mile South of the (LM) Lima Mike Buoy, until they have a pilot on board.

It is recommended that vessels, that do not have the local chart on board, remain drifting until they can contact the local pilot for advice. These vessels should not get closer than 3 miles from the Lima Mike Buoy.
Fishing: Do not eat fish caught near the anchorage, unless you are familiar with the local species.

AUTHORITY: Puerto Rico Ports Authority, see "San Juan".
Operator: Phillips Puerto Rico Core Inc. (Postal address: Call Box 10003, Guayama, Puerto Rico 00785). *Tel:* (809) 864-1375. *Telex:* 3451056. *FAX:* (809) 864-2302. *Contact:* Captain Jaime Rivera, Port Captain. Victor M. Reyes, Marine Transportation Coordinator.

MAYAGUEZ: 18.13 N. 67.12 W.

DOCUMENTS: See "San Juan".
PILOTAGE: Ship's Agents must make arrangements with Captain of the Port Office at Mayaguez Pier well in advance, not less than 24 hours before arrival of vessel at harbour entrance. Pilot boats are painted black (hull) and white (topside) as required, showing the letter "P" on each bow. Pilots board 1 to 2 miles offshore of Sea Buoy depending on weather conditions. Pilot service available day and night.
ANCHORAGES: Close to the entrance channel and boundaries. Sufficient depths for larger vessels.
RESTRICTIONS: The bay is easily entered day or night and is a good harbour in any weather, except in a hurricane. The harbour is 3.8 miles wide, and offshore is protected by reefs which extend across the harbour entrance in a general North by West direction.

The principal channel is about 0.4 miles wide, with depths at the entrance of about 47 ft. to 120 ft. and it is marked by lighted buoys and the range. Depth in the inner channel is approximately 30 ft. and close alongside the pier from 28 ft. to 29 ft.
MAX. SIZE: Cargo vessels 600 ft. or more in length call at the port. Safe draft for operations at the wharf is 27 ft.
RADIO: Communication to all points, including ships at sea, is available through commercial systems. Cables-Telex via RCA Communications, Inc., a global service of Radio Corporation of America. ITT World Communications, Inc., tel. 830-3316. Puerto Rico Telephone Company, local and overseas communications services, 129 and 128.
TUGS: Not used at Mayaguez Port.
BERTHING: Berthing permit required from the Ports Authority. The Puerto Rico Ports Authority operates the terminal facilities which consist of a bulkhead wharf approximately 1,200 ft. long, apron width 30 ft., and transit sheds and open storage. There are other berthing facilities in the port which are owned by the tuna packing plants.
STEVEDORES: Arrangements are made by the ship's Agents or representatives.
MEDICAL: The Agent should know in advance of any medical needs so that he can make the necessary arrangements with the U.S. Public Health Service. Good medical and hospital services available.
TANKERS: See "Guayanilla".

Regular calls from Esso and Texaco to unload fuel by means of barges in order to supply tanks on land by means of pipes located at berthing facilities.

FRESH WATER: Available alongside the berth at 4 outlets to supply any amount required at any time. Hose connections of 2.5 in. or less, maximum pressure.
FUEL: All grades available.
FIRE PRECAUTIONS: Standard fire and safety precautions throughout. U.S. Coast Guard regulations.
CONSULS: Dominican Republic, France, Tel: 832-4322. Others at San Juan and Ponce.
REPAIRS: Call San Juan facilities where complete salvage equipment is available. Service to other ports of the island.
GANGWAY/DECK WATCHMEN: Ship provides gangway watchmen.
OPENING/CLOSING HATCHES: By stevedores.
REPATRIATION: Arranged by ship's Agents.
AIRPORT: Mani Airport, 15 minutes from pier, served by regular airlines daily from Mayaguez to San Juan.
TIME: GMT minus 4 hours all year round.
HOLIDAYS: Refer to "San Juan".
POLICE/AMBULANCE/FIRE: Telephone numbers: Police, 343-2020, 832-2300; Ambulance, 832-0496, 832-3212; Fire, 343-2330, 832-2330.
TELEPHONES: Can be arranged by Puerto Rico Telephone Company.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Required to go ashore.
AUTHORITY: Puerto Rico Ports Authority. See "San Juan".
Captain of the Port, Mayaguez. Tel: 832-3590.

PONCE: 17.58 N. 66.37 W. (See Plan)

DOCUMENTS:
Crew Landing Permit (Form 1-95).
Crew List (Form 1-418).
Ship's Stores Declaration (Form USCF 1303).
Crew Effects Declaration (Form USCF 1304).
Cargo Manifest (Form USCF 1302).
PILOTAGE: Pilotage is compulsory for all foreign and U.S.A. vessels.
The pilot service is under the supervision and direction of the Puerto Rico Ports Authority and their Captain of the Port Office.
ANCHORAGES: Harbour is protected from the prevailing Easterly trade winds by enclosing reefs.
RESTRICTIONS: Depths: Entrance channel 50-150 ft.; turning basin, 34 ft..
MAX. SIZE: Max. draft 39 ft.
BERTHING: 9 berths available. Vessels of 1,000 ft. LOA can be berthed. 1×40 ton Paceco Portainer at Berth No. 8. Ro/Ro ramp available. Three container yards; 12 acres, 9 acres and 6.7 acres.
MEDICAL: Medical services available upon request to the Agent.
FRESH WATER: Water is available whenever ordered in advance, 24 hours a day.
FUEL: Available either by barge or truck.
CONSULS: (In San Juan).
Colombia
Denmark
Dominican Republic
Honduras
Netherlands
Panama
Spain
Sweden
Switzerland
REPATRIATION: Arranged by ship's Agents.
TIME: GMT minus 4 hours.
HOLIDAYS: 19 holidays in the year. Work performed 24 hours a day, 7 days a week.
DEVELOPMENTS: See "Plan".
AUTHORITY: Port of Ponce, Board of Management, P.O.Box 125, Playa Station, Ponce, P.R. 00734-4125. *Tel:* (809) 848-4992. *FAX:* (809) 840-4681. *Contact:* Jose A. Buitrago, Port Director. Wilfredo Mattei, Port Captain.

PORT ARECIBO: 18.29 N. 66.42 W.

Port Arecibo is located on the North coast of the island, 32 nautical miles Westward of San Juan. There is a breakwater to afford some protection from heavy seas, but even so the port is not considered safe for vessel's operations, which are practically non-existent, except for a tug-barge operation (liquid chemicals are pumped out from a tank-barge alongside the pier through a pipeline to P.R. Chemical storage tanks ashore).

A sizeable fleet of pleasure craft use a section of the berthing facilities. There has been a significant growth in tug-barge traffic calling at the port.

There is a pier 600 ft. long. Depth alongside is close to 20 ft., but there is a shallow spot towards the inshore end of the pier. There is also a 30,000 sq. ft. cargo shed and open storage area.

The port is mainly used as an industrial port.

Port installations are under the control of the Puerto Rico Ports Authority.

Port Arecibo is not a Customs Port of entry.

AUTHORITY: Puerto Rico Ports Authority. See "San Juan".
Captain of the Port, Port Arecibo. Tel: 878-6460.

PORT FAJARDO: 18.20 N. 65.38 W.

The Port of Fajardo lies on the East coast of Puerto Rico. There is a 250 ft. long concrete pier owned by the Puerto Rico Ports Authority for the passenger and cargo ferryboats and other craft which engage in inter island traffic to the islands of Vieques and Culebra.

Port operations are under the control of the Captain of the Port.

For Customs service, the Port of Fajardo is under the jurisdiction of the Fajardo Custom House.

AUTHORITY: Puerto Rico Ports Authority. See "San Juan".

Captain of the Port, Port Fajardo. Tel: 863-0805.

SAN JUAN: 18.28 N. 66.07 W. (See Plan)

DOCUMENTS: Customs:

1. American flag vessels engaged exclusively in the coastwise trade (to or from American ports only, U.S. Virgin Islands ports excepted) are not required to make entry or to obtain clearance. A Permit to Depart is required, however, if loading coastwise cargo.

2. No formal entry or clearance is required for American yachts arriving or departing regardless of destination, but a report of arrival must be made within 24 hours after arrival from foreign ports or from the Virgin Islands.

3. All vessels arriving from foreign ports for discharging and/or loading cargo must report arrival within 24 hours and make entry within 48 hours. Vessels arriving in distress or for the purpose of taking on bunkers, water and/or stores and departing within 24 hours need not make entry or clearance, but must report arrival and comply with certain Customs formalities, such as reporting bunkers and stores taken, before departing.

(a) The following valid documents shall be available for examination and return to Master regardless of length of stay in port:

1. Register or Nationality Certificate.
2. Load Line Certificate (if over 150 tons).
3. Water Pollution Certificate (if over 300 tons).

(b) Additional documents, to be filed in duplicate for Customs purposes, are as follows:

1. Master's Oath of Vessel in Foreign Trade (C.F. 1300).
2. General Declaration (C.F. 1301).
3. Cargo Declaration (C.F. 1302) in the English language.*
4. Ship's Stores Declaration (C.F. 1303).
5. Crew Effects Declaration (C.F. 1304).
6. Crew List/Passenger List (Immigration Form I-418).
7. Clearance from Last Port (original only – if available).

(*) Only one copy of the Cargo Declaration is required for in-transit cargo for foreign ports.

4. NOTE: Specific procedures for the entry and clearance of vessels are extensively described under Part 4 of the Customs Regulations (19 Code of Federal Regulations, Part 4) and Title 46, United States Code. Questions on such procedures may be directed to:

District Director of Customs,
P.O.Box 2112,
Old San Juan, Puerto Rico 00902.
Attention: Carrier Control Branch.
Tel: (809) 725-3310
(809) 721-7777

Or to the Port Director of Customs at the following sub-ports: Fajardo (809) 863-0950, Mayaguez (809) 832-0308, Ponce (809) 842-3195 or 842-1030.

Immigration: From 0800 – 1700 hrs., Monday through Saturday, no charges. Exceptions are Federal holidays, Sundays and periods from 1700 hrs. – 0800 hrs. daily, when overtime charges paid by the Federal Government will be charged to the steamship company according to specified tariff.

Documents required:

1. U.S. Crew List, Form I-418 (only one is necessary) duly visaed by the American Consul at port of departure: if there is no Consul available, list must be signed by the Master and sworn before an Immigration Officer on arrival.

2. If crew is to be given shore leave, Form I-95 is to be prepared for each member of the crew. If this form fully filled out for each member of the crew is not presented to the Immigration Inspectors, crew will be detained on board.

3. Both copies of Form I-95 must be printed (or typed) legibly, not written in script.

4. Whenever passengers are carried, a separate Form I-418 listing each passenger, must be presented in accordance with instructions thereon, together with a Form I-94 if required.

For additional information on Consular Clearances for the Dominican Republic and Venezuela, and Immigration Documentary requirements, said offices should be contacted directly.

Agent:

3 sets of Bills of Lading.
2 copies of Manifest (for San Juan only).
1 copy of Crew List.
1 copy of Stores List.
1 copy of Crew Purchase List.
1 copy of Narcotics List.
1 copy of Passengers List.

MAX. SIZE: Cargo vessels 750 ft. in length call regularly at the Port of San Juan. Channel to tanker berth, 36 ft.

PILOTAGE: Pilot services are available day and night. Pilotage is compulsory for: all vessels of foreign registry; American flag vessels bound to or arriving from foreign ports and American flag vessels not having on board a deck officer duly licensed as harbour pilot for Puerto Rico waters.

Ships' Agents must make arrangements with Pilot Station well in advance (not less than 24 hours) of arrival of vessel at harbour entrance. Pilot boats are painted black (hull) and white (topside) with the letter "P" on each bow. Pilots board 3 miles offshore of Sea Buoy. Call Pilot station on Channel 16 VHF. There is no inner anchorage for incoming vessels to wait for the Pilot.

Port Administration: Most of the port terminal installations are under the control of the Puerto Rico Ports Authority. Utilisation of all port terminal facilities is subject to prior application to the Puerto Rico Ports Authority and the issuance of a written berthing permit by the Operations Division of the Maritime Department of the Ports Authority, tel: 729-8725 and 729-8705.

Vessels approaching to enter San Juan Harbour shall remain outside, not less than 3 miles to the North of the harbour entrance, to pick up the Pilot; and vessels ready to depart shall inform the Maritime Traffic Control or look-out station via radio-telephone of their intention.

ANCHORAGES: Deep draft anchorage "E", on the S.W. shore of Isla Grande, is for vessels awaiting Customs or Quarantine, and no vessel shall remain more than 24 hours without a permit from the Puerto Rico Ports Authority and U.S. Coast Guard Captain of the Port.

The effective size of this anchorage area has been reduced on its S.E. sector on account of the construction of barge mooring facilities that encroach on the area.

Restricted Anchorage "F" (Fox), shoreward of the West margin of Anegado Channel, is for vessels discharging explosives. Anchorage permit required from U.S. Coast Guard Captain of the Port and the Puerto Rico Ports Authority.

Anchorage "D", East end of San Antonio Channel, is for yachts, schooners and small craft.

RESTRICTIONS: Besides the harbour entrance channel (Bar Channel) and the main ship channel (Anegado Channel) with depths of 48 ft. and 36 ft. 6 in., respectively, there are 4 other navigable channels in the inner harbour:

The Army Terminal Channel, which runs in a straight North to South direction is approximately 1 mile long and 300 ft. wide with a depth of 37 ft. The channel leads into the turning basin off the Army Terminal on the South shore of the bay. On the Westerly margin of the channel there are located the pile clusters berthing facilities, silos and other shoreside installations for the receipt of bulk grain shipments and petroleum products.

The Puerto Nuevo Channel, approximately 1 mile long and 300 ft. wide, with an average depth of 30 ft. 6 in., runs East-Northeasterly from the Army Terminal Turning Basin to the Graving Dock Turning Basin. This provides access to modern marine terminal facilities in the Puerto Nuevo port zone.

The Graving Dock Channel, approximately 1 mile long and 300 ft. wide, with average mid-channel depth of 29 ft., runs in a general Southeasterly direction from Anegado Channel to the Graving Dock turning basin.

San Antonio Channel, approximately 1.5 miles long and 300 yards wide, with average mid-channel depth of 32 ft. 6 in. – 36 ft. branches out from Anegado Channel for about 0.25 miles up to Isla Grande Light Beacon, thence along the North shore of Isla Grande in a straight West-East direction for about 1 mile to the small craft anchorage "D" and the Yacht Club. This channel is bounded on the North margin by commercial piers and the Frontier Base berthing facilities and in the South by Isla Grande marginal wharf and the container terminal facilities.

HEALTH: Foodstuffs and plants not to be taken ashore.

RADIO: Radio communication to all points, including ships at sea, is available through commercial systems. Cables, telex via RCA Communications, Inc., a global service of Radio Corporation of America, tel. 723-6170, San Juan, Puerto Rico. Also, Western Union International, tel: 725-2121, ITT All American Cables & Radio, tel: 723-3732, and ITT World Communications, Inc., tel: 725-1515.

The Maritime Traffic Control Station "KRS – 893" at Fort San Cristobal in San Juan Harbour is manned around the clock for radio-telephone communication with incoming and outgoing ships' traffic. Transmitting vessels can communicate with the station through 156.8 MHz (Channel 16) for call and reply and working Channel 14, 156.7 MHz.

TUGS: Crowley Towing & Transportation, tel: (809) 722-1111, Telex: ITT 3450056, RCA 3252660, and McAllister Brothers, Inc., Puerto Rico Branch, tel: (809) 721-8888, telex: Towco 3450469, operate a fleet of tugs. Service is available day and night, subject to previous arrangements.

Use of tugs compulsory for docking and undocking vessels 8,000 tons displacement and over unless equipped with bow or side thrusters.

BERTHING: Finger Piers No. 1 – 7 and the open bulkheads between them are located in the Old San Juan waterfront and Piers No. 8 to 14 are situated in the section known as Puerto de Tierra on the outskirts of downtown San Juan at the North margin of San Antonio Channel.

With the exception of Pier 15 and Frontier Base which are Navy property, all the piers including those in the Old San Juan waterfront and the new facilities (Terminals A, B, C, D, E, F, G, H, J, K, L, M and 1/2 N) located in the port zone known as Puerto Nuevo, on the South shore of San Juan, are Ports Authority owned installations. The utilisation of the berthing and other facilities by maritime operators is subject to prior approval by the Ports Authority.

The Port installations in San Juan Harbour aggregate in the neighbourhood of 22,700 lineal ft. of berthing space; 1,100,000 sq.ft. transit shed area: 1,500,000 sq.ft. open storage area and 105 acres of marshalling yards. The latter facilities are located mostly at the Puerto Nuevo port zone and Isla Grande.

All vessels must request and obtain well in advance before arrival a Berthing Permit from the Ports Authority.

Pier 1: North shore of the harbour, in the Old San Juan waterfront, East of Customs Building and next Westerly to the ferryboat landing. Modern twin berth, 770 ft. long, double deck, cruise and passenger vessels' terminal, pierside passenger and baggage gangways, elevators, parking and shopping. Water and light facilities available.

Ferry Terminal: Next Easterly to Pier 1. Ferry terminal for the San Juan-Catano ferry fleet.
Pier 3: North shore of the harbour, Old San Juan waterfront next Easterly to the ferry terminal. Tourist ships' terminal similar to Pier 1. Depths in the approaches and alongside tourist piers 35 ft.
Wharf No. 6: Marginal wharf, 1,300 ft. long, accommodates cruise and passenger vessels. Water and light facilities available.
Pier 7: Northerly continuation of Pier No. 6; 472 ft. long, 1 berth.
Pier 8: East of Pier 7, finger pier, 3 berths, general cargo pier. Transit shed area and other covered storage 171,000 sq.ft., open area 40,000 sq.ft. Water and light facilities available.
Pier 9: East of Pier 8. Finger pier, 3 berths, general cargo pier. Net storage space pier shed 133,738 sq.ft. open area 40,000 sq.ft. Water and light facilities available. South berth is a tug–barge terminal.
Pier 10: North shore of San Antonio Channel. East of Pier 9. Open Finger pier, 1 ship berth, tug and barge terminal. No transit shed space. Water, fuelling facilities and light available.
Wharf No. 11: East of Pier 10, marginal wharf, 1 berth, 580 ft. of bulkhead, general cargo pier. Transit shed area 100,000 sq.ft. ample back area. Water and light facilities available.
Wharf No. 12: An extension of Wharf No. 11 Bulkhead 550 ft. long, wide apron, 15,000 sq.ft. transit shed area, 37,000 sq.ft. open storage. General cargo wharves. Water and light facilities available.
Wharf No. 13: Prolongation of Wharf No. 12: 28,000 sq.ft. transit shed area, 55,000 ft. open storage area, general cargo wharf. Water and light facilities.
Pier 14: Extension of Piers 12–13 bulkhead; marginal wharf, general cargo pier, wide apron. 446 ft. long, 40,000 sq.ft. transit shed area, ample marshalling area. Water and light facilities available.
Frontier Base Pier: Navy facility operated by the Puerto Rico Ports Authority under contract. 2 berths for sea-going vessels. Depth alongside 30 ft. Principally used for berthing of cruise vessels and conventional ocean carriers handling open storage cargo.
Isla Grande Terminal: South shore of San Antonio Channel. General cargo wharf. 1,500 ft. long bulkhead. Wide aprons. Transit shed 32,000 sq.ft. with 240,000 sq.ft. of paved open area. Easterly section of bulkhead for shallow draft vessels.
Container Terminals:

(a) In Westerly section, Bulkhead wharf 1,320 ft. long. Wide apron, ample marshalling yards for trailers. 2×45 tons capacity container handling cranes. Paved marshalling area approximately 1,800,000 sq.ft.

(b) On the South shore, berthing facilities, 300 ft. bulkhead wharf with adjacent areas for TMT's Roll-on/Roll-off operations. Shoreside concrete ramp extending out to seaward. Tug-barge operation, loading and unloading through bow and side ramps, about 30 acres for trailers on exclusive lease basis. Max. draft approximately 18 ft.

(c) Trailer Marine Transport Roll-on/Roll-off three level ramp, barge-tug operation; loading and unloading at bow. Max. draft 18 ft.

The lands in Isla Grande and the conventional cargo handling terminal facilities are U.S. Navy property under lease and operated by the Puerto Rico Ports Authority. These facilities are in the process of being transferred to the ownership of the Puerto Rico Ports Authority.
Pier 15: Bulkhead Wharf and Finger Pier used by commercial vessels. Containerised and general cargo facilities. U.S. Navy installation under lease to Perez & Cia. from Puerto Rico.
Pier 16: Navy installation under lease. Graving and floating docks. See "Repairs".
Puerto Nuevo Docks: Terminals "A" and "B" marginal wharves. 2×500 ft. berths. 102,000 sq.ft. transit shed area. 2 cargo sheds. 30 ft. depth alongside. General cargo piers. Limited open storage area.
Trailership Terminals: 3 at Isla Grande port zone, above, 10 at Puerto Nuevo port zone. Berths C, E, F, G, H, J, K, L and M and West Side Army Terminal.
Berths "J" and "K": P.R. Maritime Shipping Authority Roll-on/Roll-off terminal. Shoreside movable ramps for side loading and unloading. Extra wide pier platform, ample trailer marshalling yards. 600 ft. long marginal wharf.
Berth "D": 100,000 sq. ft. of transit shed space for break-bulk operations and cargo stripping and distribution. Marginal wharf 40 ft. wide, 600 ft. long. Ample trailer marshalling yard. 30 ft. depth alongside, approximately.
Berths "E", "F", "G", "H", "J", "K", "L" (900 ft.), and "M": 600 ft. each, continuous bulkhead wharves, Lift-on/Lift-off operation. Max. draft alongside 30 ft. Extra wide pier platforms. Ample trailer marshalling yards. Five 25 ton capacity pierside cranes are installed at Berth "E" to "H".
Army Terminal Pier: Finger pier; 3 berths. Approximately 50,000 sq. ft. transit shed area. East and West berths 600 ft. each. North berth 200 ft. Under the control of the Ports Authority. West side, ramp for Roll-on/Roll-off operation.
Isla de Cabras Pier: Explosives handling pier at Isla de Cabras. Ports Authority property.
BULK HANDLING FACILITIES:
Bulk Grain Handling Facilities: Berthing clusters, silos and other shoreside installations for the receipt of shipments of bulk grains (Nebraska Mills, California Rice Mills, Red Seal, etc.).
STEVEDORES: Arranged by the ship's Agents.
MEDICAL: Medical attendance and services are available for seamen at the United States Public Health Service in San Juan (out-patients). The Ashford Memorial Community Hospital handles internal cases.
TANKERS: *Caribbean Oil Refinery:* Pile clusters berth for handling gasoline and fuel oils, max. permitted draft 33 ft.
Navy Oil Pier: South shore of the bay, next Westerly to Terminal "A", Puerto Nuevo. G.S.A. property leased to Texaco, Esso, Shell. Berthing facilities 350 ft. long and 24 ft. MLW. Bunkers available.
FRESH WATER: Most of the piers have adequate installations to supply water.
FUEL: Served in barges either alongside the vessel at the pier or at anchor. Other combustible liquids are delivered in tank trucks by Shell, Esso and Texaco.

CONSULS:

Belgium	Tel: 725-3179	Germany	Tel: 755-8228
	" 725-1701	Honduras	" 790-3263
Bolivia	" 759-7678	Italy	" 727-4631
Colombia	" 754-1675	Panama	" 754-6660
Denmark	" 725-2514	Netherlands	" 724-2157
Dominican Rep.	" 725-9550		724-5800
	" 722-7377	Mexico	" 764-0258
El Salvador	" 781-0005	Spain	" 758-6090
Finland	" 721-8030		758-6142
	Ext. 243	Sweden	" 726-5200
France	" 753-1700	Uruguay	" 723-1787
	" 753-1701	Venezuela	" 725-4055
			725-4057

REPAIRS: (a) Perez and Co., a commercial ship repair and drydock facility at Pier 16. Graving Dock: 632 ft. × 83 ft. × 24 ft. – reinforced concrete. floating dock: 200 ft. × 40 ft. × 15 ft. – reinforced steel. Two 1,000 ft. piers, 1,000 ft. bulkhead. Three cranes: Mobile diesel electric crane – 25 ton lift; Diesel mobile crane 50 ton lift and locomotive crane – 8 ton lift.

(b) Vaello Shipyard, at La Puntilla, Catano operates a marine railway for dry-docking and repair of small vessels.
DRY DOCKS: Perez and Co., Miraflores St., Stop 11, Tel: 725-9400.

Vaello Shipyard, Inc., 1 Barbosa St., Catano, Puerto Rico. Tel: 788-1150.
SURVEYORS: American Bureau of Shipping – Mr. J. A. Schilling – Exclusive Surveyor.

Lloyd's Register of Shipping – Capt. Francis B. Crocco.

Det Norske Veritas
Germanischer Lloyd
Chinese Register of Shipping
Registro Italiano Navale
Nippon Kaiji Kyokai
Hellenic Register of Shipping
Panama Bureau of Shipping

Captain Francis Crocco acts as non-exclusive surveyor.

GANGWAY/DECK WATCHMEN: Ship provides gangway watchmen.
OPENING/CLOSING HATCHES: By stevedores.
REPATRIATION: Arranged by ship's Agents.
AIRPORT: On outskirts of port area, served by regular airlines.
TIME: GMT minus 4 hours.
HOLIDAYS: *New Year's Day (January 1st); Three Kings' Day (January 6th); De Hostos Birthday (January 11th); Martin Luther King Day (Third Monday in January); Washington's Birthday (February, Third Monday); Emancipation Day (March 22nd); *Good Friday; De Diego's Birthday (April 16th); Memorial Day (May, Last Monday); *Independence Day (July 4th); Munoz Rivera's Birthday (July 17th); *Constitution Day (July 25th); Barbosa's Birthday (July 27th); *Labour Day (September, First Monday); Columbus Day (October 12th); Veteran's Day (November 11th); Discovery of Puerto Rico (November 19th); *Thanksgiving Day (November, Last Thursday); Elections Day (November every 4 years); *Christmas Day (December 25th). Any holiday falling on Sunday is observed on the following Monday.

*No cargo operations on these dates.
POLICE/AMBULANCE/FIRE: Police, 343-2020; Ambulance, 343-2550; Fire, 343-2330.

A Ports Authority ambulance stationed at Isla Grande, emergency room and nurse are available for emergency service.
EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard S.A.R., U.S. Coast Guard Marine Safety Office, San Juan Base, La Puntilla, San Juan, Puerto Rico. Tel: 725-0857.
BANKS: Banco Central Economias, Banco Central Economias Building, Ponce de Leon Avenue, Hato Rey, Puerto Rico.

Banco Comercial de Mayaguez, 400 Munoz Rivera Avenue, Hato Rey, Puerto Rico.

Banco Cooperativo de P.R., Condominium The Executive, Ponce de Leon Avenue, Hato Rey, Puerto Rico.

Banco de Ponce, 268 Munoz Rivera Avenue, Hato Rey, Puerto Rico.

Banco de San Juan, 654 Munoz Rivera Avenue, Hato Rey, Puerto Rico.

Banco de Santander Puerto Rico, 251 Recinto Sur, San Juan, Puerto Rico.

Banco Popular de P.R., Popular Center Building, Hato Rey, Puerto Rico.

Bank of America N.T.S.A., Pan Am Building, Hato Rey, Puerto Rico.

The Bank of Nova Scotia, Mercantile Plaza Building, Hato Rey, Puerto Rico.

Bayamon Federal Savings, Bayamon Shopping Center, Bayamon, Puerto Rico.

Citibank N.A., 252 Ponce de Leon Avenue, Hato Rey, Puerto Rico.

Chase Manhattan Bank, 254 Munoz Rivera Avenue, Hato Rey, Puerto Rico.

The Royal Bank of Canada, Pan Am Building, Hato Rey, Puerto Rico.

The Bank of America, Pan Am Building, Hato Rey, Puerto Rico.
STORING: See "Prelims".

1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. Same as U.S. mainland.
6. Yes.

SHORE LEAVE: Possible, however, Form I–95 is to be prepared.
IDENTIFICATION CARDS: Required to go ashore.
GARBAGE DISPOSAL: Available through Commercial Incineration Corp. Tel: 257-7370, or City Garbage Disposal Company. Tel: 755-1818.
WASTE OIL DISPOSAL: Available through Crowley Maritime Corp, Tel: 729-1000, or Eng. Carmen Muniz. Tel: 729-1256.
SEAMAN'S CLUBS: None.
CURRENCY: U.S.Dollar (U.S.$).

DEVELOPMENTS: The new port sector, under development at Puerto Nuevo, now at an advanced stage, will ultimately comprise 15 berths, of which 12 are already in operation.

Port facilities used predominantly by trailerships are located towards the Southern sector of the bay. These are marginal wharf type facilities immediately adjacent to the Puerto Nuevo Channel.

Presently, the Ports Authority has initiated the final stage for the development of some 108 acres of land that will be used as back-up lands in connection with the ocean-front operations of Wharves "J" to "N".

This land has been in a process of stabilisation over the last years and presently a project is already under way to remove the sand surcharge deposited on it. The material being removed is being used as surcharge material for the stabilisation of other areas.

The degree to which this stabilised terrain will be further developed will depend on their demand for use by maritime interests.

AUTHORITY: Puerto Rico Ports Authority, G.P.O.Box 362829, San Juan, Puerto Rico, 00936-2829. *Tel:* Maritime Traffic Control Station, 722-1457, 724-1412; P.R. Ports Authority Maritime Operations Division, 725-4667. P.R. Ports Authority Maritime Department, 724-3262; San Juan Harbour Pilots, 722-1169; Puerto Rico Ports Authority, 723-2260. *Telex:* 9464 Auto DPR. *FAX:* (809) 724-0839, 724-6644, 724-8564 (Maritime Bureau). *Contact:* Jose S. Culpeper, Chief Maritime Bureau, Tel: (809) 729-8704, 729-8744. Jose Quintero, Chief Operations Division.

YABUCOA: 18.02 N. 65.48 W. (See Plan)

DOCUMENTS: The following documents for vessels in foreign trade are required by the U.S. Customs and Immigration Authorities for entry and clearance:

Master's Oath (original and one copy) entry and clearance.
General Declaration (original and one copy) entry and clearance.
Stores List (original and two copies) entry.
Crew Purchases List (Curio List) (original and two copies).
Cargo Declaration (original and one copy).
Crew List (one copy certified and two copies not certified).
Clearance from Last Port (if arriving on an international voyage).
Crewmen Landing Permits (for each crew member without the Plastic Form 1-14).
Passenger List (if any passengers).
All permanent documents of the vessel.

Passenger List: The Passenger List must show full names, sex, age, nationality and occupation of passengers landing at Puerto Yabucoa. The ultimate destination of in-transit passengers must also be shown on the Passenger List.

Deratisation Certificates: Deratisation Certificates cannot be renewed at Puerto Yabucoa.

Outward Clearance: In most cases, the outward clearance and cargo documents will be delivered onboard the vessel, during her free time period or ballast period, prior to leaving the Dock.

Customs and Immigration: U.S. Customs and Immigration authorities will board vessels at the dock, except for unusual circumstances, in which cases they will board the vessel at anchor outside the harbour. The vessels will be required to furnish an accommodation ladder.

American Flag vessels will not require Customs entry or clearance unless arriving from or departing to a foreign port.

APPROACHES: Vessels arriving at Puerto Yabucoa should proceed to approximately 2 miles S.E. of the seaward end of the channel and stand-by on VHF Channel 19A for berthing instructions from Puerto Rico Sun Oil Company, Marine Department (VHF Call Sign "WLZ") and/or the Pilot.

Approach to Harbour: The harbour is entered through a channel 500 ft. wide at its narrowest portion, on a course of 297° True. A rubble mound jetty is located at the N.E. side extending 500 ft. seaward. The channel is dredged to the 50 ft. contour which is approximately 5,765 ft. from shore. Seaward of the 50 ft. contour, a depth of 55 ft. is provided along with a 500 ft. channel width for a total distance of approximately 9,000 ft. from shore. Vessels approaching the channel from the E.S.E. will have a clear approach.

Navigational Dangers: The area seaward of the dredged channel is relatively open and free from danger, but care should be exercised in approaching the channel as soundings decrease extremely rapidly at the channel entrance. Outcrops of hard seafloor material exist in the regions adjacent to the channel.

PILOTAGE: Harbour pilots must be used by all vessels except for American flag vessels in domestic trade bound to or arriving from a U.S. Port with a deck officer onboard who is qualified and licensed as a Pilot for Puerto Yabucoa.

Pilot services are available at any hour of the day or night. The Ship's Agent will arrange for the Pilot upon notification of arrival. The Pilot will board in-bound vessels approximately 1.5 miles seaward of the channel entrance. The vessel should not approach any closer than this distance until the Pilot is on board.

Every vessel requiring a Pilot must provide, properly rigged and secured, a pilot ladder which conforms to international safety standards. When picking up or disembarking the Pilot, the vessel must heave to and provide a lee with the pilot ladder rigged on the lee side 6 ft. (2 m.) above the water.

ANCHORAGE: If a significant delay in berthing is anticipated the ship may anchor and await berthing instructions. A suitable anchorage is located 1.25 miles South of Punta Negra, Vieques Island approximately 18° 04' N., 65° 27' W. (Nautical Chart No. 25650).

This anchorage is to be used only at the discretion of the Master.

MAX. SIZE: The maximum draft that can be handled in Puerto Yabucoa is 44 ft. 6 in., subject to change, based on silting.

RADIO:
Notice of Arrival: Vessels calling at Puerto Yabucoa must notify Puerto Rico Sun Oil Company through the ship's Agent 72/48/24 hours prior to arrival at Yabucoa Sea Buoy. If ETA is expected to change more than one hour it must be corrected at least 24 hours prior to arrival.

Radio Communications: The following radio stations are available for communicating with Puerto Rico Sun Oil Company or the ship's Agent.

a. Commercial Coast Stations:
   (1) Lantana Radio (WOE) – Lake Worth, Florida.
   Equipped with RCA automatic land line circuit direct to New York City, San Francisco and Washington, D.C.
   (2) New York Radio (WNY) – New York City.
   Equipped with RCA automatic land line circuit direct to New York City, San Francisco and Washington, D.C. Also equipped with teletypewriter (TWX) for direct communication with steamship companies in the United States having this equipment.
   (3) Chatham Radio (WCC) – Chatham, Massachusetts.
   Equipped with RCA automatic land line circuit direct to New York City, San Francisco and Washington, D.C.
   (4) Virgin Islands Radio (WAH) – St. Thomas, Virgin Islands.
   Very High Frequency (VHF)
   (a) Channel 16 – calling channel
   (b) Channel 28 – working channel
b. Puerto Rico Sun Oil Company Stations:
   The following stations are authorised to handle Puerto Rico Sun Oil Company business traffic only and cannot accept public correspondence calls.
   (1) Puerto Rico Sun Oil Marine Department (WLZ) Yabucoa, Puerto Rico. On the air from 0800 hrs. to 1700 hrs. (1200 hrs. to 2100 hrs. GMT) Monday through Friday, except holidays.
   Very High Frequency (VHF) Channels: Channel 19A – standby and working channel.

BERTHING:
Docking Procedures: Upon arrival at the Sea Buoy the vessel must have:
(a) The engine on manoeuvring speed for picking up the Pilot and for entering the channel.
(b) Deck machinery and lines ready for docking and tying up port side to the Dock.
(c) Port anchor backed out of the hawse pipe and free to run.
(d) Vessels arriving in ballast must have the propeller submerged and have a trim of not more than 10 ft. by the stern.

Notice of Readiness: Notice of Readiness to load or discharge is warranty that the vessel is in all respects ready to receive or discharge cargo and that the vessel's equipment is ready and capable of loading or discharging petroleum products. Puerto Rico Sun Oil Company reserves the right to refuse to accept such Notice of Readiness if, upon inspection, the vessel is found not to be ready to receive or discharge the cargo. Vessels may tender Notice of Readiness upon arrival, berth or no berth, according to the terms of the Charter Party or Contract of Affreightment under which they have been engaged.

CARGO FACILITIES:
Connecting and Disconnecting Hoses: A crew will be provided by Puerto Rico Sun Oil Company to handle mooring lines and to connect and disconnect hoses and loading arms on the ship. Vessels are required to have blanks removed from cargo and ballast lines which will be used during cargo or ballast transfer when the vessel docks. In order to properly connect 2 loading arms to the vessel, the risers onboard should be at least 6 ft. between centres.

Communications for Cargo Transfer: Portable radios are provided by the shore crew for communications during loading and unloading operations. The Mate must sign a receipt upon receiving said radios, and is responsible for returning them prior to sailing. Failure to return the radios shall result in billing for the cost of same. The original signed receipt shall constitute proof of liability. The ship must obtain this original when radios are returned.

Ballast: All dirty ballast must be pumped ashore to the ballast facilities. The ballast facilities can receive 70,000 barrels of ballast through a 24 in. line capable of receiving a pressure at the ship's rail of 125 p.s.i. Vessels are requested to arrive with a minimum of dirty ballast.

All clean and segregated ballast may be discharged overboard, provided the vessel is in compliance with all regulations as stated in 33 CFR 157.43.

Crude Oil Washing: Crude Oil Washing is permitted in Puerto Yabucoa provided the vessel complies with all safety and regulatory procedures as stated in 33 CFR 157, Sub-chapter D.

Vessels may Crude Oil Wash more than one third of their tanks provided it has been so stated in the terms of the charter agreement.

Pumping Data: The crude oil, products and ballast water are pumped through loading arms on the dock.

The sizes and approximate pumping rates are as follows:

Arm No.	*Product*	*Flange Size* (in.)	*Line Size* (in.)	*Max. Pumping Rate* Bbls.Hr.
1	Bunker C	10	14	6,000
	Ballast	10	24	10,000
2	Gas Oil	10	14	10,000
	Ballast	10	24	10,000
3	Jet Fuel	16	14	12,000
	Naphtha	16	12	7,500
	Kerosene	16	20	12,000
	No. 2 Fuel Oil	16	20	18,000
	Lt. Distillate	16	20	18,000
4	Lube Oils	10	14	5,000
5	Slack Wax	10	10	2,500
6	Aromatic Extract	10	8	1,500
7	Crude Oil	16	24	20,000
	Ballast	16	24	10,000
8	Crude Oil	16	24	20,000
	Ballast	16	24	10,000
Hose	Marine Diesel Fuel	4	4	150

TUGS: The use of tugs is compulsory for arriving and departing vessels. Arrangement for the use of tugs should be made through the Agent well in advance of the vessel's arrival.

MEDICAL: Medical and dental services are available in Yabucoa. Requests for ambulance service or hospitalisation for crew members can be made through the ship's Agent.

FRESH WATER: Fresh water facilities at this port are limited to approximately 100 tons while vessel is discharging or loading.

FUEL: Bunker C and Marine Diesel fuel oils are available at Puerto Yabucoa. Arrangements for bunkering should be made with a Puerto Rico Sun Oil Company Marketing Representative prior to the vessel's arrival in Yabucoa.

CONSULS: No consular representatives are located in Yabucoa. Many nations maintain consular representatives in San Juan. Specific information can be obtained from the ship's Agent.

REPAIRS: Limited repair facilities are available in San Juan. Requests for such services should be made through the Agent at least 48 hours before the vessel's arrival.

SURVEYORS: Classification Society Surveyors are available from Ponce or San Juan. Requests for these services should be made through the vessel's Agent at least 48 hours prior to arrival.

Cargo Inspection Services are available for quantity and for quality inspections of incoming and outgoing cargoes. The ship's Agent can arrange for such services, if requested. This service must be requested at least 48 hours prior to the vessel's arrival.

SHORE LEAVE: When the vessel is berthed at Puerto Yabucoa there normally are no restrictions on shore liberty. In order to avoid delays in sailing, Masters are requested to ensure that all crew members are onboard their vessel at sailing time. There are no facilities to provide shore liberty from vessels at anchorage awaiting berth.

Crew members from foreign vessels must carry their crewman's landing permit, Form I-95A, when on shore liberty.

GENERAL:

Consignment: All vessels calling at Puerto Yabucoa Harbour Tanker Terminal should be consigned to Puerto Rico Sun Oil Company, or to Hemisphere Oil Company, and all official documents for such vessels should show them so consigned. In conformance with Port Regulations no vessel will be allowed to tie up alongside a pier without having first obtained a berthing permit from the Ports Authority Captain of the Port.

Charts: The general Puerto Yabucoa Bay area is shown on USC & GS Chart No. 25661.

Ensigns: By international customs and usage, the American Flag is required to be flown at the masthead of all vessels from the time of entering the channel in-bound until clearing of the channel out-bound.

Sea Conditions: The wave action in the vicinity of the channel entrance is generally from the East or Southeast. Wave heights are less than 6 ft. 90% of the time, however, during tropical storms or hurricanes, wave heights can get substantially higher.

Weather: Easterly and Northeasterly winds are predominant over this region of Puerto Rico. January through March is the windiest season. September through November is the calmest season. The principal season for hurricane activity is during late Summer and early Fall.

Sanitary Facilities: Pollution laws and regulations prohibit vessels from discharging overboard sanitary and galley wastes into the harbour. Pollution laws and regulations also prohibit vessels from discharging galley wastes and garbage ashore.

Puerto Rican Laws: All vessels calling at Puerto Yabucoa shall comply with all applicable Laws and Regulations of the United States and of the Commonwealth of Puerto Rico.

Firearms and Ammunition: All firearms and ammunition must be shown on the Stores List and may not be removed from the vessel during its stay in Puerto Rico waters. Any violations of this regulation will result in fines and confiscation of firearms and ammunition.

Store and Supplies: Limited ship chandler service is available in Puerto Yabucoa. Stores and supplies can be ordered through the ship's Agent for delivery to the vessel, but such orders must be made at least 48 hours prior to the vessel's arrival.

Crew Transportation: Public transportation (Publico) for crew members from the Dock into town is available. The "publico" fare is to be paid by the crew member. Transportation to and from the airport can be arranged through the ship's Agent.

There are no water transportation facilities available at Puerto Yabucoa for vessels at anchor.

Mail: Official and personal mail may be addressed to the vessel in care of the Agent, and will be delivered to the vessel by the Agent on arrival. The Agent will accept official and personal mail from the vessel and will ensure its delivery to the local U.S. Post Office. Express mail and air freight services are also available.

Vacating of Berth: Vessels will be required to vacate berths promptly upon completion of loading or discharging cargo. Permission to use a berth when not loading or discharging cargo may be granted under special circumstances, and must be requested through the Agent.

Vessels discharging cargo will be allowed time for ballasting if required.

If a vessel fails to vacate the berth on the expiration of allowed time, it will be held liable for payment of any demurrage and/or damages incurred by Puerto Rico Sun Oil Company as a result of delays to other vessels awaiting berths, or for any other consequence of its failure to promptly vacate the berth.

SHIPMASTER'S REPORT: August 1986.

Position: Lat. 18° 03' 18" N., Long. 65° 50' 08" W.

Pilotage: Compulsory for non Sun Oil vessels. Pilot boards 1.0 to 1.5 miles off the Sea Buoy.

Restrictions: Berthing and unberthing possible day and night.

Anchorage: 2.5 miles East of Sea Buoy in depths of 10-25 fathoms.

Approach to Berth: No difficulties.

Immobilisation of Engines: Allowed with permission of Sun Oil.

Berth: North side of Yabucoa Bay. Wharf well fendered with berthing dolphins. Maximum length of vessel is 870 ft. and the max. draft alongside the berth and in the channel is 44 ft.

Tugs: 2×3,800 h.p.

Density: 1025.

Brief Description of Shore Line System: Position of connections-midships. Maximum loading rate 12,500 bbls.p.h. per pump. 2 pumps available for each line.

There are 8 loading arms, sizes from 10 in. to 16 in.
2 for crude oil.
1 for aromatic.
1 for slack wax.
1 for lube oil.
1 for naphtha.
1 for gas oil and ballast.
1 for bunker and ballast.

Bunkers and Lubricants: Available.

Fresh Water: Available.

Stores and Laundry Facilities: Available. Handled by San Juan companies.

Tank Cleaning and Dirty Ballast Facilities: Possible. Maximum capacity for dirty ballast 100,000 bbls. Sun Oil does not accept any leaded washings or dirty ballast from tanks which previously contained leaded cargo.

Points of Interest: Minimum ballast arrival draft:
Forward 14 ft.
Aft 24 ft.

No gangway from shore available.

SHIPMASTER'S REPORT: January 1988.

Documents: see "San Juan". Requirements similar to U.S. Ports.

Immigration: As for San Juan. Immigration Officer and Agriculture Inspector from Fajardo board on arrival for formalities.

Pilotage: Available on a 24 hour basis when required. Pilot boards from tug about 2 miles E.S.E. of buoyed channel entrance. After initial contact on Channel 16, pilot and tugs use Channel 73 for all berthing operations.

Anchorages: There are no safe anchorages for large vessels in the vicinity of Yabucoa. The designated waiting anchorage is off the island of Vieques, some 20 miles to the East of Yabucoa, where there is safe anchorage on the coastal bank. We anchored 1.5 miles South of Punta de Tierra, in approximate position Lat. 18° 04' N., Long. 65° 28' W. in a depth of about 24 fathoms. The vessel remained there in winds of up to Force 7, for 3 days without any problems. Some fishing buoys may be encountered within this area. BA. Charts are of insufficient scale, and it is recommended that Masters obtain the relevant U.S. charts for the area.

Max. Size: Our vessel is 97,000 d.w.t. and 253 m. long, and was berthed without undue difficulty, although space is very tight. The vessel immediately preceding us had been of 117,000 d.w.t., but with a part cargo. Oil Company states up to 45 ft. acceptable, but pilots not prepared to go above 43 ft. Our vessel was 41 ft. draft and had no difficulties, although only a little under-keel clearance.

Communications: Puerto Rico Sun Oil Co. has VHF in office, and usually listens on Channel 16 during office hours (Monday to Friday, 0800-1700). They are not easy to contact at lunchtime, and there is no watch kept during weekends or 'fiestas'. The radio is in the Marine Department Office near the jetty. They also have telex, (206) 345-3014. The Marine Department also provides Agent services if nominated. They were used by us on this occasion. Also see "Pilotage".

Tugs: According to the Pilot, two tugs are usually stationed here, and used for most vessels up to about 100,000 tons displacement. Over that size, at the pilot's discretion, a third tug is brought from a nearby port for berthing (we used 3 tugs). One tug is usually sufficient for sailing.

Berthing: Only one large vessel can berth at a time as there is only one jetty.

Vessels usually berth port side alongside. There are no mooring boats to handle lines, ropes are sent via messenger when vessel very near to the jetty. There is no shore gangway, means of access has to be provided by the vessel.

Medical: Doctors and small hospital available locally for ordinary illnesses. Anything serious is attended to in San Juan (which is 2 hours by road). It was not possible to get Cholera vaccinations updated, although if urgent these could be done in San Juan, but this would be very expensive due to distance.

Repatriation: No difficulties encountered. At time of our visit there was one direct flight weekly to and from U.K., and numerous daily flights from Europe and U.S.A. The airport is 2 hours by road from Yabucoa. Crew members being repatriated leave the vessel 4.5 hours before flight departure time in order to complete outward Immigration formalities before going to airport.

Shore Leave: Allowed – Form I–95 required.

Provisions: Obtainable from various Chandlers in San Juan, a delivery charge is made. As jetty very cluttered, it is necessary to carry all stores by hand up the gangway, therefore berth is not very suitable for major storing of large objects.

General: The port is privately maintained by Puerto Rico Sun Oil Co. Crude oil is the main import and various refined products are exported. There is also a barge jetty, and a facility for barges to load graphite from a Union Carbide plant.

AUTHORITY: Puerto Rico Ports Authority. See "San Juan".

Captain of the Port, Yabucoa. Tel: 893-2408.

Operator: Puerto Rico Sun Oil Co., P.O.Box 186, Yabucoa, P.R. 00767. *Tel:* 809-893-2073. *FAX:* 809-893-3895. *Contact:* John M. Shea, Refinery Manager.

Qatar

AL SHAHEEN TERMINAL: 26.35 N. 52.00 E.

(See Plan)

LOCATION: The Al Shaheen Terminal is located in Qatari National Waters, approximately 145 km. N.N.E. of the capital city of Doha, the centre is in position Lat. 26° 35' N., Long. 52° 00' E. The depth of water is approximately 62 m.

Facilities: Facilities consist of a STAR platform holding the wells, a jack-up platform equipped with a Production System and accommodation. 2 Single Point Mooring buoys are connected to the Production Platform by submarine pipelines.

A Floating Storage and Offloading (FSO) vessel is moored to SPM No. 2.

The Single Point Mooring Buoy No. 2 is anchored to 6 piles by 4 in. chains with a tested holding power of 300 tonnes. The mooring system consists of 2 braided nylon grommets with a minimum breaking load or 500 tonnes.

The FSO has a storage capacity of approximately 2.7 million barrels. The vessel is equipped for crude oil transfer to the receiving tanker in a tandem or side by side (STS) mode.

Crude oil is transferred from the production facility via the SPM to the FSO, utilising floating hoses from SPM to a bow-end flange on the port side of the FSO. The flange is equipped with a quick release coupling, and in addition the hoses with a breakaway coupling.

Facilities Positions:

STAR Platform AS-AA:	Lat. 26° 35' 36.07" N.,	Long. 52° 00' 00.98" E.
DMS Venture (Jack-up rig):	Lat. 26° 35' 26.70" N.,	Long. 51° 59' 59.14" E.
SPM 1:	Lat. 26° 35' 06.57" N.,	Long. 51° 59' 24.05" E.
SPM 2:	Lat. 26° 34' 36.08" N.,	Long. 52° 00' 07.04" E.

Area Description: The Al Shaheen Terminal is located close to major shipping lanes, as well as the Qatar Gas North Fields "A" (QGPC) and "B" (Qatargas) complex. Consequently, traffic conditions in the area can be busy.

Navigation Lights: Navigation lights, displaying the Morse character "U" (two short and one prolonged flash) every 15 seconds, are shown from the production installation and the SPMs. In addition, there is a fog signal on the production installation and the FSO. The FSO displays normal anchor lights whilst moored to the SPM.

DOCUMENTS:

Arrival:

Maritime Declaration of Health.
2 copies Crew List.
Last Port Clearance.
Cargo Manifest.
Crew Declaration.
Stores List.
MENAS Certificate.
Tovalop Certificate.
Arrival Form.
Notice of Readiness.
Dry Certificate (Last Port Ullage Report).

In addition, the following local forms will be presented to the Master for signature:

Request for Pilotage Form.
Receipt of Al Shaheen Terminal, General Information Booklet.

Departure:

Receipt of Samples.
Vessel Ullage Report.
Certificate of Origin and Authenticity.
Certificate of Quality & Quantity.
Cargo Manifest.
Bill of Lading.
Receipt for Cargo Documents.
Port Performance Sheet.
Port Clearance Certificate.
Cover letter for Discharge Certificate, with Certificate.
Customs Export Bill.
Port Time Sheet.
Disbursement Memo.

Bill of Lading Procedure: The Bill of Lading cargo figures will be entered by the Export Supervisor, who will then present the Bill for the Master's signature.

Customs and Immigration: A representative from the Qatar Authorities, present at the Al Shaheen Terminal onboard the FSO will clear vessels inwards and outwards.

PILOTAGE: *Pilot Station/Arrival Point:* Pilot station where the Pilot/Berthing Master will join the vessel is designated as: Lat. 26° 33' 00" N., Long. 52° 04' 00" E.

The pilot station is the Al Shaheen Terminal "Arrival Point".

Responsibility: The Pilot/Mooring Master is to be considered as an advisor to the Master, who remains solely responsible for the safety of his vessel. The Pilot/Mooring Master has the responsibility to decide whether conditions are suitable for mooring operations to commence. The Pilot/Mooring Master can request the Master of the export tanker to abandon the lifting operation and leave the safety zone. The Master will comply with this request promptly and without delay. The Pilot/Mooring Master will remain on board throughout the vessel's stay.

The decision to initiate, carry on with or abort the mooring operation, or to suspend the transer for safety reasons, remains with the Master.

Suitability (Vessel Vetting): By prior arrangement, the vessel will be suitable to load at the Terminal. Should, for any reason, the vessel be unsuitable or unsatisfactory following inspection by the Pilot/Mooring Master, then Maersk Oil Qatar AS reserve the right to reject the vessel, either totally or until such time as any defects are remedied.

Boarding: Once VHF communications have been clearly established, the arriving vessel will be advised whether the vessel is to anchor or berth on arrival, and the Pilot/Mooring Master, including assistant(s), surveyor(s) and relevant personnel, boarding time. Weather and current to allow for safe berthing.

Boarding Ladder: The Pilot/Mooring Master will board on export tanker's starboard side via the tug in a position approximately 5 miles E.S.E. of the FSO, normally using a pilot ladder and gangway combination, such that the climb on the pilot ladder is not more than 8 m.

The pilot ladder must be constructed and rigged to international standards with two manropes, well clear of obstructions and overboard discharges. A responsible Officer must be in attendance when personnel are embarking or disembarking.

Pilot Card: The Master shall prepare a "Pilot Card", showing the vessel's manoeuvring characteristics and any deficiencies or peculiarities, and hand this over prior to the mooring operation's briefing.

Signals: The correct international navigation signals must be displayed prior to and after the boarding of the Pilot/Mooring Master. Correct signals shall be used during the entire stay at Al Shaheen Terminal.

Pilot/Berthing Services Form: The Master shall sign the Pilot/Berthing Services Form prior to commencement of the mooring operation.

Notice of Readiness (NOR): NOR will be accepted by Maersk Oil Qatar – Al Shaheen Terminal only after completion of the Pilot/Berthing Master's inspection of the vessel's suitability and the satisfactory result of the inspection.

Weather/Current: The weather and current to be monitored and found acceptable by both Master of the vessel and the Pilot/Berthing Master prior to approaches.

The weather (wind/sea status/swell) and/or current are to be monitored continuously during the entire lifting. If any of said parameters endanger the operation, taking into account all installations and their positions within the area, use of utility vessels, etc., the operation is to be postponed until weather and/or current allow for safe working conditions.

Departure: Once operational paperwork and unmooring has been completed, the receiving tanker will be released from the Al Shaheen Terminal. It is recommended that the tanker clears the Al Shaheen Terminal in an Easterly to South Easterly direction at slow speed, before shaping course for the next destination.

ANCHORAGE: An anchorage area to the S.E. of the Al Shaheen Terminal is recommended for all vessels. The depth of water is 62 m., and the holding ground is good. The designated anchorage is a circular area of 1 nautical mile radius centred at Lat. 26° 33' 00" N., Long. 52° 04' 00" E.

RESTRICTIONS: Berthing and unberthing throughout 24 hours, weather permitting.

MAX. SIZE: 370,000 d.w.t.

RADIO/VHF: *Initial Messages:* Communication with the Al Shaheen Terminal can be initiated through Coast Radio Stations by telex, telegram or radiotelephone, or via Inmarsat. For details of telex, telephone and Satcom numbers, as well as available frequencies, see below. The first ETA advice, 7 days in advance, shall be by telex to Maersk Oil Qatar, Doha Office and copied to the FSO.

FSO/Al Shaheen Terminal Direct Communications: Once within VHF range, communications shall be established, firstly on Channel 16, then Channel 12 for the FSO, and Channel 69 for the Pilot/Mooring Master. The Mooring Master will advise any additional channels to monitor during operations, as well as berthing time or anchoring instructions.

Advance Notice of Arrival: ETA must be passed 7 days, 72 hours, 48 hours and 24 hours in advance. Vessels coming from another loading port in the Gulf should ask Agent to pass the ETA by fax or telex, if the vessel's Satcom system is not in use.

Approximately 14 days before but not later than upon receipt of advance notice of ETA (7 days) is received, a standard message will be sent in return, containing details of cargo and the expected quantity, ballast information, berthing prospects and the type of transfer planned. If there are any queries about this message, or the vessel cannot comply with any requirements, then the Master should contact Maersk Oil Qatar AS by telex or fax immediately.

Standard Arrival Message: See below.

Maersk Oil Qatar (MOQ): COMMUNICATIONS:
Between MOQ and Field:
Fax and R/T
1. Fax messages via microwave link.
2. R/T with Maersk Oil Qatar Doha Office on:
Tx 4125 kHz
Rx 4125 kHz

Note: Only manned during office hours (Saturday – Wednesday 0700-1530 hrs.).

Inter Field and between Working Parties:
VHF Channels: 12 and 69 (Production facilities, FSO and tug).
Between Terminal and Export Tanker:
Before Arrival:
By telex via Satcom system (Indian Ocean satellite) for standard message and initial ETA messages. Initial message to Maersk Oil Doha Office and copy to FSO.

Maersk Oil Doha: Telex: (+497) 4272 MSKQTR DH
Fax: +974 493444
Telephone: +974 493493

FSO "Guardian" - Call sign LAHM2: Inmarsat "A" telephone: 1310 764
Inmarsat "A" facsimile: 1311 565
Inmarsat "C" telex: 0583 425 788 210

Within range by VHF, initially on Channel 16, then Channel 69.

During Operations:

Maersk Export Supervisor	Channel 69
Berthing Master/Pilot	Channel 69
FSO Control Room	Channel 69
FSO Deck Crew	Channel 69
Stand-by Vessel/Tug	Channel 69

STANDARD ARRIVAL MESSAGE

Date: . . . .
Lifting No: . . . .

From: Maersk Oil Qatar AS, Export Supervisor
To: Master of . . . .
Call Sign: . . . .
Inmarsat C Telex: . . . .
Inmarsat A Fax: . . . .
Text:

We confirm your vessel nominated to load approximately . . .U.S. barrels +/−5% Al Shaheen Crude Oil at Al Shaheen Terminal for discharge . . . .

Approximate loading temperature: . . . degrees F.
Approximate API gravity: . . . at 60 degrees F.
Berthing will be to FSO Terminal via Tandem or STS Mooring.
Maximum freeboard 21.5 m., trim optimum for manoeuvring. Propeller shall be submerged. Derricks rigged on port side. Pilot ladder/gangway/accommodation ladder on starboard side.
Contact Al Shaheen Terminal on VHF Channel 16 when within range.
Maersk Oil Qatar AS reserves the right to pass on all information given below to relevant entities.
Please acknowledge and advise or confirm the following within 24 hours of receipt:

AA: ETA at Al Shaheen Terminal (72/48/24 hours prior to arrival).
BB: Last port of call.
CC: Confirmation of ability to load nominated volume.
DD: Arrival and sailing draft.
EE: Maximum loading rate each manifold.
FF: Quantity and origin(s) of ballast water on board (if any).
GG: Quantity and origin(s) of ballast water to be discharged (if any).
HH: Quantity, origin(s) and location(s) where ballast water discharged since last port of call (if any).
II: Quantity of oil slop on board (if any).
JJ: Cargo gauging and vent system operational.
KK: Mechanical defects affecting manoeuvring.
LL: Early Departure Procedure acceptable.
MM: Party responsible for appointing Agent.
NN: Additional requirements.

MOQ Telex: 4272 MSKQTR DH
Regards.

Doha Radio: Call sign A7D.
Transmitter site: Lat. 25° 42′ N., Long. 51° 35′ E.
Receiver site: Lat. 25° 21′ N., Long. 51° 32′ E.

The station keeps continuous watch on 500 kHz, 2182 kHz and VHF Channel 16.

Telephone Services:
1. MF
2. HF
3. VHF

Telegraph Services:
1. MF
2. HF
3. SLT

Telex Services:
1. HF
2. MF (on request)
3. VHF (on request)

Inmarsat:
1. Shore – Ships
2. Ships – Ships via A7D/Inmarsat

GENERAL INFORMATION:

Maritime Telecommunications:

Station Name: Radio Maritime Coast Station (Doha Radio).
Station Call Sign: A7D, working daily 24 hours.
Area Coverages: VHF – Territorial Waters.
MF – The Gulf.
HF – Red Sea, Mediterranean, Europe, Atlantic Ocean, Africa Coasts, Far East, North Australia and North-West Pacific.
Services: RTG, RTF-2, RTX-1, METEO, OBS, AVUR, SLT (Radiotelegraphy, Radiotelephony, Radiotelex, TX. Weather Reports, Accepts Radiotelegrams on Weather Observations, TX. Urgent Warnings to Navigators, Radiomaritime Letters).
Emission: A1A, A2A, H2B, F1B, H3E, J3E, F3E.
Frequency Bands: Medium, High and Very High Frequency.
Local Time: GMT plus 3 hours.
Station Capability: Receiving – 9 Operating Consoles.
Transmitting – HF Maximum Power 5 kW.
– MF Maximum Power 2 kW and 1 kW.
Station Telephone No.: 864444 Local, Country Code (+974) International.
Station Telex No.: 5061, 5062 DOHRAD Local, C.C. (497) International.
Owner and Accounts: Qatar Public Telecommunications Corporation (Q-Tel), P.O.Box 217, Doha, Qatar.

RADIO TELEPHONY:

Frequency Bands: MF, HF, VHF.
Calls through the Coast Station are accepted for Qatar and for on passing to the rest of the world via one of the 3 Satellite Earth Stations operating in Qatar besides the other Advanced Retransmission Networks.

1. MF (Medium Frequency):

Calling and Distress: 2182 kHz (24 Hours Watch Keeping).
Working Frequency: 2768 kHz (Normal – 24 Hours).
Traffic Lists: 0433, 0833, 1233, 1633 (UTC).
Weather Forecasts: 0503, 1003, 1233, 1633 (UTC).
Navigation Warnings: On receipt, at end of next silence period and at 0433, 0833, 1233, 1633 (UTC).

Other Working Frequencies: 2601, 3673 kHz.

2. HF (High Frequency):

Band MHz	*Ship Station Ch/Freq/Mode*	*DOHRAD A7D (kHz)*	*Service Time UTC*
4	CH 421 (Calling)	4419.4	
	CH 423 (Working)	4425.6	24 hrs.
	CH 409 (Available)	4382.2	
8	CH 821 (Calling)	8780.9	
	CH 804 (Working)	8728.2	24 hrs.
	CH 826 (Available)	8796.4	
12	CH 1221 (Callling)	13162.8	
	CH 1229 (Working)	13187.6	24 hrs.
	CH 1201 (Available)	13100.8	
16	CH 1621 (Calling)	17294.9	24 hrs.
	CH 1626 (Working)	17310.4	
22	CH 2235 (Working)	22701.4	On Request

Traffic Lists: Transmitted on 8728.2 kHz at 0000 and every 4 hours.

RADIO TELEGRAPHY:

Frequency Bands: MF (Medium) and HF (High Frequency).

1. MF (Medium Frequency):

Calling and Distress: 500 kHz (24 Hours Watch Keeping).
Working Frequency: 484 kHz (Normal – 24 Hours).
Traffic Lists: H + 40 Every Even Hour.
Weather Forecasts: 0500, 1000 and 1600 (UTC).
Navigation Warning: On receipt, at end of next silence period and at 0418, 0818, 1218, 1618 (UTC).

Other Working Frequencies: 430, 444, 472, 514 kHz.

2. HF (High Frequency):

Band MHz	*Ship Station Ch/Freq/Mode*	*DOHRAD A7D (kHz)*	*Service Time UTC*
4	CH 5 and 6	4231	
	CH 15 and 16	4316	1500-0500
8	CH 5 and 6	8473.5	
	CH 15 and 16	8630	24 hrs.
12	CH 5 and 6	12966.8	0500-0800
	CH 15 and 16	13024	1100-1500
16	CH 5 and 6	16880	
	CH 15 and 16	16935	0800-1100

Traffic Lists: Transmitted on (4316, 8630, 13024, 16935 kHz) at H+00 Regularly at service time.
SLT Services: (Radio Maritime Letter) are accepted from ships for delivery in Qatar and for remail by Air to all other countries in the world.

RADIO TELEX:

Selective Calls: Ships could dial 4690 for auto reception.
Station Telex No.: 5061 and 5062.
Connections: Ships can be connected to telex subscribers in most countries of the world.

Frequency Bands:

Frequency Band	*Ship CH/Freq.(kHz)*	*DOHRAD Freq.(kHz)*	*Service Time (UTC)*
4 MHz	4176.5	4356	1700-0200
8 MHz	8348.5	8709.5	0200-0800 1100-1700
12 MHz	12503	13083	0800-1100
16 MHz	16670	17207	On Request
MF	3673	–	On Request
VHF	CH 88	–	On Request

Other Routes: A Telex also may be booked via any of the radiotelephone or radiotelegraph services.

TUGS: The Maersk Oil work boat is a 3,600 b.h.p. tug, equipped with towing hook, anchor handling winch and firefighting equipment.

BERTHING:

FSO "Guardian" Particulars:

Length Overall: 362.59 m.
Length between Perpendiculars: 350.00 m.
Extreme Breadth: 60.04 m.
Extreme Depth: 28.32 m.
Height of Highest Point above Keel: 64.30 m.
Distance from Bow to Bridge: 308.92 m.
Distance from Bow to Manifold: 178.12 m.
Parallel Body Length at Lightship: 194.00 m.
Parallel Body Length at Summer Draft: 210.00 m.
Distance from Centre of Manifold to forward end of Parallel Body: 119.20 m.
Distance from Centre of Manifold to aft end of Parallel Body: 80.60 m.
Cargo Manifold sizes – STS Transfers: 4×16 in. ANSI
Call Sign: LAHM2
Inmarsat "A" Telephone No.: 1310 764
Inmarsat "A" Fax No.: 1311 565
Inmarsat "C" No.: 425 788 210
Maritex No.: 29364

Tank Capacities (98%) in cu.m.:

	Cargo	*Ballast*		*Cargo*	*Ballast*
Fore Peak		10,849	6P	13,888	
1P	12,573		6C	14,725	
1C	18,394		6S	13,888	
1S	12,574		7P	13,888	
2P	13,646		7C	29,459	
2C	29,459		7S	13,888	
2S	13,646		8P	13,882	
3P	13,884		8C	8,367	
3C	14,725		8S	13,882	
3S	13,884		9P	13,737	
4P	13,888		9C	5,698	
4C	14,725		9S	13,737	
4S	13,888		10P	12,869	
5P		14,171	10S	12,869	
5C	29,459		11P	11,941	
5S		14,171	11S	11,941	
			Aft Peak		1,274

Mooring/Unmooring: *System Description:* The primary method of mooring will be for the receiving tanker to secure to the stern of the FSO. On occasions, it may be necessary to use a side-by-side transfer. Such operation will follow industry standard procedure (OCIMF "Ship-to-Ship Transfer Guide").

The receiving tanker mooring system consists of one braided nylon grommet with a minimum breaking load of 250 tonnes, connected to the stern of the FSO in a quick release system. Connection at the receiving tanker, which must have tongued or hinged bar chain stoppers for 76 mm. (3 in.) chain.

The export connection between the FSO and the receiving tanker is via a 20 in. floating hose streamed from the stern of the FSO, which terminates in 1×16 in. tail. The receiving tanker ends are fitted with a butterfly valve and a Camlock quick connecting coupling and a breakaway coupling.

Preparations: The mooring system is designed to comply with the OCIMF Standards, and only tankers that are fully equipped to this standard will be allowed to berth in tandem at the Al Shaheen Terminal.

Additional mooring and hose connecting equipment will be brought to the receiving tanker by the Pilot/Mooring Master. Ship's crew will lift this equipment on board using the manifold derrick or crane.

Vessel's anchors must be stowed and secured in the hawse pipe, prior to final approach.

The Pilot/Mooring Master will brief the Master and ship's Officers on the mooring operation to be carried out. Emergency signals in the event of radio failure will be agreed upon at this time and contingency planning discussed.

Sufficient crew must be available for both mooring and hose handling. Rope messengers and heaving lines shall be made ready.

Maximum Freeboard, Trim, Deadweight and Draft: The vessel shall be upright and at an optimum trim for manoeuvring. The propeller shall be submerged. The maximum freeboard permissible at Al Shaheen Terminal is 21.5 m. As such, there is no limitation on draft as water depth is 62 m. However, if vessel should exceed 370,000 d.w.t., additional vetting may be done to ensure safe operation.

Engine Test: Before making the final approach to the FSO, the ability of the receiving tanker's engines to manoeuvre astern must be verified by the Pilot/Mooring Master.

Mooring: The approach to the FSO will be made at slow speed as nearly as possible on a constant heading from a distance of one mile inwards. Good communications between bridge and forecastle are essential. The Pilot/Mooring Master will advise on current strength and direction to be expected.

On approaching the FSO rope, messengers will be passed to the Standby Tug, who will connect the messenger line to the pick-up line. This pick-up line is connected to the chafe chain.

The pick-up line is heaved on board and connected to the tanker's delegated drum. The messenger line(s) and the pick-up line are then heaved up until the chafe chain is in position in the stopper. The chain is then secured in the stopper.

The messenger line is 1.5 in. × 80 m. and the pick-up line 3 in. × 150 m.

Stand-By Tug: The stand-by tug is equipped with towing hook, anchor handling winch, and firefighting equipment.

Immobilisation: Immobilisation of machinery, such as main engines, steering gear, deck machinery, power sources or any essential equipment, is not permitted whilst the vessel is moored at Al Shaheen Terminal or during ship-to-ship transfer.

In the event of a blackout, other than momentary loss of power, then the transfer of crude oil shall be stopped, and the Pilot/Mooring Master informed immediately. If the blackout condition persists, then consideration will have to be given to moving the vessel off.

Safe Distance: Once tandem mooring operations have been completed, a close watch must be kept to see that both tankers maintain their safe distance apart. Any apparent closing of the distance must be advised to the Mooring Master immediately. A watchman shall be permanently on the forecastle whilst the vessel is in tandem mooring.

The stand-by tug may be used to hold the tankers in position. The tug will be secured using tanker's lines, or soft line tail onto a towing wire.

Unmooring: Unmooring will be carried out once the hoses have been pulled clear and secured by the standby tug.

The pick-up rope and the messenger line shall be lowered to the surface where it will be pulled clear by the tug. Once the line has been let go and is clear, the vessel can be manoeuvred clear of the FSO.

Once clear, the vessel will either proceed to anchor or hold position in the anchor area for completion of departure formalities, or if those formalities are complete, she will disembark the Pilot/Mooring Master at an agreed position, and take departure.

LOADING: Hose Handling:

General: Tanker manifolds must comply with OCIMF Standards for oil tanker manifolds and associated equipment.

Hoses will be connected, normally on the port side, by the ship's crew. The Pilot/Mooring Master and/or his assistant will give guidance as required.

Connection: The tanker rail hose 16 in. reducers must be fitted before mooring operations commence.

Derricks/Cranes: The minimum required capacity of hose handling derricks or cranes is 15 tonnes. Once connected, the weight of the hose will be taken by hanging a webbing strop from the derrick running wire or crane to the hose. The hose will be prepared for quick release.

Disconnection: When the hoses are disconnected, any spillage shall be collected in the drip pans, and the hose shall be blanked. The pick-up buoys and lines shall be resecured and the hoses lowered to the water.

Loading: *Loading Plan:* The Standard message will indicate the quantity to be loaded.

The Master of the export tanker shall prepare a loading plan for the intended cargo. This will show the estimated final tank figures as well as the loading rotation with expected trim and draft calculations. Any proposed ballasting operations shall be indicated with this plan. Handling of segregated ballast only.

Rates: The export tanker will be informed of the expected loading rates and the minimum rates that can be used for topping-off, as well as the notice required for reductions and stopping. The FSO is capable of discharging approximately 50,000 bbl./hr. through 1×20 in. line and 1×16 in. hose.

Emergency Shut Down: The emergency shut-down procedure shall be clearly established and made known to the relevant personnel.

Inert Gas: The inert gas system must be operational throughout the operation, and tanks shall be inerted according to normal tanker practice.

Check Lists: The Ship/Shore or Ship-to-Ship Check List(s) will be completed prior to the transfer.

Hose Handling Equipment: Hose strings must be properly suspended throughout the transfer.

Drip Trays, etc.: Drip trays must be positoned under flanges where appropriate, plugs fitted to permanent catchment trays, if necessary. All drip trays must be clean and dry at the commencement of the transfer.

Transfer – General: The transfer will begin at a slow rate to enable the receiving system to verify that all systems are lined up properly. The hoses and connections will be checked for leaks and the rate will be increased, in steps as mutually agreed, until the full flow rate is achieved. The agreed loading plan will then be followed. If it becomes necessary to divert from the plan, then the Pilot/Mooring Master must be informed.

Hose Monitoring: Throughout the transfer, hoses and connections must be monitored to ensure there are no leaks or chafing damage. All leakages or spillages must be reported to the officer-in-charge immediately. The emergency shut-down procedure must be initiated if the leakage is severe.

Venting: Where venting arrangements are open to atmosphere, this is restricted to the use of masts and/or risers only.

Stability and Stress Calculations: Calculations to ensure that the vessel is always in a stable condition, and that bending moments and sheer forces are within acceptable limits, shall be made prior to, during and upon completion of loading.

List and Trim: Where possible, listing and excessive trim should be avoided throughout the transfer. Completion must result in the export tanker being upright and, as nearly as possible, even-keel.

Topping-Off: The export tanker will advise when "topping-off" and give sufficient notice for reduction of the loading rate. Tanks that are completed shall have the master valve closed to provide two valve separation from tanks being loaded. Ullages must be periodically checked to ensure there is no leakage which could lead to an overflow.

The number of valves to be closed during "topping-off" must be reduced to a minimum.

The export tanker must never close all its valves against the flow of oil.

Completion: Sufficient ullage in the final tank(s) must be left to enable the pumps to be stopped in a controlled manner, and for line contents to be drained into those tanks if necessary.

Once the system is confirmed as closed, the Mooring Master and the Independent Surveyor will witness ullaging and sampling and the cargo calculations.

After completion of loading and ullaging, a responsible Officer will ensure that all cargo system valves are closed, all appropriate tank openings are closed and pressure/relief valves are set correctly.

Ballast Handling: Any ballast discharged overboard must be clean, and only segregated ballast. There are no reception facilities for dirty ballast.

Concurrent Operations: Ballasting operations during the transfer will be carried out to avoid excessive trim or freeboard changes. However, unless adequate separation of cargo and ballast lines exists, a minimum of two valve isolation is required. Ballasting or deballasting shall not be carried out while cargo is being transferred.

Ballast Plan: Ballasting/deballasting operations must be carried out according to the loading plan. The independent Surveyor and Pilot/Mooring Master must be made aware of the plan.

Completion of Ballasting: Upon completion of ballast operations, lines and pumps must be drained of water and all sea valves tightly shut, checked and sealed. Pilot/Mooring Master is to be advised of the quantity and origin.

Cargo Quantities: *Ullaging:* On commencement and completion of loading, the export tanker must ullage all tanks in the presence of the independent Surveyor(s), who will previously have checked the "shore" figure onboard the FSO. The Master of the export tanker must then prepare the Al Shaheen Ullage Report in conjunction with the Surveyor(s).

Cargo Samples: Representative sample(s) of the exported crude, witnessed and sealed by the independent Surveyor(s) will be handed to the FSO and export tanker. These sample(s) will be clearly marked and labelled.

Previously Loaded Cargo: Ullages of previously loaded cargo must be recorded before and after loading at Al Shaheen Terminal to ensure no contamination.

MEDICAL: There are limited medical facilities at Al Shaheen Terminal.

In emergencies, arrangements can be made for a doctor to be flown out from, or for a patient to be flown to, Doha. All costs involved will be charged to the vessel concerned.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: The following countries maintain Embassies in Qatar:

	Tel:	Fax:
Algeria	662900	663658
Bangladesh	671927	671190
Bosnia	670194	670595
China	824200	873959
Cuba	672072	672074
Egypt	832555	832196
France	832283	832254
Germany	876959	876949
India	672025	670448
Iran	835300	831665
Iraq	672237	673347
Italy	436842	446466
Japan	831224	832178
Jordan	832202	832173
Korea (Rep. of)	832238	833264
Kuwait	832111	832042
Lebanon	444468	324817
Mauritania	670458	836015
Morocco	831885	833416
Oman	670744	670474
Pakistan	832525	832227
Philippines	831585	831595
Romania	444348	444346
Russia	329117	329118
Saudi Arabia	832030	832720
Somalia	832200	832182
Sudan	423007	351366
Syria	421873	442167
Tunisia	832645	832649
Turkey	835553	835206
UAE	822833	822837
U.K.	421991	438692
U.S.A.	864701	861669
Yemen	432555	429400

REPAIRS: No facilities.

REPATRIATION: At the present time it is not possible to arrange crew changes through Al Shaheen Terminal.

TIME: The local time in Qatar is Universal Co-ordinated Time (UTC) plus 3 hours. There is no daylight saving time.

SHORE LEAVE: Not permitted.

SAFETY: *Standards:* Vessels must at all times comply with safety regulations as detailed in the International Safety Guide for Oil Tankers and Terminals, Maersk Oil Qatar Marine Procedures and their Owner's Ship Management procedures.

Check Lists: The vessel's Safety Operation Check List must be completed prior to the commencement of loading, and particulars should be verified at intervals during the transfer. The Pilot/Mooring Master and the Master, or his appointed deputy, will carry out the checks.

Responsibility: Responsibility for safe conduct of operations on board rests with the Master. It is expected that the safety practices and requirements of the various international Agencies be complied with strictly during all operations at Al Shaheen Terminal. If any infringement of these practices is observed that cannot immediately be rectified, the Pilot/Mooring Master must be informed immediately.

Maersk Oil Qatar AS reserved the right, in the event of any continued or blatant disregard of these various safety requirements by any ship, to stop all operations and order that vessel to leave the moorings and Safety Zone for appropriate action to be taken by the Charterers or Operators concerned.

Hydrogen Sulphide: Al Shaheen Crude contains H_2S in medium to high concentrations. The Pilot/Mooring Master will advise if any particularly high concentrations have been detected. All necessary precautions must be taken to avoid exposure.

Fire Wires: Emergency towing wires must be rigged on the side opposite the loading manifold. The eyes must be maintained just above the waterline, ready for immediate pick-up by a tug or supply vessel, and at least 50 m. of slack must be allowed. Vessels fitted with emergency towing arrangements aft must have this system ready for immediate use.

Emergencies: In case of emergency on board the export tanker, the Pilot/Mooring Master must be informed immediately. He will act as the communications focal point in the initial stages and, with the Maersk Oil Production Supervisor, co-ordinate any assistance required. In the event of fire, the emergency shut-down system(s) must be activated immediately.

Anti-Pollution: All standard precautions to prevent pollution of the sea must be taken. Any incidents must be reported to the Pilot/Mooring Master, who will co-ordinate the response as appropriate.

Seepages or minor spills on deck shall be cleaned up promptly.

GENERAL: *Safety Zone and Prohibited Areas:* A safety zone extends 1,000 m. from the centre position. All vessels intending to approach the Al Shaheen Terminal should obtain permission from the Maersk Oil Production Supervisor before entering this safety zone, unless they have a Maersk representative onboard, i.e. Berthing Master.

Navigational and Meteorological Warnings: Area navigation warnings and information are broadcast by local Coast Radio Stations and via the GMDSS network.

Meteorological information is broadcast by Coast Radio Stations at scheduled times. In addition, a continuous broadcast in English and Arabic on VHF Channel 72 for Qatari coastal waters is made by Doha Radio, giving short term forecasts and general synopsis.

Flag: The Qatar national flag must be flown during daylight hours at Al Shaheen Terminal.

Alcohol Restrictions: The consumption of, or trading in, liquor or other alcoholic beverages is strictly prohibited at Al Shaheen Terminal.

Drug Policy: The use or trafficking in drugs and other harmful substances is strictly prohibited in Qatar. Any proven or suspected cases of narcotic abuse or trafficking will be reported to the Authorities.

Mail: Mail will be accepted for forwarding via the Qatar National Postal Service.

Agency: Maersk Oil Qatar will act as vessel's Agent. The representative on site will be the Export Supervisor.

Agent's address: c/o Tanker Agency Department, Maersk Oil Qatar AS, P.O. Box 22050, Doha, Qatar. Tel: 974-493493. Fax: 974–493444. Telex: 4272.

OPERATOR: Maersk Oil Qatar AS, P.O. Box 22050, Doha, Qatar. *Tel:* 974-493493. *Telex:* (497) 4272 MSKQTR DH. *FAX:* 974–493444. *Contact:* John Erenskjold, Marine Manager.

DOHA: 25.17 N. 51.32 E. (See Plan)

DOCUMENTS:

8 copies of the Unfreighted Manifest.
2 copies of the Freighted Manifest.
2 copies of the Hatch List.
2 copies of the Stowage Plan.
2 copies of the Dangerous/Hazardous Cargo List.
1 set of Bill of Lading.
1 copy of Crew List.
A list of Food Stuff.
A list of Insecticides and any Poisonous Cargo.

Agents:

1 copy of the Arrival Report (Supplied by the Agent on boarding).
1 copy of the Crew List.
1 copy of the International Declaration of Health.
1 copy of the Passenger List (if applicable).

Port Health:

1 copy of Crew List.
1 copy of Dates and Types of Inoculations.
1 copy of the International Declaration of Health.

Immigration:

4 copies of Crew List.
4 copies of Lists of Passengers Landing (if applicable).

Customs:

Bonded Store List (Bond will be sealed but issues are available).
Port Clearance Certificate should be procured before the vessel sails.

PILOTAGE: Compulsory pilotage for all vessels of 14 ft. draft or more. Naval vessels exempted. Application for a Pilot should be made to the "Doha Port Control" through VHF (Channel 16 and 14) or Tel: 434377, 24 hours prior to the arrival of the vessel at the Pilot Station (via Doha Radio or via Doha Agents).

Pilot station keeps a VHF watch 24 hours a day on Channels 16 and 14. Call sign Doha Port. Similar watch kept on R/T 2182 kHz.

Pilot boat proceeds to the vicinity of the Doha Light Vessel, position Lat. 25° 16' 08" N., Long. 51° 41' 05" E. when the Pilot is required. Pilot launches are painted white. When the vessel is underway the Pilot requires a pilot ladder complete with manropes as per SOLAS Regulations.

ANCHORAGES: Near the Doha Light Vessel and S.E. from it only. Minimum depth of water 5 fathoms.

RESTRICTIONS: Depth of water in entrance is 8.0 m. plus tide and the minimum depth of water required under the keel for manoeuvring in the channel is 3 ft.

Car carriers and livestock carriers transit from sunrise to sunset only.

MAX. SIZE: Max. length 600 ft., up to 625 ft. by special permission from Harbour Master. Max. breadth 90 ft. Max. draft 8.3 m. on high tide.

HEALTH: The International Flag signals for Pratique must be flown and remain up until the vessel is cleared by the Port Health Authorities. A Port Health Official will board the vessel in the anchorage or at the Deep Water Jetty when the vessel is alongside. There is no Automatic or Radio Pratique available.

RADIO: ETA and Agent's messages should be routed through Doha Radio. Doha Radio A7D, continuous watch on W/T 500 kHz., R/T 2182 and VHF Channel 16. Radio-telephone communications through Doha Port signal station. Calling and listening 2182 kHz. Working frequencies, 2638 kHz, 2738 kHz, 2570 kHz.

TUGS: 5 Government tugs are normally available to assist in berthing operations.

BERTHING:

Berth No.	*Length* (m.)	*Minimum Depth* (m.)
1	181	8.5
2	181	8.3
3	181	8.1
4	181	7.7
5	200	8.5
6	215	7.4
7	190	7.3
8	190	7.3
9	180	7.3

Equipment: 2×70 ton, 4×40 ton, 3×30 ton, 3×20 ton cranes, 2 straddle carriers, 2 container cranes and 122 trailers.

Transit storage areas at landward end of approach causeway with extensive paved open storage and transit sheds giving 16,722 sq.m. cover.

New transit storage area on extended main quay with extensive paved open storage, 5 transit sheds giving 30,000 sq.m. cover completed. Construction of 500 ton cold storage completed. Control tower for Doha Port is under construction.

Normally berthing and unberthing to and from the deep water jetty is with certain reservations:

(a) Draft and trim of vessel.
(b) Height of tide.
(c) Visibility from Navigation Bridge.
(d) Prevailing weather conditions.

The duty Pilot has the option to berth or unberth a vessel at his discretion after consultation with the Senior Pilot, when the above mentioned conditions are unfavourable.

STEVEDORES: ETA advice is required on the number of gangs workable. Advance notice is required for any heavy lifts (say in excess of 10 tons) and the consignee's name if possible as special arrangements have to be made for handling. Average discharge rate is 75 tons per hook per day.

MEDICAL: Unless an emergency no advance notice is required. Hospital facilities do exist and a doctor will visit on request. Current Vaccination and Cholera Certificates are required.

DENSITY: The density of the water is salt (1025) at all states of the tide.

FRESH WATER: Fresh water is available at the anchorage and when alongside the jetty and is supplied by tankers.

FUEL: Bunkers available from Qatar National Tanker and Bunker, Doha.

Actual Bunkering Locations:

Doha Port Harbour
Pilot Station Doha
Umm Said Harbour
Pilot Station Umm Said
Inner Anchorage
Outer Anchorage
Pilot Station – Halul Island

Grades Available: Gas Oil and Marine Gas Oil with 14 days' pre-notice, upon request.

Supply Method:
By tank trucks at berth and by tugs at anchorage.

Operation: 24 hours per day – 7 days per week.

CONSULS: The following countries maintain embassies in Qatar:

Bangladesh
Egypt
France
Gabon
Germany
Great Britain
India
Iran
Iraq
Japan
Jordan
Korea
Kuwait
Lebanon
Libya
Mauritania
Morocco
Oman
Pakistan
Saudi Arabia
Somalia
Sudan
Syria
Tunisia
U.S.A.
Yemen

REPAIRS/DRY DOCKS: All kinds of repairs can be carried out. Metal-locking, bottom brushing and underwater welding. Floating dock 105 m.×19 m.×6 m. Capacity 10,000 d.w.t.

GANGWAY/DECK WATCHMEN: The Public Security Department (Police) post a guard at each gangway, but it is advisable that the ship also supplies a watchman. Before landing *every* crew member must lodge his Passport or Seamen's Identity Card with the guard when alongside the jetty and at the dock Police Station when at the anchorage.

OPENING/CLOSING HATCHES: This work may be carried out by crew or stevedores, but usually by the latter.

CUSTOMS ALLOWANCES: Qatar is "dry" and no official allowance is made. The bond is sealed on the ship's arrival.

CARGO GEAR: No additional requirements apart from those required by International Law.

REPATRIATION: Crew changes can be carried out. The Agents will need to know the names, Discharge Book or Passport numbers and necessary information of dates, etc. well in advance for the Authorities. Repatriation is normally by air. Crew joining must have Seaman's Book.

AIRPORT: It is about 3 miles from the port to the airport. There are regular flights to Europe, U.K. and India by British Airways, M.E.A., Air India, P.I.A., Gulf Air, etc.

TIME: The standard time in Qatar is GMT plus 3 hours.

HOLIDAYS: The holidays in Qatar are usually religious and therefore fall on movable dates. As far as shipping is concerned there are only 2 days when work is not possible under any circumstances, Idd Al Fitr and Idd Al Adna.

POLICE/AMBULANCE/FIRE: Dial 999 and ask for service required.

TELEPHONES: Telephone available at the new jetty. No.414865.

SHORE LEAVE: Shore leave is permitted after the Immigration Authorities have cleared the ship and given permission, in writing, on the Crew List. Seamens' documents or Passports must be deposited with the police at the gangway and retrieved on returning aboard.

GARBAGE DISPOSAL: Service available through the Agents (QNNTC).

WASTE OIL DISPOSAL: Facilities not available.

SEAMAN'S CLUBS: None.

CURRENCY: Qatar Riyals.

IDENTIFICATION CARDS: Discharge Books or Passports are required to be handed to the Police before any crew member may proceed ashore. See "Shipmaster's Report".

GENERAL: Particular attention must be paid to:

(1)The Qatari flag must be flown at all times at the fore mast.

(2) Liquor is not allowed ashore and it is a serious offence to offer alcohol to a Qatari.

(3) Smoking is not permitted in any of the port areas.

DEVELOPMENTS: Construction of Container Berth and Flour Mill Berth are in progress in the harbour.

Inner and outer channel will be dredged soon after completion of same. All approaching vessels will be warned through their Agents.

SHIPMASTER'S REPORT: November 1984.

The Public Security Department warned me that the crew are not allowed to take a walk around the jetty when it is a holiday or the stevedores are not working.

Therefore, the crew must go directly outside the harbour limits or they stay on board.

The Security Department did not post a guard at the gangway but every crew member before landing must present his Passport or Seamen's Identity Book to the Immigration and they issue a shore permit that will be shown to the guard together with the Seamen's Identity Book.

The guard will keep the Seamen's Identity Book and the crew can cross to the Harbour Gate with the Shore Permit.

When the crew come back to the ship they collect their Seaman's Identity Books at the Gate but can keep the Shore Permit for the next time they go ashore.

Before the ship sails all the issued shore permits must be returned to Immigration.

AUTHORITY: Department of Ports, Ministry of Communications & Transport, P.O.Box 313, Doha, Qatar. *Tel:* PABX 457457. *Telex:* 4372 Mawani DH. *Cables:* "Mawani". *FAX:* 413563. *Contact:* The Harbour Master, Tel: 438586. Fax: 413994. G.A.Genkeer, Director of Ports. Captain Ahmed Al Mas, Head of Harbour Affairs.

AGENT: Qatar National Navigation & Transport Co. Ltd., P.O.Box – 153, Doha. Telex: 4206 Melaha Dh. Cable: "Navigation" Doha. Tel: 321175/9, 23684, 21213.

HALUL ISLAND: 25.40 N. 52.25 E.

Halul Terminal S.B.M. **(See Plan)**

LOCATION: Halul Island (Position Lat. 25° 40.3' N., Long. 52° 24.6' E.) is part of the State of Qatar. Doha, the capital, is situated on the Eastern side of the country.

Halul Island is 52 miles in a N.E'ly direction from Doha. It serves as the export terminal for Qatar Marine Crude which is produced from the offshore oilfields of Idd El-Shargi, Maydan Mahzam, and Bul Hanine. The Halul Terminal is operated by Qatar General Petroleum Corporation.

Halul Island: The island is roughly circular in shape with a radius of approximately 0.5 miles. The island is hilly, rising to an elevation of 202 ft. (61.6 m.). (Charts: U.S. Government Charts: 62400, 62397, 62402, British Admiralty Charts: 2886, 3413, 3950, 3953).

The island is fringed by a reef which in places extends about 3 cables offshore.

The island is barren, with a number of oil storage tanks, a small industrial complex and personnel living quarters. There is a harbour on the Southern side of the island which is only for use of small craft.

DOCUMENTS: Following papers are required on arrival:

Notice of Readiness.
2 Crew Lists.
2 Health Declarations.
1 Valid Tovalop Certificate.
1 Arrival Report.
1 Request for Pilotage and Berthing Assistance.
1 Latest Light Dues Certificate.
1 copy Ship and Shore Cargo Figures and Experience Factor details for previous 10 loadings.

The Berthing Officer acts as ship's Agent and on behalf of National Customs and Immigration Authorities.

PILOTAGE: A Pilot is at all times to be considered as an advisor to the Master. The latter shall remain solely responsible for the safety of his vessel. The Pilot will remain on board throughout the vessel's stay at Halul.

Boarding: When VHF contact is made with Halul Radio, the Pilot will advise the Master whether he should proceed to anchor or whether a Pilot will board the vessel on arrival.

A Pilot will board the vessel about 2 miles East of Halul Island. The vessel is expected to make (if necessary) a good lee for the pilot launch.

Ship Deficiencies: The Master should inform the Pilot of any deficiencies on his vessel and any unusual characteristics pertaining to his vessel e.g. lack of astern power, time to change from ahead to astern, etc.

Pilot Signals: The vessel must display the proper signals prior to and subsequent to the boarding of a Pilot.

Pilot Ladder: The vessel shall rig on the starboard side, a pilot ladder which must conform in construction to all recognised international standards for pilot ladders. On vessels over 50,000 d.w.t., a combination of pilot ladder and accommodation ladder shall be rigged.

In the latter case the Pilot must not be expected to climb more than 9 m. on the pilot ladder.

There must be provision for the Pilot to pass safely from the head of the ladder to the deck of the ship.

Any such pilot ladder must be rigged well clear of all overboard discharges. 2 manropes are to be fitted, one on each side of the ladder, together with a safety line if conditions warrant such. At night both the ladder and the point of access must be properly illuminated.

A responsible officer must be in attendance when shore personnel are boarding/disembarking.

Note: To prevent unauthorised persons from boarding the tanker unobserved, particularly at night, the pilot/accommodation ladder must be retrieved after the Pilot and his assistant have boarded.

NAVIGATION: A light is exhibited at an elevation of 220 ft. (67.1 m.) from a white concrete tower with a black top, 16 ft. (4.9 m.) in height, situated on the summit of Jazirat Halul. Light characteristic is Fl.W.R. 12 secs. W 19M R 9M. Sectors W 030° – 300° (270°) and R 300° – 030° (90°) over pipeline area. On the Western and Eastern arms of the small boat harbour there are floodlights illuminating the breakwaters. There are various radio masts with red lights, the highest being 365 ft. above sea level. On each of the SBM loading points there is a white light morse "U" every 20 secs.

A hose marker light, flash white every 5 seconds, is located 150 ft. from the hose ends at each SBM.

Deepwater Channel: To the East of Halul there are 2 buoys marking a deepwater channel which is the recommended departure channel for all vessels.

H-1 Green conical – Quick flash green.
H-2 Red – Quick flash red.

Prohibited Navigation: The offshore oilfields are prohibited for navigation because of the numerous production stations, drilling rigs, wellhead jackets and oil and gas pipelines.

The location of the 3 oilfields are:

1. Idd El-Shargi with centre Lat. 25° 28.9' N., Long. 52° 22.6' E., radius 2 miles.
2. Maydan Mahzam with centre Lat. 25° 36.0' N., Long. 52° 33.1' E., radius 2 miles.
3. Bul Hanine with centre Lat. 25° 25.5' N., Long. 52° 44.0' E., radius 5 miles.

Navigational Warning: Masters should be aware, when crossing any pipeline, that many pipelines are not under the seabed and that the charted water depth may be reduced by at least 2 m.

It is strongly recommended that vessels do not pass South of Halul when making passage to/from Umm Said or Doha.

Also see "Radio – Halul Terminal Standard Cable" re-subsea wellhead.

ANCHORAGES: Vessels are advised, unless restricted by draft, to anchor in an area centred on a position from Halul Island Light 082° × 2.5 miles with radius 6 cables. Water depth is 70 ft. – 80 ft. and the bottom is sand.

Prohibited Anchorage: The area covered by the red sector of the Halul Island Light is to be taken as a prohibited anchorage. This is due to the number of oil pipelines within this area.

MAX. SIZE: SBM No. 1 up to 22 m. draft. (In certain conditions of weather and tide a maximum draft of 25 m. can be accepted). SBM No. 2 up to 29 m. draft. Displacement limit of 640,000 tons (550,000 d.w.t.) for both SBMs.

HEALTH: See "Medical".

RADIO: *General:* QGPC has its own radio station in Doha call sign Alpha Seven Delta (A7D). Cable address: Qatoff Doha (attn. PDP). Telex: Qatoff 4201 DH (Attn. PDP).

A sub-station is also maintained on Halul Island (call sign "Halul Radio").

A7D maintains 24 hour watch on 500 kHz, 2182 kHz and VHF Channel 16, while Halul Radio maintains a continuous radio watch on VHF Channels 6 and 16.

Vessels bound for Halul should contact "Halul Radio" approximately 6 hours prior to arrival on VHF Channel 16 or 6, or as soon as VHF contact can be established.

Long distance communication (initial ETAs, etc.) will normally be routed via Doha Radio (A7D).

Advance Notice of Arrival: A vessel must advise:

(a) Its ETA at Halul at least 72 hours before arrival.
(b) Confirmation of any amendment to its ETA at Halul 24 hours before arrival at Halul.
(c) On arrival at Halul, the exact time of arrival at Halul.

Note: Any failure to observe the laid down sequence of ETA advice may delay the loading of the vessel.

Ships Loading at Other Gulf Ports: Masters are advised that when they commence loading at the last port before Halul they should instruct their Agent to send a corrected ETA for Halul to QGPC.

Standard Cable: On receipt of the 72 hours ETA advice QGPC will transmit via Doha Radio a standard cable containing details of cargo, quantities, etc. (See below.)

If any vessel has any queries with regards to this cable or if the vessel cannot comply with the requirements of the cable the Master should contact QGPC immediately.

Halul Terminal Standard Cable:

To Master ....

We confirm your vessel nominated to load approximately ....bbls., Qatar Marine Crude at Halul Terminal for discharge .... approximate load temperature .... degree F ..... API gravity.

Depending on availability/draft/loading rate and prevailing weather conditions, vessel will berth at either SBM-1 or SBM-2 which are located 2.3 and 3.4 miles respectively S.E. from Halul Lighthouse.

Vessel arriving in ballast or light part loaded condition should ensure draft/trim/freeboard adequate for safe manoeuvring. The minimum acceptable draft being propeller fully immersed and recommended trim not exceeding 10 ft. by the stern, consistent with a maximum acceptable freeboard forward (Panama Lead to waterline) not exceeding 70 ft. (21.3 m.) Freeboard constraint mandatory for berthing and at all times while vessel moored to the SBM. Terminal will provide 2 SBM mooring lines. Please prepare 2 empty winch spooling drums forward and have 2 good messenger ropes ready to connect to the SBM mooring pick-up ropes. The use of winch drum ends is not permitted.

Starboard side derrick/crane, minimum SWL 10 tons should be rigged ready and starboard manifold prepared with reducers to connect 2×16 in. hoses.

Ship crew are required to moor vessel and connect hoses with guidance from our operations assistant. When proceeding towards berth, both anchors must be fully secured in the hawse pipe. Pilot will board 2 miles East of Halul. Pilot ladder and/or accommodation ladder should be rigged ready on the starboard side, and a good lee made when Pilot boards and mooring equipment lifted on board.

Please contact Halul Control/Halul Radio on VHF Channel 6 soonest for final instructions and berthing prospects.

Unmarked sub-sea wellheads are located at Lat. 25° 41.6' N., Long. 52° 25.9' E. and Lat. 25° 41.1' N., Long. 52° 25.7' E., respectively 7.0 m. and 4.0 m. above sea bed. The location is unmarked and vessels should navigate with caution accordingly.

Please acknowledge receipt and advise/confirm the following:

AA Present ETA Halul.
BB Arrival and sailing draft.
CC Maximum available loading rate long tons/hour.
DD Derrick/crane SWL.
EE That all ballast clean, deballasting time and if concurrent loading possible at either full or reduced rate.
FF Type and number bow mooring chain stoppers fitted.
GG That original and valid Tovalop Certificate on board with expiry date.
HH That vessel equipped with IGS, system fully operational and cargo tanks properly inerted.
II Cargo tank gauging and closed loading vent system fully operational.
JJ Any navigation aid or machinery defects that affects the vessel's ability to navigate or manoeuvre safely.

QATOFF Doha

Doha Radio (A7D):

Department of Telecommunications,
P. O. Box 648,
Doha,
State of Qatar.
Tel: 864444/864032.
Telex: 5061/2 DH.

Doha Radio keeps continuous watch on 500 kHz, 2182 kHz and VHF Channel 16.

HF telegraphy service:

A1A FREQ	QSX
8473 kHz	H24 C 5,6,15,16
12966 kHz	04-18 UTC C 5,6,15,16
16880 kHz	04-18 UTC C 5,6,15,16

Traffic lists at 0400, 0800, 1200, 2000, 2400 hrs. UTC on 484 kHz after announcement on 500 kHz, 8473 kHz, 12966 kHz and 16880 kHz.

MF telegraphy service:
Calling 500 kHz (H24).
Working 484 kHz.

MF telephone service:
Calling 2182 kHz (H24).
Working 2768 kHz/2049 kHz.

Use A7D for quick and reliable ship to shore and air to ground radio communications.

Ship's Radio Officers take notice: When in Doha or Umm Said you are always welcome to visit us. Just give us a call on MF/HF/VHF or telephone Doha 864646 and we will pick you up.

VHF: A Company VHF station on Halul Island, call sign "Halul Radio" maintains a continuous watch on Channels 16 and 6 (Channel 6 being the working frequency). The station has a range of approximately 50 miles and incoming tankers should establish communications withthis station when within range.

Ship to shore communication during loading is by portable VHF Radio telephone with emergency shutdown system, provided by the terminal.

TUGS: Not available.

BERTHING: Approach is from the open sea, passing to the Eastwards of Halul. There are 2 single buoy moorings. No. 1 SBM in position Lat. 25° 38.7' N., Long. 52° 26.4' E. This berth will primarily accommodate vessels up to 640,000 tons displacement. No. 2 SBM in position Lat. 25° 38' 36" N., Long. 52° 27' 35" E. This berth will accommodate vessels with up to a draft of 29 m. In both berths, mooring lines from the buoys are secured on the forecastle head using equipment provided by the terminal or using ship's bow chain stoppers if fitted. A suitable messenger rope should be ready for use. No moorings are used aft. The Pilot will advise in detail the mooring procedure.

	SBM 1	*SBM 2*
Position from Halul Lt.	133°×2.3 miles	124°×3.39 miles
Loading pipeline	30 in.	48 in.
Submarine hoses	2×20 in.	2×20 in.
Floating hoses	1×20 in. with 2×16 in. tails	2×20 in. with 16 in. tails
Length of hoses	1×810 ft. with 2×180 ft. tails	1×1,020 ft. and 1×990 ft.
Manifold Connection	2×16 in.	2×16 in.
Mooring Ropes	2×15 in. braided nylon grommets	2×15 in. braided nylon grommets
Water depth	105 ft. (32 m.)	120 ft. (36.5 m.)
Max. draft	72 ft. (22 m.*)	95 ft. (29.0 m.)
Loading rates	5,500 t.p.h.	9,500 t.p.h.

*Also see "Max. Size".

MOORING: All tankers loading at Halul SBMs must comply with "OCIMF Standards of Equipment Employed in the Mooring of Ships at Single Point Moorings".

Both SBM 1 and SBM 2 are equipped with OCIMF recommended 76 mm. chafe chains suitable for vessels over 350,000 tonnes deadweight. To accommodate these, vessels should be fitted with OCIMF approved bow Panama type fairleads, measuring at least 600 mm. × 450 mm., tongue or hinged bar chain stoppers, and winch spooling drums to permit 'hands-off' mooring.

The use of winch drum ends is not permitted.

Smit type brackets are not acceptable at Halul.

Preparations: When the Pilot has boarded, the ship's crew is required to use the starboard side ship's derrick or crane over the side to lift the mooring and hose connecting equipment on board from the pilot/mooring launch. An Operations Assistant will board with the Pilot. He will give guidance to the ship's crew on mooring and also on connecting the hoses.

Vessel's anchors must be stowed and properly secured in the Hawse pipe.

Briefing: Prior to approaching the SBM the Master, Pilot and Officer delegated to duty on the forecastle should meet and the Pilot will brief all concerned on the mooring operation.

Mooring Operation: On approaching the SBM the ship should make ready a rope messenger suitable for passing over the stem of the tanker to the mooring launch. This rope will be joined to a 10 in. pick-up rope (400 ft.) which is in turn connected to a 50 ft. pick-up wire and then the chafe chain. Each chafe chain is connected to a 15 in. grommet of braided nylon.

The starboard mooring is always picked up first.

Safe Practices: With the objective of achieving a safe 'hands-off' mooring procedure, winch spooling drums will be used for heaving the pick-up ropes. The use of winch or windlass drum ends is not permitted. Masters and crew should be aware at all times of safe working practices while mooring the ship and avoid standing in the danger sectors of ropes and wires under tension.

SBM Security: From the time of completion of mooring, the ship shall station a lookout on the forecastle. This lookout must inform the Berthing Officer in the event that the ship is likely to come into contact with the SBM.

Immobilisation of Engines: Under no circumstances should the ship's engines, steering gear, deck machinery power source, or any essential equipment be immobilised.

HOSE CONNECTION: Tanker manifold arrangements must comply with "OCIMF Standard for Oil Tanker Manifolds and Associated Equipment".

Connection Position: Hoses will be connected/disconnected on starboard side by ship's crew. The Operations Assistant will give guidance to the crew as required.

Connection Sequence: The first hose will be the tanker rail hose string. It must be connected to the forward of the 2 manifold connections.

Hose Sizes: Tanker rail hoses on both SBMs are 2×16 in. diameter. Vessel should arrive with reducers fitted to the starboard side manifold accordingly.

Ship Lifting Capacity: To lift these hoses, a derrick or crane with a SWL of 10 tons minimum is required.

Connection: The hoses shall be bolted to the ship's manifold with a bolt in every hole. When the hoses are connected the weight of each hose shall be taken by hanging a strop (supplied by shore) from the ship's derrick or crane.

LOADING: All vessels should arrive with cargo tanks properly inerted, gauging and venting systems fully operational, such that a closed loading procedure can be safely followed. The Pilot will verify the oxygen content of the cargo tanks prior to commencement of loading.

Load-on-Top: If load-on-top is to be practiced at Halul, the Pilot may measure the quantity of residue in the slop tank. However, the Pilot will not check tank soundings, ullages, sign Dry Certificates or otherwise act as a cargo surveyor.

Commencement of Loading: Upon request from the ship's Duty Officer the Pilot will instruct the shore to commence loading. Loading will be initially by gravity, and when the ship is satisfied that the cargo is flowing into the ship, the shore will be instructed to start pumping. The total quantity of cargo to load, maximum rate, and whether a "ship or shore stop" is applicable, should be established and confirmed with the Halul Control Room.

Loading Rates: SBM 1: Maximum loading rate is 5,500 tons per hour using diesel pumps.

SBM 2: Maximum loading rate is 9,500 tons per hour using either turbine pumps or a combination of turbine and diesel pumps.

Quantity Checks: During loading, ship and shore should check the long ton quantity of cargo loaded every hour and compare figures. If there is a large discrepancy, the quantities should be re-checked and if the difference remains, with no explanation from the ship, then an inspection of the pipeline and hose systems may be necessary.

Approximately 2 hours after the commencement of loading, the Pilot will advise the ship's Officer the provisional API gravity and shore tank temperature.

Valve Operation and Surge Pressures: During full speed loading, the Duty Officer should inform the Pilot if any valve manipulation, which is likely to restrict the flow of oil, is going to take place. Ships should be aware of the potential dangers of creating a pressure surge by closing valves too quickly and/or restricting the flow of oil by closing off tanks without first reducing the loading rate.

The Master will be held responsible for any apparent or subsequently apparent damage to the shore pipeline and hose system, resulting from surge pressure(s) caused by failure of the ship's pipeline/valve system or the mismanipulation of the ship's valve.

A pressure recorder will be installed at the ship's manifold for continuous monitoring and recording of pipeline pressures, which will also be continuously monitored by Halul Control.

Completion of Cargo Operations: Final topping-up operations should only be conducted in the presence of the Pilot in the cargo control centre. The loading rates should be progressively reduced to a safe level prior to tank valve closure to avoid surge pressure.

Loading can be completed by gravity which gives a rate of about 1,500 tons/hr.

Communications: Communication between ship and shore is by dedicated frequency VHF radio (supplied by shore), which will be positioned in the cargo control room. This radio will have an emergency stop frequency. In the event of an emergency, this facility can be used to stop the loading pumps at the shore terminal. This emergency stop procedure will be tested and demonstrated to the ship's Officers prior to commencement of loading.

Precautions: A watch must be maintained on the radio link with the shore. Connections at the manifold must also be watched continuously for any signs of leaks, ruptures, etc.

BALLAST:

Maximum Freeboard: The SBM's at Halul are considered exposed locations and the safety of operations is highly weather dependent. To ensure that a vessel is always safely moored, the maximum freeboard forward (Panama Lead to waterline) must not exceed 70 ft. (21.3 m.) with a positive stern trim at any time whilst the vessel is in the berth.

Deballasting: Vessels capable of simultaneous cargo loading and deballasting are required to do so in order to maintain the freeboard as low as possible.

Vessels unable to perform simultaneous loading and deballasting operations will, in marginal weather conditions or to comply with the maximum freeboard limitation, be required to load part cargo prior to deballasting.

Dirty Ballast Facilities: No dirty ballast facilities available. All vessels must arrive with clean ballast.

CARGO QUANTITIES/DOCUMENTATION: *Ullaging:* On completion of loading the ship must ullage all tanks into which cargo has been received. The Master is required to complete an ullage report provided by the shore.

Early Departure Procedure: In order to avoid delays to ships, Halul Terminal follows the "Early Departure Procedure" for the completion of cargo documents. When cargo loading is completed the Pilot will receive the departure papers from the shore. These will include documents completed as far as possible but without cargo quantities which the Master should sign as appropriate.

Departure from Halul Island will be dependant on ship/shore agreement on the cargo quantity loaded.

The final Bill of Lading cargo figure will be passed to the vessel by radio, prior to the Pilot disembarking. The Pilot will enter both the Bill of Lading Figure and Final Ship's Figure on Form 19X (Tanker Port Performance), which both the Pilot and Master will then sign. The Bill of Lading cargo figures information will also be transmitted to the vessel after departure via Doha Radio or direct by telex. The Master should insert these figures in the various incomplete forms that remain on board.

All delays resulting from the Master's refusal to accept Early Departure Procedure will be for the vessel's account.

Forms to be Signed: The following is a list of forms which have to be completed for each parcel of cargo and received by the Master. (Not all documents are signed by the Master.)

Bill of Lading.
Cargo Manifest.
Certificate of Quantity and Quality.
Discharge Certificate.
Master's Receipt of Documents.
Arrival Report.
Disbursement Memo.
Certificate of Origin and Authenticity.
Ullage Report.
Customs Export Bill.
Customs Clearance.
Port Timesheet and Form 19X.
Receipt for samples.

Discharge Certificate: We stress the importance of the Discharge Certificate placed on board at the completion of loading. It is absolutely essential that the Discharge Certificate should be completed in duplicate in respect of every discharge whether for entire or part cargo.

DEPARTURE: *Unmooring:* When all ship's papers have been completed and the hoses disconnected the vessel is ready to sail. The port mooring should be released first. The mooring should be lowered to sea level and the pick-up rope paid out slowly to allow the mooring launch to receive the pick-up rope on board. The starboard mooring will then be released.

When the vessel is clear of the SBM, the mooring launch will come alongside on the starboard side to load the mooring and hose connecting equipment, and then stand-by to await the Pilot.

Pilot Disembarkation: When the vessel has been unberthed the Pilot will disembark to the East of the two SBMs and well clear of the submarine pipeline area. Laden vessels should under no circumstances navigate in the pipeline area to the South of Halul Island. It is strongly recommended that all vessels use the Deep Water Departure Channel to clear the Halul area.

DENSITY: At berth, 1028/1030 (approximately).

CARGO: Flash point below 32° Fahrenheit.

H_2S Content in Halul Crude: H_2S Hydrogen Sulphide has a disagreeable odour characteristic of rotten eggs which quickly deadens the sense of smell so that a dangerous concentration may be present which cannot be detected by odour.

If exposure to hazardous concentrations of this gas is likely to occur, appropriate safety precautions should be taken. Suitable respiratory protection should be available during ullaging and sampling.

The TLV is given as 10 p.p.m. but concentrations in enclosed spaces should be reduced as far below this level as practicable and if men are to work without breathing apparatus, a nil concentration should be achieved before entry is permitted and effective ventilation should be maintained.

On tankers regularly committed to the carriage of sour crude, H_2S gas indicators should be provided.

It is important to realise that the concentration of H_2S can be measured and expressed in two different ways:

The p.p.m. in the liquid, by weight;
The p.p.m. in the air, by volume.

Producing and Processing Departments at terminal often use the liquid measure for H_2S content, and this could be confusing to tanker officers who usually think of H_2S as expressed in air volume measure. There can be a vast difference between the two measures. The measure in air is higher and can be very much higher. For example, chemists have measured a concentration of 7,000 p.p.m. (deadly) in the vapour stream coming out of ullage opening when a tank is being topped off with a crude oil containing only 70 p.p.m. H_2S in the liquid. Therefore, it is of vital importance to appreciate that a sour crude can release a lethal concentration of H_2S into the air.

The following guide to the effects on exposed persons of various atmospheric concentrations of H_2S gives some indication of its dangers:

Measured in air by volume

50 to 100 p.p.m.	Eye and respiratory tract irritation after exposure of 1 hour.
200 to 300 p.p.m.	Marked eye and respiratory tract irritation after exposure of 1 hour.
500 to 700 p.p.m.	Dizziness, headache, nausea, etc., within 15 minutes; loss of consciousness and possible death after 30 to 60 minutes exposure.
700 to 900 p.p.m.	Rapidly produces unconsciousness and death occurs a few minutes later.
1000 to 2000 p.p.m.	Death is apparently instantaneous.

Apparent death from H_2S is not irreversible as prompt and efficient artificial respiration may restore life.

The terminal should advise the Master if the cargo to be loaded contains H_2S in concentrations which cause the gases vented during loading to be hazardous if inhaled. When handling cargo with noticeable H_2S content or when ballasting after discharge of such cargo, it is recommended that the following precautions should be taken.

The officer supervising the operations should keep a sharp watch on personnel for signs of fatigue or distress.

Lifelines, breathing apparatus and resuscitator should be readily available.

Loading through the pump room should be avoided where possible to reduce the possibility of H_2S contamination of the pump room atmosphere.

Gas should be vented through the cargo tank venting system and, if open ullaging is necessary, the ullage plugs should be kept open only for a minimum period of time.

When ullaging tanks, personnel should work in pairs and stand at right angles to the wind direction in relation to the ullage opening.

Personnel should not enter a pump room without first starting the ventilation, checking that there is no gas present, and without someone else standing by. If any gas concentration is recorded, a self-contained breathing apparatus should be worn.

Other spaces into which H_2S may have been drawn should be ventilated and checked before entry.

Persons overcome by H_2S should be moved to a gas free area immediately and artificial respiration should be administered at once.

Gas tests should be made on deck and in accommodation at regular intervals and particularly during the topping-off periods. If concentrations exceed 10 p.p.m. inside the accommodation or 50 p.p.m. on deck more than 10 ft. from a gas outlet, the loading rate should be adjusted and if this does not result in a decrease of the gas concentration, loading should be stopped until conditions have improved or other suitable measures are taken.

During discharge, the pump room bilges should be kept dry.

During loading or ballasting operations, conspicuous notices warning of potential danger should be posted on deck and at pump room entrance, and at the entrance to any other space which could be affected.

MEDICAL: There is no doctor on Halul Island. If there is any sickness on board, details should be included in the vessel's ETA message.

In emergencies, the services or advice of the QGPC Medical Officer in Doha may be obtained. If the doctor or patient has to be flown from/to Doha, the vessel concerned will be charged for the helicopter hire, the services of the doctor and other related costs.

TIME: Local time is GMT plus 3 hours throughout the year.

FRESH WATER: Not available, except in cases of extreme emergency if a supply boat is available. For this service a charge of 1 day's supply boat hire plus cost of water will be charged.

FUEL: Various grades of bunkers available, diesel and fuel, ex barge or lighters at Halul anchorage provided minimum 7 days' prior notice given.

Also see "Doha".

REPAIRS: Not available.

SURVEYORS: (1) Watson Grey, Caleb Brett and Ace (Qatar) Ltd. in Doha.

(2) Lloyd's Register in Doha.

TANK CLEANING: No facilities available and ships must arrive with clean ballast, lines and pumps.

CONSULS: The following countries maintain Embassies in Qatar.

Algeria
Bangladesh
Egypt
France
Gabon
Germany
India
Iran
Iraq
Japan
Jordan
Korea (Rep. of)
Kuwait
Lebanon
Libya
Mauritania
Morocco
Oman
Pakistan
Saudi Arabia
Somalia
Sudan
Syria
Tunisia
Turkey
United Kingdom
U.S.A.
Yemen

CUSTOMS: Trading in liquor is *strictly* prohibited and no alcoholic drink should be offered to Arab nationals.

Qatar Laws concerning Alcohol: The import and sale of alcoholic drinks in Qatar is subject to stringent Government control and there are heavy penalties for infringement of the relevant laws.

Masters are advised therefore, to ensure that no alcohol, of any description, leaves the vessel while at Halul Terminal.

REPATRIATION: Changes of personnel can be carried out at Halul Island. This can only be carried out on a limited scale due to scarcity of accommodation and transport. For crew joining a ship, Owners should notify the Agency, at least 72 hours in advance of arrival in Doha, the details of the personnel and the arriving flight. Crew leaving a ship at Halul can be arranged but advance notice is required.

SAFETY: Vessels must at all times comply with safety regulations as detailed in the ISGOTT (International Safety Guide for Oil Tanker and Terminals) published jointly by the International Chamber of Shipping and the Oil Companies International Marine Forum and The International Association of Ports and Harbours.

Safety Check List: This check list must be completed prior to the commencement of loading and verified at regular intervals thereafter. The Pilot and the Master of the vessel or a responsible officer will jointly carry out the safety inspection.

Cessation of Loading: If during loading operations, the Pilot becomes aware of any unsafe working practice or safety hazard, loading will cease until such time when the safety hazard has been removed. All delays thus incurred will be for vessel's account.

Hydrogen Sulphide: It is brought to the ship's attention that Qatar marine crude contains Hydrogen Sulphide (H_2S). See "Cargo".

Emergency Towing Wire: Whilst moored to the SBM, all vessels must have Emergency Towing Wires correctly positioned and rigged on the port side forward and aft. The eyes of the wires must be maintained just above the waterline, ready for immediate pick-up by a tug or supply boat. The inboard end must be properly secured to the bollards with at least 40 m. of slack wire on deck with a rope stopper to prevent the slack accidentally running out.

Tanker Emergency: In case of an emergency on board the Tanker the Pilot must immediately be informed. He will act as liaison between ship and shore.

If for whatever reason the Pilot is incapacitated, the Master/Officer on duty must inform Halul Control, giving brief details of the type of the emergency via the portable VHF radio (walkie-talkie) provided by shore.

In case of fire, explosion, etc., cargo must be stopped immediately by requesting "Emergency Stop" via the walkie-talkie and/or via the emergency stop frequency (push-button) provided in the radio.

The Master may also call "Halul Radio" on the ship's VHF Channel 6 or 16, giving details of the emergency and the kind of assistance required, if necessary.

BANKS:

Banque de Paris et des Pays-Bas.
The British Bank of the Middle East. Telex: 4204 BBME DH.
Grindlays Bank. Telex: 4209 GRNDLY BK.
The Chartered Bank. Telex: 4217 CHARBK.
Citibank.

STORING: See "Prelims".

1. No.
2. N/A.
3. No.
4. N/A.
5. N/A.
6. N/A.

SHORE LEAVE: Not permitted.

GARBAGE DISPOSAL: No garbage disposal service is available for tankers loading at Halul.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: No shore leave permitted.

CURRENCY: Qatar Riyals (Q.R.).

GENERAL:

Meteorological Service: A daily 24 hour weather forecast is issued at 0945 hrs. L.T. This forecast covers the area of Halul Island and the offshore oilfields. Details of this forecast can be obtained from Halul Radio on VHF Channel 6 or, if vessel is at one of the SBMs, from the Pilot on board the vessel.

Tidal Information: Halul Island can be found in British Admiralty tide tables Volume 2. Halul is a secondary port based on the standard port of Shatt al-Arab.

Climatic Conditions: Masters and crews should be aware of the extreme climatic conditions which exist in the Halul area during the months of June through October. Everybody should be made aware of the dangers of heat and sun stroke.

Stores and Laundry: Not available at Halul Island.

Courtesy Flag: The Qatar National flag should be flown during daylight hours when a vessel is at Halul Island.

Mail Service: There is an excellent mail service from Qatar to all parts of the world. Qatar stamps must be used on all mail sent through the national post office.

Blue air letter forms other than Qatari forms are not accepted.

AUTHORITY: Qatar General Petroleum Company – Marine Department, P.O.B. 47, Doha, Qatar. *Tel:* 402666, 402593. *Telex:* 4201 Qatoff Doha. *Cables:* Qatoff, Doha. *FAX:* 402707. *Contact:* Captain P. Steynis, Marine Manager. Captain R. Gale, Assistant Marine Manager. J. Al Mahmoud, Senior Marine Officer.

Agency: c/o Tanker Agency Department, QGPC PDA, P.O.Box 47, Doha, Qatar, Arabian Gulf. Tel: 402620. Telex: 4201. Fax: 402752.

MESAIEED (Umm Said): 24.54 N. 51.34 E. (See Plan)

DOCUMENTS: The Qatar Customs Authority requires the following documents to be kept ready on arrival at Mesaieed Ports and presented to Customs Officer when alongside Berth No. 6, Berth No. 19 or to Pilot when at SPM/CBM/NGL Jetty.

2 copies Crew List.
2 copies Crew Declaration.
2 copies Stores List.
2 copies Bond List.
2 copies Arms and Ammunition List.
1 copy Last Port Clearance.
1 copy Health Declaration.
1 copy Vaccination List.

Also see "Shipmaster's Report" dated June 1996.

BUOYED CHANNEL: All vessels wishing to navigate the Mesaieed Buoyed Channel must obtain prior clearance from Mesaieed Control who can be contacted on VHF Channels 14 or 16 or by Telex via Doha Radio, addressed to Petroqat Mesaieed. This precaution is essential to avoid unexpected encounters with deep-laden oil tankers.

APPROACHES:

Approach to Mesaieed Terminal: With Halul Island peak astern steer 235° for a distance of 31.5 miles to (K) Kareinein Light Buoy in position Lat. 25° 24' 18" N., Long. 51° 56' 16.4" E., thence 226°, 12 miles to (M) Mishut Light Buoy in position Lat. 25° 15' 51" N., Long. 51° 46' 43.4" E.

From Mishut Light Buoy steer 214° for a distance of 8 miles to (W) Wakrah Light Buoy, leaving this light buoy on the port hand.

From Wakrah Light Buoy steer 180° for a distance of 6.4 miles, to (H) Hul Light Buoy leaving this buoy to port.

From a position of 2 cables West of (H) Hul Light Buoy, steer 164° for a distance of 1.9 miles to pass between Nos. 1 and 2 Outer Channel Buoys, thence 158° 30', 0.3 miles to pass between Nos. 3 and 4 Outer Channel Buoys, thence 178°, 0.9 miles to leave No. 6 Outer Channel Buoy on port hand, thence 173°, 1.6 miles to pass between Nos. 7 and 8 Outer Channel Buoys, thence 191° 30', 1.6 miles to pass between Nos. 9 and 10 Outer Channel Buoys, thence 176°, 0.8 miles to pass between Nos. 11 and 12 Outer Channel Buoys.

From a position midway between Nos. 11 and 12 Outer Channel Buoys, steer 157° for a distance of 2.2 miles, leaving S.E. Arrif Buoy on the starboard hand, thence 217° for a distance of 3.25 miles, leaving S. Arrif Buoy on the starboard hand.

After rounding S. Arrif Buoy, steer 335° for a distance of 1.7 miles, passing close West of No. 1 Inner Channel Buoy, thence 003°, 1.1 miles, passing close East of No. 2 Inner Channel Buoy.

From a position close East of No. 2 Inner Channel Buoy, steer 348°, 0.5 miles to pass between Nos. 3 and 4 Inner Channel Buoys thence 323° to round Turning Buoy, leaving this buoy on the port hand.

From Turning Buoy steer a course to enter the designated Anchorage Area. The Northern limit of the designated Anchorage Area is a straight line joining the Turning Buoy and Fairway Buoy positions.

Masters of vessels anchoring at Mesaieed are required to use the appropriate anchorage. With the exception of emergencies only, anchoring outside this area or obstructing the fairway is *not* permitted.

Prohibited Area: A prohibited area enclosed by the pecked lines as shown on Chart No. 3786 (See "Plans") has been established. Masters of all vessels are prohibited from entering, anchoring or fishing within this area unless permission has been granted by the Corporation.

Masters of vessels anchoring at Mesaieed are required to use the designated anchorage area. With the exception of emergencies only, anchoring outside this area or obstructing the Fairway is not permitted.

Outward Passage: The reverse track is followed as for the inward passage described above.

Charts: Admiralty Chart No. 3787 – Approaches to Musay'Id and Ad Dawhah.

Admiralty Chart No. 3950 – Fasht at Arrif to Ras Laffan.

Admiralty Chart No. 3786 – Mesaieed Harbour.

Depths: In the Outer Channel there are least depths of 36 ft. (10.97 m.) in the vicinity of Nos. 1 and 2 Buoys, 3 and 4 Buoys and Nos. 9, 10, 11 and 12 Buoys.

Between the Outer and Inner Channel the depth varies from 40 ft. (12.2 m.) at Nos. 11 and 12 Outer Channel Buoys through 72 ft. (22.0 m.) and 78 ft. (23.8 m.) between S.E. Arrif and S. Arrif Buoys to 47 ft. (14.3 m.) close to No. 1 Inner Channel Buoy.

In the Inner Channel the least depth is 37 ft. (11.28 m.) between Nos. 3 and 4 Inner Channel Buoys.

From the Inner Channel to the Anchorage the depths vary from 43 ft. (13.1 m.) between the channel and Turning Buoy to 48 ft. (14.6 m.) at the Anchorage.

Tidal Conditions: In general the tide follows the coast line with the flood tide setting to the South or S.W., and the ebb tide setting to the North or N.E. The greatest caution must be exercised by all vessels when setting course to round the S.E. Arrif Buoy. It should be noted that tidal sets can run up to 2 hours after the predicted H.W./L.W. times.

Abnormal meteorological conditions may affect all the above tides by ±2 ft. (0.61 m.).

The normal tidal range is from 0.4 m. to 2.0 m., with the highest tides being in the region of 2.45 m. in exceptional circumstances.

Tide Gauge: The Terminal Office at Mesaieed is equipped with a tide gauge, so that verification of tidal predictions, with actual depth of water, can be made.

Mesaieed Approaches

Light Buoys	*Latitude North*	*Longitude East*	*Shape*	*Colour*	*Light*
Mishut (M)	25° 15' 51"	51° 46' 43.4"	Pillar W Topmark	Y.B.Y. Radar Reflector	Qk. Fl. (9) W. 15 sec.
Pipeline Buoy (N)	25° 13' 51"	51° 45' 23.4"	Can	Yellow Radar Reflector	Fl. Y. 10 sec.
Wakrah (W)	25° 09' 13"	51° 41' 50.4"	Pillar W Topmark	Yellow Black Yellow	Very Qk. Fl. (9) W. 10 sec.
Pipe-line Buoy (S)	25° 08' 18"	51° 41' 54"	Can	Yellow Radar Reflector	Fl. Y. 6 sec.
Hul (H)	25° 02' 49"	51° 41' 50.4"	Pillar W Topmark	Yellow Black Yellow	Very Qk. Fl. (9) W. 15 sec.
No. 1	25° 01' 01"	51° 42' 6.4"	Cone	Green	Fl. G. 6 sec.
No. 2	25° 00' 55"	51° 42' 15.9"	Can	Red	Fl. R. 5 sec.
No. 3	25° 00' 40.6"	51° 42' 13.1"	Cone	Green	Qk. Fl. G.
No. 4	25° 00' 36.3"	51° 42' 22.9"	Can	Red	Fl. R. 5 sec.
No. 6	24° 59' 44"	51° 42' 26.4"	Can	Red	Fl. (2) R 10 sec.
No. 7	24° 58' 10"	51° 42' 29.4"	Pillar E Topmark	Black Yellow Black	Qk. Fl. (3) W 10 sec.
No. 8	24° 58' 18"	51° 42' 37.4"	Can	Red	Fl. R. 6 sec.
No. 9	24° 56' 39"	51° 42' 4.4"	Cone	Green	Fl. (3) G. 15 sec.
No. 10	24° 56' 35"	51° 42' 20.4"	Can	Red	Fl. (2) R. 10 sec.
No. 11	24° 55' 42.5"	51° 42' 11.9"	Cone	Green	Fl. G. 2 sec.
No. 12	24° 55' 43"	51° 42' 20.9"	Can	Red	Fl. R. 2 sec.
S.E. Arrif	24° 53' 38"	51° 43' 4.4"	Pillar E Topmark	Black Yellow Black	Very Qk. Fl. (3) W. 5 sec.
S. Arrif	24° 51' 02"	51° 40' 57.4"	Pillar S Topmark	Yellow Black	Very Qk.Fl.(6)+ L.Fl.W.10 sec.
No. 1 Inner	24° 52' 29"	51° 40' 2.4"	Cone	Green	Fl. (3) G. 15 sec.
No. 2 Inner	24° 53' 36"	51° 39' 54.4"	Can	Red	Fl. R. 6 sec.
No. 3 Inner	24° 54' 11"	51° 39' 53.4"	Cone	Green	Fl. G. 2 sec.
No. 4 Inner	24° 54' 07.3"	51° 39' 47.4"	Can	Red	Qk. Fl. R.
Turning Buoy	24° 54' 41"	51° 39' 19.4"	Pillar N Topmark	Black Yellow	Very Qk. Fl. W.
Fairway Buoy	24° 54' 27"	51° 36' 25"	Pillar	R.W.V.S. Radar Reflector	Long Fl. W. 10 sec.
S. Anchorage	24° 52' 53"	51° 33' 51.4"	Can	Red	Fl. R. 6 sec.
M.B. 1	24° 53' 57.6"	51° 33' 36.0"	Cone	White Orange	Fl. W. 5 sec.
M.B. 3	24° 54' 19.8"	51° 34' 37.8"	Cone	White Orange	Fl. W. 5 sec.

PILOTAGE: Inward and outward pilotage is compulsory for all vessels loading at the North and South Berths (Crude/Stabilised Condensate), NGL (Propane, Butane and Condensate), NODCO (Products) and QAPCO (Ethylene). The Pilot boards the vessel in the vicinity of the Mishut Buoy and will contact the vessel approximately one hour before boarding. The Pilot normally disembarks in the vicinity of the Wakrah Buoy.

In the case of the North Berth (SPM) and South Berth (CBM), the Pilot remains on board the vessel throughout, acting as Loading Master and QGPC Representative.

Pilotage is compulsory for berthing and unberthing of all dry cargo vessels from sunrise to sunset.

Pilot Ladder: Tankers of 40,000 d.w.t. and over should have rigged, when in light condition, an accommodation ladder lowered to about 3.0 m. – 6.0 m. above the water. This can be adjusted to suit conditions. A pilot ladder should be rigged immediately abaft the accommodation ladder (on after leading accommodation ladders), to within 1.5 m. above the water. This will enable Pilot to ascend pilot ladder clear of the launch, and then step on to lower platform of accommodation ladder.

A suitable heaving line should be ready for use. On no account should weighed heaving lines be used in the vicinity of the pilot boat or mooring launches.

A good lee must always be made.

Automatic pilot hoists are not to be used.

Pilotage is compulsory for dry cargo ships bound to for Mesaieed Anchorage only if the draft is 33 ft. or over. Pilotage performed by Doha Pilots.

All dry cargo vessels using Mesaieed Channel must obtain channel clearance from Mesaieed Traffic Control on Channels 16 and 11 at Mishut Buoy, prior to entering channel and prior to sailing from Mesaieed berths. Berthing and unberthing schedules are obtained from Doha Ports (Channels 16 and 14).

ANCHORAGES: The recommended anchorage is one mile N.W. of the Mishut Buoy, and vessels should not anchor to the South.

Prohibited Anchorage: A Prohibited Anchorage has been established in the vicinity of (W) Wakrah Light Buoy to protect submarine pipelines laid in the area. A yellow can buoy (Fl. Y. 10 secs.) (Radar Reflector) has been laid in position Lat. 25° 13' 51" N., Long. 51° 45' 23.4" E. and a line drawn 073° from the coast through this position marks the Northern boundary of the Prohibited Anchorage. A similar buoy (Fl. Y. 6 secs.) (Radar Reflector) has been laid in position Lat. 25° 8' 18" N., Long. 51° 41' 54" E. and a parallel line drawn through this position marks the Southern boundary of the Prohibited Anchorage.

RESTRICTIONS: In the case of crude oil shipments, mooring, loading and unmooring is carried out at all times (weather permitting).

Mooring and unmooring operations are restricted to daylight hours at the NGL Jetty, NODCO Jetty (Berth No. 6) and QAPCO Jetty (Berth No. 19).

MAX. SIZE: *Depths/Drafts of Laden Vessels/Minimum Underkeel Clearance:* The draft of laden tankers leaving Mesaieed is constrained by the depth of water in the Outer Channel. However, vessels are required to maintain a minimum underkeel clearance in relation to total height.

The table below details the minimum underkeel clearances for vessels using the Mesaieed Channel.

Vessels up to 99,999 d.w.t.	3 ft. (0.91 m.) Clearance
Vessels from 100,000 to 149,999 d.w.t.	4 ft. (1.22 m.) Clearance
Vessels between 150,000 and 320,000 d.w.t.	5 ft. (1.52 m.) Clearance
LPG Carriers (All Sizes)	5 ft. (1.52 m.) Clearance

The following are examples of the tidal calculations to determine whether or not a vessel would be allowed to use the channel:

Ship A – VLCC 250,000 tonnes d.w.t.:

Sailing Draft	10.79 m.
Required Minimum Underkeel Clearance	+ 1.52 m.
Depth of water required	12.31 m.
Minimum depth of water at Chart Datum	10.97 m.
Height of tide required (minimum)	1.34 m.

Therefore this vessel can use the Mesaieed Channel only if the height of tide is equal to or greater than 1.35 m. at the time of passing the outer end of the outer channel.

Ship B – Product Carrier 85,000 tonnes d.w.t.:

Sailing Draft	9.40 m.
Required Minimum Underkeel Clearance	+ 0.91 m.
Depth of water required	10.31 m.
Minimum depth of water at Chart Datum	10.97 m.
Height of tide required (minimum)	– 0.66 m.

Therefore this vessel can use the Mesaieed Channel at any state of the tide.

Note: For vessels loading to drafts which are close to the limits of the Mesaieed Channel, the small mooring launch is available to allow ship's officers to make a visual inspection of the draft prior to sailing.

The Pilot carries an up-to-date set of tide tables and will perform the tidal calculation in advance of the ship sailing to ensure that the margins of safe underkeel clearance are maintained. If the Master requires further information regarding this matter prior to arrival at Mesaieed, he should contact the Terminal through the normal method.

Also see "Terminal Information" – "Berth Limitations".

Navigation in Shallow Waters: The navigation of deep drafted vessels at high speeds in shallow waters introduces certain hazards. Pilots and Masters of ships should be guided by the following:

(a) Due consideration should be given to the effect of draw down at speed on vessel's draft in shallow water, bearing in mind vessel's trim.

(b) If possible, confirm actual height of tide against predictions and if not, bear in mind that after strong winds the actual height of tide may be reduced and extra caution must be exercised for a few days during and after bad weather.

(c) Ensure accuracy of vessel's draft reading, including the midship drafts, having in mind the tendency of vessels to sag and the adverse effect of a small list.

(d) Note that list can mean an appreciable increase in draft.

(e) When strong tidal streams are running across a channel, extra vigilance is required, and allowance made for set, particularly at reduced speed, to ensure vessel proceeds along mid-channel.

Particular attention should be paid to rounding the S.E. Arrif Buoy on a flood tide, especially when heading South. Extra allowance for set should always be made.

HEALTH: (Quarantine and Medical Clearance). Medical attention to Masters and crews of ships provided by Q.G.P.C. Medical Officer when asked for by Master.

For dry cargo vessels, the medical facilities are arranged through Agent.

When advising their ETA, ships must state all ports of call within the previous 21 days and report any cases of sickness on board.

RADIO: Doha Radio – A7D – continuous watch on W/T 500 kHz, R/T 2182 kHz and VHF Channel 16.

Doha Port continuous watch on R/T 2182 kHz and VHF Channels 16 and 14. Mesaieed Terminal for channel clearance keeps continuous watch on Channel 16.

When advising their ETA ships must state their last port of call within the previous 21 days and report any sickness on board. If the last port of call is Bahrain or Ras Tanura, the previous port must be stated.

Radio Messages: Vessels are requested to inform Petroqat, Mesaieed by cable of their ETA at (M) Mishut Light Buoy, 72 hours, and confirm 48 hours, 24 hours and 12 hours prior to their arrival. It should be clearly indicated that times quoted are in GMT. They should also state the quantity of cargo, in long tons, the maximum loading rate required, deballasting time and whether able to load and discharge ballast concurrently. Any crew changes and/or medical treatment required should also be notified in this cable (Also see "Health").

These cables should be addressed to Petroqat, Mesaieed, and passed via Doha Radio.

The following cable is sent to all vessels by Agent (Petroqat):

Quote:

Advise your ETA at Pilot Station Mishut (M) Buoy in GMT 72 hours and confirm 48 hours, 24 hours and 12 hours before arrival. Pilotage is compulsory and in order to confirm pilot boat arrangements essential you advise firm ETA 48 hours before arrival to avoid any delays. Rig combination accommodation/pilot ladder on Lee side before arrival. Pilot hoist and weighted heaving lines must not be used. Tugs are available if required. Please advise your requirements 48 hours in advance.

It is preferred that mooring hawsers in general consist of rope where possible but all wire moorings or wires with rope tails are acceptable. Please note, however, that for safety reasons, all springs which are connected to the main jetty must be of rope or wires with rope tails.

Please advise your last cargo, and confirm that your tanks are cooled down and ready in all respects to receive your nominated cargo. Butane and propane can be loaded concurrently if required. Loading lines are 12 in. diameter and vapour return lines are 8 in. diameter all fitted with Class 150 ASA flanges. Your attention is drawn to the Prohibited Anchorage (Lat. 25° 10' N.) safeguarding the submarine pipelines laid in the vicinity of Wakrah (W) Buoy.

If your vessel is fitted with telex which has high (75B) and low (50B) speed transmission, please ensure that your machine is operating on low (50B) speed mode to ensure that we receive clear, ungarbled text.

Petroqat Mesaieed

Unquote.

Telex Messages: Vessels fitted with telex machines may make contact through Telex No. 4050 Qpausd Dh. However, only the low (50B) transmission mode should be used to ensure the receipt of clear, ungarbled text.

High (75B) speed transmission mode must not be used.

VHF: "Mesaieed Traffic" is equipped with VHF radio equipment operating on Channels 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 67, 68, 69, 70, 71, 72, 73, 74 and 77 of international maritime mobile telephone service.

A continuous 24 hour listening watch is maintained on Channels 11 and 16, the call sign being "Mesaieed Traffic". The range of station is approximately 50 miles.

Also see "Pilotage".

Berth Radio Frequency: Tanker berthing/loading operations are carried out using intrinsically safe portable VHF radio sets on a frequency of 155.975 MHz (transmit and receive). These radio sets also have the facility to use VHF Channel 9.

Vessel Traffic Control: Entrance to Mesaieed by all shipping, both commerical and hydrocarbon, is strictly under the Vessel Traffic Control System call sign "Mesaieed Traffic". Prior to any movement in Mesaieed Port Area or entry to the navigation channels, permission must be obtained from Mesaieed Traffic.

Inbound: Vessels are required to obtain clearance to proceed South at the Mishut Buoy, thereafter to report their position at Hul, S.E. Arrif, and Fairway Buoys.

Outbound: Vessels are required to obtain clearance to proceed from the berth or anchorage and report their position at S.E. Arrif, Hul Buoy and Mishut Buoys.

Communications: The Traffic Control maintains a 24 hour continuous listening watch on VHF Channels 16 and 11, which is the working frequency.

TUGS: The use of tugs is compulsory and is as follows:

North Berth: Tugs not used.

South Berth: One or two tugs at Pilot's discretion used during berthing. Tug may be utilised for unberthing if weather conditions are unfavourable.

NGL Jetty: Two tugs used for both berthing and unberthing.

NODCO Jetty No. 6: Two tugs for berthing and unberthing.

QAPCO Jetty No. 19: One tug used for berthing, assuming that vessel is fitted with an operational Bowthruster unit, otherwise 2 tugs will be used. For unberthing, the use of a tug is at the Pilot's discretion and will depend upon the weather conditions at the time.

Vessels are to provide tug lines in good condition and made of rope. Wires are prohibited.

BERTHING: Pilots act in same capacity as Mooring Masters in the berthing of vessels, after which they supervise raising of flexible hoses and connection to ship's manifold. During loading operations they act as the Corporation's representatives.

Vessel's crew are required to assist with hose connecting.

North Berth: Crude Oil: North Berth is a Single Point Multi-Product Mooring Buoy in position Lat. 24° 53' 37.2" N., Long. 51° 34' 54" E., connected to the shore installation by a 36 in. submarine pipeline. The seaward end of the pipeline and buoy terminates in 2×16 in. × 900 ft. (Crude) and 890 ft. (Stabilised Condensate) flexible floating hoses.

Stabilised Condensate: SPM is also designed to accommodate vessels for loading stabilised condensate. The submarine pipeline is 30 in. in diameter and the seaward end of the pipeline and buoy terminates in 2×16 in. × 890 ft. flexible floating hoses.

Gear to be Provided by Tankers:

(i) General: All tankers berthing at the SPM will be required to have situated on the foc'sle head a Tongue Type bow stopper capable of accepting a 0.76 mm. diameter chafing chain and manufactured and fitted in accordance with the Oil Companies' International Marine Forum and Classification Societies' Recommendations regarding the standard of equipment employed in the mooring of ships at Single Point Moorings. In addition, all tankers mooring at either the SPM or CBM berths must comply with the OCIMF standard for Oil Tanker Manifolds and associated equipment. No use of winch barrel ends is permitted for mooring and only spool drums to be used. Vessels are rejected if this is not possible.

(ii) North Berth (Crude): Vessels are moored by a single hawser from bow to buoy.

The following equipment should be carried by each vessel:

1×40 mm. diameter × 75 m. messenger rope, one axe, crowbar and large hammer ready for use at the bow.

One good boat rope at least 60 m. long, ready at accommodation ladder position.

Derrick or crane rigged over the portside manifolds should be capable of lifting 16 in. floating hose to a height of up to 10 m. above deck (S.W.L. 15 tons). 2×1 tonne chain blocks for hose connection.

Reducers or adaptor (if necessary) bolted to the ship's manifold flanges so as to take 2×16 in. loading hoses.

(iii) North Berth (Stablised Condensate): Stabilised condensate is loaded through the multiproduct SPM at a maximum loading rate of 35,000 bbls./hr. From the shore, the cargo passes through a single 30 in. sea line to the SPM and then into a single 20 in. floating hose, culminating in 2×16 in. overrail hoses which are connected to the ship's portside manifold.

Mooring Arrangements: For vessels arriving at this port without the approved type of "AKD" stoppers fitted, the Terminal will supply suitable snotters and shackles. These will be utilised forward to make fast the chafe chain (attached to the end of the SPM Mooring rope) to a suitable set of ship's bollards. The Pilot will advise as to this arrangement.

Warning: Ship's anchors must never be used within 0.5 miles of this berth or the 36 in. submarine pipeline and must therefore be well secured at all times.

MESAIEED (Umm Said): 24.54 N. 51.34 E. (See Plan)

DOCUMENTS: The Qatar Customs Authority requires the following documents to be kept ready on arrival at Mesaieed Ports and presented to Customs Officer when alongside Berth No. 6, Berth No. 19 or to Pilot when at SPM/CBM/NGL Jetty.

2 copies Crew List.
2 copies Crew Declaration.
2 copies Stores List.
2 copies Bond List.
2 copies Arms and Ammunition List.
1 copy Last Port Clearance.
1 copy Health Declaration.
1 copy Vaccination List.

Also see "Shipmaster's Report" dated June 1996.

BUOYED CHANNEL: All vessels wishing to navigate the Mesaieed Buoyed Channel must obtain prior clearance from Mesaieed Control who can be contacted on VHF Channels 14 or 16 or by Telex via Doha Radio, addressed to Petroqat Mesaieed. This precaution is essential to avoid unexpected encounters with deep-laden oil tankers.

APPROACHES:

Approach to Mesaieed Terminal: With Halul Island peak astern steer 235° for a distance of 31.5 miles to (K) Kareinein Light Buoy in position Lat. 25° 24' 18" N., Long. 51° 56' 16.4" E., thence 226°, 12 miles to (M) Mishut Light Buoy in position Lat. 25° 15' 51" N., Long. 51° 46' 43.4" E.

From Mishut Light Buoy steer 214° for a distance of 8 miles to (W) Wakrah Light Buoy, leaving this light buoy on the port hand.

From Wakrah Light Buoy steer 180° for a distance of 6.4 miles, to (H) Hul Light Buoy leaving this buoy to port.

From a position of 2 cables West of (H) Hul Light Buoy, steer 164° for a distance of 1.9 miles to pass between Nos. 1 and 2 Outer Channel Buoys, thence 158° 30', 0.3 miles to pass between Nos. 3 and 4 Outer Channel Buoys, thence 178°, 0.9 miles to leave No. 6 Outer Channel Buoy on port hand, thence 173°, 1.6 miles to pass between Nos. 7 and 8 Outer Channel Buoys, thence 191° 30', 1.6 miles to pass between Nos. 9 and 10 Outer Channel Buoys, thence 176°, 0.8 miles to pass between Nos. 11 and 12 Outer Channel Buoys.

From a position midway between Nos. 11 and 12 Outer Channel Buoys, steer 157° for a distance of 2.2 miles, leaving S.E. Arrif Buoy on the starboard hand, thence 217° for a distance of 3.25 miles, leaving S. Arrif Buoy on the starboard hand.

After rounding S. Arrif Buoy, steer 335° for a distance of 1.7 miles, passing close West of No. 1 Inner Channel Buoy, thence 003°, 1.1 miles, passing close East of No. 2 Inner Channel Buoy.

From a position close East of No. 2 Inner Channel Buoy, steer 348°, 0.5 miles to pass between Nos. 3 and 4 Inner Channel Buoys thence 323° to round Turning Buoy, leaving this buoy on the port hand.

From Turning Buoy steer a course to enter the designated Anchorage Area. The Northern limit of the designated Anchorage Area is a straight line joining the Turning Buoy and Fairway Buoy positions.

Masters of vessels anchoring at Mesaieed are required to use the appropriate anchorage. With the exception of emergencies only, anchoring outside this area or obstructing the fairway is *not* permitted.

Prohibited Area: A prohibited area enclosed by the pecked lines as shown on Chart No. 3786 (See "Plans") has been established. Masters of all vessels are prohibited from entering, anchoring or fishing within this area unless permission has been granted by the Corporation.

Masters of vessels anchoring at Mesaieed are required to use the designated anchorage area. With the exception of emergencies only, anchoring outside this area or obstructing the Fairway is not permitted.

Outward Passage: The reverse track is followed as for the inward passage described above.

Charts: Admiralty Chart No. 3787 – Approaches to Musay'Id and Ad Dawhah.

Admiralty Chart No. 3950 – Fasht at Arrif to Ras Laffan.

Admiralty Chart No. 3786 – Mesaieed Harbour.

Depths: In the Outer Channel there are least depths of 36 ft. (10.97 m.) in the vicinity of Nos. 1 and 2 Buoys, 3 and 4 Buoys and Nos. 9, 10, 11 and 12 Buoys.

Between the Outer and Inner Channel the depth varies from 40 ft. (12.2 m.) at Nos. 11 and 12 Outer Channel Buoys through 72 ft. (22.0 m.) and 78 ft. (23.8 m.) between S.E. Arrif and S. Arrif Buoys to 47 ft. (14.3 m.) close to No. 1 Inner Channel Buoy.

In the Inner Channel the least depth is 37 ft. (11.28 m.) between Nos. 3 and 4 Inner Channel Buoys.

From the Inner Channel to the Anchorage the depths vary from 43 ft. (13.1 m.) between the channel and Turning Buoy to 48 ft. (14.6 m.) at the Anchorage.

Tidal Conditions: In general the tide follows the coast line with the flood tide setting to the South or S.W., and the ebb tide setting to the North or N.E. The greatest caution must be exercised by all vessels when setting course to round the S.E. Arrif Buoy. It should be noted that tidal sets can run up to 2 hours after the predicted H.W./L.W. times.

Abnormal meteorological conditions may affect all the above tides by ±2 ft. (0.61 m.).

The normal tidal range is from 0.4 m. to 2.0 m., with the highest tides being in the region of 2.45 m. in exceptional circumstances.

Tide Gauge: The Terminal Office at Mesaieed is equipped with a tide gauge, so that verification of tidal predictions, with actual depth of water, can be made.

Mesaieed Approaches

Light Buoys	*Latitude North*	*Longitude East*	*Shape*	*Colour*	*Light*
Mishut (M)	25° 15' 51"	51° 46' 43.4"	Pillar W Topmark	Y.B.Y. Radar Reflector	Qk. Fl. (9) W. 15 sec.
Pipeline Buoy (N)	25° 13' 51"	51° 45' 23.4"	Can	Yellow Radar Reflector	Fl. Y. 10 sec.
Wakrah (W)	25° 09' 13"	51° 41' 50.4"	Pillar W Topmark	Yellow Black Yellow	Very Qk. Fl. (9) W. 10 sec.
Pipe-line Buoy (S)	25° 08' 18"	51° 41' 54"	Can	Yellow Radar Reflector	Fl. Y. 6 sec.
Hul (H)	25° 02' 49"	51° 41' 50.4"	Pillar W Topmark	Yellow Black Yellow	Very Qk. Fl. (9) W. 15 sec.
No. 1	25° 01' 01"	51° 42' 6.4"	Cone	Green	Fl. G. 6 sec.
No. 2	25° 00' 55"	51° 42' 15.9"	Can	Red	Fl. R. 5 sec.
No. 3	25° 00' 40.6"	51° 42' 13.1"	Cone	Green	Qk. Fl. G.
No. 4	25° 00' 36.3"	51° 42' 22.9"	Can	Red	Fl. R. 5 sec.
No. 6	24° 59' 44"	51° 42' 26.4"	Can	Red	Fl. (2) R 10 sec.
No. 7	24° 58' 10"	51° 42' 29.4"	Pillar E Topmark	Black Yellow Black	Qk. Fl. (3) W 10 sec.
No. 8	24° 58' 18"	51° 42' 37.4"	Can	Red	Fl. R. 6 sec.
No. 9	24° 56' 39"	51° 42' 4.4"	Cone	Green	Fl. (3) G. 15 sec.
No. 10	24° 56' 35"	51° 42' 20.4"	Can	Red	Fl. (2) R. 10 sec.
No. 11	24° 55' 42.5"	51° 42' 11.9"	Cone	Green	Fl. G. 2 sec.
No. 12	24° 55' 43"	51° 42' 20.9"	Can	Red	Fl. R. 2 sec.
S.E. Arrif	24° 53' 38"	51° 43' 4.4"	Pillar E Topmark	Black Yellow Black	Very Qk. Fl. (3) W. 5 sec.
S. Arrif	24° 51' 02"	51° 40' 57.4"	Pillar S Topmark	Yellow Black	Very Qk.Fl.(6)+ L.Fl.W.10 sec.
No. 1 Inner	24° 52' 29"	51° 40' 2.4"	Cone	Green	Fl. (3) G. 15 sec.
No. 2 Inner	24° 53' 36"	51° 39' 54.4"	Can	Red	Fl. R. 6 sec.
No. 3 Inner	24° 54' 11"	51° 39' 53.4"	Cone	Green	Fl. G. 2 sec.
No. 4 Inner	24° 54' 07.3"	51° 39' 47.4"	Can	Red	Qk. Fl. R.
Turning Buoy	24° 54' 41"	51° 39' 19.4"	Pillar N Topmark	Black Yellow	Very Qk. Fl. W.
Fairway Buoy	24° 54' 27"	51° 36' 25"	Pillar	R.W.V.S. Radar Reflector	Long Fl. W. 10 sec.
S. Anchorage	24° 52' 53"	51° 33' 51.4"	Can	Red	Fl. R. 6 sec.
M.B. 1	24° 53' 57.6"	51° 33' 36.0"	Cone	White Orange	Fl. W. 5 sec.
M.B. 3	24° 54' 19.8"	51° 34' 37.8"	Cone	White Orange	Fl. W. 5 sec.

PILOTAGE: Inward and outward pilotage is compulsory for all vessels loading at the North and South Berths (Crude/Stabilised Condensate), NGL (Propane, Butane and Condensate), NODCO (Products) and QAPCO (Ethylene). The Pilot boards the vessel in the vicinity of the Mishut Buoy and will contact the vessel approximately one hour before boarding. The Pilot normally disembarks in the vicinity of the Wakrah Buoy.

In the case of the North Berth (SPM) and South Berth (CBM), the Pilot remains on board the vessel throughout, acting as Loading Master and QGPC Representative.

Pilotage is compulsory for berthing and unberthing of all dry cargo vessels from sunrise to sunset.

Pilot Ladder: Tankers of 40,000 d.w.t. and over should have rigged, when in light condition, an accommodation ladder lowered to about 3.0 m. – 6.0 m. above the water. This can be adjusted to suit conditions. A pilot ladder should be rigged immediately abaft the accommodation ladder (on after leading accommodation ladders), to within 1.5 m. above the water. This will enable Pilot to ascend pilot ladder clear of the launch, and then step on to lower platform of accommodation ladder.

A suitable heaving line should be ready for use. On no account should weighed heaving lines be used in the vicinity of the pilot boat or mooring launches.

A good lee must always be made.

Automatic pilot hoists are not to be used.

Pilotage is compulsory for dry cargo ships bound to for Mesaieed Anchorage only if the draft is 33 ft. or over. Pilotage performed by Doha Pilots.

All dry cargo vessels using Mesaieed Channel must obtain channel clearance from Mesaieed Traffic Control on Channels 16 and 11 at Mishut Buoy, prior to entering channel and prior to sailing from Mesaieed berths. Berthing and unberthing schedules are obtained from Doha Ports (Channels 16 and 14).

ANCHORAGES: The recommended anchorage is one mile N.W. of the Mishut Buoy, and vessels should not anchor to the South.

Prohibited Anchorage: A Prohibited Anchorage has been established in the vicinity of (W) Wakrah Light Buoy to protect submarine pipelines laid in the area. A yellow can buoy (Fl. Y. 10 secs.) (Radar Reflector) has been laid in position Lat. 25° 13' 51" N., Long. 51° 45' 23.4" E. and a line drawn 073° from the coast through this position marks the Northern boundary of the Prohibited Anchorage. A similar buoy (Fl. Y. 6 secs.) (Radar Reflector) has been laid in position Lat. 25° 8' 18" N., Long. 51° 41' 54" E. and a parallel line drawn through this position marks the Southern boundary of the Prohibited Anchorage.

RESTRICTIONS: In the case of crude oil shipments, mooring, loading and unmooring is carried out at all times (weather permitting).

Mooring and unmooring operations are restricted to daylight hours at the NGL Jetty, NODCO Jetty (Berth No. 6) and QAPCO Jetty (Berth No. 19).

MAX. SIZE: *Depths/Drafts of Laden Vessels/Minimum Underkeel Clearance:* The draft of laden tankers leaving Mesaieed is constrained by the depth of water in the Outer Channel. However, vessels are required to maintain a minimum underkeel clearance in relation to total height.

The table below details the minimum underkeel clearances for vessels using the Mesaieed Channel.

Vessels up to 99,999 d.w.t.	3 ft. (0.91 m.) Clearance
Vessels from 100,000 to 149,999 d.w.t.	4 ft. (1.22 m.) Clearance
Vessels between 150,000 and 320,000 d.w.t.	5 ft. (1.52 m.) Clearance
LPG Carriers (All Sizes)	5 ft. (1.52 m.) Clearance

The following are examples of the tidal calculations to determine whether or not a vessel would be allowed to use the channel:

Ship A – VLCC 250,000 tonnes d.w.t.:

Sailing Draft	10.79 m.
Required Minimum Underkeel Clearance	+ 1.52 m.
Depth of water required	12.31 m.
Minimum depth of water at Chart Datum	10.97 m.
Height of tide required (minimum)	1.34 m.

Therefore this vessel can use the Mesaieed Channel only if the height of tide is equal to or greater than 1.35 m. at the time of passing the outer end of the outer channel.

Ship B – Product Carrier 85,000 tonnes d.w.t.:

Sailing Draft	9.40 m.
Required Minimum Underkeel Clearance	+ 0.91 m.
Depth of water required	10.31 m.
Minimum depth of water at Chart Datum	10.97 m.
Height of tide required (minimum)	– 0.66 m.

Therefore this vessel can use the Mesaieed Channel at any state of the tide.

Note: For vessels loading to drafts which are close to the limits of the Mesaieed Channel, the small mooring launch is available to allow ship's officers to make a visual inspection of the draft prior to sailing.

The Pilot carries an up-to-date set of tide tables and will perform the tidal calculation in advance of the ship sailing to ensure that the margins of safe underkeel clearance are maintained. If the Master requires further information regarding this matter prior to arrival at Mesaieed, he should contact the Terminal through the normal method.

Also see "Terminal Information" – "Berth Limitations".

Navigation in Shallow Waters: The navigation of deep drafted vessels at high speeds in shallow waters introduces certain hazards. Pilots and Masters of ships should be guided by the following:

(a) Due consideration should be given to the effect of draw down at speed on vessel's draft in shallow water, bearing in mind vessel's trim.

(b) If possible, confirm actual height of tide against predictions and if not, bear in mind that after strong winds the actual height of tide may be reduced and extra caution must be exercised for a few days during and after bad weather.

(c) Ensure accuracy of vessel's draft reading, including the midship drafts, having in mind the tendency of vessels to sag and the adverse effect of a small list.

(d) Note that list can mean an appreciable increase in draft.

(e) When strong tidal streams are running across a channel, extra vigilance is required, and allowance made for set, particularly at reduced speed, to ensure vessel proceeds along mid-channel.

Particular attention should be paid to rounding the S.E. Arrif Buoy on a flood tide, especially when heading South. Extra allowance for set should always be made.

HEALTH: (Quarantine and Medical Clearance). Medical attention to Masters and crews of ships provided by Q.G.P.C. Medical Officer when asked for by Master.

For dry cargo vessels, the medical facilities are arranged through Agent.

When advising their ETA, ships must state all ports of call within the previous 21 days and report any cases of sickness on board.

RADIO: Doha Radio – A7D – continuous watch on W/T 500 kHz, R/T 2182 kHz and VHF Channel 16.

Doha Port continuous watch on R/T 2182 kHz and VHF Channels 16 and 14. Mesaieed Terminal for channel clearance keeps continuous watch on Channel 16.

When advising their ETA ships must state their last port of call within the previous 21 days and report any sickness on board. If the last port of call is Bahrain or Ras Tanura, the previous port must be stated.

Radio Messages: Vessels are requested to inform Petroqat, Mesaieed by cable of their ETA at (M) Mishut Light Buoy, 72 hours, and confirm 48 hours, 24 hours and 12 hours prior to their arrival. It should be clearly indicated that times quoted are in GMT. They should also state the quantity of cargo, in long tons, the maximum loading rate required, deballasting time and whether able to load and discharge ballast concurrently. Any crew changes and/or medical treatment required should also be notified in this cable (Also see "Health").

These cables should be addressed to Petroqat, Mesaieed, and passed via Doha Radio.

The following cable is sent to all vessels by Agent (Petroqat):

Quote:

Advise your ETA at Pilot Station Mishut (M) Buoy in GMT 72 hours and confirm 48 hours, 24 hours and 12 hours before arrival. Pilotage is compulsory and in order to confirm pilot boat arrangements essential you advise firm ETA 48 hours before arrival to avoid any delays. Rig combination accommodation/pilot ladder on Lee side before arrival. Pilot hoist and weighted heaving lines must not be used. Tugs are available if required. Please advise your requirements 48 hours in advance.

It is preferred that mooring hawsers in general consist of rope where possible but all wire moorings or wires with rope tails are acceptable. Please note, however, that for safety reasons, all springs which are connected to the main jetty must be of rope or wires with rope tails.

Please advise your last cargo, and confirm that your tanks are cooled down and ready in all respects to receive your nominated cargo. Butane and propane can be loaded concurrently if required. Loading lines are 12 in. diameter and vapour return lines are 8 in. diameter all fitted with Class 150 ASA flanges. Your attention is drawn to the Prohibited Anchorage (Lat. 25° 10' N.) safeguarding the submarine pipelines laid in the vicinity of Wakrah (W) Buoy.

If your vessel is fitted with telex which has high (75B) and low (50B) speed transmission, please ensure that your machine is operating on low (50B) speed mode to ensure that we receive clear, ungarbled text.

Petroqat Mesaieed

Unquote.

Telex Messages: Vessels fitted with telex machines may make contact through Telex No. 4050 Qpausd Dh. However, only the low (50B) transmission mode should be used to ensure the receipt of clear, ungarbled text.

High (75B) speed transmission mode must not be used.

VHF: "Mesaieed Traffic" is equipped with VHF radio equipment operating on Channels 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 67, 68, 69, 70, 71, 72, 73, 74 and 77 of international maritime mobile telephone service.

A continuous 24 hour listening watch is maintained on Channels 11 and 16, the call sign being "Mesaieed Traffic". The range of station is approximately 50 miles.

Also see "Pilotage".

Berth Radio Frequency: Tanker berthing/loading operations are carried out using intrinsically safe portable VHF radio sets on a frequency of 155.975 MHz (transmit and receive). These radio sets also have the facility to use VHF Channel 9.

Vessel Traffic Control: Entrance to Mesaieed by all shipping, both commerical and hydrocarbon, is strictly under the Vessel Traffic Control System call sign "Mesaieed Traffic". Prior to any movement in Mesaieed Port Area or entry to the navigation channels, permission must be obtained from Mesaieed Traffic.

Inbound: Vessels are required to obtain clearance to proceed South at the Mishut Buoy, thereafter to report their position at Hul, S.E. Arrif, and Fairway Buoys.

Outbound: Vessels are required to obtain clearance to proceed from the berth or anchorage and report their position at S.E. Arrif, Hul Buoy and Mishut Buoys.

Communications: The Traffic Control maintains a 24 hour continuous listening watch on VHF Channels 16 and 11, which is the working frequency.

TUGS: The use of tugs is compulsory and is as follows:

North Berth: Tugs not used.

South Berth: One or two tugs at Pilot's discretion used during berthing. Tug may be utilised for unberthing if weather conditions are unfavourable.

NGL Jetty: Two tugs used for both berthing and unberthing.

NODCO Jetty No. 6: Two tugs for berthing and unberthing.

QAPCO Jetty No. 19: One tug used for berthing, assuming that vessel is fitted with an operational Bowthruster unit, otherwise 2 tugs will be used. For unberthing, the use of a tug is at the Pilot's discretion and will depend upon the weather conditions at the time.

Vessels are to provide tug lines in good condition and made of rope. Wires are prohibited.

BERTHING: Pilots act in same capacity as Mooring Masters in the berthing of vessels, after which they supervise raising of flexible hoses and connection to ship's manifold. During loading operations they act as the Corporation's representatives.

Vessel's crew are required to assist with hose connecting.

North Berth: Crude Oil: North Berth is a Single Point Multi-Product Mooring Buoy in position Lat. 24° 53' 37.2" N., Long. 51° 34' 54" E., connected to the shore installation by a 36 in. submarine pipeline. The seaward end of the pipeline and buoy terminates in 2×16 in. × 900 ft. (Crude) and 890 ft. (Stabilised Condensate) flexible floating hoses.

Stabilised Condensate: SPM is also designed to accommodate vessels for loading stabilised condensate. The submarine pipeline is 30 in. in diameter and the seaward end of the pipeline and buoy terminates in 2×16 in. × 890 ft. flexible floating hoses.

Gear to be Provided by Tankers:

(i) General: All tankers berthing at the SPM will be required to have situated on the foc'sle head a Tongue Type bow stopper capable of accepting a 0.76 mm. diameter chafing chain and manufactured and fitted in accordance with the Oil Companies' International Marine Forum and Classification Societies' Recommendations regarding the standard of equipment employed in the mooring of ships at Single Point Moorings. In addition, all tankers mooring at either the SPM or CBM berths must comply with the OCIMF standard for Oil Tanker Manifolds and associated equipment. No use of winch barrel ends is permitted for mooring and only spool drums to be used. Vessels are rejected if this is not possible.

(ii) North Berth (Crude): Vessels are moored by a single hawser from bow to buoy.

The following equipment should be carried by each vessel:

1×40 mm. diameter × 75 m. messenger rope, one axe, crowbar and large hammer ready for use at the bow.

One good boat rope at least 60 m. long, ready at accommodation ladder position.

Derrick or crane rigged over the portside manifolds should be capable of lifting 16 in. floating hose to a height of up to 10 m. above deck (S.W.L. 15 tons). 2×1 tonne chain blocks for hose connection.

Reducers or adaptor (if necessary) bolted to the ship's manifold flanges so as to take 2×16 in. loading hoses.

(iii) North Berth (Stablised Condensate): Stabilised condensate is loaded through the multiproduct SPM at a maximum loading rate of 35,000 bbls./hr. From the shore, the cargo passes through a single 30 in. sea line to the SPM and then into a single 20 in. floating hose, culminating in 2×16 in. overrail hoses which are connected to the ship's portside manifold.

Mooring Arrangements: For vessels arriving at this port without the approved type of "AKD" stoppers fitted, the Terminal will supply suitable snotters and shackles. These will be utilised forward to make fast the chafe chain (attached to the end of the SPM Mooring rope) to a suitable set of ship's bollards. The Pilot will advise as to this arrangement.

Warning: Ship's anchors must never be used within 0.5 miles of this berth or the 36 in. submarine pipeline and must therefore be well secured at all times.

South Berth: Crude Oil: The South Berth consists of a Conventional Buoy Mooring, connected to the shore by a 24 in. submarine pipeline. The seaward end of the pipeline terminates in 2×16 in. × 240 ft. flexible hoses.

Mooring: Vessels are moored to this berth by the use of the ship's two anchors and wires from 6 mooring buoys, (five aft and one forward).

The following equipment will be required on board each ship *in addition* to the equipment required for the North Berth (see above).

Port and starboard anchors with at least 13 shackles of anchor chain on each.

Five mooring wire drums aft and one on the portside of the foc'sle. These drums will be used for heaving up the 4.75 in. circumference wires from the mooring buoys. Vessels should provide either completely empty drums and 4 in. circumference messenger ropes of sufficient length to reach the waterline. Alternatively, the mooring wires may be spooled directly on top of the ship's wires, providing that the latter are neatly stored and sufficient space is available on the drum. However, it is recommended to remove any fibre rope, rope tails and shackles from drums.

TERMINAL INFORMATION:

SBM/CBM:

Berth	Max. *bbls./hr.*	*Fixed sea-line*	*Over rail hoses*
North (SPM) - Crude	55,000	One – 36 in.	Two – 16 in.
North (SPM) - Stabilised Condensate	35,000	One – 30 in.	Two – 16 in.
South (CBM) - Crude	40,000	One – 24 in.	Two – 16 in.

Depth of Water: Available depth of water at seaward end of sea-line is as follows:

North Berth (SPM)	65 ft. (19.6 m.)
South Berth (CBM)	48 ft. (14.6 m.)

An allowance of 8 ft. for South Berth has been made for height of sea-line end cradle above the sea bed.

Berth Limitations:

North Berth (SPM) – 320,000 Summer d.w.t.
Bow to manifold 590 ft.
South Berth (CBM) – Maximum 320,000 tons Summer d.w.t.
Minimum 50,000 tons Summer d.w.t.

Note: Minimum size of vessels at CBM is governed by vessel's length – 650 ft. minimum.

Ballast:

(i) It is essential that vessel is adequately ballasted to ensure safe handling and manoeuvring. Please comply with the Pilot's request as to ballast quantity and disposition.

(ii) Mesaieed is an open roadstead and subject to sudden changes in weather. *All tankers will be required to maintain a minimum of 20% of Summer deadweight ballast/load condition at all times and load/deballast concurrently.* An adequate forward draft must be maintained at all times and the freeboard from waterline to the mooring Panama Fairlead must never exceed 25 m. Vessels in light condition in strong winds risk parting the mooring hawser. Masters of all vessels should note that, should a situation arise that a vessel has to vacate the berth due to adverse weather or for any other reason, the vessel must have on board sufficient ballast/cargo to enable it to manoeuvre with safety and therefore the trim must never exceed 3.0 m.

Loading Operations: After the vessel has been securely moored in berth, loading hoses are lifted and connected to the ship's manifold.

Connection carried out by shore personnel with the assistance of ship's crew.

The Mooring Master will not transmit any loading instructions to the shore until the officer-in-charge on the deck is satisfied that the hoses are connected correctly and that all valves have been set for receiving cargo.

Monitoring of Cargo Quantity: During loading, hourly checks of vessel's tanks shall be made by ship's personnel to determine cargo loaded comparison with shore figures if required. This is to prevent loss of oil through a leaking hose, and particularly applies at night when seepage of oil can remain unobserved.

Pressure Surges: Closure of ship's valves against the flow of oil results in increased hose line pressure. In case of total shutdown, a shock wave can cause severe damage to the shore installation.

At all times, sufficient tanks must be open to safely accommodate the current flow rate. Any valve closure that is likely to cause a rise in pressure must be advised to the pilot *prior* to shutting down.

During "Topping-off", the pilot will be on hand, and will maintain contact with shore control to ensure the regulated decrease in loading rate required for safe operation.

Completion of Loading: When loading is completed, hoses will be disconnected and lowered, under the supervision of the Pilot.

Ships will then proceed to an anchorage allocated by the Pilot or direct to sea upon receipt of documents.

NGL Jetty: This is a 'T' type jetty with breasting dolphins flanked either side by 2 mooring dolphins. Water depth at the berth is 42 ft. (12.8 m.). The jetty is fitted with a telescopic ladder.

Max./Minimum Size:
LOA: 550 ft. – 950 ft.
Capacity: 30,000 cu.m. – 120,000 cu.m.

Mooring and unmooring operations are restricted to daylight hours. The use of 2 tugs is mandatory for berthing and unberthing at this jetty.

Products loaded are Butane, Propane and Condensate. Vapour recovery lines are provided for Butane and Propane and must be connected. Vessels without provision for this connection will not be accepted.

Loading Rates are as follows:
Butane 1,200 tonnes p.h. (12 in. loading line, 8 in. vapour return line).
Propane 1,200 tonnes p.h. (12 in. loading line, 8 in. vapour return line).
Condensate 1,400 tonnes p.h. (12 in. loading line).

Bulk Ethylene Jetty: *QAPCO No. 19:* Ethylene tankers are moored at the Qatar Petrochemical Company's facilities at Berth No. 19. Liquid ethylene is loaded through one Chicksan type 12 in. loading arm and there is a similar 6 in. vapour return arm on the North side of the loading arm. Flanges are Class 150 ASA.

Total development height of arms is 46 ft.
Maximum loading rate 600 tonnes p.h.

Mooring and unmooring operations are restricted to daylight hours. Tugs are available to assist in mooring and unmooring.

Mooring: The jetty has bollards spaced at 17 m. intervals. The jetty fendering consists of solid rubber, cylindrical fenders of 1.5 m. length and 1.0 m. diameter, spaced at approximately 10.0 m. intervals.

Mooring Arrangements:

1. Vessels moor in either direction at Pilot's discretion.
2. The actual "Tie-up" is 3, 3 and 2, fore and aft (3 head/stern lines, 3 breast lines and 2 springs).
3. There is no restriction on the LOA because Ethylene tankers are all of a certain size, which can be accommodated quite safely at the present moment. As a general guide, any vessel having a stern to manifold distance in excess of 94.0 m. should ask the Terminal for further details prior to arrival.
4. Maximum depth of water at berth is 42 ft. (12.8 m.).
5. Ship's gangway to be used.

Mooring and unmooring operations are restricted to daylight hours. One tug is used for berthing, assuming the vessel is fitted with an operational bow thruster. The use of a tug for unberthing is at the Pilot's discretion, dependent on weather.

Product Loading Berth: *NODCO – Berth No. 6:* The jetty has bollards spaced at 21.5 m. intervals. The jetty fendering consists of solid rubber, cylindrical fenders of 1.5 m. length and 1.0 m. diameter spaced at 10.5 m. intervals.

Mooring Arrangements:

1. Vessels may moor in either direction at Pilot's discretion.
2. The actual "tie-up" will be 3, 3 and 2, fore and aft (3 head/stern lines, 3 breast lines and 2 springs).
3. Maximum permitted LOA 780 ft. (238 m.).
4. Maximum bow or stern distance to manifold 390 ft. (119 m.).
5. Maximum beam 45 m.
6. Maximum arrival displacement not to exceed 60,000 tonnes.
7. Minimum depth of water at berth 13.00 m.
8. Extreme care should be taken to tend moorings and gangway, especially in N.W.ly winds.
9. Ship's gangway to be used.

Mooring and unmooring operations are restricted to daylight hours. The use of 2 tugs is mandatory for berthing and unberthing at this berth.

Loading Arrangements:

1. 2×8 in. loading arms for heavy fuel oil.
2. 2×8 in. loading arms for other products (white oils).
3. The pumping rates are as follows:
   Heavy fuel oils: 1,300 cu.m./hr. with 2 loading arms and 650 cu.m./hr. with 1 loading arm.
   White oils: 1,100 cu.m./hr. with 2 loading arms and 550 cu.m./hr. with 1 loading arm.
4. Vessels fitted with inert gas must arrive fully inerted.

CARGO HANDLING FACILITIES: Government Pilots provide berthing assistance. See "Doha".

Max. draft permissible at any state of the tide – 33 ft.
Max. draft permissible at HW – 39 ft.
Max. LOA – 850 ft.

Berth	*Length*		*Depth*		
No.	(m.)	(ft.)	(m.)	(ft.)	
1	350	1,155	15.0	49.5	QASCO (Steel Cargo)
2	190	627	15.0	49.5	"
3	190	627	15.0	49.5	"
4	190	627	13.0	43.0	Ind. Cargo (QGPC)
5	190	627	13.0	43.0	"
6	190	627	12.0	39.6	NODCO
9	200	660	10.0	33.0	Gen. Cargo (Ports)
10	200	660	10.0	33.0	"
18	255	841.5	13.0	43.0	QAPCO
19	255	841.5	13.0	43.0	"
QAFCO N	212	700	11.8	39.0	Ammonia
QAFCO S	212	700	12.0	40.0	Urea

Qatar Fertiliser Company (QAFCO): QGPC do *not* supply pilotage or agency services for vessels utilising the QAFCO jetty.

Arrival Information: Masters should telex their ETA Mesaieed 7 days, 72 hours and 24 hours in advance.

The Telex address is: Shipping Section, 4215 QAFCO DH.

The time for tendering "Notice of Readiness" is the anchoring time at the Freighter Anchorage in Mesaieed.

Please do not tender N.O.R. upon reaching the Mishut Buoy, as this pilot boarding area is not applicable for vessels using the QAFCO installation.

(QAFCO) Jetty: General: Finger Jetty 700 ft. long and 100 ft. wide, and lies in a direction 310° – 130° (T).

Fixed navigation beacon with one flashing light and one red light mounted one above the other on the seaward extremity of the jetty.

Berthing on both sides, North for bulk Urea and Ammonia loading and unloading grain, and South side for bagged Urea loading only.

Gravity fendering arrangements on jetty head protected by tubular rubber slings.

Bollards over the full length of the jetty head.

Lighting by conventional street lightings.

Jetty approach is 1,200 ft. long with a roadway 20 ft. wide.

Operational Equipment:

North Berth -	Ammonia Arm	1×10 in. liquid loading arm at a fixed point (Class 150 ASA).
	Bulk Loader	One mobile bulk urea automatic shiploader.
	Grain Unloading	6 unloading points for connecting 2 mobile grain unloading machines.
South Berth -	Bag Loaders	Two mobile bagged urea automatic ship loaders.
Loading Capacities		Ammonia at maximum 450 tonnes/hr. Bulk Urea at maximum 400 tonnes/hr. Bagged Urea at maximum 125 tonnes/hr.

CARGO: *Inert Gas System:* The Terminal will not accept any oil tanker which is not fitted with a fully operational Inert Gas System, and does not have all tanks fully inerted prior to commencement of loading.

Flash Point: Flash point of Qatar Crude is below 32° Fahrenheit.

H_2S Content: Qatar (Land) Crude contains concentrations of H_2S (sulphuretted hydrogen). This is an evil-smelling poisonous gas which can be lethal depending on concentration of gas in the air inhaled. It can be detected normally by its smell, but a high concentration of the gas rapidly paralyses sense of smell and may lead to a false sense of security. It is, therefore, important that when the presence of the gas is detected the area or compartment concerned must be left with all possible despatch until adequate ventilation can be carried out. The explosimeter will not detect this type of gas.

It is not intended to exaggerate the dangers of H_2S and if a vessel is fitted with an operational inert gas system then these dangers can be regarded as minimal. However, in the light of experience gained, the under-noted precautions have been proved necessary to provide against a possible accident:

(a) The accommodation air-conditioning system should be placed into the recirculation mode, so that none of the toxic gas is drawn into the accommodation. *This is essential throughout the whole loading operation and is a mandatory requirement.*

(b) The H_2S meter supplied by the shore should be utilised by Ship's Officers whenever they suspect the presence of the gas. Note: The alarm setting on the meter is set at 10 ppm. The operation of the meter will have been demonstrated by the Pilot/Loading Master to the Chief Officer, who must ensure that all his Officers are fully conversant with its operation.

(c) During loading, venting of tanks should be allowed only through the agreed venting arrangements (as noted in the ship/shore safety check list). *On no account should any tank lids be opened for any purpose whatsoever.*

(d) Manual ullaging of tanks should be kept to a minimum and, if undertaken, personnel should keep to windward of the tank openings and avoid breathing fumes as much as possible. Breathing apparatus should be worn if manual ullaging of tanks is to be undertaken over a prolonged period of in a confined space.

(e) Entry into pump rooms or any compartments where gas can collect should be avoided. If entry is considered necessary, then an approved breathing apparatus and lifeline should be worn by the person entering and other persons should be standing by, and tending the life-line. One of those persons on stand-by should be wearing a second breathing apparatus set and life line, ready to rescue the person entering the compartment should the latter be overcome by fumes.

(f) Breathing apparatus, life lines and oxygen resuscitators should be readily available during all cargo and tank cleaning/gas freeing operations.

(g) During cargo discharging and tank cleaning/gas freeing operations, the gas ejector for the pump room should be kept running.

(h) Please display the notice headed "Hydrogen Sulphide the Invisible Killer" in a cargo control room, in order to ensure that all personnel connected with the loading operation are aware of the dangers.

LOADING:

Notice of Readiness: The Notice of Readiness should be addressed to the "Qatar General Petroleum Corporation, Mesaieed, Qatar".

The Notice will be *received* by the Corporation Representative, provided that the vessel is ready to load. The normal procedure is to present the Notice to the Pilot who receives it at the same time as he boards the vessel, in the majority of cases.

Laytime will commence as stipulated in the export agreement between purchasers and vendors.

Tank Dips: During loading, hourly checks of vessel's tanks shall be made by ship personnel to determine cargo loaded for comparison with shore figures if required. This is to prevent loss of oil through a leaking hose and particularly applies at night when seepage of oil can remain unobserved.

Inspection of vessel's tanks will be made by a ship's Officer before loading and, if required, by a Q.G.P.C. Representative. Opening dips and closing ullages will be taken by ship's personnel and the quantity of cargo calculated.

Particular care must be exercised by ship's personnel, towards completion of loading, in the "Topping-off" of tanks to ensure that the Terminal is given timely advice of any decrease in pumping rate required. Adequate "Stand-by" notice should be given before the final "Stop".

Loading Pumps: Three 2,230 h.p. pumps are used to load crude oil and it is important to note that any rapid changes in the oil velocity may cause pressure surges in the loading system. A pressure surge may rupture the flexible hoses connected to the vessel spilling dangerous quantities of crude oil onto the decks or surrounding areas and may also cause excessive damage to the Terminal installations. To avoid these risks, valve operations and tank switching should be done with extreme care. Please ensure that 15 minutes' notice is given for "Slow Speed" and/or "Stop" instructions. A letter of protest will be issued by the Shore Representative/Mooring Master on any occasion a pressure surge is generated, whether Terminal installations have been damage or not.

Tank Inspection Certificates: Masters should note that Corporation personnel are not authorised to sign dry tank certificates prior to loading. As such, if verification of tank inspection is required, then shipowners should make their own arrangements for a third party survey.

Bills of Lading/Documentation: There is no provision for "Early Departure Procedure" at Mesaieed, and all Masters will be provided with a full set of documentation prior to departure. It should be noted that the Agent will sign all original documents on behalf of the Master, and duly stamped copies will be signed by the Master for receipt only.

BALLAST: In the world today there is a greater awareness of the environment in which we live and the need to ensure that we protect our inheritance for future generations. As such, we ask Masters of all vessels entering Qatari waters to ensure that the ballast to be discharged is clean. You are required to sign a declaration, stating that the ballast to be discharged complies with current MARPOL regulations (Oil content to be less than 15 p.p.m.), and it should be noted that sampling of ballast water may be carried out in Mesaieed, and if proven to be in contravention of the current MARPOL regulations, then the ship will be refused permission to discharge that ballast. In effect imposing a severe financial penalty for failure to comply with anti-pollution regulations.

In addition, vessels should ensure that no oily water of any sort is discharged overboard, whether it be from bilges, pump rooms or washed overboard from deck. Scuppers should be effectively plugged and any leaks or overflows of cargo should be contained within the confines of the vessel. Any vessel found to be in contravention of these rules will be liable to heavy fines and liabilities for claims arising from pollution of the sea and shore areas. Where a vessel has caused pollution, it will be held responsible for all the costs of the cleanup operation.

The message is very clear from the Qatari Government. Do not cause any pollution, otherwise heavy penalties are in force.

MEDICAL: Medical and hospital facilities available.

DENSITY: The density of sea water in Mesaieed harbour is in the region of 1030 to 1035. However, no "Dock water allowance" should be made when calculating the departure draft, as the density of water in the region of shallowest depth of water may be less than in the Mesaieed port area, especially during a flood tide.

FRESH WATER: Available at Berths No. 6 and No. 19, but not at S.B.M., C.B.M. or L.N.G. Berth.

FUEL: Available at Berth No. 6. Also see "Doha".

CUSTOMS ALLOWANCES: The State Laws of Qatar are very strict about the import of liquor and its consumption both on the mainland and on vessels in the harbour. No employee, whether senior or junior, is permitted to import any liquor direct or to bring any liquor ashore from vessels, and under no circumstances should liquor be offered for consumption on your vessel to any Q.G.P.C. employee or any shore personnel. Vessels should seal their liquor store before arrival, and any cameras should also be placed under seal. *Heavy penalties are enforced for any infringement of the Law.*

REPATRIATION: Immigration/Transit facilities for arriving or departing ship personnel are good. 24 hours notice should be given on name, passport details and Seaman's Book No. to ensure minimum delay to travelling personnel. Officers and crew joining a vessel must have Seaman's Books.

DISCHARGE CERTIFICATE: The Master of every vessel loading at Mesaieed is handed a numbered Discharge Certificate for completion by the Customs or Port Authority at port of discharge and return by air mail to Qatar General Petroleum Corp., P.O.Box 3212, Doha, Qatar within 40 days of sailing from Mesaieed.

Instructions regarding the cable to be sent after discharging a cargo loaded at Mesaieed must be strictly followed.

It must be emphasised that failure to comply with this requirement may result in delay or even boycott of the vessel upon return to Qatar.

It is therefore in best interest to ensure that Agent at port of discharge attends to despatch of this certificate and the cable with least possible delay. Airmail should be used for Certificate posting.

N.B. If the cargo is destined for onward transit, the final destination of the cargo must be advised on the Certificate.

SECURITY: The Government of Qatar and the Corporation are anxious to ensure that unauthorised persons do not board vessels loading at Mesaieed. Vessel's co-operation is requested in checking the identity of all persons boarding.

Vessels are particularly advised to keep all points of access to vessel under surveillance at all times, and to provide maximum night illumination of vessel insofar as the safety regulations permit.

A State Police Launch is present in the area and may be available for assistance if required.

SHORE LEAVE: No shore leave is allowed in Mesaieed, but can be arranged for ship's business purposes through the Agent.

GARBAGE DISPOSAL: Not available.

Government Regulation: The MARPOL regulations regarding the disposal of garbage are now in force and as such, all vessels entering Qatari waters should take steps to ensure that no garbage is thrown over the side from their vessels. Any vessel found in contravention of this regulation will be subject to a fine, and be made to pay for any clean-up operation.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Qatar Riyals (Q.R.).

GENERAL: *Stores and Provisions:* At Mesaieed there are facilities for the supply of stores.

Photography: Photography is prohibited, all cameras on board should be kept in a locker for sealing by Customs Officer on arrival.

Q.G.P.C. Light Dues: A charge is made to cover the provision and maintenance of light buoys in the Entrance and Industrial Channels to Mesaieed. This covers one visit to this port, both inward and outward passage.

Qatar Port Dues: The State of Qatar imposes Port Dues on all petroleum carrying vessels which load hydrocarbon substances in one or more of the oil loading ports located in the State of Qatar. This includes islands and offshore areas belonging to the State of Qatar.

Note: The G.R.T. for purposes of these calculations will be that shown on the Arrival Report signed by the Master.

M.E.N.A.S. Light Dues: M.E.N.A.S. Light Dues at rates fixed by the Middle East Navigation Aids Service are payable at Mesaieed to cover both inward and outward passage through the Gulf.

Industrial channel dues are applicable to all vessels berthing at QASCO/NODCO/Commercial Harbour and QAPCO (i.e. Berths No.1-19).

Deratisation: There are no facilities for deratisation in Qatar.

DEVELOPMENTS: The new Mesaieed port, opened in 1977, has a total water frontage of 4.5 km. of which 2.5 km. has been developed to provide deep-water berths and a harbour for small craft. Three berths at the Northern end having 15.5 m. minimum depth of water at MLLW are reserved mainly for the requirements of Qatar Steel Company and 2 berths at its Southern end having 13.0 m. minimum depth of water are reserved mainly for the requirements of Qatar Petrochemical Company. Three additional berths having 13.0 m. and two berths having 10.0 m. minimum depth of water at MLLW are available for specialised and general cargoes.

Inner approach channels and manoeuvring areas have been dredged to serve all berths in the new Port.

In addition there are wharves under construction which will be used by general cargo vessels, Ro/Ro vessels, car carriers and container vessels.

A chemical plant is also being constructed.

SHIPMASTER'S REPORT: 1980 (Updated 1996).

Vessel: 210,000 tonnes d.w.

Pilotage: This is now compulsory for the inward passage too for tankers. The Pilot/Mooring Master boards by boat from Doha at Mishut Buoy in position Lat. 25° 16' N., Long. 41° 47' E.

Agents/Operators: Qatar Petroleum Producing Authority has now been renamed Qatar General Petroleum Corporation and Notices of Readiness, etc., should be addressed accordingly. Cable address: PETROQAT, Mesaieed.

Documents: 2 Crew Lists, 2 Stores Lists, 2 Bonded Stores Lists, 2 Arms and Ammunition Lists and Port Clearance from last port.

Radio: A7S was heard after contact had been established on VHF. The Mooring Master did not know of any ships ever using this station.

SHIPMASTER'S REPORT: January 1992 (Updated 1996).

Vessel called to load 25,000 tonnes of Jet Fuel.

Restrictions: Daylight berthing/unberthing only.

Tugs: Two tugs for berthing/unberthing. Tugs use ship's lines.

Berthing: Berthed at NODCO Jetty, Berth No. 6, the most Southern end of the new Mesaieed port, starboard side alongside with 3 head/stern lines, 3 breast lines and 2 spring lines. All soft ropes (See also "Plan").

Ship is turned before berthing and berths head out on heading 211° (T).

Jetty Layout: Berth No. 6 is part of a long straight quay with fenders of 1.0 m. diameter (approx.). There are 4 loading arms, 2 for black oil and 2 for white products. The black oil arms are the most Northern ones.

No shore gangway, the ship's accommodation ladder could be used.

All bitts on the quay are situated 1.0 m. (approx.) from waterfront. Not a single one further inland.

As the prevailing wind in the Winter is Northwesterly, it is possible for ships to be blown off the jetty in Winter, as there are no bollards for breast lines other than those at 1.0 m. from the quay line.

Loading: Loaded through 2 arms with 8 in. ASA 150 flanges. Max. loading rate per arm 550 cu.m./hr.

SHIPMASTER'S REPORT: June 1996.

Documents:

6 copies Crew List.
3 copies Bond List.
3 copies Vaccination List.
1 copy Stores List.
1 copy Last Port Clearance.
1 copy Health Declaration.

The following documents to be passed to Agent for onward inspection at the Port Department:

1. International Load Line.
2. Safety Equipment.
3. Safety Construction.
4. Classification for Hull.
5. Classification for Machinery.
6. Safety Radio Telegraphy.
7. Station Licence/Radio Licence.
8. Measurement/Tonnage/Freeboard Certificate.
9. Registry/Nationality.
10. Oil Pollution.
11. Master's Competency.
12. Officer's Certificates.
13. Original Crew List.

Note: No. 12 and No. 13 required only for vessels registered in Qatar.

Pilotage: Outward pilotage is compulsory for dry cargo vessels to navigate the Mesaieed Buoyed Channel, if vessel's max. draft is over 10.4 m.

AGENCY:

(A) *Tankers:*

Qatar General Petroleum Corporation (Oil and Gas Operations), P.O.Box 50070, Mesaieed, Qatar. Telex: 4050 Qpaush DH. Fax: 770421. Cable: Petroqat, Mesaieed. Terminal Tel. No.: 771219, 774221, 774223, 774568.

(B) *Other Vessels:*

Qatar National Navigation and Transport Co. Ltd., P.O.Box 153, Doha, Qatar. Telex: 4206 Melaha DH. Cable: Navigation. Tel: 321175/9, 23684, 21213.

AUTHORITY: Qatar General Petroleum Corporation (Oil and Gas Operations), P.O.Box 50070, Mesaieed, Qatar. *Tel:* 771219, 771852. *Telex:* 4050 Qpa Usd. *Cables:* Petroqat Mesaieed. *FAX:* 770421. *Contact:* Salem Abdul Rahman, Manager – Export and Marine Department.

General Cargo: Director, Department of Ports, Ministry of Communication and Transport, P.O.Box 313, Doha, Qatar. *Tel:* PABX 457457, 414626. *Telex:* 4378 Mawani DH. *FAX:* 413563. *Cables:* Mawani. *Contact:* Harbour Master. Tel: 414287.

RAS LAFFAN: 25.56 N. 51.37 E.

LOCATION: Ras Laffan is situated on the N.E. coast of Qatar, in Lat. 25° 56' N., Long. 51° 37' E. The purpose-built port has been designed as the export facility for Liquefied Natural Gas (LNG), Condensate and Sulphur derived from the processing of gas landed from the North Field Gas Reservoir situated 67 km. N.N.E. of the port.

PORT LIMITS: The port limits extend to 5 cables outside of the Main and Lee Breakwaters, and the Approach Channel, including the area within a radius of 1.0 nautical mile centred on the Fairway Buoy and includes the designated anchorage areas.

DOCUMENTS: The following documents are required by shore authorities upon arrival:

Customs:
1 copy Crew List.
1 copy Crew Declaration.
1 copy Stores List.
1 copy Bonded Stores List.
1 copy Arms and Ammunition List.
1 copy Last Port Clearance.

Immigration:
1 copy Crew List.

Police:
1 copy Crew List.
1 copy Arms and Ammunition List.

Health:
1 copy Vaccination List.
1 copy International Health Declaration.
1 copy Animals onboard.

Port Management:
1 copy Arms and Ammunition List.

Agency:
1 copy Crew List.
1 copy Crew Declaration.
1 copy Stores List.
1 copy Bonded Stores List.
1 copy Arms and Ammunition List.
1 copy Last Port Clearance.
1 copy Vaccination List.
1 copy International Health Declaration.
1 copy Animals onboard.

Note: Derat Certificate – Facilities for derat are not available at Ras Laffan Port at present.

PILOTAGE: Pilotage available 24 hours.

(a) Pilotage is compulsory for all vessels navigating within the port area, except for the following exempted vessels where the Master has, in the opinion of Port Management, sufficient knowledge of the port and approaches:
   (i) At the sole discretion of the Port Management, vessels of less than 2,000 g.r.t. which do not have on board dangerous substances to which the provisions of the Dangerous Substances in Harbour Areas Regulations 1987 apply.
   (ii) Fishing vessels and supply boats.
   (iii) All tugs operating as such exclusively within Ras Laffan Port Area.
   (iv) Military, Coastguard or Police vessels of the State of Qatar, and
   (v) Any other vessel exempted by the Port Management.

(b) Boarding Area: Vessels arriving from sea, which are required to take a Pilot in compliance with this Direction, or otherwise require a Pilot, shall take the Pilot on board in a position 1.0 miles N.E. of the Fairway Buoy. Vessels may board a Pilot in other areas only if expressly directed to do so by the Port Management.

(c) Pilotage Exemption Certificates: Will be issued, on application, at the sole discretion of the Port Management, to the Master of the exempted vessels. The terms and validity of the Certificate will be determined by the Port Management.

(d) Pilot Ladder Requirements:
   (i) The rigging of pilot ladders and the embarkation and disembarkation of Pilots shall be supervised by a responsible Deck Officer.
   (ii) Pilot ladders shall be secured in a position well clear of any overboard discharge and such that each step rests firmly against the vessel's side.
   (iii) Pilot ladders shall be secured in a position where the Pilot can gain safe and convenient access to the vessel after climbing not more than 9.0 m. Where the vertical distance exceeds 9.0 m., then a combination or accommodation ladder and pilot ladder is required. Accommodation ladders should always lead aft.
   (iv) Adequate lighting shall be provided so that the pilot ladder and the boarding position shall be properly illuminated.
   (v) Pilot hoists are not acceptable for the boarding and landing of Pilots at Ras Laffan.

(e) Vessel Actions:
- (i) Communication with the pilot boat must be maintained at all times during the approach to, and embarkation/disembarkation of, the Pilot.
- (ii) Masters should be aware that a good lee is required for all small boat transfers, and that considerable time saving is possible if this exercise is carried out in good time and in a professional manner.
- (iii) Pilot transfers will not be undertaken at speeds in excess of 3 knots without the agreement of the Pilot.

APPROACHES: Ras Laffan port is bounded by a 6 km. long breakwater to the North (Main Breakwater) and a 5 km. long breakwater to the South (Lee Breakwater) ending at a 400 m. entrance to the port, open in an 098°/278° direction.

The 5.5 km. × 280 m. buoyed approach channel is dredged to −15.0 m. C.D., which reduces to −13.5 m. C.D. between the breakwaters, marking the beginning of the port deep water dredged area.

Charts: Vessels visiting the port must have on board a sufficient range of current hydrographic charts relevant to the area. These charts must be kept up-to-date with regard to Notice to Masters and other notices promulgated for the area.

British Admiralty Charts No. BA 3789 "Ras Laffan" (Scale 1:6,000) and BA 3791 "Approaches to Ras Laffan" (Scale 1:35,000), have been printed and are available through the usual sources or on request through the Agent.

Prohibited Areas: Masters should be aware of the live gas lines which exist (and are charted) to the West of the port. Extreme caution should be exercised when navigating in this area and adequate under-keel clearance allowed with due regard to swell, squat and the profile of the gas lines which are often routed above the sea bed.

Buoyage and Navigation Aids:

(a) Fairway Buoy: A conventional shaped buoy, painted in vertical red and white stripes, with "Ras Laffan" written in white on the sides. It has a focal plane of 6.0 m. and is equipped with:

Racon (Morse code letter 'G').

Fog signal (2 secs. blast ev. 10 secs.) range 0.5 miles synchronised with the light.

Conventional bell, worked by buoy movement.

(b) Channel Buoys: The buoys are all of a similar and conventional shape, with:
- (i) Starboard hand buoys painted green, with a green 'triangle' top mark (apex upward), and identified by white 'odd' numbers from the Fairway Buoy as RL1, RL3, RL5, RL7, RL9 and RL11.
- (ii) Port hand buoys painted red, with a red 'can' topmark, and identified by white 'even' numbers from the Fairway Buoy as RL2, RL4, RL6, RL8, RL10 and RL12.

  All channel buoys are equipped with lights (see below) which are 'gate' synchronised, i.e. RL1 and RL2 flash together, RL3 and RL4 flash together, etc.
- (iii) Buoys/Beacons – Position and Light Characteristics:

Buoy/Beacon Name or No.	*Position* North	East	*Light – Colour Characteristics*	*Range* miles
Leading Lights			R Fl.ev.1 sec.	8
Main Breakwater			G Fl.ev.5 secs.	8
Lee Breakwater			R Fl.ev.5 secs.	8
Main Breakwater Inner Spur			G 2 Fl.ev.5 secs.	5
Fairway Buoy	25° 55' 00"	51° 42' 00"	W Fl.ev.10 secs.	10
RL1 Channel Buoy	25° 55' 16.7"	51° 40' 28.7"	G Fl.ev.5 secs.	6
RL2 Channel Buoy	25° 55' 07.7"	51° 40' 27.2"	R Fl.ev.5 secs.	6
RL3 Channel Buoy	25° 55' 21.0"	51° 39' 55.6"	G 2 Fl.ev.5 secs.	6
RL4 Channel Buoy	25° 55' 12.0"	51° 39' 54.2"	R 2 Fl.ev.5 secs.	6
RL5 Channel Buoy	25° 55' 25.4"	51° 39' 22.6"	G 3 Fl.ev.5 secs.	6
RL6 Channel Buoy	25° 55' 16.4"	51° 39' 21.1"	R 3 Fl.ev.5 secs.	6
RL7 Channel Buoy	25° 55' 29.7"	51° 38' 49.4"	G Fl.ev.5 secs.	6
RL8 Channel Buoy	25° 55' 20.7"	51° 38' 48.0"	R Fl.ev.5 secs.	6
RL9 Channel Buoy	25° 55' 34.0"	51° 38' 16.4"	G 2 Fl.ev.5 secs.	6
RL10 Channel Buoy	25° 55' 25.0"	51° 38' 14.9"	R 2 Fl.ev.5 secs.	6
RL11 Channel Buoy	25° 55' 38.3"	51° 37' 43.3"	G 3 Fl.ev. 5 secs.	6
RL12 Channel Buoy	25° 55' 29.3"	51° 37' 41.8"	R 3 Fl.ev. 5 secs.	6

Attention is drawn to the service provided by MENAS who promulgate warnings for the whole Gulf area.

Masters are required to report any navigational hazards to MENAS, via cable: Megulite Bahrain, Telex: 8246 Menas Bn. or Fax: 727765.

Turning Circles:

(a) A turning circle of 750 m. diameter is situated within the Deepwater Harbour. In general, all vessels berthing within the Deepwater Harbour will turn and berth so that the vessel's bow is heading towards the entrance when berthed.

(b) A turning circle of 350 m. diameter, located between the Lee Breakwater and the S.W. end of the Sulphur loading peninsula, accommodates vessels bound for the heavy lift/Ro-Ro berth.

ANCHORAGES: Anchorages have been designated off the port within the following co-ordinates:

Western Anchorage:	Lat. 25° 58' N.,	Long. 51° 41' E.
	Lat. 25° 56' N.,	Long. 51° 41' E.
	Lat. 25° 57' N.,	Long. 51° 40' E.
	Lat. 25° 57' N.,	Long. 51° 42' E.
Eastern Anchorage:	Lat. 25° 54' N.,	Long. 51° 45' E.
	Lat. 25° 54' N.,	Long. 51° 47' E.
	Lat. 25° 55.5' N.,	Long. 51° 45' E.
	Lat. 25° 55.5' N.,	Long. 51° 47' E.

RESTRICTIONS: *Entry/Departure:* Daylight only at present.

Draft and Trim: The approach to the port is through a buoyed channel dredged to −15.0 m. C.D. The Deepwater Harbour is dredged to a depth of −13.5 m. C.D.

(a) Arrival: Vessels shall have the propeller submerged and have a reasonable stern trim not exceeding 3.0 m.

(b) The following table shows the maximum permissible draft alongside and the height of the various berths:

Berth	*Max. Draft Alongside*	*Berth Height*
LNG	12.0 m.	+5.0 m. C.D.
Liquid 2A/2B	12.0 m.	+5.0 m. C.D.
Dry Cargo/Container	12.0 m.	+4.0 m. C.D.
Heavy lift/Ro-Ro	7.0 m.	+3.0 m. C.D.
Supply/Service Berth	To be agreed	+3.0 m. – 3.5 m. C.D.

Under-Keel Clearance: A minimum UKC of 1.0 m. alongside and 2.0 m. elsewhere within the Deepwater Harbour area is to be maintained.

MAX. SIZE: The enclosed port area accommodated LNG carriers of up to 135,000 cu.m. capacity, part laden/ballasted tankers up to 300,000 Summer d.w.t., dry cargo vessels, and supply vessels serving the North Field Gas Reservoir operations.

Berth Limitations:

(a) LNG/Liquid: The following limitations shall apply:

Vessel/Berth Criteria	LNG 1 and 2	Liquid Berth 2B
Max. vessel length overall	298 m.	345 m.
Min. vessel length overall	170 m.	165 m.
Max. bow to manifold	146 m.	170 m.
Max. stern to manifold	186 m.	170 m.
Max. allowable draft alongside	12 m.	12 m.
Max. vessel displacement	105,000 tonnes	152,000 tonnes

(b) Dry Cargo and Heavy Lift/Ro-Ro Berths:

Vessel/berth Criteria	Dry Cargo Berths	Heavy Lift/Ro-Ro Berth
Max. vessel length overall	To be agreed.	175 m.
Ramp width	–	34 m.
Min. vessel length overall	To be agreed.	To be agreed.
Water depth alongside	−13.0 m. C.D.	−8.0 m. C.D.
Maximum cargo load at the berth	3 tonnes/sq.m.	3 tonnes/sq.m.
Max. vessel displacement	60,000 tonnes.	21,500 tonnes.

Under all circumstances:

Head lines must lead ahead, or by exception no more than 5° astern of a line at right angles to the fore and aft axis of the vessel.

Stern lines must lead astern, or by exception no more than 5° ahead of a line at right angles to the fore and aft axis of the vessel.

In addition to the foregoing, due consideration must be given to the operating envelope of the loading arms at the berth as specified in the relevant Terminal Regulations and Information. The Port Management reserves the right, at its sole discretion, to change the above limitations.

HEALTH:

(a) Radio Pratique can be obtained via the vessel's Agent providing the Master can declare that there has not been a serious illness on board for the preceeding 30 days.

The following information is supplied to the Quarantine Officer via the vessel's Agent:
- (i) Ship's name and flag.
- (ii) Master's name.
- (iii) Number and nationality of officers and crew.
- (iv) Ports visited during the last 21 days.
- (v) Has the vessel any suspected case of Plague, Cholera, Yellow Fever, Typhus, Smallpox, or any other infectious disease.

(b) All crew members shall be in possession of a valid Cholera Certificate.

(c) The standard International Declaration of Health is required upon arrival. Copies can be provided by the Agent if not available on board.

RADIO: Vessels are required to inform Ras Laffan Port Authority of their ETA 7 days, 72 hours and 24 hours prior to arrival (Also see "VHF – Port Control").

Tankers intending to lift condensate should state the amount of ballast onboard and whether SBT or CBT.

Notice of Arrival: In order to expedite Pilot attendance, Masters should endeavour to confirm their final ETA to Port Control 6 hours prior to arrival to Ras Laffan Fairway Buoy. When 5 miles off the Fairway Buoy, Masters shall advise "Ras Laffan Port Control" (See "VHF").

Pre-Arrival Information: Vessels which are required to take a Pilot for Ras Laffan Port are required to provide the Port Management with the following information:

ETA's at least 7 days, 72 hours and 24 hours in advance of arrival, with notification of variations in excess of 4 hours within the last 24 hours.

Vessels should contact "Ras Laffan Port Control" by VHF within 6 hours of arrival via Channels 16 or 12.

The 72 hours ETA shall include the following information:

	Pre-Arrival Information	*LNG*	*Tanker*	*Dry Cargo*
1	Ship's name and call sign	x	x	x
2	Port of Registry	x	x	x
3	Name of Master	x	x	x
4	G.r.t.	x	x	x
5	Arrival Displacement	x	x	x
6	Summer Deadweight (metric tonnes)	x	x	x
7	Length Overall	x	x	x
8	Draft fore and aft – Arrival	x	x	x
9	Draft fore and aft – Sailing	x	x	x
10	Advise quantity of clean segregated ballast to be discharged at this Port.	x	x	x
11	Advise any vessel defect affecting cargo operations or manoeuvring/mooring ability.	x	x	x
12	Confirm P&I Club name / validity.	x	x	x
13	Confirm Pollution Cover	x	x	x
14	Last 3 Ports of Call	x	x	x
15	Last 3 Cargoes		x	x
16	Does vessel have fully operational Inert Gas System.	x	x	
17	Condition of tanks on arrival.	x		
18	Are all cargo tanks inerted to air oxygen level of 8% or below.		x	
19	Is gas detection system operational.	x		

x = To be completed as indicated.

	Pre-Arrival Information	*LNG*	*Tanker*	*Dry Cargo*
20	Are smoke/fire detection and fixed fire extinguishing systems operational.	x	x	x
21	Amount and grade of cargo required.	x	x	x
22	Size, rating, and standard of cargo manifold connection.	x	x	
23	Distance of centre manifold from the bow.	x	x	
24	Height of manifold above keel.	x	x	
25	Distance between manifold flange centres.	x	x	
26	Distance of manifold from ship's side.	x	x	
27	Distance from manifold face to first full restraining bracket.	x	x	
28	Maximum loading rate.	x	x	
29	Anticipated loading time.	x	x	
30	Confirm cargo transfer emergency stops fully operational and date of last test.	x	x	
31	Confirm tank high level and pressure alarms operational.	x	x	
32	Confirm that remotely operated manifold valves have been operated through a complete open/closed cycle, ensure correct functioning and advise valve type (ball, gate, etc.) and actual closing time. Note: Subject valves must close within 30 secs. of operation with the final 20% of closure taking at least 6 secs.	x	x	
33	Both anchors to be cleared away and main engine tested astern before Pilot boards.	x	x	x
34	Vessel's Inmarsat No., Telex No. and Fax No.	x	x	x

x = To be completed as indicated.

VHF: *Port Control:* The Port Control Room is located at the top of the Port Control Tower and is on stand-by for 24 hours a day for communications. Masters are encouraged to contact "Port Control" (VHF Channels 12 and 16) should they have any concerns or be in doubt as to the operational requirements of the port. Port Control Tower equipment includes both long and short range radar, VHF coverage, and a range of meteorological instruments.

(a) All movements within the port limits are subject to the permission of the Port Management. Any vessel wishing to enter, leave, or move within port limits should seek the permission of "Port Control" on VHF Channel 12 *before moving*.

(b) Masters should note that the *dredged channel* to/from the port is subject to controlled *one way navigaiton* at all times.

(c) Routine weather forecasts and navigation warnings may be obtained from Port Control on request.

(d) Information and advice is given in good faith with no guarantees as to accuracy.

Shipping Movements, Navigation and Weather Broadcasts:

(a) Shipping Movements:

(i) All marine movements within Port Limits are controlled by "Ras Laffan Port Control" (VHF Channels 16 or 12). All vessels are required to contact Port Control before entering, leaving or manoeuvring within port limits.

(ii) The dredged channel is subject to *one way navigation*, with all movements within this channel and the Deep Water Basin being prohibited during the entry or departure of vessels bound to, or from, any of the berths in the Deep Water Basin. The movement of such vessels will be advised by "Port Control" on VHF Channel 12; approximately 30 minutes before their intended time of entering the dredged channel or letting go.

(b) Navigation and Weather Broadcasts:

(i) Routine navigation warnings and weather forecasts may be obtained, on request, from the Port Control on VHF.

(ii) Non-routine/urgent navigation warnings will be broadcast as soon as received and repeated every hour on the hour for the following 3 hours.

Communications:

(a) All communications shall be in English.

(b) Communications shall be directed through the proper channels as agreed during the Pre-Loading Meeting. If in doubt, Masters are requested to contact "Port Control", using the following communications table for guidance:

Communications	*Primary*	*Secondary*	*Back-up*
Port Control	VHF Channels 12 and 16	Ship Telephone	Fax/Telex
Ras Laffan Agency	Ship Telephone	VHF 12 and 16 via "Port Control".	Fax/Telex

TUGS: 4×4,700 h.p. (55 ton B.P.).

(a) All towage operations within the port limits shall be performed by tugs provided by the Port Management.

(b) Tugs lines (44 mm. steel wire) are used during normal towing operations. The *minimum* number of tugs required under normal operating conditions will be decided by the Port Management at their sole discretion.

(c) Vessels equipped with a thruster(s) are not subject to a reduction in the indicated tug requirements.

Tug Stand-By: Any request for the services of a stand-by tug or additional tugs should be directed through "Port Control" on Channels 16 or 12.

BERTHING: General Cargo:

Berths:

Length of heavy lift berth – 150 m.

Total length of dry cargo berths No. 1 and 2 – 600 m.

Equipment: Cranes up to 130 tons capacity, bulk sulphur loader (Rate 1,000 tonnes/hr.), forklifts and trailers available.

Tankers/Gas Carriers: *Moorings/Fire Wires:*

(a) The *minimum* mooring requirement for gas carriers and tankers is:

Lines	*Forward*	*Aft*
Head/Stern	3	3
Breast	3	3
Springs	2	2
Fire Wires *	1	1

* During the vessel's stay, the fire wires should be positioned on the offshore bow and quarter with the towing eye maintained at a height of 1.0 m. above the water edge at all times.

The shipboard end should be made fast on the bitts whilst allowing sufficient slack flaked out on deck for effective towing, the slack being secured in a safe and professional manner.

Masters should not hesitate to increase the number of moorings, should they feel it is prudent to do so.

(b) Mooring lines are to be in good condition and without splices in their working length. Coiled or flaked ropes should be turned up on the bitts in the 'figure of eight' style where possible. Ropes turned up on the winch drum and backed-up on bitts are not acceptable.

(c) Mooring wires and ropes with dedicated winch drums must be spooled in the correct direction on the winch drum.

(d) Mooring lines used in a common direction (head/stern/breast/springs) shall be of similar breaking strength, elasticity and material. Under no circumstances will a mixture of wire and synthetic ropes be accepted in a common direction, except moorings which are additional to the indicated minimum requirements.

(e) On completion of mooring, winches should be out of gear with the brakes 'hardened up'. Winches must NOT be left on 'automatic tension'.

(f) It is the Master's responsibility to ensure that:

(i) Their vessels are securely moored in line with the foregoing and with due regard to the current weather forecast.

(ii) A strict watch, of sufficient and proficient personnel, is maintained to ensure that moorings are tended, as required, to prevent slack or overtaut lines, and undue movement of the vessel.

(iii) Weather forecasts are monitored during the vessel's stay alongside, and appropriate action taken in advance of deteriorating weather.

(g) Regular checks of the moorings shall be undertaken by the shipboard personnel, arranged by the vessel's officers. The Master shall remain at all times responsible for ensuring the integrity of the vessel's moorings.

(h) Failure to adequately tend the moorings will be considered a breach of the Port Regulations with consequent and appropriate action taken by the Port Management.

LOADING: *Pre-Operations Meeting and Inspection:* On completion of mooring, all vessels, except those exempted by the Port Management, shall pursue the following actions:

(a) The mooring pattern shall be regularly monitored.

(b) Pre-loading meeting shall be attended by the appropriate representatives onboard the vessel to discuss with representatives from the relevant Terminal, and the Port Management.

(i) Ship/shore communications.
(ii) Ship/shore Safety Check List.
(iii) Emergency Procedures.
(iv) Cargo Handling Plan.
(v) Bunker/Ballast Handling Plan.
(vi) Permit to work requirements.
(vii) Any concerns or operational requirements.

(c) An inspection of the vessel will be carried out:

(i) To confirm compliance with the ship/shore Safety Check List.
(ii) In line with requirements of Port Regulations.

(d) Whilst the vessel is alongside, subsequent inspections may be carried out at any time by the Port Management.

Loading Arms and Gangway Tower:

(a) Maximum Design and Operational Limits (Refer to the relevant Terminal Regulations and Information).

(b) Manifold Connection/Max. Loading Rates, to be confirmed under the relevant Terminal Regulations and Information.

(c) ESD System Alarms (Refer to the applicable Terminal Regulations and Information).

Ballast/Oil Transfers/Pollution:

Note: The waters around Ras Laffan are renowned for their abundant marine life, and there is an increasing awareness of the environment in the Ras Laffan area.

Any pollution affecting the well-being of the area is looked upon as extremely serious and will incur heavy penalties in addition to any clean-up costs.

Ras Laffan Port does NOT have ballast or oily water reception facilities. To protect the interest of all parties, Masters should be guided as follows:

(a) The discharge of 'clean' ballast from Segregated Ballast Tanks (SBT) is permitted.

(b) All ballast water other than that contained within SBTs shall be retained onboard.

(c) It is NOT allowed to discharge cargo tank ballast, oil, or any mixture containing oil into the waters of the port.

(d) Ballast water for discharge at this port will be sampled and analysed periodically by the Port Management.

Should any analysis indicate that the quality of the ballast water does not conform to that required within the "Environmental Guidelines" as published and amended from time to time by the Port Management, then appropriate action will be pursued. A table of the criteria for 'clean ballast' is given below:

Substance	*Units*	*Max. allowable*
Ammonia	mg/l	3
Biochemical Oxygen Demand	mg/l	75
Chemical Oxygen Demand	mg/l	470
Floatable Oil and Grease	mg/l	Nil
pH	pH units	6 – 9
Total Suspended Solids	mg/l	35
Total Oil	mg/l	15
Total Organic Carbon	mg/l	150

In line with the ROPME Protocols any water discharged into the Arabian Gulf should be free from substances that:

Settle or form objectionable deposits.

Float as debris, scum, oil, or other matter to form nuisance.

Produce objectionable colour, odour, or turbidity.

Result in impact on the adjacent open Gulf water quality and injure or are toxic or produce adverse physiological responses in humans, marine animals or plants.

(e) Whilst within the port limits, the internal transfer of any oil or slops is not permitted without the approval of the Port Management.

(f) In the event that pollution, on the land or within the waters of the Port Limits occurs, regardless of cause or origin, the person in charge or responsible for the operation, works or location where such pollution occurs, shall immediately report the incident via the Port Control by the most expeditious means.

Immediate action must be taken to stop or minimise further pollution and contain or clean-up any spillage of oil on the vessel's deck or shore areas.

Failure to report a pollution incident is a serious offence against the Regulations, and persons found contravening this requirement will be liable to heavy fines and prosecution in Qatari courts.

Cargo Handling Rates:
LNG: 10,000 cu.m./hr.
Condensate: 4,000 cu.m./hr.

STEVEDORES: Supplied at the request of the end user.

MEDICAL: Medical attention is available and should be requested via the Agent for routine matters and via "Port Control" (VHF Channels 16 and 12) for emergencies.

Charges for medical services will be borne by the vessel via the Agent.

FRESH WATER: Only available in an emergency.

FUEL: Bunkering facilities are not available at present. In an emergency, gas oil can be supplied by road tanker at the dry cargo and non-hydrocarbon berths only.

REPAIRS: No facilities.

SURVEYORS: Several surveyors appointed by classification societies are established in Doha (American Bureau of Shipping, Bureau Veritas, Det Norsk Veritas).

Several cargo surveyors are also stationed in Doha (Caleb Brett, SGS Redwood, Watson Gray).

GANGWAY/DECK WATCHMEN: Compulsory. To be supplied by vessel.

OPENING/CLOSING HATCHES: By ship's crew.

CUSTOMS ALLOWANCES: No limit on cigarettes or tobacco. Alcohol prohibited.

REPATRIATION: *Immigration and Transit:* Immigration and transit facilities for arriving and departing ship's personnel are available and efficient through Doha International Airport. A minimum of 48 hours notice is required with full details of names, Passport and Seaman's Book for crew transits.

Note: A Seaman's Book is mandatory in order to join a vessel.

AIRPORT: Doha International Airport.

HOLIDAYS: None.

POLICE/AMBULANCE/FIRE: Contact "Port Control".

TELEPHONES: GSM (Global System for Mobile Communications) telephones are available on request through ship's Agent.

BANKS: The following banks are available within 30 km. of the port:

Doha Bank Ltd. (Head office: Tel: 456600. Fax: 416631).

Commercial Bank of Qatar (Al Khor Branch. Tel: 721819. Fax: 721934).

Qatar National Bank (Al Khor Branch. Tel: 720127. Head office, Doha. Tel: 407407. Fax: 413753).

Other banks are available in Doha.

SHORE LEAVE: Shore leave can be arranged through the vessel's Agent, including transport from and to the vessel.

IDENTIFICATION CARDS: Shore passes are supplied by the Agent to the Master and shall be returned prior to sailing.

WASTE OIL DISPOSAL: Not available.

CURRENCY: The unit of currency is the Qatar Riyal, which is divided into 100 Dirhams.

Denominations are issued as follows:
Qatar Riyals: 1, 5, 10, 50, 100 and 500.
Dirhams: 25 and 50.

The Qatari Riyal is fixed against the U.S.Dollar at approximately QR 3.65/U.S.$ 1.00 (July 1996).

There are no exchange control regulations in Qatar.

WEATHER: *Meteorological Conditions:*

(a) Wind: The prevailing winds are from the North to N.W., particularly during the Winter and Spring months.

(b) Air Temperature: Winter – ranges from 6°C at night to 23°C during the day.

Summer – ranges from 27°C at night to 45°C+ during the day with very high relative humidity.

(c) Sea Temperature: Ranges from 18°C in the Winter to 34°C+ in the Summer with the maximum recorded being in early September.

Tidal Conditions: In general, the tidal current sets in a direction parallel to the coast line at rates up to 2 knots South-going and 1.6 knots North-going. Considerable increases in currents occur during extended periods of strong and constant direction winds.

The normal tidal range is between +0.3 m. and +1.8 m. C.D. However, tidal heights may be affected by abnormal meteorological conditions.

Tidal information may be requested from "Port Control" on VHF Channels 12 and 16.

GENERAL: *Alcoholic Drinks/Drugs:*

Note: Qatar is a Muslim country with very strict laws governing the import and consumption of alcohol, both on the mainland and on vessels in the port.

(a) Masters are advised that the consumption of alcohol within the port is not permitted; and that the bonded store will be sealed by the relevant authority on the vessel's arrival alongside. Heavy penalties may be imposed on any infringement of the law.

(b) The use or possession of drugs anywhere within the State or territorial waters of Qatar is strictly forbidden with heavy and severe penalties for any transgressor. Masters are reminded of their responsibility for the security of prescription drugs carried onboard vessels.

Cameras: The use of cameras including video cameras within the port limits is strictly prohibited without the prior written permission of the Port Management.

Firearms: All firearms, including ammunition, shall be declared to the Port Management who will specify the security arrangements required as imposed by the governing authorities.

Fishing: Fishing is prohibited within the port area.

Flags and Signals: When within port limits, from sunrise to sunset, all vessels shall fly their national flag and the national flag of Qatar. In addition, vessels shall at all times comply with the International Code of Signals and display flags, shapes and lights as required by the International Regulations for the Prevention of Collision at Sea.

Gangway Requirements:

(a) The purpose-built shoreside gangway shall be used at all times unless unavailable or unsuitable for the vessel at which time the vessel is to provide a gangway as (b).

(b) (i) Any gangway provided by the vessel should conform with the Regulations with correctly rigged rails, embarkation steps, safety net, and appropriately positioned lifebuoy.

(ii) During the hours of darkness, the access area on deck and where possible the length of the gangway should be floodlit.

(iii) A gangway and manifold watch shall be maintained at all times by competent shipboard personnel.

(c) During the vessel's stay alongside, notices and information shall be displayed at the gangway access area as required under the relevant Terminal Regulations and Information.

Port Clearance: Every vessel wishing to leave the port shall obtain a Port Clearance issued by the Port Management. A Port Clearance may be withheld from any vessel by the Port Management for any violation to the provisions of the Laws and Regulations, or for any legal cause or restraint duly ordered by the court in the State of Qatar, or for non-payment of port charges.

Port Services: Only services provided or authorised by the Port Management shall be utilised within the port area. The use of the port equipment, services and facilities shall be given priority over other third party equipment, services and facilities. Requests for the various services shall be made through the Agent. No third party services, equipment or facilities shall be allowed within the port area without the written approval of the Port Management.

Ship/Shore Co-Operation – Vessel Alongside: Whilst a vessel is alongside at the LNG, Liquid or dry Cargo Berths:

(a) The relevant end-user shall appoint and maintain at the Terminal, at all times, a sufficient number of qualified and experienced persons, including a competent person with suitable marine expertise, to monitor the progress of all operations aboard the vessel and to ensure reliable communications are maintained with the Master and the Port Management.

(b) The Master shall ensure that his staff who are charged with the responsibility of conducting or overseeing the cargo operations and related duties are qualified and competent, including the ability to communicate in English. Sufficient vessel personnel shall be made available at all times to ensure that the Port Management requirements for safe and efficient operations and mooring practices are observed and that adequate ship/shore liaison is maintained. The Master and his delegated staff shall ensure that the instructions and requirements that may be imposed by the Port Management, pursuant to these Regulations, are attended to and performed with reasonable despatch and in an appropriate manner.

Shipboard Radio and Radar Equipment: A vessel's main radio station, including emergency transmitter, shall not be used when the vessel is within 400 m. of any Terminal or loading vessel. While berthed, the transmitting aerials shall be disconnected and earthed. At the LNG and Liquid berths, VHF and UHF communications with a radiated power of 1 Watt or less are allowed. All other portable communications equipment at the LNG and Liquid berths shall be intrinsically safe type.

It is prohibited to operate ship-borne radar having a peak pulse power in excess of 60 kW within the following distances from any Terminal or loading vessel:

(a) Radar operating below 2 GHz – 400 m.

(b) Radar operating above 2 GHz – 200 m.

The testing of transmitters operating between 415 kHz and 26 MHz or ship-borne radar with a peak power pulse exceeding 60 kW is permitted if:

(a) The vessel's associated equipment does not present a source of ignition.

(b) The written permission of the Port Management has been obtained prior to any testing.

Shipboard Hot Work: Repair work involving burning, welding, flame cutting, brazing, grinding and similar operations which produce ignition sources, including the use of naked lights, are prohibited unless a Hot Work Permit has been issued by the Port Management. Any violation could result in the cessation of the cargo operations and the vessel requested to vacate the berth, and being put to anchor pending a full inquiry. The vessel will be responsible for all the costs and delays whatsoever resulting from such action.

Security: The Government of Qatar and the Port Management require that no unauthorised persons board vessels within the port limits. Masters are required to check the identity of all persons boarding their vessel. A gangway watch must be maintained at all times by competent shipboard personnel, and any unauthorised attempt to board the vessel being reported immediately to Port Control. Security passes are required for all personnel proceeding ashore; these can be arranged through the Agent.

Ship Standards:

(a) Gas Carriers and Tankers:
  (i) Tankers nominated for Ras Laffan Port must be less than 20 years of age.
  (ii) Gas carriers and tankers nominated for Ras Laffan Port are required to be vetted and accepted as 'suitable' before the nomination is confirmed.
  (iii) First time callers and vessels not having visited the port in the last 12 months will undergo a safety inspection in accordance with OCIMF recommendations prior to commencement of cargo loading.
  (iv) Update inspections will be performed on successive visits at the discretion of the Port Management.
(b) OBO Vessels: On application, OBO vessels may be accepted at the sole discretion of the Port Management, and shall be subject to conditions and requirements to be advised.
(c) Dry Cargo Vessels: Shall be inspected on berthing to ensure compliance with the safety and environmental policy of the port.
(d) Supply Vessels:
  (i) Shall be inspected on their first visit to the port and at random intervals thereafter to ensure compliance with Port Management requirements.
  (ii) The vessels procedures for the transfer of materials, equipment, oil and water shall be subject to the approval of the Port Management.
  (iii) Special provisions shall apply to the supply vessels authorised to use Ras Laffan Port as a regular base for their operations. Such provisions shall apply to access and security, environmental protection, safety arrangements and emergency procedures.

Ship to Ship Transfer: The ship to ship transfer of cargo, bunkers, water, stores, provisions, or any other materials and equipment in the port, or within the port limits, is strictly prohibited without the written permission of the Port Management.

Small Craft:

(a) Entry to the port is restricted to authorised vessels only.
  Mooring buoys have been positioned to the North of the Main Breakwater and to the South of the Lee Breakwater, for the free use of fishing boats, dhows, pleasure boats, and other small craft. When using such buoys, small craft owners and sailors do so at their own risk and the Port Management reserves the right of control over the use of such buoys.
(b) Any vessel requiring lifeboat exercise within the port area must first obtain the written permission from the Port Management.

Stores and Provisions: Stores and provisions, with the exception of alcohol and pork products, are normally obtainable through the Agency.

Stores and/or Spare Parts:

(a) Stores, other than hand carried provisions and laundry, are NOT allowed to be taken onboard during the loading of LNG or Condensate cargoes.
(b) Barges or craft carrying stores or spare parts are NOT allowed alongside any LNG or liquid tanker when the loading arms are connected. Delivery of stores and/or spare parts by barge or boat should be arranged for the period before or after loading. Arrangements shall be made through the Agent.

Swimming: Swimming is not permitted within the port area.

Tank Lids/Cargo and Bunker Connections:

(a) Tank lids, other than SBT, must be closed and gas tight at all times.
(b) Cargo and bunker connections not in use must be blanked and gas tight with *all holes bolted.*

Tank Cleaning/Gas Freeing/Purging: Tank cleaning, inerting, purging or gas freeing within the port area is strictly prohibited without the written permission of the Port Management, with the exception of associated and agreed routine procedures pertaining to the LNG carriers operations performed under the relevant Terminal Regulations.

Weather Working Parameters:

(a) Weather working parameters will be established and advised to the Master by the Port Management.
(b) Electrical storms – during periods of localised electrical storms, cargo operations shall be suspended and all cargo valves closed, ensuring that no pressure build-up occurs in the tanks.

DEVELOPMENTS: Liquid Product Berths 1A, 1B, 3A and 3B are unlikely to be in operation within the next 2 years.

OPERATOR: Qatar General Petroleum Corporation, P.O.Box 47, Doha, Qatar. *Tel:* 402085. *Telex:* 4201 Qatoff Dh. *FAX:* 402512. *Cables:* Qatoff, Doha. *Contact:* Taieb Belmahdi, Manager – Ras Laffan Port.

Agency: Agency services are performed by QGPC Agency Department (the Agent). Telegraphic address, contact modes and numbers to be provided later.

NOTES

Please also advise Shipping Guides Ltd.

Reunion Island

POINTE DES GALETS: 20.55 S. 55.17 E. (See Plan)

LOCATION:
West Port: 20° 55' S., 55° 17' E. The West Port is comprised of the North Dock and the South Dock.

East Port (Baie de la Possession): 20° 54' 50" S., 55° 19' 40" E. The East port comprises the West Dock (Berths P.10 and P.11).

Arrival time at both ports is the time when the vessel crosses the leading line no more than 2 miles from the breakwaters.

FLAG: French flag.

APPROACHES: *West Port:* Channel and Buoyage: The leading line 102° 30'. In the channel the depth is 10 m., 70 m. wide and is buoyed by 4 spars, 2 on each side.

The leading marks for access to the North Port, South and Fishing Port, respectively 009°, 189° and 260°, are marked as shown below:
North Dock: By day, 2 white rectangular signs, with a thick red line marking the centre line, at night, 2 fixed red lights.
South Dock and Fishing Basin: 2 rectangular white signs with a black vertical line marking the centre line by day. 2 fixed green lights by night.

PILOTAGE: *East Port and West Port:* Compulsory for all vessels over 50 m. LOA. Pilot is normally ordered by ship's Agent, or in particular cases by the Harbour Master if contacted by VHF beforehand. Pilot launch carries regulation pilot signals. Pilot boards at the entrance to the port about 1 mile to 2 miles from the breakwaters. Pilot on VHF Channel 16, it is recommended that a watch be kept and ETA confirmed. *Working Hours:* Between 0430 hrs. and 2200 hrs. in the East Port, and between sunrise and sunset in the West Port.

ANCHORAGES: *East Port and West Port:* There are 2 anchorages in the roads near the port.

(a) In Baie de St. Paul in depths of about 40 m., well marked and safe except in very strong swell. Private mooring buoy available in bay.

(b) In Roads of La Possession unmarked anchorage and little used.

If vessel requires a Pilot for anchoring, then anchorage dues are incurred. Vessels anchoring by their own means do not incur charges.

RESTRICTIONS: *West Port:* Manoeuvring is best done in the early morning or at daybreak because during the day wind can make movement difficult. The current on the entry leading line varies in strength (between 1 and 2 knots) and direction. Its direction can only be determined by careful observation during the approach. As a consequence ships should be ready to anchor on instruction from the Pilot while transiting the channel.

Berth No. 8 unsafe during swell periods.

MAX. SIZE: *West Port:* Under certain conditions, the topography of the port and jetties, access is limited to the sizes below:
North Dock: Length 160 m., beam 22.0 m., draft for entry 8.5 m. Greater with preliminary agreement of the Port Authorities. Departure draft fixed by the Port Authorities. (Length 160 m. if draft less than 8.50 m.).
South Dock: Length 175 m. Beam 24 m.
Draft 8.0 m., mean draft for inbound vessels.
Draft 8.5 m., mean draft for outbound vessels.
Draft 8.5 m., max. draft for inbound vessels.
Length 160 m. Beam 24 m.
Draft 8.5 m., mean and max. draft for inbound vessels.
Draft 9.0 m., mean and max. draft for outbound vessels.
In any case, a normal trim is recommended.
Fishing Basin: Length 55 m. draft 4.50 m.

Otherwise entry or departure are under Port Station control. Normally entry only occurs at the following times depending on the season. Maximum daylight 0445 hrs. – 1845 hrs.
East Port: LOA 215 m., draft 12.0 m. and beam 34 m.

RADIO: Saint Lys or Saint Denis Radio.

VHF: Harbour Master's Office equipped with VHF. Call on Channel 16, no watch between 2200 hrs. and 0400 hrs.

TUGS: 2×2,400 h.p. and 1×800 h.p. Only used to assist vessel manoeuvring in the port. Tug joins vessel in outer harbour. Tug will also assist on roads (deliveries of mail).

BERTHING: *West Port:* Berth assigned by Harbour Master, basis vessel's length and draft. Oil tankers berth in the South Dock (P.8 and P.9). Molasses tankers berth in the North Dock (P.2). GPL, bitumen and cement tankers berth in the outer harbour at Dolphin Berth (P. H.). This berth was available for tankers less than 160 m., but now never used.
Fore Port: Channel: 70 m. usable width. Turning circle 300 m. Dredged to 10 m. Max. draft available for vessels less than 130 m. LOA: 8.00 m. Max. draft for vessels 160 m. LOA: 7.50 m. (forward) and 8.5 m. (aft).
North Dock: Narrow entrance. Max. size: 160 m. LOA and 22 m. beam. Max. draft 8.5 m.
Berth 1: 160 m. length, 8.50 m. depth.
Berths 2, 3, 4: Total length 366 m., 9.00 m. depth. Berth No. 4 used by French Navy.
Berth 5: 150 m. length, 7.5 m. depth. French Navy.
Berth 6: 140 m. length, 6 m. depth. French Navy.
Berth 7: 210 m. length, 9 m. depth. Bulk sugar loading berth, rate 400 t.p.h.
South Dock: Berths 8, 9: Each 190 m. length, 10 m. depth.
Berth S: 120 m. length, 8.5 m. depth.
Fishing Basin: 6 berths, 70 m. length, 5 m. depth. Max. draft 4.2 m.
The depths above are dredged depths.

Forklifts for handling 40 ton containers with spreaders at certain berths.

East Port: Located at Baie de la Possession, now handles 75% of the traffic for the Pointe des Galets.

Berthing is carried out between the hours of 0400 and 1900. Departures are possible up to 2200 hrs.

Approach to the port is easy. The leading line (162° True) is marked by two black diamonds on white square towers. At night, two red lights are exhibited.

In the daytime there is occasionally a strong Northerly wind and a current of 0.5 knots may be experienced. There is no swell, except at times of cyclone.

Length of quay (Berths P10 and P11): 510 m.
(Berths P15 and P16): 510 m.
Depth alongside: 12.8 m.
Depth of access channel: 13.20 m.
Width of access channel: 130 m.
Turning Basin: 300 m. × 400 m. with depth 13.2 m.

Berth P10 receives 90% of petroleum product for the port. Clinker and containers also discharged at the berth.

Berth P11 is a container terminal and handles 90% of the traffic for the port.

Berths P10 and P11 have special access conditions whereby the authorities give priority to regular users. Berths equipped with 2 post-Panamax gantry cranes. A third crane will be available early 1995.

Containers are handled at a rate of 250 per shift of 7 hours, with 4 or 5 gangs, depending on number of cranes on board the ship.

Berths P14 and P15 handle conventional cargo, bulk cargo and cars.

Bunkers are not available.

BULK HANDLING FACILITIES: *West Port:* Berth No. 7: Sugar loaded at 1,400 t.p.h. Max. draft on completion of loading is 8.20 m.

Berth No. 9: Portable vacuator for discharge of cereals, capacity 200 t.p.h.

CRANES: No shore cranes.

STEVEDORES: Normal working hours 0700 – 1400 hrs. and 1400 – 2100 hrs. Morning shift may be extended to 1700 hrs. if vessel is going to sail.

MEDICAL: Doctor and hospital facilities available.

TANKERS: Oil tankers berthing to P.10 must be fitted with I.G.S. The system must be operated from time of entering until time of leaving French waters.

Small tankers berthing to P.8 and P.9 may be authorised to discharge F.O. whose flash point is less than 63°C. Authorisation has to be obtained beforehand from the Port Authorities.

Also see "Berthing".

Operator's Report: (West Port) (Updated 1992).
Approaches: Currents generally set across the harbour entrance and vessels should not approach within one mile of the port without the Pilot onboard. Also it has been reported that when entering the channel at sunrise the sun's glare distorts and obscures some important ranges and structures.
Entry: The outer harbour is entered via a dredged channel of 10 m. (36 ft.) depth, about 70 m. (213 ft.) wide through the breakwaters. When entering the harbour between the breakwaters, a moderate speed may be necessary to compensate for cross currents. Once inside the breakwaters vessels have less than 1,500 ft. (450 m.) to the end of the outer harbour, to stop and turn 180° for berthing. Four buoys indicate limits of 8.5 m. water depth at side of dredged channel.
Weather: The port is subject to "rollers", ocean waves which though infrequent are not predictable. They occur at certain intervals, in any weather and during a perfect calm, unaccompanied by any change in the atmosphere or other indication. The first appearance is a long swell, not assuming the shape of an ordinary wave until it reaches the shore, on which it will burst with great violence, sometimes assuming greater proportions than during a cyclone.

Masters are advised to discontinue cargo transfer operations and to vacate the berth before the swell reaches the stage where the motion imparted to the ship and the consequent bumping against the pier might result in severe damage to the vessel. (A swell warning is in existence).
General: Petroleum products are stored at the Shell Terminal for Esso, Caltex, Total and Elf. White products and gas oil are discharged at Berth P10 (East Port), while heavy F.O. is discharged at Berths P8 and P9 (West Port).
Port Approaches: The approach to the port is clear of navigational dangers, but soundings are of little value as depths of 200 fathoms can be found one mile offshore. However, the land provides good radar echoes and visibility is usually good, except during heavy rain.
Special Preparations: Both anchors must be ready before arrival. Mooring lines, gangway and manifolds must be prepared for berthing starboard side to Berth P9. Ships mooring at Berths P8 and P9 must have lifting gear ready, respectively on port and starboard side, to lift cargo hoses.
Special Conditions: A tanker at Berth PH near the breakwater may have to leave the harbour and return later if another large vessel is to be turned in the outer harbour.
Tugs: Normally one tug assists making fast as required by Pilot after vessel enters within the breakwaters. Tug normally pushes, but if making fast use tug's lines.
Berthing Procedures:

Berth PH – Outer Harbour: Vessels bound for Berth PH on the North side of the outer harbour pass the berth on their port side soon after passing through the breakwaters. They are then turned to starboard with the aid of a tug and berth starboard side to the pontoons, heading seaward.

Berth PH consists of a central "T" shaped platform supporting 2 hard arms and it is protected by a breasting dolphin of steel piles. The face of this dolphin is slightly inside the line joining the 2 concrete breasting structures on which the ship lays when berthed. Resilience of breasting dolphins is rather limited.

The disposition of the bollards is not particularly favourable for a proper lead of the spring lines when the ship is positioned alongside.

Berths P8 and P9 – Bassin Pres. J. Caille: After having passed through both breakwaters the vessel turns to starboard with the aid of the tug and berths head into the dock port and starboard side to, respectively to Berths 8 and 9.

These are non-dedicated tanker jetties and are normally used for general cargo. Ships carrying gas oil are shifted to these berths from Berth PH The hose is connected purposely for the operation. Bollards are placed along the edge of the jetty. Breast lines cannot be secured. Both berths are well sheltered and not affected by swell.

Pipelines are laid under the quay and flexible hoses are connected each time the ship has to discharge.

Weather at Berth: Weather conditions are generally good except during the cyclone season which occurs November to March. The cyclone warning system is well developed and early warning can be expected. When cyclone warning is received, ships are advised to be ready to leave the port.

Fendering: The fendering system at Berth PH is made of rubber faced timber and is considered insufficient if unusually high swell imparts motion to the ship.

Gangway: Ship's gangway is used.

Facilities:

Water is available at the quays.

Fuel Oil available ex-quay at Berth P8 and P9.

Provisions are available but expensive.

Ship's stores are mostly imported and are therefore, expensive. Availability uncertain.

Ballast, Slops and Tank Cleaning: There are no slop or diry ballast facilities, and tank clearning is only allowed with special permission from the Harbour Master when 2 tanks may be made available.

Engine room slops may be discharged by prior arrangement.

Cargo Connections: Berth PH has 1 × 10 in. and 1 × 8 in. counter-balanced hard arm for handling of gas, rum, molasses, cement and bitumen. Connection is a bolted flange, ASA standard.

Berths P8 and P9 have flexible hoses, 6 in. for gas oil and 8 in. for fuel oil. Connection is a bolted flange.

Ullageas and Temperatures: Taken by a terminal representative accompanied by a ship's officer.

Oil Pollution: Pointe des Galets and all Reunion is covered by the French National "Polmar" plan to cover oil pollution prevention.

Fire Fighting: The port has its own fire brigade and both tugs are equipped with foam and water. There are also fire hydrants on the quays.

Also see "Shipmaster's Reports" – January 1987 and May 1989 (East Port).

DENSITY: 1025.

FRESH WATER: Available at all times by pipeline at the quays. Rate 10 t.p.h. minimum.

FUEL: Fuel and marine diesel available at Berths No. 8 and 9.

REPAIRS: Repairs can be effected by P.I.B. Tel: 43.80.05. Telex: 916614. Slipway facilities for vessel of 55 m. LOA and draft 4.5 m.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally performed by ship's crew who also unlash and hook containers at the 3rd height.

REPATRIATION: All facilities available for crew change and repatriation.

AIRPORT: 30 km. away, daily connections world-wide (Air France, Air Mauritius, S.A.A., Reunion Air Service, Point Air and Air Madagascar).

TIME: GMT plus 4 hours. No alterations during the year.

HOLIDAYS: No cargo work on May 1st or November 1st. Possible to work on January 1st, Easter Monday, May 8th, July 14th, August 15th, November 11th, December 20th and December 25th.

TELEPHONES: *West Port:* Police 42.00.17 and 42.15.80. Ambulances 18 or 42.06.53 (Private), Fire 18, Harbour Master 42.09.12. Telephones can be placed onboard at all berths.

East Port: Police 42.00.47. Ambulance and Fire 18.

SERVICES: Harold J. Thomson (Indoceanic Services) – P&I Club representative (Oceanus, Strike, London Mutual and others). Speaks excellent English, will assist with any shipping services or supplies. Tel: 42.85.85. Telex: 916252. Fax: 42.03.10.

SHORE LEAVE: Crew are allowed to go ashore.

IDENTIFICATION CARDS: Seaman's Book compulsory, to avoid visa problems.

GARBAGE DISPOSAL: Skips are placed alongside. Garbage is collected when ships depart. Contact Tel: 420130 or 432730 for details.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: French Franc (F.Fr.).

DELAYS: General cargo rate 500 – 1,000 tons per day, depending on category and conditions.

SHIPMASTER'S REPORT: 1978 (updated 1988). West Port.

Documents: 3 Crew Personal Effects Lists, 3 Crew Lists, 3 Bonded Stores Lists. Declaration of Health (Supplied on arrival).

Pilotage: Pilotage compulsory. Pilot boards 1 mile off breakwater, minimum of 12 hours' notice required.

Anchorage: At Saint Pauls Bay, 5 cables offshore in depth of 20 fathoms – the water is too deep further offshore.

Restrictions: Vessels can enter and leave at any stage of the tide during daytime. Max. beam for North Port 22 m.

Max. Size: Length 175 m. with draft 8.0 m. and length 160 m. with draft 8.5 m.

Tugs: Normally 1 tug required for berthing and unberthing in the North and South Port. (3 tugs available in 1986).

Radio: Radio station – Saint Denis Radio "FFD". VHF Channel 26 (Hours: 0800 – 2000 hrs. weekdays, 0800 – 1200 and 1500 – 1800 hrs. on Sundays and 24 hours during cyclone periods).

VHF: Pilot and Port Authority Channel 16.

Special Bulk Facilities: Bulk sugar berth – rate 400 t,p.h. No quay cranes – no Ro/Ro facilities. Facilities for handling containers and storage space for containers in North and South Dock in the West Port and at the East Port.

Fresh Water: Available.

Repairs: Facilities available.

Services: Provisions, Bunker fuel, diesel available.

SHIPMASTER'S REPORT: January 1987.

East Port: Tankers berth at Berth P10.

Currents of opposite direction are observed. At a distance of 3 miles off the breakwaters an Eastward current of 1.5 knots experienced and when 1 mile off, a Westerly current of 1.0 knots experienced.

SHIPMASTER'S REPORT: May 1989. East Port (Updated 1994).

Vessel called at La Reunion laden with mogas, gas oil and jet fuel, which was part discharged in the port "Port de la Possession".

Port: Port de la Possession (locally also referred to as East Harbour or East Port).

Documents:

5 copies Crew List.

1 copy Vaccination List.

2 copies Stores List.

2 copies Personal Effects List.

1 copy Maritime Declaration of Health.

Local Time: GMT plus 4 hours.

Communications: Communication with St. Denis Radio/FFD is rather difficult as only MF facilities available and watch keeping is during daytime only.

VHF contact can be established on Channel 16, with Port Control, but only during office hours (0400 hrs. – 1900 hrs.).

Port Authority and Pilots work from 0400 hrs. – 1900 hrs.

Anchoring: No anchoring facilities are available and vessel must drift whilst awaiting berth. Port Control confirms on VHF, time of Pilot boarding and position.

Health: Radio Free Pratique is available through the Agent.

Cyclone: Cyclone season is from January to the end of March.

Berthing: Two powerful tugs of 32 tons' bollard pull are used for berthing. Only 2 berths are available, giving access to vessels up to 215 m. LOA, 34 m. beam with a draft of 12.5 m., of which one berth is used for tankers.

Tankers: The dock has one portable Chicksan of 10 in. diameter which connects the vessel's manifold to the underground pipe. Therefore only 1 product can be discharged at a time.

Shore tanks are about 3 km. away (16 in. pipeline).

Fire Fighting: Being a container dock, portable shore fire-fighting equipment is made available for tankers, consisting of 2 lorries with water sprayers.

Telephone: Provisions for placing shore telephone on board is available.

Fresh Water: Fresh water is available at both berths.

Bunkering: No bunkering facilities at present at the East port.

Medical: The town is only 3 km. away, with adequate medical facilities. The Doctor visits the ship if requested by the Agent. However, for cases which require the attention of a Dentist or an Optician, the crew member is taken ashore by the Agent. Cholera vaccinations are also administered on board by the doctor, however, for yellow fever vaccination the crew member must go ashore.

Customs: Allowance of 200 cigarettes and 1 bottle spirits is permitted for each member of the crew to be held out of the bond.

Shore Leave: All crew members are allowed to go ashore and no shore pass is required.

Repatriation: All facilities available for crew changes and repatriation.

Airport: Daily worldwide links by Air France, Air Mauritius, SAA, Reunion Air Services and Air Madagascar.

AUTHORITY: Direction Departementale de l'Equipement de la Reunion, Arrondissement Mixte, Subdivision Exploitation du Port et du Littoral, BP 2008, 97821 Le Port, La Reunion, Republique Francaise. *Tel:* 42.09.55. *Telex:* 916428 RE. *FAX:* 42.06.02. *Contact:* R. Goavec, L'Ingenieur des T.P.E., Chef de la Subdivision S.E.P.L.

Port Captain. Tel: 42.09.12. Telex: 916249. FAX: 43.05.52.

NOTES

Please also advise Shipping Guides Ltd.

Romania

GENERAL

DOCUMENTS: After a vessel is alongside the wharf it is boarded by the Sanitary Commission (for the sanitary inspection of crew as well as for veterinary and phitosanitary inspection). On completion of the sanitary inspection the vessel is boarded by the Control Commission. The Master fills in a Form of Declaration (4 copies) which, together with the Cargo Plan, Manifest of Goods, Sanitary Certificates, etc., is handed to the representative of the Agency. Within a maximum of 12 hours after performing arrival formalities the Master or Chief Officer completes the Declaration questionnaire at the Harbour Master's Office. The following documents will be tendered which will be retained until departure:

Certificate of Nationality.
Certificate of Tonnage.
Cargo Equipment Safety Certificate.
Load Line Certificate.
Radiotelegraphy Equipment Certificate.
Safety Construction Certificate.
Ship's Register.

Note: Crew Lists and Passenger Lists must be issued in several copies (about 10 of each). If the vessel is staying more than 12 hours in the port, Provisions Lists, Crew Personal Effects Lists and Bonded Stores Lists should be issued.

PILOTAGE: Pilotage is compulsory in all Romanian Ports for all vessels. See individual ports for details.

RADIO: All radio communications are through Constantza Radio (call sign YQI) on 500 kHz. and 461 kHz. Continuous watch is maintained on VHF Channels 16 and 12.

TUGS: Towage in the roads and in the ports is compulsory for all vessels greater than 1,000 g.r.t. See individual ports for other provisions or exceptions.

STEVEDORES: Orders for stevedores must be made a minimum of 4 hours before starting operations. To apply for stevedores and for gangs of workers contact the vessel's agent.

CUSTOMS ALLOWANCES: A small quantity of goods is permitted for each crew member from the bond. The quantities for a 5 day period are:

Master: 400 cigarettes and 2 bottles of alcohol;
Rest of crew: 200 cigarettes and 1 bottle of alcohol.

Quantities in excess of these amounts are kept under customs seal. To renew these quantities from the bond, contact the agent who will contact the customs.

TIME: GMT plus 2 hours.

Summertime: GMT plus 3 hours from the first Sunday in April to the last Sunday in September.

HOLIDAYS: The official holidays in Romania are: New Year (January 1st and 2nd), Easter (2 days) (March/April), Labour Day (May 1st); National Day (December 1st); Christmas (December 25th and 26th) and all Saturdays and Sundays throughout the year.

WORKING HOURS: Official hours for starting are 0700 hrs., 1500 hrs. and 2300 hrs.

CURRENCY: 1 Leu = 100 Bani.

SPECIAL REGULATIONS: From the time a vessel enters the territorial waters of Romania until leaving the zone (12 miles), hoisting of the Romanian flag is compulsory.

Carrying out external maintenance (painting, repairs, etc.) is permitted only during daylight; at nightfall Master's must take all necessary steps to bring the equipment (tools, ladders, platforms, ropes, etc.) back on board.

If a vessel must shift from one berth to another, according to the decision of the Port Authorities, the Master of the vessel is to be advised in writing by the agent at least 2 hours in advance of such shifting. Refusal to perform the shift requested by Port Authorities, is punishable with a fine by the Harbour Master.

In order to prevent the carrying of disease and epidemics into the country by rats, Masters are obliged to install ratguards immediately after berthing. Diameter of ratguards must be at least 50 cm. If ratguards come off ropes due to wind or faulty fastening they must be replaced immediately.

Dock working is not normally available from Saturday morning or the evening of a holiday until 0800 hrs. on the following day or Monday following the weekend.

According to the custom in Romanian ports (Not compulsory), Shippers will accept Notice of Readiness only after the vessel has been inspected by the official surveyor, who issues a certificate stating vessel's fitness for loading. Survey charges are to vessel's account.

The official survey is compulsory. When loading/discharging tally charges are to vessel's account.

Throwing of garbage overboard is not allowed in the territorial waters of Romania. Failure to observe these rules results in penalties imposed by the Harbour Master. Discharge of ballast and dirty water is not allowed. Once again, failure to observe this will result in fines for pollution being imposed.

Sea Protests are to be issued (5 copies) and handed to the agent or Agency Department within 24 hours of the vessel's arrival. The Notes of Protest are to include abstracts from the Log Book containing details with regard to the respective situation. If the Log Book is presented in a language other than English, 5 copies of translation into English will also be necessary.

Protests with regard to damage caused during loading/discharging operations must be handed over to Agency as soon as possible but not later than 12 hours from the time they occured. The protest has to contain the following items:

time when damage occured;
place of damage;
description of damage;
other details if necessary.

It has to be stressed that any protests handed in later than 12 hours from the time the damage occured will not be taken into consideration by the Port Authorities.

AGENT: Ship's Agent in Romanian ports (state and private companies) may be appointed on long term contract basis or occasionally, by letter or telex before ship's arrival in the loading and/or discharging port.

The major company acting as Ship's Agents and Ship Chandlers is Navlomar S.A. Bucharest, 6 Dumbrava Rosie, P.O.Box 851, Bucharest 70254. *Tel:* 40-1-2113445, 40-1-2115096, 40-1-2114122. *Fax:* 40–1–2114121, 40-1-2114123. *Telex:* 10735, 11783 navlo r. Navlomar have branches in Constantza, Mangalia, Galatzi, Braila, Tulcea and Sulina.

When appointing an agent, Owners have to indicate vessel's name and flag, g.r.t., d.w.t., as well as n.r.t., Suez Canal Tonnage, cargo quantity for port and kind of operation.

Necessary funds for disbursements, including bunkers and special services requested, should be remitted, at agents' request, in free currency, telegraphically or by telex through one of the authorised banks in Romania, in the favour of Navlomar before sailing clearance of the vessel.

Cash to the Master in free currency may be arranged by each Navlomar branch agency if instructed accordingly by the Owner.

In required, Navlomar may also arrange supply of provisions, fresh water and small quantities of bunkers at the roads, weather permitting, lashing and technical materials, deck and engine stores.

Navlomar provides its own form of Bill of Lading.

For international telephone calls, Navlomar provides its own telephonic booths.

BRAILA: 45.15 N. 27.59 E.

LOCATION: Second river port of the Danube, situated West of the Danube Delta between km. 168.5 and km. 175, upstream from Sulina, 19.2 km. from Galatzi (B.A. Chart No. 2835).

Also see "Sulina" – "Shipmaster's Reports".

PORT LIMITS: The limits of the port are marked by km. 168.5 and km. 175.

DOCUMENTS: See "General" before first port.

PILOTAGE: Compulsory for all ships. River pilots are replaced by port pilots in the roads, or during navigation in the port zone.

ANCHORAGES: For maritime vessels and river convoys the roads are situated from km. 166 to km. 168.5 (5 – 6 vessels). Vessels anchor between the channel and the right bank so as not to obstruct navigation in the vicinity of the port.

RESTRICTIONS: Navigation forbidden during poor visibility.

MAX. SIZE: Vessels of 8,500 d.w.t. and 9,000 d.w.t. may operate in Braila. The depths are between 11.1 m. and 25 m., but the drafts of vessels are limited by the Sulina Bar at 23 ft. (7.01 m.).

HEALTH: See "Constantza".

RADIO: When proceeding in the channel at Sulina Bar, all radio communications, except VHF transmissions, are prohibited.

VHF: Direct contact with local authorities is possible.

Braila Pilot Station – Channel 14 – continuous listening.
Braila Harbour Master – Channel 68 – continuous listening.

RADAR: Not available.

Continuous radio watch to be maintained on Channel 16 with Galatzi Port Control when transiting or at anchor. No vessel should proceed into the port or manoeuvre without Port Control permission.

TUGS: See "Constantza".

BERTHING: The port has 3 sectors:

1. The Old Harbour between km. 172 – km. 171 and km. 171 – km. 169.8, including the passenger quays and Berths No. 1 – 6 for general cargo, 2,200 m. total length.
2. The Dock Basin situated from km. 169.8 to km. 169, including Berths No. 1 – 4 (direct to the river), total length of 550 m. and Berths No. 5 – 17 (inside the basin) with a surface area of 10 ha. The entrance is 75 m. wide and depth is 6.0 m. – 7.5 m.
3. The Ferry Zone situated between km. 169 and km. 168.5.

BULK CARGO FACILITIES: See "Berthing" and "Cranes".

Loading/Discharging Rates:

Cargo	*Operation*	*Thousands of Tons per Ship per Day Vessel Capacity (Tons)*				
		Upto 600	601-1500	1501-3500	3501-6000	6001-15000
Ore	Direct transhipment	1.20	1.50	1.70	2.00	2.60
Coal	Direct transhipment	1.00	1.30	1.50	1.70	2.20
Coke	Direct transhipment	0.80	1.00	1.20	1.50	2.00
Phosphates	Direct	0.75	1.00	1.20	1.50	2.60
Cereals	Silo installations	0.95	1.20	1.80	1.80	1.80
	Direct transhipment	—	—	1.00	1.30	1.50
Cereals	Silo installations	0.60	0.60	0.80	0.90	0.90
Dry	Floating cranes	0.70	0.80	1.00	1.30	1.80
Timber	Cubic metres	—	0.65	0.90	1.20	1.50
	Miscellaneous	0.30	0.33	0.46	0.62	0.78
Cement	Bags	0.70	1.00	1.40	1.80	2.00
Chemicals	Miscellaneous	—	1.00	1.50	2.00	2.30
Fertilisers	Bulk	0.60	0.70	0.90	1.10	1.30
Steel		0.60	0.70	1.00	1.30	1.60
General		0.75	1.00	1.50	1.75	2.00
		0.30	0.40	0.50	0.70	0.90

CRANES: At Berths No. 11 – 15 there are 5 cranes of 16 tons and 5 cranes of 5 tons capacity, at Berths No. 6 – 9 there are 3 cranes of 16 tons and a conveyor bridge of 8 tons capacity. At Berths No. 1 – 3 ship's gear or floating cranes of 5 tons – 16 tons capacity are used.

The port also has 9 floating cranes of 5 tons – 16 tons capacity and 31 mobile cranes of 5 tons – 40 tons capacity.

STEVEDORES: See "General" before first port.

MEDICAL: Medical assistance is available at the city hospital. All problems will be handled by the agent.

FRESH WATER: Available.

FUEL: Bunkers are only available from the specialised berth.

FIRE PRECAUTIONS: See "Constantza".

REPAIRS: All kinds of repairs possible, including dry docking.

DRY DOCKS: See "Repairs".

SURVEYORS: The Romanian Shipping Register (RNR) is authorised for class surveillance.

GANGWAY/DECK WATCHMEN: See "Constantza".

HATCHES: Opening and closing of hatches on account of the vessel.

CUSTOMS ALLOWANCES: See "General" before first port.

CARGO GEAR: See "Constantza".

REPATRIATION: Possible.

TIME: See "General" before first port.

HOLIDAYS: See "General" before first port.

POLICE/AMBULANCE/FIRE: City Police – Tel: 055. Ambulance – Tel: 061. Fire – Tel: 081.

For all problems connected with police and ambulance contact vessel's agent on VHF Channel 10. In case of fire contact Braila Harbour Master by VHF Channels 16 and 68.

TELEPHONE: See "Constantza".

SHORE LEAVE: See "Constantza".

IDENTITY CARDS: See "Constantza".

REGULATIONS: See "General" before first port and "Sulina".

AUTHORITY: Harbour Master's Office, Gara Fluviala Street, Braila, Romania. *Tel:* 40-39-613068. *Telex:* 55279. *FAX:* 40-39-612184. *Contact:* Captain Tutuianu Nicolae, Harbour Master.

AGENT: Navlomar Braila, 27 Imparat Traian Street, Braila, Romania. Tel: 40-39-613103, 40-39-614395, 40-39-613598. Telex: 55232 Navma R. Fax: 40-39-613103. Cables: Navlomar Braila-Romania.

CONSTANTZA: 44.10 N. 28.39 E. (See Plan)

LOCATION: *Port Description:* Constantza is on the West side of the Black Sea, at 182 nautical miles from the Bosphorus and 85 nautical miles from Sulina, at the mouth of Dunarea River into the sea. Bucharest is 250 km. to the West.

The port of Constantza, the biggest port of Romania, is composed of the Northern Port, completely in operation and further on, the Southern Port, partly operational. The total surface of the port of Constantza is of 3,626 hectares, of which 1,784 hectares is land and 1,842 hectares is water.

The sea walls, the Northern sea wall and the Southern sea wall, have a length of 7.934 km. and of 5.56 km. respectively.

The Northern Port with a surface area of 789 hectares (484 hectares land and 305 hectares water, 15.45 km. quays and 78 berths) has terminals specialised in the trafficking of petroleum products, ore, coal, cereals, containers, rolled goods and general cargoes.

The Southern Port, with a surface of 2,837 hectares (610 hectares of land, 2,227 hectares of water, 13.07 km. quays and 50 berths, out of which 35 are opertive berths) has terminals specialised in chemicals, general cargo, ferry terminal (in operation), Ro/Ro and on the berths of the maritime river basin, there are arranged transhipment sectors for ore, coke and coal directly into barges which have access to the Danube-Black Sea Canal.

In the Southern Port is located the Free Zone Constantza South 37 ha. (26.7 ha. for processing-storing operations and 10.3 ha. for commercial and financial/banking operations) and the Danube-Black Sea Canal flows in and is the important navigable corridor Danube-Rhine-Main, according to EEC-UNO standards. The Danube-Black Sea Canal is in the "F" class of internal canals (Length 64.4 km., depth 7.0 m., breadth 90 m., 2 locks, 3 river ports, convoy maximum 6 barges × 3,000 tons).

PORT LIMITS: As the commercial limits of the port are marked by the breakwaters the Notice of Readiness is received at the operating berth after obtaining "Free Pratique". In order that the vessel may be considered "arrived" she should notify the port authority of the time and place of anchoring.

DOCUMENTS:

Master's Declaration.
Cargo Manifest.
Derat Certificate.
International Certificate for Prevention of Hydrocarbons Pollution.
Log for Hydrocarbons.
Cargo Plan.
Crew Lists.
Passenger Lists.
Provisions Declaration.
Crew's Customs Declarations.
Customs Declaration (seal items with value over U.S.$1,000.00).
Muster Roll.

At the Harbour Master's Office of Constantza, within 12 hours of berthing, there must be lodged, by vessel's authorised representative, the following documents:

Certificate of Registry.
Tonnage Certificate.
Freeboard Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radiotelephone Certificate.
Master's Declaration.
Crew List.
Passenger List.

At the Harbour Master's Office, the vessel's representative will fill in a Maritime Interrogation and shall have with him the vessel's stamp.

Also see "General" before first port.

PILOTAGE: Compulsory for all vessels, except navy vessels, vessels used in public service, vessel for maintenance or for the control and surveillance of navigation, intervention vessels, training, hospital and pleasure vessels.

Pilotage is compulsory for berthing, unberthing and shifting and is available 24 hours a day. The vessel's Master has to advise Agent at least 12 hours before arrival in port roadstead. At the entrance, in the zone of 12 nautical miles from the Northern jetty head, the vessel's Master shall contact "Port Control" Constantza, by VHF Channel 67, for the necessary berthing information. Contact with pilotage is on VHF Channel 14.

Compulsory zone to embark/disembark the Pilot:

In fair weather (Force 4 maximum) within the circle with a radius of 0.5 nautical miles, with centre at Lat. 44° 05' 06" N., Long. 28° 43' 06" E.

In bad weather (Over Force 4) near the position Lat. 44° 06' 24" N., Long. 28° 42' 30" E.

Traffic separation scheme for vessels entering and leaving:

(a) The separation zone has the following limits:

Lat. 44° 04.42' N., Long. 28° 43.22' E.
Lat. 44° 04.78' N., Long. 28° 43.76' E.
Lat. 44° 00.19' N., Long. 28° 48.96' E.
Lat. 43° 59.81' N., Long. 28° 49.44' E.

(b) Entrance channel into port, general direction N.W. (True course = 316°).

Lat. 44° 00.74' N., Long. 28° 50.73' E.
Lat. 44° 05.35' N., Long. 28° 44.53' E.

(c) Exit navigation channel from the port, general direction S.E. (True course = 136°).

Lat. 44° 03.88' N., Long. 28° 42.44' E.
Lat. 44° 59.27' N., Long. 28° 48.65' E.

The observance of 1972 COLREG is compulsory.

The length of the navigational channel is 6.4 nautical miles.

The breadth of the navigational channel is 0.8 nautical miles.

The separation zone (width) is 0.5 nautical miles.

The pilot boat is painted in white, with "Pilot" painted on the hull.

In the port of Constantza, pilotage is only done by licensed and authorised companies: S.C. Atlas Pilot, S.C. Sail, S.C. Pilot Service, S.C. Agigea Pilot, S.C. Rompilot and others.

ANCHORAGES: The roadstead of Constantza is limited by the following co-ordinates:

(A) Lat. 44° 10' 50" N., Long. 28° 44' 00" E.
(B) Lat. 44° 10' 50" N., Long. 28° 49' 50" E.
(C) Lat. 44° 06' 50" N., Long. 28° 49' 50" E.
(D) Lat. 44° 06' 50" N., Long. 28° 44' 00" E.

The meridians of 28° 46' 50" E. and 28° 48' 20" E. divide the anchorage into 3 zones, numbered from West to East.

Zone No. 1: Anchorage for vessels up to 40,000 g.r.t. (except tankers).
Zone No. 2: Anchorage for vessels over 40,000 g.r.t. (except tankers).
Zone No. 3: Anchorage for tankers, LPG carriers and vessels carrying dangerous cargoes.

The roadstead allows safe anchorage, with depths between 25 m. – 30 m. for 40 – 50 large ships, with the possibility to make a full swing, in case of change of wind or current direction.

In bad weather, small vessels may enter into the port waters only with the approval of the Harbour Master's Office of Constantza.

The control, surveillance and the leading of the vessels from the roadstead is done by "Port Control Constantza" by VHF Channel 67. The orders of "Port Control Constantza" are compulsory.

RESTRICTIONS: Entrance to the port during night-time is forbidden for tankers with a draft over 35 ft.

The entrance into the port of large tonnage bulk carriers is allowed in special circumstances.

MAX. SIZE: The maximum size vessel allowed is length of 330 m. (bulk carriers of 250,000 d.w.t.).

The depths up to 13.5 m. allow the berthing of large vessels, both in the docks for dry cargoes (Berths No. 66 – 68), as well as in docks for petroleum (Berths No. 75 – 76). For larger oil tankers, the port has a post at Berth No. 79, with a maximum depth of 18.0 m., a for the vessels with bulk solid cargoes, there are Berths No. 80 and No. 81 with a depth of 18.0 m.

In the Southern Port, the maximum depth at the berths for general cargoes, bulk and Ro-Ro is 14.5 m.

HEALTH: *Sanitary Inspection:* Immediately upon berthing the Sanitary Commission checks the state of health of all those on board, the nature of the cargo, particularly regarding any disease, vaccinations, etc.

If no contamination danger exists, the Sanitary Commission issue the vessel's "Free Pratique".

VHF: Permanent watch maintained.

Harbour Master's Office – Constantza	Channel 67
Port Control Constantza	Channel 67
Pilotage Constantza	Channel 14
Towage Constantza	Channel 11
Salvage Group	Channel 13
Radio Constantza	Channel 16

RADIO: Radio Constantza, call sign "YQI", working frequencies 500, 461 and 2748 kHz.

RADAR: VTS is permanently maintained by Constantza Port Control. The jurisdiction zone of Constantza Port Control is the circle with a 12 nautical miles radius, with the centre at Lat. 44° 10.2' N., Long. 28° 39.6' E.

The Master is obliged to be in permanent contact with Port Control when entering this sector as well as during stay at anchor. Entrance into port or manoeuvring in the anchorage zone are not allowed without Port Control approval.

TUGS: Compulsory for every vessel over 1,000 n.r.t. Tug's number and power are jointly agreed by vessel's Master and the Pilot. The tugs take the vessels from the point from where they are requested by the Pilot, except tankers which are taken from the entrance into the port.

Towage is performed by S.C. Coremar, S.C. Poseidon Shipping and other smaller companies.

Communication with "Towage" Constantza is by VHF Channel 11.

BERTHING:

Northern Port:	Length of quays	15 km.
	Number of operating berths	78
	Depth in basins	7.0 m. – 14.0 m.
Southern Port:	Length of quays	13 km.
	Number of operating berths	35
	Depth in basins	7.0 m. – 18.0 m.

The Port of Constantza has a warehousing surface of about 220 ha. (190 ha. uncovered and 30 ha. covered) for the general cargoes, dry bulk (coal, ore, coke, etc.) containers, steel products, construction materials, cars, etc., as well as tanks for edible oil, molasses (25,000 tons), silos for cereals (90,000 tons), silos for cement (40,000 tons), tanks for petroleum and petroleum products (1.7 million cu.m.), refrigerated warehouses (10,000 tons), silos for phosphates and apatite (30,000 tons) and silo for urea (25,000 tons).

Dock No.	*Berths No.*	*Length (m.)*	*No. of Berths*	*Water Depth (m.)*	*Use*
1	Ro-Ro 1-4	454	4	11.70	Ro-Ro cargoes.
	1-5	650	5	11.10	General cargoes to be stored on open spaces or to be handled directly from one means of transport to another.
	6-7	190	2	11.10	General cargoes to be stored in the warehouses.
2	11-12	270	2	7.5-7.9	Perishable and general goods to be stored on open spaces or handled directly from one means of transport to another.
	13-16	470	4	6.8-7.2	General cargo to be stored in the warehouses.
	17-18	224	2	7.0	Cereals for the silo.
	19	114	1	7.7	Edible oil and molasses.
	20-21	250	2	7.0	General cargoes to be warehoused.
	22	100	1	8.1	Edible oil and fishing vessels.
3	23	115	1	7.0	Wooden products and building materials.
	24	115	1	7.7	Cereals for the silo.
6	31-33	682	3	10.9-11.1	Cereals, meals.
	35-37	622	3	11.0-11.7	General cargoes to be warehoused or handled from one means of transport to another.
	38-39	408	2	11.3-13.0	Engines, equipment, spares for engine building.
7	40	208	1	10.9	Engines, equipment, spares for engine building.
	41-43	622	3	11.3-11.9	General cargoes to be warehoused or handled directly from one means of transport to another.
	44	220	1	11.7	Vehicles, equipments, spares for engine building.
	45-46	455	2	11.7-11.8	Metallurgical products.
	47-48	455	2	11.2-11.5	Construction materials, cement, wood products.
8	49-51	698	3	8.8-9.8	Construction materials, cement, wooden products.
	52	240	1	9.7	Goods in containers.
	53	220	1	10.2	Perishable foodstuff.
	54-57	930	4	10.7-12.0	Packed chemicals.
	58	180	1	11.6	Packed chemicals.
9	59-60	465	2	11.6-11.9	Packed chemicals.
	61	232	1	10.7	Bulk or bagged fertilisers.
	62	232	1	11.7	Phosphates, apatite.
	63	220	1	10.5	Bulk or bagged fertilisers.
	64-67	852	4	11.0-12.8	Ore, coke, coal.
	68	215	1	12.8	Bulk or bagged cement.
10	69-70	610	2	11.8	Liquid petroleum products.
11	72-73	610	2	13.5-13.8	Liquid petroleum products.
12	75-76	608	2	13.4-13.6	Liquid petroleum products.
	78	344	1	14.0	Gas freeing, washing, bunkering.
1 South	79	405	1	18.5	Liquid petroleum products.
	80-84	1,395	5	12.5-18.5	Ore, coke, coal.
	85	356	1	11.5	Ore, for vessels transitting the canal.
River Sea dock					
	94-96	600	3	7.0	Ore, coal on barges.
	104-114	1,747	11	7.0-14.5	General cargoes.
No. 1 Free Zone					
	115-119	1,195	5	14.5	General cargoes.
	120	210	1	13.5	Ferry boat.
	121	212	1	14.5	Ro-Ro cargoes.
	122-125	838	4	14.5	General cargoes.
No. 2-3 Free Zone					
	126-137	2,822	12	16.5	General cargoes.

CRANES: 167 quay cranes with a lifting capacity from 3 tons – 25 tons; 10 discharging gantries for ore, coal, coke, phosphate of 20 tons – 50 tons; 94 truck cranes; 17 floating cranes of 16 tons – 100 tons.

The specialised terminals are equipped with specific installations.

When operating, the port cranes are used, but vessels have the obligation to put at disposal, at the request of operators, vessel's lifting gear, in a full operating and safe condition.

BULK CARGO FACILITIES: There are facilities for the operation of bulk cargoes (dry and liquid) in specialised terminals.

Cereals Terminal: The operational Berths are No. 17 – 18 (minimum depth 7.0 m.), Berth No. 24 (minimum depth 7.2 m.) and Berths No. 31 – 33 (depth 8.8 m. – 10.7 m.).

Cereal loading/discharging from/into vessels or barges into/from silos or railway wagons is done by 5 pneumatic elevators, 2 suction elevators and 5 quay cranes.

Coal, Coke, Ore Terminal: The operational Berths are No. 64 – 67 (minimum depth 8.4 m. – 12.2 m.), Berths No. 80 – 84 (minimum depth 10.5 m. – 18.0 m.), Berths No. 85 – 86 (minimum depth 10.5 m.) and Berths No. 94 – 96 (minimum depth 3.3 m. – 4.3 m.).

The operation of the cargoes (discharge from the vessel into warehouses, barges, railway wagons, and loading from the warehouses into barges and railway wagons) is done with 8 dischargers from the vessels with capacity 27 tons – 50 tons; 4 loaders from the barge with capacities between 1,200 – 2,000 t.p.h.; quay cranes and floating cranes.

Chemical Products Terminal: Operating berths are Berths No. 54 – 61 (minimum depth 9.2 m. – 11.0 m.) and Berth No. 62 (minimum depth 6.5 m.). Berths equipped with 2 dischargers from the vessel of 25 tons each for phosphates and apatites. Berth No. 63 (minimum depth 9.8 m.) equipped with 2 loaders from the vessel with a capacity of 200 – 250 t.p.h. for urea.

Cement Terminal: Operating berth is Berth No. 68 (minimum depth 10.6 m.). The berth is equipped with quay cranes and 2 bulk cement loaders, with a capacity of 400 t.p.h. each.

Bulk cement can be discharged/loaded at other berths by floating cranes and a floating installation for loading cement from the barge into vessels with a capacity of 250 t.p.h.

Liquid Bulk Terminal: (Edible oil and molasses): Operating berth is No. 19 (minimum depth 7.0 m.). The liquid bulk is carried by pipes to 7 tanks of 25,000 tons capacity.

SPECIALISED CARGO HANDLING FACILITIES: The container terminal for the Northern Port (See "Berthing") is equipped with 2 container cranes of 40 tons, 2 transtainers of 32 tons, auto-trucks and lateral loaders. The warehousing capacity behind the quay is 3 ha.

The Ro-Ro terminal (Berth No. 121) in the Southern Port (See "Berthing") has parking for 120 vehicles of 12 m. length on the loading side, and a similar capacity on the discharge side.

Ferry Terminal: The ferry line between Constantza and Samsun (Turkey) is in operation since August 1995.

BRIDGES: Vessels calling at Constantza South for transiting the Danube – Black Sea Channel must ensure a maximum draft of 5.5 m. and a free height under bridges of 17.0 m.

STEVEDORES: See "General" before first port.

MEDICAL: In the port there is a polyclinic and a hospital, as well as stomatology rooms.

Emergency medical service is effected by Port Hospital, 24 hours a day, 7 days a week.

Costs vary subject to consultation, treatment or hospitalisation.

TANKERS: The petroleum terminal has 7 operating berths, from which 6 berths (No. 69, 70, 72, 73, 75 and 76) have depths between 11.2 m. – 12.5 m. (length of berth 328 m. each).

Berth No. 79 (depth 18.0 m., length of berth 405 m.) for large petroleum tankers.

The berths are equipped with coupling facilities to vessels, with a diameter of 12 in. and 16 in. (installation types are Woodfield and Flexider).

The terminal is equipped with fire preventing and fighting systems and equipment for leakages (collecting vessels, anti-pollutants barriers, etc.).

DENSITY: 1014.

FRESH WATER: Fresh water can be supplied at any berth, even during loading/discharging operations. Delivery is also available from fresh water tankers. The approximate price is U.S.$3.93 per ton for delivery from quay (Minimum order 20 cu.m.) or U.S.$10.00 per ton for delivery from the water tankers.

FUEL: Bunkering is undertaken by tanker barges in the port, and in the roadstead only with Harbour Master's Office approval.

The following types of fuel can be supplied in any quantity:

Heavy Fuel: CNM Type 2, 1500 sec., equivalent MFO 180 cst.
(approximate price U.S.$100.00/ton).
CNM Type 3, 600 sec., equivalent RDW 80 cst.
(approximate price U.S.$100.00/ton).
Gas Oil: Types 5.5 and −15 equivalent MDO.
(approximate price U.S.$255.00/ton – May 1st 1996).

FIRE PRECAUTIONS: The Master is directly responsible for the losses caused by the outbreak of fire on board, as a result of non-observance of fire prevention rules by the crew or by the workers.

Repair works on board a vessel and especially the works with open flames are done only with the approval of the Harbour Master's Office, this being requested in writing.

Smoking is forbidden on the deck and in vessel's holds as well as in the zones where petroleum products and inflammable goods are handled.

REPAIRS: In the shipyards of the ports of Constantza, Midia and Mangalia, all types of repairs are possible (hull and engine).

Floating docks:
Constantza Shipyard: 1×8,000 tons and 1×15,000 tons.
Midia Shipyard: 2×10,000 tons and 1× 20,000 tons.

Dry docks:
Constantza Shipyard:
1 dry dock for vessels up to 150,000 d.w.t.
1 dry dock for vessels up to 200,000 d.w.t.
Mangalia Shipyard:
2 dry docks for vessels up to 150,000 d.w.t.
1 dry dock for vessels up to 250,000 d.w.t.

CONSULS: China, Russia, Slovakia and Turkey.
DRY DOCKS: See "Repairs".
SURVEYORS: *Cargo Inspectors:* Gemma Star, Romcontrol, SGS, BNN and others.
Classification Societies: Representatives of Lloyd's Register, Bureau Veritas and RNR (Romanian Register of Shipping, who also represent Germanischer Lloyd, Norske Veritas, American Bureau, Nippon Register and the Russian Register).
GANGWAY/DECK WATCHMEN: Deck and/or gangway watchmen are provided by the vessel or they can be hired on request, when special cargoes are handled. The hire and payment can be arranged by the Agent.
HATCHES: Opening/closing of the hatches is carried out by the crew or by the stevedores on request.

The hatches must be open completely in all directions. The beams and the hatch covers must be moved using vessel's gear.
CUSTOMS ALLOWANCES: See "General" before first port.
CARGO GEAR: Loading/discharging is usually done with quay equipment, but vessels must have (compulsory) their own gear ready and in good condition, in case it is required.
REPATRIATION: Transit visas are granted to seamen who wish to disembark with a view to repatriation. The issuing office is the Immigration Office in Constantza Port.
AIRPORT: The international airport "Mihail Kogalniceanu" is situated at 25 km. from Constantza and the international airport "Otopeni", Bucharest, is situated 250 km. from Constantza.
TIME: See "General" before first port.
HOLIDAYS: Sailors Day (15th August).

Also see "General" before first port.
POLICE/AMBULANCE/FIRE:

Port Police – Tel: 619100/1955.
Port Ambulance – Tel: 619100/1961.
Port Fire Brigade – Tel: 619100/1981.

EMERGENCY CO-ORDINATION CENTRE: In any emergency contact Port Control Constantza on VHF Channel 67 or Group Salvage on VHF Channel 13.
TELEPHONE: It is possible to hire mobile telephones for U.S.$. 10.00 per day. Telephone calls, telex messages, cables and mail are handled by the ship's Agent.
SERVICES: Tank cleaning, slop discharge, disposal of dirty ballast, compass adjusting, radio and radar repairs, charts, sounding machine paper, Notice of Mariners, safety equipment, extension of certificates.
BANKS:

Banca Romana de Comert Exterior (Romanian Foreign Trade Bank), 1st Traian Street. Tel: 619500. Fax: 619703.

Banca Comerciala "Ion Tiriac" ("Ion Tiriac" Trade Bank), 32-34 Stefan cel Mare Street. Tel: 638020, 661520. Fax: 638020.

Banca Comerciala Romana (Romanian Trading Bank), 68 Traian Street. Tel: 638200. Fax: 638200.

Banca Romana de Dezvoltare (Romanian Development Bank), 9 Arhiepiscopiei Street. Tel: 618960. Fax: 618960.

Banca Agricola (Agricultural Bank), 9 Piata Ovidiu Street. Tel: 617115. Fax: 618680, 619586.

"Mindbank", Complex "Dacia", Lapusneanu Avenue. Tel: 667399. Fax: 638802.

"Credit Bank", Negru Voda Street. Tel: 619707, 617673. Fax: 619707, 617673.

"Bankcoop", 6 Cristea Georgescu Street. Tel: 617600. Fax: 617600.
SHORE LEAVE: When the inspection on arrival is completed, the crew may go ashore but must be in possession of their passport or Seaman's Book and shore permit, issued by the Immigration Office.

The entrance/exit to the port is only through Gate No. 1 for seamen leaving to go to the town of Constantza, but only up till 2000 hrs.
IDENTIFICATION CARDS: See "Shore Leave".
GARBAGE DISPOSAL: Garbage is collected from the vessel in bags. Collection time every 2 days during Summer and every 4 days during Winter.

Tariff for garbage collection from the vessel is U.S.$ 16.20 per day.
WASTE OIL DISPOSAL: Bilge water, petroleum waste, oil waste disposal: There are facilities for the collection of bilge water, petroleum waste and oil waste.

Tariff for waste oil collection is U.S.$ 19.50 per cu.m.
SEAMAN'S CLUBS: There are no Seamen's Clubs. There are mail, telephone and telex facilities at the post office at Gate No. 1.
CURRENCY: The national currency is the Leu. Rate of exchange is U.S.$ 1.00 = Lei 2,951 (30th May 1996).
REGULATIONS: Carrying out exterior maintenance (Repairs, etc.) is permitted only during daylight; at nightfall the Master must take all necessary steps to bring the displayed equipment (tools, ladders, platforms, ropes, etc.) back on board.

If the vessel must perform a shift from one berth to another, according to the decision of the port authorities, the Master is to be advised by the agent at least 2 hours in advance. Refusal to perform a shift requested by port authorities is punishable by the Harbour Master.

In order to prevent the carrying of disease and epidemics into the country by rats, Masters are asked to note the following:

Placement of ratguards immediately after berthing;

Great attention must be paid to placing ratguards on the ropes so that no space is left between them and the ropes;

Diameter or ratguards must be at least 50 cm.;

If ratguards come off the ropes (due to wind or faulty fastening) they must be replaced immediately.
DELAYS: Delays are those allowed according to the "Charter Party".
DEVELOPMENTS: A container terminal with a capacity of 800,000 TEU/year. Extension of the actual Free Zone. An industrial zone.
AUTHORITY: Constantza Port Administration, Incinta Port Constantza, Gara Maritima, Constantza 8700, Romania. *Tel:* 40-41-611540. *Telex:* 14218. *FAX:* 40-41-619512. *Contact:* Jorj Unciuleanu, Harbour Master. Vasile Pistolea, General Manager.
AGENT: Navlomar – Constantza, Incinta Port, Constantza. Tel: 40-41-611970, 40-41-615274. Telex: 14258, 14339 Navlo R. Fax: 40-41-611870, 40-41-615238.

Economou International Shipping Agencies, 98A Cuza Voda, Apartment 1, 8700 Constantza, Romania. Tel: (4041) 615555. Telex: 14492 Ceco R. Fax: (4041) 611699.

GALATZI: 45.25 N. 28.05 E.

LOCATION: The port is situated on the left bank of the Danube between km. 144 and km. 156, upstream of Sulina. (B.A. Chart No. 2835).

Also see "Sulina" – "Shipmaster's Reports".
PORT LIMITS: The limits of the port are marked by km. 156 and km. 144.5.
DOCUMENTS: See "General" before first port.
PILOTAGE: Compulsory for all ships. River pilots are replaced by port pilots in the roads, or during navigation in the port zone.
ANCHORAGES: The port of Galatzi has 3 areas situated as follows:

Zone 1: km. 155 – km. 156 – loaded maritime vessels.
Zone 2: km. 158 – km. 159 – unloaded maritime vessels.
Zone 3: Mm. 76 – Mm. 78.5 – maritime vessels.

RESTRICTIONS: Navigation forbidden during poor visibility.
MAX. SIZE: The maximum draft is limited by Sulina bar at 23 ft. Vessels of greater draft must have approval of the River Authority.
HEALTH: See "Constantza".
RADIO: See "Sulina".
VHF: Direct contact with local authorities is possible.

Galatzi Port Control – Channel 16 – continuous listening.
Galatzi Pilot Station – Channel 14 – continuous listening.
Galatzi Harbour Master – Channel 68 – continuous listening.

RADAR: Radar surveillance available. Vessels should keep continuous watch on VHF Channel 16 (Galatzi Port Control) when transiting or at anchor. No vessel should proceed into the port or manoeuvre without Port Control permission.
TUGS: See "Constantza".
BERTHING: The port has four sectors:

1. The Old Harbour in the vicinity of km. 151.5 downstream with a quay length of 1,160 m. (365 m. for passenger vessels; 350 m. for ballast products; 445 m. waiting quay for maritime vessels).

2. The Dock Basin situated downstream of the Old Harbour. The quay has a total length of 1,440 m. (540 m. direct to the Danube and 900 m. in the basin).

3. The New Basin or Wood Basin situated downstream of the Dock Basin to km. 146. Length of the quay is 2,365 m.

4. Ore Harbour situated between km. 155.5 and km. 157, upstream of the Siret Mouth. Quay length is 800 m. (400 m. for maritime vessels with depth up to 9.0 m. and 400 m. for river vessels).

Alongside there are 43 cranes of 16 tons capacity. The maritime quays are provided with conveyor belts. The port also has floating cranes of 16 tons capacity.
CRANES: At Berths No. 26 – 28 there are 6 cranes of 5 tons capacity, at Berth No. 30 there are 3 cranes of 5 tons capacity, at Berths No. 23 – 25 (direct to the Danube) there are 6 cranes of 8 tons capacity and 2 cranes of 10 tons capacity. At Berths No. 39 – 44 loading/discharging is by ship's gear. At Berths No. 45 – 53 there are 13 cranes of 10 tons capacity, one crane of 5 tons capacity and one conveyor belt for river vessels.
BULK CARGO FACILITIES: See "Berthing" and "Cranes".
Cargo Handling Rates:

Cargo	*Operation*	*Thousands of Tons per Ship per Day Vessel Capacity (Tons)*					
		Upto 600	601-1500	1501-3500	3501-6000	6001-15000	over 15000
Iron Ore	Belts	—	—	—	4.00	7.50	10.00
	Direct transhipment	1.20	1.50	1.70	2.00	3.00	3.60
Coal	Belts	—	—	—	4.00	5.00	7.00
	Direct transhipment	1.00	1.50	1.70	2.00	3.00	3.60
Coke	Belts	—	—	—	2.50	3.50	—
	Direct transhipment	0.80	1.00	1.20	1.50	2.60	—
Phosphates	Direct	0.70	1.00	1.20	1.50	2.60	—
Cereals	Silo installations	1.00	1.50	1.60	1.80	1.80	—
	Direct transhipment	—	—	1.00	1.30	1.50	—
Cereals	Silo installations	0.60	0.60	0.60	0.80	0.90	—
Dry	Floating cranes	0.70	0.80	1.00	1.30	1.80	—
Timber	Cubic metres	—	0.60	0.90	1.20	1.30	—
	Miscellaneous	0.30	0.50	0.70	0.80	0.90	—
Paper		0.30	0.40	0.50	0.70	0.80	—
Steel		0.60	0.70	1.00	1.30	1.60	1.90
Miscellaneous		0.70	1.00	1.50	1.70	2.00	—

STEVEDORES: See "General" before first port.
MEDICAL: Medical assistance is available at the city hospital. All problems will be handled by the agent.
FRESH WATER: Fresh water is available direct from quay installations at a rate of 10 tons/24 hours for vessels up to 4,000 d.w.t.
FUEL: Bunkers only available from barge.
FIRE PRECAUTIONS: See "Constantza".
REPAIRS: All kinds of repairs possible in Galatzi Repair Yard.

SURVEYORS: The Romanian Shipping Register (RNR) is authorised for class surveillance.
GANGWAY/DECK WATCHMEN: See "Constantza".
HATCHES: Opening and closing of the hatches on account of the vessel.
CUSTOMS ALLOWANCES: See "General" before first port.
CARGO GEAR: See "Constantza".
REPATRIATION: Possible.
TIME: See "General" before first port.
HOLIDAYS: See "General" before first port.
POLICE/AMBULANCE/FIRE: City Police – Tel: 055. Ambulance – Tel: 061. Fire – Tel: 081. For all problems connected with police and ambulance contact vessel's agent on VHF Channel 10. In case of fire contact Harbour Master or Galatzi Port Control on VHF Channel 68 or 16.
EMERGENCY CO-ORDINATION CENTRE: In all cases of emergency contact Galatzi Port Control on VHF Channel 16.
TELEPHONE: See "Constantza".
SHORE LEAVE: See "Constantza".
REGULATIONS: See "General" before first port and "Sulina".
AUTHORITY: Galatzi Port Authority, 34 Port Street, Galatzi, Romania. *Tel:* 40-36-460248. *Telex:* 51208. *FAX:* 40-36-460318. *Contact:* Bucur Constantin, Harbour Master.

AGENT: Navlomar Galatzi, 20 Port Street, Galatzi, Romania. Tel: 40-36-460094. Telex: 51260, 51360 Anmar R. Fax: 40-36-460790.

MANGALIA: 43.49 N. 28.35 E.

LOCATION: The port is situated on the S.E. coast of Romania, 246 km. from Istanbul. (B.A. Chart No. 2285), and 38 km. South of Constantza Port.
PORT LIMITS: As the commercial limits of the port are marked by the ends of the breakwaters the Notice of Readiness is received at the operating berth after obtaining "Free Pratique". In order that the vessel may be considered "arrived" she should advise the port authority the time and place of anchoring in the roads.
DOCUMENTS: See "General" before first port.
PILOTAGE: Compulsory for all ships.

From the North end of the S.E. breakwater over a distance of 8.5 cables to the South there are depths of less than 3.0 m., so care must be taken.

ANCHORAGES: The Mangalia roads are limited to the North and South by the parallels 43° 49.2' N. and 43° 48.2' N. and to the East and West by the meridians 27° 39.2' E. and 28° 37.8' E.
RESTRICTIONS: Pilotage is compulsory in the roads and in the port, even when shifting berth, except for auxilliary and technical port vessels, small fishing vessels and pleasure craft, but always with Port Authority permission.
MAX. SIZE: The entrance is 200 m. wide with 10 m. depth.
HEALTH: See "Constantza".
RADIO: See "General" before first port.
VHF: Direct contact with local authorities is possible.

Harbour Master's Office – Channel 68 – continuous listening.
Mangalia Pilot Station – Channel 14 – continuous listening.

TUGS: See "Constantza".
BERTHING: The port is formed by 4 breakwaters of 3.78 km. total length. The harbour basin has an area of 80 ha., with 2 berths each 200 m. in length and 9.0 m. depth.

The sea port has recently become operational, formed by 2 breakwaters of 1.53 km. and 2.0 km. length, enclosing a basin of 300 ha. Piers of 400 m. length allow deep draft vessels to berth. There are also 4,300 sq.m. of covered warehouses.

CRANES: The port is equipped with 5 ton electric cranes and various mobile cranes and forklifts. Generally, during operations, port cranes are used but all vessels must have their loading/discharging gear in good condition.
STEVEDORES: See "General" before first port.
MEDICAL: Medical assistance available at the city hospital. All problems will be handled by the agent.
TANKERS: No facilities available.
DENSITY: See "Constantza".
FRESH WATER: See "Constantza".
FUEL: Bunkers available in small quantities from road tankers only.
FIRE PRECAUTIONS: See "Constantza".
REPAIRS: All kinds of repairs are possible at a special repair yard, length of berth 520 m.
DRY DOCKS: There is a dry dock for vessels up to 150,000 d.w.t. (dry dock dimensions are 360 m.×60 m.×10.5 m.).
HATCHES: See "Constantza".
CUSTOMS ALLOWANCES: See "General" before first port.
CARGO GEAR: See "Constantza".
REPATRIATION: Possible.
AIRPORT: Constantza Airport, 70 km. from the port.
TIME: See "General" before first port.
HOLIDAYS: See "General" before first port.
POLICE/AMBULANCE/FIRE: City Police – Tel. 955. City Ambulance – Tel. 961. Fire (city) – Tel. 981. For all problems connected with fire contact Mangalia Harbour Master by VHF Channel 68.
TELEPHONE: No facilities. For international calls use only the booths of the City Post Office.
SHORE LEAVE: See "Constantza".
REGULATIONS: See "General" before first port.
AUTHORITY: Harbour Master, Incinta Port, Mangalia, Romania. *Tel:* 40-41-751299. *FAX:* 40-41-751299. *Contact:* Ion Mircea, Harbour Master.

AGENT: See "Constantza".

SULINA: 45.11 N. 29.45 E. (See Plan)

LOCATIONS: Situated at the Danube mouth on the right bank of the Sulina Channel, 148 km. from Constantza (B.A. Chart No. 2284).
PORT LIMITS: From the line of the entrance on the Sulina Channel to "Mile 2".
DOCUMENTS: See "General" before first port.
PILOTAGE: Vessels should notify arrival at the roads to the Sulina Free Port Administration – Sulina FPA – Agency Department, Telex No. 52294 and Fax. No. 040-543294. ETA can be confirmed or amended when necessary by VHF Channel 16. There is no specific zone for the pilot boat. Usually the pilot boards the ship at the anchorage.

The approaches are as follows:

Sulina – S.E. Approach No. 5: 1.6 miles in width, 7 miles in length. Alignment 146° – 326°. The centre line joins the following positions:

S1: Lat. 45° 03.1' N., Long. 29° 53.4' E. – 11.5 miles, true bearing 124.4° to the Sulina Lighthouse.

S2: Lat. 45° 08.9' N., Long. 29° 47.9' E. – 5.75 miles, true bearing 095.7° to the Sulina Lighthouse.

From the No.01 Buoy (whistle buoy) and then following the course 302.2°, vessel will proceed in to the Sulina Channel and then into port. Maximum draft admitted is 23 ft. (7.01 m.).

ANCHORAGES: The anchorage place is communicated by the Pilot Station, both for inner or outer roads.
RESTRICTIONS: Vessels proceeding to Danube river ports must wait at the Sulina roads, 1 mile from the black buoy marked "01" (green flash). All vessels should have an Administration Pilot on board. In the Sulina Channel navigation is forbidden at night and during poor visibility.
MAX. SIZE: The maximum draft at the Sulina Bar is 23 ft. (7.01 m.). Vessels of maximum LOA 180 m. may call at the port of Sulina. No tide restrictions. Any changes regarding the maximum draft are broadcast daily at 1150 hrs. on 1935 metres Long Wave band.
HEALTH: See "Constantza".
RADIO: Until reaching Sulina Bar, all radio communications should be transmitted to Constantza Coast Radio Station. When proceeding in the channel at the Sulina Bar, all radio communications are prohibited, except for VHF radio communications.
VHF: Direct contact with local authorities is possible. Vessel may contact Sulina Pilot Station, Sulina Harbour Master, Free Zone Administration and Navlomar on Channel 16.
RADAR: Not available.
TUGS: See "Constantza".
BERTHING: The port of Sulina has 3 Maritime Berths and the Sulina Free Zone Administration has 3 berths in the Maritime Transit Basin.

Loading/discharging operated by Sulina Free Zone Administration's gear.

CRANES: Sulina Free Zone Administration has floating cranes of 16 tons and 32 tons capacity.
BULK CARGO FACILITIES: No special facilities available. Bulk fertilisers can be transhipped to barges. Fertiliser in bags can be stored in special warehouses. Different kinds of ore can be handled and stored in open spaces.
STEVEDORES: Sulina Free Zone Administration have their own stevedoring department.
MEDICAL: Medical assistance is available at the city hospital. All problems will be handled by the agent.
FRESH WATER: Fresh water available at Maritime Transit Basin and at the City Quay.
FUEL: Not available.
FIRE PRECAUTIONS: See "Constantza".
REPAIRS: Ordinary maintenance possible. Qualified personnel available for mechanical works.
DRY DOCKS: None available.
SURVEYORS: Lloyd's Agent and representatives of classification societies as well as official surveyors may be called at short notice.
HATCHES: Opening/closing of the hatches for vessel's account.
CUSTOMS ALLOWANCES: See "General" before first port.
CARGO GEAR: See "Constantza".
REPATRIATION: Not possible.
AIRPORT: Nearest airport at Tulcea, about 70 km. up the Danube.
TIME: See "General" before first port.
HOLIDAYS: See "General" before first port.
POLICE/AMBULANCE/FIRE: Contact Port Authority on VHF Channel 16 for all problems connected with police, ambulance and fire.
TELEPHONES: See "Constantza".
SERVICES: Shipchandling services available to all vessels calling at or passing Sulina Port.
BANKS: In Sulina: Bucharest Romanian Commercial Bank and Bucharest Credit Bank.
STORING: See "Prelims".

1. Vessel can be stored by barge supplied by foreign partners, surveyance and guard of the barges being provided by Sulina Free Zone Administration.
2. Previous notification for barge storage compulsory, details to be obtained through Sulina Free Zone Administration's representatives.
3. No transhipment into trucks directly possible for the moment.
4. Forklifts can be used on the jetty to handle stores.
5. No Customs interference regarding storing on the territory of Sulina Free Zone, first period (negotiable) of storage free of charges, tariffs to be established by the Administration. Storage possible both in covered and open spaces, on platforms.
6. Riggers belonging either to the Administration or to Romtrans (Specialised Romanian Foreign Trade Enterprise for forwarding activity, which has an office in Sulina) can be employed, for sorting and arranging cargo on platforms and in warehouses.

SHORE LEAVE: See "Constantza".
IDENTIFICATION CARDS: See "Constantza".
GARBAGE DISPOSAL: Service available.
WASTE OIL DISPOSAL: Service available.

SEAMAN'S CLUBS: No Seaman's Clubs.
Services available in the port: Duty free shops, international telephone service, church services, postage facilities.

CURRENCY: Lei.

REGULATIONS: Maximum speed in the Sulina Channel is 10 km./hr. Entrance and navigation only by daytime in the Sulina Channel.

Also see "General" before first port.

SHIPMASTER'S REPORT: February 1984.

The entrance route to Danube River from Gura Sulina for Galatz and Braila is as follows: Arrival point Lat. 44° 47' N., Long. 29° 55.8' E. and from this point vessel is to steer 000° True till Lat. 45° 05.1' N., Long. 29° 55.8' E. and from this point 301° True to No. 1 Buoy. Because of shallow water the vessel must not go South of No. 1 Buoy. With radar, Sfantul Gheorge Lighthouse was observed at 15 miles, Sulina at 20 miles and lighthouse at South Mole at 15 miles. Anchorage area is 2 miles East or 1 mile North of No. 1 Buoy. Pilot on VHF Channel 16. Pilot embarks 1 mile East of the No. 1 Buoy.

After anchoring near to Sulina, Customs, Immigration and Doctor board the vessel for clearance. After clearing the vessel another two Pilots board and vessel proceeds to destination. No navigation is permitted during the night for large vessels.

SHIPMASTER'S REPORT: December 1989.

Vessel: 12,800 g.r.t., 156 m. LOA and 22.8 m. beam.

Transit of the River Danube (Sulina - Galatz - Sulina):

Two port pilots are taken on at Lat. 45° 08.8' N., Long. 29° 47.6' E. as far as Lat. 45° 09.8' N., Long. 29° 42' E., where the vessel has to anchor to carry out Police, Customs and Port formalities.

If the vessel is transiting for the first time, the Tonnage Certificate for the Suez Canal is requested in addition to ordinary certificates. This additional certificate is held at the Captaincy, and is only handed back on the return passage.

Once formalities have been completed, 2 pilots are taken on for the transit of the canal as far as Galatz, where these pilots are changed for 2 port pilots. Vessels berth starboard side alongside.

On arrival in Galatz, all the formalities are repeated and those carried out at Sulina being considered null and void.

Loading at Galatz is rapid, the gangs work 24 hours a day. As the vessel is berthed starboard side to quay, it is necessary to go as far as Km. 159 to turn, before going down river. This location is supposed to be safe, however, by reason of bad buoyage (in fact non-existent) as well as inadequate dredging, great care has to be taken as there are some mud banks, unknown to everybody, on which it is possible to go aground.

On both the inward and outward voyages, vessels anchor at the 48 Mile marker. This anchorage is very safe.

At the level of Tulcea, navigation is very easy, and the use of tugs is not compulsory, in fact it is not advisable. The most delicate part of the Danube is between Miles 57 and 58. Our sounder indicated that at this point there are minimum depths of 8.0 m.

AUTHORITY: Sulina Free Zone Administration is both specialised foreign trade state enterprise and Port Authority in Sulina Free Zone.

Sulina Free Zone Administration, 202 I Street, 8829 Sulina, Tulcea County, Romania. *Tel:* 40-40-543243, 543242, 543241, 543650. *Telex:* 52294. *FAX:* 40-40-543294. *Contact:* Caraivan Antonie, General Manager. Andrei Mihai, Head of Commercial Department and Agency Department (Tel: 40-40-543243, ext. 19).

AGENT: Navlomar Sulina, No. 202 I Street, Sulina, Romania. Tel: 40-40-543019. Telex: 52280 Navlo R.

TULCEA: 45.10 N. 28.49 E.

LOCATION: The port is situated at the entrance of the Danube delta, 62 km. from Sulina. (B.A. Chart No. 2835).

PORT LIMITS: The limits of the port are marked by Mm. 35.5 and Mm. 41. The Notice of Readiness is received at the operating berth after obtaining "Free Pratique". In order that the vessel may br considered "arrived" she should notify the Port Authority the time and place of anchoring in the roads.

DOCUMENTS: See "General" before first port.

PILOTAGE: Compulsory for all ships. River pilots are replaced by port pilots in the roads.

ANCHORAGES: The port of Tulcea has 2 zones situated as follows:
Zone 1: Mm. 34.5 – Mm. 37.
Zone 2: Mm. 44.5 – Mm. 45.5.

RESTRICTIONS: The pilotage of vessels in the roads and in the port is compulsory even when shifting berth. Maximum draft is 23 ft. (maximum at Sulina Bar). For other details see "Sulina".

MAX. SIZE: Maximum draft is 23 ft. (7.01 m.).

HEALTH: See "Constantza".

RADIO: See "Sulina".

VHF: Direct contact with local authorities is possible.
Tulcea Port Control – Channel 68 – continuous listening.
Tulcea Pilot Station – Channel 14 – continuous listening.
Tulcea Harbour Master – Channel 16 – continuous listening.
Navlomar Agency – Channel 10 – continuous listening.

Vessels should keep continuous radio watch on Channel 68 (Tulcea Port Control) when transiting or at anchor. No vessel should proceed into the port or shift without Port Control permission.

RADAR: Radar surveillance not available.

TUGS: See "Constantza".

BERTHING: The port has 2 piers of 230 m. total length and depth 9.0 m.

CRANES: The port is equipped with 3 Kangur cranes of 16 tons capacity.

BULK CARGO FACILITIES: See "Berthing" and "Cranes".

Loading/Discharging Rates:

Ore	Field	1.00	1.50	2.00	3.00	5.00	7.00
	Vehicle	0.80	1.10	1.50	2.00	3.00	4.00
Coke	Field	0.70	1.00	1.30	1.80	2.60	3.60
	Vehicle	0.60	0.90	1.20	1.50	2.00	2.60
Miscellaneous		0.30	0.40	0.50	0.70	0.90	1.00

STEVEDORES: See "General" before first port.

MEDICAL: Medical assistance available at the city hospital. All problems will be handled by the agent.

TANKERS: No facilities available.

FRESH WATER: Fresh water available direct from quay installations at a rate of 80 – 100 tons/24 hours, as well as from a special barge for vessels up to 4,800 d.w.t.

FUEL: Bunkers are available in small quantities, also lubricating oil.

FIRE PRECAUTIONS: See "Constantza".

REPAIRS: All kinds of repairs possible at Tulcea Repair Yard. The yard has a synchro-lift.

DRY DOCKS: See "Repairs".

SURVEYORS: See "General" before first port.

HATCHES: First opening and last closing of the hatches on account of the vessel. The hatches must be opened completely on all sides. Tarpaulins and covers must be moved with the ship's gear.

CUSTOMS ALLOWANCES: See "General" before first port.

CARGO GEAR: See "Constantza".

REPATRIATION: Possible.

AIRPORT: Tulcea. 10 km. from the port.

TIME: See "General" before first port.

HOLIDAYS: See "General" before first port.

POLICE/AMBULANCE/FIRE: For all problems connected with police and ambulance contact agent by VHF Channel 10. In case of fire contact Harbour Master or Tulcea Port Control by VHF Channel 16 or 68.

EMERGENCY CO-ORDINATION CENTRE: In all cases of emergency contact Tulcea Control on VHF Channel 68.

TELEPHONE: See "Constantza".

SHORE LEAVE: See "Constantza".

IDENTITY CARDS: See "Shore Leave".

REGULATIONS: See "General" before first port.

SHIPMASTER'S REPORT: May 1996.

Location: The port of Tulcea is situated on Danube River, about 40 miles up from the mouth of the river at Lat. 45° 10' N., Long. 28° 40' E..

The ships use an artificial channel 40 miles long with width from 100 m. to 130 m., except natural channel in the river where the breadth reaches 400 m.

Documents: We needed the following at Sulina (inner roads) where inward formalities were completed:
6 copies Crew List.
2 copies Crew Effects Declaration.
2 copies Ship's Stores List.
1 copy Maritime Declaration of Health.

After this procedure, ships proceed to Tulcea Roads where new Customs and Immigration formalities must be completed.

Up to 10 officials come on board for formalities at Tulcea, and also at Sulina.

At Tulcea port, the following documents have to be prepared:
6 copies Crew List.
2 copies Crew Effects Declaration.
2 copies Ship's Stores List.

All ship's certificates are tendered to representative of Harbour Master. Upon departure, all documents are given back. All certificates are to be valid and not to expire before ship's sailing from the port of Tulcea.

Pilotage: Compulsory for all vessels. Notice of ETA and request for a Pilot must be made not less than 24 hours prior to arrival to the Sulina Port Administration via Agent.

To proceed in Sulina Channel and to reach Tulcea, ships take 2 Pilots at Sulina Entrance and then proceed to port of Sulina where they must drop anchor for completion of inwards formalities.

Above mentioned Pilots can be picked up near the white-yellow Buoy No. 1 with ball on a top (Lat. 45° 08.14' N., Long. 29° 47.50' E.).

Ships may contact pilot station on VHF Channels 16 or 14, call sign "Sulina Pilots".

Pilot boat has no colour, it is rusted, but initial colour was white.

While manoeuvring near Buoy No. 1, it should be taken into account that current from North, especially during winds from Northern quarter, may reach 3 knots – 4 knots.

Anchorage: When waiting for Pilot, a good anchorage may be obtained in the quarter circle with radius 2 miles from point with centre (Lat. 45° 08.52' N., Long. 29° 46.78' E.), and restricted by 2 lines one directly in a Northern direction and the other in a 121° direction (See "Sulina" Plan). The depths are from 13 m. – 21 m., with good holding ground.

Approaches: "IALA" Buoyage System "A" has been adopted.

Restrictions: The depth is limited by bar at Sulina Entrance and is 23 ft. Sometimes it may be increased by written permits from Sulina Canal Authority, up to 24 ft.

There is a submerged vessel in position Lat. 45° 11' N., Long. 28° 58' E. Part of the vessel is aground and part is submerged. The submerged end is marked by a red buoy. Ships pass very close to it, at distance about 5 m. – 10 m.

Vessels may pass through Sulina Canal day and night, except at place where there is a submerged vessel, which can only be passed in daytime. Passage of Sulina Canal from Sulina Entrance to Tulcea takes about 6 hours.

Max. Size: Prior to 1989, the biggest vessels (LOA 220 m.) passed through Sulina Canal. But after an accident with one vessel (130 m. LOA) (above mentioned submerged vessel), the size of vessel was decreased, but not to any concrete figure. However, vessels with LOA 130 m. – 150 m. may pass through Canal.

Health: Free Pratique is given upon arrival to Sulina inner roads, where all formalities were undertaken.

Density: In Danube River, full fresh water (1000).

Fresh Water: Good quality water is available, but only at the pier.

Fuel: Not available.

Customs Allowances: 1 bottle of any spirit and 200 cigarettes for each crew member.

Customs Search Teams search every cabin.

Medical: Resident doctors and hospital available.

Airport: Nearest at capital city of Bucharest, about 240 m. (5 hours drive), but road is not very good.

AUTHORITY: Harbour Master, 26 Portului Street, Tulcea, Romania. *Tel:* 40-40-513226. *Telex:* 52324. *FAX:* 40-40-512937. *Contact:* Ichim Iulian Dan, Harbour Master.

AGENT: Navlomar Tulcea, 30 Garii Street, Tulcea, Romania. Tel: 40-40-513659. Telex: 52261 Navlo R. Fax: 40-40-511555.

NOTES

Please also advise Shipping Guides Ltd.

Russia

GENERAL: ALL PORTS:

(a) List of ports and port roads open to foreign vessels:

I. Arctic Ocean Ports

1. Murmansk
2. Onega*
3. Archangel
4. Mezen
5. Naryan-Mar
6. Igarka

*The port of Onega is closed for foreign vessels from 1st September to 31st December yearly.

II. Baltic Sea Ports

1. St.Petersburg
2. Vysotsk
3. Vyborg

III. Black Sea Ports

1. Novorossiysk
2. Tuapse
3. Sochi

IV. Pacific Ocean Ports

1. Nakhodka
2. Aleksandrovsk-Sakhalinsky
3. Makarevsky (or Due) Roadstead
4. Octyabrsky
5. Shakhtersk
6. Uglegorsk
7. Kholmsk
8. Nevelsk
9. Makarov Roadstead
10. Poronaisk
11. Vostochniy
12. Korf
13. Okhotsk
14. Provideniya
15. Severo-Kurilsk
16. De Kastry

(b) Addresses and telephone numbers of V/O "Soyuzvneshtrans", VVO "Sovfracht" and V/O "Sovbunker":

VVO "Sovfracht" is the sole organisation in rendering brokerage services to local and foreign Shipowners. V/O "Sofracht" carries out chartering of foreign and Soviet tonnage and is the General Agent for foreign flag vessels in ports.

Postal address: VVO "Sovfracht" 1/4, Rozhdestvenka Street, Moscow, 103759, Russia.
Cable: Sovfracht Moscow
Telephone: 926-11-18
Telex: 411168 a, b, 411170 a, b.
Fax: 2302640.

Vsesoyuznoe Obyedinenie (V/O) "Sovbunker" carries out ships' bunkering and port consignment stock operations.

Postal address: V/O "Sovbunker", 10/12, Kaloshin Lane, Moscow, 121002, Russia.
Cable: Sovbunker Moscow
Telex: 411170
Telephone: 248-23-52.

Vsesoyuznoe Obyedinenie (V/O) "Soyuzvneshtrans" carries out all transportation and forwarding of export and import cargoes as well as transit of goods via Russia and foreign territories.

Postal address: V/O "Soyuzvneshtrans", 17/16, Gogolevsky Boulevard, Moscow, 121019, Russia.
Cable: Soyuzneshtrans Moscow
Telex: 411441, 411442
Telephone: 203-11-79.

(c) Guiding principles to comply with when calling at Russian ports: All vessels calling at above ports must also abide by the Customs and Obligatory Harbour Regulations of each particular port of call which are obtainable through the local Inflot agencies.

(d) Ship/shore radio link: Ships' communication with ports of call is usually maintained through the local port radio stations, some information of which is given in the respective entries for the ports.

Ships' radio stations and/or radio-telephones (excluding VHF), must not be operated when the vessel navigates or lies at anchor within thelimits of the port boundaries as well as when calling at or leaving the port, except in emergency, e.g.

when giving distress signals;
when rendering assistance to other vessels in distress;
while making way through the ice;
after having obtained special permission of the Harbour Master.

Note: Superiority in use of radio communication means is given to an icebreaker when leading a convoy of ships through the ice; in case there are two or more icebreakers in a convoy – to a leading icebreaker.

Vessels equipped with VHF radio-telephones must keep them operated in the calling Channel stipulated by the Obligatory Harbour Regulations when navigating within a port limit.

(e) Notice of Arrival: The Master of a vessel should send preliminary information to the Inflot Shipping Agency about the vessel and the cargo not later than 12 days prior to vessel's arrival at the port of destination (for tankers, gas carriers and vessels loaded with liquid chemicals, as a rule, 14 days prior to arrival).

In the preliminary Notice the Master should state the following information:

Name and nationality (flag) of the ship;

Port of departure (last port of call);

Draft fore and aft, cargo carrying capacity, volume of holds, measures of hatches, number and location of 'tweendecks, etc.;

Nature and total quantity of cargo and stowage plan; heavy lifts (over 3 tons) to be shown separately;

Amount and spacing of water ballast (for tankers only), as well as the name of cargo which was unloaded from the vessel before taking ballast;

Particulars of inoperative cargo handling gear as well as whether the vessel requires supply of electric power from the shore for lighting purposes during cargo handling operations (all possible damages which may occur either for lack of all relevant information mentioned above or due to untimely and/or incorrrect data given by the Master to the Port Authorities when advising ETA, etc., are to be for the vessel's account);

Request for any kind of port services.

More precise information about a vessel's approach to the port (roadstead) of destination is to be given by the Master to the Inflot Shipping Agency. Masters of dry cargo vessels are to inform ports of destination about their ETA at first 96 hours and then 12 hours prior to arrival and as far as Masters of tankers, gas carriers and vessels loaded with liquid chemicals are concerned they are to inform Port Authorities 72 hours and 12 hours prior to their arrival at a port.

Masters of tankers bound for loading/unloading oil products are to inform ports of destination 72 hours prior to their arrival that they have in their possession International Certificate on Civil Liability for Oil Pollution Damage.

According to Charter Parties, Sale Contracts and other documents stipulating conditions of carriage of goods by sea, Masters should give necessary information to additional addresses at stipulated time.

The Port of destination Authorities should be immediately informed by the Master about all unforeseen delays during the voyage.

Vessels calling at ports for bunkers, fresh water, provisions, etc. only, should advise their ETA to the Port Administration in due time stipulated above.

The Port Administration should provide Masters of calling vessels with all necessary information regarding anchorage, berthing and handling of cargo not later than 2 hours prior to vessel's arrival.

Since for some ports, time and terms of giving Notice of Arrival are different to that mentioned above, Masters are advised to look at the information for a particular port.

(f) Pilotage: Pilotage is compulsory for all vessels when calling or leaving Russian sea ports, as well as when mooring and unmooring. In addition the Pilots perform shifting berths and other duties related to the harbour operations.

A Pilot having boarded a vessel shall be advised by the Master of the precise draft and other particulars necessary for safe pilotage of a vessel.

According to the Merchant Shipping Code of Russia, the Master of a vessel shall be obliged to pay a fine in an amount of double the rate due as pilotage fee for incorrectly declaring the draft, length or breadth of a vessel or its net registered tonnage, irrespective of the liability established by law for the consequences which may occur as a result of the incorrect information.

A Pilot should be ordered through the local Inflot Agency 12 hours prior to vessel's arrival at the Pilot boarding place. More accurate information should be given 4 hours prior arrival unless otherwise stated in the Obligatory Harbour Sea Regulations.

Also see "Baltic Deep Sea Pilotage".

(g) Anchorages: A vessel approaching the Port of Call and not having been boarded by a Pilot immediately on arrival, or for any other reason, shall anchor in the anchorage area specially designed for this purpose and under no circumstances let its hull go across the boundaries of this area or prevent other vessels from using the leading lights, navigation marks or lights.

No anchorage is allowed in the prohibited zones shown on the charts, listed in special manuals for navigation and/or in the Obligatory Harbour Regulations as well as those announced in the appropriate Notices to Mariners.

No anchorage is allowed at a distance of less than 1.5 cables length off fairways and leading lines as well as in depths not providing a vessel with a safe anchorage while drifting on the anchor chain.

No vessel shall anchor within the water area of a shipbuilding yard after being refused permission to carry out repairs.

It is prohibited to change a vessel's anchorage by drifting.

Vessels carrying explosives or inflammable liquids must anchor in the areas recommended for them only.

All vessels when at anchor shall carry the lights or the marks in accordance with International Regulations for Prevention of Collisions at Sea. Apart from that every vessel by night, when at anchor, shall be illuminated from stem to stern with additional lights placed so that the hull be as far as possible visible from the surface of the water.

Vessels using a kedge anchor shall, in addition to the lights and the marks as to the International Regulations for Prevention of Collisions at Sea, conspicuously display by night a white light and by day a red flag lowered from the stem by the anchor chain to the extent of half of the side's height.

In restricted visibility whether by day or night, every vessel when at anchor shall use sound signals conforming strictly with the International Regulations for Prevention of Collisions at Sea.

Masters of all vessels when at anchor are not allowed without the Harbour Master's consent, except in emergency, and/or in case of Port and Boarding officials, to give anybody permission to come alongside in a private launch or a small rowing boat whether under oars or sail and board a vessel.

Swimmers must not be allowed to come on board a ship.

Should, in case of emergency, swimmers have been taken on board or strangers have been discovered aboard a vessel, the Master of such ship shall forthwith without delay report the fact to the Harbour Master and shall later hand those people over to the Representatives of the Port Administration.

(h) Regulations for entering and leaving Russian ports: When approaching Russian ports all vessels must follow the recommended courses announced in issue No. 1 of the Russian Notices to Mariners (GDNOMD).

All vessels when approaching a port or a Pilot's boarding place as well as when leaving a port during the daytime must keep their National flags hoisted. A vessel's National flag must be kept hoisted on the stern flagstaff from 0800 hrs. in the morning up to sunset, and the State National flag on the fore mast. In Arctic ports during prolonged period of light National flags must be kept hoisted from 0800 hrs. till 2000 hrs.

Every vessel coming from abroad shall hoist Quarantine Signals of the International Code of Signals depending on health and sanitary conditions on board.

For entry permit, a vessel must contact the Port Control service either by VHF radio-telephone or by means of visual signals, viz, by day, hoisting her call-sign, and by night, making call-sign signals in Morse Code by searchlight or by Morse-lamp.

No ship shall enter the Harbour until the proper signal has been hoisted at the signal station or by a pilot boat authorising such entry.

No vessel is allowed to enter the Harbour until the prohibition signals hoisted at the signal station shall have been lowered down.

If entry is refused a vessel must immediately slow down, alter course and if possible leave the fairway, and drift or drop her anchor in the recommended area.

Turn of entry to the Harbour is controlled by the Port Administration with regard to tonnage of vessel, nature of cargo, weather conditions in the port area, readiness of the port to start cargo operations and other circumstances.

Simultaneous entry of two or more vessels to the Harbour or vice versa is not allowed in the majority of ports.

In all cases a vessel entering the Harbour must give way to the outgoing one not preventing her manoeuvrability.

(i) **Sanitary and Quarantine requirements:** It is prohibited by law to contaminate inner and territorial waters of Russia with any kind of substances which are considered to be unhealthy for people or harmful to live resources of the sea. It is also prohibited to discharge into the sea oil contaminated, faecal, washing waters and oil residues; no rubbish, waste foodstuff shall be thrown into the water. The list of harmful substances is published annually in issue No. 1 of the Russia Notices to Mariners.

Not later than 6 hours before arrival Masters of all vessels coming from foreign countries to Russian ports should advise Quarantine Authorities by radio through Inflot Agency giving full details of health conditions on board as well as sanitary conditions at the last port of call.

If medical assistance is required on board Master has to contact Inflot Agency or any other local port Agent.

No shore connection is allowed to a vessel until Free Pratique is obtained.

Masters are advised to ask a Sanitary Officer for inoculation, vaccination, fumigation, de-contamination, etc., if required, whilst he is on board a ship together with the other Boarding Officials.

Veterinary Certificates of Good Health are required for the livestock, all kinds of meat, animal food and raw meat stuff brought to Russian ports from abroad. Certificates should be issued by the proper authorities of the country from which the cargoes have been exported.

Masters should have a Phytoquarantine Certificate for the goods of vegetable nature.

It is prohibited to take ashore fruit, vegetables, grain seeds, plants, plant products, etc., without a certificate issued by a local branch of the Agricultural Quarantine Inspection; animals and birds are also not allowed to be brought ashore without getting pemission from the veterinary authorities.

(j) **Regulations for the Clearance of Vessels on Arrivals and Departures:**

Upon arrival at a Russian port the Master of a foreign flag vessel has to hand over to a representative of the Inflot Shipping Agency the following documents (filled in with full accordance of the IMOrequirements) duly signed by the vessel's administration for further examination by:

(a) *Boarding Port of Call Officials:*
  (1) Ship's Patent;
  (2) Measurement Certificate;
  (3) Load Line Certificate (or International Load Line Exemption Certificate);
  (4) Passenger Ship Safety Certificate;
  (5) International Certificate on Civil Liability for Oil Pollution Damage (for vessels carrying more than 2,000 tons of oil).

(b) *Health Authorities:*
  (1) Ship's Health Certificate;
  (2) Derat Certificate;
  (3) International Certificate of Vaccination;
  (4) Maritime Sanitary Declaration.

(c) *Customs Officials:*
  (1) General Declaration;
  (2) Cargo Declaration;
  (3) Ship's Crew Personal Effects Declaration;
  (4) Crew List;
  (5) Passenger List.

The Master has to declare to the Customs:

(1) Cargo Manifest, Bills of Lading and other documents for the cargoes carried by the vessel.

(2) Other Ship's documents on request.

The Master fills in a form of Master's Declaration (Shipowner's address, cargo, cases of illnesses on board, if any, etc.) with the Agent's assistance.

In accordance with Article 38 of the Merchant Shipping Code of Russia in case a foreign flag ship which, on calling at a Russian port, raises doubts as to her meeting the requirements of safe navigation may, irrespective of whether she possesses the necessary ship's papers mentioned above, be subjected to an examination by way of technical survey on the same basis as ships sailing under the State Flag.

The Obligatory Harbour Regulations to be fully complied with during a vessel's stay at Russian ports are handed over to the Master either by Pilot or by representative of the Harbour Master's Office, or by Agent when arriving for the first time.

Upon sailing from a Russian port: No other documents apart from those mentioned above are required in order to obtain the authorisation to leave the port.

No vessel is to get under way without having obtained the permission of the Harbour Master.

The authorisation to leave the port shall be given after a vessel herself and her draft shown in the Master's Statement have been checked by a Port Authorities' representative.

The Harbour Master may not allow a vessel to leave the port, if:

(1) The Cargo Loading Regulations have not been fulfilled, *i.e.* a vessel is considered overloaded or wrongly loaded in case:

(a) a vessel's load lines corresponding to the maximum depth to which she should have been loaded are under water without any list;
(b) the cargoes loaded in the holds and/or on deck have not been made fast in a proper manner or have not been made fast at all;
(c) a vessel has a bad list* caused by faulty loading or her stability does not correspond with the ship's documents;
(d) a vessel loaded with bulk or liquid cargoes has not used the necessary materials or accommodations to prevent cargoes from shifting or overflowing in case of vessel's pitching and rolling;
(e) the deck cargo is considered as danger to the safety of a vessel and the safety or life on board caused by faulty loading;
(f) the corresponding regulations for loading of dangerous cargoes or cattle to be carried by vessel have been broken;
(g) other loading regulations have not been abided by in the course loading.

(2) Under other circumstances which may cause a danger to the safety of a vessel and the safety of life on board, as well as in case when the ship's documentation regulations have been infringed.

(3) When the port dues, tolls and fines have not been paid.

All expenses which may occur due to a vessel's possible delay in the port in connection with the reasons stated above are to be for the Owner's account.

Note: *According to the Harbour Regulations a vessel is not allowed to leave a port if her list exceeds 5° or she has trim by bow which was not specified by her construction.

ANNEX 2

The Memoranda for Masters of Foreign Vessels calling at Russian Ports.

1. On arrival of the ship the Master is to submit to the representatives of the Port Authorities the following documents (IMO Forms) duly signed by ship's administration:

General Declaration (Form I). Filling in of points 8 and 11 is not compulsory (5 copies).

Cargo Declaration (Form II). (4 copies). Filling in of point 6 is not compulsory; points 7, 8 and 9 are to be filled in only for:

(a) cargoes for which Bills of Lading were not issued (names of Shippers and Consignees to be stated);
(b) transit cargoes;
(c) cargoes for other Russian ports;
(d) cargoes of agricultural origin;

Ship's Stores Declaration (Form III) – not required.

Crew's Effects Declaration (Form IV). Amount of Master's and Crew members' valuables (gold, silver, platinum, jewellery, bonds, travel checks, etc.), personal firearms and cartridges (ammunition), explosives and narcotics are to be stated in point 2 (2 copies).

Crew List (Form V) (4 copies).

Passenger List (Form VI) (4 copies).

2. The Master of a ship is to instruct all members of the ship's crew that in accordance with the Rules in force in Russian ports:

Exportation and importation of local currency is forbidden;

No articles are permitted to be taken ashore or brought on board the ship without permission of the Custom House Authorities;

Articles taken ashore or brought on board the ship and concealed from Customs control shall be regarded as smuggled goods liable to confiscation with a fine imposed;

Likewise, the sale of any articles of foreign origin on the territory of the state will be regarded as smuggling;

No wastes shall be thrown into the water or on the quay; the discharge of oil contaminated water and/or oil residues is prohibited;

All mooring ropes must be fitted with rat-guard plates;

Only one gangway must be led ashore at night when loading or discharging is not carried out;

It is prohibited to take ashore grain, seeds, plants, plant products, soil, etc. as well as animals and birds;

Violation of the above-mentioned rules will entail penalty in accordance with the laws of the state.

(k) **Customs Examination:** Immediately after the clearance formalities have been accomplished, all the vessel's premises with cargoes and articles not destined for the port of call and not being allowed to be taken ashore are sealed by the Customs Officials. In case a part of cargo and/or articles, not for discharge at destination port, are stowed in the same area as articles for discharge at the destination port, the sealing is carried out after discharge of articles destined for the port.

Extracts from Customs Regulations:

It is allowed to bring in on arrival to the state:

1. Personal effects in quantities necessary for the trip.

2. Food-stuff, wine and/or alcohol, cigarettes/tobacco in quantities necessary for personal consumption during the trip, but duty free for 1 person not more than:

spirits-1 litre;
wine-2 litres;
250 cigarettes or 250 gm. of tobacco/tobacco articles.

Fresh, salted or smoked meat, fat, dressed poultry, smoked and home-made sausages, eggs, honey, milk and fish-products, but not canned fish – unless permit of the Ministry of Agriculture is available.

3. Foreign currency without restrictions on quantity.

Bringing in local currency from abroad (if not stipulated by special agreements), as well as State-loan bonds and lottery tickets is strictly prohibited.

4. Jewellery and every day necessities made of precious metals or jewels without restrictions in quantity (duty free.)

It is allowed to bring in not more than 2 jewellery articles for every day necessities made of pearl only or mixed with pearl having total weight not exceeding 100 gm.

It is prohibited to bring in natural pearl and seed-pearls.

5. Foreign currency, jewellery and every day necessities made of precious metals or jewels and pearl must be declared to the Customs.

6. It is *strictly prohibited* to bring in to the state:

Fire-arms and ammunition of any military kind;

Narcotics and psychotropic substances as well as appliances for Smoking opium and hashish;

Printed matter cliche, negatives, developed films, photos, video-cassettes and video-discs with films recorded on them, manuscripts, gramophone records and any other type of sound recording, drawings, pictures and articles of fine arts containing data which may do harm to political and economic interests of the state, State security, public order, human health and morals of the people.

It is allowed to take out when leaving the state:

7. Personal effects, foreign currency, jewellery and every day necessities made of precious metals, jewels and pearl that had been brought to the state earlier.

(Taking abroad state currency if not stipulated by special agreements, State-loan bonds and lottery tickets is strictly prohibited.)

8. Food-stuff, wine, spirits and cigarettes/tobacco in quantities necessary for personal consumption during the journey but not more for a single trip than:

spirits – 1 litre;
wine – 2 litres;
250 cigarettes or 250 gm. of tobacco/tobacco articles;
black or red caviar – 150 gm.;
ground or instant-coffee – 200 gm.;
spices 200 gm.

9. Articles bought for officially received Russian currency for personal use only, not more than 5 pieces of jewellery and/or every day necessities made of precious metals, jewellery or any kind of pearl in total; articles and decorations made of silver having total weight not more than 400 gm.

10. It is allowed to take out without quantity restrictions any articles (except forbidden ones) bought for foreign free currency in specialised shops on the state territory on producing corresponding bills (receipts) given by shops.

11. It is *prohibited* to take out of the state:

1. Fire-arms and ammunition of any military kind as well as military outfits.
2. Narcotics and psychotropic substances.
3. Nullified securities.
4. Works or art, antiquities (paintings, sculptures, china, articles made of crystal, ceramics, wood, leather, precious and non-precious stones and metals, bone, hand-work, carpets, gobelins, furniture, fancy clothes and footwear, numismatics, works of art, weapons, books, manuscripts, gramophone records, musical instruments, stamps, etc.) and other articles being a high artistic, history making, scientific or other cultural valuables.

Note.: Articles mentioned above may be taken out of the state with special permission of the Ministry of Culture provided an export duty equal to 100% of the value stated in the Export Permit has been paid.

5. Antlers and hides of stags.

(l) Berthing: Berthing can only be effected with tug assistance and a State Pilot on board. Likewise, no vessel shall leave or shift berth without employing the services of a Pilot authorised by the Port Administration to make the voyage in question.

Vessels must take up the berths assigned to them and conform strictly to the Obligatory Harbour Regulations in force.

A Pilot or the Agent shall provide the Master with all necessary information as regard to depths, tugs, conditions in the Harbour, etc., before mooring and shifting berth starts.

The responsibility for the safety of a vessel during her manoeuvring and berthing as well as for possible damages to a berth or other port facilities shall always rest with the Master.

No vessel is allowed to change berth due to handling of cargo or for any other reason unless the main engines, the mooring winches, the steering gear, etc., are in good working order and there is sufficient number of the members of the crew to ensure shifting berth when required.

It is strictly prohibited to work with vessel's propellers when lying alongside berth. To avoid damage to the underwater parts of a berth while mooring or unmooring every vessel must have the main engines going "dead slow" until her stern is 10 m. from the quay.

When berthing, Masters should use strong and reliable mooring lines and make them fast over the quay pile-moorings and bollards only. It is strictly prohibited to make fast mooring lines over any part of the quay equipment which has not been intended for that purpose.

When lying alongside berth, every vessel must have a gangway or a gangway board with a lifeline secured, led ashore and made fast. There should be a net under the gangway platform and a lifebuoy nearby. Gangways must be sufficiently illuminated at night.

(m) Stay in port at berths: When lying alongside berths, all vessels to be moored by long safe ropes which are to be kept fast at all times, and constant watch should be kept by day and at night.

All mooring ropes must be fitted with rat-guard plates.

From sunset to sunrise all vessels' decks, cargo decks and gangways must be illuminated.

Every vessel, whether in the outer roads or in the harbour, must always have on board a sufficient number of crew to be able to ensure both the ship's safety and her everyday routine. Vessel's fire-fighting and life-saving equipment must always be ready for use on board or to render assistance to other vessels or shore objects in case of emergency.

When in port, no vessel is allowed, without having obtained the Harbour Master's permission, to make repairs to the main engines or to the ship's auxiliary equipment thus depriving her of the opportunity to shift berth at short notice in case of emergency.

It is not allowed, without the permission of the Port Administration, to use vessel's boats, underwater oxygen and any underwater apparatus of other types.

No vessel is allowed to clean boilers or discharge any sort of chemicals or organic products into the water, giving off smoke and sparking from vessels' funnels.

(n) Ship's movement in the harbour and shifting berths: No vessel shall leave or shift berths without the permission of the Port Authorities. In case there are no provisions in the Contract of Carriage of Goods by Sea or in the Bill of Lading, a vessel shall accomplish one shifting from berth to berth during the course of her loading and shifting upon unloading to the loading berth at the Owners' risk and expense. Any subsequent shifting shall be at the expense of the goods.

All shiftings in the port connected with a vessel's needs, viz. bunkering, loading supplies and/or provisions, making repairs, etc., shall be at the expense of the vessel.

All haulings both during the course of loading and unloading shall also be at vessel's expense.

(o) Tugs' assistance: Tugs, if necessary, are usually ordered by the Master according to a Pilot's advice.

In some ports use of tugs during mooring and shifting berths is compulsory due to the heavy conditions of navigation.

Ordering of tugs and payment for the assistance rendered is made in accordance with the tariffs in force. Masters of vessels shall order tugs through a local Inflot Shipping Agency.

A tug's detention time at a vessel's side while waiting for her readiness for the towage is considered to be as the working time and therefore is to be paid accordingly.

For cancellation of a tug, a vessel shall be charged full rate, including detention time and time of passage of a tug from the berth to the vessel and vice versa.

When ordering a tug for unmooring, Master should fill in and sign a special application form given by the Agent. The actual time of completing the towage shall be approved by the Master of a towed vessel.

In ports where the towage is compulsory when mooring and shifting berths, the Master shall be charged for the tugs' assistance whether used or not, and having refused tugs shall be held responsible for the consequences thereupon.

(p) Notice of Readiness: In case there are no special provisions in the Contract of Carriage of Goods by Sea, the Master shall, during the established office hours upon the accomplishment of Customs formalities and having obtained Free Pratique, deliver a Notice of the ship's readiness for loading or unloading to the shipper or the consignee through the Inflot Shipping Agency.

The Notice of the vessel's readiness shall be considered accepted if she is actually ready to load the cargo into or unload it out of all the vessel's holds or tanks.

(q) Handling of Cargo: All cargo handling areas in the ports are under control of the Port Administration which shall provide vessels with labour, tally staff, sheds and warehouses, employees, etc.

To ensure successful handling of cargo the vessel shall, when required by shippers or consignees, receive or discharge cargo day and night, as well as on Sundays and holidays, furnishing free of charge all necessary cargo handling gear. Though in most ports the cargo handling is done by port cranes both from the quays and lighters, a vessel shall, in some ports, use her own cargo handling equipment, which has to be in good working condition.

In the latter case, the Master shall produce to the Agent the Cargo Equipment Certificate which must be valid.

Loading or unloading time is calculated as to the rates stipulated in a Charter Party or according to the Customs of the Port in the absence of same.

Should the port labour participate in the opening or closing of hatches, a vessel's administration shall be responsible for the rules of safety engineering to be complied with.

Opening and closing of mechanised ship's hatches shall always be done by the ship's crew.

Should shore cranes be used for loading or unloading instead of a vessel's cargo-handling equipment, the Master shall beforehand remove aerials, aerial halyards, stay rods, wires, etc., crossing the air space over a ship's hatches and preventing the shore cranes' derricks from free circulation.

The vessel's derricks shall not project over the sides.

(r) Agency: All foreign vessels upon arrival at the ports are attended by the Maritime Agencies Inflot, or by one of the local port shipping Agents.

Shipping Agencies provide foreign vessels with the following services:

Inform the Port Authorities and other organisations about vessels' expected time of arrival (ETA), nature and quantity of cargo to be handled, expected time of loading or discharging, etc.;

Render assistance to the Masters in obtaining Pilots, tugs, berths, launches, etc.;

Perform all the necessary formalities connected with the vessels' arrival and departure;

Ensure that Masters are acquainted with the Port Rules, Obligatory Harbour Regulations as well as other documents and instructions issued by the Port Authorities;

Give advice to the Shipowners and other interested parties regarding vessels' movement and the prospects for the handling of cargo;

Render help in speeding up cargo handling operations;

Provide vessels with supervisors and tallymen;

Prepare time sheets and submit them to the Masters, Port Authorities and Shippers (Consignees) for their further approval;

Sign on Masters' behalf cargo and other documents;

Arrange bunkering, delivery of fresh water, provisions, technical supplies and all kinds of ship-repairs;

Render help to the members of the crews in obtaining medical assistance;

Make payment of dues, charges, fines (if any), etc., on behalf of the Shipowners and for their account;

Take all necessary measures for improvement of the handling of cargoes and ships' services;

Look after the Court (Arbitration) cases and cargo claims on behalf of the Shipowners;

Make Sea Protests as well as translation and duplicating of any documents on Masters' requests;

Repatriate members of the crews from the state to their home ports;

Invite surveyors qualified by the State Register of Shipping to conduct vessels' surveys;

Make extension of ships' documents;

Render help to the Shipowners in delivering and redelivering of their vessels on time charter;

Assist in arranging cargo fumigation on board;

Perform any commissions on the instructions of the Shipowners in regard to the ships' services and protection of their interests before any Authorities.

It is in the interest of the Master to advise Port Agent timely information as regard to a vessel's name and flag, ETA, gross register tonnage; draft fore and aft; position of cargo in hold (stowage plan); number, weights and location of heavy lifts, number and length of oversized (over 9 m.) pieces and Owners' cable address and telex number thus putting the Agent in a position to calculate the approximate sum of the disbursement expenses and ask the Shipowners to remit same (disbursement accounts are to be paid before vessel's departure).

Note: Bearing in mind the fact that most of the shore offices are closed on Sundays and holidays, the Master shall cable to Inflot Agency well in advance his order for bunkers, repairs, technical supplies and cash to enable the Agent to make necessary arrangements.

All branches of Inflot Agency work round the clock, including Sundays.

Cable address of any branch of Inflot Agency is "Inflot", e.g. "Inflot St.Petersburg".

(s) **Fire safety measures:** Fire safety measures at ports must comply with the provisions of the International Code for the Carriage of Dangerous Goods by Sea. Every vessel upon arrival at a port must keep constant fire watch day and night and have fire-fighting and life-saving equipment always ready for action. Members of the crew must keep strictly to the Fire Safety Regulations especially during vessels' stay at oil and timber berths. Giving off smoke out of the funnels is strictly prohibited. In all the ports a fire brigade could be called over the phone by dialling 01 in case of fire.

(t) **Medical assistance:** Medical assistance, if required, is available, including vaccination and inoculation as well as dispensary and hospital treatment in all the ports. In case of emergency an ambulance or a doctor should be called for by telephone – 03 in all the ports.

(u) **Customs of the ports:** Customs of the ports should apply in case:

(1) there is no Contract of the Carriage of Goods by Sea at all;

(2) there are no provisions in a Charter Party or in the Bills of Lading in respect of items covered by these Customs;

(3) a Charter Party or a Sale contract and/or any other Contracts of the Carriage of Goods by Sea specially refer to these Customs of the Ports.

(v) **National and general holidays:**

5 days working week with 2 holidays has been introduced for most of the industrial enterprises, government and commercial offices and other institutions. Saturdays and Sundays are weekly holidays.

(w) **Places of Recreation for foreign seamen:** In the majority of the commercial sea ports foreign seamen can spend their spare time in the International Seamen's Clubs which can offer concerts by professional and amateur actors and singers, evenings of public hearing of recorded Russian and foreign music, films, etc. Sightseeing is usually organised by the local excursion bureaux.

(x) **Summer Time:** 1st April to 1st October – clocks advanced 1 hour at 0000 hrs.

DEEP-SEA PILOTAGE: See "Baltic Deep Sea Pilotage".

ARCHANGEL: 64.34 N. 40.30 E.

LOCATION: A White Sea port. Archangel is situated at the mouth of the Severnaya Dvina River, in the S.E. corner of Dvina Bay. A part of the harbour is situated at the Northern end of the Povrakulsky Island, at the junction of the Maimax River and the Kuznechikha River, and is called the Economia Avant-port. The total length of the port area is about 30 miles.

DOCUMENTS: Refer to beginning of Russian section.

PILOTAGE: Compulsory. Notices of ETA in accordance Soviet Wood Charter Party. Pilot boat located in area of the light buoy "Mudyugsky I". VHF Channel 16. Pilot boat is tug-boat with word "Pilot" on wheelhouse. Vessels awaiting Pilot may anchor at safe distance to North from pilot boat location. In event bad weather pilot boat goes to shelter, being available by VHF radio.

While waiting for a Pilot, vessels may lie at anchor at a safe distance to the North from the pilot boat location.

In the event of bad weather a Pilot shall board a vessel at a sheltered place shown by him.

When a Pilot is not able to board a vessel due to weather conditions, a pilot boat is usually situated on the Southern side of the Mudyug Island. In this event vessels should anchor at the entrance of the channel from seaward and wait for a Pilot's arrival.

ANCHORAGES: There are several places which can be used by foreign vessels for anchorage. They are:

(1) The outer roads with depths from 10.0 m. to the North and N.W. from the reception buoy "Mudyugsky I".

(2) Customs formalities are carried out alongside the berth or at Solombala roadstead immediately after vessel's arrival, and half an hour prior to vessel's departure.

(3) The Solombala roadstead with depths of 5.0 m. – 9.0 m. is used by vessels for anchorage while awaiting a berth for loading cargo.

The ground at all roadsteads – mud and sand; anchoring is performed according to the Pilot's recommendations.

RESTRICTIONS: Ice breaks up in April. Port area open from end of April through to November. From November till April, ice classed vessels sail with assistance of ice-breakers.

During the time of high water vessels can enter the port through the approach channel Berezovy Bar if having length not more than 160 m. and draft not exceeding 9.0 m. Changes of passage drafts are published in the Notices to Mariners. Vessels going to Timber Mills No. 2 and No. 3 as well as to the cargo area Bacariza pass through the central draw span of the railway bridge once during 24 hours. Vessels having air-draft less than 13.7 m. pass through the bridge throughout 24 hours. During bad visibility (less than 5 cables) movement of vessels within the port is not allowed.

In the Approaches to the Port there is an overhead power cable between:

(a) 64° 37.91' N., 40° 29.05' E. and
(b) 64° 37.72' N., 40° 29.03' E.

The vertical clearance is 45.0 m.

HEALTH: All vessels coming from foreign countries inspected by Sanitary Office. If no diseases vessel obtains Free Pratique. If vessels entering after calling at another Russian port, Pratique automatic.

RADIO: All information from sea may be routed through Murmansk Radio (UMN) and Archangel Radio (UGE), A1 500 kHz, A3 2182 kHz.

All vessels when approaching the port of Archangel should establish radio contact through the coastal "Archangel Radio" station which operates 24 hours per day on the following frequencies:

	Frequencies (kHz)		*Type of*		
Call Sign	*Working*	*Calling*	*trans-mission*	*Time*	*Remarks*
UGE	500/476	500/480	A1A	H24	
"Archangel-Radio"	2182	2182	H3E	H24	
"Archangel-Radio-1" (CPR)**	156.8*(16)	156.8*(16)	F3E	H24	
"Archangel-Radio-8" (Inflot Shipping Agency)	156.375*(67)	156.8*(16)	F3E	H24	Operates during period of navigation only
"Archangel-Radio-5"	156.700*(14)	156.8*(16)	F3E	H24	
Vessels' movement control (VMC)	156.700*(14)	156.7*(14)	F3E	H24	

*Frequencies are given in MHz.
**CPR – Central Port Radio station.

The storm signals station is situated in the Solombala area on the embankment of the Severnaya Dvina River named after George Sedov (Lat. 64° 35' N., Long. 40° 30' E.).

Storm signals are shown by the International Code of Signals by day and by Morse system at night.

Masters of vessels proceeding to the port of Archangel should advise ETA and all necessary information to the Inflot Agency as per conditions of the "Soviet Wood" Charter Party.

24 hours prior to arrival advise ETA to Inflot Agency. Four hours prior to approaching the "Mudyugsky I" Masters should advise more precise time of arrival.

TUGS: If necessary ordered 2 hours before arrival and normally join vessel near berth. Usually use ship's lines.

BERTHING: To certain extent depends upon tides. 37 berths available with depths alongside up to 9.2 m.

There are a large number of berths in the port along the river front, as well as at the Economia Avant-port.

Berths are equipped to handle timber, wood-pulp, paper, bulk, liquid, machinery and general cargo. There are enclosed warehouses and concrete floor sheds in the port.

CARGO HANDLING FACILITIES: Berths of the commercial port are equipped with mobile electric cranes of up to 32 tons capacity. Loading of timber from berths of timber mills is effected by shore cranes and vessels' cargo gear. There are also floating cranes from 5 to 100 tons capacity as well as other cargo handling equipment and interport transport means. Container crane of 30 tons capacity and back-up facilities.

BRIDGES: Vessels proceeding to load cargo at Timber Mills 2 and 3 have to pass under bridge which is opened once a day. Vessels with air-draft less than 13.7 m. can pass throughout 24 hours.

STEVEDORES: No particular ETA advices to stevedores/shippers required except those mentioned in Soviet Wood C/P. Loading rates, etc., also stipulated by Charter Party.

Mobile electric cranes of up to 20 tons capacity are operated on the quays. There are also floating cranes of up to 50 tons capacity, other cargo handling equipment and intra-port transport facilities. Sometimes, cargo handling is by vessels' gear.

MEDICAL: If any medical attention or prompt assistance required, Master has to contact Agent. No advance notice required. Clinic and hospital available.

TANKERS: Report 1994.

Terminal:

Name: Arkhangelsk Oil Terminal. Tel: (81800) 478157.
Telex: 242132 OVIS SU.

Shore tanks:

Product	No.	Total Capacity (cu.m.)
Gas Oil	9	90,000
Jet Fuel	3	30,000
Jet Fuel	2	2,000
L.C.G.O.	6	30,000
S.N.O.	2	10,000
S.N.O.	1	1,000
Heptane-Hexane Fraction	4	20,000
Lubricating Oils	6	6,000
Lubricating Oils	13	5,200
Gasoline	4	20,000
Gasoline	5	2,000
Gasoline	1	1,000

Shorelines: Length for all products 1,500 m. (approx.).
Diameter 530 mm. – Gas Oil/Jet, Fuel/Gasoline/L.C.G.O./S.N.O./HH.Fraction.
Diameter 219 mm. – Gasoline, Lubricating Oils.
Berths: There are 2 berths being used for all mentioned products. Both berths: Maximum draft 9.0 m., length 150 m. and loading rate about 600 cu.m./hr.

DENSITY: Fresh water practically throughout port.

FRESH WATER: Usually delivered by self-propelled barges. A few berths are equipped with shore water lines.

FUEL: Bunkers not available.

FIRE PRECAUTIONS: While lying alongside timber berth vessel to take maximum fire precautions.

CONSULS: No Consuls in Archangel.

REPAIRS: All types of repairs possible, also underwater surveys.

DRY DOCKS: There are floating docks with capacity up to 7,000 tons.

SURVEYORS: Register of Shipping of Russia.

GANGWAY/DECK WATCHMEN: Not available from shore. Usual watch kept by ship's crew.

OPENING/CLOSING HATCHES: Normally carried out by ship's crew.

CERTIFICATES:

Seaworthiness.
Measurement.
Loading Line.
Cargo Equipment.
Safety Equipment Certificates.
Radio Telegraphy.
Radio Telephony.
Oil Pollution Prevention.
Sewage Pollution Prevention.
Derat Certificate.

CUSTOMS ALLOWANCES: Tobacco/wine: No quantity limits, but can only to be brought ashore in limited quantities.

REPATRIATION: Repatriation and crew changes require visa formalities.

AIRPORT: Airport near town. Served by regular airlines.

TIME: GMT plus 3 hours, October 1st to April 1st. GMT plus 4 hours April 1st to October 1st.

HOLIDAYS: General holidays: (Subject to change in near future.) All Sundays and Saturdays: January 1st (New Year's Day); March 8th (World Women's Day); May 1st, 2nd (World Labour Day); May 9th (Victory Day); October 7th (Constitution Day); November 7th, 8th (Great October Socialist Revolution Day). Cargo work on these days at shippers' discretion.

POLICE/AMBULANCE/FIRE: Police 02; Ambulance 03; Fire 01.

EMERGENCY CO-ORDINATION CENTRE: None.

TELEPHONES: Can be arranged on board.

SERVICES: Compass adjusting, radar and radio repairs, etc.

BANKS: Commercial Bank "Pomorskiy". Telex: 613815 Pomor Ru. Fax: (47) 789-16028 via Norway.

STORING: See "Prelims".

1. Barge or truck.
2. Vessels can be stored during loading.
3. Trucks can proceed alongside.
4. No.
5. Customs permission required.
6. No.

SHORE LEAVE: Each crew member properly signed in Ship's Articles and having valid Seaman's Book allowed ashore.

IDENTIFICATION CARDS: Only Seamen's Books required.

GARBAGE DISPOSAL: Collection of garbage is available. It is collected by special lorries ordered via "Inflot" Agency during office hours. Dry garbage must be packed in bags. Charge: 1 container (75 cu.m.) U.S.$ 36.00 (Prices are subject to change).

Disposal of bilge water into barges. U.S.$ 43.00 per ton. Minimum charge U.S.$ 630.00.

WASTE OIL DISPOSAL: Collection available via "Inflot".

SEAMAN'S CLUBS: One Seamen's Club available. All services available apart from international telephone and church services. Tel: 94847, 94776.

CURRENCY: Roubles.

Any European currency can be exchanged in State Bank, or in other commercial banks.

DELAYS: On account of rain when loading timber.

NAVIGATION: Masters proceeding for loading timber should bear in mind that the swing bridge on their way to Timber Mills No. 2 and No. 3 is open once daily.

All vessels with drafts of less than 3.6 m. especially when engaged in towing timber rafts, should keep out of the way of deep-drafted vessels when passing through narrow places and approaching channels both at sea and in the river, and should not hamper their safe passage in such places. They should also safely pass vessels engaged in dredging of a channel.

When approaching a bend in a channel, every vessel should beforehand give a signal by 1 prolonged blast on her whistle or siren, reduce her speed and when it is safe and practicable, keep to that side of the channel which lies on the starboard side of such vessel.

Every Master when passing through a narrow channel, or approaching a bend in a channel should take positive early action prescribed by the International Regulations for Preventing Collisions at Sea to avoid a risk of collision with a vessel approaching from the other direction.

Deep draft vessels shall not overtake each other when navigating in the channel of the Beresovy Bar. A vessel proceeding to the port along the course of the channel must keep out of the way of another vessel leaving the port.

No vessel shall navigate in the port harbours in restricted visibility when navigational lights, marks, leading lights, buoys, etc. are not visible.

Ice: At the head of Dvina Bay drift-ice extends as far as 12 miles from the shore by the end of November. The Severnaya Dvina estuary usually gets frozen over at the beginning of November. At Dvina Bay the ice usually breaks up in April and at the Severnaya Dvina estuary – at the beginning of May. Thus, navigation in the port area lasts all year round for vessels with ice-class for White Sea.

Powerful ice-breakers, ice-strengthened vessels and tugs are maintained by the Port of Archangel Authorities to assist in navigation of the Dvina Bay waters and off the coast when ice conditions prevail.

Tide: The tidal range at the head of Dvina Bay reaches 0.8 m. – 1 m. and at Mudyug Island 0.1 m. – 0.5 m.

The in-going flood stream is usually stronger and about 1 hour longer in duration than the out-going ebb stream.

Sometimes the in-going stream at the bar of Severnaya Dvina may be hardly observed, being reduced to a few minutes of slack water. It may run steadily for some time then gradually attains its usual strength and goes on to set up to the time of high water.

The tidal streams in the Severnaya Dvina are considerably influenced by both strength and direction of the wind.

Moderate Northerly and Westerly winds increase the height of the tide and hold the fall of the water.

Only the in-going flood streams have been observed at the Severnaya Dvina estuary at springs. The extreme tidal range of the water level observed there is about 4 m.

DEVELOPMENTS: For the immediate future no draft increase expected. Some berths under reconstruction and cranes being installed to load timber.

AUTHORITY: Chief of the Port of Archangel, R.Luxemburg St. 5, 163061 Archangel, Russia. *Tel:* 445426, 437494. *Cables:* 242278 Morport Archangel. *FAX:* (8182) 441114. *Contact:* Via VHF.

AGENT: Shipping Agency "Inflot", Troitsky Av. 61, Archangel, Russia. Tel. (47) 78916142. Fax: (47) 78916032.

DE KASTRI: 51.29 N. 140.47 E.

SHIPMASTER'S REPORT: July 1991:

LOCATION: The port of De Kastri lies at the head and on the Western shore of the Gulf of Tartar and handles approximately 120 ships a year, split evenly between Russian and foreign ships.

Exports from De Kastri consist almost entirely of timber and oil products. Prior to our vessel's visit, all oil cargoes had been handled by Russian vessels. The timber trade is open to foreign traffic. The principal oil cargo handled was gas oil.

The population of De Kastri is about 4,000.

The port is affected by ice during the Winter season. Pack ice up to 2.0 m. thick blocks De Kastri Bay between November and May. The port authorities endeavour to keep the port operational during this period by the use of ice breakers, and timber exports are maintained. Oil export is suspended though, as the river traffic which supplies De Kastri is unable to operate in the Winter months when the Amur is frozen over.

PILOTAGE: Pilotage is compulsory for the inner harbour and quarantine anchorage. Pilot is not required for anchoring in the outer part of the bay. Pilot was requested but did not come out to vessel.

Pilotage is normally arranged through Inflot (Government Agency). The pilot station will respond to calls on VHF Channel 16.

ANCHORAGES: The designated quarantine anchorage is situated approximately 4 miles inside De Kastri Bay, 2.5 miles S.E. of De Kastri town jetty. Charted depths of between 6.0 m. and 8.6 m. make it unsuitable for foreign going tankers. Indeed, the largest size of vessel that reputedly uses this port is 10,000 d.w.t. However, it is suitable for smaller vessels as it is sheltered and offers good protection in all except E'ly. winds.

We anchored with Alekseeva Point (Lat. 51° 28.3' N., Long. 140° 51.5' E.) bearing 352°(T)×0.87 miles in 15.0 m. of water, one mile inside of the bay. We were not equipped with Soviet charts and had to rely on B.A. Chart No. 3340 for approach, which is designed for offshore navigation only. No Pilot boarded vessel so anchoring was carried out by the Master.

We put 6 shackles in the water and vessel swung predominantly to the prevailing wind. There was little current evident. The holding ground was good, with bottom consisting of soft mud and shells. Very little shelter is afforded in this location, but it would not be recommended to take a vessel of our size (30,000 d.w.t.) further into the bay without more detailed knowledge of the depths and nature of the bottom.

APPROACHES: *Navigational Aids:* Navigational aids in the port consist of lighthouses, lightbuoys and transit marks. Lights are unreliable. Of the 4 cardinal marks around Buruny Shoal (51° 27.6' N., 140° 51.7' E.), only the North and South buoys were lit. Davydova Lighthouse, with a nominal range of 9 miles, was barely visible from the vessel's anchored position, 1.3 miles to the S.S.W.

TUGS: The port is understood to have 2 tugs, one of which is the pilot cutter. No information was available on power or size.

BERTHING: The town's wharf consists of a single jetty, about 200 m. long and was observed to handle up to 2 vessels at one time.

Charted depths range from 6.7 m. to 7.5 m., although local information suggests that 5.0 m. may be the maximum draft a vessel can draw and still safely use the wharf.

Fresh water and diesel oil bunkers are available for local vessels alongside the wharf, but it was not clearly established whether this also applied to foreign ships. Provisions may also be purchased in limited quantities, although the variety available is not large.

Cargo Handling Facilities: The wharf is used primarily for the export of timber. Seven cranes of around 10 tonnes capacity are available.

There are no special facilities for containers, Ro-Ro, etc.

ANKERS: Transfer of petroleum products is mainly carried out by ship-o-ship (STS) transfer at the Quarantine Anchorage. The ships to be ghtered (STBL) rely on the lightering vessels (LV) to provide cargo oses. From our observations, barges are built with wood rubbing bands. The supplementary fendering consisting of 3 or 4 rubber tyres was rigged nly at our request.

Oil and Gas Facilities: There are no oil or gas facilities in De Kastri itself. Oil products are handled at the Quarantine Anchorage for export argoes, and limited shipments are probably brought into the port for ocal consumption. Twelve oil storage tanks were observed, about miles from the town.

. Berth Operator/User: The Amur River Shipping Company Limited ppears to be the only local carrier involved in the transportation of oil argoes from the Komsomolsk Refinery on the Amur to De Kastri. Export hereafter has been by Soviet vessels. No other oil carriers are known o operate from the port.

. This vessel (30,000 d.w.t.) is probably about the largest class of essel that can safely use De Kastri Bay for STS operations at this time. The accuracy and type of survey on which the existing Soviet charts are ased are not known, and it is not therefore possible to comment on he safety of anchorages further inside the bay. However, it does appear hat a safe and more sheltered anchorage can be found for STS perations in about 12.0 m. of water, about 1 mile to the S.W. of our nchored position.

. The maximum safe draft for a vessel loading at De Kastri anchorage s about 10.0 m.

. The tides are diurnal, with a spring range of about 2.0 m.

. Water density as measured by vessel on arrival was 1022.

. Berthing and unberthing at the anchorage is carried out day and night.

. The only limitation on freeboard would be length of cargo hoses arried by some of the river barges. The barge "Poronaysk" would be nable to discharge to a ship whose freeboard was much greater than 5.0 m.

EPAIRS: No repair facilities are available at present.

IRPORT: The nearest airport is about 3 hours drive by car. It offers nternal flights only, to Harborosk and Moscow. Obtaining tickets for ights is reported to be time consuming, with lengthy delays likely. This s borne out by the independent surveyors whose journey from Odessa o De Kastri took 4 days.

ENERAL: *Distress and Rescue:* There is no Coastguard, lifeboat or alvage services available. In the event of an incident the Soviet navy s called upon to provide assistance. During our visit a fishing vessel an aground within the port. The navy took on the responsibility for towing he vessel off the mud.

Communications: Communications are difficult and unreliable.

Services: There is a boat service to Vladivostock and a road link to Harborosk.

No services, such as tank cleaning, compass adjustment, consuls, tc., are available at present.

GARKA: 67.27 N. 86.35 E.

(See Plan)

ENERAL: A sea and river port, Igarka is situated about 344 miles Southward of the mouth of the Enisei River which flows into the Enisei Gulf of the Kara Sea.

The port is open for navigation about 130 – 135 days from July till mid-November. Ice first begins to form in the second half of October.

No tidal range is observed in the port waters.

The port of Igarka specialises in timber exports.

PORT LIMITS: Port limits include the inner roads, riverside adjoining he berths and territory of the timber depots. Laytime as per conditions of the Soviet Wood Charter Party.

DOCUMENTS:

- 2 copies General Declaration.
- 2 copies Notice of Readiness.
- 2 copies Cargo Declaration.
- 5 copies Crew List.
- 5 copies Passenger List.
- 2 copies Currency List.
- 2 copies List of Articles.
- International Certificates of Vaccination.
- Maritime Declaration of Health.
- Derat Certificate.
- Crew's Navigation Cards.
- Seamen's Passports.
- Ship's Register.
- Tonnage Certificate.
- Load Line Certificate.
- Safety Radio Certificate.
- Safety Equipment Certificate.
- Safety Construction Certificate.
- Pollution Prevention Certificate.

PILOTAGE: Compulsory for Yenisei River and entering port. Pilotage is carried out round the clock. Pilot vessel "Yenisei" (the hull is orange coloured and has the international lights, flags and sirens signals) is located in the following position: Lat. 71° 42' N., Long. 83° 30' E. (Buoy No. 4). Masters of vessels approaching from seaward have to order a Pilot via the Chief of the Igarka Hydrobase and the Master of the pilot vessel 48 hours prior to arrival at the river mouth, where the River Pilots usually meet vessels. Vessel to confirm ETA 6 hours before arrival.

In case of bad weather, Pilot boards vessel at a place as directed by the pilot vessel. Since the distance of pilotage from the pilot station up to the port of Igarka is about 360 miles, 2 Pilots are usually required for the service. The Master of a vessel should use VHF Channel 16 or radio-telephone (calling frequency 500 kHz) for establishing radio contact with a pilot vessel, in order to check the time and the place of boarding of a Pilot.

After navigating the river, vessels will normally be required to anchor in the outer roads, according to the Pilot Master's advice. Berthing Pilots and Pilots for departing vessels are arranged by Agent ("Inflot").

ANCHORAGE: Information on best location of anchorage, if required, will be given by the pilot vessel, or Pilot, if he is on board. The anchorage in the outer roads of Igarka is bounded on the East by the leading lines of Igarsky and Severny (Northern) Igarsky leading marks, on the West by the left bank of the Yenisei River, on the North by the beam line of the Buoy No. 78 (Igarka Oseryodok), on the South by the leading line of Vkhodnoi (Entrance) Igarsky leading marks. Depths 11 m. – 22 m.

In the event of bad weather or main engine trouble, a vessel should lie at anchor in a place as directed by a River Pilot, who shall advise the Master of all necessary data about the anchorage.

RESTRICTIONS: Vessels can enter or leave the port 24 hours per day.

To ensure safe passage across the Lipatnikovsky and Turushinsky Bars of the Enisei River, vessels proceeding to the port of Igarka must have draft not exceeding 7.0 m. (See "Max. Size")

MAX. SIZE: Max. LOA 150 m., draft 8.0 m.

HEALTH: Not later than 6 hours before arrival, Master to radio "Inflot" advising health condition on board. International code quarantine signals to be shown on arrival at port limits. No one, except Pilot and Port Authorities, may board or leave the ship until Free Pratique is given after port health inspection.

RADIO: Radio communication is effected through the "Igarka Radio" port radio station operating on the frequencies given below.

Name	*Call Sign*	*Frequencies* Calling (kHz)	Working (kHz)
Igarka Radio	UFR	500	470
Yenisei (Pilot vessel)	UGZU	500	468

VHF:	*Call Sign*	*Calling Channel*	*Working Channel*
Harbour Master	Portnadzor	14	14
Shipping Agent	Inflot	6	6
Port Controller	Pogruzka	16	12

RADAR: Not available.

TUGS: Compulsory for all mooring and berthing manoeuvres. Ship's tow lines used. Tugs normally join vessel with Harbour Pilot on approaching port. Vessels at anchor order tugs through Inflot. 2 tugs of 1,200 h.p. available.

BERTHING: A berthing Pilot boards a vessel from a tug either in the outer roads or in the port.

After having approached a berth at a safe distance, a vessel, in most cases, should cast 2 anchors and then with tug assistance, turn stern to the Island and moor with 3 mooring ropes led from the stern. When mooring, a vessel should have ready on board 4 mooring ropes each not less than 100 m. in length (3 ropes to be led ashore and 1 rope prepared for a tug.).

Vessels moored in the inner roads must have strong ropes which should be made fast over the pile moorings only.

If 4 or 5 vessels are moored at the quay, the outside ones should have a red light exhibited in the middle of each mooring rope led ashore.

Notice of Readiness and other conditions of loading – as per the "Soviet Wood" Charter Party.

Loading is done by ship's wire strops, with a test label attached to every strop.

CRANES: There are floating cranes with 5 tons capacity.

BULK CARGO FACILITIES: 12 berths for vessels in the inner roads, stern to the island. Minimum depth is 9.0 m.

4 timber wharves:

No. 1: Length 137 m., min. depth alongside 8.0 m.
No. 2: Length 209 m., min. depth alongside 8.0 m.
No. 3: Length 133 m., min. depth alongside 7.5 m.
No. 4: Length 130 m., min. depth alongside 8.0 m.

The port is specialised in timber exports. Loading/discharge rates as per Soviet Wood Charter Party.

SPECIALISED CARGO HANDLING FACILITIES: In the inner roads, vessels are loaded for lighters. At the Timber Wharf, vessels are loaded from the timber yard. The cargo is packaged timber. Warehousing and covered sheds are available. There is cargo handling machinery and equipment for intra-port transport facilities.

BRIDGES: None.

STEVEDORES: As per Soviet Wood Charter Party.

MEDICAL: Medical assistance is free, hospital facilities available – all arrangements made by "Inflot".

TANKERS: No facilities.

DENSITY: Fresh water.

FRESH WATER: Fresh water for technical needs may be taken from the river in places indicated by the Pilot, but not in the port area.

FUEL: Not always available.

FIRE PRECAUTIONS: The vessel is to take maximum fire precautions while lying alongside the Timber Berth.

CONSULS: None.

REPAIRS: Only minor repairs can be effected.

DRY DOCKS: None.

SURVEYORS: None available.

GANGWAY/DECK WATCHMEN: Ship's crew to provide watchmen services.

OPENING/CLOSING HATCHES: By ship's crew.

CUSTOMS ALLOWANCES: Only reasonable quantities for personal consumption may be taken ashore.

CARGO GEAR: When a vessel is moored in the inner roads, stern to the Island, loading is by floating cranes; when at berth – ship's derricks are used.
REPATRIATION: No facilities.
AIRPORT: Situated 1.5 km. away, 1 daily flight to Krasnogarsk and 1-2 flights a week to Moscow.
TIME: GMT plus 6 hours, GMT plus 7 hours in Summer.
HOLIDAYS: No official holidays are observed during the navigation season.
POLICE/AMBULANCE/FIRE: Police, Tel: 02; Ambulance, Tel: 03; Fire, Tel: 01.
EMERGENCY CO-ORDINATION CENTRE: Situated in Krasnoyarsk: Tel: (822) 234424. Fax: (822) 222232.
TELEPHONES: Telephones cannot be connected on board vessel.
SERVICES: Radio and radar repairs – only minor repairs possible. Notice of Mariners, some nautical publications and supply of charts through the Pilot.
BANKS: Branch of Joint-Stock Financial Bank Yenisei, Tgarka, 2 m/r,3. Tel: (39112) 21322.
STORING: The vessel can be stored by barge. No trucks available.
SHIP SUPPLY SERVICE: Through Inflot.
SHORE LEAVE: Permitted during 0600 – 2400 hrs. subject to police control.
IDENTIFICATION CARDS: Required for crewmen going ashore.
GARBAGE DISPOSAL: No facilities.
WASTE OIL DISPOSAL: No facilities.
SEAMAN'S CLUBS: Available.
CURRENCY: Rouble.
REGULATIONS: Available through Inflot.
DELAYS: As per Soviet Wood Charter Party.
GENERAL: See "Fire Precautions".
DEVELOPMENTS: No draft increase expected in near future.
AUTHORITY: The Port of Igarka Authority, 47 Gorky Street, 663200 Igarka, Russia. *Tel:* (39112) 2-13-16. *Contact:* J.D. Rudenko, Chief Harbour Master. N.A. Marinenko, Acting Harbour Master.

AGENT: Archangel Inflot Shipping Agency, Troitsky Street 61, Archangel 163061, Russia. Tel: (8182) 435874, 438573. Telex: 242115 Inf Ru. Cables: Igarka Radio. Fax: 4778916032 (Through Norway). 242115.

KALININGRAD: 54.42 N. 20.29 E.

PORT LIMITS: From the entrance of Morskoi Canal to railway bridge across River Pregel.
DOCUMENTS:
7 copies Crew List.
2 copies Crew Effects Declaration.
2 copies Ship's Stores List.
7 copies Passenger List.
1 copy Cargo Declaration.
1 copy Certificate of Health.
PILOTAGE: Compulsory. Pilot usually boards from pilot boat 1.5 miles seaward of the entrance to Morskoi Canal.
ANCHORAGES: Anchorages No. 686 and No. 68 in Outer Roads. See Chart No. 25051.
RESTRICTIONS: Vessels may not enter in bad weather or in thick fog.
MAX. SIZE: *Cargo Vessel:* LOA 140 m., beam 25 m., draft 7.9 m. (in Summertime).
Tankers: Same as cargo vessels, but draft limitation in Winter is 7.5 m.
HEALTH: All vessels coming from foreign ports are inspected by Sanitary Office. If no disease on board, Free Pratique is granted.
TUGS: Available. Tugs join at jetty entrance.
BERTHING: Quays available with depths up to 8.0 m. are equipped to handle fertilisers, oil, general, 20 ft. and 40 ft. containers, bulk and other cargoes.
Warehouses and solid floor sheds available.
CRANES: Electric cranes up to 20 tons capacity.
BULK CARGO FACILITIES: Handled at Berths No. 05, 07 and 09.
STEVEDORES: Arranged by Agent.
MEDICAL: Requirements should be arranged in advance with Agent (Inflot).
TANKERS: One berth with length 160 m. and depth 8.0 m.
DENSITY: Fresh water.
FRESH WATER: Supplied by barge.
FUEL: Supplied by barge.
REPAIRS: Facilities available.
DRY DOCKS: Floating dock for vessels up to 10,000 d.w.t. and LOA 170 m.
SURVEYORS:
1. Cargo Inspectors available.
2. Inspectors of The Shipping Register of Russia.
GANGWAY/DECK WATCHMEN: Not compulsory.
OPENING/CLOSING HATCHES: According to Charter Party.
CUSTOMS ALLOWANCES: See "General" before first port.
CARGO GEAR: Electric cranes 5 tons – 20 tons capacity and forklift trucks 1 ton – 10 tons capacity.
REPATRIATION: Possible.
AIRPORT: Kaliningrad.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer (1st April – 1st October).
HOLIDAYS: General holidays are all Saturdays and Sundays, January 1st, March 8th, May 1st, 2nd and 9th, November 7th and Christmas Day.
POLICE/AMBULANCE/FIRE: Police 02; Ambulance 03, Fire 01.
TELEPHONES: Can be arranged on board.
STORING: Vessels can be stored by trucks. Customs Regulations are in force.
SHORE LEAVE: Possible from 0800 hrs. – 0000 hrs.
IDENTIFICATION CARDS: Required.
GARBAGE DISPOSAL: All ship's garbage must be landed before departure.
WASTE OIL DISPOSAL: Collection service available.
SEAMAN'S CLUBS: None.
REGULATIONS: See "General" before first port.
DELAYS: Only weather conditions.

SHIPMASTER'S REPORT: June 1996.
Vessel:

LOA	159 m.
Beam	22.8 m.
Summer draft	9.76 m.
G.T.	12,474 tonnes
D.W.T.	20,700 tons

Pilotage: Pilot boarded vessel about 3 miles from breakwater. Pilot ladder port side 2.0 m. above sea level.

Canal from outer roads to Kaliningrad is very narrow, so vessel proceeded at dead slow ahead.
Loading: Berthed at Ro-Ro berth (Terminal GMB). Good shore installations, but not suitable for vessels of 10,000 tonnes or more.

We had many problems with air draft, and spout would not reach as far as centre of each hold.

Despite Agents/Terminal request to load to 7.9 m. (FW), it is absolutely imperative to load to 7.7 m. (FW) and not more.

We resumed loading operations at Baltysk (40th Point). Vessel berthed starboard side to dolphins, and resumed loading by barge on port side with floating crane. Barge capacity is about 2,500 tonnes. One barge was not enough to complete loading and barge returned to Kaliningrad for more cargo. Terminal GMB wanted to load to 11.0 m., but it is absolutely imperative to load to no more than 9.4 m., due to draft restrictions in the channel.
Cargo: Prilled Urea in bulk (stowage factor about 48 cu.ft./tonne).
Loading Rate: 3,000 tonnes/24 hours (working throughout).
Density: 1002.
Fresh Water: Available by barge. Cost U.S.$4.41 per tonne.
Spares: Very difficult to obtain.
Shore Leave: Crew allowed to go ashore with Seaman's Book.
Bonded Stores: Sealed.
Radio: "Kaliningrad One" on VHF Channel 16, then change to Channels 03 or 07.
Tugs: 2 tugs. Ship's lines used.
Documents: Crew Effects Declaration to include foreign currency.
Hull Painting: Only after permission obtained from Port Authority.

AUTHORITY: Maritime Administration of the Port of Kaliningrad, Kaliningrad Portovaya 24, Kaliningrad, Russia. *Tel:* 47-22-17, 47-21-92. *Telex:* 209684 Map.

KANDALAKSHA: 67.08 N. 32.25 E. (See Plan)

GENERAL: The port of Kandalaksha is situated in the N.W. extremity of the Kandalaksha Bay of the White Sea. Year round navigation is possible with the assistance of the ice-breakers for ships that have no Super-Ice Class. Vessels that have Super-Ice Class can go to and from the port. Only in the coldest of Winters may the assistance of ice-breakers be necessary, as during the period February-March-April the floating ice of the basin of the White Sea drifts and is pressed by the S.E. winds into Kandalaksha Bay, and it makes it difficult to pass strips of the hummock ice. However, in warm Winters, the basin of the sea may have no ice and navigation for vessels is not difficult. The port Kandalaksha and its anchorage are protected from waves of all directions. The difference between the high and low water is a maximum of 2.8 m.
PILOTAGE: Compulsory inward and outward. The distance of the compulsory pilotage is 8 nautical miles. The Pilot usually boards and disembarks the vessel at the distance 1.0 nautical miles S.E. from Garely Islands (Lat. 67° 03' N., Long. 32° 39' E.). Communication with the Pilot is on VHF Channel 16 throughout 24 hours. Call sign "Kandalaksha Radio 5". Masters of the vessel going to the port should order a Pilot by sending a telegram or telex to Kandalaksha via "Inflot" Murmansk 24 hours before arriving at the port and corrected 4 hours before arrival (by VHF) at the above mentioned position. On request of the Master, pilotage may commence or be completed in any position in Kandalaksha Bay. The Pilots are highly qualified. Anchorage for vessels waiting for a berth is situated in the Outer Roads of the port (position approx. Lat. 67° 08' N., Long. 32° 23' E.). The depths of water in the Roads are 35 m. – 40 m. and the bottom is mud.
RESTRICTIONS: The port of Kandalaksha can accept vessels with a draft of not more than 9.3 m. Inward and outward vessels with the draft of more than 8.0 m. are permitted, with the permission of the Harbour Master, to start 2 hours before the high water in the port.

All vessels navigating within the Inner Roads and Outer Roads must keep strictly to the following port regulations:

Vessel's speed must not exceed 4 knots.

Anchorage in the Inner Roads is prohibited.
MAX. SIZE: The length of the berths permits mooring of vessels with length up to 200 m. The depth at the berth permits vessels to moor with a draft not more than 9.0 m. (using 2 pontoons between berth and the body of the vessel) at low water.
HEALTH: The Master of a vessel coming from a foreign port should report every sickness of the crew. The Health Authorities board together with Customs and Immigration, and if they find everything in order, Free Pratique is granted. Each vessel shall produce a Derat Certificate and Sanitary Certificate.

RADIO: Cable via "Inflot" Murmansk, ETA, draft, length, breadth and moulded depth of the vessel, according to the vessel's certificate.

All vessels, when approaching the port of Kandalaksha, should establish VHF contact with the port, operating around the clock on the following channels:

1. Sea Inspection and Pilot Office of the port:
   Call sign "Kandalaksha Radio 5".
   Calling Channel 16. Working Channel 13.
2. Operator of the port and Controller:
   Call sign "Kandalaksha Radio 2".
   Calling Channel 16. Working Channel 14.

TUGS: Port has tugs up to 1,600 h.p. Use of tugs for mooring, unmooring and shifting is compulsory, according to port rules. Master should order the number of tugs according to the Pilot's advice.

BERTHING: The port has 5 berths:

Two berths with a total length of 250 m. that permit loading and discharging of vessels with draft of not more than 9.0 m. (providing 2 pontoons with the breadth 12.0 m. are used).

Two berths with a total length of 200 m. that permit handling of cargoes of vessel with draft not more than 7.0 m. (providing 2 pontoons with the breadth 12.0 m. are used).

A fifth berth has been built for the river vessels with a draft of 3.6 m.

CRANES: The capacity of the cranes is 20 tonnes, and with joint operations of two cranes, the capacity is 40 tonnes.

STEVEDORES: Ordered by the Agent. Port Working Hours: 0800 hrs. - 1600 hrs., except Sunday and holidays.

MEDICAL: Master has to advise Agent prior to arrival if medical attendance is required aboard. The Port Clinic has dental facilities and medical first aid.

DENSITY: 1001.6.

FRESH WATER: Available at Berths No. 3 and 4.

FUEL: Not available.

FIRE PRECAUTIONS: No smoking in the port area, except in the places specially allocated.

CONSULS: None.

SURVEYORS: Should be ordered via Jurinflot International Moscow (Fax: 212-8074) or via International Maritime Agence (Fax: 915-80-62).

REPAIRS: Port can undertake welding, metal work and turning work.

AIRPORT: The nearest airport is situated 100 km. from Kandalaksha own.

CUSTOMS ALLOWANCES: No restrictions on board.

TIME: The local time is Moscow time, which is GMT plus 3 hours. In he Summer (May-September), Summertime is kept.

HOLIDAYS: 1st, 2nd and 7th January, 8th March, 1st May, 9th May, 12th June.

POLICE/AMBULANCE/FIRE: Police Tel: 002. Fire Tel: 001. First Aid Tel: 003.

TELEPHONES: Available on board at Master's request. The cost of using the telephone is U.S.$ 5.00 per day.

BANKS: Arctic Promstroybank, Pronina Street, Building 4, Kandalaksha 184040. Tel: 2-23-05, 2-44-85. Telex: 12661202 BANK.

Kandalaksha Office of Seuzapcombank, Spekova Street, Building 32, Kandalaksha 184040. Tel: 2-20-90, 2-25-91. Telex: 126618 SEVER.

SHORE LEAVE: Crew members are allowed ashore. Identification cards will be issued on arrival.

DELAYS: Awaiting berth if there is port congestion.

DEVELOPMENTS: The Port Authority has a plan of reconstruction for he next 5 years. As a result of the expansion, the port handling capacity will increase to one million tons from the current capacity of 250,000 ons. This reconstruction will permit entering of the vessels to the port with a draft of 12.0 m.

AUTHORITY: Port of Kandalaksha, 19 ul. Belomorskaja, Kandalaksha, 184040 Russia. *Tel:* (812) 164-18-35. *Telex:* 126604 Strop. *FAX:* (812) 164-18-35. *Contact:* Zakharov Valentin Nikolaevich, General Director. Rintcin Vasiliy Alexandrovich, Deputy General Director. Mjagkov Vladimir Andreevich, Harbour Master.

KHOLMSK: 47.03 N. 142.03 E. (See Plan)

GENERAL: The seaport of Kholmsk is situated on the Western coast of Sakhalin Island, in the Tartarsky Strait of the Japan Sea and at the head of Nevelskoy Bay.

The port is open for navigation all the year round.

The outer roads of the port are bounded by an arc of 7 cables length radius, the centre of which is marked with a light located on the Southern mole of the Commercial Harbour.

The port is divided into 3 parts: The Kovsh (a basin), The Commercial and Fishing Harbours. The Commercial Harbour is situated in the centre of the port area. It is protected by the Southern and Northern moles. The entrance to the Harbour 150 m. wide, is situated between these 2 moles. Due to shoal water along the coast, there is not much space for vessels manoeuvrability in the Commercial Harbour. Cargo berths are situated in a basin (The Kovsh) of the Southern part of the Harbour.

The Port of Kholmsk, due to its position, size and weather conditions in the area, cannot be used as a sheltering port.

During Westerly and N.W'ly gales, particularly in the Autumn and Winter (October — March) the heavy sea swell penetrates into the Kovsh (mainly from the N.W.) causing the variable current with surge (the "Tvagun"). Due to this phenomena the stay in port is not safe therefore Masters of all vessels are recommended to leave the port for sea after having received a storm warning of a gale coming from Westerly or N.W. directions.

All vessels proceeding to the port of Kholmsk in the Autumn and/or Winter must have available on board a sufficiency of fuel, fresh water, provisions and strong manila ropes, be seaworthy in all respects, thus ensuring vessel's safety during a possible stay in the open sea roadstead.

In case there are no vacant berths in the port, vessels are not allowed to enter the harbour without prior permission.

It is also prohibited to enter the harbour after a storm warning has been received by vessel despite the fact that there are vacant berths in the port.

DOCUMENTS: Refer to beginning of the Russian section.

PILOTAGE: Compulsory. Pilot meets a vessel in the outer roads. In the event of bad weather, when Pilot is unable to come on board, vessel should follow in the wake of pilot boat.

ANCHORAGES: There are no anchorages protected from the wind in the Nevelskoy Bay.

During off-shore winds vessels may anchor in the outer roads situated opposite the port entrance. The outer roads are open to Westerly winds.

Masters should bear in mind that during the period of navigation fish nets are usually laid in the outer roads. The seaward side of the border of the fish nets, situated about 8 cables length off-shore, is usually marked by wooden buoys with flags.

Anchorage in the outer roads may also be obtained at 4 – 6 cables length off shore. Depths are from 18 m. to 20 m. Holding ground sand and stone.

A vessel should proceed to the anchorage along the leading line of the port of Kholmsk leading lights. At a distance of half a mile off the port entrance, a vessel should steer off the leading line at 2 – 3 cables length and then drop anchor.

The holding ground is better in the Southern part of the outer roads than in the Northern part.

When at anchor, a vessel may not approach the leading line closer than 1.5 cables length.

RESTRICTIONS: Vessels may enter the port at any time of day or night.

MAX. SIZE: The maximum permissible draft for entry to the port is 6 m. Length not over 105 m. and beam up to 20 m. Since depths in the channel may vary at times, the Port Authorities shall undertake to advise the Masters of incoming vessels accordingly.

HEALTH: Not later than 6 hours before arrival, Master to radio "Inflot" advising health condition on board. Health Authorities board together with Customs and Immigration and if all found in order Free Pratique is granted. If vessels enter after calling at another Russian port, Pratique is automatic.

RADIO: Ship-shore radio link can be established through the port radio-station Kholmsk Radio operating 24 hours a day on the following frequencies:

Call sign	Frequencies (kHz) Working	Calling	Type of trans-mission	Time of Work
UFO	500	500	A1A	H24
"Kholmsk Radio"	2182	2182	H3E	H24
"Kholmsk Radio-2"	2720	2720	H3E	H24
(Port Controller)	156.45*(9)	156.45*(9)	F3E	H24
"Kholmsk Radio-5"	156.7*(14)	156.8*(16)	F3E	H24
"Kholmsk Radio-1"	2720	2720	H3E	H24
(Vessel movement control post)				

*Frequencies are given in MHz.

RADAR: No shore based radar.

TUGS: Two tugs of 300 h.p. and two tugs of 1,200 h.p. are available. Number of tugs required for assistance is usually agreed between Pilot and Master. Tugs normally join the vessel in the inner area of the port.

BERTHING: Berths with depths up to 7.3 m. alongside, are equipped to handle general and bulk cargoes, metals, timber, food products, etc., as well as passenger traffic.

Fishing Port: Max. LOA 132 m. Max. draft 6.0 m.

CRANES: Cranes of up to 40 tons capacity are operated on the quays. There are also other cargo-handling equipment and inter-port transport facilities. There are enclosed warehouses and open concrete floor sheds.

STEVEDORES: Arranged through "Inflot".

MEDICAL: All requirements should be ordered in advance through "Inflot" if medical assistance required aboard.

FRESH WATER: Available from berth, road delivery not possible.

FUEL: Not available.

CONSULS: None.

REPAIRS: Only minor repairs can be carried out.

DRY DOCKS: None.

SURVEYORS: Inspectors of the Shipping Register of Russia only.

GANGWAY/DECK WATCHMEN: Gangway watch compulsory and carried out by crew.

HATCHES: Opening and closing of mechanised hatches is always done by the ship's crews.

CUSTOMS ALLOWANCES: No restrictions on tobacco and alcohol on board ship. Only tobacco required for personal consumption may be taken ashore.

AIRPORT: No local airport.

TIME: GMT plus 11 hours. Summertime (April 1st - October 1st) GMT plus 12 hours.

HOLIDAYS: New Year's Day; March 8th (World's Women's Day); May 1st, 2nd (Labour Day); May 9th (Victory Day); October 7th (Constitution Day); November 7th, 8th (Great October Socialist Revolution Day). Cargo work can be arranged on these days.

POLICE/AMBULANCE/FIRE: Police Tel: 602. Ambulance Tel: 603. Fire Tel: 601.

TELEPHONES: Can be arranged on board.

TIDE: Changes in the water level are of small account. They are mainly due to the irregular diurnal tides. The maximum range of the water level observed is 0.4 m.

AUTHORITY: The Port of Kholmsk Authority, 39 Sovetskaya Street, 694620 Kholmsk, Sakhalin Is., Russia. *Tel:* 96-3-05. *Telex:* Via Morflot Kholmsk 412613 SSC SU. *Cables:* Morport Kholmsk. *Contact:* Harbour Master.

AGENT: The Sakhalin Main Maritime Agency Morflot. 6 Morskaya Street, Port of Kholmsk, Sakhalin Island 694620, Russia. Cables: "Morflot Kholmsk". Tel: 222-86; 220-80. Telex: 412613 SSC SU.

MEZEN: 65.50 N. 44.04 E.

GENERAL: A commercial seaport, Mezen is situated at a distance of 22 miles to the South of the mouth of the Mezen River flowing into the head of the Gulf of Mezen, in the White Sea.

The port area is bounded on the North by a line connecting the Ryabinov and the Nerpinsky points and on the South by the parallel of 65° 50' N., Northward of the town of Mezen. The anchorage at the Kuloi river mouth is also included at the port of Mezen area.

Vessels drawing 3.9 m. – 4.2 m. are usually grounded when loading timber alongside a floating berth of the timber-mill at low water.

The port is open for navigation from the end of May until October.

Tidal streams are observed in the Mezen river. The tide is semi-diurnal with two high waters and two low waters a day.

DOCUMENTS: Refer to beginning of the Russian section.

PILOTAGE: Compulsory. A Pilot meets a vessel at an anchorage buoy, at the Mezen River bar (Lat. 66° 12' N., Long. 44° 04' E.), at a distance of 22 miles off the port of Mezen. In the event of bad weather a Pilot at his discretion, may board a vessel in the outer roads.

Pilotage cannot be effected at night.

A Pilot cannot board a vessel earlier than 2 hours before the high water in the Semzha River, and a vessel may be piloted into the port not later than 1 hour before the water in the river reaches its high level.

Pilots do not board vessels in rough water (if the wind is over Force 6 Beaufort scale).

In case Pilot cannot embark a vessel in the outer roads, Master should follow in the wake of pilot boat up to Tolstic Point (Lat. 66° 04' N., Long. 44° 05' E.) where a Pilot will board ship. After leaving the port Master should disembark Pilot on to pilot boat at Tolstic Point and then follow it up to the outer roads of the port of Mezen.

ANCHORAGES: Anchorage can be obtained in the outer roads and in certain places of the Mezen River situated between the outer roads and the Kamenka settlement.

The outer roads are situated at the Mezen River mouth. They are bounded on the South by a line connecting the Ryabinov and the Maslyany Points.

Vessels in the outer roads are subject to effects of the N.W. and N.E. winds and heavy waves caused by them. The depths in the outer roads are about 7 m. The holding ground is sand, mud and rocks. Anchorage can be obtained in the inner roads with depths at low water of up to 4.5 m. – 5 m. (length of area is 1.5 mile and width up to 150 m.).

The inner roads are situated opposite the Kamenka settlement. A good anchorage can be obtained there by two vessels simultaneously. The anchorage at Burnovsky Point with depths from 4.5 m. – 5.5 m. can be used by two loaded vessels drawing up to 4.2 m.

RESTRICTIONS: Vessels may enter port only in daytime on high water. Masters have to pay full attention to Pilot's advice as river has varying bends.

MAX. SIZE: The permitted draft for the entry to the port is announced monthly by the Port Authorities. It should not exceed 3.9 m. – 4.2 m. The maximum permitted length is 70 m.

HEALTH: As for "Archangel".

RADIO: Vessels can establish radio contact through the port radio station Mezen Radio operating 24 hours a day on the following frequencies:

	Frequencies (kHz)			
Call sign	*Working*	*Calling*	*Type of transmission*	*Time*
UZT	500	500	A1	HX
"Mezen-Radio"	2182	2182	P3E	H24
			J3E	H24
"Kamenka-2"	156.8*(16)	156.8*(16)	F3E	H24
(Port Controller)	156.45*(9)	156.45*(9)	F3E	H24
"Kamenka 5"	156.8*(16)	156.8*(16)	F3E	H24
(Harbour Master)	156.6*(12)	156.6*(12)	F3E	H24

*Frequencies given are in MHz.

Notice of Arrival: As per conditions of the "Soviet Wood" Charter Party.

REPAIRS: Only minor repairs can be effected. There are no dry docks in the port.

FRESH WATER: Fresh water can be supplied at the berths and by road tankers.

FUEL: Supplies not guaranteed.

BERTHING: The floating dams are used as mooring berths in the port. The depths alongside at low water are about 3.5 m. Vessels drawing 3.9 m. – 4.2 m. are usually grounded while loading at low water.

The port of Mezen specialises in timber exports but other cargoes are also handled at berths. Covered warehouses and open concrete floor sheds are available.

Tug assistance for mooring berths is not compulsory. Berthing is usually done in the daytime. Tugs, if necessary are ordered by Master according to the Pilot's instructions.

Rendering of Notice of Readiness and opening and closing of hatches are usually done in accordance with the "Soviet Wood" charter party.

Loading of timber is done by ship's winches and floating cranes with capacity 5 tons.

TIDE: The difference between two successive high waters and low waters is small but the range of the tide changes considerably. At the Kamenka settlement the mean range of the tide is 2.8 m. and the mean range of the spring tide is 3.1 m. At the Semzha River the mean range of the spring tide reaches 7.7 m. Everywhere in the Gulf of Mezen the differences in the duration of falling and of rising water are big and in some places of the Gulf of Mezen they may reach 5 hours.

Considerable changes in the water level are observed in the Spring. They are usually caused by the seasonal increase in the amount of water (due to melting snow) brought down by the rivers.

TIME: GMT plus 3 hours (all year round).

AUTHORITY: The Port of Mezen Authority, Morport, 164652 – Kamenka Settlement, Mezen, Archangel Region, Russia. *Tel:* 9-43-41 (Chief of the Port), 9-40-81 (Harbour Master). *Cables:* Morport Mezen.

AGENT: A branch of the Port of Archangel Main Maritime Agency "Inflot" at the Port of Mezen.

Port – "Inflot", Kamenka Settlement, 164650 – Mezen, Archangel Region, Russia. Cables: "Inflot Mezen-Kamenka". Tel: Exchange – 94391. Inflot – 94126.

MURMANSK: 69.00 N. 33.03 E. (See Plan)

GENERAL: A Barents Commercial Seaport and Fishing Port, Murmansk, is situated at the Eastern coast of the Southern elbow-shaped bend of the Gulf of Kolsky, between the latitude of Mishukov Point in the North and Lat. 68° 55' 33" N. in the South. It is the last unfrozen port of the Northern seas route.

In very severe Winters the Southern and middle elbow-shaped bends of the Gulf get frozen over for a short period of time in February or March, during calm and frosty weather. In mild Winters drift ice is observed. The Northern part of the Gulf never gets frozen over. The port of Murmansk is open for navigation all the year round. In the event of ice conditions in the Gulf of Kolsky, ice-breaker assistance will be effected in compliance with the Harbour regulations in force.

The port area occupies nearly all Southern elbow-shaped bend of the Gulf of Kolsky. The port of Murmansk consists of 2 harbours: the Commercial and the Fishing Harbours.

DOCUMENTS: Also refer to beginning of the Russian section.

General Declaration, 5 copies (IMO Form).
Crew List, 6 copies (IMO Form).
Passenger List, 6 copies (IMO Form).
Crew Effects Declaration, 2 copies (IMO Form).
Cargo Declaration, 3 copies (IMO Form).

PILOTAGE: Compulsory. Pilot station is situated at Kislaya Gooba (position Lat. 69° 11.5' N., Long. 33° 31.6' E.) in Kolsky Bay, 9 miles South of the entrance. ETA to be given to Agents before arrival (see "Radio"). Since Pilots are not available at the pilot station any time, it is vital that ETA is duly given to the Agent to arrange a Pilot by indicated time. Pilot launch is distinguished by word "Pilot" in black letters on boat's superstructure. Pilots can be contacted on VHF Channel 16. Every vessel should drift whilst waiting for Pilot since depths in the Pilot station are too big to permit anchorage.

During rough sea Pilot is not able to board a ship at the Pilot station area. In this event vessel should follow the Pilot boat in the wake of it up to the Salny Island and embark a Pilot Southward of the Island at a place indicated by Pilot boat.

ANCHORAGES: At the pilot station depths are too great to permit anchorage, but there is sufficient sea room for vessel to await Pilot with engines stopped. Anchorage with depths from 20 m. – 35 m. is situated in the Southern elbow-shaped bend of the Gulf of Kolsky, Westward of the Kievaraksky leading line (the port inner roads). The holding ground is good.

Every vessel waiting for mooring berth should anchor Westward of the Kievarasksky leading line but not obstructing other vessels' traffic.

It is strictly prohibited to lie at anchor Eastward of the Kievaraksky leading line. If, in case of emergency, a Master has to lie at anchor in the prohibited area, he should immediately report the fact to the Harbour Master of the Commercial port of Murmansk.

RESTRICTIONS: Vessels can enter the inner roads of the port at any time of day or night.

The speed of vessels navigating within the limits of the Gulf of Kolsky is restricted by the following limits:

(a) It shall not exceed 14 knots in the area bounded by the parallels of the Letinsky Point and the Northern side of the Salny Island.
(b) It shall not exceed 10 knots in the area bounded by the parallels of the Northern side of the Salny Island and Pinagory Point.
(c) It shall not exceed 6 knots in the area Southward of Pinagory Point.
(d) In case the wind is over Force 6 Beaufort Scale all movements of ships within the port basin and roads may be carried out with the Port Authorities' permission only.

MAX. SIZE: LOA 200 m., draft 12.0 m.

HEALTH: International quarantine signals to be used on arrival. No later than 6 hours before arrival at the inner area Master should radio Agents giving full details of state of health on board, and requesting Pratique which will be given on arrival.

RADIO/RADAR: Murmansk Radio operating 24 hours on 2182 kHz. Coastal radio station UMN operating 24 hours on 500 and 472 kHz. Coastal radio station UMV operating 24 hours on 13080 kHz.

Radio contact can be established through the port radio station Murmansk Radio, operating 24 hours a day on the following frequencies:

	Frequencies (kHz)			
Call sign	*Working*	*Calling*	*Type of transmission*	*Time*
UMN	500	500	A1A	H24
"Murmansk Radio"	2182	2182	H3E	H24

Radar/VHF Link:

In the South circular bay, movement of all vessels is severely controlled by Coastal Radar Station (Murmansk Radio 9 – VHF Channels 12, 18 and 67). All vessels under way must make contact with it and carry out the recommendations received.

All vessels when at anchor or navigating in the Gulf of Kolsky must keep constant VHF watch on Channel 16.

The port radar station gives all possible information to any vessel navigating in the Gulf in the restricted visibility. Radar navigation is usually controlled by a Pilot on board a vessel.

Storm predictions are transmitted on Channel 16 VHF for vessels in the vicinity. Vessels at moorings are warned through the Agent.

Notice of Arrival: Every foreign vessel on approaching the Gulf of Kolsky must ask for entry permission into the Gulf from the Toros Island signal station by exhibiting her International Code letters by day and at night her call sign should be made in Morse code by searchlight.

Advice to Agent: ETA first notice be given to Agent by Shipowner 10 days prior to ship's arrival. Master has to inform Port via Agent 48 hours and 12 hours before ship's arrival.

VHF: Port VHF maintains contact between ship and shore. Calling on Channel 16 working channel will be according to instructions from shore (Channels 7, 26 and 27).

TUGS: 4 tugs 1,200 h.p. – 2,300 h.p. Normally join vessel in the inner area of the port. Ship's lines as well as tug's lines can be used, the latter being supplied free of expense to vessel.

BERTHING: Main berths, depth alongside 32 ft. at low water. Average height of tide about 3.9 m. Vessels berth port or starboard side alongside at Master's and Pilot's discretion. The berths of the Commercial Harbour with depths alongside of up to 12.0 m. are equipped to handle general and bulk cargoes, metals, machinery, chemicals, foodstuff, etc.

There are enclosed mechanised warehouses for apatite including open concrete floor sheds.

Berths of the port are equipped with mobile electric cranes of up to 40 tons capacity and other cargo handling equipment and intra-port transport. Since loading/unloading is usually done by the port cranes, there are no specific requirements to vessel's cargo gear.

STEVEDORES: Arranged by Agent on basis of Master's ETA. Loading and unloading is carried on throughout 24 hours a day including holidays.

MEDICAL: Hospital and medical facilities available. Vaccination can be arranged. If doctor required on board Master should inform Agents by radio or VHF.

TANKERS: See "Shipmaster's Report".

DENSITY: At the berth varies between 1006 and 1025.

FRESH WATER: Available from most berths, otherwise supplied by barge. To avoid delay recommended to order before arrival.

FUEL: All grades available. Delivered by barge. Advance notice required.

CONSULS: There is no local representation.

REPAIRS: All kinds of repairs can be carried out for vessels of up to 30,000 dwt.

DRY DOCKS: Large dock; length 225 m., width 45 m. Small dock; length 141 m. width 30 m.

GANGWAY/DECK WATCHMEN: Not obligatory.

OPENING/CLOSING HATCHES: Usually performed by ship's crew.

CERTIFICATES: At first Russian port of call certificates of tonnage and those required by International Convention will be required for examination.

CUSTOMS ALLOWANCES: No restrictions on crew's consumption of tobacco and alcohol on board. It is forbidden to take these items ashore.

TIDE: Changes of the water level in the Gulf are due to the tides. The tide is semi-diurnal with two high waters and two low waters a day. The difference in time of high and low water is about 6 hours. The range of the tide at mean neap is about 2.4 m. and at mean spring 4.5 m. The extreme range of water level is usually observed during the Autumn months and the lowest during Spring.

TIME: GMT plus 3 hours in Winter. GMT plus 4 hours in Summer. (April 1st – September 30th).

TELEPHONES: Ambulance, Tel: 003, 2395 and 2422; Fire service, Tel: 2252 and 2524.

GARBAGE DISPOSAL: Collection service available. Containers are placed alongside the ship, telephone number of garbage service is 21-26 (this number to be used within the port only). Cost for one container of 0.75 cu.m. capacity is U.S.$ 36.00. 24 hours notice required for garbage disposal. Garbage removed between 0800 hrs. – 1600 hrs. from Monday to Friday.

WASTE OIL DISPOSAL: Collection service available with barges only. One barge is available of about 350 tons capacity to receive bilge water and oily water. Telephone number of the service is 23-55. Charge for removal of one ton is U.S.$ 43.20.

SEAMAN'S CLUBS: None.

CURRENCY: Russian Roubles. Import of currency is unlimited, but amount of currency brought into the country must be declared.

DEVELOPMENTS: Reconstruction is being carried out in order to speed up loading of iron-ore and other cargoes.

SHIPMASTER'S REPORT: May 1993.

Vessel:

LOA	176.8 m.
Beam	21.8 m.
Max. draft	9.72 m.
Summer d.w.t.	19,350 tonnes.
B.R.T.	12,587 tons.
N.R.T.	6,641 tons.

Jetty: Murmanol – Berth No. 2/4.

Max. Draft: 6.80 m. at L.W. (Pilot's advice).

Position: Lat. 68° 55.9' N., Long. 33° 02' E.

Berthing: Vessels berth port side alongside (at Master's and Pilot's discretion).

Restrictions: Vessels may berth and unberth at any state of the tide.

Tugs: Tugs' lines normally used.

Telephones: Available at berth. No connections on vessels.

Density: 1000 – 1010.

Loading: Loading rate for Gas Oil is 500 – 550 tonnes/hr. and for Fuel Oil and Motor Fuel Oil 220 – 260 tonnes/hr., using 100 mm. diameter shore hoses.

Ballast: Ballast water to be pumped to shore slop tank via 100 mm. shore hose at max. pressure 3 kg./sq.cm. – 4 kg./sq.cm.

AUTHORITY: The Port of Murmansk Authority, 19 the Port Passage, 183027 Murmansk, Russia. *Tel:* 2-22-60, 2-23-10, 2-55-65 (Harbour Master). *Cables:* Mortorgport Murmansk. *FAX:* 789-10732. *Contact:* Captain V. Avdyukov, Harbour Master.

AGENT: "Inflot" Shipping Agency, 19 The Portovy Proezd, 183027 Murmansk, Russia. Cables: "Inflot Murmansk". Tel: 2-56-66, 2-51-97. Telex: 126116.

Nordmorservice Ltd., 89 Lenin Prospect, 183038 Murmansk, Russia. Tel: +7-815-2-551784, 526190, 523150. Tel/Fax: +47-789-10127 (Via Norway). Telex: 126187 Nms Ru.

NAKHODKA: 42.48 N. 132.53 E. (See Plan)

GENERAL: A commercial port, Nakhodka is situated in Nakhodka Bay, in the N.W. part of the Japan Sea.

Sometimes Nakhodka Bay is covered with sludge which is frequently driven out by winds into the sea.

From the beginning of January to March the Nakhodka Bay is usually covered with thin ice which can easily be broken by vessels and driven out into the sea by favourable winds.

The port is open for navigation all the year round.

Changes of the water level in the Nakhodka Bay are of small account but the rise of the water level caused by strong Southerly winds blowing for considerable periods of time, may reach quite a high level.

The Northern part of the Nakhodka Bay from the entrance up to the line connecting the Lindgolm and Basnin Points is occupied by the Commercial port. The fishing port is situated Southward of this line.

The most dangerous wind for vessels lying in the Nakhodka Bay is the strong Southern wind of long duration caused by typhoons. The wind usually gives rise to the water level and produces waves of up to 3 m. height in the Bay.

DOCUMENTS: Refer to beginning of the Russian section.

PILOTAGE: Pilotage in the port of Nakhodka is compulsory for all vessels irrespective of nationality and ownership with the exception of the local coasters.

Since 1981 the following Traffic Scheme has been established in the Nakhodka Bay (Navarea XIII No. 28 04.04.81).

1. All vessels arriving at Nakhodka Bay ports from sea are requested to proceed to Nakhodka Bay lighted pivot mid channel Buoy No. 1 (Lat. 42° 43' 31" N., Long. 132° 56' 26" E.) which is the pilot boarding place.
2. Main Ship Channel No. 1 (740 m. wide) leads from lighted Buoy No. 1 along Nakhodka Bay entrance range axis 180° – 000°.
3. Channel No. 2 (740 m. wide) 050° – 230° leads from lighted Buoy No. 1 to Nakhodka Bay lighted pivot mid channel Buoy No. 2 (Lat. 42° 46' 00" N., Long. 133° 00' 06" E.) to Vostochny Port Channel No. 3 (250 m. wide) leads along axis of Vrangel Bay entrance range 297° – 117°.
4. Channel No. 7 (740 m. wide) leads from lighted buoy No. 2 along axis of Vrangel Bay entrance range 297° – 117° up to crossing the Main Ship Channel No. 1 to Nakhodka Bay.
5. Channel No. 4 (740 m. wide) leads from Main Ship Channel No. 1 along axis of Novitsky Bay range 089.3° – 269.3° up to crossing the Channel No. 7 to Vrangel Bay and Channel No. 5 (250 m. wide) leads to Novitsky Bay.
6. Entrance Channel No. 6 (250 m. wide) leads from main ship Channel No. 1 along axis of Torgovy Port range 087.9° – 267.9° to Nakhodka Bay.
7. All vessels 50 m. and more in length are requested to proceed via above mentioned channels.

Channels No. 1, 2, 4, 7 have two-way traffic. Vessels are requested to proceed along the right side of channel axis.

Channels No. 3, 5, 6 have one-way traffic. Vessels to proceed along the channel axis, according to Traffic Centre instructions.

8. Vessels that proceed from sea are requested to contact Traffic Regulation Centre on Channel 12 call sign "Kamensky-17" not less than 2 miles before approaching Nakhodka Bay lighted pivot Buoy No. 1.

Vessels at berth or anchored within Nakhodka Bay water area are requested to seek permission of the Traffic Regulation Centre before unmooring or weighing the anchor.

Vessels anchored are requested to keep continuous watch on Channel 16.

To avoid damage to a vessel and/or any port installation, vessels should be moored/unmoored by the method of parallel mooring/unmooring with tug assistance.

Being at 10 m. distance from a berth a vessel is allowed to use her main engine in case of emergency only.

ANCHORAGES: A safe anchorage can be obtained in Areas No. 305, 306 and 307, with depths from 13.0 m. – 28.0 m. and in the anchorage "10" area with depths from 18.0 m. – 28.0 m. The holding ground in both anchorages is mud, sand, sand with mud, stone.

The "3" area is a quarantine anchorage which serves as the Pilots' boarding place and an anchorage for deep sea-going vessels over 3,000 d.w.t.

The "10" anchorage area is an anchorage for tankers proceeding to the oil port situated in the Novitsky Bay. Boundaries of the anchorages are shown on the chart.

To lie at anchor in the Nakhodka Bay, in the fairway and in the dredged harbours, except in emergency, is strictly prohibited.

Masters to advise Port Director of time of anchoring and position, and on departure, time of weighing anchor.

RESTRICTIONS: Vessels can enter or leave the port at any time of day and night. There are no size restrictions for entry to the port, except for vessels having the maximum permitted draft.

Anchorage for tankers is allowed only in the "10" area.

MAX. SIZE: The permitted draft for vessels proceeding to the Commercial port is 9.10 m., the Fishing port 8.0 m. and the Passenger Terminal 8.6 m.

Vessels drawing over the permitted draft must obtain Harbour Master's permission prior to entry to the port.

HEALTH: Advise "Inflot" by radio in advance if there is any case of quarantine illness on board the ship. If vessel is arriving from a cholera area, then cholera inoculations are required.

TUGS: Tug and mooring launch assistance available. 2 tugs used. Tugs join the vessel in Nakhodka Bay as directed by Master or Pilot. Ship's tow lines are used.

RADIO: Radio communication can be effected via the radio station of the Primorsk Shipping Company – "Nakhodka-Radio" some data of which is given in the table below.

Call sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans-mission*	*Time of work*
UKI	500	500	A1A	H24
Nakhodka Radio–1	156.100*(2)	160.700*(2)	F3E	
"Novitsky-2"	157.65*(33)	157.65*(33)	F3E	†H24
(Oil Harbour controller)	157.7*(34)	157.7*(34)	F3E	H24
"Kamensky-17"	156.8*(16)	156.8*(16)	F3E	H24
(Vessels' movement	156.7*(14)	156.7*(14)	F3E	H24
control post)	156.375*(67)	156.375*(67)	F3E	H24

*Frequencies are given in MHz.
0100–1300 (Moscow Time)

VTMS in operation, call "Kamenskiy 17".

BERTHING: May be effected at any time of day or night. In daytime vessel's mooring position will be marked by a flag and at night by a red lantern. These signals mark the point where the ship's bow should be at the mooring.

The berths of Cargo Handling Port Area No. 1 have depths alongside from 8.6 m. up to 10.2 m. and are equipped to handle grain, equipment, cables, wire ropes, metals, phosphorus, etc.

The berths of Cargo Handling Port Area No. 2 have depths alongside from 9.1 m. up to 10.2 m. and are equipped to handle grain, coal, cement, foodstuff and general cargoes.

The berths of Cargo Handling Port Area No. 3 have depths alongside from 8.8 m. up to 11.8 m. and are equipped to handle timber, sawn timber, equipment, machinery and other cargoes.

Passenger vessels are handled at two berths with depths alongside 8.8 m. and 6.1 m.

Electric cranes of up to 41 tons capacity are operated on the quays. There are also floating cranes with lifting capacity of up to 300 tons and other cargo handling equipment, intra-port transport included.

2 grain handles available, rate 300 tonnes/hr. each.

Loading and/or unloading is usually done in accordance with conditions and rates stipulated by Charter Parties and Sales Contracts.

STEVEDORES: Arranged through "Inflot".

MEDICAL: Medical service is free. All requirements should be ordered in advance through "Inflot".

TANKERS: Slop reception facilities are available.

Report: 1994.

Terminal: Nakhodka Oil Terminal (Neftebaza). Tel: (266) 22531, (266) 22737. Telex: 213804 NEFTO SU.

Shore tanks:

Product	No.	Total Capacity (tonnes)
Ethyl Gasoline	12	34,800
Aviation Gasoline	10	10,500
Aviation Kerosine	3	9,700
Diesel Fuel Oil	20	61,600
Marine Diesel Oil	4	13,600
Fuel Oil M-40/100	2	13,000
Light Fuel Oil F-5	2	8,000
Motor Fuel Oil	2	8,000
Lubricating Oil	13	12,600

Shore lines:

Product:	Length (m.)	Diameter (mm.)
Gasoline	760	500
Diesel F.O.	1,500	600
Heavy F.O.	1,420	600
Ethyl Gasoline	960	500

Berthing Facilities: The port has 1 pier with 5 berths. Vessels are being moored alongside Berths No. 1 and 2 with a max. draft of 12.0 m. and Berths No. 3 and 4 with a max. draft of 6.8 m.

Berth No. 5 is for stern mooring with a max. draft aft of 6.8 m.

Loading Rates:

Product	Rate (tonnes/hr.)
Ethyl Gasoline	750 – 800
Aviation Gasoline	360
Aviation Kerosine	720
Diesel Oil	860 – 880
MDO	700 – 720
Fuel Oil M-40/100	500 – 800
Motor Fuel Oil	570 – 800

FRESH WATER: Can be supplied by barge only.

FUEL: Available.

CONSULS: North Korea, Tel: 55310. Japan, Tel: 56360.

WIND: The most dangerous wind for vessels lying in Nakhodka Bay is the strong Southern wind of long duration caused by typhoons. The wind usually gives rise to water level and sends heavy waves of up to 4 m. height into the Bay.

REPAIRS: All kinds of repairs for vessels of up to 25,000 d.w.t. can be carried out.

SURVEYORS: Saybolt (Vladivostok).

OPENING/CLOSING HATCHES: Can be carried out by stevedores.

CUSTOMS ALLOWANCES: No restrictions on tobacco and alcohol on board ship. Only tobacco required for personal consumption may be taken ashore.

REPATRIATION: Can be arranged during the Summer months provided passport and documentation in order. During Winter months there are no facilities for foreigners to reach nearest international airport so repatriation is only possible via infrequent passenger ships to Japan.

AIRPORT: Nearest international airport is at Khabarovsk, 1,000 kilometres away. Vladivostok is now closed to foreigners or international traffic, though sometimes used for air freight.

TIME: GMT plus 10 hours. GMT plus 11 hours in Summer.

SHORE LEAVE: Permitted subject to police control.

DEVELOPMENTS: Port under reconstruction. On completion vessels with draft of 11.6 m. will be able to berth.

SHIPMASTER'S REPORT: April, 1983.

Documents: 2 copies of Camera List on plain paper signed by the Master giving Make and Serial No. of cameras in possession of crew members.

Also see "Regulations".

Anchorage: All tankers must anchor, while awaiting berth, in the anchorage with the following co-ordinates:

	Lat.	Long.		Lat.	Long.
(a)	42° 45.80' N.	132° 54.71' E.	(b)	42° 45.80' N.	132° 55.27' E.
(c)	42° 55.57' N.	132° 55.44' E.	(d)	42° 44.37' N.	132° 55.44' E.
(e)	42° 44.39' N.	132° 54.56' E.	(f)	42° 44.73' N.	132° 54.56' E.
(g)	42° 45.16' N.	132° 55.08' E.	(h)	42° 45.39' N.	132° 54.71' E.

VHF: "Nakhodka Port Radio Control" maintains continuous watch on Channel 12. This station can be used for conveying messages to Agents. It is not possible to talk directly with Agents.

Medical: 10 Roubles per person for medical consultation.

Fuel: Owner must contact Bominflot London (Telex No. 23830. Fax: (071) 734 3370) for supply of fuels.

Tankers: All ballast (including clean ballast) in cargo tanks must be pumped ashore. Installation can receive ballast at the rate of 300 t.p.h. to 400 t.p.h. Gas oil loading rate about 700 t.p.h. Interruptions in loading due to shortage of cargo ashore. Vessel took about seven days to load 20,700 tonnes of gas oil.

Surveyors: Russian Register of Shipping Surveyor can carry out hull and machinery surveys on behalf of Lloyd's Register of Shipping.

Customs: All pornographic literature and films must be kept sealed during the vessel's stay in port.

Shore Leave: From 4 tanker berths, shore leave possible by boats only. Same arranged by Agents.

All seamen are welcomed in the local Seaman's Club.

Regulations: Photography strictly prohibited within port limits.

SHIPMASTER'S REPORT: May 1984.

See "Vostochny".

SHIPMASTER'S REPORT: October 1994.

(A) Documents to be prepared for arrival: (Editor's Note: Same documents required for arrival Vladivostok).
1 copy General Declaration.
10 copies Crew List.
3 copies Stores List.
3 copies Crew Personal Effects List.
3 copies Currency List.
1 copy Health Declaration.
3 copies List of Port of Calls.

(B) Prior to approaching Fairway Buoy, vessel must call Port Control through VHF Channel 13. Report shall include vessel's name, max. draft, vessel's intention either to load or discharge and name of Agent. If berth not available on arrival, Port Control will advise vessel to drop anchor at Quarantine Anchorage, and there, Boarding Authorities/Agent will come on board for inspections, such as ship's Certificates, documents, Seaman's Books, Bonded Stores.

Prior to departure, Immigration Officers/Agent will board the vessel and Seaman's Books will be distributed to each crew member and will remain in their respective cabins while inspection is being undertaken, after which, if all found clear, they will issue Outward Clearance.

(C) Pilotage is compulsory for all vessels, irrespective of nationality and ownership.

(D) Anchorage depth is 13.0 m. – 28.0 m.

(E) Restrictions: Vessel can leave anytime day or night.

(F) Health: Advise Agent by radio in advance if there is any case of quarantineable illness on board. If vessel arrives from a Cholera area, then Cholera inoculation is required.

(G) Tugs: Tugs and mooring assistance available. 2 tugs used and ship's tow line used.

(H) Stevedores to be arranged by Agent.

(I) Fresh water supplied by barge only. Cost is U.S.$ 7.90/ton.

(J) Fuel available.

(K) Customs Allowances: No restrictions on tobacco and alcohol onboard.

(L) Consuls: North Korea and Japan.

(M) Wind: The most dangerous wind for staying in Nakhodka Bay is the strong Southern wind of long duration caused by typhoons.

(N) Repatriation: Can be arranged during Summer months, provided documentation is in order.

(O) Time: GMT plus 10 hours (GMT plus 11 hours in Summer).

(P) Shore Leave: Every crew member going ashore must carry their Passport. No time limit.

(Q) General: While at berth in Nakhodka, we experienced ground swell which caused the vessel to move fore and aft. 3 of our mooring ropes parted. On berth, we had 5 head/stern lines, 3 fore/aft spring lines and 2 fore and aft breast lines.

SHIPMASTER'S REPORT: November 1995.

On approach to the port, several attempts were made to contact "Kamensky-17" on VHF Channels 12 and 16, but without success. Eventually, we received an answer from "Nakhodka Port Control" on Channel 16, and were instructed to change to the working channel (13). We were then informed to call back when 2 miles from Buoy No. 1. Upon calling back, we were instructed to proceed to a position 165° – 2.6 miles from "Mys.Shvedova" Lighthouse and anchor there, without a Pilot. This position is situated in the anchorage area designated for foreign tankers (0.6 miles East of the North East point of "Ostrov Lisiy" Island). It was intended that the vessel obtained port clearance in this position on the same morning as we arrived, but there was a significant Southerly swell running (quite common in this bay), which prevented the port officials boarding until the following day.

Clearance of the vessel took nearly 2 hours and involved a lot of paperwork. There was one Customs official, two Immigration officials and three Health Inspectors, one each for meat, vegetables and personnel. The Health officials inspected the ship's store rooms and hospital. The Immigration officials wanted all crew members to be in their cabins with their Seaman's Books in hand for identification purposes.

There are two suitable berths for a vessel of this size (38,000 d.w.t.). Berths No.1 and 2 are situated at the end of the oil terminal pier. The depths alongside are as per chart, 13.0 m. at No. 1 and 12.6 m. at No. 2. Vessel's berth with bow facing outwards to the bay. This vessel was berthed starboard side alongside at Berth No. 1. Although the green Buoy No. 1 is crossed out on the chart, this buoy was situated approximately 350 m. abeam of the end of the jetty and was unlit. There was no sign of Buoy No. 3. The vessel dropped the port anchor with the port side parallel to Jetty No. 1 and the bow at approximate distance and bearing from the end of the pier of 045° × 120 m., speed of approach 1.5 knots. Both tugs were fast at this time, with ship's lines on the port shoulder and just forward of the accommodation block. The vessel was swung to port on the port anchor and cleared Buoy No. 3 at the stern by 50 m. We eventually came alongside Berth No. 1 with 6 shackles out on the port anchor. Mooring arrangement was 3,2,2 – fore and aft. Maximum sailing draft alongside this berth is 11.5 m.

1×12 in. Chicksan was provided throughout the loading operation. Loading was by gravity with frequent interruptions and without informing the ship. Vessel loaded 34,200 tonnes from 10 shore tanks (shore tanks are small and old). The oil is transported to the terminal by railroad tankers from a refinery situated 600 km. away.

When we anchored at the "foreign tanker anchorage", Berth No. 1 was occupied by an apparently fully loaded tanker.

It was a further 43 hours before this vessel sailed. If the nominated cargo is not ready, there might be long delays awaiting its arrival. The densities used for the Bills of Lading quantities are determined by taking a composite sample from the ship's tanks at the end of loading. The calculations are based upon Table 54B, but calibrated to a temperature of 20°C instead of the normal 15°C.

Communications between ship and shore were poor. The standard of English of the terminal personnel was also poor. There was no pre-agreed Safety Procedures or Safety Checks.

There was a lack of professionalism about all operations, with the exception of the "Saybolt" Surveyors.

Shore leave was obtained by taking Seaman's Book to the end of the jetty and exchanging it for a shore pass. A terminal bus arrives every half hour and connects with the main gate. From the main gate, take a No. 5 bus to the city centre.

The agency could be contacted on VHF Channel 16, working Channel 74. Once contacted, they proved to be helpful. However, prior to arrival, there was no communication to the ship about berthing prospects or any other matters.

Clearance for leaving was done alongside the berth, and was as meticulous as the Clearance Inward.

The Pilot left the vessel just off the berth, after anchor aweighing.

AUTHORITY: The Port Authority of Nakhodka, 22 Port Street, 692900 Nakhodka, Primorsky Krai, Russia. *Tel:* 5-77-02, 5-79-38, 5-78-15. *Cables:* Mortorgport Nakhodka Primorskogo.

AGENT: The Far Eastern Main Maritime Agency – "Inflot". Postal address: ul Leninskaia 2, Primorski Kray, Nakhodka, 692900 Russia. Telephone: 56155, 56233, 59773. Telex: 213826. Telegraphic address: Inflot Nakhodka. Fax: (266) 5-99-50.

NARYAN-MAR: 67.38 N. 53.00 E.

GENERAL: A commercial port, Naryan-Mar is situated in the S.E. part of the Barents Sea, at a distance of 70 miles from the Pechora River mouth on the right bank of the Gorodetsky Shar Creek.

The port is open for navigation for a period of 120 – 130 days in the year.

In the Pechora River Inlet first ice usually begins to form between 20th and 25th October, but sometimes appears at the beginning of the month.

The inlet becomes completely frozen over at the middle of December. Ice finally disappears at the end of June or sometimes beginning of July. Changes in the water level in the Pechora Inlet, due to melting of ice in Spring, have not been observed.

The formation of ice in the rivers flowing into the Pechora Inlet usually depends upon the time of the appearance of ice in the Inlet itself. Rivers, as a rule, become frozen over by the middle of October. The ice in the rivers usually breaks up earlier than it finally disappears in the Pechora Inlet.

The Pechora River at the Kuya settlement area becomes frozen over at the end of October, and the ice finally disappears by the end of May.

DOCUMENTS: Refer to beginning of the Russian section.

PILOTAGE: Compulsory. Besides information stipulated in Soviet Wood Charter Party, vessels approaching Pilot Buoy may contact Port Authorities or Pilot in first 15 minutes of any odd hour from 0700 till 2300 hrs. (Moscow time), frequency 2182 kHz. Signals for Pilot to be given in accordance with International Code. Pilot boat wooden, standard type, white painted, with word "Pilot" in black letters on wheel-house. Pilot usually boards vessel at the Pilot Anchorage light buoy (Lat. 68° 30' N., Long. 54° 32' E.). In case of bad weather, and in extraordinary circumstances Pilot shall embark vessel in the Srednevskie Islands area. In this event a vessel approaching the port from seaward should follow pilot boat in the wake of it, up to the Srednevskie Islands leading line where Pilot will be able to board ship.

Master of a vessel proceeding to the Port of Naryan-Mar should order a Pilot through the Harbour Master 24 hours prior to arrival at the Pilot Anchorage light buoy and advise more precise ETA not later than 4 hours before approaching it.

Master should order Pilot not later than 2 hours prior to shifting berth and/or leaving the port.

ANCHORAGE: A recommended anchorage for foreign vessels is situated in the area with the central point Lat. 68° 30' N., Long. 54° 33' E. The depths in the anchorage are from 5.4 m. – 6.6 m. Also Inner Roads where anchorage will be indicated by Pilot.

An anchorage can be obtained at the right bank of the Pechora River off Urpinsky leading line No. 24. Depths are from 4 m. – 17 m. The bottom is sand and mud.

Good anchorages with depths from 5 m – 10 m. can also be obtained opposite Zakhrebetny Bay and N.E. of the town of Naryan-Mar.

All vessels arriving from abroad or leaving the port for abroad, must anchor opposite Zakhrebetny Bay for port formalities.

RESTRICTIONS: Vessels can enter or leave the port at any time of day or night.

The permitted draft for entry to the port is about 4.5 m. but it is usually advised by the Port Authorities at the beginning of navigation. The maximum permitted length of a vessel is 125 m.

The entrance to the port is by the fairway leading from the Pilot Anchorage light buoy across the Pechora River Bar.

The bar itself is the extensive shoal water area extending Northward of the Bolvansky Nos. Point. Three channels are dredged across the bar: The Receiving Channel, the Bar Channel and the Povorotny Channel. The last one serves as turning-point from the Receiving Channel into the Bar Channel. Vessels drawing not more than 4.9 m. can pass across the bar only at high water level.

It is prohibited to enter or leave the port through the Bar Channel and/or Receiving Channel as well as to navigate in the port area during dense fog, heavy rain and snow falls, strong winds of over Force 6 and absence of floating marks.

With the appearance of ice in the Pechora Inlet and in the Pechora River, entry to the port is not allowed without Harbour Master's permission.

The speed of a vessel navigating from the Pilot Anchorage Light Buoy through the Receiving Bar Turning, Alekseevsky, Polovsky, Kuisky, Urpinsky and other Channels shall not exceed 6 knots, with the exception at the part of the Pechora river between the Zakhrebetny and Srednevsky Channels where it is allowed to navigate with speed not exceeding 12 knots.

When passing floating cranes nearby, lighters and vessels lying alongside the port quays, every ship should proceed at dead slow speed.

MAX. SIZE: Draft declared by Port Authorities after being checked in the beginning of the season, and is about 15 ft.

HEALTH: Vessels inspected by Sanitary Officer. If no diseases, vessel obtains Free Pratique. Pratique automatic when vessel arrives from another Russian port.

RADIO: Naryan-Mar Radio.

Call Sign	*Frequencies (kHz) Working*	*Calling*	*Type of trans-mission*	*Time of work*	*Remarks*
UOY	500	500	A1	HX	
Naryan-Mar Radio 1	156.8*	156.8*	F3E	H24	Operates during period of navigation only
Port Controller	156.7*	158.0*	F3E	H24	

*Frequencies are given in MHz.

Storm warnings for vessels' traffic in the Pechora Inlet area for the coming 24 hours are transmitted via both the Central Port Radio and VHF radio.

Notice of Arrival: Should be given in accordance with the "Soviet Wood" Charter Party conditions.

BERTHING: The Port of Naryan-Mar specialises in timber exports. Depths at the berths are up to 6.5 m. There are enclosed warehouses and open concrete floor sheds.

The necessary number of tugs for entering or leaving the port as well as for shifting berth shall be agreed upon between Pilot and Master.

A mooring berth is usually indicated by a Pilot. Shifting berths without having obtained Harbour Master's permission is not allowed. Ship's tow lines are usually used during towage.

Diesel mobile cranes of up to 6 tons capacity are operated on the quays. There are also track-laying cranes of up to 12 tons and floating cranes with lifting capacity from 35 tons – 40 tons.

STEVEDORES: As per "Soviet Wood" Charter Party.

MEDICAL: No advance notice required. Clinic and hospital available.

DENSITY: Fresh water irrespective of tide.

FRESH WATER: Available from shore.
FUEL: Not guaranteed.
CONSULS: No Consuls.
REPAIRS: Small repairs only.
DRY DOCKS: None.
SURVEYORS: State Register of Shipping.
GANGWAY/DECK WATCHMEN: To be provided by vessel.
OPENING/CLOSING HATCHES: According to "Soviet Wood" Charter Party.
CERTIFICATES:

Seaworthiness.
Measurement.
Load Line.
Cargo Equipment.
Safety Equipment.
Radio Telegraphy.
Radio Telephony.
Oil Pollution Prevention.
Sewage Pollution Prevention.
Derat Certificates.

CUSTOMS ALLOWANCES: Tobacco/Wine – No quantity limits.
REPATRIATION: Repatriation and crew changes require visa formalities.
AIRPORT: Airport served by regular lines and situated near town.
TIME: GMT plus 3 hours. No seasonal alterations.
TIDE: Changes in the water level in the port area depend upon tides and effects of the wind.

The tide is semi-diurnal with 2 HW and 2 LW a day. The range of the tide varies from 0.9 m. – 1.8 m. Changes in water level are caused by the effects of the wind and may reach 1 m. – 1.5 m.

HOLIDAYS: See "Archangel".
POLICE/AMBULANCE/FIRE: Police 02; Ambulance 03; Fire 01.
EMERGENCY CO-ORDINATION CENTRE: Not available.
TELEPHONES: Can be arranged on board.
BANKS: None.
STORING: See "Prelims".

1. By truck when alongside.
2. Vessels stored by truck only.
3. Yes.
4. No.
5. See "Archangel".
6. Normally carried out by ship's crew.

SHORE LEAVE: Each crew member properly signed in ship's Articles and having valid Seaman's Book is allowed ashore.
IDENTIFICATION CARDS: Only Seamen's Books.
DELAYS: Caused by rains, when vessel loading cargo of sawn goods.
AUTHORITY: The Chief of The Port of Naryan-Mar, Ul. Naberezhnaya 11, 164700 Naryan-Mar, Russia. *Tel:* 26-95. *Telex:* 24211. *Cables:* Morport Naryan-Mar.

AGENT: A branch of the Port of Archangel Main Maritime Agency "Inflot" at the Port of Naryan-Mar. Pechora Timber Mill 164700, Khatanzeisky, the Port of Naryan-Mar, Archangel Region, Russia. Cable: "Inflot Naryan-Mar". Tel: "Inflot" via the timber mill switchboard 30-70, 31-05.

NEVELSK: 46.40 N. 141.51 E. (See Plan)

GENERAL: The sea fishery port of Nevelsk is situated in the Tatarsky Strait, in the Southern part of the Nevelsky Bay. The port is open for navigation all the year round.

Changes of the water level are mainly caused by in and off-going tidal floods.

The port consists of two parts. The Outer part includes a part of the Nevelsky Bay water area with the imaginary boundaries drawn by an arc of 1.5 mile radius from the light mark installed on the Southern point of the Western breakwater. The Inner port consists of the harbour of the fishing port, the Small and the Northern Scoops. The boundary of the Inner is the line connecting the points of the Southern and the Western breakwaters.

The Master of a vessel when entering the port should keep on the leading line of the green leading light marks located at a distance of 5.5 cables to the North of the Southern point of the Naga Reef. The true direction of the Leading line is 259° – 079°.

The Port of Nevelsk, bearing in mind its position, size, weather and hydrological conditions, is not and cannot serve as a sheltered port as it is only partially protected from the effects of the sea swell and winds blowing from South, West and N.W. directions and is not protected from S.W. winds at all. Therefore deep sea-going vessels cannot be allowed to enter the port during storm warnings. It is dangerous to stay in the port when heavy S.W. winds are expected.

PILOTAGE: Effected round the clock. The Master of a vessel should order a Pilot via the Harbour Master's office.
ANCHORAGE: Situated in the Outer port to the South of the leading line and to seaward of the 20 m. contour. The anchorage is not protected from West and North winds and waves. The bottom is sand. The anchorage in the inner area is dangerous as the ground there (stone plate) does not hold anchors well.
RADIO: Communications can be effected through the port radio station "Nevelsk Radio-1".

Call Sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans- mission*	*Time of work*
UFM-2	500	500	A1A	H24
"Nevelsk-31"	156.8*(16)	156.8*(16)	F3E	H24
(Port Controller)	156.45*(9)	156.45*(9)	F3E	H24

*Frequencies are given in MHz.

RESTRICTIONS: The permitted draft is determined by the Harbour Master. Vessels having draft over 5.8 m. are allowed to enter the port after having obtained the Harbour Master's permission.
TUGS: Tugs ordered by the Master for mooring and unmooring meet vessels within the boundaries of the Inner port.
BERTHING: All vessels entering the port are moored to the berths according to instructions of a port controller.

The berths of the port with depths alongside of up to 6.5 m. are equipped to handle general, bulk liquid and other cargoes.

There are closed warehouses, open concrete floor sheds and a cold store in the port.

It is recommended to use manila mooring ropes due to insufficient protection of the port from effects of winds, waves and strong variable current with surge (the so called "tyagun".).

Opening and closing of hatches is usually done by the crew. All deep draft vessels are loaded/unloaded in the roads.

The berths of the port are equipped with 5 ton portal cranes. There are other cargo handling facilities and intraport transport.

FRESH WATER: Available in limited quantities.
FUEL: Diesel oil available.
CONSULS: None.
REPAIRS: Possible for vessels up to 4.0 m. draft.
TIME: GMT plus 11 hours. Summertime (April 1st – October 1st), GMT plus 12 hours.
AUTHORITY: The Port of Nevelsk Authority, 32 Rybatskaya Street, 694740 Nevelsk, Sakhalin Island, Russia. *Tel:* 20-06 (Port Director). *Telex:* Via "Inflot", Kholmsk. *Cables:* Morport Nevelsk. *Contact:* Port Director.

AGENT: Sakhalin Main Maritime Agency, Inflot, at Kholmsk, Sakhalin Island, Russia.

NOVOROSSIYSK (Including Sheskharis Oil Harbour): 44.43 N. 37.47 E. (See Plan)

GENERAL: In Winter, strong, gusty N.E. winds (called "Bora"), reaching hurricane force at times, blow from the coastal mountains. Due to these winds, vessels lying at anchor in Novorossiysk Bay may very quickly become covered with ice when the temperature of the air is cooled below freezing-point.

It is impossible to enter the port when "Bora" blows, therefore, all vessels are recommended to leave Novorossiysk Bay for the open sea beforehand or lay at anchor in the Yuzhnaya Ozereika Roads, at a distance of 8.5 miles Westward of the entrance to the port of Novorossiysk or in Anchorage Area No. 416, to the South of the Doob Point, until the weather improves.

The range of water level in Novorossiysk Bay caused by the effect of the winds, does not exceed 0.6 m. The changes of water level, due to variation in atmospheric pressure ("Seish" effects), are observed at times. The "Seish" may last up to several days. The maximum range of water level, due to the "Seish", observed in Novorossiysk Bay is 0.6 m.

The port consists of 2 harbours – the Dry Cargo Harbour and Sheskharis Oil Harbour.

The inner roads are situated at the head of Novorossiysk Bay are divided from the outer roads by the Western and Eastern Moles. The outer roads are situated between the moles and the Southern border of the port.

The Dry Cargo Harbour situated inside the inner roads is protected by 2 (Western and Eastern) moles.

Two passages, the Western and Eastern, divided by Penaisky Shoals, lead to the inner roads through the port area. The Western passage is wider in comparison with the Eastern, and vessels may enter outer roads passing through it by one course.

DOCUMENTS: Refer to beginning of the Russian section.
Shipmaster's Report: (1975) Notwithstanding the instructions for documentation for all Russian ports referred to at the beginning of the section, the Novorossiysk Port Authorities require the following:

General Declaration (IMO FAL Form 1)	4 copies
Cargo Declaration (IMO FAL Form 2)	4 copies
Ship's Stores Declaration (IMO FAL Form 3)	3 copies
Crew Effects Declaration (IMO FAL Form 4)	2 copies
Crew List (IMO FAL Form 5)	8 copies
Passenger List (IMO FAL Form 6)	8 copies
Money List	2 copies

PILOTAGE: Compulsory: 96 hours prior arrival cable Agent giving ETA, name of vessel, gross tonnage, exact draft, type of engine. Flag, sound and Morse signal G. Pilot meets vessel at Lat. 44° 37′ N., Long. 37° 52′ E. Movement of vessel within inner harbour – only under Pilot guidance. If Pilot is not available vessel should anchor in Area No. 415, opposite the Kabardinka settlement, recommended as an anchorage (No. 416), and wait until Pilot arrives.

Procedure: Send request for Pilot to Port Dispatcher 2 hours before arrival. Establish contact with Control Post (SUDS) on VHF Channel 9, 30 minutes before entering Regulated Movement area. Message should include:

(a) Type and name of vessel.
(b) Time of approach to zone (Regulated Movement area).
(c) Nationality and name of owners.
(d) N.r.t. and g.r.t.
(e) Length and max. draft.
(f) Type and quantity of cargo.

A continuous listening watch should be maintained on Channel 9 whilst within the area (vessels at anchor on Channel 16).

ANCHORAGES: Anchorage in the outer roads of the port is allowed almost everywhere but most convenient places for the purpose are to be considered the following 3 areas. The first one is Area No. 415 situated to the North of the Doob Point.

Depths there vary from 12 m. to 27 m., the holding ground is mud. In the event of winds blowing from seaward Masters of all vessels are recommended to leave this area for the open sea. Area No. 414 is the second anchorage place, situated 8 cable lengths Westward of the Penai Point. Depths there are from 13 m. to 27 m., the holding ground is mud and mud with shell. The third place is Area No. 412 situated 6 cable lengths South-Eastward of the port entrance. Depths there are from 20 m. to 24 m.

Vessels approaching the port of Novorossiysk with N.E. gales ("Bora") blowing, or caught by the storm whilst lying in the outer or inner roads, or after having received storm warning, should use every opportunity to proceed to sea or lay at anchor in the Yuzhnaya Ozereika Roads (Anchorage Points No. 408 and 410), having the main engines ready and keeping constant anchor watch.

Under the circumstances, every vessel should keep regular radio contact with port radio station.

Masters of vessels lying at anchor in the outer roads and/or in the port, are usually warned beforehand about the forthcoming N.E. winds. Since these winds may reach hurricane force during a very short period of time, particularly in Winter, all Masters lying at anchor in Novorossiysk Bay are recommended to pay careful attention at every change of the weather, to watch position of vessel to be able to prevent her drifting about anchor and proceed to sea in due time.

RESTRICTIONS: No restrictions on night entry into the Inner Roads. Mooring and/or unmooring, both in the Dry Cargo Harbour and the Sheskharis Oil Harbour cannot be effected during Southerly or N.E. winds over Force 7.

MAX. SIZE: The permitted length for entry into port is 250 m., draft 11 m. for dry cargo vessels.

Tankers: 250,000 d.w.t., 19 m. max. draft.

HEALTH: Free Pratique automatic for vessels coming direct from Russian port. From other countries, usual procedure of sanitary inspection applies.

RADIO: Vessels can establish radio contact through port radio station Novorossiysk Radio operating 24 hours a day.

Station	*Call Sign*	*Channel*
Central Port Radio	Novorossiysk 1	7, 16
Port Dispatcher	Novorossiysk 2	14
Port Director's Office	Novorossiysk 5	9
Dispatcher, Port Fleet	Novorossiysk 6	30
Transport Fleet Services	Novorossiysk 7	14
Inflot	Novorossiysk 8	67
Port Director's Office (Sheskharis Oil Basin)	Novorossiysk 11	9
Dispatcher, ASPTR	Novorossiysk 12	13
Dispatcher, SRZ	Novorossiysk 13	29
Dispatcher for Bunkers	Novorossiysk 15	14
Dispatcher for Sheskharis Oil Basin	Novorossiysk 15	14
Control Post (SUDS)	Novorossiysk 17	9, 95
Tugs and Berthing		6

All vessels passing through the traffic controlled zone and/or anchored there have to keep constant VHF radio watch on Channel 16.

The port signal station is equipped with radar which gives all possible information for ensuring safe pilotage, and also helps Pilots in shifting vessels within the port inner roads.

TUGS: A sufficient number of tugs of between 600 h.p. and 5,000 h.p. are available in the port.

While manoeuvring ships to the Sheskharis Berths two more tugs of 150 i.h.p. are engaged regardless of the ship's size in view of the constructive features of the berths.

BERTHING: When proceeding in inner harbour, vessels must keep both anchors ready to let go; ships to be moored by safe ropes which to be kept tight at all times. Also be ready to use anchor chain over bollard according to Pilot's recommendation. Strictly prohibited to work with propellers lying alongside berth. All mooring ropes must be fitted with rat-guard plates.

The quays of the Dry Cargo Harbour with depths alongside of up to 11.5 m. are equipped to handle general, 20 ft. and 40 ft. containers and bulk cargoes (coal, ore), metals, timber, sugar, grain, cement, fruit and vegetables.

Berths of the port are equipped with modern cargo handling facilities. There are portal cranes of up to 40 tons capacity, floating cranes with lifting capacity of up to 100 tons, automatic and electric cargo lifters and other equipment.

Opening and closing of hatches is usually done by ship's crew with the help of portal cranes at dry cargo berths, if ordered by Master, grain berth excluded.

Ores are loaded in compliance with the Temporary Regulations for Carrying Ores handed over to the Shipmaster by Agents during inwards clearance.

Following are the basic requirements of above Regulations to the ores being loaded *(a)* moisture contents not higher than 12% (if other percentage is not stipulated by Charter Party); *(b)* angle of repose is not less than 35°.

Grain and other bulk cargoes are to be loaded in strict conformity with the International Convention.

STEVEDORES: All necessary services including stevedoring work available under Port Authority guidance. Port cargo-handling regions where ships berth managed by Port Authority and used for stevedoring, tallymen service, storage, etc. On the matters connected with services available, foreign vessels have to apply to Port Authority through Agent.

MEDICAL: In case of accident (emergency), medical attendance rendered at any time. Hospital facilities available. Also inoculation, vaccination, etc.

TANKERS: Bearing in mind N.E. gales, oil carriers lying alongside oil pier must have boat-ropes lowered to water and illuminate them at night. All scupper holes on main deck must be closed tightly. Master responsible for overflow of oil in the vicinity of harbour and has to bear harbour cleaning costs. No repair work can be done on tankers lying alongside oil pier. No ballast water may be pumped out, no garbage or refuse thrown overboard. Ballast to be pumped into shore slop tank.

The Sheskharis Oil Harbour is situated in the Eastern part of the outer roads, 2.2 miles N.W. of the Penai Point. It is protected by a mole from the South and oil jetty from the North. The base of the jetty is used as a berth for fire-fighting boats.

Since it is not safe to stay alongside berths in the Sheskharis Oil Harbour during strong winds blowing from any direction, all tankers, after having received a storm warning should take urgent measures to leave for sea.

Depths at the berths of the Sheskharis Oil Harbour are from 4.5 m. up to 19.0 m.

To ensure safe loading/unloading of oil products as well as to expedite the vessel's turn around time, every tanker should be equipped with cargo manifolds capable of fitting 8 in. – 16 in. shore-loading connections.

These manifolds should allow the upward connection with shore cargo flanges of not less than 1 m. in height and located on deck at 3 m. – 5 m. length from side of vessel.

Deepwater Berth No. 1: Accepts vessels of 80,000 to 250,000 d.w.t. Arrival and departure draft not to exceed 19.0 m.

A tanker is to have a site 3.0 m.×3.0 m. on cargo deck free of pipe-lines/deck openings and other constructional elements to secure end platform of shore gangway. The centre of site to be 5.5 m. from starboard side and 12.0 m. – 13.0 m. from cargo manifold in forward direction.

To ensure normal contact with shore fenders vessel's fully loaded freeboard should not be less than 6.3 m. Cargo manifold flanges should have thickness 30 mm. – 32 mm.

Report: 1994.

Terminals:

Name: Sheskharis Oil Terminal. Tel: 62104, 93685.
Sheskharis Oil Base. Tel: 93330, 93333.
Black Sea Oil Pipelne Co. Tel: 52513, 93420, 93422.
Fax: 51401.

Shore tanks: "Grushovaya" Oil Base (Storage): Crude Oil:
37 underground ferro concrete shore tanks, each approximately 10,000 cu.m.
9 steel shore tanks with floating roofs, each approximately 50,000 cu.m.
Fuel Oil: 10 underground ferro concrete shore tanks, each approximately 10,000 cu.m.
"Sheskharis" Oil Base (Loading Terminal): Crude Oil: 5 ferro concrete shore tanks, each approximately 10,000 cu.m.
Fuel Oil: 2 ferro concrete shore tanks, each approximately 10,000 cu.m. and 2 shore tanks of approximately 2,000 cu.m.

Loading Rates: Berth No. 1: Crude oil 10,100 t.p.h.
All other Berths: 3,500 t.p.h.
Fuel Oil: 700 t.p.h. (All Berths).
All loading arms are 12 in. or 16 in.

Shore lines from Tanks to Jetty:

Product	Berth No.	Length (m.)	Diameter (mm.)
Crude Oil	1	1,966	1,000
	1	1,230	1,200
	2/3	910	800
	2/3	910	800
	5/6/7/8	1,222	1,000
	5/6/7/8	1,200	800
Fuel Oil	2/3	910	500
	2/3	910	500
	5/6/7/8	1,222	500
	5/6/7/8	1,222	500
Gas Oil	2/3	910	300
	5/6/7/8	1,210	300

Max. Size:

Berth No.	Max. Draft (m.)	D.W.T. (tons)
1	forw'd 19.5 / aft 19.5	250,000
2	forw'd 13.7 / aft 15.8	60,000
3	forw'd 10.7 / aft 11.3	30,000
4	Bunkering	
5	forw'd 8.7 / aft 10.6	12,000
6	forw'd 12.8 / aft 12.8	60,000
7	forw'd 12.8 / aft 12.8	60,000
8	forw'd 8.7 / aft 10.6	12,000

Berth Length:

Berth No.	Length (m.)
1	500
2	220
3	150
4	Bunkering
5	120
6	220
7	220
8	120

Facilities: Slops may be discharged at a rate of 3,000 tonnes/hr. at all berths.
Bunkers and fresh water are available at all berths.

DENSITY: About 1010 – 1014.

FRESH WATER: Available from shore; minimum quantity invoiced at 15 tons. Fresh water also available from lighters.

FUEL: Most grades available. Fuel for tankers can be supplied ex-shore. Bunkers for dry cargo vessels are usually delivered by lighters.

FIRE PRECAUTIONS: All operations involving open fire and sparks are prohibited on oil pier. Two fire extinguishers, thick felt and sand must be ready beside hose connection.

CONSULS: No Consulates in port or its vicinities.

REPAIRS: All kinds of repairs for vessels of up to 60,000 d.w.t.

Cargo Superintendent's Report: 1975.

The Novorossiysk Shiprepair Yard is capable of carrying out any ship repairs, and is equipped with 3 floating docks. I was unable to obtain information on the size of these docks, but estimate they are capable of handling vessels in the 100,000 ton range.

SURVEYORS: Saybolt.

GANGWAY/DECK WATCHMEN: Gangway watch compulsory and carried out by crew.

OPENING/CLOSING HATCHES: Normally by crew, otherwise according Charter Party.

CUSTOMS ALLOWANCES: No quantity limits but nothing allowed to be taken ashore.

REPATRIATION: No facilities exist for effecting crew changes. A crew member may be repatriated due to family reasons or sickness but repatriation requires visa formalities.

AIRPORT: Nearest airport is at Anapa, which is 50 km. from the port. Daylight flights only.

TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.

HOLIDAYS: New Year's Day, 8th March (World's Women's Day); May 1st, 2nd (Labour Day); May 9th (Victory Day); January 7th (Christmas). Cargo work can be arranged on those days.

POLICE/AMBULANCE/FIRE: Police, Tel: 02; Ambulance, Tel: 03; Fire, Tel: 01.

TELEPHONES: Can be arranged to be fitted on board.

SHORE LEAVE: Crew members are allowed ashore. Crew members of foreign vessels get shore passes which grant them permission to stay ashore till 2400 hrs. Crew members who lose their shore passes as well as those late from ashore, are not granted shore leave any longer in conformity with local regulations.

IDENTIFICATION CARDS: Crew members get shore passes.

SHIP SUPPLY SERVICE: Local consignment centre may supply marine oils and lubricants, manufactured by Mobil Oil, Castrol, Elf-Aquitaine and Esso.

Marine paints and coatings of Hempel, Sigma, Interpaints, as well as chemicals and treatments manufactured by Perolin, Unitor, Rochem.

Spares are available for Sulzer, B&W, MAN main auxiliary diesel engines, for Magnavox, Mx-1102 satellite navigator.

Address: Consignment Centre, 8 Portovaja Street, Novorossiysk 353901, Russia. Tel: 6-28-97. Telex: 27243, 412629.

The Russian-American joint venture Soyuz Marine Service began servicing of the Russian and foreign ships in Novorossiysk in 1990.

The following kinds of underwater technical works are possible:

Cleaning of ship's hull, photography, using TV-cameras, inspection for Register's control, repairing of outboard fittings, electro/oxygen cutting and welding, polishing of propellers, fitting of the cathode protection and other kinds of underwater works.

Payment for foreign vessels to be made in U.S. dollars.

Vessels are requested to make their requirement known by radio not later than 15 days before arrival to "Novorossiysk Inflot SMS" (for foreign vessels) and "Novorossiysk Transflot SMS" (for Russian vessels).

Office: Soyuz Marine Service, 93 Lenin Avenue, Novorossiysk 353918. Tel: 3-42-10. Contact: Captain Yury Yashny.

SHIPMASTER'S REPORT: December 1991.

Anchorage: On arrival, vessel had to anchor off the port as the cargo was not ready. The anchorage for tankers (No. 416) was well sheltered from the North and N.E. sides with high mountains. The anchorage area was rather small and too close to the shore (a maximum of 2 ships could stay keeping a safe distance from each other). Caution is to be exercised approaching the anchorage as the centre is just about one mile away from the nearest land.

Formalities: Port officials, including Customs, Immigration, Port Health and Agriculture officials along with the agent boarded the vessel upon berthing. Immigration authorities assembled everyone so that they could see them 'in person'. Otherwise proceedings were quite quick.

Berthing: The berth (See "Plan") is meant for large tankers as stated in the agent's telex. Vessel approaches starboard side to the jetty with 4 tugs assisting (2 tugs forward and 2 tugs aft). First lines to go ashore were backsprings. Vessel's backspring winches, forward and aft, could not be utilised for sending the lines as the 'lead' would have been too short (a longer vessel would have no difficulty). Mooring was slow as only one mooring boat available for both forward and aft. Mooring lines consisted of 4 headlines, 2 breast ropes and 2 backsprings forward and 4 sternlines, 2 breast ropes and 2 springs aft. This was sufficient moorings to withstand a wind, usually from the North and N.W. of up to 40 knots. The harbour is well sheltered with high mountains (2,500 ft.) on the North and N.E. sides.

The gangway was a hydraulic one provided by the jetty and placed forward of the manifold in a clear space.

There is another tanker berth for smaller vessels on the other side of the jetty with max. draft 12.5 m.

Cargo: Vessel presented 16 in. connection by way of 3 'Y' pieces connected to 6 manifolds on the vessel.

Although the vessel's presentation flanges were 38 mm. thick and requirement was 30 mm. – 32 mm., the Chicksan could still be hydraulically locked on to the vessel's flanges without any difficulty. Otherwise vessel met all requirements for the connection, i.e.:

(1) Distance from vessel's presentation flange to the railings to be between 4.5 m. and 5.0 m.

(2) Vertical distance from flanges to the top of the manifold tray to be between 0.6 m. and 1.2 m.

(3) Flanges to be in one line.

(4) Distance between the flanges to be between 2.0 m. and 3.0 m.

Loading rate required by the terminal is minimum 7,200 cu.m./hr. and maximum 10,000 cu.m./hr. Vessel maintained a rate of 7,000 cu.m./hr.

Ballast: Ballast cannot be discharged into the waters of the harbour and has to be discharged ashore. As the vessel had segregated ballast tanks it could discharge into the harbour freely, but the Port Authorities are very serious and concerned about clean ballast and the quantity of it.

Dry Tank survey carried out prior to loading, but the surveyor did not seem to be concerned about the fitness of the tanks.

Generally, the cargo operation was smooth and authorities co-operative. Language and communications are a problem if no interpreter present.

After completion of cargo loading, it took nearly 6 hours for the pilot to board. Prior to departure the Customs and Immigration boarded the vessel to give clearance.

After leaving berth the vessel turned through 180° in the basin with the assistance of tugs. This is difficult for a fully laden vessel, especially if the wind is strong.

General: Russian Rouble is quite low compared to U.S. Dollar. There were 48 Roubles to U.S.$1.00.

The main city is about 17 km. from the port and it does not provide much for seamen, except for the Seaman's Club.

SHIPMASTER'S REPORT: August 1993.

Approaches/Anchorages: Port Control should be contacted on VHF Channel 9. They will then advise the vessel the area to anchor in. No Pilot is required for vessel's anchoring in Area 416, which is outside the designated Port Limit, and sometimes for Area 415. However, for other anchorage areas within the Port Limit, pilotage is compulsory.

Formalities: For clearing grain ships, vessel is boarded by Quarantine Inspectors, Cargo Inspectors from the Agriculture Department, Customs and Immigration Officials.

Formalities take about 2 hours. Samples of cargo are taken for analysis.

The following documents are required:

7 copies Crew List.
4 copies Personal Effect Declaration.
4 copies Stores List.
4 copies Currency Declaration (Crew and Ship's cash).
2 copies List of Ports of Call.
2 copies Stowage Plan, Hatchwise Cargo.

On departure, the Customs Officials, who board the vessel for clearing purposes, are quite particular in checking the Currency Declaration against receipts of foreign currency exchanged by individual crew, and the balance remaining.

Restrictions: No restriction on night entry. Permissible drafts are as follows:

Berth No. 5: 12.50 m.
Berth No. 10: 11.50 m.
Berth No. 16: Forward 11.50 m., aft 11.80 m.
Berth No. 18: 11.50 m. (Evacuator discharge).
Berth No. 22: 11.80 m. (Evacuator discharge directly to Silo). Maximum length 275 m. (Vessel of this length was alongside Berth No. 5).

Pilotage: Pilots are fairly efficient and capable.

Radio/Communications: Very poor. To make an international call, 3 days prior booking is required. Radio Novorossiysk can connect to local numbers only.

Telex communication is possible. However, Agents appear rather reluctant to use this facility.

Agents operate on VHF Channel 67. Most of the time they answer after repeated attempts at calling them.

Berths: There are a number of shore cranes which are fairly modern. Crane operators are sufficiently efficient. All grain cargo is discharged directly into rail wagons, hence the discharge rate is directly related to the supply of wagons, each wagon is about 90 cu.m. capacity.

During the Summer season (July – September), the supply of wagons is less, as they are used for their own harvest season elsewhere in Russia. During our stay, supply of wagons was very poor. The average discharge rate for evacuator discharge can be about 8,000 tonnes/day, and grab discharge about 6,000 tonnes/day.

The berths are well fendered with bollards at 25 m. interval.

Agency: There are few private agencies in operation, and some others to be opened shortly. "Economou Shipping" and "Transflot" are in operation at present, and I understand that an Italian firm is bidding to open an agency soon.

Inflot Agency is the Government controlled agency and the most influential at present. Fortunately, we did not have any unusual requirements, so the need to use them beyond the normal port formalities did not arise.

Private surveying firms are also opening their offices at Novorossiysk, with foreigners manning them. The bunker survey was conducted by Inspection Services International, Head Office at Beluederegasse 2, 1040 Wein, Vienna, Austria. Tel: 505-3060. Fax: 505-3070. Telex: 113268 Isi A.

Stevedores: Directly under the Port Authority. The port is divided into 3 sections, Eastern, Central and Western, each with a Chief Foreman who is supposed to board the vessel daily. For grain vessels, it appeared the vessel had NO control over the number of gangs to employ, though the discharge sequence is controlled by the ship. The stevedores did a fairly good job of hold cleaning, leaving no sweepings behind. All holds were swept clean. Bob Cats, tyred bulldozers were used for final collection of cargo. All cargo, spilt on deck by grabs, was also swept and collected.

Outturn Report: An Outturn Report is given to the vessel daily, which states the total cargo discharged and the balance remaining onboard. It is important to sign this report as "for receipt only". We were fortunate to have this report quite well squared off eventually, but there was an occasion where the difference had accumulated to as much as 3,000 tonnes. As the final Outturn Report was not presented to the vessel prior to departure, the Agent was given a written authority to sign the same on our behalf, with this remark inserted: "Vessel is not responsible for any shortage of weight, as all cargo onboard was discharged into barges and wagons supplied by consignees, and neither the vessel's Officers nor the vessel's representative participated in reweighing of cargo ashore. All cargo discharged is in good condition and the quality and quantity as per Bills of Lading.

On completion of loading, the vessel's holds were sealed by a NCB surveyor. On arrival at this port, seals were found intact and were opened in the presence of Agent and various boarding officials, including Agriculture Department Officials. On completion of discharge, vessel's holds were empty and free of cargo".

Medical: The need to use their services did not occur. However, Cholera Vaccination could not be procured.

Density: At outer roads and at berth: 1008.

Fresh Water: Available by barge at U.S.$ 12.00/ton. There are no fresh water connections at the berths, and the supply is made through barge only. We procured 55 tonnes for cash payment of U.S.$ 100.00. Fresh water can be supplied at anchorages within Port Limits at the same price.

Repairs: There are floating dry docks. Vessels upto 100,000 d.w.t. can by dry docked. A fair amount of repairs could be carried out, subject to availability of spares, etc. All stevedore damage was attended to on completion of cargo, with each dock section having their own workshop and repair team dealing with their damage alone. However, the quality of work was rather shoddy and needed a thorough check by ship's staff.

Gangway Watchman: A border guard stands by the gangway at all times. Ship's crew have to deposit their Passport in exchange for a shore pass at the gangway. No outsiders can board the ship without proper documents/pass. Hence security onboard is fairly good.

Repatriation: This is possible. However, the Agents appear very reluctant to arrange repatriation. Two passport size photographs are required to get Exit Visa, which takes about 2 days. The nearest airport is Krasnadar, about 100 km. away, which is connected by a daily flight to Moscow. All ticketing is done through Aeroflot. The fare to Moscow is U.S.$ 100.00. However, at Moscow, one has to change from the Domestic to International Airport. At Moscow, it appears there is uncertainty of getting connections.

Ship Chandler: Only one ship chandler is available. Fresh provisions are available at reasonable price. Some meat products (chicken, pork and beef) are available.

Some dairy products, like longlife milk, cheese, etc., are imported from Italy.

It is possible to obtain bonded items, which again are imported from Italy. A cash discount is available on bonded items only.

All fresh provisions are obtained on a day to day basis. Some produce may be available on one day, and not be seen in the market for a few days.

AUTHORITY: The Port of Novorossiysk Authority, 14 Port Street, 353901 – Novorossiysk, Krasnodarsky Krai, Russia. *Tel:* 6-21-31 (Chief of the Port), 6-22-41, 6-25-16, 5-46-44 (Harbour Master). *FAX:* 62203. *Cables:* Morport Novorossiysk. *Contact:* Valeriy Bykov, Port Manager (Tel: 62131). Georgy Popov, Harbour Master (Tel: 62516).

AGENT: Economou International Shipping Agencies, 2 Mira Street, Off. 313, 353900 Novorossiysk, Russia. Tel: (7-86134) 50283. Telex: 279186 Ceco Ru. Fax: (7-86134) 54107.

ONEGA: 63.54 N. 38.06 E. (See Plan)

GENERAL: The port of Onega is situated on the right bank of the Onega River (3 – 4 miles up from the mouth), flowing into Onezhsky Bay off the White Sea.

Port open for navigation for about 6 – 7 months per year, starting from May. The port is closed for foreign flag vessels from 1st of September to 31st of December annually. In Autumn, when the river is covered with ice, assistance of ice-breaker is required but may not be rendered regularly.

Opening and closing of the port for navigation as well as turn and order of entering the port is usually regulated by the Port Authorities.

Changes of water level in the river depend on tide, spring floods and effects of the wind.

The tide is semi-diurnal with two high and two low waters a day. At the Onega river mouth the range of the tide at mean springs may reach 2.7 m.

The rises of the water level are due to North-Westerly, Northern and North-Easterly winds. The falls of the water level are usually caused by South-Easterly, Southerly and South-Westerly winds.

The Onega River becomes frozen over at the beginning of November. Ice begins to form in October and usually breaks up at the end of April or early May.

A vast area of shoal waters is situated at the mouth of the Onega River.

Access into the Onega River is by the Karelsky Fairway. Vessels drawing up to 6.1 m. may pass through it at high water.

Since depths in the river vary, Masters are recommended to get in touch with the Harbour Master to make enquiries about the existing least depth in the fairway before entering the river.

The port specialises in timber exports.

DOCUMENTS: Refer to beginning of the Russian section.

PILOTAGE: Compulsory. A Pilot should be ordered by the Master 24 hours prior to arrival at the Letny Orlov Pilot Station. A Pilot meets a vessel at a distance of 0.7 mile Westward of the Letny Orlov Point.

ANCHORAGES: Not more than 2 vessels drawing up to 4.5 m. can obtain anchorage in the Town Roadstead below the Severoles Wharf. The roadstead situated opposite Timber Mill No. 32 – 33 can be used as anchorage by vessels drawing up to 3.55 m.

During winds blowing from the N.W., vessels are recommended to anchor in the Petchak area of the Solovetskie Islands, with depths of 10 m. at 1 mile distance offshore.

During Southerly winds of Force 5-6, a safe anchorage with depths of 10 m. can be obtained in the Konyukhov Inlet, 1 mile offshore.

In case of North-Westerly storms, vessels lying on the Karelsky Roads should anchor in the Purnema area with depths from 6 m. to 10 m. where an anchorage light buoy is installed (Lat. 64° 20' N., Long. 37° 27' E.).

The recommended anchorages for vessels proceeding to the port of Onega along the fairway are situated in the following places:

1. On the line of the Town of Onega leading marks and on the beam line of the front mark of Pikhnemsky No. 2 leading line. Depths are from 3.7 m. – 4 m., the bottom – mud and small stone.
2. In the area of the Onega River, a short distance Northward of the town of Onega leading marks, opposite the Export quay. The least depth in the area is 4 m., its length – 700 m., the bottom is mud and small stone.
3. Southward of the Pristansky (Quays) leading line but not passing over the line of the Pristansky Sekushchy (Quays Crossing) leading marks to the Eastward of it. The depths are from 3 m. – 3.7 m., the holding ground – mud, small stone and stone.

RESTRICTIONS: Vessels having draft not more than 3 m. may enter port at any time, but with draft more than 3 m. only 1 hour before high water.

The speed of vessels having the maximum draft should not exceed 8 knots. The movement of vessels within the port area is not allowed during restricted visibility.

MAX. SIZE: The maximum permitted draft is usually announced at the beginning of the navigation season after sounding of the fairway has been accomplished. It varies from 4.0 m. – 5.8 m. Approach Channel – Depth 6.1 m. at H.W. Maximum permitted length is 125 m.

HEALTH: Alongside or on the Roads all vessels coming from abroad inspected by Sanitary Office representative. If no diseases, vessel obtains Free Pratique. If vessel enters directly after calling at another Russian port, Pratique automatic.

RADIO/VHF: Besides Murmansk and Archangel, Onega Radio (UZS), 500 kHz; VHF of pilot office at port of Onega (Channel 16).

Vessels can establish radio contact through the port radio station Onega Radio operating 24 hours a day on the following frequencies:

Call Sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans- mission*	*Time of work*	*Remarks*
UZS	500/441	500/425	A1A	H24	
"Onega-2" (Port controller)	156.7(14)	156.8*(16)	F3E	H24	Operates during navigation
"Onega-5"	156.45*(9)	156.45*(9)	F3E	H24	Operates
(Harbour Master)	156.8*(16)	156.8*(16)	F3E	H24	during navigation

*Frequencies are given in MHz.

The Onega Storm Signals Station is located on the roof of the Harbour Master's office. Day signals warning about forthcoming storms and strong winds in the Onega Bay area are exhibited at mast of the signal station.

TUGS: The number of tugs required for mooring/unmooring and shifting berths is determined by the Master after having consulted the Pilot. Tugs should be ordered 6 hours prior to leaving the port for sea.

BERTHING: Depths at the port berths are up to 6.5 m. There are enclosed warehouses and open concrete floor sheds. Loading of timber usually by ship's gear.

STEVEDORES: No particular ETA advices to stevedores/shippers. Loading of timber usually carried out by ship's winches at average rate of 275 cbm per hatch per weather working day.

MEDICAL: Doctor and hospital facilities available.

FRESH WATER: Available. Usually delivered by tug.

FUEL: Availability not guaranteed.

REPAIRS: Small repairs only.

GANGWAY/DECK WATCHMEN: Usually by ship's crew.

OPENING/CLOSING HATCHES: In accordance with "Soviet Wood" Charter-Party conditions.

CUSTOMS ALLOWANCES: No restriction on quantity, but nothing to be taken ashore.

REPATRIATION: Subject to visa formalities.

AIRPORT: Nearest at Archangel.

TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.

HOLIDAYS: See "Archangel".

SHORE LEAVE: Allowed up to midnight.

IDENTIFICATION CARDS: Only Seamen's Books required.

AUTHORITY: The Port of Onega Authority, Kirova Street 107, 164880 Onega, Archangel Region, Russia. *Tel:* 2-21-33 (Harbour Master); 2-24-91 (Port Controller); 2-21-51 (Chief of the Port). *Cables:* Morport Onega. *Contact:* Vladimir Malygin, Harbour Master.

AGENT: A branch of the Port of Archangel, Main Maritime Agency "Inflot" at the port of Onega. Postal address: 164880 – The Port of Onega – Archangel Region, Russia. Cables: "Inflot Onega". Tel: Timber Mill Switchboard 33-33, "Inflot".

ST.PETERSBURG: 59.53 N. 30.13 E. (See Plan)

GENERAL: A Baltic Sea port, St.Petersburg is situated on the islands of the Neva Delta, at the head of the Nevskaya Guba (Neva Bay), in the Eastern extremity of the Gulf of Finland. Year-round navigation is possible with ice-breaker assistance from the end of November until middle of April. Ice first begins to form in the middle of November, when usual Winter frosts come, and in January (time varies with the season) all the area becomes completely covered with fast ice.

DOCUMENTS: Refer to beginning of Russian section.

APPROACHES: The Kronstadt Korabelny Farvater (Kronstadt Ship's Channel) which is about 12 miles in length, extends from the port of St.Petersburg Entrance light buoy to the St.Petersburg Morskoi Canal, which is about 15 miles in length, and leads to the entrance of the sea commercial port of St.Petersburg. The least bottom width of about 80 m. is in the part of the Canal which is protected by 2 dams (moles).

DEEP SEA PILOTAGE: See "Baltic Deep Sea Pilotage".

PILOTAGE: Pilots usually board and disembark vessels at the port of St.Petersburg approaching light buoy (Lat. 60° 02' N., Long. 29° 26' E.). In case of bad weather a vessel should follow the pilot boat up to the Kronstadt Roads where a Pilot will come aboard the ship.

St.Petersburg pilot boat on VHF Channel 16 and 9 throughout 24 hours. Call sign "St.Petersburg Pilot".

There is a Port Coastal Radar Vessels' Movement Control System ensuring vessels' radar pilotage along the Kronstadt Korabelny Fairway and the St.Petersburg Morskoi Canal in case of low visibility and during absence of floating navigational marks. Radar pilotage is carried out by a Pilot on board a vessel.

St.Petersburg Deep-Sea Pilot Services: Licensed Pilots are always available 24 hours a day, 365 days a year, for safe navigation in Baltic waters.

All Pilots are highly qualified, reliable and experienced Ice-Pilots. To obtain a Pilot send a telegram or telex to Agent.

ANCHORAGES: Vessels approaching the port from seaward should take anchorage off the port of St.Petersburg Entrance Light Buoy. The depths in the Roads are between 20 m. – 25 m. and the holding ground is mud and sand.

Vessels anchored at Outer Roads and berthed in the port are requested not to operate VHF on Channels 6, 8, 9, 11, 12, 13, 14 or 26 for intership communications.

RESTRICTIONS: No restrictions on night entry, no tide in St.Petersburg. Vessels with drafts 8.5 m. and more, and length 170 m. and more, must be towed when proceeding in the St.Petersburg Morskoi Channel from the Lesnoi Mole Roads (Timber Mole Roads) up to the Neva Gates.

All vessels navigating within the port must keep strictly to the following regulations:

(a) Vessel's speed should not exceed 10 knots when navigating in the Kronstadt Korabelny Farvater and in the open part of the St.Petersburg Morskoi Canal (from the entrance up to the moles).

(b) When navigating in the channel between the moles of the St.Petersburg Morskoi Canal as well as in the Bolshaya Neva River from the Neva Gates up to Lieutenant Schmidt Bridge and also in the Ekateringofka River, vessels speed should not exceed 3 knots.

(c) In the Inner Roads and in the port harbours, Masters should navigate with a speed ensuring the safety of vessel but never exceeding 3 knots.

MAX. SIZE: Draft restriction 11.0 m. in fresh water under normal weather conditions. Length not over 260 m. Breadth up to 40 m.

HEALTH: Master coming from foreign port shall report every sick passenger or crewman; Health Authorities board together with Customs and Immigration and if find all in order grant Free Pratique. Each vessel shall produce Derat Certificate and Sanitary Patent.

RADIO: Cable Agent ETA, draft and other data, information required via St.Petersburg Radio Station (call sign URD). All vessels when approaching the port of St.Petersburg should establish radio contact via the St.Petersburg Coastal Radio Station operating 24 hours a day on the following frequencies:

Call sign	*Frequencies (kHz)*		*Type of transmission*	*Time of work*
	Working	*Calling*		
"Sanct Petersburg-Radio"	2182	2182	J3E	H24
"Sanct Petersburg-Radio"	156.8*(16)	156.8*(16)	F3E	H24
(CPR)**	161.9*(26)	157.3*(26)	F3E	H24
"Sanct Petersburg-Radio"	156.8*(16)	156.8*(16)	F3E	H24
(Vessels' movement control post)	156.45*(9)	156.45*(9)	F3E	H24

*Frequencies are given in MHz.

**CPR – Central Port Radio Station.

Note: Emergency calls with regard to collisions, fire on board and dangers to human life may be given on VHF Channel 9. Call sign of Traffic Controller is "St.Petersburg Port Control".

Port radar station gives all possible information to any vessel navigating in the Kronstadt Korabelny Farvater and St.Petersburg Morskoi Canal during restricted visibility, from the St.Petersburg Entrance Light Buoy (Lat. 60° 02' N., Long. 29° 26' E.) up to the dams (moles) of the St.Petersburg Morskoi Canal. Navigation is usually controlled by a Pilot on board the vessel.

Signals for vessels approaching the entrance to the Commercial Port of St.Petersburg from seaward are hoisted at the pilot vessel.

Traffic prohibition signals, when the pilot vessel is absent from her usual position may be exhibited at a vessel specially designated for this purpose.

RADAR: Pilot in contact with radar service. Also see "Radio".

TUGS: Tugs up to 5,000 h.p. are available. Normally join incoming vessels at Inner Road. Ship's lines usually used.

The number of tugs a Master should order for inward and outward towage as well as for shifting berths in the harbour depends on Pilot's advice.

BERTHING: There are more than 50 berths, used for loading, discharging and waiting in the port. Total length of quays is more than 8.0 km., project depths alongside the working berths are from 8.1 m. up to 11.0 m.

Almost all berths have railway alongside the quay.

There are 4 cargo regions and 1 handling complex in the port, which can handle bulk, general, unitised, refrigerated and forest product cargoes.

The leading import commodities are: Cereal and raw sugar in bulk, containers, coffee in bags, steel, machinery, equipment, refrigerated fruits and meat.

The main export cargoes are: Steel, non-ferrous metal, containers, round timber, coal and fertilisers.

Note: Cereals, raw sugar, ore, fertilisers in bulk and also refrigerated cargoes are transferred direct from ship to rail wagons. There is no storage for these cargoes in the port.

Marine passenger terminal, situated on Vasiliyevsky Island, belongs to the Baltic Shipping Company. Sometimes passenger vessels can moor at the port berth.

Storage: Warehouses and concreted open storage areas are available.

Total storage area is about 54.0 ha., closed storage area 8.8 ha. and open storage area 45.2 ha.

CRANES: Multi-purpose gantry cranes capacity 6 tons – 40 tons (more than 100 units). Floating cranes capacity 15 tons, 100 tons, 300 tons (3 units).

Note: Floating crane capacity 350 tons belongs to the shipbuilding yard and can be used in case of necessity.

Forklifts with capacity 1 ton – 10 tons (more than 600 units).

BULK CARGO FACILITIES: For cereals: Mobile pneumatic machine "Noero" (about 15 units). Pneumatic cereal unloader at berth "Hartmann" (6 units) with rate of 300 t.p.h. can discharge cargo at 2 berths.

Gantry crane with grabs 3.0 cu.m. – 7.0 cu.m.

Raw sugar, coal, fertilisers, ore can be handled with cranes and grabs.

Bucket loaders with capacity 0.6 tons – 3.5 tons (more than 40 units).

CONTAINER FACILITIES: Container crane with capacity 30.5 tons (8 units) – 4 for ships and 4 for wagons.

Straddle carriers with capacity 30.5 tons – 35.0 tons (12 units) and forklift trucks with capacity 16 tons – 25 tons (20 units).

Stuffing/stripping is possible with forklift trucks with capacity 1.5 tons – 2.0 tons.

Note: No electric points for reefer containers available.

RO-RO FACILITIES: About 10 berths can be used for Ro-Ro vessels. Four of these berths are equipped with ramps. Terminal tractors "Sisu", "Terberg" (25 units) and wheel tractors (40 units) can be used for transporting.

TIDE: Considerable rises of water level may be caused by strong Westerly winds – and falls by Easterly winds. Usually the changes in water level are greater during the Autumn and Winter months. During Autumn and Winter the range of level may reach 1.2 m. from the MWL and sometimes even more.

During Spring and Summer it is never more than 0.5 m. The greatest rises in the water level are observed in the Neva Bay. The extreme difference in level between the maximum rise and the minimum fall of these seasonal changes observed is about 3.5 m. At the mouth of the Neva River the greatest changes in the water level are caused by the S.W. Autumn gales. The difference in level usually reaches 0.2 m. – 0.3 m. and only sometimes up to 1 m.

STEVEDORES: Ordered by Agent.

MEDICAL: Masters to advise Agent prior arrival if medical attendance required aboard.

TANKERS: Report: 1994.

Tankers up to 15,000 tonnes d.w.t. handled at Berth No. 112. Max. draft 9.6 m. 6 tanks of 3,000 tonnes each for gas oil, and 4 tanks of 2,500 tonnes capacity for fuel oil. Pumping rate per hose 300 cu.m./hr. through 12 in. line.

DENSITY: Fresh water in port area.

FRESH WATER: Most berths supplied by shore installations, otherwise barges. Also available at Outer Roads Anchorage.

FUEL: Bunkers available, usually delivered by lighters.

FIRE PRECAUTIONS: No smoking allowed in port area, except in places specially allocated.

CONSULS: Consulates of the following countries are situated in St.Petersburg: Bulgaria, China, Cuba, Czech Rep., Finland, France, Germany, Hungary, Italy, Japan, Netherlands, Poland, South Africa, Sweden, U.K. and U.S.A.

DRY DOCKS: *Floating Docks:*

No.	*Length* (m.)	*Depth* (m.)	d.w.t.
1	130	6.2	6,000
2	90	6.2	4,000
3	140	6.2	8,000
4	168.5	6.2	15,000

SURVEYORS: 1. There are independent maritime surveyors Joint Stock Company "Morservice" performing all kinds of surveyor works and tallying of cargoes. Tel: 251-06-46 (24 hours), or by Telex via Agent.

2. There is an Inspector of the Shipping Register of Russia.

REPAIRS: All types of repairs for vessels of up to 20,000 d.w.t. can be carried out in the port.

GANGWAY/DECK WATCHMEN: Not compulsory.

OPENING/CLOSING HATCHES: According to charter party.

CERTIFICATES:

Passenger Ship Safety.
Safety Equipment.
Safety Radiotelephony.
Safety Radiotelegraphy.
Exemption Certificate.

CUSTOMS ALLOWANCES: No restrictions on board.

TIME: GMT plus 3 hours in Summertime from last Sunday in March until last Saturday before last Sunday in September.

HOLIDAYS: 1st January; 2nd January; 7th January; 8th March; 1st, 2nd and 9th May; 12th June; 7th November.

POLICE/FIRE/AMBULANCE: Police 9692; First-Aid from Port 503; from Town 03; Port Fire 8509, 8536, 8973; Town Fire 01.

EMERGENCY CO-ORDINATION CENTRE: Contact Agent or St.Petersburg Radio Station on the VHF Channel 16 and 26.

STORING: See "Prelims".

1. Vessels may be stored by barge or truck.
2. No restrictions.
3. Trucks may proceed alongside.
4. Forklift trucks may be used.
5. No exceptions from Russian laws.
6. As a rule riggers are available.

IDENTIFICATION CARDS: Needed, will be given on arrival.

GARBAGE DISPOSAL: The collection of garbage is effectuated by Environment Protection Department. Tel: 114-90-92. Application is via Agent.

WASTE OIL DISPOSAL: The collection of waste oil is effectuated by special types of ships. These ships deliver waste oil to port's oil station. Application is via Agent.

SEAMAN'S CLUBS: There is an International Seaman's Club. Tel: 216-40-44. There is also the House of Friendship. Tel: 216-96-88.

CURRENCY: Local currency is the Rouble.

AUTHORITY: Sea Port of St.Petersburg Ltd., Mezhevoi Kanal 5, St.Petersburg 198035, Russia. *Tel:* 251-02-90. Timber Port: 114-97-75. *Telex:* 621101. *FAX:* 1868544. *Cables:* Seaport St.Petersburg. *Contact:* Anatoly P. Bilichenko, General Manager. Captain F.Podanev, Harbour Master.

AGENT: Economou International Shipping Agencies, 16 Dvinskaya Street, Building 2, 198035 St.Petersburg, Russia. Tel: (7-812) 2590956. Telex: 621032 Ceco Ru. Fax: (7-812) 1140687.

SOCHI: 43.35 N. 39.43 E. (See Plan)

GENERAL: The Port of Sochi is an ice-free port, situated at the mouth of the Sochi River, S.E. of the Uch-Dere Point, in the Eastern part of the Black Sea.

The port is protected by the Caucasian chain of mountains from cold N.E. winds but it is open to winds blowing from Southerly and Westerly directions when heavy waves may roll over the port moles causing heavy swell in the harbour.

The port mostly handles passenger traffic.

There are passenger terminals, one of which serves hydrofoil ships only. About 3 million passengers visit the port yearly.

A cargo pier is equipped to handle fruit, building materials and cars. There are enclosed warehouses on the cargo pier and on one of the passenger terminals.

DOCUMENTS: Upon arrival, the Master is to submit to representatives of the Port Authorities the following documents: All Ship's Certificates, Ship's Plan, Last Port Clearance, Official Master's Declaration confirming complete absence on board of any stowaways, narcotics, weapons.

The following clear and accurate documents (IMO FAL Forms) duly signed by the Master shall also be provided:

On Arrival:

2 copies General Declaration (Form 1).
2 copies Cargo Declaration (Form 2).
2 copies Ship's Stores Declaration (Form 3).
8 copies Crew List (Form 5).
4 copies Passenger List (Form 6).
2 copies Crew Personal Effects Declaration.
2 copies List of Monies in vessel's safe.
1 copy Maritime Declaration of Health.
2 copies Bill of Lading.
4 copies Cargo Manifest.
2 copies Cargo Stowage Plan.
2 copies Check List for Cargo Operations (Prepared by the Port).

For all foodstuffs and vegetables cargoes additional:

2 copies Certificate of Origin.
2 copies Veterinary Certificate.
2 copies Phytoquarantine Certificate.

Upon Sailing:

1 copy Special Master's letter to the Harbour Master concerning the vessel's stability and the vessel's readiness to put out to sea (The blank form is prepared by the Port).
4 copies Bill of Lading.
4 copies Cargo Manifest.
2 copies Cargo Declaration.
1 copy Crew List.
1 copy Crew's Personal Effects Declaration.
3 copies Passenger List.
1 copy Ship's Stores Declaration.

The Master Must:

1. Before entering the port and before sailing from the port arrange careful examination of all parts of his vessel to find any stowaways or strangers on board, who are not included in the Crew List or Passenger List.
2. On arrival and before sailing grant to the representatives of the Port Authorities, duly signed by the Master, the Official Master's Declaration certifying complete absence of any stowaways, weapons, arms, guns, narcotics and any kind of contraband or smuggling.
3. From mooring until unmooring, provide a compulsory gangway/deck watch to control all ship's visitors.

If any direct violation of these demands occurs, the Master and all crew may lose the right to go ashore and/or vessel could be seriously fined.

Also see "General" before first port.

PILOTAGE: Pilotage is compulsory for all foreign vessels, entering and leaving, as well as when mooring, unmooring or shifting berth.

A Pilot should be ordered on VHF Channel 16 through "Inflot Sochi" on arrival.

The pilot boat or the tug usually meets a vessel at a distance of about 1 mile from the breakwater in daytime. In the event of bad weather or restricted visibility, vessel should anchor or drift at a safe distance from the port, until Pilot arrives. Pilotage may occasionally be carried out by leader method.

According to the Merchant Shipping Code of the Russia, the Master shall be obliged to pay a fine in an amount of double the rate due as pilotage fee for incorrectly declaring the draft, length, breadth or depth of the vessel, irrespective of the liability established by law for the consequences which may occur, as a result of incorrect information.

ANCHORAGE: Vessels only anchor under instructions of Sochi Control Post (VHF "Sochi-5").

Anchorage No. 1:	Lat. 43° 34.8' N.,	Long. 39° 42.6' E.
Anchorage No. 2:	Lat. 43° 35.0' N.,	Long. 39° 42.2' E.
Anchorage No. 3:	Lat. 43° 35.0' N.,	Long. 39° 40.6' E.
Anchorage No. 4:	Lat. 43° 34.2' N.,	Long. 39° 41.7' E.

The depths are 11 m. – 12 m.

Anchorage outside of these limits is prohibited. The bottom is mud with sand, and small stones closer to the shore.

No boats or rafts shall be launched and no swimming is allowed.

Any swimmers must not be allowed to come on board of a ship.

It is prohibited to change a vessel's anchorage by drifting. Masters of all vessels when at anchor are not allowed to move without the Authorities' consent (except in emergency), to give anybody permission to come alongside in a private launch or a small rowing boat (whether under oars or sail) to board the vessel.

RESTRICTIONS/MAX. SIZE: There are no time restrictions for entry into the port, but the Port Authorities recommend mooring of foreign vessels in daytime only.

During stormy weather, when entry into the port is difficult due to the swell caused by heavy waves in the approach and in the narrow entrance to the port, and in the event of heavy surf, vessels must anchor in the outer roads, as entry into the port is impossible.

Entry into the port is not allowed with heavy waves over 1.25 m. high and winds over 14 m./sec.

During the Autumn-Winter period, the Port of Sochi cannot be used as a shelter port, because lying in the port is dangerous due to the strong variable current ("Tyagun") usually caused by gales blowing between S.E. and N.W. Under these circumstances, the Port Authorities cannot guarantee safety to a vessel which, after having received a storm warning, does not go to sea, and bears no responsibility for the consequences.

No shore connection is allowed to a vessel until Free Pratique is obtained.

No vessel is to get under way without having obtained Port Clearance and the permission of the Harbour Master.

The maximum ship's sizes permitted to enter are:

Pier	*Length* (m.)	*Draft* (m.)	*Breadth* (m.)
1 and 2	190	7.5	25
13	120	6.5	15

The Harbour Master may not allow a vessel to leave the port if:

1. The Cargo Loading Regulations have not been fulfilled, i.e. a vessel is considered overloaded or wrongly loaded in case:
   (a) A vessel's load lines corresponding to the maximum draft to which she should have been loaded are under water without any list.
   (b) The cargoes loaded in the hold and/or on deck have not been secured in a proper manner or have not been secured at all.
   (c) A vessel has a bad list (exceeding 5°) caused by faulty loading or her stability does not correspond with the ship's documents.
   (d) A vessel loaded with bulk or liquid cargoes has not used the necessary materials or accommodation to prevent the cargoes from shifting or overflowing in case of vessel's pitching and rolling.
   (e) The deck cargo is considered a danger to the safety of a vessel and to the safety of life onboard caused by faulty loading.
   (f) The corresponding regulations for loading of dangerous cargoes or cattle to be carried by vessel have been broken.
   (g) Other loading regulations have not been followed in the course loading.
2. Under other circumstances which may cause a danger to the safety of a vessel and to the safety of life onboard, as well as when the ship's documentation regulations have been infringed.
3. When the port dues, tolls and fines have not been paid.

Disbursement account is calculated strictly according to the port's tariffs without any other supporting vouchers or documents attached and covering D/A.

All expenses, which may occur due to a vessel's possible delay in the port in connection with the reasons stated above, are to be for the Owner's account only.

HEALTH: Free Pratique is granted after port formalities when alongside or at anchorage, if weather permits.

Sanitary and Quarantine Requirements: It is prohibited by law to contaminate the inner and territorial waters of Russia with any kind of substances which are considered to be unhealthy for people or harmful to live resources of the sea. It is also strictly prohibited to discharge into the sea any oil, fecal, washing waters and residues; rubbish or waste foodstuff.

Not later than 48 hours before arrival, Masters of all vessels coming from foreign countries to Russian ports shall advise Quarantine Authorities by radio through "Inflot Agency" giving full details of health conditions onboard, as well as sanitary conditions at the last port of call. If no sick persons onboard, cable "Answers six health questions no".

Veterinary Certificates of Good Health are required for the livestock, all kinds of meat, animal food and raw meat stuff brought to Russian ports from abroad. Certificates should be issued by the proper Authorities of the country from which the cargoes have been exported. Master should have a Phytoquarantine Certificate for the goods of vegetable nature.

It is prohibited to take ashore fruits, vegetables, grain seeds, plants, plant products, etc., without a certificate issued by a local branch of the Russia Agricultureal Quarantine Inspection; animals and birds are also not allowed to be brought ashore without getting permission from the Veterinary Authorities.

RADIO/VHF: Vessels can establish ship-shore radio contact through the port radio station Sochi Radio, operating 24 hours a day on the following frequencies:

Call Sign	*Frequencies (kHz)* *Calling*	*Working*	*Type of trans-mission*	*Working hours*	*Range Miles*
"UGA-9"	500	500	A1A	0000-2400	600
"Sochi-Radio"	2310	2310	H3E	0700-1900	200
VHF "Sochi-2"	16	12,14	F3E	0000-2400	10
VHF "Sochi-5"	16	9,12,14	F3E	0000-2400	10
VHF "Inflot-Sochi"	16	10,6	F3E	0900-1600	5

Whilst at anchor in the roads, all vessels should keep a continuous watch on VHF Channel 16.

Notices:

12 days prior to arrival, it is necessary to inform Inflot through Telex No. 191121 Flot Ru the following:

Ship's Name, Flag, G.R.T., N.R.T., LOA, Breadth, Depth, Draft, Number of Decks, Last Port of Call, Nature of Cargo and Total Quantity, Shippers/Consignees' full Names and Telephone Numbers at Sochi, ETA Sochi.

3 days prior to arrival: ETA and words "Answers six health questions no".

48/24 hours, Master's and/or Owner's ETA and radio notices are compulsory.

As a general Custom of the Port, the Notice of Readiness is usually accepted at a moment when Free Pratique is granted, and the ship is in all respects ready to discharge or load the cargo.

TUGS: Tug's assistance is compulsory for all foreign vessels and for all Russian vessels with length over 50 m. and G.R.T. over 300 tons. Tugs are operated by the Pilot, same price irrespective of one or two tugs used.

BERTHING: A vessel intending to enter port with tug assistance should keep the Sochi mid-channel leading marks (176.8° – 356.8°) in line ahead and stop the main engines in due time to allow vessel to come to the state of "no motion" at a distance of 1 mile from the port entrance. Only under these conditions is a tug allowed to approach a vessel and receive or cast-off the tow rope if any. Shifting berth is allowed during winds not exceeding Force 5 Beaufort Scale.

Cargo Berth No. 13: There are 2 portal cranes of up to 10 tons lifting capacity, forklifts and other cargo handling equipment.

CRANES: See "Berthing".

FRESH WATER: Can be supplied by pipelines at every berth. Cost U.S.$ 6.00/tonne.

FUEL: Not available.

CONSULS: None.

REPAIRS: Not available.

HATCHES: Opening and closing of hatches is carried out by the crew with Authorities' permission only.

CUSTOMS ALLOWANCES: No limits on quantities, but nothing allowed to be taken ashore, as per Russian Custom House Regulations.

REPATRIATION: No facilities exist for effecting crew changes.

TIME: GMT plus 3 hours. GMT plus 4 hours in Summer (Last Sunday in March until last Sunday in October).

HOLIDAYS: January 1st, 2nd and 3rd; March 8th; May 9th; June 12th and November 7th.

SHORE LEAVE: After clearing inwards, crew members are allowed to go ashore without any special permission with Seaman's Passport only.

GENERAL: *Pollution:* Pollution of any kind must be avoided by all means.

Any oil spills must immediately be reported to the Port Authorities and to the Agent. Any oil spot or slick noticed on the sea surface near your vessel should also be immediately reported to the Port Authorities and entered in ship's Log Book, which should be kept up-to-date and ready for inspection.

The penalty for pollution, littering or throwing of rubbish onto quay or into sea incur a heavy fine, detention or lien on the vessel. All expenses which may be occurred therefrom are to be for the Owner's account only.

AUTHORITY: Maritime Administration of the Port of Sochi, 1 Voykova Street, Sochi, Russia 354000. *Tel:* (8622) 99-95-90, 99-66-366. *Telex:* 191121 Flot Ru. *FAX:* (8622) 99-95-90.

Commercial Port: 1 Voykova Street, Sochi, Russia 354000. *Tel:* (8622) 92-22-71, 99-66-364. *Telex:* 191121 Flot Ru. *FAX:* (8622) 92-68-63. *Contact:* Petr T. Manushin, Head Master of Maritime Administration. Ivan L. Lyutikh, Harbour Master. David M. Stoupelman, Port Director.

AGENT: Independent private Maritime Agency "Inflot-Sochi" Ltd., 1 Voykova Street, Sochi, Russia 354000. Cables "Inflot Sochi". Tel: (8622) 92-30-29, 99-66-272. Telex: 191121 Flot Ru. FAX: (8622) 92-30-29.

TUAPSE: 44.06 N. 39.04 E. (See Plan)

The port of Tuapse is situated between the mouths of rivers Tuapse and Pauk and the depths of 40 m. Year round navigation.

DOCUMENTS: Refer to beginning of Russian section.

PILOTAGE: Compulsory in and out, possible at any time. Vessels await Pilot at anchorage. Pilots board and leave vessels in the Outer Roads behind the Pervomaisky Breakwater if the sea (swell) up to Force 4. When leaving harbour during bad weather Pilot leaves vessels in the Inner Roads. Communication with Pilots on VHF Channel 6.

ANCHORAGES: Depths 13 m. – 22 m. Position of anchorage, bearing to the entrance red light and distance is radioed by Harbour Master through Agent to each vessel prior to arrival (unless berth available). When at anchor, vessel shall keep VHF watch on VHF Channel 16.

MAX. SIZE: See "Berthing".

HEALTH: Sanitary Officer boards on arrival or when berthed. No automatic Free Pratique. In the event of fever or any suspected epidemic disease onboard Masters shall inform the sanitary service immediately on arrival.

RADIO/VHF: Radio communication can be effected through the port radio station "Tuapse-Radio".

Station	*Call Sign*	*Channel*
Port Controller	Tuapse 1	16, 1
Port Dispatcher	Tuapse 2	14
Port Control		9
Pilots		6

All movements in the port area require permission from the Port Director. Such permission for small vessels expires after 15 minutes and should be renewed.

Arrival Advice: Masters shall send 96/72/48 and 24 hours' ETA notices to Agent, advising also quantity of ballast onboard and time required for deballasting ashore. Masters shall also advise quantity and grade of cargo, stowage plan, LOA and maximum draft, number of passengers, health condition of crew.

TUGS: Tugs are compulsory for berthing/unberthing or shifting, as well as when lying at inner anchorage. Tugs normally join vessels at the buoy marking the Pervomaisky breakwater. Ship's lines to be used.

MEDICAL: First medical aid at any time; hospital facilities available.

TANKERS: Report: 1994.

Terminals: Crude Oil Terminal. Tel: (86261) 21342.
Products Terminal. Tel: (86261) 22551/75330/75321.
Oil Refinery. Tel: (86261) 23615.
Oil Terminal. Tel: (86261) 71294.

Shore tanks:

Product	No. of Tanks	Total Capacity (tonnes)
Gas Oil	16	56,000
Kero	4	17,690
Naphtha	6	18,000
Fuel Oil	3	7,500
Crude Oil	7	51,100
(Crude tanks are concrete underground tanks).		
A-76	4	14,000
Kerosene	5	20,000
Dirty ballast tanks available.		
Under construction	4	

Shore lines:

Product	Shore lines No.	Diameter (mm.)
Gas Oil	2	500
Kero	1	500
Naphtha	1	400
Fuel Oil	1	400
	1	500
Crude Oil	1	1,000

Length varies from 1.5 km. to 2.8 km.

Berthing:

Berth No.	Length (m.)	Max. Draft (m.)	Products handled	Loading Rate (tonnes/hr.)	Shore Connection (in.)
1	230	12.0	Fuel Oil	700	10
			Gas Oil	1,050	
			Crude Oil	1,200/2,400 (1 or 2 lines)	
2	170	11.2	Fuel Oil	700	10
			Gas Oil	1,050	
			Crude Oil	1,200/2,400 (1 or 2 lines)	
3	186	9.75	Naphtha	750	10
			A-76	600	
			Kero	1,200	
			Fuel Oil	850	
			Gas Oil	850/1,730 (1 or 2 lines)	
4	186	11.5	All Products/Crude Oil (Out of Service).		
5	200	12.0	Kero	1,200	10
			Gas Oil	850/1,730 (1 or 2 lines)	
			Naphtha	750	
			Fuel Oil	850	
6	165	9.75	Gas Oil	1,500	10
			Kero	1,200	
			Naphtha	750	
			Fuel Oil	850	

DENSITY: 1011/1015.

FRESH WATER: Available from any berth, road delivery not possible.

FUEL: Fuel oil and gasoil available at oil berths or ex-lighters. Masters giving 72 hours' notice.

FIRE PRECAUTIONS: Conventional rules for oil ports.

CONSULS: None.

REPAIRS: Emergency repairs. Floating docks subject to special arrangement.

BERTHING: At any time with winds up to Force 7. The port consists of 2 harbours, with 3 berths for dry-cargo ships (max. draft 12 m. (brackish water), LOA up to 220 m.) and 6 berths in the oil harbour for tankers (max. draft 12 m. (brackish water) LOA up to 235 m.). Oil harbour, shore cargo manifolds diameter 250/400 mm. All dry-cargo berths are equipped with portal cranes of 10-32 tons capacity. Loading/unloading usually by shore cranes. The port is not sheltered for vessels during strong S.E./S.W. winds. During strong gales from these directions lying in port is dangerous due to strong swell, especially the one called "tyagun". In this event vessels must leave harbour when recommended by the Port Authority. When lying in port the main engines shall not be immobilised without special permission by Harbour Master.

SURVEYORS: Leading world classification societies are represented by the Register of Russia. Saybolt have office in Tuapse.

POLLUTION: Marine pollution shall be avoided by all means, specially due to proximity of health resort area. Any pollution is subject to heavy fines.

OPENING/CLOSING HATCHES: Normally by crew.

GANGWAY/DECK WATCHMEN: Not required. Gangways shall be lighted up and protected by nets.

CUSTOMS ALLOWANCES: No restrictions. Export/import of state currency is forbidden.

REPATRIATION: Possible in emergency.

AIRPORT: Sochi – 120 km. Served by regular airlines.

TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.

HOLIDAYS: 1st January, 8th March, 1st, 2nd May, 9th May, 7th October, 7th and 8th November. Work during holidays can be arranged.

FIRE/AMBULANCE/POLICE: Telephones: Fire – 301; Fire-boat – 231; Ambulance – 003; Militia (Police) – 002. *Office Hours:* 0800 – 1700 hrs. (Monday to Friday).

TELEPHONES: Available for all vessels.

SERVICES: Compass adjusting, radar and radio repairs, gyro compass repairs, lubricants, paints and chemicals of Mobil, Castrol, Esso, Elf-Aquitaine, Rochem and Perolin Unitor also spares for Sulzer, M.A.N. and Burmeister and Wain engines also for Magnavox Satellite Navigators available from consignment centre of Novorossiysk (Tel: 62897. Telex: 279113/412629). Deliveries made with 3 days prior notice to Agent.

SHORE LEAVE: Crew allowed ashore.

IDENTIFICATION CARDS: Seaman's Books are sufficient.

NOTICES:

Brief Information for Masters:

ETA: ETA messages shall also contain quantity of ballast and time for deballasting ashore.

Anchorage: Anchorage position is obtained from Agent prior to arrival, if no immediate berthing is expected. No boats, rafts or other objects shall be launched from vessels. No swimming is allowed.

Bad Weather: S.W. gales develop heavy swell in harbour and vessels may be recommended to leave berth. Main engine shall not be immobilised when alongside berth without Harbour Master's permission. If permitted a tug-boat shall be hired to stand-by.

Bunkers: Small quantities of gas oil and IFO available ex-barge.

Free Pratique: Free Pratique will be granted after Custom's and other formalities are completed, which are normally carried out at all times when alongside berth, otherwise in day time at anchorage, weather permitting.

Fresh Water: Available ex-cargo berths only.

Garbage and Wastes: Any garbage, food wastes, etc. should be collected by crew into special containers placed on board each vessel by a boat upon arrival. Landing of garbage is compulsory.

Launch: Launch for crew at Master's request between 0800 hrs. and 2400 hrs., subject to availability of boats, weather permitting.

Meat Rooms: Meat rooms on board shall be sealed by the Vet Inspector during Custom's visit upon arrival in roads or upon berthing and the seal should not be removed before sailing. Meat of Russian origin is allowed for use.

Pollution: Oil spillage must be avoided. In case of a spill, all operations must be stopped immediately and the accident reported to the Port Authority and your Agent at once. Any oil spot or slick noticed on the sea surface near your vessel should also be immediately reported to your Agent and entered in the log.

All outboard sea valves should be locked up upon arrival in Russian territorial waters and kept securely closed until sailing. Port seals may be placed on the said valves after docking.

Oil Record Book should be kept up to date and always ready for inspection by Port Authority or Pollution Control.

Radio: Transmission on any frequency to any station except Tuapse Port Radio is not allowed within 12 mile limit. VHF Channel 16 is to be monitored continuously while in roads. This Channel shall be used for calling only. Channels 1, 3, 6, 8, 9, 12, 14, 26 and 27 shall not be used by vessels for ship-to-ship communication.

Steel Ropes: Steel ropes are not allowed when mooring in the Oil Harbour. All mooring lines shall be kept tight at all times.

Salinity: The sea water in harbour is brackish (salinity 1.011–1.014).

Sick Crew: Seamen with fever and symptoms of infectious disease should be reported to Port Sanitary Doctor on ship's arrival and without delay.

Duty Free: Shop is run by Shipchandler and is open 0800 – 1200 hrs., 1300 – 1700 hrs., Monday through Friday (Tel: 398).

Smoke: Emission of smoke from funnel in harbour is prohibited.

Smoking: No smoking is allowed on all decks when alongside at oil berth or when bunkering from a barge.

Telephone: Shore telephone set will be placed on board for fire-safety and business only when alongside a berth.

Useful Phone Nos.: "Inflot" – 322/836/288/427; "Nafta" – 357/282; Pilot – 338; Harbour Master – 323/235/223/503; Seamen's Club – 269; Shipchandler – 398; Pilot – 338.

Shore Leave: Shore leave allowed around the clock.

Attention of Chief Officers: All mooring ropes and lines are to be equipped with *rat-guards* immediately upon completion of mooring or shifting.

Failure to comply with this regulation will incur a heavy fine by the Port Sanitary Service without further warning.

Safe Draft: Safe permissible draft alongside berths:

Berth No. 1	12.00 m.	Berth No. 7	7.40 m.
No. 2	11.20 m.	No. 8	6.20 m.
No. 3	9.75 m.	No. 9	11.00 m.
No. 4	11.50 m.	No. 10	11.00 m.
No. 5	12.00 m.	No. 11	12.00 m.
No. 6	9.75 m.	No. 11A	9.75 m.

Safe Trim and List: Vessels alongside berths should always maintain seaworthy trim and list (not exceeding 2°), and always remain afloat.

Tugs: Tugs are compulsory, ship's lines used. Masters should avoid using ship's propellers when approaching berth and should inform tugs of each manoeuvre to avoid damage. During S.E. gales vessels with a small quantity of cargo or ballast on board at Berths No. 1, 2, 5 and 6 are recommended to call tugs for safety.

Rat Guards: Compulsory for each rope, even tankers. Failure to comply will bring heavy fine.

Sewage: Must be discharged, whenever feasible, into a special craft before sailing.

Notice to Masters of Vessels: Additional Compulsory Regulations at the Port of Tuapse.

With the aim of preventing sea pollution following additional rules should be strictly complied with:

1. A reliable communication with shore organisations should be maintained during the whole period of vessel's stay in the port, by VHF on Channel 16, or by shore telephone placed on board when alongside berth. The use of such telephone for non-official conversations is prohibited.

2. Upon berthing all overboard valves, except those of the engine cooling systems, should be sealed by the ship's personnel.

3. Before commencement of any operations with oil products, drip pans should be placed under the manifold flanges, all scuppers and other openings on deck should be properly plugged, and all sounding pipes and air pipes checked. No oil operation shall start before all ship systems are ready and the vessel is reported to the representative of the oil harbour or the bunkering craft.

4. In case of an oil spillage, all oil operations should immediately be stopped, and the accident reported at once to the Port Authority by VHF from the roads or by telephone when alongside a berth: Telephone Nos.: Inflot – 322/836. Nafta – 357. Harbour Master's Office – 223/503. Pilot – 338.

All measures to prevent further discharge of oil overside and deck cleaning should be taken without delay.

5. Discharge of any liquids (oil products, domestic and fecal/bilge or sewage waters, etc.), garbage and wastes overboard is prohibited.

6. No ballast can be discharged overside into the sea without permission of the Hydrochemical laboratory and without their representative being present.

7. No chemicals are allowed to be used for neutralising spilled oil or oil products.

8. The administration of any vessel which has polluted the sea and the territorial waters of Russia, and failed to undertake necessary measures to prevent a discharge of substances harmful to human health or living resources and marine life, as well as failed to report such incidents, shall be responsible in accordance with the law and regulations in force.

9. All ships should collect any garbage (food wastes, etc.) into special containers placed on board upon arrival, and see that the garbage is removed from the vessel before sailing.

Fire Fighting and Emergency Procedures:

Instructions on Fire Fighting Safety and Emergency Procedures at Oil Berths and on Tankers lying at Loading Berths at the Port:

1. Smoking in the Oil Harbour is prohibited.

Use of open fires and hot work without special permission of the Oil Harbour Fire Guard is not allowed.

2. In case of fire or emergency, inform Fire Guard (Tel. 301) immediately; at the same time start fire-fighting.
3. In case of oil spillage on the quay or on a tanker, cease all cargo operations immediately until the spilled oil is removed.
4. Stop loading during electrical storms.
5. Stop loading when another tanker is underway to an adjacent berth until her mooring is completed.
6. Connecting hoses and loading operations are prohibited when ship to shore bonding cable is missing.
7. The following fire-fighting equipment should be located near the ship's main cargo manifolds on deck:

2 fire extinguishers; a felt sheet, a container with sand and shovel; foam and water hoses with jet nozzles laid out.

8. If a fault or a condition threatens to create a fire is discovered, stop loading immediately until the hazard is eliminated.

Use of tools that may produce sparks is not allowed.

Principal Rules of Anti-Fire Safety for Tankers lying Alongside in the Oil Harbour:

In order to ensure the fire safety of the Oil Harbour and of vessels lying alongside, it is strictly forbidden:

(a) To pump out ballast and water with remains of oil products out of tanks/bilges;
(b) To carry out work with a naked flame;
(c) To throw overboard lighted cigarettes, matches, garbage, also to use signal rockets, fireworks, fire, etc.;
(d) To maintain fire in the galley, to use portable electric fire appliances, cabin ventilators and smoke on board during loading/discharging of oil cargoes. Smoking is allowed only in ship's smoking rooms;
(e) To perform steam scavenging of the smoke or exhaust pipes which may cause sparking;
(f) To use unprotected electric lights, pocket electric torches for lighting decks, tanks or ladders;
(g) To use on deck wire ropes while mooring, if the vessel is carrying 1st. category cargo;
(h) To load/discharge during thunderstorms;

(i) To use tools made of ferrous metal when connecting hoses to avoid sparking.

The vessel's administration are obliged to take all necessary measures to avoid any possible leakage of cargo from pipes and fittings onboard or pump out or spill on deck and in to the sea.

3. All scuppers on the loading/discharging deck section are to be plugged.

4. It is absolutely necessary that the vessel's hull should be connected to the shore earthing appliances if the vessel is loading/discharging a 1st. Category cargo.

5. The manholes of the cargo tanks are to be closed and the sight holes to be covered with Davy's nets.

6. Before commencing loading/discharging all the anti-fire appliances are to be ready for immediate use.

7. In case of fire on board the fire brigades should be called without delay, the vessel's Administration organising the extinguishing of fire by crew also.

8. The vessel's Administration must acquaint the crew with the above rules.

9. Master is responsible for the observance of the above rules.

GENERAL: Deballasting or discharge of tank-washings facilities (slops) at a rate of up to 2,000 t.p.h., craft for discharge of bilge water. Food waste and garbage, etc. shall be collected into special containers placed on board upon berthing. Laundry facilities. No boats, rafts, etc. shall be launched from vessels without special permission. All mooring ropes to be provided with rat-guards immediately upon mooring or shifting berths. Local representative of the Insurance Company of Russia (Ingosstrakh) Ltd., and experts of the Russian Chamber of Commerce and Industry.

DEVELOPMENTS: Reconstruction works including dredging underway.

AUTHORITY: The Port of Tuapse Authority, 2 Maxim Gorky Street, 352800 Tuapse, Russia. *Tel:* 7-15-15, 2-19-15. *Telex:* 191115 Volna Su. *Cables:* Morport Tuapse. *FAX:* (86261) 2-18-35. *Contact:* O. Antonov, General Director (Tel: 7-12-35, 2-72-64).

AGENT: "Inflot," Shipping Agency, 25, Gagarin Str., 352800 Tuapse. Cables: Inflot. Telex: 279116 Inf Su. Tel: 7-13-22, 7-18-36, 28-1-54.

VANINO: 49.05 N. 140.16 E. (See Plan)

SHIPMASTER'S REPORT: May 1994 (Updated 1996).

VESSEL: Bulk carrier of 26,000 d.w.t. LOA 177 m. Beam 22.9 m. The vessel is equipped with cranes.

GENERAL: Situated along the Vanino Bay. It is the prime commercial port for the Sovetskaya Gavan area, Khabarovsk Region, on the N.E. coast of the Russian mainland adjacent to Sakhalin Island. The port is open all year round. It is a natural coastal harbour and a first port of entry.

DOCUMENTS:

7 copies General Declaration (I.M.O. FAL Form No. 1).
3 copies Cargo Declaration (I.M.O. FAL Form No. 2).
2 copies Ship's Stores Declaration (I.M.O. FAL Form No. 3).
2 copies Crew's Effects Declaration (I.M.O. FAL Form No. 4).
7 copies Crew List (I.M.O. FAL Form No. 5).
2 copies Passenger List (I.M.O. FAL Form No. 6).
4 copies List of Last Ports of Call.
2 copies Money List.
2 copies Arms and Ammunition List.
2 copies Drugs and Narcotics List.

APPROACHES: Coming from the South (usually), steer to position Lat. 49° 05' 05" N., Long. 140° 38' 06" E. then steer to course 261° up to position Lat. 49° 04' 08" N., Long. 140° 31' 05" E., through the zone of deviation, thence contact "Vanino Port Control" on VHF Channel 14 for further instructions. Prior to this, when about 10 nautical miles from the port, contact "Vanino Port Authority" on VHF Channel 16 for instructions and to be plotted and programmed by their local traffic control. Also, there is a Traffic Separation Scheme to be followed along the approaches to the port.

Traffic Separation Scheme: The T.S.S. is an IMO adopted scheme. It is recommended for all ships, both during day and night and in all weather conditions. All ships should steer and keep to the right hand side of the T.S.S. There is a roundabout (circular traffic lane), 1.2 miles in width, centered in position Lat. 49° 03.6' N., Long. 140° 24.5' E., which is marked by a red and white banded buoy.

PILOTAGE: Compulsory for all ships. Pilot boards within 2 cables of position Lat. 49° 05.03' N., Long. 140° 18.87' E. (in rough weather, Pilot boards in inner harbour), and disembarks just off the breakwater. Pilot boat is a motor launch with blue hull and white superstructure. Pilot ladder is usually rigged on the leeward side at 1.0 m. off the waterline.

ANCHORAGE: Anchorage at the outer roads of Vanino Bay is considered at 13 anchor points, odd numbered sectors North of the Bay and even numbered sectors South of the Bay. Depths between 13 m. and 19 m., sandy bottom and sheltered from West to N.W. winds during the Winter, and/or South to S.E. winds in the Summer.

HEALTH: Pratique usually granted when alongside, after being boarded by Health/Quarantine inspectors.

RADIO: Morflot-Vanimo working frequencies for cablegrams:

Shore	Ship
3605 kHz	4183 kHz
6380 kHz	6278 kHz
8675 kHz	8367 kHz
12678 kHz	12551 kHz

TUGS: 1×3,000 h.p., 2×1,500 h.p. and 1×700 h.p.

BERTHING:

Berth No.	*Length* (m.)	*Depth* (m.)	*Cargo Handled*	*Cranes Capacity* (tonnes)
PPK-2				
5	117	9.5	Bulk cargo Steel products Wood products	5-25
6	117	9.5		
7	210	8.7	Containers Terminal	30.5
8	66	4.6	Not ready	
PPK-1				
9	150	8.6	Steel products General cargo	5-25
10	180	8.7		
11	150	9.1		
12	180	8.6	Steel products Bulk cargo	
PPK-3				
14	122	8.5	For ferries	
13	80	8.9	For loading fuel and gas oil	
15	150	7.6	Wood products	25-40
16	150	8.9		
17	150	9.4		
18	120	4.9	For barges	
19	175	8.9	Wood products	25-40
20	175	10.2	Wood products Bulk cargo Steel products General cargo	

CRANES: Gantry and mobile type on tracks, capacity from 5 tonnes to 40 tronnes.

MEDICAL: Limited facilities available.

TANKERS: Berth No. 1: Length 78 m., depth 15.0 m. Max. size: LOA 230 m., 60,000 d.w.t. Berth for loading fuel oil and gas oil.

DENSITY: 1015, varies because of tide flow from river upstream.

FRESH WATER: Available by barge only, rate 30 tons/hr. 24 hours notice to Harbour Master through the local Agent in writing. Cost U.S.$ 6.10 per ton, excluding barge fee.

FUEL: H.F.O. and M.D.O. available by barge, various grades/rates, with ample notice to concerned parties.

REPAIRS: Small repairs can be undertaken.

DRY DOCKS: Capacity for coastal vessels only.

SURVEYORS: Russian Register of Shipping available.

OPENING/CLOSING HATCHES: Performed by the ship's crew.

REPATRIATION: Not possible.

AIRPORT: Nearest international airport is at Khabarovsk City, about one hour's drive by car.

TIME: GMT plus 10 hours in Winter. GMT plus 11 hours in Summer.

HOLIDAYS: Cargo operations are carried out regardless of the occasion.

SHORE LEAVE: Permitted. Passport necessary for issue of landing permit by the Immigration Office, and to be shown at the gate. Immigration Police were not stationed at the gangway this time (as is usual in all Russian ports by agreement with Immigration local office and Port Authority).

GARBAGE DISPOSAL: No facilities.

WASTE OIL DISPOSAL: No facilities.

SEAMAN'S CLUB: Not available.

GENERAL:

Weather:

April to June	Foggy season.
June to August	Rainy season.
September to October	Fine season.
November to April	Ice season.

Ice is firmest from mid-January to mid-February, and is in abundance from mid-February to mid-March.

Coastal and tidal currents are generally Southerly in direction, at about 0.5 – 1.0 knots.

Provisions: Limited foodstuffs available and very expensive.

Communications: Telephone, facsimile, telex, telegraph and VHF radio facilities available at the local Agent's office.

Inmarsat facilities also possible and available at Agent's office.

Charts:

British Admiralty Charts No. 4511 (General).
No. 3340 (Approaches).
DMAHTC Charts No. 96012 (General).
No. 96140 (Approaches).
No. 96143 (Harbour).
Russian Charts No. 26092 (Approaches).
No. 26099 (Harbour).

Agency: Far East Port Consulting Limited (F.E.P.C.O.), Zheleznodovozhnaya Street 1, 682860 Vanino, Morflot Kholmsk, Khabarovsk Region, Russia. Tel: 54480, 54486, 57670. Fax: 51482. Telex: 141248 Fedco Su. Inmarsat: (872) 1402610. Cable address: Kholmsk Morflot for Vanino FEPCO.

AUTHORITY: Port of Vanimo, 2 Zheleznodorozhnaya Street, 682860 Vanimo, Khabarovsk Region, Russia. *Tel:* 7-421-37-57431. *Telex:* 141156 Pirs Ru. *FAX:* 7-421-37-57431. *Contact:* Harbour Master (Tel: 7-421-37-57333. Fax: 50601. Telex: 141156).

AGENT: Inflot, 2 Zheleznodorozhnaya Street, 682860 Vanimo, Khabarovsk Region, Russia. Tel: 7-421-37-51564, 57314, 54234, 54248. Telex: 612141 Inflt Ru. Fax: 7-421-37-51039.

VLADIVOSTOK: 43.07 N. 131.53 E. (See Plan)

PORT LIMITS: N.E. shore of Bosfor-Vostochnyi Strait, shore of the Gold Horn Bay from the Tokarevski Light to Egersheld Peninsula and then in the same direction to Berth No. 30.

DOCUMENTS:

5 copies List of Ports of Call (last 12 months).
10 copies Crew List.
6 copies Passenger List.
2 copies Crew Effects Declaration.
2 copies Camera List.
2 copies Weapon, Drugs, Pornography Declaration.
2 copies Crew's Money List.
2 copies Ship's Money List.
2 copies Ship's Stores Declaration.
2 copies Ship's Bonded Stores List.
1 copy Maritime Declaration of Health.
1 copy Vaccination Certificate List.
1 copy Fito Sanitary Certificate.
1 copy Veterinary Certificate.
1 copy Arrival Declaration.
5 copies Notice of Readiness.
6 copies General Declaration.
5 copies Cargo Declaration (if loaded),
2 copies Cargo Declaration – (if without cargo).
Information for Agency (special form).

PILOTAGE: Pilotage is mandatory for foreign vessels. Pilot boarding areas: Waiting Area "175-B" in the Ussury Gulf and the one in the Amur Gulf 3.5 miles West of the Tokarevski Light.

ANCHORAGES: Prior to setting up contact with the Radar Centre of Vladivostok Traffic Control System (VTCS) and obtaining the latter's permission to enter, inbound vessels shall anchor at one of the following waiting areas: "175-B" in the Ussury Gulf, No. 2 in the Amur Gulf (A circle of 10 cables radius, centred on Lat. 43° 06.60' N., Long. 131° 51.40' E.).

MAX. SIZE:

Length Overall (including bulbous bow): 260.00 m.
Extreme Breadth: 36.00 m.
Max. Draft (All year round): 11.50 m.
Also see "Berthing".

RADIO: Vessel traffic is governed by the Radar Centre of the Vladivostok Traffic Control System (VTCS). The centre maintains round-the-clock operations; and can be contacted on VHF Channel 67 by calling "Vladivostok Port Control".

TUGS: Available.

CRANES: The following equipment is available:

Electric cranes.
Reloaders.
Container reloaders.
Warehouse container reloaders.
Travelling container gantry cranes.
Crawler cranes.
Truck-mounted cranes.
Floating crane.
Lift trucks.
Electric loaders.
Port tractors.
Bucket loaders.
Bulldozer.
Timber grabs.
Cast iron grabs.
Ore grabs.
Grain and sugar grabs.
Bauxite grabs.
Bulk fertiliser loading plant.

BERTHING: Berthing, unberthing, reberthing and shifting operations in the port are provided by the Bereg Co.Ltd. All services mentioned above are carried out by the workers at the berth. Ship's Agent should organise an order for berthing operations through the dispatching office 2 hours prior to the berthing operation.

The order should include:
(1) Ship's name, type and Owner.
(2) Berthing or other place of operation.
(3) Starting time.
(4) Berthing peculiarity, if any.

Berth No.	Max. LOA (m.)	Max. Draft (m.)
1	200	9.0
3	160	9.0
5	160	9.2
6	150	9.4
7	150	8.9
8	185	10.5
9	160	11.5
10	160	10.0
12	150	9.1
13	260	11.5
14	180	10.5
15	150	9.8
16	220	11.5
17	300	11.0

STEVEDORES: Transec Co.Ltd. Tel: (4232) 219416. Fax: (4232) 265417.
Vladpas Co.Ltd. Tel: (4232) 219298. Fax: (4232) 222364.
Teco Co.Ltd. Tel: (4232) 283961. Fax: (4232) 222364.
Tet Co.Ltd. Tel/Fax: (4232) 219036.
Portekus Co.Ltd. Tel: (4232) 219081. Fax: (4232) 222364.
Upek Co.Ltd. Tel/Fax: (4232) 219792.
Transservice Co.Ltd. Tel: (4232) 283146. Fax: (4232) 222364.
Uneco Co.Ltd. Tel: (4232) 283012. Fax: (4232) 222364.

MEDICAL: Territory Clinical Hospital, Aleutskaya Street 57.
Far Eastern Central Basin Hospital, Vladivostok's 100 Years Prospect 161.
Stomological Hospital, Morozova Street 7.
Out-Patient Clinic of Far Eastern Basin Hospital, Beregovaya Street 3.

FRESH WATER: Available.

FUEL: Available.

CONSULS:

Consulate General of Republic of Korea, 45-a Aleutskaya Street, Vladivostok 690009, Russia. Tel: +7 4232 227822. Fax: +7 4232 229471.

Consulate General of India, 14 Aleutskaya Street, Vladivostok 690090, Russia. Fax: +7 4232 228666.

Consulate General of Japan, 12 Mordovtseva Street, Vladivostok 690091, Russia. Fax: +7 4232 267541.

Consulate General of USA, 32 Pushkinskaya Street, Vladivostok 690001, Russia. Tel: +7 4232 300070, 300071.

REPAIRS: There is a ship repair yard close to the Commercial Port of Vladivostok territory. It can provide hull, engine, electrical and electronic equipment repair services on Master's order. Address: 3 Nizhneportovaya Street, Vladivostok 690600, Russia. Tel: +7 4232 221063, 219185.

SURVEYORS: Sea Register of Russia, Traffic Inspection of Russia and State Port Inspection.

CUSTOMS ALLOWANCES: The crew may bring in goods to the value of U.S.$ 2,000 without Customs duties.

CARGO GEAR: The port handles general cargo, breakbulk and dry bulk, containers, steel, etc.

AIRPORT: Vladivostok Airport is 40 km. from the port.

TIME: GMT plus 10 hours. Summer-time GMT plus 11 hours.

HOLIDAYS: January 1st, 2nd and 7th; March 8th; May 1st, 2nd and 9th; June 12th; December 12th. The holidays have no effect upon port working.

BANKS: All payments in favour of the Commercial Port of Vladivostok should be affected in U.S.Dollars or Japanese Yen.

Payments in U.S.Dollars should be to: Bank of Tokyo, Global Service Banking Divison, Tokyo with the Far Eastern Bank, Vladivostok, Russia, Cor. account No. 653-0452106, in favour of the Commercial Port of Vladivostok, Account No. 910070508.

Payments of U.S.Dollars should be to: Bank of Tokyo, Global Service Banking Division, Tokyo with the Far Eastern Bank, Vladivostok, Russia, on the account No. 653-0405744, in favour of the Commercial Port of Vladivostok, account No. 9124070608.

DEVELOPMENTS: In order to expand the port capacity, the following measures are planned:

1. Expansion of the container terminal area and cargo berths by constructing a wider quay.
2. Reconstruction of 2 berths, in order to increase water depth and expand the warehousing areas in their vicinity.
3. Construction of extra railtracks at the new port premises.
4. Reconstruction of the existing oil terminal and increasing its capacity up to 1.5 million tons, thus allowing not only bunker vessels but also tankers.

AGENT'S REPORT: 1995.

Documents:

1 copy Maritime Declaration of Health.
10 copies Crew List.
6 copies General Declaration.
3 copies Cargo Declaration.
2 copies Crew Effects Declaration.
2 copies Crew Money List.
2 copies Ship's Money List.
2 copies Ship's Deck/Engine Stores List.
2 copies Ship's Bonded Stores List.
2 copies Ship's Provisions List.
2 copies Voyage Memo (Ports of Call).
2 copies Camera List.
2 copies Drugs/Narcotic/Ammunition List.

Pilotage: Pilotage is compulsory for all foreign vessels. Pilot boards vessel at the Quarantine Anchorage within the following limits:

Lat. 43° 03.30' N., Long. 131° 58.40' E.
Lat. 43° 04.20' N., Long. 131° 58.40' E.
Lat. 43° 04.20' N., Long. 132° 00.10' E.
Lat. 43° 03.30' N., Long. 132° 00.40' E.

Approaches/Anchorage: At the approaches to anchorage, please call Port Control Station on VHF Channel 67 to obtain permission for movement.

Vessel should proceed in direction of Askold Island, and at a distance of 5 miles steer a course of 325°. On this course proceed to Skryplyov Island, and at a distance of 6 miles contact Port Control on VHF Channel 67. Port Control Operator will give a point to anchor.

Also see "Pilotage".

Restrictions: Navigation in Ice: Vladivostok is open for navigation all year round. From December until March, vessels may encounter some broken ice. Ice breaker assistance is available upon request. Generally, the ice situation is very similar to the ports of Nakhodka and Vostochniy.

Max. Size: LOA 250 m., beam 27 m. and draft 11.3 m.

Health: Guidance re Asian Gypsy Moth (A.G.M.) Inspection: The examination and issuing of special certificate, that the vessel is free of A.G.M., is available in ports of Vladivostok, Nakhodka, Vostochniy, Kholmsk, Vanino and Korsakov.

Special phitosanitary inspectors are working on board during vessel's stay at the port to prevent any infection. Upon completion of discharge, the certificate will be issued which confirms that vessel is free of A.G.M. It will take about 4 hours after completion of discharge.

Estimated expenses: U.S.$ 3,500.00 if vessel is bound for American/Canadian ports. U.S.$ 4,600.00 if vessel is bound for New Zealand/Australian ports.

Because New Zealand and Australian Port Authorities require all ships accommodation, including crew cabins inside superstructure to be checked, the cost is greater.

All vessels calling at Russian Far East ports throughout the year are to be examined against A.G.M., if they are bound for American, Australian, Canadian and New Zealand ports after discharging or loading.

Night loading/discharging is not prohibited at any time or season.

Vessels, when staying at Vladivostok roadstead (anchorage) during night-time, are recommended to switch out all lights (except navigation lights) on upper decks.

There are no other special instructions for Masters.

Radio/VHF: Inflot (Call sign "UFL") operate on 8,515/8,369.5 kHz and 12,955/12,553 kHz throughout 24 hours.

Port Control on VHF Channel 69.

ETA message to include: ETA, max. draft on arrival (in order to fix suitable berth), number of crew (including Master) and nationality. Any change in ETA is also to be sent.

Berthing: 16 berths with a total length of 4,190 m. available for handling general cargo, containers, grain, sugar, Ro-Ro, passengers, bananas, coal, scrap and LASH barges with depths 9.5 m. – 11.0 m.

Handling Rates: Containers: 400 per day. Grain: 7,000 tonnes/day. Sugar: 1,000 tonnes/day. General: 500 tonnes/day. Scrap: 700 tonnes per day.

Cranes: Floating crane with capacity 250 tonnes – 500 tonnes available. 2 gantry cranes of 30.5 tons for containers. Quay cranes of 5 tons – 32 tons capacity used for general cargo handling.

Fresh Water: Available by barge at U.S.$ 5.94/tonne.

Fuel: Available (via Bominflot in Tokyo).

Surveyors: Available.

Gangway/Deck Watchmen:

Notice: Issued by Feskontrakt & K Co.Ltd., 8 Mordovtseva St., Vladivostok, 690065 Russia. Tel: 7-4232-219-630. Fax: 7-4232-266-845.

This is to inform you that from 1st March 1994 there have been some changes in the rules of Immigration Control as far as it concerns servicing foreign vessels. Coast Guard Authorities, which had provided control over visitors onboard the vessels (including stevedores, dockers, supervisors and other strangers), cancelled their service near the accommodation ladder of foreign vessels.

The above mentioned reorganisation will influence negatively the interests of foreign shipowners, because according to the requirements of Immigration Authorities, all the formalities connected with vessel's departure will be performed during daytime only (not paying attention to the time when the cargo handling works are completed). This will result in unjustified delays in performing formalities.

Specialised guarding company "Feskontrakt & K" works in good cooperation with the Immigration Authorities. The Immigration Authorities trust "Feskontrakt & K" and recommend their services to agency companies.

Watchmen service is supposed to help to avoid the problems with the Immigration Authorities. In case the watchmen are not on board the vessel, there must be regular 24 hour control by the crew members, that will prevent them working and resting.

The above mentioned restrictions on performing immigration formalities for vessel's departure at daytime only are not extended to vessels whose Masters have ordered the watchmen service.

Taking into account unfavourable criminal situations at the ports in the Far East of Russia (especially in Vladivostok), watchmen service help to avoid the criminal accident onboard. In case of emergency, the watchmen persistantly defend the shipowners' and charterers' interests and may also be reliable witnesses.

Watchmen service rates are:

From 1 to 5 days: U.S.$ 5.00 per hour.

From 6 days to ship's departure: U.S.$ 4.00 per hour.

General: Ballast: Deballasting in port area is strictly prohibited. In order to avoid any problems and additional expenses, please take clean ballast water as far as possible out from port area prior to arrival.

Ship Chandler: All kinds of marine supplies available.

Divers: Underwater inspections are available.

SHIPMASTER'S REPORT: July 1995.

We arrived at the roads at 2400 hours and dense fog was prevailing.

We were directed by Port Control (VHF Channel 67) to anchor position and anchored at 0100 hours. Port Control must be contacted when 6 miles from Skryplev (Skryplyov) Island. If vessel calls earlier, they ask to be called again at the said position.

The given anchor position was 6 cables from 2 anchored vessels, unseen due to fog.

Although there is no restriction on day/night movement, Pilot boarded at 0900 hrs. same day., again in dense fog. When we entered the bay, the fog cleared.

Two tugs assisted berthing alongside Berth No. 50 in the Fishing Port.

This vessel is a double hull tanker of 46,536 d.w.t., and called to discharge 5,000 tons of soybean oil.

Formalities took one hour, and were relaxed.

Discharging was very slow, and it was their first import of vegoil in this place.

Although we were advised of high rate of crime and violence in the area, we witnessed nothing of the sort.

Agents "Inflot" joint stock company now, proved to be very helpful and efficient.

The area is infected by "Asian Gypsy Moth" (See "Agent's Report" – "Health" – above), and a vessel destined for U.S.A., Canada, Japan, New Zealand or Australia must obtain a Phytosanitarian Certificate.

When departing, the Pilot disembarks well into the bay, but the way out is clear. Overtaking is not permitted in the bay, either with or without Pilot on board.

The vessel has to report to Port Control when crossing the line between Skryplev (Skryplyov) and C.Bassargin.

AGENT'S REPORT: February 1996.

Port Limits: Golden Horn Bay and area of Bosfor-Vostochny Strait between Muravyov-Amurski Peninsula and Russki Island, as well as Quarantine Anchorage Area No. 175-B in Ussuri Gulf (See "Anchorages").

Documents: Basic Customs documents for entry:

1 copy Maritime Declaration of Health.
10 copies Crew List.
6 copies Passenger List.
6 copies General Declaration.
3 copies Cargo Declaration.
2 copies Crew Effects Declaration.
2 copies Crew's Money List.
2 copies Ship's Money List.
2 copies Ship's Stores List.
2 copies Bonded Stores List.
2 copies Provisions List.
2 copies Camera List.
2 copies Voyage Memo.
2 copies Drugs and Narcotics List.
2 copies Ammunition List.

Traffic Control: All movement operations within port limits are covered by Centre of Vessel's Traffic Management System. To obtain permission to enter the port, inbound vessel shall contact "Vladivostok Port Control" on VHF Channel 67 beforehand. All vessel operators shall comply with the directions by the Centre relating to vessel's movement, anchorage positions, ship's movement routes in the port.

Pilotage: Compulsory. Pilot boarding in "175-B" area in Ussuri Gulf, or anchor Points No. 60, 63, 64 in Amur Gulf. Request for Pilot usually made by ship's Agent.

Anchorages: There are two anchorages for foreign vessels:

1. Area No. 175-B in Ussuri Gulf:

Lat. 43° 03.30' N., Long. 131° 58.40' E.
Lat. 43° 04.20' N., Long. 131° 58.40' E. For vessels bound for Commercial and Fishery Ports.
Lat. 43° 04.20' N. Long. 132° 00.40' E.
Lat. 43° 03.30' N., Long. 132° 00.40' E.

2. Anchorage points in Amur Gulf:

No. 60: Lat. 43° 09.40' N., Long. 131° 49.50' E. For tankers bound for Oil Terminal.
No. 63: Lat. 43° 09.08' N., Long. 131° 49.29' E.
No. 64: Lat. 43° 09.04' N., Long. 131° 49.80' E.

Anchorage is designated by Centre of Vessel's Traffic Management System. Vessels anchored shall keep watch on VHF Channel 67 at all times.

Restrictions:

For Commercial Port: Max. permissible draft 11.5 m.
For Fishery Port: See "Berthing".
For Oil Terminal: Tankers up to about 30,000 tonnes d.w.t.

Max. Size: See "Berthing".

Health: Free Pratique for all foreign vessels provided upon berthing within vessel Inward Clearance.

Radio: Port has no communications equipment. Normally all communications maintained via ship's Agent.

VHF: Centre of Vessel's Traffic Management System can be reached on VHF Channel 67.

"Inflot" Shipping Agency can be reached on VHF Channel 67 during office hours.

Radar: See "Traffic Control".

Tugs: Available. Type and number of tugs for berthing/unberthing/shifting are determined by Pilot. Towage expenses do not depend on types and quantity of tugs used. Tugs normally join vessel near Fairway Buoy. Vessel's lines normally used.

Berthing: The following berths available for foreign vessels:

Berth No.	*Length* (m.)	*Depth* (m.)	*Shore Cranes × Capacity* No. (tons)
Commercial Port:			
1 Passenger Terminal	230	7.0 – 8.1	2×5 + 1×10-20 for Berths No. 1 and 2.
2 Passenger Terminal	260	8.6 – 9.3	
3 Reefer/General	220	7.6 – 7.7	2×10 + 1×5
4 Auxiliary	129	7.5 – 10.9	
5 General	220	9.3 – 9.6	4×10 + 2×5
6 General	200	8.9 – 9.1	2×5 + 1×10 + 1×16
7 General	200	8.9 – 10.0	2×16 + 5×10 for Berths No. 7 and 8.
8 General/Bulk	225	10.4 – 10.5	
9 General	175	8.0 – 8.8	2×10 + 1×16
10 General	150	7.8 – 8.0	1×5 + 1×10
11 Auxiliary	117	8.0 – 8.1	
12 General/Bulk	175	9.8 – 9.9	2×16
13 Bulk	265	10.8 – 10.9	3×16
14 Steel Products	210	7.2 – 8.0	4×16
15 Steel Products	220	10.8 – 12.4	4×16
16 Container Terminal	303	10.8 – 12.6	2×16 + Container Gantry Cranes 2×30.5
42 General/Reefer	200	7.5	4×5
Fishery Port:			
44 Auxiliary	102	8.5 – 9.5	1×3.2
45 General	137	8.6 – 9.2	4×6
46 Reefer/General	220	7.9 – 9.8	3×6 + 3×3.2
47 Reefer	192	7.2 – 10.2	5×6
48 Reefer	240	8.3 – 9.0	3×6 + 1×3.2
49 General	265	9.0 – 10.0	3×6 + 1×3.2
50 General/Reefer/Oil	300	10.1 – 10.6	5×6 + 3×3.2
51 Auxiliary	99	9.4	1×3.2
52 General/Container	202	7.4 – 9.3	2×6 + 1×32 + 1×40 for Berths No. 52/53.
53 General/Container	155	8.1 – 8.9	
54 Auxiliary	40	8.0 – 8.4	

Oil Terminal:

Pier No. 1 and 2: Vessel's LOA and beam unlimited, depth 9.5 m.
Pier No. 3: Vessel's LOA and beam unlimited, depth 8.0 m.

Cranes: See "Berthing".

Bulk Cargo Facilities: Commercial Port: Shore cranes at Berths No. 8, 12 and 13 equipped with grabs. Cargoes handled: Grain, coal, coke and raw sugar.

Max. Load/Discharge Rate: 3,000 – 5,000 tonnes/day.

Specialised Cargo Handling Facilities: Commercial Port: Berth No. 16 – Container terminal equipped with 2 container gantry cranes with 30.5 tons lift capacity each. See "Berthing".

Fishery Port: Berth No. 50 – There are shore tanks for discharging/storage 2,875 cu.m. of vegetable oil and 10,800 cu.m. of fuel oil.

Berth equipped with one shore discharging/loading line with international flange diameter of 89 mm. Average discharging rate 180 cu.m. per hour. Average loading rate 60 cu.m. per hour for vegetable oil, 50 – 80 cu.m. per hour for fuel oil.

There are no specially equipped berths for handling liquid chemicals, LPG and Ro-Ro carriers.

Bridges: None.

Stevedores: Working time in port is round the clock. Sundays 50% overtime from 2000 hrs. – 0800 hrs., and 100% overtime applied when working during holidays.

Average load/discharging rates:

General cargoes: Bagged 400 – 500 tonnes/day; steel products 1,500 – 3,000 tonnes/day; bulk cargoes 3,000 – 5,000 tonnes/day; containers 150 – 200 units/day.

No particular ETA advices required in order to arrange gangs.

Medical: Full hospital facilities available. Prior notice not necessary, but advisable. Dentists available during office hours. Vaccination/fever certificates required, inoculations and vaccinations can be carried out.

Tankers: Oil Terminal is located in Amur Gulf on the Western coast of Muravyov-Amurski Peninsula (Lat. 43° 08.50' N., Long. 131° 53.70' E.).

Tankers up to about 30,000 tonnes d.w.t. can be accommodated for loading and discharging operations. Mooring method: Stern to the pier. See "Berthing" and "General".

Each pier is equipped with 7 load/discharge lines, diameter of each is 150 mm. – 325 mm., equipped with international flange. Average receiving rate 200 – 350 tonnes/hr.

Capacity of shore slop (residue) facilities is about 200 tonnes, receiving rate up to 350 tonnes per hour.

Prevailing wind: North winds during Winter season (October-February). Amur Gulf usually covered by ice from December to March, but local icebreaker makes fairway/approaches to the piers accessible.

Shore gangway not available, ship's gangway is normally used.

Facilities to combat oil spills. Floating barrage and spill collecting barge.

Shore steam and water are available.

Ship-to-ship transfer facilities not available.

Density: 1025.

Fresh Water: Available from barge during vessel's stay at berth. Price U.S.$ 5.94/tonne, rebate 20% if 50 – 100 tonnes ordered; 40% for quantity over 100 tonnes.

Fuel: Available from barge during stay at berth. Bunkers to be ordered via "Bunkerflot", Vladivostok or "Bominflot, Tokyo". Prepayment compulsory.

Fire Precautions: Smoking available only in special determined places. Storage of LPG cylinders, hazardous and highly inflammable commodities is prohibited at Fishery Port. Non-degassed tankers or tankers loaded with petrol products are prohibited to pass through the Strait of Bosfor-Vostochniy. Washing and degassing of tanks is prohibited for vessels berthed at Oil Terminal.

Consuls: There are consulates of India, Japan, South Korea and USA. There are also representatives of Australia and Vietnam.

Repairs: All types of deck and engine repairs are possible, but subject to preliminary agreement.

Dry Docks: Two dry docks available for foreign vessels: Largest dock: 150.0 m. × 25.5 m. for vessels up to 8,500 tonnes weight. Smallest dock: 131.8 m. × 22.5 m. for vessels up to 6,000 tonnes weight.

Surveyors: Cargo Inspectors:

Saybolt, Room 616, 45-A Aleutskaya Street, Vladivostok, 690009 Russia. Tel: (4232) 269655, 267026. Fax: (4232) 268631. Telex: 612466 Vld Ru. Sprint Mail: Saybolt.Vlad.

Surveyors: SGS:

"SGS Vostock Ltd. Head Office in Nakhodka, 30 Nakhimovskaya Street, Nakhodka, 692913 Russia. Tel: (42366) 21197, 21814. Tel: 7 (50491) 52178 Intelsat. Telex: 213859 SGS VS RU. Fax: 7 (50491) 52179 Intelsat.

Vladivostok Branch: 9 Strelnikova Street, Vladivostok, 690600 Russia. Tel: (4232) 283992.

Gangway/Deck Watchmen: Necessary for foreign vessels during stay at berth. Cost, U.S.$ 7.0/hr., depends on watchmen company chosen.

Hatches: Opening/closing normally carried out be crew.

Customs Allowances: Russian Federation Customs Regulations.

Cargo Gear: Loading/discharging normally effected by shore cranes. Heavy lift floating cranes up to 100 tons lift capacity available.

Repatriation: Facilities exist for changes of crew and repatriation of seamen.

Airport: Airport is 42 km. from port, served by regular airlines. Flights to foreign countries mostly carried out via Moscow (several flights per day). Direct flights from Vladivostok to Seattle, Niigata, Toyama, Seoul and Pusan, once a week.

Time: GMT plus 10 hours. Summertime GMT plus 11 hours (last Sunday of March up to last Sunday of September).

Holidays: January 1st (New Year's Day); January 7th (Russian Christmas); March 8th (International Womens Day); March 31st (Establish Day, Commerical Port only); May 1st and 2nd (International Solidarity Day); May 9th (Victory Day); June 12th (Independence Day); November 7th (Memory Day); December 12th (Constitution Day).

Cargo works can be arranged on above holidays.

Police/Ambulance/Fire: In cases of emergency, inform "Vladivostok Port Control" on VHF Channel 67 or ship's Agent.

Emergency Co-Ordination Centre: Tel: (4232) 283248. Fax: (4232) 222726. Telex: 213115 MRF RU. Cables: Vladivostok Morflot.

Telephones: Berths not equipped with appliances.

Services: All kinds of services available, but prior notice preferable.

Banks: No foreign Banks in Vladivostok.

Russian Banks:

Dalrybbank, 51 Svetlanskaya Street. Tel: (4232) 264473.

Far Eastern Bank, 27-A, Verkhne-Portovaya Street. Tel: (4232) 516000. Fax: (4232) 516444. Telex: 213252 FESBA RU. E–Mail: dcbank@stv.iasnet.com

Storing: Can be arranged by ship chandlers, who are to arrange storing in compliance with Customs Regulations.

Ship Supply Service: Can be undertaken during vessel's stay at berth. Transfer of stores or crew to the anchorage by craft can be arranged by ship's Agent, even in case of vessel's call in port without berthing.

Shore Leave: Crew members are allowed ashore when vessel stays at berth. Immigration Control at Port Gate checks time of leaving and coming back. Crew members are not allowed to stay ashore for more than 24 hours.

Identification Cards: Seaman's Book should be changed to Shore Pass at Port Gate by Immigration Officer when crew member goes ashore.

Garbage/Oil Waste Disposal: All vessels calling at the Commercial Port/Oil Terminal are charged Environment Dues, irrespective of whether or not they have garbage/oil waste onboard. Garbage is collected by barge, normally after vessel's berthing, and vessel is provided with garbage removal certificate. Oil waste disposal can be arranged by ship's Agent, if necessary. Vessels not to pay for above works. 50% rebate from Environment Dues is granted for vessels equipped with environment protection facilities for the complete recovery of all kinds of wastes and pollution and which supplied with appropriate international certificates.

Garbage/oil waste disposal at Fishery Port can be arranged by ship's Agent for current charges.

Seaman's Clubs: None.

Currency: Rouble. All port dues, charges and expenses are charged in U.S.Dollars. Exchange offices available.

Regulations: Deballasting in port is strictly prohibited.

Delays: Sometimes, owing to heavy ice conditions (one time in 4-5 years).

General: Special precautions should be taken while vessels berth alongside Berths No. 13, 14, 15 and 16 of Commercial Port. When S.E. wind is up to Force 7, and/or sea swell from S.E. is up to Force 4, all vessels berthed at above berths must keep main engine on stand-by and be ready to leave for outer roads. Masters and crew must stay onboard. Storm warning notice is normally delivered on board by Port Control Officer beforehand.

Oil Terminal – Method of berthing: Mooring is stern to the pier, with 2 anchors with 6 shackles on each, at least. Main engine and mooring gear must always be ready for use during whole stay at pier. If wind speed reaches 12-17 m./sec., all cargo operations must be stopped and vessel must be ready to leave berth. Master or Chief Officer should stay onboard during all times vessel berthed.

AGENT'S REPORT: August 1996.

Location: The port is located on the Southern extremity of Muravyov-Amurski Peninsula in the Gold Horn Bay.

Port Limits: N.E. shore of Bosfor-Vostochnyi Strait, shore of the Gold Horn Bay from the Tokarevski Light to Egersheld Peninsula and then in the same direction to Berth No. 30.

Documents:

6 copies General Declaration.
1 copy Declaration on Arrival.
5 copies Cargo Declaration (if loaded).
2 copies Cargo Declaration (if without cargo).
5 copies List of Last Ports of Call.
2 copies Ship's Stores Declaration.
2 copies Ship's Bonded Stores List.
2 copies Crew's Effect Declaration.
10 copies Crew List.
2 copies Passenger List.
2 copies Crew Money List.
2 copies Ship's Money List.
2 copies Camera List.
2 copies Weapon, Drugs, Porno Declaration.
1 copy Maritime Declaration of Health.
1 copy Vaccination List.
1 copy Fito Sanitary Certificate.
1 copy Veterinary Certificate.

Approaches: Vladivostok is open for navigation year round. From December until March, vessels may encounter some broken ice. Ice-breaker assistance is available upon request. The deep water harbour is easily accessible to large ocean-going vessels. A large island, named Russki, offers the harbour an excellent natural protection at its entrance.

The depths on the roads are from 20 m. – 33 m. Tides vary from 0.3 m. up to 1.4 m.

Pilotage: Pilotage in the port is compulsory. The services rendered by Pilots are carried out round the clock.

Pilot boarding areas: 175 "B" in the Ussury Gulf and the one in the Amur Gulf 3.5 miles West of the Tokarevski Light (a circle of 10 cables radius, centred on Lat. 43° 06.60' N., Long. 131° 15.40' E.). Pilot launches exhibit international code pilots flag and, at night, lights and signals.

The port is equipped with radar centre of the Vladivostok Traffic Control System (Radio call sign "Vladivostok Port Control" on VHF Channels 16 and 67).

Anchorages: Vessels are allowed to anchor at one of the following waiting areas: 175 "B" in the Ussury Gulf and the one in the Amur Gulf 3.5 miles West of the Tokarevski Light (a circle with 10 cables radius, centred on Lat. 43° 06.60' N., Long. 131° 15.40' E.). Vessels anchored are requested to keep continuous watch on VHF Channel 16. Vessels at berth or anchored within port areas are requested to seek permission of the Centre (VTCS) before unmooring or weighing anchor.

Restrictions: Vessels can enter or leave the port at any time of day and night.

Max. Size: Max. draft 11.5 m., max. LOA 260 m., max. beam 36 m.

Health: All vessels coming from abroad are inspected by Sanitary Office. On arrival of the ship, the Master should have Maritime Declaration of Health and Vaccination Certificates available. Free Pratique given on berthing or at the anchorage. No shore connection is allowed to a vessel until Free Pratique is obtained. If no diseases, vessel obtains Free Pratique.

Free Pratique cannot be granted automatically.

Radio/VHF: Cable Agent ETA, draft and information required via Vladivostok Radio Station.

All vessels when approaching the port should establish radio contact via the Port Radio Station, operating 24 hours a day on the following frequencies:

Station	*Call Sign*	*VHF Channel*
Port Controller	Vladivostok Radio 2	14
Harbour Master	Vladivostok Radio 5	12
Traffic Control	Vladivostok Port Control	16, 67
Agent	OSA	71
Tugs		10

Radar: Vessels are governed by the Radar Centre of Vladivostok Traffic Control System (VTCS), located on Goldobin Promontory. The Centre maintains round the clock operation. It can be contacted on VHF Channel 16 and 67 by calling "Vladivostok Port Control".

Berthing, unberthing operations and movements to the pier are governed by the Port Controller after coordination with State Supervising Port Inspection. Any vessel operator shall comply with the directions by the Centre relating to:

(a) Vessel's movement.
(b) Order of movement in the channels and precautionary areas.
(c) Ship's movement routes in the port.
(d) Anchorage positions.

Use of radar by vessel operator is mandatory within the VTCS's operational range. Prior to setting up contact with the Centre and obtaining the latter's permission to enter, inbound vessels shall anchor at one of the waiting areas.

Tugs: 4 tugs with capacity from 1,200 h.p. – 2,500 h.p. available. Tug assistance for mooring and unmooring is compulsory. The number of tugs and their horsepower is determined by the Pilot with the Master's consent.

Berthing: There are 16 berths with total berthing space of 4,190 m. and depths alongside up to 13.0 m.

Berth No.	*Length* (m.)	*Depth* (m.)	
1	230	9.75	Passengers
2	260	9.75	Passengers
3	220	9.75	Bananas, fruit
4	129	9.75	Service
5	220	11.5	General cargo
6	220	11.5	General cargo
7	200	11.5	General cargo
8	225	11.5	General cargo
9	175	7.75	General cargo
10	150	7.75	General cargo
11	117	7.75	Bunkers
12	175	9.75	General cargo
Berth No.	*Length* (m.)	*Depth* (m.)	
13	265	11.5	Grain, steel
14	210	11.5	General cargo
15	220	13.0	Coal, scrap
16	303	13.0	Containers

Mooring, unmooring and shifting operations are provided by "Bereg Co.Ltd.". Ship's Agent should organise order for berthing operations through the dispatching office 2 hours prior to the berthing.

Facilities: A wide range of equipment and storage facilities are available for handling a variety of conventional type general cargo, including machinery, metal products, cargo in cases, bags or LASH cargo.

Description	*Quantity*	*Capacity* (tons)
Port electric cranes	54	5.0 – 32.0
Container gantry cranes	2	30.5
Crawler cranes	6	16.5
Truck mounted cranes	7	6.3– 50.0
Reloaders	5	16.0
Berth container reloaders	2	30.5
Warehouse container reloaders	2	30.5
Lift trucks	131	1.5 – 25.0
Electric loaders	27	1.35
Port tractors	10	
Bucket loaders	20	
Bulldozer	1	
Timber grabs	9	5.0
Cast iron grabs	15	5.0 – 8.0
Ore grabs	8	5.0
Grain and sugar grabs	17	5.0
Bauxite grabs	7	5.0
Fertiliser bulk loading plant	1	60 tons/hr.

Heavylifts of up to 100 tons are handled by self-propelled floating cranes. Barges can be provided on Master's order. Loading capacity from 100 tons – 500 tons.

Total area of available covered warehouses is 54,100 sq.m., open areas 71,700 sq.m.

Bulk Cargo Facilities: Two berths are devoted to grain handling. The grain is mainly unloaded by grabs, and Hartman pneumatic unloaders are employed during bad weather periods. The grain transfer is direct between ship and railcar. Grain is being loaded for inland distribution.

Specialised Cargo Handling Facilities: There is a 303 m. container terminal, equipped with 30.5 ton portainers, 25 ton transtainers, SISU tractors, forklift trucks and electric loaders of various capacities. 70,000 containers (TEU) move across the terminal annually. The Port Computer Centre monitors the container traffic.

Stevedores: Ordered by Agent. Usual ETA advice required. Cargo handling is round-the-clock.

Medical: Hospital and medical facilities available, also inoculation, vaccination, etc. Advance notice for medical attendance required. Notice should be given to Agent. In case of an accident (emergency), medical attendance rendered at any time. If doctor required on board, Master should inform Agents by radio or VHF.

Fresh Water: Available from shore. It can also be supplied by barge.

Fuel: Bunkers available. Usually delivered by barge. Advance notice required.

Consuls: North Korea, Tel: 22-78-22. USA, Tel: 26-84-85. Japan, Fax: 26-75-41. India, Fax: 22-86-66.

Repairs/Dry Docks: There is a ship repair yard in the Commercial Port Vladivostok territory. It can provide hull, engine, electrical and electronic equipment repair services on Master's orders.

Ship repair yard has a number of floating docks for vessels of up to 8,000 d.w.t. and dry dock up to 30,000 d.w.t.

Surveyors: Inspectors of Sea Register of Russia. Traffic Inspection of Russia and State Port Inspection available.

Gangway/Deck Watchmen: Not compulsory.

Opening/Closing Hatches: Usually performed by ship's crew.

Customs Allowances: No restrictions on tobacco and alcohol on board ship. It is forbidden to take these items ashore, except for personal consumption.

The crew may bring any goods in the sum of U.S.$2,000 without Customs Duties.

Repatriation: Can be arranged.

Airport: Nearest airport is at Vladivostok, 40 km. away.

Time: GMT plus 10 hours. GMT plus 11 hours in Summer.

Holidays: 1st, 2nd and 7th January; 8th March; 1st, 2nd and 9th May; 12th June; 12th December. They have no effect on port working.

Police/Ambulance/Fire: Police Tel: 02. Ambulance Tel: 03. Fire Tel: 01.

Emergency calls with regard to collision, fire on board and dangers to human life may be given on VHF Channels 16 and 67. Call sign is "Vladivostok Port Control".

Telephones: Can be arranged on board.

Services: Port does not carry out the fumigation, but it can provide the following services: Mooring for fumigation time; provide crew with comfortable hotel; place order for fumigation with other companies.

Banks: All payments in favour of the Commercial Port of Vladivostok should be affected in U.S. Dollars or Japanese Yen.

Payment in U.S. Dollars should be done to: Bank of Tokyo, Global Service Banking Division, Tokyo, with the Far Eastern Bank, Vladivostok, Russia, on the Account No. 653-0452106, in favour of the Commercial Port of Vladivostok Russia.

Payment in Japanese Yen should be done to: Bank of Tokyo, Global Service Banking Division, Tokyo, with the Far Eastern Bank, Vladivostok, Russia, on the Account No. 653-0405744, in favour of the Commercial Port of Vladivostok Russia.

Storing: See "Prelims".

1. Vessel may be stored by barge or truck.
2. Vessel can be stored during loading.
3. Truck can proceed alongside.
4. Forklift trucks can be used.
5. Customs permission required.
6. Local riggers can be employed.

Shore Leave: Crew members go ashore with their certificates and passes issued by Immigration Authority. They can stay ashore without returning to the vessel for up to 24 hours.

Waste Oil/Garbage Disposal: All operations on sea and air pollution control are carried out by "Portovik Co. Ltd.". Valves should be sealed by the laboratory assistant from "Portovik Co.Ltd.". You can call the laboratory assistant through ship's Agent.

Release of following items is prohibited in the Port:

Any petroleum products or other substances detrimental for people's health.

Bilge water, ballast oil water from cargo and hopper tanks and feacal waters.

Water used for washing holds (tanks) after perilous substances.

"Portovik Co.Ltd." can provide ship with waste containers, ballast, bilge and feacal waters collectors.

Developments: Berth No. 9 reconstruction and expansion to 11.0 m. is underway. Berths No. 10 and No. 11 reconstruction is proposed to start. By 1998, there will be a new container terminal with capacity about 200,000 TEU's annually; a complex for handling perishable goods; a new cargo terminal at Vladivostok suburb for handling of cargo.

AUTHORITY: Commercial Port of Vladivostok, Strelnikova Street 9, Vladivostok 690600, Russia. *Tel:* (4232) 219388, 7-50985-12275 (Sat. Tel.). *Telex:* 213855 Ru. *FAX:* (4232) 222364. *Contact:* M.F. Robkanov, President. V. Pertsev, Vice President. Y. Sidorenko, Marketing Department.

AGENTS: Shipping Agency Inflot Vladivostok Co.Ltd., 3A Strelnikova Street, Vladivostok, Russia 690065. Tel./Fax: 7-50985-12575 Intelsat, 7-4232-511-143, 7-4232-219-577. Tel: (After office hours) 7-4232-513-102. Telex: 213115 Mrf Su/To Inflot Vldv. Cables: Morflot Vladivostok Inflot.

Oriental Shipping Agency Co.Ltd., P.O.Box 90-215, Vladivostok 690090, Russia. Tel: (4232) 268188, 283175, 283091. Tel/Fax: (4232) 219591. Sat.Tel./Fax: 7-50985-12114. Telex: 213115 Mrf Ru To OSA. Cables: Vladivostok Morflot OSA. VHF: Channel 71 from 0830 hrs. to 1800 hrs.; Call OSA.

VOSTOCHNY: 42.44 N. 133.03 E.

LOCATION: The commercial port of Vostochny is situated in the Vrangel Inlet, on the North-Western coast of the Nakhodka Bay, in the Sea of Japan. Navigation at the port continues all the year round.

DOCUMENTS: See "General" before first Russian port.

PILOTAGE: Pilotage in the port of Vostochny is compulsory. The services rendered by Pilots are carried out round the clock. In case the Pilot is not able to board a vessel due to bad weather, Master should follow recommendation given by the Pilot from the Pilot boat.

The port is equipped with a shore automatic vessels' movement control system (radio call sign "Kamensky-17"), on VHF Channels 16 and 12.

ANCHORAGES: Vessels are allowed to anchor in the port Inner Roads, the Vrangel Inlet, after having obtained the Harbour Master's permission only.

RESTRICTIONS: There are no entry restrictions in regard to vessel's length. Vessel's speed should not exceed 12 knots while proceeding through the main fairway and 6 knots when approaching the Vrangel Inlet. Under all circumstances Master shall choose the vessel's speed bearing in mind current navigational conditions.

The mooring of vessels having deadweight of 10,000 tonnes and over and length of more than 150 m. in ballast is not allowed during winds having velocity 10 m./sec. and over.

MAX. SIZE: The maximum draft of vessels mooring at the Coal Pier is 15 m. and 9.7 m. when mooring at other berths.

HEALTH: A vessel having arrived in the port Outer Roads and having no contact with the shore may not need to go through the clearance formalities. Vessels, having arrived in the port Inner Roads (the Vrangel Inlet) irrespective of the fact that they are to carry out cargo handling or not, shall go through all the necessary formalities for the clearance of the ship both on arrival and departure.

RADIO: Notice of Arrival – see "General" before first Russian port.

VHF: Radio communication can be effected through the Port Radio Station "Vostochny-Radio", some details of which are given in the table below.

Call Sign	Frequencies (MHz) Working	Frequencies (MHz) Calling	Type of transmission	Time of work
"Vostochny-2"	156.7(14)	156.7(14)	F3E	H24
(Port controller)	157.775(95)	157.775(95)	F3E	H24

VTMS in operation.

TUGS: 3 powerful tugs available. Masters of vessels are to use minimum of 2 tugs when mooring/unmooring and shifting berths at the port of Vostochny. The use of a third tug is compulsory during absence of a tug-pusher when mooring/unmooring bow-towed barges.

The number of tugs and their horse-power is determined by a Pilot with the Master's consent.

BERTHING/CRANES: Berths of the port with depths of up to 10 m. are equipped to handle bulk, liquid, general and timber cargoes as well as various kinds of vehicles. There are also specialised systems for the handling of coal and containers.

STEVEDORES: The official working breaks at coal terminal are:

0700 – 0800 hrs.,1200 – 1300 hrs., 1900 – 2000 hrs., 0000 – 0100 hrs.

At all the other terminals official working breaks are:

0800 – 0900 hrs., 1200 – 1300 hrs., 1700 – 1800 hrs., 0000 – 0100 hrs.

FRESH WATER: Can be taken at berths.

FUEL: Can be taken from lighters only.

REPAIRS: No facilities.

DRY DOCKS: None.

HATCHES: Opening and closing hatches is carried out by dockers.

TIME: GMT plus 10 hours in Winter; GMT plus 11 hours in Summer.

GENERAL: *Charts:* Russian Chart No. 700.

Ship chandler's shop and restaurant available.

NOTICE:

To Masters of Foreign Vessels calling at Russian ports:

1. On arrival of the ship, the Master is to submit to the representatives of the Port Authorities the following documents (IMO Forms) duly signed by ship's administration:

General Declaration (Form I) – 5 copies
Filling in of points 8 and 11 is not compulsory.
Cargo Declaration (Form II) – 2 copies
Filling in of point 6 is not compulsory
Points 7, 8 and 9 are to be filled in only for:
(a) Cargoes for which Bills of Lading were not issued (names of Shippers and Consignees to be stated).
(b) Transit cargoes;
(c) Cargoes for other Soviet Ports;
(d) Agricultural cargoes.
Ship's Stores Declaration (Form III) – not required.
Crew's Effects Declaration (Form IV) – 2 copies.

Amount of Master's and crew members' valuables (gold, silver, platinum, jewellery, bonds, travellers' cheques, etc.), personal firearms and cartridges are to be stated in point 2.

Crew List (Form V) – 6 copies.
Passenger List (Form VI).

2. The Master of a ship is to instruct all members of the ship's crew that in accordance with the Rules in force in Russian Ports:

Exportation and importation of state currency is forbidden;

No articles are permitted to be taken ashore or brought on board the ship without permission of the Customs House Authorities;

Articles taken ashore or brought on board the ship and concealed from Customs Control shall be regarded as smuggled goods, shall be confiscated and a fine shall be imposed;

Likewise, the sale of any articles of foreign origin on the territory of Russia will be regarded as smuggling;

No rubbish shall be thrown into the water or on the quay. The discharge of oil contaminated water and/or oil residue is prohibited;

All mooring ropes must be fitted with rat-guards;

At night only one gangway must be ashore when loading or discharging is not carried out;

It is prohibited to take ashore grain, seeds, plants, plant products, soil, etc., as well as animals and birds;

Violation of the above-mentioned rules will entail penalty in accordance with the laws of Russia.

NOTICE: *Extracts from the Obligatory Decrees of Vostochny Port:*

Port Limits: Inner roadstead-Vrangel Bay, a line drawn between Kamensky Point and Petrovsky Point.

Pilotage: Pilotage is compulsory for all craft exceeding 20 m. LOA, day and night. Request for a Pilot shall be made to "Vostochy-2" on VHF Channel 16, working on Channels 14, 9 and 6.

Navigation: Navigation in Nakhodka Bay and fairway leading to inner roads is one-way only. Max. speed is up to 8 knots if over 150 m. LOA, 10 knots up to 150 m., and 12 knots if less than 50 m. The overtaking of craft is prohibited at the inner roadstead. Navigation in the inner road by all craft exceeding 50 m. LOA must be at dead slow speed.

Mooring: Mooring must be made with not less than 2 tugs.

Draft: Permissible draft by Coal Berth is to 15.0 m. and at other berths 9.7 m.

Anchorage: Anchorage is temporily prohibited at Vrangel Bay.

Declarations: All declarations with regards to damage done to the ship while loading (unloading) or mooring shall be made by the Master through "Inflot" to Port Authorities in writing within 4 hours of the accident and in any case, before the ship leaves the port. Failing this the port shall consider no claims and shall bear no liability for any damage.

Prohibition: The following are prohibited at the port:

(a) pouring of sanitary water overboard and any smoking.
(b) using of the any chemical means in order to neutralise the spilled waters alongside.

For infringement of the abovementioned Master or his Owner shall be punished (fine to 25,000 roubles or deprivation of freedom for 5 years in accordance with Russian legislation).

Signed: Harbour Master.

SHIPMASTER'S REPORT: May 1983.

The Port of Vostochny is a relatively new port, and lies in Nakhodka Bay, at the extreme N.E. end in a smaller Bay, known as Vrangel Bay.

Documents:

On Arrival:
5 General Declarations (IMO Form)
4 Cargo Declarations (IMO Form)
2 Stores Lists
2 Crew's Personal Effects Lists
6 Crew Lists
4 Passenger Lists
2 Money Lists
2 Marine Declarations of Health
1 Vaccination List
1 List of Ports Visited

Prior Departure:
1 Cargo Time Sheet
1 General Declaration
1 Cargo Declaration
Cargo Manifests,
(Prepared by Agent)

Port Authorities board the ship at any time to effect clearance. They use the accommodation ladder. Frequently a moderate swell runs into Nakhodka Bay from the South, making boarding from even quite large launches very difficult. Immigration Authorities inspect all Crew Seamens' Books. Process of clearance takes about 1.5 hours.

Approaches: When about 4 hours from the port call "Nakhodka Port Control", on Channel 16, Working Channel 12. Nakhodka Port Control has the whole of Nakhodka Bay (Amerika Bay on some charts) under radar surveillance. All shipping movement within the Port Limits are controlled by them. They give direct steering and sailing orders over VHF Channel 12 to vessels under way after passing Buoy No. 1 (Lat. 42° 43.3' N., Long. 132° 56.3' E.) inward bound, also anchor berth given with bearing and distance from Mys Shvedova Lt. Ho. usually in the Quarantine Anchorage indicated on Chart BA. 3198 and Anchorage No. 3 on Chart BA. 3041 (Nakhodka Bay). Anchorage good in clay and mud in about 19 m. of water. After anchoring, report to Nakhodka Port Control, and revert to listening watch on Channel 16.

Berthing: Vessel proceeded to the Coal Berth at Vostochny under guidance from Nakhodka Port Control. Fairways well defined on BA Chart No. 3041. Pilot meets vessel off the entrance to Vrangel Bay, just after passing Buoy No. 2. (Lat. 42° 46.0' N., Long. 133° 00.6' E.). Pilot normally boards by pilot ladder or accommodation ladder, port side. 2 tugs used for berthing, which is nearly always port side to.

Berth is new and very modern (Japanese construction). Very well fendered with large rubber fenders at regular intervals. Usable length of quay is about 275 m., bollards at regular intervals all the way along the quay. Although two berths are shown on the Coal Jetty on BA Chart No. 3041 (Nos. 49 and 50) only No. 49, is in fact, used. This is because the loaders (two in number) only serve Berth No. 49. Depth of water alongside reported as 15 m. and 14 m. guaranteed. No restriction on air draft for loaders, ample clearance for vessel of this size (Panamax).

Departure presents few problems, as plenty of room and water immediately off the berth. Two tugs used as for berthing. These tugs are small, and not really big enough for a vessel of this size, and take a long time to get the ship moving off the berth. However, when clear of berth, vessel can be turned short round with engines and also with the aid of the tugs. Immediately vessel is turned and heading outwards Pilot disembarks. Vessel proceeds outwards to fairway buoy, listening out for Nakhodka Port Control on Channel 12 until passing Buoy No. 1.

Bulk Cargo Facilities: There are 2 large loaders on the Berth, rated at 2,000 tonnes per hour, self trimming. We loaded bituminous steam coal, SF given as 42, but no real check possible on this figure. Vessel loaded 55,000 tonnes in 32 hours., and would have been even faster, but for plant breakdowns. Shore cargo personnel helpful as possible, but somewhat limited due to language problems. Informed by them that cargo delays are common due to availability of cargo lacking. All coal brought by rail to port from some considerable distance. Draft and deadweight survey carried out by shore foreman and ship's staff. Cargo documentation and port clearance by Authorities takes about 4 hours, from time of finishing loading.

Density: Density range of water from 1025 to 1028.

Regulations: Many regulations are in force as is common with most Russian ports, below are listed some of the most important ones.

1. Soviet currrency must not be brought in or out of the country.
2. No goods may be imported or exported without permission of Customs.
3. No goods may be taken ashore and sold or brought aboard concealed from Customs Control, as this will be construed as smuggling and heavy fines will be imposed.
4. No dumping of rubbish or pollution of any kind may take place into the harbour waters.
5. All moorings to be fitted with rat guards.
6. Only one gangway to the shore. No ladders to be put out on off side, and off side to be lit by lights at night.
7. No boats to be swung out or lowered.
8. No swimming or fishing allowed whilst alongside.
9. Ship's radio station not to be used in port and VHF not to be used for other than official messages with Shore Authorities or Marine Authorities.
10. Radar must not be used alongside. If radars are to have maintenance carried out by ship's staff, Inflot should be contacted for permission to be granted by Shore Authorities.
11. No photography is allowed.
12. No persons other than the ship's crew and fare paying passengers to be on board at any time. All shore personnel coming on board must be vetted by the Authorities.

SHIPMASTER'S REPORT: March 1984 (Updated 1988).
Vessel loaded coal for Japan.

The Coal Jetty is modern with a conveyor system and 2 moving shiploaders fitted with excellent trimmers. Several delays occurred.

In addition to the coal jetty, which is numbered 49 and 50, there is a container terminal, Berths No. 6, 7 and 8 and a timber wharf, Berths No. 10, 11 and 12, where logs of coniferous trees are loaded. Berth No. 9 is for small passenger vessels.

Documents prepared were as follows:

Customs Lists
Money/Currency List showing each crew members balance
Money/Currency List in Master's possession
Camera List (very important)
Passenger List (if no passengers state "Nil")
List of Narcotics
Arms and Ammunition List (state "Nil" if nothing on board) and List of Vessel's Port of Calls within the last year.

The Quarantine Doctor asked for Vaccination List, but these were not available on board vessel as several vaccinations concerning the crew had already expired. No difficulties occured because of this and it seems not to be compulsory.

All Authorities and Inflot Agent came from Nakhodka, the Agent was the only English speaking person and acted as interpreter.

SHIPMASTER'S REPORT: May 1984 (Updated 1988).
Port of Nakhodka and Vostochny (English translation of Vostochny is Eastern).

Chart: B.A. Chart No. 3041.

Arrival: Prior arrival Agents will instruct vessel to proceed to position Lat. 42° 27.2' N., Long. 132° 56.3' E. and steer a course of 000° true, which is the Southern entrance to Separation Zone. Also Agents require state of crew health.

As vessel passes Buoy No. 1, Master must report same to Nakhodka Port Control on Channel 16, transferring to Channel 12, at which point vessel will be radar controlled to anchorage, Port Control gives vessel course to steer and anchorage position, vessel remains on Channel 12 and instructions passed to vessel regularly. Even to number of cables to anchorage position, at which time vessel is instructed to drop anchor. If berth is available vessel proceeds to Buoy No. 2 as instructed and onto Fairway No. 3 along which the Pilot will board quite close to Entrance Buoys of the Bukhta Vrangelya (Vostochny Port).

Vessel berths port side alongside assisted by 2 tugs, head inwards, pier well fendered with large hard double rubber fenders (size 1 m. long by 0.5 m. deep and high). Normal securing to berth is 4 lines and 1 spring each end. Rat guards are required and must be fitted prior to Quarantine Clearance.

On berthing, 2 guards are placed at bottom of gangway and Agent boards with 2 Quarantine Officers, 2 Customs Officers and 2 Immigration Officers.

The following papers are required and best to give Agent all documents to sort out:

5 copies General Declaration (IMO Form 1).
5 copies Crew List (IMO Form).
3 copies Passenger List ("Nil" returns required if no passengers).
2 copies Vaccination List (Cholera and/or Yellow Fever).
*2 copies Crew Effects Declaration.
*2 copies Crew and Ship's Currency Declaration.
*2 copies List of Cameras with type and serial Nos.
*2 copies Drugs in Master's Safe.
1 copy Ship's Stores List (Bond, etc.).
1 copy Parcel List ("Nil" return required).
1 copy Delivery Bill of Mail ("Nil" return required).
1 copy Declaration of Arms/Ammunition List ("Nil" return required).
1 copy Maritime Declaration of Health (Japanese form accepted).
4 copies Cargo Declaration (if cargo onboard).

*One of each taken ashore, other copies stamped and retained onboard for clearance check before sailing.

Ensure crew declare all goods, watches, radios, firearms, gold, jewelry, etc.

All Discharge Books checked by Immigration, Customs have random check on cabins. Quarantine only check Derat Certificate and Vaccination List. Note *all* types of "magazines" are forbidden and must be collected and sealed up before clearance.

When all paperwork is completed and Officials leave vessel taking Discharge Books ashore and clearance is given, cargo work can commence after draft survey. Discharge Books are returned to vessel after a few hours and are required to be handed to the gangway guards when any crew go ashore, even to read the draft.

Draft Surveyor checks everything and quite thorough, even with hold cleaning. Once surveyor has completed he arranges cargo operations to commence as per ship's instructions.

Vessel loaded two grades of coal:

1. Partizensky (J-6) 40,000 tonnes.
2. Nerjungrin (SS) 15,000 tonnes.

At consignee's request cargo was loaded with 20,000 along bottom, then 15,000 of SS and complete with 20,000 J-6 on top. Reason being the 15,000 SS was very powdery and mixed would be easier to discharge. This entailed a draft survey at the end of each layer of coal. Loading rate up to 1,200 tonnes/p.h. per loader.

Details of Berth, Loader, Etc.:

Berth: A pier built out from shore with length of 400 m. and width 56 m. of which only 340 m. is used for mooring. Depth of water at forward end of vessel 16 m. and at pier end about 18 m. Max. draft allowed 15 m. Cement constructed pier of 10 cement pontoons driven into sea bed on each side, with horn bollards on top of each pontoon (2 bollards). Then double horizontal rubber fenders on face.

Loader: Two units, travelling type with elevation boom, has outreach from fender face of 28.2 m. and airdraft of 18 m. Telescopic head Spoon or Fast Belt.

Belt Conveyor: Two belts from yard to pier at 180 m. per second.

Stocks: Two yards approx. area each 730 m. by 45 m. and plenty of stockpiles.

Max. Size Allowed: 100,000 d.w.t. (LOA 300 m., beam 43 m. and draft 15 m.).

Steam Line: On quay for ice melting.

Yearly Production: 6.2 million tons per year.

Future: Increase production by 5 million tons when other side of pier is developed as presently no loaders, although pier is complete in all respects.

Stowage Factor of Coal: About 42 cu.ft. per ton.

Bunkers: Available ex-coaster.

Fresh Water: Available ex-barge from Nakhodka (very expensive).

Stores: Not available.

Shore Leave: Allowed between 0800 hrs. and 2400 hrs. (Master not restricted). There is nothing to see at Vostochny but 1 hour by car/mini bus to Nakhodka where a Seaman's Mission and export shop are located.

Time: GMT plus 10 hours. Between 1st April and 1st October GMT plus 11 hours.

Radio Station: Nakhodka Radio used. 8510 kHz call sign "UKK3" and 500/435 kHz call sign "UK1" and answered first call. Other frequencies as per Radio Station Signals Vol. 1.

Tugs: Two tugs used of about 1,000 h.p. and 2,000 h.p. (Local Regulations require any vessel berthing to use 2 tugs).

Pilot: 24 hour berthing allowed.

Agents: "Inflot" are available on demand, visit the vessel at least once a day and are very helpful.

Cargo Weights: This is done by electronic weights scale ashore and on draft surveys. Weights in each hatch are not correct, as seen from our Facts Sheet vessel same quantities each run, yet time in each hatch varied from 40 minutes to 90 minutes for same quantity. Final draft survey agreed with ship's figures which were used for Bill of Lading (ship only signs "Mate's Receipt").

Other Berths: Across bay are 3 general cargo berths and 3 container berths with a maximum draft allowed of 9.7 m. Gantries are only suitable for the smaller container vessel of about 1,000 boxes.

Departure: Once cargo completed all paper work done on vessel, Agent attends to cargo papers after which Customs and Immigration board. Immigration check each crew member with Discharge Book photograph, Customs check bond seal and break it. Apart from papers given to Master they require a Cargo Declaration (IMO Form) completed. Ship has to request a Port Clearance, otherwise none is given.

Stevedores: Continuous working of cargo with meal breaks between 0700 – 0800 hrs., 1200 – 1300 hrs., 1900 – 2100 hrs. and 2300 – 2400 hrs.

Sailing: Once vessel clear of berth vessel is swung 90° to port and lined up between Entrance Buoys at which time Pilot disembarks and vessel reports to Nakhodka Port Control who advise course to steer and watch you on radar until passing Buoy No. 1. Then vessel steers 180° until clear of separation scheme.

SHIPMASTER'S REPORT: August 1984.
Vostochny Approach.
B.A. Chart Nos. 2511, 3198, 3041.

The main port of Nakhodka handles all traffic routing inside the bay. Contact Nakhodka Traffic Control on Channel 12 not less than 2 miles prior to arrival Buoy No. 1, Control will give you anchoring position and course to steer. When approaching anchoring position Control gives you run down and distance to go for dropping anchor.

Officials board at anchorage (6 people). When vessel is cleared listen on Channels 16 and 12 for berthing instructions. When berth is free, Control informs you to heave up and proceed towards berth.

Vostochny Pilot (Channel 16) boards at Fairway Buoys off berths. 2 tugs assist berthing. Buoys have no numbers but mark the entance to Vrangelya Bay, where coal berth is situated. We berthed Berth No. 49, port side to. Depth at berth is 16.5 m., max. draft 15 m., airdraft 18.4 m. Max. ships size 260,000 d.w.t. (100,000 tonnes), beam 38 m. Loading rate 3,000 t.p.h. by 2 loading booms. This rate depends on availability of coal. Most of cargo comes from Siberia and requires 10 days passage from mines.

Vostochny Facilities: Fresh water available on jetty, use your own hose and coupling. Fuel and diesel available by barge. Ship chandler if required, also hospital and dental treatment available. Shore leave is by mini-bus or launch to Nakhodka. The mini-bus can only carry 10 people and the journey by launch takes approximately 75 minutes. An International Seaman's Club, souvenir shop and 4 restaurants are available at Nakhodka.

Documents: We made out our own forms which included:

6 copies Crew List.
2 copies Stores List.
2 copies Crew Declaration.
2 copies Currency List.
2 copies Dangerous Drugs List.
2 copies Passenger List.
2 copies Arms and Ammunition List
6 copies Notice of Readiness.
1 copy Port Health.

Any health forms will do, score out country of origin, they provide you with "Inflot" Agency Information Form.

4 copies General Declaration (IMO Form 1).
2 copies Cargo Declaration (IMO Form 2).

On completion of loading, Officials board for documentation of cargo loaded. When this is finished the Agent arranges for the Pilot via VHF. The Pilot takes vessel out of berth, using 2 tugs. Vessel proceeds, assisted by Port Control towards Buoy No. 1 off Mys. Krylova.

AUTHORITY: The Port of Vostochny Authority, Postal address: P.O.Box Vrangel-1, Port of Nakhodka Area, Primorsky Krai, 692907 Russia. *Tel:* (266) 52-3-71, 52-2-71, 52-4-00. *Telex:* 213816. *Cables:* Port of Vostochny.

AGENT: See "Nakhodka".

VYBORG: 60.42 N. 28.44 E. (See Plan)

For Saimaa Canal see "Finland".

GENERAL: A Baltic Sea port Vyborg is situated at the head of the Gulf of Vyborg in the N.E. part of the Gulf of Finland.

The port area consists of a harbour protected from the North by the Castle bridge passing over the strait nearby the Castle of Vyborg and by the Smolyanoy point – from the West.

The port is open for navigation all year round (from December till April with icebreaker assistance). Ice in the Gulf of Vyborg begins to form normally about the middle of November. The Gulf usually becomes frozen over by the middle of December and the last ice finally disappears in April.

Whilst tidal range in the Gulf of Vyborg is of small account, considerable changes in the water level may be caused by strong winds (up to 1.6 m.), variation in atmospheric pressure (up to 1 m.), and the seasonal increase of the amount of water brought down from the land. The rise of the water level is usually caused by South, S.W. and sometimes by North winds. The maximum range of the water level in the Gulf is about 2.0 m.

The Vyborg Fairway (least depth 7.3 m.) leads from the entrance to the Gulf of Vyborg across the Transund roadstead up to the entrance of the Inner Vysotsky Roads. The Vyborg Sea Channel (least depth 6.5 m.) leads from the Inner Vysotsky Roads into the port, situated at the head of the Gulf. Both of these and the Fairway and the Channel, are open for navigation any time of day or night.

PORT LIMITS: The sea waters of the port are the fairways and anchorages to the East from 28° 23' E. and to the North from 60° 34' N.

DOCUMENTS:

1 copy Master's Oath.
5 copies General Declaration.
6 copies Arrival Crew List.
6 copies Passenger List.
1 copy Stores List.
2 copies Crew's Effects Declaration.
1 copy Manifest of all Foreign Cargo onboard.
4 copies Manifest of Cargo for Discharge.
4 copies Dangerous Cargo Manifest.

PILOTAGE: Pilotage in the port area is carried out round the clock. It is compulsory for all types of vessels. Pilots board and disembark vessels in the following places:

1. At the port of Vyborg;
2. At the Reception Buoy, 5.1 cables Westward of the Northern point of the Mayachny Island (pilot station of the Vikhrevoy Island);
3. At the Brusnichnoe Lock berth or in the Lock itself.

In the case of rough weather when safe boarding or disembarkation of a Pilot at the Reception Buoy of the Vikhrevoy Island pilot station is impossible, a vessel, with the Master's consent, may follow a pilot boat, in the wake of it from the Reception Buoy up to the Large Transund Roadstead or as the case may be, from the Large Transund Roadstead up to the Reception Buoy.

The radio communication between pilot boat and vessel is effected through VHF radio, Channel 12.

In case the Master of a vessel does not agree to follow a pilot boat, he can:

(a) When approaching the port from the seaward lie at anchor at the Reception Buoy area until the weather changes for the better;

(b) When leaving the port for sea, anchor at the Large Transund Roadstead at a place indicated by the Port Administration and wait until Pilot is able to disembark at the Reception Buoy area.

Vessels approaching the port from seaward should order a Pilot at the same time as they notify the Port Administration of the time of their arrival at the point of meeting a pilot boat.

ANCHORAGES: There are 5 anchorages at Vyborg Fairway and at Vyborg Sea Channel areas.

Two are situated at the Large Transund Roadstead area, one – at the Small Transund Roadstead, one – S.E. and one – N.W. of the channel. Anchorage positions are shown on the chart.

The holding ground in the anchorages is sand, mud, stone and clay. The depths are from 11 m. to 17 m.

RESTRICTIONS: Vessels are allowed to enter or leave the port when winds do not exceed Force 6. During daytime, when a vessel's length is not more than 135 m. and her draft does not exceed 6.5 m. (at the Kronstadt datum);

At night time, when a vessel's length is not more than 125 m. and her draft does not exceed 6.0 m., and 105 m. and her draft does not exceed 6.2 m. (at the Kronstadt datum).

Before entering or leaving the port Masters of vessels having length and draft exceeding those indicated above must obtain the Harbour Master's permission.

HEALTH: International code quarantine signals to be shown on arrival. Vessels placed in quarantine will be instructed where to anchor by the pilot station.

RADIO: Radio contact can be established through the Vyborg Radio port radio station operating 24 hours daily on the following frequencies:

	Frequencies (kHz)		*Type of trans-mission*	*Time of work*
Call Sign	*Working*	*Calling*		
UNN	500	500	A1A	H24
"Vyborg Radio"	156.8*(16)	156.8*(16)	F3E	H24
(Harbour Master)	156.6*(12)	156.6*(12)	F3E	H24
"Vyborg Pilot" (Pilot Station)	156.5*(10)	156*(10)	F3E	H24
"Vyborg Inflot"	156.8*(16)	156.8*(16)	F3E	H24
(Inflot Shipping Agency)	156.7*(14)	156.7*(14)	F3E	H24

*Frequencies are given in MHz.

Every vessel whilst proceeding along the Fairways and the Channel must have VHF radio-telephone in good working order, being able to ensure a reliable radio contact with the port of Vyborg and between vessels. If a vessel is not equipped with VHF radio, a Master can hire a VHF portable radio-set from a pilot station (via Pilot) for a fixed charge.

TUGS: Available, ordered through "Inflot". Compulsory for vessels over 80 m. LOA.

BERTHING: Can only be effected with Pilot on board. Berths of the port with depths alongside of up to 23.8 ft. are equipped to handle general and bulk cargoes, timber, etc., as well as passenger traffic. There are enclosed warehouses and open concrete floor sheds.

Berths are equipped with electric cranes of up to 20 tons capacity. There are floating cranes of up to 15 tons capacity and other cargo-handling equipment and machinery.

Berth No.	*Length (ft.)*	*Depth (ft.)*
1	405	14.6
6	343	23.3
7	426	22.6
8	426	23.0
9	426	23.0
10	426	23.0
11	246	20.0
12	492	22.3
13	492	23.8

MEDICAL: "Inflot" to be advised in advance if any medical attention required.

DENSITY: Salinity 5%.

FRESH WATER: Available. Can be supplied by pipelines at all berths or delivered by barges.

FUEL: Available by barge only.

REPAIRS: Minor repairs can be effected.

SURVEYORS: Surveyors and Cargo Inspectors may be ordered through "Inflot" Agency or through Cargo Receivers' Agents V/O "Soyuzvneshtrans" (telex 121 541).

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Usually opened and closed by crew. Can be operated by stevedores on request.

CUSTOMS ALLOWANCES: No control on board the vessel. All items taken off vessel subject to Customs control.

TIME: GMT plus 3 hours from 1st October until 31st March, GMT plus 4 hours from 1st April until 30th September.

HOLIDAYS: Cargo operations can be carried out on all holidays.

EMERGENCY CO-ORDINATION CENTRE: Salvage Division of the Baltic Steamship Co., St.Petersburg. Tel: 259-03-55, 216-99-65. Telex: 121 501.

TELEPHONE: Connection to vessels is not possible.

BANKS: Vneshtorgbank in St.Petersburg.

STORING: Under Customs control from trucks alongside at the berth. Bunkers from a tanker or from trucks.

SHORE LEAVE: Permitted subject to police control.

DEVELOPMENTS: Three berths at Vysotsk of total length of 360 m. and draft 7.5 m. are under construction.

Dredging and deepening to take place to allow vessels of 12,000 d.w.t. to enter.

AUTHORITY: The Port of Vyborg Authority, Ulitsa Yuzhny Val 1, 188900 Vyborg, Russia. *Tel:* 24750, 99677. *Contact:* V. Kirillov, Harbour Master of Vyborg Sea Port (Tel: 93145. Fax: 20477).

AGENT: The Port of Vyborg Maritime Agency "Inflot". Postal address: Inflot, P.O. Box 40, Vyborg, Russia. Cables: "Inflot Vyborg". Tel: 21400, 21735, 24818. Telex: 121521 Infl Su.

St. Christopher and Nevis

BASSETERRE, St.Kitts: 17.18 N. 62.43 W. (See Plan)

DOCUMENTS:
5 copies of Crew List.
6 copies of Passenger List.
1 copy High Duty Cargo List.
1 copy Crews' Personal Effects List.
1 copy Clearance from last port.
2 copies Ship's Stores List.
7 copies Manifest.
2 copies Bills of Lading.
1 copy Port Officer's Report.
1 copy Boarding Officer's Form.
1 copy Coast Guard Form.
1 copy Unmanifested Cargo.
1 copy Maritime Declaration of Health.

PILOTAGE: Pilot not compulsory, but all vessels of 100 g.r.t. and over have to pay piloting fees, even if service not used.

ANCHORAGES: Harbour at Basseterre is an open roadstead and safe anchorage will be found at a distance of 0.25 miles to 0.5 miles from the shore opposite the piers in the centre of the town.

RESTRICTIONS: None.

HEALTH: The Customs Boarding Officer boards all vessels on arrival at port and inspects the clearance from the last port. If there are no health problems the vessel is immediately granted Pratique. If there is suspected disease or fever on board pre-notification is recommended. If this is done the Customs Boarding Officer will have a Medical Officer with him when he boards the ship on arrival.

RADIO: Contact is through Saba Radio, call sign PJA.

VHF: Port and Police on Channel 16 throughout 24 hours.

BERTHING: Main Berth: Length 400 ft., depth 30 ft. Max. LOA 700 ft.

Ro/Ro Berth: Length of berth 385 ft. Depth of water 16.5 ft.

Sugar Loading: Mobile unloaders rated at 150 t.p.h.

Berthing on ships without thrusters is achieved against off-shore wind by using port anchor to snub in and swing stern onto quay. Mooring boat runs lines ashore and stern line to buoy, aft breast lines sent to bollard in middle of end of quay.

CRANES: 1 Grove TM 8100 mobile crane with capacity 100 tonnes. 1 container lifter capable of lifting 20 ft. and 40 ft. containers of up to 35 tonnes.

STEVEDORES: ETA should be advised 24 hours before arrival of vessel, also tonnage to be discharged and number of gangs required. Discharging rate: 15 tons per gang per hour on bags. 6 tons per gang per hour on general cargo.

MEDICAL: Advance notice if possible – hospital facilities available. Valid Vaccination Certificate for passengers disembarking but not for in transit or cruise ship passengers.

TANKERS: See "Shipmaster's Report".

DENSITY: 1025. Tides negligible (maximum 1 ft.).

FRESH WATER: Available alongside main berth and Ro-Ro Berth.

FUEL: Limited supply available by road tanker.

CONSULS: France, Netherlands, Spain, Trinidad and Tobago.

REPAIRS: The sugar factory has a well-equipped shop for machine, welding and maintenance work. They can assist with most engine repairs.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Done by stevedores.

CUSTOMS ALLOWANCES: Half pound tobacco or 200 cigarettes. Wine and/or Spirit, 1 bottle.

REPATRIATION: Crew changes and repatriation can be arranged.

AIRPORT: 2 miles from town with regular daily connections to Antigua and Puerto Rico where onward passages to Canada, U.S.A., Great Britain and Europe can be arranged.

TIME: GMT minus 4 hours; no alteration.

HOLIDAYS: New Year's Day (January 1st); Good Friday; Easter Monday; Whit Monday; Queen's Birthday (date fixed by announcement annually); August Monday; Independence Day (September 19th); Christmas Day (December 25th); Boxing Day (December 26th).

POLICE/AMBULANCE/FIRE: Police Tel: 911; Fire Tel: 911; Ambulance Tel: 911; Hospital Tel: 465-2551.

TELEPHONES: Available on request.

IDENTIFICATION CARDS: Not needed, however, crew members are liable to be checked by Port Authority on entry and exit by security guard.

SHIPMASTER'S REPORT: November 1989 (Updated 1994).

Chart: BA. Chart No. 487

Approaches: Basseterre is conspicuous with Fort Thomas to the West and deep water jetty to the East.

The Shell Berth is marked as lighter moorings on B.A. Chart No. 487 insert plan.

The jetties in the centre section of the shoreline are now in a state of disrepair.

Vessels approach the Shell Berth from the S.W. and at a broad angle.

Pilotage: Pilotage is optional at oil berths (Shell and Texaco), available from 0630 hrs., VHF facilities available.

Shell charge a standard pilotage fee if taken or not. Vessel should make an early request as port is busy early in the morning berthing ships alongside the deep water jetty.

It is advisable to take Pilot on first visit. The new Texaco Berth, S.E. of Shell Berth is a bit more awkward.

Anchorage: In bay as marked on plan insert of Chart No. 487, anchorage is fairly sheltered.

Berthing: Approach Shell Berth from S.W. at a broad angle, and let go starboard anchor, when port forward mooring buoy on port bow is about 30 m. away. We found 6.5 m. datum throughout length of vessel.

Mooring: The performance of boatmen varies. Joshua, the main harbour boatman, is reported to be very good, he has a launch with a blue hull and white cabin. If he is busy elsewhere, a person with an open fishing boat will attend. Joshua will normally be available to run boat service, but the other person will not be available.

Stern buoys and port head buoy have hooks.

The LPG hose mooring buoy is the Easterly of the set of hoses.

Cargo Operations: Shell have 100 tonnes' capacity LPG, Texaco have 50 tonnes' capacity at present.

Hose Buoys:	1.	East	LPG end of hose (LPH)
	2.		LPG end of pipe (LPP)
	3.		White oils
	4.	West	Road Bitumen (RC2)

Shell generally like 50/50 mix, unfortunately Trinidad generally supplies 70/30 mix which is not liked, as butane is used up too fast in cookers.

Submarine hose with 4 in. flange with valve, port side derrick. Pumping rate 50 t.p.h.

The Supervisor is very helpful, he boards on commencement and completion of operations.

Agent: The Supervisor often acts as Agent and Customs Official as no officials board the ship.

Clearance was given during discharge as we had to wait for Mr. Wade to find a Customs Officer.

Documents:
5 copies Crew List.
1 copy Unmanifested Cargo.
2 copies Ship's Bonded Stores.
2 copies Crew Manifest.
1 copy Maritime Declaration of Health.
1 copy Port Officer's Return.

General: Definitely no night pumping. Berthing operations commence at 0600 hrs.

Shell use VHF Channel 9, we lent them our Motorola.

The boatman can be hired for about U.S.$35.00 per day for shore leave.

Texaco have a new installation on the East side of the Bay with 2 mooring buoys (1 head, 1 stern), with ship's hose to dolphin, about 350 m. hose run to dolphin connection.

Texaco handle LPG and white oils.

The dolphin has a red flashing light (Lat. 17° 17.43' N., Long. 62° 42.7' W.), visible 3.5 miles.

Unable to raise Saba Radio from Basseterre. Contacted Barbados at 1330 hrs. GMT on Channel 1213.

The bay is fairly well sheltered, except for ground swell.

AUTHORITY: The St. Christopher – Nevis Port Authority, P.O.Box 963, Bird Rock, Basseterre, St. Kitts. *Tel:* (809) 465-8121, 8122, 8123. *FAX:* (809) 465-8124. *Contact:* The General Manager.

NOTES

Please also advise Shipping Guides Ltd.

St. Helena

JAMESTOWN: 15.56 S. 05.40 W. (See Plan)

PORT LIMITS: Within 3 miles radius of the port. Laytime commences at the anchorage.

DOCUMENTS:
4 copies of Crew List.
4 copies of Passenger List.
1 copy of Maritime Declaration of Health.
2 copies of Ship's Manifest.
1 copy of Crew Declaration.
1 copy of Ship's Stores, including Shops and Bars.

PILOTAGE: No Official Pilot.

ANCHORAGES: The harbour consists of an open roadstead with anchorages shown on charts.

MAX. SIZE: Any size vessel can enter the port. Maximum tide variation approximately 1 m.

HEALTH: Pratique will be granted by the boarding party or by telegram from Port Health Officer. If disease or fever suspected, Port Health should be informed by telegram 24 hours before anchoring so that the necessary precautions can be taken.

RADIO: Frequencies: 500 and 461 kHz A1A. 12963.5 kHz A1A. Working Hours: 500 and 461 kHz – Weekdays from 0800 to 1600 GMT. Sundays and public holidays from 0800 to 1300 GMT. 12963.5 kHz – Daily, except Sundays from 1200 to 1300 GMT. Listening watch on Channel 5 and Channel 6.

Call sign for R/T working – St. Helena Radio. Frequencies: 2182 kHz H3E, 3162 kHz H3E, J3E and R3E. 4396.0, 8737.0 and 13125.0 kHz. J3E and R3E. Working hours: 2182 and 3162 kHz – Weekdays from 0800 to 1600 GMT. Sundays and public holidays from 0800 to 1300 GMT. 4396.0, 8737.0 and 13125 kHz are only opened on request and ships should answer on Channels 414, 807 and 1217 respectively.

SITOR – Radio Telex Service: SELCAL 4635, A/B 4635 CWZHH. Frequencies: 4212.5, 8423.5. 12584.0 and 16811.5 kHz F1B. Working Hours: Weekdays 1000 to 1030 GMT 16811.5 kHz, ship answers Channel 1610. 1030 to 1100 GMT 12584.0 kHz, ship answers Channel 1210. 1500 to 1530 GMT 16811.5 kHz, ship answers Channel 1610. 1530 to 1600 GMT 12584.0 kHz, ship answers Channel 1210. 4212.5 (Channel 405) can be opened on request.

Call sign for VHF working – St.Helena Radio. Frequencies: Channels 16, 10, 12, 14, 22, 24, 25, 26 and 27. Working Hours: Continuous.

VHF: Harbour Master has VHF facilities. Call sign "Port Control"; Channel 16, working Channel 14, Monday to Friday 0830 hrs. – 1600 hrs.

TUGS: None.

BERTHING: Vessels anchor in 18 – 20 fathoms of water.

CRANES: 2×10 ton and 1×30 ton heavy lift crane.

STEVEDORES: 48 hours' notice required by Agents Messrs. Solomon & Co. (St. Helena) plc, also particulars of tonnage of cargo.

MEDICAL: Harbour Master, via Agent, should be notified if medical attention is required.

TANKERS: No facilities available.

FRESH WATER: Delivered by floating pipeline at approximately 10 t.p.h.

FUEL: Limited stocks of diesel oil held for local use only.

CONSULS: French Consul. Appointed representatives for Denmark and Norway.

REPAIRS: Small repairs can be carried out (welding or turning, etc.).

DRY DOCKS: None.

SURVEYORS: Messrs. Solomon & Co. (St. Helena) plc as Cargo Surveyor Agents for Lloyd's.

CERTIFICATES: Vaccination Certificates required for all crew. Derat Certificate should be valid.

CUSTOMS ALLOWANCES: Duty free stores will be sealed by Customs. An amount may be levied to cover the duty payable on the duty free stores consumed by passengers and/or crew aboard a visiting vessel whilst in port.

CARGO GEAR: All discharge carried out by vessel's derricks into lighters and barges.

GANGWAY/DECK WATCHMEN: Supplied by Messrs. Solomon & Co. (St. Helena) plc. on request.

HATCHES: Opening/closing of hatches normally carried out by crew.

REPATRIATION: No facilities for crew changes. Only for those left behind for hospitalisation.

AIRPORT: No airport on St. Helena.

TIME: GMT throughout the year.

HOLIDAYS: New Year's Day (1st January); Good Friday; Easter Monday; St. Helena Day (21st May); Whit Monday; Queen's Official Birthday; August Bank Holiday; Christmas Day (25th December); Boxing Day (26th December). Cargo work can be arranged except on Christmas holidays.

POLICE/FIRE/AMBULANCE: Police and Fire, Tel: 999. General Enquiries, Tel: 2626. Ambulance, Tel: 2500. Fax: (290) 2530.

SHORE LEAVE: No restrictions unless imposed by Immigration Department.

GARBAGE DISPOSAL: No facilities available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: No Seamen's Club, but telephone – Payphones (card/coin) available at the Post Office and throughout the Island. There is a Public Fax Bureau situated at the "Moon" on Napoleon Street near the Post Office.

Anglican and Catholic church. Sports arranged through agents.

CURRENCY: Own currency, pounds on par with UK Sterling. Will accept UK notes, not coins.

DELAYS: No delays in berthing. Loading or discharge can be delayed due to bad weather.

SHIPMASTER'S REPORT: November 1996.

Vessel Data:
Type of vessel: Chemical Tanker.
Gross tonnage: 4,988.
LOA: 115.2 m.
Breadth: 18.0 m.
Main engine: 4,560 h.p.
Bowthruster: 620 h.p.
Propeller: Right-handed controllable pitch propeller acting like a left-handed propeller on astern (stern turns to starboard).
Draft at time: Forward 6.85 m. Aft 7.60 m.

Approach: The approach from the N.W. caused no problems. The island was sighted at a distance of about 32 nautical miles.

Weather at the time: Fair, wind S.E., Force 5, overcast sky and moderate S.E.'ly sea and swell. As soon as a lee from the island was experienced, the sea state became smooth.

VHF contact with Saint Helena Radio (Call sign ZHH) could be made at long range.

Port Control called about 3 hours before arrival on VHF Channel 16 for confirmation.

Pilotage is not available.

Tugs are not available.

The metric Chart B.A. No. 1771 provides coverage for the approach to the island as well as for Rupert's and James Bays.

For the approach to Rupert's Bay, however, a copy of the old fathom Chart B.A. No. 1769 was used as a reference, since that chart provided more details and a better scale.

Both the yellow mooring buoy and the orange floating cargo hose were sighted very early, but except for some small orange fishing buoys, no other buoys were sighted, although 4 buoys in total are charted on B.A. No. 1771, and mentioned in the Admiralty Sailing Directions for Rupert's Bay.

The yellow mooring buoy, however, proved to be in the position as charted on B.A. No. 1771, i.e. Lat. 15° 55.02' S., Long. 5° 42.82' W.

Approach course to Rupert's Bay 123°(T) with the conspicuous Munden's Point dead ahead.

Speed about 2 knots, which is minimum speed for steering. At a distance of 2 cables off Munden's Point, course was altered to a heading of 090°(T). As soon as Munden's Point was on starboard beam (distance 0.7 cables), the vessel was turned to port to a heading of 042°(T), parallel indexing at Chubb's Point, distance 0.5 cables.

We dropped port anchor as soon as the distance from stern to Chubb's Point was 0.4 cables. Manoeuvring at dead slow ahead, P/S rudder, the stern swinging free from the obstructions/rocks near Chubb's Point, meanwhile slacking port anchor chain till 3 shackles on the windlass.

The 2 yellow leading beacons, as charted on B.A. No. 1771 and mentioned in the Admiralty Sailing Directions, were hardly visible, so of no use while positioning the vessel.

With a heading of about 000°(T), we dropped starboard anchor, while pitch was set to half astern, in order to swing the vessel in to position, i.e. on a heading of 282°(T). Slacking starboard anchor chain till 3 shackles on the windlass, whereupon the vessel had the yellow mooring buoy astern somewhat on starboard side. Both anchor chains were now slacked simultaneously.

When the vessel was about 50 m. off the buoy, 2 stern lines were given out from port quarter to the mooring boat "Wide Awake", in order to position the vessel towards the yellow mooring buoy. After these 2 lines, 2 more stern lines were given out from starboard quarter, thus preventing the stern swinging too much to starboard (the effect of having the pitch on astern).

The vessel ended up with 5 shackles in the water on both anchors and 4 stern lines tight, with the yellow mooring buoy dead astern at a distance of about 15 m., in position Chubb's Point bearing and distance 220°(T), 0.11 nautical miles off, heading 285°(T).

In Port: During stay in port, the vessel experienced good weather and was laying quietly moored at anchor. We did not experience the high swell as mentioned in the Admiralty Sailing Directions.

Authorities, Agent, Surveyor and Loading Master boarded upon arrival at 1810 hrs.

Discharge operations commenced 0600 hrs. the next day.

The floating hose (at the shoreside supported by a gantry crane, extending approximately 10 m. over the water) was connected by a shore gang. The hose (diameter 3 in.) had a non-return valve at its free end. Reducers (3 in. – 6 in.) were provided by shore, since the hose had a special type of lock coupling.

Maximum discharge pressure was 6 bar at shore's request.

After discharge of the first parcel, the hose was blown from the vessel to the shore in about 5 minutes.

Discharge operations took a little less than 12 hours. A shore watchman with radio stayed on board during the whole operation.

Documents:
Crew List.
Cargo Manifest.
Transit Cargo Manifest.
Maritime Health Declaration.

The Authorities were very friendly and did not ask for Personnel Effects List or any certificates.

AUTHORITY: Harbour Master, The Wharf, Jamestown, Island of St. Helena, South Atlantic Ocean. *Tel:* (290) 2287, 2750. *Telex:* 4202 Govt Hl. *FAX:* (290) 2598 or 2297. *Contact:* D.E. Bennett, Harbour Master.

St. Christopher and Nevis

BASSETERRE, St.Kitts: 17.18 N. 62.43 W. (See Plan)

DOCUMENTS:
5 copies of Crew List.
6 copies of Passenger List.
1 copy High Duty Cargo List.
1 copy Crews' Personal Effects List.
1 copy Clearance from last port.
2 copies Ship's Stores List.
7 copies Manifest.
2 copies Bills of Lading.
1 copy Port Officer's Report.
1 copy Boarding Officer's Form.
1 copy Coast Guard Form.
1 copy Unmanifested Cargo.
1 copy Maritime Declaration of Health.

PILOTAGE: Pilot not compulsory, but all vessels of 100 g.r.t. and over have to pay piloting fees, even if service not used.

ANCHORAGES: Harbour at Basseterre is an open roadstead and safe anchorage will be found at a distance of 0.25 miles to 0.5 miles from the shore opposite the piers in the centre of the town.

RESTRICTIONS: None.

HEALTH: The Customs Boarding Officer boards all vessels on arrival at port and inspects the clearance from the last port. If there are no health problems the vessel is immediately granted Pratique. If there is suspected disease or fever on board pre-notification is recommended. If this is done the Customs Boarding Officer will have a Medical Officer with him when he boards the ship on arrival.

RADIO: Contact is through Saba Radio, call sign PJA.

VHF: Port and Police on Channel 16 throughout 24 hours.

BERTHING: Main Berth: Length 400 ft., depth 30 ft. Max. LOA 700 ft.
Ro/Ro Berth: Length of berth 385 ft. Depth of water 16.5 ft.
Sugar Loading: Mobile unloaders rated at 150 t.p.h.

Berthing on ships without thrusters is achieved against off-shore wind by using port anchor to snub in and swing stern onto quay. Mooring boat runs lines ashore and stern line to buoy, aft breast lines sent to bollard in middle of end of quay.

CRANES: 1 Grove TM 8100 mobile crane with capacity 100 tonnes. 1 container lifter capable of lifting 20 ft. and 40 ft. containers of up to 35 tonnes.

STEVEDORES: ETA should be advised 24 hours before arrival of vessel, also tonnage to be discharged and number of gangs required. Discharging rate: 15 tons per gang per hour on bags. 6 tons per gang per hour on general cargo.

MEDICAL: Advance notice if possible – hospital facilities available. Valid Vaccination Certificate for passengers disembarking but not for in transit or cruise ship passengers.

TANKERS: See "Shipmaster's Report".

DENSITY: 1025. Tides negligible (maximum 1 ft.).

FRESH WATER: Available alongside main berth and Ro-Ro Berth.

FUEL: Limited supply available by road tanker.

CONSULS: France, Netherlands, Spain, Trinidad and Tobago.

REPAIRS: The sugar factory has a well-equipped shop for machine, welding and maintenance work. They can assist with most engine repairs.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Done by stevedores.

CUSTOMS ALLOWANCES: Half pound tobacco or 200 cigarettes. Wine and/or Spirit, 1 bottle.

REPATRIATION: Crew changes and repatriation can be arranged.

AIRPORT: 2 miles from town with regular daily connections to Antigua and Puerto Rico where onward passages to Canada, U.S.A., Great Britain and Europe can be arranged.

TIME: GMT minus 4 hours; no alteration.

HOLIDAYS: New Year's Day (January 1st); Good Friday; Easter Monday; Whit Monday; Queen's Birthday (date fixed by announcement annually); August Monday; Independence Day (September 19th); Christmas Day (December 25th); Boxing Day (December 26th).

POLICE/AMBULANCE/FIRE: Police Tel: 911; Fire Tel: 911; Ambulance Tel: 911; Hospital Tel: 465-2551.

TELEPHONES: Available on request.

IDENTIFICATION CARDS: Not needed, however, crew members are liable to be checked by Port Authority on entry and exit by security guard.

SHIPMASTER'S REPORT: November 1989 (Updated 1994).

Chart: BA. Chart No. 487

Approaches: Basseterre is conspicuous with Fort Thomas to the West and deep water jetty to the East.

The Shell Berth is marked as lighter moorings on B.A. Chart No. 487 insert plan.

The jetties in the centre section of the shoreline are now in a state of disrepair.

Vessels approach the Shell Berth from the S.W. and at a broad angle.

Pilotage: Pilotage is optional at oil berths (Shell and Texaco), available from 0630 hrs., VHF facilities available.

Shell charge a standard pilotage fee if taken or not. Vessel should make an early request as port is busy early in the morning berthing ships alongside the deep water jetty.

It is advisable to take Pilot on first visit. The new Texaco Berth, S.E. of Shell Berth is a bit more awkward.

Anchorage: In bay as marked on plan insert of Chart No. 487, anchorage is fairly sheltered.

Berthing: Approach Shell Berth from S.W. at a broad angle, and let go starboard anchor, when port forward mooring buoy on port bow is about 30 m. away. We found 6.5 m. datum throughout length of vessel.

Mooring: The performance of boatmen varies. Joshua, the main harbour boatman, is reported to be very good, he has a launch with a blue hull and white cabin. If he is busy elsewhere, a person with an open fishing boat will attend. Joshua will normally be available to run boat service, but the other person will not be available.

Stern buoys and port head buoy have hooks.

The LPG hose mooring buoy is the Easterly of the set of hoses.

Cargo Operations: Shell have 100 tonnes' capacity LPG, Texaco have 50 tonnes' capacity at present.

Hose Buoys: 1. East LPG end of hose (LPH)
2. LPG end of pipe (LPP)
3. White oils
4. West Road Bitumen (RC2)

Shell generally like 50/50 mix, unfortunately Trinidad generally supplies 70/30 mix which is not liked, as butane is used up too fast in cookers.

Submarine hose with 4 in. flange with valve, port side derrick. Pumping rate 50 t.p.h.

The Supervisor is very helpful, he boards on commencement and completion of operations.

Agent: The Supervisor often acts as Agent and Customs Official as no officials board the ship.

Clearance was given during discharge as we had to wait for Mr. Wade to find a Customs Officer.

Documents:
5 copies Crew List.
1 copy Unmanifested Cargo.
2 copies Ship's Bonded Stores.
2 copies Crew Manifest.
copy Maritime Declaration of Health.
copy Port Officer's Return.

General: Definitely no night pumping. Berthing operations commence at 0600 hrs.

Shell use VHF Channel 9, we lent them our Motorola.

The boatman can be hired for about U.S.$35.00 per day for shore leave.

Texaco have a new installation on the East side of the Bay with 2 mooring buoys (1 head, 1 stern), with ship's hose to dolphin, about 350 m. hose run to dolphin connection.

Texaco handle LPG and white oils.

The dolphin has a red flashing light (Lat. 17° 17.43' N., Long. 62° 42.7' W.), visible 3.5 miles.

Unable to raise Saba Radio from Basseterre. Contacted Barbados at 1330 hrs. GMT on Channel 1213.

The bay is fairly well sheltered, except for ground swell.

AUTHORITY: The St. Christopher – Nevis Port Authority, P.O.Box 963, Bird Rock, Basseterre, St. Kitts. *Tel:* (809) 465-8121, 8122, 8123. *FAX:* (809) 465-8124. *Contact:* The General Manager.

NOTES

Please also advise Shipping Guides Ltd.

St. Helena

JAMESTOWN: 15.56 S. 05.40 W. **(See Plan)**

PORT LIMITS: Within 3 miles radius of the port. Laytime commences at the anchorage.

DOCUMENTS:
4 copies of Crew List.
4 copies of Passenger List.
1 copy of Maritime Declaration of Health.
2 copies of Ship's Manifest.
1 copy of Crew Declaration.
1 copy of Ship's Stores, including Shops and Bars.

PILOTAGE: No Official Pilot.

ANCHORAGES: The harbour consists of an open roadstead with anchorages shown on charts.

MAX. SIZE: Any size vessel can enter the port. Maximum tide variation approximately 1 m.

HEALTH: Pratique will be granted by the boarding party or by telegram from Port Health Officer. If disease or fever suspected, Port Health should be informed by telegram 24 hours before anchoring so that the necessary precautions can be taken.

RADIO: Frequencies: 500 and 461 kHz A1A. 12963.5 kHz A1A. Working Hours: 500 and 461 kHz – Weekdays from 0800 to 1600 GMT. Sundays and public holidays from 0800 to 1300 GMT. 12963.5 kHz – Daily, except Sundays from 1200 to 1300 GMT. Listening watch on Channel 5 and Channel 6.

Call sign for R/T working – St. Helena Radio. Frequencies: 2182 kHz H3E, 3162 kHz H3E, J3E and R3E. 4396.0, 8737.0 and 13125.0 kHz. J3E and R3E. Working hours: 2182 and 3162 kHz – Weekdays from 0800 to 1600 GMT. Sundays and public holidays from 0800 to 1300 GMT. 4396.0, 8737.0 and 13125 kHz are only opened on request and ships should answer on Channels 414, 807 and 1217 respectively.

SITOR – Radio Telex Service: SELCAL 4635, A/B 4635 CWZHH. Frequencies: 4212.5, 8423.5. 12584.0 and 16811.5 kHz F1B. Working Hours: Weekdays 1000 to 1030 GMT 16811.5 kHz, ship answers Channel 1610. 1030 to 1100 GMT 12584.0 kHz, ship answers Channel 1210. 1500 to 1530 GMT 16811.5 kHz, ship answers Channel 1610. 1530 to 1600 GMT 12584.0 kHz, ship answers Channel 1210. 4212.5 (Channel 405) can be opened on request.

Call sign for VHF working – St.Helena Radio. Frequencies: Channels 16, 10, 12, 14, 22, 24, 25, 26 and 27. Working Hours: Continuous.

VHF: Harbour Master has VHF facilities. Call sign "Port Control"; Channel 16, working Channel 14, Monday to Friday 0830 hrs. – 1600 hrs.

TUGS: None.

BERTHING: Vessels anchor in 18 – 20 fathoms of water.

CRANES: 2×10 ton and 1×30 ton heavy lift crane.

STEVEDORES: 48 hours' notice required by Agents Messrs. Solomon & Co. (St. Helena) plc, also particulars of tonnage of cargo.

MEDICAL: Harbour Master, via Agent, should be notified if medical attention is required.

TANKERS: No facilities available.

FRESH WATER: Delivered by floating pipeline at approximately 10 t.p.h.

FUEL: Limited stocks of diesel oil held for local use only.

CONSULS: French Consul. Appointed representatives for Denmark and Norway.

REPAIRS: Small repairs can be carried out (welding or turning, etc.).

DRY DOCKS: None.

SURVEYORS: Messrs. Solomon & Co. (St. Helena) plc as Cargo Surveyor Agents for Lloyd's.

CERTIFICATES: Vaccination Certificates required for all crew. Derat Certificate should be valid.

CUSTOMS ALLOWANCES: Duty free stores will be sealed by Customs. An amount may be levied to cover the duty payable on the duty free stores consumed by passengers and/or crew aboard a visiting vessel whilst in port.

CARGO GEAR: All discharge carried out by vessel's derricks into lighters and barges.

GANGWAY/DECK WATCHMEN: Supplied by Messrs. Solomon & Co. (St. Helena) plc. on request.

HATCHES: Opening/closing of hatches normally carried out by crew.

REPATRIATION: No facilities for crew changes. Only for those left behind for hospitalisation.

AIRPORT: No airport on St. Helena.

TIME: GMT throughout the year.

HOLIDAYS: New Year's Day (1st January); Good Friday; Easter Monday; St. Helena Day (21st May); Whit Monday; Queen's Official Birthday; August Bank Holiday; Christmas Day (25th December); Boxing Day (26th December). Cargo work can be arranged except on Christmas holidays.

POLICE/FIRE/AMBULANCE: Police and Fire, Tel: 999. General Enquiries, Tel: 2626. Ambulance, Tel: 2500. Fax: (290) 2530.

SHORE LEAVE: No restrictions unless imposed by Immigration Department.

GARBAGE DISPOSAL: No facilities available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: No Seamen's Club, but telephone – Payphones (card/coin) available at the Post Office and throughout the Island. There is a Public Fax Bureau situated at the "Moon" on Napoleon Street near the Post Office.

Anglican and Catholic church. Sports arranged through agents.

CURRENCY: Own currency, pounds on par with UK Sterling. Will accept UK notes, not coins.

DELAYS: No delays in berthing. Loading or discharge can be delayed due to bad weather.

SHIPMASTER'S REPORT: November 1996.

Vessel Data:

Type of vessel:	Chemical Tanker.
Gross tonnage:	4,988.
LOA:	115.2 m.
Breadth:	18.0 m.
Main engine:	4,560 h.p.
Bowthruster:	620 h.p.
Propeller:	Right-handed controllable pitch propeller acting like a left-handed propeller on astern (stern turns to starboard).
Draft at time:	Forward 6.85 m. Aft 7.60 m.

Approach: The approach from the N.W. caused no problems. The island was sighted at a distance of about 32 nautical miles.

Weather at the time: Fair, wind S.E., Force 5, overcast sky and moderate S.E.'ly sea and swell. As soon as a lee from the island was experienced, the sea state became smooth.

VHF contact with Saint Helena Radio (Call sign ZHH) could be made at long range.

Port Control called about 3 hours before arrival on VHF Channel 16 for confirmation.

Pilotage is not available.

Tugs are not available.

The metric Chart B.A. No. 1771 provides coverage for the approach to the island as well as for Rupert's and James Bays.

For the approach to Rupert's Bay, however, a copy of the old fathom Chart B.A. No. 1769 was used as a reference, since that chart provided more details and a better scale.

Both the yellow mooring buoy and the orange floating cargo hose were sighted very early, but except for some small orange fishing buoys, no other buoys were sighted, although 4 buoys in total are charted on B.A. No. 1771, and mentioned in the Admiralty Sailing Directions for Rupert's Bay.

The yellow mooring buoy, however, proved to be in the position as charted on B.A. No. 1771, i.e. Lat. 15° 55.02' S., Long. 5° 42.82' W.

Approach course to Rupert's Bay 123°(T) with the conspicuous Munden's Point dead ahead.

Speed about 2 knots, which is minimum speed for steering. At a distance of 2 cables off Munden's Point, course was altered to a heading of 090°(T). As soon as Munden's Point was on starboard beam (distance 0.7 cables), the vessel was turned to port to a heading of 042°(T), parallel indexing at Chubb's Point, distance 0.5 cables.

We dropped port anchor as soon as the distance from stern to Chubb's Point was 0.4 cables. Manoeuvring at dead slow ahead, P/S rudder, the stern swinging free from the obstructions/rocks near Chubb's Point, meanwhile slacking port anchor chain till 3 shackles on the windlass.

The 2 yellow leading beacons, as charted on B.A. No. 1771 and mentioned in the Admiralty Sailing Directions, were hardly visible, so of no use while positioning the vessel.

With a heading of about 000°(T), we dropped starboard anchor, while pitch was set to half astern, in order to swing the vessel in to position, i.e. on a heading of 282°(T). Slacking starboard anchor chain till 3 shackles on the windlass, whereupon the vessel had the yellow mooring buoy astern somewhat on starboard side. Both anchor chains were now slacked simultaneously.

When the vessel was about 50 m. off the buoy, 2 stern lines were given out from port quarter to the mooring boat "Wide Awake", in order to position the vessel towards the yellow mooring buoy. After these 2 lines, 2 more stern lines were given out from starboard quarter, thus preventing the stern swinging too much to starboard (the effect of having the pitch on astern).

The vessel ended up with 5 shackles in the water on both anchors and 4 stern lines tight, with the yellow mooring buoy dead astern at a distance of about 15 m., in position Chubb's Point bearing and distance 220°(T), 0.11 nautical miles off, heading 285°(T).

In Port: During stay in port, the vessel experienced good weather and was laying quietly moored at anchor. We did not experience the high swell as mentioned in the Admiralty Sailing Directions.

Authorities, Agent, Surveyor and Loading Master boarded upon arrival at 1810 hrs.

Discharge operations commenced 0600 hrs. the next day.

The floating hose (at the shoreside supported by a gantry crane, extending approximately 10 m. over the water) was connected by a shore gang. The hose (diameter 3 in.) had a non-return valve at its free end. Reducers (3 in. – 6 in.) were provided by shore, since the hose had a special type of lock coupling.

Maximum discharge pressure was 6 bar at shore's request.

After discharge of the first parcel, the hose was blown from the vessel to the shore in about 5 minutes.

Discharge operations took a little less than 12 hours. A shore watchman with radio stayed on board during the whole operation.

Documents:
Crew List.
Cargo Manifest.
Transit Cargo Manifest.
Maritime Health Declaration.

The Authorities were very friendly and did not ask for Personnel Effects List or any certificates.

AUTHORITY: Harbour Master, The Wharf, Jamestown, Island of St. Helena, South Atlantic Ocean. *Tel:* (290) 2287, 2750. *Telex:* 4202 Govt Hl. *FAX:* (290) 2598 or 2297. *Contact:* D.E. Bennett, Harbour Master.

St. Lawrence Seaway

ST. LAWRENCE SEAWAY (See Plan)

DOCUMENTS: Vessels intending to transit the St.Lawrence Seaway from Montreal, Lat. 45° 32' N., Long. 73° 32' W., to abeam of Long Point in Lake Erie, Lat. 42° 30' N., Long. 80° 03' W., must be pre-cleared by a representative, who shall assume responsibility to the St.Lawrence Seaway Authority for payment of all tolls and charges to be incurred.

Application for Pre-Clearance Form S-VM 429-07-90 may be obtained from the St. Lawrence Seaway Authority, 202 Pitt Street, Cornwall, Ontario, K6J 3P7, or from the St. Lawrence Seaway Development Corporation, P.O.Box 520, 180 Andrews Street, Massena, N.Y. 13662-1763.

In addition, the St. Lawrence Seaway Authority requires 1 Transit Declaration Form, and for cargo to or from overseas 1 unfreighted copy of the complete manifest.

A Ballast Water Exchange Report will be presented to the Master by the Pilot who boards at Les Escoumins. This should be completed and given to the Lockmaster prior to the ship departing St.Lambert Lock.

In first U.S. port, a "Traveller" is made up by the Customs Inspector with the following documents:

2 complete sets of U.S. Cargo Manifests, plus 6 copies for Agents.
1 set Manifest of Cargo for first U.S. port.
4 Stores Lists.
4 Personal Effects Lists.
4 Firearms and Ammunition Lists.
4 Crew Lists, Form 1-418.
4 Narcotics Lists.
4 Vessel's Itinerary Lists.
Vessel's Registry and copies of Paid Tonnage Tax Certificates.
Health Pratique.
Clearance from previous port.
2 sets Bills of Lading.
3 copies Stowage Plan.

In subsequent U.S. ports the following are required:

5 sets Manifest of Cargo for that port.
The Traveller and Permit to Proceed issued in previous port.
2 Stores Lists.
2 Personal Effects Lists.
2 Firearms and Ammunition Lists.
2 Crew Lists.
2 Narcotics Lists.
2 Sets Bills of Lading.
3 copies Stowage Plan.

Vessels navigating St. Lawrence Seaway are required to complete applications for:

Certificate of Financial Responsibility,
Certificate of Insurance, Form FMC 225,
Oil Discharge Assurity Bond, Form FMC 226,
Guarantee in respect of liability for discharging oil, Form FMC 227.

These applications have to be filed with the Secretary of the Federal Maritime Commission before a certificate is issued. The oil pollution liability certificate should be retained aboard the vessel.

ICE ADVISORY SERVICE: Ships inbound from seaward between December 15th and April 15th should advise the Ice Information Officer, Sydney, 36 hours prior to entering Cabot Strait, stating their position, destination, whether loaded or in ballast. This procedure will facilitate the passing of ice information to the ship as necessary. Ice information is also available from radio stations at Halifax, Seven Islands, Wiringate and Grindstone. The Canadian Broadcasting Corporation Maritime Network also broadcasts ice information daily during the Winter navigation season. Supplementary ice information may also be obtained from the Canadian Marine Service Icebreakers.

During the ice season, radio broadcasts of ice information are made twice daily from Marine radio stations as follows: Cape Race, Newfoundland; Fox River, Quebec; Mont-Joli, Quebec; Halifax, Nova Scotia.

PILOTAGE: The first Pilot Station when entering the St. Lawrence River is at Les Escoumins, 80 miles West of Pointe au Pere. This Pilot will take the ship to the Quebec Pilot station 121 miles to the West. Off Quebec a new Pilot boards to take the ship to Trois Rivieres, where there is another change of Pilot for the remaining trip to Montreal.

ANCHORAGES: *Anchorage Areas:* Except in an emergency, or unless authorised to do so by the Vessel Traffic Controller, no vessel shall drop anchor in any part of the Seaway, except in the following designated anchorage areas:

(a) Point Fortier (Lake St. Louis).
(b) Melocheville (Beauharnois Canal).
(c) St. Zotique, Dickerson Island and Stonehouse Point (Lake St. Francis).
(d) Wilson Hill Island and Morrisburg (Lake St. Lawrence).
(e) Prescott and Union Park (St. Lawrence River).
(f) Off Port Weller (Lake Ontario).
(g) Off Port Colborne (Lake Erie).

RESTRICTIONS: The average navigation season in the Montreal-Lake Ontario section of the St. Lawrence River is from April 1st to December 15th.

Montreal to Lake Ontario – Lock Nos. 1 to 7: Length between the breast wall and ship arrester 233.48 m., width 24.38 m., depth 9.14 m., channel depth 8.23 m.

Welland Canal – Lock Nos. 1 to 7: Length between the breast wall and ship arrester 233.47 m. to 234.21 m. Lock No. 8: Length 365.76 m., width 24.38 m., depth 9.14 m., channel depth 8.23 m.

Sault Ste. Marie – Canadian Lock: Due to a major structural failure in July 1987, the Canadian Lock at Sault Ste. Marie will be closed until further notice. Mariners are advised to use the U.S. Locks.

Information for U.S. Locks may be obtained from U.S. Corps of Engineers, Detroit District.

Speed Limits: 9.0 knots upbound, 10.5 knots downbound in the Beauharnois Canal; 8 knots in the Welland Bypass Channel and 6 knots in all other canals. The speed limits vary from 8.5 knots to a maximum 13 knots in remaining sections of the St. Lawrence River. Maximum speed limits for vessels in excess of 12 m. in length are contained in the Seaway Handbook. Changes are indicated through Seaway Notices.

For information relating to speed limits, on the Detroit, St. Clair and St. Mary's rivers contact the U.S. Coast Guard, Cleveland, Ohio or the Canadian Coast Guard, Sarnia, Ontario.

MAX. SIZE: Length 222.5 m., beam 23.16 m., draft 79.2 dm. Masts must not exceed 35.5 m. above water level. Other limiting dimensions are contained in the Seaway Regulations.

HEALTH: All ocean-going vessels must obtain Free Pratique before entering the Seaway. Vessels entering the Seaway direct may receive quarantine inspection and clearance from the Canadian Authorities at Montreal while at anchor awaiting entrance to the Seaway.

RADIO: *Notice of Arrival:* Master must give at least 24 hours' notice to Commander, 9th Coast Guard District, Cleveland, Ohio, of the vessel's ETA at Snell Lock. Also at least 24 hours' notice of ETA at first U.S. discharge port is required.

St. Lawrence Seaway Authority: Every vessel shall provide at least 24 hours' notice of arrival to the nearest Seaway Station, prior to an initial transit or in case reinspection of the vessel is required.

Calling In requirements are detailed in the Seaway Regulations.

Great Lakes: It is recommended that vessels within radius of 30 nautical miles of a shore station use their FM transmitting and receiving equipment to ensure better connections. This pertains especially to vessels at anchor or in the proximity of a port or berth.

Radio Stations: Buffalo, New York, marine operator. Port Burwell, Ontario, marine operator. Geneva, Ohio, marine operator. Lorain, Ohio, marine operator. Rogers City, Michigan, marine operator.

VHF: *Listening Watch and Notice of Arrival:*

(1) Vessels shall be on radio listening watch on the applicable assigned frequency while within a Seaway traffic control sector as shown on the General Seaway Plan, and shall give notice of arrival in the manner prescribed in "Calling-In" (see below) upon reaching any designated calling in point.

(2) Notice of arrival shall be deemed to have been given when it is acknowledged by a Seaway station.

Assigned Frequencies: The Seaway stations operate on the following assigned VHF frequencies:

(a) 156.8 MHz (Channel 16): Distress and calling.
(b) 156.7 MHz (Channel 14): Working (Canadian stations in Sector 1 and the Welland Canal).
(c) 156.65 MHz (Channel 13): Working (U.S. stations in Lake Ontario and Sector 4 of the River).
(d) 156.6 MHz (Channel 12): Working (U.S. stations in Sector 2 of the River), and
(e) 156.55 MHz (Channel 11): Working (Canadian stations in Sector 3, Lake Ontario and Lake Erie).

Seaway Stations: The Seaway stations are located as follows:

VDX20 (Seaway Beauharnois)	Upper Beauharnois Lock	Traffic Control Sector 1
KEF (Seaway Eisenhower)	Eisenhower Lock	Traffic Control Sector 2
VDX21 (Seaway Iroquois)	Iroquois Lock	Traffic Control Sector 3
WAG (Seaway Clayton)	Clayton, N.Y.	Traffic Control Sector 4
WAG (Seaway Sodus)	Sodus, N.Y.	Traffic Control Sector 4
VDX72 (Seaway Newcastle)	Port Hope, Ontario	Traffic Control Sector 5
VDX70 (Seaway Newcastle)	Port Weller, Ontario	Traffic Control Sector 5
VDX22 (Seaway Welland)	St.Catharines, Ontario	Traffic Control Sector 6
VDX68 (Seaway Long Point)	Port Colborne, Ontario	Traffic Control Sector 7

Radio Procedure: Every vessel shall use the channels of communication in each control sector as listed below:

	Control Sector		*Channels of Communication*		
Station	*No.*	*Sector Limits*	*Call in*	*Work*	*Listening Watch*
Seaway Beauharnois	1	C.I.P. No. 2 to C.I.P. No. 6-7	14	14	14
Seaway Eisenhower	2	C.I.P. No. 6-7 to C.I.P. No. 10-11	12	12	12
Seaway Iroquois	3	C.I.P. No. 10-11 to Crossover Island	11	11	11
Seaway Clayton	4	Crossover Island to Cape Vincent	13	13	13
Seaway Sodus	4	Cape Vincent to Mid Lake Ontario	13	13	16
Seaway Newcastle	5	Mid Lake Ontario to C.I.P. No. 15	11	11	16
Seaway Welland	6	C.I.P. No. 15 to C.I.P. No. 16	14	14	14
Seaway Long Point	7	C.I.P. No. 16 to Long Point	11	11	16

Calling-In:

(1) Every vessel, intending to transit or in transit, shall report on the assigned frequency to the designated Seaway station when opposite any calling-in point or check point (indicated on the General Seaway Plan) and, when reporting, shall give the information indicated in Schedule III (Not reproduced).

(2) Changes in information provided under subsection (1), including updated ETAs that vary from the ETAs provided under the subsection by 30 minutes or more, shall be reported to the appropriate Seaway station.

(3) A downbound vessel in St. Lambert Lock shall switch to Channel 10 (156.5 MHz) for a traffic report from Montreal Vessel Traffic Management Centre.

(4) After obtaining the situation report referred to in subsection (3), the downbound vessel shall return to guarding Channel 14 (156.7 MHz) and remain on that channel until it is clear of St. Lambert Lock chamber.

(5) When the downbound vessel has cleared the downstream end of the lower approach wall of St. Lambert Lock, the Master or Pilot of the vessel shall call "Seaway Beauharnois" and request permission to switch to Channel 10 (156.5 MHz).

(6) Seaway Beauharnois shall grant the permission requested pursuant to subsection (5), and advise the downbound vessel of any upbound traffic that may be cleared for Seaway entry but not yet at C.I.P. 2.

(7) In the event of an expected meeting of vessels between the downstream end of the lower approach wall and C.I.P. 2, the downbound vessel shall remain on Channel 14 (156.7 MHz) until the meeting has been completed.

(8) After the meeting, the downbound vessel shall call "Seaway Beauharnois" before switching to Channel 10 (156.5 MHz).

Communication – Ports, Docks and Anchorages:

(1) Every vessel entering or leaving a lake port shall report to the appropriate Seaway station at the following check points:
(a) Toronto and Hamilton: 0.87 nautical miles outside of harbour limits; and
(b) other lake ports: When crossing the harbour entrance.

(2) Every vessel arriving at a port, dock or anchorage shall report to the appropriate Seaway station, giving an estimated time of departure if possible, and at least 4 hours prior to departure, every vessel departing from a port, dock or anchorage shall report in the same way, giving its destination and the expected time of arrival at the next check point.

(3) Every vessel departing from a port, dock or anchorage shall report to the appropriate Seaway station its destination and the expected time of arrival at the next check point and, if carrying dangerous cargo as indicated on the manifest, the nature, quantity, IMO classification and stowage location of that cargo.

TUGS: Whistle signals differ from those in international usage and are as follows:

1. Ship to Tug: 1 Long and 1 short (– ·) = ship ready to proceed, O.K. or all right. 1 Long and 2 Short (– · ·) = let go the bow tow-line. 1 Long and 3 Short (– · · ·) = let go the stern tow-line.
2. Both Ship to Tug and Tug to Ship: 1 Short(·) = work propeller ahead when stopped, *or,* stop propeller when working, either ahead or astern. 2 Short (· ·) = work propeller astern. 3 Short (· · ·) = slow down or check. 4 Short (· · · ·) = work propeller strong in the same direction it is working at the time the signal is blown. 5 or more Short blasts (· · · · ·) = the standard danger signal.

SEAWAY EQUIPMENT: *Radio-telephone Equipment:* All vessels, other than pleasure craft of less than 19.80 m. in overall length, must be equipped with VHF radio telephone equipment, in addition to the FM equipment otherwise required. The radio transmitters must have sufficient power output to enable the vessels to communicate with Authority Stations from a distance of 48 km. and must be fitted to operate from the wheelhouse and to communicate on 156.55 (Channel 11), 156.6 (Channel 12), 156.65 (Channel 13), 156.7 (Channel 14) and 156.8 MHz (Channel 16).

Stern Anchors: Every vessel of more than 110 m., the keel of which was laid after January 1, 1975 is required to be equipped with a stern anchor.

Propeller Direction Alarms: Every vessel of 1,600 g.r.t. or more shall be equipped with:
(a) propeller direction and shaft r.p.m. indicators located in the wheelhouse and the engine room; and
(b) visible and audible wrong-way propeller direction alarms located in the wheelhouse and the engine room, unless the vessel is fitted with a device which renders it impossible to operate engines against orders from the bridge telegraph.

Pitch Indicators and Alarms: Every vessel of 1,600 g.r.t. or more equipped with a variable pitch propeller shall be equipped with:
(a) A pitch indicator in the wheelhouse and the engine room; and
(b) effective April 1, 1984, visible and audible pitch alarms in the wheelhouse and engine room to indicate wrong pitch.

Steering Lights: Every vessel shall be equipped with:
(a) A steering light located on the centreline at or near the stem of the vessel and clearly visible from the helm; or
(b) Two steering lights located at equal distances either side of the centreline at the forepart of the vessel and clearly visible from the bridge along a line parallel to the keel.

Disposal and Discharge Systems: Every vessel not equipped with containers for ordure shall be equipped with a sewage disposal system (enabling compliance with applicable laws relative to sewage disposal).

Garbage on a vessel shall be:
(a) destroyed by means of an incinerator or other garbage disposal device; or
(b) retained on board in covered, leakproof containers, until such time as it can lawfully be disposed of.

No substance shall be discharged or disposed of onto a lock or tie-up wall by any means, including overboard discharge pipes.

Vessels not fitted in accordance with Seaway Regulations will not be accepted for transit until the fittings have been modified as necessary and approved by a Seaway Officer.

POLLUTION:

1. No vessel shall
(a) emit sparks or excessive smoke; or
(b) blow boiler tubes.
2. No vessel shall discharge into Seaway waters any substances not in conformity with applicable United States Federal Regulations and Canadian Regulations with the exception of the waters of the Welland Canal where two specific zones are established in which no substances shall be discharged, namely:
(a) from Lock 7 (Thorold) to Mile 17 (Welland); and
(b) from Lock 8 (Port Colborne) to the outer Port Colborne piers (Lake Erie).
3. A record shall be kept of each location within the Seaway or adjacent waters where bilge water has been discharged.
4. Except as authorised by the Authority or the Corporation, no vessel shall discharge garbage, ashes, ordure, litter or other materials.

IDENTIFICATION CARDS: In the first U.S. port, the Immigration Officer requires an alphabetical Crew List made up on Form 1-418 and visaed by the American Consul in the last overseas port. This Crew List should contain the name of every crew member on board. Also needed are 3 copies of this Crew List on the same form. The Immigration Officer will require all Seamen's Books and Passports, to issue the completed Crew Landing Permits made out on Form 1-95A. The Master will be given a Crew List receipt which will indicate the names of crew members detained on board, if any. In case a crew member is detained on board, he cannot go ashore, and at irregular times an Officer of the Immigration Service will check if the crew member is on board. A fine of $1,000 will be imposed on the vessel for each detained crew member who is not on board.

REGULATIONS: Detailed requirements are contained in the Seaway Handbook (obtainable from the St. Lawrence Seaway Authority, Constitution Square, 360 Albert Street, Ottawa, Ontario K1R 7X7), or in the Seaway Notices. An updated edition of the Handbook must be retained on board the vessel.

Additional information regarding Seaway equipment, regulations or transit requirements can be obtained from the St. Lawrence Seaway Authority by contacting Captain Joseph Craig, Chief, Marine Services, The St. Lawrence Seaway Authority, 202 Pitt Street, Cornwall, Ontario, K6J 3P7. Tel: (613) 932-5170. Telex: 05-811517. Fax: (613)932-5204.

SHIPMASTER'S REPORT: September 1990 (Updated 1994).
Route: St. Lawrence Seaway. Great Lakes: Ontario, Erie, Huron and Michigan.
Port Visited: Burns Harbour, Indiana.

St. Lawrence Seaway and Great Lakes: Ballast Control Guidelines: Before entering Cabot Straits, ECAREG asked for details concerning location and depth of water where any ballast was taken on. Any ballast taken from depths of less than 2,000 m. should be exchanged. This was no comfort to us, as we had 1,800 tonnes of ballast on board for stability reasons. Following an exchange of telexes with ECAREG and Montreal Agents, common sense prevailed. The Canadian Coast Guard confirmed, it was not necessary to exchange ballast, if in any way deballasting affects ship stability. Subsequently we deballasted in Burns Harbour before lifting a steel cargo without further concern.

Ballast Water Exchange regulations became mandatory under U.S.Law on 10th May 1993, and are strictly enforced by the U.S. Coast Guard. If possible, it is recommended to carry out Ballast Exchange twice on tanks containing low salinity ballast water to ensure the minimum 30 parts per thousand salinity of all ballast water retained on board.

Seaway Inspection: This took place at anchor off Montreal and lasted for 2.5 hours, while the 3 Inspectors completed (a) Ship Inspection Report, (b) Radio Inspection Certificate and (c) Food Inspection. Item (a) is mainly concerned with compliance with the particular equipment requirements for the Seaway, such as rigging of seaway wires, landing booms, stern anchor, anchor marker buoys and air drafts. The Inspector was particularly helpful and tolerant, which was welcome, as only one officer had transited before. Item (b), compliance with the Canadian Radio Telephone Regulations. Item (c), the Food Inspection brought its own problems for this ship, with only one freezer room in use, concerning the sealing up of meats. Even our U.K. meat was found to originate from the Argentine, and had to be sealed with the pork and poultry from Spain. We still had 6 days to go before taking any local stores in Burns Harbour was possible, so had to make some grill doors for the shelving for a locker space within the meat room.

Ballast adjusted to meet the max. draft requirement of 26 ft. even keel before departure from the anchorage and approved by the Inspector.

Seaway Transit: The Seaway max. draft of 26 ft. is rigidly enforced. Even lying alongside the dock brings its own problems, when a large Laker passes in the narrow canal, causing the vessel to surge on her moorings (large Lakers use fresh water sprinklers on deck from the cold lake waters, to avoid an increase in drafts due to hogging in the Summer). An upright ship is equally important in the high sided locks. Port side Man Overboard Signal and bracket torn off when the port bridge wing nearly made contact with lock wall. The steel chafing bars, as fitted to the sides of this ship, were invaluable to prevent further damage and so thoroughly recommended for any vessel using the Seaway.

Shiphandling in Locks and Seaway: Tugs are not used in the Seaway to transit the 7 locks or Welland Canal for the other 8 locks to clear the Niagara Falls. Pilots normally "slide the wall", a term for placing the bow on the approach wall for positive control before entering a lock. The alternative of making a lock "on the fly" is sometimes used in fine weather, but more risky and applicable to this vessel, when our port shoulder landed heavily with consequent damage, making the last of 30 locks. The loss of paintwork, when "sliding the wall" on the timber fendering, is therefore much preferred. Quartermaster's steering on the downward run was in marked contrast to that on the way up, after they had learnt to use bold wheel movements in keeping with the slow speeds. Mooring in the locks varies from port to starboard, using the 4 ship's wires secured to winch barrels. Particular care should be taken when slacking away wires quickly, when dropping down in the locks, to avoid breaking. A further precaution is not to try to hold the stern against the "cut" of the screw, when coming astern for a starboard side landing. Better to let the Pilot control the swing, or else risk breaking the stern wire as we did.

Approximate Distances and Time Scale:

	Distance miles	*Time allowed* hours
Escoumins Pilot to Quebec.	122	12
Quebec to Montreal, with Pilot change halfway at Three Rivers.	138	12 plus 3 for inspection
Montreal through 7 Seaways locks and Thousand Islands, "Narrows" to Cape Vincent Pilot change.	160	24
Lake Ontario.	138	12
Welland Canal (8 locks to by-pass Niagara Falls).	28	12
Lake Erie to Detroit Bridge Pilot change.	213	22
Detroit Bridge to Lake Huron.	63	6
Lake Huron to Mackinac Bridge.	215	20
Lake Michigan to Burns Harbour (S.E. Chicago).	314	24
Total	1,253	6 days 3 hours.

The above times erred on the slow side to avoid engine problems caused by slowing down too quickly. In particular, the open water passages from Escoumins Pilot to Montreal and across the smaller Lakes (Ontario and Erie), were made at manoeuvring full speed instead of the more usual Sea Speed on both occasions, up and down. Engine ran on gas oil for the Seaway and Welland Canal locks passages only with our controllable pitch propeller.

AUTHORITY: The St. Lawrence Seaway Authority (See "Regulations").

NOTES

Please also advise Shipping Guides Ltd.

St. Lucia

CASTRIES (including Vieux Fort): 14.01 N. 61.00 W.

(See Plan)

PORT LIMITS: From Lat. 14° 01' 24" N., Long. 61° 00' 05" W. thence in the direction of 301°T for 1 mile, thence in the direction of 211°T for 1.2 miles, thence in the direction of 121°T for 0.88 miles to La Toc Point at Lat. 14° 30' 00" N., Long. 61° 00' 46" W. thence along foreshore at the average HW mark from La Toc Point around La Toc Bay to Tapion Point, thence along to the Castries River mouth and thence to the opposite bank including all marine works, wharves and property vested in the Crown. All around the bay to Seraphin Point, thence all around the bay to Veille Ville Point, thence to St. Victor Point and thence all around the shore to Vigie Point and then to Lat. 14° 01' 24" N., Long. 61° 00' 05" W.

DOCUMENTS:

Report of Ship's Stores. Form 1.
Crew Members' Stores List. Form 2.
List of Unmanifested Cargo. Form 3.
Report of Ship's Manifest. Form 4. (4 copies).
Passenger Lists. (5 copies).
Steamship Company Release. (1 copy).
Crew List. (5 copies).
Clearance from Last Port of Call.
Outbound Cargo.
Loading List.
Customs Report Outwards (Form A7)
Vessel Manifest (Contents of Ship). Form 16. (3 copies).
Entry Outwards and Certificate of Rummage. Forms 9 and 10.
Loading Licence. Form 14.
Clearance. Form 17. Form 18 (Steamship).

Where possible, Cargo Manifests and Stowage Plans should be forwarded by Airmail, ahead of the vessel to the local Agents.

PILOTAGE: Pilotage is compulsory for all craft except for ships of less than 100 g.r.t., Her Majesty's ships, pleasure yachts and fishing vessels.

Notice of ETA and request for a Pilot must be made to the Harbour Master not less than 24 hours before ETA. Cable address: "Paslu". Telex: 6355 Paslu LC. Confirmation of ETA is required 2 hours before arriving at the Boarding Station. Channel 16 VHF is continuously watched and ETA may be confirmed or adjusted on this frequency. Pilot boats (2) are: (1) A "Cheverton" built, 8.2 m. LOA, fibreglass hard top, with a "V" hull, single inboard 4236 Perkins diesel engine, complete with navigation and pilot lights. Painted black all around with letter "P" painted in white on both sides of bow. Name of pilot launch "Charles" painted in white at the stern. (2) A "Cheverton" built 8.73 m. LOA aluminium hard top pilot house aft. Single inboard 6.3544 Perkins diesel engine. Complete with navigation and pilot lights. Painted black all round with the words "Pilots" painted white on both sides of the pilot house. Name of second pilot boat is "Esperance" painted in white on stern.

The usual International Signals may be employed by vessels requiring a Pilot. The usual pilot boarding point 0.5 miles off Vigie Point. Ships that are 3 hours away are requested to call Vigie Lighthouse on S.S.B. 2182, VHF Channel 16, informing of ETA, draft and length.

Pilot boat stands by on Channel 16 VHF. Pilot station stands by on Channels 14 and 16 VHF.

Pilot boards vessels on the starboard side and for ships outward leaves on the port side.

In the event of bad weather ships will be advised accordingly.

Vessels awaiting Pilot may anchor between 1 and 2 miles N.W. of Vigie Point in 22 m. of water. Rock and sand bottom, very good holding ground, no shelter.

ANCHORAGES/APPROACHES: Deep and sheltered anchorage exists off Castries Harbour entrance. The approach channel is 91.44 m. wide with minimum depth of 14.75 m. to the port proper, which lies within an all protected harbour. The turning basin is 457.20 m. in diameter at a depth of 14.0 m.

Masters familiar with the Port of Castries may be invited to proceed to the Northern Anchorage/Quarantine Area not less than 3 cables off the Vigie promontory.

Care must be taken to drop anchor clear of the entrance range which is for in-going ships, 121°T on the Castries leading lights.

Also see "Pilotage".

RESTRICTIONS: Petroleum tankers are not moved during the hours of darkness except in emergency conditions.

MAX. SIZE: Ships up to 213 m. LOA and 9.1 m. draft can be accepted. No restriction on beam.

Also see "Tankers".

HEALTH: Pratique is usually granted by the Pilot or Boarding Officer and Immigration Department alongside on behalf of the Ministry of Health. In the event of any suspected disease or fever on board, the vessel is not allowed within 91.4 m. of the wharves until Pratique has been granted by the Medical Officer.

RADIO/VHF: Port Control on VHF Channels 16, 6, 12 and 14. Also 2182, 2146, 2381, 2527, 2582 and 2638 kHz.

TUGS: Tug "Chale", 2,000 h.p. and tug "Dogger Bank", 2,000 h.p., with twin Voith-Schneider propulsion, available to assist in berthing if required. Towage compulsory for vessels over 400 ft.

BERTHING: There are six berths numbered 1 to 6 inclusive.

Berth Nos. 1 to 3 are general cargo berths and have a total length of 356.6 m. The draft varies from 5.5 m. at Berth No. 1 to 8.5 m. at Berth No. 3. Berth Nos. 4 and 5 are of recent construction and consist of a reinforced concrete platform supported on concreted piles.

Berth No. 4 is a container berth equipped with a heavy lift mobile crane for handling 20 ft. and 40 ft. ISO containers. It has a length of 152.4 m. (depth 9.75 m.) and storage capacity for approximately 3,500 containers.

Berth No. 5 is a break bulk cargo berth as well as Ro/Ro facilities with a ramp 14.6 m. wide. It has a length of 159 m. and a depth of 9.75 m. below LW. A transit shed with an area of 6,882 sq.m. with cold storage facilities of 2,265.60 cu.m. for reefer cargo.

Berth No. 6 is a reinforced concrete deck supported on steel cased piles. The berth is 137 m. long and can accommodate vessels of 9 m. draft. It is a general purpose berth and handles banana traffic.

Within the port area there is a total shedded storage capacity of 17,205 sq.m. with a total upland of 15 – 17 acres.

Dock water density 45.7 gm./cu.m. with prevailing winds from a N.W'ly direction.

Pointe Seraphine: Information relating to the recently opened cruise ship berths at Pointe Seraphine:

Berths No. 1 and 2 are located at Pointe Seraphine, Castries Harbour and are dolphin type berthing facilities.

1. Each pier consists of:
   (a) Two reinforced concrete breasting dolphins.
   (b) Reinforced concrete walkways 8 ft. wide supported on steel "H" and spun concrete piles linking the berth to the shore.
2. Height of pier above M.S.L. = 7 ft. 0 in.
3. Overall length of pier = 174 ft. 2 in.
4. Bollards – there is one "T" head bollard on each breasting dolphin, and 4 single pillar bollards on the shoreline. Average distance apart is 145 ft.
5. Fendering – primary fendering consists of one "W" shaped rubber fender fixed to each dolphin.
   Two "D" shaped 12 in.×12 in. cover fenders fitted to the outer corners of each dolphin provide secondary protection.
6. Construction – each dolphin is 15 ft. 7.5 in. square reinforced mooring concrete structure supported by 14 in. diameter spun concrete piles. The landing stage of the berthing facility is 160 ft. long × 8 ft. wide.
   The landing stage is a reinforced concrete structure supported by steel "H" piles.
   The approach to the landing stage is 63 ft. long× 8 ft. wide and is of similar construction.
7. Average depth alongside Berth No. 1 35 ft.
   Berth No. 2 32 ft.

Vieux Fort: Depth of 8 fathoms at the entrance and 5 fathoms within the Port. 2 berths, 535 ft. long, 32 ft. – 35 ft. deep. Also see "Shipmaster's Report".

BRIDGES: There are no bridges or other restrictions to prevent access to the port by vessels of not more than 9 m. draft.

STEVEDORES: The normal working hours are from 0700 – 1600 hrs. Mondays to Fridays. Special arrangements are required outside of the above hours and for Saturdays, Sundays and Statutory Holidays. The hiring or calling of labour are as follows:

Monday to Fridays for work commencing from 0700 – 1100 hrs. request to reach Union before 1500 hrs. previous day.

1100 – 1600 hrs. before 0900 hrs. on the same day.

After 1600 hrs. before 1400 hrs. on the same day.

For vessels working on weekends request to reach Union by 1530 hrs. on Fridays.

Average rate on break bulk general is 15 t.p.h. per gang.

MEDICAL: Full hospital facilities available without prior notice.

FRESH WATER: Good quality potable water available in unlimited quantities at 20 t.p.h. per connection ex-quay.

FUEL: Limited quantity for yachts and small vessels only.

TANKERS: See "Shipmaster's Reports" and "Cul de Sac Bay".

CONSULS: *Embassies/High Commisions:* British High Commission, Venezuela, Organisation of American States, Germany and France. *Consuls:* Denmark and Netherlands.

REPAIRS: No facilities for large vessels. Routine maintenance or minor repairs are carried out. There is no foundry in the port.

DRY DOCKS: None available.

SURVEYORS: Lloyd's Agents are available and represent other Classification Societies and Surveyors. Others can be obtained from outside at short notice.

GANGWAY/DECK WATCHMEN: Gangway and gate watchmen can be supplied at Union award rates. Hold watchmen are required during discharge/loading operations. Shed watchmen are not necessary.

OPENING/CLOSING HATCHES: Ship's crew shall be required to raise and lower and position beams to the required height, opening and closing of MacGregor and pontoon hatches. Wooden hatches are normally handled by stevedores while alongside.

CUSTOMS ALLOWANCES:

1. Wine or spirits not exceeding one quart in all, and
2. Tobacco, not exceeding half a pound, or
3. Cigars not exceeding 50 in number, or
4. Cigarettes, not exceeding 200 in number, or
5. Goods to the aggregate of E.C.$50.00 belonging to a passenger, which accompany that passenger and when acquired abroad by him for his personal or household use or as souvenirs or gifts and admitted as such by the Comptroller of Customs.

CARGO GEAR: Discharge of general cargo is usually by ship's gear. Containers, if vessels are not self contained, may be handled by P&H crane 9125TC – 140 ton lorry mounted crane owned and operated by the Ports Authority. Manitowoc 230W crawler crane rigged for 41 ton lift also available (Tropical Lines).

REPATRIATION: Scheduled aircraft connect with all the English speaking islands of the Lesser Antilles several times daily from Vigie Airport which is 2 km. distant from Port Castries. Direct overseas flights arrive and leave from Hewanorra International Airport, Vieux-Fort at least once a week for the United Kingdom, New York, Miami and Caracas, Venezuela.

TIME: Local time is GMT minus 4 hours. Summertime is not used. All ETAs and other messages should be made in local time.

TELEPHONES: This service is available aboard ships at all berths by prior arrangement through the Agents. Standard rates apply.

HOLIDAYS: New Year's Day, New Year's Holiday, Independence Day (22nd February), Carnival Monday, Good Friday, Easter Day, Easter Holiday, May Day (Labour Day) (1st May), Whit Monday, Corpus Christi, Emancipation Day (1st Monday in August), Thanksgiving Day (1st Monday in October), St.Lucia Day (13th December), Christmas Day, Boxing Day.

The port is closed for work on Christmas Day, Good Friday and May Day (Labour Day).

POLICE/AMBULANCE/FIRE: All emergency services are available through Port Police Station on Jeremie Street, within walking distance from the port.

Emergencies can be reported to Vigie Lighthouse on Channel 16 at any time. Emergency Police dial 999; emergency Ambulance dial 999; emergency Fire dial 999.

EMERGENCY CO-ORDINATION CENTRE: The Headquarters of the Central Emergency Organisation is the Prime Minister's Office, Government Buildings, Castries, St. Lucia. Tel: 3203 and 3016. Telex: 6394 Foraff LC.

BANKS: Bank of Nova Scotia, P.O.Box 301, William Peter Boulevard, Castries, St. Lucia. Tel: 22292/95. Telex: 6385 Scobank L.C.

Barclays Bank plc., Bridge Street, Castries, St. Lucia. Tel: 23306/23300. Telex: 6348 Bacladom L.C.

Canadian Imperial Bank of Commerce, P.O.Box 350, William Peter Boulevard, Castries, St. Lucia. Tel: 23751/23753/23739. Telex: 6352 Canbank L.C.

Caribbean Banking Corp. Ltd., Micoud Street, Box 1531, Castries. Tel: 452-1668. Fax: 452-7484.

Royal Bank of Canada, William Peter Boulevard, Castries, St. Lucia. Tel: 22245. Telex: 6309 Royalbk L.C.

St. Lucia Cooperative Bank, 21 Bridge Street, Castries, St. Lucia. Tel: 22881/22882. Telex: 6308 Coopnk.

National Commercial Bank of St. Lucia Ltd., P.O. Box 1031, Bridge Street, Castries, St. Lucia. Tel: 23562/22103. Telex: 6300 Natbank L.C. Cable: NATBANK.

SHORE LEAVE: When Immigration and Customs requirements have been satisfied there is no restriction on crew shore leave so long as they rejoin the vessel before departure. They should carry some sort of identification card or shore passes for security purposes especially for non-English speaking persons.

GARBAGE DISPOSAL: Skips are provided alongside the vessel. This service is undertaken by Castries City Council. Tel: 809-45-22121/31153. The rate charged is EC$500/skip. Prior arrangements have to be made for delivery and collection.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Eastern Caribbean Dollar (EC$).

DELAYS: There are no delays for want of a berth. Berthing delays are very infrequent and no labour shortages.

REGULATIONS: Castries is within the Northern zone of tropical storms. The hurricane season usually extends from May to October each year and the port may be more or less affected at any time during that period. When a storm is expected to pass over the island, ships may be placed on short notice for sea in such circumstances and required to maintain themselves in seagoing condition at all times.

SHIPMASTER'S REPORT: 1979 (Updated 1986).

Pilotage: Compulsory. Pilot boards 0.75 miles West of Vigie Light, ladder usually on the port side.

Restrictions: Vessel is able to enter and leave at any stage of the tide, day or night.

Max. Size: Max. draft 10 m.

VHF: Pilot on Channel 16.

Berthing: No. 6 Berth, West Wharf: Distance from entrance to berth 1 mile. Max. LOA (Approx.) 550 ft. Max. draft 10 m. There is mechanical equipment available to handle palletised cargoes, adequate storage space for breakbulk cargoes and palletised cargoes. The loading rate for bananas is 15 t.p.h. per gang with ship's derrick and the labour was satisfactory. Accommodation ladder required.

Services: Fresh water, fresh provisions, repair facilities, machine shop, Airport, laundry services, bunker fuel oil, diesel oil, lubricating oils, doctor, hospital, groceries and meats.

SHIPMASTER'S REPORT: Vieux Fort. 1979 (Updated 1986).

Pilotage: No ship exceeding 100 n.r.t. must enter without a Pilot. Pilot boards 0.5 miles S.W. of Mathurin Point (there is a strong N.W. current off Mathurin).

Restrictions: Vessel may enter and leave at any stage of the tide, day or night.

Max. Size: Max. LOA 520 ft.

Tugs: Tugs are not available and are not necessary for docking and undocking.

VHF: Available.

Berthing: One berth only available. Distance from entrance to berth 0.5 miles. Nature of bottom at the berth is mud. All banana loading is carried out by the side doors. Vessels berth port side to the quay. A very high rate of loading is attained (100 t.p.h.). A limited amount of mechanised equipment for handling palletised cargoes is available and also limited storage space for palletised and breakbulk cargoes. No equipment for handling containers is available. Accommodation ladder required.

Services Available: Only fresh water, airport and doctor available (i.e. no fuel or provisions available).

SHIPMASTER'S REPORT: Coconut Point. October 1989.

Charts: B.A. Charts No. 197, 499 and 1273.

Documents:

2 copies Crew Manifest.
2 copies Stores List.
6 copies Crew List.
1 copy Unmanifested Cargo.
6 copies Cargo Manifest.

Pilotage: Daylight pilotage only. They are busy 0600 hrs. – 0800 hrs. with cruise ships. Pilot boards due North of Tapion Rock Lighthouse.

Anchorage: North of Vigie Pt. in 15 fathoms, with Vigie Point 158° × 0.7 miles. We first anchored to await daylight with Vigie Point 104° × 0.3 miles, just North of the leading line. We were told to move to the North by the Signal Station. No appreciable set.

Radio/Signal Station: Vieux Fort on the South Coast will transmit information to Castries Signal Station. Both stations operate 24 hours. Call sign "Vieux Fort" or "Castries Lighthouse".

Signal Station on VHF Channels 12 and 14.

Tugs: One tug available.

Berthing: Ship's hose used. Coconut Point serves both Texaco and Shell depots. The usual ship rate is 300 bbls./hr. Maximum length of vessel 100 m., maximum draft 12 m.

Vessels berth stern to, with 2 shackles on port anchor and 2 stern lines to a buoy.

General: Pointe Seraphine: Berths No. 1 and 2 – New complex for cruise liners. Berth No. 6 for Geest banana ships. Other berths for general cargo. Vigie Airfield only used for local flights. International Airport in the Southern part of the island.

It is possible to telephone overseas from the Texaco office (via Cable and Wireless operator), payment to be made to the Texaco Manager.

Port Authorities trying to get Shell and Texaco to move to Cul de Sac Bay, just South of Castries, so that Coconut Point can be developed as a cruise terminal.

SHIPMASTER'S REPORT: Vieux Fort. December 1989 (Updated 1992).

Charts: B.A. Charts No. 499 and 1273.

Documents:

2 copies Crew Manifest.
2 copies Bond Stores List.
1 copy Health Declaration.
2 copies Inward Declaration.
6 copies Crew List.
2 copies Unmanifested Cargo.

Officials: Officials board on all occasions.

Pilotage: Pilotage is compulsory for all vessels over 100 g.r.t. Permanent Pilot based at Vieux Fort and is available 24 hours a day. Order Pilot at least 6 hours' in advance through Agent or Oil Company (Shell).

Contact can be made through Vieux Fort Lighthouse or Castries Lighthouse. No night berthing at sea berth. Berthing from 0600 hrs. onwards at sea berth.

We engaged a Pilot who boarded from fast green dugout fishing craft, about 0.25 miles West of Promontory. On next visit, I will undertake anchoring and mooring.

Approaches: Port conspicuous with Moule A Chique Promontory.

Beware of shoals off George Point.

Found counter current down West coast of St. Lucia (South-going).

Anchorage: About 3.5 cables off jetty, it is fairly well sheltered.

Berthing: It is best to use the port anchor. It is dropped when South mooring buoy and tank marked 'Shell' are in transit, after which vessel backs up between mooring buoys. Put hose buoys just on port quarter.

About 4 shackles on port anchor is normal. The depth alongside for the whole ship's length is 10.0 m.

There is no swell but wind is very gusty, shifting between North and East off the hills, which did not help berthing.

It is best to double lines to both buoys which have hooks. Boat used for Pilot acts as mooring/hose boat. On this visit it was a green hulled boat, previously blue hulled.

Cargo: Only ambient LPG handled at sea berth. Oils handled on South side of jetty.

The undersea 6 in. hose to buoys was lifted by the aft crane on port quarter, clear of water. Ship's hose coupled up to sea hose valve with the aid of a mooring boat, after which it is hung off by crane over port quarter. Standard 4 in. connection used.

Shore capacity 100 tonnes. Rate about 30 t.p.h.
Often large ship/shore differences.
Shipment received every 2 weeks.
No night discharge between 1800 hrs. and 0600 hrs.
Vessel can stay on buoys if pumping suspended overnight.
Shell operated on VHF Channel 9, we landed own Motorola.
Shell like a 50/50 mix.

General: Vessels cannot berth at the Banana Jetty between Tuesday night and Wednesday as banana ships have priority.

The berth is near to St. Lucia International Airport.

Agent: Available. The Shell Manager acts as Agent, and also acts for customs when they do not board.

If vessel advises Shell 24 hours in advance, they will obtain stores for the vessel. Apples, meat and frozen food available. Heineken beer was E.C.$ 22.00/case. Friday is a good day for the market.

Vessel called again 2 weeks later and made the following observations.

The call sign for Vieux Fort Lighthouse is "Moule A Chique Lighthouse".

We anchored and awaited daylight with Mathurin Pt. Lighthouse bearing 162° × 0.3 miles.

We called Mathurin Lighthouse, who advised us that a boat was ready but no pilot available. We berthed at 0645 hrs. without a Pilot.

We berthed with Battery Point ahead (bearing 060°), and then swung hard to starboard with the Banana Pier bearing 120° and the South mooring buoy in transit with the 'Shell' tank. We dropped the port anchor and then backed up to the stern mooring buoys, one on each quarter, until the hose buoy (first orange buoy) was under the crane. On completion of mooring operation we had 6 shackles of cable out on the port anchor.

For stores this time we requested 6 cases of apples, grapes and 25 cases of Heineken but only received the beer due to a failed delivery from Castries.

As provisions did not arrive we made a last minute visit to a local wholesaler (Inter Island Supply), who are on the road to the airport, about 0.5 miles from the Shell Terminal. We obtained 6 cases of apples at U.S.$38.00/case and grapes at U.S.$50.00/pallet. We also obtained additional cases of beer at U.S.$8.68 per case.

AUTHORITY: Saint Lucia Air & Sea Ports Authority, P.O.Box 651, Bridge Street, Castries, St. Lucia, West Indies. *Tel:* (809) 45-22893/4, 4521182. *FAX:* (809) 45-22062. *Telex:* 6355 Paslu LC. *Contact:* Gregory St.Helen, General Manager.

CUL DE SAC BAY: 13.59 N. 61.02 W. (See Plan)

LOCATION: The facilities of Hess Oil St. Lucia Limited (HOSLL) are located in Cul de Sac Bay (Lat. 13° 59' N., Long. 61° 02' W.) on the West coast of the island of St. Lucia, West Indies. Ready access for all vessels coming in from the Atlantic is provided by the St. Lucia Channel which lies between St. Lucia and Martinique. This channel is 17 miles wide and has general depths of 914 m. (500 fathoms).

PORT LIMITS: For tendering purposes a vessel will be considered as having taken arrival when it reaches the Pilot Station 2.5 miles due West of Bananes Point. A vessel's "Notice of Readiness" will not be accepted until the vessel has initially reached this point and notified HOSLL by VHF.

DOCUMENTS: The following documents are required for entry and clearance and are to be presented to the respective officers on boarding:

General Declaration for Ships.
Cargo Declaration.
List of Unmanifested Cargo.
Crew List.
Crew Members' Stores List.
List of Packages or Parcels Intended for discharge by Crew Members.

Normally it is necessary to have Customs entry completed before cargo operations can commence.

Customs clearance is accomplished by the vessel's Agent, cargo documents are placed onboard by the Terminal Department.

APPROACHES: *Harbour Entrance:* Cul de de Sac Bay is entered from the open sea between Bananes Point about 1 mile North of Marigot Point, and Ciceron Point about 0.75 miles farther Northeast of Bananes Point. Harbour entrance is 3,000 ft. wide.

Navigation Aids: The approach into Grand Cul de Sac Bay is marked by a range on a true heading of 131.1°. The front range showing fixed green, visible 7 miles, is on a 90 ft. cylindrical tower, alternate black and yellow bands, 168 ft. above sea level, in position Lat. 13° 59.02' N., Long. 61° 01.03' W.

The rear range light 1,910 ft. from the front range, in position Lat. 13° 58.82' N., Long. 61° 00.83' W., showing fixed green, visible 7 miles, is on a 25 ft. cylindrical tower, alternate black and yellow bands, with red and white vertically striped, 4 ft. × 16 ft. daymark, is 202 ft. above sea level.

Both front and rear range lights have a 6° arc of visibility, 3° on each side of the range line.

Ciceron Point, on the North side of the harbour, is marked by a flashing green light on a 25 ft. cylindrical tower, 40 ft. above sea level, with a 7 ft. × 7 ft. square daymark.

Ciceron Point rear range is located 1,130 ft. × 105.3° from Ciceron Pt. Light. The rear range is fixed green on a 45 ft. black and yellow banded square daymark. Arc of visibility 3° each side of range line.

The South side of the harbour is marked by Bananes Pt.Light, showing flashing red on a 15 ft. tower, 85 ft. above sea level, with a 7 ft. × 7 ft. × 7 ft. triangular red daymark.

A safe water buoy has been established in the Northwest sector of the harbour, showing a flashing white light, vertically striped red and white, radar reflector. This buoy marks the Southwest projection of a shoal area. South of this buoy are depths of at least 90 ft.

PILOTAGE: Service is available 24 hours a day (also see "Restrictions") and is compulsory for all vessels entering or leaving Cul de Sac Harbour. A HOSLL Pilot will assist the Master of any vessels docking or undocking at the Hess facilities, however, the Master of each vessel retains full responsibility for his ship at all times.

Vessels must remain at the Pilot Station 2.5 miles due West of Bananes Point until boarded by the HOSLL Pilot who will be placed aboard by a company tug.

The HOSLL Marine and Terminal Office is equipped with a VHF radiotelephone having the following channels:

Initial Contact: Channel 16.
Working: Channel 9.

Ships must call the HOSLL marine office on VHF at least 3 hours before arrival at the Pilot Station and advise of any change in their ETA.

Pilot Ladders: If the following regulations are not complied with, HOSLL Pilots may refuse to embark or disembark thus delaying the vessel.

(i) The Officer responsible for the embarkation and disembarkation of the Pilot is to be a Deck Officer.

(ii) The pilot ladder is to be properly secured and adequately lit at night.

(iii) The Pilot should be able to pass safely and conveniently from the head of the ladder onto the ship's deck. Where portable stanchions and bulwark ladders are used for this purpose, the portable stanchions must be rigidly secured to the ship's structure to prevent being unshipped and supported at not less than two points to prevent lateral movement. The bulwark ladder should also be independently attached and firmly secured. The stanchions should be of reasonable height and adequately capped to allow a firm grip.

(iv) The ladder is to be in good condition and its treads are to remain horizontal. The treads are to have a rough upper surface.

(v) The length of the ladder should not exceed 30 ft. Whenever the distance from sea level to a point of access on the ship is more than 30 ft. access from the pilot ladder to the ship must be by means of an accommodation ladder or other equally safe and convenient means.

(vi) The ladder is to be rigged so that each step rests firmly against the ship's side. Spreaders are to be provided not more than 10 ft. apart to prevent the ladder twisting.

(vii) A manrope or a safety line is to be secured at the vessel's rail and lowered over the side adjacent to and for the full length of the pilot ladder. A lifebuoy with self-igniting light is to be readily available.

(viii) The ladder is to be rigged well clear of any overboard discharges and at a place where the best lee can be provided to the boat carrying the Pilot.

(ix) Use of mechanical hoists not allowed.

ANCHORAGES: No anchoring is permitted in Cul de Sac Bay.

RESTRICTIONS: Only vessels inbound or outbound from Cul de Sac Bay may use or be present in the Cul de Sac approach area. No vessel shall enter Cul de Sac Bay except for the purpose of using the facilities located therein and then only in compliance with the directions of the HOSLL Marine Manager.

Ballast Drafts:

Vessel d.w.t.	*Forward*	*Aft*
Under 20,000	12 ft.	18 ft.
20,000 to 35,000	14 ft.	20 ft.
35,000 to 50,000	15 ft.	21 ft.
50,000 to 85,000	18 ft.	24 ft.
85,000 to 150,000	21 ft.	28 ft.
150,000 to 200,000	32 ft.	36 ft.

These are minimum draft guidelines. Vessels over 270,000 d.w.t. must have not less than 3 ft. of water over the ship's propeller and not more than 10 ft. of trim by the stern.

These guidelines will be adjusted as weather and vessel handling characteristics dictate. Advice concerning any variance will be provided to the vessel by the Pilot in ample time to prevent any unnecessary delays to vessel's ballasting.

Entry/Departure: Vessels up to 300,000 tons d.w.t. are berthed 24 hours a day. Vessels over 300,000 tons d.w.t. are berthed during daylight only. Sailing possible at any time for any size vessel.

MAX. SIZE:

Dock No. 2 (VLCC Berth):

Length	– 1,300 ft. LOA.
Beam	– No restrictions.
Draft	– 82 ft.
DWT	– 400,000 long tons.

Larger vessels can be accommodated, however, each such move must be discussed on an individual basis prior to entry.

Largest vessel handled: 508,000 tons d.w.t., draft 84 ft.

Dry Cargo Dock:

Length	– 650 ft. LOA.
Beam	– No restrictions.
Draft	– 37 ft. 6 in.
DWT	– 50,000 long tons.

HEALTH: Pratique is required and will be granted by the Customs/ Immigration or Health Official boarding the vessel.

All vessels arriving from a foreign port will be boarded by Customs and Immigration Officers. VESSEL PERSONNEL ARE NOT ALLOWED ASHORE UNTIL PERMISSION IS GRANTED FROM THESE OFFICERS.

Quarantine is required only if vessel is coming from a plague infected area or if illness of a suspicious nature or there is a death (from any cause) onboard. The Master is obligated to report to the HOSLL Marine Office any of the above circumstances well in advance of the vessel's arrival at the Pilot Station in order that the Health Officials may be notified – failing which the vessel may be delayed.

RADIO: Masters must advise both HOSLL – St. Lucia and their Agents by radio 72, 48 and 24 hours in advance of their ETA giving the vessel's name, date and hour of arrival (local time) and the name of their past port of call otherwise delays to the vessel may result.

VHF: VHF radio frequencies:

1. Calling only	–	Channel 16
2. Hess Oil	–	Channel 1
3. Pilotage	–	Channel 9 and 65
4. Agency	–	Channel 9

Harbour tugs and the HOSLL Marine Dispatchers monitor VHF frequencies 24 hours a day. VHF call sign: Hess St. Lucia.

TUGS: Tug assistance in the harbour, docking and undocking is mandatory and is provided by diesel tugs, stationed in the port to provide this service. Additional tugs are available when required.

When tugs are alongside or assisting a vessel, all cargo tank openings must be closed, unless the cargo tanks are gas-free.

BERTHING:

Dock No. 2 (VLCC Berth): Vessels using this berth will be turned in Cul de Sac Bay and docked port side to.

This dock is equipped with 4×16 in. Chicksan arms for handling crude oil and 1×16 in. Chicksan for dirty ballast.

Dry Cargo Dock: Vessels using this berth will dock port side to.

This dock is equipped with:

1×6 in. hose for Jet Fuel.
1×6 in. hose for Gasoline.
1×6 in. hose for Distillates.
1×4 in. hose for Spraytex.
1×4 in. hose for Avgas.
1×3 in. hose for LPG.

Also see "Max. Size".

Moorings: A line handling vessel and personnel will be provided for mooring.

Vessels shall at all times remain adequately secured alongside the berth by the use of ropes or wires which are in good condition and properly sized for the load they are likely to incur. Mooring lines shall be regularly tended and kept taut.

The use of automatic tensioning winches to hold mooring lines is forbidden.

Immediately on docking, emergency towing wires of sufficient length to reach the water's edge, with eyes on the outboard ends, must be paid out from the offshore bow and the after quarter. The inboard ends must be made fast to the vessel's bitts.

Wires shall be in good condition, of adequate strength and adjusted as necessary throughout loading/discharging operations to keep the eyes at or above the waterline at all times.

Rat Guards: Rat guards are required only if a vessel is coming from a plague infected area.

Gangway: HOSLL will provide a gangway.

NOTICE OF READINESS: Notice of Readiness to load or discharge is a warranty that the vessel is in all respects ready to load or discharge, and that all of the vessel's equipment (including, but not limited to tanks, pumps, valves and pipelines) is ready and fit to load or discharge petroleum and/or petrochemical products. HOSLL reserves the right to refuse acceptance of such Notice of Readiness unless the vessel is in all respects ready to load or discharge.

A vessel will not be deemed ready to load or discharge and pumping will not commence until the Senior Deck Officer shall have executed and delivered to HOSLL the "Declaration of Inspection Prior to Bulk Cargo Transfer".

LOADING/DISCHARGING: Loading or discharging must not start until the Master or Chief Officer has:

(a) Signed a certificate acknowledging receipt of HOSLL's Terminal Regulations.
(b) Displayed in prominent positions on board "No Smoking", "No Naked Light", "No Visitors" notices.
(c) Jointly executed a HOSLL "Declaration of Inspection" with the Terminal Representative certifying that all necessary valves ashore and aboard are properly set; that the agreed loading/discharging signals are understood, and that all other matters relating to safe cargo transfer operations are being carried out.

Bonding Cable: A ground wire from the dock grounding system shall be connected to all vessels or barges loading/discharging petroleum before any hose connections are made. This cable is not to be disconnected until after all hoses or Chicksan arms have been disconnected and blanked off properly.

Connecting and Disconnecting Hoses: A crew will be provided by the terminal to connect and disconnect hoses and Chicksan arms on the vessel. Vessels should have blinds removed from the cargo lines, reducers installed and drip pans in place on arrival at the dock. The HOSLL Dispatcher will advise on arrival the size and number of hoses or arms to be connected. Also see "Berthing".

Communications: HOSLL will supply a VHF radio to the vessel for emergency communication between the vessel and the dock watch during loading/discharging operations.

Cargo Handling Signals: All vessels loading or discharging petroleum cargoes shall fly a red (bunker) flag between the hours of sunrise and sunset and during the night show a red light visible from all parts of the horizon at a distance of not less than 1 mile.

Weather Conditions: The loading and discharge of all crude petroleum and its products will be stopped during any severe electrical storm.

Loading of low-flash products will be stopped during periods of calm when the heavy vapours cannot be dispersed readily enough to prevent hazards from accumulating gas pockets. Vessel's Officers are cautioned to be on their guard during such conditions.

In the event of abnormal weather conditions in the area such as a hurricane, vessels will be notified that additional moorings are required. If the situation so demands, Masters may be instructed to suspend all operations and proceed to sea until normal weather conditions again prevail.

Demurrage: Vessels are required to vacate berths promptly upon completion of cargo handling operation (loading or discharging operations as the case may be). Permission to lay alongside at any time the vessel is not engaged in cargo handling operations must be granted in writing by the Marine Superintendent.

If any vessel fails to vacate its berth upon completion of cargo handling operations and expiration of free laytime for dock usage as outlined below, the vessel will be responsible as follows:

(a) To pay dock demurrage at the rate as specified by HOSLL per hour or a *pro rata* share thereof for a fraction of an hour.
(b) To hold HOSLL harmless for any demurrage and damages incurred as a result of other vessels awaiting berth or for any other consequences of its failure to properly vacate the berth.

The following rules shall govern the determination of demurrage:

(a) One hour free laytime will be allowed after completion of cargo loading operations. This free time will start at the time cargo hoses are disconnected from the vessel's manifold on completion of loading or discharge of cargo. Vessels awaiting cargo papers and/or Customs Clearance must vacate the berth within 1 hour of such completion and move outside to wait for their papers.
(b) Four hours' free laytime will be allowed for ballasting after discharge operations.
(c) Ballasting times for VLCCs will be handled on an individual basis for each vessel.

Overloading: Masters are advised that the international laws regarding overloading are strictly enforced and they should be guided accordingly.

Vessels shall not arrive or sail overloaded. All expenses incurred in discharging or lightering overloaded cargo will be for the vessel's account. Vessels departing to zones requiring lighter draft may sail with the draft permitted in that zone plus an allowance for fuel and water consumption to the zone limit.

Sea Suctions: Pumproom sea suctions and discharge valves are to be sealed on arrival. Seals are not to be broken while the vessel is in the harbour area. If it becomes necessary to break a seal, permission must be received first from the HOSLL dock representative who will check and record the seal numbers.

MEDICAL: Limited emergency medical attention is available from the public hospital at any hour of the day or night. The vessel's Agency Representative should be contacted by the Master with any requests for crew medical attention.

For routine medical treatment, a Doctor will board the vessel when requested through the vessel's Agency. Dental treatment is available weekdays.

All crew members requiring medical attention should be available upon vessel's arrival.

BALLAST: St. Lucia laws prohibit the pumping of dirty ballast overboard while a vessel is within their coastal waters. All dirty ballast must be pumped to the facilities available ashore. However, if a vessel is especially equipped with clean segregated systems which are reserved for ballast use only, it is permissible to pump overboard at the dock after the ballast tanks have been inspected and approved by a Marine Department Representative.

In pumping dirty ballast ashore, the ballast is received through a 36 in. shoreline at a maximum discharge pressure to the shore installation of 120 p.s.i.

Also see "Restrictions".

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: Limited supplies of marine hardware are available on the island.

There are no facilities for major repairs closer than Puerto Rico or Curacao.

SURVEYORS: Representatives of the American Bureau of Shipping, Lloyd's Register and other marine classification societies are available from Puerto Rico and Curacao on 72 hours' notice. The vessel's Agent will assist Masters in soliciting their services.

Representatives of SGS (Societe General de Surveillance S.A.) will be available for cargo quantity and quality inspection as required. Other outside inspectors can be arranged upon adequate notice.

TIME: St. Lucia uses Atlantic Standard Time which is 4 hours slow of GMT all year round.

SHORE LEAVE: Under normal circumstances, no restrictions are imposed by the Immigration authorities on shore leave. Masters are requested to have all crew members on board at least 1 hour prior to departure time to avoid delay "waiting crew members".

HOSLL will provide the Master of each vessel with gate passes for the crew upon arrival.

Crew members are not permitted to walk through the terminal. HOSLL will supply transportation between the docks and the main gate at regular intervals. Crew members must make their own arrangements for transportation outside the main gate.

GARBAGE DISPOSAL: Service not available.

WASTE OIL DISPOSAL: Service not available.

SEAMAN'S CLUBS: None.

CURRENCY: Eastern Caribbean Dollar.

GENERAL:

Winds: The trade winds normally blow from an Easterly direction ranging from N.N.E. to S.S.E. Night winds are generally lighter than the daytime winds. About daybreak the wind speed begins to pick up, reaching maximum strength in the late morning or early afternoon. A return to the lighter night-time winds begins during the late afternoon, usually around 1600 hrs.

In past years, hurricanes have occasionally passed close to and over the Island. Hurricane season runs normally from June through October of each year peaking in late August and September. For details see U.S. DMA Hydrographic Center – Sailing directions for the Caribbean Sea – Pub. 144.

Tides and Current: The tides are diurnal and small, the mean range being about 0.5 ft. and the diurnal range less than a foot.

Normally there is a current of 1 knot to 2.5 knots moving along the West coast of the Island in a Northerly direction.

Charts: Island of St. Lucia, U.S. DMA Hydrographic Center Chart No. 25521.

Anchorage in St. Lucia Island, U.S. DMA Hydrographic Center Chart No. 25528, and Harbours in St.Lucia Island – B.A. No. 449.

Flags: Vessels entering Cul de Sac Bay during daylight shall fly their national flag and continue to do so during daylight hours when moored. All vessels of foreign registry shall fly the St. Lucian flag when in the harbour.

Visitors: No visitors are permitted in the dock area. Only persons on official vessel's business are permitted on the docks.

Mail: Official and personal mail will be delivered onboard by the vessel's Agent upon vessel's entry.

Mail received for vessels while in port will be delivered onboard prior to sailing. Outgoing mail is accepted from Master provided it is accompanied by a mail transmittal slip or support disbursements.

Laundry: Limited vessel's laundry facilities are available.

Liquor: The transportation of alcoholic beverages inside HOSLL's property is strictly prohibited; consequently, no liquor or beer may be brought or removed from vessels. The only exception to the foregoing is the delivery of bonded stores ordered by Masters for their vessels.

Swimming: Swimming in the dock area is strictly prohibited as sharks and barracuda frequent the harbour.

AUTHORITY: Hess Oil St. Lucia Ltd. (HOSLL), P.O.Box 811, Castries, St.Lucia. *Tel:* (809) 452-3105 and 452-3904. *Telex:* 341-6346 A/B 6346 Hess Stl LC. *Cable:* Hess Oil St.Lucia. *FAX:* (809) 452-5688.

Contact: General Manager.

St. Pierre and Miquelon

SAINT-PIERRE: 46.47 N. 56.10 W. (See Plan)

DOCUMENTS: Formalities completed on arrival. Advise Port Service beforehand of vessel's ETA, length, tonnage and draft 12 hours before arrival.

Declaration of Health.
Derat Certificate.
2 Crew Lists.
2 Passenger Lists.
2 Cargo Manifests of any cargo to be discharged.
2 Crew Declarations (tobacco, liquor, souvenirs).
Certificate of Registry.

APPROACHES: *North East Passage:* Max. draft 8.5 m. Vessels approach on a heading of 209° T.

South East Passage: Used by vessels not exceeding 25 m. LOA and 5.0 m. draft.

24 hours' notice required if using this entrance.

PILOTAGE: Contact Pilot 1 hour before arrival calling TXU by radio telephone on 2182 kHz or VHF Channel 16. Permanent watch kept. Pilot boats equipped with VHF Channel 12, radar, and radio-telephone. Pilot launch available at entrance to N.E. channel in position Lat. 46° 48.3' N., Long. 56° 07.7' W., in the vicinity of the Land Fall Buoy.

Pilot launch named *Radar,* length 45 ft. The hull is black and superstructure white with "Pilote" painted on each side. Pilot launch carries the International Signals for pilot launch day and night.

When the weather is bad contact Pilot on Channel 12 for instructions.

Pilot is compulsory for vessel of 100 g.r.t. and over.

Pilot Tel. 41.20.68 (office), 41.24.87 (residence).

ANCHORAGES: In the roads, depth 13 m., not secure in strong East winds.

Shipmaster's Report: The anchorage in the roads where fish is loaded ex-trawlers is not secure, even with moderate winds from any direction, and engines should be on stand-by continuously. Several ships have gone on the rocks in a matter of minutes.

MAX. SIZE: New Quay: Max. LOA 200 m. Max draft 10 m. Also see "Berthing".

HEALTH: If suspected disease on board contact Saint-Pierre Health Service. Tel: 41.21.11. (office), 41.21.17 (residence).

Masters of vessels arriving at Saint-Pierre may obtain Free Pratique via TXU. Message to be sent to Harbour Master Saint-Pierre at least 12 hours before arrival.

In the message the Master has to specify name of vessel, total number of crew members, where ship coming from, and if everybody on board healthy; in these conditions flag "Q" is not necessary on arrival, but if any suspected disease or fever on board, advise Health Authority as well as Agent, and stand by instructions for berthing. Flag "Q" has to be flown on arrival in the roads.

RADIO: Saint-Pierre Radio, call sign TXU, receiving on 2182 kHz. transmitting on 2410 kHz.

Masters of vessels arriving are requested to send their ETA to Harbour Master Saint-Pierre at least 12 hours before arrival and corrected by a further message if necessary. The ETA should be given in GMT. Also advise maximum draft and length.

VHF: Saint-Pierre Radio is equipped with VHF Channels 16 and 25 and maintains permanent watch on Channel 16. Port Captain on Channels 12, 10, 9 and 16. Keeps watch on Channel 12.

TUGS: 1×500 h.p.

BERTHING: Mole du Commerce: Length 170 m., depth alongside 8.50 m. 2 sheds (total area 2,700 sq.m.), water and bunkers.

Quai de Peche: Length 134 m., depth alongside 5.2 m. to 9 m. Roll-on/Roll-off terminal, one ramp, max. capacity 50 tons, 6,000 sq.m. open storage.

Mole Frigorifique: 3 berths; No. 1: 120 m. length, 7 m. depth over length of 92 m. No. 2: 85 m. length, 6 m. depth. No. 3: 123 m. length, 5.5 m. depth. Cold store of 15,000 cu.m. at −30°C. Open storage area of 15,000 sq.m. Water and bunkers available at all berths.

Quai de la Douane: South Side: Length 72 m. Depth 6.0 m. Water, electricity and telephone available. West Side: Length 49 m. Depth 6.0 m. Customs office located at berth. East Side: Length 75 m. Depth 5.0 m.

Quai de l'Alysse: Length 50 m., depth 5.6 m. – 6.0 m. Water and electricity available. Berth used by fishery research vessels.

Quai du Frigorifique: New quay of length 56.4 m. with 2 mooring dolphins 100 m. to the East and West. Depth alongside 12.0 m. The berth can accept vessel of 200 m. LOA with draft of 10.0 m. Water and bunkers available.

Pilot will inform Master of berthing prospects and any special requirements.

STEVEDORES: ETA notices are to be sent to Agent 24 hours prior arrival. Stevedore in Saint-Pierre is Paturel Freres (Tel: 41.32.95 and 41.32.96). Cable Address "Reltupa Saint-Pierre". Telex: Reltupa 20 QN.

Approximately 60 men are available for working on board vessels when loading/discharging or transhipping in the port. Crew are allowed to work only when no gangs are available.

One normal shift 0730 to 1600 hrs. every week-day, Saturday 0730 to 1200 hrs. Day overtime, every day 1600 hrs. to 1900 hrs. Saturday 1200 to 1600 hrs.

Work done with ship's derricks.

It is requested that a net be put under gangway before starting work.

EQUIPMENT:

1 mobile crane, 10 tons at 18 m.
3 forklifts, 2 tons capacity.
2 forklifts, 7 tons at 3.5 m.
2 forklifts, 3 tons at 3.5 m.
1 tractor for 40 ton containers.
1×30 ton MAFI container trailer.

MEDICAL: All facilities available.

TANKERS: 1 berth (New Quay) alongside dolphins in depth of 12 m.

FRESH WATER: Available at berths. Supplied by hoses, rate 25 cu.m.p.h.

FUEL: Only diesel oil SG 825/840 at 15°C available at all berths.

CONSULS: Local representatives for Canada, Netherlands, Norway, Portugal and Spain.

REPAIRS: Small repairs can be effected. Floating dock, capacity 550 tons, for vessels up to 13 ft. 6 in. draft.

SURVEYORS: Bureau Veritas, Tel. 41.28.72.

OPENING/CLOSING HATCHES: Normally carried out by crew.

REPATRIATION: Can be arranged.

AIRPORT: Connections from Saint-Pierre to Halifax (Nova Scotia) International Airport.

TIME: GMT minus 3 hours all the year round.

AMBULANCE: Tel: 41.21.11 and 41.21.13 (switchboard).

TELEPHONES: Possible to place telephones on board at certain berths. It is possible to contact the shore on Channel 16 via Saint-Pierre Radio.

SERVICES: Compass adjusting, radar repairs, radio, Decca, Loran and gyro-compass repairs and maintenance possible.

BANKS:

Banque des Iles. Tel: (508) 41.22.17. Fax: (508) 41.25.31.
Credit St.Pierrais. Tel: (508) 41.22.49. Fax: (508) 41.25.96.

IDENTIFICATION CARDS: Each man to carry Passport or Seamen's Book.

GARBAGE DISPOSAL: Compulsory, daily collection of garbage carried out by a private company. Tel: (508) 41.41.17.

WASTE OIL DISPOSAL: Service effected by Speg-Oil. Tel: (508) 41.26.84, 41.21.98, 41.41.80. Fax: (508) 41.24.09.

SEAMEN'S CLUBS: No seamen's club, but following are available: Post office, sailing club, cultural centre, skating rink, football pitches, dance hall, bus and minibus.

Contact: Regional Tourism Agency. Tel: (508) 41.23.84.

CURRENCY: French Franc.

AUTHORITY: Direction du Port, Direction de l'Equipement, 6 Place Lieutenant Colonel Pigeaud, B.P. 4217, Saint-Pierre, 97500 Saint-Pierre et Miquelon. *Tel:* 41.32.01, 41.32.02. *Telex:* DDE SPM 914439 Qn. *Contact:* Jean Urtizberea, Port Captain. Tel. 41.24.10 (Office). 41.28.31 (Residence).

NOTES

Please also advise Shipping Guides Ltd.

St. Vincent and the Grenadines

KINGSTOWN: 13.09 N. 61.14 W. (See Plan)

PORT LIMITS: The imaginary line joining Old Woman's Point and Cane Garden Point.

DOCUMENTS:

Customs:

2 copies Ship's Stores List.
2 copies Crew's Stores List.
1 copy Crew List (in).
1 copy Crew List (out).
1 copy Passengers List (in).
1 copy Passengers List (out).
1 copy List of Unmanifested Cargo.
Clearance from Last Port.

Immigration:

1 copy Passenger List (in).
1 copy Passenger List (out).
1 copy Crew List (in).
1 copy Crew List (out).

Health Authorities:

1 copy Animal Declaration.
1 copy Derat Certificate.
1 copy Declaration of Health.

Harbour Master:

1 copy Passenger List (in).
1 copy Passenger List (out).
1 copy Crew List (in).
1 copy Crew List (out).

PILOTAGE: Agent to be notified of request for Pilot 24 hours prior to ETA. Boarding by Pilot at harbour entrance about 2 miles from anchorage. By day pilot boat flies pilot flag, by night shows signal-lights. Ship to fly "Request for Pilot" – flag by day and signal-lights by night. Also two long and one short blast (Morse Code "G").

ANCHORAGES: Well protected anchorages. Large vessels lie to in basin 90 ft. – 100 ft. depth. Average sized vessels berth at pier in 27 ft. – 40 ft. depth.

RESTRICTIONS: None.

HEALTH: Port Health Officer boards vessel at anchorage. Requires Bill of Health or Master's Declaration, and a copy of Passenger List. Vaccination Certificates are no longer required. Passenger and Crew Muster no longer required. No one allowed to embark or disembark before Pratique granted and Immigration Officials have boarded vessel.

RADIO: Cables should be routed through Cable and Wireless (West Indies) Ltd. Tel: 71901. Telegrams and Telex: 93. Signal Station maintains watch on SSB 2182 kHz throughout 24 hours.

VHF: The Fort Charlotte Signal Station should be contacted on VHF Channel 16 by vessels approaching, entering, manoeuvring in and departing from the Port.

RADAR: None.

TUGS: None.

BERTHING: One berth 900 ft. long. Max. draft approx. 30 ft. (salt water). Loading/discharging by ship's gear. Break-bulk (palletised) cargo handled. 10 ft., 20 ft. and 40 ft. containers handled on a limited scale (max. gross weight 10 tons).

CRANES: 35 tonne mobile crane available.

BULK CARGO FACILITIES: None at Kingstown.

Campden Park Bay, 2 miles North along the West coast – flour mill complex for receiving grain (bulk) and shipping flour. Max. draft 36 ft. One berth 300 ft. Loading gear – conveyor belt, height adjustable. Discharging into receiving hopper 25 ft. high. Loading: Max. 1,200 bags flour/feed per hour. Average rate 750 bags/hour. Discharge rate: Max. 60 t.p.h. per vacuator, average 40 t.p.h. Two vacuators normally used.

SPECIALISED CARGO HANDLING FACILITIES: No specialised berths for containers or Ro/Ro traffic.

Arnos Vale, a bay situated about 2 to 2.5 miles S.E. of Kingstown, features a buoy with a 4 in. floating line for LPG. Draft 14 ft.

BRIDGES: None.

STEVEDORES: 24 hours' notice of ETA required. Advise type of cargo, number of hatches to be worked, this required for arranging gangs of stevedores and longshoremen. Average discharge rate 3 – 5 tons per gang/hour.

MEDICAL: Advance notice to Agent of medical requirement is helpful. Hospital facilities available.

TANKERS: No facilities at Kingstown.

Arnos Vale (See "Specialised Cargo Handling Facilities") has available 3 buoys. Draft 24 ft., 17 ft. 6 in. and 14 ft. Serviced by floating and submarine line 6 in. and 4 in. Fuels available: White Products – Gasoline 93 R Octane, Kerosene Oil, Light Diesel Oil, Aviation Fuel; Black Products – R.C. 2 and Colas. Rate of discharge: White Products: 500 bbls./hr. Black Products: 300 bbls./hr.

Also see "Shipmaster's Report" dated February 1990.

DENSITY: Average 1025 oz/cu.ft.

FRESH WATER: Available. $5.00 (E.C.) per 100 gallons (I.G.). Delivery ex-pier by 3 in. line reduced by 1.5 in. nozzle – 2,500 gall./hr.

FUEL: Grades available. See "Tankers". 2 or 3 hours' notice during normal working hours required. Delivery ex Land-Tanker. Convenient to smaller craft only.

FIRE PRECAUTIONS: Usual precautions.

CONSULS: Consulate of the Netherlands (Mr. K. Boyer, P.O.Box 354. Tel: 84222, 72677).

French Consular Agent (Mr. Clifford Frank, P.O.Box 364. Tel: 61615).

Deputy British High Commissioner (Mr. M. D'ath, P.O.Box 132. Tel: 71701).

Embassy of the Republic of Venezuela. (Sr. Escobar C. Hernani, P.O.Box 852. Tel: 61374).

REPAIRS: Minor facilities only, e.g. minor mechanical repairs and simple welding, etc.

DRY DOCKS: There is a small mechanised dry docking cradle (privately owned) for small to medium sized yachts at Union Island, an island of the Grenadines chain 40 miles South of St. Vincent.

New dry dock at Super Yacht Base can accept vessels up to 65 m. length, 12.0 m. beam, 4.3 m. draft and 1,000 tons displacement. Tel: (809) 45-72178. Fax: (809) 45-61302.

SURVEYORS: Lloyd's Insurance (London). London representative: Messrs. Hazells Ltd., Kingstown. Tel: 61201. Telex: Hazells 7512.

GANGWAY/DECK WATCHMEN: Watchmen recommended. Rates fixed per day.

CARGO GEAR: Loading/discharging effected by ship's gear.

REPATRIATION: Facilities for crew changes and repatriation available.

AIRPORT: Arnos Vale Airport 2 miles from Port. Scheduled flights.

TIME: GMT minus 4 hours. No alterations to clock during the year.

HOLIDAYS: New Year's Day, (1st January); St. Vincent and Grenadines Day, (22nd January); Good Friday; Easter Monday; Whitsun Monday; Labour Day, (1st May); Caricom Day, (1st Monday in July); Carnival Day, (1st Tuesday in July); August Monday, (1st Monday in August); Independence Day, (27th October); Christmas Day, (25th December); Boxing Day, (26th December).

BANKS: Caribbean Banking Corporation, Middle Street, Kingstown, P.O.Box 118. Tel: 61501, 61502, 61503. Telex: 7513.

The Canadian Imperial Bank of Commerce, Halifax Street, Kingstown, P.O.Box 212. Tel: 71587. Telex: 7532 VQ.

Barclays Bank International Ltd., Halifax Street, Kingstown, P.O.Box 604. Tel: 61706. Telex: 7520.

The Bank of Nova Scotia, Corner White Chapel and Halifax Street, P.O.Box 237. Tel: 71601. Telex: 7546 VQ.

National Commercial Bank.

St. Vincent Agricultural and Loan Bank.

St. Vincent Co-operative Bank.

STORING: See "Prelims".

1. Vessels stored by truck.
2. No barges available.
3. Trucks allowed alongside.
4. Fork lift trucks can be used on jetty to handle stores.
5. Customs regulations regarding storing allows stores to be exported duty-free under Customs supervision, and sometimes Customs seals while in port.
6. Local Riggers available for assisting with storing.

POLICE/FIRE/AMBULANCE: Police Headquarters/Fire Department, Tel: 71211. Emergency: 99. General Hospital, Tel: 61185.

EMERGENCY CO-ORDINATION CENTRE: The Royal St. Vincent Police Station, Kingstown. Tel: 71211. Emergency: 99.

TELEPHONE: Two telephones available, $25.00 per day per phone.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Seaman's Book adequate.

GARBAGE DISPOSAL: Collection service is available. Skips are provided alongside ship. Contact Waste Masters, Kingstown, St.Vincent. Tel: (809) 457-1657. Fax: (809) 457-2768.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: No seaman's clubs. There is an International Telephone Service at Cable & Wireless, Kingstown. Church services held Saturday/Sunday. Minibuses run up to 10 pm daily.

CURRENCY: East Caribbean Dollar (EC$).

REGULATIONS: No unusual regulations.

DELAYS: Normal delays in berthing etc., as a result of limited docking area.

GENERAL: *Charts:* BA. 501 and BA. 791.

DEVELOPMENTS: Deep Water Berth to be extended by 300 ft. – 400 ft. to the North and by 150 ft. to the South. No schedule available at present.

SHIPMASTER'S REPORT: January 1979 (Updated 1994).

Pilotage: Compulsory for vessels over 180 n.r.t. Pilot boards 0.5 miles South of Fort Charlotte Light. A heavy swell may be experienced and vessel is always rolling.

Restrictions: Vessel may enter and leave at any stage of the tide, however, berthing is not recommended during hours of darkness. Unberthing may be carried out at any time.

Max. Size: LOA 550 ft. Max. draft approximately 30 ft.

Radio: Fort Charlotte on VHF Channel 16 and SSB 2182 kHz.

Berthing: One berth only available, vessels always dock port side to. Wharf is concrete with hard rubber fenders. There are storage facilities for breakbulk cargoes and palletised cargoes, there is also mechanised equipment for handling bananas. Container stowage in the container park. Two toplifters for handling 20 ft. and 40 ft. containers, max. weight 30 tons. Loading rate for bananas 15 t.p.h. per gang using ship's derricks. Vessel's accommodation ladder required.

Facilities Available: Fresh water, fresh provisions, airport, laundry services, doctor, hospital, groceries, fish and meats.

SHIPMASTER'S REPORT: February 1990.

Berth: Shell and Texaco Terminal at Greathead Bay (Arnos Vale).

Approach: For Shell and Texaco oil terminals in Greathead Bay, vessels are first required to clear Customs and Immigration at Kingstown.

From the North West, Kingstown is easily passed by being rather inconspicuous, a small city tucked away at the head of its own bay.

Best landmark is Fort Charlotte on the promontory to the West of the town.

From the East, the airfield runway is easily seen on the N.W. side of Greathead Bay.

Anchorage: Vessels either anchor for clearance in Kingstown Bay if Greathead Bay berth is occupied, or at night, or just lie in the bay for clearance.

The water is deep and the only shallow area is within 1 cable of the harbour wall.

We anchored with 4 shackles in water with Cane Garden Point bearing 160° at a distance of 0.65 miles.

Pilot: Pilotage inwards to Greathead Bay is compulsory (0600 hrs. to 1800 hrs.). Pilot is embarked from a black hulled launch in Kingstown Bay. Pilot not required outwards. Vessels may leave at any time.

Signal Station: Fort Charlotte on VHF Channels 16/11 throughout 24 hours. Port Office on VHF Channels 16/11 from 0800 hrs. – 1600 hrs.

Oil Moorings: Position Lat. 13° 08.2' N., Long. 61° 13.2' W., in the Eastern end of the bay tucked under the promontory.

Depth at moorings about 8.0 m. minimum.

Vessels finally moor less than 1 cable from the cliffs.

The starboard anchor is let go abeam of cliff head (13° 08.08' N., 61° 13.13' W.), headland unnamed. Then one port breast line sent to buoy and 2 starboard stern lines sent to inshore buoy of two. Stern being pulled over to port quarter buoy so that buoy finishes up just forward of stern.

It is advisable to send port line first (use best available), then one stern line, gradually warping vessel into position.

There are 3 buoys, all painted white, the third buoy ends up on the starboard quarter and is generally not used.

Buoys only have eyes and require mooring shackles.

Vessel ends up with about 5 shackles in water, ship's head 190°.

Boatman has a dugout with outboard and also handles hoses.

Weather/Tides: Strong Easterly winds are prevalent which makes mooring difficult, particularly in heat of day.

Tides can be strong. The flood was observed running to East and ebb to West as at HW Kingstown. Flood is much stronger than ebb.

Due to prevailing wind, vessel does not, as a rule, set onto cliffs.

Best to moor at first light or at dusk.

Hose: At present the ship's floating hose of about 240 m. is run to Shell, slightly more to Texaco. Port side run off.

In June 1990, 3 submarine lines will be commissioned – 1×6 in. white oils, 1×6 in. RC250 (Bitumen) and 1×4 in. LPG. Pumping rate expected to be around 300 tonnes/hr.

Terminals: Shell centred in position Lat. 13° 08.28' N., Long. 61° 13.05' W. Texaco nearby to the West.

Shell tankage:

M 93	2,800 bbl.
ULG	2,800 bbl.
Av. Jet	3,400 bbl.
Av. Gas	1,000 bbl.
Gas Oil	6,000 bbl.
RC250	1,100 bbl.
No LPG tanks.	

Texaco has similar tankage plus LPG facility.

Shell normally use VHF Channel 9, so if not available on ship's Motorola, ship has to land ship's set.

Water plugs between grades.

Agent: Shell agent not seen at Kingstown. Texaco use St.Vincent Motors.

Documents: Officials require 6 Crew Lists, 2 Crew Manifests, 2 Bonded Stores Lists, 2 Stores Lists and Health Declaration.

No problems were encountered and the bond was not sealed.

AUTHORITY: The St. Vincent Port Authority, P.O.Box 1237, Kingstown, St. Vincent, W.I. *Tel:* (809) 45-61830, 72719. *Telex:* 7500 Cwagency. *FAX:* (809) 45-62732. *Contact:* Harbour Master: Captain Brenan B. King, Tel: 61830, 61400. Port Manager: L. Kirby, Tel: 72719. Chairman: Kevin Gibson, Tel: 45-64487. Chester Charles, Administration Officer.

Republic of Sao Tome and Principe

SAO TOME: 00.21 N. 06.44 E.

SHIPMASTER'S REPORT: May 1984.

DOCUMENTS:

6 copies Crew Lists.
6 copies Animal Lists.
6 copies Passenger Lists.
6 copies Arms and Ammunition Lists.
6 copies Ports of Call.
2 copies Personal Declaration.
2 copies Stores Declaration.
3 copies Cargo Manifests.

PILOTAGE: No service available.

ANCHORAGE: On the leading line shown on the chart, about 8 – 9 cables from the breakwater. By day or night the leading light structures are not easily recognisable. Vessels lie at anchor heading in a S.S.E.'ly direction and do not swing around to the tide. The ground, which is clearly visible when the sea is calm, is sand and holds well.

RADIO: Although Sao Tome has a listed radio station, it is not regularly attended and does not function properly. Masters are advised to send ETA messages via one of the major coast stations such as Cape Town. There is supposed to be a VHF station in port but this is also mostly unattended. There is telex connection to Europe.

BERTHING: *Cargo Handling:* If no other vessel in port, up to 200 tons per day in lighters of 40/60 tons each.

MEDICAL: There is a hospital and medical attention is available.

FRESH WATER: Not available.

AIRPORT: Sao Tome has regular flight connection with Luanda only. A once a month service to the Cape Verde Islands started in April 1984, on an experimental basis.

SHORE LEAVE: Crew members may go ashore but must return on board before 2000 hrs. They must carry their Passports with them.

GENERAL: *Provisions:* There is no ship chandling service. Some small amounts of fresh vegetables can be purchased.

Customs: The ship's bonded stores are not sealed by Customs.

Immigration: One policemen stays on board throughout the ship's stay in port.

Currency: The local currency is Dobras, about 33 Dobras = $1.00 (April 1984).

Mail: Because of the lack of direct flight connections, it is advisable not to send mail to or from Sao Tome.

SHIPMASTER'S REPORT: January 1989.

PILOTAGE: Not available.

ANCHORAGE: The anchorage is on the leading line shown on the chart, about 5 cables from the breakwater. The minimum depth of water is 10.0 m. and the holding ground is good. The vessel swings with the tide but generally heads in a South-Southeasterly or North-Northwesterly direction.

RADIO: Sao Tome Naval Radio Station is the local station, but is not regularly attended. None of the operators understands English. They will only reply if the vessel calls in the Portuguese language.

There is a manual telex connection with Europe, however ETA should be sent via a major coast station.

BERTHING: The length of the jetty is 200 m. and the maximum depth alongside at LW is said to be approximately 2.50 m.

CARGO HANDLING FACILITIES: Ocean-going vessels load and unload at anchor. There is a long Southeasterly swell and this makes operations dangerous. Vessel must have sufficient fenders for carrying out cargo operations.

The local stevedores are able to handle conventional derricks, but it is not recommended that they be allowed to handle sophisticated container cranes or other modern cargo handling gear.

There are approximately 10 lighters available for handling cargo of vessels at anchor and if only one vessel is discharging, a rate of up to 300 tonnes per day for breakbulk cargo can be achieved.

There are 4 lighters which are capable of carrying 1×20 ft. container at any one time and 1 lighter capable of carrying 1×40 ft. container.

The jetty is equipped with a fixed crane with 23 tonnes capacity and a mobile crane of 5 tonnes capacity.

There is only one lorry capable of carrying 40 ft. containers, therefore the discharge rate for 40 ft. containers is a maximum of 5×40 ft. containers per day. The discharge rate for 20 ft. containers is a maximum of 20×20 ft. containers per day.

As there is a lack of lorries to handle containers the harbour can become congested.

SHORE LEAVE: Crew members are allowed ashore, but must return aboard the vessel before 2300 hrs. Whilst on shore, crew must carry their Seaman's Books.

GENERAL: Sao Tome is a suitable place for conventional vessels, but is not recommended for pure container vessels, especially if they are not equipped with a powerful bow thruster, in order to work against the swell while unloading containers by own cranes.

NOTES

Please also advise Shipping Guides Ltd.

Saudi Arabia

GENERAL

NOTICE:

Saudi Arabia – Bahrain Causeway

The following Navigation Warning issued by the Saudi Seaports Authority – Riyadh is circulated to all concerned:

Date: 23.7.1407/25.11.1986

Subject: Navigation Warning "A" 172/25.11.1986

Saudi Arabia – Arabian Gulf – Saudi Arabia – Bahrain Causeway.

1. A causeway linking Saudi Arabia and Bahrain has been constructed and the following positions represent the centreline and general direction of the causeway:

A. Lat. 26° 13.17' N., Long. 50° 13.27' E.
B. Lat. 26° 13.20' N., Long. 50° 13.87' E.
C. Lat. 26° 13.15' N., Long. 50° 14.38' E.
D. Lat. 26° 12.83' N., Long. 50° 15.63' E.
E. Lat. 26° 12.70' N., Long. 50° 16.00' E.
F. Lat. 26° 11.33' N., Long. 50° 18.82' E.
G. Lat. 26° 11.02' N., Long. 50° 19.55' E.
H. Lat. 26° 10.92' N., Long. 50° 20.17' E.
I. Lat. 26° 10.83' N., Long. 50° 22.20' E.
J. Lat. 26° 10.17' N., Long. 50° 24.07' E.
K. Lat. 26° 10.05' N., Long. 50° 25.25' E.
L. Lat. 26° 10.28' N., Long. 50° 27.00' E.

2. Four Navigation Spans have been provided in the causeway, 1 main (Bridge No. 3) and 3 secondary (Bridge Nos. 1, 4 and 5).

(a) Main Navigation Span Bridge No. 3.
Centre of Span in position: Lat. 26° 12.10' N., Long. 50° 17.23' E.
Clearance Under Span: 28.5 m. at Admiralty Chart Datum.
Navigation Width of Span: 122 m.
Depth of Water Under Span: 7 m. at Admiralty Chart Datum.

(b) Secondary Navigation Span Bridge No. 1.
Centre of Span in position: Lat. 26° 13.18' N., Long. 50° 13.58' E.
Clearance Under Span: 15.5 m. at Admiralty Chart Datum.
Navigation Width of Span: 45 m.
Depth of Water Under Span: 5.5 m. at Admiralty Chart Datum.

(c) Secondary Navigation Span Bridge No. 4.
Centre of Span in position: Lat. 26° 10.87' N., Long. 50° 21.10' E.
Clearance Under Span: 15.5 m. at Admiralty Chart Datum.
Navigation Width of Span: 45 m.
Depth of Water Under Span: 5.5 m. at Admiralty Chart Datum.

(d) Secondary Navigation Span Bridge No. 5.
Centre of Span in position: Lat. 26° 10.12' N., Long. 50° 25.75' E.
Clearance Under Span: 15.5 m. at Admiralty Chart Datum.
Navigation Width of Span: 45 m.
Depth of Water Under Span: 4.5 m. at Admiralty Chart Datum.

3. (a) The North and South piles on the Eastern side of each navigation span are marked with red lights, while green lights mark the Western sides. These lights show over an arc of 40°, that is 20° either side of a line at right angles to the bridge span.

(b) Main Navigation Span Lights:
Characteristic: Occult 5 secs.
Height: 5 m.
Nominal Range: 5 miles.

(c) Secondary Navigation Span Lights:
Characteristic: Fixed.
Height: 7 m.
Nominal Range: 5 miles.

(d) The piles at either side of the navigable spans are also illuminated from above with floodlights.

4. Light beacons, Lateral System "A" with a height of 5 m., nominal range 5 miles and fitted with radar reflectors are to be inserted as follows:

Lat. 26° 12.87' N.,	Long. 50° 17.50' E.	Fl. Green 4 secs.
Lat. 26° 12.85' N.,	Long. 50° 17.58' E.	Fl. Red 4 secs.
Lat. 26° 12.48' N.,	Long. 50° 17.35' E.	Fl. Green 8 secs.
Lat. 26° 12.47' N.,	Long. 50° 17.43' E.	Fl. Red 8 secs.
Lat. 26° 11.73' N.,	Long. 50° 17.03' E.	Fl. Green 8 secs.
Lat. 26° 11.70' N.,	Long. 50° 17.12' E.	Fl. Red 8 secs.
Lat. 26° 11.35' N.,	Long. 50° 16.88' E.	Fl. Green 4 secs.
Lat. 26° 11.32' N.,	Long. 50° 16.97' E.	Fl. Red 4 secs.

5. All positions are referenced to the International Spheriod Datum Ain Al Abd (1970).

TRAVEL TO SAUDI ARABIA: *Crew Members' Wives' Passports:* We have been informed that the Director General of Passports, Riyadh, has notified Director of Passports (Eastern Province) Dammam, that wives of crew members arriving in Saudi Arabia and wishing to join their husbands on board vessels, are required to obtain, prior to arrival, valid Saudi Entry Visas from Royal Saudi Consulate in their countries.

The visa endorsed in passport must state the intention of joining the particular ship to obtain exit via seaport.

AUTHORITY: The Ports Authority of the Kingdom of Saudi Arabia formulates policy for and supervises the management and operation of the following ports:

	Lat.	*Long.*
East Coast:		
King Abdul Aziz Port, Dammam	26° 30' N.	50° 12' E.
King Fahd Industrial Port, Jubail	27° 04' N.	49° 40' E.
Jubail Commercial Port	27° 01' N.	49° 40' E.
Qatif	26° 34' N.	50° 00' E.
Darin	26° 32' N.	50° 04' E.
Al Khobar	26° 17' N.	50° 13' E.
Al Ugayr	25° 39' N.	50° 13' E.
Ras Tanura	26° 39' N.	50° 10' E.
Ras Al Khafji	28° 25' N.	48° 32' E.
Ras Al Ju'aymah	26° 56' N.	50° 03' E.
West Coast:		
Jeddah Islamic Port	21° 28' N.	39° 10' E.
Yanbu, King Fahd Industrial Port	23° 56' N.	38° 15' E.
Yanbu, Commercial Port	24° 05' N.	38° 03' E.
Gizan	16° 54' N.	42° 32' E.
Haql	29° 18' N.	34° 57' E.
Al-Khuraibah	28° 04' N.	35° 10' E.
Dhuba	27° 21' N.	35° 42' E.
Al Wajh	26° 14' N.	36° 28' E.
Umm Lajj	25° 01' N.	37° 16' E.
Rabigh	22° 45' N.	39° 00' E.
Al Laith	20° 09' N.	40° 14' E.
Al Qunfudah	19° 07' N.	41° 04' E.
Al Qahmah	18° 00' N.	41° 40' E.
Farasan	16° 43' N.	42° 11' E.

INERT GAS SYSTEM: Saudi Aramco has been informed that the Government of Saudi Arabia has ratified the Solas Convention of 1974 and its 1978 Protocol on May 29th, 1984. Therefore, Saudi Aramco is now obliged to enact the provisions of the said convention as soon as possible.

All Ship Owners/Operators to comply with the following:

1. Effective January 1st, 1985, all vessels of 70,000 d.w.t. and larger calling at any of Saudi Aramco's terminals to load crude/product cargoes must be equipped with an operable inert gas system in use.
2. Effective May 1st, 1985 all vessels of 20,000 d.w.t. and larger calling at any of Saudi Aramco's terminals to load crude/product cargoes must be equipped with an operable inert gas system in use.

Vessels not so equipped will not be accepted for loading as of the effective dates mentioned above.

The Solas Convention of 1974 represents a significant contribution to safety of tankers and oil installations and Saudi Aramco recommends that Ship Owners take immediate steps to comply with provisions of this convention as soon as possible and no later than the effective dates mentioned above. No exceptions will be allowed except in the most unusual circumstances.

Note: Saudi Aramco will follow the terms of the Solas Convention of 1974 and its 1978 Protocol *including* sections pertaining to exemptions. Any vessels exempted under this Convention will still, however, be required to comply with all Saudi Government Port Regulations as well as Saudi Aramco Safety Rules.

RULES/REGULATIONS: The Co-operation Council for the Arab States of the Gulf has issued a set of Rules and Regulations Valid for Saudi Arabian Seaports. These Rules and Regulations became effective on March 22nd, 1985.

EVERY VESSEL ARRIVING IN A PORT OF THE KINGDOM MUST HAVE A COPY OF THESE ON BOARD OR MUST OBTAIN ONE IMMEDIATELY ON FIRST ARRIVAL.

The Port Inspectors make periodical inspections and in the event of non-possession of the said Rule Book by a vessel, she may be penalised. If you already have one or after you get one, it is recommended that you read pages, 66-75, 163-172, 220-233 and 260.

Hereunder follows an EXTRACT from these Rules and Regulations:

General Regulations for Cargo Stowage and Handling:

1. The stowage of cargo bound for ports in the Kingdom of Saudi Arabia must be arranged to ensure simultaneous and optimum rate of discharge from the maximum number of hatches compatible with the requirements of seaworthiness.

2. Where practicable all general and bagged cargo of uniform type and size is to be stacked and secured on pallets to facilitate quick discharge when shipped to the Kingdom of Saudi Arabia in conventional vessels.

3. Exceptions to palletisation:

(a) Bagged cargoes may be pre-slung.

(b) Bagged cargoes arriving in full ship-loads may be discharged loose provided that such cargo is taken by direct delivery and a minimum discharge rate of 1,200 tons per 24 hours is guaranteed.

Bagged cargoes arriving in part ship-loads may be discharged loose provided that such cargoes are taken by direct delivery and a minimum discharge rate of 250 tons per hook per 24 hours is guaranteed.

(c) Foodstuffs, if palletisation would adversely affect the total distribution costs, but the stowage must be arranged to obtain optimum discharge rates.

(d) Cargo carried on schooners and small craft of less than 70 m. in length which are engaged in coastal trade within the Arabian Gulf, the Red Sea and to/from Somali ports.

The weight per bag shall not exceed 50 kg.

4. Tyres should be in bundles of appropriate size or pre-slung.

5. Bundled steel, profile iron, rebars, etc., shall be fitted with slings or lifting points suitable for multiple handling before commencement of handling this type of cargo, the ship's Master or Agent must present to the Port Management a Certificate precisely stating the safe loading capacity of the relevant slings and lifting points. Failing to comply with this requirement will subject the vessel to financial penalties in addition to legal liabilities to third parties.

6. Steel sheets shall be strapped and stacked in bundles of approximately 2 tonnes each. Wooden bearers and/or spacers shall be used in loading the bundles to facilitate discharge.

7. Pallets must be stowed in a ship's hold in a manner to facilitate discharge and make the best use of cargo handling equipment within the holds.

8. All cargo listed on the dangerous cargo list according to IMO Rules must be stowed and handled as prescribed.

9. Masters and shipping Agents are to instruct their stevedoring contractors at loading ports to execute complete separation in accordance with Bills of Lading and the Manifest, and will be held responsible for non-compliance with this regulation.

10. Comprehensive regulations govern the carriage of livestock by sea and their handling at ports in the Kingdom of Saudi Arabia, also the carriage and handling of bagged oil cake and scrap.

Unitisation of Timber:

11. Sawn timber, plywood and veneer is to be unitised. Timber cargoes shall be properly strapped to withstand multiple handling. Bundles shall be separated by skids or dunnage to facilitate lifting or handling by forklifts. Each bundle should weigh between 2 and 3 tonnes.

Bagged Cement, Lime, Gypsum and Similarly Packed Cargo:

12. Bagged cement in paper bags must be packed in 5-ply strengthened paper supported by an inner skin of polythene or similar waterproof material. If there is no synthetic layer, the bag must be made of extra-strengthened paper (minimum 6-ply), or of materials whose proven strength is at least equivalent to the above.

In the square of each workable hatch opening within the plumb of the ship's discharging gear, a block of bagged cement must be left in pre-slung form in flat straps capable of lifting the bagged cement in safe working loads without damaging the packaging. This block must have dimensions of at least 6 m. × 9 m. horizontally and these dimensions must be maintained down to the bottom layer.

(Additional regulations apply.)

13. The Master of any vessel carrying grain to a port, whether in bulk or in bags shall present an official certificate from the country of origin stating that the cargo was free from infestation and that it has been fumigated either before or after loading, in addition to a Certificate stating that the vessel was free from infestation prior to commencement of loading. Without these certificates the vessel will not be permitted to discharge and will be liable to the imposition of a fine.

14. The discharge of cargo for transhipment to another port, whether local or foreign is strictly forbidden without the prior permission of the competent authority.

The transfer of cargo from one vessel to another at anchorage or alongside berths within the port boundaries is strictly forbidden without the permission of the competent authority.

PORT REGULATIONS:

ARRIVAL:

1. Notification to the Port Management

1.1 The Owners of vessels bound for a port in the Kingdom of Saudi Arabia with cargo must give preliminary notice of the vessel's intended arrival to the Port Management of the discharge port or ports by telex or cable either directly or through the vessel's Agents on arrival at the first or sole loading port, before loading commences. Estimated time of arrival and estimated quantity of cargo by type must be given with the preliminary notice.

1.2 On completion of loading cargo for Saudi ports the following information must be sent to the Port Management of the discharge port or ports by telex or cable either directly or through the vessel's Agents:

(a) Vessel's name and former names, if any.
(b) Flag, port of registry and call sign.
(c) Length overall, g.r.t., n.r.t. and d.w.t.
(d) Expected draft on arrival.
(e) Expected time of arrival.
(f) Cargo particulars, including nature, weight, tonnage and stowage by hatches. Car carriers, Ro-Ro and container vessels to give both number and weight in tonnes of each type of unit.
(g) Any other cargo being carried for other destinations.
(h) If dangerous cargo is being carried, the quantity and class must be indicated in accordance with the IMDG Code and it must be stated whether this cargo is to be discharged or is in-transit.
(i) Number, position and S.W.L. of derricks and/or cranes, and particulars and positions of ramps.
(j) The number and nationalities of passengers to be disembarked or in transit.
(k) Expected requirements for bunkers and water.
(l) Name of vessel's Agent.
(m) Not less than 48 hours before the vessel's arrival a detailed List of Arms and Ammunition carried on board purely for self-defence. Failure to comply with this requirement will result in heavy fines and seizure of the arms by the concerned authorities.

1.3 A vessel bound for a port in the Kingdom of Saudi Arabia for loading or bunkering must notify the Port Management immediately orders have been received to proceed to Saudi Arabia giving the information as in 1.2 above but relevant for loading or bunkering.

1.4 A further notice of ETA is to be sent 5 days, 2 days and 1 day prior to arrival at the port.

Also see "Advance Notice Requirements".

2. Vessels Failing to Give Required Notifications

2.1 Any vessel failing to comply with the requirements under section 1 above or arriving later than expected under the revised ETA, may lose its berthing registration and will be held responsible for all expenses incurred by the Port Management.

2.2 Exemption from the requirements listed under paragraph 1 above may be granted by the Port Management to vessels engaged in coastal trading or which have departed from a neighbouring country, depending on the availability of proper communication between the relevant ports, and the duration of the vessel's voyage.

3. Permission to Enter Port

3.1 The Master of a seagoing vessel must have prior permission of the Port Management to enter the port. Such permission may be subject to special restrictions or conditions if:

(a) The vessel arrives before or after the given ETA;
(b) The vessel is in danger of sinking;
(c) The vessel or the cargo is on fire or if there is the possibility of a fire, or if after a fire, it is uncertain whether it is completely extinguished;
(d) The vessel is a tanker;
(e) On account of the vessel's size or construction its movements or that of any other vessels or the port operations are endangered, hindered or impeded;
(f) On account of the condition of the cargo, the vessel is dangerous;
(g) The vessel arrives under tow;
(h) The vessel is over-loaded;
(i) The vessel has any person or animal on board suffering from an infectious or contagious disease, or if the presence of such infection, contagious or epidemic disease is suspected on board;
(j) The vessel is powered by nuclear energy, the arrival of such a vessel must be notified in accordance with the requirements as prescribed in section 1;
(k) If the vessel carries deck cargo which extends beyond her side.

4. Registration for Berthing

4.1 Vessels will be registered for berthing in accordance with the time given for arrival in the revised ETA. The Port Management reserves the right to refuse registration or to cancel the registration of any vessel already registered if required by port operations or for any infringement of these regulations by the vessel.

"Sambuks, schooners, yachts or any craft not registered in the port without radio transmitting equipment, shall stay first in "Small Craft Anchorage" for the visit of Authorities before proceeding inside the port."

5. Priority for Berthing

5.1 Allocation of berths shall be under the control of the Port Management who, in case of excess demand on facilities, shall have the power to use their discretion to give priority to:

(a) Vessels carrying passengers or pilgrims;
(b) Vessels carrying livestock;
(c) Vessels carrying essential or perishable foodstuffs;
(d) Vessels carrying refrigerated cargo;
(e) Any other vessel for special reasons.

6. Papers and Documents Required (see also special requirements for individual ports).

6.1 *Vessel's Papers and Documents*

6.1.1 On arrival at any port in the Kingdom of Saudi Arabia, the Master of each vessel shall present or make available for inspection the following papers and documents:

(a) Log Books;
(b) Registration Certificate;
(c) Classification Certificate;
(d) Load-line Certificate;
(e) Building Safety Certificate;
(f) Safety Equipment Certificate;
(g) Radio and Wireless Certificate;
(h) Cargo Gear Certificate;
(i) Marine Health Declaration;
(j) Vaccination List;
(k) Rat–Free Certificate;
(l) Clearance from the Last Port of Call;
(m) Israel Boycott Declaration;
(n) Ship's Stores List;
(o) Grain Shipping Certificate if the vessel is carrying a grain shipment;
(p) Mail Transport documents in accordance with the "International Postal Treaty" if any mail is carried aboard;
(q) 5 copies Crew List including name, nationality, date and place of birth, Passport number and rank;
(r) 5 copies of the Passenger List including name, nationality, date and place of birth, Passport number, port of embarkation, port of disembarkation;
(s) 2 copies of the List of Personal Effects of Crew and Passengers.

6.1.2 To obtain port clearance the Master of the vessel shall present or make available for inspection the following papers and documents to Port Management:

(a) Log Book;
(b) Registration Certificate;
(c) Classification Certificate;
(d) Load Line Certificate;
(e) Building Safety Certificate;
(f) Safety Equipment Certificate;
(g) Radio and Wireless Certificate;
(h) Port Stevedore Outturn Reports;
(i) Receipt for Payment of Custom's Duties;
(j) Shipping Note and Cargo Manifest for any cargo loaded.

6.2 *Cargo Papers and Documents*

6.2.1 The following papers and documents must be submitted to the Port Management not later than 48 hours prior to arrival (exemptions may be granted under certain circumstances at the discretion of the Port Management):

(a) 5 copies of the Cargo Manifests for Discharge, including any additions or amendments in English; 10 Copies of the original manifests accurately translated into Arabic;
(b) 2 copies of the Cargo Stowage Plan;
(c) 2 copies of the Hatch List or Bay Plan;
(d) 2 copies of the List of Dangerous/Hazardous Cargo for Discharge;
(e) 2 copies of the List of Dangerous/Hazardous Cargo in Transit;
(f) 2 copies of the List of Heavy and/or Awkward Cargo which requires special equipment;
(g) 2 copies of the List of any Wine, Spirits and Narcotics or Cargo of such nature on the vessel and its location or, in the absence of which, a nil return;
(h) A Declaration of type of reefer cargo;
(i) An Application for discharge permit;

6.2.2 *Specifications*

(a) All copies of the Manifests must be taken from the Master Manifest.
(b) The consignee column in all cargo manifests shall include the full name and address of the consignee. If for legal/commercial reasons a bank or financial institution appears as consignee in the Cargo Manifest, the name of the final consignee, if known, has to be shown beside the name of the bank.

(c) In case of transhipped cargo, the Cargo Manifest must show the name of the pre-carrying vessel, the port of transhipment and the bill of lading number for each consignment.
(d) The List of Dangerous/Hazardous Cargo must show:
  (i) The technical name;
  (ii) The IMDG Code class and UN number;
  (iii) The Quantity of each consignment;
  (iv) The location on board and bay number, if stowed in containers, or lash barges or on trailers.

6.2.3 *Exceptions*
(a) Vessels will be allowed to produce the aforementioned papers on arrival, provided the Port Management has received the following details by telex not less than 24 hours prior to arrival:
  (i) Name and flag of vessel;
  (ii) Port(s) of loading;
  (iii) Bill of Lading numbers;
  (iv) Marks and numbers as per Bills of Lading;
  (v) List of dangerous/hazardous cargo;
  (vi) List of heavy packages above 3 tonnes and/or awkward cargo lifts;
  (vii) Total number of Bills of Lading. LASH operators shall relate bills of lading to specific barge numbers;
  (viii) Statement of wine and spirit shipments for other ports showing where stowed or in the absence of which a nil return.
(b) A vessel carrying more than 200 Bills of Lading consignments for discharge in any one Saudi port is requested to submit cargo manifests not later than 72 hours prior to arrival.

7. Exempted Vessels

Exempted from the provision of Regulations 1, 2 and 4 are vessels entering in case of:
(a) Distress;
(b) Emergency refuge;
(c) Force majeure;
(d) Need of medical assistance.

8. Signals and Approach

8.1 Every vessel approaching the limits of a port must hoist the following flags:
(a) Ship's signal letters (in case of VHF failure);
(b) International code 'Q'-flag(s) in accordance with international health and safety regulations;
(c) International code 'B'-flag if the vessel is carrying dangerous goods or hazardous materials;
(d) The national flag of the country to which the vessel belongs.

9. The Flag of the Kingdom of Saudi Arabia

9.1 Every vessel entering a Saudi port must hoist the flag of the Kingdom of Saudi Arabia and keep it flying at all times throughout the stay in the port.

10. Pilotage

Pilotage is compulsory for all vessels entering or navigating within or leaving the pilot zones in the Kingdom of Saudi Arabia.

10.1 *Exempted Vessels*

The following vessels are exempted from the provisions of compulsory pilotage:
(a) Saudi Warships;
(b) Vessels of the government of the Kingdom of Saudi Arabia not designated for commercial use;
(c) Vessels under 150 net registered tons;
(d) Craft employed solely within port limits;
(e) Yachts and pleasure craft;
(f) Vessels operated by Port Management.

10.2 *Pilot Signals*

Every vessel subject to compulsory pilotage as above and which requires a Pilot shall:
(a) From sunrise to sunset hoist the international code flag "G";
(b) From sunset to sunrise give the letter "G"(– – ·) by a signal lamp;
(c) In the event of poor visibility caused by rain, fog or dust, sound the signal "G" (– – ·).

Vessels equipped with VHF should call the Port Control Signal Station on frequencies published by the port as soon as the vessel enters within VHF range.

Vessels having a Pilot on board must hoist the international code flag "H".

11. Valid Cargo Gear Certificate

11.1 All vessels must have a valid Cargo Gear Certificate issued by one of the following societies approved by the Ports Authority:
1. American Bureau of Shipping.
2. Bureau Veritas.
3. Det Norske Veritas.
4. Germanischer Lloyd.
5. Lloyd's Register of Shipping.
6. Nippon Kaiji Kyokai.
7. Polski Rejestr Statkow.
8. International Cargo Gear Bureau Inc.
9. Jugoslavenski Registar Brodova
10. China Corporation Register of Shipping

or any other competent authority recognised by the Government of the country in which the certificates are issued.

11.2 No rope, tackle, block, chain, hook or any other gear which is worn, damaged or otherwise unsuitable shall be used for the purpose of hoisting, lowering, heaving or otherwise handling of slung cargo or other articles. All cargo handling gear is to be tested and inspected according to Schedule B to these Regulations.

11.3 Vessels of more than 15 years of age at the start of a voyage as determined by the date of the first or sole Bill of Lading must carry out a cargo gear inspection of all cargo gear including deck machinery and the supply of power thereto, prior to loading for a Saudi Arabian port, and an appropriate inspection certificate should be issued.

This Certificate is valid for a period of 6 months. No general statements will be accepted. The Surveyor has to state that the inspection has been carried out on each part of the gear, deck machinery and its power supply, that he has observed each derrick, crane, winch, etc., in operation and each part has been found in good working order, and that all required current inspections as per Schedule B in this part have been fulfilled.

The Inspection Certificate must be provided by an approved Survey Bureau, Classification Society or an approved Government Department. *Exemptions:* 11.3 above does not apply to vessels less than 70 m. LOA engaged in coastal trades.

ADVANCE NOTICE REQUIREMENTS: The information below has to be telexed twice to respective Port Authority (with copy to Agent). The first telex to be sent (with estimated details) at the time vessel arrives at first port of loading, to be called 'preloading advice'. The second telex to be sent (with correct details) at the time vessel sails from the final port of loading, to be called 'final advice'.
1. Call Sign.
2. Vessel's name.
3. Owners/Line.
4. Nationality.
5. Agent.
6. LOA (m.).
7. Max. Draft (m.).
8. Hatches/holds.
9. G.R.T.
10. N.R.T.
11. D.W.T.
12. Vessel's previous name.
13. Vessel type.
14. Cargo type.
15. Total cargo weight tonnes.
16. Total cargo freight tonnes.
17. No. of containers/units.
18. No. of livestock.
19. ETA.
20. Actual arrival draft.
21. Hatchwise tonnage.
22. Year built.
23. No. of LCL containers and quantity showing each Bill of Lading number in that container.
24. Fumigation and Cleanliness Certificates in case of foodstuff cargoes.
25. Each loading port name where cargo loaded for Saudi port.
26. Economic Speed.
27. Vessel position 48 hours before arrival.
28. Last 3 ports of call.
29. Next port after Saudi port.
30. Vessel's Lloyd's Registered Number.
31. Port of Registry.
32. Hazardous cargo for Saudi port.
33. Hazardous cargo in transit for other ports.
34. P & I Club name and local correspondents.
35. Confirm that 5, 2, 1 day ETA notices with Call Sign, draft, cargo for Saudi port, hatchwise distribution, Master's name, crew number, nationality, previous/next port, vessel's position 48 hours' prior arrival and radar data will be supplied to port by the Principals/Master.

If the undermentioned information has not previously been given it is to be included in the advices:
(a) Type of radar.
(b) Frequency.
(c) Scan rate.
(d) Pulse width.
(e) Pulse peak power.
(f) Pulse repetition frequency.
(g) Beam width.

If the vessel is equipped with several radars the characteristics of each radar must be given.

Upon receipt of such information, the relevant Port Authority will give clearance date for the vessel to enter the port.

The following documents should arrive with the Agent in Saudi Arabian port latest 7 days prior to vessel's arrival date and subject to Arabic translation be submitted to Authorities latest 72 hours prior to vessel's arrival:

18 copies Cargo Manifest.
18 copies Freight Manifest.
18 copies Dangerous Cargo Manifest.
4 copies Hatch List.
4 copies Stowage Plan.
4 copies each Bill of Lading (3 Non-Negotiable)
4 copies Heavy Lift Cargo separately.

Saudi Arabian Port Authorities can be contacted by telex as follows:

King Abdul Aziz Port, Dammam	801139 Dapm SJ
Jeddah Islamic Port	601175 Ports SJ
Jubail Commercial Port	831005 Jubpt SJ
King Fahd Industrial Port in Jubail	832031 Jubipt SJ
Yanbu Commercial Port	661096 Port SJ
King Fahd Industrial Port in Yanbu	662360 Portct SJ
Gizan Port	911030 Ports SJ
Ras Tanura	851111 Rprt SJ

POLLUTION: Fines and penalties for not complying with the International Convention for the Prevention of Pollution of the Sea by Oil, 1975 are:
(a) Discharging oil or oily-mixture within 100 miles from the Kingdom's Coasts – one year imprisonment or S.R.20,000 (Saudi Riyals) or both.
(b) Saudi Flag Ships discharging oil or oily-mixture in any prohibited zones or areas mentioned in the conventions, the same fine and penalty as in (a).
(c) Not keeping the oil record book in the ship – 6 months imprisonment or S.R.2,000 (Saudi Riyals), or both.
(d) Not keeping the oil record book up to date – fine up to S.R.5,000 (Saudi Riyals).

SHIP'S FUEL TANKS: *Circular No. SEAPA – 15335/85.*
To: All Shipping Agents.
cc: All Ports.
From: The President and Chairman of the Board, SEAPA.
Date: 14.7.1405/04.04.1985
Subject: Flammability Check of Ship's Fuel Tanks.

With immediate effect you are advised to inform all concerned parties that the Port Management of all SEAPA ports will require additional flammability checks on fuel tanks of O/B/O carriers and tankers excluding tankers engaged solely in the transport of chemicals.

The purpose of this extra precaution is to deter the use of cargo oil as fuel supplement, and will be required on a random basis as advised by the Port Operations Department. The results are to be incorporated (when applicable) on the Gas Free Certificate.

When such random test is required by the Port Management, it will be necessary for the ship's Agent to arrange for the services of a surveyor.

For your information, if the atmosphere in any fuel oil bunker tank is discovered at more than 15 per cent (LEL), then the ship's Master will be required to engage a surveyor to provide an exact flashpoint analysis of the tank contents.

Furthermore, should the flashpoint be less than the prescribed limits stipulated in Regulation 33 of SOLAS, the Port Management reserves the right to remove the ship from the berth.

Regards:
Fayez I. Badr,
President and Chairman of the Board,
Ports Authority,
Kingdom of Saudi Arabia.

NAVIGATION INFORMATION: The Agents have the responsibility to deliver to the Master the updated copies of the Radio Navigational Warnings and Notices to Mariners issued by the Ports Authority, covering Saudi Waters.

AUTHORITY: The Ports Authority, Kingdom of Saudi Arabia, P.O.Box 5162, Riyadh 11188, Kingdom of Saudi Arabia. *Tel:* 01-405 0005. *Telex:* 401158, 401783, 405055 Ports SJ. *Contact:* Mohammed Abdul Karim Bakr, Acting President of the Ports Authority.

AL KHOBAR: 26.17 N. 50.13 E.

ALSO SEE "GENERAL" BEFORE FIRST PORT.

PORT LIMITS:
Harbour Boundaries:
All shore-based port property enclosed by a fence following the shore line extending seawards to a line running between the following points:

Latitude: 26° 16' 12" N.,	Longitude: 50° 12' 54" E.
Latitude: 26° 16' 12" N.,	Longitude: 50° 13' 18" E.
Latitude: 26° 12' 00" N.,	Longitude: 50° 13' 36" E.
Latitude: 26° 12' 00" N.,	Longitude: 50° 19' 20" E.
Latitude: 26° 17' 12" N.,	Longitude: 50° 19' 20" E.
Latitude: 26° 17' 12" N.,	Longitude: 50° 13' 06" E.

DOCUMENTS: Crew List required by Port Authority 48 hours prior to vessel's arrival.

PILOTAGE/ANCHORAGE/RADIO: There are no official anchorages, Pilots or radio facilities at Al Khobar port, which is only used by small craft.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
Total	500	3.4	General cargo and passenger, including a 10 m. wide quay ramp.

Total shed area (3 sheds): 8,200 sq.m.
Total open storage area: 6,900 sq.m.
Vehicle parking area: 6,900 sq.m. (inside security).
11,400 sq.m. (outside security).
Passenger terminal: 750 sq.m.

EQUIPMENT:
Forklifts: Forklifts up to 10 tons available.
Mobile cranes: 3 up to 20 tons, 1 between 20 and 40 tons.

AUTHORITY: Al Khobar Port Management, *Contact:* Rabah Al Hazeemi, Port Director.

AL QADIMAH: 22.21 N. 39.05 E.

ALSO SEE "GENERAL" BEFORE FIRST PORT.

PILOTAGE: The Pilot boarding place is West of the inner coastal reef in position Lat. 22° 20.5' N., Long. 39° 01.6' E. Pilotage undertaken during daylight only.

ANCHORAGE: To the North of the entrance channel in depth of 15 m. – 20 m.

VHF: Before entering the approach channel permission should be obtained from Qadimah Port Control, calling Channel 16 and working on Channels 72 and 74.

TUGS: 2 tugs available.

BERTHING: The port is used for unloading military cargoes. Vessels berth alongside 2 pontoons (150 m.×25 m. each) with depths of 13 m. – 14 m. alongside. Ro/Ro facilities available.

CRANES: Floating crane with lifting capacity 150 tonnes and mobile cranes available.

FRESH WATER/FUEL/PROVISIONS: Not available. Vessels should arrive with sufficient for their needs, making allowances for delays which may be experienced.

AUTHORITY: Ministry of Defence and Aviation.

DAMMAM (King Abdul Aziz Port): 26.30 N. 50.12 E. (See Plan)

ALSO SEE "GENERAL" BEFORE FIRST PORT.

LOCATION: Situated approximately mid way along the Eastern coast. It is the principal port of Saudi Arabia in the Arabian Gulf.

PORT LIMITS: The Seaward Limits of the Port of Dammam are bounded by a line joining the following positions:

Latitude	Longitude
26° 28.76' N.,	50° 10.85' E.
26° 29.24' N.,	50° 09.05' E.
26° 34.14' N.,	50° 09.05' E.
26° 34.14' N.,	50° 10.05' E.
26° 34.47' N.,	50° 10.78' E.
26° 37.89' N.,	50° 14.25' E.
26° 37.89' N.,	50° 16.05' E.
26° 26.64' N.,	50° 16.05' E.
26° 26.64' N.,	50° 11.86' E.
26° 24.90' N.,	50° 11.04' E.

and thence to the shoreline. A circular 95 m. high Marine Control Tower comprising 3 storeys at a height of 74.4 m. above ground level is located at Lat. 26° 30.65' N., Long. 50° 12.17' E.

Within the Port Limits the approach channel to the port is marked by buoys in accordance with IALA "System A". Depth of the approach is 15 m.

FLAG: In addition to the quarantine signals (See "Health") which are to be shown until Pratique is granted, the Saudi Arabian Flag must be flown from vessel's foremast while in port of Dammam. Saudi flags can be hired or purchased locally.

DOCUMENTS: In order to comply with Port, Customs and Agent's requirements, the following documents should be submitted to the Port Management via the Agent, at least 48 hours prior to arrival of vessel at Dammam port:

5 copies of the Cargo Manifest for discharge, including any additions or amendments in English; 10 copies of the original Manifest accurately translated into Arabic.
2 copies of Hatch List.
2 copies of Stowage Plan.
2 copies of List of Heavy Lifts.
2 copies of List of Long Length Cargo.
7 copies of List of Dangerous Cargo on board, if any.
Arms and Ammunition List, or "Nil" return.
Crew List showing Nationality.
Fumigation Certificate for Vessel and Cargo (if required).

The particulars of the Certificates required by the SOLAS regulations are entered on the Port's Form on the arrival of the vessel at the anchorage and the certificates are sighted after berthing.

Also see "Health", and "General" before first port.

APPROACHING: *Directions and Regulations for Vessels Entering or Leaving Dammam Port:*

Dry cargo vessels drawing 10.4 m. (34 ft.) or less should approach and leave by the East Channel.

Vessels in excess of 10.4 m. draft and vessels from Northward should use the Main Channel.

Prior to vessels entering the Ras Tanura Channel they must contact "Ras Tanura Radar Control" on VHF Channel 10, identify themselves and state where bound. Normal listening watch should then be maintained on Channel 16.

Vessels bound for Dammam Port must call "Dammam Port Control" 1 hour before the vessel's arrival at Buoy "D1" and give the following information:

(i) Vessel's name.
(ii) Length overall.
(iii) Maximum draft.
(iv) Cargo tonnage and main commodity.
(v) Hazardous cargo, if any.
(vi) Whether the vessel has a list.
(vii) Whether the vessel has any mechanical defects.

Vessels must not enter or navigate within the Port Limits without the permission of "Dammam Port Control". Inward vessels shall report the time of passing Buoy "D1" and shall keep a listening watch on Channel 16.

The speed of vessels within the buoyed channel is limited to 8 knots and overtaking other vessels within the channel is prohibited.

Anchoring within the buoyed channel is prohibited.

Upon arrival, if a vessel is instructed not to anchor in the Holding Anchorage, the Pilot will board abeam of Buoy "D13".

PILOTAGE: The pilotage area commences at Buoy "D1" (i.e. the channel entrance). Pilotage is compulsory and the normal Pilot Boarding Area is between Buoys "D11" and "D13". The only vessels allowed to proceed South of this position without a Pilot are exempted vessels, and vessels which would, under normal circumstances, require the services of a Pilot but have been instructed by "Dammam Port Control" to anchor in the Holding Anchorage.

Vessels bound for Dammam must contact "Dammam Port Control" 1 hour before arrival at Buoy "D1", giving details of ship (See "Approaching"), and must not enter the channel until permission has been given by "Dammam Port Control".

"Dammam Port Control" operates on the following VHF Channels: 16, 12, 13, 19 and 22.

Vessels Exempted from Compulsory Pilotage: These include:

(i) Vessels of the Royal Saudi Navy.
(ii) Vessels of the Saudi Government which are not assigned for commercial use.
(iii) Vessels whose nett tonnage is less than 150 tonnes.
(iv) Port craft.
(v) Pleasure yachts.

Also see "Radio".

Vessels less than 150 tonnes, port craft and pleasure yachts shall wait at Small Craft Anchorage for authorisation to proceed to the port.

ANCHORAGES: The following anchorages are allocated as necessary for vessels:

(i) *Holding Anchorage:* (Depth 15 m.) bounded by a line joining the following positions:

Latitude	Longitude
26° 31.64' N.,	50° 11.75' E.
26° 32.00' N.,	50° 10.05' E.
26° 33.54' N.,	50° 10.05' E.
26° 34.04' N.,	50° 11.83' E.
26° 33.03' N.,	50° 10.78' E.
26° 32.38' N.,	50° 11.00' E.

This anchorage is marked by Buoys.

(ii) *Working Anchorage:* (Depth 10 m.) bounded by a line joining the following positions:

26° 32.59' N.,	50° 12.10' E.
26° 32.28' N.,	50° 11.63' E.
26° 31.14' N.,	50° 12.76' E.
26° 31.59' N.,	50° 13.01' E.

(iii) *Explosive Anchorage:* (Depth 8 m.) bounded by a line joining the following positions:

26° 31.42' N.,	50° 13.60' E.
26° 31.50' N.,	50° 13.12' E.
26° 31.01' N.,	50° 12.96' E.
26° 31.01' N.,	50° 13.60' E.

(iv) *Small Craft Anchorage:* (Depth 6.5 m.) bounded by a line joining the following positions:

26° 30.89' N.,	50° 14.05' E.
26° 30.89' N.,	50° 12.88' E.
26° 30.14' N.,	50° 13.60' E.
26° 30.14' N.,	50° 14.05' E.

Anchoring in the channel is strictly forbidden.

MAX. SIZE: See "Berthing".

HEALTH: In accordance with international practice, quarantine signals must be displayed by all vessels approaching Dammam port. These signals shall be displayed continuously until Pratique granted. Signals are as follows: Sunrise to sunset – Quarantine Flag; Sunset to sunrise – Signal Lights – red over white.

The Quarantine Officer will board the vessel either at anchorage or at pier.

Documents required for immediate inspection are the following:
International Maritime Health Certificate (from the last port).
Valid Derat or Derat Exemption Certificate.
Crew List (3 copies).
Passenger List, if any.
Valid Cholera Certificates (of a date not exceeding 6 months) for all crew members and passengers.
Valid Yellow Fever Certificates for all crew members and passengers.
Certificates of Inoculation against any communicable diseases prevailing at the ports of departure.
Ship's Log Books.

RADIO: (Also see "Pilotage" and "Vessel Appointments").

Dammam Port has a modern radio communications system as follows:

(i) *VHF* – (Call sign "Dammam Port Control"). A continuous listening watch on Channel 16.
Working Channels are: Channels 12, 13, 19 and 22.
(ii) *Radio Telephone* – Facilities are available.

Note: International VHF Channels 01, 68, 71 and 73 are used for port and pilotage operations. Vessels must NOT use these Channels when in the vicinity of Dammam Port.

Telex: Dammam Port is connected to the International Telex network. The telex numbers are 801138 or 801139 Dapm SJ. Fax: 857-1727 (Director General), 858-3113 (Operations), 858-3340 (Marine Department).

Information is available from "Dammam Port Control" covering local weather conditions and any local hazards to navigation that may be appropriate from time to time. Suitable radar coverage is being provided in the Marine Tower.

Coast radio station at Dammam officially known as "Dammam Radio" with call sign "HZG". Tel: 826-5456, 826-5526. Fax: 827-4529. Telex: 802600 DMRD SJ, 802603 DMRD SJ. It is already in service employing radiotelegraphy, radiotelephony and radiotelex to provide radio communication link between vessels at sea and land based concerns.

VESSEL APPOINTMENTS: (See also "Radio").

It is a pre-requisite for all vessels trading to any Saudi Arabian port to give the appropriate Port Management the undermentioned information by telex on arrival at the first port of loading for Saudi Arabia:

In the case of Dammam Port, telexes should be sent to: The Port Director General, Dammam Port Management. Telex Nos. 801138 DAPM SJ, 801139 DAPM SJ.

(a) The information must be updated on leaving the final port of loading bound for Saudi Arabia:

1. Radio Code (Call sign).
2. Vessel's name.
3. Owner/Line.
4. Nationality.
5. Agent.
6. Length overall (metres).
7. Maximum draft (metres).
8. Number of hatches.
9. Gross registered tonnage.
10. Nett registered tonnage.
11. Deadweight tonnage.
12. Previous name (if any).
13. Type of vessel.
14. Type of cargo.
15. Total cargo weight tonnes.
16. Total cargo freight tonnes.
17. Number of containers/units (where applicable).
18. Number of livestock (where applicable).
19. Estimated time of arrival.
20. Actual arrival draft.
21. Tonnage to hatch.
22. Year built.
23. LCL containers and/or ships convenience containers.
24. Fumigation Certificates (vessel and cargo).
25. Ports of loading for Dammam discharge.
26. Economic speed of vessel
27. Vessel's position 48 hours before arrival.
28. Previous port prior to Dammam call.
29. Next port of call on departure from Dammam.
30. Vessel's Lloyd's Register Number.
31. Port of Registry.
32. Arms and ammunition for vessel's self-defence.
33. Declaration of all transit cargo calling at Dammam port.
34. Last 3 ports visited by vessel.
35. Ramp position (if any).
36. Has the vessel specialised container handling gear.
37. Does cargo include hazardous/toxic waste.

Radar Details

1. Name of the vessel.
2. Flag.
3. Vessel's agent (name and address, telephone, telex).
4. Economic speed of vessel.
5. E.T.A.
6. Type of radar.
7. Frequency.
8. Scan rate.
9. Pulse width.
10. Pulse peak power.
11. Pulse repetition frequency.
12. Beam width.

Radar details are required to be passed on to Dammam Port Management 48 hours prior vessel's arrival Dammam.

Vessels equipped with more than one radar should give the information in Items 6 to 12 for each radar.

The name of vessel *and radio code* should be given in every subsequent telex for reference.

The absence of any of the above information may delay the granting of an entry date to the subject vessel.

(b) The above information must be backed up by further confirmation of ETA at 5 days, 2 days and 1 day prior to arrival at each port of call in Saudi Arabia.

Note: Penalties may be imposed by the Saudi Ports Authority if the above rules are not strictly adhered to.

Berthing Arrangements: Providing the requirements above have been complied with, vessels will be allocated to berths, dependent upon type of cargo carried, prior to arrival. Berthing will then take place immediately upon arrival, weather permitting.

VHF: See "Radio".

TUGS: King Abdul Aziz Port has the necessary tugs, ranging from 460 h.p. to 4,600 h.p., mooring launches, pilot boats, fire fighting vessels, survey launch and specialised anti-pollution craft, booms and material, covering all the needs of marine operators and safety requirements.

Tugs operate within the Harbour Limits only for the purpose of assisting vessels in berthing and unberthing. Tugs join vessels inside the Inner Gate Beacons and normally require the use of ship's lines. Where the latter are considered inadequate, the tug's lines are used at the vessel's expense.

BERTHING: (Also see "Vessel Appointments").

The following categories of berth with a water depth from 7.8 m. to 13.2 m. are available, Ro-Ro, Container Terminals, Multi-Purpose, General Cargo, Grain, Explosives/Dangerous Cargo, Loading Fertiliser. Bulk edible oil and bulk white and grey cement handled.

In the main port there are 39 working berths for deep-sea vessels. They are located on 4 quays as follows:

East Port: *West Quay:* (King Abdul Aziz Pier, total length 2,500 m. approximately).

Berth No.	*Nominal Length* (m.)	*Depth* (m.)	*Berth Facilities*	*Type of Operation*
1	240	13.2	Grain Silos & Flour Mill	Grain/Dir. Dly GC
2	240	12.9	Zone-Barn	General Cargo and Bulk Grain
3	240	12.2	Zone-Barn	General Cargo and Bulk Grain
4	180	10.8	Shed-Zone	General Cargo
5	180	11.0	Shed-Zone	General Cargo
6	150	8.4	Shed-Zone	General Cargo

Berth No.	*Nominal Length* (m.)	*Depth* (m.)	*Berth Facilities*	*Type of Operation*
7	150	8.0	Shed-Zone	General Cargo
8	150	7.8	Shed-Zone	General Cargo
9	179	8.1	Shed-Zone	General Cargo
10	215	9.4	Zone	Load Fertiliser
11	180	10.1	Zone	General Cargo
12	180	11.2	Shed-Zone	General Cargo
13	180	11.0	Shed-Zone	General Cargo

Notes: 1. Where there is a shed on the berth the distance from the quay edge to the shed is 30 m.

2. Berths No. 1 – 13 are rail connected.

3. There are 21 portal cranes on Berths 1 to 13, with capacities from 6 tonnes to 15 tonnes.

East Quay: (Total length 1,750 m. approximately).

Berth No.	*Nominal Length* (m.)	*Depth* (m.)	*Berth Facilities*	*Type of Operation*
14	180	11.3	Shed/Zone-Barn Ro-Ro Ramp	General Cargo/ Ro-Ro
15	180	11.0	Shed-Zone-Barn	General Cargo
16	180	11.2	Shed-Zone-Barn	General Cargo
17	180	11.2	Zone	General Cargo
18	180	10.9	Shed-Zone-Barn	General Cargo
19	180	11.0	Zone	General Cargo
20	180	11.0	Shed-Zone-Barn	General Cargo
21	240	13.0	Zone	General Cargo
22	240	13.2	Zone/Ro-Ro Ramp	Multi-purpose

Notes: 1. Where there is a shed on the berth, the distance from the quay edge to the shed is 40 m.

2. Currently 28 portal cranes are in use on Berths No. 14 – 20 inclusive. Their capacities vary from 6 to 15 tonnes.

3. Berth No. 22 is a Multi-Purpose Terminal. The terminal is equipped with 2×30 tonne gantries.

West Port: *East Quay:* (Total length 2,800 m. approximately).

Berth No.	*Nominal Length* (m.)	*Depth* (m.)	*Berth Facilities*	*Type of Operation*
23	240	13.2	Zone Ro-Ro Ramp	Containers/Ro-Ro
24	240	13.0	Zone	Containers
25	240	13.0	Zone	Containers
26	240	13.2	Zone	Containers
27	240	13.0	Zone	General Cargo
28	240	13.2	Zone	General Cargo
29	240	13.0	Zone	General Cargo
30	180	13.1	Shed-Zone-Barn	General Cargo
31	180	13.1	Shed-Zone-Barn	General Cargo
32	180	11.6	Zone	General Cargo
33	180	10.9	Shed-Zone-Barn	General Cargo
34	180	11.0	Shed-Zone-Barn	General Cargo
35	205	11.2	Cold Store Terminal	Reefer Cargo/Ro-Ro Ramp

Notes: 1. Where there is a shed on the berth, the distance from the quay edge to the shed is 40 m.

2. Berths No. 23 – 26 make up Dammam Container Terminal (DCT).

West Quay: (Total length 960 m.).

Berth No.	*Nominal Length* (m.)	*Depth* (m.)	*Berth Facilities*	*Type of Operation*
36	180	9.8	Zone Ro-Ro Ramp	Bulk Cargo/Ro-Ro
37	180	10.4	Zone	Bulk Cargoes, including Cement
38	180	11.0	Silos/Bagging Plants	Bulk Cement/ Edible Oil
39	180	12.5	Apron and Explosion Chamber	Explosives/ Dangerous Cargo/ Livestock

Notes: 1. All berths are rail connected.

2. The quay, North of Berth No. 39, can be extended by 2,200 m. when additional berths are required in the future.

Updated information on available depths within the Port Limits can be obtained from the Harbour Master's Office.

In addition to the berths in the main port, a Small Craft Harbour is situated to the South of the East Port where small vessels, dhows, fishing vessels are handled. The depth of water varies from 6 m. to 4.5 m. The purpose-built facilities provide in excess of 1,600 m. of quay, large back-up areas and covered storage.

SPECIALISED CARGO HANDLING FACILITIES: *Grain Terminal:* This terminal provides purpose built facilities for loading/discharging all types of grain. These can be distributed to silo storage, or delivered direct to road, rail or to the adjacent flour mills. Discharge rate 480 t.p.h. with 2 pneumatic unloaders.

Ro-Ro Berths: All Ro-Ro Berths have ramps fitted with bow or stern access.

Dammam Multi-purpose Terminal: This terminal provides facilities for handling multi-purpose vessels (i.e. Ro-Ro, containers and general cargo). It is equipped with 2 container gantries.

Damman Container Terminal (DCT): This comprises Berths No. 23, 24, 25, and 26.

The terminal has 6 container gantries and its own rail terminal, with 2 rail-mounted, wide-span gantries and container storage area.

Extensive covered facilities are available for Customs inspection and clearance purposes. A purpose-built container freight station (CFS) for handling LCL shipments is also available.

Bulk Cement: Dammam Port has 2 allocated berths for the handling of cement in bulk (Berth No. 37 for grey cement and Berth No. 38 for white cement).

Berth No. 38 provides facilities afloat and on the quay. The terminal is rail connected.

Fertiliser Loading Berth: A berth is allocated for loading urea which is manufactured locally by the Saudi Arabian Fertiliser Co. (SAFCO). The bagged urea is transported by rail from the factory to the quayside where it is loaded directly into the vessel alongside by ship's gear or quayside portal cranes.

Dangerous Cargo Terminal: This 240 m. long berth has a depth alongside of 12.5 m. It consists of an open quay fitted with blast walls for direct delivery only and is road and rail connected.

Refrigerated and Frozen Cargo Terminal: 2 spiral conveyors unload reefer cargo into a 6,000 tonne capacity Cold Store.

CRANES: See "Cargo Handling Equipment".

STORAGE AREAS: Adequate covered and open storage space is available in the form of warehouses, transit sheds, dangerous goods warehouses and zones, container terminals, container freight station, vehicle park and general cargo storage areas.

CARGO HANDLING DISCHARGE RATES: A strong and positive set of Port Rules is in operation. This guarantees high discharge rates and high standards of efficiency. Co-operation in observance of these rules by Shipowners and Agents makes a substantial contribution to the port's effectiveness. The most important of these rules are summarised below:

1. Every vessel calling at Dammam must make an appointment.
2. Every vessel, or Agent, must submit appropriate documentation prior to a vessel's arrival.
3. Any vessel over 15 years old shall obtain and submit a certificate issued by a competent and approved Authority that her cargo gear is in good working order before being allowed to discharge.
4. All cargo that is suitable shall be presented in unit loads on pallets or pre-slung.
5. No cargo shall be received into port premises in a damaged condition.
6. Every vessel shall be ready to discharge upon berthing. She shall continue discharging uninterrupted until all Dammam cargo is completed, whereupon she shall leave the berth without delay.
7. Overstowing Dammam cargo with cargo destined for another port is prohibited.
8. Transhipping cargo in Dammam for other ports is not allowed.
9. Cargo which is not removed from the Port by Consignees within 15 days is liable to be auctioned and sold.

The port's efficiency and handling rates are high, as indicated in the table below:

Indicative Handling Rates of Main Commodities during the Year 1993:

Cargo	*Weight Tonnes per Gang Hour* Gross	Nett
Bulk Grain	4,000/6,000	4,000/6,000
	(per 24 hours)	
Timber	31.7	25.9
Bagged Cargo	23.8	17.1
Steel Pipes	52.3	39.5
General Cargo	29.3	21.2

STEVEDORES: Stevedoring operations on all berths except grain silo, bulk cement and the container terminals (DCT and Dena Marineco) are performed by 2 contracted stevedoring companies.

CARGO HANDLING EQUIPMENT: Dammam Port has an extensive fleet of equipment including:

Mobile Cranes up to 136 tonnes.

Gantry Cranes up to 30 tons with an outreach from the quay wall of 32 m.

Gantry Cranes up to 40 tons and a Floating Crane of 200 tons capacity.

RTG and RMG Straddle Carriers, terminal tractors, towing tractors, trailers.

MEDICAL: Masters may obtain medical attention for ship's personnel from Port Doctor who may, in case of serious illness or injury recommend treatment to a local hospital. Normally the Port Doctor will treat minor illness on board ship.

Urgent hospitalisation can also be arranged via the ship's Agent. Masters of vessels at sea may use services of Dammam Port Radio to obtain medical advice at any time.

DENSITY: The average density (salinity) of the sea-water in the Port of Dammam is 1030.

WATER: Water is available. Vessels requiring a supply of water should make arrangements through their Agent.

FUEL: There are several private Bunkering companies who operate in Dammam Port. By arrangement through the ship's Agent, bunkers can be supplied by barge at anchorage or alongside. Road tankers are also used for bunker deliveries. Various grades of fuel are available. Strict rules apply and severe penalties will be imposed should any oil spillages occur during bunkering operations or from any other cause. Anti-oil pollution equipment and dispersants are available.

Also see "Ras Tanura".

CONSULS: The U.S. Consulate General resides at Dhahran (approximately 20 km. inland from Dammam). A British Consular Official resides locally.

REPAIRS: King Fahd Ship Repair Yard (KFSRY), located within the port contains 2 floating dry docks, with capacities of 22,000 tonnes and 10,000 tonnes, together with all necessary facilities to provide a complete range of ship repairs and maintenance services.

Deep sea divers, operating from modern and well equipped diving boats, are available at Dammam.

Repair and maintenance services for electronic equipment are available at Dammam Port.

DRY DOCK: Main particulars:

Lifting capacity 22,000 tonnes.

Length overall 215 m.

Outside width 43 m.

Clear inside width 36 m.

Moulded depth to upper deck 16.30 m.

Immersion depth over keel blocks 7.55 m.

SURVEYORS: Available.

CUSTOMS: All materials to be either exported from or imported into Saudi Arabia are subject to examination by Customs Authorities. The importation of the following articles is completely banned:

(a) Alcoholic beverages, including beer and wines.
(b) Narcotics.
(c) Pornographic material.

Trafficking of the above items between ship and shore is strictly prohibited, regardless of whether vessels are alongside at berths or at anchor. Consumption of alcoholic beverages is prohibited during a ship's stay in port. All alcoholic beverages must be placed in bond (Master's, officers, crews and bar).

The following articles can be imported after obtaining permission from the authorities concerned:

(1) Explosives.
(2) Firearms.
(3) Antiques.
(4) Religious material not pertaining to the Muslim faith.

REPATRIATION: Possible, but not encouraged.
AIRPORT: Very good airline facilities are available from Dhahran Airport. Daily departures take place for many parts of the world.
TIME: GMT plus 3 hours all year round.
HOLIDAYS: Dammam Port offers continuous cargo handling operations through the year and sufficient manpower is always available.

All ships must be dressed if they are in port, or entering port, on the following official holidays or events:

1. Eid Al Fitr.
2. Eid Al Adha.
3. Saudi Arabian National Day.
4. Royal visits to the port.

Port staff will advise vessels in port prior to any forthcoming event, and vessels approaching port will be advised by the Port Radio Control.
EMERGENCY CO-ORDINATION: In the event of marine emergencies in the area, the Dammam Port Harbour Master should be contacted.
TELEPHONE: The port's telephone number is 833-2500 and is open for 24 hours. Expansion is planned which will include ship to shore communications at all berths.
STORING: Vessels may take stores on board and arrangements should be made through the ship's Agent.
SHORE LEAVE: Ship's personnel and passengers are not normally permitted ashore unless special permission is granted by Immigration and Police Authorities. The necessary arrangements can be made by ship's Agent upon receiving the Master's request and Seaman's Books. While in port, the vessel's personnel are under jurisdiction of the Law of Saudi Arabia.
WEATHER: The peninsula of Saudi Arabia is almost of an equatorial climate. Summertime rising to over 45°C. Rain is generally scarce. During major part of year, but especially during Summer, the relative humidity is high. From July to September it frequently exceeds 85%.

Winds in this area are not predictable for more than a few hours. They vary in strength and direction, although prevailing winds are from N.W.
TIDE: The Diurnal tide range at Dammam Port is approximately 2.00 m. – 2.45 m. at Springs, and 0.80 m. at Neaps. The flood tide sets to the S.E. across the harbour entrance and the ebb tide sets to the N.W. The rate of flow is very much dependent on the wind force and direction but seldom exceeds 2 knots.
AUTHORITY: Dammam Port Management, P.O.Box 28062, Dammam-31437, Saudi Arabia. *Tel:* (03) 833-2500 (24 hours). *Telex:* 800138, 801139 Dapm SJ. *FAX:* 857-1727. *Contact:* H.E. Naeem Ibrahim Al-Naeem, Port Director-General. Abdullah Al-Hamad, Assistant Port Director General.

AGENT: Gulf Agency Company Saudi Arabia, P.O.Box 335, Dammam 31411, Saudi Arabia. Cables: "Confidence Dammam". Ship-shore traffic via Dammam Radio/HZG. Telex: 801069 ("GAC SJ") Tel: 8328762-4, 8323425/7. Port Office 8583152, 8583196, 8583209; After office hours 8320877, 8583152. Fax: 8323035.

DHUBA: 27.21 N. 35.42 E. (See Plan)

LOCATION: 25 km. N.W. of Dhuba and 500 km. North of Yanbu.
PILOTAGE: Compulsory. Pilot station is located at Lat. 27° 34.3' N., Long. 35° 29.7' E. Pilot on VHF Channel 16.
ANCHORAGE: S.E. of Sila Shoal Buoy in position Lat. 27° 37' 50" N., Long. 35° 19' 20" E.
RESTRICTIONS: *Channel:* Width 100 m. Depth 11.0 m.
MAX. SIZE: Max. draft 9.5 m.
TUGS: 3 tugs, 1,000 h.p. – 3,000 h.p.
BERTHING: 3 berths with total length of 600 m. and depth 10.5 m. Ro/Ro located at South end.
CRANES: 1×20 tonne mobile crane.
STEVEDORES: Available. Contact Siyanco. Tel: (966-4) 432-1862.
TANKERS: See "Shipmaster's Report".
AIRPORT: At Tabuk, 180 km. N.E. of Dhuba.

SHIPMASTER'S REPORT: May 1994.
Location: Dhuba Tanker Terminal is situated on the Northern part of the West coast of Saudi Arabia in Red Sea.
Documents:
5 copies Crew List.
2 copies Stores List.
2 copies Crew Declaration.
Approaches: Approach to the pilot boarding area is not difficult. For vessels coming from South, it is important to follow a course (approx. 031°) between An Nu'Man Island Reef and the reef situated at 4.5 nautical miles N.N.E. of 16 m. anchorage (B.A.Chart No. 8, Saudi Arabian Chart No. 13).
Pilotage: Compulsory. Pilot boards in the vicinity of the mooring buoys (Lat. 27° 19' 18" N., Long. 35° 43' 48" E.).
Anchorage: Good anchorage available in depths of 16.0 m. to 45.0 m.

The anchorage in 16.0 m. is located at Lat. 27° 10' 36" N., Long. 35° 39' 30" E. No Pilot required for anchoring.
Restrictions: Mooring and unmooring during daylight only.
Max. Size: 10,000 d.w.t. No draft limitation.
Radio: Send ETA 72 hours, 48 hours and 24 hours before arrival.
VHF: "Aramco Dhuba" on Channel 11 throughout 24 hours.
Tugs: One small tug (1,200 h.p.) assists with mooring. Tug on VHF Channel 11.
Mooring: There are 5 mooring points (unlit). Three points are buoys anchored to the sea bottom and 2 points are piles on the reef. All ropes are from buoys and piles (See "Plan").
Hoses: There are 2×12 in. floating hoses, one for diesel and one for premium gasoline. The hoses are connected by ship's crew.
Medical: No facilities.
Fresh Water: Not available.
Fuel: Not available.
Repairs: No facilities.
Repatriation: No facilities.
Shore Leave: Not permitted.
Services: No telephone. No stores or provisions.

AUTHORITY: Saudi Port Authority, P.O.Box, Dhuba, Saudi Arabia. *Tel:* (966-4) 4321683. *Telex:* 672019 Port SJ. *FAX:* (966-4) 4322679. *Contact:* Mr. Atiya Al-Mowailhy, Director General.
AGENT: See "Jeddah".

GIZAN (Jizan): 16.54 N. 42.32 E. (See Plan)

ALSO SEE "GENERAL" BEFORE FIRST PORT.
LOCATION: 390 nautical miles South of Jeddah and 360 nautical miles North of Aden.
PORT LIMITS:
Harbour Boundaries:

All shore-based port property enclosed by a fence following the shore line extending seawards to line running between the following points:

	Latitude	Longitude
Qarn Ash Shurra	16° 50' 36" N.	42° 33' 00" E.
Um al Kuthib	16° 48' 30" N.	42° 27' 12" E.
Jazirat Hibar	16° 54' 12" N.	42° 22' 42" E.
Ferafer Island	17° 00' 00" N.	42° 23' 36" E.
Qarn al Wada	17° 02' 24" N.	42° 28' 18" E.

DOCUMENTS: See "Health" and "General before first Port."
APPROACHES: The Northern Approach Channel, is 82 nautical miles long, marked by 18 light buoys and 3 beacons and provides a minimum depth of 24 m. between Gizan North and Buoys N.13/S.18.

Positioned navigational marks are in accordance with "IALA System A" and fitted with radar reflectors.

The Approach Buoy "Gizan North" Lat. 16° 56' 45" N., Long. 41° 17' 28" E. is fitted with Racon code "B". Beacon "No. 2" "Middle Beacon" Lat. 17° 16' 47" N., Long. 41° 33' 25" E. is fitted with Racon code "N". "North Ghurab Island" Beacon Lat. 17° 06' 20" N., Long. 42° 03' 58" E. is fitted with Racon Code "B".

"Sail Makawa Island" Beacon is equipped with white light Fl. 4 secs. and white daymark.

A range light, true bearing 096.5°, leads into the port basin through an inner fairway dredged to 13.5 m. depth. For further details refer to B.A. Chart No. 15 and Notices to Mariners.

Southern approach closed.
PILOTAGE: Compulsory, no offshore Pilot Station. Ships for Gizan should contact Gizan Port Control on VHF Channel 16, 2 hours before arrival.
Pilot Boarding Position:
Lat. 16° 53' 48" N., Long. 42° 27' 00" E.
ANCHORAGES: *Anchorages within the harbour boundaries:*

Anchorage A. (Cargo vessels).

Lat. 16° 56' 00" N.,	Long. 42° 27' 00" E.
Lat. 16° 54' 30" N.,	Long. 42° 27' 00" E.
Lat. 16° 54' 30" N.,	Long. 42° 25' 48" E.
Lat. 16° 56' 00" N.,	Long. 42° 25' 48" E.

Anchorage B. (Petromin tankers).

Lat. 16° 53' 00" N.,	Long. 42° 27' 42" E.
Lat. 16° 51' 30" N.,	Long. 42° 27' 42" E.
Lat. 16° 51' 00" N.,	Long. 42° 26' 12" E.
Lat. 16° 53' 00" N.,	Long. 42° 26' 12" E.

There are no anchorages outside the harbour boundaries.
ARRIVAL ADVICE: Send ETAs to Gizan Port Management, Telex: 911018 Ports Sj and 911030 Ports Sj.
MAX. SIZE: Max. Length 250 m., Max. Draft 11.75 m. at high tide, 11.50 m. at any time. Max. Beam no limit.
HEALTH: All vessels should abide by Health Regulations and present necessary documents to the Authorities in accordance with International Laws. Quarantine signals must be displayed by all vessels approaching Gizan Port. These signals must be displayed continuously until Pratique is granted. These signals are:

Sunrise to sunset: Quarantine flag – Yellow.
Sunset to sunrise: Signal lights – Red over white.

RADIO: Masters should give their Agents an ETA not later than 48 hours before arrival. There is no radio station in Gizan Port.

VHF: A base station operates in Gizan Port using the call sign "Gizan Port Control". All calling should be on Channel 16. A 24 hours watch is maintained on Channel 16. Arriving vessels should contact "Gizan Port Control" entering the Northern Approach Channel. Working channels are 14, 12 and 9. Tugs are working on Channel 12 during operations.
RADAR: Harbour Radar System and Port Control Tower are under construction.
TUGS: Tugs are available, ranging from 800 h.p. to 2,500 h.p. Tugs usually join the vessel 3 miles West of breakwaters.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
1	205	12	Bulk Cement Terminal
2	176.5	12	
3	176.5	12	
4	171	10	
5	171	10	
6	184	10	
7	122	10	General
8	175	10	General and Ro-Ro
9	175	10	Cement
10	143	10	Container Terminal
11	217	12	Container Terminal
12	217	12	Ro-Ro Terminal

Total Shed Area: 12,000 sq.m.
Total Open Storage Area: 140,000 sq.m.
Weighbridges: 1×60 tonnes.
CONTAINER FACILITIES: Multi-purpose quay side cranes, capacity 45 tons. Equipment to handle containers available including straddle carrier, front loader and trailers. 48 power sockets for reefer containers.
BULK HANDLING FACILITIES: Mobiie grain dischargers plus conveyors and hoppers for direct bulk delivery, bagging units for bagged delivery.
EQUIPMENT: *Floating Equipment:* Pilot Boats, Mooring Launches, Fire Fighting Launch, Buoy Maintenance Vessel, Anti-Pollution equipment. *Handling Equipment:* Floating Crane 200 tons capacity, Mobile Tower Cranes capacity 45 tons, Yard Cranes from 16 tons to 45 tons, Forklifts from 2 tons to 36 tons, Head Trucks, Trailers and Chassis.
STEVEDORES: Sufficient number of gangs available, working 2 shifts of 12 hours, from 0700 hrs. to 1900 hrs. and 1900 hrs. to 0700 hrs.
MEDICAL: Doctors and hospital are available. Agents should be advised in advance of any medical attention required.
DENSITY: Average 1026.
FRESH WATER: Available from quay only.
FUEL: Marine diesel available by road tanker. Advance notice to be given to Agent.
FIRE PRECAUTIONS: According to Rules and Regulations of Seaports.
CONSULS: None in Gizan. See "Jeddah".
REPAIRS: Minor repairs possible by local contractors.
SURVEYORS: The main Classification Societies are available in Jeddah.
GANGWAY/DECK WATCHMEN: 1 Coast Guard is stationed permanently on board. Coast Guards keep constant check on liquor seals and may search personnel going ashore.
CUSTOMS ALLOWANCES: The consumption of alcohol, including beer, is prohibited. Ship's bonded stores are sealed by the Customs after the vessel has been granted Free Pratique. Any alcohol found after this will be confiscated and a fine imposed of Riyals 1,000 per bottle and possible imprisonment for the offender(s).
AIRPORT: Situated approximately 3 km. North East of Gizan Port. Several domestic flights daily.
TIME: GMT plus 3 hours all year round.
HOLIDAYS: Gizan Port offers continuous cargo handling operations throughout the year and sufficient manpower is always available.
POLICE/AMBULANCE/FIRE: Emergency Telephone Numbers:

Fire Brigade	322 0555
Ambulance	322 1692/1930
Hospital	322 1205
Police	322 1872

BANKS: Almost all national banks available.
STORING: No ship chandlers available. Small quantities available through Agent.
SHORE LEAVE: Possible during daylight hours.
IDENTIFICATION CARDS: Shore passes issued on request.
DELAYS: There are no delays in berthing and discharging.
AUTHORITY: Gizan Port Management, P.O.Box 16, Gizan, Saudi Arabia. *Tel:* (07) 317–1000, 312–1145. *Telex:* 911018 and 911030 Ports Sj. *Cables:* Porta Gizan. *Contact:* Dr. Hammoud A. Saadi, Director General.
AGENT: Gulf Agency Co. Saudi Arabia. Telex: 601047 ("Gaship SJ"). Also see "Jeddah".

JEDDAH: 21.28 N. 39.10 E. (See Plan)

ALSO SEE "GENERAL" BEFORE FIRST PORT.

PORT LIMITS: *The boundaries of the harbour and anchorages of Jeddah Islamic Port:* The harbour boundaries are given below and include the tanker terminals and the adjacent waters between Ras Al Jahhas and Ras Al Aswad.

From an onshore position on Ras al Jahhas:

to	Lat. 21° 31' 36" N.	Long. 39° 07' 54" E.
	Lat. 21° 31' 36" N.	Long. 39° 06' 00" E.
	Lat. 21° 22' 00" N.	Long. 39° 06' 00" E.

To an onshore position on Ras al Aswad:

	Lat. 21° 22' 00" N.	Long. 39° 07' 50" E.

DOCUMENTS: See "General" before first port.
Circular: Dated December 1983.

Vessels carrying dangerous cargo, arms, ammunition for discharge at Jeddah or any other ports in transit are requested to provide the following information:

(a) A prior notification including the following information:
1. The name of the vessel, her flag and the Shipping Agent's name.
2. ETA.
3. Voyage number.
4. The particulars and the types of dangerous cargo, ammunition, weapons.
5. The quantity.
6. Number of parcels or packages.
7. The weight.
8. Cell location and stowed.
9. The Shipper's name.
10. Port of loading.
11. Consignee's name and address.
12. Port of discharge.
13. Next port for the vessel after departure Jeddah.

(b) The documents such as Manifest, Stowage Plan and Cell Number, Bay Plan, etc., are required to be submitted to the Port Authority 48 hours prior to arrival of vessel.
(c) In case vessel not carrying any dangerous cargo/arms/ammunition/weapons/Military hardware, the Agent should submit the written declaration as 'nil'.
(d) The Master of the vessel is also required to submit declaration for arms/ammunition/weapons to the Port Authority along with cell position, stowage position and how stowed. In case the vessel is not carrying above mentioned Cargo the Master is also required to submit same declaration as 'Nil'.
(e) The in-transit dangerous cargo/arms/ammunition should be stored separately so that Jeddah cargo can be discharged without disturbing in-transit cargo.
(f) The Port Management will hold you fully responsible for incorrect information.

Signed:
Acting Director General
Jeddah Islamic Port.

VESSEL APPOINTMENT SCHEME:
Vessels bound to Jeddah Islamic Port with cargo must provide the following information:

AA. By telex or cable either directly or through the vessel's Agents on arrival at the first or sole loading port, before loading commences:
1. Radio Code (Call Sign).
2. Vessel's Name.
3. Owner and Line.
4. Nationality.
5. Agent.
6. Length Overall (m.).
7. Maximum Draft (m.).
8. Number of Hatches.
9. Gross Registered Tonnage.
10. Nett Registered Tonnage.
11. Deadweight Tonnage.
12. Previous Names (if any).
13. Type of Vessel.
14. Type of Cargo.
15. Total Cargo Weight Tons.
16. Total Cargo Freight Tons.
17. Number of Containers/Units (where applicable).
18. Number of Livestock (where applicable).
19. Estimated Date of Arrival.
20. Actual Arrival Draft.
21. Hazardous Cargo for Jeddah.
22. Hazardous Cargo in Transit for Other Ports.
23. Tonnage to Hatch for Jeddah Discharge.
24. Year of Construction.
25. Lloyd's Register Number.
26. All Ports at which Cargo has been loaded for discharge at Jeddah.
27. Number, Position and S.W.L. of Derricks and/or Cranes, and particulars and positions of ramps.
28. Economic Speed of Vessel.
29. Next Port of Call after Jeddah (irrespective of whether vessel has cargo for that port).
30. All other Ports at which the Vessel will have called between arrival at the first port of loading and arrival at Jeddah Islamic Port.
31. Last 3 Ports of Call before Jeddah.
32. (i) Type of Radar.
    (ii) Frequency.
    (iii) Scan Rate.
    (iv) Pulse Width.
    (v) Pulse Peak Power.
    (vi) Pulse Repetition Frequency.
    (vii) Beam Width.
33. Alcoholic cargo on board for optional ports enroute Jeddah.
34. Arms/Ammunitions/Weapons/Exlosives cargo on board in transit.
35. Arms and bullets with Master for self-defence.
36. Name of the Protection and Indemnity Club.
37. Terms of Discharge.

Both the Registered Owner and the Operating Line or Charterer must be shown in item 3. If these are the same company this fact must be confirmed.

All previous names of the vessel must be declared in item 12, or a 'Nil' declaration must be shown. Items 21 and 22 must include the tonnage of each. IMDG Class for discharge and in transit which will be on board the vessel at Jeddah.

On completion of loading cargo, items 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 29, 30 and 31 must be updated as necessary.

BB. A further notice of ETA is to be sent 5 days, 3 days, 2 days and 1 day prior to arrival at the port. The 3 day notice is to include the vessel's position (Latitude and Longitude or port) 48 hours before arrival.

CC. Vessels will not be cleared to call at Jeddah solely for the purposes of bunkering, taking stores or repairs unless the following information is supplied to the Port Management, *not less than 72 hours in advance of their arrival*. (Also see "Reports"):

1. Radio Code.
2. Vessel's Name.
3. Owner and Line.
4. Nationality.
5. Agent.
6. Length overall.
7. Maximum Draft (m.).
8. Gross Registered Tonnage.
9. Nett Registered Tonnage.
10. Deadweight Tonnage.
11. Previous Names.
12. Estimated Time of Arrival.
13. Actual Arrival Draft.
14. Hazardous Cargo in Transit for other Ports.
15. Lloyd's Register Number.
16. Expected Requirements for Bunkers and Water.
17. Economic Speed of Vessel.
18. Next Port of Call after Jeddah.
19. Last 3 Ports of Call before Jeddah.

Prior to the provision of any services being authorised an approval must be obtained from the Office of the Director (Traffic and Operations).

The final ship's Clearance Certificate will not be signed by the responsible Jeddah Port Management Officer prior to sailing unless it is accompanied by the original Advice Notice bearing Jeddah Port Management's stamp and the signature of the Clearing Officer.

DD. If the undermentioned information has not been previously given to the Port it is to be included in the Advices mentioned in AA and CC above:

(i) Type of Radar.
(ii) Frequency.
(iii) Scan Rate.
(iv) Pulse Width.
(v) Pulse Peak Power.
(vi) Pulse repetition frequency.
(vii) Beam Width.

If the vessel is equipped with several radars the characteristics of each radar must be given.

NOTE: With effect from 5th September 1986 all telex communications with Jeddah Islamic Port must be in Arabic.

EE. Master's Declaration of Arrival to be completed on berthing. A statement of all ports of loading for current voyage and all ports of discharge, including ports after Jeddah.

PILOTAGE: Pilotage is compulsory for all vessels above 150 n.r.t. entering, navigating within, or leaving the port, and is available 24 hours a day. Every vessel subject to compulsory pilotage and which requires a Pilot must:

(a) from sunrise to sunset hoist the International Code Flag 'G';
(b) from sunset to sunrise give the letter 'G' (– – ·) by a signal lamp;
(c) in the event of poor visibility caused by rain, fog or dust, sound the signal 'G' (– – ·).

Vessels equipped with VHF should call the Port Control Signal Station on Channel 12 or 16, 2 hours before arrival. Vessels having a Pilot on board must hoist the International Code Flag 'H'. The pilot boarding area is one mile West of the Middle Gate beacons in position Lat. 21° 28' 00" N., Long. 39° 06' 00" E. The pilot boat is orange hulled with white upperworks with the word "Pilot" painted in black letters along each side of the cabin.

The Master of every vessel, when approaching the pilot boat for the purpose of picking up a Pilot, must reduce speed to the minimum steerage way, maintain VHF contact with the pilot boat and provide a good lee if necessary. Vessels must have rigged and ready for use a pilot ladder in good repair and provided with reliable manropes and in accordance with the specifications and terms described in the International Convention for the Safety of Life at Sea 1974. The ladder is to be well illuminated between dusk and dawn, and a lifebuoy with a lifeline is to be available at the ladder for immediate use. A boat rope, ready rigged from the break of the forecastle to abaft the pilot ladder, must also be provided.

Once the Pilot is on board, the Master must advise him of:

(a) The draft, length, beam and manoeuvring speeds of the vessel. Such information is also to be displayed in a conspicuous place in the wheelhouse;
(b) Any peculiarity, defect or factor which may affect the manoeuvrability of the vessel;
(c) Any dangerous and/or hazardous cargo on board.

Vessels awaiting Pilot or documentation, anchor in "D" Anchorage. Vessels with dangerous and/or hazardous cargo on board anchor in "C" Anchorage. All tankers and vessels calling only for bunkers in "E" Anchorage.

APPROACHES: The lights of the new airport North of Jeddah shine brightly. These should not be confused with the correct approach to Jeddah port which is South of the airport.

PROHIBITED AREA: The area bounded by following positions:

A — 21° 33.50' N., 39° 06.60' E.
B — 21° 33.50' N., 39° 05.00' E.
C — 21° 28.58' N., 39° 07.08' E.
D — 21° 29.87' N., 39° 09.85' E.

ANCHORAGE: Anchorages A, B, W1 and W2 are within the pilotage area and vessels may not enter, or leave these anchorages without a pilot. The boundaries of the anchorages are as follows:

Anchorage A:

From	Lat. 21° 29' 13" N.	Long. 39° 08' 40" E.
To	Lat. 21° 28' 18" N.	Long. 39° 08' 40" E.
	Lat. 21° 28' 18" N.	Long. 39° 08' 02" E.
	Lat. 21° 29' 13" N.	Long. 39° 08' 40" E.

Anchorage B:

From	Lat. 21° 27' 39" N.	Long. 39° 06' 54" E.
To	Lat. 21° 27' 39" N.	Long. 39° 07' 26" E.
	Lat. 21° 26' 04" N.	Long. 39° 07' 26" E.
	Lat. 21° 26' 04" N.	Long. 39° 06' 54" E.
	Lat. 21° 27' 39" N.	Long. 39° 06' 54" E.

Anchorage W1: (Working anchorage).

From	Lat. 21° 27' 46" N.	Long. 39° 08' 10" E.
To	Lat. 21° 27' 46" N.	Long. 39° 08' 42" E.
	Lat. 21° 26' 45" N.	Long. 39° 08' 42" E.
	Lat. 21° 26' 45" N.	Long. 39° 08' 22" E.
	Lat. 21° 27' 46" N.	Long. 39° 08' 10" E.

Anchorages outside the harbour boundaries:

Anchorage C: (Anchorage for vessels with dangerous cargoes).

From	Lat. 21° 28' 00" N.	Long. 39° 03' 46" E.
To	Lat. 21° 27' 46" N.	Long. 39° 04' 40" E.
	Lat. 21° 26' 47" N.	Long. 39° 04' 22" E.
	Lat. 21° 27' 02" N.	Long. 39° 03' 28" E.
	Lat. 21° 28' 00" N.	Long. 39° 03' 46" E.

Anchorage D: (Anchorage for dry cargo vessels).

From	Lat. 21° 28' 16" N.	Long. 39° 04' 50" E.
To	Lat. 21° 27' 28" N.	Long. 39° 05' 58" E.
	Lat. 21° 26' 10" N.	Long. 39° 04' 29" E.
	Lat. 21° 26' 24" N.	Long. 39° 04' 15" E.
	Lat. 21° 28' 16" N.	Long. 39° 04' 50" E.

Anchorage E (Tanker and bunkering anchorage):

From	Lat. 21° 23.5' N.	Long. 39° 04.25' E.
To	Lat. 21° 24.75' N.	Long. 39° 05.00' E.
	Lat. 21° 23.8' N.	Long. 39° 06.00' E.
	Lat. 21° 23.5' N.	Long. 39° 06.00' E.

Prohibited Anchorage Area:

From	Lat. 21° 23.5' N.	Long. 39° 04.0' E.
To	Lat. 21° 23.5' N.	Long. 39° 06.0' E.
	Lat. 21° 22.0' N.	Long. 39° 03.35' E.
	Lat. 21° 22.0' N.	Long. 39° 06.00' E.

RESTRICTIONS: There are no restrictions imposed upon entry for vessels of not more than 13.5 m. draft.

MAX. SIZE: The maximum permissible draft is 13.5 m. No restriction on beam. Vessels up to 300 m. in length are handled regularly at Jeddah Container Terminal and Bulk Animal Feed Berths.

HEALTH: Masters of vessels are required to notify Jeddah Port Health and Quarantine Department via Jeddah Radio prior to the vessel's arrival as follows:

(a) Vessel's name, ETA, purpose of visit;
(b) Complement and General Declaration of Health of crew:
(c) Declaraton of Vaccination Certificates held, if any;
(d) Declaration of Last Port and date of sailing;
(e) Possession of valid Deratisation Certificate or valid Deratisation Exemption Certificate.
(f) Any other certificate that may be required as determined by Health Authorities.

Additionally, the Agent is required to submit an arrival notice to the Port Health and Quarantine Department 48 hours prior to the vessel's expected arrival.

On arrival, the doctor boards and grants Free Pratique.

(a) *Yellow Fever:* All arrivals from infected or endemic areas are required to submit a valid Vaccination Certificate in accordance with International Sanitary Regulations.
(b) *Makkah:* All Muslim crew members who wish to visit Makkah and Madinah should have in their possession 2 recent Passport-size photos. These should bear the crew member's name and C.D.C. Number to enable Agent to obtain permission for the pilgrimage. Crew members must also have in their possession the above-mentioned medical certificates, otherwise permission may not be granted to them to visit Makkah and Madinah.

RADIO: The Coast Radio Station, Jeddah Radio, call sign HZH (Telex No. 603799 RDJD SJ), can be called up at any time on 500 kHz. All vessels send telegrams to Agents, receivers and Port Authorities, etc. through Jeddah Radio.

Jeddah Radio is also on VHF Channel 16 for telephone calls to Agents and Jeddah Ship Repair Yard.

VHF: Jeddah Port Control Signal Station has 4 VHF Channels:

(a) Channel 16 (international distress, safety and calling Channel);
(b) Channel 14 (Working Channel);
(c) Channel 12 (Working Channel);
(d) Channel 9 (Working Channel).

Vessels bound for Jeddah Islamic Port contact the Port Control Signal Station on Channel 16, then shift to a working Channel as advised to pass on ETA and other relevant information. When necessary, weather reports, notices regarding navigational aids etc., are broadcast to vessels on Channel 12 after having first been advised on Channel 16. In the event of distress or emergency, vessel traffic is controlled by the Port Control Signal Station as far as circumstances permit.

Control Tower: The Control Tower (height 132 m.) is situated on the North side of the Approach Channel to the port at the inner gate in position Lat. 21° 28.1' N., Long. 39° 08.95' E. with light characteristic Gp.Fl.(3) every 20 secs., distance 25 miles.

RADAR: A port surveillance radar system is in operation.

TUGS: There are tugs available operated by the Port.

Tugs operate within the harbour limits only for the purpose of assisting vessels in berthing and unberthing. Tugs join vessels inside the Inner Gate Beacons and normally require the use of the ship's lines. Where the latter are considered inadequate, the tug's lines are used.

BERTHING: The following categories of berth, with a draft range from 7.5 m. to 13.5 m., are available: Bulk Grain, Bulk Edible Oil, Ro-Ro, Container Terminal, Cold and Frozen Terminal, Livestock Terminal, Autocarriers, General Cargo and Passenger vessels.

Storage: Adequate covered and open storage space is available in the form of Warehouses, Transit Sheds, Livestock Sheds, Dangerous Goods Warehouses plus Reefer Points, Cool and Cold Stores, Container Terminals, Ro-Ro Terminal, Container Freight Station, Vehicle Parks, General Cargo Storage and edible oil Storage Facilities.

CRANES: Rail-mounted electrical level luffing cranes of up to 15 tons capacity are available with an outreach from the quay wall of 25 m.

The port also has available mobile cranes of up to 250 tons capacity, including a floating crane of 200 tons capacity. Other equipment includes forklift trucks of up to 33 tons capacity and trailers and chassis of up to 40 ft./200 tons capacity.

General cargo vessels must be adequately geared at each hatch. Port cranes may be hired on request.

BULK CARGO FACILITIES:

Bulk Grain (Common User Facility):

Max. permissible ship-draft: 13.5 m.
Unloading: Gantry booms/vacuum pipes and conveyor.
Height of gantry boom: 16 m.
Outreach: 28 m.
Discharge capacity: 200 tons per hour per unit.

Bulk Edible Oil (Private User Facility):

Max. permissible ship-draft: 11 m.
Unloading point: A pump station pit and manifold is located on the quay for hose connection.

SPECIALISED CARGO HANDLING FACILITIES:

Ro-Ro Terminal (Common User Facility):

Max. permissible ship-draft: 13.0 m.
Mobile cranes: Up to 40 tons capacity.
Forklift trucks: Up to 33 tons capacity.
Trailers/Chassis: Up to 40 ft./200 tons capacity.

Jeddah Container Terminal East (Common User Facility): Transhipment and CFS facilities available.

Max. permissible ship-draft: 11.5 m.
Container cranes: 30.5 tons capacity with an outreach from the quay wall of 25.5 m./28.5 m.
Forklift trucks: Up to 33 tons capacity.
Trailers/Chassis: Up to 40 ft./200 tons capacity.
Electricity supplies: 'Plug in' points for 192 reefer containers.

Jeddah Container Terminal West (Common User Facility): (Ro-Ro facility also available).

Max. permissible ship-draft: 13.5 m.
Container cranes: Up to 40 tons capacity with an outreach from the quay wall of 34.5 m.
Straddle carriers: Sufficient number.
Forklift trucks: Up to 25 tons capacity.
Head trucks: Sufficient number.
Electricity supplies: 'Plug in' points for 360 reefer containers.

BRIDGES: There are no bridges or other restrictions to prevent access to the port by vessels of not more than 13.5 m. draft.

STEVEDORES: The port provides stevedoring services 24 hours a day, 7 days a week. For vessels wishing to discharge cargo at Jeddah Islamic Port, Shipowners or their Agents should provide ETA advice in accordance with the Rules and Regulations for Seaports, issued by the Co-operation Council for the Arab States of the Gulf, as follows:

(a) Before loading for Jeddah;
(b) On sailing last load port;
(c) At 5, 2 and 1 day intervals before the vessel's ETA;
(d) On revising the vessel's ETA.

MEDICAL: Full hospital facilities are available. The Agent should be informed of any medical attention required. Vaccination Certificates should be provided as previously specified (See "Health").

TANKERS: The Petromin facility has 2 berths in the oil basin and 2 in the inner harbour. Petromin provide their own tugs and launches.

The port does not have facilities for the handling of liquid chemicals or LPG carriers.

Jeddah Port Authority Circular: Vessel calling for bunkering supply or for repair will not be cleared/berthed unless following information is furnished to Jeddah Port Management before ship's arrival:

1. Radio Code.
2. Vessel Name.
3. Owner/Line.
4. Nationality.
5. Agent.
6. LOA.
7. Max. draft in metres.
8. G.R.T.
9. N.R.T.
10. D.W.T.
11. Previous Name.
12. ETA.
13. Arrival Draft.
14. Hazardous cargo transit.
15. Lloyd's Register Number.
16. Requirements bunker and fresh water (approx.).
17. Last 3 ports of call before Jeddah.

Before providing any facilities, a Permit Certificate has to be obtained from office of the Assistant General Manager for Traffic.

Ship will not be cleared by Port Authority unless above Permit Certificate attached with Original Arrival Notice signed and stamped by party concerned is submitted to Jeddah Port Management.

DENSITY: 1025.

FRESH WATER: Fresh water can be supplied by the port at all berths and at Livestock Terminal. Fresh water is also available from private suppliers.

FUEL: There are several suppliers in Jeddah who normally require between 1 and 2 weeks' notice of nomination, either through a broker or directly. All types of bunker oils are available and are supplied by tanker at varying rates of delivery.

If bunkering at anchorage, proceed to "Anchorage E".

Also see "Reports".

FIRE PRECAUTIONS: Special rules apply concerning fire precautions and fire-fighting. Reference is made to the Rules and Regulations for G.C.C. Seaports, Part 1, Section 7, and Part 3, Section 4.

CONSULS: Most countries are represented in Jeddah.

REPAIRS: Several local agencies provide all types of shipboard repair work in the mechanical, electrical, electronic and refrigeration / air-conditioning fields.

The Jeddah Ship Repair Yard has complete facilities for drydocking vessels, conversion work and all types of repairs to hull and machinery.

DRY DOCKS: Jeddah Ship Repair Yard:

	Dock 1	*Dock 2*
Max. d.w.t. (Approx.)	45,000	16,000
Lifting capacity (tonnes)	19,000	11,000
Length overall (m.)	215.00	165.00
Length over keel blocks (m.)	200.00	150.00
Clear width (m.)	33.50	25.00
Water depth over top of keel blocks (m.)	7.55	6.95
Pumping times (minutes)	90	90
Cranage (tons SWL × radius reach (m.)	2×7 tons ×20.5 m.	2×7 tons ×20.5 m.

SURVEYORS: The following Classification Societies are represented in Jeddah: Lloyd's, A.B.S., B.V., D.N.V., N.K.K., G.L. and RINA.

Cargo surveyors also available.

GANGWAY/DECK WATCHMEN: 1 Coast Guard is stationed at the foot of the gangway of vessels alongside. Coast Guards keep constant check on liquor seals and may search personnel going ashore.

HATCHES: The opening and closing of non-mechanical hatches is normally carried out by the Port's stevedores.

CUSTOMS ALLOWANCES: Alcohol must be kept in bond and is not allowed to be consumed or landed within the Kingdom. There are no restrictions on tobacco.

CARGO GEAR: Discharge of general cargo and containers at non-specialised facilities is by ship's gear. However, a wide range of mobile cranes are available for hire at short notice (See "Cranes").

REPATRIATION: There are approximately 30 international flights daily to and from Jeddah. A visa is required for entering or leaving the country.

AIRPORT: The King Abdul Aziz International Airport is located approximately 30 km. North of the port.

TIME: GMT plus 3 hours.

HOLIDAYS: Friday is the weekly day of rest and prayer. The Hegira calendar of 12 lunar months consisting of 354 days provides for two Government holidays. The first, lasting one week between the end of the ninth month (Ramadan) and the beginning of the tenth month (Shawwal), represents the celebration of the end of the month of Muslim fasting. The second is for 10 days, from the 5th to the 15th of the twelfth month (Dhu-al-Hijjah). This is the period when Saudi nationals and Muslims from all over the world come to perform the pilgrimage in the Holy cities of Makkah and Madinah.

The port, however, operates continuously throughout the year, 24 hours a day, 7 days a week.

POLICE/AMBULANCE/FIRE: Masters of vessels should contact the Port Control Signal Station on VHF Channel 16.

EMERGENCY CO-ORDINATION CENTRE: *Major Emergency Control:* In case of emergency, vessels should contact the Port Marine Control Tower on VHF Channel 16. Requirements will be relayed to the Port's Operations Co-ordination Centre.

TELEPHONES: Facilities are available for telephone connection at certain berths, although there are currently no arrangements for placing telephones on board.

Public pay phones are available in the port area.

SERVICES: *Tank Cleaning/Compass Adjusting/Life-Raft Servicing:* There are presently no facilities in Jeddah for tank cleaning or compass adjusting. Liferaft servicing facilities are available.

Fumigation: Fumigation services are available in Jeddah.

Garbage Disposal: The port has a waste incinerating vessel with one waste collection launch and one oil skimming launch. A charge is levied for this service at a rate of SR. 200 per vessel per day or part thereof. (These dues will be collected whether the vessel uses the service or not).

BANKS: All leading Saudi banks have branches in Jeddah.

STORING: Subject to approval from the Customs, Coast Guard and Health Authorities.

SHORE LEAVE: Permitted on Agent's application to the Immigration Authorities and the Coast Guard.

IDENTIFICATION CARDS: Shore passes are issued. However, Discharge Books or Passports must be left at the gate and collected when re-entering the port area.

GARBAGE DISPOSAL: Ships garbage is collected from vessels alongside or at anchor by a garbage boat. Garbage must be pre-packed in plastic bags. Charges SR.200 per day or part thereof, used or not used.

WASTE OIL DISPOSAL: Capacity: Slop tanks 2,000 tonnes. Waste oil tank 14 tonnes. Collection tanks 7 tonnes.

Vessel discharge rate: 100 tonnes/hour.

Contact Tel: (02) 6477781. Telex: 604237 JSRY. Fax: (02) 6485074.

SEAMAN'S CLUBS: None.

CURRENCY: Saudi Riyals (SR). U.S.$ 1.00 = SR 3.75 (fixed).

REGULATIONS: The Rules and Regulations for G.C.C. States Seaports are published in booklet form and are available on request from the Agent. Every vessel arriving at the port must have a copy on board or obtain one immediately on arrival.

Every vessel entering Jeddah Port must hoist the Flag of the Kingdom of Saudi Arabia and keep it flying at all times throughout its stay in the port.

Vessels wishing to unload cargo at Jeddah Islamic Port must apply to the Director-General by telex for a berthing appointment prior to loading for Jeddah.

DELAYS: Subject to the timely completion of clearance formalities, there are no delays in berthing, loading, discharging or bunkering.

GENERAL: *Other important information:*

(a) Mean height of quay surface from water alongside berth is 2.25 m.
(b) Width of fenders is 30 cm.
(c) Height between highest and lowest recorded tides is 1.02 m.
(d) For reference, please see BA. Charts No. 2599 and 2577 and Red Sea Pilot.

Other facilities include:

(a) Modern equipment to combat oil pollution, including an oil recovery vessel, oil separation barges and a full range of spraying equipment, absorbants, dispersants and oil containment barriers. Tugs with pollution control facilities are available.

(b) An integrated fire-protection and fire-fighting system incorporating a sophisticated control centre with electronic monitors for fire alarm and detection equipment, linked with a highly efficient network of sprinklers in all buildings, transit sheds and warehouses. In addition, the port has its own fire station equipped with a full range of appliances. Water-borne facilities are also available in the form of fire-fighting vessels up to 2,860 h.p.

(c) *Miscellaneous marine craft and equipment comprising:*

Pilot boats.
Service launches.
Barge towing launches.
Mooring launches.

REPORT: May 1984.

Operational instructions for Owners and Masters of vessels taking offshore bunkers from Bakri Bunker Trading Co. at Jeddah:

1. *Radio Contact/Operating Position:*

"al Bakry" (call sign HZGH) maintains continuous watch on VHF Channel 16. VHF range in this area is 300-400 nautical miles and Masters should therefore establish contact at least 24 hours ahead of arrival Jeddah. Working channel will be agreed between Masters when contact established, and rendezvous point will be advised by the Master of the bunker vessel, well in advance.

Please note that Customs/Waterguard operate only during the hours of daylight. Customs launches leave quay at 0900 hrs. daily and clear vessels in order of arrival through approximately 1700 hrs. Vessels arriving too late are not cleared until following day.

2. *Notice:*

A. Wherever feasible vessels taking bunkers from Bakri Bunker Trading Co. must send a cable at least 120 hours prior to arrival off Jeddah to 'best service Jeddah' giving following information in accordance with port management instructions:

(1) Radio code, (2) vessel's name, (3) owner/line, (4) nationality, (5) Agent, (6) LOA, (7) max. draft in metres, (8) g.r.t., (9) n.r.t., (10) d.w.t., (11) all previous names, (12) Jeddah ETA, (13) actual arrival draft, (14) details of hazardous cargo in transit for other ports, (15) Lloyd's Register number, (16) Expected requirements of bunkers and water, (17) quarantine requirements of port doctor – name of last 3 ports of call/no. of crew and their state of health/validity of vaccination certificates for cholera and yellow fever, confirmation that none of the crew will go ashore.

Please note: Prior to the provision of any services being authorised, an approval must be obtained from the office of the Assistant Director General (Traffic and Operations.)

The final ship's Clearance Certificate will not be signed prior to sailing by the responsible Jeddah Port Management officers unless it is accompanied by the original advice notice bearing Jeddah Port Management's stamp and the signature of the Clearing Officer.

B. Owners must also send a telex minimum of 72 hours prior to their vessel's arrival off Jeddah to Bakri Bunker Trading Co. (Telex: Jeddah 401557 "Bakri SJ" or Jeddah 402125 Penta SJ) repeating the information contained in the cable sent from their vessel. This telex must also confirm that none of the crew of vessel will go ashore. Failure to provide the above information in time could delay clearance by Jeddah Port Management and result in vessel being delayed.

C. Both messages A and B must be updated 48 hours and 24 hours ahead of arrival.

3. *Operating/Manoeuvring:*

Will be advised by Master of "al Bakry" on VHF.

4. *Supplies:*

Supplies are made subject to the general terms and conditions for the sale of marine fuels of Bakri Bunker Trading Co. Ltd.

5. All vessels calling for bunkers with Bakri Bunker Trading Co., must comply with the laws of Saudi Arabia, including courtesy flag requirements.

Vessels have recently been delayed by boycott office and Port Authority in Jeddah due belated receipt particulars, especially Lloyd's number/all former names. If this data not received minimum 72 hours ahead vessel's arrival, delay will ensue.

NOTICES: 1986.

Agents Notices to Masters.

Dear Captain,

To avoid any inconvenience to yourself and to your crew and in order that your vessel is not penalised we are listing below those requirements which you must follow and those which you must avoid during your stay in the Port of Jeddah.

(A) WHAT YOU MUST DO:

1. The Master of every vessel arriving at any Saudi Port for discharging/loading of cargo is required to possess one copy of the book "Rules and Regulations for Saudi Arabian Seaports". If you do not have it, please order through our representative. The Port Inspectors make periodical inspections and in the event of non-possession of the said Rules Book by a vessel, she may be penalised. If you already have one or after you get one, it is recommended that you please do read pages 66-75, 163-172, 220-233 and 260.

2. The National Flag of the Kingdom of Saudi Arabia must be kept hoisted round the clock on all days of the week from the time of entering into and sailing from the port of Jeddah.

3. In order to arrange vessels inward/outward clearance, following documents should be delivered to our representative against signed receipt.

1. Certificate of Registry.
2. Safety Equipment Certificate.
3. Safety Construction Certificate.
4. Load Line Certificate.
5. Hull and Machinery Classification Certificate.
6. Safety Radio Telegraphy Certificate.

These documents will be returned to you with the Port Clearance prior to your departure. Vessels arriving at the ports of the Kingdom, with expired certificates, are liable to penal action.

4. All the time, from the time of arrival, your vessel must be in a condition to sail within one hour's notice from the Ports Authorities.

5. From the time of berthing and until its sailing from the berth the Coastguard Police will stay at the gangway entrance.

6. Rat guards must be fixed on all mooring ropes and wires on vessel's berthing.

7. Opening of the hatches (also tween decks, where applicable) and rigging of your vessel's gear should be conducted by your crew to enable the port's stevedores to commence discharging/loading operations immediately upon berthing.

8. The ship's gangway should be protected by guide ropes and proper nets. Safety rails should be erected in tween decks during discharging operations in lower holds. Whenever possible, lashing should be temporarily removed from the deck cargo to facilitate passage for the shore labour to work. Port's Safety Officers inspect vessel from time to time and any contravention of Port's Safety Regulations is subject to penal action.

9. The vessel should be self-sustaining and the gear in proper condition to carry out the discharging/loading operations round the clock. Any delay in discharging/loading as a result of winch stoppages, will be recorded against the vessel and charged at SR.200/– per gang hour or part thereof will be treated as one hour. In the event of frequent winch breakdown or a breakdown whose repair may take a long time, a shore crane could be employed by the port for account of the vessel in case the ship/Agent's themselves do not arrange one. To arrange a shore crane our representative will need your authority. For idle gangs, from the time of winch stoppage until the shore crane physically arrives and discharge is resumed, vessel will be charged at the rate mentioned above.

Please note that Port Authorities have the right to employ shore cranes for account of the vessel to expedite discharge even if ship's gear is fully operational. The cost is debited to the ship whether or not the requisition form is endorsed by the ship's Master.

10. Your Duty Officers are required to supervise discharging/loading operations and any irregularity in handling of the cargo by the stevedores must be notified in writing to stevedores' representative on board with copy to Port Authorities.

Stevedores are employed by the Port Authorities and work as follows:

General and Bagged Cargo: 0100 hrs. – 0600 hrs., 0700 hrs. – 1200 hrs., 1300 hrs. – 1800 hrs., 1900 hrs. – 0000 hrs.

Frozen Cargo: 0700 hrs. – 1200 hrs., 1600 hrs. – 0000 hrs.

Citrus: At present citrus cargo also handled same as general and bagged cargo.

11. Except crew members from Communist Bloc and countries with whom the Kingdom of Saudi Arabia does not have diplomatic relations, all others are allowed to go ashore escorted by the Agents of the vessel and with a valid Shore Pass issued by the Immigration Department of the Seaport. Shore passes are arranged by the Agent against Master's written undertaking that all crew members will return to the ship and that the Master holds himself fully responsible for all the consequences if any crew fail to return to the ship. The Authorities permit crew members to go ashore for a maximum period of 3 hours during the day only and the permission is granted between 0900 hrs. – 1600 hrs. except on Fridays. The crew members should return to the ship escorted by the Agents before 1900 hrs.

In order to arrange shore passes, we will need your written confirmation at least 18 hours in advance on our prescribed form together with one black and white photograph for each crew member who will go ashore.

12. Application for repatriation of crew is accepted by Immigration Authorities only when it is accompanied with a ticket in the name of the crew member with a confirmed seat for leaving the Kingdom not later than 72 hours from the date of application. In order to arrange confirmed seats we must get an advance notice of at least 48 hours.

13. Completion of discharge must be supervised by ship's Officers who should ensure that no cargo bound for Jeddah is left in the ship except the cargo whose discharge was not allowed by Port Authorities. On completion of discharge of all sound cargo, Jeddah Signal Station should be contacted at Channel 16/12 through VHF to request for a Pilot who is available at short notice. You can notify the Authorities to provide a Pilot as soon as you have on board, the Port Clearance and you are ready to sail. Normally 1 to 2 hours following completion of discharging/loading are allowed to prepare a vessel for sailing.

Following is the allocation of VHF Channels by the Jeddah Islamic Sea Port.

Channel 9 – Marine Pilots.
Channel 11 – Petromin Marine Operations.
Channel 67 – Pilots/Tugs/Berthing Operations/Safety in event of fire.
Channel 69 – Pilots/Tugs/Berthing Operations.

14. In order to keep the parties concerned informed of the daily progress of discharging/loading operations including any other details/information, you will be required to fill-in the "daily position" form left with you by our representative upon your vessel's berthing. It should be kept ready every morning for collection by our representative at about 0800 hrs.

15. Personnel of our Operations Department will be in very close contact with you during vessel's stay in port and shall present to you the prescribed form for SERVICES REQUIRED THE FOLLOWING DAY. This form may be filled in and kept ready for delivery to the Officer on the evening shift who will collect it from you at about 1700 hrs. This procedure will apply from the day following the berthing of your vessel.

However, should the vessel berth before mid-day then our Boarding Officer can be asked to attend to services required the same day.

16. To ensure that ships under our Agency are attended to the satisfaction of our Principals, our Operations Department's Officers are advised to present to you the "Service Form" of the previous day, on the following day so that in case some service that you had asked for has not been rendered, then a remark to that effect could be endorsed on it by you to receive the attention of the Management. We shall greatly appreciate your co-operation in this regard and if for any reason this form is not presented to you for remarks then the Duty Officer may please be reminded of it.

(B) WHAT YOU MUST NOT DO:

1. Manoeuvring of vessels within the port limits without a local Pilot on board, is prohibited.

2. Immobilisation without valid permission from the relevant Authorities, is prohibited.

3. Engine repairs/burning/painting/chipping while at berth, is not allowed without prior permission.

4. Lowering of lifeboats while alongside berth or at anchorage, is not allowed except in an emergency.

5. Spillage of oil and disposal of garbage within the port limits, is prohibited.

6. Unauthorised photography is strictly prohibited.

7. Possession of spirits/alcoholic beverages, weapons, drugs, obscene literature or nude – semi-nude pictures is strictly prohibited which please note advise all your crew members accordingly. The Coastguard Authorities conduct searches and if any crew member is found in possession of any of the above articles, he would be liable to punishment as per local laws.

8. In case of shifting to anchorage, prior to your final sailing, you must inform the signal tower of your date and time of departure.

CIRCULAR: (1983). Please note the following Immigration Rules now prevail in the Port of Jeddah. Kindly see to it that these rules are strictly followed in order to avoid any problem to your crew and the vessel.

(AA) Shore Leave Pass Facilities:

1. Crew Shore Leave Pass will be issued by the Immigration Department for a maximum number of 10 crew members per day from any ship including crew requiring shore medical facilities and Master or other officers requiring consular service. Shore leave will be restricted to three hours only i.e. from 1100 hrs. to 1400 hrs.

2. Master should ensure that requisition for Crew Shore Leave Pass is handed-over to Agents' Crew Department in the afternoon of the preceding day so that necessary paper work is completed to avoid delay in obtaining permission next morning before 1100 hrs.

3. For vessels arriving during the day time, crew shore leave is not permissible the same day; passes will be issued the following day provided requisition is given to Agents as mentioned in No. 2 above.

4. For vessels arriving during the night, requisition must be given to the Agents in the morning and the passes will be arranged during the afternoon.

5. Emergency cases are exempted from the restrictions mentioned in 1, 2, 3 and 4 above.

6. In case of serious sickness of a crew member the Safety Department of the port of Jeddah must be informed immediately through Signal Tower instead of calling the Agents. Agents may also be informed for further assistance.

7. Crew shore leave is strictly prohibited after issuance of Sailing Permit.

(BB) Crew Sign-On:

1. Following particulars of crew arriving to join a vessel, must be communicated to the Agents at least 72 hours prior their date and time of arrival.
   (a) Full name of seaman.
   (b) Nationality.
   (c) Seaman's Book Number, date and place of issue.

2. Clearance by Airport Immigration Department of crew arriving without visa on international passport is strictly forbidden.

3. Crew arriving without visa to join a vessel must possess Seaman's Book otherwise they cannot be cleared by Airport Immigration Department.

4. Clearance by Airport Immigration Department of crew as mentioned in No. 3 above is granted only if the vessel which they are coming to join, has already arrived in the Port of Jeddah. If the vessel has not yet arrived the crew will remain in transit in the airport.

5. Crew arriving at night to join a vessel already in port, cannot be signed-on until next day and as such will have to stay for one night in an hotel. Crew arriving during the day but before noon, may be signed-on the same day.

(CC) Crew Sign-Off:

1. Following particulars for crew to be signed-off, must be communicated to the Agents at least 72 hours prior anticipated time of departure.
   (a) Full name of seaman.
   (b) Nationality.
   (c) Seaman's Book Number, date and place of issue.
   (d) Destination.

2. Because 72 hours' prior notice is required, as mentioned in No. 1 above, crew sign-off will not be possible from a vessel staying for less than 72 hours in the port unless the required repatriation of any crew has been communicated to the Agents prior to arrival of the ship.

3. Signing-off of crew without Seaman's Book is not permissible.

4. Any crew not holding ticket with confirmed seat, cannot be signed off.

5. Crew already signed-off by the Immigration Department will be cleared by the Customs a maximum of 6 hours before the departure time. With this restriction crew departing between 0100 to 0800 hrs., cannot be repatriated.

6. Vessel completing discharge prior completion of repatriation formalities of any crew, will have to stay at anchorage in order to disembark the crew member after completion of formalities.

(DD) The above Rules and Regulations will also be applied to vessels calling Jeddah for bunkers and/or provisions only.

SHIPMASTER'S REPORT: November 1986.

Report on Visit to Jeddah for Bunkers Only:

ETA Advice: Send ETA 96, 72, 48, and 24 hours in advance of arrival also update if ETA varying by more than 1 hour after 24 hour Notice is sent. Contact by VHF as soon as in range of Port Control.

Approach: Approach to the Port can be difficult, especially at night. There are a great deal of works in progress in and around the Port, which renders identification of navigational marks and shore characteristics difficult. The best aid to position fixing approaching the Port is Mismari Reef, which has a Racon on it, and shows up well on the radar. Approach is also made difficult by the fact that there were many ships at anchor on the occasion of this visit. (Over 50 vessels).

Anchorage: There are designated areas marked on Admiralty Chart No. 2599 (Approaches to Jiddah). The designated anchorage for vessels bunkering is Anchorage 'E'. However, due to the large number of vessels at anchor, anchorage has to be effected wherever there is sufficient anchor berth for the size of the vessel. (Port Control did not give any directions with regard to anchoring position, and only asked to be given time of anchoring and bearing and distance from Qaham Beacon, of anchor position).

Formalities: Agent and Customs board from a small tug size vessel, apparently used specifically for this purpose. They boarded more or less on arrival. Forms, etc. required are as detailed in final 'Notes'. Pilot ladder was used to embark and disembark these Officials. A heavy swell was running on the occasion of this visit, and it would have been impractical to have used the accommodation ladder only, although a combination rig could have been used.

Bunkering: Bunker barges of about 3,000 d.w.t. are used. These vessels operate from a much larger 'mother' ship. The barge that delivered this vessel's bunkers was rigged to come alongside starboard side to; but it can be ascertained by calling the 'mother' ship before arrival. Barge used 6 in. bunker hose, and midship bunker connection. (it would not be practicable to have used the after connection on this ship, due to the length of the bunker barge). On completion of bunkering, Bunker Receipts are signed and stamped in the usual way. Port Clearance is issued by bunker barge after bunkering formalities completed. Port Control must be informed of Port Clearance Number, after which vessel may sail.

Notes: On the occasion of this vessel's visit, a rather heavy swell was running at the anchorage. This rendered taking of dips in the bunker tanks rather difficult, and also due to ranging of the bunker barge alongside, it was not possible to check barge by ship's staff. Quantity of bunkers delivered is effected by using a flow meter on the barge. It was discovered after vessel had sailed, that there was a shortage of some 45 tonnes (in a consignment of 1,400 tonnes). However, at the time of taking the bunkers, it had not been possible to accurately gauge the vessel's bunker tanks due to the swell. (It may well be that the barge's meter was inaccurate, but in the light of the above, it is therefore important to check as closely as possible calculated quantity taken by ship's measurements, and any shortage, or suspected shortage noted).

Arrival Message: To be supplied to Port Management, Jeddah. (Either direct or through Agents).
1. Radio call sign.
2. Vessel's name.
3. Owner and Line – Ex-Owners, Charterers or Operators (full address, telex, cable, postal).
4. Nationality – flag, port or registry.
5. Agent at Jeddah.
6. Length overall.
7. Maximum draft (metres).
8. Gross registered tonnage.
9. Nett registered tonnage.
10. Previous names.
11. Build – year and place.
12. Type of vessel.
13. Deadweight tonnage.
14. ETA – changes of ETA.
15. Actual arrival draft.
16. Hazardous cargo in transit for other ports.
17. Lloyd's Register Number or other Registration Number.
18. The expected requirements for bunkers and water.
19. Economic speed of vessel.
20. Next port of call after Jeddah.
21. Last port of call before Jeddah – cargo on board.
22. Names of ports vessel called before arriving Jeddah (within last 2 months).

23. Vaccination Certificates valid against cholera.
24. Number of crew and their state of health.
25. Statement of Owner/Master that the vessel was never blacklisted by Arab League.
26. Master's Declaration for any arms and ammunition carried on board for cargo in transit or purely for the purpose of self defence, at least 48 hours prior vessel's arrival (failure to comply with these procedures will result in heavy fines and seizure of arms).
27. The following is also required:
    - (a) Type of radar.
    - (b) Frequency.
    - (c) Scan rate.
    - (d) Pulse width.
    - (e) Pulse peak power.
    - (f) Pulse repetition frequency.
    - (g) Beam width.

    If the vessel is equipped with several radars, the characteristics of each radar must be given.

Notes:

1. Send above as soon as possible after vessel receives orders for Jeddah.
2. No. 27, not required to be sent if this information has already been tendered on a previous occasion.
3. Above required even if making an off-limits bunkering call.
4. Vessels calling for bunkers only will also be required to submit the following Forms to Agent and Customs, who board on arrival.

4 Crew Lists.
2 Vaccination Lists.
2 Crew Effects Declarations.
2 Stores Lists.

All above documents can be presented on appropriate IMO Forms, except the Store Lists, which have to be on Saudi Arabian Forms for Customs. Forms will be provided if vessel not in possession.

5. Customs will seal bond and radio transmitter on clearing ship inwards.

SHIPMASTER'S REPORT: June 1988.
Vessel called in the Roads for bunkers.
The bonded stores are sealed. Crew are not allowed to have beer or personal refrigerators in their cabins. This includes the Master and all officers.
All beer and spirits must be placed in the bonded store prior to Customs boarding the vessel, otherwise severe fines may be imposed.

AUTHORITY: Jeddah Port Management, P.O. Box 9285, Jeddah 21188, Kingdom of Saudi Arabia. *Tel:* Jeddah (02) 6471200 (17 lines). *Telex:* (Arabic) 603446 SAEJ; (English) 601175 Ports SJ. *FAX:* (02) 6477411. *Cables:* Ports Jeddah. *Contact:* Mohammed Ali Bin Nasser Al-Ghaithy, Director General. Captain Mohammed Bin Abdel Aziz Al-Twejry, Marine Director.

AGENT: Gulf Agency Company Saudi Arabia, Algosaibi Centre, Andalus Street, Al Hamra, P.O.B. 2038, Jeddah 21451, Saudi Arabia. Ship-Shore traffic via Jeddah Radio/HZH. Tel: 6535060, after hours 6917952 (ext. 2419). Telex: 601047 ("Gaship Sj"). Fax: 6510860. Cables: "Gulfagency", Jeddah.

JU'AYMAH: 26.56 N. 50.03 E. (See Plan)

ALSO SEE "RAS TANURA – SECTIONS (A) AND (B)".

(A) JU'AYMAH CRUDE TERMINAL.
(B) LPG TERMINAL.

(A) JU'AYMAH CRUDE TERMINAL.

This section gives specific information regarding Ju'aymah Crude Terminal which includes the Single Point Mooring Berths and is to be read in conjunction with "Ras Tanura – Part A".

LOCATION: The Ju'aymah Crude Terminal loading facilities are located approximately 18 miles N.N.W. of the Ras Tanura Terminal and 7 miles offshore.

These facilities consist of an oil metering and manifolding platform, a terminal control platform and 6 Single Point Mooring Berths. The oil metering and manifolding platform is in the following position: Lat. 26° 54.8' N., Long. 50° 01.2' E.

Ju'aymah Crude Terminal: The terminal is a Saudi Aramco crude oil and fuel bunker loading facility designed for loading and topping-off deep draft tankers. The terminal consists of the following facilities:

An Oil Platform (130 ft. by 390 ft.) located in 50 ft. (15.24 m.) of water. This platform receives crude oil and fuel bunkers from the storage tanks on the shore to the S.S.W.

The platform is well lighted with general purpose lighting. In addition 1 fixed white light has been established on each corner of the platform with a range of visibility of approximately 5 miles. A Control Platform (70 ft. by 70 ft.) is located 150 ft. North of the oil platform and connected to it by a walkway bridge. This platform is marked by a fixed red aircraft warning light.

Single Point Mooring Buoys have been established between 1 and 4 miles to the N.E. of these platforms. Crude oil and bunkers are received at each buoy.

Each buoy is fitted with 2×24 in. floating crude loading hoses with 16 in. or 20 in. tail hoses and 1×12 in. floating bunker loading hose. The length of the string is approximately 1,100 ft. (335 m.).

When an SPM is removed ashore for maintenance, a marker buoy may be installed to indicate the position of the underwater pipeline and anchor chains.

PILOTAGE: *Pilot Boarding:* A Pilot/Mooring Master and an SPM Representative will board inbound vessels by helicopter if possible as advised.

They will advise the Master on all manoeuvres and operations relative to berthing, connecting and disconnecting hoses and unberthing. They will also provide all communications between vessels and shore during cargo loading and be the Saudi Aramco Representative with respect to safety observation and other requirements.

These two persons will remain on board the vessel throughout the loading and unmooring and suitable accommodation for them is to be provided.

Dependent on weather and other conditions, vessels will be advised by Ju'aymah Pilot/Radar to proceed to a position approximately 8 miles E.N.E. of Ju'aymah Platform and make a lee for the Pilot to board or for the launch carrying mooring and hose connecting equipment.
Pilot Boarding Position: Lat. 26° 53.5' N., Long. 50° 05.6' E.

INBOUND TRAFFIC PROCEDURE: See "Ras Tanura – Part B" – Traffic Regulations.
Vessels Proceeding Direct to Ju'aymah Crude Terminal: As per "Ras Tanura – Part A" – Navigation – Inbound Traffic Procedures to the Entry Buoy and to a position approximately 2.5 miles N.E. of Buoy 3A.
According to advice from Ju'aymah Radar should turn into the Ju'aymah Pilot Boarding Area to anchor or be berthed on arrival.
Vessels Proceeding from Northern Holding Anchorage to Ju'aymah Crude Terminal: Should enter the Separation Scheme under advice of Ju'aymah Radar and proceed as above.
Max. Draft in Arrival Channel: The max. draft is 70 ft. (21.34 m.) for vessels proceeding along the Inward Channel of the Ras Tanura Separation Scheme bound to Ju'aymah Crude Terminal.
Vessels Proceeding from Ras Tanura Terminal to Ju'aymah Crude Terminal: The vessel should then proceed, exercising due diligence, through the Caution Area and with the advice of Ras Tanura Port Radar and Ju'aymah Radar into the Ju'aymah Pilot Boarding Area either to anchor or be berthed on arrival.
Prohibited Area: No vessel shall enter the Prohibited Area without a Pilot on board. Under no circumstances shall anchors be used in the vicinity of the berths due to the existence of numerous submerged pipelines.

ANCHORAGE: The area West of Beacon No. 3 is used as a final holding anchorage and for vessels awaiting arrival clearance, cargo clearance, sailing documents, etc.
Vessels must leave the inbound route to the berths clear when selecting an anchoring position in this area.

RESTRICTIONS: Ships securing to Smit Mooring Brackets at Ju'aymah SPM Terminal will only be berthed in wind speeds of less than 25 m.p.h. Additionally, this parameter may be further reduced, at the discretion of the Berthing Pilot, should he consider that other forces, i.e. sea state, be prejudicial to a safe mooring operation.

MAX. SIZE: Max. arrival draft 21.34 m. No limitation on sailing.

HEALTH: *Pratique and Quarantine:* At Ju'aymah Crude Terminal, no person is permitted to board a vessel, nor is she permitted to proceed to the berth until inward clearance formalities have been completed and the Authorities have visited the vessel. Vessels topping off from Ras Tanura Terminal will already have completed these formalities.
However, during adverse weather conditions permission may be given by Government Officials for the Pilot to board and moor the vessel before clearance is given. If this occurs and weather conditions continue to preclude clearance during the loading operation, the vessel must when unmoored anchor and wait for clearance formalities to be completed.

RADIO: *Underway:* At all times when underway in the Arrival Channel and Pilot Boarding Area, vessels must maintain contact with Ju'aymah Radar on VHF Channel 13 and with Ju'aymah Pilots on Channel 16 or one of the following VHF working Channels: 10, 11, 12, 13, 14.
At Anchor: A good listening watch should be maintained on VHF Channel 16.
Vessels will be called by Ju'aymah Pilots or Ju'aymah Radar with berthing and other information and instructions.
Under Pilotage and at Berth: The Pilot/Mooring Master will carry a portable intrinsically safe multi-channel radio by means of which all communications regarding approach, mooring and cargo loading will be made. These radios are fitted with an emergency tag which activates an alarm at the Control Platform when removed.
He will also carry battery chargers for these radios during the vessel's stay in the terminal.
In addition, the vessel's VHF radio should be available on the bridge and in the Cargo Control Room for back-up communications.

BERTHING: *Preparations:* Line handling during mooring and unmooring is to be performed by the ship's staff under instructions of the Pilot/Mooring Master.
Vessels assigned to the Ju'aymah Crude Terminal SPMs must be fitted as recommended in the OCIMF publication "Standards for Equipment Employed in Mooring of Ships at Single Point Moorings".
Mooring to strops secured to bitts is not permitted.
During the approach, while mooring and while secured in the berth, the vessel's anchors MUST be secured by stoppers to prevent accidental dropping with subsequent damage to the undersea pipelines and equipment.
Both port and starboard derricks should be rigged ready to lift the mooring and hose connecting equipment from the launch on either side. A trolley should be available to transport this equipment about the vessel's deck.
The following vessel's equipment should be ready on forecastle head:

- (a) Two messenger lines 3 in. to 3.5 in. circumference (24 mm. to 28 mm. dia.) 500 ft. (150 m.) in length.
- (b) Sledge hammer, large crowbar, large marlin spike, adjustable wrench/spanner.
- (c) Bag of sawdust or sand.
- (d) Large flashlight (for night mooring).

Procedure – Mooring:

(a) Saudi Aramco mooring and hose connecting equipment will be lifted aboard the tanker from the launch on either the port or starboard side by means of the ship's derrick.
(b) Ship's staff will prepare the forecastle head for the mooring operation at the instructions of the Pilot/Mooring Master.
(c) As the vessel approaches the berth, a mooring boat will bring the port hawser pick-up rope (10 in. circumference – 80 mm. diameter) and make it fast to the messenger.
(d) At the boat's signal, the pick-up rope is hove on deck and by means of this, the chafing chain is lifted in the bow chock and to the mooring bracket.
(e) Under the direction of the Mooring Master, the chafing chain is secured in the vessel's mooring arrangement.
(f) Ease back on the pick-up rope until the weight is taken up.
(g) Repeat for the second mooring hawser.

Procedure – Unmooring:

(a) Take the weight of the mooring assembly on the pick-up rope, using the windlass.
(b) Disconnect the chafing chain from the mooring arrangement.
(c) Slowly slack the pick-up rope until the support buoy is in the water and taking all of the weight of the chain.
(d) Pay out the pick-up line either to a mooring boat or as the ship clears the berth.

BERTHING FACILITIES: At the berths, cargo hose connections are 16 in. or 20 in. and bunker hose connections are 12 in. arranged to be connected abaft the crude loading connections. All flanges are 150 ASA.

In order to avoid delays, vessels should have reducers ready at the port side manifold to adapt to these sizes. Maximum crude loading rate is 130,000 bbls.p.h., and maximum bunker loading rate is 5,000 bbls.p.h.

Berth No.	*Lat.* N.	*Long.* E.	*Minimum Water Depth* (m.)
31	26° 55.6'	50° 02.4'	32.1
32	26° 56.49'	50° 02.15'	33.8
33	26° 57.0'	50° 02.7	34.0
34	26° 56.6'	50° 04.3'	35.0
35	26° 55.6'	50° 03.6'	32.0
36	26° 55.6'	50° 04.9'	32.2

Note: The following crudes are available at Ju'aymah Crude Terminal: Arabian Light Crude, Arabian Medium Crude, Arabian Heavy Crude. Arabian Berri Crude is NOT available.

LOADING: *Loading Hose Connection and Disconnection:* In order to secure the floating hoses to the vessel's manifold, the manifold arrangements must be as recommended in the OCIMF publication – "Standard for Tanker Manifolds and Associated Equipment (May 1975)" and "Tanker Manifolds and Associated Equipment (3rd Edition 1981)".

Preparation – On the Port Side:

(a) Derrick rigged for maximum height and load lifting capacity (10 tons minimum for 16 in. hoses and 15 tons minimum for 20 in. hoses). If possible, the topping lift of the derrick shall be on its own winch.
(b) Two 16 in. or 20 in. 150 lb. ASA flange connections on selected cargo manifolds and one 12 in. 150 lb. ASA flange on the after bunker manifold.
(c) Drip trays, sawdust or sand, dispersant and fire fighting equipment in position.
(d) The following are normally supplied by Saudi Aramco but their presence will prevent delays in case of deficiency or malfunction: Chain block (not normally supplied), Handy Billy, heaving line, spare spanners, spare wire strop, spare bolts.

Procedure – Connecting Hoses: Connecting and disconnecting of cargo and bunker hoses is to be carried out by ship's staff under instruction of Mooring Master.

(a) Lower derrick hook to the mooring launch which will connect it first of all to the forward hose.
(b) Heave up until the blank flange is level with the hose rail.
(c) Unshackle hose snubbing wires and secure guy ropes to the flange.
(d) Continue heaving up the hose as directed by the Mooring Master.
(e) Secure snubbing wires in a manner to facilitate possible slackening as directed.
(f) Lower the hose to bring the hose flange to the manifold and check the alignment of the flanges.
(g) Lower the hose onto the drip tray and remove the blank flange.
(h) Using the nylon band sling supplied, lift the hose and connect it to the manifold. Never use a wire strop for lifting a cargo hose.

USE ALL OF THE BOLT HOLES AND A GASKET.

The second cargo hose and the bunker hose are connected in the same way.

After all hoses are connected, the cargo hoses must be supported in way of the vessel's side rail by means of the nylon bands supplied and the vessel's derrick.

Procedure – Hose Disconnecting: On completion of loading cargo or bunkers manifold valves must NOT be closed until the Mooring Master directs. This is important for line clearing.

(a) Strop the after hose to the derrick hook, take the weight and disconnect the flange.
(b) Replace the blank flange using *all* of the bolts and a new gasket. Tighten the bolts in sequence to avoid uneven tension on the flange.
(c) Lower hose to deck and secure.
(d) Repeat with forward hose and wait until backfilling of the hoses is complete.
(e) Bunker hose should be disconnected and securely blanked as soon as bunkering is completed and secured on deck until cargo loading is completed. It should be lowered into the water during backfilling of the cargo hoses.
(f) When backfilling is completed, secure the derrick hook to the lifting hook of the after hose and raise the hose until the weight is taken off the snubbing wires.
(g) Release the snubbing wires, lower the hose to rail level and shackle the snubbing wire to the flange.
(h) Lower the hose end into the water and trip the hook to release.
(i) Repeat for the forward hose.

Return all Saudi Aramco tools and equipment to the steel basket, stow in a seamanlike manner and prepare for lowering to the launch on either the port or starboard side dependent on weather conditions.

Loading Procedures: The loading operation will be controlled by radio voice communications between the Mooring Master on the loading vessel and the Control Platform.

All operations including switching of tanks and topping-off must be directly and personally supervised by a ship's officer. Upon being informed by the loading vessel's personnel that the vessel is ready to start loading, the Pilot/Mooring Master will request the loading to proceed according to the previously agreed plan with respect to start-up rates, maximum loading rates and topping-off rates.

Under no circumstances is the flow to the vessel to be stopped by the vessel whilst switching tanks, etc. Need for emergency shutdown of loading aboard the vessel must be communicated by radio from the loading vessel to the Control Platform.

In the event of failure of the radio communications system, the vessel will sound five long blasts on the vessel's whistle followed by 1, 2, 3, 4, 5 and 6 short blasts for a vessel at Berth 31, 32, 33, 34 or 36 respectively.

Loading operations will be stopped and will not be resumed until communications have been re-established.

It is the responsibility of the vessel to advise the Mooring Master to shut down cargo and bunker loading when the vessel's cargo and bunker requirements are met.

Cargo Calculations and Release: The American system of cargo measurement in Barrels with temperatures in fahrenheit degrees according to the ASTM-IP is used by Saudi Aramco and the Saudi Arabian Government for cargo measurement purposes. Ship's cargo loaded figures should be available in these units. Generally, if the difference between average normal ship measurement and official cargo measurement is satisfactory the ship will be released to sail, and the Pilot/Mooring Master will leave after unmooring is complete. If the ship/shore difference is large, the Pilot/Mooring Master will survey the cargo according to laid down Saudi Aramco inspection procedures after unberthing and report his findings to Saudi Aramco Terminal Planners. The ship is required to stay until released by Saudi Aramco if ship/shore difference occurs.

Departure: Upon completion of unmooring, the vessel will make a lee for the mooring and hose connecting equipment to be discharged into the launch on either port or starboard side. Depending upon conditions, the Pilot/Mooring Master and SPM Representative may leave on the launch or later by helicopter. A separate departure channel has been provided for all vessels using the Ju'aymah facilities. The vessel will proceed via the Departure Channel between Beacon J1 and Buoy J2 and thence towards the Exit Buoy JE. The vessel should then set an Easterly course North of JD Buoy to the Ju'aymah Light Float.

EMERGENCY PROCEDURES: In addition to the general principles described in Part A of "RAS TANURA", the following apply to Ju'aymah Crude Terminal:

(a) Should a fire or explosion occur at a buoy mooring, the Oil platform or Control platform, all cargo operations will be stopped and all vessels should stand by to disconnect and unmoor when so instructed by the Pilot/Mooring Master or Port Captain, or when the need to take such action becomes self-evident.

(b) The local signal for emergency is a continuous ringing of the vessel's alarm bells supplemented by more than 6 short blasts followed by 1 long blast of the vessel's whistle. Assistance may be summoned on VHF Channel 16. Location, nature of emergency and type of assistance required should be given. (See "RAS TANURA" Part B – EMERGENCY SIGNAL).

BALLAST: *Arrival Ballast Condition:* Due to the exposed location at the Ju'aymah berths, tankers should arrive with sufficient clean water ballast for safe handling having due regard to the existing sea and weather conditions. Unless otherwise instructed, vessels must arrive with propellers just covered and trimmed not more than 8 ft. (2.44 m.) by the stern.

GENERAL: *Boarding Vessels at Berth:* Small craft are not allowed in the vicinity of the vessel and no one is permitted to board or leave a vessel while cargo loading operations are in progress. Should it become urgent to board or leave for any reason during cargo loading, the Pilot/Mooring Master must be contacted to request permission to shut down the cargo loading operation while the small craft is alongside.

S.P.M. Maintenance: In addition to the mooring boats a larger maintenance vessel works on hoses, buoys and sub-sea systems.

In bad weather, this work is extremely difficult and involves possible danger to personnel.

For this reason, vessels are requested to give as much assistance as possible by taking seamanlike care of the mooring and hose equipment and returning it to the water ready for the next tanker and in such condition as they would like to find it.

Hose/hawser maintenance is expensive and if Saudi Aramco judges that a vessel has misused any hose or hawser the vessel will be liable for the expenditure incurred in making repairs.

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Contact: Captain A.K.Al Yami, Port Captain.

(B) LPG TERMINAL

This section gives specific information regarding Ju'aymah LPG terminal loading facilities and is to be read in conjunction with "Ras Tanura" – Part A.

PILOTAGE: *Pilot Boarding Position:*
In normal conditions of weather and traffic, an arriving vessel will be advised to proceed from the Ju'aymah Pilot Boading Area by a route South of Buoy J4 to a position 1.5 miles S.E. of SPM 36 to make a lee to pick up the Harbour Pilot. The Pilot will then advise on manoeuvring the vessel to the assigned berth.

Harbour Pilot and Assistant Harbour Pilot will remain on board to assist with efficient turnaround of vessel and will require accommodated and meals.

INBOUND TRAFFIC PROCEDURES: See "Ras Tanura – Part B" – Traffic Regulations.
Vessel Proceeding Direct to Ju'aymah LPG Terminal: As per "Ras Tanura – Part A – Navigation – Inbound Traffic Procedures" to the Entry Buoy and make for a point approximately 2.5 miles N.E. of Buoy 3A. Under advice of Ju'aymah Pilots and Ras Tanura Port Radar turn into the Ju'aymah Pilot Boarding Area to anchor or to be berthed on arrival.
Vessel Proceeding from Northern Holding Anchorage to Ju'aymah LPG Terminal: Enter the traffic separation scheme under advice of Ras Tanura Port Radar and Ju'aymah Pilots and proceed as above.
Vessel Proceeding from Ras Tanura Terminal to Ju'aymah LPG Terminal: Should depart Ras Tanura Terminal and follow the departure channel toward the mid-channel marker RT 1. The vessel should pass through the Caution Area with the advice of Ras Tanura Port Radar and Ju'aymah Pilots into the Pilot Boarding Area either to anchor or to be berthed on arrival.

ANCHORAGES: *Ju'aymah Pilot Boarding Area:* The area West of No. 3 Beacon is used as a final holding anchorage and for vessels awaiting arrival clearance, cargo clearance, sailing documents, etc. as for Ju'aymah Crude Terminal. Ships must only use this anchorage when directed to do so by Ju'aymah Pilots and must leave the inward route to the SPM berths clear when selecting an anchoring position in this area.
Ju'aymah LPG Anchorage: This anchorage has been laid out approximately 2.5 miles N.E. of the loading pier to provide a tank cooling area for gas tankers. The depth of water varies between 16 m. and 30 m. (52 ft. and 98 ft.) and holding ground is fair.

MAX. SIZE: Max. arrival draft 16.37 m. Max. sailing draft 23.00 m.

RADIO: *General:* The onshore production facilities of the LPG Terminal are known as the NGL (Natural Gas Liquids) Plant, etc. This name is often used in reference to the Terminal. No LNG (Liquefied Natural Gas) is exported from the Terminal.
Underway: In the arrival channel, vessels must maintain contact with Ju'aymah Radar on VHF Channel 13.
At Anchor: A good listening watch should be maintained on VHF Channel 16 for information and instructions from any of the following sources:
(a) Ras Tanura Pilots,
(b) Ju'aymah Pilots,
(c) Saudi Aramco Terminal Planners,
(d) Ju'aymah Radar.
Under Pilotage: The Harbour Pilots carry portable, intrinsically safe radios for contact with tugs which operate on Saudi Aramco dedicated mooring frequencies. In addition, the ship's main VHF radio should stand by on Channel 13 for back-up communication.
At Berth: A portable intrinsically safe radio will be supplied to the vessel by the terminal. This radio operates on a UHF frequency dedicated to each berth by means of which constant communication can be maintained during loading. This radio is fitted with a pull-off tag which, when removed, activates an alarm on the radio console in the Control Room and the Pilot Office.

BERTHING: *Mooring Procedure:* Mooring boats are not used at Ju'aymah LPG Terminal. Vessels should have heaving lines ready to take the shore messenger after landing alongside. The messenger is then made fast to the vessel's mooring line which is then hove ashore by a capstan. Heavy wires should be sent one at a time and ropes two at a time. Jetty crews are continuously on duty to handle mooring lines but will not handle mooring lines aboard vessels.

BERTHING FACILITIES: The 2 loading berths are situated on opposite sides of a platform aligned 335° true compass bearing. Berth 51 being the East (outer) berth and Berth 52 being the West (inner) berth. Minimum water depth at the berths is approximately 78 ft. (23.8 m.) at ISLW (Indian Springs Low Water). There are 4 breasting dolphins at each berth and 6 mooring dolphins. The tower crane located in the centre of the platform is used for moving operational and maintenance equipment. RLPG is loaded via 16 in. LPG loading arms. Maximum loading rate is 15,000 bbls.p.h. per arm. Therefore combined maximum for 2 grades is 30,000 bbls.p.h. Each berth is equipped with 4 LPG loading arms each of which may be used for butane liquid, propane liquid or vapour return. The loading arm connections can be adjusted to fit 12 in., 14 in. or 16 in. 150 ASA flanges. All LPG loading arms are fitted with quick connect/disconnect hydraulic couplers (QCDC). Each LPG loading line has an associated circulation return line. The bunker loading connections can be adjusted to fit 6 in. or 8 in. 150 ASA flanges. One bunker/black diesel loading arm is located at each side of the LPG loading station.

Both fuel oil bunkers and marine diesel oil are available at the Ju'aymah LPG berths. The nominal loading rate for fuel oil bunkers is 5,000 b.p.h. and for marine diesel oil is 600 b.p.h. These can be loaded through both of the 8 in. loading arms located on either side of the LPG loading station.

LOADING: *Trim and Stability:* During loading and deballasting operations, the vessel should at all times be adequately stable and in good trim to leave the berth at short notice in the event of an emergency. Excessive lists and trims are not permitted.
Loading Arm Connections: Jetty crews are on duty continuously to handle loading arms and make all connections and disconnections. All loading connections are equipped with electrical insulated flanges therefore ship to shore bonding wires are not required.

Due to the size and bulk of the QCDC couplers, a clear area around each manifold flange of at least 60 cm. (24 in.) is required.The vessel should have suitable 150 ASA reducers and spool pieces fitted to the manifolds it is intended to use.
Loading Procedures: Vapour line must be connected prior to loading LPG cargo of coolant. All excess vapour which cannot be handled by the vessel's recovery equipment will be metered to flare. It is the responsibility of the vessel to advise the jetty operators to shut down cargo and bunker loading when the vessel's requirements of cargo and bunkers are met.

Special regulations govern the acceptance and loading of gas tankers in the Port of Ras Tanura which includes Ju'aymah LPG Terminal.
Cargo Calculations: The American system of cargo measurement in BARRELS with temperatures in fahrenheit degrees according to the ASTM-IP is used for cargo measurement at this Terminal. An independent Inspection Agency is appointed by the Offtaker/Buyer to determine cargo quantity loaded aboard.
Departure: Upon completion of loading, cargo calculation and disconnecting cargo arms, the vessel will be unmoored and the Harbour Pilot will disembark. The vessel will then be free to leave the Port via the Ju'aymah Departure Channel if Early Departure Procedure is used and all relevant documentation is on board. Otherwise, the vessel will proceed to the Ju'aymah Pilot Boarding Area or Cooling Anchorage to await document delivery by the Agent, at the direction of the Pilot.

Contact with Ju'aymah Radar must be maintained on VHF Channel 13 when in the Ju'aymah Crude Terminal Approach Area.

GENERAL: *Emergency Procedures:* In addition to the general principles described in Part A of "RAS TANURA" the following apply to Ju'aymah LPG Terminal.

In the event of a fire or explosion at the pier or on board a vessel which is berthed alongside at the Terminal, the local alarm signal will be a series of 10 short blasts on the ship's whistle at which an Emergency Shutdown system will be activated to immediately stop all cargo loading to vessels at the berths. (See "RAS TANURA – Part B" EMERGENCY SIGNAL). In case of a situation requiring urgent removal of a ship from the berth, a system of sequential automatic loading arm disconnection is fitted. This system will only be activated after very careful evaluation of the situation by all parties.
Duty Harbour Pilot and Tugs: Whenever a vessel is at one of the berths at the LPG Terminal, a Harbour Pilot will stand by on the loading platform in constant communication with the vessel(s) and jetty staff by means of the dedicated UHF radios. Pilots on duty for 8 hours (0600 – 1400, 1400 – 2200 and 2200 – 0600 hrs.).

Tugs stand-by moored in sight of both loading berths.

AUTHORITY: Saudi Arabian Oil Company (Saudi Aramco), Terminal Pilotage and Services Division, Room N-2004, Ras Tanura, 31311 Saudi Arabia. *Tel:* 966-3-673-4252. *Telex:* 801220 ASAO SJ/Raspilot. *FAX:* 966-3-673-1669. *Contact:* Captain A.K.Al Yami, Port Captain.

AGENT: See "Ras Tanura".

JUBAIL: 27.01 N. 49.40 E. (See Plan)

ALSO SEE "GENERAL" BEFORE FIRST PORT.

(A) COMMERCIAL PORT.
(B) KING FAHD INDUSTRIAL PORT IN JUBAIL.

(A) COMMERCIAL PORT.

LOCATION: The Jubail Port Complex is located on the East Coast of the Kingdom of Saudi Arabia, approximately 80 km. North of Dammam. The Port Complex comprises 2 ultramodern facilities: The Commercial Harbour to the South and The King Fahd Industrial Harbour to the North. These harbours have separate entrances and are under separate port managements.

PORT LIMITS: The boundaries of the harbour and anchorages of King Fahd Industrial Port at Jubail and the Commercial Port of Jubail coincide and are given below:
Harbour Boundaries:

All Port property enclosed by a fence following the shore line and extending seawards to a line running between the following points:

Lat. 27° 01' 18" N.,	Long. 49° 38' 33" E.
Lat. 27° 00' 33" N.,	Long. 49° 40' 14" E.
Lat. 27° 00' 30" N.,	Long. 49° 40' 48" E.
Lat. 27° 01' 39" N.,	Long. 49° 42' 39" E.
Lat. 27° 02' 51" N.,	Long. 49° 43' 48" E.
Lat. 27° 04' 42" N.,	Long. 49° 46' 24" E.
Lat. 27° 11' 00" N.,	Long. 49° 53' 30" E.
Lat. 27° 14' 18" N.,	Long. 49° 58' 51" E.
Lat. 27° 16' 15" N.,	Long. 49° 57' 30" E.
Lat. 27° 17' 30" N.,	Long. 49° 55' 30" E.
Lat. 27° 15' 21" N.,	Long. 49° 51' 30" E.
Lat. 27° 12' 42" N.,	Long. 49° 52' 09" E.
Lat. 27° 10' 30" N.,	Long. 49° 50' 00" E.
Lat. 27° 10' 32" N.,	Long. 49° 46' 54" E.
Lat. 27° 08' 12" N.,	Long. 49° 45' 06" E.
Lat. 27° 06' 00" N.,	Long. 49° 45' 15" E.
Lat. 27° 05' 54" N.,	Long. 49° 42' 42" E.
Lat. 27° 05' 54" N.,	Long. 49° 40' 48" E.
Lat. 27° 05' 21" N.,	Long. 49° 40' 48" E.
Lat. 27° 03' 42" N.,	Long. 49° 36' 57" E.

DOCUMENTS: On arrival at the Port, the Master of the vessel shall present or make available for inspection the following papers and documents:

Log Book.
Registration Certificate.
Classification Certificate.
Load Line Certificate.
Building Safety Certificate.
Safety Equipment Certificate.
Radio and Wireless Certificate.
Cargo Gear Certificate.
Marine Health Declaration.
Vaccination List.
Derat Certificate.
Clearance from Last Port of Call.
Israel Boycott Declaration.
Ship's Stores List.
Grain Shipping Certificate (if the vessel is carrying a grain shipment).
Mail Transport Documents in accordance with the International Postal Treaty (if any mail is carried aboard).
5 copies of the Crew List.
5 copies of the Passenger List.
2 copies of the List of Personal Effects of Crew and Passengers.

To obtain Port Clearance the Master of the vessel shall present or make available for inspection the following papers and documents to Port Management:

Log Book.
Registration Certificate.
Classification Certificate.
Load Line Certificate.
Building Safety Certificate.
Safety Equipment Certificate.
Radio and Wireless Certificate.
Port Stevedore Outturn Report.
Receipt for payment of Custom's Duties.
Shipping Note and Cargo Manifest for any cargo loaded.

Cargo papers and documents: The following papers and documents must be submitted to the Port Management not later than 48 hours prior to arrival:

5 copies of the Cargo Manifests in English.
10 copies of the Original Manifests translated into Arabic.
2 copies of the Cargo Stowage Plan.
2 copies of the Hatch List or Bay Plan.
2 copies of the List of Dangerous/Hazardous Cargo for Discharge.
2 copies of the List of Dangerous/Hazardous Cargo in Transit.
2 copies of the List of Heavy and/or Awkward Cargo.
2 copies of the List of any Wine, Spirits and Narcotics, or in the absence of which a "Nil" return.
A Declaration of Type of Reefer Cargo.
An Application for Discharge Permit.

PILOTAGE: Pilotage is compulsory for all vessels of more than 150 n.r.t. Pilots available 24 hours a day, 7 days a week. Pilots will board in the vicinity of No. 7 Channel Buoy. Port Control Station is continuously manned, to be contacted on Channel 16, vessels requiring a Pilot shall use the International Signals. Notice of ETA refer to Rules and Regulations for Saudi Arabian Seaports, Part 1, Para 2.

Pilot Boarding Position:
Lat. 27° 07' 00" N. Long. 49° 47' 00" E.

ANCHORAGES: There are 3 anchoring places: Freighter Anchorage, Tanker Anchorage and Explosives Anchorage, areas between the following buoys and positions:

Inner Anchorage:

Light Buoy "7/ANCH"	Lat. 27° 06' 00" N.	Long. 49° 45' 15" E.
"ANCH 4"	Lat. 27° 08' 12" N.	Long. 49° 45' 06" E.
"ANCH 3"	Lat. 27° 10' 30" N.	Long. 49° 47' 03" E.
"5/ANCH"	Lat. 27° 10' 30" N.	Long. 49° 50' 00" E.

Outer Anchorage:

Light Buoy "3/ANCH"	Lat. 27° 12' 42" N.	Long. 49° 52' 30" E.
"ANCH 2"	Lat. 27° 15' 21" N.	Long. 49° 51' 30" E.
"ANCH 1"	Lat. 27° 17' 20" N.	Long. 49° 55' 30" E.
"1/ANCH"	Lat. 27° 16' 09" N.	Long. 49° 57' 21" E.

Explosives Anchorage:

Light Buoy "EXPL 1"	Lat. 27° 02' 00" N.	Long. 49° 50' 22" E.
"EXPL 2"	Lat. 26° 58' 19" N.	Long. 49° 51' 02" E.
"EXPL 3"	Lat. 26° 56' 49" N.	Long. 49° 52' 47" E.
"EXPL 4"	Lat. 26° 55' 41" N.	Long. 49° 51' 35" E.
"EXPL 5"	Lat. 26° 57' 32" N.	Long. 49° 49' 20" E.
"EXPL 6"	Lat. 26° 59' 50" N.	Long. 49° 49' 56" E.

RESTRICTIONS: The Port can be approached 24 hours a day.

MAX. SIZE: Berths No. 1 to 8: Max. acceptable draft 11.4 m.
Berths No. 9 to 16: Max. acceptable draft 13.6 m.

HEALTH: Quarantine Free Pratique as per International Rules and Regulations. Health Officer will board when the ship is moored.

VHF: Jubail Port Control continuous watch is maintained on Channel 16. Working on Channel 17. Radar Surveillance Channels 64 and 66.

RADAR: Surveillance and Control System Operational.
Position: Lat. 27° 11' 39" N., Long. 49° 57' 26" E.
Structure: Grey circular concrete tower with white radar scanners atop.
Height: 43 m. from ground to radar antenna.
Light: Fixed red warning light atop antenna.

Continuous radar surveillance is maintained by the Saudi Ports Authority over the whole extent of the modified Jubail Ports Approach Channel. All ships should inform Jubail Ports Control on VHF Channel 66 prior to entering or crossing this approach channel.

TUGS: Tugs ranging from 1,500 h.p. to 5,500 h.p. are stationed at Jubail, mooring launches assist in berthing manoeuvres. All tugs are fitted with fire fighting equipment.

BERTHING: The following categories of berth with a draft range from 12.0 m. to 14.0 m. are available — General Cargo, Multi-Purpose, Container Terminal, Ro-Ro for stern and quarter ramp vessels.

Adequate coverage and open storage space is available in the form of warehouses, transit sheds, container terminal with plug-in facilities for reefer and containers/trailers (480V, 60 Hz) Ro-Ro terminal, container freight station, vehicle parks, general cargo storage, empty container storage area.

Cargo Handling Facilities:
Forklifts ranging up to 35 tons.
Head trucks and tow motors.
Trailers.
Chassis and cargo dollies of up to 100 tons.
Weighbridges of 60 tons capacity.

Cranes:
Mobile Cranes up to 100 tons.
One crane 200 tons capacity.

Specialised Cargo Handling Facilities:
Container Gantry Cranes 30.5 tons under spreader.
Transtainers of 30.5 tons under spreader.
Container chassis.

STEVEDORES: First shift: 0700 – 1900 hrs., second shift: 1900 – 0700 hrs., 7 days a week. Sufficient gangs available to work 4 hatches on every vessel.

Minimum discharge rates breakbulk cargo: 1,000 tons per berth per day. Container terminal: 20 TEUs per workable crane per hour.

MEDICAL: Full hospital facilities available, arranged by the Agents.

DENSITY: 1030.

FRESH WATER: Available, arranged through Agent.

FUEL: Fuel oil, marine diesel and marine gas oil are available, arranged through Agent.

CONSULS: American Consul General at Dhahran.

SURVEYORS: International Marine Surveyors and Classification Society Surveyors are on call from Dammam.

GANGWAY/DECK WATCHMEN: The Coast Guard will station a guard at the gangway to prevent unauthorised boarding and landing.

CUSTOMS ALLOWANCES: Possession and/or consumption of alcoholic beverages including beer, table wines and liquors is strictly prohibited in Saudi Arabia. All alcoholic beverages, magazines and cameras are to be under lock and key during vessel's stay in port.

No restrictions on tobacco and cigarettes.

HATCHES: Opening and closing is carried out by stevedores.

AIRPORT: Dhahran Airport 90 km.

TIME: Local time is GMT plus 3 hours. All ETAs and other messages should be made in local time.

HOLIDAYS: No holidays apply for stevedores.

TELEPHONES: Available.

SHORE LEAVE: To be arranged through Agents.

REGULATIONS: See "Rules and Regulations for Seaports" issued by the Co-operation Council of the Arab States in the Gulf.

PORT PROCEDURES: Also see "General" before first port.

Notification to Jubail Port Management:

1. The Owners/Charterers of vessels bound for Jubail with cargo must give preliminary notice of the vessel's intended arrival to the Port Management by telex or cable either directly or through their Agents on arrival at the first or sole loading port, before loading commences. ETA and estimated quantity of cargo by type must be given with the preliminary notice.

2. On completion of loading cargo the following information must be sent to the Port Management by telex or by cable either directly or through the Agent.

(a) Vessel's name.
(b) Flag.
(c) Length overall.
(d) Expected draft on arrival.
(e) ETA.
(f) Cargo particulars, including nature, weight, tonnage and stowage by hatches.
(g) Any dangerous cargo being carried for other destinations.
(h) If dangerous cargo is being carried, the quantity and class in accordance with the IMDG Code whether to be discharged or in transit.
(i) Expected requirements for bunkers and water.
(j) Name of vessel's Agent.

3. A further notice of ETA is to be sent 5 days, 2 days and 1 day prior to arrival at the port.

Vessels Failing to give Required Notification:

Any vessel failing to comply with the requirements under paragraph 1, above, or arriving later than expected under the revised ETA, may lose its berthing registration.

Cargo Papers and Documents:

1. The following papers and documents must be submitted to the Port Management no later than 72 hours (for vessels with more than 200 Bills of Lading) or 48 hours (other vessels).

Prior to arrival:

(a) 5 copies of the Cargo Manifests for discharge, including any additions or amendments in English:
10 copies of the original Manifests translated into Arabic.
(b) 2 copies of the Cargo Stowage Plan.
(c) 2 copies of the Hatch List or Bay Plan.
(d) 2 copies of the List of Dangerous/Hazardous Cargo for discharge.
(e) 2 copies of the List of Dangerous/Hazardous Cargo in transit.
(f) 2 copies of the List of Heavy and/or Awkward Cargo which requires special equipment.
(g) 2 copies of the List of any Domestic Wine or Spirits or Cargo of such nature on the vessel and its location or, in the absence of which, a nil return.
(h) A Declaration of Type of Reefer Cargo.

2. All copies of the Manifests must be taken from the Master Manifest.
3. The List of Dangerous/Hazardous Cargo has to show:
   (a) The technical name.
   (b) The IMDG Class and UN number.
   (c) The quantity of each consignment.
   (d) The location on board respectively in each container or on each trailer or in each barge.
4. Non-compliance will lead to penalties and/or fines.

General Regulations for Cargo Stowage and Handling:

1. The stowage of cargo bound for ports in the Kingdom of Saudi Arabia must be arranged to ensure simultaneous and optimum rate of discharge from the maximum numbers of hatches compatible with the requirements of sea-worthiness.

2. Where practicable all general and bagged cargo of uniform type and size is to be stacked and secured on pallets to facilitate quick discharge.

3. Bundled steel, profile iron, rebars, etc. shall be fitted with slings or lifting points suitable for multiple handling.

4. Steel sheets shall be strapped and stacked in bundles of approx. 2 tonnes each. Wooden bearers and/or spacers shall be used in loading the bundles to facilitate discharge.

5. Masters and shipping Agents are to instruct their stevedoring contractors at loading port to execute complete separation by Bills of Lading and the Manifest, and will be held responsible for non-compliance with this regulation.

6. No damaged package or item is to be discharged from any vessel, barge, pontoon or handling craft until it has been repaired or repacked in such a manner as to permit it to be handled without further loss or damage to contents of the package or the item itself.
   (a) Where the original outer carton, box or bag is replaced, the replacement carton, box or bag shall be made in the same manner to allow it to be identified with the Bill of Lading and the manifest.
   (b) The Port Management has the right, after notifying Customs, Authorities and ship's Agent concerned, to get rid of or destroy damaged good which may cause harm to installations or public health at the expense of the Owner of the goods or the ship's Agent.

Out-turn Report:

1. After completion of the discharging operation of a vessel the Port will furnish an out-turn report which shall indicate the cargo discharged. The out-turn report must be signed by the ship or ship's Agent. Refusal to sign does not invalidate the report.

2. The ship's Agent has the option of conducting his own counter-tally. Where this is not done, the Port tally must be accepted. If an independent counter-tally is undertaken by the shipowner/Agent, the Port tally supersedes.

3. The cargo handed over into the custody of the Port shall remain at the entire risk and responsibility of the shipowner or its Agents or owner of the goods while on the port premises. The Port Management shall not be responsible in any way for any damage or loss that may occur to goods while within the port premises, whether such damage or loss was the result of accident or negligence on the part of the Owner of the goods or not, except in the case of wilful or gross negligence of port employees.

Storage of Goods:

1. The goods will be stored by the port in accordance with marks and numbers and in Bill of Lading lots in those areas stated in the out-turn report.
2. The Port may store suitable cargo in the open areas.
3. The Port may refuse the storage of goods if:
   (a) There is insufficient space in the Port.
   (b) The inherent properties of the goods render it dangerous or impossible.
4. Except for Customs purposes, no goods or materials stored in the Port are to be unpacked on Port premises without the special permission of the Port Management and Customs.
5. Consignees or their Agents shall remove their goods from the Port within 15 days of completion of discharge of the carrying ship or such period as may be announced by the Port Authority.
6. All cargo, irrespective of whether it has been cleared through Customs or not, which has not been removed from the Port within 15 days of completion of discharge of the carrying vessel may be moved to a special area. All such cargo may be sold by public auction 21 days after completion of discharge of the carrying vessel. These periods may be changed by an announcement of the Port Authority.

GENERAL:

Rubbish: It is strictly prohibited to throw any garbage, rubbish or food leftovers into the port and territorial waters of the Kingdom.

Every violation of the provision of this article shall cause the ship's Master to be penalised with a fine of up to 10,000 Saudi Riyals.

Vessels calling at Jubail Port will be supplied with plastic bags for garbage disposal.

The stevedore's Ship Superintendent must be contacted before the vessel has finished loading/discharging operations to take care of disposal of the bags.

The charge for garbage disposal service will be SR. 200 – per vessel per day, whether the vessel uses the service or not..

Documentation: Jubail Port Management will not permit any vessel to berth if documents have not been submitted as follows:

1. Manifest for vessels with more than 200 Bills of Lading at least 72 hours before arrival.

2. Manifest for all other vessels, Stowage Plans, Hatch List, etc., at least 48 hours before arrival.

Jubail Port Management will grant berthing permission subsequently not earlier than 72 hours after receipt of documents as per case 1 and not earlier than 48 hours as per case 2.

Vessels Discharging Cargo to Aramco Overseas Company (AOC) at the Commercial Port:

General Instructions and Communications Procedures.

1. When carrying vessel leaves loading port, details of tonnage aboard for discharge to AOC and tentative ETA at Jubail should be cabled/telexed to Saudi Arabia telex 601220 (ARAMCO SJ) commencing message "DHAMDDSB/AOC TRAFFIC DHAHRAN".

2. 10, 5, 3 days and 1 day prior to arrival, Master of carrying vessel must transmit updated ETA to "DHAMDDSB/AOC TRAFFIC DHAHRAN" via Saudi Aramco radio station (call sign HZY) which operates the following receiving schedules:

Frequency (kHz)	Approx. Range (miles)	Daily Operating Time (GMT)
500	500	Continuous
8480	2,000	0400 – 1800
12811	2,000	0600 – 1800
16960	2,000	1000 – 1100

3. Vessel must proceed initially to Jubail Pilot Boarding Anchorage, contacting the Jubail Harbour Master on VHF Channel 16 upon arrival. The anchorage is approached from Al-Jurayed (Lat. 27° 12' N., Long. 49° 57' E.) and is bounded by the following co-ordinates:

(1) 27° 03' N., 49° 44.0' E.	(3) 27° 03' N., 49° 47.5' E.
(2) 27° 04' N., 49° 45.5' E.	(4) 27° 02' N., 49° 45.5' E.

4. Pilotage is compulsory. Coast Guard Officials will normally board with the Pilot to commence initial clearance procedures. Customs and Health Authority will complete clearance once the vessel is alongside berth. For guidance the Port currently offers 14 m. water depth in the approach channel and 12 m. alongside the berths (by prior arrangement, it may be possible to utilise the container berths which offer a depth of 14 m. alongside).

5. The AOC Port Master at Jubail, or his authorised representative, will attend on board alongside berth, once clearance has been completed, in order to accept Notice of Readiness for the vessel. AOC staff will be available on board or at shipside throughout the discharge period to protect the safe discharge of AOC cargo and the AOC Port Master, or his representative, will again attend on board prior to sailing in order to countersign the Statement of Facts for the discharge.

6. AOC discharges at Jubail will generally be on a "free-out" basis but will be accomplished by the Ports Authority stevedores. Charges for stevedoring on AOC free-out cargo will be settled directly between AOC and Saudi Ports Authority. Agents must nevertheless notify the Ports Authority of expected vessel arrivals, booking berth space and stevedoring in accordance with the normal customs of the Port. In submitting Manifests for AOC cargo to be the Ports Authority, however, Agents should attach to each Manifest written advice that stevedoring charges will be settled by AOC.

7. Certain material to be discharged by AOC at Jubail will have been ordered from Saudi vendors and will be consigned "C&F Jubail Commercial Port Free-Out Discharge" with "Ultimate Consignee Saudi Aramco" included in the body of the Bill of Lading. Such cargo will be accepted by AOC at Jubail in exactly the same way as cargo consigned directly to AOC and Bills of Lading duly endorsed by the original consignee will be presented.

8. In addition to the normal tallying of cargo by the Ports Authority stevedores, AOC will be carrying out a counter-tallying operation in their own interest. This will be aimed at eliminating the possibility of shortlanding, and recording the factual circumstances of cargo damage and at prompt and accurate reconciliation of discharged and manifested quantities. The co-operation of all Masters and Agents is sought in this activity, particularly in the countersigning of any relevant damage or out-turn reports.

9. All requirements stated in this Notice are those of AOC and are *in addition* to any other procedures required by the Saudi Ports Authority. Any Saudi Ports Authority requirements mentioned herein are for guidance only and should be verified with Saudi Ports Authority.

10. Direct enquiries on operational matters to the Terminal Operations Co-ordination Desk or, failing a reply, to the Assistant Superintendent. Address enquiries on policy matters to the Assistant Superintendent or, in his absence, to the Superintendent. Local liaison at Jubail Commercial Port will be handled by the AOC Port Master or his deputy who will also handle all *urgent* enquiries at night, weekends and holiday periods. Telephone connection to the AOC Port Office is expected in the near future.

11. Until further notice, AOC will be handling only duty exempt cargo through Jubail. Cargo which is dutiable, or subject to import permit restrictions, will normally be routed to Dammam. Exceptionally, if isolated dutiable consignments are inadvertently laden to Jubail instead of Dammam, they will generally be handled at Jubail. Similarly small shipments of duty exempt cargo consigned in error to Dammam will generally be handled at that port. It should no longer be necessary under normal circumstances, therefore, for any cargo to be diverted for discharge to a port other than the one to which it was originally laden.

AUTHORITY: Saudi Arabia Ports Authority, Port of Jubail, P.O.Box 276, Jubail, Kingdom of Saudi Arabia. *Tel:* (03) 361-0600. *Telex:* 831005 Jubpt Sj. *FAX:* (03) 361-3337. *Cables:* Ports Jubail. *Contact:* Engr. Ibrahim Bin Mohammed Al-Tayeb, Port Director General, Jubail Port Management.

(B) KING FAHD INDUSTRIAL PORT IN JUBAIL.

LOCATION: Lat. 27° 04' N., Long. 49° 40' E.
Also see "Commercial Port".

PORT LIMITS: See "Commercial Port".

DOCUMENTS: See "General" before first port, and "Radio" — "Vessel notification telex code from King Fahd Industrial Port to all Agents to be used henceforth".

PILOTAGE: Pilotage is compulsory for all vessels of more than 150 n.r.t. Pilot will board in the vicinity of Buoy No. 7 in position Lat. 27° 07' N., Long. 49° 47' E.

The Port Control Station (located at the Commercial Port) is continuously manned and is to be contacted on Channel 16. Vessels requiring a Pilot shall use the International Signals. Pilots will board from a fast launch and pilot boarding gear must comply with the International Convention for the Safety of Life at Sea (SOLAS) 1974. Vessels with a high freeboard must provide an accommodation ladder combined with a pilot ladder.

ANCHORAGES: See "Commercial Port".

RESTRICTIONS: The port is approachable and operational 24 hours daily throughout the year. Loaded LPG vessels are restricted to daylight movement only, within the entrance channel and harbour areas.

MAX. SIZE: See "Berthing".

HEALTH: See "General Rules for Saudi Arabia" before details of individual ports.

RADIO: Vessel Notification Telex code from King Fahd Industrial Port, Jubail to all Agents, to be used henceforth.

1. Call Sign.
2. Vessel's Name.
3. Owner/Line.
4. Nationality.
5. Agent.
6. LOA.
7. Max. Draft.
8. No. of Hatches.
9. G.R.T.
10. N.R.T.
11. D.W.T.
11A. Displacement on Arrival.
11B. Max. displacement while on berth.
12. Previous Names.
13. Type of Vessel.
14. Type of Cargo to load/discharge.
15. Total cargo weight tons.
16. Total cargo freight tons.
17. No. of containers/units.
18. No. of livestock.
19. ETA.
20. Draft on arrival.
21. Tonnage to hatch.
22. Construction date.
23. Quantity of LCL containers.
24. Last 3 ports of call.
25. Beam of vessel.
26. Lloyd's Register Number.
27. Classification Society.
28. Crew number/Nationality.
29. Next port of call.
30. Hazardous cargo.
31. Is vessel gas free?
32 Inert gas system working.
33. Arms/Ammunition for self defence.
34. Economic speed of vessel.
35. Position 48 hours before arrival.
36. Radar details.

Items which do not apply should be answered N/A. All other items must be answered.

The telex, for vessels loading, should be sent 7/5/3/2/1 day in advance of expected arrival, or sooner. However for loading vessels sailing from ports or geographical positions near to King Fahd Industrial Port in Jubail, the telex should be received as soon as possible.

No Inward Clearance will be issued until the notification telex is received and processed.

Petromin Shell Refinery:

We quote below for Principal's information text of telex received from Petromin Shell Refinery Jubail in May 1988.

Quote

Please adjust PSRC arrival telex as quoted below. We like to stress the point that this information is required to ensure smooth export of products and expedite vessels. It will be appreciated if this information is passed on to PSRC as soon as possible.

1. Ballast on board.
2. Segregated ballast, if any.
3. Will vessel deballast ashore?
4. Quantity and type of slops, if any.
5. Will slops be discharged ashore?
6. Deballasting rate.
7. Can vessel deballast while loading.
8. Size and number of ship's manifold.
9. Indicate on which manifold what product will be loaded (number from stem to stem).
10. Maximum loading rate per connection.
11. Distance – manifold above deck.
12. Distance between manifold connections.
13. Height – manifold to rail.
14. Previous cargo.
15. Grade and approximate quantity to be loaded.
16. Can vessel load 2 grades concurrently, if required?
17. Preferred sequence of loading if grades cannot be loaded concurrently.
18. Is vessel fitted with I.G. installation?
19. Cargo tanks gas free or inerted on arrival.
20. Has vessel been instructed to arrive in gas free condition for visual tank inspection by either Charterers or independent surveyors?
21. Can vessel load and inert at same time?
22. Total time required for inerting.
23. Last port of call.
24. Sailing draft Jubail.
25. Any information relevant to this voyage/loading which vessel may want to convey.
26. The Port Authorities prohibit the discharge of any cargo tank ballast to sea. Clean cargo tank ballast to be pumped ashore on each occasion.

Unquote.

VHF: The Jubail Port Control maintains a continuous watch on Channel 16. Within the Industrial Port area a continuous watch is maintained on Channel 67.

A new control tower in the Industrial Port became operational early in 1986.

RADAR: A Radar Surveillance and Control System is in operation.

TUGS: All tugs are provided with fire fighting capabilities.

Tugs normally join the vessel in the vicinity of Buoy No. 9 and tug's lines are used.

BERTHING: The port is laid out in 5 distinct sections, namely:

1. *Service Facility:* With 6.0 m. depth quay for port craft and others; a module-input facility, depth 8.0 m., capacity 2,000 tonnes; a 1,000 tonnes slipway and marine repair facility.
2. *Dry Bulk Terminal:* Depth alongside 14.0 m. Max. draft 12.6 m. (13.3 m. HW.) with berths totalling 2,300 m., quay wall and a Ro-Ro stern ramp.
3. *Petro-Chemical Quay:* Depth alongside 16.0 m. Max. drafts 14.4 m. (15.2 m. HW.). Each berth 330 m. length and can take vessels up to 100,000, max. displacement. Shore gangways on all berths.
4. *Breakwater Berths:* Depth alongside 16.0 m. Max. draft 14.4 m. (15.2 m. HW). Each berth 330 m. length and can take vessels from 10,000 – 100,000 max. displacement. Shore gangways on all berths.
5. *Offshore Tanker Terminal (OSTT):* Depths alongside 26.0 m. – 30.0 m. Max. draft 25.0 m. Each berth 350 m. length and can take vessels from 30,000 – 330,000 max. displacement. Shore gangway provided.

Saudi Lube Terminal: Breakwater Berth No. 52 (BWB 52). The following has been received from Petromin Lube Oil Blending and Grease Manufacturing Plant (Saudi Lube).

The purpose of this information is to acquaint the Owners, Charterers and Masters of vessels with Saudi Lube's (Petromin Lube Oil Blending and Grease Manufacturing Plant) terminal facilities at King Fahd Industrial Port in Al-Jubail, Saudi Arabia.

The Industrial Port facilities are owned by the Royal Commission for Al-Jubail, a Government Authority of the Kingdom of Saudi Arabia.

The causeway is 9.39 km. long and has a width of 300 m. The open sea tanker terminal extends a further 3.5 km. beyond the end of the causeway, a total distance of almost 13 km. from the original coastline.

Saudi Lube is owned by Petromin (General Petroleum and Mineral Organisation for the Kingdom of Saudi Arabia).

1. *Breakwater Berth (BWB) No. 52 Particulars:*
   Raw material unloading berth, handling different grades of base oil. One unloading arm enables handling of one base oil at a time.
   Berth Limitations: Max. LOA – 284 m.
2. *Oil Spillage/Slops:*
   Oil spillage incurred during the unloading operation cannot be discharged in the sea, instead the vessel must provide its own means of collecting all spilled oil. BWB 52 is equipped with a slops tank to collect berth spillage only.
3. *Time of Arrival Advice:*
   Initial ETA – 5, 3, 2, 1 days.
   Revised ETA – As any changes.
4. *Communications:*
   Contact "Jubail Port Control" on VHF Channel 16 when passing Jubail Fairway Buoy which is located in position:
   Lat. 27° 22' N., Long. 50° 30' E.
   or as soon after as radio reception conditions permit. Once alongside, a portable VHF radio will be placed onboard by Saudi Lube to enable contact between the vessel and the Jetty Operator on the control room, (See "Appendix D").
   Saudi Lube: Telex: 831168 Sublub SJ.
   Phone: 03-3416072 or 341573.
5. *Pilotage:*
   In the port area is compulsory, pilots boarding in position: Lat. 27° 07' N., Long. 49° 47' E.
   Vessels proceeding from the Fairway Buoy to the tanker anchorage may do so without a pilot, but should keep in contact with the Port Authorities on Channel 16 for traffic/anchoring information.
6. *Berthing Criteria:*
   Vessels will normally be berthed on arrival at BWB 52. If the berth is not available, anchoring instructions will be given by the Port Authority.
7. *Tugs:*
   Tugs are available to assist in the berthing and unberthing operation.
8. *Mooring Arrangement:*
   Vessels normally berth portside to on BWB 52 Jetty. Mooring requirements will be advised by the Pilot and follow the recommendation made in the O.C.I.M.F. publication "Guidelines and Recommendations for the Safe Mooring of Large Ships at Piers and Sea Islands". Vessels equipped with both wire and synthetic mooring lines should avoid "mixing" to the same shore mooring point.
9. *Unloading Arm:*
   On BWB 52, the unloading arm connection to the vessel manifold is a hydraulic coupler for 6 in. or 8 in. ANSI 150 FF, DIN 16 or BS 1560 flange. Suitable reducers conforming to this type of flange should be fitted prior to berthing.
   Assistance from the vessel will be required to make the flange connections. The arm is equipped with proximity switches that will give alarm once the "maximum reach envelope" is reached. Vessels with manifold connections outside of this "maximum reach envelope" cannot be connected to the unloading arm.

10. *Unloading Rates:*
The following unloading rates are available at BWB 52 (a booster pump on the berth will be used in series with the ship's pumps).

Base Oil Grade	*Unloading Rate* (cu.m.p.h.)
100 SN	430
150 SN	440
300 SN	430
500 SN	451
700 SN	445
160 BS	150

11. *Ship/Shore Safety Check List:*
A Safety Check List,based on the list recommended by the International Maritime Organisation, will be completed prior to the commencement of cargo operations.

12. *Overboard Discharge Valves:*
Prior to the commencement of the unloading operations, all sea valves connected to the vessel's cargo handling line system should be closed and secured.

13. *Emergency Signal:*
In the case of fire or other emergency, in addition to advising terminal staff and the Jetty Operator on the control room, vessel should sound a series of long blasts on the ship's whistle, each blast being not less than 10 seconds in duration. For cargo unloading emergency procedures, see "Appendix D".

14. *Emergency Towing Wires:*
Fire wires must be positioned on the offshore bow and quarter of the ship. The eyes of these wires should be hung off above the water line and their height adjusted as necessary during cargo operations. The inboard end should be properly secured to a bollard with 5 or 6 fathoms of slack between bollard and fairlead. Means must be provided to prevent the slack accidentally running into the water.

15. *Ship/Shore Access:*
A shore gangway will be provided and tended by shore staff.

16. *Shore Leave:*
Not permitted, except for medical or repatriation reasons.

Appendix "D":

To: The Master SS/MV ....
In Port

Dear Sir,

Routine and Emergency "Stop Unloading" Procedure.

Throughout the unloading operation, you will be supplied with a portable VHF set which will enable continuous contact to be maintained between the Cargo Officer on board and the Jetty Operator on the Control Room.

Any change in the unloading rate, or anytime there is a need to stop unloading, it should be communicated via radio to BWB 52 Control Room. The Cargo Officer on board should notify the Jetty Operator 60, 30 and 5 minutes prior to the completion of the unloading of each grade of base oil.

In case of emergency, wherein the unloading arm needs to be disconnected from the vessel's manifold, inform immediately the Jetty Operator to stop unloading and make an emergency disconnection. The unloading control panel is equipped with an "Emergency Disconnection" push button that will disconnect the unloading arm from the vessel manifold in case of emergency while unloading.

Under no circumstances should the vessel's manifold or tank valves be closed while unloading, such action results in possible damage to our pump or line systems.

During the unloading operation, a Jetty Operator in radio or telephone contact with the tank farm control room is continuously on duty to assist you.

Please acknowledge receipt of this letter by countersigning the attached copy.

....

Master

For Petromin Lube Oil Blending and
Grease Manufacturing Plant (Saudi Lube)

____

SS/MV ______________________
Date ______________________
Time ______________________
Date ....

CARGO HANDLING EQUIPMENT: The industrial Port is provided with a limited number of mobile cranes and cargo handling equipment which are adequate for the project cargo handled by the port.

BRIDGES: None, air draft unrestricted.

STEVEDORES: 24 hour continuous operations in two shifts from 0700 hrs. – 1900 hrs. and 1900 hrs – 0700 hrs.

MEDICAL: Full hospital facilities are available. Arranged through Agents. The Port also has a fully equipped dispensary with doctor and nurses in 24 hour attendance for emergencies only.

TANKERS: See "Berthing".

Cargo Handling Capacities:

User	*Berth* No.	*Product*	*No. of Arms*	*Maximum Rate* (t.p.h.)
Kemya	41	Butane/Hexene (Imp)	1	275/375
Ar Razi	"	Methanol	3	2,675
Ibn Sina	"	Methanol	3	3,000
Sadaf	42	Benzene (Imp)	1	390
"	"	Styrene	1	835
"	"	Ethanol	1	1,080
"	"	Ethylene Dichloride	1	1,090
"	"	Caustic Soda	1	1,370
"	"	Phosphoric Acid (Imp)	(1 hose)	370
"	43	Ethanol	1	1,080
"	"	Styrene	1	835
Sadaf	43	Ethylene Dichloride	1	1,090
"	"	Caustic Soda	1	1,370
Sharq	"	Mono-Ethylene Glycol	1	1,000
"	"	Di-Ethylene Glycol	1	500
"	"	Tri-Ethylene Glycol	1	150
Petrokemya	44	Ethylene	1	340
"	"	Vinyl Chloride Monomer	1	650
Petromin/ Shell	51	Heavy Fuel Oil	2	6,000
	"	D.P. Kerosene	1	3,075
"	"	L.S. Gas Oil	2*	6,160
"	"	Auto Diesel Oil	2*	6,160
"	"	C.F. Naphtha	2*	5,350
Saudi Lube	52	Base Lube Oils (Imp)	1	150/450
Ibn Al Baytar	53	Liquid Ammonia (Exp)	2	1,000
"	"	Phosphoric Acid (Exp/ Imp)	2	1,000
Petromin/ Shell	61	Heavy Fuel Oil	2	7,400
	"	D.P. Kerosene	1	3,390
"	"	L.S. Gas Oil	2*	6,830
"	"	Auto Diesel Oil	2*	6,830
"	"	C.F. Naphtha	2*	5,900
Ibn Al Baytar	26/27	Phosphate Rock (Imp)	2 loaders/ unloaders	180/700
"	"	Fertilisers (bulk/ bags)(Exp)		
Samad	28	Urea (bag)	(2 loaders)	110
"	"	Urea (bulk)	(2 loaders)	700
Aramco	21	Sulphur	(1 loader)	2,200
Hadeed	24	Iron Ore	(2 unloaders)	1,600

Note: There are 5 arms on each Berth 51 and Berth 61. The arms marked * above can be used for either L.S. Gas Oil, Auto Diesel Oil, or Naphtha.

DENSITY: 1025 – 1034.

FRESH WATER: Available, but not to loading berths.

FUEL: Fuel oil, marine diesel and marine gas oil are available through Agents at anchorage. Pipeline supply to berths is planned for the future.

FIRE PRECAUTIONS: In view of the large volumes of cargo of a hazardous nature passing through the Port, great importance has been attached to all matters pertaining to fire and safety. Precautions to accepted international standards are practised and the Fire and Safety Department is on a 24 hour call out.

CONSULS: The American Consul-General resides at Dhahran. Other Consulates and Embassies are located in Riyadh and Jeddah.

REPAIRS: Minor repairs can be arranged through Agents.

DRY DOCKS: A slipway with 1,000 ton capacity is situated at the Services Quay.

SURVEYORS: International Marine Surveyors and Classification Society Surveyors are available. Arrangements through agents.

GANGWAY/DECK WATCHMEN: The Coast Guard station a guard at the gangway to prevent unauthorised boarding and landing.

HATCHES: Opening and closing of hatches is normally undertaken by the port users at their respective berths, stevedores can be provided if specially requested.

CUSTOMS ALLOWANCES: Possession and/or consumption of alcoholic beverages, including beer, table wines and spirits is strictly prohibited in Saudi Arabia. All alcoholic beverages are to be kept under lock and key during vessel's stay in port.

CARGO GEAR: See "Cargo Handling Equipment".

AIRPORT: International airport at Dhahran, distance 120 Km. A new airport is under construction at Jubail.

TIME: Local time is GMT plus 3 hours. ETA's and messages are to be expressed in LMT.

HOLIDAYS: The Industrial Port is fully operational for 365 days of the year.

POLICE/AMBULANCE/FIRE: Masters are acquainted with emergency telephone numbers upon arrival.

SERVICES: Limited services are available through Ship's Agents.

BANKS: There are a number of Middle East and foreign banks situated in Jubail.

STORES: Ship's stores available. To be arranged by the Agent. Supply of food items is limited and requires the approval of Coast Guard and Customs. Vessels should order fruit, vegetables and provisions in advance of arrival.

SHORE LEAVE: To be arranged by Agent.

REGULATIONS: See "General" before first port.

GENERAL: All vessels must ensure that they have on board upon arrival a copy of "The Rules and Regulations for Seaports", issued in March 1985 by The Co-operation Council for the Arab States of the Gulf.

SHIPMASTER'S REPORT: October 1990.

Berth: Vessel berthed portside alongside Berth No. 51 with the bow seaward.

Crew List: To be sent by telex or fax as soon as possible before ship's arrival. In absence of Crew List, port will not allow/grant permission to enter port area, and it will delay the vessel.

ETA: If possible, ETA to be sent 7/5/3/2/1 day before arrival.

VHF: As soon as contact is established with Jubail Port Control on Channel 16, we changed to Channel 64 and stayed on that channel, until vessel was close to the port, in the vicinity of Buoy No. 7. At this point, we changed to Channel 67 and stayed on this channel to keep in touch with Jubail Pilots.

Docking instructions are received early from Jubail Port Control.

Mooring: The moorings were as follows:

3 headlines, 2 breastlines and 2 springs forward and 2 springs, 2 breastlines and 3 sternlines aft.

Mooring and unmooring was carried out with the assistance of 2 tugs, tugs lines used, and 2 mooring boats. Spring lines were sent ashore first by means of heaving lines. All other ropes were passed ashore by the mooring boats.

Meeting: On completion of clearance formalities, representatives from the suppliers and the Port Safety Department boarded the vessel for a planning meeting.

Tank Atmosphere: Cargo tanks to be inerted prior to commencement of loading products with flashpoint below 60°C. For other products, like gas oil and fuel, it is up to Master's discretion, in which condition ship arrives.

Gas freeing and/or inerting is not allowed alongside berth.

Loading: The vessel loaded Naphtha at a rate of 5,000 cu.m./hr. through 2×16 in. Chicksan arms. The loading rate can be increased to a maximum of 8,000 cu.m./hr., but in our case one of the shore pumps was broken.

On completion of loading, we discharged slops through a separate 16 in. shore arm. On completion of discharge of slops, the shore line has to be flushed with approximately 1,000 cu.m. of salt water, but on this occasion there was no need, as our slops did not contain any waxy material. The flush is to be pumped by the ship.

The connection and disconnection of both reducers and hoses is undertaken by ship's personnel. Lifting arrangements have to be provided by the vessel, in order that the reducers are not manhandled.

During loading (every hour plus 5 minutes) a radio check is carried out with the shore to compare the ship/shore figures.

EDP: No Early Departure Procedure is in force. Cargo documents are placed on board about 3 hours after completion of loading. The pilot boards soon afterwards.

Fuel: Bunkering is done at anchorage.

Provisions: Provisions/vegetables/fruits are available at very reasonable prices. To be ordered as early as possible.

Fresh Water: Available, but not at loading berth.

Customs: Prohibited items, alcohol, pornographic material, cameras under bonded store. Cabins/rooms are subject to inspection by Customs. If any arms/ammunition on board, these also to be kept under bond. Radioroom/radiotransmitter was sealed.

Ballast: Port Authorities prohibit discharge of any cargo tank ballast to sea. Clean cargo tank ballast to be pumped ashore.

Garbage: Plastic bags for garbage are supplied at 0900 hrs. In our case, vessel arrived at 0950 hrs. and was cleared by Customs 1050 hrs. These plastic bags did not come the same day, but should come the next day. However, as we left at 0110 hrs. next morning, the plastic bags never arrived, nor was garbage collected.

AUTHORITY: King Fahd Industrial Port in Jubail, P.O.Box 547, Al-Jubail 31961, Saudi Arabia. *Tel:* (03) 357-8000. *Telex:* 832031 – Jupipt Sj. *FAX:* (03) 357-8133. *Contact:* Engr. Ibrahim Bin Mohammed Al-Tayeb, Port Director General, Jubail Port Management.

AGENT: Gulf Agency Company Saudi Arabia, P.O. Box 12, Jubail – 31951, Saudi Arabia. Cables: "Confidence", Jubail. Ship-Shore traffic via Dammam Radio/HZG. Telex: 831030 ("GAC SJ"). Tel: 3611064, 3611052, 3613072. After office hours: 3613458. Fax: 3612816.

RABIGH: 22.44 N. 38.59 E. (See Plan)

Also see "General" before first port.

LOCATION: The Commercial Port of Rabigh is situated on the East coast of the Red Sea in Saudi Arabia, about 150 km. North of the Jeddah Islamic Seaport, with geographical coordinates Lat. 22° 44' 02" N., Long. 38° 58' 57" E.

The industrial area includes a Crude Oil Refinery, supported by the Port and a new community established 20 km. to the North of the Port.

PORT LIMITS: A vessel is considered an "arrived ship" as soon as she anchors at one of the two anchorages S.E. of Tanda Rock Beacon.

DOCUMENTS: *Arrival Documentation Requirements:* The Rules and Regulations for Saudi Arabian Seaports specify that Master must present or make available for inspection the following papers and documents:

Log Book.
Registration Certificate.
Classification Certificate.
Load-Line Certificate.
Building Safety Certificate.
Safety Equipment Certificate.
Radio and Wireless Certificates.
Cargo Gear Certificate.
Marine Health Certificate.
Vaccination List.
Rat-Free Certificate.
Clearance from last port of call.
Israel Boycott Declaration.
Ship's Stores List.
Grain Shipping Certificate, if the vessel is carrying a Grain Shipment.
Mail transport documents in accordance with the "International Postal Treaty", if any mail is carried aboard.
5 copies of the Crew List including name, nationality, date of birth, Passport Number, port of embarkation, port of disembarkation.
2 copies of the List of Personal Effects of crew and passengers.

In addition, the Rules and Regulations require that the Oil Record Book and the Certificate of Fitness (in cases of gas and chemical carriers) are available for inspection.

To obtain Port Clearance, the Master of the vessel shall present or make available for inspection the following papers and documents or copies of them to Port Management:

Log Book.
Registration Certificate.
Load Line Certificate.
Building Safety Certificate.
Safety Equipment Certificate.
Port Stevedore Outturn Report.
Radio and Wireless Certificates.
Receipt for payment of Custom's duties.
Shipping Note and Cargo Manifest for any cargo loaded.

Full details, regarding procedures and conduct of vessel and crew, must be checked with Rules and Regulations of Saudi Arabian Seaports. The vessel's Agent will provide all details of any changes in the Rules and Regulations.

APPROACHES: The Commercial Port of Rabigh is a deep water port protected by an offshore barrier reef running parallel to the coast.

The Entrance Channel has overall dimensions of 400 m. width and about 1,300 m. length.

The Deep Water Entrance Channel, with depth of 28 m. and width of 240 m., marked with lighted channel beacons, leads to the turning basin with depth 27 m. and diameter about 900 m.

The turning basin is also marked with lighted beacons.

The non-commercial area of the port extends Eastward, but at a depth of about 12 m.

The end of the port is marked by a special lighted marker beacon.

PILOTAGE: Pilotage is compulsory for all vessels entering and leaving the Commercial Port of Rabigh.

Pilots will be available on a 24 hours basis.

All vessels calling at Rabigh must comply with the international requirements concerning the reliable condition of the vessel's engines, equipment, etc., and have on board qualified officers and efficient crew.

The Pilot will board vessels by tug or pilot boat about 0.5 miles North of Tanda Rock Buoy.

Vessels will be accepted for berthing and unberthing only if they are in a very efficient ballast condition. Vessels, calling at Rabigh Port for loading products, should carry on board minimum quantity of ballast at least 30 % of the Summer deadweight, subject to further increase in case of weather deterioration as per Port Control instructions.

ANCHORAGES: The anchorage area for large vessels (VLCCs) is located South of the port entrance, and about 0.5 miles S.E. of the Fairway Buoy, where the average depth is 70 m.

Smaller vessels may anchor near to or S.E. of Tanda Rock Beacon, where depths of 10 m. – 30 m. are available.

AIDS TO NAVIGATION: The following Aids to Navigation have been installed in order to facilitate the safe approach and navigation of vessels to and from Rabigh Port.

(a) Name : Shi'b Al Khamsa Beacon No.12:
Position : Lat. 22° 44.9' N., Long. 38° 37.2' E.
Characteristics : White light flashing (1) every 5 seconds (1 second on – 4 seconds off).
Elevation : 20.40 m.
Luminous Range : 16.00 miles.
Structure : Iron column 90 cm. diameter on concrete base, painted yellow above black, with round railing platform on top.
Remarks (i) : Radar Reflector.
(ii) : Racon X+S Band, code letter "O" (dash-dash-dash) every 48 seconds, 360°, range 20 miles, solar powered.

(b) Name : Shi'b Al Abiyadh Beacon No.13 (South Cardinal Mark).
Position : Lat. 22° 42.7' N., Long. 38° 48.3' E.
Characteristics : White light, very quick flashing (6) plus long flash every 15 seconds (6×(0.35+0.65)+1.5+7.5 = 15 sec.).
Elevation : 12.00 m.
Luminous Range : 10.00 miles.
Structure : Iron column 75 cm. diameter on concrete base, painted yellow above black, with round railing platform on top.
Top Marks : Two black cones.
Remarks : Radar Reflector.
Important Notice : Deep draft vessels should pass not less than 0.7 miles South of Shi'b Al Abiyadh Beacon No.13.

(c) Name : Tanda Rock Beacon No.14 (North Cardinal Mark).
Position : Lat. 22° 43.6' N., Long. 38° 56.0' E.
Characteristics : White light quick flashing 60 f.p.m. (0.3 seconds on – 0.7 seconds off).
Elevation : 10.20 m.
Luminous Range : 8.00 miles.
Structure : Iron column 74 cm. diameter on concrete base, with round railing platform on top painted black above yellow.
Top Marks : Two black cones.
Remarks : Radar Reflector.

(d) Name : Tanda Rock Reef Buoy No.15. (North Cardinal Mark).
Position : Lat. 22° 44.6' N., Long. 38° 55.8' E.
Characteristics : White light very quick flashing 100 f.p.m. (0.2 seconds on – 0.4 seconds off).
Elevation : 3.40 m.
Luminous Range : 4.00 miles.
Structure : Iron buoy painted black above yellow.
Top Marks : Two black cones.

(e) Name : Fairway Buoy (safe water mark) Mid-Channel Mark.
Position : Lat. 22° 43.4' N., Long. 38° 58.0' E.
Characteristics : White light flashing one long flash every 10 seconds.
Elevation : 4.0 m.
Luminous Range : 5 miles.
Structure : Iron Buoy, painted red and white vertical stripes.
Top Marks : Single red sphere.

(f) Name : Port Hand Channel Buoy (Lateral Mark).
Position : Lat. 22° 44.1' N., Long. 38° 58.5' E.
Characteristics : Flashing red.
Elevation : 4.0 m.
Luminous Range : 3 miles.
Structure : Iron can buoy, painted red.

RESTRICTIONS: *Equipment Requirements:* No vessel shall be allowed to navigate within the port, unless it complies with the following equipment requirements:

(a) Efficient VHF radio telephone capable of working on the port frequencies.
(b) Efficient steering gear with fully operational rudder and helm indicators.
(c) Efficient propulsion, both ahead and astern and fully operational tachometer.
(d) Both anchors capable of being released and raised by the vessel.
(e) Efficient winches and adequate mooring gear to secure the vessel safely; an efficient mooring stations communication system.
(f) Sufficient crew on board at all times to operate the vessel safely and efficiently, with all officers properly qualified and certificated, as required by the flag nation and Saudi Rules and Regulations.
(g) All secondary power or mechanical systems on the vessel to be in operation, and immediately available in the event of failure of any primary system.

If any vessel cannot comply with any of the requirements listed above, Rabigh Port Management Control must be advised prior to arrival or departure. The vessel will then be subject to inspection and possible delay.

Failure to comply, or to notify Rabigh Port Management Control, may result in the vessel being fined or refused entry/departure to or from the port or both.

Draft Requirements: Vessels will not be permitted entry to the port unless they arrive at a draft consistent with safe manoeuvring and reasonably trimmed, to the satisfaction of the Pilot.

MAX. SIZE: Max. permissible draft alongside berth is 23.5 m. Max. LOA 400 m. Minimum parallel body 66 m.

HEALTH: A Doctor will board vessel on arrival at the berth, in order to expedite Quarantine Clearance.

International Certificates of Vaccination against cholera and yellow fever must be made available if required, in accordance with international or local health regulations.

Quarantine signals must be displayed upon approaching Rabigh Port in accordance with international practice, and shall be continously displayed until Pratique is granted. The signals shall be as follows:

Sunrise to Sunset – Quarantine Flag.
Sunset to Sunrise – Quarantine Signal Lights (Red over White).

VESSELS APPOINTMENT SYSTEM: The Saudi Arabian Ports Management requires Pre-Loading Advice on arrival at the first port of loading, and further notice of ETA with updated particulars of the cargo on sailing from the final loading port.

Revised ETA to be sent 5 days, 2 days and 1 day prior to arrival at the port.

Vessels in ballast bound for loading at Rabigh should follow the same ETA procedures.

Dry Cargo Vessels: The vessel must send the following information to Petromin Petrola Rabigh Refinery, Rabigh Port Management, Rabigh Port Authority and Vessel's Agent.

1. Radio Code (Call Sign).
2. Vessel's Name.
3. Owner/Charterer.
4. Nationality.
5. Agent.
6. LOA in metres.
7. Max. draft in metres.
8. Number of Hatches.
9. G.R.T.
10. N.R.T.
11. D.W.T.
12. Previous Name (if any).
13. Type of Vessel.
14. Type of Cargo.
15. Total Cargo Weight Tons.
16. Total Cargo Freight Tons.
17. Number of Containers/Units (where applicable).
18. Number of Livestock (where applicable).
19. E.T.A.
20. Actual Arrival Draft.
21. Hazardous Cargo for Rabigh.
22. Hazardous Cargo in Transit for other ports.
23. Tonnage to Hatch for Rabigh Discharge.
24. Year of Construction.
25. Lloyd's Register Number.
26. All Ports of Loading.
27. Number, position and S.W.L. of derricks and/or cranes and particulars and positions of ramps.
28. All Ports at which cargo will have been loaded for discharge at Rabigh.
29. All other ports at which the vessel will have called between arrival at the first port of loading and arrival at Rabigh.
30. All ports at which cargo remaining on board will be discharged after completion of discharge at Rabigh.
31. Last 3 ports ship visited before arrival, in proper order.
32. Economic Speed.
33. Total volume of vessel in tons.
34. Volume of hatches in cubic metres.
35. Reason of visit.
36. Estimated time and date of departure.
37. Ammunition and/or explosives in-transit to Rabigh.
38. Cargo of alcholic beverages in-transit to Rabigh.
39. Arms and ammunition on board, purpose of self defence.
40. Information relating to ship's radars (type of radar, frequency, scan speed, pulse width, pulse peak power, pulse repetition frequency and beam width).

The vessel's name and radio code should be given in every subsequent telex for computer reference.

The absence of any of the above information may incur delay to the vessel's port turnaround.

Questions not applicable to a particular vessel should be answered with the text "not applicable".

Tankers: As soon as the vessel receives orders to proceed to the port, the following information must be sent to Petromin Petrola Rabigh Refinery, Rabigh Port Management, Rabigh Port Authority and vessel's Agent.

1. Name of vessel.
2. Former Names.
3. Port of Registry, Flag, Call Sign.
4. L.O.A., G.R.T., N.R.T.
5. Summer d.w.t., Arrival d.w.t.
6. Draft on arrival, forward and aft.
7. ETA.
8. Last Port.
9. Cargo on board and flash point, destination of cargo.
10. Cargo requirements.
11. Previous cargo and quantity of residues on board for load-on-top.
12. IMO Class.
13. Whether gas free or in inert condition.
14. Port of loading ballast and amount.
15. Quantity of ballast loaded on passage.
16. Quantity of segregated ballast on arrival.
17. Quantity of cargo tank ballast on arrival.
18. Time for deballasting, can ship load/deballast simultaneously.
19. Special conditions-difficulties-defective equipment or gear which could present special hazards or difficulties when mooring, unmooring or during cargo operations.
20. Agent's Name.
21. Maximum loading rate.
22. Topping-off rate.
23. Bunker Requirements.
24. Cargo manifold connection size.
25. Bunker connection size.
26. Derricks.
27. Arms and ammunition on board for self defence.
28. Information relating to ship's radars (type of radar, frequency, scan speed, pulse width, pulse peak power, pulse repetition frequency, beam width).
29. Owners.
30. Operators.
31. Charterers.
32. Built.
33. Stowaways.
34. Alcoholic beverages as cargo on board.
35. Prohibited articles, if any, to be collected and placed in bonded stores prior to vessel's arrival.
36. P & I Club.
37. Master's name.

Gas Tankers: As soon as the vessel receives orders to proceed to the port, the following information must be sent to Petromin Petrola Rabigh Refinery, Rabigh Port Management, Rabigh Port Authority and vessel's Agent.

1. Name of vessel, indicating any former names.
2. Port of Registry, Flag, Call Sign.
3. L.O.A., G.R.T., N.R.T.
4. Summer d.w.t.; Arrival d.w.t.; Arrival draft, forward and aft.
5. Last Port, ETA Rabigh.
6. Quantity of ballast on arrival, where loaded.
7. Quantity of dirty ballast on arrival.
8. Total cargo capacity in cubic metres and cargo required.
9. Grades and quantities of any part cargoes or cargo residues and where loaded. Grade and quantities of product in deck tanks.
10. Are part cargoes to be commingled with loadings?
11. Gauge pressures top and bottom and mean temperatures of each cargo tank.
12. Quantity of coolant required in addition to cargo requirements.
13. Maximum allowable relief valve settings for all cargo tanks.
14. Have any cargoes other than LPG been carried during last 3 loaded voyages. Specify?
15. Maximum oxygen content by volume per cent of each warm or inerted cargo tank.
16. If tank purging required, specify whether:
    (a) Parallel or in series.
    (b) Liquid from shore direct to cargo tanks.
    (c) Liquid from shore to vessel's vaporizers, specify vaporizer throughput in RLPG/hour.
17. If cooling down tanks is required, specify maximum cooling rate in terms of temperature reduction per hour and maximum temperature differential permitted between any 2 points in cargo tank.
18. Available total capacity of ship's reliquefaction plant for each nominated cargo product.
19. Type of ship's reliquefaction system, i.e., direct, cascade or other.

first by means of heaving lines. All other ropes were passed ashore by the mooring boats.

Meeting: On completion of clearance formalities, representatives from the suppliers and the Port Safety Department boarded the vessel for a planning meeting.

Tank Atmosphere: Cargo tanks to be inerted prior to commencement of loading products with flashpoint below 60°C. For other products, like gas oil and fuel, it is up to Master's discretion, in which condition ship arrives.

Gas freeing and/or inerting is not allowed alongside berth.

Loading: The vessel loaded Naphtha at a rate of 5,000 cu.m./hr. through 2×16 in. Chicksan arms. The loading rate can be increased to a maximum of 8,000 cu.m./hr., but in our case one of the shore pumps was broken.

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Ballast: Port Authorities prohibit discharge of any cargo tank ballast to sea. Clean cargo tank ballast to be pumped ashore.

Garbage: Plastic bags for garbage are supplied at 0900 hrs. In our case, vessel arrived at 0950 hrs. and was cleared by Customs 1050 hrs. These plastic bags did not come the same day, but should come the next day. However, as we left at 0110 hrs. next morning, the plastic bags never arrived, nor was garbage collected.

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RABIGH: 22.44 N. 38.59 E. (See Plan)

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The end of the port is marked by a special lighted marker beacon.

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Luminous Range : 16.00 miles.
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(ii) : Racon X+S Band, code letter "O" (dash-dash-dash) every 48 seconds, 360°, range 20 miles, solar powered.

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Position : Lat. 22° 42.7' N., Long. 38° 48.3' E.
Characteristics : White light, very quick flashing (6) plus long flash every 15 seconds (6×(0.35+0.65)+1.5+7.5 = 15 sec.).
Elevation : 12.00 m.
Luminous Range : 10.00 miles.
Structure : Iron column 75 cm. diameter on concrete base, painted yellow above black, with round railing platform on top.
Top Marks : Two black cones.
Remarks : Radar Reflector.
Important Notice : Deep draft vessels should pass not less than 0.7 miles South of Shi'b Al Abiyadh Beacon No.13.

(c) Name : Tanda Rock Beacon No.14 (North Cardinal Mark).
Position : Lat. 22° 43.6' N., Long. 38° 56.0' E.
Characteristics : White light quick flashing 60 f.p.m. (0.3 seconds on – 0.7 seconds off).
Elevation : 10.20 m.
Luminous Range : 8.00 miles.
Structure : Iron column 74 cm. diameter on concrete base, with round railing platform on top painted black above yellow.
Top Marks : Two black cones.
Remarks : Radar Reflector.

(d) Name : Tanda Rock Reef Buoy No.15. (North Cardinal Mark).
Position : Lat. 22° 44.6' N., Long. 38° 55.8' E.
Characteristics : White light very quick flashing 100 f.p.m. (0.2 seconds on – 0.4 seconds off).
Elevation : 3.40 m.
Luminous Range : 4.00 miles.
Structure : Iron buoy painted black above yellow.
Top Marks : Two black cones.

(e) Name : Fairway Buoy (safe water mark) Mid-Channel Mark.
Position : Lat. 22° 43.4' N., Long. 38° 58.0' E.
Characteristics : White light flashing one long flash every 10 seconds.
Elevation : 4.0 m.
Luminous Range : 5 miles.
Structure : Iron Buoy, painted red and white vertical stripes.
Top Marks : Single red sphere.
(f) Name : Port Hand Channel Buoy (Lateral Mark).
Position : Lat. 22° 44.1' N., Long. 38° 58.5' E.
Characteristics : Flashing red.
Elevation : 4.0 m.
Luminous Range : 3 miles.
Structure : Iron can buoy, painted red.

RESTRICTIONS: *Equipment Requirements:* No vessel shall be allowed to navigate within the port, unless it complies with the following equipment requirements:

(a) Efficient VHF radio telephone capable of working on the port frequencies.
(b) Efficient steering gear with fully operational rudder and helm indicators.
(c) Efficient propulsion, both ahead and astern and fully operational tachometer.
(d) Both anchors capable of being released and raised by the vessel.
(e) Efficient winches and adequate mooring gear to secure the vessel safely; an efficient mooring stations communication system.
(f) Sufficient crew on board at all times to operate the vessel safely and efficiently, with all officers properly qualified and certificated, as required by the flag nation and Saudi Rules and Regulations.
(g) All secondary power or mechanical systems on the vessel to be in operation, and immediately available in the event of failure of any primary system.

If any vessel cannot comply with any of the requirements listed above, Rabigh Port Management Control must be advised prior to arrival or departure. The vessel will then be subject to inspection and possible delay.

Failure to comply, or to notify Rabigh Port Management Control, may result in the vessel being fined or refused entry/departure to or from the port or both.

Draft Requirements: Vessels will not be permitted entry to the port unless they arrive at a draft consistent with safe manoeuvring and reasonably trimmed, to the satisfaction of the Pilot.

MAX. SIZE: Max. permissible draft alongside berth is 23.5 m. Max. LOA 400 m. Minimum parallel body 66 m.

HEALTH: A Doctor will board vessel on arrival at the berth, in order to expedite Quarantine Clearance.

International Certificates of Vaccination against cholera and yellow fever must be made available if required, in accordance with international or local health regulations.

Quarantine signals must be displayed upon approaching Rabigh Port in accordance with international practice, and shall be continously displayed until Pratique is granted. The signals shall be as follows:

Sunrise to Sunset – Quarantine Flag.
Sunset to Sunrise – Quarantine Signal Lights (Red over White).

VESSELS APPOINTMENT SYSTEM: The Saudi Arabian Ports Management requires Pre-Loading Advice on arrival at the first port of loading, and further notice of ETA with updated particulars of the cargo on sailing from the final loading port.

Revised ETA to be sent 5 days, 2 days and 1 day prior to arrival at the port.

Vessels in ballast bound for loading at Rabigh should follow the same ETA procedures.

Dry Cargo Vessels: The vessel must send the following information to Petromin Petrola Rabigh Refinery, Rabigh Port Management, Rabigh Port Authority and Vessel's Agent.

1. Radio Code (Call Sign).
2. Vessel's Name.
3. Owner/Charterer.
4. Nationality.
5. Agent.
6. LOA in metres.
7. Max. draft in metres.
8. Number of Hatches.
9. G.R.T.
10. N.R.T.
11. D.W.T.
12. Previous Name (if any).
13. Type of Vessel.
14. Type of Cargo.
15. Total Cargo Weight Tons.
16. Total Cargo Freight Tons.
17. Number of Containers/Units (where applicable).
18. Number of Livestock (where applicable).
19. E.T.A.
20. Actual Arrival Draft.
21. Hazardous Cargo for Rabigh.
22. Hazardous Cargo in Transit for other ports.
23. Tonnage to Hatch for Rabigh Discharge.
24. Year of Construction.
25. Lloyd's Register Number.
26. All Ports of Loading.
27. Number, position and S.W.L. of derricks and/or cranes and particulars and positions of ramps.
28. All Ports at which cargo will have been loaded for discharge at Rabigh.
29. All other ports at which the vessel will have called between arrival at the first port of loading and arrival at Rabigh.
30. All ports at which cargo remaining on board will be discharged after completion of discharge at Rabigh.
31. Last 3 ports ship visited before arrival, in proper order.
32. Economic Speed.
33. Total volume of hatches in tons.
34. Volume of hatches in cubic metres.
35. Reason of visit.
36. Estimated time and date of departure.
37. Ammunition and/or explosives in-transit to Rabigh.
38. Cargo of alcholic beverages in-transit to Rabigh.
39. Arms and ammunition on board, purpose of self defence.
40. Information relating to ship's radars (type of radar, frequency, scan speed, pulse width, pulse peak power, pulse repetition frequency and beam width).

The vessel's name and radio code should be given in every subsequent telex for computer reference.

The absence of any of the above information may incur delay to the vessel's port turnaround.

Questions not applicable to a particular vessel should be answered with the text "not applicable".

Tankers: As soon as the vessel receives orders to proceed to the port, the following information must be sent to Petromin Petrola Rabigh Refinery, Rabigh Port Management, Rabigh Port Authority and vessel's Agent.

1. Name of vessel.
2. Former Names.
3. Port of Registry, Flag, Call Sign.
4. L.O.A., G.R.T., N.R.T.
5. Summer d.w.t., Arrival d.w.t.
6. Draft on arrival, forward and aft.
7. ETA.
8. Last Port.
9. Cargo on board and flash point, destination of cargo.
10. Cargo requirements.
11. Previous cargo and quantity of residues on board for load-on-top.
12. IMO Class.
13. Whether gas free or in inert condition.
14. Port of loading ballast and amount.
15. Quantity of ballast loaded on passage.
16. Quantity of segregated ballast on arrival.
17. Quantity of cargo tank ballast on arrival.
18. Time for deballasting, can ship load/deballast simultaneously.
19. Special conditions-difficulties-defective equipment or gear which could present special hazards or difficulties when mooring, unmooring or during cargo operations.
20. Agent's Name.
21. Maximum loading rate.
22. Topping-off rate.
23. Bunker Requirements.
24. Cargo manifold connection size.
25. Bunker connection size.
26. Derricks.
27. Arms and ammunition on board for self defence.
28. Information relating to ship's radars (type of radar, frequency, scan speed, pulse width, pulse peak power, pulse repetition frequency, beam width).
29. Owners.
30. Operators.
31. Charterers.
32. Built.
33. Stowaways.
34. Alcoholic beverages as cargo on board.
35. Prohibited articles, if any, to be collected and placed in bonded stores prior to vessel's arrival.
36. P & I Club.
37. Master's name.

Gas Tankers: As soon as the vessel receives orders to proceed to the port, the following information must be sent to Petromin Petrola Rabigh Refinery, Rabigh Port Management, Rabigh Port Authority and vessel's Agent.

1. Name of vessel, indicating any former names.
2. Port of Registry, Flag, Call Sign.
3. L.O.A., G.R.T., N.R.T.
4. Summer d.w.t.; Arrival d.w.t.; Arrival draft, forward and aft.
5. Last Port, ETA Rabigh.
6. Quantity of ballast on arrival, where loaded.
7. Quantity of dirty ballast on arrival.
8. Total cargo capacity in cubic metres and cargo required.
9. Grades and quantities of any part cargoes or cargo residues and where loaded. Grade and quantities of product in deck tanks.
10. Are part cargoes to be commingled with loadings?
11. Gauge pressures top and bottom and mean temperatures of each cargo tank.
12. Quantity of coolant required in addition to cargo requirements.
13. Maximum allowable relief valve settings for all cargo tanks.
14. Have any cargoes other than LPG been carried during last 3 loaded voyages. Specify?
15. Maximum oxygen content by volume per cent of each warm or inerted cargo tank.
16. If tank purging required, specify whether:
    (a) Parallel or in series.
    (b) Liquid from shore direct to cargo tanks.
    (c) Liquid from shore to vessel's vaporizers, specify vaporizer throughput in RLPG/hour.
17. If cooling down tanks is required, specify maximum cooling rate in terms of temperature reduction per hour and maximum temperature differential permitted between any 2 points in cargo tank.
18. Available total capacity of ship's reliquefaction plant for each nominated cargo product.
19. Type of ship's reliquefaction system, i.e., direct, cascade or other.

20. Capacity of ship's gas blowers to shore vapour return line in volume per hour at reference temperature.
21. Maximum loading rate and approximate topping-off rate.
22. Bunker manifold size, bunker requirements.
23. Manifold presentation, function, A.S.A. rating, size, from forward.
24. Agent's Name.
25. IMO ship type, does vessel have valid Certificate of Fitness?
26. Special conditions, difficulties, defective equipment or gear which could present special hazards or difficulties when mooring – unmooring or during cargo operations.
27. Arms and ammunition on board for self defence.
28. Information relating to ship's radars (type of radar, frequency, scan speed, pulse width, pulse peak power, pulse repetition frequency, beam width).

RADIO *Pre-Arrival Information and Requirements:* The Rules and Regulations of Saudi Arabian Seaports require pre-loading advice, pre-arrival information from first loading port and further notification of ETA 5 days, 2 days and 1 day prior to arrival.

This information must be telexed to:
(a) Petromin Petrola Rabigh Refinery Co. Telex No. 612032 RABREF SJ.
(b) Rabigh Port Management.
(c) Rabigh Port Authority.
(d) Vessel's Agent.
either directly or through the vessel's Agent.

Vessels which fail to comply with this requirement may be delayed and/or be subject to a fine, as laid down in the Seaport Rules and Regulations.

VHF: All marine services and shipping movements within the Rabigh Port Area are monitored and controlled by Rabigh Port Control, which maintains VHF watch on Channel 16 and 66A.

Vessels should finally confirm their ETA and other particulars at least 3 hours before arrival.

VHF Channels 1, 3, 15, 16, 18A, 19A, 65A, 66A, 78A and 79A are continously available for use by the Rabigh Port Control.

In the event of a port emergency, Rabigh Port Control will designate a channel for use during the period of emergency.

RADAR: Port radar service not available.

TUGS: There are 5 Voith Schneider tugs available for berthing and unberthing operations, each of 4,700 h.p., bollard pull 52 tons. They are equipped with fire fighting equipment and remote controlled monitors for foam-water or water jet, ranging up to 70 m.

Two pilot boats are available.

Mooring boats will be utilised to run mooring lines to the mooring dolphins from the tankers.

BERTHING: Liquid Cargo Port: The Liquid Cargo Port is situated Southeastward of the turning basin with depth 26.5 m., width 690 m. and a length 960 m. at the East side and 760 m. at the West side of the port.

Berths and Equipment: Two berths (No.2 and No.3) are situated on the East side of the port, and are aligned 321°, with depth alongside the berths of 26.0 m. They are designed to service tankers from 30,000 d.w.t. to 325,000 d.w.t. The distance between the centre of the inner breasting dolphins is 66 m. The distance between the outer mooring dolphins is 430 m.

Each berth consists of a concrete platform with dimensions 30 m. × 50 m. at 3 m. above M.S.L., and a metal service platform on it at 6.75 m. above M.S.L. Each berth has 4 breasting dolphins with large flexible rubber fenders on the outer face and 6 mooring dolphins, all equipped with quick release hooks with electrically operated capstans. All quick release hooks can be remotely released from the berth control cabin.

There are 24 quick release hooks available for each berth with capacity ranging from 100 tons to 180 tons.

On each berth there is a multi-purpose tower with an automatic gangway and a 1.5 tons service crane.

Loading Arms: On each berth there are 8 FMC designed, hydraulically operated loading arms, with quick couplers which connect to the ship's flanges. Special adaptors for the 20 in. loading arms can be used for the connection to the 14 in. to 24 in. ship's flanges, as well as for the 10 in. loading arms for the connection to the 6 in. to 16 in. ship's flanges.

1×20 in. arm is dedicated exclusively for loading Jet Fuel.

2×20 in. arms for loading Naphtha or Gas Oil.

3×20 in. arms for loading Fuel Oil or unloading Crude Oil and for deballasting purposes.

2×10 in. arms for bunkering and deballasting.

The accepted minimum and maximum manifold heights above mean sea level are 2.5 m. and 28 m. respectively.

The maximum lateral drift is 3.5 m. forward and 3.5 m. aft, in the normal position of zero offset.

All loading/bunker connections are equipped with electrically insulated flanges. Therefore ship to shore bonding cables are not required.

Loading Rates: Product loading rates:

	Minimum (cu.m.p.h.)	*Maximum* (cu.m.p.h)
Naphtha	600	5,400
Jet Fuel	600	3,600
Gas Oil	600	5,400
Fuel Oil	600	5,400
Bunker	200	1,150

Crude Oil maximum unloading rate is 16,000 cu.m.p.h.

Ballast maximum unloading rate is 10,000 cu.m.p.h.

Crude is sampled during unloading from automatic Jiskoot samplers, while volumetric measurements are made at the tanks with the usual dipping method. Products are metered with calibrated and Customs checked Smith Meters.

Water Supply: Potable water is available at about 50 cu.m.p.h.

Fire Fighting Equipment: The berths are equipped with 4 remote controlled monitors, two on each side, throwing water or a foam mixture a distance of 65 m., and capable of covering the manifold area of the largest tanker. Underneath each berth there are foam dispensers, and on each berth 4 foam-water hydrants. Loading arms, multi-purpose tower and the monitor tower have water sprinklers for cooling in case of fire.

The fire water line is always under pressure.

The berth monitors are remote controlled from the berth control cabin, as well as from a fire fighting tower situated onshore halfway between the two berths.

Operational and Berthing Criteria:
(a) Limiting conditions for the Pilot to board the vessel:
Wave height of 2.0 m. Wind over 25 knots (Beaufort Scale Force 6).
(b) Limiting conditions for berthing and mooring operations:
Wind speed over 25 knots (Beaufort Scale Force 6).
(c) Limiting conditions for loading/unloading operations:
Wind speed over 40 knots (Beaufort Scale Force 8).
(d) Limiting conditions not permitting unberthing:
Wind speed over 30 knots (Beaufort Scale Force 7).

However, vessels can remain alongside the berth even with a 60 knot wind speed (Beaufort Scale Force 11).

Maximum berthing velocity: 20 cm./sec.

Maximum approach angle: 7°.

Mooring Arrangements: Recommended mooring diagrams are shown in the "Plan Section". However, in order to ensure the safety of personnel, tankers and loading facilities, and to prevent accidental oil spillages, the Rabigh Port Management strongly recommends that tankers utilise the minimum mooring lines and mooring wires as follows:

Up to 45,000 d.w.t. – minimum of 16 mooring lines.

45,000 d.w.t. to 70,000 d.w.t. – minimum of 16 mooring lines to include 6 wire lines for springs and/or breast lines.

VLCCs must provide an all wire mooring arrangement of minimum:
70,000 d.w.t. to 160,000 d.w.t. – 12 mooring wires.
160,000 d.w.t. to 250,000 d.w.t. – 16 mooring wires.
250,000 d.w.t. to 350,000 d.w.t. – 16 mooring wires.
350,000 d.w.t. to 400,000 d.w.t. – 18 mooring wires.

For mooring VLCCs, it is recommended that as a minumum a 42 mm. diameter 6 × 37 class IWRC preformed heavily drawn galvanised wire line (minimum tensile strength of 180 kg./sq.mm.) with a typical MBL of 115 tonnes be specified.

Vessels equipped with both wire and synthetic lines must avoid mixing such lines to the same dolphin (and same direction).

Vessels must be moored to the entire satisfaction of the Pilot.

Any known defects of vessel's mooring system should be reported to the Pilot and terminal before arrival.

As soon as tankers are secured, manual brakes should be set on the winches, and they should not be left on automatic tension.

An efficient watch must be maintained on the vessel's moorings at all times, to ensure that all lines have the required tension and the vessel is kept well close alongside.

Vessels must be ready to put out more lines if required by weather changes or at the direction of the Rabigh Port Management and Terminal Operator.

Pioneer Port: The Pioneer Port is situated on the South part of the harbour and West of the Oil Cargo Port, with a depth of 15.0 m. and a width of 350 m.

Four concrete finger piers on piles, with depths of minimum 7.0 m. – maximum 15.0 m. are available on the South side of the Pioneer Port for tugs, pilot boats, mooring boats and small craft.

Dry Cargo Pier: The Dry Cargo Dock is situated on the South coast of the harbour, near the port entrance and has a depth alongside of 6.5 m. and a length of 80 m.

All loading and unloading operations of dry cargo are carried out through the Dry Cargo Dock.

Bagged sulphur is loaded from Dry Cargo Dock. Maximum permissible depth is 6.5 m., length 120 m. Shore cranes available.

Dry Cargo Port: Presently used as a Yacht and Coast Guard Port.

BALLAST: *Ballast Discharge:* All ship's dirty or clean ballast should be discharged to the Refinery's shore reception facilities. Maximum rate of discharge is 10,000 cu.m.p.h. Discharging of ballast at sea is strictly prohibited.

In very exceptional cases clean ballast may be discharged to sea, from permanent or segregated ballast tanks, but only with the permission of the Rabigh Port Management and Port Authority. In this event the Master must state in writing that the oil content in the water ballast does not exceed 5 p.p.m.

Slop residue and ballast contaminated by leaded gasoline cannot be discharged ashore.

Slops may only be discharged into the ballast system with the express approval of the Petromin Petrola Rabigh Refinery after sampling. Prior to arrival, vessel should advise the terminal of the quantity and quality of slops held on board, and confirm that no chemicals or emulsifying agents have been used in previous tank cleaning.

MEDICAL: There is a medical room for first aid in the Refinery and a hospital in the village of Rabigh.

FRESH WATER: Available.

FUEL: Bunkers presently not available alongside berths but will be available in the future (there are loading arms for bunkering fuel oil and mixtures).

Bunkering at roads may be available with small vessels ex-Jeddah, if arranged through Agents and Coast Guard (Not available April 1994).

REPAIRS: There is no repair facility in the port. Vessels can make repairs in the roads.

SURVEYORS: Classification Society Surveyors are available from Jeddah on request of the Master to the Agent.

GANGWAY/DECK WATCHMEN: Not required.

Coast Guard: One Coast Guard is placed on board and requires accommodation and food during the vessel's stay in port.

CUSTOMS: Customs may board the vessel at the berth or at the anchorage. All alcoholic beverages must be placed under seal. Cigarettes, cigars and tobacco in excess of normal consumption during the expected duration of stay are placed under seal. Spirits are strictly prohibited.

Prohibitions:

(i) No photographs shall be taken in port.

(ii) Radio will be sealed and is not to be used during vessel's stay in port.

(iii) The importation of the following items is strictly prohibited: Explosives and firearms, including air rifles; implements of war of any kind, including antiques; alchoholic beverages; religious matter not pertaining to the Moslem faith; pig meat and products; playing cards and gambling games or devices; narcotics and pornographic photographs or magazines carrying such pictures.

AIRPORT: Jeddah Airport, 150 km. South of Rabigh.

REPATRIATION: Arranged by Ship's Agent.

HOLIDAYS: Tanker terminal operates 365 days a year including hoildays.

POLICE/AMBULANCE/FIRE Police: 4220300/4220304. Ambulance: 4221617. Fire 4221770. Coast Guard: 4223082/4221400.

TIME: GMT plus 3 hours.

SHORE LEAVE: Not permitted unless special arrangements are made through the Agents.

GARBAGE DISPOSAL: Garbage collection service is available for limited quantities after special Coast Guard permission obtained through ship's agent. Garbage should be collected in plastic bags and will be delivered by the vessel to a small craft carrying special bucket after the completion of Coast Guard formalities and provided that a 48 hours notice prior vessel's arrival has been given to the Marine Dept. of the refinery through the agent for approval.

WASTE OIL DISPOSAL: Slop residues and ballast contaminated by leaded gasoline cannot be discharged ashore. Slops may be discharged into the ballast system only with the express approval of the Petromin Petrola Rabigh Refinery after sampling. Prior to arrival vessel should advise the terminal of the quantity and quality of slops held on board and confirm that no chemicals or emulsifying agents have been used in previous tank cleaning.

SEAMAN'S CLUBS: None.

CURRENCY: Saudi Riyals (SR).

TELEPHONE: Not available for placing on board ship.

SAFETY: *Safety Inspections and Emergency Procedures:*

1. The Special Safety Regulations pertaining to tankers as quoted in the Regulations for Port Safety of the Rules and Regulations for Saudi Arabian Seaports as well as international regulations in respect of these matters should be strictly followed.
   (a) Ship/Shore Safety Check List should be completed jointly by a ship's officer, Terminal personnel and a representative of Safety Department, as soon as possible after the vessel is alongside the berth, and prior to commencement of any cargo/bunker operations.
   (b) Repeated safety inspections will be carried out by the Loading Master/Terminal Operator or Petromin's Safety Department during the vessel's stay alongside.
   (c) The Master and officers will be advised immediately in the event of any infringement of safety requirement on board, in order to take corrective measures.
   (d) If the violation continues, all operations on board may be suspended, the vessel may be ordered out of the berth and will be held responsible for all delays and consequences thereof. The Agent, Owner and Charterer will be advised accordingly.
   (e) Gas freeing, hot work and engine repairs are strictly forbidden in port.
   (f) Vessel's engines should be ready for use at all times.
2. Emergency procedures and actions which have to be taken, will be reviewed by the vessel's Chief Officer and the Loading Master or Terminal Operators, as soon as the vessel comes alongside the berth.

   An emergency situation may arise in the following cases:
   (a) Fire on board or on shore.
   (b) Pollution on board, around the vessel or on shore.
   (c) Collision, grounding, sinking.
   (d) Weather deterioration (strong wind and thunderstorm).
   (e) High gas concentration.
   (f) Any other serious event affecting the safety of personnel, the vessel or the port.
3. Emergency situations will be reported immediately to the Rabigh Port Control and Terminal Operator by:
   (a) VHF Channels 16, 66A or 9 or any other designated channel.
   (b) Telephone.
   (c) Continuous sounding of the ship's whistle.
   (d) Refinery Alarm System.
   (e) Any other convenient means of communication.

All operations at the port and on board the vessels will be immediately suspended, and all tugs will stand by.

All vessels will comply with the emergency reporting procedures as per Rabigh Port Management and Port Authority instructions.

In the event of an emergency, the vessel's crew and terminal personnel should take immediate action to stop loading/discharging, disconnect the loading arms and place fire facilities on stand-by.

Preparation should be made for the vessel to leave the berth, and to limit, if possible, the hazard to personnel, ships and/or installations. At the same time all concerned should maintain contact with the Rabigh Port Management and Port Authority for further instructions and coordination.

An efficient crew watch should be maintained on deck throughout the vessel's stay alongside the berth.

Direct contact by VHF must be maintained with the Terminal Operator.

Inert Gas Requirement: Saudi Arabia is a signatory to the International Convention SOLAS 74 and its amendments.

Vessels which are required to be inerted under the above convention will be checked by the Terminal Representative before loading commences, in order to attain an oxygen content of 6% or below in their cargo tanks. Also see "Shipmaster's Report" dated May 1991.

Oil Pollution Prevention: Oil spillages are viewed very seriously by the Rabigh Port Authority, Coast Guard and Rabigh Port Management.

Spillages will be investigated by the Authorities, and the Master and/or Owner will be liable to prosecution and heavy penalties including the cost of cleaning. Delay to the vessel's departure could well arise. Masters are requested to ensure that every measure has been taken to prevent oil spillages at or outside Rabigh Oil Terminal and must advise the Rabigh Port Management, if their vessel has sustained any damage at any time which could lead to oil pollution. Suitable absorbent material or other materials or equipment should be readily available and suitably located on deck in order to clean any spillage.

Prior to entry into the port, the Master is required to sign the "Instructions to Vessels and Conditions of Use of all Berths", presented to him by the Pilot, regarding his or his Owner's responsibilities for pollution originating from his vessel.

WEATHER:

Climate: Tropical desert, hot climate with humidity very high during Summer months. Winter is mild and pleasant.

The weather conditions can be divided into 2 seasons:

(a) November to February with average temperatures 30° C. in daytime and 18° C. at nightime and average humidity 65%. Rain may be experienced very rarely during December or January, and does not normally last more than 2 hours. The rainfall varies between 10 mm. and 65 mm. and has a monthly average of 5 mm.

(b) March to October with average temperatures 38° C. in daytime and 25° C. at nightime with average humidity of 82%.

August is the hottest month.

Wind – Sea Condition – Visibility: Generally the prevailing winds experienced in this area are North to Northwesterly which occur 70% of the time compared with winds from any other direction. The speed of these winds normally does not exceed Force 3 to Force 6, although rarely winds of higher speed have been recorded.

Usually the wind starts to blow at 1000 hrs., reaches its maximum strength at noon, and then reduces at about 1900 hrs.

The state of the sea with a Northwest wind is slight to moderate outside the port. Easterly wind can be experienced occasionally reaching Force 7.

Generally the port is not affected by the state of the sea and swell.

Winds of gale force may occur between December and March. The direction of these winds is usually South to Southwest; velocity usually reaches Force 7, although winds of Force 11 have been experienced in the area.

Visibility at this time is usually limited to 1 mile due to sandstorms, and the state of the sea is rough to very rough.

The signs of impending storm are clouds which begin to appear from South or Southwest. The storm breaks suddenly followed by heavy rain and thunder.

Poor visibility due to fog is rarely experienced, only occasionally during the morning hours. However throughout the year dust storms may occur, obscuring the coastline.

Tides and Currents: The tide cycle is semi-diurnal. Elevation of the tide levels in relation to the mean sea level are as follows:

L.L.W.L	−0.74 m.	M.S.L.	0.00 m.
H.H.W.L.	+0.74 m.	Mean Daily Tidal Range	0.34 m.

Local currents are affected by the general circulation of currents in the Red Sea. They usually flow in a N.W.'ly direction along the coast with a speed usually not in excess of 0.5 knots. The Rabigh Port is minimally affected by tides, and there are no significant currents produced by tidal flows.

Sea Temperature: Ranging from 22° C. to 29° C.

Sea Water Density: 1027.5 (Average).

GENERAL: *Charts and Publications:*

Charts:

(a) Saudi Arabian Charts	No.18, No.182
(b) British Admiralty Charts	No.63, No.926
(c) U.S.A. Chart (Omega)	No.62250

Publications:

(a) British Admiralty Tide Table, Volume 2, Atlantic and Indian Oceans.

(b) British Admiralty Red Sea, Gulf of Suez and Aden Pilot (plus supplement No.64.)

(c) British Admiralty List of Lights and Fog Signals, Volume E.

(d) Rules and Regulations for Saudi Arabian Seaports.

Rules and Regulations for Saudi Arabian Seaports: Full details regarding Port Rules and Regulations are included in the above book, which must be kept on board the vessel and in any case be obtained immediately on first arrival in a port of the Kingdom of Saudi Arabia.

The required procedure for the presentation of official papers and documents required are listed in "Documents", however, full details regarding procedures and conduct of vessel and crew must be checked with the above Rules and Regulations.

Government Entry Requirements: The Master will be responsible for complying fully with the requirement of Saudi Arabian Government Departments, Ministries, Agencies and Organisations. Particular attention should be paid to the requirements of Customs, Coast Guard, Immigration and Port Health Authorities. Masters requiring any advice on these requirements should contact their local Agents.

Instructions to Vessels and Conditions of use of all Berths: When the Pilot boards an inward-bound vessel, he will present the Master with a letter "Instructions to Vessels and Conditions of use of all Berths".

The Master is required to sign the letter, acknowledge receipt and agree to the instructions and conditions contained therein prior to entry into the Port.

No vessel will be allowed to enter the Port until this letter has been signed.

Agent: There are no Agents offices in Rabigh at the present time. Agent's business is carried out through Jeddah offices. For crew changes and other formalities, Agents should be contacted.

Provisions and Stores: May be available from Rabigh or Jeddah, on request to the Agents.

SHIPMASTER'S REPORT: July 1990.
Approaches: The port has made new charts and submitted them to publishers, but nothing official is available yet.

B.A. Chart No. 925 is inadequate, and has not been revised as yet. Nevertheless, it is not a difficult task to approach the port, and the existing aids and Port Handbook are sufficient.

On arrival, the pilot boards using a tug, 3 – 4 cables North of the Tanda Rock Buoy, preferably from starboard side. Accommodation ladder can be used.

On departure, the pilot disembarks as soon as the vessel clears the buoyed channel, and even without chart, one has no difficulties sailing outward.

Anchorages: Considered safe and easily accessible without pilot. Vessel has only to clear Tanda Rock Buoy, leaving it to starboard, and pass the Fairway Buoy at 0.5 miles, and there is the anchorage for large vessels.

Inertion: The refinery requires vessels, in order to load, to be inerted to 6% or less of oxygen content. If visual inspection of the tanks needed, this is carried out at the anchorage. Then inertion must take place before the ship is admitted to berth.

The O_2 content is checked alongside.

N.O.R. is "received" upon being all fast.

Medical: Facilities available.

Repatriation: Possible via Jeddah. Seaman's Book mandatory.

Radio Free Pratique Message: Not required. Doctor boards upon berthing.

Personnel: Cooperation with Refinery personnel considered very good.

Cargo Documents: Time for Bills of Lading, etc., after loading is minimal. Difference in ship/shore figures is negligible.

Chandlers/Stores: None of the usual type of chandlers available. In case of need (with a long trip ahead), arrangements can be made through agents, in advance, and someone from the vessel can go to Rabigh town market and buy the goods.

SHIPMASTER'S REPORT: April 1991.

Our vessel was advised by Agent, only a few hours prior to arrival, that the oxygen content of the tanks should be less than 6%, and that the vessel should be ballasted to at least 30% of Summer deadweight.

SHIPMASTER'S REPORT: May 1991 (Updated 1994).
Location: Rabigh Refinery is located some 90 nautical miles South of Yanbu.

The Eastern coast of Saudi Arabia from Yanbu to Jeddah and at Gizan is well covered by strong Racons.

Approaches: Shi'b al Khamsa (a low lying coral-reef) was picked-up on the radar on a range of 42 miles (Racon "O"/ 3 cm. and 10 cm.). About 9 miles further East, Shi'b al Bayada (low lying reef) was picked-up on the radar at about 10 miles. After passing Shi'b al Bayada, a course of 055° takes the vessel well clear of Tanda Rock and the extensive coral-reef just off the coast.

If berthing on arrival, the pilot will meet the vessel just North of Buoy No. 15. There is no pilot boat. One of the large harbour tugs takes the pilot out to the vessels. A combination of pilot ladder and gangway was used on the starboard side.

If the vessel has to anchor, a pilot will board on request at Buoy No. 15, and then bring the vessel into the well protected anchorage behind the reef.

Pilot is not compulsory for anchoring, but 'Rabigh Port Control' (VHF Channel 16) must be contacted prior to moving into the Large Vessel Anchorage.

Anchorage: The Large Vessel Anchorage is divided into 6 equal anchor positions. Holding ground is good (sand and coral). Water depth is between 65 m. – 80 m.

Pilotage: Pilotage available 24 hours for berthing and unberthing.

Health: Health authorities (local doctor) check De-Rat Certificate and issues Free Pratique.

Tugs: For mooring and unmooring, we used 3 tugs. Tugs (Voith Schneider) have a minimum power of 6,000 h.p.

Berthing: Rabigh Refinery is located in a natural bay with 4 pairs of buoys leading to the two berths.

Water depth alongside both berths is 27.8 m.

The Refinery and Loading Terminal is operated by Greek consultants and technicians, and most of the Loading Masters are ex-ship masters. Cooperation with the Terminal was good and professional.

Vessels berth starboard side alongside.

Hose connections were 3×16 in. Chicksans, very quick to connect.

There are facilities for pumping ballast ashore.

Imports are crude oil and exports are fuel oil, naphtha and jet fuel.

Shore gangway used.

Moorings are 3/3/2 each end. Two mooring boats take lines to quick release hooks. Spring lines of wire with rope tails are sent ashore first.

After loading, documentation takes 1.5 hours – 2 hours to complete.

Fuel: Not available.

Repatriation: Only possible when prior arrangements have been made by owners and Agent. Wives leaving and joining the vessel require valid Seaman's Books.

Shore Leave: Not permitted, even for reading draft.

General: No documents sighted by Authorities or Agent.

Military guard checks that all bonded stores are properly closed.

AUTHORITY: Petromin – Petrola Rabigh Refinery Company, P.O.Box 180, Rabigh, 21911 Saudi Arabia. *Tel:* (02) 4223200. *Telex:* 612032 RABREF SJ. *FAX:* (02) 4221794. *Contact:* Mr. Hussein Bahaa, Chief Executive Assistant. Mr. Samy Saad, Refinery General Manager. Captain Iraklis Dairopoulos, Harbour Master. Captain Constantinos Kamateros, Asst. Harbour Master. Dr. H. Al-Makhzangi, Asst. General Manager. Mr. Dionissios Routsis, Superintendent, Offsites/on Shore Marine.

AGENT: See "Jeddah".

RAS AL-KHAFJI: 28.25 N. 48.32 E. (See Plan)

The onshore base lies in position approximately Lat. 28° 25' N., Long. 48° 31' E., and within a distance of 7 miles (13 km.) offshore, the Company has two four-buoy system berths and two single-buoy-mooring system berths for loading tankers, and also an anchorage area for dry-cargo ships. Outside of this distance there is an anchorage area for tankers. These berths and anchorage areas are situated in the territorial waters of the Kingdom of Saudi Arabia.

APPROACHES: The approaches to Ras Al-Khafji are marked on the appropriate U.S.N.O. and British Admiralty Charts, and deep enough for the majority of vessels visiting the Port to proceed with normal caution using the buoys (Buoys No. 1 and No. 2) as centre line and both side markers (Buoys No. 3 – No. 8). A single patch with a depth of 56 ft. (17.07 m.) marked by Buoy No. 4 exists close to the passage. A patch of minimum depth of water 70 ft. (21.34 m.) exists in the passage 0.6 miles S.S.E. of Buoy No. 7.

All the geographical positions shown are intended for reference purpose only. Users are reminded that certain differences are known to exist between the positions herein and those on the U.S.N.O. and British Admiralty Charts of the area.

The U.S.N.O. Charts No. 62451 and 62430 and B.A. Charts No. 3774 and 2882 are recommended for navigational use in this area.

For oil tankers arriving at Ras Al-Khafji without the necessary charts, the full information will be given by telex upon request to Terminal and Shipping, the Company's Field Office (841011 AAB, 841011 ARBOIL SJ) or telegram upon request to "ARABIAOIL KUWAIT" (via "Kuwait Radio Station 9KK") a few days before arrival. Alternatively, if the vessel has VHF, the buoy positions will be given to them upon request to "Ras Al-Khafji Terminal" as the vessel approaches, but prior notice of requiring this service should be given in the vessel's arrival message. The navigation message used reads as follows:

"ON REACHING NUMBER ONE LIGHT BUOY LATITUDE 28° 36.0' NORTH LONGITUDE 49° 10.0' EAST RWVS ISOPHASE WHITE TEN SECONDS 10 MILES RAREFL – THENCE STEER 270 DEGREES TRUE FOR 9 MILES TO NUMBER TWO LIGHT BUOY LATITUDE 28° 36.0' NORTH LONGITUDE 49° 00.0' EAST RWVS LONG FLASHING WHITE TEN SECONDS 10 MILES RAREFL – THENCE STEER 254 DEGREES TRUE FOR 9.5 MILES TO POINT 0.8 MILE NORTHWARD OF NUMBER FOUR LIGHT BUOY LATITUDE 28° 32.6' NORTH LONGITUDE 48° 49.0' EAST RED GPFL FIVE RED TEN SECONDS 6 MILES RAREFL – THENCE STEER 270 DEGREES TRUE ABOUT 2 MILES TOWARD NUMBER SEVEN LIGHT BUOY LATITUDE 28° 33.4' NORTH LONGITUDE 48° 45.7' EAST GREEN FLASHING GREEN THREE SECONDS 4 MILES RAREFL – THENCE STEER 243 DEGREES TRUE TOWARD FOR 8 MILES NUMBER NINE LIGHT BUOY LATITUDE 28° 29.5' NORTH LONGITUDE 48° 37.8' EAST YELLOW GPFL FOUR YELLOW TEN SECONDS 7 MILES RAREFL MARKS TANKER ANCHORAGE WEST CORNER STOP NUMBER ONE AND TWO LIGHT BUOYS MARK CENTRE LINE OF APPROACH WHICH IS WIDE AND DEEP STOP TWO SHOAL PATCHES NORTHWARD OF APPROACH ARE MARKED BY NUMBER THREE LIGHT BUOY LATITUDE 28° 34.9' NORTH LONGITUDE 48° 51.5' EAST YELLOW ABOVE BLACK QUICK FLASHING SIX PLUS LONG FLASHING WHITE FIFTEEN SECONDS 10 MILES RAREFL AND NUMBER FIVE LIGHT BUOY LATITUDE 28° 33.8' NORTH LONGITUDE 48° 48.0' EAST YELLOW ABOVE BLACK VERY QUICK FLASHING SIX PLUS LONG FLASHING WHITE TEN SECONDS 10 MILES RAREFL STOP TANKER ANCHORAGE AND PILOT GROUND IS WITHIN 1 MILE RADIUS OF LATITUDE 28° 29.5' NORTH LONGITUDE 48° 39.0 STOP"

NAVIGATIONAL AIDS: *Conspicuous Marks:* The flare stacks in the offshore field and onshore are normally visible at a far distance, but may occasionally be extinguished, and a well structure located 4.5 miles Northward from Light Buoy No. 2 is conspicuous.

No. 1 Flare	Lat. 28° 28.3' N., Long. 48° 57.0' E.
No. 2 Flare	Lat. 28° 27.0' N., Long. 48° 54.8' E.
No. 3 Flare	Lat. 28° 29.8' N., Long. 48° 56.0' E.
No. 4 Flare	Lat. 28° 30.3' N., Long. 48° 58.0' E.
No. 5 Flare	Lat. 28° 28.5' N., Long. 48° 55.9' E.
Onshore Flare 1	Lat. 28° 24.5' N., Long. 48° 32.4' E.
Onshore Flare 2	Lat. 28° 23.7' N., Long. 48° 32.1' E.
Well Structure	Lat. 28° 40.4' N., Long. 48° 57.8' E.
Ex-Loading Dock	Lat. 28° 24.5' N., Long. 48° 32.4' E.
Valve Station Platform	Lat. 28° 26.9' N., Long. 48° 35.8' E.
Kaizu Maru Wreck	Lat. 28° 31.7' N., Long. 48° 34.6' E.

Ex-Loading Dock is out of use. Jetty structure with a light Fl.R. 3 sec.2M.RARE on tower at North end.

Valve Station Platform functions as berth loading control platform with a light Fl.R.10 sec.10M.RARE.

"Kaizu Maru" wreck is unlit.

DOCUMENTS: *(A) Clearance.* Master should submit following documents to Saudi Arabian Government through Agent (2 copies each):

Maritime Declaration of Health.
Health Condition of Crew.
Details of Air-conditioning.
Crew List.
Vaccination List.
Passenger List (if any).

Note: Forms 1 – 3 are supplied by the Agent.

(B) Cargo: All the documents listed below except the Ship's Statement of Cargo (Ullage Report) are prepared onshore, and this takes about 1.5 hours after loading completion. The tanker is requested to designate the type of documentation, either early departure or ordinary documentation by filling checkmark in the Designation of Documentation type. The Company usually recommends Early Departure Documentation. But ordinary documentation can also be requested. In this case, however, it takes a further 30 – 60 minutes before the documents arrive at the tanker. Whenever necessary, the Mooring Master will sign the documents on behalf of the Company.

The following cargo documents are usually to be prepared onshore except (4):

(1) Notice of Readiness
(2) Bill of Lading
(3) Tanker Time Sheet
(4) Ship's Statement of Cargo (Ullage Report)*
(5) Certificate of Discharge**
(6) Master's Receipt of Documents

Note: *Ship's Statement of Cargo includes the items for "Clean Ballast Declaration" and "Dry Inspection" both together in one form, and is to be completed always on board the tanker regardless of Early Departure Documentation.

**Certificate of Discharge should be handed over to the tanker's Agent at the port of discharge for certification by the Customs Authorities there. The Agent should then return the Certificates to the Company as soon as possible. Non compliance with this requirement could involve the tanker in serious difficulty as all the member states of the Arab League prohibit the export of any materials through their ports to Israel, and the purpose of the Certificates is to prove that the cargo was not discharged in Israel.

Masters are therefore advised to ensure that their Agents at each discharging port understand this and return the Certificates at the earliest possible moment.

The following is a copy of a letter to a ship's Agent from the Chief of Ras Al-Khafji Port. Dated September 1980.

We would like to advise you that effective 1st of Dhul-qadah, 1400 (September 10, 1980) in case you need a Port Clearance for any vessel under your agency please ensure that ship's Crew List consists of name, nationality, date of birth, place of birth, Passport/Seaman Book Number and rank. In the absence of this information we are unable to provide you with Departure Port Clearance and you will be held responsible for ship departure delays.

EARLY DEPARTURE DOCUMENTATION: This documentation system aims to assist ships to depart early from this port after they complete loading by saving time awaiting documents. For this reason, relevant tanker documents will be signed previously by ship's Master or signed by their Agents at this port, depending on Master's choice on the request sheet. Completed tanker documents, therefore, will not be despatched to ships after completion of loading.

It must be noted that this system is not compulsory at this port, but it is at Master's option on condition that ships can communicate on Harbour Service VHF Radio to receive shore figures any time before departure.

READINESS: The Master of each arriving tanker should present a Notice of Readiness to the Company's Mooring Master who will sign it on behalf of the Company. The Notice of Readiness should be tendered at the time of the tanker's arrival at the anchorage area, which is understood to be either the time of dropping the anchor in the anchorage, or if the tanker does not anchor, the time when the Mooring Masters board the vessel.

PILOTAGE: Pilotage is compulsory for arriving tanker's berthing and unberthing at Ras Al-Khafji and a Company's Mooring Masters will board the tanker at the anchorage area to take her to her assigned berth. The company shall assign 2 Mooring Masters for operation on the tanker for shipment. One is as Main and another is as Sub-Mooring Master. The Company's Mooring Master who is assigned on duty shall advise the tanker's Master on the manoeuvre and operations relating to berthing, unberthing, bunkering connecting and disconnecting the loading hoses, and communication between the tanker and Central Control Room (CCR) on shore. Necessary documents such as Ship's Statement of Cargo, Dry/Slop Certificates, Load-on-Top Certificate and Statement of Facts shall be signed by the Mooring Masters on behalf of the Company. After berthing, the Mooring Masters will remain onboard the tanker until she is unberthed and the cargo documents are completed.

Two separate cabins and food as per status to be provided to Mooring Masters during their stay on board.

Notwithstanding the presence of the Company's Mooring Masters onboard, the Master of the tanker remains responsible for his tanker at all times and in all respects.

In the event of any emergency, however, the necessary steps should be taken with the assistance of the Mooring Masters.

The Master of each tanker shall give the Mooring Masters all information necessary for the safe handling and the safe operation of the tanker while in the berth.

The Mooring Master will require the following information immediately on his boarding the tanker, to be relayed to CCR and Shipping Department prior to departure from tanker anchorage.

1. Name of Tanker.
2. Call Sign.
3. Flag.
4. Telex Number.
5. Summer D.W.T. in Long Tons.
6. N.R.T.
7. Arrival Time at Anchorage.
8. Notice of Readiness tendering time.
9. Arrival Draft.
10. Sailing Draft.
11. Documentation Type.
12. Cargo required in Net Barrels.
13. Maximum Loading Rate in Gross Barrels per hour.
14. Slow down time required.
15. Average ship/shore difference in Long Tons (Vessel Experience Factor).
16. Deballasting time prior to commencement of loading.
17. Master's Family Name and Initials.

BALLAST: *Prevention of Sea Pollution by Oil:* THE DISCHARGE OF DIRTY BALLAST and/or OIL RESIDUE, BILGE and WASTE OIL by any vessel in the GULF area is STRICTLY PROHIBITED. The Company strongly requests all vessels to observe this rule of sea pollution prevention by oil in conformity with the Saudi Arabian Government's policy objectives as well as their Ports, Harbours and Lighthouses Regulations along with the relevant rules, which are substantially as follows:

In the event of oil pollution of the sea by any vessel, Masters are liable to possible imprisonment and fine, in addition to the refundment of all clean-up costs and damages sustained by any party. Should Masters fail to comply, they may be detained by the Authorities. Shipping Agents will be required to warrant Master's compliance.

Since the terminal has no facilities to receive dirty ballast, oil tankers arriving with dirty ballast will be requested to collect dirty ballast into one tank of the tanker, otherwise load crude oil on top of oil residue.

Recommended Ballast Condition on Arrival: All tankers arriving at this port are required to have sufficient ballast to give a safe draft for manoeuvring in the port. Tankers arriving with insufficient ballast may be required to increase it if the Mooring Master considers it necessary to do so. In good weather conditions, the Mooring Master will permit arriving tankers to start deballasting as they approach the berth in order to save time.

BOARDING: For the benefit of people boarding at the anchorage area, vessels should provide a safe means of access on the lee side.

All vessels are required to provide a safe means of access for personnel boarding and leaving the vessel, and should have their accommodation ladder rigged on the port side. In the case of tankers assigned to Berth No. 3 or No. 4 an accommodation ladder which leads down forwards is liable to be blocked by the floating hoses, and in such a case the accommodation ladder should be rigged on the starboard side. An accommodation ladder leading aft is always suitable on the port side. Accommodation ladder should always be kept 5.0 m. above water and ready to be lowered whenever required. Pilot ladder is not required.

ANCHORAGE: *Ocean Tankers Anchorage Area:* The oil tankers anchorage area is designated within 1 mile radius from:

Lat. 28° 29.5' N., Long. 48° 39.0' E.

Two Light Buoys (No. 9 and No. 10) mark the Western limit and Southern limit of this area respectively. The depth of water varies from 70 ft. (21.34 m.) to 77 ft. (23.47 m.) with a good holding ground of clay mud. Oil tankers awaiting berthing should anchor as close as possible to these buoys.

Dry-Cargo Ships Anchorage Area: The anchorage area for dry-cargo ships is located about 5.5 miles to the S.W. of the oil tanker anchorage area, and is centred in position: Lat. 28° 26.8' N., Long. 48° 33.4' E. at which position a yellow Light Buoy (No. 14) showing a flashing yellow light every 3 seconds has been laid. Dry cargo ships should anchor within 0.5 mile radius of this buoy, where the depths are between 36 ft. (10.97 m.) to 50 ft. (15.24 m.) in a good holding ground of clay mud.

Prohibited Area from Navigation, Anchoring and Fishing: An area bounded by straight lines joining the following points is prohibited from anchoring and fishing.

The areas bounded by straight lines joining the following points are prohibited for anchoring and fishing, due to the presence of Wellheads, Flow Stations, Gathering Station, etc. and numerous pipelines and power transmission cables on the sea bed.

Additionally, the oil field areas A – C are prohibited from navigation of any oil tankers and vessels or crafts except these operating on direct instructions from the Company.

A. Khafji Oil Field area:

	Latitude	Longitude
(a)	28° 29' 36" N.	48° 52' 45" E.
(b)	28° 32' 00" N.	48° 54' 00" E.
(c)	28° 35' 00" N.	49° 00' 00" E.
(d)	28° 32' 00" N.	49° 04' 00" E.
(e)	28° 29' 00" N.	49° 04' 00" E.
(f)	28° 24' 00" N.	48° 52' 00" E.
(g)	28° 26' 10" N.	48° 52' 00" E.

B. Hout Oil Field and Dorra Gas Field area:

	Latitude	Longitude
(a)	28° 40' 30" N.	48° 54' 30" E.
(b)	28° 52' 30" N.	48° 59' 30" E.
(c)	29° 00' 15" N.	49° 07' 00" E.
(d)	28° 59' 45" N.	49° 13' 00" E.
(e)	28° 53' 00" N.	49° 08' 30" E.
(f)	28° 51' 00" N.	49° 04' 00" E.
(g)	28° 39' 00" N.	48° 59' 30" E.

However, the following area is exempted from prohibition of navigation.

(h)	28° 52' 30" N.	48° 59' 30" E.
(i)	28° 54' 30" N.	49° 01' 15" E.
(j)	28° 53' 00" N.	49° 08' 30" E.
(k)	28° 51' 30" N.	49° 05' 00" E.

C. Lulu Oil Field area:

The prohibited area from navigation is bounded within 1 nautical mile radius from the following locations.

	Latitude	Longitude
Well No. 1	28° 46' 35" N.	49° 28' 36" E.
Well No. 2	28° 38' 51" N.	49° 24' 39" E.

D. Area between Khafji Oil Field and Onshore Base:

	Latitude	Longitude
(1)	28° 24' 48" N.	48° 31' 57" E.
(2)	28° 25' 33" N.	48° 32' 55" E.
(3)	28° 29' 00" N.	48° 38' 00" E.
(4)	28° 27' 15" N.	48° 40' 00" E.
(5)	28° 29' 39" N.	48° 52' 45" E.
(6)	28° 26' 10" N.	48° 52' 00" E.
(7)	28° 22' 55" N.	48° 34' 00" E.
(8)	28° 23' 25" N.	48° 31' 50" E.

E. Area between Hout Oil Field and Khafji Oil Field:

	Latitude	Longitude
(9)	28° 32' 50" N.	48° 55' 30" E.
(10)	28° 39' 40" N.	48° 57' 00" E.
(11)	28° 39' 20" N.	48° 58' 10" E.
(12)	28° 33' 30" N.	48° 56' 50" E.

RESTRICTIONS: *Port Closure:* When the visibility is effected or when the weather and sea conditions develop worse than the below mentioned permissible criteria at the port, mooring operations normally become extremely difficult and unsafe. Therefore, in such circumstances, the Company advises that the port is closed to approaching tankers by VHF, and requests the tankers to wait at the Tanker Anchorage Area until the port is reopened.

The Company, however, reserves the right of selective berthing of some tankers with better manoeuvrability even during such period.

Permissible Criteria for all Berths:

Wind Velocity: Up to 20-25 knots depending on direction.

Sea Conditions: Up to 5 ft.

Visibility: Less than 1 mile.

MAX. SIZE:

Berth	*Depth of water at ISLW* (ft.)	*Max. Permitted draft* (ft.)	*Designed tanker size* (d.w.t.)
No. 1	53	47	100,000
No. 2	56	50	100,000
No. 3	62-64**	54*	300,000
No. 4	70-73††	64‡	300,000

*56 ft. permissible using rise of tide.

‡66 ft. permissible using rise of tide.

**59 ft. over the piplines.

††69.5 ft. over the piplines.

HEALTH: *Quarantine and Pratique:* Quarantine Office of the Saudi Arabian Government is maintained at the port, and a Quarantine Doctor or a Quarantine Officer may board the vessel, if he considers it necessary.

The Master is requested to submit the following documents for the Government filing through his Agent:

(a) Crew List
(b) Vaccination List } 3 copies each
(c) Passenger List (if any)

All arriving vessels should despatch the following cable to Quarantine Office at the port 48 hours before their arrival at Ras Al-Khafji Port:

"QUARANTINE KHAFJI (ship's Agent cable address)
vessel's name ETA RAS AL-KHAFJI time and date
FLAG LAST PORT DESTINATION
NO. OF CREW NO. OF PASSENGERS
ALL HEALTHY NO SICKNESS NO DEATH VALID CERTIFICATE
REQUEST FREE PRATIQUE.
MASTER "

Quarantine fee is collected from vessel according to her Nett Registered Tonnage other than tankers lifting hydrocarbon cargoes.

RADIO: *Notice of Arrival:* Arriving vessels should advise their ETA Khafji at least 72 hours before their arrival, (1) by telex to Terminal & Shipping, the Company's Field Office (841011 AAB, 841011 Arboil SJ) or (2) by telegram through Kuwait Radio Station (call sign: 9KK) via Singapore, Bombay or Bahrain Radio. Confirmation of ETA should be made well in advance before arrival by calling "Ras Al-Khafji Terminal" on Channel 16 VHF. Shorter notices may result in delays, and failure to give at least 24 hours notice will result in an addition to allowable laytime in the event a demurrage claim is filed against the Company. "Ras Al-Khafji Terminal" VHF station works 24 hours every day.

Radio Communications: All radio communications between the Company at Al-Khafji and the vessel are made directly to the Company's Field Office by Telex or Telegram, through the Kuwait Radio Station (9KK).

All Telexes and cables should be addressed to 841011 (AAB 841011 Arboil SJ) for telex or ARABIAOIL KUWAIT for cable. The first message should be sent according to the following form, but any items which are the same as a recent previous voyage to this port may be omitted.

(1) ETA Ras Al-Khafji.
(2) Last port.
(3) Deballasting time.
(4) Quantity and type of cargo and bunker required.
(5) Prefered order of loading when batch loading required.
(6) Maximum loading rate.
(7) Mooring equipment (Bow Chain Stopper or Bollard).
(8) Diameter of cargo and bunker connections.
(9) Distance from manifold to ship's side.
(10) Derrick capacity.
(11) Estimated sailing drafts – fore and aft.
(12) Port Rotation of Ras Al-Khafji.

VHF: Short-range communication can be made with Terminal Office by calling "Ras-al-Khafji Terminal" on VHF Channel 16. Working Channels are 6,14,67 and 75. Vessels should call Ras Al-Khafji Terminal several hours before arrival to confirm ETA and receive berthing instructions. After anchoring they should advise their anchoring time and then maintain watch on Channel 16 until the Mooring Masters board. Terminal VHF Station works 24 hours every day.

RADAR No services available.

TUGS: Tugs up to 4,200 b.h.p. are available for mooring and unmooring purposes.

Mooring boats are used for handling ropes and hoses.

BERTHING:

Berths No. 1 and No. 2:

(a) Sea-Berth No. 1:

Manifold position:	Lat. 28° 26' 10" N., Long. 48° 34' 57" E.
Depth of water:	53 ft. (16.2 m.) at ISLW.
Permitted draft:	47 ft. (14.3 m.) max.
Type of berth:	The berth is a conventional 4-buoy system where the tanker moors with 2 anchors and 1 buoy forward and to 3 buoys aft.
Length of berth:	The berth is designed for tankers of 800 ft. (244 m.) length but can be used by tankers of any size, although tankers of less than 650 ft. (198 m.) overall length sometimes experience difficulty in mooring if their lines are less than a full 720 ft. (220 m.).
Hoses:	From the manifold 2×10 in. rubber hoses for crude oil and 1×12 in. rubber hose for fuel oil are connected, approximately 270 ft. (82 m.) long and the maximum lifting weight of the 2 crude oil hoses together is 4.5 tons – 5.0 tons. For bunkering purpose one section of 6 in. hose is attached to the end of the 12 in. fuel oil hose.

(b) Sea-Berth No. 2:

Manifold position:	Lat. 28° 25' 55" N., Long. 48° 35' 28" E.
Depth of water:	56 ft. (17.1 m.) at ISLW.
Permitted draft:	50 ft. (15.2 m.) max.
Type of berth:	Same as Berth No. 1.
Length of berth:	Same as Berth No. 1.
Hoses:	From the manifold 2×10 in. rubber hoses for crude oil and 1×6 in. rubber hose for bunker are connected to the ship's manifold. All these hoses are approximately 360 ft. (110 m.) in length, and the maximum lifting weight of 2 crude oil hoses (2 lengths) together is about 5.0 ton and that of bunker hose is about 3.0 tons.

(c) Loading Rates:

Crude oil loading rate at Berths No. 1 and No. 2 is 30,000 bbls./hr. or 4,000 tons/hr.

Fuel oil loading rate at Berth No. 1 is 5,300 bbls./hr. or 800 tons/hr., and at Berth No. 2 is 2,700 bbls./hr. or 400 tons/hr.

(d) Preparation on Board before Berthing: Tankers assigned to Berth No. 1 or No. 2 should have the following ready:

(i) Both Anchors.

(ii) 3 ropes forward and 9 ropes aft. Minimum circumference 10 in., length 720 ft.
Some wires are acceptable in place of the equivalent number of ropes.
Neither ropes nor wires are available from the buoys.
All ropes and wires should be in good condition and preferably without splices.

(iii) Port derrick rigged for a minimum lift of 5 tons, using a wire runner and hook.

(iv) Two 10 in. ANSI 150 hose connections for crude oil, and 1×12 in. ANSI 150 at Berth No. 1 and 1×6 in. ANSI 150 at Berth No. 2 for fuel oil cargo, at the ship's port side manifold. If reducers are not available, the company should be advised before arrival.

(e) Mooring and Unmooring: Mooring operations at Berths No. 1 and 2 are restricted to daylight hours only to prevent accidents.

On approaching the berth a ship's line is passed to one tugboat from the centre fairlead aft. This hawser should be of good strength and made well fast on board.

When in position off the berth, the starboard anchor is let go and slacked away easily to about 9 or 10 shackles on deck. The port anchor is then let go and paid out easily as the tanker swings round into the berth using the tugs and engines as required. At the same time, the starboard anchor is hove in to about 6 or 7 shackles on deck and then made ready for slacking away again.

As the tanker backs down the berth the anchors are slacked away as necessary, and the ropes are sent to the forward (No. 4) Buoy. When the stern passes close to the starboard quarter (No. 1) Buoy the ropes are sent away to this buoy, hove in tight and then put on the bitts ready for slacking if necessary.

Ropes are then run to the port quarter (No. 3) Buoy, hove tight, and the lateral position in the berth adjusted between the port and starboard quarter buoys.

Lastly, ropes are run to the stern (No. 2) Buoy and the tug line also passes to this buoy. The fore-and-aft position is then adjusted between the anchors and the sternlines. A second tug is used to assist in the lateral positioning of the tanker, and 2 mooring boats are used for running the lines to the buoys, these normally taking 3 ropes at a time.

When properly positioned in the berth, the distance from the ship's side to the manifold marker buoy should be about 50 ft. – 66 ft. (15 m.-20 m.).

One tug is on stand-by near berths as long as a tanker remains moored in berth.

When hose disconnection is completed, the tanker unmoors usually by letting go all the lines on Buoys No. 3 and No. 4, followed by those on Buoy No. 2 and lastly those on Buoy No. 1. The tanker then heaves both anchors as necessary until they are up and clear, and the tanker can leave the berth. The tugs are used as required to keep the tanker away from the manifold marker and the mooring buoys.

Mooring Masters may vary this procedure according to the prevailing weather.

(f) Hose Connection and Disconnection: After the completion of mooring, the mooring boat will pull the hose float buoys to the tanker, and connect them to the tanker's cargo hook of port derrick. The 2 crude oil hoses are lifted together from the seabed by the tanker's derrick, and connected directly to the manifold.

The fuel oil hose is lifted separately and connected in similar manner.

Derrick/Crane hook should be open type, suitable to slip through the ring of the float buoy. The inner diameter of ring is 8 in. Whenever derrick/crane hook is directly connected to lifting block, or when hook is of locking type, additional wire sling, length 6 ft., and open type hook of suitable S.W.L. is required to be provided by tanker.

The time taken for hose connection is about 1.0 – 1.5 hours depending on the number of hoses to be connected. Hose disconnection takes about 1 hour.

Connection and disconnection of the cargo and bunker hoses are to be performed by the crew of the loading tanker under the direction of the Mooring Master. Bolts, nuts, gaskets, reducers, etc. will be provided by the Company.

(g) Loading Restriction at Berth Nos. 1 and 2: (1) Due to only one crude oil pipeline being between the ex-loading Dock and the shore, it is not possible to load tankers with crude in Berths No. 1 and 2 simultaneously. (2) Due to refined products pipelines arrangement onshore, it is not possible to load tankers with fuel oil, bunker oil or crude comingled with refined products in Berths No. 1 and No. 2 simultaneously and also such loading in Berths No. 1 or No. 2 is not possible while those are being loaded in Berths No. 3 or No. 4.

Berth Nos. 3 and 4:

(a) Berth No. 3:

Position of buoy: Lat. 28° 27' 06" N., Long. 48° 36' 28" E.

Depth of water: 62 ft. – 64 ft. (18.9 m. – 19.5 m.), but 59 ft. (18.0 m.) over the pipelines, at ISLW.

Permitted draft: Normally 54 ft. (16.5 m.), but 56 ft. (17.1 m.) permissible using rise of tide.

Type of berth: The berth is designed for a type of tanker of 300,000 tons d.w.t. and has a single-buoy-mooring system consisting of a buoy 36 ft. (11.0 m.) in diameter, moored to 6 pendant legs of 3.75 in. (95 mm.) rod diameter extra high strength chain of 720 ft. (220 m.) long, and having a rotating deck carrying the pipeline and mooring connections.

Mooring: Mooring connection at SBM consists of 2.75 in. (70 mm.) rod diameter stud link chain extra high strength of 25 ft. (7.6 m.) long and breaking strength of 225 tons. Attached to the mooring connections on the buoy are 2 double 15 in. nylon ropes (120 mm. diameter, breaking strain 250 tons/line), these main ropes supported by floats are 160 ft. (49 m.) long, and have at their free end a 35 ft. (10.7 m.) long stud link chain which includes a "Sister-plate" and a "Slender-link" for connection directly to the tanker's bow chain stopper or for receiving the shackles used on the deck of the tanker. From the outer end of this chain there is connected a 10 in. (80 mm. dia.), polypropylene "Pick-up" rope about 165 ft. (50 m.) in length. The chain is hung by large iron buoys coloured red and green in the case of a tanker not equipped with the above chain stopper or a 12 in. nylon "Bollard rope" (97 mm. dia., breaking strain 150 tons/line) about 150 ft. (46 m.) in length is connected between each "Sister-plate" and ship's bollard while tankers moor in berth.

Above bollard ropes and shackles are provided by the Company.

Submarine Pipeline and Hoses: 1×36 in. crude oil line and 2×12 in. fuel oil lines are laid approximately 30,000 ft. (9,140 m.) from the shore to a position, of the underwater manifold close under the buoy through the Valve Platform which is located at about 4,000 ft. (1,220 m.) Westward of the buoy. From the underwater manifold the crude oil goes to the buoy through 1×20 in. submarine hose; the fuel oil lines are joined at the underwater manifold and the fuel oil is led to the buoy through 1×10 in. submarine hose. From the deck of the buoy the 20 in. crude oil hose and the 10 in. fuel oil hose, which are floating, have a length of 720 ft. (220 m.) to a hose raft, at which position the crude oil hose is divided into 3 strings of 12 in. floating hoses. These, together with the fuel oil hose, extend for a further 150 ft. (46 m.) making a total length of 876 ft. (267 m.) including the raft of 6 ft. (2.0 m.). At their free end the hoses are connected to 4 large marker buoys each 3.3 ft. in diameter. The maximum weight of one crude oil hose (2 lengths) with hose float buoy and chain is about 6.5 tons, and that of bunker hose is about 3 tons.

(b) Berth No. 4:

Position of buoy: Lat. 28° 27' 54" N., Long. 48° 38' 36" E.

Depth of water: 70 ft. – 73 ft. (21.3 m. – 22.3 m.), but 69.5 ft. (21.2 m.) above the pipelines, at ISLW.

Permitted draft: Normally 64 ft. (19.5 m.), but 66 ft. (20.1 m.) is permissible using rising of tide.

Type of berth: The berth is designed for a type of tanker of 300,000 Long ton d.w.t. and has a single-buoy-mooring system consisting of a buoy 33 ft. (10.0 m.) in diameter, moored to 6 pendant legs of 3.75 in. extra high strength chain of 855 ft. (261 m.) long, and having a rotating deck carrying the pipeline and mooring connections.

Mooring: The particulars of mooring are exactly the same as those of Berth No. 3.

Submarine Pipelines and Hoses: 1×36 in. crude oil line and 2×12 in. fuel oil lines from onshore are branched at the Valve Platform, which is located at about 16,000 ft. (5,060 m.) Westward of the buoy, by 1×48 in. crude line and 1×16 in. fuel line to Berth No. 4. There is also 1×30 in. connecting crude line between the Ex-Loading Dock and the Valve Platform to raise up the loading rate at Berth No. 4. The above 1×48 in. crude line and 1×16 in. fuel line are laid from the Valve Platform to a position of underwater manifold close under the buoy. From there the crude oil goes to the buoy through 1×24 in. submarine hose, the fuel oil is led to the buoy through 1×10 in. submarine hose. From the deck of the buoy the 24 in. crude oil hose and the 10 in. fuel oil hose, which are floating hoses, have a length of 810 ft. (247 m.) to a hose raft, at which position the 24 in. hose is divided into 3 strings of 14 in. floating hoses. These, together with the 10 in. fuel oil hose, extend for a further 150 ft. (46.6 m.) including the raft of 6 ft. (2.0 m.). At their free end, these hoses are connected to 4 large marker buoys each 3.3 ft. in diameter. The maximum lifting weight of one crude oil hose (2 lengths) with hose float buoy and chain is about 7.5 tons, and that of bunker hose is about 3.0 tons.

(c) Loading Rates at Berths No. 3 and 4: The maximum loading rates of crude and fuel oil at Berth No. 3 are 45,000 bbls./p.h. (6,200 t.p.h.) and 2,700 bbls./p.h. (400 t.p.h.) respectively. At Berth No. 4 these are 62,000 bbls./p.h. (8,500 t.p.h.) and 3,400 bbls./p.h. (500 t.p.h.).

(d) Preparation Onboard before Berthing at Berths No. 3 and No. 4: The Company strongly recommends to the owners of tankers that the tankers to be assigned to Berth No. 3 or Berth No 4, shall be fitted with Bow Chain Stoppers recommended by OCIMF, or alternatively equipped with a pair of Smit Type Brackets in a correct position, which can be accepted in place of the Bow Chain Stoppers so far as tanker has the Chafe Chains to be connected between her Smit Type Bracket and a Sister Plate of our mooring lines.

Before arriving at the anchorage, tankers assigned to Berth No. 3 or No. 4 should have ready the following:

(i) Two mooring hawsers as messenger ropes forward, together with 2×20 ft. rope stoppers, and also 1 or 2 crowbars.

(ii) Port derrick rigged for 10 tons, swung out 2.0 m. beyond the ship's side.

(iii) 3×12 in. ANSI 150 at Berth No. 3 or 3×14 in. ANSI 150 at Berth No. 4 hose connections for crude oil, and 1×10 in. ANSI 150 for fuel oil at the port side manifold. If above reducers are not available, the Company should be advised before arrival.

(e) Mooring at Berths No. 3 and No. 4: The Mooring Masters will board from a tugboat which carries the mooring and hose connection materials. Tankers should have their crew stand-by to receive these materials, and should maintain a port lee until this is completed.

The Mooring Master will instruct the crew in the setting up of the forward moorings, where 12 in. bollard ropes are made fast round the port and starboard bollard posts with their attached shackles about 12 ft. (3.7 m.) inboard from the panama leads or fairleads as far forward as possible. The size of the Panama leads or the fairlead opening should be at least 14 in. vertical and horizontal to prevent the chain jamming in the Panama leads or the fairlead.

On approaching the berth, the tanker should lower a mooring hawser as messenger rope from each bow with rope stopper attached. The mooring boat will take any rope first, and connect it to the appropriate "Pick-up" rope which should be hove in while the boat returns to take the other rope for connection to its "Pick-up" rope. These 2 ropes are then hove in until the chains come through the Panama leads or the fairleads, and the shackles can be made fast to the "Sister-plates". The "Pick-up" ropes are then slacked back until the bollard ropes have the weight.

On tankers fitted with Bow Chain Stoppers, the pick-up ropes are hove in until the chains come through the Panama leads or fairleads and then through the Bow Chain Stoppers. The tongues or hinge bars of Bow Chain Stoppers are then set in position to secure chain within Bow Chain Stoppers. The Pick-up ropes are then slacked back until Bow Chain Stoppers have the weight. Mooring is then completed, and the usual time from sending away the first line until all fast is about 30 minutes.

Immediately after the tanker moors to SBM, her stern line shall be given to the stand-by tugboat through her middle fairlead to help maintain the tanker in safe position while the tanker is in the berth. For this purpose, a hawser of 12 in. circumference, and 720 ft. length is required.

(f) Unmooring from Berths No. 3 and No. 4: After hose disconnection is completed, the weight is taken on the "Pick-up" ropes, the stoppers of the Bow Chain Stoppers and unlocked or the bollard ropes are unshackled, and as the tanker backs off the berth the "Pick-up" ropes are slacked off and then dropped into the water. The tug will come alongside either before or after the tanker backs off the berth, whichever is convenient, and the bollard ropes and the two big shackles are passed to the tug. Unmooring time is usually 10 minutes.

(g) Hose Connection and Disconnection at Berths No. 3 and No. 4: After the completion of mooring, the mooring boat which has been holding the hoses clear during berthing, will bring the hoses to the port side of the tanker and connect the pontoon rope to the hose raft and then proceed to the manifold to connect the hook to one buoy having 1 hose, which is lifted aboard and connected directly to the tanker's manifold.

Derrick/Crane hook should be open type suitable to slip through the ring of the float buoy. The inner diameter of ring is 8 in. Whenever derrick/crane hook is directly connected to lifting blocking, or when hook is of locking type, additional wire sling, length 6 ft., and open type hook of suitable S.W.L. is required to be provided by the tanker.

The hoses are hung off on 2.625 in. diameter nylon ropes and lashed to the rail to prevent shock load due to wave action being transmitted to the manifold flanges.

After the first hose has been connected, the second buoy is lifted and the remaining hoses are connected in similar manner. If an arriving tanker requires a loading rate of 36,000 bbls./hr. (5,000 t.p.h.) or less at Berth No. 3, and 44,000 bbls./hr. (6,000 t.p.h.) or less at Berth No. 4, only 2 crude oil hoses are connected. Hose connection usually takes 2 – 3 hours. Hose disconnection is done in a reverse manner to connection, and takes about 1.5 – 2.0 hours. Connection and disconnection of the cargo and bunker hoses are to be performed by the crew of the loading tanker under the direction of the Mooring Master. Bolts, nuts, gaskets, reducers, etc., will be provided by the Company.

(h) Loading Restriction at Berths No. 3 and No. 4: (1) Due to only one crude pipeline being between Valve Platform and shore, it is not possible to load tankers in Berths No. 3 and No. 4 simultaneously.

(2) Due to refined products pipeline arrangement onshore, it is not possible to load tankers with fuel oil, bunker oil or crude commingled with refined products in Berths No. 3 and 4 simultaneously, and also such loading in Berths No. 3 or 4 is not possible while those are being loaded in Berths No. 1 or 2.

LOADING: *Dry Inspection:* Upon completion of deballasting the Mooring Master will inspect the tanker's tanks. If the tanks are not satisfactory, he may require further pumping until they reach the required standard.

Loading Operations: Particulars of oil available for loading is as follows:

Grade	Estimated	Estimated	Temp. °F
	API	Summer	Winter
Khafji Crude	27 - 29	100	70
Khafji Blend	27 - 29	110	80
Khafji Special	27 - 29	110	80
Hout Crude	32 - 34	110	80
Hout Blend	32 - 34	110	80
Hout Special	32 - 34	110	80
Fuel	16 - 18	140	120
Naphtha	63 - 65	80	60

All submarine pipelines, submarine hoses and floating hoses meant for loading crude oil are at all times kept filled and pressurised with "Khafji Crude" oil. Pipeline contents of such "Khafji Crude" oil at each berth are as follows:

Berth 1 : 16,000 Gross Barrels.
Berth 2 : 16,000 Gross Barrels.
Berth 3 : 36,000 Gross Barrels.
Berth 4 : 68,000 Gross Barrels.

Whenever a tanker is to load any other grade, which does not have "Khafji Crude" oil, the tanker has to receive"Khafji Crude" oil pipeline contents according to berth, prior to commencement of any other grade which dose not have "Khafji Crude" oil.

Similarly, if the tanker is loading any grade other than "Khafji Crude" oil, the tanker has to receive final quantity of that grade equivalent to pipeline contents according to berth, as at that stage, "Khafji Crude" oil will be pumped into pipelines to keep all submarine pipelines, submarine hoses and floating hoses full of "Khafji Crude" oil by the time tanker receives final quantity.

The Mooring Masters on board will advise and guide tanker Master about procedure of such loading.

Fuel as cargo is loaded through bunker hose.

Pure Naphtha is not loaded.

When the tanker is ready in all respects for loading, the tanker's officer must inform the Mooring Master, who will transmit the necessary orders to the Central Control Room onshore.

Loading is started by one booster pump, at the rate of 10,000 bbls./hr., and after everything has been checked and found satisfactory on board, then the loading rate will be gradually increased by starting further booster pumps and then main pumps in sequence until the required loading rate is reached; provided always that the required loading rate is within the capacity of the pumps.

Loading rates can be varied at any time during loading upon 5 – 10 minutes advance notice to the Mooring Master on board. In case of EMERGENCY, the IMMEDIATE STOPPING of all loading can be accomplished.

During loading, any valve operation on the tanker should be reported to the Mooring Master in advance. Especially at the time of Topping Off, the tanker's officer on duty should request the Mooring Master to reduce loading rate prior to any valve closing, in order to avoid any pressure on rubber loading hoses.

When loading is completed, the rate is gradually reduced by stopping first the main pumps and then the booster pumps, one by one according to the request of the tanker's officer. At the final stage of loading only one booster pump should be on the line, and the tanker's officer should tell the Mooring Master to "Stand-by" at least 5 – 10 minutes before finishing loading.

Shore pumps will stop about 15 seconds after their control buttons are pressed, but the oil will continue to flow for several minutes.

Any stop notice of loading completion must be given by the tanker's officer as "Shore-stop" is NOT practised at this port.

Overflows and Spillage: In the event of an overflow or spillage during loading, loading will be stopped immediately and will remain stopped unless the Mooring Master is satisfied that all the overflowed oil has been cleared off the deck and there is no longer any unusual danger for resuming loading.

Ullaging and Gauging: After loading is completed, the Mooring Master will witness the final ullaging on board so that the tanker's figures can be calculated.

Onshore the Government and the Company gaugers will take manual gauges of the shore tanks before and after loading to calculate the figures of the Bill of Lading. Final API and Bill of Lading quantities will be communicated to the tanker Master by the Company through the Mooring Master prior to tanker's departure from port.

STEVEDORES: Dry-cargo vessels calling Ras Al-Khafji to give at least 72 hours notice to Agents to arrange labourers. Stevedores will be arranged from Kuwait. Ship's gear used for discharging which takes place at anchorage into barges.

MEDICAL: The Company has its hospitals at Ras Al-Khafji. Medical and dental treatment can be given in cases of emergency or serious illness or injury. Epidemic diseases or cases of serious injury or disease requiring operations, etc. are normally transferred to the hospitals in Dammam or in Kuwait. The Company's doctor will not normally attend on board unless the patient is incapable of attending the hospital. Requests for medical attention should be given to the ship's Agent as early as possible before arrival.

FRESH WATER: Not available except in cases of extreme emergency.

FUEL: *General Information:* Intermediate fuel oil (IFO) and marine diesel oil (MDO) are supplied as bunker oil to tankers calling at Ras Al-Khafji. Each loading berth has a pipeline which can deliver intermediate fuel oil. Marine diesel oil is supplied from a barge with a capacity of 200 tonnes for which no extra charge is made.

Bunker Nomination: Owners, Operators or Charterers should nominate their tankers' bunker requirements to the Company's Head Office in Tokyo.

Tankers are requested to confirm the grade and quantity of bunkers required to Terminal and Shipping, The Company's Field Office (841011, AAB 841011 Arboil SJ) by telex or telegram to "ARABIAOIL KUWAIT" via "9KK" through normal radio services at least 72 hours before arrival; or in cases where tankers receive their bunker instructions less than 72 hours away, they should advise their bunker requirements as soon as possible.

Bunkering Operation: Bunker supply to tankers in the berths is normally made while the tankers are discharging ballast and/or loading crude oil. MDO-supply from a barge will be done usually before loading cargo.

Tanker engineers are requested to give all necessary information and assistance to the shore staff attending the bunkering and to pay constant attention to the bunker supply.

Responsibility: Notwithstanding the presence of the shore staff attending the bunkering operation on board, the Master of the tanker remains solely responsible for his tanker at all times and in all respects.

Size of Bunker Connections and Bunkering Rates:

Berth	*IFO*	*MDO (supply from a barge)*
No. 1 (6 in.)	400/300 t.p.h.	80 t.p.h. (4 in.)
No. 1 (12 in.)	800/300 t.p.h.	80 t.p.h. (4 in.)
No. 2 (6 in.)	400/300 t.p.h.	80 t.p.h. (4 in.)
No. 3 (10 in.)	400/300 t.p.h.	80 t.p.h. (4 in.)
No. 4 (10 in.)	500/300 t.p.h.	80 t.p.h. (4 in.)

Note: In Winter time the rate for IFO decreases due to the low sea-water temperature which increases the viscosity of the oil.

Bunkering for Dry-Cargo Ships: Bunker supply to dry-cargo ships is not available at this port.

CONSULS: None.

CUSTOMS: *Customs Formalities:* Upon arrival, the Master is required to submit to the Customs a Manifest of any cargo to be landed at Ras Al-Khafji and to sign a declaration that no intoxicating liquor or drugs will be landed.

A Coast Guard accompanied by the ship's Agent boards to seal bonded stores. Dry-cargo ships are boarded by a Customs Officer, a Coast Guard and a Quarantine Officer for sealing stores, checking valid certificates and health inspections.

Import of the following articles is strictly forbidden:

(a) Alcoholic beverages, including beer, wine and liquor.
(b) Pornographic literature, photographs, pictures and films.
(c) Explosives.
(d) Firearms or implements of war of any kind.
(e) Religious matters not pertaining to the Moslem faith.
(f) Gambling devices.

The Saudi Arabian Laws and Regulations: The Saudi Arabian Laws and Regulations are strictly enforced, and Masters having any doubts concerning the interpretation of these regulations are urged to consult their Agent. While in port, whether at anchorage or in the berth, the vessel's personnel are under the jurisdiction of Saudi Arabian laws. Taking of photographs while the ship is in the Port of Ras Al-Khafji is prohibited by the Saudi Arabian Government.

All materials to be either exported from or imported into Saudi Arabia are subject to examination by Customs authorities. The import of certain articles is strictly prohibited and such articles include but are not limited to the following:

(1) Explosives and firearms, including air rifles.
(2) Implements of war of any kind, including antique weapons.
(3) Narcotics.
(4) Religious matter not pertaining to the Moslem Faith.
(5) Playing cards and gambling devices.
(6) Printed photographic matter or video tape depicting what could be considered pornographic.
(7) Alcoholic beverages of any description.

Items (4), (5), (6), and (7) of the above items on board any vessel calling at the port of Ras Al-Khafji shall be secured in appropriate locked store rooms which will be sealed by the authorities who may carry out inspections, to ensure that the seal is intact and that none of the above articles are in use. The seal must remain intact during the entire period of the vessel's stay in the port of Ras Al-Khafji, and must not be broken until after the vessel has finally departed for the port in another country.

Trafficking in any of the above articles between vessel or vessel's crew and shore personnel is strictly prohibited. The baggage of crew joining and leaving vessels will be inspected to ensure that it contains none of the prohibited articles.

Penalties are severe and major delays to vessels can be incurred due to the Goverment investigations of violations.

REPAIRS: Some minor repairs on board vessels may be made using shore assistance in case of extreme emergency, but such Company's assistance will be provided only on the Master's and the shipping Agent's acceptance for undertaking to pay to the Company all expenses incurred. Preferably all repairs should be carried out at the anchorage area. In all cases when shore assistance is required, the Master should notify the vessel's Agent well in advance.

DRY DOCKS: None.

WATCHMEN: The tanker always has to post at least 2 watchmen on duty: one on the forecastle head to watch and monitor the condition of the mooring ropes and the behaviour of the tanker by forces of wind and tidal current, and another on deck near or within sight of the manifold. They have to report to the Master and the Mooring Master whenever they observe the tanker drifting too close to the berth, or the loading hoses twisted or whenever they recognise anything unusual, so that the Master and the Mooring Master may properly manoeuvre the tanker and any mishap may be averted.

AIRPORT: Crew joining must be routed through Dhahran Airport (325 km.). Kuwait Airport 110 km.

TIME: GMT plus 3 hours throughout year.

TELEPHONES: No facilities for placing on board.

SERVICES: *Provisions, Deck Stores:* Provisions and deck stores are available from ship chandlers at the Port in limited kinds and quantities. In all cases the ship's Agent should be advised of the requests at the earliest possible time before arrival.

SHORE LEAVE: Not normally permitted by Authorities except by arrangement through the ship's Agent.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Saudi Riyal.

WEATHER: The local weather at Ras Al-Khafji is hot and dry with little cloud during the long Summer from May to September and considerably colder in December and January.

The mean monthly maximum temperature is in the range of 18° C. – 41° C., and the daily highest was 48.9° C., which was recorded in August 1987 and the daily lowest was −1.4° C. in February 1971.

Rainfall concentrates during the period from October to May and annual precipitation in the area is 104 mm. on an average.

The prevailing wind in this area is Northwesterly, however winds of varying strength may come from any direction. In Summer, the diurnal sea breeze is light Easterly at about 5 m. – 7 m. per second (10 – 14 knots), and only rarely it increases to 12 m. per second (23 knots). In Winter South-Southeasterly winds of up to 20 m. per second (39 knots) may last one or two days and then veer suddenly to the N.W., often accompanied by gusts or squalls in excess of 20 m. per second. On occasion a type of line squall passes over and winds up to as much as 30 m. per second (58 knots) may be experienced for a short time before settling down to blow for longer periods at 20 m. per second. Little or no warning of these strong squalls is given; they just appear suddenly, often accompanied by thick sand and dust.

In the area of the Sea Berths, the waves are prevented from developing by the short fetch of the Northwesterly wind, but waves up to 5 ft. – 6 ft. do occur from this direction. Southeasterly winds raise a short steep sea which quickly reaches 7 ft. – 8 ft. high. This lengthens and increases as the wind freshens and has been known to reach 14 ft. – 15 ft. in the area of the Sea Berths. When the Southeasterly wind veers the swell rapidly decreases but persists for about 24 hours thereafter.

Visibility in the area is generally good, but Northwesterly winds cause rising dust and sand which may reduce visibility to almost zero at times. Haze is common, and on calm hot days mirages are frequent. "Steam fog" may occur at times in the early morning hours resulting in very poor visibility.

TIDES/CURRENTS: The depths shown on the chart are based on ISLW. The diurnal rise of tide is approximately 5 ft. at the Springs and 4 ft. at Neaps, and the ISLW is 4 ft. below the Mean Sea Level.

The heights of both high and low water are considerably affected by the prevailing weather conditions. Northerly winds tend to reduce the heights of tides and retard them, and Southerly winds increase the heights slightly.

Near the Sea Berths the current flows roughly parallel with the shore, and reverses its direction about 1 hour earlier than the time of high or low water inshore at Ras Al-Khafji. The velocity of the current is approximately 1.5 knots at the maximum.

Both the direction and velocity of the tidal current are much affected by the prevailing weather conditions.

The tidal data for Ras Al-Khafji as compared with that of Mina Al-Ahmadi is given as follows:

Flood tide: Occurs approximately 30 minutes later than Mina Al-Ahmadi.
Height approximately 2.13 ft. less than that of Mina Al-Ahmadi.
Ebb Tide: Occurs approximately 2 minutes later than Mina Al-Ahmadi.
Height approximately 0.16 ft. less than that of Mina Al-Ahmadi.

"Tide and Current Table" published annually is available from the Company upon request.

AUTHORITY: Port of Ras Al-Khafji, Port Officer, Ras Al-Khafji 31971 Kingdom of Saudi Arabia. *Tel:* (03) 766 1016. *Telex:* 841057 PORT KSJ. *Contact:* Mr. Abdul Dalem, Port Office.

Arabian Oil Company Ltd., Terminal & Shipping Dept., P.O.Box 256, Al-Khafji 31971, Kingdom of Saudi Arabia. *Tel:* (03) 766 0555, Ext.2650. *Telex:* 841011 (ABB: 841011 ARBOIL SJ). *FAX:* (03) 766 2001. *Contact:* Mr. Abdullah I. Attwaijri, Assistant Manager, Terminal and Marine Department.

AGENT: See "Ras Tanura".

RAS AL MISHAB: 28.13 N. 48.43 E. (See Plan)

APPROACHES: Do not use the old recommended track to Bandar Mishab shown on British Admiralty Chart No. 3774 and U.S. Hydrographic Chart 62422 unless corrected. Ships arriving should follow Ras al Khafji Approach Channel Buoy No. 1 (Lat. 28° 36' N., Long. 49° 10' E.) and Buoy No. 2 (Lat. 28° 36' N., Long. 49° 00' E.). From Light Buoy No. 2 proceed on a course of 253°(T) for approximately 5 miles and the following is the new approach channel to the anchorage and entrance channel of Ras al Mishab.

The dredged channel of 4 miles is well marked by the buoys and 2 pairs of ranges that lead vessels in and out of the port.

PILOTAGE: Pilotage is compulsory and only available in daylight hours (0600 to 1700 hrs.) 7 days a week with short notice prior to vessel's arrival.

Vessels calling at Ras Al Mishab are requested to contact Ras Al Mishab Harbour Office on VHF – Channel 16 prior to arrival at Pilot Buoy, (Buoy No. 5 of Ras Al Mishab Approach Channel) which is located at Lat. 28° 13' N., Long. 48° 43' E.; do not proceed beyond this point before consulting with Ras Al Mishab Harbour Office, which is available from 0600 to 1700 hrs. every day except Friday.

ANCHORAGE: Anchorage area is between Buoys No. 4 and 5.

RESTRICTIONS: Daylight berthing and unberthing only.

MAX. SIZE: Max. allowed draft at present time is 33 ft. However, after completion of works on expansion of the port, which is under way, port expected to accommodate vessels up to 35 ft. draft regardless of length and/or tonnage.

VHF: See "Pilotage".

TUGS: The port has 2 tugboats available to assist vessels in docking and undocking as well as any other service to be rendered in case of need for assistance. Each tugboat is capable of generating 2,000 h.p.

BERTHING: Ras Al Mishab is a deep water sea port with 2,400 ft. of berthing space. The turning basin of 1,250 ft. radius provides safe manoeuvring.

The pier is 18 ft. high above the water and accordingly not suitable for Ro/Ro cargo operation, however, the harbour is well equipped for receiving any type and size of cargo including heavy lifts and bulk cement up to 24,000 tons. Silo capacity 25,000 tonnes.

The harbour is fully equipped with forklifts, discharging gear, spreaders for 20 ft. and 40 ft. containers. portable cranes up to 300 tons capacity, all handled by professional stevedores.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: Provisions not available at this port, and it is suggested that vessels calling to Ras Al Mishab, secure their needs at other ports. Only emergency medical attention shall be provided if requested by Master.

No shore leave is permitted in this port except for the Master for business purposes, the Port Regulations are to be strictly observed by all vessels.

Any other matters such as crew changes, emergency repairs provisions, etc., shall be handled through local Agent.

SHIPMASTER'S REPORT: September 1980.

Pilotage: Pilot boards 3 miles South of Buoy No. 5G.

Berthing: A new berth built 2 years ago at right angles to land with dimensions about 1,000 m. length and 250 m. wide, accommodating 8 ships, 4 on each side. 1 berth is for cement in bulk, having silo. (Sea Island berth is severely damaged and abandoned).

Stevedores: Working day and night in 3 shifts.

Clearance: Vessels are cleared any time during day whilst alongside. (We arrived alongside Thursday 1600 hrs. and we were cleared).

Tugs: 2 tugboats available.

Port facilities: 1 mobile crane 300 tons and 1 mobile crane 50 tons.

Agent: On VHF Channel 16.

AGENT: See "Dammam".

RAS TANURA: 26.39 N. 50.10 E. (See Plan)

ALSO SEE "JU'AYMAH" SECTIONS A and B.

(A) GENERAL INFORMATION
(B) REGULATIONS
(C) RAS TANURA TERMINAL

(A) GENERAL INFORMATION

This section contains important information for all ships proceeding to any Terminal in the Port of Ras Tanura (Ras Tanura Terminal, Ju'aymah Crude Terminal and Ju'aymah LPG Terminal).

NAVIGATIONAL:

NAVIGATIONAL AIDS: In May 1981, the buoyage system in the Port of Ras Tanura was changed to the I.A.L.A. System (Region A).

Notices to Mariners have been promulgated concerning these changes.

INBOUND TRAFFIC PROCEDURES: All inbound vessels shall establish early radio contact with Saudi Aramco.

(a) A vessel with no special instructions or with instructions to proceed to the Northern Holding Anchorage should make for a position approximately 2 miles North of Ras Tanura Light Float (in position: Lat. 27° 05.6' N., Long. 50° 57.5' E.); enter the inward channel of the Separation Scheme and then pass the Approach Buoy and the Entry Buoy. The vessel should then proceed into the Northern Holding Anchorage and anchor. After anchoring, the vessel shall immediately advise Saudi Aramco by radio and Ras Tanura Pilots on VHF of anchoring time and keep a listening watch on VHF Channel 16 and traffic lists for further instructions.

(b) A vessel with instructions to proceed directly to Ras Tanura Terminal, Ju'aymah Crude Terminal or Ju'aymah L.P.G. Terminal should proceed as above to the Entry Buoy and as described under the individual terminal.

ANCHORAGES: The Port of Ras Tanura is an open roadstead but some protection is afforded by shoals and land to such an extent that vessels do not experience heavy movement.

Holding ground in all of the anchorages is fair and it is recommended that anchored vessels lie to a long scope of chain whenever the weather is unfavourable.

The Northern Holding Anchorage is located on the North side of the Ras Tanura Separation Scheme West of the Entry Buoy and North of No. 3 beacon (Racon). This anchorage covers an area of approximately 30 square miles with depths between 82 ft. and 150 ft. (25 m. and 46 m.).

This anchorage is intended as an initial holding area for incoming vessels which, because of berthing prospects, congestion or other reasons will not be berthed on arrival and for loaded tankers taking bunkers or adjusting departure sailing time into the Gulf. Anchorages for the individual terminals are described in Ras Tanura Section (B) and Ju'aymah.

MAXIMUM DRAFT IN ARRIVAL CHANNEL: See Section (B) for maximum arrival draft Ras Tanura Terminal (16.37 m. + Height of Tide). See Ju'aymah Section (A) for maximum arrival draft Ju'aymah Crude Terminal (21.34 m.). Masters of vessels arriving partly loaded or deeply ballasted should navigate with caution in the vicinity of position: Lat. 26° 50' 30" N., Long. 50° 10' 30" E.

RADAR SURVEILLANCE ADVISORY SYSTEM:

See "Regulations" – Traffic Regulations.

This system is available to provide information and to continuously monitor the movement of all ships in the Port of Ras Tanura.

In addition to identifying, tracking and monitoring ship movements to and from the Terminal areas by means of computer assisted radar and video tape recording, the following services may be provided to vessel Masters:

(a) Advice on channel and port conditions, congestion, weather, tides, navigational aids, etc.
(b) Advice upon the movement of other vessels, dangerous manoeuvring situations and vessels violating port regulations.
(c) Advice upon port regulations regarding the movement of deep draft vessels and the priorities of vessels movements. (It may be necessary for vessels arriving in ballast to reduce speed to permit safe passage for outgoing deep draft vessels).
(d) Advice on berthing prospects and anchoring conditions.

The service has been established in order to increase the safety of ships navigating in the Port of Ras Tanura. However, it is an information and advisory service only and in no way assumes control of or responsibility for ships navigating in the area.

CHARTS AND PUBLICATIONS: Surveys by American and British Authorities in recent years have resulted in the publication of a number of charts of the Port of Ras Tanura and its approaches:

U.S. 62414 or B.A. 3788
U.S. 62415 B.A. 3777
U.S. 62416 B.A. 3776
B.A. 3813

Vessels proceeding to the Port of Ras Tanura should be in possession of the latest issues of the above charts or their equivalent. "Sailing Directions" and "Lists of Lights" are published by American and British authorities; these publications should also be available on board.

Navigational Warnings and weather forecasts are broadcast by Saudi Aramco "HZY" Radio and by commercial radio stations in the Arabian Gulf.

These should be copied well in advance of arrival.

The Saudi Ports Authority is in charge of issuing navigational warnings and Notices to Mariners covering the Saudi Waters. These Navigational Warnings and Notices to Mariners are broadcast by Dammam Radio on a 24-hour basis. Updated copies of these Radio Navigational Warnings and Notices to Mariners are sent to the Agents for delivery to the Masters at their ports of arrival.

METEOROLOGICAL INFORMATION:

Winds in the area are not predictable for more than a very few hours and may come from any quarter at varying strength. The prevailing wind is from the N.N.W.

Winds of any strength tend to create short steep seas coming up quickly and calming down just as rapidly. Easterly winds however cause heavy seas and swells which can last for a considerable period. For a more complete description of the winds of the Arabian Gulf, refer to "Sailing Directions".

Visibility in this area of the Arabian Gulf is generally fair to excellent, but at times fine dust is held in suspension in the atmosphere and visibility is reduced to a very short distance. This phenomenon is more deceptive than fog in that mariners are apt to believe visibility to be greater than it actually is. Dense fog with or without sand or dust may occur in the morning hours.

Climate of Ras Tanura is comparatively favourable for the Arabian Gulf. The exposed position of the port permits the winds to mollify the heat of Summer. Temperatures have been recorded in previous years as follows: Absolute Maximum 45.6°C (114°F) in June, Mean Maximum 38.4°C (101.1°F) in August, Mean Minimum 12.5°C (54.5°F) in January, Absolute Minimum 0.0°C (32°F) in January.

During most of the year, the relative humidity is high and during late Summer and Fall it frequently exceeds 85%.

Proper precautions should be taken to avoid sunstroke and heat exhaustion particularly during the Summer and early Fall months. Air conditioning plants aboard ships should be in good working condition at these times in view of the necessity to close down accommodation whilst loading dangerous cargoes.

TIDES AND CURRENTS: The depths quoted in all "Sailing Directions" and charts of the Arabian Gulf and the datum used by Saudi Aramco is based on lowest astronomical tides (LAT) from 1st January 1986.

Locally the diurnal tide rise is approximately 8 ft. (2.44 m.) at Springs and 5 ft. (1.52 m.) at Neaps. More detailed description of tides and currents in the locality can be found in the "Sailing Directions".

Due to the configuration of the coastline, a system of tidal currents prevail with flood tide setting towards South or S.S.E. and ebb setting towards North or N.N.W.

DOCUMENTS:

GENERAL: All contact between ships and the Saudi Arabian Government and Officials is to be made through the ship's Agent who will advise on specific requirements and documentation.

The following sections are for guidance only.

ARRIVAL DOCUMENTS: The following must be available to the Agent and boarding Government Officials:

(a) Maritime International Declaration of Health.
(b) Valid Deratting or Exemption Certificate.
(c) Crew List (including supernumeraries) up to 6 copies. Agent to submit 1 copy of Crew List 48 hours prior to arrival.
(d) Valid Vaccination Certificates.
(e) Valid Inoculation Certificates against communicable diseases prevailing at previous ports of call.
(f) A complete set of log books for the period since the vessel's last visit to Ras Tanura OR for the period since new OR since April 25th, 1952.

NOTICE OF READINESS: At all terminals in the Port, to be addressed to Saudi Aramco Ras Tanura.

EARLY DEPARTURE PROCEDURE: Use of this special service is encouraged and should be requested at the earliest opportunity.

Close co-ordination with the Agent is required in order to expedite the delivery of the required documentation to the ship.

It is essential that Radio contact with Saudi Aramco be maintained after departure until cargo quantities are received and the Agent has been authorised to sign documents.

DEPARTURE DOCUMENTS: The following 3 documents MUST be on board before the vessel departs even though the ship has been RELEASED to sail by Saudi Aramco.

(a) Bill of Lading: Completed by Saudi Aramco except for the cargo quantities. The Agent will deliver a copy to the Master who will enter the quantities as advised by radio after departure. The Master will then authorise his Agent to sign the original on his behalf.

(b) Permit of Departure: Completed by Agents with information supplied in the quarantine radio message and delivered by them to the vessel prior to departure.

(c) Port Clearance (Sailing Report): Completed in Arabic with information gathered by the Agent and delivered by them to the vessel prior to departure.

PILOTAGE:

CHANNELS: The channels of the Ras Tanura Separation Scheme are marked by lighted radar-reflecting beacons and buoys. Channel Pilots are not provided.

BERTHING: The use of Harbour Pilots is compulsory for all vessels calling at the Port of Ras Tanura to use any of the terminal facilities.

Harbour Pilots moor, unmoor and supervise the movements of al vessels in the vicinity of the berths. Saudi Aramco Harbour Pilots are on duty continuously and at present their services are provided without charge for normal operations, although Saudi Aramco reserves the right to charge for these services.

PILOT BOATS: An 87 ft. steel hull dedicated launch with about 6 ft. freeboard is usually available to transfer Harbour Pilots to and from tankers using South Pier, North Pier, the Sea Islands and Ju'Aymah LPG Terminal. Transfer of Harbour Pilots to and from tankers using the Ju'aymah Crude Terminal is usually by helicopter.

Pilot boats carry regulation signals, are equipped with radar, VHF radio and are painted white with green hull.

Also see "Regulations".

RADIO COMMUNICATIONS AND MESSAGES: *General:* The Saud Arabian Oil Company owns and operates a marine radio coast statio call letters HZY, Ras Tanura Radio. The station is maintained fo transacting Company business with inbound and outbound vessels an operates 24 hours a day. Ship's Agents are not allowed to sen messages to Masters via HZY Radio. There is no charge for incomin or outgoing message or radio telephone service. Personal messages o calls are not allowed.

HZY Transmitting Antenna: The coast station transmitting antenna i located at: Lat. 26° 18' 36" N., Long. 50° 07' 12" E.

Due to its inland location, Masters are strongly advised NOT to us this antenna for radio direction finding since inaccurate bearings will b obtained due to coastal refraction.

Required Arrival Information: Vessels must advise via Radio of estimat and/or actual arrival times at Ras Tanura Entry Buoy. It is required th vessels provide HZY with a minimum of three notices of ETA informatio at about 72, 48 and 24 hours steaming time from Ras Tanura. Shor notices may result in berthing delay. If loading part cargoes at other Gu ports prevents a vessel from furnishing an accurate ETA, steps shou be taken to advise by message (direct or through the ship's Agent) givi the best possible estimate. This message should then be followed b an accurate ETA immediately upon departure for Ras Tanura. Failu to give at least 24 hours' notice will result in an addition to allowab laytime. Vessels should advise last 3 ports of call and next port of ca

Standard Messages: Upon contact with all inbound tankers HZY Rad will transmit 2 standard messages:

MASTER RAS TANU
RADIO/HZY CONTACT HZY SOONEST ADVISING ONE ETA GM
RASTANURA ENTRY BUOY TWO ANY LATER CHANGES THR
AGENTS NAME AND REQUIREMENTS FOUR ARRIVAL DEPARTU
DRAFT FORE AND AFT FIVE ARRIVAL DISPLACEMENT TONNA
SIX DEBALLASTING HOURS LOADING RATE IF CAN LOAD CAR
CONCURRENT WITH DEBALLASTING SEVEN MAXIMUM LOAD
RATE AFTER DEBALLASTING EIGHT PREVIOUS CARGO AND
CARGO OR RESIDUE ABOARD TO BE COMMINGLED W
RASTANURA CARGO NINE IF LOADING MORE THAN ONE GRA
WHICH GRADE TO BE LOADED FIRST OR IF CAN LO
SIMULTANEOUSLY AND LOADING RATE EACH GRADE T
CARGO AND BUNKER REQUIREMENTS ELEVEN DOES T
VESSEL COMPLY WITH SOLAS CONVENTIONS REGARDING T
FITTING AND USE OF A FULLY OPERATIONAL INERT GAS SYST

FULLSTOP IF VHF ABOARD CALL RASTANURA PILOTS FOR ANCHORING BOARDING AND BERTHING INSTRUCTIONS WHEN 100 MILES OUT ON CHANNEL 16 OR CHANNEL 14 STOP IF NO VHF ABOARD CONTACT HZY 500 KHZ AND COPY TRAFFIC LISTS ON ODD HOURS FOR BERTHING INSTRUCTIONS STOP ON ARRIVAL ANCHORAGE POSITION ADVISE HZY OFFICIAL READINESS TIME AND ANCHORED POSITION STOP RADIO MESSAGES WITHOUT CHARGE FULLSTOP PILOTS REQUIRE SUFFICIENT CLEAN BALLAST FOR MANOEUVRING WITH PROPELLER COVERED AND TRIM LIMITED TO 15 FEET FOR RASTANURA TERMINAL AND 8 FEET FOR JUAYMAH TERMINAL STOP IMPERATIVE ALL SHIPS OPERATING UNDER EARLY DEPARTURE PROCEDURE COPY SAUDI ARAMCO HZY TRAFFIC LIST AFTER DEPARTURE UNTIL CARGO QUANTITIES ARE RESOLVED AND AGENT IS AUTHORISED TO APPROVE DOCUMENTS STOP
SAUDI ARAMCO

MASTER RAS TANURA RADIO/HZY PLEASE ADVISE ANY EPIDEMIC DISEASE OR ILLNESS ON BOARD AND STATUS OF CREWS INTERNATIONAL CERTIFICATES OF IMMUNISATION AND ALL PORTS CALLED PAST 30 DAYS ALSO DESTINATION STOP AGENT STOP FLAG STOP NET REGISTERED TONNAGE STOP VESSEL WILL NOT BE ALLOWED TO BERTH UNTIL THIS INFORMATION IS RECEIVED.
SAUDI ARAMCO

It is important that the Master send a reply to the above 2 messages as soon as possible after receipt.

Notice: Issued by Saudi Aramco on 1st October 1994.
Quote:

SHIP'S STANDARD MESSAGE

Effective December 1st, 1994, Communication will apply the attached standard message to all ships calling Saudi Aramco Terminals at Ras Tanura, and Yanbu as well. Hence, we appreciate communicating this to all your customers. It is mandatory to answer back all information required, in order to eliminate any conflicts, usually caused by shortage of information received from ships.

From: Saudi Aramco Ras Tanura. No. . . . . . UTC/Date and time. . .
Master . . . . .

Please contact "HZY" on CW or Inmarsat Telex 801919 Amar SJ with following information:

One ETA UTC Ras Tanura Entry Buoy, any later changes.
Two Ship's former name if any, present flag, net registered tonnage.
Three Agent's name, last dry dock MM/DD/YY and Master's name.
Four Cargo requirements in net barrels and destination of cargo.
Five Bunker requirements in net barrels fuel and/or diesel bunker.
Six Arrival/departure draft fore and aft, arrival displacement tonnage, derrick capacity, number and size of connections.
Seven If loading Arab Medium for the account of Banoco and/or Arab Extra Light, your ship must arrive with a maximum arrival draft of 54 ft. plus tide, and a maximum sailing draft of 64 ft. plus tide.
Eight If loading LPG, advise if ship's tanks sufficiently cooled for normal loading, otherwise advise if you require coolant.
Nine Whether gas-free or in inert condition.
Ten Deballasting hours, loading rate, if can load cargo concurrent with deballasting, maximum loading rate after deballasting.
Eleven Previous cargo, also quantity and quality of part cargo or residue or slops aboard, if any, and whether to be mixed with Ras Tanura cargo or not.
Twelve If loading more than one grade, which grade to be loaded first, or if can load simultaneously, and loading rate for each grade.
Thirteen Does your vessel comply with SOLAS Conventions regarding the fitting and use of a fully operational Inert Gas System.
Fourteen It is a requirement of the port that the propeller remains immersed and stern trim does not exceed 1.5% of the ship's length when at berth. Confirm that your vessel will comply.

If VHF aboard, call Ras Tanura Pilots on Channel 16 or 14 for anchoring, boarding and berthing instructions when 100 miles out. On arrival anchorage, advise "HZY" offical readiness time and anchored position. Radio messages without charge. Pilots require sufficient clean ballast for manoeuvring with propeller covered and trim limited to 15 ft. for Ras Tanura Terminal, and 8 ft. for Juaymah Terminal. Imperative all vessels operating under Early Departure Procedure, copy "HZY" traffic list after departure until cargo quantities are resolved and Agent is authorised to sign cargo documents.
Saudi Aramco.

From: Saudi Aramco Ras Tanura. No. . . .UTC/Date and time. . . .
Master . . . . .

Please advise any epidemic disease or illness on board. Status of crews International Certificates of Immunisation. All ports called past 30 days. Destination. Flag. Net registered tonnage. Vessel will not be allowed to berth until this information is received.
Saudi Aramco.
Unquote.

Advisory Notices sent by HZY Radio: Navigation Warnings, port closure information and hydrographic notices are broadcast on 430 kHz, 4308.5 kHz and 8480 kHz at 0430 GMT and 1630 GMT.

Port closure information is also broadcast on 430 kHz along with traffic list every odd hour when in force.

Weather for offshore areas is dual broadcast on 430 kHz, 8480 kHz and 12811.3 kHz at 0800 GMT and on 430 kHz, 4308.5 kHz and 8480 kHz at 0430 and 1630 GMT.

A tentative berthing schedule of ships is broadcast at 0700 GMT and 1900 GMT daily on 430 kHz. This schedule is not firm and subject to change at any time. MASTERS MUST NOT MAKE ANY VESSEL MOVEMENTS WITHIN THE PORT BASED ON THIS SCHEDULE. The Saudi Aramco Pilot will individually alert vessels for final berthing instructions.

Aircraft Radio Beacon: There is an aircraft radio beacon transmitting on 335 kHz located at: Lat. 26° 37' 36" N., Long. 50° 09' 47" E. The beacon call sign is – RT.

HZY Coast Station Procedures – MF and HF: HZY Ras Tanura Radio provides W/T service in accordance with the schedules shown on CHART – 1 and CHART – 2. Traffic lists are transmitted on working frequencies after a preliminary announcement on 500 kHz on the MF band and on the working frequency in the HF band. Ships may begin calling HZY when the traffic list is completed.

During watch periods, HZY monitors 500 kHZ in the MF band and Common Channels 5 and 6 in the scheduled HF band. When HZY is open for service on HF, the identifying signal CQ CQ CQ DE HZY HZY HZY is transmitted approximately every 30 seconds. Ships may call on Channel 5/6 at any time.

HZY also provides HF Radio Telephone service in accordance with the frequency assignment in CHART – 3. The mode of operation is simplex using upper sideband. This service is restricted to telephone calls with Saudi Aramco representatives. Initial contact to establish service is via W/T. HZY will designate the frequency for radio telephone use at the time contact is made on W/T.

VHF Radio Communications with Saudi Aramco: Ras Tanura Pilots maintain a listening watch on VHF Channel 16 which is used as the calling channel. The following VHF working channels are available – 11, 13, 14, 18, 20, 78.

Saudi Aramco Terminal Planners monitor VHF Channels 13, 14 and 16 and can also be contacted via Ras Tanura Pilots.

VHF contact with Ras Tanura Pilots should be established within 100 miles of the port (or more in good propagation conditions) and maintained when anchored.

Use of VHF at the berths in the Port of Ras Tanura to contact Saudi Aramco Terminal Planners, Pilots or Agents is permitted.

VHF radio services are provided as a separate service and not from the HZY Radio Ras Tanura facility.

Communications with Saudi Aramco – Other than via HZY Radio: In the event that difficulties are encountered in communicating with Saudi Aramco via HZY Radio, a coast station is available at Bahrain Radio, call sign A9M. Messages are forwarded to Saudi Aramco via International Telex facilities. All such messages are at the ship's expense and subject to a delay of one day or more. There is a Saudi Arabian Government Maritime Coast Radio Station at Dammam call sign HZG.

Vessels calling at Ras Tanura or Yanbu Ports can contact HZY on Telex No. 801919 SHEIKO SJ, using Marisat. HZY does not initiate any call to contact vessels by telex.

Radio Silence at Berth: The use of Wireless Telegraphy and Radio Telephone transmitting equipment (with the exception of VHF equipment) is prohibited when secured to any Saudi Aramco Terminal facility.

Departure from Ras Tanura: It is important that for several days after departure from Ras Tanura vessel maintains communications with and copy HZY traffic lists.

Saudi Aramco NGL Terminal Yanbu: Vessels bound for the Saudi Aramco NGL Terminal at Yanbu should address radio messages to "SAUDI ARAMCO RAS TANURA/YANBU" and communicate with HZY on HF channels only.

CHART – 1:
HZY W/T Watch and Answer Frequencies

Listening Frequency Ships Transmit	*Reply Frequency HZY Transmit*	*Scheduled Times GMT*
—	430 kHz	H24
500 kHz	500 kHz	H24
—	521 kHz	On Request
*4181.6 to 4182.4 kHz	4308.5 kHz	1600 – 0600
†4186.8 to 4187.2 kHz		
—	4230 kHz	On Request
—	4275.5 kHz	On Request
*8632.2 to 8364.8 kHz	8480 kHz	1400 – 1000
†8373.6 to 8374.4 kHz		
*12544.8 to 12547.2 kHz	12811.3 kHz	0600 – 1600
†12560.4 to 12561.6 kHz		
*16726.4 to 16729.6 kHz	16960 kHz	1000 – 1400
†16747.2 to 16748.8 kHz		

*Corresponds to common Channel 5/6

†Corresponds to common Channel 18, monitored immediately following lists until all ships cleared.

Notes: (1) HF transmit frequencies are HZY working frequencies.
(2) During watch periods, CQ CQ CQ DE HZY HZY HZY is transmitted, indicating band is open for service.

CHART – 2
HZY W/T Working Frequencies and Traffic List Times

Frequencies HZY Transmit	*Schedule*	*List Times GMT*
430 kHz	H24	Every Odd Hour
521 kHz	On Request	—
4308.5 kHz	1600 – 0400	Every Even Hour
4230 kHz	On Request	—
4275.5 kHz	On Request	—
8480 kHz	1400 – 0800	Every Even Hour
12811.3 kHz	0600 – 1400	Every Even Hour
16960 kHz	1000 – 1200	1000 and 1200

Lists are broadcast on the odd or even hour.

CHART – 3 HZY Radio Telephone Frequencies

Carrier Frequency	Assigned Frequency
4143.6 kHz	4145 kHz
6218.6 kHz	6220 kHz
8291.1 kHz	8292.5 kHz
12429.2 kHz	12430.6 kHz
16587.1 kHz	16588.5 kHz
22124.0 kHz	22125.5 kHz

Notes: (1) HZY maintains a constant listening watch on international distress and calling frequency 2182 kHz.
(2) Initial contact via W/T, Channels are not monitored.
(3) HZY transmits on upper side band, A3A/A3J.
(4) Ships may specify their own authorised send frequency if desired.

TUGS: DESCRIPTION OF TUGS: Saudi Aramco operates the following harbour tugs:

1 single screw conventional tug of 4,000 h.p. with Bollard Pull of 55 tons.

3 twin screw flanking rudder tugs of 6,000 h.p. with Bollard Pull of 72 tons.

3 Voith Schneider propulsion tugs of 4,000 h.p. with Bollard Pull of 40 tons.

METHOD OF USE: These tugs may be encountered at any of the terminals in the Port of Ras Tanura.

Tug's lines are used but vessels should have good quality ropes available to supplement these in periods of bad weather.

At present no charge is made for the tugs when used in normal mooring and unmooring operations but a charge is made for additional or unusual services.

BERTHING: FACTORS: Vessels calling at the Port of Ras Tanura are assigned berths based on a variety of factors including but not limited to the following: nomination date, time of arrival, product to be loaded, vessel size, available berths and loaded draft. If there are no immediate berthing prospects vessels will be directed to anchor in the Northern Holding Anchorage.

DOUBLE BERTHING: Saudi Aramco reserves the right to advise vessels at which berth or berths and/or Terminals the loading will start and finish.

MOORINGS: All arriving vessels of 75,000 d.w.t. and over shall comply with the wire mooring line requirements detailed in Part "B" – Mooring Regulations.

During periods of unsettled weather, arriving vessels of under 75,000 d.w.t. fitted with wire moorings are preferentially berthed.

BALLAST: Vessels shall complete the deballasting operation promptly after berthing in order to minimise time at berth. Simultaneous loading and deballasting is permitted provided that the vessel has positive segregation between the two operations. Owners/Operators or Charterers of vessels requiring time to deballast in excess of what Saudi Aramco considers standard will be so notified by letter with a copy to the Master.

No facilities for the reception of dirty ballast are available in the Port of Ras Tanura.

HELICOPTER OPERATIONS: GENERAL: Helicopter operations in the Port of Ras Tanura are carried out according to the "International Chamber of Shipping – Guide to Helicopter/Ship Operations" All ships using the service should have a copy of this information and the Safety Check List on board.

DESCRIPTION OF HELICOPTERS: The helicopters used to transport Saudi Aramco personnel and equipment to and from tankers in the Port of Ras Tanura are Bell Model 212 and 214 which are twin-engined, kerosene fuelled, carry 11 to 18 passengers.

They are fully equipped for night operations and operate both day and night, with capability for either landing or winching operations as required and permitted.

In addition to being fitted with radar and radios which operate on aeronautical frequencies, the helicopters are fitted with International Marine VHF Ship/Shore Channels 11, 12, 13, 14 and 16.

SHIP INFORMATION: The following ship information should be available to the pilot of the helicopter:

1. Ship's name and call sign.
2. Owner.
3. Port and Country of Registry.
4. Type and Size.
5. Inert gas system installed.
6. Type of deck operating area provided for helicopters.
7. Type, size, markings and location of "Manoeuvring Zone" and "Clear Zone" provided for helicopters.
8. Obstacle types, sizes, markings and locations within and adjacent to helicopter operating area including antennae, handrails, davits, catwalks, valves, piping, etc,
9. Floodlight locations and wattage.
10. Communication frequencies available and those which are guarded continuously.
11. Special conditions, limitations and precautions applying to the particular vessel.

This information is kept on file in the Helicopter Dispatch Office and will be regularly updated.

If the conditions aboard the ship do not agree with the file, the differences must be resolved before a helicopter is dispatched to a ship.

COMMUNICATIONS: (a) **The Initial Contact** will be made by the helicopter Pilot with the ship on VHF Channel 16 and the working Channel 12 as soon as practicable to confirm the rendezvous time and location, type of service intended, etc.

(b) In the event of **Radio Communication Failure** the helicopter will circle the ship and the ship should reply by signalling lamp with:

1. Steady white light: Ready to receive helicopter
2. Series of short flashes: Reception of helicopter delayed for a period not greater than 15 minutes.
3. Prolonged series of "N" signals: Reception of helicopter delayed for a period in excess of 15 minutes. In this case the helicopter will return to base.

(c) **Initial Navigation Contact.**

The helicopter Pilot will at the appropriate time use the agreed VHF working frequency to request the ship to transmit its call sign on 410 kHz and then to transmit a continuous signal (Locked Key) for a sufficient time to determine the bearing to the ship and identify it on the radar.

SAFETY: The Port of Ras Tanura maintains a vigorous cargo handling safety programme.

Saudi Aramco is a member of the Oil Companies International Marine Forum (O.C.I.M.F.) and as such follows the procedures and safety practices recommended by this international organisation.

As is the practice in other Arabian Gulf Ports, each ship's Master is presented with a form entitled "Declaration by Master" which lists Saudi Aramco safety regulations. After a detailed review of each safety item with the Saudi Aramco Safety Representative, the Master must sign the form. Prior to start of loading and later at several times during the loading, Saudi Aramco Safety Representative will visit the ship and accompanied by one of the ship's officers will check to ensure that safe loading practices are being observed by both the ship and the shore crews.

In cases of blatant or repeated infringements of the Safety Regulations ships will be removed from the berth and will not be reberthed until a thorough inspection has been satisfactorily carried out by a Saudi Aramco Safety Representative.

Also see "Safety Regulations".

EMERGENCY PROCEDURES: The course of action to be followed by Saudi Aramco Personnel in the event of a fire or explosion on board a vessel while berthed in this Port will be dictated by the particular facts and circumstances of the incident. Although it is impossible to indicate exactly what practices will be applied during an emergency before an evaluation of the specific situation can be made by the responsible Saudi Aramco representative, his decisions will be based on the following principles:

1. An evaluation of the particular emergency will be made by the responsible Saudi Aramco Representative to determine the course of action to be taken. His decision as to the course of action will take into account the location, type and extent of fire or explosion, the berth location and proximity of other vessels, and the tidal and wind conditions.
2. A burning vessel will not be permitted to remain at the berth. Where possible, the fire will be fought with available berth fire-fighting facilities until the arrival of tugs. After hook-up of the tugs to the vessel's fire wires, if the fire is not controllable or extinguished, the vessel will be released or cut free and removed from berth under controlled conditions.
3. Where communication facilities permit, the Master or responsible ship's officer will be advised prior to releasing or cutting free a vessel from berth. The Master should designate a responsible senior ship's officer with whom the senior Saudi Aramco Representative present can communicate in case of a fire or explosion aboard the vessel. Where possible, this officer will be advised of the actions to be taken in releasing or cutting the vessel free from the berth.
4. Although a vessel may have no power it may be released or cut free from the berth prior to arrival of the tugs and hook up to the vessel's fire wires, if in the opinion of the senior Saudi Aramco Representative present it is a greater hazard at the berth than drifting free. Normally, however, a burning vessel will be removed by tug boats under controlled conditions.

NOTE: The above mentioned Principles are intended to provide the guidelines of action to protect terminal personnel and facilities, and other vessels at the Saudi Aramco loading berths.

The handling of gas tankers loading LPG at Saudi Aramco berths is governed by separate sets of rules with the mnemonic "Gasrul 9:86", copies of which are provided to all gas tankers.

POLLUTION: Saudi Aramco adopts a vigorous policy of pollution prevention, detection, and clean-up which is required and supported by the Saudi Arabian Government.

Vessels using terminals operated by the Company are required to observe the IMO conventions relating to the pollution of the sea by oil and are advised that violations will involve the Master/Owner/ Agent Operator in severe penalties.

Saudi Aramco does not tolerate pollution and will clean oil spills with whatever men, equipment, and material that are required considering the size of the spill, time of day, sea state and weather conditions. The Master, Owners and Operators shall be liable for all expenditure incurred by Saudi Aramco.

The equipment and material used in the clean up effort is dictated by on site judgement of qualified professional personnel whose goal is to protect the environment and prevent hazardous conditions.

Masters of vessels involved in a pollution incident shall immediately contact their Agent who will arrange the necessary Government contact

Also see "Pollution Regulations".

SHIP'S AGENTS: Vessels calling at any terminal in the Port of Ras Tanura should address all messages concerning ship's business to the Agents. Matters concerning provision supply, minor repairs, local medical or hopital services, mail, crew changes, etc., are to be handled by the ship's Agent.

SURVEYORS: Independent oil inspection service is available at the terminals in the Port of Ras Tanura by the following companies:

(a) Redwood Petroleum Division,
1 Place des Alpes,
1201 – Geneve 1, Switzerland.
Telephone: 312250
Telex: 22140 SGS CH
(for local information contact Gulf Agency Company)

(b) Caleb Brett & Son Limited,
International House, Mitre Square, 26-28 Greenchurch La
London EC3A 5ED

(c) E. W. Saybolt and Co. S.A.
400, Swenson Drive,
Kenilworth, New Jersey 07033, U.S.A.

(d) Watson Gray (Saudi Arabia) Limited,
c/o Yusuf Bin Ahmed Kanoo,
Saudi Aramco Box 711 or P.O.Box 71,
Ras Tanura, via Dhahran, Saudi Arabia.
Telephone: (03)6670180/6670903
Telex: 651012 KANOO SJ

(e) Services et Transports,
Route du Hoc, Gonfreville L'orcher,
Harfleur 76700, France.
Telephone: (35) 26 40 18
Telex: 190634 F.

(f) SPACO (Saudi Petroleum Analytical Company)
c/o SNAS, P.O.Box 5641, Riyadh, Saudi Arabia.
Telephone: (01)4766589
Telex: 201406 SJ

Marine and Engine Surveyors of various companies are available locally. They may be contacted through the vessel's Agent.

INERT GAS REQUIREMENTS – CARGO TANKS: All vessels are required to be fitted with an inert gas system under the provisions of the SOLAS Convention 1974 and its 1978 Protocol shall have the cargo tanks in the inerted condition prior to berthing at any Saudi Aramco Terminal in the Port of Ras Tanura.

The Berthing Pilot will check the oxygen content of cargo tanks with a ship's officer using ship's equipment. If the oxygen content of any tank exceed 8% by volume, the vessel shall not be berthed until the oxygen content of all tanks meet the requirements of the convention.

The Saudi Aramco Form "Inert Gas System – Check List" must be satisfactorily completed prior to berthing.

FACILITIES:

BUNKERS: Saudi Aramco fuel bunkers are available at all berths in the port. Black diesel is not available at the Ju'aymah Crude Terminal. Vessels taking only bunkers are urged to call at Ras Tanura *prior* to loading elswhere to avoid delays caused by draft and berthing assignment problems.

Non-Saudi Aramco bunkering services are available. Vessels employing these services are generally required to carry out their bunkering operations at the Northern Holding Anchorage.

FRESH WATER: Drinking and boiler water are NOT available in the Port of Ras Tanura. In cases of emergency, ships' Agents may be able to arrange delivery by barge of small quantities.

LUBRICATING OILS: Lubricating oils are available in limited quantities of drums if ordered through ship's Agents well in advance.

STORES: The shipping of any stores at Saudi Aramco berths is prohibited.

REPAIRS: Repair services are available from local business concerns. Saudi Aramco will not assist in making emergency repairs on vessels.

It is suggested that Masters discuss repair charges with the ship's Agent prior to requesting or authorising repair work.

DIVERS: Deep sea divers, operating from modern and well-equipped boats are available. Ship's Agents must be contacted for this service.

MEDICAL/HOSPITAL FACILITIES: No medical facilities are available at any of the terminals in the Port of Ras Tanura. Requirements for medical assistance or hospital services must be made through the ship's Agent, who can arrange treatment at one of the government or private clinics or hospitals in Rahima, Al Khobar or Dammam.

The ship's Agent is able to arrange for the Port Doctor to visit vessels to treat minor injuries or illnesses. In serious cases requiring hospitalisation the Port Doctor must attend to certify the necessity. Saudi Aramco medical facilities are made available in emergencies only when other facilities are not available.

A charge will be made for all such services furnished by Saudi Aramco. The Saudi Aramco radio station "HZY" may be used at any time without charge by vessels at sea to obtain medical advice.

REPATRIATION/SHORE LEAVE: All matters relating to crew changes, repatriation of crew personnel or shore leave are to be arranged through the ship's Agent. There is no Seaman's Recreation Centre at any terminal in the Port of Ras Tanura.

DRY CARGO AND FREIGHT: No dry cargo facilities exist in the Port of Ras Tanura and all Saudi Aramco freight is handled through Saudi Arabian Government Ports in the area.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Saudi Riyals (SR). U.S.$ 1.00 = SR 3.75 (fixed).

(B) REGULATIONS

The regulations shall be observed by all vessels proceeding to any terminal in the Port of Ras Tanura.

The Rules and Regulations for Ras Tanura Port (and Ju'aymah) are published by the Co-operation Council for the Arab States of the Gulf (March 1985).

Every vessel which arrives in Ras Tanura or Ras al Ju'aymah must have a copy of these Regulations on board, or must obtain a copy immediately on first arrrival.

Neither non-possession nor ignorance of these Regulations will be considered a reason for non-imposition of a penalty for violation of these Regulations.

EXTRACTS FROM SAUDI ARABIAN GOVERNMENT REGULATIONS: Saudi Arabian Government Regulations are strictly enforced and Masters having any doubts concerning the interpretation of these regulations are urged to consult their agent. At all times while in the Port of Ras Tanura whether at anchor, at the berth in any terminal or in transit between terminals, the vessel and its personnel are under the jurisdiction of Saudi Arabian laws.

QUARANTINE SIGNALS: Quarantine signals shall be displayed by all vessels approaching the Port of Ras Tanura in accordance with International practice. These signals shall be displayed continuously until Pratique is granted.

Sunrise to Sunset – Quarantine flag (Q)
Sunset to Sunrise – Red over White signal lights.

SAUDI ARABIAN FLAG: The flag of The Kingdom of Saudi Arabia shall be flown from the foremast of the vessel by day and by night while in the Port of Ras Tanura. The flag shall be clean and in good condition. Masters should obtain this flag before arrival but if circumstances render this impossible a flag must be obtained from the ship's Agent. Vessels not correctly flying the flag of Saudi Arabia will not be berthed. The flag is properly displayed when the Arabic writing appears on the top and the sword on the bottom.

PROHIBITED ARTICLES: All materials to be either exported from or imported into Saudi Arabia are subject to examination by Customs Authorities. The import of certain articles is strictly prohibited and such articles include but are not limited to the following:

Explosives and firearms including air rifles.
Implements of war of any kind including antique weapons.
Religious matter not pertaining to the Moslem faith.
Playing cards and gambling devices.
Narcotics.
Printed, photographic matter or video tapes depicting what could be considered pornographic.
Alcoholic beverages of any description.

Any of the above items on board any vessel calling at the Port of Ras Tanura shall be secured in appropriate locked storerooms which will be sealed by the Authorities who may carry out inspections to ensure that the seals are intact and that none of the above articles are in use. The seals must remain intact during the entire period of the vessel's stay in the Port of Ras Tanura and must not be broken until after the vessel has finally departed for a port in another country.

Trafficking in any of the above articles between vessels or between vessel's crew and shore personnel is strictly prohibited.

The baggage of crews joining and leaving vessels will be inspected to ensure that it contains none of the prohibited articles.

PHOTOGRAPHY: The use of photographic equipment of any kind is strictly prohibited within the Port of Ras Tanura. Cameras are liable to seizure by the Authorities.

SHORE LEAVE: Vessel's personnel are not permitted ashore nor on the wharves for ANY PURPOSE WHATSOEVER (this includes reading the vessel's draft) until pratique is granted and then only if actually engaged in operational duties. No visiting between vessels at berths is permitted. Shore leave is not normally granted and ship's Agents must be consulted for advice.

PENALTIES: Penalties for violations of Saudi Arabian Government Regulations are severe and considerable fines and/or delays to vessels may be incurred.

Note: Saudi Aramco fully endorses and complies with these Rules and Regulations. Questions concerning these Rules and Regulations, from Ship Owners or Masters using Saudi Aramco Marine Terminal Facilities, should be addressed to the appropriate Authority through the ship's Agents.

SAFETY REGULATIONS: Prior to arrival at berth the Master must make a Safety Declaration of the conditions he will maintain when the vessel is at berth. (Saudi Aramco Form 8812 – 2/84) – See "Appendices" – Master's Safety Declaration.

RESPONSIBILITY FOR SAFETY: The vessel's Master and crew shall be responsible at all times for the safety of the vessel and shall make provision to exercise all necessary precautions.

Saudi Aramco Terminal personnel are authorised to suspend oil handling operations in the event that any of the Safety Regulations are violated or if any other hazardous situation is observed.

SAFETY REQUIREMENTS:

Notes:

(a) All of these requirements shall be complied with at all times that a vessel is berthed at any Saudi Aramco facility.
(b) Requirement No. 14 is to be complied with at other times as stated.
(c) The title of each requirement is numbered to correspond with the questions in the Safety Check List.
(d) Guidance on methods of complying with these requirements is contained in the ICS/OCIMF publication "International Safety Guide for Oil Tankers and Terminals"

1. *Moorings:* Moorings shall be frequently monitored and carefully tended to maintain the vessel in position and alongside at all times. (See "MOORINGS REGULATIONS").

Anchors shall be effectively secured in the hawse pipe to prevent letting go accidentally.

2. *Emergency Towing:* Towing off wires shall be made fast to bitts as far forward and aft as practicable on the side of the vessel opposite to the cargo connections. The wires shall be in good condition of not less than 3.5 in. in circumference (28 mm. diameter) and secured with a minimum of 5 turns on the bitts.

The wire shall lead directly to the chock with no slack on deck and a heaving line made fast to the eye shall be used to maintain the eye of the wire between 3 ft. and 6 ft. (1 m. and 2 m.) above the water at all times.

3. *Ship/Shore Access:* Personnel shall use only the designated access. Gangways shall be carefully tended at all times and safely illuminated at night.

4. *Readiness To Move:* The vessel's boilers, main engines, steering machinery and other equipment essential for manoeuvring shall be maintained so as to enable the vessel to be unberthed under full engine power at short notice.

A suitable trim shall be maintained for the same reason.

5. *Deck Watch:* A responsible Ship's Officer and sufficient crew shall be on watch to attend to the safe operation of the vessel.

A member of the crew shall be continuously on watch on the loading deck in view of the manifold and access to the vessel.

6. *Ship/Shore Communications:*
(a) A reliable communication system shall be established and tested for control of the cargo handling operation. This shall consist of suitable UHF/VHF radios, telephone or direct voice communication.
(b) The responsible Ship's Officer and the shore operator shall confirm with each other that the communications system and signals for controlling the operations are understood by them and by other personnel on duty at the start of operations and at each change of watch or shift.
(c) A responsible member of the vessel's crew with adequate command of the English language shall man the agreed communication medium.

7. *Operating Procedures:* The procedures for cargo, bunker and ballast operations shall be agreed in writing by the responsible Ship's Officer and the Terminal Representative.

8. *Emergency Shutdown:* Whenever an emergency situation develops aboard the vessel which may require that the cargo loading operation be suspended the vessel's tank/manifold valves shall not be closed against the flow rate under any circumstances until the berth operator has been advised. In order to prevent pressure surges in the loading system the period of valve closure shall be not less than 30 seconds and to prevent accidental closure of power operated butterfly valves they shall be locked or otherwise secured in the open position.

9. *Fire Fighting Equipment:* Fire fighting and emergency equipment shall be kept in readiness at all times.

Vessel's fire hoses fitted with combination jet/spray nozzles shall be connected to the fire main and laid out on deck forward and abaft the loading manifold.

If practicable, a pump shall maintain pressure on the fire main otherwise the fire pump shall be on standby ready for immediate use.

Monitors shall be ready for use and portable fire extinguishers preferably of the dry powder type shall be available in the proximity of the manifold area.

10. *Loading Connections:*
(a) The Master shall ensure that cargo and bunker hoses or arms are visually inspected and in good condition.
(b) The Master shall ensure that the loading connection is made to his satisfaction.
(c) Adequate safe fixed lighting arrangements shall be provided at the manifold at night to ensure a safe working area for personnel engaged in making the connection and to detect any leakage or spillage of cargo.
(d) Cargo hoses and arms at Saudi Aramco loading facilities are fitted with insulating flanges or joints. Ship/shore bonding cables shall *NOT* be used.

11. *Cargo Spillage and Leakage:*
(a) All deck scuppers shall be effectively plugged and cemented if necessary to prevent spilled oil from escaping overside.
(b) Accumulations of water shall be periodically drained and the scuppers secured immediately after the water has been drained. A crew member shall be in attendance during this operation.
(c) All cargo pipeline and pumproom valves when not in use shall be closed.
(d) Adequate drip trays shall be provided at the loading connections.
(e) Loading rates shall be regulated to avoid oil being drawn into the gas venting system.
(f) If leakage occurs from a pipeline, valve, hose or arm, or any connection, operations through that system shall be suspended until the cause has been ascertained and the defect remedied. If a pipeline, hose or arm ruptures or if there is an overflow, all cargo and bunker operations shall be stopped immediately and shall not be restarted until the fault has been rectified and all hazards from the released oil or product eliminated.
(g) In the event of any spillage of cargo on deck or overside, the Representative of the Terminal Superintendent shall be notified immediately.

12. *Unused Cargo and Bunker Connections:*
(a) All unused cargo and bunker connections shall be properly blanked, fitted with a gasket and bolted with one full-size bolt in every hole.
(b) The stern discharge line if fitted shall be isolated forward of the after accommodation by blanking with a spectacle piece or by removal of a spool piece.
(c) Unused inert gas system connections to machinery spaces shall be properly sealed to prevent entry of cargo or vapour.
(d) Any part of a crude oil washing or slop transfer system which extends into machinery spaces shall be securely blanked and isolated on the tank deck.

13. *Sea Valves:*

At the start of and at regular intervals throughout deballasting and loading, a deck watch shall be maintained to ensure that oil is not escaping through sea and overboard discharge valves (Also see "Pollution Regulations").

When not in use, sea and overboard discharge valves connected to the cargo or ballast systems shall be closed and lashed. When lashing is not practicable as with hydraulic valves, a suitable means of locking shall be used to indicate that the valves are to remain closed. (For further guidance refer to the ICS/OCIMF publication "Prevention of Oil Spillage through Cargo Pumproom Sea Valves").

14. *Tank Lids:*
(a) All cargo tank lids ullage and sighting ports shall be securely closed **before berthing or unberthing operations commence.** To maintain watertight integrity **when manoeuvring in the loaded condition** all cargo, ballast and bunker tanks, cofferdams and pumproom entrances shall be securely closed.
(b) During cargo handling operations all cargo, ballast and bunker tank lids and tank washing openings shall be securely closed.

15. *Tank Venting:*
(a) All vessels shall ensure that vapour displaced by cargo shall be vented in accordance with the written agreement with the Terminal Representative.
(b) All vessels fitted with an Inert Gas System shall ensure that the oxygen content throughout the atmosphere of cargo tanks has been reduced to 8 per cent or less by volume.
(c) Flame arrestors will be employed in accordance with the design features of the venting system.
(d) The loading rate shall be controlled to prevent excess pressure in the cargo tanks.
(e) If ullage ports are required to be open for operational purposes the opening shall be protected by efficient flame arrestors. Ullage ports shall not be left partly covered but shall be fully open in such a way that vapour may leave the tank in the form of a vertical unimpeded jet.
(f) In vessels not fitted with automatic ullaging devices ullage ports may be opened intermittently for short periods for the purpose of ullaging or sighting only.

16. *Hand Torches and Battery Powered Equipment:*
(a) Battery operated flashlights shall be in good condition and of a type certified to be safe for use in hazardous locations.
(b) Portable domestic radios, photographic flash equipment (See "Prohibition of Photography"), portable electronic calculators, recorders and other battery-powered equipment of non-approved type shall not be used on deck or in any place where petroleum vapour may be encountered.

17. *Portable Radio Transceivers:* Portable VHF/UHF transceivers shall be of an intrinsically safe type which is approved by a competent authority. When used this equipment shall be in good condition.

18. *Radio and Radar Transmitters:*
(a) Main radio equipment shall not be used and main transmitting aerials shall be disconnected and grounded.
(b) Radar scanners shall be switched off.
(c) The servicing of radio and radar equipment shall not be permitted without written agreement of the Terminal Representative.

19. *Electrical Equipment:*
(a) The use of portable electrical equipment on flexible leads is prohibited on the tank deck. Supply cables for such equipment shall be disconnected and removed from the tank deck.
(b) All electrical installations on board vessels shall be in good condition. Modifications which have not been approved by an appropriate authority shall not be accepted.

20. *Amidships Accommodation:* All doors, ports and windows in amidships accommodation shall be closed and every effort shall be made to prevent entry of petroleum vapour into this accommodation.

21. *Aft Accommodation:*
(a) All doors, ports and openings in the after accommodation (other than pumproom) which lead directly to the loading deck or which overlook the loading deck at any level shall be kept tightly closed.
(b) Doors that are required to be closed shall be clearly marked but under no circumstances shall they be locked.
(c) Machinery space openings by means of which petroleum vapour may enter shall be closed.
(d) Consideration shall be given to the suspension of cargo operations when weather conditions support the entry o petroleum vapour into spaces which cannot be closed.

22. *Air Conditioning Intakes:*
(a) Central air conditioning or mechanical ventilation systems shall be adjusted to prevent intake of petroleum vapour if possible b recirculation of air within enclosed spaces so that a vacuum i not created.
(b) Any intake within the range of possible petroleum vapour releas shall be closed.
(c) If at any time it is suspected that petroleum vapour is being draw into the accommodation, central air conditioning and mechanica ventilating systems shall be stopped and intakes closed o covered.

23. *Window Type Air Conditioning Units:*

Window type air conditioning units shall be disconnected from th power supply.

24. *Smoking:*

Smoking shall only be allowed in places in the after accommodatio which have been jointly approved in writing by the Master and th Terminal Representative and suitable notices shall be posted at th entrance to designated smoking rooms.

No place will be considered suitable for smoking unless:
(a) It is in enclosed accommodation abaft the cargo tanks.
(b) It has no doors which open directly onto the outside deck.
(c) It has no doors or ports which open directly onto or over the car deck or onto decks overlooking cargo spaces.
(d) All ports are kept closed and doors into passageways are ke closed except when in use.

25. *Galley Stoves and Cooking Appliances:*
(a) Galleys which use only steam or immersed electric heaters sh be considered suitable for use.
(b) The use of galley stoves and cooking appliances with no immersed elements such as electric hot plates and toasters m be permitted in galleys and properly designated pantries with written agreement of the Terminal Representative.

(c) Approved galleys and pantries shall be situated in the after accommodation and shall have no doors or ports which open directly onto the cargo deck.

(d) All galley and pantry doors and ports shall be kept closed.

(e) Ventilator trunkings and filters of extractor fans in galleys shall be kept clean and free from accumulated oil and fat.

26. *Naked Lights:*

Open flames or fires, exposed incandescent material and any other unconfined sources of ignition are prohibited on deck and in other places where there is a risk that petroleum vapour may be present.

27. *Emergency Escape:*

Means for emergency escapes shall be provided on the side of the vessel opposite to the loading connections. For security reasons such means is to be stowed at deck level in such a manner as to be ready for expeditious use in an emergency. Such means shall be of adequate length to reach the water at all times.

VOLATILE AND NON-VOLATILE PETROLEUM:

Due to the variety of petroleum products available for loading at Saudi Aramco facilities in the Port of Ras Tanura, all vessels arriving to load crude oil or any petroleum product whether volatile or non-volatile at any berth shall be required to observe the Safety Regulations.

See also "Gasrul 9:86" for Saudi Aramco Rules governing the handling of gas tankers at berth.

PRECAUTIONS AGAINST STATIC IGNITION: Tanks not properly inerted (See "Safety Requirement") prior to loading static accumulator oils (kerosene, kerosene type jet fuel, white diesel and under certain conditions heavy naphtha and gasoline type jet fuels) shall be gas free within 40% of the lower flammable limit. The following restrictions shall also apply to vessels loading static accumulator oils:

(a) Tanks and pipelines shall be free of water.

(b) Loading overall (splash filling) shall not be permitted.

(c) No conducting equipment (ullage tapes, sample cans, thermometers) shall be introduced into a cargo tank until 30 minutes have elapsed after loading has been stopped to that tank.

(d) No loose floating objects shall be present in tanks to be loaded.

(e) Initial loading rates shall not exceed 1,000 bbls.p.h. per tank. Above soundings of 20 ft. loading rates of up to 1,500 bbls.p.h. shall be permitted.

(f) Properly bonded and grounded automatic ullaging equipment may be used at any time.

Vessels with tanks which are properly inerted (See "Safety Requirement") shall not be required to comply with the specific requirements for loading static accumulator oils. However, normal safety precautions shall be observed.

HYDROGEN SULPHIDE HAZARDS: Saudi Aramco crudes may contain dissolved hydrogen sulphide (H_2S) in concentrations which may be hazardous. It is recommended that Owner's instructions and the ISGOTT recommendations in respect of H_2S hazards are reviewed.

EMERGENCY SIGNAL: In the event of a fire or other emergency, the vessel shall sound a series of 10 short blasts on the ship's whistle.

GAS FREEING: No gas freeing or tank washing shall be carried out at berth.

BOILER TUBE CLEANING: Funnel uptakes and boiler tubes shall not be cleaned while the vessel is at berth. Every precaution shall be taken to ensure that sparks do not escape from the funnel.

REPAIRS: Repairs or maintenance of any kind which may produce a source of ignition shall not be undertaken without the agreement in writing of the Terminal Representative.

PENALTIES: Disregard of or failure to fully comply with any of the Safety Regulations or any safety regulations generally accepted and practised in the marine transport industry will result in the suspension of all operations and the vessel may be required to leave the berth.

Vessels presented for loading with deficient equipment or machinery whether by design or by lack of maintenance will not be berthed. If such deficiency becomes apparent after berthing the vessel will be removed from the berth.

Safety violations due to negligence on the part of the vessel's personnel will result in the suspension of loading operations for investigation and correction. Repeated violations may result in a vessel being removed from the berth.

Removal from the berth as a result of safety violations or deficiencies will be at vessel's expense and Saudi Aramco will not accept responsibility for any resulting delay to the vessel.

Vessels with unacceptable safety performances will not be permitted to berth at Saudi Aramco facilities on future visits.

POLLUTION REGULATIONS: Vessels using the Port of Ras Tanura shall exercise every precaution to prevent the pollution of the sea by oil.

1. A crew member shall be stationed on deck to sight the overboard discharge during deballasting operations to ensure that no oil or oil-based products escape into the sea.

   Particular vigilance shall be exercised at any time that a change of operation takes place, e.g. starting of stripping pumps or eductors, change of tanks, commencement of loading, etc.
2. At sea island type berths, all ballast shall be discharged from the side of the ship nearest the berth.

   At pier berths, all ballast shall be discharged from the offshore side of the ship.

   At night, the discharge and the sea area in its vicinity shall be adequately illuminated.
3. No domestic or other rubbish shall be dumped into the sea.
4. In the event of an oil spill the Master shall notify the Terminal Representative on duty.
5. Excessive smoke from the funnels or exhaust gas lines of vessels is prohibited.

PILOTAGE REGULATIONS:

BOARDING ARRANGEMENTS: In order to permit the harbour Pilot to safely embark and disembark from a vessel a pilot ladder shall be provided in accordance with the following requirements:

1. The ladder shall be kept clean and in good order and shall be of adequate length and strength.
2. The vertical distance between the steps must not exceed 15 in. The outboard edge of the step shall project from 5 in. to 6 in. from the hull. Ladders shall be so constructed that the steps will remain flat at right angles to the hull while supporting the weight of a person.
3. Spreaders at suitable intervals shall be provided to prevent the ladder from twisting and the ladder shall be properly secured with the steps level.
4. The deck in the vicinity of the ladder shall be clean and free of oil and grease or other slippery substances.
5. When possible, on vessels so equipped, the pilot ladder shall be made fast next to an area where there is a break in the rail or an opening in the bulwark. Otherwise, suitable arrangements for safe access to the deck from the top of the pilot ladder shall be provided.
6. The boarding position should be as near amidships as possible so that the whole length of the ladder rests against the ship's flat side, clear of all possible discharges from the ship.
7. Adequate lighting shall be provided at night so that the pilot ladder and the deck area close by the head of the ladder shall be adequately and properly illuminated.
8. Manropes, a safety line and lifebuoy with self igniting light should be rigged ready for use if required.
9. The rigging of pilot ladders and the embarkation and disembarkation of Pilots thereby shall be supervised by a responsible deck officer of the vessel.
10. The vessel's propeller shall be stopped during the approach of the pilot boat and the embarking of the Pilot.
11. Whenever the distance from the water to the deck of the vessel exceeds 30 ft. (approximately 9 m.) the pilot ladder shall be rigged in combination with the accommodation ladder.
12. In any small vessel in which the bulwark rails are below the level of the deck of the pilot boat (approximately 6 ft. or 2 m.) a safe boarding position on each side of the forward end of the poop shall be provided and equipped with manropes.
13. Pilot hoists of the double drum, double-wire type are permitted after inspection and approval by Ras Tanura Pilots.

Failure to provide a safe method of boarding for the Pilot will result in the vessel being ordered to anchor until the fault is rectified.

REMOVAL OF WRECKS AND OBSTRUCTIONS: If any vessel founders or otherwise becomes in the opinion of the Company, an obstruction or danger to navigation in the Port of Ras Tanura and its Owner or his Agent fails to remove the obstruction or danger so caused within the period of written notice served by the Port Captain, or immediately in an emergency, the Company may, for the purpose of safeguarding the Port, take action to remove the obstruction or danger.

The Owner of any vessel at the time of its becoming an obstruction or danger to navigation in the Port of Ras Tanura shall be liable for the expense incurred in removing the obstruction or danger to navigation.

Also see Standard Terms and Conditions where Master requests Saudi Aramco to provide assistance to refloat vessel stranded in waters of the Arabian Gulf.

Also see "Appendices" – Refloating/Stranding.

TRAFFIC REGULATIONS: The following regulations apply to all vessels entering or leaving the Port of Ras Tanura or Dammam by way of the Ras Tanura Channel.

The separation zones and routes shown on the charts of the Ras Tanura Channel are approved by IMO. Violators of the routeing recommendations will be reported to their Owners/Operators/Agents/Charterers.

1. All vessels shall monitor VHF Channel 10 when under way in the Ras Tanura Channel and its vicinity and in the anchorage areas of Ras Tanura Terminal.
2. All vessels using the inbound or outbound channels shall have an underkeel clearance of at least 5 ft. (1.52 m.).
3. Under no circumstances shall inbound vessels navigate in the departure channel nor shall outbound vessels navigate in the arrival channel.
4. Inbound vessels shall:
   - (a) report to Ras Tanura Port Radar on VHF Channel 10 when passing Beacon No. 3 and Buoy No. 7.
   - (b) not exceed a speed of 5 knots after passing Buoy No. 9.
   - (c) not overtake and shall mantain a distance of one mile from vessels proceeding in the same direction after passing Buoy No. 9.
   - (d) navigate with extreme caution and give way to vessels departing from the berths and anchorages.
5. Outbound vessels:
   - (a) departing from Ras Tanura Anchorage shall advise Ras Tanura Port Radar on VHF Channel 10 of their intentions 30 minutes before weighing anchor.
   - (b) shall not overtake and shall maintain a distance of at least one mile from vessels proceeding in the same direction until both vessels have passed clear of Buoy No. 5.
6. Vessels manoeuvring in the area between the South extremity of the Tanker Anchorage and the entrance to the Departure Channel (Buoys 17 and 18) shall limit speed to a maximum of 5 knots.
7. Vessels bound to and from the Port of Dammam shall keep to the Eastern part of the Tanker Anchorage and avoid the manoeuvring area from the anchorage to the sea islands and piers. Outbound vessels from Dammam shall, when passing Dammam Channel Buoy No. D 37, alert Ras Tanura Port Radar of their ETA at the Southern extremity of the Tanker Anchorage.

MOORING REGULATIONS:

GENERAL: The use of nylon or other highly elastic mooring ropes is discouraged.

If a vessel with synthetic mooring ropes is alongside when squall conditions arise, loading to that vessel shall be stopped and loading arms disconnected until weather conditions improve and it is judged safe to resume the loading operation.

Vessels shall be moored to the entire satisfaction of the Harbour Pilot and shall be ready at all times to put out more lines as required by terminal personnel and as may be dictated by weather conditions.

All vessels at berth shall have all deck winches in readiness for immediate use.

All vessels with tension winches shall set the manual brakes on these winches.

MIXED MOORINGS: Vessels equipped with both wire and synthetic lines shall avoid mixing moorings to the same bollard or dolphin.

WIRE MOORINGS: In order to ensure the safety of personnel, vessels and loading facilities and to prevent accidental oil spillages, the following requirements (used as springs and breast lines) are mandatory for all vessels permitted to use the Saudi Aramco fixed berth loading facilities.

Vessel Size	*Required*	*Recommended*
75–160 m.d.w.t.	8 wires	12 wires
161–250 m.d.w.t.	10 wires	12 wires
251–300 m.d.w.t.	12 wires	14 wires
301–350 m.d.w.t.	12 wires	16 wires
351 m.d.w.t. and above	14 wires	16 wires

The wire size, winch power and winch braking power shall in all cases be adequate for the size of the vessel. All lines shall be properly reeled onto winch drums and the winch brakes shall be set to hold to a minimum load of 60% of the minimum breaking load of the line.

After obtaining the permission of the Port Captain, vessels may use mooring lines other than wire, constructed of a substitute material provided that the elongation of the substitute material does not exceed 3% at 55% breaking load. Tails, if used, should preferably be made of nylon line (3 strand construction should not be used) about 11 m. long overall, and have a breaking strength at least 25% greater than the MBL of the wire to which they are attached. They should be replaced at least every 18 months unless experience and/or inspection indicates more or less frequent replacement is necessary.

Additional information is contained in the O.C.I.M.F. publication "Guide Lines and Recommendations for the Safe Mooring of Large Ships at Piers and Sea Islands".

All vessels shall utilise all of the wire mooring lines with which they are equipped unless the number exceeds that recommended above.

APPENDICES:

SHIP/SHORE SAFETY CHECK LIST

VESSEL:……………………………………………………………

BERTH:……………………………………………………………

Instructions for completion:

The safety of operations requires that all questions should be answered affirmatively after checking by both ship and terminal representatives. If an affirmative answer is not possible, the reason should be given and agreement reached upon appropriate precautions between the ship and the terminal.

Questions	Yes/No	Remarks
1. Is the ship securely moored and anchors secured?		
2. Are emergency towing wires correctly positioned?		
3. Is there safe access between ship and shore?		
4. Is the ship ready to move under its own power?		
5. Is there an effective deck watch in attendance on board?		
6. Is the agreed ship/shore communication system operative?		
7. Have the procedures for cargo, bunker and ballast handling been agreed?		
8. Has the emergency shut down procedure been agreed?		
9. Are fire hoses and fire fighting equipment ready for immediate use?		
10. Are cargo and bunker hoses and/or arms in good condition and properly rigged?		
11. Are scuppers effectively plugged, and drip trays in position?		
12. Are unused cargo and bunker connections, including the stern discharge line, if fitted, blanked?		
13. Are sea and overboard discharge valves, when not in use, closed and lashed?		
14. Are all cargo and bunker tank lids closed?		
15. Is the agreed tank venting system being used?		
16. Are hand torches of an approved type?		
17. Are portable VHF/UHF transceivers of an approved type?		
18. Are the ship's main radio transmitter aerials earthed?		
19. Are electric cables to portable electrical equipment disconnected from power?		
20. Are all external doors and ports in the amidships accommodation closed?		
21. Are all doors and ports in the after accommodation leading on to or overlooking the tank deck closed?		
22. Are air conditioning intakes which may permit the entry of petroleum gas closed?		
23. Are window-type air conditioning units disconnected?		
24. Are smoking requirements being observed?		
25. Are the requirements for the use of galley and other cooking appliances being observed?		
26. Are naked light requirements being observed?		
27. Is there provision for emergency escape?		

Declaration

We have checked with each other the items listed on this Check List in the course of a joint inspection, and have satisfied ourselves that the entries we have made are correct to the best of our knowledge.

For Ship Name……………… Rank ……………… Signature ………….

For Terminal Name……………… Position……………… Signature ………….

Time……………… Date………………

INSTRUCTIONS TO MASTERS AND CONDITIONS OF USE OF PORT
SAUDI ARAMCO Form 3032 (6/84)
Ras Tanura Terminal
Port of Ras Tanura, Kingdom of Saudi Arabia

Pilot Boarded:………. Local Time Date…………………

To the Master S.S./M.V……………

1. Your vessel; will be moored to Berth No. ………. North/South Pier/Sea Island Port/Starboard side to the berth.
2. The Local Time is GMT plus 3 hours.
3. Low water will be at approximately ……… Local Time and will be approximately ………………ft./m. above LAT.

BERTHING/UNBERTHING AND MANOEUVRING

1. All movements of vessels to and from berths and in the proximity of Saudi Aramco facilities shall be under the direction of a Saudi Aramco Harbour Pilot.
2. All tank openings, ullage and sighting ports shall be closed before berthing or unberthing operations commence.
3. Saudi Aramco tugs shall assist in berthing and unberthing.
4. Steering gear, engine room telegraph, whistle and all navigational and communications equipment shall be tested before any manoeuvring to or from the berth is commenced.
5. Full main engine power shall be available for berthing and unberthing.
6. Any special conditions present in the vessel which may effect manoeuvring, berthing or cargo handling capability shall be notified to the Harbour Pilot before operations commence.
7. The Harbour Pilot shall refuse to berth vessels with unsatisfactory equipment.
8. The vessel shall be moored to the entire satisfaction of the Harbour Pilot.
9. The crew of the vessel shall be ready to employ additional mooring lines as required by weather changes or as requested by the Harbour Pilot or terminal personnel.
10. Winches shall be ready at all times for immediate use.
11. No mooring lines shall be cast off except in emergency without the permission of the Harbour Pilot.
12. When at berth the vessel shall be ready in every respect to leave the berth at short notice with full engine power.
13. The Master of every vessel shall in circumstances which threaten the safety of the vessel, its crew, or the port installations be prepared to unberth the vessel subject to the advice of the Port Captain with or without a Harbour Pilot on board.
14. The Harbour Pilot will board on completion of loading and/or bunkering and the vessel shall vacate the berth immediately after the disconnection of hoses or arms.
15. The expenditure incurred in any delay or towage resulting from failure to comply with any of the provisions of these instructions shall be the liability of the Master and Owners of the vessel concerned.

KINGDOM OF SAUDI ARABIA

1. The National Flag of the Kingdom shall be displayed by day and night in the appropriate position on every vessel when in loca waters.
2. The International Quarantine signals shall be exhibited until th vessel is granted Free Pratique.
3. All prohibited items shall be secured before entering the territoria waters of the Kingdom. Contravention will entail severe penalties.
4. Ship's personnel are NOT permitted ashore nor on the wharves FOR ANY PURPOSE WHATSOEVER (this includes the reading of the ship's draft) until Pratique is granted and then are allowe on the wharves only if actually engaged in duties connected wi ballast and cargo handling operations.
5. Shore leave is not permitted except by special arrangement wi Government officials through the Agent of the vessel.

CONDITIONS OF USE OF PORT

1. The Master of the vessel shall remain solely responsible for th safety and the proper operation of the vessel at all times. Neithe Saudi Aramco nor its personnel shall be responsible for any los or damage arising in consequence of any assistance or advic given or tendered in respect of the vessel.
2. The use of Saudi Aramco premises, facilities and equipment subject to the express understanding and condition that Sau Aramco and its personnel shall be held harmless from all liabili loss or claim thereof arising out of such use. In amplifications the foregoing, the vessel, its Owners and/or Charterers shall liable to and shall reimburses Saudi Aramco promptly and in t for any Saudi Aramco liability to third parties and any cost, los delay, or expense incurred by Saudi Aramco as a consequen of any breach or non-compliance with these Instructions Masters and Conditions of Use of Port on the part of the vess its Master, Owner(s) and/or Charterer(s).
3. All vessels transiting the "Deep Water Departure Channel" sh maintain a minimum of 5 ft. keel clearance.

4. The Harbour Pilot is provided upon the condition that when boarding or assisting the vessel he becomes the Agent and Servant of the Owner and/or Charterers of the vessel in every respect. Saudi Aramco shall not be responsible and shall be held harmless from all liability for any damages resulting from or caused by any action taken, order given, or decision made (for any omission thereof) by the Harbour Pilot or in respect of his handling of such vessel.
5. When the assistance of tugs is provided, the Master and crews of tugs shall, in the performance of such services as they render to the vessel, become and be deemed to be the Agents and Servants of the Owners and/or Charterers of the vessel assisted, and Saudi Aramco shall not be responsible and shall be held harmless from all liability for any damage that may be done by the tugs or their crews while assisting the vessel, whether occasioned by any act or omission of the tug Master or crew by defect or inadequacy of the tug, its machinery or gear. This condition shall not, however empower the Master to detain such tugs should Saudi Aramco require their services elsewhere.
6. Vessels and the Owners and/or Charterers of vessels from which oil, oily residue, oily ballast water or any other pollutant escapes or discharged for any reason at any location within the Port shall be liable to and shall reimburse Saudi Aramco promptly and in full for the cost of all clean-up, containment and removal measures taken in response to such escape or discharge by or on behalf of Saudi Aramco which, in Saudi Aramco's sole discretion, are prudent or necessary in order to protect human life, vessels, installations and the environment. Such cost shall constitute a joint and several debt due from the vessel and the Owners and/or Charterers to Saudi Aramco. Further, the vessel and her Owners and/or Charterers shall be jointly and severally liable for all and any loss, damage and expense sustained by Saudi Aramco by reason of such escape or discharge and shall hold Saudi Aramco harmless from and indemnify Saudi Aramco against any and all claims related to or arising out of such escape or discharge.
7. Repair to the main engines or deck machinery shall not be permitted when the vessel is secured to any berth.
8. Harbour Pilots shall not berth any vessel at Saudi Aramco facilities without the Master's signature of acknowledgement.

MASTER'S ACKNOWLEDGEMENT

I hereby acknowledge receipt of a copy of this document and agree to the instructions and conditions set out therein.

(DATE) (MASTER)

(HOUR LOCAL TIME) (VESSEL)

INSTRUCTIONS TO VESSELS AND CONDITIONS OF USE OF **JU'AYMAH** LOADING FACILITIES

THE MASTER S/S — M/V

1. Vessel will be moored at Ju'aymah Berth No..............
2. Discharge into sea of oil base products in combination with ballast water is not allowed. Ships which release oil or oily ballast water in either the berth or anchorage area will be held responsible for all clean-up costs.
3. Prior to loading, the Pilot/Mooring Master will inspect the vessel for conformity with safety requirements and will review in detail each item on Saudi Aramco Form 5626 "Declaration by Master". This form will be acknowledged and signed by the Master.

MOORING AND MANOEUVRING

1. Full power must be available for manoeuvring in and out of the berth. Manoeuvers with other than full power available shall be performed only after the consent of both the Port Captain and Pilot/Mooring Master have been obtained.
2. The Pilot/Mooring Master will advise the Master during the mooring and unmooring of the tanker and will supervise the connecting and disconnecting of cargo and bunker hoses by the tanker's crew. The loading operation will be performed to the complete satisfaction of the Pilot/Mooring Master.
3. Mooring will be accomplished with the assistance of marine craft assigned to the vessel by Saudi Aramco.
4. All tank tops, ullage plugs and sighting ports shall be closed before berthing.
5. The vessel's Master shall notify the Mooring Master of any special conditions, difficulties, defective equipment or gear which could impose special hazards when mooring, unmooring or loading cargo.
6. All navigational equipment such as the engine, telegraph, whistle, steering gear, etc., shall be tested prior to getting underway to moor and unmoor. Testing of the tanker's engine when berthed shall be done only after the Pilot/Master has been duly informed and his consent has been obtained.
7. The Mooring Master may decline to moor a vessel with unsatisfactory mooring equipment.
8. No repairs are permitted while the vessel is berthed. The engine and deck machinery will be kept ready to permit the vessel to get underway on an emergency basis.
9. Any vessel delay resulting from failure to comply with any of the provisions of this document shall be for the vessel's account.
10. Upon completion of loading and the disconnection of hoses, the vessel will be unmoored and, if using Early Departure Procedures, the Master should make ready to depart as soon as possible. Otherwise, vessels are to await cargo and Port Clearance documents while lying in stream.

SAUDI ARABIAN GOVERNMENT PORT REGULATIONS

1. Quarantine signals must be displayed upon entering the coastal waters of Saudi Arabia and approaching Ju'aymah in accordance with international practice and shall be continuously displayed until Pratique is granted. These signals shall be as follows:
   Sunrise to Sunset – Quarantine Flag
   Sunset to Sunrise – Quarantine Signal Lights
   (Red over White)
2. The Saudi Arabian flag must be flown from the foremast while your vessel is in the coastal waters of Saudi Arabia. Such flags are available from the ship's agent. The Saudi Arabian flag is properly displayed when the writing appears on top and the sword on the bottom.
3. Importation and/or use of liquor or contraband items, or trafficking in such items, is absolutely prohibited. The Saudi Arabian Government rigidly enforces these regulations and penalties are severe. In the event of violation considerable delay to the vessel involved could occur.
4. Ship's personnel are not permitted to leave their vessel.

CONDITIONS OF USE OF PORT

1. The Master of the vessel shall remain solely responsible for the safety and proper operation of the vessel at all times. Neither Saudi Aramco nor its personnel shall be responsible for any loss or damage arising in consequence of any assistance, instructions or advice given or tendered in respect to the vessel.
2. The use of Saudi Aramco premises, facilities and equipment is subject to the express understanding and condition that Saudi Aramco and its personnel shall be held harmless from all liability, loss or claim thereof arising out of such use.
3. The Pilot/Mooring Master is supplied upon the condition that when boarding or assisting the vessel he becomes the agent and the servant of the owners and/or charterers of the vessel in every respect. Saudi Aramco shall not be responsible and shall be held harmless from all liability for any damage resulting from or caused by any action taken, order given, or decision made (or any omission thereof) by the Pilot/Mooring Master or in respect to his handling of the mooring or cargo loading operations.
4. When the assistance of small craft is supplied (mooring launches and/or a utility boat), the craft, Master and Crew thereof shall, in the performance of such services as they render to the vessel, become and be deemed to be the agents and servants of the owners and/or charterers of the vessel assisted. Saudi Aramco shall not be responsible and shall be held harmless from all liability for any damage that may be done by or to the craft or their crews while assisting the vessel, whether occasioned by any act or omission of the crafts or their crews or by any defect or inadequacy of the craft or the craft's machinery or gear. This shall not give the tanker's Master the right to detain such craft for duties other than mooring, unmooring or hose work nor shall this prevent the craft from being reassigned during mooring, unmooring or hose work.
5. No vessel may berth without a Saudi Aramco Pilot/Mooring Master on board.
6. Pilots/Mooring Masters will not assist in the mooring of any vessel unless they have the Master's signature on the acknowledgement below.

MASTER'S ACKNOWLEDGEMENT

I hereby acknowledge receipt of a copy of this document and agree to the instruction and conditions set forth therein.

DATE MASTER

_________GMT

HOURS (VESSEL)

REFLOATING/STRANDING

SAUDI ARABIAN OIL COMPANY
Ras Tanura, Saudi Arabia

MASTER
S.S./M.V. ....

The Saudi Arabian Oil Company hereinafter referred to as Saudi Aramco has been requested to provide assistance to refloat your vessel which is stranded in the waters of the Gulf.

Saudi Aramco is prepared to provide personnel and such equipment and materials as may be available to assist in the refloating of your vessel subject to the following conditions:–

1. That you as Master shall have sole responsibility for your vessel at all times.
2. That Saudi Aramco and any personnel, equipment or crafts that may be provided shall be deemed to be the Agents and Servants of you as Master and the Owners and/or Charterers of your vessel.
3. That you will accept liability on behalf of the Owners and/or Charterers of your vessel for all the expenditure incurred by Saudi Aramco in providing assistance to your vessel.
4. That Saudi Aramco shall not be responsible for and shall be held harmless from and against any damage that may be done by any personnel and equipment, including tugs and their crews, whether occasioned by any action or omission of Saudi Aramco personnel or by any defect or deficiency of Saudi Aramco equipment and is hereby released from any such liability.
5. That Saudi Aramco shall not be responsible for any oil pollution damage that may result from the stranding and/or refloating of your vessel and any oil pollution clean-up expenditure that may be incurred shall be the liability of you as Master for the account of the Owners and/or Charterers of your vessel.
6. That in the event that the assistance provided by Saudi Aramco proves to be inadequate to refloat your vessel you will expeditiously arrange and obtain on your own such assistance as may be necessary to refloat your vessel as soon as possible.

7. That Saudi Aramco will move in immediately without further permission other than this letter and take whatever corrective action is deemed necessary to respond to pollution, fire or any other kind of incident that may endanger your ship, Gulf environment or other vessels and facilities in the area, or to effect rescue of endangered people. You as Master and the Owners and/or Charterers of you vessel will be charged for all expenditures incurred by Saudi Aramco for the above services.

DECLARATION BY MASTER

I agree to the terms and conditions set out hereto.

Master ....

SS/MV .... For SAUDI ARABIAN OIL CO.

Date ....

MASTER'S SAFETY DECLARATION
SAUDI ARAMCO Form 8812 (2/84).

I DECLARE THAT WHEN MY VESSEL IS AT BERTH:

1. MOORINGS AND ANCHORS – the vessel will be moored in accordance with the standards of the port and the anchors will be secured in the hawsepipes.
2. TOWING WIRES – towing wires for emergency use will be rigged at the forward and after ends of the vessel in accordance with the standards of the port. The eyes of the towing wires will be maintained at a height of 3 ft. – 6 ft. (one to two metres) above the water at all times.
3. GANGWAYS – the gangway will be tended and maintained in a safe condition throughout.
4. MAIN ENGINES – the main engines will be ready for use at short notice to leave the berth in the event of an emergency condition. A suitable trim will be maintained for the same purpose. At SBM berths the main engines will be on continuous stand-by.
5. DECK WATCH – an effective deck watch will be maintained.
6. COMMUNICATIONS – an effective ship/shore communications system will be agreed to efficiently control the cargo handling and bunkering operations throughout.
7. CARGO, BUNKER AND BALLAST OPERATIONS – the procedures for cargo, bunker and ballast handling operations will be agreed with the Terminal Representative.
8. EMERGENCY SHUTDOWN – the emergency shutdown procedures will be agreed with the Terminal Representative.
9. FIREFIGHTING EQUIPMENT – all firefighting equipment will be ready for immediate use and fire hoses equipped with jet/spray nozzles will be prepared for use one forward and one abaft the manifold.
10. CARGO AND BUNKER CONNECTIONS – cargo and bunker hoses or arms will be inspected to confirm that they are in good condition and correctly connected.
11. SCUPPERS AND DRIP TRAYS – scuppers will be effectively plugged or otherwise secured (except when the vessel is a gas tanker) and drip trays will be in position.
12. UNUSED CARGO AND BUNKER CONNECTIONS – all unused cargo and bunker connections will be effectively blanked.
13. SEA AND OVERBOARD DISCHARGE VALVES – all sea and overboard discharge valves when not in use will be effectively closed and lashed.
14. CARGO BUNKER AND BALLAST TANK LIDS – all cargo, bunker and ballast tank lids will be closed and secured except as may be permitted by the Terminal Representative.
15. VENTING AND INERT GAS
    (a) Venting Agreement – the method by which tanks will be vented during cargo and ballast operations will be in accordance with that contained in the written agreement with the Terminal Representative.
    (b) Flame Arresters – flame arresters will be employed in accordance with the design features of the venting system.
    (c) Ullage Ports – ullage ports will be fitted with efficient flame arresters on every occasion when they are not secured in the closed position.
    (d) Inert Gas – all cargo tanks will be maintained in an inert condition if the vessel is equipped with an inert gas system. In gas tankers the cargo tanks will be inerted and/or purged.
16. HAND TORCHES – hand torches will be in good condition and approved for use in hazardous zones.
17. PORTABLE TRANSCEIVERS – portable UHF/VHF transceivers will be in good condition and certified as being intrinsically safe.
18. RADIO AND RADAR AERIALS – radio transmitting aerials will be earthed and radar scanners will be switched off. The servicing of such equipment will not be undertaken without the permission of the Terminal Representative.
19. PORTABLE ELECTRICAL EQUIPMENT – all portable electrical equipment on deck will be disconnected from the power supply.
20. DOORS AND PORTS AMIDSHIP ACCOMMODATION – all external doors and ports in the amidship accommodation will be closed and every effort will be made to prevent the entry of dangerous gas.
21. DOORS AND PORTS AFTER ACCOMMODATION – all doors and ports in the after accommodation, which overlook or are adjacent to the tank deck or other potentially hazardous zones, will be maintained in the closed position.
22. CENTRAL AIR CONDITIONING – any central air conditioning or fresh air intakes which may permit the entry of petroleum gas will be closed.
23. WINDOW TYPE AIR CONDITIONING UNITS – all window type air conditioning units will be disconnected from the power supply.
24. SMOKING – smoking will be prohibited except in those spaces which have been jointly approved with the Terminal Representative.
25. GALLEY AND COOKING APPLIANCES – the use of cooking appliances wherever situated will require the approval of the Terminal Representative.
26. NAKED LIGHTS – naked lights will not be used on the tank deck or in other hazardous zones.
27. EMERGENCY ESCAPE – provision for emergency escape will be provided.
28. GAS FREEING – gas freeing will not be undertaken under any circumstances.
29. WATER BALLAST – water ballast discharged will be free of oil or any other contaminant which may pollute the waters of the port.
30. REPAIRS – repairs or maintenance of any kind which may produce a source of ignition will not be undertaken without the agreement in writing of the Terminal Representative.
31. BOILER TUBE CLEANING – boiler tubes will not be cleaned and every precaution will be taken to prevent the emission of sparks from the funnel.
32. EMERGENCY SIGNAL – in the event of a fire or other emergency arising, the emergency signal consisting of TEN (10) SHORT BLASTS will be sounded on the ship's whistle.
33. PENALTIES – any failure to observe the safety requirements contained in this declaration will entail the following penalties:
    (a) A suspension of all cargo handling, bunkering and ballast operations, and
    (b) the vessel may be required to vacate the berth until such time as corrective action has been undertaken to the satisfaction of the Terminal Representative.

All infringements will be brought to the attention of the vessel's Owners, Operators and/or Charterers.

MASTER'S SAFETY DECLARATION (TERMINAL RECEIPT)

...................................Master M.V./S.S. ....

BERTH .... DATE .... TIME ....

(C) RAS TANURA TERMINAL

This section gives specific information regarding RAS TANURA TERMINAL which includes Sea Island, North and South Piers and is to be read together with **Part (A) and (B).**
NOTE: Sea Island No. 1 is presently not in use.

LOCATION: The Ras Tanura Terminal, refinery and tank farms are located on a peninsula, the Southern end of which forms a sand spit, the tip of which is officially known as (RA'S) AT TANNURAH.

South Pier: The South Pier is connected to the East side of the peninsula by a causeway and trestle 2,300 ft. in length. The "T" Pier has 4 berths (1 to 4) and is 1,200 ft. long and 105 ft. wide.

North Pier: The North Pier is located about 0.75 miles to the North of the South Pier. This Pier is 2,645 ft. long and 110 ft. wide and comprises 6 berths (6 to 11). Crude oil, products and RLPG are available at North Pier.

Sea Islands: A complex of 4 Sea Islands interconnected by walkways is located approximately 5,600 ft. N.E. of the North Pier. Each of the 4 sea islands consists of 2 berths with a loading station on the platform, 4 to 6 mooring dolphins and 2 to 4 breasting dolphins per berth. The lengths of each pair of berths between outer mooring dolphins are (from South) Sea Island 1, 1,250 ft., Sea Islands 2 and 3, 1,400 ft., Sea Island 4, 1,750 ft.

The berths are numbered from South, on the East side 12, 15, 17, 20, on the West side 14, 16, 18, 19.

The loading stations at each of the Sea Island berths are equipped with steel, hydraulically operating loading arms and all berths are equipped with quick release hooks.

Refrigerated Liquefied Petroleum Gases (R.L.P.G.): Facilities for loading refrigerated liquefied Butane and Propane are located at the North Pier Berths 6, 8 and 10.

PILOTAGE: *Vessel from Arrival Channel:* Pilot will normally board South of Buoy 17 and 18, as advised by Port Radar.

Vessel at Tanker Anchorage: After heaving anchor, the vessel will be advised by Port Radar towards a position approximately 1.5 miles S.E. of the South end of Sea Island dependent on weather and tidal conditions.

Vessels must not approach any closer than 1.5 miles to the piers or Sea Islands without a Pilot on board due to the tidal streams in the area.

Sea Island Pilots: Saudi Aramco maintains Pilots on continuous Duty on the Sea Islands. They are stationed on the Sea Islands by Saudi Aramco to provide marine advice to the Loading Masters, to assist in the safe and efficient mooring and loading of vessels berthed at this facility and carry out emergency unmooring. Masters of vessels may contact the Sea Island Pilot through the Pier Operator or by calling the Ras Tanura Pilot Office on VHF Channel 16. Masters of all vessels berthed at the Sea Islands are encouraged to discuss any vessel-related problems with the Duty Sea Island Pilot.

Informing Pilots of Finishing Time: As an aid to planning and expediting ships' movements and also to give adequate notice to vessels scheduled to berth, vessels loading at the berths in Ras Tanura shall call the Ras Tanura Pilot Office on VHF Channel 16 one hour before completion of loading.

INBOUND TRAFFIC PROCEDURE: (See Part B) – "Traffic Regulations".

Vessels proceeding direct to Ras Tanura Terminal: As per Inbound Traffic Procedures in Part (A) "Navigation" to the Entry Buoy and following the separation scheme to Buoys 17 and 18 according to advice from Port Radar and Pilots either to anchor in the Ras Tanura Tanker Anchorage or to berth on arrival.

From Northern Holding Anchorage to Ras Tanura Terminal enter the separation scheme under the advice of Port Radar and follow the channel as above.

Maximum Draft in Arrival Channel: The maximum draft for transit of channel immediately South of Buoy No. 5 is 16.46 m. plus predicted rise of tide up to a maximum draft of 18 m.

See "Berthing – Depths of Water at Berths".

Masters of vessels arriving partly loaded or in deep ballast should navigate with caution in the vicinity of Channel Buoys No. 5 and 7.

From East Holding Anchorage and East Channel: Follow the buoyed route to RTE 7 and RTE 8. Turn North into the Tanker Anchorage at Port Radar and Pilot's advice.

East Channel Caution: It is recommended that vessels of over 800 ft. (244 m.) length or 35 ft. (10.67 m.) draft do not use the East Channel.

Sea Islands' Submerged Pipe-lines: All traffic must pass East of the Sea Islands due to the existence of numerous submerged oil pipelines between all of the Sea Islands and the shore.

Abu Safa Submerged Pipe-line: All vessels are urged to navigate with caution between Channel Buoys 9 and 11 in the arrival channel and are forbidden to drop anchor in their vicinity due to the existence of the submerged oil pipeline which crosses the channel.

ANCHORAGES: *Tanker Anchorage:* The Tanker Anchorage lies approximately 2 miles East of the Sea Islands and is used as a final holding area for vessels which have immediate berthing prospects or for vessels awaiting cargo clearance, release, sailing documents, etc. and whose draft does not exceed 60 ft. (18.3 m.). Under normal circumstances, no more than 10 vessels are allowed to use this anchorage at one time.

Freighter Anchorage: This anchorage, South East of the "SPIT" buoy is used as holding ground for coastal tankers intended to load at South Pier and miscellaneous small vessels and craft inbound for Saudi Aramco Marine facilities at the West Pier.

Deep Draft Anchorage: Vessels whose draft is 60 ft. or more and which are required to anchor upon completion of loading must normally do so in the area approximately 0.7 miles North of the Sea Islands. This anchorage has a swept depth of 72 ft. (21.9 m.) and holding ground is only considered fair due to variations in character of the bottom. It is recommended that vessels lie to a long scope of chain in adverse weather. No more than 2 vessels are allowed to use this anchorage at one time.

RADIO: COMMUNICATIONS WITH THE TERMINAL.

Under Way: At all times when under way in the arrival channel and anchorage areas with no Pilot aboard, vessels must watch VHF Channel 10 to keep in contact with Port Radar.

At Anchor: A good listening watch should be maintained on VHF Channel 16. Vessels will be called by Ras Tanura Pilots with berthing and other information and instructions. Port Radar should be called on VHF Channel 10 prior to heaving anchor.

Under Pilotage: Pilots carry portable, intrinsically safe radios which operate on Saudi Aramco dedicated mooring Channels for contact with tugs and jetty staff. In addition, the vessel's VHF Radio should stand by on Channel 13 for back up communication.

At Berth: An exchange of intrinsically safe portable radios will be made between vessel and jetty personnel in order to assist constant communication whilst loading.

BERTHING: *Mooring Procedures:* Mooring boats are not used at Ras Tanura Terminal.

Vessels should have heaving lines ready to take the shore messenger after landing alongside. The messenger is then made fast to the ship's mooring line which is hove ashore by means of a capstan. Heavy wires should be sent one by one and ropes two at a time. Jetty crews are on duty continuously to handle mooring lines. Mooring lines on board vessels will not be handled by Saudi Aramco Personnel.

BERTHING FACILITIES:

Safe Loading Depths: If at any time a vessel's draft approaches to within about 3 ft. (1 m.) of the depth of water at the berth at North and South Piers, loading will be suspended until a rising tide increases the depth to permit resumption of loading and provide for a safe draft of the fully loaded ship on departure.

At the Sea Island Berths, the maximum sailing draft is 19.48 m. plus the height of tide at the time of transitting the Deep Water Channel.

Depths of Water at Berths:

Pier	*Berth* No.	*Depth at LAT* (m.)	*Max. Draft Arrival* (m.)	*Max. Draft Sailing* (m.)
South Pier	1	10.1	9.0	9.1+tide
	2	10.1	9.0	9.1+tide
	3	10.1	8.0	9.1+tide
	4	9.0	8.0	8.0+tide
North Pier	6	14.2	13.2	13.1+tide
	7	12.0	8.84	11.0+tide
	8	14.8	13.8	13.8+tide
	9	13.0	8.84	12.0+tide
	10	15.0	14.0	14.0+tide
	11	14.5	8.84	13.5+tide
Sea Islands	12 14 15 16 17 18 19 20	26.0	17.98	19.48+tide

Gangways: At North and South Pier, all vessels are required to provide their own gangways which should be ready prior to berthing.

At the Sea Islands, shore gangways are provided at each berth.

LOADING:

	Berth No.	*Product*	*Manifold Size* (in.)	*Maximum Loading Rate* (bbls.p.h.)
Sea Islands	12 to 18	Crude	16	40,000 to 280,000
	19 and 20	Crude	16 to 24	
	12 to 18	Bunker Fuel Oil	10	12,000
	12 to 18	Bunker Diesel	10	900
	19 and 20	Bunkers	12 to 16	12,000
North Pier	6 to 11	Crude	12	15,000 to 90,000
	6 to 11	Fuel Oil (Cargo)	12	12,000 to 22,000
	8, 9, 10	White Diesel	12	12,000
	8, 9, 10	Kerosene	12	6,500
	6 to 10	Naphtha	12	30,000
	6 to 11	Bunker Fuel Oil	8	5,000
	6 to 11	Bunker Diesel	8	1,200
	6, 8, 10	RLPG	12	30,000
South Pier	1 to 4	Fuel Oil (Cargo)	8	12,000 to 15,000
		Black Diesel (Cargo)	8	5,000
		White Diesel	8	8,500 to 15,000
		Gasoline	8	6,000
		Kerosene	8	6,500
		Jet Fuel	8	10,000
		Bunker Fuel Oil	6	5,000
		Bunker Diesel	6	1,200

Notes:

1. All vessels calling at Ras Tanura Terminal should be equipped with reducers to fit these loading connections which all have 150 lb. ASA flanges. These reducers should be fitted before berthing to help expedite ship turnaround time.

2. It is expected that most vessels will be able to accept any cargo as fast as it can be delivered. Officers in charge of loading must have due regard for all safety precautions as well as for individual vessel hazards.

If loading of crude or products is too slow, Saudi Aramco will so advise the vessel.

Should a demurrage claim be filed against Saudi Aramco, the slow loading rate may result in an addition to allowed lay time.

3. Special regulations govern the acceptance and loading of Liquefied Petroleum Gas tankers in the Port of Ras Tanura. (See GASRUL 9:83).

4. The following types of crude oil are available at Ras Tanura Terminal: ARABIAN BERRI (sometimes incorrectly referred to as Light Extra Light) CRUDE, ARABIAN LIGHT CRUDE, ARABIAN MEDIUM CRUDE, ARABIAN HEAVY CRUDE.

Loading arm connection: Jetty crews are on duty continuously to handle hoses/arms and will make connections and disconnections.

All loading connections are equipped with electrical insulating flanges therefore ship to shore bonding cables are not required.

Loading procedures: All operations in connection with the starting of loading, discharging, switching of tanks and topping off must be directly and personally supervised by the ship's officer.

It is the responsibility of the vessel to advise shore personnel to shut down cargo and bunker loading when the vessel's cargo and bunker requirements are met.

Upon completion of loading the vessel will normally be required to leave the berth immediately after disconnecting hoses/arms to await clearance in the Tanker Anchorage.

Cargo Calculations and Release: The American system of cargo measurement in BARRELS with temperatures in fahrenheit degrees according to the ASTM – I.P. is used by Saudi Aramco and the Saudi Arabian Government for Cargo measurement purposes. Ships cargo loaded figures should be available in these units. Generally, if the difference between average normal ship measurement and official cargo measurement is satisfactory the ship will be released to sail by Saudi Aramco under E.D.P. Unusual differences will be investigated by Saudi Aramco while the vessel waits in the Tanker Anchorage.

BALLAST: *Arrival Ballast Condition:* Vessels arriving at Ras Tanura Terminal shall retain sufficent clean water ballast on board to permit safe handling of the vessel in the prevailing weather conditions. A maximum stern trim of 15 ft. with the propeller just covered is recommended.

Ballast pumping equipment should be ready to commence discharging ballast as soon as the vessel is secured in the berth.

DEPARTURE: See "Inbound Traffic Procedure" – East Channel Caution.

Deep Water Departure Channel: Has a clear swept depth of 21 m. at LAT.

Maximum departure draft from Ras Tanura Piers and Sea Islands is 19.48 m. plus predicted rise of tide so that there is a minimum keel clearance of 1.52 m. maintained during transit of Departure Channel. (See Saudi Aramco form "Maximum Sailing Draft – VLCC, 1st March 1986").

Departure Pilotage: On departure from Ras Tanura, Masters of vessels 150,000 d.w.t. and above with draft of 60 ft. (18.28 m.) or more, may request additional pilotage assistance to line up for the Deep Water Departure Channel. Such pilotage assistance is compulsory for vessels with a draft of 68 ft. (20.73 m.) or more. In such instances the Harbour Pilot will remain on board until the vessel is aligned on a safe course for the Departure Channel, provided the Pilot can disembark safely. In certain cases it may be possible to arrange for the Pilot to leave by helicopter (See Part "A" – Helicopter Operation). The additional pilotage is also available when it is necessary for a VLCC to proceed to anchor to await a favourable tide or other reasons. The Pilot will remain on board until the vessel arrives in the anchorage, however, the Master will be responsible for the actual anchoring of the vessel. During adverse sea and weather conditions, a proper lee must be made so as to allow the Pilot to safely disembark.

Vessel proceeding from Ras Tanura Terminal to Northern Holding Anchorage: The vessel should leave Ras Tanura Terminal and follow the Departure Channel observing the separation scheme to the Northern Holding Anchorage under advice of Port Radar.

SEE Part "B" TRAFFIC REGULATIONS

The vessel should advise Ras Tanura Pilots of its anchoring time.

REPORT: *More stringent safety checks:*

Quote:

Due to recent accidents involving tankers at terminals, Saudi Aramco have tightened up their safety checks and closely follow the issued safety regulations.

Saudi Aramco, as terminal operator of Ras Tanura/Ju'aymah, inspect all vessels before loading. Anything found not up to the standard of guidelines and recommendations compiled by Oil Companies International Marine Forum are noted, the Master is given a letter of protest, and the Owner is advised to correct deficiencies. At the same time all remarks and recommendations are computer-stored for easy access in the future.

Saudi Aramco have found that many recommendations are neglected and some vessels are repeatedly given the same remarks.

To prevent this, new actions are being taken by Saudi Aramco. Vessels which in the past have received recommendations and not followed the same have recently been refused permission to load at Ras Tanura/Ju'aymah.

That a vessel was allowed to load at her last call is not a guarantee that she will be allowed again.

Unquote.

Further to the above, we have been advised that since these deficiency letters do not allow these vessels to berth at the Ju'aymah Terminal's SBMs, vessels will be diverted to either of the three suitable berths at Sea Island. Time lost from berth available at Ju'aymah to berth available at Sea Island will be on the vessel's account.

This will affect vessels between 200,000 d.w.t. – 275,000 d.w.t.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Saudi Riyals (SR).

AUTHORITIES: Saudi Arabian Oil Company (Saudi Aramco), *Head Office:* Dhahran 31311, Saudi Arabia. *Local Office:* Terminal Pilotage & Services Division, Room N-2004, N. Admin., Ras Tanura, 31311 Saudi Arabia. *Tel:* 966-3-673-4252. *Telex:* 928 801220 A SAO SJ. *FAX:* 966-3-673-1669. *Contact:* Captain A.K.Al Yami, Port Captain.

Port Officials: Saudi Arabian Government Port Authorities located in Customs House, Port Office, and Quarantine Office at Ras Tanura.

AGENT: Gulf Agency Company Saudi Arabia, P.O.Box 72, Ras Tanura 31941, Saudi Arabia. Cables: "Confidence", Ras Tanura, Ship-Shore traffic via Dammam Radio/HZG. Telex: 851011, 851059 ("GAC RT SJ") Telephone: 6670632, 6670636, (24 hour service). After Office Hours: 6670066. Fax: 6672248.

Tanker Crew Mail: To be directed to: c/o Gulf Agency Co. Saudi Arabia, P.O. Box 72, Ras Tanura 31941, Saudi Arabia.

YANBU (See Plan)

(A) COMMERCIAL PORT: 24.05 N. 38.03 E.
(B) INDUSTRIAL PORT: 23.57 N. 38.13 E.

NOTICE: British Admiralty Notice No. 3553(P)/86.

Red Sea – Saudi Arabia, West Coast – Madinat Yanbu As Sinaiyah – King Fahd Port – New Approach Channel.

1. A new Southern Approach Channel for vessels calling at King Fahd Port, Madinat Yanbu As Sinaiyah, opens to shipping on 1st December, 1986. Pilotage is compulsory for all vessels using this channel.

2. The following have been established:

	Feature	*Position*
(a)	Yanbu South Light, Fl. W.R. 10 sec. 34 m. 20/17 M. (Red/white circular tower with radar reflectors) and radar beacon Racon (B).	23° 28.13' N., 38° 25.52' E.
(b)	Starboard-hand light beacon with topmark, Fl. (3) G. 10 sec. 12 m. 8 M. S3.	23° 31.02' N., 38° 29.90' E.
(c)	Port-hand light beacon with topmark, Fl. (4) R. 12 sec. 12 m. 8 M. S6.	23° 38.38' N., 38° 25.16' E.
(d)	Starboard-hand light beacon with topmark, Fl. (4) G. 12 sec. 12 m. 8 M. S7.	23° 41.17' N., 38° 28.64' E.
(e)	Blue/White striped beacon with radar reflector, SR1.	23° 31.65' N., 38° 25.92' E.
(f)	Blue/White striped beacon with radar beacon, SR2 Racon (TG).	23° 34.66' N., 38° 27.71' E.
(g)	Blue/White striped beacon with radar beacon, SR3 Racon (X).	23° 42.86' N., 38° 23.22' E.
(h)	White cardinal pillar light-buoy, Q(9), 15 sec. S1.	23° 26.30' N., 38° 29.22' E.
(i)	Port-hand can light buoy with topmark, Fl. (2) R. 5 sec. S2.	23° 27.96' N., 38° 25.86' E.
(j)	Port-hand can light buoy with topmark, Fl. (2) R. 10 sec. S4.	23° 34.55' N., 38° 28.22' E.
(k)	White cardinal pillar light buoy Q(9) 15 sec. S5.	23° 35.31' N., 38° 31.41' E.
(l)	Port-hand can light buoy with topmark, Fl. R. 5 sec. S8.	23° 44.47' N., 38° 23.15' E.
(m)	Starboard-hand conical light buoy with topmark, Fl. G. 5 sec. S9.	23° 45.46' N., 38° 25.25' E.
(n)	N. cardinal pillar light buoy, Q. S10.	23° 49.08' N., 38° 17.82' E.
(o)	Starboard-hand conical light buoy with topmark, Fl. (2) G. 10 sec. S11.	23° 51.15' N., 38° 19.44' E.
(p)	Pilot boarding place.	23° 26.60' N., 38° 27.20 E.

Charts Affected: 63, 4704, 4071.

Light List Vol. E/86, 6050.63 and (Remarks), 6050.64 and (Remarks).

Admiralty List of Radio Signals, Vol. 2, 1986: 8511.2, 8511.4, 8511.6.

Saudi Ports Authority Notice "A" 170/86. (H. 2579/79).

NOTICE: The following is taken from the Saudi Port Authority's Circular Telex No. SEAPA-26255/95, dated 15th June 1995:

"The pilot boarding stations, the compulsory pilotage area and the separation scheme in the Southern approaches have been revised as follows:

1. *Northern Approaches:*

Outer Pilot Station: Has been moved 1.5 miles on bearing 246° to new position Lat. 24° 02' N., Long. 37° 44' E.

Inner Pilot Station: New station has been established in position Lat. 24° 05' N., Long. 37° 55' E.

2. *Southern Approaches:*

Outer Pilot Station: In position Lat. 23° 26.6' N., Long. 38° 27.2' E.

Inner Pilot Station: New station has been established in position LAt. 23° 50' N., Long. 38° 19' E.

3. *Compulsory Pilotage Area:*

The inner approaches to Yanbu port included within the following borders:

Northern Border: A line from Shib Ash Sharm (Schermo) Beacon (Lat. 24° 03' N., Long. 37° 51.5' E.) on a bearing of 065° to the coast at Lat. 24° 06.7' N., Long. 37° 59.3' E.

Southern Border: A line from S10 Buoy (Lat. 23° 49.1' N., Long. 38° 17.8' E.) on a bearing of 044° to the coast at Lat. 23° 52.6' N., Long. 38° 21.6' E.

4. *Extension of South Traffic Separation Zone:*

The Southern separation zone has been extended from position Lat. 23° 45' N., Long. 38° 24.2' E. to position Lat. 23° 52' N., Long. 38° 16.3' E. The zone extends for 1.5 cables (279 m.) on either side of the line joining these positions.

5. *Arrivals and Departures:*

Vessels proceeding to the Port of Yanbu shall advise their ETA at the Outer Pilot Stations and shall await instructions from King Fahd Port Control before proceeding to the Inner Pilot Station.

The Pilot will generally board and disembark at the Inner Pilot Station. Pilotage may be arranged from the Outer Pilot Station, but only with prior notice given well in advance. The actual position of Pilot boarding and disembarking shall remain at the discretion of the port."

(A) COMMERCIAL PORT

ALSO SEE "GENERAL" BEFORE FIRST PORT.

LOCATION: Yanbu Commercial Port is on Red Sea coast, about 168 nautical miles N.N.W. of Jeddah.

PORT LIMITS:

Harbour Boundaries:

All shore-based port property enclosed by a fence following the shore line extending seawards to a line running between the following points:

Lat. 24° 06' 00" N.	Long. 38° 00' 00" E.
Lat. 24° 06' 00" N.	Long. 37° 57' 30" E.
Lat. 24° 03' 30" N.	Long. 37° 57' 30" E.
Lat. 24° 03' 30" N.	Long. 38° 05' 30" E.

CHANNEL: Ships entering port pass through a channel of the following measurement: Length 1,647 m., width 200 m.

BEACONS:

1. Schermo Beacon: A Racon is established on Schermo Reef in position: Lat. 24° 03' 20" N., Long. 37° 51' 60" E. Code letter "Y".Cycle: 75 seconds. Range: Approximately 12 nautical miles.

2. Entrance Beacons: Two Beacons, 1 & 2 at entrance of port channel. Height: 4.0 m. Range: 5 nautical miles.

Beacon No. 1: Starboard – hand beacon (Green), green flash every second (Q.G.).

Beacon No. 2: Port – hand beacon (Red), red flash every second (Q.R.).

Beacon No. 6: 795 m. from channel entrance on port side there is another beacon height 4.0 m. (Red), red flash every second (Q.R.) Range: 5 nautical miles.

APPROACHING: A cement factory has been established in position Lat. 24° 16.1' N., Long. 37° 33.2' E.

The factory provides a strong radar echo and emits a very bright glo at night.

It has been reported that this has confused seafarers who have take it for the town of Yanbu.

Seafarers are strongly advised to amend their sea charts according

Masters proceeding to Yanbu Commercial Port should follow stric the Channel and traffic separation scheme as clearly as delineated formal charts in force (e.g., British Admiralty Charts 327 and 328.)

The Ports Authority, Kingdom of Saudi Arabia, advise that shi proceeding outside the Approach Channels, or contravening the Rul of the Traffic Separation Scheme in order to save time, will be fined a the Masters held individually responsible.

BUOYS: Channel is buoyed with red and green port and starboard-hand buoys.

Starboard-hand buoys: 7 buoys, odd number: 1A, 3, 5, 7, 9, 11, & 13. Buoy shape: Cone. Light characteristic: Green flash every 2 seconds (Fl. G. 2 secs.).

Port-hand Buoys: Number of buoys: 2, even numbers: 4, 8. Buoy shape: Can. Light characteristic: Red flash every 2 secs (Fl. R. 2 secs.).

DOCUMENTS: All ships bound for Yanbu Commercial Port should have the following documents prepared for the relevant authorities and the original certificates as specified ready for inspection by the Port Authority's Boarding Officer.

Crew List, original plus 4 copies.
Passenger List, original plus 4 copies.
Personal Effects of Crew, original plus 1 copy.
Vaccination List, original plus 1 copy.
Marine Health Declaration, original plus 1 copy.
Israel Boycott Declaration, original plus 2 copies.
Ship's Stores List, original plus 1 copy.
Logbook.
Certificate of Registry.
Certificate of Classification.
Load Line Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Radio & Wireless Certificate.
Cargo Gear Certificate.
Derat Certificate.
Port Clearance – Last Port of Call.

PILOTAGE: Pilotage is compulsory. Vessels bound for Yanbu Commercial Port should call Yanbu Port Control on VHF Channel 16 at least 2 hours prior to arrival.

North Channel: Pilots will normally board in position Lat. 24° 02' N., Long. 37° 44' E. Pilot boats are painted orange with "Pilot" written in black on white superstructure.

Vessels should exhibit international code flag "G" by day or flash "G" by night. On approaching the Pilot Boarding Area, a pilot ladder should be rigged, reaching approximately 1 m. above sea level. Vessels should ensure a good lee for boarding of the Pilot.

South Channel: Ordering of Pilotage Service for Vessels Arriving at the South Channel: Due to the extra length of the South Channel compared to the North Channel, the Port Control Tower will require 5 hours notice prior to pilot boarding time at the South Pilot Station. Requirements for the North Pilot Station remain unchanged.

Way Points in South Channel: You are informed that the following way points are now established in the South Channel for use with the Control Tower and movement of vessels within the South Channel:

South Pilot Station	23° 26.6' N., 38° 27.2' E.
S-1	23° 34.3' N., 38° 29.6' E.
S-2	23° 46.2' N., 38° 23.4' E.
CSZ	23° 52.0' N., 38° 16.8' E.

Also see "Notices" before Section A.

ANCHORAGES: There are no areas suitable for the safe anchorage of vessels in the vicinity of Yanbu Commercial Port.

RESTRICTIONS: The port is open 24 hours per day and vessels may enter and leave port at any time.

MAX. SIZE: There is no restriction as to length or breadth of vessels but a draft restriction of 34 ft. is in force for all vessels to all berths other than those cement vessels nominated specifically for discharge at Berth No. 3 or No. 9 where a 36 ft. draft limit is allowed.

HEALTH: Quarantine formalities are effected after vessels are berthed except in the case of passenger/pilgrim vessels which will be anchored inside the harbour for quarantine and immigration clearance.

RADIO: Vessels bound for Yanbu from the North should route their ETA cables through Port Said Radio.

Vessels bound for Yanbu from the South should route their ETA cables through Bahrain Radio.

ETA cables are transmitted to the local Saudi PTT Yanbu Office and thence distributed to concerned parties by telex.

VHF: Yanbu Port Control keeps a radio watch on Channel 16 VHF, 24 hours per day. VHF Channels 14, 12 and 9 are available for standard communications. VHF Channel 14 is normally used by Pilots and tugs for manoeuvring purposes.

RADAR: There is no port radar facility at Yanbu Commercial Port.

TUGS: Tugs normally meet incoming vessels off Channel Buoy No. 8 abeam of the port Coast Guard station. Tugs' lines are used for berthing and unberthing operations.

Tugs range from 800 h.p. – 2,500 h.p.

BERTHING: The following categories of berth, with a draft range from 10.0 m. to 12.0 m. are available: Bulk Cement, Bulk Grain, Ro-Ro (stern to), General Cargo and Passengers.

Storage: Adequate covered and open storage space is available in the form of warehouses, transit sheds, container freight stations, vehicle parks.

CARGO HANDLING EQUIPMENT: Mobile cranes of up to 200 tons capacity are available.

40 tons tower cranes are equipped with container spreaders. One crane is equipped with container lifting capacity 70 tons.

Head trucks, Mafi trailers, container handlers up to 35 tons, forklifts up to 25 tons are available.

BULK HANDLING FACILITIES: *Bulk Cement Terminal:* One Bulk Cement Berth with an annual capacity of about 1 million tons is available. *Bulk Grain Units:* Mobile discharging machines with handling capacity 200 t.p.h./machine, no bulk storage facility. Bulk grain is normally handled at Berth No. 5 and Berth No. 8.

STEVEDORES: Contracted for an integrated cargo handling operation, and work continuously 24 hours per day, 7 days per week.

MEDICAL: Assistance can be given by local general hospital and/or by a small private clinic via the Agents.

No vaccinations are required, but Malaria precautions are recommended.

DENSITY: 1025.

FRESH WATER: Available via mains direct to berth at a delivery rate of approximately 25 t.p.h. Costs as per current tariff.

CONSULS: At Jeddah.

REPAIRS: No facilities, however minor repairs are possible in local workshops via the Agents.

DRY DOCK: Not available.

SURVEYORS: Available via Jeddah.

GANGWAY/DECK WATCHMEN: Service not necessary and not available. Port area is fenced and guarded by Saudi Arabian Coast Guard, and guards are posted on each individual vessel in port.

HATCHES/CARGO GEAR: To vessel's advantage if all hatches and gear are prepared by ship's crew, however stevedores do assist.

CUSTOMS ALLOWANCES: In all Saudi Arabia, possession of any alcoholic beverages is strictly prohibited.

AIRPORT: Regular flight service on direct flights to Jeddah and Riyadh by Saudia. Other Saudi destinations and international destinations via Jeddah and Riyadh.

Yanbu domestic airport is located approximately 15 km. from the port.

TIME: GMT plus 3 hours.

HOLIDAYS: Public holidays do not affect port's activity. But all government offices, banks, etc., are closed to the public during Ramadan and Haijh holidays which change annually by the Higirian calendar.

TELEPHONE NUMBERS:

Police (Coast Guard):	Ext. 1000
Fire	Ext. 1313
Ambulance – via Port Safety	Ext.1026/7
or Traffic Department	Ext.1317

TELEPHONES: There are pay phones in the port.

SERVICES: Services like tank cleaning, etc., are not available.

SHORE LEAVE: By Agent's request permitted.

IDENTIFICATION CARDS: Seamen's Discharge Books are sufficient.

REGULATIONS: Refer to Rules and Regulations for Seaports issued by the Co-operation Council for the Arab States of the Gulf, 1985.

DEVELOPMENTS: Future port developments include an additional 7 berths and a control tower. No time has yet been fixed for implementation of these projects.

AUTHORITY: Yanbu Port Management, P.O.Box 1019, Yanbu Port, Yanbu, Al Bahr, Saudi Arabia. *Tel:* (04)322 1163, 322 2470. *Telex:* 661005 Port SJ and 661096 Port SJ. *Cables:* Ports Yanbu (via Port Said or Bahrain). *Contact:* Abdul Rahman Ahmad Al-Khateeb, Port Director-General.

AGENT: See Section (B).

(B) KING FAHD INDUSTRIAL PORT, YANBU

At present the King Fahd Industrial Port consists of 7 Terminals listed as follows:

Crude Oil Terminal
NGL Terminal
Yanbu Petromin Refinery Terminal
Petromin – Mobil Refinery – PEMREF
Al Muajjiz Terminal
General Cargo and Container Terminal
Bulk Terminal

PORT LIMITS: Seaward boundaries of King Fahd Industrial Port are enclosed by the following boundaries:

1. Lat. 24° 03.50' N., Long. 38° 05.50' E.
2. Lat. 24° 03.50' N., Long. 38° 02.00' E.
3. Lat. 24° 07.00' N., Long. 37° 53.67' E.
4. Lat. 24° 07.00' N., Long. 37° 45.00' E.
5. Lat. 24° 01.50' N., Long. 37° 45.00' E.
6. Lat. 23° 50.00' N., Long. 38° 12.00' E.
7. Lat. 23° 25.00' N., Long. 38° 20.00' E.
8. Lat. 23° 25.00' N., Long. 38° 40.00' E.

Thence along the coast to No. 1 (above).

FLAG: Every vessel entering King Fahd Industrial Port at Yanbu must hoist the Flag of the Kingdom of Saudi Arabia from the foremast and keep it flying *at all times* throughout the vessel's stay in Port. The Flag of the Kingdom of Saudi Arabia is to be in good condition and is properly displayed when the Arabic writing appears at the top and the sword at the bottom.

DOCUMENTS: Also see "Radio".

Arrival Documentation Requirements: The Rules and Regulations for Seaports specify that Masters must present or make available for inspection the following papers and documents:

Log Book.
Registration Certificate.
Classification Certificate.
Load-Line Certificate.
Building Safety Certificate.
Safety Equipment Certificate.
Radio and Wireless Certificate.
Cargo Gear Certificate.
Maritime Health Declaration.
Vaccination List.
Derat Certificate.
Clearance from last Port of call.
Israel Boycott Declaration.
Ship's Stores List.
Grain Shipping Certificate if the vessel is carrying a grain shipment.
Mail Transport Documents in accordance with the "International Postal Treaty" if any mail is carried aboard.
5 copies of the Crew List including name (first and last name – initials are not acceptable), nationality, date and place of birth, Passport number, port of embarkation, port of disembarkation.

2 copies of the List of Personal Effects of crew and passengers.
5 copies of the Passenger List including name, nationality, date and place of birth, passport number, port of embarkation, port of disembarkation.

In addition, the Rules and Regulations for King Fahd Industrial Port require that the Oil Record Book and the Certificate of Fitness (in cases of gas and chemical carriers) are available for inspection.

CLEARANCE: *Basic Procedure for Clearing a Ship:* On arrival of the ship at anchor or berth, and given that all the pre-entry requirements have been fulfilled, the ship will be boarded by the following for completion of the required formalities:

Immigration Authorities.
Coast Guard.
Port Health Officer.
Customs Officer.

In the case of dry cargo vessels, on completion of these formalities, the Agent will collect the discharge permit from the Customs Authorities, having provided a copy of the manifest well in advance. The Customs Authorities then issue a Discharge Permit, one copy of which is given to the stevedores while the other is given to Port Management.

Basic Procedures for Clearing a Ship Outward: When a vessel completes cargo, the Agent is responsible for issuing a letter of notification to the Customs Authorities. The letter is endorsed by the Customs and copies given to the following:

(i) Immigration Department.
(ii) Criminal Investigation Department.
(iii) Yanbu Port Authorities.
(iv) Intelligence Department.
(v) Coast Guard.

The Coast Guard issues a letter to the Quarantine Department, in their capacity as Port Health Authority stating:

(i) They have received the clearance letter from Customs.
(ii) The vessel's name.
(iii) The vessel's flag.
(iv) The name of the Agent.

and requesting them to issue the Departure Permit.

The Departure Permit, duly signed and stamped, is taken to the Immigration Department who will dispatch one of their Officers to the vessel. This Officer checks the Crew List against the Passports and obtains assurances from the Master that the crew is the same as on arrival, apart from any agreed repatriation, and that no crew member has been involved in any mishap. Once the Immigration Officer is satisfied he gives one copy of the Departure Permit to the Master and one copy to Port Management, concluding the formalities.

EARLY DEPARTURE PROCEDURE: Early Departure Procedure is available at the crude oil terminal and should be requested through the ship's Agent.

PILOTAGE: *Instructions to Vessels and Conditions of Use of all Berths within King Fahd Industrial Port:* When the Pilot boards an inward bound vessel he will present the Master with a letter "Instructions to Vessels and Conditions of Use of all Berths within King Fahd Industrial Port". The Master is required to sign the letter, acknowledging receipt and agreeing to the Instructions and Conditions contained therein prior to entry into the Port. No vessel will be allowed to proceed into the Port until this letter has been signed.

Pilotage: Pilotage is compulsory for all vessels entering, navigating within, or leaving the port limits of King Fahd Industrial Port.

Orders for Pilots must be received at least 5 hours before their services are required.

Vessels under 150 n.r.t., pleasure craft, vessels operated by the Saudi Arabian Government and the SEAPA and any craft employed solely within the port limits are exempt from Pilotage. These vessels must keep clear of the fairway.

There are two pilot boarding positions, one off Schermo Reef Lt. (Lat. 24° 02.0' N. Long. 37° 44.0' E.) and the other off Yanbu South Lt. (Lat. 23° 26.6' N. Long. 38° 27.2' E.), as shown on charts. Pilots will embark and disembark from twin screw, steel pilot vessels. When approaching the pilot boat the Master of every vessel must reduce speed to a minimum for steerage way, maintain VHF contact with the pilot boat, and provide a good lee.

Every vessel picking up a Pilot must have rigged and ready for use a safe, clean, properly secured pilot ladder or combination of gangway and pilot ladder. The Pilot boarding arrangements must comply with the current IMO codes of practice concerning pilot boarding. A lifebuoy, with lifeline attached, and a boat rope must be provided ready for immediate use, and, in addition, between sunset and sunrise the pilot boarding area must be well illuminated. The rigging of pilot ladders and the embarkation and disembarkation of pilots must be supervised by a responsible deck officer.

Any vessel which overcarries a Pilot to another Saudi Arabian Port, must pay all repatriation expenses. Under no circumstances may a Pilot be overcarried to a Port outside the Kingdom of Saudi Arabia, due to visa restrictions. If weather, or other conditions preclude the disembarkation of a Pilot from a vessel, bound to a Port outside the Kingdom of Saudi Arabia, then that vessel will be delayed, at the vessel's expense, until such time as disembarkation is possible. Any such vessel so delayed may arrange, at their own expense, for the Pilot to be disembarked by helicopter.

The length of Pilotage from the Schermo Pilot boarding position is approximately 33 miles, with a minimum surveyed depth of 32 m. and from the Yanbu South boarding station about 37 miles, with a minimum surveyed depth of 41 m. In general, channel depths are rarely less than 100 m. and in places exceed 400 m.

Also see "Section A" and "Notices" before "Section A".

Shipmaster's Report: September 1995.

When coming from the South, Pilot now usually embarks near the Inner South Entrance Pilot Station.

The Pilot disembarks even earlier, after passing Buoy No. 18.

The Pilot will only board at Outer South Entrance on special request, and with plenty of advance notice from the Agent.

APPROACHES: Masters of deep draft vessels will be aware that there are extensive unsurveyed areas between the main shipping lanes and the approaches to Yanbu. Two approach corridors to the present pilot boarding area off Schermo Reef were surveyed early in 1981. The Northern approach corridor, some 48 miles long and 3 miles wide extends in a Westerly direction from just West of Schermo Reef, at approximately Lat. 24° 03' N., Long. 37° 45.2' E. to Lat. 24° 04' N., Long. 36° 53' E. Depths range in general from 650 m. inshore to 950 m. offshore, but two isolated domes were discovered with least depths of 132 m. and 184 m. at approximately Lat. 24° 04' N., Long. 37° 36' E. and Lat. 24° 07' N., Long. 37° 36' E. respectively.

The Southern approach corridor some 43 miles long and 3 miles wide extends in a South-Westerly direction from just West of Schermo Reef at approximately Lat. 24° 03' N., Long. 37° 45.2' E. to Lat. 23° 22.5' N., Long. 37° 28.5' E. No hazards were discovered with depths generally 650 m. inshore to 790 m. offshore.

The surveyed approach corridor for the South Pilot station runs in a Northeasterly direction to Yanbu South Lt., a distance of some 40 miles with a width of 3 miles. Depths obtained are in the range of 550 m. to 780 m.

ANCHORAGES: The bearing and distance shown below is calculated *from Beacon 2C* and indicates position of the anchoage.

Anchoring Points	*Beacon 2C Bearing*	*Distance*	*Max. Draft*
N1	101°	1.06 miles	15.0 m.
N2	110°	1.26 miles	16.0 m.
N3	098°	1.56 miles	22.0 m.
N4	117°	1.80 miles	22.0 m.
N5	123°	2.15 miles	22.0 m.

Anchorages "N4" and "N5" will be utilised for fully laden VLCCs.

Masters of vessels are advised of the following conditions for the use of the anchorage:

1. No repairs of any kind are permitted at the anchorage unless authorised by the Harbour Master.
2. Main engines to be in a state of readiness at all times to leave the anchorage at short notice.
3. A continuous listening watch on VHF Channel 16 should be maintained.
4. Anchor watches to determine vessel's anchor position at reasonable intervals is recommended.

There are no anchorages considered suitable for deep drafted vessels without local knowledge in the vicinity of either Pilot Boarding Station. In any case, vessels not cleared to enter King Fahd Industrial Port are required to remain outside the territorial waters of Saudi Arabia.

An inner anchorage has been established approximately one mile S.W. of the Port Control Tower (27° 57.4' N., 38° 13' E.) within the Controlled Navigation Zone of the port. Five vessels can be accommodated in this anchorage. The minimum depth in the anchorage is 35.0 m. and the holding ground is considered to be good. A SEAPA Pilot will conduct vessels to a designated anchorage position on request.

RESTRICTIONS: *Equipment Requirements:* No vessel shall navigate within the Port, unless the vessel complies with the following equipment requirements:

Efficient VHF Radio Telephone capable of working on the Port frequencies.
Efficient steering gear with fully operational rudder and helm indicators.
Efficient working radar.
Efficient propulsion both ahead and astern and fully operational tachometer.
Both anchors capable of being let go and capable of being raised by the vessel.
Efficient winches and adequate mooring gear to secure the vessels safely, and an efficient mooring stations communication system.
Sufficient crew on board at all times to operate the vessel safely and efficiently and all officers properly qualified and certificated as required by the flag nation.
All secondary power or mechanical systems on the vessel to be in operation and immediately available in the event of failure of any primary system.

If any vessel cannot comply with any of the requirements listed above King Fahd Industrial Port Control must be advised prior to arrival or departure. The vessel will then be subject to inspection and possible delay. Failure to comply or to notify King Fahd Industrial Port Control may result in the vessel being fined or refused entry to the Port or both.

Permission to Enter the Port: All Masters of sea going vessels must have prior permission of the King Fahd Industrial Port Control to enter the Port. Such permission may be subject to special restrictions or conditions i

The vessel arrives before or after the given ETA.
The vessel is in danger of sinking.
The vessel or its cargo is on fire or if there is any possibility of a fire or if after a fire it is uncertain whether that fire is completely extinguished.
The vessel is overloaded or, on account of the condition of the cargo, the vessel is dangerous or has deck cargo which extends beyond her sides.
The vessel has been involved in a collision or has grounded.
The vessel is leaking.
The vessel has a list.
The vessel is in an unstable condition.

Draft Requirements: Vessels will not be permitted entry to the Port unless they arrive at a draft consistent with safe manoeuvring and reasonably trimmed, to the satisfaction of the Pilot.

RADIO: *ETA Requirements:* In addition to the Pre-Arrival Information Requirements below, further notification of ETA is required 5 days, 72 hours, 48 hours and 24 hours prior to arrival at the Port and should be sent by telex: 662360 ("PORTCT SJ") for information of the Director General. Changes in ETA in excess of one hour must be notified thereafter. On coming within range of King Fahd Industrial Port Control, the ETA must be confirmed by VHF.

Vessels which fail to comply with these requirements may be delayed and or subject to a fine as laid down in the Rules and Regulations.

Government Entry Requirements: The Master will be responsible for complying fully with the requirements of Saudi Arabian Government Departments, Ministries, Agencies and Organisations. Particular attention should be paid to the requirements of the Customs, Coast Guard, Immigration and Port Health Authorities. Masters requiring any advice on these requirements should contact their local Agents.

PEMREF: PEMREF requires a *minimum* of 96/72/48/24 hours notice of a vessel's arrival. The full pre-arrival message should accompany the 96 hour ETA. Where a vessel is arriving from a port less than 96 hours away, an ETA must be sent as soon as the vessel leaves that port.

The above requirements are a *minimum* and Masters should be encouraged to keep PEMREF well advised at an early stage regarding all aspects of their call. Failure to provide the required information in a timely manner will result in delays in berthing and loading, which will be for Owner's account.

PRE-ARRIVAL INFORMATION REQUIREMENTS: The Rules and Regulations for Seaports of the G.C.C. Member States cover King Fahd Industrial Port and these specify that certain information must be received either directly or through the vessel's Agent before that vessel arrives at the port. Vessels which fail to comply with this requirement may be delayed and/or subject to a fine as laid down in the Rules and Regulations.

Dry Cargo Vessels: The following information must be sent to the Director General as soon as that vessel has completed loading cargo at her previous port:

1. Call Sign.
2. Name of vessel.
3. Owner's/Charterer's name and address.
4. Nationality.
5. Agents.
6. LOA.
7. Maximum draft.
8. No. of hatches.
9. G.R.T.
10. N.R.T.
11. D.W.T.
12. Previous Names.
13. Type of Vessel.
14. Type of Cargo.
15. Total cargo weight tons.
16. Total cargo freight tons.
17. No. of containers/units.
18. No. of Livestock.
19. E.T.A.
20. Actual Arrival Draft.
21. Hazardous Cargo for Yanbu, including quantities and classes.
22. Hazardous Cargo in Transit for other ports, including quantities and classes.
23. Tonnage to Hatch for Yanbu Discharge.
24. Year of Construction.
25. Lloyd's Registered Number.
26. All Ports of Loading.
27. Ship's Derricks.
28. Speed.
29. Next Port.
30. Route.
31. Last 3 Ports of Call.
32. Bunker Requirement.
33. Liquor Cargo in Transit with container number.
34. Arms and Ammunitions on board.

Tankers: The following information must be sent to the Director General as soon as the vessel receives orders to proceed to the port. It is requested that the information should also be sent to the relevant Terminal Operator.

AA	Name of vessel.
BB	Former names.
CC	Port of registry, flag, call sign.
DD	LOA, G.R.T., N.R.T.
EE	Summer D.W.T., arrival D.W.T.
FF	Draft on arrival forward and aft.
GG	ETA. (To be advised 5 days, 72 hours, 48 hours, 24 hours and any later changes).
HH	Last port.
II	Cargo on board and flash point, destination of cargo.
JJ	Cargo requirements.
KK	Previous cargo and quantity residues on board for load on top.
LL	IMO Class.
MM	Whether gas free or in an inert condition (Oxygen content of atmosphere throughout tank to be less than 8% by volume).
NN	Port of loading ballast and amount.
OO	Quantity of ballast loaded on passage.
PP	Quantity of segregated ballast on arrival.
QQ	Quantity of cargo tank ballast on arrival.
RR	Time for deballasting: Can ship load/deballast simultaneously?
SS	Special conditions, difficulties, defective equipment or gear which could present special hazards or difficulties when mooring, unmooring or during cargo operations.
TT	Agent's name.
UU	Maximum loading rate.
VV	Topping-off rate.
WW	Bunker requirements.
XX	Cargo manifold connections size.
YY	Bunker connections size.
ZZ	Derricks.
11.	Ship shore comparisons for last 5 voyages.
22.	Year built.
33.	Master's full name.
44.	Discharge port.
55.	Next port of call.
66.	Number of crew.
77.	Vessel's economical speed.
88.	Vessel's position when 48 hours from Pilot Station.

(See also "Appendix").

Gas Tankers: The following information must be sent to the Director General and Terminal Operator as soon as the vessel receives orders to proceed to the port.

AAG	Name of vessel, indicating any former names.
BBG	Port of registry, flag, call sign.
CCG	LOA, G.R.T., N.R.T.
DDG	Summer D.W.T., arrival D.W.T., arrival draft forward and aft.
EEG	Last port, ETA Yanbu.
FFG	Quantity of ballast on arrival: where loaded.
GGG	Quantity of dirty ballast on arrival.
HHG	Total cargo capacity in cubic metres. Cargo required.
IIG	Grades and quantities of any part cargoes or cargo residues and where loaded. Grade and quantities of product in deck tanks.
JJG	Are part cargoes to be comingled with Yanbu loadings?
KKG	Gauge pressures; top, bottom and mean temperatures of each cargo tank.
LLG	Quantity of coolant required in addition to cargo requirements.
MMG	Maximum allowable relief valve settings for all cargo tanks.
NNG	Have any cargoes other than LPG been carried during last 3 loaded voyages? Specify.
OOG	Maximum oxygen content by volume per cent of each warm or inerted cargo tank.
PPG	If tank purging required specify whether: (a) Parallel or in series. (b) Liquid from shore direct to cargo tanks. (c) Liquid from shore to vessel's vaporisers. Specify vaporiser throughout in RLPG tonnes/hour.
QQG	If cooling down tanks is required, specify maximum cooling rate in terms of temperature reduction per hours and maximum temperature differential permitted between any two points in cargo tanks.
RRG	Available total capacity of ship's reliquefication plant for each nominated cargo product.
SSG	Type of ship's reliquefication system i.e., direct, cascade or other.
TTG	Capacity of ship's gas blowers to shore vapour return line in volume per hour at reference temperature.
UUG	Maximum loading rate and approximate topping off rate.
VVG	Bunker manifold size. Bunker requirements.
WWG	Manifold presentation; function, ASA rating, size, from Forward.
XXG	Agent's name.
YYG	IMO ship type. Does vessel have valid certificates of fitness?
ZZG	Special conditions, difficulties, defective equipment or gear which could present special hazards or difficulties when mooring, unmooring or during cargo operations.
111.	Deballasting time, specify concurrent loading or not.
222.	Year built.
333.	Master's full name.
444.	Discharge port.
555.	Next port of call.
666.	Number of crew.
777.	Vessel's economical speed.
888.	Vessel's position when 48 hours from Pilot Station.

(See also "Appendix").

NOTICE: Issued by Saudi Aramco on 1st October 1994.

Quote:

SHIP'S STANDARD MESSAGE

Effective December 1st, 1994, Communication will apply the attached standard message to all ships calling Saudi Aramco Terminals at Ras Tanura, and Yanbu as well. Hence, we appreciate communicating this to all your customers. It is mandatory to answer back all information required, in order to eliminate any conflicts, usually caused by shortage of information received from ships.

From: Saudi Aramco Ras Tanura. No. . . . . . UTC/Date and time. . .
Master . . . . .

Please contact "HZY" on CW or Inmarsat Telex 801919 Amar SJ with following information:

One	ETA UTC Ras Tanura Entry Buoy, any later changes.
Two	Ship's former name if any, present flag, net registered tonnage.
Three	Agent's name, last dry dock MM/DD/YY and Master's name.
Four	Cargo requirements in net barrels and destination of cargo.
Five	Bunker requirements in net barrels fuel and/or diesel bunker.
Six	Arrival/departure draft fore and aft, arrival displacement tonnage, derrick capacity, number and size of connections.
Seven	If loading Arab Medium for the account of Banoco and/or Arab Extra Light, your ship must arrive with a maximum arrival draft of 54 ft. plus tide, and a maximum sailing draft of 64 ft. plus tide.
Eight	If loading LPG, advise if ship's tanks sufficiently cooled for normal loading, otherwise advise if you require coolant.
Nine	Whether gas-free or in inert condition.

Ten Deballasting hours, loading rate, if can load cargo concurrent with deballasting, maximum loading rate after deballasting.

Eleven Previous cargo, also quantity and quality of part cargo or residue or slops aboard, if any, and whether to be mixed with Ras Tanura cargo or not.

Twelve If loading more than one grade, which grade to be loaded first, or if can load simultaneously, and loading rate for each grade.

Thirteen Does your vessel comply with SOLAS Conventions regarding the fitting and use of a fully operational Inert Gas System.

Fourteen It is a requirement of the port that the propeller remains immersed and stern trim does not exceed 1.5% of the ship's length when at berth. Confirm that your vessel will comply.

If VHF aboard, call Ras Tanura Pilots on Channel 16 or 14 for anchoring, boarding and berthing instructions when 100 miles out. On arrival anchorage, advise "HZY" offical readiness time and anchored position. Radio messages without charge. Pilots require sufficient clean ballast for manoeuvring with propeller covered and trim limited to 15 ft. for Ras Tanura Terminal, and 8 ft. for Juaymah Terminal. Imperative all vessels operating under Early Departure Procedure, copy "HZY" traffic list after departure until cargo quantities are resolved and Agent is authorised to sign cargo documents.
Saudi Aramco.

From: Saudi Aramco Ras Tanura. No. . . .UTC/Date and time. . . .
Master

Please advise any epidemic disease or illness on board. Status of crews International Certificates of Immunisation. All ports called past 30 days. Destination. Flag. Net registered tonnage. Vessel will not be allowed to berth until this information is received.
Saudi Aramco.
Unquote.

HEALTH: *Quarantine:* In accordance with International practice, quarantine signals must be displayed by all vessels approaching the port. These signals must be displayed continuously until Pratique is granted.

Sunrise to Sunset	Quarantine Flag
Sunset to Sunrise	Signal lights Red over white

VHF: *Port Control:* All the marine services and shipping movements within King Fahd Industrial Port Limits are monitored and controlled by "King Fahd Port Control", which is situated at Lat. 23° 57.4' N., Long. 38° 13' E. The station is manned 24 hours a day and maintains a continuous VHF watch. Information can be provided to Masters and Pilots on all navigational aspects, including wind and visibility, navigational aids and shipping movements within the port area. The station will also provide a liaison with the Terminal Operators and Emergency Services.

The following VHF channels are continuously available for use by King Fahd Port Control.

Channel Designator	*MHz Frequency*	*Service*
16	156.800	International Calling and Distress
10	156.500	Port Operations – 3
11	156.550	Port Operations – 1
13	156.650	Port Operations – 4
68	156.425	Port Operations – 2
67	156.375	Pilotage/Berthing Operations
69	156.475	Pilotage/Berthing Operations
71	156.575	Pilotage/Berthing Operations
73	156.675	Pilotage/Berthing Operations
74	156.725	King Fahd Port Operations – Private

In the event of a Port Emergency, King Fahd Industrial Port Control will designate a channel for use during the period of the emergency.

RADAR: Harbour Surveillance Radar is installed in the Port Control Tower.

A second surveillance radar is being erected (1990) on a 30 m. tower in position Lat. 23° 42' N. Long. 38° 29' E., remote reading at the Port Control Tower.

TUGS: There is no requirement for Masters to order tugs in King Fahd Industrial Port. The number of tugs to be used during berthing and on departure will be specified by the Harbour Master. If the Master wishes to appeal against the number of tugs allocated, he will do so to the Harbour Master, who will make the final decision.

Any tug whether owned, hired or chartered by the Ports Authority, when used for assisting a vessel, shall be deemed to be under the order and control of the Master, Owner or Charterers of the vessel being assisted. The Ports Authority shall not be liable for damage of any description or any consequential loss suffered by, or to, the tugs or their crews while assisting vessels, whether occasioned by any act or omission of Tug Master or crew or by any defect or inadequacy of the tug, machinery or gear.

Towing lines will be provided by the Ports Authority. Tugs will rendezvous with vessels bound for Port Terminals in the vicinity of Buoy No. 14, or further South as appropriate for the terminal.

All tugs are fitted with foam and water monitors for fire fighting and spray booms for pollution dispersal work.

15 tugs up to 87 tons bollard pull. Pilot launches and mooring launches are available.

Most tugs are VSP Water Tractors.

CRUDE OIL TERMINAL:
Saudi Aramco Berth Particulars:
Berth No. 61:

Tanker Size (approx.)	80,000 – 275,000 d.w.t. (See Note)
Deck Level of Loading Platform	40 ft.
Depth Alongside Berth No. 1	92 ft. ISLW
Max. Draft	83 ft.
Loading Arms (number and size)	4×20 in.
Quick Disconnect Coupling Size	16 in., 20 in., 24 in.
Bunker Fuel Arms (number and size)	2×12 in.
Quick Disconnect Coupling Size	8 in., 10 in., 12 in.
Max. Rate Per Loading Arm	32,500 b.p.h.
Max. Rate Per Bunker Arm (Off-loading)	8,900 b.p.h.
Number of Breasting Dolphins	4
Number of Mooring Dolphins	4
Available Mooring Hooks	24 (SWL @ 70 M/T)
Distance Between Centre of Inner Breasting Dolphins	239 ft. (73 m.)

Berth No. 62:

Tanker Size (approx.)	275,000 – 500,000 d.w.t. (See Note)
Deck Level of Loading Platform	40 ft.
Depth Alongside Berth	105 ft. ISLW
Max. Draft	95 ft.
Loading Arms (Number and Size)	4 × 20 in.
Quick Disconnect Coupling Size	16 in., 20 in., 24 in.
Bunker Arms (Number and Size)	2 × 12 in.
Quick Disconnect Coupling Size	8 in., 10 in., 12 in.
Max. Rate per Loading Arm	32,500 b.p.h.
Max. Rate per Bunker Arm (Bunkering)	10,000 b.p.h.
Number of Breasting Dolphins	2
Number of Mooring Dolphins	6
Available Mooring Hooks	26 (SWL @ 70 M/T)
Distance Between Centre of Breasting Dolphins	449 ft. (137 m.)

Note: Tankers of less than 275,000 d.w.t. may be accepted if the ligh water line flat side forward and aft of the manifold is at least 75 m. (246 ft.)

Berth No. 63: (Also see "Shipmaster's Report" – dated October 1985).

Tanker Size (approx.)	120,000 – 275,000 d.w.t. (See Note)
Deck Level of Loading Platform	40 ft.
Depth Alongside Berth	90 ft. ISLW
Max. Draft	81 ft.
Loading Arms (Number and Size)	4 × 20 in.
Quick Disconnect Coupling Size	16 in., 20 in., 24 in.
Bunker Arms (Number and Size)	2 × 12 in.
Quick Disconnect Coupling Size	8 in., 10 in., 12 in.
Max. Rate per Loading Arm	32,500 b.p.h.
Max. Rate per Bunker Arm (Bunkering)	10,000
Number of Breasting Dolphins	2
Number of Mooring Dolphins	5
Available Mooring Hooks	23 (SWL @ 70 M/T)
Distance Between Centre of Breasting Dolphins	420 ft. (128 m.)

Note: Tankers of less than 120,000 d.w.t. may be accepted if the ligh water line flat side forward and aft of the manifold is at least 70 m (230 ft.).

Berth No. 64: In 1990 a fourth berth for vessels of 80,000 d.w.t. t 500,000 d.w.t. was under construction.

Only two berths of the Crude Oil Terminal can be loaded at the sam time. Maximum loading rate to two crude berths simultaneously i 260,000 b.p.h. through 8 × 20 in. loading arms.

Environmental Monitoring System: An environmental monitoring syste is installed at Berth No. 61 dock control room with repeater units locate in dock control rooms at Berths 62 and 63. The system indicates win velocity and direction, atmospheric pressure and temperature, curre velocity and direction, and wave height and period.

Berthing Criteria:

Max. berthing velocity:	20 cm./sec.
Max. approach angle:	7°

For berthing and unberthing purposes, wind, sea, and curre conditions have to be within acceptable limits, so that during the fin docking the maximum berthing velocity and maximum approach ang is not being exceeded.

Mooring Arrangements: Each mooring dolphin, breasting dolphin, an loading platform is equipped with either double or triple quick-releas mooring hooks and with a mooring capstan.

The terminal will furnish a required mooring arrangement for th loading berth to which the vessel is nominated. The mooring diagra shows the number of mooring hooks provided for each ber consecutively numbered from North to South. These mooring hooks a designed to service one mooring line per hook.

Port mooring launches will be used to assist during moori operations.

The terminal will provide suitable messengers for heaving in lines.

In order to ensure the integrity of the offshore terminal facilities, i recommended that VLCCs provide an all wire mooring arrangement a that tankers in the 50 to 160 MDWT range provide mooring wires least for their spring mooring lines and breast mooring lines. T recommended minimum number of wire moorings is as follows:

50,000 – 160,000 d.w.t. tankers:	8 mooring wires
160,000 – 250,000 d.w.t. tankers:	10 mooring wires
250,000 – 350,000 d.w.t. tankers:	12 mooring wires
350,000 plus d.w.t. tankers:	14 mooring wires

VLCCs with an all synthetic mooring system will be accepted if t synthetic mooring lines consist of low elasticity material.

All mooring lines should be of similar size and material and must in good condition. Manual brakes have to be set and to be secure all tension winches once the tanker is moored. Ship's crew must tend all moorings to keep the ship in position and mooring lines have to be taut at all times.

Each loading berth is equipped with a mooring load monitor/hook release system. The system is designed to monitor the loads on each mooring hook and to provide an alarm should the loads on a mooring hook exceed the system's set points. Berth operating personnel will monitor the mooring loads and, based on the read-outs they will advise the responsible officer who is expected to immediately correct any undesirable mooring situation.

The mooring load monitoring system does not relieve the vessel's Master from his responsibility to ensure adequate and safe mooring at all times when berthed alongside the Crude Oil Terminal.

Report: 1989.

King Fahd Industrial Port Authorities and Saudi Aramco have reminded us to ensure that Owners and Masters, of all vessels berthing at the Crude Oil Terminal and NGL jetties, are made fully aware of the mooring requirements, which are a minimum of 16 lines arranged as follows:

3 head lines
3 forward breast lines
2 forward back springs
2 after back springs
3 after breast lines
3 stern lines.

Further, please take note of Saudi Aramco's minimum wire mooring line requirement as under:

Vessel Size	*Required*	*Recommended*
75,000 – 160,000 d.w.t.	8 Wires	12 Wires
161,000 – 250,000 d.w.t.	10 Wires	12 Wires
251,000 – 300,000 d.w.t.	12 Wires	14 Wires
301,000 – 350,000 d.w.t.	12 Wires	16 Wires
351,000 d.w.t. and above	14 Wires	16 Wires

Gangway: The Crude Oil Terminal will provide a gangway to the ship at each berth.

Each loading platform has a gangway tower equipped with a self-adjusting gangway. The gangway provides access to and from the tanker and is the only permissible means for any personnel to enter or leave the ship.

Loading: *Loading Arms:* There are 4×20 in. crude oil loading arms at each of the loading platforms at Berth Nos. 61, 62 and 63. Each crude oil loading arm is capable of handling 32,500 bbls.p.h. maximum. The maximum flow rate per berth is 130,000 bbls.p.h., using 4 arms.

The hydraulic controls for the loading arms are located at the control desk on the loading platform adjacent to the loading arms. All loading arms are fully hydraulic powered and counter-balanced when empty. Each loading arm is fitted with a "Quick Disconnect Cargo Coupler" and a minimum distance of 18 in. is required between the lowest point of the ship loading line flanges to the upper level of the working platform of the spill tank.

All loading/bunker connections are equipped with electrical insulating flanges. Therefore, ship to shore bonding cables are not required.

Loading Plan Agreement: Prior to loading, the Terminal Supervisor will contact the officer in charge for the loading operation on board the tanker and discuss and agree on the loading plan.

The loading agreement consists of:

(a) Maximum acceptable loading rates, starting rates, topping-off rates, and standby notice requirements. (During loading, all anticipated changes in cargo transfer rates are to be communicated in a timely manner to ship or shore).
(b) Cargo quantities required by tanker's Master and comparison with terminal loading instructions.
(c) Cargo characteristics, required samples and tests.
(d) Assignment of cargo to vessel tanks and preferred order of loading.
(e) Details of last cargo, condition of tanks and pipelines, and ballast conditions and deballast time. Inspection of all cargo tanks prior to loading and signing of the Dry Certificate.
(f) Load-on-top procedures.
(g) Quantity of slop oil on board and quantity of free water in slops.
(h) Quantity of bunkers ordered prior to arrival.
(i) Estimated loading time required and estimated departure time.

Crude Oil Characteristics:

Arabian Light

Temperature	120°–150°F
API Gravity	33.2–33.8
Reid Vapour Pressure	3.6–5.0 PSIA
Pour Point	Below 20°F
Viscosity	57 SUS @ 70°F
BS&W	Less than 0.05%
H_2S	Less than 10 PPM

Hydrogen Sulphide Hazards (H_2S): Arabian crude loaded at the Offshore Marine Terminal has been treated for H_2S removal prior to shipping.

However, the crude oil may still contain Hydrogen Sulphide in concentrations which may be harmful to personnel. Personnel on board tankers who may be exposed to concentrations of H_2S gas should observe safety precautions applicable to harmful gases.

Slop Residues: Slop residues cannot be discharged ashore at Petromin's crude oil terminal.

Cargo Tank Inspection: Cargo tanks onboard the tanker will normally not be inspected by the Terminal Offshore Supervisor. If the Owner/Charterer of the ship requests an independent oil inspection company to inspect cargo tanks, the Offshore Supervisor will witness the tank inspection.

Tankers which arrive with all tanks inerted must enable ullage inspections of all cargo tanks to be carried out prior to start of cargo transfer operations and after completion of cargo transfer operations.

If the tanker requests load-on-top procedures, measuring of the quantity of oil and water in the slop tank(s) will be witnessed by the Terminal Supervisor (Also see "Appendix").

Loading Signal: During loading the international code flag "B" shall be displayed during daylight hours. During darkness a red loading light shall be displayed.

Watches: During the entire stay of the vessel alongside the Crude Oil Terminal, a deck watch is required.

Bunkering: Bunkering fuel is available at all berths at the Crude Oil Terminal, and 2 bunker loading arms are located on each loading platform, size 12 in. Maximum flow rate per bunker loading arm is 14,500 bbls./p.h. To avoid any delays to tankers, bunkering has to be accomplished concurrently with cargo transfer operations.

NGL TERMINAL: The NGL Terminal is a Saudi Arabian Government owned, Saudi Aramco operated facility designed to load refrigerated liquid petroleum gas (propane and butane) and naphtha product for export. LPG carriers range in size from approximately 25,000 cu.m. to 200,000 cu.m. Naphtha carriers range from 20,000 to 280,000 d.w.t.

Terminal Facilities: The 2 loading berths are situated on the offshore side of the base of the "L". Berth 71 is the Southerly berth and Berth 72 is the Northerly berth. Berth alignment is 290° true bearing. A tower crane is located in the middle of each loading platform. Reading from North to South the 7 loading arms are designated for the following service; Naphtha, ship's fuel, LPG (4 arms), and ship's fuel. All LPG arms are universally manifolded to permit propane or butane liquid loading; or propane, butane or contaminated vapour return. Bunker fuel or black diesel can be loaded through either or both 12 in. ship's fuel arms which flank the LPG loading station. The naphtha arm is capable of delivering naphtha product and receiving small amounts of naphtha slop, which will be disposed of onshore. There are no shore-based ballast handling facilities.

Berth Particulars: No. 71 and No. 72.

Tanker size (approx.):	16,000 – 200,000 cu.m.
Deck Level of Loading Platform:	56 ft. ISLW
Depth Alongside Berths (min.):	60 ft. ISLW
Max. Draft:	53 ft. 02 in. (16.2 m.)

Loading Arms:

	Number/Size		*Number/Size*
(a) Ships' Fuel	2×12 in.	(c) LPG	4×16 in.
(b) Naphtha	1×16 in.		

Quick Disconnect Coupling Sizes: 8 in., 10 in., 12 in., 14 in. and 16 in.

Maximum loading rate:

(a) Ships' Fuel	
1. Diesel	650 bbls.p.h.
2. Bunker Fuel	5,000 bbls.p.h.
(b) Naphtha	30,000 bbls.p.h.
(c) LPG	30,000 bbls.p.h.

Number of Breasting Dolphins:	2
Number of Mooring Dolphins:	6
Available Mooring Hooks:	42
Distance between centre of Breasting Dolphins:	300 ft.

Condition of Ship's Products Tanks: The Saudi Aramco facilities for loading LPG are not designed for loading pressurised cargoes and LPG will not be loaded into a tanker which does not have adequate shipboard refrigeration capacity and chilled tanks.

Mooring Lines and Arrangements: In order to ensure the safety of personnel, tankers and loading facilities, and to prevent accidental oil spillages, Saudi Aramco strongly recommend that tankers of 75,000 d.w.t. and larger which moor at NGL Terminal berths utilise a minimum of 8 to 12 wire mooring lines (breasts and springs) in accordance with the following:

75,000 to 160,000 d.w.t. : 8 wire lines
161,000 to 250,000 d.w.t. : 10 wire lines
Greater than 250,000 d.w.t. : 12 wire lines

Vessels equipped with both wire and synthetic mooring lines must avoid mixing such lines to the same dolphin. During periods of unsettled weather, arriving vessels fitted with sufficient wires will be preferentially berthed whereas vessels equipped with synthetic lines or too few wire lines will not be berthed until the weather improves. If a ship with synthetic lines is already moored and squall conditions arise, loading to that vessel will be stopped and the loading arms disconnected until weather conditions improve and it is judged safe to resume the loading operation. The use of nylon or other highly elastic line is prohibited.

Each mooring dolphin and breasting dolphin is equipped with triple quick-release mooring hooks and with a mooring winch.

Vessels must be moored to the entire satisfaction of the Pilot. Vessels must be ready at all times to put out more lines as required by the Harbour Master or pier personnel, or as dictated by weather changes. All vessels moored to the piers must have deck winches in readiness for immediate use. All vessels moored with automatic tension winches will set the manual brakes on these winches.

Pier crew are on duty continuously to handle loading arms and mooring lines. Mooring lines on board vessels will not be handled by shore personnel.

All loading connections are equipped with electrical insulating flanges. Therefore, ship to shore bonding cables are not required.

Gangway: The NGL Terminal will provide a gangway to the ship at either berth. Each berth has a gangway tower equipped with a self-adjusting gangway for access to and from the ship, and this is the only permissible means for any personnel to enter or leave the ship.

Loading Plans: After a tanker is secured at the berth and prior to the beginning of any loading operation, the Master (or a ship's officer designated by him) will meet with the NGL Terminal senior shiftoperations representative in order to discuss and prepare the vessel's loading plan. Items to be discussed will include, but not be limited to, the following:

1. Temperature and pressure of each of the ship's tanks.
2. Product to be loaded in each tank and the sequence of tank loading.

3. Quantity and type of product, if any, in each ship's tank, and whether it is a part cargo or residue required for tank cooling.
4. Loading rates of each product.
5. Safety procedures and safe loading practices.

All clean excess vapours which cannot be handled by the tanker's vapour recovery equipment will be metered to the shore-based vapour recovery system and reprocessed. Contaminated vapours will be metered to the flare.

Refrigerated LPG: Refrigerated LPG is loaded via 16 in. loading arms. The maximum loading rate for each product is 30,000 bbls.p.h. Each berth is equipped with 4 LPG loading arms which may be used for butane liquid, propane liquid or vapour return to a ship's vapour recovery unit, or contaminated vapours to flare. All 8 LPG loading arms are fitted with quick connect/disconnect couplers. Each LPG loading line has an associate circulation return line. Loading lines must be on circulation at least 4 hours prior to commencement of loading. No 2 ships are loaded from one loading line simultaneously.

The NGL Terminal facilities ARE NOT designed for loading pressurised LPG and NO LPG will be loaded into ship's tanks that are not equipped with refrigeration facilities and are not adequately chilled.

Vapour line MUST be connected prior to loading LPG cargo. This also includes those vessels loading coolant.

Before being transferred from the loading line to the loading barrel and arms, the propane and butane products are metered. The metering system is designed for loading rates between 100 bbls.p.h. and 30,000 bbls.p.h. for each product.

A 3 in. turbine type meter with a capacity of 79 bbls.p.h. – 929 bbls.p.h is provided for low loading rates such as cooldown and topping off.

An 8 in. turbine type meter with a capacity of 679 bbls.h.p. – 7,420 bbls.p.h. is provided for full flow rates.

Every vessel loading LPG at the NGL Terminal will be required to have a copy of SAUDI ARAMCO GASRUL 9:83 on board. When a copy is not on board prior to arrival Saudi Aramco and the Agent of the vessel shall be so advised. Extracts of the regulations are included for information as follows:

1. *Propane Loading:*
   (a) The cargo tank bottom is cooled down to a maximum mean temperature of −38°F or −39°C.
   (b) The maximum mean temperature above the mid-depth of the cargo tank, in the range between two-thirds and three-quarters of the Maximum Allowable Tank Filling Level (MATFL), and excluding any temperature indicated in the cargo tank dome vapour space, is −13°F or −25°C.
   or
   The maximum mean temperature at the top of the cargo tank and at or immediately below the MATFL and excluding any temperature indicated in the cargo tank dome vapour space is −8°F or −22°C.
2. *Butane Loading:*
   (a) The cargo tank bottom is cooled down to a maximum mean temperature of +32°F or 0°C.
   (b) The maximum mean temperature above the mid-depth of the cargo tank, in the range between two-thirds and three-quarters of the MATFL and excluding and temperature indicated in the cargo tank dome vapour space, is +57°F or +14°C.
   or
   The maximum mean temperature at the top of the cargo tank and at or immediately below the MATFL and excluding any temperature indicated in the cargo tank dome space is plus 62°F. or plus 17°C.
3. The cargo tank gauge pressure not more than 1.0 p.s.i. or 70 MBS or 0.07 kg./sq.cm. on arrival at berth. During cargo operation the pressure of any cargo tank shall be maintained within the range between zero gauge minimum (atmospheric pressure) and a maximum which shall not exceed 70% of the maximum allowable relief valve setting for that cargo tank or such other lesser maximum percentage as may be determined by Saudi Aramco for a particular vessel.
4. Butane may be loaded into ship tanks containing residue up to 10% of the cargo to be loaded.
5. Propane may be loaded into ship tanks containing propane residue up to 10% of the cargo to be loaded.
6. Butane or propane may be loaded into ship tanks containing part cargo of the same grade only by authorisation of the offtaker. Quantities of over 10% of the cargo to be loaded shall be considered part cargo.
7. Should the vessel be unable to comply with the provisions of paragraphs 3 and 4, Saudi Aramco operations management representatives shall confer with the vessel Master and/or Responsible Loading Officer to develop a loading procedure for the safest possible loading for the tank(s) containing dissimilar residue. The procedure shall be in writing, agreed to by both parties and take into consideration loading rates, temperatures, pressures and all possible safeguards to ensure minimising the dangers to ship and shore installations. It must be understood that this procedure will involve delays to the vessel and will impose additional workloads on the shore and ship personnel.
8. IN NO CASE WILL LOADING BE PERMITTED INTO SHIP TANKS CONTAINING LIQUID PRODUCT OF A DIFFERENT GRADE IN EXCESS OF TEN TONS.
9. When a vessel requires special handling, as described above, the vessel shall be given a letter of protest, with copies to Owners and Operators.
10. Refrigerated LPG vessels with warm cargo tanks can be handled at the Saudi Aramco NGL Terminal. When special circumstances warrant, new ships and other vessels with warm tanks may be accommodated but will be subject to specific conditions.
11. Vessels with part cargo on board of products other than A-140 Propane or A-160 Butane must be equipped to keep any liquid or vapour completely self-contained from those cargo parcels. There must be no return of non-compatible vapour to atmosphere while at berth. *No mixing of dissimilar refrigerated liquids is allowed at berth.*
12. Vessels loading either propane or butane are expected to use the appropriate vapour return line but only for *excess* vapour which the vessel's vapour recovery equipment cannot handle. Excessive vapour will be metered to a shoreside ship's vapour recovery system. If the excess vapour cannot be handled by using both systems, the vapour will be sent to flare. If the situation cannot be corrected promptly aboard ship, the loading shall be shut down. Loading shall be resumed only after the loading plan has been reviewed with the Master or Responsible Loading Officer by the senior shift operations representative and corrective action has been agreed upon.
13. In the event of a spill of liquid propane or butane on board the vessel, shore loading shall be shut down until corrective action to clean up the spill and to avoid future recurrence has been agreed upon by the Master or Responsible Loading Officer, the shift operations staff and the Harbour Master.
14. There are no facilities at the NGL Terminal for the return of either liquid propane or liquid butane cargo. Vessels must pay strict attention not to overload either of these grades.

Emergency Procedures: In the event of a fire or explosion at the pier, or on board a vessel which is berthed alongside at the Terminal, the alarm signal will be a one minute undulating signal on the siren and an Emergency Shutdown System will be activated to shutdown immediately all cargo loading to vessels at the berths. The course of action to be followed by Saudi Aramco Terminal personnel will be dictated by the particular facts and circumstances of the incident. It is impossible to indicate exactly and completely what practices will be applied during an emergency before an evaluation of the specfic situation can be made. Masters are advised to familiarise themselves with the Port and Terminal Emergency Procedures.

YANBU PETROMIN REFINERY: This is the domestic refinery for Saud Arabia and is operated by Saudi Arabian Marketing and Refining Company (SAMAREC).

Terminal Facilities: There are 4 berths at the terminal, 2 for vessels of 20,000 d.w.t. to 80,000 d.w.t. capacity (Berths No. 91 and 92) and 2 for vessels of 1,000 d.w.t. to 20,000 d.w.t. capacity (Berths No. 93 and 94).

The smaller berths are located inside the harbour basin and the two larger berths on the seaward side of the causeway dogleg extending to the South Eastward of the main causeway.

Berth structures consist of a central loading platform and mooring and breasting structures connected by a trestle for vehicular access. Platform and trestle are of concrete, and the loading platforms connected to the mooring dolphins by steel walkways.

For the two larger berths, there are 4 semi-flexible breasting dolphins for each berth, two each side of the platform. The berths have been dredged to a depth of 16 m. below LAT.

For the two smaller inside berths, a semi-flexible breasting beam is installed in front of the platform, designed to absorb the berthing energy of vessels up to 20,000 d.w.t. tonnes. The turning circle with a diameter of 760 m. and the approach to the inner basin has been dredged to 13.5 m. below LAT; the berths themselves dredged to 11.5 m. below LAT.

All berths are equipped with double or triple quick release hooks. Al hooks can be released remotely in an emergency.

The two larger berths are equipped with a berthing approach system which monitors and records approach velocity, distance off and angle of approach; visible readout boards are installed for vessels' use.

A ballast water treatment plant is capable of receiving ballast at a maximum rate of 3,000 tonnes per hour prior to loading. Ballast water is passed through the facility's spearator system, clean water is then passed to retention ponds prior to being released to sea. The discharge of ballast water from the facility is monitored to ensure compliance with current environmental standards.

Bunkers (fuel and diesel oil) and potable fresh water are available at each berth.

Berth Particulars:

Berths No. 91 and 92:

Min./Max. tanker size	20,000 to 80,000 d.w.
Loading platform height above LAT	6.0 m
Minimum water depth alongside	16.0 m
Maximum draft allowed	14.2 m
Breasting dolphins	
Maximum LOA	260 m
Usual side alongside	Starboa
Shore gangway	Ye

Berths No. 93 and 94:

Min./Max. tanker size	1,000 to 20,000 d.w
Loading platform height above LAT	5.0 m
Minimum water depth alongside	11.5 m
Maximum draft allowed	9.8 m
Breasting dolphins	
Maximum LOA	175 m
Usual side alongside	Starboa
Shore gangway	Ye

Product Loading Rates:

Berths No. 91 and 92:

Product	*Max. Rate per Arm* cu.m./hr.	*Design Pumping Rate* t.p.h.	*No. of Arms*
Fuel Oil (cargo)	1,500	2,360	3
Marine Diesel (cargo)	1,500	1,570	2
Regular Gasoline	1,500	1,570	2
Premium Gasoline	1,500	1,570	2
Motor Diesel Oil	1,500	1,570	2
Kerosene	1,500	1,570	2
Naphtha	440	300	1
JP4	240	182	1
Fuel Oil (bunker)	800	760	1
Marine Diesel (bunker)	550	450	1
Ballast Water (discharge)	1,500	3,000	3
Fresh Water	—	25	Hose

Berths No. 93 and 94:

Product	*Max. Rate per Arm* cu.m./hr.	*Design Pumping Rate* t.p.h.	*No. of Arms*
Fuel Oil (cargo)	1,000	2,360	3
Marine Diesel (cargo)	1,000	1,570	3
Regular Gasoline	1,500	1,570	2
Premium Gasoline	1,500	1,570	2
Motor Diesel Oil	1,500	1,570	2
Kerosene	1,500	1,570	2
Naphtha	440	330	1
JP4/JP1	240	182	1
L.P.G.	60	30	1
Caustic (discharge)	15	20	1
T.E.L. (discharge)	23	40	Hose
Fuel Oil (bunker)	800	760	1
Marine Diesel (bunker)	250	205	1
Ballast Water (discharge)	1,000	1,500	3
Fresh Water	—	25	Hose

Loading Arms: Loading arms on all berths are numbered from right to left when facing the berth from the deck of a vessel. Loading arm numbers are prefixed with berth identity number.

Berths No. 91 and 92:

Loading Arm (No.)	*Diameter* (in.)	*Coupling Sizes* (in.)	*Products Handled*
1	10	10 – 14	Fuel oil (cargo), Marine diesel (cargo), Fuel oil (bunker), Marine diesel (bunker), Ballast
2	10	10 – 14	Fuel oil (cargo), Marine diesel (cargo), Fuel oil (bunker), Marine diesel (bunker), Ballast
3	10	10 – 14	Motor diesel, Kerosene
4	10	10 – 14	Motor diesel, Kerosene
5	10	10 – 14	Regular gasoline, Premium gasoline
6	10	10 – 14	Regular gasoline, Premium gasoline
7	10	10 – 14	Fuel oil (cargo), Marine diesel (cargo), Fuel oil (bunker), Marine diesel (bunker), Ballast
8	8	8, 10, 12	JP4, Napatha

Berths No. 93 and 94:

Loading Arm (No.)	*Diameter* (in.)	*Coupling Sizes* (in.)	*Products Handled*
1	8	8 – 12	Fuel oil (cargo), Marine diesel (cargo), Fuel oil (bunker), Marine diesel (bunker), Ballast
2	8	8 – 12	Fuel oil (cargo), Marine diesel (cargo), Fuel oil (cargo), Marine diesel (cargo), Ballast
3	10	10 – 14	Motor diesel, Kerosene
4	10	10 – 14	Motor diesel, Kerosene
5	10	10 – 14	Regular gasoline, Premium gasoline
6	10	10 – 14	Regular gasoline, Premium gasoline
7	8	8 – 12	Fuel oil (cargo), Marine diesel (cargo), Fuel oil (bunker), Marine diesel (bunker), Ballast
8	8	8 – 12	JP4/JP1, Naphtha
9 (Berth 94 only)	4	4	L.P.G.
10 (Berth 94 only)	4	4	Caustic
X (Berth 94 only)	6	Hose	T.E.L.

Quick Disconnect Couplers: Each loading arm is fitted with a "quick disconnect" coupler. These are hydraulically operated from a centrally located operating panel. A pendant control lead is available for local control of loading arms when connecting to the ship's manifold.

Gangway: Each of the four berths is equipped with hydraulically operated shore/ship gangways, which will normally be used. It is the vessel's responsibility to ensure that the ship end of the gangway is placed in such a position as to be clear of all obstructions. A gangway watch is to be maintained to ensure no fouling of the gangway occurs during loading/discharging. At no time is the gangway to be made fast to any part of the vessel.

Mooring Arrangements: Each mooring dolphin, outer breasting dolphin and/or loading platform is equipped with double or triple quick release mooring hooks, each grouping is fitted with a 2.5 tonnes SWL Capstan. The terminal will provide the required mooring hooks arrangement for the vessel on each berth. The mooring hooks are designed to handle one mooring line per hook only. Mooring boats will run moorings from the ship to the dolphins. The terminal will provide suitable messenger lines.

Working Areas: Under no circumstances may the longitudinal or lateral movements of a vessel exceed the limited working envelopes of the connected loading arms.

Each berth is equipped with a mooring hook load monitor. The system is designed to monitor the load on each mooring hook and provide warning, should the load exceed the set parameters. Berth operating personnel will warn ship's Officers of discrepancies of load between mooring lines. The ship's responsible Officer is required to immediately correct any undesirable situation. The mooring load monitoring system does not relieve the vessel's Master from his responsibility to ensure adequate and safe mooring at all times while berthed.

Deballasting: Deballasting connections are provided at all four berths and their use is mandatory, except in the case of ballast in segregated ballast systems. Discharge of ballast from SBT is only to be permitted after inspection by Port Authority Inspectors.

Bunkering: Bunkering fuel and diesel oil is available at all berths. Whenever possible, bunkers should be taken during deballasting operation.

LPG Loading System: The LPG system is designed to load LPG to pressurised carriers. In the case of vapours returned by a vessel during loading, these can be condensed and pumped back into the vessel's tanks.

Slop Residue: "Slop" oil may be discharged to the ballast reception facility, subject to content restrictions and with the approval of the terminal representative. Slop residues containing chemicals or emulsifying agents may not be accepted. Samples may be taken for testing before slops are accepted.

Bonding: All cargo/bunker loading connections are equipped with insulating flanges, and therefore ship-to-shore bonding is not necessary.

Communications: A telephone connected to the refinery PABX system is installed at the gangway ship side for use of operations or emergencies only.

Emergency Shut-Down System: At the end of the gangway (ship side), an emergency shut-down push button is installed. This may be activated by ship's responsible Officers, in case of emergency on board the ship.

Valve Closure: Ship's valves will not be closed off against shore pumps.

Loading Plan Agreement: Prior to loading, and especially in the case of multi-parcel cargoes, the Marine Terminal Supervisor will meet the Officer-in-Charge of the loading operation to discuss and agree on the loading plan, offering the safest and most expeditious method of loading. Items to be discussed will include, but not be limited to, the following:

1. Grades and quantities of cargo/bunkers required.
2. Loading rates and quantities per grade for start, maximum and topping-off.
3. Stand-by time for parcel completed.
4. Ballast quantity to be discharged to sea or shore.
5. Slop residues to be discharged to facilities.
6. Manifold connections/loading arms to be used for each operation.
7. Sequence of loading different products.
8. Expected loading time.
9. Information regarding communications, emergency shut-down procedures, tank venting system, and maximum pressures allowed.
10. Ship/shore Check List.

PETROMIN – MOBIL REFINERY – PEMREF: The Export Refinery Terminal has 2 separate loading facilities.

A tanker loading facility consisting of 3 berths for bulk petroleum liquids is operated under a lease agreement by PETROMIN-Mobil Yanbu Refinery Company Limited (PEMREF).

A chemical loading facility with one berth is likewise operated under a lease agreement by Saudi Yanbu Petrochemical Company (YANPET).

Pemref Standard Pre-Arrival Message:

Pemref have requested Agents in Yanbu to transmit this telex as a standard procedure to vessels calling at the Pemref Terminal for the *first time.*

Format of the telex is:

Quote

1. To provide ETA messages 72, 48 and 24 hours prior to arrival. Changes of 2 hours or more should be updated in separate message.
2. In addition to the standard port pre-arrival message to advise with the 72 hour ETA or as soon as possible thereafter:
   (AA) Where due to load more than one grade/parcel of cargo, the preferred order of loading and configuration of grades/manifolds from forward.
   (BB) Ship's maximum draft on sailing.
   (CC) Max. height of manifolds above water-line at completion of deballasting.
   (DD) If shore reducers required and sizes.
   (EE) Whether slops are chemical free.
   (FF) On first call at Pemref Terminal (or where not previously given), distance of parallel hull section forward and aft of manifold centre line in light ship condition.

Berth Information: Pemref operates three berths, all equipped with shore gangways and deballasting facilities. Shore reducers available, but require ship's gear for lifting on board. Designated service of loading arms given below from West to East.

Berth No. 42: Vessels berth port side to jetty facing West. Max. depth water 13.5 m. Loading arms: Fuel oil or ballast/fuel oil or ballast/jet/ADO or gasoline/jet/ADO or gasoline. Twelve inch except fuel oil/ballast arms which ten inch.

Berth No. 54/55: Vessels berth starboard side to berth facing West. Max. depth water 18.5 m. Loading arms: Fuel oil or ballast/fuel oil or ballast/ADO or gasoline/gasoline/jet/ADO or gasoline/gasoline all 16 in.

Ballast/Slops: Sea discharge of cargo tank ballast not permitted. Adequate shore ballast reception facilities available, but cannot accept chemicals.

Inert Gas: Saudi Arabia is signatory to IMO Solas Regulations, requiring fitted vessels to have cargo spaces fully inerted prior to loading volatile petroleum products.

Mooring Arrangements: Minimum moorings required:

Forward – Three headlines/three breastlines/two spring lines.

Aft – Three stern lines/three breastlines/two spring lines.

Mixed mooring not permitted. All mooring in same direction, and service must be of same material and type.

Cargo Information: Generally density and temperature not available until soon after commencement. Loading cargo is blended directly to vessel, therefore typical densities for grade/product being loaded should be used until actual available. Cargo is metered at jetty, and quantity, density and temperature available from Control Operator.

Cargo nomination and berthing information will be advised separately.

Pemref Terminal

Unquote.

PEMREF Facilities Particulars:

1. Berth No. 42 is located in the inner basin. It consists of a fixed loading platform with semi-flexible mooring and breasting dolphins. The berth will accommodate tankers from 5,000 d.w.t. to 35,000 d.w.t.
2. A ballast water treatment facility is located adjacent to Berth No. 42 and is capable of processing ballast water from tankers loading at the Export Refinery Terminal including the Chemical Berth.
3. The inner basin has been dredged to a depth of 13.5 m. below LAT. A turning basin with a diameter of 400 m. allows for ready access to the basin.
4. There is a jetty trestle with 2 outer loading berths connected to the shore by a free standing trestle and causeway. The 2 loading berths are fixed structures with fixed loading platforms and semi-flexible mooring and breasting dolphins. These berths are numbered 54 and 55. They are capable of handling tankers up to 150,000 d.w.t. in size. The water depth alongside these 2 berths has been dredged to 18.5 m. below LAT.

PEMREF Berth Particulars: Berth No. 42:

Min. Size Vessel: 5,000 d.w.t.
Max. Size Vessel: 35,000 d.w.t.
Deck Level of Loading Platform: 5.0 m./16.4 ft.
Depth Alongside Berth: 13.50 m./44.28 ft.
Max. LOA: 220 m.
Max. Draft: 12.15 m./39.85 ft.
Loading Arms (number and size): 2×10 in. – Black Products/Ballast
4×12 in. – White Products
Quick Disconnect Coupling Size: 6 in., 8 in., 10 in., 12 in., 16 in.
Bunker Fuel Arms
(number and size): 2×6 in.
Quick Disconnect Coupling Size: 6 in., 8 in., 10 in.
Max. Rate per Loading Arm: 10 in. – 1,430 cu.m./hr.
12 in. – 1,590 cu.m./hr.
Max. Rate per Bunker Arm: Heavy Fuel 480 cu.m./hr.
Diesel Fuel 160 cu.m./hr.
Number of Breasting Dolphins: 4
Number of Mooring Dolphins: 4
Available Mooring Hooks: 20
Distance between Centre of
Inner Breasting Dolphins: 33.0 m./108.25 ft.
Normal Shipside to Berth: Port
Shore Gangway Provided: Yes
Water to Manifold 12.80 m./42 ft.
Max. Height: 2.59 m./8 ft. 6 in.
Min. Height: 0.25 m./sec.
Max. Approach Velocity: ±5 degrees
Max. Approach Angle:

Berths No. 54 and 55: (Also see "Shipmaster's Report" – March 1985).

Min. Size Vessel: 30,000 d.w.t.
(see Note No. 1)
Max. Vessel Size: 150,000 d.w.t.
Deck Level of Loading Platform: 7.0 m./22.96 ft.
Depth Alongside Berth: 18.50 m./60.28 ft.
Max. LOA: 300 m.
Max. Draft: 16.65 m./54.60 ft. (See Note 2 below).
Loading Arms
(number and size): 7×16 in.
Quick Disconnect Coupling Size: 6 in., 8 in., 10 in., 12 in., 16 in.
Bunker Fuel Arms
(number and size): 2×10 in.
Quick Disconnect Coupling Size: 6 in., 8 in., 10 in., 12 in.
Max. Rate per Loading Arm: Heavy Fuel – 4,378 cu.m./hr.
White Products – 1,590 cu.m./hr.
Max. Rate per Bunker Arm: Heavy Fuel 1,590 cu.m./hr.
Diesel Fuel 160 cu.m./hr.
Number of Breasting Dolphins: 4
Number of Mooring Dolphins: 4
Available Mooring Hooks: 20
Distance between Centre of
Inner Breasting Dolphins: 56.0 m./183.7 ft.
Normal Shipside to Berth: Starboard
Shore Gangway Provided: Yes
Waterline to Manifold
Max. Height: 19.00 m./62 ft. 4 in.
Min. Height: 4.50 m./14 ft. 9 in.
0.18 m./sec.
Max. Approach Velocity: ±5 degrees
Max. Approach Angle:

Note 1: Tankers of less than 30,000 d.w.t. may be accepted at the Berth Nos. 54 and 55 if the light water line flat side forward and aft of the manifold is at least 34.0 m./111.5 ft., and subject to weather conditions.

Note 2: Shipmaster's Report: September 1995.

For PEMREF Jetties No. 54 and 55, there are some restrictions. We received the following Telex:

"Propeller to be fully submerged and trim limited to not more than 0.015 LOA while berthed at Jetties No. 54 and 55.

A stand-by tug will be assigned, at vessel's cost, for periods vessel is out of compliance".

YANPET Facilities Particulars: There is one chemical berth, No. 41 located in the inner basin. It can accommodate tankers from 5,000 to 35,000 d.w.t. The turning circle into the inner basin is 400 m. in diameter and is dredged to 13.5 m. below LAT.

The facilities are designed for the export and import of petrochemical products; these include: mono-ethylene glycol (MEG), di-ethylene glycol (DEG), glycol blackflush, hexene, vapour return, propylene, process water, and caustic soda.

YANPET Berth Particulars:

Minimum vessel size: 5,000 d.w.t.
Maximum vessel size: 35,000 d.w.t.
Maximum LOA: 200 m.
Maximum beam: No restriction.
Deck level of loading platform: 5 m.
Depth alongside berth: 13.5 m.
Maximum draft: 12.2 m.
Loading arms:

Size	*Product*	*Max. Loading Rate*
6 in.	Hexene	50 cu.m.p.h.
6 in.	Propylene	
10 in.	Ballast water	
	HFO & DO (bunkers)	
10 in.	M.E.G.	750 cu.m.p.h.
6 in.	Glycol backflush	
6 in.	D.E.G.	113 cu.m.p.h.
4 in.	Caustic Soda	50 cu.m.p.h.
6 in.	HFO & DO (bunkers)	

Quick disconnect coupling size – various adaptors available
Number of breasting dolphins – 4
Number of mooring dolphins – 4
Available mooring hooks – 20
Distance between centre of inner breasting dolphins – 33 m.
Daylight berthing only. No restrictions for unberthing.
Normal shipside to berth – Starboard.
Shore gangway provided.
Waterline to manifold Maximum height – 12.8 m.
Minimum height – 2.59 m.
Maximum approach velocity – 0.25 m./sec.
Maximum approach angle – ±5°
Fresh water available upon request.
Bunkers currently not available.

Ballast Water Facility: The Export Refinery Terminal incorporates a ballast water facility which is capable of processing ballast water from vessels loading at the 3 berths at the terminal and from the Chemical Berth, No. 41.

The facility has 3 initial storage tanks of 50,000 cu.m. each, which wil receive ballast water direct from the tankers.

Ballast water is passed through the facility's separator system; clear water is then passed to retention ponds prior to being pumped to sea and recovered oil is passed to the recovered oil system.

All ballast water handled at the facility is monitored to ensure compliance with current environmental standards and requirements.

Vessels loading at Crude, NGL and Chemical Berths will not be abl to discharge slops to the shore facility.

Bunkers: Not available alongside but may be obtained at the anchorag from barges.

Berthing Criteria: Max. Berthing Velocity:

Chemical Berth No. 41 0.25 m./sec.
Berth No. 42 0.25 m./sec.
Berth No. 54 0.18 m./sec.
Berth No. 55 0.18 m./sec.
Max. approach angle: ±5 degrees

Environmental conditions such as current, wind speed and sea stat should be considered in ensuring the above maximum criteria is no exceeded at final docking stage.

Mooring Arrangements: Each mooring dolphin, outer breasting dolph and loading platform is equipped with either double or triple quick releas mooring hooks, each combination of double or triple hooks having mooring capstan with safe working load of 3 tons.

The terminal will provide a required mooring arrangement for th loading berths. The mooring arrangement shows the number a position of the mooring hooks provided on each berth. The moor hooks are designed to handle 1 mooring line per hook.

Mooring boats will be utilised to run mooring lines to the moor dolphins from the tanker. The terminal will provide suitable messeng lines for heaving the mooring lines to the hooks.

In order to ensure the integrity of the berth facilities it is recommend that tankers in the 50,000 d.w.t. to 150,000 d.w.t. range provides moor wires at least for their spring and breast mooring lines. Th recommended minimum for tankers from 50,000 d.w.t. – 150,000 d.w is 8 mooring wires each end.

Tankers with the recommended mooring wire systems will be giv berthing preference during adverse or unsettled weather conditions.

All mooring lines should be of similar size and material and should be in good condition. Manual brakes must be set on tension winches when mooring is completed. The ship's crew must tend moorings at all times to maintain the ship's position at the berth.

Under no circumstances may the longitudinal or lateral movements of a vessel exceed the limited working envelopes (working areas) of the connected loading arms.

Docking Monitoring System: A system of velocity and distance indicating and recording instruments are provided for the 4 berths. The transducers are positioned on the berth structure with electronic equipment housed in the control room. An illuminated display is located on the berth structures to provide an indication of fore and aft ship distance and approach speed to the ship's Pilot.

Gangway: The Export Refinery Terminal will provide a gangway to the ship at each berth. Each berth is equipped with a hydraulically operated self adjusting gangway. The gangway provides the only permissible means of access to and from the tanker.

Ballast Water: Tankers arriving at the Export Refinery Terminal with clean ballast, which meets the current environmental standards of King Fahd Industrial Port, will be allowed to discharge the ballast water direct to the sea.

The discharge of clean ballast water into the sea from cargo tanks will only be permitted with the approval of the Harbour Master or his designated representative.

A monitoring procedure will be employed during the discharge of clean ballast to ensure quality is maintained.

Tankers arriving with "dirty ballast" or ballast which does not meet the port requirements must discharge ballast to the Terminal's ballast facility.

Details of this operation will be agreed with the Terminal operator when 'operation agreement' is made.

Slop Residues: Slop oil may be discharged to the ballast reception facilities consistent with content restrictions. Slop residues containing chemicals or emulsifying agents may not be accepted.

Prior to arrival at the Terminal, vessel's Master must request use of this facility giving following details:

1. Total quantity to be discharged.
2. Quantity of oil.
3. Quantity of water.
4. Type of chemicals contained if any.

Loading Arms – Chemical Berth – Berth No. 41: The Chemical Berth is equipped with 8 loading arms, 2×10 in. diameter, 5×6 in. diameter and 1×4 in. diameter as detailed below:

Arm Size	*Product*
6 in.	Hexene.
6 in.	Propylene.
10 in.	Heavy Fuel Oil (Bunkers)/Diesel Fuel Oil (Bunkers)/Ballast Water.
10 in.	Mono-ethylene Glycol (MEG).
6 in.	Glycol Backflush.
6 in.	Die-ethylene Glycol (DEG).
4 in.	Caustic Soda.
6 in.	Heavy Fuel Oil (Bunkers)/Diesel Fuel Oil (Bunkers)

Each loading arm is fitted with a quick disconnect coupler. Adaptors are available to fit a range of ships' manifolds.

The loading arms and quick disconnect couplers are hydraulically controlled from a central operating location. A wandering control lead is available for local control on board the vessel for connecting by the berth operator.

Loading Arms – Berth No. 42: The berth is equipped with 6 loading arms, 4×12 in. and 2×10 in. as detailed below. 2×6 in diameter bunker loading arms are also provided.

Arm Size	*Product*
10 in.	Marine Heavy Fuel Oil/Ballast Water.
10 in.	Marine Heavy Fuel Oil/Ballast Water.
6 in.	Heavy Fuel Oil Bunker/Diesel Fuel Oil Bunker/Bunker Cutter Stock.
12 in.	Jet Fuel.
12 in.	ADO/Leaded Gasoline.
12 in.	Jet Fuel.
12 in.	ADO/Leaded Gasoline.
6 in.	Diesel Fuel Bunkers/Heavy Fuel Bunker.

Each loading arm is fitted with a quick disconnect coupler. Adaptors are available to fit a range of ships manifolds from 6 in. to 16 in. ASTM.

The loading arms and quick disconnect couplers are hydraulically controlled from a central operating location. A wandering control lead is available for local control on board the vessel for connecting by the berth operator.

Loading Arms – Berth Nos. 54 and 55: The berths are each provided with 7 loading arms of 16 in. diameter and 2 bunker fuel loading arms of 10 in. diameter, as shown below:

Arm Size	*Product*
16 in.	Marine Heavy Fuel Oil/Ballast Water.
16 in.	Marine Heavy Fuel Oil/Ballast Water.
10 in.	Heavy Fuel Oil Bunker/Diesel Fuel Oil Bunker/Bunker Cutter Stock.
16 in.	Naphtha/ADO.
16 in.	Leaded Gasoline/Unleaded Gasoline.
16 in.	Jet Fuel.
16 in.	ADO/Naphtha.
16 in.	Leaded Gasoline/Unleaded Gasoline.
10 in.	Diesel Fuel Oil Bunker/Heavy Fuel Oil Bunker.

Each loading arm is fitted with a quick disconnect coupler. Adaptors are available to fit a range of ships' manifolds from 6 in. to 16 in. ASTM.

The loading arms and quick disconnect couplers are hydraulically operated from a centrally located operating panel. A wandering control lead is also available for remote use when connecting arms to ship's manifold.

Grounding: All cargo/bunker loading connections are equipped with electrical insulating flanges, and therefore ships to shore bonding is not necessary.

Maximum Loading Rates:

Berth No. 42		
Heavy Fuel Oil	2,860 cu.m./hr.	18,000 bbls./p.h.**
Leaded Gasoline	3,180 cu.m./hr.	20,000 bbls./p.h.**
Automotive Diesel Oil	3,180 cu.m./hr.	20,000 bbls./p.h.**
Jet Fuel	3,180 cu.m./hr.	20,000 bbls./p.h.**
Heavy Fuel Bunker	480 cu.m./hr.	3,000 bbls./p.h.
Diesel Fuel Bunker	160 cu.m./hr.	1,000 bbls./p.h.
Berth Nos. 54 and 55		
Heavy Fuel Oil	8,756 cu.m./hr.	50,000 bbls./p.h.**
Leaded Gasoline	5,170 cu.m./hr.	32,500 bbls./p.h.
Unleaded Gasoline	5,170 cu.m./hr.	32,500 bbls./p.h.
Naphtha	5,170 cu.m./hr.	32,500 bbls./p.h.
Automotive Diesel Oil	5,170 cu.m./hr.	32,500 bbls./p.h.
Jet Fuel	5,170 cu.m./hr.	32,500 bbls./p.h.
Heavy Fuel Bunker	1,590 cu.m./hr.	10,000 bbls./p.h.
Diesel Fuel Bunker	160 cu.m./hr.	1,000 bbls./p.h.

Note: Loading rates for products marked ** are for 2 loading arms availability; rates should be halved to indicate rate per loading arm.

PEMREF Operational Agreement: Prior to any operational activity after a tanker is moored, an "Operational Agreement" will be made between the ship's responsible cargo Officer and the terminal representative. The Operational Agreement requires an exchange of information between the ship and terminal covering the following items:

1. Grades and quantities of cargo/bunkers required.
2. Loading rates and quantities per grade for start, maximum and topping off.
3. Standby time required for stopping loading and slow down for each grade.
4. Ballast quantity to be discharged to sea or ballast facility.
5. Slop residues to be discharged to facility.
6. Manifold connections/loading arms to be used for each operation.
7. Sequence of loading different grades/products.
8. Estimated time required to carry out each operation, to give total expected load time.
9. Information regarding (a) Communications, (b) Emergency Shutdown Procedures, (c) Tank Venting System, (d) Maximum pressures allowed, etc.
10. Has Ship/Shore Safety Check List been completed. (Also see "Appendix").

Inert Gas Requirements:

All vessels scheduled to load at PEMREF which are fitted with an inert gas system, must comply fully with the rules, and arrive, where applicable, with tanks fully inerted to below 8% Oxygen content.

Vessels which do not comply with the Rules will face delays in berthing, removal from the berth and possible rejection for loading.

Ship/Shore Safety Check List: Prior to operations on board tankers at the Terminal berths a 'Ship/Shore Safety Check List' will be completed by both ship and Terminal representatives who will together inspect the necessary items listed. Further checks will be made at intervals throughout the vessels time at the berth.

Safety Requirement Letter: The Master of each tanker will be given a letter concerning safety requirements. Receipt of the letter has to be acknowledged by signing and returning a copy of the letter to the Terminal representative.

Sea Valves: All sea-valves and overboard valves connected to the tanker's cargo system have to be closed and lashed prior to commencement of cargo transfer operations.

Loading Signal: During loading the international code flag "B" shall be displayed during daylight hours. During darkness a red loading light shall be displayed.

Shore Emergency Signals: Continuous sounding of vessel's fog signal.

Emergency Towing Wires: While at the Terminal, tankers have to provide emergency towing wires of adequate strength to move the tanker off the dock. The towing wires are to be positioned on the offshore bow and stern quarter of the tanker and the outboard eye should be maintained approximately 1 m. above water level at all times.

Emergency Pilot Boarding: A pilot ladder of sufficient length should be at all times on standby at the offshore side of the tanker's main deck. In an emergency the pilot ladder should be lowered to 3 ft. above the water line to enable boarding of the Pilot if this should become necessary.

AL MUAJJIZ TERMINAL: Lat. 23° 29' N., Long. 38° 24' E.

Location: 15 miles South of King Fahd Industrial Port Control tower and 21 miles from S2 Buoy.

Pilotage: All vessels intending to load cargo at Al Muajjiz Terminal are required to embark the Port Pilot at the South Channel Pilot Station in position Lat. 23° 27' N., Long. 38° 27' E., and on the outward passage they must disembark the Pilot at the South Channel Pilot Station.

Berthing:

	Berths No. 101 & 103	*Berth No. 102*
Tanker size (approx.)	35,000 d.w.t. – 300,000 d.w.t.	100,000 d.w.t. – 500,000 d.w.t.
Max. LOA	347 m.	412 m.
Max. draft	26.2 m.	29.6 m.
Loading Arms	4 × 20 in.	4 × 20 in.
Quick Disconnect coupling size	16 in., 20 in., 24 in.	16 in., 20 in., 24 in.
Max. Rate per Loading Arm	30,000 b.p.h.	30,000 b.p.h.
Number of Breasting Dolphins	4	4

The Terminal consists of a jetty trestle with 3 loading berths connected to a shore causeway. All 3 loading berths are fixed structures with fixed loading platforms, breasting dolphins and mooring dolphins. The terminal has 10 shore tanks, each of 1,000,000 bbls. capacity.

So far there is no shore metering system available and therefore Bill of Lading figures are determined by using ship's figures.

Notice to Mariners: No. 223/1990.

A new oil loading terminal facility has been built South of King Fahd Industrial Port as Ras Al Ma'ajjiz (as spelt on the relevant chart). Details as follows:

1. From a position on the coast of 23° 48.870' N., 38° 24.355' E., a causeway extends for 0.391 nautical miles on a bearing of 225°.
2. The terminal jetty consists of a line of dolphins connected by catwalks extending from 23° 48.633' N., 38° 23.923' E., for 0.751 nautical miles on a bearing of 135°. A catwalk extends from the end of the causeway to the jetty.
3. Navigation lights and loading platforms as follows:

	Position	*Depth Alongside*	*Characteristic*
North End	–	–	Morse (U).G.
South End	–	–	Morse (U).G.
Berth 103	23° 48.528' N. 38° 23.984' E.	28.8 m.	Morse (U).R.
Berth 102	23° 48.347' N. 38° 24.183' E.	32.5 m.	Morse (U).R.
Berth 101	23° 48.163' N. 38° 24.381' E.	29.0 m.	Morse (U).R.

Ballast: No facilities for dirty ballast.

Authority: King Fahd Industrial Port, Yanbu.

GENERAL CARGO AND CONTAINER TERMINAL: This facility is situated to the North of the Crude Oil Terminal. It has 7 berths along a 1,784 m. wharf. These include berths for Ro-Ro, heavy lift, conventional general cargo and cellular container vessels. The channel inside the barrier reef has been dredged to 14 m. below LAT and there are 2 turning basins at either end of the 2 km. berth frontage.

The Ro-Ro facility, adjacent to Berth No. 1, situated at the Northern end of the berth frontage, with a dredged depth of 14 m. below LAT is operational. A permanent ramp with a 1:25 gradient and an overall width of 34 m. is located at right angles to the berth frontage. Horizontal "Sumimoto" fendering is fixed to the ramp face at a height of 0.75 m. above LAT. The deck of the ramp is 2.0 m. above LAT rising to 2.36 m., 3.0 m. inshore from the ramp face. Three bollards, each rated at 90 tonnes are positioned either side of the ramp deck, providing a clear width of approximately 31 m. Additional bollards, also rated at 90 tonnes, are situated on the berth frontage, the first 30 m. South of the ramp face and thereafter at approximately 30 m. intervals. "Sumimoto" 'pie' type fendering, spaced at 10 m. intervals, is provided on the berth frontage.

The maximum uniform live loads on the Ro-Ro ramp is 6.25 tonnes/sq.m. The maximum concentrated load is 1,100 tonnes when used on a Scheurle platform trailer, which provides for a 28 tonnes maximum axle load with a maximum load on a contact area of 200 m.×455 mm. of 7 tonnes: or 60 tonnes on 0.3 m.×0.3 m. (as from 20 ft. containers stacked 3 high): or, 91 tonnes on 0.6 m.×0.5 m. (as from 40 ft. containers stacked 3 high): or, 80 tonnes front axle load of a container fork lift truck.

Cargo work is carried out by SEAPA stevedores and is continuous 7 days a week, 24 hours a day with 2 × 1 hour breaks. There are 3 container gantry cranes always available.

Particulars of the container cranes are:

Safe working load	40 tons
Outreach	34.5 m.
Hoisting height above rail	26.0 m.
Elevation of wharf above Maximum HW	3.17 m.

Cycle time is 90 secs. or 40 containers per hour.

The 3 container cranes are numbered 1, 2 and 3 from the Ro-Ro ramp end, container tracks continuous over 500 m. (Berth Nos. 1 and 2). The berthing arrangements are:

		Length of Wharf
Berth No. 1	Ro-Ro Terminal	200 m.
Berth No. 2	Container Terminal	300 m.
Berth No. 3	General Cargo	200 m.
Berth No. 4	Heavy Lift	180 m.
Berth No. 5	General Cargo	180 m.
Berth No. 6	General Cargo	180 m.
Berth No. 7	General Cargo	180 m.

A minimum clearance of 15 m. between vessels at adjacent berths is required during berthing/unberthing operations.

BULK TERMINAL: The Bulk Terminal consists of a wharf 500 m. in length with 2 dry bulk berths, Nos. 21 and 22. The wharf is 33 m. wide and can accommodate bulk carriers up to 60,000 d.w.t. The water off the wharf is dredged to 15.5 m. below LAT. The maximum draft allowed is 13.9 m. (46 ft. 07 in.).

PEMREF's sulphur loading equipment is located at the Bulk Terminal's "Sulphur Berth" (Berth No. 21) and is capable of loading prilled sulphur at a maximum rate of 420 t.p.h.

A slewing arm loader is designed to operate along the face of the sulphur dock to any hold of vessels up to 30,000 d.w.t., without requiring movement of the ship.

Ships mooring at the Bulk Terminal will be required to provide gangway access to ship.

BALLAST: The discharge of ballast water containing quantities of oil, or high levels of mineral or chemical pollutant, into the water of the Port is prohibited.

The discharge of ballast water from segregated or permanent ballast tanks into the waters of the Port will be permitted provided that the Master signs a declaration that the permanent ballast is clean and not affected by any pollutants.

The discharge of clean ballast water, from cargo tanks, into the waters of the Port will only be permitted if the oil content of the ballast water does NOT exceed 10 parts per million. Cargo tank ballast water will be sampled on the arrival of the vessel and measurements taken to determine the total oil concentration in the water. Subject to the results of the measurements being within the prescribed limits, the Harbour Master, or his deputy, will approve the start of deballasting. Throughout the cargo tank ballast discharge the oil concentrations in the discharged water will be closely monitored and the results reported to the Harbour Master, or his deputy, who will decide when such discharge shall stop.

MEDICAL: Medical facilities are available for the treatment of emergency cases only. Masters should, if possible, provide advance notice, to their Agent, of their requirements, together with name, rank, nationality, passport or seaman's identity book number including date of issue and place of issue.

FRESH WATER: Potable fresh water is available at the General Cargo and Container Terminal, Bulk Terminal and Export Refinery Terminal. Fresh water is not presently available at the Crude Oil Terminal and NGL Terminal. Fresh water is also available in small quantities at the anchorage from a tug. Masters should contact their Agent well in advance to establish availability.

FUEL: Bunker fuel is available from a bunker barge at the anchorage or from a bunker barge alongside at the General Cargo and Container Terminal.

Report: January 1995.

Bunker supply is available at Berth No. 21, Bulk Terminal, King Fahd Industrial Port. This facility, however, is only open to those vessels which are loading or discharging at King Fahd Industrial Port. Thus, vessels will not be accepted for 'bunkering only'.

The supplier is Bakri Bunker Trading Company, Jeddah.

The bunker specifications are as follows:

(a) Straight run fuel oil of maximum 180 CST, ex-Yanbu Refinery with maximum water percentage of 0.5.

(b) Marine gas oil, ex-Yanbu Refinery with maximum water percentage of 0.1.

Posted prices of both fuel oil and MGO are the same as Jeddah prices.

Restrictions at berth:

1. Maximum draft: 13.9 m.
2. Maximum d.w.t.: 60,000 tons.

CONSULS: At Riyadh and Jeddah.

Afghanistan
Algeria
Argentina
Australia
Austria
Bahrain
Bangladesh
Belgium
Brazil
Cameroon
Canada
China
Denmark
Djibouti
Egypt
Ethiopia
Finland
France
Gabon
Gambia
Germany
Ghana
Greece
Guinea
India
Indonesia
Iran
Iraq
Ireland
Italy
Japan
Jordan
Kenya
Korea, Rep. of
Kuwait
Lebanon
Malaysia
Malta
Mauritania
Mexico
Morocco
Netherlands
New Zealand
Nigeria
Norway
Oman
Pakistan
Philippines
Portugal
Qatar
Senegal
Sierra Leone
Singapore
Somalia
Spain
Sri Lanka
Sudan
Sweden
Syria
Thailand
Tunisia
Turkey
U.A.E.
United Kingdom
U.S.A.
Uruguay
Venezuela
Yemen

REPAIRS: While alongside berths, engines and propulsive machiner must be ready at all times to leave the berth at 10 minutes' notice, unde full power.

No repairs of any kind are permitted alongside any berth unles mutually agreed by the Master, Harbour Master and Terminal Manage

Any repairs involving "Hot Work" will be subject to special condition contained in the "Hot Work Permit" which must be obtained from th Harbour Master.

SURVEYORS:

Classification Society Surveyors:

American Bureau of Shipping, P.O.Box 66, Jeddah. Tel: 642-306 Telex: 401015 ("BASHIP SJ").

Bureau Veritas, c/o Orri Navigation Company, Orri Building, Mi Road, P.O.Box 737, Jeddah – 21421, Saudi Arabia. Tel: 643-2144/35 Telex: 400129 ("MIDSHIP SJ").

Lloyd's Register, Shobokshi Maritime Building, P.O.Box 6560, Jedda Saudi Arabia. Tel: 667-5954 ext. 456. Telex: 402654 ("SHOBOK SJ

Det Norske Veritas, c/o Haji Abdullah Alireza, Jeddah, Saudi Arab Tel: 665-6321 or 642-2233. Telex: 401037 ("REZA SJ").

Petroleum Inspection Companies:

Caleb Brett, Arabian Inspection & Survey Company Ltd., P.O.Box 1 Yanbu. Tel: 322-4356. Telex: 661030 Aet SJ.

G. Watson Gray (Analysts), P.O.Box 88, Yanbu. Tel: 322-43 Telex: 621027 ("KANOO SJ").

S.A.P.E.C. Redwood, P.O.Box 738, Yanbu. Tel: 322-6825/80 Telex: 661176 ("REDWUD SJ").

CUSTOMS: *Import/Export Prohibitions:* All goods to be imported into, or exported from, the Kingdom of Saudi Arabia are subject to examination by the Customs Authorities. The importation of certain articles is strictly prohibited, for example:

Explosives and Firearms, including air rifles
Implements of war of any kind, including antiques
Alcoholic beverages of any kind
Religious matter not pertaining to the Moslem faith
Pig meat or pig products
Playing cards and gambling games or devices
Narcotics
Pornographic material.

Trafficking in these items between ships, and between ships' crews and shore personnel, is strictly prohibited.

Also see "General".

TIME: The Time Zone is GMT plus 3 hours.

SHORE LEAVE: Ship's personnel are NOT permitted ashore, nor on the wharves FOR ANY PURPOSE WHATSOEVER (this includes the reading of the ship's draft) until Pratique is granted, and then are allowed on the wharves only if actually engaged in duties in connection with operations of discharging, deballasting or loading.

All shore leave is contingent upon compliance with Saudi Arabian Quarantine and Passport Regulations. For current details concerning these regulations and shore leave restrictions the ship's Agents must be consulted.

SAFETY/POLLUTION: *Safety Requirements:* A letter concerning safety requirements will be given to the Master of each vessel by the Terminal Supervisor at the Crude Oil Terminal.

Receipt of the safety requirement letter has to be acknowledged by countersigning and returning a copy to the Terminal Supervisor.

Ship/Shore Safety Check List and Precautions: Terminals in King Fahd Industrial Port follow the recommended safe practice for loading, discharging and related operations as contained in the International Oil Tanker and Terminal Safety Guide and the International Chamber of Shipping's Tanker Safety Guides for Chemicals and Liquefied Gas, or other comparable Guides.

Prior to commencement of any cargo/bunker transfer operations, a ship/shore check list is to be completed and signed by responsible personnel from ship and shore. Each item should be positively verified before it is ticked and, if necessary, a physical check will be performed.

Regular inspections by the Terminal Staff will be made with the ship's Master, or his deputy, to ensure that the relevant safe practices are strictly adhered to. The Harbour Master or his deputies may also carry out inspections. If any infringement of the recommended safe practices is observed, the attention of the person in charge will be drawn to the fact and, if the situation is not resolved immediately, all operations must cease. In the event of continued and blatant disregard of the regulations, the vessel may be ordered off the berth for appropriate action to be taken by the Charterers and Owners concerned.

Tank cleaning and/or gas freeing is only permitted with the approval of the Terminal Manager and Harbour Master and only if tank washings can be discharged into reception facilities (Also see "Appendix").

Crude Oil Terminal Emergency Procedures: Emergency procedures, both on board and offshore, shall be introduced in the event that normal operational practice has to be interrupted or suspended as a result of an unforeseen incident that would create unsafe conditions while loading crude oil at one of the berths of the Crude Oil Terminal.

Crude Oil Terminal Emergencies which would require immediate action by terminal personnel or shipboard personnel are:

1. Electrical storm.
2. Electrical power failure.
3. Mechanical failure.
4. Leakage, spill.
5. High gas concentration.
6. High winds exceeding 35 knots.
7. Fire.

Actions to be taken shall be determined by the type and severity of the incident and are:

(a) Stop loading.
(b) Comply with emergency reporting procedures.
(c) Disconnect loading/bunker arms.
(d) Fire facilities standby.
(e) Standby for unmooring.
(f) Departure from berth.

Emergency actions should be initiated by offshore personnel when an emergency is detected onshore or on board that tanker. It is important that the first able-bodied person or persons at the scene of the emergency should take whatever action is appropriate and necessary to protect personnel, minimise the hazard and to limit the extent of damage.

All Crude Oil Terminal personnel have to be familiar with the King Fahd Industrial Port Emergency Plans and, on declaration of an emergency for the Port, follow the procedures as listed in these emergency plans. The King Fahd Industrial Port Emergency Plans apply to all areas within the port limits as defined by the Rules and Regulations for King Fahd Industrial Port.

Oil Pollution Prevention: Any oil pollution of the waters of the King Fahd Industrial Port will be treated as a very serious matter. In order to prevent oil pollution, the Port Authority carries out continuous surveillance of the Port area. If any vessel is seen, or there is evidence to suggest a vessel is polluting the water of the Port, instructions will be given for all loading/discharging/deballasting operations to cease. A detailed investigation will be carried out and any vessel held responsible for pollution, will be required to pay the costs of all clean up operations and any fines that may be levied.

Masters, Owners and Charterers are reminded:

A. That before any vessel enters the Port, the Master is required to notify the Pilot of any special conditions, difficulties or peculiarities such as defective equipment, lines or gear, which might impose special hazards in connection with handling, mooring or loading/discharge of vessels ("Instruction to vessels and conditions of use of all berths within King Fahd Industrial Port").
B. In addition to (A) above, tankers and gas carriers are obliged to give a similar undertaking in their pre-arrival information.
C. All tankers, gas carriers and any vessels bunkering are required under the Rules and Regulations for Seaports of the G.C.C. Member States, Part 3, Section 4, to ensure all alarms and safety trips are tested and working, and that all pipes, valves, hoses or other apparatus shall be in good condition and free from leakage. Drip pans and deck scuppers shall be in position and plugged.
D. Suitable sorbent material or other materials or equipment should be readily available on deck in order to clean up any spillage.

GENERAL: *Emergency Plans:* Information will be supplied to each vessel arriving at the various terminals in the port detailing action to be taken in the event of an emergency situation arising. Masters, officers and crew should familiarise themselves with this information.

A Port Emergency may be declared in the event of:

a fire on a terminal or ship;
a pollution incident occurring from a terminal or ship;
a collision, grounding, sinking or other major incident occurring within the Port area.

A Port Emergency can only be declared and terminated by the Harbour Master who will make a broadcast on VHF to this effect. Instructions will also be issued to inform all vessels that a Port Emergency has been declared. It is vital, therefore, that all vessels should have their VHF available for immediate operation and that provision is made for a continuous listening watch to be maintained in the event of a Port Emergency being declared.

The alarm may be raised by:

Contacting King Fahd Industrial Port Control by VHF Channel 16,
or by continuous sounding of fog signalling apparatus, or
by visual means, or
if ashore by whatever means is available.

Initial action should be taken by those persons at the scene until the arrival of assistance.

The control of all operational activities afloat, and the movement of vessels during a declared Emergency will be exercised by the Harbour Master who will undertake the direction of these activities through King Fahd Port Control and will liaise with the Port Authority.

All loading or discharging of dangerous and/or flammable goods in the Port must cease immediately a Port Emergency is declared.

Port Regulations: Every vessel which arrives at the port must have a copy of the Rules and Regulations for Seaports issued by the Co-operation Council for the Arab States of the Gulf on board. On first arrival at the port, these Rules and Regulations must be obtained.

Saudi Arabian Government Regulations: Saudi Arabian Government Regulations are strictly enforced, and Masters having any doubts concerning the interpretation of these regulations are urged to consult their agent. While in Port, whether at anchorage or at a berth, the vessel's personnel are under the jurisdiction of Saudi Arabian Laws.

The taking of photographs while the ship is in port is strictly forbidden by the Saudi Arabian Government.

All alcoholic beverages, including beer, table wines and liquors, are to be under lock and key during a vessel's stay in port. The possession and/or consumption of alcoholic beverages is prohibited in Saudi Arabia. Penalties are severe and major delays to vessels can be incurred due to Government investigations of violations.

Provisions: Frozen meat (except pig meat), fish and fresh vegetables are available locally, however Masters are advised to contact their Agent well in advance to establish availability and prices.

Stores: Local availability of chandlery items is limited and Masters should contact their Agents well in advance to establish availability. Storing not permitted alongside Saudi Aramco berths.

PUBLICATIONS: *Charts:*

British Admiralty Charts:

63 Red Sea – The Brothers to Gezirat el Dibia.
327 Outer approaches to Yanbu.
328 Approaches to King Fahd Industrial Port – Inner Channel Northern part.

United States Defence Mapping Agency Charts:

62016 The Brothers to Jezair Siyal.
62171 Outer Approaches to Madinat Yanbu Al-Sinaiyah Port.
62172 Inner Approaches to Madinat Yanbu Al-Sinaiyah Port.

Saudi Ports Authority Charts, available from King Fahd Industrial Port:

17 Shi'b Ash-Sharm to Marsa Tuwal.
171 Yanbu Al-Bahr King Fahd Industrial Port at Madinat.
175 Sh'b Al Qirn to Marsa Tuwal.

Tide Tables: British Admiralty Tide Tables Volume 2 – Atlantic and Indian Oceans.

Pilot Books: British Admiralty Red Sea and Gulf of Aden Pilot, (and supplements) N. 64.

Lights: British Admiralty List of Lights and Fog Signals – Volume "E".

WEATHER:

Climate: The climatic conditions affecting King Fahd Industrial Port are seasonal. In Winter onshore, air temperatures range from 25°C during the day to about 12°C at night. In Summer air temperatures range from 35°C during the day to 25°C at night. Extreme air temperatures recorded in recent years in the area have been 49°C in May and 6°C in February. Temperatures offshore are generally several degrees lower. Relative humidity varies throughout the year with average values between 65% and 70% in Winter and 50% to 55% in Summer, however values of 100% may occur for short periods around dawn. The average annual rainfall taken over a 4 year period is 3.2 mm.

Winds: A diurnal sea breeze/land breeze cycle occurs almost daily throughout the year and causes wind speeds of 10 knots and above to occur from the N.W. during the late afternoon. Storms occur as frequently as every 5-10 days and sometimes can last as long as 2 weeks. Although there is little drop in barometric pressure and very rarely any precipitation during these storms, wind speeds of up to 30 knots may occur from the North or N.W.

Tides and Currents: The mean tidal range is about 0.34 m., but fluctuations due to non-tidal effect, caused by storms, can be up to about 0.50 m. with a drop in mean sea level during the storm and a significant increase after the storm or as it subsides. Generally tides are semi diurnal with a period of 12 hours 25 minutes. Information to date suggests that the following datums be adopted:

Datum	*Elevation above PLAT* (m.)
Provisional Highest Astronomical tide (PHAT)	1.14
Mean High Water Springs (MHWS)	0.80
Mean High Water (MHW)	0.74
Mean High Water Neaps (MHWN)	0.67
Mean Sea Level (MSL)	0.57
Mean Low Water Neaps (MLWN)	0.47
Mean Low Water (MLW)	0.40
Mean Low Water Springs (MLWS)	0.34
Indian Springs Low Water (ISLW)	0.32
Provisional Lowest Astronomical Tide (PLAT)	0.00

Currents in the area are influenced by local wind conditions, tide, and the general circulatory pattern of the Red Sea. Generally currents within the port have been observed at less than 0.5 knots and run parallel to the coast. However, they are considerably influenced by surface wind activity.

Sea Conditions: Sea conditions can vary considerably within the Port limits. Wave heights in the port area are usually lower than 40 cm. during sea breezes, but during storms, waves in excess of 2 m. are common outside the offshore reefs while waves exceeding 1 m. are common in the inner port area. There is no distinct seasonality in this respect.

Sea Salinity and Sea Water Temperatures: Sea water temperatures are similar to air temperatures and range between 25°C (77°F) and 31°C (88°F). Salinity varies between 37 and 39 parts per thousand.

Visibility: The incidence of fog is rare, but, should it occur, it is more likely during the period November to April. During the summer months from May to September the incidence of poor visibility (less than 5 miles) can be quite high due to mist and haze, or dust particles held in suspension in the atmosphere. However, throughout the year, dust storms may occur obscuring the coastline.

APPENDICES:

APPENDIX "C"

SOLAS Convention – Ratification:

The Government of Saudi Arabia has ratified the SOLAS Convention of 1974 and its 1978 Protocol on 29th May, 1984. Therefore, Saudi Aramco is now obliged to enact the provisions of the said Convention as soon as possible.

Please inform all Shipowner/Operator clients of the following:

1. Effective 1st January, 1985, all vessels of 70,000 d.w.t. and larger calling at any of Saudi Aramco's terminals to load crude/product cargoes must be equipped with an operable inert gas system in use.
2. Effective 1st March, 1985, all vessels of 20,000 d.w.t. and larger calling at any of Saudi Aramco's terminals to load crude/product cargoes must be equipped with an operable inert gas system in use.

Vessels not so equipped will not be accepted for loading as of the effective dates mentioned above.

The SOLAS Convention of 1974 represents a significant contribution to safety of tankers and oil installations and Saudi Aramco recommends that Shipowners take immediate steps to comply with the provisions of this convention as soon as possible and no later than the effective dates mentioned above. No exceptions will be allowed except in the most unusual circumstances.

Signed:

Manager, Oil Supply Planning and Scheduling Dept., Dhahran

APPENDIX "D"

Flammability Check of Ships' Fuel Tanks.

S.P.A. Circular No. 15335/85

Dated: 14.7.1405H/04.04.85G

With immediate effect you are advised to inform all concerned parties that the Port Management of all S.P.A. ports will require additional flammability checks on fuel tanks of OBO carriers and tankers excluding tankers engaged solely in the transport of chemicals.

The purpose of this extra precaution is to deter the use of cargo oil as fuel supplement and will be required on a random basis as advised by the Port Operations Department. The results are to be incorporated (when applicable) on the Gas Free Certificate.

When such a random test is required by the Port Management it will be necessary for the ship's Agent to arrange for the services of a Surveyor.

For your information if the atmosphere in any fuel oil bunker tank be discovered at more than 15% (LEL) then the ship's Master will be required to engage a Surveyor to provide an exact flashpoint analysis of the tank contents.

Furthermore, should the flashpoint be less than the prescribed limits stipulated in Regulation 33 of SOLAS, the Port Management reserves the right to remove the ship from the berth.

Signed:

President and Chairman of the Board Ports Authority,
Kingdom of Saudi Arabia.

SHIPMASTER'S REPORT: March 1985.

Note: Vessel was chartered at very short notice, hence problems experienced are not typical.

Arrival: As soon as vessel was ordered to Yanbu, a pre-arrival information list was telexed to Agents, as per format in "Guide to Port Entry". (Referred to locally as the AA to ZZ List). Unfortunately, these Agents turned out to be in Jeddah, and the list was not forwarded to Yanbu until at least 1200 hrs. on the following day, by which time the vessel had been instructed to repeat the message to a Telex No. given by the Port Control by VHF (who turned out to be the local sub-Agent).

On approach to the Pilot Station, the vessel was instructed, when 24 miles from the Pilot Station, to remain 3 hours steaming from the Pilot Station, to await orders. (When the Pilot eventually boarded, this instruction was discussed with him and it transpired that the Port Radio operators invariably say this although the intention is to remain WITHIN 3 hours steaming of the Pilot Station).

Vessel was brought from sea to the inner anchorage. Anchorage positions have been established as follows:

N1	Lat. 23° 56.64' N., Long. 38° 11.65' E.
N2	Lat. 23° 56.47' N., Long. 38° 11.86' E.
N3	Lat. 23° 56.44' N., Long. 38° 12.14' E.

Depths at these anchorages, as per chart 328, vary from 35 m. to 45 m.

Vessel was berthed between 0116 hrs. and 0333 hrs. next day, on Berth No. 55 (Suez East). Tug Masters are of doubtful ability regarding tug handling, although the tugs themselves are quite powerful. Language difficulties seem to be a part of the cause.

The berth is intended for use by vessels up to 150,000 d.w.t., and a depth of 20 m. alongside was measured by echo sounder.

On berthing at night, quarantine lights are required.

After berthing, no transmissions, except from low power walkie-talkies, are permitted, not even main VHF on low power.

Despite "OO" through "RR" of the pre-arrival message being correctly sent, the Terminal was unaware that the vessel had ballast in cargo tanks. Once they discovered this, the vessel had to be moved 70 m. to use deballasting lines. Contrary to advise in the port information book supplied by King Fahd Port Control, ONLY SEGREGATED BALLAST is permitted to be discharged into the sea.

Cargo: 2 Cargo Surveyors were appointed: S.G.S. on behalf of PEMREF and Watson Gray on behalf of MOBIL. Both were most helpful.

It is understood that, from March 1985, all petroleum cargoes, of any sort, will have to be loaded into INERTED tanks.

We had no difficulty in obtaining loading rates requested, or in reducing rate for topping-off.

Throughout loading, the gangway was attended by an armed guard, and ship's personnel were not permitted on the jetty at any time, not even for the purpose of reading draft.

Loading lines are 16 in. (400 mm.) rigid booms (total of 7) and 2×10 in. (250 mm.) rigid booms for bunkers.

Apparently, it is not uncommon for cargo contamination to occur within the shore tank farm and a number of cargoes, found to be 'off spec.' when loaded, have had to be discharged and sound cargo loaded.

Delays: Pilots require 2 hours' notice for sailing; Agent will not in any case order Pilot until shore figure for cargo has been obtained; this takes 1.5 hours, thus minimum of 3.5 hours between completion and sailing, officially. In fact, Pilot boarded on this occasion 3 hours before completion and a further delay was occasioned only due to cargo papers not being ready.

Port Facilities: Much as described by "Guide to Port Entry". All port installations, except the domestic refinery terminal (Chart 328), are now complete, however, utilisation of these installations appears to be low; only one berth on Container Wharf was in use and product and crude jetties had berths empty for protracted periods.

SHIPMASTER'S REPORT: October 1985.

The port is approached from the West, or the S.S.W., in specifically marked channels which have been surveyed. Water is very deep and though many ships were seen passing through the uncharted regions none were VLCCs and the Pilots at the port recommend the use of the proper lanes.

Accurate positions can be obtained, when approaching from the West, by fixes on the land at Ras Baridi and more particularly by radar and visual fixes of the industrial complex to the South of this point which is marked on the charts as a silo. There are actually numerous chimneys and buildings there. When closer, the beacon at Scherbo Reef and the adjacent buoys all show up well on radar though the Racon on the beacon was not working in October 1985. The beacon is not easy to see visually even when quite close.

There was no apparent current in the approaches to the Pilot Station. Note that the Pilot does not board at the position marked on the charts but at a point due North of Scherbo Beacon and so ETAs should be calculated to this point. He also leaves there when outbound.

King Fahd Port Control listens on VHF Channel 16 and ETAs should be sent to them at least 4 hours and 2 hours before arrival so that the pilot boat knows when to leave the shore to rendezvous at the above point. The boat listens on VHF Channel 74. The Pilot wants a speed of about 8 knots at time of boarding and a combination ladder on the lee side. A speed of about 13 knots was requested on 15 minutes' notice of reduction and this will usually be maintained for about one hour.

There are 3 berths for VLCCs and the allocation criteria is deadweight and the amount of flat side. Berth 61 takes 80 – 260,000 d.w.t. and requires a flat side of at least 400 ft. Berth 62, takes 275 – 500,000 d.w.t. and a flat side of 460 ft., and 63 takes 120 – 280,000 d.w.t and flat side of 420 ft. There are occasional queues for No. 61 as the majority of ships fit this berth. No. 62 is frequently unoccupied.

4 tugs meet the ship as she swings in from the approach channel towards the berths. They are all about 3,400 h.p. and most are Voith Schneider. Tugs' wires are used and they have good messengers already attached so that only a heaving line is needed from the ship

All ships berth starboard side alongside with moorings of 3, 3, 2 and springs are sent away first. The tugs hold the ship alongside until mooring is complete. The berths lie about 130°/310° and the prevailing wind is from the W.N.W. up to Force 6/7.

Vessel berthed at No. 63 as she would not fit any better on the other berths. Masters should push for their headlines to be put on the Southernmost hooks for No. 62 berth, if available, as this gives good leads and the Supervisor says it is possible.

The berths were originally designed for SBT tankers and so have no dirty ballast lines (though other berths in the port have this facility). However, since Saudi Aramco took over the berths there have been talks and lines may be fitted.

Arrival ballast must be able to pass very stringent laboratory tests otherwise the ship will be refused and ordered to sail. *At least one ship per month suffers this.*

There is a large desalination plant North of the port making water for most of the area. Pollution costs and fines are HEAVY.

The ballast requirements are a maximum of 8 p.p.m. and an average of 8 p.p.m.. Samples are taken of the top (skim), middle and bottom of the cargo ballast tanks and an oil absorbent cloth is then dragged over the surface in each tank. All deck openings must be available as well as the tank lid and they utilise most of them. Shore also reserves the right to test the permanent ballast tanks. Samples are taken ashore and the results known before any deballasting is permitted. A small boat is stationed at the ship's side adjacent to the ballast discharge throughout and hourly samples are taken at the pumps. On this vessel the part flow system was operating and shore were much impressed with this as it permitted them to constantly monitor the ballast. They took the hourly samples from there (in fact they trusted the ship to take them for most of the time as the gangway had to be removed due to airdraft). Shore at present only requests that at least 30 cm. is left in each tank but this will soon become a regulation for further protection. They are also upset by rust and IG discoloration of the ballast. It is recommended that ballast is changed as near to arrival time as possible to lessen this.

This vessel had a maximum content of 4 p.p.m. and an average of 1 p.p.m. and would appear to be ideally suited to the port as the ballast is normally very clean.

The Agent, Customs and Port Health board first on arrival at the berth and the "Q" signal must be lowered as soon as Pratique is granted as no-one else will board until this is done.

There are 6 Chicksans at each berth, 2 of which are for bunkers, and the cargo ones are designed for 24 in. connections but all reducers are available ashore and in fact the 16 in. size is more or less permanently attached. The shore line is 56 in. and the distance from the tank farm is about 8 km.

For Basrah Crude, the maximum loading rate is 150,000 bbls.p.h. Shore will try to insist that the ship maintains her full loading rate until one hour prior to completion and a close check must be kept on the rate as vessel's request for a reduction may not be heeded! It is suggested that this is clarified before start of loading and cargo stopped if reduction is not heeded, later.

There is a storage capacity of some 3 million barrels for Basrah (they call it Iraq Light) Crude and a maximum pipeline throughput of 2 million barrels per day though the average is only about 500,000 barrels. The maximum is used when they have a ULCC and need to maintain stock which is seldom. The average API is 33.5.

Incidentals: All cameras must be placed in bond. No one is allowed on the jetty for ANY reason. If there is a crew change then 2 new Crew Lists will be required, incorporating all changes, for outward clearance. Incoming members' baggage was searched three times and one man had some family photos removed as a girl had an off-shoulder dress. There is of course no argument. Agent's office is 40 km. away and he is often difficult to contact.

Generally speaking the shore personnel are friendly and helpful. There is only this 'problem' of the loading rate which must be sorted out.

SHIPMASTER'S REPORT: October 1986.

Approaches: The cement silo in approximate position Lat. 24° 16.35' N., Long. 37° 33.55' E. (near Ra's Baridi) gave a good strong echo at 48 miles. This was in sufficient time to ascertain the vessel's position for the alteration of course into the Northern Approach Channel.

Documents: Papers required by the Agent:

10 Crew Lists (standard IMO Form 5 acceptable).
1 Vaccination List.
2 Personal Manifests.
2 Stewards Stores Lists.
*3 Health Declarations.
*4 Arrival Details.
*2 Passport Control Office Arrival Details.
*1 Customs Declaration.
*1 Arrival Report.
*1 Customs Alcohol and Tobacco Declaration.
*Forms supplied by local Agent.

Telex Numbers:

Aramco, Yanbu: 662333 Aramco Sj. 661052 Aramco Sj.

Port Management: (Tankers only) 662360 Portct Sj. (Others) 661096 Portct Sj.

SHIPMASTER'S REPORT: June 1990.

All cargo tanks must be below 8% oxygen before vessel may enter port. 02 content checked on arrival alongside.

A fire hose must be rigged on the poop.

Manifold drip trays must be free of oil.

Pilot boarded from tug about half way between reporting Positions "A" and "B", due to weather conditions being rough.

Three tugs for berthing 70,000 d.w.t. vessel, one tug each end with tug's line and one tug pushing, but does not make fast.

Moorings consisted of 3, 2 and 2 each end. Springs first by ship's heaving line and shore messenger, breasts and stern/head lines by boat.

Fire wires to be turned up on bitts with at least 5 turns, then eye to be suspended 1.0 m. – 2.0 m. above the water with heaving lines attached.

Please note that the pilot boarding position given in the "Guide" is not the same as on B.A. chart, which gives the position as 24° 2.5' N., 37° 45' E. However, it seems the pilot will normally board inside, and usually disembarks as soon as possible.

AUTHORITY: Saudi Arabian Sea Ports Authority (SEAPA), King Fahd Industrial Port, P.O.Box 30325, Yanbu al Sinaiyah, Kingdom of Saudi Arabia. *Contact:* Abdulghani Omar Halawani, Director General. Administration: *Tel:* (04) 396-7000, 396-7001. *Fax:* (04) 396-7037. *Telex:* 662364 KFPYB SJ, 662365 YANBU SJ. Port Control Tower: *Tel:* (04) 396-7177/7178. *Telex:* 662360 PORTCT SJ.

AGENT: Gulf Agency Company Saudi Arabia, P.O.Box 473, Office No. 8, 3rd Floor, Al Hijji Trade Centre, King Abdul Aziz Street, Yanbu, Saudi Arabia. Cables: "Confidence", Yanbu. Ship-Shore traffic via Jeddah Radio/HZH. Telex: 661084 ("Gaship Sj"). Tel: 3223992 and 3228765. After Hours: 3225633. Fax: 3221231.

ZULUF TERMINAL: 28.23 N. 49.14 E.

TERMINAL CLOSED APRIL 1976. THE STORE BARGE HAS LEFT. NO FURTHER OPERATIONS WILL TAKE PLACE AT ZULUF.

NOTES

Please also advise Shipping Guides Ltd.

Senegal

DAKAR: 14.40 N. 17.26 W. (See Plan)

PORT LIMITS: *North:* From the point of Bel-Air by a parallel from N.E. of the N.E. Jetty of the harbour, to the point of 1 mile N.E. by a meridian passing 2,900 m. East of the Round-Point determined by the crossing of Felix Eboue and Avenue de la Jetee Nord and by the parallel passing 2,060 m. North of Goree Island.
East: By the meridian passing 1 mile East of Goree.
South: By a line joining the Cape Manuel from the South point of Goree prolonged until it encounters the meridian passing 1 mile East of Goree.

DOCUMENTS: Vessels carrying hazardous and/or strong smelling cargoes must declare to the Harbour Master, at least 48 hours before ship's arrival, the nature/quantity/packing of these goods, as well as their stowage on board. Same applies for Arms and Ammunitions.

Health:
2 Crew Lists.
1 Sanitary Declaration.
2 Lists of Date of Vaccinations.
(Valid vaccination for Yellow Fever for all persons)

Customs:
3 Crew Lists.
2 Stores Lists.
2 Personal Effects Declarations.
2 Slop Chest Lists.
1 Arms and Ammunition List.

Immigration:
4 Crew Lists.
2 Lists of Ports of Call with dates of arrival/departure.

Agents:
1 Crew List.
1 Personal Effects Declaration.
1 Slop Chest List.
2 Lists of Arms and Ammunition.

Papers required on arrival: Bills of Lading for cargo to be discharged and Master's copy. 2 copies of Cargo Manifests for cargo to be discharged.

Great care should be taken in completing all Store Lists, Slop Chest Lists and Personal Effects Lists as Customs check all stores, including fridge spaces. All paints onboard must be declared.

Customs also board vessels at anchor and inside territorial waters, inflicting heavy fines in cases where stores, etc. are not prepared and ready for inspection. Also, heavy fines are imposed for any discrepancies. Even when calling at port for emergencies (e.g. Medivac) a full set of documents must be prepared before entering territorial waters.

No vessel is allowed to leave Dakar without having received on board an outward manifest duly visaed by the local Customs Authorities. Vessels leaving without such a manifest will be heavily fined.

PILOTAGE: Pilots meet vessels off the North point of the Island of Goree in a naturally sheltered area. Pilot available 24 hours and service is compulsory. Pilots on VHF Channel 16.

RESTRICTIONS: During the rainy season, all vessels with a draft of more than 32 ft. 6 in. could be delayed, due to the effects of swell, at anchorage in outer roads and await meteorological conditions permitting their entry into the harbour.

Use of whistle signals to call Pilot is forbidden between 2200 hrs. and 0600 hrs. The harbour area is dredged to a depth of 10 m. to 11 m.

Dangerous Cargo: Vessels are allowed to have the following dangerous cargo on board:

For Discharging	*North Area*	*South Area*
I.M.O. 1	20 tons	10 tons
I.M.O. 2	50 tons	25 tons
I.M.O. 3	80 tons	25 tons
In Transit	*North Area*	*South Area*
I.M.O. 1	25 tons	20 tons
I.M.O. 2	50 tons	25 tons
I.M.O. 3	80 tons	40 tons

MAX. SIZE: Ships of 30 ft. draft are able to enter at all stages of the tide by day and night. Vessels up to 36 ft. draft may enter at high tide except possibly during the stormy season, between mid August and mid October.

HEALTH: Health Officials board vessel immediately after berthing alongside. For passenger vessels, these formalities are effected before berthing to avoid delays. Vessels at sea may obtain medical advice by VHF or telex via Dakar Radio.

Inoculation/Vaccination can be arranged through Agent during weekdays.

Free Pratique can be granted via radio by Agent, by using international Code Words "MIBDU/MIJMA".

RADIO: ETA advice should be sent 96 hours, 48 hours and 12 hours prior to arrival including cargo to discharge, drums to discharge (if any), draft on arrival, expected draft on departure, last port and next port of call. Agents should be notified of tug requirements, VHF Channel 8.

VHF: The Port Captain's Office, Pilot Station and tugs are equipped with VHF, with the following Channels: Channel 16 used by vessels approaching to contact Pilot Station or Port Captain's Office; Channel 12 used during manoeuvres for communications between Pilots and tugs; Channel 6 used only by the tug station.

TUGS: Operated by a private company, 3 tugs available up to 2,000 h.p. (bollard pull 24 tons). Compulsory for loaded tankers.

BERTHING: 10,000 m. of quay length available of which more than half has depths of 8 m. to 11 m. alongside.

The Northern area has 5 wharves with depths of 23 ft. – 36 ft.

Dock 4: Length 572 m.

Berth 41: Draft 33 ft. Equipped for discharging bulk grain with private equipment (rate of 4,000 tonnes per day) and load ground nuts.

Berth 42 – 43: Draft 33 ft. Used for the discharge of rice.

Berth 45: Length 120 m., draft 23 ft. Used for the discharge of liquified gas.

Dock 5: Berth 52 (Taiba Phosphate Quay): Length 170 m. Max. draft 36 ft. Loading at an average of 900 tonnes per hour (Air draft 35 ft.).

Dock 6: Length 634 m.

Berth 61: Length 210 m. Used for wine and ground nut oil tankers with a draft of 27 ft.

Berth 62 – 63: Length 425 m. Max. draft 36 ft. A new terminal of containers with area of 50,000 sq.m.

Dock 7: Berth 708 (Thies Phosphate Quay): Length 215 m. Max. draft 32 ft. Loading at an average of 200 tonnes per hour.

Dock 8: Total length of 265 m. and depth of 32 ft.

Berth 81: New terminal with gantry crane/conveyor belt enabling a daily discharging/loading rate of 7,000 tonnes (bulk sulphur, fertiliser, etc.).

Berths 82 – 85: For bunkers, general cargo, logs, scrap iron, bulk grain, etc.

The South area has 3 wharves with a depth of 26 ft. – 33 ft.

Dock I is 460 m. long.

Berth No. 12	Draft	26 ft.	3 in.
" " 13	"	28 ft.	7 in.
" " 14	"	28 ft.	7 in.
" " 15	"	33 ft.	
" " 17	"	33 ft.	

Dock II

Berth No. 21	Draft	27 ft.	3 in.
" " 22	"	26 ft.	11 in.
" " 24	"	26 ft.	3 in.
" " 25	"	25 ft.	11 in.

Dock III is 350 m. long. Max. draft of 32 ft. 10 in. Reserved for trade with the Republic of Mali.

Mole de Peche: 1,461 m. of quays, supplied with water and bunkers. Areas for spreading out fishing lines and nets.

CRANES:
5 Mobile cranes × 20 tons.
1 Mobile crane × 60 tonnes.
6 Mobile cranes × 25 tonnes.
1 Floating crane × 30 tonnes.
1 Mobile crane × 100 tonnes.
1 Mobile crane × 70 tonnes.
6 Mobile cranes × 40 tonnes.

In addition, there are many mobile cranes with capacity 2 tons - 15 tons.

CONTAINER FACILITIES: *Container Terminal:* Length 430 m., depth 11.6 m. Back-up area of 8 ha., connected to an extension of 6 ha. 120 reefer points.

Containers are also handled at Pier 3.

STEVEDORES: Normal working hours, weekdays from 0800 to 1200 hrs. and from 1400 to 1800 hrs. Saturdays from 0800 to 1200 hrs. Overtime, weekdays from 0500 to 0800 hrs.; from 1200 to 1400 hrs.; from 1800 to 2200 hrs.; from 2200 to 0500 hrs. Holidays and Sundays from 0000 to 0500 hrs.; from 2200 to 2400 hrs.

MEDICAL: *Vaccinations:* Possible from 0800 to 1200 hrs. and 1500 to 1700 hrs. Sundays and holidays excluded.
Doctors: All kinds of specialists available.
Hospitals: With qualified doctors and good equipment.

TANKERS: The Petroleum Basin is dredged to a depth of 10 m. to 11 m. 2 jetty berths can receive tankers up to 200 m. length, max. draft 32 ft. 6 in. Petroleum Wharf which has 4 berths, depth alongside 12 m. (depth in approaches 11 m.) can receive tankers up to 250 m. length with a draft of 39 ft.

Black products handled at all berths (6 in., 8 in. and 10 in. hoses). White products at Berth, 2 only (8 in. hoses). Distance to tank farm about 5 km. Water to be pumped between grades.

Ship to Ship transfer (STS) is carried out across Petroleum Wharf using 2 × 8 in. hoses. Standard practice – discharging tanker starboard side alongside Berth No. 93 and loading tanker port side alongside at No. 92 Berth. Transhipment supervised by Iransen and Shell.

M'bao Refinery sealine buoy berth is situated 3 miles N.E. of Goree Island. Vessel berths using both bow anchors, stern is secured to 4 buoys using 4×5 in. wires from buoys stern. Ship's ropes not used. Hose connection on port side using 12 in. (300 mm.) hoses. Vessel's derrick to have an SWL of at least 5 tonnes.

FRESH WATER: All quays are fitted with water hydrants. Water supplied by 3 hoses simultaneously, with a rate from 60 – 100 cu.m.p.h. Can also be supplied by barge up to 400 tons capacity but minimum order 150 tons.

FUEL: All grades can be supplied from the quays up to 1,000 t.p.h. Fuel can also be supplied by barge. Also see "Shipmasters' Report".

REPAIRS: All types of repair can be effected by the Naval Arsenal or by private companies.

DRY DOCKS: At the Naval Arsenal, one dry dock length 195 m., width 23 m., depth up to 9.50 m.

Syncrolift, max. weight acceptable, 1,200 tons.

New Floating Dock will take vessels up to 60,000 d.w.t. Lifting capacity 28,000 tons. Acceptable dimensions 235 m. × 38 m.

REPATRIATION: Seamen can be repatriated to Europe without delays by air.

AIRPORT: International airport with regular services to Europe.

TELEPHONES: All berths are equipped with telephone apparatus which is placed on board vessels without charge.

HOLIDAYS: New Year (1st January); Tabaski (Variable Date); National Day (4th April); Easter (Variable Date); Labour Day (1st May); Ascension Day (7th May); Whit Monday (Variable Date); Maouloud (Variable Date); National Day (14th July); Assumption (15th August); All Saints' Day (1 November); Korite (Variable Date); Christmas (25th December).

GARBAGE DISPOSAL: Collection service is available and is supplied by the Port Authority. Collection services may also be supplied by ship's agent or private companies.

WASTE OIL DISPOSAL: Collection service is available through private company SRH (Societe de Precuperation des Huiles).

CURRENCY: CFA Franc (Fr.CFA). Fixed against French Franc (F.Fr.). F.Fr. 1.00 = 50Fr.CFA.

GENERAL: Several cases of assault have been reported against crew members returning to their ships during the hours of darkness. For this reason, the delivery of cash from Agents is suspended during the night hours. Although Port Authorities and Security are aware of the situation, it is advisable to acquaint all on board with this.

SHIPMASTER'S REPORT: With a draft in excess of 15 m. it is not possible to anchor in the inner roads due to the swell. The swell is worse from July to October (rainy season).

The Pilot directed us to an anchorage 0.5 miles N.E. of Island of Goree but in my opinion it is a little too close. However, the nearer a vessel can anchor N.E. of Goree the better. The holding ground is very good.

It is possible to talk to Mory Fuel Company direct on VHF Channel 2. They have a barge which is able to deliver fuel oil and diesel oil, capacity 500 tons.

Three tugs available, be sure to order one well in advance before completion of bunkering or the vessel may have to wait. Bunkering undertaken day and night.

SHIPMASTER'S REPORT: October 1983.

Documents: Separate Bonded Stores List (4 copies) required by Customs.

Pilotage: Pilots will board 0.2 miles from breakwater entrances.

Health: Advise Port Health Authorities of health state, also vaccinations required. They attend on arrival but do not acknowledge messages.

Fresh Water: Fresh water supply at piers averages 20 t.p.h.

Security: There have been many cases recently of anchored and stationary vessels being boarded by thieves and mooring ropes, etc. purloined. Vessels on regular run to Dakar do *not* stop in port approach areas until daylight. Gangway watchman essential. Shore traders to be confined to one area under supervision if allowed on board.

SHIPMASTER'S REPORT: March 1989.

Port Officials: Immigration and Port Health boarded on arrival alongside. Customs did not board until the next day.

The Agent advised that particular attention should be paid to declaring the paint on board and also that the Stores Declaration should be made out after the usual "presents" had been given out.

The Customs search was a quick look at the bond locker and the question "Is it as declared?" is asked. When the answer was in the affirmative and a "present" handed over the locker was sealed, no other area of the vessel was searched.

Normally, all stores are checked and any discrepancies will result in a fine, the minimum reported to be U.S.$500.00.

Ship's standard papers are accepted, except for the Health Declaration where the Port Authority form is required, copies placed on board for next call.

Papers required:

Health Declaration	1 copy
Crew Declaration	2 copies
Ports of Call List	5 copies
Vaccination List	2 copies
Drugs List	3 copies
Crew List	6 copies
Stores List	3 copies
Hazardous Cargo List	2 copies
Passenger List	4 copies
Stowaway List	4 copies
Arms and Ammunition List	4 copies
Animals List	4 copies
Cargo Manifest	4 copies

"Nil" declarations are required when appropriate.

The quantity of forms required varies slightly from visit to visit but this would appear sufficient to cover most calls.

The standard vaccination list included Cholera, and the Port Health advised that one of these was out of date, however Cholera is not required for Dakar and no problems were experienced.

An Inward Clearance Certificate is issued by the Port Authority and also a certificate of Free Pratique by the Port Health.

Outward Clearance is stamped by the Customs on copies of the Cargo Manifest.

Approaches: B.A. Chart 1001 was found to be as charted. Arrival was in daylight and lights could not be verified.

Buoy No. 1 is painted white and was difficult to see in the hazy conditions prevailing at the time.

Buoy No. 12 has a double black ball topmark as indicated in the Light List and not a single ball as appears on the chart.

Approach to the harbour entrance can be made either between the buoy just North of Goree Island and Buoy No. 12 or between Buoy No. 1 and Buoy No. 12.

Pilots: On arrival the Pilot will board at the charted position or closer to the harbour entrance from a large launch.

On departure, call the Pilot Station on VHF 1 hour before estimated departure time and confirm 10 minutes before vessel is ready to leave.

The Pilots employed were competent and spoke good English.

Shifting ship: It is not necessary to use a Pilot for warping the vessel along the dock. For this operation linesmen are obtained by calling the Pilots on VHF.

Radio: The Port Authority require 96 hours, 48 hours and 24 hours notice of arrival according to the Radio Signals List. An attempt was made to pass this information using the telex number from the Radio Signals, but the telex remained undelivered, so contact was made by W/T through the local coast station.

Agents were also asked to advise the Port Authority and Pilots. The message must have been received as we were expected.

Pilots can be contacted on VHF as soon as within range and will advise berthing or anchoring prospects, the English spoken is generally good.

Pilots will advise on VHF, any vessel movements and give directions for approach.

Tugs: Two tugs were used for berthing as there was a strong wind on to the berth and there was another vessel on the berth astern, however, probably one tug would be sufficient under similar conditions in future.

The pilots carry portable VHF for communication with the tugs.

Tugs lines are used when required and are in good condition.

Berthing: All berths are fitted with fenders, but some are in a poor condition. In February 1989 the vessel berthed on Berth No. 85, the fendering here is good.

There are 2 sets of boat landing steps set into the face of the dock along this side of Pier No. 8 which would cause a problem if the vessel was positioned with either of these close to the foot of the gangway.

The vessel was later moved astern to Berth No. 84.

There is a clear working area alongside Berths No. 85 and 86, but dockside sheds and stored cargo made the loading area alongside Berth No. 84 somewhat cramped.

Loading: Vessel loaded 6,600 tonnes of ground nut pellets.

The loading is by portable belt elevators, supplied by tipper trucks.

Four elevators were used and positioned variously at hatches, depending on the distribution required.

Working hours are 0800 hrs. – 1800 hrs. every day.

Starting in the morning is slow, the first truck arriving at about 0830 hrs. and sometimes as late as 0915 hrs.

Hoppers are then constructed at the ends of the elevators by filling bags with the first of the delivered cargo, the hoppers are to give a good feed to the elevators. The last truck of the day arrives at about 1700 hrs. and when that is emptied the hoppers are dismantled and the contents of the bags are emptied on to the elevators and any remaining sweepings on the dock are shovelled on afterwards.

The day's work is usually completed by 1730 hrs.

The loading rate is governed by the availability of trucks and the rate of filling them at the silos.

The Agents are also the stevedores and their equipment was used.

Daily tonnage sheets are produced but are slow in coming forth, no record was kept of the tonnage per hatch, only the total loaded.

Gross elevator hours	284	Gross rate	23.24 t.p.h.
Net elevator hours	243.17	Net rate	27.14 t.p.h.

Approximate rate of 250 tonnes per elevator per day.

Fresh Water: Available at berth, the watermen supply their own hoses.

Repairs: Permission is required to immobilse the main engines. There are no other restrictions.

The repair firm Dakar Marine did a fair job of supplying and fitting new bolts to the rudder of another vessel alongside, but I suspect repair work is expensive.

Watchmen: It is best to employ two shore watchmen, one permanently on gangway duty and one on patrol. Theft is common and firefighting and lifesaving equipment are favourite items.

General: Fumigation: The holds were fumigated on arrival and left overnight, loading starting the next morning. The cargo was also fumigated on completion of loading.

Presents: Everyone expects either cigarettes or soft drinks for services rendered but can generally be persuaded to go away empty-handed, however a reasonable supply is required to take care of deserving cases.

Dust: For some days before arrival visibility was reduced by dust haze caused by sand from the desert, the whole of Dakar is covered in dust and when loading commenced this was made considerably worse.

Disbursements through Agents: The Agents prefer to draw cash and hand it to the Master to pay any accounts direct to the supplier, which is not the easist way of doing things.

Ensure that the Agent advises you of which items they will pay and which are expected to be paid by the vessel.

Laundry: Can be arranged by the ship chandler, but it is expensive.

Shore labour: All forms of cleaning and painting are possible, however at a cost of U.S.$20.00 per man per day would appear to be rather expensive, especially as the workers also expect to be fed.

Garbage collection: Recommended by the Agents and is carried out at intervals specified by the vessel (daily, every 2 days, etc.).

Ship Chandlers: A large number will present themselves as soon as the vessel arrives alongside, also a number of businessmen with everything from fish to watches for sale. The businessmen are best kept off the ship, as apart from their prices generally being the same or more than the Chandlers, they are likely to pick up anything that can be moved and spirit it away under their robes.

Prices of all items are high. Most foodstuffs have been imported and nothing except fish seems to be produced locally, although some good produce was seen on the market stalls in town.

M.N. Thoumas, United Shipchandlers, had been used before by the vessel and his prices compared favourably with other chandlers, he also seems to have an efficient organisation. Some of his fresh produce was returned as being poor and replacements were made.

AUTHORITY: Port Autonome de Dakar, 21 Boulevard de la Liberation, P. 3195, Dakar, Senegal. *Tel:* 23-45-45. *Telex:* 21404. *FAX:* 23.36.06. *Cables:* Porcomer Dakar. *FAX:* 213606. *Contact:* Mr.Pathe Ndiaye, Director General. Captain E. Sarr, Harbour Master. J.B.G. Diatta, Commercial Director.

AGENT: Socopao Senegal, 47 Avenue Albert Sarrault, B.P. 233, Dakar, Senegal. Tel: 23.10.01, 23.46.81. Telex: 51444 Freight SG. Fax: 23.47.49, 23.56.14. Cables: "Freight Dakar".

Fish Department – Tel: 23.59.43, 23.10.01. Telex: 21496 Freight SG. Fax: 23.47.69, 23.56.14.

Sub-Agency at Kaolak. Tel: 41.19.07. Telex: 74060.

Senegal

DAKAR: 14.40 N. 17.26 W. (See Plan)

PORT LIMITS: *North:* From the point of Bel-Air by a parallel from N.E. of the N.E. Jetty of the harbour, to 1 mile N.E. by a meridian passing 2,900 m. East of the Round-Point determined by the crossing of Felix Eboue and Avenue de la Jetee Nord and by the parallel passing 2,060 m. North of Goree Island.

East: By the meridian passing 1 mile East of Goree.

South: By a line joining the Cape Manuel from the South point of Goree prolonged until it encounters the meridian passing 1 mile East of Goree.

DOCUMENTS: Vessels carrying hazardous and/or strong smelling cargoes must declare to the Harbour Master, at least 48 hours before ship's arrival, the nature/quantity/packing of these goods, as well as their stowage on board. Same applies for Arms and Ammunitions.

Health:
- 2 Crew Lists.
- 1 Sanitary Declaration.
- 2 Lists of Date of Vaccinations.
- (Valid vaccination for Yellow Fever for all persons)

Customs:
- 3 Crew Lists.
- 2 Stores Lists.
- 2 Personal Effects Declarations.
- 2 Slop Chest Lists.
- 1 Arms and Ammunition List.

Immigration:
- 4 Crew Lists.
- 2 Lists of Ports of Call with dates of arrival/departure.

Agents:
- 1 Crew List.
- 1 Personal Effects Declaration.
- 1 Slop Chest List.
- 2 Lists of Arms and Ammunition.

Papers required on arrival: Bills of Lading for cargo to be discharged and Master's copy. 2 copies of Cargo Manifests for cargo to be discharged.

Great care should be taken in completing all Store Lists, Slop Chest Lists and Personal Effects Lists as Customs check all stores, including fridge spaces. All paints onboard must be declared.

Customs also board vessels at anchor and inside territorial waters, inflicting heavy fines in cases where stores, etc. are not prepared and ready for inspection. Also, heavy fines are imposed for any discrepancies. Even when calling at port for emergencies (e.g. Medivac) a full set of documents must be prepared before entering territorial waters.

No vessel is allowed to leave Dakar without having received on board an outward manifest duly visaed by the local Customs Authorities. Vessels leaving without such a manifest will be heavily fined.

PILOTAGE: Pilots meet vessels off the North point of the Island of Goree in a naturally sheltered area. Pilot available 24 hours and service is compulsory. Pilots on VHF Channel 16.

RESTRICTIONS: During the rainy season, all vessels with a draft of more than 32 ft. 6 in. could be delayed, due to the effects of swell, at anchorage in outer roads and await meteorological conditions permitting their entry into the harbour.

Use of whistle signals to call Pilot is forbidden between 2200 hrs. and 0600 hrs. The harbour area is dredged to a depth of 10 m. to 11 m.

Dangerous Cargo: Vessels are allowed to have the following dangerous cargo on board:

For Discharging	*North Area*	*South Area*
I.M.O. 1	20 tons	10 tons
I.M.O. 2	50 tons	25 tons
I.M.O. 3	80 tons	25 tons
In Transit	*North Area*	*South Area*
I.M.O. 1	25 tons	20 tons
I.M.O. 2	50 tons	25 tons
I.M.O. 3	80 tons	40 tons

MAX. SIZE: Ships of 30 ft. draft are able to enter at all stages of the tide by day and night. Vessels up to 36 ft. draft may enter at high tide except possibly during the stormy season, between mid August and mid October.

HEALTH: Health Officials board vessel immediately after berthing alongside. For passenger vessels, these formalities are effected before berthing to avoid delays. Vessels at sea may obtain medical advice by VHF or telex via Dakar Radio.

Inoculation/Vaccination can be arranged through Agent during weekdays.

Free Pratique can be granted via radio by Agent, by using international Code Words "MIBDU/MIJMA".

RADIO: ETA advice should be sent 96 hours, 48 hours and 12 hours prior to arrival including cargo to discharge, drums to discharge (if any), draft on arrival, expected draft on departure, last port and next port of call. Agents should be notified of tug requirements, VHF Channel 8.

VHF: The Port Captain's Office, Pilot Station and tugs are equipped with VHF, with the following Channels: Channel 16 used by vessels approaching to contact Pilot Station or Port Captain's Office; Channel 12 used during manoeuvres for communications between Pilots and tugs; Channel 6 used only by the tug station.

TUGS: Operated by a private company, 3 tugs available up to 2,000 h.p. (bollard pull 24 tons). Compulsory for loaded tankers.

BERTHING: 10,000 m. of quay length available of which more than half has depths of 8 m. to 11 m. alongside.

The Northern area has 5 wharves with depths of 23 ft. – 36 ft.

Dock 4: Length 572 m.

Berth 41: Draft 33 ft. Equipped for discharging bulk grain with private equipment (rate of 4,000 tonnes per day) and load ground nuts.

Berth 42 – 43: Draft 33 ft. Used for the discharge of rice.

Berth 45: Length 120 m., draft 23 ft. Used for the discharge of liquified gas.

Dock 5: Berth 52 (Taiba Phosphate Quay): Length 170 m. Max. draft 36 ft. Loading at an average of 900 tonnes per hour (Air draft 35 ft.).

Dock 6: Length 634 m.

Berth 61: Length 210 m. Used for wine and ground nut oil tankers with a draft of 27 ft.

Berth 62 – 63: Length 425 m. Max. draft 36 ft. A new terminal of containers with area of 50,000 sq.m.

Dock 7: Berth 708 (Thies Phosphate Quay): Length 215 m. Max. draft 32 ft. Loading at an average of 200 tonnes per hour.

Dock 8: Total length of 265 m. and depth of 32 ft.

Berth 81: New terminal with gantry crane/conveyor belt enabling a daily discharging/loading rate of 7,000 tonnes (bulk sulphur, fertiliser, etc.).

Berths 82 – 85: For bunkers, general cargo, logs, scrap iron, bulk grain, etc.

The South area has 3 wharves with a depth of 26 ft. – 33 ft.

Dock I is 460 m. long.

Berth	No.	12	Draft	26 ft.	3 in.
"	"	13	"	28 ft.	7 in.
"	"	14	"	28 ft.	7 in.
"	"	15	"	33 ft.	
"	"	17	"	33 ft.	

Dock II

Berth	No.	21	Draft	27 ft.	3 in.
"	"	22	"	26 ft.	11 in.
"	"	24	"	26 ft.	3 in.
"	"	25	"	25 ft.	11 in.

Dock III is 350 m. long. Max. draft of 32 ft. 10 in. Reserved for trade with the Republic of Mali.

Mole de Peche: 1,461 m. of quays, supplied with water and bunkers. Areas for spreading out fishing lines and nets.

CRANES:
- 5 Mobile cranes × 20 tons.
- 1 Mobile crane × 60 tonnes.
- 6 Mobile cranes × 25 tonnes.
- 1 Floating crane × 30 tonnes.
- 1 Mobile crane × 100 tonnes.
- 1 Mobile crane × 70 tonnes.
- 6 Mobile cranes × 40 tonnes.

In addition, there are many mobile cranes with capacity 2 tons - 15 tons.

CONTAINER FACILITIES: *Container Terminal:* Length 430 m., depth 11.6 m. Back-up area of 8 ha., connected to an extension of 6 ha. 120 reefer points.

Containers are also handled at Pier 3.

STEVEDORES: Normal working hours, weekdays from 0800 to 1200 hrs. and from 1400 to 1800 hrs. Saturdays from 0800 to 1200 hrs. Overtime, weekdays from 0500 to 0800 hrs.; from 1200 to 1400 hrs.; from 1800 to 2200 hrs.; from 2200 to 0500 hrs. Holidays and Sundays from 0000 to 0500 hrs.; from 2200 to 2400 hrs.

MEDICAL: *Vaccinations:* Possible from 0800 to 1200 hrs. and 1500 to 1700 hrs. Sundays and holidays excluded.

Doctors: All kinds of specialists available.

Hospitals: With qualified doctors and good equipment.

TANKERS: The Petroleum Basin is dredged to a depth of 10 m. to 11 m. 2 jetty berths can receive tankers up to 200 m. length, max. draft 32 ft. 6 in. Petroleum Wharf which has 4 berths, depth alongside 12 m. (depth in approaches 11 m.) can receive tankers up to 250 m. length with a draft of 39 ft.

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The repair firm Dakar Marine did a fair job of supplying and fitting new bolts to the rudder of another vessel alongside, but I suspect repair work is expensive.

Watchmen: It is best to employ two shore watchmen, one permanently on gangway duty and one on patrol. Theft is common and firefighting and lifesaving equipment are favourite items.

General: Fumigation: The holds were fumigated on arrival and left overnight, loading starting the next morning. The cargo was also fumigated on completion of loading.

Presents: Everyone expects either cigarettes or soft drinks for services rendered but can generally be persuaded to go away empty-handed, however a reasonable supply is required to take care of deserving cases.

Dust: For some days before arrival visibility was reduced by dust haze caused by sand from the desert, the whole of Dakar is covered in dust and when loading commenced this was made considerably worse.

Disbursements through Agents: The Agents prefer to draw cash and hand it to the Master to pay any accounts direct to the supplier, which is not the easist way of doing things.

Ensure that the Agent advises you of which items they will pay and which are expected to be paid by the vessel.

Laundry: Can be arranged by the ship chandler, but it is expensive.

Shore labour: All forms of cleaning and painting are possible, however at a cost of U.S.$20.00 per man per day would appear to be rather expensive, especially as the workers also expect to be fed.

Garbage collection: Recommended by the Agents and is carried out at intervals specified by the vessel (daily, every 2 days, etc.).

Ship Chandlers: A large number will present themselves as soon as the vessel arrives alongside, also a number of businessmen with everything from fish to watches for sale. The businessmen are best kept off the ship, as apart from their prices generally being the same or more than the Chandlers, they are likely to pick up anything that can be moved and spirit it away under their robes.

Prices of all items are high. Most foodstuffs have been imported and nothing except fish seems to be produced locally, although some good produce was seen on the market stalls in town.

M.N. Thoumas, United Shipchandlers, had been used before by the vessel and his prices compared favourably with other chandlers, he also seems to have an efficient organisation. Some of his fresh produce was returned as being poor and replacements were made.

AUTHORITY: Port Autonome de Dakar, 21 Boulevard de la Liberation, P. 3195, Dakar, Senegal. *Tel:* 23-45-45. *Telex:* 21404. *FAX:* 23.36.06. *Cables:* Porcomer Dakar. *FAX:* 213606. *Contact:* Mr.Pathe Ndiaye, Director General. Captain E. Sarr, Harbour Master. J.B.G. Diatta, Commercial Director.

AGENT: Socopao Senegal, 47 Avenue Albert Sarrault, B.P. 233, Dakar, Senegal. Tel: 23.10.01, 23.46.81. Telex: 51444 Freight SG. Fax: 23.47.49, 23.56.14. Cables: "Freight Dakar".

Fish Department – Tel: 23.59.43, 23.10.01. Telex: 21496 Freight SG. Fax: 23.47.69, 23.56.14.

Sub-Agency at Kaolak. Tel: 41.19.07. Telex: 74060.

KAOLACK: 14.09 N. 16.06 W.

DOCUMENTS:
2 Crew Lists.
2 Stores Lists.
2 Manifests (tobacco, wine, etc.). Agents deposit at Customs office.

PILOTAGE: Pilot taken on board, and lands in Dakar. When vessels do not require tank-washing, the Pilot disembarks in roadstead.

ANCHORAGES: Sufficient for three vessels only. About 6 m. deep.

RESTRICTIONS: Night navigation forbidden in River Saloum. Depth available 3.0 m.

MAX. SIZE: Length 105 m. (because of River Valor).

HEALTH: Agent signals to Harbour Master. Provisionally vessels quarantine in Dakar.

TUGS: No tugs. (Only from Dakar.)

BERTHING: Signals by flag when berth available. Vessels enter at flood tide so that they can turn at anchorage to be ready for sailing.

Private Berth: Saltworks Wharf, length 52 m. Owned by S.S.S.I.M. Tel: 411904. Telex: 7472 SG.

MEDICAL: Yellow fever vaccinations only at Dakar. No hospital facilities.

DENSITY: 1025 – 1035.

FRESH WATER: Available at 10 t.p.h.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Arranged by Agent.

OPENING/CLOSING HATCHES: By stevedores.

CUSTOMS ALLOWANCES: Tobacco, no restrictions; Customs control on board (Declaration on manifest). Crew going ashore only allowed cigarettes marked "Vente au Senegal". Wine and/or Spirit, not limited, Customs controlled.

CONSULS: None (Dakar only). French Consulate Agent: Leon Masfrand, Tel: 412176.

REPATRIATION: Not possible (Dakar only).

AIRPORT: None.

TIME: GMT throughout year.

HOLIDAYS: Independence Day (4th April) no loading. Tabaski (dependent on moon phase).

FIRE: Tel: 324.

TELEPHONES: Not possible to place on board.

SHORE LEAVE: Crew members allowed ashore.

IDENTIFICATION CARDS: Not necessary.

REGULATIONS: Vessels must hoist Senegalese flag and notify Agent before entering port.

AUTHORITY: Harbour Master, Rue de la Residence, Kaolack, Senegal. *Tel:* 411915.

AGENT: See "Dakar".

NOTES

Please also advise Shipping Guides Ltd.

Republic of Seychelles

PORT VICTORIA, Mahe: 04.37 S. 55.28 E. (See Plan)

PORT LIMITS: *Outer Harbour:* The area in Victoria Harbour between limits of the inner harbour and a line from Cedre Point to Long. 55° 29.84' E., thence South to St.Anne Island Shore, thence S.S.W. until Rochon Bridge bears West, then West until Victoria Lighthouse bears North.

DOCUMENTS:
Maritime Declaration of Health – forms obtainable from Medical Officer/Chief Environmental Health Officer.
Derat Certificate.
5 Crew Lists and Passengers' Lists.
Dangerous Cargo List.
Ship's Register.
Crew Declaration Form.
Declaration of Stores and high dutiable goods.
Parcels List.
Firearms List.
List of Animals remaining on board (Pets included).
Un-manifested Cargo List.
Cargo Manifests.
Clearance from last Port.

APPROACHES: *Notice to Mariners No. 1013(P)/86:*
Indian Ocean – Seychelles – Mahe – Port Victoria – Routeing System.

The following announcement has been made by the Ministry of Tourism and Transport, Port and Marine Services Division, Seychelles.

"A routeing system for approaches to Port Victoria, Mahe, Seychelles has been adopted.

All vessels calling to and from Port Victoria are required as far as practicable to stay within an area bounded by lines joining the following Geographical points. Points (1), (2), (3), (9) and (10) demark the Northern Approach and Points (3), (4), (5), (6), (7) and (8) demark the Southern Approach."

(1) 3° 43.0' S., 55° 33.0' E.
(2) 4° 26.0' S., 55° 32.0' E.
(3) 4° 30.0' S., 55° 39.0' E.
(4) 4° 51.0' S., 55° 42.5' E.
(5) 5° 16.5' S., 55° 30.0' E.
(6) 5° 13.0' S., 55° 23.0' E.
(7) 4° 48.5' S., 55° 34.5' E.
(8) 4° 37.0' S., 55° 33.5' E.
(9) 4° 33.0' S., 55° 26.0' E.
(10) 3° 43.0' S., 55° 25.0' E.

Charts affected: 742, 740, 721.

Harbour Master, Ministry of Tourism and Transport, Seychelles. (H. 5775/82.)

PILOTAGE: Compulsory in Inner and Outer Harbour for any vessel of or exceeding 150 g.r.t.

24 hours' notice, giving draft and length. Telegraphic address "Demarine" through Cable & Wireless (on schedule 500 kHz and 8714 kHz. Schedule published in Radio List. Harbour Control equipped with VHF Channels 16, 12 and 6).

Pilot Boat: White hull with white cabin, orange top, flying "H" flag.

Signals for Pilot: "G" by flag and/or whistle.

Pilot Boarding Ground: The Pilot boards vessels about 6 cables Northward of the outermost buoy ("Isolated Danger Buoy") in position Lat. 4° 35.7' S., Long. 55° 29.6' E. There is no night pilotage. Pilot can board in almost any weather. While awaiting Pilot; vessel can anchor in any suitable anchorage in the pilotage area. Vessels should call "Victoria Harbour Control" on VHF, Channel 16, 2 hours before arrival.

ANCHORAGES: Masters of all vessels are requested not to anchor on the leading marks or in any other position so as to block the entrance channel.

The following anchorages are available in the Outer Harbour.
(i) Victoria Lighthouse bearing 238° True. Distance 9.75 cables in depths of 20 m. to 22 m.
(ii) Victoria Lighthouse bearing 232° True. Distance 1 mile in depths of 22 m.
(iii) Victoria Lighthouse bearing 224° True. Distance 1.4 miles in depths of 18 m. to 20 m.
(iv) Victoria Lighthouse bearing 212° True. Distance 1.5 miles in depths of 20 m. to 22 m.

Supertankers and large vessels anchor outside the Fairway Buoy in any suitable anchorage. The Master should always contact Harbour Master for anchorage instructions.

RESTRICTIONS: All shipping movement in Inner Harbour to take place during daylight hours only. In Outer Harbour, night movement at discretion of Master after consultation with Harbour Master. No tide restrictions.

There is berthing space available for vessels with draft over 9.5 m., but not exceeding 11.5 m. This is between bollards No. 12 and No. 20, a distance of 123 m., at the Southern end of the quay. Vessels exceeding 123 m. with draft of 9.5 m. to 11.5 m. overhang the quay to the South and lines are made fast on shore bollards.

Under these circumstances vessels which overhang come starboard side to and the port anchor is used. This system is mainly used for tankers as the connecting discharge pipe ashore only needs to be in line with the ship's manifold. Cargo ships coming in at a deeper draft than 9.5 m. and less 11.5 m. can be docked. However it must be noted that cargo cannot be discharged from all hatches that overhang and the ship will have to be turned at a certain stage of discharging.

HEALTH: "Q" Flag or international red over white. Medical Officer/ Environmental Health Officer may board vessels at anchor and before entering Inner Harbour. Crew Lists with vaccination dates against yellow fever and cholera if vessel from infected places. Health clearance given at Port Victoria only, health clearance may be given at Assumption Island by prior arrangement. Hospital facilities available. Vessels proceeding to the Inner Harbour may be disinsectised. Radio Pratique may be granted on request to "Port Health" – Ministry of Health.

No animal/pet of any description is permitted to be landed ashore or on the wharf as per Seychelles Quarantine Regulations. Necessary action will be taken against any Master who disregards these instructions in addition to the possibility of destroying any such animal or pet found ashore. Emphasis is made on the need to keep the Seychelles free from major animal diseases.

RADIO/VHF: Cable and Wireless, Port Victoria, Mahe. Call sign ZCQ. The Harbour Master's Office, call sign, "Harbour Control" keeps a 24 hour watch on VHF Channel 16 and Channel 12. Any further information can be obtained by calling up Harbour Control on Channel 16. Other Channels available – 12 and 6.

TUGS: 2×1,200 b.h.p. twin screw tugs and 1×2,000 b.h.p. twin screw tug in operation. Vessels of up to 800 ft. are able to berth alongside.

BERTHING: Due to limited space no berth can be reserved either alongside or at anchorage. All assistance given to position every ship in best available place.

Mahe Quay is in full operation. Two vessels can berth alongside. Berth No. 1 is allocated to oil and cement tankers and Berth No. 2 to cargo and passenger ships. Total length 370.4 m. Maximum depth of water at all berths is 35 ft. There are connections for fuel, fresh water and telephones at all berths. Port Offices, Customs and Health are situated at the New Port area.

Masters and Officers of vessels moored at the 2 above mentioned places are reminded of the importance of tending moorings at frequent intervals. Rat guards are deemed essential. Slack lines present a hazard to the safety of vessels moored alongside.

In the case of tankers and bulk carriers discharging or loading, the hourly difference in draft can be considerable. It is therefore recommended that regular routine checks on moorings be carried out by the Duty Officer.

Movement of Vessels Moored at Mahe Quay, Commercial Port, Fishing Port or at Anchorage. No movement of any vessel moored at the above mentioned places is permitted without authorisation from the Harbour Master. Ship's boats or lifeboats are not to be used as plying boats or on excursions to nearby islands. Use of ship's own craft for any reason including exercises must be cleared and authorised in the first instance.

Loading and discharging by ship's gear. Equipment available to handle 20 ft. and 40 ft. containers.

STEVEDORES: ETA advice required two to three days before ship's arrival in port. Loading and Discharging: General Cargo: average 15 t.p.h. per gang (subject weather conditions). Bagged Cargo: average 50 t.p.h. per gang (subject weather conditions). Containers: 22 boxes per hour. All stevedoring undertaken with ship's own gear.

TANKERS: Max. LOA 180 m., max. beam 33 m., max. draft 11.5 m. Discharge throughout 24 hours. Discharge lines 8 in. and 6 in. (Bulk white petroleum products and bulk cement).

DENSITY: Average 1025 at all states of tide.

FRESH WATER: In good supply. By mains when alongside. No water barge currently available. All water supplied is chlorinated. Vessels should request water at least 72 hours before arrival through Agent.

FUEL: Gas oil Kinematic CS at 40°C. = 3.63. Due to limited stock, it is advisable to give one week's notice, preferably through nomination addressed to Seychelles Petroleum Co. (Seypec).

Intermediate Fuel oil now available on North end of berth only. (Fuel oil 180 centistoke). Pour point 70 max. – Kinematic 180 max. – restriction on flow of delivery pending improvement of facilities.

CONSULS: *Embassies:* China, Cuba, France, Russia, U.S.A.

High Commissions: Great Britain, India.

Consuls: Belgium, Cyprus, Denmark, Finland, Germany, Greece, Italy, Malagasy Rep., Mauritius, Morocco, Netherlands, Norway, Spain, Sweden, Switzerland.

REPAIRS: Slipways for vessels under 300 g.r.t. Mechanical engineering and fabrication. Electronic and electrical engineering. Commercial diving services (hull cleaning, inspection and repairs). Shipchandling (marine equipment).

DRY DOCKS: None, but being considered.

GANGWAY/DECK WATCHMEN: Customs Officer on duty at all times if vessel is discharging cargo.

OPENING/CLOSING HATCHES: Normally carried out by ship's crew.

CUSTOMS ALLOWANCES: At Custom Officer's discretion.

CARGO GEAR: All cargo slings and gear supplied by ship.

REPATRIATION: Crew changes possible. Undertaken by Agents in connection with Immigration Authorities.

AIRPORT: In operation. Several flights weekly.

TIME: GMT plus 4 hours, throughout year.

HOLIDAYS: New Year (1st and 2nd January); Good Friday; Labour Day (May 1st); Corpus Christi (June 2nd); Liberation Day (June 5th); National Day (June 18th); Independence Day (June 29th); Assumption Day (August 15th); All Saints' Day (November 1st); Immaculate Conception (December 8th); Christmas Day (December 25th).

SHIP SUPPLY SERVICE: Ship Supply Services can be made by prior arrangements with any shipping Agencies by using fast hire crafts, which are allowed to operate within a range of 60 miles Mahe to any given rendezvous.

List of Shipping Agents:

Aquaris Shipping, P.O.Box 865, Victoria, Male, Seychelles. Tel: (248) 225050. Telex: 2424 Unship. Fax: (248) 225043.

Hunt Deltel & Co. Ltd., P.O.Box 14, Victoria, Mahe, Seychelles. Fax: (248) 225367.

Mahe Shipping Co. Ltd., P.O.Box 336, Victoria, Mahe, Seychelles. Fax: (248) 322978.

Harry Savy & Co. Seychelles (Pty) Ltd., P.O.Box 20, Victoria, Mahe, Seychelles. Fax: (248) 321421.

M/S Allied Agencies Ltd., P.O.Box 345, Mahe, Seychelles. Fax: (248) 224226.

KAOLACK: 14.09 N. 16.06 W.

DOCUMENTS:
2 Crew Lists.
2 Stores Lists.
2 Manifests (tobacco, wine, etc.). Agents deposit at Customs office.

PILOTAGE: Pilot taken on board, and lands in Dakar. When vessels do not require tank-washing, the Pilot disembarks in roadstead.

ANCHORAGES: Sufficient for three vessels only. About 6 m. deep.

RESTRICTIONS: Night navigation forbidden in River Saloum. Depth available 3.0 m.

MAX. SIZE: Length 105 m. (because of River Valor).

HEALTH: Agent signals to Harbour Master. Provisionally vessels quarantine in Dakar.

TUGS: No tugs. (Only from Dakar.)

BERTHING: Signals by flag when berth available. Vessels enter at flood tide so that they can turn at anchorage to be ready for sailing.

Private Berth: Saltworks Wharf, length 52 m. Owned by S.S.S.I.M. Tel: 411904. Telex: 7472 SG.

MEDICAL: Yellow fever vaccinations only at Dakar. No hospital facilities.

DENSITY: 1025 – 1035.

FRESH WATER: Available at 10 t.p.h.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Arranged by Agent.

OPENING/CLOSING HATCHES: By stevedores.

CUSTOMS ALLOWANCES: Tobacco, no restrictions; Customs control on board (Declaration on manifest). Crew going ashore only allowed cigarettes marked "Vente au Senegal". Wine and/or Spirit, not limited, Customs controlled.

CONSULS: None (Dakar only). French Consulate Agent: Leon Masfrand, Tel: 412176.

REPATRIATION: Not possible (Dakar only).

AIRPORT: None.

TIME: GMT throughout year.

HOLIDAYS: Independence Day (4th April) no loading. Tabaski (dependent on moon phase).

FIRE: Tel: 324.

TELEPHONES: Not possible to place on board.

SHORE LEAVE: Crew members allowed ashore.

IDENTIFICATION CARDS: Not necessary.

REGULATIONS: Vessels must hoist Senegalese flag and notify Agent before entering port.

AUTHORITY: Harbour Master, Rue de la Residence, Kaolack, Senegal. *Tel:* 411915.

AGENT: See "Dakar".

NOTES

Please also advise Shipping Guides Ltd.

Republic of Seychelles

PORT VICTORIA, Mahe: 04.37 S. 55.28 E. (See Plan)

PORT LIMITS: *Outer Harbour:* The area in Victoria Harbour between limits of the inner harbour and a line from Cedre Point to Long. 55° 29.84' E., thence South to St.Anne Island Shore, thence S.S.W. until Rochon Bridge bears West, then West until Victoria Lighthouse bears North.

DOCUMENTS:

Maritime Declaration of Health – forms obtainable from Medical Officer/Chief Environmental Health Officer.
Derat Certificate.
5 Crew Lists and Passengers' Lists.
Dangerous Cargo List.
Ship's Register.
Crew Declaration Form.
Declaration of Stores and high dutiable goods.
Parcels List.
Firearms List.
List of Animals remaining on board (Pets included).
Un-manifested Cargo List.
Cargo Manifests.
Clearance from last Port.

APPROACHES: *Notice to Mariners No. 1013(P)/86:*

Indian Ocean – Seychelles – Mahe – Port Victoria – Routeing System.

The following announcement has been made by the Ministry of Tourism and Transport, Port and Marine Services Division, Seychelles.

"A routeing system for approaches to Port Victoria, Mahe, Seychelles has been adopted.

All vessels calling to and from Port Victoria are required as far as practicable to stay within an area bounded by lines joining the following Geographical points. Points (1), (2), (3), (9) and (10) demark the Northern Approach and Points (3), (4), (5), (6), (7) and (8) demark the Southern Approach."

(1) 3° 43.0' S., 55° 33.0' E.
(2) 4° 26.0' S., 55° 32.0' E.
(3) 4° 30.0' S., 55° 39.0' E.
(4) 4° 51.0' S., 55° 42.5' E.
(5) 5° 16.5' S., 55° 30.0' E.
(6) 5° 13.0' S., 55° 23.0' E.
(7) 4° 48.5' S., 55° 34.5' E.
(8) 4° 37.0' S., 55° 33.5' E.
(9) 4° 33.0' S., 55° 26.0' E.
(10) 3° 43.0' S., 55° 25.0' E.

Charts affected: 742, 740, 721.

Harbour Master, Ministry of Tourism and Transport, Seychelles. (H. 5775/82.)

PILOTAGE: Compulsory in Inner and Outer Harbour for any vessel of or exceeding 150 g.r.t.

24 hours' notice, giving draft and length. Telegraphic address "Demarine" through Cable & Wireless (on schedule 500 kHz and 8714 kHz. Schedule published in Radio List. Harbour Control equipped with VHF Channels 16, 12 and 6).

Pilot Boat: White hull with white cabin, orange top, flying "H" flag.

Signals for Pilot: "G" by flag and/or whistle.

Pilot Boarding Ground: The Pilot boards vessels about 6 cables Northward of the outermost buoy ("Isolated Danger Buoy") in position Lat. 4° 35.7' S., Long. 55° 29.6' E. There is no night pilotage. Pilot can board in almost any weather. While awaiting Pilot; vessel can anchor in any suitable anchorage in the pilotage area. Vessels should call "Victoria Harbour Control" on VHF, Channel 16, 2 hours before arrival.

ANCHORAGES: Masters of all vessels are requested not to anchor on the leading marks or in any other position so as to block the entrance channel.

The following anchorages are available in the Outer Harbour.

(i) Victoria Lighthouse bearing 238° True. Distance 9.75 cables in depths of 20 m. to 22 m.
(ii) Victoria Lighthouse bearing 232° True. Distance 1 mile in depths of 22 m.
(iii) Victoria Lighthouse bearing 224° True. Distance 1.4 miles in depths of 18 m. to 20 m.
(iv) Victoria Lighthouse bearing 212° True. Distance 1.5 miles in depths of 20 m. to 22 m.

Supertankers and large vessels anchor outside the Fairway Buoy in any suitable anchorage. The Master should always contact Harbour Master for anchorage instructions.

RESTRICTIONS: All shipping movement in Inner Harbour to take place during daylight hours only. In Outer Harbour, night movement at discretion of Master after consultation with Harbour Master. No tide restrictions.

There is berthing space available for vessels with draft over 9.5 m., but not exceeding 11.5 m. This is between bollards No. 12 and No. 20, a distance of 123 m., at the Southern end of the quay. Vessels exceeding 123 m. with draft of 9.5 m. to 11.5 m. overhang the quay to the South and lines are made fast on shore bollards.

Under these circumstances vessels which overhang come starboard side to and the port anchor is used. This system is mainly used for tankers as the connecting discharge pipe ashore only needs to be in line with the ship's manifold. Cargo ships coming in at a deeper draft than 9.5 m. and less 11.5 m. can be docked. However it must be noted that cargo cannot be discharged from all hatches that overhang and the ship will have to be turned at a certain stage of discharging.

HEALTH: "Q" Flag or international red over white. Medical Officer/Environmental Health Officer may board vessels at anchor and before entering Inner Harbour. Crew Lists with vaccination dates against yellow fever and cholera if vessel from infected places. Health clearance given at Port Victoria only, health clearance may be given at Assumption Island by prior arrangement. Hospital facilities available. Vessels proceeding to the Inner Harbour may be disinsectised. Radio Pratique may be granted on request to "Port Health" – Ministry of Health.

No animal/pet of any description is permitted to be landed ashore or on the wharf as per Seychelles Quarantine Regulations. Necessary action will be taken against any Master who disregards these instructions in addition to the possibility of destroying any such animal or pet found ashore. Emphasis is made on the need to keep the Seychelles free from major animal diseases.

RADIO/VHF: Cable and Wireless, Port Victoria, Mahe. Call sign ZCQ. The Harbour Master's Office, call sign, "Harbour Control" keeps a 24 hour watch on VHF Channel 16 and Channel 12. Any further information can be obtained by calling up Harbour Control on Channel 16. Other Channels available – 12 and 6.

TUGS: 2×1,200 b.h.p. twin screw tugs and 1×2,000 b.h.p. twin screw tug in operation. Vessels of up to 800 ft. are able to berth alongside.

BERTHING: Due to limited space no berth can be reserved either alongside or at anchorage. All assistance given to position every ship in best available place.

Mahe Quay is in full operation. Two vessels can berth alongside. Berth No. 1 is allocated to oil and cement tankers and Berth No. 2 to cargo and passenger ships. Total length 370.4 m. Maximum depth of water at all berths is 35 ft. There are connections for fuel, fresh water and telephones at all berths. Port Offices, Customs and Health are situated at the New Port area.

Masters and Officers of vessels moored at the 2 above mentioned places are reminded of the importance of tending moorings at frequent intervals. Rat guards are deemed essential. Slack lines present a hazard to the safety of vessels moored alongside.

In the case of tankers and bulk carriers discharging or loading, the hourly difference in draft can be considerable. It is therefore recommended that regular routine checks on moorings be carried out by the Duty Officer.

Movement of Vessels Moored at Mahe Quay, Commercial Port, Fishing Port or at Anchorage. No movement of any vessel moored at the above mentioned places is permitted without authorisation from the Harbour Master. Ship's boats or lifeboats are not to be used as plying boats or on excursions to nearby islands. Use of ship's own craft for any reason including exercises must be cleared and authorised in the first instance.

Loading and discharging by ship's gear. Equipment available to handle 20 ft. and 40 ft. containers.

STEVEDORES: ETA advice required two to three days before ship's arrival in port. Loading and Discharging: General Cargo: average 15 t.p.h. per gang (subject weather conditions). Bagged Cargo: average 50 t.p.h. per gang (subject weather conditions). Containers: 22 boxes per hour. All stevedoring undertaken with ship's own gear.

TANKERS: Max. LOA 180 m., max. beam 33 m., max. draft 11.5 m. Discharge throughout 24 hours. Discharge lines 8 in. and 6 in. (Bulk white petroleum products and bulk cement).

DENSITY: Average 1025 at all states of tide.

FRESH WATER: In good supply. By mains when alongside. No water barge currently available. All water supplied is chlorinated. Vessels should request water at least 72 hours before arrival through Agent.

FUEL: Gas oil Kinematic CS at 40°C. = 3.63. Due to limited stock, it is advisable to give one week's notice, preferably through nomination addressed to Seychelles Petroleum Co. (Seypec).

Intermediate Fuel oil now available on North end of berth only. (Fuel oil 180 centistoke). Pour point 70 max. – Kinematic 180 max. – restriction on flow of delivery pending improvement of facilities.

CONSULS: *Embassies:* China, Cuba, France, Russia, U.S.A.

High Commissions: Great Britain, India.

Consuls: Belgium, Cyprus, Denmark, Finland, Germany, Greece, Italy, Malagasy Rep., Mauritius, Morocco, Netherlands, Norway, Spain, Sweden, Switzerland.

REPAIRS: Slipways for vessels under 300 g.r.t. Mechanical engineering and fabrication. Electronic and electrical engineering. Commercial diving services (hull cleaning, inspection and repairs). Shipchandling (marine equipment).

DRY DOCKS: None, but being considered.

GANGWAY/DECK WATCHMEN: Customs Officer on duty at all times if vessel is discharging cargo.

OPENING/CLOSING HATCHES: Normally carried out by ship's crew.

CUSTOMS ALLOWANCES: At Custom Officer's discretion.

CARGO GEAR: All cargo slings and gear supplied by ship.

REPATRIATION: Crew changes possible. Undertaken by Agents in connection with Immigration Authorities.

AIRPORT: In operation. Several flights weekly.

TIME: GMT plus 4 hours, throughout year.

HOLIDAYS: New Year (1st and 2nd January); Good Friday; Labour Day (May 1st); Corpus Christi (June 2nd); Liberation Day (June 5th); National Day (June 18th); Independence Day (June 29th); Assumption Day (August 15th); All Saints' Day (November 1st); Immaculate Conception (December 8th); Christmas Day (December 25th).

SHIP SUPPLY SERVICE: Ship Supply Services can be made by prior arrangements with any shipping Agencies by using fast hire crafts, which are allowed to operate within a range of 60 miles Mahe to any given rendezvous.

List of Shipping Agents:

Aquaris Shipping, P.O.Box 865, Victoria, Male, Seychelles. Tel: (248) 225050. Telex: 2424 Unship. Fax: (248) 225043.

Hunt Deltel & Co. Ltd., P.O.Box 14, Victoria, Mahe, Seychelles. Fax: (248) 225367.

Mahe Shipping Co. Ltd., P.O.Box 336, Victoria, Mahe, Seychelles. Fax: (248) 322978.

Harry Savy & Co. Seychelles (Pty) Ltd., P.O.Box 20, Victoria, Mahe, Seychelles. Fax: (248) 321421.

M/S Allied Agencies Ltd., P.O.Box 345, Mahe, Seychelles. Fax: (248) 224226.

KAOLACK: 14.09 N. 16.06 W.

DOCUMENTS:
2 Crew Lists.
2 Stores Lists.
2 Manifests (tobacco, wine, etc.). Agents deposit at Customs office.

PILOTAGE: Pilot taken on board, and lands in Dakar. When vessels do not require tank-washing, the Pilot disembarks in roadstead.

ANCHORAGES: Sufficient for three vessels only. About 6 m. deep.

RESTRICTIONS: Night navigation forbidden in River Saloum. Depth available 3.0 m.

MAX. SIZE: Length 105 m. (because of River Valor).

HEALTH: Agent signals to Harbour Master. Provisionally vessels quarantine in Dakar.

TUGS: No tugs. (Only from Dakar.)

BERTHING: Signals by flag when berth available. Vessels enter at flood tide so that they can turn at anchorage to be ready for sailing.

Private Berth: Saltworks Wharf, length 52 m. Owned by S.S.S.I.M. Tel: 411904. Telex: 7472 SG.

MEDICAL: Yellow fever vaccinations only at Dakar. No hospital facilities.

DENSITY: 1025 – 1035.

FRESH WATER: Available at 10 t.p.h.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Arranged by Agent.

OPENING/CLOSING HATCHES: By stevedores.

CUSTOMS ALLOWANCES: Tobacco, no restrictions; Customs control on board (Declaration on manifest). Crew going ashore only allowed cigarettes marked "Vente au Senegal". Wine and/or Spirit, not limited, Customs controlled.

CONSULS: None (Dakar only). French Consulate Agent: Leon Masfrand, Tel: 412176.

REPATRIATION: Not possible (Dakar only)

AIRPORT: None.

TIME: GMT throughout year.

HOLIDAYS: Independence Day (4th April) no loading. Tabaski (dependent on moon phase).

FIRE: Tel: 324.

TELEPHONES: Not possible to place on board.

SHORE LEAVE: Crew members allowed ashore.

IDENTIFICATION CARDS: Not necessary.

REGULATIONS: Vessels must hoist Senegalese flag and notify Agent before entering port.

AUTHORITY: Harbour Master, Rue de la Residence, Kaolack, Senegal. *Tel:* 411915.

AGENT: See "Dakar".

NOTES

Please also advise Shipping Guides Ltd.

Republic of Seychelles

PORT VICTORIA, Mahe: 04.37 S. 55.28 E. (See Plan)

PORT LIMITS: *Outer Harbour:* The area in Victoria Harbour between limits of the inner harbour and a line from Cedre Point to Long. 55° 29.84' E., thence South to St.Anne Island Shore, thence S.S.W. until Rochon Bridge bears West, then West until Victoria Lighthouse bears North.

DOCUMENTS:

Maritime Declaration of Health – forms obtainable from Medical Officer/Chief Environmental Health Officer.
Derat Certificate.
5 Crew Lists and Passengers' Lists.
Dangerous Cargo List.
Ship's Register.
Crew Declaration Form.
Declaration of Stores and high dutiable goods.
Parcels List.
Firearms List.
List of Animals remaining on board (Pets included).
Un-manifested Cargo List.
Cargo Manifests.
Clearance from last Port.

APPROACHES: *Notice to Mariners No. 1013(P)/86:*

Indian Ocean – Seychelles – Mahe – Port Victoria – Routeing System.

The following announcement has been made by the Ministry of Tourism and Transport, Port and Marine Services Division, Seychelles.

"A routeing system for approaches to Port Victoria, Mahe, Seychelles has been adopted.

All vessels calling to and from Port Victoria are required as far as practicable to stay within an area bounded by lines joining the following Geographical points. Points (1), (2), (3), (9) and (10) demark the Northern Approach and Points (3), (4), (5), (6), (7) and (8) demark the Southern Approach."

(1) 3° 43.0' S., 55° 33.0' E.
(2) 4° 26.0' S., 55° 32.0' E.
(3) 4° 30.0' S., 55° 39.0' E.
(4) 4° 51.0' S., 55° 42.5' E.
(5) 5° 16.5' S., 55° 30.0' E.
(6) 5° 13.0' S., 55° 23.0' E.
(7) 4° 48.5' S., 55° 34.5' E.
(8) 4° 37.0' S., 55° 33.5' E.
(9) 4° 33.0' S., 55° 26.0' E.
(10) 3° 43.0' S., 55° 25.0' E.

Charts affected: 742, 740, 721.

Harbour Master, Ministry of Tourism and Transport, Seychelles. (H. 5775/82.)

PILOTAGE: Compulsory in Inner and Outer Harbour for any vessel of or exceeding 150 g.r.t.

24 hours' notice, giving draft and length. Telegraphic address "Demarine" through Cable & Wireless (on schedule 500 kHz and 8714 kHz. Schedule published in Radio List. Harbour Control equipped with VHF Channels 16, 12 and 6).

Pilot Boat: White hull with white cabin, orange top, flying "H" flag.

Signals for Pilot: "G" by flag and/or whistle.

Pilot Boarding Ground: The Pilot boards vessels about 6 cables Northward of the outermost buoy ("Isolated Danger Buoy") in position Lat. 4° 35.7' S., Long. 55° 29.6' E. There is no night pilotage. Pilot can board in almost any weather. While awaiting Pilot; vessel can anchor in any suitable anchorage in the pilotage area. Vessels should call "Victoria Harbour Control" on VHF, Channel 16, 2 hours before arrival.

ANCHORAGES: Masters of all vessels are requested not to anchor on the leading marks or in any other position so as to block the entrance channel.

The following anchorages are available in the Outer Harbour.

(i) Victoria Lighthouse bearing 238° True. Distance 9.75 cables in depths of 20 m. to 22 m.
(ii) Victoria Lighthouse bearing 232° True. Distance 1 mile in depths of 22 m.
(iii) Victoria Lighthouse bearing 224° True. Distance 1.4 miles in depths of 18 m. to 20 m.
(iv) Victoria Lighthouse bearing 212° True. Distance 1.5 miles in depths of 20 m. to 22 m.

Supertankers and large vessels anchor outside the Fairway Buoy in any suitable anchorage. The Master should always contact Harbour Master for anchorage instructions.

RESTRICTIONS: All shipping movement in Inner Harbour to take place during daylight hours only. In Outer Harbour, night movement at discretion of Master after consultation with Harbour Master. No tide restrictions.

There is berthing space available for vessels with draft over 9.5 m., but not exceeding 11.5 m. This is between bollards No. 12 and No. 20, a distance of 123 m., at the Southern end of the quay. Vessels exceeding 123 m. with draft of 9.5 m. to 11.5 m. overhang the quay to the South and lines are made fast on shore bollards.

Under these circumstances vessels which overhang come starboard side to and the port anchor is used. This system is mainly used for tankers as the connecting discharge pipe ashore only needs to be in line with the ship's manifold. Cargo ships coming in at a deeper draft than 9.5 m. and less 11.5 m. can be docked. However it must be noted that cargo cannot be discharged from all hatches that overhang and the ship will have to be turned at a certain stage of discharging.

HEALTH: "Q" Flag or international red over white. Medical Officer/Environmental Health Officer may board vessels at anchor and before entering Inner Harbour. Crew Lists with vaccination dates against yellow fever and cholera if vessel from infected places. Health clearance given at Port Victoria only, health clearance may be given at Assumption Island by prior arrangement. Hospital facilities available. Vessels proceeding to the Inner Harbour may be disinsectised. Radio Pratique may be granted on request to "Port Health" – Ministry of Health.

No animal/pet of any description is permitted to be landed ashore or on the wharf as per Seychelles Quarantine Regulations. Necessary action will be taken against any Master who disregards these instructions in addition to the possibility of destroying any such animal or pet found ashore. Emphasis is made on the need to keep the Seychelles free from major animal diseases.

RADIO/VHF: Cable and Wireless, Port Victoria, Mahe. Call sign ZCQ. The Harbour Master's Office, call sign, "Harbour Control" keeps a 24 hour watch on VHF Channel 16 and Channel 12. Any further information can be obtained by calling up Harbour Control on Channel 16. Other Channels available – 12 and 6.

TUGS: 2×1,200 b.h.p. twin screw tugs and 1×2,000 b.h.p. twin screw tug in operation. Vessels of up to 800 ft. are able to berth alongside.

BERTHING: Due to limited space no berth can be reserved either alongside or at anchorage. All assistance given to position every ship in best available place.

Mahe Quay is in full operation. Two vessels can berth alongside. Berth No. 1 is allocated to oil and cement tankers and Berth No. 2 to cargo and passenger ships. Total length 370.4 m. Maximum depth of water at all berths is 35 ft. There are connections for fuel, fresh water and telephones at all berths. Port Offices, Customs and Health are situated at the New Port area.

Masters and Officers of vessels moored at the 2 above mentioned places are reminded of the importance of tending moorings at frequent intervals. Rat guards are deemed essential. Slack lines present a hazard to the safety of vessels moored alongside.

In the case of tankers and bulk carriers discharging or loading, the hourly difference in draft can be considerable. It is therefore recommended that regular routine checks on moorings be carried out by the Duty Officer.

Movement of Vessels Moored at Mahe Quay, Commercial Port, Fishing Port or at Anchorage. No movement of any vessel moored at the above mentioned places is permitted without authorisation from the Harbour Master. Ship's boats or lifeboats are not to be used as plying boats or on excursions to nearby islands. Use of ship's own craft for any reason including exercises must be cleared and authorised in the first instance.

Loading and discharging by ship's gear. Equipment available to handle 20 ft. and 40 ft. containers.

STEVEDORES: ETA advice required two to three days before ship's arrival in port. Loading and Discharging: General Cargo: average 15 t.p.h. per gang (subject weather conditions). Bagged Cargo: average 50 t.p.h. per gang (subject weather conditions). Containers: 22 boxes per hour. All stevedoring undertaken with ship's own gear.

TANKERS: Max. LOA 180 m., max. beam 33 m., max. draft 11.5 m. Discharge throughout 24 hours. Discharge lines 8 in. and 6 in. (Bulk white petroleum products and bulk cement).

DENSITY: Average 1025 at all states of tide.

FRESH WATER: In good supply. By mains when alongside. No water barge currently available. All water supplied is chlorinated. Vessels should request water at least 72 hours before arrival through Agent.

FUEL: Gas oil Kinematic CS at 40°C. = 3.63. Due to limited stock, it is advisable to give one week's notice, preferably through nomination addressed to Seychelles Petroleum Co. (Seypec).

Intermediate Fuel oil now available on North end of berth only. (Fuel oil 180 centistoke). Pour point 70 max. – Kinematic 180 max. – restriction on flow of delivery pending improvement of facilities.

CONSULS: *Embassies:* China, Cuba, France, Russia, U.S.A.

High Commissions: Great Britain, India.

Consuls: Belgium, Cyprus, Denmark, Finland, Germany, Greece, Italy, Malagasy Rep., Mauritius, Morocco, Netherlands, Norway, Spain, Sweden, Switzerland.

REPAIRS: Slipways for vessels under 300 g.r.t. Mechanical engineering and fabrication. Electronic and electrical engineering. Commercial diving services (hull cleaning, inspection and repairs). Shipchandling (marine equipment).

DRY DOCKS: None, but being considered.

GANGWAY/DECK WATCHMEN: Customs Officer on duty at all times if vessel is discharging cargo.

OPENING/CLOSING HATCHES: Normally carried out by ship's crew.

CUSTOMS ALLOWANCES: At Custom Officer's discretion.

CARGO GEAR: All cargo slings and gear supplied by ship.

REPATRIATION: Crew changes possible. Undertaken by Agents in connection with Immigration Authorities.

AIRPORT: In operation. Several flights weekly.

TIME: GMT plus 4 hours, throughout year.

HOLIDAYS: New Year (1st and 2nd January); Good Friday; Labour Day (May 1st); Corpus Christi (June 2nd); Liberation Day (June 5th); National Day (June 18th); Independence Day (June 29th); Assumption Day (August 15th); All Saints' Day (November 1st); Immaculate Conception (December 8th); Christmas Day (December 25th).

SHIP SUPPLY SERVICE: Ship Supply Services can be made by prior arrangements with any shipping Agencies by using fast hire crafts, which are allowed to operate within a range of 60 miles Mahe to any given rendezvous.

List of Shipping Agents:

Aquaris Shipping, P.O.Box 865, Victoria, Male, Seychelles. Tel: (248) 225050. Telex: 2424 Unship. Fax: (248) 225043.

Hunt Deltel & Co. Ltd., P.O.Box 14, Victoria, Mahe, Seychelles. Fax: (248) 225367.

Mahe Shipping Co. Ltd., P.O.Box 336, Victoria, Mahe, Seychelles. Fax: (248) 322978.

Harry Savy & Co. Seychelles (Pty) Ltd., P.O.Box 20, Victoria, Mahe, Seychelles. Fax: (248) 321421.

M/S Allied Agencies Ltd., P.O.Box 345, Mahe, Seychelles. Fax: (248) 224226.

Senegal

DAKAR: 14.40 N. 17.26 W. (See Plan)

PORT LIMITS: *North:* From the point of Bel-Air by a parallel from N.E. of the N.E. Jetty of the harbour, to 1 mile N.E. by a meridian passing 2,900 m. East of the Round-Point determined by the crossing of Felix Eboue and Avenue de la Jetee Nord and by the parallel passing 2,060 m. North of Goree Island.
East: By the meridian passing 1 mile East of Goree.
South: By a line joining the Cape Manuel from the South point of Goree prolonged until it encounters the meridian passing 1 mile East of Goree.
DOCUMENTS: Vessels carrying hazardous and/or strong smelling cargoes must declare to the Harbour Master, at least 48 hours before ship's arrival, the nature/quantity/packing of these goods, as well as their stowage on board. Same applies for Arms and Ammunitions.
Health:
2 Crew Lists.
1 Sanitary Declaration.
2 Lists of Date of Vaccinations.
(Valid vaccination for Yellow Fever for all persons)
Customs:
3 Crew Lists.
2 Stores Lists.
2 Personal Effects Declarations.
2 Slop Chest Lists.
1 Arms and Ammunition List.
Immigration:
4 Crew Lists.
2 Lists of Ports of Call with dates of arrival/departure.
Agents:
1 Crew List.
1 Personal Effects Declaration.
1 Slop Chest List.
2 Lists of Arms and Ammunition.
Papers required on arrival: Bills of Lading for cargo to be discharged and Master's copy. 2 copies of Cargo Manifests for cargo to be discharged.

Great care should be taken in completing all Store Lists, Slop Chest Lists and Personal Effects Lists as Customs check all stores, including fridge spaces. All paints onboard must be declared.

Customs also board vessels at anchor and inside territorial waters, inflicting heavy fines in cases where stores, etc. are not prepared and ready for inspection. Also, heavy fines are imposed for any discrepancies. Even when calling at port for emergencies (e.g. Medivac) a full set of documents must be prepared before entering territorial waters.

No vessel is allowed to leave Dakar without having received on board an outward manifest duly visaed by the local Customs Authorities. Vessels leaving without such a manifest will be heavily fined.
PILOTAGE: Pilots meet vessels off the North point of the Island of Goree in a naturally sheltered area. Pilot available 24 hours and service is compulsory. Pilots on VHF Channel 16.
RESTRICTIONS: During the rainy season, all vessels with a draft of more than 32 ft. 6 in. could be delayed, due to the effects of swell, at anchorage in outer roads and await meteorological conditions permitting their entry into the harbour.

Use of whistle signals to call Pilot is forbidden between 2200 hrs. and 0600 hrs. The harbour area is dredged to a depth of 10 m. to 11 m.
Dangerous Cargo: Vessels are allowed to have the following dangerous cargo on board:

For Discharging	*North Area*	*South Area*
I.M.O. 1	20 tons	10 tons
I.M.O. 2	50 tons	25 tons
I.M.O. 3	80 tons	25 tons
In Transit	*North Area*	*South Area*
I.M.O.	25 tons	20 tons
I.M.O. 2	50 tons	25 tons
I.M.O. 3	80 tons	40 tons

MAX. SIZE: Ships of 30 ft. draft are able to enter at all stages of the tide by day and night. Vessels up to 36 ft. draft may enter at high tide except possibly during the stormy season, between mid August and mid October.
HEALTH: Health Officials board vessel immediately after berthing alongside. For passenger vessels, these formalities are effected before berthing to avoid delays. Vessels at sea may obtain medical advice by VHF or telex via Dakar Radio.

Inoculation/Vaccination can be arranged through Agent during weekdays.

Free Pratique can be granted via radio by Agent, by using international Code Words "MIBDU/MIJMA".
RADIO: ETA advice should be sent 96 hours, 48 hours and 12 hours prior to arrival including cargo to discharge, drums to discharge (if any), draft on arrival, expected draft on departure, last port and next port of call. Agents should be notified of tug requirements, VHF Channel 8.
VHF: The Port Captain's Office, Pilot Station and tugs are equipped with VHF, with the following Channels: Channel 16 used by vessels approaching to contact Pilot Station or Port Captain's Office; Channel 12 used during manoeuvres for communications between Pilots and tugs; Channel 6 used only by the tug station.
TUGS: Operated by a private company, 3 tugs available up to 2,000 h.p. (bollard pull 24 tons). Compulsory for loaded tankers.
BERTHING: 10,000 m. of quay length available of which more than half has depths of 8 m. to 11 m. alongside.

The Northern area has 5 wharves with depths of 23 ft. – 36 ft.
Dock 4: Length 572 m.

Berth 41: Draft 33 ft. Equipped for discharging bulk grain with private equipment (rate of 4,000 tonnes per day) and load ground nuts.

Berth 42 – 43: Draft 33 ft. Used for the discharge of rice.

Berth 45: Length 120 m., draft 23 ft. Used for the discharge of liquified gas.
Dock 5: Berth 52 (Taiba Phosphate Quay): Length 170 m. Max. draft 36 ft. Loading at an average of 900 tonnes per hour (Air draft 35 ft.).
Dock 6: Length 634 m.

Berth 61: Length 210 m. Used for wine and ground nut oil tankers with a draft of 27 ft.

Berth 62 – 63: Length 425 m. Max. draft 36 ft. A new terminal of containers with area of 50,000 sq.m.
Dock 7: Berth 708 (Thies Phosphate Quay): Length 215 m. Max. draft 32 ft. Loading at an average of 200 tonnes per hour.
Dock 8: Total length of 265 m. and depth of 32 ft.

Berth 81: New terminal with gantry crane/conveyor belt enabling a daily discharging/loading rate of 7,000 tonnes (bulk sulphur, fertiliser, etc.).

Berths 82 – 85: For bunkers, general cargo, logs, scrap iron, bulk grain, etc.

The South area has 3 wharves with a depth of 26 ft. – 33 ft.
Dock I is 460 m. long.

Berth No.	12	Draft	26 ft.	3 in.
" "	13	"	28 ft.	7 in.
" "	14	"	28 ft.	7 in.
" "	15	"	33 ft.	
" "	17	"	33 ft.	

Dock II

Berth No.	21	Draft	27 ft.	3 in.
" "	22	"	26 ft.	11 in.
" "	24	"	26 ft.	3 in.
" "	25	"	25 ft.	11 in.

Dock III is 350 m. long. Max. draft of 32 ft. 10 in. Reserved for trade with the Republic of Mali.
Mole de Peche: 1,461 m. of quays, supplied with water and bunkers. Areas for spreading out fishing lines and nets.
CRANES:
5 Mobile cranes × 20 tons.
1 Mobile crane × 60 tonnes.
6 Mobile cranes × 25 tonnes.
1 Floating crane × 30 tonnes.
1 Mobile crane × 100 tonnes.
1 Mobile crane × 70 tonnes.
6 Mobile cranes × 40 tonnes.

In addition, there are many mobile cranes with capacity 2 tons - 15 tons.
CONTAINER FACILITIES: *Container Terminal:* Length 430 m., depth 11.6 m. Back-up area of 8 ha., connected to an extension of 6 ha. 120 reefer points.

Containers are also handled at Pier 3.
STEVEDORES: Normal working hours, weekdays from 0800 to 1200 hrs. and from 1400 to 1800 hrs. Saturdays from 0800 to 1200 hrs. Overtime, weekdays from 0500 to 0800 hrs.; from 1200 to 1400 hrs.; from 1800 to 2200 hrs.; from 2200 to 0500 hrs. Holidays and Sundays from 0000 to 0500 hrs.; from 2200 to 2400 hrs.
MEDICAL: *Vaccinations:* Possible from 0800 to 1200 hrs. and 1500 to 1700 hrs. Sundays and holidays excluded.
Doctors: All kinds of specialists available.
Hospitals: With qualified doctors and good equipment.
TANKERS: The Petroleum Basin is dredged to a depth of 10 m. to 11 m. 2 jetty berths can receive tankers up to 200 m. length, max. draft 32 ft. 6 in. Petroleum Wharf which has 4 berths, depth alongside 12 m. (depth in approaches 11 m.) can receive tankers up to 250 m. length with a draft of 39 ft.

Black products handled at all berths (6 in., 8 in. and 10 in. hoses). White products at Berth, 2 only (8 in. hoses). Distance to tank farm about 5 km. Water to be pumped between grades.

Ship to Ship transfer (STS) is carried out across Petroleum Wharf using 2 × 8 in. hoses. Standard practice – discharging tanker starboard side alongside Berth No. 93 and loading tanker port side alongside at No. 92 Berth. Transhipment supervised by Iransen and Shell.

M'bao Refinery sealine buoy berth is situated 3 miles N.E. of Goree Island. Vessel berths using both bow anchors, stern is secured to 4 buoys using 4×5 in. wires from buoys stern. Ship's ropes not used. Hose connection on port side using 12 in. (300 mm.) hoses. Vessel's derrick to have an SWL of at least 5 tonnes.
FRESH WATER: All quays are fitted with water hydrants. Water supplied by 3 hoses simultaneously, with a rate from 60 – 100 cu.m.p.h. Can also be supplied by barge up to 400 tons capacity but minimum order 150 tons.
FUEL: All grades can be supplied from the quays up to 1,000 t.p.h. Fuel can also be supplied by barge. Also see "Shipmasters' Report".
REPAIRS: All types of repair can be effected by the Naval Arsenal or by private companies.
DRY DOCKS: At the Naval Arsenal, one dry dock length 195 m., widt 23 m., depth up to 9.50 m.

Syncrolift, max. weight acceptable, 1,200 tons.

New Floating Dock will take vessels up to 60,000 d.w.t. Lifting capac 28,000 tons. Acceptable dimensions 235 m. × 38 m.
REPATRIATION: Seamen can be repatriated to Europe without delay by air.
AIRPORT: International airport with regular services to Europe.
TELEPHONES: All berths are equipped with telephone apparatus whic is placed on board vessels without charge.
HOLIDAYS: New Year (1st January); Tabaski (Variable Date); Nation Day (4th April); Easter (Variable Date); Labour Day (1st May); Ascensio Day (7th May); Whit Monday (Variable Date); Maouloud (Variable Date National Day (14th July); Assumption (15th August); All Saints' Day (1 November); Korite (Variable Date); Christmas (25th December).

GARBAGE DISPOSAL: Collection service is available and is supplied by the Port Authority. Collection services may also be supplied by ship's agent or private companies.

WASTE OIL DISPOSAL: Collection service is available through private company SRH (Societe de Precuperation des Huiles).

CURRENCY: CFA Franc (Fr.CFA). Fixed against French Franc (F.Fr.). F.Fr. 1.00 = 50Fr.CFA.

GENERAL: Several cases of assault have been reported against crew members returning to their ships during the hours of darkness. For this reason, the delivery of cash from Agents is suspended during the night hours. Although Port Authorities and Security are aware of the situation, it is advisable to acquaint all on board with this.

SHIPMASTER'S REPORT: With a draft in excess of 15 m. it is not possible to anchor in the inner roads due to the swell. The swell is worse from July to October (rainy season).

The Pilot directed us to an anchorage 0.5 miles N.E. of Island of Goree but in my opinion it is a little too close. However, the nearer a vessel can anchor N.E. of Goree the better. The holding ground is very good.

It is possible to talk to Mory Fuel Company direct on VHF Channel 2. They have a barge which is able to deliver fuel oil and diesel oil, capacity 500 tons.

Three tugs available, be sure to order one well in advance before completion of bunkering or the vessel may have to wait. Bunkering undertaken day and night.

SHIPMASTER'S REPORT: October 1983.

Documents: Separate Bonded Stores List (4 copies) required by Customs.

Pilotage: Pilots will board 0.2 miles from breakwater entrances.

Health: Advise Port Health Authorities of health state, also vaccinations required. They attend on arrival but do not acknowledge messages.

Fresh Water: Fresh water supply at piers averages 20 t.p.h.

Security: There have been many cases recently of anchored and stationary vessels being boarded by thieves and mooring ropes, etc. purloined. Vessels on regular run to Dakar do *not* stop in port approach areas until daylight. Gangway watchman essential. Shore traders to be confined to one area under supervision if allowed on board.

SHIPMASTER'S REPORT: March 1989.

Port Officials: Immigration and Port Health boarded on arrival alongside. Customs did not board until the next day.

The Agent advised that particular attention should be paid to declaring the paint on board and also that the Stores Declaration should be made out after the usual "presents" had been given out.

The Customs search was a quick look at the bond locker and the question "Is it as declared?" is asked. When the answer was in the affirmative and a "present" handed over the locker was sealed, no other area of the vessel was searched.

Normally, all stores are checked and any discrepancies will result in a fine, the minimum reported to be U.S.$500.00.

Ship's standard papers are accepted, except for the Health Declaration where the Port Authority form is required, copies placed on board for next call.

Papers required:

Health Declaration	1 copy
Crew Declaration	2 copies
Ports of Call List	5 copies
Vaccination List	2 copies
Drugs List	3 copies
Crew List	6 copies
Stores List	3 copies
Hazardous Cargo List	2 copies
Passenger List	4 copies
Stowaway List	4 copies
Arms and Ammunition List	4 copies
Animals List	4 copies
Cargo Manifest	4 copies

"Nil" declarations are required when appropriate.

The quantity of forms required varies slightly from visit to visit but this would appear sufficient to cover most calls.

The standard vaccination list included Cholera, and the Port Health advised that one of these was out of date, however Cholera is not required for Dakar and no problems were experienced.

An Inward Clearance Certificate is issued by the Port Authority and also a certificate of Free Pratique by the Port Health.

Outward Clearance is stamped by the Customs on copies of the Cargo Manifest.

Approaches: B.A. Chart 1001 was found to be as charted. Arrival was in daylight and lights could not be verified.

Buoy No. 1 is painted white and was difficult to see in the hazy conditions prevailing at the time.

Buoy No. 12 has a double black ball topmark as indicated in the Light List and not a single ball as appears on the chart.

Approach to the harbour entrance can be made either between the buoy just North of Goree Island and Buoy No. 12 or between Buoy No. 1 and Buoy No. 12.

Pilots: On arrival the Pilot will board at the charted position or closer to the harbour entrance from a large launch.

On departure, call the Pilot Station on VHF 1 hour before estimated departure time and confirm 10 minutes before vessel is ready to leave. The Pilots employed were competent and spoke good English.

Shifting ship: It is not necessary to use a Pilot for warping the vessel along the dock. For this operation linesmen are obtained by calling the Pilots on VHF.

Radio: The Port Authority require 96 hours, 48 hours and 24 hours notice of arrival according to the Radio Signals List. An attempt was made to pass this information using the telex number from the Radio Signals, but the telex remained undelivered, so contact was made by W/T through the local coast station.

Agents were also asked to advise the Port Authority and Pilots. The message must have been received as we were expected.

Pilots can be contacted on VHF as soon as within range and will advise berthing or anchoring prospects, the English spoken is generally good.

Pilots will advise on VHF, any vessel movements and give directions for approach.

Tugs: Two tugs were used for berthing as there was a strong wind on to the berth and there was another vessel on the berth astern, however, probably one tug would be sufficient under similar conditions in future.

The pilots carry portable VHF for communication with the tugs.

Tugs lines are used when required and are in good condition.

Berthing: All berths are fitted with fenders, but some are in a poor condition. In February 1989 the vessel berthed on Berth No. 85, the fendering here is good.

There are 2 sets of boat landing steps set into the face of the dock along this side of Pier No. 8 which would cause a problem if the vessel was positioned with either of these close to the foot of the gangway.

The vessel was later moved astern to Berth No. 84.

There is a clear working area alongside Berths No. 85 and 86, but dockside sheds and stored cargo made the loading area alongside Berth No. 84 somewhat cramped.

Loading: Vessel loaded 6,600 tonnes of ground nut pellets.

The loading is by portable belt elevators, supplied by tipper trucks.

Four elevators were used and positioned variously at hatches, depending on the distribution required.

Working hours are 0800 hrs. – 1800 hrs. every day.

Starting in the morning is slow, the first truck arriving at about 0830 hrs. and sometimes as late as 0915 hrs.

Hoppers are then constructed at the ends of the elevators by filling bags with the first of the delivered cargo, the hoppers are to give a good feed to the elevators. The last truck of the day arrives at about 1700 hrs. and when that is emptied the hoppers are dismantled and the contents of the bags are emptied on to the elevators and any remaining sweepings on the dock are shovelled on afterwards.

The day's work is usually completed by 1730 hrs.

The loading rate is governed by the availability of trucks and the rate of filling them at the silos.

The Agents are also the stevedores and their equipment was used.

Daily tonnage sheets are produced but are slow in coming forth, no record was kept of the tonnage per hatch, only the total loaded.

Gross elevator hours	284	Gross rate	23.24 t.p.h.
Net elevator hours	243.17	Net rate	27.14 t.p.h.

Approximate rate of 250 tonnes per elevator per day.

Fresh Water: Available at berth, the watermen supply their own hoses.

Repairs: Permission is required to immobilse the main engines. There are no other restrictions.

The repair firm Dakar Marine did a fair job of supplying and fitting new bolts to the rudder of another vessel alongside, but I suspect repair work is expensive.

Watchmen: It is best to employ two shore watchmen, one permanently on gangway duty and one on patrol. Theft is common and firefighting and lifesaving equipment are favourite items.

General: Fumigation: The holds were fumigated on arrival and left overnight, loading starting the next morning. The cargo was also fumigated on completion of loading.

Presents: Everyone expects either cigarettes or soft drinks for services rendered but can generally be persuaded to go away empty-handed, however a reasonable supply is required to take care of deserving cases.

Dust: For some days before arrival visibility was reduced by dust haze caused by sand from the desert, the whole of Dakar is covered in dust and when loading commenced this was made considerably worse.

Disbursements through Agents: The Agents prefer to draw cash and hand it to the Master to pay any accounts direct to the supplier, which is not the easist way of doing things.

Ensure that the Agent advises you of which items they will pay and which are expected to be paid by the vessel.

Laundry: Can be arranged by the ship chandler, but it is expensive.

Shore labour: All forms of cleaning and painting are possible, however at a cost of U.S.$20.00 per man per day would appear to be rather expensive, especially as the workers also expect to be fed.

Garbage collection: Recommended by the Agents and is carried out at intervals specified by the vessel (daily, every 2 days, etc.).

Ship Chandlers: A large number will present themselves as soon as the vessel arrives alongside, also a number of businessmen with everything from fish to watches for sale. The businessmen are best kept off the ship, as apart from their prices generally being the same or more than the Chandlers, they are likely to pick up anything that can be moved and spirit it away under their robes.

Prices of all items are high. Most foodstuffs have been imported and nothing except fish seems to be produced locally, although some good produce was seen on the market stalls in town.

M.N. Thoumas, United Shipchandlers, had been used before by the vessel and his prices compared favourably with other chandlers, he also seems to have an efficient organisation. Some of his fresh produce was returned as being poor and replacements were made.

AUTHORITY: Port Autonome de Dakar, 21 Boulevard de la Liberation, P. 3195, Dakar, Senegal. *Tel:* 23-45-45. *Telex:* 21404. *FAX:* 23.36.06. *Cables:* Porcomer Dakar. *FAX:* 213606. *Contact:* Mr.Pathe Ndiaye, Director General. Captain E. Sarr, Harbour Master. J.B.G. Diatta, Commercial Director.

AGENT: Socopao Senegal, 47 Avenue Albert Sarrault, B.P. 233, Dakar, Senegal. Tel: 23.10.01, 23.46.81. Telex: 51444 Freight SG. Fax: 23.47.49, 23.56.14. Cables: "Freight Dakar".

Fish Department – Tel: 23.59.43, 23.10.01. Telex: 21496 Freight SG. Fax: 23.47.69, 23.56.14.

Sub-Agency at Kaolak. Tel: 41.19.07. Telex: 74060.

KAOLACK: 14.09 N. 16.06 W.

DOCUMENTS:
2 Crew Lists.
2 Stores Lists.
2 Manifests (tobacco, wine, etc.). Agents deposit at Customs office.

PILOTAGE: Pilot taken on board, and lands in Dakar. When vessels do not require tank-washing, the Pilot disembarks in roadstead.

ANCHORAGES: Sufficient for three vessels only. About 6 m. deep.

RESTRICTIONS: Night navigation forbidden in River Saloum. Depth available 3.0 m.

MAX. SIZE: Length 105 m. (because of River Valor).

HEALTH: Agent signals to Harbour Master. Provisionally vessels quarantine in Dakar.

TUGS: No tugs. (Only from Dakar.)

BERTHING: Signals by flag when berth available. Vessels enter at flood tide so that they can turn at anchorage to be ready for sailing.

Private Berth: Saltworks Wharf, length 52 m. Owned by S.S.S.I.M. Tel: 411904. Telex: 7472 SG.

MEDICAL: Yellow fever vaccinations only at Dakar. No hospital facilities.

DENSITY: 1025 – 1035.

FRESH WATER: Available at 10 t.p.h.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Arranged by Agent.

OPENING/CLOSING HATCHES: By stevedores.

CUSTOMS ALLOWANCES: Tobacco, no restrictions; Customs control on board (Declaration on manifest). Crew going ashore only allowed cigarettes marked "Vente au Senegal". Wine and/or Spirit, not limited, Customs controlled.

CONSULS: None (Dakar only). French Consulate Agent: Leon Masfrand, Tel: 412176.

REPATRIATION: Not possible (Dakar only).

AIRPORT: None.

TIME: GMT throughout year.

HOLIDAYS: Independence Day (4th April) no loading. Tabaski (dependent on moon phase).

FIRE: Tel: 324.

TELEPHONES: Not possible to place on board.

SHORE LEAVE: Crew members allowed ashore.

IDENTIFICATION CARDS: Not necessary.

REGULATIONS: Vessels must hoist Senegalese flag and notify Agent before entering port.

AUTHORITY: Harbour Master, Rue de la Residence, Kaolack, Senegal. *Tel:* 411915.

AGENT: See "Dakar".

NOTES

Please also advise Shipping Guides Ltd.

Republic of Seychelles

PORT VICTORIA, Mahe: 04.37 S. 55.28 E. (See Plan)

PORT LIMITS: *Outer Harbour:* The area in Victoria Harbour between limits of the inner harbour and a line from Cedre Point to Long. 55° 29.84' E., thence South to St.Anne Island Shore, thence S.S.W. until Rochon Bridge bears West, then West until Victoria Lighthouse bears North.

DOCUMENTS:

Maritime Declaration of Health – forms obtainable from Medical Officer/Chief Environmental Health Officer.
Derat Certificate.
5 Crew Lists and Passengers' Lists.
Dangerous Cargo List.
Ship's Register.
Crew Declaration Form.
Declaration of Stores and high dutiable goods.
Parcels List.
Firearms List.
List of Animals remaining on board (Pets included).
Un-manifested Cargo List.
Cargo Manifests.
Clearance from last Port.

APPROACHES: *Notice to Mariners No. 1013(P)/86:*

Indian Ocean – Seychelles – Mahe – Port Victoria – Routeing System.

The following announcement has been made by the Ministry of Tourism and Transport, Port and Marine Services Division, Seychelles.

"A routeing system for approaches to Port Victoria, Mahe, Seychelles has been adopted.

All vessels calling to and from Port Victoria are required as far as practicable to stay within an area bounded by lines joining the following Geographical points. Points (1), (2), (3), (9) and (10) demark the Northern Approach and Points (3), (4), (5), (6), (7) and (8) demark the Southern Approach."

(1)	3° 43.0' S.,	55° 33.0' E.
(2)	4° 26.0' S.,	55° 32.0' E.
(3)	4° 30.0' S.,	55° 39.0' E.
(4)	4° 51.0' S.,	55° 42.5' E.
(5)	5° 16.5' S.,	55° 30.0' E.
(6)	5° 13.0' S.,	55° 23.0' E.
(7)	4° 48.5' S.,	55° 34.5' E.
(8)	4° 37.0' S.,	55° 33.5' E.
(9)	4° 33.0' S.,	55° 26.0' E.
(10)	3° 43.0' S.,	55° 25.0' E.

Charts affected: 742, 740, 721.

Harbour Master, Ministry of Tourism and Transport, Seychelles. (H. 5775/82.)

PILOTAGE: Compulsory in Inner and Outer Harbour for any vessel of or exceeding 150 g.r.t.

24 hours' notice, giving draft and length. Telegraphic address "Demarine" through Cable & Wireless (on schedule 500 kHz and 8714 kHz. Schedule published in Radio List. Harbour Control equipped with VHF Channels 16, 12 and 6).

Pilot Boat: White hull with white cabin, orange top, flying "H" flag.

Signals for Pilot: "G" by flag and/or whistle.

Pilot Boarding Ground: The Pilot boards vessels about 6 cables Northward of the outermost buoy ("Isolated Danger Buoy") in position Lat. 4° 35.7' S., Long. 55° 29.6' E. There is no night pilotage. Pilot can board in almost any weather. While awaiting Pilot; vessel can anchor in any suitable anchorage in the pilotage area. Vessels should call "Victoria Harbour Control" on VHF, Channel 16, 2 hours before arrival.

ANCHORAGES: Masters of all vessels are requested not to anchor on the leading marks or in any other position so as to block the entrance channel.

The following anchorages are available in the Outer Harbour.

(i) Victoria Lighthouse bearing 238° True. Distance 9.75 cables in depths of 20 m. to 22 m.
(ii) Victoria Lighthouse bearing 232° True. Distance 1 mile in depths of 22 m.
(iii) Victoria Lighthouse bearing 224° True. Distance 1.4 miles in depths of 18 m. to 20 m.
(iv) Victoria Lighthouse bearing 212° True. Distance 1.5 miles in depths of 20 m. to 22 m.

Supertankers and large vessels anchor outside the Fairway Buoy in any suitable anchorage. The Master should always contact Harbour Master for anchorage instructions.

RESTRICTIONS: All shipping movement in Inner Harbour to take place during daylight hours only. In Outer Harbour, night movement at discretion of Master after consultation with Harbour Master. No tide restrictions.

There is berthing space available for vessels with draft over 9.5 m., but not exceeding 11.5 m. This is between bollards No. 12 and No. 20, a distance of 123 m., at the Southern end of the quay. Vessels exceeding 123 m. with draft of 9.5 m. to 11.5 m. overhang the quay to the South and lines are made fast on shore bollards.

Under these circumstances vessels which overhang come starboard side to and the port anchor is used. This system is mainly used for tankers as the connecting discharge pipe ashore only needs to be in line with the ship's manifold. Cargo ships coming in at a deeper draft than 9.5 m. and less 11.5 m. can be docked. However it must be noted that cargo cannot be discharged from all hatches that overhang and the ship will have to be turned at a certain stage of discharging.

HEALTH: "Q" Flag or international red over white. Medical Officer/Environmental Health Officer may board vessels at anchor and before entering Inner Harbour. Crew Lists with vaccination dates against yellow fever and cholera if vessel from infected places. Health clearance given at Port Victoria only, health clearance may be given at Assumption Island by prior arrangement. Hospital facilities available. Vessels proceeding to the Inner Harbour may be disinsectised. Radio Pratique may be granted on request to "Port Health" – Ministry of Health.

No animal/pet of any description is permitted to be landed ashore or on the wharf as per Seychelles Quarantine Regulations. Necessary action will be taken against any Master who disregards these instructions in addition to the possibility of destroying any such animal or pet found ashore. Emphasis is made on the need to keep the Seychelles free from major animal diseases.

RADIO/VHF: Cable and Wireless, Port Victoria, Mahe. Call sign ZCQ. The Harbour Master's Office, call sign, "Harbour Control" keeps a 24 hour watch on VHF Channel 16 and Channel 12. Any further information can be obtained by calling up Harbour Control on Channel 16. Other Channels available – 12 and 6.

TUGS: 2×1,200 b.h.p. twin screw tugs and 1×2,000 b.h.p. twin screw tug in operation. Vessels of up to 800 ft. are able to berth alongside.

BERTHING: Due to limited space no berth can be reserved either alongside or at anchorage. All assistance given to position every ship in best available place.

Mahe Quay is in full operation. Two vessels can berth alongside. Berth No. 1 is allocated to oil and cement tankers and Berth No. 2 to cargo and passenger ships. Total length 370.4 m. Maximum depth of water at all berths is 35 ft. There are connections for fuel, fresh water and telephones at all berths. Port Offices, Customs and Health are situated at the New Port area.

Masters and Officers of vessels moored at the 2 above mentioned places are reminded of the importance of tending moorings at frequent intervals. Rat guards are deemed essential. Slack lines present a hazard to the safety of vessels moored alongside.

In the case of tankers and bulk carriers discharging or loading, the hourly difference in draft can be considerable. It is therefore recommended that regular routine checks on moorings be carried out by the Duty Officer.

Movement of Vessels Moored at Mahe Quay, Commercial Port, Fishing Port or at Anchorage. No movement of any vessel moored at the above mentioned places is permitted without authorisation from the Harbour Master. Ship's boats or lifeboats are not to be used as plying boats or on excursions to nearby islands. Use of ship's own craft for any reason including exercises must be cleared and authorised in the first instance.

Loading and discharging by ship's gear. Equipment available to handle 20 ft. and 40 ft. containers.

STEVEDORES: ETA advice required two to three days before ship's arrival in port. Loading and Discharging: General Cargo: average 15 t.p.h. per gang (subject weather conditions). Bagged Cargo: average 50 t.p.h. per gang (subject weather conditions). Containers: 22 boxes per hour. All stevedoring undertaken with ship's own gear.

TANKERS: Max. LOA 180 m., max. beam 33 m., max. draft 11.5 m. Discharge throughout 24 hours. Discharge lines 8 in. and 6 in. (Bulk white petroleum products and bulk cement).

DENSITY: Average 1025 at all states of tide.

FRESH WATER: In good supply. By mains when alongside. No water barge currently available. All water supplied is chlorinated. Vessels should request water at least 72 hours before arrival through Agent.

FUEL: Gas oil Kinematic CS at 40°C. = 3.63. Due to limited stock, it is advisable to give one week's notice, preferably through nomination addressed to Seychelles Petroleum Co. (Seypec).

Intermediate Fuel oil now available on North end of berth only. (Fuel oil 180 centistoke). Pour point 70 max. – Kinematic 180 max. – restriction on flow of delivery pending improvement of facilities.

CONSULS: *Embassies:* China, Cuba, France, Russia, U.S.A.

High Commissions: Great Britain, India.

Consuls: Belgium, Cyprus, Denmark, Finland, Germany, Greece, Italy, Malagasy Rep., Mauritius, Morocco, Netherlands, Norway, Spain, Sweden, Switzerland.

REPAIRS: Slipways for vessels under 300 g.r.t. Mechanical engineering and fabrication. Electronic and electrical engineering. Commercial diving services (hull cleaning, inspection and repairs). Shipchandling (marine equipment).

DRY DOCKS: None, but being considered.

GANGWAY/DECK WATCHMEN: Customs Officer on duty at all times if vessel is discharging cargo.

OPENING/CLOSING HATCHES: Normally carried out by ship's crew.

CUSTOMS ALLOWANCES: At Custom Officer's discretion.

CARGO GEAR: All cargo slings and gear supplied by ship.

REPATRIATION: Crew changes possible. Undertaken by Agents in connection with Immigration Authorities.

AIRPORT: In operation. Several flights weekly.

TIME: GMT plus 4 hours, throughout year.

HOLIDAYS: New Year (1st and 2nd January); Good Friday; Labour Day (May 1st); Corpus Christi (June 2nd); Liberation Day (June 5th); National Day (June 18th); Independence Day (June 29th); Assumption Day (August 15th); All Saints' Day (November 1st); Immaculate Conception (December 8th); Christmas Day (December 25th).

SHIP SUPPLY SERVICE: Ship Supply Services can be made by prior arrangements with any shipping Agencies by using fast hire crafts, which are allowed to operate within a range of 60 miles Mahe to any given rendezvous.

List of Shipping Agents:

Aquaris Shipping, P.O.Box 865, Victoria, Male, Seychelles. Tel: (248) 225050. Telex: 2424 Unship. Fax: (248) 225043.

Hunt Deltel & Co. Ltd., P.O.Box 14, Victoria, Mahe, Seychelles. Fax: (248) 225367.

Mahe Shipping Co. Ltd., P.O.Box 336, Victoria, Mahe, Seychelles. Fax: (248) 322978.

Harry Savy & Co. Seychelles (Pty) Ltd., P.O.Box 20, Victoria, Mahe, Seychelles. Fax: (248) 321421.

M/S Allied Agencies Ltd., P.O.Box 345, Mahe, Seychelles. Fax: (248) 224226.

POLICE/AMBULANCE/FIRE: Emergency: Ring 999 otherwise Police 322011 and Hospital 324400.

SERVICES: No tank-cleaning equipment, no facilities for discharge of tank washing, no compass adjusting, radar or radio engineer available for small repairs.

TELEPHONES: A telephone is placed on board ships alongside. Vessel may arrange for additional telephones.

SHORE LEAVE: All members of the crew are allowed ashore. No limit to shore leave. Crew to be in possession of identity card or discharge book.

IDENTIFICATION CARDS: See "Shore Leave".

DELAYS: Berthing: Limited berth. Loading or discharging: Weather conditions. Bunkering: Space alongside.

SAFETY: There shall be no smoking on board vessels carrying petroleum products, chemicals or LPG except in such safe places as may be approved jointly by the Master and Harbour Master. Responsibility for ensuring that the crew of the vessel are informed of the safe places so approved, and that the regulations are complied with, rests with the Master. Such vessels when berthed alongside a quay must have the eye of a wire hanging over the outside bow and quarter to enable tugs to connect up readily in an emergency. The said wire must be suitable for such purposes and shall have sufficient scope on deck for free running.

Engines are not to be immobilised whilst the vessel is berthed alongside the wharf without prior authorisation from the Harbour Master.

Any unsafe condition or action observed on board a vessel will result in immediate cessation of cargo or bunkering operations until such condition or action is corrected. Continued or blatant disregard of these requirements by any ship will result in the removal of the ship from berth or quay at the cost of the vessel and the Owners/Operators/Charterers informed of the circumstances.

Use of radar and radio transmitter forbidden whilst alongside the wharf. Walkie-Talkies not permitted outside port area.

Portable R/T sets or transceivers must be of an approved design and those used on tankers must be intrinsically safe.

POLLUTION: All ballast discharged over the side must be clean and entirely free from petroleum products of any description in accordance with the Marine Pollution Regulations of 1981. No dirty ballast is to be pumped overboard as per Laws of Seychelles Cap. 210 Section 18. This includes brine from fish tanks in which fish have been stored. All Masters are advised to familiarise themselves, through their respective Agent, with the Marine Pollution regulations 1981. The Master of a vessel found guilty under these Regulations is liable to imprisonment for five years and to a fine of two hundred thousand Seychelles Rupees in addition to costs for cleaning up operations, environmental damages and commercial loss.

Whilst transferring fuel and/or taking bunkers all scuppers must be effectively plugged to prevent accidental discharge of oil into the sea.

GARBAGE DISPOSAL: A small fee is charged by the port daily for use of port bins meant to cater for empty bottles and cans. These must be packed in plastic garbage bags.

Garbage from the galley and remnants of food are not permitted ashore. These are cleared by Waterborne Licenced Garbage Contractors for a fee. Regular disposal of garbage is compulsory.

WASTE OIL DISPOSAL: No facilities exist at the moment.

It is hoped that such facilities will be provided in the not too distant future.

SEAMAN'S CLUBS: None. Several popular bars, restaurants and night clubs are available in the town centre, some 10 – 15 minutes walk from the port.

CURRENCY: Seychelles Rupee. No restrictions on foreign currency, although coins are not readily acceptable.

AUTHORITY: Ministry of Tourism and Transport, Port and Marine Services Division, P.O.Box 47, Mahe, Seychelles. *Tel:* (248) 224701. *Telex:* 2329. *Cables:* Demarine. *FAX:* (248) 224004. *Contact:* S.A.G. Andrade, Director General. Captain Gilbert Hoareau, Senior Harbour Master – Pilot. Captain R. Larue, Assistant Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Sierra Leone

FREETOWN: 08.30 N. 13.14 W. (See Plan)

DOCUMENTS:

5 Crew Lists.
5 Ports of Call Lists.
5 Passengers in Transit Lists.
5 Passengers Landing Lists.
1 Crew Declaration (signed by crew members).
1 Stores List.
1 Arms & Ammunition List.
1 Port Health Declaration.
1 Vaccination List (cholera and yellow fever).

Port Health Declaration, Crew Declaration Form and Arms and Ammunition List, all special forms, which obtained from boarding party or, if required, mailed in advance to ship's Owners.

1. *For Vessels Working Cargo (Discharging):*

(a) From each port of loading, by air mail to vessel's Agent: 2 copies of Cargo Manifest, 1 copy of Freighted Manifest.

(b) On arrival: 5 copies of Cargo Manifests, 1 copy each Bill of Lading (non-negotiable).

Note: Customs and Port Authority insists on documents in English, and that Manifests should show weights and measurements. Non-compliance with these instructions places vessel's Agent in difficult position, and vessel may not discharge without payment of fine.

2. *Required by Port and Stevedores for Vessels Working Cargo:*

4 copies Stowage Plan, 4 copies Hatch Lists. List of all lifts over 3 tons.

PILOTAGE: Vessels may at present enter and leave port anchorage without Pilot. Pilotage only compulsory for vessels berthing alongside Queen Elizabeth II Quay, Kissy Oil Jetty, vessels over 20,000 tonnes Summer deadweight and vessels over 30 ft. draft. Upon Master's request, Pilot available at Fairway Buoy with 24 hours' notice. Normally only during daylight hours. Port entrance is between Cape Sierra Leone to South and Fairway Buoy to North. Is approx. 1 mile wide and minimum draft 38 ft. To West harbour is protected by sand shoals, nearest to entrance is O'Farrell Shoal about 1.5 miles North of Cape Sierra Leone.

Pilots board from a launch painted black, with "Pilot" in black on both sides of superstructure on a white background.

Pilot Office will give an anchorage to every vessel arriving or, if a vessel is berthing on arrival, will advise where the Pilot is boarding. This is normally off the quay. The Signal station is equipped with VHF, standing-by on Channel 16, switching to Channel 12 for communication.

The Pilot Office, Queen Elizabeth II Quay, is also equipped with VHF, standing-by on Channel 16, switching to Channel 12 for communication. The Port Operations Manager is available on VHF Channel 10.

ANCHORAGE: With Falconbridge Point Beacon bearing as follows (all bearings true): Note: Falconbridge Point Beacon circular steel tower 8 ft. high, painted white with 2 horizontal black bands; Fl. white every 2 seconds.

Anchor Berth	*Bearing (T)*	*Distance (Cables)*	
E. 3	138	10.5	
E. 4	154	9	
E. 5	180	8	
E. 6	207	8	
F. 5	136	7	
F. 6	154	6	
F. 7	184	5	
F. 8	210	5	
F. 9	232	7	
F. 10	242	9	
F. 11	249	11	
G. 1	099	15	
G. 2	100	12	
G. 3	104	7	
G. 4	126	3	
H. 1	184	2	
H. 2	234	3	
H. 3	252	5	
H. 4	258	7	
B. 1	236	11	(Vessels bunkering ex-barge)

With Cline Point bearing as follows:

Anchor Berth	*Bearing (T)*	*Distance (Cables)*
D. 1	232	5.5
D. 2	253	7
D. 3	253	3
D. 4	273	5.5
C. 1	244	4
C. 2	270	5
B. 2	280	7.25

With Kissy Oil Jetty bearing as follows:

Anchor Berth	*Bearing (T)*	*Distance (Cables)*
B. 2	235	1 mile

No draft restriction at anchorage, also no length and beam restrictions and vessels can arrive and sail any hour day and night.

RESTRICTIONS: *Draft Limits for Deep Laden Vessels:*

Draft Limits: 38 ft. (11.6 m.) plus height of tide to a maximum of 48 ft. (14.6 m.).

Time Limits:

1. From 5 hours Flood Tide to HW.
2. From LW to 1 hour Flood Tide.
3. During hours of daylight only.

Vessels of 36 ft. draft and over must keep to the time limits.

Vessels of under 36 ft. draft may navigate the channel at any time but attention is drawn to the strong cross currents.

(H.M.S. Hydra has commented strongly on this danger).

HEALTH: Pratique by radio or on boarding. See "Agent's Cable Requirements".

RADIO: *Freetown Radio, Coast Station:* Watch is maintained on 500 kHz from 0700 – 2200 hrs. GMT on week-days, and 1200 – 1400 hrs. GMT on Sundays and Public Holidays.

The working frequency is 421 kHz and traffic lists are broadcast on this frequency after preliminary announcements on 500 kHz at 0730, 0830 hrs., etc.: up to 2130 hrs. GMT. On Sundays and holidays, traffic lists are broadcast at 0800, 1200 hrs. and 1700 hrs. GMT.

Time GMT	*9LL Freq.*	*Search-band for reply*
0800 – 0900 hrs. 1300 – 1430 hrs. 1700 – 1830 hrs.	6411	6 MHz
0900 – 1000 hrs. 1200 – 1300 hrs. 1830 – 2000 hrs.	8710	8 MHz
1000 – 1100 hrs. 1530 – 1700 hrs.	13042.5	12 MHz

On Sundays and other holidays the H.F. Schedules are as follows:

0830 – 0900 hrs.	8710	8354 to 8374 kHz
0930 – 1000 hrs.	13042.5	12531 to 12561 kHz
1330 – 1400 hrs.	6411	6 MHz
1600 – 1630 hrs.	13042.5	12531 to 12561 kHz
1700 – 1730 hrs.	8710	8354 to 8374 kHz

Traffic lists are broadcast at the commencement of every HF Schedule and repeated at intervals during the Schedule.

Ship's Radio Telephone and Harbour Service: Watch is kept on 2182 kHz for casual R/T traffic from 0800 – 2000 hrs. GMT on weekdays, and 0800 – 1730 hrs. GMT on Sundays and holidays.

Ships are advised to arrange their calls in advance by W/T where possible so it can be ensured that the called party is available. Calls can be connected to or from any number on the Freetown Telephone Exchange. Longer range contacts should be in the 8 MHz maritime band, the frequency of 9LL in this band being 8768.9 kHz.

Other Services: Navigational warnings issued from time to time by the Harbour Master are broadcast on W/T. Spoken telegrams are accepted at ordinary W/T rates on RT.

VHF: *Freetown Radio:* A 24-hour watch is kept on Channel 16 switching to Channel 26 for communication. Calls can be connected to the Freetown Exchange. Masters are advised the fullest use should be made of this service, particularly after office hours and during the early hours of the morning or late at night when no cable service is available. The Authority tugs are also equipped with VHF, watch being kept on Channel 16 switching to Channel 12 for communication.

Signal Station	Channel 16
Pilot Office (Freetown Pilot)	Channel 16
Harbour Master	Channel 16

AGENT'S CABLE REQUIREMENTS: Masters requested cable ETA as early as possible. Following information required:

(a) For vessels working cargo: 1. Discharge or Loading Hatch distribution. 2. Gangs required. 3. If Explosives on board for Freetown or in transit.

(b) For vessels bunkering: Bunkers and water required.

(c) For Tankers discharging: 1. Total Displacement. 2. Draft. 3. Cargo particulars (quantity and grade).

(d) For vessels embarking/disembarking Krooboys: 1. If Krooboys provisions required and for how long. 2. Cash requirements. 3. If service on arrival if arriving between 2200 hrs. and 0700 hrs., bearing in mind the high costs for Customs overtime and port service.

(e) In general: 1. Cash requirements. 2. Water requirements. 3. Medical attendance, if required on arrival.

When ETA received and confirmed Agent will cable vessel informing despatch prospects and if not berthing on arrival, anchor berth.

Note: For vessels returning to Freetown from round trip to coast, information should be cabled if any over-carried cargo, etc., to be discharged.

TUGS: 1 seagoing tug available, *Sewa* (2,200 h.p.).Tug has twin-screw with diesel engine and is equipped for salvage having fire-fighting equipment and a 10 ton derrick. Normally tug used for berthing and unberthing operations. Charges for berthing and unberthing include use of a tug, whether required or not.

BERTHING: All alongside berths: between hours of 0630 and 2230. Vessels may request berthing after 2230 hrs. from Harbour Master's office. Kissy Oil Jetty; max. displacement – 46,000 tons, max. draft 39 ft., berthing flood-tide only.

Queen Elizabeth II Quay No. 1: Berthing length: no restriction; breadth: no restriction; max. draft 31 ft. 6 in. At this draft vessels must be 180 ft. from steps East end of quay. Vessels up to draft not exceeding 24 ft. may berth as far East as steps. Unberthing not permitted from 1 hour after HW until 1 hour after LW.

Berth No. 1A: As for Berth No. 1, max. draft 31 ft. 06 in.

Berth No. 2: Berthing and unberthing, length and breadth no restrictions. Max. draft 31 ft. 06 in. No tidal restrictions.

Berths No. 3 and 4: Max. draft 32 ft. 06 in.

Berth No. 5: Max. draft 31 ft. 06 in. – 32 ft. 06 in.

Berth No. 6: Max. draft 24 ft.–25 ft.

Facilities for loading palm kernel oil available only at Berth No. 1.

Bulk Grain: Berth No. 1 is equipped for discharging grain in bulk through a conveyor built on Shed No. 1 to the Flour Mill. The actual discharge is effected by mobile vacuvators. Four such units are available with total potential of 80 t.p.h., though a more realistic figure would be in the region of 60 – 70 t.p.h. Grain vessels are worked around the clock.

King Tom Jetty: Berthing *not* allowed.

Dispensation will only be granted in exceptional circumstances to berth or unberth vessels before 0600 hrs. and after 2330 hrs.

During discharging and/or loading, Customs Officers, normally 2, as well as 2 Port Authority Discrepancy Clerks (only when discharging) will be on board.

Sherbro River: Anchorage daylight only. Length of vessel up to 470 ft. Breadth, no restrictions. Max. draft, 24 ft. 06 in. The passage between Buoy No. 1 and Buoy No. 8 and between No. 1 Buoy and Yangsai Anchorage must be navigated in daylight hours only.

The Channel between Buoy Point and Yangsai must be navigated only during period 2 hours to H.W., and on a rising tide, buoy point being area which restricts draft. Bagru River Anchorage Buoy No. 8, length and breadth unlimited. Max. draft 24 ft. 06 in. Limitations as regards vessel's dimensions, drafts and times at which movements may be carried out should not be deviated from without prior permission of the Harbour Master.

MECHANICAL EQUIPMENT:

Type	*Capacity*	*Complement*
Portal quay cranes	3 tons	2
Mobile crane	30 tons	1
Fork truck	10 tons	3
Fork trucks	4,000/5,000 lbs.	34
Container handler	42 tons	1
Container handler	35 tons	1
Container handler	26 tons	1
Mafi trucks		3
Mafi trailers	40 tons	11
Fire engine		1
Ambulance		1

DANGEROUS CARGO: Dangerous cargo, explosives, small arms, ammunition, *must not* be unloaded alongside unless Port Authority has been notified on approved form, and has given permission for cargo to be discharged. Vessels should cable prior arrival if dangerous cargo for discharge on board.

STEVEDORES: (See "Agent's Cable Requirements") ETA as soon as possible. Discharge/loading hatch distribution. Gangs required. Bunkers and water requirements, information re explosives. For tankers discharging – total displacement and draft. Work ashore undertaken by Sierra Leone Ports Authority on cargo quay, Queen Elizabeth II Quay, whilst work on board as well as discharging and/or loading to or from vessels at stream undertaken by Sierra Leone Ports Authority stevedoring division.

Working hours alongside quay: Normal working hours from 0800 hrs. to 1200 hrs. and 1330 hrs. to 1700 hrs. Monday to Friday.

No meal-break but the hour 1200 hrs. to 1330 hrs. counts overtime.

Working at Stream: Discharging and/or loading to or from vessels effected 24 hours a day. Gangs can be arranged at anytime between 0730 hrs. and 1800 hrs. week-days. On Sundays and holidays work must be arranged on the previous day.

MEDICAL: Hospital facilities available.

TANKERS: *Kissy Oil Jetty:* In order that berthing/unberthing operations at Kissy Oil Jetty are carried out without delay Agencies are requested to furnish to the Harbour Master the following particulars, of vessel using Kissy Oil Terminal.

ETA: At least 24 hours' notice to be given.

Displacement and deadweight: The max. permitted displacement is 46,000 tons.

Draft forward and aft: Max. draft 11.90 m. (39 ft.).

Length overall: No restriction.

The time of berthing will be at the discretion of the Port Authority, dependent on tidal and weather conditions, and vessel's draft. This is normally on a flood tide and during daylight hours only.

Notice: Port Authority Circular No. HM/241/354 dated 14th January 1981.

Oil Tankers Berthing Kissy Oil Jetty: In view of the strain experienced on the forward back springs during ebb tide on above-named jetty, vessels are to moor using double or more forward back springs.

This is necessary to avoid any damage to the discharge/loading arms on jetty.

Agents are advised to inform shipping companies that vessels are required to carry the necessary extra mooring ropes or wires.

Port Authority Pilots are to ensure prior to berthing vessels that sufficient moorings are onboard for extra forward back springs and separate bollards on jetty head are used for each spring.

DENSITY: 1018 to 1025.

FRESH WATER: Good fresh water is available at all quay berths and at Kissy Oil Jetty.

(Supply Rates:	Old berths	Approx. 20/25 t.p.h.
Dependent on	New berths	Approx. 40/50 t.p.h.
Ship's intake)	Kissy Oil Jetty	Approx. 15/20 t.p.h.

FUEL: Available at Kissy Oil Jetty and Q.E.II Quays. Gas oil available by tanker truck.

CONSULS:

Belgium	250143	Japan	222721
China (People's Republic)	231797	Lebanon	222353
Denmark	225760	Liberia	240322
Egypt	223244	Malagasy	225850
France	222477	Netherlands	225245
Gambia	225191	Nigeria	222444
Germany	222511	Norway	250824
Ghana	223461	Russia	223991
Greece	223087	Sweden	222385
Guinea	223080	Switzerland	223322
India	224340	United Kingdom	223961/6
Iran		United States	226481
Iraq		United Nations (UNDP)	225311
Italy	230995	UNICEF	241422
Ivory Coast	223983		

REPAIRS: All repairs if spares supplied.

DRY DOCKS: No dry docks in Freetown. Slipway of 600 tons capacity.

SURVEYORS: Mining and General Services Limited, P.O.Box 68, Freetown. Telex: 3226. Cables: Mags. They are Lloyd's Agents and undertake cargo surveys.

A Lloyd's Register approved surveyor is available.

GANGWAY/DECK WATCHMEN: Strongly recommended, available through Agent. It is suggested that gangway is raised after close of work. The Port Authority operates a patrol boat with security personnel to combat piracy.

Piracy: Acts of piracy have taken place alongside and whilst vessel approaching Pilot. Crew members have sustained injuries.

OPENING/CLOSING HATCHES: By stevedores, except mechanical hatches.

CERTIFICATES:

Ship's Register.
Derat Certificate.
Deck Passengers Certificate.
Radio Certificate.

CUSTOMS ALLOWANCES: Tobacco, 40 cigarettes *or* 0.25 lb tobacco. Wine and/or Spirits, 0.25 bottles of spirit. Master — 200 cigarettes and 1 opened bottle of spirit.

REPATRIATION: Can be arranged.

AIRPORT: By bus and ferry to Lungi Airport. Regular scheduled services to Africa, Middle East and Europe. European airlines operate city centre check-in facilities.

Helicopter service from Aberdeen to Lungi takes 10 minutes.

TIME: GMT throughout year.

HOLIDAYS: Several religious and anniversary holidays. Port works every day except Good Friday and Christmas Day.

POLICE/AMBULANCE/FIRE: In port, call Pilot Station on Channel 16, otherwise dial 019.

EMERGENCY CO-ORDINATION CENTRE/S.A.R. LINK: Sierra Leone Ports Authority. Telex: 3262. Cables: Portman Freetown.

TELEPHONES: Not available for placing on board.

SERVICES: Tank cleaning. Tank and hull scaling.

BANKS: Barclays Bank of Sierra Leone, P.O.Box 12, Siaka Stevens Street, Freetown.

Standard Bank Sierra Leone Ltd., Lightfoot Boston Street, Freetown.

STORING: Moderate quantities of stores are available and can be taken ex-quay. However no bonded stores' facilities exist.

SHIP SUPPLY SERVICE: Contact: Offshore Services Ltd., P.O.Box 376, Freetown.

SHORE LEAVE: Allowed. Identity cards must be carried.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Collection service available. Skips are provided alongside by SLPA on arrival of vessels. Charges as per SLPA tariff.

WASTE OIL DISPOSAL: Available on request.

SEAMAN'S CLUBS: Stella Maris, Blackhall Road, Freetown, Sierra Leone. Facilities include postage, telephones in the port. Football matches and church services could be arranged, likewise minibus collection.

CURRENCY: Leone (Le). No local currency restrictions up to Le 25,000.00.

Forex Bureau available in City Centre.

DELAYS: No delays experienced.

GENERAL: Always confirm time of entering harbour with the Aberdeen Hill Signal Station to ensure turn for berthing. Draft should be indicated.

DEVELOPMENTS: Rehabilitation of Queen Elizabeth II Quay and facilities scheduled between 1996 and 2002.

AUTHORITY: Sierra Leone Ports Authority, P.M.Bag 386, Freetown, Sierra Leone. *Tel:* (232 22) 250111, 250989. *Telex:* 3262. *Cables:* Portman Freetown. *FAX:* 250616. *Contact:* Captain Helmut Friedrichs, General Manager.

AGENT: Sierra Leone Shipping Agencies Limited, P.O.Box No. 74, Freetown, Sierra Leone. Tel: 250881/250528. Telex: 3260/3225 Fax: 250400. Cables: "Seaborne Freetown".

PEPEL: 08.34 N. 13.04 W.

LOCATION: On Sierra Leone River, 15 miles upstream from Freetown. Approach Channel between Freetown anchorage and Pepel is full buoyed. No night navigation.

DOCUMENTS: See "Freetown".

PILOTAGE: Private pilotage undertaken by mining Company's Pilot who board at Freetown Anchorage. 48 hours ETA required, cable "Mag Freetown Sierra Leone", giving ETA Fairway Buoy, quantity water/fue required, asking for Free Pratique, and if Pilot required to Freetow Anchorage.

ANCHORAGE: See "Freetown".

RESTRICTIONS: Draft only, decided at discretion of Berthing Maste Entry daylight hours only. Channel between Pepel and Freetown is no deepened so that depth in channel is 38 ft. plus height of tide. Accordin to official tide tables, range of high tides is approximately 7 ft. to 11 f above Admiralty Chart Datum.

MAX. SIZE: Length 840 ft., beam 128 ft., water depth 38 ft.* plus heig of tide which ranges from 7 ft. to 11 ft. above Chart Datum. Septemb to December additional draft restrictions due channel silting.

*The channel has not been maintained since 1975. Dredging is to tak place.

HEALTH: See "Freetown". 48 hours advance warning for Free Pratiqu

TUGS: Not used.

BERTHING: Milton Margai Pier only. Loading up to 3,000 t.p according to size of vessel.

New dolphin mooring system installed to permit handling larger ship Depth alongside 45 ft. Shiploader max. boom height when in horizo position is 71 ft. above Chart Datum, with max. outreach 87 ft. fro berthing line. Loading rate 4,000 t.p.h. Under the new conditions, limitin dimensions for ships (which must be equipped with satisfactory moori equipment): LOA 840 ft. Moulded breadth 128 ft.

Permissible sailing draft with allowance made for safe navigation, of all ships will, as at present, remain absolutely at discretion of Berthing Master at Pepel or his deputy. It is possible that during the months of September to December every year an additional draft allowance will have to be imposed by reason of seasonal silting of the channel, but it is intended to carry out annual maintenance dredging.

Company will be prepared to consider acceptance of ships having dimensions in excess to those above but only after specific approval of fully detailed plans of each ship concerned and, in any event, not in excess of dimensions: LOA 870 ft., moulded breadth 136 ft., moulded depth 73 ft.

Berthing displacement 63,000 tons on an even keel ballast draft of 23 ft. forward and aft on berthing.

STEVEDORES: Available.
FRESH WATER: Available, 48 hours' notice required.
FUEL: Limited supplies available, 48 hours' notice required.
TIME: GMT throughout year.
TELEPHONES: None available.
SHORE LEAVE: Not allowed. Customs and Immigration regulations prohibit any member of crew from disembarking at jetty or other works.
DELAYS: First come first served.
GENERAL: See "Freetown" for all general information.

SHERBRO (Bonthe): 07.32 N. 12.30 W.

DOCUMENTS: See "Freetown".
PILOTAGE: Compulsory. Freetown Pilots are used and are picked-up and landed at Freetown.
ANCHORAGES: Between Buoy No. 4 and Buoy No. 8.
RESTRICTIONS: Entry during daylight only. Restrictions between Buoy Point and Yangasi Tree, which must be navigated 2 hours to high water and on a rising tide.
MAX. SIZE: Max. draft 7.31 m.
HEALTH: International Health Certificate is required.
RADIO/VHF: Channel 16 (calling), Channels 88 and 12 (working).
TUGS: Not available.
BERTHING: No berths. Ships loaded and discharged by lighters.
BULK CARGO FACILITIES: Lighters can handle all types of cargo.
STEVEDORES: Available.
MEDICAL: Hospitals at Nitti and Mobimbi.
FIRE PRECAUTIONS: Fire tender provided by mining companies on VHF Channels 80/88 (24 hours).
REPAIRS: Minor repairs, which do not require docking, can be handled.
DRY DOCKS: None. Only in Freetown for small ships.
SURVEYORS: Local surveyors working for international survey organisation, e.g. Lloyd's.
TIME: GMT.
HOLIDAYS: Good Friday, Christmas Day, Eid-Ul-Fitri and Eid-Ul-Ahda.
BANKS: Banking facilities available.
GARBAGE DISPOSAL: Not available.
CURRENCY: Leone (Le). U.S.$ 1.00 = Le 1,000.
DEVELOPMENTS: None.
AUTHORITY: Sierra Leone Ports Authority (SLPA), P.M.Bag 386, Cline Town, Freetown, Sierra Leone. *Tel:* 250989/250111. *FAX:* 232-22-250616. *Contact:* Captain Helmut Friedrichs, General Manager.

NOTES

Please also advise Shipping Guides Ltd.

Singapore

SINGAPORE (incl. Jurong, Pulau Bukom, Pulau Ayer Chawan, Sembawang and Tanjong Penjuru):

01.16 N. 103.50 E. **(See Plan)**

DOCUMENTS:
4 Ship's Passenger Lists (1 copy for Customs).
4 Crew Lists (1 copy for Customs).
5 Cargo Manifests.
3 copies of Customs Declaration for fresh issue of duty free liquor and tobacco Form (C and E 117) to be furnished by Master to Customs boarding officers.

Master, Mate, or authorised officer required to furnish information asked for by Officer in charge of Customs' Boarding Party for Boarding Officer's Report (this only required if ship is to be searched).

Immigration: 6 copies Crew List and 4 copies each of Disembarking and Through-Passenger Lists on arrival. At departure, 2 copies Crew List and 2 copies Passenger List.

Declaration regarding presence on board of any stowaway, unauthorised person and/or repatriate.

PSA: All vessels: General Declaration on arrival or departure.

Port Health: Entry Declaration, Derat or Exemption Certificate, Yellow Fever Certificates.

Crew Lists. Passenger Lists.

PSA (The Port of Singapore Authority): Arms and Explosives, and Dangerous Goods and Petroleum Declaration.

Shipmaster's Report: August 1987.

In order to obtain vessel's clearance the agent requires – Last Port Clearance, Load Line, Safety Radio, Safety Equipment and Safety Construction Certificates; Articles of Agreement; Safe Manning Certificate; Certificates of Competency (Panamanian and Liberian ships only – not photocopies), a British Certificate will suffice if Liberian/Panamanian Certificate has not arrived; C.L.C.

Shipmaster's Report: November 1988.
2 copies Passenger List.
2 copies Crew List.
2 copies Stores List.
1 copy Stowaways List.
1 copy Arms/Ammunition List.
1 copy Vaccinations List.
1 copy Maritime Declaration of Health.

Vessels arriving to take stores and make crew changes: See "Notices" – Circular No. 121/87.

ANCHORAGES: Also see "Notices".
REVISION OF ANCHORAGES

1. *EASTERN SECTOR*

1.1 *Awaiting Pilot Anchorage* is renamed *Changi General Purposes Anchorage* and is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 20.000'	104° 03.167'
01° 20.000'	104° 03.706'
01° 18.880'	104° 04.820'
01° 18.880'	104° 04.281'
01° 19.550'	104° 03.667'

Purpose: For general purposes on prior permission of the Port Master.

1.2 *Eastern Explosives Anchorage* is withdrawn.

1.3 *Eastern Petroleum 'B' Anchorage* is relocated and is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.500'	103° 59.083'
01° 17.650'	104° 01.200'
01° 16.629'	103° 59.313'
01° 16.629'	103° 59.082'

Purpose: For vessels of less than 10,000 g.r.t. loaded with Petroleum and Non-Gas-Free Vessels.

1.4 *Eastern Special Purposes Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.979'	103° 56.617'
01° 18.300'	103° 57.438'
01° 18.300'	104° 00.450'
01° 17.650'	104° 01.200'
01° 17.500'	103° 59.083'
01° 16.629'	103° 59.082'
01° 16.633'	103° 56.617'

Purpose: For vessels under Arrest, Damaged Vessels, Deep-Draft Vessels requiring repairs and other vessels on prior permission of the Port Master.

1.5 *Laid-up Vessels Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.784'	103° 56.117'
01° 17.979'	103° 56.617'
01° 16.633'	103° 56.617'
01° 16.633'	103° 67.117'

Purpose: For vessels laid-up in port.

1.6 *Small Craft Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.388'	103° 55.106'
01° 17.784'	103° 56.117'
01° 16.633'	103° 56.117'

Purpose: For harbour tugs, pontoons, barges and other small craft.

1.7 *Eastern Petroleum 'A' Anchorage* is bounded by the following co-ordinates:

	Latitude (N)	*Longitude (E)*
(31)	01° 15.433'	103° 53.917'
(32)	01° 16.121'	103° 54.991' (Timor Bn.)
(33)	01° 15.319'	103° 55.851'
(34)	01° 14.687'	103° 54.685'

Purpose: For vessels loaded with Petroleum and Non-Gas-Free Vessels or as directed by Port Master.

Please see "Plan". The numbers in brackets provide positional reference.

Eastern Holding Anchorage is created and will be bounded by a line connecting the following geographical positions:

	Latitude (N)	*Longitude (E)*
(34)	01° 14.687'	103° 54.685'
(33)	01° 15.319'	103° 55.851'
(37)	01° 15.046'	103° 56.143'
(38)	01° 14.687'	103° 55.481'

Purpose: For vessels to temporarily anchor as directed by Port Master.

Please see "Plan". The numbers in brackets provide positional reference.

1.8 *Eastern Quarantine and Immigration Anchorage* is bounded by the following co-ordinates: (Not in use).

Latitude (N)	*Longitude (E)*
01° 14.683'	103° 52.783'
01° 15.125'	103° 53.459'
01° 14.450'	103° 54.167'
01° 14.000'	103° 53.383'

Purpose: For vessels arriving from the East and seeking Quarantine and Immigration Clearance.

1.9 *Man-of War Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 16.517'	103° 54.553'
01° 16.517'	103° 53.417'
01° 17.004'	103° 53.417'
01° 17.004'	103° 54.015'

Purpose: For visiting warships.

1.10 *Eastern Explosives Lighters Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.004'	103° 53.650'
01° 17.133'	103° 53.650'
01° 17.133'	103° 54.015'
01° 17.004'	103° 54.015'

Purpose: For small craft loaded with explosives. The maximum amount of Hazard Division 1.1 type explosives allowed on board each craft is 8 tonnes Nett Explosives Quantity (NEQ).

1.11 *Eastern Working Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.004'	103° 53.417'
01° 16.517'	103° 53.417'
01° 16.517'	103° 54.553'
01° 16.123'	103° 54.988'
01° 14.683'	103° 52.783'
01° 14.683'	103° 52.283'
01° 15.040'	103° 51.871'
01° 16.017'	103° 51.767'
01° 16.567'	103° 52.533'
01° 16.443'	103° 52.598'
01° 16.623'	103° 52.820'
01° 16.683'	103° 52.733'
01° 17.004'	103° 53.200'

Purpose: For general purposes such as working cargo, receiving stores, water and bunkers or awaiting berth.

2. *WESTERN SECTOR*

2.1 *Western Quarantine and Immigration Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 13.583'	103° 49.696'
01° 13.150'	103° 50.033'
01° 12.800'	103° 49.850'
01° 12.750'	103° 49.133'
01° 13.133'	103° 48.683'

Purpose: For vessels seeking Quarantine and Immigratio Clearance during the North-East Monsoon.

2.2 *Western Petroleum Anchorage* is bounded by the followin co-ordinates:

	Latitude (N)	*Longitude (E)*
(71)	01° 14.813'	103° 46.684'
(72)	01° 15.223'	103° 47.637'
(73)	01° 14.490'	103° 48.470'
(74)	01° 14.028'	103° 47.399'

Purposes: For vessels loaded with Petroleum and Non-Gas-Fre vessels or as directed by Port Master.

Please see "Plan". The numbers in brackets provide positio reference.

2.3 *Western Petroleum 'B' Anchorage* – Withdrawn.

2.4 *Western Working Anchorage* is bounded by the following co-ordinates:

	Latitude (N)	*Longitude (E)*
(74)	01° 14.028'	103° 47.399'
(73)	01° 14.490'	103° 48.470'
(72)	01° 15.223'	103° 47.637'
(78)	01° 15.459'	103° 48.188'
(79)	01° 14.567'	103° 49.202'
(80)	01° 13.583'	103° 49.696' (Selegi Bn.)
(81)	01° 13.132'	103° 48.684'
(82)	01° 12.983'	103° 48.350'

Purpose: For general purposes such as receiving stores, water and bunkers or awaiting berth, or as directed by Port Master.

Please see "Plan". The numbers in brackets provide positional reference.

Triton Petroleum Anchorage is created and will be bounded by a line connecting the following geographical positions:

	Latitude (N)	*Longitude (E)*
(135)	01° 15.622'	103° 39.600'
(136)	01° 16.271'	103° 39.560'
(137)	01° 16.629'	103° 40.273'
(138)	01° 16.245'	103° 40.615'

Purposes: For licensed Port Limit Tankers or as directed by Port Master.

Please see "Plan". The numbers in brackets provide positional reference.

NOTE: Triton Petroleum Anchorage: With the closure of Western Petroleum 'B' Anchorage, Port Limit Tankers are now to use Triton Petroleum Anchorage or Sultan Shoal Petroleum 'B' Anchorage. Mariners proceeding to anchor at Triton Petroleum Anchorage are recommended the use of the following transits to assist their positioning:

(a) Gul Beacon in line with Long Shoal Buoy.
(b) Pioneer Beacon in line with Triton Beacon.
(c) Pesek Buoy 4 in line with Esso Berth 5 Dolphin Light.

Sultan Shoal Petroleum 'B' Anchorage is bounded by a line connecting the following geographical positions:

	Latitude (N)	*Longitude (E)*
(131)	01° 14.335'	103° 39.035'
(132)	01° 14.600'	103° 39.325'
(133)	01° 14.270'	103° 39.955'
(134)	01° 13.733'	103° 39.850'

Purposes: For licensed Port Limit Tankers or as directed by Port Master.

Please see "Plan". The numbers in brackets provide positional reference.

2.5 *Western Reserved Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 16.170'	103° 47.170'
01° 15.600'	103° 46.700'
01° 15.830'	103° 46.290'
01° 16.400'	103° 46.680'

Purpose: For LASH Ship operations.

2.6 *Western Dangerous Goods Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 16.250'	103° 45.640'
01° 16.710'	103° 45.050'
01° 17.020'	103° 45.020'
01° 16.550'	103° 45.640'

Purpose: For vessels loading or discharging Explosives or Group 1 Dangerous Goods or vessels in transit with such cargo onboard. The maximum amount of Hazard Division 1.1 type explosives allowed on board each vessel is 50 tonnes Nett Explosives Quantity (NEQ).

2.7 *Pasir Panjang Coastal Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 16.400'	103° 46.680'
01° 15.830'	103° 46.290'
01° 16.120'	103° 45.820'
01° 16.250'	103° 45.640'
01° 16.550'	103° 45.640'
01° 17.020'	103° 45.020'
01° 17.300'	103° 45.000'
01° 17.300'	103° 45.280'
01° 17.060'	103° 45.280'

Purpose: For vessels working cargo overside by means of lighters.

2.8 *Pasir Panjang Lighter Mooring* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.133'	103° 45.383'
01° 17.283'	103° 45.450'
01° 17.267'	103° 45.583'
01° 17.350'	103° 45.817'
01° 17.350'	103° 46.167'
01° 17.150'	103° 46.533'
01° 17.017'	103° 46.700'
01° 16.717'	103° 46.500'
01° 17.050'	103° 45.933'

Purpose: For the mooring of licensed wooden lighters.

2.9 *Selat Pauh Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 13.183'	103° 45.617'
01° 12.817'	103° 44.650'
01° 12.817'	103° 43.666'
01° 13.050'	103° 43.033'
01° 13.583'	103° 42.783'
01° 13.783'	103° 43.150'
01° 13.483'	103° 43.850'
01° 13.317'	103° 45.017'
01° 13.417'	103° 45.567'

Purpose: For vessels under Arrest, Laid-up or other vessels on prior permission of the Port Master.

3. *JURONG SECTOR*

3.1 *Sultan Shoal Quarantine* and *Immigration Anchorage* is withdrawn.

3.2 *West Jurong Petroleum Anchorage* is renamed *Sultan Shoal Petroleum Anchorage* and relocated to an area bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 13.919'	103° 37.257'
01° 14.511'	103° 38.811'
01° 13.733'	103° 39.850'
01° 13.350'	103° 39.058'

Purpose: For vessels loaded with Petroleum and for Non-Gas-Free vessels.

3.3 *LNG/LPG/Liquefied Chemical Gas Carriers Anchorage* is relocated and is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 14.900'	103° 36.500'
01° 14.900'	103° 36.800'
01° 14.205'	103° 36.775'
01° 14.367'	103° 36.500'

Purpose: For Non-Gas-Free Liquefied Petroleum Gas Carriers, Liquefied Natural Gas Carriers and Liquefied Chemical Gas Carriers.

3.4 *Tuas Explosives Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 16.295'	103° 36.500'
01° 16.295'	103° 37.525'
01° 15.643'	103° 37.525'
01° 15.643'	103° 36.500'

Purpose: For vessels loading or discharging Explosives and Group 1 Dangerous Goods or vessels in transit with such cargo on board. The maximum amount of the Hazard Division 1.1 type explosives allowed on board each vessel is 500 tonnes Nett Explosives Quantity (NEQ).

3.5 *Tuas Explosives Lighters Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.000'	103° 36.500'
01° 17.000'	103° 36.716'
01° 16.295'	103° 36.716'
01° 16.295'	103° 36.500'

Purpose: For small craft loaded with explosives. The maximum amount of the Hazard Division 1.1 type explosives allowed onboard each craft is 60 tonnes Nett Explosives Quantity (NEQ).

3.6 *West Jurong Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.000'	103° 36.716'
01° 17.000'	103° 38.800'
01° 14.900'	103° 38.800'
01° 14.900'	103° 36.500'
01° 15.643'	103° 36.500'
01° 15.643'	103° 36.525'
01° 16.295'	103° 37.525'
01° 16.295'	103° 36.716'

Purpose: For vessels awaiting berth, working cargo, vessels under repairs, or for the mooring of oil rigs.

Shipmaster's Report: September 1995.

Singapore Strait – Western Grounds: Ship-to-ship transfer area:

Charts: B.A. 3833, 2598.

Location: West of P.Nippa Reef in 20 m. to 29 m. is safe anchorage (Lat. 01° 09' N., Long. 103° 35' E. to Lat. 01° 10' N., Long. 103° 35' E. to Lat. 01° 10' N., Long. 103° 38' E. to Lat. 01° 09' N., Long. 103° 38' E. to point of origin). South of this location is not advisable as it is in Indonesian waters.

Services: All services from Singapore (Fenders, hoses, tugs, launches, stores, fresh water, bunkers, personnel changes). Contact local Agents.

PILOTAGE: Port Marine Circular No. 18 of 1996 (dated 27th July 1996).

GENERAL

1. The Maritime and Port Authority of Singapore (MPA) Act 1996 provides that every vessel while navigating in any pilotage district or part thereof shall be under pilotage, and the Owner, Agent or Master of the vessel shall comply with that requirement.

2. The MPA however may, if it appears to the Authority to be necessary, exempt any vessel or class of vessels while navigating in any pilotage district from being under pilotage subject to such conditions as it may think fit to impose.

3. The MPA may, if it considers it expedient, authorise any person to pilot vessels in a pilotage district, subject to such conditions as it thinks fit.

4. This directive sets out the vessels or class of vessels which are to be under compulsory pilotage and those which are exempted or in respect of which exemptions may be sought. This directive will come into force with effect on 1st August 1996.

5. This directive shall not apply to or in relation to vessels belonging to or operated by the Maritime and Port Authority of Singapore, Singapore Police Coast Guard and the Singapore Armed Forces.

DEFINITIONS

6. *Pilotage District:* The Pilotage District is described in the Port of Singapore Authority (Pilotage District) Notification. For the purpose of this circular, the Pilotage District is divided into four areas, "A", "B", "C" and "D". These areas are defined in Annex I and depicted in Annex II (See "Plan").

7. *Height:* The height of vessel referred to in this circular shall be the height of the vessel measured vertically from the waterline of the vessel to the highest point of the vessel including its cargo, structures or equipment on board.

COMPULSORY PILOTAGE

8. Compulsory pilotage applies to all liquefied gas carriers and chemical carriers. For purpose of compulsory pilotage, a chemical carrier means any vessel which is or was carrying in bulk as a whole or part of the last cargo any of the hazardous liquid cargo listed in Chapter 17 of International Maritime Organization International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals. In the case of a vessel having previously carried as a whole or part of its last cargo any of the said hazardous liquid cargo in bulk, it shall continue to be considered a chemical carrier so long as any of its cargo tanks or cargo system is not completely cleared and removed of residual cargo.

9. In addition to liquefied gas carriers and chemical carriers, other vessels to which compulsory pilotage applies, when moving within a particular area of the pilotage district, are as indicted in Table I.

Table I

Area of Movement	*Vessels to which compulsory pilotage applies*
"A"	Every vessel of 300 g.r.t. and above.
"B"	Every vessel of 5,000 g.r.t. and above.
"C"	Every vessel of 300 g.r.t. and above or overall length exceeding 45 m.
"D"	Every vessel of 300 g.r.t. and above or of a height exceeding 30 m.

PILOTAGE EXEMPTION

10. Vessels in respect to which pilotage exemption may be sought from the Authority for movement within a particular area of the Pilotage District are as indicated in the Table II below:

Table II

Area of Movement — *Vessels in respect to which pilotage exemption may be sought*

"A" A vessel of:

(a) *Less than 300 g.t.:* A blanket exemption is granted unless otherwise specified by the Port Master.

(b) *300 g.r.t. and above but less than 2,000 g.t.:* Exemption may be granted provided that the vessel is fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF Channel(s). To seek the exemption, the vessel must call the appropriate control station by VHF radio-telephone on the designated Channel (See "Notices" – Notice No. 15 of 1996).

(c) *2,000 g.t. or above but less than 5,000 g.t.:* Exemption may be granted subject to the following conditions:

(i) The vessel must be fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF Channel(s) (See "Notices" – Notice No. 15 of 1996).

(ii) In the case of a sea-going vessel, the Master must have brought the vessel into and out of Area "A" on at least 6 occasions within the 12 months immediately preceding the date of the application for the exemption. In the case of an application for the renewal of an exemption, the Master must have brought the vessel into and out of Area "A" on at least 2 occasions in the 6 months immediately preceding the date of the application for the renewal of the exemption.

In all applications for exemption, the Master of the vessel must satisfy the Port Master of his knowledge of local waters, regulations, communication procedures, and such other requirements as the Port Master may impose.

"B" A vessel of:

(a) *Less than 300 g.t.:* A blanket exemption is granted unless otherwise specified by the Port Master.

(b) *300 g.t. and above but less than 5,000 g.t.:* A blanket exemption is granted provided that the vessel is fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF Channel(s). The vessel must call the appropriate control station by VHF radio-telephone on the designated channel (See "Notices" – Notice No. 15 of 1996).

(c) *5,000 g.t. or above but less than 10,000 g.t.:* Exemption may be granted subject to the following conditions:

(i) The vessel must be fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF Channel(s) (See "Notices" – Notice No. 15 of 1996).

(ii) In the case of a sea-going vessel, the Master must have brought the vessel into and out of Area "B" on at least 6 occasions within the 12 months immediately preceding the date of the application for the exemption. In the case of an application for the renewal of an exemption, the Master must have brought the vessel into and out of Area "B" on at least 2 occasions in the 6 months immediately preceding the date of the application for the renewal of the exemption.

In all applications for exemption, the Master of the vessel must satisfy the Port Master of his knowledge of local waters, regulations, communication procedures, and such other requirements as the Port Master may impose.

"C" Generally no exemption from compulsory pilotage. However, see paragraph 11.

"D" A vessel of:

(a) *Less than 300 g.t.:* Blanket exemption is granted provided the vessel does not enter, leave or transit the Traffic Information Area promulgated in Port Circular No. 6 of 1996 (See "Notices").

(b) *300 g.t. or above but less than 2,000 g.t. and of a height of 30 m. or less:* Exemption may be granted provided that the vessel is fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF Channel(s). To seek the exemption for the intended movement, the vessel must call the appropriate control station by VHF radio-telephone on the designated Channel (See "Notices" – Notice No. 15 of 1996).

11. Vessels engaged in Marine Projects (e.g. Dredging, Reclamation and Port Development projects) in respect to which pilotage exemption may be sought for movement within a particular area of the Pilotage District are as indicated in the Table III below:-

Table III

Area of Movement — *Vessels Engaged in Marine Projects (e.g. Dredging, Reclamation and Port Developments) in respect of which Pilotage Exemption may be sought.*

"A" or "B"

A vessel of 5,000 g.t. or above but less than 10,000 g.t.:

(a) The vessel must be engaged in marine projects which require her to move frequently within this area of the pilotage district. (Marine projects include dredging, reclamation, laying of cable, etc.).

(b) The vessel is fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF channel(s). (See "Notices" – Notice No. 15 of 1996).

(c) The Master shall have brought the vessel into and out from the area concerned under pilotage for at least a total of 6 occasions within the 12 months immediately preceding the date of the application for exemption.

(d) In the case of a sea-going vessel, the Master shall have brought the vessel into and out of the area concerned on at least a total of 6 occasions under pilotage within the 12 months immediately preceding the date of application for exemption. In the case of an application for the renewal of an exemption, the Master must have brought the vessel into and out of the area concerned on at least 4 occasions in the 3 months immediately preceding the date of the application for the renewal of the exemption.

(e) The Master of the vessel must follow the route laid down under the conditions for exemption.

(f) In all cases applications for exemptions, the Master must satisfy the Port Master of his knowledge of local waters, regulations, communication procedures, and such other requirements as the Port Master may impose.

Area of Movement — *Vessels Engaged in Marine Projects (e.g. Dredging, Reclamation and Port Developments) in respect of which Pilotage Exemption may be sought.*

"C"

A vessel of 300 g.t. or above or of overall length exceeding 45 metres:

(a) The vessel must be engaged in marine projects which require her to move frequently within this area of the pilotage district.

(b) For navigating the Main Channel under the Benjamin Sheares Bridge at the entrance to Kallang Basin, the displacement of the vessel must not exceed 2,500 tonnes and for navigating the Middle Channel under the Benjamin Sheares Bridge at the entrance to Marina Bay the displacement of the vessel must not exceed 2,000 tonnes.

(c) In the case of a tow proceeding through the entrance to Kallang Basin, the total displacement of the tug and tow must not exceed 2,500 tonnes and in the case of a tow proceeding through the entrance to Marina Bay the total displacement of the tug and tow must not exceed 2,000 tonnes.

(d) The vessel or the tug, in the case of a tow, must be fitted with a VHF radio-telephone which is in good condition and capable of communicating at all times on the required VHF channel(s). (See "Notices" – Notice No. 15 of 1996).

(e) In the case of a vessel proceeding to or from Kallang Basin, the conditions stipulated under Port Circular No. 76 of 1987 are to be complied with and in the case of a vessel proceeding to or from Marina Bay the conditions stipulated under Port Circular No. 75 of 1987 are to be complied with.

(f) The Master must have brought the vessel under pilotage into and out of this area on at least 12 occasions within the 12 months immediately preceding the date of application for the exemption.

(g) In the case of a sea-going vessel, the Master must have brought the vessel under pilotage into and out of the area on at least 24 occasions within the 12 months immediately preceding the date of application for exemption.

For subsequent exemptions, the Master shall have entered and left the area on at least 4 occasions within the 3 months immediately preceding the date of application for the renewal of the exemption.

(h) The Master of the vessel shall follow the route laid down under the conditions for exemption.

(i) In all cases, applications for exemption, the Master must satisfy the Port Master of his knowledge of local waters, regulations, communications procedures, and such other requirements as the Port Master may require.

"D" *A vessel of 300 g.t. or above but not less than 10,000 g.t. requiring to enter, leave or transit the Traffic Information Area:*

(a) The vessel must be engaged in marine projects which require her to move frequently within this area of the pilotage district.

(b) The vessel must be fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF channel(s). (See "Notices" – Notice No. 15 of 1996).

(c) The Master shall be conversant with the reporting procedure required under Port Circular No. 6 of 1996 (See "Notices").

(d) The Master shall have brought the vessel into and out of the area under pilotage, for at least 12 occasions within the 12 months immediately preceding the date of the application for the exemption.

(e) In the case of a sea-going vessel, the Master must have brought the vessel into and out of the area on at least a total of 24 occasions under pilotage, within the 12 months immediately preceding the date of application for exemption. For subsequent renewals of the exemptions, the Master shall have entered and left the area on at least a total of 4 occasions within the 3 months immediately preceding the date of the application for the renewal of the exemption.

(f) The Master of the vessel shall follow the route laid down under the conditions for exemption.

(g) In all applications for exemption, the Master must satisfy the Port Master of his knowledge of local waters, regulations, and such other requirements as the Port Master may require.

12. Notwithstanding any exemption granted, for berthing and unberthing operations, the express permission of the Owners/Operators of the berth is also required.

13. All vessels, whether exempted from pilotage or otherwise must follow the reporting procedures laid down in Port Marine Circular No. 2 of 1996.

14. All exempted vessels, when underway within the pilotage areas must display by day the International Code Flag "N".

15. All Masters of vessels are advised not to hamper large or deep draft vessels in the restricted channels of the Port.

16. Application forms for the pilotage exemption for vessels may be obtained from Port Master's Department, 19th storey, Tanjong Pagar Complex, Singapore 089053.

TOWAGE WITH PILOTAGE EXEMPTION:

17. Masters of tug(s) of less than 2,000 g.t. may seek pilotage exemption to tow vessels, subject to the following conditions:

(a) For movement within Area "A" and Area "B", the aggregate g.t. of the tow(s) must be less than 5,000.

(b) For movement within Area "D", the aggregate g.t. of the tow(s) must be less than 2,000. The height of the tug(s) and tow(s) must be 30 m. or less. Where the tug(s) and tow(s) are required to enter, leave or transit the Traffic Information Area promulgated in Port Marine Circular No. 6 of 1996 and either the height of the tug(s) or tow(s) is more than 30 m., compulsory pilotage shall apply.

(c) Provided that for tow(s) with aggregate g.t. exceeding 1,000 g.t., the total horsepower of the tug(s) must not be less than 450 kW (600 bhp).

PILOT BOARDING AND DISEMBARKATION GROUNDS

18. The 5 Pilot Boarding Grounds for vessels coming into port are:

(a) Eastern Boarding Ground "A" (PEBGA) – in position Lat. 01° 13.52' N., Long. 103° 53.55' E.

(b) Eastern Boarding Ground "B" (PEBGB) – in position Lat. 01° 15.50' N., Long. 103° 57.50' E. This boarding ground is to be used by all tankers requiring pilots when arriving from the East and proceeding to the appropriate anchorage in the Eastern sector of the port. Other vessels may also use this boarding ground to pick up pilots provided special arrangement has been made with the pilotage service. Anchoring is strictly prohibited at this boarding ground as it is within the submarine cable area.

(c) Southern Boarding Ground (PSBG) – South of Sebarok Beacon within port limits (To be used only through prior arrangement with the pilotage service).

(d) Western Boarding Ground (PWBG) – in position Lat. 01° 13.73' N., Long. 103° 36.50' E.

(e) East Johor Strait Boarding Ground (PJSB) – S.E. of Johor Shoal Buoy in position Lat. 01° 18.00' N., Long. 104° 05.50' E.

19. The 10 Pilot Disembarkation Grounds (DG) are in positions as follows:

No. 1: Lat. 01° 18.47' N., Long. 104° 05.72' E.
No. 2: Lat. 01° 16.95' N., Long. 103° 59.77' E.
No. 3: Lat. 01° 15.50' N., Long. 103° 56.90' E.
No. 4: Lat. 01° 14.25' N., Long. 103° 54.78' E.
No. 5: Lat. 01° 13.48' N., Long. 103° 53.30' E.
No. 6: Lat. 01° 15.50' N., Long. 103° 51.87' E.
No. 7: Lat. 01° 11.75' N., Long. 103° 49.45' E.
No. 8: Lat. 01° 10.68' N., Long. 103° 46.98' E.
No. 9: Lat. 01° 12.80' N., Long. 103° 39.28' E.
No. 10: Lat. 01° 13.97' N., Long. 103° 37.37' E.

See "Plans" for the locations of Pilot Boarding Grounds and Disembarkation Grounds.

PILOTAGE ORDERS

20. Request for pilotage service should be placed directly with the pilotage service provider.

21. Vessels at anchor and requiring Pilots at night shall exhibit 3 all-round lights in a vertical line. The highest and middle lights shall be white and the lowest light shall be red. By day, the vessels should fly the flag 'G' of the International Code of Signals 1969.

22. All vessels above 300 g.t. must report their final anchored position in the port in terms of bearing and distance from the reference points listed in Port Marine Circular No. 2 of 1996.

TRAFFIC INFORMATION SYSTEM

23. Masters of vessels intending to enter, transit or leave the East Johor Strait are to refer to the Port Circular No. 6 of 1996 (See "Notices") on Traffic Information System for Ships Transiting The Serangoon Harbour and where applicable, comply with the directives given therein.

ACCESS TO VESSELS

24. Mariners are reminded that Pilots and other Government Officers may, on grounds of personal safety, refuse service unless a safe and satisfactory means of access to the vessel is provided. The safety requirements in respect of pilot ladders, shall be in accordance with Regulation 17 of Chapter V of the Merchant Shipping (Safety Convention) Regulations (Cap 179, Rg 11).

25. In the case of accommodation ladders and shore gangways, the following should be complied with:

(a) *Accommodation Ladders*

(1) The embarkation and disembarkation of Pilots and Government Officers are to be supervised by a responsible Officer of the ship.

(2) The accommodation ladder is to be in good condition, secured and properly illuminated at night. The landing platform is to be properly adjusted to provide safe access.

(3) A manrope is to be attached to the lower bridle in order to provide a good handhold for boarding, and a lifebuoy with self-igniting light must be available close to the upper platform.

(4) Discharges in the way of the accommodation ladder must be properly covered or stopped while the ladder is in use.

(b) *Vessel and Shore Gangways*

(1) Where a vessel's gangway or a shore gangway is used when the vessel is berthed alongside a wharf, the gangway is to be landed squarely onto the vessel and wharf. No person other than those engaged in the rigging of the gangway should be permitted to embark or disembark before it is properly secured.

(2) Where the gangway is landed onto the ship's bulwark, steps and adequate handholds are to be provided for safe and convenient access.

(3) The gangway shall be adequately illuminated at night and tended by a watchman.

(4) When a shore gangway is used, Masters are not to permit it being landed onboard before crew members of the vessel are available to receive it.

26. This Port Marine Circular supersedes Port Marine Circulars No. 107 of 1987, No. 7 of 1991 and No. 9 of 1994.

27. All Port Marine Circulars referred to in this Circular are available from the Port Master's Department.

28. Any queries concerning this Circular may be directed to the Port Master's Department on Tel: 3252461, 3252460, or Fax: 3252454.

for Director General
Maritime and Port Authority of Singapore.

Annex I:

PILOTAGE DISTRICT AREAS

1. Area "A" – is defined as that part of the Pilotage District Westwards of the line joining the following positions including the area up to the causeway in the Johor Strait:

(a) Lat. 01° 16.27' N., Long. 103° 51.43' E.
(b) Lat. 01° 15.03' N., Long. 103° 51.87' E.
(c) Lat. 01° 14.68' N., Long. 103° 52.28' E.
(d) Lat. 01° 14.68' N., Long. 103° 52.77' E.
(e) Lat. 01° 13.35' N., Long. 103° 51.87' E.
(f) Lat. 01° 12.73' N., Long. 103° 52.12' E.

2. Area "B" – is defined as that part of the Pilotage District excluding Area "C" Marina Bay and Kallang Basin, Eastward of the line joining the positions referred to in paragraph 1 above up to the line joining the following positions:

(a) Lat. 01° 20.55' N., Long. 103° 59.80' E.
(b) Lat. 01° 20.00' N., Long. 104° 02.80' E.

3. Area "C" – is defined as follows:

From a position	Lat. 01° 17.890' N.	Long. 103° 51.980' E.
by a straight line to a position in	Lat. 01° 17.770' N.	Long. 103° 51.970' E.
thence by a straight line to a position in	Lat. 01° 17.658' N.	Long. 103° 51.974' E.
thence by a straight line to a position in	Lat. 01° 17.303' N.	Long. 103° 52.034' E.
thence by a straight line to a position in	Lat. 01° 17.309' N.	Long. 103° 51.733' E.
thence by a straight line to a position in	Lat. 01° 17.186' N.	Long. 103° 51.733' E.
thence by a straight line to a position in	Lat. 01° 17.184' N.	Long. 103° 51.805' E.
thence by a straight line to a position in	Lat. 01° 17.063' N.	Long. 103° 52.110' E.
thence by a straight line to a position in	Lat. 01° 16.927' N.	Long. 103° 52.305' E.
thence by a straight line to a position in	Lat. 01° 16.720' N.	Long. 103° 52.467' E.
thence by a straight line to a position in	Lat. 01° 16.567' N.	Long. 103° 52.533' E.
thence by a straight line to a position in	Lat. 01° 16.683' N.	Long. 103° 52.733' E.
thence by a straight line to a position in	Lat. 01° 16.811' N.	Long. 103° 52.680' E.
thence by a straight line to a position in	Lat. 01° 16.941' N.	Long. 103° 52.508' E.
thence by a straight line to a position in	Lat. 01° 17.333' N.	Long. 103° 52.150' E.
thence by a straight line to a position in	Lat. 01° 17.630' N.	Long. 103° 52.050' E.
thence by a straight line to a position in	Lat. 01° 17.760' N.	Long. 103° 52.030' E.
thence by a straight line to a position in	Lat. 01° 17.850' N.	Long. 103° 52.040' E.

thence by a straight line to the point of origin.

4. Area "D" – is defined as that part of the Pilotage District Northwards of the line joining the following positions up to the causeway in the Johor Strait.

(a) Lat. 01° 20.55' N., Long. 103° 59.80' E.
(b) Lat. 01° 20.00' N., Long. 104° 02.80' E.
(c) Lat. 01° 20.00' N., Long. 104° 03.17' E.
(d) Lat. 01° 19.55' N., Long. 104° 03.67' E.
(e) Lat. 01° 18.75' N., Long. 104° 04.40' E.
(f) Lat. 01° 18.30' N., Long. 104° 05.63' E.
(g) Lat. 01° 19.30' N., Long. 104° 05.78' E.

Annex II: See "Plan".

RESTRICTIONS:
Navigational Channels:

Name	*Controlling Depth*
Johor Shoal Buoy to Johor Port Water Front	12.4 m.
Johor Port Water Front to Sembawang Shipyard	11.4 m.
Sembawang Shipyard to Ordnance Reach	10.9 m.
Approach Channel to Tg. Pagar Terminal	14.0 m.
East Keppel Fairway	14.0 m.
Buran Channel	9.1 m.
West Keppel Fairway	14.4 m.
Sisters Fairway (Selat Tg. Hakim)	18.1 m.
Jong Fairway	14.3 m.
Sinki Fairway (In Channel)	13.6 m.
Selat Sinki Deep Water Channel (Up to Tankstore, Pulau Busing)	18.0 m.
Dredged Channel via Selat Sinki, East Jurong Fairway (Up to Seraya Buoy)	16.0 m.
Selat Pandan (Out Channel)	12.5 m.
Western Approach to Esso SBM (Dredged Channel at Selat Sinki)	21.0 m.
Pesek Fairway	12.4 m.
East Jurong Fairway	12.6 m.
West Jurong Fairway (Tembuan to SRC Berths)	12.4 m.
West Jurong Fairway (Triton to Tembuan)	11.0 m.
Selat Sakra	12.0 m.
Pasir Panjang Fairway	11.5 m.
Sultan Fairway	13.6 m.

Also see "Bridges".

MAX. SIZE: See "Berthing" and "Tankers".

HEALTH: Also see "Notice".

INWARD HEALTH CLEARANCE FOR VESSELS ARRIVING SINGAPORE:

1. All vessels arriving Singapore are required to have a valid Derat Certificate/Derat Exemption Certificate.
2. Only the following vessels need to notify Port Health Office (4-12 hours in advance) for Inward Health Clearance prior to arrival:
   (a) Vessels have been in plague infected area within 60 days prior to arrival in Singapore.
   (b) Vessels with illness on board.
   (c) Vessels with death on board.
   (d) Vessels with dead rodents on board.
   (e) Vessels with refugees on board.
3. Outward Health Clearance is not required for any vessel.
4. For detailed information, please call the Port Health Office at:
   7 Keppel Road, 02-14 Tanjong Pagar Complex, Singapore 0208.
   Tel: 2226924, 2222585.

IMMIGRATION CLEARANCE: Also see "Notices".
Port of Singapore Authority – Port Circular No. 70/87, dated 15th September 1987.
IMMIGRATION CLEARANCE:

The Immigration Department has informed us that the contents in Port Circulars Nos. 87 of 1984 and 21 of 1987 regarding Immigration Clearance have been revised. We reproduce below the contents of the revised circulars. Port Circulars Nos. 87 of 1984 and 21 of 1987 are hereby superseded.

INWARD CLEARANCE **Appendix 'A'**
Physical Clearance: Owners/Agents requesting Immigration clearance for vessels are required to contact the appropriate offices and to follow the procedures as outlined below:

Location for Clearance	*Office covering the Location*	*Telephone No./ VHF Channel*
Eastern/Western Quarantine and Immigration Anchorages, PSA Wharves, Western Sector Anchorages	The Seaman's Section World Trade Centre	2730527/VHF Channel 14 } 24 hours
Jurong Fishing Port	Immigration Office at the Jurong Fishing Port	2652818
Sembawang Port	Immigration Woodlands Checkpoint	2692531

The Owners/Agents contacting the Immigration Office regarding the ETAs of their vessels are required to give the following information. Such ETAs should be given at least 12 hours before the arrival of their vessels. The office for this purpose provides a 24-hour service.

(i) Name of Vessel;
(ii) Location for clearance of the Vessel;
(iii) Expected time of arrival (ETA);
(iv) Last/Next Port of Call;
(v) Agent of Vessel;
(vi) Owner of Vessel;
(vii) Number of Passengers, if any, on board;
(viii) Stowaway/Unauthorised persons/survivors, if any, on board.

Any vessel arriving in Singapore, excluding those vessels which have been granted Advance Immigration Clearance, must proceed to the prescribed Immigration and Quarantine Anchorage for Immigration Inward Clearance.

Such a vessel on arrival must exhibit the necessary signal for easy identification and speedy clearance. The Immigration signal is:

(a) by day, the flags in the International Code of Signals corresponding to:
   (i) the numerals "25" in respect of vessels not carrying passengers; or
   (ii) the numerals "34" in respect of vessels carrying passengers.
(b) by night, in every case, 2 green lights mounted vertically, 6 ft. apart, visible all-round the horizon for a distance of at least 2 miles.

Owners/Agents and Masters must ensure that their vessels have proper and secure gangways which are ready on arrival so that Immigration Officers can board their vessels immediately. The use of rope-ladders is discouraged. Co-operation in this regard will enable Immigration Officers to grant fast clearance.

Procedure on Board:

The Master is required to submit 6 copies of the Crew List and if there are passengers, 4 sets of the Passenger List to the Clearing Officer who boards the vessel. The Master has to certify on the original Crew List that the details in the lists submitted are correct and that there are no stowaways or unauthorised persons on board.

If requested by the Clearing Officer, Seaman's Books/travel documents will have to be produced. Crew members may be required to present themselves before the Officer.

All passengers shall present themselves before the Clearing Officer. Disembarking passengers shall complete the Disembarkation Forms (IMM 23A). Agents may obtain the forms from the Immigration Field Division Headquarters.

The Master shall execute the Seaman's Security Bond, bonding crew members (except the Master) for $1,000/– each. If there are persons who are refused entry by the Clearing Officer, the Master shall execute the Security Bond, bonding such persons who are refused entry, for not less than $2,000/– each.

Summary action will be served on the Master giving him the names of all those who have been refused entry, and/or the breakdown figures of the transit passengers and disembarking passengers.

When clearance has been granted, the Master shall haul down the Immigration signal upon the Immigration Officer leaving the vessel.

OUTWARD CLEARANCE **Appendix 'B'**
Physical Checkout: Agents requiring physical checkout of vessels should contact the following offices:

Location of Vessel	*Office of Contact*	*Telephone No./ VHF Channel*
Eastern/Western Quarantine and Immigration Anchorages PSA Wharves, Western Sector Anchorages	The Seaman's Section World Trade Centre	2730527/VHF Channel 14 } 24 hours
Jurong Fishing Port	Immigration Office at the Jurong Fishing Port	2652818
Sembawang Port	Immigration Woodlands Checkpoint	2692531

Procedure:
Vessels requesting Immigration Outward Clearance must either fly the "Blue Peter" in addition to the "25" or "34" signals during the day. By night to display 2 green lights in every case mounted vertically 6 ft. apar visible all-round the horizon for a distance of at least 2 miles. This is t assist the Officers in locating the vessel.

The Master is required to submit 2 sets of Crew Lists and if applicabl 3 sets of Passenger Lists to the Checking-Out Officer. The Master shoul certify on the Crew Lists that all crew are on board. Passengers if an and persons who have been refused entry will have to be presented t the Checking-Out Officer.

INWARD CLEARANCE **Appendix 'C**
Advance Immigration Clearance:
Procedure in Respect of Vessels which are Eligible for AIC.

(i) The Advance Immigration Clearance (AIC) facility is extended t merchant vessels over 75 n.r.t. and which are carrying not mor than 12 passengers, but excluding fishing vessels.
(ii) Applications to be submitted at least 6 hours before arrival o vessel.
(iii) The Owner/Agent of the vessel shall obtain from the Master b radio or post the requisite information as outlined below.
(iv) The Owner/Agent shall submit 5 Crew Lists, Transit Passeng Lists (if any), Disembarking Passenger Lists (if any), i quadruplicate to the Immigration Checkpoint, Finger Pier Buildin South Quay. All lists must be inserted with the necessary detai and must be duly signed by the authorised representatives of th Owner/Agent of the vessel.
(v) If AIC is granted, one copy of each of the Crew List, Trans Passenger List, and Disembarking Passenger List bearing th appropriate Immigration endorsements can be collected by th Owner/Agent on execution of the relevant documents such a Seaman's or other Security Bonds. If any person is not permitt to land, the Owner/Agent will be required to inform the Master o the vessel accordingly and upon the ship's arrival must ensu that such person in fact does not disembark from the vessel.

(vi) After the arrival of the vessel, it shall be the responsibility of the Owner/Agent to submit immediately the Master's copy of the Crew List and/or Passenger List to the Immigration Finger Pier Checkpoint, bearing the signature of the Master of the vessel certifying that the details previously submitted through the Owner/Agent are correct. Whenever required, travel documents and Seaman's Books of the crew and/or passengers must be handed over to the Immigration Finger Pier Checkpoint, for checking within 4 hours of the vessel's arrival. Passengers will not land until their passports have been endorsed with the appropriate passes.

(vii) If the vessel is arriving from an infected port, provisional Radio Pratique should first be obtained from Port Health Authorities before AIC can be considered.

INWARD CLEARANCE **Appendix 'D'**

Advance Immigration Clearance for supply vessels plying between Singapore and oil rigs:

1. *Description of Vessels:* Supply vessels based at Singapore which ply between Singapore and oil rigs situated in waters near the neighbouring countries.

2. (a) *A supply vessel arriving without change of crew:* The Owner/Local Agent of a supply vessel, after receiving from the oil rig Superintendent by radio, must submit 2 copies of the vessel's Crew List to the Immigration Officer at the Immigration Finger Pier Checkpoint at least 2 hours before the vessel arrives at the Port Limits. The Crew List should bear a written certification by the Owner/Local Agent that the vessel will be arriving at Singapore without any change of crew since its last departure from Singapore.

After submission of these certified Crew Lists, the Owner's/Local Agent's representatives will be required to execute the usual documents such as Seaman Security Bond.

(b) *A supply vessel arriving with a change of crew:* If the Owner/Local Agent is able to communicate with an arriving supply vessel, and if there has been a change of crew, the Owner/Local Agent must submit 5 copies of the Arrival Crew List to the Immigration Officer at Immigration Finger Pier Checkpoint, at least 12 hours before the vessel's arrival at the Port Limits. If Advance Immigration Clearance is given, the Owner's/Local Agent's representatives will execute the usual bonds and inform the vessel accordingly.

(c) *A supply vessel arriving with passengers:* No Advance Immigration Clearance is available.

(d) *A supply vessel arriving in Singapore from oil rigs located on the high seas or South China Sea:* No Advance Immigration Clearance will be granted.

(e) Any Advance Immigration Clearance for a vessel requiring Health Clearance will be subject to the condition that Health Pratique is provided by Port Health Authorities.

Shipmaster's Report: August 1987.

A Crew List is to be sent to the Agent in advance of the vessel's arrival and is to include – name, rank, nationality, Seaman's Book number and date and place engaged.

RADIO:

Radiotelegram Services to Ships (Radiotelephony):

Singapore Radio Working Schedules for MF/HF Radiotelephony:

1. The following schedules of watch-keeping will be operated by the Singapore Coast Station:

Singapore Radio	*Transmit Frequency (kHz)*	*Hours of Watch (UTC)*	*Ship Transmit Frequency (kHz)*	*Remarks*
9VG4	2182	Continuous	2182	Call, Reply and Safety
9VG87	4125	Continuous	4125	
9VG88	6215.5	Continuous	6215.5	
9VG89	8780.9	Continuous	8257	Common Calling Frequencies
9VG90	13162.8	Continuous	12392	
9VG91	17294.9	Continuous	16522	
9VG5	2760	Continuous	2527	Working Frequencies
9VG60	4369.8	Continuous	4075.4	
9VG63	8728.2	Continuous	8204.3	
9VG67	13156.6	Continuous	12385.8	

2. Singapore Radio maintains a continuous watch on Call, Reply, Safety and Common Calling Frequencies.

Navigational Warnings and Weather Bulletins:

1. Navigational Warnings and Weather Bulletins for shipping are broadcast from Singapore Radio at the following times:

Singapore Radio	*Frequency (kHz)*	*Times (UTC)*	*Remarks*
9VG 5 9VG63	2760 8728.2	0145	Navigational Warnings and Weather Bulletin.
9VG 5 9VG63	2760 8728.2	0405 0805	Navigational Warnings only.
9VG 5 9VG60	2760 4369.8	1345	Navigational Warnings and Weather Bulletin.

2. The broadcast will normally be made on the two listed frequencies simultaneously except during transmitter maintenance periods when the broadcast will be made on the two frequencies consecutively.

Traffic Lists:

1. Singapore Radio will transmit Traffic Lists on the following two listed frequencies simultaneously except during transmitter maintenance periods when the list will be broadcast on the two frequencies consecutively:

Singapore Radio	*Frequency (kHz)*	*Times (UTC)*
9VG 5 9VG63	2760 8728.2	0005, 0405, 0805 and 1205
9VG 5 9VG60	2760 4369.8	1605

Medical Advice to Ships:

1. A radio Medical Advice service is available to ships of all nationalities and no charge is made for this service.

2. Radiotelegrams requesting medical advice should state briefly and clearly the symptoms of the illness of the person affected and contain a brief description of the contents of the medical chest carried by the ship. Such telegrams should be in English Language, be signed by the Master of the ship and addressed "Radiomedical Singapore".

3. In very urgent cases, the urgency signal (PAN) may be used in order to ensure priority over all other communications, with the exception of those relating to distress calls.

MF and HF Telephone Service:

1. General. The MF and HF radiotelephone service is available continuously to ships at sea, subject to radio propagation conditions, and provided that the ships are suitably equipped.

Ships wishing to contact Singapore Radio may do so on any of the calling carrier frequencies listed under "Radio Working Schedules" above.

After establishing contact, the call will be booked. Both the coast and ship station will then change over to any one of the following frequencies as agreed upon by both stations (depending on the position of the vessel and the time of day) prior to connecting the telephone subscriber.

Singapore Radio	*Transmit Frequency (kHz)*		*Remarks*
	Coast	*Ship*	
9VG52	2780	2685	Connection to the telephone system on demand
9VG61	4376	4081.6	
9VG62	6509.5	6203.1	
9VG64	8762.3	8238.4	
9VG65	8790.2	8266.3	
9VG66	13147.3	12376.5	
9VG68	17270.1	16497.2	
9VG69	17356.9	16584	
9VG70	22630.1	22034.1	

Maritime Radiotelex service available.

Enquiries regarding the Maritime Mobile Services may be made to the Supervisor at either Singapore Radio or the International Telephone Exchange as appropriate, or in writing to Telecoms, Comcentre, Exeter Road, Singapore 0923.

VHF: VHF Radio Telephony transmitting and receiving Channels used within the Port of Singapore. All the stations offer a 24-hour service.

Station	*Frequency (MHz)*	*Channel*	*Functions*
Singapore Port Operations	156.60	12	VHF Channels for reporting ETAs, departures and location of ships within the Port.
Singapore Port Operations	157.00 161.60	20	Pilotage Service and information.
Jurong Control	157.10 161.70	22	Berthing/unberthing at Jurong Commercial Wharves and reporting of movements within the Jurong area.
Sembawang Control	157.05 161.65	21	Pilotage Services and Berthing/Unberthing in East Johor Strait within Singapore Port Limit.
Cruise Bay Control	156.90 161.50	18	Berthing/unberthing at Cruise Bay.
Port Marine Safety	156.35 160.95	7	For co-ordinating by Port Marine Safety during emergencies.
Bukom Operations	156.95 161.55	19	Berthing/unberthing at Pulau Bukom and Shell SBM.
Pu. Ayer Chawan Operations	156.25 160.85	5	Berthing/unberthing at Pulau Ayer Chawan and Esso SBM.
Waterboats	156.075 160.675	61	Supply of fresh water to vessels at anchor.
Port Health or Immigration	156.70	14	Relevant Services.
Singapore Radio	156.80	16	Distress, Safety & Calling Channel.
	157.20 161.80	24	
	157.30 161.90	26	
	157.40 162.00	28	
	157.25 161.85	25	Public Correspondence via Singapore Telecom Exchange.
	157.15 161.75	23	
	157.35 161.95	27	
Singapore Refinery Centre	156.25	5	Berthing/unberthing at Pulau Merlimau and PSA SBM.
Marine Police	156.35 160.95	7	Request for assistance from Marine Police. (Also see "Police/Ambulance/Fire").
	157.05 161.65	21	

ALSO SEE "NOTICES".

Notice: *Port Marine Circular No. 6 of 1990:*

(A) NOTIFICATION OF ARRIVAL AND VHF REPORTING PROCEDURE FOR ARRIVAL AND DEPARTURE VESSELS.

(B) VESSEL TRAFFIC INFORMATION SERVICE.

1. This Port Marine Circular (No. 6 of 1990) comes into effect on 1st October 1990 and supersedes Port Circular No. 88 of 1987 and Port Marine Circular No. 5 of 1990.

2. The directives and requirements stipulated in Part A of this Circular regarding the notification of a vessel's arrival and a vessel's VHF confirmation of Arrival Report are made pursuant to Regulation 3 of the Singapore Port Regulations 1977.

3. This Circular is in 2 parts. Part A revises the arrival and departure vessel VHF reporting requirements to include operation of the Vessel Traffic Information Service (VTIS). Part B introduces the VTIS operation to the shipping community. Designated control centres, use of VHF frequencies and position reference points are contained in the Appendices to this Circular.

4. For the purpose of this Circular. Notification of arrival is the advance notice given to the Port Master of a vessel's intention to enter the Port of Singapore. Confirmation of arrival is the VHF report given to the Port Master confirming a vessel's intention to enter the Port when it is within VHF radiotelephone range.

PART A NOTIFICATION OF ARRIVAL AND VHF REPORTING PROCEDURE FOR ARRIVAL AND DEPARTURE VESSELS

5. *NOTIFICATION OF ARRIVAL*

5.1 APPLICATION

The Owner, Agent and Master or person-in-charge of every vessel of 500 g.r.t or more which intends to enter the Port of Singapore shall notify the Port Master at least 12 hours before the arrival of such vessel by any of the following means:

(a) Radio
Telegram: Addressed to "Portmaster Singapore".
(b) Telex: Addressed to "Portmaster". Telex: RS 34970. Answerback PORTPM RS 34970.
(c) Telefax: Addressed to "Portmaster". Fax: 3212016.
(d) Portnet: Through pilot order transaction.

5.2 The Owner, Agent, Master or person-in-charge of such a vessel, coming from a nearby port with less than 12 hours steaming time to Singapore, shall immediately on departure from such port notify the Port Master by any one of the means of communication mentioned above in paragraph 5.1.

5.3 *FORMAT – NOTIFICATION OF ARRIVAL*

The Owner, Agent, Master or person-in-charge of the vessel shall provide the information in the following format:

Format	*Explanation*
(A) NAME	Name of vessel.
(B) CALL SIGN	Call Sign.
(C) FLAG	Nationality.
(D) TYPE	Type of vessel.
(E) GRT	Gross registered tonnage.
(F) AGENT	Name of local shipping agency.
(G) ETA	Date and estimated time of arrival.
(H) LAST PORT	Last port of call.
(I) NEXT PORT	Next port of call.
(J) DRAFT	Draft of vessel.
(K) HEIGHT	Height of vessel which shall be the height measured vertically from the water line of the vessel to the highest point of the vessel including its cargo, structure or equipment onboard.
(L) LOCATION	Required location within the port.
(M) PORT SERVICE	Whether or not pilot service is required on arrival.
(N) TRACK-CHEM	Dangerous chemicals in bulk. This item shall apply to a vessel carrying those dangerous chemicals listed in Chapter 17 of the International Maritime Organisation's (IMO) International Code for the Construction and the Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code). See Port Circular No. 87 of 1987, entitled "Tracking of Chemical Carriers".
(O) REMARKS	If any.

The following remarks, when applicable, shall always be given:

(i) Condition affecting the navigation of vessel such as defective propulsion machinery, defective steering equipment, defective thruster, excessive list and awkward tows.
(ii) Fire or hazards onboard of including carriage of dangerous goods.
(iii) Damaged vessels.
(iv) Vessels damaged by bombs and other ordnances.

6. *CONFIRMATION OF ARRIVAL – VHF (VERY HIGH FREQUENCY) RADIOTELEPHONE REPORT*

6.1 *APPLICATION*

The Master of every vessel of 300 g.r.t or more or every tug engaged in towing or pushing, if the combined GRT of the tug and tow or vessel(s) being pushed is 300 g.r.t. or more, or any passenger vessel intending to enter the Port of Singapore, shall with effect from 1st October 1990 report by VHF the confirmation of arrival to the Singapore Vessel Traffic Information Service (VTIS).

6.1.1 For ease of reporting, the VTIS operational area is divided into VTIS East and VTIS West. Further details of the VTIS can be found in Part B of this Circular.

6.2 *VHF ARRIVAL REPORTING POINTS*

6.2.1 REPORTING VIA VTIS EAST

Masters of such vessels arriving in the Port of Singapore via the VTIS East operational area shall report their confirmation of arrival to VTIS East operator on Channel 10 when:

(a) Arriving from the East (South China Sea):
When abeam of Horsburgh Lighthouse (Lat. 01° 19.817' N., Long. 104° 24.444' E.).
(b) Arriving from the South via Selat Riau:
When abeam of Karang Galang Light (Lat. 01° 09.580' N., Long. 104° 11.470' E.).
(c) Arriving from East Johor Strait:
When abeam of Johor Shoal Buoy (Lat. 01° 18.880' N., Long. 104° 04.992' E.).

6.2.2 *REPORTING VIA VTIS WEST*

Masters of such vessels arriving into the Port of Singapore via the VTIS West operational area shall report their confirmation of arrival to VTIS West operator on Channel 10 when:

(a) Arriving from the South via Selat Durian:
When abeam of Pulau Jangkat Beacon (Lat. 00° 05.920' N., Long. 103° 42.730' E.).
(b) Arriving from the West (Malacca Strait):
When abeam of Pulau Iyu Kechil (Lat. 01° 11.470' N., Long. 103° 21.240' E.).

6.2.3 Master of vessels approaching from a location not mentioned in (a) – (e) above shall on approaching the VTIS operational area call the VTIS East or VTIS West operator as appropriate and provide the vessel's position by bearing and distance from one of the 7 conspicuous reference points listed in Appendix II of this Circular.

6.3 *VESSELS WITH ORDER FOR PILOT SERVICES ON ARRIVAL*

6.3.1 Masters of all vessels arriving at a Singapore Pilot boarding ground shall confirm their ETA on VHF Channel 10 by calling VTIS East or VTIS West as appropriate. They shall do so when passing the reporting points mentioned above in paragraph 6.2, or when at least 2 hours prior to arrival at the pilot boarding ground, whichever is earlier.

6.3.2 In confirming the ETA at pilot boarding ground, the Master shall also report for Confirmation of Arrival by providing the information, required in Paragraph 6.4. If this report is made before crossing the reporting point, then the Master need only report the vessel's name and position when passing the reporting point.

6.4 *CONTENTS OF VHF CONFIRMATION OF ARRIVAL REPORT*

The VHF Confirmation of Arrival report shall contain the following information:

(a) Name of vessel.
(b) Call sign.
(c) Present location with reference to any one of the designated reporting points described in Paragraph 6.2, e.g. abeam of Horsburgh Lighthouse.
(d) I . For vessel not requiring pilot services on arrival, then the name of the first destination in the Port, i.e. name of anchorage or berth, and the estimated time of arrival (ETA) at that destination.
 II. For vessels requiring pilot services on arrival, then in lieu of I., the name of the pilot boarding ground and the ETA at that boarding ground.
(e) Height of vessel as defined in Paragraph 5.3(K) above.
(f) Maximum draft of vessel.
(g) Remarks, if any (e.g. damaged vessel, unusual trim).
(h) For deep draft vessel and VLCC as defined in the "Rules for Vessels Navigating through the Straits of Malacca and Singapore", then the estimated time and place of crossing or joining the Singapore Strait TSS.

6.4.1 Where there are no changes to the information contained in (e) to (g) above from the Notification of Arrival made under Paragraph 5, the Master shall affirm that it is so and the repetition of such information in the Confirmation of Arrival report shall not be necessary.

7. *REPORTING ARRIVAL IN THE PORT*

The Master of an arrived vessel, fitted with VHF radiotelephone shall report as soon as practicable to the appropriate designated control centre on VHF Channel 12, 21 or 22, when such a vessel is anchored or moored within the port limit of Singapore. The report shall contain the date, time and the location of the vessel.

8. *ANCHORED POSITION REPORT*

For the reporting of an anchored location, the report shall be in the form of a bearing and distance from one of the following position reference points:

(a) *Eastern Sector*	*Reference Point*
Eastern Special Purposes Anchorage (A)	Amber Beacon Lat. 01° 17.876' N.
Eastern Special Purposes Anchorage (B)	Long. 103° 54.450' E. (all anchorages)
Small Craft Anchorage	
Laid-up Vessels Anchorage	
Eastern Petroleum Anchorage (B)	
Eastern Petroleum Anchorage (C)	
Man-of-War Anchorage	
Eastern Working Anchorage	
Eastern Petroleum Anchorage (A)	
Eastern Quarantine and Immigration Anchorage	
Explosives Anchorages for Lighters and Barges	

(b) *Western Sector*

Western Working Anchorage	Rimau Beacon
Western Petroleum Anchorage (A)	Lat. 01° 15.598' N.
Western Petroleum Anchorage (B)	Long. 103° 48.496' E.
Western Quarantine and Immigration Anchorage	(all anchorages)
Reserved Anchorage	
Pasir Panjang Coastal Anchorage	
Dangerous Goods Anchorage	

(c) *Jurong Sector*

Sultan Shoal Petroleum Anchorage (B)	Sultan Shoal Lighthouse
Sultan Shoal Petroleum Anchorage	Lat. 01° 14.381' N.
West Jurong Anchorage	Long. 103° 38.985' E.
Chemical/Gas Carriers Anchorage	(all anchorages)
Selat Pauh Anchorage	
Tuas Explosives Anchorage	
Tuas Explosives Lighter Anchorage	

(d) *East Johor Strait*

Changi General Purposes Anchorage	Johor Shoal Buoy Lat. 01° 18.880' N. Long. 104° 05.992' E.

9. *REPORT FOR INTRA-PORT VESSELS MOVEMENTS*

Prior to moving a vessel within the port limits of Singapore, the Master shall as soon as practicable report such event or intention to the designated control centre giving the following:

(a) Name of vessel.
(b) Call sign.
(c) Present location.
(d) Destination.
(e) Draft.
(f) Height.
(g) Remarks, if any.

10. *VHF REPORT FOR DEPARTING VESSELS*

10.1 PRIOR TO DEPARTURE

The Master of every vessel, as specifited in Paragraph 6.1 intending to leave Singapore, shall inform the appropriate designated control centre prior to departure, and shall give the information as specified in Para 9 above. In addition, the Master shall advise the departure reporting points he intends to use. Departure reporting points are contained in Paragraph 10.3 below.

10.2 *ON DEPARTURE*

The Masters of such vessel leaving Singapore shall report to the Singapore VTIS East or West on VHF Channel 10 when passing any of the departure reporting points.

10.3 *VHF DEPARTURE REPORTING POINTS*

10.3.1 *REPORTING VIA VTIS EAST*

Master of such vessels departing from the Port of Singapore and joining the Singapore Strait traffic via the VTIS East operational area shall report to VTIS East operator on Channel 10 when:

(a) Departing from the East Johor Strait:
When abeam of Johor Shoal Buoy (Lat. 01° 18.880' N., Long. 104° 04.992' E.).

(b) Departing from the Eastern Petroleum B Anchorage:
When abeam of Airway Buoy (Lat. 01° 17.650' N., Long. 104° 01.200' E.).

(c) Departing from the Eastern Fairway:
When abeam of Lagoon Beacon (Lat. 01° 16.637' N., Long. 103° 57.529' E.).

(d) Departing from the Corridor Fairway:
When abeam of S.W. Corridor Buoy (Lat. 01° 14.450' N., Long. 103° 54.167' E.).

(e) Departing from the East Keppel Fairway:
When abeam of Tembakul Beacon (Lat. 01° 13.343' N., Long. 103° 51.858' E.).

10.3.2 *REPORTING VIA VTIS WEST*

Master of such vessels departing from the Port of Singapore and joining the Singapore Strait traffic via the VTIS West operational area shall report to VTIS West operator on Channel 10 when:

(f) Departing from the Jong Fairway:
When abeam of Sebarok Beacon (Lat. 01° 11.841' N., Long. 103° 462' E.).

(g) Departing from the Sinki Fairway:
When abeam of Ajax Shoal Buoy (Lat. 01° 13.733' N., Long. 103° 39.850' E.).

(h) Departing from the Sultan Fairway:
When abeam of Sultan Shoal Lighthouse (Lat. 01° 14.381' N., Long. 103° 38.985' E.).

(i) Departing from the West Jurong Anchorage, the Gas and Chemical Anchorage and the Sultan Shoal Petroleum Anchorage:
When abeam of Western Beacon (Lat. 01° 12.720' N., Long. 103° 35.883' E.).

10.3.3 Master of vessels departing from a departure point not mentioned in (a) to (i) above shall, on approaching the Singapore Strait traffic area, call the VTIS East or VTIS West operator as appropriate, and provide the vessel's position by bearing and distance from one of the 4 reference points listed below:

Sultan Shoal Lighthouse	01° 14.381' N., 103° 38.985' E.
Raffles Lighthouse	01° 09.609' N., 103° 44.552' E.
Sakijang Beacon	01° 13.308' N., 103° 51.378' E.
Bedock Lighthouse	01° 18.548' N., 103° 56.068' E.

10.4 *CONTENTS OF DEPARTURE REPORT TO VTIS*

The departure report to the Singapore VTIS shall contain the following information:

(a) Name of vessel.
(b) Call sign.
(c) Current location passing which departure point, e.g. abeam Tembakul Beacon.
(d) Bound East, West or South.
(e) Remarks, if any.

11. *MALFUNCTION OF VHF RADIOTELEPHONE EQUIPMENT*

11.1 When it is not possible to operate the VHF radiotelephone equipment carried on board a vessel, compliance with Paragraphs 6, 7, 8, 9 and 10 above shall be made as soon as practicable by any available means.

11.2 The Master shall at the earliest opportunity restore such VHF radiotelephone carried on board his vessel to working condition and report to the designated communication centre accordingly.

PART B SINGAPORE VTIS (VESSEL TRAFFIC INFORMATION SERVICE)

12. The Port of Singapore Authority is establishing a Vessel Traffic Information Service (VTIS) which will commence operations on 1st October 1990. It is hoped that with the operation of the system, it will be possible to inform participating vessels of dangers affecting their navigation. The VTIS operation is part of the PSA's Port Operation Centre.

13. *OBJECTIVES OF THE VTIS*

The objectives of the VTIS are as follows:

(a) Improve safety of navigation in the Singapore Strait.
(b) Facilitate the safe flow of shipping in and out of the Port of Singapore.
(c) Provide navigational information to vessels using the Singapore Strait.

14. *VTIS OPERATIONAL AREA*

The VTIS will assist marine traffic within the Singapore Strait Traffic Separation Scheme (TSS) bounded by Long. 103° 25.0' E. and Long. 104° 23.0' E. The VTIS coverage is divided into two areas, namely VTIS East and VTIS West, by Long. 103° 51.2' E.

14.1 *VTIS EAST*

Vessels East of Long. 103° 51.2' E. shall communicate to the VTIS East operator.

14.2 *VTIS WEST*

Vessels West of Long. 103° 51.2' E. shall communicate to the VTIS West operator.

15. *VTIS RADAR POSITIONS*

The 5 radars are located at the following positions:

	Site	*Latitude*	*Longitude*
(a)	Horsburgh	01° 19.818' N.	104° 24.456' E.
(b)	Bedok	01° 18.845' N.	103° 57.327' E.
(c)	St. John	01° 12.832' N.	103° 51.201' E.
(d)	Raffles	01° 09.641' N.	103° 44.575' E.
(e)	Sultan Shoal	01° 14.386' N.	103° 38.998' E.

16. *VTIS VHF COMMUNICATION FACILITIES*

VHF transmitters and receivers are located at the Horsburgh Lighthouse, Bedok Lighthouse, Jurong Control Station and the Sultan Shoal Lighthouse. The VHF frequencies operated by the Singapore VTIS are:

(a) Primary VTIS operation frequency 156.500 MHz Channel 10.
(b) Secondary VTIS operation frequency 156.675 MHz Channel 73.

VHF Channel 10 will be used for the calling and working of the VTIS. The secondary channel will be used for prolonged communication. An invitation to listen to Channel 73 will be broadcast on Channel 10, after which the navigational warnings will be transmitted on Channel 73.

17. *VTIS PARTICIPANTS*

All vessels and tows of 300 g.r.t. or more and all passenger vessels intending to enter or depart from the Port of Singapore in reporting as required in Part A of this Circular are participating in the VTIS.

All vessels transitting the Singapore Strait and not calling at Singapore should also participate by following the procedure and reporting the applicable information to the VTIS as contained in Paragraph 6 of this Circular.

18. *REPORTING POINTS FOR PARTICIPATION*

These are the same as those contained in Paragraph 6 of this Circular.

19. The effectiveness of the VTIS is to an extent dependent on the accuracy of the information provided and timely reporting by Masters. As with all other similar reporting systems in the world, Masters, in providing or receiving information to/from VTIS, are not relieved from the duties and responsibilities required by any international regulations and local rules that are in force.

APPENDIX I

Designated Communication Centre	*Channel*	*Usage*
VTIS East/VTIS West	10	Reporting of arrival by vessels on approaching the VTIS operational area. Report by departing vessels on reaching the port limit. Confirmation and Amendments of ETA at pilot boarding ground. Primary calling and working channel of the VTIS and provision of marine traffic information.
	73	Radio broadcasting of marine traffic and navigational warnings. Secondary VHF channel for VTIS participants.
Singapore Port Operations	12	Request of pilotage service. Reporting of anchored positions, intra-port movements for vessels and pre-departure calls, as well as navigational or shipping information.
	20	Request of pilotage service.

Jurong Control	22	Reporting of anchored positions, intra-port movements, and pre-departure calls, as well as navigational or shipping information within the Jurong areas.
Sembawang Control	21	Request of pilotage service, intra-port movements and pre-departure calls, as well as navigational or shipping information within the East Johor Strait.

APPENDIX II

Fixed Reference Points: The 7 fixed reference points are as follows:

Reference Name	Latitude	Longitude
Pulyu Kechil Light	01° 11.470' N.	103° 21.240' E.
Sultan Shoal Lighthouse	01° 14.381' N.	103° 38.985' E.
Raffles Lighthouse	01° 09.609' N.	103° 44.552' E.
Sakijang Beacon	01° 13.308' N.	103° 51.378' E.
Bedok Lighthouse	01° 18.548' N.	103° 56.068' E.
Tg. Setapa Light	01° 20.570' N.	104° 08.240' E.
Horsburgh Lighthouse	01° 19.817' N.	104° 24.444' E.

Source: PMC No. 6 of 1990.

TUGS: PSA has a fleet of 12 tugs, they are:

Name	*Horsepower*	*Bollard Pull* (tonnes)
VST 1	2×1,276	21.5
VST 2	2×1,276	21.3
VST 3	2×1,276	21.0
VST 4	2×1,276	22.1
Victory (V5)	2×1,500	26.0
Vigilant (V6)	2×1,500	32.0
Valiant (V7)	2×1,500	29.0
Vanguard (V8)	2×1,500	32.5
Vertex (V9)	2×1,500	28.5
Valour (V10)	2×1,500	28.5
Viking (V11)	2×1,500	30.0
Alpha 1	2×1,300	26.0

Shell operates 2 tugs approximately 1,500 b.h.p. A number of privately owned salvage tugs make the port their base.

Tugs join anywhere in port limits by pre-arrangement with Pilots. Normally ship's line used. All PSA and Shell tugs carry tow ropes for use if required. PSA charge for use of tow rope.

BERTHING: Vessel's Agents should submit to Authority a Schedule "A" (Application for Berth) giving overall length, maximum draft alongside, cargo particulars, ETA and ETD of, and Dangerous Cargo Declaration listing out dangerous cargo (including petroleum products and explosives) on board vessel at least 48 hours before berth required.

BERTHING FACILITIES:

NOTE: All depths are reduced to Chart Datum unless otherwise stated.
† Only controlling depths that are shallower than the depths alongside are listed.

Keppel Terminal:

Berth No.	*Length of Berth* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)
(Lat. 01° 15.8' N., Long. 103° 50.8' E.).			
K9	222	11.0	
K10	222	11.0	
K11	135	11.0	–
(Lat. 01° 16.1' N., Long. 103° 50.5' E.).			
K12	370	14.6	
K13	310	12.5	12.3
K14	310	12.4	12.3
K15	200	11.0	
K16	250	12.0	
K17	100	10.7	
K18	250	12.0	
(Lat. 01° 15.9' N., Long. 103° 49.8' E.).			
K19	220	11.0	
K20	180	10.0	9.8
K21	200	10.0	9.8
K22	200	10.1	
K23	150	9.8	

Height and Span of Container Quay Cranes:

		Height of Boom at		
Berth No.	*No. of Cranes*	*CD* (m.)	*Wharf Level* (m.)	*Outreach of Cranes From Seaside Rail* (m.)
K9 – K10	4×Hyundai	36.7	32	31.0
	1×Mitsubishi 36T	35.7	31	38.1
K12 – K14	7×Mitsubishi 40T	42.7	38	47.0
	2×Noell	41.7	37	48.0
	3×MGM 40T	41.7	37	47.0
K15 – K18	4×Hitachi 36T	32.4	28	38.1
	2×Mitsubishi 36T	35.4	31	38.1
	4×Mitsubishi 40T	42.4	38	47.0
K19 – K23	7×Hyundai	35.4	32	31.0
	5×Mitsubishi 36T	35.4	31	38.1

Tanjong Pagar Terminal: (Lat. 01° 16.0' N., Long. 103° 51' E.).

Berth No.	*Length of Berth* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)
T1	325	12.4	
T2	310	12.4	
T3	310	12.4	
T4	238	11.0	—
T5	320	14.6	
T6	297	12.4	
T7	297	12.4	
T8	213	11.0	

Features of the Ro/Ro Berth No. T3

Wharf Length	:	310 m.
Type	:	Electrically operated Adjustable Ramp
Safe Working Load	:	60 tonnes
Width	:	8.4 m.

Height and Span of Container Quay Cranes:

		Height of Boom at		
Berth No.	*No. of Cranes*	*CD* (m.)	*Wharf Level* (m.)	*Outreach of Cranes From Seaside Rail* (m.)
T1 – T3	3×Noell	41.7	37	48.0
	4×MGM	41.7	37	47.0
	5×Mitsubishi 40T	42.7	38	47.0
T4	2×Mitsui Paceco	34.7	30	38.1
	1×ZPMC	35.7	31	37.0
T5 – T7	1×MGM	41.7	37	47.0
	3×Noell	41.7	37	48.0
	8×Mitsubishi 40T	42.7	38	47.0
T8	2×Hyundai	36.7	32	31.0

Singapore Cruise Centre: (Lat. 01° 15.8' N., Long. 103° 49.3' E.).

Berth No.	*Length of Berth* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)
CC1	256	11.0	
CC2	210	11.0	
CC3	200	10.0	
Regional Ferry Berths	4×40	7.3	

Tanjong Pagar Terminal (PSA): (Lat. 01° 16.4' N., Long. 103° 51.3' E.).

M1	120	5.5	
M2	120	5.6	5.5
M3	120	5.6	5.5
M4	120	5.6	
M5	85	5.5	
M6	45	7.4	

Brani Terminal (PSA): (Lat. 01° 15.7' N., Long. 103° 50.4' E.).

Berth No.	*Length of Berth* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)
B1*	258	12.0	
B2	258	12.0	
B3	258	12.0	
B4	314	15.0	
B5	320	15.0	
B6	320	15.0	
B7	320	15.0	
B8	330	15.0	
B9**	249	12.0	

* A minimum of 75 m. clearance from the causeway is required to berth a vessel.

** The first 50 m. of B9 has no crane rails.

Height and Span of Container Quay Cranes:

		Height of Boom at		
Berth No.	*No. of Cranes*	*CD* (m.)	*Wharf Level* (m.)	*Outreach of Cranes From Seaside Rail* (m.)
B1 – B3	8×SHI (CC2)	37.0	32	39.0
B4 – B5	4×SHI (CC1)	44.0	39	48.0
	4×Noell	44.0	39	48.0
B6 – B8	2×Noell	44.0	39	48.0
	10×MHI (Mk3)	41.0	36	48.0
B9	2×MHI (Mk2)	–	38	47.0
	1×HHI	–	31	38.0

Sembawang Terminal (PSA): (Lat. 01° 27.7' N., Long. 103° 50.1' E.).

Berth No.	*Length of Berth* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)
S1	228.0	11.4	
S2	152.0	10.7	
S3	153.0	9.3	9.1
S4	122.0	9.3	9.1
S5	167.0	9.2	9.1
S6	136.0	10.7	10.6
S7	230.0	11.9	11.7

Pasir Panjang Terminal (PSA): (Lat. 01° 16.6' N., Long. 103° 47.0' E.).

Berth No.	*Length of Berth* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)
Lighter Jetty Western Face	Closed for development		
Lighter Berths	396	3.8	
PO1A	195	4.0	
P1	440	11.0	10.7
P2			10.7
P3	880	7.0	6.6
P4		6.7	6.6
P5	616	10.1	
P6		9.8	
P7		9.9	
P8A	Closed for development		
P9A			
P9B			
P10			

Jurong Port: (Lat. 01° 18.3' N., Long. 103° 43.3' E.).

J1	172	3.8
J2	210	7.2
J3	210	7.2
J4	183	11.0
J5	183	11.0
J6	183	10.6
J7	183	10.9
J8	196	9.7
J9	196	9.9
J10	196	10.5
J11	197	9.6
J12	275	9.2
J13	150	12.7
J14	254	16.0
J15	192	16.0
J16	192	16.0
J17	192	16.0
J18	192	16.0
J19	192	16.0
J20	115	4.8
J21	115	4.8

Jurong Fishery Port (Primary Production Department):
(Lat. 01° 18.5' N., Long. 103° 43.6' E.).

Berth No.	*Length of Berth* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)
JFW	413	4.0	3.4

Loyang Jetty (Singapore Offshore Petroleum Services Pte.Ltd.):
(Lat. 01° 23.1' N., Long. 103° 58.1' E.).

1	190	9.8	9.5
2		8.3	7.1
3	143	7.8	
4		7.0	
5	100	6.5	
6		6.5	7.5
7	100	6.1	6.0
8		6.1	4.0

Pasir Panjang Gas Turbine Station:
(Lat. 01° 16.1' N., Long. 103° 47.9' E.).

Jetty	180	6.2

Tanjong Changi: (Lat. 01° 23.4' N., Long. 104° 00.1' E.).

CAFHI Jetty		
Berth 1	100	6.0
Berth 2	168	8.7
Fireman Jetty	20	3.2

LASH Mothership Moorings: 3 mooring buoys.

Name	*Position*
LASH 1	01° 12.100' N., 103° 44.800' E.
LASH 2	01° 12.080' N., 103° 44.860' E.
LASH 3	01° 12.052' N., 103° 44.904' E.

Pulau Sebarok (Singaport Cleanseas Pte.Ltd.):
(Lat. 01° 12.5' N., Long. 103° 47.9' E.).

Berth	*Max. Length of Vessel* (m.)	*Maintained Depth Alongside* (m.)
Barge Pier	60.0	5.5
Pier 2	264.0	11.0

Slop reception facilities are available.

Pulau Sebarok (Singapore Petroleum Co.Ltd.):
(Lat. 01° 12.5' N., Long. 103° 47.9' E.).

Pier 1A	297.0	17.0
Pier 1B	110.0	8.0
Pier 1C	90.0	17.0*

* The controlling depth for Pier 1C is 16.6 m.

Pulau Sebarok (Van Ommeren Terminal):
(Lat. 01° 12.3' N., Long. 103° 48.0' E.).

Berth No.	*Max.Length of Vessel* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)
Pier 3	370	17.0	
Pier 4	250	13.0	
Pier 5	280	19.0	
Pier 6	110	10.4	7.0
Pier 7	110	8.2	7.8

Pulau Sakra (Van Ommeren Terminal):
(Lat. 01° 15.5' N., Long. 103° 42.7' E.).

1	211	12.6	12.2
2	126	12.2	7.8

Pulau Seraya (PowerGen (Seraya) Pte.Ltd.):
(Lat. 01° 17.1' N., Long. 103° 43.7' E.).

1	250	13.1	12.8
2	250	13.0	12.8

Pulau Seraya (Oiltanking (S) Ltd.):
(Lat. 01° 16.8' N., Long. 103° 44.3' E.).

Berth No.	*Length of Berth* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)	
			From East	From West
MJ1	140	8.5	7.8	
MJ2	380	16.0	14.3	12.6
MJ3	140	7.5	7.3	
MJ4	260	14.3	13.2	12.6
MJ5	128	8.5	9.1	
MJ6	160	9.5	9.1	

Woodlands (Shell Refinery):
(Lat. 01° 27.18' N., Long. 103° 46.66' E.).

Berth No.	*Max. Length of Vessel* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)
Woodlands Oil Pier	175	8.6	—

Tanjong Penjuru – Shell Tanker Jetty (Shell Refinery):
(Lat. 01° 17.147' N., Long. 103° 44.89' E.).

Jetty	205	12.5	—

Pulau Busing (Tankshore (Pte) Ltd.):
(Lat. 01° 14.4' N., Long. 103° 44.9' E.).

1	323	17.0	16.5
2	280	17.2	16.5
3	102	15.2	
4	110	14.9	
5 – Main	280	15.0	
5 – East	110	15.0	
5 – West	110	15.0	

Visiting vessels are restricted to a maximum draft of 16.5 m.

Jurong Marine Base: (Lat. 01° 18.0' N., Long. 103° 41.3' E.).

Berth No.	*Length of Berth* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)
Jurong Marine Base	166	5.5	5.4
	63	6.2	5.4
	63	5.7	5.4
	96	6.2	5.4
	67	5.5	5.4

Senoko Power Station: (Lat. 01° 27.95' N., Long. 103° 47.85' E.).

Jetty	328	10.0	—

Senoko Gaswork Station (PowerGas Pte.Ltd.):
(Lat. 01° 28.3' N., Long. 103° 48.6' E.).

Jetty	128	7.7	—

BRIDGES:

BRIDGES – VERTICAL CLEARANCE

Name	*Vertical Clearance above MHWS* (m.)	*Safe Overhead Clearance above MHWS* (m.)
Sungai Jurong Bridge	9.2	—
Bridge connecting:		
Pulau Merlimau and Pulau Ayer Merbau	9.7	—
Pulau Ayer Chawan and Pulau Ayer Merbau	9.2	—
Pulau Merlimau and Pulau Seraya	10.0	—
Singapore and Pulau Brani	3.65	—
Sungai Pandan Bridge	3.6	—
Benjamin Sheares Bridge – across Marina Bay Entrance:		
North Channel	14.0	9.0
Middle (Main) Channel	10.0	9.0
South Channel	8.4	7.0
Main Channel – across Kallang Basin entrance	28.0	26.0

Name	*Vertical Clearance above MHWS* (m.)	*Safe Overhead Clearance above MHWS* (m.)
Singapore River:		
Anderson Bridge	2.5	—
Cavenagh Bridge (centre of span)	2.6	—
Elgin Bridge (centre of span)	2.8	—
Coleman Bridge (centre of span)	2.0	—
Read Bridge		
(centre of North span)	2.5	—
(centre of South span	2.1	—
Ord Bridge (centre of span)	1.5	—
Clemenceau Bridge		
(centre of North span)	2.0	—
(centre of South span)	3.7	—
Kim Seng Bridge	1.6	—
Rochor River:		
Crawford Bridge	2.2	—
Cable transporter	1.0	—
Water pipeline transporter	1.7	—
Kallang River:		
Merdeka Bridge	4.3	—
Sir Arthur's Bridge	2.0	—
Sim's Bridge	2.6	—
KEPPEL HARBOUR AERIAL CABLEWAY VERTICAL CLEARANCE		
Aerial Cableway	56.0	52.0

STEVEDORES: Labour should be ordered by 0900 hrs. for 2nd shift (1500 to 2300 hrs.) on same day and by 1300 hrs. for 1st shift (0700 to 1500 hrs.) for next day, by 1100 hrs. for 3rd shift (2300 to 0500 hrs.) on same day.

Under normal circumstances no work is performed during meal hours, 1100 – 1200 hrs. and 1830 – 1930 hrs. unless the ship is classified as a "key" vessel or the Agent orders work during the meal hours.

MEDICAL: When infectious disease not suspected, permission will be granted by Port Health Officer to Agent to take doctor on board and remove the patient, if necessary, to hospital. Preferably as much notice as possible. Several hospitals, General Hospital, Gleneagles, Mt. Alvernia to name a few. Cholera, plague, etc., are not endemic in Singapore.

Also see "Radio" – Medical Advice to Ships.

TANKERS: Bunkering and discharge facilities available at Eastern and Western Petroleum Anchorages or installations at Pulau Bukom, Pulau Ayer Chawan, Tanjong Penjuru, Tanjong Berlayer, Jurong and Pulau Merlimau.

PSA operates a Slop and Sludge Reception and Treatment Centre at Pulau Sebarok with facilities for the disposal of slops, sludge, tankcleaning, water and dirty ballast. Also see "Pollution".

Smoking not permitted during period tanker alongside PSA wharves. Grades permitted for discharge along PSA wharves:

(a) Marine diesel oil, (b) Fuel oil.

Shell: (Lat. 01° 14.0' N., Long. 103° 46.3' E.).
Pulau Bukom, 4.6 km. off the S.W. coast of Singapore – 10 berths and a single buoy mooring (01° 11.47' N., 103° 47.53' E.). Depth of water in approach is 18.3 m. LWOST. Fresh water, fuel oil, gas oil and diesel oil available.

Tank cleaning is carried out alongside or in Roads, as arranged with Pulau Bukom.

Shore tankage for slops/dirty ballast is limited to 15,000 cu.m. for all purposes. Each vessel is normally limited to 400 cu.m., although larger quantities *may* be accepted by prior arrangement, giving preferably 7 days' notice. Waxy slops are only received on Wharves 6, 7 and 8. When waxy slops are on board for discharge, vessels are requested to advise Pulau Bukom 48 hours in advance in which case quantity must be stated. Waxy slops should be segregated if other slops are carried.

The refinery has a refining capacity of 23 million tonnes per annum. It manufactures LPG, petrol, aviation turbine fuel, kerosene, gas oil, diesel fuel, solvents, fuel oil, lub oil and bitumen for local and overseas markets. There are 200 oil storage tanks with over 3 million tonnes capacity. All grades of bunkers are available 24 hours a day.

Berth	*Max. Displacement* (tons)	*Max. Length of Vessel* (m.)	*Maintained Depths Alongside* (m.)	*†Controlling Depths In Approaches* (m.)
No. 1	33,000	90	11.0	
No. 2	33,000	150	11.2	
No. 3	33,000	170	11.2	
No. 4	43,000	170	12.2	
No. 5	45,000	170	13.0	
No. 6	135,000	245	15.4	13.2
No. 7	65,000	200	13.8	
No. 8	84,000	240	13.4	
No. 9	33,000	170	12.4	
No. 10	84,000	245	16.0	
No. 10A		Ferries/ Tugs	4.9*	—
No. 10B		60	5.4	—
No. 10C		90	6.1	—
No. 11		100	6.0	5.6
No. 12		110	12.0	—
Shell SBM	353,784	457 swing radius	25.0	23.0

* 2.8 m. patch exists 15 m. from end of berth.

Bunkering facilities and water supply are available.

Esso: (Lat. 01° 16.8' N., Long. 103° 41.7' E.). (Also see "Mobil" SBM). Refinery on an island Pulau Ayer Chawan 2.4 km. South of Jurong Industrial Complex. Refining capacity of 231,000 bbls. per day. Lubricant plant 7,000 bbls. per day. The jetty has an overall length of 982.1 m. and consists of 6 loading and bunkering berths. Ballast disposal facilities available.

Berth Loading Arms Throughputs and Products served:

Berth No.	*L/A No.*	*L/A Size* (in.)	*Total No.*	*L/A Type*	*Product Loading*	*Capacity (KBBLS)*
1	Hose loading	N.A.	Nil	N.A.	Clean	3.0
					Solvent	1.7
					Dark	3.0
					LPG	0.6
2	Hose loading	N.A.	Nil	N.A.	Lubes	2.4
					Solvent	1.7
					Clean	3.0
					Dark	3.0
					Chemicals	—
3	1	10			Clean	7 – 8
	2	10	3	Woodfield	Clean	7 – 8
	3	10		Autoflow	Clean	7 – 8
	Hose loading	10			Same as Berth No.2	
4	1	16			Clean	10
	2	16	4	Woodfield	Dark	10
	3	16		Autoflow	Dark	20
	4	10			Dark	10
5	1	16			Dark	10 – 20
	2	12			Dark	12
	3	12	6	Chicksan	Clean	12
	4	10			Clean	8
	5	12			Clean	12
	6	6			LPG	1.4
SHP	N.A.		Nil		Clean	1.4
	Hose	N.A.		N.A.	Dark	2.4

Operating Limits for the Singapore Esso/Mobil SBM: July 1989.

1. *Vessels from 80,000 d.w.t. to 150,000 d.w.t.:*
   - (1.1) Vessels up to 280 m. LOA, and with an arrival draft of 15.0 m. (49 ft.) or less, can be moored at any time during day or night under any tidal direction and strength.
   - (1.2) Vessels with an arrival draft exceeding 15.0 m. (49 ft.) but less than 20.4 m. (67 ft.), can be moored during the day or night provided the tide is flooding.
   - (1.3) Vessels with an arrival draft up to 20.4 m. (67 ft.) salt water are accepted all year round.
   - (1.4) Vessels shall be fitted with at least one set of OCIMF's standard tongue type bow chain stopper (AKD) for securing 76 mm. (3 in.) diameter SBM mooring chafe chain(s).
   - (1.5) Timely use of vessel's segregated ballast tanks (SBT) is to be maximised, so as to minimise the vessel's freeboard. The vessel must maintain a midship draft of not less than 7.0 m. (23 ft.), a trim below 6.1 m. (20 ft.) and a forward draft of not less than 4.0 m. (13 ft.) at all times.
   - (1.6) If ballast capacity in the SBT alone cannot maintain the drafts and trim as stated in (1.5), then timely ballasting into cargo oil tanks (COT) concurrent with cargo discharge shall be carried out with double valve segregation, at both suction and discharge sides of the cargo.
2. *Vessels from 150,000 d.w.t. to 252,000 d.w.t.:*
   - (2.1) Vessels up to 280 m. LOA and with an arrival draft of 15.0 m. (49 ft.) or less, can be moored during day or night under flood or ebb tide. However, vessels shall be programmed to reach the SBM and moor with tidal rates not exceeding 1.5 knots.
   - (2.2) Vessels with an arrival draft exceeding 15.0 m. (49 ft.) but less than 20.4 m. (67 ft.) can be moored during the day or night provided the tide is flooding, and the vessels shall be programmed to reach the SBM and moor with flood tidal rates not exceeding 1.5 knots.
   - (2.3) Vessels with an arrival draft up to 20.4 m. (67 ft.) salt water are accepted all year round.
   - (2.4) Vessels shall be fitted with 2 sets of OCIMF's standard tongue type bow chain stoppers for securing 76 mm. (3 in.) diameter SBM mooring chafe chains.
   - (2.5) Timely use of SBT is to be maximised, so as to minimise the vessel's freeboard. The vessel must maintain a midship draft of not less than 7.0 m. (23 ft.), a trim below 6.1 m. (20 ft.) and a forward draft of not less than 4.0 m. (13 ft.) at all times.
   - (2.6) If ballast capacity in the SBT alone cannot maintain the drafts and trim as stated in (2.5), then timely ballasting into COT concurrent with cargo discharge shall be carried out with double valve segregation at both suction and discharge sides of the cargo.
3. *Vessels from 252,000 d.w.t. to 285,000 d.w.t.:*
   - (3.1) Vessels with an arrival draft up to 20.4 m. (67 ft.) salt water and an arrival displacement up to 330,000 metric tons (324,803 long tons) are accepted all year round.
   - (3.2) Vessels can be moored during the day or night provided the tide is flooding, and the vessels shall be programmed to reach the SBM and moor with flood tidal rates not exceeding 1.5 knots.
   - (3.3) Vessels shall be fitted with 2 sets of OCIMF's standard tongue type bow chain stoppers for securing 76 mm. (3 in.) diameter SBM mooring chafe chains.
   - (3.4) Throughout the vessel's stay at the SBM during the *Northeast Monsoon Season (November 1st to April 30th)*, the vessel must maintain a midship draft of not less than the vessel's sailing draft in light ballast condition or 7.9 m. (26 ft.) whichever is deeper. Also, the vessel's trim must not exceed 6.1 m. (20 ft.), and its forward draft must not be less than 4.9 m. (16 ft.) at all times.

Esso: Berth Capacities:

Berth No.	Design Vessels (k.d.w.t.)	Max. Vessel Displacement (Long Tons) (Note 1)	Max. Length (ft.) (Note 2)	Max. Length (m.)	Max. Approach Velocity ft./min.	Max. Approach Velocity cm./sec.	Max. Angle of Approach on Fenders	Max. Freeboard (ft.) (Note 3)	Depth Alongside (ft.)	Depth Alongside (m.)	Channel Control Depth (ft.) (Note 4)	Channel Control Depth (m.)	Tugs Required (Note 5)
1	0 – 5	7,500	298	91	25	13	10°	17.5	30.8	9.4	26.9	8.2	1
2	0 – 25	36,000	650	198	25	13	10°	38.5	41.6	12.7	40.7	12.4	2
3	0.8 – 48	62,000	800	244	20	10	10°	44.0	40.7	12.4	40.7	12.4	2
4	10 – 80 (Note 6)	110,000	1,000	305	17	9	10°	54.5	51.8	15.8	40.7	12.4	2
5	1.7 – 90 (Note 6)	110,000	1,000	305	26	13	10°	55.4	51.8	15.8	40.7	12.4	2
SHP	2.6 – 12	17,500	500	152	10	5	0°	NA	26.5	8.1	–	–	2

Notes:
(1) P.S.A. will not berth vessels with actual displacement exceed that stipulated.
(2) For guidance only. Actual length is governed by a minimum separation of 150 ft. from the adjacent vessels.
(3) Includes height of manifolds above deck.
(4) P.S.A. required an U.K.C. of 1.0 m. whilst manoeuvring.
(5) For guidance only. Actual number of tugs is dictated by prevailing conditions and assessment of P.S.A. pilot.
(6) Vessels up to 140,000 d.w.t. *on spot basis only*, provided other parameters are met.

(3.5) Throughout the vessel's stay at the SBM during the *Southwest Monsoon Season (May 1st to October 31st)*, the vessel must maintain a midship draft of not less than the vessel's sailing draft in heavy ballast condition or 9.1 m. (30 ft.), whichever is deeper. Also, the vessel's trim must not exceed 6.1 m. (20 ft.), and its forward draft must not be less than 6.1 m. (20 ft.) at all times.

(3.6) Timely use of SBT is to be maximised, so as to minimise the vessel's freeboard. If ballast capacity in the SBT alone cannot maintain the drafts and trim as stated in (3.4) or (3.5), then timely ballasting into COT concurrent with cargo discharge shall be carried out, with double valve segregation at both suction and discharge sides of the cargo.

4. *Vessels from 285,000 d.w.t. to 303,000 d.w.t.:*

(4.1) Vessels with an arrival draft up to 20.4 m. (67 ft.) salt water and an arrival displacement up to 330,000 metric tons (324,803 long tons) are accepted all year round.

(4.2) Vessels can be moored during the day or night provided the tide is flooding, and the vessels shall be programmed to reach the SBM and moor with flood tidal rates not exceeding 1.5 knots.

(4.3) Vessels shall be fitted with 2 sets of OCIMF's standard tongue type bow chain stoppers for securing 76 mm. (3 in.) diameter SBM mooring chafe chains.

(4.4) Throughout the vessel's stay at the SBM, the vessel must maintain a midship draft of not less than the vessel's sailing draft in heavy ballast condition or 9.1 m. (30 ft.), whichever is deeper. Also, the vessel's trim must not exceed 6.1 m. (20 ft.), and its forward draft must not be less than 6.1 m. (20 ft.) at all times.

(4.5) Timely use of SBT is to be maximised, so as to minimise the vessel's freeboard. If ballast capacity in the SBT alone cannot maintain the drafts and trim as stated in (4.4), then timely ballasting into COT concurrent with cargo discharge shall be carried out with double valve segregation at both suction and discharge sides of the cargo.

5. *Engine Readiness:*
The vessel must be ready to move under its own power during her stay at the SBM. Use of engine may be necessary during tidal change or wind shift.

6. *Tug Assistance:*
All tug assistance, for the berthing and unberthing of the vessels to and from the SBM, shall be provided by the Port Authority of Singapore on the vessel's account. In the event of an emergency, the SBM Operations Superintendent shall have the right to order tug assistance on behalf of the vessel, to safeguard the safety of the vessel and the SBM on the vessel's account.

7. *Ore/Bulk/Oil (OBO) Carriers:*
For OBO carriers discharging at the SBM, the vessel's Master and/or its Chief Officer must ensure that the vessel maintains stability within its safe operating limits (taking into account the effects of free liquid surfaces on stability) at all times during the vessel's stay at the SBM.

Note: The word "d.w.t." refers to the original design deadweight of a vessel in long tons, as built and not to any subsequent 'remarked' deadweight.

Cautionary Advices

To prevent damage to the SBM anchor legs and submarine pipeline, use of anchors is prohibited in the SBM manoeuvring area. The vessel's anchors should be properly secured with chain-stoppers prior to approaching the SBM.

The SBM is located in a confined position with very limited space to swing a vessel. There is a 16 m. (chart datum) shallow patch marked by Bujor Buoy at a distance of 900 m. Southward of the SBM. In the SBM area, except for the approaching sector, there are spots of only 15 m. depth. The condition of the sea bottom is mainly sand and shells with scattered hard rocks and an aborted berthing at an advanced stage of the approach poses the risk of a grounding. Speed should not exceed 3 knots when approaching the Esso SBM. Cautious approach speed is necessary to control the vessel's motion with a minimum use of astern engine.

Berthing Restrictions: In view of the depth of the approach channel, the maximum permissible draft is limited to 67 ft. irrespective of the height of the tide. The tidal currents set 260° during flood tides with maximum rates of 2.3 knots occurring during ebb tides with maximum rates of 1.7 knots occuring during August and September. The specific gravity of sea water at the SBM varies between 1.019 and 1.022.

Berthing Procedure: From the pilot boarding location, vessels normally proceed slowly on an Easterly heading toward a point about 1 mile S.W. of the Ajax Shoal Light Buoy where the heading is changed toward the SBM manoeuvring area. Tugs normally join off Ajax Shoal and assist the vessel in slowing down and aligning her port bow to the SBM, heading the current.

The SBM Operation Superintendent, stationed on the forecastle, advises the bridge by walkie-talkie of the vessel's distance from SBM.

Mooring: The mooring consists of 2×150 ft. long×18 in. circumference nylon hawsers with chafing chains and pick-up lines.

A mooring boat takes the messenger lines from the ship and connects to the pick-up lines. (See "Plan"). Vessels are acceptable only if their fairleads or Panama chocks can receive the chafing chains and are installed in accordance with OCIMF guidelines. In this case the chafing chains are secured by means of shackles and snotters fastened to mooring bollards. Vessels of this kind should give ample notice to enable Esso Refinery to make the necessary arrangements.

Hose Connection: 2×16 in. over-the-rail hoses are connected to the ship's port side manifold by the mooring gang assisted by a winchman from the ship's crew.

Each hose has a butterfly valve and a standard 16 in. ASA flange. A clear working space of at least 20 in. is needed between the manifold and the deck, drip pan or other structure.

A minimum 13 tons SWL derrick is needed for disconnecting the hoses from a 250,000 d.w.t. tanker is light condition. The 16 in. tail hoses are 35 ft. long.

Caltex: (Lat. 01° 17.7' N., Long. 103° 44.5' E.).

Berth No.	Max. Length of Vessel (m.)	Maintained Depth Alongside (m.)	†Controlling Depth In Approaches (m.)
1	335*	13.0	12.8
2	300*	14.8	12.8
3	42	–	2.9
4	140	13.6	12.8
5	206	11.5	
6	103	12.7	12.8
7	76	9.1	

Bunkering facilities and water supply available.

* For vessel with LOA more than 300 m. but less than 335 m., it may berth at Berth No. 1. However, this will reduce the maximum LOA for Berth No. 2 from 300 m. to 183 m. during the stay of vessel at Berth No. 1.

Mobil: (Lat. 01° 17.9' N., Long. 103° 41.5' E.).
7 berths and a shared single buoy mooring (Esso/Mobil). Night time berthing at the discretion of the Pilot. At Berth No. 3 day-time berthing and unberthing only possible, on flood tide.

Berth No.	Length of Berth (m.)	Maintained Depth Alongside (m.)	†Controlling Depth in Approaches (m.) From East	From West
1	360	14.2	12.6	10.5
2	270	13.1	12.6	10.5
3	270	12.4		10.5
4	145	9.4	5.9	
5 (under repair)	268	14.6	12.6	10.5
6	130	7.8	7.0	
7	285	14.7	12.6	10.5

Bunkering and fresh water facilities are available at all berths, except Berths No. 5, 6 and 7.

Berth No.	Draft (m.)	Max. Length (m.)	Displacement	Remarks
1	13.6	274	85,000/ 120,000	
2	13.0	274	50,000	
3	10.9	198	30,000	Vessels over 115 m. LOA subject to tidal conditions. Night berthing in ballast only.
4	6.1	116	5,000	
5	10.3	239	50,000	
(Pu. Pesek)				
SBM	20.4	366	330,000 tonnes	(457 m. swing radius)

B.P. Refinery: (Lat. 01° 15.8' N., Long. 103° 48.5' E.).

Refinery with 3 berths situated at Tanjong Berlayer. Small jetty inside harbour known as Jetty No. 2 can receive small vessels up to 1,000 tonnes (Max. LOA 100 m.) as water depth only 6.3 m. below ACD.

Jetty No. 1 at S.W. side of Tanjong Berlayer can accommodate vessels up to 33,000 tons (Max. LOA 210 m. – 263 m.) at off-shore mooring where dredged channel 11.0 m. below ACD. Berthing cannot be effected for 43 days of year due strong tidal currents.

At Jetty No. 1A which is Northwards extension from Jetty No. 1 trunkway, vessels up to 5,000 tonnes (Max. LOA 140 m.) can be berthed; water depth 7.6 m. below ACD. Simultaneous mooring of vessels at Jetties No. 1 and 1A not allowed as floating hose used to connect Jetty No. 1 to ship at mooring buoys.

Bunkers and fresh water available.

Singapore Refining Co. Pte. Ltd.:
(Lat. 01° 17.6' N., Long. 103° 43.2' E.).

Singapore Refining Company (SRC) is situated on the island of Pulau Merlimau and has 5 Oil Handling Berths and one Dry Cargo/Oil Berth. The berths are within the port limits of Singapore and, as such, all tankers berthing or unberthing are placed under PSA pilotage. However, certain harbour craft and regular coastal vessels (less than 2,000 g.r.t. or between 2,000 to 3,000 g.r.t. and equipped with a bow thruster engine and a set of twin screw engines) may be granted pilotage exemption by both PSA and SRC. Loading of oil is performed through hard loading arms which are free-standing and manually operated, except for Berth No. 6 which is hydraulically operated. The shipboard arm has an end assembly swivel and fitted mainly with manually operated Camlock coupling connection, except for Berth No. 6 which is hydraulically operated.

1. Oil Handling and Dry Cargo Berths (Berths No. 1 to 6):

Berths No. 1 and No. 2 are designed for ships with a maximum displacement of 105,000 tonnes, and are able to accommodate ships with length overall (LOA) – maximum 290 m. and minimum 90 m. Areas around Berths No. 1 and No. 2 have been dredged to a depth of 15.7 m. and 15.8 m. respectively at Chart Datum. These berths receive crude oil for the Refinery, as well as load out volatile and non-volatile refined products.

Berth No. 3 is designed as a Dry Cargo/Oil Berth for ships with a maximum displacement of 20,000 tonnes. It is capable of loading drummed and bulk asphalt, bulk flaked sulphur and several non-volatile refined product.

Berth No. 4 is designed for small barges with maximum displacement of 1,500 tonnes and load out non-volatile refined products only.

Berths No. 5 and No. 6 are designed for coastal tankers/bunker barges with a maximum displacement of 6,000 and 8,800 tonnes respectively and load out volatile and non-volatile refined products, except LPG and TML which are handled at Berths No. 1 and No. 2 respectively.

Jetty heads of all berths are enclosed by curbs which collect any drainage into a sump tank. The drainage is then automatically pumped into the ballast line which leads to a slop tank ashore.

2. Truck and Barge Ramp:

The truck barge ramp is located at Tanjong Tok which is located approximately midway between Berths No. 2 and No. 6. The main function of this ramp is to provide a landing area for barge/carrier transporting dangerous and non-dangerous road tankers and vehicles to and from Pulau Merlimau. In the event of an emergency, this barge ramp could be used to provide a safe landing area for transporting back-up personnel and equipment from the mainland to SRC and vice versa.

3. Single Point Mooring Terminal (SPM):

Crude oil for the refinery can also be received through the SPM which is situated at Silat Sinki between Sultan Shoal and Raffles Lighthouse. The SPM is owned by the Port of Singapore Authority (PSA) and operated by Tanker Mooring Services Co.Pte.Ltd. (TMS).

Pre-Arrival Information:

Questionnaire:

Prior to vessel's arrival at berths (preferably about 72 hours before her arrival), Master of vessel of 20,000 d.w.t. and above, and all LPG vessels, shall answer SRC Berth Questionnaire as outlined below:

(i) Maximum Displacement – Berthing/Unberthing.
(ii) ETA/LOA/SDWT/GRT.
(iii) Expected Deepest Berthing/Unberthing Draft.
(iv) Distance from Bow to Cargo Manifold (BCM).
(v) Maximum Height from Water Level to Centre of Cargo Manifold:
  (a) Including Ballast Water in SBT.
  (b) Including Ballast Water in SBT, CBT and COT.
(vi) Distance of Cargo Manifold Inboard from Shipside.
(vii) Vessel's Month and Year of Build.
(viii) Does Vessel have a Fully Operational Inert Gas System and meets all SOLAS/International Maritime Organisation (IMO) Regulations?
(ix) Is Vessel equipped with COW and meets all Regulations for the Prevention of Pollution by Oil (MARPOL)/IMO Requirements?
(x) Type/Quantity of Cargo Onboard.
(xi) Type/Quantity of Cargo to be Loaded/Discharged.
(xii) Confirm wires, if used for mooring the vessel, are provided with suitable fibre tail (about 85 mm. diameter) on the end of each mooring wire.
(xiii) Is the Drugs and Alcohol Policy enforced onboard and meets OCIMF Guidelines for the Control of Drugs and Alcohol Policy Onboard?
(xiv) Does Vessel's Manning and Certification Levels meet all relevant STCM 78 Minimum Requirements for Training and Qualifications for Masters, Officers and Ratings and its amendment as adopted by PSA/IMO from time to time OR in the case of port limit vessels, does Manning and Certification Levels meet PSA Harbour Craft Manning requirements?
(xv) Is vessel equipped with VHF radio set and can operate on Channel 5 (Hague Plan) Frequency 156.25 MHz Rx; 160.85 MHz Tx.

Berth Information:

Berth No.	Vessel LOA (m.)	Max. Displacement (tonnes)	Depth Alongside (m.)	Controlling Depth in Approaches (m.)	Products handled
1	Max: 290 Min: 90	105,000	15.7	–	LPG, Crude, FO, MDO, CN, Kero, Diesel, MTBE, ULG, Reformate, Leaded Mogas.
2	Max: 290 Min: 90	105,000	15.8	–	TML, MTBE, Crude, MDO, FO, CN, Kero, Diesel, ULG, Reformate, Leaded Mogas.
3	Max: 160 Min: 45	20,000	11.0	9.8	Diesel, MDO, FO, Drummed and Bulk Asphalt and Flaked Sulphur.
4	Max: 50 Min: 40	1,500	9.4	6.4	FO, Diesel, MDO.
5	Max: 115 Min: 62	6,000	11.2	7.3	FO, Diesel, MDO, Kero, MTBE, ULG, Reformate, Leaded Mogas.
6	Max: 110 Min: 40	8,800	11.4	–	ULG, MTBE, Diesel, FO, MDO, Kero, Methanol and Leaded Mogas.
PSA SPM (Selat Sinki)	500 m. Swing Radius	320,000	23.0	22.8	Crude.

Note: Above maximum displacement of vessel at berths shall be subjected to its design criteria stipulated below:

(a) Approach velocity of vessel – not more than 1.0 knot (0.5 m./second), except for Berth No. 4, which is 0.5 knot (0.25 m./second).
(b) Vessel approach angle – max. 15°.
(c) Designed wind velocity of our berths – 48 knots.

Gatx Terminals: (Lat. 01° 17.8' N., Long. 103° 44.0' E.).

Berth No.	Length of Berth (m.)	Maintained Depth Alongside (m.)	†Controlling Depth in Approaches (m.)
1	180	14.3	
2	180	14.6	
3	116	13.2	

Vessels berth at marine trestle 1,400 ft. (427 m.) offshore. 46 operating pipelines serve the main berth and 9 pipelines serve the subsidiary berth. The terminal handles chemicals and petrochemicals. Total capacity 646,570 barrels in 85 tanks.

Main Berth Dock lines	2× 75 mm. dia.
	3×100 mm. dia.
	34×150 mm. dia.
	6×200 mm. dia.
	1×300 mm. dia.
Subsidiary Berth Dock lines	6×150 mm. dia.
	2×200 mm. dia.
	1×250 mm. dia.

Fresh water is available.

Petro Chemical Corporation of Singapore:
(Lat. 01° 15.9' N., Long. 103° 43.0' E.).

Berth No.	Max. Length of Vessel (m.)	Maintained Depths Alongside (m.)	†Controlling Depth In Approaches (m.)
No. 1 (Unloading)	Barge	2.5	—
No. 2 (Solids)	165	9.5	—
No. 3 (Liquid)	130	8.6	—
No. 4 (Liquid)	140	12.2	—
No. 5 (Liquid)	140	11.8	—

Paktank Singapore Terminal (Pte) Ltd.:

Berth No. 1 at Pulau Busing in position 01° 14.4' N., 103° 44.9' Max. LOA 352 m. Depth alongside 17.9 m.

Berth No. 2 in position 01° 14.38' N., 103° 45.1' E. Length of je 320 m. Depth alongside 17.2 m.

†See "Berthing Facilities".

DENSITY: Usually between 1019 and 1022, unaffected by tide or temperature variations. Variation due to periodic heavy run-off of rain water.

FRESH WATER: Fresh water available at any point of PSA's wharves. PSA also has a fleet of 9 waterboats to supply fresh water to ships anchored within the port limits.

Port of Singapore Authority Port Circular No. 95/87.
Dated 9th November 1987.

SUPPLY OF FRESH WATER TO VESSELS WITHIN SINGAPORE PORT LIMITS

1. Shipowners and Shipping Agents of vessels in need of fresh water are requested to place their orders for water through the telephone, telefax or telex. The details are as follows:–

Telephone No.:	3212906 or 321907
Telefax No.:	3212017
Telex No.:	RS 42075
Answer Back:	WBSERV 42075

2. When placing the orders, the following information is necessary for the provision of Waterboat Services.
   - a. Name of Vessel.
   - b. Call Sign.
   - c. Flag.
   - d. Type.
   - e. g.r.t.
   - f. Freeboard.
   - g. ROI (Vessel's Rate of Intake).
   - h. Date/Time Service Required.
   - i. Quantity.
   - j. Location.
   - k. ETA (Estimated Time of Arrival).
   - l. ETD (Estimated Time of Departure).
   - m. Agent.
   - n. A/C No. (Agent's Credit Account No.).
   - o. Contact Person and Tel. No:
     - Office:
     - Residence:
3. Shipowners and Shipping Agents are to note that, as vessels are serviced on a first-come first-served basis, they are advised to place the orders as early as possible.
4. Master, Owners or Agents of vessels waiting for water supply may contact the Waterboat Office on the VHF Channel 18 to confirm the arrival of the waterboat. Vessels are requested to keep a listening watch on the same VHF Channel so that the Waterboat Office can inform them of any changes on the arrival time of the waterboat.
5. To facilitate the waterboats in locating the vessels requiring water, Masters of vessels are requested to display the following port signals prior to the scheduled time of supply.
   - (a) DAY – International Code Flags "CD ZERO"
   - (b) NIGHT – At or near the masthead, 2 all round lights in a vertical line, not less than 2 m. apart, the upper being green and the lower white.
6. Port Circulars No. 58 of 1983, 21 of 1985 and 22 of 1985 are hereby superseded.

FUEL: All grades available alongside PSA wharves and ex-installation, otherwise by barge. Marine diesel oil. Heavy fuel oil at 180 cst to 380 cst. Blended fuel from 60 cst to 180 cst.

FIRE PRECAUTIONS: Normal precautions with respect to cargo vessels, vessels under repair, etc. Fire boats available. Oil companies apply own regulations at installations.

CONSULS: Consuls, Embassies and High Commissions. Arab Republic of Egypt, Argentina, Australia, Austria, Bangladesh, Belgium, Brazil, Bulgaria, Canada, People's Republic of China, Denmark, Finland, France, Germany, Great Britain, Greece, India, Indonesia, Ireland, Israel, Italy, Japan, Democratic People's Republic of Korea, Republic of Korea, Malaysia, Myanmar (Burma), Netherlands, New Zealand, Norway, Pakistan, Panama, Philippines, Poland, Romania, Russia, Saudi Arabia, Spain, Sri Lanka, Sweden, Switzerland, Thailand, U.S.A.

REPAIRS/DRY DOCKS: All types of repairs (hull, engine and electrical including navigational aids) carried out. Facilities also available for repairs out afloat while vessel in anchorages.

Keppel Harbour (Keppel Shipyard Ltd.)

Dry Docks	*Max. Size at Block Height* (m.)	*Depth Over Sill at LWOS* (m.)
Keppel Hr. King's	261.06 × 28.65	7.27
Keppel Hr. Queen's	187.76 × 25.91	5.03
Keppel Hr. No. 1	117.04 × 13.72	1.65
Keppel Hr. No. 2	132.69 × 15.24	2.86

Repair Berth	*Length of Berth* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)
Chermin Wharf	183	5.3	—
Cable Wharf	112	6.6**	—
Oil Wharf	152	7.2	
Main Wharf (East)	274	5.7	—
Main Wharf (West)		5.5	—
South Wharf	210	9.1	—
East Wharf	165	6.6	—

** 6.2 m. patch exists 25 m. N.E. of the berth.

General Information:

1. Towing movements entering and leaving the yard should be carried out on slack water.
2. All moves refer to vessel under own power, unless otherwise stated.
3. No night movement shall be carried out, unless specified.
4. Shipyards shall programme and conduct movements according to pilotage guidelines.

Tuas (Keppel Shipyard Ltd.)

Repair Berth	*Length of Berth* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth in Approaches* (m.)
Temasek Pier (East)	280	7.2	5.3
Finger Pier (West)	280	7.4	5.3
Finger Pier (East)	300	7.7	5.3
Raffles Pier (West)	430	6.0	5.3
Raffles Pier (East)	230	5.3	

Dry Docks:	*Max. Size at Block Height* (m.)	*Depth Over Sill at LWOS* (m.)
Temasek	301.00 × 52.00	7.40
Raffles	355.00 × 60.00	6.60

Tugs:

Name	*Horsepower*
Keppel Sembilan	1,605 × 2
Keppel Sepuloh	1,605 × 2
Keppel Tujoh	1,460 × 2
Keppel Lapan	1,460 × 2
KST 31	1,500 × 2
KST 32	1,500 × 2
Alpha 2	887 × 2
Alpha 3	887 × 2

Launches and Barges: 3 Launches and 4 Barges.

Pulau Samulun (Jurong Shipyard Ltd. – Repair Division):

Dry Docks	*Depth* (m.)	*Length* (m.)	*Width* (m.)
No. 1	10	270	40
No. 2	12	350	56

Mooring Quays	*Length* (m.)	*Maintained Depth Alongside* (m.)
South Quay (Tg. Kling)	330	5.5
South Quay (Tg. Kling)	270	7.2
South Quay (Pulau Samulun)	471	6.0
West Quay (Tg. Kling)	225	5.0
West Quay (Pulau Samulun)	225	5.4
East Quay (Pulau Samulun)	182	5.4

Tanjong Kling (Jurong Shipyard Ltd. – New Ship Division):

Dry Dock	*Depth* (m.)	*Length* (m.)	*Width* (m.)
No. 1	11.0	335	56

Fitting Wharves	*Depth* (m.)	*Length* (m.)
North Quay	6.0	160
East Quay	5.0	336

Tugs:

Name	*Horsepower*
Bunga Tanjong	2,000
Bunga Mawar	3,200

Tanjong Gul (Hitachi Zosen Singapore (Pte) Ltd.):

Dry Dock	*Depth* (m.)	*Length* (m.)	*Width* (m.)
No. 1	11.5	350	60
No. 2	11.5	300	60
Slipway	—	127	34

Mooring Quay	*Length* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth In Approaches* (m.)
No. 1	217	7.0	5.6
No. 2	352	10.0	5.6
No. 3	270	8.0	5.6
No. 4	224	7.0	—
Landing Quay	100	5.0	—

Tanjong Gul (Far East Levington Shipbuilding Ltd. (Pioneer Yard)):

Mooring Quay	*Length* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth In Approaches* (m.)
Quay 1	337.5	7.6	7.4
Quay 2	297.5	8.7	
Quay 3	135.0	5.0	

Dry Dock	*Max. Size at Block Height* (m.)	*Depth Over Sill at MLWS* (m.)
Admiral	380.0 × 80.0	7.55

Sembawang Shipyard (Sembawang Shipyard Ltd.):

Dry Dock	*Length* (m.)	*Entrance Width* (m.)	*Max. Depth Over Block* (m.)
Sembawang Premier Dock	384.0	64.0	9.0
King George VI Dock	318.5	39.6	13.6
Floating Dock:			
No. 1	177.3	26.2	7.6
President Floating Dock	290.0	48.0	8.5
Republic Floating Dock	202.4	42.0	7.0

Berth	*Length of Berth* (m.)	*Maintained Depth Alongside* (m.)	*†Controlling Depth In Approaches* (m.)
8	350	9.4	
9	240	10.2	
10/11	250	10.0	
Finger Pier	260	9.7	
12	170	9.6	
13	250	10.2	
14	250	10.9	
16	220	9.7	

Sembawang Maritime Ltd., a subsidiary of Sembawang Holdings (Pte) Ltd., has a fleet of 13 tugs which operate throughout the East Johore Strait and the Southern waters of Singapore (tugs based in the Sembawang Shipyard).

Tugs:

Name	*Horsepower*
	Tons
Sea Mastiff	2 × 1,600
Sea Husky	2 × 1,600
Sea Basset	2 × 1,600
Guangzhou	2 × 1,600
Sea Cheetah	2 × 1,350
Sea Leopard	2 × 1,350
Sea Jaguar	2 × 1,300
Sea Terrier	2 × 920
Sea Setter	2 × 920
Sea Puma	2 × 800
Sea Panther	2 × 800
Sea Pallas	2 × 800
Sea Musang	2 × 550

Harbour Launches: 2.

†See "Berthing Facilities" – Note.

SURVEYORS: A.B.S., B.V., Det Norske Veritas, Lloyd's Register, N.K.K., G.L., Polski Register Stratkow, China Corporation Register of Shipping and Salvage Association.

GANGWAY/DECK WATCHMEN: Recommended, particularly in Roads. Agents normally arrange. Cost varies.

Piracy: Vessels have been boarded by pirates whilst travelling at full speed.

On one occasion 5 hooded people armed with machetes boarded the vessel and made their way into the Master's cabin. The Master at that time was on the bridge but came down to his cabin for a moment, when he was seized by the gang and repeatedly hit with machete's handles. Fortunately the Master only suffered minor injuries.

After a short time, having tried unsuccessfully to force the ship's safe, the group of pirates abandoned the vessel, stealing only relatively small items like binoculars, the Master's Passport, etc.

The Master reported the incident to the Singapore Authorities.

Report: February 1987.

At 0230 hrs. one of our vessels was boarded by 6 pirates when passing the Philip Channel in Singapore Strait. The pirates were armed with cutlasses and stole cash and other valuable items. The Master and the crew did not attempt any resistance and nobody was harmed. The pirates disembarked immediately after stealing whatever they could carry.

OPENING/CLOSING HATCHES: Conventional hatches by stevedores. Mechanical hatches usually by ship's crew.

CERTIFICATES: If dangerous drugs on board, an export authorisation from country of origin and an import authorisation from country to which drugs being conveyed should be available for sighting and endorsement.

All vessels	Certificate of Registry, Tonnage Certificate, Certificate of Insurance or other financial security as applicable under CLC '69 and International Loadline Certificate or equivalent.
Passenger Ships	Passenger Safety Certificate issued under SOLAS Conventions.
Cargo Ships	Safety Equipment Certificate (if over 500 g.r.t.) or equivalent. Safety Radiotelegraphy Certificate or Radiotelephony Certificate whichever is applicable.

CUSTOMS ALLOWANCES: Tobacco: For crew and adult transit passengers – first day of arrival 50 cigarettes or 15 cigars or other tobacco 60 gms.; and for each subsequent day to the maximum of 7 days. 25 cigarettes or 7 cigars or other tobacco 30 gms.

Wines: 1 bottle per day to maximum of 8 days. Spirits: 0.875 bottle (in opened bottles) on first day of arrival and 0.125 bottle per day for rest of 7 days.

CARGO GEAR: Possession of valid test certificates. At PSA wharves all cargo gear should be inspected by an Authorised Port Officer before use.

REPATRIATION: Ships' Agents responsible for repatriating seamen. Mercantile Marine Office undertakes repatriation of distressed British seamen on behalf of Board of Trade, United Kingdom, whenever necessary. Seamen who hold proper documents which ensure entry into their countries of origin, citizenship and destination are normally granted Special Passes after discharge for purpose of repatriation.

AIRPORT: 20 km. from city. Regular and frequent services to all parts of the world.

TIME: GMT plus 8 hours. No seasonal change.

HOLIDAYS: Work can be arranged on all Public Holidays. New Year's Day; Chinese New Year; Hari Raya Haji; Good Friday; Labour Day (1st May); Vesak Day; National Day (9th August); Deepavali; Hari Raya Puasa; Christmas Day.

POLICE/AMBULANCE/FIRE: City Police 999; Fire/Ambulance only, 328111; Flag signal: CB3. VHF Channels 12 or 16. PSA Police 2712221 ext. 2222; Fire ext. 2209 or ext. 2333; Ambulance 2712211.

We quote the contents of Port Circular No. 123 of 1984 issued by the Port of Singapore Authority:

Ships Requiring Police Assistance:

1. The shipping community is hereby reminded that vessels within Singapore waters can directly contact Marine Police for assistance on those matters falling within police jurisdictions.

2. For such assistance, vessels should establish radio contact on:

	VHF Channel	*Hours*	*Ship Tran./Rec. Frequencies*	*Call sign (Voice)*
	21	24	157.05/161.65 MHz	Marine Police
or	7	24	156.350/160.950 MHz	Marine Police

Giving the following information:

(a) Name of vessel.
(b) Location of vessel.
(c) Nature of emergency.
(d) Nature of police assistance required.

3. Vessels within the port and requiring immediate police assistance shall display following signals in a conspicuous position to facilitate easy identification by the Marine Police:

By Day: International Code "CB3".
By Night: Red-Red-White (Red on top).

4. Vessels may in addition sound on their whistle or siren at intervals of about 1 minute three prolonged blasts to attract the attention of Marine Police personnel in the vicinity.

5. The shipping community is advised to illuminate and step up surveillance onboard its vessels, particularly those moored just outside the outer limits of the port, to discourage unauthorised boarding of its vessels.

TELEPHONES: Available on board vessel at PSA wharves only.

SERVICES: Following additional services available: Cleaning and preparing ship's tanks. Cleaning, scaling and painting. Insulation. Interior decorating and furnishing. Refrigeration and air-conditioning. Chemical cleaning of boilers, etc. SCAMP underwater cleaning service. Compass adjusting and DF Calibration. Radar and Radio servicing depots.

SHORE LEAVE: No restriction on crews landing after Immigration and Health formalities have been satisfactorily completed. With rare exception (Communist Country Crews), all *bona fide* crew of a vessel allowed shore leave on strength of their passports, discharge books or identification cards.

The following circular was issued in May 1973 by the Singapore Port Authority.

"In line with the Government's decision that action should be taken to deal with the 'long-hair' problem as part of a campaign against undesirable alien influences, the Port of Singapore Authority would be most grateful for your co-operation in implementing this decision by advising all your employees, including ships' officers and Crew members, wishing to come ashore to be more tidy in their general appearance.

"To assist you to decide whether an individual's hair is long, the following definition of long hair may be used as a guide:

(i) Hair reaching below an ordinary shirt collar;
(ii) Hair covering the ears;
(iii) Hair falling across the forehead and touching the eyelashes."

Shipmaster's Report: July 1987.

There is a good hovercraft service from Pulau Bukom to Pasir Panjang, also a less frequent ferry service.

IDENTIFICATION CARDS: Sect. 22 (1) (c) of Ordinance provides for issue of Seamen's Identification Card as set out in First Schedule to the Immigration Regs. 1966, but rarely issued nowadays. Normally accept Passports, Discharge Books or any identification cards issued by Masters of vessels for purpose of granting shore leave to Crew members provided these documents sufficiently identify person concerned

Gate Passes issued against Crew List at wharves and installations. No passes required from roads, although some form of identification advisable.

GARBAGE DISPOSAL: Garbage collection service is provided daily to all ships in the anchorages. Charges are incorporated in port dues. No drums or skips are provided on board. Service only accepts galley refuse which must be collected in plastic bags at time of disposal.

WASTE OIL DISPOSAL: Collection service is provided by the Port of Singapore Authority Slop Reception Centre. Barges of 1,200 cu.m. to 2,000 cu.m. are normally deployed to receive discharges from tankers at the Western Quarantine & Immigration Anchorage.

Charges:

% Oil/Water	S$ per cu.m.
more than 12%	Nil
9 – 12%	S$ 3
6 – 9%	S$ 6
3 – 6%	S$ 9
0 – 3%	S$ 12

Barge Freight: S$ 10/cu.m., minimum charge S$2,000.

Disposal of sludge and other oil residues: S$ 300/tonne or part thereof.

Various cancellation, delay and demurrage fees can also apply.

SEAMAN'S CLUBS: Singapore Mariner's Club, a division of the National Maritime Board, provides recreational facilities and information service for seafarers of all nationalities. The club is housed within a 12-storey building which is centrally located at Cantonment Road near to the port precinct. To gain entry into the club, seafarers should bring Passport, Discharge Book or other form of identification.

Facilities and services available include serviced apartments for seafarers who wish to extend their stay in town, Mariner's Corner Restaurant and Bar, Seafarers' Lounge, video corner, games room, billiard tables, Maritime Medical Centre – medical and dental treatment exclusively for seafarers, international telephone service, information service on a wide range of subjects, including tour services and travel advice, minibus transport service to shopping areas and places of interest, and shop. Contact Singapore Mariners' Club, Maritime House, 120 Cantonment Road, Singapore 0208. Tel: 2227311. Fax: 225117
Opening Hours: Club facilities 1000 – 2300 hrs. Apartments 24 hours.

Under the auspices of the National Maritime Board, a liaison office has been set up on the 2nd level of Maritime House for use by the various seamen's missions and welfare organisations. This liaison office is open mainly in the evenings to cater to the welfare needs of seafarers outside of the normal operating hours of the seamen's missions/welfare organisations. Contact Seamen's Welfare Organisations-Liaison Office at the above address. Tel: 2227311, ext. 8424.

Six other seafarers' centres exist around the city. They provide various services and facilities and their details are listed below. A leaflet detailing all the various centres and their facilities is available through the centre. It also provides maps of the city and information of general interest to seafarers.

Dansk Somandskirke Singapore, (Danish Seamen's Church & Danish Government Seamen's Service), 10 Pender Road, Singapore 040
Tel: 2746344. Telex: RS 28970 DSCS. Fax: 2729123.

Dutch Seamen's Mission, "De Waaierpalm", 1 Pender Road, Singapore 0409. Tel: 2725000.

Japan Seamen's Center, 20 Peck Seah Street 03-00, Singapore 0207. Tel: 2218261/2218262. Fax: 2220887.

Norwegian Seamen's Mission, 300-A Pasir Panjang Road, (like ved: Haw Par Villa). Tel: 7757835. Telex: RS 37354 NORMIS. Fax: 7789498.

Stella Maris Catholic Maritime Club, 510 Kampong Bahru Road, Singapore 0409. Tel: 2260545.

The Missions to Seamen, 291 River Valley Road, Singapore 0923. Tel: 7372880. Fax: 2353391.

In addition, a one-week International Sportsweek for Seamen is held annually for all seamen in port. They can participate in soccer, volleyball, table-tennis and various track and field events. The International Swimming Carnival for Seamen is also held annually with the objective of encouraging healthy recreational activities among seafarers and to foster friendly relations amongst seafarers from all parts of the world.

CURRENCY: Singapore Dollar (S$).

POLLUTION: No oil or mixture containing oil shall be discharged into Singapore waters from any vessel. The Master or person in charge of the vessel committing such an offence shall be liable on conviction to a fine not less than 500 dollars and not exceeding 500,000 dollars or to imprisonment for a term not exceeding 2 years or to both such fine and imprisonment.

No refuse, garbage, waste matter, substance of a dangerous or obnoxious nature or trade effluents to be discharged from any vessel into Singapore waters. The Master or the person in charge of the vessel committing such an offence shall be liable on conviction to a fine not exceeding 10,000 dollars or to imprisonment for a term not exceeding 2 years or to both such fine and imprisonment.

If any oil or mixture containing oil is discharged into Singapore waters:

(a) for the purpose of securing the safety of the vessel or of preventing damage to the vessel or her cargo, or of saving life;

or

(b) is found to be escaping, or to have escaped into Singapore waters from a vessel in consequence of damage to the vessel, or by reason of leakage, the Master or the person in charge of the vessel shall report the occurrences to the Director of Marine and the Port Master. Failure to do so shall be an offence and shall be liable on conviction to a fine not exceeding 5,000 dollars.

Slop Reception: The P.S.A. Slop and Sludge Reception and Treatment Centre at Pulau Sebarok has a total tank capacity of 82,000 cu.m.

Berthing facilities consist of 2 piers – Piers 1 and 2. Depths alongside: Pier 1 – 12.8 m., Pier 2 – 11.0 m.

The Centre can accommodate vessels up to an overall length of 264 m. and a displacement of 45,800 tonnes

7 barges with a total capacity of 8,500 cu.m. are used for the reception of slops/tank cleaning water at anchorages and transported to the Centre for disposal.

Communications: VHF Station Channel 61.

Safety and security at the island is well provided and maintained by both the Authority's Police Force and Fire Brigade.

Also see "Shipmaster's Report" and "Tankers – Shell".

DELAYS: Normally none. Occasional congestion due to prolonged rainy weather or other abnormal conditions.

NOTICES: *Port of Singapore Authority – Port Circular No. 20 of 1993. Dated 3rd April, 1993.*

CHANGE OF ANCHORAGE FOR HEALTH/IMMIGRATION CLEARANCE AND USE OF ANCHORAGES FOR VESSELS ARRIVING FROM EAST AND WEST

1. *Health/Immigration Clearance*

Masters, Owners and Agents of vessels are hereby informed that with effect from 0600 hrs. on 7th April 1993, the use of the Western Quarantine/Immigration Anchorage for Health/Immigration Clearance will cease until further notice.

Vessels arriving from the East or West requiring Health and/or Immigration Clearance are to make use of the Eastern Quarantine/Immigration Anchorage.

2. *Use of Anchorages in the Eastern and Western Sectors*

With effect from 7th April 1993, vessels arriving from the East may continue to make use of the appropriate anchorages in the Eastern or Western Sector, and likewise vessels arriving from the West may make use of the appropriate anchorages in the Eastern or Western Sector. In all cases, where Health or Immigration Clearances are required, they should proceed to the Eastern Quarantine and Immigration Anchorage.

3. *Use of Controlled Anchorages*

Masters/Owners/Agents requiring to anchor their vessels in any of the following anchorages are to obtain prior permission from the Enforcement Section of the Port Master's Department:

(a) Tuas Explosives Anchorage
(b) Western Dangerous Goods Anchorage
(c) Laid-up Vessels Anchorage
(d) Selat Pauh Anchorage
(e) Eastern Special Purpose Anchorage
(f) Western Reserved Anchorage
(g) Changi General Purposes Anchorage

Each application should be made in advance by letter or telex stating the name, g.r.t. and maximum draft of the vessel, the name of the required anchorage, the purpose and the period of stay at the anchorage. Vessels intending to use the Eastern Special Purpose Anchorage are to declare the highest point of the vessel/cargo above waterline.

4. *Pilotage*

Vessels requiring pilotage services are required to use the appropriate Pilot Boarding Grounds specified below:

(a)	Vessels from the East/West proceeding directly to Singapore Cruise Centre with Advance Health and Immigration Clearance or with Immigration boarding at Pilot Boarding Ground	Southern Boarding Ground
(b)	Vessels from the West proceeding directly to Anchorages in the Eastern Sector (with Advanced Health and Immigration Clearance)	Eastern Boarding Ground A
(c)	Vessels from the West proceeding directly to Berth/Anchorages (with Advanced Health and Immigration Clearance)	Eastern Boarding Ground A or Western Boarding Ground
(d)	Vessels from the East proceeding directly to Berths/Anchorages (with Advanced Health and Immigration Clearance)	Eastern Boarding Ground A or B as arranged with the Pilotage Section.
(e)	Vessels from the East or West requiring Health/Immigration Clearance	Eastern Boarding Ground A

5. The foregoing directives are issued pursuant to Section 67 of the Port of Singapore Authority Act (Cap 236).

6. Port Marine Notice No. 71 of 1992 will be cancelled with effect from 7th April 1993.

Port of Singapore Authority – Port Circular No. 56/86 Dated 1st September, 1986.

PLACING OF PILOTAGE ORDERS.

1. This circular supersedes Port Circular No. 125 of 1984 with effect from 1st October, 1986.

2. To reduce the congestion of telephone/VHF calls, shipping Agents are requested to place pilotage orders and any amendment by telex. However, the pilot office will accept orders/amendments by telephone if the orders/amendments are placed after normal office hours or during weekends and public holidays, for the convenience of shipping Agents. In cases where Agents are unable to send the orders by telex, they may also place the orders by telephone.

3. The telex and telephone numbers for placing of pilotage orders/amendments are as follows:

Service Area	*Telex*	*Telephone*
East Johor Strait	RS 35962 Answer back SEMCO 35962	5427112/ 5427113
All other areas in the port	RS 22896 Answer back PORTPM 22896 RS 34970 Answer back PORTPM 34970	3211764/ 3211765/ 3211766

4. A "hands-on" operation to replace the present system of processing pilotage orders has been designed to enhance services to port users through more efficient means of capturing, processing and dissemination of shipping information. The system will enable direct entry of pilotage orders received through telephone/telex/VHF into the computer. When implemented, this will eliminate the present 'chit' system and pave the way for more use of PSA Databox facility, by which port users may be able to place their orders or amendments through their own personal computers linked to PSA mainframe computer. Users will also be able to benefit from real time information. (More details on the PSA Databox facility will be released at a later date). Operationally, the "hands-on" system will change the present flow in the processing of pilotage orders. Replies to pilotage orders placed through telephone/telex will be standardised.

5. With effect from 1st October, 1986, the current practice of confirming pilotage orders by telephone while the Agent holds on to the telephone line will be discontinued. Upon receipt of a pilotage order by telephone, the pilot office will process and return the call by telephone or telex. Agents are required, as in telex orders, to standby for up to 30 minutes for the confirmation of acceptance of the order from the pilot office. The pilot office will also provide a *reference number* for an accepted pilotage order which is replied through the telephone. In exceptional circumstances where no confirmation is received after 30 minutes, the Agents are required to call the pilot office to check on the orders.

6. With effect from 1st October 1986, Agents need only provide full information for pilotage orders for the *first pilotage move of the vessel in the port.* For *all subsequent moves of the vessel within the same call,* reduced information is required. Other particulars such as flag, type, g.r.t. and length need only be given if there are changes.

7. We are also pleased to inform that the following waivers of pilotage amendments charges for amendments to vessel's ETAs by Masters will be given:

(a) For the *first* amendment/confirmation to ETA (of less than 6 hours notice) which is within half an hour of the service required time.

(b) For subsequent amendments, which are within 15 minutes of the *first* confirmed ETA.

8. To take advantage of the waivers, it is recommended that Masters/Agents update vessels' ETAs, if required about 6 to 7 hours before service is required. Masters/Owners/Agents are advised that amendments to ETAs other than that stated in paragraph 7 (a) and (b) giving less than 6 hours notice will be chargeable.

9. For pilotage service to berths/terminals other than the Port Authority's wharves, Agents are required to ensure the availability of such berths/terminals by liaising closely with the respective private operator.

Port of Singapore Authority – Port Marine Circular No. 11/1993.

PORT CLEARANCE FORMALITIES FOR ARRIVING AND DEPARTING VESSELS

1. For expeditious processing and clearance, the Shipping Community is advised to check and ensure that the following documents are in order when submitting the Arrival or Departure Declaration.

2. ARRIVING VESSEL

Within 24 hours of arrival of a vessel in port, the Owner, Agent or Master or a vessel is to submit (to the Port Clearance Office) the following documents for inspection or retention:

2.1 Vessel's Port Clearance from her last port.

2.2 General Declaration Forms for Arrival, duly completed in duplicate. No column/space in these forms is to be left blank (Portnet subscribers can make their declaration via Portnet).

2.3 Vessel's Certificate of Insurance or other Financial Security in respect of Civil Liability for Oil Pollution Damage (CLC Certificate) for vessel carrying in bulk a cargo of more than 2,000 tons of persistent oil.

2.4 Vessel's International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk or the Certificate of Fitness issued under the Bulk Chemical Code or the International Bulk Chemical Code as appropriate for ship carrying bulk noxious liquid substances or unassessed liquid substances.

3. DEPARTING VESSEL

The following documents are to be submitted for inspection or retention:

3.1 General Declaration Forms for Departure, duly completed in duplicate. No column/space in these forms is to be left blank (Portnet subscribers can make their declaration via Portnet).

3.2 Vessel's Certificate of Registry/Nationality.

3.3 Vessel's Load Line Certificate.

3.4 Vessel's Cargo Ship Safety Construction Certificate.

3.5 Vessel's Cargo Ship Safety Equipment Certificate.

3.6 Vessel's Cargo Ship Safety Radiotelegraphy or Radiotelephony Certificate.

3.7 Vessel's Cargo Ship Safety Certificate as an alternative to the certificates referred to in Paragraphs 3.4, 3.5 and 3.6.

3.8 Crew List in duplicate. If there is any change of crew after port clearance has been obtained, to submit to the Port Clearance Office such amendments (in duplicate) before the vessel departs Singapore.

3.9 Passenger List, if applicable, in duplicate. If there is any change of passengers after port clearance has been obtained, to submit to the Port Clearance Office such amendments (in duplicate) before the vessel departs Singapore.

3.10 Vessel's Passenger Ship Safety Certificate for a passenger ship.

3.11 Vessel's International Oil Pollution Prevention (IOPP) Certificate for Oil Tanker of 150 tons gross tonnage and above and any other ship of 400 tons gross tonnage and above.

3.12 Vessel's International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk (NLS) or the Certificate of Fitness Issued under the Bulk Chemical Code or the International Bulk Chemical Code as appropriate for ship carrying bulk noxious liquid substances or unassessed liquid substances.

3.13 Vessel's Certificate of Insurance or other Financial Security in respect of Civil Liability for Oil Pollution Damage (CLC) Certificate for vessel carrying in bulk a cargo of more than 2,000 tons of persistent oil.

4. The attention of the Shipping Community is drawn to the certificate, namely the Passenger Ship Safety Certificate, the Cargo Ship Safety Equipment Certificate, the Cargo Ship Safety Radio Certificate and the Cargo Ship Safety Certificate issued under the Provisions of the International Convention for the Safety of Life at Sea, 1974, as modified by the Protocol of 1988 Relating thereto shall be Supplemented by a Record of Equipment.

5. The vessel's certificates mentioned in Paragraphs 2 and 3 shall be originals, but in their absence, the Port Clearance Office is prepared to accept certified true copies authenticated by the appropriate Authorities.

6. The Shipping Community is further reminded that any vessel which fails to leave port within 48 hours, after obtaining the port clearance, shall within 6 hours after the expiry of the 48 hours, return the port clearance to the Port Clearance Office, and if so required, obtain a fresh port clearance for the vessel.

7. If you require any clarification, please call the Port Clearance Office at One Stop Document Centre (OSDC), Tanjong Pagar Complex, Tel: 3211423, 3211550 or 3211548.

8. This Port Marine Circular supersedes Port Circular No. 17 or 1987.

Port of Singapore Authority – Port Circular No. 87/87
Dated 30th October 1987.

TRACKING OF CHEMICAL CARRIERS.

1. For the purpose of this Port Circular, a chemical carrier means any vessel which is carrying or has previously carried as a whole or part of the last cargo in bulk any of those dangerous chemicals listed in Chapter 17 of the International Maritime Organisation's (IMO) International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code).
Note: A vessel shall remain to be considered as a chemical carrier so long as any of her cargo tanks or cargo system is not completely cleared and removed of any such residual cargo.

2. Pursuant to Regulation 3 of the Singapore Port Regulations 1977, the Owner, Agent, Master or person-in-charge of a 'chemical carrier' as defined in paragraph 1 above, is hereby directed that with effect from 1st December 1987, he shall notify the Port Master as follows:
   (a) For an arriving vessel, the notification shall be given under paragraph 3 (1) of Port Circular No. 88 of 1987 (See "VHF"), entitled "Notification of Arrival and VHF Reporting Procedure", and in the manner as described in paragraph b (iv) below; or
   (b) For a vessel in port which intends to load any of those dangerous chemicals referred to in paragraph 1 above, the notification shall be given by Telex No. RS 34970 or by Facsimile No. 3212016. Such notification shall contain the following information in the format shown below:

TRACK CHEM

(i) Name of vessel.
(ii) Gross registered tonnage (g.r.t.).
(iii) Place of loading e.g. GATX Terminal Berth.
(iv) Indicate "Chemical (s) under IBC Code" – if vessel intends to load or has on board any of those dangerous chemicals listed in Chapter 17 of the IMO IBC Code; or
indicate "NA" if vessel does not have such cargoes or is not considered as a "chemical carrier". (See Note in paragraph 1.)

3. For your reference, we enclose the list of dangerous chemicals (13 pages in all)(Editor's note – not reproduced due to length of list), which appear in Chapter 17 of the IMO IBC Code (1986 Edition). You are advised to keep the list updated. If you have any queries on this subject, please call 3212295 or 3211185 or write to:

Port Master's Department,
No. 21-07 Tanjong Pagar Complex,
7B, Keppel Road,
Singapore 0208.
Telex: RS 34970.
Fax: 3212016.

TRACKING OF CHEMICAL CARRIERS

1. Owners, Agents or Masters of "Chemical Carriers" are reminded to comply with the procedures on the tracking of chemical carriers as mentioned in the Port Marine Circulars No. 87 of 1987 (See above) and No. 6 of 1990.

2. The above mentioned Port Marine Circulars have explained the requirements for the Owner, Agent or Master of a "Chemical Carrier" to notify the Port Master in the following ways:
   (a) Tracking of an Arriving Chemical Carrier:
   The notification of arrival is to be sent by radio telegram, telex, telefax or Portnet. The format must be in accordance to that given in Port Marine Circulars No. 6 of 1990 and No. 21 of 1992. For vessels carrying any chemical listed in Chapter 17 of the International Maritime Organisation's (IMO) International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code), the name(s) of the chemical(s) must be indicated in Item (N) of the notification of arrival. If the notification of arrival is sent by Portnet, the information is to be provided in the "Remarks" column.
   (b) Tracking of a Chemical Carrier in Port:
   If a vessel intends to load or has on board any chemical listed in Chapter 17 of the IMO IBC Code in the port waters, the Port Master must be informed of *each movement* by *telex or telefax* (and not by other means, e.g. telephone). The format of notification as given in Port Marine Circular No. 87 of 1987 should be used.

3. Compulsory Pilotage for Chemical Carriers:
Compulsory pilotage is required for a vessel, including those below 2,000 g.r.t., which has on board or has loaded chemical(s) as listed in Chapter 17 of the IMO IBC Code. The Port Master must also be provided with the information in the prescribed format.

4. Pilotage Exemption for Chemical Carriers below 2,000 g.r.t.:
When a vessel does not carry any chemical listed in Chapter 17 of the IMO IBC Code or is cleaned of such residual cargo when she calls at or while in the port, the Master should inform the Port Operations Control Centre by VHF of the vessel's status and request for pilotage exemption for the intended movements.

Source: PMC 2/1993.

Port of Singapore Authority – Port Circular No. 105/87.
Dated 19th November 1987.

HEIGHT RESTRICTED AREA OFF CHANGI/BEDOK

1. Pursuant to Section 67 (c) of the Port of Singapore Authority Act (Ca 236), 1985, the Port Master hereby directs that with immediate effect no vessel whose height measured vertically from the waterline of the vessel to the highest point of the vessel including its cargo, structur or equipment on board, exceeds 15.0 m. shall enter, transit or ancho in the sea off Changi/Bedok Area.

2. The area referred to above is bounded by the following co-ordinates

	Latitude	*Longitude*	*Buoy*
From a position at	01° 18.433' N.	103° 56.433' E.	
to a position at	01° 17.500' N.	103° 59.083' E.	'Padang'
to a position at	01° 17.650' N.	104° 01.200' E.	'Airway'
to a position at	01° 21.100' N.	104° 03.117' E.	'Angler'
to a position at	01° 23.200' N.	104° 00.400' E.	
to a position at	01° 23.350' N.	104° 00.050' E.	

thence along the coastline to the point of origin.

Port of Singapore Authority – Port Circular No. 9 of 1991.

TALL VESSELS' MOVEMENTS SOUTH OF CHANGI AIRPORT

1. This is a repetition of Port Circular No. 116 of 1987 with amendmen shown by a line in the margin (Not shown). Port Circular No. 116 1987 is hereby cancelled.

2. The Civil Aviation Authority of Singapore (CAAS) has requested th Shipyard Operators and Masters, Owners or Agents of vessels wi heights exceeding 100 m. intending to conduct intra-port movemen (within port limits) which require to transit, leave or move betwe Longitude (A) 103° 54' E. and Longitude (B) 104° 05' E., South a East of Changi Airport, to notify CAAS at least 3 working days advance of such movements (See "Plan"). This is to allow CAAS issue a NOTAM (Notice to Airmen) in order to keep aircraft pil informed of such tall vessels' movements. The following procedu will come into effect on 1st May 1987.

3. *Prior to Movement*
   (a) When notifying CAAS as requested above, the follow information is to be provided:
      (i) Vessel's Registered Name/Call Sign.
      (ii) Height of Vessel above waterline.
      (iii) Intended Route/Timings (with drawings of routes if possible).
      (iv) Point of Origin/Final Destination.
      (v) Estimated Date/Time of Crossing Longitudes 103° 54' E. and 104° 05' E.
      (vi) Radio Telephone Number.

(b) The information should be sent by mail, telex or telefax to the following:

Air Navigation Services
Operations Division,
Civil Aviation Authority of Singapore,
P.O.Box 1, Singapore Changi Airport
Singapore 9181.
Telex: RS 21231 AVIATEL.
Fax: 5456516.

4. For clarification or urgent cases, please contact:

(a)	Office Hours	Air Navigation Services Operations Division, CAAS. Tel: 5412434.
(b)	Outside Office Hours	Supervisor, Changi Control Tower, CAAS. Tel: 5412416 or 5412417.

5. *On Passage*

(a) Masters of vessels with heights exceeding 100 m. above waterline intending to enter, transit or leave the area defined in Paragraph 2 of this circular are also required to report to Sembawang Control on VHF Channel 21 when passing the longitudes "A" or "B" mentioned above, or when entering or leaving the Traffic Information Area of Serangoon Harbour.

(b) When entering the area, the report required to be made shall contain the following information:
- (i) Vessel's Registered Name/Call Sign.
- (ii) Height of Vessel above water line.
- (iii) Direction of Movement (Eastwards or Westwards).
- (iv) Actual time of crossing Longitudes "A" and estimated time of crossing Longitude "B" or vice versa;
  or*
  Actual time of crossing Longitudes "A" or "B" and estimated time of entering Traffic Information Area of Serangoon Harbour;
  or*
  Actual time of leaving Traffic Information Area of Serangoon Harbour and estimated time of crossing Longitude "A" or "B".
  (*whichever is applicable).

(c) When leaving the area, a second report shall be made containing the following information:
- (i) Vessel's Registered Name/Call Sign.
- (ii) Actual time of crossing Longitude "A" or "B" or entry into Traffic Information Area of Serangoon Harbour.

6. For the purpose of this circular, the height referred to shall be the height of the vessel measured vertically from the waterline of the vessel to the highest point of the vessel including its cargo, structure or equipment on board.

7. In addition to the above reporting procedure, Shipyard Operators, Masters, Owners or Agents are reminded that every vessel of gross registered tonnage of 2,000 tons or above or of a height of more than 30 m. above her waterline are to comply with the Traffic Information System for vessels navigating in Serangoon Harbour stated in Port Circular No. 90 of 1987.

Port of Singapore Authority – Port Circular No. 18 and 109/88.
Dated 3rd March 1988.

HEIGHT RESTRICTION FOR VESSELS ENTERING, TRANSITING OR ANCHORING IN THE EASTERN SPECIAL PURPOSES "A" AND THE EASTERN PETROLEUM "B" AND "C" ANCHORAGES.

1. Pursuant to Section 67 (c) of the Port of Singapore Authority Act (Cap 236), 1985, the Port Master hereby directs that no vessel whose height, measured vertically from the waterline of the vessel to the highest point of the vessel including its cargo, structure or equipment on board, exceeds 49 m. shall enter, transit or anchor in the height restricted area in the Eastern Special Purposes "A" and the Eastern Petroleum "B" and "C" Anchorages. (See "Plan").

2. The height restricted area referred to above is bounded by the following co-ordinates:

	Latitude	*Longitude*	*Buoy*
From a position at	01° 18.300' N.	103° 56.617' E.	
to a position at	01° 18.300' N.	103° 56.750' E.	
to a position at	01° 17.500' N.	103° 59.083' E.	'Padang'
to a position at	01° 17.650' N.	104° 01.200' E.	'Airway'
to a position at	01° 16.633' N.	103° 59.317' E.	
to a position at	01° 16.633' N.	103° 56.617' E.	

thence to the point of origin.

Maritime and Port Authority of Singapore – Port Marine Circular No. 6 of 1996.
Dated 19th March 1996.

VHF RADIO TELEPHONE REPORTING PROCEDURES FOR VESSEL MANOEUVRING IN PORT WITHIN THE EAST JOHOR STRAIT.

1. *Introduction*

1.1 This Circular comes into effect on 1st April 1996 and supersedes the following:
- (a) PSA Port Circular No. 90 of 1987.
- (b) PSA Port Circular No. 91 of 1987.
- (c) PSA Port Circular No. 99 of 1987.
- (d) PSA Port Marine Circular No. 9 of 1993.
- (e) MPA Port Marine Circular No. 5 of 1996.

1.2 The directives and requirements stipulated in this Circular are made pursuant to Section 43 and Section 45 of the Maritime and Port Authority of Singapore Act 1996.

2. *Definitions*
The following definitions are used only for the purpose of this Circular:
- (a) East Johor Strait (EJS) – the stretch of water contained within the geographical co-ordinates shown in Appendix 1 up to the Causeway in the Johor Strait.
- (b) Traffic Information Area (TIA) – the area contained within the geographical co-ordinates shown in Appendix 2.
- (c) Height – refers to the height declared by the vessel, measured vertically from the water line to the highest point of the vessel, including its cargo, structure or equipment on board. This height must be verifiable with the appropriate plans or documents carried on board the vessel.
- (d) Night-time – refer to the hours between 1900 hrs. to 0630 hrs.
- (e) Sembawang Control Station – the designated communication centre for EJS.

3. *Application*

3.1 This Circular shall apply to the following:
- (a) Vessel of 2,000 g.r.t. or more.
- (b) Vessel with height exceeding 30 m.
- (c) Tug(s) when engaged in towing or pushing, the combined g.r.t. of the tug(s) and tow(s) or vessel(s) being pushed is 2,000 g.r.t. or more; or when any of the tug(s) or tow(s) height exceeds 30 m.

4. *Sembawang Control Station*

4.1 Sembawang Control operates on VHF Channel 21. The reserve channel is VHF Channel 13. In the event that Channel 21 is inoperative, vessels shall check with Port Operations Control Centre on VHF Channel 18 for instructions.

4.2 All reports made to Sembawang Control Station shall be in English. Timings shall be reported in local time following the 24 hour clock system.

4.3 Every vessel when underway or at anchor in EJS shall maintain a continuous listening radiotelephone watch on VHF Channel 21.

5. *Night Towing*

5.1 Night towing operation is not permitted in the part of the East Johor Strait from the causeway to Angler Buoy (Lat. 01° 21.10' N., Long. 104° 03.12' E.).

6. *Speed*

6.1 The maximum speed for EJS shall not exceed 12 knots.
The maximum speed when passing the vicinity of Sembawang Shipyard, Malaysian Shipbuilding and Engineering Yard, Pasir Gudang Port and Changi Sailing Club (approximate position Lat. 01° 23.6' N., Long. 103° 58.8' E.) shall not exceed 6 knots. This is to prevent the passing vessel from creating high bow waves that could cause vessel or sailing craft to part from their moorings.

7. *Restriction in the Traffic Information Area (TIA)*

7.1 No vessel shall proceed South of the line joining CAAS Buoy 1 (Lat. 01° 23.55' N.,Long. 104° 00.04' E.) and CAAS Buoy 2 (Lat. 01° 23.68' N., Long. 103° 59.70' E.).

7.2 No vessel is permitted to stop or anchor within the TIA. If a vessel has to stop or anchor in an emergency situation, the vessel shall report to Sembawang Control without delay.

8. *Reporting Procedure*

8.1 Format of Report:

8.1.1 Every vessel shall make the following report to and obtain clearance from Sembawang Control before entering or manoeuvring within the East Johor Strait. The report shall contain the following information:
- (a) Name of vessel.
- (b) Call sign.
- (c) Present location.
- (d) Destination, i.e. the location in the port or bound for sea.
- (e) Draft.
- (f) Height.
- (g) Remarks, if any, i.e. any other relevant information on the vessel which would affect its navigation.
- (h) The estimated time of arrival (ETA) at the following locations:
  (i) The line joining Tanjong Todak (Lat. 01° 25.45' N., Long. 104° 01.22' E.) and the point N.E. of Pulau Ubin (Lat. 01° 25.00' N., Long. 103° 59.57' E.) or Long. 103° 59.63' E. which extends Northwards off the Eastern end of Pulau Ubin.
  (ii) Malang Tiga Buoy (Lat. 01° 23.15' N., Long. 104° 01.55' E.) is abeam.
  (iii) Paku Buoy (Lat. 01° 23.54' N., Long. 104° 00.25' E.) is abeam.
  (iv) Malang Papan Beacon (Lat. 01° 24.12' N., Long. 103° 59.45' E.) is abeam.
  (v) Seletar Buoy (Lat. 01° 26.53' N., Long. 103° 52.7' E.) is abeam.
  Note: The various ETA's, referred to in Paragraph (h), are used for the co-ordination of aircraft traffic. It is important that such ETA's are accurate. The locations of the reporting points are given in Appendix 2.

8.2 Updating and Confirmation of ETA:

8.2.1 The vessel shall update and confirm the declared ETA's referred to in Paragraph 8.1.1(h) to Sembawang Control when passing the following locations:
- (a) For Northbound or Westbound vessel, when Angler Buoy (Lat. 01° 21.10' N., Long. 104° 03.12' E.) is abeam.
- (b) For Eastbound vessel, when Punggol Beacon (Lat. 01° 25.32' N., Long. 103° 54.80' E.) and again when Squance Buoy (Lat. 01° 23.72' N., Long. 103° 58.00' E.) are abeam.
- (c) For Eastbound vessel entering the TIA via Nenas Channel shall confirm or update the ETA referred to in this paragraph before entering Nenas Channel.

(d) For Southbound vessel from Sungai Johor (Lat. 01° 27.00' N., Long. 104° 01.20' E.) when the vessel is underway.

8.3 Changes to ETA:

8.3.1 The vessel shall monitor the declared ETA's referred to in Paragraph 8.1.1(h) and immediately report to Sembawang Control if:

(a) The declared ETA for Malang Tiga Buoy, Paku Buoy, Malang Papan Beacon, Tanjong Todak or North of Pulay Ubin differs by 5 minutes from the last declared ETA.

(b) The declared ETA for Seletar Buoy differs by 15 minutes from the last declared ETA.

9. For clarification on this Circular, please contact the Duty Officer of Sembawang Control Station at Tel: 5427114, Fax: 5422844.

For Port Master
Port Master's Department.

Appendix 1:
The East Johor Strait is the stretch of water contained within the following geographical co-ordinates up to the Causeway in the Johor Strait (the numbers in brackets providing positional references).

		Latitude	*Longitude*	
From Point	(1)	01° 20.55' N.	104° 59.80' E.	
	(2)	01° 20.00' N.	104° 02.80' E.	
	(3)	01° 20.00' N.	104° 03.17' E.	
	(4)	01° 19.55' N.	104° 03.67' E.	
	(5)	01° 18.75' N.	104° 04.40' E.	
	(6)	01° 18.30' N.	104° 05.63' E.	
	(7)	01° 19.30' N.	104° 06.79' E.	
	(8)	01° 27.19' N.	104° 46.27' E	(Northern point of Causeway)
	(9)	01° 26.93' N.	104° 46.35' E.	(Southern point of Causeway)

thence along the coastline to the point of origin.

Appendix 2:
The Traffic Information Area is bounded by the following geographical co-ordinates (the numbers in brackets providing positional references):

		Latitude	*Longitude*	
From Point	(1)	01° 25.32' N.	103° 54.80' E.	(Punggol Beacon)
	(2)	01° 24.22' N.	103° 55.95' E.	
	(3)	01° 22.98' N.	103° 58.02' E.	(Loyang Beacon)
	(4)	01° 23.52' N.	103° 58.45' E.	(Fairy Beacon)
	(5)	01° 23.72' N.	103° 59.53' E.	(Changi Buoy)
	(6)	01° 23.20' N.	104° 00.40' E.	
	(7)	01° 21.10' N.	104° 03.12' E.	(Angler Buoy)
	(8)	01° 21.40' N.	104° 04.05' E	
	(9)	01° 23.15' N.	104° 01.55' E.	(Malang Tiga)
	(10)	01° 25.10' N.	104° 01.13' E.	
	(11)	01° 25.45' N.	104° 01.22' E.	(Tg. Todak)
	(12)	01° 25.00' N.	103° 59.57' E.	
	(13)	01° 24.50' N.	103° 59.60' E.	(Chek Jawa Beacon)
	(14)	01° 23.90' N.	103° 57.97' E.	
	(15)	01° 23.90' N.	103° 57.37' E.	
	(16)	01° 24.60' N.	103° 56.45' E.	
	(17)	01° 25.35' N.	103° 55.67' E	(Tajam Beacon)

thence to the point of origin.

Maritime and Port Authority of Singapore – Port Marine Circular No. 15 of 1996.
Dated 1st July 1996.

MARINE COMMUNICATION IN PORT

1. This Port Marine Circular is in 2 parts.

Part A	Communication Channels for the Maritime Port Authority, Port Health, Immigration Department and Police Coast Guard.
Part B	Communication Channels for Pilotage, Towage, Water Boats, Oil Terminals and Public Correspondence.

Changes to VHF Channels:

2. The following changes shall take effect on 15th July 1996 at 0001 hrs.
3. Port Operations Control (POC) will operate on VHF Channel 88 (Simplex), with VHF Channel 18 (Duplex) as the back-up. With the use of Simplex Channel, all vessels will be able to monitor the communications between a vessel with POC or another vessel.
4. POC will maintain watch over VHF Channel 68 and VHF Channel 18 (back-up channel).
5. Keppel Control which regulates the control of navigation in Keppel Harbour will operate on VHF Channel 18 (previously VHF Channel 68), with VHF Channel 61 (no change) as the back-up.
6. This Port Marine Circular supersedes Port of Singapore Authority, Port Marine Circular No. 27 of 1995.

Port Master
Port Master's Department
Tel: 321-1763. Fax: 224-5776.

PART A: Communication channels for the Maritime Port Authority, Port Health, Immigration Department and Police Coast Guard.

(A) CONTROL OF NAVIGATION:

Call: Port Operations. Tel: (65) 2233631, (65) 2233633. Telefax: (65) 2245776 addressed to "Port Master". Telex: RS 34970 PORTPM.

Stations	*VHF* Ch.	*Frequency* (MHz)		*Usage*
Timor Control	12	156.600	156.600	For arrival and departure reports in the Timor Sector.
Keppel Control	18	156.900	161.500	Request for clearance by vessels to berth/unberth at Keppel Harbour Terminals. Request for clearance for piloted vessels to berth/unberth at Keppel Harbour Terminals. Back-up Channel: 61.
Cruise Bay Control	05	156.250	160.850	For arrival and departure reports in the Cruise Bay Sector.
Port Operations Control	68	156.425	156.425	Reporting by vessels when *underway*. Request for port traffic information. Back-up Channel: 18.
VTIS East	10	156.500	156.500	Reporting confirmation of arrival by vessels to VTIS in area East of Long. 103° 51.2' E. Provision of traffic information in Singapore Strait.
VTIS West	73	156.675	156.675	Reporting confirmation of arrival by vessels to VTIS in area West of Long. 103° 51.2' E. Provision of traffic information in Singapore Strait.

Call: Sembawang Control. Tel: (65) 5427112, (65) 5427113. Telefax: (65) 5422844.

VHF Channel	*Frequency* (MHz)		*Usage*
21	157.050	161.650	For reporting in the East Johor Strait Sector (refer PMC No. 6 of 1996). Back-up Channel 13.

Call: Jurong Control. Tel: (65) 2650246, (65) 2650493. Telefax: (65) 2613749.

VHF Channel	*Frequency* (MHz)		*Usage*
22	157.100	161.700	For arrival and departure reports in the Jurong Sector.

(B) REGULATORY CHANNELS FOR SAFETY AND EMERGENCIES

VHF Radiotelephone Channels for Safety and Emergencies in Port:

Location	*VHF* Ch.	*Frequency* (MHz)		*Usage*
Enforcement	07	156.350	160.950	Co-ordinating marine emergencies in Port waters.
Police Coast Guard	07	156.350	160.950	Request for assistance from Police Coast Guard.
Hydrographic Department	13	156.650	156.650	Navigation aids and hydrographic survey activities.
Environment Control	13	156.650	156.650	Pollution control. Back-up to Channel 21.
	06	156.300	156.300	Ship-to-ship communications.

(C) REGULATORY CHANNELS FOR IMMIGRATION/PORT HEALTH CLEARANCE.

VHF Radiotelephone Channel for Immigration/Port Health Clearance:
Call: Immigration Office. Tel: 2730527. Time: 24 hours.
Call: Port Health. Tel: 2226924, 2222585. Time: 24 hours.

Location	*VHF* Ch.	*Frequency* (MHz)		*Usage*
Western Quarantine and Immigration Anchorage	14	156.700	156.700	Request for Port Health or Immigration Clearance.

PART B: Communication Channels for Pilotage, Towage, Water Boats Oil Terminal and Public Correspondence.

(A) PILOTAGE, TOWAGE AND WATER:

Call: Singapore Pilots. Tel: 3211761 (Pilotage Bookings), 32117 (Pilotage Bookings), 3211765 (Pilotage Bookings), 3211186 (Tu Enquiries/Orders). Telefax: 3212016. Telex: RS 23333 SINPIL.

Stations	*VHF* Ch.	*Frequency* (MHz)		*Usage*
Singapore Pilots	20	157.000	161.600	Request for pilotage services a enquiries.
Berth, Tugs and Water Boats	61	156.075	160.675	Request for water boats, tugs services and berthing enquiries for Tanjong Pagar, Keppel, Bra Pasir Panjang and Jurong Terminals.

(B) OIL TERMINALS:

VHF Radiotelephone Channels for Oil Terminals in Port:

Terminals	*VHF* Ch.	*Frequency* (MHz)		*Usage*
Bukom Operations	19	156.950	161.550	Request of information for vess berthing/unberthing at Pulau Bukom and Shell SBM.
Pulau Ayer Chawan Operations	05	156.250	160.850	Request of information for vess berthing/unberthing at Pulau A Chawan and Esso SBM.
Singapore Refinery Centre	05	156.250	156.250	Request of information for vess berthing/unberthing at Pulau Merlimau and PSA SPM.

(C) PUBLIC CORRESPONDENCE:
VHF Radiotelephone Channels for Singapore Radio:

Stations	*VHF* Ch.	*Frequency* (MHz)		*Usage*
Singapore Radio	16	156.800	156.800	Distress, safety calling channel.
	23	157.150	161.750	Public correspondence via Singapore Telecom Exchange.
	24	157.200	161.800	Same as above.
	25	157.250	161.850	Same as above.
	26	157.300	161.900	Same as above.
	27	157.350	161.950	Same as above.
	28	157.400	162.000	Same as above.

PIRACY: Despite strong efforts by some local governments and authorities in the area, piracy continues.

Please see three separate reports below.

1. A 68,000 d.w.t. bulk carrier was attacked on 1st July 1990 at a position 14 miles off Mangaki Island whilst on passage through the Strait.

   The assault took place at 0100 hrs. local time and the four pirates armed with guns and knives left the ship after having spent more than 20 minutes on board holding the Master and senior officers at gunpoint.

   The pirates stole money and personal belongings but fortunately no one was harmed.

   The Master, prior to approaching the Strait, had taken precautions to prevent pirates from entering the accommodation by locking all doors. The pirates, however, were able to open the doors with skeleton keys.

   The pirates approached the ship from the stern in a small wooden speedboat but were not observed by the officer on duty on the bridge.
2. An owner has reported that a vessel was attacked by pirates while passing the Phillip Channel. The ship had reduced speed due to dense fog.

   The lookout on the poop was overpowered, tied up and taken to the bridge, where the officer on duty was also overpowered. The 5 pirates, armed with knives and swords, forced the Master to open the ship's safe. After tying up the Master and the two other crew members, the pirates abandoned the ship taking money and personal belongings.

   The Singapore Marine Police were informed and boarded the vessel to investigate.
3. After a few days on Singapore Roads for repair, a bulk carrier of 42,000 d.w.t. left Singapore on 18th October 1990 at 0030 hrs. en route from Australia to the Gulf. Shortly after departure at a position Lat. 1° 08.3' N., Long. 103° 43.6' E., four armed pirates boarded the ship via the poopdeck from a small motorboat. The Master, on the way from the bridge to his office, was overpowered by the pirates and was forced to open the ship's safe. The pirates got away with a substantial amount of cash and private belongings, such as watches, cameras, etc.

GENERAL: Master of any vessel in territorial waters of Singapore shall obey any signal from a preventive vessel and any instruction from Officers of Customs. Customs Officers shall have free access to any part of vessel and have powers to mark, lock or seal any dutiable goods on import including sea stores.

SHIPMASTER'S REPORT: September 1983.

Ballast: Slop reception barges cannot receive slops at more than about 250 t.p.h. Message should be sent to Port Master 1 day before arrival with ETA and height above water and same information repeated to Port Operations Channel 12 three hours before arrival.

RADIO OFFICER'S REPORT: September 1990.

Documents:

Agent:

2 copies Crew List.

1 copy Stores List.

Pre-Arrival Clearance possible. If coming from Australia, fax Crew List from last port.

Pilot: Pilot requires one copy of vessel's Check List for piloted movements.

Customs: Customs will only attend if coming from an Indonesian port (check for drugs).

Customs Allowances: 200 cigarettes or 250 gm. of tobacco, 7 bottles of wine, 1 bottle of spirits and 1 case of beer.

Shore Passes: Passport is sufficient.

SHIPMASTER'S REPORT: May 1991.

Pilot: Pilot outward has to be booked by Agent, 4 hours in advance. If vessel is then delayed, advise Port Control, either before pilot boards, or advise pilot when he boards. If the sailing delay is more than 30 minutes, the pilot will have to be re-ordered, which means another 4 hours.

Immigration: Indian nationals may not sign-off outside harbour limits, unless they have a visa. Indian nationals leaving a vessel inside harbour limits may be permitted to stay up to 3 days after the vessel has departed, but their flights must be confirmed before they sign-off.

Customs: The old United Kingdom style, of having to declare the length of the vessel's next intended voyage, and the number of persons on board before purchasing bonded items, i.e. cigarettes and liquor, has been rescinded. Vessels may now purchase unlimited quantities of bonded items.

AUTHORITY: Port of Singapore Authority, PSA Building, 460 Alexandra Road, Singapore 0511. Postal Address: P.O.Box 300, PSA Building Post Office, Singapore 9111, Republic of Singapore. *Tel:* (65) 2747111. *Telex:* RS 21507. *FAX:* 2744677. *Cables:* "Tanjong" Singapore. *Contact:* Port Master's Department, Tanjong Pagar Complex. Tel: 3211168. Telex: RS 34124. Fax: 3211549.

AGENT: Jardine Shipping Agencies, 1 Maritime Square, No. 10-40 World Trade Centre (Lobby D), Singapore 099253. Tel: 65-2752788 (24 hours answering service, No. 7318909). Telex: 24179 Jarship. Fax: 65-2752733. Cables: "Jarship".

NOTES

Please also advise Shipping Guides Ltd.

Slovenia

KOPER: 45.31 N. 13.44 E. (See Plan)

PORT LIMITS: The seaward boundaries of the port are between "Debeli Rtic" (Punta Grossa) and Rt. Vilizan.

DOCUMENTS:
5 Crew Lists.
5 Passenger Lists.
3 Cargo Manifests.
1 Freighted Manifest.
3 Bills of Lading.
1 Stores List.
1 Crew Effects List.
1 Derat Declaration.
1 Health Certificate.

PILOTAGE: Pilot station may be contacted on VHF Channel 8 throughout 24 hours. Pilot boards 1 mile from entrance in roads or at anchorage. Definite notice to be sent by telex 24 hours before vessel's arrival in port area through its Agent in Koper.

Fairway Buoy: Lat. 45° 33.9' N., Long. 13° 42.3' E. Light – WFL 10 sec. 6 M.

ANCHORAGES: Port area, depth 17 m. – 19 m., sandy bottom. Safe anchorages in case of S.E. wind near Rt. Vilizan and in case of N.E. wind near Debeli Rt. (Punta Grossa).

RESTRICTIONS: Vessels enter port by day and night (also tankers).

No entry for oil and chemical tankers when visibility less than 400 m. and wind over Force 4.

Entrance in Basin No. 3 (coal-ore terminal) only during daylight hours.

No length restrictions.

MAX. SIZE: General cargo berths: Draft 10.9 m. (32 ft.) to 13.0 m. (39 ft.).

Terminal for coal and ore: Draft 17.0 m. (51 ft.).
Silo berth: Draft 12.5 m. (37 ft.).
Container berths: Draft 11.2 m. (33 ft.).

HEALTH: Ship must have Health Declaration and in this case Pratique is automatic. In the event of any suspected disease or fever on board, Master must advise Harbour Master or Agent by VHF Channel 16 or by telegraph. Harbour Master's Office on VHF Channel 16 continuously.

VHF: Communication on Koper Roads on Channel 16. Channel 8 for mooring/unmooring and for Pilots.

RADAR: Service available on Master's request.

TUGS: 2 tugs available (1,920 h.p. and 4,000 h.p.). If additional tugs are required, they can be ordered. Minimum number of tugs required for berthing and unberthing depends on the agreement with the Pilots (considering the Harbour Master's Regulations).

BERTHING:

Terminal for General Cargo: Quays 833 m., max. draft from 7 m. to 13 m. Number of Berths 6. Roofed warehouses 153,600 sq.m., of which: air-conditioned warehouses, with a possibility of moisture and temperature regulation from 0°C to 20°C, 9,390 sq.m. Refrigerated rooms (freezing to −20°C) 1,863 cu.m. Special warehouses for cotton and hides 39,600 sq.m. 2 shore cranes, 1×20/40 ton mobile crane, 1×35 ton mobile crane, 1×50 ton mobile crane, 61 forklifts, 16 towing units. Terminal capacity 750,000 tons annually. Within the frame of the terminal are stables for livestock (capacity 1,200 head of cattle).

Terminal for Timber: Quays 250 m., max. draft 6.7 m. – 9.5 m. Number of berths 2. Terminal area 25 ha., sheltered storage area 50,000 sq.m., 2 shore cranes, 21 forklifts, 21 towing units, 3 loaders, 5 tractors, 2 lines for binding and edging of timber packages, 1 line for winding and packing timber. Terminal capacity 600,000 cu.m. annually.

Terminal for Container and Roll-on/Roll-off Traffic: Quays 500 m., max. draft 11.2 m. 3 berths for container vessels, 3 Ro/Ro ramps. Terminal area 25 ha. Closed warehouses 10,800 sq.m. Railway tracks 2×671 m. 118 electric connections for reefer containers. 3 container cranes
(450/500 kN). 2 reach stackers. 4 transtainers. 12 forklifts. 12 towing units. Terminal capacity 150,000 TEU annually.

BULK HANDLING FACILITIES:

Capacities for ores, coal and coke: (Max. granulate size 200 mm.) Length of quay 200 m., max. draft at the quay 17 m. Number of berths 1, open storage 300,000 tons, 2×20 tons capacity shore cranes (at outreach 36 m.) and a bridge crane (32 tons capacity). Yearly throughput of the terminal 1.5 million tons. Unloading capacity on the quay 1,500 t.p.h. Loading capacity from the ship or from depot 6,000 tons/day. Possibility of berthing vessels up to 160,000 d.w.t. Daily despatch per railway 6,000 tons.

Capacities for phosphates, fertilisers, alumina, soyabean meal in pellets and bauxite: Length of quay 273 m., max. draft at the quay 13.0 m. Number of berths – 1, sheltered warehouse 50,000 tons for soya, 6,000 tons for fertilisers, 13,000 tons for other bulk cargo, 2×20 tons capacity shore cranes (15 tons at 24.0 m.). Silo of 20,000 tons for alumina with special unloader (rate 250 t.p.h.). The quay is connected to the warehouse with a closed conveyor system.

Capacities for cereals and oilseeds/silo: Length of quay 200 m., max. draft at the quay 12.5 m. Number of berths – 1, storage capacity 60,000 tons. Discharging/loading capacity for vessels 500 t.p.h., discharging/loading capacity for wagons 500 t.p.h.

Capacities for other bulk cargoes: Length of quay 250 m. Depth at the quay 6.7 m. – 9.5 m. Number of berths 2, open storage area 12,000 tons, 2×20 ton capacity shore cranes.

Capacities for liquid cargoes: Chemicals 12,350 cu.m., phosphoric acid 7,500 cu.m., length of quay 170 m., max. draft 10.2 m.

Vegetable oil 20,604 cu.m., palm oil 4,710 cu.m. Length of quay 200 m., max. draft 12.5 m.

Wine 2,930 cu.m., latex 1,320 cu.m. Length of quay 165 m., max. draft 10.9 m.

Berth for tankers: Depth 10.9 m.

BRIDGES: None.

STEVEDORES: Gangs ordered from "Luka Koper" who are stevedores by Agents and forwarding Agents in Koper.

MEDICAL: Medical assistance and hospital available.

TANKERS: Tanker berth for crude oil with max. draft 32 ft. (10.9 m.) equipped with 2×10 in. and 1×12 in. arms.

DENSITY: 1025; in Basin II 1015 to 1025, depending on place, season and weather.

FRESH WATER: Available from any pier. Rate of delivery about 15 t.p.h.

FUEL: Available from Trieste (Italy).

FIRE PRECAUTIONS: Usual precautions.

CONSULS: Italy. All others in Ljubljana.

REPAIRS: Small repairs can be carried out at Koper. In Izola, 2 miles from Koper, is wharf "2nd October". The repair service for containers is in the Port.

DRY DOCKS: In Izola for vessels up to 18,000 d.w.t. (160 m.×22 m.)

SURVEYORS: 1. Adria Control, DDD, Contrade, Inspect, ASA, EMS, Jadroinspect, Agroinspect, SGS Slovenia, Marine, ZZZV – Center DDD. 2. Croatian Register Shipping (Hrvatski Register Brodova), Germanischer Lloyd.

GANGWAY/DECK WATCHMEN: Available at ship's request.

OPENING/CLOSING HATCHES: If not performed by crew, then by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes for each member of crew and 1 bottle of spirits per week and reasonable quantity of wine per man per day.

REPATRIATION: By bus, by railway from Koper or by air from the airports.

AIRPORT: Ljubljana (Brnik) – 120 km. Rijeka – 100 km. Pula – 100 km. Ronchi (Italy) – 80 km.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer (Late March to late September).

HOLIDAYS: New Year's Days (1st, 2nd January), Slovene Cultural Holiday (8th February), 27th April, May Days (1st and 2nd May), State Holiday (25th June), Assumption (15th August), Reformation Day (31st October), 1st November, 25th December, Independence Day (26th December).

POLICE/AMBULANCE/FIRE: Police No. 92, Ambulance No. 94, Fire No. 93.

TELEPHONES: Available on Master's request.

SHIP SUPPLY SERVICE: "Olmar Ship Supply", Port Zone. Tel: 22655 Fax: 32896. General ship supply, duty free shop, laundry service, boat service available on request, international telephone service. "Katama Koper". Tel: 25650. Fax: 25994.

SHORE LEAVE: Allowed after clearing inwards (Free Pratique).

IDENTIFICATION CARDS: Shore pass issued by local police (without photograph).

GARBAGE DISPOSAL: Garbage collection service is available each day from 0700 hrs. to 1500 hrs. and is compulsory. Special plastic bags are provided on board each day. Charges depend on vessel's tonnage and are from U.S.$ 35 to U.S.$ 65 for each collection. Contact Tel: 32670/33031. Fax: 33592.

WASTE OIL DISPOSAL: Waste oil is collected by a boat with capacity of 15 – 20 cu.m. In case of larger quantities a tanker-barge can be provided. Collection can be done on all berths in the Port of Koper. Contact Tel: 32670. Actual price is U.S.$ 100/tonne in port and U.S.$120 tonne at anchorage.

SEAMAN'S CLUBS: Duty free shop, international telephone service money exchange, church service, football matches, mini-bus collection postage facilities, games available at the clubs; "Olmar Ship Supply" Port Zone. Tel: 22655. Fax: 32986.

CURRENCY: Slovene Tolar. U.S.$ 1.00 = 130 SIT (March 1996).

DEVELOPMENTS: Bulk Terminal (enlargement). Construction o warehouses for general cargo, construction of the new terminal fo livestock; depth of the all Basin III to 18.0 m. Construction of the ne multi-modal terminal.

AUTHORITY: Ministry of Transport and Communications, The Slovenia Maritime Directorate (Uprava Republike Slovenije za pomorstvo Ukmarjev trg 2, 6000 Koper, Slovenia. *Tel:* +386-66-27121 *Telex:* 34235 Uppom Si. *FAX:* +386-66-271447.

Port: Port of Koper – Luka Koper, Vojkovo Nabrezje 38, 6501 Koper Slovenia. *Tel:* +386-66-456100. *Telex:* 34113, 34168. *FAX:* +386-6 34418, 34028.

AGENT: Jadroagent International, Pristaniska 45, 6000 Koper, Slovenia Tel: +386-66-445100. Cables: Jadroagent Koper. Telex: 342 Jadrag Si. Fax: +386-66-272055.

Society Islands

BORA BORA (Vaitape): 16.31 S. 151.45 W.

DOCUMENTS: All vessels arriving in French Polynesia must first call for clearance at Papeete, pilotage is compulsory. See "Papeete" for documents required.
PILOTAGE: There is no pilotage station at Bora Bora; a Pilot will be provided at Papeete. Vessels are requested to advise their Agents at least 15 days before arrival of their ETA, length and draft of ship. In addition, Masters should confirm their ETA to the Port Captain of Papeete at least 3 days before arrival. Telegraphic address is Capitaine de Port, Papeete.
ANCHORAGES: Vessels may anchor in the port roads in depths of 34 m. – 21 m. Good holding ground in sand and coral.
RESTRICTIONS: Night pilotage is practicable, weather permitting. There are 2 buoys at the entrance and a light beacon.
MAX. SIZE: Length 220 m., beam 30 m., draft 9 m.
HEALTH: Vessel should ask for Free Pratique by radio message to Sante Maritime Papeete, via coast station Mahina. This message to be sent 24 hours before arrival. Alternatively Free Pratique can be accorded by the Pilot.
RADIO: Mahina Radio, call sign FJA, operating 24 hours a day on 500, 2182 and 8279 kHz.
TUGS: No tugs available at Bora Bora.
BERTHING: One quay, (Quai de Farepiti) 132 m. length, situated in Faanui Bay. Depth alongside 7.30 m. Only used by small warships, coasters and yachts. One other quay (Quai de Vaitape) 40 m. long and with depth alongside 4 m. Situated at Vaitape. Used by barges.
MEDICAL: Doctor available and there is a local infirmary.
FRESH WATER: Not available.
FUEL: Not available.
CUSTOMS ALLOWANCES: No restrictions for crew members, but all tobacco and alcohol must be declared. Crew men going ashore may not take more than 2 packets of cigarettes.
AIRPORT: Situated 7 km. from Vaitape, only inter-island services.
TIME: GMT minus 10 hours. No change during the year.
HOLIDAYS: See "Papeete".
SHORE LEAVE: Allowed.
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Franc Pacifique (FCP).
AUTHORITY: Port Autonome de Papeete, B.P. 9164, Papeete, Tahiti, French Polynesia. *Tel:* (689) 505454. *FAX:* (689) 433612.
Contact: Edgar Blouin, Harbour Master.

PAPEETE: 17.33 S. 149.34 W. (See Plan)

DOCUMENTS:
Required by Port Health:
Maritime Declaration of Health (form provided by the Pilot).
Required by Immigration (1 copy of each):
Crew List.
Lists of Passengers Disembarking.
Lists of Passengers in Transit.
Required by Customs (2 copies of each):
Manifest of Cargo for Discharge.
Provisions List.
Mail List.
Crew Personal Effect List.
Bonded Stores List.
Ship's Spares List.
Crew List.
List of Passengers Disembarking.
List of Passengers in Transit.
List of Animals to be Unloaded.
List of Animals in Transit.
List of Plants.
Complete Cargo Manifest.
Required by Merchant Marine Authorities:
1 Declaration of Safe Rules on board ship (form supplied by Pilot).
Required by Port Captain (1 copy of each):
Entry Declaration (form supplied on arrival).
Crew List.
List of Passengers Disembarking.
List of Passengers Embarking.
List of Passengers In Transit.
List of Cargo to be Loaded, Unloaded or Transhipped.
Dangerous Cargo: If carrying dangerous cargo for Papeete (or in-transit) send cable to Port Captain prior to arrival.
On arrival give list of dangerous cargo to Pilot.

APPROACHES: The entrance channel is marked by occulting green range lights mounted on red and white striped towers which are aligned 149° T. This range is normally visible at approximately 11 miles, although sometimes obscured by floodlights from the nearby public swimming pool.

The barrier reef on the East side of the pass can easily be seen.

Entrance to the harbour, through the barrier to the East, and shoal water to the West, is marked by lighted buoys, during bad weather there is often a heavy sea on the shoals (5 m. deep).

In the pass itself, the current generally sets outward. When Northeasterly winds are particularly strong, the water level in the lagoon can rise considerably. Northwest or Westnorthwest setting currents may attain strengths of up to 5 knots, creating dangerous, if not impossible navigating conditions for small craft. No warning signals concerning permission to enter or leave the pass exist.

In case of doubt regarding tidal conditions in the pass, contact can be established with the Harbour Master's Office on VHF Channel 12, or HF, frequency 2638 kHz.

Interior reefs are marked. Passage once into the harbour is marked by a pair of occulting green range lights mounted on red and white towers. This range is aligned 087° T.

PILOTAGE: Compulsory. Vessels are requested to advise their Agents at least 3 days before arrival giving their ETA, length, width and max. draft of the ship; tonnage of cargo for discharge and breakdown by hold; dangerous articles and/or explosives on board and amount of fuel and water needed. In addition, Masters must give their ETA 24 hours before arrival to Capitainerie du Port, Papeete. Pilot station and pilot launches are equipped with VHF and must be contacted on Channel 12 when within 30 miles. Pilot launches have grey painted hull with a white band, with wheelhouse on the fore part. International code flag signals are used to call Pilot. Pilot boards about 1.5 miles from the entrance channel. There is no anchorage outside the port for ships awaiting a Pilot.

Pilotage available 24 hours.

ANCHORAGES: Vessels up to 170 m. length can anchor in the port roads in depths of 18 m. – 25 m. Good holding ground in mud.
RESTRICTIONS: Ships coming from a country infested by "Oryctes Rhinocerus Strategus" (coconut beetle) can be fumigated by the Department of Agriculture and can stay alongside at night. Advise agent 3 days prior to arrival if fumigation is required.
Entrance Channel: Width 110 m. Max. depth 11.30 m.
MAX. SIZE: Length 250 m., beam 32 m., draft 34 ft. The Q.E. II, length 294 m. entered and docked in 1985, 1988, 1989 and 1991.
HEALTH: Vessels with a doctor on board should ask for Free Pratique by radio to Sante Maritime Papeete, via Coast Station Mahina Radio. This message should be sent earliest 24 hours and latest 18 hours before arrival. Vessels having no doctor on board will be inspected in Papeete by the Maritime Public Health Service. All formalities concerning maritime sanitation regulations can be carried out at this time. Pratique is automatic for vessels coming from another Polynesian port. Also see "Restrictions".
RADIO: Mahina Radio, call sign FJA, operating 24 hours per day on 500, 2182, 8279 kHz, and on VHF Channel 16.

GMT 0118 hrs. —	8461 kHz	FJA 8	A1	W/T
GMT 0733 hrs. —	17040.8 kHz	FLA26	A1	W/T
GMT 0433 hrs. —	8461 kHz	FJA 8	A1	W/T
GMT 0503 hrs. —	17040.8 kHz	FJA26	A1	W/T
GMT 0903 hrs. —	4298 kHz	FJA41	A1	W/T
GMT 0933 hrs. —	8461 kHz	FJA 8	A1	W/T
GMT 1333 hrs. —	8461 kHz	FJA 8	A1	W/T
GMT 1733 hrs. —	4298 kHz	FJA41	A1	W/T
GMT 2018 hrs. —	8461 kHz	FJA 8	A1	W/T
GMT 2048 hrs. —	17040.8 kHz	FJA26	A1	W/T

Since 1st March 1992 ship stations should transmit/receive on the following frequencies:

Transmit	2182 kHz	Receive	2182 kHz
	2435 kHz		2620 kHz
	4110 kHz		4402 kHz
	8279 kHz		8803 kHz
	16372 kHz		17254 kHz

Local weather broadcasts are made in French language by Mahina Radio at the following local times:
1100 hrs. 8803 kHz and VHF Channels 26/27.
1200 hrs. 2620 kHz and VHF Channels 26/27.
2040 hrs. 8803 kHz and VHF Channels 26/27.
2100 hrs. 2620 kHz and VHF Channels 26/27.

VHF: The Port Captain's Office is equipped with VHF. Watches are kept on Channel 12 when a ship is expected. Vessels must contact Harbour Master's office one hour prior to arrival.
TUGS: Tugs join ships as soon as they are in the entrance channel. Generally, tow-lines are not required, as tugs push the vessels only. There are three tugs available up to 1,200 h.p. belonging to the Port Authority, and in addition, there are 4 naval tugs up to 750 h.p. which may assist if required.

Use of tugs is compulsory for vessels over 3,000 cu.m. The volume is calculated as follows: Length × Width × Maximum Draft.

BERTHING: Passenger Ship Quay: 233 m. length, 2 berths, depth alongside 9.5 m.
Cargo Quay: 450 m. length, depth alongside 10.50 m.
Fishing Boat Quay: 100 m. length, depth alongside 5.50 m.
STEVEDORES: Cargo information should be confirmed to the Agents with ETA 48 hours before arrival.
MEDICAL: Advance notice required if medical attendance needed on board. 2 hospitals available. Passengers disembarking must present a valid vaccination certificate.
TANKERS: One tanker berth, 105 m. long. Max. allowed draft 33 ft. Discharging hoses are: Mobil Oil 8 in., Total Oil 6 in.

One gas tanker berth, at Pont de Taunoa, accessible via Taunoa Channel. For vessels max. LOA 85 m., max. breadth 13.80 m., max. draft 6.0 m.

There is an additional tanker berth used by Mobil, Total and Shell with length 79 m. and permissible draft 34 ft. Berthing is not safe at the time of Northerly swell (November to March).

FRESH WATER: Available from pipelines on all quays. Loading rate is 50 t.p.h. at passenger and cargo quays and 30 t.p.h. at the tanker berth. It is recommended that water be sterilised for drinking.
FUEL: Three companies distribute bunker products: Tahiti Petroles (Total products), Mobil (Mobil products) and Shell.

Tahiti Petroles – Telex OLITAHI 304 FP. Service Mobil – Telex SERMOBIL 238 FP. Polypetroles et Shell – Telex Polyshell FP 400.

Refuelling with gasoline, diesel oil, marine diesel oil and light fuel is possible. Taxes may be waived on these products for foreign vessels.

A 700 ton barge operated by Mobil may be used by transit vessels for bunkering if notified 24 hours in advance.

CONSULS: The following countries maintain representatives at Papeete:

Austria
Belgium
Chile
Denmark
Finland
Italy
Korea
Netherlands
Norway
Sweden

REPAIRS: Woodwork, electrical and welding repairs can be effected.

SURVEYORS:
Classification Societies:
Bureau Veritas. Tel. 42.80.86.
Lloyd's Register. Tel. 42.63.93.
Surveyors:
Maurice Bourrat. Tel. 42.67.06.
Bernard Baudry. Tel. 43.04.47. Telex. 210 FP.

DRY DOCKS: There is 1 floating dock for vessels up to 3,500 tons which belongs to the Navy.

GANGWAY/DECK WATCHMEN: Services of shore watchmen are necessary.

OPENING/CLOSING HATCHES: Hatches opened and closed by crew if they are of mechanical type, otherwise the stevedores will perform this operation.

CUSTOMS ALLOWANCES No restrictions for crew members but all tobacco and alcohol must be declared. Crew members going ashore must not take more than two packets of cigarettes. Passengers disembarking may take 200 cigarettes or 50 cigars or 400 grammes of tobacco and one bottle of alcohol.

REPATRIATION: Can be effected.

AIRPORT: Tahiti — Faaa Airport is situated 6 km. from the port. Regular international flights.

TIME: GMT minus 10 hours. No alterations during the year.

HOLIDAYS: Stevedoring services are available on all work days in 3 mandatory shifts. Longshoremen do not work on the following days unless otherwise stated: 1st January, 5th March, Good Friday, 1st May, 14th July, 1st November, 24th December (after 1100 hrs.), 25th December and 31st December.

Work carried out on other holidays or "local legal holidays" is considered as overtime work and will be paid as such: Easter Monday, 8th May (VE day), Ascension Day, Whit Monday, 29th June (Fete de l'Autonomie Interne), 15th August (Assumption Day) and 11th November (Armistice Day).

POLICE/FIRE/AMBULANCE: Police 17; Fire 18; Ambulance 2 96 74.

EMERGENCY CO-ORDINATION CENTRE: Contact Amiral Commandant la Zone Maritime. Telex: 269 FP. Tel: 42.55.30.

TELEPHONES: Can be installed on board vessels at all quays.

SERVICES: Provisions of all sorts (fresh, frozen, canned) may be bought in bulk from certain local merchants. It is possible to obtain duty-free cigarettes and alcohol. All heavy laundry can be done rapidly at several specialised cleaners.

BANKS: Banque de Polynesie, Branch of Societe Generale France, Telex: 230 Polybank FP, - B.P. 530, Papeete. (Joined to Credit Cards Visa system).

Banque de Tahiti, Branch of Bank of Hawaii, Honolulu. Branch of Credit Lyonnais, Paris. Telex: 237 FP - B.P. 1602, Papeete.

Banque Indosuez, Branch of Indosuez Paris, Telex: 232 FP and 244 PF - B.P. 120 Papeete.

STORING: Vessels can be stored by truck, which can proceed alongside the berth. Forklift trucks can be used. Special Customs Regulations in use.

SHIP SUPPLY SERVICE: The off-shore ship supply services are operated by the Pilot launches belonging to the Port Authority within 24 hours notice for ship-to-shore transport of personnel, essential stores and sick crew members.

SHORE LEAVE: Allowed without restriction.

GARBAGE DISPOSAL: Collection service available. Skips provided alongside. Contact Port Autonome, Tel: 43.60.60, Ext. 436/7 or ship's agent. Collection time arranged through ship's agent. Charge 5,730 FCP per tonne or cu.m.

WASTE OIL DISPOSAL: No collection service available.

SEAMAN'S CLUBS: None.

CURRENCY: Franc Pacifique (FCP).

AUTHORITY: Port Autonome de Papeete, B.P. 9164, Papeete, Tahiti, Polynesie Francaise. *Tel:* (689) 505454. *Cables:* Capitaine Port Papeete. *FAX:* (689) 433612. *Contact:* Edgar Blouin, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Solomon Islands

GIZO: 08.05 S. 156.52 E.

Gizo is a copra and cocoa receiving centre for Western Solomons (Main operations now at Port Noro). Situated on Gizo Island West of New Georgia. Entrance to harbour is beaconed and a jetty with depth alongside of 9 ft. Sheltered anchorage available in 16 fathoms. The British Solomons Trading Company Ltd. provides stevedores and conducts a lighterage handling and warehousing service to Importers and Exporters.
AUTHORITY: Gizo Port Authority, P.O.Box 307, Honiara, Solomon Islands. *Tel:* 677-646, 677-647.

HONIARA: 09.25 S. 159.58 E. (See Plan)

DOCUMENTS:
Special Documents
Stores List, Form C1.
Crew's Store List, Form C2.
List of Unmanifested Cargo, Form C3.
Ship's Report Inward, Form C4.
Entry Outwards/Content Ship, Form C13.
Legalised Documents
None.
Advance Documents
None.
Landing Cards
Finally landing passengers need special landing card.
Health Officer
1 Transit Passenger Manifest.
1 Landing Passenger Manifest.
1 Crew List.
1 Maritime Declaration of Health.
1 Rhinoceros Beetle Free Certificate from Suva.
Derat Certificate.
Health Certificate.
Immigration
1 Transit Passenger Manifest.
1 Landing Passenger Manifest.
1 Crew List.
Customs
1 Transit Passenger Manifest.
1 Landing Passenger Manifest.
1 Crew List.
2 Stores Lists, Form C1.
2 Crew Store Lists, Form C2.
2 Ship's Reports Inwards, Form C4.
2 Lists of Unmanifested Cargo, Form C3.
2 Entry Outwards/Content Ship, Form C13.
Agents
1 Transit Passenger Manifest.
1 Landing Passenger Manifest.
1 Crew List.

APPROACHES: Approaches free from dangers provided vessels keep at least 2 cables off Point Cruz Beacon, identified by quick flashing red light. On foreshore in front of Shell Oil Storage Tanks is beacon with fixed green light, and above on Vavaya Ridge is white light flashing every 5 seconds from Tower on radio station building. When in line these 2 lights give correct approach to anchorage in 20 fathoms on, or East of, the line. Prevailing winds during S.E. monsoon season blow from N.E. direction sometimes reaching Force 4 to 5 in early afternoon. During N.W. monsoon season direction and force variable generally between North and West up to Force 4 and occasionally Force 5.
PILOTAGE: 24 hours' notice of ETA stating number of passengers, dangerous cargo, etc., to Harbour Master, Honiara, via Honiara Radio. Usual signals. Pilot boards from launch about 0.75 miles N.E. Pelope Shoal. Vessels normally berthed port side to. Pilot uses port gangway in calm weather.
ANCHORAGES: East of Port Main Leading Lights. Fl. white and fixed green, in about 20 fathoms; coral bottom.

Local boats are available for transporting crew from anchorage to the shore. The landing stage is at Joanna Jetty on the East side of the main pier at Point Cruz. Height above water level is 2 ft. at high tide and 4 ft. at low tide.
RESTRICTIONS: Berthing in daylight hours only – departure any time.
MAX. SIZE: New Wharf is 115 m. long and depth 9.14 m. Old Wharf, up to 200 ft. long and max. 13 ft. draft. Tankers, mooring at buoys, 600 ft. long and 27 ft. 6 in. draft.
HEALTH: Pratique can be obtained by radio. Cable Port Health. Suspect vessels should inform Health Authorities and Harbour Master by radio for doctor to board on arrival.

Cable to Quarantine Officer Honiara between 12 hours and 4 hours before arrival the following message: "Request Radio Pratique negative answers all health questions Maritime Declaration of Health. Master." Normally, the P & T Radio Officer may grant Pratique immediately whilst he is in radio contact with the ship. After arrival the Health Officer will check for rhinoceros beetle and will clear.
RADIO: Radio Honiara VQJ. Watch continuous. 6204 kHz, 2182 kHz, 500 kHz. GMT Schedule 0020 – 0030 transmits 11560 kHz, receives on 8 MHz or 16 MHz.
VHF: Channels 6, 12 and 16.
TUGS: There is a small 100 h.p. tugboat assisting with mooring when necessary.
BERTHING: One deepwater berth at Point Cruz for containers, general cargo and Ro-Ro vessels.
STEVEDORES: At least 24 hours' notice, usually 3 gangs, indicate any extra gangs required. To facilitate quick turn around advisable have cargo in middle holds evenly distributed not at extreme end or massed in one hold only.
Working Hours: 0730 hrs. – 1200 hrs., 1300 hrs. – 1800 hrs. and 1900 hrs. – 2300 hrs.
MEDICAL: Notice should be given in advance if medical attendance required on board. Inoculations available at clinic on Fridays only. Limited hospital facilities available.

Cholera: Required if arriving from infected area. Vaccination Certificates are checked individually for those passengers permanently disembarking.

For all other passengers and the crew ship's doctor must provide a statement advising that all passengers and crew comply with the health regulations and vaccinations required.

In case some passengers have for health reasons not been vaccinated, a letter from their doctor giving reason why no vaccination given must be produced. Passengers will be allowed to go ashore.

Central Hospital, Tel: 23600.
Emergency and Ambulance, Tel: 22200.
Dental Clinic, Tel: 23600.
Private Doctors:
Dr.T. Eritara, Tel: 22790.
Dr.P. Ogatuti, Tel: 23277.
Dr.H. Posala, Tel: 22029.

TANKERS: Tanker buoys, 8 in. pipeline, max. draft 32 ft. New Wharf, 4 in. pipeline, max. draft 27 ft. 6 in. Old Wharf, 4 in. pipeline, (ADO), max. draft 13 ft. Dirty ballast facilities available.
DENSITY/TIDE: Approx. 1025. Tidal range about 3 ft.
FRESH WATER: At wharf by hoses. 40 t.p.h.
FUEL: Diesel and gas oil available. 48 hours' notice, butane gas.
FIRE PRECAUTIONS: Normal fire precautions, with gang standing by with fire pump.
CONSULS: Australia, New Zealand, Papua New Guinea, Sweden and United Kingdom.
REPAIRS: Limited facilities only.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Watchmen to be recommended. Customs provide a preventive officer for duty at a charge.
OPENING/CLOSING HATCHES: Stevedores assist crew. Crew to rig gear.
CERTIFICATES: Certificate of Registry.
CUSTOMS ALLOWANCES: 200 cigarettes or 0.5 lb. tobacco per crew member. 3 quart bottles of beer per crew member.
REPATRIATION: Facilities available.
AIRPORT: Situated approximately 10 miles from the wharf. Air Niugini have 2 flights per week from Sydney via New Guinea, and Solomon Airlines have 2 flights to Vila, 1 flight to Nandi, 1 flight to Port Moresby and 2 flights to Brisbane, each week.
TIME: GMT plus 11 hours all year round.
HOLIDAYS: Cargo work can be arranged on all holidays except Christmas Day and Easter period.
POLICE/AMBULANCE/FIRE: Emergency phone numbers: Police 22999; Ambulance 22200; Fire 20235.
SERVICES: Labour can be hired for assistance with painting and cleaning. Other services not normally available. 24 hours' notice required.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Required.
VISAS: Transit passengers: not required. Disembarking passengers: require visa for a stay over 48 hours. Visa can be obtained from nearest British Consul.
LANDING CARDS: Only permanently disembarking passengers need special Landing Cards which can be obtained from Immigration Officer on arrival.
WEATHER: Cyclone season December to April, winds N.W. to variable, Force 0 – 5. From April to November winds are from N.E., Force 4 – 5.
DELAYS: Nil, except when other ships being worked.
DEVELOPMENTS: Copra Wharf, length 100 m., to be constructed.
AUTHORITY: Solomon Islands Ports Authority, P.O.Box 307, Honiara, Solomon Islands. *Tel:* 677-646. *Telex:* 66348. *Contact:* Harbour Master.

MALLOCO BAY: 07.36 S. 156.37 E.

LOCATION: The wharf is located in position Lat. 07° 35' 42" S., Long. 156° 36' 52" E. in Malloco Bay on Vella Lavella Island.
DOCUMENTS: 3 copies of all documents including "Nil" sheets of Crew Lists, Passenger Lists, Customs, Health Manifests, Bills of Lading, Ship's Particulars, Ship's Certificates.
Quarantine Boarding Officer requires the following:
List of Provision Store, both wet and dry.
Crew List.
Last Ports of call and the next Port of call.
List of disembarking passengers.
Plants and Animals List.
APPROACHES: The approach is deep, through a pass in the fringing reef. Port and starboard reefs are marked. There are no navigation lights.
PILOTAGE: Company officials provide pilotage. Boarding point is at Port of Entry, Gizo Island, Lat. 08° 06' 00" S., Long. 156° 50' 36" E. Vessels should anchor outside the fringe reef and call "Allardyce" on VHF Channel 16, or 6365 kHz.
ANCHORAGE: The anchorage is protected from all quarters and affords good holding (See Aust. Chart No. 683).

RESTRICTIONS: As no lights are available, all entries are made during daylight hours.
MAX. SIZE: LOA 115 m., max. draft 7.2 m.
HEALTH: Pratique granted on board on arrival. If any suspected or confirmed disease or fever on board notify the Health Inspector immediately on arrival. He will advise procedure. Pratique is automatic when arriving from another Solomon Islands port.
RADIO: Gizo Base 6365 kHz. Malloco Bay 6365 kHz.
VHF: See "Pilotage".
RADAR: No radar facilities.
TUGS: A small tug/line boat is available.
BERTHING: The wharf is 100 m. in length. Minimum depth at the South end is 8.0 m. and at the North end 10.0 m. Loading and discharging is by ship's gear. There are 2 loaders on the wharf.

Cargo is S.I. round logs which are exported.
CRANES: None.
BULK CARGO FACILITIES: None.
SPECIALISED CARGO FACILITIES: None.
BRIDGES: None.
STEVEDORES: The stevedores are company personnel and available immediately ship is berthed and cleared.
MEDICAL: Local clinic about 4 km. from port. Limited medical and dental facilities.
TANKERS: No facilities.
FRESH WATER: Not available.
FUEL: Not available.
FIRE PRECAUTIONS: None.
CONSULS: None.
REPAIRS: No facilities.
DRY DOCKS: Not available.
SURVEYORS: Not available.
WATCHMEN: Not necessary.
HATCHES: Opening and closing by ship's crew.
CUSTOMS ALLOWANCES: 2 litres spirits, 200 cigarettes.
REPATRIATION: Not possible.
AIRPORT: Light plane strip 1 km. from port. 2 flights a week (Monday and Thursday) to Honiara.
TIME: GMT plus 11 hours.
HOLIDAYS: Christmas Day, New Year's Day, Good Friday, Easter Monday, 7th July (Independence Day), Queen's Birthday and Whit Monday in June.
POLICE/AMBULANCE/FIRE: Not available.
EMERGENCY CENTRE: Honiara.
TELEPHONES: Not available.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Solomon Islands Dollar (SB$).
REGULATIONS: Normal Customs, Immigration and Health requirements.
DELAYS: Normally straight onto berth after Pilot on board.
GENERAL: Shippers' Office may be contacted on SSB 6365 kHz at 0700 hrs., 1200 hrs. and 1630 hrs. local time.

Shortland Harbour also serves as Port of Entry for Fauro Island.
DEVELOPMENTS: None planned.
AUTHORITY: Allardyce Lumber Company Limited, P.O.Box 164, Honiara, Solomon Islands. *Tel:* (677) 30133. *Telex:* HQ 66343 Alcol. *Cables:* Alcol. *FAX:* (677) 30669. *Contact:* John Beverly, General Manager. Peter Cole, Shipping Manager.

Regional Office: Allardyce Lumber Co., P.O.Box 44, Gizo, Western Province. Tel: 60074. Fax: 60075. Contact: Edward Daga, Gizo Base Manager.

Malloco Bay: Charles McPhee, Manager.

PORT NORO: 08.13 S. 157.12 E.

SHIP'S OFFICER'S REPORT: August 1991.

VESSEL: LOA 145.5 m., max. draft 6.3 m. and 10,511 g.r.t
DOCUMENTS: See "Honiara".
APPROACHES: Approach was free of any dangers and in deep water at all times. Even whilst alongside the echo-sounder showed 20.0 m. below the keel.

Sosomboeke Island was sighted at 7 miles.

Wind and sea are usually calm but rain can impair visibility.
PILOTAGE: Berthing in daylight hours only. Pilot boards in position Lat. 08° 11' S., Long. 157° 12' E. Pilot boat "Wra" has white hull with "Pilot" in blue letters on side.
VHF: Call "Noro Port" 4 hours before arrival on Channel 16. Contact was made when approximately 19 miles from Tonguivili Point.
TUGS: None.
BERTHING: *Cutter Point Quay.* Length of quay 70 m. Depth under keel when alongside was 20.0 m. Head lines and stern lines were run to bollards on the shore by a mooring boat. Vessel berthed starboard side alongside.

Port was found to be safe but gangway was lifted at night and all doors kept closed.
STEVEDORES: Foremen, winchmen, hatchmen and tallymen are only special people employed. Stevedores are picked up in the village. Ship's crew attend to all lashings.

Gangs work from 0730 hrs. – 1200 hrs., 1300 hrs. – 1730 hrs. and 1900 hrs. – 2230 hrs. No overnight gangs available.

MEDICAL: Limited hospital facilities. Two crewmen visited the doct on a Sunday.
FRESH WATER: Not available.
FUEL: Not available.
SHORE LEAVE: Permitted. No passes required.
GENERAL: Pilot is in overall charge at the port.

On completion of cargo operations in the evening shift, vessel cou not sail as Immigration Officer will not board after 2000 hrs.

Accommodation is required for 2 persons.

SHORTLAND HARBOUR: 07.04 S. 155.52 E.

Port not operational. All lumber operations moved to Malloco Bay o Vella Lavella Island.

YANDINA: 09.04 S. 159.14 E. (See Plan

The Port of Yandina lies on the Southern shore of Renard Sound whic is a deep inlet on the Eastern coast of Banika Island, part of the Russe Group of islands.

It is the headquarters of Russell Is. Plantation Estates Ltd. (RIPEL who own the wharf, shore facilities, adjoining airstrip and plantations. *Note:* The cable area marked on BA Chart No. 2975 and the remar in the Pacific Island Pilot Vol 1, page 375, line 10, does not exist. Th cable was removed some years ago.

RIPEL Managers report that in the past, vessels anchoring in th Sound itself have fouled their anchors on wartime scrap which lies o the sea bed.

The Sound is steep-to with depths of 90 m. in the centre. There is fringing coral reef along both the Northern and Southern shore line which extend further out the farther into the Sound a vessel penetrate Two small coral spits project out into the Sound for about 100 m. fro the northern shoreline, one each end of the wharf.
DOCUMENTS: If Yandina is first port of entry, the following documen are required:

2 copies Crew List (Solomon Island Forms only).
2 copies Personal Manifest.
2 copies Stores List (Solomon Island Forms only).
2 copies Passenger List ("Nil" returns required).
2 copies Unmanifested Cargo List ("Nil" returns required).
1 copy Maritime Declaration of Health.
Last Port Clearance.

APPROACHES: The Russell Island Group is sighted visually from th South at 30 miles on an approach course of 007° (T). Good reliable rad fixes are obtained at 18 miles from Alokun Island (150 ft.). This is duri the late afternoon in fine, clear weather.

Vessels can enter the group between Keogh Island and Lamon Isla during darkness with good radar representation for navigation purposes. The least depth in the channel is recorded at 270 fathoms

Entering the Russell Group from the South, one passes between Lou and Louin Islands. The Channel here is narrow, but steep to and fr from dangers. However, on this approach to Yandina, the wharf is n visible until the vessel is practically into Renard Sound and a long bla on the whistle when within sound distance, is recommended to alert li handlers, etc.

The Northern entrance is to be recommended, particularly newcomers, as the wharf can be seen much earlier and a direct approa can be made. Entering from the North, vessel passes between Lanal and Kurimarau Islands.
PILOTAGE: Not available.
HEALTH: Radio Pratique is obtained from Honiara.

Not more than 24 hours and not less than 8 hours prior to arrival health message is to be sent, and provided there are no cases infectious diseases on board, Radio Pratique will be granted. Th message should be addressed to "Port Health, Honiara" and should phrased "Request Radio Pratique Stop Negative answers to all hea questions Maritime Declaration of Health" signed Master.
RADIO: There are 3 radio telephone channels in operation at Yandi the Post Office, the Police Station and RIPEL private. H/F frequency their Honiara Office which has Telex and Fax facilities.

There is a post office which offers a telegram service.
TUGS: A mooring boat assists when berthing.
BERTHING: Entry is made between Lanalau Island and Kurima Island and then a direct course towards Renard Sound. At slow spe all the way in, no offsetting current is experienced.

The vessel is given a direct parallel approach to the wharf and ber port side alongside.

One mooring boat is used concurrently under very efficient supervis from ashore.

On occasions a current is suspected to run from North into Ren Sound as the stern tends to set towards the shore whilst berthi however it cannot be depended upon as Masters have reported current running from the South and the stern tending to set off wh berthing.

It is essential to approach at the slowest possible speed consist with keeping on track heading for the wharf. With an offshore brea by the time the vessel arrives abeam of the wharf, it often happens although the bow is in a good position, the stern has become ang out considerably. To take care of this, the officer in charge aft should have his first stern line fleeted out on the poop deck ready for quick slacking away without any kinks or holdups (which frequently result from trying to slack away quickly from a coiled rope). He should also have a second good rope already joined on with a strong lashing, because even with the launch running the stern line smartly, it is a long haul to the shore bollard and the stern may be slowly blown further out as the line is run. It is useless to wait and see if a second rope joined will be needed. The vital time lost lashing ropes together could spoil the whole manoeuvre.

The officer in charge forward should have the starboard anchor ready for letting go, whether it is intended to use it or not.

Years ago the use of an anchor off the wharf was not recommended due to possible fouling on old wartime wreckage, but sometimes the use of the anchor is essential and any subsequent fouling is a chance that has to be taken.

Berthing starboard side to is not recommended and can be hazardous. The large scale plan of Renard Sound on BA. Chart No. 2975 gives a false impression to a stranger as to its width. In fact, the average safe width of the Sound is little more than two cables (about 2 ships' lengths for "Corabank"/"Cloverbank" Class of ship). Several large vessels attempting to turn short round in the Sound to try and berth starboard side to have found themselves in difficulties due mainly to drifting steadily up the Sound (under the influence of the wind and possibly current) while backing and filling in the limited space. The deep water in the middle of the Sound (30–40 fathoms) is not very handy for using an anchor to assist in turning round, but if dropped (with plenty of chain) abeam of the wharf where the Sound is widest, it might prevent drifting up the Sound.

The line of approach to the wharf from the West (starboard side to) is not as straight as might appear from the coastline on the chart. There is shallow water and old piles extending quite a way out just Westwards of the wharf (not shown on the chart plan) and a vessel would have to come in to the wharf at a very awkward angle to avoid the reef. There appears to be no advantage at all berthing starboard side to.

BERTH: The main wharf which lies 2.5 cables Westward of Nikoria Point is of a concrete and steel construction and 53.5 m. long, with a minimum depth alongside of 6.1 m. There are 2 mooring bollards (connected to the shore) in line with the seaward face of the wharf. The Eastern bollard is 24.4 m. away and the Western one 41.2 m. away from their respective wharf ends.

To overlap the wharf too much at either end (but particularly the Eastern end) is dangerous; there is nothing to prevent the ship grounding with an on-shore wind or if anything went wrong with the moorings, and at such extreme positions, the bow and stern line leads to the mooring bollards would be impracticable.

On "Corabank"/"Cloverbank" Class vessels, only Nos. 3 and 4 hatches can be loaded with copra conveniently and possibly No. 2 (after end of hatch only) at a stretch.

A copra bulk loading system by bottom opening bins is in use at this port.

UNBERTHING: The stern can be sprung off and vessel backed out into the Sound. A light Northerly breeze blows and the vessel tends to set slightly towards the wharf, but no difficulty is experienced. However, with any strength in this breeze, sailing would be hazardous until it fell away or shifted, also it is safe to sail at night. Vessels turn to starboard when clear and leave the Group by the Northern route. All reefs show up well and the light structure on Lanalau Island is clearly seen over the trees.

If the anchor has been used for going alongside, it should be picked up first before leaving the berth, otherwise picking it up after letting go throws the ship out of the angled-off position.

MEDICAL: A trained local medical orderly gives medical attention when required. There is no doctor.

TANKERS: Mobil Wharf close West of main wharf. 2 oil tanks available (1×500 tons, 1×300 tons).

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: RIPEL possess a limited machine shop and fabrication shop capable of handling small ship repairs.

SURVEYORS: *Hold Inspection:* Compartments to be loaded are inspected by a Government Agricultural Department Inspector.

AIRPORT: Solomon Island Airways and Western Pacific Airlines run a domestic service between Yandina and Honiara.

Distance to Honiara is 65 miles.

GARBAGE DISPOSAL: No facilities.

WASTE OIL DISPOSAL: No facilities.

SEAMAN'S CLUBS: No Seaman's Clubs.

The Banika Club is licenced and has snooker, tennis court and swimming pool.

Churches, general stores, post office and telephone available nearby.

GENERAL:

Transport: There is no local public transport or car hire facility.

Stores: There are 2 general trading stores, one privately run and one run by a Co-operative Society. Both supply general household items including rice and tinned fish. Also there is a fisheries marketing centre where local fresh frozen fish can be purchased.

Market: Fresh vegetables and local fruits available twice a week, very cheap and very good.

Levers have their own butchery where fresh beef is obtainable at reasonable price. If requiring such meat, it is best to cable the Agent in advance, advising the quantity required.

Laundry: Not available.

Facilities: There is a small Social Club at Yandina, having tennis court, billiards and a small swimming pool. Ship's Officers are welcome.

The Club Manager is pleased to arrange a football match with local teams for those who are interested.

Charts: BA. 2975 and BA. 1469.

Weather & Currents: See Pacific Island Pilot, Volume 1.

AUTHORITY: Russell Is. Plantation Estates Ltd., P.O.Box 134, Yandina, Russell Islands, Solomon Islands. *Tel:* Yandina 677-21779. *FAX:* 677-21785. *Contact:* The Chief Engineer.

NOTES

Please also advise Shipping Guides Ltd.

Somali Democratic Republic

GENERAL:

REPORT: *Immigration Regulations:* According to new Somali Immigration Instructions, no foreigner of any sort (including seamen, supercargo or Owners' Representative) shall be allowed to enter into Somalia without a visa.

No transit visa will be allowed for seamen joining their vessels in Somali ports.

Anybody arriving at Somalia should first obtain entry or transit visa from the Somali Consulates in their respective countries.

BERBERA: 10.26 N. 45.01 E. (See Plan)

DOCUMENTS:
6 Crew Lists.
2 Stores Lists.
2 Lists of Articles owned by Crew i.e. tobacco, wine/spirits, cameras, binoculars, wrist-watch, radio, firearms/swords etc.
1 Cargo Manifest (must be made out in accordance with original Bill of Lading issued. In the column "Consignees" the name of the party to be notified must be mentioned complete with full postal address. Should specify weight in kilos and measurements in cubic metres). 6 copies to be sent in advance unfreighted; 2 copies to be sent in advance freighted; 2 copies to be sent by the ship's box.
1 Copy Non-Negotiable Bill of Lading for each Bill of Lading issued.
2 Lists Transit Cargo (total number of packages and total weight for each destination).
6 Lists of Passengers to be Disembarked.
2 Lists of Passengers In-Transit.
1 Health Document will be prepared on arrival of the vessel in port, on special local form.

PILOTAGE: Compulsory for vessels over 200 n.r.t. Vessels await Pilot on the Outer Roads, 5 – 10 cables S.W. of Raastamar Lighthouse. In case of stormy weather and rough seas, it is permitted to wait for Pilot on the Inner Roads.

ANCHORAGES: Outer anchorage 5 – 10 cables S.W. from Raastamar Lighthouse. Inner anchorage limited by the line between 10° 26' 16" N., 45° 00' 14" E. and between perpendiculars from the ends of this line towards Cape of Raastamar.

RESTRICTIONS: All ships should anchor in such a position that with any wind they should lie on the leading line, or Southward from it, or opposite the deep water pier.

MAX. SIZE: Draft 28 ft., length/breadth no restrictions.

HEALTH: Pratique granted after Port Authorities, including doctor, board vessel. Any suspected contagious illness aboard to be reported immediately to the doctor on arrival. Vessels calling from other Somali Ports subject to same procedure.

RADIO: Cable Agents giving ETA, draft, length and cargo via port radio station – 6OY call and reply in the frequency 500 kHz, working 450 kHz. Working hours from 0700 to 1700 hrs. local time. Traffic list 3 times a day at 0800, 1200 and 1600 hrs.

TUGS: Use ship's lines. There is one tug of 1,200 h.p. and one of 700 h.p. to assist vessels in berthing and unberthing.

BERTHING: Depth at pier 28 ft., length of pier 700 m. Ro/Ro facilities available.

Transhipment of cargo is allowed with exemption of Harbour Tax and Warehouse Dues. Only handling charges are levied according to port tariff.

STEVEDORES: Vessel must give accurate ETA at least 24 hours in advance to enable Agent to order gangs. No shore facilities, all cargo to be loaded and unloaded with ship's gear.
Working Hours: Normally 0700-1400 hrs., but loading to and discharging from vessel is performed day and night.

MEDICAL: General hospital facilities available, but specialised treatment and surgery is not. Yellow fever and cholera vaccination certificates inspected on arrival.

TANKERS: Discharge at mooring buoys with connecting hoses of American and British standards.

DENSITY: Salt water at all times.

FRESH WATER: Available alongside quay through hoses. Rate 15/20 t.p.h.

FUEL: Not available.

CONSULS: None.

REPAIRS: Port Management own a well-equipped workshop where minor repairs for ships can be carried out.

GANGWAY/DECK WATCHMEN: Gangway watchmen services carried out by Customs Police, food on vessel's account. Ships are also supplied with local watchmen through Agent.

OPENING/CLOSING HATCHES: Normally carried out by stevedores with the help of the crew. Vessel's crew may, if required by the vessel do so. Crew may close hatches prior to sailing.

CUSTOMS ALLOWANCES: 200 cigarettes, 2 packets of cigars and 5 bottles of wine. Cigarettes and spirits trafficking alongside and between vessels and shore strictly prohibited.

TIME: GMT plus 3 hours all year round.

HOLIDAYS: See "Mogadiscio".

TELEPHONES: No possibility for placing telephones on board.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Crew to carry Passport or Seamen's Book whilst ashore.

REGULATIONS: Livestock vessels are given priority.

GENERAL: Vessels should not dispose of any waste into harbour or o to quays, lower lifeboats or use radio station without prior permission.

DEVELOPMENTS: The present two berths have been extended by a further two berths.

SHIPMASTER'S REPORT: June 1981.
References: Guide to Port Entry, British Admiralty Chart BA 3530 Red Sea and Gulf of Aden Pilot. (NP64) 12th Edition 1980.
Documents:
2 Crew Lists.
2 Stores Lists.
2 Lists Personal Effects.
Cargo Manifest.
Copy Non-Negotiable Bill of Lading for each consignee.
2 Lists of Transit Cargo.
2 Passenger Lists. "Nil" declaration required.
1 Health Document filled in on berthing on special local form.
1 Copy Arrival Report on special local form.
1 Copy Ship's Record and Master's Report on special local form.

Pilotage: Two Somali Pilots available. Pilot boards at Outer Anchorage from tug "Saaxil" which has black hull, white upperworks, funne markings: blue funnel with white star. Tug has VHF Channel 16. Pilo can also be contacted via Somali Shipping Agency on VHF Channel 16 call sign "Somship Berbera". Agents can usually only be contacted from 0900 – 1200 hrs. and 1600 – 1800 hrs.
Anchorage: Good anchorage obtained in Outer Anchorage shown on BA 3530. Somali Harbour Regulations forbid anchoring in such a way as to obscure leading and other lights.
Radio: Normal 72, 48 and 24 hour notice to Agents via Aden Radio Berbera Radio (6OY) not heard.
Fresh Water: Only supplied alongside at Commercial Wharf. No water barge available and tug "Saaxil" unable to deliver water at Oil Berth or Anchorages.
Tugs: One tug "Saaxil", 1,100 b.h.p., fitted with VHF Channel 16. No tug lines, all ship's lines.
Gangway/Deck Watchmen: Two watchmen are compulsory under Somali Harbour Regulations. Ship has to provide food and accommodation. Charges for watchmen:
45 Somali shillings for 12 hours (daytime).
55 Somali shillings for 12 hours (night time).
Fridays 50% additional and 26th June 50% additional. 1st July and other public holidays 100% additional.
Customs Allowances: 200 cigarettes or 0.5 lb. tobacco or 0.5 lb. cigars 1 bottle of spirits.
Airport: The landing ground shown adjacent to the Oil Tank Farm on BA Chart 3530 has now been taken over for extension of the tank farm and is no longer in use.

A new military airfield is situated 2 miles S.W. by W. from the old landing ground.

All commercial flights are from Hargeisa, 160 km. S.W. of Berbera with 3 flights weekly to Mogadiscio.
Time: GMT plus 3 hours all year round.
Agency: Somali Shipping Agency. Tel: Berbera 142. Cables: Somship Berbera. No telex facilities available and all cables have to be sent to Somali Shipping Agency, Mogadiscio, for transmission out of Somalia.

Somali Shipping are the only Agency allowed in Berbera, being a Government Agency.
Berthing: Superceded by later "Reports".
Fuel: None available.
Repairs: Minor repairs can be carried out but nothing that could not be carried out by ship's staff.
Weather: During the ship's stay at Berbera the "Kharif" blew as follows
0000 hrs., S.W., Force 3.
0400 hrs., S.W. by S., Force 6.
0800 hrs., S.W., Force 6 to 8.
1200 hrs., S.W., Force 5.
1600 hrs., S.W. by S., Force 3.
2000 hrs., Calm.

SHIPMASTER'S REPORT: June 1983.
Restrictions: All navigational lights are extinguished.
Pilotage: Only during daytime. Departure at night can be discussed with the Pilot.
Radio/VHF: Coastal radio station is out of order and will not be repaired No VHF port radio station but sometimes Pilot or Agent will call using VHF from vessel in port.
Medical: Cholera and yellow fever vaccinations are inspected on arrival
Tankers: Max. draft for tankers is 35 ft. and berthing will be effected with 2 anchors forward and 6 ropes to the mooring buoys, i.e. 2 stern rope and 1 breast rope on each side. Distance from stern to jetty about 20 m – stern discharge. Tankers up to 24 ft. – 25 ft. draft can berth betwee the buoys and use their manifold. In both cases a 6 in. shore hose i hauled up to the ship's connection, max. back pressure allowed is 3 ba and discharge rate of white products about 250 cu.m./hour. After each grade, water has to be pumped to clear the shoreline. Position of jetty Lat. 10° 26.18' N., Long. 45° 00.8' E., and a steel constructio framework pier runs from this position in direction 146° to the shor Loading arms at pier are in state of deterioration. When berthing sounding by hand is advisable and have tidal heights available.

SHIPMASTER'S REPORT: January 1986.

Details concerning lights, berths and buoys considerably different from Admiralty charts. No information forthcoming from Port Authori concerning changes, so positions and distances only approximate an obtained by radar. 4 light buoys laid on approaches to Berbera harbo limits, as these buoys not laid by the Port Authority there is no guarant that they will be maintained, either lit or in position.

R.W. Fairway Buoy, unlit, 306°×0.88 miles from Raastamar Light.

R. buoy Fl.R., approx. 4 secs., 208°×0.25 miles from Raastamar Light.

R. buoy Fl.G., approx. (3) 10 secs., 262.5°×0.58 miles from Raastamar Light.

R. buoy Fl.G., characteristics and position not ascertained, but is South of leading lights and Eastwards of outer anchorage.

2 mooring buoys in inner anchorage, 102°×0.64 miles and 115°×0.5 miles from Raastamar Light. Wreck in inner harbour now has quick flashing red light on the top of its funnel. Leading lights into the harbour are now flashing white lights. Mooring buoys around the end of the tanker terminal appear as shown on the Admiralty chart.

In the tank farm new white tanks, for United States' forces, stand out very well, their position not ascertained, but they have been built at the Western end of the tank farm. Tank farm now very well illuminated, lights show very well out to sea. These lights far better than town lights on night approach, town lights very often shut off in evenings. Raastamar Light was sighted at a distance of 15 miles, but Pilots state that it is still only 6 mile light.

Main quay has been extended Westwards, on same line as old quay, by approximately 180 m. New section well fendered with heavy rubber sections on chains. Old section of quay, the facing is badly damaged throughout most of its length, ships will require fenders to keep well off it. No sheds built on new section, but small compound for U.S. Forces use in S.W. corner. A concrete Ro/Ro ramp built at extreme Western of new quay, for vessels to berth with 2 anchors out, ramp steel-faced and steeply angled. Only livestock seen using this ramp. An additional causeway has been built out to the new section, but not seen in use and kept locked up. Shaab Quay still in use, but only for dhows and small local coasters.

During period spent in Berbera (15 days), all ships were kept at outer anchorage until required, inner anchorage not used at all. Only vessels to come to port during this time were livestock carriers, loading sheep, goats and camels for Jeddah; and one passenger/cargo ship from Jeddah.

Winds consistently freshened every afternoon from Northeasterly direction, up to Beaufort Force 6 at times and then dying away to a flat calm by midnight. Harbour very sheltered from this direction and slight sea caused no problems.

Shore watchmen compulsory, and if pilferable cargo on board, it is possible vessel will have armed Customs/Port Police as well. Vessel to supply all with meals and sleeping place if possible.

Garbage collection compulsory, but vessel does not have to accept this every day, can specify whether periodic collection required.

Fresh water appeared of satisfactory quality, no apparent restriction on quantity.

No laundry facility available.

Chandler available, but expensive and did not appear interested in supplying small quantities.

Communications very poor externally, no telex available at Agents. All overseas telephone calls routed via Mogadiscio, this line unreliable.

American base at airfield has telex and satellite telephone, but use of these facilities expensive and not always available. However, it is possible to get permission to use the ship's radio equipment for communications, though when vessel first arrived the authorities were intending to seal radio equipment.

Local maritime station out of order.

Crew have to hand Passports/Discharge Book/I.D. card in at gate when going ashore. No pass issued or receipt given. No known curfew, but police very nervous after dark and gate should be approached with caution, as police are armed, so that crew member can be identified.

On approaching port, vessel called continuously on Channel 16 from 0530 hrs. local time onwards, but got no reply, so vessel anchored in outer anchorage. Berbera Port came on the air at 0900 hrs. local time, no reply from Pilots at all, though they assured me that they operated from about 0700 hrs. to dusk. Vessels should be careful when approaching outer anchorage in darkness as ships may be encountered at anchor without lights. One Ro/Ro ship is alleged to have been there, abandoned, for at least a year; there only being a shore watchman onboard. Vessel cleared by Authorities whilst at anchor, quarantine doctor wanted to see that all crew members had current yellow fever and cholera certificates. Customs sealed bond by glueing piece of paper over door. Radio was supposed to have been sealed, but because no separate radio room they decided not to do so. Application in writing through Agents for water, engine trials, boat in water, painting from quay, etc.

No photography in port area and this included onboard vessel, but despite this did not find that anyone stopped crew members taking photos of livestock being loaded on other vesssels.

2 small tugs in harbour, but only one seen in use. This takes Pilot out to incoming vessels, Pilot informed that this tug, the oldest one, is only suitable for pushing and not towing. Pilot does not necessarily take vessel out at night, gave instructions for departure and then acted as boatman for letting go vessel.

Nearby airfield has civilian flights every 2 days linking Berbera with Mogadiscio and Jeddah, but it wasn't clear whether seats could be obtained for these flights or whether passengers had to travel to Hargeisa to fly, about 2 hours drive. From there flights go to Mogadiscio and Djibouti. However, I imagine repatriation from this area to be a lengthy and tedious business only to be attempted in an emergency.

SHIPMASTER'S REPORT: August 1994.

IMPORTANT: Most seafarers are not aware of the fact that Somaliland is a separate entity, an independent State and no more a part of Somalia. The Port Authorities would rather you do not fly any courtesy flag, but certainly *not* a Somalian one. As this vessel (8,178 d.w.t. tonnes, MOGAS and gas oil, as part cargo only) was calling for the first time, the Agents were only too pleased to present the vessel with a flag.

Port Limits: As per report in "Guide to Port Entry".

Documents:

4 copies Crew List.
2 copies Crew Personal Effects Declaration.
1 copy Vaccination List.
Last Port Clearance.
Health Declaration.

All Port Officials were very courteous and promptly completed their formalities and departed.

Pilotage: Since no telecommunication was possible with Agent, all information regarding ETA, vessel's particulars, etc., was sent through the Charterers at Dubai and constantly updated all other information as per "Guide".

Anchorage: As per "Guide". Approach anchorage with extreme caution as all navigational marks unlit. The buoys were not existant. Vessels at anchor, even though manned, were not exhibiting any lights. In the months from June to September (South West Monsoons), wind picks-up from a S.W.'ly direction from about 2100 hrs. in the evening until about 1100 hrs. the following morning.

Max. Size: Up to about 40,000 d.w.t. and 28 ft. draft.

Health: Usual Health Declaration form completed on arrival.

Radio: No working radio station.

VHF: Channel 16 watch maintained. Operator responded promptly. Usual information is requested many times.

Radar: No service available.

Tugs: No tugs available. All berthing undertaken without assistance. Two mooring boats assist in running lines to the buoys. One boat is a wooden boat and the other is an enclosed lifeboat, which is also used for Pilot boarding and disembarking.

Berthing: Berthing is restricted to daylight hours only.

During monsoons, vessels berth only after wind has died down. No unberthing operations after sunset at tanker terminal. We observed small cargo vessels leaving port at about 2200 hrs.

Bulk of the cargo shipped out of this port is livestock. Some general cargo is also imported. Most vessels observed were rather small cargo vessels. All gear used was ship's gear.

A dilapitated terminal exists. None of the gear is used anymore. The vessel makes fast to 7 buoys just off the terminal. The 8th buoy, which is ideally placed to make fast the breast line on the starboard bow, has sunk with no clue as to clearance over it. Two mooring boats assist in making fast to the buoys.

The Pilot gives all orders to the boats. These boats also serve as pilot boats, routine launches, etc.

Density: 1025 – 1026.

Fresh Water: Fresh water is only available at the general cargo berths. However, only limited quantity of fresh water is available.

Fuel: No fuel available.

Consuls: None.

Repairs/Dry Docks: No facilities exist.

Surveyors: Terminal engineer acts as surveyor.

Watchmen: Two watchmen compulsory (both men slept from the time they boarded until the next evening when vessel was ready to sail, only waking up for their meals).

Customs Allowances: 200 cigarettes and 1 litre of alcohol.

Repatriation: Possible, but suggested only in cases of extreme emergency.

Airport: One airport with very limited services.

Agent: M/S Modaria served the vessel and found to be very co-operative.

General: All other information as described by other Shipmasters. Services such as telephone, banking, Seamen's Club, Waste Disposal, etc., are not available.

AUTHORITY: Somali Ports Authority, Berbera.

CHISIMAIO (Kismayu): 00.22 S. 42.34 E.

DOCUMENTS:

6 Lists of Crew.
2 Stores Lists.
2 Lists of articles owned by Crew, i.e., tobacco, wine/spirits, camera, wrist-watch, radios, binoculars, firearms/swords, etc.
1 Cargo Manifest (must be made out in accordance with original Bill of Lading issued. In the column "Consignees" the name of the party to be notified must be mentioned complete with full postal address. Should specify weight in kilos and measurement in cu.m.). 6 copies to be sent in advance unfreighted; 2 copies to be sent in advance (freighted). 2 copies to be sent by ship's box.
1 copy non-negotiable B/L for each B/L issued.
2 Transit Cargo (total number of packages and total weight for each destination).
6 Lists of Passengers to be Disembarked.
2 Lists of Passengers in Transit.
1 Health Document will be prepared on the arrival of the vessel in port, on special local form.

PILOTAGE: Compulsory for vessels over 200 n.r.t. Vessel picks up Pilot at approximate position Lat. 0° 24' S., Long. 42° 34' E., 2 miles S.E. of Fairway Buoy.

ANCHORAGES: In the port basin, from 27 ft. to 30 ft. deep, excellent holding ground.

RESTRICTIONS: Entrance channel about 200 m. wide, marked by buoys. Entrance effected during daylight hours only. Port closed for vessels from 1800 hrs. to 0600 hrs.

MAX. SIZE: Max. draft 28 ft. at LLT.

HEALTH: Pratique granted after Port Authorities, including doctor, board vessel. Any suspected contagious illness aboard to be reported immediately to the doctor on arrival. Vessels calling from other Somali ports subject to same procedure.
RADIO: No local coastal radio operating at present. Cables to Agent could be sent through normal postal R/T and W/T services.
TUGS: Two tugs of 800 h.p. each are available to assist ships in berthing and unberthing. Ship's lines used.
BERTHING: Port consists of 2 L-shaped quays, one 340 m. length, the other 280 m. No specific requirement to berth in the port. Vessels entering port basin after 1745 hrs. will berth next day at 0630 hrs. Vessel must sail before 1730 hrs. otherwise sailing will be postponed to next day at 0630 hrs.
STEVEDORES: Vessel must give accurate ETA at least 24 hours in advance to enable Agent order necessary gangs.

No shore facilities, all cargo to be loaded and unloaded with ship's gear.
Working Hours: Normally 0700 hrs. – 1400 hrs. but loading to and discharging from vessels is performed day and night.
MEDICAL: Hospital facilities available, but specialised treatment and surgery is not. Yellow fever and cholera vaccination certificates inspected on arrival.
TANKERS: See "Shipmaster's Report".
FRESH WATER: Available at wharf through hoses, rate 15/16 t.p.h.
FUEL: Not available.
CONSULS: Italian Consul only.
REPAIRS: No facilities available.
GANGWAY/DECK WATCHMEN: Gangway watchmen service carried out by the Customs Police. Food on vessel's account; ships are also supplied with local watchmen through Agent.
OPENING/CLOSING HATCHES: Normally carried out by stevedores with the help of the crew. Vessel's crew may, if required by the vessel, do so. Crew may close the hatches prior to sailing.
CUSTOMS ALLOWANCES: 200 cigarettes, 2 packets of cigars and 5 bottles of wine. Cigarettes and spirits trafficking alongside and between vessels and shore strictly prohibited.
REPATRIATION: Air communication via Mogadiscio.
AIRPORT: About 6 km. N.W. of the port.
TIME: GMT plus 3 hours all year round.
HOLIDAYS: See "Mogadiscio".
TELEPHONES: No possibility for placing telephones on board.
IDENTIFICATION CARDS: Crew to carry Passport or Seaman's Book whilst ashore.
SHORE LEAVE: Permitted.
REGULATIONS: Banana and livestock vessels are given priority.
GENERAL: Vessels should not dispose any waste into harbour or on to quays, lower lifeboats or use radio station without prior permission.
DEVELOPMENTS: Facilities to be improved to enable port to handle liquids, livestock and general cargo.

SHIPMASTER'S REPORT: September 1985.
Vessel: 19,000 d.w.t. Discharged gas oil.
General Remarks: ETA messages and Notice of Readiness to be sent via Djibouti Radio, using telex to Agents at Mogadiscio. (Mogadiscio Radio not working). Port of Kismayu not fitted with VHF. The port was constructed in 1967 with approach channels dredged to 8.0 m. chart datum. (Learned from Pilot that no dredging was performed in the channels after 1967).
Approaches: Safe approach is only possible by using Passo Nord, using the leading line N.E. Serpenti-Collina Rotonda Beacon (see Chart 1052 Baia di Chisimaio), which are clearly visible by daylight. All navigational lights are extinguished by night. Sailing from Kismayu also through Passo Nord. Passo Levante is very dangerous and strongly afffected by cross currents.
Anchorage: Safe anchorage can be obtained 1 mile S.E. of Serpenti Lighthouse in 9 – 10 fathoms of water with good holding ground. The anchorage however is exposed to swell causing the vessel to roll during the anchoring period. During the S.W. monsoon this anchorage can be unsafe.
Pilotage: The Pilot boards in a position 0.7 miles S.E. from Serpenti Lighthouse.
Harbour and Approaches: The harbour of Kismayu is artificial, constructed by rocks seawards and concrete jetties inwards, enabling to receive vessels up to 210 m. long with a maximum draft of 28 ft. Berthing daylight only. From the pilot area to the port entrance the route is via Passo Interno steering to a buoyed channel using the leading line Scoglio Pilone-Collina del Segnole (Chart No. 1052). The outer channel is effected by swell, however after passing I. Favatu the swell will cease when entering the inner channel.

As the approaches are effected by swell and the charts are not very accurate, it is not advised to enter or leave the port at LW even with drafts less than 24 ft.

We arrived with a max. draft of 24 ft. 01 in. and entered the channel approximately 2 hours after LW with a moderate swell from S.E. running into the bay. The echosounder was switched on during the whole operation. On entering the channel the reading fell to zero and a huge amount of mud was observed.

After entering the port the vessel is stopped and swung around by using 1 tug of 350 h.p., approaching the berth head on. Starboard anchor is used to swing the vessel again by using the tug to berth portside alongside with 4 head and stern lines and 2 springs fore and aft.
Documents: Papers required on arrival:
6 Crew Lists.
3 Stores Lists.
3 Personal Effects Lists.
International Declaration of Health.
Vaccination List.
Copy of Bills of Lading.
Discharge Facilities: One long flexible hose of 8 in. connected to 8 i pipeline. Distance to shore tanks approximately 3,200 m. Max. allowe back pressure 4 kg. – 6 kg. depending on Loading Master.
Port Facilities: Drinking water can be obtained from the jetty, but is n recommended, as this water is pure river water. Other facilities nil.
Remarks: The tug is fitted with VHF and the Pilot will use this VHF t contact ships only if the tug is manned. Vessels are warned immediatel after berthing that permission to sail is not given until all bills and dutie have been paid by the Agents, indicating that some vessels have bee delayed for 4 days.

AUTHORITY: Somali Ports Authority, Chisimaio.

MOGADISCIO: 02.02 N. 45.20 E. (See Plan

DOCUMENTS:
2 Lists of Crew.
2 Stores Lists.
2 Lists or Declarations of Crew's Baggage, i.e. tobacco, wine/spirits camera, wrist-watch, radio, binoculars, firearms/swords, etc

Vessels calling from other Somali ports subject same procedure.

Cargo Manifest (must be made out in accordance with original B/L issued. In the column "Consignees" the name of the party to be notifie must be mentioned complete with full postal address. Should specif weight in kilos and measurement in cubic metres). 6 copies to be sen in advance unfreighted; 2 copies to be sent in advance freighted an 2 copies to be sent by ship's box.
2 Lists Transit Cargo (total number of packages and total weight fo each destination).
6 Lists of Passengers to be Disembarked.
2 Lists of Passengers in Transit.
1 Health Document will be prepared on the arrival of the vessel i port, on special local form.
PILOTAGE: Compulsory for vessels over 200 n.r.t. Pilot joins vessel a anchorage about 0.5 miles offshore. Pilot can be requested b International Code signals or through VHF using Channels 12, 14 or 16
ANCHORAGES: About 0.5 miles offshore in depths up to 45 ft., in ope roadstead. Because of occasional heavy swell maximum recommende draft 31 ft.
RESTRICTIONS: Berthing/unberthing of vessels is restricted to dayligh hours. Max. draft permissible is 10 m. at general cargo berths and 12 m at tanker berths.
HEALTH: Pratique granted after Port Authorities including doctor, boar vessel. Any suspected contagious illness aboard to be reporte immediately to the doctor on arrival. Vessels calling from other Somal ports, subject to same procedure.
RADIO: No local coastal radio operating at present. Cables to Agen could be sent through normal postal R/T and W/T services.
TUGS: Tugs join vessels at anchorage or as directed by the attendin Pilot. Vessel's lines normally used. No extra charge for tug's lines.

Two tugs of 1,400 h.p. each available and 1 tug of 4,000 h.p. availab for salvage and rescue operations.
BERTHING: Incoming vessels are assigned berths on a turn bas subject to operational requirements.
Harbour: Alongside deepwater port protected by 820 m. stron breakwater.
Berths: 5 berths. Berth lengths vary from 170 m. – 200 m. with depth alongside 8 m. – 12 m.
BULK CARGO FACILITIES: None.
STEVEDORES: Vessel to give accurate ETA at least 24 hours i advance to enable Agent order necessary gangs. No shore facilities, a cargo to be loaded and unloaded with ship's gear.
Working Hours: Normally 0700 hrs. – 1400 hrs., but loading to an discharging from vessels is performed day and night.
CRANES: Only ships' derricks are used. No portal cranes at quay b a number of mobile cranes are available for handling and stacking carg with maximum lifting capacity of 50 tons. No floating cranes availabl
MEDICAL: No advance notice for medical attention required. Hospit facilities available but specialised treatment and surgery is not. Yello fever and cholera certificates inspected on arrival.
TANKERS: One berth available for crude oil tankers with a draft of 32 *Ras Sif:* See "Shipmaster's Report" dated June 1981 and "Report" dat June 1995.
DENSITY: Salt water at all times.
FRESH WATER: Available alongside through hoses at a rate 15 – 20 t.p.h.
FUEL: Fuel oil only may be available, check with Agent.
FIRE PRECAUTIONS: Fire engines situated within easy reach of doc 24 hours per day. The tugboats are also equipped with fire fighti appliances.
CONSULS: Algeria, Belgium, Peoples' Republic of China, Egyp France, Germany, India, Iran, Iraq, Italy, Kenya, People's Democra Republic of Korea, Kuwait, Libya, Netherlands, Nigeria, Pakistan, Qat Romania, Russia, Saudi Arabia, Sudan, Syria, U.A.E., U.K., U.S. Yemen, Yugoslavia.
REPAIRS: No facilities available.
DRY DOCK: None available.
GANGWAY/DECK WATCHMEN: Gangway watchmen services carr out by the Customs Police, food on vessel's account. Ships are al supplied with local watchmen through Agent.
OPENING/CLOSING HATCHES: Normally carried out by stevedo with the help of the crew. Vessel's crew may, if required by the vess do so. Crew may close the hatches prior to sailing.

CUSTOMS ALLOWANCES: 200 cigarettes, 2 packets of cigars and 5 bottles of wine. Cigarettes and spirits trafficking alongside and between vessels and shore strictly prohibited.
REPATRIATION: Facilities available.
AIRPORT: About 5 km. to the West.
TIME: GMT plus 3 hours all year round.
HOLIDAYS: Idul Fitr, (1st & 2nd Shawaal); Idul Adha, (9th & 10th Dilhija); Prophet Mohammed Birthday, (12th Rabiul Awal); International Labour Day, (1st May); Independence Day N. Region, (26th June); ndependence & Union Day, (1st July); Revolution Festivals, (21st and 22nd October).
POLICE/AMBULANCE/FIRE: Police 28088; Ambulance 30000; Fire 35055.
TELEPHONES: Arrangement for placing telephones on board is not available.
DENTIFICATION CARDS: Crew to carry Passport or Seaman's Book whilst ashore.
SHORE LEAVE: Permitted.
DELAYS: Nil, except when other ships are working alongside.
GENERAL: Vessels should not dispose of any waste into harbour or on o quays, lower lifeboats, or use radio station without prior permission.
Tidal Range: 2.5 m.
Shipchandling: Available.
Major Exports: Fresh bananas, livestock, hides and skins and rankincense.
mports: General cargo, crude oil, etc.
DEVELOPMENTS: New wharf with Ro/Ro terminal recently completed. Container yard and freight station to be constructed.

SHIPMASTER'S REPORT: March 1981.
Documents:
1 Declaration of Health (Local Form).
1 Set Vaccination Lists.
5 Crew Lists.
6 Landing Passenger Lists.
In-Transit Passenger Lists.
Ship's Record and Master's Report (Form A).
Arrival Report (NSL Form).
Application for Temporary Use of New Harbour (Local Form).
1 Set Cargo Manifests.
2 Sets Discharging Cargo Plans.
Stores List (Company Form).
Crew Declarations.
Notes: Application for use of Harbour Form contains highly objectional iability clause 4(c).
No mail or telex service, no Agency assistance.
Health: Radio Pratique not available.

SHIPMASTER'S REPORT: June 1981.
Documents:
2 Crew Lists.
2 Stores Lists.
2 Personal Effects Lists.
Cargo Manifest.
Copy Non-Negotiable Bill of Lading for each consignee.
2 Transit Cargo Lists.
2 Passenger Lists. "Nil" declaration required.
1 Health Document filled in on berthing on special local form.
2 Copies Declaration of Ship's Details and Cargo Carried for Port Harbour Master on special local form.
4 Copies Pilotage Declaration on special local form.
Pilotage: Pilots listen 0600 hrs. to 1200 hrs. on VHF Channels 16 and 12. At other times the Pilot Station is usually manned. Pilot boards from a large pilot cutter at the vessel's anchorage position. Pilot cutter has black hull, white upperworks with "Pilot" in black letters. Manropes are essential for use on the pilot ladder due to the normal heavy swell running.
Anchorage: Good anchorage in sandy bottom in 10 – 11 fathoms (approx.), 4 cables South of New Port Breakwater. Monsoon causes currents of up to 4 – 5 knots during S.W. monsoon. (Ref: Admiralty Publication, Africa Pilot Volume III, and latest supplement.
The whole bottom area is foul due to cargo lost during time port was operated as a surf port. An anchor and cable is reported to lie close to the intersection of the 311° and 278.42° leading lines.
Somali Harbour Regulations forbid anchoring in such a position as to obscure leading and other lights.
Health: Local doctors available.
Radio: Normal 72, 48 and 24 hour notice to Agents via Aden or Mombasa Radio. Mogadiscio Radio not heard during vessel's stay in Mogadiscio.
Fresh Water: Available from Berth Nos. 1, 2, 3, 4 and 5 at approximately 20 t.p.h.
Stevedores: Rigging of derricks and opening/closing hatches are the responsibility of ship's crew.
Gangway/Deck Watchmen: Two watchmen per vessel. Ship has to provide accommodation and food.
Customs Allowances: 200 cigarettes, or 0.5 lb. tobacco or 0.5 lb. cigars. Spirits 1 bottle. Bond sealed on arrival but Customs very good and will come down to give issue whenever required.
Airport: Regular international flights from airport situated 8 km. from port. No problems with repatriation. Crew members joining are issued with entry visas at Mogadiscio Airport providing Agents are informed in sufficient time. Mogadiscio is the only international airport of entry. There are local flights approximately 3 times a week to Kisimayu and Berbera.
Time: GMT plus 3 hours all year round.
Berths: Ras Sif Oil Terminal, Lat. 2° 01.05' N., Long. 45° 20.05' E.
This is a sea berth 1 cable S.W. of Ras Sif. (See "Plan"). During the S.W. monsoon, vessel secures with both anchors down on a heading approximately 210° (true) about 1 cable offshore. On this vessel's call 10 shackles were put out on each cable position "A" shown on plan. On vessel's approach to the berth no tugs were available for assisting in berthing as fuel for tugs had run out and our vessel had the new supplies on board. Three attempts were made to secure at the Discharge Berth. Final position was that shown in position "A". In this position vessel was heading 185° (true), 10 shackles out on each cable, 3 ship's lines to shore and 2 shore lines to ship. The vessel at this time rode to the wind at 180° – 185° and did not take up a heading into the S.W. monsoon at any time. The effects of the Somali current during vessel's stay was negligible at the berth. The normal berth off Ras Sif is that shown in position "B". I consider this position dangerous at this time of the year as the wind being mainly Southwesterly swings the vessel's stern up towards the shore, far closer than in position "A".
Lines: 2×4 in. floating hoses provided for connection to stern discharge manifold from red painted structure close South of the B & W truncated pyramid on Ras Sif. Maximum discharge pressure 3 kg./sq.cm. (approx. 150 t.p.h.). Height of tanks 24 m., distance to tanks 350 m. 1×6 in. line is available for midships manifold but this is only suitable for small ships. Shore requires water plug prior to commencement of discharge, on completion of each grade and on completion of final grade. Shore staff connect pipelines.
Maximum draft on berth 40 ft.
On the evening of 12th June the S.W. monsoon blew very strongly accompanied by a very heavy 15 ft. – 20 ft. swell. Vessel being light was moving a great deal and was eventually forced to carry out an emergency departure after jettisoning pipelines following a water plug through and cutting all ship's lines. This berth is wide open to the effect of the S.W. monsoon and when the monsoon is blowing strongly the weather conditions combined with the very poor unmooring facilities render the berth untenable. For these reasons this berth was declared by the Master to not be a "Safe Berth" within the meaning of the relevant Charter Party.
Mogadiscio New Port: Following Ras Sif being declared an unsafe berth arrangements were made for all floating hoses in possession of the Oil Terminal to be led via storm drains to Berth No. 5 following suggestions made by the ship. Vessels berthed stern up to Berth No. 4 or Berth No. 5 and cargo discharged via stern manifold to Ras Sif Oil Terminal.
Berth No. 5: Maximum draft 27 ft. Berth is well fendered with old tyres. Due to length of berth vessel berthed with starboard anchor down, 6 shackles on same, as maximum vessel length on berth 180 m. This berth is at present being extended by a further 200 m. Maximum discharge pressure 3 kg./sq.cm., maximum discharge rate 150 t.p.h. for products.
Berths No. 1, 2, 3: Maximum draft 32 ft. All cargo discharged by ship's gear. On Berth No. 3 there is one 8 in. pipeline to the refinery 10 miles South of Mogadiscio for crude oil only. Booster pumps for this line are provided at the Ras Sif Oil Terminal.
Berth No. 4: Drafts alongside from 27 ft. – 32 ft. and is provided with a bridge for landing of livestock although to date this bridge has not been used. This berth is normally used by fishing vessels and smaller ships as a lay-by berth.
Tugs: Two tugs available. "Xamar 1" and "Xamar 2". Both fitted with VHF, 1,500 b.h.p. No tug lines. Ship's lines used for all operations.
Bunkers: Not available.
Repairs: Not available.
Somali Port Regulations: Notice to all ships, Mogadiscio Port. Abstracts from Somali Ports Authority Regulation No. 67 of 15-4-1978.

1. All ships must keep their VHF open and standby when approaching the Port and while remaining berthed alongside, on Channel 16.
2. All ships having on board persons suffering from contagious diseases must hoist the quarantine flag when anchoring and keep it hoisted until inspected and instructions given by the Port Health Officer.
3. While anchored in the roads, ships must keep clear from bearing directly obstructing leading lights and beacons on shore.
4. Ships having an n.r.t. exceeding 200 must engage harbour Pilots and tugs while berthing or unberthing at the deep water berths.
5. Ships are not allowed to throw any kind of refuse, dirt or oil spillage into the harbour waters.
6. Ships are not allowed to carry out engine repairs without permission from the Port Manager, while at berth.
7. Ships anchored in the roads or berthed alongside must keep the Somali national flag hoisted at a height clearly visible for a reasonable distance.
8. All ships lying alongside berths must engage the garbage service provided by the authorised garbage group of the harbour.
9. Oil tankers must have on board their own facilities for the retention of oil drainage and sludge, dirty ballast and tank washings.
10. It is prohibited to discharge oil, oily mixtures and any chemical residues at any distance less than 50 nautical miles from the shore line.
11. Officers of the Port Management are authorised to inspect the efficiency of facilities provided on board vessels for the retention of dirty substances, solid or liquid.
12. All ships at anchor or berthed alongside must take sufficient precautionary measures to fight fire outbreaks.
13. All ships berthed alongside must provide ratguards for their mooring lines.
14. Rigging of ship derricks and opening and closing of hatches are the responsibility of the ship's Master and crew.
15. Crew members of all vessels berthed alongside or anchored in the roads are not allowed to go ashore later than 2300 hrs.
16. Crew members going ashore and wishing to return to their ships are not allowed to enter the Port later than 2300 hrs.

Signed – Port Manager

REPORT: June 1995.
The following Report was prepared by a Master who was a Pilot at the port from 1978 until 1985. During this period, he trained others as Pilots and advises that only very experienced Pilots should handle vessels during the Monsoon season.
Mooring at Ras Sif: Ships must keep the stern out from shore by at least 30 m. (in a depth of over 10.0 m.). The zone is clear from obstructions and rocks.

Ships must have a good angle between the anchors and 6-7 shackles out during the good season (April and September), and 9-10 shackles out during other periods, especially June-July-August (S.W. Monsoon) and December-January-February (N.E. Monsoon).

The manifold (6 in.) is old and very short: 80 m. – 100 m. Port tugs are of very little help as it is difficult for them to manoeuvre due to the continuous swell.

Ships can stay with reasonably safety for the loading/discharging operations with 6-7-8 shackles on both anchors as shown in Position "A" in the "Guide" and Position "A" in this Report's plan.

Unfortunately this situation only persists for a short period between the two Monsoons (April/May and September-November).

June-August is the period of S.W. Monsoon with a wind blowing from S.W. at Force 7/8 with Sea State 6/7.

January and February is the period of N.E. Monsoon with winds blowing from the East at Force 6/7 with Sea State 5/6.

During the two Monsoon periods, the ship cannot moor in the normal position as wind and waves/swell would be beam on and would cause breakage of the stern ropes and manifold.

Accordingly, from my experience of 7 years, I think that for an eventual reopening and for a call during June-August, the berth should be declared unsafe and dangerous. During the period of S.W. Monsoon, ships must keep to position "B" of this Report (heading 200°/210°), thereby receiving the wind/sea on vessel's starboard bow. Engine to be on stand-by at all times and contiuous watches to be maintained ready to let go manifold and ropes quickly if there is a sudden change in wind. The vessel should then move to the anchorage 5-6 cables off the breakwater. It is too dangerous to anchor one mile off as it is deep and the anchor will drag.

December-March is the period of N.E. Monsoon (really from East), but not as strong as S.W. Monsoon as winds only reach Force 6/7.

The position is safe if well and properly anchored (always 2 anchors, with the port anchor dropped about 80 m. – 100 m. off the breakwater and starboard anchor in open sea with 9/10 shackles of chain) heading 110°/120° and receiving the wind/sea about 20° on the port bow. This position "C" is not shown in the "Guide".

My recommendations would be that the pipeline should be extended and experienced European Pilots should be available. Also the pipeline should end with a well anchored manifold buoy for vessel to moor to.

AUTHORITY: Somali Ports Authority, P.O.Box 935, Mogadiscio, Somalia. *Tel:* 30081/3. *Telex:* 708. *Cables:* Somport, Mogadiscio.

NOTES

Please also advise Shipping Guides Ltd.

South Africa

GENERAL:

NOTICES: Following is an extract of British Notices to Mariners No. 1647(1979).

Routeing of Laden tankers off the coasts of South Africa (West):

Laden tankers in the Summer months should pass not less than 10 miles South of Alphard Banks (Lat. 35° 02' S., Long. 20° 50' E.)(See *Africa Pilot Vol. III)* and then keep 25 miles off the following points:

Cape Agulhas	(Lat. 34° 50' S., Long. 20° 01' E.).
Quoin Point	(Lat. 34° 47' S., Long. 19° 39' E.).
Cape Point	(Lat. 34° 21' S., Long. 18° 30' E.).
Slangkop Point	(Lat. 34° 09' S., Long. 18° 19' E.).
Cape Columbine	(Lat. 34° 50' S., Long. 17° 51' E.).

During the Winter, laden tankers should maintain the recommended distance offshore until the Winter Load Line Zone is reached and then keep as close to that line as possible. This will entail passing North of Alphard Banks and then about 12 miles off Quoin Point and Cape Point.

Vessels proceeding to the Replenishment Area (Lat. 33° 55' S., Long. 18° 15' E.). off Cape Town should maintain the above distances off shore until in a position where course can be safely altered to approach the Replenishment Area crossing the main traffic flow as nearly at right angles as possible.

Routeing of Laden tankers off the coasts of South Africa (East):

Laden tankers in the Summer months should pass 25 miles off the following points:

South Sand Bluff	(Lat. 31° 20' S., Long. 29° 58' E.).
Bashee River	(Lat. 32° 14' S., Long. 28° 55' E.).
Hood Point	(Lat. 33° 02' S., Long. 27° 54' E.).
Cape Recife	(Lat. 34° 02' S., Long. 25° 42' E.).

and then steer to pass 10 miles South of Alphard Banks (Lat. 35° 02' S., Long. 20° 50' E.).

During the Winter, laden tankers should maintain the recommended distances off shore until the Winter Load Line Zone is reached and then keep as close to that line as is possible. Between Cape Recife and Cape Agulhas this will entail passing North of Alphard Banks. It is recommended to pass about 6 miles North of these banks.

HOLIDAYS: *Public Holidays:*

January 1st	New Year's Day.
March 21st	Human Rights Day.
April 5th	Good Friday.
April 8th	Family Day.
April 27th	Freedom Day.
May 1st	Worker's Day.
June 16th	Youth Day.
August 9th	Women's Day.
September 24th	Heritage Day.
December 16th	Day of Reconciliation.
December 25th	Christmas Day.
December 26th	Day of Goodwill.

CAPE TOWN (Table Bay): 33.56 S. 18.26 E. (See Plan)

PORT LIMITS: Westwards by a straight line between Green Point and Robben Island Lighthouses, and Northwards by a straight line from Robben Island Lighthouse East (true) to the Eastern shore of Table Bay, thence Southwards along high water mark, so as to include the foreshore to the Castle, thence back to Green Point Lighthouse.

DOCUMENTS:

Customs:

*Form DA.1, Report Inwards/Outwards for Ships.
*Form DA.3, Certificate of Clearance for Ships.
*Form DA.4, Transire – for a destination in the R.S.A.
*Form DA.5, List of Sealable Goods on board ship.
Ship's Crew List (Customs Department) 6 copies.

Post Office:

*P1/27, Certificate of Departure of Vessel.
P1/8, Post Office Certificate (Declaration).

Port Health:

Maritime Declaration of Health.
Crew List with last vaccination dates.
Derat Certificate.

Port Authority:

T908, Light Dues Certificate.
T942 Clearance Certificate
*T962, Departure/Shifting Notification.
Ship's Manifest.
*Completed by Agent.

Shipmaster's Report: March 1981.

Declaration of Health (Form GES-22)
Set Vaccination Lists. 1st port only; even with Radio Pratique.
Derat/Derat Exemption (if boarded).
2 Crew Lists.
2 In-transit Passenger Lists.
4 Landing Passenger Lists (Form D1-35).
Crew Sealable Goods (Form DA-5).
Crew Declarations (Company Form).
Inventory of Slop Chest (Company Form).
Register and Set of Ship's Certificates (used by Agent for clearing and returned).
Arrival/Departure Record (Form B1-55) (Disembarking passengers only).
Livestock Form (if nil, write on top of DA-5).
Ship's Mail Declaration (Form P1/149) (if nil, write on top of DA-5; if mail aboard, cable Postmaster details free message, and forms will be presented by Agent at boarding).
Certificate of Medical Officer, Master . . . (Form D1-67).
Report of Arrival (Form T958) (to Pilot).
Leaving Certificate (Form B1-86).

Notes: Fly "I" flag entering all ports; "B" if flammable cargo aboard. Include ship's entertainment TVs, radios, etc., cameras and walkie-talkies on DA-5. Although part of DA-5, addition of tobacco/spirits on Crew Declarations (Company Form) will allow same form to be used in Mozambique and Somalia.

PILOTAGE: Compulsory. One hour advance notice to be given to the Port Captain through VHF radio, call sign "Port Operations", on Channel 16, working Channel 12. Pilot boat fitted with multi-channel VHF. Two motor pilot boats, one with black hull and white upperworks and one with an orange hull and white upperworks. Pilot taken aboard at position: Main Breakwater bearing 155° (T) × 2.5 miles.

ANCHORAGE: Area to the N.E. and East of pilot boarding station (Fairway Buoy) in depth 20 m. – 25 m.

RESTRICTIONS: Vessels not permitted to enter unless Agents have been appointed. Oil tankers and ships carrying explosives or dangerous goods restricted to daylight hours.

Depths:

Depth at Entrance Channel – 15.9 m.
Entrance to Victoria Basin – 11.6 m.
Entrance to Duncan Dock – 13.4 m.
Entrance to Ben Schoeman Dock – 14.0 m.

MAX. SIZE: Max. LOA 370 m., max. beam 87.0 m. and max. draft 12.0 m. (Duncan Dock) and 12.8 m. (Ben Schoeman Dock).

HEALTH: Pratique granted at first port of entry in South Africa. Pratique message 24 hours prior to arrival to "Port Health" at port of entry. If Radio Pratique not granted "Q" flag to be flown until ship has been cleared. Valid certificates must be held for yellow fever. Ships from Eastern ports must also have valid certificates for cholera and typhoid.

RADIO: Cape Town Radio, call sign ZSC. VHF and R/T 2182 kHz.

VHF: Port Control on Channel 16 throughout 24 hours.

TUGS: Join vessel approximately 0.25 miles from harbour entrance.

4 diesel Voith Schneider tugs with a bollard pull of 43 tons. All tugs are fitted for firefighting and salvage. Tug's wires used at no extra charge.

Stand-by tugs compulsory for tankers discharging crude.

STEVEDORES: *Working Hours:* Conventional Quays: Monday to Friday (not public holidays) 0600 hrs. to 2200 hrs. Limited labour is available for working overtime on request beforehand.

Container Operations: 24 hour service, 7 days a week.

BERTHING: Chart datum is that referred to in the South African Tide Tables published by The Hydrographer of South African Navy.

Wharfage	Length (m.)	Max. Depth (m.)	*Cranes (Electric)* No.	*Cranes (Electric) Lifting capacity* (tons)
Victoria Basin				
No. 1 Jetty, East Side	177.7	6.98	—	
West Side	162.3	6.28	—	
No. 2 Jetty, West Side	195.1	9.98	—	—
East Side	195.1	9.08		
Collier Jetty, North Side	208.5	6.38	—	
South Side	212.4	9.79		
South Arm *	600.5	8.18	—	
Elbow	161.5	9.28	—	—
No. 4 Quay	29.0	2.98	—	
No. 5 Quay	87.8	2.98	—	
No. 6 Quay*	178.4	4.28	—	
No. 7 Quay*	192.0	6.68	—	
East Pier*	239.6	9.98	—	
Cross Berth	137.2	9.48	—	
Fish Quay	91.1	4.38	—	
Alfred Basin				
West Quay	225.9	5.18		
North Quay	134.1	6.08	1	4
East Quay, No. 1 Berth	100.6	3.88	—	
East Quay, No. 2 Berth	70.7	4.08	—	
East Quay, No. 3 Berth	64.0	3.98	—	
East Quay, No. 4 Berth	54.9	3.98	—	
South Quay	45.7	4.28	—	
Duncan Dock				
Berth "A"	274.3	10.90	4	4
Berth "B"	243.8	11.30		
Berth "C"	213.4	11.10	16	4.5
Berth "D"	185.0	10.10 8.90		
Berth "E"	225.6	11.00	4	4
Berth "F"	249.9	11.40	4	4
Berth "G"	249.9	12.10	1	15/4
Berth "H"	318.5	12.60	4	4
Berth "J"	249.9	10.60	1	15/4
Berth "K"	249.9	10.50	4	4
Berth "L"	246.3	10.20	5	4
Berth "M", N.W. Side	217.9 43.9 31.5	6.70 4.58 6.08		
Repair Pier, N.E. Side	326.0 100.0	— 9.78	2	15
Repair Pier, S.W. Side	31.5 426.0	6.08 11.18		

Wharfage	*Length* (m.)	*Max. Depth* (m.)	*Cranes (Electric)* No.	*Lifting capacity* (tons)
Graving Dock Landing Wharf	274.3	10.78	—	
N.E. Side	274.3	13.60	—	
S.W. Side	274.3	13.30	—	
No. 1 Eastern Mole	259.1	12.60	—	
No. 2 Eastern Mole	259.1	13.90	—	

*Closed for commercial cargo working.

Ben Schoeman Dock:				
Coaster Berths				
Berth 501	183.0	9.60	—	—
Berth 502	183.0	10.10	1	35
Deep Sea Berth				
Berth 600	220.0	10.20	—	—
Berth 601	236.0	12.60	1	45
Berth 602	305.0	13.60	1	45
Berth 603	305.0	13.60	1	45
Berth 604	305.0	13.60	1	45

Roll-on/Roll-off Facilities: Available at Berths 500 and 501, as well as at "L" and "M" Berths. Berths "A" and "J" for ships with slew ramps only.
Cold Store: Blue Continent Cold Storage Co. (Pty) Ltd. Tel: (021) 511-0620. Telex: 527232. Fax: (021) 511-9632. Operates cold store with capacity of 17,000 tonnes at −30°C.
Pre-Cooling Store: International Harbour Services. Tel: (021) 212461. Telex: 527718/526771. Fax: 212469. Operates 8 pre-cooling chambers with capacity of 10,000 cu.m. (approx.) at D-Shed.
Container Terminal: Area – 97 hectares; Ground slots – 4,858 TEU's; Reefer points – 190 plug points; Refrigerated holding store – 500 slots. Equipment: Container gantry cranes, straddle carriers, haulers and trailers.

CRANES: *Floating Cranes:* One floating crane lifts 200 tons at 21.5 m.

BULK HANDLING FACILITIES: *Grain Elevator:* 1 terminal grain elevator of 27,220 tons storage capacity, with loading conveyors to the Collier Jetty. Continuous intake capacity of elevator, 750 t.p.h.; shipping capacity, 1,000 t.p.h. (Leased for private use: Loading conveyors only now usable, subject to considerable mechanical overhaul).

Other bulk cargoes handled at general cargo berth with shore crane. No LPG facilities.

MEDICAL: Unrestricted hospital facilities. Medical assistance must be arranged through Agents.

TANKERS: Tanker Basin to accommodate two tankers simultaneously, one of max. overall length of 256.0 m. and one of 240.0 m. overall length. Max. permissible draft 13.1 m., subject to a minimum of 0.9 m. on tide gauge.

Slop tank: Capacity 1,500 tons, available for oily ballast from tankers back loading white oil.
Ballast Requirements: Vessels should be sufficiently ballasted to navigate safely within the harbour.

Vessels with certain categories of hazardous cargo on board may not enter or sail during hours of darkness.

Recommended draft for tankers over 240 m.: 8.00 m. forward and 10.0 m. aft.

DENSITY: 1025.

FRESH WATER: Delivery by hose ex-wharf hydrants. 50 t.p.h.

FUEL: 48 hours' notice required. MFO, IFO and Gas Oil available.
Shipmaster's Report: November 1987.

All grades of fuel are not available at all times.

CONSULS:

Austria
Belgium
Chile
Denmark
Finland
France
Greece
Guatemala
Italy
Japan
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
Taiwan
United Kingdom
U.S.A.
Uruguay

DRY DOCKS:
Sturrock Graving Dock: Situated at S.E. end of Duncan Dock:

Dimensions:	Overall docking length	360.0 m.
	Length on keel blocks (first to last keel block)	338.3 m.
	Length on bottom (dock floor)	350.4 m.
	Width at coping	47.5 m.
	Width at entrance top	45.1 m.
	Maximum width at bottom	38.4 m.
	Depth on entrance sill, HWOST	13.7 m.
	Depth on inner sill, HWOST	15.1 m.

A docking length of 369.6 m. can be obtained by placing the caisson in the emergency stop at the entrance.

The dock can be divided into 2 compartments of either 132.5 m. and 216.1 m. or 205.7 m., and 142.9 m. respectively.

1×50 ton and 1×10 ton electric cranes on 7.6 m. gauge track and 6×4 ton electric cranes on 4.9 m. gauge track are available.

The dock can be emptied in 4 hours.

A landing wharf 548.6 m. in length is provided on the port side of the graving dock to facilitate the dry-docking of ships.

A repair pier 457.5 m. in length is provided off "M" Berth. 2×15 ton electric cranes on 9.1 m. gauge track is available.

Robinson Graving Dock: Situated in Alfred Basin:

Dimensions:	Overall docking length	161.2 m.
	Length on keel blocks (first to last keel block)	142.6 m.
	Length on bottom	152.4 m.
	Width at coping	27.4 m.
	Width at entrance top	20.7 m.
	Maximum width at bottom	17.2 m.
	Depth on entrance sill, HWOST	7.9 m.

3×4 ton electric cranes on 4.1 m. gauge track and 1×15 ton electric crane, on 4.1 m. gauge track are available.

The dock can be emptied in 3 hours.
Syncrolift: Situated in Alfred Basin:

Dimensions:	Lifting capacity	1,750 tons
	Maximum length of vessel	61 m.
	Maximum width of vessel	15 m.

REPAIRS: All types of repairs can be undertaken.
SURVEYORS: Lloyd's, BV, N.V., N.K.K. and ABS.
GANGWAY/DECK WATCHMEN: Ship's Agent makes necessar arrangements.
OPENING/CLOSING HATCHES: Mechanical hatches opened/closed by crew. Other types of hatches by stevedores.
CERTIFICATES:

Safety Certificates in respect of construction and gear.
Radio Certificate.
Load Line Certificate.
Derat Certificate.
Certificates of Competent Officers (passenger ships only).

CUSTOMS ALLOWANCES: The Master, officers and other members of the crew who remain on the ship during its stay in port may each be allowed to retain in his possession the following quantities (to cover 4 days) of the undermentioned sealable goods:

	Tobacco in any form grammes	*Potable spirits in any form* litre	*Wine* litres	*Beer or stout* litres
The Master/Pilot..................	230	1	3	3
Officers (including pursers, surgeons, chief stewards, wireless operators and serangs)..........................	175	1	3	3
Other members of the crew.......	115	nil	3	nil

Where the Master, officers or other members of the crew remain or board the ship for more than 4 days, the Controller of Customs and Excise may on request authorise the issue from under seal, fo consumption on board, of the following further quantities per day:

	Tobacco in any form grammes	*Potable spirits in any form* millilitres	*Wine* litres	*Beer or stout* litres
The Master/Pilot......................	30	100	1	1
Officers (including pursers, surgeons, chief stewards, wireless operators and serangs)..........................	25	100	1	1
Other members of the crew.......	15	nil	1	nil

CARGO GEAR: All cargo handling equipment must be in good conditio and certificates available for inspection.
REPATRIATION: All facilities available.

1. *Vessels Docking:*
   - *(a)* Any personnel arriving to join a vessel at Cape Town shoul possess a valid travel document and a brief letter of introductio Entry Permits can be extended if the vessel is late in arriving.
   - *(b)* Application to spend time (longer than 48 hours) in South Afric prior to repatriation should be made to the local Immigratio Authorities.
2. *Vessels Calling Off Port Limits:*
   - *(a)* The same requirements apply as for 1(a) with the exception c personnel who have entered the country from a vessel callin off Port Limits.
   - *(b)* The following applies to all personnel disembarking from vesse calling off Port Limits.
     (i) Repatriation must be made within 48 hours from time c signing off.
     (ii) In order to comply with local Immigration Authorities the Age requires the following details, for each individual, at leas 72 hours before disembarkation:
       - *(a)* Full name and nationality.
       - *(b)* Rank and, if Technician, name of employers.
       - *(c)* Passport number, place and date of issue.
       - *(d)* Place and date of birth.
       - *(e)* Destination and class of travel.
       - *(f)* If air ticket held on board, full details of routing.
       - *(g)* Reasons for disembarkation.

In the case of personnel transferring from one company vesse another, the same conditions apply except the maximum time permi for such transfer is 78 hours. If they have not joined the vessel wi this period, repatriation must be arranged forthwith.

There are no difficulties for any personnel disembarking for medi reasons.

AIRPORT: D.F. Malan Airport – 20 km. from harbour. Daily flights Johannesburg connecting with overseas flights by regular airlines.
TIME: GMT plus 2 hours.
HOLIDAYS: See "General" before first port.
POLICE/AMBULANCE/FIRE: Police, 419-4870; Ambulance, 51-51 Fire, 218-2805.
TELEPHONES: Telephones can be supplied at all berths. Arra through Agents.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Not required.
SEAMAN'S CLUBS: Missions to Seamen, Duncan Road, Port of C Town. Tel: 411-93117/8.

HIP SUPPLY SERVICES:
Helicopter Service: Available for mail and small items of stores for essels not wishing to enter harbour. Court Helicopters: Tel: 934-0560. ax: 934-0568.
aunch Service: For vessels not wishing to enter harbour, Agent may rrange launch service for mail, stores, etc. In this case service only ermissible in area North and West of position at least 5 miles due West f Robben Island.
upplied by:
Court Helicopters (Pty) Ltd., P.O.Box 2546, Cape Town 8000. el: 934-0560. Fax: 934-0568.
Ocean Ferries (Pty) Ltd., P.O.Box 6426, Roggebaai 8012. Tel: 7-7115.
Sealink Ltd., P.O.Box 4962, Cape Town 8000. Tel: 25-4480. Fax: 19-7072.
Also see "Shipmaster's Report".

EVELOPMENTS: *Chemical Tank Farm:* Approximately 50,000 sq.m. f land is to be reclaimed at the Eastern Mole for the purpose of a hemical Tank Farm.

The first phase is to be a joint venture between Portnet and Richards ay Bulk Storage (Pty) Ltd.

Styrene monomer will be stored in 3 tanks with a capacity of ,250 cu.m. each. For the storage of toluene, xylene and benzine, one ank of 1,000 cu.m. and two tanks of 500 cu.m. will be available.

Cold Store: The newly formed Duncan Dock Cold Storage (Pty) Limited s a partnership venture between Portnet and the Cold Storage Division f Oceana and ICS. The project involves the construction of a new 0,000 ton cold storage complex on the quayside at "K" Berth (Cold tore commissioned in 1992). Land is available for future expansion.

The total capacity of 10,000 tons will comprise 2,000 tons at −60°C nd 8,000 tons at −30°C.

The bulk of the capacity will be available for pre-export storage of fish, ruit and vegetables, eggs and other products at various temperature evels. The −60°C facilities will be used for sashimi, a traditional apanese delicacy, fish served raw. Acceptable quality of frozen product an only be maintained at an ultra low temperature of −60°C. The store vill also have an 80 ton blast freezing facility.

There will be docking space for 6 vessels at any one time with rovision to load and unload 3 vessels simultaneously, and 9 docking ays for road transport. The plant will incorporate the latest technology, nd handling and storage systems will be among the most modern in he world.

Duncan Dock Cold Storage will be licensed for handling and storing rozen product destined for EEC countries. With its strategic eographical location, the complex is geared to provide a sophisticated ervice to export customers. Furthermore, the store will have specialised acilities for fish processing and packing, whilst highly trained and skilled ersonnel have proven expertise in handling a wide range of perishable roducts and temperature chain maintenance of cargoes.

SHIPMASTER'S REPORT: *Off limits launch and helicopter service:*
Port, Immigration, Customs and Health Authorities have made it clear hat this service is a privilege and not a right. It is therefore of the utmost mportance that the regulations are strictly adhered to.

The Agent must apply to the Port Captain for permission to service he vessel and the following details must be submitted. Name of vessel, ime and date of arrival, draft, where from, where to, stores required and other reasons for call.

Launch is only allowed to be alongside vessel for 1 hour maximum otherwise vessel will have to enter port limits and incur port dues.

If personnel embarking, Immigration Authorities require name of vessel, tonnage, whether ballast or loaded and names of persons embarking. If persons disembarking then full names, dates and places of birth, nationality, Passport or Discharge Book number and expiry date, whether South African visa held and comprehensive reason for leaving vessel, arrangements made for departure from South Africa (usually 24/48 hours allowed), and flight number. This does not apply to medical cases. Guarantee from Agent accepting full responsibility and liability regarding maintenance and repatriation expenses. Persons disembarking must report immediately to Passport Control. Failure to report or leave South Africa on the booked flight is an offence and in addition to any fine or imprisonment the Owners will be refused any further off limits service for *any of their vessels.*

Port Health require application for Radio Pratique 48/24 hours before arrival. Customs require all bonded stores loaded to be signed for and ship's stamp applied. Stores or spares being landed must have prior notification to Agent and an accompanying letter giving full description and disposal instructions.

Agents require 168, 96, 48, 24, and 12 hours' notices followed by any amendment to ETA. Stores requirements should be sent at least 96 hours before arrival. Three copies of Crew List to be sent ashore with launch (or helicopter).

Services operate 24 hours per day and usual rendezvous position is 5 miles West of Green Point Lighthouse for launch (and 12 miles West for helicopter). Launch can carry up to 30 tons stores (and helicopter up to 2,000 kg.). Vessels should not anchor but provide a good lee and have derrick rigged. Contact should be made with the launch (or helicopter) 1 to 2 hours before arrival rendezvous point using Channel 16.

AUTHORITY: Portnet, P.O.Box 32696, Braamfontein 2017, Johannesburg, South Africa. *Tel:* (011) 7737299. *FAX:* (011) 7738304. *Contact:* The Chief Executive.

Cape Town: P.O.Box 4245, Cape Town 8000. *Telex:* 550178 Porcap. *Contact:* Port Manager Tel: (021) 218-3790. Fax: (021) 25-2656. Commercial Manager Tel: (021) 218-2405, or Port Captain Tel: (021) 218-3413.

AGENT: King & Sons (Pty.) Ltd., P.O.Box 220 (5th Floor, Foretrust Building, Martin Hammerschlag Way), Cape Town 8000. Tel: (021) 211830. Telex: 527417. Fax: (021) 4182415. Cables: Baronet Cape Town.

DURBAN (Port Natal): 29.53 S. 31.02 E. **(See Plan)**

PORT LIMITS: The area of sea bounded by:
(1) to the North, a line drawn from the coast in position: Lat. 29° 48' 42" S., Long. 31° 02' 32" E. in a 090° (True) direction to position Lat. 29° 48' 42" S., Long. 31° 07' 30" E.;
(2) to the South, a line drawn from the coast in position: Lat. 29° 54' 06" S., Long. 31° 02' 30" E. in a 090° (True) direction to position Lat. 29° 54' 06" S., Long. 31° 07° 30" E.;
(3) to the East, a line joining the seaward positions in (1) and (2).

DOCUMENTS: The following documents should be prepared and ready on berthing:
Immigration:
2 Crew Lists.
Customs:
2 Crew Lists.
List of Narcotics on board.
1 Ship's Stores List.
1 Crew Declaration of Crew's Personal Effects.
1 Customs Form D.A.5.
Port Health:
1 Maritime Declaration of Health.
1 Vaccination List.
1 Crew List.
Valid Derat Certificate.
Agent:
2 Crew Lists.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Note: The above documents are required at each South African port, regardless of vessels which are coasting.

PILOTAGE: Compulsory. As much advance notice as possible to be given to Port Captain through VHF radio – Port Operation – calling Channel 16, working Channel 12. Pilot boats fitted with multi-channel VHF.

Motor pilot boats – hulls painted black, white housing. "Pilot" painted in black on housing. Pilot taken aboard at Pilot Boarding Area situated approximately 2 miles N.N.E. of South breakwater light.

Vessels not to approach closer than 2 miles from entrance until contact has been made with pilot boat.

RESTRICTIONS: Vessels not permitted to enter unless Agents have been appointed. Oil tankers and ships carrying explosives or dangerous goods restricted to daytime hours. The depth of the inner and outer channels is 12.8 m. above chart datum.

Hazardous Cargoes: Details of all hazardous cargo for discharge or loading at Durban and hazardous cargo remaining on board during a vessel's stay, are to be made known to the authorities through the vessel's Agent, not less than 72 hours prior to vessel's arrival.

Information required: Commodity, packaging, weight and volume, IMO group and stowage on board.

Vessels having on board more than 10 tons of hazardous cargo, will require to maintain a fire watch manned by qualified shore firemen and in addition, have an emergency shore telephone on board.

MAX. SIZE: The draft permitted is 39 ft. (11.9 m.) The length of 245 m. is exceeded with the Port Captain's approval.

Size of vessels permitted to enter during the hours of darkness: Vessels exceeding 200 m. in length and 26 m. in beam may be brought into port at night provided weather conditions are suitable. Vessels whose beam exceeds 35 m. are brought into port only when weather conditions are suitable.

HEALTH: Radio advice to "Port Health Durban", direct through Durban Radio, to be given between 24 hours and 48 hours prior to arrival, advising ETA, last port, date sailed, number of crew, full innoculation and vaccination status, and state of health of crew, and requesting Radio Pratique. Port Health will cable vessel directly, either granting pratique or requesting further details.
Shipmaster's Report: Valid Yellow Fever Certificate not required.

RADIO: Radio advice to "Port Captain Durban", direct through Durban Radio, 48 hours prior to arrival, advising ETA, draft, freeboard and reason for calling at Durban.

VHF: Port Control office manned 24 hours, calling Channel 16, working Channel 12.

TUGS: 6×30 ton bollard pull tugs available. Join vessels in entrance channel. Tug's wires used at no extra charge.

Stand-by tugs compulsory for tankers discharging crude.

BERTHING:

Berth	*Length* (m.)	*Depth below Chart Datum* (m.)*	*Wharf Cranes No.*	*Wharf Cranes Lifting Capacity* (tons)	*Cargo Sheds Stack Area* (sq.m.)	*Cargo Sheds Stack Volume* (cu.m.)
Point and "T" Jetty						
Repair Quay (Shop 17)	183	6.7	1	10	–	–
A Berth Extension (Tug Berth)	62	9.1	–	–	–	–
A Berth	288	11.7	–	–	–	–
B Berth	329	10.5	4	7.5	–	–
C Berth	213	9.1	–	–	–	–
			1	7.5-15		
D/E Berth	275	8.2	4	4	7,097	24,343
F Berth	345	7.0	4	4	6,020	20,649
G Berth	346	7.0	–	–	6,020	20,649
L Berth	305	10.9	5	4	5,465	18,740
M Berth	305	12.2	6	4	6,679	22,908
N Berth (Cruise Terminal)	262	12.2	3	4	2,565	8,797
O Berth	310	12.2	6	4	–	–
P Berth	310	10.9	5	4	–	–
Q Berth	183	10.9	4	4	3,340	11,455
R Berth	183	10.9	3	4-15	2,863	9,819

Berth	*Length* (m.)	*Depth below Chart Datum* (m.)*	*Wharf Cranes* *No.*	*Wharf Cranes* *Lifting Capacity* (tons)	*Cargo Sheds* *Stack Area* (sq.m.)	*Cargo Sheds* *Stack Volume* (cu.m.)
Maydon Wharf:						
Fish Wharf and Jetty	441	6.1	–	–	–	–
Berth 1	152	9.9	–	–	–	–
Berth 2	153	9.9	–	–	–	–
Berth 3	152	9.9	–	–	–	–
Berth 4	153	9.9	–	–	–	–
Berth 5	200	9.9	–	–	–	–
Berth 6	154	9.9	2	4	–	–
Berth 7	244	9.9	4	4-7.5	2,764	9,480
Berth 8	172	10.4	–	–	–	–
Berth 9	180	9.9	2	4	–	–
Berth 10	226	9.9	3	4	4,205	14,422
Berth 11	190	10.6	6	4-7.5	–	–
Berth 12	275	6.1	–	–	4,515	15,482
Berth 13	172	9.9	–	–	–	–
Berth 14	173	9.9	–	–	–	–
Berth 15	213	9.9	–	–	–	–
Bayhead:						
Graving Dock return wall	79	11.3	1	15	–	–
Repair Quay (Shop 24)	155	6.1	2	4	–	–
Departmental Repair Jetty	300	6.1	1	15	–	–
Ship Repair Jetty	413	8.5	1	10	–	–
Fish Wharf (Bayhead)	152	4.6	–	–	–	–
Pier No. 1:						
Harbour Craft Quay (Tech Supervisor)	103	6.1	–	–	–	–
Berth 100	276	9.1	4	4	–	–
Berth 101	229	12.8	4	4	6,020	20,649
Berth 102	213	12.8	3	4-15	–	–
Berth 103	235	12.8	4	4	6,020	20,649
Berth 104	351	12.8	3	4-15	–	–
Berth 105	235	12.8	5	4-15	6,020	20,649
Berth 106	213	12.8	3	4-15	–	–
Berth 107	238	12.8	5	4-7.5	6,020	20,649
Container/Ro-Ro Terminal: (Pier No. 2 and Crossberth).						
Berth 108	273	12.8	1	30.5	7,540	
Berth 109	272	12.8				
Berth 200	236	12.8	2	40	–	–
Berth 201	216	12.8				
Berth 202	216	12.8				
Berth 203	305	12.8	7	40	–	–
Berth 204	305	12.8				
Berth 205	305	12.8				
Island View:						
Berth 1	230	12.8	–	–	–	–
Berth 2	175	10.6	–	–	–	–
Berth 3	250	12.8	–	–	–	–
Berth 4	175	10.6	–	–	–	–
Berth 5	175	10.9	–	–	–	–
Berth 6	175	10.9	–	–	–	–
Berth 7	230	12.8	–	–	–	–
Berth 8	230	12.8	–	–	–	–
Berth 9	245	12.8	–	–	–	–
Bluff:						
Berth 1	148	9.1	–	–	–	–
Berth 2	177	10.3	–	–	–	–
Berth 3	180	9.1	–	–	–	–
Berth 4	238	10.6	–	–	–	–

* All berths and channels are subject to shoaling from time to time. The depths shown are only available immediately after dredging to depth has been completed, and do not refer to the actual depths available at any time.

BULK HANDLING FACILITIES: *Bluff Mechanical Appliance:* Operators: Rennies Bulk Terminals. Berths No. 1 – 4 equipped with electrically driven appliances for the loading of coal. 1 belt loader with capability of loading at the rate of 6,000 t.p.d. and 2 bucket transporters with an aggregate capacity of 4,000 t.p.d. are available. Concrete bins are provided for ground storage with a capacity of 30,000 tons of anthracite. All exports are brought in by rail trucks. Overall productivity 4,000 tons per 24 hours. There is no work between 1100 hrs. Saturday and 0700 hrs. Sunday.

Coal Anthracite Storage Facilities: Concrete ground storage bins of 18,290 tons capacity at Causeway Road.

Island View 3: Operators: Durban Bulk Shipping Co. (Pty) Ltd. Max. draft 10.64 m., max. length 167.5 m., max. reach 9.4 m., dolphin max. height 13.1 m.

Products: Pelletised maize products, minerals, ores and vegetable oils.
Storage Capacity: Pelletised maize products (all silos dedicated) 50,000 tons; Andalusite 8,000 tons; Monocalcium phosphates 8,000 tons; Coal 33,500 tons; Chrome ore 24,000 tons; Vegetable oils 4,956 cu.m.
Handling Rate: Shipping up to 13,000 tons per day.

Maydon Wharf 2 – Sugar Terminal: Operators: S.A. Sugar Association. Exports of bulk and bagged sugar. Max. draft 9.84 m., max. reach 15 m., max. throw 15 m., max. height 14 m. Max. wharf length of continuous gantry: 131 m. Storage in 3 silos with 520,000 tons capacity and warehouse for 57,000 tons of bagged sugar.

Loading is facilitated over 2 appliances, but only one operated at a time with a rate of 1,000 t.p.h. 24 hour operation if required. Stowage Factor: 43.

Maydon Wharf 5 – Multi-Product Installation: Operators: Rennies Bulk Terminals. Max. length 189 m., max. draft 9.84 m.

Products: Wheat, maize, rice, barley, pelletised protein feeds, soda-ash, coal and fluorspar.
Storage Capacity: Agricultural products 30,500 tons; Mineral products 100,000 tons; Soda-ash 21,000 tons.
Handling Rates: Shipping 500 – 1,200 tons per hour; Discharge 250 – 330 tons per hour; Bagging 750 tons/day.

Hours of Operation: 24 hours per day, 7 days. Normal Monday – Friday 0600 – 1800 hrs. Balance at overtime rates.

Trimmer and Boom: Max. height of loading MSL +7.2 m., minimum depth of lowest bulkhead MSL + 1 m. Max. distance from quay 19 m. Minimum distance from quay 9.2 m. Max. throw 12 m. Rotation 360°.

Maydon Wharf 8 – Grain Terminal: Operators: Portnet. Loading of bulk grain. Max. draft 9.84 m. Vessels have loaded up to 10.6 m. on a rising tide but the Master must take full responsibility and prior permission must be obtained from the Port Captain. Loading through 4 spouts. Storage capacity 34,560 tons (maize) and 14,000 tons (sun flower seed). Loading rate (maize) 1,290 t.p.h. Bagging rate 3,000 bags per day.

Hours of Operation: Ordinary time Monday – Friday 0600 – 1400 hrs.

Max. length: Wharf 171.7 m. Gantry 133.56 m. between outermost shipping spouts. Max. beam with elevator spouts extended 27.43 m. Max. height from water level to top of coaming 14 m.

Average Stowage Factors	*Lower Hold*	*Tween Decks*
Conventional Vessels:		
Sorghum	49	51
Yellow Maize – Grade 1	46	47
Yellow Maize – Grade 2	47	48
Bulk Carriers:		
Sorghum	45.5	
Yellow Maize – Grade 1	46.5	
Yellow Maize – Grade 2	46.5	

Maydon Wharf 9 – Bulk Molasses: Operator: Pure Cane Molasses. Max. length 180 m., max. draft 9.84 m., storage capacity 48,000 tons, shipping rate up to 500 t.p.h. Piping and flanges available from operator. Shipping of Molasses in bulk.

Maydon Wharf 13 – Grindrod Forest Products Terminal:
Storage Capacity: 20,000 tons. Covered area 20,580 sq.m.
Handling Rate: Supply 16,000 tons per month.

Maydon Wharf 14 – Bulk Soda Ash Appliance: Operator: I.C.I. Max. draft 9.84 m., max. length 190 m., max. reach 17 m.

Discharge of bulk soda ash through 2 vacuum operated suckers simultaneously to shore storage facility of 28,000 tons. Hours of operation 24 hours – 7 days. Rate of discharge 80 t.p.h. – 90 t.p.h. Max. 2,000 tons per 24 hours.

Maydon Wharf 15 – Rennies Forest Products Terminal:
Storage Capacity: Pulp and paper 60,000 tons; Terminal "A" – 13,000 sq.m.; Terminal "B" 28,000 sq.m.
Handling Rate: Shipping and pulp – 10,000 tons per day. Paper – 3,000 tons per day.

Point, Berth A – Keeley Granite Terminal:
Storage Capacity: 50,000 tons.
Handling Rate: 3,600 tons per day.

CRANES: *Floating Cranes:* Two self-propelled floating cranes:
"Indlovu": 200 ton: 200 ton at 21 m. radius.
125 ton at 35 m. radius.
"Imvubu": 60 ton: 60.9 ton at 6.1 m. radius
40.6 ton at 16.2 m. radius.

Also see "Berthing".

Mechanical Appliances: For general cargo handling: 1×30 ton mobile crane. Forklift trucks: 108×3 ton, 87×4 ton, 15×7 ton, 18×12 ton, 5×15 ton and 10 forklift trucks with a capacity greater than 16 tons. Shunting tractors and haulers: 47.

CONTAINER HANDLING FACILITIES: A major container/Ro-Ro terminal comprising 6 deep sea berths (200-205) and 2 coaster berths (108-109) is equipped with 7×40 ton wharf container cranes at deep sea facility and 1×30.5 tonne unit at Berth 108/109.

The entire complex covers some 102 hectares and provides very substantial stacking areas backed up by a large terminal building with computer control, workshop complex and a road/rail transfer terminal to handle unit trains conveying 100 TEUs. This rail terminal is served by 2 rail/road transfer cranes of 35 ton capacity each, covering 3 rail tracks and 2 traffic lanes. The back-up system operates on a combined trailer/straddle carrier system comprising 25×30 ton, 8-wheeled straddle carriers and 66 terminal tractors augmented by a substantial fleet of 190 terminal haulers and trailers as well as a large cartage fleet operated for the local delivery of containers. A Ro-Ro shed with an under cover storage area of 8,500 sq.m., where cargo pre-assembly and container packing/unpacking is carried out, is situated behind Berths No. 108/109.

A very modern stuffing and re-stuffing depot located on a 13 hectare site immediately adjacent to the harbour terminal is operated by private enterprise (Messrs. S.A. Cargo Depots). The depot is fully equipped with re-stuffing sheds and container handling equipment to cater for LCL traffic.

The container terminal operates a 24 hour day, 7 days a week service.

PRE-COOLING FACILITIES: *Pre-cooling Stores:* South African Co-operative Citrus Exchange Limited: Tel. 012-282181. Telex: 321391. Storage facilities comprise 10 holding chambers of 7,776 pallets (176,204 cu.m.), 72 rapid cooling tunnels of 3,456 pallets (7,831 cu.m.), a container area of 1,040 pallets (2,356 cu.m.), a re-pack holding area of 888 pallets (2,012 cu.m.). Handling rate: Shipping rate of 2,000 pallets per day (average 2,600 tons per day).

STEVEDORES: Stevedoring undertaken by private enterprise stevedores appointed by ship's Agent.

Port Working Hours:

The port is a 7 day, 24 hour port as far as berthing and pilotage are concerned.

Cargo working hours at conventional berths are:
Monday – Friday (2 shifts) 0600 – 1400 hrs, 1400 – 2200 hrs.
Sunday 0715 – 1515 hrs.

Limited labour is available for overtime and Saturday and Sunday working, whilst 3 shift working consisting of 3×8 hour shifts is provided for at the Pier No. 1 area, albeit on a limited basis.

Container Terminal: Continuous work 7 days a week with shift changes at 0600 hrs., 1400 hrs. and 2200 hrs., except Christmas Day.

MEDICAL: Unrestricted hospital facilities. Medical assistance must be arranged through Agents.

TANKERS: *SBM:* An off-shore single buoy mooring, suitable for crude dischargers between 70,000 and 300,000 d.w.t., is situated in position 30° 00.5' S., 30° 58.5' E. A Mooring Master will board in position 2 miles Eastward of the SBM. A starboard derrick, capacity 10 tons should be ready and crew available to lift mooring equipment on board from launch. A good lee on the starboard side is desirable.

Mooring to the buoy is with 2 lines provided by the terminal but vessels are required to provide a rope messenger, available on the forecastle. The mooring operation is carried out by shore personnel, assisted when necessary by ship's crew.

Pipe-line manifold should be ready to connect two 16 in. discharge hoses ASA 150 flanges. Connection by terminal personnel. The hose connection team remain onboard throughout the discharger's stay at the SBM.

No bunkers, or water are available from the SBM. Vessels using the buoy and receiving water or stores ex-launch may only do so prior to berthing or after leaving the SBM and at a distance of more than 2 miles from the buoy.

Port Tanker Berths: There are 7 tanker berths for vessels of max. length 244 m., max. draft 12.3 m. at Island View.

Slop tank facilities with a capacity up to 4,000 tons are available. Requirements in excess of this volume should be made known to the vessel's Agents with as much prior notice as possible.

Crude oil discharge through 10 in. hoses, white oil 8 in. hoses and loading products through 8 in. hoses.

Bunkers and fresh water available ex-berth.

Chemical tankers, with double skin, up to 183 m. are permitted to berth at Island View during hours of darkness. Agent to advise Port Control in advance that SOLAS and Classification Certificates are valid.

2 tugs required for shifting and all tanks to be sealed.

DENSITY: 1025.

FRESH WATER: Delivery by hose ex-wharf hydrants. Rate of delivery 50 t.p.h.

FUEL: Fuel and diesel oil are available ex-pipeline at Pier No. 1, Container Terminal and Island View Berths. Gas oil ex-pipeline is only available at Island View Berths No. 4, 5, 6, 7 and 8, and blends are available at Island View Berths No. 2, 3, 4, 5, 6, Pier No. 1, Pier No. 2 and Container Terminal.

The Maydon Wharf Point and Bluff Berths are served with fuel oil, diesel oil, gas oil and blends from a bunker barge (see below). No bunkers are supplied outside the harbour.

There is a self-propelled bunkering barge called the "Durban Servicer" with a capacity of 140 tonnes of gas oil, 650 tonnes fuel oil and 280 tonnes diesel.

CONSULS:

	Tel.		Tel.
Austria	211577	Netherlands	304-1770
Belgium	368-3794	Norway	202-6911
Chile	301-1225	Paraguay	32-7341
Denmark	305-1888	Portugal	305-7511
Finland	292622	Sweden	202-6911
France	299330	Thailand	305-1888
Germany	305-5677	U.K.	305-2929
Greece	301-4880	U.S.A.	304-4737
Italy	301-4107/8		

REPAIRS: All types of repairs can be undertaken.

DRY DOCKS: *Prince Edward Graving Dock:*

Dimensions—	
Overall docking length	352.04 m.
Length on keel blocks	327.66 m.
Length on bottom	352.04 m.
Width at coping	42.21 m.
Width at entrance top	33.52 m.
Maximum width at bottom	33.52 m.
Depth on entrance sill at MHWS	12.56 m.
Depth on inner sill at MHWS	13.17 m.

A docking length of 364.44 m. can be obtained by placing the caisson in the emergency stop at the entrance.

The dock can be divided into 2 compartments:

Outer 206.90 m. and inner 138.68 m.

The dock can be emptied in 4 hours.

Electric Cranes:

No.	*Lifting Capacity* (tons)	*Radius* (m.)	*Rail Centres* (m.)
1	50/10	28.00/30.00	7.92
2	10	27.43	7.92
2	8	27.43	4.57

Floating Dock No. 3:

Dimensions—	
Extreme length	106.68 m.
Length on bottom	106.68 m.
Length on keel blocks	104.54 m.
Extreme width	26.82 m.
Width at entrance	19.48 m.
Height on keel blocks	1.21 m.
Draft on keel blocks at HWOST	5.40 m.
Lifting capacity	3,000 tons
Crane	3 tons

Durban Slipway: Overall length 19.81 m. Width 5.00 m. Displacement (max.) 50 tons.

CERTIFICATES:

Safety Certificates in respect of construction and gear.
Radio Certificate.
Load-line Certificate.
Derat Certificate.
Certificate of competent officers (passenger ships only).

OPENING/CLOSING HATCHES: Mechanical hatches opened/closed by crew. Other types of hatches by stevedores.

CUSTOMS ALLOWANCES: See "Cape Town".

CARGO GEAR: All cargo handling equipment must be in good condition and certificates available for inspection. Under normal conditions vessels are obliged to use shore cranes.

REPATRIATION: All facilities available. Also see "Cape Town".

AIRPORT: Louis Botha Airport – 15 miles from harbour. Daily flights to Johannesburg connecting with overseas flights by regular airlines.

TIME: GMT plus 2 hours.

HOLIDAYS: See "General" before first port.

POLICE/AMBULANCE/FIRE: Police, 310-2714; Ambulance, 62333; Fire, 62333 or 4502222.

TELEPHONES: Telephones can be supplied at all berths. Arrange through Agents. Also see "Restrictions" – Hazardous cargoes.

SERVICES: Tank-cleaning facilities, divers, compass adjustments and repairs to all electronic gear can be undertaken.

SHIP SUPPLY SERVICE: Crew changes are permitted by helicopter or launch at Durban and can be arranged with prior permission from Immigration and Customs Authorities provided vessel has been granted Radio Pratique.

Helicopter Services: A single engine Sikorsky S62 helicopter is available for crew changes and supply services to vessels passing off Durban. The above helicopter is available for daylight service only, except in emergencies.

Normal Service: Within 15 nautical miles of Cooper Light.

Note: Normal Rendezvous area is 10 nautical miles off the coast. Bearing (160°T) from Cooper Light. (For service where more than one flight is required the ship MUST route through the 10 nautical miles rendezvous position).

Launch Service: A Company operates launches suitable for servicing vessels off port limits. Up to 20 tons of stores and/or provisions and a maximum of 14 passengers can be carried. The condition of transport is that same is performed solely at Owner's risk.

The costs involved are R100 per half hour or part thereof and nominal charges are raised for the use of the launch's 1.5 ton hydraulic crane and steel cages to carry stores.

Communication can be established with the launch 1 hour prior to the ship's arrival at the Rendezvous position, on either VHF Channel 16 or 2182 kHz. The normal Rendezvous is five miles East of the Durban Harbour breakwater, but this can be easily varied.

The following two private companies have small craft licensed at this port to serve vessels off limits:

1. Messrs. Offshore and Ships Supplies (Pty) Ltd., P.O.Box 29139, Maydon Wharf 4057.

2. Messrs. Southern Offshore Supplies (Pty) Ltd., P.O.Box 38011, Point 4069.

Helicopter service provided by: Helicopter Services (Pty) Limited., P.O. Louis Botha Airport, Durban 4029. Tel: 426101/426192. Telex: 564246 SA.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Required, otherwise National Identity Cards, if available.

GARBAGE DISPOSAL: Collection service is available via agent. Drums are placed alongside. No charge for service. Collections daily.

SEAMAN'S CLUBS: Missions to Seamen. Tel: (031) 375328; Sailors Society. Tel: (031) 3014380.

CURRENCY: South African Rand (R). U.S.$ 1.00 = R 4.43 (18.7.96).

GENERAL: A copy of the Regulations for the Republic of South Africa supplied gratis to Masters on arrival.

DEVELOPMENTS: A new Ro-Ro shed to cater for deep sea and coastal Ro-Ro traffic.

The renewal of wharf cranes over a 4 year period. The current light weight fleet will be replaced by fewer higher capacity cranes, as and when the need arises.

Additional container gantries and replacement of the straddle carrier fleet with both stacking cranes and modern straddle carriers.

New specialised break-bulk terminals.

New offices at Ocean Terminal.

SHIPMASTER'S REPORT: September 1980 (Updated 1994).

Pilotage: Pilot ladders should be provided with manropes, uncovered manila, not less than 32 mm. diameter and without knots at the end.

Container Handling Facilities: The terminal has been completed. General cargo vessels with 10 containers or more have to handle these through the container terminal and shift berth later for handling of general cargo.

Bunkers: On Maydon Wharf and Point Berths, no bunker facilities, bunkers to be taken by barge. Sometimes vessels have to shift to bunker pier for bunkering.

SHIPMASTER'S REPORT: June 1979 (Updated 1994).

Approaches: Decca Chain 10C, can be erratic, especially at night. 'Bluff' shows up at 48 miles on radar. Cooper Point D/F continuous.

Pratique: Send message to "Porthealth" Durban 36 hours before arrival. If no complications free Pratique given quickly from Durban Radio.

Anchorage: Satisfactory if good weather, within about 4 miles N.E. of breakwaters, however if Southerly winds and swell build up it can be dangerous and it is often best to lie off.

Pilots: Send message to 'Port Captain Durban' 24 hours before arrival; ship's particulars, type, cargo, length, draft and Agent's name. Contact Durban Harbour Radio at least 1 hour before arrival. Pilot boards from large black fast cutter, nearly always on vessel's starboard side (landward side).

Must have fixed ladder with manropes, if vessel has large freeboard (in excess of 9.0 m.) gangway required at half height. Pilots dislike hoists.

Entry: Due to swell and cross currents around breakwater vessel has to be "driven" through breakwater entrance which requires full harbour speeds and sometimes more if heavy swell conditions, once well inside breakwaters speed is reduced.

VHF: Durban Harbour Radio and Pilots generally work Channel 12 but numerous other Channels available.

For public correspondence use Durban Radio which usually works Channel 26, but very busy in the morning.

Tugs: 6 large powerful tugs fitted with firefighting and salvage capabilities are on station. Tugs are all diesel powered and comprise Schottel,Z-Peller and Voith propulsion systems with bollard pull varying from 23 tons to 40 tons. Very manoeuvrable and excellent stopping power. For most ships two tugs used inward and one outward, tug's wires used. A 20,000 h.p. ocean going tug is usually on station at Durban.

Tugs join vessels just inside breakwaters. For large vessels will accompany vessel on either side from anchorage area and then connect up when swell slackens inside.

Berth: For bunkers, Island View, Starboard side to. Swing in turning basin. For oil transfer of any kind use gantry 'Sheepbridge' with flexible pipes. Shock absorbing fenders. For vessels of 207 m. in length at No. 7, 8 and 9 Berths the straight section of the ship's side lay along the quay. FW available from quay.
Lines: Three head and stern lines. Two backsprings either end to the jetty. Mooring boat used.
Bunkers: Meter pump. Stop on meter at quantity stemmed. Rate up to 200 t.p.h.
Stores: Have to be taken from roadway down to the jetty. Generally local labour has to assist.
General: D/F calibration can be easily undertaken off Cooper Light, good continuous beacon from red tower near water tower, generally little traffic.
Customs/Immigration: Papers as per 'Guide to Port Entry'. Immigration require 'I' flag flown until Immigration Clearance granted.

AUTHORITY: Portnet, P.O.Box 32696, Braamfontein 2017, Johannesburg, South Africa. *Tel:* (011) 7737299. *FAX:* (011) 7738304. *Contact:* The Chief Executive.

Portnet, P.O.Box 1027, Durban 4000, South Africa. *Tel:* (031) 361-8799 (Port Captain); (031) 361-8838 (Port Manager). *Telex:* 6-21567 SA. *FAX:* (031) 361-8851. *Contact:* Captain K. Shirley, Port Captain.

AGENT: King & Sons (Pty.) Ltd., P.O.Box (Grindrod House, 108 Victoria Embankment), Durban 4001. Tel: (031) 301-0711. Telex: 620211. Fax: (031) 306-0212. Cables: Baronet Durban.

EAST LONDON: 33.02 S. 27.55 E. (See Plan)

PORT LIMITS: The area of the sea bounded by a line drawn from the Nahoon Point in position: Lat. 32° 59' 50" S. Long. 27° 57' 07.5" E. in a 114° direction for 1,852 m. to a position: Lat. 33° 00' 13.9" S. Long. 27° 58' 12.8" E. thence in a 216.5° direction to a position: Lat. 33° 03' 14.46" S. Long. 27° 55' 37.18" E. and thence in a 295° direction to the coast in position Lat. 33° 02' 36" S., Long. 27° 53' 57" E. (All bearings are true.)

For Charter Party purposes: An "arrived ship" is when she enters the Port Limits.

For Harbour Revenue purposes, a vessel "arrives" when it passes into the harbour proper or upon first contact at anchorage whilst waiting for berth.

DOCUMENTS: See "Cape Town".
Immigration: Produce their own forms which are:
(a) Arrival and Departure forms.
(b) Prohibition Notice – which states all crew must sail with vessel unless officially signed off through Immigration.
(c) Medical Certificate.
(d) Advice letter from last South African port – if applicable.

They require Crew Lists and the "I" flag to be flown until vessel cleared by Immigration Officer.

Also see "Cape Town" – *Shipmaster's Report,* March 1981. Same Documentation except 3 Crew Lists and 1 copy "nil" Livestock Form.

PILOTAGE: Compulsory. One hour advance notice to be given to Port Captain through VHF radio – Port Operation – calling Channel 16, working Channel 12. Pilot boats fitted with multi-channel VHF. Motor pilot boat – yellow hull, white housing "Pilot-Loods" painted in black on housing. Pilot taken aboard at outer anchorage. Pilots prefer pilot ladder and manrope system for boarding and disembarking.

RESTRICTIONS: Vessels not permitted to enter unless Agents have been appointed.

Port operates from: Mondays to Fridays 0600 to 2200 hrs., Saturdays 0600 to 1200 hrs. and outside these hours at special request. Tankers are docked in daylight only and can sail during normal working hours of port.

MAX. SIZE: Tankers: Max. length 204 m. overall, draft 10.0 m.

Passenger and dry cargo vessels: Max. length 245 m. overall, draft 10.4 m. (Tidal).

HEALTH: Pratique granted at first port of entry in South Africa. Pratique message 24 hours prior to arrival to "Port Health" at port of entry. If Radio Pratique not granted "Q" flag to be flown until ship has been cleared. Valid certificates must be held for yellow fever. Ships from Eastern ports must also have valid certificates for cholera and typhoid.

Vessels will not be brought into harbour until Radio Pratique has been requested/granted, if this is first port of call on the South African range.

RADIO: East London Radio, call sign ZSA.

TUGS: 2 diesel Schottel tugs fitted with fire fighting and salvage capabilities with bollard pull of 34 tons each are available. Join vessel in entrance channel. Tug's wires used at no extra charge.

Stand-by tugs compulsory for tankers with hazardous cargo on board.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Cranes* *No.*	*Cranes* *Capacity* (tonnes)
L	253	10.7	4	4
K (Ro/Ro)	253	10.7	1	15/4
I (Ro/Ro)	132	8.5	6	4
G	180	10.1	1	15/4
F	180	10.0		
C	200	10.0		
Repair Quay	110	8.5		
N	183	9.5	3	4
P	183	9.0		
R	183	9.0		
S	194	10.4		
T (Grain Elevator)	194	10.4		
OW (Tankers)	259	10.4		

Containers handled at "L" Berth. Stacking area designed for 312 TE ground slots and 38 reefer points.

Equipment: Straddle carriers, haulers and trailers.

Ro/Ro vessels handled at "I" and "K" Berths. Stacking ar 1.8 hectares (18,000 sq.m.).

CARGO HANDLING FACILITIES: One berth equipped for bulk loadi of maize. One berth equipped for discharging bulk petroleum produc and LPG. All other berths for general cargo. Grain elevator: Storag capacity 75,986 tons; loading rate 1,650 t.p.h. through 4 spouts.

STEVEDORES: No Saturday work except at Port Manager's discretio

MEDICAL: Unrestricted hospital facilities. Medical assistance must b arranged through Agents.

TANKERS: One tanker berth suitable for vessels of 204 m. length w maximum draft 9.9 m. Diameter of hoses, 300 mm. LPG Tanke accepted, hose diameter 150 mm.

DENSITY: 1025.

FRESH WATER: Delivery by hose ex-wharf hydrants. Rate of delive 60 t.p.h.

FUEL: 48 hours' notice required. Heavy Oil and Gas Oil available.

CONSULS:

Belgium	Germany	Portugal
Denmark	Italy	Transkei
France	Netherlands	United Kingdom

REPAIRS: All types of repairs can be undertaken.

DRY DOCKS: *Princess Elizabeth Graving Dock:*

Dimensions-Overall docking length	198.5
Length on keel blocks	193.1
Length on bottom	198.5
Width at coping	31.2
Width at entrance top	27.2
Maximum width at sill level	22.9
Depth on entrance sill, HWOST	10.2
Depth on inner sill, HWOST	10.2

A docking length of 209.2 m. can be obtained by placing the caisso in the emergency stop at the entrance. Maximum beam admitte depends upon draft.

Two 15 ton and one 5 ton electric cranes on 4.9 m. gauge track a available.

The dock can be emptied in 4 hours.

SURVEYORS: General cargo surveyors available.

Rennie Murray & Co. Ltd. Tel: 29612. Telex: 75–0711 as local Age for Lloyd's Register, B.V., U.S. Salvage and Salvage Association.

OPENING/CLOSING HATCHES: Mechanical hatches opened/close by crew. Other types of hatches by stevedores.

CUSTOMS ALLOWANCES: See "Cape Town".

CARGO GEAR: All cargo handling equipment must be in good conditio and certificates available for inspection.

CERTIFICATES:
Safety Certificates in respect of Life Saving Equipment and gear.
Radio Certificate.
Load-line Certificate.
Derat Certificate.
Certificate of Competent Officers (passenger ships only).

REPATRIATION: All facilities available.

AIRPORT: East London Airport – 8 km. from harbour. Daily flights t Johannesburg connecting with overseas flights by regular airlines.

TIME: GMT plus 2 hours.

HOLIDAYS: See "General" before first port.

POLICE/AMBULANCE/FIRE: Police 442223 or 51616; Ambulanc 53316; Fire 2-1212. National Sea Rescue 22555. Harbour Polic 442032.

EMERGENCY CO-ORDINATION CENTRE: Contact Port Captai Tel: 44-2300 or 44-2142. Telex: 250774.

TELEPHONES: Telephones can be supplied at all berths. Arrang through Agents.

STORING: See "Prelims".
1. Truck only.
2. Not applicable.
3. Truck may proceed alongside unless explosives being handled Vehicles not permitted at tanker berth. (Distance to gate – 200 m.)
4. Yes, except tanker berth.
5. Ship chandler places entries for bonded stores.
6. Ship chandler supplies labour.

SHORE LEAVE: Allowed. No shore pass required.

IDENTIFICATION CARDS: Required, otherwise National Identity Cards if available.

GARBAGE DISPOSAL: No collection service available, but agents ca arrange for either drums or skips to be placed alongside the vessel an the garbage removed. Contact Waste-Tech (Pty) Ltd. Tel: 45-1621.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: Flying Angel Seaman's Club, Harbour Main Ga East London. Tel: 24126. Facilities available include shop, internatio telephone service, church service, minibus collection, postage servi and games.

CURRENCY: South African Rand (R).

AUTHORITY: Portnet, P.O.Box 32696, Braamfontein 201 Johannesburg, South Africa. *Tel:* (011) 7737299. *FAX:* (011) 773830 *Contact:* The Chief Executive.

East London: P.O.Box 101, East London 5200. *Tel:* 44-23 *Telex:* 25-0774. *Contact:* Port Manager Tel: (0431) 44-23 Fax: 44-26521. Port Captain Tel: (0431) 44-2300. Fax: (0431) 44-21

AGENT: King & Sons (Pty.) Ltd., P.O.Box 1 (5th Floor, Caxton Hou East London 5200. Tel: (0431) 432368. Telex: 250205. Fax: (04 21971. Cables: Baronet East London.

MOSSEL BAY: 34.10 S. 22.09 E. (See Plan)

PORT LIMITS: Within a line drawn from Cape St. Blaize Lighthouse to the mouth of the Little Brak River, thence along the high water mark so as to include the foreshore between these points, together with Seal Island, the estuary of the Little Brak River as far as the tide flows.

DOCUMENTS: Refer to "Cape Town".

PILOTAGE: Compulsory. 1 hour advance notice to be given to Harbour Master and Pilot through VHF radio. Port operation calling Channel 16, working Channel 12. Motor pilot boat – black hull, white housing. International pilotage signals used. Pilot boards about 1 mile North of Cape St. Blaize Light.

ANCHORAGE: Open anchorage with unlimited depth.

RESTRICTIONS: Vessels not permitted to enter unless Agents have been appointed. No night berthing or sailing for tankers. Tankers at SPM sail on completion.

MAX. SIZE: Anchorage: No restrictions.

Tanker mooring: Up to 32,000 d.w.t.

Harbour: Max. draft 6.5 m. Max. displacement 5,000 tons. Max. LOA 130 m.

HEALTH: Pratique granted at first port of entry in South Africa. Pratique message 24 hours prior to arrival to "Port Health" at port of entry. If Radio Pratique not granted "Q" flag to be flown until ship has been cleared.

Valid certificates must be held for yellow fever. Ships from Eastern ports must also have valid certificates for cholera and typhoid.

RADIO: Cape Town Radio, ZSC. Port Elizabeth Radio, ZSQ.

TUGS: 1 twin-screw workboat with a bollard pull of 10 tons available, equipped with VHF and R/T.

BERTHING:*Suitable for small fishing craft only.

Berth	*Length* (m.)	*Cope Level MSL* (m.)	*Depth at Chart Max.* (m.)	*Depth at Datum Min.* (m.)
Vincent Jetty	143 (2 sides)	2.50	6.0	4.0
*Low Level Wharf	62	1.94	1.7	1.7
*No. 1 Quay	43	2.80	1.7	1.7
*No. 2 Quay	53	2.80	2.7	2.7
No. 3 Quay	213	2.80	6.0	5.5
No. 4 Quay	274	3.01	7.5	7.5
No. 5 Quay	170	2.30	4.0	4.0

MEDICAL: Cape St. Blaize lighthouse on 24-hour watch. Requests for medical assistance passed through lighthouse to Harbour Master and Pilot. Hospital facilities available. Vessels in port should arrange medical facilities through Agent.

TANKERS:

CBM: *Position:* Lat. 34° 08' 35.5" S., Long. 22° 07' 47" E.

Name: Mossgas Voorbaii Tank Farm.

Location: Mossel Bay Terminal for the export of alcohol is an open, unsheltered roadstead, approximately 1.5 nautical miles Northward of the Eastern end of the protection pier of Mossel Bay Harbour or alternatively Cape St.Blaize Lighthouse. From the berth, Cape St.Blaize bears 152° × 2.88 nautical miles.

Sound and sandy mooring bottom. Depth of water 18 m. – 21 m.

Charts: Refer to U.S. Hydrographic Office Charts, British Admiralty Chart No. 639 (Africa South Coast – Mossel Bay) and S.A.N. Chart No. 1020.

Navigation Aids: Prior to proceeding to the berth, ships should await the boarding of the Pilot approximately 1.2 nautical miles Eastwards of moorings in approximately 25 m. of water.

The position is Lat. 34° 09' S., Long. 22° 10' E., and from here the berth will bear 288° × 2.0 nautical miles and Cape St.Blaize 192° × 2.2 nautical miles.

Land Marks: Refer to Hydrographic Chart No.639, S.A.N. Chart No. 1020 and plan (See "Plan Section"). Cape St.Blaize Lighthouse is most prominent point and is also assisted with shore beacons.

Radio control is also available on international frequency.

Terminal Information/Requirements:

CBM: Max. draft 12.0 m. Max. size of vessel 32,000 d.w.t.

Bow: Both anchor winches capable of working independently of one another.

Stern: Sufficient winches capable to connect 6 ropes from the stern of the vessel (2 to each buoy astern of the vessel). Vessel must have winches forward of accommodation on each side to handle breast ropes.

Ropes required:

10 full coils (220 m.) 64 mm. diameter polyprop.

Minimum breaking strain 64 tons or comparable floating ropes.

Ballast condition: At all times a minimum of 25% of Summer deadweight must be on board in cargo or ballast.

Note: There is no deballasting arrangement to shore.

Manifold Connection: 8 in. universal flange. Hose lifting and hose connecting arrangements required at the manifold. Minimum derrick capacity 5 tons.

Accommodation: Required for Loading Master, tanker team, berthing gang and surveyor (total of 7 persons).

Berthing: Only daylight berthing/unberthing will be carried out.

Note: Tankers will not be berthed if arrival is later than 1400 hrs. (local time). However, the Portnet Pilot and Marine Operators will evaluate each arrival on the day to determine if conditions are suitable for later berthing.

SPM: *Marine Tanker Terminal Single Point Mooring Buoy (MTT):* The buoy facility is situated at Voorbaai, an open, unsheltered roadstead, in position Lat. 34° 08.6' S., Long. 22° 08.5' E., in a depth of about 21.0 m. of water at LAT. It is an IMODCO type Single Point Mooring buoy with a 3 hose system which may be used simultaneously. They consist of a ballast line and two product lines. One product line is dedicated to 93 and 97 octane petrol and the other product line to distillates, namely illuminating paraffin and automotive diesel oil.

Navigation Aids: The buoy is 8.5 m. in diameter, with a freeboard of about 1.6 m. and painted yellow in colour. It is fitted with the following:

Master Lantern:	Morse code 'U' every 15 seconds, amber lens, range 3.0 km.
Fog Signal:	2.0 km. range, omni-directional, 3 sec. blast every 30 seconds with an output of 55 phons.
Load Cell Warning:	Red lantern: 0.5 sec. flash every second if mooring line tension exceeds the permitted loading of 50 tonnes.

Personnel: A Loading Master and a tanker team which consists of 3 divers/deck watch will all remain on board for the whole loading operation and accommodation is requested for these personnel.

The Portnet Pilot will, at the specific request of the Shipmaster, remain onboard on the completion of the mooring operation, if this is required. The Harbour Master, at his discretion, may require the Portnet Pilot to remain on board for safety reasons. In this event, accommodation is requested for him.

The divers/deck watch will, with the assistance of the ship's crew, connect and disconnect the hoses. They will stand watches as instructed by the Loading Master, and have radio communication with the tank farm at all times. Weather and operational requirements permitting, they will carry out an underwater inspection of the system during the loading.

Mooring Launch and Buoy Tender Vessel (BTV): The mooring launch(es) "Strandloper" and/or "Houtkapper" will be used as the pilot vessel for the Pilot and other personnel to board from, and for passing the pick-up rope to the ship. The BTV "Pentow Isipingo" will attend to the hoses, and will remain on station in the vicinity of the buoy as the diving support and pollution control vessel. The BTV has a capability of towing, and is able to hold the ship off the buoy if required.

Loading Hoses: The hoses are 8 in. internal diameter, and the ends are fitted with Camlock couplings for the manifold connection and butterfly valves, which must be locked in the open position during the whole of the loading operation. The hoses will be suitably secured with hanging-off chains on the hoses, made fast to either bollards or pad eyes at the manifold. The hoses will be suitably suspended from the ship's derrick which must have a minimum SWL of 5 tons.

Mooring Hawser: The mooring hawser consists of a 45 m. × 144 mm. diameter braidline nylon with a 45 m. × 64 mm. polypropylene pick-up rope. Between the mooring hawser and the pick-up rope is a length of 54 mm. stud link chain designed to be accommodated in an OCIMF tongue type bow stopper, with which all tankers loading at this Terminal must be fitted.

Weather: The average maximum temperature during Summer months is 22°C (extreme maximum 34°C) and the average minimum temperature is 15°C (extreme 5°C). The average annual rainfall is 380 mm. The average relative humidity is 75%. The coastal climate is generally mild to temperate throughout the year.

Tides: The tidal range is about 2.0 m.

Currents: There are no significant currents at the Voorbaai MTT location.

Sea Temperature: Average 20°C.

Water Salinity: Density of 1020 – 1025 kg./cu.m.

Wind: Prevailing winds are S.W. (predominant throughout year), N.W. (Winter) and S.E. (Summer), but wind directions and velocities are subject to rapid change without warning. Average wind force is between 10 – 25 knots. Heaviest seas and swells are predominant S.E.'ly and accompany the S.E. winds. The S.W.'ly winds seldom cause swell problems.

Berthing Limitations: Berthing will be limited to wind speeds of less than 25 knots and/or sea and swell not exceeding 2.0 m. or in accordance with the advice of the Portnet Pilot. Note that berthing on to the buoy will only be performed in *daylight*.

Likewise, should the ship, whilst moored to the buoy, experience wind speeds in excess of 30 knots or swell in excess of 3.0 m. or mooring forces in excess of the stipulated force, which activates the red warning light on the buoy or any combination of these, the loading will be stopped and preparations made to leave the berth. Should these conditions persist or worsen, the hoses will be disconnected and the ship taken off the buoy until more suitable weather prevails. The advice of the Portnet Pilot and/or the Loading Master, with regard to these conditions, should be accepted in the interest of safety.

DENSITY: 1025.

FRESH WATER: Available along Nos. 3, 4 and 5 quays and Vincent Jetty.

FUEL: Available at No. 2 quay and No. 3 quay. Available by road tanker at No. 5 quay and Vincent jetty.

REPAIRS: Marine engineering firm available for all classes and types of onboard afloat repairs. Slipway of 375 tons capacity is available.

CUSTOMS ALLOWANCES: See "Cape Town".

CARGO GEAR: All cargo handling equipment must be in good condition and certificates available for inspection.

AIRPORT: George Airport, 40 km.

TIME: GMT plus 2 hours.

HOLIDAYS: See "General" before first port.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Required. Otherwise National Identity Cards, if available.

GARBAGE DISPOSAL: Drums provided alongside by Port Authority. Skips are available for alongside or on board (to be arranged by ship's agent).

WASTE OIL DISPOSAL: No collection service available.

SEAMAN'S CLUBS: None.

CURRENCY: South African Rand (R).

AUTHORITY: Portnet, P.O.Box 32696, Braamfontein 2017, Johannesburg, South Africa. *Tel:* (011) 7737299. *FAX:* (011) 7738304. *Contact:* The Chief Executive.

Mossel Bay: Portnet, P.O.Box 1942, Mossel Bay 6500, South Africa. *Tel:* (0444) 46271, 3404. *FAX:* 46232. *Contact:* Captain T. Bosker, Port Manager.

AGENT: King & Sons (Pty.) Ltd., (P.O.Box 17), 9 Church Street, Mossel Bay 6501, South Africa. Tel: (0444) 7117. Fax: (0444) 913311. Telex: 248123. Cables: Baronet, Mossel Bay.

PORT ELIZABETH: (Algoa Bay): 33.57 S. 25.39 E.

(See Plan)

PORT LIMITS: Bounded on the Southward by a line drawn from Cape Recife, East (true) to a point in the Indian Ocean, distant 1,609 m. on the Northward by a line drawn from the extreme point of the East bank of the Swartkops River, East (true) distant 1,609 m. on the Eastward by a line drawn between these 2 points, and shall embrace the foreshore between high and low water marks from Cape Recife lighthouse to the aforesaid line at East bank of the Swartkops River, including that portion of the said river which lies on the seaward side of the bridge carrying the railway line to Alicedale, together with the jetties, harbour works and all land vested in the Government of the Republic of South Africa.

DOCUMENTS:

Customs

Form DA.1 Report Inwards/Outwards for ships.
Form DA.3 Certificate of clearance for ships.
Form DA.4 Transire – for a destination in the R.S.A.
Form DA.5 List of sealable goods on board ship.
Ship's Crew List (Customs Department).
Livestock Form (Customs Department).

Post Office

P1/27 Notice of arrival and departure of vessel.
P1/8 Declaration and Post Office Certificate.

Port Health

Maritime Declaration of Health.
Crew List with last vaccination dates.
Derat or Derat Exemption Certificate.

Port Authority

T958 Report of Arrival.
T962 A Departure/Shifting Notification.
Ship's Manifest.
Also see "Cape Town" – Shipmaster's Report, March 1981.

PILOTAGE: Pilotage is compulsory. Messages addressed to Port Captain, Port Elizabeth. Initial ETA together with draft, 72 hours prior to arrival, updated 12 hours prior to arrival and confirmed with Port Control when within VHF range and when 16 miles East of the breakwater head for ships coming from Eastward and 3.5 miles South of Cape Recife for ships coming from Westward. VHF radio calling on Channel 16. Working frequency Channel 12.

Pilot boats fitted with multi-channelled VHF. Pilot boats black hull with white superstructure, "Pilot-Loods" painted black on white. Pilot boat stationed inside harbour and meets ship on arrival approximately 2.5 nautical miles North East of South breakwater head. Boarding requirements consist of pilot ladder together with 2-manropes or pilot hoist. Pilot ladder usually rigged on starboard side.

Algoa Bay is considered a safe anchorage for all sizes of ships, the bottom consisting mainly of sand. Usual anchorage for ships awaiting Pilot is 3.5 miles Eastward of breakwater, in the Outer Anchorage. Predominant winds are Westerly all the year, with East/South Easterly during the Summer months. The Westerly winds are the stronger of the two but are off land and cause little difficulty. Easterlies being from the sea are inclined to cause an uncomfortable sea.

ANCHORAGE: See "Pilotage".

RESTRICTIONS: Vessels not permitted to enter unless Agents have been appointed.

Vessels which are considered *not gas free* are restricted to daylight entry only.

MAX. SIZE:

	Max. length	*Draft*
Passenger, dry-cargo and container vessels	Subject to Port Captain's prior approval	12.0 m.
Tankers	203.3 m. overall	9.6 m.
Ore carriers	251.5 m.	12.0 m.

HEALTH: Pratique granted at first port of entry in South Africa. Pratique message 24 hours prior to arrival to "Port Health" at port of entry. If Radio Pratique not granted "Q" flag to be flown until ship has been cleared.

Valid certificates must be held for yellow fever. Ships from Eastern ports must also have valid certificates for cholera and typhoid.

BERTHING:

Wharf	*Length* (m.)	*Cope Level (MSL) Max.* (m.)	*Depth at Chart Datum Min.* (m.)	*Depth at Chart Datum Max.* (m.)	*Cranes Lifting Capacity* No.	*Cranes Lifting Capacity* (tons)
Charl Malan Quay	423	4.4	11.0	11.0	2	4
Container berths	635	4.4	12.2	12.2	3	40
East Quay	400	4.4	12.2	12.2	—	—
No. 2 Quay	519	4.4	11.0	11.0	8	4
No. 3 Quay	518	4.4	7.0	10.0	6 1	4 15
Ore Berth	360	4.4	12.2	12.2	2 ship loaders	
Tanker Berth	242	2.9-3.8	9.9	9.9	—	—
Trawler Quay	136	2.6	5.5	5.5	—	—
Fisheries Jetty	165	2.7	6.5	6.5	—	—
Tug Jetty	120	2.6	7.0	7.0	—	—

Container back-up facilities: 22 ha. with 3,500 ground positions for deep sea container traffic and 36 ground positions for reefer container traffic.

10 straddle carriers, 17 haulers and 21 bath-tub trailers for internal use. 1 reach-stacker × 35 tons.

A rail terminal for forwarding and receiving containers to and from inland destinations.

Ro-Ro facilities: Side loading for deep sea traffic. End loading coastwise traffic.

Pre-cooling Stores: South African Co-Operative Citrus Exchange Tel: (041) 563825. Telex: 243175. Fax: (041) 560752. Operates 5 cooling chambers with a capacity of 12,287 cu.m. (5342 pallets No. 2 Quay.

RADIO: Port Elizabeth Radio. Call sign ZSQ.

VHF: See "Pilotage".

TUGS: Three "Z-Peller" diesel tugs with a bollard pull of 30 tons fitted with firefighting and salvage capabilities are available, fitted radar and VHF. Tugs join between anchorage and harbour entra Tug's wires used at no extra charge.

BULK HANDLING FACILITIES: Ore Loading Plant: Storage capa approx. 350,000 tons. Rated loading capacity 1,360 t.p.h.

Ore loaders:

Maximum outreach from quay face	19.3
Extreme elevated height of loaders above HWOST	13.9

MEDICAL: Unrestricted hospital facilities. Medical assistance mus arranged through Agent.

TANKERS: Stand-by tugs for the fire watch compulsory.

DENSITY: 1025.

FRESH WATER: Delivery by hose ex-wharf hydrants. Rate 50 t.p.

FUEL: 48 hours' notice required. Bunker fuel and gas oil availabl ore berth. Bunker oil available at Berth No. 15.

CONSULS: (Code 041).

Belgium	Tel:	564697	Italy	Tel.	3512
Denmark	"	432696	Netherlands	"	5624
Ciskei	"	515634	Norway	"	5599
Germany	"	572840	Portugal	"	3216
Greece	"	555634	Transkei	"	5422
France	"	532070	U.K.	"	5524

REPAIRS: Minor deck and engine room repairs.

DRY DOCKS: None. Electrically operated 1,200 ton slipway; depth keel blocks F. 3.7 m.; A. 7.5 m. HWOST; telescopic cradle 75.4 m. lo minimum length 44.3 m. Max. length of ship 82 m. and max. beam 1

SURVEYORS: All Classification Societies represented.

CUSTOMS ALLOWANCES: See "Cape Town".

CARGO GEAR: Undertaken by shore cranes. No floating cr available.

STEVEDORES: To be arranged through ship's Agency.

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: Shipmaster to liaise with stevedo

REPATRIATION: All facilities available.

AIRPORT: 4 km. from harbour. Regular daily S.A. Airways flights to from all major centres.

TIME: GMT plus 2 hours.

HOLIDAYS: See"General" before first port.

POLICE/AMBULANCE/FIRE: Police (City) 10111, Police (Harbour) 5 5911, Pager 342211 (No.252); Ambulance 10177; Fire 55-1555. Secu 507-2710.

TELEPHONES: Telephones can be supplied at all berths. Arra through Agents.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Required. Otherwise National Ider Cards, if available.

GARBAGE DISPOSAL: Skips supplied to all ships for galley refuse o Hold rubbish/dunnage, etc. by rail truck or by motor truck. Order thro Port Control, Tel: 507-2720.

WASTE OIL DISPOSAL: No shore tanks or barges. Waste T supply tanker trucks of 10,000 litres capacity at a charge of R8 Contact Tel: 662741 or Fax: 662745.

SEAMAN'S CLUBS: Seaman's Club. Facilities include telepho church, shop, games can be arranged, minibus collection, posta games available at club. No accommodation.

AUTHORITY: Portnet, P.O.Box 32696, Braamfontein 20 Johannesburg, South Africa. *Tel:* (011) 7737299. *FAX:* (011) 77383

Contact: The Chief Executive.

Port Elizabeth: Portnet, P.O.Box 162, Port Elizabeth. Port Mana Tel: (041) 507-2604 or Port Captain Tel: (041) 507-2043. Telex: 2432 FAX: 552930.

AGENT: King & Sons (Pty.) Ltd., P.O.Box 1 (7th Floor, Sanlam Buildi 44 Main Street), Port Elizabeth 6000. Tel: (041) 559158. Telex: 2434 Fax: (041) 564194. Cables: Baronet Port Elizabeth.

PORT NOLLOTH: 29.15 S. 16.50 E.

(See Pla

PORT LIMITS: Northward by a line drawn 245° from North Point t point 4,827 m. from the shore; Westward by a line drawn 155° from t above point to the point where it meets a line drawn 245° from Gu Point, Southward by the latter line.

DOCUMENTS: Port Nolloth is not a port of entry for foreign go vessels. Any vessel arriving from outside South Africa must enter either Cape Town or other South African ports. Only document requi is 1 copy of the arrival form.

PILOTAGE: None. Harbour Master will give directions either from t shore, or will come on board a vessel if requested. 72 hours adva notice of ETA required. Harbour Master stands by on VHF Channel and R/T 2100 kHz from 0800 to 1630 hrs. Monday to Friday. Outs these hours only if a vessel is expected.

ANCHORAGES: Anywhere about 0.5 miles seaward of the Fair Buoy, usually just North or South of the transit line.

RESTRICTIONS: Daytime port only. Entry usually only possible about 2 to 3 hours either side of HW. Tide gauge on jetty and vessels only allowed to enter when 1 m. above chart datum shown on this gauge.
MAX. SIZE: Length 200 ft., draft 3.5 m.
HEALTH: Pratique automatic as vessel must have cleared at another South African port.
RADIO: Local radio station as under "Pilotage", or call Cape Town Radio.
VHF: VHF in Harbour Master's Office; (Multi-Channel). R/T 2182 kHz. Other VHF Channels available (i.e. 6, 10) on portable VHF sets.
RADAR: Not available.
TUGS: None. 40 ft. launch available if required.
BERTHING: 1 berth, 217 ft. long. Depth alongside 3.5 m. at Chart Datum.
CRANES: 1 electric travelling crane, 7.5 tons SWL (only 4 tons SWL under normal cargo working). 1×2 ton mobile crane available.
STEVEDORES: Stevedores supplied by Benguela Operations (Pty) Ltd. who operate the port. 2 gangs available, no advance notice required.
MEDICAL: Local hospital and resident doctor. Main hospital at Alexander Bay (80 km. distant).
TANKERS: Tankers discharge alongside main cargo jetty. Gas oil only. No slop discharge facilities and no loading of oil. Discharge by vessel's pumps, 2 discharge lines available (Shell and Caltex).
DENSITY: 1025.
FRESH WATER: Fresh water available. Delivery by small bore hose (garden tap size); pressure dependent on municipal mains.
FUEL: Marine diesel available on all 3 jetties (2 fishing jetties and main cargo jetty). Delivery from standard type pump nozzle.
FIRE PRECAUTIONS: Normal when discharging gas oil.
CONSULS: None.
REPAIRS: Small deck and engine repairs can be undertaken.
DRY DOCKS: None. 1 slipway for vessels up to 20 m. length and 60 g.r.t.
SURVEYORS: No cargo surveyors. South African Department of Transport represented by the Harbour Master.
GANGWAY/DECK WATCHMEN: Not required.
HATCHES: Opening/closing carried out by vessel's crew.
CUSTOMS ALLOWANCES: No Customs Officers available.
REPATRIATION: In emergency only.
AIRPORT: Alexander Bay 80 km.; Springbok 140 km. Daily flights from Springbok to Cape Town. 3 weekly flights from Alexander Bay to Cape Town and to Luderitz, Johannesburg, Walvis Bay and Windhoek.
TIME: GMT plus 2 hours throughout the year.
HOLIDAYS: See "General" before first port.
POLICE/AMBULANCE/FIRE: Police – Port Nolloth Tel: 8320. Ambulance – Port Nolloth Tel: 8229 (municipality) or Tel: 8411 (state). Fire – No fire brigade in the town – Marine West fire fighting facilities Tel: 8244 or 8733 after office hours.
EMERGENCY CO-ORDINATION CENTRE: Port Captain, Cape Town. Tel: Cape Town (021) 4053413. Fax: (021) 405-2091.
Port Captain, Walvis Bay, Tel: Walvis Bay (09264) 642-3631.
Port Captain, Saldanha Bay, Tel: (02281) 20452.
Any coast radio station, i.e. Cape Town Radio or Walvis Bay Radio.
TELEPHONES: No facilities exist for placing telephones on board.
BANKS: First National Bank, P.O.Box 72, Port Nolloth 8280. Tel: Port Nolloth 8216. Telex: 5–20471 SA.
STORING: See "Prelims".
1. By truck.
2. No barges available.
3. Trucks can proceed alongside the vessel.
4. Yes.
5. None.
6. Yes.

SHORE LEAVE: Permitted, no restrictions.
IDENTIFICATION CARDS: Not required.
DELAYS: Tidal, unless berth occupied.
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None. Hotel with pool tables, bar & restaurant, bank and post office, supermarket & shops and churches, all within 1000 metres of dock gates. No arranged football matches or dances.
CURRENCY: South African Rand (R).
AUTHORITY: Harbour leased to: Benguela Operations (Pty) Ltd., P.O.Box 101, Port Nolloth 8280, South Africa. *Tel:* (0255) 8244 and after hours 8038. *FAX:* (0255) 8629.

RICHARDS BAY: 28.48 S. 32.06 E. (See Plan)

LOCATION: The port is located some 200 km. North of Durban. Mid point of the bay is approximately Lat. 28° 48' S., Long. 32° 02' E.
DOCUMENTS: The following documents should be prepared and ready on berthing:
Port Health:
1 Maritime Declaration of Health.
1 Vaccination List.
1 Crew List.
1 Valid Derat Certificate.
Immigration:
1 Crew List ("I" flag International Code to be flown).
1 Passenger List (if applicable).
1 Stowaway List (if applicable).
Customs:
2 Crew Lists.
1 Ship's Stores List.
1 Crew Customs Declaration (local form only).
1 Narcotics List.
1 Personal Effects List signed by each crew member.
1 Passenger List.
1 Customs Form (D.A. 5).

All vessels using the port, will be subject to Customs Inspection and must obtain a Customs Clearance.
Agents:
2 Crew Lists.
Loading Certificate.
Safety Radio Certificate
Safety Equipment Certificate.
Register.
1 Transire from previous South African port.

PILOTAGE: Pilotage is compulsory and Pilots are provided by the Marine Department of Portnet. Pilots are transported by helicopter or a pilot tug.

Boarding points are determined by the Pilot, but generally speaking will be within an area approximately 3 nautical miles S.E. of South breakwater.

Pilot ladders to be clean and comply with Solas Regulations.

Vessels with freeboard in excess of 9.0 m. must have accommodation ladder rigged in conjunction with the pilot ladder, which must be 2.0 m. above sea level, manropes must be provided. Pilot hoists not accepted.

Also see "Restrictions".

Helicopter Pilotage Conveyance Service:
1. A 24 hour Helicopter Pilot/Conveyance Service has been introduced at the Port of Richards Bay.
2. Masters are to comply with "The International Chamber of Shipping" (ISBN 0906270 02 2) Guide to Helicopter/Ship Operations with special reference to the Safety Check List and night operations.
3. Masters are further to advise, in the 24 hour notice of ETA to the Port Captain, the availability and position of the following facilities.
   (a) A landing area, or
   (b) A winching area only.
   Forward information to: Telex No. 631119 or
   Fax No. 0351-905-3061.
4. Helicopter rendezvous areas are as follows:
   (a) For a light draft vessel – A circle with radius 0.4 miles centred on Lat. 28° 50' S., Long. 32° 08' E.
   (b) For a deep draft vessel – A circle with radius 0.5 miles centred on Lat. 28° 50' S., Long. 32° 09' E.

All vessels other than those engaged in helicopter operations are instructed to keep clear of these areas.

At night: Vessels engaged in helicopter operations are to exhibit the lights described in Rule 27 (a) of the International Regulations for Preventing Collisions at Sea.

ANCHORAGES: 3 to 5 nautical miles South East of the South Breakwater but not opposite Entrance or North of Entrance, which is a prohibited entry area.
Quality of Bottom: Sandy.
Note: Anchorage is similar to Durban and in high S.W. winds anchorage is not safe, and vessels are inclined to drag anchor. In high N.E. winds, caution should be exercised.
Shipmaster's Report: August 1995.

The ship's anchor became entangled with the chain of an anchor lost by another vessel. To free our ship, we had to cut our anchor chain and abandon our anchor with 2 shackles of chain attached in position Lat. 28° 52.89' S., Long. 32° 08.05' E.

Later, Port Control admitted verbally to our Pilot of knowing of 8 such anchors and chains lost in the port outer anchorages, but did not publicise it as they did not know their exact positions. While in port, we were also advised by a surveyor that there are now to public knowledge 45 lost anchors and chains littering this anchorage.

RESTRICTIONS: *Marine Traffic Hours:* 24 hours a day, except for vessels that do not meet the ballast draft requirements, which will only be handled at pilot's discretion.
MAX. SIZE: LOA Max. 314 m. Beam max. 47.25 m. Draft max. 17.5 m. D.W. Limit max. 170,000 d.w.t. Larger vessels may be accommodated on request to the Port Captain.
Minimum Ballasted Condition on Entry:

Length	*Draft – Fore*	*Draft – Aft*
Under 250 m.	2% of length	3% of length
over 250 m.	2.5% of length	3.5% of length

HEALTH: Radio Pratique must be obtained by cabling Port Health – Durban using the standard international procedure for working. See "Radio".

Derat Certificates valid for six months are issued by Port Health as are exemption certificates.

RADIO: *Arrival Advice:*

To "Port Health Richardsbay" – direct through Durban Radio – between 24 hours and 48 hours prior arrival – advising ETA, last port, date sailed, number of crew, full inoculation/vaccination status, and state of health of crew, and requesting Radio Pratique. Port Health will cable vessel directly, either granting Pratique or requesting further details.

To "Portcaptain Richardsbay" during normal port working hours, otherwise to Port Control Signal Station outside hours – direct through Durban Radio – 48 hours prior arrival, advising ETA, draft, freeboard and reason for call at Richards Bay.

Port Control: Fax: (0351) 9053061. Telex: 631119 SA.

VHF: Vessels can communicate with Port Control on Channel 16 VHF, watch is maintained continuously, working channels – 12, 9, 11, 13 and 14. When at anchor, listening watch must be kept to receive berthing instructions.

TUGS: Tug attendance is compulsory. Tugs will supply a working wire or wire-polyprop combination, with a messenger attached. Ship to send heaving line to tug. Tugs are owned and operated by Portnet and consist of the following:

Voith Schneider (4 tugs) 4,000 h.p. Bollard Pull 43 tons.

Tugs change crew at 0600 hrs., 1400 hrs. and 2200 hrs. on Monday to Friday, and 0600 hrs. and 1800 hrs. on Saturday and Sunday.

STEVEDORES: *Cargo Working Hours:*

Portnet: 24 hours, 7 days a week, except Good Friday, Christmas and New Years Day.
Richards Bay Coal Terminal: 24 hours, 7 days a week.

MEDICAL: Richards Bay: Bay Hospital (7 km. from port).
Empangeni: Empangeni Clinic (20 km. from port).
Contact ship's Agent if doctor/dentist services are required.

BERTHING: Harbour Authorities provide berthing gangs.

Berth No.	*Type*	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Cope Level* (m.)
Die Duine:					
209	Chemicals	300	−14.0	12.5	+4.5
301	Coal	350	−19.0	17.5	+5.2
302	Coal	350	−19.0	17.5	+5.2
303	Coal	350	−19.0	17.5	+5.2
304	Coal	350	−19.0	17.5	+5.2
Umhlatuzi (General/Heavy/Ro-Ro Cargo):					
609	General	300	−12.8	12.0	+5.2
No. 607 – 608 General: Under construction (to be completed October 1997).					
Bayview:					
701	Bulk	300	−12.8	12.3	+5.2
702	Bulk	240	−19.0	17.5	+5.2
703	Bulk	240	−19.0	17.5	+5.2
704	Bulk	240	−19.0	17.5	+5.2
705	General	280	−19.0	17.5	+5.2
706	General	200	−14.7	13.5	+5.2
707	General	200	−14.7	13.5	+5.2
708	General	200	−14.7	13.5	+5.2
Small Craft Harbour:					
Repair Berth		300	−8.0	7.5	+4.3
Dredger Berth		150	−7.0	N/A	+4.3
Tug Berth		180	−7.0	N/A	+4.3
Pilot Boat Berth		165	−4.0 −7.0	N/A	+3.4
Harbour Craft Berth		150	−4.0	N/A	+3.0 +3.4
Launch Jetty		170	−4.0	N/A	+3.0
Inner Anchorage		No limit	−19.0	17.5	N/A

Fendering: All commercial berths are fitted with rubber fendering. Berths No. 301 to 304 are fitted with cylindrical fenders with an outside diameter of 2.0 m. Similar fenders with an outside diameter of 1.6 m. are fitted to Berths No. 609 to 707.

Bridgestone type SM 800 H × 3.0 m. L are fitted to Berth No. 209.

General Cargo Berths: Berth No. 609 is served by rail tracks and has a surfaced back-up area. It is currently used for general and abnormal/heavy cargo working. The berth can also accommodate Ro/Ro vessels.

CARGO HANDLING FACILITIES: Dependent on availability, Berths No. 701 – No. 704 can also be used for general cargo working. No stacking area is available behind Berths No. 703 and No. 704. The repair berth at Small Craft Harbour can also be used by general cargo vessels with a limited draft. There is only limited rail access to this berth.

General Cargo:

(a) Combi Terminal (Portnet):

Covered storage: 24,700 sq.m.
Open storage: 240,000 sq.m.
Cargo includes: Aluminium ingots, bagged cargo, containers, copper cathodes, granite, logs, paper, pulp, steel and timber.

(b) *Bulk Metal Terminal (Portnet):*

Covered storage: 4,500 sq.m.
Open storage: 104,000 sq.m.
Cargo includes: Feros, lumpy chrome, pig iron and steel.

Bulk Cargo:

(a) Dry Bulk Terminal (Portnet): The Dry Bulk Terminal has developed into one of the world's largest and most sophisticated multi-purpose bulk handling facilities.

Export covered storage facilities:
GP 1 and 2: 13,500 sq.m. each (fitted with scraper reclaimers).
GP 3: 8,240 sq.m. (fitted with a scraper reclaimer).
GP 4: 3,670 sq.m.
Storage bins: 32 bins with a capacity of 3,300 cu.m. each.
Silos: 3 silos with a capacity of 5,000 cu.m. each.

Export wharfside equipment:
One pneumatic ship loader (exclusively for wood chips): Design load rate of 750 t.p.h.
Two general purpose loaders: Design load rate of 2,500 t.p.h.

Export commodities includes: Andalusite, chrome sand, clay, copper concentrates, ferro fines, fertiliser, rock phosphate, rutile, titanium slag, vanadium slag, vermiculite, wood chips and zircon.

Import covered storage facilities:
Coking coal shed: 11,900 sq.m.
Fertiliser shed: 6,036 sq.m. (operated by a private concern).

Import wharfside equipment:
One general purpose grab unloader: Free digging rate of 1,250 t.p.h.
One mobile harbour crane: 30 ton SWL (100 ton heavy lift).
Two pneumatic unloaders (Exclusively for alumina and petcoke): Free digging rate of 500 t.p.h. and 600 t.p.h. respectively.
Portable conveyor belts: 2 sets, 100 t.p.h. with ship's gear.

Import commodities includes: Alumina, coking coal, fertiliser, petcoke, potash, rock phosphate and sulphur.

(b) Richards Bay Coal Terminal (Private concern): Richards Bay is world renowned for the large-scale coal export operation owned and operated by the Richards Bay Coal Terminal Company.

Four berths (301-304): 300 m. each.
Depth: 19.0 m.
Permissible draft: 17.5 m.
Maximum beam: 47.25 m.
Maximum LOA: 314.0 m.
Quality of bottom: Sandy to hard.
Equipment: Loading rate:
Shiploaders 1 and 2: Nominal: 8,500 t.p.h.
Average: 5,000 t.p.h.
Shiploader 3: Nominal: 10,500 t.p.h.
Average: 6,500 t.p.h.
Working range of boom: 15° up to 15° down.
Height of boom above HWOST with loader at maximum working elevation: 21.6 m.

Other Private Operators:

(a) Richards Bay Bulk Storage: A terminal for the storage and shipping/receiving of liquid chemicals is operated by Richards Bay Bulk Storage (Pty) Ltd.

(b) Richards Bay Bunker Terminal: A terminal for the receiving and storage of heavy fuel oil and marine gas oil is operated by Richards Bay Bunker Terminal.

(b) FFS Bunkers: Bunker and slop service to vessels by bunker barge.

DENSITY: 1026.

FRESH WATER: Available at the berth. Rate approx. 25 t.p.h.

FUEL: Heavy and Medium Fuel Oil. Diesel Oil and Gasoil are available by pipeline at Berths 301, 302 and 209 only. Bunkering can take place concurrently with loading.

There is a bunker barge with capacity 800 tonnes H.F.O. and 120 tonnes B.G.D. Pumping rate 150 tonnes/hr. for H.F.O. (180 cst) and 40 tonnes/hr. for B.G.D.

Stems for bunkers should be placed with normal bunker suppliers who will arrange delivery through the bunker supply company at Richards Bay. All vessels calling for bunkers must either be gas free or inerted before they will be permitted to enter the port.

CONSULS: In Durban.

REPAIRS: Written approval must be obtained from the Port Authorities via the Agents for vessel to immobilise engines to carry out repairs. Repairs may be carried out at the berth. Radio/radar repairs are undertaken by technicians travelling from Durban.

SURVEYORS: Bureau Veritas, Captain G.A. Chettle, Inspectorate M&L P&I Association, Acme, S.G.S., Kirkmarine, Maritech Services, Lamberg & Ass.

GANGWAY/DECK WATCHMAN: Recommended.

OPENING/CLOSING HATCHES: By crew.

CUSTOMS ALLOWANCES: See "Cape Town".

REPATRIATION: Possible.

AIRPORT: There is an airport at Richards Bay 26 km. from the Coa Berth, 8 return flights a week to Johannesburg, where internationa connections can be made.

TIME: GMT plus 2 hours.

HOLIDAYS: See "General" before first port.

POLLUTION: The Port Authorities demand that no vessel using the por shall discharge any garbage, refuse, vegetable or food matter, dec cleanings, polluted bilge water, oil or rubbish of any description in th vicinity of or in the port of Richards Bay.

Heavy penalties will be imposed for breach of the regulations.

Vessels arriving in ballast must have clean ballast on board, a deballasting takes place alongside the berth. Dirty ballast pumped int the harbour will incur heavy penalties for pollution.

POLICE/AMBULANCE/FIRE: Police Tel: 0351-31608. Ambulance/Fi Tel: 0351-31991 or VHF Channel 16 (Port Control).

TELEPHONES: Telephones are not readily available at the bert Application for the service should be made through the Agents i advance.

All telephone calls made will be charged to the vessel's account.

Caution: With direct dialling available internationally it is strong recommended that telephones are placed in the custody of a responsi officer to avoid abuse.

SHIP SUPPLY SERVICE: A helicopter service through Court Repub Helicopters, P.O. Louis Botha Airport, Durban L, 4029. Tel: (031) 42610 Telex: 624246.

Rendevous position Port Dunford Lighthouse 090°T 23 nautical mile

Note: Aircraft can carry out approximately 100 mile round trip in 1 hou

A launch service is carried out by the Portnet via the Pilot launch. Th efficient operation is dependant on the work load of the Port at the tim service is required.

Prior to helicopter/launch being permitted to leave, signed author from Port Health, Customs and Immigration must be obtained.

SHORE LEAVE: There are no restrictions on shore leave for crew. Cr members proceeding to Durban require written permission fro Immigration Authorities.

IDENTIFICATION CARDS: Seaman's Book sufficient.

GARBAGE DISPOSAL: Richards Bay Municipality makes collectio twice a week. Drums and skips are provided alongside. Tel: 31111.

WASTE OIL DISPOSAL: FFS Refiners operate slop collections. Sho tanks are 160 tons capacity. Barges will be made available. Collect at any berth to be arranged by Agent.

SEAMAN'S CLUBS: Seafarers Club, P.O. Box 382, Richards Bay 39 Tel: 973491/2. Chapel services, snack bar, library, postage serv available. Bus service from ship. Football matches and safari tours be arranged, games room and curio shop available.

Also see "General".

CURRENCY: South African Rand (R).

Only restriction is that seamen cannot buy dollars unless they h cashed in dollars previously (proof or receipt required).

GENERAL: The harbour and the quays are owned by Portnet.

Provisions: Stores and provisions can be obtained through local Ship's Chandlers.

Game Parks: National Parks Board Game Reserves (Hluhluwe and Umfolosi) are within easy reach of Richards Bay by car.

Car Hire: Cars can be hired, through the Agents at reasonable cost to officers and responsible crew members only. An International Driving Licence is required to make use of this service.

Arrival Time at Richards Bay Harbour: The official arrival time of a vessel is taken to mean the time agreed upon with the Signal Station, when the vessel crosses into the proclaimed area of Richards Bay Harbour, as defined.

Draft Regulations: Very strict control is maintained at South African Ports, concerning the overloading of vessels, either on arrival, on sailing, whether calling for bunkers or loading cargo.

Attention is drawn to the fact that the Plimsoll Mark is the only standard by which the Authorities at South African Ports will determine a ship to be overloaded or correctly loaded. *No allowance whatsoever will be made for vessels sagging.* A corresponding mean draft where this occurs is unacceptable to the Authorities. It should be noted that Richards Bay is in the *Summer Zone throughout the year.*

Masters are liable to severe penalties for contravention of these regulations.

Also see "Shipmaster's Report".

Gas free Pre-requisite: Incoming vessels must be gas free, or inerted prior to entry and where applicable, certificates to be issued by qualified chemist who will check that aspect, prior to vessel's entry into Port.

OBO's, whose last cargo was oil, must report this to Port Control on arrival.

Swimming: Seamen are advised that it is dangerous to swim in the sea or the Harbour, due to the presence of sharks and dangerous tidal conditions.

Furthermore, the rivers and fresh water lakes in Zululand are infested with Bilharzia and crocodiles, and you are similarly advised not to swim in these places.

Walport Films: Films/Video tapes are available. One week's notice required if possible.

Foreign Currency: One week's notice required. Currency must have been received from abroad before being released by banks.

Laundry: Excellent service available. Contact ship's Agent.

Drugs: (Agent's Notice).

We feel it is important that we draw your attention to the very severe penalties which can be imposed in this country on any person selling, buying or even using any habit-forming drug such as heroin, marijuana, LSD, dagga, etc. We cannot impress on you strongly enough the need for you to advise all members of your crew, and passengers too, of these strict laws.

The following are some of the penalties laid down in the Act on the Abuse of Dependence Producing Substances and Rehabilitation Centres (No. 41 of 1971), which came into force on 1st December, 1971.

(a) Any person who deals in any *prohibited* dependence producing drug or any plant from which such dependence producing drug can be manufactured or who deals in any *dangerous* dependence producing drug or any plant from which such a drug can be manufactured can be on a first conviction sentenced to imprisonment of not less than 5 but not exceeding 15 years and in the case of a second or subsequent conviction to imprisonment of not less than 10 but not exceeding 25 years.

(b) Any person who has in his possession or uses any *prohibited* dependence producing drug or plant or who has in his possession or uses any dangerous dependence producing drug or plant from which such drug can be manufactured can on a first conviction be sentenced to imprisonment of not less than 5 but not exceeding 15 years.

(c) Any person who deals in any potentially dangerous dependence producing drug can be sentenced to imprisonment of up to 10 years.

(d) Any person who has in his possession or uses any *potentially dangerous* dependence producing drug can be sentenced to imprisonment of up to 5 years.

Any person who deals in:

(1) Prohibited or dangerous drugs or plants, can be sentenced to:
    (a) First conviction – 5 to 15 years' imprisonment.
    (b) Second or subsequent conviction – 10 to 25 years' imprisonment.
(2) Potentially dangerous drug can be sentenced to imprisonment of up to 10 years.

Any person who uses or possesses any:

(1) Prohibited or dangerous drug plant can be sentenced to:
    (a) First conviction – 2 to 10 years imprisonment.
    (b) Second or subsequent conviction – 5 to 15 years imprisonment.

Combined Seafarers Club (Missions to Seamen): This has been opened outside the Customs Gate near the Harbour Administration Building. Souvenirs, refreshments, etc. are available as well as a telephone for making overseas calls. The premises have a wine and malt licence (i.e. wine and beer are served).

Seaman's Club – Bus Service: Contact Agent for information.

Shopping and Business Centres: The shopping and business centres are at Meerensee and Arboretum, Richards Bay, also at Empangeni where the majority of personal needs are obtainable.

One hour film processing service available from Camera Vision, Kit's Photos and Photo First.

Vaccinations: Arrangements can be made for Health Authorities to attend on board for vaccinations.

Tides: Tidal change between HWOST and LWOST is approx. 2 m.

Prevailing Winds: South Westerly in Winter; North Easterly in Summer.

DEVELOPMENTS: Construction of new berths (No. 607 and No. 608) will be completed in October 1997.

SHIPMASTER'S REPORT: May 1987 (Updated 1992).

Pilot and tugs most competent. Berths good and well founded. No draft or air draft restriction for a Panamax at this port.

There was a full and efficient hatch inspection made. Loading was rather spasmodic, due to some very heavy rain, shore plant breakdown and the plant being used for other purposes. A small amount of grab damage was done but this was repaired promptly.

There was no time claimed against the vessel.

Quantity of cargo requested was 63,000 tonnes ±5%. We loaded 62,834 tonnes. There is a strict draft survey and a very heavy penalty for overloading.

Cargo completed	1010 hrs.
Pilot on board	1051 hrs.
Clear of Berth	1109 hrs.
Commenced Passage	1200 hrs.

Agent's Notices:

Rain Whilst Loading:

Following serious complaints from receivers, we have been requested by Principals to instruct Masters of all vessels loading coal at Richards Bay to ensure that all hatches are closed during periods of rain or threatening rain except for those hatches which are being loaded. Furthermore, we would request your written advice of any knowledge you have of foreign objects that may have been loaded with the cargo, giving details of the particular hatch and approximate position of such objects.

Loading Regulations:

May we courteously draw the following to your attention – We have already had numerous vessels loading at Richards Bay which have sailed from Port in an overloaded condition.

The Port Captain has advised that in future any vessels attempting to sail overloaded will be detained until the vessel is deemed to be correctly loaded. It is an offence to submerge a vessel's Load Line during any stage of loading, regardless of the amount of ballast still to be pumped out.

Your attention is drawn to the fact that the Plimsoll Mark is the only standard by which the South African Port Authorities will judge a ship to be correctly loaded. No allowance whatsoever will be made for a vessel's sag and the corresponding mean draft. Allowance for fresh water can be made provided the physical draft does not exceed 17.5 m. and that the Pilot will require proof from the Surveyor that the allowance is correct in terms of the density of water at the time of survey.

In view of the foregoing, we would ask that the Chief Officer and not the Surveyor completes the loading operation. The Surveyor will only calculate the cargo actually on board at the time of completion.

As the loading appliance is presently capable of a rate in excess of 6,000 tonnes per hour, extreme care should be taken by ship's personnel to ensure that the vessel is correctly loaded.

The Department of Transport have advised that in terms of International Convention on Loadlines 1966 Article 12 and fourth schedule of the Merchant Shipping Act No. 57 of 1951 (as amended) a vessel is permitted to submerge the Summer loadline when floating in water of density less than 1,025. The amount by which the loadline may be submerged is proportionate to the difference between the actual density of the water in which the vessel is floating and 1,025. This amount is commonly referred to as the Dock Water Allowance. The Master therefore has the legal right to make use of this provision when the density of the water in which his vessel is floating is other than 1,025. It is the duty of the Master or his appointed representative to calculate the Dock Water Allowance. Density used when determining Dock Water Allowance should be Density in Vacuo. When a draft survey hydrometer which is calibrated to read weight in air is used to determine the density, an added air buoyancy correction should be applied.

Kindly acknowledge receipt of the above by signature to copy attached hereto.

Maximum permissible draft in Richards Bay is 17.5 m.

AUTHORITY: Portnet, P.O.Box 32696, Braamfontein 2017, Johannesburg, South Africa. *Tel:* (011) 7737299. *FAX:* (011) 7738304. *Contact:* The Chief Executive.

Richards Bay: Portnet, P.O.Box 181, Richards Bay 3900. *Tel:* (0351) 905-3440. *Telex:* 631052. *FAX:* (0351) 905-3333. *Contact:* G. Martin, Port Manager. N. Govender, Manager – Combi Terminal. Captain D. W. Brink, Port Captain. C. King, Bulk Manager.

AGENT: King & Sons (Pty.) Ltd., P.O.Box 9 (Ventura Road), Richards Bay 3900. Tel: (0351) 973140. Telex: 631088. Fax: (0351) 973030. Cables: Baronet Richards Bay.

SALDANHA BAY: 33.02 S. 17.58 E. (See Plan)

LOCATION: Saldanha Bay is on the West coast of South Africa, about 60 miles North of Cape Town. It is a natural harbour, partly protected by an artificial breakwater.

FORMALITIES/DOCUMENTS: Vessels arriving at the port should fly the following flags:

Their own National Flag.
The South African National Flag.
"I" (India) flag until the ship is cleared by Immigration.
"Q" (Quebec) flag if Radio Pratique has not been granted.
"H" (Hotel) flag while the Pilot is on board.

A single officer will handle all the formalities for Customs, Immigration and Port Health. He will board the vessel immediately after docking.

The following documents and papers will be required:

5 copies Crew List.
1 copy Stores List.
1 copy Crew Effects List.
1 copy Animal List.
1 copy Narcotics List.
1 copy Passenger List.
1 copy Maritime Declaration of Health.
1 copy List of Sealable Goods (Form DA5).

The following certificates must be available for inspection:
Safety Radio Certificate.
Load Line Certificate.
General Safety Equipment Certificate.
International Oil Pollution Prevention Certificate.
Cargo Safety Construction Certificate.
Derat Certificate.
Passenger Safety Certificate (only if more than 12 passengers).

If the ship has come from a South African port, she will also require a Transire (Form DA4) and a Light Dues Certificate. Light dues are paid at the first South African port of call and are valid for one month.

Should a Derat Certificate be due to expire, the Customs Officer can extend it for one month. Should a new certificate be required, a Port Health Officer must travel up from Cape Town.

The bond will be inspected and sealed by the Customs Officer. A list of crew allowances for cigarettes, wine, etc., appears on Form DA5. Should the ship remain in port for longer than 4 days, arrangements can be made with the Customs for the Bond to be opened and an additional issue made.

Safety and Pollution Control: After docking, all ships will be boarded by the Pollution Control Officer, who will require a check list to be completed. Ballast will be inspected and bilge discharge valves sealed. In the case of tankers, the Pilot who docks the ship is required to inspect the TOVALOP Certificate and the Civil Liability Convention Certificate. A Safety Check List must be completed and handed to the Pilot, who will then, on behalf of the Port Authority, issue the ship with a permit to load or discharge crude oil.

APPROACH/PILOTAGE: Pilotage is compulsory. Masters should call Saldanha Bay Port Control on VHF Channel 16 when 12 miles from the Pilot Station for instructions. Pilots will board ballasted ships 4 miles off the coast and laden ships 6 miles off. When making an approach, ships should stay South of the 080° leading marks.

Pilot ladders must conform to IMPA standards. Hoists are not acceptable. Masters should anticipate having to manoeuvre to make a lee, particularly in Winter. The Saldanha pilot boat is a 20 m. launch with an orange hull and white wheelhouse. It can be contacted on Channel 12 or Channel 16.

A Cape Town based helicopter is occasionally used if conditions are severe.

Note: The 12 mile time is recorded and a ship is considered "arrived" when she crosses betweeen North and South Head.

ANCHORAGES: Ships awaiting a berth can be anchored near the jetty, but are subject to port dues from the time they pass the outer channel buoys. They are required to take a Pilot for this. The approaches to Saldanha Bay are not a recommended anchorage, and should a vessel be required to wait off the port, Masters are advised to remain underway. St. Helena Bay, 40 miles North of the port, is the nearest good anchorage, although it is exposed to Northerly winds in Winter. Permission must be obtained, through the Agent, from the authorities for a vessel to anchor there.

RESTRICTIONS: *Port Working Hours for Shipping Movements:* Iron ore ships, tankers and concentrate ships are handled at any time day or night with the following exceptions:

1. All loaded tankers and vessels berthing at the ore/oil jetty with a draft of more than 14.0 m. are docked during daylight only.
2. Concentrate vessels with a draft of more than 6.0 m., which must use the Turning Basin to turn, will be handled in daylight only.
3. Ore ships which load to 21.5 m. draft must, when sailing, have at least 1.0 m. on the tide gauge when passing down the channel.
4. Concentrate ships which load to more than 10.5 m. draft must have the equivalent of the excess over 10.5 m. on the tide gauge when sailing.
5. Incoming tankers with a draft of over 19.5 m. must have the equivalent of the excess over 19.5 m. on the tide gauge when turning in the Turning Basin. If the tide is ebbing, the Pilot will decide whether there is sufficient time to complete the operation safely.

Minimum Draft Requirements: Vessels arriving at the Port of Saldanha must pump adequate ballast while still in open water (the minimum depth of the water in the waiting area is 13.7 m. below Chart Datum). The Master of the vessel is responsible for presenting the ship for loading with the proper trim and draft, keeping in mind the loading rate and loader clearance. A clearance safety factor of 2.2 m. is required. Minimum draft requirements will be stipulated by the Port Captain and will be dependent upon existing weather conditions. The following table gives an indication of such minimum draft requirements:

Vessel's length overall	*Forward draft*	*Aft draft*
183 m. (600 ft.)	6.0 m. (20 ft.)	7.5 m. (24 ft.)
213 m. (700 ft.)	7.5 m. (25 ft.)	8.5 m. (28 ft.)
244 m. (800 ft.)	8.0 m. (26 ft.)	9.0 m. (30 ft.)
274 m. (900 ft.)	8.2 m. (27 ft.)	10.0 m. (32 ft.)
over 274 m. (over 900 ft.)	8.5 m. (28 ft.)	10.5 m. (34 ft.)

Tide: 1.50 m. between MLWS and MHWS. All navigation and other charts refer to Chart Datum which is MLWS minus 0.26 m.

Turning Basin: Between the navigation channel and the end of the jetty is situated the main turning basin of 580 m. in diameter and 23.2 m. depth (LWOST). The approach to this basin is marked by beacons on the breakwater and the Eastern and Western extremities are marked by a red buoy and a green buoy.

Vessels with a draft exceeding 14 m. will be handled in the turning basin during daylight hours only.

Weather conditions may prevent entry:

1. Fog, mist, and continuous rain which affects visibility, and heavy swell or sea conditions which affect range action at the berth, manoeuvrability in the turning basin, or tugs towing hawsers within the harbour, will prevent entry.

2. Where poor weather conditions, or a weather forecast, allows the Port Captain to consider it inadvisable for a vessel to enter, he may instruct that the vessel shall not make a closer approach than 12 miles, or such other distance, to the port limits or coastline.

Weather conditions or range action which may cause a vessel to proceed to sea:

1. The Port Captain, or his deputy, may instruct a vessel to stop loading at any time.

2. If, in the opinion of the Port Captain, or his deputy, the movement of the vessel alongside the jetty or berth is excessive he may direct loading operations to cease.

3. The Port Captain, or his deputy, may at any time require a vessel to be removed from her berth and go to an anchorage, or to a safe distance at sea.

MAX. SIZE: *Draft:* At the Ore/Oil Jetty: For ships entering 20.5 m., and for ships departing 21.5 m. Vessels may be restricted to a departure draft of 21.25 m. if a swell is running.
At the Concentrates Quay: 11.5 m.
Size: Ore Berths: No restriction at present.
Tanker Berth: Maximum displacement of 300,000 tonnes permitted.
Concentrates Quay: Maximum length permitted is 200 m.
Note: Exceptions are permitted by the Port Authority according to the merits of the case.

HEALTH: Pratique should be requested 48 hours before arrival. Message to be addressed to "Porthealth Saldanha", and sent through Cape Town Radio. The message should include the following:

1. Name and nationality of vessel.
2. Port of departure.
3. Destination.
4. Health conditions on board.
5. Number of crew and passengers.
6. Type of cargo or in ballast.
7. ETA

Vessels arriving at the Port of Saldanha in quarantine will be inspected by Health Officer at anchorage or on arrival at the berth. Should the Health Officer board the vessel at anchorage, a proper accommodation ladder must be provided. All expenses shall be for vessel's account.

Masters are requested to have Maritime Health Declaration (one copy) at hand and ready for inspection, also vessel's last Derat or Exemption Certificate. Any person who cannot produce a Yellow Fever Certificate, if called for, shall be vaccinated before being allowed ashore.

All persons requiring medical attention should be available upon vessel's arrival. Agents will provide form of application to be given to doctor for persons requiring medical attention.

No contact with shore is allowed until Free Pratique is granted.

RADIO: *Notice of Arrival:* Notice must be given at least 72 hours before arrival and confirmed 48 hours, 24 hours and 12 hours prior to arrival, and the Port Captain kept informed of any change to the ETA.
The message must include the following information:

1. Arrival and departure draft.
2. Gross tonnage, deadweight and length.
3. Type of vessel.
4. Nature of cargo to be landed/shipped.
5. If a tanker or OBO, whether gas free or inerted and whether there are slops on board.
6. Any other special requirements.

This message should be sent through the vessel's local Agent to Saldanha Port Control (Telex: 522225 or Fax: (02281) 357427). When within VHF range, Masters should call Saldanha Port Control direct on Channel 16 to confirm ETA.

VHF: Saldanha Port Control is equipped for MF, HF and VHF services. Transmissions and reception on Channels 6, 8, 10, 11, 12, 13, 14, 16, 26, 27, 67, 68, 69, 73 and 74.

R/T transmissions on 2182, 1700, 2049, 2716 and 3164 kHz.

Pre-tuned reception: 2182, 1700, 1765, 2002, 2009, 2016, 2023, 2049, 2056, 2716 and 3164 kHz.

Vessels must contact Port Control directly on Channel 16 when 12 miles from the pilot station and be prepared to change to Channel 1 or 12 thereafter.

Channels 9, 11, 13 and 14 should be avoided unless instructed to use them by Port Control or the Pilot.

Berthing Instructions: Vessels are to request instructions from Saldanha Port Control 6 hours before arrival.

The Port Captain is organised to receive VHF, telex and telephone messages on 24 hour basis. Radio traffic by vessels at anchor is permissible in the Port of Saldanha, provided this is not done on the selected Saldanha Bay Harbour VHF Channels (9, 10, 11, 13, 14, 6 68, 69, 73 and 74) and be in accordance with International Regulations.

Tugs: The tugs operate with VHF Channels 1 – 28 and 60 – 88, an radio telephone.

RADAR: The Port Control is equipped with Radar which can have th approach channels and anchorages marked on the screen.

Port Control Building: The Port Control, operated by Portnet is locat on the hill, Hoedjiespunt. This office houses the Port Communication equipment and surveillance radar and is located in position: Lat: 3 01.70' S., and Long: 17° 57.77' E. It is manned on a 24 hour basis b signalmen under the control of the Port Captain.

A radio direction finding system is installed to facilitate the location vessels calling Port Control. This system is designed to monitor calli frequencies as follows:
1.6 to 4.6 MHz in the marine bands.
0.52 to 1.6 MHz in the broadcast bands.
150 to 400 kHz in the beacon bands.
And all VHF marine calling Channels.

TUGS: Tug service is compulsory at the Port of Saldanha.
Tugs available are:

1. Tug "Marcus" 3,960 b.h.p. diesel, Voith Schneider.
2. Tug "Jutten" 3,960 b.h.p. diesel, Voith Schneider.
3. Tug "Meeuw" 3,960 b.h.p. diesel, Voith Schneider.

The Master, on advice of the Pilot, must decide what tug assistan is required and requests for such tug assistance to be made to the P Captain 2 hours before arrival.

4 tugs may be required when deep drafted vessels are to be hand Whenever the Port Captain, or his deputy, requires a fourth tug, i may be available from Cape Town. All expenses and costs to be bo by the vessel involved.

Vessel's Tug Requirements: Conditions at Saldanha can vary at short notice and cannot be predicted accurately prior to a vessel's arrival. Ship Masters must be prepared for high winds of up to 100 km./hr., and heavy swells which can produce swell conditions in the approach channel of up to 5 m.

The following guidelines may be used for programming tug services:
2 tugs: Vessels of less than 14 m. draft.
3 tugs: Vessels more than 14 m. draft but less than 18 m. draft.
4 tugs: Vessels of more than 18 m. draft.

All vessels are turned and berthed "heading out" on arrival. This is to ensure that when a vessel has to leave there will be no difficulty in unberthing and proceeding to sea. Normally only 2 tugs are required to undock vessels and, sometimes, only 1 tug is needed.

Should weather conditions become unduly bad, or swell conditions on the berth cause heavy ranging action, it may be necessary for vessels to either proceed to sea or to an anchorage. Thereafter, when conditions moderate, the vessel will be re-berthed and complete loading.

BERTHING: Ore/Oil Jetty: The ore loading and oil jetty is of the finger type and consists of 25 caissons in line, 17 of which support a re-inforced concrete superstructure for the ore loading jetty, 4 are for the oil jetty and 4 serve as mooring caissons. The superstructure serves as a roadway and access way for the shiploaders and ancillary services.

All caissons except the mooring caissons are fitted with floating Yokohama type pneumatic rubber fenders of 3.3 m. diameter, 6.5 m. or 10.6 m. long. These fenders are positioned on both sides of the caissons of the ore loading jetty spaced 39.52 m. apart and on both sides of the oil jetty spaced from 45.43 m. to 46.32 m. apart.

Vessels are moored by means of single and double quick releasing mooring hooks fitted with capstans or fairleads. These hooks have capacities of 100 tons and 200 tons respectively.

The total length of the jetty is 991.65 m. and the total mooring length available is approximately 500 m. for iron ore loading vessels and 450 m. for oil tankers at depths of 23.00 m. below Chart Datum. The depth of the navigation channel is 23.20 m. below Chart Datum seaward of the jetty and the exit of the navigation channel is 23.70 m. below Chart Datum. A turning circle with a diameter of 580 m. and a depth of 23.20 m. below Chart Datum is provided in the navigation channel seaward of the jetty.

Departure from Berth: Vessels which complete loading iron ore during the period 0600 hrs. to 2200 hrs. must sail immediately the draft survey and documentation is completed.

Vessels which complete loading and are ready to sail after 2200 hrs. may, without incurring any extra charges, remain at the jetty and sail at 0600 hrs. the next morning. This provision is optional. If a Master wishes to sail immediately cargo work is completed, he may do so.

General Cargo Quay: This quay is 250 m. in length with a least depth of 12 m. alongside (LWOST). A fixed green light marks each end of the quay and a buoyed channel leads to the quay, with a least depth of 12.5 m., from the vicinity of the Western side of the ore berths. Immediately adjacent to the quay is a turning basin (not to be confused with the main turning basin at the end of the ore jetty), with a radius of 142.5 m. (285 m. diameter), which is marked by 2 red can buoys on its Western side and with a least depth of 12 m. (LWOST). The quay was originally designed for the export of lead, zinc and copper concentrates which are stored in a long shed, conspicuous on the edge of the bay and due West of the ore tippler building at the root of the causeway. Storage for 30,000 tons of concentrates are leased to Black Mountain Mineral Corporation. The concentrates are loaded into vessels by 2×15 ton cranes using specially made skips, each capable of taking 12 tons of concentrate, and transported to the quay on trailers drawn by tractors.

North Western Side of Bay:

New Small Craft Harbour: Below the Port Control Building at Hoedjies Point, and due North of it, is situated the new small craft harbour. West of this harbour and lying in a W.N.W.'ly direction is a fishing vessel quay extending for some 500 m. and ending at the Government Jetty.

Government Jetty: The Government Jetty is located on the S.W. side of the Harbour in an area known as Smitswinkelbaai. The jetty is for use by the local fishing industry and coasters. The dredged depth is 6.7 m. below Chart Datum and the length of the jetty is 100 m. plus 160 m. mooring dolphins. Small vessels can moor on both sides of the jetty.

MOORING: *Mooring Arrangements:* All vessels shall be moored at the ore loading/oil jetty with a minimum of 16 ship's lines, that is to say 4 head lines, 2 breast lines, and 2 back springs forward, and 4 stern lines, 2 breast lines, and 2 springs aft.

All head and stern lines should be of suitable man-made fibre rope.

All springs must have suitable strops of at least 15 m. length.

All breast lines should be of suitable man-made fibre rope throughout, but if this cannot be provided, similar rope strops 15 m. in length must be fitted.

All lines to be as strong as possible, of a non-chafe type and preferably not less than 75 mm. in diameter.

Wires generally are not suitable, unless fitted with strops.

Shore ropes are available to supplement ship's lines, for vessel's account. Application to be made to Port Captain, Pilot, or Berthing Master. Ropes to be handled by vessel's crew.

LOADING: *Iron Ore:* The ore jetty has 2 shiploaders fed by a single conveyor belt running from the dump at the base of the causeway. Only one loader can work at a time. The average rate is about 6,000 t.p.h. The minimum safe clearance required under the loader chute differs on either side. On the Eastern side, 24.5 m. is needed, and on the Western side 25.8 m. These heights are from Chart Datum and include a 2.2 m. safety factor.

Lead, Zinc or Copper Concentrates: These are loaded at the General Concentrates Quay by 2×15 ton cranes. The cargo is stored under cover at the base of the causeway and brought to the ship in 12 ton skips towed by tractors. The rate is about 250 t.p.h.

BALLAST: No dumping of dirty ballast or any waste or oil from any vessel is allowed while vessel is within harbour limits or within the South African waters. (Refer to Regulation 39 of the Portnet Regulations for the Harbours of the Republic of South Africa).

Ballast pumped from vessels whilst deballasting shall be continuously checked and controlled by the Port Captain and ISCOR during loading. Vessels failing to comply with the Port Captain's requirements shall be requested to stop deballasting operations and may be instructed to leave the Port of Saldanha.

All vessels must secure bilge systems while in the Port of Saldanha, and complete the Pollution Control Officer's check list soon after arrival.

All vessels must ensure that ballast tanks and piping systems are free of oil contamination prior to arrival. No slop handling facilities are available and no slop or dirty or contaminated ballast can be handled.

STEVEDORES: *Working Hours:*

Ore Berths: 24 hours a day, 7 days a week, all year round, weather permitting.

General Cargo Quay: Monday to Friday, other than public holidays. 0700 to 1630 hrs. (a second shift will be worked from 1900 to 0430 hrs., but only by special agreement).

Black Mountain Concentrates: 24 hours a day from 0700 hrs. Monday to 0700 hrs. Saturday. On request from ship overtime can be worked Saturday 0700 – 1900 hrs., and Sunday can be worked 0700 – 1500 hrs. All cleaning operations to be completed by stopping time.

MEDICAL: *Hospitals:* There is a fully equipped hospital in Vredenberg, 13 km. from Saldanha. Serious medical cases, however, will normally be referred to one of the hospitals in Cape Town.

Doctors: There are several doctors available in Saldanha and nearby Vredenberg. To expedite appointments, however, and to arrange for attendance on board, Agents should be consulted.

Dentist: There are several dentists available in the area, and in order to expedite appointments, Agents should be consulted.

TANKERS: The tanker berth is equipped with 3×16 in. Chicksan hydraulic arms. Special spooling pieces, supplied by the Terminal, are bolted to the ship's manifold to enable the arms to be attached. The maximum manifold height allowed is 19 m. The arms have very limited ranging capacity and are fitted with audible alarms to warn of their limits. The storage tanks are about 8 km. from the berth. A discharge rate of 10,000 t.p.h. can be attained depending on the back pressure. Also see "Berthing".

FRESH WATER: Fresh water can be supplied at the approximate rate of 35 t.p.h. Hose is available on the jetty but vessel's crew are required for connecting and disconnecting. Expenses for vessel's account.

FUEL: Heavy oil is not available. Diesel can be supplied by road tankers or drums. Blended fuel is available for small vessels at the Fishing Harbour.

CONSULS: There are no Consulates established in Saldanha, but the following countries are represented at Cape Town:

Argentina
Australia
Austria
Belgium
Bolivia
Brazil
Canada
Chile
Denmark
Finland
France
Germany
Greece
Israel
Italy
Japan
Monaco
Netherlands
Norway
Panama
Peru
Portugal
Spain
Sweden
Switzerland
Taiwan
United Kingdom
U.S.A.
Uruguay

REPAIRS: A slipway (under control of Cape Provincial Administration) for the use of the fishing industry, is situated N.W. of the Government jetty with a jetty for vessels using the slipway. The maximum dimensions of vessels using the slipway are 1,200 tons, 70 m. in length, 11 m. in beam and 5 m. in draft. A crane on the jetty can handle loads of up to 10 tons.

Several large ship repair companies operate from Cape Town:

Dorbyl Marine Pty. Ltd. Tel: (021) 475170. Fax: (021) 476038.

Globe Engineering Works Pty. Ltd. Tel: (021) 4484640. Fax: (021) 4484652.

CERTIFICATES: See "Documents".

CUSTOMS ALLOWANCES: Master: 400 cigarettes, 1 litre spirits and 6 litres or 1 case of beer. Chief Officer: 200 cigarettes, 1 litre spirits, 6 litres beer. Other Officers: 200 cigarettes, 1 litre spirits, 3 litres beer. Crew: 200 cigarettes only.

All books, films, cards, calendars and arms and ammunition to be sealed in the bond.

See "Cape Town".

AIRPORT: International Airport near Cape Town, about 2 hours by road. Military airport locally but special landing rights have to be applied for.

HOLIDAYS: See "General" before first port.

EMERGENCY CO-ORDINATION CENTRE: Saldanha Bay is a sub-centre for the main South African Rescue Control Centre at Silvermine, Cape Town. It is responsible for the section of coast between Dassen Island and the Orange River mouth.

TELEPHONES: A telephone is compulsory for tankers and is available to any other ship at the Master's request.

Overseas communications can be made through Cape Town Radio, on VHF Channels 16, 26 and 27, when at anchor.

BANKS: First National Bank, P.O.Box 31, Saldanha 7395. Tel: (02281) 42251. Fax: (02281) 43096.

SHIP SUPPLY SERVICE: As the Port of Saldanha is situated only 60 nautical miles North of Cape Town the "Off Shore Services" based there are used in the normal course of events.

The harbour tugs or launches could be utilised from Saldanha in the case of medical emergency in the close proximity to Saldanha Bay.

SHORE LEAVE: Allowed.

GARBAGE DISPOSAL: The Port Authority can provide a truck for the disposal of refuse. The ship's crew are responsible for loading the rubbish, which must be in plastic bags.

WASTE OIL DISPOSAL: No waste oil disposal. Minimal amounts in 45 gallon drums accepted as part of garbage removal. Arranged through Agents.

SEAMAN'S CLUBS: The Biblia International Mission have a recreation room on the jetty with an international telephone. Tel: (02281) 32350.

The Anglican Mission to Seamen is situated in the town itself and operates a bus service to the jetty. Tel: (02281) 42913, 41650. International telephone service available, and sports can be arranged. The Mission is open daily from 0830 hrs. – 2230 hrs.

CURRENCY: South African Rand (R).

DELAYS: Congestion is infrequent. Most delays are caused by heavy swell which makes it necessary to remove vessels from the jetty. These conditions are most common in Winter, and in a typical year, the port will be so affected as to be closed for 2 or 3 days. In general, some movement can be expected on the berth and ships should be well secured. A buoy in the channel monitors the swell height continually. The swell is associated with depressions passing the Cape and is heralded by a strong N.W.'ly wind which later backs round to the South.

NOTICES: Letter to Ship's Agents from Port Captain.

Notification of Expected Arrival, Departure and Shifting of Vessels: In order to facilitate more efficient Marine services in the Port of Saldanha, in the future, Agents and Fishing Companies using these facilities are requested to please conform with the following requirements.

(a) Harbour Regulation No. 2. Notification of the Expected Arrival of Ships. See attached No. I.

(b) Harbour Regulation No. 18. Notice to leave a Harbour. See attached No. II.

The basic intention of these notices is to give sufficient warning of an intended shipping movement to my office so that work and staff may be schedule to conform with general requirements. It should be noted that a minimum of 3 hours notice should be given, with regard to (b) while moves required after 1700 hrs. should be advertised before that time.

In order to simplify the required notifications you are requested to please make use of our telex facilities as this is far more efficient than either telephone or letters. In this respect I attach No. III a telex format for a Docking Notice, and No. IV, a telex format for a Sailing/Shifting Notice.

It can be expected that an advertised Sailing/Shifting Time may be subject to alteration and in this respect telephone advice will be sufficient for two alterations but a further telex is required for a third alteration as well as for every third alteration thereafter.

Any alteration of Sailing/Shifting Time given within 30 minutes of advertised time will not be accepted and a charge will be raised against the vessel accordingly.

Please conform with these requirements.

Signed:
Port Captain.

No. I – Notification of Expected Arrival of Ships:

The Owner or Agent of a ship that intends to call at a harbour shall as early as possible, give notice in writing to the Port Captain and the Port Goods Superintendent at such harbour of the expected date and time of arrival of the ship, and shall give particulars in such notice as to the nature and quantity of cargo to be loaded or discharged, bunker or other requirements and other matters of importance.

No. II – Notice to Leave a Harbour:

The Master shall give at least 3 hours notice in the prescribed form to the Port Captain at his office of the time his ship will be ready to leave the harbour. If he intends that his ship should leave outside ordinary working hours, such notice must be handed in at the office of the Port Captain before 1700 hrs. on the day of departure, or before 1700 hrs. on the preceding day, as the case may be.

No. III – Notification of Arrival:

Telex No. (Port Control) 5 22225. Fax: (02281) 357427.
Telex No. (Agent, Fishing Co., etc.).
To: The Port Captain, Saldanha.
From: (Name of Agency, Fishing Co., etc.).
Time: Date: Pro. No.:
Name of Vessel: Type of Vessel:
ETA: (Date and Time).
Gross Tonnage: d.w.t.: Length:
Draft: Fwd.: Aft.:
Requirements: (Nature of service required. If FW required. Cargo to be landed/shipped. Is vessel gas free, inerted or clean and any other information which may be applicable).
Name of Person requesting service.
Telex No.: 5 22225
Telex No.:

No. IV – Notification of Sailing or Shifting:

Telex No. (Port Control) 5 22225. Fax: (02281) 357427.
Telex No. (Agent, Fishing Co., etc.).
To: The Port Captain, Saldanha.
From: (Name of Agency, Fishing Co., etc.).
Time: Date: Pro. No.
Name of Vessel:
ETD: Draft: Fwd. Aft.
Requirements:
Name of Person requiring service.
Telex No.: (Port Control) 5 22225.
Telex No.: (Agent, Fishing Co., etc.).

GENERAL: *Fresh Provisions and Stores:* This service is provided by ship chandlers who operate from Cape Town. If the quantity to be loaded is large, a lighter will be used to bring them to the ship.

Chandling International Limited, 53 Carisle Street, Paardeneiland, 7405 Cape Town. Tel: (021) 5112336.

Hanill Ship Chandlers, P.O.Box 303, Paardeneiland, 7420 Cape Town. Tel: (021) 5110347.

Removal of Rubbish: Arrangements are available for the removal of rubbish and can be made through the Agents.

Weather: The climate is temperate. Average high temperatures year round are 20°C (68°F) and average low temperatures are in the region of 11°C (52°F). Sea water temperatures average 16°C. Prevailing winds in Summer are S.S.E'ly and in Winter N.W'ly. Rainfall figures are approximately 300 mm. per annum. Saldanha Bay is a Winter rainfall area. Fog occurs generally in the March to August period. Currents – there are no sea or thermal currents in the harbour area. Tidal currents generally will not exceed 1 knot.

Electricity: Can be made available at the ore jetty and the general cargo quay.

Compressed Air: Available ex-quay on application to Portnet via the Agents.

Cranes: A mobile crane can be hired via the Agents.

Sporting Facilities: Can be arranged for all sports through the Missions to Seamen, Saldanha.

Fishing Vessels: Saldanha is an important fishing harbour and all types of fishing vessels, from ocean going trawlers to small motorised dinghies, can be encountered in the approaches and entrance. At certain times of the year, with the onset of different fishing seasons, congestion in the area due to fishing vessels will become noticeable.

Engines: Vessels are requested to have main engine(s) ready and watch maintained when alongside. Permission to deviate from this must be obtained from Port Captain in writing.

Gas Free Certificate: Tankers or OBO's which have carried petroleum products on a previous voyage, and have slops on board, must have a Gas Free Certificate issued by a qualified chemist before being allowed to dock. The ship's Agent will arrange for a chemist to board with the Pilot for this purpose. The ballast water will be inspected and must not have an oil content of more than 2 parts per million. Inert gas systems must be working satisfactorily.

SHIPMASTER'S REPORT: February 1995.
Vessel: VLCC (270,000 d.w.t.).
Documentation required:
10 copies Crew List.
1 copy Ship's Stores List.
1 copy Crew Declaration.
1 copy Stowaway Declaration.
1 copy Arms and Ammunition Declaration.
1 copy List of Live Animals.
1 copy Maritime Declaration of Health.
1 copy Vaccination List (Yellow Fever).
1 copy Derat or Exemption Certificate.

In addition, Pilot requires to sight valid TOVALOP and Civil Liabili Certificates before permission to discharge or load is permitted.

Large vessels, if arriving loaded, are not permitted within 12 miles o the coast until approaching to embark Pilot. As no safe anchorages outside that distance, vessels of this type, if required to wait for a berth or for daylight/high water, as in our case, must cruise or drift outside that distance until berthing time.

The pilot station has recently been moved, and there is now only one boarding point for vessels either arriving or leaving, with North Hea bearing about 058° at distance of 4.9 miles.

Moorings requested on this occasion were 5 head/stern, 2 breast an 3 springs, i.e. 10 lines each end, a total of 20 moorings. The moorin operation for a vessel of this type can take about 2 hours, and total tim from Pilot boarding to all fast can be 4-5 hours.

During stay alongside, Agent, Cargo Surveyor and Discharg Supervisor stay on board. A Duty Pilot stays on board nightly betwee 1800 hrs. and 0600 hrs., in case of weather problems, and durin discharge, firemen and anti-pollution personnel attend constantly on a shift system.

Stores/provisions were obtained from a chandler in Cape Town, an are brought to Saldanha Bay by road, transferred to a barge in the fishin harbour, then brought to vessels at the oil and ore quays.

An oil boom, for anti-pollution purposes, is now commonly used t surround vessel during cargo operations.

There are some fairly basic amenities in the nearby town (6.5 mile from quay), as Saldanha Bay is mainly concerned with fishing and fis processing. Specialist services are available from Cape Town, abo 1.5 hours by road. There is no public transport between Saldanha Ba and Cape Town, and ship's personnel wishing to visit Cape Town mu make private arrangements. The Customs Authorities are still a bit wa of persons doing so.

The Missions to Seamen provide a minibus service at nominal co to transport crew members to the Mission in the town.

Weather is very unpredictable. It is Summertime (at present), but du to an "unseasonal" storm, it became necessary for us to suspe operations, disconnect, and call for tugs to help prevent the vess breaking her moorings. A few lines did part, but tugs managed to ho vessel safely. Pilot came when requested, and remained until dang had passed, although at one point it seemed likely that we would ha to let go and put to sea, which we managed to avoid.

In Winter, vessels can on occasions have greater problems, and t have to unmoor and leave. It would be advisable to any vessel of t type coming to Saldanha Bay to have some spare moorings availa for such eventualities.

AUTHORITY: Portnet, P.O.Box 32696, Braamfontein 20 Johannesburg, South Africa. *Tel:* (011) 7737299. *FAX:* (011) 77383
Contact: The Chief Executive.

Saldanha Bay: Private Bag XI, Saldanha 7395. *Tel:* (02281) 3574 *Telex:* 5-22225 SA. *FAX:* (02281) 357427. *Cables:* Port Capt Saldanha.

AGENT: See "Cape Town".

Spain

GENERAL:

TANKERS: The following free translation was received from a major oil company in 1991. Issued by Ministry of Transport, Tourism and Communications, Madrid.

Decree of 17th April 1991, which regulates the anchorage of tankers in the jurisdictional waters and/or exclusive Spanish Economic Zone.

The diversity of tankers of different nationalities, using the S.W. Spanish zone for anchorage purposes whilst awaiting definite orders in respect of discharge ports, requires the adoption of special measures to safeguard the maritime traffic, the natural and environmental resources of the corresponding maritime areas, or of those zones which in the future might be subject to similar operations.

Therefore, and in fulfilment of the dispositions of the International Convention regarding territorial waters and adjacent zones of 1958, and of the International Convention of Intervention of 1969, as well as the ruling National Legislation on Territorial Waters, constituted by Law 10/77 dated 4th January, Law 15/78 dated 20th February, on the Exclusive Economic Zone, and Law 22/88 dated 28th July, on Coasts, following the proposal by the General Directorate of the Merchant Marine, I Decree:

First: The following regulations will be applied to those tankers not having a destination for full or part cargo, for a port or terminal in Spain, and wishing to use the jurisdictional waters or the exclusive Spanish Economic Zone for anchoring, whilst awaiting orders, instructions, or due to any other circumstances other than the innocent passage as defined in Article 14 of the Convention of Geneva of 1958.

Second: The tanker, which in the above mentioned circumstances proposes to anchor, must previously apply for authorisation from the Spanish Maritime Administration, through the corresponding Harbour Office, or directly to the General Directorate of the Merchant Marine, including in the application, the following information:

(a) ETA at anchoring area at intervals of 72, 48, 24, 12 and 6 hours before arrival.
(b) Port of Origin and Destination.
(c) Type and quantity of cargo.
(d) Name, address, telephone, telex and fax numbers of the Owners, Charterers, P & I Club and representatives thereof in Spain.
(e) Number of crew, nationalities, professional qualifications of the Master, Officers and Engineers, and indicating the issuing Authority/Body of said qualifications/titles.
(f) Estimated stay at anchorage area.

Third: In the light of the information received, as previously referred to, the Spanish Maritime Authorities will confirm or deny permission. If permission is granted, the tanker must fully comply with the following conditions:

(a) Anchor in the geographic position indicated by the Marine Authorities.
(b) Upon arrival at the anchorage point, the tanker will be subjected to a safety inspection, the result of which may influence the anchoring authorisation.

Fourth: For the tanker to lie at anchorage, the following obligations must be complied with:

(a) Contract a tug with 6,000 h.p. minimum, fitted with means to combat contamination, which is to remain on "Stand-by" for the duration of the vessel's stay. The Master of the tanker to facilitate any information requested by the Master of the tug.
(b) To maintain at all times the propulsion equipment ready for immediate functioning, the fire extinguishing system lines pressurised, display regulation anchoring signals, and all deck and bridge lights illuminated during the hours of darkness.
(c) To check the geographical position every 15 minutes and record it in the Log Book every hour. The Master to communicate by radio every 4 hours with the Harbour Office, advising the exact anchoring position and of any incident which might affect the security of the vessel and/or of the crew, especially when the anchoring position has been changed due to external causes.
(d) To maintain the corresponding bridge and engine room watches, and verify starting system in both locations. At least one qualified officer and 2 lookouts must be present on the bridge at all times.
(e) Whilst at anchorage, no cargo transfers allowed, no tank cleaning or repairs to the engines, or on deck, without the corresponding authorisation.

Fifth: Any change or transfer of crew is strictly prohibited whilst the tanker is at anchor, unless there is a justified cause, and a previous authorisation from the Spanish Marine Authorities has been obtained.

Sixth: A vessel breaking any of the requisites and obligations stated in this Decree, cannot remain at anchor, and must depart immediately for the open sea, independently of any sanction which might be imposed in accordance with the legislation in force.

Transitory Disposition: Vessels (when this Decree becomes enforceable), which find themselves in the circumstances mentioned in the first paragraph, must apply immediately for the required authorisation, and comply with all the requirements of this Decree.

Final Disposition: This Decree will enter in force from the date on which it is published in the Official State Bulletin.

Madrid, 17th April 1991.
Minister of Public Works and Transports.

AGUILAS and HORNILLO: 37.24 N. 01.35 W. (See Plan)

DOCUMENTS: See "Almeria".
PILOTAGE: Hornillo port has no Pilot. The Pilot of Port of Aguilas which is less than a mile from Hornillo, does pilotage services of both. To enter both ports of Hornillo and Aguilas, anchor mile or a mile and half distance from entrance of Aguilas. Wait for Pilot with engine stopped. To call Pilot give three long blasts several times. Pilot's launch is small motor boat painted white, with letter "P" painted on both sides of boat. During night it carries white light on top of mast, and 8 ft. lower a red light, besides the usual lights.
RESTRICTIONS: It is not possible to enter Hornillo port during dark. Wait till dawn outside Aguilas.
MAX. SIZE: Length up to 160 m., draft about 29 ft.
HEALTH: See "Almeria".
TUGS: None in port and not necessary for either port. If necessary, tugs are available from nearby Port of Garrucha.
BERTHING: Aguilas port has a commercial quay with a berth area about 300 m. and depths of between 8 m. – 12 m. Hornillo port has a pier to handle minerals with berth area of 90 m. to 100 m. and depths between 6 m. – 10 m.
BULK HANDLING: 2 conveyor belts. 1×400 t.p.h. capacity and 1×100 t.p.h capacity for grain and other bulk cargoes.
STEVEDORES: Team of stevedores who belong to "Port Workers' Trade Unions" (Sindicato de Obreros Portuarios).
MEDICAL: Master can send cables to consignee requiring this kind of service. There are a number of doctors and a hospital.
FRESH WATER: Available by pipeline at berths.
FUEL: There are no supplies of fuel in either port.
REPAIRS: No facilities.
GANGWAY/DECK WATCHMEN: Not necessary, usually this is done by crew.
OPENING/CLOSING HATCHES: Usually this is done by crew.
REPATRIATION: Facilities for effecting crew changes exist. Repatriation can be done by train to Madrid and by plane from there.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Almeria".
POLICE/AMBULANCE/FIRE: Ambulance and fire services can be requested from Port Authority. If the police services are required call to "Caseta de Vigilancia" of the Civil Guard in either port.
SHORE LEAVE: Crew members are allowed ashore.
GENERAL: Hornillo port is used only for loading and discharge of minerals, and for this purpose a pier is provided with a railway. The nearest port of Aguilas, less than a mile distant on the West, is the commercial port, with a quay for loading/discharging and a crane of 10 tons capacity.
AUTHORITY: Ayudante de Marina, Capitan del Puerto, Ayudantia de Marina, Aguilas, Murcia, Spain. *Tel:* 968 41 10 74.

ALCANAR: 40.34 N. 00.33 E. (See Plan)

GENERAL: Alcanar is a port owned and used by Cementos del Mar S.A., which has a cement factory very close to Alcanar port. Products normally loaded are cement and cement clinker. On the other hand, slag, pyrites, coal, pozzolana (volcanic sand) and gypsum are products generally unloaded for factory consumption.

Sant Carles de la Rapita is 4 miles away N.E. from Alcanar port.

DOCUMENTS:
3 copies Crew List.
3 copies Passenger List or negative.
3 copies Cargo Manifest or Master/Ballast Declaration.
1 copy Stores List.
1 copy Crew Manifest.

PILOTAGE: Pilotage is compulsory and service permanent. Pilot is informed by Agent of vessel's ETA, given 24 hours in advance. When vessels approach the Alcanar Fairway Buoy, Pilot will board. The pilot boat is white with a black "P" painted on the side. Contact Pilot Station on VHF Channel 14. Pilot Tel: (977) 74.05.01/74.08.04.
ENTRY/DEPARTURE CHANNEL: Channel is about 3 miles long and 250 ft. wide, maximum draft is 38 ft., straight and lies 328° from Fairway Buoy. There are 10 pair of buoys marking both channel sides.
ANCHORAGE: 0.5 miles S.E. from Fairway Buoy is the advisable anchorage.
Caution: North limit of a fishing seabed is located about 1.25 miles and bearing 215° from Fairway Buoy. Special care should be taken when approaching Fairway Buoy in order to keep clear of the seabed.
RESTRICTIONS: Draft only. Vessels carrying dangerous cargo should get permission to berth prior to arrival.
HEALTH: Pratique is obtained immediately after berthing. In case of suspected disease of fever on board, the Master must radio Agent in order to inform Health Office in time.
RADIO: Radio Costera of Barcelona and Tarragona.
VHF: See "Pilotage".
TUGS: Available to assist berthing. Tugs normally join vessel at breakwater entrance. The following tugs are available: 1×1,750 h.p., 1×1,200 h.p. and 1×800 h.p.
BERTHING: Maximum depth at berths and in channel is 38 ft. Contact Pilot for draft information.

There are 3 berths as follows: No. 1, 22 ft. depth. No. 2, 38 ft. depth, and No. 3, 38 ft. depth.

Conveyor Belt: At all berths, cement is loaded by means of conveyor belt, maximum loading rate is about 350 t.p.h.

CRANES: 2×15 ton cranes at Berth No. 2. 1×6 ton crane at Berth No. 3.
STEVEDORES: 24 hours notice required in order to arrange gangs. Unloading rates depend on type of cargo.
MEDICAL: Any kind of medical service can be arranged if information received in time.
FRESH WATER: Plentiful supply of water by means of hoses from the pier to vessel.
FUEL: Can be supplied by truck, but 24 hours notice required.
CONSULS: See "Tarragona".
REPAIRS: See "Sant Carles de la Rapita".
SURVEYORS: S.G.S., Vista Alegre N. 32-3, 43540 Sant Carles de la Rapita. Tel: (977) 74.22.24/54.22.28. Fax: (977) 54.11.00.
GANGWAY/DECK WATCHMEN: Not compulsory, but advisable at night.
OPENING/CLOSING HATCHES: Normally opened/closed by the crew, otherwise according to Charter Party. Lashing must be carried out by the crew.
CERTIFICATES: SOLAS, Load Lines, I.O.P.P., Derat, Register and Tonnage Certificates.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle wine/spirits per person. Any excess must be declared and locked/sealed. Any infringement of the regulations will subject the vessel to the immediate imposition of a heavy fine and confiscation of excess.
AIRPORT: Reus Airport situated 97 km. and 45 minutes by car, regular services to Madrid. Barcelona Airport situated 196 km. and 2 hours by car, worldwide destinations and arrivals.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer (Last Sunday in March – late September).
HOLIDAYS: September 11th.
POLICE/AMBULANCE/FIRE: Local Police Tel: 73.00.04. Guardia Civil Tel: 74.00.58. Ambulance/Red Cross Tel: 73.70.03. Firemen Tel: 70.00.80.
AUTHORITY: Capitania Maritima, 43540 Sant Carles de la Rapita, Tarragona, Spain. *Tel:* (977) 74.00.59. *Cables:* Capitania Maritima, Sant Carles de la Rapita.

Comissio de Ports de Cataluya, Zona Portuaria II-III, Ronda General Mitre No. 117, 08022 Barcelona, Spain. *Tel:* (93) 211.31.16. *FAX:* (93) 418.60.12. Branch office at Sant Carles de la Rapita, Tel: (977) 74.04.56.

ALCUDIA: 39.50 N. 03.08 E. (See Plan)

DOCUMENTS:
3 copies Crew List.
2 copies Cargo Manifest.
2 copies Crew Personal Effects Manifest.
PILOTAGE: Compulsory. Call Pilot one hour before arrival on VHF Channel 16 and hoist "G" flag when in sight of the port.

Pilot Station Tel: (971) 89 01 79.
ANCHORAGE: With the end of the breakwater bearing 000° at a distance of 7 cables and a depth of 12.0 m.
RESTRICTIONS: Tankers and L.P.G. Carriers berth during daylight only.

Vessels with a list are not permitted to berth.

Keel clearance varies according to berth.
MAX. SIZE: Vessels with maximum draft berth at the breakwater on heading 045° and are not allowed to turn on arrival or departure.
RADIO: Palma Radio.
VHF: Pilot station keeps watch on Channels 16 and 14.
TUGS: Not available.
BERTHING:

Quay	*Length* (m.)	*Depth* (m.)	*Remarks*
Breakwater	90.0	5.90	3×15 ton cranes
	157.0	5.50	(16 cu.m. each)
Rivera	150.0	5.50	2×15 ton cranes
	80.0	5.50	20 m. Ro/Ro Ramp
Gas Butano Jetty	80.0	5.50	8 in. and 4 in. shorelines

CRANES: See "Berthing".
BULK HANDLING FACILITIES: Coal, fertilisers and salt discharged at a rate of 500 t.p.h. by shore cranes.

Cement in bulk stored in 2×1,500 cu.m. tanks; loading and discharging connections; 4 in. shore line with length 110 m.

Asphalt receiving tanks of 3×1,900 cu.m. and 1×800 cu.m.; 8 in. shore line of 345 m. length and one connection.
SPECIALISED CARGO HANDLING FACILITIES: Two Ro-Ro platforms 20 m. wide. Facilities for handling containers.
STEVEDORES: Ordered by Agent. Working hours: 0800 hrs. – 1200 hrs. and 1400 hrs. – 1800 hrs.
MEDICAL: Hospital facilities available.
TANKERS: 2×2,500 cu.m. tanks for fuel oil; distance to tanks 450 m.; shore line 8 in.; no slop facilities.
DENSITY: 1026.
FRESH WATER: Available by gravity feed of approximately 7 t.p.h. Cost 70 pesetas per ton.
FUEL: Marine diesel available from 4 points along the quay, loading rate with pump is 12 t.p.h. Also available by truck with 30 ton capacity.
FIRE PRECAUTIONS: Dispersant liquid and floating boom (140 m.) on sight.
CONSULS: Located in Palma, 50 km. from Alcudia Port.
REPAIRS: Small repairs can be undertaken.
DRY DOCKS: Travel lift of 100 tons capacity at the yacht marina.
SURVEYORS: Watson Gray Espanola de Control S.A.
GANGWAY/DECK WATCHMEN: Not required.
HATCHES: Opening and closing by crew.
CUSTOMS ALLOWANCES: Quantity permitted for each crew member to be held out of bond: 200 cigarettes, 2 litres of wine and 0.75 litres of spirits.
REPATRIATION: Full facilities available.
AIRPORT: Palma Airport.
TIME: 1st October – 31st March GMT plus 1 hour. Last Sunday in March – 30th September GMT plus 2 hours.
HOLIDAYS: 1st January, 6th January, 1st May, 15th August, 12th October, 1st November, 8th December and 25th December. Local Holidays: 29th June and 2nd July.
POLICE/AMBULANCE/FIRE: Local Police/Fire: 54.59.17. Medical: 54.59.68. Red Cross: 54.54.21, or VHF Station Channel 73. Harbour Master: 54.53.01. Customs: 54.71.03.
SERVICES: Magnetic compass adjusting available.
SHORE LEAVE: Crew members allowed ashore.
IDENTIFICATION CARDS: Seaman's Book is sufficient.
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Only in tanker trucks. Maximum capacity 20 tons. Require details through agent. Service carried out by Sevmar. Fax: 402499. Tel: 400408, 400561, 400758.
SEAMAN'S CLUBS: No seamans clubs. All facilities available.
CURRENCY: Spanish Peseta (Pta.).
DELAYS: Bunkering undertaken during daylight. Special permission required for bunkering at night.
GENERAL: *Weather Forecasts:*

Fax: (971) 404626.
Time: 1100 hrs. – 1300 hrs. (G.M.T.).
Telex: 688474 (anytime).
Recorded message: (971) 403600 or 403511 (anytime).

Warnings: In Winter, from November to March, winds from N.W. direction up to Force 6/7, make it especially dangerous when berthing and unberthing.

In Summer, from May to September, seaplanes land and take off close to commercial port entrance (taking sea water).

Vessels with dangerous goods are permitted on Alcudia roads. Anchoring point for lightening with this kind of cargo must be applied for from the Port Authorities.

At the end of June to December/January atmospheric pressure could affect the sea water level, thus the maximum drafts allowed may be reduced.
DEVELOPMENTS: Work in progress at the commercial port and the marina (See "Plan").
AUTHORITY: *Contact:* Captain Miguel Suner Mari, Pilot, Urbani "Lago Esperanza" Margallons No. 21, 07408 Puerto Alcudia, Majorca, Spain. Tel: (971) 890179, 890180. Fax: (971) 890179.

ALGECIRAS: 36.08 N. 05.26 W. (See Plan)

DOCUMENTS: *Clearance Inwards of Vessels:*
1 copy Maritime Health Declaration.
5 copies Crew List.
2 copies Cargo Manifests: 1 on entry, 1 on sailing.
2 copies Manifests in Transit: 1 on entry, 1 on sailing.
If Vessel is in transit:
5 copies Transit Passenger List.
2 copies of Arrival Documents.
2 copies Lists of Passengers who have disembarked or embarked.
Tankers:
2 copies Cargo Manifest: entry, sailing or ballast.
PILOTAGE: Vessels entering port must call the Pilot by Internationa Signal Code, sound, light or VHF.

The pilot boat is painted with a black "P" on both sides at its wides part. By day it will fly a blue flag with the letter "P" in white. At night, will show the International Pilot Lights. The area where the Pilot boar is a circle 0.5 miles radius with its centre 1 mile East of the Wester end of the breakwater extremity (red light).
ANCHORAGE: Vessels awaiting the Pilot can anchor to the North Barranco Lighthouse in water 30 m. depth under indications given the Pilot by VHF.
RESTRICTIONS: Vessels may enter by day or by night.
MAX. SIZE: Port of Algeciras: No restrictions as to length, max. dr 16.0 m.
Tankers: Gibraltar Refinery: Max. length 315 m., max. draft 20 m.
Monobuoy: Depth of water 60 m. Designed for vessels up to 500,0 d.w.t. Largest vessel accommodated to date: 423,000 d.w.t. with dr 22.9 m.
HEALTH: Free Pratique is obtained automatically when Authorit board on arrival and Maritime Declaration of Health is completed. case of suspected disease or fever on board full details should be s by radio to Sanidad Maritima, Algeciras, before arrival.
RADIO: Tarifa, Mijas, Aranjuez Radio and Cadiz Radio. Vessels bou for the Gibraltar Refinery must announce their arrival on VHF to the P Captaincy using Channel 16 for calling and Channel 13 communication.

Agent requires 72, 48 and 24 hours notice of arrival.
TUGS: 8 tugs up to 2,250 h.p., working in accordance with instructio from the Pilot. It is usual for vessels to provide tow-lines.

BERTHING:

Darsena Sur (South Dock):

Name	*Length* (m.)	*Depth* (m.)	*Usage*
Dique Norte	1,125	15 – 32	Bunkers
	260	8	
	420	10	
	700	14	
	315	16	
Muelle de la Isla Verde	250	13	General cargo containers and solid bulk cargoes.
	250	12	
	248	11	
	150	9	Ro/Ro
Muelle de la Galera (South)	75	4	Passengers
	305	6	Ferries
	110	10.5	Ferries
Muelle de la Galera (North)	176	10.5	General cargo and Ro/Ro
(East)	110	10.5	Fast ferries and general cargo
Muelle del Navio (East)	520	14	General cargo and containers
	644	16	
(South)	507	14	General cargo, containers
(West)	180	10.5	Ro/Ro

CRANES: See "Bulk Handling Facilities".

STEVEDORES: Ordered by vessel's Agent on basis of Master's ETA.

MEDICAL: Doctors and hospital facilities available. International vaccination certificates only required if vessel is proceeding from an infected area.

BULK HANDLING FACILITIES: *Cement:* Discharged to 2 storage silos at Muelle de la Isla Verde. Rate 200 t.p.h.

Containers: 4×30 ton Paceco (Sealand) gantry cranes at Muelle de la Isla Verde and 4×30.5 ton transtainers.

3×40 ton Paceco Post-Panamax and 3×50 ton Noell Post-Panamax cranes, 15 transtainers, 32 truck heads, 50 yard chassis, 648 reefer points at Maersk Espana Terminal at Muelle del Navio (270 m. length).

2×40 tonne Paceco cranes at Terminals Algeciras at Muelle del Navio (270 m.).

Scrap iron and metal products: Acerinox Quay: Length: 250 m. Depth 9.5 m. 3 jib cranes, capacity 25 tons each.

TANKERS: Refineria Gibraltar (C.E.P.S.A.) – 5 berths for tankers up to 283 m. length, 2 of which can accept draft up to 65 ft. Loading/discharge lines are 12 in., 10 in., 8 in., 6 in. and 4 in. Refineria Gibraltar has 2 slop tanks each of 600 cu.m. capacity which can accept oily residues.

Berth	*Length* (m.)	*Depth* (m.)
South	700	19 – 20
North	380	17 – 19
North	300	17 – 19
North	115	6
South	115	6

There are 20 hydraulic and 6 manually operated loading arms. Max. pressure permitted 150 p.s.i.

Monobuoy: Operated by Compania Espanola de Petroleos S.A. (C.E.P.S.A.).

Location: Lat. 36° 10' N., Long. 05° 24.8' W.

Depth: Approx. 60 m.

Anchorage: Pilot will advise anchorage in accordance with weather conditions.

Prohibited Anchorage: Vessels are not to anchor within 0.3 miles of the monobuoy or within 150 m. of the underwater pipeline which runs in a N. 20° E. direction from the buoy to the Terminal onshore.

Pipelines: There are two underwater pipes, one 42 in. for crude oil and one 16 in. for bunkers.

Navigation Aid: Light: Fl. 3 every 8 seconds ("U") Range 5 miles. Height above sea level 6.0 m.

The buoy is also equipped with a radar reflector 7 m. above sea level, "Racon" letter "U" and fog signal manually operated with characteristic 3 blasts every 3 seconds ("U" in Morse code).

The floating hoses display white flashing lights 70 m. apart, 20 flashes every 60 seconds. Range 1 mile. Height above sea level 0.75 m.

Charts: Spanish: No. 3500 and 3503. British: B.A. No. 1448.

Communications:

Telegraphic Address: Spanoil, Algeciras.

Telex Address: 78007 Cepsa E.

Telegraphic Communications: Once the vessel has left the port of loading, Master must send a telegram via Aranjuez Radio, giving the following information:

(a) Name of vessel.
(b) ETA in GMT.
(c) Amount loaded per Bill of Lading.
(d) Specific gravity.
(e) Maximum draft.
(f) Capacity of tanks.
(g) Slops in the cargo.
(h) Whether it has a central bow installation, in which case give dimensions.
Where not, indicate type, characteristics and distance to the stem.

If vessel is to effect loading operations, once it has left its unloading port, Master must send the following telegram:

(a) Name of vessel.
(b) ETA in GMT.
(c) Quantity of cargo required.
(d) Amount of dirty ballast and deballasting time.
(e) Capacity of tanks.
(f) Amounts of slops and kind.
(g) Whether it has a central bow installation, in which case, give dimensions.
Where not, give type, characteristics and distance to the stem.

If the cargo receiving points are of a different type to 16 in. or 12 in. standard ASA 150 lb. this must be communicated both in the case of a vessel coming to load and one which will be discharging.

Within 72 hours of arrival, the Master must send a second telegram including the following information:

(a) Name of vessel and Master.
(b) ETA in GMT.
(c) Amount of fuel required.
(d) Additional requirements.

Within 48 and 24 hours prior to arrival, he must send further telegrams confirming his ETA.

Radiotelephone Communications: As soon as the vessel is within VHF range, contact must be made with the Pilots or the Port Captaincy of the "Gibraltar" Refinery on Channel 13 to receive instructions with regard to berthing, this station listens out 24 hours a day.

Notice of Readiness: Will be accepted by the Monobuoy Berthing Master, when the vessel is in all respects ready to commence operations.

Notice of Readiness will be accepted under either of the following situations:

(a) When the Master receives the Monobuoy Berthing Master or,
(b) When the vessel has anchored in the anchorage area.

Port Closed: The Notice of Readiness will not be accepted when port closed.

Port closure periods are considered to be such when the weather conditions prevent vessels coming alongside and berthing. The decision to close the port is made by the Marine Authority.

Berthing sequence: Vessel will berth normally in strict order of arrival and any alteration will be duly communicated and sufficiently in advance.

Services and Facilities:

Pilotage: The Pilotage service is obligatory and the Corporation is available permanently. The waiting area for Pilots is between Lat. 36° 07.5' and Lat. 36° 08.5' N. and Long. 5° 24.0' and Long. 5° 25.0' W.

Mooring: The Monobuoy Berthing Master will board the vessel in the vicinity of the buoy together with a foreman, 2 deckmen and 2 divers and will assist the Pilot and crew respectively in the berthing operations. These services are provided free of charge and the personnel remain on board during the whole duration of operations during which food and accommodation of an adequate nature must be provided.

Tugs, launches, mooring equipment: Tugs and/or launches can assist the vessel in the operations of berthing and unberthing under the direct control and supervision of the Pilot and the Monobuoy Berthing Master. There are also launches for transporting crew members ashore.

Consignee: The Compania Espanola de Petroleos, S.A. at its "Gibraltar" Refinery, has a Consignee department. Vessels utilising this service must send their radiograms to the following address:

Compania Espanola de Petroleos, S.A.
"Refineria Gibraltar",
San Roque (Cadiz) – Spain
Telephone: 698060.
Fax: 698773.
Telex: 78007 Cepsa E. Telegrams: Spanoil (Algeciras).

Arrival Documents: The following documents are required:

6 copies of the Crew List
1 Negative Passenger List
3 copies of Passenger List if any onboard
2 copies of the Cargo Manifest for Algeciras
1 copy of the Cargo Manifest for Cargo in Transit
2 copies of the vessel's Manifest List, including bunker, oil, tobacco, alcohol, medicine, belonging to the vessel.
2 copies of a List of the Crew's and Passengers' Personal Effects.

The maximum quantity of tobacco and alcohol permitted for each crew member and passenger outside the manifest is 200 cigarettes and 1 litre bottle.

Free Pratique: It is not necessary to advise the Health Authorities prior to arrival unless there is any sickness on board.

Free Pratique is granted when the vessel is visited by the Health Official at the anchorage or when it is berthed at the Monobuoy and the following documents will be required:

1 Health Declaration
1 Crew List
1 Passenger List or
1 Negative Passenger List

The Health Official will inspect the Derat Certificate or Exemption. This Certificate can be drawn up or renewed at Algeciras if required.

Doctor: Medical Service, if required, can be obtained via the Agent and will be sent as quickly as possible.

Fuel Bunkers: Fuel Oil is supplied via the Monobuoy.

Apart from the advice by radio to the local Consignee, owners must contact Campsa-Madrid, advising them of the type and quantity of bunkers required on arrival.

(The suggestion above is based on the fact that in Spain all supplies are effected directly by Campsa through the authorised refineries).

Direct contact with Campsa by the Owner, and the transfer of funds for the supply, required by the local Agent prior to bunkering taking place.

Oils: A majority of international companies have stocks of oil in the country, requirements to be advised via their Agent sufficiently in advance in order to prepare documentation and delivery. This delivery will not be made whilst the vessel is moored at the Monobuoy carrying out loading or unloading operations since it has to be effected by barge or a tanker type tug. Only vessels operating with inert gas are excepted.

Water: This is supplied by a 350 ton vessel and must be requested 48 hours in advance via the local Agent. There is no water line via the Monobuoy.

Victualling and Provisions: All kinds of stores obtainable in Algeciras and deck and machinery supplies can also be provided, requirements are to be communicated to the Agent or Consignee by radio.

All deck and machinery supplies will be supplied by launches or tugs prior to berthing or after unberthing at the Monobuoy.

Spares to be supplied from abroad for vessels at Algeciras must be sent to the airport of Malaga, the airport of Seville or the airport at Jerez, addressed to the Master of the vessel in question and consigned to the local Agent at Algeciras.

Goods sent by TIR should be despatched to Malaga for Customs clearance.

Repairs: Only minor repairs can be carried out by local workshops. In the event of major repairs being required, there is at Cadiz, which is 120 kilometres away (approx.), all types of workshops and equipment. Any kind of repair which might leave the vessel without means of propulsion is absolutely prohibited whilst it is berthed at the Monobuoy.

Classification Societies: Lloyd's Register, Plaza Alta 7. Tel: (956) 662889.

Other Societies have a representative.

Telephone Numbers: Area Code (956)

"Gibraltar" Refinery:

Monobuoy Berthing Master
Port Captain — Tel: 698060
Fire Fighting — Fax: 698773
Ambulance
Medical

Algeciras:

Command Post	604711
Police	091
Fire Fighting	662222
Ambulance	604144

Mooring: Preparation for Mooring: Vessels must have in position a Pilot ladder and/or hoisting ladder or a gangway which is safe and firmly protected for immediate use and sufficiently long to reach the Monobuoy Berthing Master's launch.

For vessels with a freeboard of 40 ft. or more, the gangway must be extended, lowered and the platform must not be more than 10 ft. from sea level, a Pilot ladder shall also be provided for boarding the platform.

Vessels must provide a lee on the port side for the embarkation or disembarkation of Monobuoy Berthing Masters.

Vessels must have prepared on the forecastle and in the bow section the following:

(a) 2 mooring cables of polypropylene if possible.
(b) 2 veering cables 5 in. circumference, min. length 300 ft.

Vessels must have ready amidships and on the port side the following:

(a) Derrick equipped and ready to lift equipment from the launch.
(b) Mooring shackles.
(c) Wire and equipment for connecting hoses.

Note: If vessels moor with the aid of tugs, the Port Pilot will indicate the number of tugs to be used and the cables required.

Mooring at the Monobuoy: The Monobuoy is equipped with a cable 19 in. in diameter and 180 ft. long (55 m.) and with a breaking strain of 795.6 tons, its ends having collars and special cable protections with corresponding shackles. The shackle which connects it to the Monobuoy has a test strain of 688.8 tons and this is connected to a meter, which indicates at any time the strain to which the whole assembly is subjected. The shackle placed at the other end has a test strain of 510 tons and is connected to a length of chain of two different dimensions, its total length being 40 ft. (12 m.). The first 25 ft. (8 m.) are of 4 in. ending in two lengths of 702 mm. length and 440 mm. wide, and which are connected to the remaining 15 ft. (5 m.) of chain with a dimension of 2.75 in. which ends in two open links 478 mm. long and 293 mm. wide. The end of this length of chain is connected by means of a shackle S.W.L. 40 tons to a plaited cable of polypropylene 11 in. diameter and 250 ft. (76 m.) long, known as the approaching cable. The end of this cable is identified by means of a small 12 in. diameter buoy connected to it by means of a 0.5 in. guy and 5 ft. long. The weight of the length of chain mentioned above is supported by a cylindrical buoy 3,600 kg. in weight.

When the vessel is close to the Monobuoy the crew must pay out the end of the veering cable through the central fairlead or nearest alternative lead available on the port side, whilst at the same time, various flexible cables 16 in. or 10 in. are made fast on board, according to the tonnage, to each bitt and also to the bow, and if there is no central fairlead available, onto the bitts on the port side. Once on board, the chain will be made fast to the cables by means of two 4 in. or 2.5 in. shackles according to the type of cable to be used. Where the vessel has a "Smit Bracket" or similar type of berthing fitment, the chain will be made fast to this. Vessels of less than 150,000 d.w.t. will be connected to the 2.75 in. chain and those exceeding this tonnage will be connected to the 4 in. chain.

Whilst the vessel is berthed at the Monobuoy a tug will remain alongside in the event of it being necessary to remove the vessel from the Monobuoy, in which case she must have available at the stern a very good towing line.

Turbine vessels which may have their propellor turning, must go astern so as not to come close to the buoy and cause damage.

Connection and Disconnection of Hoses: General: The Monobuoy has two floating hoses 20 in. in diameter for discharge and loading which end in 3×16 in. diameter sections, each for direct connection having an approximate weight of 7 tons. The hoses will be hoisted and connected by the crew of the vessel in collaboration with the foreman and two deckmen from the Terminal. The Monobuoy Berthing Master will assist the vessel's officers in the connection operations. For supply of bunkers there is a 12 in. diameter hose available with a weight limit which is less than those mentioned above.

Derricks: All tankers operating at the Monobuoy must have a derrick with minimum capacity of 10 tons on the port side.

Flanges: The connecting flanges are 16 in. ASA for loading/unloading and 12 in. 150 ASA for bunkers. In the event of vessels not having flanges of these dimensions or reducers, this should be notified by radio 72 hours in advance.

Ballasting and Deballasting: Anti-pollution precautions: The vessel's Master must take the necessary measures so that there is no loss of dirty ballast and is responsible at all times for damages and costs which may originate from this.

Scuppers: Before commencing operations the scuppers must be closed.

Sea Valves: During the operation of ballasting, the tightness of the sea valves and inlets must be checked, taking all precautions to obviate contamination of the sea.

Ballasting/Deballasting during the night: If these operations are carried out during the night, the area must be adequately lit.

Inability to receive dirty ballast: All vessels operating at the Monobuoy must arrive with clean ballast since there is no facility for reception of dirty ballast. In the event that they have residue arising from tank cleaning, this must be pumped to the slop tanks, which will be measured and which will be loaded by the "load on top" system.

Loading and Discharging:

Communications during loading/discharging: All communications relative to loading and discharging of vessels will be made via the Monobuoy Berthing Master who will remain in contact constantly with the Refinery Blending department via portable VHF on Channel 9. In the event of damage to the portable VHF, contact will be continued via the vessel's equipment.

Damage during communication: In the event of damage to all communications with the Blending Department, the loading and discharging operations will cease immediately.

Average of loading and discharge: The installation can operate at an average (max.) of 12,000 cu.m. per hour and at a working pressure of 12 kg./sq.cm., at the vessel's manifold.

The supply of bunkers can be effected at a maximum average of 2,000 t.p.h. with a working pressure equal to 12 kg./sq.cm.

Anti-pollution precautions: Contamination of the sea by hydrocarbons is absolutely prohibited; this prohibition includes pumping. The non-fulfilment of this regulation can give rise to serious penalties and for which reason all vigilance must be applied to stop leaks which would give rise to the immediate cessation of all operations, the Master/Owner being entirely responsible for costs or damages which might arise therefrom. Trays must be provided to catch any possible leaks during connection or disconnection of hoses to the manifold.

Valve closure due to excessive loading: No valve will be closed which may stop or reduce the movement of the product, whilst the shore pumps are operating unless prior advice has been given to and the approval obtained from the Monobuoy Berthing Master. The practice of closing the valves at the vessel's manifold must be obviated.

If a decrease in pumping rate is required the shore terminal will lower the pumping rate to the required level if requested.

The Master will be responsible for any damage which may arise from the sudden stoppage in flow due to faults on board the vessel. It cannot be overemphasised for this to occur it is extremely dangerous and may give rise to extremely extensive damage to the installation.

Sample intakes and empties: All vessels which have available inert gas installations in service must arrive with all tanks depressurised for the purpose of taking samples, emptying water, etc. Once this operation has been effected, tanks can be pressurised once again. Once discharge has been terminated, the tanks will be depressurised in order that they may be inspected.

Also see "General" before first port.

FRESH WATER: Available from all berths in Algeciras rate 30 t.p.h.-200 t.p.h. depending on location, and at Refineria Gibraltar. Can also be supplied by barge.

FUEL: Fuel oil and Gas oil supplied by C.L.H. at Dique Norte (North Breakwater) and Muelle de la Isla Verde.

Product	*Location*	*No. of Points*	*t.p.h. per Point*	*t.p.h. of Quay*
Heavy fuel No. 1	Dique Norte	4	200	200
Gas Oil "A"	Dique Norte	4	250	250
"B"	Dique Norte	4	250	250
"B"	Dique Norte	1	75	75
"B"	Dique Norte	1	20	20
"B"	Dique Norte	1	30	30
Heavy Fuel No. 1	Muelle de la Isla Verde	3	150	150
Gas Oil "A"	Muelle de la Isla Verde	3	200	200
Gas Oil "B"	Muelle de la Isla Verde	3	200	200

Bunkers can also be delivered by road tanker or barge.

CONSULS:

Denmark
El Salvador
France
Great Britain
Italy
Morocco
Netherlands
Norway
Panama
Sweden

REPAIRS: Small repairs afloat can be effected. No dry docks.

CUSTOMS ALLOWANCES: Max. quantity of tobacco permitted in ship stores is 3 kilos per crew member and 2 kilos per passenger. The quant that may be held out of bond is 40 grammes tobacco per person p day. Wine/Spirits. 1 decilitre per person per day may be held out of bon

GANGWAY/DECK WATCHMEN: Not available from shore.

OPENING/CLOSING HATCHES: Opened and closed by ship's crew

AIRPORT: Jerez, 110 km. Malaga, 120 km. from Algeciras and Gibralt

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day, 6th January, 19th March, Maun Thursday, Good Friday, Easter Saturday, 1st May, Corpus Chri 29th June, 25th July, 15th August, 12th October, 1st Novemb 8th December, 25th December.

POLICE/FIRE/AMBULANCE: *Algeciras:* Police Tel: 091; F Tel: 662222, Ambulance Tel: 604144. *Refineria Gibraltar:* Fire a Ambulance Tel: 698060.

SHORE LEAVE: Crew members are permitted to go ashore subjec police control.

AUTHORITY: Autoridad Portuaria de la Bahia de Algeciras, Apart No. 7, Paseo de la Conferencia S/N, 11207 Algeciras, Spain. *Tel:* (9 575400. *FAX:* (956) 585443, 585442. *Contact:* Jose Luis Estr Port Director.

ALICANTE: 38.23 N. 00.28 W. (See Plan)

PORT LIMITS: The line drawn from Cabo de las Huertas and Cabo de Santa Pola.

DOCUMENTS:

4 Crew Lists.
4 Passenger Lists.
10 Manifests for Cargo, including cargo in transit as well as cargo for Alicante. Tobacco and Cargo Manifests to be visaed by Spanish Consulate in port of origin.
All vessels' Certificates.

Shipmaster's Report: November 1988.
First Port: See "Cadiz".
Second Port:
Customs – "Ruta".
Agent – 1 Crew List.
Quarantine – 1 Crew List and 1 Maritime Declaration of Health.

PILOTAGE: The Pilotage service is permanent, and should be requested by means of the International Signals Code. It has a VHF radio station and can be called up on Channel 16. The Pilots have a motor launch painted white with the letter "P" on both sides, and flies a black flag with letter "P" in white, whilst at night it shows lights in accordance with the International Regulations. The launch meets vessels 1 mile from the green breakwater light, but in bad weather closer to that light. Pilots Tel. 5211137.

ANCHORAGE: Vessels waiting to enter port may anchor at a distance of 0.5 miles off the breakwater in depths of 16 m.

MAX. SIZE: Vessels of up to 225 m. length and 38 ft. draft (60,000 – 80,000 d.w.t.) can be berthed alongside. For tankers, max. draft 35.20 ft. (10.73 m.) 36,000 d.w.t. at Muelle 11. Also see "Berthing".

Discharge of butane is carried out at buoys located to the South of the port and with a limitation of maximum length of 140 m. between perpendiculars and 28 ft. draft.

HEALTH: Regulations as dictated by the International Regulations for Foreign Health are enforced.

RADIO: Radio-telephone communication through Radio La Costera, Alicante, medium frequency range approx. 220 miles and VHF approx. 40 miles.

TUGS: 2 tugs available to assist berthing of 1,500 h.p. Normally ship's lines used for connection with tug. Tug meets vessel at Port entrance.

BERTHING: The breakwater extends in a S.W. direction and vessels berth within the breakwater. Max. depth being available at the outer end of the breakwater, decreasing in the N.E. direction.

Muelle Principe de Asturias: Dry bulk terminal. Length 306 m. Depth 14.0 m.

Muelle 14: Extends along the length of the N.E./S.W. breakwater and depths vary alongside the berth from 12.5 m. at the S.W. end to 8 m. at the N.E. end. Length of quay – 970 m.
Muelle 12: Depth alongside 8.0 m. Length – 296 m.
Muelle 11: A combined tanker and container berth. Depth 10 m. Length – 360 m.
Muelle 10: Depths alongside the berth vary from 6 m. to 8.75 m. Length – 203 m.
Muelle 9: Depth alongside berth 8.75 m. Length – 103 m.
Muelle 7: Depth alongside berth 8.75 m. Length – 240 m.
Muelle 6: Depth Alongside 8.0 m. Length – 160 m.

CRANES: All quays have cranes of 6 tons, and on Quay No. 11 there is a 35 ton portainer and 30 ton container crane. On Muelle Principe de Asturias there are 4×16 ton cranes. Loading and discharging operations are always carried out by shore personnel, irrespective of the means used.

SPECIAL CARGO HANDLING FACILITIES: There are 3 berths in the outer harbour located at the head of Berths 10/12 and 12/14 for Ro/Ro traffic. 2 Ro/Ro berths in the inner basin.

1×400 t.p.h. pneumatic unloader available.

STEVEDORES: It is necessary to advise Agents 48 hours in advance of the arrival of the vessel.

The main goods shipped at this port are: canned goods, aluminium ore, asphalt, ground pepper, bulk cement, etc. Average speeds of loading and discharge are: bulk cargo 60 t.p.h.; general cargo 50 t.p.h.; containers 30 units per hour.

MEDICAL: Many hospitals and medical services available. Advise Agent prior to arrival if medical assistance required.

TANKERS: Tankers discharge takes place at Muelle 11 (See "Berthing"). Product handled: Fuel oil (2×12 in.) and Gas oil (2×10 in.)

DENSITY: Average 1030.

FRESH WATER: Available from hydrants at the quays at the rate of 10 t.p.h., per hydrant.

FUEL: Supplied by CLH on all berths.

CONSULS: The following countries have local representation: Belgium, Denmark, Dominican Republic, France, Germany, Monaco, Norway, Netherlands, Paraguay, Peru, Sweden, United Kingdom.

REPAIRS: Only minor repairs carried out. There is a dry dock for small craft.

SURVEYORS: Comisario Maritimo Espanol (Spanish Maritime Commissary) and Lloyd's.

GANGWAY/DECK WATCHMEN: Agents normally provide watchmen.

OPENING/CLOSING HATCHES: Normally opened by crew and closed by stevedores using cranes.

CUSTOMS ALLOWANCES: 200 cigarettes and one bottle of spirits per person.

CARGO GEAR: All berths have cranes, varying from about 6 tons capacity. There is 1 heavy lift crane capacity 30 tons, and one gantry crane with 35 tons capacity.

REPATRIATION: Possible, without difficulty.

AIRPORT: About 8 km. distance from Alicante, and serviced by international flights.

TIME: GMT plus 1 hour in Autumn and Winter. GMT plus 2 hours in Spring and Summer.

HOLIDAYS: Normally no work is carried out on the following holidays: New Year, 1st January; Epiphany, 6th January; La Pelegrina, 26th April; Maundy Thursday; Good Friday; Labour Day, 1st May; Festival of San Pedro, 29th June; Corpus Christi; Santiago Apostol, 25th July; Assumption; Festival of the Spanish Speaking World, 12th October; All Saints', 1st November; Immaculate Conception, 8th December and Christmas Day, 25th December.

POLICE/AMBULANCE/FIRE: Police, Tel: 091. Ambulance, Tel: 5207201. Fire Brigade, Tel: 5229080.

TELEPHONES: Can be installed on board; the cost of installation currently is about 12,000 pesetas.

DEVELOPMENTS: Entrance channel to be dredged to 14.0 m.

Container Terminal (Muelle 11) to be dredged to 12.5 m.

SHIPMASTER'S REPORT: October 1983.

Documents: Unnecessary to have any papers visaed in previous port. Normal IMO papers acceptable but preferable to have separate Bonded Stores List.

Pilotage: In bad weather, Master will enter harbour without Pilot. Max. speed of pilot boat 7 knots.

On sailing, call Pilot 30 minutes before required by VHF Channels 16 or 12.

Health: No radio health message required.

Discharging: Discharging rate for boxes of pineapples using shore cranes was 25 t.p.h. per gang.

Fresh Water: Available at approx 15 t.p.h.

Watchmen: No watchman required.

Identification Cards: Agent provides separate I.D. cards for non-E.E.C. country crew members going ashore.

AUTHORITY: Junta del Puerto de Alicante, Muelle de Levante S/No., 03001 Alicante, Spain. *Tel:* (96) 5202255, 5203588. *Telex:* 66554 JPA E. *FAX:* (96) 5216359. *Contact:* Sergio Campos Ferrera, Port Director.
Comandancia de Marina, Tel. 211514, 216163.

ALMERIA: 36.52 N. 02.30 W. (See Plan)

DOCUMENTS:

4 Crew Lists.
4 Passenger Lists (embarking, disembarking and in transit).
2 Cargo Manifests of goods destined to Almeria, as well as other cargoes in transit.
Stores List in duplicate, including tobacco, spirits, radios, etc., belonging to vessel.
International Tonnage Certificate.
Certificate of Residues.

Note: Tobacco. In case vessel carries more than 6 kilos of tobacco per man, excess must be declared in a separate manifest, which must be visaed by a Spanish Consul. In absence of Consul, said document will have to be visaed by an Authority of former port of clearance. Otherwise, the vessel would be fined.

PILOTAGE: Compulsory, service is permanent. Pilots board vessels by motor-boat in roads, near entrance formed by two breakwaters. This entrance is 287 m. wide. Pilot boats are painted white and letter "P" is painted in black on each bow. Also boats have a blue flag hoisted on mast, with letter "P" in white on both sides of flag. At night, boats have white light, under this light is a red light. When weather is bad vessels approach as close as possible to entrance so that Pilot can easily board the vessel.

ANCHORAGE: When harbour is congested, vessel can anchor at West Mole while waiting for berth.

MAX. SIZE: Only limitation is draft. Max. draft 39 ft. in the inner port and 43 ft. in the outer port.

HEALTH: Pratique is obtained immediately after berthing, when Health Officer boards vessel, In case of suspected disease or fever on board Master must send a radio message to Agents, in order that they advise the Health Officer. Following documents are required by Health Officer upon berthing: Maritime Declaration of Health, Derat Certificate, 1 Crew List.

RADIO: Nearest important radio stations are Cadiz Radio and Palos Radio.

VHF: Call Pilot Station on Channel 16.

TUGS: 3 tugs available and compulsory in accordance with LOA, d.w.t. and weather conditions.

BERTHING: Prior to ship's arrival and in accordance with Master's ETA Agent attends Port Authorities to procure a proper available berth. Commercial quays have a length of 350 m. with single shed with max. depth 23 ft. and 712 m. with Ro/Ro ramp with max. depth 31 ft.; in 2 directions there is 350 m. with Ro-Ro ramp with max. depth 24 ft. – 29 ft. (also used by tankers). There is 369 m. of berthing space with 34 ft. depth and 250 m. with 39 ft. depth with open storage area for solid bulk cargoes.

There is a Ro-Ro ramp, max. load 20 tons per axle.

Iron Ore Berth: Max. size 80,000 d.w.t. Max. draft 13.9 m. 1 shiploader, rate 2,200 t.p.h. Operator: Cia. Andaluza de Minas S.A.

STEVEDORES: It is necessary that Master sends ETA so that Agent can inform Receiver's stevedores accordingly and arrange for proper reception of cargo and berth. Timetable of shifts available at the port; Daytime, normal working hours, from 0800 – 1200 hrs. and 1400 – 1800 hrs. (1 shift), 0800 – 1400 hrs. (1 intensive shift), 1400 – 2000 hrs. (1 intensive shift). Night time, from 1800 to 2400 hrs.; Sundays, 0800 – 1400 hrs., 1400 – 2000 hrs.

MEDICAL: Medical facilities are available; only it would be appreciated for Master to send a radio message if a crew member is in need of urgent medical attention.

TANKERS: Tankers berth at Muelle Levante (Eastern Breakwater) where the depth is 8.0 m. – 10.0 m. There is 1×8 in. line for diesel oil, 2×10 in. lines for gasoline and 1×12 in. line for fuel oil.

FRESH WATER: Always available. Deliveries from quay available at all berths, supplying about 30 t.p.h.

FUEL: Ordinary fuel oil and gas oil is available at local refinery of "CLH". It is advisable that Shipowners stem bunkers through their own Contractors, with an ETA of 48 hours, so that the order can be received in time.

FIRE PRECAUTIONS: Tankers perform their operations at the berth of "CLH" at East Pier, which has the necessary fire precautions. No special precautions at other piers.

CONSULS: Belgium, Denmark, Finland, France, Italy, Netherlands and Sweden.

REPAIRS: All types deck and engine repairs available.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: This work normally carried out by crew.

CERTIFICATES: Vessel should have the usual documents on board, but only the Safety Wireless, Safety Equipment and Derat Certificates are required by Authorities.

CUSTOMS ALLOWANCES: The quantity allowed per each crew member is 3 kilos tobacco. (See "Documents"). Wine and/or Spirits: Only 1 bottle for each crew member.

CARGO GEAR: Muelle de Ribera: 5 cranes capacity 3 tons.

Muelle de Poniente: 2 cranes capacity 6 tons and 2 cranes capacity 12 tons.

REPATRIATION: Good facilities available.

AIRPORT: Airport is located about 6 km. from town, well served by regular airlines.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: 1st January; 6th January; Good Thursday afternoon; Maundy Thursday; Good Friday; 1st May (Labour Day); 15th August (Assumption Day); Last Saturday in August (Our Lady of the Sea – Local Holiday); 12th October; 1st November; 6th and 8th December; 25th December and 26th December (second Christmas Day).

POLICE/AMBULANCE/FIRE: Police 091; Ambulance 220900; Fire 240080.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Port Authority provides containers.

WASTE OIL DISPOSAL: Contact: Jose A. Molina Hernandez. Tel: (950) 239042.

SEAMAN'S CLUBS: Club de Mar. Tel: (950) 230780.

CURRENCY: Peseta.

SHIPMASTER'S REPORT: October 1993.

Pilotage: Pilot boat max. speed 6 knots. In bad weather, vessel should enter breakwater at slow speed and embark Pilot under lee of breakwater.

Health: No radio health message required.

Loading Rate: Vegetables per gang hour 20 – 25 tons using vessel's or shore cranes.

Watchmen: Not necessary.

AUTHORITY: Autoridad Portuaria de Almeria – Motril, Muelle de Levante s/n, 04001 Almeria, Spain. *Tel:* (950) 23-60-33. *Telex:* Pajo-E 78892. *FAX:* (950) 23-29-49. *Contact:* Juan Manuel Reyes Lozano, Director.

AVILES: 43.35 N. 05.56 W. (See Plan)

DOCUMENTS:

4 Crew Lists.

2 copies Crew Personal Effects Lists, signed by each crew member.

2 Passenger Lists or a negative.

3 sets of Cargo Manifest of goods destined for the port.

Another Manifest covering transit cargo.

2 Provisions and Stores Lists, including tobacco, cigars, cigarettes, coffee, spirits, radios, cameras, etc., in possession of crew. In all cases make and number of radios to be indicated.

Safety Wireless Certificate and Safety Equipment Certificate.

Transit Tobacco Manifest: The Spanish Customs Regulations provide for 6 kilos of tobacco per crew member to be on board as usual provisions. If the total quantity of tobacco (including cigarettes, cigars, pipe and any other kind of tobacco) does not exceed said average of 6 kilos per crew member, such quantity may be declared as "provisions" on the usual Provisions List, and no further documentation is necessary. If the total quantity on board exceeds said average, the excessive quantity must be shown on a special transit manifest. Usual manifest forms may be employed, describing the tobacco in Spanish as "Tabaco en transito".

The essential point is that this transit manifest is visaed by the Spanish Consulate, which must insert a full and complete visa. A simple consular stamp is not sufficient. If there is no Spanish Consulate at the last port of call or nearby, the tobacco manifest may be visaed by the local Customs Authority or by another consulate, but the visa is still essential.

PILOTAGE: Compulsory for vessels over 50 g.r.t. Telegrams to be sent to Corporacion de Practicos, San Juan de Nieva – Aviles Tel: 5566856. Fax: 5566856. Vessel exceeding LOA 130 m. require 2 Pilots.

Send ETA 2 hours in advance, confirming by VHF when vessel some 10 miles off. Pilots listen continuously on Channels 16 and 12. Pilot craft are painted black with a white "P" on each bow. They are equipped with VHF and listen out on Channel 12, having also available Channels 16, 14, 9 and 6. When coming alongside a vessel they hoist the "H" flag. Normally they remain within the port, going out to vessels up to 1 mile from La Forcada.

ANCHORAGE: Outside the port vessels can use the sector between North and W.N.W. of La Forcada and at a distance of 1 mile from it, in 15 m. to 25 m. depth and sandy bottom. There are no sheltered anchorages. When awaiting a berth, vessels must remain at anchorage with 1 or 2 anchors.

RESTRICTIONS: Vessels LOA 180 m. – 210 m. enter and sail at any time.

Entrance Channel: Breadth: 153 m. Length: 920 m. up to San Juan de Nieva Basin. Depth at LW: 10 m. to 8.5 m. in the axis. Nature of bottom: Sand, hard clay and rock. Exposure: N.W. Breadth: 160 m. Depth at LW: 10 m. Maximum tidal flow: 2.25 knots.

MAX. SIZE: Max. LOA 225 m.

Keel Clearance:

LOA up to 130 m. – Keel clearance 2 ft.

LOA 130 m. – 150 m. – Keel clearance 3 ft.

LOA over 150 m. – Keel clearance 4 ft.

The admitted draft is calculated by deducting the number of feet required under the keel from the total depth of water which varies in accordance with tidal conditions. Tide tables are available upon request. In addition, the draft so calculated may still vary (by ±1 ft.) under special atmospherical conditions. However, for a rough guidance, the following average figures, from which the respective number of feet under the keel must be deducted, may be sufficient:

Neap Tides	*Normal Spring Tide*	*Equinoctial Spring Tide*
8.80 m.	9.70 m.	10.60 m.
(23 ft. 10 in.)	(31 ft. 10 in.)	(34 ft. 9 in.)

Alongside the quays (equinoctial LW) draft varies between 11 ft. and 30 ft.

HEALTH: Yellow flag to be hoisted, and once Health Authority has boarded, and the Marine Health Certificate completed, provided this is negative, clearance is automatic.

Health documents required: Marine Health Declaration if coming from another country, but if from another Spanish port, the Health Clearance Document from that port suffices.

Derat, or Exemption Certificate required.

If coming from country where epidemic is in force, certificates of vaccination for each crew member.

If sickness on board, patient will be examined immediately and decision taken as to clearance or isolation.

RADIO: *Coastal Station:* Cabo Penas Radio: Lat. 43° 39' 22" N., Long. 5° 50' 53" W.

Operational Procedures:

1. Safety, Assistance, and Urgency: All medium wave coastal stations listen out permanently on 2182 kHz. It is of maximum interest for the safety of human life at sea for all vessels in Spanish coastal waters at reasonable distances from the coast to maintain a listening watch for as much time as possible on this frequency.

2. Traffic from the Coastal Stations: Having firstly announced the fact on 2182 kHz, Cabo Penas Radio transmits at 1133 hrs. Call-up lists firstly of foreign vessels and then of national vessels. Weather forecasts are transmitted at 1103 hrs. and 1733 hrs.

3. Operating frequency: The station's main frequency is 1757.5 kHz and the subsidiary is 2649 kHz. In calling vessels on these frequencies, the respective vessel reply frequencies are 2013 kHz. and 3231 kHz.

Where vessels call-up Cabo Penas, they use respectively 2013 kHz and 3231 kHz, the coastal station replying on 1757.5 kHz and 2649 kHz respectively. The frequency of 2182 kHz may be used exceptionally by vessels to call up the coastal station when that frequency is not working emergency traffic.

Vessels which do not have the above frequencies, should call up on 2182 kHz, the coastal station inviting them to pass to one of the frequencies assigned to such ships.

Radio telephone calls and messages: Once radio contact has been established with the coastal station, a request is made as follows:–

Radio telephone calls:

(a) name and call sign of the vessel making the request.
(b) Identity number assigned by C.T.N.E. or in the absence of this the name of the shipowner or responsible entity for paying the ship's accounts, and the CIAC code in the case of a foreign vessel
(c) Person requesting the call.
(d) Telephone number of person or entity to be called.
(e) Locality, province or country, if the call is international.

At the end of the call, the coastal station will indicate the length and cost of the call, if requested.

Messages: Only vessels belonging to the Maritime Message Servic can use this service. The vessel sends its message to the coastal statio firstly indicating the name of its owner and telephone number.

Radio Medical Service: Crew members at sea can obtain help a advice via the coastal station who will connect the ship to the Rad Medical Centre. There is no charge for this service.

VHF: There is no transmission of weather forecasts, although a vess may obtain such information on VHF by requesting connection to t Regional Meteorological Centre. Such connections have to be paid f

Assistance, Urgency and Safety: All VHF coastal stations listen o permanently on Channel 16.

Cabo Penas Radio transmits call-up lists at 1103, 1303, 1703, 19 and 2030 hrs. It transmits general Notices to Mariners at 0903 hrs. a 1603 hrs.

Its main VHF frequency is Channel 26, but also operates on Chann 24, 25 and 27.

The following table shows the frequencies in MHz for traffic between coastal station and vessel.

Channel	*Coastal Stn.*	*Vessel*	
26	161.90	157.30	Duplex working for public correspondence
24	161.80	157.20	
25	161.85	157.25	
27	161.95	157.35	

Radio telephone calls: These can be made in the same way as the M/F transmission.

Operating Range: Cabo Penas Radio operates between Cabo (Cape) Lastres and Cabo (Cape) Vidio.

Boal Radio: Position Lat. 43° 22' N., 06° 42' W. Tel: 981-07 on VHF Channels 16 and 26.

TUGS: "Aranon" 600 h.p.; "Xaloc" 1,400 h.p.; "Nieva" 1,200 h.p.; "Raices", 1,800 h.p.

Requirements: LOA 100 m. – 130 m. – 1 tug.
LOA 130 m. – 150 m. – 2 tugs (1,000 h.p.)
LOA 150 m. – 210 m. – 2 tugs (3,000 h.p.)

BERTHING: 10 berths available.

Berth	*Length* (m.)	*Depth* (m.)	*Use*
Raices	822.84	8.0	Bulk and General
Raices (New)	250.00	12.0	Bulk and General
E. San Juan	140.00	6.0	Bulk and General
S. San Juan	300.00	6.0	Bulk and General
W. San Juan	277.70	3.5	Bulk and General
S.W. San Juan	90.25	2.0	Bulk and General
New Fish Quay	503.00	5.0	Fish
Aviles Fish Quay	515.94	2.0 – 1.0	Fish
E. Ensidesa	300.00	9.0	Fuel, General, Bulk
E. and S. Ensidesa	715.00	7.0	General, Bulk
S. Ensidesa	107.50	5.0	General
Endasa	132.84	7.0	Bulk cargo

CRANES:

Ensidesa:

1×30 tons lifting capacity
4×15 tons lifting capacity
9×12 tons lifting capacity
2× 6 tons lifting capacity
1×150 tons lifting capacity
2 gantry cranes×12 tons lifting capacity

Endasa:

2×10 tons lifting capacity

Commercial Berths:

5 cranes× 6 tons lifting capacity
3 cranes×16 tons lifting capacity
2 cranes×45 tons lifting capacity
2 cranes×30 tons lifting capacity
2 cranes×12 tons lifting capacity
6 cranes× 5 tons lifting capacity

Asturiana de Zinc:

1 crane × 4 tons lifting capacity
1 crane × 5 tons lifting capacity

STEVEDORES: Working hours: At CSI Planos Berth: Monday 0600 – 2400 hrs. Tuesday/Friday 0000 – 2400 hrs. Saturday 0000 – 0600 hrs. working shift. Thereafter no work. Sundays and holidays no work.

All other Quays: Monday/Friday. 0800 – 1200 hrs., 1300 – 1700 hrs. Overtime: 1700 – 2300 hrs.

Saturdays: 0800 – 1200 hrs. No overtime.

Sundays and Holidays: No work done.

MEDICAL: Crew members requiring medical attention, hospitalisation, etc., should be reported by the Master to the Ship's Agent in order to make the necessary arrangements. All services available.

TANKERS: Oil/Gas Berth: Equipped with facilities to load/unload oil products and gas through pipelines.

Liquified Gas Facilities:

Name	"Muelle de CSI Planos SA" – Zona "B" and "A".
Type of Berth	Concrete berth with rubber fenders.
Mooring	Normal mooring system giving lines to bollards alongside.
Length	300 m.
Depth	29 ft. LWOST alongside at berth, always afloat.
Type of handling installation	Shore hose connections of 6 in. for liquid and vapour available. No vessels' hoses required.
Largest LGC entered/ discharged (part cargo)	34,230/20,406 g.r.t./n.r.t., 53,400 cu.m. cargo capacity. Length overall: 216.10 m. Max. draft 36 ft. 2 in. (April 1982).
Shore Storage Particulars:	
Operator	Fertiberia SL.
Other Users	Some Spanish companies occasionally operating by previous agreement with "Enfersa".
Products handled	Ammonia.
Minimum temperature	Minus 33°C.
Cargo pressure	3 kg. – 4 kg.
Receiving temperatures	Ambient and fully refrigerated down to minus 33°C.
Maximum discharging rate	500 t.p.h. at minus 33°C.
Actual discharging rate	350 t.p.h. – 400 t.p.h.
Cargo operations permitted by night	Yes.
Round the clock discharging	Yes (SHinc).
Vapour return line available	Yes.
Distance from berth to storage	2.8 km.
Hoses of 6 in. available	Yes
Diameter of shore lines	12 in. Liquid and 8 in. Vapour.
Maximum back pressure permitted	3 kg. – 4 kg.

Tanks	*Temperature*	*Capacity*	*Cu.m.*
2 Spherical	Ambient	2,000 tons	2,500
1 Cylindrical	Fully refrigerated	10,000 tons	15,000

Cargo handling equipment at Marine Terminal 1 shore line.

FRESH WATER: Available ex-wharf or barge. From the wharf connections, it is supplied at 25 t.p.h. and from barge at those berths where there is no supply facility.

FUEL: Fuel and gas oil are supplied to ships by barge. There is a small tanker doing the service. Stem for bunkers can be arranged through usual contractors.

CONSULS: The following countries have consular representation in the nearby port of Gijon: Brazil, Colombia, Costa Rica, Dominican Republic, Finland, France, Italy, Netherlands, Norway, Panama, Peru, Portugal and Sweden.

REPAIRS: There is one shipyard at Aviles for small coasters and fishing trawlers. All types of repairs will be readily attended by specialised workshops. Advanced notification is suggested. Electrical power is supplied ex-wharf. Diver available.

DRY DOCKS: One dock at Las Canteres, owned by "Empresa Nacional Siderurgica", length 50 m., width 9.50 m. Capacity 600 tons.

Four docks at El Monumento owned by Astilleros Ojeda y Aniceto, length, 2 of 100 m. and 2 of 85 m. Width 3.10 m. Capacity 500 tons.

SURVEYORS: Lloyd's Register, A.B.S., B.V., Hispania Marine and G.L.

CUSTOMS ALLOWANCES: Normally Customs permit 200 cigarettes per man out of bond. Additional quantities needed on the stay of ship in port. 1 bottle of spirit per man. Also see "Documents".

AIRPORT: The regional airport, named Asturias (in some instances it is still known as Oviedo) is 12 km. away from the port. There are daily flights linking Aviles with Madrid, Bilbao, Barcelona, Malaga, Tenerife and Santiago. Bus service available to and from the airport.

TIME: GMT plus 1 hour, except during Summer when GMT plus 2 hours.

HOLIDAYS: 1st January, 6th January, 19th March, 1st May, 21st June, 16th July (Mercantile Marine), 25th July, 28th August, 8th September, 12th October, 1st November, 8th and 25th December, Maundy Thursday, Good Friday, Easter Monday, Corpus Christi, Ascension Day.

POLICE/AMBULANCE/FIRE: Police 544311 and 544511. Ambulance 540080, 540511, 540733, 540844. Fire 546114, 544127.

DEVELOPMENTS: New Raices Berth operating (Length 250 m., depth 12.0 m.).

AUTHORITY: Capitania Maritima, Avenida Conde Guadalhorce, Aviles, Spain. *Contact:* Angel Sabino Alonso Fernandez, Comandant.

Autoridad Portuaria de Aviles, Calle de Muelle 8, Aviles, Spain. *Tel:* (98) 5541111. *FAX:* (98) 5540479. *Contact:* Terminal Director.

AGENT: Alvargonzalez, S.A., Guadalhorce 105, Aviles, Spain. Tel: 562075/6. Telex: 87492.

BARCELONA: 41.20 N. 02.10 E. (See Plan)

DOCUMENTS:

(1) Manifest of Barcelona Cargo: 1 set covering all loading ports; make sure that this Manifest is in perfectly good order before ship's berthing, as Customs will board the vessel immediately and take it away as it is; thereafter any omission or excess of pages may lead to a fine. It is important that the Master has copies as Manifests mailed by Agents in loading ports sometimes arrive too late or not at all.
(2) Manifest of Transit Cargo: 2 sets (same recommendations as above).
(3) 3 Crew Lists.
(4) 1 Negative or Passengers List.
(5) 2 sets of Bills of Lading of the Barcelona cargo.
(6) 2 Provisions Lists.

Of items (3), (4) and (6) above several copies will be required for distribution among various authorities, therefore it would be well for the Master to have at least 3 copies of each ready at hand on arrival. Tobacco allowed per crew member is 6 kg.

All tobacco in excess of the 6 kg. allowed by the Spanish authorities should be manifested and signed by the Spanish Consul at the last port of call before Spain. If there is no Spanish Consul at the last port before calling at Spain, then the consulate of a country friendly to Spain or the Port Authorities could carry out the same formality. The same procedure must be followed when the vessel loads a cargo of tobacco for discharge in Spanish ports, or when the tobacco cargo is loaded in transit.

If any item of cargo manifested for Barcelona should be discharged in error at any other port in the ship's itinerary before arrival at Spain, there would be a fine imposed here for shortage of goods if no advice of such shortage is given before arrival.

Shipmaster's Report: November 1988.

4 Manifests of Barcelona Cargo.
5 Manifests of Transit Cargo.
2 sets of Bills of Lading.
5 Crew Lists.
1 (nil) Passenger List in Spanish.
1 (nil) Arms/Ammunition List in Spanish.
2 Maritime Declarations of Health.
2 Stores Lists.
4 Lists of Personal Effects.

APPROACHES: *Entrance:* Width 370 m., depth 16 m. Nature of bottom is mud and sand.

PILOTAGE: Pilot boats painted black, with letter "P" in white on each bow. Telegraphic address: "Pilot Station-Barcelona". Required notice of

ETA 24 hours before arrival. Signals to be made by vessels requiring Pilot: the letter "G" in sound and/or light. Can be contacted on VHF Channel 16.

Pilot boats have no radar. Pilots give priority to vessels nearest port entrance. Pilotage is compulsory and the service is permanent. In case of port congestion vessels remain at anchor at the roads.

ANCHORAGES: Vessels can anchor 0.8 miles away from breakwaters in depths over 40 m.

MAX. SIZE: Only limitation is draft: max. 45 ft.

HEALTH: Pratique obtained immediately after berthing, when Health Officer boards vessel. In case of suspected disease or fever on board Master must send a message to Agent, to advise Health Office. Following documents are required by Health Officer upon berthing; Maritime Declaration of Health, Derat Certificate, 1 Crew List.

RADIO: Aranjuez Radio, call sign EAD.

VHF: Barcelona Radio can be contacted on VHF Channel 16, 3 hours before arrival and Channel 26 for long distance calls.

TUGS: Operated by two private companies. Vessels do not need a tug for entering or leaving but may require one for internal manoeuvring, depending on the manoeuvre and on the size of the vessel, pre-arrangement with Pilots. Ship lines normally used. 12 tugs available, from 800 h.p. to 1,800 h.p.

BERTHING: Commercial quay, length 15,054 m. with depths 6.0 m. – 14.0 m., depending on location. Pier Barcelona, berths for transoceanic maritime passenger traffic, depth 31 ft. Shore fenders keep vessel about 1 m. off quay.

CRANES:

9	Quay cranes	(Lifting capacity)	3 tons
39	,, ,,	,, ,,	6 tons
27	,, ,,	,, ,,	12 tons
4	,, ,,	,, ,,	16 tons
9	,, ,,	,, ,,	30 tons
5	Container cranes	,, ,,	35/45 tons
144	Mobile cranes	,, ,,	1/50 tons
1	Floating crane	,, ,,	80 tons

BULK CARGO FACILITIES:

Grain: The Terminal for discharge, storage and delivery of cereals and seed is located on Contradique Wharf (East Side). These products are shipped in large bulk carriers of up to 280 m. length. The maximum draft at the present time is 13.10 m. This terminal has pneumatic facilities on the wharfside for discharging vessels and which may reach optimum rates of 1,200 tonnes/hr. Soya bean is taken by belt conveyor to a factory located in Anden de Costa for conversion to oil and meal. This terminal comprises 3 silos with capacities of 20,000 tonnes, 45,000 tonnes and 80,000 tonnes respectively. There are 2×60 tonnes weighbridges.

In addition there is another terminal located on the Alvarez de la Campa Wharf specialising in the discharge, conversion and processing of soya bean. It has length 250 m., depth 11.20 m. and is equipped with modern pneumatic facilities for discharging, and like the Anden de Costa factory described above, meal and oil are also loaded at this terminal. The terminal's storage capacity is 42,000 tonnes of soya bean and 2,000 tonnes of oil. The discharge rate is 500 tonnes/hr.

Bulk Clinker and Cement loading terminal: Located at Contradique Wharf (South Side). Capacity for 27,000 tons clinker and 38,000 tonnes cement. Vessels up to 40,000 d.w.t. and having a draft of up to 12 m. may be loaded here without delays. This terminal is equipped with a 22 m. hoistable and rotary arm gantry crane for loading bulk carriers. Loading rate, 1,000 tons/hr. for cement and 1,500 tons/hr. for clinker. Apart from this terminal, there is another located on Alvarez de la Campa Wharf. The latter terminal has a storage capacity of 8,800 tonnes. This terminal receives cement from a works in the Province of Tarragona for subsequent overland distribution.

Potash loading terminal: Length 419 m., depth alongside 11.2 m., equipped with 2 loading bridges which can load up to 700 t.p.h. of this product. Storage capacity 80,000 tonnes.

Coal: Discharged at Sur No. 1 Wharf (East Side), length 450 m., depth alongside 14 m. and (North and South Side) length 350 m., depth 12 m. and 14 m. respectively.

It is equipped with portal cranes, lifting capacity 12/16 tons. Average discharge rate 110 tons per crane/hour. The storage area is sufficient for a vessel discharging 60,000 tonnes.

Iron, Steel and Scrap: Handled at Contradique Sur and Sur No. 1 Wharves. 12/16 tonnes capacity cranes are used. Hourly rate is 80 tonnes for scrap and 250 tonnes for manufactured products.

SPECIALISED CARGO-HANDLING FACILITIES:

Containers: Two terminals at Prince of Spain Wharf, total length 1,085 m., depth 14 m., total area 295,000 sq.m., 5 gantry cranes 35/45 tons. Section A (Maritima Layetana, S.A.): 4 transtainers, 13 straddle carriers, 17 forklifts with capacity 2.5/12 tons. 150 reefer points. Section B (Tersaco): 3 transtainers, 6 tractors, 12 trailers, 12 forklifts with capacity 2.5/35 tons. 120 reefer points.

Both terminals have computer systems and CFS.

There are other terminals for domestic traffic.

Roll-on/Roll-off traffic: 20 ramps available at different quays.

General cargo handling: It is fully mechanised and, apart from the pier cranes, there are fork-lift trucks, truck cranes and a palletisation process.

Liquid and non-petroleum bulk: Important special facilities are the liquefied natural gas discharge and gasification plant with special berth (depth 12 m.) and a storage capacity for 240,000 cu.m. of liquid gas.

There are 6 special berths (depth 12 m.) for inflammable liquids, chemicals, vegetable oil and tallow, and a storage capacity of about 150,000 cu.m.

STEVEDORES: *(a)* Daytime, normal working hours, from 0800–1200 and 1400–1800 hrs. (1 shift); *(b)* 0800 – 1400 and 1400 – 2000 hrs. (2 "intensive" shifts). Night-time, from 2000 – 0200 and 0200 – 0800 hrs. (2 intensive night shifts). Extra costs are involved for intensive shifts. Nightwork is paid on an overtime basis. Average rates for discharge of grains in bulk are about 7,500/8,000 tons per day of 24 consecutive hours; for general cargo a rate of 100 tons within normal working hours.

MEDICAL: All medical facilities are available; it would be appreciated if the Master advises in advance if crew member is in need of urgent medical attention. Contact Barcelona Radio in an emergency.

TANKERS: There are 6 berths for oil tankers (refined products), max. size 60,000 d.w.t., depth alongside 12 m. (2), 11 m. (2), 8.5 m. (2). Along the jetty there are 15 pipelines of up to 16 in. diameter, leading the products to the 350,000 cu.m. storage tanks, discharging being effected at a rate about 1,000 tonnes/hour for vessel.

Also see "Shipmaster's Report".

DENSITY: Average density between 1025 and 1028 in all seasons.

FRESH WATER: Available at all berths direct from shore lines. Rate of delivery about 16 t.p.h. – 20 t.p.h. Also possible by barge, rate 150 t.p.h.

FUEL: "Campsa" supplies a range of intermediate fuel oil up to heavy fuel oil bunker "C" 380 cST/50°C and marine gasoil. These products can be supplied by barge, at jetty or by tank truck.

CONSULS:

	Tel:		Tel:
Argentina	317-58-82	Jordan	254-48-50
Austria	257-36-14	Korea (Rep.)	215-71-63
Belgium	318-98-99	Lebanon	209-03-99
Bolivia	322-65-12	Liberia	213-81-50
Brazil	215-16-15	Luxembourg	237-37-01
Cambodia	247-42-67	Malaysia	315-00-11
Canada	254-02-48	Malta	317-69-63
Chile	318-85-86	Mexico	201-18-22
China	255-60-60	Monaco	209-75-88
Colombia	254-02-48	Morocco	215-34-70
Costa Rica	217-93-00	Netherlands	217-37-00
Cuba	318-19-36	Nicaragua	201-90-59
Denmark	310-20-91	Norway	215-00-94
Dominican Republic	237-92-13	Pakistan	257-42-30
Ecuador	209-57-31	Panama	302-00-73
El Salvador	209-36-58	Paraguay	215-05-26
Finland	318-18-38	Peru	230-12-42
France	317-81-50	Philippines	318-84-36
Gabon	237-85-01	Portugal	318-81-50
Germany	218-47-50	Senegal	200-97-22
Greece	246-22-90	Seychelles	317-27-00
Guatemala	330-65-59	Sierra Leone	215-90-54
Haiti	213-81-50	South Africa	301-55-83
Honduras	301-05-52	Sweden	218-15-66
Iceland	232-58-10	Switzerland	330-92-11
India	201-87-55	Thailand	258-14-61
Indonesia	317-75-31	Tunisia	231-53-79
Ireland	330-96-52	United Kingdom	322-21-51
Italy	215-16-54	Uruguay	317-41-83
Ivory Coast	329-69-16	U.S.A	319-95-50
Japan	204-72-24	Venezuela	215-01-12

REPAIRS: All types of deck and engine repairs can be carried out.

DRY DOCKS: Dry dock, max. available length 215 m., width at entrance 35 m. Can accommodate vessels of 50,000 d.w.t.

Floating dock, length 111 m., interior width 18.7 m., interior draft 6.4 m. Lifting capacity 6,000 tons.

SURVEYORS: Lloyd's 2410400. A.B.S. 2399275. B.V. 2371302. G. Lloyd 3154462.

GANGWAY/DECK WATCHMEN: According to police regulations, Master has to keep watchmen on board.

Organised robberies have taken place aboard vessels by gangs using gas to render Master and crew unconscious.

OPENING/CLOSING HATCHES: Normally carried out by crew, except in liner vessels which is contracted for by stevedores.

CERTIFICATES: Vessels should have all usual certificates aboard.

CUSTOMS ALLOWANCES: Quantity allowed for each crew member is 200 cigarettes and 1 bottle wine/spirits.

CARGO GEAR: All commercial piers served by electric shore cranes. In addition, 1 floating crane with a lifting capacity of 80 tons and 144 mobile cranes up to 50 tonnes.

REPATRIATION: Good facilities available.

AIRPORT: Located about 7 km. from town, well served by regular airlines.

TIME: GMT plus 1 hour; GMT plus 2 hours (Late March – Lat September).

HOLIDAYS: New Year's Day (1st January); Epiphany (6th January) Good Friday; Labour Day (1st May), Christmas Day (25th December) No cargo is worked on these days.

Other National holidays occur during the year, but overtime work ca be arranged.

POLICE/AMBULANCE/FIRE: Police 091; Harbour Police 3026367 Ambulance 3171717 (Also 24 hour medical service); Fire 080 and 2535353 (080 is best).

TELEPHONES: Only at Terminal Station.

SERVICES: All services available including compass adjusting, rad and radar repairs, supply of charts, nautical publications, availability Notice to Mariners, availability of safety equipment, etc.

IDENTIFICATION CARDS: Seaman's Book required. Crew List also t be presented at Autonomous Port of Barcelona.

DEVELOPMENTS: Lengthening under construction of breakwater Diqu del Este, and Pier Contradique. A wharf with 6 berths for tankers on plus 4 berths for vessels loading/unloading crude in bulk with a dep of 39 ft.

A 6th container crane is to be erected at Tersaco Container Termina

SHIPMASTER'S REPORT: March 1981.

Approaches: If vessel coming from the East, no problems, as the rad picks up the line of the breakwater about 20 miles out. There is als D.F. station close to the entrance to check vessel's position. Also suitab for calibrating the D.F. if time allows.

The extension to the breakwater is now completed, and the light bu marking the end of the extension has now been removed.

Anchorage position is about 0.5 miles from the breakwater where vessels usually remain at anchor awaiting instructions.

Port: The large Southern extension of the port is well under way, and it was in this dock that the vessel berthed. It would appear that this extension will be used for general cargo, containers, and oils/gases. The gas berths lie on the Eastern side of the dock. There being 3 berths available at present. The Northern Berth handles LNG/LPG. The second berth LPG and Berth No. 3 handles oils. Dredged depth alongside according to Chart B.A. 1180 is 10 m.

Pilots: Pilots board the vessel just outside the breakwater, from a small launch painted black with a white letter "P" painted on its sides. Pilots are reluctant to proceed very far outside the breakwater entrance.

Pilots can be contacted on VHF about 30 miles out at sea. Working Channels 16 and 12.

After completion of cargo, Pilots are called and appear on the vessel within 30 minutes.

For arrival Pilots are required to be given 24 hours' notice.

Berthing/Unberthing: Vessel's usually berth port side to head up the dock, but if it is required by the ship they will berth starboard side to.

Vessels can berth or sail at any time of the day or night.

Vessel assisted by 2 tugs forward and aft. Tugs using ship's lines. The 2 land side tugs put the lines ashore, and then push the vessel onto the quay until mooring is completed. No particular problems with berthing or unberthing.

Berth: The vessel lies alongside dolphin, which carries the pipeline. The dolphin is adequately fendered. Fenders are large flat wooden faces, with a backing of large rubber tyres.

Aft mooring arrangements not very satisfactory at this call as 2 of the mooring hooks were inoperative. Had they been working the usual arrangement of 3, 2 and 2 could have been possible.

Attention must be paid to the mooring boat, whose crew will take the ropes to any position they feel inclined. This happens forward. Aft they have fewer choices as to where to put the ropes. Vessel tied up at Berth No. 2 on this call.

Cargo Operations: Connection is to a cargo hose 12 in./8 in. line ASA 150. Shore provide the reducer and connect and disconnect. Pumping rate varied between 230/110 t.p.h. (butane). Butane tanks are 3 km. away so the usual high back pressure was experienced. Back pressure during discharge was 8 bars. Discharge was carried out using 2 pumps.

Vessel was informed by the surveyor that it was advisable to use as many pumps as the back pressure allowed, as the shore may protest at the slow discharge rate.

During this stay the shore tanks were full and were being topped off, this could have been the reason for the low rate. Possibly a better rate could be expected with propane as the tanks are only about 1 km. away.

The cargo hose was in a poor condition on the exterior. Burning was in operation on the berth ahead of the vessel, smoking regulations seemed lax.

Communications between the ship and shore were very poor as nobody spoke any English or French. Communications between the jetty and the tanks, were also very poor, messages are passed by sound powered telephone but it would appear that at the tanks nobody is in attendance at all times.

If it is possible and vessel is berthed at Berth No. 2 use the forward manifold otherwise the gangway will not be able to be landed on the dock, and will overhang by a few feet.

General: Papers required for the port are those laid down in "Guide to Port Entry". Chandler available, who can deliver by either road or barge. Storing from the quay would be awkward due to the space available on the dock, and in fact the derrick is supporting the cargo hose. After stores cranes cannot work to the quay. Stores were not taken at this port, for this reason.

Deck and engine repairs can be carried out at this port.

Lloyd's Surveyors are available for hull and engine surveys.

The airport is about 4 miles away and there is no problem with repatriation.

The berth is a considerable distance from the town and arranging taxis to come down to the vessel can cause problems. For this reason the vessel laid on a taxi service for a limited time during the vessel's stay in port. Taxi fare to town was about 400 pesetas.

No telephone available on the berth, but local calls may be made from the gate house of the "Enagas" Terminal across the road from the berth.

Water density 1025 (arrival), 1026 (departure).

RADIO OFFICER'S REPORT: September 1990.

Documents: The following is to be added to the list in the "Guide".

A Declaration of Oil Residues:

Last 3 ports sludge discharged: Date, quantity, by which means.
Total capacity of oil residue tanks.
Quantity of sludge on board.
Total capacity of the slop tanks.
Quantity of oil residue from, tank washing, on board.
Next ports with reception facility.

SHIPMASTER'S REPORT: October 1993.

Charts: B.A. 1180 and 1195.

Approach: The City of Barcelona with Castillo de Montjuich is easily identified. The breakwater entrance is not visually conspicuous, and is best identified on the radar. The stone mole gets lost in the shoreline buildings.

Pilot: The Pilot boards from a typical small black hulled white upperworks Spanish cutter. A good lee is required. 24 hours notice of arrival and 30 minutes notice on departure is required. The port is often very busy, so long waits can be expected. Vessels must not approach within 1 mile of the breakwater entrance until advised to do so by the Pilot Station. Pilot on VHF Channel 14.

Anchorage: Anchorage is exposed, and from previous experience holding ground is not considered good. Do not anchor within 1 mile of the Breakwater Head, and keep clear of the numerous pipelines and cables.

Tugs: Many modern tugs available. Normally two tugs are used. Ship's lines used.

Berth: The Inflammables Quay in the new port section, to the South of the old port, is used for all petroleum products and liquids.

Seven berths, all small jetties, protruding out about 50 m. from the shoreline, are used, all starboard side to, head out.

Depth alongside all berths is about 12.0 m.

We berthed at Pier 3, and used 2 head/stern lines to shore, by mooring boat (actually pilot boat), and 2 springs fore and aft to the jetty.

Ship's gangway at manifold.

Discharge: Discharged latex. Shore tanks across roadway about 200 m. away. Discharge was at maximum rate of ship's pump. Shore hose to ship's manifold to 6 in. Camlock coupling.

Receiver and Surveyor speak little English.

Fresh Water: Available on jetty. Port Authority waterman required. Arrange before weekend. Shore hoses through meter. Brackish.

Chandler: Stores can be delivered to within 50 m. of ship's manifold. The Receiver will provide a lift truck to ship's side.

Telephone: One public telephone near Jetty No. 4, a few minutes walk away.

Formalities: Vessel came from Italy, and paperwork not extensive. We prepared 6 Crew Lists, 1 Personal Effects List, 1 Stores List, 1 Discharge Manifest and 1 Transit Manifest. Formalities were handled by Agent and Civil Guard.

AUTHORITY: Puerto Autonomo de Barcelona, Puerta de la Paz No. 6, 08003 Barcelona, Spain. *Tel:* 3188850, 3188750. *Telex:* 54000 JOPB. *FAX:* (93) 3184047. *Contact:* L. Montero, Port Director.

BILBAO: 43.17 N. 02.55 W. (See Plan)

DOCUMENTS:

6 copies Crew List.
4 copies Passenger List (if any on board) or 2 Negative Passenger Lists.
3 copies Crew's Personal Effects Lists, if any.
3 copies Ship's Stores List.
Safety Radiotelegraphy Certificate.
Safety Equipment Certificate (g.r.t. 500 or above)
Safety Construction Certificate (g.r.t. 500 or above)
International Health Declaration Form.
Narcotic List.
Vaccination List.
Declaration of no animals on board.
3 copies Cargo Manifest.
2 copies Manifest of Cargo in Transit.

Tobacco Allowance: Crew members are not allowed to keep more than 200 cigarettes (or the equivalent in tobacco) and a bottle (1 litre) of spirits out of bond. The rest must be included in the vessel's Store Lists, and is to be sealed. The total maximum quantity that any ship can carry in accordance with the Spanish Laws is 6 kg. of tobacco for each person aboard.

Any quantity over this amount should be manifested as "tobacco in transit" and this manifest to be visaed by the Spanish Consulate in the previous port. For ships diverted at sea to a Spanish port or if a Spanish Consulate is not available at the last port of call, Master is required to send prior to arrival the following cable to:

DIRECCION GENERAL DE ADUANAS-MADRID

"Vessel .... Coming from .... bound to Bilbao with tobacco Manifest not visaed in the last port of call due to not being available Spanish Consulate".

Master ....

The text of the cable should be entered in the Log Book and a copy delivered to the Custom's Agent when boarding.

Clearance: Health and Customs Authorities will board either when vessel is at anchor or berthed. Customary national and international regulations concerning Free Pratique are applied. Unless contagious sickness being on board, or vessel coming from an epidemic zone, radio advice to Health Authority is not required. Health Declaration, Derat Certificate and Crew List are required by Health Authorities.

PILOTAGE: Pilotage is compulsory for vessels entering and leaving the Port of Bilbao. Vessels must make contact with the Pilot Station 1 hour before arrival; Masters shall make contact again when 7 miles from the port entrance.

Arrival Information: There are no traffic separation schemes or traffic control systems in the approaches to the port of Bilbao.

The Pilot Station keeps permanent radio watch on VHF Channel 12. When Pilot on board and ship approaching the berth VHF communication is carried on Channel 14.

ANCHORAGE: Masters will be informed by Harbour Pilot about the estimated berthing time and any other particulars that concern berthing prospects. Should need for anchoring arise, vessels will be requested to anchor under the control of the Harbour Pilot in the usual anchorages, i.e. in waters between former entrance mouth of Santurce and new entrance mouth of Lucero, where only ships under 15,000 R.T. without any IMDG coded cargo on board are allowed to anchor.

Ships whose characteristics and/or cargo conditions do not comply with these limitations are, if needed, obliged to anchor, also under the control of the Harbour Pilot, in some of the following anchorage spots:

Spot "A", true bearing 270° from the Pta. Lucero breakwater green light, 1.5 miles away.

Spot "B", true bearing 310° from the Pta. Lucero Breakwater green light, 1.5 miles away.

Spot "C", true bearing 015° from the Pta. Lucero Breakwater green light, 1.2 miles away.

Spot "D", true bearing 265° from the Pta. Lucero Breakwater green light, 2.5 miles away (for small sized ships).

Spot "E", true bearing 310° from the Pta. Lucero Breakwater green light, 2.5 miles away.

Crude and oil product carriers should also keep in close communication with the Refinery Terminal Superintendency about their positioning and other particulars.

Ships in general (without any IMDG coded cargo on board) that are requested to wait due to berthing schedule, or tide level when bound up river, may receive instructions from Pilot to anchor either in between new outer port entrance of Lucero and the older Santurce Breakwater; or inside waters enclosed by Arriluce and Santurce Breakwaters. In this latter area, an additional facility of 3 sets of mooring buoys for lightening, LASH type ship turnround operations, etc., are located in waters of 14.0 m. depth.

MAX. SIZE: Drafts available for dry cargo vessels range from 4 m. up to 14.5 m. and tankers up to 32 m. The largest vessel received was 409,499 d.w.t., length 378.01 m. and draft 22.48 m.

HEALTH: Vessels requiring Free Pratique have to fly "Q" Flag when entering port. If proceeding direct to berth, Pratique obtained immediately after berthing. Otherwise, at anchorage on arrival. Cases suspected disease or fever on board, Master must radio Agent, to advise Health Office. On berthing Health Authorities require Health Declaration, Derat Certificate and Crew List. Also see "Documents".

RADIO: Short wave communication link through Aranjuez Radio and Pozuelo del Rey Radio. Medium wave communication link is through Machichaco Cape Radio.

VHF: Bilbao Coastal Radio Station on Channel 16.

Other stations in vicinity and operating on the same calling channel are Cabo Mayor, Cabo Machichaco and Choritoquieta.

Petronor Refinery Terminal keeps permanent watch on VHF Channels 12 and 14.

TUGS: No tugs required for entering port, only for berthing or shifting inside river. Ship's lines used, tugs employed according Pilot's advice. 20 tugs available, 500 h.p. – 4,500 h.p.

BERTHING: For commercial use.

Passenger Terminal: 150 m. of berthing, depth 7.0 m., and Ro-Ro facilities.

General Cargo:

2,157 m. of berthing with depth of more than 12 m. and Ro/Ro facilities.
634 m. of berthing with depth between 10 m. and 12 m.
1,520 m. of berthing with depth between 8 m. and 10 m.
350 m. of berthing with depth between 6 m. and 8 m.
681 m. of berthing with depth between 4 m. and 6 m.

Dry Bulk Cargo:

1,068 m. of berthing, water depth over 12.0 m.
175 m. of berthing, water depth 10.0 m. – 12.0 m.
1,088 m. of berthing, water depth 8 m. – 10 m.
607 m. of berthing, water depth 6 m. – 8 m.
2,570 m. of berthing, water depth 4 m. – 6 m.

Liquid Cargoes:

Crude and oil products: Lucero Terminal (leased to Petronor Refinery)

Berth No. 1, draft 32 m., length 400 m. (with a fendered jetty 140 m. wide)

Berth No. 2, draft 19 m., length 400 m. (with a fendered jetty 96 m. wide)

Berth No. 3, draft 13 m., length 200 m. (with a fendered jetty 85 m. wide)

Berth No. 4, draft 11 m., length 200 m.
Berth No. 5, draft 11 m., length 200 m.
Berth No. 6, draft 7.5 m., length 100 m.

Other oils and chemicals:

220 m. of berthing, water depth 5 m.
*620 m. of berthing, water depth 9 m.
*980 m. of berthing, water depth 14 m.
*Jointly shared with dry cargo handling operations.

Privately owned Chemical Plants and Mills: Specially fitted for dry and liquid cargo handling, totalling 5,457 m. of berthing space; water depth 4 m. – 14 m.

Containers:

645 m. of berthing with depth of 14 m.
500 m. of berthing with depth between 8 m. and 10.5 m.

Ro/Ro Facilities:

There are also 4 Ro/Ro ramps available.

CRANES:

	Type	*Commercial Service*	*Private Service*
40 tons	Portainer gantry cranes	2	5
32 tons	Portainer gantry cranes	–	1
32 tons	Transtainer gantry cranes	–	1
40 tons	Overhead transtainers	–	5
40 tons	Transtainer gantry cranes	–	2
20 tons	Transtainer gantry crane	–	1
35 tons	Loader-Unloader (dry bulks)	–	2
17 tons	Loader-Unloader (dry bulks)	–	2
10 tons	Loader-Unloader (dry bulks)	–	3
	Continuous Loaders	–	2
35 tons	Luffing cranes	–	1
30 tons	Luffing cranes	3	–
28/14 tons	Luffing cranes	–	1
20 tons	Luffing cranes	–	3
25/16 tons	Luffing cranes	1	–
16/30 tons	Luffing cranes	2	–
16 tons	Luffing cranes	12	–
15 tons	Luffing cranes	–	4
14 tons	Luffing cranes	–	8
12 tons	Luffing cranes	16	1
10 tons	Luffing cranes	–	1
8/20 tons	Luffing cranes	–	1
8 tons	Luffing cranes	–	1
7.5 tons	Luffing cranes	–	2
7 tons	Luffing cranes	–	1
6 tons	Luffing cranes	29	3
5 tons	Luffing cranes	–	3
3/6 tons	Luffing cranes	–	4

Floating Cranes: 4 units for bulk cargoes, 12 tons – 35 tons capacity.
1 for heavy lift cargoes up to 400 tons capacity.

STEVEDORES: Ordinary working time (Monday/Friday) 0800 - 1200 hrs., 1400 – 1800 hrs. (break at noon).

Ordinary working time (Monday/Friday) 0800 – 1400 hrs; 1400 - 2000 hrs. (2 intensive relief turns).

Extraordinary working time: Round the clock, 7 days a week, available. Inform Agent about requirements in advance.

MEDICAL: Medical service must be arranged by the Agent.

TANKERS: Arrival Information:
Tel: 6365291.
Telex: 32623 Nopre.
Fax: 6365332.

Petronor Refinery: Attention is drawn to the minimum under keel clearance of 1 m. required alongside.

Vessels up to 500,000 d.w.t. (according to draft) range will be accepted at Petronor Terminal.

Loading/Discharging/Transfer Operations:

No. 1 Jetty:	
Crude Oil:	
LOA	170 m. to 450 m.
D.W.T.	30,000 tons to 500,000 tons
Depth Alongside	31 m. (minimum)
Fuel Oil:	
LOA	170 m. to 450 m.
D.W.T.	30,000 tons to 500,000 tons
Depth Alongside	31 m. (minimum)
No. 2 Jetty:	
Crude Oil:	
LOA	100 m. to 400 m.
D.W.T.	3,000 tons to 150,000 tons
Depth Alongside	19.5 m. (minimum)
Fuel Oil and Clean Products:	
LOA	100 m. to 400 m.
D.W.T.	3,000 tons to 150,000 tons
Depth Alongside	19.5 m. (minimum)
No. 3 Jetty:	
Fuel Oil and Clean Products:	
LOA	90 m. to 230 m.
D.W.T.	2,000 tons to 50,000 tons
Depth Alongside	15 m. (minimum)
No. 4 Jetty:	
Fuel Oil and Clean Products:	
LOA	70 m. to 170 m.
D.W.T.	2,000 tons to 30,000 tons
Depth Alongside	12 m. (minimum)
LPG:	
LOA	70 m. to 170 m.
Approximate Capacity	2,000 cu.m. to 25,000 cu.m.
Depth Alongside	12 m. (minimum)
No. 5 Jetty:	
Fuel Oil and Clean Products:	
LOA	110 m. to 170 m.
D.W.T.	6,000 tons to 30,000 tons
Depth Alongside	12 m. (minimum)
Bitumen:	
LOA/D.W.T./Depth	As for Fuel Oil and Clean Products
LPG:	
LOA	70 m. to 170 m.
Approximate Capacity	2,000 cu.m. to 25,000 cu.m.
Depth Alongside	12 m. (minimum).
No. 6 Jetty:	
Bitumen:	
LOA	50 m. to 115 m.
Approximate Capacity	1,000 tons to 5,000 tons
Depth Alongside	10 m. (minimum)

Loading/Discharging/Transfer Systems:

	Loading Arms	*Various Manual Couplers Standard Capable of Being Adjusted to Fit*	
No. 1 Jetty:			
Crude Oil	4×16 in.	16 in.×14 in.×12 in.	150 press ASA DIN
Fuel Oil	1×12 in.	12 in.×10 in.×8 in.	
Fuel Oil	1×16 in.	16 in.×14 in.×12 in.	
Clean Products	1×16 in.	16 in.×14 in.×10 in.	
No. 2 Jetty:			
Crude Oil	2×12 in.	12 in.×10 in.×8 in.	150 press ASA DIN
Fuel Oil	1×12 in.	12 in.×10 in.×8 in.	
Clean Prod.	2×10 in.	10 in.×8 in.×6 in.	
No. 3 Jetty:			
Fuel Oil	2×12 in.	12 in.×10 in.×8 in.	150 press ASA DIN
Clean Prod.	1×8 in.	8 in.×6 in.	
Clean Prod.	2×6 in.	6 in.	

	Loading Arms	Various Manual Couplers Standard Capable of Being Adjusted to Fit	
No. 4 Jetty:			
Fuel Oil	2×12 in.	12 in.×10 in.×8 in.	150 press.
Clean Prod.	2×8 in.	8 in.×6 in.	ASA DIN
LPG	1×8 in.	8 in.×6 in.×4 in.	150/300 ASA DIN
No. 5 Jetty:			
Fuel Oil	2×10 in.	10 in.×8 in.	150 press.
Clean Prod.	1×8 in.	8 in.	ASA
Clean Prod.	1×6 in.	6 in.	DIN
LPG	1×8 in.	8 in.×6 in.×4 in.	150/300
		Flexible hose with	ASA DIN
Bitumen	1×6 in.	Camlock coupling	
No. 6 Jetty:			
Bitumen	1×6 in.	6 in.	150/300
		Flexible hose – Camlock coupling.	ASA DIN

N.B.: Any other flange size or rating will require special fabricated spool pieces to meet above flange specification. Spool pieces must be furnished and installed by the vessel. Terminal personnel will connect the coupler to proper ship's flanges. *Ship's* personnel will bolt on any required spool pieces. Ship's manifold must meet requirements of loading arm envelope and must provide suitable base and clearance for loading arms supports. Manifolds must comply with latest OCIMF standards. Failure to present correct reducers/spools will result in terminal making a charge for use of their equipment.

Discharging/Loading Rates:

Discharging: Maximum discharging rate accepted by Terminal:

Crude Oil – Jetty No. 1:	16,000 t.p.h.
Crude Oil – Jetty No. 2:	7,000 t.p.h.

Loading: Maximum loading rate provided, actually, by the Terminal:

Fuel Oil	3,000 t.p.h.
Gas Oil	1,500 t.p.h.
Kerosene	1,400 t.p.h.
Gasoline	1,400 t.p.h.
Naphtha	1,400 t.p.h.
LPG – Butane	190 t.p.h.
LPG – Propylene	90 t.p.h.
Bitumen	270 t.p.h.

Bunkering: Bunkering fuel facilities are available on all jetties.

The minimum quantity to be supplied is 100 tons fuel oil and 20 tons diesel oil.

Deballasting: All ballast will be unloaded to the shore facilities. At the moment, the cost of ballast reception ashore is 50 pesetas per ton, minimum charge 40,000 pts. Shore facilities unable to receive slops from heated cargo, chemical additives, low pour point and lube oils.

The Master will report to the Terminal the quantity of ballast on arrival and when due to bad weather, the ballast quantity is over the normal.

Only segregated ballast contained in SBT will be allowed to be discharged into the harbour after approval by the Port Authorities.

Note: Overboard discharge valves and sea suction valves continue to be a source of oil pollution. *Make sure these are tested and proven to be in good working order, closed tight and sealed.*

Gangway: Owner warrants that the vessel is equipped with a gangway in a safe and good operating condition.

Jetty Nos. 1 and 2 are provided with a shore gangway. The cost to the vessel's account is minimal.

Crude Oil Washing Tanks: When it is required to carry out crude oil washing of tanks during cargo discharge, Master must seek approval of the Port Authority and the Terminal at least 24 hours in advance.

During crude oil washing, it is recommended that 1 tug remains on stand-by during the operation.

Jetty Emergency Shutdown Systems and Surge Pressures: All jetties (fuel oil/clean products/LPG) are equipped with Emergency Shutdown (ESD) System to stop loading operations.

The system is activated by pushing the electrical "stop" button at any one of several stations on the jetty and in the Terminal Control Room.

On activating the loading ESD system, all jetties stop loading; the cargo pumps are all shutdown; the loading arm valves close on all jetties.

The valves and other equipment, have been designed and set to close in a minimum time for safety and still avoid damage by surge pressures.

Recognising the tremendous damage surge pressures can cause, careful check of the ship's emergency shutdown system will be made. If suitable record is not available on valve closure times, the Master will be asked to operate the system to enable timing of the valves.

The Terminal will not load at a rate in excess of that shown as being safe. Excess loading times caused by restricted loading rates due to the ship's ESD system will cause additional laytime to be allowed.

All cargo loading lines for fuel oil/clean products have a pressure switch installed that activates the ESD system with the same effect as mentioned above when the pressure on line exceeds 10 kg./sq.m. In case of activating ESD, Master to deliver to the terminal a full report of the incident.

Fenders: On the jetties the fenders and fendering structures are designed to absorb normal working stress levels, and each has a generous energy-absorbing capacity.

The energy imparted by vessels approaching the jetties is:

Berth No.	*Recommended Max. cm./sec.*	*Recommended Max. Angle to Jetty Face*
1	6	0° up to 7.5°
2	8	
3	9	
4 – 5	10	
6	10	

Intermediate "Yokohama" type fenders have been placed on Berths No. 1, 3, 4, 5 and 6, and No. 2 Berths all Yokohama fenders, to improve the absorption of the kinetic energy of vessel.

Mooring Arrangements: See "Plans".

Customs: The Customs Authority will board either when vessel is berthing or at anchor.

The usual documents required are:

6 copies Crew List.
4 copies Passenger List.
1 copy Negative Passenger List; if there are no passengers aboard.
3 copies Cargo Manifest for Petronor.
2 copies Cargo In-Transit, if any.
3 copies Stores List, including bunkers, vessel's property, tobacco, spirits, medicine chest, etc.
3 copies Crew's and/or Passengers' Personal Effects.

The crew members are not allowed to keep more than 200 cigarettes (or the equivalent in tobacco) and a bottle (1 litre) of spirits out of bond. The excess must be included in the vessel's Store Lists, and are to be sealed. The total maximum quantity that any ship can carry in accordance with the Spanish Law is 6 kg. of tobacco or 6,000 cigarettes for each person aboard (for example, for 30 crew members the maximum quantity allowed is 180 kg. of tobacco or 180,000 cigarettes). Any quantity over these amounts should be manifested as "tobacco in-transit" and this Manifest visaed by the Spanish Consulate in the last port.

If a Spanish Consul was not available in the last port of call, Master is required to send prior to arrival the following cable:

To: Direccion General de Aduanas – Madrid.
Vessel .... Coming from ....
Bound for Bilbao Petronor with Tobacco Manifest not visaed last port due to Spanish Consul not available in the last port.
Signed: Master.

The text of this cable is to be registered in the log book and 1 copy of the same is to be given to the Customs Agent when boarding.

Port Health: The national and international regulations concerning Free Pratique are applicable at Bilbao.

Free Pratique is granted when at berth; if anchored, the Agent will be requested to arrange the visit under Master's requirements.

Radio advice to the Health Authorities is not required unless there is contagious sickness on board or if coming from an epidemic zone.

Garbage or trash will not be dumped into the port waters. The area surrounding the vessel shall be kept clean.

DENSITY: 1025.

FRESH WATER: Available at some berths, rate 25 – 60 t.p.h., otherwise by barge.

FUEL: Pipelines available at some berths, rate at cargo berths 130 t.p.h. per loading point and up to 3,000 t.p.h. at VLCC berth, otherwise by barge. Advise Agent 48 hours in advance.

REPAIRS: See "Dry Docks".

CONSULS:

Argentina
Austria
Belgium
Bolivia
Brazil
Colombia
Costa Rica
Chile
Denmark
Dominican Republic
Ecuador
El Salvador
Finland
France
Germany
Greece
Guatemala
Haiti
Iceland
Italy
Ivory Coast
Jordan
Liberia
Mexico
Netherlands
Nicaragua
Pakistan
Panama
Paraguay
Peru
Philippines
Portugal
Sweden
Switzerland
Uruguay
U.S.A.
United Kingdom
Venezuela

DRY DOCKS: 3 dry docks 155 m.×20 m.; 146 m.×21.8 m.; 170 m.×19 m. for vessels up to 15,000 d.w.t. Dry docks served by 4×15 ton cranes.

Repair berth with length 450 m. and 5×15 ton cranes.

Contact: Astilleros Espanoles S.A. Tel: (4)4957150. Telex: 31519 Aers E. Fax: (4)4964976.

SURVEYORS: Most internationally recognised and well founded survey companies, concerned with cargo or ships' class certification, are established in the Port of Bilbao as well as those related to insurance in both areas. Ship's Agent can provide detailed information.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally by crew, except in liner vessels, when contracted by stevedores.

CERTIFICATES: Have usual documents on board (Safety Radio, Safety Equipment and Safety Construction).

CUSTOMS ALLOWANCES: Normally, Customs permit 200 cigarettes, and 1 bottle wine/spirits per man. Also see "Documents".

CARGO GEAR: Usually shore cranes employed in loading or discharging.

REPATRIATION: Good facilities.

AIRPORT: Sondica Airport 6 km. from the City, Tel: 4531350.

Foronda Airport, 50 km. from the City, Tel: 945-273300.

Overseas services and links to all over the world from both airports.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: 1st January; 6th January; 19th March; Good Friday; 1st May; Corpus Christi Day; 16th July, 25th July; 15th August; 12th October; 1st November; 8th December; 25th December; and another two fixed local holidays.

POLICE/AMBULANCE/FIRE: Police Tel: 088.

Ambulance/Hospitals: Basurto Hospital Tel: 4418800. Emergency medical service, Tel: 4614000 – 4614111.

Red Cross: Sea service, Tel: 4600200. Shore service, Tel: 4222222.

Fire Service: Santurce Area, Tel: 4922800. Bilbao Area, Tel: 088.

EMERGENCY CO-ORDINATION CENTRE: Marine Authority is in charge of services which are covered by the Coast Guard.

TELEPHONES: Every wharf has fixed public telephone kiosks and stevedoring terminal offices have up to date means of communication. No telephone plugs at berths.

SERVICES: Electronic and conventional marine equipment repairs, tanks and pipe cleaning and services in general up to the level corresponding with a first class port. Detailed information can be provided by ship's Agent.

BANKS: Due to the large activity of the port in international trade, every bank has specialised personnel in charge of overseas maritime commercial affairs.
STORING: Authorised ship chandler service is compulsory in order to arrange Customs Clearance. Ship is free to load up to 10 tons of stores. If over 10 tons dockers must be used.
SHORE LEAVE: In general there are no restrictions.
IDENTIFICATION CARDS: No shore passes are issued. Passport or Seaman's Book should be carried for dock entrance gate checking with Crew List.
GARBAGE DISPOSAL:

Limpiezas Nervion S.A. Tel: 4836726. Fax: 4836726. Charge 2,700 Pts per trip/day.

Conten. Tel: 4432048/4319013. Fax: 4437889. Charge 13,000 Pts. each container.

Collection 24 hours per day.

WASTE OIL DISPOSAL:

Berako. Tel: 4967300. Fax: 4950015.

Alfus. Tel: 4730295. Fax: 4730841.

Oil Treatment:

Sader. Tel: 4905811. Fax: 4903407.

Tradebe. Tel: 4730295. Fax: 4923209.

SEAMAN'S CLUBS: Stella Maris, Zona Portuaria de Santurce, 48980 Santurce (Vizcaya). Tel: 4616699/4616911. Facilities: Chapel, information, telephones, exchange, shop, post office, television, video, films, sports, library, bar, newspaper and magazines. Hours: 1000 hrs. – 1500 hrs., 1700 hrs. – 2200 hrs.
CURRENCY: Peseta.
DELAYS: Very exceptional and short time if any.
GENERAL: Stevedores' and Ship Agents' Association. Tel: 4234185 – 4239237.
DEVELOPMENTS: *Works in Progress:* Jetty for liquid bulks at Punta Ceballos: This is situated perpendicular to the coast, and is 340 m. long with a draft of 18.0 m. It has a reinforced concrete caisson platform and 2 berths, one on either side, permitting vessels of 10,000 d.w.t. to operate on the South side while vessels of 50,000 d.w.t. will be able to operate on the North side.

Development of the port in the Outer Harbour: This zone extends from the Santurce Breakwater to Punta Lucero Breakwater. The Port Authority has begun the construction of new docks between the Santurce Breakwater and Punta Lucero Breakwater. This will provide the port with 350 ha. of additional surface area with 8 km. of docks and berths with between 21.00 m. and 25.00 m. draft.
AUTHORITY: *Port Authority:* Autoridad Portuaria de Bilbao, Campo de Volantin 37, 48007 Bilbao, Spain. *Tel:* 4871200. *Telex:* 32708 Padb E, 31282 Jprb E. *FAX:* 4871205. *Contact:* Luis I. Gabiola, Commercial Manager.

Berthing Superintendency: Tel: 4871233. *FAX:* 4871244.

Marine Authority: Capitania de Puerto, Ibanez de Bilbao 22-24, 48009 Bilbao, Spain. *Tel:* 4241416. *FAX:* 4248057.

BURELA: 43.39 N. 07.20 W.

BERTHING: Sheltered berth for vessels with draft up to 20 ft. Facilities includes 2 silos for bulk cement.
AUTHORITY: Autoridad Portuaria de Burela, Spain. *Tel:* (982) 580182. *Contact:* Port Director.

CADIZ BAY (Including Puerto Santa Maria): 36.30 N. 06.20 W. **(See Plan)**

DOCUMENTS:
Cargo Vessels:
For Health Department:
1 Maritime Declaration
1 Crew List
1 Passenger List – Disembarking Cadiz
1 Passenger List – in Transit
For Immigration:
2 Crew Lists
2 Passenger Lists – Disembarking Cadiz
2 Passenger Lists – in Transit
For Customs:
1 Stores/Provisions List
1 Crew Declaration List
1 Crew List
1 Passenger List – Disembarking Cadiz or Negative
1 Passenger List – in Transit
1 Manifest Cargo – Destination Cadiz
1 Copy of Manifest Cargo in Transit
For Harbour Master:
1 Crew List
1 Passenger List – Disembarking Cadiz
For Ports Agents:
1 Crew List
Total Required:
1 Maritime Declaration of Health
1 Stores/Provisions List
1 Crew Declaration List
1 Manifest Cargo Destination Cadiz
1 Copy of Manifest Cargo in Transit
6 Crew Lists
4 Passenger Lists – in Transit
5 Passenger Lists – Disembarking Cadiz
Passenger Vessels:
For Health Department:
1 Maritime Declaration
1 Crew List
1 Passenger List – in Transit
1 Passenger List – Disembarking Cadiz
For Immigration:
2 Crew Lists
2 Passenger Lists – in Transit
2 Passenger Lists – Disembarking Cadiz
For Customs:
1 Manifest – in Ballast
1 Stores/Provisions List
1 Crew Declaration List
2 Passenger List – in Transit
2 Passenger List – Disembarking Cadiz or Negative
2 Crew Lists
For Harbour Agents:
1 Crew List
1 Passenger List – in Transit
1 Passenger list – Disembarking Cadiz
For Port Agents:
1 Crew List
1 Passenger List – in Transit
1 Passenger List – Disembarking Cadiz
Total:
1 Maritime Declaration of Health
1 Stores/Provision Lists
1 Crew Declaration List
1 Manifest – in Ballast
7 Passenger Lists – in Transit
7 Passenger Lists – Disembarking Cadiz
7 Crew Lists
Tobacco:
Tobacco for Crew and Passengers: Legalised manifest covering excess of tobacco to be delivered on arrival.

Excess of tobacco is to be considered when the quantity of 6 kilos or 600 cigarettes per member of crew and 2 kilos or 2,000 cigarettes per passenger is exceeded.
Tobacco Cargo Destination Cadiz or in Transit: Legalised manifest covering tobacco for Cadiz or in Transit to be delivered on arrival.

All vessels must be represented by a local Agent who will be responsible for completing the required Customs, Health and Port Authorities documentation.
Shipmaster's Report: November 1988.
Quarantine: 1 Maritime Declaration of Health.
1 Crew List.
1 (Nil) Passenger List in Spanish.
Immigration: 2 Crew Lists.
2 (Nil) Passenger Lists in Spanish.
Harbour Master: 1 Crew List.
1 (Nil) Passenger List in Spanish.
Agent: 1 Crew List.
Customs: 2 Stores Lists.
2 Crew Declarations.
2 Crew Lists.
2 (Nil) Passenger Lists in Spanish.
2 copies Cargo Manifests in Transit.

If Cadiz is the second port, the same papers are required except for Customs you only need the "Ruta".
PILOTAGE: Compulsory. Pilot will board the vessel between Los Cochinos and Diamante Buoys, from small tug having buff funnel with a black top with a black letter 'P' on each side of the buff part of the funnel. Pilots communicate with tugs by means of portable radio sets.

Corporacion Practicos Puerto de Cadiz, Muelle Reina Victoria No. 14, 11006 Cadiz. Telephone: 256550 day and night.

Pilot station on VHF Channel 16 and working Channel 14.
ANCHORAGE: Vessels waiting for a Pilot may anchor in any safe position according to draft and weather conditions. Tankers or deep draft vessels may anchor West of the Junction Buoy in 16 m. – 18 m. depth where the Pilot boards at first opportunity.
RESTRICTIONS: *Cadiz - Commercial Harbour:*
Channel Entrance:
Width.................................... 250 m.
Length .... 3,600 m.
Controlling depth at LLW .... 13 m.
Kind of bottom: Mud, sand & rocks.
Port Entrance:
Width.................................... 300 m.
Controlling depth at LLW .... 13 m.
Tides:
Maximum tide level .... 3.90 m.

Berth/unberth restrictions: Vessel can berth/unberth at any time of da or night.

Vessels exceeding 32 ft. 10 in. (10 m.) draft are subject to tide.

Vessels over 39 ft. 04 in. (12 m.) draft anchor North of Diamante Bu where there are no draft restrictions.

Berths are allocated on strict order of arrival with the followi preferences:
1. Passenger and Navy vessels.
2. Vessels unloading or loading.
3. Bunkers or provisions vessels.
4. Repair vessels.

Cadiz – Free Zone Harbour:

Channel Entrance:

Width	150 m.
Length	1,200 m.
Controlling depth at LLW	9 m.

Port Entrance:

Width	150 m.
Controlling depth at LLW	9.0 m.

Tides:

Maximum tide level	3.90 m.

Berth/unberth restrictions: Vessels can berth/unberth at any time of day or night subject to tides.

Cabezuela:

Entrance Channel:

Width	250 m.
Length	2,000 m.
Depth	13.0 m.

Santa Maria – Commercial Harbour:

Channel River Entrance:

Width	80 m.
Length	1,250 m.
Controlling depth at LLW	5.5 m.
Kind of bottom: Mud & sand.	

Berth/unberth restrictions: Vessels can berth/unberth at any time of day or night, subject to tides.

Explosives and Inflammables: Vessel cannot call at Cadiz carrying explosives or inflammables in Transit.

Power Cable: In position Lat. 36° 30.9' N., Long. 06° 15.2' W. with clearance of 50 m.

HEALTH: Master should radio, not more than 50 hours and not less than 5 hours before arrival, the following information to the Port Authority: name and nationality of ship, date and time of arrival, last port of call, number of passengers and crew aboard, if doctor on board and details of any sickness noted on voyage. Message to be addressed to "Sanidad Maritima Cadiz". International code quarantine signals to be shown on arrival when Free Pratique will be given provided health situation is satisfactory.

VHF: See "Pilotage".

TUGS: Normally join vessel off San Felipe Breakwater. 4 tugs available, up to 2,550 h.p.

BERTHING:

Cadiz:

Mole Reina Sofia: 600 m. length, depth alongside 12.0 m. – 13.0 m. LW. Ro-Ro ramp with 20.0 m. width.

Mole Alfonso XIII: 324 m. length, depth alongside 10 m. LW.

Mole Ciudad: 316 m. length, depth alongside 10 m. LW.

Mole Reina Victoria: 220 m. length, depth alongside 10 m. LW.

Mole Marques de Comillas: 380 m. length, depth alongside 10 m. LW.

Ro/Ro Terminals: There are 3 Ro/Ro ramps in the Port of Cadiz, 2×12 m. wide×100 tons capacity and 1×6.5 m. wide×60 tonnes capacity. Depth alongside all ramps is 10.0 m.

Industrial Terminal: Located at Cabezuela on the East side of Cadiz port. 530. m. of wharf with depth of 14.0 m. Terminal is used for bulk solid. In the second stage the length of wharf will be doubled. 4×16 ton cranes.

Free Zone: The free zone is about 2 miles South East of Cadiz. The port has 550 m. of berthing space with 9.5 m. of water alongside. 2×6 tons, 1×3/6 tons, 2×12 tons cranes and 1 Ro-Ro ramp.

Santa Maria: Muelle Exterior: Length 774 m. Depth alongside 6.5 m.

CRANES: *Cadiz:*

Electric Cranes

	Lifting Capacity (tons)	*Range* (m.)	*Height* (m.)
Mole Reina Sofia			
3 Container cranes	40	35	27
Mole Reina Victoria			
2 Electric cranes	6	22	20
Mole Marques de Comillas			
4 Electric cranes	6	22	20
Free Zone:			
7 Electric cranes	6-25	22-25	17.3-30

Mobile cranes:

	Lifting Capacity (tons)	*Range* (m.)	*Height* (m.)
6 mobile cranes	127/4	3.5/42.5	40
Floating Crane:			
1 crane	60/30 tons	8/12.5	32

Arrangements for use of this crane cannot be made prior to vessel's arrival since the yard has priority.

Santa Maria:

Electric Cranes:

	Lifting Capacity (tons)	*Range* (m.)	*Height* (m.)
1 Electric crane	30	25	22
2 Electric cranes	6	20	20
2 Electric cranes	6	22	20
2 Electric cranes	6/15	18.7	20
			Eurocargo S.A.
1 Electric crane	8	18.7	20
			F. J. Portillo Ltd.

Free Zone: See "Berthing".

CONTAINER HANDLING FACILITIES: Container at Muelle Reina Sofia. Length 600 m., depth 12.0 m. – 13.0 m. 3×40 tonne gantry cranes, 2 with outreach of 35 m. and one with outreach of 38 m. Area of container park 195,000 sq.m. 2 mobile cranes and road and rail access to the terminal. 38 reefer points (380 V - 50 Hz and 440V - 6 Hz).

At Santa Maria there is 1×30 ton crane for containers and a container park of 11,000 sq.m.

STEVEDORES: *Hours of Working:*

Weekdays (except Saturdays): Normal day – Shift 0800 – 1800 hrs. – Lunchbreak 1200 – 1400 hrs. Appointment of gangs to be effected at 0730 hrs.

Shift System (from Monday to Sunday including holidays):

First Shift: 0800 – 1400 hrs.

Appointment of gangs to be effected at 0730 hrs.

Second Shift: 1400 – 2000 hrs.

Appointment of gangs to effected at 1330 hrs.

Third Shift: 2000 – 0200 hrs.

Fourth Shift: 0200 – 0800 hrs.

Appointment of gangs to be effected at 1830 hrs.

Saturday after 1400 hrs.:

Appointment of gangs to effected at 1100 hrs.

Sundays and Holidays:

Appointment of gangs to be effected at 1100 hrs. on the preceding day.

TANKERS: 3 Tanker berths for vessels up to 27 ft. draft at the piers in the Free Zone, operated by C.L.H. Hoses: Fuel oil 10 in., gas oil 8 in., gasoline 8 in.

International Terminals Corp. Berth, length 170 m., depth 9.5 m.

Products terminal located at Rota, length 350 m., depth 12.0 m.

Also see "Services".

DENSITY: 1029.

FRESH WATER: Fresh water available at all quays at 12 t.p.h. per hose.

Fresh water connections are spaced at intervals of about 30 m. along the quays. Cost 35.00 Pesetas per ton.

Contact: Servicos Municipalizados Agua y Electricidad, Maria Auxiliadora s/n, Cadiz. Telephone: 281666.

FUEL: Bunkers can be supplied to vessels by barge at Commercial quays or at anchor in bay, also at permanent installation in Free Zone Port at the rate of 180 t.p.h.

Bunkering order to be passed through vessels oil suppliers to Spanish Monopoly, Campsa Madrid.

Bunkers and Oil Suppliers:

C.L.H., Avenida Ramon de Carranza No. 28 – 11006 Cadiz. Telephones: 283100, 253900-09; 251911 – Free Zone; 256058 Muelle Pesquero; 253900, 253909 – Puntales Factoria.

Esso: Consulmar. Avenida del Puerto No. 2, 8° d – 11006 Cadiz. Telephones: 274600 & 274604. Telex: 76018 – ZUBIC E

Enpetrol: Don Felipe Abad Aranda, Ahumada No. 7 Bajo – 11004 Cadiz. Telephone: 225502. Telex: 76062.

Castrol: Sr. Escalante Vera, General Garcia Escames, No. 3 – 11008 Cadiz. Telephone: 213067

Shell: Anglada. Plaza de Espana No. 15 – 11006 Cadiz. Telephone: 2130677.

Lubricantes Fina: Gibraltar s/n – 11011 Cadiz. Telephone: 287757. Telex: 23183 FINA E (Fina Iberica S.A., Madrid).

BP Marine International: Eduardo Grimaldi Pedrosa, Avenida Cayetano del Toro, No. 6, 7° – 11001 Cadiz. Telephone: 276294.

CONSULS:

Argentina
Belgium
Bolivia
Colombia
Denmark
Finland
France
Germany
Greece
Italy
Liberia
Netherlands
Norway
Portugal
Sweden
Venezuela.

REPAIRS: There are 3 shipyards – Astilleros Espanoles SA, at Cadiz and Matagorda. Empresa Nacional Bazan-Carraca, and several workshops of Auxiliar de la Construccion Naval. All types of repairs can be effected.

DRY DOCKS: Astilleros Espanoles S.A.: 2 dry docks for vessels up to 400,000 d.w.t. and 2 floating docks with capacity up to 120,000 d.w.t.

At Matagorda, there is a dry dock of 150.97 m. length, 19 m. width, and 6.23 m. max. draft.

At Puerto Real Factory there is a dry dock of 500 m. length, 100 m. width, and 9.0 m. draft, where they can accommodate vessels up to 400,000 tons.

OPENING/CLOSING HATCHES: This work is normally effected by the stevedores.

CUSTOMS ALLOWANCES: Max. of 6 kilos of tobacco for each person on board, all to be declared. Wine or spirits, 1 decilitre per man per day.

AIRPORT: Jerez 30 km., Seville 130 km. and Malaga 265 km. Daily flights to Madrid, Barcelona and overseas.

TIME: GMT plus 1 hour late September until late March. GMT plus 2 hours late March until late September.

TELEPHONES: Connection to vessels can be arranged by Agents.

SERVICES:

Boat Services: Sertrain S.L., Servicios de Lanchas y Trafico Interior del Puerto de Cadiz, Muelle Comercial 'Edificio El Soivre', Caseta No. 4 – 11006 Cadiz. Telephone: 255728, 253583 (Private).

Divers:

Francisco Salazar Casero (Pantera). Tel: 251587 and 256014.

Chinita, Tel: 224626 and 213008.

Garbage Disposal Facilities: Collection by truck, capacity per trip 8 tons. Garbage can be collected from arrival to sailing of vessel. Garbage should be bagged before landing. Ship's labour to be used to move garbage from ship to truck. No limit to the amount of garbage to be landed during the ship's call.

Tourist Office: Calderon de la Barca No. 1. Information Tel: 211313.

Taxi: Tel: 221503, 221006, 276969, 276735.

Emergency Telephone Numbers: Police: 091. Fire Brigade: 270080. Hospital San Juan de Dios: 287611. Hospital Mora Provincial: 212351. Ambulances: 289533 and 273758. Harbour Master: 224011 and 254901. Health Office: 253437. Immigration Office: 212154. Customs Office: 253370.

Gas freeing Plant: General description of services rendered: This installation is equipped for cleaning and gasfreeing of tankers, removal of last residues and dirty ballast and/or slops.

Spot "B", true bearing 310° from the Pta. Lucero Breakwater green light, 1.5 miles away.

Spot "C", true bearing 015° from the Pta. Lucero Breakwater green light, 1.2 miles away.

Spot "D", true bearing 265° from the Pta. Lucero Breakwater green light, 2.5 miles away (for small sized ships).

Spot "E", true bearing 310° from the Pta. Lucero Breakwater green light, 2.5 miles away.

Crude and oil product carriers should also keep in close communication with the Refinery Terminal Superintendency about their positioning and other particulars.

Ships in general (without any IMDG coded cargo on board) that are requested to wait due to berthing schedule, or tide level when bound up river, may receive instructions from Pilot to anchor either in between new outer port entrance of Lucero and the older Santurce Breakwater; or inside waters enclosed by Arriluce and Santurce Breakwaters. In this latter area, an additional facility of 3 sets of mooring buoys for lightening, LASH type ship turnround operations, etc., are located in waters of 14.0 m. depth.

MAX. SIZE: Drafts available for dry cargo vessels range from 4 m. up to 14.5 m. and tankers up to 32 m. The largest vessel received was 409,499 d.w.t., length 378.01 m. and draft 22.48 m.

HEALTH: Vessels requiring Free Pratique have to fly "Q" Flag when entering port. If proceeding direct to berth, Pratique obtained immediately after berthing. Otherwise, at anchorage on arrival. Cases suspected disease or fever on board, Master must radio Agent, to advise Health Office. On berthing Health Authorities require Health Declaration, Derat Certificate and Crew List. Also see "Documents".

RADIO: Short wave communication link through Aranjuez Radio and Pozuelo del Rey Radio. Medium wave communication link is through Machichaco Cape Radio.

VHF: Bilbao Coastal Radio Station on Channel 16.

Other stations in vicinity and operating on the same calling channel are Cabo Mayor, Cabo Machichaco and Choritoquieta.

Petronor Refinery Terminal keeps permanent watch on VHF Channels 12 and 14.

TUGS: No tugs required for entering port, only for berthing or shifting inside river. Ship's lines used, tugs employed according Pilot's advice. 20 tugs available, 500 h.p. – 4,500 h.p.

BERTHING: For commercial use.

Passenger Terminal: 150 m. of berthing, depth 7.0 m., and Ro-Ro facilities.

General Cargo:

2,157 m. of berthing with depth of more than 12 m. and Ro/Ro facilities.
634 m. of berthing with depth between 10 m. and 12 m.
1,520 m. of berthing with depth between 8 m. and 10 m.
350 m. of berthing with depth between 6 m. and 8 m.
681 m. of berthing with depth between 4 m. and 6 m.

Dry Bulk Cargo:

1,068 m. of berthing, water depth over 12.0 m.
175 m. of berthing, water depth 10.0 m. – 12.0 m.
1,088 m. of berthing, water depth 8 m. – 10 m.
607 m. of berthing, water depth 6 m. – 8 m.
2,570 m. of berthing, water depth 4 m. – 6 m.

Liquid Cargoes:

Crude and oil products: Lucero Terminal (leased to Petronor Refinery)

Berth No. 1, draft 32 m., length 400 m. (with a fendered jetty 140 m. wide)

Berth No. 2, draft 19 m., length 400 m. (with a fendered jetty 96 m. wide)

Berth No. 3, draft 13 m., length 200 m. (with a fendered jetty 85 m. wide)

Berth No. 4, draft 11 m., length 200 m.
Berth No. 5, draft 11 m., length 200 m.
Berth No. 6, draft 7.5 m., length 100 m.

Other oils and chemicals:

220 m. of berthing, water depth 5 m.
*620 m. of berthing, water depth 9 m.
*980 m. of berthing, water depth 14 m.
*Jointly shared with dry cargo handling operations.

Privately owned Chemical Plants and Mills: Specially fitted for dry and liquid cargo handling, totalling 5,457 m. of berthing space; water depth 4 m. – 14 m.

Containers:

645 m. of berthing with depth of 14 m.
500 m. of berthing with depth between 8 m. and 10.5 m.

Ro/Ro Facilities:

There are also 4 Ro/Ro ramps available.

CRANES:

	Type	*Commercial Service*	*Private Service*
40 tons	Portainer gantry cranes	2	5
32 tons	Portainer gantry cranes	–	1
32 tons	Transtainer gantry cranes	–	1
40 tons	Overhead transtainers	–	5
40 tons	Transtainer gantry cranes	–	2
20 tons	Transtainer gantry crane	–	1
35 tons	Loader-Unloader (dry bulks)	–	2
17 tons	Loader-Unloader (dry bulks)	–	2
10 tons	Loader-Unloader (dry bulks)	–	3
	Continuous Loaders	–	2
35 tons	Luffing cranes	–	1
30 tons	Luffing cranes	3	–
28/14 tons	Luffing cranes	–	1
20 tons	Luffing cranes	–	3
25/16 tons	Luffing cranes	1	–
16/30 tons	Luffing cranes	2	–
16 tons	Luffing cranes	12	–
15 tons	Luffing cranes	–	4
14 tons	Luffing cranes	–	8
12 tons	Luffing cranes	16	1
10 tons	Luffing cranes	–	1
8/20 tons	Luffing cranes	–	1
8 tons	Luffing cranes	–	1
7.5 tons	Luffing cranes	–	2
7 tons	Luffing cranes	–	1
6 tons	Luffing cranes	29	3
5 tons	Luffing cranes	–	3
3/6 tons	Luffing cranes	–	4

Floating Cranes: 4 units for bulk cargoes, 12 tons – 35 tons capacity. 1 for heavy lift cargoes up to 400 tons capacity.

STEVEDORES: Ordinary working time (Monday/Friday) 0800 - 1200 hrs., 1400 – 1800 hrs. (break at noon).

Ordinary working time (Monday/Friday) 0800 – 1400 hrs; 1400 - 2000 hrs. (2 intensive relief turns).

Extraordinary working time: Round the clock, 7 days a week, available. Inform Agent about requirements in advance.

MEDICAL: Medical service must be arranged by the Agent.

TANKERS: Arrival Information:
Tel: 6365291.
Telex: 32623 Nopre.
Fax: 6365332.

Petronor Refinery: Attention is drawn to the minimum under keel clearance of 1 m. required alongside.

Vessels up to 500,000 d.w.t. (according to draft) range will be accepted at Petronor Terminal.

Loading/Discharging/Transfer Operations:

No. 1 Jetty:	
Crude Oil:	
LOA	170 m. to 450 m.
D.W.T.	30,000 tons to 500,000 tons
Depth Alongside	31 m. (minimum)
Fuel Oil:	
LOA	170 m. to 450 m.
D.W.T.	30,000 tons to 500,000 tons
Depth Alongside	31 m. (minimum)
No. 2 Jetty:	
Crude Oil:	
LOA	100 m. to 400 m.
D.W.T.	3,000 tons to 150,000 tons
Depth Alongside	19.5 m. (minimum)
Fuel Oil and Clean Products:	
LOA	100 m. to 400 m.
D.W.T.	3,000 tons to 150,000 tons
Depth Alongside	19.5 m. (minimum)
No. 3 Jetty:	
Fuel Oil and Clean Products:	
LOA	90 m. to 230 m.
D.W.T.	2,000 tons to 50,000 tons
Depth Alongside	15 m. (minimum)
No. 4 Jetty:	
Fuel Oil and Clean Products:	
LOA	70 m. to 170 m.
D.W.T.	2,000 tons to 30,000 tons
Depth Alongside	12 m. (minimum)
LPG:	
LOA	70 m. to 170 m.
Approximate Capacity	2,000 cu.m. to 25,000 cu.m.
Depth Alongside	12 m. (minimum)
No. 5 Jetty:	
Fuel Oil and Clean Products:	
LOA	110 m. to 170 m.
D.W.T.	6,000 tons to 30,000 tons
Depth Alongside	12 m. (minimum)
Bitumen:	
LOA/D.W.T./Depth	As for Fuel Oil and Clean Products.
LPG:	
LOA	70 m. to 170 m.
Approximate Capacity	2,000 cu.m. to 25,000 cu.m.
Depth Alongside	12 m. (minimum).
No. 6 Jetty:	
Bitumen:	
LOA	50 m. to 115 m.
Approximate Capacity	1,000 tons to 5,000 tons
Depth Alongside	10 m. (minimum)

Loading/Discharging/Transfer Systems:

	Loading Arms	*Various Manual Couplers Standard Capable of Being Adjusted to Fit*	
No. 1 Jetty:			
Crude Oil	4×16 in.	16 in.×14 in.×12 in.	150 press ASA DIN
Fuel Oil	1×12 in.	12 in.×10 in.×8 in.	
Fuel Oil	1×16 in.	16 in.×14 in.×12 in.	
Clean Products	1×16 in.	16 in.×14 in.×10 in.	
No. 2 Jetty:			
Crude Oil	2×12 in.	12 in.×10 in.×8 in.	150 press ASA DIN
Fuel Oil	1×12 in.	12 in.×10 in.×8 in.	
Clean Prod.	2×10 in.	10 in.×8 in.×6 in.	
No. 3 Jetty:			
Fuel Oil	2×12 in.	12 in.×10 in.×8 in.	150 press ASA DIN
Clean Prod.	1×8 in.	8 in.×6 in.	
Clean Prod.	2×6 in.	6 in.	

	Loading Arms	Various Manual Couplers Adjusted to Fit	Standard Capable of Being
No. 4 Jetty:			
Fuel Oil	2×12 in.	12 in.×10 in.×8 in.	150 press.
Clean Prod.	2×8 in.	8 in.×6 in.	ASA DIN
LPG	1×8 in.	8 in.×6 in.×4 in.	150/300 ASA DIN
No. 5 Jetty:			
Fuel Oil	2×10 in.	10 in.×8 in.	150 press.
Clean Prod.	1×8 in.	8 in.	ASA
Clean Prod.	1×6 in.	6 in.	DIN
LPG	1×8 in.	8 in.×6 in.×4 in.	150/300 ASA DIN
Bitumen	1×6 in.	Flexible hose with Camlock coupling	
No. 6 Jetty:			
Bitumen	1×6 in.	6 in. Flexible hose – Camlock coupling.	150/300 ASA DIN

N.B.: Any other flange size or rating will require special fabricated spool pieces to meet above flange specification. Spool pieces must be furnished and installed by the vessel. Terminal personnel will connect the coupler to proper ship's flanges. *Ship's* personnel will bolt on any required spool pieces. Ship's manifold must meet requirements of loading arm envelope and must provide suitable base and clearance for loading arms supports. Manifolds must comply with latest OCIMF standards. Failure to present correct reducers/spools will result in terminal making a charge for use of their equipment.

Discharging/Loading Rates:

Discharging: Maximum discharging rate accepted by Terminal:

Crude Oil – Jetty No. 1: 16,000 t.p.h.

Crude Oil – Jetty No. 2: 7,000 t.p.h.

Loading: Maximum loading rate provided, actually, by the Terminal:

Fuel Oil	3,000 t.p.h.
Gas Oil	1,500 t.p.h.
Kerosene	1,400 t.p.h.
Gasoline	1,400 t.p.h.
Naphtha	1,400 t.p.h.
LPG – Butane	190 t.p.h.
LPG – Propylene	90 t.p.h.
Bitumen	270 t.p.h.

Bunkering: Bunkering fuel facilities are available on all jetties.

The minimum quantity to be supplied is 100 tons fuel oil and 20 tons diesel oil.

Deballasting: All ballast will be unloaded to the shore facilities. At the moment, the cost of ballast reception ashore is 50 pesetas per ton, minimum charge 40,000 pts. Shore facilities unable to receive slops from heated cargo, chemical additives, low pour point and lube oils.

The Master will report to the Terminal the quantity of ballast on arrival and when due to bad weather, the ballast quantity is over the normal.

Only segregated ballast contained in SBT will be allowed to be discharged into the harbour after approval by the Port Authorities.

Note: Overboard discharge valves and sea suction valves continue to be a source of oil pollution. *Make sure these are tested and proven to be in good working order, closed tight and sealed.*

Gangway: Owner warrants that the vessel is equipped with a gangway in a safe and good operating condition.

Jetty Nos. 1 and 2 are provided with a shore gangway. The cost to the vessel's account is minimal.

Crude Oil Washing Tanks: When it is required to carry out crude oil washing of tanks during cargo discharge, Master must seek approval of the Port Authority and the Terminal at least 24 hours in advance.

During crude oil washing, it is recommended that 1 tug remains on stand-by during the operation.

Jetty Emergency Shutdown Systems and Surge Pressures: All jetties (fuel oil/clean products/LPG) are equipped with Emergency Shutdown (ESD) System to stop loading operations.

The system is activated by pushing the electrical "stop" button at any one of several stations on the jetty and in the Terminal Control Room.

On activating the loading ESD system, all jetties stop loading; the cargo pumps are all shutdown; the loading arm valves close on all jetties.

The valves and other equipment, have been designed and set to close in a minimum time for safety and still avoid damage by surge pressures.

Recognising the tremendous damage surge pressures can cause, careful check of the ship's emergency shutdown system will be made. If suitable record is not available on valve closure times, the Master will be asked to operate the system to enable timing of the valves.

The Terminal will not load at a rate in excess of that shown as being safe. Excess loading times caused by restricted loading rates due to the ship's ESD system will cause additional laytime to be allowed.

All cargo loading lines for fuel oil/clean products have a pressure switch installed that activates the ESD system with the same effect as mentioned above when the pressure on line exceeds 10 kg./sq.m. In case of activating ESD, Master to deliver to the terminal a full report of the incident.

Fenders: On the jetties the fenders and fendering structures are designed to absorb normal working stress levels, and each has a generous energy-absorbing capacity.

The energy imparted by vessels approaching the jetties is:

Berth No.	Recommended Max. cm./sec.	Recommended Max. Angle to Jetty Face
1	6	0° up to 7.5°
2	8	
3	9	
4 – 5	10	
6	10	

Intermediate "Yokohama" type fenders have been placed on Berths No. 1, 3, 4, 5 and 6, and No. 2 Berths all Yokohama fenders, to improve the absorption of the kinetic energy of vessel.

Mooring Arrangements: See "Plans".

Customs: The Customs Authority will board either when vessel is berthing or at anchor.

The usual documents required are:

6 copies Crew List.

4 copies Passenger List.

1 copy Negative Passenger List; if there are no passengers aboard.

3 copies Cargo Manifest for Petronor.

2 copies Cargo In-Transit, if any.

3 copies Stores List, including bunkers, vessel's property, tobacco, spirits, medicine chest, etc.

3 copies Crew's and/or Passengers' Personal Effects.

The crew members are not allowed to keep more than 200 cigarettes (or the equivalent in tobacco) and a bottle (1 litre) of spirits out of bond. The excess must be included in the vessel's Store Lists, and are to be sealed. The total maximum quantity that any ship can carry in accordance with the Spanish Law is 6 kg. of tobacco or 6,000 cigarettes for each person aboard (for example, for 30 crew members the maximum quantity allowed is 180 kg. of tobacco or 180,000 cigarettes). Any quantity over these amounts should be manifested as "tobacco in-transit" and this Manifest visaed by the Spanish Consulate in the last port.

If a Spanish Consul was not available in the last port of call, Master is required to send prior to arrival the following cable:

To: Direccion General de Aduanas – Madrid.

Vessel .... Coming from ....

Bound for Bilbao Petronor with Tobacco Manifest not visaed last port due to Spanish Consul not available in the last port.

Signed: Master.

The text of this cable is to be registered in the log book and 1 copy of the same is to be given to the Customs Agent when boarding.

Port Health: The national and international regulations concerning Free Pratique are applicable at Bilbao.

Free Pratique is granted when at berth; if anchored, the Agent will be requested to arrange the visit under Master's requirements.

Radio advice to the Health Authorities is not required unless there is contagious sickness on board or if coming from an epidemic zone.

Garbage or trash will not be dumped into the port waters. The area surrounding the vessel shall be kept clean.

DENSITY: 1025.

FRESH WATER: Available at some berths, rate 25 – 60 t.p.h., otherwise by barge.

FUEL: Pipelines available at some berths, rate at cargo berths 130 t.p.h. per loading point and up to 3,000 t.p.h. at VLCC berth, otherwise by barge. Advise Agent 48 hours in advance.

REPAIRS: See "Dry Docks".

CONSULS:

Argentina
Austria
Belgium
Bolivia
Brazil
Colombia
Costa Rica
Chile
Denmark
Dominican Republic
Ecuador
El Salvador
Finland
France
Germany
Greece
Guatemala
Haiti
Iceland
Italy
Ivory Coast
Jordan
Liberia
Mexico
Netherlands
Nicaragua
Pakistan
Panama
Paraguay
Peru
Philippines
Portugal
Sweden
Switzerland
Uruguay
U.S.A.
United Kingdom
Venezuela

DRY DOCKS: 3 dry docks 155 m.×20 m.; 146 m.×21.8 m.; 170 m.×19 m. for vessels up to 15,000 d.w.t. Dry docks served by 4×15 ton cranes.

Repair berth with length 450 m. and 5×15 ton cranes.

Contact: Astilleros Espanoles S.A. Tel: (4)4957150. Telex: 31519 Aers E. Fax: (4)4964976.

SURVEYORS: Most internationally recognised and well founded survey companies, concerned with cargo or ships' class certification, are established in the Port of Bilbao as well as those related to insurance in both areas. Ship's Agent can provide detailed information.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally by crew, except in liner vessels, when contracted by stevedores.

CERTIFICATES: Have usual documents on board (Safety Radio, Safety Equipment and Safety Construction).

CUSTOMS ALLOWANCES: Normally, Customs permit 200 cigarettes, and 1 bottle wine/spirits per man. Also see "Documents".

CARGO GEAR: Usually shore cranes employed in loading or discharging.

REPATRIATION: Good facilities.

AIRPORT: Sondica Airport 6 km. from the City, Tel: 4531350.

Foronda Airport, 50 km. from the City, Tel: 945-273300.

Overseas services and links to all over the world from both airports.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: 1st January; 6th January; 19th March; Good Friday; 1st May; Corpus Christi Day; 16th July, 25th July; 15th August; 12th October; 1st November; 8th December; 25th December; and another two fixed local holidays.

POLICE/AMBULANCE/FIRE: Police Tel: 088.

Ambulance/Hospitals: Basurto Hospital Tel: 4418800. Emergency medical service, Tel: 4614000 – 4614111.

Red Cross: Sea service, Tel: 4600200. Shore service, Tel: 4222222.

Fire Service: Santurce Area, Tel: 4922800. Bilbao Area, Tel: 088.

EMERGENCY CO-ORDINATION CENTRE: Marine Authority is in charge of services which are covered by the Coast Guard.

TELEPHONES: Every wharf has fixed public telephone kiosks and stevedoring terminal offices have up to date means of communication. No telephone plugs at berths.

SERVICES: Electronic and conventional marine equipment repairs, tanks and pipe cleaning and services in general up to the level corresponding with a first class port. Detailed information can be provided by ship's Agent.

BANKS: Due to the large activity of the port in international trade, every bank has specialised personnel in charge of overseas maritime commercial affairs.
STORING: Authorised ship chandler service is compulsory in order to arrange Customs Clearance. Ship is free to load up to 10 tons of stores. If over 10 tons dockers must be used.
SHORE LEAVE: In general there are no restrictions.
IDENTIFICATION CARDS: No shore passes are issued. Passport or Seaman's Book should be carried for dock entrance gate checking with Crew List.
GARBAGE DISPOSAL:

Limpiezas Nervion S.A. Tel: 4836726. Fax: 4836726. Charge 2,700 Pts. per trip/day.

Conten. Tel: 4432048/4319013. Fax: 4437889. Charge 13,000 Pts. each container.

Collection 24 hours per day.

WASTE OIL DISPOSAL:

Berako. Tel: 4967300. Fax: 4950015.

Alfus. Tel: 4730295. Fax: 4730841.

Oil Treatment:

Sader. Tel: 4905811. Fax: 4903407.

Tradebe. Tel: 4730295. Fax: 4923209.

SEAMAN'S CLUBS: Stella Maris, Zona Portuaria de Santurce, 48980 Santurce (Vizcaya). Tel: 4616699/4616911. Facilities: Chapel, information, telephones, exchange, shop, post office, television, video, films, sports, library, bar, newspaper and magazines. Hours: 1000 hrs. – 1500 hrs., 1700 hrs. – 2200 hrs.
CURRENCY: Peseta.
DELAYS: Very exceptional and short time if any.
GENERAL: Stevedores' and Ship Agents' Association. Tel: 4234185 – 4239237.
DEVELOPMENTS: *Works in Progress:* Jetty for liquid bulks at Punta Ceballos: This is situated perpendicular to the coast, and is 340 m. long with a draft of 18.0 m. It has a reinforced concrete caisson platform and 2 berths, one on either side, permitting vessels of 10,000 d.w.t. to operate on the South side while vessels of 50,000 d.w.t. will be able to operate on the North side.

Development of the port in the Outer Harbour: This zone extends from the Santurce Breakwater to Punta Lucero Breakwater. The Port Authority has begun the construction of new docks between the Santurce Breakwater and Punta Lucero Breakwater. This will provide the port with 350 ha. of additional surface area with 8 km. of docks and berths with between 21.00 m. and 25.00 m. draft.

AUTHORITY: *Port Authority:* Autoridad Portuaria de Bilbao, Campo de Volantin 37, 48007 Bilbao, Spain. *Tel:* 4871200. *Telex:* 32708 Padb E, 31282 Jprb E. *FAX:* 4871205. *Contact:* Luis I. Gabiola, Commercial Manager.

Berthing Superintendency: Tel: 4871233. *FAX:* 4871244.

Marine Authority: Capitania de Puerto, Ibanez de Bilbao 22-24, 48009 Bilbao, Spain. *Tel:* 4241416. *FAX:* 4248057.

BURELA: 43.39 N. 07.20 W.

BERTHING: Sheltered berth for vessels with draft up to 20 ft. Facilities includes 2 silos for bulk cement.
AUTHORITY: Autoridad Portuaria de Burela, Spain. *Tel:* (982) 580182. *Contact:* Port Director.

CADIZ BAY (Including Puerto Santa Maria): 36.30 N. 06.20 W. (See Plan)

DOCUMENTS:
Cargo Vessels:
For Health Department:
1 Maritime Declaration
1 Crew List
1 Passenger List – Disembarking Cadiz
1 Passenger List – in Transit
For Immigration:
2 Crew Lists
2 Passenger Lists – Disembarking Cadiz
2 Passenger Lists – in Transit
For Customs:
1 Stores/Provisions List
1 Crew Declaration List
1 Crew List
1 Passenger List – Disembarking Cadiz or Negative
1 Passenger List – in Transit
1 Manifest Cargo – Destination Cadiz
1 Copy of Manifest Cargo in Transit
For Harbour Master:
1 Crew List
1 Passenger List – Disembarking Cadiz
For Ports Agents:
1 Crew List
Total Required:
1 Maritime Declaration of Health
1 Stores/Provisions List
1 Crew Declaration List
1 Manifest Cargo Destination Cadiz
1 Copy of Manifest Cargo in Transit
6 Crew Lists
4 Passenger Lists – in Transit
5 Passenger Lists – Disembarking Cadiz
Passenger Vessels:
For Health Department:
1 Maritime Declaration
1 Crew List
1 Passenger List – in Transit
1 Passenger List – Disembarking Cadiz
For Immigration:
2 Crew Lists
2 Passenger Lists – in Transit
2 Passenger Lists – Disembarking Cadiz
For Customs:
Manifest – in Ballast
Stores/Provisions List
Crew Declaration List
2 Passenger List – in Transit
2 Passenger List – Disembarking Cadiz or Negative
2 Crew Lists
For Harbour Agents:
Crew List
1 Passenger List – in Transit
1 Passenger list – Disembarking Cadiz
For Port Agents:
Crew List
Passenger List – in Transit
Passenger List – Disembarking Cadiz
Total:
1 Maritime Declaration of Health
1 Stores/Provision Lists
1 Crew Declaration List
1 Manifest – in Ballast
7 Passenger Lists – in Transit
7 Passenger Lists – Disembarking Cadiz
7 Crew Lists

Tobacco:
Tobacco for Crew and Passengers: Legalised manifest covering excess of tobacco to be delivered on arrival.

Excess of tobacco is to be considered when the quantity of 6 kilos or 600 cigarettes per member of crew and 2 kilos or 2,000 cigarettes per passenger is exceeded.

Tobacco Cargo Destination Cadiz or in Transit: Legalised manifest covering tobacco for Cadiz or in Transit to be delivered on arrival.

All vessels must be represented by a local Agent who will be responsible for completing the required Customs, Health and Port Authorities documentation.

Shipmaster's Report: November 1988.
Quarantine: 1 Maritime Declaration of Health.
1 Crew List.
1 (Nil) Passenger List in Spanish.
Immigration: 2 Crew Lists.
2 (Nil) Passenger Lists in Spanish.
Harbour Master: 1 Crew List.
1 (Nil) Passenger List in Spanish.
Agent: 1 Crew List.
Customs: 2 Stores Lists.
2 Crew Declarations.
2 Crew Lists.
2 (Nil) Passenger Lists in Spanish.
2 copies Cargo Manifests in Transit.

If Cadiz is the second port, the same papers are required except for Customs you only need the "Ruta".

PILOTAGE: Compulsory. Pilot will board the vessel between Los Cochinos and Diamante Buoys, from small tug having buff funnel with a black top with a black letter 'P' on each side of the buff part of the funnel. Pilots communicate with tugs by means of portable radio sets.

Corporacion Practicos Puerto de Cadiz, Muelle Reina Victoria No. 14, 11006 Cadiz. Telephone: 256550 day and night.

Pilot station on VHF Channel 16 and working Channel 14.

ANCHORAGE: Vessels waiting for a Pilot may anchor in any safe position according to draft and weather conditions. Tankers or deep draft vessels may anchor West of the Junction Buoy in 16 m. – 18 m. depth where the Pilot boards at first opportunity.

RESTRICTIONS: *Cadiz - Commercial Harbour:*

Channel Entrance:

Width	250 m.
Length	3,600 m.
Controlling depth at LLW	13 m.

Kind of bottom: Mud, sand & rocks.

Port Entrance:

Width	300 m.
Controlling depth at LLW	13 m.

Tides:

Maximum tide level	3.90 m.

Berth/unberth restrictions: Vessel can berth/unberth at any time of da or night.

Vessels exceeding 32 ft. 10 in. (10 m.) draft are subject to tide.

Vessels over 39 ft. 04 in. (12 m.) draft anchor North of Diamante Bu where there are no draft restrictions.

Berths are allocated on strict order of arrival with the follow preferences:

1. Passenger and Navy vessels.
2. Vessels unloading or loading.
3. Bunkers or provisions vessels.
4. Repair vessels.

Cadiz – Free Zone Harbour:
Channel Entrance:
Width.. 150 m.
Length .... 1,200 m.
Controlling depth at LLW .... 9 m.
Port Entrance:
Width.. 150 m.
Controlling depth at LLW .... 9.0 m.
Tides:
Maximum tide level .... 3.90 m.

Berth/unberth restrictions: Vessels can berth/unberth at any time of day or night subject to tides.

Cabezuela:
Entrance Channel:
Width.. 250 m.
Length .... 2,000 m.
Depth .... 13.0 m.

Santa Maria – Commercial Harbour:
Channel River Entrance:
Width.. 80 m.
Length .... 1,250 m.
Controlling depth at LLW .... 5.5 m.
Kind of bottom: Mud & sand.

Berth/unberth restrictions: Vessels can berth/unberth at any time of day or night, subject to tides.

Explosives and Inflammables: Vessel cannot call at Cadiz carrying explosives or inflammables in Transit.

Power Cable: In position Lat. 36° 30.9' N., Long. 06° 15.2' W. with clearance of 50 m.

HEALTH: Master should radio, not more than 50 hours and not less than 5 hours before arrival, the following information to the Port Authority: name and nationality of ship, date and time of arrival, last port of call, number of passengers and crew aboard, if doctor on board and details of any sickness noted on voyage. Message to be addressed to "Sanidad Maritima Cadiz". International code quarantine signals to be shown on arrival when Free Pratique will be given provided health situation is satisfactory.

VHF: See "Pilotage".

TUGS: Normally join vessel off San Felipe Breakwater. 4 tugs available, up to 2,550 h.p.

BERTHING:

Cadiz:

Mole Reina Sofia: 600 m. length, depth alongside 12.0 m. – 13.0 m. LW. Ro-Ro ramp with 20.0 m. width.

Mole Alfonso XIII: 324 m. length, depth alongside 10 m. LW.

Mole Ciudad: 316 m. length, depth alongside 10 m. LW.

Mole Reina Victoria: 220 m. length, depth alongside 10 m. LW.

Mole Marques de Comillas: 380 m. length, depth alongside 10 m. LW.

Ro/Ro Terminals: There are 3 Ro/Ro ramps in the Port of Cadiz, 2×12 m. wide×100 tons capacity and 1×6.5 m. wide×60 tonnes capacity. Depth alongside all ramps is 10.0 m.

Industrial Terminal: Located at Cabezuela on the East side of Cadiz port. 530. m. of wharf with depth of 14.0 m. Terminal is used for bulk solid. In the second stage the length of wharf will be doubled. 4×16 ton cranes.

Free Zone: The free zone is about 2 miles South East of Cadiz. The port has 550 m. of berthing space with 9.5 m. of water alongside. 2×6 tons, 1×3/6 tons, 2×12 tons cranes and 1 Ro-Ro ramp.

Santa Maria: Muelle Exterior: Length 774 m. Depth alongside 6.5 m.

CRANES: *Cadiz:*
Electric Cranes

	Lifting Capacity (tons)	*Range* (m.)	*Height* (m.)
Mole Reina Sofia			
3 Container cranes	40	35	27
Mole Reina Victoria			
2 Electric cranes	6	22	20
Mole Marques de Comillas			
4 Electric cranes	6	22	20
Free Zone:			
7 Electric cranes	6-25	22-25	17.3-30

Mobile cranes:

	Lifting Capacity (tons)	*Range* (m.)	*Height* (m.)
6 mobile cranes	127/4	3.5/42.5	40
Floating Crane:			
1 crane	60/30 tons	8/12.5	32

Arrangements for use of this crane cannot be made prior to vessel's arrival since the yard has priority.

Santa Maria:
Electric Cranes:

	Lifting Capacity (tons)	*Range* (m.)	*Height* (m.)
1 Electric crane	30	25	22
2 Electric cranes	6	20	20
2 Electric cranes	6	22	20
2 Electric cranes	6/15	18.7	20
			Eurocargo S.A.
1 Electric crane	8	18.7	20
			F. J. Portillo Ltd.

Free Zone: See "Berthing".

CONTAINER HANDLING FACILITIES: Container at Muelle Reina Sofia. Length 600 m., depth 12.0 m. – 13.0 m. 3×40 tonne gantry cranes, 2 with outreach of 35 m. and one with outreach of 38 m. Area of container park 195,000 sq.m. 2 mobile cranes and road and rail access to the terminal. 38 reefer points (380 V - 50 Hz and 440V - 6 Hz).

At Santa Maria there is 1×30 ton crane for containers and a container park of 11,000 sq.m.

STEVEDORES: *Hours of Working:*

Weekdays (except Saturdays): Normal day – Shift 0800 – 1800 hrs. – Lunchbreak 1200 – 1400 hrs. Appointment of gangs to be effected at 0730 hrs.

Shift System (from Monday to Sunday including holidays):
First Shift: 0800 – 1400 hrs.
Appointment of gangs to be effected at 0730 hrs.
Second Shift: 1400 – 2000 hrs.
Appointment of gangs to effected at 1330 hrs.
Third Shift: 2000 – 0200 hrs.
Fourth Shift: 0200 – 0800 hrs.
Appointment of gangs to be effected at 1830 hrs.
Saturday after 1400 hrs.:
Appointment of gangs to effected at 1100 hrs.
Sundays and Holidays:
Appointment of gangs to be effected at 1100 hrs. on the preceding day.

TANKERS: 3 Tanker berths for vessels up to 27 ft. draft at the piers in the Free Zone, operated by C.L.H. Hoses: Fuel oil 10 in., gas oil 8 in., gasoline 8 in.

International Terminals Corp. Berth, length 170 m., depth 9.5 m.
Products terminal located at Rota, length 350 m., depth 12.0 m.
Also see "Services".

DENSITY: 1029.

FRESH WATER: Fresh water available at all quays at 12 t.p.h. per hose.

Fresh water connections are spaced at intervals of about 30 m. along the quays. Cost 35.00 Pesetas per ton.

Contact: Servicos Municipalizados Agua y Electricidad, Maria Auxiliadora s/n, Cadiz. Telephone: 281666.

FUEL: Bunkers can be supplied to vessels by barge at Commercial quays or at anchor in bay, also at permanent installation in Free Zone Port at the rate of 180 t.p.h.

Bunkering order to be passed through vessels oil suppliers to Spanish Monopoly, Campsa Madrid.

Bunkers and Oil Suppliers:

C.L.H., Avenida Ramon de Carranza No. 28 – 11006 Cadiz. Telephones: 283100, 253900-09; 251911 – Free Zone; 256058 Muelle Pesquero; 253900, 253909 – Puntales Factoria.

Esso: Consulmar. Avenida del Puerto No. 2, 8° d – 11006 Cadiz. Telephones: 274600 & 274604. Telex: 76018 – ZUBIC E

Enpetrol: Don Felipe Abad Aranda, Ahumada No. 7 Bajo – 11004 Cadiz. Telephone: 225502. Telex: 76062.

Castrol: Sr. Escalante Vera, General Garcia Escames, No. 3 – 11008 Cadiz. Telephone: 213067

Shell: Anglada. Plaza de Espana No. 15 – 11006 Cadiz. Telephone: 2130677.

Lubricantes Fina: Gibraltar s/n – 11011 Cadiz. Telephone: 287757. Telex: 23183 FINA E (Fina Iberica S.A., Madrid).

BP Marine International: Eduardo Grimaldi Pedrosa, Avenida Cayetano del Toro, No. 6, 7° – 11001 Cadiz. Telephone: 276294.

CONSULS:
Argentina
Belgium
Bolivia
Colombia
Denmark
Finland
France
Germany
Greece
Italy
Liberia
Netherlands
Norway
Portugal
Sweden
Venezuela.

REPAIRS: There are 3 shipyards – Astilleros Espanoles SA, at Cadiz and Matagorda. Empresa Nacional Bazan-Carraca, and several workshops of Auxiliar de la Construccion Naval. All types of repairs can be effected.

DRY DOCKS: Astilleros Espanoles S.A.: 2 dry docks for vessels up to 400,000 d.w.t. and 2 floating docks with capacity up to 120,000 d.w.t.

At Matagorda, there is a dry dock of 150.97 m. length, 19 m. width, and 6.23 m. max. draft.

At Puerto Real Factory there is a dry dock of 500 m. length, 100 m. width, and 9.0 m. draft, where they can accommodate vessels up to 400,000 tons.

OPENING/CLOSING HATCHES: This work is normally effected by the stevedores.

CUSTOMS ALLOWANCES: Max. of 6 kilos of tobacco for each person on board, all to be declared. Wine or spirits, 1 decilitre per man per day.

AIRPORT: Jerez 30 km., Seville 130 km. and Malaga 265 km. Daily flights to Madrid, Barcelona and overseas.

TIME: GMT plus 1 hour late September until late March. GMT plus 2 hours late March until late September.

TELEPHONES: Connection to vessels can be arranged by Agents.

SERVICES:

Boat Services: Sertrain S.L., Servicios de Lanchas y Trafico Interior del Puerto de Cadiz, Muelle Comercial 'Edificio El Soivre', Caseta No. 4 – 11006 Cadiz. Telephone: 255728, 253583 (Private).

Divers:
Francisco Salazar Casero (Pantera). Tel: 251587 and 256014.
Chinita, Tel: 224626 and 213008.

Garbage Disposal Facilities: Collection by truck, capacity per trip 8 tons. Garbage can be collected from arrival to sailing of vessel. Garbage should be bagged before landing. Ship's labour to be used to move garbage from ship to truck. No limit to the amount of garbage to be landed during the ship's call.

Tourist Office: Calderon de la Barca No. 1. Information Tel: 211313.

Taxi: Tel: 221503, 221006, 276969, 276735.

Emergency Telephone Numbers: Police: 091. Fire Brigade: 270080. Hospital San Juan de Dios: 287611. Hospital Mora Provincial: 212351. Ambulances: 289533 and 273758. Harbour Master: 224011 and 254901. Health Office: 253437. Immigration Office: 212154. Customs Office: 253370.

Gas freeing Plant: General description of services rendered: This installation is equipped for cleaning and gasfreeing of tankers, removal of last residues and dirty ballast and/or slops.

Reception of dirty ballast may be effected through separators at a maximum rate of 2,400 t.p.h. and slops according to discharge rate of vessel's stripping pumps.

Victor Pirate washing machines, conventional and bottom types, are available for using with either cold or hot water. Air driven exhaust fans for gasfreeing available; special equipment for working cargo tanks, safety lamps, portable lamps for small drainages of tanks and means for unloading of mud are available.

From an elevated structure at the mooring berth, towards midships, connections are made for slopping out dirty ballast and slops as well as for supplies to vessel as detailed below. In this structure is also situated the ship's gangway ladder and a pneumatic crane for both removal of materials and refuse ashore.

Plant is able to supply:

- ballast water up to 400 t.p.h.
- saturated stem to 12.5 kg./sq.cm. or reduced steam up to 12 t.p.h.
- washing water to required temperature up to 80°C. and pressure up to 13 kg./sq.cm. and a flow of 250 t.p.h.
- drinking water.
- treated water for boilers.
- compressed air to 7.5 kg./sq.cm.

Feed water can be connected to ship's fire system.

In the above mentioned structure high capacity foam and water cannons are arranged so that they are able to cover a major part of ship's deck. There are also inlets for fire hoses.

The supply of shore power is not foreseen.

Depths in the mooring area are 8.20 m. forward and 10 m. aft at LLW and size limit of vessel is 150,000 d.w.t.

This installation works uninterruptedly all day and night and Sundays if required.

Operator: Delta, P.O.Box 73, Cadiz (Spain). Tel: 23 10 00 to 23 10 09. Telegrams: "Delta" Cadiz. Telex: 76021 ASTIL E.

SHORE LEAVE: Crew are permitted to go ashore subject to police control.

AUTHORITY: Autoridad Portuaria de la Bahia de Cadiz, Plaza de Espana 17, 11006 Cadiz, Spain. *Tel:* (56) 240400. *FAX:* (56) 240476. *Contact:* Agustin M. Dominguez Lobaton, President. Armengol Vinas Castro, Technical Director. Pedro L. de Frutos Garcia, Port Captain (Tel: 253903). Manuel Rodrigues de Castro, Free Zone Delegate (Tel: 290606).

CARBONERAS: 36.58 N. 01.54 W. (See Plan)

SHIPMASTER'S REPORT: November 1983.

DOCUMENTS:

5 Crew Lists.
2 Stores Lists.
2 Crew Declarations.
1 Maritime Declaration of Health.
2 Cargo Manifests (in-transit cargo only).

PILOTAGE: Compulsory. Agents inform Pilot of vessel's requirements. The Pilot boards by tug or small fishing boat, about 1.5 miles off the jetty.

The Pilot Station is situated at Garrucha, about 15 miles North of Carboneras.

ANCHORAGES: There is a small anchorage South of an island called "Isla Carboneras" locally. The approx. position of the island is Lat. 36° 59.6' N., Long. 01° 53.9' W. About 1 mile South of the island vessels can anchor; it is not advisable for larger vessels to stay there long, because this place is too close to the shore and strong Southerly winds can be hazardous.

The depth of this anchorage is between 40 m. and 50 m.

MAX. SIZE: *Hornos Ibericos:* Max. draft 40 ft. Max. LOA 210 m. Max. beam 32 m. Max. airdraft 13 m. 100,000 d.w.t.

HEALTH: No Radio Pratique available, no yellow flag necessary.

RADIO: The nearest stations are Cabo de Gata – VHF Channels 16, 20, 27 and Cabo de Palos (EAP) – VHF Channels 16, 26, 27, but very poor reception.

VHF: The Pilots have to be called on VHF Channel 16; working Channels 12 or 9. Also see "Radio".

TUGS: 2 tugs are available, each 1,300 h.p. If more tugs are necessary, they have to be ordered via Agents from Almeria.

BERTHING: *Hornos Ibericos:* In front of the entrance to the port the vessel will be turned around by two tugs and enter the port stern first. There is one berth (length 240 m.) only and the ships always have to berth with the port side alongside. Usually the starboard anchor will be used. 4 headlines made fast to the shore by a small fishing boat as well as 3 sternlines and 1 breastline aft. 2 fore and 2 aft springs are made fast to the jetty. The jetty is fitted with 4 elastic fenders and additional tyres.

Pucarsa: One quay with length 240 m., depth 15.0 m., for discharge of coal.

BULK CARGO FACILITIES: *Hornos Ibericos:* There is one conveyor for loading cement and/or gypsum with a range of approx. 30 m. Every vessel with a length of approx. 200 m. has to shift for loading all holds. 1 fixed electric crane with capacity 11.5 tons, 1 mobile electric crane with capacity 9 tons and 1 mobile electric crane with capacity 10 tons.

Pucarsa: 1×35 ton mobile transporter. Discharge rate 1,600 t.p.h.

STEVEDORES: Stevedores work 24 hours a day, including Saturdays and Sundays.

MEDICAL: Only one doctor available. Serious cases are treated at hospital in Almeria. Vaccinations are done in Almeria.

FRESH WATER: Available by lorry only, each lorry carries 8 tonnes.

FUEL: Available by lorry from Almeria, max. 50 tonnes per lorry.

CONSULS: The nearest Consulates are at Almeria.

REPAIRS: Can be undertaken by workshops in Almeria or Cartagena.

GANGWAY/DECK WATCHMEN: Not compulsory as there is a guard at the factory gate.

HATCHES: Opening/closing done by crew. Open parts of hatches will be covered with tarpaulins by stevedores to prevent dust.

CERTIFICATES: No certificates required by Port Authority or Agents.

CUSTOMS ALLOWANCES: The quantity allowed per each crew member is 1 bottle spirits and 1 bottle wine. 6,000 cigarettes is to be allowed on board for each person on board.

REPATRIATION: Possible via Almeria, approx. 70 km. from Carboneras.

AIRPORT: At Almeria.

TIME: GMT plus 1 hour; from March to September GMT plus 2 hours.

HOLIDAYS: See "Almeria".

POLICE/AMBULANCE/FIRE: No facilities. In case of emergency vessel has to inform the stevedores who will contact the agency.

IDENTIFICATION CARDS: Not required. Crew members have to take their Seaman's Books ashore and the guard at the gate checks their names with a Crew List, received from the Agents.

GARBAGE DISPOSAL: Contact: Construcciones y Contratas S.A. Tel: (951) 454125.

WASTE OIL DISPOSAL: Contact: Jose A. Molina Hernandez. Tel: (951) 239042.

SEAMAN'S CLUBS: None.

AUTHORITY: Junta del Puerto de Almeria, Muelle de Levante, 04071 Almeria, Spain. *Tel:* (951) 236992. *FAX:* (951) 232949. *Contact:* D. Emilio Grande Onieva, Port Director.

CARTAGENA: 37.35 N. 00.59 W. (See Plan)

DOCUMENTS:

6 copies of the Crew List.

6 copies of the Passenger List, or 2 negative copies as the case may be.

2 sets copies Manifests covering cargo destined to Cartagena and carried in transit.

Store Provision List, in duplicate, including items such as: tobacco, spirits, radios, coffee, tea, bunkers, and any other items belonging to the vessel.

2 copies of all Personal Effects Lists, from passengers and ship's crew.

The amount of cigarettes allowed for each member of crew/passenger is 6 kilos; any amount over has to be manifested as "tobacco in transit", and this manifest must be visaed by a Spanish Consul in the last loading/discharging port. If there is no Spanish Consul in the port of call before Cartagena, the Master is requested to send a cable to: Direccion General de Aduanas, Madrid, quoting as follows: "m.v. '. . .' coming from . . . order to proceed to Cartagena tobacco manifest unlegalised = Master".

This cable is to be inserted in the radio log-book, and copy of same to be delivered to local Customs Authorities when boarding the vessel.

APPROACHES: Escombreras Bank with datum depth of 8.9 m. situated West of Escombreras Island, extends from 200 m. to 400 m. West of the Western tip of the island. This bank is marked by a West Cardinal Mark on top of a cylindrical post, 10 m. high, with a quick flashing white light, 9 flashes ev. 15 seconds, on the Western end of the bank.

There is a zone used for submarine exercises which is marked on the charts. Occasionally, naval divers carry out exercises in the vicinity of the port entrance. These are accompanied by naval vessels showing appropriate signals.

Ships bound for Escombreras, to enter the port, should steer for a point situated at the intersection of the N.S. line of the red light at the extremity of Navidad Pier, and the E.W. line through the green light at the extremity of the Bastarreche Pier, at which point, approximately, the Pilot boards the vessel. For tankers of more than 100,000 d.w.t., the pilot boards the vessel approximately 2 miles Westward of Escombreras Island.

The least recorded depth in the entrance to the port is 25 m. The approaches to the Port of Escombreras do not present any difficulties.

PILOTAGE: Compulsory. Position of Pilot Station 37° 34.6' N., 0° 59' W. Position with green light of Dique de Curra bearing 000°, and the white light of Las Losas bearing 090°. This is the position at which the Pilot normally boards.

Vessels bound for Escombreras wait for Pilot in position 37° 34.2' N. 0° 59' W., with green light of Dique de Curra bearing 000° and the green light of Dique Bastarreche bearing 090°.

Pilot launch is a motor-boat with cabin, about 11.0 m. long, black hul green below water line, white letter "P" painted on both sides.

When bad weather prohibits Pilot boarding in the above positio vessel may be required to embark Pilot inside the harbour breakwate

Vessels call Pilot in daytime by code flag "G", or by soundi 3 prolonged blasts on the whistle.

Radio messages, with ETA, may be sent direct to Practicos Cartage with 24 hours' notice, and confirmed 12 hours before arrival, messag should include vessel's sea water draft and, if calling for the first tim vessel's length overall. Pilot station equipped with VHF.

ANCHORAGE: Vessels anchored within the port limits should not car out repairs affecting main engines as the possibility of sudden stor in Winter may make it necessary to move to a sheltered anchora North of Cabo Tinoso, or to put to sea.

Vessels under 29 ft. 6 in. draft may anchor inside the breakwa provided they do not obstruct other vessels' movements.

Anchorage for larger vessels in Cartagena Roads, approxim position Lat. 37° 34.3' N., Long. 01° 00.0' W. in depths of about 65 good holding ground.

Anchorage for small tankers off Escombreras in approximate pos Lat. 37° 34' N., Long. 0° 58' 23" W., in depths of 42 m.

MAX. SIZE: No length limitations. For Cartagena max. draft 11.0 m. For Escombreras max. draft 20.4 m.

HEALTH: Free Pratique is immediately obtained when vessels berth any time from sunrise to sunset. Port Health Officers, require Maritime Health Declaration, Derat Certificate, and copy of Crew and Passenger Lists.

RADIO: Cartagena Radio, Aranjuez Radio, and/or Gibraltar Radio.

TUGS: 7 tug 1,100 h.p. – 3,800 h.p. with fire-fighting capabilities. All tugs on duty 24 hours duly equipped, with 2 shifts of crew.

Tugs join vessels in vicinity of port entrance, vessel's lines normally used.

The tugs available to assist berthing tankers in Escombreras are all diesel tugs, equipped with fire-fighting equipment. 6 tugs available of up to 3,800 h.p.

BERTHING: Total length of general cargo quays 679 m. Solid bulk materials: Total length of berthing 717 m.

Also see "Tankers".

CRANES:

No.	*Capacity*	*Type*
7	3 – 20 tons	Electric Gantry
2	3 tons	Mobile-Diesel
1	6 tons	Mobile-Diesel
2	25 tons	Mobile-Diesel
1	90 tons	Mobile-Diesel

STEVEDORES: In the case of a vessel calling at Cartagena at night time, Sundays or holidays, it is important that Master cable 24 hours in advance to advise his ETA in order that Agents are able to arrange stevedores' operations. Gangs can be called on as follows: on weekly working days 0800 and 1330 hrs. On Sundays/holidays 0800 hrs. (with prior advice to Union by 1200 hrs. on Saturdays or day preceding holidays). The official working hours are: Monday/Saturday 0800 to 1200 and 1330 to 1730 hrs. – Sundays/holidays: from 0800 to 1400 hrs.

MEDICAL: Medical services rendered as soon as requested but, in case of emergency, Master required to send urgent cable in advance.

TANKERS: Tankers call at Port of Escombreras 2 miles away from Cartagena Port, this port owned by Repsol Petroleo S.A. Slop discharge facilities available at Escombreras.

For ships of 250,000 d.w.t. Berth No. 7, of recent construction, consists of 4 dolphins, in a line parallel to Bastarreche Mole. Between the first and third dolphin is situated a loading platform with loading/discharging lines. The centre of this platform is situated at a distance of 230 m. from the head of Bastarreche Pier, bearing 140°.

The least depth in Berth No. 7 is 20.6 m. at the extreme South of the berth. The rest of the area has a depth of between 20.6 m. to 26 m.

The maximum length foreseen for tankers of 250,000 tons d.w.t. is 350 m. or, 1,148 ft., since the total length of the berth is 430 m.

The maximum allowable draft is 19.5 m. forward and 21.4 m. aft.

Shore lines for crude oil are 1 of 40 in. diameter and 3,500 m. length, and another of 24 in. diameter and 3,500 m. length.

The Woodfield hose-handling gantry has 4×16 in. hoses of which the 2 outside hoses should be used for loading bunkers as well as for discharging. Connecting flanges of 16 in. diameter, type 150 ASA.

Fresh water can be supplied by pipeline at all berths at a rate of 45 t.p.h.

Only vessels up to about 100,000 d.w.t. may be berthed at night.

8 berths suitable for tankers from 8.0 m. to 20.4 m. draft.

3 berths for LPG carriers up to 11.0 m. draft. Max. length 225 m.

A new berth for LNG carriers and minerals in bulk has been constructed in Escombreras Basin. For LNG carriers, max. draft 11.1 m., max. length 200 m. For minerals in bulk, total length of pier 350 m., max. draft 14.0 m.

Also see "Shipmaster's Report".

FRESH WATER: Available from quay by hose connections, only on working days. On Sundays/holidays notification to be required before 1400 hrs. preceding day.

FUEL: At Cartagena, only gas oil available from tank trucks. At Escombreras all grades of fuel available subject to advance notice given.

FIRE PRECAUTIONS: The Port Authority has its own emergency plan under supervision of Port Director, and its own Emergency Control Centre, with 24 hours of services every day of the year. In the port area, there is water-borne equipment available.

CONSULS: The following countries are represented in Cartagena:

Belgium
Denmark
Finland
France
Greece
Italy
Netherlands
Norway
Panama
Peru
Sweden

REPAIRS: There are very good repair facilities. A private shipyard "Empresa Nacional Bazan" and 2 other private repair shops.

DRY DOCKS: One dry dock can accept vessels (35,000 d.w.t.) of 566 ft. length and 73 ft. beam. Syncrolift of 8,740 tons lifting capacity.

GANGWAY/DECK WATCHMEN: Not compulsory, only used when required by Master under Immigration Police Supervision.

OPENING/CLOSING HATCHES: Usually by ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes per each crew member, out of bond. The excess to be declared as cargo in transit. Wine and/or spirit: 1 bottle for each crew member or passenger.

REPATRIATION: All facilities available.

AIRPORT: San Janvier Airport situated 27 miles from Cartagena with daily service to Madrid, Barcelona and Almeria.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: 1st January; 6th January; 19th March (St. Joseph); Maundy Thursday from 1400 hrs.; Good Friday; 1st May (Labour Day); Ascension Day; Corpus Christi; 29th June (St. Peter and St. Paul); 18th July (National holiday); 15th August; 12th October; 1st November(All Saints' Day); 25th December.

POLICE/AMBULANCE/FIRE: Police, Tel: 507750. Ambulance, Tel: 553470. Red Cross, Tel: 501727. Fire Department, Tel: 128888. Port Authority Control Centre, Tel: 524910.

CREW IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Arranged by Agent with local company.

WASTE OIL DISPOSAL: Arranged by Agent with local company.

SEAMAN'S CLUBS: The Casa del Mar can accommodate seafarers in possession of a Seaman's Book (39 beds available). Tel: (968) 505850, 502050.

DEVELOPMENTS: There is a programme to increase berthing-places by building new piers close to breakwaters, available for 3 vessels.

SHIPMASTER'S REPORT: March 1981.

Approaches: Approach to the port provides no great problem coming from either the East or West. Plenty of positions are available from the land as you near the port. The bay in which the port is situated is deep water up to the breakwater. So for anchoring, vessel has to proceed well into the bay. Pilots will advise the number of vessels lying at anchor and a suitable anchorage position.

The bay is exposed to winds from the S.E. through to the S.W. As the weather was good on both occasions that the vessel has visited, no comment can be made as to whether the anchorage would be tenable in strong winds, from these quadrants.

Pilots: Readily available day or night. Pilots board from a small boat, which is rather slow. The same boat acts as line boat when the vessel is berthing. Pilots work Channel 16, and can be contacted about 1 hour out from the port.

Berthing/Berth: Vessel can berth either side of the LPG Pier. Although on the Eastern side of the berth the max. draft allowed aft is 31 ft. 6 in. and forward 28 ft. On the Western side of the pier there is 36 ft. of water. Vessels berth with the assistance of 3 tugs (1 forward and 2 aft). Ship's lines are used to the tugs. Usual tie up forward is 4-2-2 and aft 4 lines go to buoys, 2 springs from the stern, and 2 breast lines from the main deck winch.

Pilots advise that the berth is exposed to S.W. winds and vigilance is required in tending moorings. The berth is adequately fendered with large tyres.

Fresh water is available at short notice, and is piped to the quay. The water man can be found at the gate. Water can be supplied any day except on a Sunday. Bunkers are also available from the quay.

Cargo: Cargo is discharged through a 12 in. 150 ASA "T" connection from which 2×6 in. lines are lead off. Shore supply this connection, and connect the pipe.

Discharge back pressure is 8 bars which means running 2 pumps. Discharge rate is between 70 – 210 tonnes per hour. The discharge rate varies without any notice being given to the vessel by the terminal as they direct the cargo into shore tanks or coastal vessels.

Communications are very poor between the terminal, the vessel and the Agent. Little or no information is relayed to the vessel, as to the state of the tanks, number of coasters arriving, etc. On this occasion we discharged half the cargo into another vessel in order to complete the discharge in time for loading our next cargo.

Customs and the shipper's agreements had to be granted.

Daily cargo surveys are carried out, at either 0800 hrs. or 1600 hrs. Surveyor is happy to take ship's readings without sighting ullages and temperatures himself. For commencing and completion surveys he is of course present. From daily surveys the terminal require total discharged and the hourly pumping rate for the day.

The terminal upon arrival, also asks the ship to sign a letter saying they require the cargo to be pumped with a back pressure of 15 kg./sq.cm. and for the cargo to be heated. A booster pump is required for this port and also a cargo heater (this may soon be supplied). At present the vessel has the pipe work for the heater. Heater and booster pump will be sited on the quay, and ship's power and pumps will be used to run both appliances.

With the high back pressure it is difficult to strip the tanks, so if time allows strip tanks into one tank with the manifold valve closed, and then finally discharge from this tank. In the end this will save time.

Shore will request hot gas to clear the cargo lines.

Chandler: Can supply most items but needs a few days to organise matters. Stores can be supplied by boat. The boat is rather like a small pleasure craft but quite adequate.

Shotblast can be supplied at this port. The shot was also delivered by barge.

Repairs: Engine repairs can be carried out in this port by the local shipyard repair firm.

AUTHORITY: Autoridad Portuaria de Cartagena, Plaza Heroes de Cavite, 30201 Cartagena, Spain.

Capitan Maritimo de Cartagena. *Contact:* Javier Llorens, Port Captain.

CASTELLON DE LA PLANA: 39.58 N. 00.01 W.

(See Plan)

(A) CASTELLON HARBOUR
(B) BREASTING ISLAND AND SEA BERTH

(A) CASTELLON HARBOUR

DOCUMENTS:

Manifest of Castellon cargo: 1 set covering all loading ports; make sure that this Manifest is in perfectly good order before ship's berthing, as the Customs will board the vessel immediately and take it away as it is; thereafter any omission or excess of pages may lead to a fine.

Manifest of the Transit Cargo: 2 sets (the same recommendations as above).

3 Crew Lists.

2 Negative of Passengers.

2 sets of Bills of Lading of Castellon cargo.

2 Provisions Lists.

2 Manifests of Personal Effects.

PILOTAGE: Compulsory, and service is permanent. Pilots board vessels by a cutter in Roads near entrance formed by the 2 breakwaters.

Pilot cutters are painted white and have the letter "P" in black on each bow. Cutters have a blue flag, with letter "P" in white. Signals to be made by vessels requiring Pilot: 3 long blasts. Telegraphic address: "Practicos, Comandancia Marina, Castellon".

ANCHORAGE: Vessels can remain at anchor in the Roads. Recommended anchorage: 0.5 miles East of lighthouse in depth of 12 m.

RESTRICTIONS: Max. draft 22 ft. for vessels of about 110 m. – 120 m. length. For vessels of more 120 m., to 140 m. length, max. draft is 20 ft. – 21 ft.

Also see Section "B".

HEALTH: Pratique obtained immediately after berthing, when Health Officer boards vessel. In case of suspected disease or fever on board Master must radio Agent to advise the Health Office. Following documents are required by the Health Officer upon berthing: Maritime Declaration of Health, Derat Certificate, 1 Crew List.

RADIO: Aranjuez Radio, call sign EAD, 36 – 48 hours prior arrival nearest radio station is El Grao Radio, call sign EAV.

TUGS: Tugs join vessels at entrance of port. Vessels of more than 100 m. length normally use 1 or 2 tugs. Ship's ropes used.

STEVEDORES: Very important that Master sends in advance short radio notice regarding vessel's ETA so Agent can inform Shippers or Receivers' stevedores accordingly. Official working hours of port are: Monday/Saturday 0830 – 1230 and 1400 – 1800 hrs.

MEDICAL: All kinds of medical services can be arranged. In case a crew member needs medical attendance urgently, it is advisable that Master sends a radio message in advance.

TANKERS: See Section "B".

LPG: See "Shipmaster's Report".

BALLAST: All ballast must be discharged to shore tanks, no exception will be made to this rule. A total of 17,000 cu.m. (110,000 bbls.) can be received by the Refinery ballast tanks.

FRESH WATER: All piers have water available by shore pipes. The rate of delivery is about 8 t.p.h. – 9 t.p.h.

FUEL: Available with 5 days' notice and subject to "CLH" berthing availability.

CONSULS Italy, Navarra 99, tel. 211004; France, Avda. Almazora S/N, tel. 211717; Norway, Enmedio, 9, tel. 222550; Sweden, Maestro Ripolles, 28, tel. 220053.

REPAIRS: Work shop for small repairs.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: Vessels should have usual documents on board, but only the Safety Wireless, Safety Equipment and Derat Certificates are required by authorities.

CUSTOMS ALLOWANCES: Normally, Customs permit 200 cigarettes per man out of bond and 1 bottle of spirit per man.

CARGO GEAR: All commercial piers served by electric shore cranes able to lift 3 – 6 tons and 14 – 18 tons (restricted use).

REPATRIATION: Good facilities exist.

AIRPORT: Valencia, 70 km. away.

TIME: GMT plus 1 hour. Summertime: GMT plus 2 hours (Late March – Late September).

HOLIDAYS: 1st January; 6th January; 19th March, St. Joseph; Maundy Thursday after 1400 hrs.; Good Friday; 1st May, Labour Day; Ascension Day; Corpus Christi; 14th June, local holiday; 29th June, St. Peter and St. Paul; 18th July, National holiday; 25th July, St. James; 15th August; 12th October; 1st November; 8th December; 25th December; and 2 or 3 local holidays more, variable.

POLICE/AMBULANCE/FIRE: Police: tel. 220516; Ambulance 213944; Fire 221222.

IDENTIFICATION CARDS: Not required.

SHIPMASTER'S REPORT: December 1980.

Approach: Straightforward (Chart BA. 1701). A plan of the port is included on BA. 1458. During final approach care must be taken not to pass between the buoys around the sea berth for oil tankers.

Anchorage: Can be obtained 1 mile Eastwards of Dique de Levante in 15 m.

Pilotage: Call on VHF Channel 16 and Pilot boards approximately half a mile Eastwards of Dique de Levante. Strong S.W.'ly set experienced whilst awaiting Pilot. Pilot boards from small launch which doubles as a mooring boat.

One tug is taken outside the breakwater using 2 ship's lines through the centre lead forward. A second tug makes fast at port main deck aft (tug's line) when vessel is in inner harbour (Darsena Comercial). Draft limitation of 22 ft.

Berthing: Possible day or night. Starboard side to Muelle de Serrano Lloberes. The berth doubles as a bulk facility and care must be taken to avoid fouling the loading elevator with the bow flare. The elevator is on rails 1.0 m. inside the face. The berth is fendered with tyres on wooden axles – quite common in Spain and quite effective.

There are ample bollards. As soon as first lines are ashore, the forward tug takes up position at the break of forecastle using tug's line to assist in pushing vessel alongside. Lining up takes some little time using mooring winches.

Connection: Six shore anacondas link a hydrant-like pipe, emerging from a manhole on the quay, with the vessel's 10 in. manifold. Hoses are 6 in. (300 ASA) and shore personnel connect/disconnect. Vessel supplies and fits reducers. Starboard derrick used to support a metal cradle carrying hoses over ship's rail.

Discharge: Upon completion of cargo survey, discharge commences slowly whilst hoses are purged by a small hose from the 'hydrant' to the sea. No heater or booster pump are required at this port. Back pressure approximately 3 kg./sq.cm. and average rate of 125 t.p.h. overall with usual hourly rates of 150/160 tonnes/p.h.

Shore Tanks: Are atmospheric and situated some 200 m. N.E. of berth. There are 2 tanks (each 2,000 – 2,500 tonnes capacity). There would appear to be no reliquefaction plant and gas is flared during filling from a flare situated atop each tank. It is reported that this leads to discrepancies in cargo figures but this was not the case for this call. Throughput is estimated at 15,000 tonnes per month with ammonia arriving from C.I.S., Libya, and Mexico.

Customs: Attended in the morning. Their visit was brief as transit papers (RUTA) has been prepared prior to the vessel's departure from Cartagena. Remember that bond locker must remain sealed when coasting. Customs checked bond seal.

General: Fresh water is available but none taken this call. Lub oils available via normal Madrid 'permit'. The Pilot can be reached on Tel: 222457 if required during the vessel's stay.

Only 2 tugs available and as preference is given to tankers berthing at sea berths, delays can occur in docking/undocking. We were delayed for four hours on leaving. Tugs are necessary for this port.

Local town (El Grao) is very quiet with numerous small restaurants all within a few minutes walk of the berth. A three star hotel opposite the yacht club is good for telephone calls to U.K. (cost around 265 pesetas for first three minutes).

Castellon proper lies 4 km. inland. Bus fare 30 pesetas.

AUTHORITY: Comandancia Militar de Marina, Grao de Castellon, Castellon de la Plana, Spain.

(B) BREASTING ISLAND AND SEA BERTH

LOCATION: The Petroleos del Mediterraneo, S.A. Refinery is located about 1 mile southward of Grao de Castellon Harbour on the Mediterranean coast of Spain.

The Refinery marine facilities are composed of a Breasting Island and a Sea Berth, both located in open sea.

The Breasting Island is located in approximate position Lat. 39° 56' 42" N., Long. 00° 01' 36" E., and the central point of the Sea Berth is in approximate position Lat. 39° 56' 16" N., Long. 00° 03' 03" E.

A Sea Buoy with radar reflector, showing a white flash every 10 seconds is located in approximate position Lat. 39° 56' 07" N., Long. 00° 03' 49" E.

The Refinery flare is located in position Lat. 39° 57' 00" N., Long. 00° 00' 06" W. The total height of the flare above the ground level is 75 m. (250 ft.).

The Grao de Castellon Harbour lighthouse is located in position Lat. 39° 58' 06" N., Long. 00° 01' 42" E. A white light showing groups of one and two occulting every 10 seconds is exhibited from it, with a range of about 17 nautical miles.

DOCUMENTS: The Port Authorities will board and clear the vessel at anchor or after berthing.

Vessels calling at Castellon should have ready the following documents:

6 copies Crew List.
2 copies Crew Manifest.
2 copies Stores List.
2 copies Passenger List.
Clearance from Last Port.
Vessel's Certificates.
Consignee's Documents (if calling to discharge), including:
(a) Vessel's Manifest of cargo.
(b) Bill of Lading.
(c) Intake Certificate.
(d) Ullage Report.
(e) Inspection Report.
(f) Certificate of Origin.
(g) Tanker's Time Report.

PILOTAGE: Pilotage is compulsory for all vessels. The pilot will board vessels in the vicinity of the waiting area or at anchor and will advise the Master on approaches to the berth, mooring and unmooring.

ANCHORAGE: Refer to Agent for certain restrictions on anchorage areas.

RADIO: *Arrival Message:* Masters are requested to advise Petroleos del Mediterraneo, S.A. Refinery, radio address "Petromed Castellon", of their expected time of arrival, 72 hours in advance or on sailing from the previous port. A cable confirming the ETA must be sent to "Petromed Castellon" 24 hours prior to arrival. Any further changes in the vessel's ETA must be promptly advised.

The Refinery will contact the vessel via Saint Lys Radio/FFL or Aranjuez Radio/EAV, with docking or mooring instructions, together wit any other information to expedite the vessel's turnaround.

Radio Telephone contact should be established with Petroleos de Mediterraneo, S.A. Refinery on VHF Channels 13 and 16; call sign is "Petromed Castellon".

The arrival message must include:

1. Vessel's name, ETA and Master's full name.
2. (a) If calling to discharge:
   Grade and cubic metres of cargo on board.
   Grade and cubic metres of bunkers required.
   Deepest draft in feet.
   Freeboard in feet.
   (b) If calling to load:
   Grade and cubic metres for each product to be loaded.
   Loading sequence suggested.
   Grade and cubic metres of bunkers required.
   Ballast on board and pumping rate per hour.
3. If calling to discharge crude oil:
   Ship's and shore figures.
   Safe working load of the cargo hose booms (minimum 8 tonnes
   Number of shackles of usable chain on each anchor.

All of these direct contacts with the Refinery do not relieve the Mast from his responsibility to keep his Agent fully informed.

TUGS: The use of tugs is compulsory by all vessels calling at the Petroleos del Mediterraneo, S.A. marine facilities.

Two tugs are stationed at Grao de Castellon and are available to assist vessels using the facilities through the Agency of Petroleos del Mediterraneo, S.A. who will, as Agents for the Owners of the tugs, make arrangements for the services of the tugs.

Ship's ropes must be used to the tugs.

Tugs are equipped with safety devices against fire and oil spillage.

BERTHING: *Sea Berth:* The depth of water in the berth is about 25 m. (82 ft.).

Vessels berth heading 075°/080° using both anchors forward, with about 280 m. (900 ft.) of chain out on each anchor.

The stern is secured to 5 Lamgar buoys equipped with 2 release hooks on each one. These buoys have flashing lights.

One navigational aid consisting of 2 lighted buoys is used to proceed to the Sea Berth and drop the anchors.

The crude oil is discharged through a 42 in. pipeline. The length of the pipeline to the coast is about 4,000 m. (14,000 ft.) and about 300 m. (990 ft.) to the crude oil tanks.

At the Sea Berth, the crude oil submarine pipeline ends in 2 strings of flexible hose. The length of each string is about 85 m. (280 ft.) and consists of 11 sections of 16 in. hose.

The flange of the rail hose to be connected to ship's manifold is 16 in., ASA series 150.

Vessels may be requested to displace the contents of the crude oil line by pumping at a reduced rate.

The maximum pressure at the ship's manifold should not exceed 10.5 kg./sq.m. (150 p.s.i.).

There is also a 10 in. pipeline for bunkering. This pipeline is connected to the Breasting Island and the total length is about 2,250 m. (7,400 ft.). The Sea Berth end of this bunkering line is connected to a string of flexible hoses consisting of 11 sections of 10 in. hose, with a total length of about 85 m. (280 ft.).

All hoses are resting on the sea bed.

The hoses will always be connected to the port side of the vessel.

Vessel's boom and rigging should have a minimum SWL of 8 tonnes.

Mooring: Vessels calling at the Sea Berth should be equipped with a minimum of 10 synthetic stern mooring ropes in good condition and each not less than 150 fathoms in length.

These ropes should be 9 in. or 10 in. in circumference. Mooring wires or wires and nylon tails instead of the ropes are acceptable. All vessels should be equipped with at least 13 shackles of usable chain on each anchor.

Cargo handling operations will not commence until the vessel is adequately moored.

Breasting Island: The depth of water in the berth is about 12.5 m. (41 ft.)

Vessels berth heading either East or West. Max. draft 37 ft.

The Breasting Island is built on piles. A central platform 70 m. (230 ft.) long and 15 m. (49 ft.) wide accommodates the loading arms and the island services. Two mooring dolphins are located at about 128 m. (420 ft.) from the centre of the platform. They are linked with the main platform by a walkway.

The platform elevation from the sea level is 6.8 m. (22 ft.).

Both sides of the Breasting Island central platform and the Eastern dolphin are provided with a resilient fendering system.

No fendering system is installed on the Western dolphin.

Two "swamped" breasting wires are anchored about 200 m. (640 ft.) off both sides of the Breasting Island.

Quick release hooks are provided on the platform corners and on both mooring dolphins.

Metal loading arms of the self–supported counterweighted type are used.

The number and size of the arms on either side of Breasting Island is as follows:

2×10 in. for dark products, bunker and ballast.
2× 8 in. for light products.
1× 8 in. for Ammonia.

The connecting flanges on each are ASA Series 150 and they are equipped with "Camlock" type quick connecting devices.

The following products can be loaded or unloaded at the Breasting Island:

Clean: Naphtha.
Premium Gasoline.
Regular Gasoline.
Automobile Diesel Oil/Heating Oil.
Turbo Fuel.
Ciclohexane.
Ammonia.
Dark: Marine Diesel Oil.
Domestic Fuel Oil.
Fuel Oil.
Crude Oil.

Cargo handling operations will not commence until the vessel is adequately moored.

All mooring ropes shall be in good condition and the crew shall keep them properly tended at all times.

One diesel driven fire pump delivers salt water to the fire system covering the Breasting Island.

This fire system is composed of 6 fire monitors mounted on raised platforms and fire hydrants at deck level.

The pump capacity is 340 cu.m.p.h. (1,500 g.p.m.) at 10.5 kg./sq.cm. (150 p.s.i.).

Fire hoses of 150 ft. and 300 ft. in length are positioned close to the hydrants and also stored on the fire hose racks located on both sides of the Breasting Island main platform.

The Breasting Island is equipped with devices against oil spillage.

LOADING: *Connecting/Disconnecting Loading Arms:* Connecting and/or disconnecting of hoses and/or loading arms will be carried out by Refinery contracted personnel and the assistance of at least 3 crew members.

All the operations will be performed under the direction and responsibility of a vessel's qualified Deck Officer.

All the vessel's equipment, i.e. winches, topping–off booms, etc., must be handled by the vessel's crew.

The Refinery will advise the Chief Officer on procedure for connecting the hoses and/or loading arms.

In case of having to leave the Breasting Island or Sea Berth due to a change of the weather or any other emergency, the vessel's crew must carry out all the disconnecting of cargo hoses or loading arms.

After the hoses or loading arms have been connected to the vessel's manifold the vessel's crew must carry out any shifting of hoses or loading arms required, either for loading/discharging or bunkering operations.

Loading Rates: It is expected that all vessels will be able to receive cargo as fast as it can be delivered.

The dark products are pumped by either one or two centrifugal pumps of 900 cu.m.p.h. capacity each. The clean products are pumped by either one or two centrifugal pumps of 680 cu.m.p.h. capacity each.

BALLAST: All ballast must be discharged to shore tanks, no exception will be made to this rule. A total of 15,000 cu.m. (94,000 Bbls.) can be received by the Refinery ballast tanks.

Special care must be taken not to pump overboard the contents of engine room and pumproom bilges or any other oily product.

Vessels in ballast shall have sufficient draft and will be properly trimmed for safe manoeuvering on arrival, but should not arrive excessively ballasted.

Crude Oil Washing: Vessels which require to carry out crude oil tank washing at Castellon should request authorisation to do so through the Refinery or ship's Agent at least 48 hours before arrival.

The Refinery will send by telex the following questions which must be fully and promptly answered by the vessel; in the event of the answers to those questions being satisfactory, the vessel will be provisionally authorised for crude oil washing of tanks.

Example of Telex:

REF	Forthcoming crude oil washing of tanks at Castellon. Following points require confirmation:
AAA	Inert Gas System fully operational and tested.
BBB	Each tank to be positively pressurised and method of establishing that this is so to be available.
CCC	The oxygen content of each tank should be maintained below 8% by volume before and during the operation.
DDD	Inert Gas System gas output to be continuously monitored and the oxygen level maintained below 8% by volume.
EEE	A positive means of establishing the output of the inert gas system is to be available in the ship's control room at all times and under constant supervision of the ship's staff who must take immediate steps to abort the tank washing if necessary.
FFF	Pressures in cargo tanks must be available to control room personnel.
GGG	All systems to be permanent steel pipework and pressure tested.
HHH	All tank openings to be sealed. Remote tank gauging systems therefore essential.
III	Throttling of discharge for crude spraying to be done on ship's valves.
JJJ	Responsible designated person to be in charge of operation.
KKK	Efficient radio communication to be maintained between ship and shore.
LLL	Please answer all points and add any additional ship requirements or comments.

When the ship is operating at the Castellon Terminal, before crude oil washing can be carried out, the following questionnaire regarding safety measures should be answered and signed by the Master:

(1) The Check List sent by telex has been carried out, before the operation starts.
(2) The Refinery representative has been informed of the operating plan.
(3) Ship/shore communications have been checked and are in correct working order.
(4) Inert Gas System is operating and the oxygen level within the tanks is below 8% by volume.
(5) Positive pressure of Inert Gas System gas exists in all tanks.
(6) Ship's personnel are available in their assigned posts.
(7) Stationary oxygen analyser is working correctly.
(8) Portable oxygen analysers are in correct working order.
(9) Oxygen level in tanks is below 8% immediately before starting crude oil washing.
(10) During crude oil washing the Master accepts the responsibility of checking the oxygen level of Inert Gas System effluent at least every hour; that, at all times, all ship's machinery shall be and remain closed down except for the machinery essential for the purpose of the operation and the safety of the ship and that designated personnel in charge of operations keep permanent watch at their assigned posts.
(11) The crude oil washing operation will be carried out at the sole risk and responsibility of the ship and the Master will remain responsible for ensuring that all proper safety precautions are observed.

Minimum Tank Cleaning Requirements: Following is a chart which has been prepared for general guidance in the preparation of cargo tanks for loading the different grades of cargoes indicated.

None of the indications contained in this chart will relieve the Master of the responsibility for carrying out additional tank preparation which he may find necessary to protect product specifications or the safe handling of the vessel's cargo.

Previous Cargo	*Cargo to be Loaded*					
	Naphtha	ATF–1	Mogas	ADO/HO	MDO	FO
Avgas	SH	M	D	M	M	F
JP–4	F	M	F	F	F	F
Mogas	SH	M	F	M	M	F
Naphtha	D	M	F	F	F	F
ATF–1A	F	D	F	F	F	F
ADO/HO	S	M	S	D	D	F
MDO	U	U	U	U	D	D
FO	U	U	U	U	M	D
Lube Oil	U	U	SH	S	M	F

D – Drain tanks, pumps and lines of all previous cargo and ballast water.

F – Tanks, lines and pump drain free of all cargo; flush tank bottoms, pumps and pipelines with clean sea water, drain completely dry.

M – Machine wash with hot water approximately 1 hour each tank or until slop water is clean, flush lines, pumps and risers. Remove loose bottom scale accumulations. Hand hose bottoms as necessary.

S – Thorough hot water machine wash approximately 2 hours or until slop water is clean; flush lines, pumps and risers. Remove excessive loose bottom scale. Hand hose tank, bottoms as necessary.

SH – Extra thorough hot water machine wash; hot water flush pumps, lines and risers. Procedures may require spotting tank cleaning machines in tanks to remove all traces of previous cargo from bulkheads, beams and other internal tank structure. Inspect tanks, remove loose scale/sediment. Hand hose as necessary.

U – Unsatisfactory for this service.

Note: Naphtha is considered as a "Lead free" product.

The above chart indicates the minimum tank cleaning requirements to maintain the specifications of those products loaded in *uncoated* tanks.

When cargo tanks are *coated*, substitute "cold water" instead of "hot water" in the above chart, for the range of clean products to be loaded from Naphtha to ADO/HO.

MEDICAL: Arranged by ship's Agent.

FRESH WATER: Fresh water is available by barge, with a capacity of 280 cu.m. Contact ship's Agent.

FUEL: Bunkers are available. Advice regarding quantities and specifications of oil required should be given to the ship's Agent prior to arrival.

Bunkering at Breasting Island: Vessels which call for loading will take bunkers while alongside using the same loading arms.

Bunkering at Sea Berth: Crude oil ships will take bunkers while berthed, using the bunker pipeline.

The bunker pipeline from Breasting Island to Sea Berth is maintained full of either MDO or ADO/HO and it is displaced into the vessel having bunkers. The total amount of MDO, ADO/HO displaced on board is about 120 cu.m. (750 Bbls.). In order to permit the Refinery to properly displace the bunker line on completion of fuelling, vessel must alert the Refinery when it is approaching within 330 cu.m. (2,075 Bbls.) of the desired volume.

Gasoil is available by barge with a capacity of 200 cu.m. Vessels which require gasoil bunkers shall give notification 48 hours prior to arrival with the exact quantity of gasoil required.

REPAIRS: Only minor repair facilities are available. Services to radio, gyro and radar are available.

As much advance notice as possible must be given to ship's Agent.

REPATRIATION: Crew members can be paid off or leave the vessel at Castellon de la Plana provided all Spanish regulations are satisfied.

All arrangements should be made through the ship's Agent.

SHORE LEAVE: Master to arrange launch service through ship's Agent.

GENERAL: *National Flag:* The Spanish flag must be flown during daylight hours from the foremast when inside territorial waters.

Pollution of the Sea by Oil: Tank cleaning which requires the discharge of slops overboard, must not be carried out anywhere. Accordingly, tank cleaning operations must be done well in advance of vessel's arrival (See "Ballast").

Mail: Ship's Agent will handle all official and private vessel's mail.

Painting and Litter: If painting vessel, proper precautions are to be taken not to get paint on the deck, fenders or string pieces.

No rags, cans or refuse of any kind are to be discarded on the dock or into the water.

Scuppers must be plugged at all times.

A properly rigged shield must cover all toilet and air–conditioning outlets located amidship.

Garbage, food waste or similar rubbish must not be disposed of overboard while in the Marine Terminal waters.

Gangway: Vessels must provide, rig and tend a safe gangway for access to and from the vessel.

Constant Readiness: While alongside at the Breasting Island or moored at the Sea Berth, vessels must maintain engines and propulsion machinery in readiness to leave under full power on short notice. No repairs are permitted which would interfere with this requirement.

Masters are reminded that the safety of the vessel is their responsibility.

Communications Ship/Shore: A person appointed by the Refinery will remain on board all vessels berthing at either the Breasting Island or the Sea Berth and he will be in charge of any ship/shore communications.

Ship/shore communications will be carried out either by telephone and/or by portable radio–telephone sets.

If a total breakdown in communications occurs, discharging/loading will be stopped until normal communications are restored.

Charts: Charts, almanacs, nautical publications and the Spanish Notices to Mariners are available, but requirements should be included in the Arrival Message to the ship's Agent in order to facilitate delivery.

Stores and Provisions: Stores and provisions are available. As much advance notice as possible must be given to ship's Agent in order to facilitate a good supply.

Cash: Masters are to contact their Agent in advance to provide cash.

Laundry: Requirements should be given to ship's Agent immediately on arrival in order to ensure a quick service.

AGENCY: If not otherwise advised, the ship's Agent for Petromed owned, chartered or affiliated vessels is: Consulmar, S.A., C. Canalejas 95, 2°, Post Box 7, Grao de Castellon. Cable Address: Consulmar – Castellon. Telephone: 22 23 88 – 22 24 27 – Castellon. Telex No. 65513

OPERATOR: Petroleos del Mediterraneo, S.A., Apartado 238, 12080 Castellon de la Plana, Spain. *Tel:* 280000. *Telex:* 65513 Pmed E. *Cables:* Petromed. *FAX:* 281399. *Contact:* E. Gomez, Marine Manager.

CASTRO-URDIALES: 43.24 N. 03.14 W.

DOCUMENTS:

3 Cargo Manifests, 1 visaed by the consular authority.
3 Cargo Manifests for other ports if the vessel has called at and loaded in other ports.
3 Ballast Manifests (if the vessel has arrived in ballast).
5 Passenger Lists (if passengers are carried).
5 Master's Certificates to the effect of "No Passengers" if no passengers are carried.
5 Crew Lists.
5 Stores Lists.
5 Crew's Store Lists – cameras, radios, spirits, cigarettes, etc.
Health Certificate.
Certificate of Derat and fumigation against insects.
4 Bills of Lading.
International Freeboard Certificate.
International Safety Certificate.
International Radio Certificate.
Certificate of Stowage of cargo.

PILOTAGE: *To request pilotage:* 1. Advise the arrival of the vessel 24 hours in advance. 2. Hoist flag "G" of the International Flag Code. 3. Anchor within the pilotage limits of the port.

Port Pilotage Limits: Coastal zone comprised between the Onton meridian and that of the Punta del Rabanal at 1 mile from the coast. The Pilot goes out to a limit of 1 mile outside the port. There are no means of radio communication with the pilot boat or Pilot Station. ETA to be given 24 hours in advance. Sound signals to summon the Pilot - 3 long blasts. In the event of bad weather, the Pilot does not proceed to sea, and the vessel must enter the port and anchor in the bay.

Anchorage to await Pilot: In the mouth of the port at 1 mile distant. The pilot boat carries a blue flag with the white letter "P" upon it. The pilot boat is blue and is a small motor-launch.

ANCHORAGES: The best anchorage is 045° – 800 m. from the green coloured beacon of the breakwater at the port entrance, in a depth of 12 m.

RESTRICTIONS: There are no entry restrictions. Vessels with a draft greater than 6 m. cannot enter the port.

MAX. SIZE: Length 105 m., draft 5 m., depth at the entrance 9.14 m.

HEALTH: The Health Official boards the vessel as soon as it is berthed alongside. In the event of suspected illness or fever, advise Agent by radio and anchor near the port until the Health Doctor authorises entry.

RADIO: The best radio station to pass the ETA telegram to consignees or Agents is Santander Radio station call sign "EAS". Frequency 500 kHz.

TUGS: None available.

BERTHING: Irrespective of tide. The S.E. pier has a total length of 980 ft., of which 500 ft. forms the commercial wharf, mainly for coasters sundry cargoes. No cranes. Fresh water supply. Depth 17 ft. at low water.

Iron ore loading tips: Along open coast adjoining Castro-Urdiales are several cantilever piers connected with the iron ore mines, partly sheltered in creeks or small coves. All vessels bound to load iron ore there should clear and apply at Port of Castro-Urdiales. Vessels cannot remain at these berths during rough weather but may find good anchorage in roads, or immediate shelter at the Port of Castro-Urdiales or better at Bilbao Harbour 9 miles East.

The Iron Ore Loading berths (no length limit) are as follows:

Name	*Situation*	*Approx. ebb tide draft*	*Loading rate per working hour*
Dicido	1 mile E.	21 ft.	800 tons
Saltacaballo	1.5 miles E.	22 ft.	800 tons
Onton	2 miles E.	21 ft.	1,000 tons

STEVEDORES: Ordered by Agent or Shipper. No ETA to stevedores necessary.

MEDICAL: It is not necessary for Agent to receive advance notice that medical attention is required. In the port there is a corps of doctors and one of them is always on duty for any emergency. Furthermore, there is a permanent Spanish Red Cross service with ambulances to transport any patient to a large hospital centre. There is also a hospital in the town.

In the case of serious illness, patients are taken by ambulance to the Cruces Medical Aid Centre (Province of Vizcaya-Bilbao) 18 km. from Castro Urdiales.

International Vaccination Certificates are required.

DENSITY: 1016.

FRESH WATER: Water may be taken on board at the San Luis Quay (also known as the Ocharan Mazas Quay). By means of hoses and at a rate of delivery of about 40 t.p.h.

FUEL: Not available.

CONSULS: None.

REPAIRS: Limited.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Carried out by crew.

CERTIFICATES: Safety Wireless, Safety Equipment, and Derat generally inspected.

CUSTOMS ALLOWANCES: Normally 200 cigarettes per man. For longer stay, new allotment out of bond obtainable. Wine/and/or Spirit: 1 bottle per man.

CARGO GEAR: At the small commercial wharf ship's derricks are used. At the iron ore loading berths along the coast with cantilever piers, conveyor belt employed with spout at the tip.

REPATRIATION: Crew changes and repatriation can be effected, bearing in mind that any consular negotiation must be made in Bilbao, since there are no Consulates in this port.

AIRPORT: Nearest Sondica (Bilbao) 40 km. by road.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: Sundays; 1st January; 19th March (Saint Joseph); April, Holy Thursday and Friday (variable each year); 1st, 23rd May; 13th and 29th June; 18th and 25th July; 15th August; 12th October; 1st November; 25th December. On holidays, work may proceed if requested.

POLICE/AMBULANCE/FIRE: Police (Civil Guard) Tel. 861146; Ambulance Red Cross 861147 and 861191; Hospital 860196; Fire 861294.

TELEPHONES: No arrangements for placing telephones on board.

SHORE LEAVE: Crew allowed ashore.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Services may possibly be obtained from Bilbao.

SEAMAN'S CLUBS: None.

CURRENCY: Spanish Pesetas (Pta).

DELAYS: The only delays that can normally be expected are those due to bad weather.

AUTHORITY: Military Marine Adjutant – Port Captain. Harbour Master Tel: 861147.

CEUTA: 35.53 N. 05.17 W. (See Plan)

DOCUMENTS:

Health Declaration.
2 Cargo Manifests.
2 Stores Lists.
4 Crew Lists.
5 Passenger Lists.

PILOTAGE: Radio Agent advising ETA 24 hours in advance; in the event of any unforeseen delay advice should be direct to the Pilot Station. International code signals used to call Pilot, or give 3 long blasts. Sound signal used day and night. Pilot boards 1 mile from the breakwater. Pilotage compulsory. Pilot on VHF Channel 16 throughout 24 hours, working Channel 12.

ANCHORAGES: To the N.W. of the green light buoy marking the port entrance and to a distance of one mile, in depths of 10 – 15 fathoms, but vessels must leave this area during strong winds from the first and fourth quadrants, in which case the anchorage in the South Bay is advisable. The outer part of the N.W. side of the Western Quay is very rocky.

Prohibited Anchorage: To the East of the meridian passing through the Red Light on the Eastern Quay, anchorage is prohibited due to the presence of submarine cables.

RESTRICTIONS: Vessels carrying explosives must give ample warning of arrival in advance to the Pilot Station in order that precautions may be taken.

MAX. SIZE: At berths: Length 220 m. Max. draft 33 ft. 6 in.

In bay: No limits at anchorages.

HEALTH: Pratique obtained immediately after berthing when vessel boarded by health officials.

RADIO: Tarifa, Mijas, Malaga, Gibraltar and Tangiers Radio. Preferably the first 3 stations (VHF Channel 16).

RADAR: No service available.

TUGS: Normally 2 tugs in service, 1,100 h.p. and 2,300 h.p. Tugs use ship's lines.

BERTHING:

Berth	*Length*	*Depth*	*Remarks*
Dock-Quays	270 m.	33 ft. 06 in.	—
	1,250 m.	30 ft. 02 in.	—
Muelle Espana	400 m.	7.9 m.–10.06 m.	—
Muelle Canonera Dato	4×125 m.	7.0 m.	4 Ro-Ro berths
Muelle Pesquero	260 m.	3.0 m.	Fish Quay
Muelle de Ribera	4×150 m.	7.0 m.	Under construction

CRANES: One crane of 20/30 tonnes capacity and 7 cranes of 3/6 tonnes capacity.

STEVEDORES: To be requested when sending ETA. The times for engaging personnel are from 0730 hrs. to 0830 hrs. and from 1630 hrs. to 1730 hrs., and within these times personnel are appointed up to midnight of that day.

On holidays, engagements take place the previous day at 1730 hrs. For Sundays, personnel are engaged on Saturday at midday. Extraordinary working hours are prohibited. With effect from 2000 hrs., work is considered as nightwork, and is subject to 50% increase in rates. Sundays, holidays, and Saturday afternoons are subject to 40% increase in paid rates.

MEDICAL: Advance notice by radio preferred. Hospital facilities available.

DENSITY: About 3.64%.

FRESH WATER: Available.

FUEL: All grades available, to be ordered in advance. Also see "General".

CONSULS:

Belgium	Tel. 513794 and 515741
Denmark	" 514307
France	" 511268 and 512927
Italy	" 511053 and 515140
Netherlands	" 512782 and 511287
Norway	" 511700 and 511759
Portugal	" 514213 and 512509
Sweden	" 514307

REPAIRS: Only minor repairs can be effected. Slipways for vessels up to 300 g.r.t.

SURVEYORS: Surveyors available for all types of certificates.

Comisario Espanol, Delgado Serrano, 1. Tel: 512932.
Lloyd's (Imco Lloyd's), Queipo de Llano, 2. Tel: 516933.

GANGWAY/DECK WATCHMEN: Available but not essential.

OPENING/CLOSING HATCHES: Performed by stevedores.

CUSTOMS ALLOWANCES: Maximum 6 kilos tobacco for each crew member. Normal daily consumption of wine and spirits allowed.

CARGO GEAR: Loading and discharging permitted using ship's gear. Loading and discharging of containers and handling of Ro-Ro vessels permitted.

AIRPORT: Nearest international airport at Tangier, 100 km. away, (and at Malaga, 137 km. away by sea).

TIME: GMT plus 1 hour in Winter, GMT plus 2 hours in Summer.

REPATRIATION: All facilities available.

List of countries whose subjects can enter Spain with a Passport, without need for a visa:

Algeria
Argentina
Austria
Bahamas
Barbados
Belgium
Bolivia
Brazil
Canada
Costa Rica
Chile
Cyprus
Denmark
Dominica
Dominican Rep.
Ecuador
El Salvador
Fiji
Finland
France
Gambia
Germany
Great Britain
Greece
Guatemala
Honduras
Iceland
Ireland
Italy
Jamaica
Japan
Kenya
Kiribati
Korea, Rep. of
Leichenstein
Luxembourg
Malta
Mauritius
Mexico
Monaco
Morocco
Netherlands
Nicaragua
Norway
Panama
Paraguay
Peru
St. Lucia
Seychelles
Sierra Leone
Singapore
Solomon Islands
Sweden
Switzerland
Trinidad and Tobago
Tunisia
Turkey
Tuvalu
Uganda
U.S.A.
Uruguay
Yugoslavia

Exceptions: Mexico and U.S.A.: Diplomatic and official Passports do not require visas.

Pakistan and Venezuela: Diplomatic and official Passports do not require visas, but ordinary passports do.

List of countries whose subjects can enter with National Identity Card:

Austria, Belgium, France, Germany, Italy, Netherlands, Netherlands Antilles, Liechtenstein, Luxembourg, Monaco, Portugal, Switzerland.

List of countries whose subjects can enter with Seaman's Books:

Austria, Belgium, France, Germany, Greece, Ireland, Italy, Luxembourg, Morocco, Netherlands, Portugal and S. Korea (the latter visaed or 15 days' stay without visa).

List of countries who are signatories to the O.I.T. Convention, and whose subjects can enter Spain furnished with National Identity Document for Seafarers:

Barbados, Brazil, Canada, Denmark, Finland, France, Ghana, Greece, Guatemala, Guyana, Honduras, Iceland, Iran, Ireland, Italy, Malta, Mauritius, Mexico, Norway, Panama, Portugal, Russia, Sweden and Tanzania (only the mainland territory of Tanganyika, not Zanzibar), Tunisia, Ukraine, United Kingdom.

HOLIDAYS:

6th January	Epiphany
19th March	St. Joseph
19th April	Maundy Thursday
20th April	Good Friday
1st May	Labour Day
21st June	Corpus Christi
25th July	St. James Apostle
15th August	Assumption
12th October	National Day of Spain and Spanish speaking peoples
1st November	All Saints' Day
8th December	Immaculate Conception
25th December	Christmas Day.

POLICE/FIRE/AMBULANCE:

National Police	Tel. 513418
Municipal Police	" 516122
Civil Guard	" 513300
Ambulance Services	" 512112
Fire Brigade	" 513333
Red Cross Hospital	" 514548

TELEPHONES: No arrangements for placing telephones on board.

BANKS:

Banco de Andalucia	Tel. 515675	Banco Hispano Americano	Tel. 512600
Banco de Bilbao	518445	Banco Meridional SA	515786
Banco Central S.A.	511139		
Banco Comercial Espana	518040	Banco Popular Espanol	515340
Banco de Espana	511805	Banco de Santander	516685
Banco Espanol de Credito	513009	Banco Vitalicio de Espana	513626
Banco Exterior de Espana	512156	Banco Union	512552
		Banco de Vizcaya	517342

IDENTIFICATION CARDS: Not required.

GENERAL: *Vessels greater than 220 m. in length or 33 ft. 6 in. draft:* There are 2 tankers which can effect supplies in the two bays, as well as foodstuffs 24 hours a day. It is necessary to request authorisation from the Local Marine Authority for embarkation and disembarkation in the Roads, together with any type of operation.

AUTHORITY: Comandancia Militar de Marina de Ceuta. *Tel:* 512621 and 512087. *Contact:* Captain Adolfo Garcia Alonso, Comandante.

CORUNNA: 43.23 N. 08.22 W. (See Plan)

DOCUMENTS:

3 Crew Lists.
2 Passenger Lists or a negative.
1 Cargo Manifest of goods destined for the port.
Another Manifest covering Transit Cargo.
2 Stores Lists, including tobacco, cigars, cigarettes, coffee, spirits, radios, cameras, etc., in possession of crew. In all cases make and number of radios to be indicated.
Safety Radio Certificate and Safety Equipment Certificate.

If vessel carries over 6 kilos tobacco per man, the excess to be declared in separate manifest, which must be visaed by Spanish Consul at the last port, otherwise vessel is exposed to heavy fine.

PILOTAGE: Compulsory. International code signals used to call Pilot.

RESTRICTIONS: No restrictions on night manoeuvres.

MAX. SIZE: Length and beam not restricted. Cargo vessels 57 ft. draft for berthing.

Tankers:

Berth	*Max. d.w.t.*	*Max. LOA* (m.)	*Max. Beam* (m.)	*Max. Draft (see note)* (m.)
Jetty No. 1	35,000	190	30.0	11.0
Jetty No. 2	65,000	190	30.0	13.0
Jetty No. 3	120,000	290	44.0	16.5
Jetty No. 4	65,000	290	44.0	15.5
San Diego Wharf	3,500	100	14.0	7.0

Note: The Military Port Authority limits the maximum draft of tankers entering Corunna to 15.5 m. and will notify when a vessel should wait for high water to proceed inwards.

Port Works Authority limits the draft of vessels of over 120,000 d.w.t. to 16.5 m.

HEALTH: International signals shall be displayed by vessels arriving from abroad until Free Pratique is granted. If vessels proceed directly to berth, Pratique can be obtained immediately after berthing. Otherwise, at anchorage at vessel's arrival.

If vessel has sickness on board of a contagious nature Master should advise Health Authorities by radio, and they will examine patients immediately upon arrival, to enable vessel to be granted Free Pratique.

RADIO/VHF:

Short Wave: Vessels can make contact through Pozuelo del Rey or Aranjuez radio stations.

Both maintain a continuous 24 hour service.

Medium Wave: Vessels approaching the Spanish coast can establish communications with any of the following Maritime Stations:

Barcelona
Bagur (Gerona)
Cabo Gata (Almeria)
Cabo de la Nao (Alicante)
Cabo Penas (Asturias)
Chipiona (Cadiz)
Finisterre (Corunna)
Machichaco (Vizcaya)
Arrecife
Las Palmas y Tenerife

VHF:

Station	*Channel*
Corunna Radio	16
Repsol Petroleo Terminal	12/72
Pilots	12
Tugs	12
Hecules' Tower Lookout	16

All stations maintain a permanent watch.

TUGS: 4 Available up to 2,300 h.p.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)
Transatlanticos	484	11.0
Bateria	150	8.0
"	67	5.5
Calvo Sotelo Norte	20	7.0
" " "	200	10.0
Calvo Sotelo Sur	200	10.0
" " "	200	10.0
San Diego	650	11.0
Espigon Oeste	150	6.0
Espigon Este	50	5.0
" "	150	3.0
Muelle del Centenario	540	16.5

BULK HANDLING FACILITIES: *Private Storage Facilities:*

Cement:	3 silos each of 800 tons capacity.
	4 silos each of 1,000 tons capacity.
Aluminium:	3 silos each of 3,000 tons capacity
	1 silo capacity 4,000 tons.
Fertiliser:	2 tanks each of 7,500 tons capacity.
Unspecified Oils:	2 silos each of 1,000 tons capacity.
	2 silos each of 500 tons capacity
	1 silo capacity 600 tons.
	1 silo capacity 350 tons.
	6 silos each of 500 tons capacity.

CRANES: 29 electric cranes, capacity 3 – 45 tons, outreach 10 – 35 m. 2 diesel-electric mobile cranes, capacity 1.5 – 6.0 tons, outreach 8.0 – 2.5 m.

1 locomotive crane, capacity 5 tons.

TANKERS:

Terminal Operator: Repsol Petroleo, S.A. Cable Address: Repsol Petroleo, S.A., Maritime Terminal, Corunna. Tel: (981) 289111, 289222. Telex: 82144, 86530. Fax: (981) 276011. VHF: Channels 12 and 72 (24 hour watch).

Telexes, cables and faxes must state "Please deliver a copy to Maritime Terminal Office".

Arrival Advice: All vessels bound for Repsol Marine Terminal are required to provide the following information: Time and date of departure and initial ETA at Corunna immediately after leaving the last port of call.

Confirmation of the vessel's ETA to be sent by telex or cable 72, 48 and 24 hours prior to arrival.

Non-compliance with the above requirements may cause delays to the vessel.

All messages should be addressed to the Corunna Ship's Agent with the remarks "please deliver a copy to Repsol Petroleo, S.A. Maritime Terminal".

In the 72 hour message the Master should also state the following information:

Code	*Meaning*
AAA	Ship's name, Call Sign, Flag and Port of Registry.
BBB	DWT and Summer loaded draft.
CCC	Drafts (on arrival, on departure and maximum draft during the stay alongside the Terminal).
DDD	Length, breadth and depth of vessel.
EEE	Operation to be carried out (loading/discharging).
FFF	If loading: Whether vessel is S.B.T/ or C.B.T. and if C.B.T., quantity of ballast to be discharged ashore (maximum rate/whether concurrently with cargo operations/cargo required/sequence/ maximum loading rate (cu.m./hr.)/the requirement of being fitted with a derrick in the cargo manifold area for manoeuvring the cargo hoses into position.
GGG	If discharging: Nature and quantity of cargo on board/API/temperature (°C)/ discharge sequence/maximum rate/whether the vessel is S.B.T. or C.B.T./if C.B.T., ballasting time and whether vessel is able to load ballast and discharge cargo concurrently.
HHH	Manifolds; type, number and diameter (cargo and bunker).
III	Is the vessel fitted with an Inert Gas system?
JJJ	Is the Inert Gas system fully operational?
KKK	Are cargo tanks inerted with a maximum oxygen content of 8% by volume?
LLL	If C.O.W. is to be carried out during the discharging: Vessels are required to ask for authorisation of the Port Authority to carry out C.O.W. while discharging, at least 24 hours prior to arrival, and it may be routed through the ship's agent.
MMM	Date of expiration and last annual survey of the Certificate of Building and I.O.P.P. Certificates.
NNN	Vessels must comply with the "Admission, Handling and Storage of Dangerous Goods National Regulations at Ports", in addition to the IMO Regulations, SOLAS Convention, MARPOL Convention and the recommendations of the "International Safety Guide for Oil Tankers and Terminals" (ISGOTT).
OOO	Name and type of the Insurance policy or Certificate of Financial Guarantee and P&I Club which are in force, concerning civil responsibility for any damage caused by hydrocarbon pollution.
PPP	Is all navigational, safety, anchoring and mooring equipment fully operational and ready for use? If not, specify.
QQQ	Notice of requirement (bunkers, water, etc.) and any other message that the ship's Master considers convenient.

Note: The ETA should be indicated with 6 figures (date/hour/minutes) in G.M.T.

Repsol Terminal: The Terminal Manager or in his absence, the Terminal Operator, is in charge of the Marine Terminal, with a continuous 24 hour service.

The offices are located in the building next to the main entrance gate.

While a vessel is alongside, an operator of the Marine Terminal shall remain on the jetty or wharf at all times to deal with routine operations and any emergency.

Access to the Marine Terminal through the main entrance gate is under the control of a security guard, who shall check the identity and entry permits of any person visiting the restricted area of the Marine Terminal.

Pilotage: Licensed pilots are available on a 24 hour basis, 365 days per year.

All vessels are requested to contact Corunna Pilots on VHF Channel 16, 2 hours before arrival at the rendezvous position, to give confirmation of the vessel's ETA and for receiving instructions about berthing or anchoring.

Vessels may contact Hercules' Tower Lookout on VHF Channel 16.

Tugs: Two tugs of 3,500 h.p. and 2,650 h.p. each, are contracted to Repsol Petroleo, S.A., to provide a towage service for tankers entering or leaving the harbour as well as emergency, anti-pollution and fire fighting services.

In addition to the tugs mentioned above there are 2 additional tugs whose services can be used when the circumstances require.

Berthing/unberthing manoeuvres of all vessels operating alongside Repsol Petroleo jetties will be carried out in accordance with the following regulations dictated by the Port Authority.

Vessel's Gross Tonnage	*No. of Tugs from 2,500 to 3,100 h.p.*	*Area*	*No. of additional Tugs*
Up to 5,000	1	1st	—
From 5,001 to 10,000	2	1st	—
From 10,001 to 25,000	2	1st, 2nd, 3rd	1 (1st area only)
Over 25,000	2	1st, 2nd, 3rd	1 (1st area only)

All the above tugs maintain a continuous listening watch on VHF Channel 12 and their crew remain on board at all times.

Jetty and Wharf Characteristics: All berths operate throughout 24 hours.

Jetty/Wharf	*Maximum Freeboard (m.)*	*Connections (in.)*	*Pumping Rate (cu.m.p.h.)*	*Products*
Jetty No. 1	10	1×3	100	Bunkers
		1×4	140	Butane/Propane
		1×4	140	Propylene
Jetty No. 2	10	1×10	1,200	Naphtha/Kerosene/ Gasoline
		1×10	1,100	Gas Oil
		1×10	1,100	Fuel Oil
		1×10	1,000[3]	Ballast
		1×10	1,500	G.O.P.V. (No. 1 jetty)
		1×12	2,000[3]	Crude Oil
		1×10	500[3]	MTBE/Methanol
Jetty No. 3	15[1]	2×16	6,000[3]	Crude
	12.5[2]	1×10	1,100	Gas Oil
Jetty No. 4	12.5	1×10	1,100	Fuel Oil
		1×10	2,000[3]	Ballast
		1×10	1,100	Bunkers
San Diego Wharf	6	Telescopic Trunk	120 t.p.h	Coke

Note:

[1] For Crude Oil.

[2] For Fuel Oil, Gas Oil and Ballast.

[3] Discharge of MTBE Crudes, Methanol and Ballast.

Customs: Vessels proceeding to discharge should bring the Manifest of Cargo visaed by the Spanish Consul in the port of origin. Should Spanish Consulate not be available, it is to be visaed by the Port Authority, stating in the manifest the remark "no Spanish Consul available".

Foreign vessels are required by Customs Authorities to produce the Ships Stores Declaration, both in English and Spanish, and likewise the Notice of no passengers on board.

Ballast/Pollution:

Vessels in Ballast: Vessels in ballast should arrive with sufficient draft to ensure safe manoeuvring, but shall try to arrive with the minimum of ballast in order to avoid unnecessary delays.

Deballasting: Repsol Terminal is equipped with dirty/clean ballast reception facilities.

Once the vessel is securely moored she will confirm the amount of ballast to be discharged ashore and the estimated time of the deballasting operation.

On no account should dirty ballast, polluted water and oily water or oily wastes from bilges be discharged into the port waters.

Only segregated ballast will be allowed to be discharged into port waters and then only under the responsibility and supervision of the Master.

Pollution: The Master is responsible for the observance of the following instructions:

Any leakage or spillage must be reported immediately to the Terminal Operator and the Terminal Office on VHF Channel 67. The Terminal Operator will immediately take emergency action as necessary and notify the Head of the Terminal Area.

Never rely on a shore stop as this will not exonerate the vessel from responsibility and clean-up expenses if cargo or bunker tanks overflow.

All flanged joints required to connect loading arms/hoses to a vessel, e.g. reducing pieces/spools, shall have a full set of bolts/studs available, the length of which being such that they stick out of the outer surface of the nut a minimum of 5 mm.

Provisioning: It is strictly forbidden to supply provisions or stores over land to vessels berthed alongside the Terminal jetties.

Provisions or stores shall be allowed to be loaded over the jetty to vessels but only with the permission of the Terminal Manager in cases of emergency and depending on the nature, measurements and weight of the commodities. These shall be carried by a vehicle duly authorised near the access to the jetty where the vessel is berthed.

The accesses to the jetty and/or vessel shall never be blocked and the safety regulations shall be properly complied with.

The Terminal Manager, after having received a request from the ship's agent, will authorise the supply of provisions and stores by sea, for which a barge carries out the service and secures alongside the vessel's stern. The Safety Regulations must be properly complied with, handling the provisions and stores on the poop deck and keeping clear the manoeuvring area (ropes, winches, etc.).

In case of need and at the discretion of Repsol the authorisation for the supply of provisions and/or stores on board the ship may be limited or cancelled.

Light products, LPG or Propylene carriers are not allowed to receive provisions or stores whilst alongside the jetties of the Terminal. The ship's agent should arrange storing to be carried out prior to or after the stay of the vessel alongside the Terminal.

Storage or Goods in Bond: It is strictly prohibited to warehouse in bond on the Terminal, goods discharged from or delivered to vessels.

Waste and Rubbish: It is prohibited to throw garbage or waste materials into the sea or onto the pier. Such materials are not allowed to be discharged ashore either. Vessels are required to have the appropriate installations available to store them during their stay in port.

All circulation pipes, sewage outlets, etc., which discharge on to the shore must be properly protected to prevent the water from falling on to the pier.

FRESH WATER: Can be supplied by pipeline at most berths, rate 30 t.p.h. – 150 t.p.h., or by barge at rate of 150 t.p.h.

FUEL: Can be supplied by pipeline at most berths. No barges.

CONSULS:

	Telephone
Belgium	29 46 00
Bolivia	10 22 88
Brazil	22 04 74
Colombia	25 35 31
Costa Rica	23 15 40
Denmark	12 06 28
Dominican Republic	22 53 58
Finland	18 01 80
France	12 14 43
Greece	27 20 18
Mexico	22 48 70
Norway	12 06 28
Panama	25 15 42
Peru	12 29 28
Portugal	27 13 66
Sweden	12 06 28
U.S.A.	21 32 33

CUSTOMS ALLOWANCES: Normally Customs permit 200 cigarettes per man out of bond. Additional quantities needed depend on the stay of ship in port. 1 bottle of spirits per man.

REPAIRS: Minor repairs can be effected in shore work shops.

AIRPORT: Nearest international airport at Santiago de Compostella 60 km. away. Local airport at Alvedro 5 km. away.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: Work can be arranged on following holidays. New Year's Day (January 1st, full day); Epiphany (January 6th, full day); Easter Thursday (half day); Easter Friday (full day); St. Joseph Artizan (May 1st, full day); Patron Saint of Spain (July 25th, full day); Ascension Day (August 15th, full day); Holiday of Hispanicism (October 12th, full day); All Saints' (November 1st, full day); Immaculate Conception (December 8th, full day); Christmas Day (December 25th, full day).

POLICE/AMBULANCE/FIRE: Police 221100. Port Police 223200. Ambulance 230810. Fire 295511, 295544 and 225555.

GARBAGE DISPOSAL: Collection service available. Skips provided alongside. This service has to be requested through the agent. 24 hour service. Charges included in normal port dues.

WASTE OIL DISPOSAL: Contact: Limpieza Maritima de Oleos, S.L., in La Coruna. Tel: 246000, 246169. Fax: 246320.

Trucks and tankers (Marpol) utilised for collection and removal. Arrangements to be made by ship's Agent.

SEAMAN'S CLUBS: None.

CURRENCY: Spanish Pesetas (Pta).

GENERAL:

Chart: B.A. Chart No. 1114.

Winds: The prevailing wind direction in the Winter season is Southwest and Northwest and in the Summer season Northeast.

AUTHORITY: Autoridad Portuaria de la Coruna, Avenida de la Marina No. 3, 15001-La Coruna, Spain. *Tel:* 81.22.74.02 (03-04-05). *Telex:* 82364 Jpco-E. *Cables:* Autoridad Portuaria. *FAX:* (81) 205862. *Contact:* Javier de la Riva, Port Director.

FERROL: 43.28 N. 08.16 W. (See Plan)

PORT LIMITS: Whole of the area in the Estuary joined by an imaginary line between Punta Coitelada and Cabo Priorino.

DOCUMENTS:

3 Crew Lists.

2 Passenger Lists or a negative.

1 Cargo Manifest of goods destined for the port.

Another Manifest covering transit cargo.

2 Stores Lists, including tobacco, cigars, cigarettes, coffee, spirits, radios, cameras, etc., in possession of crew. In all cases make and number of radios to be indicated.

Safety Radio Certificate and Safety Equipment Certificate.

If vessel carries over 6 kilos tobacco per man, the excess to be declared in a separate manifest, which must be visaed by Spanish Consul at the last port, otherwise vessel is exposed to heavy fine.

PILOTAGE: Compulsory. International code signals used to call Pilots. Pilots board off Ensenada de Carino.

MAX. SIZE: For entering and leaving the River Mouth: Cargo vessels up to 42 ft. draft.

HEALTH: If vessel proceeds directly to berth, Pratique can be obtained immediately after berthing. Otherwise, at anchorage at vessel's arrival. If vessel has sickness on board of a contagious nature Masters should advise Health Authorities by radio, and they will examine patients immediately upon arrival, to enable vessel to be granted Free Pratique.

RADIO: Corunna Radio (Riazor): Calls on 1748 kHz and listens on 2182 kHz and 2122 kHz.

Corunna (Eiris): Call sign "EAR" on 500 kHz and 472 kHz.

VHF: El Ferrol Pilot maintains permanent watch on Channel 14.

Corunna (Eiris): Call sign "EAR" on Channel 16 and 26.

TUGS: Available up to 1,750 h.p. Also salvage tug normally stationed at Ferrol.

BERTHING: Depth alongside quays 25 ft. – 42 ft.

CRANES:

No.	*Capacity* (tons)	*Reach* (m.)
1	16	35/9
1	16/30	35/9-10/23
4	12	26

Floating cranes available up to 130 tons capacity.

TANKERS: CLH, 3 berths, can accommodate tankers up to 656 ft. length and 30 ft. draft.

Tanker Cleaning and Gas-Freeing Plant: A deballasting, gas-freeing and tank cleaning plant is operating at Ferrol. It allows for vessels of any tonnage, and provides washing and degassing of tanks, dirty ballast intake and slops intake. Supply of drinking water and hot water up to 70°C is provided for washing tanks with a flow rate of up to 600 cu.m./hr. and an average pressure of 15 kg./sq.cm. Crane facility is also available.

FRESH WATER: Can be supplied from the quays.

FUEL: Can be supplied from the quays.

REPAIRS: Facilities for repairing all kinds of Naval and merchant ships are available. Any kind of hull or machinery repairs and installations can be carried out, as well as annual and 4 yearly surveys, reclassification, transformations and enlargements.

DRY DOCKS: 5 dry docks for building and repairing Naval and merchant ships. Largest dry dock length 330.20 m., width 50 m., capacity 230,000 g.r.t.

Shipyards: There are two main shipyards in the bay area, one of them with a turbine manufacturing section.

CUSTOMS ALLOWANCES: Normally Customs permit 200 cigarettes per man out of bond. Additional quantities needed depend on the stay of ship in port. One bottle of spirits per man.

AIRPORT: Alvedro Airport (La Coruna), two services a day to Madrid. Labacolla Airport (Santiago) 108 km. from the port. Regular services to Oviedo, Santander, Bilbao, San Sebastian, Barcelona, and Madrid.

TIME: GMT plus 1 hour in Winter. Summertime kept from March to September.

HOLIDAYS: Work can be arranged on following holidays. New Year's Day (January 1st, full day); Epiphany (January 6th, full day); Easter (two days); Easter Monday; St. Joseph Artisan (May 1st, full day); Labour Day (July 13th, full day); Patron Saint of Spain (July 25th, full day); Assumption Day (August 15th, full day); Holiday of Hispanicism (October 12th, full day); Constitution Day (December 6th); Immaculate Conception (December 8th); Christmas Day (December 25th, full day).

SERVICES: A modern deballasting, gas-freeing and tank cleaning plant accepts tankers up to 350,000 d.w.t.

GARBAGE DISPOSAL: Contact: Limpieza Maritima de Oleos, S.L., in La Coruna. Tel: 246000, 246169. Fax: 246320.

Trucks and tankers (Marpol) utilised for collection and removal. Arrangement to be made by ship's Agent.

WASTE OIL DISPOSAL: See "Garbage Disposal".

AUTHORITY: Autoridad Portuaria de Ferrol – San Ciprian, Muelle Curuxeiras, Apartado 20, 15401 Ferrol, Spain. *Tel:* 981-352103. *FAX:* 981-353174. *Contact:* D. Miguel Villalobos Santodomingo, Port Director.

GANDIA: 38.59 N. 00.09 W. (See Plan)

LOCATION: The port is situated 65 km. to the South of Valencia. Entrance to the port faces S.E. and is 200 m. wide, with a low water depth of 7.50 m.

APPROACHES: The harbour is entered along the South side of a 1.0 km. long breakwater, running E.S.E. from the shore North of the harbour. The Entrance Channel is about 600 m. in length, with depths of 7 m. to 6 m. (23 ft. – 20 ft.) LWS over a width of 100 m. The distance between the South Pierhead and the root of the breakwater is about 85 m.

PILOTAGE: Compulsory. Arrival notice should be given by telephone to Agent. Vessels are met about 0.5 – 1 mile off the Breakwater Head.

ANCHORAGES: Vessels can anchor off the harbour, in depths of 10 m. to 15 m., bearing of breakwater head (green light) 250° (True) distance 0.5 miles. Bottom sand and mud.

TUGS: 2×1,250 h.p.

BERTHING: The N.E. end of the commercial basin provides a turning place of about 160 m. diameter, where vessels normally turn for berthing bow seaward.

Berth Name	*Length* (m.)	*Depth* (m.)	*Use*
Sur, Prolongacion	150	7.0	Commercial
Sur	150	6.0	Commercial
Frutero	310	6.0	Commercial
Moto-Veleros	175	4.5	Fishing and fuel supplies
Pesquero	100	3.0	Fish
Norte	125	6.0	Various
Serpis	150	9.0	General Cargo

CRANES: The port of Gandia operates 7 gantry cranes, privately owned, with capacity of 2.5 tons to 35 tons and 4 mobile cranes.

CARGO HANDLING FACILITIES: Good warehouse accommodation. Forklifts, trucks, clamps, etc.

There is a warehouse for cold/frozen cargoes storage.

STEVEDORES: *Working Hours:* Winter: 0800 – 1200/1300 – 1700 Summer: 0800 – 1200/1400 – 1800.

FRESH WATER: Can be supplied alongside all piers.

REPAIRS: Small repairs can be carried out.

AIRPORT: Valencia Airport, 70 km. distant.

AUTHORITY: Autoridad Portuaria de Valencia, Muelle de la Aduana S/n, 46024 Valencia, Spain. *Tel:* 34-6-3939500. *Telex:* 64508. *FAX:* 34–6–3939599. *Contact:* Rafael del Moral Carro, Port Director.

GARRUCHA: 37.10 N. 01.49 W. (See Plan)

SHIPMASTER'S REPORT: (Updated 1984).

DOCUMENTS: Usual forms required:

4 Crew Lists
1 Crew Declaration
1 Ship's Stores Declaration
Ship's Register
Cigarettes and spirits sealed.

APPROACHES: Coming in from the East the port is easy to find, first sighting is of a small Spanish town at the edge of the sea. On the radar the harbour breakwater begins to show up at 12 miles, and is clearly distinguished at 6 miles.

PILOTAGE: The Pilot boards from a small open boat about 2 cables from the end of the breakwater, the boat is painted white and for a short spell shows a blue flag with a white "P" on it to convey that he is the Pilot and not a local fisherman.

There are 2 Pilots available. The service of a Pilot is obligatory both on entry and leaving for vessels of more than 50 g.r.t.

ANCHORAGES: On our arrival 1 vessel was anchored in a position off the centre of the town, 2 cables from the end of the breakwater on a line drawn continuing from the breakwater, this appears to be the anchorage mentioned in the Admiralty Pilot Book. We passed close inshore of her and obtained soundings of 14 m. – 16 m. when passing her position, whilst we were alongside another vessel arrived and anchored 1.5 cables to seaward from the breakwater.

RADIO: ETA to Pilots 24 hours prior to arrival.

VHF: Call Pilots on Channel 16, 1 hour prior to arrival.

TUGS: Two tugs of 1,200 h.p. to assist manoeuvring of vessels on entry and departure, the tug's assistance being obligatory for vessels of more than 110 m. LOA or 3,500 g.r.t.

BERTHING: The vessel entered the harbour from the South, when the bow was almost level with the end of the inner berth the starboard anchor was dropped to 1 shackle and the vessel swung to starboard on the anchor, a headline was sent away and when the vessel was three quarters swung the anchor picked up. The face of the quay was protecte with large roller rubber tyre fenders.

HARBOUR: The maximum permitted draft at the commercial quay is 8.5 m. The commercial quay will be extended to 220 m. length.

The harbour is man-made, the outer wall is made of high stone blocks in an "L" shape, the foot of the "L" attached to the land and the outer part running in line with the shore. It is entered from the South with a mole on the port hand enclosing a small fishing harbour. Minimum dept according to the Pilot is 6.3 m. In the N.W. corner on the outer breakwate there is a large concrete apron extending for a length of approximatel 100 m. where we loaded, then from the seaward end to the end o breakwater there is an open berth with a large cantilevered loading chut jutting out over the harbour which is fed from conveyors on the seawar side of the breakwater.

LOADING: The main export of the port is gypsum stone in bulk, w loaded from quay with 4 conveyor belts being fed by dumper trucks in bins on the end of the conveyor belts from the cargo stacked on th quay. Loading rate with the 4 conveyors was up to 1,000 tonnes/p. The labour was helpful in positioning the conveyors to our requiremen and they have one man who keeps a careful eye on the draft.

SUPPLIES: There is a ship chandler in Garrucha. Fresh water is suppl by road tanker and pumped aboard, the tankers holding approximat 6 tonnes and 10 tonnes.

AUTHORITY: Empresa Publica de Puertos de Andalucia, Puer Pesquero de Garrucha, 04630 Garrucha, (Almeria), Spa *Contact:* Alfonso Rodrigues Romero, Port Director.

GIJON: 43.34 N. 05.41 W. (See Plan)

LOCATION: The port is located on North coast of Spain in Gijon Bay. The harbour of Gijon has 3 main areas: Commercial area (formerly called Musel) on N.W. of Bay; Local Harbour on S.E. of Bay (used by yachts); Central area, where ship and dockyards are located.

PORT LIMITS: The limits of the harbour are defined by an imaginary line linking the extreme end of the "Dique Principe de Asturias" and Cerro de Santa Catalina. Beyond those limits, a vessel is still considered an "arrived ship", but is exempt from paying port dues.

DOCUMENTS: The following documents, duly signed by the Master, are required:

3 copies Crew List.
2 copies Provisions and Stores List.
2 copies Personal Effects Declaration.
4 copies Passenger List. If no passenger on board, state so in the cargo manifest and no list is required.
5 copies Cargo Manifest (3 for Gijon bound cargo, 2 for any transit cargo. A No-Cargo (ballast) manifest required when no cargo on board).

Transit Tobacco Manifest: If the total quantity of tobacco on board exceeds an average of 6 kilos per crew member, the excess quantity must be declared on a Transit Tobacco Manifest, describing the tobacco in Spanish as "Tabaco en transito". This Manifest is to be signed and stamped at a Spanish Consulate (alternatively to be visaed by another consulate or local Customs Authority).

In addition, the following Ship's Certificates are required for clearance:

Ship's Register.
Safety Radio.
Safety Equipment.
Safety Construction.
Load Line.
I.O.P.P.
Oil Residues Declaration (Annex I, Marpol 73/78). Forms provided by the Agent.

PILOTAGE: On approaching the Port of Gijon, Masters are to contact the Pilot Station via VHF Channels 16 and 14. The Pilot will board the vessel in the roads. Pilotage is compulsory.

ANCHORAGES: The Bay of Gijon, where the port is located, is a wide open area with deep water. Large vessels remain at anchor (when berth is not available) outside of the port limits. Smaller ships may anchor within the port limits. Masters should contact Pilot for most suitable anchorage place.

RESTRICTIONS: The mouth of the harbour is 600 m. wide, and depth at LWOST is over 18.5 m. Tidal range: 4.6 m. Present draft restriction is 57 ft.

MAX. SIZE: See "Berthing" and "Developments".

Ships bound to perform unloading operations at "Muelle Moliner" may enter with a max. draft of 46 ft. and a max. length of 275 m.

Ships bound to perform unloading operations at Muelle de Minerales may enter with a max. draft of 57 ft.

HEALTH: Free Pratique obtained by sending a cable to "Sanidad Exterior Gijon". It is automatic for vessels coming from another Spanish port or EEC country. If any death on board, Agent should be contacted first to advise adequate procedure, depending upon the nature of the death.

RADIO: Cabo Penas Radio. Call 2102 kHz. Answer 1677 kHz.

VHF: Pilots/tugs/linesmen on Channel 14. Cabo Penas Radio on Channel 16 (for calling) and Channel 26 (for traffic).

TUGS: "Torres" (2,050 h.p.), "Penas" (2,500 h.p.), "Nalon" (2,750 h.p.), "Narcea" (2,750 h.p.), "Sella" (3,000 h.p.) and "Arbeyal" (1,650 h.p.). When required, service is complemented with the tugs based at the nearby port of Aviles.

BERTHING: Pier's name, depth alongside during lowest Spring tide, usage and facilities:

Muelle de Minerales:
First Section:
247 m. length. 19 m. depth. Max. draft 17.38 m.
Solid bulk discharge.
Second Section:
405 m. length. 21 m. depth. Max. draft 17.38 m.
Solid bulk discharge.
Two 50 tonne grab unloaders discharging 2,200 t.p.h. each, suitable for 200,000 d.w.t. ships, with a maximum beam of 50. m.

Muelle de Los Porticos (North Pier):
First Section:
554 m. length. 14 m. depth.
Second Section:
146 m. length. 14 m. depth. Liquefied Gas discharge. Rate 100 cu.m./hr.
Connection to gaseoduct.

Muelle Norte:
First Section:
204 m. length. 8.5 m. depth.
Second Section:
211 m. length. 11 m. depth
Repairs and fitting out. Bulk and general cargo.
One dry bulk loader handling 2,600 t.p.h. for ships of 35,000 d.w.t. maximum.

Muelles de Ribera:
Alineacion 1:
230 m. length. 7 m. depth. General cargo.
Alineacion 2:
109 m. length. 7 m. depth.
Bulk cement loading installation 400 t.p.h.
Alineacion 3:
156 m. length. 8 m. depth. General cargo.

Espigon I:
North Section:
220 m. length. 8/10 m. depth. General cargo.
South Section:
190 m. length. 11.5 m. depth.
170 m. length. 9 m. depth.
Loading of steel goods.
2 cranes of 25 tons handling 140 t.p.h.
2 cranes of 12 tons handling 100 t.p.h.

Estacion Maritima:
Alineacion 4:
32 m. length. 6 m. depth.
Not in service.
Alineacion 5:
225 m. length. 7 m. depth. Asphalt and heavy cargoes.
Fixed Ro/Ro ramp, 15 m. wide.

Espigon II:
North Section:
300 m. length. 7 m./9.5 m. depth.
Cement loading installation: 200 t.p.h.
General and bulk cargo.
Head Section:
90 m. length. 12 m. depth. No equipment.
South Section 1:
180 m. length. 8.5 m. depth. General cargo, scrap, steel products.
4 cranes of 6 tons. Handling 60 t.p.h.
South Section 2:
180 m. length. 9.0 m. depth. General and bulk cargo.

Oil Berth:
North Section:
180 m. length. 8.5 m. depth.
Connection for oil products. Rate 400 t.p.h.
South Section:
180 m. length. 8.5 m. depth.
Connection for oil products. Rate 400 t.p.h.

Muelles del Rendiello:
Alineacion 6:
346 m. length. 5 m. depth. Fishing and small boats. Repairs.
Muelle Adosado:
443 m. length. 5 m./7 m. depth. Fishing and ice factory.

Muelles de la Osa:
Alineacion 7–1st.: 317 m. length. 8 m./10 m. depth. Connections for oil products (Continental Oil Co.).
Alineacion 7–2nd.: 250 m. length. 12 m. depth.
Bulk, general cargo and containers.
4 cranes of 12 tons handling 100 t.p.h.
2 cranes of 30 tonnes handling 150 t.p.h.
Alineacion 8:
206 m. length. 11.5 m. depth.
Heavy and general cargo.
Alineacion 9:
198 m. length. 10 m./11.5 m. depth.
2 cranes of 12 tonnes handling 60 t.p.h.
Ro/Ro ramp with width 9.5 m./12 m.

Muelle Moliner:
313 m. length. 14 m. depth. Bulk cargo and steel products.
4 cranes of 12 tons handling 100 t.p.h.

STEVEDORES: *Working Hours:* At "Muelle de Minerales" only, 24 hours a day, 7 days a week, Sundays and Holidays included. All other quays: Monday/Friday 0800 hrs. – 1200 hrs., 1300 hrs. – 1700 hrs. Normal working hours, 1700 hrs. – 2300 hrs. overtime. Saturday 0800 hrs. – 1200 hrs. It is possible to work overtime, and on Saturdays and Sundays at extra cost, by special arrangement.

Exceptionally, at "Muelle de Minerales" no work on January 6th/0600 hrs. to 7th/0600 hrs., May 1st/0600 hrs. to 2nd/0600 hrs., July 16th/0600 hrs. to 17th/0600 hrs., December 24th/1400 hrs. to 26th/0600 hrs. and December 31st/1400 hrs. to January 2nd/0600 hrs.

MEDICAL: Crew members requiring medical attention, hospitalisation, etc. should be reported by the Master to the Ship's Agent for prompt attention. All necessary facilities are available at Gijon.

TANKERS: *Terminal Continental Oil Co.:* 7th Section of La Osa Quays: 2 discharging arms for petroleum products and one charging arm for THF.

Maximum Discharging Rate: Fuel oil 1,300 cu.m./hr. and petrol 600 cu.m./hr.

The terminal operates a 24 hours service every day of the year. Cargo operations permitted by night. The quay has a depth of 11.5 m. at LWOST.

Also see "Berthing" and "Report".

DENSITY: 1026.

FRESH WATER: Available ex-wharf or by barge. From the wharf connections it is supplied at 20 t.p.h.

FUEL: Fuel and diesel oil are available and can be supplied to ships either directly from shore connection (available only at oil berth) or by a small tanker in service for the purpose.

CONSULS: The following countries have consular representation in Gijon: Brazil, Colombia, Costa Rica, Dominican Republic, Finland, France, Germany, Netherlands, Norway, Panama, Portugal, Sweden.

REPAIRS: There are shipyards at Gijon, and work shops specialised in naval works. All types of repairs can be attended to. It is recommended that advanced notification is given when assistance is required. Electrical power is supplied ex-wharf.

Spare Parts: In case of spare parts being forwarded by airfreight, each consignment must be accompanied by an original Airwaybill and a commercial invoice (in triplicate). About 2 days should be allowed for domestic transit and clearance. For truck deliveries, one day.

DRY DOCKS: 2 companies own a total of 4 dry docks at Gijon, the largest of which is 170 m. length, 27.40 m. wide for vessels up to 26,000 tons.

SURVEYORS: American Bureau, Bureau Veritas, Lloyd's Register, Germanischer Lloyd, N.K.K., Norske Veritas. Cargo inspectors also available.
GANGWAY/DECK WATCHMEN: Normally not required nor necessary.
HATCHES: Normally carried out by ship's crew.
CUSTOMS ALLOWANCES: Maximum of 6 kilos of tobacco per crew member, subject to having been declared.
CARGO GEAR: Loading and discharging, save rare exceptions, effected by shore gear.
REPATRIATION: Repatriation of crew members is no problem. EEC citizens need no formalities. Other nationalities are subject to visa or immigration control, for which reason advanced notice must be given to the Agent.
TIME: GMT plus 1 hour in Autumn and Winter. GMT plus 2 hours in Spring and Summer.
AIRPORT: The regional airport, named Asturias (in some instances it is still known as Oviedo) is 40 km. away from the port. There are daily flights linking Gijon with Madrid, Bilbao, Barcelona, Santiago and London. There is a bus service for passengers from Gijon to the airport and vice versa.
HOLIDAYS: 1996: January 6th, February 20th, April 3rd and 4th, May 1st, June 13th, July 16th and 25th, August 15th, October 12th, November 1st, December 6th and 26th.

For work on holidays, see "Stevedores". July 16th is a port holiday only.
POLICE/AMBULANCE/FIRE: Police, Tel: 091; Ambulance, Tel: 092; Fire, Tel: 080.
EMERGENCY CO-ORDINATION CENTRE: Civil Protection, Tel: 006.
TELEPHONES: No facilities yet for placing telephones on board. Only available at Agent's office, or through Cabo Penas Radio.
SERVICES: Tank cleaning equipment, facilities for discharge of tank washings, compass adjusting, radio and radar repairs, supply of charts, nautical publications, sounding paper, course recorder paper, Notice to Mariners, safety equipment, extension of certificates, etc.
BANKS: All Spanish banks are represented in town, as well as others non-Spanish.
STORING: Vessel can be stored by barge (subject to weather conditions) whilst at anchorage, or by truck when alongside. Storing can take place whilst loading/discharging. Trucks can proceed alongside. Forklifts, if required, can be used. Usual customs clearance formalities apply. Local riggers could be employed to assist with storing.
SHIP SUPPLY SERVICE: There are several operators. Agent should be contacted first.
SHORE LEAVE: Crew members of any nationality are allowed ashore.
IDENTIFICATION CARDS: Seaman's Book is sufficient.
GARBAGE DISPOSAL: Service provided by Port of Gijon Cleaning Service. Containers are placed at each berthing line by the Port Authority.
WASTE OIL DISPOSAL: Available.
SEAMAN'S CLUBS: Stella Maris, El Musel, 33290 Gijon. Tel: (985) 321229. Facilities include accommodation, restaurant, postal facilities, telephone, shop, tv-video, reading material, games and chapel.

Casa del Mar, Avda. Eduardo Castro, s/n La Calzada, Gijon. Tel: 327200/326951/327009/327190.
CURRENCY: Spanish Peseta (Pta). U.S.$ 1.00 = Pta.124.48 (March 1996).
DELAYS: Allow 24 hours notice for bunkering.
GENERAL: *Wind Conditions:* N.E. to East in Summer time, coinciding with high pressure. West to N.W. coincides with low pressure. Rotation of winds is direct. Starting S.W. and West, passing to N.W. with high sea, reaching with North the maximum intensity of gale. With N.E., fair weather.
DEVELOPMENTS: A new dry bulk unloading terminal (EBHI – European Bulk Handling Installations) has been completed on the Minerales Quay (See "Berthing"), to accommodate vessels of up to 200,000 d.w.t., with 2 berths with 21.0 m. alongside at LWOST, 2×50 tonne grab unloaders, each handling up to 2,200 t.p.h., a stacking area of 300,000 sq.m. 2 Stacker reclaimers handling 2,800 t.p.h. each and 4.4 km. of conveyors. There is a shiploader on the Norte Quay, linked to EBHI by conveyors, suitable for 35,000 d.w.t. vessels. It provides a loading rate of 2,600 t.p.h. and the berth has a depth of 11.0 m. at LWOST.

It is expected that the maximum allowed draft at Muelle de Minerales will soon be increased.

REPORT: November 1994 (Updated 1996).
Entering/Sailing Regulations:
Maximum draft permitted 57 ft.

Vessels with draft 57 ft. must berth on H.W., also Pilot will board 2 hours prior to berthing.
Anchorage:
Outer: It is suggested to drop anchor 1 mile from port entrance ("Cabo Torres" bearing 090° × 1.0 miles – 1.7 miles).
Inner: Depends on ship's particulars and weather conditions, being decided always by Pilot and Master.
Tide: Maximum tidal range 4.60 m.
Shore Storage Particulars:

Operator:	Repsol Butano, S.A.	
Products handled:	Butane	Propane
Minimum Temperature:	−4°C	−2°C and −45°C
Cargo Pressure:	12/14 kg.	12/14 kg.
Pressurised/ Semi-Refrigerated/ Fully Refrigerated:	Pressurised.	Semi-Refrigerated, pressurised and fully refrigerated.
Maximum Discharging Rate:	400 tons/hr.	200 tons/hr. (−2°C) 200 tons/hr. (−45°C)
Cargo Operations permitted by night:	Yes	Yes
Round the clock Discharging:	Yes	Yes
Vapour Return Line available:	Yes	Yes
Hoses of 6 in. available:	Yes	Yes
Diameter of Shore Line:	8 in. Liquid 6 in. Vapour	8 in. Liquid 6 in. Vapour
Maximum Back Pressure permitted:	4/5 kg./sq.cm.	6/8 kg./sq.cm.

Storage: 10 Butane tanks – 26,490 tons (46,425 cu.m.).
11 Propane tanks – 9,859 tons (17,296 cu.m.).

Storage tanks are located 2.5 km. (approx.) from Marine Terminal and 140 m. above sea-level.
Cargo Handling Equipment:
(a) 3 Shore line connections and 2 discharging arms for liquid as per Plan (See "Plans").
1 Reheater from −45°C to 0°C.
2 Booster pumps 400 t.p.h. capacity each.
(b) Intermediate station 2 km. from port.
4 Booster pumps 90 t.p.h. capacity each.
Railway Gas Terminal fitted for discharging directly from vessel to tank wagons.
Daily railway tank wagons forwarding capacity 1,500 tons.
Products for LPG Carriers: Available on request: Liquid Nitrogen, Methanol, CO2, Freon, Oxygen, Acetylene.

All kinds of chemicals (Gamlen, Perolin, Ameroid, etc.).
Liquified Gases Facilities:

Name:	"Muelle de los Porticos" (Dique Norte).
Type of Berth:	Normal concrete berth with rubber fenders.
Mooring:	Normal mooring system, giving lines to bollards alongside.
Length:	146 m., but any length acceptable.
Draft:	45 ft. (always afloat).
Type of Handling Installation:	6 in. shore hose connections for liquid and vapour and 8 in. discharging arms available. No vessels' hoses required.
Largest LPG/Carriers Entered/Discharged:	76,700 cu.m./48,920 GRT/61,400 DWT Length overall: 228.90 m. Draft: 44 ft. 4 in.

Larger sizes of ships can be accommodated.
Bunkers: Diesel oil and fuel oil available.

The Spanish Bunkering Company Cia. Logistica de Hidrocarburos, S.A. "C.L.H." is attending such service which has contracts with the main oil companies in the world, so Owners' usual contractors can be used for arranging delivery of any quantity required.

1×800 ton barge in operation.
Airport: Asturias Airport usually shown in the timetables, as Oviedo is located 40 km. West of Gijon, approximately 35 minutes drive by car on motorway.

A bus service Airport/Gijon Terminal (45 minutes travel) is regularly operating.

Domestic is the main traffic, but any direct international connection is easily arranged via Madrid and Barcelona from Asturias Airport.

Three weekly direct flights to/from Paris (Charles de Gaulle) and London (Stansted) available.
Spare Parts: Clearance allowed at Asturias Airport.

TIR and any other road transport consignments under EEC regulations are cleared in Gijon Customs House.
Products for LPG/Carriers: Available on request: Liquid Nitrogen, Methanol, CO2, Freon, Oxygen, Acetylene, all types of chemicals (Gamlen, Perolin, Ameroid, etc.).

AUTHORITY: Autoridad Portuaria de Gijon – Aviles, Apartado 82, C/Claudio Alvargonzales 32, 33201 Gijon (Asturias), Spain. *Tel:* (98) 5354945. *Telex:* 87369 Jupo E. *FAX:* (98) 5359917. *Contact:* Carlos Zapico Acebal, Chairman. Joaquin Juan Dalac, Port Director. Jose Pedro Vindel Muniz, General Manager. Harbour Master's Office: Tel: 5321276. Fax: 5310049.

AGENT: Romualdo Alvargonzalez, S.A. Apartado 141, Gijon. Tel: 344400. Telex: 87366. Fax: (98) 5359849.

HUELVA: 37.16 N. 06.55 W. (See Plan

PORT LIMITS: *Zone I:* From Fairway Buoy up to Odiel Point. Dockag charges commence when vessel is made fast to wharf, or inne anchorage.
Zone II: The area between the meridians of 6°48' W. and 6° 56' W. an the Parallel of 37° 04.5' N. and the coast.
DOCUMENTS:
3 Crew Lists.
2 Passenger Lists or a negative.
1 Cargo Manifest of goods destined to Huelva.
Another Manifest covering transit cargo.
2 Stores Lists, including tobacco, cigars, cigarettes, coffee, spir radios, cameras, etc., in possession of crew. In all cases make a number of radios to be indicated.
Safety Radio Certificate and Safety Equipment Certificate.

If vessel carries over 6 kilos tobacco per man, the excess to b declared in a separate manifest, which must be visaed by the Spani Consul at the last port, otherwise vessel is exposed to heavy fine.
PILOTAGE: Compulsory. Services all day. Entry or sailing depen on draft of vessel on arrival or departure. Agent must be in close cont with Pilot Office. Pilots are informed by Agent of ETA at bar. Vess must contact Huelva Pilot Station 2 hours before arrival on V Channel 14 or 16. Maximum draft and special conditions will communicated by Shipmaster. Regulation ladder required.

In rough weather, Pilots will not be available for entries or sailin Pilot Station, Tel: 34-59-284569. Fax: 34-59-247392. Cables: Practi de Huelva. Calle Saniucar Barrameda. Huelva.
ANCHORAGES: Anchorage is designated by Pilots.

MAX. SIZE: Max. LOA 250 m. Max. draft permitted, 39 ft. up to 44 ft. 08 in., depending on the tide.

The entry to port is always subject to tides and maximum sizes of vessels able to proceed to inner quay berths will depend upon the berth and the tidal constant.

HEALTH: As long as Masters of vessels notify Medical Office by cable that there are no sick on board and that the ship proceeds from an area free from contagious diseases as specified by the International Sanitary Regulations, Free Pratique will be granted to the vessel, although this does not eliminate all the sanitary measures specified in the Exterior Sanitary Regulations in force.

Notice should be given en-route towards the Port of Huelva and sufficiently in advance to permit the Free Pratique to be granted.

When there is any sickness on board, no operation will be carried out until the vessel or its personnel have been inspected by the Medical Authorities.

The granting of Free Pratique does not signify that the Yellow Flag may be lowered. This will be done once the Medical Authorities have carried out their inspection or are in possession of the Maritime Health Declaration Form signed by the Master.

RADIO: Local coastal radio station Huelva Radio or Chipiona Radio. Working frequency: 1700 kHz. Listens out permanently on 2182 kHz and Channel 16 on VHF.

Hours of service 24 hours (continuous).

National and International Radio traffic – telegrams and Notices to Mariners.

TUGS: Ship's lines or tug's lines employed. 4 tugs available: 1×1,125 h.p., 1×2,000 h.p., 1×2,200 h.p. and 1×2,750 h.p. Also available 1 sea tractor × 4,040 h.p. Number required to assist vessels at the discretion of the Master in agreement with Pilot. There are Port's suggestions, depending on the vessel size.

BERTHING: *Muelle de Torre Arenillas:* Mineral loading quay – 465 m. mooring length and 12 m. depth of water at LWST. 2 loaders of 1,200 t.p.h. each.

Pantalan de A.I.E.S.A.: Jetty belonging to "Aragonesas Industria Energia, S.A." for movement of liquid and solid bulk cargo. Length 150 m., with 8 m. depth of water at LWST. For movement of solids, a gantry crane of 6 tonnes is available, together with 3 tubes for liquids – 150 mm. (200 cu.m./hr.); 200 mm. (250 cu.m./hr.) and 100 mm. for liquid chlorine (80 cu.m./hr.).

Fertilizantes Espanoles S.A.: Extension of the Fertilizantes Espanoles jetty consisting of fitting out liquid quay for movement of solid bulk cargo. Length 120 m., 7.0 m. depth of water, 3×15 tonnes gantry cranes and pipes for conveyance of phosphoric and sulphuric acids. Rates: Phosphoric acid (loading) 350 t.p.h. – 550 t.p.h. Sulphuric acid (loading/unloading) 200 t.p.h. – 300 t.p.h. Phosphates (unloading) 500 t.p.h. – 800 t.p.h.

Ertoil S.A.: "Reina Sofia Quay" of Ertoil S.A. for the movement of liquid bulk cargoes, is 700 m. long and 8.0 m. – 9.5 m. depth at LWST. 2 berths for vessels up to 6,000 d.w.t., 1 berth for vessels up to 3,000 d.w.t. and 2 berths for lighters and tugs. Petroleum Products: 2×8 in. loading arms at East Berth; 1×8 in. loading arm at Central Berth and 3×8 in. loading arms at West Berth. Ballast: One loading arm at East and West Berth, rate 350 cu.m./hr. – 800 cu.m./hr. Titanium effluents: Two points at each end berth. Phenol/Acetone: Two loading arms at East Berth and 2 loading arms at West Berth. Propylene: 1×4 in. loading arm at Central Berth.

Pantalan de Foret S.A.: Liquids pier for vessels of 60 m. – 120 m. LOA and draft up to 7.5 m. Depth alongside 9.5 m. 1×8 in. pipeline for transferring sulphuric acid.

Pantalan de Empresa Nacional Minas de Almagrera: Length 120 m., depth 9.5 m. Mooring for vessels with liquid cargoes (sulphuric acid) from 3,000 d.w.t. – 15,000 d.w.t. 1×14 in. pipeline for transferring sulphuric acid.

Pantalan de CAPESA: Liquids pier for vessels of 120 m. – 200 m. LOA; max. 35,000 d.w.t. and draft up to 9.0 m.; 2×10 in. arms. Petroleum products.

Levante (Eastern) Quay: Length 1,200 m. of which 700 m. is for general cargo and bulk cargo. Depth 8 m. Equipment includes 6×8 tonne cranes for general cargo.

Tharsis Quay: 320 m. long, depth of water 6.0 m. Quay used for taking fresh water and supplies.

Fertilizantes Espanoles S.A. Quay: 120 m. long, depth of water 6.5 m. Used for fertilisers and liquid bulk cargoes. 6 in. line for unloading sulphuric acid (100 t.p.h.) and 10 in. line for loading and unloading ammonia (150 t.p.h.).

Pertrechos Quay: Used for fishing boat repairs. Backing on to it is a small floating dock.

Saltes Quay: 200 m. long, depth of water 5.5 m. Used for fitting out and deballasting.

Ingeniero Juan Gonzalo Quay: 902 m. long, depth of water 12 m. LWST for general cargo and solid bulk cargo. Equipped with 6 gantry cranes of 12 tons, 5×16 tonne cranes and 1×35 tonne crane. There is also a ramp for Ro/Ro vessels. Max. LOA 250 m.

ENAGAS: Length 290 m. Depth 12.0 m. One berth for LNG. 2 unloading arms rated at 2,000 cu.m./hr. each. One vapour return arm.

CRANES: 43 mobile cranes (private) with capacity up to 160 tons. Also see "Berthing".

STEVEDORES: 48 hours' advice to Agent necessary to engage labour.

MEDICAL: Agent must give at least 24 hours advance notice where medical aid is required. There is a provincial hospital. Vaccination certificates against fevers and cholera are issued by the Provincial Health Authority.

TANKERS: Ertoil S.A. (Oil Division) operate a SBM tanker-mooring 7 miles offshore, about 20 miles distant from Huelva. Mooring is suitable for vessels 900 ft. long with draft up to 70 ft. salt water (depth 72 ft.). Mooring 66 ft. is used for discharging only. Discharge rate is about 2,500 t.p.h. through two 12 in. lines and a 30 in. submarine line.

Torre Arenillas Terminal: Within Huelva port, there are 2 tanker berths, for vessels up to 240 m. LOA in Berth No. 2, and 220 m. in Berth No. 1. Max. draft 12.0 m. at low water.

Berth No. 1 (North) loading/discharging:

LPG	8 in. line
Gasoline	10 in. ,,
Naphtha	10 in. ,,
Diesel	10 in. ,,
Fuel oil	10 in. and 12 in. lines

Berth No. 2 (South) loading/discharging:

Benzene	8 in. line
Cyclohexan	8 in. ,,
Gasoline	10 in. ,,
Diesel	10 in. ,,
Distillates	10 in. ,,
Fuel oil	10 in. and 12 in. lines

Loading Rates: Oil/products 1,000 t.p.h. LPG 80 t.p.h.

Residues: There is a receiving station near the oil quay for tank residues, together with a product separator. Connection lines are 10 in.

Product	*S.G.*	*A.P.I.*
Propane	0.507	—
Butane	0.573	—
Gasoline 85-Ron	0.693	72.68
Gasoline 96-Ron	0.735	61.02
Campsa G.O.	0.832	38.57
R.D. 2494	0.789	47.84
Industrial F.O.	0.945	18.24

DENSITY: Water at this port is salt water. Fresh water, in quantity of 1 in. to 7.5 in., only present in heavy rainy weather.

FRESH WATER: The supply of drinking water is made at the Eastern (Levante) Quay at the rate of 20 t.p.h. per vessel and at quays of Ingeniero Juan Gonzalo, Minerales and Petrolero de Torre Arenillas. This can also be provided by means of tugs at a rate of 50 t.p.h and 30 t.p.h.

FUEL: Fuel oil and diesel available in main port. Not available at offshore tanker terminal.

CONSULS:

Belgium
Denmark
Finland
France
Germany
Greece
Italy
Netherlands
Norway
Panama
Portugal
Sweden

REPAIRS: Any kind in engine room, and hull above water.

DRY DOCKS: Only 1 small dry dock available for vessels up to 3,500 g.r.t.

GANGWAY/DECK WATCHMEN: The employment is at the discretion of Masters, who are free to either employ or do without any watchmen.

OPENING/CLOSING HATCHES: Normally effected by crew, liner vessels excepted.

CERTIFICATES: Safety Radio, Safety Equipment and Derat Certificates should be at hand for production if requested.

CUSTOMS ALLOWANCES: 200 – 300 cigarettes per man out of bond. If necessary permit may be obtained from Customs Authorities to open bond and provide crew with fresh supplies, if stay in port justifies procedure. Wine and/or Spirit Allowances: Two bottles per man.

REPATRIATION: No difficulty in this respect.

AIRPORT: The nearest is at Seville – San Pablo. A distance of 100 km. from Huelva.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: 1st January; 6th January; 28th February; Thursday preceding Good Friday; Good Friday; 1st May; 16th July; 15th August; 8th September; 12th October; 1st November; 6th and 8th December; 25th December.

Permit to work on any of the mentioned holidays can be obtained.

POLICE/AMBULANCE/FIRE: Police 091; Civil Guard 062; Fire Brigade 080; Ambulance 061.

EMERGENCY CO-ORDINATION CENTRE: SAR Tarifa (Cadiz): VHF Channel 16. Tel: 34-00-202202, 34-56-684757. Fax: 34-56-680606. Port of Huelva Emergency Control Centre: VHF Channels 14 and 16.

TELEPHONES: No arrangements exist, for the time being, to place telephones on board vessels.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Not necessary.

GARBAGE DISPOSAL: There is a private contractor service for reception of garbage from ships. MARPOL Certificate available.

WASTE OIL DISPOSAL: Dirty ballast reception at the oil berth of Torre Arenillas. Engine room bilge reception available at all berths. MARPOL 1 Certificate available.

SEAMAN'S CLUBS: Casa del Mar, Avda. Hispano America, Huelva, Tel: 257411/257565. Facilities include accomodation.

DEVELOPMENTS: The Channel has been dredged to a depth of 11.3 m. at LWST from Fairway Buoy up to Buoy No. 11, and 10.8 m. up to Enagas. A new quay is being built between Torre Arenillas Ore Quay and Ingeniero Juan Gonzalo Quay, 600 m. long, for general and dry bulk cargo.

AUTHORITY: Autoridad Portuaria de Huelva, Avd. Real Sociedad Colombina Onubenso 1, 21001 Huelva, Spain. *Tel:* 34-59-213100. *FAX:* 34-59-213101. *Contact:* Enrique Perez Gomez, Port Director.

Capitania Maritima de Huelva, c.Rico, 21001 Huelva, Spain. *Tel:* 34-59-280642. *FAX:* 34-59-248229. *Contact:* Carlos Gago, Port Captain.

IBIZA: 38.54 N. 01.28 E. (See Plan)

DOCUMENTS: *Passenger Liners:*

5 Crew Lists (Customs, Comandancia de Marina, Health, Police and Consignee).

6 Passenger Lists (Customs, Police, Guardia Civil, Obras del Puerto, Health and Consignee).

2 Lists of Crew and Passengers personal effects (Customs).

2 Stores Lists (Customs).

Health Certificate (Health Department).

2 Cargo Manifest, if any. (Customs).

2 Negative Cargo Manifests, if no cargo.

Cargo Ships:

5 Crew Lists.

2 Lists of Crew Personal Effects.

2 Stores Lists.

Health Certificate.

2 Cargo Manifests.

PILOTAGE: Pilotage compulsory. No ships allowed to go further than imaginary line between Botafoch Lighthouse and Isla Negra del Este, without a Pilot. Advisable to give 24 hours' notice of ETA. Shortly VHF will be installed in Pilot Station and boats. Pilot's boat is of the canoe type with white sides and letter "P" in black on both sides. Vessels requiring a Pilot must give 3 long whistles. By night flash morse "G".

Pilot will board between Botafoch Lighthouse and Isla Negra del Este. In bad weather vessel should follow pilot boat until Pilot is able to board.

ANCHORAGES: Anchorage area situated inside imaginary line: Botafoch-Negra del Este with depths of 40 ft. to 50 ft. Pilot required to anchor.

MAX. SIZE: Max. length for berthing, 135 m. Max. draft 21 ft.

HEALTH: Report in advance to Pilot if there is any problem. If situation is normal, then, after ship berths the Health Inspector boards and quickly grants Pratique. In event of any suspected disease or fever on board, the Pilot (without boarding), will show the anchorage area, then Health Inspectors and Authorities will board, and give necessary instructions.

Vessels entering after calling at another Spanish port have no problems obtaining Pratique.

TUGS: Not available.

BERTHING: Depths alongside 4 m. – 8 m.

STEVEDORES: Available, ETA required 24 hours in advance.

MEDICAL: Civil hospital, military hospital, and 3 private clinics available.

TANKERS: Load/discharge lines 10 in. and 8 in. No facilities for discharging residues. 1 berth. Max. draft of the ship is 21 ft.

FRESH WATER: Available at the quays. 9 tonnes/p.h.

FUEL: Available. Notice required 24 hours.

FIRE PRECAUTIONS: Tankers should have a rope over bows, at water level while the ship is berthed.

REPAIRS: There are good work shops and engineers but with limited possibilities. There is a shipbuilder's yard where they build and repair yachts and canoes.

GANGWAY/DECK WATCHMEN: Performed by crew.

OPENING/CLOSING HATCHES: There are no fixed rules on this matter: it varies according to the circumstances.

CUSTOMS ALLOWANCES: There are no free allowances.

REPATRIATION: Facilities for effecting crew changes and arranging any necessary repatriations.

AIRPORT: 8 km. away, served by scheduled flights daily.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: Cargo work can be arranged on the official holidays with an extra charge of 40% to the workmen.

New Year; Epiphany (6th January); Saint Joseph (19th March); Maundy Thursday: half-day (the evening); Good Friday; Ascension of our Lord (40 days after Resurrection); Saint Joseph the Artisan (1st May); The Holy Heart (last Friday of June); Exaltation to work (18th July); Santiago, Lord of Spain (25th July); Our Lady of the Snows, Lord of Ibiza (5th August); Ascent of Blessed Virgin Mary to Heaven (15th August); Feast of the Hispanicism (12th October); All Saint's Day (1st November); Festival of the Immaculate Conception (8th December); Christmas Day (25th December).

Although not yet official there will be introduced as a holiday Easter Monday and 26th December.

POLICE/AMBULANCE/FIRE: Police 301131; Ambulance 301214; Fire telephone call to the Comandancia de Marina, Tel: 301190.

SERVICES: Compass adjusting.

SHORE LEAVE: Crew members are allowed ashore.

IDENTIFICATION CARDS: Required.

DEVELOPMENTS: Increasing depths in the port to 7 m. It has also been approved to enlarge berthing quays to 220 m. and 7 m. depth, and build a fishing dock.

AUTHORITY: Comandancia Militar Marina – Ibiza. *Contact:* Edmundo Fraga Ferreiro, Comandante.

MAHON: Minorca, 39.52 N. 04.18 E. (See Plan)

DOCUMENTS: *Health Department:*

Crew List.

Passenger List.

Disinfect and Derat Certificates.

Port Authorities:

Crew and Passenger List.

Ship characteristics and other details.

Cargo.

Indication of previous Port and destination.

Customs:

Cargo Manifest.

Bill of Lading (Cargo for this port).

Crew List and Passenger List.

Also the Master will produce, if required, Log book and Passports of crew.

PILOTAGE: Compulsory to take Pilot on entry, departure and any movements within port. On approaching port, during day, ships will hoist flag corresponding to International Code "I need a Pilot". By night, by means of lights, according to International Code.

During day Pilot's boat is recognised by a square blue flag with letter "P" (painted white) in centre of flag. Pilotage area comprises all the estuary, from inside port to outside Capes of La Mola and San Carlos.

ANCHORAGES: Inside are good anchorages, for instance Cala Llorga and Plana de Cala Figueras.

MAX. SIZE: Unlimited length and width, but draft is limited to commercial port, 25 ft.; and to anchorage, 43 ft.

BERTHING: Commercial Quay: Length 518 m. average depth alongside 8 m.

Container and Ro/Ro Quay: Length 180 m. depth alongside 6.5 m.

STEVEDORES: Available. Loading and discharge is as follows:

Container Berth: 2 fixed cranes 800 tonnes per day loading and discharge.

Commercial Quay: 2 fixed cranes and 1 mobile crane with a capacity of 1,000 tonnes per day. Priority to regular lines.

MEDICAL: In case of accident or illness of any member of crew medical assistance and hospitalisation will be in civil hospital.

DENSITY: 1028.5.

FRESH WATER: Available. 4 points on the Container Quay and 7 points on the Commercial Quay.

FUEL: Available from CLH at Cala Figueras.

CONSULS: Italy: Tel: 363393; France: Tel: 363889; Netherlands: Tel: 362703.

REPAIRS: Small repairs possible.

OPENING/CLOSING HATCHES: Carried out by crew before 0800 hrs.

AIRPORT: 5 km. from Mahon – international and national flights.

TIME: GMT plus 1 hour from September to March, and 2 hours from March to September.

HOLIDAYS: Main holidays are: 1st January (New Year), Holy Week (variable), 1st May (Labour Day) Corpus Christi (variable), 24th June - National Holiday, 8th September, local holiday, 25th December - Christmas. Work is possible on all these dates provided the labour force is paid extra.

POLICE/AMBULANCE/FIRE: Police: Tel: 36.37.12; Ambulance: Tel: 36.11.80; Fire Brigade: Tel: 36.39.61.

TELEPHONES: No telephones on the Quays.

IDENTIFICATION CARDS: Not required.

AUTHORITY: Comandancia Militar de Marina de Menorca, Anden de Levante 12, Mahon, Menorca, Spain. *Tel:* 364107. *Contact:* Ricardo J. Ruiz de Gopegui y Sendagorta, Comandante.

MALAGA: 36.43 N. 04.25 W. (See Plan)

DOCUMENTS

5 Crew Lists.

5 Passenger Lists or Negative.

1 Cargo Manifest of goods destined to Malaga, as well as of other cargoes in transit.

Stores List in duplicate, including tobacco, spirits, radios, etc. belonging to vessel.

Details list in duplicate of all personal effects of the crew and Passengers (tobacco, spirits, cameras, radios, etc.). For vessels larger than 499 g.r.t., Safety Equipment Certificate.

Note: Tobacco: In case vessel carries more than 6 kilos of tobacco per man, the excess must be declared in a separate manifest, which must be visaed by Spanish Consul. In absence of Consul, said document will have to be visaed by an Authority or Consul of a friendly nation at the time of the former port clearance. Otherwise, vessel may be severely fined.

PILOTAGE: Pilotage is compulsory and service is permanent. Pilots board vessel by cutter in roads, near entrance formed by 2 breakwaters. Pilot cutters are painted black and have letter "P" in white on each bow. Cutters have a blue flag hoisted on mast, with the letter "P" in white on both sides of flag. At night, cutters have white light, and under this light, a red one. Entrance between breakwaters is 260 m. wide and easily accessible. When weather in the roads is bad, which seldom happens vessels approach as close as possible to entrance in order that Pilot can board easily.

ANCHORAGES: Vessels can anchor outside of breakwaters, in roads in depths of 80 ft. – 90 ft. Anchoring is prohibited in vicinity of tanker moorings, the Pilot will advise best position. Weather is bad occasional when East wind blows, during Winter.

MAX. SIZE: No restrictions in respect of breadth. Max. allowed leng is 220 m. – 240 m. Max. allowed draft to enter port is 40 ft. – 42 ft.

The tanker sealine berth (in roads) can accept vessels up 250,000 d.w.t.

Largest tanker at buoy mooring "Liotina", 317,521 d.w.t., leng 352 m., draft on entering or leaving 22 m.

HEALTH: If vessels proceed directly to berth, Pratique can be obtain immediately after berthing. In case of any suspected disease or fe on board, Master must radio to Agents, in order that they can adv Health Office.

RADIO: Nearest important radio station is Radio Costera (VHF – On Media) Cadiz, or Gibraltar and Aranjuez. Master's messages should received at least 24 hours before arrival.

TUGS: 1×1,050 h.p., 1×1,200 h.p., 1×1,500 h.p. and 1×1,800 h Ship's lines are used, tug-boats are employed according to Pilot's adv and upon request.

BERTHING: Pilots will advise Masters whether vessel has a free berth or not. Also if she has to anchor in Roads. Further particulars can also be obtained from Pilot.

Quay No.	*Length* (m.)	*Depth* (m.)	*Usage*
East	300	11.0	Passenger Cruises.
1A	472	9.4	General Cargo, Containers, Cruise vessels.
1B	99	8.0	General Cargo.
2	450	10.5	Bulk grain berth, Cruises.
3A	150	9.0	General Cargo, Passengers and Ferries.
3B	180	10.5	General Cargo, Passengers and Ferries.
3C	170	8.5	General Cargo, Passengers and Ferries.
4	455	8.0	General Cargo, Ro-Ro.
5	101	6.5	General Cargo, Ro-Ro.
6A	80	6.5	Coal Terminal, Container, Ro-Ro.
6B	400	11.0	Coal Terminal, Container, Ro-Ro, Tanker.
7	363	13.5	Tanker/Dangerous goods.
8	240	13.5	Operated by ENCS to offload crude oil for the Refinery.

CRANES: 17 quay cranes with capacity up to 30 tons.

SPECIALISED CARGO HANDLING FACILITIES: There are regular car ferries for passengers and cargo, Ro/Ro plying with Melilla.

At Quay No. 1, 20 ft. containers can be handled with a crane up to 30 tons and a Hyster forklift with appropriate spreader. Eventually 30 ft. containers will also be handled.

Quay No. 2 includes 15,000 ton silo for grain.

Quay No. 4 includes 9 vegetable oil tanks with a total capacity of 5,782 cu.m.

Quay No. 6 includes a 5,000 ton silo for cement. Unloading capacity 60 t.p.h. – 200 t.p.h.

Quay No. 7 (Foreport) includes 3,312 cu.m. for vegetable oils.

Quays No. 6 and 7 can handle all cargo in bulk, rate for coal 4,000 tonnes per day, in an ordinary working day.

There are 24×4 ton forklifts available for general cargo handling and 3 forklifts (25 tons – 28 tons) for container handling.

STEVEDORES: It is important that Master sends advance message regarding the vessel's ETA. Agents can inform Shippers or Receivers' stevedores accordingly, to arrange operations properly. Official working hours of port are: Monday/Saturday 0800 – 1200, 1400 – 1800 hrs.

MEDICAL: Any kind of medical service can be arranged. In case a crew member needs medical attendance urgently, it is advisable that the Master radio in advance.

TANKERS: *Quays No. 4, 6 and 7:* Operator: Demagrisa. Crude oil and caustic soda discharge pipeline – 250 t.p.h. Refined oil discharge pipeline – 300 t.p.h. Storage capacity 5,782 cu.m.

Operator: Sociedad Anonima Cros. 4 lines for naphtha discharge. Rate 210 t.p.h.

Operator: Repsol. Quay No. 7: Discharge lines for crude oil. Rate 1,500 t.p.h.

Western Jetty: Crude oil pipeline, diameter 24 in. with 2 discharge arms and 1 spare. Discharge capacity 2,000 – 2,500 t.p.h.

Operator: C.L.H. (Quays No. 6 and 7) Discharging and loading pipe for crude oil by-products with 4 inlet valves on each wharf, with 800 t.p.h. discharging capacity.

Wharf adjoining the Western Jetty: 1×14 in. and 3×12 in. discharging and loading pipes for crude oil by-products, with 2 inlet valves and a discharging arm, and 1,000 cu.m./hr. capacity.

Operator: Transcemasa, vegetable oil pipeline, discharging capacity 150 t.p.h., storage capacity 3,312 cu.m.

Playa Misericordia: Operator: Repsol Petroleo. Sea-line for discharging tankers up to 250,000 d.w.t. Max. discharge rate 6,000 t.p.h. through 1×30 in. pipeline.

Operator: Repsol Butano. Sea-line for butane which also handles propane. Max. discharge rate 300 t.p.h.

Operator: Sociedad Anonima Cros. Ammonia pipeline for discharging tankers up to 17,500 d.w.t. through 1×8 in. line. Discharge rate 200 t.p.h.

DENSITY: 1025.

FRESH WATER: Always available. Deliveries are performed directly from the quay, rate 20 t.p.h., or by tank-barge.

FUEL: Ordinary fuel oil and gas oil are available at local refinery of C.L.H. It is advisable that Shipowners contract bunkers through their own contractors, with 48 hours notice, so that order can be received in time. Delivery can be performed at bunkering pier at a rate of 60 t.p.h. or by road tankers.

FIRE PRECAUTIONS: Tankers perform their operations at the petroleum berth by Repsol or C.L.H. which have necessary fire precautions.

CONSULS:

	Tel:		*Tel:*
Austria	2443952	Iceland	2221739
Belgium	2219640	Ireland	2475108
Bolivia	2472569	Italy	2306150
Brazil	2211069	Liberia	2213284
Canada	2223346	Monaco	2212942
Chile	2224426	Morocco	2329962/50
Colombia	2219181	Netherlands	2279954
Costa Rica	2476399	Norway	2210331/2224340
Denmark	2226371	Panama	2290594
Dominican Republic	2228712	Philippines	2222757
Ecuador	2218351	Saudi Arabia	2277450
Finland	2212435	Sweden	2215662/8
France	2226590/2214888	Switzerland	2217266
Germany	2227866	United Kingdom	2217571
Greece	2313591	U.S.A.	2474891
Guatemala	2222397	Zaire	2776187
Haiti	2222205		

REPAIRS: Facilities of a limited nature.

DRY DOCKS: There is a floating dock for vessels up to 4,000 tons.

SURVEYORS: Lloyd's Register, Tel: 225473; S.G. Control of Spain, Tel: 227748.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: This work normally effected by crew, except in liner vessels, which is contracted by stevedores.

CERTIFICATES: Vessels should have the usual documents on board.

CUSTOMS ALLOWANCES: Normally, customs permit 200 cigarettes per man out of bond. 1 bottle of spirit for each crew member.

CARGO GEAR: Usually shore cranes of 2-3-6-12-15-30 tons lifting capacity employed in loading or discharging operations, if vessels require any lightening then vessel derricks are employed.

REPATRIATION: Good facilities.

AIRPORT: The airport is about 8 km. from town. Daily services with Madrid, Barcelona, Seville, Valencia, Tangier and Melilla. Also direct flights to London, Paris, Amsterdam, Brussels, Frankfurt, Stockholm, Helsinki, Geneva, Zurich and Nice.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: 1st January; 6th January; Good Thursday; Good Friday; Labour Day (1st May); 15th August; 8th September; 12th October; 1st November; 8th and 25th December.

POLICE/AMBULANCE/FIRE: Police, Tel: 211302 and 091, 215005. Ambulance, Tel: 390400, 215121, 224400. Fire, Tel: 234567.

IDENTIFICATION CARDS: Not required.

AUTHORITY: Autoridad Portuaria de Malaga, Muelle de Canovas, 29001 Malaga, Spain. *Tel:* 95-2210595. *Telex:* 77536 JPMA. *FAX:* 95-2119589. *Contact:* Port Director.

MARIN: 42.24 N. 08.42 W. (See Plan)

DOCUMENTS:

4 Crew Lists.
1 Health Certificate.
2 Stores Lists.
2 Cargo Manifests.
2 Crew Manifests.
Document TC-12 (*)

(*) For vessels carrying cargo between European Ports (E.U.).

PILOTAGE: Compulsory (Tel: 908881730 and 986-884643). Pilot on VHF Channels 12 and 16.

Marin Pilot Station: 1.5 miles from Marin Port (position Lat. 42° 23.7' N., Long. 08° 44' W.).

Off Limits Pilot Station: Along parallel 42° 22' N., between the meridians 08° 47' W. and 08° 55' W.

Pilot requires one hour prior notice of arrival, by VHF.

MAX. SIZE: Max. draft 39 ft. at MLW, tidal variation 3.8 m.

RADIO: Send ETA through Vigo Radio (Cangas Radio) or local Agent.

TUGS: 2 tugs available.

BERTHING:

General Cargo Berths and Bulk Cargo Berths:

Berth	*Length* (m.)	*Draft* (ft.)	*Cranes*
Nuevo Comercial (12 m.)	242	39	2×16 tonnes 1×16/30 tonnes
Nuevo Comercial (9 m.)	160	27	—
Commercial Oeste	154	23	—
Commercial Oeste	208	18	—
Commercial Oeste	29	18	—
Commercial Este	154	23	1×30 tonnes
Commercial Este	303	18	4/6 tonnes
Commercial Este	140	16	2×3/6 tonnes
Muelle Reparaciones	458	14/19	—
Muelle Pesquero Norte	380	21	—
Muelle Pesquero Este	160	21/13	—
Muelle Pesquero Sur	339	13	—

STEVEDORES: Normal Working Hours: 0900 – 1300 and 1500 – 1800 hrs.

MEDICAL: Services available.

TANKERS: Max. LOA 100 m., draft 21 ft. No dirty ballast facilities.

Reception facilities for waste water (MARPOL).

DENSITY: 1025.

FRESH WATER: Available.

FUEL: Available (Repsol).

CONSULS: At Vigo (30 km. by road).

REPAIRS: Possible.

DRY DOCKS: Up to 3,000 tons.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits per crew member.

REPATRIATION: Possible.

AIRPORT: Vigo (30 km.) and Santiago de Compostela (60 km.).

HOLIDAYS: National holidays plus 16th July (Virgin del Carmen) and 8th September (Virgin del Puerto).

AUTHORITY: Capitan Maritimo, Avenida de Orense s/n., Marin, Spain. *Tel:* (986) 881176.

Autoridad Portuaria de Marin – Pontevedra, Las Corbaceiras s/n., 36002 Pontevedra. Post address – Apartado 8, 36080 Pontevedra. *Tel:* (986) 855200, 855611. *FAX:* (986) 840193. *Contact:* Antonio Martin Oliver, Port Director.

MELILLA: 35.18 N. 02.57 W. (See Plan)

SHIPMASTER'S REPORT: Though geographically situated in Morocco it is a territory of Spain and the Spanish flag should be hoisted. VHF Channel 16 for Pilots, berthing day or night. A new port adjoining Melilla is being constructed but this is in Morocco (See "Port Nador").

DOCUMENTS:

Health Declaration.
4 Cargo Manifests.
2 Stores List.
5 Crew Lists.
5 Passenger Lists.

PILOTAGE: Compulsory for vessels over 50 tons. ETA to Agent required at least 10 hours before arrival to arrange Pilot. Pilot boards at anchorage near port entrance. International code signals used.

ANCHORAGE: Half a mile East of port entrance, in depths of 14 m. to 20 m.

RESTRICTIONS: Entrance normally in daylight only. In case of emergency vessel may enter at night.

MAX. SIZE: Up to 30 ft. draft.

HEALTH: Pratique obtained immediately after berthing when vessel boarded by health officials.

TUGS: 2 tugs, 1,750 h.p.and 650 h.p., available.

BERTHING:

Quay	*Berth No.*	*Depth (m.)*	*Cranes*	*Remarks*
Muelle Nordeste No. 1	F.1	6.0	—	Ro/Ro
Muelle Nordeste No. 2	AD.1	10.0	—	Ro/Ro and Bulk Liquids
Muelle Nordeste No. 3	CD.1 D.5	10.0	2×6 tons	Bulk and General, 2 Cement Silos
Espigon No. 1	D.2	7.0	—	General Cargo
Espigon No. 2	D.3	7.8	—	General Cargo
Espigon No. 3	D.4	9.0	—	General Cargo
Muelle Ribera No. 1	1-4 D.1	5.7	1×30 tons	General Cargo and Fish
Muelle Ribera No. 2	DH.1	6.0	—	Passengers
Cargadero Mineral		8.3	—	Ore loading berth

MEDICAL: Doctors and hospital facilities available. Vaccinations can be arranged.

FRESH WATER: Available at all quays.

FUEL: Available subject to advance notice.

CONSULS: France and Italy are represented locally.

REPAIRS: All types of engine and hull repairs can be effected for smaller vessels.

GANGWAY/DECK WATCHMEN: Available. Consignee Agents have their own watchmen for goods on the quay.

OPENING/CLOSING HATCHES: This work is carried out by stevedores.

CUSTOMS ALLOWANCES: Crew allowed normal daily consumption of tobacco, wine and spirits.

REPATRIATION: All facilities available.

AIRPORT: Situated 1 km. from the city. 3 daily flights to Malaga and 1 daily flight to Almeria, except Tuesday and Thursday.

HOLIDAYS: 1st January, 6th January, 19th March, Maundy Thursday, Good Friday, 1st May, Ascension Day, Corpus Christi, 29th June, 18th July, 25th July, 15th August, 8th September, 12th October, 1st November, 8th December, Christmas Day. Work may be arranged on all holidays except Good Friday.

POLICE/FIRE/AMBULANCE: Police, tel: 681183 or 681238; Fire, tel: 681693; Ambulance, tel. 681376.

TELEPHONES: It is possible to arrange for a telephone to be placed on board.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Required.

AUTHORITY: Junta del Puerto de Melilla, Avenida del Tte. Garcia Valino No. 2, Melilla. *Tel:* 681340. *Telex:* 77492 JPME E. *Contact:* The Port Director.

MOTRIL: 36.43 N. 03.30 W. (See Plan)

DOCUMENTS:

Health Certificate.
5 Passenger Manifests (1 Health, 2 Customs, 1 Police, 1 Agent).
4 Crew Manifests (1 Health, 2 Customs, 1 Agent).
2 Stores Lists (for Customs).

PILOTAGE: Arranged by Agent basis ETA given 24 hours in advance. pilot boat distinguished by painted "P". Night pilotage possible approx. 100% extra, on holidays 50% extra. Vessels await Pilot just outside port. Pilot compulsory for all foreign vessels and Spanish vessels arriving from abroad. Pilot should be requested when 1 mile from the port by means of international signals.

ANCHORAGES: Area near port. The Roads to the East of the port have very little depth. The sea is rough in this area and vessels can run the serious risk of beaching. The best location for anchorage is outside the port 0.25 miles S.S.W. from the port entrance, in 14 m. to 25 m. of water, mud bottom.

RESTRICTIONS: None, vessels may enter day or night.

MAX. SIZE: Entrance 34 ft. at LWS. Max. draft alongside quays, 34 ft.

HEALTH: Free Pratique given on board.

RADIO: Harbour tugboats and pilot operate on VHF Channel 12.

TUGS: One tug, 1,100 h.p. available.

BERTHING: There is 583 m. of quayage with a depth of 8.2 m. (27 ft.) at LWS; 107 m. of quayage with a depth of 6.4 m. (21 ft.) at LWS; 260 m. with a depth of 10.5 m. (34 ft.) at LWS.

CRANES: There are 5 electric cranes of 6 tons capacity; 2 electric cranes of 12 tons capacity and one mobile crane of 3 tons capacity.

BULK CARGO FACILITIES: Muelle de Levante: 285 m. length. Max. draft 8.2 m. (27 ft.) at LWS. Three cranes 6 ton capacity for handling bulk cargoes (grain, ore, coal, fertilisers, etc.). Loading/discharge rates: 300 t.p.h. One crane 3.5 tons to 6 tons for handling general cargoes.

Muelle de Poniente No. 1: 107 m. length. Max. draft 6.4 m. (21 ft.) at LWS.

Muelle de Poniente No. 2: 260 m. length. Max. draft 10.5 m. (34 ft.) at LWS. 2 cranes of 12 tons capacity.

Muelle de Costa: 298 m. length. Max. draft 8.2 m. (27 ft.) at LWS. Two cranes of 6 tons for handling general cargoes.

SPECIALISED CARGO HANDLING FACILITIES: Muelle de Poniente equipped for handling liquid chemicals and asphalt, by lines.

Ro/Ro Berths: 2 Ro/Ro berths at Muelle de Costa and 1 Ro/Ro berth at Muelle de Levante.

STEVEDORES: No ETA advice necessary. Agents arrange gangs.

MEDICAL: No advance notice required. All facilities available.

TANKERS: Vessel about 8,000 tons. No special requirements.

DENSITY: 1025.

FRESH WATER: Available alongside all quays.

FUEL: Gas oil available at Muelle de Levante. Rates of delivery: 200 t.p.h.

CONSULS: None in Motril. The nearest at Granada or Malaga.

REPAIRS: Minor repairs can be affected. There is a slipway for vessels up to 150 tons.

GANGWAY/DECK WATCHMEN: Agent arranges.

OPENING/CLOSING HATCHES: Crew open and close hatches.

CUSTOMS ALLOWANCES: Tobacco: About 100 cigarettes per man. Wine and or spirit. None.

REPATRIATION: Facilities available.

AIRPORT: The nearest airports are Malaga 105 km., Granada 70 km.and Almeria 120 km.

TIME: Local time GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day (January 1st), Epiphany Day (January 6th), Vote Day (January 13th), Maundy Thursday, Good Friday, Wort's Day (May 1st), Santiago Day (July 25th), Assumption Day (August 15th), Pilar's Day (October 12th), Local Holiday (October 15th), Immaculate's Day (December 12th) and Christmas Day (December 25th).

Work can be arranged on above days, however dependent upon permission of the Work Authority.

POLICE/AMBULANCE/FIRE: Police Tel: 601221. Ambulance Tel: 600200. Fire Tel: 600200.

TELEPHONES: No facilities for placing telephones on board.

SHORE LEAVE: Crew members are allowed ashore.

IDENTIFICATION CARDS: Not necessary.

AUTHORITY: Autoridad Portuaria de Almeria – Motril, Direccion del Puerto, Recinto Portuario, 18600 Motril (Granada), Spain. *Tel:* (958) 601207, 601238. *FAX:* (958) 601234. *Contact:* Julian Maganto Lopez, Port Director.

PALAMOS: 41.50 N. 03.08 E. (See Plan)

DOCUMENTS:

3 Crew Lists.
1 Passenger List or negative.
Manifest of goods destination Palamos and in transit.
Stores List in duplicate, including tobacco, spirits, radios, etc. belonging to vessel.
Detailed list in duplicate of all personal effects of crew and passengers (Tobacco, spirits, camera, radios, etc.).

Tobacco – any excess over 6 kilos per person must be stated on a separate manifest duly visaed by Spanish Consul.

If on inspection differences are found (more or less), articles removed and heavy fine imposed.

PILOTAGE: Pilotage is compulsory and service is permanent. Pilot is informed by Agent of vessel's ETA given 24 hours in advance. When vessels approach the breakwater, Pilot will board. Pilot boat is white with a black "P" painted on the side.

RESTRICTIONS: None but for draft. Vessels carrying dangerous cargo should get authorisation for berthing prior to arrival of the ship.

MAX. SIZE: No restrictions in respect of length. Max. draft 14.0 m.

HEALTH: Pratique is obtained immediately after berthing. In case of suspected disease or fever on board the Master must radio to Agent in order inform Health Office in time.

RADIO: Radio Costera of Barcelona, Bagur or Marmella.

VHF: Contact Pilot Station on Channel 9.

TUGS: None. Barcelona's tugs could be hired should the vessel's si make it necessary.

BERTHING: Depth of water in centre of harbour 15.0 m. – 20.0 m.

Commercial Quay: Length 258 m., depth 14.0 m. Ro-Ro ramp at Easte end with width 30 m. for ships with max. draft 12.0 m.

West Quay: Length 150 m., depth 7.0 m.

CRANES: 1×6 ton quay crane and 2×150 ton mobile cranes.

STEVEDORES: 24 hours' notice required in order to arrange gangs.

MEDICAL: Any kind of medical service can be arranged if informati received in time.

FRESH WATER: Plentiful supply of water by means of hoses from t pier to vessel. Maximum rate 100 cu.m./hr.

FUEL: Can be supplied. 24 hours' advance notice required.

CONSULS:

France	Tel: 314472	Portugal	Tel: 320148
Denmark	Tel: 314400	Sweden	Tel: 320850
Italy	Tel: 320200		

REPAIRS: Only small repairs.
SURVEYORS: Comisariado Espanol Maritimo – "Comismar". Tel: 210610, 215666.
GANGWAY/DECK WATCHMEN: It is not compulsory but advisable at night.
OPENING/CLOSING HATCHES: Normally opened/closed by the crew, otherwise according to Charter Party.
CERTIFICATES: Usual documents on board. Safety Wireless, Safety Equipment, Derat and Registered Tonnage Certificates are the only ones required by the Authorities.
CUSTOMS ALLOWANCES: Crew: 6 kilos tobacco per person. Passengers: 2 kilos per person. Any excess on this amount must be declared on a separate Manifest as in transit. Wine and/or Spirit: only 1 bottle per man. Any excess must be declared on a separate Manifest, as cargo in transit and stowed apart from the tobacco and spirits carried under the Provisions List. This Manifest must be visaed by the Spanish Consul at the last port of call. Any infringement of this regulation will subject the vessel to the immediate imposition of heavy fines and confiscation of the excess tobacco.
REPATRIATION: Good facilities exist.
AIRPORT: Gerona Airport situated at 42 km. distance and half an hour by car from Palamos. Regular flight services with Madrid, Barcelona, Palma Mallorca, London, and all over the world with transfer at Madrid and/or Barcelona.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer (March-September).
HOLIDAYS: 11th September.
POLICE/AMBULANCE/FIRE: Police 31 41 87; Ambulance 31 43 50; Fire 31 43 50.
IDENTIFICATION CARDS: Not required.
DEVELOPMENTS: The container yard is to be enlarged in the near future.
AUTHORITY: Ayudante Militar de Marina, Ayudantia Militar de Marina, Palamos (Gerona – Spain). *Tel:* 314070. *Cables:* Ayundante Marina Palamos.

Comissio de Ports de Catalunya, Doctor Roux 63, 08017 Barcelona, Spain. *Tel:* (93) 2041600. *FAX:* (93) 2054806.

Comissio de Ports de Catalunya, Zona Portuaria 1, Pg. General Mendoza 7-T, 17002 Gerona, Spain. *Tel:* (972) 201427. *FAX:* (972) 206856.

PALMA, Majorca: 39.34 N. 02.38 E. (See Plan)

PORT LIMITS: The seaward boundaries in order to pay port dues are constituted by a line between Cap Enderrocat and Punta de Cala Figuera.
DOCUMENTS: To be presented by Spanish registered ships in coastal trade:
Role of Navigation.
Crew List (on entering).
Crew List (on leaving).
Passenger List (if any).
General Declaration.
List of Goods (if any).
Health documents from port of origin.
Declaration of Coastal trade goods under fiscal dues (if any).
Application for berthing or port facilities.

To be presented by Spanish or foreign registered ships arriving from overseas:
Role of Navigation.
Crew List (on entering).
Crew List (on leaving).
List of Solework.
List of ship provisions.
Manifest of Goods (if any).
Health documents from port of origin.
Passenger List (if any).
Declaration of passengers (if any).
Application for berthing or port facilities.

PILOTAGE: Can be requested by VHF Channel 16, by telegram via coastal stations or by an agent to the following address: Camino de la Escollera 19; or by telephone No. 711937 with 2 hours advance notice of ETA.

Pilot boats are located in Consigna Jetty. The boats are painted white with the letter "P" painted in black on each bow or painted in black with the letter "P" painted in white on each bow. The ship should show the "H" flag of the International Code of Signals and should make by light signal the letter "G" of the Morse code. The pilot boat will board the ship in the Pilotage area. If the Pilot boat is unable to reach the ship in this area, it will meet the ship at the entrance to the port. Whilst waiting for the pilot, ships may anchor in the anchoring zone (See "Plan").
ANCHORAGE: West of a line joining Punta de Cala Figuera and Isla de Sa Torre (See"Plan").
RESTRICTIONS: No restrictions are imposed upon entry.
MAX. SIZE: Greatest length of vessel entered: 293.53 m. (Queen Elizabeth), greatest draft of vessel entered: 14.56 m. (Castillo de Salas). No appreciable tides.
HEALTH: If it should be suspected or be known that there is any disease on board, the pilot should be informed, and the ship will be visited by a representative of the Exterior Health Authority accompanied by a Doctor. If the disease is confirmed, the ship will remain at anchor in the area which has been allocated to her, i.e. the quarantine area.
VHF: All communications must be initiated on VHF Channel 16, after which instructions will be given as to which channel will be used.
TUGS: There are 2 tugs in service for ships in the port: the "Manacor" of 825 h.p. and the "Remolcanosa 20" of 1,740 h.p., property of Compania Remolcanosa. There is no minimum tug requirement. The tug will meet the ship at the entrance to the port. The ship's own lines will be used.
BERTHING: There are 2,253 m. of piers and quays with depths between 11 m. and 3 m. in the Eastern docks (Darsenas Comerciales) and 3,176 m. with depth between 12 m. and 4 m. in the Western docks (Darsena de Porto Pi), both for commercial traffic. Four fixed ramps for Ro-Ro vessels are available in Eastern docks and 5 (fixed) 25 tonnes ramps for Ro-Ro vessels and Ferry Terminal are available in Western Docks.
CRANES:
Ribera de S. Carlos: 2×6 tonnes.
Ampliacion Muelle Poniente: 2×6 tonnes.
Prolongacion Muelle Adosado: 1×28 tonnes.
Prolongacion Muelle Nuevo: 2×28 tonnes.
Espigon Exterior: 1×5 tonnes.
Testero Muelles Comerciales: 1×28 tonnes.

STEVEDORES: Contact the following private stevedoring companies:

Transmediterranea S.A., Estacion Maritima 2, Muelle de Paraires, 07015 Palma de Mallorca. Tel: 40 50 14. Fax: 70 06 11.

Transbalear S.A., Muelle Viejo S/N, 07012 Palma de Mallorca. Tel: 72 02 67, 72 37 04.

Iscomar S.A., Prolongacion Muelle Adosado S/N, 07012 Palma de Mallorca. Tel: 72 66 70.

Herederos de Pedro J. Pujol C.B., Muelle Ribera de San Carlos, 07015 Palma de Mallorca. Tel: 40 28 34.

MEDICAL: Medical attention may be obtained by a request via the pilots. There is no hospital in the Port. If dental attention is necessary, it should be requested from the Agent. Vaccinating, when necessary, will be done by the Exterior Health authorities. It is not possible to take vaccination doses away.
TANKERS: The diameter of the connections are 8 in. It is necessary to fit reducing pieces if the ship's lines are not of this diameter. Tank cleaning can be carried out in the Port. Discharge rate is 200 cu.m.p.h. – 300 cu.m.p.h.

Load/discharge lines for tankers are situated at the outer end of Dique del Oest (West Pier) at the new bulk liquids terminal of C.L.H., S.A.
DENSITY: 1028.
FRESH WATER: Available at most quays. A special request form has to be filled in at the Harbour Master's Office for this service.
FUEL: Official supplier is C.L.H., S.A. Direct quay-vessel delivery is available in Muelle de Peraires Quay. In the rest of the harbour a tanker lorry is used. Advance notice required.
FIRE PRECAUTIONS: The quay must be closed off with barriers between the bow and stern of the ship and to the point from which the connection is made. Smoking, lighting of fires, using lights or running of unprotected engines if forbidden in the enclosed area. Ships should check the Shore Check List for emergency procedures, fire fighting equipment, lighting and electronic equipment, etc.
CONSULS:
Austria: Paseo Mallorca 14 A-5°, Tel.710145.
Belgium: Paseo del Borne 15-1°, Puerta C, Tel.724786.
Bolivia: Gremio Toneleros. Edif. Sol. Polig. La Victoria, Tel.298966.
Colombia: Almicar 1, El Arenal, Tel.264165.
Denmark: Carrer de L'Unio 2-1°, Tel.727857.
Dominican Republic: Plaza Santa Payesa 3. Pral. 3°, Tel.750776.
Finland: Muelle Viejo 7, Tel.726142.
France: Avda. Argentina 45-1° A., Tel.230301.
Germany: Paseo del Borne 15-6°, Tel.722997.
Greece: Santo Domingo 8, Tel.712221.
Honduras: Bonaire 12, Tel.726783.
Iceland: Via Alemania 2, Edif.Torre Mallorca, Tel.752115.
Italy: Pasaje Juan XXIII 3, 3 entlo. 2°-2a, Tel.724214.
Luxemborg: Avda. Rey Jaime III 27, Tel.716212.
Monaco: Andrea Doria 11-4°, Tel.284087.
Netherlands: Via Punica 2 Pral. bajos., Tel.300450.
Norway: Juan Alcover 54, Tel.460054.
Peru: Piedad 8, Tel.715395.
Portugal: Via Sindicato 42-2°, Tel,711213.
Sweden: Puigdorfila 1, entresuelo, Tel.722713.
Switzerland: Paseo Mallorca 24, Tel.712520.
United Kingdom: Avda. Rey Jaime III 5-1°, Tel.712085.
United States of America: Avda. Rey Jaime III 26, Tel.722660.
Uruguay: Jose Rover Motta 9, Tel.461038.

REPAIRS: Only possible to handle 2,000 ton vessels in the shipyard of "Astilleros Mallorca".
DRY DOCKS: A 250 ton floating unit for yachts is available in "Astilleros Mallorca".
SURVEYORS: Surveyors from Lloyd's Register and Bureau Veritas can be contacted in the area through the Agent Miguel Puigserver S.A. and by Compania Britannia S.A. and TNI. These companies can be contacted via the Customs Agency Schembri S.A. In cases where the ship is insured by another company, refer to Lloyd's Register.
HATCHES: Opening/closing is usually carried out by crew.
CUSTOMS ALLOWANCES: It is forbidden for the crew members to remove from the ship any quantity of tobacco or alcoholic beverages. Passengers may take away 200 cigarettes, one bottle of alcoholic liquor and one bottle of perfume, with contents not greater than 200 gm.
CARGO GEAR: Loading and discharging normally is carried out using the port's equipment.
AIRPORT: Palma Airport is 14 km. from the port. Regular flights to the principal cities of Europe and the most important airports of Spain.
TIME: In Autumn and Winter local time is GMT plus 1 hour and during Spring and Summer GMT plus 2 hours. Change of time is at 0200 hrs. of the Sunday after the change of the season (Late March – Late September).
HOLIDAYS: The usual holidays at Christmas and Easter and others depending on the yearly Government rules. No cargo work can be arranged on those days.

Local Holidays: 1st January (Epiphany); 20th January (St.Sebastian); at Easter: Good Friday and Monday after Easter; 1st May (Labour Day); 25th July (St.James); 15th August (Assumption Of Our Lady); 12th October (Columbus Day); 1st November (All Saints Day); 6th December (Constitution Anniversary); 8th December (Immaculate Conception); 25th and 26th December (Christmas).

POLICE/AMBULANCE/FIRE: The telephones of the respective headquarters are as follows: Police 091; Ambulance 200706 and 270770; Insalud Hospital 061; Fire Brigade 080.
Emergencies: Red Cross of the Sea. Tel: 295000, 202222. Coast Guard 900-202-202; M.R.C.C.: VHF Channels 16 and 10; Weather: 403511, 906-365307.
TELEPHONES: Telephones can be installed on board ships at Dique del Oeste and Muelle de la Ribera de San Carlos. Cost is 19,800 Pts. per telephone plus the cost of any calls.
SERVICES: The Company Naturaser, located in the Dique del Oeste, Estacion Maritima No.5, can carry out the collection of dirty water produced by tank cleaning, bilge cleaning and fuel slops. It also has equipment necessary to clean tanks. It is possible to adjust compasses and to repair radios and radar.
BANKS:

Banco Espano de Credito, Jaime II 17 A, Tel.72.49.77.
Banco Atlantico, Gran Via Asima 15, Tel.20.50.04.
Banco Central, Avda. Juan March 8, Tel.29.88.00.
Banco de Bilbao, Plaza Virgen de la Salud 1, Tel.71.52.44.
Banco de Santander, Avda. A.Rossello 11, Tel.71.70.20.
Banco de Vizcaya, Plaza Olivar, s/n. Tel.72.37.42
Banco Exterior de Espana, Pl. Espana 11, Tel.72.60.63.
Banco Hispano Americano, Avda. Juan March 5, Tel.72.75.97.
Bankinter, Sindicato 65, Tel.72.54.04.
Barclay's Bank S.A., Avda. Alejandro Rossello 15, Tel.72.75.82.

STORING: See "Prelims".

1. Vessel can be stored by barge or truck.
2. Regulations concerning storing by barge, such storing must not interfere with loading/unloading operations.
3. Trucks can proceed alongside at the berth.
4. Fork lift trucks can be used on the jetty to handle stores.
5. Customs will take whatever action they consider necessary in each case.
6. Local Riggers can be employed to assist with storing.

SHORE LEAVE: Crew members are allowed ashore.
IDENTIFICATION CARDS: No special identification is required. At times ships may supply their own identification cards.
GARBAGE DISPOSAL: Collection service available with drums and containers provided on board or alongside. Contact Naturaserv S.A. Tel: 400408/400561. Charges 20,000 Ptas per 5 cu.m.
WASTE OIL DISPOSAL: Collection service available. Contact Servmar Balear S.L. Tel: 400561/400408. Fax: 402499. Charges 8,000 Ptas/ton. 24 hour service. Suction system and international couplings available.
SEAMAN'S CLUBS: None.
CURRENCY: Spanish Pesetas (Pta).
REGULATIONS: There are special Port Regulations for the land and sea areas. They are printed in a a booklet available in Spanish and English at the Port Authority office (Muelle Viejo No.3).
DELAYS: Delays are not normally expected.
GENERAL: *Ship Brokers:*

Agencia Schembri S.L., Plaza Lonja 1, Tel.72.71.41, Telex 68556.
Hijos de Miguel Estela S.A., Antonio Maura 28A, Tel.72.39.35, Telex 68537.
Miguel Puigserver Mulet, Antonio Maura 26, Tel.71.53.03, Telex 68589.
Transbalear, 17 de Julio s/n., Tel.29.69.00, Telex 68665.

Insurance Companies:

La Union y el Fenix Espanol, Jose Anselmo Clave 2, Tel.71.59.80.
Hispania S.A., Avda. Alejandro Rossello 25, Tel.71.23.37.
Mare Nostrum S.A., Via Roma 3, Tel.71.28.00.
Phoenix Latino S.A., Paseo Maritimo 6, Edif.Tropic., Tel.28.71.00.
Mapfre Mutualidad de Seguros, Jose A.Clave 8, Tel.71.28.46.
Finisterre S.A., Pasaje M.Antonio Torrandell 2, Tel.72.23.45.
Adriatica de Seguros, Plaza Mayor 1, Tel.71.57.50.

Average Adjusters: Comisario Espanol Maritimo. Fco. Rossello Rosinol. Son Dameto de Baix. Comite Central de Asegurados Maritimos de Francia. Jaime Ferra Gisbert. Amilcar 1-8°, El Arenal. Tel.26.63.76.
Maritime and Customs Agents:

Jose Pons Llabres, Gremio de Transportes 2, Tel.29.60.00.
Jaime Moranta Bestard, Marina 2, Tel.71.04.47.
Miguel Puigserver Mulet, Avda. Antonio Maura 26, Tel.71.53.03, Telex 68589.
Jose Estela Salom, Avda. Antonio Maura 30, Tel.71.15.26, Telex 68537.
Jaime Oliver Aymerich, Rafaletas 1, Tel.40.06.11.
Naviera Mallorquina, S.A., Muelle Viejo 11, Tel.72.66.42, Telex 68548.

Stevedores:

Contenemar S.A., Muelles Comerciales, Tel.40.01.12, Telex 68683.
Transmediterranea S.A., Muelle Viejo 5, Tel.72.75.24, Telex 68555.

Repair and Maintenance

Hispano Radio Maritima, Avda. Argentina 45, Tel.28.11.68.
Frigorificos Cofrisa, Teniente Oyaga 15, Tel.29.14.27.
Astilleros de Mallorca, S.A. (Shipyard), Contramuelle Mollet 9, Tel.71.06.45, Telex 68579.

DEVELOPMENTS: Works in progress: Extension of 115 m. at Muelle de Poniente will be ready in July 1996. See "Plan".
AUTHORITY: Port Authority of the Balearic Islands, Muelle Viejo No. 3, 07012 Palma de Mallorca, Spain. *Tel:* 71.51.00. *FAX:* 726948.
Contact: Angel Matias Mateos, Port Director. Jose Escalas Porcel, Port Captain.

PASAJES: 43.20 N. 01.56 W. (See Plan)

PORT LIMITS: In this port a vessel is considered to be an "arrived ship" (subject to C/P Terms) when the Pilot leaves the vessel once she is inside the port. The laytime will commence when the Master has delivered in writing the Notice of Readiness.
Agent's Comment: The Pasajes Port Authority consider the port to be limited by an imaginary line linking the West of Arando Grande and the East of Arando Chico.
DOCUMENTS:

4 Crew Lists.
2 Passenger Lists or negative.
2 Cargo Manifests with an individual copy of each Bill of Lading for items to be discharged at port of Pasajes.

Copy of Manifest covering other cargo on board in transit for other ports.

Stores List in duplicate, including tobacco, cigarettes, spirits, radios, etc., belonging to the vessel.

Detailed Crew's Stores List, in duplicate, of all personal effects pertaining to crew and passengers (tobacco, cigarettes, spirits, cameras, radios, arms, etc.).

For vessels exceeding 499 g.r.t., Safety Certificate, Safety Equipment Certificate and Derat Certificate should be on board ready for production.
PILOTAGE: Pilot service is compulsory and permanent. Pilots board vessel in an area about 1.5 miles out from leading lights of port entrance. The telegraphic address is: Corporacion de Practicos, Pasajes. Notice should be given 24 hours before arrival; generally Agents keep Pilots informed of vessel's time of arrival when they are advised by Masters. VHF service in operation.

Pilots' cutter is painted in naval-grey with letter "P" painted in white on both sides of bridge; flag with letter "P" in white, is hoisted on cutter's mast.

International pilot signals are used by Pilots, by means of Aldis lamps, when approaching vessel at night. International light and sound signals to be made by vessel when requiring Pilot.

In event of bad weather Pilots cannot board vessel at usual 1.5 miles location. In this case vessel has to wait for instructions (VHF or radio) for entering port.

With respect to boarding and safety measures, the international safety regulations are to be followed.
ANCHORAGES: A limited number of vessels may anchor in Roads inside the port, in good shelter. Depth in area of anchorage is 25 ft. – 29 ft.
RESTRICTIONS: The entrance channel is 80 m. – 120 m. wide, 1,200 m. long and its depth 10 m. at LST, with sandy bottom. Vessels with a length not over 130 m., provided their draft allows, may enter or leave at any time during the day or night. Vessels with a length between 130 m. and 140 m. may enter or leave from 1 hour – 3 hours before high tide during day or night. Vessels with a length over 140 m. may only enter or leave from 3 hours – 1 hour before high tide during daylight. Vessels with a draft over 25 ft., though less than 130 m. in length, wi only be allowed to sail or enter from 4 hours before high tide to 2 hours after, on account of their draft, both during the day or at night.
MAX. SIZE: The Port Authority has determined the maximum particulars of the vessels that may use the port: those with a length not over 185 m and a draft not over 28 ft. forward and 29 ft. aft on entering/leaving. However, a special authorisation must be obtained from the Capitania Maritima (Civil) for vessels with a length from 175 m. – 185 m. Vessels bound to Lezo Quays are limited to the same draft as above but t 160 m. length.
HEALTH: If vessels proceed directly to berth Pratique can be obtained immediately upon berthing. If vessels anchored in bay, Pratique can b obtained after anchoring. In case of any suspected disease or fever o board, the Master must advise the Agents, by radio, in order that the may inform the Sanitary Authorities in advance.
RADIO: Nearest Radio stations are the coastal radio stations of Igueld and Cabo Mayor. Messages by radio-telephone can be transmitted v Radio Arcachon (France). Notice of ETA should be sent to Age 24 hours before arrival.
BERTHING: Berths are allocated by Port Control after notice of arriv and information regarding cargo given by Agent. Pilots inform Master of location of berth appointed, if any. No tidal difficulties for berthing shifting inside the port.

Berths belonging to Port Control.

Name	*Length* (m.)	*Depth* (m.)	*Use*
Buenavista 2	145.0	10	Mixed cargo, Ro-Ro traffic.
Molinao	313.0	10	Solid bulk, general cargo.
Capuchinos	298.3	10	Solid/liquid bulk.
Petroleos	159.5	10	Liquids. Special installation.
Iberdrola I	250.0	10	Private, solid and liquid bulk
Lezo – 1	298.4	10	Scrap/General cargo.
Lezo – 2	150.1	10	Mixed cargo, iron and steel products.
Buenavista 1	616.0	12	General cargo, solid bulk.
Lezo – 3	151.0	8	Roll-on/Roll-off.
Hospitalillo	87.6	6	Shipbuilding/repairs.
Avanzado Norte	63.6	6	Port Authority.
Avanzado Oeste	120.3	6	Solid bulk/general.
Darsena Petroleo	50.0	6	Liquid bulk and ship's stores
Herrera	399.4	5	General cargo.
Reloj	240.0	5	Solid bulk/scrap.
Pescaderia 1	133.5	5.0	Unloading fresh deep-sea fish.
Pescaderia 2	215.0	5.0	Shallow water fish. Ice-storage.
Trintcherpe	381.2	6.0	Repairs, conversions and fitting-out.
San Juan	80.0	5.0	Major repairs, conversions and fitting-out.

TUGS: No tug-boats required for vessels with normal steering when entering port. Tug-boats are required for berthing or shifting to and/or from quays for vessels over 80 m. length. Ship's lines are used and tug-boats are employed according to Pilot's advice.

4 tugs available, the smallest and largest being 1,075 h.p. and 2,110 h.p. respectively.

CARGO HANDLING: *Containers:* 2×30 tonne cranes available for container handling.

Mechanical Handling Equipment: There are 33 forklift trucks ranging from 3 tonnes to 32 tonnes capacity, 32 shovel loader trucks of 3 tonnes to 12.3 tonnes, 6 platforms.

Various ancillary equipment, scrapers, bagging units, bulldozers, barges, lighters, work boats. There are 2 floating cranes, whose power ranges between 6 h.p. and 50 h.p., maximum reach on the largest being 12 m. and its height above sea level being 21 m.

Ro/Ro Traffic: The port has 2 ramps for Ro/Ro traffic at Buenavista 2 and Lezo 3.

Whenever a vessel arrives with flammable products, such as gas, propane, etc., the quay where vessel is discharging is fenced off.

CRANES:

Location (Berth)	*No. of Cranes*	*SWL* (tons)	*Reach* (m.)	*Output* (tonnes/p.h.)
Herrera	1	3.5/6	22.5/12.5	80
Reloj	1	12	22.5	100
Avanzado Oeste	2	6	22.5	100
Buenavista 1	1	30	22.5	200
Buenavista 1	1	30	22.5	200
Buenavista 1	2	12	25	150
Buenavista 1	3	16	35	180
Buenavista 2	1	30	22.5	200
Molinao	2	12	25	150
Molinao	2	16	30	180
Capuchinos	3	12	25	150
Capuchinos	1	16	35	180
Lezo 2	1	12	25	150
Lezo 1	1	12	25	150
Lezo 1	1	16	30	180
Factoria	3	3	25	80
Iberdrola I	1	15	22.7/6	500
Iberdrola I	1	12.5	16.5	250

Mobile Cranes: 2×52 tons with 25 m. reach. 1×45 ton with 22 m. reach.

STEVEDORES: ETA advice should be received by Agent 24 hours before arrival in order arrange loading/unloading operations with stevedores. The official working time in the port is: Monday/Friday 0700 hrs. – 2100 hrs. Overtime on Saturdays, Sundays or Holidays.

MEDICAL: Any kind of medical assistance is available. In case urgent surgical or medical assistance required on vessel's arrival, Agent should be informed in plenty of time to make the necessary arrangements.

No particular inoculations required or vaccination/fever certificates to be produced unless epidemic at last or recently visited ports.

TANKERS: Berth at Muelle Petroleos: 2×8 in. (gas oil), 2×8 in. (fuel oil Nos. 1 and 2, gas oil).

FRESH WATER: Fresh water available at all wharves. Rate of delivery 25 cu.m.p.h. – 70 cu.m.p.h.

FUEL: Fuel is supplied by C.L.H. at Buenavista 1 – 2, Molinao and Capuchinos Quays. The rate of delivery is 100 t.p.h. Owners must pay C.L.H. for the fuel 24 hours prior to its delivery.

FIRE PRECAUTIONS: No specific precautions required unless the vessel carries flammable cargo. Special harbour fire-fighting corps.

CONSULS: Consulates/Vice-Consulates at San Sebastian and/or Pasajes:

Argentina
Belgium
Brazil
Colombia
Costa Rica
Chile
Denmark
El Salvador
Finland
France
Germany
Great Britain
Greece
Italy
Netherlands
Norway
Panama
Paraguay
Peru
Portugal
Sweden

REPAIRS: Repair shops and shipyards available, where repairs or overhauls may be carried out.

DRY DOCKS: One (1) floating dock 99.36 m. long. (internal 84.36 m.), 29.75 m. wide (24.50 m. internal), and 10.40 m. depth of water. Capacity 4,000 tonnes.

One (1) floating dock 68.92 m. long (internal 58.62 m.), 23.25 m. wide (18.0 m. internal), and 9.125 m. depth of water. Capacity 2,000 tonnes.

Two (2) slipways with 6 ramps of length between 130 m. and 157 m. and widths between 7.40 m. and 12.50 m. Max. admissable vessel tonnage: 1,200.

GANGWAY/DECK WATCHMEN: Compulsory. Shore watchmen available.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: Ship's Registry, Radio, Load Line, Equipment and Construction.

CUSTOMS ALLOWANCES: In case the vessel carries more than 6 kilos tobacco per crew member and more than 2 kilos per passenger, the excess must be declared in a separate Manifest which must be legalised by the Spanish Consular Authorities. In absence of Spanish Consular Authorities that Manifest will have to be legalised by an Authority of last port of clearance wherefrom the vessel proceeds. A reasonable amount of alcohol is allowed per man.

REPATRIATION: Good facilities for repatriation.

AIRPORT: Airport of Fuenterrabia is situated at 10 km. from Pasajes. Regular daily services with Madrid and Barcelona.

TIME: GMT plus 1 hour in Autumn and Winter. GMT plus 2 hours in Spring and Summer.

HOLIDAYS: 1st January; 6th January; 19th March; Maundy Thursday; Good Friday; Lunes de Pascua; 1st May; 7th July; 16th July; 31st July; 15th August; 12th October; 1st November; 6th December; 8th December; 25th December.

POLICE/AMBULANCE/FIRE: Police 351391; Ambulance 272222; Fire 080; Red Cross (local) 527052; Hospital, San Sebastian, 447000.

TELEPHONES: No possibility of placing telephones on board.

SERVICES: Divers.

SHORE LEAVE: Crew allowed to land immediately upon arrival.

IDENTIFICATION CARDS: Not required.

DEVELOPMENTS: Work in progress for the reorganisation of the Donibane Port Area.

Installation of a floating ramp for Ro-Ro traffic and complementary works.

Development of computerisation.

Interior fitting-out of the Edificio Trasatlantico (Transatlantic Building).

Work in progress in the Access Channel of the port.

Repair of the road surface on the quays Avanzado Oeste, Buenavista 1 and Molinao.

Detection and monitoring system by means of cameras in the Lezo 3 storage areas.

AUTHORITY: Capitania Maritima de Pasajes, Pasajes, Spain. *Contact:* Louis Pastor Mendez, Port Captain.

Autoridad Portuaria de Pasajes, Apartado 56, 20110 Pasaia, Spain. *Tel:* (943) 351844. *FAX:* (943) 352580. *Contact:* Port Director.

RIBADEO: 43.32 N. 07.02 W.

DOCUMENTS:

Manifest of Cargo, including Cargo in Transit.
3 Crew Lists.
2 Passenger Lists or negative.
2 Stores Lists.

If vessel carries over 6 kilos tobacco per man, the excess to be declared in a separate Manifest which must be visaed by Spanish Consul at last port, otherwise is exposed to heavy fine.

PILOTAGE: Prior advice of ETA required by Pilot, who boards at the mouth of the river at the time advised by Agent. Pilot boat is white-painted motor launch, carrying international pilot signals.

In case of bad weather, Pilot will instruct vessel by signals to proceed to anchorage or to berth.

The Pilot always boards on the lee side, in the latitude of Isla Pancha.

ANCHORAGE: At Ensenada de Arneo, approx. position Lat. 43° 33' N., Long. 7° 01.6' W. in depth of 9 m. LW.

RESTRICTIONS: Vessels enter night and day, limited only by draft and state of tide.

MAX. SIZE: Length and beam not limited. Max. draft 15 ft.

HEALTH: Pratique given on arrival on production of clean Bill of Health. International quarantine signals to be used. Port Authorities to be advised if any case of suspected disease or fever on board.

RADIO: Messages may be routed through coastal stations at Vigo, La Coruna or Gijon.

TUGS: None available.

BERTHING: Vessels may berth at the mole at any time, or state of tide, according to draft.

STEVEDORES: Stevedores services operated only by Servicio de Trabajadores Portuarios.

MEDICAL: Nearest clinic at Mondonedo 35 km. from Ribadeo.

DENSITY: 1025.

FRESH WATER: Water connections exist along the length of the mole. Rate, 20 t.p.h.

FUEL: There is a gas oil supply for small vessels, rate 12 t.p.h.

GANGWAY/DECK WATCHMEN: None required.

OPENING/CLOSING HATCHES: Performed by crew.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle wine/spirits per man.

CONSULS: Nearest at La Coruna.

REPAIRS: Minor mechanical repairs can be effected. Slipway for vessels up to 200 tons.

AIRPORT: Nearest at La Coruna, 150 km. away, or Aviles, 165 km. away, with regular services to Madrid.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Tel: Ribadeo 110650.

AUTHORITY: El Ayudante Militar de Marina de Ribadeo.

ROSAS: 42.14 N. 03.10 E. (See Plan)

DOCUMENTS:

Crew List.
Passenger List.
(1 of each) Ship's Papers.

PILOTAGE: Pilots from Palamos berth vessels. 24 hours notice required.

ANCHORAGE: Bay of Rosas is anchorage area.

MAX. SIZE: Depth in Commercial Port is 4 m., with berths for cargo ships of about 1,000 n.r.t. (metric).

HEALTH: Once ship is anchored in the bay it obtains Pratique by means of signals, and by raising the yellow health flag. When vessel entering after calling at another port in the same country, this procedure is not required; Health Inspector boards at the quay side.

RADIO: Bagur Radio on VHF Channel 16.

VHF: Port Authority on Channels 16 and 12.

TUGS: 1 × 400 h.p.

BERTHING: Advisable during daylight only.

MEDICAL: Port Health Doctor available. Hospitals 18 km. distance. Red Cross of the Sea is located at Rosas and operates on a permanent basis. Tel. (972) 25-55-55. VHF Channels 16, 12 and 73. Station also has an all weather lifeboat.

FRESH WATER: Available at Commercial Port at rate of 8 tonnes/p.h. to 10 tonnes/p.h.
FUEL: Available to small vessels only.
REPAIRS/DRY DOCKS: Slipway for vessels of 300 tons.
POLICE/AMBULANCE/FIRE: Police Service 25-62-72; Ambulance Service 25-68-28; Fire Service 25-66-32.
AUTHORITY: Ayudante de Marina de Rosas, Muelle de Rosas No.4, 17480 – Rosas, Spain. *Tel:* 972-256323. *Telex:* 98520 MENA E. *FAX:* 972-150755. *Contact:* Ramon E. Vazquez Calvo, Captain of the Port.

SAGUNTO: 39.39 N. 00.13 W. (See Plan)

LOCATION: 18 km. North of Valencia.
PORT LIMITS: The East/West line through the point of Cape Escollera de Levante.
DOCUMENTS:

2 copies Entrance Manifest.
4 copies Crew List.
2 copies Crew Effects Declaration.
2 copies Provisions List.
Passenger List disembarking at this port.
Passenger List in transit.

Refer to "Barcelona" for other important information concerning Documentation.
PILOTAGE: Call Pilot on VHF Channel 12 one hour prior to arrival.
ANCHORAGE: From 155° to 170° from the Cape Canet Lighthouse in 20 m. of water.
RESTRICTIONS: Entrance to port faces S.E. and is 560 m. wide with a depth of 9.0 m. at LW.
HEALTH: Pratique can be arranged at any time by Consignees.
RADIO: Cadiz Radio-EAC, Cabo Palos Radio-EAP and Valencia Radio EAV.
TUGS: 4 tugs up to 1,250 h.p. available. Tugs normally join vessel either in anchorage or 0.5 miles from entrance. Ship's lines are used. Tugs should be ordered in ETA message also mentioning vessel's length and cargo. Use of tugs is compulsory for vessels berthing at Pantalan.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Use*
Muelle Norte	570	9.80	Solid and General Bulk.
Muelle Centro	660	11.25	General Cargo.
Muelle Sur	580	9.80	General Cargo and Liquid Bulk.
Pantalan	270	14.00	Solid Bulk by Special Installation.

BULK HANDLING FACILITIES:

Location	*Owner*	*Remarks*
Pantalan	Autoridad Portuaria de Valencia	There is a 2,000 m. long conveyor belt with an output of 2,500 tons per hour.
Sur	Enfersa	Offloading of anhydride ammonia by retractable loading arm and loading of fertiliser by belts. Distance to tanks 1 km. Pipeline 6 in. Vapour return 4 in. Loading/ Discharging arm 8 in. Discharge rate 400 t.p.h. – 600 t.p.h. Temperature −33°C.

CRANES: The port operates 6 privately owned gantry cranes with capacity of 20 tons to 60 tons and 1 derrick of 250 tons.
STEVEDORES: Employed by consignees.
MEDICAL: Medical assistance should be ordered in advance. All kinds of medical assistance available. One hospital owned by A.P.V.
TANKERS: No facilities.
DENSITY: Salt water.
FRESH WATER: Available.
FUEL: None available.
FIRE PRECAUTIONS: Fire service organised by Altos Hornos.
CONSULS: Nearest at Valencia.
REPAIRS: Small repairs possible.
GANGWAY/DECK WATCHMEN: Usually by crew. The Civil Guard keep watch on all ships for contraband.
OPENING/CLOSING HATCHES: Effected by ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes only. One bottle spirits per man but bottle should be opened. Spanish spirits allowed; one bottle per man. No control of Spanish wines.
REPATRIATION: Facilities for effecting crew changes and arranging repatriation.
AIRPORT: Manises Valencia, 40 km. away.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: *Religious Festivals:* January 6th, March 19th, August 15th, December 8th and 25th. Variable: Good Friday and Corpus Christi. *National Festivals:* January 1st, May 1st, July 25th, October 12th.
TELEPHONES: None on board. Telephones placed in Boat house and Pilots' Office.
SHORE LEAVE: Crew members allowed ashore.
IDENTIFICATION CARDS: Passport only.
AUTHORITY: Autoridad Portuaria de Valencia (A.P.V.), Muelle de la Aduana, S/n, 46024 Valencia, Spain. *Tel:* 34-6-3939500. *Telex:* 64508. *FAX:* 34-6-3939599. *Contact:* Rafael del Moral Carro, Port Director.

Autoridad Portuaria de Valencia (A.P.V.), Muelle Centro S/N, 46520 Puerto Sagunto, Spain. *Tel:* (96) 2681178. *Telex:* 62521 Pavsg E. *FAX:* (96) 2680972. *Contact:* Ricardo Mallach.

SAN CIPRIAN: 43.42 N. 07.27 W. (See Plan)

LOCATION: The port is located on the N.W. coast of Spain, about 10.5 miles Eastward of Estaca de Bares Point.

Its entrance is located at Lat. 43° 42' 09" N., Long. 07° 27' 06" W.
Charts: B.A. Chart No. 1122. Spanish Navy Chart No. 4081.
PILOTAGE: Compulsory for all vessels over 150 g.r.t.

All vessels are requested to contact San Ciprian Pilots, or San Ciprian Port Control, on VHF Channels 16 and 14, 2 hours before arrival at the Pilot's station, giving confirmation on ETA and for receiving instructions about berthing and operations.
There are two stations to board the Pilot:
(1) Vessels over 10,000 g.r.t. and tankers of any size at position Lat. 43° 44' N., Long. 07° 26.65' W.
(2) Vessels from 5,000 to 10,000 g.r.t. at Lat. 43° 43.6' N., Long. 07° 27' W.

When weather conditions are unfavourable for a Pilot to board at the designated area, the Pilot will instruct through VHF radio, and the vessel may follow the Pilot's boat in, until conditions are suitable for boarding.
APPROACHES: *Entrance:* The port is well sheltered by 2 breakwaters, one in the North part with 935 m. length, leading to E.S.E. seawards, and another in the South part with a length of 1,130 m., leading to N.N.E. seawards, at which are placed the piers.

In between the breakwaters, the entrance of the port is 270 m. wide with a depth of 20.0 m. L.W.S.T.

The breakwater heads are marked with lights and a foghorn will be placed on the South breakwater head.

The port has 2 access channels, both duly marked with leading lights. To enter port through North Channel, vessels should steer on true course 202° from sea, leaving the Farallones Islands by her port side. Vessels may also use the East Channel, steering 271° (T), coming from sea, and leaving the Farallones Islands on the starboard side. In both channels, there is a minimum depth of 17.0 m. (56 ft.) at L.W.S.T.

The two piers are located in the inner part of the South breakwater with a depth from 7.0 m. – 17.0 m., having 320 m. for ship's berthing safely. The principal berth is 232 m. long with 17.0 m. – 14.0 m. depth. The auxiliary berth is 88 m. long with 7.0 m. depth.

The manoeuvring zone is about 1,100 m. × 800 m. and has a minimum depth of 12.5 m. at L.W.S.T.
ANCHORAGES: Vessels may anchor in the inner harbour with consent of the Port Control.

Larger vessels or those that do not have permission to anchor in the harbour, due to technical reasons, security or congestion have two different areas to anchor at roads:
(1) A: Lat. 43° 43.5' N., Long. 07° 26.73' W.
B: Lat. 43° 45' N., Long. 07° 25.83' W.
C: Lat. 43° 45' N., Long. 07° 24.5' W.
D: Lat. 43° 43.5' N., Long. 07° 24.5' W.
(2) Between Lat. 43° 43.5' N. and 43° 45' N. and
Long. 07° 34.5' W. and 07° 37' W.
RESTRICTIONS/MAX. SIZE: The largest size acceptable is 62,000 d.w.t. with a max. draft at the entrance of 12.5 m. These large ships may only manoeuvre with daylight and high water at the same time.

From 12,000 d.w.t. to 62,000 d.w.t., vessels require daylight. Below 12,000 d.w.t., vessels may proceed at any time.

Ships proceeding to the Auxiliary Pier are restricted to 7.0 m. draft and 110 m. LOA.

For all vessels, only clean ballast is to be discharged.

No tank cleaning or pumping of bilges is allowed whilst the vessel is in port or its approaches.

Also see "Berthing".
VHF: Radio Station on Channels 16 and 14.
TUGS: 2 tugs available. "Sertosa-14" 1,900 h.p. (24 tonnes bollard pull) and "Sertosa-19" 2,400 h.p. (32 tonnes bollard pull).

Use of tugs is compulsory for all vessels over 2,000 g.r.t. and when judged necessary by the Port Authority.

A third tug is available to assist large vessels.
BERTHING: *Principal Berth:* The berth accepts vessels up to 240 m LOA, 36 m. beam and 12.5 m. draft.

It allows discharge of bauxite in bulk, pet coke, fuel oil and also loadin of alumina. The berth is also used to load Ro-Ro vessels with aluminiu and general cargo vessels with alumina hydrate in bulk.
Equipment: Automatic unloading crane on conveyor belt for handling o bulk goods such as bauxite, pet coke, etc., and capable of handlin 15,000 tonnes per day.

Alumina shiploader, capable for loading 1,200 t.p.h.

Terminal arm for connection of fuel oil for the Factory use only. On oil pipe of 16 in. diameter and hose connection of 8 in.
Auxiliary Berth: The berth accepts vessels of up to 110 m. LOA, 16.0 m beam and 7.0 m. draft.

The berth is used to discharge caustic soda, aluminium, metallurgi sandy alumina in bulk, hydrate in bulk and big-bags, and anodes f electrolysis.
Equipment: Two cranes of 5 tons each, used for loading aluminium a alumina hydrate in big-bags and anodes.

Automatic system for loading alumina in bulk.

Hose connection of 6 in. to discharge caustic soda.
Alumina Maritime Terminal: The Terminal Manager, or in his absen the Terminal Supervisor, is in charge of the Maritime Terminal wi continuous 24 hour service.

The offices are located in a building between the two piers.

While a vessel is alongside, a Supervisor of the Maritime Termi will remain on the pier or in the office at all times to deal with rou operations and any emergency.

The access to the Maritime Terminal through the Factory is under t control of a security guard, who shall check the identity of personne

Upon arrival at the port, Identity Cards will be supplied to al incomings and outgoings through the premises, but one must kee the restricted lanes and not trespass into the Factory.

MEDICAL: Hospital facilities at Alumina Espanola S.A. are only available on an emergency basis.

Full hospital facilities available in Burela 15 km. distant, without prior notice. Dentists available during normal work hours.

FRESH WATER: Available. If the vessel is to be supplied with fresh water, an official form must be filled, forms to be supplied by the Agent.

FUEL: Not available locally. Small quantities can be supplied by road tanker from Corunna.

REPAIRS: No major facilities at the port. Mobile repair companies available. No berths dedicated for repair work.

If you are expecting an outside visit, either personal or technical, proper advice is to be given to your Agent for them to obtain the compulsory permits from the Factory.

Should you require some maintenance or repairs, proper notice is to be given to the Port Authorities.

GARBAGE DISPOSAL: Contact: Limpieza Maritima de Oleos, S.L., in La Coruna. Tel: 246000, 246169. Fax: 246320.

Trucks and tankers (Marpol) utilised for collection and removal. Arrangements to be made by ship's Agent.

WASTE OIL DISPOSAL: See "Garbage Disposal".

SEAMAN'S CLUBS: None.

GENERAL:

Fire Precautions: The Alumina Terminal has a well trained firefighting crew and fire hydrants are installed at all strategic points. No smoking allowed on all wharves and in ship's holds.

Garbage: Service for solids is available with containers provided on the pier if required, with an official form.

Gangs: All requests for labour must be done by telex or cable.

In order to insure that gangs will be available, it is imperative that the telex message be in the Port Office by 1400 hrs. the day before the gangs are required.

Ladders: If the accommodation ladder is not suitable for the berth configuration, vessel will be requested to fill a form and the Port Authorities will supply an adequate one.

Mobile Cranes: In addition to the quay cranes indicated, the Port Authority have available several cranes, which can be utilised if required, with an official form.

Stores: Stores may be delivered to vessel by road. Loading of stores may be restricted during cargo operations.

Tide/Winds: Rise and fall: 0.5 m. to 4.1 m.

The prevailing wind direction in the Winter season is N.W., and in the Summer season N.E.

AUTHORITY: Alumina Espanola S.A., Apartado 71, 27890 San Ciprian, Lugo, Spain. *Tel:* 34-82-596000, 596048. *Telex:* 82298. *FAX:* 34-82-596003. *Contact:* Miguel A. Lourenzo, Manager. Tel: 34-82-596000, ext. 1174. Telex: 82085. Fax: 34-82-596016.

Harbour Master (at Burela): Captain Bernardo Rodriguez. Tel: 34-82-586100. Fax: 34-82-586110.

The port has the status of a "Private Port", so traffic is subject to the rules of the Factory.

The Owner of the port is Alumina Espanola, S.A.

SANT CARLES DE LA RAPITA: 40.36 N. 00.36 E. (See Plan)

DOCUMENTS:

3 Crew Lists.
3 Passenger Lists or negative.
3 Cargo Manifests or Master/Ballast Declaration.
1 Stores List.
1 Crew Manifest.

PILOTAGE: Pilotage is compulsory and service permanent. Pilot is informed by Agent of vessels ETA, given 24 hours in advance. When vessels approach the breakwater, Pilot will board. The pilot boat is white with a black "P" painted on the side. Contact Pilot Station on VHF Channel 14. Pilot Tel: (977) 74.05.01/74.08.04.

RESTRICTIONS: None but for draft. Vessels carrying dangerous cargo should get permission for berthing prior to arrival.

MAX. SIZE: Maximum draft allowed is 17 ft. Contact Pilot for draft information.

HEALTH: Pratique is obtained immediately after berthing. In case of suspected disease or fever on board the Master must radio Agent in order to inform Health Officer in time.

RADIO: Radio Costera of Barcelona and Tarragona.

VHF: See "Pilotage".

TUGS: Available to assist berthing. Tugs normally join vessel at breakwater entrance. The following tugs are available: 1×1,750 h.p., 1×1,200 h.p. and 1×800 h.p.

BERTHING: Depth of water in centre of harbour 26 ft.

Commercial Wharf: Length 1,607 ft.

CRANES: 2 cranes, 1×12 tons and 1×8 tons.

STEVEDORES: 24 hours notice required in order to arrange gangs. Unloading rates depend on type of cargo.

MEDICAL: Any kind of medical service can be arranged if information received in time.

FRESH WATER: Plentiful supply of water by means of hoses from the pier to vessel.

FUEL: Can be supplied by truck, but 24 hours notice required. Marine diesel oil is available at bunkering pier, but max. draft is 12 ft.

CONSULS: See "Tarragona".

REPAIRS: There are 3 slipways as follows: 1×180 tons, 1×70 tons and 1×0 tons.

SURVEYORS: S.G.S., Vista Alegre N. 32-3, 43540 Sant Carles de la Rapita. Tel: (977) 74.22.24/54.22.28. Fax: (977) 54.11.00.

GANGWAY/DECK WATCHMEN: Not compulsory but advisable at night.

OPENING/CLOSING HATCHES: Normally opened/closed by the crew, otherwise according to "Charter Party". Lashing must be carried out by crew.

CERTIFICATES: Solas, Load Lines, I.O.P.P., Derat, Register and Tonnage Certificates.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle wine/spirits per person. Any excess must be declared and locked/sealed. Any infringement of the regulations will subject the vessel to the immediate imposition of a heavy fine and confiscation of excess.

REPATRIATION: Good facilities available.

AIRPORT: Reus Airport situated 90 km. distance and 45 minutes by car from Sant Carles. Regular flight services with Madrid. Barcelona airport situated 190 km. and 2 hours by car, worldwide destinations and arrivals.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer (Late March – late September).

HOLIDAYS: July 25th and September 11th.

POLICE/AMBULANCE/FIRE: Police: 74.07.17; Ambulance: 74.10.12; Fire: 70.00.80.

IDENTIFICATION CARDS: Not required.

AUTHORITY: Capitania Maritima, 43540 Sant Carles de la Rapita (Tarragona-Espana), Spain. *Tel:* 74.00.59. *Contact:* Fernando Cebrian Ruiz, Port Captain.

Comissio de Ports de Catalunya-Zona Portuaria II–III, Rda. General Mitre 117, 08022 Barcelona, Spain. Tel: 93-211.31.16. *FAX:* 93-4186012.

Branch office at San Carles de la Rapita. Tel: (977) 74.04.56.

SANT FELIU DE GUIXOLS (Gerona): 41.46 N. 03.01 E. (See Plan)

PILOTAGE: Pilotage is compulsory. Service between 0700 to 2400 hrs. Tel: 320910 or call Barcelona Radio or Bagur Radio (VHF).

ANCHORAGE: Vessels arriving after midnight or due to port congestion are anchored outside the breakwater.

MAX. SIZE: The maximum advisable draft for berthing is 22 ft. and up to 115 m. length.

TUGS: No tugs available.

BERTHING: Due to the fact that a few vessels can work at the same time, it is advisable to know as soon as possible the ETA for berthing arrangements.

Commercial Wharf: Length 108 m. Depth 22 ft.
Breakwater: Length 116 m. Depth 22 ft.
A pier for coasting vessels with a maximum draft of 18 ft.

MEDICAL: Any kind of medical services can be obtained at Sant Feliu or Gerona hospitals.

FRESH WATER: By means of hoses from the pier.

FUEL: Can be supplied in small quantities.

CARGO GEAR: Commercial Wharf is served by an electric crane able to lift up to 6 tons. Normally vessel's derricks are used.

AUTHORITY: Ayudantia Militar de Marina, Raig 6, Sant Feliu de Guixols (Gerona), Spain. *Tel:* 972-320967. *Contact:* Harbour Master.

SANTANDER: 43.28 N. 03.49 W. (See Plan)

PORT LIMITS: Between Cabo Mayor and Cabo Ajo.

DOCUMENTS:

5 Crew Lists.
7 Passenger Lists, or 3 negative.
3 Cargo Manifests of the goods destined to the Port of Santander.
2 sets of Manifests for Cargoes in Transit.
Stores List in triplicate, including tobacco, spirits, radios, etc., belonging to the vessel.
Detailed list in triplicate of all personal effects of crew and passengers (tobacco, spirits, cameras, souvenirs, radios, etc.).
For vessels exceeding 499 g.r.t: Safety Radio Certificate and Safety Equipment Certificate.

Legalisation required for manifests covering tobacco and tobacco products. This legalisation to be effected at the port prior to the first Spanish port of call.

Master and each member of crew of vessel can carry for his own consumption up to 6 kilos of tobacco in whatever form, and, if passengers are carried, up to 2 kilos per passenger, all of which must be declared in Provisions List (1 kilo of tobacco = 1,000 cigarettes = 100 cigars). If Masters carry greater quantity than stated above, it cannot be manifested as tobacco for consumption on board, but must be included in Consular Manifest as being in transit, and as such must be separated in the holds from other cargo and hatches or lockers will be sealed by Customs until ship leaves Spanish waters. This Consular Manifest has to be legalised by a Spanish Consul. In the absence of Consul, said document will have to be visaed by an Authority of the former port of clearance. Otherwise, vessel would be severely fined.

PILOTAGE: Compulsory and service is permanent. Pilots board vessel by a cutter at the roads, near the entrance off Mouro Island. Pilot cutters are painted white and have the letter "P" in black, on each bow. Cutters have blue flag with letter "P" in white, on both sides of flag. At night cutters have a white light, under this a red one. VHF available.

ANCHORAGES: The harbour consists of a large bay which provides good anchorage.

FRESH WATER: Available at Commercial Port at rate of 8 tonnes/p.h. to 10 tonnes/p.h.
FUEL: Available to small vessels only.
REPAIRS/DRY DOCKS: Slipway for vessels of 300 tons.
POLICE/AMBULANCE/FIRE: Police Service 25-62-72; Ambulance Service 25-68-28; Fire Service 25-66-32.
AUTHORITY: Ayudante de Marina de Rosas, Muelle de Rosas No.4, 17480 – Rosas, Spain. *Tel:* 972-256323. *Telex:* 98520 MENA E. *FAX:* 972-150755. *Contact:* Ramon E. Vazquez Calvo, Captain of the Port.

SAGUNTO: 39.39 N. 00.13 W. (See Plan)

LOCATION: 18 km. North of Valencia.
PORT LIMITS: The East/West line through the point of Cape Escollera de Levante.
DOCUMENTS:
2 copies Entrance Manifest.
4 copies Crew List.
2 copies Crew Effects Declaration.
2 copies Provisions List.
Passenger List disembarking at this port.
Passenger List in transit.
Refer to "Barcelona" for other important information concerning Documentation.
PILOTAGE: Call Pilot on VHF Channel 12 one hour prior to arrival.
ANCHORAGE: From 155° to 170° from the Cape Canet Lighthouse in 20 m. of water.
RESTRICTIONS: Entrance to port faces S.E. and is 560 m. wide with a depth of 9.0 m. at LW.
HEALTH: Pratique can be arranged at any time by Consignees.
RADIO: Cadiz Radio-EAC, Cabo Palos Radio-EAP and Valencia Radio EAV.
TUGS: 4 tugs up to 1,250 h.p. available. Tugs normally join vessel either in anchorage or 0.5 miles from entrance. Ship's lines are used. Tugs should be ordered in ETA message also mentioning vessel's length and cargo. Use of tugs is compulsory for vessels berthing at Pantalan.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Use*
Muelle Norte	570	9.80	Solid and General Bulk.
Muelle Centro	660	11.25	General Cargo.
Muelle Sur	580	9.80	General Cargo and Liquid Bulk.
Pantalan	270	14.00	Solid Bulk by Special Installation.

BULK HANDLING FACILITIES:

Location	*Owner*	*Remarks*
Pantalan	Autoridad Portuaria de Valencia	There is a 2,000 m. long conveyor belt with an output of 2,500 tons per hour.
Sur	Enfersa	Offloading of anhydride ammonia by retractable loading arm and loading of fertiliser by belts. Distance to tanks 1 km. Pipeline 6 in. Vapour return 4 in. Loading/Discharging arm 8 in. Discharge rate 400 t.p.h. – 600 t.p.h. Temperature −33°C.

CRANES: The port operates 6 privately owned gantry cranes with capacity of 20 tons to 60 tons and 1 derrick of 250 tons.
STEVEDORES: Employed by consignees.
MEDICAL: Medical assistance should be ordered in advance. All kinds of medical assistance available. One hospital owned by A.P.V.
TANKERS: No facilities.
DENSITY: Salt water.
FRESH WATER: Available.
FUEL: None available.
FIRE PRECAUTIONS: Fire service organised by Altos Hornos.
CONSULS: Nearest at Valencia.
REPAIRS: Small repairs possible.
GANGWAY/DECK WATCHMEN: Usually by crew. The Civil Guard keep watch on all ships for contraband.
OPENING/CLOSING HATCHES: Effected by ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes only. One bottle spirits per man but bottle should be opened. Spanish spirits allowed; one bottle per man. No control of Spanish wines.
REPATRIATION: Facilities for effecting crew changes and arranging repatriation.
AIRPORT: Manises Valencia, 40 km. away.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: *Religious Festivals:* January 6th, March 19th, August 15th, December 8th and 25th. Variable: Good Friday and Corpus Christi. *National Festivals:* January 1st, May 1st, July 25th, October 12th.
TELEPHONES: None on board. Telephones placed in Boat house and Pilots' Office.
SHORE LEAVE: Crew members allowed ashore.
IDENTIFICATION CARDS: Passport only.
AUTHORITY: Autoridad Portuaria de Valencia (A.P.V.), Muelle de la Aduana, S/n, 46024 Valencia, Spain. *Tel:* 34-6-3939500. *Telex:* 64508. *FAX:* 34-6-3939599. *Contact:* Rafael del Moral Carro, Port Director.

Autoridad Portuaria de Valencia (A.P.V.), Muelle Centro S/N, 46520 Puerto Sagunto, Spain. *Tel:* (96) 2681178. *Telex:* 62521 Pavsg E. *FAX:* (96) 2680972. *Contact:* Ricardo Mallach.

SAN CIPRIAN: 43.42 N. 07.27 W. (See Plan)

LOCATION: The port is located on the N.W. coast of Spain, about 10.5 miles Eastward of Estaca de Bares Point.

Its entrance is located at Lat. 43° 42' 09" N., Long. 07° 27' 06" W.
Charts: B.A. Chart No. 1122. Spanish Navy Chart No. 4081.
PILOTAGE: Compulsory for all vessels over 150 g.r.t.

All vessels are requested to contact San Ciprian Pilots, or San Ciprian Port Control, on VHF Channels 16 and 14, 2 hours before arrival at the Pilot's station, giving confirmation on ETA and for receiving instructions about berthing and operations.
There are two stations to board the Pilot:
(1) Vessels over 10,000 g.r.t. and tankers of any size at position Lat. 43° 44' N., Long. 07° 26.65' W.
(2) Vessels from 5,000 to 10,000 g.r.t. at Lat. 43° 43.6' N., Long. 07° 27' W.

When weather conditions are unfavourable for a Pilot to board at the designated area, the Pilot will instruct through VHF radio, and the vessel may follow the Pilot's boat in, until conditions are suitable for boarding.
APPROACHES: *Entrance:* The port is well sheltered by 2 breakwaters; one in the North part with 935 m. length, leading to E.S.E. seawards, and another in the South part with a length of 1,130 m., leading to N.N.E. seawards, at which are placed the piers.

In between the breakwaters, the entrance of the port is 270 m. wide with a depth of 20.0 m. L.W.S.T.

The breakwater heads are marked with lights and a foghorn will be placed on the South breakwater head.

The port has 2 access channels, both duly marked with leading lights. To enter port through North Channel, vessels should steer on true course 202° from sea, leaving the Farallones Islands by her port side. Vessels may also use the East Channel, steering 271° (T), coming from sea, and leaving the Farallones Islands on the starboard side. In both channels, there is a minimum depth of 17.0 m. (56 ft.) at L.W.S.T.

The two piers are located in the inner part of the South breakwater with a depth from 7.0 m. – 17.0 m., having 320 m. for ship's berthing safely. The principal berth is 232 m. long with 17.0 m. – 14.0 m. depth. The auxiliary berth is 88 m. long with 7.0 m. depth.

The manoeuvring zone is about 1,100 m. × 800 m. and has a minimum depth of 12.5 m. at L.W.S.T.
ANCHORAGES: Vessels may anchor in the inner harbour with consent of the Port Control.

Larger vessels or those that do not have permission to anchor in the harbour, due to technical reasons, security or congestion have two different areas to anchor at roads:
(1) A: Lat. 43° 43.5' N., Long. 07° 26.73' W.
B: Lat. 43° 45' N., Long. 07° 25.83' W.
C: Lat. 43° 45' N., Long. 07° 24.5' W.
D: Lat. 43° 43.5' N., Long. 07° 24.5' W.
(2) Between Lat. 43° 43.5' N. and 43° 45' N. and
Long. 07° 34.5' W. and 07° 37' W.
RESTRICTIONS/MAX. SIZE: The largest size acceptable is 62,000 d.w.t. with a max. draft at the entrance of 12.5 m. These large ships may only manoeuvre with daylight and high water at the same time.

From 12,000 d.w.t. to 62,000 d.w.t., vessels require daylight. Below 12,000 d.w.t., vessels may proceed at any time.

Ships proceeding to the Auxiliary Pier are restricted to 7.0 m. draft and 110 m. LOA.

For all vessels, only clean ballast is to be discharged.

No tank cleaning or pumping of bilges is allowed whilst the vessel is in port or its approaches.

Also see "Berthing".
VHF: Radio Station on Channels 16 and 14.
TUGS: 2 tugs available. "Sertosa-14" 1,900 h.p. (24 tonnes bollard pull) and "Sertosa-19" 2,400 h.p. (32 tonnes bollard pull).

Use of tugs is compulsory for all vessels over 2,000 g.r.t. and when judged necessary by the Port Authority.

A third tug is available to assist large vessels.
BERTHING: *Principal Berth:* The berth accepts vessels up to 240 m LOA, 36 m. beam and 12.5 m. draft.

It allows discharge of bauxite in bulk, pet coke, fuel oil and also loading of alumina. The berth is also used to load Ro-Ro vessels with aluminium and general cargo vessels with alumina hydrate in bulk.
Equipment: Automatic unloading crane on conveyor belt for handling bulk goods such as bauxite, pet coke, etc., and capable of handling 15,000 tonnes per day.

Alumina shiploader, capable for loading 1,200 t.p.h.

Terminal arm for connection of fuel oil for the Factory use only. On oil pipe of 16 in. diameter and hose connection of 8 in.
Auxiliary Berth: The berth accepts vessels of up to 110 m. LOA, 16.0 m beam and 7.0 m. draft.

The berth is used to discharge caustic soda, aluminium, metallurgi sandy alumina in bulk, hydrate in bulk and big-bags, and anodes electrolysis.
Equipment: Two cranes of 5 tons each, used for loading aluminium a alumina hydrate in big-bags and anodes.

Automatic system for loading alumina in bulk.

Hose connection of 6 in. to discharge caustic soda.
Alumina Maritime Terminal: The Terminal Manager, or in his abse the Terminal Supervisor, is in charge of the Maritime Terminal wi continuous 24 hour service.

The offices are located in a building between the two piers.

While a vessel is alongside, a Supervisor of the Maritime Term will remain on the pier or in the office at all times to deal with rou operations and any emergency.

The access to the Maritime Terminal through the Factory is under control of a security guard, who shall check the identity of personn

Upon arrival at the port, Identity Cards will be supplied to al incomings and outgoings through the premises, but one must kee the restricted lanes and not trespass into the Factory.

MEDICAL: Hospital facilities at Alumina Espanola S.A. are only available on an emergency basis.

Full hospital facilities available in Burela 15 km. distant, without prior notice. Dentists available during normal work hours.

FRESH WATER: Available. If the vessel is to be supplied with fresh water, an official form must be filled, forms to be supplied by the Agent.

FUEL: Not available locally. Small quantities can be supplied by road tanker from Corunna.

REPAIRS: No major facilities at the port. Mobile repair companies available. No berths dedicated for repair work.

If you are expecting an outside visit, either personal or technical, proper advice is to be given to your Agent for them to obtain the compulsory permits from the Factory.

Should you require some maintenance or repairs, proper notice is to be given to the Port Authorities.

GARBAGE DISPOSAL: Contact: Limpieza Maritima de Oleos, S.L., in La Coruna. Tel: 246000, 246169. Fax: 246320.

Trucks and tankers (Marpol) utilised for collection and removal. Arrangements to be made by ship's Agent.

WASTE OIL DISPOSAL: See "Garbage Disposal".

SEAMAN'S CLUBS: None.

GENERAL:

Fire Precautions: The Alumina Terminal has a well trained firefighting crew and fire hydrants are installed at all strategic points. No smoking allowed on all wharves and in ship's holds.

Garbage: Service for solids is available with containers provided on the pier if required, with an official form.

Gangs: All requests for labour must be done by telex or cable.

In order to insure that gangs will be available, it is imperative that the telex message be in the Port Office by 1400 hrs. the day before the gangs are required.

Ladders: If the accommodation ladder is not suitable for the berth configuration, vessel will be requested to fill a form and the Port Authorities will supply an adequate one.

Mobile Cranes: In addition to the quay cranes indicated, the Port Authority have available several cranes, which can be utilised if required, with an official form.

Stores: Stores may be delivered to vessel by road. Loading of stores may be restricted during cargo operations.

Tide/Winds: Rise and fall: 0.5 m. to 4.1 m.

The prevailing wind direction in the Winter season is N.W., and in the Summer season N.E.

AUTHORITY: Alumina Espanola S.A., Apartado 71, 27890 San Ciprian, Lugo, Spain. *Tel:* 34-82-596000, 596048. *Telex:* 82298. *FAX:* 34-82-596003. *Contact:* Miguel A. Lourenzo, Manager. Tel: 34-82-596000, ext. 1174. Telex: 82085. Fax: 34-82-596016.

Harbour Master (at Burela): Captain Bernardo Rodriguez. Tel: 34-82-586100. Fax: 34-82-586110.

The port has the status of a "Private Port", so traffic is subject to the rules of the Factory.

The Owner of the port is Alumina Espanola, S.A.

SANT CARLES DE LA RAPITA: 40.36 N. 00.36 E.

(See Plan)

DOCUMENTS:

3 Crew Lists.
3 Passenger Lists or negative.
3 Cargo Manifests or Master/Ballast Declaration.
1 Stores List.
1 Crew Manifest.

PILOTAGE: Pilotage is compulsory and service permanent. Pilot is informed by Agent of vessels ETA, given 24 hours in advance. When vessels approach the breakwater, Pilot will board. The pilot boat is white with a black "P" painted on the side. Contact Pilot Station on VHF Channel 14. Pilot Tel: (977) 74.05.01/74.08.04.

RESTRICTIONS: None but for draft. Vessels carrying dangerous cargo should get permission for berthing prior to arrival.

MAX. SIZE: Maximum draft allowed is 17 ft. Contact Pilot for draft information.

HEALTH: Pratique is obtained immediately after berthing. In case of suspected disease or fever on board the Master must radio Agent in order to inform Health Officer in time.

RADIO: Radio Costera of Barcelona and Tarragona.

VHF: See "Pilotage".

TUGS: Available to assist berthing. Tugs normally join vessel at breakwater entrance. The following tugs are available: 1×1,750 h.p., 1×1,200 h.p. and 1×800 h.p.

BERTHING: Depth of water in centre of harbour 26 ft.

Commercial Wharf: Length 1,607 ft.

CRANES: 2 cranes, 1×12 tons and 1×8 tons.

STEVEDORES: 24 hours notice required in order to arrange gangs. Unloading rates depend on type of cargo.

MEDICAL: Any kind of medical service can be arranged if information received in time.

FRESH WATER: Plentiful supply of water by means of hoses from the pier to vessel.

FUEL: Can be supplied by truck, but 24 hours notice required. Marine diesel oil is available at bunkering pier, but max. draft is 12 ft.

CONSULS: See "Tarragona".

REPAIRS: There are 3 slipways as follows: 1×180 tons, 1×70 tons and 1×0 tons.

SURVEYORS: S.G.S., Vista Alegre N. 32-3, 43540 Sant Carles de la Rapita. Tel: (977) 74.22.24/54.22.28. Fax: (977) 54.11.00.

GANGWAY/DECK WATCHMEN: Not compulsory but advisable at night.

OPENING/CLOSING HATCHES: Normally opened/closed by the crew, otherwise according to "Charter Party". Lashing must be carried out by crew.

CERTIFICATES: Solas, Load Lines, I.O.P.P., Derat, Register and Tonnage Certificates.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle wine/spirits per person. Any excess must be declared and locked/sealed. Any infringement of the regulations will subject the vessel to the immediate imposition of a heavy fine and confiscation of excess.

REPATRIATION: Good facilities available.

AIRPORT: Reus Airport situated 90 km. distance and 45 minutes by car from Sant Carles. Regular flight services with Madrid. Barcelona airport situated 190 km. and 2 hours by car, worldwide destinations and arrivals.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer (Late March – late September).

HOLIDAYS: July 25th and September 11th.

POLICE/AMBULANCE/FIRE: Police: 74.07.17; Ambulance: 74.10.12; Fire: 70.00.80.

IDENTIFICATION CARDS: Not required.

AUTHORITY: Capitania Maritima, 43540 Sant Carles de la Rapita (Tarragona-Espana), Spain. *Tel:* 74.00.59. *Contact:* Fernando Cebrian Ruiz, Port Captain.

Comissio de Ports de Catalunya-Zona Portuaria II–III, Rda. General Mitre 117, 08022 Barcelona, Spain. Tel: 93-211.31.16. *FAX:* 93-4186012.

Branch office at San Carles de la Rapita. Tel: (977) 74.04.56.

SANT FELIU DE GUIXOLS (Gerona): 41.46 N. 03.01 E.

(See Plan)

PILOTAGE: Pilotage is compulsory. Service between 0700 to 2400 hrs. Tel: 320910 or call Barcelona Radio or Bagur Radio (VHF).

ANCHORAGE: Vessels arriving after midnight or due to port congestion are anchored outside the breakwater.

MAX. SIZE: The maximum advisable draft for berthing is 22 ft. and up to 115 m. length.

TUGS: No tugs available.

BERTHING: Due to the fact that a few vessels can work at the same time, it is advisable to know as soon as possible the ETA for berthing arrangements.

Commercial Wharf: Length 108 m. Depth 22 ft.
Breakwater: Length 116 m. Depth 22 ft.
A pier for coasting vessels with a maximum draft of 18 ft.

MEDICAL: Any kind of medical services can be obtained at Sant Feliu or Gerona hospitals.

FRESH WATER: By means of hoses from the pier.

FUEL: Can be supplied in small quantities.

CARGO GEAR: Commercial Wharf is served by an electric crane able to lift up to 6 tons. Normally vessel's derricks are used.

AUTHORITY: Ayudantia Militar de Marina, Raig 6, Sant Feliu de Guixols (Gerona), Spain. *Tel:* 972-320967. *Contact:* Harbour Master.

SANTANDER: 43.28 N. 03.49 W. (See Plan)

PORT LIMITS: Between Cabo Mayor and Cabo Ajo.

DOCUMENTS:

5 Crew Lists.
7 Passenger Lists, or 3 negative.
3 Cargo Manifests of the goods destined to the Port of Santander.
2 sets of Manifests for Cargoes in Transit.
Stores List in triplicate, including tobacco, spirits, radios, etc., belonging to the vessel.
Detailed list in triplicate of all personal effects of crew and passengers (tobacco, spirits, cameras, souvenirs, radios, etc.).
For vessels exceeding 499 g.r.t: Safety Radio Certificate and Safety Equipment Certificate.

Legalisation required for manifests covering tobacco and tobacco products. This legalisation to be effected at the port prior to the first Spanish port of call.

Master and each member of crew of vessel can carry for his own consumption up to 6 kilos of tobacco in whatever form, and, if passengers are carried, up to 2 kilos per passenger, all of which must be declared in Provisions List (1 kilo of tobacco = 1,000 cigarettes = 100 cigars). If Masters carry greater quantity than stated above, it cannot be manifested as tobacco for consumption on board, but must be included in Consular Manifest as being in transit, and as such must be separated in the holds from other cargo and hatches or lockers will be sealed by Customs until ship leaves Spanish waters. This Consular Manifest has to be legalised by a Spanish Consul. In the absence of Consul, said document will have to be visaed by an Authority of the former port of clearance. Otherwise, vessel would be severely fined.

PILOTAGE: Compulsory and service is permanent. Pilots board vessel by a cutter at the roads, near the entrance off Mouro Island. Pilot cutters are painted white and have the letter "P" in black, on each bow. Cutters have blue flag with letter "P" in white, on both sides of flag. At night cutters have a white light, under this a red one. VHF available.

ANCHORAGES: The harbour consists of a large bay which provides good anchorage.

RESTRICTIONS: Entrance is well marked and there is no bar. Depth at entrance is at minimum 35 ft.
MAX. SIZE: No restriction in respect of length or breadth, the maximum advisable draft to enter port is 35 ft. at HWOST.
HEALTH: If the vessel proceeds directly to berth, Pratique can be obtained immediately after berthing. Otherwise, at anchorage on vessel's arrival.

If vessel has sickness on board of a contagious nature Masters should advise Health Authorities by radio, and they will examine patients immediately upon arrival, to enable vessel to be granted Free Pratique. If vessel has to be fumigated or deratted a charge is made.
RADIO: Nearest important radio station is Cabo Mayor Radio, and it is advisable that messages are received at least 24 hours before arrival.
TUGS: No tugs required for entering the port, only for berthing or shifting when in port. Ship's lines are used, and tugs are employed according to Pilot's advice.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)
Calderon	270	4.0
Maura	55.6	6.5
Albareda	267	7.25 to 9.5
Almirante	94.2	9.5
Maliano (Sections 10 and 11)	242	10.5
Maliano (Section 9)	129	7.0
Maliano (Section 8)	106.4	5.0
Maliano (Sections 1 – 7)	710	8.0
North Edge	538	9.5
Raos (No. 1)	300	13.0
Raos (No. 2)	208	13.0
Raos (No. 3)	570	10.0
Raos (No. 4)	270	13.0
Raos (No. 7)	170	10.0
Terquisa Quay	170	12.5
Container Quay (Raos)	150	13.0
Repsol Quay	244	11.5

All depths of water quoted above correspond to LWOST and 13 ft. – 14 ft. should be added for depths at HWOST. Bottom is generally soft.

Calatrava Wharf: For discharge of chemicals. Depth alongside 34 ft. with overall length limitation of 980 ft. Up River, at Astillero, beyond the harbour area, there is one spout called Orconera Tip for loading iron ore. Vessels up to 260 ft. – 270 ft. length are allowed with a maximum draft, fully loaded, of 19 ft. Loaded vessels can only sail at high water. A modern installation for dismantling and scrapping vessels is operating up river, on the way to Astillero.
CRANES:

Maura Quay	1 fixed 30 ton crane (electric)	
Maliano Quay (Sections 10 & 11)	3 electric cranes	6 tons
Maliano Quay (Sections 1 to 7)	5 electric cranes	3 – 6 tons
North Edge Quay	4 electric cranes	6 tons
	4 electric cranes	12 tons
Raos 1	4 electric cranes	16 tons
Raos 3	7 electric cranes	16 tons
Raos 3	3 electric cranes	6 tons
Raos 3	Mobile container crane	35 tons

Also movable motor cranes, mechanical shovels and similar, available.
STEVEDORES: It is very important that Masters send advance notice regarding vessel's ETA. With this notice, Agents can inform Shippers or Receivers' stevedores accordingly. Official working hours of port, are: Monday/Saturday: 0800 – 1200 hrs.; 1400 – 1800 hrs.
CARGO HANDLING FACILITIES: There are berths for handling bulk cargoes, grain, ore, coal, etc. There are also berths for handling bulk liquids, chemicals. Berth available for Ro/Ro traffic.

1×30.5 tonne Liebherr gantry crane for containers.
MEDICAL: Any kind of medical services can be arranged.
TANKERS: "Campsa" (Spanish State Monopoly): Installation is served by two identical concrete wharves situated in Maliano Basin, berthing space of which is 500 ft. with a depth alongside of 29 ft.
DENSITY: Sea water.
FRESH WATER: Always available. Supply is performed by tugs and from shore connections at various quays.
FUEL: Ordinary fuel, diesel and gas oil are available at "Campsa". Depth alongside 16 ft. – 32 ft.

Advisable that shipowners stem bunkers through their own Contractors with (at least) 48 hours' notice. Delivery can be performed either by tank-trucks or at bunkering pier.
CONSULS:

Belgium
Bolivia
Colombia
Costa Rica
Chile
Denmark
Dominican Rep.
Ecuador
Finland
France
Germany
Great Britain
Greece
Guatemala
Haiti
Honduras
Italy
Mexico
Monaco
Netherlands
Norway
Panama
Peru
Portugal
Sweden

Note. Acting as Consul of those countries with no Consular Representation: Valentin Lavin del Noval, Dominican Rep. Consul.
REPAIRS: Good repair facilities with various shipyards at port. All types of deck, engine, etc., repairs are possible.
DRY DOCKS: Three dry docks, one of which is within the harbour area and the other at Astillero (beyond the harbour area). Dimensions are:

Extreme length	405 ft.	434 ft.	722 ft.
Breadth at entrance	58 ft.	54 ft.	105 ft.
Depth on sill (high water)	23.7 ft.	20 ft.	38 ft.

GANGWAY/DECK WATCHMEN: Not compulsory but available upon request.
OPENING/CLOSING HATCHES: Effected normally by crew, except in liner vessels, which is contracted by stevedores.
CERTIFICATES: Vessels should have the usual documents on board, but only the Safety Radio, Safety Equipment and Derat Certificates are required by Authorities.
CUSTOMS ALLOWANCES: Normally, Customs permit 200 cigarettes per man out of bond. Additional quantities needed depend on the stay of ship in port. One bottle of spirits per man.
CARGO GEAR: Shore cranes are usually employed in loading/discharging operations.
REPATRIATION: No difficulties.
AIRPORT: About 4 miles from town. There are regular services with Madrid and Barcelona. Also charter flights to U.K. and other European countries.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS:

January 1st, New Year's Day	Full day	Work can be arranged
January 6th, Epiphany	,,	,,
March 19th, Saint Joseph	,,	,,
Maundy Thursday	,,	,,
Good Friday	,,	,,
May 1st, Saint Joseph Artisan	,,	,,
Ascension Day	,,	,,
Corpus Christi	,,	,,
June 29th, Saint Peter & Saint Paul	,,	,,
Labour Day	,,	,,
July 25th, Patron Saint of Spain	,,	,,
August 15th, Assumption Day	,,	,,
August 30th, Martyrs' Day	,,	,,
September 15th, Virgin La Bien Aparecida, Patron of Santander	Full day	Work can be arranged
October 12th, Holiday of Hispanicism	,,	,,
November 1st, All Saints Day	,,	,,
December 25th, Christmas Day	,,	,,

POLICE/AMBULANCE/FIRE: Police 222543; Civil Security Guards 232004; Hospital, Casa de Socorro 221214, Valdecilla 231400; Fire 231662; Ambulance Cruz Roja 270235.
TELEPHONES: In very special instances, can be arranged.
SERVICES: Available for tank cleaning, washings, compass adjusting, hull cleaning whilst floating, radio installation repairs, etc.
SHORE LEAVE: Crew allowed ashore at any time.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Marpol service available.
WASTE OIL DISPOSAL: Marpol service available.
SEAMAN'S CLUBS: Marine Social Institute, Avda. Sotileza. Tel: 214600.
CURRENCY: Peseta.
DEVELOPMENTS: New quay at Raos 8 available from July 1997 (Length 300 m., depth 13.0 m.).
AUTHORITY: Autoridad Portuaria de Santander, Paseo de Pereda 33-1°, 39004 Santander, Spain. *Tel:* 42-314060. *Telex:* 35936 Jpsr E. *FAX:* 42-314904. *Contact:* D. Manuel Martin Ledesma, Port Director.

SEVILLE: 37.25 N. 06.00 W. (See Plan

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
2 Cargo Manifest, including cargo for discharge and in transit.
Declaration of Health.
2 Lists of Provisions and Stores.
2 Copies of Bills of Lading.

If vessel carries over 6 kilos tobacco per man the excess to be declar in a separate manifest which must be visaed by Spanish Consul at las port, otherwise is exposed to heavy fine.
PILOTAGE: *At the Bar:* Vessels may commence to enter and leave th river 1.5 hours after low water. Bar Pilots are stationed at Chipiona an come out to board vessels when requested, 2 miles North of Chipion Lighthouse.

Pilot motor launches about 9 m. long, painted white with black "P" o sides. They carry regulation lights and signals day and night.
River Pilots: Vessels should radio their ETA at least 24 hours in advan to "Practicos Sevilla". River Pilots are stationed at the pier at Bonanz Lat. 36° 48' N., Long. 06° 20' W. Sound signal to call Pilot is 3 long blast Pilot boards from white-painted launch marked by black letter "P" an carrying regulation signals. Pilots require means of embarkation i accordance with International Conventions.
ANCHORAGE: At Bonanza, in depth of 20 ft. below chart datum.
RESTRICTIONS: Navigation in the River Guadalquivir is prohibited night, both inward and outward for tankers or vessels with hazardo cargoes. Any vessel with a draft greater than 19 ft. 06 in. may not lea at night.

Draft is controlled by height of tide and this should be ascertained Owners or Agents in advance for the probable date of entry.
MAX. SIZE: Max. draft 23 ft., max. beam 24.2 m. (The limitation in bea is for passing through the lock). Lock length 200 m., width 25 m. Tank are required to have an additional 1 ft. keel clearance.
HEALTH: Pratique is obtained on arrival at Bonanza, on presenta of International Health Certificates.
RADIO: Tarifa Radio – EAC.
VHF: Channel 12 is used to call all stations between Chipiona a Seville, and between vessels.
TUGS: Normally join vessel in the anteport. Ship's tow line is used

BRIDGES: Vessels berthing at Delicias Quay must pass through the Alfonso XIII drawbridge. May be opened between 0715 hrs. and 2200 hrs.
STEVEDORES: 24 hours' notice should be given by Agents and confirmed 12 hours before vessels arrival.
CRANES: 46 cranes with capacity 3 tons – 36 tons.
MEDICAL: All medical and hospital facilities available.
TANKERS: There are 2 berths, depth alongside 20 ft.
At Quay No. 2, hoses 8 in. diameter.
At Quay No. 3, hoses 8 in. and 10 in. diameter.
DENSITY: Fresh water. The tide has no influence at Seville.
FUEL: All grades available.
CONSULS: The following countries are represented at Seville:

Belgium
Bolivia
Canada
Colombia
Cuba
Chile
Denmark
Dominican Republic
Germany
Great Britain
Greece
Honduras
Italy
Liberia
Nicaragua
Netherlands
Panama
Peru
Portugal
Sweden
United States
Uruguay
Venezuela

REPAIRS: All types of repairs can be effected.
DRY DOCK: Astilleros Espanoles S.A. have 1 dock, length 149 m., breadth 25 m.
GANGWAY/DECK WATCHMEN: Not considered necessary. All quays are watched by the Guardia Civil.
OPENING/CLOSING HATCHES: Performed by ship's crew.
CUSTOMS ALLOWANCES: 6 kilos tobacco per crew man, and 2 kilos per passenger; this includes tobacco in bonded stores. No restriction on wines/spirits.
REPATRIATION: All facilities available.
AIRPORT: Situated 12 km. away, regular daily flights to Madrid, Barcelona, other parts of Spain. Some transatlantic flights.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: 1st January; 6th January; 27th and 28th March,; Maundy Thursday; Good Friday; 1st May; 29th May; 25th July; 15th August; 1st November; 6th and 8th December; 25th December. All holidays may be worked with overtime.
POLICE/AMBULANCE/FIRE: Police: 091; Fire Brigade: 232123; Ambulance: 231945.
TELEPHONES: Can be installed on board if requested 10 days in advance.
SERVICES: Fresh provisions and stores available, refuse collection, correction of compasses.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
AUTHORITY: Comandancia Militar de Marina de Sevilla, Avenida de Molini No.7, Sevilla, Spain. *Tel:* 4614146. *FAX:* 4615648.
Contact: Comandante, Militar de Marina.

SOLLER, Majorca: 39.47 N. 02.46 E.

DOCUMENTS: See "Bilbao".
PILOTAGE: None available. 2 intermittent lights situated on the Mole indicate the Entry Channel.
MAX. SIZE: Advisable length and draft 60 m. and 4.50 m. respectively.
TUGS: None available.
MEDICAL: It is advisable to give advance notice if medical attention is required. There are no hospitals. Medical service is available 5 km. from the port.
FRESH WATER: Not available at the quay.
FUEL: Not available. If required the order should be placed to CLH through the Agent.
CONSULS: None.
REPAIRS: No facilities exist.
GANGWAY/DECK WATCHMEN: Crew do this operation.
OPENING/CLOSING HATCHES: Crew.
AIRPORT: The airport is situated 40 km. away; the island is well connected with the Peninsula (mainland) and with foreign airports.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: It is advisable to have these available.
AUTHORITY: Jefe Encargo del Despacho de Buques, Oficianas del Destacamento de la Comandancia Militar de Marina en Soller.

TARRAGONA: 41.05 N. 01.14 E. (See Plan)

PORT LIMITS: New port limits are within a rectangular sea zone limited by:
1. Harbour breakwaters and adjacent shoreline.
2. Imaginary line starting from Punta Mora (1° 09' 36" E.)
3. Imaginary line starting from Salou Cape (1° 20' 33" E.)
4. Parallel Lat. 41° 00' 00" N.

All the vessels anchoring within this zone will incur harbour dues.

DOCUMENTS: Cargo Manifest of all goods in ship, stating any foreign port from where those goods come. This procedure should always be done in the first Spanish port.

In first Spanish port ship should produce an Itinerary Manifest; and those ships which carry goods to discharge should produce this Manifest in those ports in which they will discharge the goods.

Supplies Certificate for those ships not having any goods to discharge in any Spanish port, or who have previously been in other Spanish port.
Register of the Supplies and Equipment in ship.
Register of the Crew's Effects, if the ship comes directly from a foreign port.
Passenger List (if there are passengers). Negative Passenger List (if there are no passengers).
Crew List.
Health Certificate, if the ship comes from another Spanish port.
All ship's Certificates valid.
Tanker Check List for tankers.
All ship's Declaration of Oil Residues (sludges).
Oil Record Books properly filled in.

APPROACHES: *Entrance Channel:* Width 250 m., length 1,050 m., depth 20.0 m., bottom – gravel and sand.
Entrance Mouth: Width 350 m., depth 22.0 m., max. current 2 knots.
PILOTAGE: Compulsory. Provided by Corporation Pilots of the Port of Tarragona, Muelle Aragon s/n., 43004 Tarragona. Tel: 34-77-24.02.07. Fax: 34-77-24.47.44.

Pilot's communicate with vessel on VHF Channel 16 and Channels 14-12-9. Notice of ETA and request for Pilot must be made to Chief of Operations at least 24 hours in advance (Fax No.= 24.47.44.).

Pilot boats: Black colour with letter "P" painted in white on both sides.
Lights: According to International Regulations. Pilotage area begins at a max. distance of 2 miles from port entrance. Ships waiting for Pilot anchor in the Rada (Roads) and East of the lighthouse. If weather does not allow, Pilot will meet ship at port entrance. Ladder for Pilot to be placed at leeward side.
VTS Requirements: Pre-entry requirements:

Time: 1 hour before arrival at Tarragona port limits. 2 hours before arrival at Tarragona port limits for vessels with dangerous goods.

Place: At least 9 miles before arrival at the breakwater (green light).

Format and Contents: Name, flag, call sign, port of registry, draft, GT, last port of call, cargo and IMDG identification.
ANCHORAGES: West limit is marked by imaginary line running N/S at the Cap Salou to Latitude 41° N. East limit is marked by imaginary line running N/S at Torre de la Mora to Latitude 41° N. Depths in Rada are 16.0 m. and 30.0 m.; reasonable holding ground (mud and sand).
RESTRICTIONS: There are restrictions regarding berthing of Tankers in the Pantalans Asesa and Repsol, Monobuoy of Repsol and Inflammables Quay, during night hours, whatever their tonnage.
MAX. SIZE: Draft 18.0 m.
Bulk carriers: Draft 18.0 m.

Tankers:	At Pier	18.00 m.
	At Monobuoy	42.80 m.

LPG Vessels: Draft 12.0 m.
Also see "Berthing".
HEALTH: Hospitals and clinics available. There is a doctor service in Health Department of port, which is authorised to vaccinate, and give certificates against yellow fever authorised by the OMS.
RADIO: Tarragona Radio, VHF Channel 16.
VHF: Pilot on Channel 16.
TUGS: 7 tugs, 2,030 h.p. – 4,000 h.p. Tugs join vessel outside port. Ship's lines are used.
BERTHING: Port Authority Facilities:

Name	*Length* (m.)	*Depth* (m.)	*Max. Draft* (m.)	*Use*
Ro-Ro Catalunya	22	20.00	18.00	General Cargo
Muelle Catalunya	673	20.00	18.00	Bulk Cargo
Muelle Aragon	1,237	12.40	11.89	Bulk/General Cargo
Ro/Ro Ramp Aragon-Lerida	30	12.40	11.89	General Cargo
Muelle Lerida, West Side	170	10.00	9.75	General Cargo
Muelle Lerida, East Side	225	8.00	7.62	General Cargo
Muelle Lerida, Head	90	9.00	8.53	General Cargo
Ro/Ro Ramp Lerida-Levante	25	8.00	7.62	General Cargo
Muelle Levante	352	9.00	8.53	General Cargo
Muelle Costa	350	6.60	6.50	General Cargo
Ro-Ro Ramp Costa	20	6.80	6.50	General Cargo
Muelle Menor Calado	80	3.80	3.00	Service Vessels
Ro/Ro Ramp Reus-North	17	10.00	9.14	General Cargo
Muelle Reus, North Side	252	10.00	9.14	General Cargo
Muelle Reus, Head	100	10.00	9.14	Bulk Cargo
Muelle Reus, South Side	350	10.00	9.70	General Cargo
Muelle Rioja	218	12.00	10.67	General Cargo
Muelle Castilla, South Side	689	14.40	12.19/ 13.25	Bulk/General Cargo
Muelle Castilla, West Side	497	14.40	13.25	Bulk Cargo
Ro-Ro Ramp Castilla	26	14.40	13.25	General Cargo
Inflammables Platform				
No. 1 & 2	430	14.40	13.10	Liquids
No. 4	112	12.40	11.00	Liquids
Private Facilities:				
Inflammables No. 3 – Repsol Butano S.A.	230	14.40	13.10	LPG
Asesa Jetty: Platform 100	260	14.40	12.04	Petroleum Products
Platform 20	200	10.90	9.45	
Platform 6	140	9.00	7.32	
Repsol Jetty: Platform 80-S	285	18.30	15.39	
Platform 80-T	285	18.30	15.39	
Platform 35-S	230	15.40	11.89	
Platform 35-T	230	15.40	11.89	
Platform 11-S	150	11.80	8.07	L.P.G.
Repsol Monobuoy	–	42.80	–	Crude Oil

CRANES: Electric Cranes:
Muelle Catalunya: 2×25 tons, 4×20 tons.
Muelle Navarra: 2×12 tons.
Muelle Aragon: 4×6 tons, 5×12 tons, 1×35 tons, 10×16 tons.
Muelle Lerida (South Side): 3×6 tons.
Muelle Lerida (West and East Side): None.
Muelle Levante: None.
Muelle Costa: None.
Muelle Reus (North): 2×12 tons, 2×6 tons.
Muelle Reus (South): 3×6 tons, 2×12 tons, 1×14 – 28 tons.
Muelle Rioja: 1×14 – 28 tons, 2×6 tons.
Muelle Castilla (South): 2×14 – 28 tons, 4×12 tons, 3×16 tons, 2×25 tons, 1 container crane × 40 tons.
Muelle Castilla (West): 3×12 tons, 4×16 tonnes.
Mobile Cranes:
1×1 – 6 tons, 2×3 – 30 tons (Astilleros Tarragona).
Floating Crane: None.

SPECIALISED CARGO HANDLING FACILITIES:

Location	*Owner*	*Characteristics*
Muelle Catalunya	Berge Maritima, S.A.	Multipurpose warehouse for cereals and other uses of 40,000 ton capacity. Two platform of 16 tonnes and 60 tonnes with their corresponding offices and without any mechanical service.
Muelle Aragon	Interbeton-2, S.A.	Detachable warehouse for cement, capacity 9,500 tons.
Muelle Aragon	Silos de Tarragona, S.A.	Cereal silos of 45,000 tons capacity, with 4 automatic grain elevators handling 400 t.p.h. and 2×5.5 ton pneumatic scales for weight checking. 2×300 t.p.h. output and recirculation elevators. Three output scales for direct truck loading. 2×400 t.p.h. berth to silo grain conveyor belts.
Muelle Castilla Oeste	Silos de Tarragona S.A.	Polivalent warehouse for cereals and other uses of 15,000 tons capacity.
Muelle Aragon	Berge Maritima S.A.	Multipurpose warehouse for cereals and other uses of 35,000-ton capacity with 4 mechanical lifts with a capacity of 250 t.p.h. each, 2 conveyor belts of 250 t.p.h. and another of 500 t.p.h. and 1×60 ton weighbridge with 15 m.×3 m. platform.
Muelle Lerida/ Aragon	Aut. Portuaria	Quay and double ramp for the loading/unloading of vehicles.
Muelle Lerida/ Levante	Aut. Portuaria	Quay and double ramp for the loading/unloading of vehicles.
Muelle de Navarra	Aut. Portuaria	Quay and ramp for loading/ unloading vehicles.
Muelle Reus	Edergrasa	3 outlets with 4 pipes for the loading and unloading of chemical products onto or from tankers with capacity of 20,758 cu.m. of storage at 150 t.p.h. and 1×60 ton weighbridge with 15 m.×3 m. platform.
Muelle Reus	Cargill Espana S.A.	Silos for grain of 30,700 tons capacity, with 3 elevators for filling and recirculator and unloading of 300 t.p.h. and 1×60 ton weighbridge with 15 m.×3 m. platform. 1 pneumatic unloader of 150 t.p.h. 2 conveyor belts for grain from berth to silos of 300 t.p.h. each.
Muelle Reus	Cementos del Mar, S.A.	Two silos of 4,000 ton total capacity for loading and unloading of cement, and 60 ton weighbridge with a 15 m.×3 m. platform.
Muelle Reus	Fruport, S.A.	Refrigerated warehouse with 2×13,000 cu.m. chambers and handling area of 1,750 sq.m. for unloading and storage of perishable products. Truck unloading dock for 5 vehicles simultaneously. New refrigerated warehouse with 2,700 cu.m. chamber and handling area of 1,200 sq.m. with 4 docks for loading/unloading simultaneously.
Muelle Reus	C.L.H.	2×10 in. pipelines for the loading and unloading of liquid fuels producing 250 t.p.h. Fuel supply to fishing boats with 2 outlets and 4 in. pipeline.
Muelle Castilla Oeste	Codemar-Iberbulk S.A.	Warehouse for cereals of 6,860 sq.m. with 28,000 tons capacity and a 60 ton weighbridge with a 15 m. × 3 m. platform.
Muelle Rioja	C.L.H.	3 pipelines for unloading liquid fuel to the factory. 1×10 in. petrol, 1×10 in. diesel oil and 1×12 in. fuel oil.
Muelle Rioja	Terminales Quimicos, S.A.	Firefighting system consisting of an electric pump, a diesel pump and two Jockey pumps.
Zona entre contradiques	Terminales Quimicos, S.A.	Chemical products terminal with 45 tanks and total capacity of 28,016 cu.m. and one loading and unloading outlet with 4×6 in. pipelines.
Muelle Castilla	Cargill Espana S.A.	Silos for grain of 40,000 tons capacity and a 10 ton receiving hopper scale, 2 elevators for filling and recirculation and 2 conveyor belts for filling and unloading of 800 t.p.h. each. Automatic unloader of 800 t.p.h. Automatic unloader of 450 t.p.h. A conveyor belt from berth to silos of 800 t.p.h.
Atraque No. 1 de Inflamables	Repsol Butano, S.A.	3×10 in. pipelines for the loading and unloading of LPG with an average of 250 t.p.h. in normal unloading conditions (they do not allow an operational temperature of less than 5°).
Atraque No. 1 de Inflamables	Terminales Quimicos, S.A.	8 outlets with 4 pipes of 6 in.
Zona Inflamables	Terminales Quimicos, S.A.	Chemical products terminal with 45 tanks and total capacity of 90,000 cu.m. for ship loading and unloading, 22 loading and unloading points for use simultaneously. Possibility of inerting, heat supply and inert atmosphere holding.
Zona Inflamables	Terminales Portuarias S.A.	Enlargement of the terminal for the reception, storage and re-shipment, with the construction of 3 new tanks. Chemical products terminal with 27 steel tanks and 24,755 cu.m. capacity, equipped for possible supply of heat and for the recirculation of the content together with a loading and unloading pump and individual loading arm for each tank. 6 points for loading/unloading of road tankers simultaneously. Possibility of inerting and maintaining inert atmosphere.
Atraque No. 2 de Inflamables	Terminales Quimicos, S.A.	7 terminals with 4×6 in. pipes.
Atraque No. 1 de Inflamables	Terminales Portuarias, S.A.	6 terminals with 4×6 in. stainless steel pipes and 2×6 in. cast steel pipes.
Atraque No. 2 de Inflamables	Terminales Portuarias, S.A.	6 terminals with 4×6 in. stainless steel pipes and 2×6 in. cast steel pipes.
Atraque No. 3 de Inflamables	Repsol Butano S.A.	3×10 in. pipeline for the loading and unloading of LPG with an average throughput of 250 tons/hr in normal unloading conditions (they do not allow an operational temperature of less than −5°).
Atraque No. 4 Inflamables	Terminales Quimicos, S.A.	2 pipelines for loading water of 12 in. diameter. 1 pipeline for loading/unloading gasoil of 10 in. diameter. 1 pipeline for loading/unloading oil of 8 in. diameter. 1 stainless steel pipeline for loading/unloading chemical products of 6 in. diameter.
Atraque No. 1 and 2 de Inflamables	Caburos Messer	1×4 in. pipe for the supply of nitrogen to the berthing points No. 1 and 2.
Atraque No. 3 de Inflamables	Carburos Messer	1×3 in. pipe for the supply of nitrogen.
Zona Inflamables	Terminales Quimicos and Terminales Portuarias	Facility for the loading/unloading wagons for liquids.

Location	*Owner*	*Characteristics*
Puerto Exterior	Asfaltos Espanoles S.A.	Dolphin 1,150 m. long with 3 moorings for ships of 6,000, 20,000 and 100,000 d.w.t. 3 pipelines for crude, oil, naphtha and deballasting of 16 in. – 20 in. diameter. Capacity 1,000 t.p.h./3,000 t.p.h. 4 pipelines for fuel-oil, naphtha and asphalt of 12 in. diameter. Capacity 600 t.p.h. 11 pipelines for ethylene, gas oil, gasoline, propylene and other chemical products of 6 in. – 8 in. diameter. Capacity 100 t.p.h. – 600 t.p.h. 8 pipelines for fresh water supply, firefighting water, treated water, compressed air and gas return.
Puerto Exterior	Repsol Petroleo, S.A.	Dolphin 1,489 m. long with 5 moorings for ships of 11,000, 45,000 and 100,000 d.w.t. 2 pipes for crude oil of 30 in. diameter and 56 in. diameter. Capacity 3,500/12,500 t.p.h. 2 pipes for Naphtha and deballasting of 24 in. diameter. 6 pipes for fuel-oil (2), vacuum gas-oil, petrol (2) and gas-oil of 20 in. diameter. 2 pipes for kerosene and pygas of 16 in. diameter, 1 pipe for bunker fuel of 14 in. diameter, 1 pipe for propane of 12 in. diameter, 2 pipes for ethylene and propylene of 10 in. diameter, 3 pipes for bunker diesel, octene and butane of 8 in. diameter, 3 pipes for butadienne, fresh water (not drinking water) and vapour to flare of 6 in. diameter, 1 pipe for blanketing by nitrogen of 4 in. diameter, 1 pipe for ethylene gas of 3 in. diameter, 1 pipe for propylene gas of 4 in. diameter. Monobuoy for unloading and bunkering of ships up to 250,000 d.w.t. in normal conditions and exceptionally up to 325,000 d.w.t. and 40 m. draft. 2 floating hoses of 24 in. for crude oil. Connection with the ship is 16 in. ASA of 150 lb. and 1 floating hose of 12 in. diameter for bunkering fuel oil, connection with the ship is 10 in. ASA of 150 lb.

CARGO HANDLING EQUIPMENT: (Private).

Forklift Trucks: 38×2.5 – 25 tons.

Forklifts with Spreaders for Containers: 7×20 – 40 tonnes.

Shovel Loaders: 47×1 – 80 tonnes.

Grabs: 9×3 tons; 7×12 tons, 4×14 tons, 9×16 tons, 5×20 tons, 6×25 tons.

Hoppers for Trucks: 17×8 tonnes – 50 tonnes.

Conveyor Belts: 12×250-800 t.p.h. for bulk cargoes.

TANKERS:

A.S.E.S.A.:

Platform 100:	Crude and distilled products.
Max. Draft:	39 ft. 06 in. up to 110 m. LOA 39 ft. 00 in. up to 260 m. LOA
Max. LOA:	260 m.
Min. LOA:	150 m.
Max. Size:	100,000 d.w.t.
Platform 20:	Crude, DPP, Asphalt, VCM and Naphtha.
Max. Draft:	32 ft. 00 in. up to 175 m. LOA 29 ft. 00 in. up to 200 m. LOA
Max. LOA:	200 m.
Min. LOA:	75 m.
Max. Size:	20,000 d.w.t.
Platform 6:	Asphalt, VCM, Ethylene and Propylene.
Max. Draft:	24 ft. 00 in.
Max. LOA:	140 m.
Min. LOA:	75 m.
Max: Size:	6,000 d.w.t.

Repsol Petroleo, S.A.:

Platform 80-S	Crude and distillated products.
Max. Draft:	48 ft. 09 in.
Max. LOA:	290 m.
Platform 80-T	Propane.
Max. Draft:	48 ft. 09 in.
Max. LOA:	281 m.
Platform 35-T and 35-S	Crude and distillated products.
Max. Draft:	36 ft. 11 in.
Max. LOA:	230 m.
Platform 11-S	L.P.G.
Max. Draft:	26 ft. 11 in.
Max. LOA:	155 m.
Monobuoy	Crude Oil
Max. Draft:	140 ft. 05 in.
Max. LOA:	350 m.
Max. Size:	325,000 d.w.t.

Mooring and unmooring manoeuvres are performed with the assistance of tugs. Pilotage is compulsory for mooring.

No engine repair is allowed that could prevent the immediate departure of the tanker. The International Safety Regulations are to be observed.

Repsol Monobuoy:

SBM type, with a diameter of 14 m. Anchored with 6 chains, 42 m. depth. Connected to the Monobuoy are 3 floating hoses (2×24 in., 1×12 in. diameter), 287 m. length. Vessels sailing in the proximity should give a wide berth.

The Monobuoy location is: Lat. 41° 04.1' N., Long. 1° 13.3' E.

Day marking of Monobuoy: Yellow "X" shaped figure. Night marking by yellow light visible all round, with 4 flashes every 20 secs., range 5 miles.

Dirty Ballast:

At the installations of REPSOL there is a plant for the disposal and treatment of ballast with a maximum capacity of 30,000 cu.m. at a maximum flow of 2,000 cu.m.p.h. The plant is available to all tankers due to take cargo in the Pantalan.

Also see "Specialised Cargo Handling Facilities".

NOTE: The REPSOL Jetty and Terminal Port Captain requires: (1) Vessels due to load/discharge liquid products must guarantee at all times their tanks are free of oxygen; and (2) vessels fitted with IGS must provide for and prove their system is in good working order before approaching any of the REPSOL jetty berths.

Gas Free Certificates: Gas Free Certificates will be required for all tankers, no matter what the previous cargo carried was.

Inward Cargo Manifest: The Customs House will no longer accept general cargo denominations like "chemicals", "productos quimicos", "acids", etc.

All commodities must be manifested with their denominations, viz. "Ethylglycol", "Styrene Monomer", "Sulphuric Acid", etc.

LPG:

Asesa Berth No. C-06:

Ship's Length	Minimum 75 m., maximum 125 m.
Draft	Maximum 25 ft.
Deadweight	Pier owners (Asesa) receive vessels up to 5,000 d.w.t. at this berth.
Allowed weather conditions for berthing	Max. wave height 70 cm. – 80 cm. Max. wind force 35 km./hr. – 40 km./hr.
Mooring Details:	See "Plan".

Products:

Ethylene:

Storage capacity	9,000 tonnes (2 tanks)
Operating pressure storage tanks	10 gm. – 65 gm.
Design pressure storage tanks	70 gm.
Compressor capacity	4.6 tonnes per hour
Pipelines to berth	Liquid nominal diameter 10 in. Liquid nominal diameter 2 in. (for pre-cooling purposes only)
Lengths of pipelines	1,100 m.
Unloading facilities on dock	Chicksan type DCMA, nominal diameter 8 in., length 46 ft.
Unloading rate max.	400 tonnes per hour at −103°C (at higher temperatures unloading rate decreases fast).

Propylene Oxide:

Storage capacity	1,600 tonnes (1 tank)
Operating pressure	0.3 – 0.45 kg./sq.m.
Design pressure	0.50 kg./sq.m.
Pipe-lines to berth	Liquid nominal diameter 8 in. Vapour nominal diameter 4 in.
Lengths of pipelines	1,100 m.
Unloading Facilities on dock	SS hoses nominal diameter 4 in. (for vapour)

STEVEDORES: Advisable to report ETA, in order to have all the necessary equipment and necessary number of workmen required for operations. If there are not enough cranes at a given time, own ship equipment is used.

FRESH WATER: Supply of fresh water by means of an underground pipe in all the commercial quays of the port. Rate 20 t.p.h.

FUEL: Fuel oil, diesel oil and gas oil available. Request of this supply should be done with 24 hours' notice through the Commercial Agent of C.L.H.

CONSULS:

Brazil
Colombia
Costa Rica
Cuba
Denmark
Finland
France
Greece
Guatemala
Italy
Netherlands
Norway
Sweden
United Kingdom

REPAIRS: Small repairs available.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: Not compulsory, if Master requires them he is provided with specialised staff for this purpose.

OPENING/CLOSING HATCHES: Although this work is normally carried out by crew it can be done as well by the stevedores if required at extra charge.

CUSTOMS ALLOWANCES: It is permitted to have a packet of cigarettes per person per day. Unlimited allowance of national drinks.

REPATRIATION: Facilities exist.

AIRPORT: There is a small airport 12 km. away, for cargo and charter flights.

Nearest international airport for passengers and spare parts consignments is at Barcelona, which is 1 hour 30 minutes drive (60 miles).

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: January 1st and 6th; May 1st; June 24th; August 15th and 19th; September 11th and 23rd; October 12th; November 1st; December 6th, 8th, 25th and 26th. Also: Good Friday and Easter Monday.

POLICE/AMBULANCE/FIRE: Police 23.33.11; Ambulance at local hospital 23.35.35; Fire 54.50.80.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Service available through Grino Trans S.A., c/o Mar. No. 13, 43004 Tarragona, Tel: 77-215274.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

DEVELOPMENTS: The port is designing 2 quays for dry bulk. One of the quays will have 150 m. length and 14.00 m. depth, and will have a berthing line perpendicular to the present berthing line of the Catalonia Quay. The second quay will have a berthing line of 400 m. length and 14.00 m. depth, and will be located between the Aragon Quay and the Catalonia Quay.

The port is also constructing a new berth for dangerous liquid cargoes at Muelle de Inflamables.

The Port of Tarragona will open the new car terminal. It is located in a new esplanade. The new dock will provide a capacity of 10,000 cars and the esplanade of 16.5 hectares will be connected by road and railway. All Roll-on/Roll-off facilities are ready in the new car terminal.

SHIPMASTER'S REPORT: February 1987.
Vessel: 95,000 d.w.t.
Documents:

6 copies Crew List.
2 copies Crew Declaration.
3 copies Stores List.
1 copy Health Declaration.

Two Health Officers boarded. Ship's stamp required on all documents.

Anchorages: Vessel anchored one mile off East Breakwater. Bottom is mud and holding good.

Tugs: One tug secured forward and aft. 2 ship's lines used through the centre fairleads.

Berthing: Vessel berthed at the Southern outermost berth. Vessel steams in and lets go starboard anchor. Two headlines and one forward backspring are sent ashore after which vessel swings to port with assistance from the tugs. The backspring is to be kept tight. First line ashore aft is a spring. The lines to the tugs are sent ashore by a boat.

On completion of mooring the vessel has forward: 4 headlines, 2 breastlines and 2 springs. Aft: 4 sternlines, 2 breastlines and 2 springs and an additional line to the starboard quarter buoy.

Gangway: Normally a shore gangway is provided but on our visit it was being repaired.

Shore Leave: Passes are required for shore leave. Transport is required.

SHIPMASTER'S REPORT: June 1987.

Vessel arrived at 1700 hrs. and Pilot boarded at 1800 hrs. Vessel all fast at 1900 hrs.

On entering the Pilot boards about one mile from the breakwater and on departure he leaves just inside the breakwater.

Vessels of Panamax size use 3 tugs. Tugs' performance was reasonable.

Our arrival draft was 12.83 m. and the present maximum draft at the bulk terminal is 14.0 m.

There is a new berth nearing completion (Cataluna Quay) which will have a depth alongside of 20.0 m.

A new SBM is being positioned off the port to take maximum size vessels.

No Spanish arrival forms provided. I.M.O. forms used. Arms and Ammunition List, Passenger List and Drugs List required. These may be typed on ship's paper. Agent requires Load Line Certificate, Safety Certificate, Radio Certificate, Safety Construction Certificate and I.O.P.P.

Cargo operations commenced at 0900 hrs. the following day and cargo (11,000 tonnes) was completed at 0115 hrs. the next day. Documents completed at 0200 hrs. and Pilot boarded at 0300 hrs. The vessel was clear of the berth at 0340 hrs. and Pilot departed at 0410 hrs.

SHIPMASTER'S REPORT: September 1987 (Updated 1990).
Chart: BA. Chart No. 1193.
Documents:

6 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
2 copies Cargo Manifest.

Terminal shore passes are issued to all crew members. Customs are likely to board the vessel at any time.

Anchorage: Anchorage is outside the breakwater in the area indicated on BA. Chart No. 1193. Depth is about 15 fathoms. This is not a good anchorage in Winter due to the heavy ground swell.

Pilotage: The Pilot boards at the anchorage or off the breakwater entrance near the green buoy marking the breakwater extension. Berthing is only carried out during daytime. However, unberthing is possible throughout 24 hours. Unberthing for small vessels may be allowed without the use of a Pilot if no Pilot available.

Movements inside the harbour only take place during daylight hours.

Pilot may be contacted on VHF Channels No. 12 and 9.

Berthing: Ethylene is handled at 2 piers operated by REPSOL (Berth No. 11) and ASESA. Vinyl Chloride Monomer (VCM) is handled at one pier by ASESA.

Vessel berthed port side to head out at Berth No. 11 (REPSOL). The berth is very open to Southerly winds and swells. Moorings consisted of3 head/stern lines and 2 springs at each end. The starboard anchor was also used and a line was run from aft to the off shore buoy.

Personnel are not allowed to walk down the pier. A mini bus is provided by the terminal. No stores are allowed on pier. The ASESA Pier is the nearest to the city and the depth on Berth "C" is 30 ft.

VCM is handled on Berths "B" and "C" and ethylene is handled at Berth "B". Vessel berthed starboard side to head out. Moorings consisted of 3 head/stern lines and 2 springs forward and aft. Port anchor used.

In Winter time a line is run to the offshore buoy aft and a heavy shore spring is provided forward. The berth is effected by wind and swells from the South but to a lesser extent that the REPSOL berth. Vehicles with stores are allowed to within 100 m. of the vessel. There is a mini bus every hour on the half hour from 0730 hrs. to 0230 hrs. from the pier to the city centre and on the hour from 0800 hrs. to 0300 hrs. from the city to the pier.

Cargo:

REPSOL: Ethylene is handled through an 8 in. Chicksan at the REPSOL Berth. The arm is the nearest arm to the shore. The ship's maximum pumping rate is allowed up to a back pressure of 2 Bar. Samples can take up to 3 hours.

ASESA: Ethylene is handled through an 8 in. Chicksan. Ship's maximum pumping rate allowed up to a back pressure of 3 Bar. Samples take about 3 hours.

DOW: Ethylene pipelines are interconnected between both berths so berthing can take place on either pier, depending upon availability.

VCM loading is also carried out at ASESA through stainless steel/rubber hoses of 4 in. (liquid and vapour). Ambient storage. (In August our intake temperature was +28° C). Vapour can only be pumped ashore. The terminal has 2 loading pumps which give loading rates of 90 t.p.h. or 150 t.p.h. Samples take 1.5 hours per ship's tank.

VCM storage capacity is 6,000 tonnes in 2 × 3,000 tonne tanks. One tank is for finished product and one for production. Maximum production 450 tonnes per day. However this is greatly reduced in the Summer months due to the high temperature.

Ethylene is purchased from local supplier to produce VCM.

General: There are many ship chandlers in the area.

Fresh water available by barge at both piers. Water is not of good quality and should be only taken in emergency.

Nearest main airport is at Barcelona which is 2 hours drive.

The construction of the breakwater extension has ceased for the present time. The Pilot reported that work is not expected to resume in the near future.

A new quay for bulk cargoes has been completed. Depth alongside 21 m. The channel and turning basin leading to the berth is also dredged to 21 m. Maximum draft permitted at the new berth is 20 m.

SHIPMASTER'S REPORT: October 1993.

Approaches: Breakwater, Oil Piers and Cabo de Salou Lighthouse to South stand out well.

Anchorage: Area as per B.A. Chart No. 1193, to North of Breakwater. Anchorage is exposed. To the south of the breakwater is the SBM and oil pipelines.

Pilot: Pilot on VHF Channels 9 and 14 (24 hours). Pilot boards from typical Spanish cutter with black hull and grey upperworks. A good lee is required. Pilot requires 30 minutes notice on departure.

Tugs: Two tugs of good power used. Tugs lines used.

Berth: Darsena del Molino: A new extension to the West of the old port. West side used for discharge and loading of chemicals and LPG. Three jetty berths as per B.A. 1193. Jetty No. 3 used for LPG. Vessels can berth either side to, pilots prefer Port side to, head in. Depth 10.0 m.

Moorings run by Pilot boat. 2 head/stern to shore. 2 springs either end to jetty.

Good fenders.

Ship's gangway from manifold.

Loading: We loaded Methyl Methacrylate Monomer (MMM) through 6 in. shore hose. Shore labour connect/disconnect hose. Average rate 212 t.p.h. Stop for 15 minutes for "First Foot" samples. Inhibitor added before and during loading. "First Foots" by gravity. Actual loading by shore pump. Shipper and Surveyor spoke good English. Line blown on board on completion.

Stores: Roadway about 60 m. from ship's side. From past experience trucks are not allowed on actual jetty. If a large quantity of stores are being delivered, a fork lift truck is required.

Fresh Water: Available from jetty. From past experience ship's hoses are used.

Telephone: Public call box near bow of ship.

AUTHORITY: Autoridad Portuaria de Tarragona, Passeig de l'Escull s/n, 43004 Tarragona, Spain. *Tel:* 977-226611 and 22670 *Telex:* 56520 APT. *FAX:* (977) 225499, 219638. *Contact:* Josep M Maceira Barbosa, President. Luis Grau Sbert, Port Director. Jes Sanchez Icart, Operations Manager.

TORREVIEJA: 37.58 N. 00.40 W.

PORT LIMITS: The port limits are considered to be at 1 mile distance from the lighthouse at the end of the Eastern Dock or breakwater.

DOCUMENTS:

4 Crew Lists.
4 Lists of Passengers.
10 Cargo Manifests, including Cargo in Transit, together with cargo for Alicante. Tobacco and Cargo Manifests visaed by the Spanish Consul in the port of origin. All the vessel's certificates, and where necessary in respect of the cargo which international regulations require.

PILOTAGE: The corporation does not have a radio station, however, it does have a walkie-talkie with a range of about 12 miles on VHF equipped with the following Channels: 6, 9, 11, 14, 16. The pilot craft is 10 m. overall length and is painted white, with the letter "P" painted in black on the sides. The pilot craft normally operates within a 1 mile radius of the white light of the breakwater lighthouse.

ANCHORAGE: The anchorage which is most recommended for vessels is 1 mile from the breakwater, with a sandy bottom and good holding ground.

MAX. SIZE: The port's maximum sizes are: Overall length 150 m. Max. draft on entry of 21 ft., if the vessel has to remain anchored awaiting a berth, and max. departure draft of 29 ft. 6 in.

HEALTH: Regulations as laid down by the International Foreign Health Requirements are enforced.

RADIO: Coastal station at Alicante; on MF with average range of 220 miles, and on VHF with a range of 40 miles.

TUGS: None available.

BERTHING: There is a berth in the Western Dock, with a length of 360 m., and a max. depth of 10 m. The loading operations are effected by shore equipment, provided that bulk salt is being loaded, or with the vessel's gear when bagged salt is being loaded.

CRANES: The port has no cranes, however, a mobile crane can be used for any weight which has to be loaded, the max. capacity of this crane is 7 tons.

STEVEDORES: There are no stevedoring gangs as the work force is employed by the Salt Plant. The only commodity loaded is salt and work is between 0600 hrs. and 2200 hrs.

MEDICAL: If a doctor is required by the Master, medical services can be furnished locally, it being necessary to transfer the patient to clinic in Alicante, if the case is serious.

TANKERS: No facilities available.

DENSITY: Average port density is 1030.

FRESH WATER: Available. Rate 5 t.p.h.

CUSTOMS ALLOWANCES: Each crew member is permitted to have 200 cigarettes and 1 bottle of spirits out of ship's bond.

REPATRIATION: Possible.

HOLIDAYS: Normally no work is done in the port on the following holidays: New Year (January 1st), Epiphany (January 6th), San Vicente (April 23rd), Maundy Thursday, Good Friday; Labour Day (May 1st); Festival of San Pedro (June 29th), Corpus Christi; Santiago Apostol (July 25th); Assumption Day, Festival of the Spanish speaking world (October 12th); All Saints (November 1st); Immaculate Conception (December 8th) and Christmas Day (December 25th).

AUTHORITY: Ayudante Militar de Marina.

VALENCIA: 39.27 N. 00.18 W. **(See Plan)**

DOCUMENTS:

3 Crew Lists.
2 Passenger Lists or negative.
1 Cargo Manifest of goods destined for the port.
Manifest covering transit cargo.
2 Stores Lists, including tobacco, cigars, cigarettes, coffee, spirits, radios, cameras, etc., in possession of crew. In all cases make and number of radios to be indicated.
Safety Radio Certificate and Safety Equipment Certificate.

If vessel carries over 6 kilos tobacco per man, the excess to be declared in a separate manifest, which must be visaed by Spanish Consul at the last port, otherwise vessel is exposed to heavy fine.

Shipmaster's Report: November 1988.

Customs: 2 Stores Lists.
2 Crew Declarations.
2 Crew Lists.
2 (Nil) Passenger Lists in Spanish.
2 copies Manifests of Cargo in Transit.
Quarantine: 1 Maritime Declaration of Health.
1 Crew List.
1 (Nil) Passenger List in Spanish.
Agent: 1 Crew List.
1 Crew Declaration.
1 (Nil) Passenger List in Spanish.
1 Stores List.

PILOTAGE: Pilotage is compulsory for this port. Day and night service. The pilot launch is painted black with a letter "P" painted in white on the sides.

ANCHORAGES: There is a good anchorage outside the port, vessels are required to keep the entrance channel clear.

RESTRICTIONS: Entrance to the port faces S.E. and is 500 m. wide, with a low water depth of 17.0 m.

MAX. SIZE: The following size vessel has entered the port:

GRT	*LOA*	*Draft**
105,327 tons	234 m.	13.65 m.

*Real draft on entry/departure.

HEALTH: If the vessels proceed directly to berth, Pratique can be obtained immediately after berthing. Otherwise, at anchorage at vessel's arrival.

If vessel has sickness on board of a contagious nature Master should advise Health Authorities by radio, and they will examine patients immediately upon arrival, to enable vessel to be granted Free Pratique.

RADIO: Coastal radio station with international frequencies 1580 kHz.

ETA to be sent to Agent in advance.

TUGS: 8 tugs available up to 3,630 h.p. Two tugs normally used for berthing and unberthing.

BERTHING: Quays operated by Port Authority:

Name	*Length (m.)*	*Depth (m.)*	*Use*
Muelle Sur	600	14	Cereal Terminal
Levante	235	9	Container Terminal
Levante	430	12	Multi-purpose Terminal
Levante (Public Container)	815	14/9	Container Terminal
Espigon Norte (Public Container)	176	9	Container Terminal
Poniente (1st part)	159	9	General Cargo
(2nd part)	220	11	General Cargo
(Extension)	57	11	General Cargo
Espigon Turia			
Norte (1st part)	62	9	General Cargo and Solid/Liquid Bulk
(2nd part)	219	11	General Cargo
Sur (1st part)	153	9	Solid/Liquid Bulk
(2nd part)	194	11	Solid/Liquid Bulk
Testero	183	14	Special Cement Installation
Turia	387	9	Solid Bulk
Transversal de Levante	308	7	General Cargo
Transversal de Poniente	391	7	General Cargo
Muelle Aduana	190	7	Container Terminal
Estacion No. 1 and 2	260	7	Passenger Terminal
Estacion No. 3	98	7	Passenger Terminal
Grao	195	7	
Nazaret	175	7	
Muelle Norte	600	16	Solid Bulk and Trucks
Pantalan	210	12	Petroleum Products
Muelle Desguace	200	7	Shipbreaking
Muelle Dique de Este	225	11	Liquid Bulk

CARGO HANDLING FACILITIES:

Special Loading/Unloading Facilities:

Location	*Owner*	*Remarks*
Espigon Turia Sur	C.L.H.	3 petroleum products points connected to pipelines, pumping installation.
Muelle del Turia	C.L.H.	Petroleum products point connected to pipelines, pumping installation.
Espigon Turia Testero	C.L.H.	Petroleum products point connected to pipelines, pumping installation.
Dique del Sur	C.L.H.	Unloading of petroleum products. Pier with pipelines up to the factory.
Espigon Turia Testero	Cia.Valenciana de Cementos Portland S.A.	Loading of cement in bulk. Hovercrafts conducted by a rolling bridge, crane fed, with a conveyor belt from silos.
Espigon Turia Testero	Cia.Valenciana de Cementos Portland S.A.	Pneumatic loading of concrete in bulk from trucks with bridges.
Espigon Turia Norte	Demagrisa	Vegetable oils point. Wines point. Both connected to a pipe system with pumping installation.
Muelle del Turia	Esdecasa	Pneumatic loading of grains and seeds by a suction machine, connected to a conveyor belt placed in the gallery.
Espigon Turia Sur	Proas	Asphaltic products point, connected to a pipe, pumping installation.
Espigon Turia Sur	Demagrisa	Point for wines, connected to a pipeline, pumping installation.
Nuevo dique del Este	Terminales Portuarias, S.A.	Chemical products point, connected by a pipeline, pumping installation.
Muelle del Sur	Terceval, S.A.	Grain terminal with handling directly from vessel to silo or vice versa.

Facilities for Specific Traffic:

Discharge of Petroleum Products: Pier capable of accepting vessels up to 210 m. long with 12 m. draft, having a discharging capacity of 1,000 t.p.h.

Loading of Cement: Special facility using two simultaneous gravity systems by means of conveyor belts and gantries from silos and by pneumatic hoses from trucks, reaching an output of 800 t.p.h. This is carried out at a pier which allows up to 14 m. draft.

Container Terminal: There are 3 specialised container terminals.

(A) Public Container Terminal:

The operator is Maritima Valenciana S.A.

There is a quay length of 800 m. with 14.0 m. water depth, and a second quay with length of 176 m. and a water depth of 9.0 m.

The Terminal is equipped with 5 container gantry cranes, 2×40/45 ton Panamax Paceco and 3×32.5 ton Standard Paceco. The mobile handling equipment consists of 11×40 ton Paceco Fruehau 070 rubber tyred transtainers. There are electrical points for 300 refrigerated units.

There is a total area of 35 ha., of which 25 ha. are used for stacking and handling, with storage for up to 12,500 TEU.

There is a paved back-up area of 13 ha. and 4,000 sq.m. of covered area for CFS operations (storage 80 TEU).

Traffic in 1994: 300,819 TEU.

Traffic in 1995: 454,094 TEU.

(B) Terminales del Turia S.A.:

The quay length is 235 m. with 9.0 m. water depth. The Terminal is equipped with 2 gantry cranes, 1×40 ton Inta Eimar and another 32 tons. There is a transtainer with a capacity of 30 tons.

Traffic in 1995: 62,160 TEU.

(C) Transbalear:

One container quay, served by 1×28 ton Imenasa crane.

Traffic in 1995: 12,731 TEU.

Multi-Purpose Terminal: Terminal operating company: Terport S.A. Berths and cranage: Total quay length 420 m., depth 12.0 m. equipped with 4 portal cranes (2×30 tons and 2×12 tons), 2 Ro-Ro ramps and one mobile crane 80 tons.

Terminal Facilities: Total area 11 ha.; 50 electric reefer points; front handlers: 13 Caterpillar (4×30 tons, 5×10 tons and 4×3 tons).

Consolidation: CFS on Terminal. Covered area 6,000 sq.m.; reefer points on Terminal; forklifts on Terminal.

Traffic in 1995: 68,570 TEU.

Roll-on/Roll-off Traffic: There are 14 specialised berthing places for this type of traffic. On the Levante Quay, there are moorings with a 9.0 m. water depth. Between the Levante and Outer Transveral Levante Quays, there is a corner with 2 berthing places of 12.0 m. and 7.0 m. water depth respectively.

In the interior harbour there are 6 berthing places with water depths of between 7.0 m. and 7.5 m. Between the Outer Poniente Transversal Quay and Poniente Quays, there is a corner with 2 berthing places of 7.0 m. and 9.0 m. water depth respectively. Lastly on the Muelle Turia there are 3 berthing places, one is on the Espigon del Turia Sur with 11.0 m. water depth, and the other 2 are between this quay and the Muelle Turia with a water depth of 9.0 m.

CRANES: There are 51 gantry cranes, 6 with 32/45 tons capacity. There is also one floating crane of 135/34 tons capacity at 7.0/21.40 m. reach.

MEDICAL: All medical services available in the port and in the city.

TANKERS: *C.L.H.:* One berth, length 210 m., depth 12 m.

Pipelines: The port areas equipped for oil traffic are connected to the C.L.H. plant by means of a network of 5 pipelines, starting at the Turia Pier and Quay, and ending at the plant itself.

These pipelines are 1×10 in. diameter with a capacity of 300 cu.m./hr., and another of 8 in. and 250 cu.m./hr. for movement of fuel oil. 2×8 in. diameter and 250 cu.m./hr.; one for gas oil and one for gasoline. There are also means of delivery of aviation paraffin by means of 1 pipeline 6 in. diameter at the rate of 120 cu.m./hr.

Also see "Berthing".

Waste Reception Facilities: There is a private service for waste collection. These products are transferred outside of the port enclosure.

Pollution: The naval command has a tug to fight against sea pollution and contamination.

FRESH WATER: Available at all main berths at the rate of 30 t.p.h.

FUEL: C.L.H. can supply by pipelines at the Turia berths, at the rate of 100 t.p.h. – 280 t.p.h.

CONSULS: The following countries are represented in Valencia:

Austria
Belgium
Benin
Bolivia
Brazil
Colombia
Chile
Denmark
Dominican Republic
Ecuador
El Salvador
Finland
France
Gabon
Germany
Great Britain
Greece
Guatemala
Haiti
Honduras
Iceland
Italy
Ivory Coast
Liberia
Monaco
Norway
Netherlands
Peru
Seychelles
Sierra Leone
Sweden
Switzerland
U.S.A.
Uruguay
Venezuela

REPAIRS: All types of hull and machinery repairs can be effected.

FLOATING DOCK: 1 floating dock available, owned by Union Naval de Levante. Interior length 143 m., interior width 24.60 m. Lifting capacity 8,000 tonnes.

CUSTOMS ALLOWANCES: Normally Customs permit 200 cigarettes per man out of bond. Additional quantities needed depend on the stay of ship in port. One bottle of spirits per man.

AIRPORT: Valencia Airport, 15 km. from the port.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: Work can be arranged on following holidays. New Year's Day (January 1st, full day); Epiphany (January 6th, full day); Saint Joseph (March 19th, full day); Easter (two days); Labour Day (May 1st, full day); Patron Saint of Spain (July 25th, full day); Assumption Day (August 15th, full day); Community Day (October 9th, full day); Holiday of Hispanicism (October 12th, full day); Holiday of the Virgin Mary (December 8th); Christmas Day (December 25th, full day).

The Public Container Terminal working time is 24 hours a day, every day, except Labour Day (May 1st, full day); New Year's Day (January 1st, full day) and Christmas Day (December 25th, full day).

POLICE/AMBULANCE/FIRE: Police 091; Fire 3730080; Ambulance 3606211, 3526750.

DEVELOPMENTS: *New Container Terminal:* The South enlargemen project will be operational mid-1997. The surface area i 1,000,000 sq.m., berthing length 1,000 m. and depth 16.0 m.

Equipment: 4 Post-Panamax and 3 Panamax Paceco portainers and 20 Paceco transtainers.

Operator: Maritima Valenciana, S.A. Tel: 34-6-367-25-62. Fax: 34-6 367-86-59.

AUTHORITY: Autoridad Portuaria de Valencia, Muelle de la Aduana, S/n 46024 Valencia, Spain. *Tel:* 34-6-3939500. *Telex:* 64508 *FAX:* 34–6–3939599. *Contact:* Rafael del Moral Carro, Port Director.

VIGO: 42.14 N. 08.42 W. (See Plan

DOCUMENTS:

Maritime Declaration of Health.
Crew List.
Passenger List.
Manifest of Cargo for the Port.
Manifest of Cargo in Transit.
Ship's Stores List.
Crew's Personal Effects List.
Ship's Particulars Declaration.

Note: Tobacco: In case the vessel carries more than 6 kilos of tobacc per man, the excess must be declared in a separate manifest, whic must be visaed by a Spanish Consul. In the absence of the Consul, sai document will have to be visaed by an authority of the former port o clearance. Otherwise the vessel would be severely fined.

PILOTAGE: Pilotage at Vigo is compulsory and the service permanen day and night. Pilots board in auxiliary motor-boats with a letter "P" i white at both sides of the hull and a blue flag with the letter "P" in white near the entrance of the harbour, in the zone included inside Punta Lameda-Cabo Vicos on the channel of the South Entrance and inside Punta Caballo-Subrido, on the channel of the North, both situated to the West of the harbour. At night the pilot boats have a white light visible around the horizon and under this light another red one, also visible around the horizon. International Code signals used to call Pilot, or 4 long blasts on the whistle. Pilot station situated at Transatlanticos Pier 3 Pilot boats normally on station on a line connecting Borneira and Transatlanticos Pier.

ANCHORAGE: Several suitable anchorages in the Vigo Estuary naturally sheltered, in depths of more than 35 m. The main anchorag opposite the port on the South side of the "Ria" has depths of 15 m.-25 m.

MAX. SIZE: No limitation for length and beam, unlimited deep wate approaches.

Largest Vessel: LOA 337 m. Draft on arrival and departure 14.50 m.

HEALTH: If vessels proceed directly to the berth, Pratique can b obtained immediately after berthing. Otherwise, at the anchorage o vessel's arrival. In case of suspected disease or fever on board, th Master must send a radio message to the Agent in order that they advis the Health Office.

RADIO: The nearest Radio Station is Vigo Radio, situated in the limit of Vigo Port.

TUGS: No tug-boats are required for entering the port. Only used fo berthing ships from 120 m. length upwards according to Pilot's advice At Vigo there are 7 modern tugs from 350 h.p. – 8,200 h.p. Tugs jo vessel off the berth. Tug's line used at no extra charge.

BERTHING:

Muelles Trasatlanticos	552.40	12.00	Passenger.
Muelle Trasatlanticos Interior y N	534.00	7.00-6.00	Special and laid up ships, Ferry-boat Terminal.
Muelle del Arenal 1	263.00	11.00	General Cargo.
Muelle del Arenal 2	136.00	9.00	Containers, General Cargo.
Muelle del Arenal 3	237.00	10.00	Containers, General Cargo and Liquids (8 i
Muelle Transversal	506.00	9.00	Containers, General Cargo.
Muelle Transversal	130.00	9.00	Various.
Muelle de Comercio	250.00	8.50	General and Ro-Ro.
Muelle de Guixar	457.00	17.00	Containers and Gener
Pantalan de Petroleros	100.00	11.00	Fuel (Central Berth)
Bouzas Terminal			
Ramp 1	100.00	8.00	Ro-Ro.
Ramp 2	150.00	8.00	Ro-Ro.
Ramp 3	230.00	10.00	Ro-Ro.
Fishing Quays	4,298.00	2.00-11.00	Fishing Vessels (unloading, storing an repairs).
Repair Quay	340.00	5.00-10.00	Repairs whilst afloat.
Minero-Siderurgica de Ponferrada (private)	150.00	11.00	Ore Loading (2,000 t.p.h.).

CRANES: *Shore Cranes:*

Muelle Trasatlanticos	4 × 6 tons
Muelle de Comercio	5 × 3/6 tons
Muelle Transversal Oeste	1 × 20 tons 1 × 30 tons 1 × 35 tons 1 × 35 ton (Portic)
Muelle Transversal Este	1 × 6 tons 2 × 12 tons
Muelle Arenal – 1	3 × 3/6 tons 2 × 6 tons 3 × 3/6 tons 1 × 30 tons
Muelle Arenal – 2	2 × 3/6 tons
Muelle Guixar	2 × 16 tons 2 × 16/30 tons 1 × 35/40 tons 1 × 35 tons. 1 × 35 ton (ship-shore gantry crane)
Mobile Cranes:	Up to 400 tons
Floating Crane:	1 × 70/125 tons 1 × 150 tons.

STEVEDORES: The official working hours of the port for general cargo are Monday – Friday, 0800 hrs. – 1200 hrs., 1400 hrs. – 1800 hrs., with intensive shifts 0800 hrs. – 1400 hrs., 1400 hrs. – 2000 hrs., 2000 hrs. – 0200 hrs. (Last intensive shift with additional overtime payments). Saturdays holiday rates: 0800 hrs. – 1200 hrs. and 1200 hrs. – 2000 hrs. with additional overtime payments, with possibility of 1 hour extension to complete only. Sundays and holidays: 0800 hrs. – 1400 hrs., with additional overtime payments until 0200 hrs.

MEDICAL: Doctors and hospital facilities available. Advance notice preferred in urgent cases.

TANKERS: *Muelle Arsenal:* Max. LOA 80 m., max. draft 9.15 m. Black and white oils handled. Bunkers and fresh water available. Three lines for gas oil.

Pantalan CLH: Max. LOA 220 m., max. draft 10.7 m. Max. d.w.t. 40,000 tons. Black and white oils handled. No slop or dirty ballast facilities. Bunkers and fresh water available. Lines: 1×8 in. (gas oil) and 2×12 in. (fuel oil).

Dirty ballast and slop collection service from Descontaminadora del Mar S.A. Tel: 227842 and 220762.

DENSITY: Average 1026.

FRESH WATER: Available from the quays at the rate of 50 – 80 t.p.h. Can also be supplied by tugs at 500 t.p.h.

FUEL: Fuel oil, gas oil and petrol available at a rate of 170 t.p.h. from the Oil Pier or delivered by barge. 24 hours' notice of requirements recommended.

CONSULS: Most countries have consulates at Vigo.

REPAIRS: All types of deck and engine repairs are possible.

FLOATING DOCKS: One floating dock available: Length 128 m., breadth 22.40 m., max. depth 2.80 m. and lifting capacity 5,000 tons.

SURVEYORS: Lloyd's Register, Bureau Veritas, Independent Marine Surveyors are available.

GANGWAY/DECK WATCHMEN: Available from shore if required.

OPENING/CLOSING HATCHES: Opening may be done by crew to avoid delays. Closing hatches usually performed by crew.

CUSTOMS ALLOWANCES: 200 – 250 cigarettes or 6 kilos of tobacco and 2 bottles spirits may be held out of bond for each person. Wine not restricted.

REPATRIATION: Crew changes and repatriation can be arranged without difficulty.

AIRPORT: Local airport, situated 8 km. from the port, has at least 4 daily flights to Madrid. International Airport of Santiago de Compostela is 100 km. away.

TIME: GMT plus 1 hour in Winter. Summertime from March to September.

HOLIDAYS: 1st January; 6th January; Good Thursday; Good Friday; 29th March (local holiday, Reconquest Day); 1st May (Labour Day); Corpus Christi; 15th August; 16th August (Local – San Roque); 12th October; 1st November; 6th December (Immaculate Conception); 25th December.

BANKS:

Banco Atlantico, Policarpo Sanz 3. Tel: 227900.
Banco Bilbao Vizcaya, Av. Garcia Barbon 2. Tel: 434222.
Banco Central Hispaoamericano, Urzaiz 20. Tel: 226600.
Banco Comercial, Pl. Compostela 27. Tel: 435522.
Banco de Asturias, Velazquez Moreno 3. Tel: 227400.
Banco de Galicia, Cno. Meixueiro s/n. Tel: 260561.
Banco de Inversiones, Uruguay 7. Tel: 220111.
Banco de Santander, Policarpo Sanz 44. Tel: 432483.
Banco Espanol de Credito, Principe 39. Tel. 433538.
Banco Espirito Santo, Urzaiz 37. Tel: 222803.
Banco Exterior de Espana Argentaria, Colon 8. Tel: 436566.
Banco Gallego, Colon 27. Tel: 226650.
Banco Herrero, Colon 21. Tel: 228100.
Banco Hipotecario de Espana, Marques de Valladares 31. Tel: 432500.
Banco Luso Espanol, Lepanto 2. Tel: 223843.
Banco Mafre, Av. Garcia Barbon 106. Tel: 228202.
Banco Pastor, Uruguay 8. Tel: 227121.
Banco Popular Espanol, Reconquista 9. Tel: 433873.
Banco Urquijo, Policarpo Sanz 1. Tel: 459000.
Bankinter, Principe 63. Tel: 430499.
Barclays Bank, Urzaiz 2. Tel: 220864.
Citibank Espana, Porta do Sol 12. Tel: 438844.
Credit Lyonnais Espana, Colon 31. Tel: 228721.
Deutsche Bank, Av. Garcia Barbon 20. Tel: 430411.
Caixa Vigo, Garcia Barbon 1. Tel: 227505.
Caja de Ahorros Pontevedra, Policarpo Sanz 22. Tel: 225106.
Caja de Ahorros de Orense, Policarpo Sanz 17. Tel: 438222.
Caja Postal, Argentaria, Policarpo Sanz 1. Tel: 224435.

POLICE/FIRE/AMBULANCE: Guardia Civil, Tel: 062. Ambulance, Tel: 061 or 222222.

TELEPHONES: No arrangement for connecting on board.

SERVICES: Ice available for fishing vessels.

STORING: See "Prelims".

1. By lorry.
2. —
3. Yes.
4. Yes.
5. Consult Agent.
6. Yes.

SHORE LEAVE: Allowed without restriction.

IDENTIFICATION CARDS: Shore passes are provided by the Agent.

GARBAGE DISPOSAL: Service available through local companies.

Construcciones y Contratas S.A., c/ Camelias 36, 36202 Vigo. Tel: (986) 412222.

Jose Luis Gonzalez Pazo, G. de Juan XXIII 1-3º-C, 36202 Vigo. Tel: (986) 291068.

Toysal, Subida a Monte da Serra 15, Sardoma, Vigo. Tel: (986) 422355.

WASTE OIL DISPOSAL: Service available through local companies.

Opermar, Canovas del Castillo 22, 36202 Vigo.

Dinaval S.A., Ronda de Outeiro, 45 entresuelo D 7, 15010 La Coruna. Tel: (981) 273015.

MARPOL service: Descontaminadora del Mar, S.L., Muelle de Trasatlanticos. Tel: 227842. Fax: 220762.

SEAMAN'S CLUBS: Real Club Nautico de Vigo, Avda. de Elduayen, Vigo. Tel: (986) 224003.

Liceo Maritimo de Bouzas, Avda. Eduardo Cabello 8, 36208 Vigo. Tel: (986) 232442.

Club Maritimo San Miguel de Canido y Cabo Estay, Muelle de Canido s/n, 36390 Vigo. Tel: (986) 490359.

CURRENCY: Spanish Peseta (Pta).

AUTHORITY: Autoridad Portuaria de Vigo, Apartado 1348, Plaza del Puerto No. 2, 36201 Vigo, Spain. *Tel:* (986) 432055. *FAX:* (986) 434807. *Contact:* Luis Lara Rubido, Managing Director. Joaquin Colunga Perez, Manager Operations. Manuel Sanchez Montes, Port Captain (Tel: 432866. Fax: 435683).

VILANOVA I LA GELTRU: 41.12 N. 01.43 E.

(See Plan)

DOCUMENTS:

3 Crew Lists.

1 Passenger List or negative.

Manifest of Goods destined for Vilanova i la Geltru and in-transit.

Stores List, in duplicate, including tobacco, spirits, radios, etc. belonging to vessel.

Detailed list, in duplicate, of all personal effects of crew and passengers (tobacco, spirits, cameras, radios, etc.).

Tobacco – any excess over 6 kg. per person must be stated on a separate manifest duly visaed by Spanish Consul.

If on inspection differences are found (more or less), articles are removed and a heavy fine imposed.

PILOTAGE: Pilotage is compulsory and service permanent. Pilot informed by Agent of vessels ETA, given 24 hours in advance. When vessels approach the breakwater, Pilot will board. The pilot boat is white with a black "P" painted on the side. Contact Pilot Station on VHF Channel 16. Tel: (93) 8949655.

RESTRICTIONS: None but for draft. Vessels carrying dangerous cargo should get permission for berthing prior to arrival.

HEALTH: Pratique is obtained immediately after berthing. In case of suspected disease or fever on board, the Master must radio Agent in order to inform Health Officer in time.

RADIO: Radio Costera of Barcelona on 2182 kHz.

VHF: See "Pilotage".

TUGS: None. Barcelona's tugs could be hired should the vessel's size make it necessary.

BERTHING: Depth of water in centre of harbour 16 ft. – 20 ft. South Commercial Wharf length: 836 ft., depth 18 ft.; East: 721 ft., depth 12 ft. – 15 ft.

CRANES: Two railway portico cranes of 16 tons capacity, 1 mobile crane of 3 tons capacity and 1 mobile crane of 20 tons capacity.

STEVEDORES: 24 hours notice required in order to arrange gangs. Unloading rates depend on type of cargo.

MEDICAL: Any kind of medical service can be arranged if information received in time.

FRESH WATER: Plentiful supply of water by means of hoses from the pier to vessel.

FUEL: Can be supplied if required, but 24 hours notice required.

CONSULS: See "Barcelona".

REPAIRS: Only small repairs possible.

SURVEYORS: Comisariado Espanol Maritimo "Comisar".

GANGWAY/DECK WATCHMEN: Not compulsory but advisable at night.

OPENING/CLOSING HATCHES: Normally opened/closed by the crew, otherwise according to "Charter Party". Lashing must be carried out by crew.

CERTIFICATES: Usual documents on board. Safety Radio, Safety Equipment, Derat and Registered Tonnage Certificates are the only ones required by Authorities.

CUSTOMS ALLOWANCES: Crew: 6 kg. tobacco per person. Passengers: 2 kg. per person. Any excess on this amount must be declared on a separate manifest as in-transit. Wine and/or Spirits: Only 1 bottle per person. Any excess must be declared on a separate manifest, as "cargo in-transit" and stowed apart from the tobacco and spirits carried under the Provisions List. This Manifest must be visaed by the Spanish Consul at the last port of call. Any infringement of this regulation will subject the vessel to the immediate imposition of a heavy fine and confiscation of excess tobacco.

REPATRIATION: Good facilities available.

AIRPORT: Barcelona Airport situated 40 km. distant and 30 minutes by car from Vilanova I la Geltru.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer (Late March – late September).

HOLIDAYS: September 11th.

POLICE/AMBULANCE/FIRE: Police: (93) 8930947; Ambulance: (93) 8158979; Fire: (93) 8151111.

IDENTIFICATION CARDS: Not required.

AUTHORITY: Ayudante Militar de Marina, Vilanova I la Geltru (Barcelona-Espana). *Tel:* 8154219. *Cables:* Ayudante Marina, Vilanova I la Geltru.

Comissio de Ports de Catalunya, c/Dr. Roux No. 63, 08017 Barcelona. *Contact:* Zona Portuaria II-III, Ronda General Mitre 117, Sobreatico – 08022 Barcelona. Tel: 93-2113116. *FAX:* 93-4186012.

Vilanova I la Geltru. Tel: (93) 8155219.

VILLAGARCIA DE AROSA: 42.36 N. 08.46 W.

(See Plan)

DOCUMENTS:

Declaration of Health.
3 Crew Lists.
Passenger List.
3 Cargo Manifests.
Manifest for Cargo in Transit.
Crew Declaration.
Ship's Stores List.

APPROACHES: Access through Arosa Bay main channel entrance in position Lat. 42° 28' N., Long. 08° 59' W.

PILOTAGE: Compulsory for entering, leaving, berthing, unberthing or shifting. Ships bound for any port in Arosa Bay, must report ETA through ship's local Agent 24 hours in advance of their arrival, specifying if GMT or local time.

Pilot Boarding Station: Ships bound for Villagarcia are normally boarded 2 miles off harbour breakwater (Lat. 42° 35.4' N., Long. 08° 50.0' W.). Under previous request Pilot may be obtained at Lat. 42° 31' N., Long. 08° 57' W. (2 miles off Rua Island). Pilots may be contacted by VHF Channel 12.

Pilot for Shifting or Departure: Notify at least 1 hour in advance.

Berths are requested through Ship's Agent and arranged by Harbour Authorities in advance.

Linesmen and Boatmen are arranged through Ship's Agent.

ANCHORAGES: There is sufficient anchorage for any size of vessel in Arosa Bay. Vessels awaiting Pilot at Rua Island may anchor 1 mile Southward of Rua Island, in depths of 35 m. to 40 m., bottom is mud. For anchorage in the harbour area (Eastward of El Seijo light), a Pilot must be arranged.

MAX. SIZE: No restrictions, except max. draft 7.0 m. (23 ft.) at LWS.

RADIO/VHF: Nearest stations are: Vigo Radio, VHF Channel 16; Finisterre Radio, MF 2,182 kHz.

TUGS: Compulsory for ships of 90 m. LOA or more.

One small tug available. Additional tugs may be called from Vigo when required. Ship's lines normally used.

BERTHING:

Berth Name	*Wharf Length (m.)*	*Depth Chart Datum (m.)*	*Remarks*
Ferrazo	200	11.0	Bulk cargoes through pipelines and general cargo.
Comercial W.	243	7.0	Bulk cargoes through pipelines and general cargo.
Comercial N.	80	7.0	General cargo.
Comercial E.	300	3.0-7.0	General cargo.
Pasajeros	430	3.0-4.0	Passengers.
Ramal	120	3.0-4.0	General cargo.
Ramal	250	7.0	Ro-Ro, bulk and general.

CRANES: 1×12 ton, 4×6 ton and 3×3 ton electric cranes at Comercial Mole. 1×12 ton, 1×6 ton and 2×3 ton electric cranes at Ramal Mole.

Mobile diesel cranes also available as required.

SPECIALISED CARGO-HANDLING FACILITIES: Discharge of cement in bulk through pipeline at Comercial Mole-West. Discharge/loading of liquid chemical products and asphalt through pipelines at Comercial Mole-West.

STEVEDORES: Normal working hours for general cargo: 0830-1800 (break 1230-1400). Normal working hours for frozen cargoes (2 shifts): 0830-1430 and 1430-2030. Advise ETA before 1700 hrs. in order to commence 0830 hrs. next day.

TANKERS: Discharge lines: 4 in. for methanol, 6 in. for urea formaldehyde, 8 in. for asphalt, at Comercial Mole-West. No slop facilities. No facilities to combat oil spills. No shore steam.

DENSITY: Normal density 1025. In severe rainy seasons may drop to 1020/1018.

FRESH WATER: Available at all berths. Order through Agent. Approx. rate 10 t.p.h.

FUEL: Gas-oil available by pipeline at Comercial Mole.

REPAIRS: Small deck and engine repairs can be done. No dry-dock available.

SURVEYORS: Comisariado Espanol Maritimo available. Order throug Agent.

HATCHES: Opening/closing of hatches to be carried out by ship's cre only.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: Nearest airport at Santiago de Compostela, some 50 km away.

TIME: Western European time kept. (GMT plus 1 hour in Winter; GM plus 2 hours in Summer).

HOLIDAYS: Set yearly by the Government. For details contact Agen

POLICE/AMBULANCE/FIRE: Police 091 or 501864/50025 Ambulance 500987; Fire 501008/851633.

EMERGENCY CO-ORDINATION CENTRE: Harbour Master's Offic tel. 500209.

BANKS: Branches of main Spanish banks.

SHORE LEAVE: No restrictions. No shore passes. Seaman's Book sufficient.

AUTHORITY: Autoridad Portuaria de Villagarcia, Muelle de Pasajeros 36600 Villagarcia de Arosa, Galicia, Spain. *Tel:* 34-86-500232, 50023 501340. *FAX:* 34-86-507923. *Contact:* Enrique Disdier da Vila, Po Director.

NOTES

Please also advise Shipping Guides Ltd.

Sri Lanka

GENERAL:

MINES: *Danger from Mines:* Reports have been received (1986) indicating that waters near Sri Lanka ports may be mined.

NAVIGATION: *Control of Navigation in Sri Lanka Waters:* The Sri Lanka Government has issued regulations controlling navigation in the territorial waters of Sri Lanka.

(1) No vessel shall enter or remain within Sri Lanka's territorial waters other than:

Vessels entering or leaving the ports of Colombo, Galle, Trincomalee and Kankesanturai.

Vessels navigating through the Traffic Seperation Scheme off Dondra Head.

Vessels laid up inside Trincomalee Harbour.

Vessels engaged in Sri Lanka's coastal trade.

Vessels waiting in the roads off the Port of Colombo with the approval of the Harbour Master.

Vessels navigating through Sri Lanka's territorial sea and internal waters in Palk Strait with the permission of the Commander of the Sri Lanka Navy.

(2) Any vessel which enters Sri Lanka's territorial waters in contravention of these regulations shall do so at their own risk, and the Sri Lanka Government shall not be liable for any loss or damage such vessel may suffer.

(3) The Master of any vessel which enters Sri Lanka's territorial waters shall identify itself if challenged by:

Any vessel responsible for performing coastguard duties.

Any aircraft.

Any Sri Lanka authority from land by radio.

(4) Any vessel which has to enter Sri Lanka's territorial waters for purposes other than those given in (1) shall do so only with the approval of the Harbour Master.

(5) All vessels approaching the Port of Colombo are required to keep at least 1.5 miles clear of the single point mooring buoy in position Lat. 06° 58.67' N., Long. 79° 46.50' E. No vessel is permitted to go closer than 1.5 miles without the permission of the Harbour Master.

SHIP SUPPLY SERVICE: GAC Shipping Limited (Sri Lanka) operate a Ship Supply Service from the Port of Galle.

Galle is situated approximately 75 miles South of Colombo and 94 miles South of Katunayake International Airport. Flights to all major destinations operate from this busy airport which handles a very large volume of business. The road journey between Colombo and Galle takes approximately 3 hours.

A standard 65 ft. "GACSHIP" crew boat is on station at Galle, and there is a small GAC Operations Office located close by the port entrance. The office is equipped at present with I.D.D. telephone and VHF. Telex and fax facilities are being installed. A VHF listening watch on Channel 16 is maintained on a 24 hour basis, call sign "GACSHIP GALLE". The range of this set has been proven upto a maximum distance of 20 miles.

The SSS Operation is coordinated fully by GAC Shipping Limited, Colombo, which is a 24 hour operational office, fully equipped with telex, facsimile, IDD telephones, and all communications should be addressed to this office.

In addition to the normal crew change, spares and stores delivery services, available in the Arabian Gulf, the following services can be arranged at Galle with sufficient notice, normally 72 hours.

Bunkers	MDO only at present maximum 500 tonnes.
Fresh Water	Maximum 200 tons in one delivery.
Provisions	Fresh/frozen.
Underwater	Hull cleaning/inspection.
Lube Oil	Offshore delivery, drums only.
Survey	Hull machinery and liquid/dry cargoes.

Helicopter services between Katunayake and Colombo, and Colombo and Galle can be arranged without difficulty.

There are no Visa requirements for visiting Company representatives or joining crew members.

The "Rendezvous" position is 12 nautical miles South of Point de Galle in approximately 70 m. depth. This position can be adjusted to suit individual vessel requirements.

Co-Ordinating Office for Sri Lanka SSS:

GAC Shipping Ltd., P.O. Box 1116, 180 Bauddhaloka Mawatha, Colombo 4, Sri Lanka. Tel: 94-1-586191, 584870, 581191/2/3/4. Fax: 94-1-582806. Telex: 23418 GACSHIP CE. Office operational 24 hours daily.

Galle Operations: Listening watch on VHF Channel 16, 24 hours daily, call sign "GACSHIP GALLE". Tel: (94-9) 34025. Telex: 23418 GACSHIP CE. Fax: 94–1–582806.

COLOMBO: 06.56 N. 79.50 E. (See Plan)

DOCUMENTS:

5 each of Crew and Passenger Lists.

8 Manifests.

1 Arrival Report for Pilot, including Dangerous Cargo Declaration.

1 Master's Declaration for Immigration, and same for Police.

2 Private Property Lists of Officers and Crew for Customs.

2 copies of Preliminary Report by Master for Customs.

1 Maritime Declaration of Health for Port Health Officer.

1 Master's Declaration of Cargo for Quarantine Department.

PILOTAGE: Vessels approaching port apply for Pilot by flying the "G" flag by day or 2 red lights at night. They can, in addition, use VHF Channel 16. The telegraphic address of Pilot Station is "Pilot Station Sri Lanka Ports Authority Colombo" and a provisional ETA 24 hours ahead is advisable with corrections thereafter. However, these are best channelled through the vessel's Agent. Pilot boat is a wooden motor launch with the word "Pilot" on its side. It flies the "H" flag by day or red and white lights by night according to the international code. Pilot boarding position is with the Southwest breakwater North end light in transit with North West Breakwater South end light at a distance of 1.0 miles off. Advice of where to anchor can be obtained from the Pilot by VHF.

ANCHORAGES: The anchorage off port is within 3 miles of the harbour mouth where up to 14 fathoms of water is available. 18 fathoms of water is available within 6 miles. This anchorage is to be used on instructions from Pilot Station.

All vessels arriving have to anchor South of Panadura (Lat. 6° 43' N.) until instructed to proceed to the anchorage off harbour.

RESTRICTIONS: Entry may take place at all hours of the day and night.

MAX. SIZE: For entering harbour, max. draft 12.0 m. and a length of 900 ft. is permissible. Beam is not critical. There is no appreciable rise and fall of tide.

Tankers' maximum dimensions for berthing alongside: Length 750 ft., draft 34 ft.

HEALTH: Vessel entering port must fly the "Q" flag until boarded by the Port Health Officer to grant Pratique. Pratique may be granted by radio if there is a doctor on board provided the ship is not calling from a port in India. A radio message should be sent within 24 hours of the vessel's ETA in the following terms "Last port — no quarantinable disease on board – Doctor on board" and the Port Health Officer will reply to the Agent confirming Pratique being granted by radio. Pratique is automatic if the vessel enters after calling at another port in Sri Lanka. If any quarantinable disease on board double "Q" flags must be hoisted prior to entering harbour.

RADIO: "Colombo Radio" with a call sign 4PB is the usual channel for communicating with Colombo.

VHF: The Pilot Station is presently available on VHF Channel 10 and the Authorities' Cargo Operations Control Room on VHF Channel 11.

TUGS: Tugs normally join the vessel at the harbour mouth and use tugs lines. Three tugs up to 45 tons bollard pull are available at any one time, 4th tug on advance request.

BERTHING: There are no specific requirements relating to berthing space but early advice of draft and length is most advisable.

Report: September 1993 (Updated 1996).

The following information has been received from Agent in Colombo:

Alongside Berth Details during South West Monsoon:

Berth No.	*Length* (ft.)	(m.)	*Depth* (ft.)	(m.)
QEQ 1	500	152	30	9.15
QEQ 2	500	152	32	9.8
QCT	500	152	33	10.1
QCT	754	230	32	9.8
QEQ 6	820	250	34	10.4
BQ 1	450	137	23/29.5	7/9
BQ 2	500	152	31	9.45
BQ 2A	380	116	28	8.6
BQ 3	500	152	30	9.15
BQ 4	500	152	30	9.15
CB 1	320	98	20	6.1
JCT 1	918	280	37	11.3
JCT 2	918	280	39.3	12.0
JCT 3	1082	330	46.0	14.0
JCT 4	1082	330	46.0	14.0
PVQ 1	450	137	30	9.15
PVQ 2	500	152	31	9.45
NP	591	180	34	10.36
	623	190	32 F.	9.8
			34 A.	10.36
SP	500	152	30	9.15
GP 1	500	152	26	7.9
GP 2	500	152	30	9.15
CB 2	280	86	15	4.6
Buoy Berths:				
N 1	550	180	30	9.15
N 3	550	168	25	7.6
N 2	557	170	30	9.15

Key:

NP	North Pier
SP	South Pier
QCT	Queen Elizabeth Container Terminal
QEQ	Queen Elizabeth Quay
BQ	Bandaranaike Quay
JCT	Jaye Container Terminal
CB	Coastal Berth
PVQ	Prince Vijaya Quay
GP	Guide Pier

CONTAINER HANDLING FACILITIES: *Queen Elizabeth Container Terminal (QCT):* Length 425 m. Depth 9.5 m. – 10.8 m. 3×35 ton shore gantry cranes and 65 reefer points available. Annual volume 260,000 TEUS.

Jaye Container Terminal (JCT): Length 632 m. (Stage 1 and 2), 660 m. (Stage 3 and 4). Depth 12.0 m. – 13.0 m. (Stage 1 and 2), 14.0 m. (Stage 3 and 4). 5 Panamax shore cranes, 6 Post panamax shore cranes and 3 additional cranes on order. 1596 reefer points. Expected volume for 1996 – 1,300,000 TEUS.

Fully computerised planning and operational control system including electronic bay plan facility.

STEVEDORES: The stevedores at Colombo are the Sri Lanka Ports Authority, having the monopoly of stevedoring and lighterage. ETA at least 24 hours in advance if possible.

Working hours: (2 shifts) 0730 to 1630 and 1630 to 0400, depending on requirements, extendable until 0600.

Booking gangs: For discharge on 1st day, 24 hours advance notice required by Agent and thereafter at Agent's request at the end of shift.

MEDICAL: Although advance notice of medical assistance required is helpful, particularly when port stay is limited, it is not essential. Comprehensive hospital facilities are available either in private nursing homes or the Government hospitals. The following inoculations are required: cholera; yellow fever if calling from ports in East Africa and Mozambique.

TANKERS: There is one tanker berth for import of gas oil, lubricating oil and white oil, and export of Naphtha/furnace oil.

The diameter of discharge lines;

White oil, 10 in., capacity 250 t.p.h.

Gasoline, 10 in., capacity 170 t.p.h.

Furnace oil, 14 in., capacity 500 t.p.h.

Naphtha, 12.75 in., capacity 450 t.p.h.

Pumping will not be commenced after nightfall. No residue discharge facilities are available.

There is an SPM 6 miles outside the harbour for discharge of crude oil. Max. size 180,000 tonnes deadweight. Pipeline 36 in.×9.2 km.

Report: December 1992.

(1) Proposed New Oil Terminal:

Planned LOA : 220 m.

Planned Draft : 13.0 m., could be increased to 14.0 m.

Deadweight : 60,000 tonnes

Diesel : Available

Bunkers : Available

This berth will be designed to accommodate broad beam shallow draft tankers up to a maximum of 60,000 d.w.t.

Although this berth was originally planned to be operational in 1993, due to the other various development programmes within the Port of Colombo, no priority has been afforded to this project. It is therefore unlikely that this terminal would be operational prior to 1994.

(2) North Pier:

LOA : 180 m. at draft 10.36 m. LOA can be increased to 190 m. at draft of 9.8 m. for'd and 10.36 m. aft.

Bunkers/Diesel : Available, subject to quantity required and availability of berth.

Temporary restrictions have been placed on this berth as this area has been utilised in connection with the construction work of the new container terminal.

(3) Prince Vijaya Quay: Operator : Sri Lanka Ports Authority

(A) PVQ 1

LOA : 137 m.

Draft : 9.2 m.

Density : 1025

(B) PVQ 2

LOA : 152 m.

Draft : 9.45 m.

This berth is primarily for general cargo. Bunkers and water available by barge.

LPG discharged into bowsers (road trucks). No storage available. Normally only vessels that can carry 1,200 – 1,600 tonnes are handled.

(4) Coastal Berth:

(A) CB 1

LOA : 98 m.

Draft : 6.0 m.

This berth is primarily for general cargo.

Bunkers and water available.

LPG discharged into bowsers (road trucks). No storage available. Normally only vessels that can carry 1,200 – 1,600 tonnes are handled.

DENSITY: 1025.

FRESH WATER: Fresh water is readily available by barge and from hydrants at the Jaye Container Terminal. The rate of delivery is approx. 40 t.p.h. The water is of good quality.

FUEL: Furnace, diesel and gas oil available. Advance notice of at least 24 hours is advisable as the bunker requirements of the port often exceed the ability of the oil companies to supply immediately.

4 barges available, 450 tons, 650 tons and 1,000 tons. Fuel also available by pipeline if berth (max. draft 34 ft.) available.

CONSULS: Belgium, China, Cyprus, Czech Rep., Denmark, Egypt, France, Germany, Greece, Indonesia, Italy, Japan, Maldives, Myanmar, Netherlands, Philippines, Poland, Romania, Russia, Thailand, Switzerland, U.S.A., Yugoslavia.

REPAIRS: Most main engine and boiler repairs and minor hull repairs can be effected.

DRY DOCKS: No. 1 – 700 ft.×85 ft.×32 ft. over blocks – Max. size 675 ft. LOA. 80 ft. breadth – Deepest draft 29 ft.

No. 2 – 350 ft.×54 ft.×22 ft. over blocks.

No. 3 – 400 ft.×54 ft.×18 ft. over blocks.

Owners and Operators – Colombo Dockyard Limited.

New dry dock: Length 263 m., width between fenders 44 m., depth over sill 8.2 m., capacity 100,000 d.w.t.

SURVEYORS: *American Bureau:* c/o Malship (Ceylon) Ltd., Reclamation Road, Colombo 11. Tel: 24658, 25856. Telex: 21150.

Salvage Association: c/o Aitken Spence & Co. Ltd., 13 Lloyds Buildin P.O.Box 5, Sir Baron Jayathileke Mawatha, Colombo 1. Tel: 27861- 27103. Telex: 21142/21598.

Lloyd's Register: No.7, 19th Lane (2nd Floor), Colombo 3.

Bureau Veritas: c/o Delmege Forsyth & Co. Ltd., 101 Vinniyalanka Mawatha, Colombo 10. Tel: 93361. Telex: 21320.

GANGWAY/DECK WATCHMEN: Watchmen are available and are t be recommended unless members of the crew are available to provid this service.

Piracy: Acts of piracy have taken place in the approaches to the port

OPENING/CLOSING HATCHES: This work is normally carried out b the stevedores except in the case of MacGregor or similar hatch cover which they will not handle.

CERTIFICATES: Register showing vessel's name, port of registry, gros and net tonnages and owner. Safety Equipment Certificates, quadrenni and annual, Ship's Articles (British) and Clearance from previous po and Derat Certificate.

CUSTOMS ALLOWANCES: Cigarettes 25 per man per day. Tobacc 1 oz. per man per day. Snuff 1 oz. per man per day. Spirits 0.25 bott per man per day. Wine 1 bottle per man per day. Beer 2 bottles pe man per day.

REPATRIATION: There is no difficulty in arranging repatriation and cre changes.

AIRPORT: It is 18 miles to the international airport which is served b regular airlines.

TIME: Sri Lanka standard time is 5.5 hours in advance of GMT. GM plus 6.5 hours in Summer.

HOLIDAYS: Cargo work can normally be arranged on all except th following holidays:

Sinhalese and Tamil New Year; 1st May; Wesak Full Moon Day Christmas Day.

POLICE/AMBULANCE/FIRE: Harbour Police 21075; Ambulanc 20428; Ambulance launch: Call Pilot Station on VHF Channel 16. Por Fire Brigade 32331 and VHF Channel 16.

EMERGENCY CO-ORDINATION CENTRE: "Colombo Radio".

TELEPHONES: Will be available to vessels alongside in the near future

BANKS: American Express International Corporation, 45 Janadhipath Mawatha, P.O.Box 650, Colombo 1. Tel: 23366, 37991, 31288- Telex: 21469 "Amex".

Algemene Bank Nederland N.V., 41 Janadhipathy Mawatha P.O.Box 317, Colombo 1. Tel: 20205. Telex: 21590 "Abn A".

Citibank N.A., P.O.Box 888, Iceland Bldg., Colombo. Tel: 547316 Telex: 21445 "Ctbk" Ce.

Banque de l'Indochine et de Suez, Ceylinco House, 69 Janadhipath Mawatha, P.O.Box 303. Colombo 1. Tel: 36181/2/3. Telex: 140 "Indosuez" Ce.

Overseas Trust Bank Ltd., 39 Bristol Street, Colombo 1. Tel: 547655- Telex: 21489 "Otbsl" Ce.

The Chartered Bank, 17 Janadhipathy Mawatha, P.O.Box 2 Colombo 1. Tel: 26671-4. Telex: 21117 "Banchar" Ce.

Grindlays Bank, 37 York St., P.O.Box 112, Colombo. Tel: 91161- Telex: 21130 "Grindlays" Ce.

Bank of America, P.O.Box 308, Colombo. Tel: 547372/5. Telex: 214 "Bo Facol" Ce.

STORING: See "Prelims".

1. Yes, able store both by barge and truck.
2. Yes, vessel could store from barges during both loading an discharging.
3. Trucks could proceed alongside vessel.
4. Yes, fork lift trucks could be used.
5. Any operation could be carried out with prior approval of Customs under Customs supervision.
6. No. Port Stevedoring labour has to be made use of. However, loc riggers can be employed by obtaining special permission from the Chi Operations Manager of the Sri Lanka Ports Authority.

SHIP SUPPLY SERVICE: See "General" before first port.

SHORE LEAVE: There is no restriction on crew members being allow ashore but advised to carry passport or other identification.

IDENTIFICATION CARDS: These are not essential but the crew expected to carry some form of identification with a photograph on when they leave the vessel.

GARBAGE DISPOSAL: Garbage in bags is collected by small boat after making special arrangements with the Agent.

WASTE OIL DISPOSAL: Quantities up to 50 tons can be collected aft making special arrangements with Agent.

SEAMAN'S CLUBS: Missions to Seamen, 26 Church Street, Colomb Tel: 448572.

DELAYS: Delays for vessels working cargo are seldom over 24 hou Vessels requiring bunkers should advise ETA as early as possible

GENERAL: Ships should not discharge oil within territorial wate dispose of any waste into harbour or on to quays, immobilise ma engines without prior permission, use radio for transmission in harbo Ships should hoist national flag during daylight hours.

AUTHORITY: Sri Lanka Ports Authority, No. 19 Church Street, P.O.B 595, Colombo 1. *Tel:* 421201, 421231. *Telex:* 21805 Ports C *FAX:* 440651. *Contact:* Mr. Sundra Jayawandhana, Chairma (Tel: 325559. Fax: 440651).

Mr. M.I.M. Rafeek, Vice Chairman. (Tel: 325211. Fax: 433181).

Mr. H.A. Wijegunawardane, Managing Director. (Tel: 323 Fax: 435637).

Mr. H.D.A.S. Premachandra, Chief Operations Manager. (Tel: 325 Fax: 320956).

Captain S.Chinniah, Harbour Master. (Tel: 421079. Fax: 421079).

AGENT: GAC Shipping Ltd., P.O. Box 1116, 180 Bauddhaloka Mawat Colombo 4, Sri Lanka. Tel: (94-1) 581191, 581192, 581193, 581 Telex: 23418 GACSHIP. Cables: Confidence. Fax: (94- 582806.

GALLE: 06.01 N. 80.14 E. (See Plan)

PORT LIMITS: To the Eastward Unawatuna Point, to the Westward Gindurah Point, to the Southward the usual sea league from the line between these points.

DOCUMENTS: Pilot brings on board:

Arrival Report and Maritime Declaration of Health.

Port Health Officer boards vessel after berthing and collects Crew List, Passenger List, Maritime Declaration of Health. Examines crew, passengers and International Certificates of Vaccination.

Customs. Manifests, Bonded List, Passenger List, Cargo List, List of Currency, Port Declaration.

Immigration. 3 Crew Lists.

PILOTAGE: Apply for Pilots via local Agents. Send ETA not more than 24 hours prior arrival via Colombo Radio. Vessels telegraph direct to Harbour Master, Galle, via Colombo Radio. Vessels advised listen-in on Channel 16, VHF.

Pilot launch about 60 ft. long with white hull carrying word "Pilot". Pilot launch proceeds to vessels from Harbour Master's Office and Pilot will board about 0.25 mile to South of bell buoy. Vessels should anchor until pilot launch arrives and heave-up on approach of pilot launch; due to heavy swell prevalent *essential* vessels provide good lee for Pilot. Proper pilot ladder and two man ropes should be ready. Vessels anchoring should do so to the South or East of bell buoy. See "Anchorages".

ANCHORAGES: Best anchorage lies to Eastward of bell buoy where depth is 9 fathoms. To Southward of bell buoy depth increases to 15 fathoms. Vessels should anchor about 0.5 mile from bell buoy.

RESTRICTIONS: Vessels should not proceed North of bell buoy. Entry prohibited after 1800 hrs. and may be delayed by bad weather. Generally a wind force of over 25 knots and a swell of over 4 ft. delays entry.

MAX. SIZE: Two alongside berths available for vessels up to 450 ft. length and 24 ft. draft. 750 ft. of quay space available.

HEALTH: The International Declaration of Health, handed to Master by Pilot, must be completed and returned to Port Health Officer, who boards after berthing. Port Health Officer also requires 2 Crew Lists, synopsis of Vaccination Certificates, Derat Certificate and examines Certificate of Vaccination.

RADIO: Colombo Radio.

VHF: Harbour Master's Office on VHF Channel 16, regular watch not maintained.

TUGS: At present only 1 tug of 450 h.p. available throughout year. If sufficient notice given (over 24 hours) an additional tug could be sent from Colombo (only available during N.E. monsoon). Tug meets vessel at berth, tug's lines used. Charges for tugs included in port (pilotage) charges irrespective of ownership of towing lines.

BERTHING: See "Max. Size".

STEVEDORES: All stevedoring carried out by Sri Lanka Ports Authority. Gangs, lighters etc. are all arranged by Sri Lanka Ports Authority. 16 lighters of approx. 15 d.w.t. capacity available for working vessels in stream berth.

MEDICAL: All facilities available. Vessels arriving in Galle and requiring medical attention should cable Agent and "Port Health – Galle" at least 12 hours in advance.

DENSITY: 1025.

FRESH WATER: In cases of emergency up to 20 tons fresh water could be supplied daily in stream in 400 gallon tanks conveyed by lighters. Alongside main quay up to 50 tons per night could be supplied by Bowser.

FUEL: Bunkering Division of Ceylon Petroleum Corporation, Kolonnawa (off Colombo) can service vessels with small quantities of fuel. 5 days' prior notice required.

CONSULS: All Consular Officers in Colombo, 72 miles away, 2 hours by train, 2.5 hours by road.

REPAIRS: No repairs possible as Galle open to S.W., essential that vessels have engines ready at all times. No shutdown permitted.

GANGWAY/DECK WATCHMEN: Ceylon Police Station. Two policemen aboard every vessel in harbour. For vessels berthed alongside policemen stationed aboard through day. For stream vessels policemen stationed only during hours when cargo worked.

OPENING/CLOSING HATCHES: Shore labour, but there is no objection to hatches being opened prior to labour boarding.

CUSTOMS ALLOWANCES: Present allowance 200 cigarettes per week, 2 bottles beer per day. Others proportionately.

REPATRIATION: Sub-collector of Customs acts as Shipping Master and will sign on/off properly authorised crew changes.

AIRPORT: Colombo, approximately 130 km.

TIME: Standard Time is GMT plus 5.5 hours. GMT plus 6.5 hours in Summer.

HOLIDAYS: Non-working days in the port (dates variable yearly): Sinhala and Tamil New Year in April; Wesak Full Moon in May.

POLICE/FIRE/AMBULANCE: Harbour Police 3222; Ambulance 2261. No fire brigade available.

TELEPHONES: No telephones available aboard.

SHIP SUPPLY SERVICE: See "General" before first port.

SHORE LEAVE: Crew allowed ashore.

AUTHORITY: Sri Lanka Ports Authority, Closenberg Jetty, Magalla, Galle, Sri Lanka. *Tel:* 09-22963 (Resident Manager); 09-22824 (Assistant Harbour Master).

AGENT: See "Colombo".

KANKESANTURAI: 09.49 N. 80.03 E.

SHIPMASTER'S REPORT: May 1979.

LOCATION: Kankesanturai (KKS) is situated on the North coast of Sri Lanka in position Lat. 9° 48' 57.5" N., Long. 80° 02' 41.5" E.

DOCUMENTS: See "Colombo".

APPROACHES: Kankesanturai cannot be approached directly from sea but is approached via the Pedro Channel. The area seaward of Pedro Channel is very shallow and abounding in reefs.

Approaches to Pedro Channel: The East coast is low lying and sandy with only palm trees. The landmarks for making Pedro Channel are (a) Mullaittivll Light and (b) an obelisk situated in position Lat. 9° 35' N., Long. 80° 27.5' E. Mullaittivll Light was not working and the obelisk which is 100 ft. high can hardly be distinguished because it is surrounded by vegetation. The best approach is to steam on a course of 280° (T) heading straight for the obelisk. (Note: Radar distances etc., could not be observed as the vessel's radar was out of order). This area is covered by B.A. Charts No. 2197, 2031 and 68A. These charts are not to be fully relied upon as the charts last large correction, etc., was in 1947. This vessel did not have a working radar, hence it was decided to lower the boat and sound the intended track ahead. The track sounded was followed until the obelisk was ahead of the track and visible, which was in this case at about 5 miles. Once the vessel enters Pedro Channel it has to proceed on a course parallel to the coast. After altering course in a Northwesterly direction the obelisk which is the only mark in the area is soon covered by vegetation and not visible. The next landmark being the Point Pedro Lighthouse which is 25 miles away to the North. The objects marked on the chart like churches, buildings etc., cannot be relied upon at all as they are numerous.

Depths in Pedro Channel: As marked on the chart the depth in Pedro Channel varies from 6.5 to 9 fathoms. During this vessel's transit, it was suspected to be less and at certain points, the boat was again lowered and soundings of 28 ft. were obtained.

Approaches to KKS: After passing Point Pedro Light course was altered to West keeping about 3 miles off the land and dangers. "KKS" can be observed from quite a distance because of chimneys of a cement factory. The "KKS" lighthouse could also be visually observed at a distance of about 8 miles. When "KKS" lighthouse bore South, distance 2.5 miles, the vessel was stopped and again the boat was lowered to sound the anchorage area and approaches. Depths of 30 ft. to 36 ft. were found just 0.5 miles distance from the land. The anchorage was approached and this vessel anchored with "KKS" light distance 0.5 miles. Four shackles were used and throughout the stay the vessel held fast.

After anchoring soundings were taken all round the vessel and the least depth obtained was 31 ft. at low water. There is hardly any tide, the maximum difference being about 2 ft. The vessel usually lies in an East-West direction and when swinging around usually does so via North. Only on one occasion throughout the stay did she swing via the South.

RADIO: Communication with "KKS" even from Colombo (telephone) was very difficult, sometimes delays over 4 to 5 hours were experienced. "KKS" has no telex communication. The best method is to keep the vessel's radio station open and communicate via Madras Radio.

CARGO OPERATIONS: *Port of "KKS" and Discharging:* This is a anchorage only port which is open from March to October. Cargo is bagged on board and discharged into lighters. The lighters are then landed on the beaches and labour carries bags ashore to the warehouse which is about 30 yards away. On this vessel cargo was bagged during the night and discharged by day. There are at one time about 200 – 300 labourers on board. The labour for bagging and discharging are different. The average discharge rate worked out to about 800 tons. This is the first time the bagging had to be done as normally vessels calling are loaded with bagged cargo. The crane operators are very careful and follow the instructions given by the vessel with regard to the cranes. About 12 vessels call at this port per year during the season.

DENSITY: Density was found to be constant at 1025.

FRESH WATER: None available. Ample fresh water needed as water also has to be supplied to the labour.

PROVISIONS: Almost all types of provisions available at reasonable costs. Rice which is also available is of very poor quality. The Agents also handle the ship chandling.

LAUNDRY: Laundry facilities are available, but costs are slightly on the high side. This is also handled by the Agents.

REPAIRS: There is a small workshop available for mechanical/electrical repairs.

CURRENCY: All currencies have to be declared and all currencies except Indian, Pakistani and Bangladesh can be changed in banks. The above three currencies are supposed to be banned in Sri Lanka.

GENERAL: "KKS" is a very small town. The largest town being Jaffna which is 14 miles away. Buses and taxis are available.

AUTHORITY: Port soon to be controlled by Sri Lanka Ports Authority.

TRINCOMALEE (including Pulmoddai):
08.36 N. 81.15 E. **(See Plan)**

DOCUMENTS:
International Maritime Declaration of Health.
6 copies Crew List.
6 copies Passenger List.
Cholera or Yellow Fever Certificates required if vessel is arriving from an infected port.

PILOTAGE: Call Pilot on VHF Channel 16, also send ETA via Colombo Radio to Pilot Station. Vessels should indicate ETA through Colombo Radio, either to Agent or direct to Deputy Harbour Master, Trincomalee, at least 24 hours before arrival. No night pilotage. Pilot boards incoming vessels between hours of 0600 and 1800 hrs. about 2 cables Northward of Round Island (Lat. 8° 30' 48" N., Long. 81° 13' 24" E.). Vessels embarking Pilot should whenever possible lower an accommodation ladder. Vessels awaiting a Pilot should anchor 0.5 miles N.W. of Round Island light tower in depths from 11 to 13 fathoms.

Vessels arriving between 1800 hrs. – 2100 hrs. may be brought in at Deputy Harbour Master's discretion if they come to anchorage 5 cables N.W. of Round Island.

ANCHORAGES: Trincomalee Harbour is the only entirely sheltered natural harbour in Sri Lanka. Good anchorage may be found in almost any part of harbour in good weather.

RESTRICTIONS: Vessels may enter during hours of daylight only. Range of tide is very small and does not restrict entry.

MAX. SIZE: Almost unlimited length and draft can be accommodated in anchorage. Only 1 berth which can accommodate up to 600 ft. length, and 32 ft. draft. This jetty used for discharging tankers and bunkering.

HEALTH: The Port Health Officer boards vessels after arrival at anchorage to grant Pratique. Pratique automatic for vessels arriving from another port in Sri Lanka.

RADIO: All cables to Deputy Harbour Master, Agents, Receivers, etc., should be routed through Colombo Radio; call sign 4PB.

Pilot carries portable VHF set, Channel 16, with about 10 miles range.

TUGS: Two tugs available. One tug attends when required. Tow-lines generally not used; but if required tug or ship's lines used.

BERTHING: A bulk-grain berth to accommodate vessels of 800 ft. in length, and draft forward 41 ft. and aft 46 ft. is available at Malay Cove, in the vicinity of Round Point.

Also see "Developments".

Pulmoddai: Pulmoddai is a roadstead, on the Eastern coast of Sri Lanka and approximately 38 miles from Trincomalee. The loading season is usually from April to September.

The Mineral Sands Corporation has housing for their staff and a medical practitioner is employed by them who also acts as a Port Health Officer for granting Pratique to vessels.

The Corporation has two godowns with a capacity of 14,000 tons of rutile and 25,000 tons of ilmenite. Presently ore is transported by conveyor belts from the godowns for lighterage along a pier stretching up to 250 ft. into the sea. The Corporation has a fleet of 8 steel lighters, of which 6 are of 100 tons capacity and 2 of 200 tons capacity. The loading rate is around 2,000-2,600 tons per day working 5 hooks in good and fair weather.

The stevedore labour is private and is recruited from Trincomalee whenever a ship operates at Pulmoddai. As the stevedores stay on board until completion of loading, it will be necessary for the vessel to carry sufficient water to meet the stevedore requirements.

It is customary for the ship to provide food and accommodation for two Customs Officers and a representative of the Shippers during cargo operations.

Prior information is also essential by the Agents of vessel's ETA, etc., which should be passed to the Plant Manager of the Corporation at Pulmoddai by cable or telex to enable him to obtain labourers from Trincomalee.

There is no launch service, but the Corporation provides a launch on a schedule drawn by the Corporation, and the Agents could make use of this facility.

STEVEDORES: Stevedoring operations have been nationalised and are carried out by the Sri Lanka Ports Authority, Trincomalee.

TANKERS: One tanker berth at which vessels of 600 ft. length and 32 ft. draft are discharged.

Report: December 1992

*Oil Berth:*A temporary restriction has been placed on the oil berth.

At present both the head and stern buoys are very old and due for replacement in the near future.

The fendering on the jetty is extremely poor and the connecting bridge between the dolphins is in a state of disrepair.

LOA: 180 m.
Draft: 10.0 m.

DENSITY: Salt water.

FRESH WATER: Available, supplied by water barges.

FUEL: Marine heavy diesel and furnace oil can be supplied at 24 hours' notice.

CONSULS: All Consular Officers are in Colombo.

REPAIRS: Only minor repairs can be carried out.

GANGWAY/DECK WATCHMEN: Watchmen are provided by the Sri Lanka Ports Authority.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: Tobacco issued as required. Wine and/or Spirit issued as required.

REPATRIATION: Crew changes and repatriation can be effected.

AIRPORT: No International flights through Trincomalee.

TIME: GMT plus 5.5 hours. GMT plus 6.5 hours in Summer.

HOLIDAYS: Dates of holidays are not fixed. Cargo work can generally be arranged on any holiday.

TELEPHONES: Police 2308; Ambulance 448; Fire 335. There are no telephone connections for ships.

SHIP SUPPLY SERVICE: See "General" before first port.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Identity Cards or Passports are required to be carried by crew members ashore.

DEVELOPMENTS: Tokyo Cement Company Jetty is now in operation to discharge cement clinker by grabs. Length of berth 460 ft. Depth alongside 28.5 ft.

AUTHORITY: Sri Lanka Ports Authority, Inner Harbour Road, Trincomalee. *Tel:* 541395. *Contact:* Resident Manager/Deputy Harbour Master.

AGENT: See "Colombo".

NOTES

Please also advise Shipping Guides Ltd.

Sudan

PORT SUDAN: 19.37 N. 37.14 E. (See Plan)

DOCUMENTS:
Port Sudan Harbour Master's Declaration.
Sudan Customs Declaration.
Quarantine Form.
(All above forms to be filled by Master on arrival).
3 Crew Lists.
3 Passengers Lists.
1 Crew Declaration.
1 Dutiable Stores.
4 copies Manifest.
1 copy Bills of Lading.
1 Provisions List.

PILOTAGE: 24 hours' notice ETA. VHF Channel 14. Pilot boards South of South Wingate Beacon. Pilotage compulsory.

ANCHORAGES: Towartit Anchorage, approx. 8 miles S.E. of harbour.

RESTRICTIONS: No restrictions providing berth available.

Age Restrictions: The Sea Ports Corporation, Port Sudan, issued the following circular:

"(1) Ships of over fifteen years of age will not be allowed to work in the harbour unless able to produce a Sea Worthy Certificate stating that all deck appliances and propellers are fit for work and capable of lifting and handling all kinds of goods carried on board the ship. The Owner or the Charterers of the ship will be held responsible for the correctness of the Certificate and for any delay incurred due to defect or non-efficiency of ship appliances.

(2) Ships working within the Red Sea Basin will be allowed to enter the harbour despite their age limit or nationality provided that they produce the Certificate referred to in Para (1) above.

(3) Ships carrying goods to Port Sudan Harbour must not carry any packages which cannot be lifted by the ship's own gear or are away from the reach of their gear.

(4) Breaches of any of the above will be subject to a fine of two thousand Sudanese pounds."

MAX. SIZE: Length 850 ft. Max. draft at Oil Terminal 39 ft., other berths between 28 ft. and 34 ft. 6 in.

HEALTH: Radio Pratique obtainable if message sent not more than 24 and not less than 8 hours before arrival to "Quarantine, Port Sudan", with following information: Name of ship and ETA; Name of Agent; Whether surgeon carried or not; Whether illness on board, if so, what illness; Port of departure and last port of call. On receipt the Quarantine Medical Officer will inform ship by wireless whether Pratique is granted or not.

RADIO: Port Sudan Radio (call sign STP). Operates daily on High Frequency as follows: 8676 kHz from 0400 hrs. to 2200 hrs. GMT; 500 kHz – continuous listening watch for first 10 minutes of every hour. Radiograms may be handed in at Port Sudan Post Office at all times and at Port Sudan Quays Post Office during office hours.

VHF: Port Sudan Radio on Channel 16 and 19 from 0400-2200 hrs. GMT.

Port Control on Channel 14.

TUGS: About 1 mile from harbour entrance. Either ship's or tug's lines at Pilot's discretion.

BERTHING:

		Depth	
Berth	Length	Winter	Summer
Nos. 1 to 5 main berths	458 ft.	30 ft.	28/33 ft.
No. 5A	426 ft.	35 ft.	33 ft.
No. 6	606 ft.	35 ft.	33 ft.
No. 7	606 ft.	35 ft.	33 ft.
No. 8	600 ft.	37 ft.	35 ft.
No. 9	600 ft.	37 ft.	35 ft.
No. 15	642 ft.	37 ft.	35 ft.
No. 16	230 ft.	37 ft.	35 ft.
No. 17	908 ft.	41 ft.	39.5 ft.
No. 18	908 ft.	41 ft.	39.5 ft.

CARGO HANDLING: Grain silo of 50,000 tons capacity situated at Berth No. 15.

Container traffic handled at Berths No. 17 and 18. Ro-Ro vessels handled at Berth No. 16.

20 mobile cranes, capacity 7 tonnes – 54 tonnes.

60 forklift trucks.

STEVEDORES: Require 24/48 hours advance notice of ETA and stowage of cargo. Rate of Discharge and Loading: General cargo, 5 – 10 tons per hook per hour. Bagged cargo, 15 – 20 tons per hook per hour.

Exports: Main exports are cotton, cottonseed, Arabic gum, oilcakes, beans, sugar, oilseed, hides, skins, wheat bran, karkadeh, ground nuts, edible oil, molasses and livestock.

Tea: Following exports should not be stowed with tea: castor-seed, hides, linseed, edible oil, oilcake. Cottonseed may be stowed with tea with separation of 3 ft. but it is preferable to stow in separate compartment from tea.

Cotton: Gum should never be stowed with cotton.

Transhipment cargo: Is normally not accepted at Port Sudan without prior permission, except in very small quantities.

Weight: Deadweight of cargo is expressed per ton of 1,000 kilos.

MEDICAL: Advance notice advisable. Hospital facilities available. Crew and passengers must have valid International Health books.

TANKERS: At Berth No. 16, vessels up to 600 ft. length can berth with overhang. Max. draft 34 ft. 6 in.

Berths 17 and 18 accommodate tankers up to 39 ft. draft. Berths connected by pipeline to refinery 8 km. South of Port Sudan.

Used for discharging crude oil and loading refined products.

"No smoking" notices required.

DENSITY: 1025.

FRESH WATER: Available ex-quay and ex-barge, capacity 200 tons.

FUEL: Marine Fuel oil (normally 1000 secs.); marine diesel oil (42/45 secs.); gas oil (35 secs.). 24/48 hours' advance notice advisable. Name of suppliers is required. Bunkers at times in short supply.

CONSULS: Nigeria.

REPAIRS: Minor deck and engine repairs.

DRY DOCKS: Slipways for 2 vessels up to 500 tons capacity.

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: Normally by stevedores.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes per person. Alcohol not allowed. Only personal requirements may be taken ashore.

REPATRIATION: Not recommended. Formalities take 2/3 days.

AIRPORT: 16 miles S.E. of port. Two flights daily to Khartoum and 2 flights a week to Cairo.

TIME: GMT plus 2 hours.

HOLIDAYS: The following government holidays will be considered as port holidays:

Day	*No. Days*
Independence Day	1
Christian Coptic Holiday	1
Rajab Revolution	1
Religious Holiday	1
Sham el Nassem	1
Ramadan Bairam	3
Kurban Bairam	5
Mohammedan New Year	1
Christmas Day	1

The port will not work on the following days: January 1st (Independence Day), November 10th-14th (First Day Kurban Bairam), December 1st (Mohammedan New Year), February 19th (Mulid El Nabi), June 30th (Revolution Day), September 3rd (First Day of Ramadan Bairam), December 25th (Christmas Day). Overtime will be worked on all other days.

POLICE/AMBULANCE/FIRE: Police 4888; Ambulance 2400; Fire 5922.

TELEPHONES: No arrangements exist for placing telephones on board.

IDENTIFICATION CARDS: Identification required in lieu of passports.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not usually available but could be specially arranged with refinery.

SEAMAN'S CLUBS: None.

CURRENCY: Sudanese Pound (S£).

GENERAL: Foreign currency allowed ashore, but must be changed in banks only. Crew are permitted to go ashore with any amount Sudanese Currency.

DEVELOPMENTS: The first development stage includes modification of 2 existing berths to accept ships of up to 50,000 d.w.t. and container vessels, relaying railway track in the port area and asphalting.

Second phase of development includes extension of 2 container berths, additional works at the Ro-Ro berth, a new oil berth (100,000 d.w.t.) and upgrading of the grain silo complex.

AUTHORITY: Sea Ports Corporation, P.O.Box 531 Port Sudan Quays, Port Sudan, Sudan. *Tel:* 2910, 2258. *Telex:* 70012 Rasmina SD. *Cables:* RASMINA. *Contact:* Mr. M.T. Aila, General Manager. Captain Omer D. Elkhaliefa, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Suriname

MOENGO: 05.38 N. 54.25 W.

A bauxite mining town about 70 miles up the Cottica River, a tributary of the Commewijne River, which latter joins the Suriname River at Fort New Amsterdam. Moengo is 94 miles from the Suriname River Light Buoy.

DOCUMENTS/PILOTAGE/GENERAL: Refer to "Paramaribo".

PILOTAGE: Vessel arriving after 2000 hrs. at the light buoy for Moengo can proceed on a suitable tide and anchor at Fort New Amsterdam without having to call at Paramaribo to be entered. In this case vessel will be entered on arrival at Moengo.

Also see "Paramaribo".

TUGS: Not available.

Towage is compulsory in the Cottica River from 40 miles below Moengo for vessels over 200 ft. long.

MAX. SIZE: Ships of 525 ft. can be accommodated. The Commewijne Bar is 9 ft. – 10 ft., so that the ruling draft is that of the Suriname River, maximum admissable draft being subject to the Suriname River.

BERTHING: Moengo has two piers at which ore is loaded by a transporter at the rate of 800/1,000 t.p.h. One pier is 430 ft. long and has a depth of 24 ft. alongside. Both will accommodate ships of 525 ft. length. Tracks are laid on the 430 ft. pier and a 25 ton crane is available.

PROVISIONS: Not available.

FRESH WATER: Small quantities can be supplied.

FUEL: Small quantities can be supplied.

AIRPORT: About 5 km. from docks.

AUTHORITY: District Commissioner acts as Harbour Master.

See "Paramaribo".

NEW NICKERIE: 05.57 N. 56.59 W.

DOCUMENTS:

6 copies Crew List.
6 copies Passenger List.
Customs Documents; Crew Declaration Lists; for instance, souvenirs, electric apparatus, etc.
2 copies Ship's Store Lists.
3 copies Manifests of Import.
4 copies Manifests of Export.
1 copy Transit Manifest.
2 copies Manifests of Coastal Cargo.
Ship's Papers to be shown on request.

PILOTAGE: Pilotage is compulsory for the Nickerie River for ships bigger than 50 gross tons. There is always a Pilot available; ETA to be sent 48 hours before arrival and, 12 hours before arrival give necessary correction message to the Agent.

Ships can only enter the river at or about the time of high water.

The Pilot boards near the Sea Buoy (Buoy No. 1). The pilot boat is painted black and white with "Pilot 1" on the side. The pilot boat does not use the international red-white pilot lights at night. It is possible to make radio telephone contact with the boat (Pilot carries a walkie-talkie VHF equipped with Channel 12). There is a signal lamp on board.

Send ETA message to Agent who will order the Pilot. Awaiting high water the vessel can anchor about 3 miles N.N.E. of the Sea Buoy.

ANCHORAGES: With a draft of 15 ft. the ship can safely anchor 3 miles N.N.E. of the Sea Buoy. It is not advisable to anchor in the Nickerie River for a long time, the river is too narrow.

MAX. SIZE: Minimum depth on the bar is 2.10 m. with maximum draft at HW varying from 14 ft. to 17 ft., maximum length is 130 m., governed by the width of the river (170 m. and upriver 70 m.). The vessel has to use the high-inlet for cooling water, etc., while passing the bar.

At low water ships are seated in the mud without consequence to hull, rudder or propeller alongside the wharf. There are berths for oil-carriers.

HEALTH: There is no Pratique procedure. Only in the event of any suspected disease on board must a doctor must be called.

RADIO: Send ETA cables to Paramaribo Radio. VHF equipment also used.

TUGS: No tugs available.

BERTHING: The port of New Nickerie is 3 miles up river.

Wageningen: Lies 27 miles up river and can be reached with the same draft as New Nickerie, but the width of the river is only 70 m., which restricts length to 120 m.

STEVEDORES: The Agent orders the gangs (maximum 3 gangs available).

MEDICAL: No advance notice required for medical treatment. There is 1 hospital in Nickerie with a surgeon.

TANKERS: There are 3 piers in Nickerie: Esso, Shell and Texaco pier. Maximum permitted draft 12 ft. 1 in. at Spring tide.

DENSITY: In the dry season the density on the river near New Nickerie is 1015. In the rainy season the density is 1005 near HW, and 1000 near LW. These all depend upon Spring tide or Neap tide.

FRESH WATER: Fresh water is available alongside the wharf of New Nickerie. It is loaded from shore by hose.

FUEL: Small quantities of fuel available from Esso or Shell, also grease and petrol.

CONSULS: No consuls in Nickerie.

REPAIRS: Small engine repairs and shaft repairs and some welding repairs can be done.

GANGWAY/DECK WATCHMEN: It is recommended to have a watchman during the night.

OPENING/CLOSING HATCHES: Patent hatches must be opened b the crew, other hatches by the stevedores.

CUSTOMS ALLOWANCES: Master included: for every 72 hours stayin in port: 15 cigars or 60 cigarettes or 30 cigarillos or 150 gm. tobacc plus 0.25 bottle spirits or 5 bottles beer or 1 bottle wine.

REPATRIATION: Possible via Paramaribo.

AIRPORT: The airport is 16 km. from the port of Nickerie. Once per da there is a flight to Paramaribo arranged by Suriname Airways.

Daily bus service between New Nickerie and Paramaribo.

TIME: Local time is GMT minus 3 hours. No alteration during year.

HOLIDAYS: See "Paramaribo".

POLICE/AMBULANCE/FIRE: Police 356; Ambulance 241; Fire 333.

TELEPHONES: No arrangements can be made for a telephon connection on board.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not needed.

DELAYS: Delays in berthing: There are only 2 wharves with a total lengt of 700 ft. Banana ships have priority. Delays in loading and dischargin there are only 3 gangs of stevedores. These can be enlarged to 5 "sma gangs".

DEVELOPMENTS: In the future a bigger and deeper port will be bui in the Corentyne River, about 20 miles up the river.

AUTHORITY: District Commissioner acts as Harbour Master.

See "Paramaribo".

PARAMARIBO: 05.50 N. 55.09 W.

PORT LIMITS: The seaward boundaries of the port, within which vessel is considered to be "arrived" is the entrance of the Surinam Marowijne, Coppename, Corantijn and Nickerie Rivers. Laytim commences to count after vessel has anchored or berthed.

LOCATION: On the left bank of the Suriname River about 8 miles abov New Amsterdam and 21 miles from light-buoy at river entrance.

DOCUMENTS:

5 Incoming Cargo Manifests (if any cargo), otherwise 3 copies.
1 Cargo Transit Manifest.
4 Outward-going Manifests.

These above-mentioned must be sent ahead to the Agent so that th can be translated into Dutch.

6 Crew Lists.
2 Stores Lists.
2 Crew Declaration Lists.
6 Passenger Lists.

PILOTAGE: Compulsory. All ships are requested to amend th estimated time of arrival in local time, at least 12 hours in advance b special message through the wireless station to their Agents or to th Harbour Master. Arrival message should include draft of vessel and oth requirements. 6 hours prior to arrival the ETA has to be confirmed an if necessary corrected. The Pilot will be dispatched after receiving th confirmed ETA. As shipping only uses the Suriname River, th Commenwijne River, the Cottica River and the Nickerie River, all Pilo except one for Nickerie are stationed at Paramaribo. Paramaribo Pilo board the vessels 1 mile North of the light buoy and between the lig and Braamspunt (Lat. 5° 57' N., Long. 55° 10' W.). Pilot station on VH Channel 12. Pilot station and harbour office to be advised of deepe draft. All vessels have to stop off the light buoy.

ANCHORAGES: Anchorage off town in 18 ft. – 35 ft. of water at LWS Government Officials board vessels immediately on arrival for Inwa Clearance. Vessels which are required to anchor off the port to wait f berths may be boarded at the anchorage.

RESTRICTIONS: The bar at the entrance of the Suriname River contro the ports of Paramaribo, Moengo, Paranam and Smalkalden, and ha a depth of 15 ft., with a rise at Neaps of 6 ft. 7 in. or Springs 8 ft. 10 i but it is soft mud. Due to the fact that the bar consists of mud, vesse regularly leave the port with drafts between 22 ft. and 23 ft.

CHANNEL: The channel is marked by numbered buoys with rad reflectors, odd numbers on the West with red lights, and even numbe to the East with green lights and painted respectively red and green.

HEALTH: Port doctor will visit an arriving ship only if there is a case contagious disease aboard, or if one of the preceding ports of call ha been declared to harbour contagious disease. No Bill of Health required. A ship with an infection on board must advise the Harbo Master by special message through the wireless station before arriv Yellow Fever Certificates required. Pratique granted by Customs Offic

RADIO: There is a 24 hour radio telephone watch at the Harbo Master's Office on VHF Channel 12. The coast station, PZN, al maintains a 24 hour radio telegraph (500 kHz) and telephone servic the 2,182 kHz band.

VHF: Harbour Office on Channel 12, 24 hours a day. Radio Stat "PZN" on Channels 16 and 12, 24 hours a day.

RADAR: None.

TUGS: Available from Paranam.

BERTHING:
B.E.M. Wharf: 110 ft. long, least depth 18 ft. Private cement and gravel discharge wharf, Moorings 450 ft. apart.
Banana Export Pier: 297 ft. long, least depth 18 ft. Fresh water can be supplied.
New Oil Terminal: Moorings 570 ft. apart. Least depth 18 ft. Platform length 65 m. Used for oil and gas.
Flour Pier: 36 ft. long. Moorings 160 ft. apart. Least depth 16 ft. Only possible to discharge flour with a grain elevator, rate 30 t.p.h.
Vensur Cement Wharf: 87 m. long, depth alongside 14 ft. Moorings 600 ft. apart.
New Haven Dock: 520 m. long. Least depth on the North end 4.5 m. at L.W.S. and least depth on South end 4.0 m. at L.W.S. Max. depth 21 ft. Fresh water can be supplied.
Shell Oil Terminal: Moorings 540 ft. apart. Least depth at LWS 18 ft. Exclusively for oil, gas and bunkering.

CRANES: One crawler crane 25 tons capacity.

MEDICAL: Excellent medical and dental attention is available to crew members of all vessels. Four hospitals available.

TANKERS: See "Berthing" and "Shipmaster's Report".

BALLAST: Vessels must arrive with sufficient ballast to permit safe handling. All vessels should enter port with clean ballast water that may be pumped overboard while in the harbour, as it is prohibited to pump dirty ballast water or oil residue or sweepings into the harbour.

FRESH WATER: The water is of excellent quality. Available at most berths as mentioned above.

FUEL: Ship's bunkers are available in most ports of Suriname in limited quantities. Advice regarding quantities and specifications of oil should be given to Agent's representative immediately after docking. Suppliers are Shell, Esso and Texaco.

CONSULS:
Austria
Barbados
Belgium
Brazil
Canada
China
Colombia
Denmark
Dominican Republic
Ecuador
Finland
France
Germany
Guyana
Haiti
Indonesia
Italy
Japan
Korea
Mexico
Netherlands
Norway
Peru
Portugal
Spain
Sweden
U.K.
U.S.A.
Venezuela

Embassies:
Brazil
China
France
Guyana
India
Indonesia
Japan
Korea
Netherlands
Russia
U.S.A.
Venezuela

REPAIRS: No facilities for major ship repairs. Local workshops can do repairs of minor nature. There are 2 floating dry docks and 1 floating derrick owned and operated by the Suriname Drydock Co. Lifting capacities of dry docks: 400 – 650 tons.

SURVEYORS: Lloyd's Register, International Register of Shipping, Bureau Veritas and Germanischer Lloyd.

GANGWAY/DECK WATCHMEN: The Customs board the vessel while riding at anchor or alongside one of the docks. All vessels are required to make a proper gangway available to the Customs Boarding Officer.

The local authorities assign one or more Customs Guards to each vessel during its stay in port. The charges for guarding are for the account of the vessel. These Officials must be provided with meals on board at regular meal hours, and cabins if necessary.

CUSTOMS ALLOWANCES: 60 cigarettes or 15 cigars or 0.5 lb. of tobacco. One-fifth litre of spirits, one-third litre of wine, 2 litres of beer, for each crew member.

All remaining stores must be declared and placed under seal. If vessel remains in port over 72 hours Customs will allow an issue of stores.

CARGO GEAR: Load/discharge by ship's gear.

REPATRIATION: Under special circumstances vessels may sail without all crew members on board (sickness, etc.). The Master furnishes a letter to his Agent authorising him to accept responsibility for the missing seaman or seamen.

AIRPORT: Zanderij Airport, 46 km. from Paramaribo. Served by SLM, KLM, ALM, Cruzeiro and Guyana Airways.

TIME: Local time is GMT minus 3 hours. Vessels are required to use local time in ETA messages and when dealing with Agents.

HOLIDAYS: New Year's Day, Revolution Day (February 25th), Holi Phagwa* (March 10th), Good Friday, Easter Monday, Labour Day (May 1st), Freedom Day (July 1st), Id-Ul-Fitr*, Republic Day (November 25th), Christmas Day, Boxing Day. *These holidays depend on the moon.

EMERGENCY CO-ORDINATION: Harbour Office. Tel: 74575. Telex: 163 Havkan Sn.

BANK: Algemene Bank Nederland N.V., Kerkplen 1, Paramaribo. Tel: 71555. Telex: 122 Bancol Sn.

STORING: Can be arranged by Barge or Trucks, whilst loading or discharging, depending on berth, with Customs in attendance. Local labour available.

SHORE LEAVE: Under normal circumstances no restrictions are imposed by the Government Immigration Authorities on shore leave.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Surinamese Guilder (SFl).

GENERAL: While alongside vessels must maintain engines and propulsion machinery in readiness to leave the pier under full power on short notice. No repairs are permitted which should interfere with this requirement. While alongside, oil tankers should have their offshore anchor out about 50 ft.

All vessels except naval vessels, must furnish a statement, of the amount and character of explosives carried, also a certificate to show how they are stored and manner of packing.

Special anchorage areas are provided in the harbour for vessels with dangerous cargo.

All firearms and ammunition must be manifested on store lists and must remain in bond on board during vessel's entire stay in territorial waters of Suriname. Any violation of this regulation renders the vessel subject to fines and confiscation of firearms and ammunition.

SHIPMASTER'S REPORT: March 1990 (Updated 1992).
Shell Terminal at Suhoza: There appears to be more water than charted in river. Chart Datum was verbally quoted to me at 4.6 m. and inward we could have safely been deeper if more cargo was carried, provided vessel came up river with the high tide.

Depths at the berth were not as expected. We were advised there was 22 ft. at all times but vessel was aground at every low tide. This was not felt as vessel sat in soft mud without a list. Vessel lies alongside 2 dolphins with reasonable fendering, with the hose jetty also adequately fendered.

Mooring arrangements are adequate but it is longwinded getting ropes ashore as initially the headlines have to be passed over the fish jetty to a dolphin and then brought some considerable distance to river bank.

Breast lines were secured to a dolphin and same was well piled.

Stern lines have to be pulled ashore by lorry after boat gets them to bank which again makes a longwinded job, but once in berth, despite strong current, vessel sits comfortably.

Springs secured to dolphins as per normal.

The stern dolphin was not used as too near ship for useful mooring point. One must ensure fishing boats are out of the way before mooring, as once tied up they would be trapped inside their own jetty if on the inboard side.

Loading is all done by barges, one was reasonably fast, the other had a very slow loading rate. The barges are adequately manned and safety practices are correct. They have sufficient fenders to come alongside. It is suggested that 4 lengths of hose are used next time, as when we are light, the freeboard is nearly too much for 3 lengths, and if 4 lengths available it should be easier for barge to disconnect and us to hang-off hose until next barge comes, rather than disconnecting at ship every time, as this operation was very labour intensive. I enquired as to why we could not load at crude jetty and was advised that the depth of water there is only 14 ft.

Sailing should be done as soon as possible after low water. It was difficult pulling stern out of mud but if vessel does not get away promptly it is difficult to catch the tide at the bar. We actually crossed bar 1 hour after high water and had to increase river speed to make this deadline. Any later than this and it would be safer to anchor off New Amsterdam for next high water, which would be uneconomical. Steaming at full speed in river on 19 ft. draft even keel made us squat badly and steering was a problem. At times vessel was felt to slide through soft mud. Sounder was rather blurred when less than 1.0 m. under keel. There are no tugs in river so when coming on and off berth it is essential to use the tide. With a fish jetty close ahead and another jetty astern it is rather tight, but no problems.

AUTHORITY: The Ministry of Transport Communication and Tourism, P.O.Box 888, Paramaribo, Suriname. *Tel:* (597) 474575, 472845. *Telex:* 163 Havkan Sn. *FAX:* (597) 472940. *Contact:* E. Fitz-Jim, Director of Maritime Affairs.

AGENT: Alcoa Steamship Company, Inc., P.O.Box 1842. Paramaribo, Suriname. Tel: 77600, 73613. Telex: 113. Cables: Alcoaship Parbo. Steamship Agents/Stevedoring Operators.

PARANAM: 05.38 N. 55.05 W.

LOCATION: On left bank of the Suriname River about 64 km. from the light buoy (Fairway Buoy), consisting of bauxite mining, alumina refining and an aluminium smelter with facilities for shipping these commodities.

DOCUMENTS/PILOTAGE, and all General Information refer to "Paramaribo".

RESTRICTIONS: See "Berthing".

MAX. SIZE: Vessels up to 47,500 d.w.t. load to outer bar draft (approximately half load) and usually top off at Trinidad. Max. LOA 700 ft.

HEALTH: Health Officer does not board unless there are quarantinable diseases aboard.

TUGS: Available.

BERTHING: *General Dock:* Concrete pier of about 350 ft., moorings 660 ft. apart. Least depth 30 ft., max. air draft 42 ft., max. beam 80 ft. This dock used for loading bauxite or aluminium ingot and for discharging general cargo, oils, caustic and other raw materials,
Apron Unloading Dock: Used for unloading bauxite from Moengo and other country districts. Also used for unloading limestone.
Length 450 ft.
Max. air draft 30 ft.
Unloading rate 600 t.p.h.
Alumina Pier: Depth 25 ft., moorings 680 ft. apart. Used for loading alumina or discharging oils and caustic. Max. air draft 50 ft., max. clearing height 72 ft. Also see "Shipmaster's Report".
Loading Capacity: Bauxite General Dock: 900 t.p.h.
Alumina at Alumina Dock: 850 t.p.h. Loading by conveyor, spout trimmed (Telescopic chute).

CRANES: One gantry crane 55 tons capacity.

FRESH WATER: Can be supplied.

FUEL: Small quantities of light diesel No. 2 only in emergency.

REPAIRS: None can be effected.

AIRPORT: At Zanderij, 30 km. from dock.

GENERAL: The Outer Bar is the limiting factor for the port. Harbour Office at Paramaribo give Bar drafts for each tide.

The river silt is extremely soft and in consequence the river water is very dirty and although fresh (995 at the berths) the evaporators cannot be kept on line. There is also a great danger of blocking the cooling water system, especially when crossing the bars. Blackouts on both motor and steam ships are a common occurence. Care should be taken to ensure that cooling systems are as clear as possible before entering the river. High suctions must be used when passing over all bars in Suriname.

SHIPMASTER'S REPORT: October 1986 (Updated 1988).
Alumina Terminal: Lat. 05° 36.9' N., Long. 55° 05.2' W.
Local Time: GMT minus 3 hours.
Approaches: Low lying coastline. Vessels anchor about 5 miles North of light buoy (Fairway Buoy) in position Lat. 06° 05' N., Long. 55° 12.7' W. to await HW. Lighthouse at Lat. 05° 54' N., Long. 55° 12' W.
Pilotage: Compulsory. River Pilot boards 1 mile North, of light buoy (Fairway Buoy). Pilot boarding and HW to be confirmed by Paramaribo Port Control on VHF Channel 12 and Harbour Office on Channels 12 and 16.

Very shallow waters from Buoy No. 1 to Buoy No. 6 on either side, with variable currents. Buoyed channel up to Buoy No. D11 (30 miles from light buoy – Fairway Buoy). Draft restricted to 22 ft. with safe draft of 21 ft. in HW. Safe turning basin and anchorage 2 miles up river from Paranam. For down river transit, waiting anchorage for HW is off Paramaribo at Leonsburg in Lat. 05° 52.5' N., Long. 55° 05.5' W.
Berthing: By River Pilot. No tug for berthing. Alumina Pier length 207 m., alongside depth is 30 ft. Other berths at Paranam for discharge of general cargo and loading bauxite.
Loading: By conveyor-fed telescopic chute. Capacity 850 – 1,000 t.p.h. Can reach all holds. Cargo work 24 hours.
Density: About 995 – 996 alongside berth.
Fresh Water: Available at berth.
Bunkers: Not available.
Provisions: Limited quantity of some fresh vegetables and meats available at local Chinese 'supermarket'.
Shore Leave: No restrictions. Paranam Town is 1 mile from berth. Paramaribo City about 1 hour by car. Nearest airport at Zanderij International, 30 km. from Paranam.
Radio: PZN (Paramaribo Radio) provides reliable services.

AUTHORITY: District Commissioner officially acts as Harbour Master but vessel movements, pilotage, etc. handled by Paramaribo Harbour Master's Office.

WAGENINGEN: 05.46 N. 56.41 W.

PORT LIMITS: Laytime commences to count after vessel is made fast to wharf.
DOCUMENTS:
5 copies Cargo Manifest.
6 copies Crew List.
6 copies Passenger List.
2 copies Stores List.
2 copies Crew Declaration List.
PILOTAGE: Compulsory. Pilot boards at New Nickerie.
ANCHORAGES: None.
RESTRICTIONS: The minimum depth on the Bar is 2.1 m. in the mouth of the Nickerie River. Width of the river at Wageningen is 130 m.
MAX. SIZE: LOA 120 m., max. draft 5.0 m.
HEALTH: Upon arrival, a Quarantine Questionnaire is handed to the Master, which has to be filled immediately and returned to the Ministry of Public Health.
RADIO: Coast Radio Station "PZN" on 500 kHz, 2,182 kHz and VHF Channels 16 and 12 throughout 24 hours.
VHF: Harbour Master's Office on Channels 16 and 12.
RADAR: Not available.
TUGS: Not available.
BERTHING: Length of the quay 118 m. Least depth alongside 6.10 m. Maximum permissible draft at low water is 5.0 m. (See Bar draft – Restrictions).

Loading is by shore equipment.
CRANES: Not available.
BULK CARGO FACILITIES: Available.
BRIDGES: Crossing Nickerie River: At Groot Henar Passage, height of bridge when closed 5.0 m. at HWS. Bridge open 40 m. at HWS. Passage width 100 m.
STEVEDORES: Contact ship's Agent.
MEDICAL: Full hospital facilities at New Nickerie, about 50 km. from Wageningen.
TANKERS: No facilities.
DENSITY: 1016.
FRESH WATER: Available.
FUEL: Possible in the harbour at New Nickerie.
FIRE PRECAUTIONS: None.
CONSULS: At Paramaribo.
REPAIRS: Not available.
DRY DOCKS: Not available.
SURVEYORS:
Lloyd's Register of Shipping (Mr.Liauw Kwie Fong). Tel: 47510 Fax: 420750.
International Register of Shipping (Mr.Liauw Kwie Fong).
Lloyd's Agency C.V. Romondt. Tel: 472831.
Germanischer Lloyd (Mr. v/d Jagt). Tel: 498352.
Bureau Veritas (Mr. v/d Jadt). Tel: 498352.
GANGWAY/DECK WATCHMEN: Not necessary.
HATCHES: Normally opened and closed by ship's crew.
CUSTOMS ALLOWANCES: 60 cigarettes or 15 cigars or 0.5 pou tobacco; 0.20 litre spirits, 0.20 litre wine and 2 litres beer.
CARGO GEAR: Not available.
REPATRIATION: Possible.
AIRPORT: At New Nickerie, about 50 km. from Wageningen (domest flights).
TIME: GMT minus 3 hours.
HOLIDAYS: New Year's Day, 1st January; Easter Monday (movable Id Ul Fitr (movable); Labour Day, 1st May; Holi Paghua (movable Emancipation, 1st July; Good Friday (movable); Independence Da 25th November; Christmas Day.
POLICE/AMBULANCE/FIRE: 0233122, 0233141, 0233132 respectively.
EMERGENCY CO-ORDINATION CENTRE: Contact Police.
SERVICES: Not available.
BANKS: Surinaamshe Bank N.V.
STORING: See "Prelims".
(1) Yes.
(2) No.
(3) No.
(4) No.
(5) Yes.
(6) Yes.
SHIP SUPPLY SERVICE: Available.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Passport or Seaman's Book.
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Suriname Quilder.
GENERAL: High inlets must be used when passing Bar to avoid clogging with mud.
AUTHORITY: Ministry of Transport, Communications and Tourism Prins Hendrikstraat 26-28, Paramaribo, Suriname. *Tel:* 0231585
Contact: R. Hassankhan, Acting Harbour Master (Pilot).

NOTES

Please also advise Shipping Guides Ltd.

Sweden

GENERAL:

DEEP SEA PILOTAGE: See "Baltic Deep Sea Pilotage".

PILOTAGE: Helsingborg Pilot Station serves the ports of Hoganas, Helsingborg and Landskrona. Pilots for through-pilotage can be obtained. A 24 hour watch on VHF Channel 16 and/or telephone +4642110035 is maintained. Pilots can also be arranged through ship's local Agents. 5 hours notice is required.

Pilotage is compulsory for all ports for ships of certain gross tonnages and/or carrying certain cargoes. For passage through the Oresund, an IMO Recommendation has been issued recommending all laden tankers with a draft exceeding 7.0 m. and gas or chemical tankers to employ a pilot. Only licensed Swedish or Danish pilots are permitted to pilot vessels through the Oresund.

ICE-BREAKING SERVICE:

Location: Ice-breaking Directorate, Norrkoping.

Telephone: (011) 19 10 00 (0800 hrs. – 1640 hrs. local time).
(011) 12 29 60 (outside above hours).

Telex: 64416 Ice Serv S.

Cables: Civilmarin.

Procedure: Requests for ice-breaker assistance should be made well before vessel's arrival at the ice to the Directorate, locally (to most Swedish Harbour or Pilot Offices) or to an ice-breaker.

Vessels approaching ice-bound areas may be instructed, in daily Ice Reports issued by Coastal Radio Station (see ALRS Vol. 5), to report to the Directorate. Reports, which should be made well before arrival at the ice are to include the following details of the vessel:

1. Name.
2. Nationality.
3. Call sign.
4. Size.
5. Draft.
6. Engine power.
7. Year built.
8. Ice class.
9. Amount of cargo.
10. Destination.
11. ETA at ice-covered waters.

Vessels which have made a request or report and subsequently cancel or delay their voyage must inform the Directorate, a local office or an ice-breaker immediately.

Information Service: For details of Coastal Radio Stations which broadcast Ice Reports, including positions of ice-breakers, see ALRS Volume 5.

Ice-Breakers:

Call: Swedish ice-breakers with their call signs are:

Ymer	SPIA	Tor	SCYN
Frej	SBPT	Oden	SBXQ
Atle	SBPR	Thule	SCKD
Njord	SBPO	Ale	SBPQ

Frequency:	500 kHz	WT
	2182, 2140 kHz	RT
	Channels 16, 6	VHF

Procedure: Calls to ice-breakers may be booked through the nearest Coastal Radio Station. Vessels receiving assistance must maintain continuous listening watch on the channel specified by the ice-breaker.

GARBAGE/WASTE OIL DISPOSAL: In Sweden a "no-special-fee-system" applies to reception facilities in all ports, on condition that:

Advanced notice is given during normal working hours, at least 24 hours before delivery.

The delivery takes place during normal working hours.

The delivery takes place at the time which was agreed.

The ship's own pumps are capable of delivering liquids within a reasonable time.

If inadequacies are observed in the system they should be reported to National Swedish Maritime Administration, Ships Division, S-60178 Norrkoping. Tel: 46 11191334. Telex: 64380 shipadm s. Fax: 46 11101949.

In order to obtain further information about individual port facilities contact the relevant port authority.

SEAMAN'S CLUBS: Handelsflottung Kultur-och Fritidsrad (Swedish Government Seamen's Service) (HKF) is a government authority, attached to the Ministry of Transport. Its operations are financed by a fraction of the light dues, paid by vessels calling at Swedish ports.

HKF has its own representatives in Kobe, Antwerp, Rotterdam, Hamburg, Gothenburg, Helsingborg, Malmo, Norrkoping and Stockholm. In foreign ports, HKF co-operates intimately with Swedish Seamen's Missions and the Norwegian Government Seamen's Service, which serve the Swedish seafarers where HKF lacks representatives of its own. Important services include distribution of Swedish magazines and newspapers, movie and library exchange, sports, excursions and transportation.

HKF also provide a news service consisting of the news bulletin SAX-presset, compiled daily by the Swedish Central News Agency and forwarded by the Gothenburg Coast Radio Station. HKF publishes the quarterly Utkik ("Look-out") and an annual seamen's sports magazine and contributes sports information in the monthly merchant navy program of Radio Sweden International.

AHUS: 55.56 N. 14.19 E. (See Plan)

DOCUMENTS: See "Stockholm".

PILOTAGE: Pilots meet vessels at Pallagrund. Telegraphic address: "Pilotstation, Ahus". Tel: 044 – 247474. VHF Channel 16 call sign: "Pilot Station, Ahus." Awaiting Pilot, anchor outside Pallagrund. Depth 15 m. – 20 m. (Also see "Stockholm").

ANCHORAGES: Anchorage forbidden in dredged entrance channel.

RESTRICTIONS: No special regulations.

MAX. SIZE: Max. length 160 m., max. draft 7.7 m.

HEALTH: No special regulations.

RADIO: Stockholm Radio (SDI) also VHF, Channel 16 and working Channel.

Ahus Port Radio keeps watch, Monday to Friday 0800 to 1600 hrs. on VHF Channel 16. Working Channel 11, 12 and 13. At other times Ahus Pilot Station.

RADAR/VHF: Radar on Pilot Station. VHF call sign: Pilot Station, Ahus. Channel 16. Also see "Radio".

TUGS: 1 tug available with advance notice.

BERTHING: Depth alongside (at MW) as follows:

Berth	*Length* (m.)	*Depth* (m.)
Wine Quay	100	4.2
No. 1 – 4	270	5.8
No. 5 – 17	740	7.2
No. 18 – 26A	470	8.2
26B	15	4.2

Depth allowance 0.5 m.

CRANES: 7 shore cranes, capacity 5 tons – 29 tons. No cranes at Berths No. 1 – 4 or Wine Quay.

STEVEDORES: Ahus Harbour and Stevedoring Co. Tel: 044-289035. Working hours: Monday to Friday 0700 – 1600 hrs. Meal breaks 0845 – 0900 hrs. and 1200 – 1245 hrs.

FRESH WATER: Delivered from pipeline.

FUEL: Available day and night.

FIRE PRECAUTIONS: No special regulations.

CONSULS: Danish Vice-Consul: O.Boulevarden 52, S-29131 Kristianstad. Tel: 044-138000. Norwegian Vice-Consul: Uddevogen 3, S-29154 Kristianstad. Tel: 044-126350.

REPAIRS: Minor repairs only.

DRY DOCKS: No dry dock.

GANGWAY/DECK WATCHMEN: If wanted, watchmen available.

OPENING/CLOSING HATCHES: Normally by the crew.

CUSTOMS ALLOWANCES: See "Stockholm".

AIRPORT: Nearest airport about 10 miles away. 6 flights per day.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: See "Stockholm".

POLICE/AMBULANCE/FIRE: Police Tel: 242030; Ambulance Tel: 90000; Fire Tel: 90000.

TELEPHONES: None available.

IDENTIFICATION CARDS: Crew List needed. No cards.

GARBAGE DISPOSAL: Information available on request to Harbour Office.

WASTE OIL DISPOSAL: Information available on request to Harbour Office.

SEAMAN'S CLUBS: None.

CURRENCY: Swedish Kroner (SEK).

AUTHORITY: Ahus Harbour and Stevedoring Co., Krangatan 2, S-29632 Ahus, Sweden. *Tel:* 044-289035. *FAX:* 044-241128. *Contact:* Sten Lundell, Harbour Master.

BROFJORDEN: 58.21 N. 11.25 E. (See Plan)

LOCATION: Brofjorden Harbour is situated near Lysekil in position Lat. 58° 21' N., Long. 11° 25' E.

The harbour facilities are under the control of Scanraff. The berths are open for day and night navigation, allowing vessels to enter and leave at any hour, weather permitting.

PORT LIMITS: Between "Stretudden" (crude oil berth) and the island "Rixo" in Brofjorden.

DOCUMENTS: Documents required for entry and clearance:

Certificate of Registry, Certificate of Tonnage, Derat Exemption Certificate, 3 Crew Lists, 1 Crew Manifest, 1 Declaration of Bonded Stores. Free Pratique will be received via Customs on arrival berth. Oil Pollution Certificate.

PILOTAGE: Pilotage is compulsory. The pilots will act as both sea pilots and harbour pilots. Pilot station VHF Channel 16 around the clock. Channel 16 for calling only, thereafter changing to an agreed Channel. Call: Lysekils Pilots.

According to harbour regulations VLCCs are requested to give 72 hours' ETA, and if any changes 48 and 24 hours' ETA.

Product tankers are requested to give 48 and if any changes 24 hours' ETA.

Position where Pilot will Board:

VLCCs	Lat. 58° 13' 05" N., Long. 11° 09' 05" E.
Product tankers	Lat. 58° 15' 01" N., Long. 11° 13' 03" E.

Notification: All arriving ships not intending to use a pilot shall announce their arrival to "Lysekil Pilot" on VHF Channel 12 at the Brofjorden entance buoy.

Ships leaving the jetty and not intending to use a pilot shall contact "Lysekil Pilot" on VHF Channel 12 before departure for announcement and ask for information about ships coming in.

In case of incoming ships, the ship departing shall keep in contact until the ships have passed and are clear of each other.

ANCHORAGES:

VLCCs	East Scaw, Lat. 57° 42' N., Long. 10° 49' E.
	Water depth: 26 m.
	Holding ground: Sand, good.

Product Tanker Only (up to 60,000 d.w.t.):

Lat. 58° 20' 03" N.	Water depth: 28 m.
Long. 11° 21' 00" E.	Holding ground: Clay, good
Lat. 58° 19' 07" N.	Water depth: 26 m.
Long. 11° 23' 05" E.	Holding ground: Clay, good

RESTRICTIONS: *When Berthing VLCC:* Visibility minimum 4 miles, wind force max. 12 m./sec. and current max. 1 knot at the outer buoys (No. 1 and 2).

MAX. SIZE:

Crude Oil Jetty:

Deadweight:	50,000 – 500,000 tons.
Length overall:	No limit.
Beam restriction:	No limit.
Draft restriction:	25 m. (82 ft.)
Depth of water:	28.0 m. (92 ft.).

Product Jetty (Berths No. 2 and 3):

Deadweight:	50,000 tons.
Length overall:	230 m. (755 ft.).
Beam restriction:	No limit.
Draft restriction:	14.4 m. (47 ft.).
Depth of water:	16.0 m. (53 ft.).

Product Jetty (Berth No. 1):

Deadweight:	7,000 tons.
Length overall:	120 m. (394 ft.).
Beam restriction:	No limit.
Draft restriction:	8 m. (26 ft.).
Depth of water:	8.8 m. (29 ft.).

Product Jetty (LPG Berth No. 4):

Length overall:	100 m. (328 ft.).
Beam restriction:	No limit.
Draft restriction:	7.0 m.
Depth of water:	8.0 m.

HEALTH: No special papers required. Master informs by radio or on arrival.

RADIO: For ETA cables to Agent and Receivers call Gothenburg Radio.

Pre-Arrival Information: Before arrival, the Master shall, via his agent, inform Scanraff about items asked for in the pre-arrival telex that is sent to the vessel.

Notification Requirements: Notification shall, in addition to what is said in the pre-arrival telex, contain particulars of the vessel's Master and Crew List and the Master is required, if so requested by Scanraff, to supply such further particulars and produce such documents as may be necessary for the calculation of the dues payable in respect of the vessel and goods and for the use of loading and discharging facilities, etc.

The duties incumbent on the Master of the vessel may be fulfilled by his agent or other proxy.

VHF: VHF stations are installed at the Pilot Station, the pilot boat, the tug boats and at the Scanraff Harbour Office. Scanraff and Lysekil Pilot listen on Channel 16 day and night.

When mooring: the Pilot, Harbour Master, mooring boats and the mooring gangs carry portable VHF sets. Channel 69 is usually used.

RADAR: At the Pilot Station two radar sets are installed for watching the entrance.

TUGS: Use of tugs is compulsory for berthing/unberthing at the crude oil jetty and depending on the weather condition and type of vessel it can be compulsory even for berthing at product jetties.

One tug with bollard pull of approximately 40 tons is stationed in Brofjorden. Additional tugs are available. The tugs are equipped for fire fighting.

Only towing companies approved by Scanraff are entitled to assist vessels.

Mooring boats are available for handling of mooring lines.

For VLCCs: Tugs made fast after passage of Dynabrott and Brandskars Flak Lighthouses.

For Product Tankers: Tugs made fast when passing Bubacka Buoy (opposite crude oil berth).

BERTHING:

Instruments:	SAAB Doppler Radar and current meter at crude jetty.
Salinity:	18 – 34%
Current Velocity:	0.2 – 0.9 knots at entrance.
Nature of Bottom:	Clay.

The Crude and Product Jetties are equipped with quick release hooks. The coaster berth has usual type of bollards.

One Safety Tug-boat is always standing-by within the harbour area in case of emergency. When a crude carrier is alongside an additional Safety Tug-boat is standing by.

Berthing/Shifting: Berths are allocated by Scanraff. Should no berth be available, incoming vessels will be requested to anchor at an anchorage allocated by the Pilot Station.

The berthing operation will be supervised by Scanraff personnel.

It is the responsibility of the Master to inform themselves, through Scanraff or the Pilot Station, of the depth of water at their allotted berth, mooring and anchorage.

Before arrival at the quay all mooring ropes, heaving lines, stoppers, etc. required for mooring shall be ready for immediate use and also a sufficient number of men shall be available during the mooring operation.

All mooring points, except at Jetties No. 1 and No. 4, are equipped with quick release hooks for swift cast-off in case of danger. Operation of these hooks is only to be done by Scanraff personnel.

Vessels arriving at or leaving the harbour must be assisted by tugs if requested by Scanraff.

At the Crude Oil Jetty, the use of tugs is compulsory both at arrival and at departure from the jetty.

Only towing companies approved by Scanraff are entitled to assist vessels arriving at or departing the port.

Vessels approaching the port or at anchor shall communicate wit Scanraff or tugs by means of VHF radio.

When vessels are moored, anchored or moved, care must be take to ensure that no damage is caused to other vessels or to quays, jetties cables, pipelines or the like and that there is no interference with traffic

Vessels berthed alongside a quay may not be moored by means o their anchors, without the express permission of Scanraff. Scanraff have the right, due to traffic control or harbour discipline and safety so require to issue any necessary orders and instructions concerning the mooring anchoring, warping and movement of vessels and the Masters of vessels shall be required to comply with any order or instruction thus issued.

MEDICAL: Hospital available in Lysekil. No particular inoculations required.

TANKERS:

Crude Jetty:

Concrete jetty for tankers of 50,000 d.w.t. to 500,000 d.w.t.

Length of jetty-deck: 135 m.

Height of jetty-deck above MLW: 6 m.

Minimum distance between fenders: 96 m.

Height of gangway tower: 27 m.

3×16 in. marine arms for cargo handling.

1×12 in. marine arm for bunker supply (Only Bunker "C" available)

All 4 arms are equipped with hydraulic operated speed seal couplings designed for 150 lb-ASA flanges, minimum size 10 in.

Reach capability of arms: Max. 30 m., min. 4 m. above sea level Max. 11 m., minimum 3 m. from berthing line.

Fresh water can be supplied at a rate of 60 t.p.h.

1×4 in. sewer-line connection is located between manifolds on jetty-deck.

Shore-connected telephone will be placed on board. Telephone number 604 60. Area number 0523.

Telephone number to Scanraff switchboard 69000. Area number 0523

Mooring: Vessel is normally moored port side to jetty.

Approach velocity is continously measured by doppler radar and reported to ship's Master/Pilot during berthing operations on request.

Max. allowed approach speed is shown in "Plan Section".

Communication between jetty-pilot-tugs and mooring-boats by VHF.

Under normal weather conditions 6 tugs representing approximately 23,000 h.p. are used for berthing of VLCCs. Under unsteady weather conditions additional tugs can be ordered.

During hard weather conditions Scanraff can demand the use of two tugs during berthing/unberthing operations.

19 mooring lines are required for safe mooring. All lines to be provided by the ship.

Mooring lines to be arranged in accordance with "Plan" (See "Plan Section"), or as close to as possible.

Combination of synthetic, ropes and wires in the same direction shall be avoided.

All mooring wires shall have rope tail ends.

Self tensioning winches are not allowed.

All mooring lines will be put on quick release hooks of 150 tons SWL each.

4×10 in. mooring lines are available on jetty-deck for emergency use.

Safety Precautions: Vessel must be safely moored before gangway is placed on board and marine arms connected.

Correct setting of winch brakes to be checked regularly by ship's personnel.

Safety wires to be properly rigged fore and aft.

Cargo handling and/or bunkering will be stopped if wind velocity reaches 20 m./sec. (39 knots) for wind between N.W. – S.W. and during thunderstorms.

Whenever a crude carrier greater than 35,000 d.w.t. is moored at the Crude Jetty, 2 safety tugs are available in the Brofjorden Harbour. They can be alongside, ready for action within 15 minutes.

Safety tugs are standing-by and can be contacted on VHF Channel 12 or 16: "Lysekil Pilot" and ask for "Safety Tugs Brofjorden" or o telephone No. 0523-605 52.

Telephone will be placed on board.

Product Jetty: Potable water is available at all berths.

Bunker oil is available at Jetties No. 1 – 4 (at Jetty No. 4 only gaso available).

Cargo and ballast handling is to be carried out on hydraulically operated marine arms, except sulphur which is loaded through a flexible hose.

Dry garbage can be left ashore (free of charge) in containers placed between Berths No. 2 and 3 and beside the harbour building.

The Brofjorden Harbour and Lysekil's Pilot monitor VHF Channels 12 and 16 day and night.

Telephone can be ordered on board through the agent or the Loading Master.

Mooring: At wind velocities equal or higher than 15 m./sec. (on average use of tugs is compulsory during berthing as follows:

1. For ship equipped with bowthruster and over 15,000 d.w.t.
2. For ship without bowthruster and over 7,000 d.w.t.

Communications between ship and jetty during berthing operations b VHF.

Berths No. 2 and 3 are equipped with quick release hooks for mooring lines. Berths No. 1 and 4 are equipped with fixed bollards. All mooring lines to be provided by the ship.

During high wind conditions Scanraff can order use of tugs for mooring operations.

Safety Precautions: Self-tensioning winches may not be used i automatic mode. Correct setting of winch brakes to be checked regular by the ship's crew.

Ship's crew to be responsible for proper line tension at all times.

Safety wires to be properly rigged fore and aft.

If wind velocity reaches 25 m./sec. (48 knots) and durin thunderstorms, cargo and/or ballast operations can be stopped.

A safety tug is available in the Brofjorden Harbour day and night. Safet tug can be contacted on VHF Channel 12 or 16. Call "Lysekil Pilot" an ask for "Safety Tug Brofjorden", or Telephone No. 0523-605 5

LOADING: *Required Size of Manifold Flanges on Board Ships:*

Size (in.)	*Flange Rating*	*Service*	*Rate* (cu.m./hr.)
Crude Jetty:			
12	150 lbs. ANSI	Bunker 'C'	1,000
16	150 lbs. ANSI	Crude Oil	6,000
16	150 lbs. ANSI	Crude Oil	6,000
16	150 lbs. ANSI	Crude Oil	6,000
Product Jetty-Berth No. 1:			
6	150 lbs. ANSI	Premium Gasoline (98)	1,000
		Unleaded Gasoline (95)	1,000
		Naphtha	750
6	150 lbs. ANSI	Diesel, FO-1	660
8	150 lbs. ANSI	FO-4, FO-5, Ballast	1,000
Product Jetty-Berths No. 2 and 3:			
10	150 lbs. ANSI	Premium Gasoline (98)	2,000
		Naphtha (Berth No. 3 only)	750
10	150 lbs. ANSI	Unleaded Gasoline (95)	2,000
10	150 lbs. ANSI	Diesel, FO-1	2,000
10	150 lbs. ANSI	FO-1, Diesel	2,000
12	150 lbs. ANSI	FO-5, FO-4, Ballast	2,000
12	150 lbs. ANSI	FO-4, FO-5	2,000
Product Jetty-Berth No. 4 (LPG Berth):			
6	150 lbs. ANSI	FO	1,000/300
6	150 lbs. ANSI	UL 95, Premium, Naphtha	1,000/700
6	300 lbs. ANSI	Butane, Propane	200/175
2	300 lbs. ANSI	Vapour return	
6	300 lbs. ANSI	Butane, Propane	200/175
2	300 lbs. ANSI	Vapour return	

All hard arms are hydraulically operated.

Note: All ships should, on arrival, be equipped with reducers suitable to actual loading arms.

FUEL: Bunker "C" only is available at Crude Oil Jetty, diesel oil is delivered to crude carriers by truck (through pipeline at gatehouse, so can be undertaken during discharging). Bunker "C" and diesel oil are available at Product Jetties and the Coaster Jetty.

FIRE PRECAUTIONS: A special Fire Instruction will be given on board on arrival.

POLLUTION: Oil pollution prevention. A special instruction will be given on board on arrival.

CONSULS: Denmark, Finland, Netherlands, Norway and Germany have consuls in Uddevalla, 40 km. from Scanraff.

REPAIRS: City Varvet Gotenborg. For hull and engine repairs, harbour and voyage service.

Andersson & Callenberg: For electrical installations.

Engine repairs must be reported to Port Captain for permission.

DRY DOCK: Gothenburg, capacity 250,000 tons.

SURVEYORS: Saybolt, Caleb Brett and other cargo inspectors are available.

Lloyd's Register, Det Norske Veritas and others surveyors are available.

GANGWAY/DECK WATCHMEN: The Crude Oil Jetty has gangway tower, but accommodation ladder is necessary at the Product Jetty.

Watchman is compulsory at the Crude Oil Jetty. At the Product Jetty watchman is available on request.

CUSTOMS ALLOWANCES: 1 bottle spirit and 200 cigarettes or 200 grams tobacco.

REPATRIATION: Changing of crew and any necessary repatriation is possible.

AIRPORT: Nearest airport is Gothenburg, 100 km. South of Lysekil.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

POLICE/AMBULANCE: Dial 90 000 and ask for necessary service.

EMERGENCY CO-ORDINATION CENTRE: Skandinaviska Raffinaderi AB Scanraff. Tel: 0523-60460, Fire and Safety Department.

TELEPHONES: Telephone on board is compulsory at the Crude Oil Jetty, and can be ordered on board at the Product Jetties through the agent or the Loading Master.

A coin-operated telephone is also available at the Product Jetty gate.

Telephone Numbers:

The Alarm Central	90 000 Ask for ambulance, police, etc.
Scanraff Refinery	0523-6690 00
Harbour Office	0523-669277
Safety Tugs	0523-48020 (VHF Channel 12 and 16)
Lysekil Pilot	0523-6608 00 (VHF Channel 12 and 16)
Ship's tel. Berth No. 1	0523-660 876
Ship's tel. Berth No. 2	0523-6602 41, 603 31
Ship's tel. Berth No. 3	0523-6602 34, 603 37
Ship's tel. Berth No. 4	0523-6608 76
Ship's tel. Crude Berth	010-87 14 50

SERVICES: Compass adjusting is available. Local ship chandler available.

BANK: Skandinaviska Enskilda Banken, Postbox 22. 453 00 Lysekil. Tel: 0523-14020. Telex: 21020 (Gothenburg Office).

STORING: See "Prelims".

1. Vessel can be stored by barge.
2. Vessel can be stored by barge during loading/discharging operation if ship's crane abaft the funnel can be used. Storing amidships can be permitted but not during loading/discharging operation.
3. No trucks are allowed to handle stores. Minor storing can be done by means of wagon from the gate to the jetty and via the ship's gangway.
4. Fork lift trucks are not allowed to be used on the jetty to handle stores.
6. Local riggers are employed by the local ship's chandler to assist with storing.

SHORE LEAVE: Crew members are allowed ashore. No identification card or passes are needed.

GARBAGE DISPOSAL: On the jetties, containers are available for minor amounts of clean garbage.

WASTE OIL DISPOSAL: At Jetties 1 – 4, it is possible to pump engine room slops to shore tank. A container for oily waste is available on jetties.

SEAMAN'S CLUBS: Seamans Church in Uddevalla, Nonnens Vay 11, Uddevalla. Tel: 0522-35526.

CURRENCY: Swedish Kronor (SEK).

REGULATIONS:

Safety Towing Wires: Vessels, while secured alongside the jetty, must provide and rig towing wires with sufficient length and strength on the offshore bow and quarter, with eyes maintained just above water level, ready for emergency towing.

The wires must be securely fastened to the ship's bollards.

Inert Gas Systems: All vessels carrying crude oil, calling at the Brofjorden Harbour, must have a fully operational inert gas system. Prior to arrival, the vessel must confirm that all cargo tanks are fully inerted and have an oxygen content of 8% or less by volume.

Random samples can be taken, and provided these are found to have an oxygen content of no more than 8% by volume, the vessel will be permitted to commence operations.

If the random samples indicate an oxygen content in excess of 8% by volume, all cargo operations will be ceased, or permission to commence operations will not be given to the vessel and the oxygen content of all tanks will be checked, and operations will not be commenced until the required oxygen level has been achieved.

If such delays cause extra long lay time in port, Scanraff will have the right to charge the vessel for such extra long lay time, and Scanraff will not accept any demurrage costs for time caused by that the vessel's inert gas system does not comply with these regulations.

It is strictly forbidden to overpressure the tanks with inert gas so much that the safety valves open to atmosphere.

It is also strictly forbidden to ventilate inert gas to atmosphere from tanks or through by-passing safety valves.

Inspection: Scanraff's representative shall, at any time, have permission to enter the vessel to ensure that the Port Regulations are being complied with, and that cargo equipment is in good order. He/she shall also have the right to stop operations if the regulations are violated.

Ballast Water: Only clean ballast water contained in segregated ballast tanks will be permitted to be discharged into the waters at the Scanraff area. Random samples can be taken from segregated ballast tanks.

Contaminated ballast water, defined as such according to Swedish Law, will not be permitted to be pumped overboard, but will have to be pumped ashore to the terminal ballast tanks.

According to Swedish Law, ships which intend to discharge ballast water to shore installation must report to Scanraff, before deballasting starts, if the ballast water contains emulsifier or other chemical cleaning agents.

Ballast for entering the harbour should be carried in a minimum number of tanks, and all tanks stripped so as to minimise the time required to discharge ballast while alongside the pier.

The Harbour Regulations will be placed on board on arrival.

GENERAL: *Vacating Berth:* Scanraff have the right to request a vessel to vacate the Crude Berth when berth time for such vessel reaches 48 running hours, provided the retention of such vessel at its berth will, in Scanraff's judgement, hinder or delay the berthing of another vessel.

Running hours shall commence upon the vessel's arrival and completion of mooring and shall cease when the last rope is let go.

If commencement of unloading is delayed for any reason not caused by vessel or its Master or the unloading is prohibited and/or interrupted at the request of Scanraff or public authorities, running hours shall be extended by the period of such prohibition or interruption unless the reason therefore is due to circumstances for which the vessel or its Master are responsible.

AUTHORITY: Skandinaviska Raffinaderi AB, S-54381 Lysekil, Sweden. *Tel:* +46-523-669456. *FAX:* +46-523-669574. *Contact:* Mats Eggers, Harbour Master.

GAVLE: 60.41 N. 17.11 E. (See Plan)

PORT LIMITS: A line from Utvalnas (approx. 60° 45.2' N. 17° 21.4' E.) over Bakharen to Langharen (approx. 60° 41.0' N. 17° 17.5' E.).

DOCUMENTS:

2 Crew Lists (for European vessels).
2 Crew Lists (for other vessels).
2 Manifests.
2 Bills of Lading.
1 Tobacco List.
1 Stores List.

Following documents supplied by Agent and signed by Master:

On arrival from foreign port:
4 Reports of Arrival (Customs).
1 Declaration of Master (of persons on board).
1 Declaration of living animals (if any).

On arrival from any port:
1 Report of Arrival (Harbour Office).

On departure to foreign port:
4 Reports of Departure.
1 Declaration of Master (of persons on board).

PILOTAGE: *(a)* Sea Pilots: Pilot station: Bonan, Telephone Nos. 991 10 and 992 20. Telegraphic address: Pilotstation, Gavle. 5 hours advance notice of ETA Pilot Station. Notice of ETA can be given over any Swedish coastal radio station or free of charge on VHF over any Swedish Pilot Station or Grundkallen Lighthouse.

VHF: Channels 16: Calling and Safety Pilot station and
13: Pilotage traffic Pilot boats.

All pilot boats are orange. International signals for calling Pilot. Pilot boards: S.E. of Grasjalsbadan 60° 43' N., 17° 27' E., and on request South of Eggegrund Lighthouse, 60° 43' N., 17° 34' E. In case of bad weather closer to Pilot Station. Anchorages: Graberget roadstead N.E. of Bonan Lighthouse (approx. 60° 44.8' N. 17° 20.5' E.), about 350 m. from shore and 18 – 21 m. (10 – 13 fathoms) depth. Open to Easterly winds. *(b)* Harbour Pilots: Available for moving within harbour area on application to Port Administration, Telephone Nos. 17 88 61 or 17 88 62 or by VHF to Gavle Port Radio, Channels 16, 14 and 13.

ANCHORAGES: See "Pilotage". Outer roadstead situated inside of Northern entrance and in red sector of Fredriksskans Light. Outer roadstead well protected, depth of 15 – 11 metres (8 – 6 fathoms). Anchoring forbidden:

(a) In dredged channel between lights in Northern Channel and to a point 800 m. W.S.W. of Light No. 4.

(b) In white sector of Fredriksskans Light E.N.E. within a distance of 2,000 m. from same.

(c) In navigable channel from Fredriksskans Light to Gavle Dolphin Light.

(d) In Fredriksskans Harbour Basins and between Oil Berth No. 21 and the Terminal Granudden.

RESTRICTIONS: One fairway leads to harbour. Northern Fairway is 10.9 m. deep and has bottom width of 60 m. Day-time: Max. LOA 220 m. Max. breadth 28.0 m. Max. draft 10.4 m. or max. breadth 30 m. Max. draft 9.0 m. Night-time: max. draft 7.35 m.; max. length 172 m. All depths are referred to mean water level. Ships on way from outer roadstead shall give way to vessels proceeding towards outer roadstead. This shall not apply to vessels with tow unless vessel approaching also has tow.

MAX. SIZE: Max. permissible draft (at mean water) as follows:

Fredriksskans Harbour

	Max. Draft (m.)	(ft. in.)	*Real depth* (m.)	*Allowance* (m.)
Oil Berth No. 21	10.4	34 01	10.8	0.4
Max. length 220 m. (722 ft.)				
Oil Berth No. 1	7.35	24 01	7.7	0.35
Max. length 200 m. (656 ft.)				
Oil Berth No. 2 – 3	5.2	17 01	5.4	0.2
Berth No. 4 – 8	7.35	24 01	7.7	0.35
Berth No. 9 – 14	8.9	29 02	9.3	0.4
Karskar				
Berth No. 105 – 106	6.5	21 04	6.8	0.3
Length 195 m. (640 ft.)				
Berth No. 107 – 108	7.8	25 07	8.1	0.3
Length 196 m. (640 ft.)				
Berth No. 109	4.6	15 01	4.8	0.2
Length 90 m. (295 ft.)				
Berth No. 110, South end.	4.6	15 01	4.8	0.2
Length 35 m. (115 ft.)				
Berth No. 110, North end.	6.0	19 08	6.3	0.3
Length 75 m. (246 ft.)				

Terminal Granudden: See "Cargo Handling".

HEALTH: Pratique always automatic. If any suspected disease or fever on board, notify ship's Agent.

RADIO: Stockholm Radio (SDJ).

RADAR/VHF: No port radar service, but Bonan Pilot Station, Eggegrund Lighthouse, and three pilot cutters equipped with both radar and VHF and assist any ship approaching Pilot Station on request. After calling Pilot Station on VHF Channel 16, ships will be given assistance on Channel 13, 12, or 6.

Also see "Pilotage."

TUGS: Join vessel outside Fredriksskans Lighthouse or outside Karskar for berthing, and outside Northern entrance channel for passage through same.

CARGO HANDLING: Container berth, max. draft 8.9 m. Three cranes with 32 tons capacity which have container spreaders for 20 ft. and 40 ft. containers.

Roll-on/Roll-off berth, max. draft see "Terminal Granudden".

Terminal Granudden: A port terminal at Granudden which is situated opposite Fredriksskans Harbour. The terminal comprises 350 m. of quay with a Roll-on/Roll-off berth, having max. draft for vessels: 9.0 m. for length of 150 m. adjacent to Roll-on/Roll-off ramp and 10.4 m. for length of 200 m., 2 warehouses each having an area of 22,000 sq.m., as well as extensive storage space. The total terminal area is 150,000 sq.m. and it will have an annual maximum capacity of 1.2 million tons forest products. The terminal has very good connections with both main roads and the railway system.

STEVEDORES: 24 hours' notice (if possible) order arrange gangs.

MEDICAL: Notice of medical attention to Agent as early as possible. All kinds of medical and hospital facilities available. Vaccinations necessary on arrival from diseased area. (Common for all Swedish ports.)

TANKERS: *Tanker Berth No. 21:*

Max. length 220 m. (722 ft.). Max. draft (M.W.) 10.4 m. (34 ft. 2 in.).

Manifold connection size (all grades) 200 mm. (8 in.).

Berth to Depot pipeline size:

	mm.	in.
Heavy Fuel Oils	450	18
Gas Oil	400	16
Gasoline	350	14
Kerosene	250	10

Tanker Berth No. 1:

Max. length 200 m. (656 ft.). Max. draft (M.W.) 7.35 m. (24 ft. 2 in.).

Manifold connection size:

	mm.	in.
Fuel Oils	250	10
Gasoline	200	8
Kerosene	200	8

Berth to Depot pipeline sizes:

	mm.	in.
Fuel Oils	350	14
Gasoline	300	12
Kerosene	250	10

Tanker Quay K201:

Max. length 220 m. (722 ft.). Max. draft 10.4 m. (34 ft. 5 in.).

Owned by Karskar Energi AB.

DENSITY: Fresh water.

FRESH WATER: Delivered from water posts at all quays i Fredriksskans Harbour and Terminal Granudden. At Karskar, fresh wat delivered by road tanker.

FUEL: All kinds of fuel oils available either from pipelines at oil bert or by lorries at all other quays. Following viscosities (Redwood normally in stock: 35, 225, 650, 1500, and 3500 secs. Other viscositie can also be delivered. Notice of delivery is required day before.

CONSULS:

Denmark	Tel: 115190	Netherlands	Tel: 177400
Finland	Tel: 125900		

REPAIRS: Repairs can be carried out in all parts of harbour by Bryna Mekano.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: Available, but not compulsory.

OPENING/CLOSING HATCHES: Can be done by either crew o stevedores. Only patent hatches have to be opened by crew.

CERTIFICATES:

Tonnage Certificate.

Derat Certificate (Not older than 6 months).

Certificate of Nationality (for Swedish ships only).

CUSTOMS ALLOWANCES: Tobacco: each crew member 20 cigarettes or 100 grammes of tobacco out of Bond.

Wine and spirit: Each crew member 1 bottle (75 centilitres) of spirit an moderate quantities of wine and beer out of bond. After a week i Sweden the same quantity may be taken out on request to Custom Office.

REPATRIATION: Crew changes and repatriation arranged by Agent.

AIRPORT: Stockholm Airport (Arlanda) 145 km. (90 miles) served b regular airlines. Rorberg airport 16 km. (10 miles). Regular traffic t Swedish airports.

TIME: GMT plus 1 hour in Winter. Summertime GMT plus 2 hours.

HOLIDAYS: New Year's Day (Jan. 1st); Twelfth Day (Jan. 6th); Good Friday; Easter Day; Easter Monday; First May (May 1st); Whit Sunda Whit Monday; Midsummer Day (Saturday nearest to June 24th All Saints' Day (first Saturday in Nov.); Christmas Day (Dec. 25th Boxing Day (Dec. 26th).

POLICE/AMBULANCE/FIRE: Police Tel: 655000; Ambulance Te 179830; Fire Tel: 179650. Emergency Tel: 90000.

SERVICES: Minor quantities of oil and other liquid residues can b discharged into tank lorries with special suction equipment.

IDENTIFICATION CARDS: Not needed.

GARBAGE DISPOSAL: A number of garbage containers are alway provided on the quay. No charge.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: Local club provides facilities which includ refreshments, newspapers, games, table tennis, sauna, musica instruments, radio, TV, billiards, swimming pool outside (Summertime telephone.

Recreation rooms open weekdays 1800 – 2200 hrs., Sundays an holidays 1700 – 2000 hrs. Tel: 026-120858. Closed Saturdays.

CURRENCY: Swedish Kronor (SEK).

No restrictions placed upon seafarers.

DELAYS: Normally no delays in berthing, loading, discharging o bunkering.

AUTHORITY: Gavle Hamn, Fredriksskans, S 80595 Gavle, Sweden *Tel:* (026) 178840/178861. *FAX:* (026) 140979. *Contact:* C. Westmar Port Director. Leif Aberg, Harbour Master.

GOTHENBURG: 57.42 N. 11.57 E. (See Plan

DOCUMENTS:

2 Cargo Declarations (IMO Model).
2 Crew Lists.
2 Passenger Lists.
2 Crew Declarations (must be signed by each crew member).
2 Stores Lists.
2 Arms and Ammunition Lists.
1 Health Document (if voyage exceeding 15 days).
Nationality Certificate.
Tonnage Certificate.
Derat Certificate.
Certificate of Insurance or other financial security in respect of c liability for oil pollution damage (if more than 2,000 tons of oil board).
Manifests, Bills of Lading.

Note: All certificates should be originals.

TRAFFIC CONTROL SYSTEM (VTS): The Port of Gothenburg controlled by a traffic control system. It is a vessel movement-con and information system managed from the Gothenburg Traffic Con Centre (TCC), call sign "Gothenburg Traffic". The system is based radar control and VHF communication. Vessels over 300 g.r.t. exceeding 50 m. length should report to the TCC on VHF Channel incoming when 6 miles off Vinga Island, out-going when leaving the be There are also certain way-points in the area (marked on the cha where vessels should report to the TCC. Vessels should keep continu watch on VHF Channel 13 within the whole traffic-control area. A "Wo VTS Guide" issued by IALA can be obtained from the Port Authority from ship's Agent. When 6 miles off Vinga Island, Master has to "Customs Gothenburg" on VHF Channel 16 (working on Channel and report contents of Bonded Stores.

ANCHORAGES: Large tankers may anchor 2 miles S.W. of Trubaduren Light in depths of 40 m. – 70 m. Other vessels can find good anchorages with soft bottom at Vinga Sand, in Danafjord and Rivofjord, outside the traffic routes. Anchoring in the fairway is prohibited.

PILOTAGE: Incoming vessels have to notify the Traffic Control Centre (TCC) call sign "Gothenburg Traffic" on VHF Channel 13 or by telephone 031-12 54 33 that they require a Pilot. Notification to be done 5 hours before ETA at the pilot grounds at Vinga Island, where the pilot boat will be at hand. The pilot grounds are marked on the charts. Approved pilot ladder (if rail is high, accommodation ladder), heaving line and a man standing by to receive Pilot (Also see "Stockholm").

RESTRICTIONS: No restrictions at any time of day and night. Tankers over 75,000 d.w.t. berth and unberth in daylight only.

MAX. SIZE: Torshamnen, water depth 19.6 m. Fully loaded tankers of 225,000 d.w.t. on draft of 18.9 m. received, 19.05 m. with special permission. Partly loaded tankers of max. 318,000 d.w.t. have been received. Skarvik Harbour, water depth 13 m. Tankers up to 50,000 d.w.t. Skandia Harbour, general cargo, container vessels, water depth up to 12 m. General cargo harbours: for other cargo and passenger vessels 10 m. Water depth at MLW. Tide of no importance.

HEALTH: Advise "Portsan Gothenburg" 4 hours before entry via the ship's Agent.

Before the vessel calls at any Swedish port, the Master of the vessel is required to give information covering the state of health on board the vessel to the Customs Authority:

(1) If the Master has reason to believe that there is any sickness aboard which requires quarantine;

(2) If the vessel comes from a port of call that has been declared infected with a quarantine illness and arrival at the Swedish port occurs during the incubation period;

(3) If anyone aboard the vessel has visited or been in contact with an infected area and arrival of vessel at Swedish port occurs before the incubation period for the sickness has expired.

RADIO: Goteborg Radio, call sign SAG.

ETA: Advise Port Authority of ETA 24 hours prior to arrival.

Also see "Pilotage".

VHF:

Gothenburg Pilot	Channel 69.
Gothenburg Traffic	Channel 13.
Gothenburg Customs	Channel 16.

TUGS: Tugs normally join vessel between the islands of Nya Alvsborg and Rya Nabbe. Tugs join at Dana Fiord for tankers bound for Torshamnen. According to Master's desire ship's or tug's lines can be used. 12 tugs available (235 h.p. – 4,000 h.p.).

BERTHING:

Berths No.		
	101-116	Free Port
	119-123	Lundby Harbour
	600-615	Skandia Harbour
	640-713	Alvsborg Harbour

			Quay cranes		
Berth No.	*Length* (m.)	*Depth* (m.)	No.	*Capacity* (tons)	*Reach outside quay* (m.)
101-102	240	9.5	1	2/5	19.5/9.5
103	160	9.5			
104	130	8.5			
105+	130	8.0			
106	90	6			
107	130	8			
108-109	290	8-9.5	4	2/6	23.5/10.5
110	70	8			
111-112	232	9.0-9.5	2	2/6	19/9
113	151	9	4	2/6	23/10
114+	150*	7.5			
116+	200*	7.5	Rail ferry berth		
119-123	600	9			
119+	110*				

			Container Ship-to-Shore Cranes			
Berth No.	*Length* (m.)	*Depth* (m.)	No.		*Lifting capacity* Tons	*Max. reach outside quay* (m.)
600+	170	8				
600 (East)+	140*	8				
601+	180*	9				
602+	145*	8				
610-612	562	12	2	Hook	70	
				Spreader	40	35.5
613	182	11	1	Hook	60	
				Spreader	40	35.5
614	178	11	1	Hook	50/60	
				Spreader	32	34.5
615+	215	10.9	1	Hook	45	
				Spreader	32	34.5
640+	177	11				
641+	180	10	1	Hook	45	
642	90	11		Spreader	32	34.5
643+	130	11				
644	50	6.8				
700	125*	6				
702+	270	11				
710+	265	11				
711	232	11				
712+	149	11				
713+	160*	9				

+ Roll-on/Roll-off Berth

* Maximum Ship's Length

CRANES: *Mobile Cranes:* 1×36 tons (reach outside quay 28 m.). 1×45 tons (reach outside quay 33 m.).
Floating Crane: 1×150 tons (reach 10 m.) or 30 tons at 22 m. If crane supported by pontoon it can lift 215 tons at 10 m.
Container Cranes: 2×70 tons (hook) or 40 tons under spreader. 1×60 tons (hook) or 40 tons under spreader. 1×50 tons (hook) or 32 tons under spreader. 2×45 tons (hook) or 32 tons under spreader.

BRIDGES: Alvsborgsbron (suspension bridge) in the Western part of the city (clearance 45 m.), Gotaalvbron (weighbridge) in the centre of the city (clearance 19.5 m.) and Marieholmsbron (railway swing bridge) in the Eastern part of the city (clearance 5.3 m). The bridges Gotaalvbron and Marieholmsbron keep continuous watch on VHF Channel 9. If no connection, contact "Gothenburg Traffic" on VHF Channel 13.

STEVEDORES: The Port of Gothenburg provides dock workers.

General Conditions for Assignment of Personnel (excluding external terminals):

Working time and guaranteed hours: (Port of Gothenburg A.B. supplement to the general terminal conditions of the Swedish Stevedoring Association).

1. *Skandia and Alvsborg Harbour:*

Normal Working Hours:

Daytime Shift I: Monday – Friday 0700 hrs. – 1600 hrs. Meal breaks: 0830 hrs. – 0900 hrs. and 1200 hrs. – 1230 hrs.

Daytime Shift II: Monday – Thursday 1600 hrs. – 2400 hrs., Friday 1600 hrs. – 2300 hrs. Meal breaks: 1930 hrs. – 2000 hrs.

Overtime: Please note that all overtime work is voluntary.

Weekdays 1630 hrs. – 0500 hrs., Saturday 0700 hrs. – 2200 hrs., Sunday/holiday 0700 hrs. – 2100 hrs.

Completion:

Monday – Friday 1630 hrs. – 0500 hrs., Saturday 0700 hrs. – 0500 hrs., Sunday/holiday 0700 hrs. – 2100 hrs.

2. *Normally no work will be performed on the following days:* New Year's Day, May 1st, Midsummer Eve (24th June 1988), Midsummer Day (25th June 1988), Christmas Day, New Year's Eve.

3. *Guaranteed Hours:* All "temporary" labour is guaranteed a minimum of 4 hours pay.

Overtime: (All personnel)

Monday-Friday	3 hours
Saturday	5 hours
Sunday/Public Holiday	6 hours

All hours ordered are to be paid for. Permanent employees are entitled to special compensation for work later than 2100 hrs. Monday – Friday.

4. *Deadlines for requesting labour and/or overtime:*

Weekdays latest 1000 hrs. on the day before operation is to commence. Cancellation latest 12 noon on the day before operation is to commence.

Overtime: Weekdays – latest 1000 hrs. on the same day.

Cancellation latest 1200 hrs. on the same day.

Saturday/Sunday – latest 1000 hrs. on preceding Thursday.

Cancellation latest 0900 hrs. on preceding Friday.

Public holidays – latest 1000 hrs. on the last but one normal working day before the Public holiday.

Cancellation latest 0900 hrs. on the last working day before the Public holiday.

5. The above regulations are not valid in case of "force majeure" such as strikes, lock-outs, natural catastrophies, or any other unforeseeable incidents of which the Port of Gothenburg A.B. has no control.

6. These regulations are valid until further notice. They can, however, be changed with immediate effect when/if some other agreement is made with labour unions.

CONTAINERS: The Skandia and Alvsborg Harbours for container handling with 20 berths and 12 ferry ramps. Also see "Berthing" and "Cranes".

TANKERS:

Torshamnen:

		Berth No. 801	*Berth No. 800*
Operator		Port of Gothenburg A.B.	
Users		OK, Shell and various	
Product		Crude Oil	
Minimum water depth	approaches	20.50 m.	20.50 m.
at mean water	alongside	19.60 m.	19.60 m.
Under keel clearance	approaches	1.45 m.	1.45 m.
	alongside	0.55 m.	0.55 m.
Dimensions safely	length	350 m.	280 m.
acceptable (also see	beam	no restr.	no restr.
below)	draft	19.05 m.	15.85 m.
	d.w.t. (summer)	abt. 250,000	abt. 115,000
Water density		1013	1013
Nature of bottom		clay	clay
Boom arrangement		4×16 in.	2×12 in.
Manifold heights	maximum	22.00 m.	17.00 m.
	minimum	3.00 m.	1.50 m.
Public telephone number		031632446	031632445

Draft: That the above figure, 19.05 m., is given on the basis of mean water level and brackish water (density 1013). There is very little tide at Gothenburg, only about 20 cm. (8 in.). The draft is more affected by wind, Easterly winds blowing the water away from the coast, Westerly winds blowing the water towards the coast. In winter and early spring (January-May) there can be long periods of Easterly wind, when it would be prudent not to arrive on a deeper draft than 18.60 m./brackish water.

Lightering: In case of need lightering can be arranged 3 nautical miles S.W. of the Trubadur Lighthouse. This is in open sea and restricted to wind force less than 6 – 7 m./s.

For crude oil distribution to other refineries lightering can take place across the finger jetty from Berth No. 801 to Berth No. 800.

Gas lightering is being done via 8 in. acid proof steel pipeline across jetty. Flanges drilled to ASA 150 and 300. No hoses available, vessels have to provide same.

Moorings: Berth 801 – VLCCs: Owing to the somewhat exposed nature of berth Masters are advised, that when strong off-shore winds are forecast, to ballast the vessel, stop discharge if necessary and, maintain steam on the winches to supplement the brakes. It is strongly recommended that vessels over 210,000 s.d.w.t. make use of the extra mooring as described below.

Instructions for the use of extra mooring (E.M.):

1. Pass ashore a wire and a shackle and make fast to the eye of the E.M. on the caisson. Free the E.M. from its hook by means of the capstan on the caisson. Bring home the E.M. and belay it.
2. At departure. Before letting go the E.M. make fast a strong rope or a wire in the eye of the E.M. and take the other end to the caisson for hanging off the E.M. Let go the E.M. and, by means of the capstan, back to the caisson and place it on its hook, heave it.

Skarvik Harbour:

		Berth No. 521	*Berth No. 520*	*Berth No. 519*
Operator		Gothenburg Harbour		
Users		OK	OK	Shell & various
Products handled		Oil Products		
Minimum water depth at mean water	approaches	13.00 m.	13.00 m.	13.00 m.
	alongside	12.00 m.	12.00 m.	13.00 m.
Under keel clearance	approaches	1.72 m.	1.72 m.	0.66 m.
	alongside	0.62 m.	0.62 m.	0.66 m.
Dimensions safely acceptable	length	240 m.	240 m.	280 m.
	beam	no restrictions		
	draft	11.28 m.	11.28 m.	12.34 m.
Water density		1011	1011	1011
Nature of bottom		clay	clay	clay
Boom arrangement		4×10 in. 3× 8 in.	4×10 in. 3× 8 in.	5×12 in. 2×10 in.
Manifold height	maximum	9.50 m.	9.50 m.	17.60 m.
	minimum	1.50 m.	1.50 m.	2.00 m.
Public telephone number		031632444	031632443	031632442

		Berth No. 512-518	*Berth No. 511*	*Berth No. 510*
Operator		Gothenburg Harbour		
Users		Various	Various	Various
Minimum water depth at mean water	approaches	11.90 m.	12.00 m.	11.00 m.
	alongside	7.00 m.	12.00 m.	11.00 m.
Under keel clearance	approaches	5.20 m.	0.64 m.	0.72 m.
	alongside	0.30 m.	0.64 m.	0.72 m.
Dimensions safely acceptable	length	7 berths total 325 m.	200 m.	240 m.
	beam	no restrictions		
	draft	6.65 m.	11.35 m.	10.28 m.
Water density		1011	1011	1011
Nature of bottom		clay	clay	clay
Boom arrangement		hoses	9×10 in.	9×10 in.
Manifold height			14.75 m.	14.75 m.
Public telephone number			031632436	031632435

Remarks:

520-521: Only used for loading from or discharging to OK.

519: Mainly used by Shell and for discharge of asphalt crude. Being deepest product berth can in case of need also be used by other importers/exporters after approval by Shell. However, products will then have to be pumped over long distances, causing slow loading/discharge.

510-511: "Common users".

506-507, 508-509: Used by Shell. Depths 7.0 m. and 8.0 m. respectively.

Rya Harbour:

		Berth No. 555	*Berth No. 553/551*	*Berth No. 552*
Operator		Svenska Statoil AB.	Gothenburg Harbour	
Users		Svenska Statoil AB.	Various	
Products handled		Oil Products	For all	
Minimum depth (MW)	approaches	11.90 m.	9.50 m.	10.00 m.
	alongside	10.00 m.	9.50 m.	8.50 m.
Recommended max.draft	alongside	8.84 m.	8.45 m.	8.45 m.
Dimensions safely acceptable	length	180 m. (See Note)	180 m.	180 m.
	beam	no restrictions		
Water density		1011	1011	
Nature of bottom		clay/mud	clay	
Manifold height		hoses used	hoses used	
Public telephone number		031538420	031632434/ 031632433/ 031632432	

Note: Maximum draft:

On lesser draft sizes up to 210 m. – 215 m. may be accepted but special approval from the Harbour Authorities needed on each occasion.

Report: *Restriction:* Entry to Gothenburg by large ships is not undertaken if visibility is less than 3 miles, or if the wind speed exceeds 15 m./sec. (about 30 knots.) Ships over 17.4 m. (57 ft.) draft do not enter during hours of darkness.

Ballast: Cannot be received ashore.

Dimensions: The harbour is prepared to accept vessels exceeding 335 m. length provided distance from bow to manifold is max. 180 m. and vessels' draft does not exceed 18.29 m. (60 ft.), brackish water. Special approval needed in each case.

Bunkers: Supplied by barge only.

Pilotage: Pilotage is compulsory and necessary. Pilots are stationed at TCC and are taken out by fast pilot boats to meet incoming ships based on ETA and VHF contacts. On Vinga Island there is a lookout manned by personnel from Gothenburg Station. The lookout listens continuously on VHF Channels 13-16 and maintains VHF watch on Channel 69 and 11A. Pilots are government controlled. Two Pilots are assigned to ships over 60,000 d.w.t..

Sea pilots go with the ship all the way to berth as there are no harbou pilots.

South of Vinga Island there are 3 anchorage areas named A, B, and C marked on the Swedish Chart No. 931.

In addition to those mentioned above there are anchorages in the Danafjorden and the Rivofjorden.

Torshamnen Berth: Approaches – Cautionary Advice: Care must be taken when turning from the channel to Torshamnen berth, particularly when the wind is from the West, not to turn too late as the ship can drif laterally and be carried on to Dynan Shoal (rock), or on to the end dolphi of the berth.

Berthing Procedure: All ships are berthed heading N.E., therefore, on the West berth (801) ships are starboard side to, and on the East bert (800), portside to.

Berthing should be as parallel as possible as the forward moorin dolphins are only 10 m. inside the breasting face line and the limits o the 19.6 m. (64.3 ft.) depth run close to the breasting faceline.

The first ropes ashore (by boat) are usually the forward spring and a head line. It is important the ship does not run too far ahead of positio as the limit of the 19.6 m. depth is only 200 m. from the centre of the berth. There is no approach velocity measuring device at these berths and no published maximum allowable impact velocity, but ships shoul endeavour to control their approach speed to less than 10 cm./sec.

See "Plan" for recommended mooring diagram for the Torshamne berth.

Svenska Statoil AB Terminal Ryahamnen: Berthing: Ocean going ships always berth heading upriver portside to. Moorings are taken ashore and to the buoys by power boat. Spring lines go to the jetty head, head breast lines to a buoy forward, stern/breast lines to a buoy aft with 1 or 2 breast lines to a mooring post on shore. It is important to give good lines for the after breast lines as N.W. winds can cause a problem. As the jetty between the end concrete dolphins is constructed entirely of wood, it is important that the large ships contact only the end dolphins during berthing operations.

The fendering of the end dolphins has low energy absorption qualities and, therefore, landing should be as light as possible.

The upriver dolphin is fendered with a solid wood facing, the downriver dolphin with truck tyres.

No shore moorings or shore gangways are provided at this terminal

DENSITY: Average density 1012. Tide of no importance.

FRESH WATER: Available from quay or water boat.

FUEL: All grades available at short notice.

CONSULS:

The following countries are represented in Gothenburg:

Austria
Bangladesh
Belgium
Bolivia
Brazil
Chile
Costa Rica
Denmark
Ecuador
Finland
France
Gabon
Germany
Great Britain
Greece
Guatemala
Honduras
Iceland
Ireland
Italy
Japan
Madagascar
Mexico
Morocco
Netherlands
Norway
Pakistan
Portugal
Senegal
South Africa
Switzerland
Togo
Turkey

REPAIRS: All kinds of repairs possible.

DRY DOCKS: 3 floating docks. Largest being 268 m. × 34.8 m. with a depth of 8.0 m. over the sill. There are 2×90 ton and 1×70 ton cranes available for ship repairs. Mobile cranes are also available.

GANGWAY/DECK WATCHMEN: Watchmen accepted by Harbour and Fire Authorities on tankers and vessels loaded with explosives. On other vessels not necessary.

OPENING/CLOSING HATCHES: By crew or stevedores.

CUSTOMS ALLOWANCES: Tobacco, per 10 days 200 cigarettes o 250 gram other tobaccos. Wine and/or Spirits, per 10 days 1 bottle o spirits and 1 litre of wine, alternatively 2 litres of wine.

Require report latest 24 hours prior to arrival via Port o Gothenburg Co.

CARGO GEAR: Certificates that equipment is approved.

REPATRIATION: Excellent communications by air or by rail.

AIRPORT: Distance of Landvetter Airport 20 km. – 30 km. dependin on where ship is berthed. Airport served by regular airlines.

HOLIDAYS: See "Stevedores".

POLICE/AMBULANCE/FIRE: Tel. 90 000, ask for "Polislarm" "Ambulans", or "Brandlarm".

TELEPHONES: At all quays ships can be connected to telephone.

GENERAL: Seaman's Institute, Amerikagatan 2, open weekdays 100 to 2130 hrs., Saturdays and Sundays 1400 – 2130 hrs.

SERVICES: Tank-cleaning equipment and facilities for discharge of tan washings in the Skarvik Harbour. Compass adjusting.

SHIP SUPPLY SERVICE:

Bunker Facilities:

Texaco Marketing AB,
Box 5227,
402 24 Goteborg.
Tel: (031) 81 72 00.

Stena Oil AB,
Box 4088,
400 40 Goteborg.
Tel: (031) 775 22 30.

Sannes AB,
Box 53240,
400 16 Goteborg.
Tel: (031) 81 99 50.

OK Petroleum AB,
112 91 Stockholm.
Tel: (08) 737 19 50.

Ship Supplies:

CM Hammars AB,
Box 197,
421 22 Vastra Frolunda.
Tel: (031) 49 00 60.

OLE Gruppen AB,
G Kronvagen 60,
433 84 Partille.
Tel: (031) 36 20 00.

Lundby Skeppsservice AB,
Sydatlanten,
417 34 Goteborg.
Tel: (031) 64 01 80.

Scansupply,
Box 8935,
402 73 Goteborg.
Tel: (031) 50 04 70.

Tug/Launch Service:

Roda Bolaget AB,
Box 108,
401 21 Goteborg.
Tel: (031) 10 97 00.

Bogser AB Sven,
Manufakturgatan 1,
417 07 Goteborg.
Tel: (031) 22 34 95.

Svenska Saybolt AB,
Skarvikshamnen,
417 34 Goteborg.
Tel: (031) 54 08 50.

Communication Centre:
Gothenburg Traffic. Tel: 031-63 23 50, 63 21 55. Telex: 21547 Scanprt S. VHF Channel 13.

IDENTIFICATION CARDS: Not necessary. Crew List to be furnished in the oil harbours.

GARBAGE DISPOSAL: Old Harbours: Drums are available on jetties. For large quantities of garbage, telephone Oil Harbour Office (031-63 24 24), or via VHF Channel 12.

WASTE OIL DISPOSAL: Collection service of waste oil (sludge) is available, but has to be reported to the Port of Gothenburg AB, 24 hours in advance. Tel: +46 (031) 632155. Fax: +46 (031) 632301.
Capacity of barge – 100 cu.m.
Capacity of trucks – 11 cu.m. (10 trucks available).

Disposal of Waste Products: *Disposal of Residual Oil from the Engine Room:* Oil residues and sludge from the engine room, which are not allowed to be discharged at sea, is received, free of charge, outside the shipyards, by the Port of Gothenburg, provided:

1. The waste comes from normal duty of the machine, during the ship's journey between it's previous port and Gothenburg.
2. The quantity of residual oil is proportional to the ship's d.w.t.
3. The waste consists of water, petroleum hydrocarbons and the additives which normally are a part of residual fuel and lubricating oil, and which must be disposed of at a competent reception facility. Any substances from PCB, chlorine, organic solvents and detergents must not exist.
4. The Sea Traffic Department, Port of Gothenburg AB, has been informed at least 24 hours before the disposal of the residual oil is intended to be carried out.
5. The request provides information about quantity, viscosity, specification of oil residues, possible compounds of lubricating/fuel oil with/without solvents, emulsifiers, etc., as well as the hose connection required.
6. The ship's connection is available on deck and of an international standard.
7. The operating pressure in the line between the ship and the reception facility ashore does not exceed 0.6 MPa (6 kp/cu.m.).
8. The operating discharging rate is not less than 5 cu.m./hr.
9. The discharge of the residual oil is transferred to a competent reception facility (e.g. collected by vehicle or vessel), from 0730 hrs. – 1530 hrs. weekdays only.
10. The collecting vehicle's or vessel's waiting time does not exceed 15 minutes, including time for connecting of hoses.
11. The ship is providing a safety watch, who is supervising the operation, in order to prevent leakages.
12. The ship is providing personnel for connection and disconnection of the hose between the ship and the reception facility.
13. Oil residues in drums are put at specific, by the harbour authority designated area.
14. The drums are compact and leakproof without defects, and permanently labelled. The declaration of contents should be in both Swedish and English, together with the ship's name.
15. That smaller amounts of residues are disposed of in designated receptacles, when the possibility of disposal in drums, as described above, are not practicable.
16. The ship will be charged the additional costs, which may arise, if the above mentioned conditions are not complied with.

Safety Regulations concerning Disposal of Residues from the Engine Room:
Responsibility Areas:

1. It is the collecting vessel's or vehicle's responsibility to ensure, before the transfer is commenced, that the operation is supervised by a safety watchman who can, if necessary, order the operation to be stopped.

   The safety watchman of the collecting ship or vehicle could be either a crew member or the driver of the vehicle.
2. All personnel involved in the transfer operation are obliged, within their respective areas of responsibility, to take all necessary precautions, to prevent an oil spillage ashore or into the water.

Precautions before discharge of residues from the engine room is commenced:

(i) All scuppers, on board all vessels involved in the operation, must be plugged.
(ii) The vents of the cargo tanks, of the ship which is receiving the residual oil, must be appropriately fitted to avoid an overflow.
(iii) Information of maximum loading quantity in each tank and maximum operating pressure respectively, must be provided by the discharging ship's responsible officer, to the receiving ship or vehicle.
(iv) The hose for disposal of residual oil must be properly and securely connected on board the collecting ship's or vehicle's manifold, and be rigged in a way which prevents damage of the hose, from possible movements of the ship.
(v) Only approved hoses, which have been tested during the last twelve month period, may be used.
(vi) Checks of the operating valves setting is an obligation, to ensure filling of the right tank.
(vii) Efficient communication, preferably by radio, must be established between the vessel and vehicle involved in the operation. This communication must be maintained until the operation is finished and the hose has been disconnected.

During discharge of residual oil:

1. Hose connections must be continuously checked to detect possible leakage.
2. Supervision by a safety watchman is an obligation throughout the operation. The operation must immediately be stopped on his command.

After operation is finished:
The hose must be properly disconnected to avoid any spillage of oil. A drip tray must be used. Hoses which have no automatic shut-down valve must be blanked before being returned to the receiving ship or vehicle.

Actions in the event of a hose burst, overfill, or any other circumstances which may cause a spillage:
These actions must be taken in the event of a hose burst, overfill or other circumstances which have caused the spillage:
Stop all operations.
Close all valves in operation on all vessels or vehicles involved in the operation.
Call the Vessel Traffic Control Centre by VHF Channel 13 or telephone 031-632350.

AUTHORITY: Port of Gothenburg AB, S-40338 Gothenburg, Sweden. *Tel:* (031) 632000. *Telex:* 20957 Scanprt S. *FAX:* (031) 632301. *Contact:* G. Wennergren, President. Jorgen Wallroth, Harbour Master.

HALLSTAVIK: 60.03 N. 18.35 E. (See Plan)

DOCUMENTS: 2 Crew Lists; other documents see "Stockholm".
PILOTAGE: Svartklubben Pilot Station. VHF Channel 16 and others. Radar at station and in boats. 5 hours' notice prior to arrival. Tel: Hallstavik 0175/10006. Cable: "Pilotstation Hallstavik".
ANCHORAGES: Good and protected anchorage places available.
RESTRICTIONS: Tankers are navigated in daylight only. Max. air draft for all vessels 40 m.
MAX. SIZE: LOA 150 m., beam 25 m. and draft not to exceed 23 ft.
HEALTH: No special action except for suspected disease. In case of disease contact Agent for information.
RADIO: Stockholm Radio.
TUGS: Normally available.
STEVEDORES: Loading effected by factory. Ordinary working hours: 0630 – 1530, maximum 1 hour overtime. Saturdays no work.
MEDICAL: Medical attendance available day and night.
TANKERS: Max. draft 23 ft. Connection 6 in., pipe to quay-cisterns is about 1,000 m., discharging rate about 200 t.p.h.
DENSITY: Practically fresh water.
FRESH WATER: Available from quay; rate 2 t.p.h.
FUEL: Delivered by trucks from Stockholm.
CONSULS: At Stockholm, 100 km. away.
REPAIRS: Minor repairs only.
OPENING/CLOSING HATCHES: Ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits.
CARGO GEAR: Loading by ship's gear or mobile crane.
AIRPORT: Stockholm Airport, Arlanda, 75 km. away.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Easter; Whitsuntide; Midsummer; Christmas and New Year's Day.
POLICE/AMBULANCE/FIRE: Alarm Tel: 90000.
GARBAGE DISPOSAL: Facilities available free of charge.
WASTE OIL DISPOSAL: Facilities available free of charge, max. capacity 10 cu.m.
GENERAL: *Shippers:* Holmens Bruk AB. Export about 300,000 tons of newsreel/year. Import about 50,000 tons of fuel oil. 2 ordinary loading quays and 1 Roll-on/Roll-off berth available.
Agency: Erik Clemedson AB. Cables: "Clemed". Telex: 76213.
DEVELOPMENTS: See "Plan".
AUTHORITY: Holmen Paper AB, Hallsta Paper Mill, S-76381 Hallstavik, Sweden. *Tel:* 0175-26000. *Telex:* 76209. *Cables:* Holmen. *FAX:* 0175-26401. Agent 0175-23355. *Contact:* R. Sonderberg, Harbour Master.

HALMSTAD: 56.40 N. 12.52 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
3 Stores Lists (Tobacco and Stores).
5 Manifests.
2 Bills of Lading and Ship's Papers.

PILOTAGE: Advance notice of ETA 5 hours before arrival. Pilot station and pilot boat equipped with VHF Channels 16, 13, 6. Pilot boards at lightbuoy in Halmstad Road (L.Fl. 10 sec. 56° 37' N., 12° 47.5' E.) (Also see "Stockholm".)
ANCHORAGES: Good holding ground in 30 ft. – 40 ft. in roads 1 mile to 2 miles S.E. of breakwater.
MAX. SIZE: See "Berthing".
RADIO: Gothenburg Radio.
RADAR: Pilot station equipped with radar.
VHF: Port Authority on Channels 16, 13 and 9.
TUGS: Meet at Halmstad Road. Ship's lines used.

BERTHING:

Berth	*Length* (m.)	*Max. draft* (ft.)
Ostrakajen	300	30 ft.
Ostrakajen	230	27 ft.
Jarnverkskajen	220	27 ft. 6 in.
Importkajen	470	23 ft. 6 in.
Importkajen	270	22 ft.
Tullkammarkajen	400	18 ft.
Kattegattshamnen	285	27 ft. 6 in.
New Quay	135	24 ft. 7 in.
(Ro/Ro ramp ready October 1990)		
	Max. LOA (m.)	*Max. draft* (ft.)
Oceanhamnen – Inner Berth	200	32
Outer Berth	235	33

CRANES: 8 rail mounted cranes and 4 mobile cranes, capacity up to 100 tons.

SPECIAL CARGO HANDLING FACILITIES:
Roll-on/Roll-off: Kattegattshamnen: 2 fixed ramps. 43 m. and 23 m. wide. Max. draft 27 ft. 6 in.

Ostrakajen: 1 fixed ramp. 25 m. wide. Max. draft 27 ft.

Containers: Handled at Ostrakajen and Kattegattshamnen.

BULK HANDLING FACILITIES: A new harbour basin (Oceanhamnen) was opened in 1981. Alongside the berth ships with max. LOA 235 m. and max. draft 11.3 m. can be handled. A rail mounted bulk-unloader, screw type, can discharge bulk-cargoes at a capacity of 500 t.p.h. On the quay is a bulk-terminal operated by Nordic Bulk AB, Halmstad.

Bulk cargo can also be handled alongside the Importkajen and Jarnverkskajen with grab-equipped cranes. 1×200 t.p.h. unloader for limestone and dolomite. 1×100 t.p.h. pneumatic unloader for soda imports.

STEVEDORES: *Working Hours:* Monday – Friday 0700 – 1630 plus 3 hours' overtime. Saturday – Overtime 6 hours. Sundays – By special agreement.

MEDICAL: Hospital facilities available.

TANKERS: Max. draft at oil berth 30 ft. Max. LOA – 700 ft. Diameter of discharge lines 8 in. and 10 in.

DENSITY: Average 1005 (depending on wind).

FRESH WATER: Fresh water available from berth 35 t.p.h.

FUEL: Viscosities available: 1.2 englergrades/20°C. By arrangement with ship's Agent.

CONSULS: Danish, Finnish, German.

REPAIRS: Shipyard carries out ship repairs.

DRY DOCKS: 2 slips.

GANGWAY/DECK WATCHMEN: Not necessary. Available if required.

OPENING/CLOSING HATCHES: Normally carried out by crew, but if carried out by stevedores cost charged to vessel.

CERTIFICATES: Bill of Measure, Nationality Certificate and Derat Certificate.

CUSTOMS ALLOWANCES: Tobacco/spirits, 1 bottle spirits, 1 bottle wine and 200 cigarettes free on board. Quantity over will be closed under Customs seal. No other restrictions.

REPATRIATION: Facilities exist for changing crew and repatriation.

AIRPORT: Halmstad Airport, 1 mile from town centre, 2 flights per day for Stockholm.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day; Twelfth Day; Good Friday; Easter Day; Easter Monday; Ascension Day; Whit Sunday; Whit Monday; Mid-Summer Day; All Saints' Day; Christmas Day; Christmas Monday, Labour Day.

POLICE/AMBULANCE/FIRE: Tel. 90 000.

TELEPHONE: For placing a telephone on board cost is 130 SEK, and 59 SEK, a day for hire.

SHORE LEAVE: Crew members allowed ashore.

IDENTIFICATION CARDS: Only needed oil harbour.

GENERAL: *Charts:* BA 3671. Swedish 92 and 923.

AUTHORITY: Halmstad Hamn Och Stuveri AB, P.O. Box 1, 30102 Halmstad, Sweden. *Tel:* 46-35-155310. *Telex:* 38076 HSTUV. *FAX:* 46-35-140593. *Contact:* C. Olausson, Harbour Master.

HARGSHAMN: 60.10 N. 18.29 E. (See Plan)

LOCATION: The port is situated in the archipelago of Oregrund, about 130 km. North of Stockholm and about 110 km. South of Gefle. It is a natural and well sheltered harbour, suitable for vessels up to about 10,000 d.w.t.

DOCUMENTS: The Customs Officers require the following documents on arrival:

Tonnage Certificate (Certificate of Registry).
Certificate of Nationality.
Swedish Light Dues Receipt for current year.
Crew List, 2 copies.
Crew's Effects Declaration (spirits and tobacco only), 2 copies.
Ship's Stores Declaration (spirits and tobacco only), 2 copies.
If the international IMO Forms are not available, similar forms are accepted.

PILOTAGE: Pilot is compulsory for tankers over 1,200 g.r.t. and d cargo vessels over 1,600 g.r.t.

Pilot is available from 0300 hrs. – 2400 hrs. and is embarked o Svartklubben Lighthouse (Lat. 60° 09' N., Long. 18° 52' E.). Order fo Pilot has to be given 5 hours before needed and can be given via th Agent or direct to the Svartklubben Pilot Station, VHF Channel 16, Te Hallstavik 0175-10006, Cables: "Pilotstation Hallstavik".

Distance from sea off Svartklubben to Hargshamn is about 17 nautica miles. For vessels arriving from North, Pilot will board on request a Oregrund or North thereof.

MAX. SIZE:
Max. allowed draft 8.5 m. at MLW (density of water 1005).
Max. allowed length of vessel about 185 m.
Max. allowed breadth of vessel about 28 m.
Max. allowed draft at new quay for general cargo 7.3 m.

RADIO: ETA is to be given 48 hours and 24 hours in advance to th Agent. Tel: Osthammar 0173-20080 or cable: "Oreship Hargshamn".

VHF: Harbour Office on Channels 9, 11 and 16.

TUGS: A tug of 1,200 h.p. is available from Hallstavik, and is normal used to assist vessels over 9,000 d.w.t. on departure only.

BERTHING: *Ore Quay:* Length 90 m. Minimum depth alongside 11 m Berth equipped with a loading conveyor, capacity 800 t.p.h.

New Quay: Length 40 m. Minimum depth alongside 8 m.
Equipped with mobile cranes 50 tons and 160 tons.

Railway Ferry Berth: (Built 1989). One ramp for railway-wagons to lowe deck, max. load 395 tons. One ramp to upper deck for lorries, max. loa 75 tons. Minimum depth alongside 7.20 m.

STEVEDORES: *New Quay:* Ordinary Working Hours: Monday-Frida 0700 – 1600.

Stevedores: Hargshamn Terminal AB, S-740 73 Hargshamn. Te Osthammar 0173-20155.

FRESH WATER: Available.

SURVEYORS: From Stockholm (130 km. away).

CUSTOMS ALLOWANCES: 200 cigarettes per man and 1 bottle o spirits per Officer.

AIRPORT: Stockholm-Arlanda, 100 km.

EMERGENCY CO-ORDINATION CENTRE: Stockholm Radio.

GARBAGE DISPOSAL: Skips available alongside free of charge.

WASTE OIL DISPOSAL: Truck to be ordered via agent. Charge depend on quantity water/oil.

SEAMAN'S CLUBS: None.

CURRENCY: Swedish Kronor (SEK).

STORING: Can be effected with some minor difficulties.

GENERAL: *Ice:* The port can be kept open all Winter. Normally the is ice from last week of December until the last week of March/first wee of April. In port and entrance there is fast ice up to 40 cm. – 50 c thick.

Navigation is maintained in broken ice-channel.

Off the Pilot Station or in Aland Sea there is very seldom packed i or other difficulties during a normal Winter.

Charts: Swedish No. 536 (1:50000). B.A. No. 2335 (1:100000).

AUTHORITY: Hargs Hamn AB, Humlegardsgatan 5, S-114 Stockholm, Sweden. *Tel:* 08-6609310. *FAX:* 08-66018 *Contact:* Gunder Hurtigh, Port Director.

AGENT: Bjorsbo Shipping AB, S-740 73 Hargshamn. Tel: Ostham 0173-20080. Fax: Osthammar 0173-20120. Cables: "Oresh Hargshamn".

HARNOSAND (Hernosand): 62.38 N. 17.57 E. (See Pla

DOCUMENTS:
2 Crew Lists and/or 2 Passenger Lists (stating what tobacco, cigare or spirits each man has in their possession).
Derat Certificate.
Manifest and/or Bills of Lading.
Register, and if vessels have previously been in Sweden same y bills for light dues paid.

Certificates: See "Stockholm".

PILOTAGE: Applications for licensed Pilots should be made at le 5 hours before arrival. When making application, specify name of ves tonnage, draft and destination. Also give estimated time for taking P on board and route. If this procedure not followed, the Maritime Ser cannot guarantee to supply a Pilot without considerable delay to ves

Preferable to make application by telephone or by radio via a coa station or by some other method direct to Pilot Station. Also possib request Pilot by VHF.

Pilot station at Spikarna/Sundsvall for Northbound vessels Skagsudde/Ornskoldsvik for Southbound vessels.

ANCHORAGES: In port approaches in depth of 15 m. to 40 m.

RESTRICTIONS: During Winter assistance given by State Ice-brea

MAX. SIZE: Up to 32 ft. 5 in. draft. Also see "Tankers".

HEALTH: Vessels arriving from ports outside Europe must, for In Clearance, provide Customs Officer with written declaration of free from infection. Further instructions will be issued by Customs Office such a declaration cannot be given.

RADIO: Cable Agents to give ETA, draft and cash require Stockholm Radio SDJ.

TUGS: Tug assistance is available.

BERTHING:

Berth No.	*Length* (m.)	*Depth* (m.)
1	51	8.00
2	67	8.00
3	51	8.00
4	85	5.70
5	85	5.70
6	50	7.40
7	80	8.00
8	50	8.00
9	62	10.50

CRANES: 2 rail-mounted cranes of 10 tons and 12 tons capacity. Mobile cranes up to 100 tons capacity are available.
TANKERS: *Municipal Oil Pier:* Max. LOA 200 m. Max. draft 10.0 m. Depth alongside 10.5 m. Max. d.w.t. 45,000. Vessels berth either side alongside. Tugs available but not required. Offshore anchor used.
DENSITY: Nearly fresh water.
FRESH WATER: Available from the quays.
FUEL: Can be supplied.
REPAIRS: Most repairs possible.
DRY DOCK: At Gustavsvik.
GANGWAY/DECK WATCHMEN: Gangway watchmen available.
OPENING/CLOSING HATCHES: Normally done by crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 75 centilitres spirits per man/week. Extra granted on request.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Epiphany; Good Friday; Easter Monday; Labour Day; Ascension Day; Whit Monday; Midsummer Day; All Saints' Day; Christmas Day; Second Christmas Day.

Work ceases at 1130 hrs. on the following eves of holidays and is voluntary and paid with 100 per cent overtime: Easter Eve; Whitsun Eve; Midsummer's Eve; Christmas Eve and New Year's Eve.
POLICE/AMBULANCE/FIRE: Telephone numbers: Accidents, Police, 90000; Fire: ask for alarm 90000.
IDENTIFICATION CARDS: Not necessary.
GARBAGE DISPOSAL: Container placed alongside free of charge.
WASTE OIL DISPOSAL: Facilitated by tanker trucks of 9 cu.m. capacity. Contact Port Authority for details.
SEAMAN'S CLUBS: None.
AUTHORITY: Harnosands Hamn, S-87180 Harnosand, Sweden. *Tel:* (0611) 28270, 28271. *Telex:* 71020. *Cables:* Hernoport. *FAX:* (0611) 28269. *E-Mail:* port.of.harnosand@com.itv.se *Contact:* Lars Wikstroem, Port Manager.

HELSINGBORG: 56.03 N. 12.41 E.

(See Plan)

DOCUMENTS: See "Stockholm".
APPROACHES: The harbour basins are very easy to approach. The deep water outside breakwaters – varying from 10 m. to 30 m. (33 ft. – 98.5 ft.) – adjacent to the sailing route in the Sound facilitates port calls. Normally comparatively large ships can proceed directly to the quays without tug assistance.
PILOTAGE: Call Pilot on VHF Channel 16 (Tel: 042-210035, Mobile No. 0708-252901). Pilots will board and disembark at the roads or at "N:1" Light Buoy in traffic separation scheme "in the Sound" from an orange coloured Pilot boat. Pilots can also be obtained at the Oresund North Light Buoy (Lat. 56° 12' N., Long. 12° 30' E.) (5 hours notice) or off Kullen Light (12 hours advance notice). Helsingborg Pilots are also Seapilot for the Sound, Kattegatt, Baltic and North Sea (See "General – Pilotage" before first port).

Anchorages: It is not recommended to anchor outside Helsingborg due to the heavy ferry traffic.

Good anchorage is found at Raa Roads, about 0.5 nautical miles S.W. from Raa Lighthouse (3 nautical miles South from Helsingborg).

Pilots: 24-hour service. Channels 16 and 80 (VHF relay station on Kullen Lighthouse).
ANCHORAGES: See "Pilotage".
MAX. SIZE: Permissible length about 220 m.; breadth unlimited; draft 7.0 m.–11.7 m. on MW, depending on which berth the vessel is bound for. No tides but certain variations following prevailing current and winds. *Tankers:* Max. draft 10.5 m.
HEALTH: Pratique automatic for all vessels arriving from non-infected ports. In cases where Pratique should be obtained, notice to be given through ship's Agent. Further directions given by Pilot.
RADIO: For communication – Stockholm Radio.
VHF: 24 hour watch on Channel 16. Call sign "Helsingborg Harbour", working Channels 11 and 12. Ships to contact the harbour 1 hour before arrival and 1 to 0.5 hours before departure.
Pilots: Channel 16, working Channel 80.
Tugboats: Working Channels 16 and 69.
VTS Centre: Channel 11.
TUGS: 2 tugs available, up to 44 tons bollard pull. Tugs join vessel outside entrances.
BERTHING: See "Tables" overleaf on Page 2024.
CRANES: 22 cranes, including 2 container cranes (42 tons and 45 tons) and 2 multi-purpose cranes (30 tons each).
BULK CARGO FACILITIES: 2 berths of 215 m. length for grain and fertilisers, max. draft 9.9 m. Loading capacity 700 tonnes per hour. Storage 250,000 tonnes.
SPECIALISED CARGO HANDLING FACILITIES: Complete container terminal West Harbour with 670 m. berths and 3 Ro/Ro berths, max. draft 11.7 m. There are a total of 10 Ro/Ro berths in the port. All types of handling equipment. Liquid chemicals handled at the tanker terminal.
STEVEDORES: Cargo handling performed by Helsingborgs Hamn AB offering all kinds of harbour work including loading, discharging, warehousing, etc.
MEDICAL: For attention, application to be made through ship's Agent. Hospital facilities available.
TANKERS: Dimensions of pipelines – for oils, 14 in., 12 in., 8 in., petrol, 12 in., 10 in., 6 in., slops, 6 in. Discharge facilities for slops through pipelines from Berths No. 504 and 505. Tankers berth at Quays No. 503 and 504 with depth of water alongside 11.0 m. MW, and Quay No. 505 depth of water alongside 8.0 m. MW.
DENSITY: 1007. No tides, but slight variations in accordance with prevailing currents and winds.
FRESH WATER: Available from quay connections (Tel: 042-122049).
FUEL: Bunker fuel delivered from pipelines or by tank lorry. Advance notice required. Any grade available.
FIRE PRECAUTIONS: Standard procedures apply.
CONSULS:

Denmark	Tel. 17 27 00	Iceland	Tel. 12 62 20
Finland	" 29 62 25	Netherlands	" 10 62 24
France	" 11 22 87	Norway	" 20 10 40
Germany	" 18 62 73		

REPAIRS: All kinds of deck and engine repairs can be carried out.
DRY DOCKS: Length of largest dry dock 112 m. Depth on sill about 16 ft.
SURVEYORS: Lloyd's Register local agent: Tel: 201315. Fax: 201471.
GANGWAY/DECK WATCHMEN: Watchmen generally at Master's option.
OPENING/CLOSING HATCHES: By crew or stevedores.
CERTIFICATES:
Certificate of Nationality.
Bill of Measurements.
Crew Declaration.
Bond Declaration (Spirits, cigarettes, tobacco, etc.)
Derat Certificate.
Crew List.
CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes or equivalent quantities for each person on board. Wine and/or Spirit, one bottle each member to be held out of bond.
CARGO GEAR: Usual Board of Trade Regulations valid.
REPATRIATION: Repatriation possible, by air and by train.
AIRPORT: Kastrup 60 km., Sturup 70 km., Angelholm 30 km. Heliport within the port.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Official holidays 1st and 6th January, 1st May, 1st Saturday November, 25th and 26th December, plus 2 holidays for Easter, 1 holiday for Whitsun and 1 holiday for Midsummer on appropriate dates.
POLICE/AMBULANCE/FIRE: Police 14 40 40 or in an emergency situation all services via tel. 9 00 00.
TELEPHONES: Quay-connected telephones are placed on board on request.
SERVICES: Tank cleaning, discharge of tank washings, compass adjustments, etc., can be carried out after application through local Agents.
Environment Protection: For oil protection, cleaning, sludge-suction, refuse collection etc., call VTS Centre Tel. 106300. Night service Tel. 10 63 22.
Receiving Station for Waste Oil: By law, water pollution from ships is prohibited. Sludge is accepted (free of charge) through Helsingborgs Hamn AB or through vessel's local Agent.
Provisions: Provisions are supplied by ship-chandlers 24 hours daily.
Repair/Maintenance: Repair and maintenance of containers, flats, trailers, trucks and other cargo handling equipment is carried out. Consult local Agent.

Testing according to CSC provisions (Convention for Safe Containers).

For ship repair call Fartygsmekano AB. Tel: 042-12 02 95. Fax: 042-18 09 16.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: *Dustbins for Ships:* Dustbins are available. Galley refuse is to be delivered in plastic bags.
WASTE OIL DISPOSAL: Available. Tel: 10 63 22. Also see "Services".
SEAMAN'S CLUBS: Located at Drottninggatan 46. Tel: 11 50 84. Hours: 1300 – 2000, 1700 – 2000 (Sunday).
REGULATIONS: Normal regulations apply.
DELAYS: No other delays than berths being occupied by working vessels can be expected.
AUTHORITY: Helsingborgs Hamn AB, P. O. Box 821, Oceangatan 3, S-25108 Helsingborg, Sweden. *Tel:* 042-10 63 00. *Telex:* 72215. *FAX:* 042-13 54 83. *Contact:* Per-Olof Jansson, General Manager.

BERTHING: (Helsingborg).	*Berth No.*	*Length (m.)*	*Depth (m.)*	*Quay Cranes/ Ro-Ro Ramps*	*No.*	*Lifting Capacity (tons)*	*Remarks*	*Floor Ar or Volum (sq.m./cu.m*
North Harbour								
Port Basin 1								
South Quay	101	76	6					
West Quay	102 – 111	662	6					
North Quay	112	92	8					
East Quay	113 – 118	450	8					
	(117 – 118)						Port Warehouse 118	4,32
Port Basin 2								
Central Harbour and Inner Harbour								
Central North Quay	201	85	3.6					
Transverse Quay	202	31	3.6					
Inner North Quay	203 – 204	115	3 – 2				Passenger Terminal	
East Quay (Kungstrappan)	205	92	2					
Car Ferry Berths	208	70	6	Ro-Ro			Passenger Terminal	
Port Basin 3								
Car/Train Ferry Berth	301	80	8				Passenger Terminal	
Car/Train Ferry Berth	302	95	8				Passenger Terminal	
East Quay	303	108	5					
Equipment Quay at dry dock	307	105	6	Level luffing jib crane	1	40		
						10		
				Level luffing jib crane	1	5		
						2		
West Quay	308 – 311	215	6.8				Port Warehouse 309	2,22
							Port Warehouse 311	1,73
Port Basin 4								
Ocean Terminal								
East Quay	401 – 404	240	10	Level luffing jib	3	3	Port Warehouse 402	
				cranes 31 – 33		5	Refrigerated Stores	3,27
							Other Stores	2,28
	404 – 407	240	8	cranes 29	1	10	Port Warehouse 404	2,07
							Port Warehouse 405	5,31
							Port Warehouse 406	38
							Port Warehouse 407	2,52
							Port Warehouse 408	3,54
Sundsterminalen								
West Quay	409	90	8					
Berth 1	410	118	7	Ro-Ro	1			
Berth 2	411	130	8.5	Ro-Ro	1		Passenger Terminal	
South Harbour								
Port Basin 5								
Tanker Terminal								
Breakwater Quay	501 – 502	300	9					
West Oil Berth	503	90	11	Hose lifter 1	1	1.5	Receiving Station for	
East Oil Berth	504	90	11	Hose lifter 1	1	1.5	waste oil	2,00
	504							
Port Basin 6								
Coast Tanker Berth	505	80	8					
Grain Quay	601 – 605			Level luffing jib			Silos	250,00
				crane 25	1	10.5	(Skanska Lantmannen)	
							Shed	15,00
							(Skanska Lantmannen)	
	601 – 603	210	10.5	Discharging device	1		Capacity 350 tons/hour	
	603 – 605	220	13.5	Loading device	1		Capacity 1,000 tons/hour	
Port Basin 7								
Dry Cargo Quay	700 – 703	275	8	Level luffing jib				
				crane 30	1	10.5		
Skaneterminalen	704 – 709	540	8 –	Level luffing jib			Port Warehouse 705	2,6
	704 – 705	200	11.5	cranes 26, 27, 28	3	10.5	Port Warehouse 706	2,4
	706 – 709	340	8 –				(cold 1,688 sq.m.)	
			11.5		10.5			
				Multi-purpose level			Service	
				luffing jib cranes 34,35	2	6	Work Shop 707	1,4
	704, 709			Ro/Ro	2	15	Port Warehouse 708	1,2
						30	Refrigerated Store 709	2,8
							Port Warehouse 710	1,3
							Port Warehouse 712	2,4
Helsingborg Bulk Harbour								
Port Basin 8								
Bulk Harbour	800 – 803	210	10	Shiploader	1	1,000*	Warehouses	20,0
West Quay				Cranes	3	1,000*	Silos	(cu.m.) 40,0
				Siwertell unloader	1			
	804	150	9	Shiploader	1	200*		
	805	150	6	Shiploader	1	200*		
East Quay	810 – 811	120	6	Crane	1	150*	Silos	(cu.m.) 5,0
	812	60	6	Suction	1	50*	* t.p.h.	
West Harbour								
Port Basin 9								
Breakwater	901 – 902		13	Mobile crane	1	40	Port Warehouse 905	1,5
				bulk handling		30	Port Warehouse 906	5,5
				container on spreader		30.5	Port Warehouse 907	1,1
				on hook		40	Container Repair Shop	
							Port Warehouse 911	1,
Large basin	903	300	13					
Large basin	904	265	13	Ro/Ro	1			
				Container crane 16				
				on spreader		30.5		
				on hook		42		
Small basin	905	184	9	Ro/Ro	1			
	906	220	9	Ro/Ro	1			
				Container crane 17				
				on spreader	1	30.5		
				on hook		45		
				Transtainers	2	39		

HOGANAS: 56.12 N. 12.33 E. (See Plan)

Privately-owned port serving owning company only – Hoganas AB. Customs and pilotage arranged through Authorities in Helsingborg (12 nautical miles S.E. of Hoganas).

DOCUMENTS: See "Stockholm".

PILOTAGE: Compulsory. Pilot will board and disembark at the Oresund North Light Buoy (Lat. 56° 12' N., Long. 12° 30' E.). Pilot service day and night, available after request to pilot office at Helsingborg.

Also see "General – Pilotage" before first port.

RESTRICTIONS: Entrance Channel, Length 750 m.; width 65 m.; depth 8.20 m.

The harbour is seldom closed by ice.

MAX. SIZE: LOA 130 m., max. draft 7.40 m. The Pilots have berthed vessels with a draft in excess of 7.40 m.

TUGS: There are no tugs stationed at Hoganas, but tugs are available after request to the Harbour Office at Helsingborg.

BERTHING: *The Pier (Extending South-Westerly).*

Length of quayage:	380.00 m.
Depth alongside:	
For 120 m. (from outer end)	6.60 m.
For the next 160 m.	8.20 m.
For remaining 100 m. varies down to	4.00 m.
The Cross Quay:	
Depth alongside at 75 m. from Northern end	3.50 m.
the remainder is unnavigable	
Quay in the Middle of the Harbour:	
Length of quay:	180.00 m.
Depth alongside N.W. side:	
For 120 m. (from outer end)	6.60 m.
For the next 35 m. the depth varies from to being unnavigable.	4.2 m.
Depth alongside S.E. side:	
For 30 m. (from outer end)	2.50 m.
remainder is unnavigable	

The depth of water at this port is somewhat affected by winds.

CRANES: 1×25 ton rail mounted electric crane (21 tons-grab duty), 1×25 ton mobile crane.

STEVEDORES: Working hours; a normal working day, Monday to Friday from 0700 to 1600 hrs. Normally no working on Saturdays.

FRESH WATER: Available.

FUEL: Can be supplied.

REPAIRS: Machine shop repairs only.

GARBAGE DISPOSAL: One container on the quay for garbage disposal from vessels.

WASTE OIL DISPOSAL: Collection is available with tank truck up to 8 cu.m. in ordinary working hours without any charges.

Notice for collection must be given 48 hours before vessel's arrival.

SEAMAN'S CLUBS: Nearest Seaman's Club at Helsingborg, 20 km. South of Hoganas.

CURRENCY: Swedish Kroner (SEK).

AUTHORITY: Hoganas Hamnbyggnads AB., Box 39, S-26383 Hoganas, Sweden. *Tel:* (Harbour) (46) 042-338224. *Telex:* 72368 Hbmet S. *FAX:* (46) 042-341130. *Cables:* Clayworks Hoganas. *Contact:* Bo Norberg, General Manager. Leif Andersson, Harbour Master.

HORNEFORS: 63.37 N. 19.54 E. (See Plan)

PULP AND PAPER MILL IS CLOSED AND PARTLY DISMANTLED. NO OPERATION TAKING PLACE AT PRESENT. IT IS ONLY POSSIBLE TO CALL AT THE PORT DURING DAYLIGHT.

DOCUMENTS:

1 List of Bonded Stores.
2 Tobacco Lists.
3 Crew Lists.
3 Passenger Lists.

Health documents, none – if all on board healthy. In case of illness on board, this must be reported to Customs on arrival.

Copy B/L and copy Manifest.

PILOTAGE: Pilot station, Bredskar Tel: 090-45021; Pilot must be ordered 5 hours before arrival. If change in position, this must be advised at least 2 hours before arrival. Pilot can also be taken at Skagsudde Pilot Station Tel: 0660/66003. (Also see "Stockholm").

ANCHORAGES: Will be advised by Pilots.

RESTRICTIONS: Daylight entry only possible.

MAX. SIZE: Max. length 105 m. – 110 m. Max. draft 5.8 m.

RADIO: Harnosand Radio, Tel: 0611-12733.

TUGS: Available. Tugs to be ordered in advance.

BERTHING: No particular arrival times necessary.

CRANES: None available.

STEVEDORES: Labour must be ordered latest 1430 hrs. day before commencement loading, and if such day is Monday labour to be ordered before 1100 hrs. Saturday.

MEDICAL: No special regulations. Hospital and doctors available day and night.

FRESH WATER: By pipe, 2 t.p.h.

FUEL: No fuel available in port. Must be ordered from Holmsund.

CONSULS: None.

REPAIRS: No facilities available.

GANGWAY/DECK WATCHMEN: Not compulsory, but can be arranged.

OPENING/CLOSING HATCHES: Normally done by ship's crew.

CERTIFICATES:

Lighthouse dues (receipts).
Oil Record Book.
Derat Exemption Certificate.
Nationality Certificate.
Ship's Register (International form).
For open/closed ships – Freeboard Certificate.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes man/week or 250 grams of tobacco man/week. Wines/Spirits, 1 bottle of wine and 1 bottle of spirits man/week. Note: Must be 21 years of age before crew member is allowed to have spirits or wines.

REPATRIATION: No facilities for crew changes.

AIRPORT: 25 km. from port. Served by Linjeflyg, domestic services flights to Stockholm 6 times a day.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: Christmas Eve; Christmas Day; Second day after Christmas; New Year's Eve; New Year's Day; Easter Friday; Saturday and Sunday; Midsummer Eve and Midsummer Day; Whitsunday; Epiphany (1st May); Ascension Day; The Day of All Saints (1st weekend November).

POLICE/AMBULANCE/FIRE: Tel. 90 000.

TELEPHONES: None available for placing on board.

IDENTIFICATION CARDS: Not necessary.

AUTHORITY: Hornefors Foretagscentrum AB, 91020 Hornefors, Sweden. *Tel:* 0930-20900. *FAX:* 0930-20958.

HUDIKSVALL (including Iggesund): 61.44 N. 17.07 E. (See Plan)

PORT LIMITS: Vessel is considered to be an "arrived vessel" when berthed alongside quays in port or, if berths not available, at anchor in Inner Roads, outside berths; but not when vessels, owing to darkness etc., are anchored outside Pilot Stations or in Outer Fairways.

DOCUMENTS: If arriving direct from foreign port, following documents presented to Customs Officer who embarks during office hours (0800 – 1700 hrs.):

3 Crew Lists, 2 Tobacco Lists, Derat Certificate (not over 6 months old), Certificate of Nationality, Certificate of Tonnage, 2 Manifests covering incoming cargo.

Receipts of Light Dues, paid to Swedish Authorities during year.

PILOTAGE: Gavleborg Pilots will undertake pilotage. Call "Gavleborg Pilots" on VHF Channels 16/13 to arrange rendezous.

ANCHORAGES: Anchorage places for vessels awaiting Pilot or anchoring owing to weather conditions: 61° 37.5' N., 17° 25.0' E.; 61° 37.0' N., 17° 22.0' E.; 61° 37.7' N., 17° 21.3' E. depending upon prevailing winds, etc. Bottom mud and/or sand. Depth 10 m. – 30 m.

RESTRICTIONS: No tidal water at Hudiksvall. Tankers of more than 100 m. in length between perpendiculars not allowed entry during darkness because of narrow channel with some bends. Dry cargo vessels up to 150 m. length allowed entry after dark.

MAX. SIZE: *Tankers:* Daylight 45,000 d.w.t., length 210 m., draft 9.8 m. After dark 6,000 d.w.t. length 100 m., draft 7.5 m.

Other Vessels: 16,000 d.w.t., length 160 m., draft 8.7 m.

LW between 0.2 m. – 0.5 m. sometimes as much as 0.7 m. below MWL, may occur often. LW periods may occur when N.W. winds blowing over Northern Sweden.

HEALTH: Pratique automatic. No doctor visits incoming vessels if not specially ordered for treatment on board, etc.

RADIO: Vessels coming from South and having not yet passed the Stockholm area are recommended to call Stockholm Radio – VHF Channels 25 or 28 for vessels between Gotland/Sweden, 24 outside Stockholm South, 28 Stockholm East and North, 23 North of Aalands Sea, and in Gavle Bay. Hernosand Radio SAH: Channels 25 Hudiksvall area, 24 Sundsvall area, 23 Hernosand area, 28 Ornskoldsvik area. Hudiksvall harbour office: Channel 16. Working Channel 9.

TUGS: Tug compulsory for tankers over 6,000 d.w.t. and for other vessels over 8,000 d.w.t. in fairway. Vessels met near isle of "Enbarsskar" at Lat. 61° 39.5' N., Long. 17° 17.0' E. For mooring purposes tug compulsory for tankers over 6,000 d.w.t. and for other vessels exceeding 5,000 d.w.t. Ship's lines used. Ice-breaking tug "Mercur", call sign SIJL, 3,000 h.p. available in Hudiksvall during the whole year.

BERTHING: Main berth Hudiksvall draft allowed at MW 8.6 m. alongside 165 m., thereafter 5.4 m. alongside 30 m. and thereafter 4.8 m. alongside 160 m. One Ro–Ro ramp draft allowed 8.6 m. at MW.

Pier at Iggesund 7.3 m. draft allowed MW 150 m. length of pier. Ro-Ro berth 17.4 m. draft if more than 12 m. from Ro-Ro berth, if less, draft allowed 6.2 m. Ro-Ro berth II 7.3 m. draft allowed if more than 12 m. from berth, if less, 6.6 m.

STEVEDORES: Ordered 1600 hrs. on day preceding vessel's arrival. For loading starting Monday morning, gangs to be ordered before 1100 hrs. local time Saturday. 3 – 5 gangs available at Hudiksvall and Iggesund. Working hours: Monday-Friday, 0700 – 1600 hrs.; Meal hours: 0900 – 0930, 1230 – 1300. 2 hours' overtime at extra cost of 50% Monday, Tuesday, Thursday, Friday (1600 – 1800 hrs.). For completing vessel, further 3 hours Monday, Tuesday, Thursday, Friday (1800 – 2100 hrs.). Extra cost of 100%. For completing vessel 5 hours' overtime can be obtained on Wednesday (1600 – 2100 hrs.), 2 hours at 50% and 3 hours at 100% extra.

On Saturdays no normal work, but stevedores available for maximum 8 hours' work, 100 per cent overtime has to be paid, and minimum 5 hours has to be paid even if vessel working less than 5 hours on Saturdays.

TANKERS: One berth only. Depth alongside 10.9 m. Draft allowed 9.8 m. at MW. Pipe diameter for fuel: 10 in. light oils: 8 in. Connecting hoses between pipes and vessel: 8 in. diameter, both types. Shore tanks lie about 100 m. – 200 m. from berth, 5 m. – 8 m. above sea. Surface of jetty about 2 m. above sea level.
DENSITY: Average 1002 – 1001.
FRESH WATER: Fresh water available all berths. Delivery capacity about 15 t.p.h. – 20 t.p.h. During Winter it is difficult to arrange hoses, vessels assist with own hoses.
FUEL: Available all berths. Delivered by tank-lorries from Sundsvall 50 miles North of Hudiksvall. 24 hours' notice required.
FIRE PRECAUTIONS: No special precautions. Within bounded area oil jetty smoking prohibited. Also on new quay outside sawmill.
CONSULS:

Country	*Address*	*Tel. Office*	*Tel. Home*
Denmark	Marknadsgatan 1 Hudiksvall	0650/11 712	0650/10 983
Finland	Varvsgatan 2–4 Hudiksvall	0650/15 250	0650/10 056
Great Britain	Drottninggatan 48 Gavle	026/18 03 00	
Germany	Skeppsbroplatsen Sundsvall	060/15 55 00	060/15 24 40 060/62 22 2

DRY DOCKS: None.
REPATRIATION: Possible.
GANGWAY/DECK WATCHMEN: Available in all ports, not necessary if not required by vessel.
OPENING/CLOSING HATCHES: By crew.
CUSTOMS ALLOWANCES: Crew over 18 allowed 200 cigarettes; 1 bottle of spirits out of bond. If vessel stays in Swedish ports but still in foreign trade, above quantities obtained from bond once a week (every 7 days). Instead of spirits 1 bottle wine or 6 bottles export beer allowed.
REPAIRS: Small engine and deck repairs. To be ordered through vessel's Agent or through stevedoring foreman onboard.
AIRPORT: Nearest regular airport is new airport at Hudiksvall. There are daily connections with Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: No work on following days, although not all legal holidays. New Year's Day; Epiphany; Good Friday (Easter); Easter Eve; Easter Monday; Labour Day; Ascension Day; Whitsun Eve; Whit Monday; Midsummer Eve; Midsummer Day; All Saint's Day; Christmas Eve; Christmas Day; Second Christmas Day; New Year's Eve.
POLICE/AMBULANCE/FIRE:

Police Hudiksvall	Tel: 0650/15 600 or 90 000
Police Iggesund	Tel: 0650/20 820 or 90 000
Ambulance Hudiksvall	Tel: 0650/10 670 or 90 000
Ambulance Iggesund	Tel: 0650/10 670 or 90 000
Fire Hudiksvall	Tel: 0650/10 670 or 90 000
Fire Iggesund	Tel: 0650/20 329 or 0650/20 812
Doctor Hudiksvall	Tel: 0650/17 370 or 90 000
Doctor Iggesund	Tel: 0650/70 026 or 90 000
Hospital Hudiksvall	Tel: 0650/92 000
Hospital Iggesund	Tel: 0650/92 000

TELEPHONES: No telephones available for connecting onboard at Iggesund. At Hudiksvall telephones available. Skr 25 per day plus cost of calls.
IDENTIFICATION CARDS: Not needed. If crew going to doctor or to hospital preferable he carries passport.
SERVICES: No tank cleaning or discharge of tank washings.
PORT REGULATIONS: Speed limit: maximum 5 knots within the harbour basin. Plastic pipe is laid out on the bottom around the oil berth, anchoring during berthing is prohibited. Pipe filled with compressed air after vessel's mooring, comes up to the surface forming ring around vessel and oil jetty as protection against oil leakage.
DELAYS: During Winter (December-April) delays on berthing/sailing owing to ice in fairways and alongside quays. Mooring delays will occur owing to ice between vessel and quay.
GENERAL: Hudiksvall port is very near town. Railway station, bus station, etc., very near port. Oil port about 700 m. from town.
The port of Stocka is closed to commercial vessels.
AUTHORITY: Hudiksvalls Hamnstyrelse, Tullhuset, 82400 Hudiksvall, Sweden. *Tel:* 0650/19166. *FAX:* 0650/17140. *Contact:* Arne Strandell, Harbour Master.

HUSUM: 63.20 N. 19.09 E. (See Plan)

PILOTAGE: Contact local Agent: Grundberg Shipping AB, Tel: 0660-10235. Clearing Tel: 0660-82805, 82806.
MAX. SIZE: Max. draft 10.6 m.
TUGS: Available.
BERTHING: No special requirements other than authority from local Agent.

In the South part of the harbour basin there is a new concrete berth; namely the raw material berth.

(i) The South part of the wharf is 180 m. long with 11.4 m. depth.

Loading: Pulp and paper by mobile cranes. Turpentine and resin-oil via 6 in. – 8 in. pipe-connections. Capacity 200 t.p.h.

Discharging: Raw oil via 12 in. and sodium hydrate via 6 in. – 8 in. pipe-connections. Unloading of limestone, china clay, sodium sulphate, sulphur, aluminium sulphate, softwood and hardwood by mobile cranes.

(ii) The North part of raw material berth is 65 m. long, 10 m. depth, with a solid Ro-Ro berth 16 m. wide. There are connections available for loading/unloading fluid products.

To the North of the raw material berth there is the loading berth, 300 m long and approximately 10 m. depth for loading pulp and paper usin mobile cranes. Connected to the loading berth is a solid Ro-Ro ber with a ramp, length 30 m.

There are warehouses with a total storage capacity of 15,000 sq.m.

(iii) Barge quay with length 90 m. and width 40 m. for vessels up t 120 m. LOA for discharge of timber.
STEVEDORES: Stevedores can be ordered from representative of loca Agent. Labour must be ordered prior to 1400 hours to start following da or for a second shift. Labour for the same day at 1000 hours must b ordered at 0800 hours, labour for 1200 hours ordered at 0930 hours an labour to start at 1400 hours ordered prior to 1100 hours.
FRESH WATER: Available through hose pipes.
FUEL: All grades and viscosities available through bunker suppliers.
AIRPORT: Approximately 15 minutes by car, served by regular airlines
TIME: GMT plus 1 hour. Summertime kept April to October.
POLICE/AMBULANCE/FIRE: All services available.
TELEPHONES: Available on wharf.
SERVICES: Post, telefax and telex facilities. Various other services available or can be provided.
GENERAL:
Tides: Water level in metres above (+) and below (–) average wate level.

High water level	+1.0 m.
Normal high water level	+0.7 m.
Normal low water level	–0.6 m.
Low water level	–1.1 m.

Local Travel: Buses from Husum to Ornskoldsvik (25 km.). Railwa station at Ornskoldsvik.
AUTHORITY: Mo och Domsjo AB, Harbour Department, Husum Mill, S 89035 Husum, Sweden. *Tel:* 0663-18416. *Telex:* 6058 Massa/Pulp o 6070 Papper/Paper. *FAX:* 0663-18310. *Cables:* Modo AB, Husum Mil *Contact:* Ake Jonsson, Traffic Manager.

KALMAR: 56.40 N. 16.22 E. (See Pla

DOCUMENTS: See "Stockholm".
PILOTAGE: Compulsory for vessels exceeding 70 m. LOA or bea 14 m. or draft 4.5 m. and all vessels with dangerous cargo. Pilot ma be ordered on VHF, Channel 16 or by telephoning 0480/1071 Approaching from North, Pilot boards at Skaggenas or Krongrundet, fro the South at Tradgardsgrundet. Round-the-clock service provided. (Als see "Stockholm").
ANCHORAGES: Good anchorage available outside port.
MAX. SIZE: Largest vessel 25,000 tons deadweight, LOA 560 (approx.), draft 24 ft. Channel and harbour depth 26 ft.
TUGS: Available, order by Tel. 56200.
RADIO: Stockholm Radio.
VHF: Harbour Master on VHF Channel 16.
BERTHING:

Quay	*Berth No.*	*Length (m.)*	*Depth (m.)*
Elevator Kajen	2 – 3	200	7.7
Finngrundet-Barlastholmen	22 – 31	990	5 – 7.7
Tjarhovet	38 – 47	910	6 – 7.7

Permanent Ro-Ro berth available at Berth No. 28/29.
CARGO HANDLING FACILITIES: 3 portable electric cranes of 5 to each, 5 mobile cranes of 18 – 36 tons.
STEVEDORES: Available weekdays 0700 – 1630 hrs. Overti available evenings and weekends.
MEDICAL: Hospital available.
TANKERS: Oil Dock (Berth No. 48) has depth of 8 m. alongside a has dealt with partly loaded ships of 30,000 tons. Discharge capac about 1,300 t.p.h.
FRESH WATER: Available from wharves.
FUEL: Bunkers available by barge or at Oil Dock. Tel: (480) 41173
CONSULS:

Danish Vice-Consulate	Tel. 14719
Finnish Consulate	Tel. 15580
German Consulate	Tel. 26100
Netherlands Vice-Consulate	Tel. 14444
Norwegian Vice-Consulate	Tel. 10032

REPAIRS: Available. Divers for underwater repairs.
GANGWAY/DECK WATCHMEN: Available.
OPENING/CLOSING HATCHES: Crew or stevedores.
AIRPORT: 5 km. from the port.
GARBAGE DISPOSAL: Skips provided alongside, no charges. Con Tel: 56206.
WASTE OIL DISPOSAL: Waste oil from spillage/engine room – fre charge.
SEAMAN'S CLUBS: Kalmar Sjofartsklubb, Olandsgatan 45. Tel: 10
CURRENCY: Swedish Kronor (SEK). U.S.$ 1.00 = SEK 6.65 (20.3
AUTHORITY: Kalmar Hamn, Box 810, S-39128 Kalmar, Swe *Tel:* 0480-56200. *FAX:* 0480-56043. *Contact:* Carl-Johan Nordh Port Director.

KARLSBORGSVERKEN (Kalix District): 65.48 N. 23.17 E.

PILOTAGE: Pilot station at Lulea.
MAX. SIZE: Max. draft entrance to Karlsborgsverken 6 m., to Axelsvik 8.8 m. Size no limit.
TUGS: Tugs must be ordered from Lulea.
BERTHING:

	Max. draft. (m.)	*Length of quay* (m.)
Cellulose Quay	6.0	145
Timber Quay	6.0	250
Axelsvik Oil Harbour	8.8	60
Tore (17 nautical miles) N.W. Karlsborgsverken	6.0	170

The Cellulose Quay and the Axelsvik Oil Harbour are private quays, owned by ASSI, Karlsborgsverken. The Timber Quay is owned by Kalix Kommune.
CRANES: No land cranes. Mobile cranes to hire for loading/discharging.
STEVEDORES: Available, No particular ETA advice required except as normally sent by Master to the Agent.
MEDICAL: Hospital and dental services available.
TANKERS: Axelsvik (Oil Harbour) 4 miles East. See "Berthing".
FRESH WATER: Available at all berths except at Axelsvik Oil Harbour.
CONSULS: None.
REPAIRS: Workshop available for minor repairs.
OPENING/CLOSING HATCHES: Usually carried out by the vessel's crew.
AIRPORT: Lulea 85 km. from Karlsborgsverken.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Telephone 90000 in emergency and ask for service required.
TELEPHONES: Available at quays.
SHORE LEAVE: Allowed.

AGENT: Grundberg Shipping AB, P.O.Box 716, S-941 28 Pitea, Sweden. Tel: 0911 46070. Telex: 68307 Shipexp S. Fax: 0911 46175. Cables: Grundbergs Pitea.
All communications to be via Pitea.

KARLSHAMN: 56.10 N. 14.52 E. **(See Plan)**

DOCUMENTS:
3 Crew Lists (IMO Forms).
3 Passenger Lists.
2 Tobacco Lists.
2 Stores Lists.
1 Manifest.
1 Bill of Lading.
PILOTAGE: Vessels approaching port call Karlshamn Pilot Station 5 hours in advance on VHF Channel 16. Pilot boat orange coloured. Lights and sound signals as international regulations. Pilot boat always located 2 nautical miles South from Ortholmen Pilot Station, this point marked on charts. Location of anchorage in same area where Pilot taken. (Also see "Stockholm").
ANCHORAGES: Depths of water in anchorage area approximately 20 m. – 25 m.
MAX. SIZE: Max. draft: Tankers at Kolo Oil Harbour and Oxhaga Oil Harbour require 0.5 m. underkeel clearance if fitted with double bottom, and 1.0 m. if not. For remaining harbours within the port area minimum 0.5 m. underkeel clearance required.
Max. length of vessels at Kolo Oil Harbour 260 m., at Oxhaga Oil Harbour 230 m., at Sutudden Oil Harbour 190 m., and at Stilleryd Harbour 220 m. No tide.
HEALTH: If infectious disease on board Master must immediately send information to Agent.
RADIO: Karlskrona Radio.
RADAR/VHF: The Pilot Station is fitted with radar and VHF.
TUGS: 2 tugs available, 3,000 h.p. and 2,000 h.p. Join vessels about 1 nautical mile outside harbour boundary. Tugs lines always used. Vessels of 10,000 d.w.t. and over require a minimum of one tug.
BERTHING:
Inner Harbour: West Harbour Area.

Berth	*Length* (m.)	*Depth* (m.)
Ocean Quay	150	9.0
Soja Quay	250	8.0
West Quay	400	7.5 – 6.0

These quays are served by 2 grain elevators.
Via the West Harbour area oil seed plants, copra and vegetable oils for the Karlshamn Oil Factory (AKO) are shipped as well as other bulk goods.
East Harbour Area.

Berth	*Length* (m.)	*Depth* (m.)
East Pier	160	7.5
East Quay	350	6.0

The East Pier is equipped with 2×6.7 tons rail-bound unit goods cranes. Adjacent to the East Pier are 2 stores with a total floor area of 7,000 sq.m.
Loading and discharging is carried out with mobile cranes at the East Quay. The Harbour has 3 mobile cranes with lifting capacities ranging from 4 tons to 23 tons.
Goods shipped via the East Harbour area include timber products, timber, bulk goods and general cargo.

Sterno Harbour:
A special harbour for stone products, wood and timber. Depth is 6 m.
Stone blocks are loaded at a special quay and crushed stone products, chiefly diabase which is used for producing mineral wool, are discharged from quay by a stone-crushing plant. The crushing plant is owned by NCC.
Stilleryd Harbour:
The harbour consists of a 400 m. long quay with water depths of 8 m. and 11 m. on the West side, and one 190 m. long quay on the East side with 8 m. water depth. 2×35 ton and 1×20 ton luffing cranes are used for loading and discharging vessels and they are backed up by mobile cranes. Double railway tracks serve the quay.
The harbour also has Ro-Ro facilities with depths 8.0 m. – 11.0 m. Stilleryd Harbour accommodates vessels of up to 40,000 d.w.t. The harbour area features 6 warehouses with a total storage area of 32,000 sq.m. Adjacent to the quay area is a stockyard of approximately 200,000 sq.m., of which 50,000 sq.m. is asphalted.
Sodra Skogsagarna ship products like paper pulp, paper, wood chips, pulpwood, etc. via the Stilleryd Harbour. Fernstroms Granitindustrier ship stone blocks while Vikingtra AB ship wood and timber via this harbour.
MEDICAL: Hospital facilities available.
TANKERS: Different lines used. From 12 in. to 6 in. depending on cargo to load/discharge. 3 different loading/discharging berths available. 1 at Inner Harbour, 1 at Kolo Harbour and 1 at Oxhaga.
Kolo Oil Harbour:
Position Lat. 56° 09' N., Long. 14° 43' E. Pilot boards by Laknallarna, position Lat. 56° 07' 8" N., Long. 14° 53' E. Max. LOA 260 m., max. draft 13.5 m. 75,000 d.w.t. or 100,000 d.w.t. with part load. Depth at berth and approaches 14.00 m. A minimum of 2 tugs are generally used.
The pipeline is 20 in., length 400 m. and hose connection 12 in. Max. rate, 1,500 cu.m./hour (HFO). There are no ballast facilities and no clean ballast can be discharged into harbour. Vessels are allowed to clean tanks and gas free in the roads only.
Fresh water available at 20 t.p.h. by pipeline.
Old Oil Harbour:
Situated at Sutudden where a large number of major oil corporations and manufacturing companies have their depots. Heavy and light fuel oils, diesel oil, petrol and paraffin are imported and stored here. Storage capacity amounts to approximately 180,000 cu.m. of which half consists of underground storage facilities.
The oil quay has a depth of 11.0 m. and can accommodate fully-laden tankers of up to 30,000 d.w.t. with draft 10.50 m.
Oxhaga Oil Harbour:
The oil harbour is situated at Munkahusviken where the water depth at the quay is 13 m. Underground storage facilities with a total capacity of 400,000 cu.m. – 200,000 cu.m. for heavy oil and 200,000 cu.m. for light oil – have been constructed. Storage has been leased to manufacturing companies, municipalities and oil companies.
There is an LPG underground storage of 50,000 cu.m. within the harbour. LPG tankers discharge at the oil pier.
Oxhaga Nabb's oil harbour is used by fully laden tankers of 50 – 55,000 d.w.t. Depth of water 13 m., max. draft 12.5m.
An above ground storage area for petroleum, oil and chemicals is planned for the oil harbour areas. Surveys have shown that it is possible to build additional underground storage facilities for petroleum products in the Oxhaga area.
DENSITY: 1006.
FRESH WATER: Fresh water available and delivered by hoses.
FUEL: All grades available.
CONSULS:
Denmark, Tel: 16000.
Netherlands, Tel: 19760
Finland, Tel: (0454) 15420.
Norway, Tel: (0454) 15385
REPAIRS: Small deck and engine repairs can be effected.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Watchmen only necessary when tankers discharge petroleum products.
OPENING/CLOSING HATCHES: By crew.
CERTIFICATES: Certificates of Tonnage, Derat Certificate.
CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes per man/week. Wine and/or Spirits, 1 bottle per man/week.
REPATRIATION: Facilities for repatriation of crew possible.
AIRPORT: Distance from airport 30 km. 10 flights per day.
HOLIDAYS: January 1st and 6th; Easter; May 1st, 15th, 26th; June 21st; December 25th, 26th. Work can be arranged during holidays.
POLICE/AMBULANCE/FIRE: Tel. 90 000.
TELEPHONES: Telephones on board arranged at cost of 235 Sw. Kr.
IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: Port Authority provides garbage disposal in containers alongside.
WASTE OIL DISPOSAL: Waste oil from ship's engine rooms received free of charge (under conditions stipulated in "Harbour Tariffs and Regulations") into tank ashore, max. 500 cu.m. or by tanker trucks. Located at Sutudden Oil Harbour. Tel: 46-454-81500. Fax: 46-454-13590. Telex: 4501 Hamnen S. Weekdays 0700 – 1600 hrs.
SEAMAN'S CLUBS: Seaman's House, Prinsgatan 2, 37433 Karlshamn, Sweden. Tel: 46-454-10489.
CURRENCY: Swedish Kronor (SEK).
AUTHORITY: Karlshamns Hamn, P.O.Box 8, S-37421 Karlshamn, Sweden. *Tel:* 46-454-81500/81502. *Telex:* 4501 Hamnen S. *FAX:* 46-454-13590, 31230. *Contact:* Ulf Janson, Harbour Master.

KARLSKRONA: 56.10 N. 15.36 E.

DOCUMENTS: See "Stockholm".
PILOTAGE: Pilot is taken at Aspo. Tel. 0454-14102. (Also see "Stockholm"). Ordering Pilot between 2100 – 0500 hrs. contact Karlshamn Pilot Station tel. 0454/14102. Stations operating on VHF Channel 16. Pilot should be ordered 5 hours in advance. Pilot boats usually orange.
ANCHORAGES: On roadstead. Refer to Nautical Chart No. 821 (Swedish).
MAX. SIZE: Max. draft 9.0 m.
HEALTH: See "Stockholm".
RADIO: Stockholm Radio. Karlskrona Radio.
VHF: Karlskrona Port Office equipped with VHF Channels 16, 14, 13 and 12.
RADAR: Radar service available when entering port. Tel. 0455/25075 or 0455/50780.
TUGS: Tug assistance available.
BERTHING: Total quay length 4,700 ft., oil terminal 400 ft., Depth alongside quay 13 ft. – 33 ft., oil terminal 29.5 ft. Ro-Ro quay 23 ft.
STEVEDORES: Available. Ordered through Agents or directly by tel. 0455/10518.
MEDICAL: Advance notice to Agents desirable.
TANKERS: No specific requirements applicable to oil carriers. Two tanker berths available. Draft 7.0 m. and 8.5 m.
FRESH WATER: Available, customary delivery from quay-berth.
FUEL: All grades available. No advance notice required.
CONSULS:
Danish Vice-Consul, tel. 15006.
Netherlands Vice-Consul, tel. 10926 and 12495.
REPAIRS: All types of deck and engine repairs possible.
DRY DOCKS: Largest dry dock: length 185 m., breadth 20.76 m., depth 8.80 m. Six smaller docks.
OPENING/CLOSING HATCHES: Normally carried out by crew.
REPATRIATION: Not allowed.
AIRPORT: 30 km. from port.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Tel. 90000.
TELEPHONES: None available.
SERVICES: Compass adjusting.
AUTHORITY: Karlskrona Stadsbyggnadskontor, Amiralitesgatan 25, 37101 Karlskrona. *Tel:* 0455-83000.

KARLSTAD: 59.23 N. 13.31 E. (See Plan)

PORT LIMITS: Vessel considered to be an "arrived ship" when berthed, or anchored South of the Gerholmsrevet Buoy in case of congestion.
DOCUMENTS: As usually required in Swedish ports.
PILOTAGE: Not compulsory. However Pilots available.
ANCHORAGES: There is a safe anchorage South of the Gerholmsrevet Buoy, sand and clay.
RESTRICTIONS: There are no restrictions imposed upon entry.
MAX. SIZE: Vessel's length, breadth and draft maximised by the locks of the Trollhatte Canal (88 m. × 13.2 m. × 5.4 m.)
HEALTH: Documents' etc. as usually required in Swedish ports.
RADIO: Gothenburg Radio.
VHF: ETA to be given to Karlstad Port Radio (0800 – 1600 hrs. local time).
RADAR: No port radar available.
TUGS: Two icebreaking tugs available. Ship's lines usually used.
BERTHING:

Vanerterminalen	Length	175 m.
(The Venerterminal)	Ship draft	5.4 m.
Mobile cranes		
Styckegodskajen	Length	270 m.
(The general cargo quay)	Ship draft	5.4 m.
Three general cargo cranes	6 tons	
Trakajen	Length	120 m.
(The wood quay)	Ship draft	5.4 m.
Mobile cranes		
Kolkajen	Length	350 m.
(The coal quay)	Ship draft	5.4 m.
One bulk cargo crane	5 tons	
One heavy-lift crane	28 tons	
Wermlands Kajen	Length	200 m.
(Wermlands Quay)	Ship draft	5.4 m.
One container crane		
Lambergshamnen	Length	230 m.
(The Lamberg Harbour)	Ship draft	5.0 m.
Mobile cranes		
One heavy-lift crane	160 tons	
Inrehamnen (Inner harbour)	Not used by merchant vessels.	
Oljehamnen	Each pier	70 m.
(Oil harbour)	Mooring space both sides	
Three jetties for handling oil, etc.	Ship draft	5.4 m.

STEVEDORES: Modern and extensive machinery equipment. Loadin discharging can be arranged in two or three shifts.
MEDICAL: Hospital facilities available.
DENSITY: Fresh water in the port.
FRESH WATER: Delivered by hose from piping on the quay.
FUEL: All kinds of bunker oil available.
CONSULS: Denmark, Finland, Germany and Norway.
REPAIRS: All kinds of deck and engine repairs possible. Slipwa 2,300 tons
SURVEYORS: All major Classification Societies represented in near port of Gothenburg. Government ship surveyor situated at Karlstad.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Usually carried out by crew
CUSTOMS ALLOWANCES: As usually allowed in Swedish ports.
CARGO GEAR: Shore gear usually used.
REPATRIATION: Crew changes and repatriation can be effected.
AIRPORT: Regular domestic airlines. Several flights per day to and fro Stockholm and Gothenburg.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Telephone number 90 000.
SERVICES: Tank-cleaning equipment and facilities for discharge of tan washings available.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not necessary for shore leave.
REGULATIONS: Ship's propulsion machinery may not be used whe ship is berthed.
DELAYS: Normally not to be expected.
AUTHORITY: Vanerhamn AB, Stuvargatan 1, 65221 Karlstad, Swede *Tel:* 054-144860. *FAX:* 054-213316. *Contact:* Hans Erwald, Managin Director.

KLINTEHAMN: 57.23 N. 18.11 E. (See Pla

The Harbour Quay is 340 m. long and depth 5 m. Depth on entranc 5.5 m. The most unfavourable winds are South — West. The harbo is however to be considered as good and safe.

Most products are loaded/discharged with mobile cranes.

Documents needed are Nationality Certificate, Bill of Measuremen Passenger List, Crew List, Derat Certificate, Ship's and Cre Declaration.

Pilot Station at Visby. Pilots have VHF on Channel 16.

Bunkers and water can be obtained.

AUTHORITY: Gotlands Kommun, Gatukontoret, Hamnavdelninge Farjeleden 2, 62181 Visby, Sweden. *Tel:* 0498-269475. *FAX:* 049 269065. *Contact:* Harbour Master.

KOPING: 59.30 N. 16.01 E. (See Pla

DOCUMENTS: See "Stockholm".
PILOTAGE: Via Sodertalje: Pilots obtainable for inward bound vess from Landsort to Sodertalje and from Sodertalje to Koping; for outw bound vessels from Koping and Sodertalje. Via Stockholm: Pi obtainable for inward bound vessels from Simpnas, Furusu Sandhamn, Dalaro and Landsort to Stockholm and from Stockholm Koping; for outward bound vessels from Koping and Stockholm. (A see "Stockholm"). Harbour pilotage obtainable but not compulsory harbour area. Assistance of a boatman is compulsory for arriv vessels. For information Tel: (8) 550-30467.

Distances: Landsort – Sodertalje (nautical miles), 34; Sodertalje Koping, (nautical miles), 69; Landsort – Dalaro, (nautical miles), 3 Dalaro – Stockholm, (nautical miles), 46; Sandhamn – Stockho (nautical miles), 36; Stockholm – Koping, (nautical miles), 78; Vaste – Koping, (nautical miles), 27; Harbour Pilotage, (nautical miles), 2
ANCHORAGES: At the "Broken" light buoy, clay bottom.
RESTRICTIONS: Ice is prevalent in Lake Malaren and the inlet from Baltic from January to March, but the entrance channel is kept o during Winter season.
MAX. SIZE: The Pilot Station on Lake Malaren, Tel: 0755/30467, give information on the max. admissible sizes of vessels. In general following applies:

Max. Admissible	*Via Sodertalje*	*Via Stockholm*
Length	124 m.	110 m.
Breadth	17 m.–18 m.	15 m.
Draft	6.5 m.–6.8 m.	5.65 m.
Height of masts above water level	35 m.	26 m.

The figures stated for the draft are subject to variation accordi the water level. The entrance fairway to the port has been dredge a depth 7.6 m., the width of the bottom being 60 m.
VHF: Work frequency Channel 14. Call Koping Port Radio, Channe
TUGS: Available day/night.

BERTHING: *Deep-Water Harbour:* (built 1932, large extension 1936-64) has 152 m. of quayage with a depth of 6.2 m. and 377 m. with a depth of 7.3 m. alongside, and is equipped with 4×7 ton level-luffing jib cranes, 2 of them having a maximum lifting capacity of 10 tons each at 18 m. radius; 1×33 ton and 1×36 ton "multi-purpose" crane.

There is also an 80 m. quay, depth 6.2 m. – without cranes – where loading/unloading by vessel's own winches can be undertaken.

Mobile cranes also available.

The quays are rail-connected and equipped with connections for supplying electricity, telephones and fresh water.

There are about 10,000 sq.m. of concrete stockyards within reach of the cranes, and outside this area and at a short distance from the cranes, a space of about 40,000 sq.m. is available for storage of goods. There are also about 22,000 sq.m. of sheds of different types in connection to the quays.

The cranes are well equipped with lifting devices such as grabs of different types etc. Conveyor belts of varying length, fork trucks, trimming and other cargo handling equipment are also available.

Oil Harbour: A modern oil harbour is situated at the mouth of River Kopingsan (North side), the jetty having one outside and one inside berth with depth of 7.6 m. and 5.7 m. respectively.

On the North side is an 80 m. concrete quay for grain loading vessels. Depth alongside 7.3 m.

Private Wharves: A private harbour, belonging to Cementa Co., is situated in the immediate vicinity of the "Deep-Water Harbour". There is a 110 m. concrete quay, with 7.3 m. alongside, and 1×6 ton travelling portal crane and 1 belt conveyor available. There is also a 50 m. pier, same depth, for self-unloading (cement) vessels.

STEVEDORES: Working hours: 0700 – 0900 hrs., 0930 – 1300 hrs. and 1330 – 1600 hrs. (Monday to Friday). Special conditions on Christmas Eve, New Year's Eve, Easter Eve, Whitsun Eve and Midsummer Eve.

Overtime work: can usually be executed on Mondays, Tuesdays, Wednesdays, Thursdays and Fridays and for 6 hours on Saturday.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Minor mechanical, electrical and other repairs can be carried out by different local firms. Diver available.

GARBAGE DISPOSAL: Service available. Contact Malarterminalen Koping AB. Tel: 18110.

WASTE OIL DISPOSAL: Service available. Contact Malarterminalen Koping AB. Tel: 18110.

SEAMAN'S CLUBS: None.

AUTHORITY: Malarterminalen Koping AB, Box 142, S-731 23 Koping, Sweden. *Tel:* 46-221-18110. *FAX:* 46-221-20835. *Contact:* Arne Risfors, Managing Director.

KRISTINEHAMN: 59.19 N. 14.07 E. (See Plan)

PORT LIMITS: A line drawn Westward from Strandudden to Valon (see Swedish Chart No. 132) defines the seaward limits of the port.

PILOTAGE: Pilotage compulsory for vessels exceeding 1,200 d.w.t. regardless of cargo being carried and for all ships carrying dangerous cargo.

Certificate may be granted to sail without Pilot after service-examination.

Pilots available at Vanersborg, the entrance to the Lake of Vanern after leaving Trollhatte Canal, and at Kristinehamn.

No local pilotage.

DOCUMENTS:

Certificate of Nationality.
Identification and Measurement Papers.
Oil Log.
Certificate regarding insurance for oil damage.
Derat Certificate.
Last Port Clearance.
1 copy of General Declaration (Form 611.10).
2 copies Ship's Stores Declaration (Form 611.13).
2 copies Crew's Effects Declaration (Form 616.8).
2 copies Cargo Declaration (Form 611.7).
1 copy Crew List (Form 612.13).
1 copy Declaration on account of Import Prohibition as to Livestock (Form 730.5).
1 copy Maritime Declaration of Health (Form 612.7).

ANCHORAGES: In the Varnumsviken, N.W. of Kristinehamn. The roads have a depth of 5 m. – 9 m., bottom clay.

RESTRICTIONS: In Winter, the fairways to the harbour will be kept open by the local icebreaker from 0600 hrs. until 1600 hrs. Any icebreaking services beyond these hours have to be ordered and will be charged accordingly.

MAX. SIZE: All vessels capable of passing through the Trollhatte Canal can enter Kristinehamn. Max. dimensions: Length 87 m., beam 13 m., draft 5.3 m.

HEALTH: First entry will be cleared alongside, otherwise automatic.

VHF: The port can be reached by VHF Channels 9, 11, 12, 14 and 16. In Winter, the icebreaking tug may communicate on all channels.

Instructions/Regulations regarding traffic communications will be available when passing the Trollhatte Canal.

RADAR: No port radar service.

TUGS: The tug "Dan", 600 b.h.p. and 5 tonnes bollard pull, will assist on request.

BERTHING: The outer harbour (Berths No. 20 – 25), has a quay of 360 m. length; in the river there is a quay (Berths No. 16 – 19) approx. 170 m. length. Depth 5.7 m at chart datum.

On the S.W. side of the river there is a berth, 88 m. length, for loading grain. Loading equipment on berth. Depth 5.7 m.

On the West side of Varnumsviken, Kroksvik, there is a 80 m. concrete pier for discharging refined oil products. Depth 5.7 m.

Also see "Tankers".

CRANES: 3 × 7 tonne slewing cranes with luffing jibs and 1 × 24 tonne with luffing jib, on rails, in the outer harbour (Berths No. 20 – 25). Three railway tracks underneath the portals along the quay. One fixed crane, 40 tonnes, at Berth No. 16.

BULK CARGO FACILITIES: On the S.W. side of the river there is a loading elevator for agricultural produce. Loading capacity 200 tonnes per hour.

On Berths No. 20 – 25, bulk commodities like coal, ore, grain and scrap iron can be handled by Cranes No. 7, 8 and 9 equipped with grabs.

SPECIALISED CARGO HANDLING FACILITIES: No special equipment for handling containers. No Roll-on/Roll-off berth.

BRIDGES: None.

STEVEDORES: Working hours 0700 – 1600 hrs., Monday to Friday.

General cargo: 40 – 60 tonnes per gang per hour.

Forest industries produce: Approx. 100 tonnes per gang per hour.

MEDICAL: Full hospital facilities available without prior notice.

TANKERS: There is a concrete pier, length 80 m., on the West side of Varnumsviken, with a berth on each side. Max. draft 5.3 m. The pier is equipped with a crane for lifting lines. Diameters of discharging lines are 6 in. and 8 in. Average discharging rate 500 – 700 cu.m.p.h.

DENSITY: 1000 (Fresh water).

FRESH WATER: Available at Berths No. 20 – 25, rate 5 – 10 tonnes per hour.

FUEL: Available at all berths, delivered by truck.

FIRE PRECAUTIONS: As per international standards.

CONSULS: France, Germany and Norway are represented at Karlstad, 45 km. distant.

REPAIRS: All types of deck and engine repairs can be carried out.

DRY DOCKS: None.

SURVEYORS: Lloyd's and Norske Veritas.

GANGWAY/DECK WATCHMEN: Not required.

CUSTOMS ALLOWANCES: 1 litre spirits, 1 litre wine, 5 litres beer and 200 cigarettes per person. Additional allowances for the Master.

CARGO GEAR: Shore cranes normally used.

REPATRIATION: Can be arranged.

AIRPORT: At Karlstad, 45 km. distant.

TIME: GMT plus 1 hour. Summertime GMT plus 2 hours.

HOLIDAYS: January 1st and 6th, May 1st and 20th, December 24th, 25th, 26th and 31st. Cargo work can be arranged on these days.

POLICE/AMBULANCE/FIRE: Dial 90000.

EMERGENCY CO-ORDINATION CENTRE: Dial 90000 and the Centre will notify the necessary services.

TELEPHONES: Can be arranged on request.

SERVICES: No facilities for disposal of tank cleanings.

BANKS: Handelsbanken and Wermlandsbanken represent a number of foreign banks.

STORING: See "Prelims".

1. Vessels can be stored by trucks only.
3. Trucks can proceed alongside the berth.
4. Fork lift trucks can be used when handling stores.
5. Ship's chandler will take care of Customs Regulations.
6. Local riggers can be employed to assist with storing.

SHORE LEAVE: Permitted, no restrictions.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

GARBAGE DISPOSAL: Garbage containers available at the dockside. Contact the Harbour Authority.

WASTE OIL DISPOSAL: A tanker truck is available and will be placed alongside ship on request. Waste oil must be pumped by vessel's own equipment into the truck. Maximum delivery is limited to 4 cu.m. per call, for which there is no charge.

SEAMAN'S CLUBS: No Seamen's Club.

CURRENCY: Swedish Kronor (SEK).

DELAYS: Normally no delays.

DEVELOPMENTS: None.

AUTHORITY: Kristinehamns Hamn, Hamnvagen 6A, S-68130 Kristinehamn, Sweden. *Tel:* 0550-88000. *Telex:* 66030. *FAX:* 0550-83897. *Contact:* Jim N. Hjelmtvedt, Harbour Master/General Manager.

LANDSKRONA: 55.52 N. 12.48 E. (See Plan)

DOCUMENTS: See "Stockholm".

PILOTAGE: Pilot available on request from Helsingborg Pilot Station in daytime. 5 hours' notice required. Pilot stations and boats equipped with VHF. Pilot boards and disembarks off the fairway entrance or as agreed with the Pilot Station. (Also see "Stockholm" and "General-Pilotage" before first port).

ANCHORAGES: Vessels of up to 10 m. draft can safely anchor North of Staffans Bank.

MAX. SIZE: Depth in channel and harbour 11 m. (36 ft.). Max. draft 10 m. Max. LOA 190.0 m. Extreme breadth 30.0 m.

HEALTH: See "Stockholm".

RADIO/VHF: Gothenburg Radio, call sign SAG. Pilot station, pilot boats and tugs equipped with VHF Channel 16. Harbour Office equipped with Channels 16 and 10.

TUGS: Tugs usually meet off Pilhaken Lightbuoy. Ship's lines.

BERTHING: Terminal for handling bulk cargoes. Rock phosphate can be discharged with a capacity of 8,000 tons per 24 hours.

MEDICAL: Medical attention and hospital facilities available.
TANKERS: No oil berth in Landskrona.
DENSITY: Density of water changes with currents.
FRESH WATER: Available from quay.
FUEL: Small quantities of fuel oil can be obtained from quay.
CONSULS:

Danish Vice-Consulate	Tel: 0418/16150
Finnish Vice-Consulate	Tel: 0418/78000
Netherlands Vice-Consulate	Tel: 0418/35020

REPAIRS: All types of deck and engine repairs.
DRY DOCKS: Dry dock for ships up to about 25,000 d.w.t. (189 m. length). Floating dock for up to about 5,000 d.w.t.
GANGWAY/DECK WATCHMEN: Not available.
OPENING/CLOSING HATCHES: Usually carried out by ship's crew.
CERTIFICATES: See "Stockholm".
CUSTOMS ALLOWANCES: See "Stockholm".
AIRPORT: Sturup, 60 km. Angelholm 50 km. Kastrup (Copenhagen) 35 km.
TIME: GMT plus 1 hour in Winter. Summertime GMT plus 2 hours.
HOLIDAYS: See "Stockholm".
POLICE/AMBULANCE/FIRE: Tel: 90000.
TELEPHONES: Not available.
STORING: See "Prelims".

1. Yes.
3. Yes.
4. Yes.
6. Yes.

IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: Free container at quay.
WASTE OIL DISPOSAL: Collection available by tanker trucks.
SEAMAN'S CLUBS: Swedish Government Seaman's Service, Drottninggatan 46, 25121 Helsingborg. Tel: (0) 42-139761. Fax: (0) 42-187585. Representative: J.Fremmesson.
CURRENCY: Swedish Kroner (SEK).
REGULATIONS: Anchoring prohibited between and up to 50 m. from harbour lights.
AUTHORITY: Landskrona Hamn, Box 275, 261 23 Landskrona, Sweden. *Tel:* 0418-79003. *FAX:* 0418-24105. *Contact:* Staffan Lindberg, Port Director.

LIDKOPING: 58.30 N. 13.10 E.

DOCUMENTS:
3 Crew Lists (IMO Fal Form 5).
2 Crew Effects List (IMO Fal Form 4).
2 Ship's Stores Declaration (IMO Fal Form 3).
PILOTAGE: Compulsory for vessels over 1,200 d.w.t.
MAX. SIZE: Length 87 m., beam 13 m., draft 5.3 m. and air draft 27 m. are maximum dimensions for passing through the Trollhatte Canal.
VHF: Lidkoping Harbour operates on Channel 16.
TUGS: One tug available, 920 h.p.
CRANES: 3 shore cranes of 5 tonnes each.
STEVEDORES: Working hours 0700 – 1600 hrs., Monday to Friday.
MEDICAL: Hospital facilities available.
FRESH WATER: Available.
FUEL: Gas oil available.
REPAIRS: Workshops can undertake repairs.
HATCHES: Opening/closing carried out by crew.
REPATRIATION: Facilities exist for carrying out crew changes.
AIRPORT: Nearest International Airport is Gothenburg, 130 km. distant.
TIME: GMT plus 1 hour, Summertime GMT plus 2 hours.
POLICE/AMBULANCE/FIRE: Dial 90000
GARBAGE DISPOSAL: Containers are placed on the quay free of charge.
WASTE OIL DISPOSAL: Facilities available (up to 5 cu.m.) with 24 hour notice to Harbour Authorities.
SEAMAN'S CLUBS: None.
AUTHORITY: Vanerhamn AB, P.O.Box 2124, S-53102 Lidkoping, Sweden. *Tel:* (0) 510-45000. *Telex:* 67336. *FAX:* (0) 510-62189. *Contact:* Hans Erwald, Harbour Master.

LULEA: 65.35 N. 22.09 E. (See Plan)

DOCUMENTS: See "Stockholm".
Certificates: See "Stockholm".
APPROACHES: *Fairways:* Two fairways lead into Lulea. The South Fairway, Germandoleden, is about 17 nautical miles long and the North Fairway, Sandoleden, is about 27 nautical miles long.

Special rules and traffic regulations apply to these fairways.

Ice Conditions: The port area is generally ice-infested during the period December-April. During this period, ships at sea are assisted by the State-owned icebreaker and within the harbour area by the Lulea Bogserbats AB port icebreaker. Year-round navigation has been possible since Spring 1970.

PILOTAGE: Telegraphic address, "Pilotstation Lulea". Tel: (0920) 5535 or (0920) 294000, Fax: (0920) 55306. Advance notice 5 hours. VH Channel 16. Pilot boat, orange with international signals. Pilot boar about 2 nautical miles West of Rodkallen for entering Germandolede and 1 nautical mile N.E. of Farstugrundens Lighthouse for enterin Sandoleden. Location of anchorage when awaiting Pilot: West Rodkallen and South of Farstugrunden Lighthouse.
ANCHORAGES: Germandofjarden, 1.5 nautical miles S.E. Larsgrundet Lighthouse and Inner Roads.
MAX. SIZE: Max. draft at MW 11.2 m. (up to "Panamax") in Sandolede and 7.5 m. in Germandoleden.
HEALTH: No special regulations.
RADIO: Stockholm Radio.
VHF: Port Authority on Channels 16, 14, 12, 11 and 10.

Traffic Control on Channels 16, 14, 13, 12, 11 and 10 throughou 24 hours. Tel: (0920) 294000 or (0920) 55356.

Tugs on Channel 16.

TUGS: Meet ships at the Inner Road for the ore dock, and in Sandolede 1 nautical mile South of the coal quay (Victoria Harbour) and the terminal. Tug's lines to be used.

Two tugs of 4,200 h.p. each are available for towing and ice breakin

Towing: Lulea Bogserbats AB is responsible for towing and ice breakin in the Port of Lulea. Special tug regulations apply at Uddebo Oil Por Victoria Harbour and the Ore Quay. Tugboat assistance can be ordere through Lulea Traffic, Tel: (0920) 294000 or (0920) 55356, or throug VHF call Channels 16 and 14.

Boatmen: The port boatmen are on duty if needed at all quays. The can be ordered through Lulea Traffic – Tel: (0920) 294000 or (092 55356 – or VHF call Channels 16 and 14. At the Ore Quay, howeve the respective companies provide their own boatmen.

BERTHING: *Deep Quay:* Length 150 m., depth 8.0 m. No good handled.
Cement Quay: Length 60 m., depth 9 m. Cement.
LKAB Ore Quay: Length 415 m., depth 13.2 m. Iron ore. Two shiploade of 4,000 t.p.h. each (Not in use 1997).
Lulea New Ore Quay: Length 250 m., depth 12.5 m., one shiploader.
SSAB Quay: Length 498 m., depth 8.0 m. No goods handled.
Victoria Harbour: Length 775 m., depth 9.0 – 12.2 m. Coal, coke, iro steel, limestone. Three 18 ton grab cranes, 35 tons with hook an 1×25 ton gantry crane (rate 800 t.p.h.).
Stromoren Ro/Ro Quay: Length 120 m. Depth 9.0 m.
STEVEDORES: Bottenvikens Stuveri AB. Tel: (0920) 55600.
TANKERS: Diameter of lines from 150 mm. up to 350 mm. 2 oil jettie depth 7.8 m. and 12.2 m. Length 20 m. and 60 m. respectively. Faciliti for receiving dirty ballast. Capacity 300 cu.m./hr.
New Oil Berth: Max. LOA 250 m., max. beam 32.3 m., max. draft 11.1 m max. d.w.t. 45,000. Distance bow to manifold 120 m. Vessels ber starboard side to.
DENSITY: Fresh water, 1000.
FRESH WATER: Fresh water available at all berths. Minimum charg U.S.$ 30.00. Cost U.S.$ 2.50 per ton.
FUEL: All grades of oil available.
CONSULS: Telephone Numbers:

Danish 15602	French 16329	Norwegian 221790
Finnish 50145	Germany 53852	U.K. vacant

REPAIRS: Only small engine repairs.
SURVEYORS: Bothnia Control. Tel: 55412.
GANGWAY/DECK WATCHMEN: Safety watchmen are to be on boa all tankers when loading or discharging.
OPENING/CLOSING HATCHES: Ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes or 250 grams of tobacco each Crew member every 10 days. (Wine/Spirits) 1 litre for each Cre member over 20 years old, every 10 days.
AIRPORT: 15 km. from port. Served by regular airlines.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Stockholm".
POLICE/FIRE/AMBULANCE: Tel: 90 000.
TELEPHONES: Connections available at oil terminal, coal terminal a ore terminal.
IDENTIFICATION CARDS: Not necessary.
GARBAGE DISPOSAL: Garbage containers can be placed alongsi free of charge. Contact Lulea Traffic, VHF Channel 14, or ship's age
WASTE OIL DISPOSAL: Waste oil can be disposed of via tanker truc minimum pumping rate of 5 cu.m. per hour is required from the ship. to 8 cu.m. can be disposed of free of charge. The service can arranged through ship's agent or through Port of Lulea, Traffic Divisi Fax: 0920-55594.
SEAMAN'S CLUBS: A football field is available near Victoria Harbo
CURRENCY: Swedish Kronor (SEK). U.S.$ 1.00 = SEK 7.00 (1.96
DEVELOPMENTS: A new quay for iron ore is planned (See "Plan")
AUTHORITY: Lulea Hamn, Stromorvagen 9, 97437 Lulea, Swed *Tel:* (0920) 294007. *After Hours Tel:* (0920) 294000. *FAX:* (0920) 555
Contact: Bo Westman, Port Director.

LYSEKIL: 58.17 N. 11.26 E. (See Pl

DOCUMENTS: See "Stockholm".
PILOTAGE: Pilot boards 2 miles West of Gaven Lighthouse. 5 ho advance notice required. Pilot ordered by VHF Channel 16 or teleph No. 660800.
ANCHORAGES: Safe anchorages both for small and large vessels outside harbour in Gullmarsfiord.
RESTRICTIONS: No restrictions night entry, except max. draft poss 30 ft. No tide.

MAX. SIZE: Maximum permissible length for berthing about 600 ft. Draft 30 ft.
HEALTH: Declaration of Health only when required from Customs or for vessel coming from outside Scandinavia.
RADIO: Cable Agents giving ETA, draft, cargo and cash required via Gothenburg Radio.
RADAR/VHF: No port radar service, VHF for calling Pilot, Channel 16.
TUGS: Must be requested through Agent at least 12 hours before arrival.
BERTHING: 4 berths available. Grotorev: Length 240 ft., max. draft 33 ft. Gullmarskajen: Length 600 ft., max. draft 29 ft. Grotokajen: 500 ft., max. draft 22 ft. Anderssons Kav: 400 ft., max. draft 18 ft. Railway on all berths.
CRANES: Five mobile harbour cranes working all berths. Maximum capacity 80 tons. No restrictions against using ship's own gear.
STEVEDORES: Ordered by Agents.
MEDICAL: Hospital in town.
TANKERS: See the port of "Brofjorden".
DENSITY: About 1027.
FRESH WATER: Available from shore installation.
FUEL: Gas oil and diesel available.
CONSULS: Denmark, Finland, Iceland, Norway.
REPAIRS: Small repairs possible.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: Normally opened by crew.
CERTIFICATES: Registered Tonnage Certificate.
CUSTOMS ALLOWANCES: See "Stockholm".
HOLIDAYS: See "Stockholm".
REPATRIATION: Change of crew and repatriation possible.
AIRPORT: None.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
TELEPHONE: Police, Ambulance, Fire Brigade, Tel: 90000.
IDENTIFICATION CARDS: Not required.
AUTHORITY: Lysekils Hamn, Hamnkontoret, S-45380 Lysekil, Sweden. *Tel:* 0523-14090. *FAX:* 0523-14094. *Contact:* Olle Samuelson, Harbour Master.

MALMO (including Limhamn): 55.37 N. 13.00 E.

(See Plan)

DOCUMENTS:
2 Crew Lists.
1 Passenger List.
2 Lists of Personal Effects (Tobacco List).
1 Declaration of Health.
2 Stores Lists.
3 Cargo Manifests.
1 Bill of Measurement.
1 Certificate of Nationality.
1 Derat Certificate.

PILOTAGE: Malmo Pilot Station serves the ports of Malmo, Trelleborg and Ystad and the Falsterbo Canal. Pilots for through-pilotage can be obtained. A 24 hour watch on VHF Channels 16 and 20 or telephone 46406115269 is maintained. The Pilot Station is equipped with Telex: 32435 MLOTS. Fax: (40) 301868.

Pilots can also be arranged through ship's local Agent. 5 hours notice is required. Pilot boat orange-coloured cutter equipped VHF and radar. Pilot boards at Malmo roadstead. In case of bad weather vessel awaits Pilot at roadstead. (Also see "Stockholm" and "General – Pilotage" before first port).

ANCHORAGES: Vessels anchor about 5 cables North of Fairway Buoy "Roder Prick" and East of leading lights Centralhamnsrannan Nedre and Ovre, and S.W. of leading lights Malmo Oljehamn Nedre and Malmo Oljehamn Ovre. Depth 12 m. to 14 m. and bottom hard clay. Larger vessels will be anchored at the Pilots directions.

RESTRICTIONS: Speed must be reduced inside breakwaters. When red flag hoisted (red lantern at night) at the N.E Dry dock pier head, indicating dock gates open, vessels may pass breakwater at minimum speed. Bridge opening signal for passing from South Wharf Basin. Call Malmo port on VHF Channel 14 one hour before opening. Work day is 0600 hrs. – 1800 hrs.

MAX. SIZE: *Bulk/Oil Harbour:* Max. length 260 m. on draft not exceeding 12.5 m. for bulk harbour and 11.4 m. for oil wharf.

Free Port: Max. length 225 m. on draft not exceeding 8.6 m. Max. length recommended in New Harbour is 150 m. on max. draft 6.6 m. and in Industrial Harbour 170 m. on max. draft 8.4 m. No tides.

HEALTH: Free Pratique automatically granted arriving from non-infested areas. If arriving from infested areas Health Declaration must be presented immediately on arrival. If diseases on board suspected, vessel allowed to enter after approval of City Medical Adviser, but nobody allowed on board until vessel's crew examined by doctor and after approval of Medical Adviser.

RADIO: Vessel can route ETA cables through Gothenburg Radio (call sign SAG or Channel 26 on VHF), open all hours. Radio stations can also be called by radio-telephone on 2182 kHz.

VHF: Port Control Office equipped with VHF (Calling and working on Channel 14), open Monday-Friday, 0600 hrs. to 1800 hrs. Masters can receive information about berthing, present traffic and existing hazards to navigation in harbour area. Telex: 33275. Fax: 040-302517.

TUGS: Tugs usually meet vessels at roadstead. Tugs lines used.

Tugs can be arranged through a shipbroker or the Port Control office and are available round the clock from the Red Tug Fleet Co. Ltd. in Malmo. 1×3,000 h.p. tug available. Others are available if necessary.

BERTHING:

Passenger Harbour:

Berth	*Length* (m.)	*Depth* (m.)
304 – 308	1,903	6.5
401 – 404	1,180	4.0 – 6.0
405 – 409	1,330	4.0 – 6.0
410 – 411	670	7.2
412	131	7.2

Also see "Bridges".

Ferry and General Cargo Harbour:

			Quayside Cranes
Berth	*Length* (ft.)	*Depth* (m.)	*Remarks*
504	560	7.2	New train-ferry berths
505 – 506	560	7.2	Car-ferry berth
519 – 523	2,312	7.2	
524 – 526	607	5.3	

Free Port:

			Quayside Cranes			
Berth	*Length* (ft.)	*Depth* (m.)	*No.*	*Capacity* (tons)	*Range Outside Quay* (m.)	*Remarks*
600 – 604	1,970	9.2	5*	6 – 40	22 – 24.5	4×6 ton and 1×40 ton cranes and 1 screen unloader, capacity 120-200 t.p.h.
605 – 609	1,645	9.2	5	5 – 6	11 – 21.5	
610	560	9.2				Oil jetty

*Also equipped with grabs

Container Berth Nos. 612 – 613 with a depth of 9.2 m. alongside. Quay length 515 m. 50 m. wide Ro-Ro ramp. Quay equipped with 2×7 ton, 2×20 ton (range 20 m. – 24 m.) and 2×40 tons (46 tons heavy-lift) container cranes with a range of 27 m. outside quay. Quay area 130,000 sq.m. 6,900 sq.m. insulated warehouse and 6,000 sq.m. cold store adjacent to Ro-Ro berth.

Industrial Harbour:

			Quayside Cranes			
Berth	*Length* (ft.)	*Depth* (m.)	*No.*	*Capacity* (tons)	*Range Outside Quay* (m.)	*Remarks*
801 – 804	1,194	7.2				
805 – 806	—	7.2				
807 – 810	1,970	7.2				
811	387	9.0				
812 – 818	2,135					
901 – 907	2,887					
908 – 909	788	7.2	1			
910 – 918	2,148	9.0				
930 – 932	560	6.0				
933	341	6.0				

3 of these cranes can be equipped with grabs

Port of Limhamn: Incorporated with Malmo Port Authority 1978. This port consists of a cement jetty, a centreport and a ferry port.

The Port of Limhamn lies to the South of Malmo and is accessible via two fairways; the Southern one has a depth of 5.0 m. and leads to the Ferry Harbour, and the Northern fairway has two branches, one to the Oil Harbour with a depth of 10.5 m. and one to the Central Harbour with a depth of 8.6 m.

			Cranes	
Berth	*Length* (m.)	*Depth* (m.)	No.	(tons)
Centreport:				
107 – 111	500	8.4	1	5 (private berth)
104 – 106	200	8.0 – 8.4	–	
112 – 113	180	8.0	–	
117 – 118	200	8.0	–	
Ferry port:				
217, 220		5.0	Car ferry berth	
Oil berth (jetty):				
125	90	10.0	Loading plant for cement and tanker berth	

BRIDGES: Will be opened with certain exceptions 0600 – 1800 hrs. weekdays. May be opened other hours on request to Port Control Office.

CONTAINER HANDLING FACILITIES: 10 Roll-on/Roll-off ramps, 2 container berths with 2×46 tons capacity container cranes, 4 forklift trucks with 25 – 46 tons capacity.

STEVEDORES: Normal working hours are from 0700 – 1600 hrs., Monday to Friday. Standard overtime shifts of up to 4.5 hours can be arranged. Additional overtime work can be obtained by special arrangement with the Terminal Company. Overtime work can also be arranged on Saturdays, Sundays and holidays.
Stevedore Company: Malmo Sjoterminal AB, Box 566, 211 20 Malmo. Tel: 040-6804100. Telex: 32713 Seaterm S. Fax: 040-180501. Director: Bertil Cederholm.

MEDICAL: No advance notice required for medical attention. Good hospital facilities available. See also "Health".

TANKERS/BULK CARRIERS: The Bulk/Oil Harbour in the Northernmost section of the port of Malmo can be reached by a special approach fairway, the Oil Harbour channel, which has a depth of nearly 43.5 ft. The harbour is equipped with 7 berths, 2 of these being for ocean-going tankers with modern equipment for the unloading of oils and chemicals. Water depth varies between 19.5 ft and 39 ft.

The harbour can accept fully-loaded tankers of up to 60,000 d.w.t. as well as partly-loaded ships of up to 100,000 tons.

The berths for ocean-going tankers are each equipped with 3 hydraulically manoeuvrable transfer plants for faster and more reliable unloading. A piping system leads from the berths, unloading capacity of up to 2,000 tons per transfer plant per berth per hour. Tanks and pipes can be heated from a central steam-production station used by all firms.

The Oil Harbour area also contains storage tanks for liquid chemicals reception and storage tanks for LNG and solvents. There are also good possibilities for development within the area, e.g. petrochemical industries.

Berth	*Quay Length*	*Depth*	*Crane capacity*
1001 – 1002	200 m.	13.5 m.	3×20 tons (500 t.p.h.)
1003	260 m.	12.0 m.	
1004	260 m.	12.0 m.	
1006 – 1007	90 m.	6.0 m.	
1008 – 1009	90 m.	6.0 m.	
1010	100 m.	6.0 m.	

Also see "Berthing" – Port of Limhamn.

Report: *Cautionary Advice – In Port:* The port is approached from the N.W. via a relatively narrow dredged channel, marked with buoys and keeping 2 red leading lights in line. A current with a velocity of up to 2 knots may set across the channel, usually in a Northeasterly direction. It is, therefore, important that tugs are made fast with good lines before the channel is entered. Strong Southerly and Southeasterly winds, particularly in the Spring, may lower the water level in the harbour considerably below mean water level. The average density of the harbour water is 1010 at MLW.

Berthing Procedure: The procedure is similar for both berths used by Esso. Vessels berth port side alongside, and are normally swung in the manoeuvring basin North of the berth, assisted by tugs. If underkeel clearance permits, the starboard anchor is used and vessels are then pushed alongside the breasting face which is protected by truck tyres on wood.

DENSITY: Average density 1010. No tide experienced.

FRESH WATER: Fresh water can be ordered from the Boatmen Malmo office (Tel: 040-187580) and is available at all quays at a rate of about 20-30 t.p.h.

FUEL: All types of bunker oil are available from tank trucks at various quays in Malmo and Limhamn.

FIRE PRECAUTIONS: Apart from usual non-smoking precautions, vessel discharging or loading dangerous goods of Class 1 in IMO code required to have a fire guard on board at all times.

In Oil Harbour the shore-valve watchman also serves as fire guard.

CONSULS:

	Telephone
Austrian Consulate	79945
Belgian Consulate	384000
Brazil Consulate	11 70 38
Danish Consulate-General	12 33 44
Finnish Consulate-General	11 77 80
French Consulate	12 36 48
German Consulate-General	180180
Greece Consulate-General	11 02 26
Guatemala Consulate	722 30
Icelandic Consulate-General	300310
Italian Consulate	977303
Japanese Consulate	783 05
Mexico Consulate	23 95 95
Netherlands Consulate	78283
Norwegian Consulate-General	12 35 00
Polish Consulate-General	267416
Portuguese Consulate	10 11 30
Spanish Vice-Consulate	23 38 00
Swiss Consular Agent	12 53 52
Turkish Consulate-General	11 48 11
Yugoslavian Consulate	12 42 01/31

REPAIRS/DRY DOCKS: Ship and engine repairs of all kinds carried out by Rayni. Tel: 040-970440. Fax: 040-232734.

Dry dock for small vessels.

SURVEYORS:

1. Cargo Inspectors available.
2. Surveyors available.

GANGWAY/DECK WATCHMEN: Not considered necessary other than in Malmo Oil Harbour. Decision to be made by Master.

OPENING/CLOSING HATCHES: Normally carried out by stevedores on ocean-going vessels.

CERTIFICATES:

Load line Certificate.
Radio Certificate.
Safety Equipment Certificate.
Gear Certificate.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes or 40 cigars or 150 grams of smoking tobacco per week out of bond. Spirits, 0.75 litre spirits per week out of bond.

CARGO GEAR: No additional requirements.

REPATRIATION: Facilities exist for effecting crew changes and arranging repatriations.

AIRPORT: Sturup Airport, served by regular airlines, situated about 25 km. from Port of Malmo.

Helioport: Malmo Port, Freeport, service after special order. See "General".

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: See "Stockholm". Oil tankers can be dispatched all hours.

POLICE/AMBULANCE/FIRE: Tel: 90000.

EMERGENCY CO-ORDINATION CENTRE: Marine Centre Malmo (Tel: 040/11 55 55) include Royal Navy, Swedish Coast Guard, Swedish Administration of Shipping and Navigation and Pilots.

SOS – Alarm Centre Malmo (Tel: 90 000).

TELEPHONES: Can be connected in Bulk Harbour and can be ordered from the Port Control office. Tel: 040-128864.

STORING: See "Prelims".

1. Vessels can be stored by truck in all docks except the Oil Harbour.
2. If barges available ships may be stored with same if not interfering with cargo handling. In Oil Harbour, regulations must be followed.
3. Yes, excluding Oil Harbour, distance 30 m.
4. Yes, if not interfering with cargo handling.
5. General regulations for Sweden.
6. Yes.

BANKS: Gotabanken, St Nygatan 27, 203 11 Malmo. Telex: 3246 Gotbank S.

Svenska Handelsbanken, Stortorget 21-23, 202 12 Malm Telex: 32314 Hanmlm S.

PK Banken, Sodergatan 14, 201 20 Malmo. Telex: 32524 Pkmalm

Skandinaviska Enskilda Banken, Ostergatan 39, 205 20 Malm Telex: 32850 Essebm S.

Skanska Banken, Sodergatan 10, 205 40 Malmo. Telex: 3272 Sydbnk S.

Sparbanken Malmohus, Gustaf Adolfs torg 4, 201 80 Malm Telex: 33108 Smbank S.

Sveriges Riksbank, Diskontogangen 2, 202 50 Malmo. Telex: 1915 Riksbk S (Stockholm).

IDENTIFICATION CARDS: Not needed.

GARBAGE DISPOSAL: Skips placed alongside, free of charge.

WASTE OIL DISPOSAL: Service available using 7 cu.m. tanker truck free of charge.

SEAMAN'S CLUBS: Swedish Government Seamen's Service (HKF Varusgatan 8, Malmo. Tel: 040-120211.

Services and facilities offered include information about Malmo an the Seamen's Centre's service, cinema, theatre, concerts, footba athletics, sauna, swimming, bowling, pool, badminton, skating, canoein buses, taxis and drives.

CURRENCY: Swedish Kronor (SEK).

REGULATIONS: All ships over 50 tons gross and ships under towag with a total length over 50 m. are obliged to report to the Malmo Po Radio, VHF Channel 14, working Channel 14, at least 2 nautical mile before approaching respective channels to Malmo and Limham (excluding the South Port of Limhamn). The same announcement is vali for the above ship before departure including movements inside port.

DELAYS: No delays expected.

GENERAL: *Container inspection* and minor repairs can be ordered fro the Malmo Sea Terminal Company. Tel: 040-34 40 00.

Customs: The District Office is open Monday – Friday 0800 – 160 Tel: 040-246500. The Co-ordination Office is open round the cloc Tel: 040-246614.

Dangerous goods: Contact the Harbour Master's office (See "Po Administration/Harbour Master"). If a cargo contains dangerous good this must be reported 24 hours in advance.

Helicopter service is available at the Malmo Helicopter Station, Freepo from Euro Air Helicopter Serv. AB. Tel: 042-183515. Telex: 72814.

National Administration of Shipping and Navigation: N. Neptunigatan Malmo. Southern Pilot District. Tel: 040-75155, Malmo Ship Inspectio Tel: 040-74780. Malmo Pilot Office. Tel: 040-115269.

Port Administration: Hjalmaregatan 1, Malmo. Tel: 040-34 40 0 Telex: 33275 M Port. Fax: 40-302517. Open Monday – Friday 0800- 1630. At other times contact the Port Control.

Port Control Office: Monday-Friday, 0600 hrs. – 2200 hrs. Tel: 04 344189, 128864. VHF radio Channels 16 and 14.

Salvage work is available from The Red Tug Fleet Co. Ltd. in Malm Tel: 040-124492.

Seaman's Centre (Sjomansgarden): Fiskehamnsgatan 3, Malm Tel: 040-124135. Chapel, lounge, hobby rooms, restaurant, cafeteri etc.

Seaman's Hotel (Neptun): Citadellsvagen 4, Malmo. Tel: 040-239605

Ship Chandlers: A number of ship chandlers are located in the immedia vicinity of the port.

Waste Containers for ship's waste (but not for engine-room waste or o are available on all quays.

Waste Oil: Contact the Port Control Office in order to dispose of was oil from the engine room.

Watchmen: A number of security companies are active in Malmo – se the telephone book. For safety personnel for discharging of tanker contact AB Skeppshjalp. Tel: 040-978789.

Weighing Station: Located at the entrance to the Free Port. Te 040-344258. Open 0730 – 1200, 1230 – 1600.

Workshop Service: See "Repairs/Dry Docks". Smaller workshops a located in Malmo and Limhamn – see the telephone book.

AUTHORITY: Malmo Seaterminal Co. Ltd., P. O. Box 55 Hjalmaregatan 1, S-21120 Malmo. *Tel:* +46-406804100. *Telex:* 332 Mport S. *FAX:* 46-40-180503. *Contact:* Bertil Cederholm, Gene Manager. Jan Olsson, Marketing Manager. Lennart Hall, Harbo Master.

NORRKOPING: 58.36 N. 16.12 E. (See Pla

DOCUMENTS: 3 Customs Documents. 3 Health Documents. 3 Cr Lists. 3 Passenger Lists. 3 Manifests.

Master of ship arriving at first Swedish port from abroad has to g Maritime Declaration of Health on special form.

PILOTAGE: See "Stockholm". Ships will be received 2 nautical mi North of the lighthouse Gustav Dahlen. The Pilot must be ordered radio, telephone or in some other way at least 5 hours before pilo to start.

ANCHORAGES: Lat. 58° 38.7' N., Long. 16° 22.5' E. Depth 70 ft.

RESTRICTIONS: Tankers loaded with more than 10,000 tons gaso must not move in port at night-time. Tankers over 15,000 d.w.t. wil be shifted at night-time. Pampushamnen Oil Jetty: Tankers loaded more than 10,000 tons must not enter at night-time. Inner Harbo Tankers loaded with more than 15,000 tons must not enter at night-t

MAX. SIZE: Pampushamnen Oil Jetty can berth vessel of about 70,000 d.w.t. with max. draft of 11.4 m. MLW. Gastgivarehagen Oil Jetty can berth vessel with a max. draft 8.4 m. MLW and length 195 m. Ramshall and Tallbacken Oil Jetty can berth vessel with max. draft 7.9 m. MLW, length 177 m., breadth 24.4 m., daytime only. General cargo and bulk cargo quay at Pampushamnen with max. draft 11.4 m. MLW. General cargo quay (Ohmanskajen via the Lindo Kanal) can berth vessel max. draft 8.4 m. MLW and max. LOA 190 m. Dry cargo vessels of 15,000 d.w.t. or more for Ohmanskajen daylight entry only. Dry cargo vessels of max. LOA 190 m. and max. breadth of 23 m. and vessels of max. LOA 180 m. and max. breadth of 26 m. permitted. Vessels exceeding this size shall obtain prior permission from Pilots to enter the Ohmanskajen through the Lindo Kanal. Vessels must be able to make headway through the Kanal with a speed not exceeding 5 knots. Dry cargo vessels of 25,000 d.w.t. or more should have bridge controlled main engines. Inner Harbour can berth vessel max. draft 6.4 m.

Largest tanker at Pampushamnen, 66,875 d.w.t. LOA 236.46 m., Beam 33.3 m. Also see "Tankers".

Largest dry cargo vessel at Pampuskajen: 43,793 d.w.t., LOA 183 m., Beam 31.1 m. A vessel of LOA 199.7 m. and Beam 33.3 m. has also berthed.

Largest dry cargo vessel at Ohmanskajen: 34,976 d.w.t., LOA 181 m., Beam 26.4 m.

RADIO: Stockholm Radio, Tingstade Radio.

TUGS: 2 tugs available, 1,680 b.h.p. and 3,400 b.h.p. The 2 tugs are icebreaking. Join vessel off St. Juten Lat. 58° 38.1' N., Long. 16° 19.6' E. Ship's lines to be used. All towing is carried out subject to "Scandinavian Tugowners Standard Conditions of the year 1959 revised 1974".

RADAR/VHF: VHF Channel 9, 14 and 16. No radar.

BERTHING: No specific requirements except at Oil Jetty Tallbacken and Ramshall, which require daylight docking and undocking.

Berths specially equipped for grain, berths equipped for containers, berth for Ro/Ro traffic, berths handling liquid chemicals. 5,300 m. of quayage with depths of 5 m. – 12 m. and 6 oil jetties.

Norra kajen: Norra kajen is used primarily for the handling of coal, steel, bulk commodities and raw wood material. The quay is equipped with bulk handling cranes, and the water depth is between 6.0 m. and 7.0 m.

Sodra kajen: Used primarily for timber, forest products and general cargo shipped in small tonnage. Water depth 6.0 m. – 7.0 m. Grain, fodder, fertilisers and clay are handled on a section of the quay between Ohmanskajen and Sodra kajen. Depths here are between 7.0 m. and 9.0 m.

Ohmanskajen: With a water depth of 9.0 m., Ohmanskajen is mainly used for general cargo, containers and forest products.

Adjacent to Ohmanskajen there is one Ro/Ro berth (depth 9.0 m.) and a passenger terminal (depth 8.0 m.) with storing areas and warehouses for goods storage. 2×30 ton cranes for container handling.

Pampusterminalen: Pampusterminalen, water depth 12.0 m. has the capacity for serving 2 vessels simultaneously and 30,000 to 40,000 tonners can utilise their carrying capacities at full draft. Via Pampusterminalen, general cargo, forest products and bulk commodities are handled. Cargoes are moved by the ship's own equipment, which is complemented if necessary by 5 shore cranes. The quay is also used by Ro/Ro vessels with stern quarter ramps.

Adjacent to Pampusterminalen, there are large areas for storing goods within fenced grounds. Warehouses are available for weather-sensitive goods. Pampusterminalen has a railway connection as well as high standard roads connecting with European highways and major district roads.

Pampushamnen Pier No. 3 Ro/Ro berth for coal discharge: A Ro/Ro berth has been added to Pier No. 3 for discharging of coal from barges.

CRANES: All cranes are operated by Norrkopings Hamn and Stuveri AB. These include 14 electrical transportable quay cranes with a capacity of 4 – 10 tonnes, two 30 tonnes cranes which together can lift 50 tonnes, and in Pampus Harbour 2 electric cranes of 35 tonnes and 50 tonnes, and one mobile crane of 36 tons. There are also 2 mobile cranes of 6 – 23 tonnes. One fixed heavy lift crane with a maximum lifting capacity of 320 tonnes (water depth alongside crane is 9.0 m.) and one 4 tonnes floating crane.

SPECIALISED CARGO HANDLING FACILITIES: *Ro/Ro Berths:*

One Ro/Ro berth with a fixed concrete ramp and a water depth of 9 m. Loading and discharging by shore cranes (30 tons) may take place simultaneously with Ro/Ro operations. Stern loading vessels port side alongside.

One Ro/Ro berth with a fixed concrete ramp and a water depth of 8 m. for Ro/Ro operations only. Stern loading vessels starboard side alongside.

One Ro/Ro berth with a fixed concrete ramp adjacent to the heavy lift crane (320 tons) specially designed for heavy loads. Water depth 9 m.

One Ro/Ro berth with depth of 7.5 m. for discharging coal.

Djuron

Grain Terminal, position Lat. 58° 38' N., Long. 16° 20.1' E. 160 m. long concrete pier with a water depth of 12.2 m. MLW. Travelling grain loader with maximum loading capacity 500 tonnes/hour. Max. elevation above MLW 18 m.

Braviken

Paper Mill, Holmens Bruk AB. Lat. 58° 38.3' N., Long. 16° 16.1' E. 126 m. long concrete pier with a water depth of 8.8 m. MLW. Mobile cranes for loading on request. Otherwise ship's gear. Ro/Ro fixed concrete ramp 20 m. wide with a water depth of 6.8 m. MLW. Stern loading vessels starboard side alongside.

STEVEDORES: Gangs must be ordered before 1400 hrs. day before arriving.

MEDICAL: Arranged by Agent. All services available.

TANKERS: *Pampushamnen:* Pier I: Depth alongside 12 m. The berth is equipped with a crane for the handling of hoses and has pipe connections for all petroleum and bitumen products. Permanent gangway for the use of tankers.

Pier II: Depth alongside 12 m. The berth is equipped with a crane for the handling of hoses, and 3 mechanical couplings and has pipe connections for all petroleum products. Permanent gangway for the use of tankers.

Pier III (coastal tonnage): Depth alongside 7.5 m. The berth is equipped with a crane for the handling of hoses and has pipe connections for all petroleum products.

Fuel oil: one 18 in. and one 16 in. pipelines for discharging. 2 connections with 8 in. hoses. Gas oil: 14 in. pipes with 2 connections to 8 in. hoses. Asphalt: 10 in. pipes. Gasoline: 12 in. pipes with 1 connection to 8 in. hose. Connection to bigger or smaller hoses possible through existing flange-connections.

Pipe connections for discharging ballast water are installed at all piers at Pampushamnen. Receiving of ballast water is covered by ballastage. Ballast water containing any chemical agents not accepted. Receiving capacity during the first hour is 650 cu.m. Thereafter, 150 cu.m.p.h.

Tallbacken (Pol Transport): Depth alongside 8.5 m. Beam of vessels restricted to 24 m. (78 ft. 9 in.) due to passage through the Handelo drawbridge. Vessels require own gear for the handling of hoses.

3 connections for variable kinds of oil, 8 in. hose connections.

Gastgivarehagen (Pol Transport): Depth alongside 9 m. The berth is equipped with a crane for the handling of hoses.

4 connections for variable kinds of oil, 8 in. hose connections.

DENSITY: 1000.

FRESH WATER: Delivered by 1 water boat of 90 cu.m.

FUEL: All grades available, delivered by boat.

CONSULS:

Danish	Tel: 011/25 06 00	German	Tel: 011/21 80 00
Finnish	Tel: 011/25 08 00	Netherlands	Tel: 011/10 08 00
French	Tel: 011/23 62 80	Norwegian	Tel: 011/21 12 90

REPAIRS: Small repairs to machinery can be made. No repairs in port without permission of Norrkoping Harbour.

DRY DOCKS: None.

SURVEYORS: Authorised Surveyors available representing most P&I clubs, appointed by the Swedish Board of Shipping and Navigation.

GANGWAY/DECK WATCHMEN: Watchmen are not necessary. Hose-watcher required during loading and discharging of tankers.

OPENING/CLOSING HATCHES: Decided from case to case.

CERTIFICATES: International Tonnage Certificate, Derat Certificate, Trade Certificate, and Radio Safety Certificate.

REPATRIATION: Can be arranged.

AIRPORT: Distance from Airport "Kungsangen" about 4 miles. Daily communications with Copenhagen.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day; Twelfth Day; Good Friday; Easter Monday; May Day; Ascension Day; Whit Monday; Midsummer Day.

POLICE/AMBULANCE: These services can all be reached on telephone number 90 000.

TELEPHONES: Only mobile telephones are available.

SERVICES: Arrangements for discharging waste oil and ballast.

IDENTIFICATION CARDS: Not needed. Crew List to be used on Oil Jetties.

GARBAGE DISPOSAL: Garbage containers on quay. Contact local agent for details.

WASTE OIL DISPOSAL: Engine room slops facilitated using tanker trucks. For oily ballast water a shore tank is available with 500 cu.m. capacity. Vessels must use the special berth. Contact local agent for details.

SEAMAN'S CLUBS: Handelsflottans Kultur and Fritidsrad, Seamen's Club, Norra Promenaden 80, Box 261, 60104 Norrkoping. Tel: 011-127994. Fax: 011-130899.

Sjomansgarden, Church Services, Saltangsgatan 25, 60222 Norrkoping. Tel: 011-135880.

DELAYS: No delays normally expected.

AUTHORITY: Norrkopings Hamn och Stuveri AB, P.O.Box 6075, S-60006 Norrkoping, Sweden. *Tel:* 46-11-250600. *FAX:* 46-11-120642. *Telex:* 64341 Nrkstuvs. *FAX:* 46-11-159358. *Contact:* Bodo Renz, Harbour Master, Tel: 46-11-250657. J. Lindgren, Director.

NORRSUNDET: 60.56 N. 17.09 E. (See Plan)

LOCATION: On the Southern part of the Gulf of Bothnia and N.W. of Saltharsfjarden.

DOCUMENTS:

2 Crew Lists.
2 Crew Effects Lists.
2 Provisions Lists.
Passenger List.

PILOTAGE: Pilot available at Eggegrund Gefle for ships coming from South and at Soderhamn for ships coming from North. Pilot available day and night. Contact Pilots by VHF on Channel 16, 5 hours before arrival.

ANCHORAGES: South Gashallan in white sector of Hallstenoren Light.

RESTRICTIONS: During darkness max. length 100 m.

MAX. SIZE: Draft 6.4 m. and length 135 m.

RADIO: Stockholm Radio or Harnosand Radio.

VHF: Port Authorities on Channel 16.

TUGS: 1 tug-boat available, can be ordered from Pilot or Agent.

BERTHING: The depths in the harbour are from 3.5 m. to 6.4 m.

Metres of quayage with depths alongside as follows:

Quayage (m.)	*Depth Alongside* (m.)
54	4.2
37	3.3
186	6.4

CRANES: No shore cranes. Mobile cranes up to a max. 100 tons available.
STEVEDORES: Ordered by Agents. Ordinary working time, Monday-Friday, 0700 – 1600 hrs. To finish a vessel maximum of 3 hours' overtime can be worked.
FRESH WATER: Available from shore installations, can be ordered from Pilot or Agent.
FUEL: Delivered by truck alongside vessel on pier.
GANGWAY/DECK WATCHMEN: Not available.
OPENING/CLOSING HATCHES: Crew allowed to open and close.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle spirits per man.
POLICE/AMBULANCE/FIRE: Tel: 90000.
IDENTIFICATION CARDS: Not required.
GENERAL: *Exports:* Wood-pulp and sawn wood-goods.
Imports: Pulp/wood.
AUTHORITY: Stora Cell Industri AB, Box 4, S-81721 Norrsundet, Sweden. *Tel:* 026-85000. *Telex:* 47331 Norsund S. *FAX:* 026-87565.
Contact: S. Klang, Shipping Manager.

NYKOPING: 58.45 N. 17.02 E. (See Plan)

DOCUMENTS:
Tonnage Certificate.
5 Crew Lists.
2 Manifests.
1 Provisions List.
PILOTAGE: Pilot station at Havringe (58° 33' N., 17° 19.0' E.), about 15 miles from Nykoping. Pilot must be ordered 5 hours before arrival Havringe. (Also see "Stockholm").
ANCHORAGE: There is good anchorage at Orsbaken in a depth of 9 m.
RESTRICTIONS: The dredged entrance channel from Orsbaken to Nykoping nearly 5 miles long, 98 ft. wide, has a depth of 5.6 m. (18 ft. 4 in.) at MW.
MAX. SIZE: Roll-on/Roll-off vessels up to 4,000 d.w.t., length 100 m., beam 15 m. and draft 5.10 m., can enter the harbour during daytime. During hours of darkness, vessels up to 1,000 d.w.t. may enter.

Grain Quay	Max. draft 5.4 m.
North-East Quay	Max. draft 5.4 m.
South-East Quay	Max. draft 5.4 m.
South-West Quay	Max. draft 5.4 m.

RADIO: Stockholm.
TUGS: There is a diesel tug of 220 h.p. Larger tug of 1,200 h.p. can be called from Oxelosund.
BERTHING: There is 560 m. of quayage with depth from 5.3 m. to 6.0 m. (17.5 ft. to 19.7 ft.) alongside at MW.
CRANES: There is 1×4 ton mobile crane and 6×50-70 ton mobile cranes.
STEVEDORES: Ordered by Agents. Working hours: 0700 – 1600 hrs.
FRESH WATER: Available.
FUEL: All grades available.
CONSULS: Vice Consulate for Denmark and Finland, Tel: 0155/30600.
REPAIRS: Minor repairs can be effected.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Ordered by Agents, not compulsory.
OPENING/CLOSING HATCHES: Normally by crew.
CUSTOMS ALLOWANCES: Each crew member 200 cigarettes or 25 cigars or 200 grams tobacco and 1 bottle spirits.
AIRPORT: Norrkoping 80 km., and Stockholm 120 km.
HOLIDAYS: New Year's Day; Good Friday; Easter and Easter Monday; Labour Day (1st May); Whit Monday; Midsummer Day and Christmas Day.
POLICE/FIRE/AMBULANCE: Police 76100; Ambulance 90000; Fire 90000.
TELEPHONE: None available for placing on board.
SERVICES: None.
SHORE LEAVE: Permitted.
AUTHORITY: Hamnkontoret Nykoping, Skeppsbron 11, 61135 Nykoping, Sweden. *Tel:* 0155-248892. *FAX:* 0155-248136.
Contact: Tage Henriksson, Harbour Master.

NYNASHAMN: 58.55 N. 17.58 E. (See Plan)

DOCUMENTS:
2 Crew Lists, and 3 Crew Lists on IMO Form.
3 copies General Declaration (form supplied on arrival).
Bill of Health.
Derat Certificate.
3 copies Cargo Manifest/Bills of Lading.
Tonnage Certificate.
Certificate of Nationality.
Stores and Personal Effects Declaration.
Tovalop Certificate.
PILOTAGE: Compulsory. Pilot boards deep-draft tankers near Landsort Outer Approach Light Buoy (58° 36' N., 17° 53' E.).
Pilot boards other vessels 2 miles South of Landsort Light (58° 44' N., 17° 32' E.).
RESTRICTIONS: Draft limited to 13 m. through the archipelago to the harbour.
MAX. SIZE:

Berth	*Max. Length of Vessel*	*Max. Distance Bow-manifold*	*Water Depth*
1	300 m.	140 m.	17 m.
		165 m.	15 m.
2	110 m.	60 m.	7 m.
3	250 m.	90 m.	12.5 m.
		105 m.	12.0 m.
4	120 m.	60 m.	12.9 m.
5	70 m.	—	*5.2 m.

*As far as 18.0 m. N.E. of the berth.
HEALTH: Vessels arriving from ports outside Europe must, for Inwar Clearance, provide Customs Office with written Declaration of Freedo from Infection. Further instructions will be issued by Customs Offic when such Declaration cannot be given.
RADIO: Stockholm Radio; call sign SDJ.
VHF: Nynasoil on Channels 16, working 9 and 13.
Channels 6, 8, 12 and 16 are portable and used during moorin operations.
BERTHING:
Berth No. 1: Loading arms: 3×12 in. for crude oil, 1×8 in. for bunker Minimum height of loading arms above sea level 2.5 m. Max. height o loading arms above sea level 23 m. Minimum distance betwee connections of 2 loading arms 1.5 m.
Fresh water supply max. 40 t.p.h.
Ballast water can be pumped ashore at a max. rate of 300 cu.m./hr
Connection with the loading arms. Vessels usually berth starboar side alongside.
Berth No. 3: Loading arms: 1×10 in. for dirty oil. 1×10 in. for light fue oil. 1×10 in. for gasoline. Minimum height of loading arms above sea level 1 m. Max. height of loading arms above sea level 16.5 m. Minimu distance between connections of 2 loading arms 1.5 m.
Fresh water supply max. 15 t.p.h.
Ballast water can be pumped ashore at a max. rate of 300 cu.m./hr Connection with the loading arms. Vessels usually berth portsid alongside.
Berth Nos. 2, 4 and 5: For coasters only. Jetty No. 2 and 4 are equippe with loading arms and hose connections of 6 in., 8 in. and 10 in Jetty No. 5 hose connections only.
DENSITY: 1010.
FRESH WATER: Can be supplied from the piers. No barges.
FUEL: All grades can be supplied from the piers. No barges.
CONSULS: All consuls available at Stockholm.
CUSTOMS ALLOWANCES: 200 cigarettes per person per wee 1 bottle of wine and spirits per person per week.
REPATRIATION: Can be arranged.
AIRPORT: Nearest at Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summertime
SHORE LEAVE: No restrictions.
AUTHORITY: Nynas AB, Oil Harbour, Box 1002, S-14982 Nynashamn Sweden. *Tel:* 46-08-520-65000, 65257. *FAX:* 46-08-520-65212, 1470
Contact: Lars Lavrell, Harbour Master.

ORNSKOLDSVIK: 63.17 N. 18.43 E. (See Plan

DOCUMENTS:
1 Crew List.
1 Passenger List.
4 Customs Documents.
1 Health Document.
1 Manifest.
1 Bill of Lading.
1 Ship's Paper.
PILOTAGE: Pilot station, Ornskoldsvik, tel. 0660/66003. 5 hours' notic VHF Channel 16. Orange-coloured motor launch fitted with radar an VHF. International signals. Station 2 miles South Skagsudde Lighthous Pilots serve all ports between Umea and Harnosand, also Sea Pilo and ice advisers for Gulf of Bothnia. (Also see "Stockholm").
ANCHORAGES: Ornskoldsvikfjarden 30 ft. – 75 ft. Anchorage forbidd in area Raskarson-Malmon-Buron.
MAX. SIZE: Length 700 ft.; breadth 100 ft.; draft 34 ft.
HEALTH: Customs Authorities give Pratique on arrival from forei ports. In case of suspected disease inform Customs and Port Authoriti
RADIO: SAH, Harnosands Radio.
RADAR/VHF: Radar service in Skagsudde Lighthouse. Port Author and Stevedores on VHF Channel 16.
TUGS: In port, available. Ship's lines used.
STEVEDORES: Inform stevedores at latest 1400 hrs. day before gan required, also if available space for truck-loading in holds. Loose timbe 35 stds./gang/day. Packaged timber, 160 stds./gang/day. Board a wood pulp, 400 tons/gang/day.
TANKERS: Municipal Berth: Max. LOA 200 m. Max. draft 10.0 Max. d.w.t. 40,000. 6 in., 8 in. and 10 in. lines.
Shell Oil: Max. LOA 200 m. Max. draft 9.0 m. Max. d.w.t. 30,0 Vessels berth port side to.
DENSITY: Fresh water.
FRESH WATER: From quay or boat. 60 t.p.h.
FUEL: Gas oil, light fuel, heavy fuel.
CONSULS: Danish, Finnish, Norwegian.
REPAIRS: Medium sized repairs carried out.
DRY DOCKS: None.
SURVEYORS: Cargo Inspectors and Surveyors available locally.
GANGWAY/DECK WATCHMEN: Watchmen available if desired.
OPENING/CLOSING HATCHES: Stevedores or crew.
CERTIFICATES: Cargo Gear Certificates.

CUSTOMS ALLOWANCES: (Tobacco), 200 cigarettes per week. (Wine/Spirits), 1 bottle per week.
CARGO GEAR: Not needed.
REPATRIATION: Available.
AIRPORT: 10 miles. 3 flights daily Northbound and Southbound.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Cargo work can be arranged on holidays.
POLICE/AMBULANCE/FIRE: Police 79300; Fire 10445.
EMERGENCY CO-ORDINATION CENTRE: SOS Centre – Dial 90000.
TELEPHONES: Cost 20 Sw. Krs. to be placed on board.
BANKS: Handelsbanken, Storgatan 16, Box 69, 89122, Ornskoldsvik. Tel: 0660/106 30. Telex: 71243. Fax: 83305.

Skandinaviska Enskilda Banken, Storgatan 26, Box 103, 891 23 Ornskoldsvik. Tel: 0660/84660. Telex: 19154. Fax: 18772.

Nordbanken, Box 19, 89121 Ornskoldsvik. Tel: 0660-10305.

STORING: See "Prelims".
1. By truck.
3. Yes.
4. Yes.
6. Yes.

DELAYS: None.
AUTHORITY: Ornskoldsviks Hamn, Hamnforvaltningen, Box 125, Strandgatan 15, 89123 Ornskoldsvik, Sweden. *Tel:* 0660-88100, 88101. *FAX:* 0660-88069. *Contact:* Jan Harnstrom, Harbour Master.

OSKARSHAMN: 57.15 N. 16.27 E. (See Plan)

DOCUMENTS: See "Stockholm".
PILOTAGE: Pilot boards at Furon, 6 miles East of Oskarshamn. Give ETA at least 5 hours prior arrival. VHF Channel 16. Tel: 0491/10036. Fax: 0491-12944. (Also see "Stockholm").
ANCHORAGES: South of Furon, depth 25 m.
RESTRICTIONS: *Channel:* Oil Harbour depth 11 m. Outer Harbour (for general cargo) depth 11 m. Inner Harbour depth 8 m.
MAX. SIZE: *Max. draft:* Oil and Outer Harbour 34 ft. 6 in. Inner Harbour 25 ft.
VHF: Channel 16.
TUGS: 1 tug of 2,870 h.p. and 1 tug of 1,020 h.p.
BERTHING: *Oil Harbour:* Quay length 25 m., depth alongside 11 m.
Inner Harbour: South Quay length 470 m., depth 5 m. – 7.2 m.
Bradholm Quay: Length 140 m., depth 4.8 m. Length 88 m., depth 4 m. (Used only by fishing vessels and visiting yachts).

North Quay:	Nos. 22 – 28	depth 5.5 m. – 7.8 m., length 470 m.
	Nos. 31 – 35	depth 8 m., length 360 m.
	Nos. 36 – 37	depth 6 m., length 120 m.
Ocean Quay:	Nos. 51 – 54	depth 11 m., length 350 m.

Shipyard Quays: Up to 8 m. depth.
CRANES: 1 Portal crane, 10 tons capacity. 9 mobile cranes, 10 tons – 90 tons capacity. 1 crane for container handling.
BULK HANDLING FACILITIES: 1 Roll-on/Roll-off berth for goods traffic situated at the North Quay, depth alongside 8 m.

2 Ro-Ro berths on the South Quay. Depth 5 m. – 7.3 m.

TANKERS: One berth. Max. draft 34 ft. 6 in. Discharge lines 8 in.
FRESH WATER: At every berth.
FUEL: Available.
CONSULS: Denmark Tel: 0491-16135; Finland Tel: 0491/11013; Norwegian Tel: 0491/18810.
DRY DOCKS/REPAIRS: Dry dock length 81 m., breadth 14.7 m. Capacity 4,000 d.w.t. Repair facilities available. Oskarshamn Shipyard. Tel. 0491-85500. Fax: 0491-15312.
CERTIFICATES: See "Stockholm".
CUSTOMS ALLOWANCES: 200 cigarettes, one bottle spirits.
AIRPORT: Oskarshamn, 3 km. away, 2 flights daily to Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Stockholm".
POLICE/AMBULANCE/FIRE: Police, Tel: 87000; Alarm, Police/Ambulance/Fire Tel: 90000.
SERVICES: Compass adjusting.
IDENTIFICATION CARDS: Not needed.
DEVELOPMENTS: New Harbour at Klubbdjupshamnen (Lat. 57° 16' N., Long. 16° 28.8' E.) completed.
AUTHORITY: Oskarshamns Port Co., Norra Strandgatan 50, S-57232 Oskarshamn, Sweden. *Tel:* 0491-87200. *FAX:* 0491-16322. *Contact:* L. Karlsson, Port Director.

OTTERBACKEN: 58.57 N. 14.02 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
1 Stores List.
Ship's Register.
1 Manifest and Bills of Lading.

PILOTAGE: Pilotage is not compulsory. Pilot obtainable at Vanersborg.
ANCHORAGES: In the roads in depths from 16 ft. to 19.5 ft., clay bottom, and in the bay East of Storon from 18 ft. to 16.5 ft., clay and sand bottom.
MAX. SIZE: All ships able to pass through the Trollhatte Canal with a max. draft of 16.9 ft. at MWL can enter the harbour.
HEALTH: No certificates required. In event of any disease or fever contact Agent.
RADIO: All messages to Agent via Gothenburg Radio.
VHF: Port of Otterbacken can be reached by VHF Channel 16.
TUGS: Tugs available when icebreaking is necessary.
BERTHING: Gamla Kajen (old quay): Length of quay 235 ft. Depth alongside 10 ft.

Nya Kajen (new quay): Length of quay 890 ft. Depth alongside 17 ft. – 18 ft.

Galejholmskajen (Galejholms Quay): Length 590 ft. Depth alongside 17 ft. – 18 ft.

CRANES: Two 7 ton travelling bridge cranes; one 15 ton mobile crane; one 5 – 7 ton portal crane.
STEVEDORES: Provided by Vanerhamn AB Otterbacken. Ordinary working hours: From 0700 – 0900 hrs., 0930 – 1300 hrs. and 1330 – 1600 hrs.
MEDICAL: Hospital available.
FRESH WATER: Available.
FUEL: Available.
REPAIRS: Minor repairs only can be effected.
GANGWAY/DECK WATCHMEN: Available but not compulsory or necessary.
HATCHES: Opening/closing is normally carried out by the crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 litre spirits for each crew member.
AIRPORT: Karlstad 90 km; Gothenburg 180 km; Skovde 70 km.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: January 1st and 6th; Good Friday; Easter Monday; May 1st; Whitsunday; December 25th and 26th.
POLICE/AMBULANCE/FIRE: Tel: 90000
TELEPHONES: Not possible to place telephones on board. Telephones available at harbour office.
SHORE LEAVE: After clearing inwards, crew members are allowed to go ashore without special permission.
GARBAGE DISPOSAL: Small quantities can be placed in garbage container alongside, free of charge. Larger quantities can be arranged through the Port Authority.
WASTE OIL DISPOSAL: Small quantities (engine room sludge) at Malmkajen into small tank. Larger quantities can be arranged by tanker trucks through the Port Authority.
SEAMAN'S CLUBS: No Seamen's Club.
CURRENCY: Swedish Kronor (SEK).
AUTHORITY: Vanerhamn AB Otterbacken, Box 65, S-547 02 Otterbacken, Sweden. *Tel:* 46-551-22250. *Telex:* 66088 Otbsped S. *FAX:* 46-551-22757. *Cables:* Otterbackssped. *Contact:* Hans Erwald, General Director (Tel: 054-144870).

OXELOSUND: 58.40 N. 17.08 E. (See Plan)

DOCUMENTS:
4 Crew Lists (3 for Customs and 1 for Ship's Agent).
4 Passenger Lists, if passengers are not inserted in Crew List.
2 Customs Documents, showing all alcoholic liquors and tobacco, belonging to Officers, crew and passengers.
2 Customs Documents, showing ship's store of alcoholic liquors and tobacco.
Health Documents, not necessary.
Manifests, at least 4 copies, normally only for general cargoes.
Bills of Lading, at least 1 copy if not otherwise stipulated.

PILOTAGE: (See "Stockholm"). Pilotage compulsory for vessels over 90 m. LOA or over 16 m. beam. Pilot station located at Oxelosund, Tel. 0155 30200. Pilots require a minimum 5 hours plus a 3 hours ETA notice. VHF Channel 16 can be used for contacting Pilot station or Pilot boat. Pilot boats orange. Ships advised to proceed through Northern inlet, where Pilot will board at Norra Krankan Lighthouse, Lat. 58° 37' N., Long. 17° 27' E. International requirements with respect to boarding and safety measures.
ANCHORAGES: Suitable anchorages West of Vinterklasen; clay-holding ground, depth 30 m. – 40 m. Ships are not allowed to berth until they receive orders and in the meantime must anchor and await such orders.
RESTRICTIONS: No tides. Draft not over 50 ft. at MLW. Max. length 265 m. Max. beam 38 m. Ships with LOA over 205 m. are berthed in daylight only.
MAX. SIZE: Ore loading berth: Vessels between 3,000 and 80,000 d.w.t. can be loaded. Depth at quay 45 ft. Berth for unloading coal, iron ore: Ships of up to 130,000 d.w.t. can be discharged, over 80,000 d.w.t. after agreement with the Port Authority. Depth of 39 ft. 4 in. at Quay 9.5 and 45 ft. at Quay 10. Berth for general cargo: Depth at quay 32 ft. 10 in. Oil pier: Oil carrier up to 95,000 d.w.t. can be berthed. Depth at quay 45 ft. Ore-coal discharging berth: Max. draft 50 ft. at MLW.

Ships with draft over 42 ft. are moored with fender barges between ship and quay. Fender barges are supplied free of charge. Fender barges are normally removed when ship can moor alongside.

HEALTH: No special regulations.
RADIO: Stockholm Radio, call sign SDJ, or Gothenburg Radio, call sign SAG.
VHF: Pilot Station on Channels 9 and 16.
TUGS: 2 combined tugs and ice-breakers of 2,850 and 3,200 i.h.p. Extra tugs can be arranged, with 24 hours notice. Tugs line can be supplied. Tugs normally join vessel near Beten Lighthouse, near harbour.
BERTHING: No tides. Depths in harbour normally vary from minus 2 ft. to plus 1 ft.
Ferry Terminal: The port has a ferry terminal approved for international traffic.

CARGO HANDLING FACILITIES: The port has, among other things, one ore quay equipped with a travelling ore-loader with an average capacity of 2,000 t.p.h. One quay for unloading coal, iron ore and other bulk cargoes and similar equipped with two travelling cranes with a capacity of 600 t.p.h. At No. 7 Quay there is a 25 m. traverse ferry ramp equipped to accommodate Roll-on/Roll-off traffic.
STEVEDORES: Gang(s) have to be ordered prior to vessel's arrival. Ordinary working hours are 2 shifts a day Monday – Friday, plus 1 shift Saturday and Sunday. Night shift can be arranged Monday-Friday for discharging large bulk carriers.
MEDICAL: Hospital at Nykoping, about 8 miles from Oxelosund.
TANKERS: One tanker berth, depth at quay 45 ft. Connection to load/discharge lines, diameter of 8 in. – 16 in.
DENSITY: 1006 – 1016. No tides.
FRESH WATER: Available. Delivery through lines from quays at a rate of 10 t.p.h.
FUEL: Gas oil and MDO available, delivery by lorry.
CONSULS: None.
REPAIRS: Local general welding workshop available. For engine matters, etc., a non-local workshop can be arranged.
DRY DOCKS: None.
SURVEYORS: Surveyors and cargo inspectors in Stockholm and Norrkoping.
GANGWAY/DECK WATCHMEN: When ship berthed, reliable gangway must be arranged to quay.
OPENING/CLOSING HATCHES: Carried out by crew.
CERTIFICATES: Usual international certificates. In order not to delay despatch, important that following certificates are available and valid: Measurement, Life-boat, Radio and Derat (not older than 6 months).
CUSTOMS ALLOWANCES: Usual allowances.
CARGO GEAR: International certificates necessary. All loading and discharging normally carried out with shore cranes.
REPATRIATION: Crew changes can be effected and necessary repatriation arranged by Agent.
AIRPORT: Arlanda (170 km.) outside Stockholm, and Norrkoping Airport (70 km.).
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Dial tel. 90 000 and ask for "Police-alarm", "Ambulance" or "Brandalarm" (Fire alarm), or contact Pilots on Channel 16.
EMERGENCY CO-ORDINATION CENTRE: Dial 90 000 (Alarm No.).
TELEPHONES: Connections not available.
SERVICES: No tank-cleaning equipment. Facilities for discharge of tank-washings.
BANKS: Skandinaviska Enskilda Banken, Box 6, S-613 01 Oxelosund. Telex: Stockholm 19154 Essebs.
SHORE LEAVE: The crew are allowed to go ashore, but within certain city limits.
IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: Garbage containers placed at berths. No charge for normal garbage.
WASTE OIL DISPOSAL: Reception of dirty ballast at Berth No.11 (oil-pier), maximum capacity about 4,000 cu.m.
SEAMAN'S CLUBS: No Seamen's Club.
CURRENCY: Swedish Kronor (SEK).
DELAYS: Normally no delays.
AUTHORITY: Port of Oxelosund, Box 1200, S-61324 Oxelosund, Sweden. *Tel:* 0155-78000. *Telex:* 64025 Portox S. *Cables:* Portox. *FAX:* 0155-34321. *Contact:* Nils Oeberg, Harbour Master.

PITEA (Haraholmen): 65.14 N. 21.38 E. (See Plan)

Pitea town closed to navigation.

DOCUMENTS:
2 Crew Lists.
2 Lists Spirits and cigarettes.
Manifests and Bills of Lading of incoming cargoes to be presented to Customs.
1 Derat Certificate.
PILOTAGE: Pilot to be taken at Gaasoeren-Skelleftea district. Must be ordered at least 5 hours prior arrival. All VHF Channels used – also onboard pilot-boats. (Also see "Stockholm").

Outward-bound vessels must order Pilot from Harbour Office during office hours.
ANCHORAGES: According to Pilot's advice.
MAX. SIZE: Traffic now directed to Haraholmen which is the port for Pitea.

No tides. Also see "Berthing" and "Tankers".
HEALTH: No special restrictions. Diseases must be reported to Customs before entering port.
RADIO: Stockholm Radio.
VHF/RADAR: Radar and VHF on all stations. Harbour Office, Channels 16, 9 and 13.
TUGS: Tugs available if ordered beforehand. Tugs compulsory for larger vessels.
BERTHING: Haraholmen: Length 600 m. plus Ro/Ro ramp, depth 12.5 m., max. draft 11.5 m. Quay is equipped with electricity, telephones and water. Quay is very strong, capable of taking loads up to 250 tons.

Harbour is specially built for all year round traffic. 10 propeller engines are installed under the quay to keep water running and quay ice-free. Special lights are installed to assist in bad visibility.

Quay is equipped with 2 *"Asea"* cranes of 12.5 tons and 24.0 m. outreach.
STEVEDORES: Bottenvikens Stuveri AB – Pitea. Labour must b ordered latest at 1400 hrs. for morning start following day. Tariff availab from Agents.
MEDICAL: All treatments available without notice.
TANKERS: Only one berth at Haraholmen. Max. size 70,000 d.w. Max. LOA 240 m. (approx.). Max. draft 37 ft. 10 in. FW. No furthe restrictions. 2 tugs compulsory for vessels over 15,000 d.w.t.
FRESH WATER: Available by pipe and lorries.
FUEL: All grades available.
CONSULS: None.
REPAIRS: All types of repairs can be effected.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Not necessary but available p ordered.
OPENING/CLOSING HATCHES: Normally done by ship's crew.
CUSTOMS ALLOWANCES: (Tobacco), 200 cigarettes/man pe 10 days.
(Wine and Spirit), 1 bottle man/10 days. Only crew members over 18
AIRPORT: Regular flights 9 times per day. Kallax Airport at Lulea Distance 65 km. from port. 75 minute flight to Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Tel. 90000.
TELEPHONES: Facilities for placing on board available.
IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: Containers are placed on quay and can be used free of charge.
WASTE OIL DISPOSAL: Collection of waste oil is available by tanke trucks. The service can be ordered through the ship's agent. It is free of charge if done weekdays between 0700 – 1530 hrs. Vessel mus deliver minimum 5 cu.m./hour. If pumping is slower, extra charges ar incurred. Maximum free delivery is 1 cu.m./24 hours steaming from las port.
SEAMAN'S CLUBS: None.
CURRENCY: Swedish Kronor (SEK).
GENERAL: Master must remember that Pilot must be taken a Gaasoeren-Skelleftea district. If Pilot on bridge all way from Skelleftea to Pitea, a distance fee is charged. Piloting from Nygraan Lighthous (entrance Pitea) only normal fee.
DEVELOPMENTS: A chemical terminal has recently been completed capacity 10,000 tons. Also see "Max. Size".
AUTHORITY: Hamnkontoret Pitea, Sjofartshuset, P.O.Box 716 S-94128 Pitea, Sweden. *Tel:* 911-46019. *Telex:* 68307 Shipexp S *FAX:* 0911-46105. *Contact:* Stig Strand, Harbour Master.

RONNEBY: 56.10 N. 15.17 E. (See Plan

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
4 Customs Documents.
1 Health Document.
2 Manifests.
1 Bill of Lading.
PILOTAGE: Pilot is taken at Karlshamn Pilot Station. Tel: Karlsham 0454/14102. Ordered over Karlskrona Radio on 3289 kHz or by VH on Channel 16. Pilot should be ordered 5 hours in advance. (Also se "Stockholm").
ANCHORAGE: Open roads.
MAX. SIZE: Limited by depth in fairway: 20 ft. 9 in.
RADIO: Karlskrona Radio, 2182 kHz.
VHF: VHF call sign Ronnebyhamn, Channel 16, 12, 13.
TUGS: None, when necessary such ordered from Karlshamn.
STEVEDORES: ETA given to ship's Agent sufficient.
MEDICAL: Medical attention required ordered by Agents.
TANKERS: Only small tankers with max. draft 20 ft. 6 in. 1×10 in. a 1×12 in. line. No facilities for residue discharge.
DENSITY: 1000. No tide.
FRESH WATER: From water post on quay.
FUEL: Diesel oil from tank-lorries.
CONSULS: Danish Consulate, Tel: 0457/14990.
REPAIRS: Minor repairs only.
DRY DOCK: None.
OPENING/CLOSING HATCHES: Performed by crew.
CERTIFICATES:
Derat Certificate not over 6 months old.
Certificate of Nationality.
Certificate of Tonnage.
CUSTOMS ALLOWANCES: 200 cigarettes plus 1 bottle spirits.
AIRPORT: About 6 miles from Ronneby Harbour; daily flights to Malm Stockholm, Visby and Copenhagen.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Police 90000; Ambulance 900 Fire 90000.
TELEPHONES: Telephone box on Quay.
IDENTIFICATION CARDS: Not needed.
AUTHORITY: Ronneby Harbour Board, Box 3160, S-37203 Ronne Sweden. *Tel:* 0457-18744. *FAX:* 0457-18741. *Contact:* Arne Be Harbour Master.

SKELLEFTEHAMN: 64.41 N. 21.15 E. (See Plan)

DOCUMENTS:

2 copies of Crew Lists (3 copies at Ronnskarsverken).
1 List of Provisions.
Measure Bill.
Manifests and Bills of Lading.

PILOTAGE: Compulsory. Telegraphic address: "Pilot Station Skelleftehamn". Advance notice required, 5 hours. Contact pilot boat or Pilot Station on VHF Channel 16. Calling signal "Skelleftea Pilot" (pronounced – Shellefteo Pilot). Pilot motor boats usually orange. Pilot taken on board 2 miles East of Gasoren Lighthouse. (Also see "Stockholm").
RESTRICTIONS: No tides or tidal current.
MAX. SIZE: Maximum permissible length of tanker 185 m. in accordance to dredged basin's length.
HEALTH: In case of disease or suspected disease, ship should call for medical assistance in accordance with Swedish rules.
RADIO: Stockholm Radio or Harnosand Radio. When in reach of VHF station of harbour office, at 0830 – 1200 hrs. and 1300 – 1700 hrs., or else through Pilot Station VHF. Call signals "Skelleftehamn Radio" or "Skelleftea Pilot Station".
RADAR/VHF: Radar service available when entering or leaving port. Contact Pilot station (Channel 16).
TUGS: Normally meet at passage of Gasoren Lighthouse. Ship's lines should be used. Tug of 3,000 h.p. also acts as local icebreaker.
BERTHING: No special requirements.
Kage: Depth in harbour at quay 23/20 ft.; length 609 ft.
Ronnskarsverken: Northern quay, depth 42/19.4 ft. and length 1,814 ft.
Skelleftehamn: North quay, depth 30/21 ft. and length of 1,300 ft. Ro-Ro berth available. Oil Terminal, (jetty), depth 34 ft. and length 210 ft. with dredged basin of 656 ft. Siporex, quay depth 19.7 ft. and a length of 150 ft.
Bjuroklubb, length 230 ft., depth 17.5 ft.
STEVEDORES: No stipulated ETA regulations.
MEDICAL: Available at short notice. Government hospital in town.
TANKERS: *Municipal Berth:* One tanker berth. Max. d.w.t. 33,000. Max. draft 32 ft. Diameter of discharge lines 8 in. Flanges Din 2633.
Boliden AB: Max. LOA 200 m. Max. draft 11.0 m. Max. d.w.t. 50,000. Vessels berth port side to.
FRESH WATER: At oil terminal 25 t.p.h. Elsewhere 15 t.p.h.
FUEL: All usual grades available.
FIRE PRECAUTIONS: Standard.
CONSULS: Denmark, Finland, Netherlands and Norway.
REPAIRS: Minor repairs only. Patent slip, max. size 1,000 tons displacement.
GANGWAY/DECK WATCHMEN: Watchmen recommended.
OPENING/CLOSING HATCHES: Carried out by crew.
CERTIFICATES: See "Stockholm".
CUSTOMS ALLOWANCES: (Tobacco): 200 cigarettes. (Wine/Spirits), 1 bottle of wine and 1 bottle of spirits.
CARGO GEAR: No additional requirements.
REPATRIATION: Every kind of facility for effecting changes of crew.
AIRPORT: 18 km. Regular airlines, 5-7 flights a day to Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Good Friday; 1st and 2nd Day of Easter; Ascension Day; 1st and 2nd Day of Whitsuntide; 1st May; Midsummer Day; and 1st and 2nd Day of Christmas. Cargo work cannot be arranged.
POLICE/AMBULANCE/FIRE: 59700, 31080; 90000; 58000.
TELEPHONES: Available for placing on board at the Northern quay in Skelleftehamn.
IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: Skips are provided alongside. Service to be requested from Port Authority (Tel: 33130). No charge for normal quantities.
WASTE OIL DISPOSAL: No waste oil facilities. Engine sludge can be collected if request made to Port Authority.
SEAMAN'S CLUBS: None.
CURRENCY: Swedish Kroner.
DELAYS: In exceptionally bad weather.
GENERAL: All waste to be taken to special waste containers ashore.
AUTHORITY: Skelleftea Hamn, Jarnvagsleden 81, S-93233 Skelleftehamn, Sweden. *Tel:* 0910-33130. *FAX:* 0910-34438. *Contact:* Hemmo Tollinoja, Port Director.

SKREDSVIK: 58.25 N. 11.30 E.

Oil harbour in the Lysekil area.

DOCUMENTS:

3 Crew Lists, on IMO Form.
1 Cargo Manifest.
1 Copy Bill(s) of Lading.
1 Stores List.
1 Personal Effects List.
Derat Certificate.
Tonnage Certificate.
Certificate of Registry.

PILOTAGE: Pilot station at Lysekil, Tel: 0523/60800. VHF Channel 16. Five hours' notice of ETA required. Pilot vessel is an orange-coloured motor launch fitted with radar and VHF. International signals. Pilot boards between Gaeven and Tovas Ungar, about 6 miles West of Lysekil.
ANCHORAGE: Gullmarsfiord, S.E. of Lysekil, depth about 60 m.
RESTRICTIONS: Draft not to be in excess of 40 ft. on passage from Pilot to Skredsvik.
MAX. SIZE: Length 180 m. – 190 m. draft 10.0 m. No limit on breadth.
TUGS: Have to be ordered either from Gothenburg or from Uddevalla.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle spirits or wine per person per week.
POLICE/AMBULANCE/FIRE: Police Tel: 0522/14920, or 0524/10068 and 90000; Ambulance and Fire Tel: 0522/10013, or 0524/10550 and 90000.
EMERGENCY CO-ORDINATION CENTRE: (SOS Emergency) Dial 90000.
AIRPORT: Nearest at Gothenburg.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
SHORE LEAVE: No restrictions, but photography and smoking ashore is not permitted.
IDENTIFICATION CARDS: Not required.
AUTHORITY: National Energy Administration, Skredsvik, 45195 Uddevalla, Sweden. *Tel:* 0524-20100. *Contact:* Hans Hansson, Port Engineer.

SLITE, Gotland Is.: 57.42 N. 18.50 E. (See Plan)

DOCUMENTS:

Crew Lists.
Customs Documents.
Health Documents.
Bills of Lading.
Measurement Bill.
National Certificate.
Valid Derat Certificate.

All compulsory (Also see "Stockholm").
PILOTAGE: Service centralised to main station at Visby. Service day and night. Tel: 0498/210138. 5 hours' notice required. VHF Channel 16 (also see "Stockholm").
ANCHORAGES: Sheltered anchorage on Inner Road with up to 8.4 m. depth of water.
RESTRICTIONS: No restrictions. Entrance possible day and night.
MAX. SIZE: Draft not to exceed 21 ft. 6 in. alongside for cargo vessels. The depth at the entrance has been increased to 8.4 m. Depth alongside remains at 6.8 m., except for vessels berthing at bulk cement berth where depth is 8.4 m.
HEALTH: Restrictions only if fever on board or vessel coming from a port where disease or fever in existence.
RADIO/VHF: Tingstade Radio Station, call sign SAE, VHF see "Pilotage".
TUGS: No tug available.
BERTHING: No restrictions if due notice to Port Authority given.
STEVEDORES: Notice to be given latest noon on day before arrival, order to make start next morning (unless special arrangements or agreements made).
MEDICAL: Attention by doctors-in-charge. Central hospital at Visby.
TANKERS: Pipe-line connection flange 8 in.
FRESH WATER: Available alongside quay.
FUEL: Practically all grades bunker oil available subject prior notice.
CONSULS: No consul representations at Slite. Consuls for Denmark, Finland, Norway and Germany at Visby.
REPAIRS: Only minor repairs possible.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Not compulsory but available.
OPENING/CLOSING HATCHES: Ship's crew to open or close.
CUSTOMS ALLOWANCES: Presently 200 cigarettes per head/week. Practically no spirits allowed out of bond.
REPATRIATION: Good possibilities for changing crew.
AIRPORT: About 40 km. to Visby Airport.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Tel: 90 000 (Ambulance, Fire Brigade, Doctor, Police, Sea Rescue, Dentist, etc.).
SERVICES: No services for tank-cleaning, tank washing, or compass adjusting.
STORING: See "Prelims".

1. Yes.
2. Vessels can store during loading and discharging.
3. Yes.
4. Yes.
5. Duty free goods can be obtained in Visby.
6. Yes.

SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Seaman's Book or Passport if travelling outside port area.
AUTHORITY: Cementa AB, Box 102, 62030 Slite, Sweden. *Tel:* (0498) 281000. *Telex:* 4136. *Cables:* Cementa Slite. *FAX:* 0498-281390. *Contact:* Magnus Helmer, Port Manager.

SODERHAMN: (includes Stugsund, Langror Oilberth, Sandarne Factory Berth and Orrskar Woodchip Berth.) 61.18 N. 17.05 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
3 Bills of Lading.
3 Manifests.
2 Crew Effects Declarations.
2 Ship's Stores Declarations.
Tonnage Certificate.
Certificate of Nationality.
Ship's Register.
PILOTAGE: Pilot must have 5 hours' notice. Telegraphic address "Soderhamn Pilot Station", Ljusne. VHF Channel 16 for calling pilot boat and Pilot Station and 13. Pilot boat is orange. International signals to be used. Vessels can normally receive Pilot between Hallgrund and Storjungfrun. In case of bad weather or ice, Master consults Pilot for advice (Also see "Stockholm").
ANCHORAGES: Lilljungfru Anchorage S.W. Lilljungfrun, where depths are 15 m. – 20 m., is W. or S.W. of Norrutharet. Branthalls Anchorage W. Branthall Island, depths 10 m. – 15 m.
HEALTH: No special action except for suspected disease. In case of disease contact Agent for information.
RADIO: Stockholm Radio. Within reach, Master may call Soderhamn Port Radio. Tug station is Stugsund. Tug fitted VHF, Channels 16,13,12.
There is a radar station at Soderhamn. Pilot station, Ljusne, and the pilot boats are fitted with radar.
MAX. SIZE: Langror Oil Berth. Breadth of entrance fairway 55 m. – 60 m. and depth 8.3 m. at mean level (M.L.). Depth according to M.L. of 1987. Max. ship length about 170 m. at the quay.
Orrskar: Woodchip Terminal, breadth of entrance fairway 110 m., depth 12.8 m. M.L. New quay for general cargo, depth 10.45 m. M.L.
Sandarne: Breadth 30 m., depth 7.0 m. M.L. breadth 55 m. – 60 m. in unlit fairway.
Stugsund: Breadth 30 m., depth 6.0 m. M.L.
Soderhamn: Breadth 10 m. – 15 m., depth 3.5 m. M.L.
Depth varies about 1 ft. below and 1 ft. above M.L. Breadth given at narrowest point in fairway.
TUGS: Normally meet large vessels at Otterhallans Lighthouse, Blomman Lightbuoy and others off quays on request. Ship's lines to be used.
BERTHING: Boatmen can be ordered by Pilots or Agents. Large ships berth oil berth only in daylight because channel not lit.
CRANES: One electric crane to lift 10 tons in Stugsund. In other berths mobile cranes can be hired.
STEVEDORES: Gangs to be ordered by Agent usually at 1500 hrs. for starting next morning at 0700 hrs.
MEDICAL: Medical attendant available day and night.
TANKERS: 6 in. or 8 in. connections. Only 1 berth and max. depth at quay 8.3 m.
DENSITY: Practically fresh water.
FRESH WATER: Available in all ports. Delivered through pipelines on wharf. Rate: 10 t.p.h.
FUEL: Any normally used grade on request to oil company with few hours' notice.
CONSULS: None.
REPAIRS: Minor plate-work and welding can be carried out.
SURVEYORS: A Surveyor is appointed at the Port.
GANGWAY/DECK WATCHMEN: Watchmen available.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CERTIFICATES: Traffic permission (not necessary for ports within the Custom District boundaries), Bill of Measurement, Swedish Sailor's Roll (only Swedish ships), Foreign Nationals Crew Passports, Derat Certificate (6 month), Certificate of Health.
CUSTOMS ALLOWANCES: (Tobacco), out of bond, 200 cigarettes or 250 gm. tobacco. (Wine/Spirits), out of bond, 1 bottle of spirits and wine, maximum 1 litre or 2 bottles of wine.
CARGO GEAR: Valid cargo gear certificates.
REPATRIATION: Facilities exist for effecting crew changes.
AIRPORT: Nearest international airport Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: No work on official holidays, but may be possible on special request. New Year's Day (1st January); Twelfth Day (6th January); Good Friday; Easter Sunday and Easter Monday; 1st May; Whit Sunday and Whit Monday; Midsummer Day; All Saints' Day; 25th December and 26th December; New Year's Eve; Easter Eve; Whitsun Eve; Midsummer Eve; Christmas Eve.
POLICE/AMBULANCE/FIRE: Police 90000 or 0270/72300; Ambulance 90000; and Fire 90000 or 0270/75000.
TELEPHONES: Quay telephones can be placed on board at Orrskar quay. 2 telephones.
SERVICES: Facilities for discharge of tank-washings max. 20 tons. Tank-cleaning and facilities for discharge of tank-washings of great extent are Stockholm and Sundsvall. Compass adjusting in Stugsund Berth.
BANKS: Skandinaviska Enskilda Banken, Box 4, Kopmangatan 1, 826 21 Soderhamn.
STORING: See "Prelims".
1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. Only bonded stores.
6. Stevedores, on request.
IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: Container available on wharf. No charges.
WASTE OIL DISPOSAL: Engine room slops only. Tanker trucks capacity 8 cu.m. available at all berths. The service can be ordered through Soderhamns Hamn, Tel: 0270-54640, 24 hours before arrival. Collection only between 0700 – 1530 hrs.
SEAMAN'S CLUBS: Only local facilities available, e.g. shop, international telephone, postage, etc.
CURRENCY: Swedish Kronor (SEK).
REGULATIONS: Port Regulations available from Agent or Port Office.
DELAYS: Fog, ice and bad weather may delay berthing. Rain and snow can delay loading and discharging of dry cargo.
GENERAL: There is a VHF port radio at the Port Office, Stugsund. Working hours 0730 – 1630 hrs. Channel 16 for call and Channel 12 fo working. During the ice-breaking season the tug may be out even a night. Tug has same channels. Soderhamn Customs District includes all berths mentioned above.
AUTHORITY: Soderhamns Hamn, Strandgatan 4, S-82660 Soderhamn, Sweden. *Tel:* 0270-54640, 54580. *FAX:* 0270-55190. *Contact:* Rutger Hagberg, Harbour Master.

SODERTALJE: 59.12 N. 17.38 E. (See Plan)

PORT LIMITS: Approximately 2 nautical miles from entrance.
DOCUMENTS:
Crew List.
Cargo Manifest.
List of Ports of Call.
PILOTAGE: Pilot to be ordered at least 5 hours before arrival at Landsort Pilot Station on VHF Channel 13. Distance from Landsort to Sodertalje is 34 nautical miles.
Pilotage compulsory for all vessels carrying petroleum, gas and chemicals.
ANCHORAGES: Pilots direct vessels to suitable anchorages.
RESTRICTIONS: Cables over fairway with vertical clearance of 42 m. at MLW and railway bridge 40.5 m. (Between South Harbour and Oi Harbour).
MAX. SIZE:

	Length	*Beam*	*Draft*	*Airdraft*
Uthamnen (Outer Harbour)	200 m.	32 m.	8 m.	40.5 m.
Sydhamnen (South Harbour)	200 m.	32 m.	9 m.	42.0 m.
Igelstahamnen (Igelsta Harbour)	200 m.	32 m.	9 m.	40.5 m.
Oljehamnen (Oil Harbour)	200 m.	32 m.	9 m.	40.5 m.

HEALTH: Derat Certificate required.
RADIO: Stockholm Radio.
VHF: Channel 13 calling "Pilot Sodertalje" or "Malarbron" for ordering of boatmen 1 hour before arrival.
RADAR: No port radar service.
TUGS: Available through local Agents for vessels over 10,000 d.w.t.
BERTHING: *Sydhamnen:*
Ro/Ro Berth No. 9, length 70 m., depth 6.4 m. MW.
Ro/Ro Berth No. 10, length 130 m., depth 7.9 m. MW.
Ro/Ro Berth No. 11, length 130 m., depth 7.9 m. MW.
Ro/Ro Berth No. 12, length 160 m., depth 9.8 m. MW.
Oljehamnen: Jetty No. 6, depth 10.1 m. Jetty No. 7/8, depth 6.9 m.
Uthamnen: Lo/Lo berth (general cargo), length 300 m., depth 5.9 m.- 8 m. Silo Quay, length 155 m., depth 8.4 m.
Igelstahamnen: Coal and oil discharge berth, length 150 m., dept 10.5 m. Coal discharged using shore equipment.
CRANES: *Uthamnen:* 3 cranes with capacity up to 25 tons.
Sydhamnen: Mobile cranes up to 47 tons with auto container spreade forklifts up to 45 tons.
Igelstahamnen: Shore equipment for coal discharge.
BULK HANDLING FACILITIES:
Uthamnen: Salt in bulk.
Siloquay: Grain loading.
Igelstahamnen: Coal discharge, oil discharge.
Oljehamnen: Oil petroleum products and liquid chemicals.
SPECIALISED CARGO HANDLING FACILITIES: 24,000 sq.m. for co and warm storage available.
STEVEDORES: Ordinary working hours: 0700 – 1130 hrs., 1200 - 1600 hrs. on weekdays. Stevedores can be ordered by telephoni 08-55023750 or by telex No. 10273 Sodstuv.
TANKERS: See "Berthing".
FRESH WATER: Available at all berths.
FUEL: Available at all berths.
REPAIRS: Can be undertaken at all berths.
DRY DOCKS: Nearest at Stockholm.
SURVEYORS: Cargo surveyors are available from Stockholm.
GANGWAY/DECK WATCHMEN: Available.
HATCHES: Opening/closing carried out by stevedores.
AIRPORT: Nearest at Stockholm, 60 km. distant.
TIME: GMT plus 1 hour. Summertime GMT plus 2 hours.
HOLIDAYS: Cargo work can be carried out by special agreement holidays.
POLICE/AMBULANCE/FIRE: Dial 90000 and request necess service.
TELEPHONES: Can be placed on board vessels.
BANKS: Only Swedish banks are represented.
STORING: See "Prelims".
1. By truck.
2. Vessels can store while loading/discharging.
4. Forklifts available.
6. Yes.
GARBAGE DISPOSAL: Garbage containers in each harbour. Con Port Authority Tel: 08-55023750.
WASTE OIL DISPOSAL: Collection service of waste oil throug harbour via tanker truck. Contact Port Authority Tel: 08-55023750.
SEAMAN'S CLUBS: The Seamen's Club is situated in Stockho 30 km from the port. Contact Tel: 08-6632421.
CURRENCY: Swedish Kronor (SEK). U.S.$ 1.00 = SEK 6.80 (28.2
SHORE LEAVE: Permitted.
AUTHORITY: Port of Sodertalje, Box 2016, S-15102 Soder Sweden. *Tel:* 08-55023759. *Telex:* 10273 Sodstuv. *FAX:* 08-55031 *Contact:* Ingvar Wiren, Managing Director.

SOLVESBORG: 56.03 N. 14.35 E. (See Plan)

DOCUMENTS: See "Stockholm".

PILOTAGE: Pilot station at Ahus, Tel: 044/240027, needs 5 hours' notice. Pilot Station (Karlshamn): Tel: 0454-14102. Pilot station and pilot boat can be ordered by VHF Channel 16, working on Channel 13. Harbour office in Solvesborg can be called on same frequency. (Also see "Stockholm".)

ANCHORAGES: Roadstead to South of harbour 25 ft. deep with good holding ground.

MAX. SIZE: Depth in outer harbour 8.2 m. (27 ft.) and in inner harbour 7.5 m. (25 ft.) Recommended for ships to have 1 ft. 6 in. of water under keel. Max. length 170 m. (558 ft.). Breadth 30 m. (98 ft.). Draft 7.7 m. (25 ft.) for vessel entering harbour. Largest ships to enter harbour were 26,000 tons oil tanker with load of 16,000 tons and 30,000 ton dry cargo ship loading 5,000 tons of pulp.

HEALTH: See "Stockholm".

Animals: Private dogs and cats etc., not allowed ashore without quarantine.

RADIO: Stockholm Radio and Gothenburg Radio.

VHF: Harbour Office can be reached by VHF, Channel 16. Working frequency Channel 14.

Tug "Hafnia" – Channels 6, 13, 14 and 16.

Workboat "Portia" – Channels 6, 13 and 16.

TUGS: 1 tug available, 1×665 h.p. (ice-breaking).

BERTHING:

Location	Length (m.)	Depth (m.)	No. of cranes (max. load) tons
Inner Harbour:			
Western Quay, Southern Section	225	7.0	1 (5)
Western Quay, Northern Section	129	6.5	1 (6)
Northern Quay	85	5.0	Mobile (35)
Blekinge Quay	53	4.0	—
Other Quays	190	3.0	Mobile (35)
Outer Harbour:			
Ro-Ro ramp	20	6.0	
Side-deck at the Ro-Ro ramp	45	6.0	Mobile (35)
Outer Harbour Quay	200	8.2	1 (26)
Oil Jetty	25 + Dolphins	8.2	1 (40)
(The Ro-Ro berth, quay and oil landing-stage are situated on a 500 m. line).			
Private Harbours:			
Quay	165	6.0	1 (15)
New Quay	115	6.0	1 (15)

Within the port area a total of 25 straddle, fork and clamptrucks, as well as 2 front loaders, the biggest fork truck having a lifting capacity of 25 tons.

A storage space of 21,000 sq.m. inside warehouses, and an open air space of 140,000 sq.m.

STEVEDORES: Require notice before 1500 hrs. if loading/discharging shall start at 0730 hrs. following morning, or notice before 1000 hrs. if loading/discharging shall start 1300 hrs. the same day.

Stevedoring Company: Solvesborg Stuveri and Hamn AB. Tel: 0456-10119, 12295.

TANKERS: 3 Shore-lines for oil products from oil jetty to depots.

1. 250 mm. for Bunker C (2nd fuel).
2. 200 mm. for paraffin oil.
3. 200 mm. for petrol. For discharge coasters use ship's equipment.

Larger ships discharging Bunker C oil use harbour's 8 in. rubber hose.

FRESH WATER: Available.

FUEL: Ordered from oil companies by ship's Agents.

CONSULS: Royal Norwegian Vice-Consulate, Stortorget 10, Box 115, S-29401 Solvesborg. Tel: 0456-150 20.

REPAIRS: Carried out by local workshops.

DRY DOCKS: Facilities available.

GANGWAY/DECK WATCHMEN: Watchmen normally not needed. Can be ordered by ship's Agents.

OPENING/CLOSING HATCHES: Normally opened/closed by crew.

CERTIFICATES: See "Stockholm".

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes/week per head. Wine/spirit: normally 1 litre/week.

Customs House, Tel: 12000.

REPATRIATION: Possible.

AIRPORT: 50 km. to Kristianstad Airport and 60 km. to Ronneby Airport. Served by regular inland airlines.

TIME: Local time is GMT plus 1 hour. Summertime GMT plus 2 hours.

HOLIDAYS: See "Stockholm".

POLICE/AMBULANCE/FIRE: Dial 90 000 and ask for Police, Ambulance or Fire Department.

TELEPHONES: Telephones available in Agent's offices at quay and telephone boxes.

IDENTIFICATION CARDS: Not needed.

DELAYS: Normally no delays.

GARBAGE DISPOSAL: Blue, closed, containers are placed in harbour area. Notify harbour authority, if used.

WASTE OIL DISPOSAL: Tanker trucks of 12 cu.m. available at any berth.

SEAMAN'S CLUBS: Telephone boxes and post office in city centre. No other services for seamen.

CURRENCY: Swedish Kronor (SEK).

AUTHORITY: Solvesborgs Stuveri & Hamn AB, Box 60, S-294 22 Solvesborg, Sweden. *Tel:* 46-456-10119, 12262. *FAX:* 46-456-12761.

Contact: Kjell Andersson, Managing Director.

STENUNGSUND: 58.04 N. 11.49 E. (See Plan)

LOCATION: Stenungsund is located on the East side of Askero Fjorden about 23 miles North of Gothenburg. There are 3 terminals.

1. The Power Board Terminal.
2. The Borealis Havden Terminal.
3. The Norsk Hydro Terminal.

The terminals are located about 20 miles from the Hatteberget Light Tower (Lat. 57° 52' N., Long. 11° 28' E.) and are reached via Marstrands Fjorden and Hake Fjorden.

DOCUMENTS:

3 Crew Lists.

2 Passenger Lists.

1 Tobacco and/or Stores List.

1 Manifest.

1 List of Animals on Board (if any).

Access to the usual ship's papers (measurement, register, certificate, etc.).

If away from Sweden more than 15 days: Bill of Health.

APPROACHES: When approaching from the West, ships must keep North of the area dangerous due to mines extending to Lat. 57° 47' N., Long. 11° 03' E.

Currents in this area are unpredictable and are much influenced by the wind. Ships have reported experiencing a change in direction of current on approaching the Hatteberget Light Tower, for example, South-going outside Hatteberget, North-going inside Hatteberget. Currents of 1 to 3 knots have been experienced.

Seabuoy-Berth: For larger ships bound for Stenungsund the recommended track is Algo Fjorden shown on charts as passing between N. Meholm and S. Meholm is not always followed by Pilots, some preferring to pass South of the Hunden Shoal and S. Meholm. Great caution is needed in taking this Southerly route as there are unmarked dangers. During darkness or in poor visibility the Pilot's intentions should be fully discussed before entering Algo Fjorden.

The channel between Bratton, Kallon and Almon Islands at the North end of Hake Fjord and under the Tjornbron (bridge) between Kallon and Almon is in the form of an "S" bend and vision is obstructed. Traffic may be suddenly met with little warning, particularly as some ships do not carry Pilots, and there is no speed limit. Engines should be on standby, anchors ready and manned in this area.

PILOTAGE: The pilot boat is steel hulled, painted orange, and it will meet ships based on ETA and VHF contact. The Pilot boards at Hatteberget Light Tower. Pilots will not handle large vessels during darkness. Those ships must anchor and await daylight. ETA advice to Pilot to be sent to "Lotsarna Marstrand" via Goteborg Radio at least 5 hours before arrival giving ship's name, flag, draft, ETA Pilot Station and destination.

ANCHORAGES: While awaiting berth vessels anchor outside harbour N.W. of Powerboard Jetty. Safe anchorages everywhere, but fairway South of Galteron Lighthouse has to be avoided.

RESTRICTIONS: Max. draft in channel 13.0 m. Night navigation is decided by individual case.

Bridge height at Tjornbron is 43 m.

MAX. SIZE: *Powerboard Jetty:* Max. draft North side 12.30 m., South side 10.50 m.

Statoil Havden: Max. LOA 240 m. Max. draft 14.0 m. Distance bow to manifold 99.0 m.

Norsk Hydro Terminal: Max. LOA 100 m. Depth 9.5 m.

HEALTH: No special Pratique necessary. If any disease or fever suspected on board, doctor must be called on arrival. Pratique automatically granted when entering from another port in Sweden.

RADIO: Gothenburg radio.

VHF: Pilot on Channel 16. Working on Channel 6.

TUGS: At present no tugs are stationed in Stenungsund but have to be ordered from Gothenburg at least 2 hours' steaming away.

Tugs are diesel driven, single screw, single rudder. Tugs are made fast after passing Vinterholmen at the North end of Hake Fjord and before passing through the narrows under the bridge. Tugs tow on the hook using ship's ropes. The larger tugs use two ship's ropes out of the same lead and care must be taken to equalise the load on the two lines before full load is taken.

The Pilot carries his own VHF set (having Channels 16, 13 and 12) and uses this to communicate with the tugs.

50,000 d.w.t. tankers use 3 tugs, 1 large tug forward, 1 large and 1 smaller tug aft.

MEDICAL: Doctors and dentists available at short notice. Hospitals situated at Uddevalla and Kungalv, ambulances at Stenungsund.

TANKERS: The Powerboard Terminal:

General: The Powerboard Jetty is a finger pier aligned East/West located on the East side of the Askero Fjord about 1 nautical mile North of the town of Stenungsund (Lat. 58° 05.3' N., Long. 11° 49.2' E.). It is shown on B.A. Chart 890. It is used for the import and export of fuel oil for the power station located 0.5 miles away and for the import of products, solvents and LPG for oil and petrochemical companies.

Cautionary Advice: Currents in Askero Fjorden are unpredictable both in speed and direction but generally run across the direction of the finger pier. The fendering of the outer corners of the pier is of low energy absorption characteristics and heavy landings must be avoided. Anchors should be manned and ready for letting go.

Berthing Procedures: On proceeding up Askero Fjorden past Havden the ship is swung to starboard with the assistance of tugs and lined up for the pier. Anchors are sometimes used to help steady the bow on the correct heading, and as assistance in bringing the ship up.

Ocean-going ships berth on the North side of the pier and are, therefore, starboard side to berth. When in position, most ships' sterns protrude beyond the end of the pier by as much as one-third of their length, therefore, maximum attention must be paid to the stern moorings. Because moorings placed on the buoy on the starboard quarter or on the bollards on the South shore prevent ships from using the South side of the pier the terminal will not, as a rule, put moorings to these points. However, in periods of unsettled weather, particularly if winds are from the S.W., Masters of the larger ships should insist on stern moorings being sent to the buoy and South shore. It should be borne in mind that tugs are not readily available at Stenungsund. Moorings are taken ashore initially by boat and then by heaving line. The forward spring line is usually first line ashore. No shore moorings are provided.

Gangway: Ship's gangway is used, there is ample room on the jetty to land the gangway abaft the manifold. Note that when ship is light the normal ship's gangway will become very steep (over 50°) and special safety precautions to prevent accidents to personnel will be necessary.

Fendering: The concrete strong points of the pier are protected by tubular rubber 600 mm. diameter erected horizontally. The concrete outer corners are well protected with low friction fenders.

Cargo Connections and Handling: HFO, Heating Oil, Naphtha and Mogas are handled. Ullages and temperatures are taken jointly with shore representative upon arrival alongside.

Starboard manifold should be prepared for 10 in. hoses, 2 or 3 flexible hoses with 10 in. ASA bolted flanges are usually connected. Starboard derrick and a 4 ton shore crane are used for hose connection.

Concurrent loading and discharging are not allowed. Maximum back pressure is 10 kg./sq.cm.

Naphtha receiving capacity is maximum 3,000 cu.m.p.h. Normal discharge rate is about 1,800 cu.m.p.h.

Deballasting Facilities: The terminal has limited high flash ballast reception facilities, about 2,400 cu.m. Discharge rate is about 500 cu.m.p.h.

Clean oil-free ballast may be discharged overboard but it is the ship's responsibility to ensure that the ballast water is oil-free and very heavy penalties are imposed for oil pollution.

Passing Traffic, Weather, Tide, etc.: There are no unusual problems except for strong S.W. winds when it is important that breast moorings are run to the starboard quarter buoy and to the South shore.

Special Regulations: No small craft are allowed alongside ship while at jetty. No bunkering during loading and discharging.

Oil Pollution Safeguards: Floating oil booms – partly fixed and partly portable are available to surround the ship and jetty. Mechanical suction equipment is available.

Fire Fighting Equipment: Remote-controlled foam-guns and water monitors are available at the berth.

Fresh Water: Good quality fresh water is available ex-jetty by hose, rate 25 t.p.h.

Additional Information: The berth on the South side of the Powerboard finger pier also handles HFO, heating oil, naphtha and mogas but is mainly used for loading/discharging LPG.

Statoil Terminal, Havden: *General:* Statoil's Havden terminal berth is located on the North side of the Havden peninsula on the East side of Askero Fjorden (Lat. 58° 05' N., Long. 11° 48.5' E.). It is a marginal type berth with a breasting face about 60 m. long. It is used for the discharge of naphtha and LPG.

Cautionary Advice: See "Powerboard Terminal".

Telegraph cables (shown on the chart) run out from the shore close Northwards of the berth and anchors should not be used. In addition, the dredged area tapers quite sharply towards the East end of the berth and use of an anchor could result in the ship "sitting" on the anchor or its cable.

Berthing Procedures: On arriving off Havden the ship is swung to starboard with the assistance of tugs and steamed slowly to the berth. Ships always berth starboard side to berth. Moorings are taken ashore by motor boat, the forward spring is usually the first line ashore. The stern of the ship is not well sheltered from the prevailing S.W. winds and special attention must be paid to putting out good stern moorings. It must be remembered that tugs are not readily available in Stenungsund. No shore moorings are provided.

Gangway: Ship's gangway used, ample room on the jetty to land the gangway aft of the cargo manifold. Note that, when ship is light, the normal ship's gangway will become very steep (over 50°) and special precautions to prevent accidents to personnel will be necessary.

Fendering: Each of the 3 concrete strong points is fendered by truck tyres around a rubber core slung horizontally. Care should be taken not to land initially between the strong points.

Cargo Connection and Handling: Only naphtha and LPG are handled at this berth. No bunkers can be provided. 2×10 in. fully counterbalanced hard arms of Chicksan manufacture are provided. Each has 10 in. ASA bolted flanges.

Ullages and temperatures are taken together with shore representative upon arrival alongside.

Starboard manifold should be prepared to accept 2×10 in. hard arms. If ship's manifold has large overhang outside the support, this should be jacked up before connection of arms. Stays, derricks, etc., in vicinity of starboard manifold should be removed. There are no facilities for receipt of dirty ballast at the terminal.

Oil Pollution Safeguards: Floating oil booms, partly fixed, partly portable are available to surround ship and jetty. Mechanical suction equipment is available.

Fire Fighting Equipment: The jetty is equipped with a fire water and a foam line and portable monitors.

Fresh Water: Good quality fresh water is available ex-jetty by hose, rate 25 t.p.h.

Norsk Hydro Terminal: Max. LOA 100 m. Depth 9.5 m.

FUEL: Only available by barge from other places (i.e. Gothenburg). Bunkering only during daylight. Can be ordered at short notice.

FIRE PRECAUTIONS: Normal precautions.

CONSULS: At Gothenburg.

REPAIRS: Minor repairs can be made locally, large repairs by labour from Gothenburg shipyards. Gas-freeing alongside with Port Captain's approval only. Repairs alongside with Port Captain's approval only.

SURVEYORS: D & D Marine Consult, Upplandsgatan 25, 11360 Stockholm. Tel: 08-34 1590.

GANGWAY/DECK WATCHMEN: Watchmen from ashore necessary when telephone connected.

CUSTOMS ALLOWANCES: 200 cigarettes. 1 bottle of spirits.

REPATRIATION: All facilities exist.

AIRPORT: Gothenburg 50 km. away. Regular airlines.

TIME: GMT plus 1 hour.

HOLIDAYS: Tankers load and discharge all year round.

TELEPHONES: Connected on board if required. Watchmen attend calls. Fireman and alarm on jetty during whole operation.

SHORE LEAVE: Permitted. Distance to Stenungsund 1 km., Uddevalla 40 km. or Gothenburg 50 km. by bus, train or taxi. Shore passes issued at the gate.

IDENTIFICATION CARDS: The gate at the Powerboard Terminal is TV-guarded. Each crew member must carry a Passing Permission allowing passage through the gate. Required number of permissions will be handed over to the Master by the Agent on ship's arrival. Passing Permission at Statoil Terminal, Havden, is not required.

GARBAGE DISPOSAL: Container available for garbage, free of charge.

WASTE OIL DISPOSAL: Reception facilities for engine slops only up to a maximum of 15 cu.m. at a time.

SEAMAN'S CLUBS: None.

CURRENCY: Swedish Kronor (SEK).

SHIPMASTER'S REPORT: January 1989 (Updated 1990).

Pilotage: On approaching the port, call 'Marstrand Pilot' on VHF Channel 11. The pilot usually boards between Hatteberget Light Tower and Astol Island to the N.W., from a fast launch painted orange. The water in the approaches is deep. The Racon on Hatteberget Light is usually visible when passing the Skaw. It takes approximately 1.0 hours – 1.5 hours to reach the Statoil berths.

Anchorage: There are no safe anchorages outside the fjord. If vessel is awaiting a berth it is usual to anchor to the West of the berths. An alternative anchorage is in the area 6 miles North of Algon Island, which is within the pilotage waters.

Max. Size: Power Board Terminal: On the North side of the jetty the maximum draft is 12.6 m. and on the South side 10.6 m.

Statoil Terminal: This berth is to be dredged to 14.0 m.

Tugs: There are no tugs stationed at Stenungsund. If tugs are required they have to be ordered from Gothenburg, which is 2.5 hours away by sea. 5 hours notice is required. Tugs normally join vessel at the 'S' bend at Tjornbron Bridge. Vessels of 32,000 cu.m. capacity require 2 tugs for berthing and one for unberthing.

Berths: Power Board Terminal: Lat. 58° 05.3' N., Long. 11° 49.2' E.

The finger pier is located on the East side of Askero Fjord and is aligned in an East/West direction. The pier is 1 mile North o Stenungsund.

The jetty is used for the import of oil for the power station and for import of LPG and ethylene for oil companies.

Approach to the berth is difficult in strong S./S.W. winds.

Vessels berth head-in, starboard side alongside, on the North side o the jetty and port side alongside on the South side. The offshore ancho is often used when berthing.

On the North Berth, vessels should be well secured at the stern whe S./S.W. winds are blowing and well secured at the South Berth whe N.W./N. winds are blowing.

Statoil Terminal: The berth is located on the North side of Havde Peninsula, to the West of Stenungsund. Vessels are swung to starboa and then pushed slowly into the berth. The stern overhangs whe alongside, so good moorings are required aft when S./S.W. winds a blowing. The leads for the after moorings are poor and the leads for th headlines are long.

Cargo: Power Board Terminal: Ethylene is handled on both sides of th jetty, dependent on the receiver. Neste use the North side and Stat use the South side. The North side berth is equipped with an 8 i hydraulic arm (150 ASA) with clamps and automatic disconne mechanism. The South side berth is also equipped with an 8 i (150 ASA) hydraulic arm, but without clamps. Shore supply th necessary reducers. No VRL connected.

Initially small amounts of cargo are pumped ashore from each ta in turn, so that samples can be taken on the jetty. Analysis takes abo 2 hours. The cargo temperature is to be at least −100°C. and usua colder temperatures required. If the temperatures are correct, the sho facility can usually handle rates up to 500 cu.m.p.h. on the North si and 200 cu.m.p.h. on the South side. Hot gas required on completio It usually takes about 20 minutes to clear line, so about 40 mb. is requi in the tanks. The jetty has a steam/hot water line for de-icing. Loc surveyor used.

Statoil Terminal: LPG handled at this berth. Discharge is by 10 i (150 ASA) non-hydraulic arm. Shore supply the necessary reducer, VRL. Samples are taken prior to arm being connected. Analysis ta 3 hours. Once lines are cool, the rate can be increased to maximu Cargo goes into cavern storage so any rate can be accepted witho difficulty. There was very little contact with the shore once discha had commenced.

A surveyor from the terminal and SGS are available for figu Terminal surveyor will use density from sample for calculations.

General: Power Board Terminal: There is an electric crane with 4 t SWL on the North side. No trucks allowed on jetty. Trolleys availa for the 300 m. haul from the roadway.

Statoil Terminal: Stores can be manhandled from the barrier which is approximately 300 m. from the ship. A hand driven shore crane can be used for loading stores. There is a telephone in the cabin on the jetty. Fresh water is available. All medical facilities are available locally. Stores are expensive.

AUTHORITY: Vattenfall, S-44487 Stenungsund, Sweden. *Tel:* 46-303-66141. *FAX:* 46-303-66161. *Cables:* Kraftverket. *Contact:* Ove Kristoffersson, Harbour Master.

Statoil Petrokemi AB, S-44481 Stenungsund. *Tel:* 0303-87000. *FAX:* 0303-87444. *Contact:* Morgan Hermansson or Anders Ranswall, General Managers.

Norsk Hydroplast AB, S-44483 Stenungsund. *Tel:* 0303-71560. *Telex:* 21206. *FAX:* 0303-84756. *Contact:* Stig Grunden, General Manager.

STOCKHOLM: 59.19 N. 18.03 E. (See Plan)

DOCUMENTS:

(a) Crew List: Normally 2 copies; for oil harbour at Loudden and Free Port, 3 copies.

(b) Passenger List: Regular passenger services 2 copies; cruise ships (lists for cruise ships must be sent in advance to Agent for forwarding to Immigration Authorities), 2 copies.

(c) Customs Documents: Arrival report (form can be obtained on arrival), 4 copies. Crew Effects Declaration, 2 copies. Ship's Stores Declaration, 2 copies.

(d) Quarantine Certificate or Bill of Health: Derat Certificate not more than 6 months old to be shown. *Note:* Additional quarantine regulations may be imposed in special circumstances.

(e) Manifest: 3 copies.

(f) Bills of Lading: 1 copy of each. Liners may be subject to other regulations with regard to *(e)* and *(f)* above.

(g) Ship's Documents: Tonnage Certificate. Certificate of Nationality.

PILOTAGE: *(Sweden General).* Applications for licensed Pilots should be made at least 5 hours before pilotage is due to commence. When making application specify name of vessel, tonnage, draft and destination. Also give estimated time for taking Pilot on board and route. If this procedure not followed, the Maritime Service cannot guarantee to supply a Pilot without considerable delay to vessel.

Preferable make application by telephone, or by radio via a coastal station or by some other method direct to Pilot Station nearest point where pilotage is to begin. Also possible request Pilot by VHF telephone to any Maritime Service Pilot Station, Pilot waiting point or lighthouse which is equipped with VHF.

The Maritime Service's network of permanent VHF telephone stations has been extended to give almost complete coverage of all Pilot Stations and waiting points and is also operative for a number of lighthouses. The radio stations can operate on different Channels and are equipped for frequency modulation. During hours when Pilot Stations are open, a constant watch is kept on frequency 156.80 MHz (Channel 16). This frequency should be used for all signals and replies – and for distress traffic. Outside these hours, normal traffic transmissions, i.e. applications for Pilots, etc. should be made on frequency of 156.65 MHz (Channel 13) or on reserve operating frequency of 156.60 MHz (Channel 12).

When making VHF telephone call, the type of call signal that should be sent is "Lotsarna (or Pilot Station) plus the name of the Pilot Station or the pilotage attendance".

	Soderhamn/ Simpnas	*Sandhamn*	*Landsort*
Cable address	Kapellskars Pilot Station	Stockholm Pilot Station	Nynashamn Pilot Station
Notice of arrival	5 hours	5 hours	5 hours
VHF Channels	6, 12, 13, 16	6, 12, 13, 16	6, 12, 13, 16
Description of pilot boat	Pilot boat on day duty flies international flag "H". Pilot boat on night duty carries lights conforming to International Regulations for Preventing Collisions at Sea, Rule No. 29.		
	33 ft. steel cutter painted red-orange	33 ft. steel cutter painted red-orange	40 ft. steel cutter painted red-orange
To order Pilot:	Tel: 08-6666622. Fax: 08-6666690. Telex: 12858 Stolops. Cables: Pilot Station Stockholm. VHF: Channel 13. Pilot may be called by radio or VHF.		
Boarding point	At Bjorko outside outer Skerries, 2 – 3 n.m. N.W. or E. of Simpnasklubb	2 n.m. S.E. of Revengegrund Light	2.5 n.m. S. of Oja
Anchorage for vessels awaiting Pilot	Near position stated above	Near position stated above	Near position stated above

ANCHORAGES:

	Arholma	*Sandhamn*	*Landsort*
(a) Prohibited anchorage	59° 30' N. 19° 05' E. 59° 45' N. 19° 14' E.	59° 17' N. 18° 54' E.	
(b) Suitable anchorages	2 – 4 n.m. N.N.W. of Simpnasklubb	2 – 4 n.m. E. and S. of Revengegrund	6 – 8 n.m. S.S.E. of Landsort
(c) Depth	33 – 38 fathoms	11 – 22 fathoms	11 – 16 fathoms

RESTRICTIONS: Very large passenger vessels and fully-loaded tankers of approx. 15,000 d.w.t. or over not allowed pass through Skerries during darkness.

Ships with gross tonnage exceeding 300 tons must proceed only on an Easterly course in Lindalssundet. Ships with gross tonnage exceeding 300 tons must not proceed through Kodjupet and Sandhamnssundet (between Sandon and Korso).

Ships with a gross tonnage exceeding 300 tons, not using a Pilot, must be equipped with VHF telephone which must be continuously watched on Channel 16 and 9.

A vessel reporting system has been established covering the entrances to the Port of Stockholm. Vessels over 300 g.r.t. report to Stockholm Pilot Station ("Lotsarna Stockholm") when passing way points. Reports to be given by VHF Channel 73.

Tankships with gross tonnage exceeding 800 tons carrying crude oil products, mineral oil and certain chemicals must have licensed Pilot in the passages Arholma-Stockholm; Soderarm-Stockholm; Sandhamn-Stockholm; Landsort-Stockholm; Landsort-Nynashamn; Landsort-Sodertalje and in the Lake of Malaren.

MAX. SIZE:

Max. Dimensions Passenger – or Dry Cargo Ships:

DAYLIGHT

	LOA (m.)	*Beam (m.)*	*g.r.t.*	*Draft (m.)*
Sandhamn	245.0	35.0	43,000	11.0
Landsort	200.0	22.0	18,000	10.0
Simpnas/Soderarm	245.0	35.0	18,000	8.0
Gustavsberg	60.0	9.5	—	4.2

Ships larger than 30,000 g.r.t. or longer than 200 m. to be assisted by 2 Pilots and to have assistance of tugs through the Archipelago.

DARKNESS

	LOA (m.)	*Beam (m.)*	*g.r.t.*	*Draft (m.)*
Sandhamn	175.0	26.0	18,000	9.0
Landsort	175.0	26.0	13,000	9.0
Simpnas/Soderarm	175.0	26.0	13,000	7.0

Max. Dimensions Tankers:

DAYLIGHT AND VISIBILITY EXCEEDING 1 NAUTICAL MILE

	LOA (m.)	*Beam (m.)*	*d.w.t.*	*Draft (m.)*
Sandhamn	200.0	32.0	35,000	11.0
Landsort	175.0	26.0	15,000	10.0
Simpnas/Soderarm	175.0	28.0	15,000	8.0

Ships exceeding 22,000 g.r.t. to have 2 Pilots onboard. Ships of this size are normally not handled in winds stronger than 15 m./s.

DARKNESS OR POOR VISIBILITY (LESS THAN 1 NAUTICAL MILE)

	LOA (m.)	*Beam (m.)*	*d.w.t.*	*Draft (m.)*
Sandhamn	175.0	26.0	15,000	9.0
Landsort	145.0	19.0	10,000 (13,000 double bottom)	9.0
Simpnas/Soderarm	145.0	19.0	10,000 (13,000 double bottom)	7.0

Tankers:

Tanker Discharge Quay	*Max. safe draft*	*Available Quay length*
Bergs Oil Harbour	12.4 m.	230 m.
Kvarnholmen	9.4 m. – 10.8 m.	183 m. – 230 m.
Loudden	8.2 m. – 11.0 m.	190 m. – 230 m.
Vartan	7.4 m. – 10.4 m.	190 m. – 230 m.

HEALTH: Vessels arriving from ports outside Europe must for Inward Clearance provide Customs Office with written Declaration of Freedom from Infection. Further instructions will be issued by Customs Office when such a Declaration cannot be given.

RADIO: Stockholm Radio, call sign SDJ.

RADAR/VHF: All 3 Pilot Stations have radar for internal use. No harbour radar service. VHF Channels 16 and 12. Also see "Restrictions".

TUGS: Very large vessels may be met by tugs by special arrangement at pilot boarding point. Tugs available to special order to assist with berthing; they rendezvous usually near berth.

Rates: According to fixed tariff.

BERTHING: See Tables on Page 2042 .

BRIDGES:

HOURS FOR OPENING FOR MOVABLE ROAD BRIDGES OVER HAMMARBY SEALANE

Movable parts of road bridges over sealane of Hammarby opened on request for vessel unable freely to pass under the bridges, all through the year at regular hours.

STEVEDORES: Stevedores available from Stockholms Hamn AB. Tel: 08/6702600. Working hours 0700 – 0900, 0930 – 1100, 1115 – 1330 and 1400 – 1600. Stevedores required for 0700 hrs. must be booked previous day.

MEDICAL: Full hospital facilities available without prior notice. Dentists available during normal working hours.

TANKERS:

Quay	*No. of Berths*	*Max. d.w.t.*	*Depth alongside (ft. in.)*	*Diameter of Discharge Pipelines (in.)*
Bergs (Statoil)	1	65,000	43 00	12 – 20
Kvarnholmen	2	30 – 65,000	33 00 – 39 04	8 – 14
Loudden (Municipal)	5	25 – 60,000	28 06 – 39 00	6 – 12
Vartan (Statoil/Shell)	3	20 – 60,000	24 08 – 36 00	8 – 10

DENSITY: Salt content of 0.5%. No variations

GANGWAY/DECK WATCHMEN: Not essential, but recommended for large tankers.

OPENING/CLOSING HATCHES: If opened and closed by stevedores, subject to extra fee.

SODERHAMN: (includes Stugsund, Langror Oilberth, Sandarne Factory Berth and Orrskar Woodchip Berth.) 61.18 N. 17.05 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
3 Bills of Lading.
3 Manifests.
2 Crew Effects Declarations.
2 Ship's Stores Declarations.
Tonnage Certificate.
Certificate of Nationality.
Ship's Register.

PILOTAGE: Pilot must have 5 hours' notice. Telegraphic address "Soderhamn Pilot Station", Ljusne. VHF Channel 16 for calling pilot boat and Pilot Station and 13. Pilot boat is orange. International signals to be used. Vessels can normally receive Pilot between Hallgrund and Storjungfrun. In case of bad weather or ice, Master consults Pilot for advice (Also see "Stockholm").

ANCHORAGES: Lilljungfru Anchorage S.W. Lilljungfrun, where depths are 15 m. – 20 m., is W. or S.W. of Norrutharet. Branthalls Anchorage W. Branthall Island, depths 10 m. – 15 m.

HEALTH: No special action except for suspected disease. In case of disease contact Agent for information.

RADIO: Stockholm Radio. Within reach, Master may call Soderhamn Port Radio. Tug station is Stugsund. Tug fitted VHF, Channels 16,13, 12.

There is a radar station at Soderhamn. Pilot station, Ljusne, and the pilot boats are fitted with radar.

MAX. SIZE: Langror Oil Berth. Breadth of entrance fairway 55 m. – 60 m. and depth 8.3 m. at mean level (M.L.). Depth according to M.L. of 1987. Max. ship length about 170 m. at the quay.

Orrskar: Woodchip Terminal, breadth of entrance fairway 110 m., depth 12.8 m. M.L. New quay for general cargo, depth 10.45 m. M.L.

Sandarne: Breadth 30 m., depth 7.0 m. M.L. breadth 55 m. – 60 m. in unlit fairway.

Stugsund: Breadth 30 m., depth 6.0 m. M.L.

Soderhamn: Breadth 10 m. – 15 m., depth 3.5 m. M.L.

Depth varies about 1 ft. below and 1 ft. above M.L. Breadth given at narrowest point in fairway.

TUGS: Normally meet large vessels at Otterhallans Lighthouse, Blomman Lightbuoy and others off quays on request. Ship's lines to be used.

BERTHING: Boatmen can be ordered by Pilots or Agents. Large ships berth oil berth only in daylight because channel not lit.

CRANES: One electric crane to lift 10 tons in Stugsund. In other berths mobile cranes can be hired.

STEVEDORES: Gangs to be ordered by Agent usually at 1500 hrs. for starting next morning at 0700 hrs.

MEDICAL: Medical attendant available day and night.

TANKERS: 6 in. or 8 in. connections. Only 1 berth and max. depth at quay 8.3 m.

DENSITY: Practically fresh water.

FRESH WATER: Available in all ports. Delivered through pipelines on wharf. Rate: 10 t.p.h.

FUEL: Any normally used grade on request to oil company with few hours' notice.

CONSULS: None.

REPAIRS: Minor plate-work and welding can be carried out.

SURVEYORS: A Surveyor is appointed at the Port.

GANGWAY/DECK WATCHMEN: Watchmen available.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: Traffic permission (not necessary for ports within the Custom District boundaries), Bill of Measurement, Swedish Sailor's Roll (only Swedish ships), Foreign Nationals Crew Passports, Derat Certificate (6 month), Certificate of Health.

CUSTOMS ALLOWANCES: (Tobacco), out of bond, 200 cigarettes or 250 gm. tobacco. (Wine/Spirits), out of bond, 1 bottle of spirits and wine, maximum 1 litre or 2 bottles of wine.

CARGO GEAR: Valid cargo gear certificates.

REPATRIATION: Facilities exist for effecting crew changes.

AIRPORT: Nearest international airport Stockholm.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: No work on official holidays, but may be possible on special request. New Year's Day (1st January); Twelfth Day (6th January); Good Friday; Easter Sunday and Easter Monday; 1st May; Whit Sunday and Whit Monday; Midsummer Day; All Saints' Day; 25th December and 26th December; New Year's Eve; Easter Eve; Whitsun Eve; Midsummer Eve; Christmas Eve.

POLICE/AMBULANCE/FIRE: Police 90000 or 0270/72300; Ambulance 90000; and Fire 90000 or 0270/75000.

TELEPHONES: Quay telephones can be placed on board at Orrskar quay. 2 telephones.

SERVICES: Facilities for discharge of tank-washings max. 20 tons. Tank-cleaning and facilities for discharge of tank-washings of great extent are Stockholm and Sundsvall. Compass adjusting in Stugsund Berth.

BANKS: Skandinaviska Enskilda Banken, Box 4, Kopmangatan 1, 826 21 Soderhamn.

STORING: See "Prelims".
1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. Only bonded stores.
6. Stevedores, on request.

IDENTIFICATION CARDS: Not needed.

GARBAGE DISPOSAL: Container available on wharf. No charges.

WASTE OIL DISPOSAL: Engine room slops only. Tanker trucks capacity 8 cu.m. available at all berths. The service can be ordered through Soderhamns Hamn, Tel: 0270-54640, 24 hours before arrival. Collection only between 0700 – 1530 hrs.

SEAMAN'S CLUBS: Only local facilities available, e.g. shop, international telephone, postage, etc.

CURRENCY: Swedish Kronor (SEK).

REGULATIONS: Port Regulations available from Agent or Port Office.

DELAYS: Fog, ice and bad weather may delay berthing. Rain and snow can delay loading and discharging of dry cargo.

GENERAL: There is a VHF port radio at the Port Office, Stugsund. Working hours 0730 – 1630 hrs. Channel 16 for call and Channel 12 for working. During the ice-breaking season the tug may be out even at night. Tug has same channels. Soderhamn Customs District includes all berths mentioned above.

AUTHORITY: Soderhamns Hamn, Strandgatan 4, S-82660 Soderhamn, Sweden. *Tel:* 0270-54640, 54580. *FAX:* 0270-55190. *Contact:* Rutger Hagberg, Harbour Master.

SODERTALJE: 59.12 N. 17.38 E. (See Plan)

PORT LIMITS: Approximately 2 nautical miles from entrance.

DOCUMENTS:
Crew List.
Cargo Manifest.
List of Ports of Call.

PILOTAGE: Pilot to be ordered at least 5 hours before arrival at Landsort Pilot Station on VHF Channel 13. Distance from Landsort to Sodertalje is 34 nautical miles.

Pilotage compulsory for all vessels carrying petroleum, gas and chemicals.

ANCHORAGES: Pilots direct vessels to suitable anchorages.

RESTRICTIONS: Cables over fairway with vertical clearance of 42 m. at MLW and railway bridge 40.5 m. (Between South Harbour and Oi Harbour).

MAX. SIZE:

	Length	*Beam*	*Draft*	*Airdraft*
Uthamnen (Outer Harbour)	200 m.	32 m.	8 m.	40.5 m.
Sydhamnen (South Harbour)	200 m.	32 m.	9 m.	42.0 m.
Igelstahamnen (Igelsta Harbour)	200 m.	32 m.	9 m.	40.5 m.
Oljehamnen (Oil Harbour)	200 m.	32 m.	9 m.	40.5 m.

HEALTH: Derat Certificate required.

RADIO: Stockholm Radio.

VHF: Channel 13 calling "Pilot Sodertalje" or "Malarbron" for ordering of boatmen 1 hour before arrival.

RADAR: No port radar service.

TUGS: Available through local Agents for vessels over 10,000 d.w.t.

BERTHING: *Sydhamnen:*
Ro/Ro Berth No. 9, length 70 m., depth 6.4 m. MW.
Ro/Ro Berth No. 10, length 130 m., depth 7.9 m. MW.
Ro/Ro Berth No. 11, length 130 m., depth 7.9 m. MW.
Ro/Ro Berth No. 12, length 160 m., depth 9.8 m. MW.

Oljehamnen: Jetty No. 6, depth 10.1 m. Jetty No. 7/8, depth 6.9 m.

Uthamnen: Lo/Lo berth (general cargo), length 300 m., depth 5.9 m.-8 m. Silo Quay, length 155 m., depth 8.4 m.

Igelstahamnen: Coal and oil discharge berth, length 150 m., dept 10.5 m. Coal discharged using shore equipment.

CRANES: *Uthamnen:* 3 cranes with capacity up to 25 tons.

Sydhamnen: Mobile cranes up to 47 tons with auto container spreade forklifts up to 45 tons.

Igelstahamnen: Shore equipment for coal discharge.

BULK HANDLING FACILITIES:

Uthamnen: Salt in bulk.

Siloquay: Grain loading.

Igelstahamnen: Coal discharge, oil discharge.

Oljehamnen: Oil petroleum products and liquid chemicals.

SPECIALISED CARGO HANDLING FACILITIES: 24,000 sq.m. for co and warm storage available.

STEVEDORES: Ordinary working hours: 0700 – 1130 hrs., 1200 - 1600 hrs. on weekdays. Stevedores can be ordered by telephonin 08-55023750 or by telex No. 10273 Sodstuv.

TANKERS: See "Berthing".

FRESH WATER: Available at all berths.

FUEL: Available at all berths.

REPAIRS: Can be undertaken at all berths.

DRY DOCKS: Nearest at Stockholm.

SURVEYORS: Cargo surveyors are available from Stockholm.

GANGWAY/DECK WATCHMEN: Available.

HATCHES: Opening/closing carried out by stevedores.

AIRPORT: Nearest at Stockholm, 60 km. distant.

TIME: GMT plus 1 hour. Summertime GMT plus 2 hours.

HOLIDAYS: Cargo work can be carried out by special agreement o holidays.

POLICE/AMBULANCE/FIRE: Dial 90000 and request necess service.

TELEPHONES: Can be placed on board vessels.

BANKS: Only Swedish banks are represented.

STORING: See "Prelims".
1. By truck.
2. Vessels can store while loading/discharging.
4. Forklifts available.
6. Yes.

GARBAGE DISPOSAL: Garbage containers in each harbour. Cont Port Authority Tel: 08-55023750.

WASTE OIL DISPOSAL: Collection service of waste oil through harbour via tanker truck. Contact Port Authority Tel: 08-55023750.

SEAMAN'S CLUBS: The Seamen's Club is situated in Stockho 30 km from the port. Contact Tel: 08-6632421.

CURRENCY: Swedish Kronor (SEK). U.S.$ 1.00 = SEK 6.80 (28.2

SHORE LEAVE: Permitted.

AUTHORITY: Port of Sodertalje, Box 2016, S-15102 Soder Sweden. *Tel:* 08-55023759. *Telex:* 10273 Sodstuv. *FAX:* 08-55031 *Contact:* Ingvar Wiren, Managing Director.

SOLVESBORG: 56.03 N. 14.35 E. (See Plan)

DOCUMENTS: See "Stockholm".

PILOTAGE: Pilot station at Ahus, Tel: 044/240027, needs 5 hours' notice. Pilot Station (Karlshamn): Tel: 0454-14102. Pilot station and pilot boat can be ordered by VHF Channel 16, working on Channel 13. Harbour office in Solvesborg can be called on same frequency. (Also see "Stockholm".)

ANCHORAGES: Roadstead to South of harbour 25 ft. deep with good holding ground.

MAX. SIZE: Depth in outer harbour 8.2 m. (27 ft.) and in inner harbour 7.5 m. (25 ft.) Recommended for ships to have 1 ft. 6 in. of water under keel. Max. length 170 m. (558 ft.). Breadth 30 m. (98 ft.). Draft 7.7 m. (25 ft.) for vessel entering harbour. Largest ships to enter harbour were 26,000 tons oil tanker with load of 16,000 tons and 30,000 ton dry cargo ship loading 5,000 tons of pulp.

HEALTH: See "Stockholm".

Animals: Private dogs and cats etc., not allowed ashore without quarantine.

RADIO: Stockholm Radio and Gothenburg Radio.

VHF: Harbour Office can be reached by VHF, Channel 16. Working frequency Channel 14.

Tug "Hafnia" – Channels 6, 13, 14 and 16.

Workboat "Portia" – Channels 6, 13 and 16.

TUGS: 1 tug available, 1×665 h.p. (ice-breaking).

BERTHING:

Location	*Length* (m.)	*Depth* (m.)	*No. of cranes (max. load)* tons
Inner Harbour:			
Western Quay, Southern Section	225	7.0	1 (5)
Western Quay, Northern Section	129	6.5	1 (6)
Northern Quay	85	5.0	Mobile (35)
Blekinge Quay	53	4.0	—
Other Quays	190	3.0	Mobile (35)
Outer Harbour:			
Ro-Ro ramp	20	6.0	—
Side-deck at the Ro-Ro ramp	45	6.0	Mobile (35)
Outer Harbour Quay	200	8.2	1 (26)
Oil Jetty	25 + Dolphins	8.2	— 1 (40)
(The Ro-Ro berth, quay and oil landing-stage are situated on a 500 m. line).			
Private Harbours:			
Quay	165	6.0	1 (15)
New Quay	115	6.0	1 (15)

Within the port area a total of 25 straddle, fork and clamptrucks, as well as 2 front loaders, the biggest fork truck having a lifting capacity of 25 tons.

A storage space of 21,000 sq.m. inside warehouses, and an open air space of 140,000 sq.m.

STEVEDORES: Require notice before 1500 hrs. if loading/discharging shall start at 0730 hrs. following morning, or notice before 1000 hrs. if loading/discharging shall start 1300 hrs. the same day.

Stevedoring Company: Solvesborg Stuveri and Hamn AB. Tel: 0456-10119, 12295.

TANKERS: 3 Shore-lines for oil products from oil jetty to depots.

1. 250 mm. for Bunker C (2nd fuel).
2. 200 mm. for paraffin oil.
3. 200 mm. for petrol. For discharge coasters use ship's equipment.

Larger ships discharging Bunker C oil use harbour's 8 in. rubber hose.

FRESH WATER: Available.

FUEL: Ordered from oil companies by ship's Agents.

CONSULS: Royal Norwegian Vice-Consulate, Stortorget 10, Box 115, S-29401 Solvesborg. Tel: 0456-150 20.

REPAIRS: Carried out by local workshops.

DRY DOCKS: Facilities available.

GANGWAY/DECK WATCHMEN: Watchmen normally not needed. Can be ordered by ship's Agents.

OPENING/CLOSING HATCHES: Normally opened/closed by crew.

CERTIFICATES: See "Stockholm".

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes/week per head. Wine/spirit: normally 1 litre/week.

Customs House, Tel: 12000.

REPATRIATION: Possible.

AIRPORT: 50 km. to Kristianstad Airport and 60 km. to Ronneby Airport. Served by regular inland airlines.

TIME: Local time is GMT plus 1 hour. Summertime GMT plus 2 hours.

HOLIDAYS: See "Stockholm".

POLICE/AMBULANCE/FIRE: Dial 90 000 and ask for Police, Ambulance or Fire Department.

TELEPHONES: Telephones available in Agent's offices at quay and telephone boxes.

IDENTIFICATION CARDS: Not needed.

DELAYS: Normally no delays.

GARBAGE DISPOSAL: Blue, closed, containers are placed in harbour area. Notify harbour authority, if used.

WASTE OIL DISPOSAL: Tanker trucks of 12 cu.m. available at any berth.

SEAMAN'S CLUBS: Telephone boxes and post office in city centre. No other services for seamen.

CURRENCY: Swedish Kronor (SEK).

AUTHORITY: Solvesborgs Stuveri & Hamn AB, Box 60, S-294 22 Solvesborg, Sweden. *Tel:* 46-456-10119, 12262. *FAX:* 46-456-12761. *Contact:* Kjell Andersson, Managing Director.

STENUNGSUND: 58.04 N. 11.49 E. (See Plan)

LOCATION: Stenungsund is located on the East side of Askero Fjorden about 23 miles North of Gothenburg. There are 3 terminals.

1. The Power Board Terminal.
2. The Borealis Havden Terminal.
3. The Norsk Hydro Terminal.

The terminals are located about 20 miles from the Hatteberget Light Tower (Lat. 57° 52' N., Long. 11° 28' E.) and are reached via Marstrands Fjorden and Hake Fjorden.

DOCUMENTS:

3 Crew Lists.

2 Passenger Lists.

1 Tobacco and/or Stores List.

1 Manifest.

1 List of Animals on Board (if any).

Access to the usual ship's papers (measurement, register, certificate, etc.).

If away from Sweden more than 15 days: Bill of Health.

APPROACHES: When approaching from the West, ships must keep North of the area dangerous due to mines extending to Lat. 57° 47' N., Long. 11° 03' E.

Currents in this area are unpredictable and are much influenced by the wind. Ships have reported experiencing a change in direction of current on approaching the Hatteberget Light Tower, for example, South-going outside Hatteberget, North-going inside Hatteberget. Currents of 1 to 3 knots have been experienced.

Seabuoy-Berth: For larger ships bound for Stenungsund the recommended track is Algo Fjorden shown on charts as passing between N. Meholm and S. Meholm is not always followed by Pilots, some preferring to pass South of the Hunden Shoal and S. Meholm. Great caution is needed in taking this Southerly route as there are unmarked dangers. During darkness or in poor visibility the Pilot's intentions should be fully discussed before entering Algo Fjorden.

The channel between Bratton, Kallon and Almon Islands at the North end of Hake Fjord and under the Tjornbron (bridge) between Kallon and Almon is in the form of an "S" bend and vision is obstructed. Traffic may be suddenly met with little warning, particularly as some ships do not carry Pilots, and there is no speed limit. Engines should be on standby, anchors ready and manned in this area.

PILOTAGE: The pilot boat is steel hulled, painted orange, and it will meet ships based on ETA and VHF contact. The Pilot boards at Hatteberget Light Tower. Pilots will not handle large vessels during darkness. Those ships must anchor and await daylight. ETA advice to Pilot to be sent to "Lotsarna Marstrand" via Goteborg Radio at least 5 hours before arrival giving ship's name, flag, draft, ETA Pilot Station and destination.

ANCHORAGES: While awaiting berth vessels anchor outside harbour N.W. of Powerboard Jetty. Safe anchorages everywhere, but fairway South of Galteron Lighthouse has to be avoided.

RESTRICTIONS: Max. draft in channel 13.0 m. Night navigation is decided by individual case.

Bridge height at Tjornbron is 43 m.

MAX. SIZE: *Powerboard Jetty:* Max. draft North side 12.30 m., South side 10.50 m.

Statoil Havden: Max. LOA 240 m. Max. draft 14.0 m. Distance bow to manifold 99.0 m.

Norsk Hydro Terminal: Max. LOA 100 m. Depth 9.5 m.

HEALTH: No special Pratique necessary. If any disease or fever suspected on board, doctor must be called on arrival. Pratique automatically granted when entering from another port in Sweden.

RADIO: Gothenburg radio.

VHF: Pilot on Channel 16. Working on Channel 6.

TUGS: At present no tugs are stationed in Stenungsund but have to be ordered from Gothenburg at least 2 hours' steaming away.

Tugs are diesel driven, single screw, single rudder. Tugs are made fast after passing Vinterholmen at the North end of Hake Fjord and before passing through the narrows under the bridge. Tugs tow on the hook using ship's ropes. The larger tugs use two ship's ropes out of the same lead and care must be taken to equalise the load on the two lines before full load is taken.

The Pilot carries his own VHF set (having Channels 16, 13 and 12) and uses this to communicate with the tugs.

50,000 d.w.t. tankers use 3 tugs, 1 large tug forward, 1 large and 1 smaller tug aft.

MEDICAL: Doctors and dentists available at short notice. Hospitals situated at Uddevalla and Kungalv, ambulances at Stenungsund.

TANKERS: The Powerboard Terminal:

General: The Powerboard Jetty is a finger pier aligned East/West located on the East side of the Askero Fjord about 1 nautical mile North of the town of Stenungsund (Lat. 58° 05.3' N., Long. 11° 49.2' E.). It is shown on B.A. Chart 890. It is used for the import and export of fuel oil for the power station located 0.5 miles away and for the import of products, solvents and LPG for oil and petrochemical companies.

Cautionary Advice: Currents in Askero Fjorden are unpredictable both in speed and direction but generally run across the direction of the finger pier. The fendering of the outer corners of the pier is of low energy absorption characteristics and heavy landings must be avoided. Anchors should be manned and ready for letting go.

Berthing Procedures: On proceeding up Askero Fjorden past Havden the ship is swung to starboard with the assistance of tugs and lined up for the pier. Anchors are sometimes used to help steady the bow on the correct heading, and as assistance in bringing the ship up.

Ocean-going ships berth on the North side of the pier and are, therefore, starboard side to berth. When in position, most ships' sterns protrude beyond the end of the pier by as much as one-third of their length, therefore, maximum attention must be paid to the stern moorings. Because moorings placed on the buoy on the starboard quarter or on the bollards on the South shore prevent ships from using the South side of the pier the terminal will not, as a rule, put moorings to these points. However, in periods of unsettled weather, particularly if winds are from the S.W., Masters of the larger ships should insist on stern moorings being sent to the buoy and South shore. It should be borne in mind that tugs are not readily available at Stenungsund. Moorings are taken ashore initially by boat and then by heaving line. The forward spring line is usually first line ashore. No shore moorings are provided.

Gangway: Ship's gangway is used, there is ample room on the jetty to land the gangway abaft the manifold. Note that when ship is light the normal ship's gangway will become very steep (over 50°) and special safety precautions to prevent accidents to personnel will be necessary.

Fendering: The concrete strong points of the pier are protected by tubular rubber 600 mm. diameter erected horizontally. The concrete outer corners are well protected with low friction fenders.

Cargo Connections and Handling: HFO, Heating Oil, Naphtha and Mogas are handled. Ullages and temperatures are taken jointly with shore representative upon arrival alongside.

Starboard manifold should be prepared for 10 in. hoses, 2 or 3 flexible hoses with 10 in. ASA bolted flanges are usually connected. Starboard derrick and a 4 ton shore crane are used for hose connection.

Concurrent loading and discharging are not allowed. Maximum back pressure is 10 kg./sq.cm.

Naphtha receiving capacity is maximum 3,000 cu.m.p.h. Normal discharge rate is about 1,800 cu.m.p.h.

Deballasting Facilities: The terminal has limited high flash ballast reception facilities, about 2,400 cu.m. Discharge rate is about 500 cu.m.p.h.

Clean oil-free ballast may be discharged overboard but it is the ship's responsibility to ensure that the ballast water is oil-free and very heavy penalties are imposed for oil pollution.

Passing Traffic, Weather, Tide, etc.: There are no unusual problems except for strong S.W. winds when it is important that breast moorings are run to the starboard quarter buoy and to the South shore.

Special Regulations: No small craft are allowed alongside ship while at jetty. No bunkering during loading and discharging.

Oil Pollution Safeguards: Floating oil booms – partly fixed and partly portable are available to surround the ship and jetty. Mechanical suction equipment is available.

Fire Fighting Equipment: Remote-controlled foam-guns and water monitors are available at the berth.

Fresh Water: Good quality fresh water is available ex-jetty by hose, rate 25 t.p.h.

Additional Information: The berth on the South side of the Powerboard finger pier also handles HFO, heating oil, naphtha and mogas but is mainly used for loading/discharging LPG.

Statoil Terminal, Havden: *General:* Statoil's Havden terminal berth is located on the North side of the Havden peninsula on the East side of Askero Fjorden (Lat. 58° 05' N., Long. 11° 48.5' E.). It is a marginal type berth with a breasting face about 60 m. long. It is used for the discharge of naphtha and LPG.

Cautionary Advice: See "Powerboard Terminal".

Telegraph cables (shown on the chart) run out from the shore close Northwards of the berth and anchors should not be used. In addition, the dredged area tapers quite sharply towards the East end of the berth and use of an anchor could result in the ship "sitting" on the anchor or its cable.

Berthing Procedures: On arriving off Havden the ship is swung to starboard with the assistance of tugs and steamed slowly to the berth. Ships always berth starboard side to berth. Moorings are taken ashore by motor boat, the forward spring is usually the first line ashore. The stern of the ship is not well sheltered from the prevailing S.W. winds and special attention must be paid to putting out good stern moorings. It must be remembered that tugs are not readily available in Stenungsund. No shore moorings are provided.

Gangway: Ship's gangway used, ample room on the jetty to land the gangway aft of the cargo manifold. Note that, when ship is light, the normal ship's gangway will become very steep (over 50°) and special precautions to prevent accidents to personnel will be necessary.

Fendering: Each of the 3 concrete strong points is fendered by truck tyres around a rubber core siung horizontally. Care should be taken not to land initially between the strong points.

Cargo Connection and Handling: Only naphtha and LPG are handled at this berth. No bunkers can be provided. 2×10 in. fully counterbalanced hard arms of Chicksan manufacture are provided. Each has 10 in. ASA bolted flanges.

Ullages and temperatures are taken together with shore representative upon arrival alongside.

Starboard manifold should be prepared to accept 2×10 in. hard arms. If ship's manifold has large overhang outside the support, this should be jacked up before connection of arms. Stays, derricks, etc., in vicinity of starboard manifold should be removed. There are no facilities for receipt of dirty ballast at the terminal.

Oil Pollution Safeguards: Floating oil booms, partly fixed, partly portable are available to surround ship and jetty. Mechanical suction equipment is available.

Fire Fighting Equipment: The jetty is equipped with a fire water and a foam line and portable monitors.

Fresh Water: Good quality fresh water is available ex-jetty by hose, rate 25 t.p.h.

Norsk Hydro Terminal: Max. LOA 100 m. Depth 9.5 m.

FUEL: Only available by barge from other places (i.e. Gothenburg). Bunkering only during daylight. Can be ordered at short notice.

FIRE PRECAUTIONS: Normal precautions.

CONSULS: At Gothenburg.

REPAIRS: Minor repairs can be made locally, large repairs by labour from Gothenburg shipyards. Gas-freeing alongside with Port Captain's approval only. Repairs alongside with Port Captain's approval only.

SURVEYORS: D & D Marine Consult, Upplandsgatan 25, 11360 Stockholm. Tel: 08-34 1590.

GANGWAY/DECK WATCHMEN: Watchmen from ashore necessary when telephone connected.

CUSTOMS ALLOWANCES: 200 cigarettes. 1 bottle of spirits.

REPATRIATION: All facilities exist.

AIRPORT: Gothenburg 50 km. away. Regular airlines.

TIME: GMT plus 1 hour.

HOLIDAYS: Tankers load and discharge all year round.

TELEPHONES: Connected on board if required. Watchmen attend calls. Fireman and alarm on jetty during whole operation.

SHORE LEAVE: Permitted. Distance to Stenungsund 1 km., Uddevalla 40 km. or Gothenburg 50 km. by bus, train or taxi. Shore passes issued at the gate.

IDENTIFICATION CARDS: The gate at the Powerboard Terminal is TV-guarded. Each crew member must carry a Passing Permission allowing passage through the gate. Required number of permissions will be handed over to the Master by the Agent on ship's arrival. Passing Permission at Statoil Terminal, Havden, is not required.

GARBAGE DISPOSAL: Container available for garbage, free of charge.

WASTE OIL DISPOSAL: Reception facilities for engine slops only up to a maximum of 15 cu.m. at a time.

SEAMAN'S CLUBS: None.

CURRENCY: Swedish Kronor (SEK).

SHIPMASTER'S REPORT: January 1989 (Updated 1990).

Pilotage: On approaching the port, call 'Marstrand Pilot' on VHF Channel 11. The pilot usually boards between Hatteberget Light Tower and Astol Island to the N.W., from a fast launch painted orange. The water in the approaches is deep. The Racon on Hatteberget Light is usually visible when passing the Skaw. It takes approximately 1.0 hours – 1.5 hours to reach the Statoil berths.

Anchorage: There are no safe anchorages outside the fjord. If vessel is awaiting a berth it is usual to anchor to the West of the berths. An alternative anchorage is in the area 6 miles North of Algon Island, which is within the pilotage waters.

Max. Size: Power Board Terminal: On the North side of the jetty the maximum draft is 12.6 m. and on the South side 10.6 m.

Statoil Terminal: This berth is to be dredged to 14.0 m.

Tugs: There are no tugs stationed at Stenungsund. If tugs are required they have to be ordered from Gothenburg, which is 2.5 hours away by sea. 5 hours notice is required. Tugs normally join vessel at the 'S' bend at Tjornbron Bridge. Vessels of 32,000 cu.m. capacity require 2 tugs for berthing and one for unberthing.

Berths: Power Board Terminal: Lat. 58° 05.3' N., Long. 11° 49.2' E.

The finger pier is located on the East side of Askero Fjord and is aligned in an East/West direction. The pier is 1 mile North of Stenungsund.

The jetty is used for the import of oil for the power station and for import of LPG and ethylene for oil companies.

Approach to the berth is difficult in strong S./S.W. winds.

Vessels berth head-in, starboard side alongside, on the North side of the jetty and port side alongside on the South side. The offshore anchor is often used when berthing.

On the North Berth, vessels should be well secured at the stern when S./S.W. winds are blowing and well secured at the South Berth when N.W./N. winds are blowing.

Statoil Terminal: The berth is located on the North side of Havden Peninsula, to the West of Stenungsund. Vessels are swung to starboard and then pushed slowly into the berth. The stern overhangs when alongside, so good moorings are required aft when S./S.W. winds are blowing. The leads for the after moorings are poor and the leads for the headlines are long.

Cargo: Power Board Terminal: Ethylene is handled on both sides of the jetty, dependent on the receiver. Neste use the North side and Statoil use the South side. The North side berth is equipped with an 8 in. hydraulic arm (150 ASA) with clamps and automatic disconnect mechanism. The South side berth is also equipped with an 8 in. (150 ASA) hydraulic arm, but without clamps. Shore supply the necessary reducers. No VRL connected.

Initially small amounts of cargo are pumped ashore from each tank in turn, so that samples can be taken on the jetty. Analysis takes about 2 hours. The cargo temperature is to be at least −100°C. and usually colder temperatures required. If the temperatures are correct, the shore facility can usually handle rates up to 500 cu.m.p.h. on the North side and 200 cu.m.p.h. on the South side. Hot gas required on completion. It usually takes about 20 minutes to clear line, so about 40 mb. is required in the tanks. The jetty has a steam/hot water line for de-icing. Local surveyor used.

Statoil Terminal: LPG handled at this berth. Discharge is by 10 in. (150 ASA) non-hydraulic arm. Shore supply the necessary reducer, no VRL. Samples are taken prior to arm being connected. Analysis takes 3 hours. Once lines are cool, the rate can be increased to maximum. Cargo goes into cavern storage so any rate can be accepted without difficulty. There was very little contact with the shore once discharge had commenced.

A surveyor from the terminal and SGS are available for figures. Terminal surveyor will use density from sample for calculations.

General: Power Board Terminal: There is an electric crane with 4 t SWL on the North side. No trucks allowed on jetty. Trolleys available for the 300 m. haul from the roadway.

Statoil Terminal: Stores can be manhandled from the barrier which is approximately 300 m. from the ship. A hand driven shore crane can be used for loading stores. There is a telephone in the cabin on the jetty. Fresh water is available. All medical facilities are available locally. Stores are expensive.

AUTHORITY: Vattenfall, S-44487 Stenungsund, Sweden. *Tel:* 46-303-66141. *FAX:* 46-303-66161. *Cables:* Kraftverket. *Contact:* Ove Kristoffersson, Harbour Master.

Statoil Petrokemi AB, S-44481 Stenungsund. *Tel:* 0303-87000. *FAX:* 0303-87444. *Contact:* Morgan Hermansson or Anders Ranswall, General Managers.

Norsk Hydroplast AB, S-44483 Stenungsund. *Tel:* 0303-71560. *Telex:* 21206. *FAX:* 0303-84756. *Contact:* Stig Grunden, General Manager.

STOCKHOLM: 59.19 N. 18.03 E. (See Plan)

DOCUMENTS:

(a) Crew List: Normally 2 copies; for oil harbour at Loudden and Free Port, 3 copies.

(b) Passenger List: Regular passenger services 2 copies; cruise ships (lists for cruise ships must be sent in advance to Agent for forwarding to Immigration Authorities), 2 copies.

(c) Customs Documents: Arrival report (form can be obtained on arrival), 4 copies. Crew Effects Declaration, 2 copies. Ship's Stores Declaration, 2 copies.

(d) Quarantine Certificate or Bill of Health: Derat Certificate not more than 6 months old to be shown. *Note:* Additional quarantine regulations may be imposed in special circumstances.

(e) Manifest: 3 copies.

(f) Bills of Lading: 1 copy of each. Liners may be subject to other regulations with regard to *(e)* and *(f)* above.

(g) Ship's Documents: Tonnage Certificate. Certificate of Nationality.

PILOTAGE: *(Sweden General).* Applications for licensed Pilots should be made at least 5 hours before pilotage is due to commence. When making application specify name of vessel, tonnage, draft and destination. Also give estimated time for taking Pilot on board and route. If this procedure not followed, the Maritime Service cannot guarantee to supply a Pilot without considerable delay to vessel.

Preferable make application by telephone, or by radio via a coastal station or by some other method direct to Pilot Station nearest point where pilotage is to begin. Also possible request Pilot by VHF telephone to any Maritime Service Pilot Station, Pilot waiting point or lighthouse which is equipped with VHF.

The Maritime Service's network of permanent VHF telephone stations has been extended to give almost complete coverage of all Pilot Stations and waiting points and is also operative for a number of lighthouses. The radio stations can operate on different Channels and are equipped for frequency modulation. During hours when Pilot Stations are open, a constant watch is kept on frequency 156.80 MHz (Channel 16). This frequency should be used for all signals and replies – and for distress traffic. Outside these hours, normal traffic transmissions, i.e. applications for Pilots, etc. should be made on frequency of 156.65 MHz (Channel 13) or on reserve operating frequency of 156.60 MHz (Channel 12).

When making VHF telephone call, the type of call signal that should be sent is "Lotsarna (or Pilot Station) plus the name of the Pilot Station or the pilotage attendance".

	Soderhamn/ Simpnas	*Sandhamn*	*Landsort*
Cable address	Kapellskars Pilot Station	Stockholm Pilot Station	Nynashamn Pilot Station
Notice of arrival	5 hours	5 hours	5 hours
VHF Channels	6, 12, 13, 16	6, 12, 13, 16	6, 12, 13, 16
Description of pilot boat	Pilot boat on day duty flies international flag "H". Pilot boat on night duty carries lights conforming to International Regulations for Preventing Collisions at Sea, Rule No. 29.		
	33 ft. steel cutter painted red-orange	33 ft. steel cutter painted red-orange	40 ft. steel cutter painted red-orange
To order Pilot:	Tel: 08-6666622. Fax: 08-6666690. Telex: 12858 Stolops. Cables: Pilot Station Stockholm. VHF: Channel 13. Pilot may be called by radio or VHF.		
Boarding point	At Bjorko outside outer Skerries, 2 – 3 n.m. N.W. or E. of Simpnasklubb	2 n.m. S.E. of Revengegrund Light	2.5 n.m. S. of Oja
Anchorage for vessels awaiting Pilot	Near position stated above	Near position stated above	Near position stated above

ANCHORAGES:

	Arholma	*Sandhamn*	*Landsort*
(a) Prohibited anchorage	59° 30' N. 19° 05' E. 59° 45' N. 19° 14' E.	59° 17' N. 18° 54' E.	
(b) Suitable anchorages	2 – 4 n.m. N.N.W. of Simpnasklubb	2 – 4 n.m. E. and S. of Revengegrund	6 – 8 n.m. S.S.E. of Landsort
(c) Depth	33 – 38 fathoms	11 – 22 fathoms	11 – 16 fathoms

RESTRICTIONS: Very large passenger vessels and fully-loaded tankers of approx. 15,000 d.w.t. or over not allowed pass through Skerries during darkness.

Ships with gross tonnage exceeding 300 tons must proceed only on an Easterly course in Lindalssundet. Ships with gross tonnage exceeding 300 tons not must proceed through Kodjupet and Sandhamnssundet (between Sandon and Korso).

Ships with a gross tonnage exceeding 300 tons, not using a Pilot, must be equipped with VHF telephone which must be continuously watched on Channel 16 and 9.

A vessel reporting system has been established covering the entrances to the Port of Stockholm. Vessels over 300 g.r.t. report to Stockholm Pilot Station ("Lotsarna Stockholm") when passing way points. Reports to be given by VHF Channel 73.

Tankships with gross tonnage exceeding 800 tons carrying crude oil products, mineral oil and certain chemicals must have licensed Pilot in the passages Arholma-Stockholm; Soderarm-Stockholm; Sandhamn-Stockholm; Landsort-Stockholm; Landsort-Nynashamn; Landsort-Sodertalje and in the Lake of Malaren.

MAX. SIZE:

Max. Dimensions Passenger – or Dry Cargo Ships:

DAYLIGHT

	LOA (m.)	*Beam (m.)*	*g.r.t.*	*Draft (m.)*
Sandhamn	245.0	35.0	43,000	11.0
Landsort	200.0	22.0	18,000	10.0
Simpnas/Soderarm	245.0	35.0	18,000	8.0
Gustavsberg	60.0	9.5	—	4.2

Ships larger than 30,000 g.r.t. or longer than 200 m. to be assisted by 2 Pilots and to have assistance of tugs through the Archipelago.

DARKNESS

	LOA (m.)	*Beam (m.)*	*g.r.t.*	*Draft (m.)*
Sandhamn	175.0	26.0	18,000	9.0
Landsort	175.0	26.0	13,000	9.0
Simpnas/Soderarm	175.0	26.0	13,000	7.0

Max. Dimensions Tankers:

DAYLIGHT AND VISIBILITY EXCEEDING 1 NAUTICAL MILE

	LOA (m.)	*Beam (m.)*	*d.w.t.*	*Draft (m.)*
Sandhamn	200.0	32.0	35,000	11.0
Landsort	175.0	26.0	15,000	10.0
Simpnas/Soderarm	175.0	28.0	15,000	8.0

Ships exceeding 22,000 g.r.t. to have 2 Pilots onboard. Ships of this size are normally not handled in winds stronger than 15 m./s.

DARKNESS OR POOR VISIBILITY (LESS THAN 1 NAUTICAL MILE)

	LOA (m.)	*Beam (m.)*	*d.w.t.*	*Draft (m.)*
Sandhamn	175.0	26.0	15,000	9.0
Landsort	145.0	19.0	10,000 (13,000 double bottom)	9.0
Simpnas/Soderarm	145.0	19.0	10,000 (13,000 double bottom)	7.0

Tankers:

Tanker Discharge Quay	*Max. safe draft*	*Available Quay length*
Bergs Oil Harbour	12.4 m.	230 m.
Kvarnholmen	9.4 m. – 10.8 m.	183 m. – 230 m.
Loudden	8.2 m. – 11.0 m.	190 m. – 230 m.
Vartan	7.4 m. – 10.4 m.	190 m. – 230 m.

HEALTH: Vessels arriving from ports outside Europe must for Inward Clearance provide Customs Office with written Declaration of Freedom from Infection. Further instructions will be issued by Customs Office when such a Declaration cannot be given.

RADIO: Stockholm Radio, call sign SDJ.

RADAR/VHF: All 3 Pilot Stations have radar for internal use. No harbour radar service. VHF Channels 16 and 12. Also see "Restrictions".

TUGS: Very large vessels may be met by tugs by special arrangement at pilot boarding point. Tugs available to special order to assist with berthing; they rendezvous usually near berth.

Rates: According to fixed tariff.

BERTHING: See Tables on Page 2042 .

BRIDGES:

HOURS FOR OPENING FOR MOVABLE ROAD BRIDGES OVER HAMMARBY SEALANE

Movable parts of road bridges over sealane of Hammarby opened on request for vessel unable freely to pass under the bridges, all through the year at regular hours.

STEVEDORES: Stevedores available from Stockholms Hamn AB. Tel: 08/6702600. Working hours 0700 – 0900, 0930 – 1100, 1115 – 1330 and 1400 – 1600. Stevedores required for 0700 hrs. must be booked previous day.

MEDICAL: Full hospital facilities available without prior notice. Dentists available during normal working hours.

TANKERS:

Quay	*No. of Berths*	*Max. d.w.t.*	*Depth alongside* (ft. in.)	*Diameter of Discharge Pipelines* (in.)
Bergs (Statoil)	1	65,000	43 00	12 – 20
Kvarnholmen	2	30 – 65,000	33 00 – 39 04	8 – 14
Loudden (Municipal)	5	25 – 60,000	28 06 – 39 00	6 – 12
Vartan (Statoil/Shell)	3	20 – 60,000	24 08 – 36 00	8 – 10

DENSITY: Salt content of 0.5%. No variations

GANGWAY/DECK WATCHMEN: Not essential, but recommended for large tankers.

OPENING/CLOSING HATCHES: If opened and closed by stevedores, subject to extra fee.

Berthing Procedures: On proceeding up Askero Fjorden past Havden the ship is swung to starboard with the assistance of tugs and lined up for the pier. Anchors are sometimes used to help steady the bow on the correct heading, and as assistance in bringing the ship up.

Ocean-going ships berth on the North side of the pier and are, therefore, starboard side to berth. When in position, most ships' sterns protrude beyond the end of the pier by as much as one-third of their length, therefore, maximum attention must be paid to the stern moorings. Because moorings placed on the buoy on the starboard quarter or on the bollards on the South shore prevent ships from using the South side of the pier the terminal will not, as a rule, put moorings to these points. However, in periods of unsettled weather, particularly if winds are from the S.W., Masters of the larger ships should insist on stern moorings being sent to the buoy and South shore. It should be borne in mind that tugs are not readily available at Stenungsund. Moorings are taken ashore initially by boat and then by heaving line. The forward spring line is usually first line ashore. No shore moorings are provided.

Gangway: Ship's gangway is used, there is ample room on the jetty to land the gangway abaft the manifold. Note that when ship is light the normal ship's gangway will become very steep (over 50°) and special safety precautions to prevent accidents to personnel will be necessary.

Fendering: The concrete strong points of the pier are protected by tubular rubber 600 mm. diameter erected horizontally. The concrete outer corners are well protected with low friction fenders.

Cargo Connections and Handling: HFO, Heating Oil, Naphtha and Mogas are handled. Ullages and temperatures are taken jointly with shore representative upon arrival alongside.

Starboard manifold should be prepared for 10 in. hoses, 2 or 3 flexible hoses with 10 in. ASA bolted flanges are usually connected. Starboard derrick and a 4 ton shore crane are used for hose connection.

Concurrent loading and discharging are not allowed. Maximum back pressure is 10 kg./sq.cm.

Naphtha receiving capacity is maximum 3,000 cu.m.p.h. Normal discharge rate is about 1,800 cu.m.p.h.

Deballasting Facilities: The terminal has limited high flash ballast reception facilities, about 2,400 cu.m. Discharge rate is about 500 cu.m.p.h.

Clean oil-free ballast may be discharged overboard but it is the ship's responsibility to ensure that the ballast water is oil-free and very heavy penalties are imposed for oil pollution.

Passing Traffic, Weather, Tide, etc.: There are no unusual problems except for strong S.W. winds when it is important that breast moorings are run to the starboard quarter buoy and to the South shore.

Special Regulations: No small craft are allowed alongside ship while at jetty. No bunkering during loading and discharging.

Oil Pollution Safeguards: Floating oil booms – partly fixed and partly portable are available to surround the ship and jetty. Mechanical suction equipment is available.

Fire Fighting Equipment: Remote-controlled foam-guns and water monitors are available at the berth.

Fresh Water: Good quality fresh water is available ex-jetty by hose, rate 25 t.p.h.

Additional Information: The berth on the South side of the Powerboard finger pier also handles HFO, heating oil, naphtha and mogas but is mainly used for loading/discharging LPG.

Statoil Terminal, Havden: *General:* Statoil's Havden terminal berth is located on the North side of the Havden peninsula on the East side of Askero Fjorden (Lat. 58° 05' N., Long. 11° 48.5' E.). It is a marginal type berth with a breasting face about 60 m. long. It is used for the discharge of naphtha and LPG.

Cautionary Advice: See "Powerboard Terminal".

Telegraph cables (shown on the chart) run out from the shore close Northwards of the berth and anchors should not be used. In addition, the dredged area tapers quite sharply towards the East end of the berth and use of an anchor could result in the ship "sitting" on the anchor or its cable.

Berthing Procedures: On arriving off Havden the ship is swung to starboard with the assistance of tugs and steamed slowly to the berth. Ships always berth starboard side to berth. Moorings are taken ashore by motor boat, the forward spring is usually the first line ashore. The stern of the ship is not well sheltered from the prevailing S.W. winds and special attention must be paid to putting out good stern moorings. It must be remembered that tugs are not readily available in Stenungsund. No shore moorings are provided.

Gangway: Ship's gangway used, ample room on the jetty to land the gangway aft of the cargo manifold. Note that, when ship is light, the normal ship's gangway will become very steep (over 50°) and special precautions to prevent accidents to personnel will be necessary.

Fendering: Each of the 3 concrete strong points is fendered by truck tyres around a rubber core slung horizontally. Care should be taken not to land initially between the strong points.

Cargo Connection and Handling: Only naphtha and LPG are handled at this berth. No bunkers can be provided. 2×10 in. fully counterbalanced hard arms of Chicksan manufacture are provided. Each has 10 in. ASA bolted flanges.

Ullages and temperatures are taken together with shore representative upon arrival alongside.

Starboard manifold should be prepared to accept 2×10 in. hard arms. If ship's manifold has large overhang outside the support, this should be jacked up before connection of arms. Stays, derricks, etc., in vicinity of starboard manifold should be removed. There are no facilities for receipt of dirty ballast at the terminal.

Oil Pollution Safeguards: Floating oil booms, partly fixed, partly portable are available to surround ship and jetty. Mechanical suction equipment is available.

Fire Fighting Equipment: The jetty is equipped with a fire water and a foam line and portable monitors.

Fresh Water: Good quality fresh water is available ex-jetty by hose, rate 25 t.p.h.

Norsk Hydro Terminal: Max. LOA 100 m. Depth 9.5 m.

FUEL: Only available by barge from other places (i.e. Gothenburg). Bunkering only during daylight. Can be ordered at short notice.

FIRE PRECAUTIONS: Normal precautions.

CONSULS: At Gothenburg.

REPAIRS: Minor repairs can be made locally, large repairs by labour from Gothenburg shipyards. Gas-freeing alongside with Port Captain's approval only. Repairs alongside with Port Captain's approval only.

SURVEYORS: D & D Marine Consult, Upplandsgatan 25, 11360 Stockholm. Tel: 08-34 1590.

GANGWAY/DECK WATCHMEN: Watchmen from ashore necessary when telephone connected.

CUSTOMS ALLOWANCES: 200 cigarettes. 1 bottle of spirits.

REPATRIATION: All facilities exist.

AIRPORT: Gothenburg 50 km. away. Regular airlines.

TIME: GMT plus 1 hour.

HOLIDAYS: Tankers load and discharge all year round.

TELEPHONES: Connected on board if required. Watchmen attend calls. Fireman and alarm on jetty during whole operation.

SHORE LEAVE: Permitted. Distance to Stenungsund 1 km., Uddevalla 40 km. or Gothenburg 50 km. by bus, train or taxi. Shore passes issued at the gate.

IDENTIFICATION CARDS: The gate at the Powerboard Terminal is TV-guarded. Each crew member must carry a Passing Permission allowing passage through the gate. Required number of permissions will be handed over to the Master by the Agent on ship's arrival. Passing Permission at Statoil Terminal, Havden, is not required.

GARBAGE DISPOSAL: Container available for garbage, free of charge.

WASTE OIL DISPOSAL: Reception facilities for engine slops only up to a maximum of 15 cu.m. at a time.

SEAMAN'S CLUBS: None.

CURRENCY: Swedish Kronor (SEK).

SHIPMASTER'S REPORT: January 1989 (Updated 1990).

Pilotage: On approaching the port, call 'Marstrand Pilot' on VHF Channel 11. The pilot usually boards between Hatteberget Light Tower and Astol Island to the N.W., from a fast launch painted orange. The water in the approaches is deep. The Racon on Hatteberget Light is usually visible when passing the Skaw. It takes approximately 1.0 hours – 1.5 hours to reach the Statoil berths.

Anchorage: There are no safe anchorages outside the fjord. If vessel is awaiting a berth it is usual to anchor to the West of the berths. An alternative anchorage is in the area 6 miles North of Algon Island, which is within the pilotage waters.

Max. Size: Power Board Terminal: On the North side of the jetty the maximum draft is 12.6 m. and on the South side 10.6 m.

Statoil Terminal: This berth is to be dredged to 14.0 m.

Tugs: There are no tugs stationed at Stenungsund. If tugs are required they have to be ordered from Gothenburg, which is 2.5 hours away by sea. 5 hours notice is required. Tugs normally join vessel at the 'S' bend at Tjornbron Bridge. Vessels of 32,000 cu.m. capacity require 2 tugs for berthing and one for unberthing.

Berths: Power Board Terminal: Lat. 58° 05.3' N., Long. 11° 49.2' E.

The finger pier is located on the East side of Askero Fjord and is aligned in an East/West direction. The pier is 1 mile North of Stenungsund.

The jetty is used for the import of oil for the power station and for import of LPG and ethylene for oil companies.

Approach to the berth is difficult in strong S./S.W. winds.

Vessels berth head-in, starboard side alongside, on the North side of the jetty and port side alongside on the South side. The offshore anchor is often used when berthing.

On the North Berth, vessels should be well secured at the stern when S./S.W. winds are blowing and well secured at the South Berth when N.W./N. winds are blowing.

Statoil Terminal: The berth is located on the North side of Havden Peninsula, to the West of Stenungsund. Vessels are swung to starboard and then pushed slowly into the berth. The stern overhangs when alongside, so good moorings are required aft when S./S.W. winds are blowing. The leads for the after moorings are poor and the leads for the headlines are long.

Cargo: Power Board Terminal: Ethylene is handled on both sides of the jetty, dependent on the receiver. Neste use the North side and Statoil use the South side. The North side berth is equipped with an 8 in. hydraulic arm (150 ASA) with clamps and automatic disconnect mechanism. The South side berth is also equipped with an 8 in. (150 ASA) hydraulic arm, but without clamps. Shore supply the necessary reducers. No VRL connected.

Initially small amounts of cargo are pumped ashore from each tank in turn, so that samples can be taken on the jetty. Analysis takes about 2 hours. The cargo temperature is to be at least −100°C. and usually colder temperatures required. If the temperatures are correct, the shore facility can usually handle rates up to 500 cu.m.p.h. on the North side and 200 cu.m.p.h. on the South side. Hot gas required on completion. It usually takes about 20 minutes to clear line, so about 40 mb. is required in the tanks. The jetty has a steam/hot water line for de-icing. Local surveyor used.

Statoil Terminal: LPG handled at this berth. Discharge is by 10 in. (150 ASA) non-hydraulic arm. Shore supply the necessary reducer, no VRL. Samples are taken prior to arm being connected. Analysis takes 3 hours. Once lines are cool, the rate can be increased to maximum. Cargo goes into cavern storage so any rate can be accepted without difficulty. There was very little contact with the shore once discharge had commenced.

A surveyor from the terminal and SGS are available for figures. Terminal surveyor will use density from sample for calculations.

General: Power Board Terminal: There is an electric crane with 4 t SWL on the North side. No trucks allowed on jetty. Trolleys available for the 300 m. haul from the roadway.

Statoil Terminal: Stores can be manhandled from the barrier which is approximately 300 m. from the ship. A hand driven shore crane can be used for loading stores. There is a telephone in the cabin on the jetty. Fresh water is available. All medical facilities are available locally. Stores are expensive.

AUTHORITY: Vattenfall, S-44487 Stenungsund, Sweden. *Tel:* 46-303-66141. *FAX:* 46-303-66161. *Cables:* Kraftverket. *Contact:* Ove Kristoffersson, Harbour Master.

Statoil Petrokemi AB, S-44481 Stenungsund. *Tel:* 0303-87000. *FAX:* 0303-87444. *Contact:* Morgan Hermansson or Anders Ranswall, General Managers.

Norsk Hydroplast AB, S-44483 Stenungsund. *Tel:* 0303-71560. *Telex:* 21206. *FAX:* 0303-84756. *Contact:* Stig Grunden, General Manager.

STOCKHOLM: 59.19 N. 18.03 E. (See Plan)

DOCUMENTS:

- *(a)* Crew List: Normally 2 copies; for oil harbour at Loudden and Free Port, 3 copies.
- *(b)* Passenger List: Regular passenger services 2 copies; cruise ships (lists for cruise ships must be sent in advance to Agent for forwarding to Immigration Authorities), 2 copies.
- *(c)* Customs Documents: Arrival report (form can be obtained on arrival), 4 copies. Crew Effects Declaration, 2 copies. Ship's Stores Declaration, 2 copies.
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- *(e)* Manifest: 3 copies.
- *(f)* Bills of Lading: 1 copy of each. Liners may be subject to other regulations with regard to *(e)* and *(f)* above.
- *(g)* Ship's Documents: Tonnage Certificate. Certificate of Nationality.

PILOTAGE: *(Sweden General).* Applications for licensed Pilots should be made at least 5 hours before pilotage is due to commence. When making application specify name of vessel, tonnage, draft and destination. Also give estimated time for taking Pilot on board and route. If this procedure not followed, the Maritime Service cannot guarantee to supply a Pilot without considerable delay to vessel.

Preferable make application by telephone, or by radio via a coastal station or by some other method direct to Pilot Station nearest point where pilotage is to begin. Also possible request Pilot by VHF telephone to any Maritime Service Pilot Station, Pilot waiting point or lighthouse which is equipped with VHF.

The Maritime Service's network of permanent VHF telephone stations has been extended to give almost complete coverage of all Pilot Stations and waiting points and is also operative for a number of lighthouses. The radio stations can operate on different Channels and are equipped for frequency modulation. During hours when Pilot Stations are open, a constant watch is kept on frequency 156.80 MHz (Channel 16). This frequency should be used for all signals and replies – and for distress traffic. Outside these hours, normal traffic transmissions, i.e. applications for Pilots, etc. should be made on frequency of 156.65 MHz (Channel 13) or on reserve operating frequency of 156.60 MHz (Channel 12).

When making VHF telephone call, the type of call signal that should be sent is "Lotsarna (or Pilot Station) plus the name of the Pilot Station or the pilotage attendance".

	Soderhamn/ Simpnas	*Sandhamn*	*Landsort*
Cable address	Kapellskars Pilot Station	Stockholm Pilot Station	Nynashamn Pilot Station
Notice of arrival	5 hours	5 hours	5 hours
VHF Channels	6, 12, 13, 16	6, 12, 13, 16	6, 12, 13, 16
Description of pilot boat	Pilot boat on day duty flies international flag "H". Pilot boat on night duty carries lights conforming to International Regulations for Preventing Collisions at Sea, Rule No. 29. 33 ft. steel cutter painted red-orange	33 ft. steel cutter painted red-orange	40 ft. steel cutter painted red-orange
To order Pilot:	Tel: 08-6666622. Fax: 08-6666690. Telex: 12858 Stolops. Cables: Pilot Station Stockholm. VHF: Channel 13. Pilot may be called by radio or VHF.		
Boarding point	At Bjorko outside outer Skerries, 2 – 3 n.m. N.W. or E. of Simpnasklubb	2 n.m. S.E. of Revengegrund Light	2.5 n.m. S. of Oja
Anchorage for vessels awaiting Pilot	Near position stated above	Near position stated above	Near position stated above

ANCHORAGES:

	Arholma	*Sandhamn*	*Landsort*
(a) Prohibited anchorage	59° 30' N. 19° 05' E. 59° 45' N. 19° 14' E.	59° 17' N. 18° 54' E.	
(b) Suitable anchorages	2 – 4 n.m. N.N.W. of Simpnasklubb	2 – 4 n.m. E. and S. of Revengegrund	6 – 8 n.m. S.S.E. of Landsort
(c) Depth	33 – 38 fathoms	11 – 22 fathoms	11 – 16 fathoms

RESTRICTIONS: Very large passenger vessels and fully-loaded tankers of approx. 15,000 d.w.t. or over not allowed pass through Skerries during darkness.

Ships with gross tonnage exceeding 300 tons must proceed only on an Easterly course in Lindalssundet. Ships with gross tonnage exceeding 300 tons must not proceed through Kodjupet and Sandhamnssundet (between Sandon and Korso).

Ships with a gross tonnage exceeding 300 tons, not using a Pilot, must be equipped with VHF telephone which must be continuously watched on Channel 16 and 9.

A vessel reporting system has been established covering the entrances to the Port of Stockholm. Vessels over 300 g.r.t. report to Stockholm Pilot Station ("Lotsarna Stockholm") when passing way points. Reports to be given by VHF Channel 73.

Tankships with gross tonnage exceeding 800 tons carrying crude oil products, mineral oil and certain chemicals must have licensed Pilot in the passages Arholma-Stockholm; Soderarm-Stockholm; Sandhamn-Stockholm; Landsort-Stockholm; Landsort-Nynashamn; Landsort-Sodertalje and in the Lake of Malaren.

MAX. SIZE:

Max. Dimensions Passenger – or Dry Cargo Ships:

DAYLIGHT

	LOA (m.)	*Beam (m.)*	*g.r.t.*	*Draft (m.)*
Sandhamn	245.0	35.0	43,000	11.0
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Gustavsberg	60.0	9.5	—	4.2

Ships larger than 30,000 g.r.t. or longer than 200 m. to be assisted by 2 Pilots and to have assistance of tugs through the Archipelago.

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	LOA (m.)	*Beam (m.)*	*g.r.t.*	*Draft (m.)*
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	LOA (m.)	*Beam (m.)*	*d.w.t.*	*Draft (m.)*
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Simpnas/Soderarm	175.0	28.0	15,000	8.0

Ships exceeding 22,000 g.r.t. to have 2 Pilots onboard. Ships of this size are normally not handled in winds stronger than 15 m./s.

DARKNESS OR POOR VISIBILITY (LESS THAN 1 NAUTICAL MILE)

	LOA (m.)	*Beam (m.)*	*d.w.t.*	*Draft (m.)*
Sandhamn	175.0	26.0	15,000	9.0
Landsort	145.0	19.0	10,000 (13,000 double bottom)	9.0
Simpnas/Soderarm	145.0	19.0	10,000 (13,000 double bottom)	7.0

Tankers:

Tanker Discharge Quay	*Max. safe draft*	*Available Quay length*
Bergs Oil Harbour	12.4 m.	230 m.
Kvarnholmen	9.4 m. – 10.8 m.	183 m. – 230 m.
Loudden	8.2 m. – 11.0 m.	190 m. – 230 m.
Vartan	7.4 m. – 10.4 m.	190 m. – 230 m.

HEALTH: Vessels arriving from ports outside Europe must for Inward Clearance provide Customs Office with written Declaration of Freedom from Infection. Further instructions will be issued by Customs Office when such a Declaration cannot be given.

RADIO: Stockholm Radio, call sign SDJ.

RADAR/VHF: All 3 Pilot Stations have radar for internal use. No harbour radar service. VHF Channels 16 and 12. Also see "Restrictions".

TUGS: Very large vessels may be met by tugs by special arrangement at pilot boarding point. Tugs available to special order to assist with berthing; they rendezvous usually near berth.

Rates: According to fixed tariff.

BERTHING: See Tables on Page 2042 .

BRIDGES:

HOURS FOR OPENING FOR MOVABLE ROAD BRIDGES OVER HAMMARBY SEALANE

Movable parts of road bridges over sealane of Hammarby opened on request for vessel unable freely to pass under the bridges, all through the year at regular hours.

STEVEDORES: Stevedores available from Stockholms Hamn AB. Tel: 08/6702600. Working hours 0700 – 0900, 0930 – 1100, 1115 – 1330 and 1400 – 1600. Stevedores required for 0700 hrs. must be booked previous day.

MEDICAL: Full hospital facilities available without prior notice. Dentists available during normal working hours.

TANKERS:

Quay	*No. of Berths*	*Max. d.w.t.*	*Depth alongside (ft. in.)*	*Diameter of Discharge Pipelines (in.)*
Bergs (Statoil)	1	65,000	43 00	12 – 20
Kvarnholmen	2	30 – 65,000	33 00 – 39 04	8 – 14
Loudden (Municipal)	5	25 – 60,000	28 06 – 39 00	6 – 12
Vartan (Statoil/Shell)	3	20 – 60,000	24 08 – 36 00	8 – 10

DENSITY: Salt content of 0.5%. No variations.

GANGWAY/DECK WATCHMEN: Not essential, but recommended for large tankers.

OPENING/CLOSING HATCHES: If opened and closed by stevedores, subject to extra fee.

Berthing Procedures: On proceeding up Askero Fjorden past Havden the ship is swung to starboard with the assistance of tugs and lined up for the pier. Anchors are sometimes used to help steady the bow on the correct heading, and as assistance in bringing the ship up.

Ocean-going ships berth on the North side of the pier and are, therefore, starboard side to berth. When in position, most ships' sterns protrude beyond the end of the pier by as much as one-third of their length, therefore, maximum attention must be paid to the stern moorings. Because moorings placed on the buoy on the starboard quarter or on the bollards on the South shore prevent ships from using the South side of the pier the terminal will not, as a rule, put moorings to these points. However, in periods of unsettled weather, particularly if winds are from the S.W., Masters of the larger ships should insist on stern moorings being sent to the buoy and South shore. It should be borne in mind that tugs are not readily available at Stenungsund. Moorings are taken ashore initially by boat and then by heaving line. The forward spring line is usually first line ashore. No shore moorings are provided.

Gangway: Ship's gangway is used, there is ample room on the jetty to land the gangway abaft the manifold. Note that when ship is light the normal ship's gangway will become very steep (over 50°) and special safety precautions to prevent accidents to personnel will be necessary.

Fendering: The concrete strong points of the pier are protected by tubular rubber 600 mm. diameter erected horizontally. The concrete outer corners are well protected with low friction fenders.

Cargo Connections and Handling: HFO, Heating Oil, Naphtha and Mogas are handled. Ullages and temperatures are taken jointly with shore representative upon arrival alongside.

Starboard manifold should be prepared for 10 in. hoses, 2 or 3 flexible hoses with 10 in. ASA bolted flanges are usually connected. Starboard derrick and a 4 ton shore crane are used for hose connection.

Concurrent loading and discharging are not allowed. Maximum back pressure is 10 kg./sq.cm.

Naphtha receiving capacity is maximum 3,000 cu.m.p.h. Normal discharge rate is about 1,800 cu.m.p.h.

Deballasting Facilities: The terminal has limited high flash ballast reception facilities, about 2,400 cu.m. Discharge rate is about 500 cu.m.p.h.

Clean oil-free ballast may be discharged overboard but it is the ship's responsibility to ensure that the ballast water is oil-free and very heavy penalties are imposed for oil pollution.

Passing Traffic, Weather, Tide, etc.: There are no unusual problems except for strong S.W. winds when it is important that breast moorings are run to the starboard quarter buoy and to the South shore.

Special Regulations: No small craft are allowed alongside ship while at jetty. No bunkering during loading and discharging.

Oil Pollution Safeguards: Floating oil booms – partly fixed and partly portable are available to surround the ship and jetty. Mechanical suction equipment is available.

Fire Fighting Equipment: Remote-controlled foam-guns and water monitors are available at the berth.

Fresh Water: Good quality fresh water is available ex-jetty by hose, rate 25 t.p.h.

Additional Information: The berth on the South side of the Powerboard finger pier also handles HFO, heating oil, naphtha and mogas but is mainly used for loading/discharging LPG.

Statoil Terminal, Havden: *General:* Statoil's Havden terminal berth is located on the North side of the Havden peninsula on the East side of Askero Fjorden (Lat. 58° 05' N., Long. 11° 48.5' E.). It is a marginal type berth with a breasting face about 60 m. long. It is used for the discharge of naphtha and LPG.

Cautionary Advice: See "Powerboard Terminal".

Telegraph cables (shown on the chart) run out from the shore close Northwards of the berth and anchors should not be used. In addition, the dredged area tapers quite sharply towards the East end of the berth and use of an anchor could result in the ship "sitting" on the anchor or its cable.

Berthing Procedures: On arriving off Havden the ship is swung to starboard with the assistance of tugs and steamed slowly to the berth. Ships always berth starboard side to berth. Moorings are taken ashore by motor boat, the forward spring is usually the first line ashore. The stern of the ship is not well sheltered from the prevailing S.W. winds and special attention must be paid to putting out good stern moorings. It must be remembered that tugs are not readily available in Stenungsund. No shore moorings are provided.

Gangway: Ship's gangway used, ample room on the jetty to land the gangway aft of the cargo manifold. Note that, when ship is light, the normal ship's gangway will become very steep (over 50°) and special precautions to prevent accidents to personnel will be necessary.

Fendering: Each of the 3 concrete strong points is fendered by truck tyres around a rubber core slung horizontally. Care should be taken not to land initially between the strong points.

Cargo Connection and Handling: Only naphtha and LPG are handled at this berth. No bunkers can be provided. 2×10 in. fully counterbalanced hard arms of Chicksan manufacture are provided. Each has 10 in. ASA bolted flanges.

Ullages and temperatures are taken together with shore representative upon arrival alongside.

Starboard manifold should be prepared to accept 2×10 in. hard arms. If ship's manifold has large overhang outside the support, this should be jacked up before connection of arms. Stays, derricks, etc., in vicinity of starboard manifold should be removed. There are no facilities for receipt of dirty ballast at the terminal.

Oil Pollution Safeguards: Floating oil booms, partly fixed, partly portable are available to surround ship and jetty. Mechanical suction equipment is available.

Fire Fighting Equipment: The jetty is equipped with a fire water and a foam line and portable monitors.

Fresh Water: Good quality fresh water is available ex-jetty by hose, rate 25 t.p.h.

Norsk Hydro Terminal: Max. LOA 100 m. Depth 9.5 m.

FUEL: Only available by barge from other places (i.e. Gothenburg). Bunkering only during daylight. Can be ordered at short notice.
FIRE PRECAUTIONS: Normal precautions.
CONSULS: At Gothenburg.
REPAIRS: Minor repairs can be made locally, large repairs by labour from Gothenburg shipyards. Gas-freeing alongside with Port Captain's approval only. Repairs alongside with Port Captain's approval only.
SURVEYORS: D & D Marine Consult, Upplandsgatan 25, 11360 Stockholm. Tel: 08-34 1590.
GANGWAY/DECK WATCHMEN: Watchmen from ashore necessary when telephone connected.
CUSTOMS ALLOWANCES: 200 cigarettes. 1 bottle of spirits.
REPATRIATION: All facilities exist.
AIRPORT: Gothenburg 50 km. away. Regular airlines.
TIME: GMT plus 1 hour.
HOLIDAYS: Tankers load and discharge all year round.
TELEPHONES: Connected on board if required. Watchmen attend calls. Fireman and alarm on jetty during whole operation.
SHORE LEAVE: Permitted. Distance to Stenungsund 1 km., Uddevalla 40 km. or Gothenburg 50 km. by bus, train or taxi. Shore passes issued at the gate.
IDENTIFICATION CARDS: The gate at the Powerboard Terminal is TV-guarded. Each crew member must carry a Passing Permission allowing passage through the gate. Required number of permissions will be handed over to the Master by the Agent on ship's arrival. Passing Permission at Statoil Terminal, Havden, is not required.
GARBAGE DISPOSAL: Container available for garbage, free of charge.
WASTE OIL DISPOSAL: Reception facilities for engine slops only up to a maximum of 15 cu.m. at a time.
SEAMAN'S CLUBS: None.
CURRENCY: Swedish Kronor (SEK).

SHIPMASTER'S REPORT: January 1989 (Updated 1990).

Pilotage: On approaching the port, call 'Marstrand Pilot' on VHF Channel 11. The pilot usually boards between Hatteberget Light Tower and Astol Island to the N.W., from a fast launch painted orange. The water in the approaches is deep. The Racon on Hatteberget Light is usually visible when passing the Skaw. It takes approximately 1.0 hours – 1.5 hours to reach the Statoil berths.

Anchorage: There are no safe anchorages outside the fjord. If vessel is awaiting a berth it is usual to anchor to the West of the berths. An alternative anchorage is in the area 6 miles North of Algon Island, which is within the pilotage waters.

Max. Size: Power Board Terminal: On the North side of the jetty the maximum draft is 12.6 m. and on the South side 10.6 m.

Statoil Terminal: This berth is to be dredged to 14.0 m.

Tugs: There are no tugs stationed at Stenungsund. If tugs are required they have to be ordered from Gothenburg, which is 2.5 hours away by sea. 5 hours notice is required. Tugs normally join vessel at the 'S' bend at Tjornbron Bridge. Vessels of 32,000 cu.m. capacity require 2 tugs for berthing and one for unberthing.

Berths: Power Board Terminal: Lat. 58° 05.3' N., Long. 11° 49.2' E.

The finger pier is located on the East side of Askero Fjord and is aligned in an East/West direction. The pier is 1 mile North of Stenungsund.

The jetty is used for the import of oil for the power station and for import of LPG and ethylene for oil companies.

Approach to the berth is difficult in strong S./S.W. winds.

Vessels berth head-in, starboard side alongside, on the North side of the jetty and port side alongside on the South side. The offshore ancho is often used when berthing.

On the North Berth, vessels should be well secured at the stern whe S./S.W. winds are blowing and well secured at the South Berth whe N.W./N. winds are blowing.

Statoil Terminal: The berth is located on the North side of Havde Peninsula, to the West of Stenungsund. Vessels are swung to starboa and then pushed slowly into the berth. The stern overhangs whe alongside, so good moorings are required aft when S./S.W. winds ar blowing. The leads for the after moorings are poor and the leads for th headlines are long.

Cargo: Power Board Terminal: Ethylene is handled on both sides of th jetty, dependent on the receiver. Neste use the North side and Stato use the South side. The North side berth is equipped with an 8 i hydraulic arm (150 ASA) with clamps and automatic disconne mechanism. The South side berth is also equipped with an 8 i (150 ASA) hydraulic arm, but without clamps. Shore supply th necessary reducers. No VRL connected.

Initially small amounts of cargo are pumped ashore from each ta in turn, so that samples can be taken on the jetty. Analysis takes abo 2 hours. The cargo temperature is to be at least −100°C. and usua colder temperatures required. If the temperatures are correct, the sho facility can usually handle rates up to 500 cu.m.p.h. on the North si and 200 cu.m.p.h. on the South side. Hot gas required on completio It usually takes about 20 minutes to clear line, so about 40 mb. is requi in the tanks. The jetty has a steam/hot water line for de-icing. Loc surveyor used.

Statoil Terminal: LPG handled at this berth. Discharge is by 10 (150 ASA) non-hydraulic arm. Shore supply the necessary reducer, VRL. Samples are taken prior to arm being connected. Analysis tak 3 hours. Once lines are cool, the rate can be increased to maximu Cargo goes into cavern storage so any rate can be accepted witho difficulty. There was very little contact with the shore once discha had commenced.

A surveyor from the terminal and SGS are available for figu Terminal surveyor will use density from sample for calculations.

General: Power Board Terminal: There is an electric crane with 4 t SWL on the North side. No trucks allowed on jetty. Trolleys availa for the 300 m. haul from the roadway.

Statoil Terminal: Stores can be manhandled from the barrier which is approximately 300 m. from the ship. A hand driven shore crane can be used for loading stores. There is a telephone in the cabin on the jetty. Fresh water is available. All medical facilities are available locally. Stores are expensive.

AUTHORITY: Vattenfall, S-44487 Stenungsund, Sweden. *Tel:* 46-303-66141. *FAX:* 46-303-66161. *Cables:* Kraftverket. *Contact:* Ove Kristoffersson, Harbour Master.

Statoil Petrokemi AB, S-44481 Stenungsund. *Tel:* 0303-87000. *FAX:* 0303-87444. *Contact:* Morgan Hermansson or Anders Ranswall, General Managers.

Norsk Hydroplast AB, S-44483 Stenungsund. *Tel:* 0303-71560. *Telex:* 21206. *FAX:* 0303-84756. *Contact:* Stig Grunden, General Manager.

STOCKHOLM: 59.19 N. 18.03 E. **(See Plan)**

DOCUMENTS:

(a) Crew List: Normally 2 copies; for oil harbour at Loudden and Free Port, 3 copies.

(b) Passenger List: Regular passenger services 2 copies; cruise ships (lists for cruise ships must be sent in advance to Agent for forwarding to Immigration Authorities), 2 copies.

(c) Customs Documents: Arrival report (form can be obtained on arrival), 4 copies. Crew Effects Declaration, 2 copies. Ship's Stores Declaration, 2 copies.

(d) Quarantine Certificate or Bill of Health: Derat Certificate not more than 6 months old to be shown. *Note:* Additional quarantine regulations may be imposed in special circumstances.

(e) Manifest: 3 copies.

(f) Bills of Lading: 1 copy of each. Liners may be subject to other regulations with regard to *(e)* and *(f)* above.

(g) Ship's Documents: Tonnage Certificate. Certificate of Nationality.

PILOTAGE: *(Sweden General).* Applications for licensed Pilots should be made at least 5 hours before pilotage is due to commence. When making application specify name of vessel, tonnage, draft and destination. Also give estimated time for taking Pilot on board and route. If this procedure not followed, the Maritime Service cannot guarantee to supply a Pilot without considerable delay to vessel.

Preferable make application by telephone, or by radio via a coastal station or by some other method direct to Pilot Station nearest point where pilotage is to begin. Also possible request Pilot by VHF telephone to any Maritime Service Pilot Station, Pilot waiting point or lighthouse which is equipped with VHF.

The Maritime Service's network of permanent VHF telephone stations has been extended to give almost complete coverage of all Pilot Stations and waiting points and is also operative for a number of lighthouses. The radio stations can operate on different Channels and are equipped for frequency modulation. During hours when Pilot Stations are open, a constant watch is kept on frequency 156.80 MHz (Channel 16). This frequency should be used for all signals and replies – and for distress traffic. Outside these hours, normal traffic transmissions, i.e. applications for Pilots, etc. should be made on frequency of 156.65 MHz (Channel 13) or on reserve operating frequency of 156.60 MHz (Channel 12).

When making VHF telephone call, the type of call signal that should be sent is "Lotsarna (or Pilot Station) plus the name of the Pilot Station or the pilotage attendance".

	Soderhamn/ Simpnas	*Sandhamn*	*Landsort*
Cable address	Kapellskars Pilot Station	Stockholm Pilot Station	Nynashamn Pilot Station
Notice of arrival	5 hours	5 hours	5 hours
VHF Channels	6, 12, 13, 16	6, 12, 13, 16	6, 12, 13, 16
Description of pilot boat	Pilot boat on day duty flies international flag "H". Pilot boat on night duty carries lights conforming to International Regulations for Preventing Collisions at Sea, Rule No. 29. 33 ft. steel cutter painted red-orange	33 ft. steel cutter painted red-orange	40 ft. steel cutter painted red-orange
To order Pilot:	Tel: 08-6666622. Fax: 08-6666690. Telex: 12858 Stolops. Cables: Pilot Station Stockholm. VHF: Channel 13. Pilot may be called by radio or VHF.		
Boarding point	At Bjorko outside outer Skerries, 2 – 3 n.m. N.W. or E. of Simpnasklubb	2 n.m. S.E. of Revengegrund Light	2.5 n.m. S. of Oja
Anchorage for vessels awaiting Pilot	Near position stated above	Near position stated above	Near position stated above

ANCHORAGES:

	Arholma	*Sandhamn*	*Landsort*
(a) Prohibited anchorage	59° 30' N. 19° 05' E. 59° 45' N. 19° 14' E.	59° 17' N. 18° 54' E.	
(b) Suitable anchorages	2 – 4 n.m. N.N.W. of Simpnasklubb	2 – 4 n.m. E. and S. of Revengegrund	6 – 8 n.m. S.S.E. of Landsort
(c) Depth	33 – 38 fathoms	11 – 22 fathoms	11 – 16 fathoms

RESTRICTIONS: Very large passenger vessels and fully-loaded tankers of approx. 15,000 d.w.t. or over not allowed pass through Skerries during darkness.

Ships with gross tonnage exceeding 300 tons must proceed only on an Easterly course in Lindalssundet. Ships with gross tonnage exceeding 300 tons must not proceed through Kodjupet and Sandhamnssundet (between Sandon and Korso).

Ships with a gross tonnage exceeding 300 tons, not using a Pilot, must be equipped with VHF telephone which must be continuously watched on Channel 16 and 9.

A vessel reporting system has been established covering the entrances to the Port of Stockholm. Vessels over 300 g.r.t. report to Stockholm Pilot Station ("Lotsarna Stockholm") when passing way points. Reports to be given by VHF Channel 73.

Tankships with gross tonnage exceeding 800 tons carrying crude oil products, mineral oil and certain chemicals must have licensed Pilot in the passages Arholma-Stockholm; Soderarm-Stockholm; Sandhamn-Stockholm; Landsort-Stockholm; Landsort-Nynashamn; Landsort-Sodertalje and in the Lake of Malaren.

MAX. SIZE:

Max. Dimensions Passenger – or Dry Cargo Ships:

DAYLIGHT

	LOA (m.)	*Beam (m.)*	*g.r.t.*	*Draft (m.)*
Sandhamn	245.0	35.0	43,000	11.0
Landsort	200.0	22.0	18,000	10.0
Simpnas/Soderarm	245.0	35.0	18,000	8.0
Gustavsberg	60.0	9.5	—	4.2

Ships larger than 30,000 g.r.t. or longer than 200 m. to be assisted by 2 Pilots and to have assistance of tugs through the Archipelago.

DARKNESS

	LOA (m.)	*Beam (m.)*	*g.r.t.*	*Draft (m.)*
Sandhamn	175.0	26.0	18,000	9.0
Landsort	175.0	26.0	13,000	9.0
Simpnas/Soderarm	175.0	26.0	13,000	7.0

Max. Dimensions Tankers:

DAYLIGHT AND VISIBILITY EXCEEDING 1 NAUTICAL MILE

	LOA (m.)	*Beam (m.)*	*d.w.t.*	*Draft (m.)*
Sandhamn	200.0	32.0	35,000	11.0
Landsort	175.0	26.0	15,000	10.0
Simpnas/Soderarm	175.0	28.0	15,000	8.0

Ships exceeding 22,000 g.r.t. to have 2 Pilots onboard. Ships of this size are normally not handled in winds stronger than 15 m./s.

DARKNESS OR POOR VISIBILITY (LESS THAN 1 NAUTICAL MILE)

	LOA (m.)	*Beam (m.)*	*d.w.t.*	*Draft (m.)*
Sandhamn	175.0	26.0	15,000	9.0
Landsort	145.0	19.0	10,000 (13,000 double bottom)	9.0
Simpnas/Soderarm	145.0	19.0	10,000 (13,000 double bottom)	7.0

Tankers:

Tanker Discharge Quay	*Max. safe draft*	*Available Quay length*
Bergs Oil Harbour	12.4 m.	230 m.
Kvarnholmen	9.4 m. – 10.8 m.	183 m. – 230 m.
Loudden	8.2 m. – 11.0 m.	190 m. – 230 m.
Vartan	7.4 m. – 10.4 m.	190 m. – 230 m.

HEALTH: Vessels arriving from ports outside Europe must for Inward Clearance provide Customs Office with written Declaration of Freedom from Infection. Further instructions will be issued by Customs Office when such a Declaration cannot be given.

RADIO: Stockholm Radio, call sign SDJ.

RADAR/VHF: All 3 Pilot Stations have radar for internal use. No harbour radar service. VHF Channels 16 and 12. Also see "Restrictions".

TUGS: Very large vessels may be met by tugs by special arrangement at pilot boarding point. Tugs available to special order to assist with berthing; they rendezvous usually near berth.

Rates: According to fixed tariff.

BERTHING: See Tables on Page 2042 .

BRIDGES:

HOURS FOR OPENING FOR MOVABLE ROAD BRIDGES OVER HAMMARBY SEALANE

Movable parts of road bridges over sealane of Hammarby opened on request for vessel unable freely to pass under the bridges, all through the year at regular hours.

STEVEDORES: Stevedores available from Stockholms Hamn AB. Tel: 08/6702600. Working hours 0700 – 0900, 0930 – 1100, 1115 – 1330 and 1400 – 1600. Stevedores required for 0700 hrs. must be booked previous day.

MEDICAL: Full hospital facilities available without prior notice. Dentists available during normal working hours.

TANKERS:

Quay	*No. of Berths*	*Max. d.w.t.*	*Depth alongside* (ft. in.)	*Diameter of Discharge Pipelines* (in.)
Bergs (Statoil)	1	65,000	43 00	12 – 20
Kvarnholmen	2	30 – 65,000	33 00 – 39 04	8 – 14
Loudden (Municipal)	5	25 – 60,000	28 06 – 39 00	6 – 12
Vartan (Statoil/Shell)	3	20 – 60,000	24 08 – 36 00	8 – 10

DENSITY: Salt content of 0.5%. No variations

GANGWAY/DECK WATCHMEN: Not essential, but recommended for large tankers.

OPENING/CLOSING HATCHES: If opened and closed by stevedores, subject to extra fee.

BERTHING: Services of boatmen available any time day or night. Boatmen are ordered from Stockholm Port Authority. Tel: 08/6702810 or b VHF Channel 12.

Principal Quays and harbours	*Berth Numbers*	*Length of quay (m.)*	*Depth of water at mean water 4 m. from quay* (m.)*	*Quay cranes** No.*	*Lifting capacity (tons)*	*Warehouses, sheds, etc. No.*	*Type*	*Notes*
On Baltic								
Stadsgardshamnen	151 – 167	1,930	9.3 – 5.5			2	Pass. Term Bldg.	4 Ro-Ro ramps
Skeppsbrohamnen	101 – 108	570	6.5 – 5.4					
Sodra Blasieholmshamnen		275	3.5					
Nybrohamnen	1 – 10	469	5.5 – 3.0					
Strandvagen	11 27	1,003	5.0 – 3.0					
Vartahamnen	500 – 507 509 – 511 515 – 526	2,081	10.9 – 6.5	2	3.0 – 6.0	1	Pass. Term. Bldg.	3 Ro-Ro ramps
Free Port Harbour†	610 – 611 620 – 625	1,766	10.9 – 7.5			13 1	Sheds Warehouses and 1 Pass. Term. Bldg.	3 Ro-Ro ramps
	630 – 638 640 – 641			4	10.0 11.5	2	Grain-silo building	Loading installatio for 400 t.p.h.
	650 – 656			2	12.5 – 42	1	Pass. Term Bldg.	
Oil harbour at Loudden	701 – 710	1,020	11.0 – 8.7					8 loading jetties and 1 pier
Norra Hammarbyhamnen	301 – 322	1,690	5.9 – 3.5					
Sodra Hammarbyhamnen	351 – 358 363 – 369	1,391	5.9 – 3.9					
Small wharves		429	8.0 – 2.5					
Total for installations on the Baltic-side		12,624		14				
On Lake Malar								
Riddarholmshamnen		70	4.4					
Norr Malarstrand	453 – 466	769	6.4 – 2.0					
Soder Malarstrand	10 – 21, 25 – 26	918	4.5 – 3.9					
Ballstahamnen		209	5.0 – 4.1					
Hornsbergsstrand		368	6.9 – 4.1					
Hasselbyverkskajen		289	7.0 – 4.0	1	8.0			
Small wharves and quays		680	6.9 – 2.9					
Total for installations on the Lake Malar-side		3,303		1				
Principal private quays and wharves								
On Baltic								
Inside and close to the Port of Stockholm area		475	12.9 – 3.7					
On Lake Malar								
Inside the Port of Stockholm area		1,312	6.9 – 4.0					

† Shipmaster's Report: March 1996. Whilst berthed at No. 632 in the Free Port, we attempted to shift ship with draft 8.85 m., but vessel woul not move as it was aground.

Water level		*Baltic*	*Lake Malar*
		(m.)	(m.)
High water highest observed	HHW	+0.65	+1.00
normal	MHW	+0.25	+0.55
Mean water	MW	−0.30	+0.30
Low water normal	MLW	−0.75	+0.15
lowest observed	LLW	−0.90	−0.10

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* Different heights of the water refer to the Swedish State Measure Datum.

** Besides the quay cranes there is a pontoon crane of 260 tons lifting capacity, with own propelling machinery.

CONSULS:

Algerian Embassy	6799130, 6799140
American Embassy	7835300
– Citizen Service	7835375
Argentinian Embassy	6631965
Australian Embassy	6132900
Austrian Embassy	233490
Bangladesh Embassy	6799555
Belgian Embassy	4118958
Brazilian Embassy	234010
British Embassy	6719000
Canadian Embassy	4533000
Chilean Embassy	6798280
Chinese People's Republic, Embassy of the	6625955
Colombian Embassy	218489
Croatian Embassy	6788310
Cypriot Embassy	245008
Danish Embassy	231860
– Consulate and Visa Office	208748
Ecuadorian Embassy and Consulate	6796043, 6796070
Egyptian Embassy	6629603, 6629687
Estonian Embassy	6656550
Finnish Embassy, Consulate and Passport Office	6766700
French Embassy	6630270
German Embassy	6701500
Greek Embassy	6608860, 6617880
Hungarian Embassy	208605, 209716
Icelandic Embassy	6624016
Indian Embassy	107008, 4113213
Indonesian Embassy	6635470
Iranian Embassy and Consulate	7650819, 7658702
Iraqi Embassy	7967975
Irish Embassy	6618005
Israeli Embassy	6630435
Italian Embassy	245805
Italian Consulate	6610310
Japanese Embassy	6630440
Jugoslav Embassy	218436
Korean (Republic) Embassy	6600380
Latvian Embassy	7006300
Lebanese Embassy	6651965
Lithuanian Embassy	6671134
Mexican Embassy	6635170
Netherlands Embassy	247180
Nicaraguan Embassy	6671857
Norwegian Embassy	6656340
Norwegian Consulate-General	214018
Pakistani Embassy	203300
Panamanian Consulate-General	6626535
Peruvian Embassy	4110019, 4110041
Polish Embassy	4538420
Polish Consulate-General	7644800
Portuguese Embassy	6626028
Portuguese Consulate	6634555
Russian Embassy	130441, 6185338
– Consular Department	6190470
South African Legation	243950
Spanish Embassy	6679430
Swiss Embassy	6767900
Tanzanian Embassy	244870
Thai Embassy	7917340
Tunisian Embassy	236470
Turkish Embassy	230840
Turkish Consular Department	6672960
Uruguayan Embassy	6603196, 6603197
Venezuelan Embassy	4110996, 4110997

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes per person per week or 200 g. (7 oz.) of tobacco per person per week. Wine and/or spirit: One bottle of spirits per person per week, one bottle of wine per person per week.

CERTIFICATES:
Tonnage Certificate.
Certificate of Nationality.
Derat Certificate not more than 6 months old.
Ship's articles, Crew List or similar document listing all persons signed on aboard.

CARGO GEAR: Cargo vessels carrying goods which constitute a fire or explosion hazard or other flammable or otherwise dangerous goods must notify Port Authorities in advance the nature and quantity of goods concerned. In certain cases a red flag or red light must be carried at mast head.

REPATRIATION: Crewmen may be signed-on and paid-off. Whether paid-off crewmen will be allowed to remain in the country and seek new employment, depends on existing bi-lateral agreements between countries. Generally, only a citizen of a Scandinavian country may seek work in Sweden without a special labour permit.

FRESH WATER: Fresh water may be obtained from quayside. 1,000 cu.ft./hr. can be delivered from quayside. At Loudden max. 3,500 cu.ft./hr. can be delivered.

FUEL: All grades bunker oil, lubricating oil, etc. can be supplied.

REPAIRS: All types of deck and machinery repairs can be carried out.

DRY DOCKS: None.

AIRPORT: Arlanda, approx. 22 miles from central Stockholm. Served by regular airlines.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day (January 1st); Epiphany (January 6th); Good Friday (variable Friday in March/April); Easter Monday (variable Monday in March/April); May 1st; Ascension Day (variable Thursday in May/June); Whit Monday (variable Monday in May/June); Midsummer Day (variable Saturday in June); All Saints' Day (first Saturday in November); Christmas Day (December 25th); Boxing Day (December 26th). No work is normally done on these days.

POLICE/AMBULANCE/FIRE: Tel: 90 000.

TELEPHONES: Ship-to-shore telephone connections can be provided at most quays.

SERVICES: Electric current can be laid on at some quays. Port is responsible for collection of oil residues. Licensed compass adjusters available.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Passport or Seaman's Discharge Book with photograph.

GARBAGE DISPOSAL: A collection service is available. Containers are provided alongside. Charges are included in the port dues. Ordered through Agent.

WASTE OIL DISPOSAL: Collection service available by tanker trucks at any berth. Charges are included in port dues. Ordered through Agent.

SEAMAN'S CLUBS: Available.

DELAYS: Occasionally shortage of stevedores. Some delay may be caused by ice, but port kept permanently open by ice-breakers.

AUTHORITY: Port of Stockholm, P.O.Box 27314, S-10254 Stockholm. *Tel:* 08-6702600. *FAX:* 08-6702601. *Cables:* Capitalport.
Contact: Thomas Krokstedt, Harbour Master.

STORUGNS, Gotland Is.: 57.50 N. 18.48 E. (See Plan)

Situated on Eastside of Bay of Kappelshamn on the North coast of Gotland.

DOCUMENTS: Vessels arriving from foreign ports shall have the following documents:
1 Crew Manifest.
1 Stores List.
3 Crew Lists.
Tonnage Certificate.
Certificate of Nationality.
Declaration of Health (Derat Certificate), not older than 6 months.
Not applicable to vessels from Scandinavian ports.

NOTICE OF ARRIVAL: On which the loading turn number is based, should be given when the vessel has passed Lat. 57° 52' N. The notice can be given by VHF (Storugns Harbour Radio).

Vessels may not berth without permission of the Company.

PILOTAGE: Pilot boards in the outer approaches and should be ordered at least 5 hours in advance by Tel: 0498/227010 (Storugns) or 210138 (Visby). Pilots keep watch on VHF Channel 16.

ANCHORAGES: With good holding ground. Vessels waiting in the roads should keep watch on VHF Channel 16 during ordinary harbour working hours.

Ships lying in the roads shall anchor so that in-going and out-going vessels can pass without hindrance or risk. Anchoring in Kappelshamnsviken in the area between Lat. 57° 51' N. and an E.W. line 200 m. South of the quay's Southernmost point is prohibited unless permission is obtained from the Company.

Prohibited Anchorage: See "Plan".

RESTRICTIONS: The harbour can be entered at all times regardless of wind direction except during strong Northerly winds.

The bay is normally ice-free. During exceptionally cold spells with Northerly winds traffic may be temporarily stopped or hindered by ice-floes.

MAX. SIZE: Depth at entrance and at quay 10 m. Vessels up to 20,000 tons have loaded to full draft. Max. draft 9.2 m.

HEALTH: No restrictions provided no disease or fever on board and vessel not arriving from port where disease or fever in existence.

RADIO: 96 and 24 hours before vessel's ETA preliminary notice must be given to the Company. Changes of ETA exceeding 10% of the remaining time must be reported. It is, however, not necessary to report changes of less than 1 hour. The Company may under special circumstances waive the obligation to give 96 hour notice.

On the arrival of a vessel in the harbour area notice of arrival must be given either in writing, or by telephone 0498/227100 or by VHF radio. In respect of notice of arrival the harbour area is Kappelshamnsviken South of Lat. 57° 52' N. If a vessel, owing to bad weather or for any other reason cannot safely lie within the harbour area, the Company may accept notice of arrival from vessel North of above mentioned latitude.

Between 0500 hrs. and 2230 hrs. vessels waiting in the roads shall keep watch on VHF radio or, if the vessel is not equipped with such, on the ordinary radio.

Coastal Radio Stations: Stockholm Radio and Tingstade Radio (Tingstade Radio, radio telegrams only).

VHF: Storugns Harbour Radio VHF Channel 16.

TUGS: Rederi AB Gute. Tel: 0498-223000. On the island of Gotland.

BERTHING: The harbour which is situated on the Eastern side of Kappelhamsviken is intended solely for the loading of limestone which is obtained from the nearby quarry. The Gotland limestone, which is of high purity and has a very low percentage of impurities, is used in cellulose, sugar, metallurgic and chemical industries, and in iron production.

The limestone is delivered in 11 different grades. The density is 2.5/2.6 tons/cu.m.

The stowage factor varies between 17 and 26 (17 – 18 for grades 0 – 3 mm., 23 – 26 for grades between 3 and 120 mm., and 20 – 24 for grades above 120 mm.).

Quay	*Length*		*Depth*	
Quay 1 outside	140 m.		outside	9.5 m.
inside	120 m.		inside	7.0 m.
Quay 2	48 m.	(no loading)		5.0 m.
Quay 3	110 m.		outer	7.0 m.
			inner	6.0 m.

Boatmen: Vessels with Pilots on board need not order boatmen. Other vessels can obtain boatmen service through their Agents or by calling the boatmen service firm "Trossvakt" on Tel: 0498/225433. Booking should be done at least 2 hours before ETA. Shipper/NordKalk AB cannot offer boatmen service.

BULK HANDLING FACILITIES: The loading elevators are movable along their respective quays. The capacity on Quay 1 (loading of limestone only) is about 500 – 1,000 t.p.h and on Quay 3 (loading of quick lime only) about 300 – 600 t.p.h.

Shipmaster's Report: 1979. Loading rate 967.5 t.p.h.

Cleaning of holds, discharging of ballast and opening of hatches shall be carried out in sufficient time to avoid delays in loading. The loading should be so planned that shifting of the vessel and loading elevators can be avoided as far as possible.

STEVEDORES: Normal working hours are Monday – Thursday 0530 hrs. – 2230 hrs. and Friday – Sunday 0600 hrs. – 1900 hrs. Overtime working to complete loading is available to a limited degree.

During ordinary working hours vessels are loaded by turn. The turn is based upon the time of notice of arrival.

MEDICAL: Central hospital at Visby.

FRESH WATER: Not available.

FUEL: Most grades available from Visby subject prior notice.

CONSULS: Nearest consuls at Visby for Denmark, Finland, Norway and Germany.

REPAIRS: Only minor repairs possible.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: Not compulsory but available.

OPENING/CLOSING HATCHES: Ship's crew open and close.

CUSTOMS ALLOWANCES: Presently 200 cigarettes per head/week. Practically no spirits allowed out of bond.

REPATRIATION: Good possibilities for changing crew.

AIRPORT: Visby.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Tel: 90 000.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Seaman's Book or Passport if travelling outside port area.

AUTHORITY: NordKalk Storugns AB, Storugns, S-62034 Laerbro, Sweden. *Tel:* 0498-227100. *Telex:* 4150 Nkalk S. *FAX:* 0498-227227.
Contact: Bjoern Mathiasson, Harbour Master.

STROMSTAD: 58.56 N. 11.10 E.

DOCUMENTS/PILOTAGE: See "Stockholm".

ANCHORAGES: Available within port for vessels up to and including 3,000 d.w.t.

MAX. SIZE: Cargo ships (not tankers), max. 3,000 d.w.t.

BERTHING: No particular restrictions for berthing within the port.

FRESH WATER: Available.

FUEL: Not available.

REPAIRS: Repairs possible.
GANGWAY/DECK WATCHMEN: Necessary.
OPENING/CLOSING HATCHES: Carried out by crew.
REPATRIATION: Facilities exist for effecting crew changes.
AIRPORT: Landvetter (Gothenburg). Distance: 200 km. There is also a local taxiplane.
HOLIDAYS: Cargo work cannot be arranged on holidays.
POLICE/AMBULANCE/FIRE: Police 12530; Ambulance 90000 (ask for ambulance); Fire 90000.
TELEPHONES: No arrangements exist for placing telephones on board.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
IDENTIFICATION CARDS: Needed.
DELAYS: No delays in load or discharge.
AUTHORITY: Hamnforvaltningen Stromstad, 45280 Stromstad, Sweden. *Tel:* 0526-19000. *FAX:* 0526-19341. *Contact:* Rolf Massleberg.

SUNDSVALL: 62.25 N. 17.20 E. (See Plan)

DOCUMENTS:
3 copies Crew Lists.
3 copies Passenger Lists (if passengers onboard only).
2 copies Crew Declaration on tobacco, liqueur, cigarettes and spirit, etc.
2 copies Ship's Stores List.
1 copy Cargo Declaration.
Derat Certificate.
Tonnage Certificate.
Register.
Swedish Light Dues.
Manifest and/or Bill of Lading.

PILOTAGE: Pilot station (Tel: 060-58 60 00/7) at Spikarna Southern Point of Alno Island VHF Channel 16. For communication and instructions Channel 13.

Pilot boarding from pilot cutter 2.5 miles East of Gubben Lighthouse in position Lat. 62° 21' N., Long. 17° 40' E.

Entrance passage Gubben Light – Spikarna – Draghallan Light all 14 m. deep.

ANCHORAGES: Between islands of Tjuvholmen and Alno and also in Svartvik Bay.
MAX. SIZE: See "Berthing".
RADIO: Cable Agents giving ETA, draft and cash requirements either via Hernosand Radio SAH or Stockholm Radio SDJ. At least 24 hours' notice required. Change in ETA to be given at least 5 hours before ETA Pilot.
TUGS: Available, ordered by Agent. Compulsory at Sundsvall Oil Terminal for tankers over 8,000 d.w.t. without thrusters, over 14,000 d.w.t. with thrusters and LPG tankers.
BERTHING: Around the clock berthing. No restrictions except draft. Following drafts (fresh water) accepted in Sundsvall and adjacent ports.

Kubikenborg: Lat. 62° 22.7' N., Long. 17° 22' E.

Length of quay 150 m. Max. length 192 m. Max. draft 10.5 m. 1 shore crane, capacity 5 tons. 1 suction-installation, capacity 150 t.p.h. Pilot distance 12 nautical miles. Distance from Sundsvall Town 4 km.

Ortviken: Lat. 62° 23.8' N., Long. 17° 21.8' E.
Oil Berth: Quay length 140 m. Max. draft at max. 200 m. length is 10.8 m. Pilot distance 12 nautical miles. Distance from Sundsvall Town 4 km.

Ostrand: Lat. 62° 29' N., Long. 17° 21' E.
Oil Berth: Tankers berthed outside a steel barge, max. LOA 200 m., max. draft 7 m. Pilot distance 17 nautical miles. Distance from Sundsvall Town 15 km.

Soraker: Lat. 62° 30.5' N., Long. 17° 30' E.

Length of quay 150 m. Max. LOA 90 m. Max. draft 5.8 m. 1 shore crane, capacity 10 tons. Pilot distance 11 nautical miles (East of the Alno Island). Pilot distance 20 nautical miles (West of the Alno Island). Distance from Sundsvall Town 34 km.

Stockvik: Lat. 62° 20' N., Long. 17° 22' E.

Length of quay 190 m. Max. draft 7 m. 3 shore cranes, capacity 6 tons each. Pilot distance 10 nautical miles. Distance from Sundsvall Town 9 km.

Sundsvall Town Quay:* Lat. 62° 23.5' N., Long. 17° 19.5' E.
1 Berth: Length 90 m. Max. draft 7.8 m.
1 Berth: Length 175 m. Max. draft 5 m. – 7 m.
1 Ferry/Ro-Ro Berth: Max. beam 15 m. Max. draft 7.5 m.

No cargo is handled on Sundsvall Town Quay. Pilot distance 12 nautical miles.

Sundsvall Oil Berth:* (Vindskarsudde) Lat. 62° 23.2' N., Long. 17° 21.8' E.

Length of quay 100 m. Depth 12.0 m. Max. LOA 250 m. Max. draft 11.3 m. Max. d.w.t. 70,000. 2 swinging arms, each of 10 in. dimension. Pilot distance 12 nautical miles. Distance from Sundsvall Town 3 km. Vessels berth port side to.

Port of Sundsvall* (Tunadalshamnen): Lat. 62° 25' N., Long. 17° 23' E.

Length of quay 450 m. Max. draft 9.1 m. 2 shore cranes, capacity 10 tons – 20 tons. Additional berth: Length of quay 200 m. Max. draft 12.5 m. Pilot distance 13 nautical miles. Distance from Sundsvall Town 7 km.

Ro/Ro Berth: Depth 9.4 m. Max. beam 30 m. Max. draft 9.2 m.
LPG Berth: Quay for discharge of LPG. Storage capacity 20,000 tons. Length of quay 60 m. Depth alongside 11.0 m. Max. draft 10.5 m.

Tunadal Sawmill: Lat. 62° 25' N., Long. 17° 23' E.

Length of quay 195 m. Max. draft at 80 m. length is 7 m. Pilot distance 13 nautical miles. Distance from Sundsvall Town 7 km.

Vivstavarv: Lat. 62° 29' N., Long. 17° 28' E.

Length of quay 160 m. Max. draft 7.3 m. Pilot distance 17 nautical miles. Distance from Sundsvall Town 18 km.

*These ports are administered by Sundsvall Port Authority.

CRANES: 2 cranes available 10 – 20 ton. At Tunadalshamnen cargo is also handled by mobile cranes. Also see "Berthing".
STEVEDORES:
Ordinary working hours Monday – Friday 0700 – 1600 hrs.
Overtime on Saturdays 0700 – 1330 hrs. at 100% additional cost.

MEDICAL: First class medical attention and dental care available.
TANKERS: See "Berthing".
CUSTOMS ALLOWANCES: See "Stockholm".
DENSITY: Nearly fresh, 1002 – 1005.
FRESH WATER: Supplied at Sundsvall, Kubikenborg, Stockvik and Tunadal.
FUEL: All grades delivered. Notice must be given in good time, since these installations normally close down at weekends.
CONSULS: Finland, Germany, Iceland, Netherlands, Norway.
REPAIRS: Most repairs possible through local repair shops.
DRY DOCKS: Lunde Varv outside Kramfors.
SURVEYORS: Cargo inspectors available through Sundsvall Control Service or Lloyd's Agency for cargo or vessel.

Surveyors available from Stockholm in most cases. Call Agents for details at time.

AIRPORT: International airport 22 km. outside town. Good facilities to effect repatriation.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Stockholm".
POLICE/AMBULANCE/FIRE: Tel: 112 and 90 000.
EMERGENCY: CO-ORDINATION CENTRE: Tel: 90 000 giving full details of situation or call Stockholm Coast Radio Station VHF or MF.
SHIP WATCHMEN AND SHIP'S TELEPHONE: Available. Compulsory at oil terminals only.
STORING: Vessels stored by truck only, through assistance of stevedores and forklifts. Can be done close alongside ship.
GARBAGE DISPOSAL: Container available at no charge.
WASTE OIL DISPOSAL: Sludge is collected free of charge if ordered 24 hours in advance.

There are no facilities for dirty ballast.

SEAMAN'S CLUBS: None.
CURRENCY: Swedish Kroner (SEK).
GENERAL: *Dangerous Cargo:* Ships carrying dangerous cargo must notify Port Authorities in advance of nature, quantity and IMO code number of goods concerned.
Wintertime: Ice-breaker service available if needed (Wintertime December to April).
AUTHORITY: Port of Sundsvall, Box 805, S-85123 Sundsvall, Sweden. *Tel:* (060) 123180. *Telex:* 71011 SUSAB S. *FAX:* (060) 193507. *Contact:* Owe Linton, Managing Director. Tel: (060) 193525.

TRELLEBORG: 55.21 N. 13.09 E. (See Plan

DOCUMENTS: See "Stockholm".
PILOTAGE: Available day and night. To obtain Harbour Pilot repor 5 hours in advance. To obtain outward Pilot report 24 hours in advanc of departure. Pilot meets inward-bound ships on Roads at Trellebor Light Buoy (Lat. 55° 20' N., Long. 13° 08.5' E.). Outward-bound Pilo obtained from Pilot Station of Malmo. Tel: 040-115269, 040-978315. Pil boats provided with short-wave radio telephone. Also see "Stockholm'
ANCHORAGES: Recommended West of entrance fairway betwee Fairway Buoy and No. 1 Light Buoy. Depth varies from 7 m. – 14 m Anchor ground good – clay and sand.
RESTRICTIONS: Entrance a straight, perch-buoyed fairway of abo 1,300 m. length, having measured depth of 8.5 m., and a bottom wid of 100 m. Distance between moles (outer – 125 m.) and (inner – 96 m
HEALTH: See "Stockholm".
VHF: Port and Pilot Station on Channels 8 and 67.
TUGS: Tug-boats can be obtained promptly from Malmo.
BERTHING: New Harbour has depth of 8 m. with quay on Northern sid of basin. It is 1,640 ft. long and served by 1 bridge crane (6.2 tons) an 1 mobile crane of 36 tons. Western Harbour Basin has depth of 8 m Eastern Harbour Basin has depth of 8.0 m. Oil Quay 230 ft. long, dep at quay of 8 m. is situated on Southern side of New Harbour. Tank of max. length 570 ft. can approach this quay. Five berths equipped f Ro/Ro traffic.
STEVEDORES: Available (Tel: 43135).
FRESH WATER: Available on all quays at request to Harbour Offic
FUEL: All grades bunker oils supplied at oil quay through direct pipel from sea depot. Order on phone Trelleborg 107 76.
REPAIRS: Available through private firms. Tel: Trelleborg 16000.
CONSULS: Denmark, Norway and Germany.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
TELEPHONES: Ship's telephone available at Oil Quay, Tel: 148 28, a at the Harbour Bridge, Tel: 147 67. Order is made through Harbo Office.
SERVICES: Divers available through the Harbour Office.
GARBAGE DISPOSAL: Drums or skips available alongside. Con Port Office (Tel: 0410-53900) during daytime (0700 hrs. – 1600 hr Normally there is no charge.
WASTE OIL DISPOSAL: Tanker trucks with capacity 25 cu.m. available at 24 hours notice. Call Port Office for service (Tel: 04 53900, Fax: 0410-14129).
SEAMAN'S CLUBS: None.
AUTHORITY: Trelleborgs Hamn, Box 26, 23121 Trelleborg, Swed *Tel:* 0410-53900. *FAX:* 0410-14129. *Contact:* Leif Lars Port Captain. Leif Borgemark, Port Director.

UDDEVALLA (including Froland): 58.21 N. 11.56 E.
(See Plan)

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
1 Manifest.
1 copy of Bill of Lading.
International Tonnage Certificate.
Nationality Certificate.
Derat Certificate.
2 Crew Effects Declarations.
2 Ship's Stores Declaration.
1 Declaration of Living Animals (if any).

PILOTAGE: Pilotage at Marstrand. Address "Marstrand Pilotstation". Required ETA 5 hours. VHF 16 and 11. Pilot boat S.W. of Hatteberget Lighthouse (Lat. 57° 51.8' N., Long. 11° 27.65' E). (Also see "Stockholm".)

MAX. SIZE: Draft 10.3 m., airdraft 43 m.

Bado Quay: Max. LOA 190 m. Max. draft 9.0 m. (MLW).

HEALTH: Cable to Agent and he will arrange with Health Authorities.

RADIO: SAG. Gothenburg Radio (Goteborg Radio).

RADAR/VHF: No port radar service, VHF Channels 16, 11 and (working channel) 14.

TUGS: 2 Tugs up to 3,200 h.p. available. Can be ordered through Pilot or Agent.

BERTHING: Depths alongside (at MW) as follows:

	Length (m.)	*Depth* (m.)
Skeppsholm Quay	340	10.7 – 11.2
Bado Quay	430	6.0 – 9.5
Bave Quay	180	7.0
Skans Quay	180	6.0
Froland	225	12.0
Kasen – K1	200	5.0 – 6.0
K2	200	5.0
K3	260	5.0 – 9.0
Sorvik – 71-73	250	9.5 – 10.3

CARGO HANDLING FACILITIES:
Skeppsholmspiren: 5 electric cranes of 12 to 35 tons capacity. Warehouse of 3,500 sq.m. Very large storage areas. 1 berth equipped for Ro-Ro traffic.

Bado Quay: 4 electric cranes with capacities of 7 – 12 tons. 16,000 sq.m. of warehouses and 20,000 sq.m. of storage. 2 silos for grain owned by private companies.

Bave Quay: 1 electric crane with capacity of 12 tons. 3,400 sq.m. of warehouse and 14,000 sq.m. of storage.

Froland: (Lat. 58° 20' N., Long 11° 52' E.) Total length 225 m., depth alongside 12 m., 35,000 sq.m. of storage. One berth equipped for Ro/Ro traffic, depth 8.0 m., 1 conveyor belt 500 t.p.h. – 800 t.p.h. This berth is specially constructed to handle the loading/unloading of bulk cargo.

STEVEDORES: Arranged by Agent.

TANKERS: Draft at the Bado Oilport, 9.5 m.

FRESH WATER: Available at all quays.

FUEL: All grades available.

FIRE PRECAUTIONS: Watchmen necessary when loading or discharging oils by pipelines.

CONSULS:

Barbados	Tel: 11946	Norway	Tel: 91300
Netherlands	Tel: 79055		

REPAIRS: Facilities available.

SURVEYORS: All kinds of cargo inspectors and surveyors available.

GANGWAY/DECK WATCHMAN: Watchman accepted by Harbour and Fire Authorities on vessels loaded with explosives.

OPENING/CLOSING HATCHES: Preferably by crew. Can be arranged by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes/250 gm. tobacco, 1 bottle of spirits, 1 litre of wine and 10 beers for each man (every 10 days) as a normal quantity. Possible to be increased for Master's representation.

REPATRIATION: In accordance with instructions of Consul.

AIRPORT: Gothenburg, 100 km.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Police Tel: 90 000; Ambulance Tel: 90 000; Fire Tel: 90 000.

EMERGENCY CO-ORDINATION CENTRE: Dial telephone number 90 000 for Fire/Ambulance/Police.

TELEPHONES: Not available for placing on board.

SERVICES: Compass adjusters and ship's chandler available.

BANKS:
Nordbanken, Kungsgatan 7, Box 800, 451 27 Uddevalla. Tel: 0522-361 00. Telex: Stockholm 12399 Nbbank-S.

Skandinaviska Enskilda Banken, Kungsgatan 12. Box 136. 451 16 Uddevalla. Tel: 0522-363 10. Telex: Stockholm 11000 Essebh S., Goteborg 21020 Essebg S.

Svenska Handelsbanken, Kungsgatan 10, 451 30 Uddevalla. Tel: 0522-363 30. Telex: Stockholm 11090 Handst S., Goteborg 27500 Handgb S.

Foreningsbanken Uddevalla, N. Drottninggatan 12, Box 251, 451 17 Uddevalla. Tel. 0522–143 80.

STORING: See "Prelims".
1. Vessel can be stored by barge or truck.
2. Before storing the Port Authority must be contacted.
3. Trucks can proceed alongside at every berth.
4. Fork lift can be used.
5. Storing under Customs supervision.
6. Local riggers can be employed.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Garbage container provided alongside.

WASTE OIL DISPOSAL: Reception by tanker trucks on all berths. Application for delivery to be given 24 hours before delivery. Vessel pumping a minimum of 5 cu.m./hr. Destruction Declaration to be given to receivers, stating quantity, type and kind of emulsion used. Delivery only within working hours (0700 hrs. – 1600 hrs.). Max. quantity 10 cu.m. per vessel. All extra costs will be charged (ex. overtime, pumps, extra quantities, etc.). Ordering through local Agent.

SEAMAN'S CLUBS: Seamen's Church in Uddevalla. Tel: (Nat.) 0522-35526, (Int'l) +46524-35526. Transportation with minibus from outer harbours only (Froland and Sorvik Harbour).

Facilities at Church: Pool table, table tennis, television with satellite channels (English and German), telephone service, mail service, exchange, Summertime sightseeing tours can be arranged (price 100 SEK/minibus). Opening times: Weekdays 1600 hrs. – 2200 hrs. Saturdays, Sundays and holy-days 1800 hrs. – 2200 hrs.

CURRENCY: Swedish Kroner (SEK).

DEVELOPMENTS: During 1996, the bar will be dredged to 13.0 m., giving a sailing draft in the fairway of 10.8 m.

AUTHORITY: Uddevalla Hamn Terminal AB, Box 543, S-45121 Uddevalla, Sweden. *Tel:* 0522-91242. *FAX:* 0522-32720.
Contact: Morgan Lexberg, Harbour Master.

UMEA: 63.49 N. 20.16 E. **(See Plan)**

DOCUMENTS:
Ship's Documents:
Tonnage Certificate.
Certificate of Nationality.
Derat Certificate (not older than 6 months).
Supplied by Master on arrival:
1 copy of each Manifest.
1 copy of each Bill of Lading.
Supplied by Agent and signed by the Master on arrival from foreign ports:
1 Maritime Declaration of Health.
3 Crew Lists (one set).
2 Passenger Lists (one set).
2 Crew Effects Declarations.
2 Ship's Stores Declarations.
2 Cargo Declarations.
4 Reports of Arrival.
1 Declaration of Living Animals (if any) (supplied by the Customs Officer).
Furthermore on arrival from any port:
1 Report of Arrival, with double net tons, if applicable (Harbour Office).
1 Passenger List (if any in transit).
1 Crew List.
On departure to a Foreign Port:
4 Reports of Departure.

PILOTAGE: Umea Pilot Station: Hillskar. Tel: 090-41622 and 090-40372. Telegraphic address "Pilotstation Umea".

At least 5 hours' advance notice of ETA at Pilot Station, stating time and Pilot Station and destination, can be given over any Swedish coastal radio station or free of charge on VHF over any Swedish Pilot Station and some lighthouses.

Pilot station and pilot boats fitted with VHF Channel 16 – calling and safety; Channel 13 – pilotage and traffic; Channel 12 – spare Channel. All pilot boats orange with flag "H" and equipped with radar.

Boarding point, Lat. 63° 36.5' N., Long. 20° 25.5' E., 1.0 nautical miles 145° (T) from Vaktaren Lighthouse. In case of bad weather, in the fairway, closer to the Pilot Station.

Anchorage for vessels awaiting Pilot: Lat. 63° 36' N., Long. 20° 28' E., 1.5 nautical miles S.E. of Vaktaren Lighthouse. Depth 18 m. to 30 m.

ANCHORAGES: See "Pilotage".

Osterfjarden roadstead between Umea Hamn and Obbola. Length about 2,800 m. and about 400 m. wide, midstream in River Umea. To the North and South of Lat. 63° 42.3' N., Long. 20° 21.0' E. and with a depth of 12 m. to 22 m.

Anchorage is forbidden around position Lat. 63° 40.5' N., Long. 20° 20.0' E.

Cables and fresh water pipeline on Osterfjarden roadstead passing East-West around Lat. 63° 42.5' N.

RESTRICTIONS: Entry permitted during darkness, for tankers, not more than 17,000 d.w.t. and a max. draft of 9.0 m., and dry cargo vessels with a draft not exceeding 9.2 m.

During unsuitable weather conditions, according to the Pilot on duty. Tankers exceeding 1,600 g.r.t. and with a cargo of mineral oil products and other dangerous cargoes, must take a Pilot.

MAX. SIZE: Max. depth and max. permissible draft (at MW) in the fairway as follows:

The fairway to:	*Maximum draft* (m.)	*Depth* (m.)
Ferry Station No. 1-2	7.6	6.0
Ferry Station No. 3	9.7	7.0
Stormskar Oil Berth and Obbola	9.7	
Holmsund Oil Jetty	5.5	
Umea Inner Harbour and Gimonas Oil Jetty	3.0	

No tide.

REPAIRS: Repairs possible.
GANGWAY/DECK WATCHMEN: Necessary.
OPENING/CLOSING HATCHES: Carried out by crew.
REPATRIATION: Facilities exist for effecting crew changes.
AIRPORT: Landvetter (Gothenburg). Distance: 200 km. There is also a local taxiplane.
HOLIDAYS: Cargo work cannot be arranged on holidays.
POLICE/AMBULANCE/FIRE: Police 12530; Ambulance 90000 (ask for ambulance); Fire 90000.
TELEPHONES: No arrangements exist for placing telephones on board.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
IDENTIFICATION CARDS: Needed.
DELAYS: No delays in load or discharge.
AUTHORITY: Hamnforvaltningen Stromstad, 45280 Stromstad, Sweden. *Tel:* 0526-19000. *FAX:* 0526-19341. *Contact:* Rolf Massleberg.

SUNDSVALL: 62.25 N. 17.20 E. (See Plan)

DOCUMENTS:
3 copies Crew Lists.
3 copies Passenger Lists (if passengers onboard only).
2 copies Crew Declaration on tobacco, liqueur, cigarettes and spirit, etc.
2 copies Ship's Stores List.
1 copy Cargo Declaration.
Derat Certificate.
Tonnage Certificate.
Register.
Swedish Light Dues.
Manifest and/or Bill of Lading.
PILOTAGE: Pilot station (Tel: 060-58 60 00/7) at Spikarna Southern Point of Alno Island VHF Channel 16. For communication and instructions Channel 13.
Pilot boarding from pilot cutter 2.5 miles East of Gubben Lighthouse in position Lat. 62° 21' N., Long. 17° 40' E.
Entrance passage Gubben Light – Spikarna – Draghallan Light all 14 m. deep.
ANCHORAGES: Between islands of Tjuvholmen and Alno and also in Svartvik Bay.
MAX. SIZE: See "Berthing".
RADIO: Cable Agents giving ETA, draft and cash requirements either via Hernosand Radio SAH or Stockholm Radio SDJ. At least 24 hours' notice required. Change in ETA to be given at least 5 hours before ETA Pilot.
TUGS: Available, ordered by Agent. Compulsory at Sundsvall Oil Terminal for tankers over 8,000 d.w.t. without thrusters, over 14,000 d.w.t. with thrusters and LPG tankers.
BERTHING: Around the clock berthing. No restrictions except draft. Following drafts (fresh water) accepted in Sundsvall and adjacent ports.
Kubikenborg: Lat. 62° 22.7' N., Long. 17° 22' E.
Length of quay 150 m. Max. length 192 m. Max. draft 10.5 m. 1 shore crane, capacity 5 tons. 1 suction-installation, capacity 150 t.p.h. Pilot distance 12 nautical miles. Distance from Sundsvall Town 4 km.
Ortviken: Lat. 62° 23.8' N., Long. 17° 21.8' E.
Oil Berth: Quay length 140 m. Max. draft at max. 200 m. length is 10.8 m. Pilot distance 12 nautical miles. Distance from Sundsvall Town 4 km.
Ostrand: Lat. 62° 29' N., Long. 17° 21' E.
Oil Berth: Tankers berthed outside a steel barge, max. LOA 200 m., max. draft 7 m. Pilot distance 17 nautical miles. Distance from Sundsvall Town 15 km.
Soraker: Lat. 62° 30.5' N., Long. 17° 30' E.
Length of quay 150 m. Max. LOA 90 m. Max. draft 5.8 m. 1 shore crane, capacity 10 tons. Pilot distance 11 nautical miles (East of the Alno Island). Pilot distance 20 nautical miles (West of the Alno Island). Distance from Sundsvall Town 34 km.
Stockvik: Lat. 62° 20' N., Long. 17° 22' E.
Length of quay 190 m. Max. draft 7 m. 3 shore cranes, capacity 6 tons each. Pilot distance 10 nautical miles. Distance from Sundsvall Town 9 km.
Sundsvall Town Quay:* Lat. 62° 23.5' N., Long. 17° 19.5' E.
1 Berth: Length 90 m. Max. draft 7.8 m.
1 Berth: Length 175 m. Max. draft 5 m. – 7 m.
1 Ferry/Ro-Ro
Berth: Max. beam 15 m. Max. draft 7.5 m.
No cargo is handled on Sundsvall Town Quay. Pilot distance 12 nautical miles.
Sundsvall Oil Berth:* (Vindskarsudde) Lat. 62° 23.2' N., Long. 17° 21.8' E.
Length of quay 100 m. Depth 12.0 m. Max. LOA 250 m. Max. draft 11.3 m. Max. d.w.t. 70,000. 2 swinging arms, each of 10 in. dimension. Pilot distance 12 nautical miles. Distance from Sundsvall Town 18 km. Vessels berth port side to.
Port of Sundsvall* (Tunadalshamnen): Lat. 62° 25' N., Long. 17° 23' E.
Length of quay 450 m. Max. draft 9.1 m. 2 shore cranes, capacity 10 tons – 20 tons. Additional berth: Length of quay 200 m. Max. draft 12.5 m. Pilot distance 13 nautical miles. Distance from Sundsvall Town 7 km.
Ro/Ro Berth: Depth 9.4 m. Max. beam 30 m. Max. draft 9.2 m.
LPG Berth: Quay for discharge of LPG. Storage capacity 20,000 tons. Length of quay 60 m. Depth alongside 11.0 m. Max. draft 10.5 m.
Tunadal Sawmill: Lat. 62° 25' N., Long. 17° 23' E.
Length of quay 195 m. Max. draft at 80 m. length is 7 m. Pilot distance 13 nautical miles. Distance from Sundsvall Town 7 km.
Vivstavarv: Lat. 62° 29' N., Long. 17° 28' E.
Length of quay 160 m. Max. draft 7.3 m. Pilot distance 17 nautical miles. Distance from Sundsvall Town 18 km.
*These ports are administered by Sundsvall Port Authority.
CRANES: 2 cranes available 10 – 20 ton. At Tunadalshamnen cargo is also handled by mobile cranes. Also see "Berthing".
STEVEDORES:
Ordinary working hours Monday – Friday 0700 – 1600 hrs.
Overtime on Saturdays 0700 – 1330 hrs. at 100% additional cost.
MEDICAL: First class medical attention and dental care available.
TANKERS: See "Berthing".
CUSTOMS ALLOWANCES: See "Stockholm".
DENSITY: Nearly fresh, 1002 – 1005.
FRESH WATER: Supplied at Sundsvall, Kubikenborg, Stockvik and Tunadal.
FUEL: All grades delivered. Notice must be given in good time, since these installations normally close down at weekends.
CONSULS: Finland, Germany, Iceland, Netherlands, Norway.
REPAIRS: Most repairs possible through local repair shops.
DRY DOCKS: Lunde Varv outside Kramfors.
SURVEYORS: Cargo inspectors available through Sundsvall Control Service or Lloyd's Agency for cargo or vessel.
Surveyors available from Stockholm in most cases. Call Agents for details at time.
AIRPORT: International airport 22 km. outside town. Good facilities to effect repatriation.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Stockholm".
POLICE/AMBULANCE/FIRE: Tel: 112 and 90 000.
EMERGENCY: CO-ORDINATION CENTRE: Tel: 90 000 giving full details of situation or call Stockholm Coast Radio Station VHF or MF.
SHIP WATCHMEN AND SHIP'S TELEPHONE: Available. Compulsory at oil terminals only.
STORING: Vessels stored by truck only, through assistance of stevedores and forklifts. Can be done close alongside ship.
GARBAGE DISPOSAL: Container available at no charge.
WASTE OIL DISPOSAL: Sludge is collected free of charge if ordered 24 hours in advance.
There are no facilities for dirty ballast.
SEAMAN'S CLUBS: None.
CURRENCY: Swedish Kroner (SEK).
GENERAL: *Dangerous Cargo:* Ships carrying dangerous cargo must notify Port Authorities in advance of nature, quantity and IMO code number of goods concerned.
Wintertime: Ice-breaker service available if needed (Wintertime December to April).
AUTHORITY: Port of Sundsvall, Box 805, S-85123 Sundsvall, Sweden. *Tel:* (060) 123180. *Telex:* 71011 SUSAB S. *FAX:* (060) 193507. *Contact:* Owe Linton, Managing Director. Tel: (060) 193525.

TRELLEBORG: 55.21 N. 13.09 E. (See Plan)

DOCUMENTS: See "Stockholm".
PILOTAGE: Available day and night. To obtain Harbour Pilot repor 5 hours in advance. To obtain outward Pilot report 24 hours in advanc of departure. Pilot meets inward-bound ships on Roads at Trellebor Light Buoy (Lat. 55° 20' N., Long. 13° 08.5' E.). Outward-bound Pilo obtained from Pilot Station of Malmo. Tel: 040-115269, 040-978315. Pilo boats provided with short-wave radio telephone. Also see "Stockholm".
ANCHORAGES: Recommended West of entrance fairway betwee Fairway Buoy and No. 1 Light Buoy. Depth varies from 7 m. – 14 m Anchor ground good – clay and sand.
RESTRICTIONS: Entrance a straight, perch-buoyed fairway of abo 1,300 m. length, having measured depth of 8.5 m., and a bottom widt of 100 m. Distance between moles (outer – 125 m.) and (inner – 96 m.
HEALTH: See "Stockholm".
VHF: Port and Pilot Station on Channels 8 and 67.
TUGS: Tug-boats can be obtained promptly from Malmo.
BERTHING: New Harbour has depth of 8 m. with quay on Northern sid of basin. It is 1,640 ft. long and served by 1 bridge crane (6.2 tons) an 1 mobile crane of 36 tons. Western Harbour Basin has depth of 8 m Eastern Harbour Basin has depth of 8.0 m. Oil Quay 230 ft. long, dep at quay of 8 m. is situated on Southern side of New Harbour. Tanke of max. length 570 ft. can approach this quay. Five berths equipped f Ro/Ro traffic.
STEVEDORES: Available (Tel: 43135).
FRESH WATER: Available on all quays at request to Harbour Offic
FUEL: All grades bunker oils supplied at oil quay through direct pipeli from sea depot. Order on phone Trelleborg 107 76.
REPAIRS: Available through private firms. Tel: Trelleborg 16000.
CONSULS: Denmark, Norway and Germany.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
TELEPHONES: Ship's telephone available at Oil Quay, Tel: 148 28, a at the Harbour Bridge, Tel: 147 67. Order is made through Harb Office.
SERVICES: Divers available through the Harbour Office.
GARBAGE DISPOSAL: Drums or skips available alongside. Con Port Office (Tel: 0410-53900) during daytime (0700 hrs. – 1600 hr Normally there is no charge.
WASTE OIL DISPOSAL: Tanker trucks with capacity 25 cu.m. available at 24 hours notice. Call Port Office for service (Tel: 04 53900, Fax: 0410-14129).
SEAMAN'S CLUBS: None.
AUTHORITY: Trelleborgs Hamn, Box 26, 23121 Trelleborg, Swed *Tel:* 0410-53900. *FAX:* 0410-14129. *Contact:* Leif Lars Port Captain. Leif Borgemark, Port Director.

UDDEVALLA (including Froland): 58.21 N. 11.56 E.

(See Plan)

DOCUMENTS:

3 Crew Lists.
3 Passenger Lists.
1 Manifest.
1 copy of Bill of Lading.
International Tonnage Certificate.
Nationality Certificate.
Derat Certificate.
2 Crew Effects Declarations.
2 Ship's Stores Declaration.
1 Declaration of Living Animals (if any).

PILOTAGE: Pilotage at Marstrand. Address "Marstrand Pilotstation". Required ETA 5 hours. VHF 16 and 11. Pilot boat S.W. of Hatteberget Lighthouse (Lat. 57° 51.8' N., Long. 11° 27.65' E). (Also see "Stockholm".)

MAX. SIZE: Draft 10.3 m., airdraft 43 m.

Bado Quay: Max. LOA 190 m. Max. draft 9.0 m. (MLW).

HEALTH: Cable to Agent and he will arrange with Health Authorities.

RADIO: SAG. Gothenburg Radio (Goteborg Radio).

RADAR/VHF: No port radar service, VHF Channels 16, 11 and (working channel) 14.

TUGS: 2 Tugs up to 3,200 h.p. available. Can be ordered through Pilot or Agent.

BERTHING: Depths alongside (at MW) as follows:

		Length (m.)	*Depth* (m.)
Skeppsholm Quay		340	10.7 – 11.2
Bado Quay		430	6.0 – 9.5
Bave Quay		180	7.0
Skans Quay		180	6.0
Froland		225	12.0
Kasen –	K1	200	5.0 – 6.0
	K2	200	5.0
	K3	260	5.0 – 9.0
Sorvik –	71-73	250	9.5 – 10.3

CARGO HANDLING FACILITIES:

Skeppsholmspiren: 5 electric cranes of 12 to 35 tons capacity. Warehouse of 3,500 sq.m. Very large storage areas. 1 berth equipped for Ro-Ro traffic.

Bado Quay: 4 electric cranes with capacities of 7 – 12 tons. 16,000 sq.m. of warehouses and 20,000 sq.m. of storage. 2 silos for grain owned by private companies.

Bave Quay: 1 electric crane with capacity of 12 tons. 3,400 sq.m. of warehouse and 14,000 sq.m. of storage.

Froland: (Lat. 58° 20' N., Long 11° 52' E.) Total length 225 m., depth alongside 12 m., 35,000 sq.m. of storage. One berth equipped for Ro/Ro traffic, depth 8.0 m., 1 conveyor belt 500 t.p.h. – 800 t.p.h. This berth is specially constructed to handle the loading/unloading of bulk cargo.

STEVEDORES: Arranged by Agent.

TANKERS: Draft at the Bado Oilport, 9.5 m.

FRESH WATER: Available at all quays.

FUEL: All grades available.

FIRE PRECAUTIONS: Watchmen necessary when loading or discharging oils by pipelines.

CONSULS:

Barbados	Tel: 11946	Norway	Tel: 91300
Netherlands	Tel: 79055		

REPAIRS: Facilities available.

SURVEYORS: All kinds of cargo inspectors and surveyors available.

GANGWAY/DECK WATCHMAN: Watchman accepted by Harbour and Fire Authorities on vessels loaded with explosives.

OPENING/CLOSING HATCHES: Preferably by crew. Can be arranged by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes/250 gm. tobacco, 1 bottle of spirits, 1 litre of wine and 10 beers for each man (every 10 days) as a normal quantity. Possible to be increased for Master's representation.

REPATRIATION: In accordance with instructions of Consul.

AIRPORT: Gothenburg, 100 km.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Police Tel: 90 000; Ambulance Tel: 90 000; Fire Tel: 90 000.

EMERGENCY CO-ORDINATION CENTRE: Dial telephone number 90 000 for Fire/Ambulance/Police.

TELEPHONES: Not available for placing on board.

SERVICES: Compass adjusters and ship's chandler available.

BANKS:

Nordbanken, Kungsgatan 7, Box 800, 451 27 Uddevalla. Tel: 0522-361 00. Telex: Stockholm 12399 Nbbank-S.

Skandinaviska Enskilda Banken, Kungsgatan 12. Box 136. 451 16 Uddevalla. Tel: 0522-363 10. Telex: Stockholm 11000 Essebh S., Goteborg 21020 Essebg S.

Svenska Handelsbanken, Kungsgatan 10, 451 30 Uddevalla. Tel: 0522-363 30. Telex: Stockholm 11090 Handst S., Goteborg 27500 Handgb S.

Foreningsbanken Uddevalla, N. Drottninggatan 12, Box 251, 451 17 Uddevalla. Tel. 0522–143 80.

STORING: See "Prelims".

1. Vessel can be stored by barge or truck.
2. Before storing the Port Authority must be contacted.
3. Trucks can proceed alongside at every berth.
4. Fork lift can be used.
5. Storing under Customs supervision.
6. Local riggers can be employed.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Garbage container provided alongside.

WASTE OIL DISPOSAL: Reception by tanker trucks on all berths. Application for delivery to be given 24 hours before delivery. Vessel pumping a minimum of 5 cu.m./hr. Destruction Declaration to be given to receivers, stating quantity, type and kind of emulsion used. Delivery only within working hours (0700 hrs. – 1600 hrs.). Max. quantity 10 cu.m. per vessel. All extra costs will be charged (ex. overtime, pumps, extra quantities, etc.). Ordering through local Agent.

SEAMAN'S CLUBS: Seamen's Church in Uddevalla. Tel: (Nat.) 0522-35526, (Int'l) +46524-35526. Transportation with minibus from outer harbours only (Froland and Sorvik Harbour).

Facilities at Church: Pool table, table tennis, television with satellite channels (English and German), telephone service, mail service, exchange, Summertime sightseeing tours can be arranged (price 100 SEK/minibus). Opening times: Weekdays 1600 hrs. – 2200 hrs. Saturdays, Sundays and holy-days 1800 hrs. – 2200 hrs.

CURRENCY: Swedish Kroner (SEK).

DEVELOPMENTS: During 1996, the bar will be dredged to 13.0 m., giving a sailing draft in the fairway of 10.8 m.

AUTHORITY: Uddevalla Hamn Terminal AB, Box 543, S-45121 Uddevalla, Sweden. *Tel:* 0522-91242. *FAX:* 0522-32720. *Contact:* Morgan Lexberg, Harbour Master.

UMEA: 63.49 N. 20.16 E.

(See Plan)

DOCUMENTS:

Ship's Documents:
Tonnage Certificate.
Certificate of Nationality.
Derat Certificate (not older than 6 months).

Supplied by Master on arrival:
copy of each Manifest.
copy of each Bill of Lading.

Supplied by Agent and signed by the Master on arrival from foreign ports:
Maritime Declaration of Health.
3 Crew Lists (one set).
2 Passenger Lists (one set).
2 Crew Effects Declarations.
2 Ship's Stores Declarations.
2 Cargo Declarations.
4 Reports of Arrival.
1 Declaration of Living Animals (if any) (supplied by the Customs Officer).

Furthermore on arrival from any port:
1 Report of Arrival, with double net tons, if applicable (Harbour Office).
1 Passenger List (if any in transit).
1 Crew List.

On departure to a Foreign Port:
4 Reports of Departure.

PILOTAGE: Umea Pilot Station: Hillskar. Tel: 090-41622 and 090-40372. Telegraphic address "Pilotstation Umea".

At least 5 hours' advance notice of ETA at Pilot Station, stating time and Pilot Station and destination, can be given over any Swedish coastal radio station or free of charge on VHF over any Swedish Pilot Station and some lighthouses.

Pilot station and pilot boats fitted with VHF Channel 16 – calling and safety; Channel 13 – pilotage and traffic; Channel 12 – spare Channel.

All pilot boats orange with flag "H" and equipped with radar.

Boarding point, Lat. 63° 36.5' N., Long. 20° 25.5' E., 1.0 nautical miles 145° (T) from Vaktaren Lighthouse. In case of bad weather, in the fairway, closer to the Pilot Station.

Anchorage for vessels awaiting Pilot: Lat. 63° 36' N., Long. 20° 28' E., 1.5 nautical miles S.E. of Vaktaren Lighthouse. Depth 18 m. to 30 m.

ANCHORAGES: See "Pilotage".

Osterfjarden roadstead between Umea Hamn and Obbola. Length about 2,800 m. and about 400 m. wide, midstream in River Umea. To the North and South of Lat. 63° 42.3' N., Long. 20° 21.0' E. and with a depth of 12 m. to 22 m.

Anchorage is forbidden around position Lat. 63° 40.5' N., Long. 20° 20.0' E.

Cables and fresh water pipeline on Osterfjarden roadstead passing East-West around Lat. 63° 42.5' N.

RESTRICTIONS: Entry permitted during darkness, for tankers, not more than 17,000 d.w.t. and a max. draft of 9.0 m., and dry cargo vessels with a draft not exceeding 9.2 m.

During unsuitable weather conditions, according to the Pilot on duty. Tankers exceeding 1,600 g.r.t. and with a cargo of mineral oil products and other dangerous cargoes, must take a Pilot.

MAX. SIZE: Max. depth and max. permissible draft (at MW) in the fairway as follows:

The fairway to:	*Maximum draft* (m.)	*Depth* (m.)
Ferry Station No. 1-2	7.6	6.0
Ferry Station No. 3	9.7	7.0
Stormskar Oil Berth and Obbola	9.7	
Holmsund Oil Jetty	5.5	
Umea Inner Harbour and Gimonas Oil Jetty	3.0	

No tide.

HEALTH: Free Pratique automatically for ships arriving from non-infected areas. In event of any suspected disease or fever on board notify the Agent, who will give necessary directions. It is possible to send a telegraphic message to "Sanitary Authority, Umea" containing state of health on board, in ordinary items or code. (Also see "Documents").
RADIO: Harnosands Radio (SAH) on 2182 kHz or on VHF Channel 23-26 or 28 (depending on ship's position).

Port Radio: Umea Port Radio keeps watch, Monday to Friday, 0600 – 1500 hrs. on VHF Channel 16. Working Channels 11 and 13. At other times Umea Pilot Station. No port radar service, but Umea Pilot Station and the pilot boats are equipped with VHF and can assist on request.
TUGS: Normally necessary only for larger tankers when berthing. Tugs join vessels just off the jetty. Ship's lines always used.
BERTHING: Depth alongside (at MW) as follows:

Umea Outport	*Depth* (m.)
Ferry Stations	
No. 1 Hillskar	6.0
No. 2 Hillskar	7.0
No. 3 Truthallan	7.0
Oil Berth, Stormskar	11.0
Pilot Berth	5.3
South Quay, Berth Nos. 9 to 10	11.0
Pier Quay, Berth Nos. 7 to 8	11.0
North Quay, Berth Nos. 2 to 6	7.87
North Quay, Berth Nos. 1 to 2	6.0

CRANES:
North Quay: 1 crane, 2 – 5.0 tons and 2 mobile cranes 40 tons.
Pier Quay: 3 cranes, 3 – 7.5 tons.
South Quay: 1 crane of 40 tons.
Ferry Station No. 3: 1 crane 3 – 5 tons.
STEVEDORES: Holmsunds Stuveri AB. Tel. 090-153700. To be ordered before 1300 hrs. local time, day before gangs required. For work on Saturdays, Sundays, and holidays, special regulations.

Working hours: Monday to Friday 0600 – 1500 hrs., meal hour 1000 – 1100 hrs. Coffee breaks 0800 – 0810 hrs.; 1300 – 1310 hrs.
MEDICAL: All kinds of medical attention and hospital facilities available. Notify Agent as soon as possible.
TANKERS: Oil berths at Port of Umea.
Stormskar: Depth 11 m. Reducing pieces for all diameters between 6 in. and 12 in. and all types of flanges available. One crane for handling hoses. Max. LOA 215 m., max. beam 30.0 m., max. draft 9.7 m. (channel limitation at MLW is 9.2 m.) Max. d.w.t. 42,000. Vessels usually berth starboard side to.
Obbola: Oil Jetty, depth 11.0 m. Max. LOA 200 m., max. draft 9.7 m. (channel limitation at MLW is 9.2 m.). Max. d.w.t. 40,000. Vessels berth port side to.
DENSITY: Nearly fresh water.
FRESH WATER: Delivered from water posts in Port of Umea at Ferry Station No. 1, Oil Berth, Berth Nos. 1 – 10 and in Umea Inner Harbour.
FUEL: All kinds and grades of fuel oil available in Port of Umea. Bunkering at Berths 1 – 10 possible during normal loading or unloading from pipeline. At Ferry Station Nos. 1 and 2 and the Oil Berth also bunkering from pipeline. Fuel can also be delivered from lorries. Notice as early as possible.
FIRE PRECAUTIONS: Security watchmen from Port of Umea while alongside the Oil Berth. Alarm regulations in writing will be delivered on arrival.
CONSULS: Finland.
REPAIRS: Most deck and engine repairs.
SURVEYORS: Lloyd's Agent: Iwan Lundstedts Eftr. AB, Tel: 090-24700. Telex: 54036. Fax: 090-23649. Contact: Torsten Lundberg, Managing Director.
GANGWAY/DECK WATCHMAN: Available but not compulsory except for tankers.
OPENING/CLOSING HATCHES: Can be done by stevedores if necessary, except patent hatches.
CUSTOMS ALLOWANCES: *Tobacco:* 200 cigarettes (minimum age 15 years).
Spirits and Wine: (Minimum age 20 years). 1 litre alcohol over 22% by volume, 2 litres wine, 15 litres beer, *or* 2 litres alcohol under 22% by volume, 2 litres wine, 15 litres beer.
REPATRIATION: Facilities exist for effecting crew changes and arranging repatriation.
AIRPORT: Umea, approx. 20 km. away, served by regular airlines.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day (1st January); Twelfth Day (6th January); Good Friday; Easter Monday; May Day (1st May); Whit-Sunday; Whit-Monday; Midsummer's Day (nearest Saturday to 24th June); All Saints' Day (1st Saturday in November); Christmas Day; Boxing Day.
POLICE/AMBULANCE/FIRE: Alarm central 90-000 and ask for service required.
TELEPHONES: Available for placing on board at Berths 1 – 10 and Oil Berth at Stormskar.
IDENTIFICATION CARDS: Not required. Seaman's Book sufficient.
GARBAGE DISPOSAL: Collection service is available during working hours. Tel: 090-163285.
WASTE OIL DISPOSAL: Collection service is available during working hours at no charge. Notice to be given 24 hours before arrival. Tel: (090) 163285. Fax: (090) 24306.

The ship has to discharge the waste oil at a capacity of at least 5 cu.m./hr., otherwise overtime is charged.
SEAMAN'S CLUBS: Seaman's Home, Port of Umea, S-91300 Holmsund. Tel: (090) 40151. Facilities: Shop, international telephone service, postage and games.
CURRENCY: Swedish Kroner (SEK).
AUTHORITY: Umea Hamnforvaltning, Umea Hamn, Box 83, S-91322 Holmsund, Sweden. *Tel:* 090-163280. *FAX:* 090-24306. *Contact:* Per Ove Englund, Port Director.

VALLVIK: 61.11 N. 17.11 E. (See Plan)

DOCUMENTS: See "Stockholm".
PILOTAGE: Pilot station at Soderhamn (Ljusne Station).
ANCHORAGES: *(a)* Ljusne bight sheltered from West, North to N.E. winds, depths 6 to 8 fathoms. *(b)* North side of Storjungfrun Island sheltered from South to S.W. winds, depths 10 to 12 fathoms.
RESTRICTIONS: No direct restrictions. Ships of about 5,000 d.w.t. or more are recommended not to enter or leave the harbour in darkness (due to Pilot and weather conditions).
HEALTH: No special action except if suspected disease. In that case contact Agent.
MAX. SIZE: Max. draft in fairway 7.5 m. Length of loading pier is 200 m. Berthing possible on both sides.
East Side (from outer end):

Distance	Depth MWL (m.)
0 – 80 m.	8.3
80 – 85 m.	7.7
85 – 110 m.	7.2
110 – 140 m.	6.7
140 – 175 m.	5.8
175 – 195 m.	5.7
195 – 200 m.	5.2

West Side (from outer end):

0 – 40 m.	7.6
40 – 70 m.	5.8
70 – 90 m.	5.5
90 – 140 m.	4.6

RADIO: Northward bound ships contact Stockholm Radio, Southward bound Harnosand Radio.
RADAR/VHF: No port radar service. There is a radar station at Ljusne. Pilot station and some of the pilot boats are fitted with radar. Master may contact Pilot by means of VHF Channels 16 and 13.
BERTHING: Ship's Agent keeps contact with Port Authorities.
STEVEDORES: Agent arranges required or available gangs according to the Shipmaster's wishes.
TANKERS: 10 in. diameter discharging hoses and pipeline. Tanker berth at loading pier, 3 different connecting points.
FRESH WATER: Delivered by hose from quay. Rate about 8 t.p.h.
FUEL: Tanker lorries ordered through Agent, available with a few hours notice.
CONSULS: Danish, Dutch and French Consuls in Soderhamn.
REPAIRS: Machinery repairs, plate-work and welding can be carried out to a certain extent.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Not necessary. If wanted, can be arranged.
OPENING/CLOSING HATCHES: Normally carried out by crew. Can be done by stevedores.
CARGO GEAR: Cargo gear certificates valid.
REPATRIATION: Facilities for crew changes available.
AIRPORT: Nearest airport Arlanda, about 15 miles North of Stockholm
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Soderhamn".
POLICE/AMBULANCE/FIRE: See "Soderhamn".
TELEPHONES: No arrangements for placing telephones on board Telephone for ship's use available in Harbour Master's Office.
IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: No service available.
WASTE OIL DISPOSAL: No service available.
SEAMAN'S CLUBS: None.
AUTHORITY: NCB-Vallvik, Vallviks Hamn, 82021 Vallvik, Sweden *Tel:* 0270-62000. *Telex:* 47011. *FAX:* 0270-69210. *Contact:* Ew Andersson.

VARBERG: 57.07 N. 12.15 E. (See Pla

DOCUMENTS:

Crew List.
Passenger List.
Maritime Declaration of Health (including Derat Certificate).
Ship's Certificate of Registry.
Manifests and B/L copies.

PILOTAGE: Application for Sea Pilot through ship's Agent. Teleph to Pilot station 035-210189. Pilot to board vessel on the road ab 1.5 nautical miles off Varberg. (Also see "Stockholm".)
ANCHORAGE: On the roads 15.0 m. – 20.0 m. depth.
RESTRICTIONS: No tide or other entry restrictions.
MAX. SIZE: Length 220 m., breadth 33 m., draft 10.0 m. No tide.
HEALTH: Vessel to be kept in quarantine if disease on board suspec
RADIO: Gothenburg Radio, SAG. VHF Channels 16 and 18.
TUGS: 1×1,000 h.p. Additional tugs can be ordered in advance.
BERTHING: Berths J-O: Max. draft 7.5 m. at MW.
Berth P: Max. draft 10.0 m. at MW.
Also see"Plan".
CRANES: 9 cranes available at quays for cargo handling, capacit to 45 tons.

STEVEDORES: Gangs to be ordered in advance through ship's Agent.
MEDICAL: Hospital facilities available. Desirable to give advance notice.
TANKERS: 1 tanker berth, max. draft 7.5 m.
FRESH WATER: Available all docks 35 t.p.h.
FUEL: Fuel Oil No. 1 – 5 available from tank trucks.
FIRE PRECAUTIONS: Oil and petrol to be discharged under supervision of watchman.
CONSULS:

Vice-Consul of Finland, Tel: 0340/16000
Vice-Consul of Netherland, Tel: 0340/16270
Vice-Consul of Denmark, Tel: 0340/16130

REPAIRS: Only minor repairs.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Generally done by crew.
CERTIFICATES: Certificate of Registry, Derat and also Crew List.
CUSTOMS ALLOWANCES: (Tobacco), 200 cigarettes per man. (Wine/Spirits), 1 bottle per man.
REPATRIATION: Can be effected.
AIRPORT: Nearest airport with regular airlines, Landvetter/Gothenburg, 60 miles North of Varberg.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Principal Swedish Holidays – when no cargo work is obtainable: New Year's Day; Good Friday; Easter Day; 2nd Easter Day; Labour Day (May 1st); Whitsun Day; 2nd Whitsun Day; Midsummer Day; All Saint's Day (November); Christmas Day; 2nd Christmas Day.
POLICE/AMBULANCE/FIRE: Tel. 90 000.
TELEPHONES: Available on dock and one for placing on board.
IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: Garbage containers situated on quay. No charges, except for collection which is ordered via ship's agent.
WASTE OIL DISPOSAL: Tanker trucks at loading/unloading quay. To be ordered via ship's agent. No charges for waste oil generated normally during voyage.
SEAMAN'S CLUBS: Lasrum for Sjoman, Tullhuset, 43244 Varberg, Sweden. Tel: 0340-12147.
CURRENCY: Swedish Kronor (SEK).
AUTHORITY: Port Authority of Varberg, Hamnkontoret, 43244 Varberg, Sweden. *Tel:* 0340-88526. *FAX:* 0340-80955. *Contact:* Rolf Johansson, Port Captain.

VASTERAS: 59.37 N. 16.33 E. (See Plan)

DOCUMENTS:

Ship's Register.
2 Crew Lists.
1 Tobacco List, signed by all hands on board.
1 Valid Derat Certificate.
1 copy of Manifest or Bill of Lading for each Swedish port of call.
Light dues receipts, if on board.

PILOTAGE: Incoming ships receive Pilot from Landsort. Pilot ordered by VHF Channel 16 or by RT. Pilot boats fitted with VHF. Give order 5 hours before Pilot required. Pilots meet ships about 2 nautical miles outside Landsort. Light and signals in accordance with the international rules. (Also see "Stockholm".)
ANCHORAGES: Within harbour area. Depth 9 m. – 10 m.
RESTRICTIONS: None. No tides.
MAX. SIZE: Vessels reach port through two deep navigable channels – through Sodertalje Ship Channel or via Stockholm through Hammarby Ship Canal. Least depth of channels at average water level is 7.3 m. (24 ft. 1 in.).

Sizes of Locks:

	Length	*Width*	*Depth*
Sodertalje	136 m.	20 m.	7.5 m.
Hammarby	115 m.	17.4 m.	7.0 m.

Limitation of Vessels: For Sodertalje: With beam of 18 m. max. draft 6.5 m. With beam of 17 m. max. draft 6.8 m. Max. LOA 124 m.
HEALTH: No special requirements or health documents, only valid Derat Certificate. Disease or fever on board must be declared before entering port.
RADIO: Stockholm Radio.
VHF: Harbour Office, VHF Channels 16 and 14, Monday-Friday 0800 – 1600 hrs. Traffic – Channel 11.
TUGS: 1 tug for unberthing. Ship's lines. Boatmen can be ordered via VHF Channel 16. Tug can be used as icebreaker.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
Djuphamnskajen	660	7.6	2 jib cranes 12 tons – 33 tons 1 crane × 12 tons 3 cranes × 8 tons 1 crane × 50 tons 1 crane × 22 tons
Oljekajen	125	7.6	
Kolkajen	240	7.6	3 jib cranes 12 tons – 33 tons
Ostra Kajen	527	5.0 – 7.6	1 jib crane 25 tons 4 cranes × 5 tons 1 heavy lift crane 210 tons
Lillakajen	120	7.6	2 cranes × 6 tons
Silokajen	130	7.3	1 loader, rate 750 t.p.h.
Tullhuskajen	483		

BRIDGES: 4 bridges. All of them to be opened at passage except bridge at Sodertalje which closed from 1630 hrs. – 1830 hrs. weekdays and 1300 hrs. – 1500 hrs. Saturday or day before a holiday.
STEVEDORES: Stevedores for next working day ordered by at least 1500 hrs. day before and ETA to be given in due time. Tel: 021-180100.
MEDICAL: Necessary service given by local hospital and private doctors. Vaccinations carried out.
FRESH WATER: Ordered through Port Administration.
FUEL: Bunkering of all grades of oil can be carried out at all quays from trucks.
FIRE PRECAUTIONS: Accordance harbour regulations.
CONSULS: Denmark, Finland and Norway.
REPAIRS: Most deck and engine repairs, as well as electrical.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Can be obtained from shorewatch companies at different rates for night/day work.
OPENING/CLOSING HATCHES: Crew. Can be carried out by stevedores.
CERTIFICATES: Measurement Certificate and all gear test certificates required, if ship's gear to be used.
CUSTOMS ALLOWANCES: (Tobacco), 200 cigarettes or 200 gm. tobacco. Additional allowance depending on expected stay in port and size of vessel. (Spirits), 1 bottle of 0.75 c.l. for each crew member over 21. Additional allowance on request.
REPATRIATION: Possible. Accommodation to be ordered in good time.
AIRPORT: Arlanda, 120 km. International lines.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Stockholm".
POLICE/AMBULANCE/FIRE: Tel. 90000.
TELEPHONES: In oil and deep-water harbour, most quays fitted with telephones.
SERVICES: Compass adjusting. Small radio repairs by local radio men.
SHORE LEAVE: Crew can leave vessel after Customs clearance and Immigration control.
IDENTIFICATION CARDS: None required.
GARBAGE DISPOSAL: Ordered through Port Administration.
WASTE OIL DISPOSAL: Ordered through Port Administration.
DEVELOPMENTS: Constant new development and extensions. Additional room for extension in old harbour, deep harbour and oil harbour.
AUTHORITY: Vasteras Hamn AB, Seglargatan 3, S-72132 Vasteras, Sweden. *Tel:* 021-180100. *FAX:* 021-180656. *Contact:* Kjell Eriksen, Managing Director. Per Barkenhielm, Assistant Manager. Stig Jansson, P.R.Manager.

VASTERVIK: 57.46 N. 16.38 E.

PILOTAGE: Compulsory. Pilot boards in Lat. 57° 45.1' N., Long. 16° 57.3' E., available day and night. Tel: 0490-28041. Call sign "Lotsarna Ido".
BERTHING: *Outer Harbour:* Djuphamnskajen Lucernakajen, length 200 m., depth 8.3 m.

Oil Quay (North part of Lucernakajen): Depth 8.3 m., equipped with 3×8 in. pipelines.

Ferry Harbour: Quay length 100 m., depth 6.3 m.

Inner Harbour: Quay length 900 m., depth alongside from 4 m. to 6 m.

Oil berth: Length 15.0 m., depth alongside 6 m.

FRESH WATER: Can be obtained from all quays.
AUTHORITY: Vasterviks Hamn, Box 3093, 593 03 Vastervik, Sweden. *Tel:* 0490-88860. *Contact:* Olof Lindroos, Harbour Master.

VISBY: 57.38 N. 18.17 E. (See Plan)

DOCUMENTS: See "Stockholm".
PILOTAGE: Compulsory for cargo vessels over 90 m. LOA (16 m. beam) and tankers over 80 m. LOA (15 m. beam). Pilot stationed at Visby Pilot Station. Pilot boards in Visby Roads. 12 hours' notice of ETA is required. Pilot listens out on VHF Channels 16/13 throughout 24 hours. Tel: +46 (0) 498 210138.
ANCHORAGES: In Visby Roads (Lat. 57° 38.15' N., Long. 18° 15.9' E.), 0.3 – 0.5 nautical miles outside breakwater. Depth 20 m. – 50 m. Good holding ground.
Restrictions: It is forbidden to anchor within the marked area outside Visby port entrance (for limits see chart).

At Hogklint, which is approximately 4 miles South of Visby, there are several sea cables, amongst which is the "Gotland Cable" which supplies Gotland with electricity. Anchoring is not permitted within 300 m. either side of the "Gotland Cable".

RESTRICTIONS: Priority given to ferries entering and leaving. All vessels and pleasure craft to keep watch on Channel 16 for traffic information.

No tide in harbour. Currents outside harbour up to 4 knots running along coast. Prevailing winds, Summer time mostly S.W., Winter between N.W. and N.E. Harbour open to winds between S.W. – W., which when strong produces swell along the piers.

Fairway: This passes from the sea between the breakwaters to the oil harbour and is dredged to approximately 9.0 m., permitting vessels with drafts of 7.2 m. to enter.

There are leading lights (2 lights) for entrance into Visby Harbour, also red day markers.

Water Levels: High water level +0.8 m.
Normal high water level +0.5 m.
Normal low water level −0.4 m.
Low water level −0.7 m.

MAX. SIZE: Maximum draft permitted for vessel proceeding to the oil harbour is 7.2 m., to the outer harbour 6.3 m. and to the inner harbour 5.6 m.

RADIO: Stockholm Radio.

VHF: Stockholm Radio: Channel 16, working channel for Visby area is Channel 25.

Tinstaede Radio: Navigational warnings and weather forecast for waters around Gotland. Calling VHF Channel 16, working Channel 13.

Visby Port: Assisting vessels calling at Visby Port. Calling VHF Channel 16, working Channel 9 (Office hours only).

TUGS: No tugs in the port. Available if requested upon 8 hours notice. Ordered by Agent or Port Office.

BERTHING:

Harbour	*Length* (m.)	*Depth* (m.)	*Remarks*
Outer Harbour			
Ferry Berth No. 7	200	8.0	Ro/Ro.
Ferry Berth No. 6	165	8.0	Ferry berth with fixed 32 m. width ramp. Terminal Building serves both Berths No. 5 and 6.
Ferry Berth No. 5	205	7.0	Same as Berth No. 6.
Outer Oil Quay	60	8.0	3 ton crane for hose lifting. 8 in. hose connections. Capacity 250-300 cu.m.p.h.
Southern Small Boat Harbour	300	2.0	Small boat harbour with 2 bridges. Entry to the West of Fish Harbour.
Inner Harbour			
Outer Part North Breakwater	350	6.0	Ferry Berth No. 3 at quay's inner part (quay length 125 m.) Ro/Ro berth with fixed 20 m. width ramp. Remaining quay length used mainly for timber and pulp loading.
Holmen			
West Quay	200	7.0	Ferry Berth No. 4 with fixed 18 m. ramp.
Eastern Quay	120	6.0	Fixed electric crane (max. 15 ton). Sawdust loading via nozzle (capacity 120 t.p.h.)
Old Oil Pier	42	6.0	Quay with support dolphin.
Oil Quay	60	8.0	See "Tankers".
Fishing Harbour	390	3.0	
Inner Part			
Ferry Berth No. 1	110	6.0	Fixed 16 m. wide Ro/Ro ramp.
Ferry Berth No. 2	115	6.0	Fixed 30 m. wide Ro/Ro ramp.
Fish and Small Boat Harbour	240	4.0-3.0	Visitors' Harbour 3 m. deep (approx.)

BRIDGES: No bridges or overhead cables.

STEVEDORES: Working hours, Monday – Friday 0700 – 1600. Overtime possible.

MEDICAL: Well equipped hospital in city.

TANKERS: One berth. Length 60 m., depth 8.0 m. Max. LOA 160 m. One hydraulic crane for hose handling. Hose connections 6 in. and 8 in. Max. discharge rate 250 – 400 cu.m./hr.

Note: Pilotage compulsory for tankers over 80 m. LOA and 15.0 m. beam. Linesmen compulsory for vessels over 1,200 g.r.t.

DENSITY: 1005.

FRESH WATER: Available.

FUEL: Available by truck.

REPAIRS: Only small repairs are possible.

AIRPORT: Located 5 km. North of city. Daily flights to Stockholm and some other cities in Sweden.

POLICE/AMBULANCE/FIRE: Dial 112.

GARBAGE DISPOSAL: Container provided on arrival.

WASTE OIL DISPOSAL: Sludge removed by tanker lorry at 24 hours notice to Agent or Port Office.

AUTHORITY: Golands Kommun, Port of Visby, S-62181 Visby, Sweden. *Tel:* +46 (0) 498 269470. *FAX:* +46 (0) 498 269065. *Contact:* Gosta Hammarberg, Harbour Master (Tel: 269472).

WALLHAMN: 58.01 N. 11.42 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
2 Tobacco and/or Stores List.
2 Crew Effects Declaration.

PILOTAGE: Pilot boards at Hatteberget. Telegraphic Address "Pilotstation Marstrand", Tel: 0303–60004. VHF Channel 16.

5 hours' notice to be given through Agent.
2 hours' notice to be given by vessel.

ANCHORAGE: As advised by Pilot Station.

MAX. SIZE: Max. draft 10.0 m. Max. length – no restriction.
Berth No. 6: Max. draft 5.5 m., max. length 110.0 m.

HEALTH: No special action except for suspected disease, in which case Agent should be contacted for further information.

RADIO: Gothenburg Radio.

VHF: Wallhamn Harbour Radio – Channel 16.

TUGS: Tugs from Gothenburg will join at entrance.

BERTHING: Four berths for Roll-on/Roll-off: (1) 180 m. × 10.8 m. depth (2) 130 m. × 10.8 m. depth. (3) 160 m. × 8.5 m. depth (4) 240 m. × 8.5 m. depth.

One berth for loading stone products. Length 110 m. Depth 6.0 m.

CRANES: 2 container gantry cranes.

STEVEDORES: ETA given to Agents is sufficient.

MEDICAL: Doctors and dentists available at short notice. Neares hospital in Kungaelv, 35 km.

FUEL: Most grades of bunker oil available with short notice.

CONSULS: In Gothenburg, 60 km. away.

REPAIRS: Can be arranged.

GANGWAY/DECK WATCHMEN: Available.

OPENING/CLOSING HATCHES: By crew or by stevedores.

REPATRIATION: All facilities available.

AIRPORT: Landvetter International Airport, Gothenburg, 85 km. away.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: Stevedoring and clearance of vessels can be performe every day of the year, 24 hours' service.

POLICE/AMBULANCE/FIRE: Tel. 90 000.

SHORE LEAVE: Permitted within limits laid down by police.

IDENTIFICATION CARDS: Not necessary. Seamen's Book or Passpo should be carried.

GARBAGE DISPOSAL: Service available. Dustbins provided on quay free of charge when quantities are reasonable.

WASTE OIL DISPOSAL: Service available and provided through por authorities. Free of charge if certain conditions are fullfilled. Contact Por Authority for details.

SEAMAN'S CLUBS: None.

CURRENCY: Swedish Kronor (SEK).

AUTHORITY: Wallhamn Terminal AB, S-47199 Wallhamn, Swede *Tel:* 46-304-679900. *Cables:* Wallhamn. *FAX:* 46-304-66097 *Contact:* U. Andersson, Agency Manager. C. Frisk, Port Director.
Agency: Tel: 46-304-679967. Fax: 46-304-660473.

YSTAD: 55.26 N. 13.50 E. (See Pla

DOCUMENTS:
Crew List.
Passenger List.
Custom Documents.
Manifests.
Bills of Lading.
Ship's Papers, etc.

TRAFFIC WARNING SYSTEM: Vessels approaching Ystad, listen Channel 10 and 16 for broadcast announcing ferry departures. All inwa bound and outbound vessels have to announce their intention, and wh manoeuvring within the port area, Channel 10 has to be used.

PILOTAGE: Vessels approaching Ystad's Harbour must apply for P at Malmo at least 5 hours before pilotage due to commence. Tel: 04 115269 or 040-978315 or VHF (Channels 16 or 20), stating tonna draft and destination. VHF call sign "Lotsarna" plus name of pil station. (Also see "Stockholm".) Pilot boards at Ystad Roads Lightb (Lat. 55° 23.5' N., Long. 13° 47.5' E.).

ANCHORAGES: Road: 1.0 nautical mile S.W. harbour entran 9 m. – 10 m. depth; sand and clay, good anchorage ground. The r is open to winds from S.S.W.

MAX. SIZE: Largest fully loaded vessel that can enter harbour ab 5,500 d.w.t. Depth 7.2 m., max. draft 6.7 m. (22 ft.)

RADIO: Goteborg and Stockholm.

VHF: 24 hour watch at Malmo Pilot Station on VHF Channel 16 a "Ystad Port Radio" on Channel 16 during office hours (0700 – 2400 h

TUGS: Tug usually meets vessel at entrance buoy. Ship's lines u Tugs not compulsory.

BERTHING: Vessels of 150 m. length and 20 m. breadth can e harbour. Max. draft 22 ft. at MWL.

Ro/Ro Berth: Three movable ramps for lorries/goods. Breadth 10 m. and 12 m. One railway ferry ramp with a fixed car ramp to u deck.

CRANES: 2×6 tons (9 ton with double gear), 1×5 ton, 1×3 to cranes are rail-mounted and electric. 1×36 ton mobile crane.

STEVEDORES: Stevedores must be ordered from Ystads Stuver Tel: 0411-18080. Working hours Monday – Friday 0700 – 163 Meal intervals 0900 – 0930 hrs. and 1200 – 1230 hrs.

MEDICAL: Agents to be notified in advance if medical attention wanted.
TANKERS: Load/discharge lines 8 in. diameter, but reducing pieces for 6 in. and 10 in. diameter. (Tankfarm of 40,000 cu.m.)
DENSITY: Density in harbour is 1006-1010.
FRESH WATER: Available from quays. About 10 t.p.h.
FUEL: Coal and oil can be obtained by lorries.
CONSULS: Danish Consul, Tel: 72840. Finnish Consul, Tel: 18400. Norwegian Consul, Tel: 11635.
REPAIRS: Mechanical workshop.
SURVEYORS: Surveyor appointed by the Swedish National Administration of Shipping and Navigation at the Port Office.
GANGWAY/DECK WATCHMEN: Can be arranged.
OPENING/CLOSING HATCHES: Crew or stevedores.
CERTIFICATES: See "Stockholm".
CUSTOMS ALLOWANCES: Tobacco, about 200 cigarettes or 200 gram of tobacco for each member of crew. Spirits, 1 bottle for each member of crew.
CARGO GEAR: Loading/discharging with shore cranes and Roll-on/Roll-off ramps.
AIRPORT: 30 km. distant and served by regular airlines.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Christmas; New Year; Easter; Whitsun and Midsummer. No cargo work.
POLICE/AMBULANCE/FIRE: Police, Tel: 13620; Ambulance and Fire, Tel: 90000.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: Containers about 7 cu.m. capacity for firm garbage can be placed alongside. The charge will be about SEK 600 (container delivery and emptying included). Call Port Office or agent, for further information.
WASTE OIL DISPOSAL: Sludge can be collected by tank lorry, free of charge. Other kinds of oil contaminated water can be delivered to a 500 cu.m. tank. Charge SEK 75/cu.m. Port Office can supply further information.
SEAMAN'S CLUBS: None.
CURRENCY: Swedish Kronor (SEK).
GENERAL: *Refuse Disposal:*

Contaminated Water: To the reception station at Revhuskajen (max. 500 cu.m.).

Waste Oil: Via a tank-truck (max. 10 cu.m.).

Solid Garbage: Via a motorised container to a refuse dump (max. 12 cu.m.).

DEVELOPMENTS: Entrance to be dredged to 7.5 m. and inner entrance to be widened to 150 m. (See "Plan").
AUTHORITY: Ystads Hamn, Hamnkontoret, Hamngatan 18, S-27100 Ystad, Sweden. *Tel:* 0411-77263, 77000. *FAX:* 0411-74950. *Cables:* Southport. *Contact:* Torsti Lehtinen, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Switzerland

BASLE: 47.33 N. 7.34 E. (See Plan)

PORT LIMITS: A line drawn 50 m. off the shore.
DOCUMENTS:

1 Rhine-Manifest or "T"-Paper.
1 Provisions List.

The respective documents, mentioned in No. 1.10 of the Rhine Shipping Police Regulation have to be on board. Where possible, cargo manifests and stowage plans should be forwarded ahead of the vessel to the local Agent.
PILOTAGE: Holders of a High Rhine Shippers Licence have to Pilot the vessel between Basle and Birsfelden. Such licence-holders can be ordered at Signal-station (VHF Channel 18 or telephone 6314400 or Birsfelden Locks 3113855).
ANCHORAGES: Vessels moored at riverside quays have to use anchors.
RESTRICTIONS: Shipping is blocked from high water mark II (gauge Rheinfelden 430 cm. up– resp. 450 cm. downstream of the Middle Bridge at Basle). Other restrictions will be announced by the Port Authority.
MAX. SIZE: Water Depth: 3.50 m.

Air Draft: 5.70 m. to basin II, port of Kleinhuningen; 7.00 m. to all the other port areas of Basle Town; 4.80 m. to 7.00 m. to the ports of Basle Country.

Beam: 11.40 m. to basin II, port of Kleinhuningen and through the locks of Birsfelden.

Length: 110 m. for the section between the Middle Bridge at Basle and the locks of Birsfelden.
VHF: Port Authority on Channel 18 (call: Signalstation). Working hours: Monday to Friday 0500 – 2100 hrs., Saturday 0500 – 1300 hrs.
TUGS: Only one private tug/pushboat is available (call: BRAGTANK, Tel: 6314422 or from ship to ship on VHF Channel 10: Vogel Gryff). Tug assistance is necessary for the section between Basle and Birsfelden from High Water Mark I (gauge Rheinfelden 350 cm.) for single engine vessels.
BERTHING: Two artificial basins at Kleinhuningen, riverside quays at Kleinhuningen (Klybeckquai), St. John, Birsfelden and Au. Load/discharge of dry cargo is done by shore equipment.

Also see "Max. Size".
CRANES: 62 shore cranes with lifting capacities up to 2×300 tons.
SPECIALISED CARGO HANDLING FACILITIES: 2 container terminals. No LPG berth.
BRIDGES: Railway bridges across the channel to basin II, port of Kleinhuningen, permit a max. air draft of 5.70 m.
STEVEDORES: Working hours: Monday to Friday 0500 – 2100 hrs., Saturday 0500 – 1300 hrs.
MEDICAL: Hospital facilities available.
TANKERS: Tanker piers at Kleinhuningen (Klybeck Quay and Basin I; the last one for oil only), St. John (vegetable oil and stove oil), Birsfelden and Au.

Tankers with dangerous goods (K1 and K2 products) are not allowed to enter the basins. Load/discharge done by vessel's pumps.
FRESH WATER: Good quality potable water available.
FUEL: Diesel oil available.
CONSULS:

Austria
Belgium
Benin
Brazil
Cape Verde
Denmark
Ecuador
Finland
France
Germany
Hungary
Italy
Jamaica
Luxembourg
Mali
Mexico
Monaco
Netherlands
Norway
Peru
Sweden
Spain
Thailand
Togo
Uruguay

REPAIRS: Deck and engine repairs are possible as well as those to electric installations and electronic equipment.
DRY DOCKS: No dry dock, no slip.
SURVEYORS: Agents of Surveillance and Classification Societies are nearby.
GANGWAY/DECK WATCHMEN: At least one member of the crew has to stay aboard as watchman.
HATCHES: Opening/closing carried out by ship's crew.
CUSTOMS ALLOWANCES: Swiss Regulations apply.
REPATRIATION: Scheduled aircraft connect Basle-Mulhouse Airport daily with most important European airports. Also good railway connections.
AIRPORT: See "Repatriation".
HOLIDAYS: The ports are closed for work on New Year's Day, Carnival (two half days in February or March), Good Friday, Easter Monday, 1st May, Ascension Day, Whit Monday, 1st August (National Day), Christmas Day and Boxing Day.
POLICE/AMBULANCE/FIRE: Emergency services are available through the Port Authority (VHF Channel 18) or direct by telephone:

Ambulance:	144
Police:	117
Fire:	118

TELEPHONES: This service is available aboard ships at the berths for passenger boats by prior arrangement through the Agents.
SERVICES: Oily waste disposal boat available from Monday to Friday 0700 – 1700 hrs.
SHORE LEAVE: Permitted when Immigration and Customs requirements have been satisfied, as long as the crew rejoin the vessel before departure.
IDENTIFICATION CARDS: It is recommended to carry an identification card or a Passport. Shore passes are not issued.
GARBAGE DISPOSAL: Garbage drums and containers placed alongside.
WASTE OIL DISPOSAL: Call Bibo Regio, ship to ship VHF Channel 10
SEAMAN'S CLUBS: Seemannsclub der Schweiz, Westquaistrasse 30, Basel. Tel: 6315818.
CURRENCY: Swiss Franc (SFr.).
REGULATIONS: All the Rhine Shipping Regulations, recommended by the Central Commission for the Navigation on the Rhine, are valid.
AUTHORITY: Rheinschiffahrtsdirektion Basel, P.O.Box, CH-4019 Basel Switzerland. *Tel:* 061-6314545. *FAX:* 061-6314594 *Telex:* 997130 SBB CH. *Contact:* R. Hardmeier, Director.

NOTES

Please also advise Shipping Guides Ltd.

Syrian Arab Republic

GENERAL

PORT REGULATIONS:

In corroboration of Articles 2 and 8 of the Decree Law No. 154/1961 which created the General Directorate of Ports and invited them to control the safety and security of ports and territorial waters and empower them to enact communiques and instructions for same and for public interest, the following provisory instructions will be in force for vessels lying in the Syrian ports and territorial waters until permanent regulations are issued for the safety of the harbours.

1. Any vessel calling at Syrian ports should contact the pilotage station or the signal towers upon entering Syrian territorial waters 12 miles (marine) giving her name, nationality and her cargo in case the whole or part is dangerous, also her ETA at the waiting zone of the port of destination.
2. The Masters of foreign vessels lying in Syrian ports should hoist the Syrian flag (size 63 cm.×126 cm.) in accordance with international maritime courtesy. The Agent should supply any vessel without same upon her arrival at Syrian ports.
3. The vessel should hoist international signals for a Pilot or for dangerous cargo, also the quarantine flag, etc., in accordance with her situation while approaching Syrian ports.
4. The vessels once in territorial waters are not authorised to receive any person on board before Free Pratique is granted by Harbour Authorities.
5. It is forbidden to receive any person after Free Pratique and during the stay of the vessel either in road or inner basin unless by written authorisation from the Harbour Authorities. Customs and Security are exempt when in service.
6. It is forbidden for a vessel to use her wireless when lying in Syrian ports or at anchorage unless with authorisation from the Harbour Authorities and in emergency cases.
7. It is forbidden for vessels lying in Syrian ports to use their own steam or electrical blowers, amplifiers or make any other signals not allowed by international rules to avoid sea collisions or the light signals authorised by the Harbour Authorities in accordance with Article 14 of the present communique.
8. Masters should keep at any time on board of their vessels while lying in the ports a continuous watch and enough seamen in order to secure the exploitation department necessities or during emergency cases, and in order to take the necessary steps to avoid fire and damages to others (Article 17 of D/Law 193).
9. If a Syrian watchman is appointed to watch the vessel, he must have an authorisation order from the Harbour Authorities. The shipping Agent is responsible for the execution.
10. It is forbidden to use the vessel's life-boats in the ports or in territorial waters unless by previous written authorisation from the Harbour Authorities on the basis of a written request stating the causes, the time of the dropping down of the life-boat from the vessel, and the time of its lifting provided the cause is necessary.
11. All vessels should keep their gangways up from sunset to 0700 hrs.
12. The hatches, stores, etc., should be covered and locked, if possible, during the night.
13. In case any objects from the vessel or their cargo drop into the sea, the Master should inform both the Port Co. and the Harbour Master immediately of same.
14. The following signals should be used for the above mentioned cases as follows:

	Signals	
Case	*Sound*	*Lights*
(a) Attack by thieves	Sequence of 6 short blasts.	Sequence of 6 light signals and flashes from the foremast.
(b) Case of fire onboard or alongside	Sequence of long blasts, each set 6 blasts.	Sequence of 6 long flashes.
(c) Case of serious injury	Sequence of 2 long blasts.	Sequence of 2 long flashes from the foremast.
(d) Case of stranding	Sequence of 4 long blasts.	Sequence of 4 long flashes.

N.B.

1. Distance time between each sequence is half a minute, but the length of the signals should be in accordance with international signals regulations.
2. The above signals should be accompanied by wireless call on Channel 16 to both Pilotage and Stations in Syrian ports.
3. The above instructions do not forbid the use of other sound and light signals stated in the international rules.

NOTICE: Vessels proceeding to Syrian ports are required to signal the following to the port radio station when 50 miles from the port of destination.

(a) ETA.
(b) Nationality.
(c) Name.

BANIAS: 35.14 N. 35.56 E. (See Plan)

DOCUMENTS:

5 copies Crew List.
1 copy Vaccination List.
1 copy Stores List.
1 copy Private Stores List.
1 copy Slop Chest.

In case of cargo to be discharged, Original and 2 copies Manifest and 3 copies Bill of Lading.

APPROACHES: Vessels bound for Banias should follow the following:

(a) Lat. 35° 13' 00" N., Long. 35° 42' 00" E.
(b) Lat. 35° 13' 00" N., Long. 35° 56' 56" E.
(c) Lat. 35° 16' 00" N., Long. 35° 55' 25" E.
(d) Lat. 35° 16' 00" N., Long. 35° 40' 34" E.

Otherwise vessels are subject to severe fines.

PILOTAGE: Compulsory. Pilots board all tankers approaching the Terminals. These Pilots act in the same capacity as Mooring Masters in the berthing of vessels, after which they supervise the raising of the flexible hoses and their connection to the ship's manifold. During loading operation they act as the Company's Representatives. The Company's Mooring Masters will meet tankers in the vicinity of Marqab Light Buoy.

It is requested that tankers of 40,000 d.w.t. and over should have rigged, when in light condition, an accommodation ladder lowered to about 12 ft., above the water. This can be adjusted to suit conditions. A pilot ladder should be rigged abaft the accommodation ladder, to within 3 ft. above the water. This will enable the Pilot to ascend the pilot ladder clear of the launch and then step on to the lower platform of the accommodation ladder. United Kingdom Merchant Shipping (Pilot Ladders) Rules are relevant.

ANCHORAGE: In the event of a berth not being available, or suspension of mooring operations on arrival, a good anchorage can be used South of the berths in the vicinity of the Marqab Light Buoy positioned at: Lat. 35° 12' 27" N., Long. 35° 54' 46" E. It is important to maintain a listening watch on VHF, Channel 16 or visual watch on the shore Signal Station positioned approximately at Lat. 35° 13' 04" N., Long. 35° 57' 00" E. and recognised at night by lozenge shaped lights, in order to avoid delays.

On being advised of expected time "Mooring Master will board", heave short your anchor before his arrival.

Vessel Berthing Confirmation: Vessels waiting at anchorage for confirmation or other reasons beyond the control of Banias Terminal, will be boarded by Mooring Master within 4 hours after such confirmation is received, providing free allocated berth and suitable weather.

RESTRICTIONS: Berthing operations for loading and unloading will take place only between 0700 hrs. and 1600 hrs. (local time) in Winter, and 0600 hrs. and 1800 hrs. (local time) in Summer, i.e. during daylight, SHINC and weather permitting. Summer starts 1st May and Winter starts 1st November.

MAX. SIZE: See "Berthing".

NOTICE OF READINESS: Time of Notice of Readiness tendered will be considered when vessel arrives in the very near vicinity of the Marqab Light Buoy (position Lat. 35° 12' 27" N., Long. 35° 54' 46" E.), where the Pilot/Mooring Master will board and receive ship and remain on board throughout the entire operation.

HEALTH: Masters of tankers due may obtain Free Pratique by addressing the usual quarantine message to their Agents through commercial radio channels.

RADIO/VHF: Banias Terminal Radio Station – Call sign: "YKM 5". Frequency: 500 kHz and 442 kHz and VHF Channel 16. Also see "Radio Procedure" below.

Tanker VHF Radio Communications: Vessels approaching Banias can communicate with the Terminal by FM, VHF, Channel 16. Range 30 to 40 miles. Frequency 156.8 MHz. Simplex Operation. Call sign: "Banias". On arrival, ship's radio installations will be sealed according to normal practice and the boarding Mooring Master will put his own portable equipment on board. Communications will then be as follows:

Banias – Equipment: Fixed station sited in the Terminal. Call sign: "Banias". Frequency: Transmitting 163.6 MHz. Receiving 159.1 MHz. Range: 8 miles. Watches: Continuous whilst vessels are in port or immediate vicinity.

Mobile Station – Equipment: Placed aboard vessel on arrival at Banias. Call sign: Ship's name. Frequency: Transmitting 159.1 MHz. Receiving 163.6 MHz. Range: 5 miles. Watches: Mutually agreed between ship and the Terminal on first establishing contact.

Note: The radio telephone circuit is connected with the main Company Communications network in Banias Terminal.

Radio Procedure:

Station	*Banias Syria* Private station for communication with tankers bound for Banias, Syria.

Call sign: YKM5
Address: S.C.O.T. Banias – Syria

MF Schedules (A1)

Banias Radio Station (YKM5) keeps a 24 hours continuous watch on 500 kHz and answers calls on 500 kHz. QSY 440 kHz for traffic. Broadcasts traffic list on 500 kHz at 0430, 0830, 1230, 1630 and 2030 (GMT). Receives on ship frequencies 425, 454, 468, 480 and 512 kHz – also broadcasts traffic lists, on 440 kHz at 0432, 0832, 1232, 1632 and 2032 (GMT).

HF Schedules (A1)

Time GMT	*Listens on*	*Answers on*	*Traffic list at (GMT)*
04 – 05	4 MHz Band	4351 kHz	0410
05 – 06	8 MHz Band	8667 kHz	0510
08 – 09	6 MHz Band	6493 kHz	0810
09 – 10	12 MHz Band	12987 kHz	0910
12 – 13	8 MHz Band	8667 kHz	1210
13 – 14	16 MHz Band	16967 kHz	1310
16 – 17	16 MHz Band	16967 kHz	1610
17 – 18	6 MHz Band	6493 kHz	1710

VHF Schedules (F.3)

Banias Terminal keeps watch on Channel 16. This has a range of approximately 40 miles and its call sign is "Banias Control".

For traffic, change to another channel as instructed by Banias Terminal.

Note: YKM5 deals only with traffic for SCOT Banias QSJ nil.
YKM5 uses only two frequencies out of HF schedule.
From 0500 to 0600 on 8667 kHz.
From 0800 to 0900 on 6493 kHz.
From 1700 to 1800 on 6493 kHz.

Confirmation of ETA's: To avoid delay on arrival, it is essential and in your interest to communicate with YKM5 at least 48 hours prior to arrival, and thereafter maintain contact, also stating cargo quantity and grade, max. rate (load/offload), SWL of derrick capacity, specific gravity and temperature, n.r.t. and arrival draft. Failure to give any notice at least 24 hours prior to arrival may delay the Notice of Readiness by an amount equal to the difference between 24 hours and the number of hours of notice prior to arrival, and this at the sole discretion of the Terminal.

In the event of a ship having arrived without having contacted Banias Control 4 hours before ETA, a 4 hour period shall accrue to Banias Terminal before a Mooring Master boards the ship.

TUGS: Available only on demand from General Directorate of Harbours at Lattakia.

MOORING REQUIREMENTS:

Forward:

Anchors to be fitted with marker buoys with 20 fathoms of line.
2×120 fathom mooring lines.
2 rope stoppers.
1 suitable wire stopper (preferably Carpenter Patent) for use with 4.75 in. mooring lines.

Aft:

4×120 fathom mooring lines.
4 rope stoppers.
2 suitable wire stoppers (preferably Carpenter Patent) for use with 4.75 in. to 5.5 in. mooring lines.

Boat Ropes

To be rigged on either side of ship, and of not less than 4.5 in. circumference.

Derricks and Cranes: Must be capable of plumbing overside abreast of discharging manifold.

Load/Offload Manifold:

2 × 0.25 in. spanners.
2 × 0.875 in. spanners.
2 × 7 lbs. hammers.
1 × 2 lbs. axe.

Hose hang-off bitts are required at about 10 ft. from the ship's rail at the loading manifold, to secure submarine hoses on the port side.

Safety of Mooring and Anchor Chains: Vessel must have not less than 11 shackles of anchor chain on each side.

On completion of mooring operation, vessel must have between 6.5 and 7.5 shackles of anchor chain tight in the water in conformity with vessel's LOA.

BERTHING: The open sea line berths (CBMS) are situated to the North of Marquab Light Buoy.

Each berth is equipped with flexible hoses connected by pipelines to shore installations.

At all berths vessels moor using both anchors forward, with wires to a buoy on the port bow, one buoy astern and one on each quarter. Hoses are lifted on the port side to be connected to the ship's manifold which must have pressure gauge fitted.

Berths No. 2 and 3:

	Loading	*Unloading*
Max. LOA	925 ft.	900 ft.
Min. LOA	600 ft.	600 ft.
Max. d.w.t.	130,000 tonnes	97,000 tonnes
Max. Draft:		
Berth No. 2	52 ft. (Summer)	50 ft. (Winter)
Berth No. 3	53 ft. (Summer)	51 ft. (Winter)
Min. SWL of Derrick	7.5 tons	

Vessel's pumps to maintain pressure of 7 kg./sq.cm. at ship's connecting manifold during the entire discharging operation.

Vessel should have the possibility of ballasting while discharging cargo at any time without contamination of cargo and delaying operations (Segregated ballast systems).

Max. loading rate per berth per hour: 5,500 tons when both berths are in use.

Berth No. 4:

Max. LOA	750 ft.
Min. LOA	560 ft.
Max. Draft	42 ft. (Summer and Winter).
Min. SWL of Derrick	7.30 tons.
Max. d.w.t.	66,000 tonnes.
Min. d.w.t.	30,000 tonnes.

Berth is equipped with 2×24 in. sea lines, and 2×16 in. hose strings ending with 2×12 in. hoses and valved displacement manifold.

A minimum distance of 3.0 m. between ship's manifold and ship's rail is required for safe connections.

One of the sea lines is for displacement purposes only.

Max. loading rate 2,000 tons per hour.

Berth No. 5:

	In Summer	*In Winter*
Max. LOA	840 ft.	815 ft.
Min. LOA	600 ft.	600 ft.
Max. d.w.t.	85,000 tonnes	66,000 tonnes
Min. d.w.t.	35,000 tonnes	35,000 tonnes
Max. Draft	43 ft.	41 ft.
Min. SWL of Derrick	7.5 tons	

Berth is equipped with PLEM mounted sub-sea valves remotely operated from shore.

Loading rate: 2,000 cu.m./hr. for heavy fuel and 1,900 cu.m./hr. for white products.

Discharging rate for gas oil: 3,000 cu.m./hr.

Note: Ship's hose connecting manifold to be equipped with pressure and temperature gauges.

Berth No. 6:

	In Summer	*In Winter*
Max. LOA	700 ft.	650 ft.
Min. LOA	500 ft.	500 ft.
Max. d.w.t.	50,000 tonnes	40,000 tonnes
Min. d.w.t.	20,000 tonnes	20,000 tonnes
Max. Draft	34 ft.	32 ft.
Min. SWL of Derrick	7.5 tons	

Berth is equipped with PLEM mounted sub-sea valves remotely operated from shore.

Max. loading rate: 1,500 cu.m./hr. for vacuum gas oil and 2,000 cu.m./hr. for premium gasoline.

Ship's hose connecting manifold to be equipped with pressure and temperature gauges.

Berth No. 7: (For LPG).

Max. LOA	700 ft.
Min. LOA	350 ft.
Max. d.w.t.	7,000 tonnes.
Min. d.w.t.	3,000 tonnes.
Max. Draft	24 ft. (Summer and Winter).
Note:	
Min. LOA	300 ft. can be accepted but only in fine weather, provided ship has sufficient ropes.
Min. SWL of Derrick	3 tons.
Single derrick or crane for lifting:	(a) One string of 8 in. cargo hose. (b) One string of 4 in. balance line hose.

Note: Both strings of hose (210 ft.) end with relevant class 300 AS Camlock coupling and butterfly valve.

Minimum Cargo Temperature:
(a) Summer+10°C.
(b) Winter +10°C or ambient temperature.

Flow rate: 300 t.p.h.

Max. pressure at ship's manifold: 7.0 kg./sq.cm.

Ship's manifold to be equipped with clean filters, temperature and pressure gauges.

Ship's connecting flanges to be diameter 8 in. and 4 in. respectively class 300 ASA.

Minimum time for opening and closing any line valve to be more than 30 seconds to avoid surges.

All tools to be of a non-spark generating metal, such as copper.

Berth No. 7: (For Jet Fuel).

Max. LOA	700 ft.
Min. LOA	350 ft.
Max. d.w.t.	20,000 tonnes.
Min. d.w.t.	8,000 tonnes.
Max. Draft	28 ft. in Summer. 26 ft. in Winter.
Min. SWL of Derrick	5 tons.

Loading rate: 1,500 cu.m./hr.
Discharge rate: 2,200 cu.m./hr.

Maximum pressure at ship's manifold during discharge: 7 kg./sq.cm

Ship's manifold to be equipped with filters which are to be cleane and ready for use at each call.

Ship's connecting manifold to be equipped with pressure gauge.

All connection tools (spanner, hammer, etc.) to be of copper.

HOSES: Berth are numbered from North to South:

No. 2: For Crude Oil: 2 strings of 10 in. hose ending with 12 in. reduce (160 ASA).
No. 3: For Crude Oil: 2 strings of 16 in. hose ending with 12 in. reduce (150 ASA).
No. 4: For Fuel Oil: 2 strings of 12 in. hose ending with 12 in. butter valves, and displacement manifold (150 ASA).
No. 5: For Fuel Oil and White Products: One string of 16 in. hose each, ending with 12 in. butterfly valve (150 ASA).
No. 6: For Fuel Oil and White Products: One string of 16 in. hose each, ending with 12 in. butterfly valve (150 ASA).
No. 7: For LPG and Jet Fuel:
LPG: One string of 8 in. hose ending with 8 in. butterfly valve (3 ASA). One string of 4 in. hose ending with 4 in. butterfly va and used as balance line (300 ASA).
Jet Fuel: One string of 12 in. hose ending with 12 in. butte valve (150 ASA).

LOADING/DISCHARGING:

1. Ship's hose connecting manifold to be equipped with press gauge.
2. When discharging, the pressure at the ship's manifold should exceed 7 kg./sq.cm., and within this range of pressure the Term installations are capable of receiving at various rates, depending berth and storage tanks allocated to the ship. The Term Administration would prefer the ship's pumps to be rated accordin and to be of the centrifugal type.
3. Loading-on-top slops (LOT) is not acceptable, and slops t segregated from cargo, as Banias Terminal is not equipped slop treatment facilities. Pressure gauge to be fitted on ship's side connecting manifold.

BALLAST: The Port Authority is most strict and will impose heavy for any oil pollution of the sea. In addition, vessels may be ordered of the berth and at risk of losing turn. Ensure ballast quantity onb is kept to about one third of d.w.t. in Winter and one quarter of d.w Summer for safe manoeuvring in the prevailing weather condi Excess ballast causes delay.

Banias is an open roadstead and sudden changes in weather can be experienced especially during the Winter months. It is good practice to commence loading as soon as hoses are connected and whilst ballast discharge is still in progress, always providing this can be achieved safely and with no danger of contamination.

POLLUTION: The Port Authorities will, in cases where pollution is ascertained, collect a declaration from the Master of the offending ship, in which declaration he authorises his Agents to pay any fine to be levied by the Official Committee in the future.

In the light of the above and to avoid any delay to vessels, Owners are kindly requested to:

1. Supply vessels with necessary chemicals to destroy any quantity of oil overflowing into the sea.
2. Provide a bank guarantee of Stg. £5,000 to be deposited against eventual fines. Such a guarantee (or cash) must be given before offending vessel is released.

MEDICAL: Hospital facilities or other relevant medical information are available through Agent on and/or prior to arrival of vessel.

FRESH WATER: Available through Agents by means of barges, cost U.S.$10.00 per ton.

FUEL: Diesel oil available via Agent.

SURVEYORS: Through Agents – Shipco.

CUSTOMS ALLOWANCES: According to regulations or at Customs' own discretion.

REPATRIATION: Facilities exist through Agents.

TIME: Local time is GMT plus 2 hours.

SERVICES: In the event of tankers requiring assistance to lift loading hoses, recover lost anchors, and cables, etc., limited aid may be given during normal working hours. Current charges are available on application from Agent.

SHORE LEAVE: Permission may be obtained from Immigration Dept. ashore through Agents.

GARBAGE DISPOSAL: Available via Agent.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: Usual local facilities.

CURRENCY: Syrian Pound.

REGULATIONS: Terminal Requirements and Conditions of Use of Terminal Facilities will be handed over to Master of vessel at each time of call. The following are some of the regulations in the booklet.

Vessel in Berth: Ships are not allowed to remain in berth for any reason when loading operation stopped. Hoses should be disconnected and dropped to sea unless stay authorised by Terminal Superintendent.

Deck Watch: A continuous watch on deck must be maintained throughout the operations, especially towards the Shore Signal Station positioned as follows: Lat. 35° 13' 04" N., Long. 35° 57' 00" E, to ensure safe operations and to avoid delays, in addition to a continuous watch on Channel 16.

Lighting: During hours of darkness the manifold and poop mooring area of the sea in vicinity of ship should be adequately lit.

Main Engines: Must be kept on shore notice. Repairs which will immobilise must not be carried out in berth.

Deck Machinery: Must be ready for immediate use at all times.

Whistle or Siren: To be available at all times.

Signalling: An "Aldis" type lamp to be readily available.

Stores, Provisions, Etc.: It is strictly forbidden for provisions, stores or other items to be received or discharged whilst loading is in progress. Launches or other craft must not lie alongside during the same period.

Tanker Safety Regulations: Tanker Safety Requirements must be strictly adhered to at all times. The Mooring Master is authorised to stop all operations should he consider the safety regulations are not being complied with.

Please refer to Tanker Safety Guide (LPG and Others).

Boarding: The boarding of a vessel whilst in a mooring is restricted to persons holding valid passes which are issued by the Terminal Superintendent on application to ship's Agents and authorised chandlers. This restriction is applied in conjunction with the Syrian Harbour and Security Authorities. Ship's crew are not to be disembarked for any reason before official authorisation is granted.

Guests: Guests are not allowed unless visit is approved by Master and Shore Representative jointly.

Action in Case of Emergency: In the event of a fire, oil spillage, or other emergency on the vessel, the emergency signal is: *Three or more blasts of not less than ten seconds duration each, on whistle or siren supplemented by a continuous ringing of the general alarm bells.*

Dry Certificate: Master to provide 3 copies of Dry Tank Certificate to Shore Representative duly signed.

Leaving Berth due to Bad Weather: Ship must let go the mooring ropes in water and leave berth. The ropes can be collected when weather permits.

NOTICE TO MASTER: Please be advised that any complaint or dispute between ship's and SCOT's personnel which may arise during your stay in berth, must be brought to the attention of Banias Terminal Superintendent before leaving berth for necessary investigation.

Complaints reaching the Terminal after vessel's departure will be discarded.

DELAYS: Confirmation, restricted berthing hours, unsuitable weather and free berths.

WEATHER: The Director of Port Authorities has issued statistics of the weather conditions along the Syrian coast after an experience of 20 years.

State of winds and whirlwinds on the Syrian Coast

	Kind and direction of winds
Winter	
December	Regular winds blowing from N.E. to S.E., sometimes S. to S.W., the alteration of winds is accompanied with rains.
January	Excess of storms starting to blow from S.E. to N.E. The alteration of winds from the E. is occasionally accompanied by heavy rains with probability of hail.
February	Excess of storms and heavy rains blowing from S.W. to N.E. and E.
Spring	
March	Variable winds from S.E. to S.W. and accompanied by heavy rains and altering to N.W. slight.
April	Variable winds from N.W. and S.W., and S. winds accompanied with light rains.
May	Regular winds blowing S.W. to N.W. and altering to S. sometimes accompanied by rain.
Summer	
June	Slight winds from S.W. and S.
July	Moderate winds from S. to S.W.
August	Slight N.W. winds.
Autumn	
September	Winds S.W. and N.W. accompanied by some rain from 15th September. Winds will lighten during the end of the day and will alter at night to slight E.
October	Variable winds from W. to S. and N.W. accompanied by rain will alter at night to E.
November	The winds are variable from N.E. and N.W. accompanied sometimes by rain which will alter to E.

SHIPMASTER'S REPORT: Cigarette allowance is strictly enforced at 40 cigarettes per man, and has to be carefully declared. If the Chief Steward has a slop-chest, it has to be carefully declared. Whisky has to be declared separately from other spirits, but in practice it is better to declare each type of spirits separately.

The ship's Log Book is stamped by the police.

AUTHORITY: Syrian Company for Oil Transport (S.C.O.T.), P.O.Box 13, Banias (Tartous), Syrian Arab Republic. *Tel:* 963-43-711300, 711301, 711302, 711303. *Telex:* Scot 441012 Sy. *Cables:* Scot, Banias. *FAX:* 963-43-710418. *Contact:* M.T. Askar, Terminal Superintendent in charge. M. Douba, General Manager.

BORJ ISLAM: 35.40 N. 35.48 E. (See Plan)

SHIPMASTER'S REPORT: October 1980.

LOCATION: Borj Islam is located at Lat. 35° 40' N. Long. 35° 47' 35" E. 1.4 miles to the North of Ras El Fasori.

This location was adapted about 2 years ago by the Syrian Government as a discharge zone for LPG carriers and tankers of small tonnage. In this respect, we know that the last vessel to visit this port was an LPG carrier of approximately 5,000 tons.

The coast is a conspicuous promontory with deep water in front of it. For mooring at night, there are no lights indicating this berth, and this presents difficulties.

By day, one can steer towards the cement works which is the most important point of reference in that vessels berth beneath these works.

ANCHORAGES: Vessels arriving by night should anchor in the nearby roads of Lattakia.

By day, the advisable anchorage is 200 m. on a bearing of 140° from the cement works.

PILOTAGE: Pilot must be contacted on arrival on VHF Channel 16 at Lattakia, and instructions will be given for berthing. The Pilot boards vessels at Borj Islam.

BERTHING: This is very difficult since there are no berths or buoys. The vessel berths "stern to the land" with 2 anchors 6/7 shackles on each and lines are fixed on to rocks.

Great attention must be paid to winds from the South or S.W. and West or N.W., since this location is open to such winds.

DISCHARGE: This is effected with hoses (supplied by the ship for connection purposes). The product is discharged slowly to tanker trucks.

The position where the vessel anchors has a depth of water from 11 m. to 40 m.

LATTAKIA: 35.31 N. 35.46 E. (See Plan)

PORT LIMITS: The seaward boundary of the port is about 2 miles West of the main breakwater, starting with the entrance line of 133° South.

DOCUMENTS: In addition to the copies of Bills of Lading, Cargo Manifests and the various Ship's Certificates, the Master of an arriving vessel must produce the following documents:

- Crew List, showing full names of crew members, nationality, date of birth, and rank onboard.
- Stores List.
- Passengers List.
- Health Certificates and International Inoculation Certificates.
- All other documents relevant to the ship.

PILOTAGE: Upon a vessel's arrival at the anchorage area, she may call the Pilot in any of the following ways:

(a) Flying the internationally recognised flag.
(b) Blowing the ship's whistle – 2 long and 1 short.
(c) Calling the Pilot Station on VHF – Lattakia Pilot Station – using Channel 16.
(d) Signalling the pilot boat. – Grey colour hull and white colour bridge, always flying the Pilot's flag (letter "H").

The Pilot boards an arriving vessel when she has reached a distance of about a few hundred metres West of the Breakwater Head under good weather conditions. When the weather is bad, an arriving vessel is directed to the port basin entrance by VHF. The Master is advised of proper directions to follow and when he is to lower the pilot ladder to the lee side, by the Pilot.

Traffic List: Broadcast twice daily on VHF Channel 16:

Meeting takes place at 1100 hrs.

ANCHORAGES: Upon arrival at the anchorage area referred to under "Port Limits", the vessel has to wait for orders. This Anchorage Area has a depth of 20 m. – 25 m., and all Masters waiting there have to keep listening on VHF Channel 16, from 0600 until 2200 hrs. local time, for fresh orders. It is always recommended to keep a special watch on VHF Channel 16, for sudden orders.

RESTRICTIONS: The state of tide at Lattakia is negligible, and all vessels may enter and sail out of the harbour by night or day provided she has a Pilot onboard.

MAX. SIZE: The maximum permissible length, breadth and draft of an arriving vessel are determined by the place of berth or anchorage point outside the breakwater.

HEALTH: All arriving vessels are boarded by the quarantine service to whom all relevant documents are submitted, in particular the Derat Certificate, and incidents onboard reported.

The application is filed by the Agent, who accompanies the boarding authorities. Free Pratique is never automatic.

RADIO: The name of the Lattakia station is "Lattakia Radio" on 2182 kHz or Channel 16 on the VHF. Following first contact another Channel is agreed upon, leaving Channel 16 for the pilotage service.

VHF: See "Radio" and "Pilotage".

TUGS: 16 tugs up to 1,100 h.p. Tugs are always under the direct orders of the Pilot and join the vessel at the point the Pilot boards. Usually ship's lines are used but there is no charge for the use of the tug's lines.

BERTHING: Quay berths available as follows:

Name	*Length* (m.)	*Depth* (ft.)	*Remarks*
Khahaleh Quay	600	31	28 ft. 6 in. at the root.
Silo Quay	185	25	27 ft. 6 in. at the root.
Passenger Quay	240*	22 – 31	
*East Division	55	—	21 ft. at the root.
*West Division	185	—	25 ft. at the root.
Eastern Quay	270	22	
Northern Quay	276	13	
Others	530	—	For Port Services.

None of these quays is a specialised one. Cargo is loaded or discharged either by the ship's gear or Port Co. cranes, at the entire discretion of the latter. A ship may operate in the basin or open road in and from barges.

CRANES: Electric quay cranes: 16×3-6 tons (18×6-16 tons electric cranes will be available on the extension – see "Developments"). Mobile cranes: 58×3-12 tons, 4×15 tons, 6×70 tons. Floating cranes: 1×100 tons, 1×32 tons. Forklifts: 2×30 tons (containers), 92×2-6 tons, 4×8 tons. Straddle carriers: 4×32 tons. 2 floating cranes, 100 ton and 32 ton.

BULK CARGO FACILITIES: *Grain Silos:* In the silo, there are 72 storage bins, the capacity of each is 45,000 tons of grain in which operations of sieving, fumigation, drying and filling can be carried out.

Grain is shipped automatically onboard vessels at a rate of 150 t.p.h. This rate can be doubled when the repairs are completed. Grain is discharged ex-vessels by sucking devices, the total capacity of which reaches 200 t.p.h. A study is being carried out to provide grain silos with automatic intake equipment and to develop the silos quay.

STEVEDORES: 24 hours' ETA advice is required to arrange working gangs if vessel is scheduled to operate on arrival. The average loading and discharging rates vary with the type of vessel, nature of cargo, where berthing and whether working in lighters or not.

MEDICAL: Except for urgent cases on board, the Agent need not be notified in advance. Hospitals in town available, and likewise doctors and private clinics. No particular inoculations are required.

DENSITY: 1033 (33 grams Salt per cu.m.).

FRESH WATER: Supplied either from hydrants alongside main quay or from tank barge (capacity 170 tons).

FUEL: All types of marine fuels are available, may be delivered in any quantity from tank trucks alongside quay. 48 hours' notice is required.

FIRE PRECAUTIONS: No specific precautions except that vessels carrying explosives must operate and discharge into lighters in the open Roads.

CONSULS: Sweden, Finland, Netherlands, Greece, Italy, Spain, Portugal.

REPAIRS: Only minor deck, radio, and radar repairs may be carried out. Extensive and specialised workshops are not available.

DRY DOCKS: Not available. Only a 900 ton slipway is in operation.

SURVEYORS: Only minor surveys by Lloyd's, German Lloyd and Veritas.

GANGWAY/DECK WATCHMEN: Compulsory and are supplied at a hire rate of LS 48.00 per watchman per day.

HATCHES: Normally opened and covered by the ship's crew.

CUSTOMS ALLOWANCES: Cigarettes, 2 packs per man. Spirits, as would be reasonably agreed with the Customs on board prior to sealing the vessel's stores.

CARGO GEAR: Two floating cranes are available – one of 100 tons capacity and the other of 32 tons. Both may be used at the entire discretion of the Lattakia Port Company. Also one mobile crane of 25 tons capacity.

REPATRIATION: All facilities exist and are attended to by the vessel's Agent.

AIRPORT: Damascus International airport is 340 km. from Lattakia by road.

TIME: Winter Time GMT plus 2 hours. Summer Time GMT plus 3 hours.

HOLIDAYS: Following the Lunar Calendar, the first 2 days of Bayram and Al-Adha are the only non-operational days.

POLICE/AMBULANCE/FIRE: Police Tel. No. 93; Ambulance Tel. No. 93; Fire Tel. No. 91.

TELEPHONES: No proper arrangements exist. Vessels in port may use VHF Channel 16 with the Pilot Station of Lattakia Radio.

SHORE LEAVE: Crew members allowed ashore to visit the city with shore passes issued by the Police Authorities in the port.

IDENTIFICATION CARDS: Shore passes in addition to the Seaman's Book.

DELAYS: Vary with state of congestion prevailing in the port.

DEVELOPMENTS: The execution of the 2nd development stage underway and it will cover the following new facilities:

Specialised container and Ro/Ro quays.

	Length	*Draft*
Containers	260 m.	13.3 m
Containers	190 m.	11.8 m.
Ro/Ro	200 m.	11.8 m.
General Cargo	350 m.	11.8 m.
General Cargo	425 m.	10.5 m.
General Cargo	450 m.	7.0 m.

In addition there will be new warehouses and stacking areas totalling 230,000 sq.m.

In its planning, the Company has provided for the import of equipment and machinery in a way that meets the needs of the enlarged area. Same will be supplied in accordance with fixed time schedules corresponding to the progress of execution.

There have been calls for tenders for the supply of the following equipment:

16 mobile quay cranes of 6 tons capacity (contract presently being negotiated).

2 mobile quay cranes of 16 tons capacity (contract presently being negotiated).

2 tug boats 1,500 tons (under contract).

3 passenger boats, each can accommodate 15 passengers (under contract).

Gantry cranes 45 tons capacity (under contract).

10 forklift trucks 10 tons capacity (under contract).

2 forklift trucks 30 tons – 35 tons capacity (under contract).

4 straddle carriers (under contract).

A call for tender for the supply of the following equipment is presently being prepared:

Diesel mobile crane 10 tons capacity.

A pilot boat.

VHF station and equipment.

SHIPMASTER'S REPORT: December 1979.

Documents: Health Declaration, De-Rat Certificate, Ship's Register, Cargo Manifest, all Safety, Load line and Radio Certificates.

Pilotage: Compulsory. Pilot boards in the Roads. Normal ETAs required.

Anchorage: Vessel anchored approximately 1 mile West of the breakwater in 60 ft.

Restrictions: Vessel may enter and leave at any stage of the tide; day or night.

Max. Size: Max. draft at present 28 ft. 6 in., (this is to be increased). Keel clearance of 1.5 ft. required.

Health: Vessel anchors on arrival. Free Pratique filed by Agent who accompanies boarding authorities. The authorities sign the log book and inspect all certificates which must be up-to-date.

Radio: Lattakia Radio or Banias Radio.

VHF: Pilot and Port Authority on Channel 16.

Tugs: 5 tugs available. Tugs are required for berthing, however vessels may unberth without tugs.

Berthing: Vessel berthed at the main quay which is 1 mile from the entrance. A total of 4 berths are available plus a Ro/Ro berth. Max. siz (approximately) LOA 190 m., beam 25 m. and deepest draft 28 ft. 6 in The least depth of water in the channel from sea to the berth is 30 ft Mean tidal range is negligible. Nature at the bottom is mud and the density is 1033.

Cargo Handling Facilities: There are bulk handling facilities for grain and molasses.

Cranes: There are approximately 20×5 ton cranes on the main quay There are 2 floating cranes, 1 of 35 tons capacity and the other 100 tons capacity.

There is limited storage space for containers, however this is to b increased. There is equipment for handling 20 ft. and 40 ft. containers

Facilities: The following are available: Fresh water (poor quality), fres provisions (poor quality), minor repairs, airport (at Damascus 340 km. Lloyd's Surveyor (Agency), Salvage Surveyor (Agency), ship's laund (good but expensive), bunker fuel oil and diesel oil (by truck), doct and hospital, groceries and meats.

Consuls: Sweden, Finland, Netherlands, Greece, Italy and Portugal.

SHIPMASTER'S REPORT: January 1982.

Approaches to Lattakia: The entrance to Lattakia Harbour is well defin but vessels must approach the Green Buoy near breakwater wi extreme caution. A wreck is located in position: Lat. 35° 32' N Long. 35° 43' E., approximately on a bearing of 275° – 1.8 miles fro the Green Buoy. A wide berth must be given on entry to Lattakia to th wreck (m.v. "Bravo Neck") with full load of cargo.

The harbour is generally congested and a long delay at ou anchorage must be anticipated. It is advisable for ships to register advance if this is feasible, to avoid delay. The outer anchorage does n afford good holding ground and during near gale force winds ships a liable to drag anchor.

A traffic list is generally broadcast on VHF Channel 16 at 0600 h and 1800 hrs. daily.

Logistic supplies are poor and water is a difficult commodity to obta Ships are advised to top up with water and fuel before arrival at Lattak

A prominent land mark (whitish hotel) is visible approximately 1 m West of Rasibin Hani Light.

AUTHORITY: Lattakia General Port Company, P.O.Box 220, Baghdad Street, Lattakia, Syrian Arab Republic. *Tel:* 23900/1/2/3/6. *Telex:* 451008 Lapoco Sy. *Cables:* Latakia Port. *Contact:* Madhat Abul Shamlat, General Manager.

TARTOUS: 34.53 N. 35.45 E. (See Plan)

DOCUMENTS: Bill of Health – The usual International form should be filled in on arrival and the Agent will deliver on board the Bill of Health and Port Clearance upon departure.

Manifests – Should be certified by the Syrian Consulate at port of loading in 4 copies.

Ship's Registry – To be presented to the Port Authorities upon request.

Crew List – 4 copies should be handed over to the Agent along with passenger or transit manifests.

Stores List – 2 copies required by Customs who will allow 40 cigarettes to be retained by each person on board, the balance of slop chest and stores shall be sealed during ship's stay in port. Customs officers are at liberty to search crew quarters.

Derat Certificate – Valid certificate required and no extension can be obtained.

PILOTAGE: See "Berthing".

APPROACHES: Vessels approaching the port should keep to the authorised passage defined by the following co-ordinates:

Lat. 34° 56' 24" N., Long. 35° 38' 00" E.
Lat. 34° 56' 24" N., Long. 35° 48' 36" E.
Lat. 34° 59' 00" N., Long. 35° 50' 00" E.
Lat. 34° 59' 00" N., Long. 35° 52' 36" E.
Lat. 34° 54' 24" N., Long. 35° 51' 12" E.
Lat. 34° 54' 24" N., Long. 35° 37' 48" E.

ANCHORAGE: Vessels proceeding to Tartous pick up Pilot at the Anchorage which is 0.5 miles S.W. of the main breakwater. The rocky bottom constitutes good holding ground with a depth of up to 20 m. of water.

RESTRICTIONS: *Terminal Regulations:* All tankers must be equipped with S.B.T., I.G.S. and C.O.W. and not be more than 20 years old.

MAX. SIZE: At present minimum depths are at the entrance of the harbour about 2 cables seaward of the green light on the S.W. Breakwater. Depth about 33 ft. Max. draft 32 ft. dependent on swell. Also see "Tankers".

RADIO: *Confirmation of ETA:* Before arriving at Tartous terminal, tankers must inform Tartous Control (T.T.C.) of their ETA, 72 hours and 24 hours in advance, stating: Discharging port and quantity of cargo required. Also must make contact with T.T.C. at least 2 hours before ETA at Tartous anchorage area to receive loading instructions.

Procedures for Coast Station Communication: All times in GMT.

1. After general call on 500 kHz, terminal broadcasts traffic lists on 479 kHz at 0730, 1130, 1430 and 2030 hrs., and keeps watch on 500 kHz from 0500 hrs. till 2130 hours. Answers on 479 kHz.
2. After general call, transmits its traffic lists simultaneously on 8472 and 12699 kHz at 0830, 1330 and 1930 hrs.
Keeps watch on the 8354 – 8374 kHz band from 1100 – 1130 hrs.
from 1500 – 1530 hrs.
from 1800 – 1830 hrs.
And answers simultaneously on 8472 and 12699 kHz.
3. Keeps watch on Channel 16 for 24 hours.
4. Keeps watch, calls and replies on 2182 kHz from 1100 – 1130 hrs.
from 1430 – 1500 hrs.
5. Land station charge free for motor tankers.

Tartous Terminal Station, Lat. 34° 57' N., Long. 35° 52' E.:
FC YKI 500 A1 600 watt. Hours 0700 – 2300 hrs.
479 A2
427 A2
8472 A1
12699 A1

BERTHING: Mooring Masters are supplied by the terminal and vessels can contact the terminal directly by telex No. 470002 sy, or through Shipping agent in Tartous, giving their ETA and requirements. Vessels berth heading to the predominant S.W. winds, i.e. starboard side alongside unless contrary winds prevail at the time of the berthing.

Southern breakwater – 2,650 m. long called Main breakwater
Northern breakwater – 1,650 m. long called Lee breakwater

The distance between the 2 heads of these breakwaters is 250 m. with a depth of 10.5 m., which is being dredged in order to bring it up to 13 m.

The harbour is divided into 3 basins which are protected by the 2 breakwaters: (1) The North basin; (2) The Middle basin; (3) The Southern basin. The Southern basin is the only one used presently, for the discharge of cargo.

12 vessels can be moored at anchor inside the breakwater of this basin, the depth being between 8 m. – 13 m. The turning circle at the entrance is 450 m. diameter with a depth of 11 m. – 13 m.

The main quay which is 150 m. wide offers on its Southern side from the shore side 300 m. of jetty with a depth alongside of 2 m. – 4 m., 300 m. with 8 m. and 200 m. with 9 m. to 10.5 m. depth. A standard gauge railway line is installed on the entire length of the quay.

FLOATING CRANE: A floating crane of 100 tons lifting capacity available.

POLLUTION: See "Banias".

MEDICAL: Medical facilities are available, but serious cases may involve transportation to Lattakia or Damascus.

TANKERS: *Operator:* Syrian Crude Oil Transportation Co.

Maximum safe length of tankers acceptable – 280 m.
Maximum safe draft of tankers acceptable – 52 ft.
Maximum deadweight of tankers acceptable – 35,000 – 115,000 tons.

There are 2 berths for loading:

No.	*Max. Rate*	*Sealine*	*Hoses*	*Depth of Water*
1 (North)	4,000 t.p.h.	1×28 in.	2×12 in.	76 ft.
2 (South)	5,000 t.p.h.	1×28 in.	2×12 in.	72 ft.

Loading is by gravity and loading rate depends upon height of tank and level of oil. All strings of hoses are fitted with 12 in. connections.

Notice of Readiness: Notice of Readiness will be accepted when vessel arrives in the very near vicinity of the anchorage area (Position Lat. 34° 56' 42" N., Long. 35° 49' 30" where the Mooring Master, who is Company's representative, will board and receive vessel and remain on board throughout the entire operation.

Pilot Ladder: Combination of accommodation and pilot ladder to be rigged, accommodation ladder to be lowered to within 12 ft. of water. Pilot ladder to be placed abaft and to within 3 ft. of water.

Anchorage: In the event of berth not being available or suspension of mooring operations on arrival a good anchorage is to be used South of the berths in the vicinity of the anchorage area.

Shore Control will keep vessel advised of expected time of berthing, etc.

It is important and in the vessel's interest to maintain a listening watch on Channel 16 or a visual watch on the shore, to avoid delays.

On being advised of expected time "Mooring Master will board", heave short anchor before his arrival.

Moorings:

Forward: Anchors to be fitted with marker buoys with 20 fathom of line. 2×120 fathom mooring lines; 2 rope stoppers; 1 suitable wire stopper (preferably carpenter patent) for use with 4.75 in. – 5.5 in. circ. mooring wires.

Aft: 4×120 fathom mooring lines; 4 rope stoppers; 2 suitable wire stoppers (preferably carpenter patent) for use with 4.75 in. – 5.5. in. circ. mooring wires.

Boat Ropes: To be rigged on either side and of not less than 4.5 in. circ.

Derricks and Cranes: SWL of 7 tons is recommended. it must be capable of plumbing overside abreast of loading manifold.

Loading Manifold: 2 suitable reducers to be fitted prior to arrival on port side and to be connected to the Oil Company's hose connections (12 in. series 150 flanges). The following tools to be available: 2 spanners 0.375 in., 2 spanners 0.875 in., 2 hammers 7 lbs., 1 axe 2.5 lbs.

Hose hang-off bitts are required at about 10 ft. from the ship's rail at the loading manifold to secure submarine hoses on the port side.

Safety of Mooring: On completion of mooring operation vessel must have not less than 7.5 shackles of anchor chain in the water.

Ballast: No dirty ballast.

(a) The Port Authority is most strict and will impose heavy fines for any oil pollution of the sea. In addition they may order vessel out of the berth to sea to clean any such contaminated ballast, and keep it on board vessel in a separate or slop tank. N.O.R. will not be accepted until ballast becomes clean.

(b) Ensure ballast quantity on board is kept to a minimum to safe manoeuvre in the prevailing weather conditions.

(c) Excess ballast causes delay, Tartous is an open roadstead consequently sudden changes in weather can be experienced especially during the Winter months.

(d) Leakage or spillage of oil on board ship must be collected and not be swept or washed overboard.

Ship's Assistance: Ship's crew with an Officer in Charge to assist in all operations as advised by the Mooring Master. This includes lifting, connecting, disconnecting, lowering of hoses and tending anchor cables and moorings.

Deck Watch: A complete watch on deck must be maintained throughout the operation, especially towards the shore Signal Station to ensure safe loading and to avoid delays.

Deck Scuppers Plugs: Ensure scuppers are effectively plugged. On no account should plugs be removed.

Loading Operations: (a) Ship's personnel are solely responsible for the loading operations, ie. starting, loading rate, tank switching, topping off, stopping, etc. The Mooring Master will pass requirements to Shore Control. It is in vessel's interest *to advise loading rate required, also to give 30 minutes' notice of expected time of commencing loading.*

(b) Should vessel require adjustments in the loading rate, please advise the Mooring Master, sufficient notice must be given to enable shore operators to comply. Failure to give proper warning may cause delay or a tank overflow on board.

(c) The Mooring Master will not transmit any loading instructions to the shore until the responsible Ship's Officer has admitted that:

Ship is safely moored.
Hoses are correctly connected.
All valves have been set for receiving cargo.

Order to start will be taken as final.

Vessels in berth: Ships are not allowed to remain in berth for any reason when loading operation is stopped, or disconnect hoses and drop them into the sea unless authorised by Terminal Superintendent.

Lighting: During hours of darkness the manifold, poop, mooring area of sea in vicinity of ship should be adequately lit.

Main Engines: Must be kept on short notice. Repairs which will immobilise them must not be carried out in berth.

Deck Machinery: Must be ready for immediate use at all times.

Whistle or Siren: To be available at all times.

Signalling: An "Aldis" type lamp to be readily available.

Stores, Provisions, etc.: It is strictly forbidden for provisions, stores or other items to be received or discharged whilst loading is in progress, launches or other craft other than Company launches must not lie alongside during the same period.

Tanker Safety Regulations: Must be strictly adhered to at all times. The Mooring Master is authorised to *stop all operations* should he consider that Safety Regulations are not being complied with.

Boarding: The boarding of vessel whilst in mooring should be restricted to persons holding valid passes which are issued by the Terminal Superintendent on application to ship's Agents and authorised Chandlers. This restriction is carried out in conjunction with the Syrian Harbour and Security Authorities.

Vessel not allowed to send any crew or materials outboard for any reason before asking Agents for granting the official authority.

Guests: Masters wishing to receive guests on board should make arrangements through their Agents.

Action in Case of Emergency: In the event of fire, oil spillage or other emergency on the vessel

The Emergency Signal is

3 or more blasts of not less than 10 seconds duration each on whistle or siren supplemented by a continuous ringing of the general alarm bells.

Corridor: The corridor must be followed by vessel to Tartous Terminal:

Corridor Leading to Tartous Terminal

(a)	Lat. 34° 59' 00" N.,	Long. 35° 50' 00" E.
(b)	Lat. 34° 59' 00" N.,	Long. 35° 52' 36" E.
(c)	Lat. 34° 56' 24" N.,	Long. 35° 38' 36" E.
(d)	Lat. 34° 56' 24" N.,	Long. 35° 38' 00" E.
(e)	Lat. 34° 54' 24" N.,	Long. 35° 37' 48" E.
(f)	Lat. 34° 54' 24" N.,	Long. 35° 51' 12" E.

FRESH WATER: Unlimited supplies available to vessels berthed alongside the main pier.

FUEL: Only available in very limited quantities by tanker truck.

SHORE LEAVE: No amenities for the crew exist in the town of Tartous but crew may, if required, proceed ashore with a landing permit issued by the local security services.

WEATHER: See "Banias".

DEVELOPMENTS: A new quay for phosphate is now under construction 300 m. long and 4 m. depth and will be prolonged by a quay of 250 m. length and 11 m. depth for vessels loading phosphate up to 35,000 tons capacity. One shiploader, rate 1,000 t.p.h.

A dry dock will soon be under construction for repairing vessels and tankers with a capacity varying between 40,000 tons and 60,000 tons. Also 2 slip-ways for general overhaul for small vessels of 1,000 tons and less.

SHIPMASTER'S REPORT: September 1979

Time Zone: GMT plus 2 hours.

Papers Required:

1 Health Declaration.
8 Crew Lists.
General Information Sheet (Ship's details)
Provisions List.
1 Bonded Stores List.
1 Crew Effects List.
1 Firearm & Ammunition Declaration (Letter even if none).

Radio: Certain regulations are in force when approaching Tartous. When 50 miles off the coast, the following should be sent through Lattakia Radio to Tartous Harbour Master.

1. Name of ship.
2. Nationality.
3. Type of Vessel.
4. Position and time.
5. Maritime Passage to port of call.
6. Speed.

From experience it was found that Lattakia Radio did not answer until 0630 hrs. Local Time.

Approaches: Approach to Tartous should be made along the Maritime Passage between the parallels of 34° 54' 24" N. and 34° 56' 24" N. on a course of 090° from 12 miles off.

Pilotage: Pilots commence work between 0530 hrs. and 0600 hrs. and can be called on VHF Channel 16. The Pilot Station will require draft, length, and type and tonnage of the cargo. The latter being important as vessels with less than 300 tons have priority, as do container vessels and Ro/Ro ferries.

It is most probable that it will be necessary to anchor off because of congestion. Vessel was anchored in a position with the end of the main breakwater bearing 110° True, distance 1.35 miles in a depth of 15 fathoms. Holding ground is reputed to be good.

Clearance: Vessels will normally be cleared on arrival at the anchorage if arriving in the morning or before 1400 hrs. If not, then Notice of Readiness can be sent via Tartous Radio.

Registration: It is possible to proceed to Tartous, register a turn for berthing and then proceed to another port.

When waiting for a berth, provision should be made for a delay of about two weeks.

Fresh Water: Requests for fresh water should be made in good time. At time of writing, there is only one meter in the port, though all the berths have water laid on, so vessels have to take it in turn. Applications should be made through the Agent for water. Vessels at anchor are brought in and tie up stern to the N.W. corner of the Southern pier, the water hose then being passed over the stern, ship's hoses will be required. Pressure is good, water being supplied at about 15 to 20 tonnes/p.h. As supply of water cannot be guaranteed when a request is made, water stocks should be conserved.

Berthing: Berths are available on both sides of the Southern pier and at the end, though this area is reserved for the Ro/Ro ferries and small craft. Further berths are at the breakwater with the vessels tying up in a "Mediterranean Moor", i.e., stern to.

General: The Government Agency, Shipping Agencies Co., can be reached on Channel 16 or through Tartous Radio, their telephone numbers being 21541 & 20940.

Information regarding berthing is given by the Pilot Station on Channel 16, possibly in the evening before berthing, or in the morning an hour before berthing. Standard procedure is to weigh anchor and proceed slowly towards the four buoys marking the entrance channel. The Pilot may request that you enter the port slowly and he will board inside the breakwater. There is no difficulty in this, but it should be noted that there is a noticeable current flowing Northwards even though there is no wind.

In the Summer months, there is a seasonal low over the mainland of Syria which gives rise to a prevailing Southwesterly air stream, more noticeable in the afternoons with the advent of the sea breezes. Periods of calm are also experienced and winds from other directions but not of any great force. In the Winter months gales are experienced.

A launch service is available for vessels at anchor and at the breakwater berths, this can be arranged through the Agents. Four tugs are available, two large and two small, one of the latter doubling as the pilot launch, identifiable by the pilot flag.

Cranes are available on both sides of the pier except where the silo is under construction. A phosphate berth is situated at the South side of the harbour, there being silos for this berth, at present it is fed by road transport from the mines inland. However, it is understood that a railway is being constructed for this. Another pier (mole) is being constructed between the existing Southern Pier and the Naval Pier in the North of the harbour. Fresh vegetables are available in season.

AUTHORITY: Harbour Master, Tartous, Tartous Port Administration, *Telex:* 20562.

Oil Terminal: Syrian Crude Oil Transportation Company, P.O.Box 52, Tartous, Syrian Arab Republic. *Tel:* 315841, 316843. *Telex:* 470002 SY. *Cables:* Petsyria - Tartous. *FAX:* 222840. *Contact:* Taher Khalil, Terminal Superintendent.

NOTES

Please also advise Shipping Guides Ltd.

Taiwan

GENERAL:

RESTRICTIONS: The Taiwan Authorities have the following countries on their blacklist: Cambodia, The People's Republic of China, Albania, Romania, Cuba, Vietnam and Russia. They have decided that ships are not allowed to call at a port in Taiwan immediately before or after a call in these countries, and that ships belonging to, managed by, or operated by companies in breach of these rules are not allowed to call at ports in Taiwan.

ENTRY PERMIT: Vessels flying the flags of nations not having diplomatic relations with the Republic of China (Taiwan) must obtain an Entry Permit before arrival. To enable Agents to apply for an Entry Permit, the following documents must be supplied prior to vessel's arrival:

1 photograph, 6 in. × 8 in., shipside view, clearly showing the vessel's name, 1 copy of the vessel's Certificate of Registry. (In the case of a Danish, Norwegian or Swedish vessel, a copy of the International Tonnage Certificate will serve this purpose).

The following ships do not require an entry permit:

(a) those flying the flag of Japan, Liberia, the Philippines or the U.S.A.
(b) those flying the flag of any country having diplomatic relations with the Republic of China (Taiwan).

Vessels arriving at Taiwan ports to carry out cargo discharging and/or loading operations must be registered with the Harbour Authorities, and the following documents are required.

Discharging: A letter of appointment from the vessel's Registered Owners (not Managers, Operators, Agents, or Disponent Owners) to the vessel's Taiwan Agents. If the agency appointment is made by a Charterer, then a copy of the Charter Party (and Time Charter Party if relevant) will be required. If the Charter Party is signed on behalf of Owners, then a copy of the authority from the Owners to the signatory will be needed. In all events, documents clearly showing the line of authority from Registered Owner to Agency Appointed must be produced.

Loading: As for discharging, together with a copy of the Export Permit issued by the Board of Foreign Trade.

When a vessel is loading export cargo where freight is paid in Taiwan, a detailed Freight List and a deposit or a bank guarantee covering the total freight must be lodged with the Harbour Bureau. The deposit, or guarantee, is returnable after the cargo reaches its destination.

HUALIEN: 23.59 N. 121.38 E. (See Plan)

PORT LIMITS:

(A) Lat. 23° 56' 28" N., Long. 121° 36' 13" E.
(B) Lat. 23° 56' 29" N., Long. 121° 36' 48" E.
(C) Lat. 24° 00' 20" N., Long. 121° 38' 45" E.
(D) Lat. 24° 00' 47" N., Long. 121° 38' 18.1" E.

DOCUMENTS:

Ship's Register.
Derat Certificate.
Last Port Clearance.
Aids to Navigation Charges Memo.
Pratique.
8 copies Crew List.
1 copy Crew List visaed by office of China Mission (applicable to American vessels).
8 copies Passenger List – landing and transit.
1 List showing dates of vaccination of all crew and any landing passengers from infected areas.
1 Chinese Maritime Customs Stores List.
1 copy Crews Personel Effects List.
1 List Foreign Currency in Safe.
1 List Narcotics in Safe.
2 Lists Arms and Ammunition.
1 Set of copy Bills of Lading.
3 Manifests of Inward Cargo.
3 Manifests of Through Cargo.
3 Lists of Unmanifested Inward Parcels.
3 Lists of Mail for Landing.
Vessel's Log Book.

APPROACHES: Vessels should approach on a course of not less than 280°(T). There is extensive construction work taking place on both the Eastern and Western breakwaters with caissons anchored in the channel.

The inner channel is very narrow (80 m.) and care should be taken when adjusting course, when approaching and passing Berth No. 1.

PILOTAGE: Compulsory. Pilot boards at quarantine anchorage. At anchorage hoist 'G' flag.

ANCHORAGE: *Quarantine Anchorage:*

Positions:

	Lat.	Long.
(A)	Lat. 23° 57' 25.5" N.,	Long. 121° 36' 15.5" E.
(B)	Lat. 23° 57' 18" N.	Long. 121° 36' 33.5" E.
(C)	Lat. 23° 57' 53.3" N.	Long. 121° 36' 52.5" E.
(D)	Lat. 23° 58' 01" N.	Long. 121° 36' 34.1" E.

RESTRICTIONS: Hualien Harbour closed to all ships at 0000 hrs. until 0500 hrs. Large ships not allowed to enter after sunset.

MAX. SIZE: Draft not exceeding 14.0 m. may enter Hualien Harbour at present time.

HEALTH: At anchorage hoist 'Q' flag. If the vessel receiving a notice of Radio Pratique can take up a berth; it need not hoist "Q" flag.

RADIO: Hualien Radio XSY; ETA reported at least 24 hours before arrival.

TUGS: Normally used in harbour. Ship's lines should be used. 4 tugs, 1×2,400 h.p., 1×1,600 h.p. and 2×3,200 h.p.

BERTHING: *Deep Water Wharf:* 2,887 m. (25 berths) capable of berthing 2 – 3×6,000, 3 – 4×7,000, 4 – 5×1,000 and 3 – 4×15,000, 2×30,000 and 7×60,000 ton vessels at the same time.

Berth No.	*Length* (m.)	*Max. Draft* (m.)	*Remarks*
1	123	7.5	General Cargo
2	153	7.5	General Cargo
3	134	7.5	General Cargo
4	160	9.5	Sugar
5	160	9.5	Gravel
6	160	8.5	General Cargo
7	120	6.5	Gravel
8	220	10.0	Gravel
9	103	9.5	—
10	183	9.5	Cement Clinker
11	185	9.5	Minerals
12	150	7.5	Construction Ship use
13	185	9.5	Logs and Woodchips
14	185	9.5	Logs and Woodchips
15	100	9.5	Logs and Woodchips
16	144	7.5	Not in use at present
17	200	10.5	Open yard
18	200	10.5	Open yard
19	300	14.0	Cement
20	300	14.0	General Cargo
21	200	14.0	General Cargo
22	210	14.0	General Cargo
23	270	14.0	General Cargo
24	270	14.0	General Cargo
25	330	14.0	General Cargo

CRANES: Mobile cranes: 1×45 tons, 2×25 tons and 1×2 tons. There are 25 forklift trucks (with 2 tons – 20 tons lifting capacity) and 10 mini-tractors.

BULK CARGO FACILITIES: At Berths No. 5, 7 and 8 there is a conveyor system for loading gravel. At Berth No. 10 two cement silos (12,000 tons) with a conveyor system owned by Asia Cement Co., for loading bulk cement and Kiln Fresh Cement Clinker. At Berth No. 11 there is a conveyor system owned by China Steel Corp. for loading dolomite and crystalline limestone.

There are 21 single rope hook-on type grabs; 4 grabs at Berth No. 15 owned by Chung Hwa Pulp and Paper Corp. for discharging woodchips into trucks, 7 grabs at Berth No. 18 owned by Asia Cement Co., for discharging coal and 22 grabs belonging to Hualien Harbour Bureau for discharging gypsum, coal, metal and ores, etc. into trucks.

SPECIAL CARGO FACILITIES: There are 6 godowns on the Western wharves with a total capacity of over 40,000 tons.

There are 4 hoppers at Berths No. 13 and 14, owned by Chang Hwa Pulp and Paper Corp., for discharging woodchips into rail wagons or trucks.

STEVEDORES: Stevedores will be assessed against ships except when otherwise agreed between ships and consignees or shippers.

Advise ETA before 0800 hrs. in order to arrange gangs for 1800 hrs. same day.

Port Performance:

Daytime Work: 0800 – 1700 hrs. (0800 – 1730 hrs. in Summer).
Night Work: After completion of 8 hours daytime work till 24 hours.
Morning Work: 0600 – 0800 hrs.
General Cargo: 200-250 tons per day with only 1 gang.

Bulk: Cement loader at Berth No. 10 can load 600 t.p.h. Dolomite elevator at Berth No. 11 can load 1,200 – 1,500 t.p.h. Gravel elevators at Berth Nos. 5, 7 and 8 can load 500 t.p.h. each. Coal, ores, gypsum etc. grab buckets can unload 80 t.p.h. with only 1 gang.

MEDICAL: Hospitalisation can be arranged through Agent.

FRESH WATER: Fresh water available at all berths. Water supply will be assessed against ships and ordered through Agent. Rate 30 t.p.h.

FUEL: 6 grades obtainable from Chinese Petroleum Corporation:

1. Marine Gas Oil: SUS at 100°F, max. 38.
2. Marine Diesel Oil: SUS at 100°F, 35 – 45.
3. MF-80 (MD-600) C.S. at 122°F, max. 80 (RD No. 1, 100°F, max. 600).
4. MF-280 (MD-2700) C.S. at 122°F, max. 280 (RD No. 1, 100°F, max. 2700).
5. MF-380 (MD-4000) C.S. at 122°F, max. 380 (RD No. 1, 100°F, max. 4000).
6. Bunker C: SFS at 122°F, max. 200, C.S. at 122°F, max. 400.

Fuel line 6 in. connection, no barge available, notify in advance.

REPAIRS: Only minor repairs can be attended to in Hualien. For other repairs the nearest facilities are at Keelung or Kaohsiung.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CERTIFICATES:

Ship's Nationality Certificate.
Passenger ship Safety Certificates.
Cargo ship Safety Construction Certificates.
Cargo ship Safety Equipment Certificates.
Cargo ship Safety Radiotelegraphy (Radiotelephony) Certificates.
International Load Line Certificate.
International Oil Pollution Prevention Certificate.
International Sewage Pollution Prevention Certificate (1973).

CARGO GEAR: Loading/unloading normally effected by ship's gear.

AIRPORT: Domestic airport (10 km.) with connection to Taipei and Kaohsiung Airport.

TIME: GMT plus 8 hours.

POLICE/AMBULANCE/FIRE: Police, Tel: 223419. Ambulance, Tel: 223419. Fire, Tel: 223419. Emergency, Tel: 119 or 223419.

SHORE LEAVE: Crew members are allowed ashore only in the city of Hualien, from 0600 hrs. till 2400 hrs. Before going ashore each crew member must apply for shore pass at the Immigration Office.

IDENTIFICATION CARDS: Passport or Seaman's Book required.

Tanker Safety Regulations: Must be strictly adhered to at all times. The Mooring Master is authorised to *stop all operations* should he consider that Safety Regulations are not being complied with.

Boarding: The boarding of vessel whilst in mooring should be restricted to persons holding valid passes which are issued by the Terminal Superintendent on application to ship's Agents and authorised Chandlers. This restriction is carried out in conjunction with the Syrian Harbour and Security Authorities.

Vessel not allowed to send any crew or materials outboard for any reason before asking Agents for granting the official authority.

Guests: Masters wishing to receive guests on board should make arrangements through their Agents.

Action in Case of Emergency: In the event of fire, oil spillage or other emergency on the vessel

The Emergency Signal is

3 or more blasts of not less than 10 seconds duration each on whistle or siren supplemented by a continuous ringing of the general alarm bells.

Corridor: The corridor must be followed by vessel to Tartous Terminal:

Corridor Leading to Tartous Terminal

(a) Lat. 34° 59' 00" N., Long. 35° 50' 00" E.
(b) Lat. 34° 59' 00" N., Long. 35° 52' 36" E.
(c) Lat. 34° 56' 24" N., Long. 35° 38' 36" E.
(d) Lat. 34° 56' 24" N., Long. 35° 38' 00" E.
(e) Lat. 34° 54' 24" N., Long. 35° 37' 48" E.
(f) Lat. 34° 54' 24" N., Long. 35° 51' 12" E.

FRESH WATER: Unlimited supplies available to vessels berthed alongside the main pier.

FUEL: Only available in very limited quantities by tanker truck.

SHORE LEAVE: No amenities for the crew exist in the town of Tartous but crew may, if required, proceed ashore with a landing permit issued by the local security services.

WEATHER: See "Banias".

DEVELOPMENTS: A new quay for phosphate is now under construction 300 m. long and 4 m. depth and will be prolonged by a quay of 250 m. length and 11 m. depth for vessels loading phosphate up to 35,000 tons capacity. One shiploader, rate 1,000 t.p.h.

A dry dock will soon be under construction for repairing vessels and tankers with a capacity varying between 40,000 tons and 60,000 tons. Also 2 slip-ways for general overhaul for small vessels of 1,000 tons and less.

SHIPMASTER'S REPORT: September 1979

Time Zone: GMT plus 2 hours.

Papers Required:

1 Health Declaration.
8 Crew Lists.
1 General Information Sheet (Ship's details)
1 Provisions List.
1 Bonded Stores List.
1 Crew Effects List.
1 Firearm & Ammunition Declaration (Letter even if none).

Radio: Certain regulations are in force when approaching Tartous. When 50 miles off the coast, the following should be sent through Lattakia Radio to Tartous Harbour Master.

1. Name of ship.
2. Nationality.
3. Type of Vessel.
4. Position and time.
5. Maritime Passage to port of call.
6. Speed.

From experience it was found that Lattakia Radio did not answer until 0630 hrs. Local Time.

Approaches: Approach to Tartous should be made along the Maritime Passage between the parallels of 34° 54' 24" N. and 34° 56' 24" N. on a course of 090° from 12 miles off.

Pilotage: Pilots commence work between 0530 hrs. and 0600 hrs. and can be called on VHF Channel 16. The Pilot Station will require draft, length, and type and tonnage of the cargo. The latter being important as vessels with less than 300 tons have priority, as do container vessels and Ro/Ro ferries.

It is most probable that it will be necessary to anchor off because of congestion. Vessel was anchored in a position with the end of the main breakwater bearing 110° True, distance 1.35 miles in a depth of 15 fathoms. Holding ground is reputed to be good.

Clearance: Vessels will normally be cleared on arrival at the anchorage if arriving in the morning or before 1400 hrs. If not, then Notice of Readiness can be sent via Tartous Radio.

Registration: It is possible to proceed to Tartous, register a turn for berthing and then proceed to another port.

When waiting for a berth, provision should be made for a delay of about two weeks.

Fresh Water: Requests for fresh water should be made in good time. At time of writing, there is only one meter in the port, though all the berths have water laid on, so vessels have to take it in turn. Applications should be made through the Agent for water. Vessels at anchor are brought in and tie up stern to the N.W. corner of the Southern pier, the water hose then being passed over the stern, ship's hoses will be required. Pressure is good, water being supplied at about 15 to 20 tonnes/p.h. As supply of water cannot be guaranteed when a request is made, water stocks should be conserved.

Berthing: Berths are available on both sides of the Southern pier and at the end, though this area is reserved for the Ro/Ro ferries and small craft. Further berths are at the breakwater with the vessels tying up in a "Mediterranean Moor", i.e., stern to.

General: The Government Agency, Shipping Agencies Co., can be reached on Channel 16 or through Tartous Radio, their telephone numbers being 21541 & 20940.

Information regarding berthing is given by the Pilot Station on Channel 16, possibly in the evening before berthing, or in the morning an hour before berthing. Standard procedure is to weigh anchor and proceed slowly towards the four buoys marking the entrance channel. The Pilot may request that you enter the port slowly and he will board inside the breakwater. There is no difficulty in this, but it should be noted that there is a noticeable current flowing Northwards even though there is no wind.

In the Summer months, there is a seasonal low over the mainland of Syria which gives rise to a prevailing Southwesterly air stream, more noticeable in the afternoons with the advent of the sea breezes. Periods of calm are also experienced and winds from other directions but not of any great force. In the Winter months gales are experienced.

A launch service is available for vessels at anchor and at the breakwater berths, this can be arranged through the Agents. Four tugs are available, two large and two small, one of the latter doubling as the pilot launch, identifiable by the pilot flag.

Cranes are available on both sides of the pier except where the silo is under construction. A phosphate berth is situated at the South side of the harbour, there being silos for this berth, at present it is fed by road transport from the mines inland. However, it is understood that a railway is being constructed for this. Another pier (mole) is being constructed between the existing Southern Pier and the Naval Pier in the North of the harbour. Fresh vegetables are available in season.

AUTHORITY: Harbour Master, Tartous, Tartous Port Administration.
Telex: 20562.
Oil Terminal: Syrian Crude Oil Transportation Company, P.O.Box 52, Tartous, Syrian Arab Republic. *Tel:* 315841, 316843. *Telex:* 470002 SY. *Cables:* Petsyria - Tartous. *FAX:* 222840. *Contact:* Taher Khalil, Terminal Superintendent.

NOTES

Please also advise Shipping Guides Ltd.

Taiwan

GENERAL:

RESTRICTIONS: The Taiwan Authorities have the following countries on their blacklist: Cambodia, The People's Republic of China, Albania, Romania, Cuba, Vietnam and Russia. They have decided that ships are not allowed to call at a port in Taiwan immediately before or after a call in these countries, and that ships belonging to, managed by, or operated by companies in breach of these rules are not allowed to call at ports in Taiwan.

ENTRY PERMIT: Vessels flying the flags of nations not having diplomatic relations with the Republic of China (Taiwan) must obtain an Entry Permit before arrival. To enable Agents to apply for an Entry Permit, the following documents must be supplied prior to vessel's arrival:

1 photograph, 6 in. × 8 in., shipside view, clearly showing the vessel's name, 1 copy of the vessel's Certificate of Registry. (In the case of a Danish, Norwegian or Swedish vessel, a copy of the International Tonnage Certificate will serve this purpose).

The following ships do not require an entry permit:

(a) those flying the flag of Japan, Liberia, the Philippines or the U.S.A.
(b) those flying the flag of any country having diplomatic relations with the Republic of China (Taiwan).

Vessels arriving at Taiwan ports to carry out cargo discharging and/or loading operations must be registered with the Harbour Authorities, and the following documents are required.

Discharging: A letter of appointment from the vessel's Registered Owners (not Managers, Operators, Agents, or Disponent Owners) to the vessel's Taiwan Agents. If the agency appointment is made by a Charterer, then a copy of the Charter Party (and Time Charter Party if relevant) will be required. If the Charter Party is signed on behalf of Owners, then a copy of the authority from the Owners to the signatory will be needed. In all events, documents clearly showing the line of authority from Registered Owner to Agency Appointed must be produced.

Loading: As for discharging, together with a copy of the Export Permit issued by the Board of Foreign Trade.

When a vessel is loading export cargo where freight is paid in Taiwan, a detailed Freight List and a deposit or a bank guarantee covering the total freight must be lodged with the Harbour Bureau. The deposit, or guarantee, is returnable after the cargo reaches its destination.

HUALIEN: 23.59 N. 121.38 E. (See Plan)

PORT LIMITS:

(A) Lat. 23° 56' 28" N., Long. 121° 36' 13" E.
(B) Lat. 23° 56' 29" N., Long. 121° 36' 48" E.
(C) Lat. 24° 00' 20" N., Long. 121° 38' 45" E.
(D) Lat. 24° 00' 47" N., Long. 121° 38' 18.1" E.

DOCUMENTS:

Ship's Register.
Derat Certificate.
Last Port Clearance.
Aids to Navigation Charges Memo.
Pratique.
8 copies Crew List.
1 copy Crew List visaed by office of China Mission (applicable to American vessels).
8 copies Passenger List – landing and transit.
1 List showing dates of vaccination of all crew and any landing passengers from infected areas.
1 Chinese Maritime Customs Stores List.
1 copy Crews Personel Effects List.
1 List Foreign Currency in Safe.
1 List Narcotics in Safe.
2 Lists Arms and Ammunition.
1 Set of copy Bills of Lading.
3 Manifests of Inward Cargo.
3 Manifests of Through Cargo.
3 Lists of Unmanifested Inward Parcels.
3 Lists of Mail for Landing.
Vessel's Log Book.

APPROACHES: Vessels should approach on a course of not less than 280°(T). There is extensive construction work taking place on both the Eastern and Western breakwaters with caissons anchored in the channel.

The inner channel is very narrow (80 m.) and care should be taken when adjusting course, when approaching and passing Berth No. 1.

PILOTAGE: Compulsory. Pilot boards at quarantine anchorage. At anchorage hoist 'G' flag.

ANCHORAGE: *Quarantine Anchorage:*

Positions:		
	(A) Lat. 23° 57' 25.5" N.,	Long. 121° 36' 15.5" E.
	(B) Lat. 23° 57' 18" N.	Long. 121° 36' 33.5" E.
	(C) Lat. 23° 57' 53.3" N.	Long. 121° 36' 52.5" E.
	(D) Lat. 23° 58' 01" N.	Long. 121° 36' 34.1" E.

RESTRICTIONS: Hualien Harbour closed to all ships at 0000 hrs. until 0500 hrs. Large ships not allowed to enter after sunset.

MAX. SIZE: Draft not exceeding 14.0 m. may enter Hualien Harbour at present time.

HEALTH: At anchorage hoist 'Q' flag. If the vessel receiving a notice of Radio Pratique can take up a berth; it need not hoist "Q" flag.

RADIO: Hualien Radio XSY; ETA reported at least 24 hours before arrival.

TUGS: Normally used in harbour. Ship's lines should be used. 4 tugs, 1×2,400 h.p., 1×1,600 h.p. and 2×3,200 h.p.

BERTHING: *Deep Water Wharf:* 2,887 m. (25 berths) capable of berthing 2 – 3×6,000, 3 – 4×7,000, 4 – 5×1,000 and 3 – 4×15,000, 2×30,000 and 7×60,000 ton vessels at the same time.

Berth No.	*Length* (m.)	*Max. Draft* (m.)	*Remarks*
1	123	7.5	General Cargo
2	153	7.5	General Cargo
3	134	7.5	General Cargo
4	160	9.5	Sugar
5	160	9.5	Gravel
6	160	8.5	General Cargo
7	120	6.5	Gravel
8	220	10.0	Gravel
9	103	9.5	—
10	183	9.5	Cement Clinker
11	185	9.5	Minerals
12	150	7.5	Construction Ship use
13	185	9.5	Logs and Woodchips
14	185	9.5	Logs and Woodchips
15	100	9.5	Logs and Woodchips
16	144	7.5	Not in use at present
17	200	10.5	Open yard
18	200	10.5	Open yard
19	300	14.0	Cement
20	300	14.0	General Cargo
21	200	14.0	General Cargo
22	210	14.0	General Cargo
23	270	14.0	General Cargo
24	270	14.0	General Cargo
25	330	14.0	General Cargo

CRANES: Mobile cranes: 1×45 tons, 2×25 tons and 1×2 tons. There are 25 forklift trucks (with 2 tons – 20 tons lifting capacity) and 10 mini-tractors.

BULK CARGO FACILITIES: At Berths No. 5, 7 and 8 there is a conveyor system for loading gravel. At Berth No. 10 two cement silos (12,000 tons) with a conveyor system owned by Asia Cement Co., for loading bulk cement and Kiln Fresh Cement Clinker. At Berth No. 11 there is a conveyor system owned by China Steel Corp. for loading dolomite and crystalline limestone.

There are 21 single rope hook-on type grabs; 4 grabs at Berth No. 15 owned by Chung Hwa Pulp and Paper Corp. for discharging woodchips into trucks, 7 grabs at Berth No. 18 owned by Asia Cement Co., for discharging coal and 22 grabs belonging to Hualien Harbour Bureau for discharging gypsum, coal, metal and ores, etc. into trucks.

SPECIAL CARGO FACILITIES: There are 6 godowns on the Western wharves with a total capacity of over 40,000 tons.

There are 4 hoppers at Berths No. 13 and 14, owned by Chang Hwa Pulp and Paper Corp., for discharging woodchips into rail wagons or trucks.

STEVEDORES: Stevedores will be assessed against ships except when otherwise agreed between ships and consignees or shippers.

Advise ETA before 0800 hrs. in order to arrange gangs for 1800 hrs. same day.

Port Performance:

Daytime Work: 0800 – 1700 hrs. (0800 – 1730 hrs. in Summer).
Night Work: After completion of 8 hours daytime work till 24 hours.
Morning Work: 0600 – 0800 hrs.
General Cargo: 200-250 tons per day with only 1 gang.

Bulk: Cement loader at Berth No. 10 can load 600 t.p.h. Dolomite elevator at Berth No. 11 can load 1,200 – 1,500 t.p.h. Gravel elevators at Berth Nos. 5, 7 and 8 can load 500 t.p.h. each. Coal, ores, gypsum etc. grab buckets can unload 80 t.p.h. with only 1 gang.

MEDICAL: Hospitalisation can be arranged through Agent.

FRESH WATER: Fresh water available at all berths. Water supply will be assessed against ships and ordered through Agent. Rate 30 t.p.h.

FUEL: 6 grades obtainable from Chinese Petroleum Corporation:

1. Marine Gas Oil: SUS at 100°F, max. 38.
2. Marine Diesel Oil: SUS at 100°F, 35 – 45.
3. MF-80 (MD-600) C.S. at 122°F, max. 80 (RD No. 1, 100°F, max. 600).
4. MF-280 (MD-2700) C.S. at 122°F, max. 280 (RD No. 1, 100°F, max. 2700).
5. MF-380 (MD-4000) C.S. at 122°F, max. 380 (RD No. 1, 100°F, max. 4000).
6. Bunker C: SFS at 122°F, max. 200, C.S. at 122°F, max. 400.

Fuel line 6 in. connection, no barge available, notify in advance.

REPAIRS: Only minor repairs can be attended to in Hualien. For other repairs the nearest facilities are at Keelung or Kaohsiung.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CERTIFICATES:

Ship's Nationality Certificate.
Passenger ship Safety Certificates.
Cargo ship Safety Construction Certificates.
Cargo ship Safety Equipment Certificates.
Cargo ship Safety Radiotelegraphy (Radiotelephony) Certificates.
International Load Line Certificate.
International Oil Pollution Prevention Certificate.
International Sewage Pollution Prevention Certificate (1973).

CARGO GEAR: Loading/unloading normally effected by ship's gear.

AIRPORT: Domestic airport (10 km.) with connection to Taipei and Kaohsiung Airport.

TIME: GMT plus 8 hours.

POLICE/AMBULANCE/FIRE: Police, Tel: 223419. Ambulance, Tel: 223419. Fire, Tel: 223419. Emergency, Tel: 119 or 223419.

SHORE LEAVE: Crew members are allowed ashore only in the city of Hualien, from 0600 hrs. till 2400 hrs. Before going ashore each crew member must apply for shore pass at the Immigration Office.

IDENTIFICATION CARDS: Passport or Seaman's Book required.

GARBAGE DISPOSAL: Garbage collection service is available. This service is provided by the Port Authority. The garbage truck goes around the wharves at 0900 hrs. to collect garbage. Charges per day as follows:

Classification	*Daily Rates (NT$)*
Ships less than 5,000 G/T	197
Ships of 5,000 G/T or more but less than 15,000 G/T	375
Ships of 15,000 G/T or more	552

50% discount for ships below 500 G/T. 100% surcharge for international passenger or tourist ships. 90% discount for yachts. 30% additional charge on national or legal holidays and Sundays. Carriers shall self-dispose of waste from their holds.

WASTE OIL DISPOSAL: Not available at present.

SEAMAN'S CLUBS: Hualien Harbour Seamen's Club, Tel: 224633/223171. Facilities include postage and telephone service, food and beverages, foreign exchange, tourist information and recreation room. Open Monday to Saturday 0900 – 1200 hrs. and 1300 – 1800 hrs.

CURRENCY: New Taiwan Dollars (NT$).

AUTHORITY: Hualien Harbour Bureau, No. 66 Hai Ann Road, Hualien, Taiwan, Republic of China. *Tel:* 038-325131. *Telex:* 3609. *FAX:* 038-333757. *Contact:* Te-An Han, Director.

AGENT: Sub-Agent controlled by: Jardine, Matheson & Co. Ltd., 13/14th Floor, 50 Hsin Shen South Road, Section 1, (P.O.Box 81), Taipei. Tel: 886-2-3931177. Telex: 11391 Jardines. Cable: Jardines. Fax: 886–2-3413168, 3920435.

Associated with Jardine Shipping Agencies.

KAOHSIUNG: 22.37 N. 120.16 E. (See Plan)

PORT LIMITS: Ship considered to be an "arrived vessel" when anchored at either of following locations:

1. Northern Anchorage: Within 2 miles radius off Kaohsiung Lighthouse (Lat. 22° 37' 01" N., Long. 120° 15' 25" E.) forming a sector between Southern side of outer harbour channel toward shore line Southward.
2. Southern Anchorage: Within a radius of 2.5 miles from the signal station of the second harbour entrance (Lat. 22° 33' 21" N., Long. 120° 18' 28" E.) forming a sector between Northern side of outer harbour channel toward shore line Northward.
3. For VLCC to discharge at 2 Monobuoys: SBM No. 1 position Lat. 22° 30' 29" N., Long. 120° 17' 49" E. SBM No. 2 position Lat. 22° 29' 45" N., Long. 120° 16' 41" E. Tankers are to anchor 1.5 miles West of the No. 2 SBM as directed by Agents.

DOCUMENTS:

10 copies Crew List.
1 copy Crew Effects Declaration (include cameras, radio, etc.).
1 copy Passenger List.
1 copy Stores List (including provisions, engine, deck and bonded stores).
1 copy *Arms and Ammunition List.
1 copy *Foreign Currency List (Ship's Money List and Private Currency List).
1 copy *Narcotics List.
2 copies Import Cargo Manifest.
1 copy Through Cargo Manifest.
1 copy List of Ports of Call.
1 copy Mail List.
1 copy †Parcels List (parcels to be landed).
1 copy †Parcels List (through parcels).
1 copy Specimen signature of Master, Chief Engineer and Chief Officer.

* These items are to be sealed upon arrival.

† Articles on these 2 lists may be sealed upon arrival as warranted by conditions.

Also see "Certificates".

Advise agent by telex prior to arrival full crew list, giving name, nationality, date of birth, Discharge Book number and Passport number.

APPROACHES: The First Harbour Entrance is dredged to 11 m. MLWS. The Second Harbour Entrance, dredged to 16 m., can accommodate vessels up to 100,000 d.w.t.

PILOTAGE: Compulsory. Agents will arrange for Pilot to board vessel at anchorage outside breakwater. Pilot boat flies code flag "H".

Container ships over 15,000 g.r.t. and other freighters or tankers over 15,000 g.r.t and 200 m. LOA must take 2 Pilots at double pilotage.

ANCHORAGES: To avoid being charged double pilotage fees, arriving vessels should anchor within a 2 miles radius of Chihoushan Lighthouse (Lat. 22° 38' N., Long. 120° 15.4' E.) unless instructed to wait off the Second Harbour Entrance, in which case they should anchor within a 2.5 mile radius of the Second Harbour Entrance Signal Station (Lat. 22° 33.4' N., Long. 120° 18.4' E.). The holding ground at both anchorages is good, and they are sheltered from the worst of the N.E. monsoon winds in Winter. Vessels may have to vacate the anchorages and proceed to sea should a typhoon approach.

Tankers arriving at the SBM terminals should anchor 1.5 miles West of the Buoy No. 2 to await arrival clearance, quarantine, Immigration, Agent and Cargo Supervisor who will board by Agent's launch. CPC Pilot, Loading Master and Watchmen will board by CPC tug. After discharge, the vessel should proceed to the Northern Anchorage to await clearance for sailing.

Also see "Port Limits".

RESTRICTIONS: Container ships can enter and sail 24 hours a day. Other vessels up to midnight only. Vessels with max. draft 34 ft. if not through the Second Harbour Entrance, must await high water to enter via the First Harbour Entrance.

MAX. SIZE: Length and breadth no restriction (largest container shi entered: 950 ft. LOA and 106 ft. beam). Max. draft inner harbour 52 f during high tide. Tankers with draft over 50 ft. (2 ft. keel clearanc discharge at Monobuoy outside.

HEALTH: Free Pratique granted at anchorage after Master completes Quarantine Declaration Form furnished by quarantine doctors. Radio Pratique available (See "Keelung"). No quarantine necessary if second port in Taiwan.

Shipmaster's Report: Master visited the port in 1976 and Cholera Certificates were not requested for inspection.

RADIO/VHF: Kaohsiung Radio (XSW). Normally used by Agents whe cabling vessels. Contact with the Agent and Port Authorities may be made via Kaohsiung Port Radio on VHF Channel 16. Call Port Radio on Channels 16/14, 1 hour before arrival to report ETA at Kaohsiung Roads.

Also see "Documents".

TUGS: Harbour tugs usually join vessel after entry and while berthing Ship's lines always used. 28 tugs, 300 h.p. – 3,300 h.p. available.

BERTHING: No specific requirement except bulk-carriers and tankers with max. draft of 34 ft. via the First Harbour Entrance, must berth during high tide.

Berth No.	**Length (m.)*	*Depth (m.)*	*Remarks*
1	259	9	Passenger vessels.
2	137	9	General cargo.
4 – 7	150*4	9	General cargo.
8	150	10.5	General cargo.
9	142	10.5	General cargo.
10	150	10.5	General cargo.
11 – 12	161*2	9	General cargo.
14	150	9	Asian Cement Corp.
15	150	9	Ship repair berth for coastal vessel and for general cargo.
16	180	9	General cargo.
17	150	9	Taiwan Cement Corp.
18	150	9	China Petroleum Corp.
19 – 20	151*2	9	China Petroleum Corp.
25	250	10.5	Taiwan Fertiliser Corp.
27	222	10	China General Plastics Corp.
28	236	10.5	Formosa Plastics Corp.
29	150	10.5	Formosa Plastics Corp.
30	294	10.5	Barges and general cargo.
31	196	10.5	Bananas and general cargo.
32 – 34	200*3	10.5	General and bulk cargo.
35	215	10.5	General cargo.
36	199	10.5	General cargo.
37	199	10.5	General cargo.
38	198	10.5	General cargo.
39	199	10.5	General cargo.
40 – 43	848+	10.5	Container Terminal No. 1.
44	199	10.5	Grain silo.
45	200	10.5	Bulk cargo.
46 – 47	200*2	11	Taiwan Sugar Corp. loading berths.
48	260	10.5	Bulk cargo.
49 – 56	200*8	10.5	Bulk cargo.
57	184	10.5	Bulk cargo.
60	151	6.5	China Petroleum Corp.
61 – 62	230*2	10.5	China Petroleum Corp.
63 – 66	1,204+	12	Container Terminal No. 2.
68 – 70	1,072+	14	Container Terminal No. 3.
71	330	14	Far East Silo Corp.
72	300	14	Far East Silo Corp.
94 – 96	171*3	10.5	China Steel Corp.
97	380	16.5	China Steel Corp.
98	360	16.5	China Steel Corp.
99	149	9	China Steel Corp.
103	270	11.8	China Petroleum Corp.
104	252	16	China Petroleum Corp.
105	300	16	China Petroleum Corp.
111	264	16.5	Taiwan Power Corp.
112	249	8.5	Taiwan Power Corp.
115	276	14	Container Terminal No. 4.
116 – 121	320*6	14	Container Terminal No. 4.
122	336	14	Container Terminal No. 4.
75	320	14	Container Terminal No. 5.
	291	6.5	General cargo.
	378	4.5	General cargo.

*Length of each berth.
+ Total length.

There are at present 108 wharves with a total length of 23,593 m. 26 mooring buoys capable of accommodating 25 ships.

Container Terminal No. 5 has 8 berths (No. 74, 75, 76, 77, 78, 79 and 81).

Berth No. 75 completed in March 1996. Berths No. 74, 78, 79 and 81 under construction. Berths No. 76 and 77 will open in May 1

Also see "Container Handling Facilities".

CRANES: 20 mobile cranes, 6 stationary derricks, 94 trac 248 forklifts, 5 container gantries, 57 container cranes, 50 stra carriers, 2 container tractors, 1 railtainer, 34 transtainers, 95 buckets.

3 floating cranes, other floating equipment includes 5 dredgers, 5 barges, 1 barge and 105 small craft of various descriptions.

BULK HANDLING FACILITIES: *Coal:* China Steel Berth: Max. 130,000 d.w.t. Max. LOA 320 m. Max. Draft 14 m. 2 cranes, 2 and conveyors. Daily rate 10,000 tonnes.

Berths No. 52 – 57: Max. LOA 200m. Max. Draft 10.5 m. Disch by grabs and ship's gear. Rate 3,500 tonnes per day.

Grain: There are 3 silos, 2×40,000 tons capacity and 1×80,000 tons capacity, unloading rate 300 – 500 t.p.h. 105 grabs also used to discharge grain by ship's gear at hourly rate of 40 – 50 tons per gang/hour.

CONTAINER HANDLING FACILITIES: No. 1 – total length 848 m. consists of 4 berths, Nos. 40 – 43. Berths No. 42 – 43 served by 5 gantry cranes with capacity 30-40 tonnes. 3 straddle carriers available for 20 ft. – 40 ft. containers. Storage yard of 10 hectares for 2,500 containers (TEU).

No. 2 – Includes 4 berths total length 1,204 m., Nos. 63 – 66. Berths No. 63, 65, 66 are leased to lines for exclusive use. Berth No. 64 is the only common user berth. Container handling equipment includes 13 gantry cranes with capacity 30-40 tonnes and 25 straddle-carriers for handling 20 ft. – 40 ft. containers. Storage yard of 45 hectares for 12,000 containers (TEU).

No. 3 – Includes 3 berths, Nos. 68 – 70, with total length of 1,072 m. and a depth of 14 m. The terminal has 10 container cranes with capacity 40 tonnes, 5 transtainers and a 60 hectares container yard for 17,000 containers (TEU).

No. 4 – Container Terminal No. 4 is located at Chung-Hsing Commercial Harbour Area, has a total waterfront of about 2,533 m. and width of 450 m. Designed as 8 container berths, 7 of them numbered from 116 to 122 (No. 122 still under construction), each 320 m. in length and 14.0 m. deep, are installed with 19 gantry cranes so far. Together with the extending Berth No. 115 of 276 m. length and the same depth of 14.0 m., the total back-up areas of about 100 hectares are available for storing 34,000 TEU containers. Its container handling equipment includes 20×40 tonnes container cranes and 25 transtainers for handling 20 ft. – 40 ft. containers, and 18 straddle carriers.

STEVEDORES: All Government stevedores ordered by Agents as required.

Cargo Working Hours:

General Cargo:

(1) First shift:	0800 – 1600 hrs.	No additional charge.
(2) Second shift:	1600 – 2400 hrs.	100% additional charge, daytime rates.
(3) Third shift:	0000 – 0700 hrs.	150% additional charge, daytime rates.
(4) Morning work:	0600 – 0800 hrs.	100% additional charge, daytime rates.

Containers:

0800 – 1200
1230 – 1800
1830 – 2400
0300 – 0700

N.B.: For quick despatch, relief gangs can be hired to work through meal breaks.

Port Performance:

Containers: 25 crane moves per hour.
General: 35 CBM/gang/hour or 420 tons/gang/day.
Bulk (except at special berths): 50 tons/gang/hour.

MEDICAL: No advance notice required unless emergency case. Vaccination Certificates against cholera inoculation (6 months) required. See "Health" – Shipmaster's Report.

TANKERS: Discharge lines at oil terminal inside harbour 8 in. (2 berths), and 12 in. at Monobuoy outside with necessary reducers supplied from ashore. In latter case, Master must inform Agents size of ship's manifold.

There are 3 Monobuoys situated about 7 miles S.S.E. of the Northern Anchorage. Their positions are:

SBM No. 1 – Lat. 22° 30' 29" N., Long. 120° 17' 49" E. A white flashing signal light is mounted at the centre of the buoy with a range over 5 miles. The light appears for 1 second and goes off for 2, it then appears for 1 second and goes off for 11 seconds. This cycle is repeated. The area around the mooring buoy has a depth of 66 ft. and can accommodate tankers up to 250,000 d.w.t. The current runs at a maximum of 2.5 knots.

SBM No. 2 – Lat. 22° 29' 45" N. Long. 120° 16' 41" E. depth around the area about 98 ft. capable of discharging tankers up to 250,000 d.w.t. Characters of signal light mounted at the centre of the buoy: White flash 1 second on and 1 off for 3 times then 1 second on and 8 seconds off in that cycle.

The 2 buoy moorings have facilities for 2×12 in. hose connections. Bunkers and fresh water not obtainable. Stores can be arranged for delivery by boat. Other services available to tankers at the buoys are confined to those of urgent nature.

VLCCs programmed to use the SBM Terminal are required to anchor 1.5 miles West of the No. 2 SBM for arrival clearance. Pilot/Quarantine/Immigration, Cargo Supervisor and his hose-handling party board in this area from a tug. After the discharge of cargo, the vessel is required to proceed to the Northern Anchorage to receive sailing clearance.

SBM No. 3: Max. size 300,000 d.w.t., depth 105 ft. Also see "Shipmaster's Report" dated August 1992.

Petrochemical Storage Centre – Berth No. 61: Max. LOA 232 m. (225 m. preferred) Max. Draft 10.0 m. The berth is being extended and is soon to be equipped with 4 new Chicksans.

LPG: At Talinpu at Southern entrance to Kaohsiung Harbour.

LOA – Maximum 250 m., minimum 130 m. Chicksan flange 23.0 m. above LWL. Liquid line 16 in. Vapour line 8 in. Max. Depth 14.0 m. Discharge rate up to 2,000 kl.p.h. Tank capacity: (C3) 30,000 kl, (C4) 30,000 kl.

Berth	*Shore Lines* (in.)	*Hoses* (in.)	*Grades Handled*	*Max. Pressure* p.s.i.	*Rate* t.p.h.
18 – 20	4 – 16	4 – 8	Asphalt, FO, DO, Avgas, JP4, JP5	100	700
60 – 62	4 – 10	4 – 8	Petrochemicals, LPG, liquid NH_3	100	680
Talin E, W	10 – 24	8 – 12	Crude, FO, DO, Naphtha, JP4, JP5	100	3,000
SBM No. 1	1×34	2×12	Crude	100	5,000
SBM No. 2	1×42	2×12	Crude	100	7,000

N.B.: At SBM derricks/cranes of 10 tons SWL required. There are no tank cleaning or ballast disposal facilities.

Also see "Shipmaster's Report" dated April 1990.

DENSITY: Average 1015 in Summer, 1023 in Winter.

FRESH WATER: Most berths supplied from shore line, otherwise from barge (500 tonnes – 100 tonnes capacity) paying additional lighterage. Advise agent 24 hours in advance by telex of vessel's requirements.

FUEL: All types of fuel are available. CPC, the sole supplier, owns 2 barges (500 tonnes), 1 barge (900 tonnes) and 1 barge (400 tonnes) for fuel oil and 2 barges of (200 tonnes) for diesel oil which are in constant use, so prior notice of requirements is necessary to avoid delays. Bunkers can also be obtained at the oil terminal.

Bunkers cannot be supplied at the anchorage, as the barges will not go outside the harbour.

Agent can arrange emergency offshore supply by local supply boat owner, but the price is quite high.

FIRE PRECAUTIONS: No specific regulations, but routine precautions should be enforced.

CONSULS: All in capital city Taipei, 230 miles North of Kaohsiung.

REPAIRS: China Shipbuilding Corp. provide 1,800 m. of quaywall and can handle any kind of repairs.

DRY DOCK: China Shipbuilding Corp. have a dry dock of 950 m. long with breadth 92 m. and average depth of 14 m. This dry dock is separated into 3 stages by 2 intermediate gates in between, of 380/390/180 m. respectively. Each stage can be independently operated to facilitate fabrication of ship sections, as well as to dock and repair ships.

A floating dock "Viva Island" LOA 174 m. with distance between side walls of 30 m. Draft over keel blocks 7.3 m. with lifting capacity of 11,500 tons.

SURVEYORS: S.G.S., Tel: (07) 561-1281. BV in Taipei, Tel: (02) 731-4218.

GANGWAY/DECK WATCHMEN: Recommended, to meet local security requirement.

OPENING/CLOSING HATCHES: Mostly handled by stevedores except steel hinged covers, which are to be done by crew.

CERTIFICATES: Ship's Registry, Load-line, Safety Construction, Safety Equipment, Safety Radio-telegraphy, I.O.P.P. and Derat Exemption Certificates must be inspected by Customs/Harbour Authorities.

CUSTOMS ALLOWANCES: 200 cigarettes or 1 box cigars and 1 bottle of wine or spirit allowed each. Application can be made to break seal for next issue once every 4 days.

CARGO GEAR: Cargo Gear Certificate must be valid.

REPATRIATION: Crew changes can be arranged.

AIRPORT: Kaohsiung Airport has frequent scheduled flights to major cities in Taiwan as well as regular international flights to Hong Kong, Singapore and Japan. For other international destinations, travellers must use C.K.S. International Airport which can be reached by motorway (3.5 – 4 hours) or via Taipei by domestic flight (40 minutes) and motorway (40 minutes).

TIME: Local: GMT plus 8 hours. No alteration during the year.

HOLIDAYS: National or legal holidays:

(1) New Year's Day (January 1st and 2nd).
(2) Youth Day (March 29th).
(3) Women and Children Day (The day before Tomb Sweeping Day).
(4) Tomb Sweeping Day (Late President Chiang Kai-Shek's Death Memorial Day).
(5) Labour Day (May 1st).
(6) Dragon-Boat Festival (May 5th of Chinese Lunar Calendar).
(7) Mid-Autumn Festival (August 15th of Chinese Lunar Calendar).
(8) Confucius' Birthday Anniversary (September 28th).
(9) Double Tenth Day (October 10th).
(10) Taiwan Restoration Day (October 25th).
(11) Late President Chiang Kai-Shek's Birthday Anniversary (October 31st).
(12) Dr. Sun Yat-Shes's Birthday Anniversary (November 12th).
(13) Constitution Day (December 25th).
(14) Chinese Lunar New Year's Eve (December 29th or 30th of Chinese Lunar Calendar).
(15) Chinese Lunar New Year's Day (1st, 2nd and 3rd Day of Chinese Lunar Year).
(16) All the other temporary holidays designated by Government.

POLICE/AMBULANCE/FIRE: Police and Ambulance: call 5612311 Ext. 441 or 2613000 Ext. 2717; Fire: 5612311 Ext. 443 or 2613000 Ext. 2731.

TELEPHONE: Telephone available for ships alongside wharf.

SERVICES: Laundry, ship-chandler and competent technicians available for repair of radar, radio, compass adjusting and other navigational aids. Tank cleaning equipment and facilities not available.

SHIP SUPPLY SERVICE: Off-limits deliveries can be arranged, although they are the exception rather than the norm.

SHORE LEAVE: Normally can be arranged.

IDENTIFICATION CARDS: Shore passes are issued and must be returned prior to departure.

GARBAGE DISPOSAL: A collection service is available. PVC garbage bags are provided on board. Ordinary collecting time is from 0800 – 1200 hrs. on weekdays (Monday through Saturday). Any ship in port requiring immediate collection service should either call the following telephone numbers: 5519620, 5622104 and hoist the "CD8" flag, or communicate through her agent with the harbour section of the Kaohsiung Harbour Bureau.

Charges: Every vessel whether moored at wharfs, buoys or in the anchorage, shall be charged as hereunder stipulated for harbour cleaning maintenance during its stay, commencing at anchorage until departure from harbour.

Classification	*Daily Rates (NT$)*
Ships less than 5,000 G/T	197
Ships of 5,000 G/T or more but less than 15,000 G/T	375
Ships of 15,000 G/T or more	552

50% discount for ships below 500 G/T. 100% surcharge for international passenger or tourist ships. 90% discount for yachts. 30% additional charge on national or legal holidays and Sundays. Carriers shall self-dispose of waste from their holds.

WASTE OIL DISPOSAL: A collection service is not yet available.
SEAMAN'S CLUBS: Seamen's Club Kaohsiung, 30 Peng Lai Road, Kaohsiung, Taiwan, R.O.C. Tel: 07-521-5400. Services available include general information service, postage stamps, foreign exchange, rooms for reading and recreation including bridge games, billiards and MTV, and field tours can be arranged. The Club also offers beer, cigarettes, beverages in the music room, as well as all kinds of local souvenirs.
CURRENCY: New Taiwan Dollar (NT$). NT$ 8,000 may be brought in or taken out of the ROC. Unlimited foreign currency may be brought in and if declared on arrival, may be taken out. Without a declaration, not more than U.S.$ 5,000 in cash or the equivalent in any other foreign currency may be taken out.
REGULATIONS: No curfew exists. Port opened for container ships 24 hours day and night; for other vessels between 0600 – 2300 hrs. only. For vessels, having dangerous cargo on board, and super ore carrier (beyond Panama Max.) desiring of docking at China Steel Corporation's Berth No. 97, between sunrise and sunset only. Vessels flying flag of nations without diplomatic relations with the Republic of China must send 1 copy each of ship's photo (4 in.×6 in. broadside) and photocopy of Registry or Tonnage Cert. and 10 crew lists for application of entry permit. The application must be made 1 week before their arrival.
DELAYS: With rapid extension of the harbour and more new wharves and container terminals built, delay has been considerably reduced and very rarely occurs.
DEVELOPMENTS: Construction of Container Terminal No. 5 (Berths No. 74-81) due for completion in 1997. Terminal will have a length of 2,320 m., providing 3 berths with 15.0 m. depth and 4 berths with 14.0 m. depth (Also see "Berthing").

SHIPMASTER'S REPORT: June 1983 (updated 1986).
Pilotage: Normal pilotage fees are charged from sunrise to sunset; a 50% surcharge is levied from sunset to 2400 hrs., and from 0500 hrs. to sunrise, and 100% surcharge from 2400 hrs. to 0500 hrs. If the Pilot(s) is/are embarked 2 miles or more from the breakwater at the First Harbour Entrance the above charges are doubled.
Immigration: Immigration Officials board with the Pilot/s off the First Harbour Entrance, and will join at any time between 0800 hrs. and 1800 hrs. Between 1800 hrs. and 2400 hrs. they only leave their office on the odd hour, and between 2400 hrs. and 0800 hrs. they only leave on the even hour. Time from leaving office to boarding is approximately 30 minutes.

SHIPMASTER'S REPORT: April 1990.
Berth No. 61:
Operator: CPC.
Max. draft 10.36 m.
Berth either side alongside.
LPG and petrochemicals handled.
LPG arms are 21 m. above water.
Maximum manifold pressure 7 bar.
Maximum ship's tank pressure 0.04 bar.
Cargo temperature required: Propane −42° C. Butane −4° C.
Butane liquid 10 in. Propane liquid 12 in. Vapour for both products 8 in.
Arrangement of arms: Vapour, Liquid, Liquid, Vapour.
VCM liquid 6 in. VCM vapour 4 in.
Berthing and unberthing from sunrise to sunset only.
Berth No. 104:
Operator: CPC.
Max. draft 14.50 m.
Berth port side to.
LPG and oil handled.
1×16 in. arm for liquid, 1×8 in. arm for vapour. Liquid arm is aft of vapour arm.
Cargo temperatures required: Propane −41° C. Butane −3° C.
All communication with the shore is by boat. No ship's personnel allowed through terminal.
Stores, etc., taken from boat during discharge.
Berthing and unberthing from sunrise to sunset only.
Berth No. 25:
Anhydrous ammonia discharged at this berth.
1×8 in. arm for liquid and 1×4 in. arm for vapour.

SHIPMASTER'S REPORT: August 1992.
SBM No. 3: Operator: China Petroleum Company.

Anchorage is West to W.N.W. of SBM No. 2. Upon anchoring, report time of arrival to Kaohsiung Port Control on VHF Channel 16, the time being required by the Agent for Inward Clearance. Pilots are arranged by the Agent, and vessel is informed of boarding time by Agent. No amount of calling on the VHF will get any response.

Pilot boards from a tug together with Surveyors, Mooring Master and hose handling gang, who also assist with mooring to the SBM.

Mooring is only undertaken in daylight hours. The latest time for a Pilot to board and be underway is 1700 hrs.

Unmooring is carried out at any time day or night.

Agent will board at the SBM with Customs, and requires a Crew List to be faxed to them at least a week before arrival for preparation of passes.

Shore leave is dependent on the frequency of the Ferry boat, about two a day.

A tug is normally moored aft whilst at the SBM, but is only done if a tug is available, and weather conditions merit it.

The area is fairly sheltered, but a heavy swell can affect the area, when there is bad weather in the China Sea.

Upon departure, report time to Kaohsiung Port Control.

SHIPMASTER'S REPORT: August 1995.
LPG Transhipment/Lightening Anchorage: Numerous LPG cargo transfers underway and at anchor outside port limits (with approval o Taiwanese Authorities).

Off limits services available: Stores, spares, airfreight and crew transfers, but very expensive.
Approximate Transhipment Area Limits: See B.A. Chart No. 3230.
Lat. 22° 26.3' N., Long. 120° 18.3' E. thence straight line to
Lat. 22° 27.2' N., Long. 120° 20.0' E. thence straight line to
Lat. 22° 27.2' N., Long. 120° 22.0' E. thence straight line to
Lat. 22° 25.6' N., Long. 120° 22.0' E. thence straight line to
Lat. 22° 25.6' N., Long. 120° 18.3' E. thence straight line to
original position.

The area is exposed and there is little shelter, except from Easterly winds.
AUTHORITY: Kaohsiung Harbour Bureau, 62 Lin Hai 2nd Road Kaohsiung, Taiwan. *Tel:* (07) 561-2311, Ext. 200, 551-3445. *Telex:* 71219 KHB. *FAX:* 07-561-1694. *Contact:* Oliver F.L. Yu, Harbour Director. C.C. Hsieh, Deputy Harbour Director. H.T. Sun, Harbour Master.
AGENT: Jardine, Matheson & Co., Ltd., 5th Floor, No. 21, Cathay Foremost Tower, Chung Hwa 3rd Road, Kaohsiung. Tel: 886-7-231-7141. Telex: 81957 Jardine. Cables: Jarocean. Fax: 886-7-2015491.
Associated with Jardines Shipping Agencies.

KEELUNG: 25.09 N. 121.44 E. (See Plan)

PORT LIMITS: Any ship is considered to be an "arrived ship" once she has reported to Keelung Port Radio Station whether or not actually entering the outer harbour. However, Quarantine and Customs Inspectors do not attend ships outside the breakwaters due to lack o adequate transportation also they do not consider any ship an "arrived ship" unless she actually enters the outer harbour.
LOCATION: Exact position of Port – Lat. 25° 09' 26.5" N., Long 121° 44' 22.5" E.
DOCUMENTS:
Ship's Registry.
International Load Line Certificate.
International Tonnage Certificate (1969).
International Safety Certificates.
Cargo Ships: Safety Equipment, Safety Construction, Safety Radi Telegraphy.
Passenger Ships: Passenger Safety.
Last Port Clearance.
Crew List.
Fumigation Certificate.
Import Manifests.
Through Cargo List.
Stores List.
Arms and Ammunition List.
Narcotics List.
Foreign Currency List.
Parcel List.
Passenger List.
Yellowbook for every person on board (Vaccination Certificate).
Shipmaster's Report: November 1988.
Customs:
1 Arms and Ammunition List.
1 Foreign Currency List.
1 Narcotics List (will be sealed).
1 Parcels List.
1 Crew List.
1 Mail List.
1 Passenger List.
2 Import Cargo Manifests.
1 Through Cargo Manifest.
1 Crew Personal Effects List.
1 List of Signatures.
Agent:
All Certificates (originals).
Last Port Clearance.
Quarantine:
1 Maritime Declaration of Health.
1 Crew List.
Immigration:
2 Crew Lists.
Shore Passes (obligatory).
HARBOUR APPROACHES: Vessels shall pay close attention to strong currents in the port entrance as well as East Breakw Extension.
PILOTAGE: Compulsory from anchorage to dock and any o movements in port. Pilot may also meet ships within 1 or 2 nautical m North of breakwaters, upon Agent's request. While waiting ou breakwaters for a Pilot, vessels shall keep adequate space and care of both ship's and Pilot's safety. Before arrival, vessels contact Keelung Port Radio Station (Lat. 25° 09' 42.5 Long. 121° 44' 57.5" E.) via VHF on Channel 12 to ascertain Pilot's boarding time.
ANCHORAGES: Area in outer harbour is 13.0 m. to 13.5 m. in and can only contain 4 ocean-going vessels at a time. Vessels may anchor outside breakwaters for Pilots or entry instructions.

RESTRICTIONS: Keelung Harbour Bureau Vessel Traffic Control Centre (VTCC) consists of Keelung Port Radio Station. Any ship shall apply in advance of her actual entry/exit by light signal or via VHF to Keelung Port Radio Station, and shall not leave dock nor weigh anchor nor sail, and remain close to harbour entrance before obtaining from Harbour Bureau VTCC the signal permit to enter or leave.

Pilots berth vessels 0700 hrs. – 2300 hrs. Unberthing at any time.

MAX. SIZE: Max. possible overall length less than 900 ft. Vessels or Agents shall declare ETA to Harbour Bureau 24 hours prior to their arrival.

HEALTH: Radio Pratique possible, vessel should advise Number of Certificate of Sanitary Inspection. Pratique will be granted when vessel is in anchorage. Two measures will have to be conducted by ship, these are: disinfection of ship, sampling of food and water, tetracycline drug for person, if the vessel arrives from an affected area within 5 days.

1. To obtain Free Pratique by radio, the Master is required to cable the following information to Agent within 4 to 36 hours prior to the vessel's arrival at the port.
   - (1) Ship's name.
   - (2) First port of the voyage and date/time of sailing.
   - (3) Name(s) of port(s) and respective departure time, where the vessel called within the last 10 days prior to arrival at Republic of China ports.
   - (4) ETA.
   - (5) Kind of Derat Certificate, place and date of issue.
   - (6) Number of crew and passengers on board.
   - (7) If any illness or death occurred within 10 days prior to the vessel's arrival, and if so, give a detailed report.
   - (8) If any rat or abnormal death of rats is found on board within 10 days before the vessel's arrival.
   - (9) If there is any shipment of foodstuff on board from an infected area.
   - (10) Any other information (if any doctor on board, etc.)

     (Example:)

     mv "......................" (ship's name)/New York 1st Mar 1300/Honolulu 16th Mar/25th Mar 1000/Yokohama 1st Nov 1977 Exemption/Crew 35 Passenger Nil/7 to 10 None
2. Vessels under the following conditions are not allowed to apply for the Radio Pratique:
   - (1) The interim time from the date when the vessel left the infected area and/or the place where infection is suspected to the date of the vessel's ETA at the Republic of China port, is not over the legal incubative period of infectious disease, i.e. 5 days for cholera, 6 days for plague and yellow fever.
   - (2) Infectious disease and/or suspected infectious disease and death occurred within 10 days prior to the vessel's arrival in the Republic of China.
   - (3) When any inactive rat is found or abnormal death of rats is found on board within 10 days prior to the vessel's arrival in the Republic of China.
   - (4) When the vessel possesses no valid Derat/Exemption Certificate.
3. The Quarantine Officer may still go on board the vessel after her berthing for re-inspection even if the Radio Free Pratique is granted.

   If any discrepancy is found twice or more, then the vessel will be deprived of the right to apply for the Radio Pratique for one to three voyages.
4. Fumigation by hydrocyanic acid gas (discoids) and methyl bromide is carried out by quarantine station. Derat Certificate or Derat Exemption Certificate issued also by quarantine station.
5. *(i) Procedures of Ship's Sanitary Inspection:*
   - (1) The ship company or the agency shall deliver the ship's Pre-arrival Report to the local Quarantine Station of the National Quarantine Service of the Department of Health.
   - (2) All items of Sanitary Inspection Record will be checked and credits will be given by the Quarantine Officer from the Quarantine Authority during the Harbour Joint Inspection.
   - (3) Certificate of Sanitary Inspection will be issued to the ship which has passed the Sanitary Inspection.
   - (4) Before the arrival of a ship with valid Certificate of Sanitary Inspection, the agency shall submit the ship's Pre-arrival Report with the number of Certificate of Sanitary Inspection listed. Then the ship may be exempt from inspection on board if it meets the quarantine requirements.
   - (5) As soon as arriving at the port, the ship exempted from Sanitary Inspection shall submit Maritime Declaration of Health, Lists of Passengers and Crew, the Import Manifest as well as Derat Certificate or Derat Exemption Certificate to the Quarantine Authority. If the ship fulfils the quarantine requirements, a Certificate of Pratique will be issued according to Section 14 of the Quarantine Regulations.

   (ii) Duties of Ship:
   - (1) Shipmasters with a valid Certificate of Sanitary Inspection shall report to the Quarantine Authority any incidence of sickness or death among the crew or passengers or the abnormal mortality of rats or mice on board directly or thorugh the agency before the ship arrives at the port.
   - (2) It is unnecessary to hoist the "Q" flag for the ship receiving the Notification of Entry Allowance. But the Shipmaster shall submit all the documents prescribed in 1-(5) directly or through his agency to the Quarantine Authority for examination within 6 hours of arrival (or the next working day if the ship arrives after office hours on that day).

   (iii) Duties of the Agency:
   - (1) Hours before the arrival of a ship with Certificate of Sanitary Inspection, the agency shall submit two duplicates of Ship's Pre-arrival Report with the Certificate of Sanitary Inspection number to the Quarantine Authority. After the copies are reviewed and approved, the Quarantine Authority shall mark them with an "Entry Allowance" stamp and send one copy to the agency to inform the Harbour Joint Inspection Coordination Center and the Shipmaster as well as other related authorities.
   - (2) The agency shall submit all documents prescribed in 1-(5) and go through the entry procedures as soon as the ship arrives at the port.
   - (3) The agency shall report any cases of sickness or death of the crew or the passengers or any abnormal mortality of rats or mice to the Quarantine Authority as soon as the reports are received from the Shipmaster.
   - (4) The agency shall be fully responsible for the prompt delivery of any messages between the Quarantine Authority and the Shipmaster.

RADIO:

1. Call Name: Keelung Port Radio Station is called Keelung Port Radio (or K.P.R.).
2. Channel:
   - (1) Channel 14 (156.7 MHz.) is used for Keelung Port Radio Station.
   - (2) Channel 12 (156.6 MHz.) is a spare Channel, used for Keelung Pilot Station.
   - (3) Channel 16 (156.8 MHz.) is used for distress, safety and emergency calls.
3. Communication Contents:
   - (1) Messages for vessels to enter or leave.
   - (2) Matters concerning navigation and anchorage.
   - (3) Other Emergencies.
4. Communication Distance: Any waters within diameter of 10 nautical miles from this station.
5. Priority:
   - (1) Emergency salvage at sea.
   - (2) Messages for vessels departing.
   - (3) Messages for vessels waiting outside breakwaters for entry instructions.
   - (4) Messages for vessels at anchor in outer harbour.
6. Languages to be used:
   - (1) Mandarin.
   - (2) English.
7. Remarks: Communications always in plain language. Any codes or private conversations are not allowed unless approved by officers in charge.
8. Vessels shall contact Keelung Port Radio Station via VHF as soon as they are 10 nautical miles from the harbour and shall not be considered as "reported" unless answered by the station. The reporting time is to be counted for the basis for allocating berths. The report includes:
   - (1) Nationality.
   - (2) Vessel's Name.
   - (3) Call Letters.
   - (4) ETA Outside Harbour.
9. Communication Procedures: In accordance with international radio communication procedures.
10. Vessels without VHF or with VHF out of operation and thus unable to report earlier to Keelung Port Radio Station (25° 09' 42.5" N., 121° 44' 57.5" E.) shall contact the station by light signal until answered, as they report when vessel arrives within the visual scope of Ton Pan Yu Signal Station (domiciled with Keelung Port Radio Station) in the waters outside the harbour. The report includes:
    - (1) Nationality.
    - (2) Vessel's Name.
    - (3) Call Letters.
    - (4) Actual arrival time or anchoring time outside the harbour.
11. Vessels unable to report by light signal through lack of power shall use other means to report same information as indicated in item 10 above or hoist vessel's call letters enabling registration at the station.

Keelung Radio (XSW) 500 kHz and 460 kHz. Also on 8 MHz.

RADAR/VHF: No radar service to aid navigation in port. VHF and flashing lamp only used on ship's arrival. However, Pilots carry pocket walkie-talkie's to communicate with tugs and line-men on dock.

TUGS: The Harbour Bureau operates 12 tugs viz., 5×3,200 h.p., 2×2,400 h.p., 2×1,600 h.p. 1×1,200 h.p. and 2×700 h.p. China Petroleum Corporation (CPC) operate 2×3,760 h.p. at their Shen Ao Terminal.

BERTHING: Docking during daytime, and also during night-time if weather permits.

Berths	*Length* (m.)	*Depth* (m.)	*Remarks*
Eastern Berths:			
E2	200	9	Passenger Terminal, Quick Dispatch Berth (QDB) for cargo vessels.
E3	170	9	Quick Dispatch Berth.
E4	306.3	9	General Cargo/Bulk (128 m. private use).
E5	169.2	9	Private use.
E6	180	9	Quick Dispatch Berth.
E7	178	9	General Cargo/Bulk.
E8	240	9	General Cargo/Bulk.
E9-E11	620	12	No. 2 Container Terminal. 5×35 ton gantry cranes.
E12-16	various		Shallow water berths/private use.
E17	95	5	Bulk/Working Boat Berth.
E19	220	9	Container/Bulk.
E20	120	6	Domestic Lines Berth.
E21-22	226	9	Log/General Cargo.

Berths	*Length* (m.)	*Depth* (m.)	*Remarks*
Western Berths:			
W2	204.5	9	Passenger Terminal, General Cargo/Bulk.
W3	183	9	General Cargo/Bulk.
W4	167	9	Quick Dispatch Berth.
W5-W6	185.5	9	Private use.
W7-W8	242.42	8-9	Keelung-Hong Kong Line.
W12B	251	6.5-9	Bulk Wharf/Cement Silo 16,000 tons capacity.
W14	172.4	9	General Cargo.
W15	148.3	9	General Cargo.
W16	156.5	12	W16-W18: No. 3 Container Terminal, 2×40 ton container cranes.
W17	207	12	1×40 ton container crane.
W18	215.4	12	2×40 ton container cranes.
W18B	113.8	8	Bulk Wharf/Cement Silo 9,000 tons capacity.
W19	324.2	12	W19-W26: No. 1 Container Terminal, 3×40 ton container cranes.
W20	325.6	10.5	3×35 ton container cranes.
W21	236.6	10	1×35 ton container crane.
W22-W23	400	11	3×35 ton container cranes.
W24	240	13	1×35 ton container crane.
W25-W26	510	11-13	3×35 ton container cranes.
W27	150	7	Coastal Shipping.
W29	178	4.5-6.5	Coastal Shipping.
W30	180	10.5	Grain Silo 50,500 tons capacity.
W31-W32	330	10.5/11	Wharves for Bulk Cargo but with strengthening to allow discharge of heavy lifts.
W33	210	11.5	Oil Tanker Berth.
W33B	95.8	6.5	Oil Tanker Berth.

In total, there are 40 Operation Berths and 17 private use berths.

3 mooring buoys (No. 5 to No. 7) can accommodate 2 vessels of up to 10,000 tons and 15,000 tons and length overall 200 m.

CRANES: 14 mobile cranes, capacity 15 tons – 100 tons, 182 forklifts 1.5 tons – 25 tons, 8 log carriers, capacity 5 tons – 10 tons, 31 excavators, 5 shovels, 48 mini-tractors, 87 grab buckets, and 3 floating cranes, capacity 30 tons, 50 tons and 60 tons.

Other equipment: 194 forklifts, capacity 1 ton – 25 tons; 5 portable pneumatic unloaders (for grain unloading), and 75 grab buckets and 15 excavators.

SPECIALISED CARGO HANDLING FACILITIES: Wharves No. 16 to No. 26 and East No. 9 to No. 11, for container ships, Ro-Ro ships, and "LASH" vessels. Equipment includes 24 container gantry cranes, capacity 35 tons – 40 tons, 18 straddle carriers, 2 transtainer cranes, 9 stackers, 15 tractors and 22 trailers. Therein, Wharf No. 19 provides 3 super gantry cranes, max. load 40 tons, outreach 47 m., height (from top of rail to under spreader) 33 m., rail gauge 30 m., handling capacity 33 per crane hour.

Wharf No. 30, 3 grain suckers (for grain unloading), capacity 200 t.p.h. – 300 t.p.h. Silo capacity 50,500 tons.

STEVEDORES: According to the stowage plan and cargo details, stevedores are assigned by Harbour Bureau. Work time is divided into dayshift and nightshift.

Cargo Working Hours:

General Cargo and Bulk Wharves.	Container Terminal.	
0800 – 1200 hrs.	0800 – 1220 hrs.	
1300 – 1800 hrs.	1300 – 1820 hrs.	
1900 – 2300 hrs.	1900 – 2320 hrs.	– 100% Extra Charge.
0001 – 0300 hrs.	0001 – 0620 hrs.	– 150% Extra Charge.

Port Performance:

General cargo up to 40 tons/gang/hr.

Average rate per day 480 tons.

Coal up to 60 tons/gang/hr. Rate per day 1,000-2,000 tons depending on availability of trucks.

Containers – 25 per crane/hr. excluding waiting time.

MEDICAL: All clinics and hospitals in Keelung area with English-speaking doctors. Modern hospitals available in Taipei, 30 km. away.

TANKERS: Bulk oil is discharged at Berth No. 33 and No. 33B which are fitted with 8 in., 10 in., 12 in., 16 in. and 18 in. pipelines. Length: 210 m. and 100 m., maximum draft: 11.5 m. at No. 33 and 6.5 m. at No. 33B.

Average discharge rate 550 t.p.h.

Monobuoys are also situated at Sha Lun, (W. Taiwan), connected to Taoyuan Refinery, at positions:

No. 1 Lat. 25° 09' 00" N., Long. 121° 11' 27" E.

No. 2 Lat. 25° 08' 32.4" N., Long. 121° 10' 06.3" E.

Discharge is possible at Sha Lun only under good weather conditions. Pilot boards 1 mile off the S.B.M.

Also see "Shipmaster's Reports" dated April 1990 and November 1993.

DENSITY: 1002 to 1023.

FRESH WATER:

1. Water supply facilities: Every wharf equipped with 2 hydrants of 2.5 in. in diameter, each tap delivering at rate of above 20 t.p.h.
2. Water barges, each barge delivering at rate of over 60 t.p.h.
3. Price:
   (1) Water supplied alongside priced at NT$45.00 (current exchange rate NT$27.00 to U.S.$1.00) per ton.
   (2) Water supplied by barges at NT$80.00 per ton.
4. Application: Ships/Agents shall notify Harbour Bureau as early as possible if they need fresh water.

FUEL: Bunkers available subject to ship's/Agent's advance notice t C.P.C. who operate the bunker facilities. 3 bunker barges available.

FIRE PRECAUTIONS: Special wharves for tankers, Wharves No. 3 and 33B having automatic fire equipment; fire brigade and fire boat available.

CONSULS: None. Mostly stationed at Taipei.

REPAIRS: Any ship which needs repairs must itemise repairs and declare them to Harbour Bureau via shipping company or Agent and then the repairs will be carried out in accordance with the relating articles under The Commercial Harbours Act and Administration Regulations o International Commercial Harbours. As to docking, ships may deal with China Shipbuilding Corp., Keelung Dockyard or Keelung Harbour Burea repair plant via shipping companies or Agents.

There are over 400 m. of repair wharves, cranes up to 60 tons, plat and machine shops and foundry and a full staff of skilled tradesmen.

Repairs to radio, navigational and electronic equipment can be effected.

DRY DOCK: China Shipbuilding Corp. Keelung Dockyard has 3 dr docks, 2 for vessels under 100,000 tons and another for 25,000 tons Keelung Harbour Bureau Repair Plant has 1 dock for vessels unde 5,000 tons.

SURVEYORS: Surveys of all types can be arranged. Major classificatio societies are represented.

GANGWAY/DECK WATCHMEN: Harbour policeman always assigne by authorities at gangway free of charge. Other gangway/deck watchme are recommended.

OPENING/CLOSING HATCHES: Normally carried out by stevedores excepting new designs on modern vessels.

CUSTOMS ALLOWANCES: (1) Each crew member allowed 20 cigarettes in bulk or half a pound of tobacco. (2) Each crew membe allowed 1 opened bottle of wine and 12 cans of beer.

REPATRIATION: Crew repatriation usually carried out throug International Airport in Taoyung, and Immigration prefer either individua or group visa for landing crew from ship.

AIRPORT: Taiwan's international airport C.K.S. is 65 km. from Keelun via the Freeway No. 1. Travelling time approx. 1 hour. Flights ar available direct to U.S.A., South Africa and most Asian destinations, and for Europe/Australia via Hong Kong, Bangkok or Singapore. Taipe domestic airport (30-40 minutes travelling time) has frequent schedule flights to most major cities in Taiwan.

TIME: GMT plus 8 hours. No alterations.

HOLIDAYS: New Year's Day (1st–2nd Jan.); Chinese Lunar New Year Eve and Day (3 days in Jan. and Feb.); Youth Day (29th Mar.); Ancesto Memorial Day (1 day in April); Labour Day (not a national holiday bu only for labourers) (1st May); Dragon Boat Day (1 day in June); Mi Autumn Day (1 day in September); Confucius' Birthday or Teachers' Da (28th Sept.); National Day (10th Oct.); Taiwan Restoration Day (25t Oct.); late President Chiang's Birthday (31st Oct.); Dr. Sun's Birthda (12th Nov.); Constitution Day (25th Dec.).

POLICE/AMBULANCE/FIRE: The gangway guard assigned by Harbou Police or ship's Agent will act in emergencies.

TELEPHONE: Local telephones available to be placed on board.

SHORE LEAVE: Crew allowed ashore except for crew members fro People's Republic of China.

IDENTIFICATION CARDS: Passport or other identification papers ar needed.

GARBAGE DISPOSAL: Garbage (except cargo waste) should be p in bags properly. Ship's Agent to notify Environmental Protectio Department of Keelung Harbour Bureau. Tel: (886) 4208356 for transf operations. Contact Operations Division of Harbour Bureau Tel: (88 4208287 for charges. Garbage collection and treatment will be charge depending on the tonnage as below:

1. NT$197/per day for tonnage under 5,000 tons. There is a 50 discount for tonnage under 500 tons.
2. NT$375/per day for tonnage 5,000-15,000 tons.
3. NT$552/per day for tonnage over 15,000 tons.
4. Double charge for passenger vessels.
5. At weekends and holidays, there is an additional charge of 30%.

REGULATIONS: Searching for stowaways is strictly carried out arrival and departure.

Discharge of smoke, tank washings, garbage, etc., not allowed.

DELAYS: Keelung has rainfall on about 200 days in a year, port sometimes congested after continuous rain.

GENERAL: Shore pass issued by Immigration for each crew memb on ship's arrival and will be collected on ship's departure. Anyone w loses a shore pass is subject to fine.

DEVELOPMENTS: Pneumatic unloader equipment for coal, capac 800 tons per hour, with 40,000 tons transit space to be built.

SHIPMASTER'S REPORT: April 1990 (Updated 1994).

Berth: Shen Ao.

Operator: CPC.

Maximum draft 10.80 m. (Winter) and 11.80 m. (Summer).

Max. LOA 225 m.

Max. Displacement 50,000 tonnes.

Berth starboard side alongside.

Port anchor used for berthing.

The berth is exposed to the N.E. monsoon (October to March) delays due to winds (up to Force 9), and heavy swell can be expe in this period.

Sunrise to sunset movements only. The area is subject to fog in mornings which can cause delays.

Arrangement of discharge arms for LPG said to be, from forw Propane vapour, Propane liquid, Butane liquid, Butane vapour, b practice the products are interchangeable.

Storing at this berth is not recommended as the long, narrow wal makes transport difficult.

SHIP'S OFFICER'S REPORT: November 1993.
Berth: Shen-ao.
Operator: CPC.
Maximum Draft: 10.80 m. (Winter) and 11.80 m. (Summer).
Maximum Displacement: 50,000 tonnes.
Maximum LOA: 225 m.

Between buoys and berth all dredged to 13.0 m.

When entering, leading green light bears 229°(T) from position Lat. 25° 07.58' N., Long. 121° 40.72' E.

Starboard side alongside using port anchor.

When leaving the berth, anchor chain should be brought up to 2 – 3 shackles on deck after which the Pilot will disembark.

Ling Hsing Mole can be passed safely at 30 m. off.

Delete soundings "8.1", "10", "8.4" meters 0.5 cables N.W. of Ling Hsing Mole.

Two tugs of 3,400 b.p.h. (Voith-Schneider type) can be ordered on VHF Channel 10.

During docking, tugs will be made fast on starboard side fore and aft.

Deck watch should attend to moorings all the time, due to sea swell, specifically during N.E. Monsoon.

AUTHORITY: Keelung Harbour Bureau, Harbour Building, No. 1 Chung Cheng Road, Keelung, Taiwan, Republic of China. *Tel:* 886-2-4236911. *Cables:* Kehbroc Keelung. *FAX:* 886-2-4284811, 4284812. *Contact:* Cheng-Ming You, Harbour Master.

AGENT: Jardine, Matheson & Co. Ltd, 2nd Floor, No. 4 Chung Cheng Road, Keelung. Tel: 886-2-4230161/4. Telex: 32187 Jardines. Fax: 886-2-4266371. Cables: Jarocean.

Associated with Jardine Shipping Agencies.

SUAO: 24.36 N. 121.52 E. (See Plan)

PORT LIMITS: Radius of 1 mile from North Point Lighthouse.

DOCUMENTS: Ship's Register, Derat Certificate, Last Port Clearance, Taiwan Tonnage Dues Certificate (valid 1 year), Crew List (8 copies), Stores List, Vaccination List and Yellow Book, Foreign Currency in Safe, Narcotics List, Bills of Lading, Manifest of Inward Cargo, Manifest of Through Cargo, Mail and Parcels List. Also see "General".

Distribution:

Quarantine Station: One copy each of Health Declaration, Crew List, Ports of Call, Manifest of Inward Cargo, Manifest of Through Cargo.

Customs Office: One copy each of Arms and Ammunition List, Narcotics List, Foreign Currency List, Parcels List (including Landing Parcels and Through Parcels), Stores List, Crew List, Specimen Signatures of Master and Chief Officer, Taiwan Customs Tonnage Dues (can be purchased from the Customs Office), and 3 copies each of Manifest of Inward Cargo and Manifest of Through Cargo.

Immigration Office: One copy each of Crew List, Arms and Ammunition List, Manifest of Inward Cargo, Ports of Call List.

Port Authority: One copy each of Crew List, Manifest of Inward Cargo, Manifest of Through Cargo.

Local Shipping Agent: One copy each of Ship's Particulars, Crew List, Manifest of Inward Cargo, Manifest of Through Cargo, Ports of Call.

APPROACHES: If approaching from the North or East, Kui Shan (Turtle Shaped) Island, 15 miles N.N.E. of the harbour entrance, provides a good landmark, with its 408 m. elevation.

San-Shien-Tai Island (30 m.), 1 mile E.N.E. of the entrance, is a good leading mark, and vessels should make their approach from the S.E., clearing the island by half a mile, before turning to enter. A 4.7 m. shoal exists about 450 m. S.W. of the island and another lies to the N.W. A red light sector marks danger areas near the entrance. The channel depth at the entrance is 22 m. The inner channels have depths of 15 m. to the North and 10 m. to the South.

PILOTAGE: Compulsory. Pilot boards at outside anchorage position (Lat. 24° 35' 20" N., Long. 121° 52' 30" E.). Hoist "G" flag. Daytime service only available.

ANCHORAGES: Water area from North shore to South shore, depth 14 m. to 31 m. and outer depth over 30 m. Ship may anchor and remain outside breakwater when waiting for Pilot or entry instructions.

RESTRICTIONS: Permission to enter must be granted by the Port Authority, ship's Agent should give ship's ETA to Port Authority of Suao 24 hours before arrival. Port closes from 2301 hrs. to 0200 hrs. daily.

MAX. SIZE: Max. draft 14 m. and LOA less than 290 m.

HEALTH: Radio Pratique possible (See "Keelung"). Quarantine will clear vessel in anchorage area. Stool test will be conducted if vessel arrives from an affected area within 5 days.

RADIO: Radio Suao, send cables to Harbour Master Suao, or Agent. Report ETA, draft, etc.

VHF: Channel 14 – 156.7 MHz for calling. Call sign "Suao Harbour Radio".

TUGS: Port Authority tugs assist with mooring and unmooring. Ship's lines used. 5 tugs, 2×2,400 h.p., 1×1,600 h.p., 1×1,200 h.p. and 1×1,000 h.p.

BERTHING: Docking during daytime, departure also during daytime, but sometimes at night time if permission granted from Authorities. Pilot compulsory. Vessel usually anchors in outer harbour for Pratique and inspection.

Deep water wharf 2,610 m. (13 berths) capable of accommodating vessels up to 298,000 d.w.t.

Wharf No.	*Length (m.)*	*Depth (m.)*	*Designed Depth (m.)*	*Uses*
1W	210	7.0	7.5	Service Craft
2W	170	10.5	11.0	Breakbulk
3W	215	10.5	11.0	Breakbulk
4W	300	10.5	11.0	Breakbulk
5W	200	10.5	11.0	Breakbulk
6W	290	14.0	15.0	Containers and Breakbulk
7W	240	12.5	13.0	Containers and Breakbulk
8W	125	7.0	7.5	Timber
9W	125	7.0	7.5	Timber
10W	175	8.5	9.0	General Cargo
11W	175	8.5	9.0	General Cargo
12W	200	8.5	9.0	Breakbulk
13W	180	8.5	9.0	Breakbulk

CARGO HANDLING FACILITIES:

Grabs:	6×3.5 cu.m. (3.5 tonnes each). 9×2.2 cu.m. (1.8 tonnes each). 9×4.5 cu.m.
Fork Lifts:	7×3 tonnes. 2×2 tonnes. 3×5 tonnes. 4×7.5 tonnes. 1×15 tonnes.
Mobile Cranes:	1×25 tons 1×30 tons 1×8 tons 2×10 tons
Shovels:	2×3 tons (Bulldozer) 2×1.7 tons.

STEVEDORES: Arranged by local Agent. Working hours: 0800 – 1200, 1300 – 1700, 1800 – 2300 and 2330 – 0300.

MEDICAL: Clinics with English speaking doctors available, modern hospitals available in Lotung, (St. Mary's Hospital, sponsored by Catholic Society) Ilan and Taipei by train or by car, 20 minutes, 30 minutes and 2 hours away respectively.

DENSITY: 1025.

FRESH WATER: Available by barge or alongside, subject 24 hours' advance notice.

FUEL: Supplied by one self-propelled barge.

CONSULS: None.

REPAIRS: Minor repairs can be carried out in port.

DRY DOCKS: Length 165 m., width 23.7 m., depth 7.7 m. Vessels under 10,000 g.r.t. can be accommodated.

GANGWAY/DECK WATCHMEN: Harbour policeman always assigned by Authority for gangway, free of charge.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CERTIFICATES: International certificates, Register, Safety Equipment, Safety Construction, Safety Radio, Load Line, Cargo Gear, etc.

CUSTOMS ALLOWANCES: Each Crew member allowed 200 cigarettes for own use and 1 bottle of wine for entertaining and for own use, Master enjoys some privileges and can keep additional cigarettes for entertaining.

REPATRIATION: Crew repatriation usually carried out through international airport in Taoyuan, near Taipei. Application to be made to Keelung Harbour Bureau.

AIRPORT: International airport in Taoyuan, 3.5 hours by car from port.

TIME: GMT plus 8 hours. For local time check in Chinese, dial telephone 117 (free of charge).

HOLIDAYS: New Year's Day (January 1st), Youth's Day (March 29th), Late President Chiang Kai-Shek's Death – Memorial Day (April 5th), Labour Day (May 1st), Dragon-Boat Day (May 5th of Lunar Calendar), Mid-Autumn Festival (August 15th of Lunar Calendar), Birthday of Confucius (September 28th), Double Tenth Day (October 10th), Recovery Day of Taiwan (October 25th), Late President Chiang Kai-Shek's Birthday (October 31st), Birthday of Dr. Sun Yet-Shen (November 12th), Constitution Day (December 25th), Eve of Chinese New Year's Day (December 29th or 30th of Lunar Calendar), Chinese New Year's Day (first day of Lunar Calendar).

POLICE/AMBULANCE/FIRE: The gangway guard assigned by Harbour Police or ship's Agent will act in emergencies; in case of fire dial 119. Police and ambulance dial 110.

TELEPHONE: Local telephones available to be placed on board.

SHORE LEAVE: Crew allowed ashore, except for crew members from Communist countries.

IDENTIFICATION CARDS: Shore pass for foreigners issued by Immigration Office according to the passport or other identification papers.

REGULATIONS: Crew cannot shelter any unlawful person on board. Searching for stowaways is strictly carried out on arrival and departure.

DELAYS: Port is sometimes congested after continued rain and delays of a few days may be caused.

GENERAL: 3 Crew Lists sent by airmail from last port to Agent. Shore pass issued by Immigration Office for each crew member on ship's arrival and will be collected on ship's departure.

AUTHORITY: Suao Harbour Bureau, 3rd Floor, Suao Port Building, Suao, Ilan, Taiwan, Republic of China. *Tel:* 039-972001, 965121. *FAX:* 039-952739. *Contact:* K.C. Wang, Port Director.

AGENT: Sub-Agent controlled by: Jardine, Matheson & Co. Ltd., 13/14th Floor, 50 Hsin Shen South Road, Section 1, (P.O.Box 81), Taipei. Tel: 886-2-3931177. Telex: 11391 Jardines. Cables: Jardines. Fax: 886-2-3413168, 3920435.

Associated with Jardine Shipping Agencies.

TAICHUNG: 24.18 N. 120.29 E. (See Plan)

PORT LIMITS: In radius of 3 miles from South Breakwater light.

LOCATION: Exact position of Port – Lat. 24° 17' 40.3" N., Long. 120° 29' 27.3" E.

DOCUMENTS: *Required by Quarantine Station:*
1 copy Health Declaration.
1 copy Crew List.
1 copy Passenger List.
1 copy Ports of Call List.
1 copy Manifest of Inward Cargo.
1 copy Manifest of Through Cargo.
1 copy Derat Certificate.
1 copy Certificate of Sanitary Inspection.
Required by Customs Office:
1 copy Foreign Currency List.
2 copies Parcels List (1 for landing parcel, 1 for through parcels).
1 copy Crew List.
1 copy Mail List.
1 copy Passenger List.
1 copy Voyage Memo.
Required by Immigration Office:
2 copies Crew List.
2 copies Passenger List.
1 copy Arms and Ammunition List.
1 copy Narcotics List.
1 copy Manifest of Inward Cargo.
Required by Port Authority:
1 copy Crew List.
1 copy Passenger List.

Besides above documents, ship's Master should present Certificates of Ship's Registry, Safety Equipment, Safety Construction, Safety Radio and Load Line to the Port Authority for inspection.

Required by Local Shipping Agent: One each of Ship's Particulars, Crew List. Last Port's Name and Leaving (Last Port) time should be forwarded by airmail to the local Agent.

APPROACHES: 24 hours available, exception vessels LOA over 190 m. and chemical vessels.

Every vessel should have up-to-date Taichung Harbour Chart on board (Chart No. 0357 in Chinese Edition), on which separation scheme and inbound/outbound routes are printed very clearly. All year round, no matter where the inbound vessels come from, North or South, those ships should comply with the separation rule and proceed on the inbound lane by course 060°(T), heading to the centre of entrance and maintaining her speed, about 6 knots. In order to steer effectively, the vessel should not stop her engine. Always keep a pilot ladder ready on the lee side (usually on starboard side). Pilot will board at about 0.5 – 1.0 nautical miles off South breakwater.

PILOTAGE: Compulsory. Pilot service is arranged by local Agent at least 24 hours in advance (Pilot office Tel: 04-6563654. Fax: 04-6566344). Pilot will board inbound vessel at 0.5 – 1.0 miles off, W.S.W. of South breakwater. Inbound vessel, receiving Pilot outside of entrance, should have ample manoeuvring space for the vessel and pilot boat. Confirm Pilot's exact boarding time by VHF on Channel 14. When a Pilot is unable to board a ship at outer breakwater in night-time or under bad weather, pilot boat will wait inside the entrance, and boarding will take place as soon as the vessel enters the breakwater.

The Pilot will bring a departing vessel to the Fairway near the inner breakwater, steady her course on 294°(T), then the Pilot will leave the ship. If the Master desires the Pilot to leave his vessel at outer breakwater, such request should be submitted to Pilot Office in advance, the Pilot shall not refuse to render this service unless it is in night-time, during adverse weather, or under other special circumstances.

ANCHORAGE: The outer harbour anchorage is located 1 – 4 miles S.W. of South breakwater. It covers an area within the following points:
(A) Lat. 24° 17' 17" N., Long. 120° 29' 21" E.
(B) Lat. 24° 17' 17" N., Long. 120° 29' 00" E.
(C) Lat. 24° 16' 24" N., Long. 120° 27' 21" E.
(D) Lat. 24° 16' 24" N., Long. 120° 25' 50" E.
(E) Lat. 24° 14' 06" N., Long. 120° 25' 21" E.
(F) Lat. 24° 14' 06" N., Long. 120° 27' 30" E.

All vessels from infected areas, or not granted Radio Free Pratique, should anchor at the turning basin directed by Pilot for Quarantine purposes.

RESTRICTIONS: Permission to enter must be granted by signal station. Ship's Agent to report ETA to Port Authority 24 hours before arrival.

MAX. SIZE: Max. draft 13 m., LOA no limit.

HEALTH: Radio Pratique acceptable. If Radio Pratique is accepted, vessel can berth directly. If vessel arrives from a cholera affected area within 5 days, Quarantine will be conducted in the Turning Basin.

Also see "Keelung".

RADIO: Via Radio Taichung (XSW2) or Radio Keelung and Radio Kaohsiung. Send cables to Agent or Harbour Master Taichung for reporting ETA, draft, etc.

RADAR: No radar service to assist navigation in port.

VHF: Call sign "Taichung Port Radio", Channel 16 (156.8 MHz) for calling purpose, Channel 14 (156.7 MHz) for message exchange, Channel 12 (156.6 MHz) for harbour craft and pilot on duty. Pilots use walkie-talkies to communicate with tugs and mooring men.

TUGS: Authority tugs assist mooring and unmooring, ship's line used. 9 tugs, 800 h.p. – 3,400 h.p.

BERTHING: Wharves 1 and 3, depth 13 m., each length 250 m., total 500 m. for grain cargo, discharged by shore grain unloaders.

Wharf 2, depth 13 m., 250 m., for bulk cargo.

Wharf 4, depth 11 m., length 200 m., for liquid cargo (molasses and chemicals).

Wharf 4A, depth 9 m., length 185 m., for logs and cement.

Wharf 5A, depth 11 m., length 220 m., for general cargo.

Wharves 5, 6, 7 and 8, depth 11 m., length 800 m., for general cargo.

Wharf 8A, depth 11 m., length 260 m., for general cargo.

Wharf 9, depth 14 m., length 260 m., for containers.

Wharves 10 and 11, depth 13 m., length 640 m., for containers (Se "Shipmaster's Report" – 1982).

Wharves 12 and 13, depth 11 m., length 400 m., for general cargo.

Wharves 14 and 15, depth 10 m., length 360 m., for general cargo.

Wharves 23 and 24, depth 10 m., length 360 m., for general cargo.

Wharf 25, depth 11 m., length 200 m., for general cargo.

Wharves 26 and 27, depth 11 m., length 400 m., for general carg (Cement – Wharf 27).

Wharf 28, depth 11 m., length 145 m., for cement.

Wharf 29, depth 14 m., length 250 m., for coal (coal unloader i planned) (See "Shipmasters' Reports" – 1982 and 1987).

Wharf 30, depth 14 m., length 320 m., for bulk or general cargo.

Wharves 31 and 32, depth 14 m., length 600 m., for containers.

Wharves W1 and W2, depth 13 m. and 14 m. respectively, lengt 250 m. each, for petroleum and chemical products.

Wharves No. W 101 and W 102, depth 18 m., length 340 m. eac for coal handling.

(For their locations see "Plan").

CRANES: 1 mobile crane up to 8 tons capacity, 1 mobile crane o 40 tons capacity, 1 mobile crane of 35 tons capacity, 1 mobile crane o 140 tons capacity. Large supply of forklifts, hoppers, grabs, electr magnets, conveyors, etc.

SPECIALISED CARGO HANDLING FACILITIES:

Container Terminal: Wharves 9, 10 and 11. Each has 1×35 ton qua side container crane. Wharf 32 has 2×35 ton quay side container cranes

Grain: Grain Elevators installed at Wharves 1 and 3.

Wharf 1: Silo capacity 90,000 tons. Wharf 3: Silo capacity 60,000 tons 2 unloaders 400 t.p.h. and 1 unloader 800 t.p.h. each at Wharf 1, an 2 unloaders 650 t.p.h. each at Wharf 3.

Discharge Rate: Agent's Report:
Grain: Silo – Wharf 1: 5,000 – 5,500 tonnes per day, 0800 hrs. - 2300 hrs. (normal rate). 8,000 – 8,500 tonnes per day, 24 hours (specia arrangement).
Silo – Wharf 3: 7,000 tonnes per day, 0800 hrs. – 2300 hrs. (norma rate). 10,000 tonnes per day, 24 hours (special arrangement).
Shipside: 700 – 800 tonnes per gang/day, 0800 hrs. – 2200 hrs. 1,00 – 1,200 tonnes per gang per day, 24 hours.
Coal: Shipside: 700 – 800 tonnes per gang/day, 0800 hrs. – 2200 hrs 1,000 – 1,200 tonnes per gang/day, 24 hours.
TPC Terminal: 20,000 tonnes per day.
Steel Products: Shipside: 750 – 800 tonnes per gang/day, 0800 hrs. 2200 hrs.
General Cargo: Shipside: 500 – 600 tonnes per gang/day, 0800 hrs. 2200 hrs.

STEVEDORES: Stevedores and equipment can be hired from th Taichung Harbour Warehousing & Stevedoring Co., Teh-Lon Warehousing & Stevedoring Co. and Taichung Harbour Bureau Marin Terminal Operations.

Cargo Working Hours:
0600 – 0800 (plus 100%)
0800 – 1200
1300 – 1700
1800 – 2200 (plus 100%)
2300 – 0500 (plus 150%)

Port Performance: General cargo 200 tons/gang/day. Bulk (other tha grain silo) 300 tons/gang/day.

MEDICAL: Clinics and hospital with English speaking doctors availab at town of Wuchi near the port.

DENSITY/TIDE: 1025/High tide and low tide average difference 3.74 m when alongside pier keep watch on moorings.

FRESH WATER: Available alongside and by water tender with capac 300 tons. No limitation on quantity.

FUEL: Ordinary bunkers available but 24 hours' advance notice require Fuel barges (450 – 600 tons) operated by C.P.C.

CONSULS: None.

REPAIRS: Docking repairs, annual repairs, periodical overhaul a routine servicing in dock for ships under 10,000 d.w.t.

GANGWAY/DECK WATCHMEN: Harbour policeman always assign by authority at gangway free of charge.

OPENING/CLOSING HATCHES: Normally carried out by stevedor except new designs on modern vessels.

CUSTOMS ALLOWANCES: Each crew member allowed 200 cigarett

REPATRIATION: Crew repatriation usually carried out through Chia Kai-Shek International Airport (180 km.) near Taipei, or Kaohsiung, abo 200 km. from this port.

TIME: GMT plus 8 hours. For correct local time dial Tel: 117, time rep in Chinese, free of charge.

HOLIDAYS: Commemoration Day of the Republic of China and N Year's Day (1st and 2nd January), Lunar New Year's Eve and Sp Festival (3 days late in January or early February), Youth Day a Chinese Martyrs' Day (29th March), National Tombs' Sweeping Day Death of President Chiang Kai-shek (5th April), Labour Day (1st M for labourers only), Dragon Boat Festival (one day in June), Mid-Au Festival (one day in September), Confucius' Birthday and Teacher (28th September), National Day (10th October), Taiwan Restoration (25th October), Chiang Kai-shek's Birthday (31st October), Dr. Sun Sen's Birthday (12th November), Constitution Day (25th Decembe

Cargo work can be arranged on holidays except Lunar New Ye Day, Labour Day, Dragon Boat Festival (only afternoon) and Mid-Au Festival (only afternoon).

POLLUTION: Discharge of tank washings, etc., in port is prohibited see "Regulations – Harbour Bureau Notice").

POLICE/AMBULANCE/FIRE: Call Taichung Harbour Po Tel: 6562174-5 or Liaison Centre of Taichung Harbour Bu Tel: 6562164.

TELEPHONE: Local telephone available to be placed onboard.

SHORE LEAVE: Crew allowed ashore, except those from Mya Cuba, mainland China and North Korea.

IDENTIFICATION CARDS: Not required, however passports or other identification papers must be submitted for request of a shore pass.

GARBAGE DISPOSAL:

(1) This port owns a garbage truck for garbage and waste disposal. The service starts from dawn.

(2) The garbage truck will collect the garbage from the galley or trash from crew's quarters only. The waste from the ship's holds or repair work shall be cleaned and transported out by truck at ship's own expense.

(3) Ship applying for garbage collection must put garbage into sealed bags and piled up for the convenience of handling.

(4) For service Tel: (04) 656-2611, Extension 352 or 367.

WASTE OIL DISPOSAL: See "above".

Ships are strictly prohibited to dump waste or bilge oil into the sea while in the port. The violator will be prosecuted according to the regulations for ship's waste disposal control.

SEAMAN'S CLUBS: Seaman's Service Centre may be consulted about seaman's affairs. Tel: (04) 656-6119.

CURRENCY: New Taiwan Dollar.

REGULATIONS: Searching for stowaways is strictly carried out on arrival and departure.

Harbour Bureau Notice:

1. Please show your shore pass together with your hand-carried articles to the gangway guard when going ashore and to the gate police when coming aboard.

2. Photographing of the harbour, storing of explosive articles and displaying of fire crackers in the harbour area are prohibited.

3. Before obtaining a boarding pass which can be applied for you by your ship's agency, you are not allowed to board another ship with your shore pass.

4. Before going ashore, read over carefully the notice on your crew shore pass and comply with it.

5. Be sure not to lose your shore pass, nor should it be used by others, since it is an important official document. If shore pass is lost, the ship's Master must write an official note.

6. To avoid getting lost, keep in your mind the number and location of the wharf at which your ship is alongside, and in case the location of the ship is shifted contact your ship's Agent.

7. Always maintain aboard your ship a sufficient number of crew in case of emergency.

8. For the prevention of stowaways, thefts and accidents, crew quarters and passenger cabins should be kept locked before their shore leave.

9. Pumping wasted oil and throwing rubbish into the water, or exhausting thick smoke in the port area shall be subjected to a heavy fine.

10. For the protection of foreign copyrights, pirated editions of foreign books and records are not exportable.

11. Unless an application is approved by the Customs, any taxable article should not be taken off the ship, while each crew member is allowed to carry ashore 2 opened packs of duty free cigarettes, 10 cigars or 2 ounces of tobacco.

12. Whenever you need assistance, please feel free to call 6562394, 6564334 or 6565849, ext. 275 upon which the Foreign Affairs Division of the Harbour Police is obliged to serve you.

13. For further information, please consult directly with your Agency or Authorities concerned, as the rules contained in this notice may be revised at any time.

Thank you very much for your co-operation.

GENERAL: Recommended chart: Chinese Navy Chart No. 0357, Tai-Chung Kang.

DEVELOPMENTS: The 2nd phase project with 9 wharves and a passenger service centre will be ready in 1998.

SHIPMASTER'S REPORT: November 1982 (Updated 1996).

Stevedores: Cargo work: Around the clock. 0800 – 1200 hrs., 1300 – 1700 hrs., 1800 – 2300 hrs. and 0000 – 0600 hrs.

Health: Cholera still declared in Radio Pratique. If certificates are out of date, Radio Pratique is not acceptable.

Customs: Issues can be made after 5 days.

VHF: Pilots and Port Radio also officially work Channel 16 but we only make contact on Channel 14.

Berthing: No. 11 (Container Berth) is completed (Extension of No. 9 and 10)

Consuls: No British Consul.

Airport: Nearest airport at Taoyuan.

Report: This is a new port midway up the West coast of Taiwan. Plans for very extensive developments are at present in hand, Phase 1 has been completed.

The Western coast is low lying and exposed. During N.E. monsoon season, when cold front comes from mainland China, the wind can be very strong, ships are advised to go South or North so that the Pilot may be taken off at Kaohsiung and Keelung. The water shelves fairly slowly and I am given to understand that in bad weather Panamax vessels anchor 2 miles West of port entrance, holding conditions not known. We were fortunate with calm conditions and anchored 5 cables S.W. of Breakwater South Light for a short period with no difficulties.

Pilot boards from launch outside and 1 tug is normally taken outside. VHF Channel 14 is used. They also use walkie-talkies to contact Harbour Control and tugs. Panamax vessels normally berth during daylight hours but may sail at any time. Pilot seemed competent and had an Assistant/Trainee Pilot with him. (September 1987: Pilot disembarks inside breakwater. Vessel must attain good speed and allow for set and N'ly wind when passing between Inner Breakwater and Outer Breakwater.)

Depth of Water: Vessel berthed at half tide with 12 m. draft. Grain silo 13 m. Berth No. 10 depth 13 m. Berth No. 9 depth 14 m. Dredging being carried out. Rise and fall of tide 3.5 m. depth 4.0 m. Dock water density Berth No. 10 found to be 1023.

Tugs: 7 tugs 1,600 h.p. – 3,400 h.p. Ship's ropes used. Normal conditions for Panamax, 1 tug each end.

Berths: Berth No. 10 (Berth No. 9 is similar) is a brand new container berth with 2 gantries for containers. Berth used for bulk coal discharge into lorries until new coal berth constructed. (Berth still not constructed in September 1987). Large flat area. Mooring bollards set at jetty edge every 23 m. A further set of unequally spaced large bollards are set along line 34 m. in from jetty. When mooring 4 head/stern lines, 2 springs and 2 long breasts each end are recommended. We experienced winds of over 30 knots off berth for short period, nobody seemed at all surprised, so would suggest this is reasonable tie-up.

Discharge: As stated this is a container berth. Panamax vessel with side opening hatches, port side to. Hatch centre stops and minor hatch fittings burnt off. Centre piece of hatch rail track tack welded on. Both hatch lids moved to starboard side. Section of ship's side rail in line with hatch burnt off. (This method not used on Berth No. 29). Wood sleepers placed on deck and mobile cranes lifted on board, 1 per hatch. These use small 4 – 5 ton grabs and discharge into lorries. Small bulldozer type vehicle put in each hold to move cargo to port side. Preparation about 1 day, discharge 9 days, replacing of pieces, etc., 1 day.

Bunkers: Heavy oil and diesel available by barge.

Lub. Oils: Most available, plenty of advance notice required.

Fresh Water: Available, from jetty or barge.

Repairs: Ship repairs undertaken with a 10,000 ton dry dock.

Money: Only New Taiwan Dollars available. U.S. Dollars can NOT be obtained. Obtain any other requirements at previous port.

Immigration: For non-Taiwanese crew this is a problem, including Hong Kong, British and Indian. If any crew changes expected give plenty of notice. Visiting Hong Kong shore staff such as Superintendents, etc., required to renew dock pass every 2 days. Crew issued with shore pass (with photo for Chinese ratings) this has to be shown at dock gate outward and inward. Passes collected in on sailing, loss of pass results in fine on holder.

Stores: Victualling, fresh fruit and vegetables, reasonable price and good quality. Milk, meat, European style tinned goods all up to Chinese National Standard (CNS). Chinese dried foods, etc. appear good.

Beer can be obtained but not spirits or foreign cigarettes.

Customs: One person at least, around all the time. Bond and beer locker sealed. Issue will be given after 5 days in port, but give plenty of notice.

Certificates Required: Register, Loadline, Safety Equipment, Safety Construction, Radio Safety, Derat, Liferaft.

Documents: Crew List, 10 copies. Crew Manifest, watches, etc. and including foreign money. List of Stores. Deck, Engine, Victualling, Bond, Arms & Ammunition List, Narcotics List, Arrival Report, Declaration of Health, Departure Report (these three their forms). Specimen signature Master and Mate, General paperwork, large amount for any purpose. If landing spares or items for overhaul (motors rewound, etc.) give plenty of notice.

Medical Facilities: All available.

Drugs: Do not appear to be a problem in this port.

Grain Silo: I was informed that usual discharge rate is 5,500 – 6,000 tonnes per day.

Radio Station: Taichung Local. 24 hour watch M/F, W/T no difficulties encountered.

Cameras: Not to be taken ashore.

Walport: Possible to change video tapes. NOT films.

Telephone: Placed on board.

SHIPMASTER'S REPORT: September 1987 (Updated 1990).

Vessel berthed at Berth No. 29.

There are still no bulk discharge facilities at the port.

The method used in the Shipmaster's Report (November 1982) for Berth No. 11 is still used, but the ship's rails were not cut away. Rigging and cutting took about 12 hours, and all 7 mobile cranes in operation from the deck after 24 hours.

On completion of discharge, hatches were completed at irregular intervals, due to machine downtime, etc. Rewelding and rigging carried out as discharge continued and the interval between completion of discharge and completion of hatch repairs was about 2 hours.

Arrangements were made for Class Surveyor to inspect and issue certificate at end of work but this was not done efficiently.

The rate of discharge varied between 5,500 t.p.h. – 6,000 t.p.h., variation being due to very heavy rain and typhoon. The average rate per hatch per day was approximately 800-900 tons.

SHIPMASTER'S REPORT: January 1990.

There are no gantry cranes for discharging of coal cargoes at the port. For a Panamax size vessel both the hatch covers, port and starboard, are shifted to one side. As we were starboard side alongside both our hatch covers were shifted towards extreme portside. In this case only half hatch was open throughout cargo operations.

Mobile cranes were placed on the main deck with dunnage underneath. Each crane had a 2 tonne lifting capacity and discharge is in to lorries on the quay. The discharge rate is about 1,000 tonnes/day per crane. This method of discharging will be used until the new berth, which will be equipped with cranes and conveyors, is ready in 1992.

The outgoing pilot disembarks inside the inner breakwater. Ships must pick up sufficient speed to counteract the wind/current between the inner and outer breakwaters.

AUTHORITY: Taichung Harbour Bureau, No. 2 – Section 3, Chung-Chi Road, Wuchi, Taichung County, Taiwan, Republic of China. *Tel:* (04) 656-2611. *Cables:* Taiwan Wuchi 7686. *FAX:* (04) 6571375, 6572300. *Contact:* Mr. Ding-Hsun Hsiaou, Harbour Master. C.T. Huang, Director.

AGENT: Sub-Agent controlled by Jardine, Matheson & Co. Ltd., 13/14th Floor, 50 Hsin Shen South Road, Section 1, (P.O. Box 81), Taipei. Tel: 886-2-3931177. Telex: 21851/11391 Jardines. Cables: Jardines. Fax: 886-2-3413168, 3920435.

Associated with Jardine Shipping Agencies.

Tanzania

CHAKE CHAKE: 05.14 S. 39.46 E.

DOCUMENTS, HEALTH: Refer to "Zanzibar", where vessel required to call for clearance by Port Officals.
PILOTAGE: Not compulsory, but restricted to daylight only.
RESTRICTIONS: Entrance approached through Owen Channel or through passage between Mesale Island South and Ras Kingojelin. Depths from 10 to 22 fathoms but there are patches of 2.5 fathoms. Narrowest part of channel is 1.5 cables wide.

Vessels may enter and leave at any state of the tide, but in daylight hours only.

ANCHORAGES: No mooring buoys. Vessel's work cargo to lighters. Depth decreases to 3 fathoms for coastal anchorage off Ras Banani.
MAX. SIZE: 170 ft. length, 15 ft. draft.
TUGS: Not available and not required.
FRESH WATER: Not available.
FUEL: Not available.
STORING: Very limited facilities and it is recommended that where necessary all storing be done in Zanzibar.
AUTHORITY: See "Zanzibar".

DAR-ES-SALAAM: 06.50 S. 39.17 E. (See Plan)

PORT LIMITS: The Port of Dar-es-Salaam includes all tidal waters enclosed by a boundary which, commencing at high water mark at a point S.E. of Ras Koronja (approximately 9.66 km. East of the City of Dar-es-Salaam), follows a straight line due North to the West tip of the Outer Sinda Island. Thence a straight line to Makatumbe Lighthouse, thence a straight line drawn to South tip of Mbudya Island, thence a straight line drawn 254° to the high water mark at a point on the mainland South of the entrance to Mto Peremji. Thence following the high water mark around Msasani Bay, Dar-es-Salaam Inner Harbours to the first point due South of Outer Sinda Island.

DOCUMENTS:

Health Certificates (forms supplied by Pilot).
6 Crew Lists.
10 Passenger Lists.
Ship's Manifest.
Heavy Lift List.
Dangerous Cargo List.
Ship's Register.
Declaration and Advice of Consumable Stores (Form C-7 supplied by Customs).
Crew Declaration (Form C-8 supplied by Customs).

Shipmaster's Report: March 1981.

Declaration of Health.
1 Set of Vaccination Lists.
7 Crew Lists.
6 Passenger Lists.
Clearance from Last Port.
Ship's Register (Copy).
Dangerous Cargo Manifest.
Stores List (Form C-7).
Crew Declarations (Form C-8).
Parcel List (Form C-3).
Ship's Record & Master's Report (Form EAH-6007) (To Pilot).
Entry Report (Nasaco Form).
Departure Report (Nasaco Form).
Shore Pass (Form TIF 10).

PILOTAGE: Compulsory South of Makatumbe Lighthouse for all vessels over 200 n.r.t. The pilot launch shows the conventional day and night signals. Vessels wishing to enter must await the arrival of the pilot launch at the Outer Anchorage, and, if necessary, must anchor clear of the leading marks.

ANCHORAGES: Anchorage outside in 7 – 8 fathoms, sheltered by Makatumbe Island during S.W. monsoon but exposed to swell in N.E. monsoon.

Shipmaster's Report: In good weather tankers waiting can anchor in a depth of 18 m., 12 cables from Makatumbe Light on bearing 250° True.

Also see "Gangway/Deck Watchmen".

RESTRICTIONS: Movements in and out of the basin are subject to restrictions depending on drafts and state of the tide at Spring tides. Tankers, vessels over 135 m. LOA and vessels carrying explosives are not allowed to leave or enter during hours of darkness.

There is a signal station (with tower, flagstaff and red roof) on East Ferry Point (Lat. 6° 50' S., Long. 39° 18' E.). Entry prohibited signals are: day signal – black flag on masthead; night signal – 3 red lights disposed vertically, and distant signals – black square on white background.

The entrance channel at North end of the basin is about 1.25 miles in length from its outer entrance between the edges of the banks fronting North and South Reefs to the Inner Harbour, South of West Ferry Point.

There is a sharp bend in the channel at West Ferry Point. Minimum depth of 6.7 m. LWOST, and minimum width of 128.02 m. between the 4 fathoms contour lines. A very strong ebb and flood runs through the channel at periods of Spring tides. Maximum current at Spring tides – 3.5 knots. During period of S.E. monsoon strong winds and heavy seas may make entry difficult, but in Inner Harbour port working is normally unaffected by weather.

MAX. SIZE: Twin-screw vessels not exceeding 182.9 m. Draft 10.1 m at HWOST, 7.0 m. at LWOST, and 9.1 m. at HWNT, and single-scre vessels not exceeding 175 m. Tankers LOA 182.87 m., 36,000 d.w.t. and draft 9.8 m. Also refer to "Mjimwema".
HEALTH: Radio Port Health Officer giving ETA, name last port an health condition of passengers and crew. "Q" flag to be displayed un Free Pratique given. Radio Pratique not available.
TUGS: 4 tugs available.
BERTHING: In the Inner Harbour there are mooring and anchorag berths for up to 9 deep-sea ships ranging from 350 ft. to 600 f (106.48 m. – 182.88 m.) in length and from 23 ft. to 30 ft. (7.01 m. - 9.14 m.) in draft.

Deep water quays total length 2,016 m., comprising Berths No. 1-1 with 10.06 m. in depth at LWOST.

The port has completed major developments which should significan affect its capacity and efficency. No new berths are being constructe but all existing berths (excluding the SPM Oil Terminal) have bee modified, modernised or rehabitated.

Berths No. 9, 10 and 11 have been converted into a dedicate container terminal (2 berths × 280 m.) with a capacity of about 100,00 TEU per annum. The terminal has 2 × 35 ton gantry guay cranes 5 × 35 ton rubber tyred gantry yard cranes and a rail container termina (for both Tazara and TRC Railways) with 1 × 35 ton rail mounted gantr crane.

Backing up the port terminal are 2 inland container depots in the Da es-Salaam area (Kurasini IDC, adjacent to the port and Ubungo IDC about 15 km. along the port access road).

Also see "Developments".

Accommodation:

Harbour sheltered and roomy, water area 95.9 ha; consists of tida basin and Southern Creek, the latter having 11 deep-water berths Anchorage in basin and creek.

		Depth	*Max. length*
"A"	Stern mooring	9.1 m.	183 m.
"B"	Moored mooring	7.6 m.	153 m.
"C"	Moored mooring	7.6 m.	183 m.
"D"	Single anchor	7.3 m.	183 m. waiting berth only.
"F"	Moored, buoys and anchor	8.0 m.	175 m.
"G"	Buoys	9.2 m.	175 m.
"H"	Buoys	9.2 m.	175 m.

In addition there are 2 coaster anchorages. The Southern Creek, a the S.E. corner of the basin has a navigable distance of 1.5 miles f ships drawing up to 30 ft. of water.

CARGO HANDLING FACILITIES: *Grain:* A new bulk grain silo o 30,000 tonnes capacity has been constructed in the port to facilita grain imports.

Ro-Ro: Ro-Ro vessels berth stern to at Berth No. 6/7.

Equipment and Other Facilities:

Deep water vessels berthed in stream are loaded and discharged b lighters. At the lighter quay there are 8 electric portal cranes for workin lighters (1 × 5 ton and 7 × 3 ton), on the main quay, the port ha 6 × 7 ton and 21 × 5 ton. There are 8 other portal cranes on the stackin yards as per details below:

(a) Belbase (AMI) — 2 × 10 ton cranes.
(b) Tanzania — 3 × 5 ton cranes.

Main Quay Cranes: Berths No. 1 – 8 have between them 24 portal cran of 7 tons capacity each.

Mobile Cranes: 2 × 30 ton, 13 × 11 – 7 ton, 14 × 6 ton, 2 × 4 ton an 1 × 120 ton floating crane – "Ndovu". These are moved between dee water quays, lighterage quays and any other points of work on t stacking yards as and when required.

Also see "Developments".

STEVEDORES: Week days (except Saturday) 0700 – 1500 h (45 minutes' break), 1500 – 2200 hrs. (no break), 2200 – 0600 h (no break). Saturdays 0700 – 1345 hrs. (no break), 1400 – 2100 h (no break). Sundays and public holidays 0700 – 1500 h (45 minutes' break), 1500 – 2200 hrs. (no break).
MEDICAL: Facilities available.
TANKERS: Kurasini Oil Jetty at which tankers up to 182.87 m. LO 9.8 m. draft and 36,000 d.w.t. can discharge refined products to tan ashore. There is a refinery on the opposite side of the creek to t Kurasini Oil Jetty; the tankers serving the refinery are not to exce 35,000 s.d.w.t. capacity. Also refer to "Mjimwema" where crude imports for Tanzania and Zambia are received and "Shipmaste Report" and "Ship's Officer's Report".
DENSITY: 1025.
FRESH WATER: Available at deep-water berths, and a water ba supplies water to ships at anchorage. All water is chlorinated but sho be boiled and filtered. Water for boiler requires feed treatment (for solutions adequate).
FUEL: Fuel oil, diesel oil and gas oil available.
REPAIRS: Several light engineering workshops. There is a Tanza Harbour Authority Dockyard for construction and maintenance Tanzania Harbour Authorities' lighters and other small craft. This ha slipway for vessels up to 100 ft., lifting power 100 tons. The P Administration employs scuba divers.
GANGWAY/DECK WATCHMEN:

Piracy: Shipmaster's Report: December 1993.

In early December whilst anchored 1.4 nautical miles North Eas Outer Nyakatombe Lighthouse the vessel was boarded by "locals" f a wooden boat.

Of the 15 "locals" in the boat only two managed to board the ve and they escaped when discovered.

This first attempt to board at 0115 hrs. was followed by a sec attempt at 0405 hrs. and this time nobody managed to board. Du the first attempt, the lashings on the mooring lines on the forecastle w cut.

We informed the lighthouse and asked them to advise other ves at the outer anchorage.

CUSTOMS ALLOWANCES: Each crew member is allowed 1 carton of cigarettes, 1 opened bottle of spirits and 8 small beers.

All cabins are inspected by Customs.

REPATRIATION: Can be arranged.

AIRPORT: International airport with daily connections to all parts of the world.

TIME: GMT plus 3 hours. No alterations.

HOLIDAYS: Christmas Day and International Workers' Day are the only holidays on which no work is performed. Other holidays on which restricted working may be carried out are: Zanzibar Revolutionary Day (January 12th); Id-el-Fitr (2 days); Id-el-Haj; Good Friday; Easter Monday; Union Day (April 26th); Maulidi Day; Saba Saba Day (July 7th); Tanganyika Independence and Republic Day (December 9th).

SHORE LEAVE: Allowed.

GARBAGE DISPOSAL: Drums are provided on the quays.

WASTE OIL DISPOSAL: No service available.

SEAMAN'S CLUBS: Missions to Seamen, Dock Gate 3, Kurasini. Tel: 20887. Hours: 0800 – 2200. Facilities: International telephone, postal service, bar, restaurant, shop, library, video, swimming pool, football, table tennis, darts, badminton, tennis and dances.

CURRENCY: Tanzania Shilling.

DEVELOPMENTS: The rehabitation of Berths No. 1 – 8 is well underway and will provide a better lay-out, refurbished buildings and new heavy duty paving throughout for handling all general cargo traffic in the port.

The second phase of the repaving of the Container Terminal Berths 9 – 11 is expected to commence in 1991.

The Lighter Wharf modernisation, which was interrupted, is due for completion with the provision of new paving and services but no completion date is known.

New navigation lights and buoys to be installed (Daphne Reef, Hammond Rock and N.W. of Buoy No. 2).

Among future developments which are under consideration are:

1. Improvements to the dockyard.
2. Improvements to the entrance channel.
3. New crude oil import facility.
4. Improvements to fendering at Berths 9 – 11.

SHIPMASTER'S REPORT: January 1995.

Anchorage: Both Inner and Outer Anchorages can be used, but because of the prevalence of piracy, most ships prefer to anchorage outside Makatumbe Island. Even this is not secure and, during our 36 hours at anchor, 2 vessels were attacked, both losing mooring ropes.

We used the Inner Anchorage during the day, and drifted some 10 miles off the coast at night.

Length: Maximum length for port shown as 175 m. Tankers over that length must obtain an indemnity valid for one voyage only. If exceeding 175 m., the maximum draft allowed is 9.0 m. We arrived with draft of 8.7 m.

Entrance: This was made with 2 hours of ebb tide running, and in the two shallow patches in the Channel we had barely 1.0 m. of clearance. Two Senior Pilots boarded and were extremely competent.

Radio Station: Dar es Salaam Radio has been off the air for some considerable time and will be off for the foreseeable future. The ship's Agent contacts the vessel via the Port Control on VHF Channels 16 and 12.

Documents:

Port Health:
- Crew List.
- Vaccination List.
- Ports of Call List.
- Health Declaration.

Immigration:
- 2 copies Crew List.
- Passenger List.

Customs:
- Crew List.
- Manifest.
- Personal Declaration.
- Parcels List.
- Bonded Stores List.
- Ship's Stores List.

Radio Inspector:
- Radio Room Equipment List (Supplied by Agent). He inspects all radio aids.

Plant Inspector:
- Ship's Declaration.
- Crew List.
- Stores List.
- Ports of Call List.

Agent:
- 4 copies Crew List.
- Original of Register.

Berth: Kurasini Oil Jetty: Length 200 ft. (approx.).

4 head lines and 4 stern lines to dolphins, 2 springs each end to quay.

Storage space ashore appears limited, and oil is pumped to available space rather than to the addressee on the Bills of Lading.

Turning Basin adjacent to quay is extremely restrictive with possibly 210 m. available, hence the length restriction.

Sailing from Tanker Berth: Any time, depending on draft at Neaps. Only close to slack water at Springs.

Water: Available by hose, but as in Mombasa, there is a chronic water shortage and pumping rates are very low. We received 50 tons in 36 hours. Do not rely on obtaining water here.

Security: Both theft and stowaways are a major problem here, although the tanker berth is probably more secure than the cargo berths from the landward side. We engaged 3 watchmen from the Agent (3 shifts of 3 men each). One patrols forward, one aft and the other remains in the vicinity of the gangway. Rates for watchmen are U.S.$10.00 per shift for normal time and U.S.$15.00 per shift for Saturdays, Sundays and the night shift. The watchmen were backed up by 3 seamen on each watch.

Two hours prior to sailing, a full search was made for stowaways. Special attention should be paid to the chain locker which is a favourite hiding place. This was followed by a second search after leaving the quay and before the Pilot left.

Tanzania will only readmit stowaways who can prove that they are Tanzanian citizens. The stowaways know this and hide their identity documents, so once the Pilot has left, it is all but impossible to get rid of them.

Agency: Only one Agency in this port, divided into various sections to handle differing trades:

NASACO, Box 9082, Dar es Salaam. Tel: 46602, 44914. Telex: 41235, 41323, 41145. Fax: 051-46070, 051-46049, 051-44504.

SHIP'S OFFICER'S REPORT: January 1996.

Berth: Kurasini Oil Jetty.

Mooring: 3 head (breast) lines and 2 springs each end and port anchor.

Let go port anchor to 2 shackles off the berth and slack out as vessel moves in. Two head lines from the starboard bow first by mooring boat, then it goes down for the stern lines. All springs by heaving line.

Tugs: One each end for berthing and for unberthing. Ships' lines, forward one does not make fast for berthing.

Ladder: Accommodation ladder used for access.

Cargo Operations: Shore has 6 in. lines for all grades (2 strings of rubber hoses). One is used for Mogas and the other for Jet and then gas oil. Shore do all connecting and disconnecting, but they have a lack of personnel, so crew assist. Sample tests are done onboard, and it appears to be just a check of density with a hydrometer.

Shore provide security teams of 3 men during the day and 3 men at night. On last visit, they reported 2 men climbing mooring lines, and some people were noticed in the water at 0500 hrs.

Radio communications are on Channel 72 and were very good, although in the past they have been reported as poor.

Discharge Rates: Maximum for Mogas is 8 Bar and 10 Bar for gas oil and Jet. Average rates: Mogas – 450 cu.m./hr.; Gas oil – 800 cu.m./hr.; Jet A-1 – 500 cu.m./hr.

Usually lots of parcels for this port. Shore give a discharge sequence at the beginning, giving all the quantities and approximate timings. "Ship stop" on the parcels, and it usually takes the shore about 30 minutes to change the shore line. Surveyor onboard, but he never checks the "stop" figures.

AUTHORITY: Tanzania Harbours Authority, P.O.Box 1130, Dar-es-Salaam, Tanzania. *Tel:* 44437. *Telex:* 41346 Portreeve. *Cables:* Bandari, Dar es Salaam. *Contact:* F.K. Luoga, Port Manager.

Tanzania Harbours Authority, P.O.Box 9184, Dar-es-Salaam, Tanzania. *Tel:* 21212, 46041. *Telex:* 41346 Portreeve. *Cables:* Bandari. *FAX:* 255-51-46925, 46039, 46043, 44793, 44813. *Contact:* Captain J.K. Kwayu, Chief Marine Officer.

MJIMWEMA TERMINAL: 06.49 S. 39.22 E.

DOCUMENTS and all General Information; refer to "Dar-es-Salaam".

LOCATION: The position of the Monobuoy is Lat. 6° 48.8' S., Long. 39° 22.1' E. lying approximately 1.5 miles offshore in Mjimwema Bay. The buoy lies in 24 m. depth of water. The currents are up to about 1 knot and the direction varies.

PILOTAGE: Mooring Master/Pilot boards at position Lat. 6° 46.5' N., Long. 39° 22.1' E., subject to advice from Signal Station. Should the Pilot not be available on arrival, vessels are advised to anchor 1.5 miles N.E. of Outer Makatumbe Lighthouse to await the pilot.

After mooring operations a Mooring Master/Pilot will remain on board.

Vessels must provide adequate means of boarding for Pilot, Customs and other officials. A pilot ladder with spreaders 4 ft. from the water and manropes are required.

The Mooring Master shall be provided with meals and accommodation comparable to a senior officer on board. The crew of the mooring launch will be provided with food comparable with ratings on board. No special foods need be provided. Accommodation also required for 2 divers.

RESTRICTIONS: Berthing during daylight hours only. Unberthing at anytime.

MAX. SIZE: Monobuoy accommodates tankers up to 120,000 d.w.t. Minimum length allowed 220 m. Max. draft allowed 16.75 m. Designed bow-to-manifold distance is 137 m.

HEALTH: Customs, Port Health and Immigration will board vessels on arrival.

RADIO: Within 6 hours of clearing the loading port, each tanker shall provide the Agent with the following information:

- *(a)* Name of Ship.
- *(b)* Name of last port from which the vessel cleared and the loading port if different from above.
- *(c)* Estimated date and time of arrival at Dar-es-Salaam (Mjimwema).
- *(d)* Cargo loaded.
- *(e)* API gravity.
- *(f)* Arrival draft, fore and aft.
- *(g)* Lifting capacity of derricks.
- *(h)* Size of manifolds.
- *(i)* Personnel requirements.

72 hours from the Pilot Station, a second cable should be sent to Agent with following information:

- *(a)* Name of ship.
- *(b)* Amended time of arrival.
- *(c)* Names of crew leaving the vessel (if any).
- *(d)* Requirements of doctor and dentist.
- *(e)* Any other requirements.

A final cable should be sent about 36 hours from the Pilot Station giving finally amended ETA.

When within 20 miles of the terminal vessel should call Dar-es-Salaam Signal Station on Channel 12 VHF. Channel 16 is available but is not continuously monitored.

VHF Channels 16 calling, 12 berthing. VHF Channel whilst discharging to be decided.

The Mooring Master will be in direct control of all radio communications on the vessel while in the terminal area. Any unauthorised communications may result in the immediate cessation of all operations and removal from the berth.

READINESS: Notice of Readiness will be accepted by the Receivers Representative when the ship is berthed and connected.

Any vessel which is not, in the opinion of the Berth Controller, ready in all aspects to discharge, may be rejected until corrections are made. The Harbour Master's decisions are final.

MOORING: The following equipment is supplied by Tanzania Harbours Authority. 2×10 in. circumference nylon ropes, 100 ft. long with 2 joining shackles. These will be hoisted aboard from the launch using the Starboard boom.

The vessel approaches the buoy head to wind and tide or the resultant of these forces, and should have one ship's mooring rope lowered through the centre Panama Lead down to the water level with 15 ft. of 3 in. rope lashed to the eye. As the vessel approaches the buoy the launch will connect the ship's rope to the floating pick-up rope, which is hauled aboard until the mooring chain is through the Panama Lead. The 2 shore ropes are then shackled to the chain and made fast aboard.

BERTH: The Monobuoy is a single point mooring buoy. The body of the buoy being secured in a fixed position with 6 moorings and the top of the buoy is in the form of a turntable allowing the ship, moorings and hoses to take up the position the vessel lies naturally due to tide, wind and current conditions.

HOSES: Raising and lowering of, connecting and disconnecting of hoses as well as other shipboard duties will be performed by the ship's crew under the advice of the Mooring Master. The ship should be capable of lifting 10 tons on her derrick, with a minimum of 7.5 tons.

When the vessel is securely moored, the launch will bring the hoses alongside on the starboard side. The vessel will lower the cargo hook to the boatman who will hook it on to the lifting ring on the forward hose. The hose will then be lifted to full height on the boom and secured on the "Hang-off Chains" supplied. The hose is then lowered to the deck and the operation repeated with the after hose.

After completion of discharge the hoses will be filled with sea water by the ship. The hoses can then be disconnected from the manifold and lifted over the side of the ship and hung there on the slip ropes to be slipped off simultaneously with the moorings. This last operation will be carried out on the advice of the Mooring Master.

UNMOORING: On sailing, hoses will already have been disconnected and towed clear by the attendant launch. The weight of the moorings is taken off the pick-up rope, the shackles disconnected, and the chain and pick-up rope lowered into the water. The shore ropes and shackles are then lowered into the launch, usually from the port bow.

The Pilot will then disembark, using a combination gangway/pilot ladder on the port side.

BALLAST: Ballasting will be allowed during discharge but only with the express permission of the Discharging Master. In the case of ballasting into dirty tanks a Dry Tank Certificate must be first obtained. Vessels will be allowed to carry out Crude Oil Washing, but no other form of tank cleaning. There are no sludge tanks ashore.

FUEL: Agip Tanzania have a bunker barge but can only supply fuel oil.

FRESH WATER: Up to 300 tonnes of fresh water is available by water barge. A pumping rate of approximately 10 tonnes per hour may be expected. Approximate cost is U.S.$7.00 per ton.

STORES: Stores are available in Dar-es-Salaam, but the Tanzania Harbours Authority cannot undertake to transport stores to the Monobuoy. Transport of stores to the buoy will be the responsibility of the Agent.

REPAIRS: During periods of calm and the fact that there is little current, it is foreseen that the problem of riding up on the buoy may occur. The vessel's engines shall therefore be available at all times and the telegraph shall be on stand-by while the vessel is in the berth. Engine repairs are not permitted. Should a vessel not be able to use her engines the cargo will be stopped and the vessel towed to a safe anchorage at the vessel's cost, until she can safely return to the berth.

SHORE LEAVE: Shore leave can be arranged through Agents. Should any of the crew require to be landed for medical or relief reasons, the Agent will be reponsible for providing transport to the Inner Harbour. Tanzania Harbours Authority craft will on no account be available to ferry crew members to and from the passenger pontoon. The Monobuoy lies 4.5 miles from the passenger landing pontoon, which is situated in the Inner Harbour.

POLLUTION: It is the Master's responsibility to see that no oil of any kind is pumped or spilled overboard from his vessel. This includes oily water from bilges, crude residues from the previous voyages or any other matter that may result in the pollution of the area. Owners and Masters should comply with any international regulations and recommendations concerning the prevention of pollution of the sea.

Serious consequences will arise if the above rule is broken. All costs and expenses involved will be for the account of the vessel concerned and the Master may be prosecuted under the Tanzania Merchant Shipping Act.

REGULATIONS: While in the berth the vessel should provide a pil ladder on the opposite side of the vessel to the gangway, secured a the rail and ready for use.

No boats of any kind shall be lowered without permission from th Customs, Immigration and Harbour Master, except in an emergency.

Tanzania Harbours Authority maintains vessels to assist in berthin These vessels are under the direct supervision of the Mooring Maste Pilot. Any service or faciility provided by the Tanzania Harbours Authorit including the services of the Mooring Master/Pilot and boats are th vessel's risk. The furnishing of Mooring Master/Pilot and launches o other services and facilities shall not be construed to be or give rise t a personal contract.

STOWAWAYS: Vessels are warned that stowaways remain a seriou problem at the Terminal. All exterior doors should be kept locke especially in the forecastle, and, if possible, the chain lockers should b sealed on deck. A thorough search prior to departure is essentia Stowaways found aboard will be escorted ashore by the Port Police o the Pilot when he disembarks (contact Signal Station on VHF Channe 12).

AGENCY: The sole ship's Agency in Tanzania is National Shippin Agencies Co. Ltd (NASACO). The Department dealing with tankers a the Terminal is Ruvuma Department. Tel: Dar-es-Salaam 2942 Telex: 41235. P.O.Box 9082, Dar-es-Salaam.

AUTHORITY: Tanzania Harbours Authority, P.O.Box 918 Dar-es-Salaam, Tanzania. *Tel:* 21212. *Telex:* 41346 Portreeve *Cables:* Bandari Dar-es-Salaam. *FAX:* 255-51-46925, 4479 *Contact:* Port Manager/Senior Harbour Master.

MKOANI (Kohani): 05.21 S. 39.38 E. (See Pla

DOCUMENTS, HEALTH: Refer to "Zanzibar".

PILOTAGE: Pilot available on request from Zanzibar.

RESTRICTIONS: Vessels passing through channel between Zanzib and Pemba should inform Port Authorities 24 hours in advance.

Entrance through Mkoani leading marks, buoyed and well-lit channe depth of 11 fathoms. Vessels may enter and sail any time night and da

ANCHORAGES: No mooring buoys. Minimum depth 6 fathoms. Vesse work cargo to lighters. Sandy bottom with mud close inshore.

MAX. SIZE: Length 250 ft.

TUGS: 2 tugs available.

FRESH WATER: Not available.

FUEL: Not available.

STORING: Very limited facilities and it is recommended that whe necessary all storing be done in Zanzibar.

DEVELOPMENTS: A jetty, 130.4 m. long, is to be constructed offsho and joined to the shore by a causeway 466 m. long and 4.0 m. wid Depth alongside 9.0 m. The jetty will be able to accept a vess 4,000 d.w.t. on the outer side and small domestic steamers and dho on the inner side.

AUTHORITY: Ministry of Ports and Shipping, Port and Mari Department, P.O.Box 263, Zanzibar. *Tel:* 32858, 32847 (hom *Telex:* 57267 Shipco TZ. *Contact:* Port Officer.

MTWARA: 10.16 S. 40.12 E. (See Pla

DOCUMENTS, HEALTH: Refer to "Dar-es-Salaam".

APPROACHES: The entrance is approached by a channel marked buoys and leading beacons. At its narrowest point abreast of Mse Spit the channel is 1.5 cables wide. In spite of the sharp turn in t vicinity, vessels of up to 175.26 m. in length can enter the harbour a stages of the tide. Once around the Msemo Spit there is a very g natural harbour with room for two 500 ft. vessels and 1 coaster alongs There are 2 unmarked anchorages to accommodate vessels of u 9.5 m. draft.

PILOTAGE: Compulsory. Pilot based at Dar-es-Salaam and flies Mtwara when required. Scheduled flights 3 times a week. E information concerning ETA to Harbour Master, Dar-es-Salaam. (So bound vessels requested to divert to Dar-es-Salaam to embark Pil

Pilot boards 0.5 mile North of Shangani Reef Buoy from availa craft.

Signal Station can be contacted on VHF, Channels 12 and 16, betw 0600 hrs. and 2200 hrs.

ANCHORAGES: No safe anchorage outside port.

RESTRICTIONS: Port closed from 1800 hrs. to 0600 hrs. No restrictions.

MAX. SIZE: Length 175 m., draft 9.76 m.

RADIO: Dar-es-Salaam or Mombasa Radio.

TUGS: Join vessel off Signal Station, when available.

BERTHING: Deep-water Quay: 1,248 ft. length; 9.75 m. depth along at low water. 2 berths available at quay.

Sheds and Stacking Yards:

The port has 4 sheds for reception and storage of cargo with a area of about 16,272 sq.m.

Transit shed No. 1 floor area is 3,121.4 sq.m.
Transit shed No. 2 floor area is 3,121 sq.m.
Transit shed No. 3 floor area is 728 sq.m.
B.P. shed floor area is 9,302 sq.m.
Stacking yard area is 9,000 sq.m.

Cargo Handling Appliances:
2 Jones mobile cranes (11 tons).
7 Fork lift trucks (2.5 tons and 5 tons).
5 Tractor trailers.
2 Tractors.

Marine Craft:
The port owns 2 launches and 1 pilot boat.

CARGO GEAR: Vessels load/discharge using ship's gear.

STEVEDORES: Stowage plan required, preferably 2 weeks prior to arrival. Gang arrangements to be made 24 hours before arrival.

Normal Working Hours:

Weekdays:	1st shift:	0700-1500
	2nd shift:	1445-2215
Saturdays:	1st shift:	0700-1230
	2nd shift:	1230-2030

A maximum of 3 hours overtime is permitted after 2nd shift in order to finish the ship.

MEDICAL: Doctor and dentist available. All crew require valid cholera and yellow fever inoculation certificates.

DENSITY: 1025.

FRESH WATER: Not normally available during daytime but available at night in limited quantities.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Arranged by Agents.

HATCHES: Opening/closing carried out by stevedores.

REPATRIATION: Possible.

AIRPORT: 7 miles from the port. 3 scheduled flights a week to Dar-es-Salaam International Airport.

TIME: GMT plus 3 hours.

HOLIDAYS: All holidays worked as Sunday except following days when no work done: Christmas Day and 1st May.

POLICE/AMBULANCE/FIRE: Port Police Tel. 059-3152. Port Fire Brigade Tel. 059-3043.

TELEPHONES: Direct connection on board not possible.

BANKS: The National Bank of Commerce (NBC), P.O.Box 142, Mtwara. Tel. 059-3267, 3304. Fax: 059-3329. This bank is within 2 km. of the port.

STORING: Trucks can proceed alongside the quay.

SHORE LEAVE: Crew allowed ashore.

IDENTIFICATION CARDS: Required.

GARBAGE DISPOSAL: Drums are provided alongside the quay. When the ship has sailed, final bills are immediately dispatched to the ship's agent for payment.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Tanzanian Shilling.

SHIPMASTER'S REPORT: December 1981 (Updated 1990).

Vessel called at Mtwara on 1st December, 1981. The following facts were obtained from Port Manager and Pilot:

Documents/Health: Refer to Dar-es-Salaam.

Pilotage: Pilot is based at Dar-es-Salaam and flies to Mtwara when required. Early information concerning ETA to "Harbour Master – Dar-es-Salaam". Pilot arrives by Air Tanzania regular flight. He may stay at the Pilot's Rest House or aboard the vessel. Pilot boards 0.5 miles N.W. of Shangani Reef Buoy from tug. Pilot ladder to be 3 ft. above water. Pilotage during daylight hours only. Signal station can be contacted on Channel 12 between 0600 hrs. and 1800 hrs. Channel 16 also available if required.

Approaches: Ras Msamgankuu lighthouse unlit. The entrance is approached by a channel marked by buoys and leading beacons, all unlit. Buoys only weighted and liable to drift. There are 2 unmarked anchorages to accommodate vessels of up to 9.5 m. All buoys and leads unlit.

Radio: "Mombasa Radio".

Tugs: Available from Dar es Salaam.

Cargo Gear: Ship's cranes or derricks used. Shore facilities (not used for discharging) consist of: 12 Hyster fork lift trucks (max. 3 tons); 2 tractors and 10 trailers SWL 15 tons; 2 Jones mobile cranes × 15 tons each and 5 Coles mobile cranes × 7 tons each.

Stevedores: Stowage Plan required, preferably before ship's arrival.

Medical: Doctor available. Medicine and/or injections in short supply and may not be available. All crew require valid Yellow Fever Certificates and anti-Malaria tablets should be taken on arrival.

Density: 1025.

Fresh Water: Sometimes available from quay in small quantities. No water barge.

Provisions: Fresh fruit and vegetables available in market.

Fuel: Not available.

Repairs: No facilities.

Gangway/Deck Watchmen: Arranged by Agent.

Agent: Only one Agent – National Shipping Agencies. Cable address: "Navigation Mtwara".

Identification Passes: Made out by Immigration Officials on board. Collected by Agent prior to departure.

Repatriation: Daily internal flights to Dar-es-Salaam.

Airport: 7 miles distant by road.

Time: GMT plus 3 hours (permanent).

Holidays: All holidays normally worked except Christmas Day and 1st May when no work possible.

Working Hours: Seven days weekly 0700–1500; 1500–2200 with requested extension from 2200–0100 if to finish vessel (except Heavy Lifts).

Telephones: Direct connection on board not possible.

Telex: One machine in Post Office for general use. Otherwise Agent telephones Dar-es-Salaam Agent who forwards telexes.

Shore Leave: Crew allowed ashore.

Mail: Very slow.

Main Exports: Cashew nuts, sisal, timber, pigcon peas, Casava in bags (not palletised) or bulk (bags slit).

Fenders: Tyre fenders alongside cemented quay. Additional fenders required by ship.

Cargo Security: Though adequate guards, security of cargo on quay is a problem as frequent blackouts due to power failures.

Aero (RC): Strong signal operational 0800–1530 LMT.

Restrictions: Cameras must not be used. Taking of any photographs whatever is strictly prohibited.

Customs Allowances: Officers: 8 cans beer, 1 part bottle spirits. Ratings: 8 cans beer.

Heavy Lifts: Not worked after 1800 hrs. due to darkness.

Notes: (a) All navigation lights in Tanzania (except Zanzibar Island and Pemba Island) are unreliable.

(b) If next port is Dar-es-Salaam, Pilot will remain on board and take vessel into Dar-es-Salaam.

SHIPMASTER'S REPORT: December 1983 (Updated 1990).

Documents/Customs Regulations:
Crew Declaration Form (Form C.8)
Declaration and Advice of Consumable Stores (Form C.7)
Passenger List or Nil List (Form C.6)
Parcels List or Nil List (Form C.3)

One copy of each of the above being required and 1 copy of the Manifest. (Company Manifest not acceptable, Form supplied locally.)

Dutiable goods allowance:

Each member of the crew including the Master is allowed 1 ounce of tobacco or 25 cigarettes per day. The Master and officers are also allowed a quarter pint of potable spirits and 1 quart of wine or beer. The other members of crew are allowed either a third of a pint of spirits or one sixth gallon of beer or one sixth gallon of wines. Dutiable stores are issued to a limit of 8 days (cigarettes) and 4 days (beer and spirits).

Quarantine Regulations:
1 copy of Maritime Declaration of Health.
1 Crew List with valid dates for Cholera and Yellow Fever.
Pratique not granted by radio.

Pilotage: Compulsory. Pilot is available between 0600 – 1800 hrs. and boards in an approximate position 1 to 2 miles North of Shangani Shoal.

Pilot boat (VHF Channels 12 and 16) – Pilots have hand set.

Anchorages: No recommended sea anchorage. If arriving off Mikindani Bay at night, it is prudent to cruise WELL OFF until daylight, currents are strong and set onshore.

A sheltered anchorage exists in the inner bay with reported good holding ground in about 12 fathoms.

Approaches to Berth(s): From the Pilot Station passing S.W. of Shoal Buoy into channel marked by an unlit buoy. The sharp bend around Msemo Spit requires very careful navigation and steering.

Radio: Standard instructions/communications.

VHF: Channels 12 and 16 available between 0800 – 1200 hrs. and 1400 – 1600 hrs. local time Mtwara Signal Station.

Tugs: Possibly available (on prior notice) from Dar-es-Salaam.

Description of Berth(s): Berth No. 3 situated on the main wharf which is of stone construction with rubber tyre fendering. Owned by Tanzania Harbours Authority.

Berthing: Night berthing/unberthing is not permitted.

Vessels normally berth starboard side to, 1 tug meets vessel off the signal station.

Mooring wires are permitted: shore gangway is available.

Density: 1025.

Tankers: Shore Lines: 10 in. Connections: 8 in. flexible hose. 65 m. from Eastern end of quay approximately. Grades: M.S., G.O., and K. Maximum Pressure: 75 p.s.i.

Ships' lifting gear required for 1.5 ton lift.

Fuel: Bunkers not available.

Fresh Water: Water supply has been improved but shortages may be felt in the dry season. It is reported to be of poor quality and should not be used for domestic purposes, unless boiled and filtered (See "Laundry and Stores").

Ballast: No ballast disposal or tank cleaning facilities available.

Port Regulations: Immobilisation of engines not permitted alongside.

Laundry and Stores Facilities: Reports indicate that fresh water and/or provisions obtained at Mtwara are of very poor quality and may have been the source of a severe infection which affected several ships' crews. Masters are, therefore, warned accordingly.

Repair Facilities: None available.

Crew Identification Cards: Crew require identity cards when proceeding ashore.

Medical: Medical facilities with government hospital available.

Precautions: Be careful of stowaways.

AUTHORITY: Tanzania Harbours Authority, P.O.Box 530, Mtwara. *Tel:* 3125, 2121, 2183. *Telex:* 56076. *Cables:* Bandari. *FAX:* 255-59-3153. *Contact:* M.J. Mungure, Port Manager.

Tanzania Harbours Authority, P.O. Box 9184, Dar-es-Salaam, Tanzania. *Tel:* 21212, 46041. *Telex:* 41346 Portreeve. *Cables:* Bandari. *FAX:* 46043. *Contact:* Director General/Chief Marine Officer.

TANGA: 05.04 S. 39.08 E. (See Plan)

PORT LIMITS: From high water mark at Ras Kwawa 090° to the meridian of 39° 15' E., thence 180° to the parallel of Lat. 5° 05' S., thence 270° to the mainland at high water mark. Time of anchorage within port limits to constitute an "arrived vessel".
DOCUMENTS, HEALTH: Refer to Dar-es-Salaam.
Shipmaster's Report: March 1981.

Same as Dar-es-Salaam "Shipmaster's Report" except: 7 Passenger Lists, 2 sets Vaccination Lists, Heavy Lift List.
APPROACHES: Tanga is approached from the S.E. through channel in line with Ulenge leading marks bearing 319° (T). A 3 fathom bank to starboard is marked by ship channel buoy. Care should be taken in this vicinity as there is frequently a strong set to the N.E. On the port hand, Niule Reef is marked on Northern tip by a beacon. After passing Niule Reef Beacon it is necessary to turn to port on to Ras Kazone leading marks bearing 266° (T) until Ulenge Beacon is sighted.

A signal station is situated immediately below Ras Kazone High Light. Signals are exhibited to indicate if inner channel to harbour is clear.

Late afternoon arrivals to Tanga may encounter poor visibility of land marks due to haze from setting sun.
PILOTAGE: ETA required via Mombasa Radio, if not given by Agents at previous port of call. Pilot embarks from white launch in vicinity of Ulenge Beacon on Ras Kazone leading line. Pilot ladder required on port side in N.E. monsoon, and on starboard side in S.W monsoon.

Vessels wishing to enter must await the arrival of the Pilot at the outer anchorage and, if anchored, must anchor well clear of the leading lines.

Pilotage is daylight only, but during the N.E. Monsoon, when vessels lie at anchor facing out to sea, Masters with previous experience of Tanga will be granted permission to sail at night without a pilot.

Masters of deep-draft vessels, or Masters who are in any doubt about their approach, may request a pilot in a position approximately one mile S.E. of Buoy No. 1.
ANCHORAGES: Tanga has no deep water berths. It is a lighterage port where ships are worked at anchor in the stream. Eleven safe anchorages have been marked by means of beacons. The inner harbour provides 7 anchorages for use by deep sea vessels with length of up to 213 m., and drafts of between 6.4 m. and 9.5 m.

The outer harbour has 3 anchorages with drafts well over 9.45 m.

Incoming vessels without Pilot should not anchor within 1 mile of Ras Kazone.
RADIO: Mombasa Radio. Ras Kazone Signal Station keeps 24 hour VHF watch on Channel 12.
TUGS: Available on request from Dar-es-Salaam.
BERTHING: All except bulk cargo work is carried out at anchor. Vessels are not berthed in Inner Harbour during hours of darkness except by special request in cases of urgency.
Fertiliser Jetty: A Fertiliser Jetty with a single berth of 16 m. maximum draft is available in the harbour. The jetty has 2 cranes connected to a sophisticated hopper system for handling materials for the fertiliser factory only.

Also see "Cargo Handling Facilities".
Quays: The new Lighter Wharf, 240 m. long, is situated at the Eastern end of the port. It has a depth of 2.44 m. at low tide. The old wharf now under modernisation has a length of 140 m., and has similar depth of 2.44 m. at low tide.

Facilities for harbour dhows and schooners engaged in coastal wise cargo transportation are provided at the end of the old wharf where only 1 schooner or dhow can work at a time. The water alongside has a depth of 2.44 m. at low tide.
CARGO HANDLING FACILITIES: One 20 ton fixed crane and one 40 ton mobile container handling crane are available on lighterage wharf for heavy lifts. 12 cranes of 5 tons capacity also available. A jetty on the Eastern side of Ras Kazone provides 1 berth for vessels of 20,000 d.w.t. equipped for the discharge of bulk cargoes and liquid ammonia. Two portal cranes of 7 tons capacity fitted with grabs. Jetty currently handling bulk products for fertiliser factory.

The port is able to handle 20 ft. containers on 5×20 ton trailers.

The port has 33 fork lifts, 3 tractor, 1 shunter and 2 Coles cranes, 3×16 ton Scamel trailers, 6×8 ton Scamel trailers, 4 Hyster cranes, 1×35 ton front loader for container handling and 4 Scamel hoses. The above equipment is maintained by the Authority's mechanical and electrical workshops at the port.
Sheds and Stacking Yard: There are 3 sheds for reception and storage of cargo.

The main stacking yard which is rail and road served covers a total area of 20,000 sq.m. There is also a new yard which covers an area of about 861 sq.m. Shed Nos. 6 and 8 are mainly for handling exports while Shed No. 7 is for imports. Total floor space of the shed is 10,000 sq.m.
Marine Craft: The transfer of cargo from vessels working at anchor to the wharves and vice-versa is done by means of lighters. There are 30 lighters in use. In addition there are 4 lighter towing tugs, 3 runboats, 4 labour launches and 2 landing pontoons.
PASSENGER FACILITIES: All passengers and visitors to ships pass through the Customs Passenger Terminal at the Eastern end of the new lighter wharf, and embark or disembark from the pontoon landing stage. Private hire launches available.
TANKERS: Two buoys are situated in a restricted area at the Western end of the Port for the use of local tankers transhipping oil products from Dar es Salaam.
FRESH WATER: There is no water available, even on the Lighter Wharf, due to very low water pressure.
FUEL: Only available to coasters at the lighter quay.
SURVEYORS: A Lloyd's appointed surveyor is available for cargo, container, on/off hire and draft surveys. Contact Mr.G.R.Blackway, P.O.Box 794, Tanga. Tel: Tanga 43327. Telex: 45033 NOTCO.
REPATRIATION: Repatriation is possible through Tanga, but would be far easier through Mombasa or Dar es Salaam.
GARBAGE DISPOSAL: No facilities available.
WASTE OIL DISPOSAL: No facilities available.
SEAMAN'S CLUBS: None.
CURRENCY: Tanzania Shilling (TS.).
All foreign exchange must be declared on arrival and may be checke before departure. A maximum of TS.200 may be tanken out of th country.
GENERAL: Refer to "Dar-es-Salaam" for all general information.
AUTHORITY: Tanzania Harbours Authority, P.O.Box 443, Tanga Tanzania. *Tel:* Tanga 43078. *Telex:* 45000 Harbor TZ. *FAX:* 42360 *Contact:* Harbour Master/Port Manager.

Tanzania Harbours Authority, P.O. Box 9184, Dar-es-Salaam Tanzania. *Tel:* 21212, 46041. *Telex:* 41346 Portreeve. *Cables:* Bandari *FAX:* 25551, 46043. *Contact:* Captain J.K. Kwayu, Chief Marine Officer

WETE (Pemba): 05.14 S. 39.43 E.

DOCUMENTS, HEALTH: Refer to Zanzibar.
PILOTAGE: Not compulsory, but restricted to daylight only. Vessels passing through channel between Zanzibar and Pemba should infom Port Authorities 24 hours in advance.
RESTRICTIONS: Entrance through Uvinje Cap, channel dept decreasing to 11 fathoms, with shallow patches to be avoided. Narrowes part of channel is 1.5 cables wide. Vessels may enter and leave at an state of tide but in daylight only.
ANCHORAGES: No mooring buoys. Vessels work cargo to lighters Depth decreases to 2.5 fathoms. Mud bottom.
MAX. SIZE: 240 ft. length; 25 ft. draft.
TUGS: 2 tugs and 1 labour boat.
LIGHTERS: 3 lighters of 200 tons each.
6 lighters of 100 tons each.
FRESH WATER: Not available.
FUEL: Not available.
STORING: Very limited facilities and it is recommended that when necessary all storing be done in Zanzibar.
AUTHORITY: See "Zanzibar".

ZANZIBAR: 06.09 S. 39.11 E. (See Plan

DOCUMENTS:
Bill of Health.
3 Crew Lists.
6 Passenger Lists.
3 Cargo Manifests.
3 Customs Manifests.

Also Required: Bills of Lading, Ship's Papers, Ship's Certificate Health Certificates (Yellow Fever and Cholera).
PILOTAGE: Compulsory. Pilot requires ETA 24 hours before arriva Contact can be made through Pilot Station (VHF Channel 16 – 24 hou a day). Pilot boat may be contacted on VHF when in operation – pil boat is painted orange.

Vessels approaching from English Pass embark Pilot at Seagull Buo and vessels approaching from South Pass meet Pilot at Penford Buoy Pilot takes vessel in an out, day and night. Vessels awaiting Pilot anch at the boarding position.

Recommended time for entry and departure is between 0600 hrs. a 1800 hrs.
ANCHORAGES: 6 anchorages to accommodate vessels drawing up 32 ft. Additional anchorage provided for vessels carrying explosives
RESTRICTIONS: 2 entrances, English Pass and South Pass. The form is approximately 1 mile wide and has minimum depth of 6 fathoms 4 and a very narrow angular turning corner of 1.7 cables width. South Pa wider and deeper than English Pass. Passes are well buoyed and lit English Pass, tidal stream runs North and is stronger on ebb than rising tide. South Pass, tidal stream runs N.N.W. and stronger on flo than on ebb-tide. Vessel may enter or leave at any state of tide.
MAX. SIZE: (Anchorage) Length 1,100 ft., beam 110 ft., draft 32 ft.

Also see "Developments".
HEALTH: Pratique given by Quarantine Officer who boards on arri All crew required to be in possession of valid yellow fever and chol inoculation certificates.
RADIO: No official call sign for the control station, but there is a r radio installation at the Agency on VHF Channel 16 with a call s ZANSAC (Zanzibar National Shipping and Agency Corporation).

There is also a long-range radio on frequency 8297.3 kHz.
RADAR: No installation.
TUGS: No tugs are required as all vessels work in stream. Tugs only used for towing barges to and from vessels, transporting labour other stevedoring activities.
BERTHING: Concrete pile wharf 800 ft. long to North of Ras Shan used mainly for lighterage purposes and for berthing Govern coasters. Under special circumstances, upon prior request to Officer, vessels of less than 375 ft. length and drawing less than 2 may be permitted to berth alongside, but due prevailing onshore w this practice not encouraged.

Also see "Developments".

CRANES: Four old cranes and 1 mobile crane of 7 tons at the Wharf. No heavy lift cranes, however if heavy lift crane required, arrangements are easily made to put the load in a landing craft to be discharged at a point near the port, using lowloader to tow it to its destination. No objection to vessel using its own gear.

BULK CARGO FACILITIES: No berth for foreign vessels, all work carried out in stream.

Discharging Rate: 350 – 400 tons per gang per day in case of bagged stuff or pallets. No facilities for bulk cargo handling or containers, but one or two containers can be handled.

STEVEDORES: Normal working hours Monday to Thursday, 0700 to 1500 hrs. Friday 0700 to 1200 hrs.

Work can be extended on overtime for a second shift up till 2300 hrs.

Average rates: bagged cargoes 15 tons per gang hour, general cargo 8 tons per gang hour.

LIGHTERS:

2 lighters, open at the top for heavy equipment 280 tons each.
2 lighters for bag and general cargo, each with a capacity of 300 tons.
5 lighters for bag and general cargo, each with a capacity of 200 tons.
5 lighters for bag and general cargo, each with a capacity of 150 tons.
6 lighters for bag and general cargo, each with a capacity of 100 tons.

FRESH WATER: There is one water barge of 250 tons capacity. Water can be supplied at the wharf by hydrant or at the anchorage in the stream by water barge.

FUEL: Not available.

SURVEYORS: Department of Marine Transport, P.O.Box 263. Tel: 32857.

STORING: See "Prelims".

1. Storage done by barges.
2. There is no restriction in doing so, provided the Master can allow both operations to be done simultaneously.
3. Yes.
4. Yes.
5. Stores have to be checked by the Customs Authority.

GENERAL: Members of the crew who wish to fish around the harbour limits have to notify the Signal Station and the harbour police of direction they are going. If the crew wish to visit the offshore island, they have to contact the Agent who will obtain permission for them and advice.

DEVELOPMENTS: *The West Wharf:* Facing West with a total length of 260 m. This is a combined length of 170 m. on the Northern end with 9.0 m. water depth for longer vessels of up to 30,000 d.w.t. The Southern portion of 90 m. length with 5.5 m. water depth is for smaller vessels berthing.

The North Wharf: Facing North with 130 m. length and 5.5 m. water depth. This will also be used for smaller vessels' berthing.

The new jetty will extend some 10.0 m. further seaward of the existing one, and will have a container storage area located on the Southern end of the West Wharf.

AUTHORITY: Department of Marine Transport, P.O.Box 263, Zanzibar, Tanzania. *Tel:* 32858. *Telex:* 57267 Shipco TZ. *Cables:* Shipping. *Contact:* Captain Ramadham Saleh, Port Officer. Major H. Kh. U. Mlinde, Director, Department of Marine Transport.

NOTES

Please also advise Shipping Guides Ltd.

Thailand

GENERAL:

IMMIGRATION: The Thai Immigration Department has issued a Notification, dated March 15th, 1976 to the following effect:

"Chinese or Hong Kong crew members not in possession of Seamen's Discharge Books, but holding Certificates of Identity only are not recognised as bona fide crew members, and are liable to Immigration Guarantees at 50,000 Baht per person, to be filed upon arrival."

All concerned are kindly requested to check and ensure that all Chinese crew members are in possession of either Passports or valid Seamen's Discharge Books, and not Certificates of Identity, to avoid complicated Immigration procedures involving deposits, etc.

REGULATIONS: Thai Government Regulations: Thai laws relating to the production, possession, distribution and use of narcotic drugs are extremely severe. Penalties for infringement range from prison sentences and fines to life imprisonment and even execution.

The Thai Navigation Act requires Masters of all vessels calling at Thai ports to observe the following:

On preparing to depart Thai waters, vessels shall fly the International Code flag indicating that the vessel is about to proceed to sea (code flag P).

If the vessel is to depart in the morning this flag is to be flown in the afternoon of the previous day, if departure is in the afternoon, code flag 'P' is to be flown in the morning.

Departure shall be notified to the Harbour Master at least 6 hours before expected time of departure.

Documents required by Port Authorities (other than those required for specific ports) include:

Ship's Licence and Safety Equipment Certificate.
Certificate of Registration.
Certificates of Competency (including Radio Officers).
Radio Certificate.
Ship's Articles.
Last Port of Call Clearance.
Log Book.
Load Line Certificate.
Derat or Exemption Certificate.

BANGKOK: 13.26 N. 100.35 E. (See Plan)

LOCATION: Bangkok Port is located on the left side of the Chao Phraya River between Km. +26 and Km. +29, in the Klongtoey District of Bangkok.

PORT LIMITS: The jurisdiction waters under the Authority's responsibility begin from the Memorial Bridge of the Chao Phraya River downstream to the Km. −18 in the Gulf of Thailand, about 57 km. long.

DOCUMENTS: Ship's forms: Crew List; Passenger List; Stores List; List of Arms and Ammunition for ship's use; List of Arms and Ammunition in possession of passengers; List of opium and harmful habit-forming drugs; List of crew private belongings (cigarettes, radio, gramophone, camera, etc., including foreign currencies and liquors); Dangerous Cargo List; List of heavy lifts; Stowage Plan; Inward Cargo Manifest; Transit Cargo Manifest; Through Cargo Manifest; List of Containers.

Documents to obtain from officials and Agents: Immigration forms No. 3, 4 and 35, obtainable from Agents. International Maritime Declaration, obtainable from Quarantine Officer.

For safety reasons, all dangerous goods such as calcium hypochlorite, butanox (methyl ethyl ketone peroxide), sodium hydrosulphide, nitrocellulose and potassium chlorate, are not allowed to be kept in a godown or dangerous goods warehouse. Such dangerous goods have to be discharged overside into a barge or cargo boat or truck.

APPROACHES: The entrance of the Chao Phraya River is marked by the Bangkok Bar light beacon situated at the Lat. 13° 26' N., Long. 100° 35' E. The approach to the port is made through the bar channel, which is 18 km. in length, 100 m. wide in the reaches, and 250 m. wide in the bend. The channel is dredged and maintained to a depth of 8.5 m. below Mean Sea Level (MSL) or 6.3 m. or 20.7 ft. below Lowest Low Water (LLW).

PILOTAGE: Pilotage is under the supervision of the Harbour Department, a separate Department attached to the Ministry of Transport and Communications. The Pilot Station is situated at Lat. 13° 22' 38.008" N., Long. 100° 35' 57.672 " E., 22 km. from the Phra Chullachomklao Fort along the channel.

ANCHORAGES: See "Shipmaster's Report" dated March 1984.

RESTRICTIONS: No restrictions, able enter day and night, dependent tide at Bar Channel.

MAX. SIZE: Vessels of 10,000 – 12,000 d.w.t., 172 m. LOA and 8.2 m. draft are allowed to navigate through the channel for berthing.

HEALTH: *Radio Pratique:* According to the Thai Ministry of Health's Regulations and International Health's Regulations Article 36:

Under the responsibility of ship's Master and shipping Agents, vessels from infected areas may apply for exemption of Quarantine through Radio Pratique by telegram sent to Quarantine Bangkok, stating name of ship, last port, number of passengers and health of crew and passengers.

(a) Vessels with passengers from infected areas proceeding to the berthing places in Bangkok must slow down at Paknam enabling Port Health Officer to board the ship for inspection.

(b) Vessels without passengers from infected areas go directly to berthing places in Bangkok where they will receive Port Health Officer for inspection.

Remarks: In case of suspected infectious disease on board any ship o anything suspect about health or ship sanitation, the ship's Master i requested, as early as possible, to inform the Port Health Officer a International Quarantine Office (Medical) Section, Immigration Division North Sathorn Road, Bangkok, Tel. 39588.

Documents Required: 1 copy of Maritime Declaration of Health; 1 cop of Crew List; 1 copy of Passenger List; Derat or Derat Exemptio Certificate.

Vaccination: Vaccination Certificates required: Cholera (only whe leaving from infected areas); Yellow fever (only when leaving fro infected areas).

However, vaccination may be done as deemed necessary by Po Health Officer even if the crew or passengers are from non-infecte areas.

Vaccination certificates will be shown collectively for trans passengers/crew members and individually for disembarkin passengers/crew members only.

Exemption from Vaccination: If the Port Health Officer is of the opinio that vaccination is contra-indicated on medical grounds, he shall provid the persons with reasons, written in English, underlying that opinion which Health Authorities should take into account.

Death on Board: In the case of death on board after the ship arrived a the anchorage or at the port, permission to land the corpse must b obtained after the inspection of the Port Health Officer, if the cause o death was not quarantinable diseases.

Ship's Master or shipping Agent must inform the Port Health Office if there are cadavers and/or remains on board of persons who died i a foreign port, in order to pass through the quarantine. The dead shou be accompanied by a death certificate (or a true copy), signed by th medical officer and placed in a coffin hermetically sealed in a caske which is air-tight and waterproof.

According to Immigration Law B.E. 2493 (1950): The traveller to Thailan must be free from diseases forbidden under section 14 (4) of th Immigration law such as: trachoma, leprosy, tuberculosis, venere diseases, including persons having physical or mental defects wh cannot earn their living.

RADIO/VHF: The Port Radio Station located at Lat. 13° 42' 38" N Long. 100° 35' 58" E., is operated by the Port Authority of Thailand (PAT for the use of port business only.

Port Radio "Bangkok Thailand", call sign HSC 61 Station.

The incoming vessels are to communicate with port officers at th distance of between 1,500 – 2,000 miles by radio telegraphy.

There are 3 radio telegraphy systems as follows:

1. HF – Power 1,000 watts.
   – Port transmits on 8,466 kHz.
   – Port receives on 8,363.2 – 8,367.2 kHz.
   – Open 7 times a day at 0700, 1000, 1200, 1500, 1800, 210 and 2300 hrs. GMT (About 30 minutes each time).

Information required from the vessel includes:

(1) Vessel's name and nationality.
(2) Last port of departure.
(3) Estimated time of arrival at Pilot Station.
(4) Draft (fresh water) in feet or metres.
(5) General cargo tonnage to be discharged.
(6) Dangerous cargo.
(7) Heavy lift required.
(8) Fresh water required.
(9) Number of passengers (landing and transit).
(10) Time of dropping anchor at Pilot Station.

So as to check the time to reach the Pilot Station, when entering t Gulf of Thailand, or at the distance between 400 – 1,000 miles, t vessel has to communicate with port officers again by radio telegrap

2. MF – Power 1,000 watts.
   – Working frequency 443 kHz.
   – Calling frequency 500 kHz.
   – Traffic lists broadcast daily at 0450 hrs. GMT, and t beginning of every hour (2300 – 1700 hrs. GMT).

Upon reaching the Bar Channel, or at the distance of 6 – 10 mi from the Pilot Station, communication by radio telegraphy is to changed to radio telephony, call sign "Port of Bangkok",

3. VHF – Power 60 watts,
   – Calling Channel 16,
   – Working Channel 14,

so that the vessel shall be informed of its mooring place.

Communication with the radio station of the Communications Autho of Thailand is required for any other business.

BERTHING: Upon the arrival of a vessel at the mouth of the Chao Phra River, PAT officers will communicate with the Pilot onboard by ra telephony to receive requisite information, so as to make arrangeme for berthing facilities such as berths, tugs, mooring boats, etc.

Final berth allocations are made each day at 1000 hrs. by a commi of the Bangkok Port and shipping agents. Exclusive berthing rights provided to certain groups of shipping lines who guarantee throughputs according to PAT's demand.

Ships with breakbulk import cargoes are berthed at the West Termi The dolphins and buoys are used to moor vessels' loading expor undergoing minor repairs. Vessels on completion of discharge and cargo to load are moved to the dolphins. Container ships, which inc combo and feeder ships, are berthed at the East Terminal.

Berthing facilities:

Berth/Dolphin/Buoy	*Length* (ft.)	*Number of Berths*	*Max. LOA/ Draft* (ft.)
East Quay	5,012	8	565/27
			300/15
West Quay	5,445	10	565/27
Klongtoey Dolphin	4,183	36	565/27
Bang Hua Sua Dolphin	4,592	25	565/27
Mooring Buoy at Sathupradit	5,182	5	450/25
			300/23

CRANES/EQUIPMENT:

Equipment	*Capacity* (tons)	*Quantity*
Rail-mounted Shoreside Container Cranes	32.5	12
Yard Gantry Cranes	30	10
	35	14
Top Loaders	30	8
	40	31
Empty Container Stackers	6-7	25
Semi-portal Cranes	3-5	12
Mobile Cranes	10	7
	50	9
Forklift Trucks	5,000 lbs.	48
	7,000 lbs.	316
	10,000 lbs.	77
Tractor for Trailers	30	68
Container Chassis	30	78
Towing Tractors	8,000-12,000 lbs.	34
Trailers	5-30	61
Motor Trucks	5-7	149

TUGS: 12 tugs available, 1,000 h.p. – 1,800 h.p., all tugs equipped with firefighting equipment.

BRIDGES: Bangkok Port has one bridge only. However, as bridge up river, vessel permitted to pass bridge with LOA not exceeding 280 ft.

STEVEDORES: Vessel to advise Agents 48 hours prior arrival, text required in this cable to be ETA, Drafts, Tonnage of cargo aboard for Bangkok, Number of crew/passengers, Dangerous cargo/Heavy lifts, Gangs required. Undertaken by private companies.

Working Hours: 0800-1200 hrs. – day shift, 1300-1630 hrs. – day shift, 1630-1800 – overtime (working through), 1900-2400 hrs. – first half-night shift, 0100-0500 hrs. – second half-night shift, 0500-0700 – overtime (working through, but should apply for P.A.T. approval).

On Saturdays, Sundays and public holidays, the day shift finishes at 1600 hrs.

MEDICAL: Hospital facilities available, advance notice of ETA required.

TANKERS: No facilities.

DENSITY: Bangkok: Minimum 1000, maximum 1011; Kohsichang: 1021.

FRESH WATER: Available, supply can be made through barges and shoreline. Capacity of barges from 120 to 250 tons, rate of supply approx. 30 t.p.h. Advance notice 24 hours.

FUEL: Available. Supply can be made by barges, no delay on bunkering, advance notice 48 hours.

FIRE PRECAUTIONS:

1. Smoking is strictly prohibited in transit sheds and warehouses and in the vicinity of explosives and dangerous cargoes.
2. There is a Fire Brigade unit in the port area with fire fighting equipment, such as fire fighting vehicle, portable chemical fire extinguishers and tug equipped with fire fighting system.
3. It is prohibited to discharge and load dangerous cargoes, such as explosive cargoes and radio active substances.

CONSULS:

Argentina	36911-3
Australia	35970-9
Austria	58327, 59071, 517208
Belgium	30840
Brazil	59070, 5 – 6030
Cambodia	57650, 57709, 55223
Canada	3 – 2956-7, 3 – 0746, 3 – 8215
China	5 – 8051-4, 51 – 3912
Denmark	26 – 3930
Egypt	53358
Finland	33617
France	3 – 0957-9, 3 – 0950, 3 – 4644
Germany	86 – 1041
Great Britain	53291, 517952
Greece	52 – 1686
India	3 – 5065
Indonesia	5 – 8045 – 7, 51 – 8915
Iran	86 – 0950, 86 – 1350
Iraq	229353
Ireland	39454
Israel	5 – 3371-2, 51 – 8915
Italy	3 – 4508, 3 – 7230, 3 – 7819
Japan	5 – 3301-9
Korea	86 – 1074-5
Laos	86 – 1041
Malaysia	86 – 1390-1
Monaco	31437
Myanmar (Burma)	30237, 31698
Nepal	917240
Netherlands	5 – 3360, 5 – 3368-9
New Zealand	3 – 5936-7
Norway	3 – 0271
Pakistan	5 – 7006-8
Panama	911289
Philippines	910008, 910211
Portugal	30372
Russia	31824
Saudi Arabia	37941-2
Sri Lanka	8291168
Singapore	30509, 33117, 38735, 38741
Spain	56502, 58368, 55167
Switzerland	58002-4
Sweden	863907-8
Turkey	73999
United States of America	59800, 59801-9, 53101, 55981, 517986, 516939, 519914, 58478, 522723
Vatican	31804
Vietnam	517201-3

REPAIRS/DRY DOCKS: No major facilities at the port. Mobile repair companies available. No berth dedicated for repair work.

SURVEYORS: Lloyd's, ABS, Veritas, Nippon Kaiji Kentei Kyokai Surveyors available.

GANGWAY/DECK WATCHMEN: Necessary. Theft of wire, paint and tools has occurred.

OPENING/CLOSING HATCHES: Normally by ship's crew.

CUSTOMS ALLOWANCES: *Customs Regulations:* It is prohibited by law to bring the following articles into Thailand: narcotics: hemp, morphine, cocaine, opium, heroin, marijuana etc.; obscene literature or pictures, firearms or ammunition (except those obtained by permit from the Police Department or the local registration officer).

Following items are permitted to bring into Thailand free of duty: personal effects: accompanied with the owner for his own or professional use in reasonable quantity, except motor vehicle, fireams and ammunition, provisions. As for spirituous liquor, cigarettes, cigars or smoking tobacco, being personal effects and accompanied with the owner, the Director General of Customs may impose any restriction with respect to the exemption from payment of duty at any port as he considers suitable but the quantity must not exceed: (a) cigarettes; two hundred grammes, (b) cigars, smoking tobacco; two hundred and fifty grammes, each or altogether, (c) spirituous liquor; one litre. Photographic/cinematographic apparatus and sound recording machines imported by persons who temporarily visit Thailand for the purpose of taking photographs or recording; but films, plates or articles for recording, imported for such purpose must be in accordance with the condition and quantity specified by the Ministry of Finance: (a) photographic films (roll); not exceed 5 rolls, (b) photographic films (plates); not exceed 40 plates, (c) cinematographic films (8 or 16 mm. in width); not exceed 5 rolls, (to be re-exported within six months from the date of importation).

Permanent residents of Thailand must register their cameras on the outgoing trip to gain duty free status.

The export of Buddha images and antiquities are prohibited except for qualified educational, cultural and archaeological purposes.

CARGO GEAR: Supplied by stevedores, except cargo tent and forklift truck.

REPATRIATION: Possible.

AIRPORT: About 30 km. from port, regular services by airlines.

TIME: GMT plus 7 hours. No change during the year.

HOLIDAYS: New Year's Day, Buddhist's Day, Song-Kran Festival Day (Thai New Year), Royal Plouging Ceremony Day, Coronation Day, Chulalongkorn Day, Constitution Day, PAT's Anniversary Day, H.M. the King's and the Queen's Birthday, and Chakri Day. When any one of these holidays falls on a Saturday or a Sunday, the following Monday is observed as a holiday.

POLICE/AMBULANCE/FIRE:

Police Tel: 2498888-91.
Marine Police Tel: 2496399, Ext. 2790.
Fire Department Tel: 2490399, Ext. 2993, 2999, 2444.
Ambulance Tel: 2494106, 2490399, Ext. 2223, 2224, 2258.
Hospital Tel: 2494106, 2490399, Ext. 2223, 2224, 2258.

EMERGENCY CO-ORDINATION CENTRE: Not available.

BANKS: Bangkok Bank (Klongtoey Branch). Tel: 2499312-4.
Thai Farmer Bank (Klongtoey Branch). Tel: 2490463-4.
Ayuddhaya Bank (Klongtoey Branch). Tel: 2498012-4.

STORING: See "Prelims".

1. Vessel can be stored by barges or trucks.
2. Vessel can store from barges during loading or discharging.
3. Trucks cannot proceed alongside the berth, but Port Authority provides the parking area for trucks inside the Port Authority's area.
4. —
5. Regulations of Customs Department are in force regarding storing.
6. —

TELEPHONE: Available when alongside PAT berths.

SERVICES: No tank cleaning equipment. No facilities for discharge of tank washings. Compass adjusting, but spare parts unavailable. Radar/VHF/radio repairs.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Required for all crew and officers.

GARBAGE DISPOSAL: Service provided. Ship's Agent to make arrangements with private licensed contractor and Harbour Department.

WASTE OIL DISPOSAL: Service provided. Ship's Agent to make arrangements with private licensed contractor and Harbour Department.

SEAMAN'S CLUBS: Mariner's Club, 227 Tarua Road, Klongtoey, Bangkok, 10110 Thailand. Tel: 2493801.

CURRENCY: Local currency is Baht.

Exchange Rate: 25 Baht = U.S.$ 1.00.
38 Baht = £ 1.00.
24 Baht = 100 Yen.
17 Baht = 1 Mark. (March 1996).

DELAYS: Occasionally congestion, delay 1 to 2 days.

DEVELOPMENTS: Bangkok Port has modernised and standardised its facilities. The action plans include the construction of the CFS/Terminal gates and fences, procurement of additional handling equipment, computerisation of the container operations and restructuring of the port organisation.

SHIPMASTER'S REPORT: September 1980.

During S.W. monsoon Pilots appear to always require pilot ladder on starboard side and for vessel to leave Pilot Station platform to starboard when entering. Custom Officials board at Paknam on way up river to check documents. For repatriations, Immigration require 2 clear working days. After 30 days in Thailand must apply for extension from Immigration at a cost of U.S. $15.00 per man. Vessel must fly 'Blue Peter' 12 hours before sailing from Bangkok or liable to a fine of U.S. $5,000. Require 2 copies of Immigration Form 4 (Crew List) for departure.

Telephone calls can be made via Bangkok Radio on Channels 25, 26, 27, after calling on Channel 26.

SHIPMASTER'S REPORT: September 1982.
Loading of tapioca products in bulk quantities of 25,000 tons and more at Kohsichang:

There are three ways of loading:

1. Vessel anchors off the N.E. coast of the main island. A number of mobile cranes, 12 to 15, are placed on deck by means of a floating crane. The cargo is brought alongside in barges, shovelled by stevedore-labour in canvas slings and dumped into the cargo holds. An average of approximately 3,500 tons per day can be reached, however, delays are experienced by rain and by too much swell for some of the barges alongside.

Stevedore Labour: An average of 300 persons (men, women, children) are onboard during the whole of the cargo operation. The cooking is done on deck. The daily fresh water consumption will increase by 20 tons to 25 tons. Fresh water is available by barge from the mainland.

This way of loading involves most ships; 7 to 9 ships can be handled simultaneously.

2. At the same anchorage as No. 1 above, the vessel will have alongside two floating elevators. A daily average of 13,000 tons can be reached, also depending on rain/swell. Many less people are involved. One ship at a time can be loaded.

3. Loading alongside a silo based on the mainland. The daily average here will be about 14,000 tons, however at a draft of about 40 ft. – 42 ft. the vessel will have to shift to the anchorage to complete loading as under 1 or 2 above, most probably No. 1. The silo belongs to 2 shippers of cargo only.

Trimming of cargo is done mainly by means of bulldozers but trimming by hand/shovel is often required additionally.

Holding ground at anchorage is good. Ships swing round on a rather strong tide. Wind/rain squalls are experienced.

SHIPMASTER'S REPORT: March 1984.
Pilotage: There is no longer a pilot vessel at the Bar. Instead, a peculiarly shaped red-painted lighthouse type beacon has been erected. This beacon has accommodation for the Pilots, who board vessels using a small grey pilot boat. Position of beacon: Lat. 13° 22.8' N., Long. 100° 35.9' E. (BA Chart 1046).
Anchorages: Bangkok Bar Anchorage: Any ship with draft able to enter Bangkok Harbour, can anchor at this anchorage to wait its turn to enter. Limits of this anchorage are shown on BA Chart No. 1046. Ships proceed close to the beacon mentioned under "Pilotage", to pick up the Pilot. Kohsichang Anchorage: There are no longer any N.E. or S.W. monsoon anchorages. Throughout the year Kohsichang Harbour limits are from the Island, East to Long. 101° 51.5' E. and between Lat. 13° 08.9' N. and Lat. 13° 11.3' N. (Thai Chart No. 114).

AUTHORITY: Bangkok Port, Port Authority of Thailand, 444 Tarua Road, Klongtoey, Bangkok 10111, Thailand. *Tel:* 662-2490362. *Telex:* 72331 Patth. *FAX:* 662-2490885. *Contact:* Anuparb Sunananta, Director General, Port Authority of Thailand. Thavorn Chunnanond, Deputy Director General (Operations). Lt. Manit Apogul, R.T.N., Deputy Director General (Administration). Wari Punpoka, Deputy Director General (Technical and Planning). Payoongkich Chivamit, Managing Director of Bangkok Port.

AGENT: Jardine Pacific (Thailand) Ltd., 24th Floor, Times Square Building, 246 Sukhumvit Road, Bangkok 10110, Thailand. Tel: 66-2-2678520. Telex: 21441 Jarthai. Cables: Jarthai. Fax: 66-2-2678401/2.
Associated with Jardine Shipping Agencies.

BANGSAPHAN (Prachuap): 11.11 N. 99.35 E.

PILOTAGE: Private Pilot available throughout 24 hours.
APPROACHES:
Anchorage for Pilot Station: Lat. 11° 15.5' N., Long. 99° 36.0' E.
Fairway Buoy: Lat. 11° 11.1' N., Long. 99° 35.8' E.
Boarding Ground Position: Lat. 11° 11' N., Long. 99° 36.3' E.
Quarantine Anchorage Position: Lat. 11° 11.5' N., Long. 99° 37' E.
Navigation Channel and Turning Basin: Length 1,400 m., width 250 m. and depth 14.0 m. at mean sea level.
MAX. SIZE: 100,000 d.w.t.
TUGS: 2 tugs of 2,800 h.p. and 1 lineboat.
BERTHING: *Main Berth:* Initially 240 m. length, to be extended to 450 m. Depth 15.0 m. at mean sea level. The berth will handle vessels of 60,000 d.w.t. – 100,000 d.w.t., when construction is completed.
Second Berth: Initially 245 m. length, to be extended to 330 m. Depth 8.0 m. – 11.0 m. at mean sea level. The berth will handle vessels up to 12,000 d.w.t., when construction is completed.
CRANES:
2 × semi-portal cranes of 45 tons capacity.
2 × mobile cranes of 60 tons capacity.
3 × mobile cranes of 80 tons capacity.

SHIPMASTER'S REPORT: June 1995.
Vessel: Bulk carrier of 43,300 d.w.t., LOA 177 m. and beam 33 m.
Cargo: 41,000 tonnes of steel slabs (full cargo).
Pilotage: Pilot available.
Max. Size: Vessel's arrival draft: 11.75 m. (even keel).
Tugs: Two tugs in attendance.
Berthing: Vessel berthed at main berth, which is aligned North-South.

During the Summer months, there is always a strong flow of Northerly set in Gulf of Thailand, and because of the exposed nature of the port entrance to the South, due caution has to be exercised while manoeuvring in the Turning Basin.
Bulk Cargo Facilities: The cargo was discharged efficiently at the rate of about 9,000 tonnes per day, using ship's cranes, operated by stevedores. Forklifts were not readily available.
Medical: Basic medical attention available locally.
Fresh Water: Available by truck.
Fuel: Fuel oil available, advance notice required.
Repairs: No facilities available.
Repatriation: Possible via Bangkok (400 km.).
Services: Small quantities of fresh provisions available locally.

For repairs to navaids, technicians have to come from Bangkok.

OPERATOR: Prachuap Port Co.Ltd., 62 Moo 3, Mae Rumphueng, Bangsaphan, Prachuap Kirikhan 77140, Thailand. *Tel:* (032) 691536, (032) 691454. *FAX:* (032) 691264.

ERAWAN (FSU): 09.06 N. 101.21 E. (See Plan)

LOCATION: Erawan Terminal is situated in the Central Gulf of Thailand, approximately 300 miles South of Bangkok.

The Terminal co-ordinates are: Lat. 9° 05.35' N., Long. 101° 20.47' E.
Charts: British and American Charts and Publications referencing the Terminal location are as follows:
British Admiralty Charts No. 3963 and 3983: Hlaem Kho Kwang to Hlang Suan, and Hlaem Talum Phuk to Hlaem Mae Ramphung.
China Sea Pilot Volume 1.
U.S.Government Chart No. 93010: Gulf of Thailand.
Floating Storage Unit (F.S.U.): The F.S.U. "Erawan" is a modified 87,000 tons tanker, yoke-moored on a custom built buoy secured to the sea bed.

The Terminal's operation and control centre, communications network and accommodation facilities are housed onboard.

The unit is capable of simultaneously receiving produced stabilised condensate and of loading vessels secured alongside at a maximum of 20,000 b.p.h.

Condensate is stored and off-loaded in a controlled, pressurised, inert gas environment and metered to vessels.
Note: SPM No. 1 is now the reserve mooring.
DOCUMENTS: *Vessel Documents required by Port Authorities from Vessel's Master, Inwards, On Arrival:*
5 copies General Manifest Inwards.
5 copies Ship's Register.
5 copies Inward Cargo Manifest.
5 copies Through Cargo Manifest.
Safety Equipment Certificate (for inspection).
Safety Construction Certificate (for inspection).
Safety Radio Certificate (for inspection).
Current Freeboard Survey Certificate (for inspection).
5 copies Derat Certificate.
Clearance Outward for Last Port (Original).
5 copies Inward Cargo Manifest.
5 copies Crew List.
5 copies Passenger List.
5 copies Through Passenger List.
5 copies Crew and Passenger Declaration.
5 copies List of Deck Stores.
5 copies List of Engine Stores.
5 copies List of Ship's Equipment and Stores.
5 copies List of Provisions and Bonded Stores.
5 copies List of Arms, Ammunition and Restricted Drugs.
Cargo Lifting Gear and Equipment Certificate (for inspection).
5 copies List of Foreign Currency.
PILOTAGE:
1. Pilotage within the Terminal area is compulsory, except when proceeding to anchor.
2. A Company Mooring Master will board all vessels scheduled to occupy the loading berth. Masters of the vessels must ensure that they are familiar with, and strictly observe all regulations, paying particular regard to those covering safe operations and pollution of the sea (by oil, dirty ballast, garbage, or any other material).

Mooring Masters:
1. All Mooring Masters carry their own radios, but this does not exempt the vessel from having operational Marine VHF sets.
2. Masters are reminded that Mooring Masters must be afforded boarding facilities complying with accepted international standards with regard to the vessel's freeboard.
3. The assigned Mooring Master (or his relief) will remain onboard the vessel from the time of boarding until the vessel clears the berth.
4. Should a loaded vessel be returning to the anchorage, the Mooring Master will not necessarily anchor the vessel, (however, he may do so in certain circumstances). He will, however, remain aboard until the vessel clears the Terminal area, or completes any documentation requirements.

Term of Acceptance – Conditions of Entry: After boarding, the Mooring Master will hand to the Master of the vessel a letter entitled "Conditions of Entry into and Use of Erawan Terminal", in duplicate and the Master must sign and return to the Mooring Master one copy before the Vessel moves from the boarding point.

This letter details the terms under which the Company accepts that vessel.

APPROACHES: *Approaches to the Terminal:*

SPM No. 1 (Reserve):

1. The Terminal approach is through the Company's gas field restricted zone via 2 approach channels, one from the South and the other from the East.
2. The Southern Approach Channel is 2 miles wide at its narrowest point, and based on a line between Lat. 8° 45' N., Long. 101° 30' E., and Lat. 9° 04' N., Long. 101° 25' E.
3. The Eastern Channel is 2 miles wide at its narrowest point, and based on a line joining Lat. 9° 14.5' N., Long. 101° 35' E, and Lat. 9° 09' N., Long. 101° 32' E., and Lat. 9° 04' N., Long. 101° 25' E.
4. Currents in the area are predominantly S.E.'ly and seldom exceed 1 knot.

SPM No.2: Vessels must remain West of Long. 101° 10.0' E. between Lat. 09° 55' N. and Lat. 08° 45' N., and proceed to SPM No. 2 Anchorage Area, which is centred on Lat. 09° 05.0' N., Long. 101° 10.0' E.

Restricted Area: This covers the Company gas fields in the area. Within this area, all activities, which could endanger the platforms or pipelines, are forbidden. For example, anchoring of vessels (outside designated areas), dredging, mechanical fishing (trolling and trawling), disposal of refuse, etc.

The area is bounded by lines joining the following reference points:

Latitude	Longitude
9° 55' N.	101° 10' E.
9° 55' N.	101° 35' E.
8° 45' N.	101° 10' E.
8° 45' N.	101° 45' E.
9° 05' N.	101° 45' E.
9° 05' N.	101° 35' E.

ARRIVAL: *Arrival of Vessels:* The Terminal operates 24 hours but will only berth vessels during daylight hours (0600 – 1800), throughout the year, subject to prevailing weather.

Berthing on Arrival: Vessels berthing on arrival will be boarded by the Mooring Master in the anchorage area, or at a point advised by the Terminal Manager or Mooring Master.

Thai Officials may board with Mooring Master.

Anchoring on Arrival: Vessels obliged or instructed to anchor should do so in the recommended anchorage. Anchoring time should be reported to Terminal Control as soon as is practicable thereafter.

Notice of Readiness: Vessels should tender Notice of Readiness:

1. At the time of entering the anchorage area, if berthing on arrival.
2. At the time of anchoring (if instructed to do so by the Terminal Control), or entering the anchorage area if intending to drift.

Notice of Readiness will be accepted subject to the following conditions:

1. The Terminal is open.
2. The vessel arrived within loading range dates, and is nominated. The Terminal may under certain circumstances berth a vessel arriving earlier than it's nominated loading slot, subject to the non-prejudice of another ship, and available cargo or berth.
3. That the vessel has advised the Terminal of the Estimated Time of Arrival (ETA), 72 hours, 48 hours and 24 hours prior to arrival, and thereafter, of any subsequent changes in her ETA of more than 2 hours.
4. That the vessel fulfills all the obligations of the Terminal Regulations and Safety Check List, and is ready in all respects to berth and load the nominated cargo.
5. That it is during the hours of daylight, considered to be from 0600 hrs. to 1800 hrs. local time.
6. That it is not a public holiday or Sunday unless the vessel is berthed on that day.

Deductible Laytime:

1. Manoeuvring time into the loading berth.
2. Time required for deballasting, if not concurrent with undelayed loading operations.
3. Time lost due to fault or failure of the vessel, including suspension of loading for vessel's purpose and or delays incurred due to failure to observe Terminal Regulations.

ANCHORAGE: SPM No. 1: The anchorage is an area of 1 mile radius centered on Lat. 9° 04' N., Long. 101° 25' E.

Should a Master decide to anchor in this area, his attention is drawn to the depth of water.

For the purpose of being "arrived", a vessel should proceed to within the anchorage area.

SPM No. 2: 1 mile radius centred on Lat. 09° 05' N., Long. 101° 10' E.

Anchored Vessels:

1. Vessels should maintain a continuous 24 hour VHF radio listening watch on Channel 16 and Channel 17 for further advice or berthing instructions from Terminal Control.
2. Shifting Anchorage: Vessels requiring to vacate or re-anchor in the recommended anchorage should inform Terminal Control.
3. Lifeboats: Except in an emergency, where ship's personnel may be required to abandon ship, vessels are not permitted to turn out lifeboats, or lower them to the water.
4. Refuse and Garbage: The dumping of refuse and garbage in the sea within the restricted area is expressly forbidden.
   Galley waste, and all other general garbage, should be contained onboard in a sanitary condition until the vessel clears the Restricted Area. Masters are cautioned that fines will be incurred for non-compliance.
5. Craft Alongside: No small craft, other than those on official business, will be allowed alongside, either in the anchorage, or in the loading berth.
6. Loss of Anchor(s) and/or Anchor Cables: In the event that a vessel should lose anchor(s) and/or anchor cable, Terminal Operations will, under no obligation, give assistance in attempts to recover them, subject to support vessel availability and Terminal operational requirements. The Terminal reserves the right to recover expenses so incurred.
   The use of anchor marking buoys is recommended.

RESTRICTIONS/MAX. SIZE: *Vessel Size Restrictions:* Vessels of a max. LOA of 800 ft., and a minimum length such that two of the Terminal fenders will lay alongside the parallel body, may berth at the Terminal.

All vessels must maintain their deadweight below 70,000 tons while at the Terminal.

The minimum acceptable lifting amount will be 10,000 barrels.

Vessel's Age: Vessels over 15 years of age will not be accepted. Exceptions may be made in the following circumstances:

1. Vessels that have previously loaded at the Terminal without incident, provided that they are still with same Owner/Manager and can, in the sole opinion of the Terminal, continue to undertake loading operations in a safe manner.
2. Vessels that have been inspected by a Terminal Representative, or nominated substitute and in the Terminal sole opinion are suitable to load at the terminal.
   Vessels should be nominated and inspected well before the intended date of lifting.
3. In all cases the vessel must comply with all other acceptance criteria.
4. Acceptance will be withdrawn, at the sole discretion of the Terminal, if the vessel fails to maintain the required standards of the initial acceptance.

Inert Gas System: All vessels over 20,000 metric tons deadweight must be fitted with a fully operational inert gas system serving all cargo tanks.

Pumping Rates:

Maximum for the Terminal will be 20,000 bbls./hr.

Minimum for the Terminal will be 5,000 bbls./hr.

Also see "Berthing" – "Operational Requirements".

RADIO: *Standard message required from vessels:*

(aa) Name and call sign of vessel.
(bb) Flag, Classification Society and year built.
(cc) ETA in Local Time (GMT + 7 hours).
(dd) Owner/Manager and years with.
(ee) Summer Deadweight and Length Overall.
(ff) Segregated or clean ballast. If clean, deballast time required.
(gg) Double sides, double bottom or double hull.
(hh) Nationality of Master, Officers and crew.
(ii) If any pollution incidents or port prohibitions in last 2 years.
(jj) Cargo requirements in barrels (GSV).
(kk) Draft on arrival.
(ll Last Port.
(mm) Confirmation that all cargo tanks are inert with an oxygen content below 8%.

Note: Any vessel whose last port was in Thailand, and is unable to give full Notice of Arrival, should ask their Agent to contact Unocal's Production Operations Department or the Terminal, and give the above information prior to the vessel sailing.

TUGS: One service vessel with tug capability and equipped with pollution/detergent spraying and foam fire fighting systems available. There are also 2 inflatable dinghies for use by the Mooring Master, for boarding, in suitable weather conditions.

BERTHING: *Operational Requirements:*

1. The operations, including berthing, unberthing, deballasting, loading and emergency operations shall be conducted in accordance with the following:
   (i) Oil Companies International Marine Forum/International Chamber of Shipping (OCIMF/ICS), International Safety Guide for Oil Tankers and Terminals (ISGOTT) – lastest edition.
   (ii) OCIMF/ICS – Ship to Ship Transfer Guide (Petroleum) latest edition.
   (iii) OCIMF – Standards for Oil Tanker manifolds and associated equipment.
   (iv) Company's Terminal Regulations.
2. Arrival Draft: Vessels must arrive at the Company's facilities on a suitable draft and trim, compatible with safe manoeuvring.
   A guideline for suitable draft is provided by applying the following criteria:
   (i) Moulded draft amidships (dm.) in metres to be not less than dm. = 2.0 + 0.02 L (length).
   (ii) Trim by the stern not greater than 0.015 L (length).
   (iii) Propeller(s) fully immersed.
   This guideline is in accordance with the requirements of the "International Conference on Marine Pollution, 1973", Regulation 13.
   Typically an approximate 25% Summer deadweight ballast condition should normally achieve these criteria.
   (iv) The Terminal reserves the right to request Master to amend their arrival draft, if such draft is deemed to interfere with safe operations.
   (v) Mooring and Hose Handling: Use of ship's anchors in the loading berths is not permitted. Vessels scheduled to load, should have both anchors cleared away ready for emergency use. To prevent accidental release, the cable stoppers should be utilised until advised to the contrary by the Mooring Master.
   (vi) Equipment supplied by the Terminal shall be taken on board using the Terminal lifting gear. Vessel's personnel must be available to take the equipment on board and carry out mooring and hose handling duties as advised by the Mooring Master.
3. State of Readiness:
   (i) Main engines and essential machinery must be maintained in a state of readiness, which will permit immediate unberthing in an emergency situation.
   No main engine repairs are allowed whilst vessels are secured in the loading berth. Steam turbine engine vessels should engage the main turbine turning gear.
   (ii) A vessel may be required to vacate a berth, should the Mooring Master consider that conditions so warrant.
   (iii) Adequate vessel personnel are to be available for all loading/deballasting operations and any emergency situation. An Officer must be on duty and available at all times.

(iv) Masters are advised that the vessel's personnel are also required for all mooring and loading hose connection duties.
(v) Terminal personnel will normally board the vessel after berthing to advise on loading hose connection.

Mooring at the Terminal:
(i) The use of tug(s) is the Mooring Master's or Terminal Manager's decision. Their movement and use is co-ordinated by the Mooring Master, in agreement with the vessel's Master.
(ii) Vessels scheduled to berth at the Terminal will normally berth in tandem to the F.S.U. – bow-to-bow, using an OCIMF 76 mm. (Type B) chain and a 17 in. single hawser. Transfer will be by a single 16 in. hose string.
Alongside berthing will remain an option, but will not normally be used. All mooring and unmooring operations at the Terminal will be accomplished using tug(s).
(iii) Should starboard side alongside berthing be required, the vessel's Master will be afforded adequate advance notice to prepare.
(iv) Mooring alongside the Terminal:
(a) Initial mooring lines will be passed to the Terminal by messengers passed to the vessel using a line throwing gun.
Mooring will be as the plan agreed between Mooring Master and the vessel's Master.
(b) All mooring wires used must have synthetic rope tails with a breaking strength at least 20% greater than the breaking load of wires to which they are attached.
(c) Standard mooring consists of 5 head lines, 2 springs and 4 stern lines and 2 springs.
(d) Adjustment of mooring lines must only be undertaken in the presence of the Mooring Master.
Indiscriminate working of moorings may cause damage to both the vessel and the Terminal.
(e) Vessels fitted with tension winches must have them on "Manual Brake", when secured alongside.
(v) The close-alongside derrick should be topped, rigged and secured inboard during berthing/unberthing operations.
(vi) Loading Hoses:
(a) 2×8 in. hose strings, with 150 ANSI flanges, are available for loading condensate.
(b) Advice on connecting loading hoses is given by Terminal personnel.
(vii) Special Requirements for Vessel's Loading at the Terminal:
(a) The deck fire water main should be kept pressurised to normal operating pressure at all times.
(b) Two foam-making branches on hoses should be laid out forward and aft, adjacent to the loading manifolds, and be maintained ready for immediate use.

LOADING:
(i) Masters are required to maintain their vessel in a safe operating condition. The vessel's arrival freeboard must not be exceeded, and deballasting controlled accordingly.
(ii) Vessels arriving with clean ballast in their cargo tanks may first be required to load an amount of cargo equal to the amount of ballast to be discharged. They will then deballast and on completion of deballasting will resume loading.
Segregation of ballast water and oil cargo is the responsibility of the vessel's Master. The Company accepts no responsibility for any co-mingling of oil and water.
(iii) Masters of vessels are cautioned that no facilities exist which allow excess loaded cargo to be pumped back to the Terminal.
The Company is not responsible for overloading any vessel under any circumstances.
It is the loading vessel Master's responsiblity to stop cargo on completion of loading, in accordance with procedure given in (vi).
Adequate provision should be made to receive a minimal "overrun" of condensate after the "stop" has been requested, whilst loading pumps stop and valves close.
(iv) Loading hoses are regularly pressure tested to ensure their integrity.
The vessel's manifold valves should remain closed until the Mooring Master requests the vessel's personnel to open them.
(v) Good communications between the vessel and Terminal Control are essential. The Mooring Master will carry a hand-held radio to facilitate communication between all parties concerned (i.e. Terminal – Mooring Master and vessel's personnel).
If the vessel is fitted with a VHF radio in the cargo control room, it must be maintained on Channel 17.
Clear and concise operational advice from the vessel is requested, especially when changing over tanks and when stopping cargo.
The Terminal requests a minimum of 15 minutes notice prior to either a change of pumping rate or cessation of loading.
Under no circumstances should the loading vessel valves be closed against the Terminal loading pumps.
(vi) Completing Cargo Loading – Stop Procedure: Vessel to Terminal notification required as follows:

15 minutes notice	– "Standby to stop loading".
	– "Slow down to (state thousands of barrels/hour)".
5 minutes	– "Standby" to stop – second advice.
Volume aboard	– "Stop loading".

(vii) Masters are advised that a prolonged slow loading rate (5,000 b.p.h. or less) is unacceptable, due to the operational constraints of the Terminal condensate metering system.

FUEL: Not available.

REPAIRS: No facilities.

TIME: GMT plus 7 hours.

SHORE LEAVE: Shore leave for visiting vessel's personnel is not permitted. Vessel's personnel may pass through the Terminal in an emergency, when special arrangements can be made through the vessel's Agent, in conjunction with the Terminal Manager.

BALLAST: *Ballast Discharge and Pollution Control:*
(i) The discharge of bilges or dirty ballast water from crude oil vesse into the Gulf of Thailand is strictly prohibited. Acceptance an treatment of dirty ballast is not available. Vessels must arrive wit clean ballast only for discharge to the sea. By clean ballast, it i meant that ballast in a tank which, since oil was last carried therei has been so cleaned that effluent therefrom, if it were discharge into clean calm water on a clear day, would not produce traces o oil on the surface of the water or on adjoining shorelines, or caus a sludge or emulsion to be deposited beneath the surface of th water or upon adjoining shorelines.
(ii) Vessels presented for loading, which cannot comply with th requirements of (i) above and have to retain ballast on board, ar advised that any deadfreight so incurred will be for the vessel' account.
(iii) Ship's Bilges: Ships should arrive at the Terminal with bilges pumpe empty. Any residues accumulating whilst the vessel is in port shoul be retained on board.
Heavy fines will be incurred by vessels discharging oil or oil pollute water whilst at the Terminal.

GENERAL: *Vessel's Agent:* All the vessel's business, including Carg and Customs Documentation and the Shipping Documents, will b conducted by the vessel's Agent.

SHIPMASTER'S REPORT: March 1993 (Updated 1996).

Location: Erawan Terminal (Floating Storage Unit), operated by Unoca Thailand, is situated in the Central Gulf of Thailand, approximatel 300 miles South of Bangkok in position Lat. 09° 05.35' N., Long 101° 20.47' E.

Documents: When coming from a port in Thailand, no document required, only Port Clearance from last port. Otherwise all document to be dealt with as under Sriracha, Thailand.

Pilotage: Compulsory. Berthing Master will board vessel in or near Expor Tanker Anchorage.

Anchorage: The anchorage is an area of 1 mile radius, centered o Lat. 09° 04' N., Long. 101° 25' E. Water depth is approximately 200 ft.

Approaches: The Terminal approach is through the Unocal's gasfields restricted zone via 2 approach channels, one from the South, and the other from the East.
(a) The Southern Approach Channel is 2 miles wide at its narrowes point, and based on a line between Lat. 08° 45' N., Long 101° 30.0' E. and Lat. 09° 04' N., Long. 101° 25' E.
(b) The Eastern Approach Channel is 2 miles wide at its narrowes point and based on a line joining Lat. 09° 14.5' N., Long. 101° 35' E and Lat. 09° 09' N., Long. 101° 32' E. and Lat. 09° 04' N. Long. 101° 25' E.

Currents: Currents in the area are predominately Southeasterly and seldom exceed 1 knot.

Restrictions: Berthing daylight only. Max. wind speed 25 knots. Unberthing day and night.

Max. Size: LOA 250 m. Export tanker fullest displacement when alongside "FSU Erawan", not to exceed 70,000 tonnes.

Radio: 72 hours prior to arrival at the Unocal Field, vessels should advise Unocal Thailand of their ETA. Advice should be sent by cable via Bangkok Radio, Telex: 82632 UNOCAL TH, Fax: 02-541-1436 or Tel: 02-541-1970.

Notice of Arrival should state:
1. Name of vessel and call sign.
2. ETA in GMT and date.
3. Cargo requirements.
4. Deballasting time required.
5. Maximum loading rate.
6. Vessel's draft on arrival.
7. If there is any sickness aboard or clean Bill of Health.
8. Last port of call.
9. Any hull, bulkhead, valve or pipeline leaks on vessel, which could affect loading or cause pollution.
10. Distance in feet from bow to the cargo manifold.
11. Flange dimensions of vessel's manifold, if not ANSI B 76.5, B 1560, ASA 150 or equivalent.
12. Confirmation that all cargo tanks are inert with oxygen below 8% and inert gas systems are fully operational.
13. Is there a derrick/crane at the port manifold, with a minimum saf working load of 10 tons.

All communications should be addressed to Section Head Gas an Condensate Sales, with copy to Manager FSU and Marine Control SLC An updated ETA should be sent 48 hours and again 24 hours prior t arrival at the Unocal field.

Vessels whose last port was in Thailand, and unable to give full Notic of Arrival, should have their Agent contact the Unocal Company o Terminal and give their ETA prior to sailing.

VHF: First contact to be made on Channel 16, working on Channel 1 with "FSU Erawan".

Radar: On approach, when 1 mile off "FSU Erawan", radars have to b switched off.

Tugs: One supply vessel "Smit Belait" available. It will bring Pilot an Loading Master on board, and assist in mooring. It will make fast wi 1 tugline on starboard bow.

During unberthing, tug will pull the head of "FSU Erawan" away fro the tanker.

Tankers: 2×8 in. hoses to be connected on port manifold. Loading ra approximately 3,000 cu.m./hr.

On arrival, oxygen % content of all tanks will be measured. API o Erawan Condensate is 57.0.

Repairs: Not allowed, engines to be kept on short notice.

Time: GMT plus 7 hours throughout the year.

AUTHORITY: Unocal Thailand Ltd, Central Plaza Office Buildi 1693 Phaholyothin Road, 10900 Bangkok, Thailand. *Tel:* 02-541-19 (Ext. 2379 or 425). *Telex:* 82632. *FAX:* 02-541-1436. *Contact:* Capta Michael E. Harris, F.S.U. Manager.

AGENT: See "Bangkok".

KANTANG: 07.25 N. 99.31 E.

SHIPMASTER'S REPORT: April 1982.

PORT LIMITS: Vessels anchored in the bay between Ko Talibing and Ko Liang Hnua are considered to be "arrived ships".

DOCUMENTS:
- 6 Crew Lists.
- 4 Passenger Lists.
- 2 Stores Lists (including dangerous drugs, explosives, bonded items, ship's wireless sets, TV, radio, etc.).
- 2 Personal Property Declaration.
- 2 Cargo Manifests.

PILOTAGE: Not compulsory.

Due to shallow waters and absence of chart it is recommended to take the services of the local Pilot, though he speaks only local language. Pilotage distance is about 15 miles up the river.

Pilot boards at the anchorage and takes the vessel up to Kantang. Berthing is also done by him, but it is recommended that the Master does this himself.

ENTRANCE: No large scale chart is available. The only chart available is B.A. Chart No. 3942.

Keep well clear of Light Ko Liang and after passing Ko Liang Hnua on the starboard side keep equidistant from Ko Talibing and Ko Liang Hnua. Depth of water is about 10 m. up to Ko Liang Hnua Point (bearing 190°×4 miles approx.). This place is good for anchoring.

While going up and down river, there is a Customs check post at the mouth of the river and the vessel has to stop for Customs check and sign the register.

The maximum depth in the river at high water is about 5.5 m. at Springs and as low as 3.5 m. at Neaps.

The loading should be restricted as per the tidal conditions.

HEALTH: No Port Health Officer available. Hence Free Pratique not required.

RADIO: No way of communicating with the port from vessel. ETAs, etc. should be sent from the previous port by cable. On receipt of the ETA the local Agents will arrange berthing, etc.

VHF: Not available.

BERTHING: Berth is approximately 140 m. length. Hand leadline sounding at berth indicated depths minimum 10 ft. and maximum 16.5 ft. at low water and minimum 16 ft. and maximum 22.5 ft. at high water.

While the vessel is being loaded it sits on the bottom at low tide and again floats at high tide. The ground is soft sand. Since the vessel is not afloat at all times the cargo calculations and distribution should be accurate.

The main exports are cement in bags, fish meal and rubber in pellets which is mainly exported in LASH barges. The barges are loaded once a month. Generally half the wharf is occupied by LASH barges.

One oil berth also available. Small tankers with about 4 m. draft can go alongside.

CRANE: One mobile crane of 5 ton capacity is available. Priority given to loading LASH barges.

FRESH WATER: Available. Supplied by a small boat of 4 tons capacity.

FUEL: High speed diesel is available. Price is very high.

CONSULS: No consulates or embassies.

REPAIRS: Small repairs can be effected.

WATCHMAN: Recommended.

OPENING/CLOSING HATCHES: MacGregor hatches opened and closed by crew.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits.

CARGO GEAR: Supplied by the Stevedores.

REPATRIATION: No crew changes possible.

TELEPHONES: Trunk calls can be made from the main Telephone Exchange. Sometimes delays up to 1 hour is normal.

STORES: No ship chandler. Market is very close to the berth where fresh vegetables, pork, fish, beef and chicken available. No mutton available but live goats can be purchased.

KHANOM: 09.12 N. 99.54 E. (See Plan)

SHIPMASTER'S REPORT: October 1988.

LOCATION: Khanom, Nakorn Si Thammarat (Sumpun Mining Wharf).

DOCUMENTS: Same documents as Bangkok.

PILOTAGE: Not available. Wharf Foreman will board at anchorage and will give berthing advice.

ANCHORAGE: Lat. 09° 12' N., Long. 99° 54' E.

MAX. SIZE: *New jetty:* 25,000 d.w.t. Draft 9.0 m. – 9.5 m.
Old jetty: 15,000 d.w.t. Draft 8.5 m.

TUGS: None available. Small boat assists with running lines.

BERTHING: *New Jetty:* Vessel is moored to 6 buoys (3 forward and 3 aft) and is kept 3.0 m. off the jetty. Vessel is to be equipped with 6 lines of at least 240 m. length each.

LOADING: *Loading:* One belt conveyor for loading gypsum in bulk, rate 500 – 550 tonnes per hour.
Shifting: Good co-operation required with Foreman as vessel had to shift 3 or 4 times for each hatch.
Trimming: By small bulldozer, weight 2,000 kg.

SHIPMASTER'S REPORT: March 1993.

Vessel anchored 1.0 nautical miles off the berth in 9.0 m. (C.D.). Pilot available.

Vessel boarded at anchorage by Agent, Pilot and his assistant. Agent takes all paperwork, no authorities boarded. Pilot gives advice/information on berthing and suggested loading sequence. However, we decided on actual sequence.

On berthing, Pilot boards with assistant and Port Supervisor. Pilot on bridge, assistant aft and Supervisor forward, to assist with advice on ropes. Six mooring lines to be 280 m. long, and 2 to be 220 m. long. Anchor is also used on approach (up to 5 shackles paid out during shifting and 3 shackles on berthing).

To obtain required length of lines, either join two lines together or cut up older lines to obtain length. We joined section of old line plus 22 mm. × 35 m. wires, which had eyes each end (footwires used for log lashing). This was successful. This enabled lines to be kept on tension winches, it would be difficult if drum ends had to be used for shifting, i.e. 2 mooring lines joined together would not fit onto drums of tension winches.

When shifting ship, the Supervisor attends on bridge to assist/advise. He was very experienced and proved invaluable.

Loading by single loader, which can swing enough to load one hatch of this vessel's beam. It can also stretch or retract. Loading rate up to 800 tonnes/hr. Max. allowable air draft is 11.5 m.

Depth of water: There is a depth marker on quay. However, sounding round is advisable. Said to be vessel always afloat at 9.0 m. draft – load to max. draft 9.5 m.

Ships soundings approximately 15 cm. higher than scale, which is closer inshore. Lowest low water 8.7 m., heights vary from 0.6 m. to 1.7 m. above LLW. Using tables for heights at Pak Phun, supplied by Pilot. Depths can be difficult to ascertain, due to 1.0 m. to 2.0 m. sea running at times. Check shore scale every hour and sound round each H.W. and L.W. Bottom soft mud and sand. Caution recommended with regard to water depths, no degree of certainty.

Fresh water is available from shore, using ship's hoses, but very slow.

There are 2 boats available to run lines and a small tug stands-by for mooring and unmooring, though not very powerful. We used tug's line for unberthing.

Loading operations ran very smoothly. Loaded last 2,000 tonnes on rising tide.

Ship's particulars: 15,832 g.t.; LOA 167 m.; beam 26 m.; Summer draft 9.50 m.

We loaded, on this occasion, to even keel draft of 9.40 m. (approx. 24,800 tonnes gypsum). Shore scale read 10.25 m. depth alongside quay (vessel 10.4 m., i.e. 1.0 m. UKC).

Vessel can lie alongside in good to fair conditions, but should be held off quay 2.0 m. – 3.0 m. in moderate to rough conditions.

SHIPMASTER'S REPORT: September 1993.

VESSEL:

D.W.T.:	29,432 tonnes.
LOA:	180 m.
Beam:	23.1 m.
Cargo Loaded:	24,844 tonnes.
Final Draft:	Forward 9.75 m. Aft 9.76 m.

BERTH: Gypsum Berth No. 2: Position Lat. 09° 12.3' N., Long. 99° 53.2' E.

CHART: Largest scale chart available is B.A. 3963 (Laem Kho Kwang to Lang Suan) to a scale of 1:240,000. All positions refer to this chart.

GENERAL: Gypsum berth is situated at South end of Laem Na Than, about 2.0 miles S.S.E. of the town of Khanom. There are two jetties, No. 1 is the Southernmost and older. The following remarks refer to Jetty No. 2. A third jetty is planned to the N.W. of Jetty No. 2.

Gypsum is quarried about 200 km. away and brought by road in 25 ton lorries to be stockpiled near the berth. It is moved from the stockpile to the conveyor in 16 ton lorries. Counting lorries seems to be the only means of measurement.

Ships are moored to buoys off the jetty and are loaded via a fixed conveyor. The ship has to be shifted to load each hold. The final load is done on the rising tide, and the ship must sail immediately.

APPROACHES: From S.E., make for position Lat. 09° 12.0' N., Long. 100° 00.0' E., reducing speed after crossing the 20 m. contour. The headland of Laem Kho Kwang, at about Lat. 09° 00' N., Long. 99° 56' E., is conspicuous on radar and helps to check position.

Laem Na Than consists of a series of very steep wooded hills, dropping sheer into the sea. The hill at the South end is conspicuous as the coast South from there is low and fringed with a beach, where the town of Ban Na Dan is shown on the chart.

The berth is very hard to see as the gypsum stockpiles are hidden behind a wooded hill, and the two jetties are very small. The first thing we saw was a ship at anchor off the berth.

Contact the Pilot on VHF Channel 16.

When about 7 miles from Laem Na Than, bring the South end of the headland onto a bearing of 273°T and steer to make good a course of 273°T.

This course passes 7 cables South of the wreck charted in position about Lat. 09° 12.8' N., Long. 99° 56.1' E. This wreck was not visible. It is supposed to be the remains of a wooden fishing boat and the fishermen say it has now vanished.

The rising tide sets to the North, and the ebb runs to the South.

Watch the bearing of the South hill of Laem Na Than carefully as the tidal streams set the ship quite strongly North or South of her course. The sea bed shelves gradually and evenly. After passing the position of the wreck, come more to the North and anchor about 1.5 miles East of Jetty No. 2 (North).

FORMALITIES: Agent, Pilot, Loading Master, Foreman and Draft Surveyor board at anchor.

The Agent deals with formalities and requires the following documents:
Crew List.
Crew Effects Declaration.
Stores and Bond List.
Passenger List.
Arms List.
List of Arrival and Departure dates at the last few ports.

One copy of each list was sufficient. Bonded Stores were not sealed or examined.

BERTHING: As the tide was flooding, we berthed heading South. The ship will require 3, preferably 4, ropes each end, of at least 380 m. Two normal 200 m. mooring ropes should be lashed together eye to eye. Shackles are not suitable as the connection has to pass round winch drums. A total of 16, minimum 14, good mooring ropes are therefore required.

The Pilot was very good. An assistant is stationed at bow and stern to advise on moorings. One tug of 1,500 h.p. is available. This is an old sea-going tug and not very manoeuvrable, but pushes as required. Three lineboats of about 250 h.p. are in attendance.

The offshore anchor is let go after clearing the buoys astern. When in position, up to 7 shackles will have been paid out.

Four long lines are run to buoys at each end, 2 to seaward and 2 more or less ahead and astern, but slightly to seaward, two as breast ropes inshore of the jetty. After warping into position, 2 additional breast ropes are run out parallel. These can be single 200 m. lengths, but it is advisable to prepare longer lines if possible (See "Plan").

The ship is positioned about 3.0 m. off the jetty, ready to load.

BERTH: Berth No. 1 is the older, at the South end of the area. It is used by smaller ships that frequently shift to Berth No. 2 to top-off.

Berth No. 2 is about 30 m. long, aligned about 357° – 177°, and connected to the shore by a trestle about 200 m. long on an alignment of about 087° – 267°. The position of the head of the jetty is about Lat. 09° 12.4' N., Long. 99° 53.2' E. by GPS after applying corrections.

The jetty is of steel pile construction, its seaward face festooned with a random assortment of truck and tractor tyres. The ship must not lie against it. Occasionally during shifting, light contact was made. The berth is totally exposed to seaward, and during the N.E. Monsoon, ships are apparently thrown against it. Every Winter, the jetty has to be repaired. Judging by its appearance, repairs are in arrears.

DEPTHS: There are no tide tables for the port. The Pilot uses Thai tide tables for Ko Prap to the North, and Pak Phun to the South, and interpolates between them. The final loading is planned using readings taken from the tide gauge on the jetty.

We were told that zero on the tide gauge is about 0.8 m. above the sea bed. Soundings from the ship indicated that the water was a little shallower, about 0.4 m. deeper than the tide gauge. The depths increase immediately to seaward of the berth.

The policy is to stop loading when draft reaches 9.0 m., then on the flood tide top-off to about 0.2 m. less than the tide gauge reading, with a maximum sailing draft of 9.8 m.

LOADING: Gypsum is tipped into a hopper at the landward end of the jetty, and conveyed to the ship. The final stage of the belt is a telescopic and swivelling arm, that has a limited amount of range over the hatch. Max. airdraft is 12.5 m., or 11.5 m. during the N.E. Monsoon. Max. loading rate is about 800 t.p.h. Stowage factor is around 30 cu.ft./ton. No attempt is made to trim level with the loading arm. Instead, when each hatch is finished, a small bulldozer is hoisted in to trim level. The ship's cranes or derricks must be used for this. The bulldozer weighs about 3 tons.

The loading plan must be made out to reduce shifting to the minimum, but the shallow water and limited airdraft make deballasting difficult. When the draft reaches 9.0 m., loading will be stopped and the ship shifted to bring the midship hatch under the loader. As the tide rises, cargo will be loaded into this hatch until the final draft is reached. There is no opportunity to adjust fore and aft trim, so unless the cargo can be loaded exactly on the Centre of Flotation, the trimming effect must be allowed for at the earlier stop. The ship must sail before high water, and time must be allowed for the bulldozer to finish the last hold.

Cargo figures are calculated by draft survey.

SHORE LEAVE: No restrictions, and no passes needed. However, the ship must be shifted every few hours, so sufficient crew must be kept aboard to handle 8 ropes and the cable. If the ship's brow is used, it must be constantly attended as the vessel is not alongside. The Agent said that the plant would provide a launch to the seaward accommodation ladder, but we landed personnel using ship's cranes. Shore officials board and leave by scrambling along the (moving) conveyor belt.

FACILITIES: No stores are available, and we were told there were no medical facilities, though there is presumably something at Surat Thani, about 1.5 hours drive away.

The Agent and Pilots were all provided by the Charterer.

DEPARTURE: Tugs and lineboats ease the ship away from the jetty, helped by the anchor and No. 1 stern line. After this is let go, the ship is very hard to turn as she is so near the bottom. To seek the deepest water, steer to make good course 093°T, keeping the old jetty at the South end of Laem Na Than bearing 273°T, as described for approach. Maintain dead slow until soundings indicate adequate under-keel clearance. After passing position Lat. 90° 12.0' N., Long. 100° 00.0' E., the depth is great enough to ring full away and proceed on passage.

GENERAL: The Pilots and Loading Masters seemed very competent and apart from the shifting, all went well. There was no unauthorised boarding and pilfering. A Supervisor stays aboard during the load, and the 2 Pilots/Loading Masters stay for the last 24 hours.

The weather was calm. However during one squall, the ship sheered badly and the cable had to be hove in to keep ship off the jetty. During the N.E. Monsoon, I do not think this could be described as a safe berth. There are additional buoys to seaward near the No. 1 buoys fore and aft, which can be used to double up on moorings in the Monsoon.

SHIPMASTER'S REPORT: December 1993.

BERTH: Gypsum berth (Lat. 09° 12' N., Long. 99° 53' E.).

DOCUMENTS: Clearance is carried out by the Agent who takes all th required papers to the officials ashore.

NAVIGATION: The wreck in position Lat. 09° 12.8' N., Long. 99° 56.1' E has been reported by local fishermen to the Pilot as non-existent However, the Pilot advises that it is best to keep clear.

A gas pipeline is reported to have been laid from Khanom Powe Station (Approx. position Lat. 09° 14.3' N., Long. 99° 52.1' E.) in ar Easterly direction to the gas fields. It is therefore not recommended t anchor North of Lat. 09° 12.5' N.

The Power Station is of recent construction and is reported to supply a large area.

ANCHORAGE: Vessels are advised to anchor in position 1.5 miles Eas of the jetty and South of Lat. 09° 12.5' N. This was found to be a good anchorage with 6 shackles in about 12.0 m.

RADIO: Communications should be through the Agents, and after anchoring, a continuous watch should be kept on VHF Channel 16. The Pilot and local representative are equipped with VHF walkie-talkies which they use to contact vessels at anchor.

No continuous watch is kept ashore.

BERTHING: The gypsum loading facility (See "Plan") is privately owned and consists of 2 jetties on steel piles and a small quay built out from Laem Na Than for the loading of natural crude rock gypsum in bulk.

Jetty No. 1: Jetty No. 1 extends about 40 m. from the South side of the Point, providing a berth 70 m. long. It is concrete topped on steel piles with 2 fendered dolphins, one close East and one close West of the berth for protection. It can handle vessels up to about 8,000 d.w.t. with a max. draft of 7.8 m. forward and 8.6 m. aft.

Larger vessels may start loading on this berth and then move to Berth No. 2 to complete.

The loader on this berth is able to move through the 70 m. length of the berth, so shifting vessels between hold runs is not required.

Airdraft on this berth is estimated to be about 8.0 m.

Jetty No. 2: Jetty No. 2 is a 'T' jetty extending about 200 m. East of the Point, on steel piles of rather fragile construction. The original square end (35 m. wide) is well fendered with used tyres and now slightly rounded at the ends due to contact with vessels.

It was noted on berthing that a steel bracket on the Southern end of the jetty had previously been fractured.

This berth can handle vessels up to 190 m. LOA and 31 m. beam, loading to a max. draft of 9.2 m. at low water and 9.8 m. at high water.

The jetty supports a fixed loader which can swing through an arc of about 20 m. over the vessel with an outreach of about 18 m.

Max. airdraft is 11.0 m.

It is necessary to shift the vessel between runs for access to each hold.

Mooring: Mooring at both berths is to buoys with the offshore anchor used and starboard side to at Jetty No. 1 and portside to at Jetty No. 2. Mooring at Jetty No. 2: Two Pilots and the Supervisor board with the Agent at the anchorage.

One Pilot and the Supervisor take stations fore and aft to advise the Officers and ratings of the mooring arrangements and also take charge of the mooring operations.

It is necessary to have a minimum of 6 mooring lines at each end, 2 of which are joined end to end with 2 other ropes with shackles, if available, or lashings.

Approach is made either from the South on light draft, about 200 m. East of the jetty, or from the East passing North of the outer Southern buoys and the starboard anchor is let go when the outer buoys are in line with the bow.

Mooring lines are passed to the mooring buoys by 3 mooring boats and the vessel is moved into position by heaving on the moorings and the anchor is slacked away to about 7 or 8 shackles.

A tug of 1,500 h.p. assists as required.

The vessel is finally moored about 1.0 m. – 3.0 m. off the end of the jetty, heading North.

The Pilots have a set procedure for running the lines, and if this is followed, it is an efficient operation.

Shifting Ship: Shifting ship between holds is supervised by a Pilot and Supervisor who remain on board throughout loading and oversee al aspects of the operation.

If the set procedure is followed, the shifting is efficiently carried ou without the assistance of main engines.

Weather: During the N.E. Monsoon, there is a continuous low swel causing the vessel to roll alongside.

The wind speed is watched carefully and the Pilot will not take vessel alongside in winds above 15 – 20 knots, and if wind speeds are expecte to exceed 20 knots for a period, vessels will leave the berth and wait a anchor.

During this season, it is not unusual for a number of vessels to b anchored waiting to load.

It is reported that during the S.W. Monsoon all is peace and tranquili

Tide: The tide is reported to be about 1.0 m. rise and fall.

There is a tide gauge on the South side of Jetty No. 2, and the shi officers are requested to record the level hourly whilst alongside. Th previous day's readings are used to predict the final day's high tide i order to complete loading on a rising tide to load the maximum carg

Depth: The Pilot reported that an allowance of 0.8 m. is made for th maximum drafts allowed.

This vessel sailed at 9.83 m. and a minimum depth under-keel o 0.7 m. was recorded, giving a total depth of 10.53 m. The tide gau was reading 10.6 m., but with swell, this was not an acurate readin

It is reported that the tide gauge depth covers the whole area off th Eastern Jetty. However, on the first approach to the berth from the Sou a patch 0.4 m. less water was noted during the approach.

Cargo: Natural crude rock gypsum is mined some 180 km. inland and is brought to Khanom by lorry convoys and is stockpiled ashore in the open, so it is usually wet from rain.

The rock varies in size from about 15 cm. to dust and is brought from the stockpile to the loading hopper ashore by lorry and then to the vessel by conveyor belt.

A loading rate of 732 tonnes per hour was achieved for 35,000 tonnes loaded.

Stowage factor is quoted as about 30 cu.ft./tonne.

All stages of loading are supervised by the Pilot, who remains on board throughout and will modify the vessel's loading and ballast programme according to the tide conditions and to minimise shifting of the vessel and maximise cargo lifted.

FRESH WATER: Not available, so it is advisable to arrive with plenty, especially in the N.E. Monsoon, when long delays are possible.

MEDICAL: Medical attention is available for minor ailments locally and for more major problems at Surat Thani.

REPATRIATION: Vessel was advised before arrival that repatriation was not very practical and any crew changes should be arranged at ports before or after Khanom.

TIME: GMT plus 7 hours.

GENERAL: Provisions and bonded stores are available, but prices are high. Bonded stores in particular are more than double average prices elsewhere.

Immobilisation of the main engine is not to be recommended, especially during the N.E. Monsoon.

Sheltered anchorage can be obtained in position Lat. 09° 24' N., Long. 99° 53.5' E., in the lee of Ko Samui, and the Pilot advises that on occasions vessels have left the berth with the trimming bulldozer and shore moorings on board and completed trimming in this position, the shore equipment being landed to the tug for return ashore.

The anchorage off the berth is exposed to the N.E. Monsoon and swell.

Shore mooring lines, 3 in total, are available for an extra line aft and also for additional lines if required for bad weather.

In calm weather, a large number of small fishing boats work off the berth, inside the 10 m. line, inspite of this, no attempts to board the vessel were made, and it is reported that thefts from vessels in this area are unknown.

All staff employed were found to be pleasant to deal with, efficient and helpful.

SHIPMASTER'S REPORT: March 1994.

VESSEL: Gross: 4,576 tonnes. Net: 3,072 tonnes. D.w.t.: 8,875 tonnes. Summer draft: 7.62 m. LOA: 114.23 m. Beam: 18.6 m.

CARGO: Loading gypsum in bulk (7,600 tonnes).

CHART: We could not find any large scale chart or detailed illustration.

ANCHORAGE: About 1.6 nautical miles off shore. Depth about 15.0 m. Our anchor position was Lat. 09° 12.6' N., Long. 99° 54.6' E. Depth 14.5 m., mud and sand, holding is good.

DOCUMENTS: Same as other Thailand ports. Only the Agent boarded ship with documents/forms. No other officers come on board.

PILOTAGE: There are two Pilots, they act on behalf of the Port Authority, and communicate with the ship on VHF Channel 16.

The Pilot boarded the ship with two wharfmen. When the ship goes alongside, one will assist Chief Officer and the other will assist the 2nd Officer.

TUGS: One tug and two mooring boats available.

BERTHING: 2 private berths.

Jetty No. 1: Length about 60 m. (Position 09° 12.38' N., 99° 52.875' E. by GPS – Direction 254°). Depth said to be 7.5 m. forward and 7.8 m. aft, but we sounded on board 7.90 m. forward, 8.90 m. middle, and 9.40 m. aft.

There are no shore bollards for mooring. 3 mooring buoys forward and 3 mooring buoys aft are available. The mooring lines' lengths vary (150 m., 270 m., 350 m.). If ship's lines are short, it is possible to rent lines from shore.

Jetty No. 1 has a conveyor with capacity 600 tonnes/hr. and loading is throughout 24 hours.

Jetty No. 2: About the same conditions, but for larger ships (over 10,000 g.r.t.). Jetty length about 30 m. The ship shifts fore and aft many times for loading her cargo.

FRESH WATER: Available from shore.

KRABI: 08.04 N. 98.44 E. **(See Plan)**

DEVELOPMENTS: A deep sea port is to be constructed at Krabi. Construction to be completed between 1991 and 1997. Depth alongside 8.0 m. – 9.0 m.

SHIPMASTER'S REPORT: June 1987.

DOCUMENTS:

6 copies Crew List.
4 copies Crew Personal Effects Lists, including Currency Declaration.
4 copies Bonded Stores List.
4 copies Deck, Engine and Provisions Stores List.
2 copies All electrical items belonging to vessel (T.V., radios, tape recorders, video recorders, refrigerators, etc.).
Certificate of Registry.
Last Port Clearance.
All valid Safety Certificates.

Immigration: On arrival and departure all Crew Members have to sign a Thailand Immigration form in duplicate. All crew members must be in possession of Seaman's Discharge books.

APPROACHES: We used BA. Chart 3941. Berth can be approached from South West between islands of Ko Dok Mai and Ko Kai. Care must be taken of rock 6 ft. high (Him Hmusang), and the dangerous rock (P.D.) 1 mile N.N.W. of Him Hmusang. Coast and islands well defined on radar. It is best to approach in daytime due to the absence of any lights or navigational aids. The only light is East of Phuket (Ko Taphao Noi). The port can also be approached from South, keeping 2 miles to 3 miles East of Ko Kai and setting course 2.5 miles from Ko Ngang. The stockpile of gypsum is clearly visible from a distance of 6 miles. Approach is very picturesque.

PILOTAGE: No pilot available. A Loading Master boards with the Agent at anchorage and advises Master regarding manoeuvring and berthing. At berth vessel uses port anchor with 3 shackles and must have 14 good mooring ropes, minimum length 200 m. each and 70 mm. diameter.

ANCHORAGE: Anchorage when awaiting berthing is about 1.5 miles West of the trestle berth.

MAX. SIZE: Depth alongside at low water is 13.0 m. – 14.0 m.

HEALTH: Pratique granted by boarding party at anchorage. All ship's personnel to have valid Health Certificates.

RADIO/VHF: Bangkok Radio (HSA 4) used for contacting Agents and Charterers. VHF via Phuket Radio. Overseas calls can be made via Phuket Radio. Vessel allowed to use ship's radio station while loading.

TUGS: None available.

BERTHING: Vessel berthed at Leamphong Jetty at Krabi (South Thailand) to load Thailand natural gypsum in bulk.

Vessel manoeuvres to within 25 m. – 30 m. of the finger conveyor loading spout, and first drops port anchor. Then 2 lines each are given to bow and stern buoys, also 2 each to port bow and starboard bow and stern buoys. The vessel then breasts on the starboard lines to bring the starboard side to about 5 m. from the dolphin and spout. An extension conveyor is hung from the ship's crane to convey the gypsum into the hold. The vessel then shifts on mooring lines to bring the other holds under the spout. It is advisable to pre-plan loading so as to avoid unnecessary shiftings.

All mooring lines are to have equal strain and are to be kept tight. The bow and stern lines prevent the vessel from getting too close to the loading spout and dolphin.

Vessel must arrive with full ballast as the height from the waterline to the loading conveyor 12.0 m.

Loading rate is approximately 300-400 tonnes per hour.

The vessel's cranes/derricks must be capable of lifting the extension conveyor (approximately 3 tonnes) and bulldozer (approximately 2 tonnes).

MEDICAL: Medical attention only available in the most severe cases. The medical facilities are in Krabi town.

DENSITY: 1022.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: None available locally.

REPAIRS: No facilities available.

SURVEYORS: None locally, but may be arranged from Bangkok.

CUSTOMS ALLOWANCES: Normal allowances.

REPATRIATION: Possible through Bangkok.

SHORE LEAVE: Allowed. Nearest town is Krabi, distance 30 km., half the journey is on an uneven dirt road. Crew have to climb a vertical steel ladder fixed to one of the trestle supports of the conveyor.

An excellent beach, safe for swimming, lies very close to the moorings.

GENERAL: There is no need for special watchmen as only personnel required for loading board the vessel. There are about 10 persons on board at any time. Other normal precautions to be taken.

Agent: Thaising Shipping Services Co. Ltd., No. 2/17-19, TSS Building, Soi Sukhumvit 24, Phrakanong, Bangkok 10110, Thailand. Tel: 259-0247 (6 lines). Telex: 84436, 20012 (THAISIN TH). Cables: TSSSCO. Fax: (662)-258-5163.

SHIPMASTER'S REPORT: December 1988.

DOCUMENTS: See "Bangkok".

A large party of Customs and Immigration Officials, etc. will board by launch when moored at the berth. Formalities quite straightforward.

PILOTAGE: No licensed Pilot as such, but a local "Berthing Master" may assist in berthing. This is recommended because the vessel has to pass between the mooring buoys, a number of which are below the sea surface. The ship's Master will have to manoeuvre himself. Depths are in excess of 14.0 m. during the approach manoeuvres.

ANCHORAGE: About 1 mile from the berth in position Lat. 08° 04.4' N., Long. 98° 43.7' E. Depth of water 11 fathoms – 15 fathoms. The holding ground is good.

BERTHING: *Berth Position:* Lat. 08° 04.5' N., Long. 98° 44.6' E., about 1.55 nautical miles from Ko Kwang. Name of berth: Leamplong Jetty. Depth at berth: 12 m. minimum at LLWS. The berth consists of 7 mooring buoys.

Mooring Arrangment: Port anchor to be used. The vessel will have to prepare 5 light floating hawsers of 220 m. forward and 6 similar lines aft.

Two launches are used to assist with the mooring operation, which may be quite lengthy, because of the poor condition of some mooring buoys. On our visit 3 of the buoys were half submerged, necessitating the assistance of good swimmers/divers. Therefore, no attempt should be made to moor during a squall or when a strong tidal stream is running, it may reach 2 knots at times. No mooring during night time.

LOADING: *Air Draft:* Strict maximum of 11.0 m., to the top of the hatch coamings.

Loading Facility: The only commodity handled at this port is natural gypsum in bulk. A long flight of conveyor belts terminates on a wooden platform on steel piles. These piles are quite dilapidated and on no account may the ship's side rest against them. The final piece of conveyor belt, about 15 m. long is held aloft by the ship's cranes. Therefore only geared bulk carriers are suitable to load here. Minimum SWL of ship's gear to be 12 tons.

The vessel will have to shift with her mooring lines in order to present each hold in front of the conveyor system. Trimming is done with a small bulldozer.

Loading rate: 350 tonnes per hour (conveyor capacity). The daily loading rate is about 7,000 tonnes, depending on stoppages for shifting the vessel. Regular and careful check of the draft is necessary as there are no weighing facilities ashore.

Working hours: 24 hours per day, Saturday and Sunday included.

Cargo: This natural gypsum has a stowage factor of about 0.82 cu.m./ton and has a water content as it is stowed in the open. Within 24 hours to 48 hours of completion of a hold, the bilges will already be full.

GENERAL:

Facilities/Shore Leave: Small quantities of fresh fish may be purchased locally, but very little else.

All access to and from the vessel is by launch and the starboard gangway.

The small town of Krabi is said to be 35 km. from the Leamplong Jetty, all by dirt road. Access is reportedly difficult during monsoonal rain.

Shore leave is permitted but should be restricted in view of road conditions.

The local agent, charterer's representative and one draft surveyor have to be accommodated on board during the whole stay.

Airport: The nearest airport is on the island resort of Phuket, which is connected by a regular boat service to the small town of Krabi. Phuket has several daily flights to and from Bangkok and several International flights.

Charts: BA. 3941. No large scale chart available.

SHIPMASTER'S REPORT: August 1993.

1. The two submerged dolphins, one on either side of the conveyor, shown on "Plan No. 1", are no longer existing and do not represent any danger to vessel (This information given by Pilot).
2. There are now 2 mooring berths for loading gypsum. The configuration of mooring buoys is same in both cases (See "Plan No. 2").
3. A competent Pilot is stationed at Krabi. He boards all vessels and takes them to the moorings.
4. A total of 10 mooring ropes (not 14) were required (4 forward and 6 aft).
5. All mooring buoys are floating on surface. None were submerged. Two mooring boats assist in mooring.
6. Hawsers are available for hire at U.S.$ 100.00 per hawser throughout the full stay.
7. The breast ropes on port quarter are crucial and should be strong, especially in the months of July, August, September and October, when the Westerly wind tends to blow the stern towards the conveyor. Ships always go starboard side alongside.
8. There are no tugs. Fresh water is not available. Fresh vegetables can be bought at Krabi. Road is now good.
9. Authorities required photocopies of all statutory certificates, including copies of the Certificates of Competency of all deck and engineer officers on board.

SHIPMASTER'S REPORT: January 1996.

LOCATION: The Port of Krabi is located on the Western seaboard of Thailand, in the Andaman Sea in position Lat. 08° 04' N., Long. 98° 44' E.

DOCUMENTS: It is usual to fax or telex Crew List to loading port Agent before arrival.

On arrival, the following documents are required:

6 copies Crew List.
4 copies Crew Personal Effects List, including currency.
4 copies Bonded Stores List.
4 copies Deck, Engine, Provision Stores List.
4 copies Cargo Manifest.
2 copies List of all electrical Items belonging to Vessel.
2 copies Arms and Ammunition List.
2 copies Drugs List.
Last Port Clearance.
Certificate of Registry.
Load Line Certificate.
Cargo Ship Safety Radio Certificate.
Cargo Ship Safety Equipment Certificate.
Cargo Ship Safety Construction Certificate.
Derat Certificate.
Officer's Certificates (Master, Chief Officer, 2nd Officer, 3rd Officer, Radio Officer, Chief/2nd/3rd Engineer).

On arrival at anchorage, the Agent boarded ship first and brings many blank forms for Master to sign and stamp, after which Agent will fill in (Arrival Declaration).

Immigration: On arrival, Agent boarded and issued one blank form to put crew's names on, he then asked all crew to sign in both arrival and departure columns in duplicate.

APPROACHES: As we received orders for Krabi at sea, there were n charts onboard, except B.A. Chart No. 830 (1:1,500,000). We made a chart ourselves according to the Pilot Book. We also referred to B.A Chart No. 830 and every island, islet and rock (latitude and longitude). We entered from South, 3 miles East of Kokai Island (Lat. 07° 40' N. Long. 98° 40' E.) on course 007° – 010° to clear rock (Lat. 08° 00' N. Long. 98° 43' E.). The tide/current set 340° during Springs and 170 during ebb. On the way to the port, many fishing boats with strong lights are encountered, but they give way when whistle was sounded. We proceeded to port during night-time with radar. The target was obvious especially the 3 jetties.

PILOTAGE: There is one Pilot who lives on the jetty. After Customs have boarded and completed paper work, Pilot boarded with Agent and some stevedores to check the mooring ropes and connect the ropes, i not long enough and advise how to moor in future.

ANCHORAGES: Anchorage for awaiting berthing is about 1.0 miles – 1.5 miles West or S.W. of the trestle berth. The depth is more than 20.0 m. and the holding is good, also sheltered from wind (except South).

MAX. SIZE: Reported depth alongside at L.W. is 13.0 m. – 14.0 m., but depth on shore side changes rapidly.

RADIO: Kaosichang (Bangkok) (HSA) used for contacting Agent and Charterers. The Agent's head office at Phuket usually advises the person to board ship after ship arrives.

The Agent's office at Krabi only has 2 persons to represent the Charterer and Shipper. VHF calls via Phuket Radio. Overseas calls can be made via Phuket Radio, but due to distance from Phuket, often disturbed by other ships nearby. Vessel is allowed to use ship's radio station while loading.

TUGS: None available for berthing. There are 2 launches for handling mooring ropes, checking draft, traffic from shore to ship and towing barges loaded with extension conveyor and bulldozer.

BERTHING: Vessel berthed at Chean Vanich Jetty at Krabi to load Thailand Natural Gypsum in bulk. Vessel usually berthed after high water. Stopped ship far off the jetty and approached at a narrow angle at dead slow ahead. First mooring line to port quarter buoy (See "Plan"). When bow is in the line with buoys fore and after, let go port anchor. Next moorings are 2 headlines on port and starboard bow, followed by 2 lines to stern and 2 lines on both port and starboard quarter. All mooring lines are to have equal strain and are to be kept tight.

Loading: Vessel must arrive with full ballast as the height from waterline to loading conveyor is 12.0 m.

The spout is fixed, so vessel shifts with mooring lines to bring the other holds under the spout. It is advisable to pre-plan loading, so as to avoid unnecessary shiftings.

A conveyor extension is hung from the ship's crane to convey the gypsum into the hold. The conveyor extension is about 15.0 m. long and is held aloft by the ship's cranes. Therefore only geared bulk carriers are suitable to load here. Minimum SWL of ship's crane to be 12 tons.

STEVEDORES: 24 hours working per day, Saturdays and Sundays included. The loading rate is approximately 500 tons – 800 tons a day, depending on the funnel and the condition of the belt. This natural gypsum has a stowage factor of about 0.82 cu.m./ton and has a water content as it is stowed in the open.

Trimming is done properly by a small bulldozer.

MEDICAL: There is a small clinic in Krabi. Medical attention only available in the most severe cases.

DENSITY: 1021 – 1022.

FRESH WATER: Not available.

FUEL: Not available.

SURVEYORS: Draft Surveyors arranged by Agent who also undertook the "On/Off Hire" survey.

CUSTOMS: Officers boarded after anchoring to check some cabins and provision stores. They sealed the bonded store. Normal allowances.

REPATRIATION: Possible through Bangkok.

SHORE LEAVE: Allowed. All access to and from the vessel is by launch and starboard gangway. Crew have to climb a vertical steel ladder fixed to one of the trestle supports of the conveyor. The nearest town is Krabi, 35 km. from the jetty. One mini-bus, owned by the Pilot, is available for renting. A single trip costs U.D.$30.0. 5 km. – 6 km. of journey is on an uneven dirt road, the rest is on a good highway.

LAEM CHABANG: 13.05 N. 100.53 E. (See Plan

LOCATION: The Port is located on the Northeastern shore of the Gu of Thailand, approximately 100 km. S.E. of Bangkok.

PORT LIMITS: Sea Buoy at channel entrance.

DOCUMENTS: See "Bangkok".

PILOTAGE: Pilotage is compulsory and will be provided by offic Harbour Department pilots. Procedure for obtaining pilots is the sam as for Bangkok.

Pilots can also be contacted by VHF Channel 13, 14 and 16.

ANCHORAGES: Anchorage can be obtained off Laem Chabang position Lat. 13° 04' 30" N., Long. 100° 50' 30" E., at a distance approximately 2.2 – 3.8 nautical miles from the port in depths of 14.0

If necessary, sheltered anchorage can be found off Si Chang Isla (Koh Si Chang, about 5 – 6 miles N.W. of Laem Chabang Port).

APPROACHES: The available depth in the Approach Channel is 14.0 m. at M.S.L. (approx. 12 m. at L.L.W.).

Directions: All vessels must obtain berth allocation from Laem Chabang Port prior to entering port. Procedure will generally be arranged through ship's Agent. No vessel should enter without berth having been allocated.

Vessels carrying hazardous cargo should obtain special permission from Laem Chabang Port, either through their Agent or directly.

To facilitate landfall, a light (flash 10 secs.) and racon are exhibited from Laem Chabang Hill (Khao Laem Chabang) VTS Station.

Port should be entered from a position off Buoy F. The direction of approach from sea into port entrance is 131°. Vessels pass between Entrance Buoys No. 1 and 2, and then between port and breakwater. The angle between the centre line of entrance and the port basin is 108°.

RESTRICTIONS: Vessels may enter day and night.

MAX. SIZE: 70,000 d.w.t. at the Bulk Terminal. 33,000 d.w.t. at the Container Terminal and 25,000 d.w.t. at the Multi-Purpose Terminal.

HEALTH: See "Bangkok".

RADIO/VHF: Port Radio Laem Chabang Port, Sriracha, Chonburi, Thailand. Call sign "HSC 69" station.

The incoming vessel is to communicate with Port Officers at the distance between 1,000 – 3,000 miles by radio telegraphy.

HF – Power 1,000 Watts.
Port transmits 8,466 kHz.
Port receives 8,363.2 – 8,367.2 kHz.
Open 5 times a day at 0200, 0500, 0800, 1100 and 1400 hrs. UTC (about 30 minutes each time).

Information required from the vessel includes:

(1) Vessel's name and nationality.
(2) Last port of departure.
(3) Next port of destination.
(4) Estimated time of arrival at entrance buoy (Lat. 13° 04.92' N., Long. 100° 51.48' E.).
(5) Draft (Sea water) in feet or metres.
(6) Containers, general cargo to be loaded or discharged.
(7) Dangerous cargo.
(8) Heavy lift requirements.
(9) Fresh water required.
(10) Number of passengers (landing and transit).
(11) Time of dropping anchor at anchorage area (Lat. 13° 04' 18" N., Long. 100° 50' 28" E.).

So as to check the exact time of arrival at Laem Chabang Port, when entering the Gulf of Thailand at the distance between 50 – 1,000 miles, the vessel has to communicate with Port Officers again by radio telegraphy.

MF – Power 1,000 Watts.
Working frequency 480, 454, 443 and 425 kHz.
Calling frequency 500 kHz.
Traffic lists broadcast daily at 0400 hrs. UTC and at the beginning of every hour.

Upon reaching a distance of 10 – 15 miles from Laem Chabang, communication by radio telegraphy is to be changed to radio telegraphy call sign "Laem Chabang Port Control".

VHF – Power 50 Watts.
Calling Channel 16 (156.800 MHz).
Working Channel 12 (156.600 MHz).
Working Channel 13 (156.650 MHz).
Working Channel 17 (156.850 MHz).
Working Channel 67 (156.375 MHz).

The vessel shall then be informed of its mooring place. The system is capable of the following communication operations:

(a) Port operational services.
(b) Continuous watch of distress frequency (Channel 16) and emergency correspondence.
(c) Navigational information service in the combination with radar surveillance facilities.

Berthing: PAT Officers will communicate with the Pilot on board by radio telephony to receive information, so as to make arrangements for berthing facilities such as berths, tugs, mooring boats, etc.

RADAR: A VTS Station, equipped with 'X' and 'S' band radar, is situated on top of Laem Chabang Hill.

TUGS: Tugs of 800 h.p. – 3,200 h.p. are available. Tugs can be contacted on VHF Channel 13.

Tugs will make fast upon Master's request, either inside or outside the breakwater.

BERTHING: There are 4 berths for container vessels (Length 1,200 m. and depth 14.0 m. at MSL); 2 berths for agri-bulk vessels (Length 650 m. and depth 14.0 m. at MSL), and one coastal berth (Length 300 m. and depth 6.5 m. at MSL).

Basin 1: *South Quay:* There are 5 terminals available along the South Quay, and they are numbered from landward to seaward.

Terminal B 1: Multi-purpose Terminal: Length 300 m. Depth alongside MSL 15.0 m. (approx. LLW 13.0 m.). Operated by LCB Container Terminal Co.Ltd. Tel: (+66-38) 491200-1.

Terminal B 2: Container Terminal: Length 300 m. Depth alongside MSL 15.0 m. (approx. LLW 13.0 m.). Operated by: Evergreen Container Terminal (Thailand) Co.Ltd. Tel: (+66-38) 490052, 490060. Fax: (+66-38) 490068-70.

Terminal B 3: Identical to Terminal B 2. Operated by Eastern Sea Laem Chabang Terminal Co.Ltd. (ESCO). Tel: (+66-38) 490084-6. Fax: (+66-38) 490081-2.

Terminal B 4: Identical to Terminal B 2. Operated by TIPS Co.Ltd. Tel: (+66-38) 490111. Fax: (+66-38) 490121-2.

All Terminals have a height of 3 m. above MSL.

Also see "Developments".

North Quay: Along the North Quay, 5 terminals are available:

Terminal A 1: Coastal Terminal: Length 300 m. Height above MSL 3.0 m. Depth alongside MSL 6.5 m. (approx. LLW 4.5 m.). Operated by Laem Chabang Port (See "Terminal B 1"). Length to be increased to 400 m.

Terminal A 4: Bulk Terminal: Jetty structure, water depth MSL 14.0 m. Operated for export of bulk and bagged sugar and for molasses by: Aawthai Warehouse Co.Ltd. Tel: (+66-1) 3532514. Fax: (+66-1) 3532514.

Terminal A 5: Bulk Terminal: Jetty structure to the West of the North Quay (along the Approach Channel), will probably be leased for bulk cargoes. Water depth MSL 14.0 m.

Also see "Developments".

CARGO HANDLING FACILITIES: Each container terminal is equipped with 2 rail mounted quayside container gantry cranes of 40 tons capacity under the spreader, outreach 32 m.

They are also equipped with rubber tyred gantry cranes on the container yard and miscellaneous handling equipment.

The Multi-purpose and Coastal Terminals are equipped with mobile cranes.

Terminal A 4 is equipped with ship loader for bulk sugar.

CRANES: 6 quayside container gantry cranes with capacity 40 tons under spreader.

Mobile Equipment:
1×50.0 ton mobile crane.
1×40.0 ton mobile crane.
2×40.0 ton reach stackers.
15 Forklift trucks from 2 tons – 5 tons.
1×30.5 ton top loader.
1×30.5 ton container shifter.
3×30.5 ton 1 over 3 rubber tyred gantry cranes.
8×41.0 ton 1 over 4 rubber tyred gantry cranes.
Yard tractors, chassis and flat-bed semi-trailers and motor trucks.

MEDICAL: Full public hospital facilities available without prior notice are situated in Sriracha, about 10 km. to the North of the port.

Another modern hospital, which is private, is situated about 10 km. to the South of the port near the famous international seaside resort of Pattaya. Most doctors understand and speak English and other foreign languages.

The nearest is Laem Chabang Polyclinic and Ao Udom Hospital.

TANKERS: No facilities.

FRESH WATER: Fresh water delivered to vessels at wharves by pipeline by a rate of 30 t.p.h. Fitting on pipeline is 2.4 in. Minimum charge of 50 cu.m. Water 25 Baht/cu.m.

FUEL: Fuel can only be supplied by truck. Major oil suppliers can be contacted:

P.T.T. : Petroleum Thai Authority,
5th Floor, Industry Sale Section,
State Enterprise Sale Division,
Lardprao, Bangkok 10900.
Tel: (+66-2) 537-2321-25.
Fax: (+66-2) 537-2323.

Esso : 118/1 Sukhapiban 7,
Sukhapiban Road,
T. Tungsukla,
A. Sriracha,
Chonburi 20230.
Tel: (+66-38) 351-581, 351-195.
Fax: (+66-38) 351-583, Ext. 4736.

Shell : Shell Sriracha Tank Farm,
A. Sriracha,
Chonburi 20230.
Tel: (+66-38) 351-577, 351-302.
Fax: (+66-38) 351-578.

Caltex : 180/8 Moo 7,
T. Tungsukla,
A. Sriracha,
Chonburi 20230.
Tel: (+66-38) 352-333-35.
Fax: (+66-38) 352-335.

B.P. : B.P. Oil Co., Ltd.,
Lubricate Products Department,
Sitthivorakich Building,
11th Floor, 5 Soi Pirat,
Silom Road, Bangluk,
Bangkok 10500.
Tel: (+66-2) 235-5855-8.
Fax: (+66-2) 238-5313.

CONSULS: Embassies and Consuls are situated in Bangkok, about 120 km. (approx. 2 hours by road) from Laem Chabang Port.

REPAIRS: Only minor repairs can presently be executed.

DRY DOCKS: Port Authority of Thailand leased out an area of about 180 acres for the construction of the shipyard project. The floating dock (capacity 40,000 tons, length 283 m. and width 47 m.) became operational in December 1992. A second dry dock with capacity 35,000 d.w.t. is to be installed.

SURVEYORS: Contact Port Authority.

GANGWAY/DECK WATCHMEN: Necessary, theft of wire, paint and tools has occurred.

OPENING/CLOSING HATCHES: Normally by ship's crew.

CUSTOMS ALLOWANCES: See "Bangkok".

AIRPORT: An international airport is situated at U-Tapao, about 50 km. South of Laem Chabang.

Don Muang International Airport (Bangkok) is situated about 150 km. to the North.

TIME: See "Bangkok".

HOLIDAYS: See "Bangkok".

POLICE/AMBULANCE/FIRE: Police Tel: (+66-38) 490555-6; Fire Tel: 210 or 211 (internal call); Ambulance: Call direct to the hospital or use the port ambulance.

TELEPHONES: Telephone on board are available on request. The charge is 300 Baht per day per line.

BANKS: There are many banks in this area, such as:

Thai Commercial Bank: Laem Chabang Branch. Tel: (+66-38) 331219-20.
Thai Farmer Bank: Laem Chabang Branch. Tel: (+66-38) 330920-1.
Bangkok Bank: Ao Udom Branch. Tel: (+66-38) 351148.
Krungthai Bank: Sriracha Branch. Tel: (+66-38) 312001-2.

GARBAGE DISPOSAL: Garbage is collected from vessels by truck or garbage boat at vessel's request. Charges are included in Port Dues. No drums or skips are made available (vessel's plastic garbage bags are generally used).

WASTE OIL DISPOSAL: No waste oil disposal service is presently available, but is expected by Mid-1996.

SEAMAN'S CLUBS: No Seaman's Club available. Shops, postage facilities, telephone services, etc., available at Pattaya, which can be reached by pick-up taxi.

CURRENCY: Thai Baht. U.S.$ 1.00 = 25.00 THB (April 1996).

GENERAL: *Rescue and Distress:* The port tugs are available for rescue and distress missions. The Royal Thai Navy has a radio system, helicopters and ships available at Sattahip Naval Base for rescue and distress.

Rail Links: A railway links the Port (Container, Multi-purpose and Bulk Terminals) via a marshalling yard at Ao Udom and the Sri Racha Railway Station to the network of the State Railway of Thailand (SRT).

Small Craft Facilities: Small craft visiting the Port can generally berth at the Coastal Terminal. Alternatively, they can anchor in Laem Chabang Fishing Port, situated to the North of the Port, just South of Khao Laem Chabang.

No special yacht moorings are available.

Deratting: Deratting services are available. Contact Rentokil at 47/35-36 Moo 9, Sukhumvit Road, Banglamung, Chonburi. Tel: (+66-38) 422686-7. Fax: (+66-38) 426016.

Services: Ship chandlery is available. Contact ship's Agent or Terminal Operator.

Compass adjusting is available. Contact ship's Agent or Terminal Operator.

Tank cleaning services and hull painting services will be available by 1993.

Communication: Laem Chabang Port is connected by road to Bangkok and beyond, to Pattaya, Sattahip, Map Ta Phut and beyond, and to the whole N.E. part of Thailand.

The port is connected by road and will be connected by rail to Laos Pass through the bridge over the Mekong River in Nongkai.

DEVELOPMENTS: Basin 1: *South Quay:* Terminal B 5: New container terminal to be constructed by 1998. It will be operated by STC Capital Holding Co.Ltd.

Ro-Ro Domestic Terminal (A 0): LCP has planned to dig out the end of Basin 1 above, width 250 m., length 55 m., and construct the Ro-Ro Domestic Terminal which is named "A 0" at the end of Basin. To meet this project, it is now tender preparing. The Terminal will be ready in 1998.

Terminal A 2: Length 400 m. of quay wall. Terminal was planned to be the multi-purpose Terminal, and will be operated by a private company.

The concession has the right to construct, manage and operate the Terminal the same as the Terminal in South Quay. The bidding will be announced to give concession to the winner this year.

Terminal A 3: Length 350 m. quay wall. Terminal was planned to be a liquid bulk terminal, and to be the same as Terminal A 2.

Terminal A 4; Under negotiation between LCP and private company to handle coal (import), cement and other break bulk cargo (export). This project will start this year and will be operating in 1998.

Basin 2: LCP has planned to construct the new basin alongside Basin 1 by 1997. The bidding of the engineering consultancy company for study and engineering design is underway.

AUTHORITY: Laem Chabang Port, T. Tungsukla, A. Sriracha, Chonburi, Thailand. *Tel:* (+66-38) 490000/39. *Telex:* 75814 Lcp Th. *FAX:* (+66-38) 490141. *Contact:* Commander Karn Tantivejakul, R.T.N., Port Director.

AGENT: See "Bangkok".

MAP TA PHUT: 12.39 N. 101.09 E. (See Plan)

(A) THAI TANK TERMINAL LTD.
(B) RAYONG REFINERY CO. LTD.
(C) STAR PETROLEUM REFINING CO. LTD. – MARINE TERMINAL
(D) STAR PETROLEUM REFINING CO. LTD. – SPM

(A) THAI TANK TERMINAL LTD.

LOCATION: The Terminal is situated on the Eastern shore of the Gulf of Thailand between Sattahip and Rayong, approximately 180 km. East of Bangkok, in position Lat. 12° 39' N., Long. 101° 09' E.

ANCHORAGE: Lat. 12° 36' N., Long. 101° 10' E.

Depth: 15.0 m. (approx.). Bottom: Sand and mud.

RESTRICTIONS: Berthing and unberthing throughout 24 hours, weather permitting.

MAX. SIZE: 45,000 d.w.t., LOA 200 m. and max. draft 11.9 m.

TUGS: No tugs stationed at the port.

These services have to be arranged by ship's Agent. The number and capacity of tugs depends on vessel's size, draft and weather conditions and requirements of the Pilot(s), Ship's Master or the harbour authorities.

BERTHING FACILITIES: The marine terminal consists of 2 identical liquid cargo berths for import and export of mineral oils, chemicals and liquified gases.

Liquid Cargo Berth No. 1:
Length of Berth: 280 m.
Max. LOA: 160 m.
Water Depth: 12.5 m. (C.D.).
Max. Draft of Ship: 11.9 m.
Platform: Fixed fendering.
Mooring: 4 mooring dolphins and 6 breasting dolphins (See "Plan").
Cargo: Propylene oxide (PO). Butadiene (BD).

Liquid Cargo Berth No. 2:
Length of Berth: 280 m.
Max. LOA: 200 m.
Water Depth: 12.5 m. (C.D.).
Max. Draft of Ship: 11.9 m.
Platform: Fixed fendering.
Mooring: 4 mooring dolphins and 6 breasting dolphins (See "Plan").
Cargo: VCM, Naphtha.

Tidal and Weather Information:
Prevailing Wind: S.W.'ly.
Tidal Variation: H.A.T. +3.50 m.
M.H.H.W. +3.00 m.
M.H.W. +2.80 m.
M.S.L. +2.20 m.
M.L.L.W. +1.40 m.

MOORING: *Safe Mooring and Working Guide:* Thai Tank Terminals Ltd. (TTT) is not responsible for towage operations of vessels. It is compulsory that the services of a Pilot, who is authorised by IEAT to be used each time the vessel has to be moved in the terminal area.

The following precautions are to be taken:

1. The Master is responsible for ensuring that mooring lines are in good condition, and that winches on securing devices are in efficient operational order.
2. Any known defects in the vessel's mooring system or limitations of mooring winch brakes should be reported to the Terminal Manager by the Master, in order that, if necessary, additional precautions may be agreed.
3. The Master shall ensure that the vessel's mooring ropes or wires are secured only to the proper fixtures provided for this purpose.
4. In order to avoid damage to loading arms/hoses, the vessel shall be kept close alongside at all times.
5. Under no circumstances will a mixture of wires and synthetic ropes in the same direction of service and to the same mooring point be acceptable.
6. Where wires are used, they should be of similar breaking strain to that of the rope.
7. Vessel must provide full power or steam on deck to all mooring winches throughout the period alongside the jetty.
8. Once moored, vessel's winches must be secured with the brakes hardened up. Winches must not be left on automatic tension.
9. Back springs should be as long as possible, and it is recommended that wires are used and secured to the mooring points on the jetty head/breasting dolphin.
10. Mooring lines must be adjusted under the supervision of a responsible officer.
11. A strict watch must be maintained on the vessel's moorings at all states of tide to ensure that all lines are properly tensioned and tended, to prevent undue movement of the vessel.
12. The Master should endeavour to ensure compliance with the mooring layout.
13. The Terminal will require cargo operations to be stopped and/or tugs summoned if the vessel's movement will endanger loading arms hoses or in the absence of an alert efficient deck watch. *All delays charges* caused by the ship's failure to observe the above precautions will be for the ship's account.
14. In normal conditions, berthing/unberthing is permitted throughout 24 hours.

CARGO OPERATIONS:

Inspection of Vessels prior to Commencement of Loading/Unloading
Prior to commencement of loading or unloading operations, it shall be the duty of the Master or Chief Officer with the appropriate TTT Representative to carry out inspections to ensure that all safety regulations are being observed.

Closing of Sea Valve connected with Cargo System: Prior t commencement of loading or unloading operations, all sea suctions an discharge valves connected to the cargo system shall be securely sh and lashed, and stern discharge and other lines not in use, shall b blanked-off.

Immediately after loading or unloading has commenced, a responsib ship's officer shall make an overside inspection in the vicinity of all se valves, to ensure that there are no leaks.

A similar periodical inspection throughout the loading or unloadin operations is required.

Closing of Doors, Portholes and Ventilators during Operations: Wh any cargo is being handled or during the ballasting, gas-freeing or ta cleaning, after the unloading of such cargo, all doors and portholes the afterhouse facing on to the cargo tank deck, and the doors leadi to the centrecastle from the accommodation shall be kept secur closed. All afterhouse ventilators shall be turned to face aft during the operations.

Loading and Unloading: Supervision and control throughout the pe of loading or unloading operations shall be exercised as follows:

1. A responsible ship's officer, who is thoroughly familiar with t arrangements of the cargo lines, valves, pumps and cargo ven system of the vessel, shall be on duty, and an adequate numbe crew shall remain on board to deal with any emergencies.

2. A responsible member of the ship's personnel shall be stationed near the vessel's main cargo control valve.
3. Prior to commencement of operations, the responsible ship's officer shall confirm with the appropriate TTT Representative, that the stand-by, cease loading and other necessary signals, are properly understood and agreed.
4. During loading or unloading of cargo and when ballasting, all tank lids must remain closed. Ullage pipes and sighting ports may be opened for sampling and ullaging, but must be closed when sampling or ullaging is not being carried out.

Agreement of Loading or Unloading Rates and Pressures: Prior to commencement of operations, the maximum loading or unloading rate and pressure shall be agreed between the Master and the appropriate TTT Representative in charge of operations, bearing in mind the grade of the products to be loaded or unloaded and the size and capacity of the vessel's cargo lines, gas venting system and vessel's pumps and the appropriate loading or unloading plan agreed in writing.

Reduction of Loading or Unloading Rates:

1. Topping-off: When cargo tanks are being topped-off, loading rates should be reduced by means of the shore pumps or control valves on shore on request by the ship's officer to the appropriate TTT Representative. Under no circumstances shall any vessel attempt to reduce the rate of loading from shore by closing any vessel's valves. In particular, care should be taken to ensure that during changeover from tank to tank, the valves to the empty tank are opened well before those on the tank being finished are shut down.
2. Line Clearing: Should any air or water be present in the line, pumping speed should be regulated to eliminate the danger from static electricity until the air or water has been displaced.

Pressure Surge Precautions: Non-routine closing of the loading system's automatic intervention or "fail safe" closure of shipboard Emergency Shut Down (E.S.D.) valves can generate dangerous surge pressure. The Master may be asked to operate the system to enable timing of the valves to be checked, and may be requested to have valves adjusted according to the provisions of the IMO codes for vessels carrying Liquified Gases in Bulk.

TTT reserves the right to adjust loading rate if valve closing times are not compatible with the rates otherwise agreed.

Liquid Manifold: 2×8 in. hoses ANSI 150.

Please prepare manifold on the vessel's starboard side and reducer required from vessel in case of different manifold sizing.

Initial Discharge Rate: 700 cu.m./hr.

Max. Discharge Rate: 2,000 cu.m./hr.

BALLAST: *Ballasting:* As long as the vessel is moored at the berth, only segregated ballast tanks may be used. If it is necessary to ballast into the cargo tanks to maintain agreed manifold air drafts, permission will be granted by the Terminal Manager provided that:

(1) Cargo operations are suspended.
(2) Integrity between cargo and ballast is guaranteed by using a minimum 2 valves isolation.
(3) On commencement to ballast, pumps are to be started, and a vacuum shown on the pressure gauge before opening the sea valve.

Deballasting: Deballasting is not allowed in the harbour.

GENERAL:

Prohibition of Pollution:

(1) Pollution of the Terminal area by vessel effluent, condenser and waste water is prohibited.
(2) Soot emissions and any excessive exhaust emissions from the funnel or exhaust lines are to be avoided.
(3) Suitable measures are to be taken to avoid polluting the Terminal and personnel in the vicinity when water, vessel effluent and vapours are discharged.

Tank Cleaning:

(1) No tank cleaning or gas-freeing is permitted alongside, unless written permission has been obtained from the Terminal Manager.
(2) No vessel which has windsails in her tanks is permitted at berth alongside, unless such tanks are gas-free.
(3) No vessel is permitted to berth alongside when tanks are not gas-free, unless all tank openings are closed.

Product Spillage and Leakage:

(1) Prior to any handling of cargo or bunkers, all scupper holes shall be plugged and cemented in such manner as will make them leak-proof.
(2) All pipes, valves, connections and fittings, etc., used for handling cargo, shall be kept free from leakage.
(3) When loading or unloading has been completed, the flexible hose or hoses shall be drained and disconnected. Drip trays must always be used when pipeline connections are broken.
(4) If a product spillage occurs, the product shall be disposed of by a method agreed by the TTT Representative. Under no circumstances shall product be washed or swept overboard.
(5) All product spillage, whether on to the deck of the vessel or into the sea, must be reported immediately to the Jetty Operator, who will contact the necessary department concerned. Every possible action must be taken by the vessel and the Terminal to stop spillage, reduce spreading and recover the product.

Bunkering and Storing: No bunkering facilities are provided on the Terminal. Bunkering, storing and victualling of vessels may be permitted during operations, but only with permission of both the Terminal Manager and the Master of the vessel, provided that:

(1) Access to the Terminal is not obstructed.
(2) Cargo operations remain adequately supervised.
(3) Cargo operations which may allow vapours to escape on deck, e.g. sampling, ullaging, deflexing, etc., are suspended.
(4) Drums of oil, paint, steel plates, gas cylinders or any other heavy metal parts, which may cause a spark, should be landed on rubber or other suitable matting and not directly onto vessel's deck. These items must not be dragged or rolled along the deck.
(5) If an oil spillage occurs, the oil shall be disposed of either by mopping-up or by a method agreed by TTT Representative. Drip trays must always be used when pipeline connections are broken. Under no circumstances shall oil be washed overboard.
(6) The appropriate document indemnifying TTT against all accidents has been signed.
(7) The designated point for setting down of vessel's stores is at the discretion of the terminal personnel.
(8) If the above criteria are not met, TTT reserves the right to refuse permission.

Supply Vessel's Alongside: No supply vessels are allowed alongside.

Bathing: Bathing will not be permitted from the platform and approaches, or from the vessel whilst alongside.

Communications: Once a vessel has berthed, Terminal Supervisor will place a portable radio aboard the vessel to be used by the vessel for contacting the Terminal during operations. The radio will be set for direct contact with the Jetty Operator and Terminal Supervisor.

Safety Check List: The Master must complete and return to the Terminal Supervisor a Safety Check List certifying that all statutory conditions have been complied with, all necessary loading valves onboard are properly set, and the agreed Loading/Unloading Signals are understood. A copy of the Safety Check List, signed by both vessel and Terminal Representative, is to be retained on the vessel.

Thunderstorms/Suspension of Operations: During severe thunderstorms, or other climatic conditions, which may be hazardous to the safety of the operations, the loading or unloading of any cargo may be suspended by the responsible ship's officer and/or the appropriate TTT Representative.

All valves and tank openings should be closed, and where required, hoses or arms disconnected.

Repair Work and Maintenance: No boiler cleaning, chipping, scaling and scraping of steelwork, or work likely to cause sparks, shall be undertaken on any vessel (and no iron or steel hammers or other instruments, capable of causing sparks, shall be used for the purpose of opening or closing hatches), unless prior written permission of the Terminal Manager has been obtained.

Clearance of the Vessel: Owing to the highly flammable nature of the products handled at the Terminal, and in order to comply with the Petroleum Regulations, it is necessary to exercise strict control of access to the area.

Unauthorised persons are not allowed to enter a vessel berthed alongside the Terminal until it has been cleared by Agents and the Authorities.

TTT personnel and Representatives shall have access to the vessel for the performance of their duties. The Master will give them all the necessary information with regard to operations and shall allow them to inspect all safety equipment and handling facilities. Back-up support by the vessel's crew is to be assured.

Controlled Access to the Terminal: Persons with valid works passes are allowed to enter the Terminal to proceed to the jetty. Persons having lawful business with vessels, tradesmen and suppliers will be issued with a day pass by the Security Officer.

Crew members of a vessel are not allowed to enter the Terminal without permission, as mentioned in "Marine Terminal Pass Form".

The entry of women to the Terminal is restricted to female members of a vessel's crew or the wives of crew members.

The co-operation of the Masters and Shipping Agents is requested in the interest of safety.

There shall be prepared a gangway of approved pattern as means of access to a vessel. It shall be properly secured and tended. A notice board shall be displayed in a prominent area near the access to the vessel indicating "No admittance except on business" and "No smoking allowed".

Immobilisation of Engines:

(1) The main engine shall always be kept ready for immediate use. Urgent repairs may only be undertaken with written approval from the Terminal Manager.
(2) Repairs which restrict the manoeuvrability of the vessel may only be carried out and on the condition that the Master hires sufficient stand-by tugs to move the vessel, if so required. All consequential costs resulting from repair work carried out on the vessel while it is moored at the Terminal shall be borne by the vessel.
(3) Should the repair works represent a risk for the Terminal, or should the conditions of the approval be contravened, the Terminal Manager may require that the vessel be removed at the Owner's costs.

Anchors: Every vessel shall have anchors ready for immediate use.

Emergency Towing Wires: Any vessel, whilst alongside the Terminal, shall provide emergency towing wires of sufficient length to reach the water's edge with about 20 m. flaked on deck with an eye on the outboard end and inboard end made fast to the vessel's bitts on the offshore bow and quarter.

Number of Crew: The Master shall at all times retain sufficient crew on board to operate the vessel.

Gangway: Vessel's gangway required (Jetty platform: +7.5 m. (C.D.)).

SHIPMASTER'S REPORT: July 1994.

Vessel: 38,600 d.w.t. LOA 182 m. Max. draft 10.97 m. Arrival draft 10.0 m.

Cargo: 29,700 tonnes of Naphtha.

Port of Map Ta Phut (Rayong), Thailand.

The commercial port of Map Ta Phut was opened in 1992 and is developing strongly. Vessel berthed at Thai Tank Terminal Ltd. (TTT) Berth No. 2, and was the first ship to discharge naphtha at the pier, therefore the discharging was slow, 1,500 cu.m./hr. (maximum) through 2×8 in. hoses. The storage tank for naphtha is 56,000 cu.m. The berth has been completed, but the Chicksan arms have not been installed yet, also the shore gangway was missing. This is also the case on Berth (TTT) No. 1. Maximum draft at Berth No. 1 and No. 2 is 11.90 m.

Thai Tank Terminal only stores chemicals and petroleum products, and distribution of the products to the chemical industry in the area is by means of a 16 in. pipeline (about 5 km. long).

Pier No. 2 is to be fully equipped before the end of the year. Thai Tank Terminal facilities are inside the port, sheltered by manmade breakwater and fairly well protected from swell.

Berthing is possible throughout 24 hours, but the weather might delay Pilot to working during daylight hours only. Also the buoys and leading lights are unreliable, according to the Berthing Pilot.

The Terminal Manager of the Thai Tanker Terminal Ltd. said that this matter is underway and Thai Tanker Terminal has good co-operation with the Port Authorities. The buoys and leading lights are to be upgraded.

On the West side of the port, there is a long pier and at its end is a chemical berth. This is specially venerable to the weather. Frequent delays will occur at this pier, due to difficulties of berthing during bad weather.

The port is developing fast, also towards the East of Thai Tank Terminal. Building of new berths is underway for Shell and Caltex. These berths are mainly to serve the refinery, being built by Shell/Caltex. These piers are for loading petroleum products. The refinery is going to be supplied by a SPM Buoy 23 nautical miles offshore and is going to be able to receive VLCC's. The Thai Tank Terminal Ltd. is hoping to get the management of the SPM operations. The Manager said that if the demand for tank storage is fulfilled, they are going to need 3 times the land they have. TTT has the first option on the area between their facilities and the West pier for chemicals. This mentioned land is now sea and has to be filled-in.

The roads from Map Ta Phut to Bangkok are good, but towards the East, improvement of the roads is still going on. Pattaya is about 45 minutes drive from Map Ta Phut.

OPERATOR: Thai Tank Terminal Ltd., Liquid Cargo Terminal, Map Ta Phut Industrial Port, P.O.Box 21, Map Ta Phut, Rayong 21150, Thailand. *Tel:* (038) 683172. *FAX:* (038) 683173. *Contact:* Mr. Jirachai Naiwattanakul, Operations Manager. Captain Piet v.d. Staal, Terminal Manager.

(B) RAYONG REFINERY CO. LTD.

LOCATION: Map Ta Phut port is an industrial harbour owned and managed by the Industrial Estate Authority of Thailand (IEAT). The harbour is located between the cities of Sattahip and Rayong at Thailand's Eastern seaboard, some 170 km. South of the capital Bangkok.

The 3 jetties of Rayong Refinery Co.Ltd. (RRC) are located on the S.E. side of Map Ta Phut port in close vicinity of the port entrance.

The port area is shown on Royal Thai Navy (RTN) Chart No. 157, the approaches on RTN Chart No. 141 and on British Admiralty Chart No. 3966 respectively.

The distance from the Fairway Buoy to the harbour's Western breakwater is 2 nautical miles. The minimum width of the approach channel is 250 m. and the water depth is 12.5 m. reduced to Lowest Low Water (LLW).

DOCUMENTS: The following documents are required:
10 copies Crew List.
6 copies Stores and Provision List (Steward/deck/engine department).
6 copies Arms and Ammunition List.
6 copies Narcotics List.
6 copies Ports of Call List.
6 copies Foreign Currency List.
6 copies Passenger List.
6 copies Crew's Personal Effects List.
6 copies Ship's Domestic Movable Properties List.
(The last 2 lists to declare brands and serial numbers of watches, cameras, radios, TV's, calculators, refrigerators, all electrical and sound equipment).

PILOTAGE: Government Pilotage is compulsory for all vessels. Pilot exemption for regular local traders has been introduced. The Pilots also serve as Docking Masters, berthing the vessel with the assistance of tugs.

The Pilot embarks approximately 1 nautical mile South of the Fairway Buoy in position Lat. 12° 36.0' N., Long. 101° 10.0' E.

RESTRICTIONS: The water depth of the approach channel is 12.5 m. reduced to Lowest Low Water (LLT).

The water depth in the harbour approach is 12.5 m., 11.5 m. and 8.0 m. for Jetties No 1, 2, and 3 respectively.

The minimum under-keel clearance required by the Pilot Office is 0.5 m.

RRC's requirements for under-keel clearances vary between 1.0 m. for vessels up to 6,000 tonnes d.w.t. and 1.5 m. for vessels above that size.

MAX. SIZE: The Harbour Department stipulates the following maximum sizes for vessels entering the port: LOA 260 m. and beam 46 m.

Also see "Berthing".

HEALTH: No advanced Radio Pratique is permitted.

RADIO/VHF: *ETA:* The estimated time of arrival (ETA) of ships has to be given 72 hours, 48 hours and 24 hours prior to arrival to the ship's Agent via cable, fax or telex.

Two hours before the Pilot embarks or when in VHF range, the ETA has to be confirmed verbally to the pilot station together with the maximum draft.

Communication/Pilot Boarding Area: The Map Ta Phut Pilot Office can be contacted on VHF Channel 16. Once contact is established, the vessel is requested to stand-by on VHF Channel 14.

Channel 13 is used for communication between vessels, tugs, Harbour Master and mooring boats for berthing and unberthing.

Channel 12 is used for vessels, tugs, loading personnel and mooring boats.

TUGS: Tug usage is compulsory in the port for both berthing and unberthing as follows:
(a) Vessels below LOA 290 ft. are exempted.
(b) Vessels with LOA over 290 ft. require one tug.
(c) Vessels over 492 ft. require 2 tugs.
(d) Vessels over 700 ft. require 3 tugs.
Tug lines are used for towing.

The tug and its crew are regarded as employed by the ship being towed. All damage and costs to the tug arising during the assistance, and for which the tug could be made responsible, must be compensated for by the ship in question.

Mooring: Mooring gangs and mooring boats are provided by RRC. All vessels berth with portside alongside, i.e. heading South towards the port entrance.

The costs are charged back to the ship at a fixed rate, which is periodically adjusted to reflect the actual costs involved.

Mooring Requirements:
Up to 6,000 d.w.t.: 4 breast lines and 2 springs, fore and aft.
Over 6,000 d.w.t.: 6 breast lines and 2 springs, fore and aft.

BERTHING: Mooring, unmooring and cargo operations are carried out on a 24 hour basis.

Jetty No. 1:
Water Depth in Berth : 13.0 m. reduced to LLW.
Water Depth in Approach : 12.5 m.
Maximum Draft : 11.5 m.
Maximum LOA : 260.0 m.
Minimum LOA : 75.0 m.
Maximum Berthing Displacement : 87,000 tonnes.
Maximum Approach Velocity : 0.16 m./sec. (0.31 knots).
Maximum Approach Angle : 10°.
Shore Gangway
Shore Crane (1.5 tonnes at 15 m.).

Jetty No. 2:
Water Depth in Berth : 13.0 m. reduced to LLW.
Water Depth in Approach : 11.5 m.
Maximum Draft : 10.5 m.
Maximum LOA : 170.0 m.
Minimum LOA : 75.0 m.
Maximum Berthing Displacement : 49,520 tonnes.
Maximum Approach Velocity : 0.18 m./sec. (0.35 knots).
Maximum Approach Angle : 10°.
Shore Gangway
Shore Crane (1.5 tonnes at 15 m.).

Jetty No. 3:
Water Depth in Berth : 8.0 m. reduced to LLW.
Water Depth in Approach : 8.0 m. reduced to LLW.
Maximum Draft : 7.5 m.
Maximum LOA : 110.0 m.
Minimum LOA : 60.0 m.
Maximum Berthing Displacement : 7,968 tonnes.
Maximum Approach Velocity : 0.25 m./sec. (0.49 knots).
Maximum Approach Angle : 10°.
Shore Gangway (Stair Type)
Shore Crane (1.5 tonnes at 15 m.).

LOADING/UNLOADING: *Loading and Discharging:* Prior to operations a Ship/Shore Safety Check List, and a written Cargo Plan in accordance or similar with Annex VI of the Jetty Safety Regulations (Not reproduced) are to be completed.

Maximum Shore Receiving (Import) Capacities (cu.m./hr.):

Grade	*Berth No. 1*	*Berth No. 2*	*Berth No. 3*
Crude	2×3,000 (16 in. dia.)	2×2,000 (12 in. dia.)	Nil
F.O.	2×3,000 (16 in. dia.)	2×2,000 (12 in. dia.)	Nil
MTBE	1×2,000 (8 in. dia.)	1×200 (8 in. dia.)	1×200 (8 in. dia.)
Condensate	Nil	2×2,000 (12 in. dia.)	Nil

Maximum Shore Loading (Export) Capacities (cu.m./hr.):

Product	*Berth No. 1*	*Berth No. 2*	*Berth No. 3*
ADO	3×700 (8 in. dia.)	3×700 (8 in. dia.)	3×700 (8 in. dia.)
Chem. Feedstock (Tops/Naphtha)	Nil	Nil	3×700 (8 in. dia. (Back-up)
F.O C&D	2×3,000 (16 in. dia.)	2×2,000 (12 in. dia.)	1×700 (8 in. dia.)
Jet A-1	1×700 (8 in. dia.)	1×700 (8 in. dia.)	
LPG *	Nil	Nil	1×150 (6 in. dia.)
ULG-92	3×700 (8 in. dia.)	3×700 (8 in. dia.)	3×700 (8 in. dia.)
ULG-97	3×700 (8 in. dia.)	3×700 (8 in. dia.)	3×700 (8 in. dia.)

* LPG Safety Area around Jetty No. 3 is 135 m. (No vessel allowed a Jetty No. 2 during loading of LPG at Jetty No. 3).

Flanges/Loading Arms/Couplings: All 3 jetties are fitted with 5 rig loading arms for the handling of crude oil and products as follows:
Jetty No. 1: 2×16 in. for crude oil plus 3×8 in. for products.
Jetty No. 2: 2×12 in. back-up crude plus 3×8 in. for products.
Jetty No. 3: 4×8 in. for products plus 1×6 in. for LPG.

All loading arm flanges, with the exception of the LPG loading ar are of ANSI 150 LB standard and the couplings to be bolted manual The LPG loading arm is fitted with hydraulic quick connect/disconne coupling and an Emergency Shut Down System (ESDS).

Deballasting, Slops and Sludge Reception: Ballast reception is genera restricted to 300 cu.m. per vessel, one vessel at a time, due to the syste layout. Quantity variations may be possible, but each case will be grante individually.

Slops are only acceptable provided they are chemica uncontaminated. This has to be confirmed in writing by the vesse Master. Acceptable volumes will be decided on a case by case bas Samples will be required if slop reception is agreed.

MEDICAL: Hospitalisation, doctors and dentists are available on reque via the Agent.

FRESH WATER: Ordered via the Agent in advance and will be delive by barge.

No barges or boats are allowed alongside vessels moored at RR jetties, consequently larger quantities have to be loaded at anchorage.

FUEL: Bunkers have to be ordered through the Agent, delivery by bun barge.

REPAIRS: In general, repair work is not permitted while alongside any jetty. For exclusions see Jetty Safety Regulations.

Under no circumstances will an immobilisation of the main engine be permitted.

REPATRIATION: Available via Bangkok International Airport, some 170 km. by road.

SHORE LEAVE: Shore leave is permitted. Foreigners need a passport while ashore. Due to the unavailability of public transport and the distance to the next city (i.e. Rayong 20 km.), transport to be arranged via the Agent.

GENERAL: *Wind/Tide:* The non-harmonic maximum tidal range in the area is between 0.3 m. and 3.5 m. above Chart Datum. The specific gravity of the sea water in port is 1.025. There is no current in the port apart from the normal flood and ebb current caused by the water flowing into and out of the port respectively.

Outside the port, the main direction of the current runs more or less parallel to the shore line in Westerly directions during floor tide, and in Easterly direction during ebb tide. The average current is 0.2 knots – 0.3 knots, the maximum never exceeds 0.7 knots.

Winds are influenced by North East and South West Monsoon periods respectively, but quite often vary from their predominant directions. Velocities are typically less than 10 knots, but seldom greater than 20 knots, though brief peak gusts of up to 60 knots associated with thunderstorm and torrential rain are occasionally experienced around the month of November.

Wave heights are mainly below 1 m. and hardly ever exceed 2.5 m.

Port State Control: Map Ta Phut port is open to ships in national and foreign going trade. Thailand is a signatory to the memorandum for Port State Control, so governmental inspections can be carried out.

Inspections: Alongside RRC installations, inspections of vessels are carried out before and during cargo operations by the RRC Loading Master and/or the Marine Department in accordance with RRC Jetty Safety Regulations, which are handed out to every vessel calling at their facilities, and the Ship/Shore Safety Check List.

BRC's Jetty Safety Regulations are in accordance with the "International Safety Guide for Oil Tankers and Terminals" (ISGOTT).

Safety rules in case of chemicals and liquified gas are based on "Tanker Safety Guide (Chemicals)" and "Tanker Safety Guide (Liquified Gases)" respectively, published by the "International Chamber of Shipping" (ICS).

Provisions and Stores: Provisions and stores of good quality available on 48 hours notice via the Agent. Deck/engine room spares are usually available in reasonable quantities, but selection is very limited.

Transport: No public transport is available.

OPERATOR: Rayong Refinery Co.Ltd., No. 8, 1-8 Road, Map Ta Phut Industrial Estate, (P.O.Box 34) Map Ta Phut, Rayong 21150, Thailand. *Tel:* (038) 684290. *FAX:* (038) 684294. *Contact:* Captain Jochen Austel, Head of Marine (Tel: (038) 683759. Fax: (038) 683746).

(C) STAR PETROLEUM REFINING CO. LTD. – MARINE TERMINAL

LOCATION: The Star Petroleum Refining Co. Ltd. Marine Terminal is situated in the Map Ta Phut Industrial Port, in position Lat. 12° 40' N., Long. 101° 09' E., and consists of 2 concrete piers. Product vessels are handled at all berths on the Southern pier, the Northern pier is however dedicated to LPG.

A vessel will only be accepted at a berth providing it is compatible with all aspects of the berth design. Special attention is paid to a vessel's manifold arrangements which must be of a fixed and permanent design (including pipelines, valves and supports, etc.), and form part of the vessel's structure. All vessels shall have manifold arrangements which comply with the standards recommended by the OCIMF – Standards for Tanker Manifolds and Associated Equipment.

PILOTAGE: Compulsory for non-exempt vessels. Pilots normally board at the approach channel entrance.

RESTRICTIONS: Berthing and unberthing possible day and night.

MAX. SIZE: *Overall Length Restrictions:* The design basis for the Products Pier is to accommodate vessels up to 12,000 d.w.t. The exceptions to this rule are as follows:

Berth No. 1 can only safely accommodate tankers up to 70 m. in length (1,000 d.w.t. approx.) due to the disposition of the mooring equipment.

Berth No. 3 has been designed to accommodate larger vessels up to 90,000 d.w.t., and when oocupied may overhang Berths No. 1 and 4, and so prevent their use.

The LPG Berth has a dredged operating basin which limits vessel's maximum overall length to LPG South 80.0 m. and LPG North 95.0 m., assuming that the loading manifold is positioned amidships.

Max. Draft: Generally, the maximum drafts for vessels arriving or departing from Map Ta Phut Marine Terminal are as follows:

Berth No. 1	12.0 m.
Berth No. 2	8.5 m.
Berth No. 3	12.0 m.
Berth No. 4	12.0 m.
Berth No. 5	8.5 m.
LPG South	5.5 m.
LPG North	7.5 m.

An under-keel clearance safety margin of 1.0 m. has been allowed. Deeper drafts may be accepted on occasions, depending on the predicted height of tide and must always be agreed with the Area Operating Manager.

TUGS: 3×3,600 h.p. and 2×3,200 h.p.

VHF: Port on Channels 16, 13 and 14. Terminal on Channels 19 and 67.

BERTHING:

Berth No. 1:

Grades available for Export:	Export, Premium and Regular Mogas, Reformate High Speed Diesel, Fuel Oil No. 1 and No. 4.
Import:	Sweet Naphtha. Heavy Gas Oil.
Ballast Facilities:	Available.
Vessel Size:	Governed by the Loading Arm Operating Envelope as well as LOA and draft.
All Loading Arm Operating Envelopes:	Maximum height 17.8 m. above MHHW. Minimum height 0.96 m. above MLLW.
Loading Arm Size:	8 in. with QCDC.
Maximum LOA:	85.0 m.
Maximum Draft:	12.0 m.

Berth No. 2:

Grades available for Export:	Export, Premium and Regular Mogas, Reformate High Speed Diesel, Fuel Oil No. 1 and No. 4.
Import:	Sweet Naphtha. Heavy Gas Oil. Condensate.
Ballast Facilities:	Available.
Vessel Size:	Governed by the Loading Arm Operating Envelope as well as LOA and draft.
All Loading Arm Operating Envelopes:	Maximum height 17.8 m. above MHHW. Minimum height 0.96 m. above MLLW.
Loading Arm Size:	8 in. with QCDC.
Maximum LOA:	180.0 m.
Maximum Draft:	8.5 m.

Berth No. 3:

Grades available for Export:	Export, Premium and Regular Mogas, High Speed Diesel, Fuel Oil No. 1 and No. 4.
Import:	Sweet Naphtha, Crude Oil, Heavy Gas Oil.
Ballast Facilities:	Available.
Vessel Size:	Governed by the Loading Arm Operating Envelope as well as LOA, beam and draft.
Mogas, Naphtha Loading Arm Operating Envelopes:	Maximum height 17.8 m. above MHHW. Minimum height 0.96 m. above MLLW.
Loading Arm Size:	8 in. with QCDC.
Crude Oil, Heavy Gas Oil Loading Arm Operating Envelopes:	Maximum height 19.8 m. above MHHW. Minimum height 6.77 m. above MLLW.
Loading Arm Size:	12 in. with QCDC.
Fuel Oil Loading Arm Operating Envelopes:	Maximum height 19.8 m. above MHHW. Minimum height 0.96 m. above MLLW.
Loading Arm Size:	8 in. with QCDC.
Maximum LOA:	260.0 m.
Maximum Beam:	45.0 m.
Maximum Draft:	12.0 m.

Berth No. 4:

Grades available for Export:	Export, Premium and Regular Mogas, Reformate High Speed Diesel.
Import:	Sweet Naphtha, MTBE.
Ballast Facilities:	Available through 6 in. flexible hose only.
Vessel Size:	Governed by the Loading Arm Operating Envelope as well as LOA and draft.
All Loading Arm Operating Envelopes:	Maximum height 17.8 m. above MHHW. Minimum height 0.96 m. above MLLW.
Loading Arm Size:	8 in. with QCDC.
Maximum LOA:	150.0 m.
Maximum Draft:	12.0 m.

No fuel oil bunkers available at this berth.

Berth No. 5:

Grades available for Export:	Export, Premium and Regular Mogas, Reformate High Speed Diesel.
Import:	Sweet Naphtha. MTBE.
Ballast Facilities:	Available through 6 in. flexible hose only.
Vessel Size:	Governed by the Loading Arm Operating Envelope as well as LOA and draft.
All Loading Arm Operating Envelopes:	Maximum height 17.8 m. above MHHW. Minimum height 0.96 m. above MLLW.
Loading Arm Size:	8 in. with QCDC.
Maximum LOA:	135.0 m.
Maximum Draft:	8.50 m.

No fuel oil bunkers available at this berth.

Tug Berth: Loading of High Speed Diesel for tugs.

LPG – South Side:

Grades available for Export:	LPG.
Vessel Size:	Governed by the Loading Arm Operating Envelope as well as LOA and draft.
Loading Arm Operating Envelopes:	Maximum height 12.4 m. above MHHW. Minimum height 2.18 m. above MLLW.
Loading Arm Size:	6 in. with QCDC.
Maximum LOA:	110.0 m.
Minimum LOA:	50.0 m.
Draft:	5.50 m.

No bunkers available. Fully pressurised LPG vessels only.

LPG – North Side:

Grades available for Export/Import:	LPG
Vessel Size:	Governed by the Loading Arm Operating Envelope as well as LOA and draft.
Loading Arm Operating Envelopes:	Maximum height 12.4 m. above MHHW. Minimum height 2.18 m. above MLLW.
Loading Arm Size:	6 in. with QCDC.
Maximum LOA:	125.0 m.
Minimum LOA:	50.0 m.
Draft:	7.50 m.

No bunkers available. Fully pressurised LPG vessels only.

Loading Rates:

Loading Rate through 8 in. arm is 650 cu.m./hr.
Loading Rate through 12 in. arm is 2,495 cu.m./hr.
Loading Rate for LPG through 6 in. arm is 240 cu.m./hr.

MOORING:

1. No unauthorised personnel are allowed on the berth during the mooring or unmooring of any vessel.
2. It is prohibited to moor a vessel at the Terminal without the permission of the Manager.
3. Under adverse weather conditions, the Port Authority, Supervisor or Master of a vessel may order the cancellation of a scheduled berthing at any stage of the operation.
4. The Master shall ensure that the vessel is secured alongside with suitable ropes or wires which are to the satisfaction of the Supervisor. Mooring lines of the same material shall be used for all head and stern and breast lines.
5. A maximum of 2 lines to be secured to any one mooring bollard on the jetty. Self-tensioning winches must not be used in automatic mode and winch brakes must be kept hardened up except when moorings are being tended.
6. A strict watch is to be kept on moorings and they are to be tended to prevent undue movement of the vessel. Should the Supervisor consider the moorings to be inadequately tended, operations will be suspended until moorings are adjusted to his satisfaction.
7. Adequate size towing wires for the size of a vessel are to be provided, rigged and secured to the offshore bow and quarter with the towing eyes maintained just above the water level. Sufficient slack wire should be maintained on deck for an emergency pull away by tugs.

Moorings: Vessel moorings are used and a minimum of 5 suitable lines must be provided at each end.

Arrival Information Exchange: Prior to, or on arrival at the Terminal, the Master shall discuss with the Company:

1. Origin and quantity of ballast and whether it is to be retained, discharged overboard or discharged ashore.
2. Quality issues, with regard to any hazardous characteristics of the petroleum on board or previous petroleum cargo carried.
3. Quantity, nature and order in which the petroleum will be loaded or discharged.
4. Maximum ship and shore loading and discharge rates.
5. Location of manifold relative to the bow, side, height above deck and distance between connections.
6. Number, size and material of liquid and vapour manifold connections to be utilised.
7. Defects in ship or equipment affecting performance or manoeuvrability.
8. Details of crew and expected visitors while in port. Method of storing, if applicable.
9. Whether crude oil washing is to be undertaken whilst alongside.
10. Any other information concerning the vessel regarding safe operations.

BALLAST: Vessels are expected to arrive with clean ballast as there are limited shore ballast reception facilities. *Ballast water containing chemicals or waste incompatible with the shore water effluent treatment plant must not be discharged ashore.*

Clean ballast water, and water from segregated tanks, may be discharged overboard subject to the approval of the Port Authority and the Company. Ballast water from non-segregated ballast tanks shall either be retained onboard or discharged into Company tankage.

Consideration will be given to receiving the contents of a vessel's slop tanks which may be discharged to the shore reception facility after analysis and with the prior consent of the Company. If material for discharge is incompatible, arrangements for disposal of the material must be made with the vessel's Agent who maintains a list of contractors licensed to handle hazardous material.

FRESH WATER: Not available.

FUEL: Bunkers available with advance notice.

EMERGENCY CO-ORDINATION CENTRE: Contact the Berth Operator or MCB Chief Operator via Channel 6 UHF.

GARBAGE DISPOSAL: No facilities.

GENERAL: *Tidal Information:*

Highest Astronomical Tide	+3.5 m.
Mean High High Water	+3.0 m.
Mean High Water	+2.8 m.
Mean Sea Level	+2.2 m.
Mean Low Water	+1.6 m.
Mean Low Low Water	+1.4 m.
Lowest Astronomical Tide	+0.5 m.
Lowest Low Water	+0.0 m. (Chart Datum).

Personnel Access to Restricted Area:

1. The Company and Port Regulations require that only authorised persons shall be allowed access to the Terminal and they must comply with any restrictions placed upon them.
2. Persons appearing to be affected by drugs or alcohol will be refused access to the Terminal.
3. The Master shall provide the Company with a list of crew and expected visitors.
4. Officials of the Company and Port Authority shall have the right t board a vessel at any time to ensure that these Regulations are bein observed.
5. Visitors are not allowed to board any vessel except with permissio from the Master and Supervisor. Conduct of such visitors shall b the responsibility of the Master.

Movement of Tugs and other Craft: During operations, no vessel or smal craft shall be allowed alongside the vessel unless approval has bee given by the Supervisor and agreed by the Master. When tugs or othe craft are alongside a vessel, all cargo system openings must be close unless all tanks are gas free.

Repair Work: Repair work involving either hot or cold work or the us of naked lights is prohibited unless the permission of the Manager ha been requested and granted in writing. Repair work includes, but is no restricted to, boiler tube cleaning, chipping and scraping, hull paintin testing and servicing of electrical equipment (including radar, radio an domestic electrical equipment). If permission is granted to underta repairs, a list of specified repairs, method statement and a list of shor workmen employed on a vessel must be given to the Supervisor befor work commences. Where approved repair work involves th immobilisation of the vessel's main engines, the Supervisor shall b notified of the actual commencement and completion times of the wor

Ship's Gangway: The vessel is to provide a suitable gangway for saf access, properly rigged with side rails, safety net and lifebuoy, an ensure that during the hours of darkness the gangway is adequately li In the case of excessive freeboard, the means of access/egress sha include an upper platform and bulwark ladder to provide safe access t the ship's deck.

Crude Oil Washing, Tank Cleaning and Gas Freeing: Crude oil washin tank cleaning and gas freeing of cargo tanks (including inert gas purgin is not permitted without the written approval of the Superviso Permission will only be granted subject to berth availability, and provide that all safety and operational requirements, as determined by th Supervisor are met in full. Such safety and operational requirements wi be in accordance with the International Safety Guide for Oil Tankers an Terminals.

Stores Handling: The handling of any form of packed or general carg will only be permitted with the specific written approval of the Superviso and under such conditions as he may reasonably require. Small item of ship's stores capable of being carried by hand, may be handled vi the ship's gangway during operations, provided that any metallic objec or package is suitably wrapped to prevent the generation of spark During the handling of such packages, access to and from the ship sha not be obstructed.

Major items or ship's stores may be handled during operation provided that:

1. Petroleum with a flash point greater than 60°C is being handled.
2. Prior approval has been given by the Supervisor.
3. Operations are not affected.
4. Stores are delivered by water and conveyed in a craft approved b the Company.
5. Stores are handled only at the after end of the vessel, using the ship lifting equipment and in such a manner that no part of the storin activity takes place alongside, on or directly above any part of th main deck. All such store items are to be landed on an area covere with wood or canvas to prevent sparks.

OPERATOR: See Part (D).

(D) STAR PETROLEUM REFINING CO. LTD. – SPM

LOCATION: The Map Ta Phut SPM Terminal consists of a C.A.L Buoy Mooring and is located in position Lat. 12° 29' 12.6" Long. 101° 11' 57.6" E.

It is secured by 6 chains of 4.25 in. diameter, in approximately 25.0 of water (L.L.T.).

PILOTAGE: Pilotage is compulsory. No vessel should approach clos to the SPM than 2 miles without a SPRC Mooring Master on board.

On approaching the Terminal, VHF contact can be established Channel 16, the working channel is 19 or 67. The vessel will be advis of berthing prospects. In cases where VHF contact is not made, vessel should proceed to the designated anchorage position and anch

Also see "Mooring/Unmooring".

APPROACHES: When within VHF range, Masters of tankers sho ascertain berthing prospects from the Terminal.

Buoy "A": Isolated danger, black with a broad red horizontal band, mark 2 black spheres one above the other, exhibiting a white l Fl.(2) 12 sec. 6 m. located in position Lat. 12° 29' 33.9" Long. 101° 10' 18.4" E.

This buoy marks a rock pinnacle which is considered dangerous navigation.

Buoy "B": Special mark yellow with single yellow "X" top mark exhibi a yellow light Fl.(4) 20 sec. 6 m. located in position Lat. 12° 29' 43.0" Long. 101° 12' 24.7" E.

A Racon transmitting Morse Code "B" (Bravo) is also fitted to buoy.

SPM: The SPM exhibits a white light flashing 6 times per minute visible at a range of 5 miles. In addition, a fog horn will sound Mo Code "U" at 30 seconds intervals. White winker lights are also fitte the floating hose strings.

ANCHORAGE: Should it be necessary to anchor, then the vessel sh proceed to the recommended anchorage area which is in pos Lat. 12° 26' N., Long. 101° 12' E., or as otherwise indicated.

RESTRICTIONS: Berthing and unberthing day and night.

MAX. SIZE: 280,000 d.w.t., LOA 345 m. and draft 20.4 m.

RADIO: Vessels bound for the Map Ta Phut SPM Terminal are to advise SPRC/RRC of their ETA 72 hours, 48 hours and 24 hours before arrival.

The following information is required from the Master:

Name of vessel.
ETA.
Confirmation of adequate stability at all stages of cargo/ballast operations.
S.W.L. of derrick or crane and its state of readiness.
Number and size of manifolds.
Name of Master.
Summer deadweight.
Draft.
Net Registered Tonnage.
Last port of call.
Owner's name and address.
Bill of Lading figures.
Nationality of Officers and Crew.
Number and size of chain stoppers for SPM Mooring.
Confirmation that vessel is able to maintain 30% of Summer d.w.t. while in berth.
IGS operational and all cargo tank conditions as required by SOLAS.

VHF: A 24 hour watch is maintained on VHF Channel 16 at the Terminal. Channels 19 or 67 will be the working channels. Vessels are usually able to make contact on the channels at a distance of 30 miles to 40 miles.

TUGS: One tug of 4,040 h.p. (65 tonnes B.P.) and one workboat of 2,350 h.p. (29.5 tonnes B.P.).

BERTHING: Map Ta Phut SPM Terminal is owned jointly by Star Petroleum Refining Co.Ltd. (SPRC) and Rayong Refinery Co.Ltd. (RRC) and operated by SPRC.

The Terminal is designed for the importation of crude oil for both refineries.

Vessels arriving to discharge at the Terminal must comply with the latest SOLAS and MARPOL Conventions and Protocols.

Vessels which are found to be seriously deficient in any way will not be berthed or allowed to discharge at the Terminal.

The berth is designed to accommodate tankers from 60,000 to 280,000 d.w.t. with a maximum displacement of 350,000 tonnes and a maximum draft of 20.4 m. Maximum LOA 345 m. with maximum bow to manifold distance of 172.5 m.

Only vessels fitted with approved chain stoppers as per OCIMF recommendations will be berthed.

Mooring system consists of 2 nylon endless grommets; hawsers of 12 in. circumference, 50 m. in length, each with a 394 tonnes NDBS and equipped with a combination B and C chafe chain.

The floating hose configuration consists of 2 strings, the main hoses being 24 in. and the tail hoses 16 in. diameter. The strings are marked by winker lights. Double closed Gall Thomson breakaway couplings are fitted to the floating strings.

Special Restrictions: No crude oil washing is permitted during the last 6 hours of discharge.

MOORING/UNMOORING: *On Arrival:* The vessel will be given berthing or anchoring instructions on VHF Channel 19 or 67 by the SPRC Marine Terminal.

At Anchor: A good listening watch should be maintained on VHF Channels 16 and 19/67. Vessels will be called by SPRC with berthing information and other instructions.

Under Pilotage and at Berth: The Mooring Master and Assistant will carry portable intrinsically safe multi-channel radios by means of which all communications regarding approach, mooring and cargo transfer will be made. They will also carry battery chargers for these radios during the vessel's stay at the Terminal.

In addition, the vessel's VHF radio should be available on the bridge and in the cargo control room for back-up communications.

Mooring Master Boarding: The Mooring Master, his Assistant and 3 mooring crew will board the vessel by boat.

A safe means of access shall be provided in accordance with the requirements of SOLAS.

The vessel must provide an adequate lee for boarding.

During night operations, the access shall be adequately illuminated to allow the safe approach and boarding of the Mooring Master, Government Officials and Agent.

The Conditions of Entry Into and Use of the Map Ta Phut SPM Terminal form will be presented to the Master of the Tanker and shall be signed prior to the commencement of berthing operations.

The Notice of Readiness will only be accepted provided the SPRC Mooring Master is satisfied that the vessel is in all respects ready to moor and discharge.

In no event shall the Notice of Readiness, whether previously accepted or not, be valid or binding on the Terminal unless the vessel, her tanks and equipment are in fact in every respect ready to discharge cargo.

The Mooring Master and Assistant will advise the Master on all manoeuvres and operations relative to berthing, connecting/disconnecting of hoses and unberthing. They will also provide all communications between vessel and shore during transfer operations and be the SPRC representative with respect to cargo operations, documentation, safety observations and other requirements. These 2 persons will remain on board the vessel while it is in the berth and suitable officer style accommodation is to be provided for them. Accommodation is also to be provided for 3 mooring crew.

Preparation for Mooring: During the approach, while mooring, secured in the berth and whilst unberthing, the vessel's anchors *must* be secured by stoppers to prevent accidental dropping with subsequent damage to the subsea pipeline and equipment.

The port derrick/crane should be rigged ready to lift the mooring basket from the boat and for connecting the cargo hoses. Derrick/crane shall have a minimum 10 tons SWL. However, vessels should have the recommended SWL capacity for their size as recommended in the OCIMF publication "Recommendations for Oil Tanker Manifolds and Associated Equipment", fourth edition 1991.

The vessel will provide 2×16 in. 150 lbs. ASA flange connections on selected cargo manifolds made ready for hose connections, drip trays, sawdust or sand and firefighting equipment in position at the manifold area.

The following vessel's equipment should be ready on the forecastle head:

Two empty spool drums to heave onboard mooring pick-up ropes.
Two messenger lines 24 mm. diameter, 150 m. in length.
Large crow bar.
Sledge hammer.
Pail of grease.
Large flashlight for night berthing.

Mooring and Unmooring: Mooring: Line handling during mooring and unmooring are performed by the vessel's crew under instruction of the Mooring Master and Assistant.

Vessels must be fitted as recommended in the OCIMF publication "Standards for Equipment Employed in Mooring of Ship's at Single Point Moorings".

Only vessels fitted with approved chain stoppers will be berthed at the SPM. The use of Smit Brackets or any other means of securing the chafe chain is not permitted.

When the vessel is within reasonable distance from the SPM, a ship's messenger line will be carried by the mooring launch and connected to the port mooring messenger on the mooring hawser. This mooring messenger will be used to heave the 76 mm. chafe chain onboard. Care must be taken during this operation to ensure that no excessive weight comes on the mooring messenger.

The chafe chain will then be secured in the chain stopper in such a manner that the nylon hawser remains outside and clear of the ship's fairlead, allowing the chain to absorb any chafing in the mooring system. The operation will then be repeated to secure the starboard mooring hawser.

Once the vessel is securely moored, a tug will be secured on a towline astern.

Moored to Berth: A Mooring Hawser Load Monitoring Device is fitted to the SPM. At 126 tonnes, which is 70% of the preset threshold value of 180 tonnes, a red warning light flashes and the Mooring Master is to be informed, engines to be put onto stand-by and the situation continually monitored. When 180 tonnes is reached, an audible alarm sounds. The Marine Control Building is to be informed, cargo stopped, hoses disconnected and consideration given to vacate the berth.

Unmooring: When the hoses have been disconnected and lowered to the water, the unmooring operation will commence. The tug astern will be released to pull the hoses clear from the vessel's side.

The weight will then be allowed to come off the mooring hawsers, it may be necessary to use the ship's engines for this purpose. When the weight is off, the starboard mooring hawser will be released, lowered to the water and towed clear. The port hawser will then be released and the vessel moved astern clear of the berth.

Care must be taken to ensure that the mooring hawsers do no become entangled in each other or are dropped onto or across the hose strings.

Anchors not to be unsecured until the vessel is well clear of the SPM and subsea pipeline.

DISCHARGING: *Connecting Procedures:* Tanker manifold arrangements must comply with the latest OCIMF publication "Recommendations for Oil Tanker Manifolds and Associated Equipment", fourth edition 1991.

After the vessel has been securely moored, the mooring boat will bring the floating cargo hose strings alongside.

Lower derrick/crane hook to the mooring boat, which will connect it to the forward hose.
Heave up the hose until the blank flange is level with the hose rail.
Unshackle hose snubbing chain from the flange lug.
Continue heaving up the hose as directed by the Mooring Master.
Secure snubbing chain.
Lower the hose to bring the hose flange to the manifold and check the alignment of the flanges.
Lower the hose onto the drip tray and remove blank flange.
Lift the hose and connect to the manifold. *Use a new gasket and fully bolt the flanges.*
Open the hose end butterfly valve and secure.
Repeat the procedures for the second hose.

After both hoses have been connected, they must be supported in way of the tanker rail by means of broad nylon bands suspended from the derrick/crane.

Care should be taken during the hose handling operation to avoid serious damage to the hoses and associated equipment.

Discharge Procedures:

1. On completion of all Government formalities, gauging, sampling, safety checks and documentation, discharge of cargo can commence.
2. The discharge operation will be controlled by VHF/UHF radio by the Mooring Master/Assistant between the vessel and the SPRC Terminal Control Room (TCR) for both SPRC and RRC cargoes. This does not absolve the vessel from communicating directly with the TCR if the Mooring Master/Assistant do not respond to radio calls or in an emergency situation.
3. The SPM supplies crude oil to both the SPRC and RRC refineries. Therefore, it may be necessary at the commencement of the discharge to displace the oil already contained in the SPM system and submarine pipeline to the appropriate refinery, before bulk discharge can commence.
4. In line samplers will be fitted to the vessel's manifolds to monitor cargo quality during the discharge. These samplers will be operated by the Independent Surveyor appointed to the vessel. However, the Mooring Master should ensure that the samplers are started at the commencement of the line flush and/or bulk discharge and that they are operational throughout the discharge operation.

5. In the event that a line displacement is necessary, SPRC/RRC will require the vessel to pump approximately 150,000 barrels of crude (23,340 cu.m.) into the system and then suspend cargo operations, while changes are made to the line up to the crude receiving systems ashore (quantity will be dependent on which refinery is to receive the line displacement). During this operation, the Mooring Master will coordinate directly with the SPRC Terminal Control Room.
6. During the line displacement, SPRC/RRC will require the vessel to carefully monitor the quantity being discharged.
7. Once the line displacement is completed and the quantity discharged agreed, the bulk discharge of cargo can commence.
8. Throughout the discharge, a responsible deck officer must be in charge of operations, either on deck or in the Cargo control room and in continuous contact with the Mooring Master/Assistant via portable radio.
9. An efficient deck watch must be maintained with continuous observation of the manifold area and the mooring hawsers.
10. At any time during discharge operations, the Terminal may request a reduction in rates, normally the vessel will be given 10 minutes notice before any reduction is required.
11. As an anti-pollution measure, the volume of oil discharged by the vessel must be relayed to the Terminal on an hourly basis to allow for the comparison of figures (discharged against received). This is particularly important at night when it is difficult to detect oil pollution.
12. During the hours of darkness, it is required that all available approved floodlights are used to illuminate the vessel and surrounding waters to facilitate the detection of oil and generally assist in the transfer operation. Vessels are advised that failure to supply sufficient lighting could result in the transfer operation being suspended during the hours of darkness. Such delays would be for the vessel's account.
13. It is strictly against the law to pollute the waters of Thailand and the Master, his vessel and Owners may be subject to prosecution by the Thai Authorities.
14. The maximum discharge pressure allowed at the tanker rail is 10.5 Bar (approximately 9,500 cu.m./hr.).

Disconnecting Procedures: On completion of discharge operation, the rail tail hoses and ship's manifolds will be drained to prevent spillage of oil when disconnecting hoses.

Close vessel manifold valve and hose end butterfly valve on completion of draining manifolds.

Remove nylon bands and position derrick/crane hook over aftermost hose.

Attach lifting wire to derrick/crane hook, take the weight and disconnect the hose.

Replace the blank flange using a new gasket and fully bolt the flange.

Heave up the hose until the weight is off the snubbing chain, release the snubbing chain.

Lower the hose until the flange is level with the tanker's rail, shackle snubbing chain to flange lug, securing shackle with seizing wire.

Lower hose to the water as directed by the Mooring Master.

Repeat the procedures for the second hose.

Care must be taken when lowering the second hose to prevent entanglement of the hoses in the water.

SPM maintenance, particularly in bad weather, is extremely difficult and involves possible danger to personnel. For this reason, vessels are requested to give as much assistance as possible by taking seaman-like care of the mooring and hose equipment and returning it to the water ready for the next tanker and in such a condition as they would like to find it.

Hose/hawser maintenance is expensive and if SPRC judges that the vessel has misused any hose or hawser, then the vessel will be liable for the expenditure incurred in making repairs.

Ballasting Operations: Extreme caution must be taken when ballasting operations are undertaken, to ensure no oil escapes through the vessel's sea valves (Refer Terminal Safety Regulations 4.17, 4.22 and 4.3).

During all operations, the Master or a responsible Deck Officer and sufficient crew members must be in attendance to assist SPRC personnel to handle any emergency that may arise including unberthing the vessel for any reason.

FRESH WATER/FUEL: No bunkers or fresh water are available at the Terminal. However, these may be arranged through the vessel's Agent and delivered by barge at anchor.

SHORE LEAVE: Not permitted.

WEATHER: *Environmental Conditions:* Climatic conditions in the Northern area of the Gulf of Thailand are affected by the Monsoon seasons.

The winds are mainly between North and East from November to January. In Febrauary and March, the dominant wind direction is from S.E. The directions are variable in April, and then in May to September the S.W. Monsoon is dominant.

During the S.W. Monsoon, frequent squalls with wind speeds of 30 knots, accompanied with heavy rain are common.

Currents: Currents are influenced by the Monsoons. During October to May, the currents are predominantly anti-clockwise and clockwise from June through September. Mean current speed is estimated at 0.5 knots rising to 1.5 knots during the S.W. Monsoon.

GENERAL: *Charts:* The following charts cover Map Ta Phut SPM Terminal:

B.A. 3966, B.A. 3984 and B.A. 2414.

Thai Hydrographic Department Chart 141.

Vessels should also be in possession of the latest issues of the charts or their equivalent corrected to reflect all published changes. "Sailing Directions", "List of Lights" and "Tide Tables" should also be onboard.

Flag: The national flag of Thailand shall be displayed by the vessel during the hours of daylight.

OPERATOR: Star Petroleum Refining Co.Ltd., P.O.Box 35, Rayong 21150, Thailand. *Tel:* 66-38-681-880. *FAX:* 66-38-684-999. *Contact:* Captain Roy Igglesden, Marine Terminal Superintendent.

PHUKET: 07.49 N. 98.25 E. (See Plan

LOCATION: The Port of Phuket is located on the Western seaboard o Thailand, on the Andaman Sea in position 07° 49' N., 98° 24' 30" E.

DOCUMENTS:

Entry documents and advance information.

Customs and Immigration Entry forms as well as list of other documen required on *vessel's own forms* to be completed in advance fo presentation on arrival Phuket. Sent in advance to the Agent from on of the previous ports together with request for the following informatio required 4 days in advance of vessel's arrival.

Confirmation of ETA and any subsequent revised ETA.
Master's name.
Last port of call before Phuket.
Next port of call after Phuket.
Net registered tonnage (n.r.t.).
Hatch distribution and gangs workable.
Cash advance of Master.

Flags: Vessels are required to fly the Thai flag and display the code fla "Q" on arrival.

PILOTAGE: There is no official Pilot available.

ANCHORAGES: The following anchorages are regularly used by ocea carriers of deep draft calling Phuket for loading or discharging cargo.

During the N.E. Monsoon Season: Prevailing wind from Novembe through March, and periods of strong Easterly winds, vessels ar recommended to anchor in position Lat. 7° 53' N., Long. 98° 27' 15" E about 0.5 mile off Laom Mai Pai to pick up the boarding party an stevedores, before proceeding to the actual anchorage for loading a position Lat. 7° 57' N., Long. 98° 33' E., about 1 mile off Koh Yac Hya depth approx. 16 m. (50 ft.) at LWOS. However, during calm weathe periods, cargo operation will be carried out at the first mentione anchorage.

During the S.W. Monsoon season: Prevailing from April through Octobe and any periods of strong Westerly winds, vessels are recommende to anchor at position Lat. 7° 53' N., Long. 98° 27' 15" E. about 0.5 nautica miles off Laom Mai Pai, depth approx. 14 m. or 45 ft. at LWOS.

To facilitate cargo operations during swell from South, vessels ar requested to anchor as close as possible to the above anchorag positions according to the Master's judgement.

No Pilot is required on approaching the above anchorage; howeve it should be noted *three ocean-going dredgers* are operating in the are between Koh Dok Mai and Kon Khai Nok which should be passed at distance of about 1,500 ft. to keep clear of their anchor line The dredgers are lit up and clearly visible at night.

It should also be noted during the new moon period there are severa small fishing craft in the area.

RESTRICTIONS: *Channel:* The channel around Koh Tapae Kyai normally passed clockwise and is marked by a system of buoys, th position of which are shown on Thai charts. However, it is also possib to turn around by swinging on the anchor just after passing Buoy No. on a rising tide (South to North) just before high tide.

Width of Channel: Minimum 230 ft. at Buoy No. 6 measured (chart datu at LLW) at 6 m. depth curve. Maximum 900 ft. at Buoy No. 4 measur at 6 m. depth curve.

Restriction in Navigation: (1) Entering or leaving through the Nor channel involves a rather sharp turn with a radius of about 1,000 ft. an angle of about 115° between the axis of channel in a restricted are between Buoy No. 6 and Koh Tapai Noi Island. Please also note th wreck buoy between Buoy No. 6 and Koh Tapao Noi.

(2) The draft at Buoy No. 6 is about 24 ft. 6 in. at Lowest HW.

(3) At Buoy No. 5 are placed two pairs of mooring buoys paralle the channel, occasionally used by tankers discharging petroleu products to Esso and Shell installations ashore. The width between th narrowest pair is about 150 ft. and vessels are required to pass betwe these mooring buoys.

HEALTH: All crew and passengers must have valid health certifica for cholera.

RADIO: Messages to and from vessels at sea on the West coast of t Malayan Peninsula are best transmitted via Penang Radio in time t allow re-transmission to Phuket at about the following local times:

Weekdays at 0930 hrs., 1400 hrs. and 1630 hrs. Sundays at 1630 h

For vessels outside this area, messages can be sent via Bangkok Singapore as applicable. Cables via Bangkok Radio are norma transmitted every second hour from 0800 to 2100 hrs. local ti whereas cables via Singapore are sometimes re-transmitted via Bang Radio and sometimes via Penang Radio.

There are no facilities for ship-to-shore communication in Phuket, t vessels are *not* required to close down their radio station or VHF while in port.

There is long-distance telephone connection with Bangkok, Pena Singapore and Kuala Lumpur from Phuket at all hours.

Despatch Cables: Agent will in all probability need to send cables the ship's radio re-loading results, etc., subject to the Master's appro The cost of all such cables is to be borne by the vessel.

TUGS: 1×2,000 h.p.

BERTHING: New Port: *Phuket Ocean Terminal:* C.T.International Co.Ltd. entered into an agreement with the Royal Thai Governme manage and operate the port for 10 years from 21st October 1988

Access:
(1) Access for vessels entering or leaving the port is via a 12 wide channel, dredged to 9.0 m., and is 1.5 km. in length.
(2) There is a 360 m. turning circle to the North of the quay.
(3) Tidal range at Springs is 2.7 m.

Facilities:

Total Area	: 65 acres (26 hectares)
Ship Berths	: 2
Barge Berths	: 4
Total Berthing Length	: 1,180 ft. (360 m.)
Depth	: 10.0 m.

Forklifts	: 8× 2 – 3 tons 1×25 tons
Tow Tractors	: 4×40 tons 2× 5 tons 1×10 tons
Drawbar Trailers	: 4×40 tons 3×10 tons 6× 5 tons
Front Loaders	: 1
Annual Maximum Handling	: 32,000 TEU.
Stacking Capacity	: 5,200 sq.m.
Transit Shed	: 38,736 sq.ft. (3,600 sq.m.)
General Cargo Area	: 55,952 sq.ft.

Old Port: At Laen Klusi, Thailand Smelting and Refining Co. Ltd. have built a crossway connected by a short bridge to a pier which is parallel to the channel. The pier and channel are presently only suitable to accommodate vessels up to about 10,000 d.w.t. and approx. 430 ft. long, not exceeding 22 ft. draft. Vessels berthing at the pier are recommended to anchor at position Lat. 7° 48' 24" N., Long. 98° 25' 12" E. to await loading and favourable tide.

Dimensions of the Pier: Length 61 m. (200 ft.), width 12 m. (40 ft.).Depth about 24 ft. 6 in. at LLW.

Fenders: The pier is protected by a system of wooden fenders in addition to which there is 1 fender at each end of the pier with solid rubber buffers.

Mooring Buoys: There are 2 mooring buoys about 700 ft. apart, each at equal distance from the end of the pier.

MEDICAL: It is only possible to get a doctor on board in the most severe cases, but otherwise there are two hospitals in Phuket, one of which is managed by American Seventh Day Adventists Mission Doctors, and the other is a General Hospital.

FRESH WATER: Limited and difficult to obtain.

FUEL: Limited and difficult to obtain.

CONSULS: None.

SURVEYORS: No marine surveyors in Phuket; however, a surveyor can be called from Bangkok.

REPAIRS: No facilities.

POLICE/AMBULANCE/FIRE: Police Tel: 212046. Marine Police Tel: 214368, 211883. Police (Emergency) Tel: 211883. Fire Tel: 211111, 212456-7.

DEVELOPMENTS: 2 berths under construction. Depth alongside 10.0 m.

SHIPMASTER'S REPORT: January 1992.

Chart: B.A. Chart No. 3941.

Pilotage: Pilot not required for anchoring. Pilot may be contacted on VHF Channels 16 and 13 during working hours only, which are normally from 0600 hrs. to 1800 hrs.

Anchorage: Vessel anchored near the new fairway buoy off Laen Phan Wa Point (Position Lat. 07° 47.86' N., Long. 98° 27.24' E).

The anchorage is exposed to winds from the South and East and vessel dragged anchor when first anchored due to strong tide. The bottom appears to be coral. When it was noticed that the vessel was dragging, 5 shackles were lowered into the water and this held the position of the vessel in a Force 4 wind from the East which was across the tide and with a 2,500 tonne barge alongside.

Approaches: Laen Phan Wa and Ko Tai Phao Noi lights are conspicuous.

There is a dredger working in position Lat. 07° 46.6' N., Long. 98° 27.2' E. and it is not very well lit.

Strong currents were experienced when approaching the anchorage and vessel was set rapidly to the North, due to the flood tide.

There are numerous fishing boats to the South and West but the anchorage itself was clear.

The fairway buoy has been moved to position Lat. 07° 47.86' N., Long. 98° 27.24' E and it has no light.

Max. Size: Maximum permissable draft 9.0 m.

Tugs: There are two tugs available, one is owned by the port authority and the other is privately owned. Both are 2,500 h.p.

Cargo Operations: Vessel loaded latex from a 2,500 tonne barge which has 10 tanks, each with a capacity of 250 tonnes. The barge is brought to the ship by a harbour tug.

It is possible to load two ships tanks at one time through 1×6 in. hose from the barge which is split into 2×3 in. hoses through a portable manifold. Cargo is loaded over the top. Loading rate is approximately 85 tonnes/hr.

No survey papers are required. The SGS surveyor did his own tank survey.

The surveyor, agent and shipper were on board throughout the operations.

General: Three persons from the agent's office board with customs and immigration and assist with completion of documentation. There is no boarding or clearance between 2100 hrs. and 0700 hrs. Many port officials board the vessel.

Ships papers are generally accepted but an official Crew Manifest is to be completed and all crew members to sign, the ship's Manifest is then attached. A 'nil' Cargo Manifest is required if the vessel has no cargo to discharge.

The airport is 18 miles to the North of the port and has frequent flights to Bangkok. No difficulties were experienced by crew leaving or joining.

A boat service can be arranged through the agent.

SHIPMASTER'S REPORT: September 1993.

Chart: B.A. Chart No. 3941.

Approach: Laen Phan Wa and Ko Tachaonoi Lights are conspicuous. By day Komaithon Island is a good landmark for the port approach.

Pilot: Berthing daylight only. Night sailing without Pilot by arrangement.

Pilot boards from tug at Fairway Buoy and departs off berth at Buoy No. 5. Pilot spoke poor English.

VHF used when vessel expected, but not before 0800 hrs. No Pilot for anchoring.

Anchorage: About 0.4 miles East of Buoy No. 1 in 18.0 m. for loading latex from barge.

A large swell is experienced at times.

In 1991, a sister ship dragged anchor.

Channel: Leading lights discontinued. Beacons still in position. A new buoy to West of Turning Basin (Buoy No. 6) now positioned at Lat. 07° 49.3' N., Long. 98° 24.45' E.

Vessel swung in Turning Basin with aid of tug, to berth starboard side alongside.

Depth as charted (minimum 9.0 m. C.D.), in fact found slightly more.

Berth: Flat faced concrete quay with good fenders. We berthed at the South end of the quay with bow overhanging about 20 m. North Berth used by small cruise liners and tourist craft to local islands. There was 10.0 m. C.D. alongside at South end.

Moorings 2,1,2, each end. Bow moorings, except springs, all breast lines.

Accommodation ladder landed on quay.

Fresh water obtainable from quay hydrants.

Tugs: 1×2,500 h.p. tug available. Tug generally just pushes.

Loading: Latex direct from shore tanks at South end of quay, also from 25 tonne tank trucks and barges.

Loading rate about 90 t.p.h. Sometimes three tanks loaded at once.

Shippers have a tendency to short deliver their nomination which causes ullages. Can sometimes be made up using spare capacity in short tanks if grade correct. We had one tank left slack (below 100%), protest noted for product deterioration and deadfreight.

Product comes from far afield in Thailand.

Very messy loading, the least professional of the latex loading ports.

Medical: Quickly dealt with and efficient.

Stores: No Chandler. Agent will assist with shopping.

Authorities/Documentation: Agent makes out a lot of Thai forms which have to be signed. Thai Personal Effects Manifest, which has to be signed by each crew member with ship's copies attached.

Repatriation: No difficulty either way through Bangkok from local airport.

Shore Leave: A big holiday resort with all the usual attractions.

AUTHORITY: *Operator:* Chaophaya Terminal International Co.Ltd., Tambol Ao Makam, Amphoe Muang, Phuket 83000, Thailand. *Tel:* 391155-60. *Telex:* 69512 Pkport. *FAX:* (076) 391157.

AGENT: See "Bangkok".

SATTAHIP (Chuk Samet Port): 12.35 N. 100.55 E. (See Plan)

LOCATION: Sattahip Bay is located on the Eastern coast of the Gulf of Thailand about 184 km. from Bangkok in Plutaluang sub-district of Cholburi Province.

PORT LIMITS: Extend to approximately 1,500 yards from the quay wall at Chuk Samet Port, and 1,000 yards from piers at Tungprong Port.

DOCUMENTS: See "Bangkok".

APPROACHES: The entrance channel is 100 m. wide, 2.7 km. long and the harbour basin 450 m. wide in front of the West quay-wall, having available a depth of about 10 m. below Lowest Low Water (LLW).

The entrance light buoy is at Lat. 12° 35' 07" N., Long. 100° 54' 20" E.

PILOTAGE: Compulsory for vessels over 50 m. LOA. Working daily during the day time only. Advance notice required 4 hours prior to arrival on working day (on holiday notice required at 0830 – 1200 hrs.). Radio frequency used when handling the vessel is 27125 kHz

ANCHORAGES: Anchorage area for waiting berth and Pilot:

Chuk Samet Port: Capacity: Eight deep-draft ships minimum depth 8 fathoms.

Tanker Berth (Pol Pier)	Commercial Berths (DWP 1 – 4)
Lat. 12° 37' 03" N.	Lat. 12° 37' 25" N.
Long. 100° 55' 00" E.	Long. 100° 55' 00" E.

Tungprong Port: Capacity: Four deep-draft ships minimum depth 10 fathoms.

Lat. 12° 43' N.	Lat. 12° 45' N.
Long. 100° 49' E.	Long. 100° 49' 30" E.

Map Pier:

Lat. 12° 41' 47" N.	Long. 100° 50' 31" E.

RESTRICTIONS: Berthing possible throughout 24 hours.

MAX. SIZE: See "Berthing" and "Tankers".

RADIO: Radio telephone.

Name of Station	*Frequencies*	*Remarks*
MSC	2738 kHz	Day time
Portsat	2738 kHz	Day time
	4145 kHz	R/T – SSB
	6220 kHz	R/T – SSB
	8292.5 kHz	R/T – SSB

VHF: Calling Channel 16 (156.8 MHz)
Calling Channel 14 (156.7 MHz)
Interport use 157.5 MHz (Special Channel)

TUGS: 2 tugs available, 3,000 h.p. Join when vessel approaches berth, charge for use of tug's lines. 2 mooring boats available.

BERTHING:

Limitation of Draft:

Chuk Samet Port: Depth 32 ft. below LWOST or 36 ft. below MLW.

(1) For cruising in the channel
32 ft.
– 3 ft. for squat, tidal phenomena, etc.
– 2 ft. for under keel clearance
Draft = 27 ft. at LWOST

(2) For staying in port
32 ft.
– 2 ft. for under keel clearance
Draft = 30 ft. at LWOST

(3) Draft of the vessel could be increased for the day alongside by adding the figure of the height of tide at low water of that day to the figure of draft in (2) above (30 ft.+Height of tide at LW).

Sattahip Commercial Port:

Berth	*Length* (m.)	*No. Berths*	*Max. LOA* (m.)	*Max. Draft* (m.)
West Quay	540	3	180.0	9.0
North Quay	360	2	150.0	7.8

Cruise passenger ships are permitted to berth at Sattahip.

Map Pier: 1 berth, length 443 ft. Depth at MLW 38.8 ft.

CARGO HANDLING FACILITIES:

	No.	*Capacity*
Forklift trucks	7	7,000 lb.
Shortmast trucks	7	5,000 lb.
Yard hustlers	5	—
Chassis	15	—
Top loader	1	35 tons
Transtainer	1	—
Straddles – 8×40 ft.	3	—
– 8×20 ft.	3	—
Semi-portal cranes	2	23-45 tons
Pallets	1,000	—
Van carriers	10	—

Storage Area:

3 transit sheds, total area 11,470 sq.m.
Open storage area of 190,000 sq.m.
1 container freight station.
Container yard of 36,000 sq.m.

STEVEDORES: Vessel to advise Agent 7 days prior to arrival. Text required in this cable is: flag, ETA, draft, tonnage of cargo aboard for port, number of crew/passengers, dangerous cargo/heavy lifts, gangs required.

194 stevedoring contractors (both liner terms and chartered vessels under F.I.O. terms).

Working Hours: 0800-1200 hrs. – day shift, 1300-1630 hrs – day shift, 1630-1800 hrs – overtime (working through), 1900-2400 hrs. – first half-night shift, 0100-0500 – second half-night shift, 0500-0700 – overtime (working through, but should apply for P.A.T. approval).

On Saturdays, Sundays and public holidays, the day shift finishes at 1600 hrs.

MEDICAL: Hospital facilities available.

TANKERS: *POL Jetty:* Max. size 50,000 d.w.t., max. LOA 820 ft., depth alongside 36 ft., max. draft 30 ft. (plus/minus, depending on time and tide). Diameter of shore lines are 6 in., 12 in. and 20 in.

DENSITY: 1021.

FRESH WATER: Limited, 200 tons per trip, addition 100 tons for boiler. Supply can be made by water trucks, advance notice of ETA required.

FUEL: Available, supply can be made by barges, advance notice of ETA required.

REPAIRS: Only for minor repairs.

GANGWAY/DECK WATCHMEN: Necessary.

OPENING/CLOSING HATCHES: Carried out by stevedores without extra charge.

CUSTOMS ALLOWANCES: 200 cigarettes for each officer, 100 for each crew member for 3 days. One bottle each, wines and spirits, opened.

CARGO GEAR: Supplied by stevedores.

TIME: GMT plus 7 hours throughout the year.

POLICE/AMBULANCE/FIRE: Security centre 2187; Duty officer 2102 (after duty hours); Police 3180; Ambulance 116; Fire 117.

TELEPHONES: Available (U.S. military circuits).

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Required for all crew and officers.

SHIPMASTER'S REPORT: July 1981.
CHUK SAMET PORT:
For details concerning navigation, currents, clearance and documents, etc., see "B.A. Pilot No. 30" and "Guide to Port Entry".

Vessels approach on the beacon line at 017.5° (T), along the fairway marked by buoys. The beacons are installed on the pier and are easily visible. When entering and leaving, the cross current should be watched. The fairway buoys appear to be displaced somewhat Westwards.

Entry and Leaving: Only permitted between 0600 hrs. and 1800 hrs.

The Pilot comes from Bangkok. Also Authorities come from Bangkok for clearance.

A local Agent's office is not yet available, but will shortly be installed. Wireless traffic from the port with Bangkok is permitted.

There are two tugs of 3,600 h.p. available.

Max. Draft: At present 32 ft. is allowed.

The pier running approximately North – South is 500 m. long, and the cross pier 365 m. long. Both are well equipped with rubber type fenders. The free area on the pier in front of the sheds is about 45 m. wide.

Cargo Handling: Both cranes and the tapioca conveyor can run on the crane rails both on the main and cross piers. The large crane lifts up to 40 tonnes at 35 ft. The small crane lifts 23.5 tonnes but is currently out of use, but should be back in service shortly. The port has 20 forklift trucks, 10 at 3.4 tonnes, and 10 at 2.3 tonnes. Also there are 10 lorries type HINO KL 340 at 7 tonnes.

A Sea Container Shifter is already available, capacity 30 tons. For containers there are three 40 ft. and three 20 ft. spreaders in the equipment store.

Water: Any quantity available. Water must be boiled prior to use.

Bunkers: Only by road tanker.

Ship Repairs: None.

Ships' Chandler: Should be available.

Hospital: Available.

VHF: Port Authority on Channel 16.

Weather Conditions: During S.W. monsoon there is a slight swell. From May to July is the rainy season, with storms and typhoons occurring i June and July. Currents are unimportant. The tide rises about 2 m.

General: S.W. from Sattahip, in the Thailand Gulf, natural gas is obtained. A gas pipeline from there to Sattahip is under construction. The line wi then be taken overland from Sattahip to Bangkok.

A railway connection is being built. A road to Bangkok (approx. 180 km. = approx. 3 hours by car) is available.

Further Developments: Dredging and building of new piers will begin.

A large Gottwald crane (mobile at 40 tonnes) is stated to have been ordered, and will be delivered in about 6 months.

It is planned later on to install a IHI container bridge, and Sheds 1 and 2 will be demolished to make room for container handling.

AUTHORITY: Port of Thailand Authority, Sattahip Commercial Port, Plutaluang Sub-District, Sriracha District, Chonburi 20180, Thailand. *Tel:* 038-436344/436360. *Telex:* 75702. *FAX:* 038-436565.

From 1st January 1991: Royal Thai Navy.

AGENT: See "Bangkok".

SONGKHLA: 07.14 N. 100.35 E. (See Plan)

LOCATION: Lat. 07° 13.7' N., Long. 100° 34.5' E.

APPROACHES: The entrance channel is 4 km. long, and is dredged t 9.0 m. over a width of 120 m.

There is a turning circle with a diameter of 300 m. to the West of the quay.

PILOTAGE: Available. Pilot boards in the vicinity of the Fairway Buoy.

ANCHORAGE: To the West of the leading line (045° – 225°) and 090° from Ko Maeo Island in a depth of 9.3 m.

MAX. SIZE: LOA 173 m., draft 8.23 m. and beam 25 m.

TUGS: 2×1,600 t.p.h.

BERTHING: *Songkhla Port:*

Total Area : 24.71 acres (10 hectares)
Ship Berths : 3
Total Berth Length : 1,673 ft. (510 m.)
Storage:
Port Area : 94,000 sq.m.
Container Yard : 25,000 sq.m.
Warehouse : 6,720 sq.m.
Stuffing Shed : 440 sq.m.
General Working Area : 9,300 sq.m.
Port Capacity:
Total Cargo Throughput : 1,100,000 ton/year
Container Yard Stacking Capacity : 2,300 TEU's.
Warehouse Stacking Capacity : 8,000 tons at a time.
Container Stuffing Capacity : 100 TEU/day.
Warehouse Cargo Receiving : 1,600 ton/day.
Equipment:
Reefer Plugs : 136
Emergency Power Supply : 2
Weight Bridge (30-80 tons) : 2
Workshop : 200 sq.m.
Maintenance Area : 200 sq.m.
Forklifts : 2×10 tons.
2×25 tons.
3×36 tons.
22×3.0 – 3.5 tons.
Tractor and Trailers : 7×40 tons.
Tractors : 5×5 – 10 tons.
Trailers : 15×5 – 10 tons.
Mobile Cranes : 2×16 tons.

MEDICAL: Hospital in city, Tel: 311379, 313160, 311494,311017.

TANKERS: See "Report".

FRESH WATER: Available alongside.

CONSULS: Malaysia and China.

AIRPORT: Had Yai Airport close South of the city, (Tel: 244521).

POLICE/AMBULANCE/FIRE: Police, Tel: 311011, 312122, 31101 (Emergency). Fire, Tel: 311016, 311118.

GARBAGE DISPOSAL: Normal garbage collection service is availab Minimum charge is B 200 per order, B 1,000 per truck, 24 hour servic Tel: 331002.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: No Seaman's club in the port but there are ma services in town. International telephone and postage services a available in the port.

CURRENCY: Thai Bahts (B).

REPORT: November 1991.
Note: The following facilities are not part of the Port of Songkhla.
Railway Jetty: Old Jetty: Used by Shell, Caltex and Esso.

Max. Displacement	3,600 tonnes.
Max. Draft	5.2 m.
Max. LOA	81.0 m.
Max. Operating Pressure	6.5 kg./sq.cm.
Flowrate	100 – 120 cu.m./hr.
Pipeline/Manifold	
Gas Oil	6 in.
Premium/Regular (common line)	6 in.
Distance from Jetty to Depot	2,000 m.
Other Facilities	
Fresh water	Available
Fuel	Not available

PTT Jetty: New jetty located inside the port. Distance from jetty to depot is 1,200 m.

Jetty A: New jetty for LPG and Premium/Regular Mogas.

Max. Displacement	3,000 tonnes.
Max. Draft	6.0 m.
Max. LOA	75.0 m.
Operating Pressure	LPG 15 kg./sq.cm. Mogas 8.0 kg./sq.cm.
Flowrate	LPG 200 cu.m./hr. Mogas 180 cu.m./hr.
Pipeline/Manifold:	
LPG Liquid	6 in.
LPG Vapour	4 in.
Premium/Regular Mogas	6 in.

Jetty B: New jetty for bulk carriers.

Max. Displacement	500 – 30,000 tonnes.
Max. Draft	8.0 m.
Max. LOA	200.0 m.
Operating Pressure	8.0 kg./sq.cm.
Flowrate	180 – 360 cu.m./hr.
Pipeline/Manifold:	
Gas Oil	10 in.
Premium/Regular Mogas	6 in.
Jet – A1	6 in.

Shell Jetty: New jetty designed for vessels of 5,000 d.w.t.

Depth at LLW	7.0 m.
Max. LOA	103.0 m.
Max. Draft	5.5 m.
Distance from jetty to breakwater	100 m.

Jetty located at inner side of PTT Jetty.
Tug required for berthing and unberthing operations.
Pilot works in daytime only.

Maximum LOA for passing Channel	173.0 m.
Maximum beam for passing Channel	25 m.
Tugs:	Vessel LOA 250 ft. – 450 ft. One tug required. Vessel LOA over 450 ft. 2 tugs required.

Communications:
VHF Channel 16 for calling.
VHF Channel 13 for ship-to-ship.
VHF Channel 14 for pilot.

AUTHORITY: *Operator:* Chaophaya Terminal International Co. Ltd., Tambol Huakao, Ampheo Singhanakorn, Songkhla, 90280 Thailand. *Tel:* 074-331070-78. *Telex:* 60413 SKPORT TH. *FAX:* 074-331199. *Contact:* Tao Jun, Port Director. Xi Yong Hua, Operations Manager.

AGENT: Jardine Pacific (Thailand) Ltd., 52 Jootee Anusorn Road, Haadyai 90110, Songkhla, Thailand. Tel: 66-74-237362, 231538, 246711. Telex: 60242 Jarthai. Fax: 66-74-239206.

All initial correspondence to be sent to Bangkok Head Office.

SRIRACHA: 13.07 N. 100.52 E. (See Plan)

(A) PORT FACILITIES *(Excluding Thai Oil SBM and CBM).*
(B) THAI OIL – SBM.
(C) THAI OIL – CBM.

(A) PORT FACILITIES (Excluding SBM and CBM).

DOCUMENTS:

Boarding of Immigration, Customs and Quarantine Officials:

The Immigration and Customs Officials will board all incoming vessels, whereas the Quarantine Official will board on arrival at berth. If however a vessel comes from an infected port the Quarantine Doctor will board. The Officials demand that the main gangway is lowered.

Order of Clearance and Documentary Requirements:

Customs Authority: (Ship's forms)

12 copies Cargo Manifest (including port and Agent's requirements).
5 copies Transit Cargo Manifest.
8 copies Crew List.
6 copies Ship's Stores List.
4 copies List of Ship's Provisions, Steward, Deck and Engine Departments.
4 copies Foreign Currency List.
4 copies List of Arms and Ammunition for Ship's Use.
4 copies List of Opium and Narcotics.
4 copies List of Ports called.
4 copies List of Passengers.
4 copies List of Mail.
4 copies List of Crew members' Personal Effects stating brands and serial numbers of watches, cameras, TV/radio sets, electronic calculators, refrigerators, typewriters, all sound and electrical equipment, etc.
4 copies List of Ship's Movable Properties, to declare brands and serial numbers as above.

When preparing the list of Crew members' Personal Effects and Ship's Stores' Lists, particular care should be paid to the exact quantities. Crew are allowed 200 cigarettes each, during the vessel's stay in port.

Failure to provide correct quantities on various forms will entail heavy fine and confiscation.

NOTE: Pornographic magazines and materials are prohibited and will be confiscated if found onboard.

Immigration Authority: For vessel having Thai Immigration Forms onboard, please prepare them ready for arrival. Otherwise Agency clerks will bring forms onboard and assist in completing them.

5 copies each of Immigration Form No. 3 (separately for *Landing* passengers and *Transit* passengers).
5 copies of Immigration Form No. 4 (Crew List).
2 copies of Immigration Form No. 35. Make out in duplicate, and 1 line for each name. Leave signature columns blank, where each crew member shall sign in presence of Immigration Officers in port.
1 copy Disembarkation/Embarkation card for each passenger, to be supplied in port.

Repatriation Crew holding valid Passports may be declared as passengers in order to facilitate Immigration Exit papers. Otherwise we need one full working day for preparation of Immigration papers (Sat/Sun/Holiday excepted).

Quarantine Authority:

1 copy of Maritime Declaration of Health (may be supplied in port).
2 copies of lists certifying the date of vaccination against Cholera for each crew member.
1 copy of Derat Certificate.

International Certificates of Vaccination against Cholera for all passengers and crew members.

Important to Master: On first arrival at Roads or berth do not allow any unauthorised people to board the vessel or allow any officers/crew members to disembark before 'Checking In' formalities by Immigration Officers and Customs Searching Party. Offence in this respect is liable to a fine not exceeding Baht. 5,000.00.

Departure: The 'Blue Peter' flag should be hoisted at the foremast of all sea-going vessels about to leave the harbour and shall be kept hoisted until the voyage has begun. In the case of vessels leaving in the afternoon, the flag shall be hoisted in the morning, in case of those leaving in the morning, the flag shall hoisted on the previous afternoon. Failure to comply with the regulations is subject to a fine not exceeding Baht. 5,000.00.

APPROACHES: The recommended courses approaching seaberth through the Southern part of Kohsichang are as follows:

from Junction point named "A"	Lat. 12° 43' 00" N. Long. 100° 44' 36" E.	True Course =360°
to Junction point named "B"	Lat. 12° 62' 14" N. Long. 100° 44' 36" E.	
from Junction point named "B"	Lat. 12° 56' 14" N. Long. 100° 44' 36" E.	True Course =022°
to Junction point named "C"	Lat. 13° 00' 00" N. Long. 100° 46' 12" E.	
from Junction point named "C"	Lat. 13° 00' 00" N. Long. 100° 462 12" E.	True Course =037°
to Junction point named "D"	Lat. 13° 06' 20" N. Long. 100° 51' 00" E.	

from Point "D" A/C to 000°(T) up to Anchorage Area or Point "E"

Point "E"	Lat. 13° 07' 00" N. Long. 100° 51' 00" E.

Refer Admiralty Chart No. 986; the "Hulk" in position Lat. 13° 07.7' N., Long. 100° 52.8' E. has been removed.

Vessels should always keep clear of the fairway channel as large bulk carriers sail on deep draft.

PILOTAGE: Compulsory in Sriracha area. Sriracha Pilot Station is established on "Laem Chabang", and can be contacted directly by VHF Channel 16 within 30 miles radius.

Boarding Area: The Government Pilot will board at about 2 miles East of "Koh Thai Ta Mun" which lies South of Kohsichang, or at the position centred on Lat. 13° 07' N., Long. 100° 51' E. with a radius of 1 mile.

On receipt of an accurate ETA vessel will be advised by VHF regarding berthing time, whether to anchor and any likely delays. Flags indicating a request for a Pilot or Pilot on board should be flown. Accommodation ladder required (or in conjunction with pilot ladder).

ANCHORAGES: Recommended anchorage for vessels awaiting berth is within 1 mile of the position: Lat. 11° 04.8' N., Long. 100° 51.0' E. Refer Admiralty Chart No. 3965 and 986.

MAX. SIZE: MBK Bulk berth: 150,000 d.w.t. Draft 14.3 m.
Also see "Tankers".

HEALTH: See "Documents".

RADIO: *Commercial Radio Telegraphy:* (Tel: 5880842-4, 5882689, 5882683).

"BANGKOK RADIO".

Medium wave: Call sign HSA (Hotel Sierra Alpha).
Operating time: 24 hour service.
Traffic: 0700, 0900, 1200, 1500, 1800, 2100 and 2300 hrs. local time.
Calling frequencies: 500 kHz and 512 kHz.
Short wave: Call sign HSA 2 and HSA 3.
Operating time: 24 hour service.
Traffic: 0700, 0900, 1200, 1500, 1800, 2100 and 2300 hrs. local time.
Calling frequencies: 8686 kHz, 8573 kHz and 12800 kHz.

Masters of all vessels proceeding to Sriracha are to notify their Agent by radio of their expected time of arrival at least 3 days prior to arrival. This notice shall be amended in the event of any change in the time of arrival.

In addition to the above, the ETA message shall be confirmed 48 and 24 hours before arrival.

Pilots should be contacted 6 hours prior to arrival and terminals 3 hours prior to arrival.

The first notice of arrival is to contain the following information:
Last Port of Call.
ETA Pilot Station.
Best trimmable arrival S.W. draft.
Number of crew including the Master and his name.
Number of passengers, landing and transit.
Cargo grade and quantities to be discharged.
Discharging rates, barrels per hour.
Bunkers and water on arrival.
Urgent stores to be delivered on arrival, if any.

Bunkers and water to be delivered, if any.
Laundry service, if any.
Nature of any extraordinary repairs to be effected.
Any other matter to be attended to on arrival such as electronic equipment repairs, medical attention or hospitalisation, crew repatriation (in this case advise name, age, nationality, Passport number).
Cash required, if any.
Crew liberty launch service, if any.

VHF: Vessels calling at PTT should call on Channel 13 and advise Supply Operations Division the following:
(a) Name and call sign of vessel.
(b) Flag.
(c) LOA, draft and beam of vessel.
(d) ETA at Terminal.
(e) Nature of cargo, technical name, UN number (if applicable) and quantity.
(f) Distribution of cargo (and that to be left on board).
(g) Is vessel fitted with an Inert Gas System?
(h) Any defects of vessel or its machinery which may affect navigation, safety or the marine environment.

The terminal will also require technical details to the ship's cargo and cargo handling characteristics.

BERTHING: Sriracha Harbour Co.Ltd.:

Location: The terminal is located some 2 mile South of the City of Sriracha, in position Lat. 13° 09.20' N., Long. 100° 53.10' E., from where all usual commercial services can be obtained.

Note: There is no main harbour at Sriracha, which is mainly a fishing port with ferry access to Kosichang.

Pilotage: Compulsory. Pilot available 24 hours. Pilot boards 2 miles East of Kosichang.

Channel: 2.8 km. long with depth 9.0 m.

Max. Size: 70,000 d.w.t. There is no beam restriction.

Depth Alongside: 11.60 m. at LLW. 14.08 m. at MSL.

Pratique: Usual entry formalities available 24 hours.

Tugs: Available through Sriracha Harbour Co. Two tugs are normally used for berthing and one tug for unberthing.

Berths: Outer berth: Length 450 m. Width 40 m.
Inner berth: Length 350 m. Width 40 m.

Cargo Handling: 2×Kone level luffing cranes of 25 tons capacity with electric/hydraulic grabs, clamshells and magnets.

Other equipment: Weighbridges, excavators, mobile cranes, hopper conveyors, road transport, barges and steel skips available.

Bulk handling rates: 4,000 tonnes per day.

Fuel: Available by barge.

Services: All usual services available.

Operator: Sriracha Harbour Co.Ltd., 11th Floor, Glas Haus Building, 1 Soi Sukhumvit 25, (Daengprasert) Klongtoey, Bangkok 10110, Thailand. Tel: (662) 2606469-73. Telex: 84293 NTSRICH TH. Fax: (662) 2606293.

Harbour Office: 31/4 Moo 4, Surasak, Sriracha, Chonburi. Tel: (038) 312262/3. Fax: (038) 312630.

Also see "Shipmaster's Report" and "Report".

TANKERS: *Thai Oil – SBM:* See Part (B).

Thai Oil Sea Berth: See Part (C).

Thaioil Co., Ltd. (Thaioil) Jetty: The following requirements apply to vessels for the use of berthing, unberthing, loading and discharging at Thaioil's Jetty (Location: Lat. 13° 7.3' N., Long. 100° 53.2' E.).

Berth No. 1 (Inner Berth):
Maximum LOA 100.5 m.
Maximum safe draft 4.8 m.
Minimum size of vessel 600 d.w.t.
Maximum size of vessel 5,000 d.w.t., consistent with LOA and draft.

Berth No. 2 (Outer Berth):
Maximum LOA 106.0 m.
Maximum safe draft 5.5 m.
Minimum size of vessel 600 d.w.t.
Maximum size of vessel 5,000 d.w.t., consistent with LOA and draft.

Vessels approaching from the South will cross the submarine crude pipeline to the CBM Berth. This line is marked by a buoy which must be passed to *seaward* to ensure adequate under-keel clearance. Engine(s) must not be used when crossing the pipeline to avoid risk of scouring seabed.

Berth No. 3:
Maximum LOA 83.0 m.
Minimum LOA 60.0 m.
Maximum safe draft 5.5 m.
Maximum size of vessel 2,500 d.w.t., consistent with LOA and draft.

Vessels in fully loaded condition *must approach the berth from the North,* in order not to cross the submarine crude oil pipeline located at the South end of jetty as marked by a buoy.

The use of anchor(s) when berthing is prohibited due to the proximity of the submarine crude oil pipeline.

Berth No. 4:
Maximum LOA 122.0 m.
Maximum safe draft 6.7 m.
Minimum size of vessel 1,000 d.w.t.
Maximum size of vessel 5,300 d.w.t., consistent with LOA and draft.

Berth No. 5:
Maximum LOA 122.0 m.
Maximum safe draft 6.4 m.
Minimum size of vessel 1,000 d.w.t.
Maximum size of vessel 5,000 d.w.t., consistent with LOA and draft.

Berth No. 6 (LPG):
Maximum LOA 122.0 m.
Maximum safe draft 4.5 m.
Minimum size of vessel 600 d.w.t.
Maximum size of vessel 5,300 d.w.t., consistent with LOA and draft.

All Berths: The following conditions apply to all berths:

A mooring boat will be in attendance to run mooring lines and provid assistance for berthing and unberthing. One additional mooring boat fo Jetty No. 3.

Approach speed to the jetty for fully loaded vessels must be th minimum consistent with safe manoeuvring. The jetty has been designe for berth impact of fully laden vessels at 0.3 m./sec., and any excessiv approach speed will endanger the jetty.

Vessels to have derrick S.W.L. 2 tons.

Mooring to consist of 3 ropes forward (head lines and breast) an 3 ropes aft (stern lines and breast), plus one forward and one aft bac spring. Rope size to be 5 in. for vessels under 2,000 d.w.t. and 6 in. fo vessels over 2,000 d.w.t.

Expected discharge rates of vessels is 400 – 600 cu.m./hr. a approximately 120 p.s.i.g.

Remarks:

Should the Thaioil Marine Manager not be satisfied that any of th above requirements have been met, he has full authority to order th vessel off the berth.

Should the Thaioil Marine Manager consider that a berthing operatio will endanger the jetty due to adverse weather conditions or an mechanical defect in the vessel, he has full authority to refuse to allo the vessel to berth.

Esso: 6 buoy conventional mooring owned and operated by Ess Standard Thailand Ltd. Vessels berth heading in either directio depending on the tide at the time of arrival. Max. size: 105,000 d.w.t LOA 274 m. Draft 15.24 m.

2 ship's moorings required to each of 2 head and 2 stern buoys an one ship's mooring to each of 2 breast buoys. These are supplemente by 1 shore "preventer" wire from the 2 head and 2 stern buoys.

1×32 in. submarine line for crude oil with 2 strings of 12 in. hoses.

Ballasting is required during discharge to maintain 30% deadweig at all times. Additional ballast may be required during the S.W. monsoo period 1st June to 31st October. Technical test data for winches/wire required on arrival.

PTT Sea Berth: The PTT Sea Berth consists of a concrete platform wi two breasting dolphins and mooring buoys for head and stern lines.

Vessels berth heading in either direction depending on curren direction, using seaward anchor.

Mooring: 3 head/stern ropes, 3 forward and aft back springs plus on buoy rope to seaward buoy aft.

Night berthing not recommended in view of unlit buoys and platfor

Vessels programmed to this sea island berth are advised that it is t be regarded as an offshore buoy berth as far as shore facilities ar concerned. Access to/from the shore should be by accommodatio ladder rigged on the offshore side of the vessel.

In common with offshore buoy berths and in the absence of any shor standby craft, the vessel's lifeboats to be used for emergency evacuatio of personnel.

PTT Sea Berth No. 4: Max. LOA 235 m. Max. draft 13.5 m. Max. si 60,000 d.w.t. Minimum size 1,000 d.w.t. Products handled: Fuel oil an diesel (2×8 in. and 1×6 in. hoses).

PTT Sea Berth No. 5: Max. LOA 181 m. Max. draft 12.5 m. Max. si 20,000 d.w.t. Minimum LOA 42 m. Only fuel oil handled (1×6 in. hose

PTT Jetties:

Jetty	*Max.LOA* (m.)	*Max.Draft* (m.)	*Max. Size* d.w.t.
1	281	15.0	120,000
2	122	7.5	6,000
6	92	6.8	6,000
7	91	4.9	2,000

Jetty 1: Minimum size LOA 100 m. or 10,000 tonnes s.d.w.t. Maximu distance waterline to manifold 19.20 m. Maximum gas car 80,000 tonnes s.d.w.t. LPG unit is 15.0 m. South of centreline Chicksans. Crude and HSD handled. Crude 2×12 in. hoses, produc 1×12 in. hose.

Jetty 2: Minimum size LOA 40 m. or 500 tonnes s.d.w.t. Absol maximum 6,000 tonnes s.d.w.t. Max. size LPG tanker 2,000 d.w HSD handled. 1×6 in. hose.

Jetty 6: Minimum size 1,000 tonnes s.d.w.t., LOA 40 m. Absol maximum 6,000 s.d.w.t. Crude and HSD handled. 2×8 in. hoses.

Jetty 7: Minimum size 1,000 tonnes s.d.w.t. HSD handled. 1×6 in. ho

General: Qatar Crude Discharge: Considerable delay can encountered in the discharge of Qatar Crude.

In this connection your attention is particularly drawn to any adv given to you on arrival by the Thai Oil Representative.

Back Loading from Coasters: Occasionally vessels are require load cargo from 2,000/4,000 ton coasters at Sriracha. Loading a cargo could take 3 to 4 days and Masters should bear this in mind bunker and fresh water calculations.

Lightening to coasters to make Bangkok Bar draft: On arrival the no VHF contact with shore, as vessel does not take a Pilot, and should proceed straight to an anchorage within about half a mil position 13° 07.6' N., 100° 50.9' E. There may be other vessels in area engaged in ship/ship transfer. Do not rig an accommodation lad as four Yokohama rubber fenders are brought straight out to the ves and 2 lashed each side amidships. Shore officials will board via the ladder to clear the vessel inwards. Accommodation is required Police Officers (one room) and 2 Supervisors with one Customs Of (a second room) throughout the vessel's stay. 8 in. hoses are bro out on the first coasters, connected by a seven man hose handling g and left connected to the ship's manifold throughout the operations gang handles all hose connecting, and mooring, with a crane o provided by the ship. This gang stays onboard most of the time need to be allocated a smoking area. The coasters are programme Bangkok – copies of the programme being put onboard on arrival – can be handled simultaneously one each side. If 2 products are invo usually one side is allocated for a particular product. The coasters moor with lightweight polypropylene lines and are well handled and efficient, capable of loading at about 1,250 tonnes/p.h. There are 4×2,000 d.w.tonnes, and 1×3,500 d.w.tonnes coasters with a round trip taking about 24 hours from departure to return alongside.

TUGS: Local company privately operates 3×2,500 h.p. tugs which are available on calling during working hours, and outside working hours when required if advance notice given.

MEDICAL: Hospital facilities available, advance notice of ETA preferred.

DENSITY: About 1021.

FRESH WATER: Can be supplied by barge at sea berths. 24 hours' notice required to Agent.

FUEL: Can be supplied by barge. 48 hours' notice required.

CUSTOMS ALLOWANCES: 200 cigarettes for each officer, 100 for each crew member for 3 days.

Each man allowed 1 opened bottle wine/spirits.

CONSULS: See "Bangkok".

AIRPORT: Situated about 25 km. from Bangkok, regular international services.

TIME: GMT plus 7 hours. No changes during the year.

SHORE LEAVE: No restriction on crews landing after immigration and health formalities have been satisfactorily completed.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: No facilities available.

WASTE OIL DISPOSAL: No facilities available.

SEAMAN'S CLUBS: None.

CURRENCY: Thai Baht.

DEVELOPMENTS: *Laem Chabang Deep-Sea Port Project:* See "Laem Chabang".

SHIPMASTER'S REPORT: March 1984.

Loading of Tapioca Pellets in bulk at MBK berth:

Vessel: LOA 243.6 m., beam 32.3 m., deck over keel 18.6 m., draft 13.51 m., 74,010 tonnes d.w.t., 8 holds.

Silo with a berth called MBK Berth (Mah Boon Krong), operated by Cargill Ltd., has been in existence for about 6 years.

The berth consists of 3 loading towers with sufficient mooring posts at both ends.

Location of berth: Lat. 13° 08.2' N., Long. 100° 53.1' E.
Distance from shore: 1.6 miles.
Distance between towers: 50 m.
Radius of loading booms: 32 m.
Total loading range: 166 m.
Depth of water alongside: 12.8 m. at LW.
Loading capacity: Loading with 1 tower 350 t.p.h.
Loading capacity with 2-3 towers 600 t.p.h.

A vessel of our size has to be shifted for loading the end holds.

The loading spouts are equipped with trimming machines. The only connection to the shore is a conveyor belt of 2.8 km. length which cannot be used for traffic. All traffic is carried out by boats. Therefore gangways on both sides to be used.

A Pilot/Berthing Master brings the vessel alongside. Berthing with 2 tugs, bow to the North and starboard side alongside using the port anchor.

REPORT: December 1993.

Berth: Siam Seaport.

Operator: Siam Seaport Terminal and Warehouses Co.Ltd., Bangkok.

Located in the Eastern seaboard, the new industrial heartland of Thailand, and about 10 km. by road from the Laem Chabang Commercial Port, is Siam Seaport, a new deep sea terminal, designed specially to handle bulk and breakbulk cargoes. When construction is completed in mid-1994, Siam Seaport will offer an ideal bulk terminal, where vessels of sizes ranging from 5,000 d.w.t. to 60,000 d.w.t. can safely berth all year round. The deep water at Siam Seaport is therefore most favourable to customers needing to transport bulk and breakbulk cargoes in the largest possible vessels.

Berth: Total length: Outer berth 400 m. Inner berth 340 m.

Draft: 12.5 m. basis MSL.

Size of Vessels: From 500 tonne barges up to 60,000 d.w.t. ocean-going vessels.

Equipment: One bulk loader, capable of loading 700 tonnes/hr. of dry bulk commodities, such as raw sugar, tapioca pellets, grain, etc.

Mobile cranes of 20 – 40 tonnes lifting capacity. Luffing shore crane (future). Forklifts, trucks, pay loaders, etc.

Services: Pilotage, waste disposal, tugs, computer processing, security, living quarters, stevedoring, lighting, packing, water, electricity, communications, sea land transport, bonded warehouse, Customs clearance.

Storage: 224,000 sq.m. (140 RAI); 10,000 sq.m. (bulk); 13,000 sq.m. (non-bulk); 10,000 sq.m. of bonded area; 36,000 tonnes of liquid bulk tankage.

AUTHORITY: *Operators:* Thai Oil Company Limited. Refinery: Km. 124.5 Sukhumvit Highway, Au Udom, Sriracha, Cholburi 20230, Thailand. (P.O.Box 2387, Bangkok 10501). *Tel:* (038) 351555. *FAX:* (038) 351554. *Telex:* 85802, 85808 THAIOIL TH. *Contact:* Captain Prasit Khumsribus, Marine Supervisor.

Mah Boon Krong Drying and Silo Co. Ltd., (MBK), Haad Padaeng Surasak, Sriracha Cholburi, Bangkok. *Telex:* 85804, 85805 Mbsilo Th.

Petroleum Authority of Thailand (P.T.T.) *Telex:* 75811 PTT SPT TH.

Sriracha Harbour Co.Ltd. (See "Berthing").

AGENT: See "Part C".

(B) THAI OIL – SBM.

LOCATION: The SBM of Thaioil Co.Ltd. Sriracha is a Catenary Anchor Leg Mooring (CALM) and located between the island of Ko Si Chang and mainland Thailand, in position Lat. 13° 07' 43" N., Long. 100° 51' 45" E.

The water depth is approximately 23 m. (Ref. B.A.Chart No. 986 "Approaches to Ao Udom").

DOCUMENTS: *Documentation/Pratique:* Custom regulations are rather extensive. Customs Clearance will take place onboard upon arrival. No advanced Radio Pratique is permitted. All documents must be prepared and ready for submission upon arrival.

Following documents are required:
For Customs Officials:
6 copies Crew List.
6 copies Personal Belongings List.
6 copies Provision/Stores List.
6 copies Foreign Currency List (ship's and personal).
6 copies Deck/Engine Stores List.
6 copies Arms List.
6 copies Ammunition List.
6 copies Opium and Drugs List.
6 copies Bonded Stores List.
6 copies Passenger List (To be typed, even when no passenger onboard).
For Immigration:
3 copies each Inward/Outward Forms No. 3 and 4.
3 copies Crew List, Immigration Form No. 35.
All Immigration Forms will be handled by Agent on arrival.
For Port Health Authority:
2 copies Vaccination List.
1 copy Maritime Declaration of Health.

PILOTAGE: The Government Pilot and Thaioil Representatives will board the incoming vessel approximately 1.5 nautical miles S.W. of the SBM in the Pilot Boarding Area as indicated on B.A. Chart No. 986.

APPROACHES: *Approach to the SBM:* At the Thaioil SBM in Sriracha, tankers are berthed with the hose strings lying on the port side of the vessel. This configuration was chosen to cater for the general tendency of vessels to swing to starboard (and away from the SBM) when using the engine for astern movements during the final stages of the approach.

Special care is to be taken to prevent collision with local fishermen and/or other vessels under way or at anchor, the area between the mainland and Ko Si Chang being congested with various marine installations and activities.

The final approach is made at the slowest possible speed, keeping the vessel manoeuvrable, and the SBM slightly open on the port side, never ahead, in order to let the tanker pass clear in case of overshooting or if an emergency occurs.

Two tugs, one at each forward shoulder, assist in keeping the tanker's bow steady.

The direction of the approach is governed by wind or current, or a combined effect of both, bearing in mind the vessel's draft and handling characteristics.

Vessels with draft restrictions when passing the Ko Si Chang Bar (i.e. draft between 14.8 m. and 18.2 m.) should generally approach the SBM from the South on an ebb tide. This will enable the vessel to always manoeuvre with sufficient water underneath her keel.

Vessels with drafts below 14.8 m. can be berthed at any stage of the tide, provided they stay in sufficiently deep water. It should be born in mind that the 14.0 m. contour of the sea bed is only 1,400 m. (7.5 cables) to the East of the SBM.

RESTRICTIONS: Berthing and unberthing is carried out at day and night. Berthing restrictions apply to vessels with a draft greater than 14.8 m., which will be berthed on ebb tide only.

All tankers stemmed to discharge at the Thaioil SBM must be equipped with bow chain stoppers and manifold equipment in accordance with OCIMF Recommendations.

Owners assurance will be sought prior to acceptance.

MAX. SIZE: The buoy is designed to accommodate tankers of sizes between 60,000 d.w.t. and 230,000 d.w.t.

Tankers of a deadweight of 320,000 tonnes (part-loaded) could also be accommodated, but may also incur additional draft penalty (See "Draft Information").

Ko Si Chang Transit and Draft Information: The Ko Si Chang Bar Channel for deep draft vessels is defined by the following positions:

From:	Lat. 13° 03' 04" N.,	Long. 100° 48' 47" E.
To:	Lat. 13° 03' 15" N.,	Long. 100° 48' 40" E.
To:	Lat. 13° 03' 40" N.,	Long. 100° 49' 43" E.
To:	Lat. 13° 03' 51" N.,	Long. 100° 49' 35" E.

The maximum loaded draft over the Ko Si Chang Bar channel at any high water is 17.6 m., and calculated as follows:

Chart Datum above LLW	16.7 m.
Accuracy of Sounding	0.4 m. (minus)
Under-keel Clearance	1.5 m.
Rise in Tide	2.8 m. (minimum rise in tide any day)
Maximum draft	17.6 m.

Consequently any vessel with a draft of up to 14.8 m. can cross the bar channel at any time every day.

Although at certain periods of time, the maximum rise in tide can reach 3.9 m., the maximum draft for vessels calling at the SBM is restricted to 18.1 m. by the height of the pipeline end manifold (PLEM) above the sea bed.

Increase in draft beyond 18.1 m. for 'pumping-over-the-tide' is not permitted.

HEALTH: See "Documents".

RADIO: *Information required prior to Arrival:* Vessel's arrival draft and ETA to be given 7 days, 3 days, 2 days and 1 day prior to arrival. Vessels should attempt to arrive on even keel or as close to even keel as possible.

VHF: Initial contact with the Pilot can be made on VHF Channel 16 (Call Sign "Sriracha Pilot"). Once the contact is established, communication will be switched to Channel 13 or 73.

Communication during discharge between ship and shore is carried out by the Thaioil representative on board.

In addition, the ship is to keep a constant radio watch on Channel 13.

TUGS: Tugs are normally not required during berthing or unberthing, but are available for emergencies. 6 tugs of 2,400 b.h.p. and 2 tugs of 1,900 b.h.p. are available.

BERTHING: *Buoy Dimensions:* Diameter 12.0 m. Skirt diameter 16.2 m. Height 5.3 m. Draft 2.6 m. (approx.).

A white navigation light flashing "S" every 6.2 seconds with a range of 5 nautical miles is mounted to the turntable some 7.0 m. above water level.

An octahedral radar reflector with a diameter of 0.5 m. is mounted on top of a steel rope guard some 5.5 m. above water level.

Mooring Arrangement: (OCIMF Standard). Tanker moorings from the buoy comprise of 2×12 in. circumference × 150 ft. (45.72 m.) long double braided circular hawsers, complete with floats and thimbles at each end.

For berthing purposes, the port pick-up rope will be connected to a 150 m. (490 ft.) long 250 mm. (8 in.) circumference messenger rope (first line to pick-up), while the starboard pick-up rope will be connected to a 70 m. (230 ft.) long 250 mm. (8 in.) circumference messenger rope (second line to pick-up).

Only vessels which are equipped to the latest OCIMF Standard, having bow chain stoppers (tongue or hinged bar type) and fairleads are accepted to moor at the SBM.

CARGO OPERATIONS: *Pipeline and Hose:* A 40 in. pipeline of 5.5 km. length connects the SBM with the storage tanks ashore.

Derrick: Refer to OCIMF Standard.

Port derrick to be rigged for hose connection.

Connecting Hoses: Hose connection (2 floating hose strings – diameter 16 in. ANSI) is carried out by shore personnel with assistance of the ship's crew.

After the tanker is safely moored, the hose equipment consisting of rope slings, shackles, gaskets, nuts and bolts, Blake Stoppers and wire strops, are taken on board.

Discharge of Cargo: Only one grade can be discharged at the time, dependent on shore requirements.

The quantity discharged is to be checked and compared with shore on the full hour at 2 hourly intervals.

Throughout the vessel's stay at the SBM, one member of the shore crew is to be stationed on the forecastle to watch the SBM and notify the Thaioil Marine Supervisor before the vessel comes into contact with the SBM. Engines have to be ready on 10 minutes notice.

In the event that the mooring lines become fouled or the SBM hoses trapped between the SBM and the vessel, the SBM mooring launch will be utilised to clear as necessary. The launch remains on stand-by throughout.

Discharge Rate/Pressure: Maximum discharge rates that can be achieved vary between 7,200 cu.m./hr. and 8,300 cu.m./hr. respectively and are dependent on the flow characteristic of the crude oil.

The maximum discharge pressure permitted at the ship's manifold is 10 bar.

Hose Disconnection: This operation is carried out by shore personnel, with the assistance of the ship's crew.

Ballast: Non-SBT tankers below 120,000 deadweight tonnes may be allowed to discharge the entire cargo before taking ballast into the cargo tanks (weather permitting). All other vessels have to maintain a minimum deadweight of 30%.

Masters are advised to commence taking permanent ballast as soon as necessary, to keep the vessel at maximum draft not exceeding 17.6 m.

Crude Oil Washing (COW): Marpol 73/78 Convention requires that crude oil washing be carried out during discharging. Full crude oil washing will be subject to Terminal agreement.

COW is to be carried out in accordance with the ship's COW Operations Manual and the International Safety Guide for Oil Tankers & Terminals (ISGOTT).

I.G. Failure: In the event of a inert gas plant failure, discharge and crude oil washing must be stopped until the I.G. system is fully operational again.

MEDICAL: Doctor, dentist and hospitals are available.

FUEL: All bunkers are available by barge at anchorage only. Quantities are limited unless advanced notice is given. It is recommended to confirm bunker requirements on arrival. Failure to do so may result in cancellation or delay.

FRESH WATER: Available by barge at anchorage only. Minimum order is 200 tonnes, delivery rate approximately 30 tonnes/hr.

REPAIRS: Only minor repairs can be carried out by local workshops or by Bangkok's facilities. Advance notice is necessary since spare parts are difficult to obtain.

Immobilisation: Immobilisation of engines or steering gear is not permitted at any time while the vessel is moored to the SBM. Engines and helm must be made available at short notice (i.e. within 10 minutes).

REPATRIATION: Available via Bangkok. Advance notice on crew member's particulars is required.

SHORE LEAVE: Shore leave is permitted. No passes required. Boat service to be arranged via Agent.

GENERAL:

Berth Security and Safety: Throughout the vessel's stay at the SBM, no other craft (i.e. bunker, water, and stores barge, etc.) is permitted to moor alongside the vessel, the sole exception being the SBM mooring launch.

Accommodation Ladder: Accommodation ladder to be rigged on both sides ready for the Pilot, and later the Government Authorities, to board the vessel.

Shore Personnel: A representative of Thaioil will stay on board throughout the vessel's stay at the SBM. Adequate accommodation and messing facilities should be provided.

Additionally a 6 man shore crew, who are employed to watch the SBM from the forecastle and stand-by for emergency hose disconnection, will remain on board. The shore crew will not need to be accommodated i cabins, but will be satisfied with a room such as the gym or a table tennis room. They will be provided with their own food, but will requir water.

At times, the ship's Agent will provide 2 Marine Police who will requir accommodation and messing facilities.

Stores and Provisions: Available at 48 hours notice. Fresh provision are available in ample quantities and of good quality. Deck/engine store are usually available in reasonable quantities, but selection is limited.

WEATHER:

Current: The main direction of the current runs more or less parallel t the shore line in a Northern direction during flood tide and in a Souther direction during ebb tide. The maximum rate of the current is aroun one knot.

Tide: Refer to British Admiralty Tide Tables – Bangkok Bar/Ko Si Chang

Waves: In stormy weather, the maximum height of waves is 2.5 m. a a wave period of approximately 6 seconds.

Wind:

(a) South West Monsoon season (May to October):
The prevailing wind during South West Monsoon season is from the S.W.
This area is affected by squalls associated with cumulonimbu clouds and thunder storms. The storms can be very severe an peak gusts of 60 knots are not uncommon. The peak gust is brie and the wind settles therafter between 20 – 30 knots. All squal are accompanied by torrential rain.

(b) North East Monsoon season (November to April):
Predominant direction:

November to January	North, East and Variable
February to March	South and East
April	Variable

The velocity of the wind during this period is about 15 knots, and onl rarely increases to 25 knots.

OPERATOR: Thai Oil Co. Ltd.

Head Office: G.P.O. Box 2194, Bangkok 10501. *Tel:* (02) 231-700 *Telex:* 20447, 82695, 84095 Thaioil Th. *FAX:* (02) 231-7111, 7222.

Refinery: Sukhumvit Road, (Km. 124.5), Au Udom, Sriracha, Cholbu 20230, Thailand. *Tel:* (038) 351555. *Telex:* 85802, 85808 Thaioil Th *FAX:* (038) 351554. *Contact:* Thongchai Trakulyingyong, Marin Manager.

AGENT: See "Part C".

(C) THAI OIL – CBM

LOCATION: The Thaioil CBM of Thaioil Co.Ltd. Sriracha, is Conventional Buoy Mooring (CBM) and located between the island Kosichang and mainland Thailand in position (PLEM Lat. 13° 07' 29.8" N., Long. 100° 52' 32.7" E. The water depth approximately 14.5 m. (Ref. B.A. Chart No. 986 "Approaches to A Udom").

DOCUMENTS: See "Part (B)".

PILOTAGE: The Government Pilot and Thaioil Representatives w board the incoming vessel approximately 2.0 nautical miles S.W. of th CBM in the pilot boarding area, as indicated on B.A. Chart No. 986.

RESTRICTIONS: Berthing is carried out in daylight only. Unberthing carried out at any time, weather permitting.

MAX. SIZE: The buoy is designed to accommodate tankers of siz between 30,000 d.w.t. and 120,000 d.w.t., with LOA not below 560 ft. exceeding 900 ft., and a maximum distance from bow to centre manifold of 450 ft.

Draft Information: The maximum safe draft at the CBM at any low wat is 14.62 m. and is calculated as follows:

Chart Datum above LLW	14.63 m.	(48 ft.)
Under-keel Clearance	0.61 m.	(2 ft. minus)
Rise in Tide	0.60 m.	(minimum rise in tide at any day)
Maximum Draft	14.62 m.	

Vessels with a draft greater than 14.62 m. up to a maximum 15.00 m. can also be accommodated, but they have to discharge agai the tide, and it has to be assured that for a minimum of 12 hou immediately prior to berthing, the water level is above 15.00 m., whi due to the non-harmonic type of tide in Sriracha will not cause und delays.

HEALTH: See "Documents" in "Part (B)".

RADIO: *Information required prior to Arrival:* Vessel's arrival draft a ETA to be given 7, 3, 2 and 1 days prior to arrival. Vessels should atte to arrive on even-keel or as close to even-keel as possible.

VHF: Initial contact with the Pilot can be made on VHF Channel Once the contact is established, communication will be switched Channel 13.

Communication during discharge between ship and shore is ca out by the Thaioil Representative on board.

In addition, the ship is to keep a constant radio watch on Channel

TUGS: Tugs are compulsory during berthing or unberthing and available for emergencies. 6 tugs of 2,400 b.h.p. and 2 of 1,900 b. are available.

For vessels with a LOA of 700 ft. and above, 2 tugs are required, of which is to have a minimum of 2,400 b.h.p. and the other 1,900 b. The tugs are made fast on the maindeck at the forward and aft offs shoulder of the vessel respectively.

For vessels with a LOA of up to 700 ft., one tug only is required, w is made fast on the maindeck at the forward offshore shoulder.

BERTHING: *Conventional Buoy Mooring:* The CBM consists of 3 h and 3 stern mooring buoys of cylindrical reclining type, which are sec with a 3.75 in. diameter studlink chain to the anchoring system.

The buoy pattern is effectively one mooring buoy at each corner of the berth, with one further buoy at each end of the central axis of the berth. The "quarter" mooring buoys are located respectively at approximately 60° from the central axis of the berth.

The central axis of the berth lies in direction 024° – 204°.

Mooring Requirements: A total of 18 ship's mooring ropes/wires are required, which makes 3 moorings to each of the 3 head and 3 stern buoys.

The first mooring to each buoy to be a soft rope.

All mooring wires to have nylon pendants/tails.

Mooring: Procedure discussed with Pilot and Mooring Master prior to mooring.

Unmooring: At first the mooring lines are singled up (last on/first off) until one mooring line remains on every buoy. Thereafter the sequence of letting-go is as follows:

(a) Inner aft buoy.
(b) Inner forward buoy.
(c) Centre aft buoy.
(d) Centre forward buoy.

When all these lines are safely inboard, the anchor is hove-in and the two last lines to the outer aft and forward buoys let go.

The tug(s) then push the vessel out of the buoy pattern until she can proceed on her way.

CARGO OPERATIONS: *Pipeline and Hoses:* One submarine crude pipeline of 4.5 km. length and 24 in. diameter connects the CBM with the storage tanks ashore. The pipeline end manifolds (PLEM's) are located directly underneath the PLEM-marker buoys and approximately 15 m. – 22 m. (50 ft. – 75 ft.) from the side of the tanker in the berth.

Two underwater hose strings with a length of 73 m. (240 ft.) and an internal diameter of 16 in./12 in. connect each of the two PLEM's with the ship's manifold. Each hose string consists of 2×30 ft. × 16 in. hoses connected to a 30 ft. × 16 in./12 in. tapered hose and followed by 5×30 in. × 12 in. hoses. The last hose is connected to a special lifting blind flange which terminates in a 30 m. × 0.875 in. diameter studlink chain with 5 equally spaced open links (for lifting), which is connected to the pick-up buoy.

Discharge Rate/Pressure: Maximum discharge rate is 3,600 cu.m./hr.

The maximum discharge pressure permitted at the ship's manifold is 10 Bar.

Derrick: Refer to OCIMF Standard.

Derrick with a minimum SWL of 10 tonnes is required to lift the submarine hoses.

Connecting Hoses: Hose connection (2×12 in. ANSI) is carried out by shore personnel with assistance of the ship's crew.

After the tanker is safely moored, the hose equipment, consisting of rope slings, shackles, gaskets, nuts and bolts, Blake stoppers and wire strops, are taken onboard.

The hoses are lifted and connected one at a time, the inner hose first, dependent on the pipeline to be used for the discharge.

The blind flange at the end of each hose string is connected to a 24 m. long lifting chain, which is made of 4 lengths of chain, each 6.0 m. long, and connected to each other with an open link. The end of the lifting chain is connected to a PVC buoy.

The launch picks-up the buoy and secures the upper open link on deck and brings the hose directly under the derrick head. The derrick runner hook is then secured to the upper open link and the chain is lifted out of the water until sufficient length is available for connecting the derrick runner hook to the second next open link. This procedure is repeated until the hose comes out of the water and sufficient length is available for direct connection to the ship's manifold.

The weight of the hose is then transferred to the snubbing chain by tightening the connecting chain which is shackled to the snubbing chain and securing it in the Blake stopper, which itself is to be secured to the ship's manifold bitts. The blank flange is removed and the hose connected to the ship's manifold. The butterfly valve at the hose end is opened and secured.

After connecting, both hoses are supported by rope slings suspended from the derrick runner hook, in order to maintain a reasonable radius of bend. If necessary, the hoses are lashed on each side of the hose bar to reduce movement caused by swell.

Ship's impressed current cathodic protection – if operational – should be kept on.

Discharge of Cargo: Only one grade can be discharged at a time, dependent on shore requirements.

The quantity discharged is to be checked and compared with shore on the full hour at 2 hourly intervals. If at night the difference between ship and shore exceeds 1,000 cu.m., then the cargo has to be stopped and the cause has to be investigated, in order to ensure that no sub-sea leaks develop undetected.

During discharge, the hoses and the surrounding area should be checked frequently for oil leaks. If any oil leak is detected, the Marine Supervisor, who remains on board throughout the vessel's stay at the CBM, is to be informed without delay.

Crude Oil Washing (COW): MARPOL 73/78 Convention requires that crude oil washing be carried out during discharging. Full crude oil washing will be subject to terminal agreement.

COW is to be carried out in accordance with the ship's COW Operations Manual and with the International Safety Guide for Oil Tankers and Terminals (ISGOTT).

Inert Gas Failure: In the event of an inert gas plant failure, discharge and crude oil washing must be stopped until the I.G. system is fully operational again.

Hose Disconnection: This operation is carried out by shore personnel with the assistance of the ship's crew.

Once cargo has been completed, the ship can close her manifolds. The butterfly valves at the end of the hoses are closed and secured, and the hoses disconnected and blanked-off. The cargo runner hook is connected to the first open link of the lifting chain of the outer hose and the hose lifted clear of the deck, transferring the weight from the snubbing chain. The Blake stopper is removed from the connecting chain and the hose lowered into the water in the same stages as during pick-up. The mooring launch will secure the last open link of the lifting chain on her deck and disconnect the cargo runner hook. The PVC buoy is reconnected and the hose towed clear of the ship's side. The same procedure is repeated for the second (inner) hose, and thereafter the hose gear is lowered into the mooring launch prior to unmooring.

BALLAST: Masters are advised to commence taking permanent ballast as soon as necessary to keep the vessel at maximum safe draft, not exceeding 14.6 m.

MEDICAL: Doctor, dentist and hospital are available.

FRESH WATER: Available by barge at anchorage only. Minimum order is 200 tonnes, delivery rate approximately 30 tonnes/hr.

FUEL: All bunkers are available by barge at anchorage only. Quantities are limited unless advanced notice is given. It is recommended to confirm bunker requirements on arrival. Failure to do so may result in cancellation or delay.

REPAIRS: Only minor repairs can be carried out by local workshops or by Bangkok's facilities. Advance notice is necessary since spare parts are difficult to obtain.

Immobilisation: Immobilisation of engines or steering gear is not permitted at any time while the vessel is moored at the CBM.

REPATRIATION: Available via Bangkok. Advance notice on crew member's particulars is required.

SHORE LEAVE: Shore leave is permitted. No passes required. Boat service to be arranged via Agent.

GENERAL: *Berth Security and Safety:* Throughout the vessel's stay at the CBM, no other craft (i.e. bunker, water, and stores barge, etc.) is permitted to moor alongside the vessel, the sole exception being the mooring launch.

Accommodation Ladder: Accommodation ladder to be rigged on both sides, ready for the Pilot and later the Government Authorities, to board the vessel.

Shore Personnel: A representative of Thaioil will stay onboard throughout the vessel's stay at the CBM. Adequate accommodation and messing facilities should be provided.

Additonally, 6 men shore crew, who stand-by for emergency hose disconnection, will remain on board. The shore crew will not need to be accommodated in cabins, but will be satisfied with a room, such as the gym or a table tennis room. They will be provided with their own food, but will require water.

At times, the ship's Agent will provide 2 Marine Police who will require accommodation and messing facilities.

In additon, 2 surveyors normally stay on board.

Stores and Provisions: Available at 48 hours notice. Fresh provisions are available in ample quantities and of good quality. Deck/engine stores are usually available in reasonable quantities, but selection is limited.

WEATHER: See "Part (B)".

OPERATOR: See "Part (B)".

AGENT: Jardine Pacific (Thailand) Ltd., 81/11 Chermcholpol Road, Sriracha, Cholburi, Thailand. Tel: 66-2-311050, 311587, 312541. Telex: 75807 Alsrajath. Fax: 66-2-321933.

All initial correspondence to be sent to Bangkok Head Office.

NOTES

Please also advise Shipping Guides Ltd.

Togo Republic

KPEME: 06.12 N. 01.30 E. (See Plan)

PORT LIMITS: In accordance with the terms of Charter Party a vessel is considered to be an "arrived ship" when she is anchored between 1 mile and 2 miles from the end of the jetty.

Shipmaster's Report: April 1986.

Notice of Readiness can be tendered when ship is 1.2 nautical miles from jetty.

DOCUMENTS:

2 Crew Lists.
2 Stores Lists.
2 Private Property Declaration Lists.
2 Lists of last 2 Ports of Call.
2 Passenger Lists (if no passengers, 2 lists stating same).
2 Cargo Manifests.

APPROACHES: By day the extremity of the jetty (3 artificial islands and 2 loading machines) forms an obvious landmark.

At night a white light (situated at the extremity of the jetty, 23 m. above the sea) all around horizon – light 3 sec., occulting 1 sec., light 1 sec., occulting 1 sec.

PILOTAGE: The limits of the port of Kpeme are fixed at 1 mile from all points of the jetty. Pilot boards out at the above limits. The Company Pilot and shore gang remain on board while ship is berthed and disembarks when vessel cleared port limits. International code pilot signal used. At night, vessel should anchor between 110° and 180° at least 1 mile from the end of jetty.

VHF: Radio station, call "Kpeme Pilot Station" on Channel 16. Pilot boat grey motor boat without special signals.

ANCHORAGE: Good holding ground (sand and mud) between 14 m. and 16 m.

RESTRICTIONS: Vessels should twice signal the date and probable time of her arrival. The first time 72 hours and the second time 24 hours prior arrival. Vessels berth in daylight only from 0600 hrs. – 1400 hrs. GMT. Unmooring can be effected day and night. Water approaches are clear. Any ship should have both fore anchor cables in perfect order and capable of being used in their entirety. Any ship should be able to leave immediately if she receives order to do so from Harbour Master. With this in mind, engines must be on standby. Ships are not authorised to cross port entrance without a Pilot on board. Winches aft to be in perfect order.

MAX. SIZE: Tankers up to 27 ft. draft on arrival. Bulk carriers up to 38 ft. draft on sailing. Max. length 225 m. Max. breadth 32 m. Height from waterline to hatch coaming 14.5 m.

HEALTH: Send message for Free Pratique within 24 hours of arrival to Port Health Officer, Kpeme.

RADIO: Until vessel within 600 miles, communicate through Portishead Radio, Senlis Radio and Dakar Radio. Within 500 to 300 miles via Abidjan Radio TUA 487 kHz. and within 300 miles via Lome Radio 5VA 472 kHz.

VHF: VHF radio station, call "Kpeme Port" on Channel 16. Also see "Pilotage".

TUGS: No tugs available. 2 mooring launches of 150 h.p. each are at vessel's disposal.

BERTHING: Loading facility comprised of 3 artificial islands carrying conveyor belts (2) for loading phosphate only. They are breasted by a row of 4 dolphins. Vessel moors using port anchor first and then the starboard anchor, and wires to 7 buoys which hold the ship parallel to the dolphins and about 5.0 m. – 10.0 m. off. Springs are run to the dolphins. Each loader delivers at a rate of 1,250 t.p.h. and 2 holds can be loaded at same time.

MEDICAL: Doctor of the Office Togolais des Phosphates at the Factory.

TANKERS: Moor at a special berth situated to the East at 0.4 miles away from the extremity of the phosphate pier. 1 submarine line 12 in. diameter, hose connection 8 in. diameter. At any time sufficient draft for securing and sailing, also fire hoses to be ready rigged on deck.

FRESH WATER: Not available. Vessel has to go to Lome.

FUEL: Not available. Gas oil available at Lome.

OPENING/CLOSING HATCHES: By ship's crew.

CONSULS: Nearest at Lome.

REPAIRS: No facilities available. Emergency repairs could be arranged in Lome.

CUSTOMS ALLOWANCES: 200 cigarettes or 2 oz. tobacco; 1 bottle of spirits. No Customs Authorities board the vessels or seal bonded stores.

REPATRIATION: Possible. Mooring boats have to be used for going ashore.

AIRPORT: Nearest Lome – 8 flights a week to Europe.

TIME: GMT.

HOLIDAYS:

Official Holidays in Togo:

1st January, New Year's Day; 13th January; 27th April (Independence Day), Victory Day; 1st May, Labour Day; * Ascension Day; 15th August, Assumption; 1st November, All Saints' Day; ** Ramadan Day; ** Tabaski (Islamic Holiday).

*Date given by Christian calendar.

**Date given by Islamic calendar.

TELEPHONES: Placed on board, charges included in stay-in-port tax.

SHORE LEAVE: Allowed, but not advisable. See "Restrictions" and "Repatriation".

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: C.F.A. Franc (CFA Fr). FFr 1.00 = 100 CFA Fr.

GENERAL: In the rainy season, high winds and swell may delay berthing operation.

Berthing only performed on an East-going current.

SHIPMASTER'S REPORT: February 1985 (Updated 1996).

Location: Kpeme is situated about 15 miles East of Lome, and abou 115 miles West of Lagos, Nigeria. The position of Kpeme Jetty is approximately Lat. 06° 12' N., Long. 01° 31' E.

B.A. Chart 1861, Cape St. Paul to Lagos Harbour, with Plan, "Rad de Kpeme".

Approaches: The coast Eastward of Cape St. Paul is practicaly featureless, but good navigational marks are Port de Lome Breakwate, and Kpeme Jetty, which show well on the radar at distances of up t 20 miles. No dangers in the immediate approach from any direction. The occulting light on Kpeme Jetty Head is difficult to identify, and shoul not be relied upon, especially in hazy weather.

Documents: The Pilot deals with all port formalities, acting for Customs and Immigration. Documents required are as follows:

2 Crew Lists.
2 Stores Lists, including Bonded Stores.
2 Crew's Effects Declarations.
2 Lists of Ports of Call.
(For the last voyage or last 4 weeks, whichever is longer.)
2 Passenger Lists.
(If Nil, list should be made out with a "Nil" declaration.)

Pilot on board acts as Loading Master and Agent. About 30 minutes after completion of loading, documents are sent to Pilot for Master's signature. At th same time, the vessel singles up to 2 wires forward and aft.

Pilotage: Pilot, sometimes with Assistant Pilot, boards at the Anchorag together with 2 mooring gangs, each under the supervision of a Foreman, who is in constant contact with the Pilot. 2 mooring boats are availabl to assist with mooring. The Pilots remain on board at all times whilst the vessel is at the Jetty and have to be accommodated and fed.

Anchorages: The anchorage area is from 1.0 – 1.2 miles S.E. of Kpeme Jetty Head. Good holding ground, sand and mud; in about 20 m. of water.

Restrictions: All berthing and unberthing operations performed on a East going current only. (Due to the configuration of the berth.) If a vesse happens to be at the berth when a West going current should start, she will remain at the berth until such time as the normal East going stream re-establishes itself. In extreme cases unberthing could be accomplished with the assistance of 2 tugs from Lome.

Max. Size: LOA 232.76 m., breadth 32.2 m., is about the largest vesse handled by Kpeme. Largest vessel normally handled is LOA 225 m., bu vessel was accepted on condition that no cargo was to be loaded int No. 1 hold or aft (extreme hold).

Also see "Loading".

Radio: The usual ETAs and requests for berthing prospects were sen to the Agents, (Office Togolais des Phosphates. Telex: 5214. Cabl Address: Phospat Lome).

VHF: Port Control calls on Channel 16, and works Channel 13. Takes all details of the ship, and any requirements on arrival.

Notice of Readiness: Notice of Readiness Time is taken as the time th vessel actually anchors, and within the confines of the Charter Party.

Berthing: From the anchorage, the vessel approaches the berth in a wide sweep, to arrive about 1 cable off the berth, heading in a Wester direction, when the port anchor is dropped. This is paid out to full scope then the starboard anchor is let go. A headrope is then led to the buo on the bow. Meanwhile, a shore after spring wire is hove up on the aft mooring winch. Using this and also the main engine, the vessel i manoeuvred into position. This also involves heaving up the port ancho and slacking on the starboard anchor cable, to end up with abou 7 shackles on the port anchor and about 4 shackles on the starboa anchor. Vessel then ends up in position for the shiploaders, which is o a heading of about 190° and about 4 m. off a set of small hydrauli fenders which front the islands on which the shiploaders are constructe The mooring gangs then complete the mooring with shore wires.

Loading: Loading is by 2 shiploaders of 1,100 tonnes/p.h. each. Ma airdraft from Datum to loaders is 14 m. Berth is dredged to 14 m. a Chart Datum. Max. draft allowed at the berth is 38 ft. (11.58 m.) Wi these various restrictions, large vessels must berth with practically f ballast, and careful deballasting whilst loading is necessary to ensu that the vessel remains within the acceptable limits of draft and airdra It has to be remembered that the berth is an open roadstead, and considerable swell can sometimes run (up to 2 m.). The berth is design to berth vessel's head directly into the prevailing direction of the swe to reduce rolling as much as possible, even so, there is still a appreciable movement of the vessel, even with little swell running. Al due to the swell, it is very difficult to read the draft with any accura However, the shore weighing facilities for the phosphate are ve accurate, and no real problems were encountered in this direction. (B is based on weight recorded by loaders during loading. No draft surveys

Liaison with the shore is carried out through the Pilot by telephon Terminal staff friendly and very co-operative.

Unberthing: As soon as, or just before the completion of loading, t shore mooring gangs start to single up the shore moorings. As soon all shore wires are let go, the vessel's stern starts to move away fr the berth with the current. The starboard anchor is weighed and th the Port anchor. Whilst swinging clear of the berth, and weighing anch an eye should be kept on the port breast line buoy aft, as it can p quite close to the stern as the ship swings. After the port ancho aweigh, the vessel is moved a little way from the berth, and drifts wa for the Agent to bring out the documents; which usually takes ab 30 minutes.

Medical: Basic medical treatment is available at Kpeme. Hospitalisa can be effected but it is necessary to go to Lome, where there adequate facilities.

Fresh Water: Not available.

Fuel: Not available.

Repairs: No repairs can be carried out. If these are required, ves would have to go to Lome, 15 miles to the Westward.

Repatriation/Airport: There is an International Airport at Lome, repatriation can be arranged if necessary.

Shore Leave: Although not actually prohibited, shore leave is not really feasible, due to the fact that there are no facilities at Kpeme. Also there are no proper arrangements for a liberty boat to be laid on.

Storing: Fresh provisions are available in limited quantities. Rather expensive and of poor to fair quality. Orders taken by Port Control on vessel's first arrival.

AUTHORITY: Office Togolais des Phosphates, B.P. 379, Lome, Togo. *Tel:* (228) 21.39.01 *Telex:* 5214 Fosfat TG, 5287 Otp TG. *FAX:* (228) 21.71.05. 21.71.52. *Contact:* Commandant K. Atefeibu, Harbour Master.

LOME: 06.08 N. 01.17 E. (See Plan)

DOCUMENTS:

13 Crew Lists.
5 Kroo-boy Lists.
5 Passenger Lists.
4 Lists Previous Ports of Call.
1 Maritime Declaration of Health.
1 List of Vaccinations.
1 Set Cargo Manifest and Bills of Lading.
2 Lists of Arms and Ammunition.
1 List of Stowaways onboard.
1 List of Animals onboard.

Togo Port is a free-port so no individual Crew Member Declaration is necessary.

APPROACHES: By night, the approach to the port is assisted by the following 4 lights:

Lome Light: Position 06° 08' N., and 01° 15' E. On top of the big water tower in the village between Lome City and the harbour. Group Fl. (2) white every 10 sec. Vis. 20 miles.

Baguida Light: Position 06° 09.5' N., and 01° 19.5' E. occ. white and red. Light 2.5 sec. occ. 0.5 sec. period 3 sec. Vis. 17 miles. The red light sector (42°) covers the breakwater as well as the old Lome Wharf in position 06° 07' N., and 01° 13.5' E.

Togo Port Entrance: On the head of the main breakwater a red tower is situated in position 06° 08' N., and 01° 17.5' E. Occ. red light 5 sec. every 6 sec. vis. 5 miles.

On the head of the counter-breakwater a green tower is situated in position 06° 08.2' N. and 01° 17.4' E. Occ. green light 5 sec. every 6 sec. vis. 5 miles.

Fairway Buoy: (Light extinguished – will be changed to solar energy in 1996). A red buoy with metallic structure, situated in position 06° 07' N., and 01° 19.94' E. Quick flash red. Vessels entering the harbour have to leave this buoy on the port side. The buoy marks the beginning of the fairway.

By day, large light coloured transit sheds and a high, grey water tower (30 m.) in position 06° 08' N., and 01° 16.5' E. are the first indications of the port from the sea side.

PILOTAGE: Pilots are available 7 days a week and throughout 24 hours. Berthing is possible at anytime on Owners/Master's request, but movements normally commence between 0530 hrs. and 0600 hrs. (sunrise).

The sailing time is not restricted, but ships sailing after midnight have to give a written notice to the Pilot Station at 2200 hrs. latest. The Pilot Station is equipped with VHF radio-telephone listening on Channel 16, 14 and 12, throughout 24 hours.

Call and safety Channel 16. Communications on 12 and 14.

Business languages: French and English.

Only simplex operation, no telephone patch.

The pilot cutter is a dark motorboat with yellow-orange superstructure on whose mast the international signal flag "H" flies. Showing pilot lights after sunset. The boat also has VHF telephone and is accessible on Channel 12.

Pilots board the vessel approximately 0.5 to 1.0 mile Southwards of the breakwater.

Pilots are compulsory for all ships of more than 300 g.r.t.

ANCHORAGES: Vessels which arrive during darkness should anchor about 0.5 to 1 mile South to S.E. of breakwater, in white sector of Baguida light in 15 m., where good holding ground (sand) obtained. Northern boundary of anchorage is red sector of Baguida Light.

RESTRICTIONS: Tankers may only berth during daylight hours but may unberth at anytime. Also see "Pilotage".

MAX. SIZE: The max. length of vessels admitted must not exceed 270 m. The max. draft for the general cargo-quay is 9.5 m. (31 ft.), for the bulk berth 11.5 m. (38 ft.) and for the tanker berth 14 m. (45 ft.)

For the West side of the container quay 11 m. (36 ft.) and the East side 12 m. (39 ft.)

HEALTH: Health Inspector will board on arrival alongside and examine for cases of infectious diseases, after which he will declare vessel Free or not. Vessels entering must fly international quarantine signal "Q".

RADIO/VHF: Lome has a radio coast station. Working frequencies are: 500 and 472 kHz. Call sign "5VA". Also on VHF Radiotelephone Channel 16 and medium wave telephone on 2182 kHz. when requested.

Lome Port has a VHF station working on Channels 16, 14 and 12 day and night. A radio homing transmitter is working on 379 kHz. Signal "LME". Position 06° 10.7' N. and 01° 16.3' E.

Notification of Ship's: Ship's agencies should be informed as soon as possible about the vessel's arrival at Lome. The ETA telegram should contain the ship's length, draft, the quantity of cargo to be loaded and discharged and the number of stevedore gangs required. In addition to that the ship's agency should be advised to inform the Pilot Station as soon as possible.

ETA notification can also be sent by telex directly to the harbour. Telex No. 5243 TGPORT TO.

TUGS: The port has 3 harbour tugs. "Akodessewa", 960 h.p., 17 tonnes bollard pull; "Lome", 1,620 h.p., 24 tonnes bollard pull and "Aneho", 3,000 h.p., 42 tonnes bollard pull.

For all vessels over 500 g.r.t. the tug service is compulsory. Over 10,000 g.r.t. 2 tugboats are compulsory.

All tugs are equipped with following equipment: Radar, fire fighting equipment and VHF radio-telephone. Working Channel 12. On Master's request, the tug can supply a towing wire.

BERTHING: Vessels berth according to their time of arrival in the roads. Priority is however given to passenger ships, Ro/Ro vessels, container ships as well as to vessels having less than 50 tons of cargo for loading/discharging.

The port is protected on the Western side by the main breakwater (1,720 m. long) and on it's East side by the counter breakwater (950 m.).

The general cargo quay is on each side (320 m. long) and has a width of 72 m. 4 berths are available. 3 berths are suitable for ships with max. draft of 9.5 m. (31 ft.) and one for ships up to 7.0 m. (23 ft.) draft and a max. length of 145 m.

The container pier has 2 berths (Berths No. 5 and 6), each 250 m. in length and 145 m. wide. There is 11 m. depth on the West side and 12 m. on the East side.

The bulk berth is situated on the inside of the counter-breakwater. There is space for a vessel of 200 m. with a max. draft of 11.5 m. (38 ft.). There is 6,400 sq.m. of free storage space. A clinker loading installation is able to load 1,000 t.p.h.

A tanker terminal is situated inside the counter-breakwater. Tankers with a max. length of 250 m. and max. draft of 13.50 m. (45 ft.) can berth here. Also see "Tankers".

The fishing port is situated in the Eastern part of the harbour. The length of the quay is 60 m. and the max. draft 2.80 m. This installation has an auction hall of 1,500 sq.m.

The height of the piers at low water is 4.50 m. The average tide difference is 1.20 m.

There is no special Ro/Ro berth available for bow/stern/ramp vessels.

Shed "A" (5,000 sq.m.) is situated on the general cargo pier. There are another 4 warehouses "C, D, E and F", each having 7,500 sq.m. of storage space in the vicinity of the piers. One shed of 1,000 sq.m. is available for dangerous cargo.

Burkina Faso have 2 warehouses of their own, each 5,000 sq.m. Mali and Niger each have one of 5,000 sq.m.

The free-storage space for containers and heavy-lift cargo is about 90,000 sq.m.

Car park for 2,500 cars.

Equipment/Gear: The port is provided with:

Mobile cranes from 10 tons – 60 tons.
Fork-lifts from 2.5 tons – 30 tons.
Toplifter of 30 tons.
Platform Trailers of 40 tons.
Tractors of 60 h.p.
Grain-elevator and Mobile-gangways.

Also container handling gear, trailers, chassis and spreaders.

There are 3 Pilot boats and 2 line-handling boats. On vessel's request, aluminium gangways are available.

Railway: The Togo-Railway (C.F.T.) which serves large parts of the country has an extension of its network into the port. Quay-sides and sheds are connected.

STEVEDORES: Agent should be informed as soon as possible of ship's ETA, length, max. draft, tonnage to load and/or discharge and number of gangs required.

Working Hours: In Lome the working time is as follow:

1. Day shift from 0700 hrs. – 1200 hrs. and 14.30 hrs. – 1730 hrs.
2. 1st shift from 0600 hrs. – 1400 hrs.
   2nd shift from 1400 hrs – 2100 hrs.
   3rd shift from 2100 hrs. – 0600 hrs.

Except Saturdays and holidays when work is possible in overtime.

Furthermore, extra labour is available if required for night work in order to complete loading and discharging operation. All work is done by port stevedores.

MEDICAL: Large hospital situated in Lome with doctors in attendance.

TANKERS:

Societe Togolaise de Stockage Lome:

Max. Size: LOA – 250 m.
Dirty Ballast: Capacity 4,000 tons. Discharge rate 800 t.p.h.
Fresh Water: Available, 30 t.p.h.
Shore Gangway: Available.
Current: None.
Tidal Range: 0.90 m. – 1.50 m.
Nature of bottom: Sand.

Restrictions: Berthing and unberthing at any stage of the tide. Berthing during daylight hours only, unberthing anytime.

Cargo facilities:

Grades handled	*Pipe-line Reference*	*Length (m.)*	*Load/ D'charge Rate t.p.h.*	*Max. Pressure*	*Hoses No.*	*Hoses Size (in.)*
Ballast		1200			1	6
Crude Oil	Brown	4200	1100	7/9 kg/ cu.m.	1	8
Fuel Oil	Black-Brown	4200	1000		1	8
Kerosene	Yellow-Ash	4200	600		1	8
Benzene	Blue-Yellow	4200	800		1	8
Diesel Oil	Yellow-Orange	4200	900		1	8

DENSITY: Density 1025. Harbour open to sea.

FRESH WATER: Available at every berth except tanker Sealine. Delivery rate 30 t.p.h. Fresh water examined monthly for purity by Sanitary Authority.

FUEL: Diesel/gasoil is available in small quantities. There are 2 bunker spots on the pier. Tank-lorries can supply bunkers at any berth.

FIRE PRECAUTIONS: No extraordinary precautions are required. Vessels with hazardous cargo should declare this on ETA telegram to Agent. During time in port these vessels should take necessary precautions themselves, and all fire hoses should be ready rigged on deck. By day international code signal "B" should be displayed and by night a red light should be shown at masthead or at an all-round visible place. Ships with dangerous cargo have to engage a watchman.

Smoking on berths and within sheds *strictly* prohibited. Infringements of fire regulations punishable by fine.

CONSULS: Ambassadors or Consuls from nearly all major maritime nations at Lome.

REPAIRS: Minor repairs only carried out by local workshops.

DRY DOCKS: Private slipway with 400 tons.

GANGWAY/DECK WATCHMEN: Gangway watchmen and hatch security watchmen available; they wear a distinctive uniform. Also see "Fire Precautions".

OPENING/CLOSING HATCHES: Either ship's crew or dock workers.

CERTIFICATES: All normal ship certificates should be available for inspection.

CUSTOMS ALLOWANCES: Because Togo-Port is a Free Port, no individual declaration by Crew members necessary.

CARGO GEAR: The port has no shore cranes. Ships have to use their own cargo gear. Only mobile cranes for cargo handling on the pier are available.

AIRPORT: Lome International Airport with flights most days to Europe.

TIME: GMT throughout year.

HOLIDAYS:

1st January	New Year's Day
13th January	National Holiday
24th January	Economic Liberation Day
24th April	Victory Day
27th April	Independence Day
1st May	International Labour Day
*	Ascension Day
21st June	Patriots of Pya
15th August	Assumption
23rd September	Agression Day
1st November	All Saints' Day
**	Ramadan Day
**	Tabaski (Islamic Holiday)
25th December	Christmas Day

*Date given by Christian calendar
**Date given by Islamic calendar

All other holidays will be worked in port with supplementary labour charges.

POLICE/AMBULANCE/FIRE: A telephone to contact Police, Fire service and Hospital is available day and night at the Pilot Station or on VHF Channel 16. The port is provided with an ambulance car as well as with a fire engine. Services have to be requested at the control tower of the Pilot Station.

TELEPHONES: 3 public telephones within the port limits. No telephones on board.

SERVICES: No tank cleaning or compass adjusting available.

IDENTIFICATION CARDS: Shore landing passes issued by port police on exchange of crew I.D. cards at the port gate.

DELAYS: Ships berth in rotation of arrival at anchorage. Priority given to passenger ships as well as to vessels having less than 50 tons of cargo for discharge.

GENERAL: *Port and Lome Town:* The Port Autonome de Lome is the only harbour of the Republic of Togo. There is a bulk phosphate jetty at Kpeme (position 06° 12' N., and 01° 31' E.).

Lome is the capital of the country and has 1,000,000 inhabitants. The port is situated about 5 km. East of the city. Taxis are available at the entrance of the port.

All shipping agencies and 2 banks maintain offices within the port premises.

On ship's request, a ship chandler comes onboard in order to provide fresh food and bonded stores.

Currency: The money in circulation is the Franc CFA. (100 CFA = 1 NF).

Seamen's Club: A modern seaman's club with swimming pool, video-room, library, hotel and bar is situated 0.6 km. away from the main gate of the port, and is at ship's crews disposal.

SHIPMASTER'S REPORT: July 1978 (Updated 1990).

Documents: A mooring boat is available to Agents for the collection of documents on the Roads given prior notice.

Max. Size: Berth No. 1, depth 7.5 m. Berth No. 2, depth 10.5 m. Berth No. 3, depth 9.5 m. Berth No. 4, depth 9.5 m. Berth No. 5, depth 11.5 m. Berth No. 6, depth 12.0 m.

Allowance is made for swell hence the max. draft at No. 6 is 39 ft.

Health: Free Pratique can be obtained from the roads if all documents are sent to Agents concerned with directions for distribution.

Radio: Lome Radio has been out of commision since May, 1978, and may continue thus until further notice unless spares are obtainable from France.

Tugs: There is an additional tug 3,000 h.p., 42 ton bollard pull, fully equipped for fire and salvage. The smaller tug of 17 tons bollard pull, is also equipped for fire-fighting.

Tankers: Berth No. 6 on Western side of East Mole with a depth of 13.5 m. and max. draft allowed of 39 ft.

Fuel: Gas Oil available ex-road tankers at all berths but full range of fuels to be provided at new tanker berth (No. 6) by August, 1978.

Cargo Gear: While no fixed cranes are available, there is a range of mobile cranes 5×10 tonnes, 1×25 tonnes, 1×45 tonnes and a container tower crane of 70 tonnes. All capacities are reduced by reach and angle while freeboard may limit use still further. A grain hopper and vacuvator gear are in use.

Airport: Flights are frequent, mainly indirect, to and from Europe, with 1 weekly direct to New York.

Consuls: At present there is no British representation in Togo but Consulate may be re-established. Accra is 3/4 hours drive from Lome

Seaman's Club: A large accommodation block offering various room and flatlets is part of the compound. Seamen have priority and at reduce rates. The Home is in the charge of a German pastor and under Germa control and has a VHF set for communication with vessels in the Road It is open to non-seafarers.

Hotels: A wide range of hotels are available including luxury type caterin for the expanding tourist traffic which takes advantage of the uniqu climate for this part of the Gulf of Benin.

Fresh Provisions: Wide choice and good quality but not cheap. It i advisable to have samples brought onboard before ordering.

Delays: While there is no registration as such, certain vessels on regula trade, plus those with cargoes qualified as important, do get priority an all are subject to the daily (except Sunday) Port Captain's Meeting a which all elements are represented. The results are not available unt 1300 hrs. after which most Agencies communicate by VHF to the vessels in the Roads. Container ships and Ro/Ro ships have a priorit

Working Hours: Gangs work 0600 – 1400 hrs.; 1400 – 2200 hrs. an 2200 – 0600 hrs. daily except, there is no 2200 – 0600 hrs. shift o Sunday nights. Each has a half hour break after 4 hours working.

Surveyors: The Port Captain and Senior Pilot, represents Germanische Lloyd. There is no Lloyd's representative.

General: Lome is the entry port for Niger and Upper Volta as well a Western Ghana so the road and rail traffic is considerable. The borde with Ghana is on the Western side of Lome City. A re-entry visa i necessary when proceeding to Accra and takes 1 or 2 days to proces The Ghana Border Police can issue 1 day Visitors' passes.

AUTHORITY: Port Autonome de Lome. B.P. 1225, Lome, Togo *Tel:* (228) 274742, 273391, 273392. *Telex:* 5243 TGPORT TG *Cables:* Togoport. *FAX:* (228) 272627, 270248. *Contact:* Te P. Ahodikpe, Harbour Master. Agbeyome M. Kodjo, General Manager.

AGENT: Societe Togolaise de Consignation Maritime (STCM), Rue d Commerce, B.P.821, Lome, Togo. Tel: 275878. Telex: 5114 STCM TG Fax: 275621.

NOTES

Please also advise Shipping Guides Ltd.

Tonga (Friendly Islands)

NUKU'ALOFA: 21.08 S. 175.12 W. (See Plan)

DOCUMENTS:
Immigration:
2 Crew Lists.
2 Passenger Lists.
Customs:
2 Crew Lists.
2 Passenger Lists.
1 Bond List.
3 Cargo Manifests.
Quarantine:
1 Crew List.
1 Crew Effects List.
Agents:
1 Crew List.
1 Passenger List.
3 Cargo Manifests.

PILOTAGE: Order through Agents at least 24 hours prior to arrival. Pilot boat may be contacted on R/T 1 hour before arrival at Pilot Station. This position is indicated on B.A. Chart (Approaches to Nuku'alofa). There are 2 approaches, namely the Ava Lahi Passage and the Piha Passage. Vessels using Piha Passage are limited to a length of 100 m.

Vessels may anchor in the vicinity of Buoy No. 1 if required to await Pilot, but this is not normally necessary as the Pilot is available as requested. Pilot boat carries usual signals.

ANCHORAGES: Vessels may anchor wherever they wish within the port, subject to the approval of the Secretary for Marine and Ports.

MAX. SIZE: Length unlimited, beam unlimited, draft 40 ft.

HEALTH: Radio Pratique may be requested from "Tongamed", Nuku'alofa. Any suspected disease or fever must be reported by radio.

TUGS: Tugs available after October 1994.

BERTHING: Queen Salote Wharf, Berths No. 1 and 2 are the only international berths in Nuku'alofa. Berth No. 1 length 93 m. and Berth No. 2 length 110 m.

STEVEDORES: There is a Master Porter employed by the Queen Salote Wharf Administration, who will supply whatever gangs are required. The number of hatches to be worked and the tonnage of cargo must be passed by the Agent to the Secretary for Marine and Ports at least 24 hours before vessel arrives.

MEDICAL: It is advisable to inform Agent in advance should medical attention be required. Hospital facilities are available. Vaccination Certificates are required for visitors who are staying. Ship's crew do not require them generally.

DENSITY: 1025 at all states of tide.

FRESH WATER: Available Queen Salote Wharf at 25 t.p.h.

FUEL: A small quantity of light diesel fuel could be supplied, sufficient to enable a vessel to make the port of Suva.

CONSULS:
Embassies and High Commissions:
Australia
China
New Zealand
United Kingdom
Consulates:
France
Germany
Korea
Nauru
Spain
Sweden

REPAIRS: Minor repairs can be carried out in the marine workshop.

GANGWAY/DECK WATCHMEN: Not necessary as entry to wharf is restricted.

OPENING/CLOSING HATCHES: This work is completely optional.

CERTIFICATES: Normal requirements. The Secretary for Marine and Ports may require to inspect cargo gear record.

CUSTOMS ALLOWANCES: A reasonable quantity is allowed by Customs according to expected stay in port. There are heavy penalties for smuggling.

CARGO GEAR: Valid certificates issued by competent authorities are recognised.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: 25 km. from town. Flights to and from Suva (Fiji) Tuesdays, Wednesdays, Thursdays and Saturdays. Flights to and from New Zealand Tuesdays and Saturdays. Flights to Apia (Western Samoa) Wednesdays and Fridays. Flights to Hawaii Mondays, Tuesdays and Thursdays.

TIME: The local time is 13 hours fast on GMT.

HOLIDAYS: *No work of any description is permitted on the Sabbath. This is strictly enforced.* Public Holidays are: New Years Day; Good Friday; Easter Monday; Anzac Day; Crown Prince's Birthday; Emancipation Day; His Majesty Birthday and Coronation; Constitution Day, His Majesty's Tupou I's Birthday; Christmas Day; Boxing Day.

POLICE/AMBULANCE/FIRE: In an emergency dial 911.

IDENTIFICATION CARDS: Not necessary.

GARBAGE DISPOSAL: The Quarantine Department is responsible for collecting garbage in plastic bags which are then incinerated at the wharf. Charge is T$ 40.00 per vessel more than 25 m. in length. Contact Tel: 24257.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Tongan Pa'anga (T$).

OTHER PORTS: Pangai, Ha'apai Group; Neiafu, Vava'u Group; both these ports are suitable for any size of vessel at anchor. Service is by lighter. Vessels of 400 ft. in length with a max. draft of 22 ft. may berth at Neiafu.

AUTHORITY: Ministry of Marine and Ports, P.O.Box 144, Nuku'alofa, Tonga. *Tel:* 23-168, 23-166, 22-555. *FAX:* 23-733. *Contact:* Captain S.T. Fotu, Secretary for Marine and Ports.

NOTES

Please also advise Shipping Guides Ltd.

Trinidad

BRIGHTON: 10.15 N. 61.38 W.

The port was temporarily closed in 1992 until further notice, and all conditions are under review.
AUTHORITY: Lake Asphalt of Trinidad & Tobago (1978) Ltd., Brighton, La Brea, Trinidad, W.I. *Tel:* (809) 648-7555/6. *FAX:* (809) 648-7433. *Contact:* General Manager.

CHAGUARAMAS: 10.40 N. 61.39 W. (See Plan)

DOCUMENTS: See "Port of Spain".
PILOTAGE: Compulsory. Pilots board in Chaguaramas Bay, Lat. 10° 46' N., Long. 61° 43' W. Minimum ETA of 8 hours. Call Pilot's Office (809) 625-1144 or (809) 625-2376. Contact Pilot on VHF Channel 16.
ANCHORAGES: Call Pilot to receive information about anchorage in Chaguaramas Bay. Average tide 2 ft. Maximum tide 1.3 m.
RESTRICTIONS: No restrictions on night operations.
MAX. SIZE: West Wharf: Max. draft 34 ft. 6 in.
North Wharf: Max. draft 25 ft.
RADIO/VHF: Chaguaramas Terminals monitor Channels 9, 12, 16 and 68. Call sign "Chag Terms". For Pilot use Channel 16.
TUGS: Not normally used by Pilot. Tugs can be made available upon request.
BERTHING: West Wharf: 900 ft. long, depth 34.5 ft.
North Wharf: 400 ft. long, depth 25 ft.
CRANES: As requested.
BULK CARGO FACILITIES: On request.
STEVEDORES: Provided. Minimum notice of 18 hours is required. 24 hour loading and unloading. Load and discharge rates are negotiable. ETA should include particulars of cargo, showing heavy lifts, dangerous or hazardous cargoes, hatch stowage and gang required.
MEDICAL: Small sick bay on site. Hospital and dental facilities within half an hour's drive. For any further medical information see "Port of Spain".
DENSITY: Salinity is 15 – 25 parts per thousand.
FRESH WATER: By hose at 75 t.p.h. maximum.
FUEL: Minimum notice of 24 hours for fuel.
CONSULS: In Port of Spain:

Austria
Brazil
Canada
China
Colombia
Costa Rica
Denmark
Dominican Republic
El Salvador
Finland
France
Germany
Great Britain
Guyana
India
Italy
Jamaica
Japan
Mexico
Netherlands
New Zealand
Nigeria
Norway
Peru
Portugal
Senegal
South Korea
Spain
Sweden
Switzerland
Syria
Turkey
United States of America
Uruguay
Venezuela

REPAIRS: Wet docking supported by a well equipped machine shop.
SURVEYORS: Cargo Inspectors:
E.W.Saybolt & Co. Tel: 658-4814.
Superintendents Co. Tel: 625-4116.
Surveyors:
American Bureau
Bureau Veritas
Germanischer Lloyd
Lloyd's Register of Shipping. Tel: 623-2536.
Norske Veritas.
GANGWAY/DECK WATCHMEN: Customs guards on duty at ship's side.
CUSTOMS ALLOWANCES: 200 cigarettes and a moderate amount of spirits.
CARGO GEAR: Equipment provided upon request.
REPATRIATION: Can be arranged through Immigration Office at Port of Spain.
AIRPORT: Piarco International Airport is served by several major airlines on a daily basis, distance to Airport 15 km.
TIME: GMT minus 4 hours. There is no daylight savings time in Trinidad.
HOLIDAYS: Cargo can be performed on official holidays with sufficient notice.
Official Holidays: New Year's Day (1st January); Carnival Monday (February-March); Carnival Tuesday (February-March); Good Friday (March-April); Easter Monday (March-April); Whit Monday (May-June); Labour Day (16th June); Emancipation Day (1st August); Eid al-Fitr (varies); Independence Day (31st August); Republic Day (24th September); Dawali (varies); Christmas Day (25th December); Boxing Day (26th December).
POLICE/AMBULANCE/FIRE: Carenage Police Station, Tel: (809) 637-3123; Ambulance Service, Tel: 990; Carenage Fire Station, Tel: (809) 634-4344 or 634-4231.
EMERGENCY CO-ORDINATION CENTRE: Trinidad and Tobago Coast Guard – Staubles Bay, Maritime Emergency, Tel: 634-4440. Regular Tel: 625-4939.
TELEPHONES: Available, depending on berth location.
BANKS:
Bank of Commerce Trinidad & Tobago, 72 Independence Square, Por of Spain, Tel: 627-9325.
Bank of Nova Scotia, Park & Richmond Streets, Port of Spain. Tel: 625-3566.
Citibank, 74 Independence Square, Port of Spain. Tel: 625-1046/9.
National Commercial Bank of Trinidad and Tobago, 60 Independence Square, Port of Spain. Tel: 625-2893.
Republic Bank, 59 Independence Square, Port of Spain. Te 625-4412.
Royal Bank, 3B Chancery Lane, Port of Spain. Tel: 623-4291.
STORING: Can be done by truck or launch. Trucks can go alongside the berths. Forklifts can be used on the jetty. Call on site Customs Officer for information about regulations.
SHIP SUPPLY SERVICE: Chaguaramas Terminals Ltd. Tel: (809) 634-4279 or (809) 634-4223. Fax: (809) 625-4083. They will supply ships anchored in Chaguaramas Bay.
SHORE LEAVE: Normally no restrictions, but shore leave is always a the discretion of Immigration (Tel: (809) 623-8147).
IDENTIFICATION CARDS: Seaman's Book is sufficient.
GARBAGE DISPOSAL: Service is available as requested.
SEAMAN'S CLUBS: The Mariners' Club, Wrightson Road, Port of Spain. Tel: (809) 625-4826 or (809) 627-4873. Most services available.
CURRENCY: Trinidad and Tobago Dollar (TT$).
REGULATIONS: Chaguaramas Terminals is a private port which has limitations on the cargo it can handle.
AUTHORITY: Chaguaramas Terminals Ltd., Chag Terminals Drive, Point Gourde, Trinidad. Mailing address: Chaguaramas Terminals Ltd., P.O.Box 608, Port of Spain, Trinidad. *Tel:* (809) 634-4384/4385, 627-5680. *FAX:* (809) 625-4083. *Contact:* General Manager.

CRONSTADT ISLAND: 10.39 N. 61.38 W. (See Plan)

Terminal owned and operated by Baroid Trinidad Services Ltd. handling bulk barytes and general oilfield supplies.

Vessels from abroad calling at Cronstadt are required to proceed firs to Chaguaramas Bay for clearance formalities.
DOCUMENTS/HEALTH/CONSULS, etc.: Refer to "Port of Spain".
PILOTAGE: Compulsory.
RESTRICTIONS: Berthing/unberthing in daylight only.
MAX. SIZE: 350 ft. length. This size vessel would overhang whar approx. 80 ft. fore and aft. Depth alongside 13.7 m. Longer vessels ca be accommodated with special clearance.
RADIO: North Post Radio Station, call sign "9YL".
VHF: Channel 16.
TUGS: One tug used for berthing if required.
BERTHING: Vessel moored with 2 springs, 3 head and 3 stern lines t dock. Discharging carried out with 80 ton shore crane with 3/4 cu.yd clam shell bucket with capacity for bulk ore.
FRESH WATER: Available by barge.
FUEL: Available by barge.
GARBAGE DISPOSAL: No service available.
WASTE OIL DISPOSAL: No service available.
SEAMAN'S CLUBS: None.
CURRENCY: Trinidad and Tobago Dollar (TT$).
AUTHORITY: Baroid Trinidad Services Ltd., 59 Sackville Stree P.O.Box 765, Port-of-Spain, Trinidad. *Tel:* (809) 625-1691/2/3, 62 2584. *FAX:* (809) 627-5193. *Cables:* Baroid Trinidad. *Contact:* C. Fulle General Manager.

CROWN POINT, Tobago: 11.09 N. 60.51 W. (See Pla

SHIPMASTER'S REPORT: December 1989.

BERTH: National Petroleum Buoy.
CHART: B.A. Chart No. 505.
APPROACHES: Crown Point Lt. and the airport lights make the ar easily identifiable at night.

Crown Point Light structure is conspicuous and the hotels at Milfo Bay are identifiable.

As vessel approaches Tobago she should beware of the stro W.N.W. set. The current sets to the North West past Sandy Point a the sea mooring. The approach to Sandy Point is made from the No on a South-Easterly course. When Sandy Point is abeam to port, a distance of 0.5 miles, alter course to about 150° to close mooring bu

The buoy should be passed close on the port side on a heading 150°. When the vessel is about two thirds of the ship's length past t mooring buoy and Crown Point Lt. bears 080° (0.1 miles – 0.13 mi off the shore) drop the port anchor.

The position of the buoy is Lat. 11° 08.75' N., Long. 60° 50.95' W
ANCHORAGE: If waiting for the boatman, or weather to moderate, g anchorage can be obtained in Milford Bay or Great Courland Bay. Cr ships and a few local fishermen may be encountered in this area.
SHOALS: There is a reef to the South of Crown Point Lt. with a de of 8 m. at Low Water, which shoals rapidly to 2 cables off Crown Po Vessels should take great care when departing from the mooring.
RADIO: At the time of arrival National Petroleum's Radio Station i not manned.

MOORING: The boatman has a 'Piroghue', which is a local type boat with a cabin. He comes from the hotel at Pidgeon Point and first appears about 0600 hrs. This is the best time to arrive as it is generally calm at this time.

The vessel backs down to the buoy with the aid of the thruster and sends 2 good stern lines from either quarter with mooring shackles.

When correctly moored, Crown Point Lt. bears 105° and the ship's head is 150°. In this position the vessel is about 250 m. from the shore and will have 3-4 shackles out on the port anchor.

When moored the depth at the mooring is 14 m. at Low Water.

CARGO OPERATIONS: No hose connections are made during the night time, although pumping at night often takes place.

The ship's floating hose of about 320 m. is towed ashore by the boatman to a hut on the beach below Crown Point Lt. structure. A snap connection is used. The pumping rate is about 300 bbls./hr. The capacity of the shore tanks is 1,800 bbls. (200 tonnes in 2 tanks). Gas oil, Aviation Jet Fuel and Motor Fuel are also handled. The ship's Motorola radio was landed ashore to assist with communications during pumping. The "Drogher" Customs Book was landed with the boatman and National Petroleum had entry made at the airport. There is no shore cargo paperwork.

The shore tanks are topped up about every 3 weeks.

AIRPORT: There are local flights between Tobago and Port-of-Spain every 2 hours from 0615 hrs.

International flights are expected to commence in the near future with wide-bodied aircraft, now that the runway has been lengthened.

It is possible to fly from Crown Point Airport to Port-of-Spain at a cost of Trinidad $100, but one often has to wait during the busy periods which are Sunday afternoons and holidays.

WEATHER: There is generally an off-shore wind blowing, which rises to a fresh breeze around midday.

There is generally an off-shore swell which at times can be quite large but it decreases as the vessel gets closer to the shore.

Squalls are often experienced, especially during the rainy season. Sometimes these squalls can be quite violent and dramatic wind changes may occur. They are usually of a short duration and if about to moor or unmoor it is best to wait until they pass.

GENERAL: The boatman will run crew members ashore and collect them at an appointed time.

As large aircraft may be using the airport in the near future, National Petroleum are under pressure to move the mooring buoy 50 m. South from its present position.

GALEOTA POINT: 10.05 N. 61.01 W. (See Plan)

LOCATION: Galeota Single Buoy Mooring Terminal is located 2.6 miles on a bearing of 208° from Galeota Point Lighthouse, and is an open unsheltered roadstead. Galeota Point is a narrow headland about 210 ft. high and located in Lat. 10° 08' 00" N., Long. 60° 59' 30" W. The lighthouse, mounted on a lattice steel tower located in Lat. 10° 08' 32" N., Long. 60° 59' 40" W., exhibits a light 87 m. above sea level which flashes white every 5 secs. and is visible for 22 miles. The buoy itself exhibits a quick flashing, (1 flash per sec.), red light, 10 ft. high, and visible for 4 miles through 360°.

DOCUMENTS:
Health Declaration (International Health Form to be filled out by Master on arrival).
Derat or Exemption Certificate.
Crew List (4).
Crew Customs Declaration (2).
Register.
Stores List (2) (Signed by Master).
Passenger Manifest (2) (If any passengers are aboard).
Bonded Stores List.
Clearance from last Port.
Manifest (if no cargo, a statement that vessel is in ballast).

ESSENTIAL REQUIREMENTS: MOST ESSENTIAL REQUIREMENTS TO BE MET BY TANKERS LIFTING OIL AT GALEOTA TERMINAL.

1. *Disposal of Ballast:* No dirty ballast will be pumped overboard. A separate ballast disposal line (16 in.) is available at the Terminal to pump ballast to a pit onshore where oil and water can be separated and disposal made.
2. *Notice of Arrival:* Incoming tankers must send ETA via commercial radio at least 72 hours before arrival at Galeota. Local time is GMT minus 4 hours and daylight saving (Summer Time) is not applicable.
3. *Arrival:* Company Loading Master and a Government Pilot if requested by the Tanker's Master will contact all incoming tankers about 3 to 4 miles from Galeota Point on a bearing of 220°/230° from the lighthouse, and will advise the ship's personnel on mooring and unmooring. If the buoy is occupied, or if arriving at night, vessels should anchor at least 1 mile S.W. of the buoy.
4. *Tankers to Have Ready:* (a) 2 nylon or manila messenger lines of not less than 6 in. circumference and at least 300 ft. long, placed at the bow. (b) at ship's manifold there must be equipment capable of lifting the floating hoses. Weight of hose is about 3 tons.
5. *Crew Duties:* The tanker's crew will raise, rig, and operate vessel's derrick and winch for the hoisting of the floating hose. The Terminal crew will connect and disconnect loading hoses.
6. *Tanker's Valves:* Tanker's valves must not be closed against incoming oil stream. At least 1 minute is required to shut down pumps and stop flow of oil from the Terminal storage.
7. *Communication-Emergency:* If ship-to-shore communications fail, a line launch is always alongside and has radio contact with the Terminal Control Centre.
8. *Responsibility:* The Tanker's Master is responsible at all times for the safety of all ship's operations. Galeota Terminal rules and regulations do not contravene International Safety rules such as SOLAS (Safety of Life at Sea) or other maritime regulations such as those of appropriate classification societies. In case of any conflict, the latter shall apply.

APPROACHES:
Port Limits: Approaching vessels should never anchor to the East or N.E. of Galeota Point. A submarine pipeline from a platform in Lat. 10° 10' 24" N., Long. 60° 39' 56" W., enters the Galeota Point area about 0.5 miles Northward of the lighthouse. Vessels should approach from the South-westward and never anchor less than 1 mile from the SBM or between the buoy and the coastline.

Navigational Aids: Galeota Point Lighthouse is located in Lat. 10° 08' N., Long. 60° 59' 30" W., and exhibits a white flashing light every 5 secs. and is visible for 16 miles. The lighthouse is unattended and frequently does not operate. The SBM exhibits a quick flashing red light every second, and is located in Lat. 10° 05' 47" N., Long. 61° 00' 45" W.

Landmarks: Galeota Point appears as an island when approaching from seaward, since it is connected to the island of Trinidad by lower land. Situated on this lower land about 0.5 miles Northward of the lighthouse is the tank farm and processing area.

There are 5 oil storage tanks and they are painted a grey colour.

A small boat harbour is located 0.5 miles due West of the lighthouse in Guayaguayare Bay. The sheet piling type jetty extends seawards, on a bearing of 245°, 1,900 ft. from a point at Lat. 10° 08' 14" N., Long. 61° 00' 00" W. The seaward 300 ft. of this jetty has a controlling draft of 13 ft. at extreme LW.

Vessels approaching from a North through East direction will observe lighted drilling platforms with following locations:

1. Teak "A"	Lat. 10° 10' 24" N., Long. 60° 39' 56" W.
2. Teak "B"	Lat. 10° 11' 41" N., Long. 60° 39' 55" W.
3. Teak "C"	Lat. 10° 10' 29" N., Long. 60° 40' 36" W.
4. Teak "D"	Lat. 10° 02' 12" N., Long. 60° 38' 54" W.
5. Teak "E"	Lat. 10° 10' 26" N., Long. 60° 39' 55" W.
6. Samaan "A"	Lat. 10° 20' 30" N., Long. 60° 40' 47" W.
7. Samaan "B"	Lat. 10° 19' 46" N., Long. 60° 41' 04" W.
8. Samaan "C"	Lat. 10° 19' 47" N., Long. 60° 41' 35" W.
9. Poui "A"	Lat. 10° 06' 35" N., Long. 60° 49' 47" W.
10. Poui "B"	Lat. 10° 06' 55" N., Long. 60° 49' 02" W.
11. Tesoro "A"	Lat. 10° 11' 05" N., Long. 60° 54' 59" W.
12. Cassia	Lat. 09° 55' 00" N., Long. 60° 31' 53" W.
13. Mora	Lat. 10° 10' 49" N., Long. 60° 51' 32.8" W.
14. Immortelle	Lat. 09° 59' 08.3" N., Long. 60° 29' 10.3" W.
15. Flamboyant	Lat. 10° 02' 23.7" N., Long. 60° 24' 46.5" W.

Vessels should exercise caution and keep well clear of these platforms because of unlighted buoys, small boat operations, submarine pipelines, and anchored test barges nearby.

As a safety measure, all vessels proceeding Southbound to Galeota or Northbound from Galeota must pass Southwards of "Poui A", East of "Teak D" and "Samaan A" platforms.

The lighthouse 4 miles to the Southwestward of Manzanilla Point situated on Brigand Hill (Lat. 10° 29.4' N., Long. 60° 51' 32.8" W.) is an excellent landmark for vessels approaching from the Northward. The lighthouse is elevated 712 ft. and exhibits a group flashing (3) white light every 30 secs. and visible for 20 miles.

PILOTAGE: Vessels arriving should approach to within 3 to 4 miles of Galeota Lighthouse on a bearing of 220°/230° and will be met by the Amoco Loading Master and a Trinidad and Tobago Pilot (if requested through vessel's Agent). The Pilot will be stationed on the bridge and will advise the vessel on the approach to the buoy. The Amoco Representative will be positioned in a most advantageous position and will advise the ship's crew on picking up and making fast the floating nylon mooring lines.

Vessels are requested to make a proper lee and to have a pilot ladder safely and securely rigged, ready for immediate use, and long enough to reach the Loading Master's launch. At night, adequate lighting must be rigged overside for the Loading Master to approach the side of the ship and climb the ladder safely.

Raising, connecting, disconnecting and lowering of floating hoses will be performed by the Terminal's crew with the assistance of the ship's crew as advised by the Amoco Loading Master, who will remain on board while the ship is secured to the buoy. The Loading Master will be in direct charge of the portable VHF ship-to-shore radiotelephone communications.

All vessels are required to provide meals and suitable accommodation for the Loading Master and his crew, who will remain onboard from berthing to unberthing at the Mono-Buoy.

If, in the opinion of the Loading Master, the vessel is not equipped with adequate mooring or hose lifting facilities, he will so inform the vessel's Master, and in such event the vessel shall not be brought into the moorings until facilities, lines, or gear are deemed satisfactory.

RESTRICTIONS: The Terminal operates 24 hours per day, 7 days a week. Ships are loaded and unmoored at any hour, weather and other circumstances permitting. Vessels are moored during daylight hours only, however an exception to this rule may be made at the discretion of the Terminal. The Terminal will never be closed due to holidays.

MAX. SIZE: 250,000 d.w.t. Depth of water 95 ft.

RADIO: *Long Range and Radio Communications:* Ships may send their cable(s) to the Amoco office through the commercial station, "North Post Radio/9YL", which is about 10 miles N.W. of Port of Spain. Upon receipt of such cable(s) North Post will immediately relay it to Amoco's office through their Telex system. Messages pertaining to oil liftings should be addressed to AMOCOTRI, Trinidad. If it is necessary to send messages through vessels' Agents or Owners via International Telex Service, then they may be sent to Amoco by using the Telex address "WG 287" (Amoco – Port of Spain).

Cable or Telex messages addressed to Galeota Terminal would undergo the same procedures, but upon receipt in Amoco's radio office in Port of Spain, they will immediately be relayed to Galeota Point by HF/SSB radio teletype channel.

Cables from Galeota Terminal to the ships would be given to Amoco, Port of Spain radio office on the SSB, which will be telephoned to North Post Radio Station.

The coast radio station transmits traffic lists at regular intervals listing the call signs of all ships for which they have traffic on hand. At the end of their traffic lists, the coast radio station starts searching for answers on the frequency bands listed below. Thus, any vessel hearing its call sign in the traffic list, will immediately start calling the coast station on its own working frequency in the same band on which the traffic list has been heard. The searching coast station radio operator would eventually pick up the signals from the calling ship and would pass her his traffic.

Listed below is information on "North Post Radio Station" – 9YL:

Station	*Call Sign*	*Frequency*	*Hours*
North	9YL	(HF) 17184 kHz	1200 hrs. – 1530 hrs. (GMT)
Post		(HF) 12885 kHz	1330 hrs. – 2050 hrs. (GMT)
Radio		(HF) 8710 kHz	0100/0600/0900/1300 1500/1730 & 2130 hrs. (GMT)
		(HF) 6470 kHz	2300 hrs.
		(MF) 476 kHz	0300 hrs. and every 4 hours thereafter.

Medium Short Distances: Ships may contact Galeota Terminal within 3 days before arrival on the marine HF frequencies. Galeota Point listens on 2182 kHz and operates with Amoco's marine units on VHF Channel 8.

Ships equipped with FM/VHF radios may call Galeota Point on Channel 16 and/or Channel 8.

Advice of Arrival: It is important that ships establish radio contact with Amoco when 3 days distant from Terminal and maintain this contact until just prior to arrival at the Terminal. All ships should send a 72 hours ETA message to Amoco giving the best estimates of ship's arrival time at the Terminal. This ETA message should also include a definite statement of the details of any equipment required from shore for connecting submarine hoses to ship's manifold. Further ETA messages should be sent to Amoco when the vessel is 24 hours and 12 hours distant from Galeota Point and at any other time any appreciable change occurs in the original ETA or those subsequent thereto. The 12 hours ETA should include a positive statement regarding ship's Readiness to Load on arrival, and the number of hours that will be required to discharge ballast after the ship is berthed in mooring (See "Ballast").

Ship-to-Shore Communication: Ship-to-shore communication, while ships are in moorings, will be by portable VHF radiotelephone units. The Loading Master will advise Masters and Officers regarding the emergency whistle signals set up for use in event VHF radiotelephone units become inoperative. The use of the ship's radio station and/or battery charging equipment is prohibited during cargo transfer operations.

Ship's Radio Stations: The use of ship's radio equipment while ship is on anchorage in Terminal waters is prohibited by law, unless transmission is made through the local commercial station.

BERTHING:

Single Buoy Mooring: Tankers are loaded by means of a 42 in. pipeline from shore to the SBM which is 2.6 miles offshore. The facility for receiving dirty ballast has been permanently terminated. The loading hoses from the buoy to the tanker consist of 2×20 in. floating hoses, 755 ft. and 790 ft. long ending in 3×12 in. hoses of 90 ft. length. Valves are fitted in the buoy connectors so that the flow in one 20 in. diameter floating hose string can be diverted to the 16 in. diameter underbuoy hose string.

The SBM is designed for maximum tanker size of 250,000 d.w.t. and is located in 95 ft. water depth. The buoy is 11 m. in diameter, 4.8 m. high, and equipped with a navigation light and radar reflector.There is a skirt at the bottom of about 15 m. in diameter.

Ship's Gear: Vessels calling at the Galeota Point must be equipped with 2 nylon messenger lines of a minimum 6 in. circumference and at least 300 ft. long. These lines should be laid out free for running at the bow of the vessel. Warping winch or windlass should be in good working order and adequate to handle 12 in. nylon floating rope under heavy strain. Efficient stoppers must be available to transfer floating nylon from winch to bitts.

Vessels must be equipped to fit flanges on floating hoses which are ASA standards.

Ships must be adequately equipped with blocks, tackle and booms to hoist the floating hoses, each weighing about 3 tons, from the sea surface over the ship's port rail to the manifold, in a safe, efficient and expeditious manner. Ships must also have an adequate supply of nuts, bolts, gaskets, and wrenches to connect cargo/deballast hoses.

Ship's Alertness: The Terminal is an open roadstead, therefore, during the time a ship is moored at the Terminal, the ship's engines and gear must be ready with full power for immediate use.

Vessel at the SBM must be able to clear and shall clear immediately upon advice of the Loading Master or as directed by Amoco's Terminal Superintendent.

Ship's personnel should be at their stations and alert at all times during mooring, unmooring and cargo transfer operations.

Mooring Launches: Amoco maintains launches to assist in mooring and unmooring vessels.

BALLAST: It is the Shipmaster's responsibility to see that no oil (crude, diesel, bunker C, or bilge) is pumped or spilled overboard from the ship. All vessels are required to arrive at Galeota with clean ballast only, which will be discharged overside.

All precautions shall be taken to prevent any loss of oil overboard; drip pans must be in place and used when disconnecting oil hoses from manifolds. The waters in and adjacent to the Galeota Terminal, and Amoco's offshore platforms must *never be polluted.*

As soon as practical after arrival, all vessel's tanks will be inspected. If during first inspection or during loading, it is revealed that ship's tanks are not oil-tight, tanker will be rejected and refused further loading. Ship will not be accepted later for loading unless satisfactory evidence, duly certified by Lloyd's, ABS Surveyors, or other authorised survey agency, of effective repair is submitted.

A vessel must have sufficient ballast for safe manoeuvring and usually one-third of its tonnage is adequate. However, by a careful watch of the weather information and berthing instructions and by a knowledge of the behaviour of his own vessel, a Master may desire to come to the Terminal with minimum ballast.

Shipmaster should be aware that at any time deballasting at sea occurs and has been reported or viewed by Amoco Trinidad Oil Company personnel, the offence will be documented, where possible, by Amoco personnel, and a report submitted to the proper Ministry of Trinidad and Tobago.

In addition to the lights usually displayed, vessels discharging ballast or loading cargo during darkness, will illuminate the area around the ship, to the satisfaction of the Loading Master, in order that any oil on the surface of the sea may be readily detected, and appropriate action taken. Vessels unable to illuminate the sea satisfactorily may not discharge ballast during darkness. Vessels should provide explosion proof flood lights for working on deck during night operations.

Loading and Deballasting Simultaneously: Vessels equipped with a separate system of ballast tanks will be allowed to discharge ballast and load oil simultaneously, providing approval is received from the Terminal Superintendent.

LOADING:

Rate of Loading: Maximum crude oil loading rate through 2×12 in. deck hoses is approximately 40,000 bbls.p.h. The flow is by pump and the line pressure will not exceed 100 p.s.i.

In order to save ship's time, it is requested that ballast water be pumped *as fast as possible* and that the tanker receives oil as fast as it can be delivered, both operations having due regard for safety. It is requested that any impediment (such as "Y's", strainers, or mud boxes) to the flow of oil be removed before arrival at the Terminal. Connections should be provided so that 12 in. ASA deck hoses may be used.

Berthing: Tenders to load crude oil cargo will normally be accepted and the berth will be assigned to vessels in order of arrival, provided vessels have nominations for cargo valid at the time and are in all respects equipped and ready to moor. In the event that the berthing is delayed on account of weather, vessels will keep their position in line. Vessels required to leave the port area on account of weather (port closed) should keep in contact with the Terminal via radio in order that they will be available when the weather moderates. Amoco reserves the right to load vessels "out of turn" following the return of good weather, to the extent that such loading "out of turn" does not materially delay the loading o other vessels in line. For example, in the event that weather makes i necessary for vessels awaiting berth to vacate the terminal and put t sea, Amoco may load another vessel which arrives first after the return of good weather, but before the return of the vessels waiting in line ahead of it. And further, Amoco reserves the right to decline to moor a specific vessel if its condition or facilities are unsafe for mooring o loading, even though the port may be open to other vessels.

Connecting Hoses: After the tanker is securely moored, the floating loading/deballasting hoses must be lifted to the rail with ship's equipmen The two 12 in. hose lifts weigh about 3 tons each. The flange connectio on each hose is for a 12 in. manifold. Hoses are lifted individually by th ship's gear and are connected on the port side. The 12 in. hoses a connected direct to the manifold and tankers should have their manifo fittings available.

The Loading Master and the hose crew will sling and connect th hoses to the vessel's manifold. The ship's personnel are expected t operate the winch and assist where necessary. A deck officer shou be present at all times.

Loading Readiness and Arrival Time: The Company will make eve effort to load vessels upon arrival or as promptly as berth is availab weather permitting.

Vessels are required to provided suitable accommodation for Loadi Master and crew while at the mooring.

Notice of Readiness will not be accepted as at time of arrival, unles the vessel is in all respects ready to load. Arrival time will be conside as the time the Loading Master boards the vessel or the time that vess anchors, whichever occurs first.

Responsibility: The vessel is responsible for the deballasting and loadi The Company Loading Master will advise the vessel in respect to loadi pressures and hazards, but will not direct the loading except as may b necessary to protect the terminal facilities. Manipulation of ship's valv is the direct responsibility of the ship's personnel.

All Masters will ensure that only clean ballast is discharged oversi Periodically, Masters may be requested to flush the floating hose st with sea water to facilitate loading hose replacement.

Oil Valve Control: Caution: The incoming oil stream is controlled onsho and it is extremely dangerous to close a ship's valve against the incom stream. Such a procedure creates excessive pressure, which m damage hose, ship's piping, or Terminal facilities. Vessels will be h responsible for damage resulting from failure to observe this precau

A reduction in loading rate before topping the final tank or tanks m be arranged through the Loading Master by the ship's officer in cha and a normal standby warning should be given about 15 minutes be the shut down of loading operations per normal tanker practice. advice from the ship a minimum of 1 minute is required to stop the f of crude oil.

Emergency Signal: A battery-operated emergency shut down signa expected to be installed in the near future.

Code Flag: During loading or deballasting the International Code F "B" shall be displayed from a topmost signal halyard during da hours. During hours of darkness, a red light shall be displayed. This l should be of a character such as to be visible at a distance of at l 1 mile, and show an unbroken light all round the horizon.

Shore Stops: Requests for the Terminal to stop the flow of cargo pre-determined tonnage will be made verbally to the Loading Ma and Amoco will not be responsible for any error, and in the cas overloading excess cargo will not be pumped back ashore.

Some delays are always incurred when such a shore stop requ made.

MEDICAL: Vessels requiring emergency medical assistance should immediately contact the Terminal, by marine VHF radio, and supply the necessary pertinent information which will be passed on to the vessel's Agent.

Neither medical or hospital facilities are available at Galeota or provided by Amoco. Limited facilities are available in Mayaro, which is about 30 minutes drive and unlimited service is available in Port of Spain which is 2 hour's drive.

FRESH WATER: Only available by barge from Port of Spain.

FUEL: Only available by barge from Port of Spain.

CONSULS: There are no consulates at Galeota; however, consular or diplomatic representatives for most nations maintain offices in Port of Spain.

REPAIRS: Masters of vessels loading or discharging at Galeota Terminal are advised that this port is considered an "Open Roadstead", and under no circumstances may engines be shut down for repairs while their ships are moored to the SBM system. There are no facilities at Galeota Terminal for making vessel repairs, but arrangements may be made through vessel's Agent, to utilise the Port of Spain facilities. It is emphasised that all vessels at the SBM must be in readiness to clear immediately on instructions to do so.

SURVEYORS: Amoco maintains an inspection laboratory at Galeota Terminal and will inspect cargo on specific request of off-tanker companies.

Classification agencies are represented in Port of Spain as follows:

American Bureau of Shipping
Grell and Company Ltd.,
60 St. Vincent Street,
Port of Spain
Lloyd's Register of Shipping
Geo. F. Huggins and Co. Ltd.,
72 – 74 South Quay
Port of Spain

CUSTOMS ALLOWANCES: Each Crew member is allowed to retain in his possession 200 cigarettes and 1 bottle of spirits. The balance must be listed and will be sealed in a locker by the Customs.

TIME: GMT minus 4 hours, and daylight saving (Summer time) is not applicable.

SHORE LEAVE: Disembarkation for personnel of vessels loading at the Terminal is arranged through the vessel's Agent. All personnel going ashore must land at the Amoco small boat harbour. Sufficient crew must be aboard at all times for letting go lines in order to clear the mooring immediately if necessary. Passenger launch services are not available.

WEATHER:

Climate: The climate around Trinidad is generally very good, and is strongly influenced by the N.E. trade winds. Visibility is usually excellent except during passing thunderstorms and the percentage of days with less than 1 mile visibility is very small.

Weather Data and Summary:

Average rainfall	60.0 in.
Mean maximum temperature	87°F
Mean minimum temperature	69°F
Extreme maximum temperature	101°F
Extreme minimum temperature	52°F
Average relative humidity (0700 hrs.)	92%
Average relative humidity (1500 hrs.)	67%

Winds: Winds are predominantly from the N.E. and East (about 90% of the time). The mean velocity is about 8 – 12 knots and infrequently 30 knot winds may be experienced.

Tides: A tidal range on the East coast of Trinidad is 4 ft. – 5 ft., and the tides occur 17 minutes later than Port of Spain.

Sea Conditions: As Trinidad is constantly under the influence of the N.E. trade winds, the seas and swells are predominantly from the Eastern quadrant throughout the year. Wave heights average about 6 ft. – 8 ft. and during a 2-year observation period waves of 11 ft. and higher occurred for as many as 20 days per year.

Currents flow to the N.W. 53%, North 24%, and N.N.W. 14% The currents are not seasonable as currents of 2 to 3 knots are experienced during all months of the year. Average current velocity is about 1.5 knots.

Sea Temperatures: The surface temperature over coastal areas average about 75°F to 80°F in the Winter months and 80°F to 85°F in Summer.

General: Trinidad is an area where buildings have been damaged by earthquakes and the S.W. tip has experienced mud volcanoes and disappearing islands. The rainy season occurs in late Summer and Autumn at which time as much as 15 in. per month may be experienced. Hurricanes are seldom felt in Trinidad and Tobago since these islands are to the South of the storm track.

SAFETY: The vessel's personnel are responsible for the safety of the vessel and must take all necessary precautions, whether or not so advised by the Loading Master, having in mind, the hazards of the operation because of the product being handled, weather conditions and any other circumstances requiring special care or caution.

It should be noted that Amoco Trinidad Oil Co. does not maintain any specialised fire-fighting vessel. However, workboats with limited fire-fighting capability may be available in event of such emergencies.

While the vessel is moored or within the vicinity of the moorings, all vessel's personnel and vessel's operations must comply or be in accord with the following safety rules:

1. The ship's engines must remain ready with full power for immediate use.
2. The Loading Master may request the Master to extend the ship's "No Smoking" areas as conditions warrant. Masters are also requested to instruct their crew not to throw lighted cigar or cigarette butts over the side or out of the portholes. All alleyway doors to passage ways leading to deck areas are to be kept closed during cargo transfer operations.
3. Not less than 1 deck officer and 3 seamen shall be available on deck at all times while vessel is in the mooring system.
4. Power must be available at all times on all deck winches and on the anchor windlass while vessel is in the mooring system.
5. Explosion proof deck lighting must be available for night mooring and loading. A good floodlight will be required to illuminate the area around the cargo hose connections during cargo transfer operations. During the discharge of ballast at night, the sea area around the vessel is to be adequately lighted.
6. All deck scuppers must be plugged tight before connecting the floating and deck hose and remain plugged until all hoses are disconnected.
7. The presence of unauthorised craft alongside is extremely hazardous. Ship's Masters are requested to require all non-Amoco craft to clear ship's side as soon as personnel have been embarked or disembarked.
8. No stores may be handled on the weather deck while ship is loading cargo, discharging dirty ballast, or while any ullage hatches, loading hose, or tank tops are open.
9. No cargo will be loaded while tank tops or ullage hatches are open.
10. During the time a vessel is moored in the Galeota Terminal, a continuous and efficient fire watch must be kept on deck and in the engine room. Fire hose (at least 2 pairs) shall be left out for immediate use at all times while in the berth.
11. In the event of fire breaking out in any part of the vessel, however minor it may be, the fire alarm must be given immediately. This will consist of a succession of long blasts on the ship's whistle, together with a rapid and continuous ringing on the ship's bell.
12. A safety check-off list and Terminal rules for safety will be delivered by the Loading Master.

GENERAL:

Government Officials: Trinidad and Tobago Customs Officials will be stationed at Galeota and in most instances the Customs Officer will also handle the duties of the Quarantine and Immigration Officers. Should Customs Guards be stationed on board vessels while in the moorings, it is expected that ships will provide food for these guards and other officials.

Quarantine Regulations: The rules governing quarantine of vessels are the same found in other ports of the world.

Visitors: Visitors must obtain a special pass from the Amoco Terminal Superintendent and it is strongly recommended they be restricted to a minimum due to the hazards involved.

Supplies: Commissary supplies, as well as steward's stores are not available at Galeota Point, but a limited amount of fresh fruits and vegetables may be purchased at the market in Mayaro, which is 30 minutes' drive from the shore terminal. Unlimited supplies may be purchased in Port of Spain and all arrangements must be made through the ship's Agent.

Bunkers, gas oil, marine lubricants or potable water are not available at Galeota.

Flag: All vessels are required to fly the Trinidad and Tobago ensign on the foremast during daylight hours. TT flags may be obtained from ship's Agent.

Contraband: Amoco prohibits unauthorised craft from coming alongside ships while in the moorings.

To avoid the possibility of undesirable items getting aboard vessels, it is recommended that Masters discourage "bumboats" or similar craft, coming alongside while vessel is in the Terminal vicinity.

Small Boat Harbour: A sheet piling type jetty is used for the harbouring of mooring launches and supply vessels. The entrance is defined, by a spar topped buoy exhibiting a quick flashing red light located 1,700 ft. Southwestward from the end of the jetty. Controlling draft is 12.5 ft. (LW) and 15.5 ft. (HW).

Company's Terminal: The Company's Terminal and marine administrative offices, storage tanks and laboratory for testing stock are located onshore at Galeota Terminal.

Agency: Amoco does not perform any vessel agency functions. Owners of vessels calling at Galeota Terminal must arrange for their own Agent.

OPERATOR: Amoco Trinidad Oil Company, P.O.Box 714, Port of Spain, Trinidad, Trinidad & Tobago. *Tel:* 622-7331. *Contact:* Captain Cyril Semple, Marine Officer.

POINT FORTIN: 10.12 N. 61.42 W. (See Plan)

DOCUMENTS/HEALTH/CONSULS, etc.: Refer to "Port of Spain".

PILOTAGE: Pilotage is compulsory. Pilots board 0.5 miles off main jetty (Lat. 10° 12' N., Long. 61° 42' W.).

ANCHORAGE: There is safe anchorage 0.5 miles off the head of the jetty.

MAX. SIZE: Jetty 2 miles long with "T" head providing two outer berths of 700 ft. length and a depth of 38 ft. 1 inner berth of 300 ft. length and a depth of 35 ft. and other inner berths of 300 ft. length with a depth of 15 ft. 6 in.

1 conventional buoy mooring (6-buoy mooring) of 850 ft. length and a depth of 53 ft. situated 4,819 ft. North off jetty head.

TUGS: Required for berthing at outer berths for vessels of 30,000 d.w.t. and over and for unberthing vessels with a draft of 36 ft. or deeper. Also required for berthing and unberthing at conventional buoy mooring. Launch assists in berthing and unberthing.

BERTHING: Bottom alongside, mud; back pressure (hose), 100 lb; Current, flood S.W., ebb N.E. 2 to 5 knots; rise and fall tide, 4 ft.

MEDICAL: All facilities available.

FRESH WATER: Not available at CBM.

FUEL: Not available at CBM.

FIRE PRECAUTIONS: Normal oil terminal safety precautions applicable.

REPAIRS AND DRY DOCKS: At Chaguaramas.

DIRTY BALLAST: No facilities available. Only small amount (approx. 200 tons) of tank drainings acceptable on jetty and only if fluid at ambient temperature.
GANGWAY/DECK WATCHMEN: Customs guards on duty at ship's side.
CUSTOMS ALLOWANCES: 200 cigarettes, and a moderate amount of spirits.
REPATRIATION: Can be arranged.
AIRPORT: See "Port of Spain".
TIME: GMT minus 4 hours.
TELEPHONES: No facilities for telephones on board.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.

SHIPMASTER'S REPORT: April 1977 (Updated 1990).
The Port of Point Fortin is situated in S.W. Trinidad. The light beacon on the "T" pier head is in position Lat. 10° 12' 05" N., Long. 61° 42' 06" W. The port is owned and operated by the Trinidad and Tobago Oil Company Ltd. (TRINTOC), to serve the 100,000 bbls. per day refinery at Point Fortin. A 24 hour communications service is provided, telex via international lines (TRINTOC Point Fortin) or VHF 16 (Call sign: Point Fortin Shipping) working on Channel 11.

Pilotage is compulsory with the boarding area 1 mile seaward from the jetty head. There is 1×1,000 h.p. tug normally available for berthing vessels over 30,000 Summer d.w.t.

Tides in the area of Point Fortin vary in strength throughout the year with a max. rate of 3 knots. Masters are advised to check sea water density for corrected loadline readings. Water density varies throughout the year from salt to fresh.

Engine repairs which entail immobilisation of engines are not permitted when moored at the berths.

Vessel must arrive with clean ballast consistent with safe manoeuvring of the ship. A ballast condition of 25% of the vessel's Summer d.w.t. is recommended.

Only clean ballast may be pumped overboard.

Notice of Readiness is accepted when vessels' tanks are ready to receive cargo.

Bunkers and fresh water can be supplied at all berths except No. 5 (C.B.M.) Stores and laundry facilities are available on request. A diver is available. The only way of getting ashore is by means of a liberty launch. Walking the pipeline bridge is strictly forbidden.

Inward Clearance is effected immediately on arrival by the Port Authorities; the following documents should be available for official use:

Clearance from Last Port.
Derat Certificate.
International Health Certificate.
Declaration and Crew Vaccination Certificate.
Cargo Manifest, if any.
Bill of Lading, if applicable.
List of unmanifested packages, if applicable.
3 copies Arrival Report.
7 copies Crew List.
3 copies Stores List.
3 copies Personal Effects.
Licence for Dangerous drugs, if any aboard.

In the interest of reducing tanker port time, vessels' Masters are advised to request Pratique by Radio prior to their arrival.

Berths:

No. 1 – Draft 37 ft. 6 in. (Loading over tide 39 ft.).
Max. length 700 ft. – Max. berthing displacement 45,000 tons.
Grades handled: Crude oil, Fuel oil, Gas oil, Diesel oil, Kero, LDF, JP4, Platformate. All via 10 in. hoses. Napthanic Oil Residue via 4 in. hose.

No. 2 – Draft 36 ft. (Loading over tide 38 ft.).
Max. length 700 ft. Max. berthing displacement 25,000 tons.
Grades handled: Crude oil, Fuel oil, Gas oil, Diesel oil, Platformate, Kero, LDF, JP4, Mogas. All via 10 in. hoses. (Napthanic Oil Residue via 1×4 in. hose).

No. 3 – Draft 34 ft. 6 in.
Max. length 300 ft. max. berthing displacement 5,500 tons.
Grades handled: Fuel oil, Diesel oil, Gas oil, Kero, Mogas, all of them through 6 in. hoses.

No. 4 – Draft 14 ft. 6 in.
Max. length 300 ft. Max. berthing displacement 3,000 tons.
Berth port side to. Berthing at slack water and flood tide, unberthing at slack water tide and flood tide.
Grades handled: Fuel oil, Diesel oil, Gas oil, LPG, Bitumen, Emulsion (COLAS).

No. 5 – C.B.M., 6 buoys, max. draft 51 ft. max. length 850 ft. Berth starboard side alongside. Daylight berthing only.
Grades handled: Crude oil, Fuel Oil via 2×12 in. hoses.

AUTHORITY: Trinidad & Tobago Oil Co. Ltd.

POINT LISAS (Hydro Agri): 10.22 N. 61.29 W. (Plipdeco Marine): 10.24 N. 61.29 W. **(See Plan)**

(A) HYDRO AGRI TRINIDAD LTD. (HATL).
(B) POINT LISAS INDUSTRIAL PORT DEVELOPMENT CORP.LTD.

(A) HYDRO AGRI TRINIDAD LTD. (HATL)

DOCUMENTS:
1 copies Crew List.
2 copies Ship's Stores List.
2 copies Passenger List.
The following should be on Trinidad Forms:
2 copies Crew Stores List – Form C2.
2 copies Ships Stores (Bond) – Form C1.
3 copies Immigration Arrival Report – Form P&I 10.
2 copies Unmanifested Cargo – Form C3.
1 copy Declaration of Health – Form P&I 31.
2 copies Arrival Report – Form P&I 53.
1 copy Stowaway List – Form P&I 12.
Ship's Register.
Derat Certificate
Passports.

PILOTAGE: Pilots ordered through Agent; 48/24/12 hour ETA needed. Pilotage is compulsory. Pilots board at Head of Pt. Lisas Channel (Lat. 10° 22' 37" N., Long. 61° 39' 38" W.); Pilot ladder conforming to International Safety Regulations to be supplied by vessel.

Launch hire arranged by Dock Master to take out Pilot to vessels on arrival, and again take off Pilots from vessels on departure.
CLEARANCE: Point Lisas being a port of entry is equipped with resident Customs Officer and Guard. Ships arriving from abroad could proceed directly to Point Lisas as Customs Officer acts for Harbour Master/Port Health. Tel. 636-2020. Immigration Officer boards on arrival.
ANCHORAGE: Safe anchorage 0.25 miles off head of channel. On occasions, when port congested, vessels may be requested to anchor Port of Spain Roads (Lat. 10° 41' N., Long. 61° 33' W.) before proceeding Pt. Lisas.
RESTRICTIONS: No restrictions on night entry – departure.
MAX. SIZE: See "Berthing".
HEALTH: For quarantine if required, or authentication of vaccination certificate, Honorary Port Health Officer could be in attendance at short notice. Tel. 636-2311.
VHF: Pt. Lisas Dockmaster can be contacted on VHF Channels 16, 14 and 12.
TUGS: Molasses, bulk sugar and LPG carriers use a tug to assist in berthing and unberthing at HATL No. 1 Pier. Tug will be ordered by the Agent.
BERTHING: HATL No. 2 Pier (vessels handling bulk sugar, molasses caustic soda and Anhydrous Ammonia in Liquid form), Maximum LOA 550 ft. Maximum draft: 28 ft. LW. Also see "Shipmaster's Reports".

HATL No. 1 Pier (vessels loading LPG and natural gasoline) Maximum LOA 575 ft. Maximum beam 82 ft. Maximum draft 20 ft.
STEVEDORES: If necessary will be ordered by Agents. No ETA t stevedores necessary.
MEDICAL: Advance notice of attention required will assist. Modern hospital facilities available.
FRESH WATER: Only by barge.
FUEL: All grades supplied by barge.
FIRE PRECAUTIONS: When loading LPG. No smoking on pier or o ship's deck.
CONSULS: At Port of Spain.
REPAIRS AND DRY DOCKS: At Chaguaramas 20 miles North o Pt. Lisas.
GANGWAY/DECK WATCHMEN: Customs guards on 24 hours duty a ship's side.
OPENING/CLOSING HATCHES: Normally by crew.
CUSTOMS ALLOWANCES: 200 cigarettes and a moderate amount o spirits.
REPATRIATION: Crew changes and repatriation can be arranged.
AIRPORT: Piarco International Airport – 30 miles from Point Lisa Daily flights to world-wide destinations.
TIME: GMT minus 4 hours.
HOLIDAYS: New Year's Day (January 1st); Good Friday; East Monday; Whit Monday; Corpus Christi; Discovery Day (First Monday August); Independence Day (August 31st); Diwali Day (late Octob early November); Eid-ul-Fitr; Christmas Day (December 25th); Box Day (December 26th); Labour Day (June 19th); Republic D (September 19th). Work is possible, except for Labour Day, Uni Anniversary Day and Christmas Day, on these holidays.
POLICE/FIRE/AMBULANCE: Accidents – Police – Help, 999; Fir First Aid, 998.
TELEPHONES: No facilities for telephones on board.
SERVICES: Efficient maintenance gang available for normal wo tank cleaning, painting, etc.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
DELAYS: Due to congestion, sometimes delays are unavoidable, usu not more than 24 hours.

SHIPMASTER'S REPORT: August 1988.
Vessel loaded ammonia at the Liquids Pier.
Max. draft 28 ft. at LW and if at this draft, vessel can only sail at
Mooring consisted of 2 head/stern lines and 2 breast lines 2 springs at each end and with very long leads.
One tug used.

Connections made by ship's crew (6 in. 300 ASA). Max. loading rate 700 t.p.h. at a temperature of −31°C. Vessel allowed to purge alongside with shore providing hot ammonia vapours.

Ship's brow gangway used.

SHIPMASTER'S REPORT: September 1990 (Updated 1996).

Chart: B.A. Chart No. 482.

Approach: Do not confuse Lisas Hydro Agri Channel with Savonetta Channel. Fedchem Channel has beacons in line 091° which show up well on radar.

Shoreline between the Point Lisas terminals is not as charted, and tends in a Southerly direction more to seaward than charted.

Anchorage: Not within 1 mile of the end of the channel. Vessels generally anchor to the West of both channels, not North or South as indicated on B.A. Chart No. 482, due to the shallower water.

Gulf of Paria is one of the safest anchorages in the Caribbean with no swell, relatively sheltered, fair holding and plenty of room. Watch out for violent wind shifts during rain squalls, especially during the Summer.

Pilot: Pilot for Fedchem only between 0630 hrs. and 1730 hrs. Definitely no night berthing, possible to sail at night if really necessary.

Generally Pilots come from Port of Spain, although recently a Pilot has been stationed at Plipdeco-Point Lisas. There used to be a Pilot stationed at Trintoc-Pointe-A-Pierre, but this has now been discontinued.

Pilot comes out on Fedchem mooring launch, and likes to board 1 mile West of channel, so as to give room for aligning up.

Expertise very good to poor.

VHF: As per ALRS. Fedchem range is very poor.

Tugs: Either from Plipdeco-Point Lisas or Trintop-Pointe-A-Pierre. Tugs from Trintoc cheaper and better, but not always available.

Generally 2 tugs used with tugs lines. They join outside channel.

Entry: Channel is 250 ft. in width. Charted depth is 12.8 m., but minimum 12.5 m., reduced to C.D., found recently between berth and Beacons No. 3 and 4. Current sets North until approximately 1 hour after H.W. at Port of Spain, and sets South until 1 hour after L.W. at Port of Spain.

Around the turn of the tide, eddies are very prevalent, and it is not the safest time to berth.

When entering channel, if course over 6° different from leading marks, abort entry either before Beacons No. 1 and 2, or between Beacons No. 1 and 2 or Beacons No. 2 and 3, where there is still sufficient depth at 13.0 m. Depth fairly consistent.

Berth: Due to channel restrictions and turning basin, maximum size of vessel at Tringen No. 2 is about 50,000 cu.m.

Always port side alongside, swinging in adjacent basin.

Moorings run by launch, only one launch, so mooring can take a while, especially with wires. Moorings good (3, 2, 2) to dolphins and trestle.

Berth is a concrete trestle with good fenders.

Berth for vessels up to about 15,000 cu.m. in lagoon. This is the original berth before Tringen No. 2 was constructed in 1988.

Cargo: Presently only handles the export of refrigerated ammonia.

One Chicksan (12 in. 150 ASA) with 6 in. VRL attached.

Two loading pumps, each 650 t.p.h., and one small circulating pump, are available.

Generally start at minimum rate for one pump at approximately 100 t.p.h. – 200 t.p.h.

Maximum rate with 2 pumps is 1,250 t.p.h. – 1,300 t.p.h.

Product generally warm at around minus 30.5° C. – always make protest.

If vessel arrives to cool down, vapour to flare at ship's expense until ship's tanks around 97%. NH3 purged, then vessel can use VRL to shore tanks. Loading of ships at Lagoon berth has no effect on ships loading at Tringen No. 2.

The S.G.S. Surveyors were good.

Control House at base of jetty, Loading Master is always in attendance during loading.

Either ship's UHF set or Hydro Agri set given.

Facilities: Fresh water available on jetty at a low rate of around 15 t.p.h. Also available by barge from Port of Spain at U.S.$ 8.0 per tonne, but only at anchorage during daylight, order well in advance through Agent.

Stores, taxis, etc. can get as far as the Control House, which is about 200 m. from ship.

Local telephone calls can be made from Control House during normal office hours. Otherwise one has to go to main building about 1 mile away. Overseas calls arranged through Agent.

Most facilities available at San Fernando.

Plant has very good machine shop with skilled mechanical and electrical fitters, who are willing to assist in an emergency.

New berth with a depth of approximately 20 ft. is under construction in the Lagoon for export of gas condensate.

Documents: All Trinidad Forms:

2 copies Crew Declaration.
2 copies Unmanifested Cargo.
3 copies Arrival Report.
1 copy Immigration Landing Report.
1 copy Health Declaration.
6 copies Crew List.
3 copies Cargo Manifest.
1 copy Stowaway List.

Curfew: Curfew in operation from 1900 hrs. to 0500 hrs. on this visit.

SHIPMASTER'S REPORT: May 1992 (Updated 1996).

Berth: Phoenix Park Gas LPG Berth – Hydro Agri.

Chart: B.A. Chart No. 482.

Location: North side of Point Lisas Hydro Agri Lagoon. Complex formerly Fedchem/Grace, now owned by Hydro Agri.

Phoenix Park is a joint U.S./Trinidad operation, using Amoco Gas condensate from the Trinidad East Coast fields, as does adjoining Hydro Agri Plant. Plant and berth situated on land rented from Norsk Hydro. Berth and Plant completed in 1991.

Approximate Plant Position: 10° 22.45' N., 61° 28.8' W.

Pilot: As per other Hydro berths.

Channel: As charted (old Fedchem Channel), well buoyed and lighted. Berthing up to about 100 m. LOA – 24 hours, over about 100 m. LOA daylight only. Vessel swung to head out in inner lagoon.

Sailing up to about 8.0 m. draft, virtually 24 hours. Over 8.0 m., 2 hours either side of H.W. and daylight only, which means one period in 24 hours.

Berth, Turning Basin and Inner Channel depth quoted as 28 ft. (L.W.). We actually found minimum of 30 ft.

Tugs: From Point Lisas Industrial Port. Tugs lines used. 6 hours notice required for tugs.

If unavailable, tugs can sometimes be obtained from Pointe-A-Pierre.

Berth: Concrete pier with breasting dolphins and loading platform. Built to basic standards in 1991. Pier extends from North Eastern shore of lagoon in 271° – 091° direction for about 200 m., just North of and in same approximate line as old leading lights. Centred on 10° 22.6' N., 61° 29.08' W.

Maximum size of vessel accommodated: About 200 m. LOA, 25.0 m. breadth and 8.5 m. draft.

Fendering: Rubber sprung type.

Moorings: For vessels of maximum length, mooring arrangement is not very good (2 head/stern, 2 breast, 2 springs each end). Mooring handled by mooring boat and gang from Hydro Agri Plant.

Loading: Butane and Propane through 8 in. (connection) Chicksan arm with 4 in. VRL flexi-hose attached to hard arm.

	Propane		*Butane*	
	(barrels)	(tonnes)	(barrels)	(tonnes)
Storage	150,000	1,200	100,000	9,200
Production (per day)	4,500	360	3,600	330
Loading (per hour)	4,200	330	4,200	380

SG Propane: 60. 0.5064 – 97% Propane, 1% Ethane, residue Butane.
SG Butane: 60. 0.5725 – 97% I/N Butane, 2% Propane, residue Pentane.

Shore UHF set given, but batteries quickly run down. Shore ended up using ship's set.

Terminal personnel are meant to be in shore office on jetty, but rarely in attendance. Nevertheless quite good cooperation.

Tel: 809-636 1522. Fax: 809-636 6810. Telex: 31351.

Phoenix Park Gas Processors Ltd., P.O.Box 225, Savonetta, Point Lisas.

Bills of Lading received about 2 hours after completion.

SGS Surveyors in attendance on arrival and departure.

General: Fresh Water: Not available alongside, only by barge from Port of Spain and taken at Point Lisas Anchorage.

Telephone: Possible to telephone overseas from Hydro Agri Dock office near berth, but only Monday to Friday from 0800 hrs. to 1600 hrs.

Stores: Friendly talk with Duty Supervisor will allow stores truck onto main pier, which is about 10 m. from ship's side. A fair range available, but watch quality and check all foodstuffs. Prices reasonable if paid in U.S.$ cash.

Gangway: Very poor situation for landing. No shore gangway. We had to use a pilot ladder (always starboard side to).

Airport: About 50 minutes to Piarco International Airport.

AUTHORITY: Hydro Agri Trinidad Limited, P.O.Box 952, Port of Spain, Trinidad. *Tel:* (809) 636-2020. *FAX:* (809) 636-2073, 636-0076.
Contact: Richard de la Bastide, Operations Manager. Ewart Quammie, Dock Master.

(B) POINT LISAS INDUSTRIAL PORT DEVELOPMENT CORP. LTD.

LOCATION: Point Lisas lies on the Western side of Trinidad in the Gulf of Paria, in position Lat. 10° 24.2' N., Long. 61° 29.6' W.

DOCUMENTS:

7 copies Crew List.
2 copies Ship's Stores List.
2 copies Crew Stores List.
4 copies Immigration Arrival Report (supplied on arrival).
1 Declaration of Health (supplied on arrival).
Ship's Register.
Derat Certificate.
Ship's Safety Certificate.
Passports.
Seaman's Identification Cards.

PILOTAGE: Pilotage compulsory. Pilots ordered through Agents. Advice at 120, 96, 72, 48, 24, 12 hours' necessary prior to ETA. Pilots board at entrance of Savonetta Channel Lat. 10° 22' 57" N., Long. 61° 31' 11.2" W. Pilot ladder must conform to International Safety Regulations. Launch hire arranged through Plipdeco Marine to take Pilot on or off vessels.

CLEARANCE: Point Lisas (Plipdeco) is a Port of Entry. On arrival ships may proceed directly alongside or to anchorage for clearance by resident officers.

ANCHORAGE: In-bound vessels may anchor in the anchorage bounded by:

Lat: 10° 23.5' N.	Long: 61° 31.2' W.
Lat: 10° 24' N.	Long: 61° 32.2' W.

Out-bound vessels may anchor in the anchorage bounded by:

Lat: 10° 22.5' N.	Long: 61° 31.2' W.
Lat: 10° 22' N.	Long: 61° 30.2' W.

APPROACHES: *Channel:* See "Berthing".

Plipdeco's Channel and Basin Markers:

Channel Entry:	*Name*	*Position*
	No. 1 Port Hand Buoy	10° 22' 59.29" N., 61° 31' 14.00" W.
	No. 2 Starboard Hand Buoy	10° 22' 54.35" N., 61° 31' 10.00" W.
Intermediates:		
	*No. 3 Port Hand Buoy	10° 23' 18.03" N., 61° 30' 50.00" W.
	*No. 4 Starboard Hand Buoy	10° 23' 14" N., 61° 30' 46.65" W.
	*No. 5 Port Hand Buoy	10° 23' 39.07" N., 61° 30' 24.00" W.
	*No. 6 Starboard Hand Buoy	10° 23' 33.84" N., 61° 30' 20.00" W.
Basin Entry:		
	No. 7 Port Hand Buoy	10° 23' 57.51" N., 61° 29' 57.00" W.
	No. 8 Starboard Hand Buoy	10° 23' 53.56" N., 61° 29' 54.00" W.
Basin:		
	No. 9 Port Hand Buoy	10° 24' 03.88" N., 61° 29' 54.00" W.
	*No. 11 Northern Extremity Buoy	10° 24' 17.22" N., 61° 29' 57.00" W.
	No. 10 Starboard Hand Buoy	10° 23' 52.16" N., 61° 29' 44.00" W.
	No. 11 Northern Extremity Buoy	10° 24' 17.22" N., 61° 29' 57" W.

MAX. SIZE: See "Berthing".

HEALTH: Valid Yellow Fever certificates if last Port of call was in an infected area (or country on Cholera Alert). Quarantine on authentication of certificate available at short notice.

VHF: Plipdeco Marine Channel 16, working frequency Channel 9.

RADAR: Not installed at Plipdeco Marine.

TUGS: 4 Resident tugs available. 2×2,250 h.p. and 2×500 h.p. Towage services ordered by Agent.

BERTHING: The Channel is 1.75 nautical miles long and 152 m. wide. Turning basin 700 m. long and 500 m. wide. Both are dredged to 12.8 m. True course 052.15°. The Channel serves the following terminals:

Berth No.1:
Dock Length: 35 m. (Accommodates vessels up to 25 m.).
Depth: 5.0 m.
Facilities: General and Break Bulk Cargo.

Berth No. 1A:
Dock Length: 30 m. (Accommodates vessels up to 100 m.).
Depth: 6.6 m.
Facilities: General and Break Bulk Cargo, Ro-Ro and Lo-Lo.

Berth No. 2:
Dock Length: 165 m. (Accommodates vessels up to 70 m.).
Depth: 5.0 m.
Facilities: General and Break Bulk Cargo.

Berth No. 3:
Dock Length: 105 m. (Accommodates vessels up to 135 m.).
Depth: 7.5 m.
Facilities: General and Break Bulk Cargo, Ro-Ro and Lo-Lo.

Berth No. 4:
Dock Length: 110 m. (Accommodates vessels up to 170 m.).
Depth: 7.8 m.
Facilities: General and Break Bulk Cargo, Ro-Ro and Lo-Lo.

Savonetta Pier No. 1 (South):
Dock Length: 310 m. (Accommodates vessels up to 240 m.).
Depth: 11.6 m.
Facilities: Specialised installation for loading Anhydrous Ammonia. Maximum rate 1,000 tonnes/hr. Facilities for loading Methanol (700 t.p.h.) and Urea (500 t.p.h.) also available.

Savonetta Pier No. 1 (North):
Dock Length: 115 m.
Depth: 7.0 m.
Facilities: Specialised installation for loading Bulk Lube Oil/Additives.

Savonetta Pier No. 2:
Dock Length: 312 m. (Accommodates vessels up to 180 m.).
Depth: 11.6 m.
Facilities: Specialised installation for loading Methanol in bulk.

Ispat Dock:
Dock Length: 407 m. (Accommodates vessels up to 245 m.).
Depth: 11.6 m.
Facilities: Specialised installation for loading of Direct Reduced Iron. Maximum rate 1,200 tonnes/hr., connected to conveyor system. Also available are 2 Level Luffing Cranes with 25 tons capacity, and facility for discharge of Bulk Iron Ore.

Nucor:
Dock Length: 500 m. (Accommodates vessels up to 245 m.).
Depth: 11.6 m.
Facilities: Specialised installation for discharge of Iron Fines/Iron Carbide.

STEVEDORES: All stevedoring and longshoring labour ordered through Point Lisas Terminals Limited (PLTL).

CRANES: Mobile and track cranes available up to 250 tonnes SWL. Ordered through Agents.

MEDICAL: Advance notice required. Agent will arrange.

FRESH WATER: Available on all berths and ex-barge.

FUEL: Bunkers available ex-barge or road tanker.

FIRE PRECAUTIONS: No smoking at Savonetta Pier No. 1 and 2 or on the open decks of vessels alongside.

CONSULS: At Port of Spain (40 km. from Point Lisas).

REPAIRS/DRY DOCKS: A repair facility is available at Chaguaramas However, competent technicians are available for shipboard repairs Arrangements made through Agents.

SURVEYORS: (1) Cargo Surveyors: Inspectorate, Saybolt and Redwood available.

(2) Surveyors such as Lloyd's, ABS, Bureau Veritas and DNV. Agents will arrange.

GANGWAY/DECK WATCHMEN: 2 Customs guards on duty fo 24 hours aboard all vessels.

OPENING/CLOSING HATCHES: Normally done by ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes and a moderate amount o spirits.

HOLIDAYS: Work is possible all year.

POLICE/FIRE/AMBULANCE: Accidents, Police help 62 999. Fire and First Aid 62 998. Fire assistance and ambulances are available on the estate through the assistance of Plipdeco.

REPATRIATION: Crew changes and repatriation possible. Agent wil arrange.

AIRPORT: Piarco International Airport, 60 km. from Point Lisas. Daily international flights available.

TIME: Local time is GMT minus 4 hours.

TELEPHONES: No facilities for telephone aboard. However internationa dialling to most countries possible.

BANKS: First Citizens Bank, Point Lisas Industrial Estate, Point Lisas

STORING: Vessels can be stored by barge or truck.

No storing of vessels while loading at Savonetta Pier No. 1.

All storing must be done with Customs approval.

Local riggers and forklifts are available for storing. These may b ordered through local chandlers.

SHORE LEAVE: No restrictions except, for persons not holdin documents which grant entry to Trinidad and Tobago. Prior approval o Ministry of National Security must be arranged through Agents.

IDENTIFICATION CARDS: It is advisable to carry identification whe proceeding on shore leave.

GARBAGE DISPOSAL: At present (March 1996), this service is no available at Point Lisas.

WASTE OIL DISPOSAL: Collection service available. Three tanke trucks, capacity 50 barrels/2250 gallons each. Contact Sirju & Sons Fax: 653-2217.

SEAMAN'S CLUBS: The Mariners Club, Wrightson Road, P.O.Box 561 Port of Spain, Trinidad, W.I. Tel: 62-54826. Open until 2200 hrs. ever day, weekdays from 0900 hrs., Saturday from 1000 hrs. and Sunday from 1400 hrs. Facilities include chapel, TV and video lounge, telephone shop, postage, bar, games, swimming pool and barbeque.

CURRENCY: Trinidad and Tobago Dollar (TT$).

AUTHORITY: Point Lisas Industrial Port Development Corporatio P.O.Box 191, Goodrich Bay Road, Point Lisas, Couva. *Tel:* 809-636-2132, 636-4913. *Fax:* 809-636-4061. *Cables:* Plipdeco, Couva *Contact:* Captain Rawle Baddaloo, Port Manager.

POINTE-A-PIERRE (Oil Terminal and Refinery): 10.19 N. 61.29 W. (See Pla

DOCUMENTS:
5 copies Crew List.
4 copies Stores List.
1 copy Unmanifested Cargo List.
2 copies Crew Declaration.
1 copy Declaration of Health.
1 copy Arrival Report.
1 copy Firearms & Ammunition List.
Derat Certificate.

Officials require accommodation ladder to be rigged, usually on p side, for boarding and clearance.

PILOTAGE: Compulsory. Pilot boards from tug. Pilot ordered by Ag after receipt of ETA. Pilot ladder conforming to International Sa Regulations to be supplied by vessel.

Pilot boards 1.2 miles S.E. of SPM.

ANCHORAGE: Safe anchorage and good holding ground in t roadstead. On account of Pierre Shoal, a 21 ft. patch about 1.75 cab S.W. of the head of the main viaduct, vessels of moderate draft sho approach with the main viaduct bearing more than 075°. The m viaduct consists of pipelines supported by reinforced concrete pil located at Lat. 10° 20' N., Long. 61° 30' W. and extends in a W.S direction for 6,190 ft. from shore.

RESTRICTIONS: Controlling depth in main channel 41 ft. No e restrictions day or night. However, Free Pratique must be obtained. C Lists, Stores Lists, etc., to be presented to local Agents on arrival. Arr vessels must contact Petrotrin, Pointe-a-Pierre on VHF Channel 16 hours prior to arrival for berthing instructions, traffic information, c nominations, etc.

MAX. SIZE: See "Berthing".

Also see "Shipmaster's Reports".

HEALTH: See "Port-of-Spain".

RADIO: Vessels to send ETA messages 72, 48 and 24 hours pr arrival to "Petrotrin Marine Pointe-a-Pierre". Messages should be through one of the following: Chatham (USA), North Post (Trin Barbados or Curacao.

VHF: The Petroleum Company of Trinidad and Tobago Limited mai their own radio station (24 hours). Call "Petrotrin Marine Pointe-a-Pi on Channel 16, working Channel 13.

TUGS: Petrotrin maintains 3 tugs to assist in berthing and unber

BERTHING:

Berth No.	Max. Permissible Draft (ft.)	LOA (ft.)	D.W.T.	Remarks
1	37.5	720	50,000	
2 (North)	37.0	775	63,000	
2 (South)	22.0	350	7,000	Small vessels and barges only
5 (Sea Island)	41.5	900	100,000	
6 (Sea Island)	51.0	950	120,000	
7	30.0	700	35,000	
8 (General Cargo)	28.5	700 (pier length) 70 (pier width)	25,000	

DISCHARGING:
Maximising Cargo Discharge (Squeeze Dry Operations): Due to the current high costs of crude oil the following guidelines should be followed in order to maximise cargo outturn. Special importance should be attached to the discharge immediately preceeding shipyarding. A Representative from the Company will attend vessels periodically in order to advise and assist as required.

General Guidelines for Maximising Cargo Discharge:

1. Inerted vessels capable of Crude Oil Washing must strictly follow the routines set out in their Tank-cleaning Manuals.
2. Stripping operation to be performed twice, first during normal discharge and the second time after all cargo (except partial contents in the aftermost (slop) tank) has been discharged ashore. The Inspector must ensure that vessel is adequately trimmed by the stern during all stripping operations.
3. On completion of normal discharge (except for partial contents in aftermost (slop) tank) and second stripping of all tanks, contents of main deck and drop lines and loading arm connections must be stripped to slop tank. (NB: Air or tank atmosphere must be used to break the vacuum).
4. Line content in all main suction lines must also be dropped into aftermost tanks and all main suction valves in tanks opened to drain suction elbows. On completion of dumping line contents, stripping system to be used to drain cargo remaining in the suction system and pumps back to the slop tank, with tank suction shut.

   This is best achieved by commoning up all main cargo pipelines on the suction side of the main cargo pipelines on the suction side of the main cargo pumps, opening the suction valves to these pumps and cross connecting the suction side of the stripping system to the main cargo line.
5. Where available, open by-pass valves connecting discharge side with suction side of main cargo pumps.

   Note: When vacuum starts building up in the suction system, allow tank atmosphere to enter the pipelines by opening a suction valve in a forward tank.

   It is recommended that one hose or loading arm remains connected to the manifold to which the small diameter deck stripping line (where available) discharges into. This line discharges outboard of the vessel's manifold valve, which of course is left shut during final discharge ashore of slop tank contents using stripping system.
6. The reasons for stripping back line and final tank contents to the aftermost (slop) tank rather than direct to shore are that:
   (a) Operator has better idea when suction is lost (by seeing no increase in slop tank ullage).
   (b) Accurate measurements can be made of total quantity of cargo recovered by operation "Squeeze Dry".
7. On completion of final line and tank draining, discharge contents of aftermost (slop) tank ashore via small diameter deck stripping line, where fitted, or via main discharge line where not.

Check List for Line Draining – Operation "Squeeze Dry":

1. Are following design features available to improve line draining:
   (a) By-pass to connect discharge side with suction side of main cargo pumps?
   (b) Connections from stripping system to both suction and discharge lines of main cargo pumps?
   (c) Vent valves in deck lines near manifold?
   (d) Suction and discharge pressure gauges and stroke counters in stripping pumps?
   (e) Small diameter deck line, for final draining?
   (f) Block valves in stripping line system?
2. Is cargo discharge *completely* finished and all cargo tanks checked by dipping to be well drained?
3. Have contents of tank washing line that was used for COW been properly dropped into slop tank?
4. Are all manifold valves with shore connection (except one if no small diameter line available) shut?
5. Are all valves in deck, pumproom and drop lines open?
6. Are all valves (except tank valves during line draining) in suction lines open?
7. Are all lines dropped in aftermost (slop) tanks?
8. Has air/inert gas been allowed to enter to vessel's line system both at forward end of bottom lines and in the manifold area?
9. Are stroke counters (where fitted), suction and delivery pressure gauges of drain pumps working correctly?
10. Has dropping operation been checked by measuring oil level in aftermost holding or slop tank/tanks?
11. Have all manifold valves been shut after dropping operation?
12. Has valve in small diameter deck line been opened, or where not fitted, has "final" manifold valve been opened?
13. Have stripping pumps been set correctly to drain holding or slop tank ashore through small diameter line (or deck line)?
14. Have all lines in cargo tanks, on deck and in pumproom been set correctly for line draining to holding or slop tank?
15. Has holding or slop tank been properly drained ashore and checked to be well drained by dipping?
16. Has vacuum been allowed to build-up before air/inert gas was let in and has this been done repeatedly?
17. In addition to checking holding or slop tank ullage, are drain pumps checked to see if actual delivery from line draining/tank draining has stopped?
18. Has shore been asked to check delivery of final holding or slop tank into shore system?
19. Have all valves been shut after line draining?

Note: During draining of discharge lines to holding or slop tank, open the non-return valves in the discharge lines (if movable from the outside).

TRANSHIPPING: *Instructions to VLCC Masters from Petrotrin Marine:*

1. Anchor your vessel in designated anchorage with starboard anchor and rig gangway starboard side. Enter and clear vessel in normal manner, co-ordinating all activities via VHF with Petrotrin Marine Superintendent at Shipping Office.
2. Gauge all tanks, determine amount of cargo on board and advise Shipping Office along with A.P.I., temperature and other particulars. Re-secure all tanks. Advise Lightering Vessel A.P.I. and temperatures.
3. Barge will come alongside, port midships. Receive on board 6×30 ft. lengths of 12 in. cargo hose along with necessary reducers, blanks, bridles, straps, etc. Ship's crew must rig 2 strings of 90 ft. long hose connected to your manifolds, and supported by your vessel's boom. Hoses will be tended by your vessel's crew throughout transhipment.
4. A string of 4×11 ft.×21 ft. Yokohama fenders, each separated by 100 ft. length wire will be brought alongside (port). Your forward and after main deck wire springs will be lowered down and secured to the ends of the fender string to secure same alongside. Four of the fender positioning wires will then be lowered from your deck and one secured to each of the fenders. The fender string must then be positioned and secured alongside centred on your manifold.
5. Two additional fenders will then be brought alongside and secured approximately 150 ft. forward and aft of the main fender string to provide additional protection to your vessel in mooring and unmooring the lightering vessel.Two positioning wires will be passed up to your deck from each of these fenders to secure them in place.
6. When lightering vessel comes alongside, your crew must be stationed fore and aft on deck to handle lines. Your bridge should be manned with engines on standby in the event of emergency. During entire transhipment all fire fighting equipment must be rigged and ready. Additional fire fighting equipment and anti-pollution devices will be on harbour tugs and available if needed.
7. A lightering vessel assisted by tugs will come abeam of your vessel and send synthetic lines, one forward, one aft, by launch.

   Your crew must lower heaving lines or messenger lines to launch, then heave lines on board and secure fore and aft on your vessel. Lightering vessel will then be brought alongside and positioned with her manifold approximately 10 ft. – 40 ft. aft of yours. The lightering vessel will then pass her wires (all containing nylon straps) to your vessel and safely secure alongside.
8. After the lightering vessel is safely secured alongside, to your satisfaction, the two hose strings will be passed to her and secured to her manifolds. The lightering vessel will support the hose ends, however, the main support will remain your vessel's boom. Agreeable handling rates, procedures and signals must be agreed upon between the Masters of the vessels involved and the Petrotrin Co-ordinator of the transhipment. Portable VHF radios operating on Channels 16 and 10 will be supplied from ashore. VHF Channel 10 will be used for all ship-to-shore communication.

   Your control room must be manned at all times by a competent individual who must be monitoring Channel 10. Additionally a competent individual (Officer) and a full watch must be maintained on deck to tend hoses, fenders, etc. One man must be stationed at the manifold and in full view of the hoses and other vessel at all times.

   The Petrotrin Co-ordinator and Marine Staff will be available and will assist in all ways possible, however, the responsibility for a safe operation rests with you and your vessel.
9. Upon completion of loading the lightering vessel, your tanks must again be gauged and figures passed to Shipping Office. All tanks must then be secured prior to unmooring of lightering vessel. The Marine Office will co-ordinate handling of necessary cargo documents depending on the destination of the lightering vessel.
10. Hoses will be drained to the lightering vessel, then disconnected, blanked and taken back aboard the VLCC.

    Your crew must again be stationed fore and aft, your bridge manned and the lightering vessel unmoored.
11. The procedure will be repeated for the next lightering vessel.
12. It is anticipated ballast will be taken after the second lightering or as soon as one isolated section is stripped of cargo. Prior to ballasting the Petrotrin Co-ordinator should certify tanks to be ballasted as dry.

ALTHOUGH IT IS IMPORTANT TO MINIMISE DELAYS THIS CONSIDERATION MUST TAKE SECOND PLACE TO PROPER SAFETY PRACTICES AND TO ANY STEPS NECESSARY TO AVOID POLLUTION.

Also see "Discharging".

DENSITY: 1025, (August to November approximately 1023).

FRESH WATER: Available alongside or by barge (if available and adequate notice given prior arrival). Limited in dry season (January-June).

FUEL: Fuel oil, diesel and gas oil supplied ex-pipeline or by barge. Also see "Shipmaster's Report" dated August 1979.

MEDICAL: Advance notice of medical attention preferred. Modern hospital facilities available.

BALLAST: Vessels to arrive with clean ballast. No dirty ballast facilities.

REPAIRS: Almost all types of deck and engine repairs can be carried out.

DRY DOCK: Trinidad Foundry and Fabricating Ltd. located at Chaguaramas.
SURVEYORS: Lloyd's, A.B.S. and N.V.
SPECIAL PRECAUTIONS: *Emergency Alarm:* This safety device is conveniently placed on all docks and is under the control of the jetty personnel. This is used only in cases of emergency and has the effect of stopping all shore pumps immediately it is used. Loud-sounding horns are situated on the hose structures and are sounded by the jetty attendant when urgent attention from the ship is required.
Hose Pressure: The max. discharge pressure allowed on the jetty hose is 100 lbs. Pressure of jetty hose for loading shall not exceed 100 lbs.
GANGWAY/DECK WATCHMEN: An efficient watch must be maintained on deck and in the engine room of all ships in port, and a sufficient number of men must be on board at all times to move the vessel either for harbour operations or in emergency situations.
CUSTOMS ALLOWANCES: 200 cigarettes or 50 cigars or 0.5 lb. tobacco and 1 bottle of spirits.
REPATRIATION: Facilities exist for effecting crew changes and arranging repatriation.
AIRPORT: Piarco International Airport 28 miles (approx.) away from Pointe-a-Pierre, served by international airlines and flights are regular.
TIME: GMT minus 4 hours.
TELEPHONES: On dockside and at all sea berths.
SHORE LEAVE: Regular launch service from ship to Pointe-a-Pierre only, for all crew members.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: No facilities.
WASTE OIL DISPOSAL: Shore facilities can accommodate 2,000 barrels of dirty water ballast (slops) per vessel, or material which does not require heating (low pour point).
SEAMAN'S CLUBS: The Mariner's Club (Missions to Seamen), Wrightson Road, Port of Spain. Tel: 62-5426. The Club is approximately 32 km. from the terminal. Facilities: Chapel, T.V. lounge and video films, telephone service, shop, mail and stamps, bar, darts, pool tables, table tennis and swimming pool. Hours: 0900 hrs. – 2000 hrs. Monday – Friday; 1000 hrs. – 2200 hrs. Saturday, and 1400 hrs. – 2200 hrs. Sunday.
CURRENCY: Trinidad and Tobago Dollar (TT$.). U.S.$ 1.00 = TT$.6.00 (Floating Rate).
GENERAL:
Tidal Variation: Rise and fall is approximately 3 ft. 6 in.
Prevailing Winds: N.E. trade winds.
Flags Required: Republic of Trinidad & Tobago and International Code Flags "B", "G", "H" and "Q".
Launches: Launch service to Pointe-a-Pierre for Officers and crew.
Laundry/Provisions: Available.

SHIPMASTER'S REPORT: August 1979 (Updated 1994).
Bunkering:
Approach: (From Passage Book). Trinidad and Tobago Islands observed on radar at 48 miles, although echo masked by clouds, islands observed visually at over 40 miles. Marked by towering Cumulus clouds. Numerous tide rips and abrupt change of colour of water (green) at the 200 m. sounding line.

Good position obtained at a distance 35 miles from Galera Point and Scarborough using visual bearings of Galera Point and Little Tobago and distance off Granby Point.

North coast Trinidad current approximately 1.5 knots West going.

Chupara Point Light not conspicuous during daylight and not seen at night.

Chacachacare Light (Admiralty List of Lights No. 5846) good, seen at 35 miles.

Gulf of Paria can, with moderate sized vessel, be approached through any of the channels of Bocas Dragon. We used Boca de Huevos which was safe, no problems. Parallel Indexing very useful on Point au Diable, Point Braba and Cape Cola.

Serpents Mouth not recommended at night.

Gulf of Paria not very busy, many vessels anchored off Port of Spain.

An intense white light (Fl. ev. sec.) is located on Chimney just South of South Pier at Pointe-a-Pierre (position: Lat. 10° 18' 38" N., Long. 61° 27' 36" W.). B.A. Chart No. 482 seen at 12 miles.

No appreciable current in Gulf of Paria.

VHF: Called "Trintoc Shipping Office Pointe-a-Pierre" (now "Petrotrin" on Channel 16 about 5 miles North of Boca de Huevos Strait, contact reasonable. Working on Channel 13, very prompt.
Anchorage: General anchorage along parallel of 10° 19' North from 3 miles West of Buoy No. 1 (Lat. 10° 19' 06" N., Long. 61° 29' 18" W.) to 0.5 miles off buoy.

We anchored with Buoy No. 1 - 072°×1.0', good position in 17 m.

For bunkers, oil company like vessel as close as possible to No. 1 Buoy, but not closer than 0.5 mile.

Immigration/Customs: Came out very promptly. No difficulties, forms as per "Guide to Port Entry". Must have gangway rigged. Pratique message sent, no answer received, given on arrival.
Bunkering: Trintoc (now "Petrotrin"): Dumb barge of 1,500 tonnes capacity. Delays caused by waiting for harbour tug to bring barge alongside vessel, also delay waiting for tug on completion of bunkering. Contact 'Shipping Office' Channel 16 well before barge finishes in order that they may call tug. We waited for tug for one hour before bunkering and 2 hours on completion.

Diesel 6 in. line, 150 ASA, ship's derrick required.

Rate: Up to 200 tonnes p.h. for diesel.

Films: Walport Films and Vidpack can be changed on prior notice to Agents.

SHIPMASTER'S REPORT: September 1979 (Updated 1994).
Approaches: Deep drafted vessels use Boca Grande to enter Gulf of Paria in which is situated the Pointe-a-Pierre Terminal. An area marked by dotted lines on the chart has been surveyed and declared safe for large vessels and this route should be followed up to the anchorage of Pointe-a-Pierre.
Anchorage: Trintoc (now "Petrotrin") Shipping advise vessel where to anchor when making the approach and on this occasion we used two anchorages whilst waiting, first with the "SBM" bearing 083°T×2.4 miles and the second with La Luc Lt. bearing 334° and Radio Mast bearing 110°. At both anchorages vessel used 6 shackles on starboard anchor in about 60 m. of water. Bottom, heavy glutinous mud which gives good holding ground. The deepest draft vessel which arrived in the port was drawing 73 ft. and appeared to have no difficulty anywhere.
Navigational Restriction: VLCCs are required to advise Harbour Master, Trinidad, of their time of arrival off Boca Grande, 24 hours before arrival so that other vessels can be advised to give a clear berth. On approach to Boca Grande vessel can contact North Post Radio on VHF to confirm transit time and receive information of other movements. Our ETA was broadcast 3 hours out.
Port Officials: Customs and Immigration board with Agent and clear vessel inwards. No special requirements. Bond is sealed but Customs will board to make crew issues after each 7 days if requested through Agent. Port Health work is carried out by Agent and we renewed Derat Certificate. Shore Leave Passes are issued by Immigration and are of two types, one for Officers which allows them to use the Pointe-a-Pierre jetty to land and also the Trintoc (now "Petrotrin") Club and one for the crew which only allows them to land at Pointe-a-Pierre jetty.
Shore Leave: (Launch cost TT$11.00 per hour of stay). A fast launch calls at the ship every two hours, day and night, to take personnel to Pointe-a-Pierre. The launch can be contacted on VHF Channel 15 or 16. We found that by advising them of whether we had crew to go ashore before they arrived at the ship we received better service. Officers wishing to go to the club could get a separate launch arranged by Trintoc (now "Petrotrin") Shipping (when available) direct to Pointe-a-Pierre.
Bunkers: Bunkers are supplied by barge of 30,000 bbls. capacity. Pumping rate is very slow, we had 3 separate lifts and the average rate was about 150 t.p.h. The barge also has capacity to supply good fresh water if previously arranged through the Agent, which is more economical and better quality than in the official water barge.
Fresh Water: Normal source of supply is by barge from Port of Spain which requires about 4 days' advance notice. Cost of supply is TT$3,000 no matter what quantity you require and we found the water supplied was heavily polluted with sea water giving a reading of 500 p.p.m. sal and also tasted oily. It is better to take water when bunkering (See "Bunkers").
Ship Chandler: Stores were expensive and many items unobtainable. All stores have to come through Pointe-a-Pierre jetty and the chandler has to make arrangements with the launch supervisors for transport to the ship. If large quantities involved, a barge and tug are used. We tried to get everything at one time but this was impossible. No canned bee or minerals are available and all bottles are returnable which increases the price.
Cargo Handling: We lightened into two vessels and discharged the balance of cargo at the SBM. The discharge plan was changed frequent during the waiting time. Discharge into the ships was via a 12 in. hose and only one pump was required to achieve the required discharg pressure and gave rates of 2,075 t.p.h for the first and 2,933 t.p.h for the second.

Discharge to the SPM was via one 16 in. hose with a second hose connected in case of difficulties with the first, although not actually used and a rate of 2,224 t.p.h. was achieved. All discharging was carried o using the port side manifold and derrick.

Before lightening, three lengths of hose were placed on board to b connected together and attached to the ship's manifold, then a string four "Yokohama" type fenders were made fast alongside using the spri wires from forward of No. 1 and from between Nos. 8 and 9 holds. W were instructed to keep the wires slack at all times to prevent the joini wires breaking. All the moorings from the lightening ships have to b fed through "Panama type" fairleads and no open leads used to preve the rope/wire jumping out of the lead when the lightening ship completely deballasted. Communications between vessels is via walki talkies supplied by Trintoc (now "Petrotrin") and a co-ordinator fro Trintoc (now "Petrotrin") attends the vessel for liaising operation Bunkering cannot be carried out while lightening but is acceptable at th SPM, we managed to complete it before any cargo operations start No gangways are used between ships.

Mooring at the SPM was carried out with the assistance of one t made fast on the starboard side of No. 1. A ship's line is sent away connect with the SPM port line, as usual, this starting line should be t ropes joined together to ensure adequate length. Once the connect line is brought on board (a 16 in. nylon) in sufficient quantity it is ma fast on the bitts and the starboard connecting line picked up and secu When connecting hoses, we found that our manifold flanges were t thin to accept their patent clamps and we had to fit 12 in. reducers our manifolds and also to their pipelines to get a good fit. Ship's c carry out all operations although there are personnel placed on bo for mooring to the SPM to advise and assist.

Mooring and unmooring are usually carried out during daylight bu some reason we unmoored during the night, much to the surprise of Pilot and co-ordinators, being the first vessel to do it for 6 years.
Personnel Changes: We carried out several changes of personnel d the period and in general, the joining people arrived on time wi much difficulty but the personnel leaving, unless previously booke advance, met with delays getting flights. A vessel which arrived the after us, had eight men delayed ten days before flights were avail Non-crew personnel, such as technicians, who arrived and stated t were coming to do work on the ship were not allowed entry into country without obtaining a work permit.

SHIPMASTER'S REPORT: February, 1980 (Updated 1994).

Documents: 5 Crew Lists, 2 copies of Crew Personal Effects, 2 Arrival Reports, 1 unmanifested Cargo List, 2 Report of Ship's Stores. All these on local forms except Crew Lists.

Anchorages: Usually given an anchorage position by Trintoc (now "Petrotrin"), Trinidad, and normally use starboard anchor and require starboard accommodation ladder.

Tankers: Advise Agent time of transiting Bocas del Dragon and then North Post Radio will advise all ships. If using SPM, require forward 2 ship's lines to bring aboard 2×16 in. nylon lines which have to be heaved around drum ends. Sometimes have tug to assist.

SHIPMASTER'S REPORT: November 1983 (Updated 1994).

Documents:

Agent: P&I 48 (Arrival Report)

Immigration: P&I 10 (Arrival Report), P&I 53 (Arrival Report form in triplicate)

Quarantine: P&I 31 (Maritime Declaration of Health)

Customs: C-1 (Ship's Stores in duplicate)
C-2 (Crew Declaration)
C-3 (List of Unmanifested Cargo)
5 copies of Crew List.

Anchorages: It is necessary to anchor in position given by Trintoc Marine (now "Petrotrin Marine"),otherwise they request you to shift to correct position but also necessary to check there is not another vessel anchored there already.

Radio: We found it very difficult to communicate with North Post Radio from the bay. 'Shipping' or Trintoc Marine (now "Petrotrin Marine") are very helpful passing messages to agents, etc.

Shore Leave: Apparently the liberty boat rarely goes to San Fernando these days (apparently due to the unsafe state of the jetty).

Currency: Agents require at least 10 days' notice if vessel requires any foreign currency and, apart from this delay, Sterling and U.S. Dollars seemed readily available. 4 days' notice is required for local currency. This 4 days would probably be longer if not using Company Agents.

Mail: Mail took 4 days from arrival at airport to delivery on board.

SHIPMASTER'S REPORT: August 1996 – Bunkering.

Documents: As per "Guide to Port Entry".

Pilotage: Drop anchor without Pilot. Place for dropping anchor given by ship's Agent by VHF when 20 miles out from port. Anchorage usually 1 mile out from pipeline viaduct, but vessel must not impede traffic to and from the port.

Charts: B.A. Charts No. 482 and 483.

Radio: Keep watch on VHF Channel 16. Agent contacted through Port Station, call sign "North Post Radio".

Port Authorities: On arrival, Authorities came on board with ship's Agent. Joint inspection consists of 3 men. They took Port Clearance from last port of call.

Bunkering: Bunkering by barge. On completion, Master must report to ship's Agent by radio following information:

Time barge alongside.
Time hose connected.
Time commenced bunkering FO, DO, Lube oil.
Time completed bunkering FO, DO, Lube oil.
Time hose disconnected FO, DO, Lube oil.
Time barge away.
Time vessel sailed.
Amount loaded DO, FO, Lube oil.

AUTHORITY: The Petroleum Company Trinidad and Tobago Limited, Pointe-a-Pierre, Trinidad, W.I. *Tel:* (809) 658-4200. *Telex:* 39367 Petrotrin Marine. *FAX:* (809) 658-4636. *Cables:* Petrotrin, Pointe-a-Pierre. *Contact:* P.J. Lyons, Marine Manager. L. Chan Chow, Port Captain.

PORT-OF-SPAIN: 10.39 N. 61.32 W. (See Plan)

DOCUMENTS:

Immigration:

2 Crew Lists.
2 Passenger Lists.
1 Maritime Declaraton of Health.
*1 Stowaways List.
*4 Arrival Report Forms.

*Supplied by the Immigration Department on boarding the vessel and must be completed by the Master of the vessel.

Customs:

2 Crew Lists.
1 Passenger List.
2 Customs Ship's Stores Lists.
1 Crew Stores List.
1 copy of Cargo Manifest (if cargo vessel).
2 Lists of unmanifested cargo.

Quarantine:

1 Cargo Manifest.

PILOTAGE: It is not compulsory to apply for a Pilot into Port-of-Spain anchorage. However, if required notification must be sent to the Pilot Station (Port-of-Spain) at least 1 hour before arrival at the Station on VHF Channel 16.

The Pilot vessel has a black hull and white housing and is 35 ft. long. The word 'Pilot' is written on the housing. It is equipped with VHF radio and carries an international pilot boat light.

Vessels requiring a Pilot can call Pilot by International Code Flag "G" by day and white light and red light at night or by International Code Signal "G" on whistle.

The Pilot Boarding Station is located within 0.5 miles seaward of the Grier Channel Entrance. The vessel awaiting a pilot may anchor anywhere seaward of the Pilot Boarding Station.

International Requirements are applicable for pilots with respect to Boarding and Safety measures. Gangway or standard type pilot ladder with spreaders about 10 ft. apart is required. Ladder must be clean. It is desirable that 1 stanchion be securely fitted in the bulwark at the top of the ladder.

Pilot station is situated at the Western end of the Port-of-Spain Wharf.

ANCHORAGE: Depends entirely on draft but should not be nearer than 0.5 miles from Grier Channel Entrance, except in cases of vessels loaded with explosives; this anchorage is clearly defined on Chart.

Open roadstead in Gulf of Paria but can be considered as sheltered with choppy seas at times. Bottom shelves gradually from shoreline to 7 fathoms at Western end of harbour limits, increasing to 20 fathoms outside harbour limits Westward. Type of bottom, mud. Swinging area unlimited. No mooring buoy. Distance from anchorage to shore 2.25 miles at 5 fathoms to 5 miles at 7 fathoms, vessel will swing to the tide if loaded, and to the wind if light.

Currents 0.5 to 1.5 knots flood and ebb. Rise and fall of tides, variable. Minimum 1 ft. 5 in., maximum 4 ft. Rainy season June-December. Dry season December-June. Rain squalls occur during months of July, August and September up to 30-40 knots unpredictable hurricane most unusual. Prevailing winds are mostly Easterly, normally stronger during daylight.

RESTRICTIONS/MAX. SIZE: The Grier Channel, 350 ft. wide, leads to a dredged basin in which are the docks. No restrictions on length, but maximum draft in channel, in basin and alongside is 32 ft. MLWOST.

RADIO: Advise through North Post wireless or telephone, call sign 9YL. ETA 48 hours and 24 hours with other requirements.

TUGS: All vessels of over 1,000 n.r.t. are required to use a tug. Specifications of the 2 tugs are as follows: g.r.t. 2,961.72 tons, n.r.t. 75 tons, speed 12 knots, engines 2×1,200 b.h.p. Ship's lines are normally used.

BERTHING:

Berth No.	*Length (m.)*	*Depth (m.)*	*Use*
1	90	8.0	Break Bulk, Multi-Purpose, Ro/Ro, Cruise Vessels.
2	152	7.4	Break Bulk, Multi-Purpose, Cruise Vessels.
3	152	8.0	
4	152	8.4	
5	152	8.9	
6	152	9.5	Container vessel using ship's gear or shore crane, cruise ships.
6AE	166	9.9	Container vessel using Portainer crane.
6AW	166	10.0	
*7	182	9.5	Rice, Break Bulk, Multi-Purpose.
8	182	9.5	Rice, Break Bulk, Multi-Purpose, Ro/Ro.
8AW	61	4.0	Rice

*At present this berth is under repair.

In addition to the deep water facilities mentioned above there are shallow draft facilities which are located at the Eastern end of the Port. They provide docking facilities for coastal and regional vessels. The Caricom Berth (for regional vessels) is 45 m. long and 4.0 m. deep.

Loading/discharging can be operated by shore equipment supplied by the Port Authority or ship's gear or both.

CRANES:

Type	*No.*	*Capacity* tons
Portainer–Rail Mounted	2	40
Ferranti rubber tyred gantry	5	40
FMC Linkbelt Mobile Crane	1	200
Demag Mobile Crane	1	100
FMC Linkbelt Mobile Crane	2	75
FMC Linkbelt Mobile Crane	3	50
IMC Linkbelt Mobile Crane	4	30

CARGO HANDLING: One berth on the Eastern side is an open wharf without a seafront warehouse. This berth is strictly used for containerised and passenger (cruise) vessels. The Eastern Wharf is 3,300 ft. with five seafront warehouses. On the Western side the wharf is 1,200 ft. long with two seafront warehouses for general cargo, but at these two berths there are also facilities for receiving bulk cargo, i.e. grain, liquid oil, fats and molasses. These cargoes are usually discharged by vessel's equipment, but grain can be discharged by shore equipment at a slower rate.

In addition to the cranes mentioned above, other cargo handling equipment available is as follows:

5 top lifters × 28 tons capacity.
7 front loaders × 10 tons capacity.
40 Mercury Reliance Haul Majors.
17 Motor trucks.
117 Trailers × 20 ft.
45 Trailers × 40 ft.
79 Forklifts × 5 tons capacity.

STEVEDORES: Integrated longshore and stevedore gangs available on request by Agents. Gang sizes vary from 12 men to 18 men, dependent on the type of operation.

Hours of Work: Normal Time: 0700 – 2300, Monday to Friday.
Overtime Hours: 2300 – 0100, Monday to Friday (if necessary to complete an operation).
0700 – 1900, Saturday, Sunday and Public Holidays.

MEDICAL: Advance notice of attention required will assist. Modern hospital facilities available.
FRESH WATER: Fresh water is available at Berths No. 1 – 6 from hydrants alongside the Pier. Alternative arrangements can be made to supply truck-borne water if necessary.
FUEL: All grades supplied by barge, contact Agent in advance.
CONSULS:

Belgium	6238711	Italy	6236255
Bolivia	6254123	Japan	6232866
Colombia	6236601	Lebanon	6231652
Costa Rica	6254123	Liberia	6222322
Denmark	6251901	Mexico	6254040
Dominican Republic	6241217	Norway	6236871
El Salvador	6226247	Panama	6223497
Greece	6232186	Portugal	6234930
Guatemala	6252441	Spain	6238851
Haiti	6232876	Sweden	6232166
Embassies:			
Argentina	6254069	India	6231276
Brazil	6225779	Jamaica	6224995
Great Britain	6252861	Netherlands	6251722
Canada	6234787	U.S.A.	6226471
France	6251437	Venezuela	6253872
Germany	6251898		

REPAIRS: Limited facilities available.
DRY DOCKS: See "Chaguaramas".
SURVEYORS: Lloyd's.
HATCHES: Opening/closing of hatches is normally done by the crew where the system is an automatic one. For manual systems, stevedores are used.
CUSTOMS ALLOWANCE: Crew is allowed either 25 grammes or 2 packs or 40 cigarettes or 5 cigars. No alcoholic drinks allowed.
CARGO GEAR: Vessels normally load and discharge break bulk cargo with their own gear but shore cranes and heavy lift cranes are available on dock.

Container vessels using the container berths are required to use the Port's Portainer cranes.
REPATRIATION: Crew changes and repatriation can be arranged through Agents.
AIRPORT: Piarco International Airport (17 miles from Port-of-Spain) has daily flights to worldwide destinations.
TIME: GMT minus 4 hours.
HOLIDAYS: New Year's Day (January 1st); Good Friday; Easter Monday; Labour Day (June 19th); Whit Monday; Corpus Christi; Emancipation Day (first Monday in August); Independence Day (August 31st); Diwali Day (late October/early November); Eid-ul-Fitr (December 21st/22nd, approximately); Christmas Day (December 25th); Boxing Day (December 26th). Any work performed on public holidays will be charged at overtime rates.
POLICE/FIRE/AMBULANCE: Port Security – 6251861, Port Health & Safety – 6253777, Police – 999, Fire – 990, Ambulance (Red Cross) – 6278214, Hospital – 6237715/6232951-6.
EMERGENCY CO-ORDINATION CENTRE: National Emergency Relief Organisation (NERO), Coast Guard Headquarters, Staubles Bay, Chaguaramas. Tel. No. 6254939.
BANKS:

Bank of Commerce of Trinidad and Tobago Limited, 72 Independence Square, Port-of-Spain. Tel: 6252711.

The Bank of Nova Scotia, Trinidad and Tobago Limited, Park & Richmond Streets, Port-of-Spain. Tel: 6253566.

The National Commercial Bank of Trinidad and Tobago Ltd., 68 Independence Square, Port-of-Spain. Tel: 6252893.

Republic Bank Limited, 40-42 Frederick Street, Port-of-Spain. Tel: 6231021, (After hours) 6254418.

The Royal Bank of Trinidad and Tobago Limited, 55 Independence Square, Port-of-Spain. Tel: 6253511.

Trinidad Co-operative Bank Limited, 80-84 Charlotte Street, Port-of-Spain. Tel: 6235330.

United Bank of Trinidad and Tobago Limited, 74 Independence Square, Port-of-Spain. Tel: 6251040.

Workers Bank of Trinidad and Tobago, Cnr. Duncan Street and Independence Square, Port-of-Spain. Tel: 6253371.
SHIP SUPPLY SERVICE: For helicopter service, contact Nealco Air Services Limited, 63 Piarco International Airport. Tel: 6645416. Telex: 25314 Nealair.

4 seater helicopters; rendezvous points – oil rigs with helicopter landing facilities on the East Coast of Trinidad.
SHORE LEAVE: Possible with valid identification.
IDENTIFICATION CARDS: Seaman's Book is sufficient.
DELAYS: A berth scheduling system is in operation. Berthing Application must be submitted at least 24 hours in advance.
GENERAL: An inter island ferry service is available. Two Government-owned vessels, the M.F. "Tobago" and newly acquired M.F. "Panorama", operate a regular cargo and passenger service between Trinidad and Tobago. Seating accommodation is 700 passengers per vessel.
DEVELOPMENTS: Berth No. 7, length 198 m. to be upgraded to container berth with container handling cranes.
AUTHORITY: Port Authority of Trinidad and Tobago, 1 Ajax Street, P.O. Box 549, Port-of-Spain, Trinidad, W.I. *Tel:* 6254074. *Telex:* 22477 Patt Wg. *FAX:* 627-2666. *Cables:* Gateway. *Contact:* General Manager.

SOBO (Pitch Point): 10.15 N. 61.37 W.

Crude Oil Terminal operated by Trinidad & Tobago Petroleum Company Limited is no longer in operation.

TEMBLADORA (Alcoa Bauxite Terminal): 10.41 N. 61.35 W.

Also refer to "Port of Spain".
DOCUMENTS:

2 Crew Manifest/Stores List for Customs.
2 Ship's Stores List for Customs.
4 Immigration Arrival Report.
8 Crew Lists.
1 Declaration of Health.
1 Stowaway List (if stowaways on board).

PILOTAGE: Pilotage is compulsory. Pilots board 0.5 miles off installation.
ANCHORAGE: Safe anchorage 0.5 – 0.75 miles off head of jetty.
MAX. SIZE: No. 1 (Western berth) for discharging, length of berth 976 ft. Max. draft 23 ft.

No. 2 (Eastern berth) for loading. Length of berth 675 ft. Max. draft 36 ft.
RADIO: ETA should be given at least 36 hours before arrival via North Post Radio " 9YL" or Barbados Radio "8PO" to Alcoa.
TUGS: Alcoa maintain their own tug to assist in docking operations.
BERTHING: There are two wharves: No. 1 with a length of 976 ft. and No. 2 with a length of 675 ft.
STEVEDORES: Not necessary.
MEDICAL: All facilities available. Advance notice of requirements should be given.
FRESH WATER: Supplied at both piers, also by barge.
FUEL: All grades by barge and pipeline.
GANGWAY/DECK WATCHMEN: Customs guards on duty at ship's side.
OPENING/CLOSING HATCHES: Handled by crew.
CUSTOMS ALLOWANCES: 200 cigarettes and a moderate amount of spirits per man.
CARGO GEAR: Loading: Carried out with travelling tower conveyor system, rate 1,000 t.p.h. Discharging: With travelling tower grab 5 tons capacity, rate 300 t.p.h.
REPAIRS AND DRY DOCKS: At Chaguaramas.
REPATRIATIONS: Can be arranged (Advance notice must be given for citizens from Eastern Bloc countries).
AIRPORT: See "Port of Spain".
TIME: GMT minus 4 hours.
TELEPHONES: No facilities for telephones on board.
SHORE LEAVE: No restrictions (except for citizens of Eastern Bloc countries who need visas or special permission).
IDENTIFICATION CARDS: Required. Vessel must issue I.D. cards to all onboard.
GARBAGE DISPOSAL: Garbage disposal can be arranged on request.
WASTE OIL DISPOSAL: Not available at Tembladora.
SEAMAN'S CLUBS: The Mariners Club (Flying Angel), Wrightson Road Port of Spain. Tel: 625-4826, 627-4873.
CURRENCY: Trinidad and Tobago Dollar (TT$).
AUTHORITY: Alcoa Steamship Company Inc,, Tembladora Transfer Station, Carenage, Trinidad, W.I.

Alcoa Steamship Company Inc., P.O.Box 609, Port-of-Spain, Trinidad W.I. *Tel:* 63-23308/13. *Telex:* 21221 (Alcoa Wg). *Cables:* Alcoaship Port of Spain. *Contact:* General Manager.

Tristan da Cunha

EDINBURGH (Tristan Island): 37.03 S. 12.18 W. (See Plan)

DOCUMENTS:
Passenger List.
Crew List.
Passport No./Name/Nationality.
Cargo Manifest (No Customs/Port forms).

APPROACHES: Chart B.A. 1769 Pilot Book Africa Vol. 2 to be used, local knowledge should be sought regarding weather.

Island is good radar target and may be seen visually at 20 miles in good weather.

PILOTAGE: Local Radio Officer will indicate safe anchorage by handheld VHF (Channel 16).

ANCHORAGES: Edinburgh anchorage is on N.W. side of Island. Town is difficult to observe as houses are very low. Leading marks are white triangles in field to right of crayfish factory.

Area most likely for large vessels has depth of 18 fathoms. Vessel to be wary of large amounts of kelp blocking intakes, etc.

In rough weather vessel could shelter to South of Island. Although due to katabatic winds off the mountains it is possible that no shelter will be found around the island.

A quieter anchorage can be found 2 cables East of the 114°T and 213°T transit intersection. Weak tidal currents set East and West through the anchorage, the East going current being the stronger.

HEALTH: Any person suffering a cold will not be allowed ashore; if colds are prevalent aboard then no one will be permitted ashore.

RADIO: Radio contact made via Cape Town who will arrange schedule.

Tristan (ZOE)	Ship
3737 kHz	3737 kHz
8187 kHz	8281 kHz
12325 kHz	12423 kHz

Vessels may also make contact by the following:

	Inmarsat Main		*Inmarsat Reserve*
Sat Telex:	581 1445434 (PR6JX)	Telex:	581 1445412 (PR6SX)
Sat Fax:	871 1445435	Fax:	871 1445413
Sat Tel:	871 1445434	Tel:	871 1445412

BERTHING: Calshott Boat Landing (used for all landings) is small (40 ft. - 50 ft. long). Local knowledge required. 1 motor launch and 2 small powered lighters are used for cargo.

GARBAGE DISPOSAL: No garbage disposal facilities.

WASTE OIL DISPOSAL: No waste oil disposal facilities.

SEAMAN'S CLUBS: No seaman's Club. Anglican church. Very limited sports. No telephone. No shore leave overnight.

CURRENCY: Own currency, pounds on par with UK Sterling.

GENERAL: There is a landing fee of £3.00 for any passenger who wishes to land (No Passenger List required).

SHIPMASTER'S REPORT: February 1986 (Updated 1994).

The navigational marks are as per the Pilot Book. These are made of wooden slats. The beacons on the 203° (T) bearing are in a large field behind the new canning factory, just above the boat harbour. The lower of the beacons on the 114° (T) bearing is on the top of a little hillock and the higher is on the cliff side.

When the sun is shining on these beacons they are easily discernable but when the sun is at right angles or behind them they are not easily seen.

There are no lights on the beacons.

There are lights illuminating the entrance to the boat harbour.

All lights are extinguished at 2400 hrs., including the lights at the entrance to the boat harbour.

The soundings that we obtained were as per the chart.

Whilst we were there, with a Force 7 on the starboard beam, we lay with the bow to the shore. When the wind moderated we then lay with our bow into the wind so it would appear that strong Westerly winds cause an offshore current in the anchorage area.

Radio Communications at Tristan Island: The Station has a daily schedule with Cape Town Radio at 0830 hrs. GMT.

Cape Town Radio will arrange schedules for ships as required.

The frequencies used are as follows (all SSB R/T):

Tristan da Cunha (ZOE)	Ship
3737 kHz	3737 kHz
8187 kHz	8281 kHz
12325 kHz	12423 kHz

Whilst at anchor VHF communication on Channel 16 is provided by a hand held walkie talkie on the island.

The manifest of the cargo for Tristan da Cunha only.

Accommodation ladder not used, pilot ladder and scrambling net preferred.

SHIPMASTER'S REPORT: March 1988 (Updated 1990).

The Report above is correct; but to the East of the settlement, there are a further two small triangular leading marks, which when in transit (114° T), indicate the beam bearing for the safest anchorage. The top mark is part way up the cliff to the left of the land-slip, the lower mark is on top of a small outcrop of rock. There are no lights on these beacons.

AUTHORITY: *Contact:* Curnow Shipping Ltd., The Shipyard, Porthleven, Helston, Cornwall. *Tel:* 0326-563434. *Telex:* 45654. *FAX:* 0326-564347.

NOTES

Please also advise Shipping Guides Ltd.

Tunisia

ASHTART: 34.17 N. 11.23 E. (See Plan)

DOCUMENTS:
Customs: 1 Crew Declaration, 1 Ship's Stores List.
Immigration: 1 Crew List.
PILOTAGE: Compulsory within 3 miles of any installations. To avoid a delay, Owner must report to SEREPT SFAX 72 hours, 48 hours and 24 hours in advance of ETA.
ANCHORAGE: 3 miles South of the storage barge.
RESTRICTIONS: Mooring in daylight only.
HEALTH: Masters must declare on arrival, condition of health of all on board with details of any sickness.
VHF: Call "Ashtart Terminal" on VHF Channels 9 and 16.
TUGS: One tug required to be in attendance while loading.
BERTHING:
(a) *Tanker Berths:*

One SBM for tankers up to a max. size of 150,000 d.w.t. Water depth 66 m. Loading Rate 3,000 cu.m.p.h. Max. quantity available 105,000 tons. 1×12 in. hose.

Vessels mooring use one line, and must be able to easily heave on board an anti-chafing chain whose links are 32 cm. wide.

(b) *Storage Barge Berths:*

Starboard side alongside storage barge, tankers up to a max. size of 70,000 d.w.t. Depth 66 m., loading rate 4,500 cu.m.p.h. Max. quantity available 105,000 tons. 2×12 in. hoses.

(c) *Tanker on Storage Barge Berth – Tandem:*

Tankers up to a max. size of 100,000 d.w.t. Depth 66 m. Loading rate 3,000 cu.m.p.h. Max. quantity available 105,000 tons. 1×12 in. hose on starboard side.

MEDICAL: No facilities.
FRESH WATER: Not available.
FUEL: Not available.
CONSULS: France and Libya at Sfax.
REPAIRS: No facilities.
REPATRIATION: Not possible.
AIRPORT: At Sfax.
TIME: GMT plus 1 hour.
HOLIDAYS: None.
GENERAL: No dirty ballast facilities. No provisions available. Master supplied with booklet containing special port regulations on arrival.
AUTHORITY: Societe de Recherches et D'exploitation des Petroles en Tunisie – SEREPT, B.P. 246, 3018-SFAX, Tunisia. *Tel:* (04) 235 400. *Telex:* 40859, 40700. Sfax Telex: 13.800 Tn. Tunis Telex: 13.042 Tn. *FAX:* (218) (4) 237102 (Sfax). *Contact:* Mr. Chouchene or Mr. Guerfel.
AGENT: See "Sfax".

BIZERTE: 37.16 N. 09.53 E. (See Plan)

PORT LIMITS: Commence 0.5 mile from the Port.
DOCUMENTS:
5 Crew Lists.
5 Passenger Lists.
4 Crew Personal Effects Lists.
4 Ship's Stores List (Cigarettes, spirits, arms, narcotics, bunkers, paint, etc.).
3 copies Bill of Lading.
3 copies Manifest.
Health Declaration.
PILOTAGE: Advise Pilot of ETA 48 hours before arrival. Pilot vessel and Pilot Station may be contacted by VHF Channel 16. The Pilot boat exhibits the letters "P" & "H". The Pilot boards half a mile from the Southern fairway, vessels have to slow down to enable the Pilot to board.
ANCHORAGE: The anchorage for vessels awaiting the Pilot is half a mile from the Southern fairway.

When the wind is blowing from N.W., the best anchorage is off Cap Farina.

APPROACHES: The entrance channel is dredged to 12.0 m.
RESTRICTIONS: Entry at night is forbidden for tankers.
MAX. SIZE: See "Berthing".
Tankers: Max. draft at Quai Stir is 35 ft.
HEALTH: Free Pratique normally given at the quays after mooring. Pratique is automatic for vessels coming from another Tunisian port. In case of suspected disease on board vessel will be ordered to quarantine anchorage.
RADIO: Bizerte Radio, call sign 3VWA. Frequencies: 2182, 1743, 1637, 2321 and 2506 kHz. Range 200 km.
VHF: Channels 16 and 14.
TUGS: The tugs join the vessel at half a mile from the fairway.

Two tugs of 3,600 h.p. are available 24 hours. They are equipped with radar, 2 cables each (48 mm. diameter × 850 m. length) and 2 pumps of 420 cu.m.p.h.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)
Appontement de Servitude	90	5.50
Quai Stir		
Poste A	250	10.67
Poste B	150	8.25
Quai de Commerce	500	8.85-9.14
Quai Cerealier	220	9.75
Tunis Acier	120	9.00
Quai Cimentier	175	10.50
Appt. North Menzel Bourguiba		
North	156	7.60
South		6.30
Quai Sud Menzel Bourguiba	150	8.23

Load and discharge is carried out by ship's own gear.
CRANES: 1×10 ton on rails and 2×25 ton mobile cranes.
Equipment: 13×2.5-8 ton forklifts (private), 40 tractors (private) and 66 trailers (private).
BULK HANDLING FACILITIES: Grain is handled on the Silo Quay a 300 t.p.h. and cement at Quai Cimentier at 60-80 t.p.h.
SPECIAL CARGO HANDLING FACILITIES: None.
BRIDGES: New bridge (mobile) in operation.
STEVEDORES: Minimum of 24 hours' advance notice of ETA to Agen is required.
MEDICAL: Doctor available to board vessel. Hospital, private clinics and all facilities available. 48 hours' notice required for Cholera and Yellow Fever inoculations. Advise Agent of requirements.
TANKERS: Crude oil load/discharge line 20 in. diameter. Fuel oil load discharge line 14 in. diameter. No slop discharge facilities. Tugs stand-by during cargo operations.
FRESH WATER: Available from quay at most berths.Rate 20 cu.m./hr.
FUEL: Available.
FIRE PRECAUTIONS: The Petroleum Harbour is equipped with fir hydrants. A tug of 3,600 h.p. is required to be permanently standing b when tankers are moored alongside the quay.
CONSULS: All consulates in Tunis (60 km.).
REPAIRS: Some types of deck and engine repairs can be effected.
DRY DOCKS: There are 4 dry docks which are located at Menze Bourguiba.

		(m.)
Dry Dock No. 1 & 4	Length	190.90
	Higher width	30.25
	Lower width	26.50
	Draft	8.80
Dry Dock No. 2	Length	247.50
	Higher width	40.60
	Lower width	36.00
	Draft	12.00
Dry Dock No. 3	Length	84.10
	Higher width	14.78
	Lower width	13.00
	Draft	4.15

SURVEYORS: Bureau Veritas – Securas.

Many independent surveyors available.

GANGWAY/DECK WATCHMEN: It is recommended to employ sho watchmen.
OPENING/CLOSING HATCHES: Carried out by stevedores.
CUSTOMS ALLOWANCES: Each crew member is allowed 1 carton o cigarettes and 1 opened bottle of wine or spirits. In case of a prolong stay in port, Customs may renew these quantities.
REPATRIATION: Can be arranged by Agent.
AIRPORT: Tunis/Carthage Airport is situated 60 km. from Bizert Served by international airlines.
TIME: GMT plus 1 hour throughout the year.
HOLIDAYS: There are 17 days official holiday during the year. Wo can be carried out on all holidays except 1st May on payment of 100 overtime.
POLICE/FIRE/AMBULANCE: Police Tel: 431717; Fire 4310 Ambulance 431422.
TELEPHONES: No arrangements exist.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Crew Members' Identification Cards will b collected by the Immigration service and exchanged for shore pass while vessel is in port.
GARBAGE DISPOSAL: Nothing organised for garbage disposal. I ship asks the Port Authority to dispose of her garbage, it must collected on board and a tractor will go alongside each day and collec
WASTE OIL DISPOSAL: The refinery "Stir" can accept only a sm quantity of dirty ballast. The organisation "Sotulub" can also receiv small quantity of waste oil. For information contact the Harbour Mas
SEAMAN'S CLUBS: None.
CURRENCY: Dinar Tunisien (Dinar).

SHIPMASTER'S REPORT: January 1982 (Updated 1992).
Restrictions: Due to the lift bridge at the Eastern end of the Qua Commerce there is no entry during a period in the morning and ano in the evening when the main flow of traffic is expedited. Opening ho are 0600 – 0630, 1015 – 1045, 1515 – 1545 and 1930 – 0530. L authorities will open bridge out of these hours with special permiss
Health: Free Pratique will be granted on application by radio.
Berthing: The Western end of the Quai de Commerce showed de of 9.14 m. along the 600 ft. to the East.

There is 12.0 m. in the entrance channel and as far as the tur basin, but LESS in the basin hence the operation is difficult.

Fresh Water: Using ship's hoses, some 23 tonnes per hour ma attained overall, but pressure can drop at any time and care mus taken to make sure of a large quantity or if proceeding to La Gou elevator where there is no water to be shipped.

Gangway/Nightwatchmen: Most helpful and able to get results when Agents not available.

Identification Cards: These are sighted by the Immigration Officer and crew passes issued which are valid for all Tunisian ports but which must be collected before the vessel sails from the last port.

SHIPMASTER'S REPORT: August 1993.

Bulk Handling Facilities: There is a jetty off the cement plant for loading clinker. This jetty (See "Plan") was smaller than the length of the vessel and had reasonably good tyre fenders keeping the vessel away by about 1.0 m.

A fixed loader occupied a position in the middle of the jetty. When berthing, Hold No. 3 was positioned abreast of this loader to start the sequence. On berthing, vessel had an airdraft of about 10.0 m. An airdraft of 8.0 m. minimum would be required, even though the loader has a flexible spout. The spout, if left vertical, would plumb the part of the hold directly underneath it. The spout could be pulled by ropes attached to the end to direct cargo to the part of the hold required, but in any case cargo could be loaded only in peaks.

The plant did not have any loading meter. The loading rate worked out to about 450 tonnes per hour. From the time cargo was requested to be stopped, it took about 8 minutes for the conveyor to stop, meanwhile an addition of about 40 tonnes of cargo on the belt gets cleared. This has to be taken into account if loading to maximum draft.

The only cumbersome process while loading is the warping, as the bollards ashore were not suitably positioned for heaving the vessel to and fro. B1, B2, B3, B4 and B5 (See "Plan") were the only normal mooring bollards which were positioned in such a way that they could not be used for warping the vessel. There were 4 small chain lashing points (C1, C2, C3 and C4) on the jetty, on which the springs were secured to heave the vessel forward and aft.

Vessel experienced strong Easterly winds (Force 5) throughout the stay, which gave anxious moments, especially when proper springs could not be given, forward and stern lines having no proper lead to check the vessel, tending to surge down wind and also chafing the aft loader supports. There was a detached square jetty with a second loader which could be used simultaneously on longer vessels. For our vessel, only Holds No. 1 and 4 could be positioned together under the loaders.

Stevedores were co-operative and at all times about 3 or 4 men were on board to tend to the lines attached to the loading spout, in order to direct the cargo in the hold as required.

Restrictions: We understood from the Agents that the road bridge at the entrance to the harbour opens only between hours of 0615 – 0645, 1015 – 1045, 1515 – 1545 and 1930 – 0545; if at any time between 1015 – 1545 the bridge is required to be opened, it would be considered as special and may not be possible.

Fresh Water: Not available at the cement berth.

Gangway/Deck Watchmen: Compulsory. Risk of stowaways is possible.

Time: GMT plus 1 hour. No changes throughout the year.

Pilotage: No night pilotage after sunset.

Radio: VHF telephone calls can be made through Bizerte Radio.

AUTHORITY: Direction du Port de Bizerte, Quai Tarek Ibn Zied, 7000 Bizerte, Tunisia. *Tel:* (02) 433748, 431412, 436355. *Telex:* 21007 Bimpor. *FAX:* (02) 433688. *Contact:* Mohamed Adel Mokhtar (Tel: (02) 431139). Captain Souissi Noureddine (Tel: (02) 431741).

AGENT: See "Sfax".

GABES (Ghannouche): 33.55 N. 10.06 E. (See Plan)

LOCATION: The port is located in the Gulf of Gabes, 22 miles (approx.) South of the oil port of La Skhirra, 58 miles S.W. of Sfax and 32 miles to the West of Djerba.

DOCUMENTS: The Master must declare to Customs: Bunkers, paints, arms, narcotics, spirits, cigarettes, etc.

APPROACHES: Landfall by day is easy by virtue of the landmarks and oases around the port.

One can distinguish:

To the South of the port: The Oasis of Sidi Abdeslem and a 30 m. high tank.

To the North, the Oasis of Ghannouche and the red and white chimney, 44 m. high, of the power station.

To the West, the mass of buildings and industrial installations with, at the rear, the grey mushroom of the water tower, 36 m. high, and the Oasis of Bouchemma.

Landfall by night is equally easy, the port approaches being indicated, for vessels coming from the:

S.E.: The lighthouse of Ras Turguness (flash white 5 secs., range 24 miles) and then by the lighthouse of the Gabes fishing port (flash white 12 secs., range 11 miles).

N.E.: After coming round the belt of lights of the buoys of the Kerkennah Islands; by the mooring buoy N.W. of the channel of the Port of La Skhirra (flash white 10 secs., range 10 miles) and then by the lighthouse of the fishing port of Gabes.

The Roads:

The roads are indicated by the mooring buoy N.W. of the port channel (isophase white light: on 3 secs. off 3 secs., range 12 miles) and by the lighthouse of the fishing port.

Access Channel:

The port is entered via an access channel 3,220 m. long and 130 m. wide, dredged to 13.5 m.

This channel runs S.W. – N.E. and is joined to the entry passage by a curve 1,200 m. long.

On its 2 banks, there are 4 pairs of fixed light buoys, except Buoy No. 8 located in the curve of the channel.

At the breakwater entrance, there are lights placed on the heads of the North and South breakwaters.

PILOTAGE: Available 24 hours a day, 7 days a week.

ANCHORAGE: The Roads generally offer anchorage with good holding, and it is advisable to anchor to the South of the channel.

MAX. SIZE: Max. draft 35 ft. – 39 ft., according to tide.

TUGS: One tug of 1,200 h.p. and one tug of 1,600 h.p.

BERTHING:

The Basins:

The water area of the port, covering 80 hectares, is enclosed by 2 breakwaters (North breakwater 2,642 m., South breakwater 1,400 m.) leaving between them a passage 350 m. wide of which 200 m. is dredged to a depth of 13.5 m. This water area is divided into 2 basins:

An outer basin (50 ha.) dredged to 12.5 m., and having a manoeuvring circle 600 m. in diameter.

An inner basin (30 ha.) dredged to 10.5 m.

The Quays:

For berthing of vessels, the port has available:

A quay 360 m. long (Berths No. 3 and 4) running approximately E.N.E./W.S.W. and dredged to 10.5 m. This quay can take vessels up to 25,000 tons.

A quay 600 m. long (Berths No. 5, 6 and 7) running approximately N.N.W./S.S.E. and dredged to 10.5 m. This quay will take vessels up to 40,000 tons.

A quay 240 m. long (Berth No. 8) perpendicular to the first, and dredged to 12.5 m. This quay will take vessels up to 50,000 tons.

A quay (Berths No. 9 and 10) length 530 m. and depth 12.5 m. is East of Berth No. 8.

Port access is possible at all times to vessels with 33 ft. (10.06 m.) max. draft for Berths No. 5, 6 and 7, and 39 ft. (11.86 m.) max. draft for Berth No. 8.

Open storage areas:

The open areas for the storage of goods transitting through the port include in the public zone – a shed of 4,000 sq.m., open areas which are properly surfaced 70,000 sq.m., open areas of rolled earth: 100,000 sq.m.

CARGO HANDLING EQUIPMENT:

1×20 ton gantry crane.
2×20 ton Caillard cranes.
1×500 t.p.h. bulk loader.
1×300 t.p.h. grain suction unit.
Forklift trucks 2-10 tons capacity.
1×90 ton crane for heavy lifts (private).

FRESH WATER: Available.

FUEL: Available from Sfax (Mobil, Mory, Total, Esso, etc.).

REPAIRS: Possible.

SURVEYORS: Classification Society Surveyors at Sfax and Tunis.

Marine Surveyors – Supervise.

TIME: GMT plus 1 hour throughout the year.

WINDS/TIDES: The winds in the Gulf of Gabes present a seasonal variation with the character of a monsoon.

During the cold season (October – March) winds come from the land, from the West and North.

During the hot season (April – September) the winds come from the sea, from the East to S.E. The strength is then from Force 3 to Force 5, very infrequently reaching Force 7.

Tidal currents are negligible and have no influence on navigation.

The characteristics of the tides are as follows:

High Spring Tide	2.45 m.
High Neap Tide	1.60 m.
Low Spring Tide	1.10 m.
Low Neap Tide	0.15 m.

DEVELOPMENTS: The Port of Gabes has been essentially created to serve the chemical industries in the area which process the natural Tunisian phosphates coming from the S.W. of the country. There is some importation of sulphur for use in the various processes, likewise aluminium for production of aluminium fluoride. As the South of the country develops, traffic in various general cargoes, foodstuffs and capital equipment, is increasing.

SHIPMASTER'S REPORT: The following reports are from the same vessel. Vessel discharged ammonia at Gabes – Ghannouche.

May 1980:

Approaches: BA. 3327 and 372.

Approaching from the East good positions were obtained off Ile Djerba, keeping outside the 9 fathom soundings as the bottom shoals quite steeply.

The 'Fairway' Buoy "O" showed up well on the radar at 8 miles and the channel buoys themselves at 5 – 6 miles. Details of the breakwater were also visible on the radar at this range.

There is a Radio Beacon at Gabes but this is not marked on either chart. ALRS Vol. 2 refers to this.

Caution: The positions of the outer and channel buoys should not be relied upon. New positions as at 22nd/24th May, have been marked on Chart 372 and a tracing made. The current sets quite strongly across the axis of the channel and care is required when rounding the bend in the channel immediately before the entrance. The Pilot reported that channel buoys frequently break adrift.

Pilotage: Reportedly there is a 24 hour watch kept on VHF Channel 16 but we did not succeed in making contact until after we had anchored; time of arrival 0330 hrs. Even then reception was poor.

Fluency of English fair.

Pilot boards from a black hulled launch of about 10.0 m. length with white upperworks. Pilot ladder about 1 m. from the water. Pilot boards outside the fairway buoy.

Vessels with draft in excess of 10.0 m. must berth head in, port side to, owing to existence of 10.5 m. shoal in the Southern corner of the harbour. No night time pilotage for vessels of this size.

Only a tug is available and only of moderate power; on berthing she pushes according to hand signals and whistles from Pilot (no VHF). When unberthing she takes a ship's line from the stern to swing ship to port clear of berth.

Berth: The berth is a concrete quay in the Southern corner of the harbour about 250 m. long with depths alongside of 11.3 m. (forward) 13.8 m. and 14.2 m. taken by ship's leadline. Communication with shore personnel was not very good with conflicting advice as to whether vessel was in position or not.

The quay is used for the export of fertiliser products which are loaded by means of a large travelling chute. Despite fears, the gangway when swung out did not foul the gantry.

Well fendered with round rubber fendering.

Mooring arrangements were reasonable but the bow lines have to be taken to the far wall to afford a good lead when in position.

The gangway is landed on the quay without any problems.

The berth is open to swells from the East through S.E and is not very well protected from winds, except from due South. Since the bow is close up to the quay, special care should be paid to backsprings and all moorings. Ensure that watchmen are warned.

Discharge: The shore plant has storage for about 10,000 tonnes and relies on these shipments to keep the fertiliser section in production. Should tanks be empty they will be warm and high back pressures may be expected – 9 bar. The facility uses about 7,500 tonnes per month.

They claim to be able to accept cargo at a maximum rate of 350 t.p.h. but is usually in the region of 200 – 250 t.p.h. Our overall rate this call was 220 t.p.h.

The discharge line consisted of an 8 in. pipe from which there was provision for up to 4×4 in. flexible hoses to be connected. Only 2 hoses were used at this call. The shore flange has 12 holes which do not match the pitch of our manifold and, despite cabling ahead, this was not apparent until berthing and some time was lost. Shore personnel connect and disconnect. Line taken on board using ship's derricks. Shore provided the converting spool piece. Ship blew through lines on completion.

No vapour return line.

No venting to atmosphere.

Surveyor: Redwood's Surveyor in attendance and all figures based on gauging of ship's tanks.

Surveyor used a strange vapour factor which was not familiar in any way and declined to give us copies or explain its origin.

General: Fresh water available. No fuel oil available, if required proceed to oil terminal at Sfax. Repatriation and relieving of personnel possible without difficulties. Good road and rail communication with Tunis, Sousse and Sfax. Good access to Gabes by taxi. Shore passes required – take Discharge Book to Immigration office and a pass will be issued. Collect Discharge Book inward.

Papers: 3 Crew Declarations. 3 Stores Lists, including Bonded Stores. Declarations on the contents of all Bars onboard. (This is most important, Tunisia is largely Moslem).

2 Lists of ports previously visited.

Port Health Form – normal Health Declaration.

The Officials were very fair but very thorough in checking bonded stores. Fresh provisions available.

July 1980:

Discharge: The discharge rate at this call was only in the region of 177 t.p.h. (perhaps due to Ramadan) with a very high back pressure throughout in excess of 9 bar.

Total delays this call amounted to some 28 hours 20 minutes.

General: IMPORTANT: Since our last call the authorities have instituted strict currency control regulations and a number of the crew were caught on arrival during cabin searches. Personnel must therefore be warned before leaving that *ALL* Tunisian currency has to be handed back. The penalty for non-compliance being confiscation of the currency and a fine of at least twice the value of the money discovered. Before arrival personnel should be warned accordingly.

All authorities subjected the ship to a much more thorough scrutiny than at last call.

Repatriating personnel were subjected to baggage searches either on board or ashore.

Fresh stores were taken at this call and were of good quality.

Freon "R22" available in small quantities.

Fresh water taken and treated with "Stabochlor" as a precaution.

November 1980:

Approaches: BA. 3327 and 372.

When rounding Kerkennah Banks the buoys should not be relied upon.

On the flood tide the current from Kerkennah to Fairway Buoy sets in a S.S.W. direction. Fairway Buoy shows up at about 8 miles on radar and Channel Buoys at 5 to 6 miles.

A number of oil rigs are found between Kerkennah Banks and Ile Djerbe, these should not be relied on for navigation fixes. Ile Djerbe gives good positions. Approaching the Fairway Buoy a 'Minaret' marked on BA. 3327 to North of port is conspicuous and Beida Mt. (902) to N.W. of port is conspicuous.

Breakwater is visible on radar at 15 miles but difficult to make out visually until very close too on account of haze. A radio beacon not marked on BA. 3327 is listed and operating as per ALRS Vol. 2.

Fairway Buoy is number "O" and named "Ghannouche" it is a tall red pillar buoy, its permanent position as per the alterations on BA. 372.

Channel buoys have been altered and are best seen from the changes to BA. 372. Pilot reports that all have new moorings and should be considered reasonably reliable. They are lifted about every 4 months, one at a time, so the official numbers as changes to BA. 372 do not always correspond to the actual number.

Anchorage: For large vessels about 1.0 – 1.5 miles East of Fairway Buoy and for small vessels to East of No. 2 Buoy. Good holding ground.

Wind: The prevailing wind is from the East and is strongest during Winter months. Due to the harbour being open to the East a swell carries into the harbour making berthing and working of small vessels impossible at times.

V.H.F.: Call 'Gabes Port' on Channel 16, range limited (12 miles). English reasonable.

Berthing: No berthing if wind over Force 4 to 5 and no unberthing over Force 3 to 4. Largest ship to use port 'Galconda' (LPG) gross 34,893 tonnes and deepest draft ship 'Hampshire' (LPG) gross 32,060 tonnes draft 11.2 m.

Channel: Minimum depth Chart Datum found to be 11.0 m. (36 ft.) plus 0.8 m. MHWN and 2.2 m. MHWS.

Liable to silting. Official depth is 41 ft. (12.5 m.) but last dredged 1974.

Pilot reports little current in channel, but reports suggest cross current can be encountered particularly near breakwaters. Channel dredged in box shape.

Pilot: Two Pilots employed by National Port Authority. Only senior Pilot handles large vessels. Good English spoken.

No berthing/unberthing of large vessels at night. Sunrise to Sunset only. Boards from black hulled 10 m. launch with white upperworks. Pilot ladder about 1 m. above water. Prefers gangway if weather suitable. Boards outside Fairway Buoy.

Tugs: Only one Port Authority tug of 1,200 h.p. with suspect towing hook. In November 1980 this tug was under repair and a Greek Construction Co. tug was being hired for port use as necessary. This tug (800 h.p.) would not work on a Sunday. When berthing, tug pushes; when unberthing, tug takes ship's line from starboard quarter. Pilot reports second tug in design stage.

Berthing/Moorings: All berths port side to.

Fertiliser/Ammonia/Phosphoric Acid Berth – Berth head in.

Sulphur and Grain berths – berth head North.

Vessels on all berths moored close together. Three large and 1 small vessel can moor on Sulphur/Grain berths.

Good back springs essential at all berths.

Moorings: 3, 2, 2. Forward head lines go to quay ahead of Ammonia Berth, mooring boat used. On Ammonia Berth our bow was about 3 m. off stern of vessel immediately ahead and at right angles to us.

Berths: Ammonia Berth of concrete trestle construction with bollards and fenders on concrete projections proud of quay face. All other berths solid concrete construction.

Ammonia Berth about 250 m. in length and 13.2 m. C.D. minimum. Other berths reported to be 10.5 m. alongside.

Density: 1029. (3 visits) May, July and November. Good fendering on all berths.

Cargo: Anhydrous Ammonia: Intake for fertiliser plant about 10,000 tonnes per month.

Loading/Discharge: Discharge rate varies but maximum claimed to be 350 t.p.h., in practice this has been 220, 177 and 233 t.p.h. over three visits with back pressure of 8.5 to 9.5 bars. No vapour return line. 2×4 in. flexible pipes join onto common manifold union with 8 in. coupling of odd size. The plant has a spool piece to fit standard 15 ASA connection on ships. Shore labour assists with connection.

For large LPG/NH_3 carriers it is necessary to berth as far up quay face as it is safe to do so in order to be able to connect pipes. On this vessel the after end of gangway must be past travelling shiploader stowage position on quay. Generally 2 ship pumps are required. Shore tank capacity 9,800 tonnes.

Same berth is used for loading Ammonia Phosphate for export at about 30,000 tonnes per year and Phosphoric acid in liquid form a 60,000 tonnes per year.

Travelling shiploader for Ammonia Phosphate loads at 800 t.p.h.

The Sulphur Berths nearest to Ammonia Berth have 2 discharg cranes/gantry. The Grain Berth at the Northern end is worked by ship gear. Both these are import berths. Sulphur berth direct into fertilise plant. It is planned to export Nitric acid in the near future.

Gangway: Can be turned out on all berths prior to berthing even thoug it seems vessel cannot due to shiploaders.

Communications: At Ammonia Berth after connection there is lit English spoken by personnel ashore. Two watchmen always onboard

N.O.R.: Tender on arrival to SAEP GABES, accepted alongside bert

Surveyor: SGS/Redwood in attendance. Does not always appear o arrival.

General: Fresh water available from quay, but salty. If fuel required to Sfax. Personnel reliefs quite easy through Djerba. Direct flights Frankfurt 3 times per week. Baggage may go missing. Road and communication with Tunis, Sousse and Djerba. STD Internation telephones. Holiday resort at Djerba.

Authorities: Immigration board first to check International Hea Declaration and Vaccination List. If all in order 'Q' flag is pulled dow Quarantine Pratique granted and Customs and Agent can board. Health/Immigration: require all Cholera Certificates up to date, if not Health will carry out inoculation on board the ship.

Customs currency control is rigid – all currencies must be decla and all Tunisian currency drawn and not used handed back on departu Bars are particularly subject to inspection. Customs also very care check Bars stocks, if any discrepancies a fine is levied.

Customs conduct cabin searches for undeclared articles. Mas safe is checked together with dangerous drugs which must be prop declared, every single item and amount of each. Personnel going ash take their Discharge Books to main gate where a shore pass is iss and Discharge Book collected on return.

Papers required:

3 Copies Personal Effects Declaration (Make sure Jewellery is declared).
3 copies Personal Currency Lists.
2 Stores Lists.
2 Drugs Lists.
2 Bond Lists.
2 Vaccination Lists.
6 Cargo Declaration Lists.

Chandler: Fresh provisions available and seem good and reasonable. Cable ahead for chandler as normally does not wo weekends.

Agent: Agent had office just outside main gate. Good English and generally helpful and obliging. Crew transfers conducted without difficulty. Can telephone STD from office.

Developments: On North side of Harbour general cargo berths are being constructed. The retaining breakwater has been completed and the berth concrete caissons are being placed in position.

SHIPMASTER'S REPORT: February 1985.

Vessel discharged anhydrous ammonia.

Bow-thruster: It is advisable to inform the Agent well in advance whether vessel is equipped with a bow-thruster or not. When negative, a second tug is required for large vessels, as only 1 tug, small and low powered, is available at Ghannouche. The second tug has to be ordered from Sfax (distance approx. 60 miles). This might cause delay in berthing if Port Control is not aware that the vessel does not have a bow-thruster.

Hoses: The shore connection now consists of a 10 in. 150 ASA hose. Due to the height of our manifold above the water (41 ft.) at 24 ft. draft, extra lengths of hose had to be provided by shore.

Maximum allowable pressure for hoses: 8 bars.

Discharge: Maximum shore receiving capacity approx. 600 tonnes/hr. Receivers urgently requested us not to go beyond the 8 bars back pressure.

We discharged approx. 550 tonnes/h. at 7.5 bars back pressure, however, a few hours after commencement of the discharge, the plant requested us to reduce the rate to 400 tonnes/h. as they experienced problems with their compressors.

SHIPMASTER'S REPORT: March 1995.

Number of Visits: 8 times between June 1993 to February 1995 on general cargo ship to load Aluminium Flouride in jumbo bags on pallets.

Approaches: B.A. Chart No. 6.

Breakwater light and most of the approach channel buoys found unlit. Lit buoys flashed very dimly and visible only when vessel is almost on top of them in clear visibility. Buoy "O" had different light characteristic than charted.

All buoys are good radar targets and are detectable up to 10 miles range. Approach, though very simple, is made with the help of radar alone in the absence of visual aids at night.

Pilotage: VHF contact possible only within 5 miles to 10 miles from breakwater, but reception was poor.

Pilot boards inside the approach channel, even once boarded at Buoy No. 7, just at the mouth of breakwater (arrival draft 9.9 m.).

Reportedly, berthing possible day and night, but vessel never received Pilot before 0500 hrs., even when arriving at 2000 hrs. the previous night.

Tugs: Two tugs available. One of moderate power and another of low power.

Berth: General cargo berth at the North wing of harbour with many fenders missing, and vessel had to use its own fenders for safety.

All Pilots uncertain of maximum depth available at general cargo and ammonia berths.

No shore crane available at the berth. Vessel has to use own cargo gear for loading/discharging. Mobile crane of 15 tons capacity can be hired from outside the port.

Authorities: Customs are very rigid regarding currency, cigarettes and ship's narcotics. They required precise declaration of all ship's stores. On one occasion they even checked paint store to compare with declared quantity. Cabin search (including Master's) is normal for any undeclared items. Despite all these restrictions, plentiful supply of cigarettes required for various officials.

General: When strong N.W. to S.W. winds blow, basin becomes heavily air polluted with dust of whatever being discharged in bulk, and that makes it difficult for ship's staff at Northern and Southern berths to work on deck due to skin and eye irritation.

Vessel requires plentiful supply of eye wash solution and dust masks as a precaution against air pollution when calling at this port.

AUTHORITY: Direction du Port de Gabes, Zone Industrielle, Gabes, Tunisia. *Tel:* (05) 272366. *Telex:* 51907. *FAX:* (05) 274855.

Contact: Chokri Lamiri, Port Director (Tel: 270373, 270049). Mzoughi Abderrahman, Port Captain (Tel: 270722, 274051).

AGENT: See"Sfax".

LA GOULETTE (Including Rades and Tunis):

36.49 N. 10.18 E. **(See Plan)**

(A) LA GOULETTE.
(B) RADES.

(A) LA GOULETTE.

DOCUMENTS:

Required by Police:
- 2 Crew Lists.
- 2 Passenger Lists.

Required by Customs:
- 1 Crew List.
- 2 Passenger Lists.
- 2 Crew Manifests.

Required by Port Health:
- 1 Crew List.
- 1 Passenger List.

PILOTAGE: Compulsory. To call Pilot contact Goulette Radio station, call sign 3VW, 24 hour watch on 2182 kHz or VHF Channel 16. Pilot boats are in permanent direct contact with Goulette Radio. International code visual and sound pilot signals may be used on arrival at the Sea Buoy.

Pilot launches are stationed inside the port, and proceed on call to meet vessels about 0.25 miles beyond the sea buoy, i.e. the Buoy No. 1 in the entrance channel to the port.

APPROACHES: *Port Entrance to La Goulette:* Marked by 8 light buoys, the access channel is 3.5 miles long between the landfall buoy and the port fairway.

Depth of water at entrance: 12.0 m.

Depth of water in the port: 29 ft.

Difference between low and high tide: A tidal rise and fall of 0.40 m. maximum.

Port Entrance to Tunis: Through canal from La Goulette to Tunis 9,700 m. long, 45 m. wide and dredged to 7.5 m.

Depth of water at entrance: 7.5 m.

Depth of water in the port: From 7.5 m. to 5.0 m.

Difference between high and low tide: Insignificant.

ANCHORAGE: Anchorages in the port roads are safe except during strong winds and heavy seas from the North or N.E.; good holding ground.

Larger vessels anchor about 0.5 miles N.E. of the sea buoy in depths of 12 m. – 14 m. Small vessels may anchor either North or South of the approach channel in depths of 7 m. – 9 m. in the vicinity of Buoys No. 4 and 5 provided that they do not obstruct navigation in the entrance channel.

RESTRICTIONS: Tankers and ore carriers are not allowed to enter and leave port during the hours of darkness. Depth of water at LW is 32 ft.

MAX. SIZE: *La Goulette:* Up to max. draft 29 ft. Max. length 220 m. *Tunis:* Max. draft 6.0 m.

HEALTH: Master is required to complete Declaration of Health on arrival. Vessels which have previously called at another Tunisian port are given automatic Free Pratique except in time of epidemic.

RADIO: Tunis Radio 24 hour watch on 2182 kHz; radio-telephone from 0600 to 2200 hrs. on 500 kHz. Goulette Radio call sign 3VW. 24 hour watch on 2182 kHz and VHF Channel 16.

TUGS: Available to assist berthing as directed by the Pilot. Tugs join vessels in the vicinity of Buoys No. 4 and 6, that is 400 or 500 m. from the berths. Vessel's lines always used. Vessels over 1,500 g.r.t. not equipped with bow-thrusters must use 2 tugs.

BERTHING: *La Goulette:* One quay of 1,050 m. and one quay of 160 m. for Ro-Ro vessels. One ore berth, unloading rate 2,000 t.p.h. Facilities also available for handling general cargo, grain, phosphates and Ro-Ro.

Also see "Shipmaster's Report" and "Plan".

Tunis: In some places close to the Northern Quay, the water level may be less than 5.0 m., the port remedy the berthing of vessels of 5.0 m. draft and more by placing a floating crane between the vessel and the berth. Total length of quays – 1,135 m.

CRANES: *La Goulette:* 3×6 tonne electric cranes on rails; 1×18 ton mobile crane; 1 pontoon crane × 10 tonnes and 1 pontoon crane × 60 tonnes for heavy lifts.

Equipment: 6×4-10 tonne lift trucks, 20×3-28 tonne lift trucks (private), 12 tractors (private), 5 Ro-Ro trucks (private), 16×6-22 tonne trailers (private).

Tunis: Cranes: 1×60 ton floating crane, 2×10 ton cranes on rails.

Equipment: 1×4 tonne and 1×8 tonne forklifts; 9×3 tonne, 3×5 tonne and 2×10 tonne forklifts (private). 5 tractors (private).

STEVEDORES: Gangs are ordered before 0600 hrs. for morning work; before 1300 hrs. for the afternoon and before 2000 hrs. for night work.

MEDICAL: Preferable to advise Agent in advance if doctor required on board. Crew members should possess international vaccination certificates.

TANKERS: One berth is reserved for tankers with a max. draft of 27 ft. 6 in.

FRESH WATER: Hydrants are situated on the quays supplying fresh water at a rate of 12 – 15 cu.m.p.h. A water barge "El Ain" of 50 tons capacity can supply vessels berthing in "Basin Sud".

FUEL: Available by road tanker.

FIRE PRECAUTIONS: A watchman has to be permanently employed on board tankers when alongside. A tug equipped with fire-fighting equipment is required to stand by tankers discharging.

CONSULS: Following countries are represented in Tunisia:

Algeria
Australia
Denmark
France
Great Britain
Greece
Italy
Morocco
Norway
Panama
U.S.A.
Venezuela

REPAIRS: Machinery and boiler repairs can be effected on board. For large repairs it is necessary to send part to the shipyards of Soconema at Menzel Bourguiba 70 miles away.

DRY DOCKS: At Menzel Bourguiba 4 dry docks, the largest of which is 253 m. long, 41 m. wide, 10.5 m. depth.

SURVEYORS: B.V. and D.N.V.

GANGWAY/DECK WATCHMEN: The employment of gangway watchmen is necessary.

OPENING/CLOSING HATCHES: Performed by ship's crew or by stevedores on payment of special premium.

CUSTOMS ALLOWANCES: Each crewman is allowed 2 packets of cigarettes or 4 cigars or 50 gm. of tobacco and 1 opened bottle of alcohol.

REPATRIATION: Can be arranged.

AIRPORT: Tunis – Carthage Airport is 15 km. from La Goulette and 5 km. from Tunis. Regular daily flights to Europe and North Africa.

TIME: GMT plus 1 hour throughout the year.

HOLIDAYS: 20th March (Independence Day); 1st May (Labour Day); 25th July (Republic Day); 15th October (Evacuation Day). In addition there are 13 other holidays on which work is carried out on payment of overtime.

POLICE/FIRE/AMBULANCE: Police, Tel: 197. Fire, Tel: 198. Ambulance (express), Tel: 141313. Ambulance (S.O.S.) 341269.

TELEPHONES: Telephones can be connected on board vessels and are compulsory for tankers.
SHORE LEAVE: Crew members are permitted to go ashore after obtaining a pass from the Port Police.
DEVELOPMENTS: No significant changes in La Goulette, except that the "moving Berth No. 7" (pontoon) is now replaced by a fixed one for car ferries and the turning area inside breakwaters is now extended and buoyed to help turning vessels of 220 m.

SHIPMASTER'S REPORT: January 1982.
Documents: It is essential to ensure that all arms and ammunition are declared at first port of entry in Tunisia and that the proper authority has them sealed inside the bond during the entire stay in Tunisia.

When coming from another Tunisian port all cash (Dinars) remaining from sums drawn in the previous port must be declared.
Pilotage: The VHF is the only viable communication for the pilot service, the Sea Buoy being too far for either visual or sound signals.

When required to enter, the vessel will be told to proceed inwards down the approach channel which has been dredged to 12.25 m. from Sea Buoy to the moles. This was completed on 20th December, 1981 as the first part of the work for the new port being constructed on the Southern side of the canal to Tunis and some 3 kilometres inside the present port of La Goulette.
Berths: The elevator/silo berth in Basin Sud has a depth of water of over 10 m. throughout its whole length and extending some 80 m. to the seaward end as the actual wharf is short (about 135 m.) and vessels have to warp along the face to ensure all hatches are serviced. Discharge rate 1,200 tons per day.

There is *no water* at this berth either drinking or boiler nor can it be taken at the adjacent tanker berth or the iron ore pier.
Developments: The port appears to be concentrating on the Ro/Ro berths and the new passenger terminal to the exclusion of the more mundane cargoes. The traffic is such that there is reluctance to allow a vessel from the silo that is short of water to take up a berth on the Northern quay. The harbour area is to be dredged in stages so as to give access, eventually, to the new port under active construction.
Telephones: There are no telephones available at the silo berth unless access can be had to the one in the office, while the Oil Berth unit is only available if there is a tanker in the berth.

AUTHORITY: Direction du Port de Tunis-Goulette, Batiment Adminstratif, Port de la Goulette, C.P. 2060, La Goulette, Tunisia. *Tel:* 735300. *Telex:* 15386 Oporna. *Cables:* Ofpornatu. *FAX:* 736511. *Contact:* Omar Majdoub, Port Director (Tel: 736832). Hkimi Samir, Port Captain (Tel: 735676).
Tunis: Port Office at 28 Avenue de la Republique, 1000 Tunis, Tunisia. Tel/Telex/Fax/Contacts as above.
AGENT: See "Sfax".

(B) RADES.

LOCATION: Lat. 36° 48' N., Long. 10° 16' E.
DOCUMENTS: See Part (A).
PILOTAGE: See Part (A). Pilot boards beyond Buoys No. 6 and No. 7 of La Goulette entrance channel.
ANCHORAGE: Same as La Goulette. Inside the harbour, anchorage is prohibited East of Phosphate Quay, where high voltage electric cables are lying.
RESTRICTIONS: Maximum clearance above water level is 42 m.

Tankers and cereal carriers are not allowed to enter, leave, or shift during hours of darkness.
MAX. SIZE: Up to 9.0 m. draft and 190 m. LOA.
HEALTH: Sanitary officers board with Pilot outside La Goulette and deliver Free Pratique after inspection and reception of Health Declaration.
RADIO: Same as La Goulette.
TUGS: 2 tugs of 1,600 h.p. each are available to assist, as directed by Pilot.
BERTHING: 5 Ro/Ro berths and 2 berths for general cargo of 150 m. length each. Maximum draft allowed is 9.0 m. (29 ft. 06 in.).

One berth for phosphates or bitumen of 9.0 m. draft and 120 m. length.

One berth for oil and gas carriers of 8.36 m. draft (27 ft. 06 in.) and 170 m. length. Discharging rate is about 5,000 tons per day.

One berth for cereal carriers of 9.75 m. (32 ft.) draft and 190 m. length. Discharging rate is about 300 t.p.h.
Dangerous Cargoes: To be discharged on lorries immediately. One tug is compulsory for safety assistance during unloading.
CONTAINER HANDLING FACILITIES: Telescopic elevators on pneumatics for 20 ft. and 40 ft. containers and 10 forklifts of 4 tons and 10 tons capacity.

Quay stretches over 110 ha., 50 ha. store yards under Customs control, of which 22,500 sq.m. are covered.
CRANES: 2 cranes of 80 tons at 12 m. and 30 tons at 30 m.
STEVEDORES: 3 shifts from 0700 hrs. to 1300 hrs.; from 1400 hrs. to 1900 hrs. and from 2100 hrs. to 0300 hrs. It is possible to extend each shift by one hour of extra time.
MEDICAL: Same as La Goulette. Also STAM dispensary for first aid. Call Pilot on Channel 9 or 16 for ambulance OPNT, or dial 198 "Protection Civile".
TANKERS: See "Berthing".
DENSITY: 1028.
FRESH WATER: Available by hose at every berth and by barge of 20 tons capacity at oil and cereal berths.
FUEL: Available by trucks.
CONSULS: More than 38 countries are represented in Tunis.
REPAIRS: Light deck and engine repairs are permitted on request to Harbour Master. Possibility of shifting to waiting berth for repairs that may cause delay to vessel.
GENERAL: *Services:* Agents, ship chandlers, garbage collectors, etc., are available.
Ferries: Free of charge ferries between Rades (near Phosphate Quay) and Northern side of La Goulette are available every 15 minutes from 0545 hrs. to 2115 hrs.
AUTHORITY: See Part (A).

LA SKHIRRA (Terminal Platform): 34.18 N. 10.09 E.

(See Plan)

DOCUMENTS:
5 Crew Lists.
2 Lists of Crew Personal Effects.
2 Stores Lists.
5 Passenger Lists, if passengers carried.
Manifest of cargo on board.
Manifest of cargo in transit.

On arrival, Master must declare to Customs: Cigarettes, spirits, narcotics, arms, bunkers, paint, etc.
PILOTAGE: Compulsory for berthing alongside. Pilot employed by TRAPSA. ETA required 48 hours and 24 hours before arrival. Call Pilot by international code signals on arrival, or by VHF Channel 16. TRAPSA will advise if vessel required to anchor, or berth immediately. Pilot boards 2 miles off the terminal by black and white motor launch. If it is necessary (vessel without chart) Pilot will proceed outside the port limits.
ANCHORAGE: Vessels should anchor outside the prohibited zone which is limited to the South by the parallel of Buoy No. 5 and to the East by bearing 350° from the terminal platform light.
MAX. SIZE: Length 300 m. Draft 47 ft. 6 in. or up to 50 ft. at high water.
HEALTH: International Quarantine signals to be shown on arrival. Vessels normally receive Free Pratique at the quay after berthing. Suspect vessels must wait at anchor until Pratique is given.
RADIO: TRAPSA operate coastal station La Skhirra Radio (3VP). vessels to make contact 48 hours before arrival. Messages for TRAPSA passed by other stations should be addressed "Rapetrol Laskhirra".
VHF: The harbour office and loading terminal are equipped with VHF on the following channels: 156.8 MHz (calling), 156.6 MHz, 156.7 MHz 156.55 MHz Contact with tugs can be made on all 4 channels.
TUGS: 3×3,000 h.p. (32 tons bollard pull). 3 tugs required if over 70,000 d.w.t. Lines provided by tugs.
BERTHING: Two loading berths situated one each side of terminal platform connected by a gangway from the shore. For safe manoeuvring tankers are recommended to arrive with ballast up to 30% of Summer deadweight. Mooring may need to be doubled during months o December to April, when sudden violent squalls sometimes occur. A vessel alongside requiring tug assistance may sound one long blast at frequent short intervals.

Depth alongside loading berths is 15 m. – 16 m. Loading platform is served by 3×30 in. oil pipelines and 1×18 in. ballast line.
Berth No. 1: 2×12 in. flexible hoses. Max. loading rate 6,000 cu.m./hr.
Berth No. 2: 4×12 in. flexible hoses. Max. loading rate 12,000 cu.m./hr.
Paktank: A new tank installation of Paktank Mediterranee S.A. has been constructed for storing fuel oil, gas oil, naphtha and kerosene. 2×12 in. flexible hoses will give a loading/discharging rate of up to about 3,000 t.p.h. Bunker facilities can be expected in the near future.
Phosphoric Acid: New berth for carriers up to 15,000 d.w.t. an max. draft 9.0 m. at H.W. Fresh water available.
MEDICAL: Advance notice required of any medical assistance needed. Hospital facilities available. Crew members require valid vaccination certificates.
BALLAST: All ballast, except permanent, to be pumped to shore installation. Heavy fines for water pollution. Max. rate 3,000 cu.m./hr.

The terminal will not accept ballast water mixed with fuel oil.
FRESH WATER: Available from shore connection.
FUEL: Not available. See "Berthing – Paktank".
CONSULS: Following countries are represented at Sfax: France, Gr Britain, Italy, Libya, Netherlands and Sweden.
REPAIRS: There are no facilities for repairs. Nearest at Sfax.
CUSTOMS ALLOWANCES: 2 packets cigarettes allowed each Cr member.
REPATRIATION: Can be arranged by Agent.
AIRPORT: Airport at Tunis 350 km. away, or Sfax 80 km. away.
TIME: GMT plus 1 hour throughout the year.
SHORE LEAVE: Not allowed in Trapsa installation. Can be arrang through Agent.
GARBAGE DISPOSAL: Drums will be provided on board.
WASTE OIL DISPOSAL: Dirty ballast pumped ashore.
SEAMAN'S CLUBS: None.
AUTHORITY: Compagnie des Transports par Pipe-line au Sah (T.R.A.P.S.A.), 3050 La Skhirra, Tunisia. *Tel:* 04-295453, 04-295 *Telex:* 40811 TN. *Cables:* Rapetrol, La Skhirra. *FAX:* 04-295 *Contact:* Mr. Dahmouni, Port Director.

AGENT: See "Sfax".

SFAX: 34.43 N. 10.46 E.

DOCUMENTS: On arrival Masters must submit a written declaration giving the name of ship and of the Master, Owner or Charterer, vessel's tonnage, draft, cargo, port of origin and destination, number of crew on board. The Master must also declare to the Customs the following: Bunkers, paint, arms, narcotics, spirits, cigarettes.

Also required:

Customs Manifest.
Crew List for Police.
List of Dangerous Cargo.
Health Declaration.
Cargo Manifest, all cargo on board.

PILOTAGE: Compulsory for all vessels over 100 gross tons. Pilotage commences at the outer buoys of the entrance channel. Day signals for Pilot, International Code Signal "P.T" or Code flag "S" hoisted alone or below code pennant. Night signals according to International rules. For entry at night, vessels must radio Harbour Master at the latest 1 hour before sunset to confirm their intention. Before boarding, Pilot will check that vessel does not exceed the max. authorised draft. If the "Entry Prohibited" signal is not hoisted at the port signal mast, vessel may await Pilot in the channel axis about 1 mile off the outer buoys. Pilot boards from a launch 11 m. long, displaying international pilot signals. Pilot may be contacted by radio through Radio Port de Sfax. Agent must give advance notice of vessels arrival to Harbour Master 48 hours and 24 hours beforehand.

ANCHORAGE: In immediate vicinity of the port, depths up to 15 m., good holding ground.

APPROACHES: *Port Entrance:* Channel is 6.15 km. long, 60 m. wide and dredged to 11.0 m.

Depth of water at entrance: 10.5 m.
Depth of water in the port: 10.5 m.
Difference between high and low tide: Mean amplitude Spring tides (1.20 m.).

MAX. SIZE: Length 185 m. and draft 10.5 m. at Petrol Pier and Sulphur Pier and 200 m. at all other berths.

HEALTH: To request Free Pratique, hoist "Q" flag on arrival, or radio to Port Health Service. Pratique normally given at the berth after mooring. Suspect vessels are required to wait at anchor until Pratique is given.

RADIO: Sfax. Port Call – call sign 3VW2, operating 24 hours on 2182 kHz and Channel 16 VHF.

Calling frequency 2182 kHz, working frequency 1743 kHz CR3. Used only for communications with port services. Meteorological information provided on request.

TUGS: Join vessel at outer buoys or according to circumstances in the outer port. 1×1,200 h.p. and 1×1,600 h.p.

BERTHING:

Total area of the port including the exit: 55 hectares.
Maximum draft: 10.5 m.
Number of basins: 3
  Main basin, surface area 4 hectares, depth 10.5 m.
  Tanker basin, surface area 5 hectares, depth 10.5 m.
  Yacht basin, surface area 4.25 hectares, depth 8.5 m.
Length of quays: 2,744 m.
  Commercial (N-W), 520 m., ancillary 95 m.
  Commercial (South), 667 m. (incl 150 m. Ro-Ro berth).
  Phosphates, 584 m.
  M'Dhillia, 248 m.
  NPK Sulphur, 370 m.
  Cotusal (salt), 110 m.

CRANES: 1 floating crane of 60 tons capacity; 2 cranes of rails on 10 tons capacity.

Equipment: 2×4 ton, 1×8 ton and 1×10 ton forklift trucks.

STEVEDORES: Available, arranged by Agent basis vessel's ETA.

MEDICAL: Advance notice preferred if medical attention required. Hospital facilities available. Vaccination certificates required for all crew.

TANKERS: Length of berth 150 m., depth 10.5 m.

DENSITY: 1028.

FRESH WATER: Hydrants fitted on all quays. Written request for replenishing water is required by Harbour Master.

FUEL: Gas oil and lubricants available by barge.

CONSULS: Local representatives for Belgium, Denmark, France, Greece, Italy, Netherlands, Norway, Portugal, Spain, Sweden and U.K.

REPAIRS: Small engine repairs can be effected. Floating dock for vessels less than 350 tons.

GANGWAY/DECK WATCHMEN: Normally ship's crew. Available from shore if required.

OPENING/CLOSING HATCHES: Normally performed by crew.

REPATRIATION: Can be arranged.

AIRPORT: 10 km. from the port. Daily flight Sfax – Tunis and Tunis – Sfax. Twice weekly flights Paris – Sfax and Sfax – Paris.

TIME: GMT plus 1 hour throughout the year.

HOLIDAYS: 1st January; Aid El Kebir; Hegirian New Year; 20th and 21st March; 9th April; 1st May; Mouled; 25th July; 13th August; 15th October; Aid Es Seghir; Aid El Kebir.

POLICE: Tel. 223925.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Required by all crew.

SHIPMASTER'S REPORT: 1976 (Updated 1988).

Documents:

1 General Declaration.
2 Stores Lists.
3 Crew Lists.
1 List of Dangerous Cargo.
1 Health Declaration.

Pilotage: To be contacted on VHF Channel 16 throughout 24 hours. Also Harbour Master may be contacted at the same hours on Channel 16. At other times the same Authorities may be contacted by radio 2182 kHz.

My vessel had a draft of 26 ft. By the VHF the Harbour Master ordered me to enter the channel and continue up to the Outer Basin where a Pilot would embark on the Port side.

It was later confirmed both by the Pilot and Agent to be usual for ships up to 10,000 tons to enter the Outer Basin without Pilot. Also upon our departure, the Pilot disembarked at the Outer Harbour Basin (Authority state that this is rare and only if vessel visits port regularly).

The Agent told me the channel was 34 ft. deep, although no measurements have been taken for 10 years. Lately a ship with draft of 33 ft. has passed through the channel without any difficulties.

An unmarked wreck is situated in position Lat. 34° 37.5' N., Long. 10° 49.5' E. The best way to approach the outer channel from S.W. or South, would therefore be to navigate to a position 6.5 miles S.E. of Tina's Lt. Tr., then change course for the outer buoys of channel.

The only beacons illuminated around Kerkenah Banks were Beacon No. "1" and No. "8". All other buoys were in correct position, but sometimes extinguished.

Stevedores: Work in shifts from 0700 hrs. till 1300 hrs. and from 1400 hrs. till 2000 hrs. In case of sailing it is possible to arrange overtime up to 2100 hrs. It is also possible to have night gangs from 2100 hrs. till 0300 hrs.

AUTHORITY: Office des Ports Nationaux Tunisiens, Direction du Port de Sfax, Rue Okba Ibn Nafaa, 3029 Sfax, Tunisia. *Tel:* (04) 225644, 225040, 225070. *Telex:* 40847 Porsfa. *FAX:* 225107. *Contact:* Zine El Abidine Khalki, Port Director (Tel: 210250). H. Ben Hassen, Port Captain (Tel: 225040).

AGENT: Shipping Maritime Agency – Tunisia "Shimat Tunisia", P.O.Box 504, Sfax 3000, Tunisia. Tel: 216-4-210463, 298263. Fax: 216-4-298314. Telex: 40829 Shima Tn.

SOUSSE (Soussa): 35.49 N. 10.39 E.

DOCUMENTS:

3 Crew Lists.
3 Passenger Lists.
4 Crew Personal Effects Lists.
Health Declaration.
Manifest of Provisions on Board.
2 copies Vessel's Particulars Declaration.

PILOTAGE: Contact Pilot Station on VHF Channel 16 or Tel. (03) 224402 and 225755.

RESTRICTIONS: Entrance to the port coming from the sea is East to West. Channel 820 m. long, dredged to 10.5 m. Depth in port area 9.0 m., difference in high and low water 0.25 m.

MAX. SIZE: Max. LOA. 170 m., max. draft 8.7 m.

HEALTH: Free Pratique normally given at the quays after mooring. Pratique is automatic for vessels coming from another Tunisian port. In case of suspected disease on board vessel will be ordered to quarantine anchorage.

RADIO: Sousse Control "3VW4" on 2182 kHz and VHF Channel 16.

TUGS: One tug of 1,760 h.p.

BERTHING: One basin for ocean-going ships, yacht basin and fishing vessel harbour.

Length of quays 830 m., 8 berths.

South Basin Quay, length 220 m., dredged to 8.7 m. (2 berths – one is a Ro-Ro berth with width 30 m.).

CRANES: 1×18 tons, 2×10 tons, 1×80 tonne, 1×60 tonne, 1×40 tonne and 2×25 tonnes.

STEVEDORES: Minimum of 24 hours' advance notice of ETA to Agent is required.

MEDICAL: Doctor available to board vessel. Hospital, private clinics and all facilities available.

REPAIRS: Welding and electrical repairs possible.

GANGWAY/DECK WATCHMEN: It is recommended to employ shore watchmen.

OPENING/CLOSING HATCHES: Carried out by crew or by stevedores at the request of Master, but at a charge.

CUSTOMS ALLOWANCES: Each crew member is allowed 1 carton of cigarettes and 1 opened bottle of wine or spirits. In case of a prolonged stay in port, Customs may renew these quantities.

AIRPORT: Skanes Monastir – 15 km. from the port. Tunis/Carthage is 130 km. from the port.

TIME: GMT plus 1 hour throughout the year.

HOLIDAYS: There are 13 days official holiday during the year. Work can be carried out on all holidays except 1st May on payment of 100% overtime.

IDENTIFICATION CARDS: Crew member's Identification Cards will be collected by the Immigration service and exchanged for shore passes while vessel is in port.

AUTHORITY: Office des Ports Nationaux Tunisiens, Rue Abdallah Ibn Zoubaier, Sousse 4000, Tunisia. *Tel:* (03) 225755, 224401, 226857, 288892. *Telex:* 30960. *FAX:* (03) 224923. *Contact:* Ferid Karaa, Port Director (Tel: (03) 221763). Mohamed Ben Kaliaa, Port Captain (After hours Tel: (03) 257244).

AGENT: See "Sfax".

TAZERKA: 36.36 N. 11.41 E. (See Plan)

PORT LIMITS: 5 nautical miles radius from Tazerka FPSU.
DOCUMENTS:
4 Crew Lists.
Stores List.
Crew Declaration.
Currency Declaration.
1 Health Declaration.

APPROACHES: There are clear navigation approaches to and from the Tazerka FPSU. From time to time, special work barges and rigs will operate in the vicinity of the Tazerka FPSU. Information on such rigs will be broadcast through Normal Navigation Warnings and also by Tazerka Operations when visiting tankers first make communications contact.

PILOTAGE: A Berthing Master will board the visiting tanker at a location 2 nautical miles downwind of the Tazerka FPSU. He will remain on board the visiting tanker until after departure and will disembark when the visiting tanker is clear of Tazerka FPSU.

The Berthing Pilot/Loading Master will be familiar with pilot/berthing/unberthing vessels at Tazerka and will advise the Master of the visiting tanker accordingly. Throughout the operation, he will be the liaison between the Master of the visiting tanker and the Tazerka SIS (Senior Installation Supervisor). He will advise the Master of the visiting tanker on documentation procedures and carry out any assistance.

ANCHORAGES: None.

RESTRICTIONS: Daylight mooring only.

Weather operating limits will be decided at the time of operations, but are approximately as follows:
(a) Maximum mean hourly wind speed = 20 knots.
(b) Maximum significant wave height = 2.5 m.
(c) Minimum visibility for berthing = 0.5 nautical miles.

MAX. SIZE: Minimum LOA 170 m. Maximum LOA 275 m. Under special circumstances LOA may be extended to 297 m.

No limit on beam and draft.

Minimum deadweight 20,000 tonnes (approx.). Maximum deadweight 140,000 tonnes (approx.).

Maximum displacement during berthing 150,000 tonnes.

RADIO: Vessels to send an initial ETA message to Agent via Tunis Radio on departure from the previous port and updated 72 hours, 48 hours and 24 hours prior to arrival at Tazerka. Thereafter changes greater than 3 hours should be reported. Where a ship departs from a port which is less than 72/48/24 hours' steaming distance away she shall advise her ETA as soon as possible.

ETA messages should include the following information:
(a) Location of cargo manifold in relation to the length overall of ship.
(b) Type of moorings (synthetic rope, wire, wire with synthetic tails, etc.)

VHF: Tazerka Floating Production Storage Unit is equipped with VHF Channels 16/6. Notice of Readiness may be issued when vessels are within 5 nautical miles radius of the Tazerka FPSU.

TUGS: One supply boat available to assist with mooring/unmooring.

BERTHING:
Tanker's Draft: The tanker must be on a suitable draft and trim for the approach run. No hard and fast rules will be applied but Masters of visiting tankers must bear in mind the need for accurate steering with a minimum of speed coupled with good stern power ability.

As a guideline a suitable draft is provided by applying the following criteria:
(i) Moulded draft amidships (dm) in metres to be not less than:
$dm = 2.0 + 0.02L$
(ii) Trim by the stern not greater than 0.015L;
(iii) In any case draft at the after perpendicular not less than that which is necessary to obtain full immersion of the propeller(s).

This is in accordance with the requirements of the "International Conference on Marine Pollution, 1973" Regulation 13. In practice it has been found that ballast required to achieve these criteria typically approximates to 25% of Summer Deadweight.

Vessels berth port side to the starboard side of a Floating Production Storage Unit (a converted VLCC) which is moored to a SPM consisting of a yoke and rigid single anchor leg system. The FPSU is free to rotate through 360°. Vessels will berth against up to 5 inflatable Low Pressure Floating Fenders.

Wire moorings must have synthetic rope tails with a breaking strain at least 5% greater than the minimum breaking load of the wires to which they are attached.

Two long rope messengers to be ready forward and aft. Both anchors home and secured. (If reducers and/or tails are not available on board, advise Tazerka FPSU with initial ETA. Prepare to lift this equipment on board from the pilot boat).

Immobilisation of engines not permitted under any circumstances.

HOSE CONNECTION: Port side midships – 2×12 in. 150 ASA hoses. Port side derricks should be rigged for minimum 5 tonnes SWL.

Cargo manifolds must comply with OCIMF Standards for Tanker Manifolds, 1981 Edition.

LOADING/DISCHARGING: Typical VLCC pipeline system with special manifold located 225 m. from stem on the starboard side.

2×12 in. hoses for Crude Oil discharge. Maximum loading rate – 7,000 cu.m.p.h.

1×8 in. hose for Fuel Oil receiving. Maximum receiving rate – 1,000 tonnes/hr.

1×3 in. hose for Diesel Oil receiving. Maximum receiving rate – 50 tonnes/hr.

Concurrent receipt of fuel oil and diesel oil with crude oil discharge is required.

BALLAST: No dirty ballast facilities. It is a condition of loading that vessel's ballast is clean and suitable for discharge to sea as defined in MARPOL 1973, Regulation 13. All other ballast shall be retained on board.

MEDICAL: Emergency cases can be treated.
DENSITY: 1025.
FRESH WATER: Not available.
REPAIRS: Not available.
REPATRIATION: Not possible.
TIME: GMT plus 1 hour throughout the year.
REGULATIONS: Access to FPSU not permitted.

The Authorities of all Arabic Ports subscribe to the Israeli boycott and administer checks on ships. Apart from the usual checks on Log Books, etc., store rooms, can be inspected for evidence of Israeli produce. If found, ships can be fined and/or blacklisted from all countries subscribing to the boycott.

It is recommended that stores be checked to ensure that there are no items which can be interpreted as being of Israeli origin. This includes items which bear trade marks incorporating Hebraic symbols such as the six point star, irrespective of the country of origin.

AUTHORITY: Shell Tunirex, B.P. 349, Tunis, Tunisia. *Tel:* 341.509, 341.510, 341.514, 247.411. *Telex:* TREX 13831 TN, TREX 14393 TN.

AGENT: See "Sfax".

ZARZIS: 33.33 N. 11.07 E. (See Plan)

LOCATION: The port is situated at the S.E. point of the Gulf of Gabes, almost 70 miles S.E. of the port of Gabes and 15 miles South of Djerba. Zarzis is the last coastal town in Tunisia before Libya.

APPROACHES: From offshore (West) the town appears to be surrounded by palm and olive trees, and at night the flare stack of the Ezzaouia oilfield can easily be recognised.

Coming from the North, the landmarks are:
The Ras Turgueness Tower (white light 5 sec., range 24 miles).
Ras Marmor (Lat. 33° 37' N., Long. 12° 03' E.) ends the chain of steep hills which hug the coast to the South.
The ERTT pylon is easily distinguishable at night with its red and white lights.

To the S.E. of Zarzis, the coast is low-lying, with the El Biban banks stretching out 12 miles from the coast.

Access to the port is by a channel 8.4 km. long and 130 m. wide, dredged to 13.0 m. and aligned W.S.W./W.N.W. from seaward.

Navigation Aids:
Lighthouse: Lat. 33° 28' 41" N., Long. 11° 07' 50" E. The lighthouse is a masonary structure with red and white horizontal bands. Height 9.4 m. Light: 3 white ev. 15 secs., range 10 miles.

Fairway Buoy: Lat. 33° 29' 43" N., Long. 11° 17' 44" E. Colour: Red and white vertical stripes. Top Mark: Red sphere. Light: Fl.W.Ev.4 sec.

The channel is marked by 8 buoys on the banks (Nos. 1-8) and by 4 buoys in the turning circle (Nos. 9-12).

PILOTAGE: Compulsory. Pilot available 24 hours a day.

ANCHORAGE: The anchoring ground is located in around 20 m. depth and stretches 1 mile to the East of the Fairway Buoy.

MAX. SIZE: Draft 9.0 m. (11.0 m. after dredging).

TUGS: A tug of 1,200 h.p. and a pilot boat are available. If necessary a second tug of 1,600 h.p. could be ordered 48 hours before the arrival of the vessel.

BERTHING: The port has 2 basins:
(a) An inner basin for fishing vessels.
(b) A main basin of 35 ha. and 12.00 m. depth. This basin has a turning circle of 450 m. diameter and includes:
  (i) A linear commercial quay of 610 m. dredged to 12.00 m.
  (ii) A service quay of 155 m. dredged to 5.00 m.

The onshore occupied surface area is 32 ha. and a warehouse of 5,000 sq.m. is available.

The port is protected by a breakwater 1,505 m. long, sheltering the port from the N.E. swell.

MEDICAL: There is a hospital in Zarzis.

TANKERS: The Petroleum Quay is 185 m. long and has a depth of 10.0 m. The quay is 2.5 m. above chart datum. Rise of tide at Springs is 1.0 m. Max. LOA with special permission is 193 m.

The facility has been built for the handling of "Ezzaouia" Crude. The typical cargo size is 20,000 tonnes – 25,000 tonnes, due to the LO and draft restrictions.

IGS, COW and coils are required.

Permanent or segregated ballast vessels only are allowed.

FRESH WATER: Available.
AIRPORT: Djerba (50 km.).
TIME: GMT plus 1 hour.
GENERAL: *Charts:* 3604, 4245 and 4247.
Provisions: Available.
Zarzis Free Zone: Close to the port of Zarzis, and only 2 hours fro Europe, is the Societe de Developpement et d'Exploitation de la Zo Franche de Zarzis (Company for the development and use of Zar Free Zone).

This benefits from a rich environment provided by the close proxim of markets with high purchasing power, oilfields (6,000 barrels/day o a radius of 1,000 km.), geothermal waters (production of early fruit a vegetables), aquaculture and intense tourist activity. Zarzis-Djerba Fr Zone, a future crossroads for three continents, enjoys a port and airp infrastructure on an international scale, and is served by a road netw to and from Africa which puts Tripoli at 2 hours, Algiers at 10 hours, a It also offers the usual facilities with a unique perspective, and has the tax advantages of a free zone in addition to the attraction of a loca with fully serviced land, and a qualified workforce managed exclusi by contract.

Address: Societe de Developpement et d'Exploitation de la Z
Franche de Zarzis. Registered Office: Port de Zarzis, BP 3
Zarzis 4170. Tel: 216 5 680 800/682 856. Fax: 216 5 682 8
Telex: 51909 Zfzar Tn.

WEATHER: *Winds:* Prevailing winds are from the East in Summer and from the West in Winter.

Storms are rare and are confined on average to 3 days in Winter, 5 days in Spring and 1 day in Summer.

The Sirocco blows in a South to S.W.'ly direction and can get up to 40 knots. It often stirs up clouds of dust and sand which reduces visibility.

Tides and Swell: The average tidal range is 1.10 m. at Spring tides and 0.30 m. at Neap tides. However, the wind can cause an increase of 0.20 m. at high tide and a decrease of 0.10 m. at low tide.

As for the swell, that of the South to S.E. sector does not have enough open sea to develop, owing to the existence of the El Bilan bank (previously El Biban), located 20 km. S.E. and characterised by shallows.

The prevailing swell is that of the North to East sector.

During the Summer season, waves reach a height of 1.00 m. to 1.50 m.

In addition, the annual significant wave height is 4.00 m., direction 060°, and this can be exceeded during stormy periods.

AUTHORITY: Office des Ports Nationaux Tunisiens, Direction du Port de Zarzis, B.P. 291, Zarzis 4170, Tunisia. *Tel:* (05) 681827. *FAX:* (05) 683485. *Contact:* H. Sassi, Port Director (Tel: (05) 683486).

National Ports Office, Administrative Building, Postal Code: 2060 La Goulette, Tunisia. *Tel:* 735300 (6 lines). *Telex:* 15386 Oporna. *Cables:* OFPORNATU. *FAX:* 735812.

AGENT: See "Sfax".

NOTES

Please also advise Shipping Guides Ltd.

Turkey

GENERAL: (See Plan)

NOTE: Please read the latest "Shipmaster's Reports" and "Reports" in this section first. Older "Reports" have been retained for general information only.

On arrival off Canakkale coming from the Aegean, or off Buyukdere coming from the Black Sea, ships must stop for sanitary inspection. However, tankers with a d.w.t. over 100,000 tons proceeding to the Gulf of Izmit to discharge or load petroleum products may obtain Pratique there without stopping at Canakkale, provided Agents are notified 96 hours in advance.

In the event of bad weather at Canakkale, vessels may be allowed to continue their voyage to Istanbul and undergo the sanitary inspection there. Permission to do so is notified to vessels by the Canakkale Sanitary Office with the signal "H.M." in daytime and three vertical lights (green, white, green) at night.

Pilotage through the Dardanelles and the Bosphorus is compulsory. Pilot stations, equipped with VHF operating on Channel 16, are located at Canakkale, Istanbul and Telli Tabia (Upper Bosphorus).

Turkish Flag: All foreign ships are required to fly Turkish flag during their stay in Turkish ports or when passing through the Straits (Dardanelles and Bosphorus).

Sanitary and Port Inspections: On arrival at a Turkish port, every ship is boarded by a Sanitary Officer for examination. Nobody may join or leave the ship before this inspection is completed.

The ship must produce the following documents:

Sanitary Declaration Form.
Derat Certificate.
Ship's Register.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Cargo Ship Safety Construction Certificate.

Police Customs Controls: After obtaining Free Sanitary Pratique, the ship must likewise produce:

(1) 3 Crew Lists together with every member's Passport, Discharge Book or Z-card.
(2) 1 List of Provisions, Stores and Bunkers.
(3) 1 Declaration of all Monies or cheques carried in the ship's safe.
(4) Manifests of all cargo on board, whether for discharge at Turkish or foreign ports.
(5) 1 List of Passengers Landing in Istanbul showing nationality, number, date and source of entrance visa (if such visa is required) together with the Passports.
(6) 1 List of Transit Passengers together with the Passports.

Documents covered by items 1, 2, 3, 4 and 6 as well as a List of Passengers Embarking at Istanbul are also required on departure.

Police and Customs Controls are effected at Istanbul when arriving from the Aegean and at Buyukdere when arriving from the Black Sea. However, vessels under 500 n.r.t. have to undergo control formalities at Canakkale, both inwards and outwards, apart from those to be effected at Istanbul. It is recommended to prepare the accommodation ladder to facilitate the boarding of officials.

Excepting the case of tourist vessels, the Customs Officers will seal stocks of provisions and tobacco, spirits, as well as any other items in bond. Sufficient quantities of the foregoing will be left unsealed for the needs of the ship during the stay in port.

If stores left unsealed are exhausted while a ship is in port, a request to the Customs Officers will ensure further withdrawal.

The seals must not be broken before the ship's exit from territorial waters or if sailing from one Turkish port to another Turkish port.

Special Rules for the Passage of the Bosphorus: During their passage through the Bosphorus, ships must regulate their speed, without exceeding the 10 knot limit over the bottom, so that piers, landing stages, etc., or other craft (sailing and rowing boats, etc.) may not be damaged by their wash. Further, they must take care not to hinder fishing and diving operations or to damage submarine telephone, telegraph or electric cables.

Sound Signals, Wireless Sets: It is forbidden to make use of sirens or steam whistles in the harbour, except for manoeuvring purposes as laid down in the regulations for the avoidance of collisions.

Radio transmitters are not sealed on arrival of a vessel but it is recommended that their use in Turkish territorial waters be restricted to cases of emergency.

Refuse: No refuse such as garbage, ashes, polluted oil and the like can be thrown or pumped overboard, nor any scraping, cleaning of tanks and/or bilges can be effected inside port limits.

RESTRICTIONS:

The Bosphorus – Height of Power Transmission Line: A transmission line with a vertical clearance of 70 m. (B.A. Chart 3930, 229 ft.) has been installed alongside the power transmission line in position 41° 10.4' N., 29° 04.7' E. (approx.)

Masters of vessels with a similar masthead height intending to pass beneath this cable must contact the Harbour Authority for permission to pass.

BOSPHORUS BRIDGES:

(1) Bosphorus Bridge (First Bridge):
Height on both shore sides: 58.5 m.
Height in the middle: 64.0 m.
(2) Fatih Sultan Mehmet Bridge (Second/New Bridge):
Height on both shore sides: 58.5 m.
Height in the middle: 64.0 m.

The height represents the distance between sea level upto line beneath the bridges.

NOTICE:

New Traffic Regulations in Conformity with International Regulations for Preventing Collisions at Sea (IMO Colreg of 1972) are being established in the Strait of Istanbul.

A. It is decided that a new traffic regulation conforming to the international rules of navigation be established in the Strait of Istanbu The new regulation which will be effective in the Strait of Istanbul as o 1st May 1982, 0900 hrs. GMT (1200 hrs. LMT) is as follows:

1. The existing left side navigation regulation in the Strait of Istanbu which is applicable between Kizkulesi-Ortakoy line in the South and Tarabyaburnu-Umuryeri feneri line in the North will be abolished on 1st May 1982, at 0900 hrs. GMT (1200 hrs. LMT) and then the new regulation in conformity with Rule 9 of International Regulations Preventing Collision at Sea of 1972 will come into force.

2. Ships in their transit from the Sea of Marmara to the Black Sea or from the Black Sea to the Sea of Marmara will, in accordance with Rule 9 of IMO Colreg 72, navigate throughout the Strait of Istanbul on the right side of the median line (traffic separation line) and under no circumstances will they pass to the left of the said line.

3. Ships during their transit in the Strait of Istanbul will not overtake other vessels unless they are forced to do so and will navigate inside the designated traffic lane.

B. Pilotage Services:

The pilotage stations are providing pilotage services on 24 hour basis for ships navigating in the Strait of Istanbul. The location of these stations are given in the international pilotage books and marked in the Strait of Istanbul chart (TR.2921).

C. Amendments to Charts:

"Caution I" on Chart TR.2921 will be cancelled with the coming into effect of the new traffic regulation.

D. Navigational Notices:

Explanatory information and navigational warnings regarding the new traffic regulation in the Strait of Istanbul are broadcast in English and Turkish by the following by Weekly Notices to Mariners and also will be mailed.

Istanbul	(TAH)	(Yesilkoy)	: 441 – 2670 kHz
Izmir	(TAN)		: 458 – 516 – 1850 kHz
Mersin	(TAM)		: 524 – 2820 kHz
Samsun	(TAF)		: 416 – 2760 kHz
Bandirma	(TAA4)	(Meteoroloji)	: 478 – 3636 – 6965 kHz

New Maritime Regulations for Bosphorus Traffic:

Masters/Owners/Agents of vessels must comply with the following rules when proceeding through the Straits and the Marmara Sea to ensure safety of life and property.

1. Masters or Owners or Charterers of vessels which are 500 gross tons or more, 24 hours before entering the mouth of the Strait of Istanbul or the Strait of Canakkale, must give Sailing Plan 1 (SP1) to Traffic Control Centre through their Agents, and Masters of vessels must give Sailing Plan 2 (SP2) by VHF Channel 16 or 71 directly to Traffic Control Centre, 2 hours before arriving at the mouth of the Strait or at a distance of 20 nautical miles from the mouth of the Strait, whichever comes first.

Sailing Plan 1:
(A) Ship's name, call sign, flag.
(B) Date and time.
(C) Position (reporting position).
(F) Sea speed, max. continuous manoeuvring speed.
(G) Port of departure.
(H) Date, time and point of entry into Traffic Separation Scheme
(I) Port of destination.
(J) Request Pilot (Yes/No).
Strait of Istanbul.
Sea of Marmara.
Strait of Canakkale.
(O) Forward and aft draft (m.).
Max. air draft (m.).
(P) Type of cargo.
(Q) Defect/damage/deficiencies/other limitations.
(R) Description of dangerous, nuclear and pollution goods.
(T) Ship's type/size.
Length overall (LOA) in metres.
Present displacement.
G.R.T.
(X) Any other information.

Sailing Plan 2:
(A) Ship's name, call sign, flag.
(D) Position (bearing – distance) (See Note).
(H) Date, time and point of entry into Traffic Separation Scheme
(J) Request Pilot (Yes/No).
Strait of Istanbul.
Sea of Marmara.
Strait of Canakkale.
(Q) Defect/damage/deficiencies/other limitations.
(X) Any other information.

Note:
Reference points for the position in (D) above:
Turkeli Light.
Ahirkapi Light.
Gelibolu Light.
Mehmetcik Light.

2. The Owner or operator of large vessels, which plan to pass throu the Straits, shall provide information on the vessel and its cargo the administration at the planning stage of the passage. T administration, taking into consideration the morphological a physical structure of the Straits, the vessel's dimensions and manoeuvring capability, the safety of life, property and environment and maritime traffic conditions, shall inform t applicants of the outcome of its review.

3. Vessels of 150 m. or more in length are strongly recommended take a Pilot for safety purposes.

SHIPMASTER'S REPORT: November 1979.
Dardanelles and Bosphorus:

Vessel bound for Odessa with a full cargo of corn. According to Charterer's orders (Sovfracht Moscow), vessel was to encounter 4 to 5 weeks at anchor at Odessa Roads and for this reason had to take sufficient fresh water at Ahirkapi Roads on the West side of the Bosphorus.

The quantity (and quality) had to be ordered 3 days prior to arrival through Charterer's Agent (Bumeran) in Istanbul. 2 days' notice and 24 hour notice were required.

The vessel also wished to make crew changes at the same time as taking water and this was arranged by Husbandry Agent (Rammoc, Istanbul).

Vessel took a Pilot all through the Dardanelles and Bosphorus and he boarded at Mehmetoik (Mehmetcik) Point.

When passing Canakkale, vessel slowed down and an Officer had to go down into the Sanitary Inspector's motorboat.

In addition to the sanitary boat another motorboat arrived, bringing the sub-Agent of the vessel's Istanbul husbandry Agent. The sub-Agent passed a message for Master with the latest information for Ahirkapi Roads to the ship's Officer after vessel having received Free Pratique from the Sanitary Officer. This sub-Agent is acting for several Istanbul Agents, the address is as following:

Denizciler Shipping Agents, Isfendiyar Anafarta & Co., Carsi Cad. 10, Canakkale. P.O.B. 5, Canakkale. Cables: 'Denizciler'. Tel: 1032-1878 after hours – 1055. Telex: 58128 dzck tr.

The information from the sub-Agent also included the kind and number of forms and lists required at Istanbul.

Immediately upon letting go anchor in Ahirkapi Roads, the motor launch with the Turkish Authorities arrived, some minutes later the Agent's boat arrived with the new crew members and some spare parts.

The Authorities required the following forms and lists:
Certificate of Registry.
Tonnage Certificate.
Load Line Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Transit Cargo Manifest.
3 Currency Lists of vessel's safe.
2 Personnel Effects Lists (Not officially required, but taken because at hand).
3 Stores Lists/Provisions.
3 Crew Lists.

There was no report of inspection, etc., given to the vessel by the Authorities and *no* written outgoing clearance was issued. When asking for an outgoing clearance, the Officials stated it was *not* necessary in this case.

No special lists of crew changes were required.

The Pilot left at Ahirkapi Roads because the time for taking fresh water was expected to be 5 to 6 hours (60 m.t.p.h.)

One hour after arrival the waterboat arrived and the vessel took fresh water (drinkable quality) as per order.

Half an hour before finishing pumping, Istanbul Pilots were called on VHF Channel 16. The Pilot arrived on schedule and the vessel continued the voyage to Odessa.

On approaching Ahirkapi Roads from the West, care has to be taken of numerous fishing boats and sand/gravel digging barges.

SHIPMASTER'S REPORT: October 1980 (Updated 1988).
Dardanelles and Bosphorus:

Dardanelles:

Pilotage: Compulsory. Cable: 'Canakkale Pilot Station' 48 hours if possible in advance to be sure of obtaining Pilot. At present Pilots are in short supply due to an increase in traffic.

One Pilot for Dardanelles and Bosphorus.

Pilot boards from grey hulled launch of about 8 knots speed from Sebbulbahir on Northern entrance.

VHF: Call 'Mehmetcik Pilots' on Channels 16 and 71.

Generally starboard side ladder or gangway.

Pilot gives Master form to fill in for Canakkale.

Control: Sanitary Control at Canakkale on Asian side of Strait near narrows about 1 hour after Pilot boarding.

Two launches come out. One Agent, one Immigration.

Require: 2 Crew Lists, sight Ship's Register and Derat Certificate. Officer has to go down to Immigration launch, no one boards.

Immigration Officer gives ship yellow form which is required to be shown next port.

Control only Northbound whether coming from overseas or a Turkish port. *Navigation:* Forecastle manned at Canakkale.

In fine weather, Straits present no problems, but in poor weather and visibility it can be more difficult, especially at Canakkale with other ships around where the vessel is nearly stopped. Also the narrows can be dangerous.

Pilots like maximum sea speed which is not possible.

Vessel passed through the narrows on manoeuvring speed.

Current S.W. flowing at 1 knot – 2 knots.

Transit takes about 3 hours, dependent on weather and delay at Canakkale.

Pilot hands over 'Control' at Inceburun, and takes over Southbound at the same place.

Sea of Marmara: Good positions obtainable. Ship carries out navigation, no Pilot. Very busy but most traffic, apart from ferries and small craft, on straight course from Bosphorus through to Dardanelles and vice versa.

Keeping well to starboard is advisable.

Transit about 6 hours.

Bosphorus:

Pilotage: Compulsory.

If coming from the Dardanelles, Pilot takes over at 'Yesilkoy' or joins by launch at position South of Athirkapi Point. From the North (Black Sea) Pilot boards (and disembarks) at Tellitalya Point just below Kavak (about 4 miles South of Rumeli Point, the Western entrance to the Strait).

Wait North of Rumeli Point until Pilot available.

Cable: 'Kavak' Pilot Station minimum of 6 hours' notice. Generally boards starboard side (and disembarks). Pilot gives Master form to fill in for control.

Control: At Buyukdere North and South about 20 minutes from Pilot Station.

Control requires: 2 Crew Lists, sights Ship's Register and Derat.

Yellow Immigration form given to Master. An Officer has to go down into launch. Two launches. Agent and Sanitary Inspector.

Navigation: No transit in fog. Forecastle manned for anchoring all transit. As per BA 1198.

Extreme vigilance is required on account of ferries, small boats, ships not under pilotage, strong currents, etc.

Transit time about 2 hours.

Signal Station: At Kavak on Asian bank just North of Pilot Station. Aldis lamp required.

Currents: Generally a 2 – 5 knot Southerly current, this can be pushed down by strong Southerly wind at Southern entrance at Istanbul.

Pilots advise that in these conditions transit for large bulk type ships is very hazardous on account of steering. Caution must be exercised in picking the Pilot up Southbound at Kavak due to Southerly current building up ship's speed.

SHIPMASTER'S REPORT: December 1983.

Earlier this year a Pilot Station was established at Gelibolu at the Eastern end of the Dardanelles. It is served by a 60 ft. fishing boat, painted white. The pilotage fee for Mehmetcik-Gelibolu and Harem-Kavak is 50% of the fee for Mehmetcik-Kavak.

If taking stores/spares when passing the Bosphorus, Agents should be instructed to arrange for the delivery at the Istanbul end as it is highly undesirable to have the Agent's launch alongside at Kavak before the Pilot boards.

REPORT: June 1985 (Updated 1988).

The following was received by a Master from his Agent in Istanbul.

For vessels proceeding and destined to Istanbul (not transitting vessels), the Gulf of Izmit or any other port inside Marmara Sea, pilotage is compulsory through the Dardanelles from the Southern entrance (Mehmetcik Point/Cape Hellas Lat. 40° 02' N., Long. 26° 11' E. to the Northern exit (Gelibolu Lat. 40° 24' N., Long. 26° 41' E.).

The same applies for vessels coming from a Marmara Sea port and proceeding Southwards.

From Gelibolu to the entrance of Izmit Gulf (Darica Lat. 40° 45' N., Long. 29° 21' E.) or vice versa, pilotage is not compulsory.

From Darica inside Izmit Gulf pilotage is again compulsory.

All Pilot Stations can be contacted by VHF Channel 16, working Channel 71.

For vessels passing, in-transit pilotage through Dardanelles-Marmara Sea-Bosphorus or vice versa is not compulsory. It is, however, strongly recommended to employ pilotage services through the Bosphorus.

Dardanelles Pilot can be picked-up at Mehmetcik Point (Lat. 40° 02' N., Long. 26° 11' E.) and dropped at new Pilot Station at Gelibolu (Lat. 40° 24' N. Long. 26° 41' E.) respectively picked up there and on outward voyage, thus saving the open Marmara Sea stretch. Another Pilot can then be requested at Istanbul (Harem) for Bosphorus.

Please make sure to enter into Pilot bills the exact times of services given. Please bear in mind that if part of a service falls into overtime, the whole service is charged as overtime. Service hours are as follows:

0800 – 1700 straight time.
1700 – 0800 overtime charged at 50% extra.
0800 – 1200 Saturday straight time.
After 1200 Saturday overtime till Monday morning 0800 hrs.

For vessels with inflammable, dangerous cargoes, etc. 30% extra is charged on all pilotage services, therefore whenever tankers are gas free this must be inscribed on Pilot bills. Also when tankers are loaded with harmless cargoes.

Whenever Pilots remain onboard after completing their service, as guest-passengers, Pilotage bill should be signed for the service part only.

SHIPMASTER'S REPORT: June 1987.

Pilotage through Dardanelles: Compulsory for all foreign vessels bound to and from a Turkish port. Northbound vessels take a pilot at Mehmetcik and Southbound vessels take a pilot at Gelibolu.

VHF: Pilots on Channels 16 and 71.

Notice: 48 hours notice of arrival required.

REPORTS: The following telexes were received by a tanker owner from agent in Istanbul between May 1990 and October 1990.

MAY 1990:

Re: Tankers Exceeding 200 m. LOA and 90,000 g.r.t. Transiting the Dardanelles and Bosphorus:

Kindly note that 10 day's pre-advice of the ETA Dardanelles is now required by the Canakkale and Istanbul Port Authorities so that they can obtain the approval of the Ministry of Communications and close the Straits to all traffic during the passage of such tankers, for which an escort of 2 tugs (for vessel's a/c) and one Coast Guard launch is allocated.

Daylight passage through both Straits is required, which kindly note.

JUNE 1990:

Re: Transit Passage Through the Straits of Dardanelles/Bosphorus:

Re-passage of vessel with g.r.t. in excess of 90,000 tons and LOA more than 200 m. to be reported to Harbour Master. In addition to above, we have been informed that agents for such tonnage have to provide

Harbour Master with Letters of Guarantee stating that in case of accident during passage, all damages/losses will be covered by the agent.

Please inform your Clubs accordingly. FYG local P & I Club informed accordingly.

OCTOBER 1990: Telex from owner to agent.

Re-your May telex concerning tankers exceeding 200 m. LOA and 90,000 g.r.t. transiting the Dardanelles and Bosphorus, grateful you advise whether the discrepancy between length and g.r.t. has yet been resolved.

REPLY:

Regulations now apply to tankers of 90,000 g.r.t. or over without any mention of LOA, however should a vessel's g.r.t. be close to 90,000 please advise us so that we can consult the Captain of the Port re any transit restrictions.

REPORT: November 1991.

The following telex was received from an agent in Istanbul.

Quote:

Re: Transiting Vessels Through the Straits.

This is to inform you that as per strict request of Port Harbour Master and Customs Authorities, we are compelled to give them 24 hours notice of vessels ETA Bosphorus North/Southbound passages together with the following additional information:

(1) Port of Registry/flag/g.r.t./n.r.t./d.w.t.
(2) LOA.
(3) Draft.
(4) Port of arrival.
(5) Port of destination.
(6) Quality of cargo on board.
(7) Quantity of cargo on board.

You are kindly requested therefore to instruct your agents at the relevant ports and also your Masters to keep us closely posted in due time about the above, thereby enabling us to comply with the requirements of our authorities in order to avoid any eventual unpleasant consequences or fines.

Unquote.

REPORT: The following was received from our Agent (G.A.C.) in January 1991:

General Information on Passage through the Straits:

Geographical Locations: Dardanelles (Canakkale Bogazi): Is the strait joining the Aegean Sea and the Sea of Marmara, boundaries of which are between the line joining Mehmetcik Lighthouse and Kumkale Lighthouse in the South and the line between Gelibolu Lighthouse and Zincirbozan Lighthouse in the North.

Bosphorus (Istanbul Bogazi): Is the strait joining the Sea of Marmara and the Black Sea, and is located within the boundaries of the Port of Istanbul, boundaries which are described in the relevant regulations as follows:

> The Port of Istanbul is the sea area (including the Golden Horn) between the lines that join Turkeli Feneri and Anadolu Feneri in the North, and Bababurnu and Yelkenkai Feneri in the South.

General Provision: The vessels, passing the waterway that comprise the two straits (i.e. Dardanelles and Bosphorus) as well as the Sea of Marmara, are passing under the following status:

> Transit vessels are those which are coming from a foreign port in Aegean Sea and bound to a foreign port in Black Sea or vice versa, and passing the above waterway without calling at any Turkish Port, and without having any commercial contact or transaction with any Turkish Port, such vessels are granted with Transit Sanitary Pratique.
>
> Non-transit vessels are those which either coming from any Turkish Port, or bound to any Turkish Port, whether between the straits or outside of the above waterways, or stopping for a while for any purpose such as loading and/or discharging cargo, embarkation/disembarkation/city tours of passengers, crew exchange are non-transit vessels and granted with Free Pratique during sanitary controls effected at either Southern entrance to Dardanelles or Northern entrance to Bosphorus.

All ships sailing or lying within the boundaries of Dardanelles and the Port of Istanbul are compelled to comply with international rules, with all rules taking place in the regulations and also with all kind of rules, warnings and controls by the Port Authorities or competent authorities, and comply with rules of legislation as to safety of navigation, life and property. All foreign flag vessels are required to fly the Turkish flag during their stay at Turkish Ports or when passing through the Straits.

Navigation through the Straits: In the Dardanelles, vessels should, in accordance with the Rule No. 9 of the Regulations for Prevention of Collisions at Sea, keep to that side of mid-channel which lies on their starboard side, taking care to make the sound signals in accordance with the rule when approaching the narrows of Canakkale and the bend of Nara.

Vessels should also take every precaution to avoid meeting other vessels in the critical areas between Kilitbahir and Canakkale, between Nara and Kilia, and between Gelibolu and Cardak; and, when the current or weather is in their favour, should, in these critical areas, give way to oncoming vessels by stopping or reducing speed.

In the Bosphorus, the area lying between the line connecting the Turkeli Lighthouse to Anadolu Lighthouse in the North, and the line connecting the Ahirkapi Lighthouse to the Kadikoy Inciburnu Breakwater Light in the South and made of 2 traffic lines, suitable for Northbound and Southbound traffic, and separated by a centre line separating these 2 lines.

The area reserved for crossing the Strait of Bosphorus and lying between the line connecting the Turkeli (ex Rumeli) Lighthouse to Anadolu Lighthouse in the North, and line connecting the Ahirkapi Lighthouse to the Kadikoy Inciburnu Breakwater Light in the South, and made of 2 traffic lanes suitable for Northbound and Southbound traffic, and separated by a centre line separating these 2 lanes is called the Bosphorus Strait Passage Way.

The said centre line which divides the Bosphorus passage into 2 traffic lanes conjunct the below indicated geographical points:

1.	41° 00' 10" N., 21° 09' 45" E.	2.	41° 01' 24" N., 28° 59' 48" E.
3.	41° 01' 33" N., 28° 59' 55" E.	4.	41° 03' 02" N., 29° 02' 23" E.
5.	41° 04' 03" N., 29° 03' 04" E.	6.	41° 04' 03" N., 29° 03' 03" E.
7.	41° 05' 00" N., 29° 03' 44" E.	8.	41° 06' 15" N., 29° 03' 40" E.
9.	41° 07' 13" N., 29° 05' 00" E.	10.	41° 07' 22" N., 29° 05' 00" E.
11.	41° 08' 55" N., 29° 03' 33" E.	12.	41° 09' 23" N., 29° 03' 32" E.
13.	41° 10' 52" N., 29° 05' 02" E.	14.	41° 12' 13" N., 29° 06' 50" E.
15.	41° 13' 36" N., 29° 07' 59" E.		

The area between centre line anad the line that joins the geographical points here below is the Northbound lane:

16.	41° 00' 00" N., 29° 00' 04" E.	17.	41° 01' 07" N., 29° 00' 04" E.,
18.	41° 01' 30" N., 29° 00' 12" E.	19.	41° 03' 06" N., 29° 02' 58" E.
20.	41° 04' 00" N., 29° 03' 15" E.	21.	41° 04' 29" N., 29° 03' 15" E.
22.	41° 04' 58" N., 29° 03' 55" E.	23.	41° 06' 15" N., 29° 03' 51" E.
24.	41° 07' 12" N., 29° 05' 22" E.	25.	41° 07' 22" N., 29° 05' 22" E.
26.	41° 08' 51" N., 29° 03' 53" E.	27.	41° 09' 28" N., 29° 03' 50" E.
28.	41° 10' 48" N., 29° 05' 12" E.	29.	41° 11' 40" N., 29° 06' 46" E.
30.	41° 12' 09" N., 29° 06' 59" E.	31.	41° 31' 22" N., 29° 08' 34" E.

The area between centre line and the line that joins the geographical points here below in the Southbound lane:

32.	41° 00' 18" N., 28° 59' 25" E.	33.	41° 01' 17" N., 23° 59' 27" E.
34.	41° 01' 44" N., 28° 59' 44" E.	35.	41° 02' 58" N., 29° 02' 06" E.
36.	41° 04' 08" N., 29° 02' 56" E.	37.	41° 04' 34" N., 29° 02' 56" E.
38.	41° 05' 02" N., 29° 03' 33" E.	39.	41° 06' 15" N., 29° 03' 30" E.
40.	41° 07' 23" N., 29° 04' 33" E.	41.	41° 09' 02" N., 29° 03' 16" E.
42.	41° 09' 31" N., 29° 03' 17" E.	43.	41° 10' 30" N., 29° 04' 29" E.
44.	41° 12' 00" N., 29° 06' 00" E.	45.	41° 12' 18" N., 29° 06' 38" E.
46.	41° 13' 45" N., 29° 07' 29" E.		

Speed of Vessels – General: In order to avoid damage to the coast and to small craft, all power-driven vessels must proceed at the slowest speed at which steerage can be maintained, when within the following areas:

(a) In the Dardanelles: Between a line drawn from Mehmetcik Burnu to Kum Burnu, and a line drawn from the town of Gelibolu to Cardak Burnu.

On no account is a speed of 10 knots to be exceeded in the narrows of the Dardanelles between a line joining Nara Burnu and Kilya Lighthouse, and the parallel of latitude passing through Kanlidere Burnu Lighthouse (40° 06' N., 26° 22' E.).

(b) In the Bosphorus: Between a line drawn from Ahirkapi Burnu (41° 00' N., 28° 59' E.) to Haydarpasa, and a line drawn from Buyukere to Umuryeri Liman.

Unless there are extraordinary or compulsory reasons, a speed of 10 knots is never to be exceeded in the Bosphorus.

Pilotage through Waterway: Pilotage is not compulsory for vessels passing in transit through the straits. However, Turkish Authorities are recommending to take Pilot while passing both straits for a safe passage. Masters of transit vessels have the liberty to take or not to take Pilot while passing the straits.

Pilotage for compulsory non-transit vessels which are bound to any port between the two straits: Such vessels have to take Pilot while passing both straits (i.e. Dardanelles and Bosphorus). Pilotage is also compulsory for vessels calling at any Turkish Port, berthing/unberthing, entering/exiting to/from the harbours, as well as in Gulf of Izmit. Pilotage services are carried out by 7 Pilot Stations of "Pilot and Towage Services Department", which have been distributed in the area.

Dardanelles:

(a) Mehmetcik (Dardanelles) Pilot Station.
Place: Southern Entrance of Dardanelles (Seddulbahir).
Geographical Position: 40° 02' 34" N., 26° 11' 25" E.
Telephone: 5 / Canakkale – Seddulbahir.
Cable Address: Canakkale Pilot.

Pilotage services for the ships bound to any port at the Marmara Sea or passing through the Black Sea carried out by that station.

The station continuously effects listening to VHF Channel 16.

(b) Canakkale Pilot Station.
Place: Canakkale.
Geographical Position: 40° 09' 03" N., 26° 24' 03" E.
Telex: 58187 Plen Tr.
Telephone: 1180 Canakkale.
Cable Address: Canakkale Pilot.

Pilotage at the Canakkale Port and for ships that come alongside and or depart from quays within Canakkale Port area are carried out by the station. The station continuously effects listening on VHF Channel 16.

In case services at Mehmetcik Station stops, due to bad weather conditions, those are carried out at this station. Ships requiring Pilot from Mehmetcik Station can make their requests through that station.

(c) Istanbul Pilot Station (HAREM).
Place: Southern Entrance of Bosphorus (Harem).
Geographical Position: 41° 00' 42" N., 29° 00' 38" E.
Telex: 23620 Plhr Tr.
Telephone: 3330533.
Cable Address: Istanbul Pilot.

It carries out the pilotage for ships at the Southern entrance of Bosphorus. The station effects 24 hours listening on VHF Channel 16.

(d) Kavak Pilot Station.
Place: Northern entrance of Bosphorus (Tellitabya).
Geographical Position: 41° 10' 36" N., 29° 04' 24" E.
Telex: 23711 Plkv Tr.
Telephone: 1420494, 1420374.
Cable Address: Kavak Pilot.

It carries out pilotage for ships at the Northern entrance of Bosphorus. The station continuously listens on VHF Channel 16.

Gulf of Izmit: It is obligatory for Turkish ships of 500 g.r.t. and over, and all foreign ships no matter their tonnage, which come alongside, and up to buoys, at wharves, quays, within the inner, central and outer ports, or leave those places and anchor at and depart from anchorage of the Gulf of Izmit to take Pilots.

(a) Darica Pilot Station.
Place: West entrance of Izmit Bay (Darica).
Geographical Position: 40° 45' 18" N., 29° 23' 20" E.
Telephone: 2066.
Cable Address: Darica Pilot.

(b) Izmit Pilot Station.
Place: Izmit.
Geographical Position: 40° 45' 50" N., 29° 55' 28" E.
Telex: 33169 Plkc Tr.
Telephone: 12087.
Cable Address: Izmit Pilot.

Services within the limits of the Izmit Port and demands for ships that will leave the Gulf to be fulfilled by that station. The station continuously listens to VHF Channel 16.

Anchorage of Transit Ships: Article 75, transit ships are allowed to stay 48 hours in order to provide fuel oil, water, provisions, material, to receive documents from and to submit those to agencies without obtaining Free Pratique under the supervision of the Shore Sanitary Organisation at following anchorage areas:

A. The area, lying between 28° 58' 36" E. longitude passing from Sultan Ahmet Mosque, and 28° 55' 00" E. longitude passing through Yedikule, is the free anchoring place for passenger and dry cargo ships.
B. The area, lying between 28° 55' 00" E. longitude passing from Yedikule, and 28° 51' 00" E. longitude passing through Bakirkoy, is the anchorage place allocated for tankers and ships carrying dangerous cargo such as explosives, flaring and burning substances.
C. The area, lying between 28° 51' 30" E. longitude passing from Bakirkoy, and 28° 50' 00" E. longitude passing through Yesilkoy, is the anchoring place for ships subject to quarantine.

REPORT: June 1992.
Agent's Circular to ship's Masters:
Information for Bosphorus:

Please call Bosphorus Pilot Station on VHF Channel 71, when about 6 miles off South entrance (Haydarpasa Breakwater).

Prepare pilot or combination ladder on your starboard side.
Pilot ladder – if freeboard less than 5.0 m.
Combination ladder – if freeboard more than 5.0 m.

Pollution in Turkish Straits:

According to our recent observations, Turkish Port and Environmental Authorities have begun to take stricter measures against occurances of pollution caused by vessels passing Turkish Straits. Regardless of whether pollution is actually caused by any particular vessel, the slightest indication of pollution witnessed by other vessels is immediately reported to the above authorities.

In several cases, some vessels, passing through residue pollution of previous unknown origin, have been accused mistakenly of pollution, whereby, even if vessel is found innocent, it is usually forced to anchor and becomes subject to fines, which must be paid in cash without acceptance of bank or P&I guarantees. Once a vessel has anchored, she will not be permitted to continue voyage, pending P&I procedures or court proceedings. Therefore only the payment of cash will realise the permission of the vessel to sail.

If pollution is found to have been caused due to technical problems of the vessel, a fine of U.S.$ 35,000 (minimum) is charged.

If pollution is found to have been caused by reason of negligence on the part of the vessel, or if ballast/dirty water/slops are discharged, this violation is charged from U.S.$ 40,000 to U.S.$ 160,000.

In light of the above, Owners and Masters are asked to pay special attention, and take precautionary measures when transitting Turkish Straits, as even false occurances beyond the vessel's control may lead to unnecessary delays and fines.

IMPORTANT:

Due to heavy fog, sometimes pilotage at Bosphorus suspended. Please keep close contact with Pilot on VHF Channel 71, and if Bosphorus traffic is closed due to fog, you are free to proceed to Ahirkapi Anchorage for further instructions.

If Pilot will instruct you to anchor due to fog, please listen to VHF Channel 71, and upon receiving instruction that traffic is normal, please heave up anchor and proceed to breakwater, if you order Pilot to come to anchorage, an extra pilotage charge of U.S.$ 750.00 and delays will be incurred.

Anchorage Positions: See "Plan".
Southbound Passage:

Please call Kavak Pilot Station on VHF Channel 71 when about 6 miles off the North Entrance (Rumeli or Anadolu Lighthouse).

Pilot or accommodation ladder to be rigged on starboard side.

Also please have ready following for Sanitary Boat:
Yellow Sanitary Card given to you at Dardanelles.
Tonnage/Derat Register Certificates.
2 copies Crew List.
No other formalities required.

SHIPMASTER'S REPORT: January 1994.
Dardanelles and Bosphorus Pilotage: Vessel bound for port of Eregli from South America.

The Shipmaster's Reports in the Guide to Port Entry 1993/94 for October 1980 (Updated 1988) and June 1987 mention that pilotage is compulsory for Dardanelles/Bosphorus. Also, Admiralty List of Radio Signals Vol. 6, Part I, 1992, Page 434, also says pilotage is compulsory for ships bound for Turkish ports.

As per above, I had advised my Charterers accordingly to arrange for Dardanelles/Bosphorus Pilots; as same when compulsory would be on Charterers' accounts. However, they came back with following reply, which is quoted below and is self-explanatory.
Quote:

Charterers have noted Master's comments on pilotage services for Dardanelles and Bosphorus, with thanks, and we would like to comment/clarify matter as follows:

Master partly correct in stating that 'pilotage is compulsory for ships bound for Turkish port', but with a small mistake.

Compulsory pilotage service for Dardanelles and Bosphorus only in cases where vessels entering Turkish territorial waters from Black Sea and/or Mediterranean Sea and bound to any Turkish port located within Sea of Marmara. Otherwise, in cases where vessels are entering Turkish territorial waters from Black Sea and/or Mediterranean Sea and bound to a Turkish port located at Black Sea or Mediterranean Sea, vessels are not obliged to use pilotage service when transitting both Dardanelles and Bosphorus Straits.
Unquote.

In our case, we entered Turkish territorial waters from Mediterranean Sea and bound to Eregli (Black Sea), and this means vessel will pass both Dardanelles and Bosphorus Straits "in transit", repeat "in transit" and is not obliged to use pilotage service. In other words, pilotage is not compulsory for our vessel.

Therefore, any and all pilotage service to be used by the vessel during transitting Straits of Dardanelles and Bosphorus up and down would be about U.S.$ 10,000 and on Owner's account.

REPORT: December 1994.
Bosphorus/Dardanelles Traffic Rules and Recommendations: We quote below the rules and recommendations on navigation through the Strait of Istanbul, the Strait of Canakkale and the Marmara Sea adopted by the Maritime Safety Committee of IMO at its 63rd session and applicable as from 0000 hrs. UTC on 24th November 1994:

"SN/Circular 166 – Annex.
Routeing Measures other than Traffic Separation Schemes.
Rules and Recommendations on Navigation through the Strait of Istanbul, the Strait of Canakkale and the Marmara Sea*.
* Hereinafter referred to as the Straits.

1. *Use of Ships' Routeing:*
1.1 Vessels navigating in the Straits shall exercise full diligence and regard for the requirements of the Traffic Separation Schemes (TSS).
1.2 A vessel that is not able to comply with the requirements of the TSS shall inform the traffic control stations well in advance. In such circumstances, the competent authority may temporarily suspend the particular TSS, or section(s) of it, and inform the vessels sailing in the area and advise them to comply with Rule 9 of the International Regulations for Preventing Collisions at Sea, 1972.
1.3 In order to ensure safe transit of vessels which cannot comply with the TSS, the competent authority may temporarily suspend two-way traffic and regulate one-way traffic to maintain a safe distance between vessels.
2. *Ship Reporting and Navigation Information:*
2.1 All vessels entering the Straits are strongly recommended to participate in the reporting system (TUBRAP) established by the competent authority and of which the appropriate information has been promulgated by Notices to Mariners and other means.
2.2 For the purpose of efficient and expeditious traffic management, in the interest of safety of navigation and protection of the marine environment, vessels intending to pass through the Straits are strongly advised to give prior information on the size of the vessel, whether in ballast or loaded condition and whether carrying any hazardous and noxious cargo, as defined in relevant International Conventions.
2.3 All vessels navigating in the Straits are recommended to make use of the information broadcasts made by the information services operated by the competent authority, and to keep watch on VHF as appropriate, as set out in the TUBRAP scheme.
3. *Pilotage:*
3.1 Masters of vessels passing through the Straits are strongly recommended to avail themselves of the services of a qualified pilot in connection with the requirements of safe navigation.
4. *Daylight Transit:*
4.1 Vessels having a maximum draft of 15.0 m. or more and vessels over 200 m. in overall length are advised to navigate the Straits in daylight.
5. *Towing:*
5.1 Passage of a vessel under tow may only be carried out when using tug(s) or vessel(s) suitably equipped for the operation in order to ensure safe navigation.
6. *Anchorage:*
6.1 When required, vessels may use the anchorages designated for this purpose.

ALANYA: 36.32 N. 32.03 E. (See Plan)

RADIO: Alanya Radio. Call sign TAC4.
BERTHING: Jetty length 277 m., depths alongside 5 m. – 12 m. Can accommodate 4 vessels.
CRANES: No shore cranes available; vessels use their own gear for loading/discharging.
STEVEDORES: Loading/discharging carried out by hired stevedores. Average rate per shift/gang of 150 tons for cotton, bagged and general cargoes.
Working Hours: 0800 hrs – 1630 hrs. Lunch break 1230 hrs.

FRESH WATER: Available.

AIRPORT: At Antalya (150 km.).

CHARGES: Light and sanitary dues.

AUTHORITY: Harbour Master. *Tel:* (0242) 5131097.

Turkiye Denizcilik Isletmeleri, Genel Mudurlugu, Rihtim Caddesi, 80120 Karakoy, Istanbul, Turkey. *Contact:* Head of Port Operations Department or Assistant General Manager.

Turkish Maritime Organisation, Port of Antalya, Antalya, Turkey. *Tel:* (0242) 2481469. *FAX:* (0242) 2483346. *Contact:* Husbyin Seymen, Port Director.

ALIAGA: 38.50 N. 26.57 E. (See Plan)

LOCATION: *Northern Point:* Lat. 38° 50' 10" N., Long. 26° 56' 33" E.
Southern Point: Lat. 38° 50' N., Long. 26° 57' 36" E.

DOCUMENTS:

6 copies Crew List.
4 copies Passenger List.
2 copies Manifest of Transit Cargo.
3 copies Manifest of Inward Cargo, one of which must be legalised before arrival by Turkish Consulate at loading port.
1 set Bills of Lading.
1 set Cargo Stowage Plans.
2 Stores Lists.
Health Documents.
Ship's Certificates.

Ship's Particulars Form is to be filled in by Masters upon arrival at Aliaga and remitted to the Port Authorities.

PILOTAGE: Pilotage is compulsory for all vessels. Pilot boards 2 to 3 miles West of Tasli Burnu Light.

Notice of ETA must be reported 3 days before arrival, followed by successive notices confirming or amending previous notice.

The ETA message must include the following information:

1. Name and call sign of vessel.
2. Nationality.
3. Agency.
4. Length, draft and gross tonnage.
5. Kind and quantity of dirty ballast.
6. Deballasting time.

ANCHORAGES: The port itself is situated about 40 miles N.N.W. of Izmir on the Southern arm of the Gulf of Candarli and the anchorage is considered safe for large ships.

Information on best location of anchorage, if required, will be given by Aliaga Pilot.

READINESS: Notice of Readiness will be received by the Loading Master. It should be tendered at the time of anchoring or pilot boarding. Lay time will commence 6 hours after receipt of Notice of Readiness.

RESTRICTIONS: Water depth at entrance about 14 fathoms. Water depth at crude oil wharf 17 m. – 18 m.

MAX. SIZE: Crude Oil Berth designed for up to 100,000 d.w.t. Products Berth designed for up to 22,000 d.w.t.

HEALTH: *Customs:* Customs post at refinery.
Immigration: None locally. Incoming and outgoing personnel have to be processed at Izmir and escorted under guard to and fro.
Health: No office locally. Officials have to be brought from Izmir.

RADIO: Radio messages to be routed to Agent via Izmir Radio. Call sign of Izmir Radio Station is "TAN", 2,760 kHz.

Also see "Pilotage".

VHF: Communication with Aliaga Pilot Station is possible within 20 miles – 25 miles by VHF Channel 16, manned 24 hours. Call sign: "Aliaga Pilot".

RADAR: No radar facility.

TUGS: A total of 4 tugs (2×2,460 h.p. and 2×2,760 h.p.) and 3 mooring boats are available. All tugs are equipped with fire fighting equipment.

During berthing/unberthing, it is compulsory to take at least:

1 tug –	500 g.r.t. –	4,999 g.r.t.
2 tugs –	5,000 g.r.t. –	24,999 g.r.t.
3 tugs –	25,000 g.r.t. –	49,999 g.r.t.
4 tugs –	50,000 g.r.t. and over.	

Depending on weather conditions, or for safety requirements, additional tugs may be assigned by TUPRAS, or by Aliaga Pilot or if requested by vessel.

BERTHING: There are 3 berths:
(a) Aliaga Refinery Terminal.
(b) Aliaga Refinery New Crude Oil Jetty.
(c) Aliaga Refinery Cargo Pier.

(a) Aliaga Refinery Terminal: A "T" type oil jetty having 4 berthing points:

Berth No.	*LOA* (m.)	*Draft* (m.)	*Product*
1	285	16.0	Crude and Fuel
2	180	12.0	White products
3	100	8.0	White products
4	100	6.0	Lube oils

Berthing to No. 1 is possible only during daytime.

(b) Aliaga Refinery New Crude Oil Jetty: VLCC jetty designed fo tankers up to 250,000 d.w.t., 19.25 m. even-keel draft and LOA o 260 m. – 340 m.

It has 4×16 in. FMC loading arms for crude oil discharging an 2×12 in. loading arms for bunker loading. Unberthing and berthin is possible only during daytime.

(c) Aliaga Refinery Cargo Pier: LOA 95 m., draft 6.0 m. Pier is fo loading of asphalt.

CRANES: Fixed cranes are available at all berthing points, liftin capacities up to 1,500 kg.

MEDICAL: Hospital and medical facilities are available at Izmir an Aliaga. If doctor is required on board, Master should inform Agent b radio or VHF.

TANKERS: See "Berthing".

FIRE PRECAUTIONS: Ship's watchmen to be on duty. All operation involving open fires and sparks are prohibited. Vessel should provid two fire extinguishers and sawdust or sand beside hose connections.

BALLAST: Maximum ballast discharge rate 1,500 cu.m./hr. Vessel should arrive with sufficient ballast for safe handling of vessel unde prevailing weather conditions.

Vessels shall not discharge into the waters of the port any part of the content of their cargo, slop or ballast tanks or bilges, which is liable t pollute these waters.

DENSITY: 1027 (average).

FRESH WATER: Available at all berths, delivered by hoses at a rate o 20 cu.m./hr. Must be requested by Agent, and Agent must inform th Customs Officer.

FUEL: Available at all berths, delivered by hoses. Gasoil, fuel o (1,500 sec. or 3,500 sec.). Notice of 48 hours required prior to berthing

REPAIRS: No facilities available.

DRY DOCKS: None.

SURVEYORS:

Name	*Telephone*	*Telex*
Saybolt	(91) (21) 112368	33210
Caleb Brett	(91) (543) 61134	61721
SGS	(91) (51) 194831	53795
Inmarcar	(91) (51) 253905	52121
Catoni Persa	(91) (1) 3383289	29103

AIRPORT: Situated 70 km. from Aliaga is Adnan Menderes Internationa Airport.

TIME: GMT plus 2 hours. Summertime GMT plus 3 hours.

HOLIDAYS:

New Year's Day (January 1st).
National Sovereignty (April 22nd p.m. to April 24th).
Sports and Youth Day (May 19th).
Victory Day (August 30th).
Proclamation of the Republic (October 28th p.m. to October 30th).
Seker Bayram (3.5 days, movable).
Kurban Bayram (4.5 days, movable).
The terminal works all year round (24 hours per day).

TELEPHONES: Cannot be connect on board.

SHIP SUPPLY SERVICE:

Name	*Telephone*	*Telex*
Ozdeniz	(91) (543) 62996	51721
Simsekle	(91) (543) 61692	51713
Bilgic Kard	(91) (543) 62009	—

SHORE LEAVE: Crew permitted ashore with shore passes. It i forbidden to wander on jetty and in refinery area. Transport vehicle i provided by TUPRAS between jetty and Aliaga.

IDENTIFICATION CARDS: Seamen's Book is needed for crew goi ashore.

GARBAGE DISPOSAL: All rubbish must be put in bags and given t gabage collection vessel daily.

Charges: At anchorage – 90×1,000 g.r.t./U.S.$ (subject to change
In port – 45×1,000 g.r.t./U.S.$ (subject to change).

WASTE OIL DISPOSAL: During berthing, waste oil disposal is take by refinery to the shore ballast tank.

Charges: At anchorage – 120×1,000 g.r.t./U.S.$ (subject to change
In port – 60×1,000 g.r.t./U.S.$ (subject to change).

SEAMAN'S CLUBS: None.

CURRENCY: Lira. Currency exchange rates are set by National Cent Bank daily, and are subject to change.

SHIPMASTER'S REPORT: October 1990.

First vessel to use the facility.

Vessel: 265,000 tonnes d.w.t. with segregated ballast. LOA 322 Summer draft 20.47 m.

Berth: New berth for VLCCs.

General: Vessel needs B.A. Chart No. 1618 (which does not yet sh new VLCC berth) and B.A. Pilot Book NP.48. The Terminal manageme advise that the position of the centre of the jetty (in between t Chicksans) is Lat. 38° 49' 56" N., Long. 26° 57' 01" E., and the berth li in a 177°/357° direction. Arrival and berthing draft 19.24 m. even ke

Approaches: The approaches to the port are hazard-free, and t entrance into the Outer Harbour (between Tavsan Adasi Is. and Ilica Lighthouse) has a navigable width of 1.1 miles for vessels up to 20.0 draft.

A slight current setting North was experienced approaching t entrance from about 5 miles out. Pilots (3) boarded from tug when ves was actually in the entrance to Outer Harbour (3 Pilots used, as t was the port's very first VLCC – normally only one Pilot will be use

Anchoring: Pilot took ship to anchor, in a position with Tasli Lighthouse bearing 145° × 1.55 miles in a depth of 50.0 m. We u port anchor with 9 shackles on deck. During next 36 hours ves experienced N.E. winds up to 35 knots, position was maintained wi undue strain on the cable. Holding ground very good.

Prior to Berthing: When the Terminal decided weather conditions w satisfactory for berthing (wind N.E. less than 10 knots), the Pilots (a 3) came out to the ship by tug and boarded in the anchorage. Four t were made fast *before* weighing anchor.

Proceeding to New Berth: Once anchor aweigh, vessel proceeded inwards at *very* slow speed, using minimal engine movements. The Echo Sounder was run continuously. During this operation, the wind suddenly backed round to N.W. and increased to 15 knots. The Pilots had already stipulated that maximum wind speed for berthing is 10 knots. They were constantly monitoring the ship's wind gauge, but decided (with my agreement) to continue berthing, as we had reached the point where, to abort, would mean towing the ship out stern first, back into Outer Harbour against the wind. The Pilots did not want to use astern engine movements, as the effect of our transverse thrust would swing the bow in towards the berth. In the event the berthing operation proceeded relatively smoothly, and although the N.W. wind increased up to 18 knots, blowing on our starboard quarter, the tugs were well able to counteract it. Vessel was stopped in the water approximately 150 m. abeam of the berth, and 2 tugs began pushing at 90° on our port side, whilst the other 2 tugs began towing at 90° towards the berth.

Berthing: Three mooring boats were available, two small ones and one miniature tug. Only the latter was really capable of carrying our mooring wires to the shore (when still about 70 m. off the berth). The two small mooring boats had great difficulty in carrying our wires, in fact if we had not had the 11.0 m. polyprop tails fitted to the wires, it is doubtful if these two small boats could have carried them at all. First lines were one polyprop stern line to miniature tug, one aft breast wire to small mooring boat, and one polyprop head line to the other small mooring boat forward. The vessel landed on the berth very smoothly and once there, the 4 tugs kept vessel alongside easily, whilst we made fast. The jetty mooring crew were only equipped with light heaving lines instead of sturdy messengers. Their heaving lines parted 3 times whilst trying to heave our mooring wires up from the boat to the quick release hooks on the dolphins (through a height of approximately 10.0 m.). The Pilots assured me this oversight would be rectified before the next VLCC visited the port. Final moorings were as per plan (See "Plan").

Berth: A very good shore gangway is installed on the jetty North of the Chicksans (brand new hydraulic variable height 'tower' type). There are 4 × 16 in. Chicksans, only three of which were connected (and this will apparently be standard procedure). VLCCs will always berth starboard side to.

Discharging: The Loading Master advised that the Terminal's maximum receiving rate is 10,500 cu.m./hr. (although they admitted they had never received at this rate before). In the event we actually pumped for a while on bulk at up to 12,000 cu.m./hr., and they were quite happy with this. Full 100% C.O.W. was carried out, and our net discharging time for two grades was 30 hours 40 minutes, totalling 238,000 tonnes. Total time spent on cargo operations (including stoppage for C.O.W. and stripping) was 37 hours 25 minutes.

Unberthing: Our departure drafts were forward 8.60 m. and aft 9.95 m., and due to wind being from the West at 15 knots, the Pilot (only 1) elected to tow the vessel out stern first into Outer Harbour (the alternative is to be towed into Inner Harbour and then turned through 180°, before heading out, but the Pilot said he would only do that in zero wind conditions). Unmooring is done by the shore releasing our lines, under tension, from the quick release hooks on the dolphins, starting from forward and aft and working towards midships. Same 4 tugs secured in same positions then tow vessel stern first using only very short astern engine movements. Once into Outer Harbour, vessel is swung to starboard onto a heading of 275°. Once steady the Pilot departs. Passage out into the Aegean Sea is trouble-free, apart from a few scattered fishing boats in Outer Harbour.

Miscellaneous Information:

(a) Inward Clearance done once alongside, about 12 shore Officials in total, have plenty of chilled soft drinks and beer ready.

(b) Actual papers required: 8 Crew Lists, 7 Vaccination Lists, 2 Crew Declarations, 3 Stores Lists. All other papers supplied by Agent/ Officials. Last Port Clearance sighted but not required. Neither Passports or Vaccination Certificates inspected. Only photocopy of Master's Passport required for Agent. (Notary Public purposes).

(c) Agent and Officials come from Izmir (about 45 miles South of Aliaga).

(d) Agent (Boutros Izmir) very helpful and speaks perfect English. Can obtain previous day's British newspapers in Izmir.

(e) Pilots only standby VHF when a vessel is due (Channels 16, 12 and 13).

(f) Pilots and Tug Masters all ex-Turkish Navy and speak excellent English. Pilots very professional and highly competent.

(g) Outward Clearance, after completion of discharge, can take up to 6 hours. Several Port Officials return to ship for this purpose. We were unfortunate that their lunch break occurred 2 hours after finishing cargo, so waited 6 hours.

(h) Had to provide accommodation and meals for 3 surveyors (1 owner's from UK, 1 Charterer's (SGS) from U.K. and 1 local SGS).

(i) Terminal operated by Tupras Aliaga. Notice of Readiness to be made out to this Company. N.O.R. will be signed by Loading Master (speaks excellent English). Acceptance time is that of "All Fast".

(j) Terminal management very friendly and co-operative. We were visited several times by various managers requesting a look at their very first VLCC.

(k) Intention is to berth VLCCs during daylight only. Departure during hours of darkness will only be possible if wind speed less than 10 knots.

AUTHORITY: TUPRAS Izmir Refinery Management, Izmir Refinery, Aliaga – Izmir, Turkey. *Tel:* (90) 232-6161250. *Telex:* 51704. *FAX:* (90) 232-6162382, 6162249. *Contact:* Tevfik Alok, Deputy Refinery Manager.

AGENT: See "Izmir".

ANTALYA: 36.50 N. 30.37 E. (See Plan)

PILOTAGE: Compulsory. 1 pilot boat and 1 service boat available.
ANCHORAGE: 925 m. S.E. of Outer breakwater.
MAX. SIZE: Max. draft 9.5 m.
RADIO: Antalya Radio. Call sign TAL.
VHF: Pilot on Channels 16, 12 and 14 throughout 24 hours.
TUGS: 3 tugs (240 h.p., 900 h.p. and 1,125 h.p.).
BERTHING: Outer breakwater is 1,440 m. long, inner breakwater is 650 m. long. Port area is 331,600 sq.m.

Vessels can enter port and anchor at any time with a Pilot aboard. Manoeuvring area has 400 m. diameter, depths 8 m. – 11 m.

11 operating quays, 2 passenger quays and a military quay available.

Quay No.	*Length* (m.)	*Depth* (m.)
1	150	10.00
2, 3	165	5.5 – 6.5
4	60	8.00
5, 6	290	10.00
7	170	10.00
8 (Passenger Quay)	170	10.00
9 (Passenger Quay)	140	5.50
10 T.M.O.	200	10.00
11 SEKA	200	8.00
12 (Military Quay)	270	5.50
4 Ro/Ro	35	5.50

Storage:

Open warehouse area is 200,000 sq.m. Closed warehouse area is 3,000 sq.m. Closed warehouse (for combustible cargo) is 400 sq.m.

Cold storage plant is 6,900 sq.m. with capacity of about 10,000 tons.

PORT EQUIPMENT:

8 cranes (1×25 tons (fixed), 2×10 tons, 5×5 tons).
5 mobile cranes (3×10 tons, 1×25 tons, 1×40 tons).
16 forklifts (10×3 tons, 3×5 tons, 2×10 tons, 1×25 tons).
4 tractors.
26 trailers (20×2 tons, 4×6 tons, 2×25 tons).

BULK CARGO FACILITIES: 4 alumina silos each of 4,000 tons capacity which can load into vessel by conveyor belt at a rate of 250 t.p.h.
STEVEDORES: Gangs of 6 – 8 men each, load/discharge cotton at rate of 100 tons per shift, general cargoes 125 tons per shift.
Working Hours: First shift: 0800 hrs. – 1600 hrs. (lunch break from 1200 hrs. – 1230 hrs.). Second shift: 1600 hrs. – 2400 hrs. (meal break from 1900 hrs. – 1930 hrs.).
TANKERS: *ANT Terminal:* United Nations Terminal in position Lat. 36° 49' 15" N., Long. 30° 36' 30" E. Depth of water 17 m. – 18 m. "L" type buoy system. Discharge line is 10 in. line to stern (Port or starboard side). Line can be adjusted to 8 in. or 12 in.

There are 2 tank farms to receive cargo. They are 450 m. – 500 m. and 1,600 m. from the Sea Buoy. Discharge rate 300 t.p.h. – 400 t.p.h. Daylight only navigation permitted.

FRESH WATER: Fresh water supplied from hydrants on quays by watermen. Rate of delivery is 32 t.p.h. – 40 t.p.h. Water also available by barge of 300 tonnes capacity.
FUEL: Available by road tanker.
CERTIFICATES: Certificate of Freeboard, Certificate of Registry, Certificate of Pratique, Light Bill, Manifest, AA(1) Certificate.
AIRPORT: Antalya Airport is 22 km. from the port, 12 km. from Antalya city centre.
TIME: GMT plus 2 hours.
HOLIDAYS: Work is possible on Turkish holidays, weekends upon request.
GARBAGE DISPOSAL: Garbage disposal service is available. Drums are provided if required. Charges are as follows:

	Cost (U.S.$)/1,000 g.r.t.			
	Flag of Ship		*Cost (U.S.$)*	
Method of Service	*Turkey*	*Others*	*Barge*	*Container*
On Quay	16	45	10	1.00
At Anchor	30	90	10	1.00

WASTE OIL DISPOSAL: Waste oil disposal service is available. Charges are as follows:

	Cost (U.S.$)/1,000 g.r.t.	
	Flag of Ship	
Method of Service	*Turkey*	*Others*
On Quay	20	60
At Anchor	40	120

Facilities include two oily water separators of 2 tons per hour capacity and a shore tank of 100 tons capacity.

Contact – Tel: 0242-2481469/2481494. Telex: 56186 ANDETR. Fax: 0242-2483346, for further details.

SEAMAN'S CLUBS: There is no seaman's club operating in the port, but the port is situated near the city, and all shopping, international telephone, some sporting activities, dances, transportation, and postage facilities are available there.
CURRENCY: Turkish Lira (TL).
DEVELOPMENTS: TMO and SEKA quays (3) are still under construction for passenger vessels, grain and lumber.
AUTHORITY: TDI is in charge of loading/ discharging.

Turkiye Denizcilik Isletmeleri, Genel Mudurlugu, Rihtim Caddesi, 80120 Karakoy, Istanbul, Turkey. *Contact:* Head of Port Operations Department or Assistant General Manager.

Local officials: Huseyin Seymen, Port Manager. *Tel:* 0242-2411988, 2481469. *Telex:* 56186 ANDETR. *Fax:* 0242-2483346.

Engin Kirpitci, Harbour Master. *Tel:* 0242-2481438. *Fax:* 2291330.

Dr. Tugay Aker, Sanitary Authority. *Tel:* 0242-2590955. *Fax:* 2590954.

AGENT: Gulf Agency Denizcilik A.S., P.O.Box 116, Antalya, Turkey. Telex: 56218, 56250. Fax: (90-242) 3425683. Cables: "Gacship", Antalya.

BANDIRMA (including Bagfas): 40.22 N. 27.58 E.
(See Plan)

LOCATION: Bandirma is situated on Southern side of Marmara Sea about 63 nautical miles from Istanbul. Admiralty Chart No. 294.
PORT LIMITS: The sea area of the Port of Bandirma is an area inside a line joining Latitude 40° 23' 42" N., Longitude 27° 54' 12" E. and Latitude 40° 22' 00" N., Longitude 27° 59' 30" E.
DOCUMENTS:
7 copies Crew List.
2 copies Crew Declaration List.
2 copies Ship's Stores List.
4 copies Passenger List.
2 copies Transit Cargo Manifest.
3 copies Inward Cargo Manifest (1 copy must be legalised by Turkish Consulate at loading port. If no Consulate existing same to be certified by Local Customs Officer or the Chamber of Commerce.)

Special Regulations: Special regulations, copies of which should be obtained by vessels proceeding to Bandirma, are in force for anchoring, berthing alongside mole and for vessels carrying inflammable or explosive cargoes. Vessels required to give ETA to Harbour Authorities at least 24 hours in advance, also nationality, cargo and last port of call. Unless prevented by important reasons, Masters of all vessels must present their papers to Harbour Authorities within one hour of arrival.
PILOTAGE: Compulsory in the New Harbour and Bagfas/Iskur Wharf. It is compulsory to employ a pilot and tugs in and out of the harbour. Charges for such services are levied by TCDD (Turkish Railway Administration), as per compulsory zone pilotage, and tug tariff effective in Istanbul. One pilot boat of 2×385 h.p.
APPROACHES: Two long entrance channels lead from Bandirma Bay to the harbour.
ANCHORAGE: Good anchorage in roads about 370 m. off entrance to harbour in depths up to 12.8 m. There are also suitable anchorages within the breakwater area.
MAX. SIZE: Max. draft 12.0 m.
HEALTH: Arriving vessels are inspected at the Dardanelles and Istanbul (Bosphourus) No other inspections are required.
RADIO: Istanbul Radio – call sign TAH; Bandirma Radio – call sign TAA4; Tekirdag Radio – call sign TAA3.
VHF: Channels 16, 12, 13 and 14.
TUGS: 3 tugs available (up to 1,000 h.p.).
Vessels up to 500 g.r.t. do not require tugs. Vessels over 500 g.r.t. use one tug, and vessels over 3,000 g.r.t. use 2 tugs. Tugs are provided by the Port Administration.
BERTHING: The port is protected by 2 breakwaters, 1,000 m. and 500 m. long.

Berth No.	*Length* (m.)	*Depth* (m.)	*Remarks*
1	130	8.25	Passenger
2 – 3	284	10.00	General Cargo
4 – 5	324	10.00	General Cargo
6	130	10.00	General Cargo
7 – 8	379	10.00/12.00	Dry Bulk
9	203	10.00	Dry Bulk
10	100	10.00	Dry Bulk
11	190	10.00	Dry Bulk
12	182	10.00	Dry Bulk
13	80	10.00	Dry Bulk
14	180	8.25	Dry Bulk
15 – 16	270	4.00	
17 – 18	335	4.00	For vessels under 300 n.r.t.

Storage: Open storage area of 79,845 sq.m., and covered storage area of 7,000 sq.m. Grain silo: Capacity 20,000 tons.
Bagfas: Bagfas Fertilisers (Private Wharves):
Location: Bagfas Fertilisers Jetty is situated on Southern side of the Marmara Sea about 5 nautical miles from Bandirma. (Admiralty Chart No. 294).
Pilotage: The jetty is private but pilotage/tug boat/mooring boat services are operated by TCDD (Turkish State Railways).
Anchorage: Port of Bagfas is an open port, but good anchorage in roads a few cables off the entrance in depths up to 7 fathoms.
Accommodation: Bagfas have 2 jetties. Old jetty – length 125.6 m., depths between 12.3 m. and 9.30 m. New jetty – length 125 m., depth 16.5 m. and 13.5 m.
NOTE: From jetty to each mooring dolphin 61 m.
Port Facilities: One moving crane available on the old jetty with 10 tons lifting capacity which loads bulk cargoes into bunker which is connected to conveyor belt with discharging capacity up to 3,000 tons daily.
Receiving capacity of products is 150/400 tonnes per hour.
Working hours 24 hours per day.
Jetties are used for discharging phosphates, sulphur in bulk, sulphuric acid, phosphoric acid, ammonia, fertilisers in bulk and/or bagged and for loading sulphuric acid, phosphoric acid, bulk and/or bagged fertilisers.
Principal Imports: Bulk phosphate and sulphur, phosphoric acid, sulphuric acid, ammonia, bulk and bagged fertilisers.
Principal Exports: Sulphuric acid, bulk and bagged fertilisers.
SPECIALISED CARGO HANDLING FACILITIES:
Containers: Handled by 25 ton shore crane.
Ro-Ro: Ramp available at Passenger Pier (Berth No. 1).
CRANES: There are 15 shore cranes with capacity 3 – 25 tons, 5 mobile cranes with capacity 3 – 25 tons and 3 crawler mobile cranes.
Other equipment includes 14 forklifts with capacity 3 – 5 tons, 5 towing tractors, 3 loaders and 8 pneumatic loaders of 50 t.p.h. – 160 t.p.h.
STEVEDORES: *Working Hours:* Service is provided to vessels 24 hours a day. First shift 0800 hrs. – 1630 hrs., second shift 1630 hrs. – 0030 hrs., third shift 0030 hrs. – 0800 hrs.
Loading Rates: Ore loading capacity 800 tons/shift/gang. Bagged cargo, loading 140 tons/shift/gang. Bulk cargo, 500 tons/hatch/shift. Work can be carried out day and night.
Principal Imports and Exports: Imports: Bulk phosphate and sulphur, phosphoric acid, ammonia, fertiliser.
Exports: Various ores and acids, marble, grain, canned foods, flour, tomato paste and domestic appliances.
MEDICAL: State hospital and private hospital available.
FRESH WATER: Available at berths.
FUEL: Vessels at anchorage can be supplied with fuel. Fuel als available by truck.
With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron and B.P.). Telex: 29048 Bunk Tr. Tel: (0216) 33 25 09, 337 36 86, 337 88 31, 336 06 36. Mailing address: Petrol Ofis – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.
CONSULS: None.
REPAIRS: Minor repairs are possible.
OPENING/CLOSING HATCHES: May be opened or closed by ship's crew, or by stevedores at extra charge.
CUSTOMS ALLOWANCES: 50 cigarettes for each man going ashore. On board the vessel each man may hold 200 cigarettes and a bottle of spirits.
AIRPORT: Local airport not operational. Istanbul Airport 350 km.
TIME: GMT plus 2 hours.
HOLIDAYS: New Year's Day (commences 1200 hrs./December 31st), National Sovereignty Day (April 23rd), Sports Day (May 19th), Victor Day (August 30th), October 29th, Sheker Bayram (3 days, movable), Kurban Bayram (4 days, movable). However, the port is not working the first days of Sheker Bayram and Kurban Bayram, during all other days work carried out.
POLICE/AMBULANCE/FIRE: Police Tel: 155. Fire Tel: 110. Hospital (public) Tel: 0266-7142780. Hospital (private) Tel: 0266-7180625.
IDENTIFICATION CARDS: Seamen's Book is sufficient.
GARBAGE DISPOSAL: Garbage collection service and equipment is available. This service is given at all berths.
WASTE OIL DISPOSAL: Collection service is available. An oily water separator system of 15,000 cu.m./year is also available.
CURRENCY: Turkish Lira (TL).
GENERAL: *Security:* Port Security personnel ensure the security of the port 24 hours a day.
Weighing Facilities: There are 2 weighbridges up to 100 tons capacity (one for wagons and the other for trucks).
Weather: North winds prevail in the area and cause high seas. The breakwaters protect harbour from North and West winds.
AUTHORITY: General Directorate of Turkish State Railways (TCDD), Bandirma, Turkey. *Tel:* 0266-7187530, 7134966. *FAX:* 0266-713601 *Contact:* I. Bulent Ozen, Port Director. Mr.Hasan Karakus, Port Manager Ibrahim Yalkiri, Harbour Master (Tel: 0266-7181028).

AGENT: See "Istanbul".

BORUSAN: 40.25 N. 29.05 E.
(See Plan

LOCATION: Borusan Jetty is situated West of Gemlik in positio Lat. 40° 25' 03" N., Long. 29° 05' 21" E., on East side of Marmara Sea about 52 miles from Istanbul.
PORT LIMITS: East of 29° 04' 00" E., in Gemlik Bay.
DOCUMENTS:
Customs:
2 copies Crew List.
2 originals Crew Effects Declaration.
2 copies Stores List.
3 copies Cargo Manifest (Originals).
Immigration:
2 copies Crew List.
Seaman's Book.
Harbour Master:
2 copies Crew List.
Vessel's Certificates.
Last Port of Clearance.
Stevedoring Company:
Initial Cargo Plan.
Vessel's Particulars (Stevedores form).
Vessel's Requisition form for Garbage/Bilge Water Disposa (Stevedores form).
Cargo Gear Book.

PILOTAGE: Compulsory. Provided by Gemlik Pilots Associati (Tel: 244-5136164), who are located at Gemlik Fishing Port.
24 hours notice before arrival should be given to Pilot through Age Pilot comes on board by pilot boat.
ANCHORAGES: If required, can be advised by Pilot. Vessels must clear of white buoys lying from Long. 29° 09' 02" E. (EP) to West approximately 750 m. in Gemlik Bay when anchoring.
RESTRICTIONS: Berthing in daylight and unberthing 24 hours.
Depths vary from 4.5 m. to 8.5 m. at Mudanya side and 5.00 m 9.00 m. at Gemlik side of pier.
MAX. SIZE: Max. LOA 165 m. due to draft restrictions (2 vessels c be berthed).
HEALTH: All arriving vessels are inspected at Dardanelles or Bosphor and should have Sanitary Clearance.
RADIO: Port has no communications equipment. ETA messages t routed to addressee via Istanbul Radio (Call sign "TAH"). At anchor or when berthed on pier, telephone call is possible through Band Coastal Radio Station by VHF Channel 16.
VHF: The calling channel for all stations is Channel 16. Pilots Channels 16 and 14.
RADAR: Radar assistance is not available.
TUGS: 800 h.p. and 1×1,500 h.p.
Vessels 2,000 g.r.t. – 5,000 g.r.t. – 1 tug.
Vessels 5,000 g.r.t. – 25,000 g.r.t. – 2 tugs.
Vessels over 25,000 g.r.t. – 3 tugs.

BERTHING: The 170 m. jetty offers 2 berths alongside. Depth 7.0 m. – 7.5 m. on Mudanya side and 7.5 m. – 8.0 m. on Gemlik side of pier. Vessel may be loaded and discharged while moored stern to the open sea.
CRANES: 3 cranes with lifting capacities of 25 tons, 40 tons and 100 tons operating on the jetty. Mobile cranes available for hire.
BULK CARGO FACILITIES: Bulk cargo storage area is available for alloy type cargo, handling with bulldozers, buckets and grabs for discharging operation.
SPECIALISED CARGO HANDLING FACILITIES: General, bulk cargoes and steel products.
BRIDGES: None.
STEVEDORES: Performed by Bortrans Denizcilik Hizmetleri A.S., Gemlik, part of the Borusan Group.

Working 24 hours with 3 shifts a day.
1st Shift 0800 hrs. – 1600 hrs.
2nd Shift 1600 hrs. – 2400 hrs.
3rd Shift 0000 hrs. – 0800 hrs.

MEDICAL: Emergency hospital and dental facilities are available at Gemlik, approximately 10 km. from the Borusan plant.

Masters to inform Agent if any medical assistance is required in order to make adequate arrangements.
TANKERS: No facilities.
DENSITY: 1018 – 1019.
FRESH WATER: Available by trucks, capacity 6 or 10 tons.
FUEL: Available by trucks.
FIRE PRECAUTIONS: Factory fire brigade available.
CONSULS: None locally.
REPAIRS: Small repairs possible.
DRY DOCKS: None.
SURVEYORS: Marine surveyors representing Lloyd's, A.B.S., N.V., Turkish Lloyd's and Socotec Avrasia's representatives may be ordered from Istanbul with sufficient notice.
GANGWAY/DECK WATCHMAN: Vessel's accommodation ladder or gangway used. Watchmen are not necessary.
OPENING/CLOSING HATCHES: Opening and closing hatches is performed by ship's crew.
CUSTOMS ALLOWANCES: Each crew member is permitted 2 cartons cigarettes and 2 bottles of spirits. Excess is sealed by Customs Officers.
REPATRIATION: Can be arranged by vessel's Agent with necessary documents.
AIRPORT: Nearest airport at Bursa, approximately 32 km. from Borusan. There are daily flights to Istanbul (flight time 30 minutes).
TIME: In Summer, GMT plus 3 hours. In Winter, GMT plus 2 hours.
HOLIDAYS: 1996: New Year's Day (1st January); National Sovereignty Day (23rd April); Sports and Youth Day (19th May); Victory Day (30th August); Proclamation of the Republic (29th October); Ramadan (3 days movable); The Moslem Festival of Sacrifices (4 days movable); Weekend holiday (Sunday only).

Please note: Ramadan holiday in 1996 is 17th – 25th February, and Moslem Festival in 1996 is 28th April – 1st May.

Official weekend holiday from 1700 hrs. on Friday to 0800 hrs. on Monday.
POLICE/AMBULANCE/FIRE: Police Tel: 055. Fire Department Tel: 110. Ambulance/Emergency Health Assistance Tel: 112.
TELEPHONES: Cannot be connected on board. A call-box is available on quay near Bortrans' office building.
BANKS: Only Turkish Banks at Gemlik.
Turkiye Is Bankasi. Tel: 5132455.
T.C.Ziraat Bankasi. Tel: 5130090 or 5130079.
Turkiye Halk Bankasi. Tel: 5131574 or 5132570.
Turkiye Vakiflar Bankasi. Tel: 5131242.
STORING: See "Prelims".

Vessels are loading and discharging from/to trucks.

Trucks can proceed alongside the berth, there is no obstruction or pier construction for free working of trucks and forklifts.

Forklifts can use jetty only for handling cargoes.

Customs regulation not in force regarding storing.

Local riggers are not employed to assist cargo handling. Only Bortrans (official stevedoring company) at Borusan Pier for all cargo handling operations.
SHIP SUPPLY SERVICE: None.
SHORE LEAVE: After completing Customs and Immigration formalities, crew members are allowed ashore.
IDENTIFICATION CARDS: Shore passes issued.
GARBAGE DISPOSAL: Available from stevedoring company.
WASTE OIL DISPOSAL: Available via stevedoring company, if requested through vessel's local Agent.
SEAMAN'S CLUBS: None.
CURRENCY: Turkish Lira (TL). U.S.$ 1.00 = 65,000 TL (February 1996).
REGULATIONS: Swimming and walking around factory prohibited. Walking only permitted from vessel direct to main entrance of factory.
DELAYS: No delays at Borusan facilities, but bad weather conditions may cause delays.
GENERAL: Borusan Jetty, built in 1984, is located at the entrance of Gemlik Bay and Eastern part of Marmara Sea which is known as Cape Tuzla. Type of pier is reinforced concrete jetty and clear alongside distance is 170 m., width 15 m.

Borusan Jetty has been operating since 1984 and 450 Turkish and foreign flag vessels called in 1995. The deadweight of vessels changes from 1,000 tons up to 10,000 tons and sometimes more than 10,000 tons, depending on arrival draft and cargo quantity on vessel.
DEVELOPMENTS: New pier, length 200 m., depth 9.0 m. (average) under construction (mid-1996). Completion expected mid-1997.
AUTHORITY: Bortrans Denizcilik Hizmetleri A.S., Hisar Mahallesi, Gemsaz Mevkii, 16601 Gemlik/Bursa, Turkey. *Tel:* (224) 5248630, 5248631. *Telex:* 32498 Bsaa Tr. *FAX:* (224) 5248633. *Contact:* Captain Bugrahan Hanagasioglu, General Manager. Captain Erdogan Koseoglu, Chartering Department.

BOTAS (CEYHAN) PORT, including Delta Terminal, Aygaz Terminal, Toros Terminal, Botas Terminal and Dortyol Terminal: 36.53 N. 35.56 E. **(See Plan)**

(A) BOTAS (CEYHAN) TERMINAL.
(B) TOROS GUBRE.
(C) DELTA TERMINAL.
(D) AYGAZ TERMINAL.
(E) DORTYOL BOTAS TERMINAL.
(F) BAYRAKTAR TERMINAL.

(A) BOTAS (CEYHAN) TERMINAL

PORT LIMITS: The Botas (Ceyhan) Harbour is operated under the Authority of Botas Harbour Master's Office and the harbour area is the sea area North of a line between:
(1) 36° 36' 00" N., 35° 47' 42" E. (Yumurtalik Lighthouse).
(2) 36° 49' 06" N., 36° 10' 06" E. (mouth of brook "Deli Cay").

"Botas Terminal", "Toros Terminal", "Delta Terminal", "Dortyol Terminal", "Bayraktar Terminal" and "Aygaz Terminal" are in Botas Port Limits.

Pilotage is compulsory for mooring and unmooring by day or night according to regulations of Botas (Ceyhan) Port, which is in force within Botas Port Limit.
DOCUMENTS:
7 Crew Lists.
7 Passenger Lists.
2 Stores Lists.
2 Crew Declaration Lists.
1 Free Pratique.
Last Port Clearance.

Agent has to take the Certificates to the Port Authority at Botas.
PILOTAGE: Pilotage is compulsory for mooring and unmooring. Pilot will meet the ships 2 miles South from the end of the jetty in the anchorage zone.

It is requested that pilot ladder be of an approved pattern and securely rigged.

After the ship has berthed, the Pilot / Loading Master stays on the ship and requires a separate cabin.
ANCHORAGES: There are 2 "Tanker Anchorage Zones" near the terminals.

Tanker Anchorage Zone (I):

	Point	Position
Point	(a1)	36° 53' 02" N., 36° 00' 00" E.
"	(b1)	36° 49' 30" N., 35° 57' 04" E.
"	(c1)	36° 49' 00" N., 35° 59' 40" E.
"	(d1)	36° 52' 36" N., 36° 02' 05" E.

Tanker Anchorage Zone (II):

	Point	Position
Point	(a2)	36° 51' 50" N., 36° 04' 50" E.
"	(b2)	36° 50' 00" N., 36° 05' 05" E.
"	(c2)	36° 50' 00" N., 36° 06' 52" E.
"	(d2)	36° 51' 50" N., 36° 06' 20" E.

There are 2 "Prohibited Anchorage Zones".

Prohibited Anchorage Zone(I)

	Point	Position
Point	(A1)	36° 52' 12" N., 35° 55' 07" E.
"	(B1)	36° 50' 30" N., 35° 56' 05" E.
"	(C1)	36° 51' 30" N., 35° 58' 30" E.
"	(D1)	36° 52' 25" N., 35° 58' 52" E.
"	(E1)	36° 54' 28" N., 36° 00' 48" E.
"	(F1)	36° 55' 50" N., 36° 00' 22" E.

Prohibited Anchorage Zone (II):

	Point	Position
Point	(A2)	36° 52' 24" N., 36° 07' 48" E.
"	(B2)	36° 51' 36" N., 36° 06' 30" E.
"	(C2)	36° 49' 45" N., 36° 07' 00" E.
"	(D2)	36° 49' 48" N., 36° 10' 00" E.

NOTE: There are two shallow water buoys (Fl. 3 ev. 15 sec.) in position 36° 57' 56" N., 35° 55' 39" E. and 36° 52' 12" N., 35° 55' 52" E.
RESTRICTIONS: Berthing and unberthing possible at any time day or night, weather conditions permitting. However, vessels over 100,000 d.w.t. are not allowed to berth at Berth No. 4 after sunset.
MAX. SIZE: 300,000 tonnes d.w.t. at outer berths and 150,000 tonnes d.w.t. at inner berths. Maximum displacement is 150,000 tons.

If vessel over 300,00 d.w.t. but under 150,000 tons displacement, vessel could berth at Berth No. 1 during daylight hours, at the discretion of the District Manager of BOTAS and the Marine Department after taking into account LOA, draft, freeboard and weather conditions.

Also see "Berthing".
RADIO: It is essential that tankers bound for the Botas Terminal communicate with their Agent with at least 72 hrs., 48 hrs. and 24 hrs. before arrival and state ETA, cargo required, maximum loading rate, S.W.L. of derrick, manifold measurements and quantity of ballast on board, time required for deballasting and whether vessel is gas-free. Vessel should request Agent to forward the information to Botas.
VHF: Botas Terminal Shore Control on VHF Channels 16 and 22.

Arriving vessels should make contact at least 4 hours before arrival at the anchorage in order to avoid delays.

Channels 16 and 22 always watched.

Terminal uses Channels 10, 11 and 12 for cargo handling and manoeuvring. Channel 11 is for manoeuvring and Channels 10 and 12 are for jetty operations and not to be used for other purposes.

When the ship makes contact with Botas, the following information to be given to the Iraqi representative:

Ship's name, nationality, deadweight, cargo required, loading rate required, dirty, clean and permanent ballast quantity and deballasting time.

Iskenderun Radio on Channel 16 for connection with telephone numbers ashore.

RADAR: There is no port Control Radar. The approach from the SW or South can be made without difficulty as the coast line provides very good fixes.

TUGS: There are 6 tugs available to assist in berthing and unberthing. 1×2,600 h.p., 3×3,200 h.p., 1×1,300 h.p. and 1×1,200 h.p. The tugs are provided with fire fighting equipment.

For vessels of 2,000 g.r.t. up to 4,000 g.r.t., which are berthing/unberthing, it is compulsory to take at least 1 tug, 2 tugs for vessels from 4,001 g.r.t. up to 40,000 g.r.t., 3 tugs for vessels from 40,001 g.r.t. and over.

Depending on weather and having regard for safety conditions, additional tugs may be assigned by Botas or Port Master's Office or requested by vessel.

BERTHING: Four loading berths available. Vessels berth with bow seaward (starboard side alongside at No. 1 and No. 3, and port side alongside at No. 2 and No. 4):

Berth No.	*Max. size* d.w.t.	*Depth Alongside* (m.)	*Max. Draft* (m.)	*Max. LOA* (m.)
1 (Outer East)	300,000	23.00	21.60	355
2 (Outer West)	300,000	23.00	21.60	355
3 (Inner East)	150,000	18.00	16.70	300
4 (Inner West)	150,000	18.00	16.70	300

Freeboard:	*Maximum*	*Minimum*
Berths No. 1 and 2:	22.0 m.	2.50 m.
Berths No. 3 and 4:	20.0 m.	2.00 m.

Moorings: (All wires to have synthetic tails of 15 m. – 20 m. length).

Forward	Aft
4 Headlines	4 Sternlines
3 Breastlines	3 Breastlines
2 Springs	2 Springs
1 Towing Wire	1 Towing Wire

LOADING:

Berth No.	*Max. Loading* Rate cu.m.p.h	*Loading Arms*	*Ballast Arms*
1	15,000	4×20 in.	20 in.
2	15,000	4×20 in.	20 in.
3	8,500	4×16 in.	16 in.
4	8,500	4×16 in.	16 in.

Two grades of oil are loaded in BOTAS:

(1) Kirkuk Blend Crude Oil (API 36.95-35.98 and temperature 80°F.-105°F.).

(2) Basrah Light Crude Oil (API 34.97-33.05 and temperature 80°F.-105°F.).

Maximum loading rates are dependent upon availability of loading lines on the ship.

Pilot / Loading Master is the adviser for all mooring, unmooring, cargo operations and communications with shore, etc.

Derricks and Cranes: Derricks and cranes S.W.L. of 0.75 tonnes are recommended.

Loading Operations and Shore Communication: Ship's tanks are inspected by Loading Master and passed as suitable for loading.

Responsible ship's officer must certify to the Loading Master that all ship's valves are closed or blanked except those required for loading and water circulation purposes, and that these Rules and Regulations are being and will be observed.

The Loading Master will not transmit any loading instructions to the shore until the responsible ship's officer is satisfied that the hoses are connected correctly and that all valves have been set for receiving cargo.

Loading rates requested by the vessel or quoted by the Terminal will be the peak or maximum rate at any time during the loading period.

The Loading Master will advise the Master of the ship as to shore communication and any signal needed for local requirements.

Ship's crew with an officer in charge will assist in all operations as advised by the Loading Master. This includes lifting, connecting, disconnecting, lowering of hoses and tending moorings.

Lighting: Manifold and mooring areas should be adequately lit to enable night mooring and loading operations to be carried out with safety. Sea area around the ship to be illuminated.

Notice of Readiness: Notice of Readiness will be received by the Loading Master. It should be tendered at the time of anchoring or Pilot boarding. Lay time will commence 6 hours after receipt of Notice of Readiness. Notice of Readiness to be addressed "S.O.M.O. Representative, Botas Terminal – Ceyhan".

Deck Watch: A responsible ship's officer shall be on watch on board at a point near the ship's tanks which are receiving oil during the process of loading and NOTICE IS HEREBY GIVEN that the Loading Master has received instructions to stop loading immediately this rule is disregarded.

Capable members of the ship's crew shall be stationed by the ship's tank valves which are receiving oil during the process of loading.

All pipelines and hoses shall, while rigged for loading crude oil, be directly and continuously under supervision. No crude oil shall be allowed to escape or overflow.

DENSITY: 1027.

BALLAST: Max. ballast discharge rate 5,000 cu.m.p.h.

Shore ballast tanks capacity – 65,000 cu.m.

Vessels should arrive with sufficient ballast for safe handling of vessel under prevailing weather conditions.

Vessels shall not discharge into the waters of the port any part of the content of their cargo, slop, or ballast tanks or bilges which is liable to pollute these waters. If the vessel is sure that ballast is extremely clean, it is permissible to deballast to sea, but in case of pollution, fine is heavy. Masters of tankers will be held responsible in cases of wrong declaration of clean or dirty ballast. Deballasting during loading (simultaneous) especially in Winter season is preferable for safety.

Ballast water must be declared and signed by the Master and delivered to the Terminal to this effect. Vessel's scuppers must be effectively plugged and leakage or spillage of oil aboard ship must not be swept or washed overboard.

It is an offence to discharge dirty ballast or pump out bilges.

MEDICAL: Master to inform Agent by cable if urgent medical assistance is required upon arrival, also indicating, if possible, seriousness of case in order that adequate steps may be taken. Hospital and doctor are available at Ceyhan 25 km., Adana 75 km., and Iskenderun 65 km., distance from Botas (Ceyhan) Terminal.

FRESH WATER: Available at jetty. Rate 25 t.p.h. Arrangements to be made through Agent.

FUEL: Not available alongside.

With 24 hours notice Anadolu A.S. – Istanbul, can supply marine fuels in Iskenderun Bay by branch of Anadolu A.S. Tel: 1515873 (7 lines), Telex: 38018-38019. Fax: 1437072.

With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 3382509, 3373686, 3378831, 3360636. Mailing address: Petrol Ofisi-Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

CONSULS: At Iskenderun.

REPAIRS: Not possible.

SURVEYORS: There are no Classification Societies at the port.

GANGWAY/DECK WATCHMEN: There is no watchmen service.

CERTIFICATES: Load Line, Ship Safety Construction, Safety Radio, Safety Equipment Certificate, Certificate of Registry, Oil Pollution Insurance, Tonnage, Machinery class and minimum manning documents.

CUSTOMS ALLOWANCES: 40 cigarettes for each crew member going ashore. On board the vessel each crew member may hold 200 cigarettes and 1 open bottle wine/spirits out of bond.

AIRPORT: Adana Airport, served only by domestic lines with routes t Istanbul and Ankara. Airport is situated 75 km, from Botas (Ceyhan Terminal. Twice daily service to international airport at Istanbul.

TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.

HOLIDAYS: New Year's Day (January 1st); Sports Day, (May 19th) Victory Day, (August 30th); National Holiday from October 28th (1200 hrs.) to October 29th (2400 hrs.); Shakear Bairam (3.5 days movable); Kurban Bairam (4.5 days, movable).

The terminal works all year round.

POLICE/AMBULANCE/FIRE: All information given after berthing.

TELEPHONES: Cannot be connected on board.

SERVICES: Daily garbage service available to vessels alongside and at anchor.

SHORE LEAVE: Crew permitted to go ashore with shore passes and Seaman's Book.

It is forbidden to walk on jetty and in terminal area. A vehicle is obtained by Botas for the needs (transportation) of ship's personnel on jetty. Th vehicle goes only to the gates.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

REGULATIONS: In addition to Harbour Regulations all ship Masters ar at all times responsible for the application of all safety precautions a prescribed in the International Oil Tanker and Terminal Safety Guide.

GENERAL: The main engines of all vessels while at the berth shall b kept ready for immediate use. Deck power (steam) is to be maintained at all times and water pressure shall be maintained on the fire fighting system.

Repairs which may prevent the working of the vessel's main engine may only be undertaken in the Port with the written permission of Bota Representative.

The Master shall at all times retain on board sufficient crew to wo the vessel.

No craft, other than one having on board the Pilot or Port Heal Officer, may approach any vessel entering the Port and no other perso may board until Free Pratique has been granted.

Whistle or siren to be available at all times.

Boarding of Vessel: The control of persons boarding vessel is the shi responsibility. Boarding should be restricted to Botas employees on du and to persons authorised by the Port Authorities as advised by vesse Agent.

Stores/Provisions: Vessels may store at the anchorage or while ves is at the berth with permission from Botas Authority.

Tanker Safety: Masters are at all times responsible for the applicati of all safety precautions as prescribed in the International Oil Tank and Terminal Safety Guide.

I.O.T.T.S.G. Safety Check List: The tanker safety check list must b completed after inspection of each item prior to commencement of a during loading. The Loading Master is authorised to stop all load operations should he consider that the safety of lives and propert endangered by the infringement of safety rules.

Signals: The following signals must be shown when vessel is in the Po

By day: Flag "B" of the International Code of Signals. At night: 1 cl red light visible all around.

Fire Fighting Equipment: Vessels must be adequately manned for fi fighting and vacating the berth in case of an emergency.

The following fire-fighting precautions must be taken.

(a) Fire hoses must be run out fore and aft or monitors ready for u

(b) Fire-mains must be under pressure.

(c) 1 dry chemical extinguisher must be stationed on either sid the ship's manifold.

Fire Fighting Equipment on each Loading Berth: Equipment is prov for fire fighting on the platforms or exposure protection for the platfor and the tankers being loaded as follows;

(a) 2 elevated foam/water monitors are mounted on each acc tower on the platform capable of delivering 3,550 l.p.m. (g.p.m.) of water or foam solution, and has a throw of 60 m. E monitor is remote controlled from the control room and flexibility of full horizontal rotation and vertical reflection.

(b) 2 deck level manual water spray monitors of 450 l.p.m. an foam branch pipes of a capacity of 450 l.p.m. of foam de used to extinguish fires on the manifolds.

(c) A number of portable dry chemical and CO_2 extinguishers located in various locations.

(d) There are numerous foam pourers and water spray fac located under the deck for water surface foam blanketing an smothering.

(e) Water curtain facilities are provided on the loading towers to prevent fire spread to and from the berths.

Action in Case of Emergency: In the event of a fire, oil spillage or other emergency on the vessel.

Emergency and Fire Signal: One or more blasts of the ship's whistle, each blast of not less than 10 seconds duration supplemented by a continuous sounding of general alarm system.

SHIPMASTER'S REPORT: December 1980.

Botas and Toros Gubre Piers:

Approach: Situated in the Gulf of Iskenderun on the N.W. corner of the Gulf. The oil pier, which is the outlet from the "Kirkuk" oilfield in Iraq, is about 5 miles below the head of the Gulf on the Northern shore with the fertiliser pier 2 miles from the Gulf head.

The approach from the S.W. (Mersin direction) or South (Suez Canal) can be made without difficulty as the coast line provides very good fixes.

The lights marked on the piers do not exist. The oil pier light has been broken for six months and the Pilots say it will probably never be fixed, also the fertiliser pier light is not connected to the supply. The oil pier is visible at 24 miles (radar) and is well lighted at night by arc lamps. Generally there are a few anchored tankers lying off.

BA. 2632 is at present the only British chart available. There is a Turkish chart 334 which is considerably better.

VHF: The Fertiliser Pier has no VHF.

Botas Oil Pier uses Channels 16, 10, 24 (Duplex).

Channel 24 is used for intercommunication between various installations for transfer of figures. It can also be used to plug into the general telephone system to talk to the Toros Fertiliser Pier.

Call "Botas Terminal", 24 hour watch. In the early hours of morning no English spoken.

Anchorage: Toros Fertiliser: 1.0 – 1.5 miles S.E. of pier. Good holding.

Botas Oil Terminal: 1.5 – 2 miles S.E. of pier.

Both open to S.W. winds.

Pilot: Botas Pilot serves both terminals. Priority given to Botas.

A total of 6 Pilots are on 24 hour call.

Pilots board in anchorage area from black hulled and brown superstructure launch of about 10 knots.

They will also travel by car to Toros Berth in about 15 minutes.

Berthing: Botas: 24 hours a day with wind speeds up to 25 knots.

Toros: Wind speeds up to 15 knots and then only if good forecast.

No berthing from 1 hour before sunset to sunrise. Unberthing throughout 24 hours.

Tugs: Botas fire fighting tugs on 24 hour stand-by, 4 available.

Kort nozzles: 3 of 2,600 h.p. and 1 of 1,600 h.p.

When berthing, push with bow line onboard. When unberthing, use ship's line which is doubled up.

Botas: 300,000 d.w.t. – 4 tugs
150,000 d.w.t. – 3 tugs
Toros: – 1 or 2 tugs

Pilot reports that they will operate with wind speeds up to 35 knots with large swell to take vessels off piers. Botas Terminal has priority.

Botas Berths: Nos. 1 and 2 at outer end of pier, No. 1 (East) and No. 2 (West), depths 27 m., loading rate up to 20,000 cu.m.p.h.

Nos. 3 and 4 at inner end of pier, No. 3 (East) and No. 4 (West), depths 18 – 19 m., loading rate up to 10,000 cu.m.p.h.

Weather: By observations and Pilots advice a low pressure to the North causes a large S.W. swell which coupled with a S.W. wind makes the Toros berth very dangerous.

N.W. winds up to Force 6 cause no real problems as the berth is in the shelter of the hills and the swell is not apparent. With N.W. winds on the Botas berth, the Pilot says it can cause problems due to the berth not having much shelter.

During the Summer months, often strong S.W. winds are common between 1100 hrs. to 1500 hrs. each day, which in the Pilot's opinion could make the Toros berth untenable.

Forecast: The local television gives a weather report. Rome Nato, if on time, is the only area forecast in English. Watch the barometer.

Toros Berths: Discharge only at present.

Berth head out. Bulk – Port side to on West side. Liquid – Starboard side to on East side.

Extends about 0.5 miles from shore, the berthing section lying in a 194° – 014° direction. Liquid side in position 36° 54.60' N., 35° 59.04' E.

Both berths designed for max. of 30,000 d.w.t.

Bulk berth has 5 tonne grab crane. Liquid side Chicksan.

Depths each berth minimum 12.5 m.

Mooring/Fenders: Toros: This can be a problem, and is dependent on length of vessel, particularly aft as the mooring dolphins do not go far enough astern.

As far as possible a 4, 2, 3 arrangement is required. With a swell, expect to part moorings, we parted six lines. Two good mooring boats from Botas Terminal used.

Fenders are 4 large flat plastic/steel faces on sprung rubber compresses. Unfortunately for a long vessel they are set too close together and need to be another 10 m. in each direction to give good coverage.

Jetty Dimensions/Gangways: Toros: Liquid side: Jetty face is 18 m. long and 9 m. above MLW.

Bulk side: 120 m. face and 7.5 m. above MLW.

For gangway purposes this means that on the bulk side the gangway can be used as long as the ship is not small.

On the liquid side a straight "B.O.T." type gangway will be necessary to land on the small pipe platform.

Discharge: Toros: Bulk side: 5 tonne capacity travelling grab crane which discharges into conveyor belt to the plant.

3 shifts of 8 hours worked, total 24 hours.

Liquid Ammonia: 6 in. Chicksan into 6 in. main line and 2 in. cooling line. Connection 6 in. 150 ASA – spool piece 12 in. – 6 in. provided. Shore labour connects/disconnects.

Sulphuric Acid: Connection on jetty of 10 in. 300 ASA.

Phosphoric Acid: Connection on jetty of 8 in. 150 ASA.

Lines South to North: Ammonia, Sulphuric Acid, Phosphoric Acid.

Ammonia is discharged into a refrigerated tank of 7,332 cu.m. equal to about 5,000 tonnes at a rate of 140 t.p.h.

The 6 in. loading line cascades into the top of the tank NOT bottom, therefore pressure problems can result.

Tank served by two Malcon compressors and usual condensers.

Sulphuric Acid tank is 3,420 cu.m.

Phosphoric Acid tanks (2) total 8,500 cu.m.

Air draft Ammonia – about 18 m. maximum.

Air draft Acids length of ship's hoses.

It is proposed to import about 10,000 tonnes Ammonia per month and 12,000 tonnes Phosphoric Acid per month, plus small quantities Sulphuric Acid.

Bulk commodities are Urea and Potassium Chloride.

Water: From metered pipe at about 10 t.p.h. Water hard but potable. Price $3.97 per tonne. Pipe on liquid platform. Ship's hoses.

Agent: Agent comes from Iskenderun about 30 miles away.

Communications: At the time of our visit to Toros Gubre there were no telephones. The nearest centre is the Botas Oil Terminal about 3 miles away.

Chandler: From Iskenderun, very good, low prices, obliging.

Local produce, vegetables, salads and fruit which is wide ranging in Spring. End of Summer, August and September not so good.

All in kg. Stores alongside, chandler provides labour.

December 1980: Vegetables $1 kg., fruit $2 kg., salad $1.50 kg., cheese (good) $3.00 kg. in tins of 25 kg.

To be paid for in cash drawn from Agent.

N.O.R.: Tendered in usual manner on anchoring, accepted at that time unless weather prevents berthing.

Customs: For Botas Terminal, reside in complex.

For Toros Terminal, Customs come from Iskenderun with Agent, which results in delay when clearing vessel outwards on completion.

Two Customs Officials reside on board – cabin required.

Money: If vessel coasting around Turkish ports money drawn at one Agency can not be deposited at another Agency in final port unless Customs clearance given from original port.

Personnel Changes: Nearest airport in Turkey is at Andana about 1 hour from Ceyhan Berths, but if waiting for ship have to stay in Iskenderun about 2 hours from airport.

Personnel travelling are advised to have Istanbul Agent's Office and home telephone numbers.

The Agent says it is easier to fly direct to Damascus about 3 hours taxi ride from Iskenderun but he cannot meet personnel and clearance at Syrian border has to be done on one's own.

Note: (December 1980): It is not expected that the plant will be in full production until mid-1981, the pier being used for material imports and production going to a wide area of S.E. Turkey and Iraq.

SHIPMASTER'S REPORT: April 1988.

Documents: Agent requires the following:

Load Line Certificate.
Safety Equipment Certificate.
Safety Construction Certificate.
Safety Radio Certificate.
Classification Certificate.
Tonnage Certificate.

Restrictions: Unberthing any time.

Berthing at Berths No. 1, 2 and 3 at any time.

Berthing at Berth No. 4 during daylight hours only.

SHIPMASTER'S REPORT: June 1989.

Tugs: Vessels over 50,000 d.w.t. require 3 tugs. A ship's messenger is required for taking tugs lines.

On departure tugs will take ship's ropes.

Berthing: Vessels normally berth with the bow to seaward. Vessel moored with 4 head/stern lines, 3 breast lines and 2 springs fore and aft. The order for sending lines away depends on the pilot, who remains onboard and acts as Loading Master.

Loading: At Berths No. 1 and 2, which are for VLCC's, the minimum loading rate is 3,750 t.p.h.

Gangway: Shore gangways are provided at all four berths.

Shore Leave: Not normally possible from 1700 hrs. – 0900 hrs.

AUTHORITY: Botas Petroleum Pipeline Corporation, P.O.Box 73, 01944 Ceyhan-Adana-Turkey. *Tel:* 6135859. *Telex:* 63838 Btas Tr. *FAX:* 6131657. *Cables:* Botas-Ceyhan-Adana. *Contact:* M. Fatih Sen, District Manager. M. Cemal Pamir, Manager-Marine Operations.

AGENT: See "Iskenderun".

(B) TOROS GUBRE

LOCATION: Lat. 36° 55' 06" N., Long. 35° 58' 54" E..

PORT LIMITS: Toros Gubre is in the Botas (Ceyhan) port limits.

DOCUMENTS: Similar to Botas (Ceyhan) Terminal.

PILOTAGE: Similar to Botas (Ceyhan) Terminal, but there are no Loading Master's services.

ANCHORAGE: See "Botas (Ceyhan)" port plan.

RESTRICTIONS: Berthing possible by day and unberthing possible at any time.

MAX. SIZE: There are 2 jettys in the Toros Gubre. First is the old jetty and max. size is 30,000 d.w.t. The new jetty has a max. size of 100,000 d.w.t. and is completed. Also see "Berthing".

RADIO: See "Botas (Ceyhan)" Terminal.

VHF: Always standing by on Channel 16.

RADAR: There is no port control radar.

TUGS: Botas (Ceyhan) Terminal's tugs are used.

BERTHING: There are 3 loading berths available on the old jetty.

Berth	*Max. d.w.t.* tonnes	*Max. LOA* (m.)	*Depth Alongside* (m.)	*Max. Draft* (m.)
East Side (Cargo ships and tankers)	30,000	175	12-14	10-12
West Side (For tankers only)	30,000	214	12-14	10.50
No. 3 (Coastal/ General cargo)	3,000			5.5

Six loading berths will be available on the new jetty. See "Plan".

BALLAST: There is one ballast tank with a capacity of 5,000 cu.m., but not always in use.

MEDICAL: See "Botas (Ceyhan)" Terminal.

DENSITY: Salinity 39 p.p.m.

FRESH WATER: Available at jetty.

FUEL: Not available.

SURVEYORS: There are no classification societies at the Terminal.

GANGWAY/DECK WATCHMAN: There are no watchman services.

CUSTOMS ALLOWANCES: Same as Botas (Ceyhan) Terminal.

AIRPORT: Adana Airport is 82 km. from Toros Gubre.

TIME: GMT plus 2 hours. (Summertime is GMT plus 3 hours.)

HOLIDAYS: Similar to Botas (Ceyhan) Terminal.

POLICE/AMBULANCE/FIRE: All information given after berthing.

TELEPHONES: It is possible to make calls via Iskenderun Radio Station.

SHORE LEAVE: See "Botas (Ceyhan)" Terminal.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

REGULATIONS: All information given after berthing.

DEVELOPMENTS: See "Berthing".

GENERAL: See "Section A" – Shipmaster's Report – dated December 1980.

OPERATOR: Toros Gubre ve Kimya Endustrisi A.S., P.K. 83 01921, Ceyhan-Adana, Turkey. *Tel:* 7321-5001 (4 lines). *Telex:* 63840 Tors Tr.

AGENT: See "Iskenderun".

(C) DELTA TERMINAL: (Dortyol/Yesil).

LOCATION: Lat. 36° 51.05' N., Long. 36° 09.18' E.

PORT LIMITS: The Delta Terminal is operated under the authority of Botas Harbour Master's Office, where the mooring/unmooring operations are under the monopoly of Botas (Ceyhan) Terminal.

DOCUMENTS:

7 copies Crew List.
2 copies Stores List.
2 copies Crew Declaration.
1 copy Free Pratique.
Last Port Clearance.
Load Line, Safety Construction, Safety Radio, Safety Equipment and Class Certificates.

Agent has to take the last five certificates to the Harbour Master.

Clearance: For clearance on arrival, the vessel has to call at Iskenderun first. However, depending on the weather conditions and availability of clearance team, the Agent may arrange berthing at Delta Terminal and then arrange clearance. This is why Masters are advised to contact the agent 3 – 4 hours prior to arrival in order to get the final instructions for mooring.

Free Pratique is not granted by radio as it might be in some countries, but after boarding of the Sanitary Officer.

PILOTAGE: Pilotage is compulsory for mooring and unmooring. Pilot will be taken from Botas Terminal. It is requested that the pilot ladder be of an approved pattern and securely rigged.

ANCHORAGE: In the event of berth not being available on arrival, and after the clearance, the vessel is to anchor in the anchorage zone of Botas Terminal (1 mile off Botas Terminal).

RESTRICTIONS: Mooring is carried out during daylight only. Unmooring is carried out around the clock.

Terminal does not accept any vessel not consigned for agency to

Ets. A. Boutros and Fils,
Ataturk Blvd., Unsal Bldg., 1st Floor,
31200 Iskenderun.
Telex: 68123 sail tr/68131 sail tr/68214 imoc tr/68202 eeb tr/ 68203 bson tr.
Telephone: (90) (881) 15170.
Telefax: (90) (881) 12036.
Cables: Boutros – Iskenderun.

MAX. SIZE: The Terminal accepts vessels up to 40,000 d.w.t. or 220 m. LOA. For vessels over these sizes, special acceptance can be granted depending on the cargo, season, etc.

Depth is 12.6 m. at low tide.

RADIO: It is essential that tankers bound for Delta Terminal communicate with the agent at least 72 hours, 48 hours and 24 hours before arrival and state:

ETA.
Quantity of cargo required.
Max. loading rate.
Number and diameter of manifolds.
S.W.L. of derricks.
Quantity of ballast on board and time required for deballasting.
Whether the vessel is gas free or not.
Max. draft after loading.

VHF: Delta Terminal and the agent monitor Channel 16. Masters should contact the agent 3 – 4 hours prior to arrival in order to get final instructions for mooring. Once the vessel is moored, operations channel is agreed between the vessel and terminal.

RADAR: There is a Gulf Control Radar at the entrance of the Gulf of Iskenderun, however it is not always on watch. From time to time Control may call a vessel entering or leaving the Gulf, on Channel 16, to ask some questions. The approach to or leaving the Gulf can be made without difficulty as the coast line provides very good fixes.

TUGS: Tugs are supplied by Botas Terminal at the discretion of th Master and Pilot. Generally one tug is used for mooring and unmooring Botas Terminal has 3 tugs of 2,600 h.p. and 1 tug of 1,200 h.p.

BERTHING: There are 4 berths. Each berth consists of 3 buoys (on portside ahead and 2 aft):

Outer Berth: For clean products only.

Inner Berth: For dirty and clean products. (See "Operator's Report dated April 1988).

Bunker Berth: For vessels up to 5,000 d.w.t., for dirty products and LPG.

LOADING:

Clean products: 2×8 in. hoses, 1,200 t.p.h.
Dirty products: 2×10 in. hoses, 2,000 t.p.h.

All ship's valves should be closed or blanked, except those required for loading and water circulation purposes.

Ship's crew with an officer in charge will assist in all operations, as advised by the terminal representative. This includes lifting, connecting disconnecting, lowering of hoses and tending moorings.

Max. loading rate is requested by Master.

Cranes: No cranes available, vessels are required to use their own equipment.

Lighting: Manifolds should be lit to enable night loading operations to be carried out with safety. Sea area around the ship is to be illuminated.

Notice of Readiness: Notice of Readiness should be tendered at the time of arrival, it will be received by the terminal representative after mooring.

Deck Watch: A responsible ship's officer shall be on watch at the poin near the ship's tanks which are receiving cargo during the process o loading, with a Loading Master from the terminal.

Capable members of the ship's crew shall be stationed by the ship' tank valves which are receiving oil, during process of loading.

BALLAST: There are no dirty ballast facilities. The vessel must arrive with clean ballast.

MEDICAL: Master to inform agent by cable or telex if urgent medica assistance is required upon arrival, indicating if possible, seriousness o case in order that adequate steps may be taken.

Hospital and doctor are available at Dortyol 10 km., Iskenderu 40 km. and Adana 100 km. distance from the terminal.

DENSITY: Salinity about 39 p.p.m.

FRESH WATER: Fresh water is not available. Tankers to be supplie with fresh water are to call at Iskenderun before or after loading. Fres water is supplied by the state-owned port company at Iskenderun, b means of a 200 ton capacity barge. The price is U.S.$4.00 per 1,000 kg including 'petties'. Fresh water is supplied on a round the clock basis There is an additional charge of U.S.$50.00/100.00 for fresh wate supplied between midnight and daybreak. A minimum charge is mad for 20 tons.

Arrangements to be made through Agent.

CONSULS: Consuls for Norway, Spain, Germany, U.K., Franc Netherlands, Greece and Italy are located in Iskenderun.

REPAIRS: Most radar/radio and engine repairs can be carried out.

SURVEYORS:

SGS. Tel: (90) (881) 11072.
Marine Survey Bureau. Tel: (90) (881) 18729 – 19751.
Atlantic. Tel: (90) (881) 21479.

GANGWAY/DECK WATCHMEN: There is no watchmen service.

CUSTOMS ALLOWANCES: 40 cigarettes for each crew member goi ashore. On board the vessel each crew member may hold 200 cigarett and 1 open bottle wine/spirits out of bond.

AIRPORT: Adana Airport, served only by domestic lines, with routes Istanbul and Ankara. Airport is situated 100 km. from Delta Termina Twice daily services to Istanbul and Ankara for international connection

TIME: LMT is GMT plus 2 hours in Winter time and GMT plus 3 hou in Summer time.

HOLIDAYS: New Year's Day, 31st December (noon) and 1st Januar Commemoration of Ataturk & Children's Holiday, 23rd April; Youth a Sports Day, 19th May; Seker Bayrami (3.5 days), changeable – aft Ramadan feast; Kurban Bayrami (4.5 days), changeable – Festival Sacrifice; Victory Day, 30th August; Independence Day, 28th Octob (noon) and 29th October.

POLICE/AMBULANCE: Can be contacted through the local ag (Boutros).

TELEPHONES: Cannot be connected on board.

SHORE LEAVE: Crew permitted to go ashore with shore passes wh can be arranged through the local agent.

IDENTIFICATION CARDS: Seaman's Book is sufficient for shore lea Embarking or disembarking crew members must hold a valid Passp (and depending on citizenship, a visa).

SAFETY: *Tanker Safety:* Masters are at all times responsible for application of all safety precautions. One boat of the terminal is a times alongside the vessel for safety.

Safety Check List: The tanker Safety Check List must be completed a inspection of each item, prior to commencement of loading. The b operator is authorised to stop all loading operations should he cons safety and property to be endangered.

Signals: The following signals must be shown when vessel is in po

By day: Flag "B" of the International Code of Signals. At night: 1 red light visible all around.

Fire Fighting Equipment: Vessels must be adequately manned fo fighting and vacating the berth in case of emergency.

The following fire-fighting precautions must be taken.

(a) Fire hoses must be run out fore and aft or monitors be read
(b) Fire mains must be under pressure.
(c) 1 dry chemical extinguisher must be stationed on either side o ship's manifold.

Fire Fighting Equipment at Buoys: One boat available alongsid vessel for fire-fighting when vessel is loading.

Action in Case of Emergency: In the event of a fire, oil spillage or other emergency on the vessel.

The emergency and fire signal is: 1 or more blasts of the ship's whistle, each blast of not less than 10 seconds duration, supplemented by a continuous sounding of the general alarm system.

GENERAL: The main engines of all vessels while tied up to the buoys shall be ready for immediate use. Deck power (steam) is to be maintained on deck at all times and water pressure shall be maintained on the fire fighting system.

The Master shall at all times retain on board sufficient crew to work the vessel.

No craft, other than one having on board the pilot or Port Health Officer, may approach any vessel entering the port and no other person until Free Pratique has been granted.

Whistle or siren to be available at all times.

Stores/Provisions: Vessels may store at the anchorage or while they are at berth with permission of the terminal and the Customs authorities.

OPERATOR'S REPORT: April 1988.

Location: Lat. 36° 50.65' N., Long. 36° 08.71' E.

Documents: Vessels are to call at Iskenderun for Customs Clearance, after which they will sail to the Terminal.

Pilotage: Compulsory. Pilot boards off Botas Oil Terminal.

Restrictions: Normally mooring is not undertaken after sunset. However, without any commitment from the owners of the Terminal, mooring after sunset is left entirely at the discretion of the pilot who might decide to moor the tanker after sunset, weather permitting.

Unmooring is carried out day and night.

Max. Size: Maximum draft 12.6 m.

Radio: Masters to advise agent of vessel's ETA 72 hours, 48 hours and 24 hours prior to arrival.

Cable to include the following information:
ETA Iskenderun.
Quantity of cargo required.
Max. loading rate.
Number and diameter of manifolds.
Quantity of ballast on board and time required for deballasting.
Whether vessel is gas-free or not.

Berthing: Vessel will moor at sea buoys. One buoy is located on the port bow and two buoys are located aft.

Loading: 2×10 in. hoses are available for dirty products and 2×8 in. hoses are available for clean products. Hose connection is amidships.

Loading is carried out at an average rate of 1,700 t.p.h. – 1,800 t.p.h. for dirty products and 1,200 t.p.h. – 1,500 t.p.h. for clean products.

Ballast: There are no facilities for receiving ballast. Vessels must arrive with clean ballast.

Fines for pollution are approximately U.S.$50,000.

Fresh Water: Not available locally.

Tankers requiring fresh water should call at Iskenderun before or after loading. Fresh water is supplied by the state owned port company at Iskenderun by a 200 ton capacity barge. Cost of fresh water is U.S.$4.0 per 1,000 kg. A charge of U.S.$50 – U.S.$100 is to be paid for supply between midnight and daybreak. Minimum supply 20 tons.

Fuel: Available.

General: Stores: A ship chandler is available for supply stores.

Agent: ETS. A. Boutros and Fils, Ataturk Bulvari, Unsal Han Kat 1, 31200 Iskenderun, Turkey; P.O.Box 11, 32101 Iskenderun. Telephone: (90) (881) 15170/74 (5 lines), (90) (881) 13684/85. Telex: 68123 Sail Tr/ 68131 Sail Tr. Fax: (90) (881) 12036. Cables: Boutros – Iskenderun. After Hours Contacts: Mr. Ferit Uyar, telephone (90) (881) 12893.Mr. Taner Carpar, telephone (90) (881) 13846.

Office hours during which Master can contact Agent on VHF Channel 16: 0830 – 1230 and 1430 – 1830 every day (including Saturday/Sunday/holidays during which one person on duty).

Telephone contact possible through Iskenderun Radio, VHF Channel 16.

(D) AYGAZ TERMINAL

PORT LIMITS: Aygaz Terminal is operated under the Authority of Botas Harbour Master's Office, where the mooring/unmooring operations are under the monopoly of Botas Terminal.
LOCATION: Lat. 36° 45' 05" N., Long. 36° 10' 10" E.
DOCUMENTS:
7 copies Crew List.
2 copies Stores List.
2 copies Crew Declaration.
1 copy Free Pratique.
Last Port Clearance.
Load Line, Safety Construction, Safety Radio, Safety Equipment and Class Certificates.
PILOTAGE: See "Delta Terminal".
ANCHORAGE: See "Delta Terminal".
RESTRICTIONS: See "Delta Terminal".
MAX. SIZE: 80,000 d.w.t. Depth at LW 16.0 m.
RADIO: See "Delta Terminal".
VHF: See "Delta Terminal".
RADAR: See "Delta Terminal".
TUGS: Tugs are supplied by Botas Terminal at the discretion of the Master and Pilot. Tugs are used for berthing, but are not necessary for sailing.
BERTHING: There are 2 berths. Each berth consists of 2 buoys aft. Ships use both anchors from their bow.
Outer Berth: Max. size 80,000 d.w.t. for LPG.
Inner Berth: Max. size 8,000 d.w.t. for LPG.
MEDICAL: See "Delta Terminal".
DENSITY: 1027.
FRESH WATER: Not available. See "Delta Terminal".

(E) DORTYOL BOTAS TERMINAL

LOCATION: Lat. 36° 51' 42" N., Long. 36° 08' 28" E.
PORT LIMITS: In the Botas (Ceyhan) Port limits.
DOCUMENTS: Same as Botas Terminal.
PILOTAGE: Similar to Botas Terminal.
ANCHORAGE: See "Botas (Ceyhan)" Port plan.
RESTRICTIONS: None.
MAX. SIZE: Max. size 60,000 d.w.t. tons tanker.
RADIO: See "Botas (Ceyhan) Terminal".
VHF: Terminal stands by on Channels 16 and 22.
RADAR: There is no radar control.
TUGS: Botas (Ceyhan) Terminal's tugs are used.
BERTHING: There is one berth for tankers. Vessels moor with anchors forward and lines aft.
BALLAST: Capacity 15,000 tonnes maximum.
FRESH WATER: Available at jetty.
FUEL: Not available. For more details see "Botas (Ceyhan) Terminal".

(F) BAYRAKTAR TERMINAL

The Terminal is under construction and is located at Lat. 36° 54' 24" N., Long. 35° 58' 18" E., in the Botas (Ceyhan) Port limits.

CANAKKALE: 40.08 N. 26.24 E.

DOCUMENTS: Vessels in transit through the Dardanelles must stop at Canakkale and produce following documents to Boarding Officer.
Certificate of Registry.
Derat Certificate.
Crew List.
Name of Agent in Istanbul.
Vessels proceeding to a Turkish port will require in addition:
4 Crew Lists.
2 Personal Effects Lists.
2 Currency Lists.
2 Stores Lists.
PILOTAGE: Not compulsory for vessels proceeding to Istanbul. Compulsory for vessels over 1,500 g.r.t. proceeding to Canakkale. Vessels requiring a Pilot use International Code signals, or signal "G" by light or whistle. No advance notice required. Telegraphic address of Pilot Station, Kilavuzluk Canakkale, via radio station TAT. Pilot boards off Khepez lighthouse, where vessel should slow down but no need to anchor. In bad weather pilot boat will anchor in Gulf of Kilya.
Also see "Shipmaster's Report".
ANCHORAGES: Vessels may anchor in depths of 12 to 16 fathoms.
MAX. SIZE: Vessels of any size may navigate Canakkale Strait.
HEALTH: All vessels bound for a Turkish port must stop for Sanitary Clearance at Canakkale. Any suspected disease on board must be declared. Sick crew members may be landed for hospitalisation.
Also see "Shipmaster's Report".
RADIO: Radio station TAT situated at local Post Office.
TUGS: One tug available, belonging to Pilot Station. Ship's tow lines always used.
BERTHING: Agents require at least 24 hours' notice to arrange berthing at Canakkale Pier. Vessel may be required to shift anchorage to give place to Turkish passenger vessels which have priority.
STEVEDORES: Arranged by Agent on basis of Master's ETA.
MEDICAL: 12 hours' notice required to arrange medical assistance. Hospital facilities available.
DENSITY: Salt water. No tide.
FRESH WATER: Only available from the pier, rate approx. 10 t.p.h.
FUEL: Marine grades not available.
CONSULS: Italy, tel. 1008.
REPAIRS: Minor repairs can be effected.
GANGWAY/DECK WATCHMEN: Customs guard compulsory for vessels at the pier.
OPENING/CLOSING HATCHES: May be operated by crew or stevedores according to Charter Party.
CUSTOMS ALLOWANCES: Crew allowed to retain only quantities for personal consumption.
REPATRIATION: Can be arranged if visa requirements are satisfactory.
AIRPORT: Situated 2 km. from Canakkale, internal services only.
TIME: GMT plus 3 hours.
HOLIDAYS: Cargo work can be arranged on all holidays by agreement.
POLICE/FIRE/AMBULANCE: Police Tel. 1181; Fire 00; Ambulance 1098.
SHORE LEAVE: Allowed at all times.
IDENTIFICATION CARDS: Required for crew members going ashore.
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None. Local facilities include international telephone, football, dances, shops and postage facilities.
CURRENCY: Turkish Lira (TL).
DEVELOPMENTS: New installations and berths under construction.

SHIPMASTER'S REPORT: *Dardanelles and Bosphorus:* A Pilot Station has been established at Mehmetcik Point (Cape Hellas); if the weather is too bad to embark the Pilot here, vessels should proceed to Canakkale. If a Pilot is required for both Dardanelles and Bosphorus, give 24 hours' notice through Istanbul Agent. Same Pilot remains on board for full transit, Sea of Marmara included, and this applies for both North and Southbound traffic. Pilots at Dardanelles and Bosphorus work VHF Channel 16.
Sanitary Control: White launch. Officers do not board but require Chief or 2nd Officer to go down into boat. Canakkale required Ship's Register, Derat, Crew List and Quarantine Declaration of Health. It is also required to fill in a form giving details of ship, cargo, last port, number of crew and passengers, etc. also name of ship's Agent in Turkey.

AUTHORITY: Canakkale Liman Baskanligi. *Tel:* 196-11123/21171. *Telex:* 58209.

AGENT: See "Istanbul".

DERINCE: 40.45 N. 29.50 E. (See Plan)

PORT LIMITS: A vessel that has arrived in Izmit Anchorage is considered an "arrived ship".
DOCUMENTS:
Quarantine:
Declaration of Health.
Valid Derat Certificate.
International Vaccination Certificates.
Free Pratique Received from Canakkale or Buyukdere.
Customs:
Crew Declaration.
Ship's Stores List.
Cargo Manifest.
Customs Clearance from last port.
Immigration:
Crew List.
Passenger List.
Shore leave passes arranged by Agent. Passenger embarkation/disembarkation not possible.
PILOTAGE: Compulsory. Pilot service carried out in harbour by stevedore administration, which is under the monopoly of Turkish State Railways. One pilot boat of 2×385 h.p. is available.
ANCHORAGES: Forbidden near the port. Waiting anchorage is at Izmit, 4 miles East of Derince. It is compulsory for vessels with explosives to anchor in Yarimca Anchorage.
MAX. SIZE: Max. draft 12.0 m.
VHF: Pilot on Channel 16.
TUGS: Compulsory for vessels over 500 g.r.t.

500 g.r.t. – 5,000 g.r.t.	One tug.
5,000 g.r.t. – 25,000 g.r.t.	Two tugs.
25,000 g.r.t. – 50,000 g.r.t.	Three tugs.
Over 50,000 g.r.t.	Four tugs.

4 tugs (up to 2,500 h.p.) are available. Mooring boat arranged by Pilot.
BERTHING:

Berth No.	*Length* (m.)	*Depth at LW* (m.)	*Remarks*
2	82	7.0	
3 & 4 *	400	15.0	All
6	220	12.0	General Cargo
7	160	10.0	Berths
8	120	6.0	

* The construction of the berth, which will enable the berthing of Panamax type vessels, is being continued. The construction is nearing completion, and 90% of the construction has already been completed.
Storage: The quay is rail connected, and provided with 10,500 sq.m. of closed storage, and 122,120 sq.m. of open storage. Also, 90% of the new silo construction of 95,000 tons capacity has been completed.
Equipment: For handling of grain, one 1,200 ton/hour pneumatic loader for loading, and 2×600 ton/hour capacity pneumatic unloaders for unloading, together with 2×1,200 ton/hour capacity conveyors will be in place, and they will have connection with the quay.
Also available are 32 forklifts, 2 trailers of 40 tons capacity, 2 tugmasters, 1 loader and 5 towing tractors.
Ro/Ro Facilities: Available (Berth No. 6).
Ore and Bulk Cargo Facilities: Bulk cargoes loaded and discharged by grabs.
Principal Imports and Exports: Imports: Aluminium, logs, rubber, scrap paper, steel and iron products, timber and woodpulp.
Exports: Magnesite, steel and iron products and general cargo.
CRANES: 12 shore cranes of 3 tons to 35 tons capacity, one special mobile container crane of 40 tons capacity, 12 mobile cranes of 5 tons to 25 tons capacity and 3 crawler mobile cranes of 6 tons to 30 tons capacity.
STEVEDORES: *Working Hours:* Service is provided to vessels 24 hours a day. First shift 0800 hrs. – 1630 hrs., second shift 1630 hrs. – 0030 hrs. and third shift 0030 hrs. – 0800 hrs.
Working Rates: General cargo discharging rate 100 to 125 tons/gang/shift and iron products, 200 to 250 tons/gang/shift.
MEDICAL: Facilities available.
FRESH WATER: Available at all berths.
FUEL: Available from private suppliers by road tanker, arranged throug ship's Agent.
REPAIRS: Most deck and engine repairs can be carried out.
SURVEYORS: Available from Istanbul through Agent.
OPENING/CLOSING HATCHES: Stevedores or ship's crew, whicheve is to the vessel's advantage.
CERTIFICATES:
Safety Construction.
Safety Equipment.
Safety Radio.
Load Line.
Tonnage.
CUSTOMS ALLOWANCES: 200 cigarettes and one bottle of spirits pe week per crew member.
REPATRIATION: Crew changes and repatriation can be carried out.
AIRPORT: 130 km. to Istanbul International Airport.
TIME: GMT plus 3 hours.
POLICE/AMBULANCE/FIRE: Emergency services available in the por
SERVICES: Arranged by Agent, from Istanbul.
SHORE LEAVE: No restrictions. Also see "Documents".
HOLIDAYS: New Year's Day (commencing 1200 hrs. December 31st National Sovereignty Day (April 23rd); Sports Day (May 19th); Victor Day (August 30th); October 29th; Sheker Bayram (3 days, movable Kurban Bayram (4 days, movable). However, the port is not working the first days of Sheker Bayram and Kurban Bayram, during all other days work carried out.
GENERAL: *Security:* Port Security personnel ensure the security of the port 24 hours a day.
Weighing Facilities: There are 2 weighbridges up to 100 tons capacit (one for wagons and the other for trucks).
Reception Facilities: An oily water separator system is available at th capacity of 4,500 cu.m./year.
Prevailing Winds: South-West and South.
DEVELOPMENTS: There are plans for container facilities (980 m. 15.0 m. depth), a new Ro/Ro ramp and a slipway.
AUTHORITY: General Directorate of Turkish State Railways (TCDD Derince, Turkey. *Tel:* (90-262) 2231540. *FAX:* (90-262) 223427 *Contact:* Gurol Toykan, Port Manager. Haydar Dogan, Harbour Maste (Tel: 183754).

DILISKELESI: 40.46 N. 29.32 E. (See Plan

(A) ALEMDAR HOLDINGS
(B) COLAKOGLU METALURGI
(C) SOLVENTAS

(A) ALEMDAR HOLDINGS PIER

LOCATION: Lat. 40° 46' 15" N., Long. 29° 32' 15" E.
PILOTAGE: Pilotage is compulsory in the Gulf of Izmit from Darica Diliskelesi and vice versa and also for berthing and unberthing.
TUGS: Available.
BERTHING:
Jetty No. 1: Length 210 m. Depth varies from 10.0 m. – 14.0 m.
Jetty No. 2: Length 205 m. Depth varies from 11.0 m. – 12.0 m.
Jetty No. 3: Length 118 m. Depth varies from 6.0 m. – 10.0 m.
Jetty No. 4: Length 160 m. Depth 7.0 m.
Jetties are used for general and liquid cargoes for discharging a loading. Ro-Ro facilities also available.
No shore cranes available on jetties. Port has own mobile cranes
The installation works around the clock.
TANKERS: Discharging rate for tankers is 250 t.p.h. There are stora tanks for solvents, tallow and vegetable oil.
Pipelines: 1 piggable pipeline with 8 in. diameter, 3 pipelines with 6 diameter (two of them are insulated and one has steam tracing in 2 pipelines with 4 in. diameter compressed airline, 2 in. diameter ste line.
Tank Terminal: 50 Custom bonded tanks from 120 cu.m. up 5,270 cu.m., with a total capacity of 70,000 cu.m., equipped with hea coils.
FRESH WATER: Available at all jetties.
FUEL: Available.
CUSTOMS: The port is under control of Gebze and Derince Custo Authorities.
AUTHORITY: Alemdar Diliskelesi Port Facilities S.A., Diliskelesi Me Gebze, 41810 Izmit, Turkey. *Tel:* (262) 7547600 (6 lines). *Telex:* 34 Dili Tr. *FAX:* (262) 7547606. *Contact:* Kemal Sencelebi, Cengiz Ergu *Head Office:* Turistik Camlica Cad. No.19, Buyukcamlica, 81 Istanbul, Turkey. *Tel:* (216) 3350540 (10 lines), (216) 3358 *Telex:* 29692 Alem Tr (2 lines a + b). *FAX:* (216) 3350550 (2 li *Contact:* Berkant Bellisan, General Manager. Kemal Sence Asst. General Manager.

(B) COLAKOGLU METALURGI PIER

LOCATION: Approximate location of the pier is Lat. 40° 46' 05" N., L 29° 32' 10" E.
PILOTAGE: Pilotage is compulsory in the Gulf of Izmit from Dar Diliskelesi and vice versa and also for berthing and unberthing.

BERTHING: Length of Pier No. 1 is 119 m. and depth 11.0 m. Length of Pier No. 2 is 100 m. and depth varies between 7.40 m. and 9.0 m. No shore crane available at either pier. Imports are steel and iron scrap and sometimes ferro manganese and ferro silicone. Exports are iron and steel products. Discharging rate of scrap iron and steel products is 3,000 – 4,000 tons a day. Installation works around the clock.
FRESH WATER: Available.
FUEL: Not available.
CUSTOMS: The port is under the control of Izmit and Derince Customs Authorities.
AUTHORITY: Colakoglu Metalurgi AS. *Telex:* 34125 Cmg Tr.

(C) SOLVENTAS

LOCATION: Approximate location of the pier is Lat. 40° 41' 30" N., Long. 29° 32' 12" E.
PILOTAGE: Pilotage is compulsory in the Gulf of Izmit from Darica to Diliskelesi and vice versa and also for berthing and unberthing.
BERTHING: Length of pier is 39 m. and depth 8.5 m. Capacity of installation is approximately 200 t.p.h. – 250 t.p.h.
FRESH WATER: Not available.
FUEL: Not available.
CUSTOMS: The port is under control of Derince and Izmit Customs Authorities.
AUTHORITY: Solvent A.S., Gebze.

EDINCIK: 40.21 N. 27.51 E.

LOCATION: In the South of Erdek and on the West coast of Kapidag Peninsula. See B.A. Chart No. 884.
PILOTAGE: Pilotage compulsory. Pilot comes from Bandirma.
MAX. SIZE: 5,000 d.w.t.
BERTHING: This is a colemanite loading berth of Etibank, where loading is effected by conveyor.

Five dolphins exist in front of the conveyor house and in enough deep water for mooring and shifting of vessels. As there is little movement of the conveyor, vessels have to shift in order to load bulk cargo in all hatches.
DENSITY: 1025.
FRESH WATER: Available.
TIME: GMT plus 3 hours.
GENERAL: Formalities with the Harbour Master are carried out in Erdek but all others in Bandirma. All services to be supplied from Bandirma.
AUTHORITY: Erdek Liman Baskanligi, Erdek, Turkey. *Tel:* 90-1989-1044. *Telex:* 58-214. *Contact:* Nezih Onal.

EREGLI (Karadeniz Eregli), including Usunkum: 41.18 N. 31.27 E. **(See Plan)**

PORT LIMITS: Line joining Lat. 41° 17' 23" N., Long. 31° 23' 43" E. and Lat. 41° 14' 46" N., Long. 31° 23' 43" E.
DOCUMENTS:
5 copies Crew List.
5 copies Passenger List.
3 copies Provisions List.
3 copies Bonded Stores List.
5 copies Crew Effects List.
3 copies Cargo Manifest.
3 copies Bills of Lading.
1 copy Health Declaration.
PILOTAGE: Pilotage is compulsory and available day and night. Vessels bound for the old port of Eregli should send their ETA to their local Agent. Vessels bound for Usunkum should send their ETA to the factory in accordance with the Charter Party terms.

Pilot will board vessels at a reasonable distance off the North Breakwater (red light). The pilot boat has a steel hull and is painted grey. Pilot may be contacted on VHF Channel 16.
ANCHORAGE: Anchorage for the deep draft vessels is about 0.5 miles – 1 mile West of the North Breakwater (red light). However, smaller vessels may anchor 0.5 miles West of the South Breakwater (green light). The bottom is muddy and sandy.
RESTRICTIONS: Vessels over 500 g.r.t. have to take a pilot and vessels over 1,000 g.r.t. have to use tugs. Number of tugs required increases in accordance with the vessel's gross registered tonnage.

Vessels of large deadweight are not permitted to berth at night.
MAX. SIZE: *Eregli:* Port maximum draft is 28 ft.
Usunkum: Oil and Coal Discharge Berth: Maximum LOA 240 m., maximum beam 36 m., maximum draft 36 ft.

Cargo Berth: Maximum LOA 240 m., maximum beam 32 m., maximum draft 35 ft.
HEALTH: Pratique is granted after the Quarantine Officer has visited the vessel on arrival.
RADIO: Eregli Radio (TAD 5). The Marine Operator is on VHF Channel 16 throughout 24 hours.
VHF: The calling channel for all stations is Channel 16.
RADAR: Not available.
TUGS: 2×2,650 h.p. and 2×800 h.p. Tugs normally join the vessel outside the harbour and tug's lines are always used.
BERTHING: *Eregli Old Harbour:* Length of quay 400 m. Depth alongside 28 ft. There is also a small wharf of 80 m. in length and 14 ft. depth.
Usunkum: Ore and Coaling Unloading Dock: Length of berth 408 m. Depth alongside 36 ft.

Cargo Dock: Length of wharf 280 m. Depth alongside 35 ft.
CRANES: *Eregli Old Harbour:* Heavy lift derrick with a capacity of 147 tonnes and a fixed coal loading conveyor with a rate of 220 tonnes per hour.
Usunkum Cargo Dock: 1×25 tonnes and 3×15 tonnes capacity shore cranes.
BULK CARGO FACILITIES: In Usunkum Harbour there are 3 grabs (1×10 tonnes, 2×15 tonnes) for unloading ore and coal. Maximum air draft 14 m.
STEVEDORES: *Eregli Old Harbour:* Working hours are from 0800 hrs. – 1600 hrs. for coal loading and from 0800 hrs. – 2200 hrs. for loading and discharging of general cargo.
Usunkum: Work is carried out continuously throughout 24 hours.
MEDICAL: All types of medical assistance are available.
TANKERS: No facilities available.
DENSITY: Average density 1012 – 1014.
FRESH WATER: Fresh water is available at Usunkum at a rate of approximately 15 t.p.h.
FUEL: Diesel oil can be supplied by tank trucks.
CONSULS: None locally.
REPAIRS: Minor repairs can be carried out.
DRY DOCKS: None available.
SURVEYORS: Available locally.
GANGWAY/DECK WATCHMEN: Usually ship's crew, ship's gangway used.
OPENING/CLOSING HATCHES: Normally carried out by ship's crew.
CERTIFICATES: Cargo Gear Certificates required.
CUSTOMS ALLOWANCES: Each crew member is permitted 200 cigarettes and 1 bottle of spirit.
REPATRIATION: Crew changes and repatriation are possible.
AIRPORT: The nearest airports are at Istanbul and Ankara, about 300 km. by road.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: Work is carried out on all holidays at Usunkum Harbour.
TELEPHONES: There are no facilities for placing telephones on board vessels.
SERVICES: None available locally.
BANKS: There are no foreign banks in the city.
SHORE LEAVE: No restrictions.
DEVELOPMENTS: The following are planned:
1×150,000 d.w.t. bulk berth.
Bulk storage area.
AUTHORITY: Karadeniz Eregli Liman Baskanligi. *Tel:* (0372) 3161007. *Telex:* 48541 KRDL. *FAX:* (0372) 3231169. *Contact:* Turgut Ege, Harbour Master.

FERCOM TERMINAL: 40.46 N. 29.33 E.

LOCATION: The terminal is located in the Gulf of Izmit in position Lat. 40° 46' 24"N., Long. 29° 33' 03" E.

The terminal is called Fercom or Upet and is for the import of gasoline.
PILOTAGE: Compulsory for berthing and through the Dardanelles.
MAX. SIZE:
Outer Berth: Max. LOA 210 m. Max. draft 16.0 m.
Inner Berth: Max. LOA 100 m. Max. draft 10.0 m.
BERTHING: The jetty is parallel to the shore and has 3 dolphins.

FINIKE: 36.16 N. 30.13 E.

RADIO: Finike Radio. Call sign TAC3.
BERTHING: Jetty 80 m. long, depths alongside 4.5 m. – 5.5 m. Vessels of more than 3,000 g.r.t. cannot berth alongside, but anchor outside the port.
CARGO HANDLING: Vessels at anchor are worked by 4 lighters towed by a motor boat. Only 200 tonnes of cargo worked per day by lighters.

At the jetty, 300 – 500 tonnes of cargo are handled per day.
AIRPORT: At Antalya (280 km.).
GENERAL: Port is dangerous in Winter.
AUTHORITY: Halil Tarhan, Port Master.

GEMLIK: 40.25 N. 29.07 E. **(See Plan)**

LOCATION: The port (Gemport) is located on the Southern shore of the Gulf of Gemlik, between the "Tugsas" and "BP Petroleum" establishments.

The new and main general cargo port in the gulf is connected to the hinterland by high standard roads.
PORT LIMITS: East of Long. 29° 05.8', at entrance of the bay (See "Plan").
DOCUMENTS: Basic Customs documents required. Master of the vessel should sign an Oil Pollution Prevention Declaration which is issued by local Government Office.

PILOTAGE: Compulsory. Provided by "Turkish Maritime Organisation, Gemlik Pilot Association".

24 hours and 4 hours notice should be given to the Pilot through ship's Agent and VHF Channels 16 and 14.

ANCHORAGE: If required, anchorage can be advised by Pilot.

MAX. SIZE: Vessels up to 180 m. in length with draft of 12.0 m. have used the facilities.

RESTRICTIONS: Variable strong winds and currents can effect berthing operation for a short period.

HEALTH: All vessels are inspected at the Dardanelles or Bosphorus and should have the Sanitary Clearance.

RADIO: Port has no radio equipment. ETA messages are to be routed via Istanbul Radio (call sign "TAH"). When at anchorage or berthed on pier, telephone calls are possible through Bandirma Coastal Radio Station by VHF Channel 16.

TUGS: Available to assist berthing.

2 tugs of 800 h.p. and 1,500 h.p. and a pilot boat are available throughout 24 hours. Tel: (224) 5136164.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
No. 1	185.5	12.0	General cargo/Containers.
No. 2	140	12.0 – 9.0	General cargo/Containers.
No. 3	110	7.0	General cargo/Ro-Ro.

CRANES: One mobile harbour crane of 40 tons capacity for container handling.

One mobile harbour crane of 10 tons capacity for general cargo handling.

Mobile cranes up to 300 tons capacity available for hire.

BULK CARGO FACILITIES: 3 mechanical rehandling grabs of 4 cu.m. capacity each and one motor clamshell grap of 5 cu.m. are available. Handling rate up to 250 t.p.h.

SPECIALISED CARGO HANDLING FACILITIES: The port specialises in container and banana handling.

1×40 ton capacity mobile harbour crane, 1×40 ton superstacker toplifter for 4 high full container stacking. 1×30 ton capacity forklift with 2 high stacking capacity.

2 banana conveyors with 6,000 boxes/hr. discharging capacity.

64×380 V. reefer plugs for reefer containers.

1 ramp for Ro-Ro cargoes (width 20 m., height 1.40 m.).

BRIDGES: None.

STEVEDORES: The recognised working hours of port are 24 hours.

1st shift: 0800 hrs. – 1600 hrs.
2nd shift: 1600 hrs. – 2400 hrs.
3rd shift: 0000 hrs. – 0800 hrs.

MEDICAL: One state hospital, private doctor and dental facilities are available for medical treatment and minor surgical operations in Gemlik.

TANKERS: No tanker facilities.

DENSITY: 1018 – 1019.

FRESH WATER: Fresh water delivered to vessel at wharves by pipeline. Hoses should be supplied by vessel.

FUEL: Supplied by private firms with trucks by prior arrangement through vessel's Agent.

FIRE PRECAUTIONS: Smoking is strictly prohibited in warehouse or on apron of wharves and on vessels during handling of dangerous, hazardous, or inflammable cargoes and around port's refining establishment.

DRY DOCKS/REPAIRS: No major facilities at the port. Minor ship repairs and container repairs can be effected.

SURVEYORS: Marine surveyors representing Lloyd's, A.B.S. N.V., Turkish Lloyd and Avrasia can be arranged.

DECK WATCHMEN: No requirement for watchmen.

HATCHES: Opening/closing is normally carried out by crew.

CUSTOMS ALLOWANCES: Usual allowances.

REPATRIATION: Can be arranged by vessel's Agent with necessary documents.

AIRPORT: Bursa Airport is 36 km. from Gemport. International flights could be organised via Istanbul or Ankara.

TIME: In Summer, GMT plus 3 hours. In Winter, GMT plus 2 hours.

POLICE/AMBULANCE/FIRE: Police Tel: 055. Fire Tel: 110. Ambulance Tel: 112.

TELEPHONES: Port can arrange placing of telephones on board per tariff charges. International telephone boxes are available in Gemport.

SERVICES: Arranged by ship's Agent.

BANKS: Local Turkish Banks in Gemlik.

Turkiye Is Bank. Tel: 224-5132455.
T.C.Ziraat Bank. Tel: 224-5130090, 5130079.
Turkiye Vakif Bank. Tel: 224-5131242.

STORING: Vessels load and discharge from/to trucks. Trucks can proceed alongside the berth (there is no obstruction on pier). Forklifts can be used on jetty only for handling cargoes.

SHIP SUPPLY SERVICE: Arranged through Agent.

SHORE LEAVE: Possible after completing Customs and Immigration formalities.

IDENTIFICATION CARDS: Seamen's Book is sufficient.

GARBAGE DISPOSAL: Garbage bags should be provided on board by ship's Agent. Full and secured bags are collected when required by the Port Organisation.

WASTE OIL DISPOSAL: Gemport has a 4,500 cu.m./year capacity for oily water, and household waste separator. Oily waters are collectd by Port Organisation per tariff charges.

CURRENCY: Turkish Lira (TL).

REGULATIONS: No unusual regulations.

DELAYS: No delays for berthing.

DEVELOPMENTS: The port administration is planning to increase cargo handling facilities by purchasing new shore cranes and a toplifter. A sophisticated computer programme will be operational for controlling all sequences of container movements and ports operation.

SHIPMASTER'S REPORT: July 1980.

Vessel: L.P.G. Carrier – 32,000 g.r.t. Vessel discharged ammonia.

Formalities: Formalities were dealt with quickly. Bonded stores a sealed and remain sealed until clearing outward from last Turkish po Application may be made to open under Customs control and thes applications were granted.

Travelling manifests of cargo and ship's stores are made up an accompany the vessel from port to port.

Papers required:

2 Stores Lists.
6 Cargo Manifests.
6 Crew Lists.
2 Vaccination Lists.
1 List of Monies in ship's safe.
2 Lists of Ports of Call.
2 Health Declarations
(including clearance from Canakkale).
2 Crew Declarations.
3 Crew Currency Declarations.
2 Ships Particulars.

Approaches: Chart BA. 1005.

The inset on Chart BA. 844 does not quite cover the area in whic the berth is situated. (Position of Ammonia section of qua Lat. 40° 25' N., Long. 29° 06.5' E.).

The approach itself presents no difficulty since good fixes are availab both by radar and visually. Similarly, although care is needed, a approach may be made in poor visibility with complete confidence.

Fishing vessels, inter-island ferries and local trading craft must b expected through the island passages and fishing vessels will be ma within Gemlik Liman. Some of these craft are very small although se conditions are invariably smooth and they should show up well on th radar. Not all carry lights.

An anchorage position as near as 4 cables from the berth may b used although this should be chosen to Eastwards of the berth to kee the departure path clear for any vessels leaving.

The Pilot obtained for the Dardanelles passage, who will leave her however short a stay, will be able to give advice on choosing a suitab anchorage, should this be necessary.

Pilotage: The Pilot may be summoned by whistle and will board from small, open fishing craft. Gangway or pilot ladder must be lowered t the water's edge.

No night time berthing. Unberthing may be carried out at night at th Master's discretion and presents no difficulty. The starboard anchor ma be used for berthing (not on this call) and is used to heave the vess off when leaving.

Unberthing is a long manoeuvre; 2 forward back-springs are lead a far astern as possible, the vessel hove astern about 30 m. (to ensu that the bow does not fall inside the line of the quay and foul the 'bridg to the forward mooring dolphin), everything let go aft, hard to port a dead slow ahead on the engine until the vessel is at an angle of 45 The vessel is then backed out, after which the Pilot leaves.

VHF: Not available.

Tugs: None available.

Berthing: Vessel always berths port side alongside.

Repairs: No facilities.

Surveyors: With sufficient notice, Lloyd's Surveyor may be ordered fro Istanbul.

SHIPMASTER'S REPORT: September 1980.

Formalities: Customs Officer stays on board whilst vessel is in port.

Travelling manifests of cargo and ship's stores to be made up a accompany the vessel from port to port. For Cargo Manifests I used t U.S. Customs Declaration of Cargo Form with the U.S. Seal blank out, Authorities had no objection.

Pilotage: If vessel requires an outward Pilot through the Dardanel remember to order in good time, 12 hours minimum order time required, especially when the vessel's stay in port is short.

There is 1 Pilot who is also the 'Lloyds' sub-Agent in Gemlik and generally a useful person to know.

When unberthing make sure the Port anchor is home otherwise it foul the quay.

Berthing: Gangway may be turned out prior to berthing.

The quay consists of 2 berths, the Eastern Berth for loading bul bagged fertiliser has 2 loading booms. This berth, if it has another ves on it, may well cause some problems on leaving the Western Berth wh is the liquid ammonia facility. When the vessel is in position with liquid Chicksan, the bow overshoots the jetty and provision is made the forward mooring ropes to be taken to a large dolphin, connecte the main quay by a catwalk with a *wooden* walkway.

Berths are very good being of large, substantial concrete struc with good fendering.

Minimum depth alongside 12.6 m.

There is an 8 m. patch at the Eastern end of the Fertiliser Berth w causes the Pilot problems.

Density varies: 1020 – December 1979, 1016 – July 1980, 10 September 1980.

Discharging: 2 Chicksans, liquid line 10 in., vapour line 10 in., both ASA, both can be used for either liquid or vapour so be careful w connecting.

Discharge rates vary: December 1979 – 640 t.p.h.; July 198 502 t.p.h.; September 1980 – 800 t.p.h., they can take it at 1,000 t.p.h. depending on shore tank ullages.

Fertiliser plant usage of raw ammonia presently 400 tonnes per increasing in January 1981 to 600 tonnes per day. The actual produ of ammonia is expected to commence in about five years' time.

Shore surveyor attended and his figures taken as quantity discha Attends the vessel at subsequent Turkish ports by flying between p not allowed to stay with vessel. Very helpful. No gauging of shore t

General: No fuel. Available at great expense if brought from Istanbul or Izmit by barge or tank lorry.

All communications are dealt with by head office in Istanbul and then passed to Izmit thence by car to Gemlik which has no Telex.

Telephone to U.K. about 2 hour wait for connection, line clear.

Cables: Watship Izmit or sub-Agent: 'Kinay' Gemlik. For urgent messages cable address should be prefixed by the Turkish word 'Yildirim' – all ports.

Personnel repatriation is a problem due to the distance from Istanbul and the fact that the Immigration post is not in Gemlik.

Chandler: Agent does the chandlering, good vegetables available September 1980, payment in cash only.

Doctor: Available at Bursa about 30 km. (30 minutes).

Dentist: In Gemlik, near Agent's office.

Shopping: Best in Bursa about 30 minutes South of Gemlik along new dual carriageway. Agent will arrange transport. An hourly bus service runs from the plant into Gemlik.

SHIPMASTER'S REPORT: November 1980.

Berthing: If weather suitable berthing now undertaken at night. We eventually berthed at night in calm conditions with small coaster on fertiliser berth without any difficulties, proceed slowly. Unberthing at night.

Discharge: Very keen on correct discharge temperature. Use forward liquid line, aft vapour line. Shore tanks hold 40,000 tonnes total (20,000 tonnes each).

Fresh Water: Available but not potable. At L.400 per tonne (1.90 pounds). A fire tender is used as a pump at Chicksan. I believe its well water.

Fuel: With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 338 25 09/337 36 86/337 88 31/336 06 36. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

AUTHORITY: Gemlik Directorate, Port of Gemlik, Liman Baskanligi, Gemlik, Turkey. *Tel:* 1133. Gemlik Customs House: *Tel:* 1411; Gemlik Police Station: *Tel:* 1628; Gemlik Hospital: *Tel:* 2329.

Operator: Gemport, Gemlik Port and Warehousing Administration Co.Inc., Kocacukur Mevkii P.K.101, Gemlik/Bursa, Turkey. *Tel:* (224) 5248831 (6 lines). *Fax:* (224) 5248830. *Contact:* Captain Y. Ziya Alkan, General Manager.

GIRESUN (Kerasunda): 40.56 N. 38.24 E. (See Plan)

PORT LIMITS: The Port of Giresun is the sea area contained in the inner part of the imaginary lines which joins Lat. 40° 56' 40" N., Long. 38° 19' 40" E. and Lat. 40° 54' 51" N., Long. 38° 26' 10" E., Aksu River mouth and the point 2,778 m. (1.5 miles) away from this mouth in an 019° true direction with Lat. 40° 56' 15" N., Long. 38° 27' 00" E. and Lat. 40° 55' 10" N., Long. 38° 19' 40" E. Gure River mouth and the point 2,778 m. (1.5 miles) away in true North direction.

PILOTAGE: Pilot ordered by Agent who requires 24 hours' notice in advance of vessel's arrival. Compulsory for all foreign flag vessels.

Pilot service operates 24 hours a day and vessels may enter and leave at any hour on request.

ANCHORAGES: Good anchorage in Outer Harbour. Vessels should keep the entrance channel clear.

MAX. SIZE: Max. draft 10.0 m.

RADIO: Giresun Radio. Call sign TAB4.

TUGS: 1×750 h.p. Compulsory for all foreign flag vessels.

BERTHING: The Port of Giresun is composed of 2 parts. These are the inner harbour and the outer harbour.

(a) The inner harbour is the sea area contained in the inner side of the line which joins the light at the end of the main breakwater with the light at the end of the auxiliary breakwater.

(b) The outer harbour is that part of the sea which remains between the port boundary and the inner harbour boundary.

The Inner Harbour

The berthing, tying-up and stern to shore anchoring places for the ships are given below:

A – The passenger berth has been converted to a general cargo berth and is equipped with a shore crane of 3 tons capacity. This quay is 150 m. long and the water depth is 9.0 m. – 10.0 m.

B – The cargo wharf: This is reserved for cargo ships. It is 275 m. long and the water depth is 8.0 m. – 9.0 m. The cargo wharf is equipped with shore cranes of 3 tons capacity.

C – The small craft quay is 135 m. long and the water depth is 3 m. Small tonnage ships are berthed here.

D – Service wharf: This is 88 m. long and the depth of the water is 4 m. The service craft of the Harbour Authority berth here.

E – Providing that they obtain the Harbour Authority's permission, ships waiting their turn to berth may tie-up stern to shore, at the bollards on the main breakwater in such a way as not to impede the traffic.

F – The outer harbour is an unrestricted anchoring area but it is strictly forbidden to anchor or wait at the mouth of the breakwater. Anchoring is unrestricted 315° true North of and 2.5 cables away from the centre of the main breakwater, North of the normal anchoring area.

STEVEDORES: Working hours normally 0800 to 1200 and from 1300 to 1630. Four gangs available.

CRANES: 4 cranes available, 3 – 10 tonnes. 5 mobile cranes, 5 – 25 tonnes.

FRESH WATER: Available.

FUEL: Available by road tanker.

REPAIRS: No repair facilities.

GARBAGE DISPOSAL: Garbage disposal service is available. Drums are provided if required. Charges are as follows:

	Cost (U.S.$)/1,000 g.r.t.			
	Flag of Ship		*Cost (U.S.$)*	
Method of Service	*Turkey*	*Others*	*Barge*	*Container*
On Quay	16	45	6	0.70
At Anchor	30	90	6	0.70

WASTE OIL DISPOSAL: Waste oil disposal service is available. Charges are as follows:

	Cost (U.S.$)/1,000 g.r.t.	
	Flag of Ship	
Method of Service	*Turkey*	*Others*
On Quay	20	60
At Anchor	40	12

Facilities include two oily water separators of 2 tons per hour capacity and a shore tank of 100 tons capacity.

Contact: Tel: 051-11490. Telex: 82468 TRDZ. Fax: 051-21734.

SEAMAN'S CLUBS: There is no seaman's club operating in the port, but the port is situated near the city, and all shopping, international telephone, some sporting activities, dances, transportation, and postage facilities are available there.

CURRENCY: Turkish Lira (TL).

AUTHORITY: Giresun Port Authority, Giresun Liman Isletmesi Mudurlugu, Giresun. *Tel:* (90) (051) 12447. *Telex:* 82468 Giresun. *Contact:* Port Manager.

GOCEK: 36.45 N. 28.55 E. (See Plan)

SHIPMASTER'S REPORT: February 1990.

LOCATION: Port of Gocek is located in the N.W. part of Fethiye Korfezi (Fethiye Bay). Position of the Berth 36° 45.2' N., 29° 55.5' E.

DOCUMENTS:

6 Crew Lists.
2 Lists of Crew's Personal Effects.
2 Lists of Ship's Stores.
2 Lists of Medical Narcotics.
2 Lists of Arms and Ammunition (if any).

All Passports/Seaman's Books taken ashore by Immigration and numbered landing cards issued. Passports returned on departure in exchange for landing cards.

PILOTAGE: Pilotage is optional. Request for the Pilot should be made through local Agents at least 48 hours in advance (on this particular vessel the Pilot had been hired from Izmir). However, pilot service is recommended, so as to assure good communications and cooperation with mooring boat. Pilot boards about 1 mile S.E. of Gocek Island (in good weather conditions) from the same boat, which is later used as a mooring boat.

Before proceeding, sufficient time should be allowed for the boat to return to port (distance about 3 miles).

APPROACHES: Approach to Gocek Port leads through a deep channel between Gocek Island and the mainland, about 3 cables wide and 1 mile long. Rounding the protruding point on Akmaden Peninsula (Southern part of Gocek Bay), the speed should be at the minimum, because vessel is already approaching the berth. There are 2 flat unlit buoys, painted white and red, about 80 m. from shore, N.W. and N.E. from Akmaden Lighthouse. Both buoys marked "MY HALAS" on sides. In addition there are 2 small white buoys close to S.W. part of the berth, apparently marking entrance to yacht harbour.

In berthing port side alongside (which is recommended because of departure), during the manoeuvre vessel's stern will at times be quite close to mentioned buoys (this vessel is 135 m. LOA, 12,000 d.w.t.). Starboard anchor should be used well in advance in order to swing the vessel to starboard and to facilitate the departure (at least 4 shackles). Swinging area is quite restricted and manouvre should be done without any haste and carefully.

VHF: Communications through Fethiye Radio.

TUGS: Tugs not available. Mooring boat is usually hired from local fishermen.

BERTHING: The port is perfectly sheltered from all winds and swell. There are numerous berths for pleasure and fishing craft in whole bay area, which is considered a tourist resort. Some of those berths have piers, protruding 20 m. – 30 m. from the shore, but none obstruct navigation or manouvres. Maximum tide range is only 10 cm. – 15 cm. throughout the year, with the exception of persistent Southerly wind periods, when slightly higher. At present the port is handling export of chrome ore and import of waste paper for nearby paper factory. Ships with cargo for the paper factory have priority to berth.

Port of Gocek consists of a main berth, total length 157 m. At a slight angle to the main berth is the berth (92.5 m. length) for small tankers of up to 1,000 d.w.t.

Depths alongside the main berth are as follows: At the extreme S.W. part 10.4 m., in the middle 11.5 m., and at the extreme N.E. part 10.0 m.

CARGO: Cargo is delivered to the quay by trucks. Chrome ore is already loaded in square iron boxes, each truck 5 – 6 boxes, each box about 2.5 tons of ore. The boxes are hooked directly from trucks and emptied into holds. Daily rate with 3 gangs during consecutive 24 hours might reach over 1,500 tons. Weighing of cargo done on shore under Customs' control, and draft survey not required. The cargo declared as lumpy chrome ore, stowage factor 16 cu.ft./ton, actually consists of about 50% medium size rocks and the rest is crushed/rubble.

Cargo Handling: No shore or mobile cranes available, all cargo handling by ship's gear.

MEDICAL: Fethiye Hospital.
FRESH WATER: Not available from quay.
FUEL: Not available.
CUSTOMS ALLOWANCES: 200 cigarettes per crew member.
REPATRIATION: Possible.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summertime from late March.
SERVICES: Ship chandler and laundry available in Fethiye, 35 km. by road.

GOLLUK: 37.14 N. 27.38 E.

DOCUMENTS: The following documents have to be prepared by Masters before arrival:
4 copies of Crew Lists.
2 copies of Stores Lists.
1 copy Health Document.
4 copies of Passenger Lists.
3 copies of Customs Documents.
3 copies of Manifests for cargo destined to port.
1 copy of Manifest for all transit cargo aboard.
N.B. Ship's particulars form is to be filled by Masters upon arrival and remitted to the Port Authorities.
PILOTAGE: Pilot not available.
RESTRICTIONS: Golluk is a well-protected natural harbour, not affected by winds from any direction. Deep water approaches to pier.
HEALTH: Vessels to show their Sanitary Certificate if available aboard and also their Registry. Presentation also of Vaccination Certificate of all the crew, if required by Sanitary Officials. Pratique is necessary on arrival even if vessel has called at another port in the same country. Sanitary Certificate is required for live animals aboard.
RADIO: Izmir Radio Station, call letters TAN2. Istanbul Radio Station, call letters TAH.
TUGS: Not available.
BERTHING: One pier 170 m. long used for handling emery ore in bulk. Depths alongside 39 ft. shelving to 20 ft. at 90 m. from seaward end.
CUSTOMS ALLOWANCES: 50 cigarettes for each member of crew going ashore. Aboard the vessel each member of the crew is permitted to have one carton out of Bond. One litre wine/spirits for each member of the crew in opened bottle is permitted out of Bond. However, this allowance is to be kept aboard the vessel.
TIME: GMT plus 3 hours.
HOLIDAYS: New Year's Day (from December 31st 1200 hrs. to January 1st 2400 hrs.); National Sovereignty Day (from April 22nd 1200 hrs. to April 23rd 2400 hrs.); Spring Day (1st May), Constitution Day (27th May); Sports Day (19th May); Victory Day (30th August); National Holiday (28th October 1200 hrs. to 30th October 2400 hrs.); Sheker Bayram (3 days movable); Kurban Bayram (4 days, movable).

HEREKE: 40.42 N. 29.37 E. (See Plan)

DOCUMENTS: 5 Crew Lists, 2 Stores Lists, 2 Crew Declarations, 4 Cargo Manifests, 2 copies Bills of Lading, 2 Stowage Plans, Clearance from Last Turkish Port, Bill of Health, 2 Lists of Money in Ship's Safe, Tonnage Certificate, Safety Equipment Certificate, Safety Radio Certificate, Safety Construction Certificate, Load Line Certificate, Derat Certificate.
PILOTAGE: Compulsory pilotage from Darica to Hereke and vice-versa; also for berthing and unberthing. (For all movements in Izmit Gulf Pilot is compulsory).

Vessels proceeding to Hereke port have to take Pilot when entering Izmit Gulf at Darica Pilot Station, located:

Approx. Lat. 40° 45' 18" N., Long. 29° 23' 18" E.
ANCHORAGES: Anchoring places at Izmit Gulf are as follows:
For Dry Cargo Vessels:
Darica/Eskihisar Anchorage: Approx. Lat. 40° 46' 05" N., Long. 29° 32' 10" E.
Izmit Anchorage: Approx. Lat. 40° 44' 00" N., Long. 29° 52' 48" E.
For Tankers:
Yarimca Anchorage: Approx. Lat. 40° 44' 50" N., Long. 29' 44' 30" E.
RESTRICTIONS: Berthing at jetties at night time is at Pilot's discretion.
MAX. SIZE: No restrictions if vessel suitable to load/unload at Hereke berth where jetty length 249.5 m. and depth varying between 12.3 m. and 17.00 m.
HEALTH: For vessels proceeding to Hereke Free Pratique obtained at Canakkale-Dardanelles or at Buyukdere/Bosphorus. Crew List and Derat Certificate required.
RADIO: Istanbul Radio Station. Call sign TAH.
VHF: Available only at Darica and Yarimca Pilot Stations, Channel 16.
TUGS: Compulsory towage for berthing and unberthing. The following number of tugs must be used during operations in Izmit Gulf:
500 to 5,000 g.r.t. – 1 tug
5,000 to 25,000 g.r.t. – 2 tugs
25,000 to 50,000 g.r.t. – 3 tugs
over 50,000 g.r.t. – 4 tugs
BERTHING: Only one jetty available at Hereke which belongs to NUH Cement Factory where more than one vessel can berth at a time. Length 250 m., depth 12.3 m. – 17.0 m.
CRANES: No shore cranes available on jetty.
BULK CARGO FACILITIES: As pier belongs to cement factory on cement cargo loaded. For bulk cement loading rate is 3,000/4,000 tonne per day. 24 hours continuous work.
SPECIALISED CARGO HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: Private.
MEDICAL: Hospital and dental facilities are available at Izmit appro 30 km. from Hereke.
TANKERS: No tanker facilities.
DENSITY: 1020-1022.
FRESH WATER: Available by barge and small quantities available fro the jetty.
FUEL: Not available at Hereke, can be supplied by barge or coast from Istanbul.
FIRE PRECAUTIONS: None.
CONSULS: None.
REPAIRS: No repair facilities.
DRY DOCKS: None.
SURVEYORS: (1) Cargo Inspectors available at Istanbul.
(2) Surveyors available at Istanbul.

Cargo Inspectors and Surveyors can be ordered from Istanbul attend vessels at Hereke.
GANGWAY/DECK WATCHMEN: Not necessary. Ship's gangway use
HATCHES: Opening/Closing hatches carried out by the crew.
CUSTOMS ALLOWANCES: Tobacco: 1 carton of cigarettes per wee each man. Spirits: 1 bottle of spirits per week, each man.
CARGO GEAR: Load/discharge effected by ship's gear as no cran available on the jetty.
REPATRIATION: Main embarkation/disembarkation Customs a Immigration formalities done at Istanbul but permission/formalities al required from Izmit Immigration and Izmit/Derince Customs to ass repatriations.
AIRPORT: Nearest airport at Istanbul, approx. 100 km. from Hereke
TIME: Local time GMT plus 3 hours in Summertime.
HOLIDAYS: New Year's Day, Sugar Bayram for 3 days, Kurban Bayra for 4 days (both religious holidays and dates are changeable every yea 23rd April, 19th May, 30th August, 29th October are National Holiday Saturdays and Sundays official holidays.
POLICE/AMBULANCE/FIRE: Police: 055 or Local Police Station: 51 4070. Ambulance: 112. Fire: 110.
EMERGENCY CO-ORDINATION CENTRE: Police Headquarters: 26 511-4070.
TELEPHONES: No arrangements exist.
SERVICES: None.
BANKS: Only local banks.
STORING: See "Prelims".
1. Vessel can be stored by barge and truck.
2. Vessels can be stored by barges during loading or discharg
3. Trucks can proceed alongside at berth.
4. Fork lift trucks not available.
5. Customs formalities required for storing, Agent assists.

SHORE LEAVE: Crew members allowed ashore, no shore pa required.
IDENTIFICATION CARDS: Seaman's Book is sufficient.
REGULATIONS: Nil. No visitors allowed aboard without permission
DELAYS: No delays expected.
AUTHORITY: NUH Cement Factory of Hereke, Akyar Mevkii, P.O.B 1000 Hereke-Izmit, Turkey. *Tel:* (262) 511-3975 (19 lines). *Telex:* 332 33288. *FAX:* (262) 511-412. *Cables:* Nuh-Hereke. *Contact:* T Commercial Manager.

HOPA: 41.28 N. 41.27 E. (See Pla

DOCUMENTS:
Quarantine:
Declaration of Health.
Valid Derat Certificate.
International Vaccination Certificates.
Free Pratique (received from Canakkale or Istanbul).
Customs:
2 Crew Lists.
2 Crew Declarations.
2 Stores Lists, including bonded store.
2 Cargo Manifests.
2 Customs Clearance from last port.
Immigration:
2 Crew Lists.
2 Passenger Lists.
PILOTAGE: Compulsory for vessels berthing and unberthing.

2 Pilots available, ordered by Agent on basis of Master's ETA

International code signals used to call Pilot, who boards at har entrance. Vessel may enter and leave at any hour on request.
ANCHORAGES: In the outer harbour, off the entrance.
APPROACHES: See "Shipmaster's Report".
HEALTH: Pratique granted after Sanitary Officer's visit on ves arrival.
RADIO: Hopa Radio. Call sign TAB-2. (41° 23' 50" N., 41° 25' 19
VHF: Hopa Radio on Channels 16, 12 and 74. Pilot on Channel 1
TUGS: One tug of 900 h.p. and 1 mooring boat available.

BERTHING: 1,146 m. of berthing space.

Quay No.	Name	Length (m.)	Depth (m.)
1	Ore Quay	215	10.0
2	Passenger Quay	198	10.0
3	General Cargo	190	10.0
4	General Cargo	100	10.0
5	Naval Quay	100	5.5
6	Motor Boat Quay	185	4.5
7	Fisherman's Quay	120	4.5
8	Ro-Ro Quay	38	9.0

CRANES: Shore cranes: 1×25 tons, 2×5 tons and 2×10 tons. Mobile crane: 1×10 tons.

STEVEDORES: Gangs of stevedores secured by the Agent through the port monopoly 24 hours prior to arrival. Working hours of first shift 0800 – 1200 and 1300 – 1630. Second shift: 1630 – 2030 and 2130 – 0030.

MEDICAL: A Doctor and hospital facilities are available.

DENSITY: 1024.

FRESH WATER: Fresh water available at all berths, order through Agent. Rate 60 t.p.h. (approx.).

FUEL: Available by road tanker.

CONSULS: None.

REPAIRS: Small repairs possible.

DRY DOCK: None.

GANGWAY/DECK WATCHMEN: Recommended.

SURVEYORS: Available from Istanbul. Order through Agent.

HATCHES: Opening/closing hatches to be carried out by ship's crew.

REPATRIATION: All facilities available for crew changes and repatriation.

AIRPORT: At Trabzon. Approximately 185 km. from the port.

HOLIDAY: New Year's Day; Seker Bayrami (3 days), Kurban Bayrami (4 days), (Both are religious holidays and dates are changeable every year). 23rd April, 19th May and 29th October are National Holidays. Saturday and Sunday are official holidays.

POLICE/AMBULANCE/FIRE: Police Tel: 1624. Ambulance Tel: 1068. Fire Tel: 3625.

BANKS: Ziraat Bankasi, Is Bankasi, Ak Bank, Halk Bank.

SHORE LEAVE: Crew members allowed ashore.

GARBAGE: Trucks will remove garbage from vessel at berth on request.

IDENTIFICATION CARDS: Required.

GARBAGE DISPOSAL: Garbage disposal service is available. Drums are provided if required. Charges are as follows:

	Cost (U.S.$)/1,000 g.r.t.			
	Flag of Ship		*Cost (U.S.$)*	
Method of Service	*Turkey*	*Others*	*Barge*	*Container*
On Quay	16	45	6	0.70
At Anchor	30	90	6	0.70

WASTE OIL DISPOSAL: Waste oil disposal service is available. Charges are as follows:

	Cost (U.S.$)/1,000 g.r.t.	
	Flag of Ship	
Method of Service	*Turkey*	*Others*
On Quay	20	60
At Anchor	40	12

Facilities include two oily water separators of 2 tons per hour and two of 10 tons per hour capacity and shore tanks of 100 tons and 600 tons capacity.

Contact: Tel: 0571-2259. Telex: 83338 TRDZ. Fax: 0571-1791.

SEAMAN'S CLUBS: There is no seaman's club operating in the port, but the port is situated near the city, and all shopping, international telephone, some sporting activities, dances, transportation, and postage facilities are available there.

CURRENCY: Turkish Lira (TL).

SHIPMASTER'S REPORT: February 1996.

Since Summer 1995, the Port Administration has commenced reconstruction of the main breakwater by way of elongation of about 250 m. – 300 m. No buoy has been established at the end of the "non-visible" breakwater. The depths are much less than shown on the chart.

One vessel went aground while entering the port even with a Pilot onboard. There is only one Pilot at the port and he is not experienced.

Only one tug (900 h.p.) is available for berthing operations. This tug is not very manoeuvrable.

AUTHORITY: Port Management, Hopa, Liman Isletmesi Mudurlugu, Hopa, Turkey. *Tel:* (90) (0571) 3638. *Telex:* 83338. *Contact:* Emin Ali Yilmaz, Director of Port. Dursun Seheri, Assistant to Director.

Nedim Kurum, Harbour Master. Tel: 1067. Telex: 83359.

ISDEMIR: 36.43 N. 36.11 E. **(See Plan)**

LOCATION: The port is located inside the Western Breakwater within Lat. 36° 43' 30" N., Long. 36° 11' 06" E. and the South Breakwater within Lat. 36° 43' 35" N., Long. 36° 11' 15" E.

DOCUMENTS: Same as other Turkish ports.

PILOTAGE: Compulsory for all foreign vessels. Working hours are 0800 hrs. – 2400 hrs. (Also see "Restrictions"). Pilot boards 0.5 miles to 1.5 miles from the main breakwater. Call on Channel 16, working on Channel 12.

ANCHORAGES: Safe anchorage South of a line due West of the South breakwater light (green light) and at least one mile from the breakwater.

RESTRICTION: Large vessels (over 100,000 d.w.t.) and tankers are not allowed to enter during hours of darkness.

MAX. SIZE: No limitation at the anchorage.

	Max. Length (m.)	*Max. Draft (m.)*
AI (1)	300	16.0
AB (2)	200	11.0
CD (3)	150	7.8
DE (4)	200	9.2
EF (5)	185	9.5
FG (6)	90	5.5
Service Berth	140	5.5
Fuel Wharf	No limit	13.0

HEALTH: See "Iskenderun".

RADIO: See "Iskenderun".

VHF: Channel 16, working Channel 12.

RADAR: There is a Radar Control Station on the South side of Iskenderun Gulf Entrance, near Akinci Point. Operator asks vessels on entering and departure for their name and call sign by VHF Channel 16. The station is on duty 24 hours.

TUGS: 3 tugs available, 2×2,480 h.p. and 1×1,200 h.p. Tug compulsory for vessels over 500 g.r.t.

1 Tug for over 500 to 4,000 g.r.t. vessels.
2 Tugs for over 4,001 to 15,000 g.r.t. vessels.
3 Tugs for over 15,001 g.r.t. vessels.

If a vessel arrives with over 100,000 tonnes cargo or 16.0 m. draft, a fourth tug is provided from Botas/Ceyhan or Iskenderun Port.

BERTHING:

Berth No.	*Length (m.)*	*Depth (m.)*	*Cranes Capacity tons*	*Remarks*
1	500	16.0 - 18.5	2 × 25	2,000 t.p.h. (ore), 1,250 t.p.h (coal), outreach 28.0 m., air draft 19.0 m.
2	240	11.5 - 12.0	5 × 15	400 t.p.h. (ore), 300 t.p.h. (coal). Berth can also be used for general cargo.
3	220	8.0 - 8.5	2 × 10	General cargo
4	200	9.5 - 10.0	1 ×140	Heavy lifts
5	185	9.5 - 10.0	2 × 10	General cargo
6	90	6.0 - 7.5	–	The cranes on Pier 5 are used.
Service Berth	140	6.0	–	Load-discharge only for the Turkish vessels.
Fuel Wharf	–	14.0	–	Vessels are moored by stern and drop both anchors.

CRANES: 2 Portal cranes on Pier 1 for ore and coal discharging operations. 5×15 ton cranes on Pier 2 for bulk and other purposes. On Piers 3, 5 and 6, 10 ton capacity cranes can be used with hydraulic grabs for bulk and general cargoes. Fixed heavy lift crane on Pier 4 for special purposes which can be used for heavy cargoes up to 140 tons. *Mobile Cranes:* Capacity 6 tons – 90 tons.

SPECIALISED CARGO HANDLING FACILITIES: Tar and benzol are produced by the factory. The tar loading can be carried out by 30 ton trucks. A 4 in. hose is available on the Fuel Wharf, and benzol can be loaded by pipeline at a rate of 1,000 tonnes per day.

Fuel oil, gas oil and diesel oil can be loaded by 8 in. hoses from the existing 8 storage tanks (total capacity 30,000 tonnes). Vessels have to have clean ballast on their arrival. There are no storage facilities for dirty ballast.

STEVEDORES Available 24 hours. Written ETA advices to the Port Management required 8 hours before berthing.

Handling Rates:	*Tons per 24 hours*
Pig Iron	1,500
Iron Ore	20,000
Pipes	800 – 1,000
Timber	4,000
Coal	16,000
General Cargo	800 – 1,000
Wheat	1,500
Sugar	100
Rice	600
Cement	1,500
Fertiliser	1,500
Fuel-oil	3,500 – 5,000

TANKERS: Facilities owned by the Port. Depth alongside 14.0 m. Discharge rate for fuel and oil (1×10 in.) 350 t.p.h. – 400 t.p.h. Benzol (1×6 in.). Handling rate 70 t.p.h. – 80 t.p.h. Distance between dolphins 106 m. Also see "Specialised Cargo Handling Facilities".

FRESH WATER: Good quality water available from shore connection, rate 15 t.p.h. maximum.

REPAIRS: No facilities.

CONSULS: See "Iskenderun".

DRY DOCKS: None.

GARBAGE DISPOSAL: The port is integrated with Iskenderun Steel Works and garbage facilities are provided by the Social and Internal Services Department, who provide garbage collection trucks and teams. Contact Tel: 9-8895-6270-1101/1501.

WASTE OIL DISPOSAL: A waste oil refining station has been installed near the fuel tanks of the Steel Works and trucks are used to transport waste oil from ships to the oil cleaning station.

SEAMAN'S CLUBS: None.

CURRENCY: Turkish Lira (TL).

SHIPMASTER'S REPORT: June 1981.

Location: 8 miles North of Iskenderun.

Pilotage: Pilotage is compulsory, but we arrived and sailed without Pilot. Permission must first be obtained via VHF Channel 16 through Iskenderun, usually the Agents. On no account must vessels enter and leave without permission.

Anchorages: Good holding ground inside breakwaters, protected from all directions except Southwesterly swell. Permission must first be obtained before anchoring inside.
Navigation: Good navigational entrance marks. No difficulties encountered on entering or leaving, plenty of water.
Tugs: Not available.
Berthing: Longest wharf appears to be "D", which at present is being extended (See "Plan"), the smallest being "C". All wharves appear to have plenty of water, (See "Plan"). All wharves have good access, wharves B, C and D being serviced with rail. Berth "A" has a heavy lift crane of 100 tonnes, no rail. Berth "D" has a conveyor for bulk cargoes. Most cargo being discharged into road transport.
Cargo Handling: Wharf "D" Bulk, "B" and "C" general cargo, Wharf "A" heavy lifts.
Cranes:

Wharf A – 1 × 100 tonnes for heavy lifts
B – 2 × 10 tonnes
C – 2 × 10 tonnes
D – 4 × 10 tonnes

Small mobile cranes also available.
Stevedores: Working hours – 24 hours continuous. Shifts change at 1600 hrs. Meal breaks at 1200 hrs. – 1300 hrs., 1700 – 1800 hrs. and 2000 – 2100 hrs.

Rate of discharge good, labour force good. Majority of port handling equipment is new, cranes, rail, etc. No warehousing available.
Fresh Water: Fresh water obtained by road tanker only, in quantities of 40 tonnes. Usually supplied at night as they supply the steel town during the day.
Fuel: No facilities observed.
Medical: Facilities at Iskenderun.
Consuls: At Iskenderun.
Repairs: No facilities observed.
General: Communications: Rail and road to Iskenderun, no local airfield. All instructions and information available through Iskenderun on VHF Channel 16, calling "Demicargo" which is local control, usually operating 0900 hrs. to 1700 hrs. and available only during working hours (Not meal hours).

Tonnage Handled: By observation only, it appears that relatively large vessels can be handled at the iron ore berth, up to 30,000 tonnes. A new berth is under construction (See "Plan") which will be able to handle vessels up to 100,000 tonnes. Other berths are for smaller vessels (A, B and C), the largest being "B".

Principal activities, steel, iron ores, general cargo.
Services: Tank cleaning services and ship chandlers available from Iskenderun.

SHIPMASTER'S REPORT: October 1986.
Clearance Inward: Vessel ordered to Iskenderun, anchored on arrival, cleared inward. All certificates and Seaman's I.D. Cards landed. Shore passes issued. 7 copies of Crew List required.

Radio: Istanbul for long distance messages. Iskenderun for messages when close by, port has VHF but uncertain if international connections possible.

Iskenderun Pilot has VHF Channel 16, opening watch at 0630 hrs.

Most Agents appear to be on VHF in office hours.

Fuel: Available with appropriate arrangements.
Isdemir: Vessels shifted up to wait for Pilot off Harbour Entrance on instructions of Agency. Pilotage available from 0830 hrs., VHF Channel 12. Tug channel monitored, 2 tugs on station, a third can be ordered.

The port imports coal and iron ore for the steel mill, using the newly completed portal grab cranes on Berth A-I. Berths A-B, C-D, E-F appear to be mainly used for exports of steel bars, coils, steel rods, pig iron, some coal and other minerals. Berth D-E mostly used for import of grain for direct delivery into lorries, and yard cargo for import or transhipment overland.

Working Hours: (3×8 hours) 0800, 1600, 2400 hrs. Though tally clerks may work (2×12 hours) 0800, 2000 hrs.

Vessel loaded 27,000 tonnes steel bars in 21 days after waiting 13 days for berth, with one shift to a deeper berth across harbour with tugs.

Facilities: Industrial grade or non-potable water piped to a few points in the harbour. Drinking water supplied in road tankers (ship's hose used). Agencies, communications, medical, ship chandlers, etc., all in Iskenderun. Agency charged by tariff for all services, rather than by the amount of work done.

International telephone system appears limited, and congestion occured soon after 0900 hrs. Agency telex machines only domestic models, head office relayed international messages.

Provisions, especially vegetables, limited choice in hot weather. No bonded stores, only duty paid beer, etc. available. Ship chandlers required Owners approve the cost of the order before arranging supply, also that only one delivery be made owing to the high costs involved. Bill made out in U.S. dollars.

The public highway is a walk of 1.5 hours in very hot weather, before taxis or mini buses can be obtained. The bus system at shift change time, with a transfer at the factory bus terminal was useful and economical. There are some small general stores in the 'Fabrik Town' about 1 hour's walk. Hourly bus service to Iskenderun until early evening.
Clearance Outward: Vessel returned to Iskenderun on a Sunday for outward clearance, where the certificates and Seaman's I.D. Cards were returned. It is possible to sometimes arrange clearance at Isdemir on weekdays.

AUTHORITY: Iskenderun Demir Ve Celik Fabrikalari, Directorate of Iskenderun Iron and Steel Plants, Isdemir 31319, Turkey. *Tel:* 8895-6260. *Telex:* 68696, 68697 Isde Tr. *FAX:* 9-881-13895. *Cables:* Isdemir-Iskenderun. *Contact:* Mehmet Arican, Port Manager Tel: 8895-6260 (Ext. 3080), Fax: 9-8895-3759.

ISKENDERUN: 36.35 N. 36.10 E. (See Pla

DOCUMENTS:
7 Crew Lists.
2 Stores Lists.
7 Passenger Lists.
2 copies Crew Declaration.
2 copies Transit Cargo Manifest.
3 copies Inward Cargo Manifest, of which one must be legalised b Turkish Consulate at loading port. If no consulate existing same t be certified by local Customs Officer or Chamber of Commerce.
1 set Bills of Lading.
2 copies Cargo Stowage Plans.
Health Documents.
Ship's Certificates.

PILOTAGE: Compulsory and provided by Port Administration. One pil boat available.
ANCHORAGES: Anchorage should not be less than 600 m. to 800 m from the breakwater, where quarantine control is performed, and wher depth ranges from 15.0 m. to 25.0 m.
RESTRICTIONS: Depth at port entrance 12.0 m.
MAX. SIZE: Max. draft 12.0 m.

Also see "Tankers".
HEALTH: Pratique obtained on arrival. Master required to show vesse Health Declaration and Certificate of Registry. Crew Vaccinatio Certificates to be produced if required. Sanitary Certificate required live animals on board.
RADIO: Istanbul Radio, call sign TAH. Izmir Radio, call sign TA Iskenderun Radio, call sign TAI.
VHF: Port Authority and Pilots on Channels 16 and 13.
TUGS: 6 tugs up to 2,500 h.p. available.

One tug compulsory for the vessels of up to 4,000 g.r.t. and 2 tug compulsory for the vessels of more than 4,000 g.r.t. Tugs are provide by the Port Administration.
BERTHING: The port has a breakwater 1,400 m. long, and is protecte from North and South winds.

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
No. 1	170	10.0	General Cargo
No. 2	170	10.0	General Cargo
Nos. 3 & 4	353	10.0	General Cargo
No. 7	200	10.0	Dry Bulk and Ro/Ro
No. 8	167	12.0	Dry Bulk
No. 9	167	12.0	Dry Bulk
No. 10	200	10.0	Dry Bulk and Ro-Ro

CARGO HANDLING FACILITIES: The port is connected to the natio railway system. The overall length of railway line within the port 22,500 m., and railway connection exists to every quay. Dangero cargo is discharged into lighters and stored in special areas. Vesse with dangerous cargoes can only be worked during daylight hours.
Container and Ro/Ro Facilities: The port does not have specific contai equipment. However, mixed container operations are carried out at t port by a fixed shore crane of 25 tons lifting capacity and 2 contai forklifts of 10 tons – 42 tons lifting capacity. Reefer points for refrigera containers are available on a 75,000 sq.m. concrete yard. Ro/R operations are carried out at Berths No. 7 and 10.
Ore and Bulk Cargo Facilities: Conveyors are available for ore, gr and coal handling, operating at a rate of 250 tons/hr., 300 tons/hr. a 100 tons/hr. respectively. The construction of a grain silo of 60,000 to capacity has been completed, and has a conveyor connection with t quay.
Liquified Gas Terminal: Available at Sariseki Chemical Works, 3.5 mi North of the main port.
Cranes: 21 shore and yard gantry cranes of 3 tons – 25 tons capac 11 mobile cranes of 3 tons – 25 tons capacity, one floating crane 90 tons capacity and 12 crawler cranes.
Equipment: Two container forklifts of 10 tons – 42 tons capac 35 forklifts of 3 tons – 5 tons capacity, 8 trailers of 20 tons capac 6 trailers of 40 tons capacity, 4 tugmasters, 3 loaders and 7 tow tractors.
Storage: Open storage area of 374,630 sq.m., and covered storage a of 18,395 sq.m.
STEVEDORES: 3 shifts (0800 – 1630, 1630 – 0030 and 0030 – 080 For bulk cargoes, 3 consecutive shifts of 8 hours can be worked.
Cargo Handling Rates: Average daily rates/shift/gang: General ca 100 tons to 125 tons; bagged 125 tons – 150 tons; cotton 100 tons

Gangs secured by Agent through the Port Monopoly, 24 hours p arrival.
MEDICAL: Facilities available. Master to inform Agent by cable if ur medical assistance required on arrival, also indicating, if poss seriousness of case in order to take adequate steps.
TANKERS: Three berths operated by Mobil Oil, Petrol Ofisi and S Max. draft 12.19 m. Mooring not allowed after sunset. Anchorag ships carrying inflammable and dangerous cargoes is N.W. of breakwater head, where the cargoes are pumped from subma pipelines to the shore installations.

Also see "Botas".
FRESH WATER: Available alongside at 40 t.p.h. and from 2 barg 240 tons capacity.
FUEL: Available locally from Baytur Trading S.A., Telex: 68068 A TR/68022 AUIS TR. Tel: (881) 14400/18958/11104. Fax: (881) 15 Iskenderun, Turkey.

With 48 hours notice Petrol Ofisi can supply Marine fuels and lubric (Mobil, Shell, Chevron & B.P.). Telex: 29048 BUNK TR. Tel: (1) 33 09 / 337 36 86 / 337 88 31 / 336 06 36. Mailing address: Petrol O Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.
CONSULS: Vice-consulates of France, Germany, Greece, Italy, Nor Spain and U.K.
REPAIRS: Welding and other minor types of repairs are possible

GANGWAY/DECK WATCHMEN: Services of watchmen recommended. 3 shifts of 8 hours each. Extra tariff for Sundays and holidays.
OPENING/CLOSING HATCHES: May be opened/closed by ship's crew. May be performed by stevedores at tariff rates.
CUSTOMS ALLOWANCES: 50 cigarettes for each man going ashore. On board the vessel each man may hold 200 cigarettes and 1 open bottle wine/spirits out of bond.
REPATRIATION: Can be arranged but Passport compulsory.
AIRPORT: Adana Airport, situated 147 km. from Iskenderun.
POLICE/AMBULANCE/FIRE: Police 11007; Ambulance 11057; Fire 11000.
TIME: GMT plus 2 hours in Winter. GMT plus 3 hours in Summer.
HOLIDAYS: New Year's Day (commencing 1200 hrs. Dec. 31st); National Sovereignty Day (April 23rd); Sports Day (May 19th); Victory Day (August 30th); October 29th; Sheker Bayram (3 days, movable); Kurban Bayram (4 days, movable).

Iskenderun Port is not working only on first days during Sheker Bayram and 2 days during Kurban Bayram, during all other days work carried out.

IDENTIFICATION CARDS: Seamen's Book is sufficient. For repatriation and joining vessels, passport compulsory.
GARBAGE DISPOSAL: Garbage collection service and equipment is available. This service is given at all berths.
WASTE OIL DISPOSAL: Collection service is available. The waste oil is collected by 10 cu.m. mobile tanks. There is another tank of 80 cu.m. capacity inside the port. An oily water separator system of 7,500 cu.m./ year is also available.
SEAMAN'S CLUBS: There is no seaman's club. However some facilities are available both within the port and in the city.
CURRENCY: Turkish Lira (TL).
GENERAL: *Weighing Facilities:* There are 4 weighbridges up to 100 tons capacity.
Weather: Sudden and very strong winds called "Yarikkaya" blow from North and East during Winter season.
Security: Port Security personnel ensure the security of the port 24 hours a day.
Provisions: Available.
DEVELOPMENTS: There are plans for container facilities in order to meet the container handling requirements, which will arise from Southeast Anatolia Project (GAP). The feasiblity study for a container terminal has already been completed.

SHIPMASTER'S REPORT: Customs and Health Clearance are performed both at anchor and at the berth. Vessels should anchor about 0.5 miles North of the landing stage in the main part of the town. All Officials and Agents arrive by boat and when clearance is given the Pilot comes out. For vessels with cargo for the chemical works at Sariseki (3.5 miles North of the main port), the procedure is the same except that a Pilot is not required.

Customs, Immigration, and Health Officials require 4 Crew Lists on arrival. The Agent will require 2 more Crew Lists prior to the vessel's departure for clearance with the Harbour Master.

AUTHORITY: Turkiye Cumhuriyeti Devlet Demiryollari – Isletmesi Genel, Mudurlugu, Talatpasa Bulvari, Ankara, Turkey. *Tel:* (90-312-3113083. *Telex:* 42571. *FAX:* 90-312-313215.

Turkiye Cumhuriyeti Devlet Demiryollari, Liman Isletmesi Mudurlugu, Iskenderun, Turkey. *Tel:* 90-326-6140047. *FAX:* 90-326-6132424. *Telex:* 32424 Liman Tr. *Contact:* Ugur Ozus, Port Manager. Faik Yildirim, Harbour Master (Tel: 326-6132740).

AGENT: Gulf Agency Denizcilik A.S., P.O.Box 277, Iskenderun. Tel: (90-326) 6138190. After Hours 6179141. Telex: 68124. Fax: 6121623. Cables: "Gacship" Iskenderun.

ISTANBUL: 41.01 N. 28.59 E. (See Plan)

(A) ISTANBUL (EUROPE)
(B) HAYDARPASA (ASIA)

(A) ISTANBUL (EUROPE)

DOCUMENTS: *Vessels bound for Istanbul:*
5 Crew Lists.
6 Passenger Lists.
3 Stores Lists.
1 Transit Cargo Manifest.
2 Inward Manifests of all cargo onboard.
Copies of relevant Bills of Lading for Inward Manifests.
3 Lists of Money in the Ship's Safes (if there is no money on board, please issue 3 "Nil" lists).
Harbour Master's Sailing Permit (which must be exchanged at each Turkish Port and kept on board).
Ship's Certificates (Derat, Ship Safety, Safety Radio, Class or Freeboard).
Transit Vessels: Master to present only Tonnage and Derat Certificates during Sanitary Control at both Straits (Canakkale and Buyukdere).
PILOTAGE: For both vessels bound for Istanbul and transit vessels, Pilot secured by the Agent through the Port Monopoly Administration. Master to wire ETA notices 48 and 24 hours prior to arrival. ETAs must be confirmed or corrected not less than 2 hours prior to ETA. Pilot boarding vessel, using service boat hoisting red and white flag, off Haydarpasa and Sarayburnu (entrance from Marmara Sea) or off Kavak (entrance from Black Sea). Pilotage for entering and berthing in harbour areas is compulsory. Pilotage through Bosphorus is optional. All Pilots can be contacted by VHF Channel 16.

Also see "Shipmaster's Report".

ANCHORAGES: Free and safe anchorage in roads off Marmara coast approach to Istanbul. It is however recommended to anchor as near as possible to the harbour. Anchoring at other anchorage areas is subject to special permission via Harbour Master. Good anchorage off Haydarpasa and off Yenikapi, Ahirkapi for large vessels. For smaller vessels there is a good anchorage between Dolmabahce and Kurucesme.
RESTRICTIONS: Ships carrying hazardous cargoes (flammable, explosives, corrosives, etc.) are not allowed to enter the harbours. Ships can anchor in roads outside the harbour at any time without Pilot. Ships to operate upon arrival at night can enter the harbours with Pilot and with special permission through the Port Monopoly Administration. 48 hours' notice has to be given to the Harbour Master of Istanbul for vessels calling at Istanbul and/or passing in transit through Bosphorus.
MAX. SIZE: No limitation of draft in open roadstead at anchor. Max. draft in port alongside quay: 10 m. for dry cargo ships. Tankers up to 48 ft. draft can berth at Haramidere Oil Port.
HEALTH: Sanitary control of both transiting and operating vessels performed at the Straits entrance (Canakkale and Buyukdere). Ships entering from South must slow down at Canakkale and ships arriving from North must slow down at Buyukdere for Sanitary Control. In case of non-performance of such control due to bad weather, Master has to inform Agent in time and have to stop and wait at South Entrance of the Bosphorus until Sanitary Control is performed otherwise heavy fine would be levied.

Also see "Shipmaster's Report".

RADIO: Wireless messages to be routed to Agent via Istanbul Radio. Call sign of Istanbul Radio Station is TAH. Frequency MW 500 kHz. Ships can also communicate with Agent by radio telephone on frequency 2182 KHz. It is recommended that ships keep watch for any radio telephone call by Agent detailing any berthing and operation arrangement.
TUGS: Arranged by Agent. Vessels of 1,500 g.r.t. and over berthing at the quays or mooring to the buoys are compelled to take the services of at least one tug and vessels of 5,000 g.r.t. and over require at least two tugs. Charged per hour or fraction of each operation.

21 tugs ranging from 110 hp to 2,500 hp are available.

BERTHING: Priority to food and passenger ships. If no berth available then ships to wait for turn in roads at anchor.

Turkish Maritime Corporation Facilities:

Wharves:	Length (m.)	Depth of Water (m.)
Karakoy (ex Galata) exclusively for passenger vessels	520	7 – 10
Salipazari for cargo handling	600	10
Sarayburnu for passenger handling	240	6
Camialti and Haskoy (Golden Horn)	68	3 – 4
Kurucesme for coal handling	370	10

Equipment:
Electric Cranes along the quays:
2 of 5 tons
7 of 3 tons
3 of 4 tons (coal transporter)
Rubber wheeled mobile cranes:
1 of 25 tons
7 of 10 tons
8 of 5 tons
5 of 3.5 tons
Floating Cranes: 5 tons – 60 tons.

BULK HANDLING: See "Section B" – Haydarpasa.
BRIDGES: There are 2 bridges: Galata Bridge is between Eminonu and Karakoy: Ataturk Bridge is between Unkapani and Azapkapi. Both bridges are opened in the morning for vessels entering the Inner Harbour (Golden Horn). Vessels wanting to pass through the bridges have to give notice in due time to the Harbour Master of Istanbul.
STEVEDORES: Gangs of stevedores secured by the Agent through the Port Monopoly, 24 hours prior arrival. Average loading and discharging rates of about 150 – 200 tons per gang per shift depending also on the kind of goods. Discharging operations are generally performed alongside the wharves and loading operations at buoys; however, as stated above, can also be effected alongside simultaneously with discharging. Working hours: Monday to Friday 0800/1200 and 1300/1700 hrs; Saturday 0800/ 1200 hrs.
MEDICAL: Master to inform Agent by cable if urgent medical assistance is required upon arrival, also indicating, if possible, seriousness of case in order to take adequate steps.
TANKERS: The oil port called Haramidere is a small bay open to Southern winds and 60 km. distant from Istanbul in the Sea of Marmara. There are buoys and an oil pumping platform in this bay. Tankers can berth by dropping 2 anchors and mooring by stern at these buoys or at platform. Average sea depth is 48 ft.
Ambarli: Position Lat. 40° 58' N., Long. 28° 42' E. Max. size 250,000 d.w.t. Vessels moor by the stern to a dolphin platform (offshore).
DENSITY: Always variable due to strong currents, however, can be reckoned as 1015.
FRESH WATER: Supplied by barge and shore installation at the rate of 30 t.p.h. – 60 t.p.h.
FUEL: Diesel oil, gas oil and bunker fuel can be supplied by barge at transit cost, subject 48 hours' pre-advice. Fuel supplied only against advance payment in foreign exchange (dollars, sterling or Swiss francs).

With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 3382509, 3373686, 3378831, 3360636. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

CONSULS:

Albania
Austria
Belgium
Brazil
Bulgaria
Chile
Czech Rep.
Denmark
Dominican Rep.
Egypt
Finland
France
Germany
Great Britain
Greece
Hungary
Iceland
Iran
Iraq
Israel
Italy
Japan
Lebanon
Mexico
Netherlands
Pakistan
Poland
Portugal
Romania
Russia
Spain
Sweden
Switzerland
Syria
Thailand
U.S.A.
Yugoslavia

REPAIRS/DRY DOCKS: At the Golden Horn are 3 graving-docks:
(1) 388 ft. length, 72 ft. width at entrance
(2) 279 ft. length, 62 ft. width at entrance
(3) 600 ft. length, 63 ft. width at entrance

At Istinye (in the Bosphorus):

1 floating dock 137.50 m. length, 21.25 m. width with 8,500 tons lifting capacity. 1 floating dock 67.82 m. length, 30.40 m. width with 5,000 tons lifting capacity. 1 floating dock 126.14 m. length, 34.0 m. width with 10,000 tons lifting capacity. In cases of necessity floating docks of 5,000 and 10,000 tons capacity can be united and be put in operation as single floating dock with 15,000 tons lifting capacity. Every kind of repair can be effected at Istinye docks.

At Fener (Golden Horn) is a dry dock for vessels up to 600 tons, and at Haskoy (Golden Horn) is a dry dock for vessels up to 176 tons. There are also some privately owned. All kinds of repairs can be effected.

SURVEYORS: American Bureau of Shipping, Bureau Veritas, Germanischer Lloyd, Lloyd's, Norske Veritas, Turkish Lloyd.

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: Owners or Master to decide whether this work should be undertaken by the stevedores or by the crew.

CERTIFICATES: Safety, Safety Equipment, Safety Radio, Class and Freeboard documents.

CUSTOMS ALLOWANCES: 40 cigarettes and 1 bottle wine/spirits per crew member.

CARGO GEAR: Generally shore cranes operating. However, ship using own means when such cranes are not available. Full lights to be supplied by ship.

REPATRIATION: Crew exchange and repatriation is possible for citizens of Italy, Great Britain, Benelux Countries, Sweden, Norway, Germany, Austria, Switzerland, France, Ireland, U.S.A., Iceland, Pakistan, Monaco, Australia, Canada, Japan, New Zealand, Spain, Cyprus, Portugal, Tunisia, Kenya, Iran, Yugoslavia, Romania, Morocco. Citizens of other states not specified above are subject to a Turkish visa.

AIRPORT: Yesilkoy Airport is an international airport with daily connection throughout world. Airport 15 km. from Istanbul.

TIME: GMT plus 3 hours.

HOLIDAYS: New Year's Day (Dec. 31st p.m. and January 1st); National Sovereignty (April 22nd p.m. and April 23rd); Sports and Youth Day (May 19th); Sheker Bayram (3 days) (movable); Courban Bayram (4 days) (movable); Victory Day (August 30th); Proclamation of the Republic (Oct. 28th p.m. to Oct. 30th). In the event of a holiday ending on a Friday, the Saturday that follows is considered also as a holiday in full, and normal working starts as of Monday morning 0800 hrs.

POLICE/AMBULANCE/FIRE: Fire Istanbul 521 42 22, Uskudar 333 20 30; Police 527 45 00; Ambulance Istanbul 521 15 95, Beyoglu 144 49 98, Uskudar 333 04 01.

TELEPHONES: No installation for connection facility on board.

SERVICES: Tank cleaning (gas-free service), derat, compass adjusting carried out by experts of shipyards or Turkish Maritime Lines.

SHORE LEAVE: Crew members are allowed ashore at all times.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

GARBAGE DISPOSAL: Garbage disposal service is available. Drums are provided if required. Charges are as follows:

Cost (U.S.$)/1,000 g.r.t.

Method of Service	*Flag of Ship* *Turkey*	*Others*	*Cost (U.S.$)* *Barge*	*Container*
On Quay	16	45	6	0.70
At Anchor	30	90	6	0.70

WASTE OIL DISPOSAL: Waste oil disposal service is available. Charges are as follows:

Cost (U.S.$)/1,000 g.r.t.

Method of Service	*Flag of Ship* *Turkey*	*Others*
On Quay	20	60
At Anchor	40	12

Facilities include two oily water separators of 10 tons per hour capacity and shore tanks of 800 tons and barge of 350 tons capacity.

Contact: Tel: 1-1522100/5. Telex: 24410 TRDZ. Fax: 1497415.

SEAMAN'S CLUBS: There is no seaman's club operating in the port, but the port is situated near the city, and all shopping, international telephone, some sporting activities, dances, transportation, and postage facilities are available there.

CURRENCY: Turkish Lira (TL).

SHIPMASTER'S REPORT: *Dardanelles and Bosphorus:* If a Pilot is required for both Dardanelles and Bosphorus, give 24 hours' notice through Istanbul Agent. Same Pilot remains on board for full transit, Sea of Marmara included, and this applies for both North and South-bound traffic. Pilots at Dardanelles and Bosphorus work VHF Channel 16.

Sanitary Control: Required at Buyukdere: Ship's Register, Derat, Crew List and certificate issued at Canakkale North-bound.

AUTHORITY: Turkiye Denizcilik Kurumu (Turkish Maritime Corporation), Genel Mudurluk, Karakoy, Istanbul, Turkey. *Tel:* 1433500. *Telex:* 22221 Dzb Tr, 22339 Dzy Tr. *Cables:* Denizbank Istanbul. *Contact:* Y. Izzettin Sen, Director of Ports. Ozden Dumanli, Assistant to General Manager.

(B) HAYDARPASA (ASIA)

DOCUMENTS:
7 copies Crew Lists.
4 copies Passenger Lists.
2 Lists of Passengers Landing in Istanbul.
2 Lists of Passengers in Transit).
2 copies Transit Cargo Manifest.
3 copies Inward Cargo Manifest. The original Manifest of Goods discharge at, or transhipment to, Turkish ports must be visaed the Turkish Consul at port of loading. In the absence of Turkis Consulate, the manifest must contain an endorsement made by local Authorities (Chamber of Commerce, etc.) to the effect that Turkish Consul is available.
1 set Bills of Lading.
2 copies Cargo Stowage Plan.
Health Documents
2 copies Stores Lists.
Ship's Certificates:
  Sanitary Declaration Form.
  Derat Certificate.
  Ship's Register.
  Load Line Certificate.
  Safety Radio Certificate.
  Safety Equipment Certificate.
  Cargo Ship Safety Construction Certificate.

PILOTAGE: Compulsory. Ordered by Agent on basis of Master's ET

Pilots meet vessels West of a line (Longitude 28° 57' 56" E.) passi through the light on the breakwater of Kumpapi Fishing Boat Harbou

Pilots are supplied by the Istanbul Harbour Directorate of the Turkis Maritime Organisations – TDI.

ANCHORAGES: The area to the South of Yenikapi lying betwe Longitude 28° 58' 36" E., passing through the Mosques of Sultanahme and Longitude 28° 55' 00" E. passing through Yedikule is reserved as free anchoring area for passenger and dry cargo ships.

MAX. SIZE: No limitations at the anchorage.

HEALTH: Master's are required to show vessel's Health Declaration a Certificate of Registry at Dardanelles. Ships which cannot be inspect at Dardanelles due to unfavourable weather conditions or oth compulsory reasons are reported by the Health Authority at Dardanell to the Health Authority in Istanbul by cable.

RADIO: Istanbul Radio, call sign TAH.
Izmir Radio, TAN.

VHF: Ship to shore communications on Channel 12.

TUGS: 5 tugs up to 2,500 h.p.
Vessels over 1,500 g.r.t. require one tug.
Vessels 1,500 g.r.t. – 5,000 g.r.t. require 2 tugs.

BERTHING:

Berth No.	*Length* (m.)	*Depth* (m.)	*Remarks*
2	220	6.0	General cargo
3	190	10.0	Dry bulk
4/5	334	10.0	General cargo
6	220	10.0	General cargo
7/8	246	10.0	General cargo
9	153	8.5	General cargo
10/11	350	10.0	General cargo
12	300	12.0	Containers
13/14	295	10.0	General cargo
15	220	8.0	General cargo
16	96	8.0	General cargo
17	141	8.0	Ro-Ro
18	164	6.0	General cargo
19	97	6.0	General cargo
20	50	6.0	General cargo
21	50	6.0	General cargo

There is also a silo of 70,580 tons capacity at the harbour.

CRANES/EQUIPMENT: 1 floating crane of 250 tons capac 2 container quayside gantry cranes of 40 tons capacity; 21 shore a yard cranes of 3 to 35 tons capacity; 4 reach stackers of 40 tons capac 9 transtainers of 40 tons capacity; 18 mobile cranes 5 to 25 t capacity; 6 container forklifts of 10 to 42 tons capacity; 54 general ca forklifts of 2 to 5 tons capacity; 19 tugmasters; 1 loader; 6 tract 25 trailers of 40 tons capacity; 10 trailers of 20 tons capacity.

CONTAINER FACILITIES: The space of the container terminal is ne 100,000 sq.m. The holding capacity of the container termina 6,000 TEU (both full and empty). The annual capacity, on the other ha is 144,000 TEU/year. In addition, there are 2 areas hired outside the for stacking the empty containers. A container freight statio 3,600 sq.m. is available behind the container quay. Another fa available at the port is the provision of reefer facilities for refriger containers.

RO-RO FACILITIES: A newly built Ro-Ro terminal is now in ser The Ro-Ro berth, which has 160 m. length with an alongside dept 8.0 m., can accommodate 360 ships per year, and can ha 410,000 tons of Ro-Ro cargo, 65,000 trucks (incoming and outgo and 60,000 cars a year.

BULK HANDLING FACILITIES: Berth No. 3 serves the dry bulk tr The length of the berth is 190 m. with an alongside depth of 8.2 grain silo of 34,000 tons capacity is available and has a com connection with the quay.

STEVEDORES: Working hours: 3 shifts, 7 days a week.
1st shift: 0800 hrs. – 1630 hrs.
2nd shift: 1630 hrs. – 0030 hrs.
3rd shift: 0030 hrs. – 0800 hrs.

Gangs ordered by Agent through the Port Monopoly 24 hours p arrival.

MEDICAL: Master to inform Agent by cable if urgent medical assis required on arrival, also indicating, if possible, seriousness of ca order to take adequate steps.

FRESH WATER: Supplied from hydrants on the berths.
FUEL: Available.
With 48 hours notice Petrol Ofisi can supply marine fuels, see "Section A".
CONSULS: 42 countries have Consulates in Istanbul.
REPAIRS: Welding and other minor types of repairs are possible under the Haydarpasa Port Directorate's control.
GANGWAY/DECK WATCHMEN: Watchmen services recommended. 3 shifts of 8 hours each.
OPENING/CLOSING HATCHES: May be opened/closed by ship's crew or by stevedores at tariff rates.
CUSTOMS ALLOWANCES: 50 cigarettes for each man going ashore. On board the vessel each man may hold 200 cigarettes and 1 open bottle wine/spirits out of bond.
REPATRIATION: Can be arranged.
AIRPORT: Istanbul Ataturk Airport served by international and domestic lines. Airport situated 20 km. from Haydarpasa Port.
HOLIDAYS:
Official Holidays: New Year's Day (from December 31st at 1200 hrs. and January 1st); National Sovereignty Day (April 23rd); Youth and Sports Day (May 19th); Seker Bayram (3.5 days), movable; Kurban Bayram (4.5 days), movable; Victory Day (August 30th); Proclamation of the Republic (from October 28th at 1200 hrs. to October 29th).
POLICE/AMBULANCE/FIRE: Police Control Office: 144 94 03; Ambulance: 354-383 (internal phone numbers of Haydarpasa Port), 338 10 10; Fire Brigades: Haydarpasa Port: 393-354-583 (internal phone numbers of Haydarpasa Port), 163 60 20.
IDENTIFICATION CARDS: Seamen's Book is sufficient.
WASTE OIL DISPOSAL: An oily water separator system is available with a capacity of 10,500 cu.m./year to clean bilge water in conformity with the IMO regulations.

SHIPMASTER'S REPORT: Customs and Health Clearance is performed at anchoring areas Kumkapi (if coming from Marmara Sea) and Buyukdere (if coming from Black Sea). All officials and agents arrive by boat and when clearance is given, the Pilot comes out. For vessels with cargo for the chemical works at Meda (2 miles S.S.E. of the main port) the procedure is the same except that a pilot is not required.

AUTHORITY: Turkiye Cumhuriyeti Devlet Demiryollari Isletmesi Genel Mudurlugu – Talatpasa Bulvari, Ankara, Turkey. *Telex:* 42571.
TCDD Liman Isletmesi Mudurlugu Haydarpasa, Istanbul, Turkey. *Tel:* 90-216-337-99-88, 336-94-45. *Telex:* 29705. *FAX:* 90-216-345-1705. *Contact:* Lami Teksoz, Port Director.

AGENT: Gulf Agency Denizcilik A.S., P.O.Box Karakoy 1230, Istanbul 80008, Turkey. Tel: (90-212) 2430708. After hours 2572898. Telex: 25517 ("GACU"). Fax: 2450107. Cables: "Gacshipping" – Istanbul.

IZMIR: 38.25 N. 27.09 E. (See Plan)

DOCUMENTS:
6 Crew Lists.
4 Passenger Lists.
2 Manifests of Transit Cargo.
3 Manifests of Inward Cargo, 1 of which must be legalised before arrival by Turkish Consulate at loading port.
1 set Bills of Lading.
1 set Cargo Stowage Plans.
2 Stores Lists.
Health Documents.
Ship's Certificates.
N.B. Ship's particulars form is to be filled in by Masters upon arrival at Izmir, and remitted to the Port Authorities.
PILOTAGE: Pilotage is compulsory and is provided by the Turkish Maritime Organisation (TDI). Masters must notify their Agents at least 12 hours in advance giving their ETA at Pelican Spit and ask for a Pilot.
Pilot can be contacted on VHF Channel 16.
ANCHORAGE: In the Outer Harbour, 300 m. outside Old Port breakwater, ample space for vessels to anchor. Cargo operations cannot be performed at anchor unless vessels have red label cargoes aboard for Izmir or in transit.
RESTRICTIONS: Docking of ships at the old port is not permitted during night, but ships can sail any time during night. At the new port, docking is permitted during night (weather permitting) also ships can sail any time during night. There are no tides at Izmir.
MAX. SIZE: Vessels of any size with a max. of 38 ft. draft can operate at Izmir. There is a pipeline for oil-carriers in the Gulf of Izmir where tankers with a max. draft of 33 ft. can operate.
In Old Port, length restricted to 165 m., max. draft 8 m.
HEALTH: Vessels to show their Sanitary Certificate – if available aboard – also their Registry. Presentation also of Vaccination Certificate of all the crew, if required by sanitary officials. Pratique is necessary on arrival even if the vessel has called at another port in the same country. Sanitary Certificate is required for live animals aboard. If quarantine (fumigation) of the vessel is necessary, very considerable time is lost, and expense incurred because vessel must proceed to Fumigation Station at Klazomene, located at about 20 miles from Izmir (in the Gulf of Izmir) where fumigation can be effected and bad cases hospitalised.
RADIO: Izmir Radio Station, call sign TAN. Istanbul Radio Station: call letters TAH.
VHF: Ship-to-shore communication is by Channels 16 and 12.

TUGS: Tugs are compulsory for vessels of more than 2,000 g.r.t. At Harbour Master's estimation, 2 tugs will be used for vessels over 4,000 g.r.t. in case of bad weather. Dues will be collected for each tug.
3×2,500 h.p. tugs available.
BERTHING:

Berth No.	*Length* (m.)	*Depth* (m.)	*Cargo Handled*
1	140	8.0	Passenger Vessels
2	190	10.5	Passenger Vessels
3 *	150	10.5	Dry Bulk/Ro-Ro
4-5	270	10.5	General Cargo
6	75	10.5	General Cargo
7-8-9	372	10.5	General Cargo
10-11-12	348	7.0	General Cargo
13-14-15-16 *	600	13.0	Containers/Ro-Ro
17 * -18-19	450	13.0	Containers/Ro-Ro
20-21-22	364	13.0	General Cargo

* Ro-Ro facilities available.
CRANES/EQUIPMENT: 1 floating crane with 100 tons capacity, 2 container quayside gantry cranes of 40 tons capacity (2 additional gantry cranes are under construction and scheduled for completion by mid-1994), 9 shore cranes of 3 – 15 tons capacity, 14 mobile cranes of 6 – 30 tons capacity,7 rubber tyred transtainers of 40 tons capacity, 4 reach stackers of 40 tons capacity, 12 container forklifts of 10 – 42 tons capacity, 25 general cargo forklifts of 2 – 8 tons capacity, 17 tugmasters, 15 tractors, 1 loader, 22 trailers of 40 tons capacity, 5 trailers of 20 tons capacity, 1 towing tractor.
CONTAINER HANDLING FACILITIES: The container terminal has 7 berths which have an alongside depth of 13.0 m. The total length of the berths is 1,050 m. The terminal covers an area of 152,000 sq.m. and the holding capacity is 7,047 TEU. Container operations at the quays are carried out by 2 gantry cranes of 40 tons capacity. The operations at the container yard are carried out by 6 rubber tyred transtainers and 4 reach stackers of 40 tons capacity, together with 12 container forklifts of up to 42 tons capacity. Reefer facilities for refrigerated containers are also available.
BULK HANDLING FACILITIES: Grain silo has capacity 76,000 tons. The conveyor can deliver between 2,500 and 3,000 tons in 24 hours.
Bulk ore loaded by grabs. Daily loading capacity per shift of 8 hours is between 750 to 1,000 tons.
STEVEDORES: *Working Hours:* 24 hours, 7 days a week.
1st shift: 0800 hrs. – 1630 hrs.
2nd shift: 1630 hrs. – 0030 hrs.
3rd shift: 0030 hrs. – 0800 hrs.
MEDICAL: Advance notice optional. There is a local English-speaking doctor for service on board vessels.
Hospitals: U.S. Military Hospital, French Hospital, Government Hospital (Memleket). Doctors available to board ships or patient to proceed to their clinics.
U.S. Military Hospital for emergency cases only.
TANKERS: Izmir is a discharge port for tankers. Socony Mobil Oil receives petroleum products in bulk through a pipeline at a distance of about 1 mile from their shore installations. Depth at the end of the pipeline is 33 ft. The pipeline is of 12 in. and the pumping is effected through a flexible hose of 10 in. at an average of about 450/500 t.p.h.
British Petroleum receives petroleum products at jetty where the tankers berth stern to with a max. draft of 23 ft. Pumping is effected by the vessel from her stern with a 6 in. flexible hose.
Petrol Ofisi receives petroleum products at their jetty. Vessels berthed stern to with a draft of 17 ft. Same procedure for pumping as for British Petroleum. The above three installations are located in the Gulf of Izmir opposite the new port of Alsancak.
FRESH WATER: Fresh water is available for drinking. The water is given both from dock or by barges (2×150 tons). Water is supplied by Port Monopoly. Delivery at the dock about 20 t.p.h. By barge about 40 t.p.h.
Two barges each of 200 tons capacity available.
FUEL: All kinds of fuel available subject to 24 hours' advance notice. Fuel supplied only against advance payment in free foreign exchange direct to Agent of the vessel.
With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 3382509, 3373686, 3378831, 3360636. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.
CONSULS:

Belgian Consulate (Honorary)	tel. 218847
Danish Consulate (Honorary)	" 124018
Finland Consulate (Honorary)	" 214782
French Consul General	" 214234
German	" 216995
Greek Consulate	" 216992
Italian Consulate	" 211696
Luxemburg Consulate (Honorary)	" 214882
Netherlands Consulate (Honorary)	" 132064
Norwegian Consulate (Honorary)	" 215102
Spanish Consulate (Honorary)	" 145470
Swedish Consulate (Honorary)	" 124878
U.K. Consul General	" 211795
U.S. Consul General	" 217204

REPAIRS: Ship's repair shops available: Denizcilik Bankasi (Turkish State-owned). Deck and engine repairs are possible.
DRY DOCKS: Floating dock, capacity 7,000 d.w.t.
GANGWAY/DECK WATCHMEN: Services of watchmen recommended. Three shifts of 8 hours per day.
OPENING/CLOSING HATCHES: This work can be carried out by crew. If carried out by stevedores the cost is charged to vessel.
CERTIFICATES:
Derat Certificate.
Registry.
Vaccination Certificates (if required).
Health Certificate.

CUSTOMS ALLOWANCES: 50 cigarettes for each member of the crew going ashore. Aboard the vessel each member of the crew is permitted to have one carton out of Bond. Wine and/or spirits: 1 litre for each member of the crew in an open bottle is permitted out of Bond. However, this allowance is to be kept aboard the vessel.
REPATRIATION: All facilities available for crew changes and arranging necessary repatriation.
AIRPORT: Izmir Adnan Menderes International Airport is 27 km. from the port. Airport is served by Turkish Airlines with 5 flights per day (local flights in connection with Istanbul International flights). Also 2 direct flights per week to Europe.
TIME: GMT plus 3 hours.
HOLIDAYS: New Year's Day (from December 31st 1200 hrs. to January 1st, 2400 hrs.); National Sovereignty Day (from 22nd April, 1200 hrs. to April 23rd, 2400 hrs.); Spring Day (May 1st); Constitution Day (May 27th); Sports Day (May 19th); Victory Day (August 30th); National Holiday (October 28th, 1200 hrs. to October 30th, 2400 hrs.); Sheker Bayram (3 days) movable; Kurban Bayram (4 days) movable.

On these days offices are closed. Work in port is allowed by paying 75% overtime to the S.T. wages. The overtime for the National Holiday (Oct. 29th) is paid 100% on the total regular overtime, which makes 300%. On the first days of Sheker and Kurban Bayram work aboard is not carried out.
POLICE/AMBULANCE/FIRE: Police, tel. 255460; Ambulance, tel. 252405; Fire, tel. 00.
TELEPHONES: It is possible to place telephones aboard vessels at the new port of Alsancak.
SHORE LEAVE: Crew members are allowed to go ashore with landing card.
IDENTIFICATION CARDS: Seamen's Book is sufficient.
REGULATIONS: Berths at the new port of Alsancak are obtained on basis of the time and date of arrival of each vessel. If the port is congested, vessels wait for their turn at anchor.
SERVICES: *Shipchandler:* General Ship Chandler Ltd. Co., Yahya-Erhan Varlikli, 1475 Sok 1/202, Alsancak, Izmir, Turkey. Tel: (51) 219756, 216088, 220948. Telex: 53195, 53761. Fax: (51) 630468. Branches at Aliaga and Gemlik. Services available: Deck, engine and cabin stores; fresh water; laundry and provisions.
DELAYS: During the active export season, some delays occur varying 1 or 2 days.
DEVELOPMENTS: New port of Alsancak to be extended during the next 2 years by the construction of a breakwater, docks, warehouses totalling a berthing capacity of additional 2 to 3 vessels, especially container vessels. 2 container cranes ordered.
AUTHORITY: General Directorate of Turkish State Railways (TCDD), TCDD Liman Isletmesi Mudurlugu, Izmir, Turkey. *Tel:* 90-232-4632252. *FAX:* 90-232-4632248.
AGENT: Gulf Agency Denizcilik A.S., P.O.Box 857, Izmir. Tel. (90-232) 4217270, 4217287. After hours 4224119. Telex 52371. Fax: 4220375. Cables: "Gacship" Izmir.

IZMIT: 40.46 N. 30.00 E.

DOCUMENTS: 5 Crew Lists, 2 Stores Lists, 2 Crew Declarations, 4 Cargo Manifests, 2 copies Bills of Lading, 2 Stowage Plans, Clearance from Last Turkish Port, Bill of Health, 2 Lists of Money in Ship's Safe, Tonnage Certificate, Safety Equipment Certificate, Safety Radio Certificate, Safety Construction Certificate, Load Line Certificate, Derat Certificate.
PILOTAGE: Compulsory pilotage from Darica to Izmit and vice-versa, also for berthing and unberthing. (For all movements in Izmit Gulf Pilot is compulsory).

Vessels proceeding to Izmit Port have to take Pilot when entering Izmit Gulf at Darica Pilot Station, located:
Approx. Lat. 40° 45' 18" N., Long. 29° 23' 18" E.
ANCHORAGES: Approx. position: Lat. 40° 44' 00" N., Long. 29° 52' 48" E.
RESTRICTIONS: Berthing at jetties at night time is at Pilot's discretion.
MAX. SIZE: No restrictions for vessels loading on roads, and no special restriction if vessel suitable to load/unload at the jetty of Seka Paper Mills where jetty length 70 m., depth varying between 24 ft. and 27 ft.
HEALTH: For vessels proceeding to Izmit Free Pratique obtained at Canakkale-Dardanelles or at Buyukdere-Bosphorus. Crew List and Derat Certificate required.
RADIO: Istanbul Radio Station.
VHF: Available only at Darica and Yarimca Pilot Stations, Channel 16.
TUGS: Compulsory towage for berthing and unberthing. The following number of tugs must be used during operations at Izmit Gulf:

500 to 5,000 g.r.t. – 1 tug
5,000 to 25,000 g.r.t. – 2 tugs
25,000 to 50,000 g.r.t. – 3 tugs
over 50,000 g.r.t. – 4 tugs

BERTHING: Only 1 jetty available at Izmit which belongs to Seka Paper Mills where 2 ships can berth at a time to each side of the jetty.
CRANES: No shore cranes available at the jetty.
BULK CARGO FACILITIES: No bulk cargo facilities. Vessels load minerals on roads, by ship's gear, brought alongside by barges with rate of 800/1,000 tonnes per day, working hours generally from 0800 to 2000.

At the jetty of Seka Paper Mills, working hours from 0800 to 1700 and 1700 to 2400. Generally paper and wood-pulp in bales discharged at a rate of 125/150 tonnes per shift per gang by ship's gear.
SPECIALISED CARGO HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: Private. See also "Bulk Cargo Facilities".

MEDICAL: Hospital and dental facilities are available.
TANKERS: No tanker facilities.
DENSITY: 1020-1022.
FRESH WATER: Available by barge, and small quantities available fro the jetty.
FUEL: Not available at Izmit, can be supplied by barge or coaster fro Istanbul.
FIRE PRECAUTIONS: None.
CONSULS: None.
REPAIRS: No repair facilities.
DRY DOCKS: None.
SURVEYORS: Cargo Inspectors and Surveyors available from Istanb and can be ordered to attend vessel at Izmit.
GANGWAY/DECK WATCHMEN: Not necessary. Ship's gangway use hatches...
HATCHES: Opening/closing hatches to be carried out by the crew.
CUSTOMS ALLOWANCES: Tobacco: 1 carton of cigarettes per wee each man. Spirits: 1 bottle of spirits per week, each man.
CARGO GEAR: Load/discharge effected by ship's gear.
REPATRIATION: Main embarkation/disembarkation Customs an Immigration formalities done at Istanbul but permission/formalities als required from Izmit Customs and Immigration.
AIRPORT: Nearest airport at Istanbul, approx. 130 km. from Izmit.
TIME: Local time GMT plus 3 hours.
HOLIDAYS: New Year's Day, Sugar Bayram for 3 days, Kurban Bayra for 4 days (both religious holidays and dates are changeable every yea 23rd April, 19th May, 30th August, 29th October are National Holiday Saturdays and Sundays official holidays.
POLICE/AMBULANCE/FIRE: Police: 211-10945, Ambulance: 21 11030, Fire: 211-00.
EMERGENCY CO-ORDINATION CENTRE: Police Headquarters: 21 10945.
TELEPHONES: No arrangements exist.
SERVICES: None.
BANKS: Only local banks.
STORING: See "Prelims".
1. Vessels can be stored by barge and truck.
2. Vessels can be stored by barges during loading or dischargin
3. Trucks can proceed alongside at berth.
4. Fork lift trucks not available.
5. Customs facilities required for storing. Agents assist.

SHORE LEAVE: Crew members allowed ashore, no shore pas required.
IDENTIFICATION CARDS: Seaman's Book is sufficient.
REGULATIONS: Nil. No visitors allowed aboard without permission.
DELAYS: No delays expected.
AUTHORITY: Izmit Seka Paper Mills. *Tel:* 211-31630. *Telex:* 3312 *FAX:* 23235, 20074.

MERSIN: 36.47 N. 34.38 E. (See Pla

PORT LIMITS: Inside the lines drawn from 36° 48' 00" N., 34° 37' 00" first 2 miles S.E., then N.E. to the land.
DOCUMENTS:
5 Crew Lists.
4 Passenger Lists.
2 Stores Lists.
2 Transit Cargo Manifests.
3 Inward Cargo Manifests, one of which must be legalised prior arri by Turkish Consulate at loading port; if no Turkish Consulate, sa to be certified by local Chamber of Commerce.
3 Outward Cargo Manifest.
1 each of the Bills of Lading accompanying Manifests.
2 Cargo Stowage Plans.

Ship's Certificates:
(a) Load Line Certificate.
(b) Passenger Ship Safety Certificate (g.r.t. over 150).
Cargo Ship Safety Construction Certificate (g.r.t. over 500).
Cargo Ship Safety Equipment Certificate (g.r.t. over 500).
Cargo Ship Safety Radio-Telegraphy Certificate (g.r.t. over 1,60
Cargo Ship Safety Radio-Telephony Certificate (g.r.t. over 300
Exemption Certificate.
(c) Tonnage Certificate.
(d) Health Certificate.
(e) Derat Certificate.
(f) (According to MARPOL 73/78):
Oil Record Book I (g.r.t. over 150 for tankers, g.r.t. over 400 others).
Oil Record Book II (g.r.t. over 150 for tankers).
Certificate of Complience.

PILOTAGE: Compulsory for all vessels and available 24 hours. Ag orders Pilot through Port Monopoly Administration. Master to cable E notices 48 and 24 hours prior to arrival. Pilot boards vessel with ser boat hoisting red and white flag. Pilot boards vessel outside m breakwater. Shipmaster can use VHF station according to exis international frequencies. Usual international signals for requesting P
ANCHORAGES: Safe anchorage in open roads outside m breakwater.

Prohibited Anchorage:
1. Within the entrance canal of 14 m. depth marked by buoys.
2. Inside the circle of radius 2.5 cables length, with centre lighthouse at 36° 40' 45" N., 34° 38' 45" E.
3. North East open roads outside the line at 80° from green lightho towards the outside line of East breakwater.

RESTRICTIONS: Ships can anchor in open roads outside main breakwater at any time without Pilot. No night time restrictions for entry. Ships carrying more than 50 tons of explosives are not permitted to berth alongside.

The following are not permitted to enter Port:

Vessels over 9.0 m. draft between 16th December and 15th March.

Vessels over 9.5 m. draft between 16th March and 15th December.

Tankers over 12.0 m. draft between 16th December and 15th March.

Tankers over 12.5 m. draft between 16th March and 15th December.

Within main breakwater, ships exceeding 7.0 m. draft, and within the entrance channel, ships exceeding 9.0 m. draft, are not to operate engines. Ships below above mentioned drafts can only sail at low speed, unless force majeure. Ships over 1,000 g.r.t. cannot operate propeller within 50 m. of berths.

HEALTH: Clearance is effected on arrival. Vaccination Certificates to be presented if required. If suspected disease on board, radio Agents full details before arrival. Upon arrival, yellow flag on foremast during daytime, and one red light at top/one white light at bottom during night-time.

RADIO/VHF: Istanbul Radio, call sign TAH, Izmir Radio, call sign TAN, Mersin Radio TAM.

VHF Radio Telephone Channels 24 and 28, call Channel 16. Position of station: 36° 49' 00" N., 34° 36' 00" E.

M/F-R/T frequency: 2,820 kHz, call 2,182 kHz.

M/F-W/T frequency: 516 kHz, call 500 kHz.

Telephone: 9 741 13456, 9 741 23654, 9 741 26765 and 9 741 26766.

Radio messages to be routed to Agent, preferably via Istanbul Radio.

Telex communication always possible with Agent.

VHF communication possible with Agent through Channels 16, 68, 71, 74.

TUGS: 7 tugs available up to 3,200 h.p.

Tug Requirements:

Vessels 500 – 3,999 g.r.t.: One tug.

Vessels 4,000 – 14,999 g.r.t.: Two tugs.

Vessels over 15,000 g.r.t.: Three tugs.

Ship's lines are used.

BERTHING: Priority to Army, food relief and passenger ships. Second priority to Ro-Ro and Container vessels. If no berth available then ships to wait for turn in roads at anchor.

Quay	*Length* (m.)	*Depth* (m.)
No. 1 (Passenger Quay)	150	10.0
Nos. 2 and 3 (Local Trade)	275	10.0
No. 4	160	10.0
Nos. 5 & 6	335	10.0
No. 7 (Dry Bulk)	158	10.0
No. 9 (Containers)	225	12.0
No. 10 (Containers)	175	10.0
No. 11 (Ro-Ro)	40	10.0
No. 12 & 13 (Container)	310	12.0
No. 14 (Dry Bulk)	275	11.0
No. 15 (Dry Bulk)	275	14.5
No. 16	69	6.0
No. 17, 18 & 19	480	6.0
No. 20 & 21	253	12.0
No. 22 (Free Zone)	65	4.0
No. 23 (Free Zone – Oil Terminals)	270 (with dolphins)	9.2
No. 24 (Free Zone)	200	7.5

CRANES/EQUIPMENT: The equipment at the port includes 1 floating crane of 60 tons capacity; 5 quayside container gantry cranes of 40 tons capacity; 17 shore cranes of 3 to 35 tons capacity; 3 reach stackers of 40 tons capacity; 13 rubber tyred transtainers of 40 tons capacity; 18 mobile cranes of 5 to 25 tons capacity; 5 container forklifts of 10 to 42 tons capacity; 46 general cargo forklifts of 2 to 5 tons capacity; 32 tugmasters; 1 loader; 10 tractors; 43 trailers of 40 tons capacity; 9 trailers of 15 tons capacity; 10 trailers of 20 tons capacity and 2 pneumatics of 50 tons/hour capacity.

CONTAINER FACILITIES: The container terminal has 3 berths which have an alongside depth of 12.0 m. The total length of the berths is 710 m. The container terminal covers an area of 251,350 sq.m. The holding capacity at the container yard is 8,474 TEU (full and empty).

Container handling operations at the terminal are carried out by 5 quayside container gantry cranes of 40 tons capacity; 13 transtainers of 40 tons capacity; 3 reach stackers of 40 tons capacity and 5 container forklifts of 10 to 42 tons capacity. There are 2 container freight stations of 9,000 and 1,309 sq.m. Another facility available at the terminal is the provision of reefer facilities for refrigerated containers.

Also see "Developments".

BULK CARGO FACILITIES: Conveyor system available.

Loading rate: 1,200×2 = 2,400 t.p.h.

Discharging rate: 600×2 = 1,200 t.p.h.

Silo capacity: 100,000 tons.

STEVEDORES: Gangs of stevedores secured by the Agent through the Port Monopoly, to be ordered 24 hours prior to arrival, 7 days a week, 24 hours a day service.

Average discharging/loading rates:

100 tons per shift general cargo.

200 tons per shift bagged cargo.

150 tons per shift baled cargo

175 tons per shift bulk ore

Max. rate for ore 400 tons per shift if grab loading.

3 shifts per day (0800 hrs. – 1630 hrs., 1630 hrs. – 0030 hrs. and 0030 hrs. – 0800 hrs.).

Above are ideal rates, and may vary according to kind and stowage of cargo.

MEDICAL: Agent to receive advance notice if urgent medical aid is required on arrival. Hospitals, dental facilities and all other medical facilities are available.

TANKERS: *ATAS Refinery Terminal:* Depth in harbour channel and pier is 14.0 m. Max. LOA 299 m.

Tankers in ballast up to 15,000 d.w.t. may berth/unberth at any time, day or night. Other vessels manoeuvre in daylight hours only.

One finger pier, berths for 2 tankers at one time, 10 in. hose connections to 26 in. shore line. Loading rate 1,000 cu.m.p.h., discharge rate 1,500 cu.m.p.h.

DENSITY: Salt water 1025.

FRESH WATER: Fresh water supplied by barge (100 tons capacity), but otherwise by shore installation at the rate of 15 t.p.h.

FUEL: Most types of marine fuel and lubricants available for delivery to ships.

With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 3382509, 3373686, 3378831, 3360636. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

CONSULS: Belgium, Denmark, Italy, Sweden, United Kingdom.

REPAIRS: Small craft repairs possible.

SURVEYORS: Cargo Inspectors such as Lloyd's, SGS, etc., available.

GANGWAY/DECK WATCHMEN: Available and recommended.

OPENING/CLOSING HATCHES: Owners or Masters to decide whether this work should be undertaken by the stevedores or by the crew.

CUSTOMS ALLOWANCES: 600 cigarettes and 7 bottles wine/spirits per crew member.

CARGO GEAR: Generally shore cranes operated. However, ship uses her own means when such cranes are not available. Full lights to be supplied by ship.

REPATRIATION: Repatriation arranged by Agent.

AIRPORT: Adana Airport, 60 km. from the port, served only by domestic line THY-Turkish Airlines, with routes to Northern Cyprus (Ercan), Ankara and Istanbul, twice a day.

TIME: GMT plus 3 hours.

HOLIDAYS: Republic Day (October 28th afternoon, October 29th); New Year's Day (January 1st); Independence Day (April 23rd); Youth and Sports Day (May 19th); Victory Day (August 30th); Ramazan Bayram (Religious Holiday – 3 days); Kurban Bayram (Religious Holiday – 4 days).

Discharging/loading effected on all holidays except the first two days of Religious Holidays.

Piers in the Free Zone work on holidays.

POLICE/AMBULANCE/FIRE: Telephone numbers: Police 055; Ambulance 13555, 26770, 077; Fire 000.

TELEPHONES: No installation for connection on board.

SERVICES: Special services available through Agents and/or ship chandlers.

STORING: Vessels can be stored by trucks. Trucks can proceed alongside at the berths. Forklifts can be used on the jetty if needed.

SHORE LEAVE: Crew allowed shore leave. Shore passes are issued.

IDENTIFICATION CARDS: Seamen's Book is sufficient.

GARBAGE DISPOSAL: Collection service is available and drums or skips are provided on board. Contact Mesbas Mersin Free Zone Corp. Tel: 90-741-39575.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Turkish Lira (TL).

BANKS: Local/National/International Banks are available.

DEVELOPMENTS: In order to develop the port into a container distribution and collection centre, Berths No. 9 and 10 will be extended by about 270 m. with an alongside depth of 14.0 m. The construction works have already commenced. Berths No. 3 and 6 will be extended by about 175 m. in their own direction with an alongside depth of 12.0 m., and Berths No. 17, 18 and 19 will be expanded with an alongside depth of 12.0 m.

SHIPMASTER'S REPORT: February 1992.

Documentation: The vessel was cleared very quickly whilst at anchor by the Agent and one Customs Officer.

The Ship's Register and all certificates have to be presented to the Harbour Master.

Documents required were: IMO Crew List, Stores Declaration, Personal Effects Declaration, Inward Manifest and Transit Manifest.

Pilotage: The Pilot boards to seawards of the channel buoys, depending on weather, and on departure he leaves at the breakwaters. The pilot cutter has a black hull with white superstructure. There is one pilot on duty at all times and the shifts are from 0000 hrs. – 0800 hrs., 0800 hrs. – 1600 hrs. and 1600 hrs. – 2400 hrs. There are likely to be delays at change-over times.

The pilot is available on VHF Channel 12 throughout 24 hours.

Anchorages: Anchorage is to the S.W. of the breakwaters in position Lat. 36° 46' N., Long. 34° 39' E. This location is clear of the entrance channel. The anchorage is exposed to most winds and the holding ground is poor.

Vessel should be aware of the SPM gantry and storage tanker in position Lat. 36° 45.97' N., Long. 34° 41.35' E. At night, it looks like a normal vessel at anchor with normal decklights and no special navigation lights.

Depth: There is a table indicating drafts in the sailing direction, but this is a guide only and is not rigidly enforced.

The entrance channel inside the breakwaters, the turning area and the channel to the ATAS Oil Jetty is being dredged to 15.0 m. and the channel to the container berths and the Grain Silo Jetty is being dredged to 11.0 m.

When we were alongside Commercial Quay (Berths No.6 and 7), the sounding ranged from 8.4 m. – 10.6 m. (See "Plan").

Tugs: There are 3 modern tugs available, 2×3,500 h.p. and 1×2,000 h.p. Ship's lines are used with the long drift.

When berthing we used 1 tug, and when departing we used 2 tugs. In each case, the centre fairleads were used.

Restrictions: Vessels of less than 15,000 g.r.t. not carrying dangerous IMO rated cargoes can berth and unberth throughout 24 hours. Vessels over 15,000 g.r.t. and all vessels carrying dangerous goods can berth and unberth in daylight hours only (0700 hrs. – 1700 hrs.).

Berths: The container berths are now completed and are dredged to 11.0 m. There are 5 container cranes, 3 on the West Quay and 2 on the East Quay.

The Commercial Quay was very busy. Discharge of vegetable oils from parcel tankers is undertaken at this quay.

On Berth No.4, at the South end of the Commercial Quay, a depth of 10.0 m. is quoted. Vegetable oil tankers can berth at any berth on the Commercial Quay as portable gantries are used, depending on draft.

Cargo: The discharge of vegetable oil is slow.

On our visit, the discharge rate averaged 20 t.p.h. due to the vegetable oil in the road tankers freezing up on the journey to the plant in Andana which is 70 km. away.

Discharge is through 1×4 in. diameter rubber shore hose and ship's reducers, to portable gantry which covers 2 trucks. Each loading hose is 2.5 in. diameter.

If no other ship is discharging vegetable oil, 2 gantries can be provided with individual hoses, joined at the ship's side into 1×4 in. hose.

There are generally long stoppages waiting for trucks.

The maximum discharge rate with 2 gantries and no stops is about 100 t.p.h.

It was difficult to obtain information from the shore as to when trucks would be available.

Medical: Good medical facilities available.

Fresh Water: Fresh water is available at the quay at a rate of 10 t.p.h. Loading is through ship's hoses and no meter is available. The cost is U.S.$ 4.00/tonne.

The cost of water by barge is U.S.$ 5.00/tonne and supply is subject to a 3 mile limit outside the breakwaters. The service by barge is unreliable.

Surveyors: Lloyd's exclusive surveyor available.

Repatriation: Outward visas are required and must be obtained during normal office hours (not Saturday afternoon, Sunday or public holiday). Airport tax is to be paid in the currency of the passport holder (U.K.£ 5.00 or U.S.$ 10.00, German DM, etc.). Most third world countries pay in U.S.$.

Airport: The nearest airport is at Andana, which is the regional capital, and is 70 km. to the N.E. There are many flights to Istanbul and Ankara.

Weather: During Winter, the weather can be poor and there are often high winds from the North and East. Also temperature can drop below freezing at night. During the Summer, the weather is very hot and there are a lot of flies and insects about.

General: The standard of English spoken was fairly good.

The Commercial Quay is within easy walking distance of the city. Leather goods and gold jewelry of good quality are available.

Ship Chandler: Fresh produce is good and cheap when in season.

Waste Oil Disposal/Slops: The Harbour Authority has available a 5 ton road tanker for collection of slops. The charge for the use of this service is U.S.$ 480 for 1 tonne or 20 tonnes. Engine room bilge water only accepted.

AUTHORITY: Turkiye Cumhuriyeti Devlet Demiryollari – Isletmesi Genel, MD, Talatpasa Bulvari, Ankara, Turkey. Telex: 42571. *Tel:* (90-4) 311-30-83. *FAX:* (90-4) 312-32-15. *Cables:* Demiryol.

Turkiye Cumhuriyeti Devlet Demiryollari Isletmesi, Mersin Liman Isletme, Mudurlugu, Mersin, Turkey. *Tel:* (90-324) 233-06-87. *Telex:* 67279 MRSL TR. *FAX:* (90-324) 231-13-50.

MESBAS – Mersin Free Zone Corporation, P.O. Box 399, Mersin Free Zone, Mersin, Turkey. *Tel:* 0-324-233-97-57. *Telex:* 67012 MFZC TR. *FAX:* 0-324-233-97-57. *Contact:* Mahmut Unalmis, Director – Port Operations. Betul Uysal, Assistant General Director.

AGENT: Gulf Agency Denizcilik A.S., P.O.Box 328, Mersin. Turkey. Cable Address: "Gacship" Mersin. Telex: 67141. Tel: (90-324) 2314961. After hours 2315059. Fax: 2320144.

NEMRUT BAY (including Foca): 38.46 N. 26.55 E.

(See Plan)

PORT LIMITS: Nemrut Bay is situated on the South side of the port of Aliaga (See "Aliaga"). It is the area between the mainland and a straight line drawn True North from Kizilburun which is situated in position: Lat. 38° 45' 00" N., Long. 26° 53' 50" E.

The Bay is divided into two areas, the inner port and outer port.

Inner Port: Is the area remaining between the imaginary line connecting the South end of the Petkim Petrochemical Complex's breakwater with Karacadogan Penisula situated in position: Lat. 38° 46' 10" N., Long. 26° 54' 22" E.

Outer Port: Is the area between interior port and Nemrut Bay boundaries.

DOCUMENTS: See "Izmir".

PILOTAGE: Pilotage is compulsory for all vessels arriving at Nemrut Harbour. There are 2 Pilot Stations at Nemrut Harbour.

(A) Petkim Pilot for Petkim Quays and Petrol Ofisi Quay.

Notice of ETA must be reported 72 hours, 48 hours and 24 hours before arrival to the Harbour Master's office at Petkim – Aliaga (Telex No. 51706, 51707, 51709. Fax. No. 0232-6161248, 6162490, 6161439. VHF Channel 16). Time must be in GMT.

VHF Channel 16 is continuously watched at Nemrut Pilot Station and ETA may be confirmed on this frequency.

The address of Pilot Station is as follows:

Petkim Petrokimya Holding A.S.
Aliaga Kompleksi,
Dis Alim Mudurlugu,
Aliaga – Izmir – Turkey
Tel: 0232-6163240 (8 lines), 6161240 (8 lines)
Telex: 51706, 51707, 51709
Cables: Petkim – Aliaga – Izmir.

In the ETA message, the following information must be indicated:

1. Name/call sign of vessel.
2. Nationality.
3. Agency.
4. Length overall, max. draft, gross tonnage, sailing draft and aft loading draft.
5. Nature of Cargo (In IMO).

Rendezvous point with Pilot is: Lat. 38° 47' N., Long. 26° 54' E., outer port. In the event of bad weather Pilot joins the vessel in inne port. Two pilot boats of 210 h.p. are available. Call sign of the boat "TCZJ".

(B) Nemrut Pilot for berths in Nemrut Bay (See "Berthing").

The address of the Pilot Station is as follows:

Uzmanlar Denizcilik Tic. Ltd., STI.
Ali Getinkaya Bulvari No. 2/2,
Alsancak,
Izmir.
Tel: 0232-6251274, 6251275.
Fax: 0232-4637644.

ANCHORAGES: Anchorage in the inner and outer ports is possib However, anchorage within the area of 5 cables diameter of middle interior port boundary is prohibited for safety of sea traffic (See "Plan"

RESTRICTIONS: Mooring to or sailing from the Petkim's Tanker Qua and Ege Gubre's Pier from sunset to sunrise time needs the permissio of Port Administration.

MAX. SIZE: See "Berthing".

HEALTH: See "Izmir".

RADIO: Complete MF/SSB type radio, 1.6 – 4.2 MHz Internation Navigation Code with 31 Channels capacity, radio transmitter 150-35 300-535, 700-1650, 1650-4250 kHz, and a 4 band SSB/AM receiver.

VHF: Communication within 20-25 miles with VHF radio operating 156 – 162 MHz band is possible. International navigational bands a used. Station listens on Channel 16. Call sign: "TAB".

RADAR: No radar facility.

TUGS: 2 tugs of 1,225 h.p. and 2,500 h.p. are available. Tugs normal join the vessel in the outer port. 2 additional tugs of 1,200 h.p. a 2,500 h.p. available in near future.

BERTHING: Quays at port of Petkim Petrochemical Complex situat on the Northern side of Nemrut Bay (See "Plan").

Berth No.	*Name*	*Length (m.)*	*Depth (m.)*	*Remarks*
1	Tanker Quay	163	7	Load/discharge lines:
2	Tanker Quay	175	10	6 in., 8 in., 10 in., 12 in. Constructed for loading/discharg various chemicals such as ammonia, benzene, fuel oil, ethylene oxide, ethylene glycols, chloric hydrocarbons, wash oil.
3	Caustic Quay	60	6	Loading lines: 8 in. for caustic, 4 for hypochloride.
4	Naphtha Quay	90	14	Out of service.
	Salt Quay	190	6	Constructed for discharge of salt be used at Chlorine Alkali Plant.
5	Tanker Quay	285	13	Load/discharge of naphtha, benzene, ammonia, caustic, fuel oil.
6	General Cargo Quay	338 (175+163)	10 – 7	Constructed for loading/discharg various petrochemical raw materials, products and equipme
	Petrol Ofisi Quay			Loading petroleum products.

Quays on the Eastern and Southern side of Nemrut Bay (See "Plan"

Ege Gubre Pier	122.90	12 – 14	Private jetty constructed for discharging/loading raw materia and products of fertiliser facility Rate 1,000 tons/day.
Limas Pier	154	12	Private jetty constructed for discharging/loading iron scrap iron products of Ironworks in Izmir.
Cukurova Pier	167	15	Private jetty constructed for discharging/loading iron scrap products of Ironworks in the si Also see "Shipmaster's Repor dated October 1992.
Nemtas Pier	210	7-21	Private jetty constructed for loading/discharging iron and s products of Ironworks at site.
Habas Pier	220	10-20	Private jetty for loading/ discharging iron and steel products.

CRANES: Fixed/mobile cranes are available at Petkim Petrochem Complex.

Lifting capacity of 2 cranes at Salt Quay is 3 tonnes each. Sa transferred by conveyor belt to the plant. One mobile crane of 270 to lifting capacity, 2 mobile cranes of 150 tonnes, 2 mobile crane 110 tonnes and 55 mobile cranes of 12 – 30 tonnes lifting capacit available.

Nemtas and Cukurova have mobile crane facilities. Limas has 2 cranes each with 10 tonnes lifting capacity. Ege Gubre has 1 × 1 crane.

BULK CARGO FACILITIES: See "Berthing" – Salt Quay and Ge Cargo Quay.

SPECIALISED CARGO HANDLING FACILITIES: Loading discharging lines of liquid chemicals available at Port of Petroche Complex (See "Berthing").

MEDICAL: Hospital near Petrochemical Complex.

TANKERS: See "Berthing".
FRESH WATER: Available at Petkim's Quays, Ege Gubre and Limas.
FUEL: Available at Petrol Ofisi Quay.
CARGO GEAR: Load/discharge can be effected by mobile cranes at General Cargo Quay (See "Cranes").
AIRPORT: Izmir Adnan Menderes Airport is approximately 75 km. from Petkim Petrochemical Complex.
TIME: GMT plus 2 hours in Winter. GMT plus 3 hours in Summer.
HOLIDAYS: *Official:* January 1st, April 23rd, May 19th, August 30th, October 29th.
Religious: "Bayram" days (Id-al-Fitr: 3 day, Id-al-Adha: 4 days) of Muslims (These dates are subject to visibility of new moon at Mecca).
POLICE/AMBULANCE/FIRE: Petkim has its own protection and medical units.
TELEPHONES: Available for national and international calls at Petkim.
BANKS: T. C. Ziraat Bankasi, Turkiye Is Bankasi, Akbank, Emlak Kredi Bankasi and Vakifar Bankasi in Petkim site.
SHORE LEAVE: Petkim's permission is needed at Petkim Quays.
IDENTIFICATION CARDS: The list of personnel leaving/joining the vessel should be announced to Petkim.
GARBAGE DISPOSAL: *Petkim:* Service can be ordered through Port Authority. Call "Nemrut Pilot" on VHF Channel 16. Service is free of charge provided vessel has Garbage Disposal Certificate, otherwise U.S.$ 45 per 1,000 g.r.t..
WASTE OIL DISPOSAL: *Petkim:* Ballast line available to waste treatment plant for ballast and slop disposal. Service is free of charge provided vessel has Disposal Certificate, otherwise U.S.$ 60 per 1,000 g.r.t..
SEAMAN'S CLUBS: None. Usual local facilities.
GENERAL: Piers and facilities at Nemrut Bay are owned by industrial companies located in this area.

SHIPMASTER'S REPORT: July 1980 (Updated 1992).
Port of Foca: Vessel discharged ammonia.
Approach: Charts: BA 1087, 1618.

The approach presents no real difficulties since good positions may be obtained from the coast either by radar or visual bearings. There was some haze on our approach but it did not pose a serious problem.
Berth: Consists of an "L" shape with the jetty being 125 m. in length. Distance to the foot of the jetty being about 300 m. The jetty is of concrete construction, standing on pilings and is fendered throughout with large tractor tyres. Ample mooring posts, although arrangements are not good for a vessel of this size.

There is a conveyor belt running the length of the jetty and to the shore plant. Two loading hoppers on the jetty. The Chicksan consists of a tall crane-like structure which is swung into position.

Connection: 6 in. 300 ASA. Shore provides 10 in./6 in. 150/300 reducer. The gangway may be swung out prior to arrival.
Density: 1028.
Discharge: Co-operation with the shore personnel very good, especially with the senior operators and managers. At a lower level language is the only problem. Shore personnel connect lines.
General: Fresh Water: Not available. (A vessel that visited at a later date reported that fresh water of good quality was available (metered) from a line amidships).

Fuel: Not available.

Officials: Officials are located in Nemrut Bay.

The same cargo surveyor attends the vessel at Gemlik, Foca and Mersin.

Since this was the second port of call in Turkey the vessel is issued with a travelling manifest to cover cargo and a carrier for ship's stores. The procedure differs from port to port but ship's bonded stores are sealed from arrival Turkey to departure, although visiting Customs enter on arrival at a port. We did not have any trouble requesting the bond to be opened prior to departure.

Doctor: Available at 20 minutes notice.
Repairs: Not possible.
Surveyor: Available.
Chandler: Available.

SHIPMASTER'S REPORT: September 1980.
Port of Foca:

To be read in conjunction with the previous report.
Approach: From the North (Dardanelles). 10 miles can be saved by going down 'Muslim Kanali' and 'Stenon Mitilimis' to the East of Nicos Lesvos (BA 1665) instead of going to the West of Lesvos.

There is one narrow spot but in two transits during September 1980 presented no problems at full speed. There is little traffic.

Southbound: Keep to North side of Muslim Kanali about 0.5 miles off Turkish coast to avoid Muslim Kaya shoals (beware of Southerly set).

Northbound: Once past Muslim Kaya shoals, turn W.S.W. to avoid any Eastbound traffic round Baba Burnu then 3 miles off Baba Burnu as required.

A further 8 miles can be saved from Dardanelles to Foca by using the channel to the East of Boscadda Island (BA 1608). The problem here is the shallow bank which may require a speed reduction. Not yet tried but the Pilots say quite safe. Approaching Nemrut Liman plenty of fixes can be obtained. With a Northerly or North Easterly wind the bay acts as a funnel and a considerable indraught occurs so care should be exercised so that the vessel does not get set in.

B.A. Chart No. 1618 should be held.

Approaching Nemrut Liman the construction work and breakwater at 'Petkim' refinery on the North side of the bay is soon apparent although at present the earthworks and tanks tend to blend in with the rather barren landscape.

The whole peninsula between Nemrut Liman and Aliaga Liman is in the course of development for a very large Petrochemical complex.

On the South side of the bay is a general cargo berth to seawards and the fertiliser/ammonia facility at the head of the bay. This facility is marked by a silver-pressure vessel. The Ammonia facility remains hidden by high ground until near the berth.

The vessel can be turned round inside the bay with ease in winds up to N.E. Force 4.
Pilots: Available on 24 hour basis from Aliaga Refinery. Boards either from tug or mooring boat. Gangway/pilot ladder should be 2 m. above water. Side depends on wind.

Pilot boards 1 mile N.W. of Karacadogan Burnu. He either drives across the peninsula to the new chemical berth and boards his boat there or comes by tug around the peninsula from Aliaga Refinery. On VHF Channel 16 when vessel expected. Reasonable English spoken. Pilotage one hour.
Tugs: Three tugs available. Two of 2,400 h.p. from Aliaga Refinery and one of 1,200 h.p. at the new chemical berth.

If there is any wind at all in the bay, two tugs are required both for berthing and unberthing. These should be ordered well beforehand through the Agent.

In my opinion two tugs are required at all times. Ship's lines used.
Berthing: Although on a 24 hour basis, I would not be keen to berth at night especially in Winter months due to the strong Northerly wind pushing vessel onto the berth.

Can berth port or starboard side alongside. For this size vessel (32,000 g.r.t.) port side to is the most suitable as leaving the berth is not hazardous as possibly starboard side to would be.

Vessel headed into berth at 90° with bow onto the N.W. corner. When about 2 cables off starboard anchor let go and the stern pulled round by tug.

Make sure stern tug (when vessel parallel with quay) pulls on starboard side otherwise stern will strike quay (September 1980).
Moorings: (See "Plan"). Back spring first forward, starboard buoy line first aft. Mooring boat available.
Berth: The fendering arrangements are poor. Consisting of large tractor tyres. The main problem is at the corners or knuckles where the tyres are strung too low to stop the bow or counter flare hitting the concrete (September 1980).

Protest noted in September 1980 about fenders. Operators say they will raise fenders and offer protection at corners.

Maximum air draft 14 m. in September 1980 call, we used the low loader, which was very beneficial.
Discharge: A discharge rate of 150 t.p.h quoted. Around the 200 t.p.h. is normal. July and September 1980.

On completion the shore personnel drain their line direct into the sea. All personnel engaged in uncoupling must wear full breathing sets. Cargo Engineer and Officer of the Watch went through three bottles each. (September 1980).

The facility has a storage capacity of 2,800 tonnes and a monthly consumption of about 1,500 tonnes.

Phosphoric and Sulphuric acids are also handled.
General: If second or third port, vessel issued with travelling manifest from previous port to cover cargo and ship's stores.

Be careful to retain Turkish Light Dues Certificate, if last port, for next Turkish call.

In addition to travelling manifests other papers required:
2 Crew Currency Lists.
2 Crew Declarations.
6 Crew Lists.
1 Vaccination List.
1 List of Cash in Ship's Safe.
1 Health Declaration.
2 Lists of Ship's Particulars (Turkish Form).
2 Lists of Previous Ports.
6 Copies of Cargo Manifests (to be stamped at previous port if Foca second or subsequent port).

SHIPMASTER'S REPORT: October 1987.
Chart: B.A. Chart No. 1618.
Documents:
8 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
8 copies Cargo Manifest.
Approaches: Good positions are obtained on approach. Crude carriers generally berth in Aliaga Bay, product and gas vessels in Nemrut Bay.
Pilotage: Pilot is based at the Dock Office of the Petkim Refinery in Nemrut Bay. Pilots also undertake berthing at other Nemrut Bay berths.

Pilotage is available 24 hours but in general pilotage not available between the hours of midnight and 0600 hrs. for berthing.

Pilot boards from a small black hulled cutter. Excessive use of the tug and anchor was made.

The Pilot boards 0.5 miles west of FL.R. light on Petkim Breakwater.

Prior to arrival Pilot may be contacted by Telex No. 607 53950 PETE TR and on approaching may be contacted on VHF Channel 16.
Anchorage: There is a prohibited anchor circle on BA. Chart No. 1618 but this does not seem to be observed. We found a good anchoragecables west of the FL.R. light of Petkim Breakwater. In October 1987 there were many ships at anchor.
Tugs: There are two tugs on standby (1 x 1500 h.p. and 1 x 2,500 h.p.) at Petkim Dock and they require 15 minutes notice. Ship's lines used.
Berthing: At Petkim Refinery in Nemrut Bay there are 6 berths. There are 3 berths for product and gas ships. 1 berth for Naphtha (vessels berth stern to), 1 berth for caustic soda and 1 general cargo berth. The two product berths are on the N.W. side of Petkim Dock and the general cargo berth is on the S.E. side.

The water depth in the dock is about 30 ft. although there is more water at the outer end.

The product berth which is on the outer side of the N.W. breakwater was damaged by Winter storms and was out of use.

We berthed head in port side to at the product/gas berth and used the offshore anchor. Moorings consisted of 2 head/stern lines, 1 breast line and 2 springs at each end. The berth was well fendered. Ship's gangway used.

Cargo: A full range of gases are handled for import and export, including ethylene. Also many chemicals and products are handled.

We discharged propylene with back pressure of 12 Bar (Maximum back pressure allowed 20 Bar) at 50 t.p.h., heater discharge to +5°C. We used a 6 in. Chicksan arm for liquid and a 4 in. hose for vapour return line.

We believe 4 x 4,000 cu.m. spheres used for storage of pressure gases. The Terminal and Surveyor were very helpful. Hot vapour pumped ashore on completion. The English spoken was fair.

Fresh Water: Fresh water is available from Petkim Dock and at a good rate. Shore hoses used.

General: Nearest airport is at Izmir with flights to Istanbul and Ankara.

Ship chandler available locally.

There are 4 berths on the West side of Nemrut Bay. One berth being for ammonia (Foca) and 3 for steel, scrap and finished exports.

SHIPMASTER'S REPORT: October 1992.

Berth: Cukurova Jetty.

Cargo: 46,000 tons of scrap steel.

Documents: Copies of all the ship's main classification certificates, including the IOPP Certificate. All certificates must be valid.

6 Crew Lists.	1 Cargo Plan.
2 Crew Declarations.	1 List of Medical Drugs and Narcotics.
2 Bonded Stores Lists.	Photostat of the Master's Passport.
2 General Declarations.	

General: On arrival, no berth was available for our 60,000 ton displacement vessel, which was the largest to enter here. In order to offset harbour dues, which for our ship was $ 17,000, we dropped anchor in position outside of port limits in 38° 45.8' N., 27° 53.2' E. (B.A. Chart No. 1618). Northwest winds were strong at times, up to Beaufort Force 7, but even with 8 shackles of chain out the ship held well. The sea bed was found to be light grey ooze/mud.

Density of the water was found to be 1028.

Berthing at Berth No. 4 was done with the assistance of 2 tugs of 1,200 h.p. and 2,200 h.p. All vessels drop the outboard anchor prior to coming alongside.

The jetty is well fendered, and as our vessel was 213 m. LOA, and the berth being 185 m. in length, quite a considerable overhang had to be made to allow vessel alongside. Mooring is assisted with the aid of a lineboat.

The depth of water was sounded after berthing and found to be 30.0 m., forward and aft.

Cargo operations were very fast. Shore labour drove the vessel's 6 cranes, and daily discharge was rated at 5,000 tonnes per day. The cargo is dropped into adjacent hold hoppers on the jetty and into awaiting trucks. Damage to the ship was minimal, but whatever was noted, was repaired by Cukurova's own welders prior to departure.

The grabs for the crane of approximately 4.0 cu.m. are also supplied by Cukurova, and these are electro-hydraulic type, the power source being derived from the ship's power supply of 440 V., to junction boxes at each hold. Care must be taken with the run of electric cables being subject to rupturing by falling scrap metal.

NOTE: The vessel must sail within 2 hours of the completion of the final draft survey, otherwise the ship will be charged with a further day's port dues.

Fuel is available by barge from either the Petkim Jetty or from Istanbul, but plenty of notice is to be given.

Fresh water is available at the anchorage, at $ 20.00 per ton. At the berth, it is available by truck at prices ranging from $ 3.00 – $ 10.00 per ton, depending upon the chandler.

Provisions are plentiful, especially local fruits, vegetables, etc., but imports are expensive.

In our case, we had to have hydraulic hoses made up for the cranes at 300 Bar pressure, and these were very expensive.

There are no medical facilities at Nemrut Bay, the nearest being in Aliaga, 20 minutes drive from the berth.

Nemrut Bay is strictly a steel work jetty/works. There is nothing else here, nor is there any connected telephone lines, but Agents are equipped with mobile telephones for communications. Other than that, there is always Aliaga Radio on VHF, which is quite good.

FINAL NOTE: There is no limitation as to how much liquor or tobacco the crew have. Customs Officers will seal the bond on arrival, and will not open the same until the vessel is about to sail, when they will ascertain that the declared contents have remained in tact.

AUTHORITY: Petkim Petrokimya Holding A.S., Genel Mudurlugu, Aliaga, Izmir, Turkey. *Tel:* 0232-6163653 (Port Director's personal telephone). *Telex:* 51706, 51707, 51709. *Cables:* Petkim, Aliaga, Izmir, Turkey. *FAX:* 0232-6161248, 6162490. *Contact:* Mr. Semih Timocin, Port Director/Harbour Master.

SAMSUN: 41.21 N. 36.34 E. (See Plan)

DOCUMENTS:
6 copies Crew List.
6 copies Passenger List (if any onboard).
Customs:
2 copies Crew List.
2 copies Stores List.
2 copies Personal Effects List.
Health:
Valid Derat Certificate.
Maritime Declaration of Health.
1 copy Crew List.
Immigration:
2 copies Crew List.

PILOTAGE: Harbour Pilot compulsory for all foreign vessels. Orde by Agent subject to vessel's advance notice of ETA.

ANCHORAGE: Good anchorage in the Outer Harbour.

VHF: Samsun Radio (TAF) on Channel 16.

TUGS: 4 tugs abvailable. 1×970 h.p., 1×450 h.p., 1×1,500 h.p. an 1×2,480 h.p.

Vessels over 500 g.r.t. are required to use 1 tug.

Vessels over 4,000 g.r.t. are required to use 2 tugs.

BERTHING: Harbour protected by two breakwaters, entrance wid 200 m., depth 11.9 m.

Berth No.	*Length* (m.)	*Depth* (m.)	*Remarks*
1, 2	326	10.5	Dry Bulk
3	150	10.5	General Cargo
4, 5	300	10.5	General Cargo, Passenger, Ro-Ro
6, 7	400	12.0	General Cargo
9	400	6.5	General Cargo
10	180	6.0	General Cargo

CRANES/EQUIPMENT: 17 shore cranes of 3 – 35 tons capacity; 2 yar cranes of 10 tons capacity; 8 mobile cranes of 5 – 25 tons capaci 20 general cargo forklifts of 2 – 5 tons capacity; 2 tugmasters; 1 loade 4 crawler cranes of 8 – 10 tons capacity; 5 tractors; 3 trailers of 40 to capacity; 6 trailers of 20 tons capacity and 1 pneumatic of 50 tons/ capacity.

CONTAINER FACILITIES: The port has ample storage areas containerised cargo. Containers are loaded and discharged by a gener purpose shore crane of 35 tons capacity.

BULK HANDLING FACILITIES: There are berths serving dry bu cargoes with a length of 326 m. and with alongside depths of 10.5 An ore conveyor system at the port operating at a rate of 700 t.p.h. available for vessel loading.

STEVEDORES: Available 24 hours, 7 days a week in 3 shifts:
1st shift: 0800 hrs. – 1630 hrs.
2nd shift: 1630 hrs. – 0030 hrs.
3rd shift: 0030 hrs. – 0800 hrs.

DENSITY: 1013, but changes according to season.

FRESH WATER: Available from the quay.

FUEL: Available.

With 48 hours notice Petrol Ofisi can supply marine fuels and lubrica (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 33825 3373686, 3378831, 3360636. Mailing address: Petrol Ofis Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

REPAIRS: Minor repairs possible.

SURVEYORS: Available.

GANGWAY/DECK WATCHMEN: Usually ship's crew and shi gangway.

OPENING/CLOSING HATCHES: Usually by ship. Can be carried by shore personnel is required by Master.

CERTIFICATES: Safety Construction, Safety Equipment, Load Li Safety Radio, Hull Class, I.O.P.P. and International Tonnage Certifica are required. Garbage Pollution Prevention Certificate, if vessel has o

CUSTOMS ALLOWANCES: 10 packets of cigarettes per man, per we and 1 bottle per man per week.

POLICE/AMBULANCE/FIRE: Available in the port.

AIRPORT: Distance 5 km.

IDENTIFICATION CARDS: All Passports (except Master's) are collect by Immigration in exchange for shore pass during vessel's stay in Port.

WASTE OIL DISPOSAL: An oily water separator system is availa with a capacity of 6,700 cu.m./year.

DEVELOPMENTS: New bulk cargo quay under construction. Len 500 m., depth 12 m.

SHIPMASTER'S REPORT: October 1993.

Agents: The Agents (located in Istanbul) were found to be helpful a make all arrangements for Pilots for Dardanelles, Bosphorus and p entry.

A representative from Istanbul remains in the port for the duratio the vessel's stay.

Agents maintain VHF watch on Channel 16 throughout the vess stay during working hours and at other times when vessels are expec or by arrangement.

Communications: Arrival Notices were sent through the Agents, made arrangements for Pilots and berthing.

VHF contact was attempted about 2 hours before arrival at anchorage, but no reply was received until about 6 miles (30 minu off, when contact was made with the Agents.

Pilots for transit of the Dardanelles and Bosphorus were reques through the Agents and Pilot Stations.

Approaches: B.A. Chart No. 1274.

Found to be as charted, the breakwaters are a good radar targe

Anchorage: The bottom on approaching is steep to, and anchorage and North of the inner harbour entrance would be on a steep rising b

This vessel anchored about 7 cables from Kuzey Menderik (bearing 310°(T) and lay comfortably overnight in calm weather. The recommended that large vessels anchor about 6 cables S.E. o harbour entrance.

Small local vessels anchor within 1 cable of the Dogu Menire close in fact that it was considered from their radar echoes at nigh they were wrecks.

Pilotage: The Pilot boards at the anchorage and will check the dr deep draft vessels before boarding.

For large vessels, tugs are made fast forward and aft using s lines, immediately after weighing anchor.

Large vessels are handled carefully and it is likely that both or anchors will be used to stop the bow swinging at some time durin approach to the berth.

On departure, 2 tugs are also used with ship's lines, the ste being let go after turning round in the harbour and the forward tug let go between the breakwaters.

This vessel berthed port side to the Industrial Quay (See "Pla

Depths: Maximum draft for the port is 10.5 m., checked by the Pilot before boarding.

The echo sounder showed 0.7 m. under the keel at a draft of 10.42 m. at a point between the breakwaters, off Dogu Mendirek Head.

Depths in the harbour were not recorded due to very poor echo sounder trace, but would appear to be not much more than 11.0 m. at any point.

The depths alongside the Industrial Quay were checked by hand sounding line and showed 10.0 m. at a point about 300 m. from the North end of the quay (See "Plan").

The density of water at draft survey alongside was 1011, but the surveyor gave his opinion that outside it was closer to 1025.

Clearance: Mainly carried out by the Agent. Only Customs and Immigration officials boarded and clearance given with the minimum of fuss.

Shore passes are issued for each crew member and passports are taken by Immigration, and are returned before departure when the shore passes are handed in.

Bonded stores are sealed.

The Agent requests photocopies of certificates after arrival, to complete the clearance ashore:

1 copy Tonnage Certificate.
1 copy Safety Equipment Certificate.
1 copy Safety Construction Certificate.
1 copy Load Line Certificate.
1 copy Safety Radio Certificate.
Minimum Safe Manning and Class.
4 copies of I.O.P.P.

Clearance Outward is similarly civilised, the bond stores remain sealed until the vessel clears the Dardanelles, unless calling at other countries in the Black Sea.

Berth: Industrial Quay: The quay is equipped with one crane of 35 tonnes SWL, one crane of 5 tonnes SWL and 3 cranes of 10 tonnes SWL. The 10 tonne cranes are fitted for grab discharge and single lift and the others are single lift.

Cargoes handled on this quay are bulk, containers and scrap.

Containers are stored on the North end of the quay and are removed either by road or rail and are loaded using the 35 tonne crane.

Grabs are available for handling bulk and scrap with the shore cranes, and grabs are available for use on ship's gear provided they are not in use elsewhere.

The face of the quay is protected by tyre fenders around a wooden core at about 50 m. intervals, some of which are missing, the spaces between by single tyres.

Height of the quay above the water is 1.8 m.

The cranes are close to the dock side and all overside projections should be brought inboard before berthing.

A rail-ferry ramp has been constructed at the North end of the Industrial Quay with an associated berth on steel piles, extending about 200 m. Northwards (See "Plan"). The ramp can be raised and lowered over approximately 5.0 m. range to a height of about 5.0 m. above water level with hyraulic rams, and is connected to the railway system by a single track. It can also be used for road transport. Depths alongside this berth were not checked.

Works in progress (1990), marked on the chart at the Southern end of the Inner Harbour, have not progressed and the Agent reported that nothing was proposed for the area in the near future.

Ship Chandler: There is no official chandler in the port, but fresh provisions can be arranged locally through the Agent. Istanbul chandlers will supply at Samsun, generally through local suppliers for available produce, but prefer to supply when passing through the Bosphorus, which avoids transport charges. Local supplies are limited and if possible it is better to take stores passing Istanbul.

Fresh Water: Available from the berths, the reported price being U.S.$ 7.50/tonne.

Ship's Spares and Mail: Shipped in by airfreight to Istanbul and took a week to clear Customs and arrive on the vessel. It was expected that the vessel was to load at another Black Sea port, otherwise this consignment would have been left at Istanbul for delivery on passing through the Bosphorus. Mail could have been sent to Samsun, but in this case it was covered by the same manifest as the spares.

Surveyors: Lloyd's and other class surveyors are available from Istanbul. Draft surveyor for cargo also comes from Istanbul.

Cargo Work: Discharge of 38,600 tonnes of coal in bulk was carried out using grabs on shore cranes, initially landing direct to trucks, but later landing on the quay to be loaded into trucks by payloader.

A daily rate of about 4,000 tonnes was achieved using all 3 bulk cranes for most of the time, except for about 2 days when another vessel was discharging.

Best day's work with 3 cranes was 5,618 tonnes and worst day was 3,221 tonnes. There were numerous delays for grab and crane breakdowns and a short delay for fog.

Cargo working is 24 hours in three shifts.

Payloaders for use on board and on the quay were provided by the receivers.

It was reported that this was an exceptionally good out-turn rate, the receivers spending a good deal of time and effort in persuading the stevedores to work as hard as possible.

Discharging rates are quoted by the Agent as U.S.$ 6.00 per tonne for bulk cargo and U.S.$ 8.00 per tonne for general cargo, with no difference for overtime or weekend working.

Discharge was delayed due to Customs problems as the cargo was to be removed from the Industrial Quay bonded area for storage in another bonded area and documentation had to be arranged.

All trucks were passed over a weighbridge before leaving the Industrial Quay area, the shore figure arrived at from this weighing was about 100 tonnes short of the draft survey figure. However, at a rough estimate, about this amount remained on the dock side on the vessel's departure.

Departure: Vessels are allowed 3 hours alongside after completion of cargo before penalty charges are imposed. This will be extended if the Pilots will not take the vessel out in darkness.

Generally arrival and departure is in daylight only, but it is at the Pilot's discretion if vessel movements are undertaken during darkness.

Time: GMT plus 2 hours. GMT plus 3 hours from last Sunday in March until Saturday before last Sunday in September.

AUTHORITY: Turkiye Cumhuriyeti Devlet Demiryollari Isletmesi, Genel Mudurlugu, 55100 Samsun, Turkey. *Tel:* 90-362-4357616. *Telex:* 82172 TCSL TR. *FAX:* 90-362-4317849.

SINOP: 42.01 N. 35.08 E.

DOCUMENTS: See "Izmir."
PILOTAGE: Not available.
ANCHORAGES: Good anchorage in front of pier in 9 m. – 18 m.
RADIO/VHF: Sinop Radio. Call sign TAD2.
BERTHING: One pier, length 180 m. Max. draft 7.5 m.
STEVEDORES: *Working Hours:* 0730 – 1700 hrs.
MEDICAL: Facilities available.
DENSITY: 1025.
FRESH WATER: Available.
CONSULS: None.
REPAIRS: Possible.
REPATRIATION: Not possible.
AIRPORT: At Samsun, distance 190 km.
TIME: GMT plus 2 hours.
AUTHORITY: Sinop Liman Baskanligi, Sinop, Turkey. *Tel:* 90-36-61-2990. *Telex:* 82414. *Contact:* Mr. Hamdi Ersavas.

TEKIRDAG: 40.58 N. 27.31 E. (See Plan)

LOCATION: The area contained by the direct line connecting Kocaburun (Lat. 40° 50' 42" N., Long. 27° 27' 30" E.), and the point where Derince River meets the sea (Lat. 40° 59' 57" N., Long. 27° 39' 5" E.).

Port Borders:

Internal Port: The area contained by the direct line connecting the point where the Barbaros River meets the sea (Lat. 40° 54' 18" N., Long. 27° 27' 58" E.), and the point where the Kayikoy River meets the sea (Lat. 40° 59' 08" N., Long. 27° 34' 40" E.).

Outer Port: The sea area between the internal port and the port borders.

PILOTAGE: Available throughout 24 hours.
ANCHORAGES: Vessels can anchor in the Inner and Outer ports.
MAX. SIZE: Draft 4.0 m – 10.0 m.
VHF: Tekirdag Radio (TAB) on Channel 16 throughout 24 hours.
TUGS: 1×540 h.p. and 1×1,150 h.p. tugs, and 1×220 h.p. and 1×180 h.p. service boats available.
BERTHING:

Quay No.	*Length* (m.)	*Depth* (m.)
1	104.5	5.0 – 7.2
2	97.0	7.0 – 7.7
3	75.5	6.8 – 7.2
4	60.0	5.3 – 6.2
5	343.0	4.0 – 10.0
6	325.0	5.0 – 10.0
7 (Grain)	679.0	12.0

CARGO HANDLING EQUIPMENT:

Equipment	*No.*	*Capacity* tons
Shore Cranes	2	3
" "	1	5
Mobile Cranes	1	35
" "	1	20
" "	1	10
" "	1	5
Forklifts	1	10
"	2	6
"	2	3
"	2	1.5
Tractors	3	—
Tug Masters	6	10
Loaders	2	1
Pneumatics	4	50 t.p.h.
"	6	20 t.p.h.

STEVEDORES:
Working Hours:

	First Shift	Second Shift	Third Shift
Start	0800	1700	2400
Break	1200 – 1300	2000 – 2100	0200 – 0300
End	1630	2400	0800

FRESH WATER: Available at all berths, rate 40 t.p.h. Cost is U.S.$ 18.20 per ton.
FUEL: Not available at berth. Deliveries possible by road tanker or barge.
TELEPHONES: *Useful Numbers:* Ambulance 2625355. Customs 2612024.
GARBAGE DISPOSAL: Garbage disposal service is available. Drums are provided if required. Charges are as follows:

	Cost (U.S.$)/1,000 g.r.t.	*Cost (U.S.$)*	
Method of Service	*Vessel*	*Barge*	*Container*
On Quay	40	12	2
At Anchor	70	12	2
Road Vehicle	2		

WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: There is no seaman's club operating in the port, but the port is situated near the city, and all shopping, international telephone, some sporting activities, dances, transportation, and postage facilities are available there.
CURRENCY: Turkish Lira (TL). U.S.$ 1.00 = 65,000 TL (1.3.96).
AUTHORITY: TDI, Tekirdag Liman Isletmesi Mudurlugu, Tekirdag, Turkey. *Tel:* (0282) 2612255. *Telex:* 22860. *FAX:* (0282) 2612346. *Contact:* Rasim Sinel, Port Director.

TRABZON: 41.01 N. 39.46 E. (See Plan)

PORT LIMITS: The one-mile imaginary line drawn in the Northern direction between the Hacibesir Stream (Latitude 41° 00' 15" N., Longitude 39° 39' 28" E.) and the Hopsi Cage (Latitude 41° 00' 45" N., Longitude 39° 48' 07" E.).
PILOTAGE: Refer to "Canakkale" and "Istanbul".
Harbour Pilot compulsory for all foreign flag vessels and available 24 hours. Arranged by Agent subject to vessel's notice of ETA in advance.
ANCHORAGE: In the Outer Harbour off the breakwater.
MAX. SIZE: Vessels up to 9.5 m. draft.
RADIO: Trabzon Radio. Call sign TAO.
VHF: Pilot on Channel 16.
TUGS: 1×2,500 h.p. and 1×800 h.p. Towage compulsory for vessels over 500 tons. Vessels over 5,000 g.r.t. require 2 tugs.
BERTHING:

Quay No.	*Name*	*Length* (m.)	*Depth* (m.)
1	The Large Quay	400	9.0
2	General Cargo	300	10.0
3	Container Quay	280	10.0
4	Ore Quay	290	11.5
5	Ro-Ro Quay	25	9.5
6	Sub-quay	30	9.5
7	Fisherman's Quay	200	3.0

BULK HANDLING FACILITIES: Grain handled at the Main Quay using 2 rail mounted loaders. One grain silo with capacity of 10,000 tonnes and one grain silo with capacity of 20,000 tonnes.
CRANES:
Shore cranes:
6 3 tons
1 × 5 tons
2 × 10 tons
1 × 30 tons
Container crane:
1 × 35 tons
Mobile cranes:
1 × 25 tons
8 × 10 tons
2 × 3 tons.
STEVEDORES: Working hours: First shift 0800 – 1600 and 1600 – 2400. Meal break 1200 – 1300.
TANKERS: *Shipmaster's Report:* August 1992.
Tanker Berths: The mooring buoys are located to the East of the City (See "Plan").
Products Handled: Berth No. 1 – Fuel oil. Berth No. 2 – Kerosene, gasoline and gas oil. If discharging to Shell, only 2 grades of clean products are handled.
Depth: Reported to be 31.0 m.
Mooring: Two anchors with 6/7 shackles on each and 6 mooring lines to buoys on each quarter, 100 m. off when in position.
Discharging: 1×8 in. stern discharge for kerosene.
Rate: 350/400 cu.m./hr.
Pressure: 4 kg./N.
Distance to Shore: 800 m.
Vessel: 20,000 d.w.t., LOA 161 m.
Pilot: Not available. A small fishing boat indicates position for dropping anchors.
Tugs: Not available.
Communications: Difficult. Trabzon Radio only replies to Turkish vessels.
Provisions: Available.
Fresh Water: Not available.
FRESH WATER: Obtainable from the quay, rate 20 t.p.h. – 30 t.p.h.
FUEL: Fuel oil obtainable in limited quantities.
With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 3382509, 3373686, 3378831, 3360636. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.
REPAIRS: There are no repair facilities.
GARBAGE DISPOSAL: Garbage disposal service is available. Drums are provided if required. Charges are as follows:

	Cost (U.S.$)/1,000 g.r.t.			
	Flag of Ship		*Cost (U.S.$)*	
Method of Service	*Turkey*	*Others*	*Barge*	*Container*
On Quay	16	45	6	0.70
At Anchor	30	90	6	0.70

WASTE OIL DISPOSAL: Waste oil disposal service is available. Charges are as follows:

	Cost (U.S.$)/1000 g.r.t.	
	Flag of Ship	
Method of Service	*Turkey*	*Others*
On Quay	20	60

Facilities include two oily water separators of 2 tons per hour capacity and shore tank of 100 tons capacity.
Contact: Tel: 031-11156. Telex: 82150 TRDZ. Fax: 031-21004.

SEAMAN'S CLUBS: There is no seaman's club operating in the po but the port is situated near the city, and all shopping, internation telephone, some sporting activities, dances, transportation, and postag facilities are available there.
CURRENCY: Turkish Lira (TL).
DEVELOPMENTS: One quay of 400 m. length near completio Depth alongside 10 m.
AUTHORITY: Ports Management, Trabzon Liman Isletmesi Mudurlug Trabzon, Turkey. *Tel:* (462) 3211156, 3211157, 3262367. *Telex:* 8315 *FAX:* (462) 3211013. *Contact:* Muhsin Yavuz, Harbour Master. Tel: (46 2133073. Fax: (462) 3262782.

TUTUNCIFILIK: 40.45 N. 29.47 E. (See Plan

SHIPMASTER'S REPORT: July 1981.

LOCATION: TUPRAS berths are situated just South of the 'Petkim chemical complex at Yarimca (See "Yarimca"), as before the railwa seems to be the dividing line between TUPRAS and PETKIM.
PILOTAGE/APPROACHES: See "Yarimca".
TUGS: Three tugs generally used. 1 Government and 2 TUPRAS. A large and powerful but rarely use their full power.
As a rule tug's lines used for berthing and ship's lines departing.
BERTHING: For LPG carriers, 2 berths are used. Also refined produ carriers use same berths. Crude is imported to a sea island for VLCC and on the original old jetty for smaller tankers.
The original jetty for all tankers is at the Southern corner of the refiner at Kilier Bar. This is not now used for LPG.
A new berth constructed in 1979/80 is now open 0.5 miles North the old jetty. At present only the North side of the new jetty is use (No. 2) but soon the Southern side will be in use for all larger vesse for all grades.
The new berth is of modern concrete pile construction with a roadwa out from the shore taking the pipes, with the berths leading off at 4 with 4 mooring/fender dolphins to seaward, connected by catwalks.
Draft alongside both berths is 18 m. with 3 m. clearance. Fenders an mooring arrangements are good.
Vessels generally berth head in, so can go either side alongside.
A small tug jetty is at the root of the main jetty.
See "Plans" for dimensions and general layout of all berths.
Mooring: Mooring boat used. 3, 2, 2, each end with line up very precis Bow comes near the end of the jetty where it bends at 45° to a roadwa
CARGO HANDLING: *Discharge:* Valves shut against ship witho warning, high back pressure – 7.5 to 8 bar., and line draining completion non-existent. 8 in. rubber discharge hose 150 ASA.
No vapour return line as yet, and cannot see one on jetty, but one old jetty suddenly appeared with TUPRAS wanting to return benzene the ship.
5×10 in. Chicksans for refined products on North side.
5×12 in. Chicksans plus 2×16 in. Chicksans on South side.
Control hut at seaward end of roadway with telephone and a coup of operators.
Rate 250 – 300 t.p.h. when all shore valves open.
FRESH WATER: Available.
DENSITY: 1017.
SURVEYORS: Employed by Turkish Survey Bureau.
GENERAL:
Gangway: Can be a problem due to dolphins. We used accommodat ladder with half BOT gangway section between bottom platform a dolphin.
Customs/Immigration: Customs Officer on board requires ro continuously.
Facilities: Agent very helpful. Personnel change through Istanbul Air without too much difficulty.
Curfew in force from 2400 hrs. to 0500 hrs. for ship's crew, 0200 h to 0500 hrs. for local population.
Overseas telephone calls delayed about 2 hours during weekdays a 30 minutes at weekends.
Lloyd's Surveyor from Istanbul – to be arranged 24 hours in advan Medical facilities from TUPRAS or local doctor through Ag Izmit about 30 minutes by taxi/car.
General stores, apart from some fresh provisions, are difficult to obt

SHIPMASTER'S REPORT: January 1986.

DOCUMENTS:
6 Crew Lists together with passports for all persons onboard.
2 Lists of Provisions, Stores and Bunkers.
2 Manifests of all cargo onboard.
2 Crew Effects Declarations.
2 Declaration of all Money and Cheques carried in ship's safe.
2 Maritime Declarations of Health, one form supplied on arrival, form supplied at Canakkale or Buyukdere when passing inwards.
PILOTAGE: Compulsory Pilot inwards at Darica Burnu. VHF co possible. Call Darica Pilots on VHF Channel 16 normally wo Channel 14.
Pilot boards from small tug, ladder should be about 1 m. above water. Tug equipped with VHF but personnel only Turkish-speakin
The Pilot berths all vessels at all Gulf of Izmit ports.
Pilots depart either off Darica or off berth depending on employments and vessel's size.
Pilotage operates 24 hours.

APPROACHES: See B.A. Chart 497.
ANCHORAGE: The anchorage is situated to the Northwest of the berths, off Yarimca. Pilots consider it safe for any size of vessel.
MAX. SIZE: Max. draft 18 m. (59 ft. 00 in.) permitted at the new berth according to the Pilots.
TUGS: Up to 5 tugs used when berthing at Sea Island. 3 government and 2 TUPRAS. (TUPRAS tugs 2,500 h.p. each).

All tugs are large and powerful but rarely use their full power.

At the other berths three tugs generally used.
BERTHING: For LPG carriers 2 berths are used, also refined products carriers use the same berths.

Crude is imported to a Sea Island for VLCCs and to the original old jetty for the smaller tankers.

The original jetty is at the Southern corner of the refinery at Kilier Bar. A new berth has been constructed some 0.5 mile North of the old jetty. The new berth is a modern concrete pile construction with a roadway out from the shore taking the pipes, with the berths leading of at 45° with 4 mooring/fender dolphins to seaward, connected with a catwalk.

Vessels berth on both sides of this jetty, generally head in. Fender and mooring arrangement is good. This jetty is used for LPG and refined products.

The Sea Island consists of a platform with three dolphins on each side. There are no connections between the platform and the dolphins. Fendering and mooring arrangements acceptable for tankers of 150,000 d.w.t.

Vessels normally berth port side to at the Sea Island.

2 mooring boats are used for rope handling.
CARGO HANDLING: *Discharge at New Berth:*

Valves shut against ship without warning, high back pressure – 7.5 to 8 Bars. Line draining at completion non-existent.

8 in. rubber discharge hose, (150 ASA).

No vapour return line.

5×10 in. Chicksans for refined products on North side.

5×12 in. Chicksans and 2×16 in. Chicksans on the South side.

Control hut at seaward end of roadway with telephones and operators.

Rate 250-300 t.p.h. when all shore valves opened.

Discharge at Sea Island:

4×16 in. Chicksans for crude. 3 normally connected. Generally low back pressure, but at times, when topping up of shore tanks, discharging rates reduced considerably.

Loading Masters have Control Room at platform. Communication with them by VHF. Communications sometimes difficult due to language problems. One representative of TUPRAS stays onboard throughout discharge.
DENSITY: 1017.
FRESH WATER: Available at all berths.
FUEL: With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 3382509, 3373686, 3378831, 3360636. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.
SURVEYORS: Employed by Turkish Survey Bureau, Katoni Persa or other local Turkish companies.
GENERAL:
Gangways: Can be a problem at the new berth, due to dolphins. At Sea Island, gangway from the platform.
Telephone: Overseas calls delayed about 2 hours during weekdays and about 30 minutes at weekends.
Lloyd's Surveyor: Comes from Istanbul. Has to be arranged 24 hours in advance.
General Stores: Apart from fresh provisions, difficult to obtain locally. Can be arranged from Istanbul but transportation costs are high.
Fuel: Available by barge only. It is more economical to anchor off Istanbul for fuel. All fuel supplied from Istanbul.
Airfreighted Stores: No difficulty with getting items onboard. If spare parts are to be taken onboard, items that cannot be carried will be put on a barge. Transportation costs are high.
Pollution: Strict anti-pollution laws in operation.
Facilities: Curfew has been in force earlier for ship's crew. In January 1986 no restrictions in force.

AUTHORITY: TUPRAS-Izmit Rafinerisi Bolge Mudurlugu, P.O.Box 43, Izmit, Turkey. *Tel:* 31660-31665, 20330-20333. *Telex:* 22285, 33152, 33153, 33154. *Cables:* Umipras, Izmit.

Izmit Liman Baskanligi, Yarimca, Turkey. *Tel:* 90-211-73754. *Telex:* 33292. *Contact:* Atilla Gorgunler.

YARIMCA: 40.45 N. 29.45 E. **(See Plan)**

SHIPMASTER'S REPORT: November 1980 (Updated 1994).

Petkim is an Industrial complex at the entrance to the Gulf of Izmit, near Yarimca. It includes the factories of Petkim to the North and TUPRAS to the South (See "Tutuncifilik"). As far as can be gathered the railway line is the dividing line.

A wide range of oils, chemicals, gases, bulk fertilisers and chemicals are handled. The Products Pier which handles ammonia is in position Lat. 40° 45.4' N., Long. 29° 45.1' E., close by is a bulk handling berth with a solid quay face.

The area in general is one of the main trading areas for overseas shipping in Turkey.

To the North West of the Refinery at Yarimca is Hereke, another important shipping complex.

PILOTAGE: Compulsory Pilot inwards at Darica Point. VHF contact may be possible. Izmit Pilot Office which is the control centre works on Channels 14 and 12.

Proceed to position off Darica Point and sound 'G'. Pilot boards from small tug and the ladder should be about 1 m. from the water.

The Pilot berths all vessels at all Gulf of Izmit ports.

Pilot departs either off berth or at Darica, depending on other pilotage requirements and curfew. Pilotage operates 24 hours.
APPROACHES: See B.A. Chart 467.
TUGS: Two Government tugs available, 1×2,000 h.p. and 1×2,500 h.p. If additional tugs are required they come from Istanbul. For IPRAS refinery only, there are 2 tugs of 2,500 h.p. Tugs generally use ship's line. Tugs rarely use all their power.
BERTHING: Berthing and unberthing throughout 24 hours. The berth is the usual type of tanker berth consisting of a 'T' shaped jetty at the end of a pipeline roadway. There are dolphins connected by catwalk to main pier, plus further isolated mooring dolphins about 50 m. off inner dolphins.

Mooring Arrangements: Hydraulic hook release system in use.

Dolphins have good fenders and ship's centre section stands off jetty face. After dolphin (if port side to) comes on counter. Generally port side to due to anchored vessels, making starboard approach difficult. But possible for starboard side alongside.

It is safe to swing gangway out before berthing. It should be on the end of a derrick as it has to be swung clear of lamp post on quay and landed at an angle of 45°.
DISCHARGE: There are lines for naphtha, benzene, butadiene vapour and liquid, ethylene vapour and liquid and ammonia vapour and liquid. Butadiene 8 in., ammonia 10 in., both sets Chicksans, others use hoses. The ammonia connections are the Southerly set, ammonia coupling 10 in. 300 ASA to spool piece 12 in. 150 ASA. The ethylene connections are Connex set with 8 in. and 300 lb. coupling made with cold materials. The Shore personnel effect the connection. In total there are 15 lines for loading and unloading of various chemicals such as Naphtha, Benzene, Butadiene vapour and liquid, Ammonia vapour and liquid, Aromatic oil, Naphtenic oil, Heavy Extract Oil, Styrene, DDB, Propylene Tetramer, EDC, Propylene Liquid and Gas, VCM Liquid and gas, Ethylene Liquid and Gas.

Vapour return line can be used if required.

Samples taken before discharge.

Petkim's surveyor speaks English. Hut on quay with telephone.

Line capacities are given to the ship's Master by the surveyor before discharge. The back pressure varies from 2.5 to 5 Bar.

Surveyors as normal, travel around Turkey following ships, so can be late in boarding if ship early, then Petkim's Representative notes temperatures and ullages.
GENERAL: Fresh water available from quay at 40 t.p.h. metered at U.S.$ 3.64 per tonne.

Fuel by barge. Istanbul is fairly close so may be cheaper to go to anchorage there for fuel as available locally by barge but costly.

Over many voyages to this port and Gemlik, air freight items from North Europe always get through.

Lloyd's/Agent: Lloyd's Surveyor from Istanbul also covers all Turkey but travel is expensive.
AUTHORITY: Petkim Petrokimya Holding A.S., Yarimca Petrokimya Kompleksi, P.O. Box 46-47, Kocaeli, Turkey. *Tel:* 0262-5281450 (20 lines). *Telex:* 33113 Ypet TR, 33109 Ptkm TR. *Cables:* Petkim Izmit. *FAX:* 0262-5281738, 0262-5281400.

ZONGULDAK: 41.28 N. 31.49 E.

PILOTAGE: Refer to "Canakkale" and "Istanbul".

Harbour Pilots obtainable from Coaling Company, Pilot boards off port entrance by launch. Ordered by Agent subject to vessel's ETA given at least 24 hours before arrival.
ANCHORAGES: Good anchorage off the harbour in a depth of 13 fathoms, sand and mud bottom.

Anchorage prohibited South of a line drawn in direction 292.5° distance 7.5 cables from head of the Northern breakwater. The Southern limit of this area is a line drawn in direction 262° from the head of the Northern breakwater to the shore.
RESTRICTIONS: Harbour entrance between breakwaters. Entrance width 600 ft.

Traffic signals displayed from signal mast on Northern Breakwater, as follows:

2 black balls or 2 red lights, meaning "Harbour closed".

2 black cones or 2 green lights, meaning "Harbour open".

A black ball over black cone or red light over green light, meaning "Do not attempt to enter".

A black cone over a black ball or green light over a red light, meaning "No tug available".

A black ball between 2 black cones or red light between 2 green lights, meaning "Wait. You will be piloted into the harbour".

3 black balls, or 3 red lights, meaning "Because of unfavourable weather you cannot be piloted into the harbour".
RADIO: Zonguldak Radio. Call sign TAR.
TUGS: 5 tugs available.
BERTHING: Coal quays length 1,650 ft. depth alongside 10 m.

Cargo quay length 500 ft. depth alongside 10 m. Loading rate 350 – 450 t.p.h.

Northern Breakwater, 2 berths, at inner end with depth of 7 m. alongside.
CRANES: Shore cranes up to 15 tons capacity and floating crane 60 tons capacity.
FRESH WATER: Available from the quays.
FUEL: Only coal bunkers available.

Turks and Caicos Islands

GRAND TURK: 21.28 N. 71.08 W. (See Plan)

DOCUMENTS: *Customs:* Clearance from last port, Inward Report, Crew List and Declaration, Ship's Stores List, Manifest of all goods to be discharged at each Port.
Immigration: Passengers Manifest, Immigration control cards.
PILOTAGE: Compulsory. The Owner, Master, or Agent of a ship bound for any Port in the Turks and Caicos Islands must report via Harbour Master on VHF Channel 16, 4 hours in advance of the ETA of the ship.
The following information is required.
1. Name/Call Sign of Vessel.
2. Nationality.
3. Length, Draft, and Gross and Net Registered Tonnage.
Pilot Office on VHF Channel 16. Berth arranged by Harbour Master through Local agent making request 24 hours in advance for use of dock and facilities.
ANCHORAGE: Available.
MAX. SIZE: No restrictions.
HEALTH: Pratique, given by Customs Boarding Officer.
RADIO/VHF: Radio Turks and Caicos on 94.9 MHz. Also see "Pilotage".
TUGS: Only available at the Port of Providenciales.
BERTHING: See "Plan".
CRANES: Arranged by Agent, if ship's own is out of order.
STEVEDORES: Arranged by Agent.
MEDICAL: No advance notice except in case of emergency, hospital facilities available on Grand Turk and Providenciales.
TANKERS: Refined petroleum products are imported through the Bahamas by Shell, Texaco and Esso at all ports. There is no special bunkering port, but bunkering services are available.
DENSITY: 1025.
FRESH WATER: Available, ordered through Agent at approximately 0.03 cents (U.S.) per imperial gallon.
FUEL: Delivered by tank trucks at all berths, diesel as well as marine lubricants can be obtained through suppliers (Shell, Texaco and Esso Agents).
CONSULS: None.
REPAIRS: Most deck and engine repairs can be carried out.
DRY DOCKS: Caicos Marina & Shipyard, Providenciales. Tel: (809) 946-4600. Telex: TWX 3158440 TRUMPRO. Max. lifting capacity 85 tons.
SURVEYORS: Registrar of Shipping, Natural Resources Branch, Iron Building, Front Street, Grand Turk. Tel: 2550.
GANGWAY/DECK WATCHMEN: Usually ship's crew. Ship's gangway.
OPENING/CLOSING HATCHES: Stevedores or ship's crew, which ever to ship's advantage.
CERTIFICATES:
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Load Line Certificate.
Cargo Gear Certificate.
CUSTOMS ALLOWANCES: Tobacco. Each man 200 cigarettes, or 100 cigarillos (cigars with a maximum weight of 3 grammes) or 50 cigars or 12.5 grammes of smoking tobacco, and one reputed quart of normally potable spirits or not more than 2 litres of wine containing less than 42% of proof spirit.
REPATRIATION: Crew changes and repatriation possible.
AIRPORT: In Grand Turk the airport is about 1 mile from the port and is served by Carnival Airlines twice weekly (Friday and Monday) to and from Miami, and various charter operators. In South Caicos the airport is about 2 miles from the port and is served by Turks and Caicos Airways with connections to the various islands. In Providenciales the airport is about 7 miles from the port and is served by American Airlines daily, Turks and Caicos Airways 6 days a week (except Tuesdays), and Carnival Airlines twice (Monday and Friday) a week to and from Miami. There are charter flights available on request.
TIME: E.S.T. Daylight savings time starts the last Sunday in April when clocks are advanced 1 hour and ends last Sunday in October when clocks retarded 1 hour, returning to Eastern Standard Time.
POLICE/AMBULANCE/FIRE: Grand Turk Police 2299; Ambulance 2333; Fire 2233. Emergency No. 2570. Port Officer 2325. South Caicos Police 3299
Providenciales Police 4259, Ambulance 4201, Fire 4378.
EMERGENCY CO-ORDINATION CENTRE: Police Headquarters (Grand Turk) 2299, (South Caicos) 3299, Providenciales 4259.
TELEPHONES: No arrangements exist for placing telephones on board ships.
SERVICES: Divers available for underwater surveys and repairs.
BANKS: Barclays Bank, Tel: 2831. Bank of Nova Scotia,Tel: 2506/7.
HOLIDAYS: New Year's Day; Good Friday; Easter Monday, Commonwealth Day, Queen's Birthday, Emancipation Day, Columbus Day, International Human Rights Day, Christmas Day, Boxing Day, Jags McCartney Memorial Day, National Youth Day.
CREW IDENTIFICATION CARDS: Not required.
SHIP SUPPLY SERVICE: Arranged through Agents.
GARBAGE DISPOSAL: Garbage from ships is usually taken off under agent's supervision and disposed of at dump site.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: U.S.Dollar.
DELAYS: Normal delays if berth is in use or docks under repair.
DEVELOPMENTS: New dock completed and now in use at Grand Turk. Specified area in dock storage yard provided for construction of a Rice Milling Plant.
AUTHORITY: Department of Customs, Custom's Office, Grand Turk, Turks and Caicos Islands. *Tel:* (809) 946-2993, 946-2994. *FAX:* (809) 946-2887. *Contact:* Collector of Customs.

NOTES

Please also advise Shipping Guides Ltd.

Tuvalu

FUNAFUTI: 08.31 S. 179.13 E. (See Plan)

DOCUMENTS:
Customs: Boarding of ships after Radio Pratique granted.
Clearance from the Last Port.
Crew List.
List of Passengers.
Stores' Lists.
Ship's Inward Report.
List of Unmanifested Cargo.
Crews' Stores.
Manifest and Bill of Lading with invoice.
Health: Radio Pratique to be granted within 24 hours before arrival.
Vaccinations against Cholera.
Immigration:
Crew List.
Passenger List.
Next Port of Call.
Final Destination.
Passports.

PILOTAGE: Local Master available on 1 month's prior notice.
Chart: See Chart BA. 2983. Fongafale Anchorage – main anchorage.

RESTRICTIONS: None.

MAX. SIZE: See "Te Puapua Passage". Max. depth 15 m. 250 ft. wide at low water.

HEALTH: Radio Pratique available.

RADIO: Funafuti Radio (T2U) on 6215.5 kHz.

VHF: Funafuti Radio equipped with 80 channel VHF radio. Vessels to call on Channel 16.

VHF in operation when vessels approaching, arriving, manoeuvring and sailing.

TUGS: None.

BERTHS: Concrete on pile wharf. 2 berths, lengths are 50 m. and 40 m. respectively. LW depths of 8 m. and 5.5 m.

CRANE: None.

STEVEDORES: Available on 24 hours' notice, discharge rate high.

MEDICAL: Hospital radio advice available.

TANKERS: Must provide own discharge lines. No residue discharge facilities. Light diesel only available. No tanker berth.

DENSITY: Sea Water.

FRESH WATER: Max. 60,000 gallons in wet season, little or none in dry season, by pipeline on wharf to vessel.

FUEL: Light diesel only. Max. 5,000 gallons from 500 gallon tanks (hand pump).

FIRE PRECAUTIONS: No special precautions other than normal for tankers.

CONSULS: None.

REPAIRS: None.

SURVEYORS: None.

WATCHMEN: Not required.

HATCHES: By stevedores or crew.

CUSTOMS ALLOWANCES: Passengers only, allowed 200 cigarettes and 1 bottle of spirit.

REPATRIATION: Air service to Fiji and Tarawa.

AIRPORT: 1.25 miles from jetty, fortnightly service. Special charters by arrangement.

TIME: GMT plus 12 hours.

HOLIDAYS: New Year (1st January); Public Holiday (3rd January); Good Friday; Easter Friday; Easter Monday; Commonwealth Day(12th March); Gospel Day (4th May); Queen's Birthday (18th June); Public Holiday (13th June); Bank Holiday (1st August); National Children's Day (6th August); Tuvalu Day (1st and 2nd October); Public Holiday (3rd October); Prince of Wales Birthday (12th November); Christmas Day (25th December); Boxing Day (26th December); Public Holiday (27th December).

POLICE/AMBULANCE/FIRE: Police 728 or 726. Ambulance 751 or 749. Fire – send messenger for fire engine.

TELEPHONE: Ship can use marine office telephone ashore.

SERVICES: None.

SHORE LEAVE: Allowed after clearance.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: 44 gallon drums available for garbage not affecting environment.

WASTE OIL DISPOSAL: No service available.

SEAMAN'S CLUBS: None.

CURRENCY: Australian Dollar (A$). Currency restrictions equivalent of A$ 1,000.

REGULATIONS: No sullage, ballast, tank residue, etc., to be discharged in lagoon.

DELAYS: Unpredictable, depending on whether other ships in port.

AUTHORITY: Ministry of Works and Communications, Tuvalu Government, Vaiaku, Funafuti, Tuvalu. *Tel:* 725. *Telex:* TV 4800. *Cables:* Wocom, Funafuti. *FAX:* 688800. *Contact:* Soo Patiale, Transport Systems Manager.

NOTES

Please also advise Shipping Guides Ltd.

Ukraine

BELGOROD-DNESTROVSKY:
46.12 N. 30.21 E. **(See Plan)**

GENERAL: The commercial sea port of Belgorod-Dnestrovsky is situated on the North-Western part of the Black Sea coast, on the right side of the Dnestrovsky Estuary (the Southern Basin), at a distance of 80-90 km. to the S.W. of the port of Odessa. Navigational season lasts all the year round, with powerful (600 h.p. – 1,200 h.p.) tug assistance during severe Winters. The Tsaregradsky Lighthouse and the Tsaregradsky Leading Line should be used as guiding points when approaching the port.

Vessels should approach the port along the channel of the Dnestrovsky Estuary which is provided with a good navigational marks system.

DOCUMENTS:
7 General Declarations, IMO FAL Form 1
7 Crew Lists, IMO FAL Form 5
2 Crew's Effects Declarations IMO Form 4
2 Money Lists.
2 Cargo Declarations IMO Form 2
Safety Certificates.

PILOTAGE: Pilotage compulsory for all vessels. A Pilot usually boards vessel at Reception Buoy No. 1 (Lat. 46° 04' N. Long. 30° 30' E.) situated 1.2 miles to the S.E. of the Tsaregradsky Lighthouse.

ANCHORAGE: The port outer roads with depths of up to 14 m. are situated 0.5 mile to the S.E. of the Reception Buoy. The holding ground is good. There is an inner roadstead situated within the port area where usually two vessels can be anchored pending berthing.

RESTRICTIONS: Vessels are allowed to navigate along the channel during daytime only. The port can be entered by vessels with draft of up to 4.5 m. and the maximum height (from the water level) of 28.0 m. Vessels should follow the channel at a speed not more than 5 knots.

According to dredging project, which is to be effected, the depths of the Approach Channel and at the berths are to be increased to 6.0 m.

During bad visibility vessels which are not equipped with radar are not allowed to navigate along the channel. Vessels are piloted under the bridge 2-3 times daily (during daytime only).

RADIO: Communication is effected through the port radio station "Belgorod-Dnestrovsky-Radio"

Call sign	*Frequencies (MHz) working*	*calling*	*Kind of transmission*	*Time of work*
"Belgorod-Dnestrovsky-Radio"	156.8	156.8	F3	H24

Harbour Master on VHF Channel 10.

Notice of Arrival: When approaching the port of Belgorod-Dnestrovsky Masters of vessels should not later than 48 hours prior to arrival advise the Harbour Master of ETA, draft, maximum height of a vessel in ballast (from the water level up to the top of a mast), kind and quantity of cargo, services required to the vessel. 24 and 4 hours prior to arrival the Master should advise more precise ETA.

TUGS: If necessary, are ordered by the Master after having consulted the Pilot.

BERTHING: The berths of the port have depths alongside of up to 5.3 m. and are equipped to handle timber, containers, generals (rubber, non-ferrous metals, pipes, tinned products, fresh vegetables, fruit and citrus fruit) and other cargoes. There are covered warehouses and open concrete floor sheds in the port.

A port area Bugas is situated 14 km. to the South of the port, at the mouth of the Estuary.

Vessels fully laden with ballast water are as a rule allowed to moor at berths if winds do not exceed Force 6. A vessel of a smaller size may be turned broadside to a loaded vessel of a bigger size but not vice versa. It is strictly prohibited to turn a third vessel broadside on to another 2 vessels having been turned broadside earlier.

Opening and closing of mechanised hatches is usually performed by the vessel's crew. Opening and closing of ordinary hatches is carried out by the crew on arrival and departure of a vessel and by the dockers during cargo handling operations. On the berths and on the port territory there are cranes of 20 tons lifting capacity.

FRESH WATER: Available at berths.

FUEL: Diesel oil available.

CONSULS: None.

REPAIRS: Only minor repairs possible.

TIME: GMT plus 3 hours October to March. GMT plus 4 hours April–September.

DEVELOPMENTS: See "Restrictions".

AUTHORITY: The Port of Belgorod-Dnestrovsky Authority, 81 Shabskaya Street, 272300 Belgorod-Dnestrovsky, Odessa Region, Ukraine. *Tel:* 2-25-51. *Cables:* Morport Belgorod-Dnestrovsky

AGENT: Shipping Agency "Inflot" in the Port of Belgorod-Dnestrovsky. Postal address: 81, Shabskaya Street, 272300 – Belgorod-Dnestrovsky, Odessa Region, Ukraine. Cables: Inflot Belgorod-Dnestrovsky. Telephone: 2-22-01; 2-56-73. Telex: 232217.

BERDYANSK: 46.37 N. 36.36 E. (See Pla

DOCUMENTS:
5 Crew Lists.
5 General Declarations.
4 Cargo Declarations.
2 Crew's Effects Declarations.
1 Master's Declaration.
1 Master's Declaration about arrival at a Commercial Port of t Ukraine.
2 Stores Lists.
1 Maritime Declaration of Health.

For discharging vessels also: Manifests, Bills of Lading and Carg Plan.

For all vessels, necessary to have all Ship's Papers and Shi Certificates.

APPROACHES: The Port of Berdyansk is situated in the N.E. part Berdyansk Bay, on the Northern coast of the Azov Sea.

Inner roads and port facilities are protected from Southern and S.E winds by a mole and a breakwater.

Navigation in the port is all year round, but in Winter ice-break assistance is necessary for about two months.

Vessels should proceed to the harbour through the approach channe with a least depth of 8.2 m.

PILOTAGE: Pilotage is compulsory in Azov Sea. Kerch Pilot mee vessel near the entrance to the Kerch Strait and takes vessel t Berdyansk. Berdyansk Pilot meets vessels within draft 6.0 m. and mo at Reception Buoy No. 2 (Lat. 46° 36.75' N., Long. 36° 36' E.), an vessels with draft less than 6.0 m. at Reception Buoy No. 1 (Lat. 46° 40' N., Long. 36° 40' E.). Telegraphic address of Pilot Statio is: "Harbour Master Berdyansk". Vessels bound for Berdyansk shou cable "Inflot Berdyansk Ukraine"/Ship's Agents/advance notice of ET ETA Berdyansk (date shown in group of four figures and if possible GM of arrival); draft, beam, depth to upper deck, flag, b.r.t., n.r.t., length for discharging, kind of cargo should also be advised. After which Inf arranges pilotage through Kerch Channel. First notice of ETA to be se after leaving last port and then 72, 48 and 24 hours' notice of ETA.

For contacting Pilot Station use VHF Channel 16. Pilot boat has white hull with black writing on her side: "Pilot-29". Vessels wait for t Pilot at the outer road anchorage.

ANCHORAGES: Vessels may obtain good anchorage with depths to 8.0 m. in the Port of Berdyansk outer roads situated on both sides the approach channel leading into the harbour.

The outer roads are well protected from Northerly winds, but dur Southern and S.W. winds the anchorage is troublesome.

At time of strong S.W. swell ships in the outer roads are usua effected by heavy pitching and rolling, and plenty of cable should paid out on both anchors. Holding ground in outer roads is shell a mud.

RESTRICTIONS: Vessels over 170 m. LOA can enter, leave and s berth when the wind speed is less than 8 m./sec. The possibility manoeuvring such ships when wind speed is over 8 m./sec. determined by the Pilot.

MAX. SIZE: The max. permitted draft for entry to the port is 7.9 if max. draft then even keel. The max. permitted length for entry into t port is 205 m. Sometimes with the Harbour Master's permission, vesse with max. length 225 m. may be allowed to berth at Piers No. 7 and

HEALTH: To obtain Pratique it is necessary to complete 1 Mariti Declaration of Health and hand it in for doctor. In the event of any disea or fever contact Agents.

Vessels, which are not equipped by special collecting tank for fe (domestic) waters with standard international connection on the up deck, are prohibited entry into Ukrainian ports.

RADIO: *Notice of Arrival:* 96 hours and then 12 hours prior to arriva the port, Masters should advise the Port Administration via the lo Inflot Agency, time of arrival and the maximum draft of a vessel. N later than 2 hours prior to approaching Reception Buoy No. 2, placed the beginning of the approaching channel, Masters should advise m precise ETA to the Harbour Master.

Vessels should establish radio contact through "Berdyansk Rad Port Radio Station operating 24 hours daily on the following frequenci

Call Sign	*Frequencies (kHz) Working*	*Calling*	*Type of trans-mission*
UBX	500/418	500	A1A
"Berdyansk-Radio-2"	2182	2182	H3E
"Berdyansk-Radio-1" (CPR)**	156.8*(16)	156.8*(16)	F3E
"Berdyansk-Radio-5"	156.8*(16)	156.8*(16)	F3E

*Frequencies are given in MHz.
**Central Port Radio Station.

RADAR/VHF: There is no port radar service in Berdyansk.

Use VHF Channel 16 initally and further communication on an Channel on agreement.

TUGS: Join vessels abreast of breakwater. Vessel's lines usually u No extra charge for tug lines. Vessels under 1,500 g.r.t. require 1 and vessels over 1,500 g.r.t. require 2 tugs.

BERTHING: Berths No. 1 – 2: Length 380 m. These berths ar general cargo. Berths No. 3 – 4: Length 270 m. These berths ar bulk cargoes (ores, minerals). Berth No. 5: Length 232 m. This ber scrap iron. Max. permissible draft 7.9 m. Berth No. 6: Length 13 Berths No. 7 – 8: Length 351 m. Berth No. 9: Length 140 m. U discharge is by shore equipment. Depths alongside Berths No. 1 – to 7.9 m.

CRANES: All quays are equipped with electric cranes. Berths No 2 are equipped with SOKOL type crane, of up to 32 tons capacity. B No. 3 – 4 – 5 are equipped with Albatros type crane, of up to 20 capacity. Berth No. 8 crane type SOKOL.

SPECIALISED CARGO-HANDLING FACILITIES: None.

BRIDGES: None.
STEVEDORES: Provided by the Port of Berdyansk. Tel. Manager: 62-565.
MEDICAL: Medical attendance possible. All members of the crew must have sanitary (yellow) book indicating vaccinations, fever, etc. One hospital available.
TANKERS: No facilities available.
DENSITY: Approximately 1008. Salinity is 11.9.
FRESH WATER: Supplied at berths.
FUEL: Available in limited quantities. Supplied by special tanker.
CONSULS: No consuls in Berdyansk.
REPAIRS: Only minor hull and machine repairs.
DRY DOCKS: No dry dock in Berdyansk.
SURVEYORS: Inspection of the Registry of the Ukraine Branch Office; Tel. 62-452. Independent Surveyors available for Draft Survey and checking quantity of bunkers onboard.

Contact Maritime Agency "Inflot" (See "Agent").

GANGWAY/DECK WATCHMEN: Not compulsory or necessary.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CUSTOMS ALLOWANCES: Tobacco, wine, spirits are free of Bond.
CARGO GEAR: There are cargo-handling equipment and intraport transport facilities. No heavy lift crane.
REPATRIATION: Possible.
AIRPORT: Distance 15 km. Internal Soviet airlines only.
TIME: GMT plus 2 hours October to April. GMT plus 3 hours April to October.
HOLIDAYS: New Year's Day (1st January); Christmas (7th January); International Woman's Day (8th March); Easter; World Labour Days (1st – 2nd May); Victory Day (9th May); Independence Day (24th August); Anniversary of the Great October Socialist Revolution (7th – 8th November). Cargo work can be arranged on above days.
POLICE/AMBULANCE/FIRE: Police 02; Ambulance 03; Fire 01.
TELEPHONES: Not possible to place telephones onboard.
EMERGENCY CO-ORDINATION CENTRE: Contact Harbour Master's Office. Tel: 62-731, 62-449, 3-63-03. VHF: Channel 16.
BANKS: State Bank of the Ukraine only.
STORING: See "Prelims".

1. Barge or truck.
2. Vessels can be stored by barges during cargo operations.
3. Trucks can proceed alongside at the berth.
4. Fork lift trucks can be used.
5. Storing under Customs permission and control.
6. Local riggers can be employed.

SHORE LEAVE: After clearing inwards, crew members are allowed to go ashore without special permission.
IDENTIFICATION CARDS: Not required. Only Seaman's Passport.
GARBAGE DISPOSAL: Special metallic containers are installed on the pier alongside the ship by port's garbage service, and exchanged when full by the same service. To reserve garbage disposal, Master should send information by radio to Agency Inflot, simultaneously with arrival information.
WASTE OIL DISPOSAL: The port is equipped by a special ship which can collect separately 340 tonnes of oily mixture waters and 86 tonnes fecal waters. For pumping out of these waters, hoses from special boat only should be used. Strictly prohibited to mix oily waters with fecal or any sanitary waters. To reserve special ship, radio message should be sent before arriving to Agency Inflot. Before leaving port, all vessels must discharge all fecal waters into special ship, without additional payment.

Also see "Health".

SEAMAN'S CLUBS: There is a Seamen's Club at the port at Ul. Frunze 1, 332440 Berdyansk, Ukraine. Tel: 62-543. Facilities: No international telephone, church service or postage facilities are available at Seamen's Club. All other services are possible.
CURRENCY: Ukrainian Coupon.
AUTHORITY: The Port of Berdyansk Authority, 13/7 Gorky Street, Berdyansk 332440, Ukraine. *Tel:* 3-63-63, 62-731. *Telex:* 127441. *Cables:* Harbour Master Berdyansk. *FAX:* 3-63-03. *Contact:* Port Director (Tel: 3-22-10). Harbour Master (Tel: 62-731).

AGENT: Maritime Agency "Inflot" at the Port of Berdyansk. Postal address: 13/7 Gorky Street, Berdyansk 332440, Ukraine. Tel: 62-539, 62-639, 3-34-42. Telex: 127564 Sudak. Cables: Inflot Berdyansk.

CHERNOMORSK: 45.30 N. 32.40 E. **(See Plan)**

Chernomorsk is a sea port, situated on the coast of Yarylgach Bay of the Black Sea, on the North-Western part of Crimea Peninsula, safe and well protected against rough seas. Vessels should proceed to the port through the 980 m. long channel. Depth in the channel is 9.0 m. Navigation in the port is all year round.
PILOTAGE: Pilotage is compulsory for all vessels of or over 100 g.r.t. Pilotage effected at daytime only. Embarkation and disembarkation of the pilot is performed near the Reception Buoy of approach channel.
ANCHORAGE: Anchorage with depths up to 14.0 m. is available within the outer port roadstead and marked by Anchorage Light Buoy (Lat. 45° 34' 12" N., Long. 32° 48' 42" E.). The holding ground is good.
RESTRICTIONS: Vessels to proceed through the channel only with Harbour Master's permission.

Entry into the port is allowed for vessels with draft up to 6.0 m. and maximum height (from water level) of 20 m. Vessels should proceed through the channel at a speed of not more than 3 knots.

RADIO/VHF: Communication is effected through the port radio station UJB-2:

Call Sign	*Frequency (kHz)*	*Time of Work*
"Chernomorsk-1"	500 and 4184	
"Yarylgach 92"	VHF Channel 6	H24

Telephone: (06558) 91390. Fax: (06558) 91849. Teletype: 187755 Yakor. Telex: 187125 Ptb Su.
Notice of Arrival: When approaching the port of Chernomorsk, Masters should advise, with 48 hours notice, the Harbour Master of ETA, draft, maximum height of vessel in ballast (from water level to the top of the mast), type and quantity of cargo, services required by the vessel. 12 hours prior to arrival, a more precise ETA notice is required.

Ukrainian vessels should not later than 24 hours prior to arrival advise the Harbour Master of ETA, and 4 hours prior to arrival more precise ETA.
TUGS: If necessary, tugs can be ordered by the Master after consulting with pilot. The tugs are compulsory for the vessels with drafts of more 5.5 m. Tugs with power of 150 h.p. and 1,600 h.p. are available.
BERTHING: Total length of berths 1,600 m. Depth alongside 5.5 m. – 6.5 m.

The berths are equipped to handle timber, containers, general and other cargoes. Open storage and a floating crane of 100 tons lifting capacity are available.
FRESH WATER: Available from tug.
FUEL: Bunkering is not guaranteed.
REPAIRS: Only minor repairs may be effected. Underwater surveys could be performed.
DRY DOCKS: Floating dock of 5,000 tons capacity available.
GENERAL: *Transport:* The port is linked with the towns of Sympheropol, Sevastopol and Yevpatoria by bus, provided with main road of 37 miles as far as Yevpatoria. Nearest major sea ports: 90 miles – Sevastopol and 100 miles – Odessa.
AUTHORITY: The Port of Chernomorsk Authority, Chernomorsk, set. Chernomorskoe 334360, Crimea, Ukraine.

AGENT: General Agent: Inflot Odessa. Telex: 232124. Fax: 221264.

Local Agent: Inflot Sevastopol. Telex: 197316.

DNEPROBUGSKY: 46.35 N. 31.57 E.

SHIPMASTER'S REPORT: October 1991.

VESSEL: Bulk carrier. Cargo: 22,530 tonnes of bulk bauxite.

Arrival draft: 9.73 m. (F.W.).
GENERAL: The port is open for navigation all year round.

When proceeding to Dneprobugsky the following message must be sent to "Morflot Odessa Traffic Centre".

(a) Vessel's name.
(b) Flag.
(c) Owners.
(d) N.R.T.
(e) LOA.
(f) Beam.
(g) Moulded depth.
(h) Draft.
(i) Last port of call.
(j) Destination.
(k) Technical condition of main engine and steering gear.
(l) Course when approaching the area.
(m) Reason for call.
(n) ETA area.

Subsequent messages should contain only item (n).
APPROACHES: Compulsory reporting to "Ilichevsk Traffic Control" prior to reaching the Sea Buoy and when entering separation schemes off Ilichevsk port.

When berth or pilot are not available vessel should anchor at Anchorage No. 351, S.E. of Ilichevsk port. Otherwise according to port control instructions.
PILOTAGE: Compulsory. When proceeding to Dneprobugsky, Sea Pilot is embarked in the area East of the Ilichevsk port entrance, close to the Fairway Buoy. Otherwise N.E. of the "T T S" Turning Buoy.

Port Pilot is embarked in the channel, approximately 1 mile to 2 miles South of the port (Dneprobugsky).

The Brusko Dneprovsko Limanski Kannal is very narrow and well marked but from Buoy No. 48 up to Dneprobugsky no navigation aids are shown on B.A. Chart No. 2200. Shore based traffic control covers the area and advises pilots whenever necessary.
ANCHORAGE: Area West of the approach channel nearly up to Dneprobugsky port is considered as a local anchorage (waiting area), it is open to North winds.
RESTRICTIONS: Navigation through the channel restricted during night time and in poor visibility, in such cases vessels anchor at Anchorage No. 360.

Permitted draft for passing the channel is 9.75 m. and safe speed is about 8 knots.

Great care to be taken when turning in the narrow areas of the channel due to shallow waters.
HEALTH: Free Pratique normally granted after mooring.
TUGS: Three tugs used for mooring, ship's lines used. Charges for use of tugs is high.
BERTHING: Port has an effective berthing length of about 400 m. – 500 m. accommodating tugs, barges, small and large vessels.

The berth is equipped with 3 large bridge cranes with grabs.

Large stock of bauxite stowed on the open wharf.

No serious damage sustained during discharging.

MEDICAL: Hospital facilities available, mainly in Nikolayev area. Cases of cholera in the area reported by port authorities.
CUSTOMS ALLOWANCES: No limits on quantities, but nothing to be taken ashore.
FRESH WATER: Available, but not suitable for drinking.
FUEL: Supply not guaranteed.
DENSITY: Fresh water in the area around the port.
REPAIRS: Minor repairs can be carried out.
DRY DOCK: Small floating dry dock situated in the port.
OPENING/CLOSING HATCHES: Normally by crew.
TIME: GMT plus 2 hours.
SHORE LEAVE: Allowed. No extra permission required for Nikolayev area which is about 35 km. North of Dneprobugsky.
AGENT: Main Agent: Inflot Odessa. Local Agent: Inflot Nikolayev.

EVPATORIA: 45.11 N. 33.23 E.

GENERAL: The port of Evpatoria is situated on the Northern Coast of Evpatoriyskaya Bay of Kalamitskiy Bay (Western part of the Crimean Peninsula).
PILOTAGE: Compulsory for the vessels over 200 g.r.t. The embarkation and disembarkation of the Pilot is carried out near the Reception Buoy in the vicinity of Karantinniy Cape. Pilot requires 12 hours notice.
APPROACHES: The port has an open roadstead that covers the area of Evpatoriyskaya Bay. Depths in the roads are up to 10.0 m.
ANCHORAGE: Anchorage No. 382 is situated 1.1 miles S.E. of Karantinniy Cape. Available depths are 11.4 m. – 12.4 m. Ground is sand and shells.
RESTRICTIONS: When wind speed from a Southern direction is more than 9.0 m./sec., vessels in the roads may be delayed.
MAX. SIZE: Maximum draft for dry cargo vessels is up to 6.0 m. and max. length 100 m. The restrictions for passenger vessels are 7.0 m. and 200 m. respectively.
RADIO/VHF: VHF communication through Channel 16.
RADAR: No shore based radar stations available.
TUGS: Number of the tugs depends on g.r.t. For vessels up to 500 g.r.t., one tug with 1,200 h.p. capacity and for vessels over 500 g.r.t., 2 tugs are required.
BERTHING: 4 berths are available in the port. 3 berths for passenger vessels (No. 2, 3 and 4), and one berth for cargo vessels (No. 5). Port is equipped with cranes for handling general and bulk cargo, steel products, etc. Warehouses and open storage facilities are available.
MEDICAL: Medical assistance rendered immediately when required. Hospital facilities available.
FRESH WATER: Available.
AIRPORT: Nearest airport is located in Simpheropol, a distance of 80 km.
TIME: GMT plus 2 hours in Winter. GMT plus 3 hours in Summer.
HOLIDAYS: January 1st; January 7th; March 8th; May 1st; May 2nd; May 9th; August 24th; November 7th; November 8th; Easter (one day); St.Trinity (one day).
POLICE/AMBULANCE/FIRE: Ordered through Agent.
IDENTIFICATION CARDS: Required.
AGENT: *General Agent:* Inflot Odessa. Telex: 232124 Inf Su.
Local Agent: Sevastopol Inflot Maritime Agency, 5 Pl. Nakhimlva, 335054 Sevastopol, Crimea, Ukraine. Tel: (0690) 524411. Telex: 197316. Cables: Inflot Sevastopol.

ILICHEVSK: 46.19 N. 30.40 E. (See Plan)

GENERAL: The Port of Ilichevsk is situated on the N.W. coast of Black Sea, on the right bank of the Sukhoi Liman, about 15 miles S.W. from Odessa City.

The Sukhoi Liman is divided by dams into 3 parts called Basin No. 1, Basin No. 2 and Basin No. 3.

A part of Basin No. 1 bounded by the leading line of the Port of Ilichevsk leading lights, thence by the S.W. coast of the Liman, thence by the Southern Sand Headland, is called the Inner Roads of the port.

The berths for large sea-going vessels are along the Western side of the Southern Sand Headland, thence along Southern and S.W. sides of Basin No. 1.

The berths of the Eastern side of Basin No. 1 are used by fishing trawlers.

Navigation in the port is year round. Ice usually begins to form in the second half of December and finally disappears in February. Ice-breaker assistance is required in severe Winters for about a 30 day period.
APPROACHES: The approach channel leads from seaward into Basin No. 1. Depths in mid-channel are 13.5 m. Strong Easterly and Southerly winds may cause heavy surge in the channel influencing a vessel's manoeuvrability.
PILOTAGE: A Pilot usually boards a vessel in the outer roads at the approach light mid-channel buoy. (Lat. 46° 18' N., Long. 30° 44' E.). In the event of bad weather the place of embarkation or disembarkation of a Pilot can be changed with a Master's approval.

Vessels proceeding to ports of Kherson, Nikolaev and Yuzhnyy take Pilot in the Outer Roads of Ilyichevsk (Lat. 46° 15' 06" N., Long. 30° 56' 01" E.).
ANCHORAGES: Good anchorage can be obtained in the outer road situated at a distance of 3 to 7 miles off the coast between the paralle of 46° 12' N. and 46° 18' N. The outer roads are open to all winds blowin from N.E. via S. up to S.W.

The anchorage (on charts marked as No. 351) is situated about 3 to miles to the S.E. of the port entrance.

The holding ground is grey mud and clay. Depths in the roads ar 19.2 m. – 25.5 m.
RESTRICTIONS: Entry to the port can be effected day and night.

In the night time movement of the vessels with length more than 200 m is subject to special permission of the Harbour Master.

Vessel's speed should not exceed 6 knots when navigating along th channel.
MAX. SIZE: The maximum permitted draft is 11.8 m., length 280 m.

Vessels drawing over 11.8 m. must obtain the Harbour Master's perm for entry to the port.
HEALTH: Foreign vessels granted Free Pratique when berthe alongside and all arrival formalities accomplished by the boardin officials, irrespective whether day or night. If berthing delayed, unde certain circumstances vessel may be granted Free Pratique at road where anchored. Event suspected disease Master shall inform Agent b radio. When arriving from another Ukrainian port, Free Pratiqu automatic.
RADIO: Channel 16 (156.80 MHz) for radio-telephone used for callin only, with subsequent switch to any other Channel. All informatio addressed to ship's Agent.

Radio contact can be established through the port radio statio "Ilichevsk Radio" operating 24 hours daily on the following frequencies

Call sign	*Frequencies (MHz)* *Working*	*Calling*	*Type of trans- mission*	*Time of Wor*
"Ilichevsk Port control"	156.6(12) Main	156.6(12)	F3E	H24
"Ilichevsk Traffic control"	156.50(10)	156.50(10)	F3E	H24

The port radar station gives all possible information to all vesse navigating in restricted visibility and in the absence of floating mark from the point of a Pilot's embarkation up to the port.

Radar navigation is controlled by a Pilot.

A signal post for regulating the movement of vessels is situated at th Northern side of the entrance to the port.
TUGS: Normally join vessel when approaching mooring berth. Ship lines used. Number of tugs required for berthing shall be ordered by th Pilot with the Master's consent. Tugs compulsory for vessels ove 1,500 g.r.t.
BERTHING: Quays with depths alongside of up to 12.0 m. are equippe to handle oil, general, 20 ft. and 40 ft. containers bulk and other cargoe There are mechanised warehouses and open concrete floor sheds.

Electric cranes of up to 45 tons capacity are operated on the qua and by the warehouses. There are floating cranes with lifting capac of up to 300 tons, other cargo-handling equipment and inter-po transport means.

Opening and closing of mechanised hatches is always done by th ship's crew.

In case vessel is moored at the Inner Road buoys the followi requirements should be complied with:

1. Two towing ropes to be kept ready at bow and stern lowered 2 over the water surface.
2. To avoid picking up of mooring anchors ropes should be slack with free board increase whilst discharging.
3. Vessel must be equipped with good pudding fenders to protect boards and floating facilities alongside.

TIDE: The range of the water level caused by strong winds may rea 1 m. The rise of the water level is due to Northerly winds and the fal the water level to Southerly winds.

The changes of the water level caused by variation in atmosphe pressure ("Seish" phenomena) are observed periodically. T phenomena can last from a few minutes up to several days and t range of the water level may reach 0.6 m.
RADAR: Port Radar Station gives all possible technical informatio any vessel navigating within Station's broadcast zone, if request Navigation in channel controlled by Port Radar Station. Communica between Station and vessels established by radio-telephone international frequencies.
STEVEDORES: 12 days' notice is required.
MEDICAL: Medical assistance rendered immediately when request Hospital facilities available. Particular inoculations required prescri by International Sanitary Regulations.
DENSITY: Average density 1010.
FRESH WATER: Available at quays and by barge.
FUEL: Bunkers available.
CONSULS: None.
REPAIRS: Good facilities. All kinds of repairs for vessels of u 60,000 d.w.t. can be carried out.
DRY DOCKS: Docking arrangements settled with Black Sea Steam Co. of Odessa, Lastochkina 1 Street. A floating dock, 250 m. len 18 m. depth. There are new floating docks with a lifting capac 15,000 tons.
GANGWAY/DECK WATCHMEN: Watch carried out by crew.
OPENING/CLOSING HATCHES: Mechanical hatches by crew.
CUSTOMS ALLOWANCES: No restrictions. Free use on board.
CARGO GEAR: No additional requirements. Cargo work usually ca out by means of shore cranes.
AIRPORT: The distance from Odessa Airport about 30 km.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: Official Holidays are Sundays and following Calendar January 1st and 7th; March 8th; May 1st, 2nd and 9th; August November 7th and 8th.
POLICE/AMBULANCE/FIRE: All mentioned services easily obt through Agent.

SERVICES: Ship chandler's supplies, technical equipment supplies, laundry, car hire.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Required.
DELAYS: Vessels berthed at specialised berths depending upon cargo. Delays if berths occupied. Normally no delays in bunkering.
GENERAL: Shipowners should deposit funds for disbursements prior to arrival. All banking operations carried out by Vnesheconombank of Moscow.
DEVELOPMENTS: At present port only partially constructed. Work of further development being carried out.
AUTHORITY: Port of Ilichevsk Authority, 6 Truda Square, 270901 Ilichevsk, Odessa Region, Ukraine. *Tel:* 691-605, 691-758. *Telex:* 232115. *Cables:* Morport Ilichevsk. *FAX:* 693606.

AGENT: Economou International Shipping Agencies, 6 Truda Square, Iliychevsk 270901, Odessa Region, Ukraine. Tel/Fax: (380-482) 693006. Telex: 232208 Ceco Ux.

IZMAIL: 45.20 N. 28.51 E. (See Plan)

GENERAL: The sea and river port of Izmail is situated on the left bank of the Kiliiskoe Ghirlo (Kilia Mouth) of the Danube River, between the 85th and 94th km.

Navigation is year-round. Icing on occasional hard winters is managed through assistance of ice-breaker-type vessels.

When proceeding to the port of Izmail, Master shall, well in advance, but at latest 24 hours prior to arrival at the port, advise Port Controller and ship's Agency the time of arrival, description and quantity of cargo brought in, location and weights of heavy lifts, if any, number of passengers, ship's draft and length, as well as declare services required of the port. 4 hours prior to arrival at the port, Master shall advise more precise time of arrival.

PILOTAGE: All foreign flag vessels coming to or leaving the port of Izmail are allowed to navigate by the Kilia Mouth with the port of Izmail Pilot on board only. Masters of the vessels proceeding by the Sulina Channel from seaward shall order Pilots 24 hours in advance and confirm the order 4 hours prior to approaching the Chatal of Izmail, to the Harbour Master's office via ship's Agent.

Vessels proceeding by the Prorva Canal from seaward should advise Agent about the time of approaching the Reception Buoy 24 hours prior to arrival. Pilot shall board/disembark vessels at the Reception Buoy of the Prorva Channel (Lat. 45° 30' 07" N., Long. 29° 46' 04" E.) and the Izmail Chatal (116th km. of Kilia Mouth of the Danube River).

ANCHORAGE: Port's roads with depths of 10 m. – 30 m. are situated in the area of the 78th – 96th km. on the left bank of the Kilia Mouth. Bottom is oozy.

Vessels can obtain anchorage in the roads between 95.7 km. – 96.2 km. 50 m. from the left bank area for port examination of sea and river vessels, 91.2 km. – 91.9 km. 100 m. from the left bank area for foreign river barges, 86.7 km. – 87.7 km. 100 m. from the left bank area for sea vessels, 80.0 km. – 86.7 km. (anchorage areas 4, 5, 7, 8, 9, 10, 13, 14) for barges and lechters, 79.5 km. – 80.0 km. 50 m. from the left bank area for quarantine vessels, 78.5 km. – 79.0 km. 50 m. from the left bank area for transit vessels, 78.0 km. – 78.5 km. 50 m. from the left bank area for tankers, 79.0 km. – 79.5 km. 50 m. from the left bank anchorage prohibited for all vessels.

RESTRICTIONS: Draft and length of vessels entering the port of Izmail should be the same as for vessels navigating through the Sulina Channel (7.0 m.) or Prorva Canal (3.0 m. – 3.5 m.). There are no restrictions for day or night entry to the port.

All navigation within the port area is controlled. Zone of regulation begins at the 78th km. up to the 100th km.

Masters of the vessels entering the port area should make contact with the Vessels' Traffic Management Service and inform them of the name of the vessel, draft and place of destination. The Vessels' Movement Control Post will advise the place to anchor. Entry into the port area, shifting and any other movement of the vessel can be arranged with permission of the Vessels' Movement Control Post only. No passing allowed within the port area.

Permissible speed of movement should not exceed 8 km./hr. while navigating upstream and 12 km./hr. while navigating downstream.

HEALTH: International code quarantine signals are to be shown on arrival and Free Pratique is given by the quarantine doctor who will board the vessel to examine Master's Health Declaration.

RADIO/VHF: Radio communication can be established through the Port Radio Station "Izmail Radio", some data of which is given below:

Safety Channel – Channel 16.

Vessels Movement Control Port – Channels 14, call sign "Radio-17".

Pilot Service – Channel 14, call sign "Radio-11".

Inspection of the Port Control – Channel 19, call sign "Izmail Radio-2".

Central Port Radio Station – Channels 16 and 72, call sign "Radio-3".

Agent for foreign sea and river vessels – Channels 16 and 67, call sign "Izmail Inflot".

Steamship Agent AO "Udasko" "Transflot" – Channels 16 and 30, call sign "Radio-6".

Agent for sea vessels – Channels 16 and 22, call sign "Izmail Rosmarine".

While navigating between 78th and 100th km. of the Kilia Mouth, all vessels are to keep watch on Channel 16.

RADAR: There is no Port Radar Service.

TUGS: Tugs shall be ordered by the Master as directed by the Pilot.

According to local Regulations for Safety, berthing and unberthing at the berths of the Backwater 90 km., sea-going vessels up to 100 m. in length are to use one tug, and 2 tugs when the vessel's length is more than 100 m.

BERTHING: There are 23 berths with total length 8,294 ft. and depth 4.0 m. – 7.0 m. There are 10 warehouses with a total area of 6 acres. Open storage areas consist of approximately 45 acres. 15.8 acres dedicated to bulk handling, 11.2 acres dedicated to container handling and 18.0 acres dedicated to general cargo handling.

The grain elevator is the property of the Ministry of Agriculture and Food.

CRANES: On the quays there are portal cranes of 5 tons – 40 tons capacity. There are also floating cranes of 16 tons capacity and other cargo handling equipment and machinery. Mobile cranes of up to 25 tons capacity available.

SPECIALISED CARGO-HANDLING FACILITIES: There are specialised berths for handling ISO containers. There are no berths for handling liquid chemicals or LPG carriers.

BRIDGES: No bridges within the port area.

STEVEDORES: The port works round-the-clock, including holidays. Usual ETA advice required.

MEDICAL: No advance notice except in case of serious illness. Hospital and Dental facilities are available.

TANKERS: No tanker berths available.

FRESH WATER: Fresh water can be supplied from the quays or delivered by barges

FUEL: Bunkers available. Prior notice to Agent required.

REPAIRS: Hull and machine repairs can be effected.

GANGWAY/DECK WATCHMEN: Gangway watchmen compulsory, carried out by ship's crew. Ship's gangway used.

OPENING/CLOSING HATCHES: According to the customs of the port opening and closing of hatches is usually by ship's crew but it can also be done by stevedores if requested by Master in advance.

CUSTOMS ALLOWANCES: No restrictions on crew consumption of tobacco and alcohol on board. It is prohibited to take these items ashore.

REPATRIATION: Can be arranged.

AIRPORT: Regular connections with internal services.

TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.

TIDE: Changes of water level in the river are due to effects of the wind and seasonal increase and decrease of the amount of water brought down from the shore. In Winter; rise of water level is due to the ice piling up. Max. range of the water level is about 3.0 m. – 4.0 m.

Max. rise of water level is in April, May and June, usually caused by Easterly winds. The least water level is observed in August, September and October, due to Westerly winds.

HOLIDAYS: New Year's Day (1st January); 7th January; International Women's Day (8th March); Easter; Days of International Workers' Solidarity (1st and 2nd May); World War II Victory Day (9th May); 2nd June (Trinity); 24th August (Independence Day); 7th – 8th November (The anniversary of the Great October Socialist Revolution); Christmas Day.

POLICE/AMBULANCE/FIRE: Police, Tel: 9-03-16; Ambulance, Tel: 9-06-00; Fire, Tel: 9-05-24.

SHORE LEAVE: Allowed up to midnight.

IDENTIFICATION CARDS: Required for crewmen going ashore.

AUTHORITY: The Port of Izmail Authority, 7 Port Street, 272630 Izmail, Ukraine. *Tel:* (04841) 25601. *Telex:* 232286 Izm Ux. *FAX:* (04841) 26258, 25469, 99136. *Cables:* Morport Izmail. *Contact:* Valentin F. Kotelny, Port Director.

AGENT: JVE "Inflot Izmail". Postal address: 14 Port Street, 272630 Izmail, Ukraine. Cables: "Inflot Izmail". Tel: (04841) 21255, 90559, 20463. Telex: 232136. Fax: (04841) 20463.

KERCH: 45.21 N. 36.38 E.

DOCUMENTS:

5 copies Crew List.
5 copies General Declaration.
4 copies Cargo Declaration.
2 copies Crew's Effects Declaration.
International Maritime Declaration of Health.
1 copy Master's Declaration.
Master's Declaration about arrival at the port.
Currency List.
2 copies Stores List.
For discharging: Manifests, Bills of Lading, Cargo Plan.
It is necessary to have all ship's papers and certificates.
Port acts as a transhipment point for trade.

PILOTAGE: Compulsory. Pilots board at the Southern end of the channel, off Light Buoys No. 1 and No. 2, in position Lat. 45° 12' N., Long. 36° 28' E., and at the Northern end of the channel at Varzovskiy Light Buoy. Requests for Pilots should be made to the Captain of the Port by radio, 48 hours and 24 hours prior to arrival at the entrance to Kerchenskiy Strait.

Vessels should advise in advance notice: ETA Kerch, draft, breadth, moulded depth, LOA, flag, B.R.T., N.R.T., type of cargo.

APPROACHES: Charts No. 2216 and 2233.

Through the Kerchenskiy Strait via the narrow Kerch-Yenikalskiy Channel, which connects the Black Sea with Sea of Azov. The Southern part of the channel starts about 8 miles North of the headland of Mys. Takil and is marked by pairs of spar and light buoys in accordance with the IALA system; the Northern part of the channel is entered on the line of the Chushkinskoye leading lights.

The approach channel to Kerch port branches off the strait about 1 mile East of Mys. Belyy, at position Lat. 49° 19' N., Long. 36° 31' E., thence separate channels to the various sections of the port.

Navigation through Kerch-Yenikalskiy Channel should be by the recommended course and fairway only. Pilotage is compulsory.

Vessel's draft allowed: (a) Kerch-Yenikalshiy Channel – 8.0 m.
(b) Kerch-Approach Channel – 7.8 m.

Vessels must navigate through Kerch-Yenikalskiy Channel with a speed of 10 knots. Vessels with draft less than 5.0 m. may navigate with the speed of 12 knots.

Navigation through the Kerchenskiy Strait is controlled by the VTS, its call signal on VHF is "Kerch-Radio-4" (Channel 14).

ANCHORAGES: Anchorage is allowed only in the fixed places No. 450, 451, 453, 454 and inside the roads of the Port Kerch.

Anchorage within the channels, fairways and roads of the Kerch Strait is prohibited.

Anchorages No. 450, 451, 453, 454 within a radius of 6 cables are for the vessels with a draft of 8.0 m.

The co-ordinates of the centres are:

No. 450:	Lat. 45° 11.3' N.,	Long. 36° 29.2' E.
No. 451:	Lat. 45° 09.8' N.,	Long. 36° 33.3' E.
No. 453:	Lat. 45° 28.6' N.,	Long. 36° 37.7' E.
No. 454:	Lat. 45° 28.6' N.,	Long. 36° 44.6' E.

Anchorage No. 451 is for special large tonnage vessels and vessels with dangerous cargo.

RESTRICTIONS/MAX. SIZE: Vessels can enter and leave the port at any time, day and night. Vessels over 160 m. LOA can enter only during daytime and in good weather conditions. The port has the possibility to load vessels with tonnage up to 10,000 tons, but with draft limit up to 7.8 m. There are no bridges. Also see "Approaches".

HEALTH: As demanded by Health Authorities and State Inspection of the Black Sea and Azov Sea, a vessel is to be fitted with sewage chemical or biological treatment plant and fical tank and sludge tank. Both tanks are to be equipped with a pump for dirty water pumping into ports' barges. If the vessel has none of the above named equipment, it will not receive Free Pratique. It is necessary to close and seal the sludge valves from both tanks prior to vessel's call in Kerch, anchorage/Pilot stay. It is necessary to have a construction scheme of official system or tank available, the Factory Certificate together with Medical Certificate, including the chemical and biological analyses, both documents must be used in English or copied. The period of validity of the last Certificate must include the time of call at Kerch Port. All vessels coming to Kerch and in the Azov Sea must change all ballast in open Black Sea.

A Master must send the International Maritime Declaration of Health by radio on frequency 500 kHz. (W/T) and on frequency 2,182 kHz. (R/T), or telex and ETA notice 48 hours, 24 hours, 12 hours and 4 hours prior to arrival.

RADIO/VHF: All vessels must keep a constant watch on VHF Channel 16. Vessels should establish contact through "Kerch Radio" Port Radio Station operating daily on the following frequencies:

	Frequencies		*Type of*	
Call Sign	*Calling*	*Working*	*Transmission*	*Time*
UUO	500 kHz	435/466 kHz	100HA1A	H24
UUO	8362.8 kHz	8366.4 kHz	100HA1A	H24
Kerch Radio	2182 kHz	2182 kHz	2K70H3E	H24
Kerch Radio	4149 kHz	4149 kHz	2K80J3E	H24
Kerch Radio	156.8 MHz	161.95/157.35 MHz	16KOF3E	H24

Also see "Health".

TUGS: Available.

BERTHING:

Berth No.	*Length* (m.)	*Depth* (m.)	
1	230	6.8	
3	230	6.8	
4	161	7.8	
5	200	7.6	
6	200	8.1	Ro-Ro
7	200	8.1	Containers

Principal exports and imports: Dry bulk, general cargo, containers and cars on Ro/Ro type vessels.

Tonnage of cargo handled in 24 hours for the vessels of the four groups:

Dry cargo in bulk – 3,000 tons.
General cargo – 1,300 tons.
Containers – 120 pieces.
Cars – 500 pieces.

STEVEDORES: The port works 24 hours a day. The Port Authority act as the stevedoring company.

CRANES: 31 gantry cranes of 5 tons – 32 tons capacity and a floating crane of 100 tons capacity.

Berth No. 1: Cranes of 5 tons for general cargo.
Berth No. 3: Cranes of 10 tons for cargo in bulk.
Berth No. 4-5: Cranes of 10 tons – 32 tons for metal and ferroalloy.
Berth No. 6-7: Cranes of 32 tons – 40 tons for heavy metal construction, container and direct reduced iron.

Cars are handled on Berth No. 4 – 7.

Forklift trucks can be used.

MEDICAL: If there is any disease onboard, the Maritime Agency "Inflot" in Kerch must be contacted. Hospital is within 3 km. – 4 km. of the port.

TANKERS: No facilities.

DENSITY: 1008-1011.

FRESH WATER: Supplied at quays and piers. Cost is about U.S.$5.00 per ton.

FUEL: Not available.

CONSULS: None locally.

REPAIRS/DRY DOCKS: There is a ship repair yard with 2 floating docks with lifting capacity of 8,500 tons and 5,000 tons. Tel: (06561) 21198 and 28392. Fax: (06561) 23506. Telex: 187125 Kerch Ptb Su.

AIRPORT: At a distance of 5 km. – 6 km. from port. Internal airlines only. International flights available from Simferopol City, which is 300 km. from Kerch.

TIME: GMT plus 3 hours in Summertime.

POLICE/AMBULANCE/FIRE: Fire – dial 01. Police – dial 02. Ambulan – dial 03.

TELEPHONES: It is possible to place telephones on board.

BANKS: The following Banks are used by the Port Authority:

1. Promstroybank of Ukraine, Kiev, Account No. 08138114/400 Dresdner Bank AG, Frankfurt/Main in favour of Crimea Ban Promstroybank of Ukraine Account 073413 for Commercial Port of Ker Account No. 7015071501/001.
2. Turkaiye Garanti Bankasi AS Taksin – Istanbul account with Tru Company, New York, in favour of Crimbank Promstroybank of Ukrain Account No. 9002215-3 for Commercial Port of Kerch Account.
3. Promstroybank, Moscow via Dresdner Bank, Frankfurt/Mai No. 815749200 in favour of Crimean Regional Department Promivestbank of Ukraine Account No. 001073020 for Commercial Po of Kerch Account No. 7015071501/001.

WEATHER: Prevailing winds: N.E. winds throughout most of the yea S.W. winds during the daytime in Summer.

Fog can frequently be experienced in Spring.

Navigation in the port is all year around.

Ice conditions may occur in the Kerchenskiy Strait from mid-Decemb until the beginning of March. Navigation is maintained with the assistan of icebreakers during this period.

GENERAL: *Railway Station:* 3 km. – 4 km. from port.
Provisions: Supplies are readily available.

SHIPMASTER'S REPORT: April 1996.

This information concerns Kerchenskiy Strait (Russian: Kerchensk proliv), Lat. 45° 15' N., Long. 36° 30' E.

Kerchenskiy Strait joins Azov Sea with the Black Sea.

On the West, Kerch Strait is limited by Kerch Peninsula and on th East by Peninsula of Taman. South entrance lies between Cape of Ta (Lat. 45° 06' N., Long. 36° 27' E.) and Cape of Panagia (Lat. 45° 08' N Long. 36° 38' E.). North entrance lies between Cape of Khron (Lat. 45° 26' N., Long. 36° 35' E.) and Cape of Ahileon (Lat. 45° 26.5' N Long. 36° 35' E.).

The length of Kerchenskiy Strait is 22 miles and the smallest width about 2 miles. But many shoals and other dangers make it very narro and shallow.

Enikalskiy Channel was dredged in 1874 for large vessels. All vesse bound for Azov Sea ports, Mariupol (ex-Zhdanov), Berdyansk and ne ports of Kamish-Burun and Kerch which are open to foreign vesse use this channel.

Pilotage: Compulsory. Inform Kerch Pilots 24 hours before arrival at Pi Buoys (No. 1 and 2), Lat. 45° 12' N., Long. 36° 27.8' E., when comin from the Black Sea and the Varzovkiy Buoy, Lat. 45° 27.4' N Long. 36° 41.7' E., when coming from the Azov Sea.

When VHF radio contact is possible, it is necessary to call Pilot Statio on VHF Channel 14 (Kerch Radio-4) and advise exact time of arrival the pilot buoys.

Foreign vessels may take a Pilot for all the passage – from the pi buoys to the port of destination (Mariupol, Berdyansk, including passa Azov Sea and vice-versa).

Pilot arrives on pilot boat 8.0 m. long, marked "Pilot". Pilot ladder sh be ready 1.0 m. above water level.

Anchorage: Anchorage may be obtained near the South and Nor entrances of the channel. South Anchorage No. 450 is a circle with radi of 6 cables from centre Lat. 45° 11.28' N., Long. 36° 29.2' E. In time congestion, vessels may drop anchor near this place, but only Eastward from leading line of the channel. There is good holding grou – sand. The depth is about 10.0 m.

In the North, the anchorage may be obtained at Anchorage No. 4 (circle with radius of 6 cables from centre Lat. 45° 28.6' Long. 36° 37.7' E.), and at Anchorage No. 454 (circle with radius 6 cables from centre Lat. 45° 28.6' N., Long. 36° 44.6' E.).

Sometimes ships are at anchor near Varzovskiy Buoy, but alwa away from leading line.

The depth in Kerch-Enikalskiy Channel is limited to 8.0 m.

The Kerch-Enikalskiy Channel consists of 4 turns. All turns ha leading lights and are marked by IALA Buoyage System.

After break-up of the U.S.S.R., navigation aids became very poor a are getting worse. After ice in Spring, some buoys are destroyed a others shift from fixed positions. Sometimes leading lights are unlit.

This is why navigation through channel is only available in dayligh

In the restricted visibility, less than 2 miles, navigation through channel is not allowed.

Currents: There is no tidal stream. Normal current is South-goin speed of about 0.3 –0.5 knots. After strong and long N.E. winds, South-going current increases and may reach 2 knots to 3 knots.

When the winds are from a Westerly direction, current is unstea

Ice: Normally there is no ice in Kerchenskiy Strait. But some small f may be encountered. During harsh Winters, the Strait is covere motionless ice for some days.

Time: Summertime (from 1st April to 31st October) GMT plus 3 ho and the rest of the time GMT plus 2 hours.

AUTHORITY: The Kerch Merchant Port, 28 Kirova Street, Kerch 334 Crimea, Ukraine. *Tel:* (06561) 20239. *Telex:* 187111 Volna *FAX:* (06561) 21436.

AGENT: Maritime Agency "Inflot", 28 Kirova Street, 334512 Ke Crimea, Ukraine. Tel: (06561) 23049. Telex: 187111 Volna Ux or 18 Bspr Ux. Cables: Inflot Kerch Crimea.

KHERSON: 46.37 N. 32.37 E. **(See Plan)**

GENERAL: The sea and river commercial port of Kherson is situated on the right bank of the Dnieper River and on the left bank of the Koshevaya River.

The port is open for navigation all the year round but in severe Winters ice-breaker assistance is required.

Ice at the estuary of the Dnieper finally disappears in the first half of March.

PORT LIMITS: A vessel is considered to be an "arrived ship" and laytime will commence on arrival to the inner roadstead of the port.

DOCUMENTS: *Quarantine:*
Maritime Declaration of Health.
Valid Derat Certificate.
International Vaccination Certificates.
Customs:
Money List.
Complete copy of each Manifest for goods onboard.
Immigration:
Crew List – 5 copies.
Passenger List – 5 copies.
Seaman's Book or Passport for each person.
General Declaration – 5 copies.

APPROACHES: The port is accessible for sea-going vessels. The approaching channel is very well marked by navigation marks; therefore, there are no difficulties in navigating a vessel along it when entering or leaving the port.

PILOTAGE: Compulsory. Navigational range marks, leading marks of Stanislov, Adjigolsky beacons, Verbchansky and Maliy Kasperovsky leading light buoys, and spar buoys. Master advises Port Controller and Inflot Agency ETA minimum of 96 hours prior notice.

Masters of vessels proceeding to the port of Kherson must advise ETA to the Harbour Master through Inflot Agency 48 hours, 24 hours and 6 hours prior to arrival at the point of Lat. 46° 15' 06" N., Long. 30° 56' 01" E.

Master shall order a Pilot via the Inflot Shipping Agency 8 hours and confirm the order 2 hours prior to leaving the port of Kherson.

Masters of vessels proceeding to the Port of Kherson must advise ETA both to Inflot Ilychevsk and Pilot Station Ilychevsk 48, 24 and 6 hours prior to arrival at point Lat. 46° 15' 16" N., Long. 30° 56' 01" E. On arrival at the point Masters must call Inflot Ilychevsk or Pilot Station on VHF Channel 16.

ANCHORAGES: A part of the Dneiper River from the Northern border of the town of Kherson, nearly up to the Maly Potemkin Island, is considered as the Port of Kherson Roads.

The anchorage for foreign flag dry cargo vessels is situated in the area restricted by 2 imaginary lines of the leading marks located on the left bank of the Dnieper River, upwards from the mouth of the Konka River and lower of basin (creek) No. 2.

The recommended anchorage for foreign flag tankers is situated in the area stretching down the river from the oil piers towards leading line No. 7, S.W. of the upper leading marks clearing the place where a submarine cable is laid.

RESTRICTIONS: The permitted draft for passing through the channel is 7.6 m. but it may vary depending on weather conditions.

In the Summer the channel is open for navigation 24 hours a day.

Speed of vessels having draft over 5 m. should not exceed 10 knots whilst navigating through the channel.

The port receives vessels with length up to 200 m.

Navigation through the channel in restricted visibility is strictly prohibited.

It is prohibited by local quarantine authorities to discharge sea-water ballast into the harbour.

HEALTH: No automatic Pratique. Cable to Inflot, name and nationality of the ship, ports of call during last month, nature of cargo, number of crew and passengers, condition of health of all onboard with details of any sickness.

RADIO: Ship-shore radio link can be established through the port radio station operating 24 hours on the following frequencies:

Call sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans-mission*	*Time of work*
UHZ	500/487	500/468	A1A	H24
"Kherson Radio"	2182	2182	P3E	H24
"Mesyats" (CPR)**	156.8*(16)	156.8*(16)	F3E	H24
"Mesyats-2" (Harbour Master)	156.45*(9)	156.45*(9)	F3E	HX

*Frequencies are given in MHz.
**CPR – Central Port Radio Station.

TUGS: Compulsory for mooring and unmooring or shifting. Number as required by Pilot but the charge depends on n.r.t. of the ship and not on the number of tugs used.

Tugs available: 2×1,412 b.h.p., 2×706 b.h.p., 1×352 b.h.p. and 1×65 b.h.p.

BERTHING: 9 berths, depths up to 8.25 m.

Mooring is effected with port Pilot assistance. Number of tugs required for mooring is determined by Pilot with Master's consent, ship's lines used.

Cranes of up to 10 tons capacity are operated on the quays and by the warehouses. There are floating cranes with lifting capacity of up to 100 tons and other cargo handling equipment, intra-port transport included.

Berths of the port, with depths of up to 8.25 m. alongside are equipped to handle general and bulk cargoes (ore, chemicals, building materials), metals, grain, timber, cotton, cement, food products, etc., as well as passenger traffic. There are enclosed warehouses, a grain elevator and open concrete floor storing spaces without roofs. There is a refrigerated warehouse at Berth No. 4. Cargo is generally loaded/unloaded by shore cranes but ship's derricks are always to be ready for use.

TIDE: Changes in the water level observed in the port are due to the effect of the wind and variation in atmospheric pressure. The maximum range of the water level caused by winds may reach 2 m.

The changes of the water level due to variation in atmospheric pressure ("Seish" effect) are observed at times. They may last from a few minutes up to several days and may reach 0.58 m.

MEDICAL: Hospital facilities available.

DENSITY: 1000.

TANKERS: Max. draft 7.5 m. Loading rate for gas oil 300 tonnes/hr.

FRESH WATER: Available by barge. Rate 50 t.p.h.

FUEL: Not available. Bunkering takes place at Odessa.

REPAIRS: Only minor repairs can be effected. There are no dry docks.

SURVEYORS: Saybolt at Odessa.

CERTIFICATES:
Construction Certificate.
Safety Equipment Certificate.
Radio Safety Certificate.
Load Line Certificate.

OPENING/CLOSING HATCHES: Opening and closing of hatches is usually done by the ship's crew. It may also be done by port workers for vessel's account.

REPATRIATION: Crew changes and repatriation possible.

TIME: GMT plus 3 hours. Daylight saving time, GMT plus 4 hours from last Sunday in March to last Sunday in September.

SHORE LEAVE: Possible from 0800 hrs. – 0000 hrs. No restrictions for Masters.

AUTHORITY: Port of Kherson Authority, 4 Ushakov Av., 325025 Kherson, Ukraine. *Tel:* 29-14-02, 2-38-48. *Cables:* Morport Kherson.

AGENT: Kherson Shipping Agency "Inflot". Postal address: 11 Petrenko Street, 325004, Kherson, Ukraine. Tel: 29-13-51, 2-35-961. Telex: 273114. Cables: "Inflot Kherson".

KILIA: 45.26 N. 29.17 E. **(See Plan)**

GENERAL: The Port of Kilia is situated on the left bank of the Kilia inlet of the Danube River, 47 km. from the estuary. The depths of the water within the port area vary from 3 m. up to 22 m. The holding ground is clay and mud. The season of navigation in the port area lasts from March till December depending on time when the Danube River is frozen over.

PILOTAGE: Carried out by the Pilot service of the port of Izmail.

ANCHORAGES: Allowed in the port area, in 5 m. depths according to the Pilot's instructions.

RESTRICTIONS: Vessels can enter or leave the port at any time of day or night. Movement of vessels during fog is not allowed.

RADIO: Communication can be effected via the port radio station viz. "Kilia-Radio".

Call Sign	*Frequencies (MHz)* *Working*	*Calling*	*Type of trans-mission*	*Time of work*
Kilia-1	156.8(16)	156.8(16)	F3E	H24
(CPR)*	157.25(25)	157.25(25)	F3E	H24
Kilia-2	156.6(12)	156.6(12)	F3E	H24
(Harbour Master)	156.45(9)	156.45(9)	F3E	H24

*Central Port Radio Station.

Notice of Arrival: Masters of vessels going to the port from seaward via Kilia Inlet should advise "Inflot Izmail" their ETA 24 hours prior to arrival at the Reception Buoy area. More precise time of arrival should be advised at a later time.

TUGS: Approaching and shifting berth is performed without tug assistance.

BERTHING: Cargo vessels drawing up to 7 m. are handled with the use of buffer barges. Berths of the port are equipped to handle general cargoes, metals, timber, coal. Embarking/disembarking of passengers is also performed. There are portal cranes of up to 6 tons capacity, a warehouse and open storage areas covered with concrete. There are also floating cranes of up to 5 tons capacity which are used for handling cargo in the Outer Roads. The loading of grain is carried out at the grain elevator berth by its own equipment.

FRESH WATER: Available from Izmail with sufficient notice.

FUEL: Available from Izmail with sufficient notice.

CONSULS: None.

REPAIRS: Not possible.

TIME: GMT plus 3 hours. GMT plus 4 hours in summer.

AUTHORITY: Port of Kilia Authority. 4, Zheleznyakov Street, 272610 Port of Kilia, Odessa Region, Ukraine. *Tel:* 2-37-03. *Telex:* 232103. *Cables:* Morport Kilia. *Contact:* Port Director.

AGENT: JV "Inflot Izmail". Telex: 232136. Cables: "Inflot Izmail".

MARIUPOL (Zhdanov): 47.06 N. 37.35 E. **(See Plan)**

GENERAL: A sea port in the Azov Sea, Mariupol is situated 14 miles Northward of the entry into the Taganrog Gulf, at the Western end of it.

All-year round navigation is possible but during 30 – 90 days period of ice conditions with ice-breaker assistance for ice-strengthened vessels only.

Ice usually begins to form at the end of November or the beginning of December, and 3 – 4 weeks later the Gulf becomes completely frozen over. The increase of fast ice usually lasts up to the first half of February. As a rule the ice usually breaks up in the middle of March. It finally disappears at the end of March or, as an exception, in the first half of April.

The port of Mariupol consists of the Outer and Inner Roads, the Western Harbour, the Ugolnaya (or the Coal) Harbour, the Grain Harbour and the Ship-repairing Basin.

PILOTAGE: Compulsory. Inform Kerch Harbour Master ETA 24 hours and 6 hours, off Kerch Strait. On arrival Kerch Pilot Buoy No. 21 (Lat. 45° 13' N., Long. 36° 27' E.), drop anchor and await Pilot; also keep continuous radio watch.

Not later than 4 hours prior to arrival at the mouth of the Coal Harbour Approach Channel, Buoy No. 1, a Master should order a Harbour Pilot.

ANCHORAGES: A good anchorage can be obtained in the Outer Roads of the port of Mariupol situated opposite the port entrance. The depths in the roads are from 5 m. – 9 m. the holding ground is mud mixed with sand and shell.

RESTRICTIONS: Vessels can enter or leave the port at any time of day and night. All vessels entering or leaving the port should have keel clearance not less than 0.5 ft. (15 cm.).

The max. allowed speed in the approach channels is 8 knots and in the part of the Coal Harbour Approach Channel, protected by a wooden dam, only 3 knots.

The speed of a vessel may be increased in case of necessity to keep her course along the leading line or prevent her drifting off the channel due to the effect of current or wind.

MAX. SIZE: Draft 8 m., length 200 m.

HEALTH: After presenting Vaccination Certificates, Free Pratique obtained. After proceeding from one port of the Ukraine to another, Free Pratique obtained automatically.

Vessels calling at any port in the Sea of Azov are to be equipped with either a sewage treatment plant or a sewage tank. Before entering Kerch Strait, all valves for discharging non-purified bilge and sewage water to be closed and sealed by the ship. Date and ship's coordinates to be entered in Log Book.

RADAR: The port of Mariupol radar station gives all possible information to any vessel navigating along the Coal Harbour approach channels in the restricted visibility and during the absence of the floating navigation marks.

Radar navigation is controlled by a Pilot in charge.

RADIO: Vessels approaching the port of Mariupol should establish radio contact through Mariupol Radio port radio station operating 24 hours daily on the following frequencies:

Call Sign	Frequencies (kHz) Working	Calling	Type of transmission	Time of work
UTW	500/473	500/416	A1A	H24
"Mariupol-Radio"	2182	2182	N3E	H24
"Mariupol Radio-1"	156.8*(16)	156.8*(16)	F3E	H24
"Mariupol Radio-2" (Port Controller)	156.7*(14)	156.7*(14)		
"Mariupol Radio-5" (Harbour Master and Pilot Station)	156.45*(9)	156.45*(9)	F3E	H24
"Mariupol Radio-9" (Movement Control)	156.375(67)	156.375(67)	F3E	H24

*Frequencies are given in MHz.

TUGS: Available. Use ship's lines. Tug assistance for shifting berths is compulsory. Number of tugs to be ordered shall be advised by Pilot.

BERTHING: The berths of the port with depths of up to 9.0 m. are equipped to handle general, containers, bulk and liquid cargoes, timber, metals, food stuff, fruit, vegetables, etc., and passenger shipping as well. There are enclosed warehouses, open concrete floor sheds and a grain elevator.

On the quays there are electric cranes of up to 40 tons capacity, coal and grain loaders. There are floating cranes with lifting capacity of up to 100 tons and other cargo handling equipment.

The Grain Harbour is bounded by two piers – by the Dividing Pier from S.W. and by the Eastern Pier from N.E.

The depths in the central part of the Grain Harbour are from 8.7 m. to 9.1 m.

The Coal Harbour is protected on its S.E. side by the Eastern Mole, extending the length of the harbour. The berths have depths alongside of up to 9.0 m.

The Western Harbour is situated adjacent to Coal Harbour. It is protected from the East by the Dike Dam and from the S.W. by the Western Mole. The general depth in the harbour is 9.0 m.

When proceeding to the Inner Roads through the shoal water vessels should use approaching channels leading to the Coal Harbour and the Avant-port.

The Coal Harbour approach channel is the main fairway for entry to the port of Mariupol. It passes through a coastal shoal then enters the Southern part of the West Harbour.

Navigation along the Avant-port and the Coal Harbour approach channels is also ensured by leading lights, light buoys and spar buoys.

The access to the port of Azovstal is by a channel branching off N.E. of the Coal Harbour approach channel.

MEDICAL: Masters to advise by radio prior arrival of medical attendance required on board. Hospital facilities available. Vaccination Certificates to be presented.

DENSITY: About 1005.

FRESH WATER: Delivered at berth. Also delivered by lighters.

Vessels are advised to arrive with sufficient fresh water for their stay in port.

FUEL: Delivered by lighters. Supply of fuel to be arranged well in advance of vessel's arrival.

CONSULS: None.

REPAIRS: The ship-repairing Basin is situated in the Northern part of the Inner Roads. It is bounded on the S.W. by the Eastern Pier and on the East by the Eastern Dam. The entrance to the Basin is situated between the heads of the Eastern Pier and the Eastern Dam. The depths in the Basin are from 6.1 m. to 7.4 m.

All kinds of repairs for vessels of up to 22,000 d.w.t. can be carried out.

DRY DOCKS: Floating docks of 15,000 and 5,000 tons.

OPENING/CLOSING HATCHES: Crew allowed open and clos stevedores placing beams.

CERTIFICATES: Registered Tonnage Certificate and all internatio certificates are required.

CUSTOMS ALLOWANCES: No quantity restrictions. Nothing to b taken ashore.

REPATRIATION: All facilities for repatriation subject to visa formalitie

AIRPORT: 15 km. from port with regular airlines.

TIME: Local time GMT plus 2 hours, GMT plus 3 hours in Summer.

HOLIDAYS: 1st January; 7th January; 8th March; 1st, 2nd, 9th Ma 24th August; 7th, 8th November.

AMBULANCE/FIRE: Ambulance 9-03; Fire 9-01.

TELEPHONES: Telephones cannot be placed aboard. Long distanc calls are difficult to make.

IDENTIFICATION CARDS: Not required.

WEATHER: The changes in the water level is mainly caused by effec of the wind observed here all the year round. The fall of the water leve is usually caused by Northerly and N.E'ly winds but rises of the wat level are due to S.W'ly winds.

The range of the water level observed in the Gulf is about 1 m.

Changes of the water level can also be caused by variation in th atmospheric pressure, so called "Seish" effect. The "Seish" usuall starts during calm weather and can last, on average, for about 24 hour

The maximum range of the water level due to the "Seish" effec observed in August is about 0.6 m.

AUTHORITY: The Port of Mariupol Authority, 99 Admiral Lunin Avenu 341010 Mariupol, Ukraine. *Tel:* (06292) 51039, 58508. *Telex:* 11521 More Su. *Cables:* Morport Mariupol. *FAX:* (06292) 5841 *Contact:* Y.I. Markin, Harbour Master. A.V. Shtepa, Port Director.

AGENT: Economou International Shipping Agencies, Prospe Metallurgov 19, Office 61, 341000 Mariupol, Ukraine. Tel/Fax: (380-62 332345. Telex: 115720 Ceco Ux.

NIKOLAEV: 46.56 N. 31.57 E. (See Plan

GENERAL: The commercial sea port of Nikolaev is situated in the mout of the Yuzhny Bug River (the Southern Bug), in the Northern part of th Dnieper (the Bug estuary).

The port is open for navigation all the year round, but in Winter o announcement of Ice Compaign, traffic through the approach channe is permitted in convoy when escorted by ice-breakers. Ice first begi to form in the second half of December, and in the channel and th estuary it finally disappears in the first half of March.

PORT LIMITS: A vessel is considered to be an "arrived ship" on arriv at the inner roadstead of the port. Laytime will commence in accordanc with the Code of Customs of Nikolaev Commercial Sea Port.

DOCUMENTS:

Quarantine:
 Maritime Declaration of Health.
 Valid Derat Certificate.
Customs:
 2 copies General Declaration.
 2 copies Cargo Declaration.
 3 copies Crew List.
 3 copies Passenger List.
 2 copies Currency Declaration.
 2 copies Crew Personal Effects Declaration.
 2 copies Stores List.
Immigration:
 1 copy General Declaration.
 3 copies Crew List.
 3 copies Passenger List.
 Seaman's Book or Passport for each person.

APPROACHES: The port is linked with the Black Sea by an approa channel of 44 miles length, up to the port of Ochakov. It is well mark by navigation marks, therefore there are no difficulties in navigating vessel along it when entering the port.

PILOTAGE: Pilotage in the port and in the channel is compulsory all vessels. Notice of Arrival and ordering of a Pilot should be advis via Shipping Agency, Illyichevsk, 48 hours, 24 hours and 6 hours pr to the expected time of arrival at the Reception Buoy. Also it is necess to specify length overall and draft. Pilots normally embark and disemb from foreign vessels in the area of traffic circle centered Lat. 46° 16.3' N., Long. 30° 57' E., or at any other point designated the Traffic Co-ordination Centre. Vessels bound for the port of Nikol should proceed there with a Pilot aboard up to the roads of the po Nikolaev (Buoy No. 230), where a Port Pilot is picked-up.

When leaving, Pilots must be requested via the Shipping Age 8 hours in advance, and the request to be confirmed 2 hours prio leaving the port of Nikolaev.

ANCHORAGES: There are 2 anchorages in the inner road of the p

RESTRICTIONS: Navigation through the channel is allowed in day only. The least depth of the channel is 10.4 m. and width of chann 100 m.

Tug assistance for passing through the channel is compulsory for vessels with length of more than 187 m.

Entering the channel during fog, mist, snow-fall, sea evaporation under bad weather conditions, causing restricted visibility of lea beacons and lights, is prohibited.

On announcement of Ice Compaign, traffic through the chann permitted for vessels having Ice Class Certificate. In case a vessel no such Certificate, a Special Guarantee Form signed by the Mast to be submitted before entering ice.

The port receives vessels having in operation an approved Sew Treatment Plant. It is prohibited to discharge sea ballast without sp permission of Sanitary Authorities.

MAX. SIZE: Nikolaev, Dnieprobugsky and Octyabrsk: The permissible fresh water draft is 9.8 m., and the permissible length of a vessel is 215 m.

HEALTH: No automatic Pratique. Cable Agent the name and nationality of the ship, ports of call during last month, nature of cargo, number of crew and passengers, condition of health of all onboard with details of sickness, if any.

RADIO: Ship-shore radio connection can be established through the port radio station operating 24 hours on the following frequencies:

Call Sign	*VHF Channel/* kHz	*Calling Channel/* kHz	*Type of Transmission*	*Time of Work*
1"Ochakov-Radio-2"	2182 kHz	2182 kHz	H3E	H24
"Ochakov-Radio-4"*	12	16	H3E	H24
"Ochakov-Radio-17"	12	16	H3E	H24
2"Nikolaev-Radio-1" *	1	16	H3E	H24
"Nikolaev-Radio-52" (Harbour Master)	73	16	H3E	H24
"Nikolaev-Radio-2" (Port Control)	68	16	H3E	H24

* CPR – Central Port Radio Station.

TUGS: Compulsory for mooring or shifting.

Tug assistance for passing through the channel is compulsory for the vessels with length of more than 187 m. The number is as required by the Pilot, but the charge depends on the size of a vessel, and not on the number of tugs used.

Tugs available: 3×1,200 h.p., 2×2,500 h.p., 1×400 h.p. and 1×200 h.p.

BERTHING: There are 12 berths with depths up to 9.5 m. Mooring is effected with Port Pilot's assistance. The number of tugs required for mooring is decided by Pilot and agreed with Master. Ships' lines are used.

CRANES: Cranes of up to 40 tons capacity are operated on the quays and by the warehouses. One floating crane of 100 tons capacity, and other transhipment facilities also available.

MEDICAL: Hospital facilities available.

DENSITY: 1005 – 1012.

BULK CARGO FACILITIES: There are modern installations used for handling grain, ore, etc. Total silo storage capacity at present is 62,000 tons. Port handles general and bulk cargoes. All berths have railroads, and are in close proximity to storage warehouses, both cold and dry, which facilitate transfer of cargo from vessel to warehouse or to open concrete floor sheds, which are also available.

Cargo is normally loaded/unloaded by shore cranes, but ship's derricks are always to be ready for use.

FRESH WATER: Available from barge. Rate 50 t.p.h.

FUEL: Available.

REPAIRS: Any kind of repair is possible.

DRY DOCKS: There are dry docks in the port.

HATCHES: Opening/closing of hatches is usually carried out by the ship's crew. It may also be done by the port workers for the vessel's account.

CERTIFICATES: Construction Certificate, Safety Equipment Certificate and Load Line Certificate.

REPATRIATION: Crew changes and repatriation are possible.

TIME: GMT plus 2 hours.

SHORE LEAVE: Crew members allowed ashore throughout 24 hours. Shore passes are provided.

GARBAGE DISPOSAL: Collected in special containers, which are provided alongside, ordered via Agent. Charges depend on the time of vessel's stay in the port.

WASTE OIL DISPOSAL: Collected by special barges.

CURRENCY: Karbovanets.

AUTHORITY: Nikolaev Port Authority, 23 Zavodskaya Street, Nikolaev 327004, Ukraine. *Tel:* 373140, 298555. *Telex:* 272121 PORT SU. *FAX:* 246364. *Cables:* Morflot Nikolaev.

AGENT: Economou International Shipping Agencies, 5 Ekaterininskaya Street, Office 2, 270026 Odessa, Ukraine. Tel/Fax: (380-482) 260819, 293356. Telex: 232207 Ceco Ux.

Vessels that are bound for the ports of Dnieprobugsky and Octyabrsk should give information to Agent in Nikolaev.

ODESSA: 46.30 N. 30.46 E. (See Plan)

GENERAL: The Port of Odessa is situated on the N.W. coast of the Black Sea in the S.W. part of Odessa Bay.

The port is open for navigation all the year round, but with ice-breaker assistance in severe Winters about 30 days of the year. Ice first begins to form in the second half of December and finally disappears in February. After ice has formed it is often broken up by strong winds and stormy weather. In mild Winters ice has not been observed in Odessa Bay.

Range of water level caused by winds depends on force and periods they blow, and may reach 0.6 m. – 1.0 m.

Atmospheric pressure has also a direct influence on the water level ("Seish" effect), but is weaker than effects of the wind. The "Seish" may last from a few minutes up to several days causing change of water level up to 0.58 m.

PORT LIMITS: The Odessa port waters are bound in the South by Lat. 46° 25° 00" N. from the shoreline as far as its intersection with Long. 30° 54' 00" E.; in the East by Long. 30° 54' 00" E.; in the North by Lat. 46° 32' 00" N. to its intersection with the shoreline and on the West by the shoreline itself.

PILOTAGE: Compulsory. Arranged through agent, but vessel to give 12 days', 96, 24 hours' and 6 hours' notice through Odessa Radio. Pilot boat recognised by international pilot flag. Vessel requiring Pilot shows international flag "G". Request for Pilot to shift a vessel within the port or to Pilot her into or out of port should be made by the Master through the Agent at least 4 hours prior to service requirement.

The Pilot is brought on board and returned on shore by pilot launch 1.7 miles E.S.E. of the Vorontsovsky Lighthouse (Lat. 46° 29' 00" N., Long. 30° 48' 00" E.).

The ship's Master is responsible for the safety of the pilot launch and the Pilot when he boards and disembarks from the vessel as well as during his stay thereon.

The boarding Pilot shall be informed by the ship's Master of the vessel's draft, length, breadth and other particulars required for her safe pilotage and mooring.

Specialised vessels (LASH vessels, barge carriers, container ships, Ro/Ro vessels and the like) shall be piloted through port waters only by a Pilot authorised by the local Port Pilotage Service. The Pilot may be taken on board in advance in the swinging area in the port of Ilichevsk (Lat. 46° 10.2' N., Long. 30° 56.2' E.).

Pilotage for all specialised vessels is compulsory.

Masters of vessels proceeding from the port of Odessa to Kherson shall make request for a Pilot through the Agent from the Maritime Pilot Service based in Ilichevsk. Vessels approaching zone from the sea must communicate with "Odessa Port Control" on VHF, Channel 14 (156.7 MHz) and act in accordance with its instructions.

ANCHORAGES: Two anchorages are available at the Odessa Roadstead. They are Anchorage No. 354 and Anchorage No. 355.

Anchorage No. 354 is for large-tonnage vessels as well as tankers or others carrying dangerous cargoes.

Anchorage No. 355 is used by vessels clearing in or out of port and by those that are to take on water, supplies or fuel or are to undergo minor repairs, etc.

The boundaries of these anchorages are duly charted.

Vessels shall proceed to, and anchor at, Anchorage No. 354 without assistance. Upon anchoring, the vessel shall communicate to the Traffic Control Station her bearings and distance from the Vorontsovsky Lighthouse.

In case of unforeseen circumstances which may endanger navigation (sudden deterioration of visibility, failure of the main engine or steering gear, non-readiness of berth to receive vessel, etc.), vessels entering or leaving port shall, if possible, anchor at points 8 or 12 of Anchorage No. 355.

Anchoring in the Oil Harbour Channel, in the prescribed routes and harbour approaches as well as in the harbour gateway should be avoided.

RESTRICTIONS: Vessels enter only with Pilot and should have lights according to Pilot's instructions. Vessels berthed depending on kind of cargo carrying or loading.

Vessels can enter and leave the port at any time of day or night.

Medium size vessels when entering or leaving port must have keel clearance not less than 1 ft.; large vessels not less than 2 ft.

Vessels are allowed to moor at berth only after having obtained Harbour Master's permission.

The speed of a vessel shall not exceed 4 knots when passing through the channel and/or in the port water areas marked by navigational marks.

Large vessels laden with ballast water only, are allowed to moor to berth if winds do not exceed Force 6. A vessel of smaller size may be turned broadside on to a loaded vessel of a larger size, but not vice versa.

Entry prohibited to all ports of Odessa Region for all vessels not complying with MARPOL 73/78 and tankers, gas carriers, chemical product carriers over 15 years old.

MAX. SIZE: *Inner Harbour:* LOA 240 m., beam 40 m. and draft 12 m.

HEALTH: Free Pratique given on berthing or at the anchorage. In case of suspected disease Master must inform Agent by cable. Free Pratique cannot be granted automatically.

RADIO: Vessels can establish radio contact through the port radio station Odessa Radio operating 24 hours a day on the following frequencies:

Call Sign	*Channels and Frequencies (kHz)* *Working*	*Calling*	*Type of trans-mission*	*Time of work*
UDE	500/447	500/454	A1A	H24
"Odessa-Radio"	2182	2182	H3E	H24
"Odessa-1" (CPR)*	16,7,27 and 62		F3E	H24
"Odessa-Radio-5" (Harbour Master)	16,9	16,9	F3E	H24
"Odessa Pilot"	14,16	14,16	F3E	H24
"Odessa-Radio-8" (Inflot Shipping Agency)	16,13	16,13	F3E	H24
"Odessa Port Control"	16,14,31	16,14,31	F3E	H24
(Vessels' movement control post)	67,14	67,14	F3E	H24

*CPR – Central Port Radio Station.

Traffic and storm signals are given by "Odessa Port Control" on VHF Channels 14 and 16.

VHF: Traffic in the harbour is controlled by the Traffic Control Station round the clock. The Traffic Control Station and the Signal Mast are situated on the roof of a building at Berth No. 1. The station telephone number is 37-30, its VHF call signal is "Odessa Port Control", and the operating Channels are 14, 20 and 67.

All vessels proceeding to the port of Odessa shall establish VHF communication on Channel 14 (156.7 MHz) with the Traffic Control Station 20 minutes prior to entering control zone (8 miles from Vorontsovsky Lighthouse), when entering port waters and after berthing or anchoring.

The vessel shall give the following particulars to the Pilot-Operator on duty:

(a) Ship's name, owner, length, breadth, draft.
(b) Name of local Agent.

(c) Last port of call and purpose of calling at the port of Odessa.

(d) Specialised vessels (LASH vessels, barge carriers, Ro/Ro and such like) and others concerned, also indicate the number of propellers, their pitch (variable or constant), engine power, availability of thruster and its power.

Thereafter, the ship will proceed according to the instructions of the Traffic Control Station.

Prior to moving any ship within the Traffic Control Zone, her Master shall request permission from the duty Pilot-Operator of the Traffic Control Station by VHF Channel 14, by telephone (37-30) or by visual communication means.

Such permission is valid only for 30 minutes after which it is automatically cancelled.

A special watch should be posted on all vessels and other craft navigating within Traffic Control Zone to listen in on VHF Channel 14 until they are berthed or anchored. Ships underway may change their VHF Channel only on instructions from the Traffic Control Station or the Pilot Service.

All vessels sailing in port waters shall have their VHF stations in good order and shall keep them operative on one of the channels used for communication in the port.

Vessels in port waters, at berth or anchorage, are strictly prohibited to use the VHF for private communication on Channels 16, 9, 14, 20, 22 and 67.

Failure to comply with this regulation will be regarded as a violation of safety rules prescribed for sailing in the Odessa port waters and all violators will be punished accordingly.

Also see "Radio."

RADAR: When visibility is less than 2 miles in the roadstead or 0.5 miles in the port, vessels may be navigated only by shore-based radar.

The necessity for Radar-Assisted Pilotage is determined by the Pilot-Operator on duty at the Traffic Control Station.

The decision to put a vessel into or out of port shall be taken jointly by her Master, the Port Pilot and the duty Pilot-Operator of the shore-based radar station. Ship-to-radar station communication shall be effected by the boarding Pilot.

The shore-based radar station provides:

(a) Pilotage of vessels from the limits of the Traffic Control Zone to the Karantinaya, Novaya and Kabotazhnay Harbours of the dry-cargo port through the Vorontsov Gateway.

(b) Pilotage of vessels from the limits of the Traffic Control Zone to Anchorage No. 355.

(c) Pilotage of vessels from the port through the Vorontsov Gateway and from Anchorage No. 355 to points beyond the Traffic Control Zone Limits.

(d) Remote pilotage of vessels with no Pilot on board by furnishing them with information on their position, with other data to help them orientate and to pass clear of other ships. Such information is supplied by the shore-based radar station at the Master's request.

Vessels may be brought to Anchorage No. 355 only with the assistance of shore-based radar pilotage whatever the visibility conditions may be.

Radar Assisted Pilotage and Remote Pilotage are effected throughout the 24 hours of the day, only 1 vessel being piloted at a time.

A ship to be piloted with the assistance of or by shore-based radar shall have her main engine, steering gear, anchor handling gear, communication facilities and sound signalling in good working conidtion and her radar shall be operative. Failure of any of above equipment is to be immediately reported by the ship's Master to the shore-based radar station through the Pilot.

In the event of failure of the shore-based radar or other means of ship-to-shore communication, the Master, whose ship is being assisted by such radar or is on remote pilotage, must take all the necessary measures to ensure the ship's safety.

The use of the shore-based radar does not relieve the Shipmaster of responsibility for ship control.

Radar Assisted or Remote Pilotage dues are recovered according to established procedure on the basis of the extract from the log of the Odessa Port Traffic Control Station.

TUGS: A ship's tugboat requirements are made known, subsequent to the Pilot's approval, to the Traffic Manager on VHF Channel 14, call signal "Odessa Port Control", at least 2 hours prior to the ship's approaching the port gateway. Tugs are compulsory for vessels over 100 m. LOA.

BERTHING: 38 berths available with depths alongside from 8 m. up to 12.0 m.

STEVEDORES: Portal electric cranes of up to 45 tons capacity are operated on the quays by the warehouses. There are grain-loaders and floating cranes with lifting capacity of up to 100 tons, other cargo handling equipment and intraport transport.

Opening and closing of mechanised hatches is always done by the ship's crew.

Opening of hatches on arrival and closing of non-mechanical hatches after loading of cargo has been completed, is done by ship's crew.

Opening and closing of non-mechanised hatches in the course of loading or unloading is done by port workers.

MEDICAL: Advance notice for medical attendance required. Notice should be given to Agent. Hospital facilities available in case of emergency.

TANKERS: No reducing pieces necessary. Oil slop facilities available. The Oil Harbour is situated in the Northern part of the port (the inner roads), Northward of Rabochaya Harbour which is formed by a "T"-shaped mole extending E.S.E. off-shore.

Berths No. 1 and 5: Max. LOA 240 m., max. draft 11.5 m.
Berth No. 2: Max. LOA 195 m., max. draft 12.0 m.
Berths No. 3 and 4: Max. LOA 120 m., max. draft 10.0 m.
Loading Rates:
Berths No. 1 and 5: Fuel oil 2,000 tonnes/hr.
Gas oil 500 tonnes/hr.

DENSITY: Average density 1012 varying with season.

FRESH WATER: Fresh water may be supplied ex-shore or ex-wate barge. Minimum quantity ex-barge 15 tons.

FUEL: Bunkers can be supplied by barge, and to be ordered 72 hou before arrival.

CONSULS:

Bulgarian Consulate General	Tel: 66-60-92.
Indian Consulate General	Tel: 22-43-33.
Cuban Consulate General	Tel: 25-14-69.

REPAIRS: All types of deck and engine repairs can be carried out.

DRY DOCKS: Available.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: See "Stevedores".

CUSTOMS ALLOWANCES: Tobacco. No limits on board vessel, bu when going ashore not more than 1 or 2 packs. Wine and/or spirits no to be taken ashore.

CARGO GEAR: All cargo gear must have certificates for maximu weight capacity.

REPATRIATION: Can be arranged.

AIRPORT: Distance to airport 10 miles. Direct flights with severa countries and with the rest of the world through Odessa.

TIME: GMT plus 2 hours. GMT plus 3 hour in Summer (Last Sunday i March to Last Sunday in September).

HOLIDAYS: Work can be arranged on below mentioned holidays 1st January, 7th January, 8th March, 1st and 2nd May, 9th May 24th August, 7th October, 7th and 8th November.

POLICE/AMBULANCE/FIRE: Police (Militia), 02 from town; 902 fro port. Ambulance: 03 from town, 903 from port. Fire: 01 from town, 90 from port.

TELEPHONES: Telephones may be installed on board.

SERVICES: Tank-cleaning equipment available.

SHORE LEAVE: Crew members allowed to stay ashore until midnig Master without limitation.

IDENTIFICATION CARDS: Necessary.

GARBAGE DISPOSAL: Collection service is available, drums and ski are provided alongside. Food waste and garbage should be pre-bagge bags of up to 100 kg. or containers of 0.75 cu.m. are available, and a provided via Port Agents.

WASTE OIL DISPOSAL: Waste oil collection service is availab provided by barges and shore tanks, located in Oil Harbour. Tel: 25.15.7 or 29.33.48. A ballast water treatment station receives 42,000 cu.m daily.

CURRENCY: Karbovanets.

DELAYS: Vessels berthed in turn.

REGULATIONS: The following is a copy of Odessa Sea Po Regulations (dated 1990) received from a Shipmaster in October 199

SECTION I

GENERAL REGULATIONS:

1.1 The Regulations in force in the Port of Odessa, issued in accordan with Article 66 of the Commercial Shipping Code and Order No. 152 June 7th, 1978 of the Ministry of Merchant Marine, supplement th General Rules for all maritime commercial and fishing ports.

1.2 The Odessa Port Regulations are applicable to all state and forei ships as well as to all organisations, enterprises, individuals that happ to be within the port area both on land or at sea. Lack of knowledge the General Rules and the present Regulations does not exempt a organisation, enterprise or individual from responsibility for violati them. Failure to coincide the Traffic Regulations with the present Po Regulations shall result in implementation of the latter.

1.3 The present Odessa Port Regulations come into force as of Octob 31st, 1989. The former Regulations issued in 1984 are herew cancelled.

1.4 Masters of all foreign vessels may acquaint themselves with the Regulations and all other port rules in force through the Agent, boarding pilot.

1.5 The Odessa port waters include inner water area and ou roadstead. Two anchorages are available at the Odessa roadstead. Th are Anchorage No. 354 and Anchorage No. 355.

Anchorage No. 355 is accessible with the permission of the duty Pi Operator of the Traffic Control Station and used by vessels clearin or out of port and by those that are to replenish water, fuel, supplies are to undergo minor repairs, etc.

Anchorage No. 354 is for large tonnage vessels as well as tankers others carrying dangerous cargoes.

The boundaries of these anchorages are duly charted.

1.6 Declared draft in the port is 11.5 m. Permissible draft is cou with regard for soundings at berth within three-metre limits and for 30 clearance under the keel but regardless of low/high level of the tide

Permissible draft limits for entry into port and soundings at berths made known on the Harbour Master's orders and are brought to notice of all concerned.

In each particular case the Pilot together with the Port Control se the matter of berthing a vessel by taking into account the typ subsequent cargo operations (whether discharging or loading) with regard for permissible draft and low/high level of the tide.

1.7 In Odessa Port, control over all vessels operating on internati lines is exercised by a special department of the Harbour Co Inspection established in accordance with the 1978 Report on SOLAS International Convention of 1974 and with the 1978 repo the MARPOL International Convention of 1973.

1.8 The Shipping Control Centre is located in the Odessa Po exercises control over shipping in the Northwestern part of the Bl Sea, dispatches traffic stream, provides pilot and bunker supplying The Shipping Control Centre charges fees for the service render accordance with the existing tariffs.

SECTION 2

ENTERING AND LEAVING PORT:

2.1 The Odessa Port receives vessels round the clock.

2.2 The arrival of a foreign vessel is registered by the Agent at the Harbour Master's office and that of a Ukrainian ship at any Harbour Control Station.

2.3 Vessels may leave the port at any time of day or night.

2.4 A vessel's readiness to put to sea is checked by a control party, as a rule 3 – 4 hours prior to leaving, in agreement with the vessel's administration after which the Statement of Instructions is drawn up in duplicate, one copy remaining on board the vessel.

2.5 In case of a delay of the vessel's departure for more than 30 minutes after the time specified in the request for leaving the port, the pilot and tug boats sent in good faith to pilot her out of the port may be discharged. Another request for them shall be made, the charges for first call of the pilot and tug boats are collected according to the tariffs.

2.6 No vessel may leave the port without obtaining the Outward Clearance from the Harbour Control. The Outward Clearance of the vessel is made by the Harbour Control Master onboard the vessel.

2.7 If a vessel lying in the outer roadstead urgently has to get underway towards one of the following ports: Yuzniy, Ochakov, Dniepro-Bugskiy, Nickolayev, Kherson, Scadoysk, Ilichevsk or Belgorod-Dniestrovskiy, but due to meteorological conditions is unable to obtain the Outward Clearance in due order, such a vessel as an exception may obtain the same through the Agent with the Harbour Control Inspection by radio.

The Master of the vessel shall submit to the Harbour Control Inspection through the Agent following information: The number of crew members on board, composition of the staff; quantity and nature of the cargo on board; the vessel's draft, metacentric height; period of validity of conventional documents.

2.8 Ships' Masters arriving in the port for loading or partial discharging of grain or other bulk cargoes shall, prior to commencing cargo operations, submit to the Harbour Control a preliminary cargo plan for the full load or partial discharge which shall be drawn up corresponding to one of the stowage variants specified in the ship's "General Information for Ship's Stability during Transportation of Grain or other Bulk Cargoes".

The said "General Information" shall be endorsed by and bear the signature and seal of the Register of Shipping, the Register of Fishing or of some foreign Classification Society.

2.9 Should the said "General Information" be unavailable onboard the ship or should it not be signed or stamped by the corresponding Classification Society, such a vessel may be cleared out only subject to the Register's approval of the cargo plan and its appropriate endorsement.

The ship may leave the port or proceed to the outer roadstead only after the actual loading has been found to correspond to the cargo plan previously submitted.

2.10 Before the ship's departure from the port her Master shall submit to the Harbour Control Inspection the ship's stability calculations, a diagram of her static stability indicating the corrected and allowed metacentric heights.

2.11 Masters of all vessels sailing within the port waters shall strictly observe the present General Regulations as well as the Sailing Instructions currently in force within the Traffic Control Zone of the Northwestern part of the Black Sea.

2.12 Vessels shall enter or leave the Odessa Port by way of the Eastern, Western and Northern gateways, the Main Oil Harbour Channel consisting of the first and second bends and the Second Approach Oil Harbour Channel.

2.13 Cargo and passenger vessels not exceeding 140 m. in length shall be put into the Odessa Port through the Vorontsovsky gateway. Vessels shall pass/receive towlines to/from tugs off the zone within a range of 12 cables from the Vorontsovsky Lighthouse.

It is also necessary to take into account the wind and swell limitations established for tugs by the Register.

2.14 The decision to bring such vessels into the port without passing towlines (due to some extraordinary circumstances) may be taken by both the ship's Master and the pilot on their own responsibility.

2.15 On approaching the Vorontsovsky gateway Masters of all vessels shall sail on the course close to 180°.

2.16 Pilotage in the Odessa Port is compulsory.

Entering port, departing therefrom and shifting within the harbour are permissible round the clock only with a pilot on board.

2.17 Request for a pilot and tugs to shift a vessel within the harbour or to pilot her into or out of port should be made by the Master through the duty Pilot-Operator of the Traffic Control Station (its VHF call sign is "Odessa Port Control", the operating Channel is 14, the station telephone number is 37-30) at least 45 minutes prior to service requirement.

2.18 The pilot is taken onboard vessels arriving from the open sea and proceeding to berth, at the point with bearing 090° and distance of 2 miles off the Vorontsovsky Lighthouse.

On ship's departing from the berth out to sea the pilot is dropped at the point with bearing 120° and distance of 1.5 miles off the Vorontsovsky Lighthouse.

On vessels proceeding from the anchorage into the harbour the pilot boards the vessel at the anchorage.

Under unfavourable weather conditions the point of taking or dropping the pilot may be changed in agreement with the ship's Master and the duty Pilot-Operator. During a storm and in ice conditions the pilot may be delivered on board or taken off by a port seagoing tug at the shipowners's expense.

2.19 On piloting specialised vessels (LASH vessels, barge carriers, container ships, Ro-Ro vessels and the like, exceeding 200 m. in length) the pilot is taken on board/disembarked within the corresponding traffic lanes of Part 5 of Traffic Separation Scheme No. 2 (Traffic Control Zone) and the line located 0.5 miles South of it.

Pilotage for such vessels is compulsory while entering the control zone (port waters) or changing the anchorage position.

2.20 Masters of all ships shall take a pilot on board if any changes occur in the port waters situation (on the Pilot-Operator's instructions).

2.21 Masters of vessels proceeding from the port of Odessa to Dniepro-Bugskiy, Nickolayev or Kherson may make request for a pilot from the Maritime Pilot Service based in Ilichevsk through Agents in the Port of Ilichevsk.

Pilot is taken on board in the roadstead in the Ochakov port area or at the Master's request in the port of Odessa.

2.22 When visibility is poor the decision to take a vessel into or out of port shall be taken jointly by her Master and the Port Pilot. Ship-to-Radar Station communication shall be effected by the boarding pilot.

2.23 Shifting vessels with their main engines, steering gear or anchor gear immobilised shall be paid with 50% rise in charges for the service rendered (tug and pilot fees).

SECTION 3

NAVIGATING IN PORT WATERS:

3.1 Control over safe navigation of all vessels and floating facilities in the traffic control zone (port waters) is exercised by the Traffic Control Radar Station through the Traffic Control Station.

3.2 Before mooring at Berths No. 1-33 all anchors shall be hove into their hawse pipes, however they shall be kept ready to be let go immediately after any emergency situation arises.

3.3 No vessels underway in the port waters or lying alongside berths (sea board) may have their derricks, cranes, accommodation ladders, boats and other equipment swung out until they are berthed or anchored. Exception is made only for pilot ladders.

3.4 All vessels carrying explosives, inflammable and/or poisonous cargoes shall lie at Anchorage No. 354 until in receipt of further instructions from the Port Authority and Fire Station.

While entering or leaving port or lying therein, such vessels shall hoist the 'B' flag (explosives flag) in a conspicuous place by day and exhibit a red light visible all round the horizon with a range of at least 3 miles at night. Navigators of other craft shall exercise special care when approaching such vessels.

3.5 No sound or light signals, not specified in the International Regulations for Preventing Collisions at Sea, 1972, in the General Rules for Maritime Commercial and Fishing Ports of Ukraine as well as the present Odessa Port Regulations, may be given within the port limits.

3.6 A vessel may be steered within the port waters only with highly experienced men at the helm. Any transfer of the helm to other persons while the vessel is passing through areas where special care in steering should be exercised is strictly prohibited.

3.7 The loss or discovery of an anchor or any other object dangerous to navigation within the port waters shall be immediately reported by the ship's Master to the Harbour Master.

3.8 No ships may take soundings when proceeding into port, along fairways and passages, when navigating in the harbour or lying at berth.

3.9 The inner port waters may be entered by ships not exceeding 12.0 m. draft, 240 m. length and 40 m. breadth.

Gas carriers are prohibited in the Odessa port waters.

3.10 The vessels exceeding 11.0 m. draft navigating in port waters shall exhibit lights and signals specified in Article 28 of the International Regulations for Preventing Collisions at Sea, 1972.

3.11 The ship's speed shall not exceed:

(a) In the inner port waters and the Oil Harbour channels – 4 knots;
(b) in other port areas – 10 knots.

In any case main engines shall operate to ensure the ship's manoeuvrability.

3.12 Traffic in control zone and within the harbour is controlled by the Traffic Control Radar Station located at the head of Berth No. 1 (Lat. 46° 29.5' N., Long. 30° 45.6' E.).

3.13 The Pilot-Operator of the Traffic Control Radar Station using the high-tech Shore-to-Ship Station provides:

(a) Pilotage of vessels from the limits of the traffic control zone to Karantinya, Novaya and Kabotaghnaya harbours of the dry cargo port through the Eastern gateway;
(b) Pilotage of vessels from the limits of the traffic control zone to Anchorage No. 355;
(c) Pilotage of vessels from the port through the Eastern gateway and from Anchorage No. 355 to points beyond the traffic control zone limits;
(d) Pilotage of vessels to/from the Oil Harbour and Berths No. 32 and 33 through the Main and Second Northern approach channels of the Oil Harbour;
(e) Remote pilotage of vessels with no pilot on board by furnishing them with information on their position, with other data to help them orient an pass clear of other ships.

3.14 The Traffic Control Zone includes the water area bound by bearing 161° from the Vorontsovsky Lighthouse as far as its intersection with parallel 46° 22' N.; by this parallel to its intersection with meridian 31° 03' E.; by this meridian to its intersection with parallel 46° 29' N.; by this parallel to its intersection with meridian 30° 55' E.; by this meridian to its intersection with the shoreline.

3.15 The zone bound by the shoreline, bearing 161° from the Vorontsovsky Lighthouse and bearing 042° from Ilichevsky Lighthouse cannot be seen from the Shore Based Radar Station (blind sector), and therefore is regarded as dangerous. Great caution is required to navigate in this zone.

3.16 At the Traffic Control Radar Station the Computer Complex was introduced to supply vessels proceeding to the Northwestern part of the Black Sea with necessary information.

All vessels proceeding to the port of Odessa shall forward Notices of Approach to the Traffic Separation Zone 72, 48, 24 and 4 hours in advance (call sign is "Odessa – BLASCO – Traffic Control Centre"). Failure to do so shall result in increase in the rate of information dues by 100% (Order No. 186 of the Ministry of the Merchant Marine of the state of November 30th, 1987).

3.17 Radar assistance is rendered throughout 24 hours of the day whatever the visibility may be. Radar assisted pilotage charges are based on the Pilot-Operator's receipts and collected according to the existing tariffs (Order No. 186 of the Ministry of the Merchant Marine of November 30th, 1987).

All vessels navigating within the Traffic Control Zone shall use service rendered by the Traffic Control Station.

Naval vessels may get service free of charge.

3.18 Radar assisted pilotage within the traffic control zone is compulsory whatever the visibility conditions may be:

(a) For all passenger liners, gas carriers, chemical carriers, ferries, tankers and specialised vessels (barge carriers, LASH carriers, container vessels, Ro-Ro vessels and the like exceeding 200 m. in length);

(b) for all vessels moving to/from Anchorage No. 355.

3.19 A special watch should be effected on all vessels within the traffic control zone to listen in on VHF Channel 14 until they are berthed or anchored.

3.20 Navigating vessels in the Odessa port waters and traffic control zone is effected mainly along the fairways and narrows.

3.21 One-way traffic is a standard practice in the Oil Harbour when sailing through the Eastern, Western and Northern gateways.

3.22 Auxilliary craft and small tonnage ships pass through the Western and Northern gateways.

3.23 Prior to entering the traffic control zone, coming to or weighing anchor, moving to/from anchorages or berthing, shifting, etc., the vessel shall request permission from the Traffic Control Station. The permission is valid only for 30 minutes after which it is automatically cancelled.

Failure to do so may subject the vessel to 100% additional charges for radar assisted pilotage.

3.24 Entering the traffic control zone and shifting of all vessels and other craft without the Traffic Control Station's permission is prohibited.

3.25 Vessels when navigating in traffic control zone shall strictly observe the Sailing instructions of the Traffic Control System of the Northwestern part of the Black Sea and the International Regulations for Preventing Collisions at Sea, 1972.

3.26 All vessels shall repeat recommendations and instructions received from the Traffic Control Station. If they are unable to follow these instructions they shall report the reason and further intentions.

3.27 All navigators and radio operators shall strictly observe "Operating Instructions on VHF Communications at Sea No. 9044".

3.28 On establishing VHF communication with the Traffic Control Station the vessel shall give the following particulars to the Pilot-Operator on duty:

(a) Ship's name and type.
(b) Time of approach to traffic control zone or departure from berth.
(c) Speed.
(d) Ship's nationality and owner.
(e) Port of destination.
(f) Gross and nett registered tonnage.
(g) Nature and quantity of cargo on board.
(h) Ship's forward and aft drafts, length and breadth.
(i) Other data at the duty Pilot-Operator's request.

Master is responsible for the authenticity of the information transmitted.

3.29 At the request of the Traffic Control Station in order to identify her, the ship shall report the bearing and distance from Vorontsov Lighthouse and carry out the identifying manoeuvre.

3.30 The Traffic Control Station gives the identified ship the permission to enter the traffic control zone, indicates the direction of movement, anchorage and supplies her with other information, including warnings and limitations.

3.31 Only one vessel not exceeding 180 m. in length with a compass adjuster on board may carry out deviation operation in port waters with the permission of the Traffic Control Station.

3.32 Under favourable conditions in port waters, the duty Pilot-Operator may give permission to 2 vessels not exceeding 180 m. in length with a compass adjuster on board to carry out deviation operation simultaneously.

3.33 Radar assisted pilotage into the port may be effected at the Master's request.

When visibility is less than 3 miles, radar assisted pilotage is compulsory.

3.34 In restricted visibility no more than 2 vessels may be piloted by the Traffic Control Station simultaneously.

Possibility of simultaneous pilotage of 2 vessels is decided by the Chief Pilot-Operator of the Traffic Control Station in each particular case.

3.35 A ship to be piloted with the assistance of or by shore-based radar shall have her main engine, steering gear, anchor handling gear, communication facilities, gyro compass and sound signalling equipment in good working condition and her radar shall be operative.

3.36 In the event of failure of the shore based radar or other means of ship-to-shore communication, the Master, whose ship is being assisted by such radar or is on remote pilotage, must take all the necessary measures to ensure the ship's safety and inform the duty Pilot-Operator immediately.

3.37 The use of the shore based radar does not relieve the Shipmaster of responsibility for the ship's control and safety.

3.38 Anchoring in the Oil Harbour channels, port gateways and within the inner port area is prohibited.

3.39 In case the vessel has to anchor in traffic control zone outside Anchorages No. 354 and 355, the Master shall inform the duty Pilot-Operator of the reason.

3.40 Vessels moving in the Oil Harbour channels have priority over those crossing the channel.

3.41 Two-way traffic and overtaking are prohibited in the Oil Harbour channels and port gateways. Overtaking is also prohibited in the inner port water area.

SECTION 4

SPECIAL CASES OF NAVIGATION IN PORT WATERS:

4.1 Tugs towing sea-going vessels, lighters and other craft of 500 g.r. and more shall be under the command of the Master of the ship in tow

4.2 All vessels exceeding 100 m. in length shall be towed by tugs i mooring operations.

4.3 During discharging of grain in the outer roadstead, tugs are forbidde to leave floating cranes and pneumatic loaders alongside the vesse unless it is agreed with the vessel's Master and the Pilot-Operator o the Traffic Control Station.

4.4 Towing operations shall be directed by the Master of the vesse being towed, who is responsible for the safety of the tug lying alongsid the vessel.

4.5 Tugs meet and escort vessels entering or leaving the port in the range of 12 cables to the East of the Vorontsovsky Lighthouse.

4.6 The Master makes a request for tugs through the Agent at leas 2 hours prior to the ship's readiness for departure or shifting.

4.7 The Master shall call out a tug 45 minutes prior to the ship's departure, shifting or approaching the port gateway through the dut Pilot-Operator.

4.8 Tugs carrying out towing and pushing operations are united into one group which is at the disposal of the Traffic Control Radar Station.

4.9 A bulbous bow vessel underway shall, when engaging a dockin tug, pass the tow rope by means of a hauling line.

4.10 A vessel exceeding 150 m. in length with her main engine o steering gear immobilised shall exhibit the lights specified in Paragrap 27B in addition to the signs and lights specified in Paragraph 24E of the International Rules for Prevention of Collisions at Sea, 1972.

4.11 Self-propelled vessels shall be towed with the aid of the shortes possible tow lines.

4.12 The Harbour Master in accordance with the actual ice condition in the port waters declares the beginning and completion of ice campaig in port waters, whereof he informs all concerned.

4.13 Forming convoys, establishing priorities of vessel's putting in/ou of the port, providing ice breakers in port waters are exercised by the Harbour Master.

4.14 Vessels' Masters possessing the permission for self-operating i ice shall inform the Harbour Master of the Port of destination, of thei position, ice conditions and operational speed every 4 hours.

4.15 Vessels bound to/from Nickolayev, Dniepro-Bugskiy or Kherso are rendered ice breaker assistance by forming convoys off the Biereza Island or in ports.

4.16 Masters not possessing the license to operate in ice are prohibite to enter and navigate in ice.

Exception is made only for urgent necessity if the shipowner allow a non-ice class vessel to pass through ice and it is agreed with th Harbour Master who provides necessary ice breaker assistance.

4.17 Foreign vessels having on board no documents certifying their rig to operate in ice, are taken under ice breaker escort, only after the Maste submitting in writing his agreement to be so escorted and to pa expenses over possible ice damage to the vessel.

Responsibility for possible damage to such vessels navigating in ic rests with their shipowners.

4.18 Requests for ice breaker assistance in putting a vessel into po shall be forwarded 48 hours prior to service requirement and confirme 24, 12 and 4 hours prior to approaching the traffic control zone or ic edge.

Requests for ice breaker assistance in putting a vessel out of po shall be made 24 hours in advance.

4.19 The following information shall be given on request: ship's nam overall dimensions, draft, main engine power, fuel and wat consumption per day, pure water speed, propeller material, total quant of cargo, availability of documents confirming the right to operate in ic ship's seaworthiness by the time of approach.

SECTION 5

SHIP'S STAY IN PORT:

5.1 Steam and water outlets in the hulls of all vessels shall be thoroug covered with wooden boards or canvas.

5.2 To avoid casualties no outboard work may be done on the off-si of vessels lying at Berths No. 3, 11, 17, 25, 32 and 33.

5.3 Ships may anchor at Points 1 – 11 of Anchorage No. 355, which bound by lines having points with coordinates:

Latitude		Longitude	
	46° 31.08' N.		30° 45.97' E.
	46° 31.50' N.		30° 46.03' E.
	46° 31.80' N.		30° 47.29' E.
	46° 30.61' N.		30° 48.28' E.
	46° 30.41' N.		30° 47.50' E.
	46° 30.44' N.		30° 46.50' E.

The Points in area of Anchorage No. 355 have the follow coordinates:

Point	Latitude	Longitude
N 1	46° 31.40' N.	30° 46.20' E.
N 2	46° 31.44' N.	30° 46.60' E.
N 3	46° 31.55' N.	30° 47.07' E.
N 4	46° 31.00' N.	30° 46.38' E.
N 5	46° 31.14' N.	30° 46.85' E.
N 6	46° 31.26' N.	30° 47.32' E.
N 7	46° 30.70' N.	30° 46.62' E.
N 8	46° 30.84' N.	30° 47.11' E.
N 9	46° 30.97' N.	30° 47.56' E.
N 10	46° 30.52' N.	30° 47.23' E.
N 11	46° 30.68' N.	30° 47.81' E.

The following order of anchoring should be observed at the Ancho

(a) Point No. 7 is used for vessels not exceeding 10 m. draft and 26 length. When anchoring a vessel exceeding 200 m. length at Point N neighbouring Points No. 4, 8 and 10 must be free of any craft.

(b) Points No. 1, 2, 3, 4, 5, 8 and 10 are used for vessels not excee 8.0 m. draft and 200 m. length.

(c) Points No. 3, 6, 9 and 11 are used for vessels not exceeding 6. draft and 170 m. length. These points are for anchoring pass training, research and river vessels.

(d) Points No. 1, 9 and 11 are used for transport vessels waiting for entering/departing clearance, bunkering, water and food supply, crew replacement and minor repairs.

The request shall be forwarded to the Agent and followed by making a note in the daily shift plan of ships' traffic (mooring operations) in port on agreement with the Traffic Control Station.

(e) Point No. 12 (Lat. 46° 30.18' N., Long. 30° 47.81' E.) is at the Harbour Master's disposal in case of urgent and unforeseen anchoring.

(f) Anchorage No. 355 is used for state ships only. For foreign vessels it is necessary to obtain the Immigration Authority's permission to anchor there.

5.4 Anchorage No. 354 is used for large tonnage vessels, tankers, ships with dangerous cargo on board and all other vessels waiting for the permission to enter Odessa port.

Vessels shall proceed to, and anchor at, Anchorage No. 354 without assistance. Upon anchoring, the vessel shall communicate to the Traffic Control Station her bearing and distance from the Vorontsovsky Lighthouse.

5.5 Anchoring of floating cranes, lighters, barges, floating grain loaders and other floating facilities alongside the vessels at Anchorages No. 354 and 355 for carrying out cargo and other operations, shall be agreed with the Traffic Control Station.

5.6 Specialised and large tonnage vessels shall anchor at Point No. 7 only. The length of the vessel and that of the anchor chain paid out should be taken into account in order to work out the radius of the turning circle and not to exceed the boundaries of the anchorage.

To ensure his ship's safety at anchorage the Master may request a powerful tug at the shipowners' expense. At wind speeds exceeding 18 m./secs., 2 tugs may be provided. Two reliable polypropelene towing lines shall be passed from the vessel's stern to the tug.

During time at anchor such vessels shall arrange for continuous bridge watch and communication through VHF Channel 14 with the Traffic Control Station.

At the time of anchoring specialised and large tonnage vessels to Point No.7 and for all periods of their lying at anchor Points No. 4, 8 and 10 shall be free of any floating facilities.

5.7 The following order is established for mooring vessels at berths:

No. 12, 13, 25, 26 and 33	– By portside for large tonnage vessels with the draft permissible for these berths.
No. 8	– By portside.
No. 32	– By starboard side.
No. 4 of Oil Harbour	– By starboard side.
No. 1 of Oil Harbour	– By starboard side for large tonnage tankers.
Other berths	– By the side indicated by the duty Pilot-Operator and agreed with the vessel's Master and the Pilot on board.

In case of necessity, it is possible to change the berthing side by obtaining the Harbour Master's permission and including it into the daily plan of ships' traffic (mooring operations). Exception is made for Berths No. 25, 26, 32 and 33 for which changing the side of berthing is prohibited.

5.8 The Odessa Oil Harbour has 7 berths which can accommodate tankers of the following dimensions:

No. 1	– Not exceeding 240 m. length, 40 m. breadth and 12.0 m. draft.
No. 2, 3, 4 and 7	– After reconstruction: Berth No. 2 – LOA 195 m., draft 12.0 m. Berths No. 3 and 4 – LOA 120 m., draft 10.0 m. Completion expected mid-1996.
No. 5	– Not exceeding 240 m. length, 40 m. breadth and 11.5 m. draft.
No. 6	– Up to 125 m. length, 16 m. breadth and 4.0 m. draft.

To ensure safe berthing and provide emergency departure from the Oil Harbour, the following berthing instructions shall be observed:

(a) Mooring vessels over 240 m. length and 40 m. breadth to Berth No. 1 may be carried on provided there are no vessels at Berth No. 2.

(b) If a tanker is lying at Berth No. 2 her stem should not extend more than 60 m. from the line of Berth No. 1 (orange mark between guns No. 4 and 5). During mooring operations alongside Berth No. 1, all cargo operations on the tanker lying at Berth No. 2 shall be stopped.

(c) If there is a vessel at Berth No. 1, the tanker mooring at Berth No.2 should be of such a length that after berthing and taking of hoses her stem shall extend at least 5.0 m. from the imaginary sea board plane of the vessel lying at Berth No.1, and the distance from the stern of the tanker to the stern of the vessel lying at Berth No.3 shall extend at least 15 m.

5.10 During mooring to/from a berth or shifting the vessel, it is obligatory to have in attendance representatives of the Cargo Handling Complex and Harbour Control with hand VHF station for communication between the Traffic Control Station and the Pilot on board.

5.11 During mooring to/from or shifting passenger liners alongside Berths No.15, 16, 18 and 19 due to constructive peculiarities of the passenger pier, it it desirable to have in attendance:

(1) A representative of the Harbour Control Inspection – on the quayside in way of the vessel's berthing place.

(2) A shift assistant of the Sea Terminal Master – on the territory of the Sea Terminal in way of the gangway providing for its proper installation on the vessel as well as for embarkation/dismbarkation of passengers.

5.12 The receiving/letting go of the ship's tow ropes during berthing operations, regardless of the purpose of mooring at berths (whether cargo operations, taking supplies, staying at berth, crew replacement, etc.) should be done by shoremen of those departments (Cargo Handling Complex, Sea Terminal, Oil Harbour) under whose charge these berths are.

5.13 Low-freeboard tankers laden with 3rd category cargoes of the International Maritime Dangerous Goods Code mooring at the Oil Harbour berths shall use the starboard anchor so as not to sink the deck below the berth fenders.

The anchor may be heaved only when the tanker's deck is at least on the level with the upper edge of the berth.

5.14 To ensure safe mooring of tankers at the Oil Harbour berths under unfavourable weather conditions, the anchor may be let go but shall be raised and hove into its hawse on the completion of mooring and prior to commencement of cargo operations.

5.15 Only one vessel not exceeding 240 m. in length may be moored to the corner of Berths No. 16 and 17 from partial discharging of grain or to the corner of Berths No. 23 and 24 for the same purpose (ship's length shall not exceed 200 m.).

Mooring is carried out by letting go both anchors so as to ensure safe passage for vessels proceeding to/from the Karantinaya, Novaya and Kabotazhnaya Harbours. It is possible to moor at these berths only at day time.

Mooring at Berth No.2 by stern is prohibited in any case.

5.16 All claims for damage to the vessel during mooring or cargo operations shall be made by the Master and forwarded to the Port Authority no later than 8 hours after the incident, or if the ship is to leave the port earlier – before the departure. Otherwise the port will not accept any claims and will not bear responsibility for the damage.

5.17 In the port it is prohibited:

(a) To moor a vessel alongside a smaller ship.

(b) To moor a vessel in ballast alongside a sister ship of the same dimensions with cargo on board.

(c) To moor passenger, research and training vessels alongside each other.

(d) To moor vessels with their main engines, steering or anchoring gear immobilised at Berths No. 13, 15, 19, 21, 25, 26, 32 and 33 and alongside each other.

(e) To moor vessels at the berths put out of operation.

(f) To moor large tonnage vessels exceeding 200 m. length at Berths No. 25 and 26.

(g) To leave Berths No. 25 and 26 by stern for large tonnage vessels exceeding 10 m. draft.

(h) To moor vessels exceeding 150 m. in length at Berth No. 21.

(i) To moor large vessels at Berth No. 32 in case there are floating facilities at Berth No. 31.

(j) To moor more than one vessel at Berths No. 3, 8, 11B, 17, 24B and 25.

If necessary a floating crane may be moored alongside vessel lying at Berth No. 8 for a short period of time on agreement with the Traffic Control Station.

5.18 Vessels moored with their sterns extending beyond the berth shall be tied up securely.

During cargo operations the following signals shall be exhibited on such vessels: by day – flags "Romeo" and "Yankee" ("You must slow down when passing me"); at night – one red light visible round the horizon.

Regardless and for whatever the purpose of her stay, a red light shall be exhibited over the stern of such a vessel at night to show her extent beyond the berth.

5.19 On the authorisation of the Traffic Control Station and with their Masters' consent large tonnage ships may be moored at Berths No.32 and 33 with their sterns extending 30 m. or more beyond the berth, depending on the ship's length.

When two such ships are moored at Berths No. 32 and 33, at least 2 breast lines shall be passed from the stern of each vessel to that of the other.

To ensure his ship's safety at berth in an off-shore wind which is affecting the position of her stern, the Master has the right to request the Port Authority for tug assistance.

A tug shall be directed to such a vessel by the duty Pilot-Operator at her Master's request. A reliable towing line shall be passed from this vessel to the tug at the Tug Master's request.

5.20 To ensure safe access to the vessels moored at Berths No.32 and 33 with their sterns extending beyond the berths, a floating jetty (lighter) should be installed at the ship's stern and securely tied up to the berth, a shore-to-ship gangway should be provided. The floating jetty (lighter) should be installed under the ship's gangway suspended by the ship's administration.

The responsibility for installation of the floating jetty as well as of the shore-to-ship gangway rests with the administration of Cargo Complex No. 6.

5.21 The owners of vessels carrying passengers and those of passenger terminals, floating jetties and other installations designed for embarkation/disembarkation of passengers shall provide for the safe working condition of terminals, floating jetties, etc. and safe embarkation/disembarkation to avoid any accidents with passengers.

5.22 The control over safe embarkation and disembarkation of passengers at sea terminals is exercised by the duty assistant of the Sea Terminal Master.

5.23 The shifting of vessels is allowed only with a pilot on board.

The pilot takes charge of shifting a foreign vessel along the berth. During shifting operations the following limitations should be observed within the harbour water area:

(a) Vessels in ballast and those having cargo of no more than 20% of the ship's deadweight (except for large tonnage vessels) may be shifted at the wind speed not exceeding 15 m./sec.

(b) Large tonnage vessels in ballast and Ro-Ro ships, Ro-flow ships, LASH carriers, tankers, container carriers and the like with cargo of no more than 20% of their deadweight due to the large windage are shifted at the windspeed not exceeding 12 m./sec.

(c) Shifting of vessels with faulty main engines, steering or anchoring gear is carried on only at daytime when the wind speed does not exceed 10 m./sec.

(d) Vessels are moored broadside if the wind speed does not exceed 10 m./sec. and visibility is no less than 500 m. on agreement with both Masters.

5.24 On completion of cargo handling or other operations, each vessel shall, at the first duty Pilot-Operator's request, leave her berth and the inner port waters at her own expense. Failing to do so, such a vessel, should there be immediate need to vacate the berth, shall be removed therefrom by Port facilities at her Owner's expense and he will be held fully responsible for any losses brought about by his ship's failure to vacate the berth on time.

5.25 Receiving/throwing of ship's towlines during shifting of a vessel along all berths should be made by means of those port departments (Cargo Handling Complex, Sea Terminal, etc.) at whose request it is carried on.

5.26 On receiving a storm warning of wind increasing from the Eastern directions (000° – 090° – 180°) up to 22 m./sec. and more, vessels lying at Anchorage No. 355 and in Areas "A" and "B" shall, at the duty Pilot-Operator's request, change their place of anchoring as follows:

(a) Auxiliary and small ships shall be put into the port and securely moored at berths.

(b) All other vessels shall go into anchor at Anchorage No. 354 or put to sea to ride out the storm.

The shifting of vessels lying on the roadstead shall be done on authorisation and under control of the Traffic Control Station.

5.27 In case of emergency oil spillage, on entering the oil stained field, the vessel must not commence sailing before obtaining a special permission from the Head of purifying operations.

5.28 Vessels and other floating facilities are strictly prohibited to pass through the polluted area. When navigating in the vicinity of the area where collection of oil is being carried out, vessels shall slow down to the minimum speed.

5.29 Deballasting shall only be done with pipelines designed for this particular purpose, by day, and with the permission of the Sanitary Inspection of the Environment Protection Head Office.

5.30 Water polluted with petroleum products is collected by the Purifying Station situated on the territory of the Oil Harbour or by special harbour craft. This service shall be paid for on the basis of existing tariffs.

5.31 Removing garbage and rubbish from ships and dumping of them on port territory is prohibited. Garbage and rubbish is removed from ships by the port at the request of their administration, the charges collected according to current tariffs.

5.32 Rubbish and garbage is removed from ships in polythene bags (containers) delivered on board by the Port at their request through the Agent. The contents of the polythene bags and containers are disinfected and removed to a special dump by the Port. Charges for this service are paid by the shipowners according to current port tariffs.

5.33 Tankers carrying out cargo operations and all vessels bunkering shall be boomed in accordance with the instructions on booming vessels in port.

5.35 It is prohibited to sweep dust, rubbish and snow from berths and the ship into the water or ice.

5.36 If any pollution in the port waters is detected from the ship this shall be immediately reported to the Harbour Control Inspection (Telephone No. 36-66) and Special Inspection of Environment Protection of the Black Sea (Telephone No. 25-14-47).

SECTION 6
USE OF RADIO COMMUNICATION FACILITIES IN PORT WATERS:

6.1 All vessels sailing in port waters shall have their VHF stations in working order and shall keep them operative on one of the channels used for communication in port.

In case of lack or failure of ship's VHF station it is possible to communicate with the Traffic Control Station through the "BLASCO" Radio Centre on marine calling and distress radiotelephony frequency 2182 kHz. (call signal is "Odessa-Radio-1").

6.2 The following VHF radiotelephony stations are available in the Odessa port zone:

No.	*Telephone Subscriber*	*Call Signal*	*VHF Channels*		
			Calling	*Working*	*Reserve*
1.	BLASCO Radio Centre	"Odessa-Radio-1"	16	7,27,62	–
2.	Traffic Control Station	"Odessa-Port-Control"	16	14	67
3.	Pilot boats	Name of the pilot boat	14	14	–
4.	Harbour Control Inspection	"Odessa-Radio-5"	16	9	–
5.	Harbour Control boat	Name: "Pilot boat-86"	16	9	–
6.	Harbour Craft Centre	"Odessa-Radio-6"	33	33	–
7.	Inflot Agency	"Odessa-Radio-8", for foreign vessels: "Inflot-Odessa"	16	67	–

6.3 Vessels within the Traffic Control Zone, at berth or anchorage, are strictly prohibited to use the VHF for private communication on Channels 3, 6, 8, 9, 14, 16, 26, 31 and 67.

Failure to comply with this regulation will be regarded as a violation of safety rules prescribed for sailing in the Odessa port waters (traffic control zone) and all violators will be subject to liability.

SECTION 7
ORDER AND SAFETY IN HARBOUR WATERS – PROTECTION OF HARBOUR FACILITIES:

7.1 Fishing in port waters off quays or any craft is strictly prohibited.

7.2 Any objects found floating in the port waters which may be a hazard to navigation shall be immediately reported to the duty Pilot-Operator of the Traffic Control Station.

7.3 If a vessel happens to damage or run down any navigational marking, the Master shall immediately report the accident to the duty Pilot-Operator who is urgently to warn seafarers and to take measures to recover it.

7.4 Vessels at berth shall not turn their propellers. Exception is mad for:

(a) Diesel driven vessels at dead slow before leaving berth.

(b) Steamships for heating engines, at dead slow, before sailin provided special permission has been obtained from the Harbour Maste and the distance between the propellers and the berth is at least 10.0 m

7.5 Harbour structures damaged by a vessel are repaired at her owner expense provided the documents confirming the ship's guilt are availab

7.6 The areas in which it is prohibited to drop anchors and drag differen objects or anchors along the ground are shown on the charts.

7.7 Diving work in port waters may be performed only with specia permission of the Harbour Master, Traffic Control Station or Harbou Control Inspection.

Request for such permission shall be applied for by the ship's Maste or the enterprise concerned through the Harbour Master's Head Offic The diving boat's skipper shall obtain permission to commence divin work from the Traffic Control Station.

SECTION 8
ORDER AND SECURITY ON PORT PREMISES:

8.1 The Odessa Port premises and waters within the establishe boundaries are controlled by the Harbour Watching Station an Immigration Authorities.

8.2 While on the Odessa Port premises, all persons shall carry passes permits or other documents allowing their admission to port territory an shall present them at the first request of any Immigration or Harbou Security Officer.

8.3 Vessels lying at berth shall station their own personnel as watchme to guard the ship and her cargo.

8.4 Passenger liners lying at berth shall obtain permission from th Harbour Watching Station before installing their gangway on the po regime territory.

8.5 When the ship's gangway and ladder are used on the port regim territory simultaneously, the responsibility for prevention of movemen of people and goods from the controlled to the non-controlled territor rests with the ship's administration.

8.6 All foreign citizens who pass through the control post shall presen the Immigration Authority's permit.

8.7 Telephone communication with Port Services is effected through th Automatic Telephone Exchange, both of the port and of the city.

Harbour Master Head Office:	Telephone No.
Harbour Master	36-61, 22-63-25 Tel/Fax
Secretary	32-95
Traffic Control Station	37-30
Chief Harbour Pilot	34-57
Harbour Control Inspection (Central Post)	36-66
Harbour Control Post at Sea Terminal	38-84
Harbour Control Post in Oil Harbour	33-96
Harbour Control Post at Berth No.20	43-52
Passport Department (Chicherin St.,4)	48-22, 25-34-49
Fire Department	32-32, 39-35
Fire Fighting Team	33-54

8.8 The following is strictly prohibited on port premises:

(a) Firing any type of firearms.

(b) Turning on fire hydrants and faucets.

(c) Selling, carrying, drinking alcoholic beverages and gambling.

(d) Damaging trees.

SECTION 9
FIRE SAFETY CONTROL:

9.1 Vessels lying at berth or on the roadstead shall take bunker fuel o from the floating bunkering barges.

9.2 Passenger liners shall only take bunkers from self-propelled barge (if for some reasons it it impossible then a tug shall lie alongside th bunkering barge for the total period of bunkering) with obligator confirmation of the vessel's Master in writing that there are n passengers on board.

9.3 While inflammable or explosive cargo is being handled in the dr cargo harbour, a specially equipped fire crew shall be stationed on boar ship or a fireboat shall lie alongside.

Request for such a crew or boat shall be made by the ship's Maste the ensuing service charges to be paid by him according to existin tariffs.

Unless these requirements have been complied with, no dangero cargo may be handled.

9.4 Before towing non-self-propelled vessels with inflammable cargo o board and before all operations in the Oil Harbour, both bunkering barg and vessels to be towed shall obtain the permission from the Regis and the Fire Department of the Harbour Watching Station and shall ha not less than 2 steel fire wires (one forward and one aft) and exhau channels of the internal combustion engine equipped with spark tra

9.5 No work or maintenance operations unrelated to loading discharging of cargo may be performed on vessels lying at berth in th Oil Harbour.

9.6 Immobilising a tanker's main engine, anchor or steering gear f repair purposes while the vessel is in the Oil Harbour is strictly prohibi

In exceptional cases emergency repairs to the main engine, anc or steering gear may be carried out only with the Harbour Mast permission and agreement of the Fire Department. When repair wo necessary and has been permitted, at least 2 tugs, with towing lines p out to the tanker, shall lie alongside, tug charges to be collected fr the owners of the tanker.

9.7 On carrying out cargo operations on tankers with the IMDGC Clas oil cargo on board lying at berth in the Oil Harbour, a fireboat or shall lie alongside the tanker, boat or tug charges to be collected fr the owners of the tanker.

SECTION 10

SANITARY AND QUARANTINE REGULATIONS:

10.1 Masters of vessels arriving from foreign ports shall make known to the Boarding Pilot the sanitary and epidemiological condition of their ships as well as report any case of illness among the crew members or passengers. Only those ships will be allowed to approach berth and to moor whose sanitary and epidemiological condition and absence of sick cases on board has been confirmed by the Pilot.

In case the sanitary and epidemiological condition on board prove to be unsatisfactory and/or there happen to be sick cases among the crew members or passengers, such a ship shall drop anchor at one of the port anchorages indicated by the Traffic Control Station and await further instructions.

No person except the Pilot may leave or board the vessel until it has undergone sanitary inspection. The Pilot shall obtain the permission from the Sanitary and Quarantine Inspection.

10.2 The Sanitary Inspector may require of the ship's surgeon or Master a written statement to the effect that no cases of plague, cholera, yellow fever, typhus or smallpox have been recorded on board since the ship's departure from a certain port with unfavourable sanitary and epidemiologcal conditions or for the period specified by the existing rules.

10.3 Gas deratisation on board ship is carried out at the requirement of the Sanitary and Quarantine Inspection. To have the vessel fumigated for rats or otherwise, the Master shall make arrangement for the purpose through Agent.

10.4 While a ship is being fumigated or degassed she shall carry all the requisite signals.

10.5 Due to lack of appropriate equipment, the Port does not handle such cargoes as raw hides and other goods of animal origin as they constitute a sanitation hazard.

10.6 Biological treatment systems, if available on vessels, shall be operated in strict compliance with the instructions for the particular system.

The ship's Master is responsible for the purity of the water thus treated.

During the ship's stay at berth or on the roadstead, the water treated by the ship's biological treatment system is tested for purity at the Sanitary Inspection's Laboratories.

10.7 The Port provides the Sanitary and Quarantine Inspectors with boats in established order to carry out sanitary inspection of vessels lying on the roadstead, to give entry clearance as well as to carry out necessary anti-epidemiological operations on board vessels.

10.8 The following paragraphs of the present Port Regulations also correspond to this section: 5.29, 5.30, 5.31, 5.32, 5.33.

10.9 The Sanitary Inspection enforces strict supervision over the compliance of all vessels with the Sanitary Regulations.

Violators of these Regulations are held responsible and punished in accordance with the Council of Ministers Resolution No. 118 of February 14th, 1977.

The following additions to the General Regulations were received in August 1994.

2. ENTERING AND LEAVING PORT.

2.2.1. The services rendered by the Harbour Control Inspection regarding formalities in connection with arrival and departure of vessels, and checking their compliance with the respective International Conventions, followed by making the statement, shall be paid in accordance with the rate in force in the Port.

5. SHIP'S STAY IN PORT.

Anchorage of vessels in the designated points of roadstead shall be paid in accordance with the rate (anchor dues) in force in the Port which was introduced on 1st July 1993, for all vessels that use the anchorage points.

5.6. On Prevention of Port Water Area Pollution with oil products, harmful substances and sewage.

5.37. All vessels located in the water area and roadsteads of the port as well as all enterprises, organisations and institutions located in its territory (or emptying their effluents in the port water area) shall have to observe the requirements of the legislation of the Ukraine pertaining to protection of the environment and to agree with the Port Management all measures connected with the aspects of environmental protection in the territory and water area of the port.

Those quilty (Shipowner, Master, etc.) of violation of the requirements of the environmental protection legislation shall be called to criminal, administrative and property liability.

5.38. All vessels, irrespective of their departmental affiliation and flag, shall on arrival to the Port of Odessa, undertake to prove their compliance with the requirements of the International Convention MARPOL 73/78 by producing International Certificates on Prevention of Pollution by Oil, Sewage and Garbage to the Harbour Master.

Those vessels that do not comply with the International Convention MARPOL 73/78 shall not be accepted by the Port.

5.39. All vessels, other floating craft when they are within the port water area and in the roadstead of the Odessa port, as well as the enterprises and organisations located in its territory (or emptying their effluents in the port water area), shall be prohibited to discharge in water the substances harmful for human health or living resources of the sea, namely:

(i) Oil, oil products, oil residues and the mixtures containing the above substances in any concentration, including those treated in shipboard arrangement; ballast water from oil/ballast and oil tanks.

(ii) Raw chemicals and products of oil processing remaining after cleaning and washing decks, cargo holds and tanks.

(iii) Untreated drains from the spaces where animals are kept. In the absence of treatment facilities, the sewage disposal system is diverted to surge tanks which outlet valves are to be sealed by the ship administration.

(iv) Any other discharges if they result in a change of colour, odour and transparency of water or if their discharge leads to appearance of noticeable floating particles.

(v) Garbage and food remains, remnants of any cargoes and dunnage that have been used during carriage.

5.40. To preclude pollution of port water area, the administration of the vessel shall have:

(i) To close and seal the valves and other arrangements through which harmful substances may be discharged prior to entering the territorial waters.

(ii) To tightly close deck scuppers, to install pans under connections of hoses and air pipes and ensure reliable control over them during performance of any operations with oil, oil products, oily water and other harmful substances.

(iii) To make entries in the Oil Record Log and in ship's Log Book regarding all operations with oil, oil products, oil residues, oily water and other harmful substances, as well as regarding the actions aimed at pollution prevention.

5.41. It shall be prohibited for all vessels to clean the port water area by using preparations that sunk oil to bottom or dissolve it in water.

5.42. In case of a discharge outboard of any harmful substance, the administration of the vessel shall have to immediately inform the Harbour Master and the Inspection for Protection of the Black Sea by the quickest way possible (radio, telephone, courier). Similarly, it is necessary to inform on all pollution slicks detected from the vessel within the port water area, indicating their exact position, nature and direction of drift.

5.43. Sealing of all valves (through which a discharge of harmful substances is possible) on board of all vessels lying at berths of the port shall be performed by an authorised representative of the Port only, and is charged in accordance with an established rate.

5.44. During emergency oil spills, the vessel that has been caught by the oil spill shall not start movement until a special permission of the Oil Recovery Operations Manager is obtained.

5.45. It shall be prohibited for vessels and all floating craft to cross the polluted port water area. When passing near the area where oil recovery operations are in progress, speed of the vessel should be reduced to a minimum.

5.46. Administration of the vessel shall have to produce the ship's documents regarding environmental protection following a request by the authorities.

5.47. Collection and removal of oily water and domestic and feces water from all vessels shall be performed by the port following vessel's applications in accordance with established rates.

5.48. Pumping out clean segregated ballast should be performed via specially dedicated pipelines and pumps of the vessel only. Pumping segregated ballast overboard within the Odessa Port area may be performed only after making its laboratory analysis for content of oil products, iron and suspended solids, and obtaining permission for pumping out from the State Inspection for Protection of the Black Sea.

Pumping out shall be performed under supervision of a representative of the Harbour Control Inspection.

5.49. The vessels shall be prohibited to remove and pile garbage and industrial and domestic wastes on their own. The removal shall be performed by the port following vessel's applications with a subsequent payment in accordance with the existing rates.

5.50. Removal of food wastes and garbage shall be performed in polyethylene bags (containers) to be delivered by the Port to vessels following applications to the agency bodies. The contents of the polyethylene bags (containers) shall, after disinfection, be removed to a special dumping site by the Port's means and labour. The rendered services shall be paid for according to Port rates.

5.51. All vessels, while staying at Port's berths, shall be charged at the established rates for the exhaust of harmful substances from the shipboard diesel generators and boilers to atmosphere.

5.52. Vessels proceeding to Odessa shall, on entering the Black Sea, change their segregated ballast taken from other areas of the world oceans for the Black Sea water ballast and make a respective entry in the vessel's Log Book.

5.53. Vessels arriving for cargo handling operations to the oil harbour, as well as those receiving bunkers in the port water area and in the Port's roadstead, shall pay insurance ecological dues.

In case of an emergency oil spill, the Port shall collect oil products free of charge if a collection period does not exceed 6 hours of use of all port means on duty. If a period of oil spill liquidation (collection of oil products, washing of quaywalls and sides of the vessels lying nearby, washing of booms, etc.) exceeds 6 hours, the vessel shall reimburse the Port the expenses in connection with the said works.

5.54. The "Port Regulations for Tankers Arriving at Odessa Port Regarding Provision of Safety and Sea Pollution Protection" shall be effective in the port as of 1st February 1993.

5.55. Shipowners and Managers of the enterprises that violated Compulsory Port Regulations regarding Protection of Environment shall reimburse all port expenses for liquidation of pollution and its consequences at established rates, as well as port expenses in connecton with leasing of equipment, floating craft and staff of the other enterprises.

5.56. Pollution of the atmosphere by emission of dense smoke and noxious gases shall be prohibited.

5.57. Dumping of garbage or snow from berths and vessels on ice or in water shall be prohibited.

Signed: Manager of Odessa, Commercial Sea Port.

NOTICE: Received 1996.
Quote:
To be delivered by Agent to Master of each vessel calling at the port.

NOTIFICATION

of Legislation of Ukraine on protection of the surroundings and responsibility for its violation.

The Masters of vessels staying in the inner sea and territorial waters of Ukraine (in future text called aquatorium) are notified of the principal requirements of the Legislation of Ukraine on protection of the surroundings and responsibility for its violation.

(1) By the Legislation of Ukraine it is prohibited to discharge overboard substances harmful to people's health or to life resources of the sea in particular:

1.1 Oil, oil products, oil remainders as well as mixtures containing same in any concentration, including purified in ship's apparatus (arrangements).

1.2 Chemical raw materials and products of chemical production after cleaning and washing decks, cargo holds and tanks.

1.3 Non-purified sewage disposal from toilets, ship's hospitals (sick bays), compartments where live animals are maintained. When purifying such sewage in order to discharge it overboard, it is necessary to obtain a special permission from Sanitary (Quarantine) Authorities and the discharge to be executed under their control only. Vessel must be equipped with treatment plant (comminater), sewage water tanks and pipeline.

1.4 Any other sewage, if it changes the nature of the sea water, its colour, smell (odour), transparency or if the discharge results in forming visible floating fractions.

1.5 Rubbish and food wastage (garbage).

(2) The removal from the vessels of all kinds of stored harmful substances is provided by the port.

(3) It is prohibited to let out smoke which pollutes atmosphere.

(4) To prevent possible pollution of the port's aquatorium it is required.

4.1 All valves and other appliances and equipment through which there may be accidental or premeditated discharge overboard of any kind of the enumerated harmful substances, to be closed and sealed. Preventative labels to be placed in appropriate places.

4.2 During any operations with fuel, oil products, oil polluted waters and other harmful substances, the scuppers on deck to be hermetically sealed. Under the places of pipe connections, tanks, air pipes the oil boxes to be placed, providing data (dependable) control of these operations in order to avoid pollution of the aquatorium. Ships performing these operations must use (compulsory) the protecting shore booms with payment as per tariffs.

4.3 Pumping out of clean segregated ballast waters to be effected only with a special permission of the Sanitary Authorities.

4.4 Ship's works (chipping, painting of the hull, washing of decks, holds and other parts of the vessel) as well as repair works to be carried out under compulsory observance of measures excluding pollution of the aquatorium.

4.5 Ships proceeding to Odessa port upon entering Black Sea are to change their segregated ballast taken in other world ocean regions for the Black Sea water ballast with proper entries in the ship's Log Book.

(5) It is prohibited to use for cleaning the port's aquatorium by preparations which produce sinking of oil to the bottom or are dissolving the oil in the water.

(6) If for some reason or other a discharge of harmful substances overboard took place, it is necessary to advise the Harbour Master immediately (by radio, telephone, messenger). It is also required to advise about all pollutions of the aquatorium observed from the vessel indicating the exact location, character, dimensions, direction of movement.

(7) It is necessary to register immediately all operations with oil, oil products, oil remainders, water containing oil and other harmful substances, as well as actions preventing pollution mentioned in Items 4 and 6 of the present Notification in the corresponding ship's documents (Oil Record Book, ship's Log Book).

(8) Ship's documentation, concerning the protection of the surrounding (Oil Record Book, book for registration of operations with sewage waters and rubbish, certificates of ship's water protecting equipment, etc.) to be ready for immediate presentation to the Port Authorities upon their request at any time.

(9) Owners, Masters of the vessels and other persons guilty in violation of the Legislation of Ukraine on protection of surroundings shall bear criminal, administrative and property responsibility.

Signed: Harbour Master.
Unquote.

AUTHORITY: The Port of Odessa Authority, 1 Vakulenchuk Square, Odessa, 270026 Ukraine. *Tel:* (0482) 29-36-61, 29-32-95. *Telex:* 232188. *Cables:* Morport Odessa. *Tel/FAX:* (0482) 22-63-25. *Contact:* Captain A.P. Kharitoshin, Harbour Master.

AGENT: Odessa Inflot Shipping Agency, Postal address: 1 Valulenchuk Square, Odessa, 270004 Ukraine. Cables: "Inflot Odessa". Tel: (0482) 293781. Telex: 232124. Fax: (0482) 221264.

Odemara Ltd. Tel: (0482) 252307, 293478. Telex: 232293 Odema Ux. Fax: (0482) 252307.

Economou International Shipping Agencies, 5 Ekaterininskaya Street, Office 2, 270026 Odessa, Ukraine. Tel/Fax: (380-482) 260819, 293356. Telex: 232207 Ceco Ux.

RENI: 45.26 N. 28.18 E. **(See Plan**

GENERAL: The Port of Reni is situated 164 km. from the coast of the Black Sea, and is 25 miles up from the Izmail Chatal Point on the le bank of the Danube River.

The port is open for navigation all year round. In severe winters ice breaker assistance is required.

The port is connected with the sea via the Sulina Channel.

Changes of the water level are due to effects of the wind and Spring floods.

Maximum rises of the water level are usually observed in April, May and June, maximum falls August, September and October.

Maximum range of the water level observed in the river is 4 m. – 6 m

DOCUMENTS:

Immigration:
Crew List.
Passenger List.

Customs:
Complete copy of each Manifest for goods onboard.
List of personal belongings of crew members.

Quarantine:
Valid Derat Certificate.

Safety:
Valid Load Lines Certificate.
Valid Safety Equipment Certificate.

Others:
Free Trade Certificate.

PILOTAGE: Compulsory. All ships navigating from the Port of Izmai through the Ismail Chatal to the Port of Reni and vice-versa, should b assisted by a duly authorised State Pilot.

The port is provided with a Vessel Traffic Management Service (Ship Traffic Control Station), equipped with modern radar installation (Decca 2), television and computer systems enabling reliable navigation an safe pilotage under any conditions of restricted visibility. The abov facilities also reduce ships' stoppages (delays) and provide Masters vessels with necessary relevant information on the conditions navigation.

Arrival Advice: Masters of the vessels are required to send a 24-hou notice informing the Port Authorities of the expected time of arriva general description and quantity of cargo onboard, numbers passengers, ship's length and draft, and request for services to b rendered.

ANCHORAGES: Ships can obtain anchorage and arrange po formalities at the upper (Mile 69 – km. 128) and lower (Mile 64 – km. 11 Roads. Depths in the above roads are sufficient for all types of ships.

RESTRICTIONS: There are no time restrictions for the entry to the por Both draft and length of vessels are limited by depth and width of th Sulina channel.

RADIO/VHF: The Central Port Radio Station provides vessels anchore at the Roads with connections to the port services, and intercity.

The following VHF radio stations serve the roads and function 24 hou a day:

Station	*VHF Channel*	*Call Sign*
Central Port Radio Station	16	Reni-Radio 1
Central Port Radio Station	26	Reni-Radio 1
Central Port Radio Station	2	Reni-Radio 1
Port Controller	12	Reni-Radio 2
Port Control Inspectorate	12	Reni-Radio 5
Inflot Shipping Agency	9	Reni-Radio 8
Transflot Ships' Service	9	Reni-Radio 7
Reserve Crew	9	Reni-Radio 14
Port's Auxiliary Vessel Controller	12	Reni-Radio 6
Bunkering Service	12	Reni-Radio 15
Vessels' Movement Control Post	73	Reni-Radio 17

Non-business calls over the VHF radio are prohibited. Telephon shore connections are available at the berth for connection to ships

Operation Frequencies, Call Signs & Schedule:

Transmission frequency	*Reception frequency*	*Operation time (Moscow)*	*Call sign*
3225 kHz	4210 kHz	0800–0900	UJN-3
4260 kHz	4210 kHz	0900–1100	UJN-3
6421.5 kHz	6275.5 kHz	1100–2000	UJN-3
3225 kHz	4210 kHz	2000–2400	UJN-3
156.800 (Channel 16)	156.800 MHz (VHF Channel 16)	Round the clock	Reni-Radi
161.900 (Channel 26)	157.300 MHz (VHF Channel 26)	Round the clock	Reni-Radi
156,100 (Channel 2)	160.700 MHz (VHF Channel 2)	Round the clock	Reni-Radi

RADAR: See "Pilotage".

TUGS: 34 tugs, up to 2,000 h.p. Tug assistance is not compulsory. T are available if requested by Master. Tugs shall be ordered by VH least 1 hour before required.

Service boats are available for transportation of crew and perso to and from the anchorage.

BERTHING: The port is accessible to large vessels. The berths depths alongside of up to 7.5 m. are equipped to handle genera bulk cargoes, crude oil and oil products, grain and food products.

The port comprises four cargo areas.

The first area has 10 berths including 2 facilities, which accommodate large sea-going vessels under any Danube water s Export and import cargoes of various trades are handled there. O the berths specialises in transhipment of imported grain and has capability of operating in any weather.

The second area also comprises 15 berths to handle smal medium diameter pipes and tubes, steel exports and imports, equip containers, export timber and transit cargoes.

The third area has a quay of 200 m. for handling vehicles, an fourth area is specially for bulk cargoes.

Four berths, storage facilities, railway sidings, communications, service space and other facilities were put to use. Quayage gained more than 500 m. The new capacity made it possible to handle 800,000 tons of cargo additionally.

Berths No. 1, 2 and 28 handle steel; Nos. 3 and 4 packages and pieces; Nos. 5 and 26 equipment; No. 6 heavy lifts; Nos. 7 and 8 canned goods and vegetables; Nos. 9 and 9a grain; Nos. 15, 16, 27 and 29 general cargo; Nos. 17 and 18 exports and imports; No. 31 vehicles; No. 34 coal and Nos. 35, 36 and 37 laminate and ores.

Cranes of up to 32 tons capacity are operated on the quays. Also there are floating cranes with lifting capacity of up to 100 tons, fork lift trucks up to 10 tons capacity and other cargo handling equipment.

FRESH WATER: Can be supplied ex-shore and by barges at 12 hours notice.

FUEL: Available at 12 hours notice.

CONSULS: None.

REPAIRS: Hull, deck and pipeline repairs possible. One repair quay with length 165 m.

SURVEYORS:

1. Cargo Inspector of the Chamber of Commerce and Industry available.
2. Register of Shipping Surveyor available.

OPENING/CLOSING HATCHES: According to the custom of the port, opening and closing of hatches is carried out by the crew. But it can be carried out by the port workers for vessel's account, if required by the Master.

TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.

POLICE/AMBULANCE/FIRE: A Fire Guard of the port provides for the safety of ships and can be summoned, via the "Inflot" Agency, to render services in order to extinguish fire or to pump water from holds.

If a fire occurs in the port territory or on board it shall be reported to the Fire Squad by telephoning 2-01, or to the fire boat "Smeliy" dialling 2-02. The fire boat can also be summoned over VHF Channel 16.

STORING: See "Prelims".

1. Vessel can be stored by barge and truck.
2. Vessel can store from barges after loading/discharging or during operations if nothing interferes with cargo handling.
3. Trucks can proceed alongside at the berth.
4. Fork lift trucks can be used on the jetty to handle stores.
5. Vessel can be stored with various stores except prohibited items.
6. Local riggers can be employed to assist with storing.

NOTICES: Masters of vessels proceeding to the Port of Reni shall, in advance but latest 24 hours prior to arrival at the port, advise Port Control and "Inflot" Agency: time of arrival, description and quantity of cargo for the port, heavy lifts, if any, their stowage and weight, number of passengers, ship's draft and length, as well as services required of the port.

Abstracts from Compulsory Rules of the Commercial Sea Port of Reni:

Article 1: Two hours prior to arrival at the Commercial Sea Port of Reni, Master shall advise accurate time of arrival to Port Control Inspection.

Article 2: Ships may call at or leave the port, round the clock, after obtaining permission of the Port Control.

Article 3: Upon anchoring in the inner or outer roads, a radio watch shall be kept on VHF Channel 12.

Article 4: Berthed ships are provided with electric power, telephone and fresh water.

Article 5: Prior to commencement of loading, ship's cargo spaces shall be completely cleaned and provided with all the necessary equipment.

Article 6: Ships may discharge oil-contaminated water, garbage and food waste at the port. Master shall take every step to prevent a spill of oil products.

Article 7: Orders for any port services are placed by Masters of foreign vessels through the "Inflot" Agency.

DEVELOPMENTS: A Ro-Ro Terminal will be in operation in the near future.

SHIPMASTER'S REPORT: January 1994.

1. The Port of Reni is on the River Danube on the delta and can be found on B.A. Chart No. 2835.
2. The max. arrival draft for Sulina Pilot Station and for crossing the bar is 6.5 m. in fresh water, but also depends on the season (rain, ice, spring tide, etc.). The Pilot can be contacted on VHF Channels 16/12.
3. Vessels take Romanian Pilots from the outer anchorage to inside the breakwater up to a distance of 2 – 3 miles before Sulina. This vessel anchored for Free Pratique and was assisted by a Romanian Pilot.

   The following documentation was required:

   6 copies Crew List.
   1 copy Stores List.
   1 copy Crew Declaration.
   1 copy Cargo Manifest.
   1 copy Narcotics List.
   Ship's Register.
   Classification Certificate.
   Derat Certificate.
   IOPP Certificate.

   The Suez Canal and Panama Canal Certificates were required for calculation of the tax for the River Danube.
4. Night-time navigation is forbidden when visibility is reduced (fog or snow). We anchored immediately when we encountered reduced visibility.
5. The official language of the Danube River is Russian.
6. Each nautical mile on the river is indicated by a signpost on the starboard bank when proceeding inward.
7. After obtaining Free Pratique at Sulina Anchorage (1200 hrs.), we anchored at Mile Post 26 (See "Plan") to await passage the next day. The current runs outward at 2 – 3 knots, so vessel heads up-river at all times whilst at anchor. The holding ground is good and we anchored with 3 shackles on the port anchor and 2 shackles on the starboard anchor.
8. At Mile Post 35 (See "Plan"), a vessel has capsized 90° to the river bank, so the passage is very narrow at this point.
9. When passing Tulcea, the current is very strong and tankers are assisted by a tug.
10. On arrival at Mile Post 68, the vessel again anchored and Pratique formalities were undertaken by Ukrainian authorities. They required the following documents:

    7 copies Crew List.
    1 copy Stores List.
    1 copy Crew Declaration.
    1 copy Narcotics List.
    Ship's documents, etc.

    At this point, the Romanian Pilot disembarks and the Ukrainian Pilot boards and takes the vessel to Reni.
11. On arrival at Reni, we berthed starboard side alongside, head up-river, for loading of chemicals. No mooring boats were available, so lines were sent ashore fore and aft via the tug, using strong messengers.
12. At Reni, we normally discharge into barges of 1,000 tonnes – 1,500 tonnes each. They come alongside our port side and take the cargoes to Czech Rep., Yugoslavia, Austria and Germany.

    On this voyage, we discharged 4,000 tonnes of gasoline and 1,000 tonnes of gas oil in 5 days.
13. On sailing, we turned near Mile Post 70 (just above the berth) (See "Plan") with the assistance of 1 river tug (2,500 h.p.). At other times, when the current has been very strong (4 knots – 5 knots), we have turned near Mile Post 84 (Passet Galleti).
14. After sailing at 1100 hrs. local time from Reni, we again anchored near Ceatal (Mile Post 44) (See "Plan"), as there was not sufficient time to reach Sulina in daylight.

    At Ceatal Anchorage, the Ukrainian Pilot disembarked and the Romanian Pilot embarked to take the vessel as far as Sulina Pilot Station.

    At this anchorage, we anchored towards the port side (heading up-river) with 3 shackles on the port anchor and 4 shackles on the starboard anchor.
15. The maximum draft up to Reni is 23 ft.
16. Reni:

    There are no shore leave restrictions.
    Fresh water is available.
    A few vegetables are available.
    Doctor available.
    Derat Certificate can be renewed.
    Sewerage treatment compulsory.

    WARNING: The crew should take great care when proceeding ashore as some personnel have arrived back onboard with very little clothing and only their Seaman's Book or Discharge Book (shoes and all clothing were stolen).

AUTHORITY: The Port of Reni Authority, 188 Dunayskaya Street, 272840 Reni, Odessa Region, Ukraine. *Tel:* 2-14-84, 2-10-57. *Telex:* 732414. *Cables:* Reni Port.

AGENT: The Port of Reni Maritime Agency "Inflot". Postal address: 192 Dunayskaya Street, 272840 Reni, Odessa Region, Ukraine. Cables: "Inflot Reni". Tel: 21895, 26593. Telex: 232713.

SEVASTOPOL: 44.37 N. 33.32 E. (See Plan)

The port of Sevastopol is situated on the South-Western coast of the Crimea Peninsula. The port occupies Sevastopol, Yuzhnay, Qurantine, Streletskaya, Kruglay, Kamishovaya and Kazachia Bays, where there is located commercial and fishing ports and a Navy Base. All bays (excluding Sevastopol Bay) are opened to Northern winds. Navigation in the port is all year round.

Cargo vessels require special permission from the port and military authorities to enter port.

PILOTAGE: Compulsory. The pilot usually boards vessels in the outer roads 2 miles before the entrance (Lat. 44° 37' 05" N., Long. 33° 27' 08" E.). During bad weather, the place of embarkation and disembarkation of the pilot may be changed, subject to Master's approval.

APPROACHES: The 0.6 miles long approach channel leads from Sea Buoy No. 2 (Lat. 44° 36' 05" N., Long. 33° 35' E.) to the Cargo Quay.

ANCHORAGE: Anchorage is in the outer roads from 1.0 miles to 4.0 miles off the coast between parallels of 44° 36' N. and 44° 40' N. Permitted anchorages are marked on the chart as No. 384 (depths 13.0 m. – 33.0 m.), No. 386 (depths 70 m. – 82 m.) and No. 389 (depths 50.0 m. – 64.0 m.).

RESTRICTIONS: Entry into the port is allowed on a 24 hour basis. During night-time, approach to the port by vessels with length of more than 120 m. may be effected with Harbour Master's permission. Vessels should proceed through the channel at a speed not exceeding 5 knots, and within the inner roads at a speed not exceeding 9 knots.

MAX. SIZE: Max. draft 9.1 m. and length 200 m. for Passenger Quay, max. draft 8.6 m. and length 185 m. for Cargo Quay, and max. draft 9.1 m. and length 185 m. for tanker berth. Larger vessels shall obtain the Harbour Master's permission for berthing.

For Kamishovaya Bay, draft of no more than 8.5 m. permitted.

Tide: Range of water level due to Spring River flow may be up to 0.9 m.

HEALTH: Health Declaration required to obtain Pratique. When arriving from another Black Sea, Pratique is available. In the event of any disease on board, contact Agent.

RADIO/VHF: VHF communication on Channel 16 for Pilots. All messages via Agent through port radio UXO.

Radio contact through port radio station "Sevastopol Radio", operating on following frequencies:

Call Sign	*Frequency Working* (kHz)	*Frequency Calling* (kHz)	*Type of Transmission*	*Time of Operation*
"Sevastopol Radio-3"				
Port Control	2,264	2,525	J3E	H24
"Sevastopol Radio-4"				
Port Control	2,464	2,464	J3E	H24
Port Radio "UXO"	500	500	AIA	H24
	422	468	AIA	H24

TUGS: 1×900 h.p., 1×1,600 h.p., 1×1,200 h.p. and 1×2,540 h.p. Tugs normally join vessels at the entrance. Ship's lines used. Tugs are compulsory for vessels over 500 g.r.t. In case of anchorage within inner roads, for any reasons, a tug should be ordered by Master to ensure safe manoeuvring. Expenses on ship's account.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)
Fishing Port		
No. 10	200	8.6
No. 11 (Cargo)	162	8.6
No. 5	150	8.0
No. 19 (Tankers)	185	9.1
Sea Port		
No. 2	150	4.0
Cargo Quay	112	8.0
Quay No. 11a	290	6.0
Passenger Quay No. 1	200	9.1

CRANES: Cargo Quay equipped with electric cranes up to 10 tons for handling of general, bulk and other cargoes. Open storage available.
STEVEDORES: 12 days notice required. Working hours: 0800-1600.
MEDICAL: Medical assistance rendered immediately when required. Hospital facilities available.
FRESH WATER: Available by pipelines at quays. Cost U.S.$ 5.00 per ton (1994).
FUEL: Bunkers available from private companies by prior arrangement with Agent.
REPAIRS: All types of repairs for vessels up to 40,000 d.w.t. possible.
DRY DOCKS: Dry docks for vessels up to 280 m. LOA.
SURVEYORS: Marine Surveyors representing Lloyd's, Maritime Register of Shipping. Fax: 0692-44-48-19. Tel: 0692-52-09-40.
GANGWAY/DECK WATCHMEN: Carried out by crew.
OPENING/CLOSING HATCHES: Carried out by crew.
CUSTOMS ALLOWANCES: No restrictions.
CARGO GEAR: Load/discharge usually effected by shore cranes.
AIRPORT: Nearest airport is located in Simpheropol, 55 miles.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer time.
HOLIDAYS: January 1st; January 7th; March 8th; Easter; May 1st; May 2nd; May 9th; August 24th; November 7th and 8th.
POLICE/AMBULANCE/FIRE: Ordered through Agent.
SERVICES: Chandler, laundry and car hire, arranged by Agent.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Required.
GARBAGE DISPOSAL: Available.
AUTHORITY: Port of Sevastopol Authority, 5 Nahimova Sq., 335054 Sevastopol, Crimea, Ukraine. *Tel:* 522979, 522079, 525812. *Telex:* 197316 . *FAX:* 524059.
AGENT: General Agent: Inflot Odessa. Telex: 232124 Inf Su.

Local Agent: Sevastopol Inflot Shipping Agency, 5 Nahimova Sq., 335054 Sevastopol, Crimea, Ukraine. Tel: (0692) 524411. Telex: 197340 Inflt Ux. Cables: Inflot Sevastopol. *FAX:* (0692) 444851, 871-1272122 for Inflot Sevastopol (via Inmarsat).

Economou International Shipping Agencies, 5 Ekaterininskaya Street, Office 2, 270026 Odessa, Ukraine. Tel/Fax: (380-482) 260819, 293356. Telex: 232207 Ceco Ux.

THEODOSIA (Feodosia): 45.04 N. 35.24 E. **(See Plan)**

GENERAL: The port of Theodosia is situated on the Southwestern coast of Feodosia Bay (Southeastern part of the Crimean Peninsula).
PORT LIMITS: 3 miles from the Inner Harbour (Outer Anchorage), vessel is considered as "arrived ship" and laytime will commence.
DOCUMENTS: Before arrival, Master of the ship must prepare:

6 copies General Declaration (IMO form).
2 copies Cargo Declaration (IMO form).
1 copy Health Declaration.
8 copies Crew List.
4 copies Ship's Stores Declaration.
2 copies Crew's Effects and Currency Declaration.
1 copy Passenger List (if no passengers).
8 copies Passenger List (if the ship has passengers).
2 copies Effects and Currency for Passengers.
2 copies Narcotics List.
2 copies Arms Declaration.

Tonnage Certificate, International Load Line Certificate, International Oil Pollution Preventing Certificate, Minimum Safe Manning and SOLAS-74 Safey Certificates will be taken by Agent for inspection by Harbour Master.

PILOTAGE: Compulsory. Provided by the State Pilots. Pilot place i situated in the Northern part of the Feodosia Bay in positio Lat. 45° 04.95' N., Long. 35° 30.75' E., near the Feodosia Buoy. Notic of ETA 72, 48, 24 and 4 hours in advance required through Feodos Radio or Odessa Radio. Master must indicate length overall, breadt height from keel up to main deck, present draft (fore and aft), ETA a Pilot Point. One hour before Pilot Point, Master must contact Feodos Port Control on VHF Channel 10 for receiving instructions.

Pilot boards by pilot boat or by tug. Contact Pilot on VHF Channel In the event of bad weather, pilot boat will lead vessel into port.
ANCHORAGE: The anchorage is situated 2.5 miles N.E. from Signa Station of the port with centre at position Lat. 45° 03' N., Long. 35° 26' E and extending N.E. for 2 miles with breadth 4 cables. Depth about 18 m – 20 m., good holding ground, mud and sand. Anchorage is open t Eastern and Southern winds. Anchoring possible only with Pilot' permission. Anchorage in other places in Feodosia Bay is prohibited.
RESTRICTIONS: Mooring of tankers to oil berths and ships with carg capacity more than 5,000 tons to wharves is only during daytime Mooring of tankers with deadweight up to 23,000 tons is carried out wit wind not more than Force 5 and sea not more than Sea State 4. Moorin of tankers with deadweight more than 23,000 tons is carried out wi wind up to Force 4 and sea not more than Sea State 4. Mooring of ship to wharves is carried out with wind up to Force 5. For tankers, minimu visibility is 10 cables and for other vessels, 3 cables for mooring.
MAX. SIZE: North Oil Berth for tankers up to 30,000 d.w.t. with maximu draft 12.3 m. South Oil Berth for tankers up to 23,000 d.w.t. wi maximum draft 11.3 m.
RADIO: Vessel's information may be sent through Odessa Radio "UDE "UFB" or directly to Feodosia Radio "TM-2" MW 500/447 kHz, in daytim and "TM" on SW from 0800 – 1800 hrs. on 16,673.3/17,0145 an 1800 – 0800 hrs. on 6,277.3/6,370.
VHF: Port Control (Harbour Master) on Channel 10. Radio Feodosia o Channels 16 and 18. Oil Department on Channel 14. "Inflot" o Channel 14. Fire vessel on Channel 14. Petroleum Terminal o Channel 12.
TUGS: Number and capacity of the tugs is to be decided by Master an Pilot. Tugs compulsory for vessels over 500 g.r.t. There are 2 tug 1×1,600 h.p. and 1×225 h.p. Ship's lines used.
BERTHING: There are 5 wharves in the port.

Berth	*Length* (m.)	*Max. Draft* (m.)
1	126	5.8
2	132	5.8
3	151	6.8
14	126.5	5.8
15	113.5	3.4

These drafts are given for L.W. with usual density (1012).
CRANES: 13 cranes available. All berths are equipped with electr cranes up to 5-10-20 tons lifting capacity for handling general and bul cargoes, steel products and timber. Possible facilities for handling grai ores, coal, fertilisers, containers and Ro-Ro traffic.
STEVEDORES: Normal working hours for all cargoes:

3 shifts: 0800 – 1600, 1600 – 2300, 2300 – 0800 hrs.
Meal times: 1130 – 1200, 1930 – 2000, 0300 – 0330 hrs.

Average loading rate for bulk cargoes 1,600 tons per day and gener cargoes 1,000 tons per day.
TANKERS: There are 2 oil berths in the N.E. part of the Bay. Tanke are moored on heading 115° (± 10°), using anchors forward wi 6-8 shackles in the water, and 2 mooring buoys aft with 2 ship's rop to each buoy. The buoys are equipped with 60 mm. wires with very lar eye links at the end, where the ropes are doubled through.

Cargo and ballast pipes are 10 in. (254 mm.) diameter. Oil Termin may receive dirty ballast after oil products, except after lead gasolin Rate 700 cu.m./hr. Capacity 3,500 cu.m. Cost U.S.$2.00/cu.m.

Oil Terminal may load/discharge gasoline (rate 400 tonnes/hr heating oil (rate 400 tonnes/hr.), gas oil (rate 550-600 tonnes/hr.), mari diesel oil (rate 400 tonnes/hr.). There is some special equipment f fighting oil spills, such as special oil collection ship and oil booms (Nok Sup type 325 ms. and Anakonda type 336 ms.).
DENSITY: Average density around year 1012.
FRESH WATER: Available from barge in the roads and from pipel at the berth. Minimum quantity from barge: 40 tons in the roads a 20 tons at the berth.
FUEL: Available from barge and trucks.
FIRE PRECAUTIONS: Fireboat service compulsory for tankers du loading/discharging operations only. Cost U.S.$40-50 per hour.
REPAIRS: Minor repairs possible.
SURVEYORS: Cargo inspectors: Saybolt, SGS, Interssaserv Crime Int. Service.

Surveyors: Ukraine Register, Lloyd's Register, American Bur Bureau Veritas.
GANGWAY/DECK WATCHMEN: Compulsory. Watchmen service c be arranged.
OPENING/CLOSING HATCHES: Normally carried out by ship's cr
CUSTOMS ALLOWANCES: 200 cigarettes or 200 gr. tobacco, 1 of spirits and 2 litres of wine.
REPATRIATION: Possible.
AIRPORT: International Airport Simpheropol, 117 km. from Theodo Regular flights to Istanbul (Turkey).
TIME: GMT plus 2 hours in Summer and 3 hours in Winter.
HOLIDAYS: January 1st and 7th; March 8th; Easter; May 1st and May 9th; Trinity; August 24th; November 7th and 8th.
POLICE/AMBULANCE/FIRE: Call Port Control on VHF Channel 1
STORING: Vessel may be stored by barge and trucks. Trucks proceed alongside at all berths. Forklift trucks may be used on all je to handle stores.
SHIP SUPPLY SERVICE: Transfer of stores, crew and sick perso Arranged through Agent.
SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Compulsory. Supplied by Immigration Officer on arrival.

GARBAGE DISPOSAL: Garbage is stored in ship's containers or plastic bags and collected every 2 days by special garbage ship.

WASTE OIL DISPOSAL: All vessels must store waste oil and sewage waters, which are collected from ship during the stay in the port by a special vessel. Payment for garbage and waste oil disposal included in the sanitary charge.

CURRENCY: Ukrainian Karbovanets. Exchange rate U.S.$1.00 = 190,000 Karbovanets (June 1996). Rate always changes.

REGULATIONS: *Demands of Inspection for Protection of the Black Sea:*

1. Before crossing the territorial waters of the Ukraine, the Master of any vessel must change segregated ballast at any zone of the Black Sea, where the depth is 2,000 m. and more. This fact must be entered in the Log Book.
2. All ships with open sewage systems are prohibited from entering into the territorial waters of the Ukraine. Since the moment of crossing the territorial waters of the Ukraine, all ships, even if they have in operation an approved sewage treatment plant with the system of purification and disinfection, are prohibited to discharge overboard substances with any oil content and sewage waters. Since the moment of entering into the territorial waters of the Ukraine, all harmful substances (or waters with such substances) must be discharged into holding tanks and into slop tanks. All valves, equipment, engines, openings and places where a discharge of harmful substances can happen, must be hermetically closed and sealed by ship's Administration at the moment of crossing into the territorial waters of the Ukraine.
3. It is prohibited to discharge ballast (including clean ballast and segregated ballast) into the territorial waters of the Ukraine without sampling and special permission of State Inspection for Protection of the Black Sea.
4. The port of Theodosia has no special equipment for loading/unloading animals (including cattle), so all vessels are prohibited to enter into the port of Feodosia or even into Feodosia Bay with animals as cargo.
5. It is prohibited to use substances which evoke sinking of oil to the bottom of the sea or which dissolve an oil in water.
6. It is necessary to register all operations involving harmful substances in ship's documents (Oil Record Book, Log Book, etc.) immediately when operating. Harmful substances are oil, oil products, oil remains, waters containing oil, sewage waters, bilge waters, etc.
7. In the port of Theodosia, the Master of the ship must on request give the following documents to State Inspection for Protection of the Black Sea:

International Oil Pollution Prevention Certificate.
International Sewage Pollution Prevention Certificate.
International Garbage Pollution Prevention Certificate.

SHIPMASTER'S REPORT: April 1993.

The port of Theodosia is situated on the N.E. coast of Crimea Peninsula, in the N.W. part of Kaffa Bay.

The port, formerly in a prohibited area, is now open for trade.

Vessel: Tanker of 30,000 d.w.t.

Chart: B.A. Chart No. 2233.

Port Limits: The port waters are bound by a line bearing 026° from Ily Lighthouse to the shore.

Documents:

5 copies General Declaration (IMO form).
2 copies Cargo Declaration (IMO form).
1 copy Health Declaration.
7 copies Crew List.
1 copy Passenger List.
1 copy Stores List.
1 copy Crew's Effects and Currency Declaration.

All crew's passports are taken ashore by Immigration Officer for formalities and returned next day.

Tonnage and Safety Certificates are taken ashore by Agent and returned before sailing, together with Sailing Clearance.

Pilotage: Compulsory for berthing and unberthing. Call Port Control for instructions.

Anchorages: There are 4 areas for tankers, about 2.5 miles N.N.E. from Ily Lighthouse in a depth of 18.0 m. – 20.0 m., good holding. Contact Port Control on arrival for anchorage position.

Restrictions: Mooring and unmooring at sea berths only during daytime. Max. wind: 6 m./sec. for mooring and 12 m./sec. for staying at sea berths.

Health: Free Pratique granted on arrival at the anchorage, before mooring. Derat Exemption Certificate issued on request (Cost U.S.$ 90.00).

Radio: Cables to be send preferably through Odessa Radio "UDE/UFB".

VHF:

Port Control: Channel 10 for instructions, information and pilot.
Oil Terminal: Channel 12 for cargo information.
Pilot, Tugs, Service Boats: Channel 6 during manoeuvring only.

Tugs: 1×1,600 h.p. and 1×225 h.p., ship's lines used.

Tankers: Two sea berths, in the Northern part of the bay.

North Sea Berth for 35,000 d.w.t. tankers with max. draft 12.50 m.
South Sea Berth for 23,000 d.w.t. tankers with max. draft 11.30 m.

Tankers are moored on heading 120°, using both anchors forward with about 8 shackles in the water, and 2 mooring buoys aft with 2 ship's ropes to each buoy. The buoys are equipped with 60 mm. wires, with very large thimbles at the end, where the ropes are doubled through.

Two 10 in. hoses are used, one on the starboard side for ballast and the other on the port side for cargo. The ballast, clean or dirty, must be pumped ashore, rate about 700 cu.m./hr., cost U.S.$ 2.00/cu.m. The exact quantity will be gauged ashore and Ballast Declarations issued. Loading rate 900 cu.m./hr. for gas oil. Unpredictable stoppages may be experienced.

Density: About 1010 (April).

Fresh Water: Small quantities available by barge, but expensive.

Surveyors: Cargo inspectors available from Odessa.

Customs: No restrictions, but nothing allowed to be taken ashore. Bonded stores are not sealed.

Repatriation: No facilities available.

Time: Winter: GMT plus 2 hours. Summer: GMT plus 3 hours.

Shore Leave: Granted for 24 hours only. Permission granted by Immigration Officer on arrival.

Garbage: Irregular collection service available by barge.

General: Communications very difficult due to few English speaking people being available.

Imperative that gangway is lowered down for Boarding Authorities, Pilot and Inspectors.

Fire boat service compulsory during loading operations only, cost U.S.$ 20.00 per hour.

Unlit Buoys (not charted): One buoy 2.5 miles S.E. and the other 5 miles East of Ily Lighthouse.

SHIPMASTER'S REPORT: March 1994.

The Port of Theodosia, popularly known as Fredosia, is situated on the Northern part of the Black Sea in Lat. 45° 01' N., Long. 35° 25' E. This port has been opened to merchant vessels for 2 years.

Normally Pilot boards at anchorage or pilot boarding area by tug.

Mooring/unmooring is carried out in daylight only, but with special request, arrangements can be made during darkness.

Quality of pilotage was not found very good. Most of the Pilots understand English, but they can not express themselves. They also lack co-ordination between tug and Mooring Master.

Only 2 tugs are available, but with special request, one military tug can be arranged.

After berthing, Immigration, Customs and Port Health come on board with Agent for inward clearance. Same people also come on departure.

One large room with capacity for 8 to 10 persons to be arranged. Only one recognised Agent, Inflot, works in port area. They handle all tasks with efficiency.

Following documents are required:

4 copies Crew List.
All Passport or CDC.
Vaccination List.
Narcotics Drug List.
Personal Effect List.
Stores List.
Bonded Stores List (Bond is sealed after inspection).
Currency Declaration List.

One guard is posted at gangway at all times.

Shore leave granted after Immigration Clearance, but have to return back to vessel at least once in 24 hours.

All shore cranes are operational. They are not mobile, hence ship has to shift as required. No floating cranes available.

No repair facilities available.

Fresh water is available.

No recognised ship's chandler in dock, so provision can not be arranged. Small quantity of provision can be arranged through Agent with sufficient notice.

No bunkers available.

Mainly hot rolled steel cargo is exported.

Mooring buoy was observed for small product tanker.

AUTHORITY: Port of Theodosia Authority, 14 Gorkogo Street, 334800 Theodosia, Crimea, Ukraine. *Tel:* (06562) 31267, 30960, 30506. *Telex:* 222125 Pilot Ux. *Contact:* Harbour Master.

AGENT: General Agent in Odessa: Black Sea General Shipping Agency "Inflot", Ukraine. Tel: (0482) 223902. Fax: (0482) 226412. Telex: (680) 232124 Inf Ux.

Local Agent in Feodosia: "Inflot". Tel: (06562) 35317. Fax: (06562) 34012. Telex: (680) 222125 Pilot Ux.

UST DUNAYSK (Ust-Dunaisk): 45.28 N. 29.42 E. (See Plan)

LOCATION: The port of Ust-Dunaysk is situated on the South part of Zhebriyanskaya Bay of the Black Sea and connected with the Danube River (Kiliya Branch) by artificial channel.

The approach sea channel is 3.5 miles long, marked with light buoys, with width of 100 m. for 1.5 miles, narrowing to 80 m. to the port. Least depth is 11.8 m. The bottom is mud and sand.

DOCUMENTS: The Master must produce the following documents on arrival:

1 copy Maritime Health Declaration.
2 copies Master's Declaration of vessel's arrival.
4 copies General Declaration (IMO form).
2 copies Cargo Declaration (IMO form).
2 copies Money List.
2 copies Crew Effects Declaration.
2 copies Stores List.
2 copies Medicine Group "A" Declaration (Medicines which contain narcotics and transquilisers).

PILOTAGE: Compulsory. Pilot waiting area is within a radius of 2.5 miles from a point with co-ordinates: Lat. 45° 28' N, Long. 30° 01' E. (Anchorage No. 367 or A). Pilot boards 2.5 miles N.E. of the entrance to the dredged channel in position Lat. 45° 33' 12" N., Long. 29° 47' 24" E.

Pilot boat has orange hull. Tugs of the port can be also used for delivering Pilot.

24 hours prior to arrival Master orders a Pilot via Agent (indicating g.r.t./n.r.t., LOA and arrival draft).

4 hours prior to arrival at Anchorage No. 367 (A) Master has to call "Port Control" on VHF Channel 11 and correct time of arrival. At same time Master receives information about pilotage, formalities, berthing prospects, etc.

ANCHORAGE: There are 3 anchorages with good holding ground in soft mud and sand. They are:

No. 367 (A) – For large sea-going vessels – Circle within a radius of 2.5 miles from the point with co-ordinates Lat. 45° 28' N., Long. 30° 01' E.

No. 368 (B) - A square with co-ordinates:

Lat. 45° 30' N.	Long. 29° 53.2' E.
Lat. 45° 33.1' N.	Long. 29° 53.6' E.
Lat. 45° 33.1' N.	Long. 29° 56.8' E.
Lat. 45° 30' N.	Long. 29° 56.8' E.

No. 397 (C) – For vessels with draft less than 5.0 m. – Within a radius of 7 cables from the point with co-ordinates: Lat. 45° 31.7' N., Long. 29° 42.9' E.

RESTRICTIONS/MAX. SIZE: Entry and departure is allowed for vessels with length less than 150 m. around the clock, others in daytime only.

Max. LOA 266 m. Max. arrival draft 12.0 m. If vessel's arrival draft is greater than that permissible, the lightening of vessel is effected in any convenient place near the entrance channel on Port Control order.

RADIO: Notice of Arrival can be sent by Telex No. 232136 "Inflot Izmail" or Telex No. 232103 Ust d "Inflot Ust-Dunaysk" or via "Odessa Radio" call sign UDE, calling frequencies 500 kHz/454 kHz, working 447 kHz addressed to "Inflot Izmail" for "Inflot Ust-Dunaysk". ETA advices required 48 hours, 12 hours and 4 hours prior to arrival.

VHF: VHF communication can be effected via Port Radio Station, call signs "Ust-Dunaysk Port Control", "Ust-Dunaysk Despatcher", "Inflot Ust-Dunaysk", all by VHF Channel 11, around the clock.

TUGS: Mooring and unmooring of the vessels at the port of Ust-Dunaysk is effected with tugs of total capacity not less than 5,000 h.p. (Pilot's option). Ship's lines to be used for all operations with tugs.

BERTHING: All cargo handling operations are effected on 3 berths:

(a) South Berth, where vessel lies at 2 anchors (about 8 shackles) and 3 ropes from each quarter to mooring buoys about 80 m. away;

(b) West Berth, where the vessel lies to 2 anchors (about 9 shackles) and 3 ropes from each quarter to floating buoys 80 m. from the vessel.

(c) Lighter Carrier Berth (See "Plan") can be used for mooring of bulk carriers if lighter carrier is absent.

At the port of Ust-Dunaysk the transhipment of bulk cargoes is effected direct from ship-to-ship" from large sea-going vessels into Danube barges. Cargo handling operations of LASH-carriers is also undertaken.

CRANES: For discharging/loading of bulk cargoes there are 4 floating cranes with capacity of 16 tons and max. height of 15 m. above water level and 2 well fendered floating transhippers with integral hopper/belt system with capacity 50 tons and max. height 21.5 m. above water level. Each crane is capable of about 600 t.p.h., average about 400 t.p.h.

BULK CARGO FACILITIES: Transshipment of bulk cargoes is effected directly from "ship-to-ship". Coasters have a capacity of 3,000 tons and lighters 1,000 tons. Lightening at anchorage carried out by 1 crane towed out by tug; operation liable to interruption if wind Force 4-5, when crane returns to port.

STEVEDORES: In first ETA, Master must declare number of holds ready for discharging/loading. Tonnage of cargo handled in a working day for one vessel is from 1,200 tons to 4,000 tons, depending on type of cargo.

Working hours from 0800 – 1600 hrs., Monday to Friday. Holiday working hours are from 0800 – 1500 hrs., then overtime begins. Working time at port is around the clock.

MEDICAL: Treatment effected at Izmail. In an emergency, Agent can arrange medical treatment at Vilkovo.

DENSITY: Changeable, depends on wind direction. Average – 1005.

FRESH WATER: In first ETA, Master has to order quantity of water required. Water is delivered from Volkovo. Supply is effected by barge.

FUEL: In first ETA, Master has to order quantity of bunkers required. Bunkers are delivered from Izmail by barge.

CONSULS: None.

REPAIRS: No major facilities at port. Mobile repair company available. No berth dedicated for repair work.

DRY DOCKS: None.

SURVEYORS: Saybolt, SGS, etc.

OPENING/CLOSING HATCHES: Effected by ship's crew.

CUSTOMS ALLOWANCES: According to Ukrainian Customs Regulations.

REPATRIATION: Possible. It takes 2 days to complete all formalities and effect repatriation.

AIRPORT: Nearest airports: Izmail 100 km. and Odessa 200 km.

TIME: GMT plus 2 hours in Winter, GMT plus 3 hours in Summer.

HOLIDAYS: State Holidays: 1st January, New Year; 8th March, Women's Day; 1st and 2nd May, Labour Day; 9th May, Victoria Day; 24th August, Independence Day; 7th and 8th November, Memory Day.

All Church Holidays according to Julian Calendar.

Holidays do not effect port working.

SERVICES: Supply services from Vilkovo and Izmail in small quantities. Reception of bilge water, sanitary water, dry garbage, supplying of fresh water, bunkering, draft survey, unsealing survey, Maritime Register of Shipping, Declaration of Sea Protest, all possible.

SHORE LEAVE: Possible. When going ashore, Seaman's Books exchanged for shore passes.

CURRENCY: Ukrainian Karbovanets. U.S.$1.00 = 189,000 (18.3.96).

SEAMAN'S CLUB: International Seaman's Club. Excursion, fishing and hunting can be arranged.

GENERAL: General weather conditions are favourable. Northerly wind dominate. Icing of creek is very rare.

SHIPMASTER'S REPORT: May 1983 (Updated 1988).

General: Situated on the Northern arm of the Danube Delta, the po consists of a basin in the marshes, and is approached by a buoye channel 100 m. wide, approx. 3.5 miles long, dredged to a depth of 13 m There are berths for 3 vessels lying to two anchors and with three line to each quarter mooring buoy. There is a strong outflow from the rive and the port is open to all winds. LASH ships appear to have preferenc at one berth. All business, including protests, is transacted at Izmai some 40 miles inland, and the Inflot Agent and Port Officials are base there.

Documents: 4 Crew Lists and separate Money List (attached to Cre Declaration) required.

Pilotage: Compulsory, but not for departure from Inner Roads. Pil launch with orange hull and white superstructure with the word PILO in black on the hull. This launch is used for all transport operations the port.

Anchorage: There are 3 anchorages marked on B.A. Chart 2213. Vess instructed to anchor in "A", and Pilot boarded there. Vessels lightenin are anchored in the Inner Roads close by the outer fairway buoys. Goo holding ground in mud and sand at all anchorages.

Restrictions: Least depth in channel 11.5 m.

Radio/VHF: Pre-arrival notices to Inflot Izmail. Agent boards with Officia and Grain Inspectors either at Inner Roads Anchorage or at berths.

Pilot Channel 11; Inflot Agent Channel 11 – call "Inflot". Use of ma transmitter prohibited at Inner Roads and in the port.

Tugs: One conventional and 2 pusher tugs with adequate power ass with berthing. There is a mooring boat for running buoy lines.

Bulk Cargo Facilities: There are 2 floating cranes, well fendered an with integral hopper/belt system for loading coasters. They also carry wheeled digger/dumper, use of which is not allowed at the anchorag Each crane capable of about 600 t.p.h.; average about 400 t.p Coasters have a capacity of 3,000 tons; lighters 1,000 tons. Lightenin at anchorage carried out by 1 crane towed out by tug; operation liab to interruption with wind force 4 – 5 when crane returns to port.

Medical: In emergency Agent can arrange medical treatment at Izma

Density: 1013.

Surveyors/Grain Inspection: Inspectors required *all* main hatches opene and two crew to assist with sampling, even for lightening two hold

Hatches: Opened/closed by crew.

Customs Allowances: No restrictions. Bond not sealed.

Services: None.

Shore Leave: Permitted.

Agent: Inflot Agent usually spends Monday to Friday on "Uritsky", o traffic expected.

AUTHORITY: Port of Ust-Dunaysk, 2 Pridunayskaya Stre 272626 Vilkovo, Odessa Region, Ukraine. *Tel:* (04843) 31135, 3150 *Telex:* 232103 UST D. *FAX:* (04843) 23844. INMARSAT: Tel: 87 1272705. Fax: 873 1272706. *Contact:* Pavel V. Kosinets, Gene Director. Vladimir P. Fedchuk, Harbour Master. Vladimir I. Shvidchen Deputy Director. Roman E. Pastukh, Commecial Director.

AGENT: Joint Venture Enterprise "Inflot Izmail". Head Office in Izma 14 Portovaya Street, 272630 Izmail, Ukraine. Tel: (04841) 212 Telex: 232136.

Ust-Dunaysk Office: Telex: 232103 Ust d. Fax: (04843) 23844.

YALTA: 44.30 N. 34.12 E. (See Pla

GENERAL: An ice-free Black Sea passenger and commercial port, Ya is situated at the head of Yalta Bay and on the Southern coast of Crimea Peninsula.

The port is open for navigation all the year round.

The port is formed by a harbour protected by a mole. Depths in harbour are up to 10 m.

Yalta is a passenger port.

PILOTAGE: Pilot meets vessel in the Outer Roads, at a distanc 2 miles S.E. of Yalta Lighthouse.

Pilotage is available 24 hours. Vessels must send ETA at boarding place, when crossing the parallel of Mys Aytodor or the meri of Mys Nikitin.

A continuous listening watch should be kept on VHF Channel 1 2464 kHz whilst within the area.

ANCHORAGES: The port Outer Roads are situated in Yalta Bay E.S.E. 7 cables off the head of the mole with depth of about 30

They are open to winds blowing between E.N.E. and S.W. At ti vessels may be turned broadside to waves caused by Southerly w

The bottom is mud and sand.

RESTRICTIONS: Vessels may enter or leave the port at any tim day or night. Vessels entering or leaving the port must have clearance of not less than 0.6 m.

MAX. SIZE: Max. draft 7.2 m.

RADIO/VHF: Ship-shore radio contact can be established throug port radio station Yalta Radio operating 24 hours a day on the follo frequencies:

Station	*VHF Channel*
Port Controller	16, 26
Port Director	14
Dispatcher	6
Tugs	14

TUGS: Tug assistance for mooring and unmooring is compulso

BERTHING: The main cargo berth is 280 m. long and has a de 8.25 m.

CRANES: Electric cranes 2 tons – 20 tons capacity and floating with 100 ton capacity. 10 ft. and 20 ft. containers handled.

FUEL: Not available.

FRESH WATER: Can be supplied by pipelines at all berths.

REPAIRS: Not available.

TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.

GENERAL: Provisions available.

A new ferry operates between Yalta and Derince (Turkey). Capacity: 40 trucks, 55 cars and 110 passenger berths.

AUTHORITY: The Yalta Sea Trade Port Authorities, 5 President F.D. Roosevelt Street, Yalta 334200, Crimea, Ukraine. *Tel:* (0654) 324242, 326909. *Telex:* 187128 Yasco Su. *Cables:* Port Yalta. *FAX:* (0654) 323926. *Contact:* E.V. Likhachov, General Manager. Anatoly I. Shapkin, Harbour Master.

AGENT: Yalta Marine Agency – Yalmara, at the Port of Yalta, 5 President F.D.Roosevelt Street, 334200 Yalta, Ukraine. Tel: 328289. Telex: 187125. Cables: Port Yalmara. Fax: 323926.

YUZHNY (Grigorevsky): 46.39 N. 30.55 E. (See Plan)

PORT LIMITS: The water area of the port is the waters of Adzhalykskiy Liman and the sea area bounded by the arc of a circle with a radius of 2 miles from the coast radar station (46° 36' 04" N., 31° 01' 25" E.) and Anchorages No. 356, 357 and 358 on the Charts.

PILOTAGE: Pilotage compulsory for all foreign vessels and all Ukrainian vessels over 500 g.r.t. In order to reach the Port of Yuzhny vessel first has to proceed to position Lat. 46° 08' N., Long. 31° 06' E. (near port Ilyichevsk), one hour before arrival at abovementioned position Master should communicate with "Port Control Ilyichevsk, on Channel 16 or on R/T 2535 kHz and then follow the instructions of "Port Control" as further navigation is controlled by shore radar.

Gas-carriers and chemical-carriers shall follow a pilot boat when proceeding to and from the port. Master shall order a Pilot through the Port of Ilichevsk 72 hours and 24 hours before and confirm the order 12 hours prior to approaching the Port of Yuzhny.

The port is equipped by an automated Vessels' Movement Control System (VMCS).

ANCHORAGES: It is prohibited for ships to anchor in the inner roadstead.

Anchorages: No. 356 for gas carrying ships and is 3.4 miles S.S.W. and No. 357 and 358 are for other vessels, 1.7 miles South of the West entrance point of Adzhalykskiy Liman. The depth in Anchorage No. 356 is 14 m. to 21 m., Anchorage No. 357, 15 m. to 22 m. and No. 358, 16 m. to 18 m. The seabed is sand, mud and shells.

The limits of the anchorages are shown on the charts (Also see "Plan").

RESTRICTIONS: The following vessels are allowed to enter port when conditions are as stated:

Gas and chemical carriers over 10,000 d.w.t. and cargo vessels over 20,000 d.w.t. are not allowed to enter and leave the port in conditions of visibility of less than 1.0 miles.

Cargo vessels up to 180 m. in length – enter when conditions of visibility are not less than 3 miles, leave – not less than 2 miles.

Gas and chemical vessels having length over 180 m. – when the port's leading marks are visible from the crossing of the RR-1 and the imaginary line of the entering leading marks (bearing 013° – 193°).

Passenger vessels may not enter when a gas or chemical carrier is in port.

MAX. SIZE: Ships up to 280 m. LOA. Draft limitation: No. 1 – 12.0 m.; No. 2 – 12.5 m.; No. 3 – 12.5 m.; No. 4 – 12.5 m.; Nos. 5 & 6 – 13.0 m. and Nos. 16 & 17 – 13.0 m.

HEALTH: The legislation of the Ukraine on protection of the surroundings and "Compulsory Rules of the port of Yuzhny" to apply.

Prior to arrival Master should send cable to Agent advising last port of call, place drinking/ballast water taken, whether vessel is equipped with sewage tanks or sewage purifying system. Any infectious diseases among the crew during the voyage.

RADIO: All cables to be sent through Odessa Radio.

Arrival Notices to Agent – Prior to Arrival: All vessels: At least 12 days. Gas/chemical carriers: 72 hours and 24 hours. All other vessels: 48 hours and 12 hours.

(1) In the preliminary Notice, the Master shall state the following information:

(a) When arriving for loading – Names of Shippers and Charterers and denomination of goods;

(b) When arriving for discharge – Nature and quantity of goods and stowage plan; heavy weights (over 3 tons), and over-sized goods (over 9.0 m.) to be indicated separately.

The Master of a gas or chemical carrier shall declare to the Harbour Master a complete technical fitness of his vessel, and advise particulars of the vessel's equipment for preventing pollution of the environment, as well as the place in the open sea where water ballast has been taken or changed.

(2) The Harbour Master is to be immediately informed by the Master through his Agent about any delay en route which may cause the delay in vessel's ETA. If the vessel delays against the time declared by the Master, every loss or expense arising therefrom (time lost by labour and means of transport, storage expenses, etc.) shall be borne by the vessel.

(3) The Master of a vessel will be responsible for any consequences of giving the wrong information on the vessel's draft, length, breadth or Net Registered Tonnage.

VHF:

Yuzhny Port Control:	Calling and working on Channel 11. Remote pilotage on Channel 79.
SPSI "Yuzhny Radio 5":	Calling and working on Channel 11.
Port Dispatcher "Yuzhny Radio 2":	Calling and working on Channel 69.
Harbour Master "Zaliv":	Channel 11.
Radar Station "Yuzhny Radio 9":	Channel 79.
Port Craft Dispatcher "Yuzhny Radio 6":	Channel 16, working Channel 32.
TFS "Yuzhny Radio 7":	Calling and working on Channel 67.
Central Port Radio Station (CPRS) "Yuzhny Raido 1":	Channels 16, 60 and 4.
Pilot and Tugs:	Channel 6.

RADAR: Vessels are piloted by Shore Radio in and out.

TUGS: The use of tugs is compulsory when mooring/unmooring. The number of tugs and their horse-power is determined by the Pilot with Master's consent, depending on weather conditions, tonnage and type of vessel. 3 tug-boats must be used during gas-carrier's mooring/unmooring if over 25,000 d.w.t.

BERTHING: On the West coast of Adzhalykskiy Liman Quays No. 1, 2, 3 and 4. The general length of the quays are about 600 m. Quay No. 3 is for loading liquid ammonia and pumping super-phosphorous acid.

A quay for auxiliary ships has been built on the North side of the East entrance point of the inlet. The length of the quay is 155 m. and the depth alongside it is 6.4 m.

Berth No.	*Length* (m.)	*Depth* (m.)
1	224	11.5
2	264	12.0
3	103	12.5
4	110	13.0
5, 6	350	12.8
16, 17	283	13.0
MCC-65	280	14.2

MEDICAL: Port surgery is open round the clock for emergency cases, otherwise all medical treatment and vaccinations are done at Odessa.

FRESH WATER: Potable water available from berth and by barge.

FUEL: Delivered by barge. Longest possible notice is desirable. Stem through Bominflot in London. Telex: 23830.

OPENING/CLOSING HATCHES: Mechanical hatches by ship's crew.

REPATRIATION: Possible.

AIRPORT: At Odessa.

TIME: Local time is GMT plus 3 hours. Summertime (GMT plus 4 hours) is used from the 1st April to 30th September.

HOLIDAYS: 1st January, 8th March, 1st, 2nd, 9th May, 7th October, 7th November and 8th November.

POLICE/AMBULANCE/FIRE: Through Agent.

TELEPHONES: For gas-carriers only.

SHORE LEAVE: Restricted for all crew members (except Master) till midnight. Shore passes are valid for Port Yuzhny area only. For trips to Odessa special permission is required.

GARBAGE DISPOSAL: Garbage and food leftovers shall be collected onboard in polythene bags (containers with tightly closing lids) delivered by the port on the Master's request, and shall be passed over at least once in 2 days with a notification of the port through the Agent 24 hours in advance of such delivery. Garbage shall be put into lorries by the vessel. Removal and liquidation of the garbage shall be effected by port means for the shipowner's account according to tariffs in force.

WASTE OIL DISPOSAL: Collection of bilge and waste water from a vessel shall be undertaken by special port craft on the Master's request for the ship's account according to tariffs in force.

Vessel's requests for delivery of bilge and waste water shall be sent to the Agent, or to other agencies having the contract with the port.

NOTICES: *Instructions for Gas and Chemical Tankers:* Vessel to proceed to position: Lat. 46° 08' N., Long. 31° 06' E. and from there to follow the leading pilot boat. Master to give directly to Ilyichevsk Pilot Station 48, 24 and 6 hours notice. One hour before arrival at the above position to contact "Port Control Ilyichevsk" by VHF or radio/telephone on 2535 kHz.

Pilotage having been accomplished, Master to cable the actual distance the vessel was piloted by the leader to Harbour Master Ilyichevsk, copy to Agent to exclude errors in charges.

Instructions for Dry Cargo Vessels: Vessel to proceed to position: Lat. 46° 08' N., Long. 31° 06' E. 1 hour before arrival, vessel to contact Port Control Ilyichevsk by VHF or radio/telephone 2535 kHz and follow their instructions as they pilot by radar.

Please inform Ilyichevsk sea Pilot Station ETA at above position 48, 24 and 6 hours before arrival.

General requirements for ships loading bagged urea:

Max. beam 26 m.

Min. d.w.t. 5,170 tonnes. Max. d.w.t. 32,500 tonnes.

Max. distance from hatch opening to ship's side – 6.0 m.

Max. height from hold bottom to hatch covers – 17.0 m.

Min. height of cargo compartments – 3.0 m.

Min. size hatch openings – 7.0 m. × 10.0 m.

Vessel to be equipped with gear for loading spare bags and dunnage.

No cargo is loaded into deep tanks, lockers or other compartments where the loading machine cannot operate normally.

Ship's holds must be free from any obstacles such as shaft tunnels, pillars, etc.

Draft limitation – 11.5 m.

Cargo tallied automatically at the loading plant.

In the holds delivery very fast. No tallymen available.

The figures can be checked by the Chamber of Commerce. We suggest you should contact them directly.

VERY IMPORTANT:
All holds must be dry, clean and free from remnants of previous cargo.

Failure to comply with the above may cause significant losses and/or non-acceptance of the ship.

It is customary for shippers to accept Notice of Readiness retrospectively on berthing from date and time the vessel was granted Free Pratique if she has to wait at anchorage, provided she complies with the above requirements.

General requirements for ships loading bulk urea:

Min. d.w.t. 5,170 tonnes. Max. d.w.t. 32,500 tonnes.

Max. beam 26 m.

Max. distance from ship's side to hatch coamings – 20.0 m.

As there are no trimming facilities, wing tanks with the slip angle of not less than 30° relative to deck line should be available to provide self-trimming in the holds as cargo delivered in a vertical flow.

Draft limitation – 12.0 m.

Vessel must be fit for grain transportation. The stability information booklet should provide an approved cargo plan for the quantity to actually be loaded.

All holds must be dry and clean and free from rust and/or remnants of previous cargo. Failure to comply with the above may cause significant losses and/or non-acceptance of the ship.

It is customary for shippers to accept Notice of Readiness on berthing retrospectively from date/time vessel was granted Free Pratique if she has to wait at anchorage, provided the ship complies with above requirements.

IMPORTANT: To obtain Harbour Master's clearance outwards, all maximum estimated expenses of a seaworthy ship should be prepaid and further reimbursed when the accounts are fixed after ship's departure, hence it is essential that sufficient funds be received by the Agent as soon as possible and imperative prior to completion.

REGULATIONS: The following are some of the Port Regulations. The numerals have no significant meaning.

1. Gas carrying ships proceed into port and leave it in company with a fire tug, which goes ahead of the gas carrying ship at 8 – 10 cables and will notify on VHF radio all ships of the necessary measures and precautions to be taken.

2. In the port there is a control office for regulating ship movements. Ships entering the port, request permission for entry 2 hours before, and ships leaving the port, 30 minutes before.

3. Pilotage for all ships is obligatory.

4. Pilotage for ships into Port Yuzhny begins at position: Lat. 46° 31' N., Long. 30° 57' E.

5. When a gas carrying ship is entering or leaving the port the entry or exit of other ships is prohibited.

The mooring of any kind of floating object to the side of a gas carrier while it is at Quay No. 3 is prohibited.

6. The max. draft for ships proceeding into Port Yuzhny is 14.2 m.

7. The max. speed for ships in the channel is 6 knots, but in the inner roadstead it is 4 knots.

8. The movement of ships in the channel is only in one direction.

9. The mooring of gas carrying vessels and vessels carrying chemicals is carried out with the aid of not less than 3 tugs, the power of 2 of which must be 882 kV (1,200 l.s.) and one 1,692 kV (2,300 l.s.). Leaving the mooring is carried out with the aid of not less than 2 tugs of which one has a power of 1,692 kV (2,300 l.s.) and the other 882 kV (1,200 l.s.) The wind speed when mooring and leaving moorings must not exceed 7.0 m./sec.

The mooring of gas carriers of more than 20,000 d.w.t. is carried out with the aid of 3 tugs; the power of each of them must not be less than 882 kV (1,200 l.s.). Unberthing will be carried out with not less than 3 tugs with the same power. The speed of the wind during mooring and leaving moorings must not exceed 10.0 m./sec.

10. Communication between tugs and ships will be carried out on VHF radio on Channel 6.

11. Communication with ships is carried out on VHF radio on Channel 11, call on Channel 16. The VHF call sign for Port Yuzhny is Port Control.

12. During the mooring and un-mooring of gas carriers from the quays, a representative of the Odessa Port Factory, military guard, office of the Harbour Master and also an inspector of the port will be present.

13. Mooring at the quay, moving on a quay or leaving the quay are to be carried out under the directions of a Pilot.

14. When the speed of the wind is above 12 m./sec., the moving of gas carriers along the quay is prohibited.

15. Navigation of ships along the channel, of not more than 20,000 tons displacement is permitted without tugs when the wind speed is less than 12 m./sec. and the cross current has a speed not more than 0.5 m./sec.

Entry to the channel when visibility is less than 0.5 miles is prohibited.

When there is a strong cross current or current along the channel, tugs will lead ships into the approach channel.

The mooring of ships at the quay will be carried out in the following manner, after the tugs have turned the bows towards the exit and parallel to the quay at a distance of 80 m. – 100 m. from the quay, the tugs, maintained the plane of the ship parallel to the quay, and will move the ship towards the quay. The speed of approach must not exceed 10 cm./sec.

The ship moorings will be carried ashore by launches. From the bows and stern 2 nylon mooring ropes of not less than 200 mm. (8 in. circumference) are to be used.

16. The main engines of gas carriers must be in constant readiness to move the ship during the whole period in the port.

When gas carriers are entering the port and also when leaving it, all other ships must observe precautions and not hinder its movement or its chosen route. These ships must not close a gas carrier within a distance of 10 cables.

The fire fighting tug on duty keeps a round the clock watch on VHF radio Channel 16.

The use of steel moorings on gas carriers is prohibited.

The Harbour Master of Port Yuzhny has the right to depart from th present position on questions connected with the safety of mariners.

Lack of knowledge of the requirements of the present tempora obligatory regulations established for the port will not absolve the Maste of a vessel from responsibility for non-observance of these regulation

GENERAL: Port Yuzhny is found in Adzhalykskiy Liman, and is 4.2 mile E.N.E. of Mys. Dofinovskiy. Berths No. 1 and 2 for Urea; Berth No. for liquid ammonia and superphosphorous acid and Berths No. 5 and for minerals and coal.

From seaward an approach channel, 1.6 miles long has been cu through. Leading light beacons lead along it. The least depth in th channel is 15.0 m.

The entrance to the port is protected by 2 moles: The Western, abou 400 m. long and the Eastern, about 540 m. long. The moles are 6 m wide.

Areas with special navigation systems: Off the coast there are areas i which navigation is temporarily prohibited; an area dangerous fo navigation; Area No. 185, prohibited for anchoring and fishing, and Area No. 14 for bombing.

The limits of the areas are shown on charts.

Mys. Dofinovskiy: (Lat. 46° 34' N., Long. 30° 55' E.) lies 4.3 miles E.N.E of Mys. Severnyy Odesskiy. Mys. Dofinovskiy protrudes insignificant into the sea. Four cables West of the headland stretches the village o Novodofinovka, in which there are conspicuous white buildings.

Spoil Grounds: 1.7 and 2.5 miles East of Mys. Dofinovskiy a former spoi ground and a spoil ground are situated respectively. In these area depths may be less than shown on charts.

A wreck with a depth 9.8 m. over it is situated 2.7 miles E.S.E. of Mys Dofinovskiy. A light buoy marks the wreck with a depth of 9.6 m over it.

Banks with depths of 7.6, 7.2, 8.4 and 9.4 m. are situated respective 3.5, 3.8, 3.6, and 3.7 miles E.S.E. of Mys. Dofinovskiy. They are marke by light buoys.

A bank with a depth of 9 m. is situated 3.3 miles E.S.E. of Mys Dofinovskiy.

Conspicuous Points: On the West coast of the entrance to the inlet i the village of Grigor'yevka is a conspicuous smoke chimney, and on th West coast of the inlet opposite the quays can be seen large met reservoirs and towers.

Navigational Aids: The entrance to the channel and its edges are marke by light buoys. On the moles stand lights and beacons; on the East coas of the inlet there are leading light beacons.

Station: On the East entrance point to Adzhalykskiy Liman stands coastal radar station. Radar pilotage is carried out under the directio of a Pilot. The pilotage is of a consultative nature. Responsibility fo manoeuvres, fulfilling requirements of MPPSS-72 (Internationa Regulations for Prevention of Collisions at Sea) and the navigationa regulations of the port, rests with the Master of the vessel.

There is a signal post on the building of the coastal radar station.

Caution: Bearing in mind the possibility of the destruction of the edge of the approach channel, depths in it may be less than shown on chart

Underwater Pipe-line: Runs in a S.W. direction from the village o Grigor'yevska. The position of the pipe-line is shown on charts.

Roadsteads: There are 2 roadsteads in Port Yuzhny: outer and inne The outer roadstead is situated in the approaches to Adzhalykskiy Lima The seaward limits of the roadstead are coincidental with the outer limi of the port. The depths in the South part of the outer roadstead are u to 22 m. The inner roadstead occupies the water area of the South pa of Adzhalykskiy Liman opposite the quays.

Grigor'yevska Light Beacon: Stands 3.8 miles E.N.E. of My Dofinovskiy. Appearance of the beacon: white round concrete tower o the upper part of which stands a black cylinder, the lower part of th cylinder becomes a truncated cone. Height of the beacon is 14.8 m height of the light is 60.1 m.

Vkhodnoy Leading Light Beacons: Stands on the East coast o Adzhalykskiy Liman and lead along the approach channel to Po Yuzhny. Its direction is 193° – 013°.

The front beacon stands 2.7 miles N.N.E. of the entrance to the inl Appearance of the beacon: 4-sided metal framework tower on which ha been erected a black rectangular target with a white vertical stripe in th centre. The height of the beacon is 17 m.; height of the light is 47 m

The rear beacon stands 6 cables from the front one. Appearance the beacon: 4-sided metal framework tower, on which has been erect a black rectangular target with a white vertical stripe in the middle. Th height of the beacon is 29 m.; height of the light is 69 m.

SHIPMASTER'S REPORT: September 1979 (Updated 1988).

Vessel: 32,000 g.r.t. LPG Carrier.

General: This port is situated on the Western bank of what was o Lake Ajalik, about 0.5 miles from the entrance to the bay. The port h been created by dredging the barrier that separated the lake fr Odessa Bay. On BA. chart 2212 this entrance is situated about L 46° 35.6' N., Long. 31° 00.4' E. Breakwaters of prefabricated conc sections extend about 500 m. into the bay, and the approach chan is marked by conical buoys and pillar buoys for a distance of ab 2.5 miles beyond this. The approach channel lies on an axis of ab 010°T – 190°T. Depth in this channel were not less than 16 m. by sh echo sounder, both on entering and leaving.

The small town of Grigor'yevska is marked on BA. 2212. Lake A is not marked on this chart.

The port has been created to serve the massive and newly constru chemical plant on the Western shore of the lake. At the time of this it consisted of dry bulk handling berths of about 700 m. in length, a liquid handling facility for the discharge of superphosphoric acid the export of anhydrous ammonia. The liquid handling berth lies to North of the dry berths, about 0.8 miles from the breakwaters.

There are plans to create dry cargo berths on the Eastern shor the lake, immediately inside the entrance. Some work is alread progress.

Vessels of up to 12 m. draft can be handled and there are 3 medium sized tugs available.

The chemical plant is not yet fully completed, a second stage has only been operating since the beginning of this year. In 1980 there were plans to export 2 million tons of ammonia.

Agents: "Inflot" may be reached on Channel 16, with a working Channel 8 available.

Berthing: Vessel berthed starboard side alongside, swinging immediately South of the berth with the aid of 2 tugs (the third was late in arriving) moored fore and aft, port side.

The berth itself consists of a concrete jetty projecting from the main jetty, some 110 m. in length and about 40 m. proud of the main jetty.

There are 5 Chicksans, 2 for the discharge of acid, and a group of 3, 2 liquid 1 vapour return, for the loading of ammonia. The Chicksans have hydraulic couplings and appear to be of an awkward size, about 325 to 330 mm.

On this visit there was only 1 liquid line available for use together with the vapour return line. Claimed loading rate is said to be some 2,000 tonnes p.h. With the 2 liquid lines in use, this would indeed be possible. Our overall load rate was 1,115 t.p.h., including initial and final slow rates. During loading hourly rates in excess of 1,500 t.p.h. were maintained.

Communications with the plant operators was quite good but obviously hampered by language. There were no problems with slowing down for topping off.

Samples: Were taken on arrival and at several times throughout the loading, sample cock on Chicksans.

Fresh Water: Available from the jetty.

Fuel: May be supplied and arrives by barge. Bunkering cannot be undertaken whilst loading cargo and on this call the bunkering had to be completed before being allowed to load, despite this leading to a big delay.

Moorings: Three lines, 2 breast and 2 springs, fore and aft. Rat guards must be fitted. Mooring boat in attendance.

No problems with landing gangway on the quay and it may be turned out quite safely before arrival alongside.

Guards: On the quay, 1 at the gangway (Discharge Books required before being allowed to read drafts, etc.) and 1 each end. At night there was a 'guard' boat lying off our port side.

Officials: Polite and quite firm.

Documents required:

5 copies General Declaration. (ship's particulars, etc.).
4 copies Cargo Declaration.
2 copies Crew Effects.
4 copies Crew Lists.
4 copies Passenger List.
2 copies Crew Currency Declaration.
1 copy 'Clean' Ballast Declaration.
1 copy Sanitary Declaration.

No certificates were sighted.

Shore Leave: Granted until 2400 hrs. Masters allowed unlimited shore leave.

Toilets/Pollution: Vessels not fitted with sewage treatment plants must seal their toilets and use the shore facilities at the end of the quay. A statement to this effect must be signed.

A very strict control of pollution of all types is maintained and this includes ALL drainings from the main deck. Scuppers must remain plugged right up to the moment of departure. Hoses used to de-ice the liquid line must NOT be allowed to drain overside.

Papers: Allow at least 3 hours for paperwork before and after working cargo.

Cargo Lines: Were blown through by the shore plant on completion of loading. Vapour return lines was used throughout and there is no charge for its use, vapour apparently being returned to the shore tanks.

Cargo loaded was at about −32°C.

SHIPMASTER'S REPORT: October 1980 (Updated 1988).

The following is an update of the September 1979 report above.

General: The port has been developed East of Odessa to handle overspill from Odessa and to develop bulk handling facilities.

In about 10 years in terms of tonnage handled, it is expected to be the largest of the southern ports open to overseas vessels.

It has been in operation for 2 years and is 0.6 miles East of Grigoryeko light.

The port has been constructed from a fresh water lake. West Breakwater Head is in position Lat. 46° 35.80' N., Long. 31° 00.70' E. East breakwater head is in position Lat. 46° 35.80' N., Long. 31° 01.03' E. The port extends at present to the bulk liquid ammonia berth in position Lat. 46° 37.08' N., Long. 31° 00.80' E.

Port regulations are at present in Russian only, and English text should be available shortly (October 1980).

Approaching the coast soundings once the 100 fathom bank has been crossed tend to be flat and give little indication of position.

The outer separation scheme buoy was observed on radar at 9 miles and visually at 7 miles.

The coast is identifiable on radar at 30 miles.

D/F beacons are generally reliable and as ALRS, out of 12 checked in September 1980, 3 were not operating on the West coast of the Black Sea.

Notice:

	72 hours	*48 hours*	*24 hours*	*6 hours*
Agents:	Inflot Yuzhny	*	*	
Shippers:	Vneshtrans Yuzhny	*	*	
Charter:	Sovchart Moscow	*	*	
"	Sovchart Paris	*	*	
Pilot:		Inflot Ilyichevsk	*	*
"		Ilyichevsk Seapilot Station	*	*
Port:			*	*

Note: All through Odessa Radio.
*Denotes repeat message where indicated.
"Vneshtrans" is cable address for 'Sojuznestrans' shippers.

Pilot: Order Sea Pilot Ilyichevsk as notices.

Contact by VHF Channels 16 and 14 about 15 miles away from turning buoy.

Pilotage compulsory from port. Pilot speaks reasonable English and requires about 13 knots.

If anchoring at Yuzhny anchorage, he positions vessel under control from Yuzhny Radar Station position Lat. 46° 36.05' N., Long. 31° 01.3' E.

On departure the Harbour Pilot leaves the vessel in the anchorage area and the sea pilot cutter 'Bravvy' guides vessel down channel to 'Ilyichevsk' turning buoy, his speed is 11 knots.

Anchorage: For large LPG ships Anchorage No. 356 is used, centred on Lat. 46° 32.5' N., Long. 30° 58.25' E. with a radius of approximately 0.6 mile.

Depth 20 m., bottom mud and sand. Density 1024.

All anchoring is under control of Yuzhny Radar Station which gives the Pilot directions.

Berthing: There is no night berthing or unberthing, for gas carriers although the buoyage and leading lights are lighted, this seems to be for dredgers working. It would seem the hours are 0800 to 1700 hrs. (with possible extension in Summer months) with no vessels in the harbour or channel underway before or after these times. (We made it outwards in 12 minutes (October 1980)).

Visibility must be over 4 miles before berthing or unberthing operations take place. It may seem clear out at the anchorage but the weather in the harbour can be very different. This has been borne out from observations. We noted a temperature rise of 8° Celsius in 1 hour whilst moving out of port to anchorage.

Channel: The channel width is 118 m. and least depth of 14 m. (Checked by echo sounder). Pilots advise that there is a patch of 13.5 m. but this was not found. Bottom sand and mud. The shape is in the form of a 'V' so it is necessary to keep to centre of channel.

Buoys commencing seawards at Nos. 13 (starboard) and 14 (port) terminate in the harbour itself at Nos. 3 and 2.

The leading line is 013° to 193°.

Buoys (entering), black to starboard and red to port with Fl. W. & R. lights respectively. Channel length 1.3 miles from breakwater heads.

South of the channel are two shoals one 1.6 miles S.S.W. marked by 2 white pillar buoys Fl. W. and isolated by 1 white pillar buoy about 1.5 miles S.W.

Confused cross currents from wind and the rivers emptying out nearby are apparent. Generally the surface current is Westward and sub-surface Eastward. Apart from causing navigation problems these currents cause much silting up.

Vessels enter the channel from the anchorage between the 2 shoal areas on an approximate course of 080° then turn hard to port when in line with the channel to bring leading lights in line before entering channel. On leaving much the same is done, except a more Easterly course is resulted.

In the harbour itself in calm conditions there is a noticeable Southerly current of 0.5 knots.

The dredged channel at present terminates just astern of the ammonia berth marked by 2 buoys.

Leading marks, white and orange in colour are situated on raised ground N.E. of the harbour, and at night exhibit fixed white lights under which are neon-like strip green lights.

Vessel is swung short round to port off ammonia berth, berthing starboard side to head out. On fertiliser berths there seems to be no accepted side to.

The breakwaters consist of concrete blocks piled haphazardly on top of one another. Immediately to the East are the ruins of 2 other small breakwaters. At the foot of the Eastern breakwater there is a large concrete radar and Port Radio Control Tower. This is conspicuous in good visibility but would benefit from being painted white or orange to assist identification in conditions of haze which seem to be prevalent.

Just below this tower on the harbour side is a small boat pier for use of Port Authority craft.

The harbour offices themselves are in a large concrete building at the Southern end of the fertiliser quay where Customs, Agents, police, doctor, chandler, etc., reside.

Tugs: Four tugs are available. All ship's lines. 2 of 5,000 h.p., 1 of 2,500 h.p. (Tigris) and 1 of 1,200 h.p.

All tugs have icebreaking capability.

It is essential that the larger tugs have double lines. They use the lines out of the centre lead bow and stern with the 1,200 h.p. tugs pushing.

Outwards (October 1980) we dispensed with 4,500 h.p. tug's services and used 1,200 h.p. tug to tow us.

Tugs accompany vessel down channel to anchorage area.

Berths: Gangway can be turned out beforehand.

The ammonia berth is 125 m. long and 43 m. (measured) proud of the main dock face, it leads in a 171° – 351° direction. The other berths are offset and leading in approximate 005° – 185° direction.

The fendering is excellent with long rubber tubes and corners well protected on all berths.

Bollards are plentiful.

Moorings: Ammonia Berth 3, 2, 2, each end with bow/stern and breast lines leading to main dock face and springs to 'T' section.

Springs first out and last in.

As usual aft have to compromise. We put breast lines from main deck and springs from aft, both to 'T' section. Mooring boat in attendance, bow first docking and undocking.

Unberthing, vessel pulled laterally clear of berth, about 100 m., by tugs before moving ahead down harbour.

Loading: Ammonia: 2 loading and 1 Vapour Chicksan. Max. rate about 2,000 t.p.h. total (2×1,000 t.p.h.).

No charge for Vapour Return Line (VRL).
Shore personnel connect and disconnect.
Hydraulic couplings.
VRL ships 8 – 12 to shore 12 – 12 150ASA/300ASA.
Liquid shore spools 150ASA/300ASA.

No emergency stop except by watchmen in hut under Chicksans, who speaks little to no English. Essential whistle signal agreed.

On visit (Sept./Oct. 1980) shore tanks were low on product with max. rate at 700 t.p.h. Sometimes down to 200 t.p.h.

Samples frequently taken from cock on Chicksan.

Temperature warm at −32° Celcius on all visits. Note protest.

Loading programme to be agreed before commencement.

Surveyor with interpreter, takes about 2 hours for figures. Plant has to be off whilst readings taken.

Acid: Forward (South) of ammonia Chicksans – 2 arms.

Shippers: 'Sojuznestrans'.

Statement of Fact is compiled by the Master during loading on official form which is an advantage.

Tank atmosphere tested prior to commencement.

Purging or cooling alongside.

Plant: Total storage capacity 100,000 tonnes with about 18 tanks of 5,500 tonnes each. Four tanks can be seen from the ship, the remainder are behind.

The anhydrous ammonia plant was built by the Pullman Kellog company of U.S.A. and fertiliser section by PHB of Germany.

The tank pumps 'Carter' lose suction with 1,000 tonnes heel in tank. Approx. 2,000 tons per day of ammonia is produced at the plant with about 7,000 tons per day being pumped in by pipe-line from the Volga Region.

Pollution: VERY strict. Be VERY careful.

Scuppers to be plugged. Make sure decks washed down prior to arrival and that no lube oil is washed overside.

Make sure ballast and pumps clean.

Ships not fitted with sanitary tank system must have their toilets locked up and all crew use toilets astern of vessel. The sanitary system is checked.

No pumping of ballast in anchorage or in harbour without Port Authority permission. (A Greek ship was fined for pumping ballast at anchor).

Do not have fire hoses draining overside, we had them draining into ballast tanks.

Be very careful when disconnecting that no hose water drains overside.

Agent: State Agent 'Inflot'. Yuzhny office telephone 59-38-75. Yuzhny office has been in operation for about a year. Telex: 232722.

Main office in Odessa.

Office is in port building at end (South) of fertiliser quay. Good English and very co-operative.

Night staff, 2000 hrs. – 0800 hrs., good.

Can be contacted by VHF at anchorage or alongside by Channel 16 and then talk direct on Channel 8.

Order money (which all unused must be handed back on departure) 24 hours beforehand. If shorter notice given Agent will give you what he has in office safe.

Accepts Notes of Protest on behalf of receiver.

Cable address: 'Inflot Yuzhny'.

Medical: Through Agent.

Every day except Sunday a doctor attends the clinic in the port building, 0900 hrs. to 1300 hrs. We had 1 crew member with a fractured hand who was checked by doctor and taken immediately to Odessa for X–Ray, then brought back to the ship plastered up, all in 3 hours, with full English report.

Outside these hours a nurse is on duty.

Water: Fresh water available from quay. Agent will send waterman. Metered. Ship hoses international connection flange.

Chandler: Two. Technical and produce.

Some local produce available, basically vegetables. No salads.

The produce chandler in port building deals in curios, champagne, vodka and caviar. Payment can be made by the Agent.

We obtained from Technical chandler, a Russian chart of Odessa – 2 days' wait.

Suggest any requirements ordered well in advance.

Films: Walport films can be changed with suitable ships in port. Agent very co-operative in this respect, finding out for us if a Greek ship had Walport films which she did and like ourselves wanted a change. Agents and customs officer with one of our seamen changed the boxes – no difficulties encountered.

Fuel: In short supply and long waits. By barge to Odessa waiting anchorage. October 1980 – 3 day wait for diesel at $358 per tonne.

Repairs: Very difficult.

Radar/Wireless: Not sealed or checked. Bridge and radio room not inspected. Radar use seems to depend on Pilot and guards. From anchor to berth we had to turn off radar. On last visit guards made ship turn off before sailing.

This visit no problem, radars tested prior to sailing and left on.

There is a tug anchored off vessel at all times but this is for fire duties.

Formalities: Very good and quick, as long as procedure followed. Everyone has to muster in front of Immigration Officer on arrival and departure, and is checked against Discharge Book.

Required:

1 copy Personal Effects Declaration Form (very strict on this, require all jewellery to be declared).
1 copy Currency List – crew. (Again very strict and check up frequently in port on amount drawn by individuals).
2 copies Health Form.
2 copies Vaccination List.
6 copies Crew List.
5 copies General Declaration (IMO Standard Form).
2 copies List of Drugs in Master's care.
1 copy Clean Ballast Declaration and request to pump in port.
3 copies Loading Instructions.
2 copies Cargo Requirements.
1 copy Statement to Port Captain, all Safety Equipment in good order.
1 copy Statement of type of Sanitary System and in use.

No Stores List required.

Bond not sealed.

Port Captain boards vessel soon after arrival and fills in long safe questionnaire with Master. If certificates dates in doubt will want to sigh

Agent says Port Captain will allow ship to sail with Safety Certifica up to 2 days before expiry with clearance for Bosphorus.

Allow 2 hours for papers before cargo commences and afte completion.

Seamen's Facilities: A Seamen's Club has been established just outsid main gate. Roubles only taken.

SHIPMASTER'S REPORT: May 1989.

Vessel: Acid carrier, 45,000 d.w.t.

Charts: Chart No. 508, approaches to Odessa.
Chart No. 913, approaches to Yuzhny.
B.A. Chart No. 2204, Port Yuzhny.

Time: Summer GMT minus 4 hours (last Sunday in March). Winter GM minus 3 hours (first Sunday in October).

Cable/Telex Addresses:

Inflot Odessa Telex: 232824. Cable: Inflot Odessa.
Inflot Yuzhny Telex: 232722. Cable: Inflot Yuzhny.
Black Sea Shipping
Control Centre: Telex 232711. Cable: Morflot Odessa.
Il'ychevsk Sea
Pilot: 232825.

Approaches: (Ref: USCG NM 1/88, Black Sea, 010100Z Jan. 1988 From 1st January 1988, vessels entering or leaving Odessa, Ilichevsk Yuzhny or Kherson are requested to give notice to Odessa Black Se Shipping Control Centre 72, 48, 24 and 4 hours before entering traffi separation system. If vessels do not contact the Shipping Control Centr before entering mentioned area, service fees increase by 100%.

A black and yellow banded spar, which is a poor radar reflector, wi a faint flashing white light (Lat. 46° 08.3' N., Long. 31° 06.1 E.) mark the entrance to the Odessa traffic lanes. The inbound lane begin 1.5 miles N.W. of this buoy and proceeds on a course of 317° for 7 mile before entering the traffic roundabout scheme. The centre of th roundabout is marked by a spar buoy (Lat. 46° 15.6' N Long. 30° 56.0' E.) and traffic proceeds in a counter-clockwise directio 2.25 miles off this buoy to the Yuzhny, Odessa and Il'ychevsk traffi lanes respectively.

Il'ychevsk Traffic Control (VHF 16/10, R/T 2535 kHz) must b contacted 1 hour prior to arrival at the Entrance Buoy and will assum radar pilotage 3.5 miles from the roundabout buoy on VHF 10/12. A positions given by the Traffic Control Station are in relation to Il'ychevs Lighthouse (Lat. 46° 19.0' N., Long. 30° 40.8' E.).

The centre of the traffic lane to Yuzhny is marked by a spar buo (Lat. 46° 19.0' N., Long. 30° 56.8' E.), and the inbound lane proceeds o a course of 002° until 1 mile off this buoy for approximately 12 miles t Anchorage Area No. 356.

If the vessel is a gas carrier (LPG) or acid carrier it will also be und the pilotage of a leader boat which will meet the ship at the roundabo and hold position approximately 10 cables ahead at 11 knots and a as Pilot to the South of the anchorage area, working VHF 10/12 i conjunction with Il'ychevsk Traffic Control.

The leader boat and traffic control pilotage end at Lat. 46° 29.0' N Long. 30° 57.0' E., 7 miles from the port of Yuzhny, off the West end Odessa Bank. At this point Yuzhny Port Control assumes radar pilota (VHF 11) to the anchorage position or Pilot Station (Lat. 46° 32.2' N Long. 30° 59.6' E.). The pilot boat has an orange hull with large bla letters. Yuzhny Port Control tower is a 45 m. high cement structu located at the North end of the East Breakwater (Lat. 46° 36.08' N Long. 31° 01.4' E.).

The entrance channel, 180 m. wide and 14.2 m. deep, begins position Lat. 46° 33.2' N., Long. 31° 00.00' E. and proceeds on cou 193°T for 1.25 miles, before entering the marked channel. The chann buoys are red or green and are dimly lit spar buoys.

From the first set of buoys it is 1.6 miles until inside the harbour abea of the control tower. The channel also has a set of white range ligh The channel is bordered by 2 breakwaters, the East one extends 300 out from shore and the West one 160 m., each are 6 m. wide and t ends are marked with a steel light structure 2 m. high. Immedia alongside the channel on the East side is a shoal area (Lat. 46° 36.07' Long. 31° 01.2' E.) which remains partially uncovered. Speed in t channel is 7 knots and inside the harbour 4 knots. There is no mar channel inside the harbour itself.

There may often be a wind driven current in the channel approa setting East or West at up to 2.5 knots. There are no appreciable curr or tide effects in the harbour itself.

Once inside the port, abeam of the control tower, there are 3 tug bo to meet the vessel. Two boats (Mogouchiy, Bazalt) are Finnish b (1981) with icebreaking capacity of 5,000 h.p. each, and one sma boat (Tigris) of 2,800 h.p. All use ship's lines for docking or undock These are the only tugs to service the port on a regular basis.

Anchorage: Anchorage Area No. 356 is bounded by positions:

	Lat.	*Long.*
1.	46° 29.9 N.	30° 57.3' E.
2.	46° 31.8' N.	30° 57.3' E.
3.	46° 32.8' N.	31° 00.0' E.
4.	46° 30.9' N.	31° 00.0' E.

There is a small section recently added on the S.W. corner of the that runs Southeasterly 1.2 miles and is 0.75 miles wide. Area No. is used exclusively with LPG ships and phosphoric acid carriers. depth is 17 m. – 19 m., with excellent holding ground. The vess piloted in and out of the anchorage by Yuzhny Port Control.

Anchorage Area No. 357 is bounded by positions:

	Lat.	*Long.*
1.	46° 33.9' N.	31° 01.1' E.
2.	46° 34.5' N.	31° 00.8' E.
3.	46° 35.7' N.	31° 05.8' E.
4.	46° 35.1' N.	31° 06.0' E.

This area is used exclusively by bulk carriers. A third area, No is located East of Area No. 357 and is anticipated to be used by carriers. No grain carriers serve the port as yet.

When requested through the Agent, "Inflot Yuzhny", garbage collection is available at the anchorage, usually within one day's notice, weather permitting. The rubbish must be in sealed bags and there is no charge as it is included in the Sanitary Dues.

Fuel (IFO/MGO) is also available at the anchorage, but must be requested well beforehand (1 – 2 weeks), as there are only 2 bunker barges to serve Odessa and Yuzhny. All fuel comes out of Odessa and the barge capacity is around 1,500 tonnes, supplier is Bominflot.

If a vessel is cleared while at anchor, there is an additional charge of $700 – $800. Launch service is controlled by the Port Authorities and only available if the vessel is cleared. No fresh water is available at the anchorage.

Port: The dredged depth in the port is at 13.6 m. On the West side of the harbour, one mile in from the breakwater, are Berths No. 1 and No. 2, 600 m. long and used for the handling of dry fertiliser by conveyor. In position Lat. 46° 37.1' N., Long. 31° 00.8' E. is Berth No. 3 for ammonia/phosphoric acid carriers. Further to the North at Lat. 46° 37.4' N., Long. 31° 00.8' E., is the newly constructed Berth No. 4, 140 m. long and designed for the handling of methanol. This berth is not in service yet. Diagonally across from Berth No. 3 on the East shore at Lat. 46° 36.9' N., Long. 31° 01.7' E., is another new dock, Berth No. 5, 500 m. long, in operation since January 1988, and used for handling bauxite/coal and served by rail and 4 cranes. 0.4 miles inside the Entrance past the control tower on the East side of the harbour are 3 mooring buoys for handling vessels with grain cargoes.

Dredging continues North of a line at Lat. 46° 37.5' N., and no deep draft/cargo vessels proceed beyond this point or Buoy No. 14. The only other traffic in the port is small passenger/ferry boats for transporting workers across the harbour.

Traffic in the port may be handled day or night unless restricted visibility (under 2 miles) or strong winds. Five pilots currently serve the port.

Berth No. 3: Berth No. 3 is part of the chemical complex called Yuzhny Port Plant, which occupies a large section of the Western shore of the harbour. As shown in the port plans there are 2 × 12 in. Chicksan arms available for the discharge of super phosphoric acid. These join into 1 × 16 in. line ashore which runs to 6 storage tanks at the base of the hill, close by the dock. The capacity of the tanks is approximately 8,000 tonnes each. The usual discharge rate is up to 2,000 tonnes/hr. and if the tank capacity is available this rate can be maintained throughout the discharge. There is fresh water on the dock using 2 ship's hoses from a 'Y' connection with the load rate around 30 tonnes/hr. No fuel is available from the dock. The working depth at the dock is 14 m. and the face of the dock has a fairly good rubber fendering system.

Aside from handling super phosphoric acid, the dock is equipped with 2 Chicksan arms for the loading of ammonia with a third arm for vapour recovery. The dock handles on average 2 ammonia ships per week.

A line boat is used for head and stern lines (4 each), and 2 springs fore and aft are run to the dock. Vessels always dock starboard side to and because of the dock arrangement there is no problem having good leads on all lines. Fire stations are positioned along the dock at regular intervals and in towers 40 m. high.

The ship's accommodation ladder works quite well alongside and a guard (military man) will be stationed on the dock the whole time the vessel is alongside. No vehicles are allowed on the dock and the walk to the agency office by Berth No. 1 is about 0.75 miles.

Clearance: Entering the vessel will occur within one hour of being all fast.

The following documents are required:

6 Crew Lists. (We were also required to supply a visaed Crew List).
3 Stores Lists. (Include firearms, ammunition and narcotics).
5 General Declarations (Include owner's name and address. Expiry date of certificates.).
1 Crew Effects Declaration. (Include foreign currency).
2 Manifests.
2 Cargo Declarations.
Maritime Declaration of Health. (They will have their own form for this.)
Derat Certificate.

The slop chest usually remains unsealed, but the firearms and ammunition must be locked and sealed.

The Steward's provisions and store rooms will be inspected, but not sealed.

The sewage treatment plant will be inspected, if inadequate or inoperational, facilities must be used on the dock. Usually a sample of the water is taken.

Immigration will want to see each man with his passport (both inwards and outwards). The passports are taken ashore and after 2-3 hours are returned on board. For shore leave, the passport is turned over to the gangway guard who will issue a numbered pass.

A Port Authority representative will board some time during the stay to site the vessel's documents and go through the SOLAS list for bridge equipment. They will occasionally request that rat guards be installed. This is usually a brief but efficient visit.

We have had the Derat Certificate renewed here several times in a matter of minutes at a charge of 45 roubles.

The Entry and Clearance is very straight forward and we have never encountered any problems.

General: The harbour of Yuzhny (the name meaning Southern) was originally a lake that was broached into the sea to allow the port to be constructed. The overall plan is for Yuzhny to surpass Odessa as being the largest port on the Black Sea as far as tonnage and shipping traffic. Its position is such that all traffic using the Northwestern Black Sea ports must pass its entrance and use the Odessa traffic lanes due to the shallow areas of the Odessa Bank.

The dredging of the port is a continuing project and the sludge boats are constantly seen running in and out to the spill grounds on the Odessa Bank.

The town of Yuzhny, all high rise buildings, was and is being constructed about 8 km. to the North of the port to handle the growing population of people working in the port area. The town is serviced by bus from the main road. Yuzhny is located approximately 40 km. North of Odessa and is serviced by bus (5 kopeks) and taxi (20 roubles) into the city. The curfew for seamen is 2400 hrs., with Odessa being officially off-limits. There is no curfew for the Master.

In the port itself there is only a Seamen's Interclub with a lounge and bar. Roubles only are accepted at the club and with prior notification the Interclub staff can organise tours to Odessa or tickets to the Odessa Opera House, a main attraction of the city.

The port is also serviced by a chandler and duty free shop where foreign currency only is accepted. Basic staples can also be purchased through the chandler with prior notification for items such as sugar, flour, potatoes, onions, etc., in limited quantities; other provisions cannot always be supplied.

Any local currency taken from the Agent at the legal exchange rate must be accounted for and returned at sailing with receipts issued. No roubles are allowed to leave the country. Although the rouble is not recognised on the international market, the approximate exchange rate at this time is $1.64/rouble.

AUTHORITY: The Port of Yuzhny Authority, 1 Grigoryevka, Port of Yuzhny, Odessa Region, 272169 Ukraine. *Tel:* (0482) 597254, 597293. *Telex:* 232197 Tiger Ux. *FAX:* (0482) 597888. *Contact:* V.G. Ivanov, Director General.

AGENT: See "Odessa".

NOTES

Please also advise Shipping Guides Ltd.

United Arab Emirates

GENERAL:

EMIRATES RADIO: The Emirates Telecommunications Corporation operate a Coastal Radio Telephone Service (Etisalat) to provide connections via a manual operator between ships at sea and the public telephone network. The service is available continuously 24 hours a day.

There are 8 shore stations set up around the coast of the U.A.E. These transmit and receive on the VHF channels shown in the table below. The control and operation of all shore stations is at a central point in Dubai.

	Frequencies		
Channel	*Ship Transmitter* (MHz)	*Ship Receiver* (MHz)	*Use*
16	156.800	156.800	Simplex for distress and safety for all areas
3	156.150	160.750	Duplex working, first channel for Khor Fakkan area
4	156.200	160.800	Duplex working, first channel for Abu Dhabi area
7	156.350	160.950	Duplex working, first channel for Jebel Ali and Khor Fakkan areas
28	157.400	162.000	Duplex calling channel for all areas
60	156.025	160.625	Duplex working channel for Jebel Dhanna area
62	156.125	160.725	Duplex working channel for Zirku area
63	156.175	160.775	Duplex working, second channel for Jebel Ali area
83	157.175	161.775	Duplex working, second channel for Abu Dhabi area and channel for Fujairah area
84	157.225	161.825	Duplex working channel for Umm al Quwain area
85	157.275	161.875	Duplex working, third channel for Jebel Ali area
87	157.375	161.975	Duplex working channel for Ras al Khaimah area

For all areas a common calling frequency on Channel 28 is used both for ship-to-shore calls and for shore-to-ship. After contact is established the Etisalat Coast Station Operator will assign a working channel taking into account the ship's position and existing calls in progress.

To establish a ship-to-shore call the ship should switch the equipment to Channel 28, ensure the channel is not already in use by listening and then call "Emirates Radio", identify itself and give the coastal area in which it is sailing e.g. "off Jebel Dhanna". The Coast Station Operator will then assign a working channel, e.g. in the case of Jebel Dhanna area working will be established normally on Channel 60. After recontacting on the working channel the called number and calling ship details will be established and the call connected. If there is traffic congestion the Operator may assign a free working channel from another area.

For calls to the ship, the Operator will set up the called ship's code number which will be sent on Channel 28. This will operate an alarm on the equipment. In the case of there being no selective calling equipment installed or contact cannot be established by this means the Operator will also call the ship by voice using its call sign and name on Channel 28. Following establishment of contact the ship will give the area it is in and the operator will then assign a working channel. On re-establishment on the working channel the call will be connected.

It follows therefore that all ships must keep one of their receivers switched to Channel 28 when idle in order to be able to receive a shore-based call.

Traffic lists, that is calls on hand for ships in the area, will be broadcast at 0603, 0803, 1203, 1403, 1603 and 1803 hrs. GMT on Channel 28. This is in addition to calls made on first receipt of the call booking. Ships should avoid using Channel 28 to call during the broadcast of traffic lists.

Distress and Safety: Simplex Channel 16 (156.8 MHz) is received continuously by the Coast Station and is monitored by the Border Guard in Abu Dhabi who will handle all matters relating to distress, urgency and Safety of Life at Sea (SOLAS).

Ship-to-Ship Traffic: Ship-to-ship calling and working frequencies are different from those used by the Coast Station. Such calls are not normally the concern of the Coast Station and should be conducted in accordance with international and local regulations.

Exceptionally however if a ship desires to call another ship out of direct range the Coast Station facilities may be used in which case the procedure and use of calling channels is the same as for calling a shore number.

Shore-Based Subscribers: Subscribers wishing to contact a ship should dial number 158, from any location within the Emirates in order to contact the Coast Station Operator.

They should give the Operator their town location and telephone number, the name of the ship, if known its call sign and code number and the name of the person to whom they wish to speak. The Operator will call the shore-based party back after the call with the ship is established.

Categories of Calls Available: Paid calls only are accepted. Collect calls are not admitted from or to ships.

The following categories are accepted:

- Calls from ships within range to parties anywhere within the Unite Arab Emirates.
- Calls from any party within the U.A.E. to any ship within range
- Calls from ships within range to parties in any country in th international telephone network.
- Calls from any party in the international telephone network to an ship within range. These will only be accepted via the operato in the network of origin.
- Calls from any ship within range of the Coast Station to any othe ship within range.

All calls to ships are treated as personal calls. Calls from ships ar station calls at the normal charge. Personal calls are available subjec to an additional personal call charge.

U.A.E. ships or boats using this service must ensure that:

1. They have a valid licence which is issued by the Ministry o Communications who will also issue a call sign and, whe applicable, a code number.
2. The vessel is equipped with a Maritime Mobile Radio Telephon which conforms with international requirements and an supplementary regulations issued by the Ministry o Communications.
3. That proper operating procedures are followed.

Technical Characteristics for Maritime Mobile Radio Telephon (VHF): The technical characteristics should be in accordance with CCI Recommendation 489-1 except for transmitter power which must no exceed 10 watts (U.A.E. Regulation).

The recommendations as modified in the U.A.E. are summarise below:

General Characteristics:

1. The frequency band is 156 – 174 MHz.
2. The Channel spacing is at 25 kHz intervals.
3. The class of emission is F3 (frequency modulation telephony).
4. The bandwidth is 16 kHz.
5. Frequency modulation has a pre-emphasis of 6 db/octave.
6. Apart from specially designated Simplex Channel, for SOLAS, onl ships with full duplex facilities can work with the publ telecommunications system. Ships with only semi-duplex cannot wor with the public telecommunications system.
7. It must be possible to make changes between Channels with 5 seconds.
8. The emission is vertically polarised.
9. The selective calling system is as per CCIR Recommendatio 257-2.

The tone frequencies for this system are as follows:

Figure:	1	2	3	4	5	6	7
Audio Frequency:	1124	1197	1275	1358	1446	1540	164
Figure:	8	9	0	Figure Repetition			
Audio Frequency:	1747	1860	1981	2110			

Transmitter:

1. The transmitter carrier power shall not exceed 10W and sha incorporate facilities to readily reduce this to 1W or less for use at sho ranges. (Note: The normal 25W power permissible internationally reduced to 10W in the U.A.E.).
2. The frequency deviation should not exceed ±5 kHz.
3. Frequency tolerance should not exceed 10 parts per million.
4. Spurious emissions should not exceed 25 µW or 40 db belo normal power whichever is the lower.
5. The upper limit of the audio band should not exceed 3 kHz.
6. Cabinet radiated power should not exceed 25 microwatts.

Receiver:

1. Sensitivity should be equal or less than 2 microvolts e.m.f. for given reference signal to noise ratio at the output.
2. Adjacent Channel selectivity should be at least 70 db.
3. Spurious response rejection should be at least 70 db.
4. Radio frequency intermodulation rejection ratio should be at lea 65 db.
5. The power of any conducted spurious emission measured at t antenna terminal should not exceed 2 nanowatts.
6. The effective radiated power of any cabinet radiated spurio emission on any frequency up to 70 MHz should not exceed nanowatts. Above 70 MHz, the spurious emissions should not exce 10 nanowatts by more than 6 db/octave in frequency up to 1000 M

General Guide to Operating Procedure:

Ships wishing to make a call via the Emirates Coast Station sho use the following procedure:

1. Switch their receiver to Channel 28.
2. Listen to establish there is no traffic on the channel.
3. Transmit the following call: Emirates Radio this is . . . (call s ships name or other identification). Location . . . (nearest Emirates m coastal town).

In the case of difficult conditions this procedure can be modifie follows: Emirates Radio (repeated not more than 3 times) this is (call sign, ships name or other identification, repeated not more t 3 times). Location . . . (nearest Emirates main coastal town).

If the Coast Station does not reply to the first call the call ma repeated at 3 minute intervals. However, before renewing the cal calling station must first ascertain that further calling is unlikely to ca interference to other communications in progress and that the st called is not in communication with another station.

For replying to a call from the Coast Station a similar procedu followed; the following is transmitted on Channel 28: Emirates R (repeated not more than 3 times) this is . . . (call sign, ships nam other identification, repeated not more than 3 times). Location (nearest Emirates main coastal town).

After contact has been established on Channel 28, the Coast St will assign a working channel. Coast and ship stations then chan the working Channel and proceed with the call.

Example: A Ship the 'Al Said' located off Jebel Dhanna wishes to make a telephone call. This is the procedure:

1. The 'Al Said' listens on Channel 28 to ensure there is no communication it may interfere with.
2. Transmits the following call on Channel 28: Emirates Radio, this is . . . (call sign) . . . 'Al Said' off Jebel Dhanna.
3. The Coast Station will reply: (Call sign) . . . 'Al Said', This is Emirates Radio, Channel 86.
4. 'Al Said' now switches to Channel 86 and calls: Emirates Radio, this is 'Al Said', how are you receiving me?
5. The Coast Station replies: 'Al Said', this is Emirates Radio, receiving you well, go ahead with your traffic.
6. The ship then gives details of the telephone call required.

Inmarsat Service:

Scope of Service: This service provides for the exchange of telephone/telex calls between suitably equipped ships in the U.A.E. coastal waters or in international waters, and any subscriber connected to Etisalat's telephone network.

The declared purpose of the INMARSAT System is to establish and operate a worldwide satellite communications system to provide improved maritime communications that will lead to greater efficiencies in the management and operation of ships at sea as well as contribute to improvements in distress and safety of life at sea.

Inmarsat Network – Global Coverage: The Inmarsat network consists of satellite circuits and their associated control systems providing national telecommunication carriers of member countries access to ships at sea via the maritime coast stations owned and operated by those countries who choose to provide such facility. Global coverage of accessing ships in each ocean area.

The implications of this network are that such access to ships having suitably equipped terminals, and located anywhere in the world can be had via extremely reliable and high quality circuits at reasonable costs.

In the operation of the service, Etisalat has the freedom to route its maritime telecommunications traffic via any of several coast earth stations having coverage to that particular ocean area. Elisalat's routing arrangements provide service to Inmarsat satellite coverage areas in Atlantic, Indian and Pacific Ocean regions.

Facilities Offered: Telephone: In the direction from shore-to-ship, IDD service and Operator Assisted call facilities are available.

For IDD Calls the telephone country code to dial are:

Ocean Region	*Code*
Atlantic East	871
Atlantic West	874
Indian	873
Pacific	872

Operator Assisted Calls have to be booked with the Etisalat International Telephone Operator. Calls can be either station-to-station or person-to-person, subject to a personal call surcharge in the latter case. When booking a call, callers in the U.A.E. should give the operator the ship telephone number and the ocean region where the ship is located.

In the direction of ship-to-shore, calls will be received on an automatic basis, but if necessary such calls will also be connected via the operator in the coast earth station country.

Telex: U.A.E. subscribers have the facility to dial telex calls in the shore-to-ship direction, and to receive calls from ships on a fully automatic basis. However, if necessary the Etisalat Operator or the operator in the coast earth station country will be able to establish telex calls.

Automatic telex calls can be made by keying the destination code and the ship telex number.

Area	*Destination Code*
Atlantic Ocean – East	0581
Atlantic Ocean – West	0584
Indian Ocean	0583
Pacific Ocean	0582

Collection Charges: Telephone calls from shore-to-ship via Etisalat are charged on the basis of 3 minute minimum plus each additional minute. For person-to-person calls a surcharge equivalent to a 1 minutes charge will apply. The charges applicable are:

Inmarsat A and Aero (Levels 1 and 5):

All ocean regions	First 3 minutes	Dh 120
	Each additional minute	Dh 40
	Personal surcharge	Dh 18

Inmarsat B and M (Levels 3 and 6):

Atlantic Ocean Region and Pacific Ocean Region	First 3 minutes	Dh 105
	Each additional minute	Dh 35
	Personal surcharge	Dh 18
Indian Ocean Region	First 3 minutes	Dh 75
	Each additional minute	Dh 25
	Personal surcharge	Dh 18

Per minute telex call from shore-to-ship via Etisalat Dh 30

Telex calls are charged on the basis of 1+1 charging, i.e. the minimum charge is for 1 minute with the additional time charged per minute, with fractions of a minute charged as a full minute.

Accounting Services for Inmarsat/Radio Maritime Communications: Etisalat also provides accounting service to ocean going and mobile vessels registered by the Federal Ministry of Communications, U.A.E., in accordance with the international telecommunications rules (CCITT) and International Maritime Laws. Under the terms of this service, Etisalat will provide such accounting and settlement facilities for the ships thus registered in U.A.E. for all their radio communication traffic via Inmarsat and other communication channels anywhere in the world.

Charges payable to Etisalat by the mobile station operator are:

(i) Deposit: A refundable security deposit of Dh 5,000/– is payable at the time of application for service. The deposit will be returned at the time of termination of the service, subject to the satisfactory settlement of all outstanding matters, including the payment of all charges and dues payable to the Corporation.

(ii) Service Fee: An annual service fee of Dh 2,000/– is payable in advance for calculation and verification of charges, allocation of charges to interested parties, adjustment and payment of accounts received from Administrations and other accounting authorities and related incidental correspondence. This charge will accrue day to day from the date of commencement of service.

Etisalat branch offices in Abu Dhabi and Dubai will provide on request details of terms and conditions governing this service to interested mobile station operators. Applications for such service should also be made to the appropriate Etisalat branch office.

Other Marine Services: If ships are outside U.A.E. coastal waters, calls may be made via marine communication facilities available in other countries.

These are: Ship/shore telephone/telex/telegram services via radio (VHF, MF or HF).

Charges for ship/shore services by radio consist of the appropriate international rate to the country in which the coast station is situated plus the coast station and ship station charges.

OPERATOR: The Emirates Telecommunications Corporation, P.O.Box 3838, Abu Dhabi, U.A.E. *Tel:* 283333. *Telex:* 22115 Etcho Em. *FAX:* 772930. *Contact:* Manager Operations.

ABU AL BUKHOOSH: 25.26 N. 53.08 E. (See Plan)

LOCATION: The terminal is bounded by the following co-ordinates South of Sassan Oil Field.

(a) Lat. 25° 31' N., Long. 53° 05' E.
(b) Lat. 25° 29' N., Long. 53° 12' E.
(c) Lat. 25° 26' N., Long. 53° 12' E.
(d) Lat. 25° 26' N., Long. 53° 05' E.

Anchoring is prohibited within this area.

DOCUMENTS:

Early Departure Procedure: The Master must, in order to expedite the turn-round of vessels and avoid undue delays caused by weather or other circumstances, use the Early Departure Procedure. In this case Masters are requested to sign blank cargo documents.

Normally completed cargo documents required by the Master will be placed on board prior to sailing.

In the event of a dispute, the receipt of a letter of protest will be acknowledged by the Mooring Master.

Any protests by the Master concerning the quality of cargo should be made before departure and any resulting investigation should be made before the vessel sails.

Outward Clearance: A tanker will be considered clear to depart Total ABK Terminal when the crude oil loading documents have been delivered to the Master, or in the case of E.D.P.

Mail: Official ship's mail and the crew's personal mail may be handed to an Abu Dhabi agent by Total ABK.

PILOTAGE: Compulsory within the Terminal limits. Vessels to be moored at Total ABK Terminal will be boarded by a Total ABK Mooring Master in the Anchorage Area. The Mooring Master will advise the ship's Master on approaches to the storage tanker, mooring and unmooring, connecting and disconnecting hoses and all other operations within the Terminal area including all manoeuvring of the vessel. A qualified Deck Officer must be on watch at all times while the vessel is alongside the storage tanker.

RESTRICTIONS: See "Readiness" and "Mooring".

MAX. SIZE: Max. 280,000 d.w.t. Max. draft 22.5 m. Depth of water 27 m.

RADIO: Initial communication between vessels and Total ABK should be via Bahrain Radio or Inmarsat, which operates on a 24 hour basis. ETA in GMT to be sent 72, 48 and 24 hours prior arrival, through Bahrain Radio or Inmarsat.

Communications within 60 Miles of Terminal: Once ships are within 60 miles of ABK Terminal, communication may be established by radio telephone on International Marine VHF Channel 15. This frequency is monitored continuously.

Once contact has been made on Channel 15, further conversation should be conducted on either Channel 14 (156.7 MHz), Channel 12 (156.60 MHz) or Channel 15 or 17.

Communications after Total ABK Mooring Master has Boarded: A Total ABK Mooring Master will board incoming tankers in the Anchorage Area and will bring with him portable VHF radio telephone units. From that time onwards, all and any communications between ship and the storage vessel will be conducted by the Mooring Master.

Usual advice of tankers arrival:

Quote

Please advise your ETA in GMT 72, 48 and 24 hours before arrival to Total ABK Abu Dhabi, Telex AH 22347, via Bahrain Radio or Inmarsat stop Cargo requirements stop Deballasting time if any stop Maximum loading rate acceptable stop Distance in metres from bow to manifold stop 50 miles before arrival please contact terminal by VHF Channel 15 to receive berthing instructions stop Total ABK.

Unquote

Mooring Instructions: If vessels are obliged or instructed to anchor, they should do so in the recommended area about 3 nautical miles from the storage vessel.

ANCHORAGES: An area immediately S.W. of Terminal limits is designated as the Anchorage Area, centred on position: Lat. 25° 27' 54" N., Long. 53° 05' E. This co-ordinate represents the centre of a circle with a radius of 0.5 miles which must be used by vessels requiring to wait at anchor. Anchoring within the Terminal limits is strictly prohibited.

Check with Harbour Master before anchoring as pipe-laying operations may be in progress.

READINESS: After arrival at the Anchorage Area and when the tanker is ready in every respect to load, the Master may tender his Notice of Readiness.

Notices of Readiness will be received provided the Master shall have received the Mooring Master on board.

Port Closed: Notices of Readiness will not be accepted during periods when the port is closed. The port is closed when the weather is such that it is too rough for incoming tankers to berth. The decision regarding the opening and closing of the port will rest with the ABK Terminal Superintendent or his deputy.

The port is also closed from 1600 hrs. (L.T.) to sunrise from March to October and from 1500 hrs. (L.T.) to sunrise from November to February.

NAVIGATION AIDS:

(a) FIXED STRUCTURES

Platforms and Jackets	*U.T.M. Co-ordinates*	*Obstruction*	*Light Fog Signal*
LQ 1	2 821 042,86 N. 715 614,83 E.	Platform Living Quarters 1	2 White – Code U 15 secs. – vis 6 n.m.
LQ 2	2 821 031,8 N. 715 652,6 E.	Platform Living Quarters 2	2 White – Code U 15 secs. – vis 6 n.m.
W.O.	2 821 124,26 N. 715 662,50 E.	Well head platform with WORKOVER NORTH PLATFORM (WON) and WORKOVER SOUTH PLATFORM (WOS)	2 White – Code U 15 secs. – vis 6 n.m.
A K E	2 821 039,48 N. 715 757,45 E.	Well head platform AK EAST	3 White – Code U 15 secs. – vis 6 n.m.
P.P.	2 821 157 N. 715 711 E.	Production Platform	1 White – Code U 15 secs. – vis 6 n.m.
G.L.P.	2 821 227,85 N. 715 710,35 E.	Gas lift platform	2 White – Code U 15 secs. – vis 6 n.m.
Bridge L.Q.		Bridge between LQ1 and LQ2	1 Red – Code U 15 secs. – vis 6 n.m.
Bridge W.O.		Bridge between LQ1 and W.O.	1 Red – Code U 15 secs. – vis 6 n.m.
Bridge A.K.E		Bridge between A.K.E. and W.O.	1 Red – Code U 15 secs. – vis 6 n.m.
Bridge W.O.		Bridge between W.O. and P.P.	1 Red – Code U 15 secs. – vis 6 n.m.
Bridge G.L.P.		Bridge between G.L.P. and P.P.	1 Red – Code U 15 secs. – vis 6 n.m.
Bridge Flare		Bridge between P.P and L.P. Flare	1 Red – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
L.P. Flare	2 821 277,04 N. 715 900,14 E.	Tripod	1 White – Code U 15 secs. – vis 6 n.m.
H.P. Flare	2 821 544,23 N. 716 163,72 E.	Tripod	1 Red – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
AK 31	2 822 263,20 N. 712 674,67 E.	Well head tripod	1 White – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
AK 41	2 819 158,35 N. 712 290,5 E.	Well head tripod	1 White – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
AK 51	2 820 109,18 N. 715 781,79 E.	Well head tripod	1 White – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
AK 1	2 820 918 N. 716 193,5 E.	Well head platform	2 White – Code U 15 secs. vis 6 n.m. Fog: Code U 2 n.m.
AK W	2 821 740,14 N. 713 717,26 E.	Well head platform AK WEST	2 White – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
AK S	2 821 081 N. 713 710 E.	Well head platform AK SOUTH	4 White – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
AKFW	2 821 637,65 N. 711 683,31 E.	Well head platform AK FAR WEST	2 White – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
ABK-KHUFF PK-I	2 821 047 N. 712 806 E.	Well head platform AK KHUFF	2 White – Code U 15 secs. – vis 10 n.m. Fog: Code U 2 n.m.
ABK-KHUFF PK-II	2 818 497,3 N. 714 687,9 E.	Well head platform ADMA JACKET	1 White – Code U 15 secs.
ABK-KHUFF PK-III	2 822 018,2 N. 714 179,3 E.	Well head tree 9 m. height above sea bed Platform (FUTUR)	None.
ABK-KHUFF PK-IV	2 821 223,8 N. 716 652,7 E.	Well head platform ADMA JACKET	None.

(b) BUOYS

SPM Buoy	2 820 102,8 N. 714 650,6 E.	Mooring and loading tanker "Asian Energy" 230,000 d.w.t.	White Code U 15 secs. – vis 6 n.m.

(c) RADIO BEACON/FOG SIGNALS

Radio Beacon	Bridge PP LP-Flare	Aeronautical	Code R.P. 248 kHz – 25 W.

TUGS: Two tugs, each with minimum 80 tons bollard pull are employed by the export tanker when berthing alongside the storage tanker.

MOORING: Weather permitting, Total Abu Al Bu Khoosh Terminal operates 24 hours a day, 7 days a week. Loading and sailing at any time day or night, but berthing daylight only, namely sunrise to 1600 hrs. (LT), March to October, and sunrise to 1500 hrs. (LT), November to February. Vessels moor port side to the storage tanker "Asian Energy" equipped with 5 Yokohama fenders on her starboard side, which is moored to the S.P.M. Launch may assist in berthing vessels under the direct control and supervision of the Mooring Master.

Preparation for Mooring: Vessels are requested to have, on their starboard side, an accommodation ladder safely and securely rigged for immediate use and long enough to reach the Mooring Master's tug.

Hoses: The hoses are hoisted by flow boom system, connection (2×16 in.) by storage tanker crew.

MEDICAL: Medical and dental services are not available at the Terminal. In emergencies requiring hospitalisation, the patient will be flown by helicopter to Abu Dhabi.

LOADING: All communications relative to the loading of the vessel shall be routed through the Mooring Master who will remain in contact with the storage tanker constantly via portable VHF units. In case of temporary breakdown of the portable VHF circuit, contact may be continued on International Marine Channels 15 or 17.

Failure of Communications: Should all communications with the storage tanker fail, loading will cease immediately.

Emergency Shut Down: An emergency cessation of loading may b effected by use of the ship's VHF Channel 15.

Loading Rates: Maximum loading rate will be 64,000 bbl./hr.

Gases: ABK crude oil contains H_2S (hydrogen sulphide). This gas quickl deadens the sense of smell so that a dangerous concentration canno be detected by odour. During loading, gas should be vented off throug the tanker's normal venting system. Personnel engaged in ullaging tank should keep to windward and avoid breathing fumes as much as possible. Resuscitators, breathing apparatus and life-lines should b readily available.

Valve Closure Against High-Speed Loading: No valve which will stop o seriously impair or reduce the flow rate of oil from the storage tanke are to be operated without prior agreement with the Mooring Maste The practice of throttling back on the ship's cargo valves is to be avoided If a lower rate is required, the storage tanker is to be advised and th pumping rate will be reduced to the required level. The Master will b held liable for any damage arising from the sudden cessation of flo caused by default of the ship. It cannot be over emphasised that to d so can be extremely dangerous and cause extensive damage t equipment.

BALLAST: Due to the exposed location of the crude oil loading berth vessels are required to carry 40% of their deadweight in ballast and/o cargo for safe handling, having due regard to existing weather and se conditions. Total deballasting of tanker prior to loading is not acceptabl A vessel found by the Mooring Master to be not adequately ballaste will be rejected.

Clean Ballast: As there are no ballast discharging facilities, vessels mus arrive at the Terminal with clean ballast, ensuring that all pipelines pumps and strainers have been flushed out prior to arriving. The Moorin Master will inspect ship's ballast on boarding and has the power to rejec any vessel that he thinks would cause pollution of the sea area, in whic case vessel must proceed to sea and return only when ballast i completely free of oil. Any vessel rejected because of dirty ballast wi automatically nullify its Notice of Readiness and will lose any priority o position for loading. Ballast discharge should not be commenced withou the prior agreement of the Mooring Master.

Inspection During Loading: At night the sea around the vessel shall b adequately lit, as frequent inspection by the Mooring Master will be mad during the discharge of ballast. Any pollution whatsoever will be caus for rejection. Similarly, any hull leaks causing pollution during loadin will be cause for rejection and the vessel will not be re-accepted unles satisfactory evidence of repairs has been certified by a qualified surveyo

FRESH WATER, FUEL, ETC.: Bunkers, fresh water, stores, boats f hire, repair facilities, facilities for changing ship's crew are NOT availab at the Terminal.

SHORE LEAVE: Not possible.

GARBAGE/WASTE OIL DISPOSAL: Not available.

CURRENCY: U.A.E. Dirhams (Drhs).

GENERAL: *Radio Equipment:* Radio, radar or other electric equipme must not be energised while the vessel is alongside the storage tank except VHF radios, telephone and communications equipment approve by the Terminal.

Repairs: While berthed at the Terminal, the ship's boilers, main engin steering machinery and other equipment essential for manoeuvring sha be maintained in a condition to permit the ship to move away from storag vessel at short notice. Repairs or other work which may immobilise t ship should not be undertaken without prior arrangement.

Port Charges: Every vessel loading in the Abu Dhabi areas has to pa Abu Dhabi Government Port Dues. These are calculated according t Abu Dhabi Law.

Agency: Total ABK do not act as Agents. Vessels must have an Age in Abu Dhabi in case of injuries or illness.

SHIPMASTER'S REPORT: June 1992 (Updated 1996).

Vessel: 96,000 tonnes d.w.t. (OBO). LOA 243 m. Beam 38.0 m.

Upon arrival, the vessel was asked to anchor in position Lat. 25° 23' Long. 53° 08' E.

Storage tanker "Asian Energy" has 5 Yokohama fenders on h starboard side. Pilot boards from an offshore supply vessel, while ves is at anchor. During berthing, 2 offshore supply vessels are fast, o forward and one aft. Berthing depends upon weather conditions, wh are assessed by the Pilot. Understood from Pilot, that if wind speed in excess of 25 knots, berthing is not carried out.

Storage vessel's distance from flow-boom to stern is about 128 Our vessel's stern was almost in line with the storage tanker's st Own vessel moored with 4 headlines and 1 back spring forward a 3 sternlines and 1 back spring aft, from own vessel. Additionally, 1 bre line and 1 back spring (forward and aft) is passed by the storage tan to own vessel.

It is very important to plan loading/deballasting in such a way, so to maintain at least 40% of deadweight on board at all times.

Cargo surveyors (SGS, Caleb Brett, etc.) require special permits come on board the vessel, as per local oilfield regulations. He sufficient notice must be given, if surveyor is required to attend to vessel.

No documents are required for Inward Clearance of the vesse there are no Customs or Immigration Authorities. At the time of depa only Bill of Lading copy and other normal cargo documents are han over to the Master by the outward Pilot.

No Port Clearance is issued by the Terminal.

AUTHORITY: Total – Abu Al Bukhoosh, P.O.Box 4058, Abu Dh U.A.E. *Tel:* 971-2-785000 (24 hours). *Telex:* 22347 Totabk *FAX:* 971-2-788477. *Cables:* Totabk. *Contact:* Captain J. Gasull, H of Terminal and Marine.

AGENT: National Shipping Gulf Agency Co. (Abu Dhabi) Ltd. P.O 377, Abu Dhabi, U.A.E. Cables: "Confidence", Abu Dhabi. Telex: 2 ("Gacauh Em"). Fax: (971-2) 731328. Tel: (971-2) 730500 (10 li After office hours Tel: 794490. Radio: Marine VHF radio, stand-b Channel 16 (156.8 MHz). Call sign "Confidence, Abu Dhabi".

AHMED BIN RASHID, Umm Al Qiwain: 25.35 N. 55.35 E. **(See Plan)**

LOCATION: Ahmed Bin Rashid Port is located on the West Coast of the United Arab Emirates some 30 miles North East of Dubai, in the Emirate of Umm Al Qiwain.

DOCUMENTS:
Crew Declaration (2 copies).
Cargo Declaration (Manifest).
Clearance from last Port.
Dangerous Cargo List.

APPROACHES: The entrance channel has a minimum depth of 10 m. and has a width of 100 m. which connects with a swinging basin of 500 m., the whole channel being marked by standard buoys and beacons in accordance with International Regulations.

PILOTAGE: Not available at present.

ANCHORAGES: Anchorages can be obtained off the harbour in depths ranging from 11 m. to 13 m.

RESTRICTIONS: Entry restricted at night time.

MAX. SIZE: Length 210 m., draft 9.8 m.

HEALTH: Usual International Health Regulations to be observed. Any vessel which is suspect should inform Port Authority.

RADIO: All communications on VHF Channels 16 and 69.

BERTHING: *Deep Water Berth:*
Wharf No. 1. 130 m. long, dredged depth 5.5 m.
Wharf No. 2. 115 m. long, dredged depth 7.5 m.
Wharf No. 3. 200 m. long, dredged depth 9.5 m.
Wharf No. 4. 400 m. long, dredged depth 10.0 m.

Bollards are located at 22 m. intervals and fitted with rubber fendering.

Town Wharf: 800 m. long, max. draft 4.0 m. Berth for coasters and small vessels up to 60 m. LOA.

CRANES: Not available. Shore cranes can be hired locally.

STEVEDORES: Services provided wholly by Port Authority. Advice of labour requirements must be received in advance.

MEDICAL: Can be obtained at short notice. Hospital facilities available in Umm Al Qiwain.

FRESH WATER: Limited supplies available at deep water berths, can be provided by road tanker or barges (to be arranged by Agent).

FUEL: Various grades of gas oil and diesel oil can be supplied by barges or road vehicles (to be arranged by Agent).

REPAIRS: All types of deck and engineering repairs are allowed (to be arranged by Agent).

SURVEYORS: Inspector available locally (to be arranged by Agent).

GANGWAY/DECK WATCHMEN: Under Port Regulations there shall always be on board sufficient men to move or take care of vessel.

OPENING/CLOSING HATCHES: Normally carried out by ship's crew.

CERTIFICATES: Safety Construction, Load Line, Cargo Gear, Safety Radio and Safety Equipment.

CARGO GEAR: Load/Discharge effected by ship's gear, shore cranes can be arranged locally.

REPATRIATION: Arrangements can be made.

AIRPORT: Dubai, Sharjah and Ras Al Khaimah Airports, all within 100 km., handling regular scheduled flights.

TIME: Local time is GMT plus 4 hours.

HOLIDAYS: 1st January (New Year's Day) and 2nd December (National Day). Other holidays dependant upon Lunar Calendar (i.e. Idd Ul Adha, Idd Ul Haj).

POLICE/AMBULANCE/FIRE: Call 999 and ask for service required.

EMERGENCY CO-ORDINATION CENTRE: U.A.E. Coast Guards, Tel: 666435.

BANKS: National Bank of Umm Al Qiwain. Tel: 655225, 655441.
National Bank of Dubai. Tel: 655151, 656154.

STORING: See "Prelims".
1. Yes.
2. Yes, if it does not hinder cargo operations.
3. Yes.
4. Yes.
5. —
6. Yes.

SHORE LEAVE: Possible.

IDENTIFICATION CARDS: Shore passes issued (1 Passport size photo required).

GARBAGE DISPOSAL: Drums provided alongside by Port Authority.

WASTE OIL DISPOSAL: Can be arranged through local agents.

SEAMAN'S CLUBS: None.

CURRENCY: U.A.E. Dirhams (Drhs). U.S.$ 1.00 = Drhs 3.67 (Fixed).

AUTHORITY: Ahmed Bin Rashid Port Authority, P.O.Box 279, Umm Al Qiwain, U.A.E. *Tel:* 655882. *Telex:* 69717 ABRPA EM. *FAX:* 651552, 655444. *Contact:* M.K.Moosajee, Port Manager.

AGENT: See "Sharjah".

AJMAN, Ajman: 25.25 N. 55.28 E.

PILOTAGE: Pilot boards 3 miles N.W. of breakwater. 48 hours Notice of Arrival required.

RESTRICTIONS: Dredging is taking place between the breakwaters. Work will commence at the S.E. corner of the Eastern Breakwater and proceed to the outer end Roundheads. The dredger will then move to the Western side. The 100 m. cut will then be completed to a depth of 7.2 m. below Chart Datum.

The following restrictions are imposed during operations:
(a) The port will be closed to all navigation during the hours of darkness – sunset to 30 minutes before sunrise.
(b) Transit priority will be given to vessels sailing outward from the port up to 0630 hrs. local time.
(c) Between 0630 hrs. and 0730 hrs. local time, priority will be given to incoming vessels.
(d) At all other times during daylight hours, vessels may arrive or sail as required but all must exercise extreme caution while passing the dredger.

The dredger will carry lights and shapes as prescribed for vessels of this class.

MAX. SIZE: Max. draft available 5 m. Approach Channel width 100 m.

RADIO/VHF: Call Harbour Control on VHF Channel 16, 2 hours prior to arrival.

BERTHING: Total quay space 5,000 m.
4 transit sheds of 60 m. × 120 m. available alongside.

Before sailing, all vessels must obtain a Port Clearance Certificate issued by the Department of Port and Customs.

REPAIRS: A "gas-free" and "hot-work" certificate is required from vessels undergoing repairs to oil-tanks within port limits.

A surcharge may be imposed on vessels undergoing repairs or modifications where welding equipment, compressors, etc., are operated from the wharf. Permission to commence this work must be obtained beforehand from the Port Authority.

GENERAL: *Charts:* BA 2887, 3711. USHO 62390.

AUTHORITY: Department of Port and Customs. *Tel:* 423081, 446445. *Telex:* 69552.

AGENT: See "Sharjah".

ARZANAH ISLAND: 24.47 N. 52.33 E. SBM: 24.46 N. 52.31 E. **(See Plan)**

PORT LIMITS: *Port Area:* Contained within the following co-ordinates:

"A"	Lat. 24° 50' 12" N.,	Long. 52° 29' 24" E.
"B"	Lat. 24° 50' 12" N.,	Long. 52° 37' 12" E.
"C"	Lat. 24° 43' 48" N.,	Long. 52° 37' 12" E.
"D"	Lat. 24° 36' 48" N.,	Long. 52° 34' 36" E.
"E"	Lat. 24° 37' 00" N.,	Long. 52° 29' 24" E.

LOCATION:
Port Area and Terminal: Arzanah Island is located at Lat. 24° 47' N., Long. 52° 33' E. and is the base for export of crude oil. The Port of Arzanah is the area defined above.

A tanker terminal and another berth on Arzanah Island for vessels destined to other than the tanker terminal, are located within the port area.

PILOTAGE: Conduct and movement of vessels within the port area are controlled by the Marine Operations Department. A Company designated Mooring Master is required for the berthing and unberthing of vessels at the Storage Tanker.

Mooring Master: Pilotage is compulsory within the "Port Area" and no vessel may enter or depart the port area, berth or unberth at the Storage Tanker or conduct any other manoeuvres of the vessel without prior notification to the Marine Operations Department and without the assistance of a Company designated Mooring Master unless otherwise ordered by the Marine Operations Department. The Company designated Mooring Master for vessels bound for the Storage Tanker will board the vessel at Dalma (Lat. 24° 32.5' N., Long. 52° 27.5' E.).

The Mooring Master's function will be to advise the Master of the vessel for the above stated purposes. The Master of the vessel always remains responsible on behalf of the vessel's owner for the safety and proper navigation of the vessel.

ANCHORAGES: Anchoring of vessels is prohibited within the port area and terminal area. An area 3.5 miles West of the Storage Tanker in the vicinity of Lat. 24° 46' N., Long. 52° 27' E. is designated as the anchorage area.

RESTRICTIONS: See "Berthing".

MAX. SIZE: *S.B.M.:* Max. d.w.t. 280,000 (export tanker). Max. draft 43 ft. Depth of water at SBM 107 ft. Least depth in approaches 48 ft.

Sailing Draft: The draft of loaded vessels leaving the Storage Tanker is controlled by the water depth between Dalma Light Float and the No. 1 Buoy in the outer channel.

Minimum under keel clearances recommended by the Mooring Master are as follows:

D.W.T.	*Minimum Keel Clearance*
Up to 100,000	3 ft.
100,000 to 220,000	4 ft.
220,000 and over	5 ft.

Sailing drafts should always be agreed upon with the Mooring Master prior to starting to load.

RADIO: The Company cable address is "Zadco – Abu Dhabi" and telex number is 22948 ZDC AUH EM. The Company also maintains radio watch on International Marine VHF Channels 8, 9, 16, 24 and 25, while Arzanah Radio maintains VHF watch on Channels 16, 61 and 77.

Notice of Arrival:

Vessels bound for the *STORAGE TANKER* must advise the Company as follows:

72 HOURS: Not less than 72 hours prior to arrival, the vessel shall send a cable or telex to the Company providing the following information:
- (a) Estimated time of arrival.
- (b) Estimated fore and aft draft upon arrival at the port area.
- (c) Quantity of oil to be loaded.
- (d) Distance from the bow to the cargo manifolds.
- (e) Size, number and type of cargo connections.

48 HOURS: Not less than 48 hours prior to arrival, vessels shall send a cable or telex to the Company, reconfirming or giving any changes in the 72 hour notice.

24 HOURS: Not less than 24 hours prior to arrival, vessels shall send a cable or telex to the Company, reconfirming or giving any changes in the 48 hour notice. The 24 hour notice must be as accurate as possible and thereafter should there be any change in the ETA by more than 2 hours notice of such change must be given promptly to the Company.

Not less than 24 hours prior to the vessel's ETA at Dalma, the vessel must maintain a radio watch on R/T frequency 2182 kHz and at least 12 hours prior to arrival at Dalma must maintain a radio watch on VHF Channel 16.

Other frequencies available are:

HF: 2638, 3270, 3710, 3875 and 4136.3 kHz.

VHF: Channels 1 to 28, 60 to 74 and 77 to 88.

Call sign for Arzanah is "Arzanah Radio".

TUGS: *Tugs and Launches:* The Company will have available one or two tugs for berthing or unberthing and for standing by a vessel at the Storage Tanker as may be required by the Master of the vessel or the Mooring Master for which a charge will be made by the Company, whether or not used.

BERTHING:

Berthing-Unberthing: Berthing will normally take place only during daylight hours, weather permitting. Unberthing will take place at anytime (day or night), weather permitting. Manoeuvring power must be available on the main engine during berthing and unberthing operations. Mooring Masters will not berth vessels if not properly equipped with satisfactory mooring lines, or if deck equipment is inoperable or if steering gear, telegraphs or whistles are not in efficient condition or if insufficiently or improperly ballasted in the opinion of the Mooring Master. The vessel's Master is required to advise the Mooring Master if any such defects exist or of any peculiarities of the vessel. The vessel will be responsible for the handling of lines and the connection and disconnection of the loading arms with the vessel's crew.

Mooring: Mooring arrangements shall be to the satisfaction of the Mooring Master. Vessels must at all times remain properly secured alongside the Storage Tanker. Moorings must at all times be attended by the vessel's crew, avoiding slack lines or varying tensions on the lines. The use of constant tension winches for automatic self-tensioning to attend mooring lines is prohibited. The Mooring/Loading Master may suspend loading or unloading should there be any failure by the vessel's crew to attend mooring lines as above stated.

Ballast Drafts: Vessels destined for the Storage Tanker should arrive with propeller completely submerged and 8 ft. to 10 ft. trim by the stern. The Mooring Master may refuse to permit berthing of vessels not in compliance with this requirement until the vessel takes on sufficient ballast or changes ballast to meet the requirement.

BALLAST: There are no facilities available for the off-loading of dirty ballast. Only clean or segregated ballast will be permitted to be discharged overboard. The vessel must keep a constant watch on the side of the vessel from which clean or segregated ballast is being discharged. Discharge of ballast must be immediately suspended should there be any indication of discoloration or sheen and immediately reported to the Marine Operations Department. An investigation shall be carried out by the vessel and the findings immediately reported to the Marine Operations Department. Deballasting shall not recommence without the permission of the Mooring/Loading Master.

LOADING: *Crude Oil Cargo Loading:* Loading operations cannot commence until permission has been granted by the Mooring/Loading Master. All operations after such permission is granted in connection with the starting of loading, switching of tanks and topping-off on the vessel will be the responsibility of the vessel. At all times while the vessel is alongside the Storage Tanker there shall be a responsible licenced deck officer of the vessel on deck in charge of all operations on deck.

Prior to loading a pre-transfer conference will be conducted by the Mooring/Loading Master and a responsible deck officer of the vessel who will be in charge of the loading of the vessel. The purpose of the pre-transfer conference is to formulate a transfer plan and ensure that the Storage Tanker and the Export Tanker are ready for safe transfer and handling of the cargo.

The Mooring/Loading Master or Company representative may suspend cargo operations if any of the applicable laws and safety regulations set forth herein are not complied with, the pre-transfer plan is not complied with or if the Company representative/Mooring/Loading Master believes or becomes aware of the existence of any other danger which in his opinion requires suspension of loading.

The vessel's crew will be responsible for handling the loading arms on board the vessel, furnishing and making adaptor connections, removing blind flanges and guiding the loading arms (Chicksans) to the appropriate manifold connections. As a convenience to the vessel the Mooring/Loading Master will furnish advice and guidance in connecting the loading arms to the ship's manifolds.

Crude Oil Cargo: The crude oil to be loaded contains hydrogen sulphide. Breathing the vapours vented from this cargo could be hazardous. Vessel's crew should review the instructions issued by the vessel's Owner regarding this subject. The Company assumes no liability, with respect to loading crude oil bearing hydrogen sulphide.

Pumping Rate: Max. pumping rate using 2 arms. 60,000 b.p.h. Average pumping rate 55,000 b.p.h.

Storage tanker capacity: 1,400,000 bbls. Cargo Arzanah Stabilized Crude, API 43.0. Specific Gravity 0.8109. Reducers: In limited supply.

General Cargo Loading–Unloading: Loading or unloading operatio cannot commence until permission has been granted by the Moorin Loading Master. All operations after such permission is granted i connection with the loading and unloading of the vessel will be th responsibility of the vessel. At all times while the vessel is alongsid there shall be a responsible licenced deck officer of the vessel on dec in charge of all operations on deck.

POLLUTION: The Petroleum Ports Law prohibits the discharge into th water of oily water, garbage, waste or other objectionable materials. Th Petroleum Ports Law also requires immediate reporting to the Harbou Master of any leakage or spillage by the vessel. The Law is strictl enforced and violators may be subject to fine and imprisonment.

The vessel's Master is responsible that no oil is pumped or spille overboard from his vessel in the vicinity of the Port Area. In the even of any spillage or loss of oil from the vessel as the result of any act o omission of the vessel, such as, but not limited to, the pumping of oi water overside from ballast or bilges, or oil spilt during loading. Th vessel shall be responsible for all costs and expenses of clean up, an for any damages to property or injury to persons resulting from suc spillage or oil loss.

The Company reserves the right to take all reasonable measures t clean up any resulting pollution or contamination on land or sea, but onl as a contractor acting on behalf of the vessel or its owner, and will charg the vessel for all costs and expenses incurred thereby.

SAFETY REGULATIONS: *Safety:* The Petroleum Ports La recommendations contained in the I.C.S. International Safety Guide fo Oil Tankers and Terminals covering the loading and discharging o tankers and the safety regulations set forth herein will be strictly enforce while the vessel is in the Port area.

Smoking: Smoking is strictly prohibited on the vessel or the Storag Tanker and Shore Berth except in places specified by the Master whic shall not be outside of any of the accommodation areas. The Master i responsible for ensuring that all on board are informed of the selecte areas for smoking and for posting suitable notices. Matches and lighte for personal use shall not be carried while outside designated smokin areas and personnel shall be so instructed.

Fire Fighting Equipment: The vessel's fire fighting equipment must b ready for instant use while the vessel is moored. Fire hoses of sufficie length to reach all parts of the vessel must be strung out and connecte to hydrants. If the vessel's fire fighting equipment is rendered inoperati for any reason this must be reported to the Loading/Mooring Mast immediately.

Fires: The only open flames allowed while the vessel is moored at th Storage Tanker are those in the vessel's boilers and galley equipmen All other open flames are prohibited. Sufficient fire extinguishers mu always be provided near the galley.

Engine Room/Boiler Room Precautions:
- (a) Combustion equipment – burners, tubes, uptakes, exhau manifolds, and spark arresters shall be maintained in good workin order and kept clean.
- (b) Blowing tubes – funnel uptakes and boiler tubes will not be blow while a vessel is moored at the Storage Tanker.
- (c) Cleaning solvents – highly volatile cleaning solvents shall not b used in the engine room for any purpose whatsoever.

Doors, Ports: All doors and ports opening on to decks must be ke closed while the vessel is moored. Any doors open for access oth than the pumproom doors must be closed immediately after use.

Air-Conditioning: Central air-conditioning working in re-cycling mode a providing positive pressure inside the accommodation is only authorise

Cargo Tank Openings: All cargo tank hatch covers and ullage port cove are to be kept closed. If tanks must be hand sampled or ullaged t ullage openings must be kept closed except while sampling or ullagi cargo.

Sea Valves: All sea and overboard discharge valves are to be clos and sealed shut prior to the start of any cargo loading operation.

Inerting Tanker Cargo Tanks: All empty cargo tanks or tanks carryi cargo must be pressured and fully inerted with gas having an oxyg content of less than 8% prior to the commencement of loading. T oxygen content of the tank blanket will be checked throughout the load and loading will be stopped anytime the oxygen level rises above 8

Insurance (Towing) Wires: Towing wires of at least 50 m. long are t secured to mooring fittings and run out at the bow and stern on t vessel's outboard side and held in place on short stoppers with the about 1.5 m. above the water so they are readily available to a tu an emergency.

Bonding Cable: The bonding cable from the Storage Tanker must attached to the vessel before the loading arms are connected a removed only after the loading arms are disconnected from the ves

Electrical Storms: All cargo or ballasting operations shall be suspen during electrical storms in the vicinity of the vessel.

Engine Status: The vessel's main engine, steering machinery and ot essential manoeuvring equipment must be kept in readiness at all ti to permit the vessel to unberth on short notice. No engine or propul machinery repairs may be carried out while the vessel is moo alongside the Storage Tanker. At all times while the vessel is along the Storage Tanker there shall be a responsible licensed engine the vessel on duty in charge of all operations in the engine room.

Radio-Radar: The vessel's main radio and radar equipment must n energised while the vessel is handling cargo or ballast alongside Storage Tanker. The use of intrinsically safe VHF radios for c handling and safety operations is permitted.

Scuppers and Drains: All main deck scuppers must be sealed shu adequate drip pans provided where necessary on deck prior to the of any cargo operations.

Tug and Small Craft: No tug or small craft are permitted to be along the vessel during cargo or ballasting operations without the exp permission of the Mooring/Loading Master.

Portable Lamps Electrical Equipment: The use of portable lamps, n lights or electrical equipment on extension cords is prohibited. approved intrinsically safe self-contained flash lights are permit deck.

Communications and Deck Watch: A deck watch under the direction of a responsible deck officer equipped with a VHF radio is to be on duty at the cargo manifold of the vessel at all times during the cargo and deballasting operations.

Fire and Emergency Signal: In case of fire or emergency on the Storage Tanker or the vessel, the vessel shall immediately suspend all cargo operations and blow a series of short, rapid blasts on the ship's whistle until aid arrives.

Rat Guards: Rat guards are required only if a vessel is coming from a plague infected area.

Safety Check List: A Safety Check List shall be completed and signed by the Master or Senior Deck Officer on duty on both the vessel and the Storage Tanker before deballasting and starting the transfer of cargo.

Responsibility for Safe Operations: While a vessel is berthed at the Storage Tanker the Master will ensure and be responsible for adherence to all safety regulations generally followed in the Marine Industry as well as those contained herein. It is the responsibility of the Master to maintain safe and efficient conditions aboard his vessel and to ensure that there is at all times on duty an adequate and proper crew under the supervision of licenced officers for the safe and effective operation of the vessel and compliance with these instructions and regulations.

FACILITIES: There are no facilities at Arzanah Island or the Storage Tanker for receiving or storing supplies for vessels, bunker or fresh water supply, launch service, etc.

TIME: GMT plus 4 hours.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

GENERAL: *Regulations:* Shipping operations at Arzanah are governed by the Abu Dhabi Petroleum Ports Law No. 12 of 1973 (Petroleum Ports Law).

Agency: The Company does not provide any ship agency services and there are no ship agencies within the port area. Such services must be separately arranged for by the vessel.

AUTHORITY: Zakum Development Company, P.O.Box 46808, Abu Dhabi, U.A.E. *Tel:* 661700. *Telex:* 22948 ZDC AUH EM. *FAX:* 669448. *Cables:* Zadco. *Contact:* A. Makki, Head of Marine Operations.

AGENT: See "Mina Zayed".

DAS ISLAND, Abu Dhabi: 25.09 N. 52.52 E. (See Plan)

Conduct and movement of vessels within the port are controlled by the Port Officer, Das Island.

DESCRIPTION: Das Island lies some 100 miles N.W. of Abu Dhabi City, in the State of Abu Dhabi, largest of the United Arab Emirates. The Island is the base for the export of crude oil by Abu Dhabi Marine Operating Company (ADMA-OPCO), and liquefied gas and by-products by Abu Dhabi Gas Liquefaction Company Ltd. (ADGAS).

PORT LIMITS: The area of authority is encompassed by a line joining the following positions:

From (a) Lat. 25° 14.0' N., Long. 52° 48' E., due East
to (b) Lat. 25° 14.0' N., Long. 52° 57' E., then due South
to (c) Lat. 25° 07.7' N., Long. 52° 57' E., then S.E.
to (d) Lat. 25° 07.2' N., Long. 52° 58.8' E., then due South
to (e) Lat. 25° 04.5' N., Long. 52° 58.8' E., then due West
to (f) Lat. 25° 04.5' N., Long. 52° 48' E., then finally due North to position (a).

All marine orientated activities within this area, all waters, installations, facilities and structures which are, or may be, erected therein are governed by ADNOC – Petroleum Ports Authority (ADNOC – P.P.A.).

DOCUMENTS:

Bills of Health for Ports visited on voyage.
3 Crew Lists.
3 Manifests (1 original and 2 copies).
1 International Maritime Declaration of Health.

Documents and Specimen Forms: Before the P.P.A. appointed Berthing Master commences any berthing operations certain initial documents must be tendered duly signed, timed and dated as applicable, by the Master. The Berthing Master will acknowledge receipt as necessary. These initial documents are in a booklet form and contain:

1. Clean Ballast Declaration.
2. Ship's Particulars.
3. Conditions of Use of Terminal facilities.
4. Safety requirements.

019-MAR-4 Pre-Berthing Declaration.

Additionally vessels loading Condensate Blend Cargoes:
019-MAR-19 H_2S Content in Condensate Cargo.

A supply of these initial documents will be provided at the vessel's first visit to Das Island. On second and subsequent visits the Berthing Master will receive the documents, duly completed, on boarding thereby avoiding any delays to the vessel.

Also see "General".

PRE-ARRIVAL INFORMATION: All vessels calling at Das Island must telex the Pre-Arrival Information below, at least 72 hours in advance, so as to avoid any unnecessary delays.

Ref. No.
To:
From:
Subject: Pre-Arrival Questionnaire **(OIL)** Date:

Please provide the following information at least 72 hours in advance and in the same sequential order to:

Petroleum Ports Authority Das Island
C/o ADMA OPCO Das Island (Agency Section)
Cables: Admarinedas
Telex: 22284 Adma Em

Update ETA at 48 and 24 hours prior to arrival. Contact Das Marine on VHF Channel 16 four hours before arrival. Please have combination pilot/accommodation ladder rigged on the lee side. Pratique will be granted by the Berthing Master on boarding.

Part 1 A Name of vessel.
B ETA Das Island
C Port of Registry.
D Nationality.
E Net registered tonnage.
F Gross registered tonnage.
G Summer deadweight (Long tons).
H Name of Master.

Part 2 A Voyage number.
B Cargo to load, loading rates and order of loading required.
C Last port.
D Next port.
E Destination port for discharge.
F Last loadport in the United Arab Emirates and date.
G Confirm your acceptance to signing a Boycott Declaration to be submitted to the Supreme Petroleum Council stating that cargo loaded at Das Island will not be discharged at any port in Israel or any other boycotted countries.

Part 3 Expiry dates of the following Certificates:
A Load Line.
B Safety Construction.
C Safety Equipment.
D Safety Radio-Telegraphy.
E Safety Radio-Telephony.
F TOVALOP.
G Civil Liability (CLC).
H International Oil Pollution Prevention (IOPP).
I Derat/Derat Exemption.
J Certificate of Class – Date of next renewal inspection.

Note: Non-compliance with any conditions on certificates will automatically cancel the validity of the certificate.

Part 4 Ballast to be discharged this port.
A Segregated ballast quantity.
B Dedicated ballast quantity.
C Clean ballast quantity.
D State time to deballast before loading or whether operations will be concurrent.

Part 5 A Confirm all cargo tanks are fully inerted with oxygen content below 8%.
B Confirm vessel has no defects which could affect the safe navigation or manoeuvrability of the vessel.
C Confirm that the cargo system is free from defects or leaks which could affect cargo handling or cause pollution.
D Confirm accommodation air conditioning/ventilating systems are operational with positive pressure.
E Confirm vessel will operate under closed loading conditions with venting of cargo tanks only by means of approved venting systems.

Part 6 A Arrival displacement.
B Arrival draft.
C Sailing Draft.
D Length overall.
E Length bow to manifold.
F Freeboard on arrival.
G Maximum freeboard during operations.
H Distance manifold to ship's side.
I Height of manifold above deck.
J Confirm manifold suitable for connection of 16 in. hoses.

Part 7 Moorings.
A Number, size and material of headlines.
B Number, size and material of forward breast lines.
C Number, size and material of forward springs.
D Number, size and material of aft springs.
E Number, size and material of aft breast lines.
F Number, size and material of stern lines.
G Confirm moorings and winches inspected and in good condition.
H Date of last winch brake test.
I Confirm moorings on drums are spooled in the correct direction.

Part 8 SBM moorings.
A Type and size (Horizontal and vertical dimensions) of forward Panama fairlead or chock.
B Number, type and safe working load of bow stopper. Confirm suitable for 3 in. chain.
C Safe working load of port crane/derrick.

Part 9 Your cargo nomination for Das Island is as follows: ......

Ref. No.
To:
From:
Subject: Pre-Arrival Questionnaire **(LNG)** Date:

Please provide the following information at least 72 hours in advance and in the same sequential order to:

Petroleum Ports Authority Das Island
c/o ADMA OPCO Das Island (Agency Section)
Cables: Admarinedas
Telex: 22284 Adma Em

Update ETA at 48 and 24 hours prior to arrival. Contact Das Marine on VHF Channel 16 four hours before arrival. Please have combination pilot/accommodation ladder rigged on the lee side. Pratique will be granted by the Berthing Master on boarding.

Part 1 A Name of vessel.
B ETA Das Island.
C Net registered tonnage.
D Name of Master.

Part 2 A Voyage number.
B Cargo to load, loading rates.
C Last port.
D Destination port for discharge.

Part 3 Expiry dates of the following Certificates:
A Load Line.
B Safety Construction.
C Safety Equipment.
D Safety Radio Telegraphy.
E Safety Radio Telephony.
F Civil Liability (CLC).
G International Oil Pollution Prevention (IOPP).
H Derat/Derat Exemption.
I Class Certificate.
J Certificate of Fitness for the Carriage of Liquefied Gas.

Note: Non-compliance with any conditions on certificates will automatically cancel the validity of the certificate.

Part 4 A Segregated ballast quantity to be discharged.

Part 5 A Confirm inerting system operational and in use.
B Confirm vessel has no defects which could affect the safe navigation or manoeuvrability of the vessel.
C Confirm that the cargo system is free from defects or leaks which could affect cargo handling.
D Confirm accommodation air conditioning/ventilating systems are operational with positive pressure.

Part 6 A Arrival displacement.
B Arrival draft.
C Sailing draft.

Part 7 A Confirm no changes to number and size of mooring lines.
B Confirm mooring and winches inspected and in good condition.
C Date of last winch brake test.
D Confirm moorings on drums are spooled in the correct direction.

Ref. No.
To:
From:
Subject: Pre-Arrival Questionnaire **(LPG)** Date:

Please provide the following information at least 72 hours in advance and in the same sequential order to:

Petroleum Port Authority Das Island
c/o ADMA OPCO Das Island (Agency Section)
Cables: Admarinedas
Telex: 22284 Adma Em

Update ETA at 48 and 24 hours prior to arrival. Contact Das Marine on VHF Channel 16 four hours before arrival. Please have combination pilot/accommodation ladder rigged on the lee side. Pratique will be granted by the Berthing Master on boarding.

Part 1 A Name of vessel.
B ETA Das Island.
C Port of Registry.
D Nationality.
E Net registered tonnage.
F Gross registered tonnage.
G Summer deadweight (Long tons).
H Name of Master.

Part 2 A Voyage number.
B Cargo to load, loading rates.
C Last port.
D Next port.
E Destination port for discharge.
F Last port in the United Arab Emirates and date.
G Confirm your acceptance to signing a Boycott Declaration to be submitted to the Supreme Petroleum Council stating that the cargo loaded at Das Island will not be discharged at any port in Israel or any other boycotted countries.

Part 3 Expiry dates of the following Certificates:
A Load Line.
B Safety Construction.
C Safety Equipment.
D Safety Radio Telegraphy.
E Safety Radio Telephony.
F Civil Liability (CLC).
G International Oil Pollution Prevention (IOPP).
H Derat/Derat Exemption.
I Class Certificate.
J Certificate of Fitness for the Carriage of Liquefied Gas.

Note: Non-compliance with any conditions on certificates will automatically cancel the validity of the Certificate.

Part 4 A Segregated ballast quantity to be discharged.

Part 5 A Advise if cargo tanks inerted or gassed up.
B Confirm hold spaces inerted with positive pressure.
C Confirm vessel has no defects which could affect the safe navigation or manoeuvrability of the vessel.
D Confirm that the cargo system is free from defects or leaks which could affect cargo handling.
E Confirm accommodation air conditioning/ventilating systems are operational with positive pressure.

Part 6 A Arrival displacement.
B Arrival draft.
C Sailing draft.

Part 7 A Number, size and material of head lines.
B Number, size and material of forward breast lines.
C Number, size and material of forward springs.
D Number, size and material of aft springs.
E Number, size and material of aft breast lines.
F Number, size and material of stern lines.
G Confirm mooring and winches inspected and in good condition.
H Date of last winch brake test.
I Confirm moorings on drum are spooled in the correct direction.

Ref. No.
To:
From:
Subject: Pre-Arrival Questionnaire **(PENTANE PLUS)** Date:

Please provide the following information at least 72 hours in advanc

and in the same sequential order to:

Petroleum Ports Authority Das Island
c/o ADMA OPCO Das Island (Agency Section)
Cables: Admarinedas
Telex: 22284 Adma Em

Update ETA at 48 and 24 hours prior to arrival. Contact Das Marine on VHF Channel 16 four hours before arrival. Please have combinatio pilot/accommodation ladder rigged on the lee side. Pratique will be granted by the Berthing Master on boarding.

Part 1 A Name of vessel.
B ETA Das Island.
C Port of Registry.
D Nationality.
E Net registered tonnage.
F Gross registered tonnage.
G Summer deadweight (Long tons).
H Name of Master.

Part 2 A Voyage number.
B Cargo to load, loading rates.
C Last port.
D Next port.
E Destination port for discharge.
F Last port in the United Arab Emirates and date.
G Confirm your acceptance to signing a Boycott Declaratio to be submitted to the Supreme Petroleum Council statin that the cargo loaded at Das Island will not be discharge at any port in Israel or any other boycotted countries.

Part 3 Expiry dates of the following Certificates:
A Load Line.
B Safety Construction.
C Safety Equipment.
D Safety Radio Telegraphy
E Safety Radio Telephony.
F Civil Liability (CLC).
G International Oil Pollution Prevention (IOPP).
H Derat/Derat Exemption.
I Class Certificate.

Note: Non-compliance with any conditions on certificates w automatically cancel the validity of the certificate.

Part 4 A Segregated ballast quantity.
B Dedicated ballast quantity.
C Clean ballast quantity.
D State time to deballast before loading or wheth operations will be concurrent.

Part 5 A Confirm all cargo tanks are fully inerted with oxyg content below 8%.
B Confirm vessel has no defects which could affect the s navigation or manoeuvrability of the vessel.
C Confirm that the cargo system is free from defects or lea which could affect cargo handling.
D Confirm accommodation air conditioning/ventilat systems are operational with positive pressure.
E Confirm vessel will operate under closed loading condi with venting of cargo tanks only by means of appro venting systems.

Part 6 A Arrival displacement.
B Arrival draft.
C Sailing draft.

Part 7 A Number, size and material of head lines.
B Number, size and material of forward breast lines.
C Number, size and material of forward springs.
D Number, size and material of aft springs.
E Number, size and material of aft breast lines.
F Number, size and material of stern lines.
G Confirm moorings and winches inspected and in condition.
H Date of last winch brake test.
I Confirm moorings on drum are spooled in the co direction.

NAVIGATION AIDS:

DEEP WATER CHANNEL: IALA System.

Buoy No. & Name	*Colour Daymark*	*Position*	*Light*
Das Channel Approach	RWVS Pillar Sph. Topmark	25° 27.0' N. 53° 20.0' E.	L. Fl. W. 10 secs.
No. 1	Green Conical	25° 25.2' N. 53° 12.4' E.	Qk. Fl. G.
No. 2	Red Can	25° 24.7' N. 53° 17.2' E.	Gp. Fl. (2) R. 10 secs.
No. 3	Green Conical	25° 23.9' N. 53° 10.6' E.	Fl. G. 5 secs.
No. 4	Red Can	25° 24.2' N. 53° 12.7' E.	Fl. R. 2 secs.
No. 5	Green Conical	25° 20.6' N. 53° 04.85' E.	Qk. Fl. G.
No. 6	Red Can	25° 21.9' N. 53° 10.0' E.	Fl. R. 5 secs.
No. 7	Green Conical	25° 14.25' N. 52° 56.8' E.	Gp. Fl. (3) G. 8 secs.
No. 8	Red Can	25° 19.1' N. 53° 06.0' E.	Fl. R. 2 secs.
No. 9	Green Conical	25° 09.8' N. 52° 54.1' E.	Fl. G. 2 secs.
No. 10	Red Can	25° 14.8' N. 52° 58.9' E.	Fl. R. 3 secs.
No. 12	Red Can	25° 11.2' N. 52° 55.1' E.	Qk. Fl. R.

DAS SOUTH SHOAL BUOY:

Das South Shoal Buoy	Y. B. Pillar	25° 04.0' N. 52° 53.0' E.	Qk. Fl. (6) + L. Fl. W. 15 secs.

DAS OUTFALL BUOYS:

West Outfall Buoy No. 1	Y. Can	25° 08.9' N. 52° 51.15' E.	Fl. Y. 6 secs. Ra.
West Outfall Buoy No. 2	Y. Can	25° 08.7' N. 52° 51.35' E.	Fl. Y. 10 secs.
South Outfall Buoy	Y. Can	25° 07' 49" N. 52° 52' 30" E. (PA)	Fl. Y. (U) 12 secs.

TANKER BERTH LIGHTS:

Structure	*Location of Light*	*Light*
Tanker Berth No. 2	North Mooring Dolphin	F.R.
Lat. 25° 08' 39" N.	South Mooring Dolphin	F.R.
Long. 52° 53' 14" E.	Loading Platform North End	2 F.G. (vert.)
	Loading Platform South End	2 F.G. (vert.)
Tanker Berth No. 3	S.P.M.	Fl. R. 5 secs.
Lat. 25° 08.9' N.		
Long. 52° 54.1' E.		Ra.
Structure	*Location of Light*	*Light*
LNG Berth No. 4	North Mooring Dolphin	F.R.
Lat. 25° 09' 22" N.	South Mooring Dolphin	F.R.
Long. 52° 53' 08" E.	Loading Platform North End	2 F.G. (vert.)
	Loading Platform South End	2 F.G. (vert.)
Sulphur Berth No. 5	Northern Mooring Dolphin	2 F.R. (vert.)
	Southern Mooring Dolphin	2 F.R. (vert.)

FLARE COMPLEX: A series of 6 flares are located in an arc approximately 4,500 ft. (1,370 m.) North of Das Island. The unlit flares may be brought into service without warning. The Northern perimeter of the Flare Zone is marked by a green conical light buoy, Fl. G. 5 secs., in position: Lat. 25° 11.5' N., Long. 52° 52.2' E.

An additional flare is situated on a small jetty extending approximately 400 ft. (120 m.) from shore approximately 2,500 ft. (760 m.) from LNG/LPG Berth No. 4.

Numerous flares are situated onshore on the North and N.W. coasts of Das Island.

All of the flares previously referred to are situated within the Restricted Area No. 1.

APPROACHES: *Entering and Navigation within the Port:* Navigation/movement within the port area is permitted subject to prior permission being granted by the Port Officer. Vessels visiting the port area must have on board a sufficient range of current hydrographic charts relevant to the area. These charts must be kept up-to-date with regard to Notices to Mariners and other notices promulgated for the area through MENAS.

CAUTION:

The Umm Shaif Oil Field is approximately 20 miles East of Das Island.

The Zakum Oil Field is approximately 48 miles S.E. of Das Island.

The Bunduq Oil Field is approximately 15 miles West of Das Island.

The Fields, together with their associated submarine oil and gas pipelines to Das Island are marked upon hydrographic charts pertaining to the area.

It is essential that vessels/craft approaching Das Island do not enter the Oil Field areas or anchor in the vicinity of submarine pipelines.

NOTE: Masters of vessels/craft are advised that actual depths over submarine pipelines are generally less than those charted and vessels passing over these pipelines may have the under-keel clearance substantially reduced.

Use of anchors in the vicinity of these pipelines is strictly prohibited. (See Note: "Pipe-lines" on BA and USHO Charts.)

Approaches to Das Island: Vessels approaching Das Island must navigate with due caution on account of numerous oil platforms and associated submarine pipelines within the waters of Abu Dhabi and neighbouring states. (See Cautions on BA and USHO Charts.)

Vessels passing to the East of Das Island must not pass closer than 2 miles from the Island, and then only with prior permission of the Port Officer and giving due care and attention to vessel movements within the port.

SOUTHERN ROUTE:

Vessels approaching from the South must pass not closer than 3 miles South of oil installations etc., in the Umm Shaif Field, thence towards the pilot/anchorage areas S.E. of Das Island (See "Pilotage" and "Anchorage").

Special attention shall be paid to the traffic routing system which passes between the Umm Shaif and Zakum Oil Fields, and vessels/craft shall navigate in accordance with the requirements of the International Rules and Regulations for the Prevention of Collisions at Sea.

NORTHERN ROUTE:

Vessels approaching from the North should normally pass down the West side of Das Island and keep at least 4 miles to the West and at least 5 miles to the South of the Island. However, vessels may pass to the East of Das Island with permission of the Port Officer but see note above.

DEEP DRAFT VESSELS:

Deep drafted vessels may approach the port via the Deep Water Buoyed Channel (See "Navigation Aids"). The channel is intended primarily for the use of deep drafted vessels sailing from Das Island, but vessels intending to enter the port via this channel should advise 'Das Marine' by radio, of their intentions. Masters are advised that this channel is not for the exclusive use of Das Island traffic and are cautioned to proceed accordingly.

PILOTAGE: P.P.A.-appointed Berthing Masters are the designated representatives of the Port Authority and, as such, are responsible to the Port Authority for the observance and implementation of Standing Instructions for Marine Operations.

The Berthing Master will normally board the vessel approximately 2 miles E.S.E. from Tanker Berth No. 2. The Pilot Station is at Lat. 25° 08' N., Long. 52° 55.4' E.

For vessels entering from the North the Berthing Master may board in a different location. If so, he will advise the Master accordingly via VHF radio.

The Berthing Master will undertake the pilotage, berthing and unberthing of the vessel save that the Master of the vessel shall remain solely responsible on behalf of the Owners for the safety and safe navigation of the vessel at all times.

Tankers and Gas Carriers: Tankers and gas carriers are not permitted to berth at or unberth from any of the berths in Das Island without a P.P.A.-appointed Berthing Master on board.

General Cargo Vessels: General cargo vessels are required to employ a Berthing Master. Vessels are required to use the anchorage area designated for cargo operations (See "Anchorage"), but may anchor in the main anchorage while awaiting weather conditions to improve, availability of lighters or if the designated anchorage is congested.

Small Craft: Craft entering the boat harbour are not required to hire pilotage services, but may do so by prior application to the Port Authority.

Movements of all craft into, within or out of the boat harbour is at the discretion of the Port Officer. Allocation of berths is the sole responsibility of the Port Officer. No craft are allowed to enter, manoeuvre within or sail from the boat harbour during the hours of darkness without the prior permission of the Port Officer.

ANCHORAGES: Designated anchorages are established for use by vessels/craft visiting the Port of Das Island. The use of anchors outside these areas must only be undertaken after obtaining permission from the Port Authority.

Main Anchorage Area: This anchorage area lies to the S.E. of Das Island and is for tankers, gas carriers and other large vessels. The area is encompassed by lines joining the following positions:

(a) Lat. 25° 08.0' N., Long. 52° 55.4' E. to
(b) Lat. 25° 07.2' N., Long. 52° 58.8' E. to
(c) Lat. 25° 04.5' N., Long. 52° 58.8' E. to
(d) Lat. 25° 04.5' N., Long. 52° 55.4' E. and finally to (a).

Optional Anchorage Area: An optional anchorage for deep draft vessels is located approximately 1 mile to 1.5 miles N.W. from No. 12 Deep Water Channel Buoy (Lat. 25° 12.2' N., Long. 52° 54.2' E.).

General Cargo Vessels: The offloading anchorage for general cargo vessels is situated approximately 6 cables South of Tanker Berth No. 2 in an area encompassed by a line joining the following positions:

(a) Lat. 25° 07.5' N., Long. 52° 53.00' E. to
(b) Lat. 25° 08.0' N., Long. 52° 53.00' E. to
(c) Lat. 25° 08.0' N., Long. 52° 53.41' E. to
(d) Lat. 25° 07.5' N., Long. 52° 53.63' E. and finally to (a).

Small Craft and Barges: This anchorage lies to the S.W. of Tanker Berth No. 2, in an area encompassed by a line joining the following positions:

(a) Lat. 25° 08.0' N., Long. 52° 53.00' E. to
(b) Lat. 25° 08.4' N., Long. 52° 53.00' E. to
(c) Lat. 25° 08.4' N., Long. 52° 53.23' E. to
(d) Lat. 25° 08.0' N., Long. 52° 53.41' E. and finally to (a).

CAUTION:

(a) Pipelines connecting the tanker berths to the shore lie close to the Northern boundary of this anchorage.

(b) Within the small craft anchorage area are mooring buoys, installed by the Company for their own usage. The number of buoys installed and their position are liable to be changed without promulgation of any notices.

The use of these buoys by any craft is subject to permission being granted by the Port Authority. Unauthorised occupancy of these buoys could result in strong action being taken against the craft, and any consequential damage/loss of earnings/incidental expenses etc. incurred by the Company will be for the account of the offending craft.

Holding Ground (Sea Bed): The sea bed around Das Island is rock, covered by a few inches of loose sand. Holding is poor and vessels are urged to exercise due care and pay out extra chain.

Wind and Tide: Prevailing winds are from the N.W. Rise of tide can be up to 2 m. but the usual variation is 1 m.

Also see "VHF".

PROHIBITED ANCHORAGES: Prohibited anchorage areas have been established at Das Island. The use of anchors within these areas is strictly prohibited.

Prohibited Anchorage – South of Das Island: A prohibited anchorage area is established to the South of Das Island in an area encompassed by a line joining the following position:

(a) Lat. 25° 08.38' N., Long. 52° 52.50' E. to
(b) Lat. 25° 08.00' N., Long. 52° 52.50' E. to
(c) Lat. 25° 08.00' N., Long. 52° 53.00' E. to
(d) Lat. 25° 08.50' N., Long. 52° 53.00' E. then to shore in
(e) Lat. 25° 08.50' N., Long. 52° 52.78' E.

Prohibited Anchorage – Tanker Berth No. 3: A prohibited anchorage area exists within a circular area of radius 1,500 ft. (460 m.) centred on Tanker Berth No. 3 in Lat. 25° 08' 53" N., Long. 52° 54' 07" E. This is also a RESTRICTED AREA.

RESTRICTED AREAS: Restricted areas have been established at Das Island. Vessels/craft are only allowed to enter these areas for duly authorised operational purposes.

Restricted Area No. 1 and 2: Enclosed by a line joining the following positions:

(a) Lat. 25° 08.83' N., Long. 52° 52.68' E. to
(b) Lat. 25° 08.80' N., Long. 52° 53.10' E. to
(c) Lat. 25° 08.25' N., Long. 52° 53.30' E. to
(d) Lat. 25° 08.30' N., Long. 52° 53.50' E. to
(e) Lat. 25° 08.86' N., Long. 52° 53.30' E. to
(f) Lat. 25° 09.20' N., Long. 52° 53.30' E. to
(g) Lat. 25° 09.55' N., Long. 52° 53.20' E. to
(h) Lat. 25° 09.55' N., Long. 52° 53.00' E. to
(i) Lat. 25° 10.54' N., Long. 52° 53.00' E. to
(j) Lat. 25° 10.54' N., Long. 52° 52.20' E. to
(k) Lat. 25° 09.80' N., Long. 52° 52.20' E. to
(l) Lat. 25° 09.80' N., Long. 52° 51.85' E. to
(m) Lat. 25° 09.00' N., Long. 52° 51.85' E. then East to shore.

Restricted Area No. 3: A circular area of radius 1,500 ft. (460 m.) centred on Tanker Berth No. 3 in position: Lat. 25° 08' 53" N., Long. 52° 54' 07" E. This is also a prohibited anchorage area.

MAX. SIZE: See "Berthing".

HEALTH: Vessels arriving at Das must carry the usual Bills of Health for ports visited on the voyage. Masters of vessels are required to inform the Company if there is any sick person on board or if there has been sickness on board within the week prior to arrival. Pratique is granted by the Port Medical Officer normally through the Berthing Master.

Health Certificate with valid cholera inoculation (if coming from cholera-infected areas) is compulsory.

RADIO: *Arrival Messages:* All vessels calling at Das Island Petroleum Port must adopt the following ETA procedures:

1. ETA and updates are to be sent 72 hours, 48 hours and 24 hours before arrival at Das. Telexes to be directed to Port Officer, Das.

2. The initial ETA message should normally contain ETA Das Island and the information in the Pre-Arrival Message – See "Pre-Arrival Information".

In order to expedite Pilot attendance Masters should endeavour to confirm their final ETA to Das Island Port Control on VHF Radio Channel 16 and 12, six hours prior to arrival at the anchorage.

Also see "Berthing" – Tanker Berth No. 3.

VHF: Das Marine maintains a 24 hour listening watch on VHF Channel 16 and works Channels 12 and 74.

All communications other than Terminal VHF should be sent through "Bahrain Radio" (A9M).

Das Island radio mast is installed in position: Lat. 25° 08' 30.396" N., Long. 52° 52' 43.903" E. Red lights visible all round the horizon are established at the top of the mast, 81.8 m. above chart datum.

Vessels Anchoring: Vessels anchoring to await berthing instructions must advise "Das Marine" via VHF Radio of:

(a) Anchoring time (Local Time is GMT plus 4 hours)
(b) Anchoring position (bearing and distance from Tanker Berth No. 2).

All vessels at anchor must keep a listening watch on VHF Channel 16.

When a vessel leaves the anchorage it must advise "Das Marine" via VHF Radio of:

(a) Time departed anchorage.
(b) Reason for departing.

Also see "Pre-Arrival Information".

RADAR: Not available.

TUGS: *Tugs and Mooring Launches:* Three Fire Fighting, Pollution Control and Salvage Tugs are generally available at Das Island to assist in berthing/unberthing vessels at the bulk petroleum and LNG/LPG facilities.

Minimum of 3 tugs used for berthing and 2 tugs for unberthing at Berths No. 2 and 4 and minimum of 1 tug used for berthing at Berth No. 3 (SPM).

NOTE: Only tug's towing equipment shall be used for these operations and only in an emergency situation and in order to avert a potential disaster may ship's equipment be considered for use.

Mooring launches are available for berthing/unberthing operations and for the transportation of personnel.

BERTHING: Tanker Berth No. 1 has been demolished and no longer exists. All structures to this berth have been cleared to sea bed and no obstructions remain. The pipelines still exist to the original berth platform location.

Tanker Berth No. 2:

Platform position: Lat. 25° 08' 39" N., Long. 52° 53' 14" E.

General: This is a fixed platform berth situated approx. 2,400 ft. (750 m.) East of Das Island. Vessels berth alongside 4 flexible dolphins, and 6 mooring dolphins are provided to receive moorings.

Berthing limitations:

(a) Ballasted or partially loaded tankers up to a maximum of 165,000 L/T displacement.
(b) Fully loaded tankers up to 130,000 L/T S.D.W. provided the displacement does not exceed 165,000 L/T.
(c) Vessels with a max. draft not exceeding 56 ft. (17 m.).

Minimum depth of water alongside is 67 ft. (20.4 m.) at datu and the maximum permissible sailing draft is 64 ft. (19.5 m.) a datum. It can be increased by up to 0.9 m. This will be dependen on local conditions prevailing at the time and will be subject to:

(i) Approval of P.P.A. Port Officer.
(ii) Possible suspension of loading to ensure topping-off coincide with H.W.
(iii) Any delays or costs involved shall be to Owner's account.

(d) Max. LOA 350.5 m.
(e) Max. freeboard 19.8 m., max. height of ship's manifold abov waterline is 21.34 m.

Moorings: A minimum of 8 mooring lines must be available at each en of the vessel.

General mooring pattern for vessels up to 130,000 L/T S.D.W.:
Forward: 3 head lines, 2 breast lines, 1 spring.
Aft: 3 stern lines, 2 breast lines, 1 spring.

General mooring pattern for vessels in excess of 130,000 L/T S.D.W
Forward: 3 head lines, 3 breast lines, 1 spring.
Aft: 3 stern lines, 2 breast lines, 2 springs.

Loading/Discharge Rates: Maximum cargo loading rate 32,00 bbls./hr. per 16 in. hose (4,200 t.p.h.), 4×16 in. hoses are available.

Control of Loading/Discharge and Safety: Loading/discharge mu proceed to a pre-declared plan. Co-ordination of loading/discharge wi be undertaken by the Duty Berthing Master, who will also conduct th necessary safety checks at frequent intervals.

Tanker Berth No. 3 (SPM):

Buoy position: Lat. 25° 08' 53" N., Long. 52° 54' 07" E.

Additional pre-arrival message: The following message will b transmitted to vessels which are nominated to berth at Tanker Berth No. Quote:

Present indications that vessel will berth at No. 3 SPM. Ship's derric crane should be rigged on port side.

Ship's manifold suitable for connection of up to 2×16 in. crude an 1×10 in. bunker hoses. Mooring and hose connection by ship's cre Mooring and hose connection equipment shipped on board after Berthin Masters board. Request accommodation be provided for 2 Berthin Masters whilst on board. Please confirm soonest SWL of hose handli crane/derrick and that suitable forward Panama/fairlead aperture minimum 24 in. horizontally and 18 in. vertically.

Unquote.

General: Tanker Berth No. 3 is a Single Point Mooring (SPM) situat approx. 7,500 ft. (2,285 m.) East of Das Island. The buoy is moored 94 ft. (28.65 m.) of water at datum, and is served by a 48 in. crude submarine pipeline and a 22 in. fuel oil (bunker) submarine pipeline.

Vessels will be required to be fitted with a hose handling crane/derr capable of plumbing at least 2 ft. outboard of the ship's side over th entire length of the portside manifold (including the bunker connectio Minimum SWL of the crane/derrick to be in accordance with the follow requirements.

Less than 100,000 L/T S.D.W. 8 tons.
100,000 – 300,000 L/T S.D.W. 10 tons.
Over 300,000 L/T S.D.W. 12 tons.

Berthing Limitations: Capable of accepting vessels up to 500,000 L displacement, subject to the following limitations: Maximum berthing dr of 72 ft. (22 m.). Maximum berthing displacement 410,000 long to Maximum sailing draft of 79 ft. (24 m.).

(See "Approaches" "Cautions" – Note: Actual depths over submar pipelines).

Mooring at SPM: The fixed mooring at Tanker Berth No. 3 is a 21 circumference nylon braidline rope, 160 ft. (50 m.) long, terminating a 3 in. diameter stud link chafing chain (See "Plan").

The vessel must have a suitable bow fairlead (24 in.×18 in.) to per direct connection of the 3 in. diameter stud link chafing chain to a S or similar O.C.I.M.F. approved bracket.

Loading Rates: The crude oil loading installation comprises 2×20 floating hose strings each terminating in 16 in. tail hoses. Flanges to BS 1560.

Various reducers/spool pieces are available, with prior knowledge vessel connections if different from shore fittings. Adequate ship cr and tools must be provided for the safe and efficient connection of hos There is no shore assistance for connecting/disconnecting of hoses

Maximum cargo loading rate is 46,000 bbls./hr. per 16 in. h (6,000 t.p.h.), 2×16 in. hoses are available.

Control of Loading and Safety: Loading must proceed to a pre-decla plan. Co-ordination of loading will be undertaken by the Duty Bert Master, who will also conduct the necessary safety checks at freq intervals.

LNG/LPG Berth No. 4:

Platform position: Lat. 25° 09' 22" N., Long. 52° 53' 08" E.

General: This is an ADGAS installation for the transfer of LNG/LPG related products. Movement of vessels to and from the berth governed by the Port Authority.

The berth is a fixed platform type and is situated approx. 4,30 (1,300 m.) N.N.W. from Tanker Berth No. 2 Platform. Vessels alongside flexible dolphins and 7 mooring dolphins are provide receive moorings.

Berthing Limitations: Capable of accepting vessels up to 100,00 displacement subject to a maximum draft alongside of 46 ft. (14 Minimum depth of water alongside is 49 ft. (14.95 m.) at datum.

Moorings: A minimum of 8 mooring lines must be available at eac of the vessel.

General Mooring pattern depends on vessel's size and type "Plans").

Loading Rates: Loading LNG/LPG and associated products responsibility of ADGAS. Maximum LNG loading rate is 10,500 cu Maximum LPG loading rate is 4,000 cu.m.p.h. Maximum Pentane loading rate is 10,000 bbls./hr. (1,200 t.p.h.).

Control of Loading: Co-ordination of loading is the responsibility of ADGAS. After the initial safety check by the Berthing Master, ADGAS Representative will conduct the necessary safety checks at frequent intervals. Please note however that the Master can request the services of the Berthing Master in an emergency to take his vessel off the berth.

Sulphur Berth No. 5: This is a fixed platform berth situated in Lat. 25° 08.9' N., Long. 52° 53.2' E.

Vessels berth alongside two flexible dolphins provided with suitable fendering and 4 mooring dolphins, all provided to accept moorings of up to 60 tonnes breaking strain.

Limitations:

(a) Max. arrival displacement 8,500 tonnes.
(b) Max. LOA 130 m.
(c) Max. draft 10.0 m.
(d) Range of manifold – minimum 1.6 m, maximum 6.8 m.
(e) Max. bow to manifold 57 m.
(f) Minimum depth alongside 16.0 m.

Mooring Arrangements:

2 each of headlines and stern lines.
2 each of breasts.
2 each of springs.

Loading: 1×8 in. loading arm fitted with Camlock coupling is provided, heat traced and fully insulated. Maximum loading rate is 700 cu.m./hr.

Small Boat Harbour : Das Island Small Boat Harbour is situated at the South of Das Island. There are a total of 14 berths available at this time, usage of which is governed by the Port Authority/ADMA-OPCO.

Eastern Extension: Consists of 2 berths (No. 1 and 2) which are reserved for use by ADMA – OPCO and direct hire deep sea tugs, also for the importation of petroleum products. Maximum draft permitted is 15.5 ft. (4.7 m.).

Inner Harbour: Consists of 12 berths (No. 3 through No. 14). The facilities are reserved for ADMA – OPCO small craft, Government craft and contracted craft for the loading/discharge of materials and supplies. The maximum permissible draft is 9 ft. (2.7 m.).

GENERAL CARGO OPERATIONS: No loading/unloading facilities exist in the port area for cargo vessels and such vessels must provide all equipment and machinery to facilitate transfer of cargo to/from barges, lighters etc., at the designated anchorage area.

Cargo Manifests: One original and two copies of General Cargo Manifests are required to be supplied by the vessel.

Discharging/Loading: Vessels should arrive with all derricks etc., rigged and ready for cargo handling. Barges and associated craft must satisfy the mandatory requirements of the Port Authority, the Consignee being responsible for the provision and control of barges and associated craft. Cargo transfer will normally be carried out continuously dependent on weather conditions.

Dangerous Cargo: The Port Authority must be informed of any dangerous cargo carried in any vessel arriving within the port area whether it is intended for discharge at Das Island or not. Masters of vessels are requested to confirm that any dangerous cargo being carried is stored in accordance with the "Recommendations for the Carriage of Dangerous Goods in Ships" by the United Kingdom Department of Transport or other recognised authority.

CRUDE OIL LOADING: 2 grades of crude are available on each berth. Zakum Crude average API 40° (approx.), and Umm Shaif Crude of 37° (approx.).

Associated product available at this time is Condensate Blend of API 60° (approx.).

All tankers of 70,000 long tons s.d.w.t. must comply with the IMO 1978 protocol and must employ inert gas system.

Masters of vessels arriving to load Condensate Blend cargoes must sign a Declaration (019-MAR-19) to signify that they realise they are loading a highly volatile cargo which contains dangerous quantities of Hydrogen Sulphide (H_2S) in the gas evolved from the cargo.

BALLAST: There are no facilities for receiving vessel's ballast ashore for treatment. All vessels must have clean ballast for over-board discharge. Clean ballast implies oil-in-water content of not more than 15 p.p.m.

Masters of vessels arriving at Das Island will make a pre-berthing declaration regarding ballast (PPA – Vessel Declaration Book).

MEDICAL: A Company Medical Officer and small hospital are available, subject to the Company's discretion, to vessel's crews. Charges for attention, treatment and associated facilities are for the vessel's account.

Masters of vessels must take precautions against heat exhaustion and heat stroke.

Requests for medical attention must be made to the Agency, or through the Duty Berthing Master. Port Authority consent must be obtained.

Personnel allowed ashore for medical attention must carry with them Passports/Seaman's Card and Health Documents and, if necessary, be accompanied by an interpreter (English or Arabic). An Agency representative will accompany them to the Hospital, but they will not be permitted to visit other Das Island facilities.

DENSITY: 1025.

FRESH WATER: Not available.

FUEL: Fuel oil bunkers are not available at all tanker and liquid gas berths.

Small craft on charter to ADMA-OPCO are able to obtain limited supplies of diesel oil, the facility is only available through prior contractual agreement and must be loaded at the small boat harbour.

FIRE PRECAUTIONS: Three fire-fighting tugs available.

REPAIRS: No repair facilities are available at Das Island. No repairs are permitted within port limits without prior written permission of the Port Authority.

DRY DOCKS: None.

SURVEYORS: Cargo surveyors available through Agent.

GANGWAYS: Shore gangways are provided at Berths No. 2 and 4, vessel to provide access steps from gangway at ship's rail. At Berth No. 3 vessel must provide accommodation ladder on both sides of the vessel for access.

CUSTOMS ALLOWANCES: No restrictions for tobacco or liquor onboard. Conveyance of alcoholic liquor from any vessel to the shore or from the shore to any vessel, or from one vessel to another, is strictly prohibited.

REPATRIATION: There are no facilities for crews of visiting vessels to join or leave vessels at Das Island. Repatriation for medical reasons may be arranged at Master's request with the recommendation of the Das Island Resident Medical Officer, and the consent of the Port Officer and the Chief of Police.

AIRPORT: ADMA operate a private airport.

TIME: GMT plus 4 hours.

POLICE/AMBULANCE/FIRE: All emergencies: No. 2 Tanker Berth, Tel: 63333. No. 4 LNG/LPG Berth, Tel: 62222.

TELEPHONES: No onboard facilities – fixed berths are linked to Island telephone system. On LNG/LPG Berth No. 4 a ship/shore telephone connection is available.

BANKS: National Bank of Abu Dhabi, Das Island, Abu Dhabi, U.A.E.

STORING: Not available.

SHORE LEAVE: No shore leave is permitted at Das Island. Any crew member who comes ashore unauthorised will be considered as having entered the UAE illegally and as such will be liable to a heavy fine and/or imprisonment.

Shore visit for medical reasons, and in exceptional circumstances as required by the Petroleum Ports Regulations, may be permitted with prior arrangement. The Port Authority must give express consent.

GARBAGE DISPOSAL: No service available.

WASTE OIL DISPOSAL: No service available.

SEAMAN'S CLUBS: None.

REGULATIONS: No cameras allowed on the Island – high security area.

GENERAL: All vessels entering the port of Das Island must comply with the International Agreement on Safety of Life at Sea (SOLAS) and its amendments and all tankers with the IMO 1978 Protocol.

The Masters of tankers/gas carriers must comply with the following:

Pre-Berthing Declaration and Inspection: All vessels arriving at the Port of Das Island must be suitably ballasted and/or trimmed for berthing with regard to weather and existing circumstances.

All vessel's personnel must be familiar with the Das Island Safety Requirements and other applicable Standing Instructions.

Safe and adequate access to the vessel must be provided for the Berthing Master. If the Berthing Master considers the means of access unsafe or unsuitable, the vessel will be delayed until such time as proper access is provided. Any loss will be to the vessel's account.

The requisite initial documents must be completed in full, signed and handed to the Berthing Master prior to commencement of berthing operations.

Permission to berth will not be granted unless the Berthing Master is satisfied that the vessel can safely complete all parts of the operation, including but not limited to, berthing, ballasting, deballasting, cargo transfer and sailing. If for any reason it is deemed necessary to refuse permission to berth, the Port Authority will be informed and a detailed inspection of the vessel will be undertaken. Shortcomings, etc. will be noted and the Master informed of them. If the vessel is unable to rectify the identified faults, it will be removed from the Port Area. Owners/Charterers will be notified accordingly.

Fire Wires (Emergency Towing Wires): Emergency towing/fire wires of sufficient strength and construction are to be provided and secured forward and aft, on the offshore side of the vessel, with the towing eye maintained at 6 ft. (2 m.) above the water level.

Access to Vessel: While at the loading berths all vessels must provide an accommodation/pilot ladder suitably positioned and maintained at 6 ft. (2 m.) above the water level on the offshore side of the vessel.

M.E.N.A.S.: ADMA-OPCO Agency Section is a collection agency for Middle East Navigation Aids Service (M.E.N.A.S.) dues and, on the authority of the Master, dues payable to M.E.N.A.S. are collected and remitted on behalf of the vessel.

Courtesy Flag: The correct courtesy flag for vessels visiting Das Island is the flag of the United Arab Emirates. This flag may be obtained from the Agents.

Notice of Readiness: Prior to commencement of any transfer operation within the Port of Das Island, the Master shall tender, to the Company, a written Notice of Readiness to load/discharge, duly timed, dated and signed by the Master. Receipt of such notice does not necessarily imply acceptance.

Early Departure Procedure: E.D.P. is available to all tankers at Das Island. Tankers not accepting E.D.P. are generally unberthed after completion of transfer and must proceed to the Anchorage Area to complete documentation, where an agent will board under safe access; a boat/tug will be used by agent for transportation with a hire rate based upon the hourly rate.

OIL POLLUTION: Any incident of pollution, no matter how small it may be, from a vessel within the Port of Das Island is a contravention of Part VI of the Abu Dhabi Petroleum Ports Law No. 12 of 1973.

In the event of the escape of oil or oily water from any source, operations must be suspended immediately, and every effort made to identify, stop, contain and clean up the pollution. The Port Authority must be informed immediately via the Duty Berthing Master, in order that the Pollution Contingency Plan can be initiated. PPA – Das are very strict regarding environmental pollution.

Transfer operations will not be resumed until such time as the Berthing Master and the Port Authority are satisfied that the cause of pollution no longer exists and that the affected area is sufficiently cleaned and safe. Oil Pollution incidents that occur within the Port of Das Island will be fully documented and the necessary documents (019-MAR-41) signed by the Master before transfer is resumed.

Masters of vessels/craft are warned that any breach of the provisions of Part VI of the Abu Dhabi Petroleum Ports Law No. 12 of 1973 will render themselves liable to prosecution.

Pollution: The dumping of waste, dangerous, toxic or other hazardous material within the Port of Das Island is strictly prohibited.

AUTHORITY: Abu Dhabi National Oil Company – Petroleum Ports Authority (ADNOC – P.P.A.) Das Island, P.O. Box 898, Abu Dhabi, U.A.E. *Tel:* (02) 6068376. *Telex:* 22284 ADMA EM, 22215 ADNOC EM. *Cables:* ADNOC. *FAX:* Abu Dhabi (02) 660106, 6068445. *Contact:* Captain A.H. Hamdy and Captain M.A. Shahba, Port Officers, Das Island.

DUBAI (Including Khor Dubai and Hamriya Port): 25.16 N. 55.18 E.

ALSO SEE "PORT RASHID".

COURTESY FLAG: U.A.E. and Dubai.

DOCUMENTS: Following should be airmailed to Agent prior ship's arrival: 2 copies Dangerous Cargo List, Stowage Plan in duplicate, Hatch List in duplicate, 7 copies of Cargo Manifests, 1 copy of each Bill of Lading. On arrival, 4 Crew Lists required.

Immigration: Vessels of less than 3.0 m. draft are expected to berth and report at the Immigration Station on the Customs Wharf to report In and Out. Larger and deeper draft vessels are cleared In and Out by Agents.

APPROACHES: Dubai Beacon Fl. 3 Sec. Port Rashid Lee Breakwater 25° 16.77' N., 55° E., thence by 5.5 metre channel parallel to the breakwater, entry dolphins lit. Channel depth maintained centre line though opening spans of Al Maktoum and Al Garhud Bridges beyond Al Jadaf Ship Lift in Khor Dubai Lagoon.

PILOTAGE: No organised Pilot service, but Pilot can be arranged by Agents.

ANCHORAGE: Marked by lightbuoy in position 310°, 1.06 miles from Nayif Tower. Recommended anchor to N.E. of lightbuoy in approx. position Lat. 25° 17' 4" N., Long. 55° 16' 16" E. Depth 36 ft. to 40 ft., holding ground considered poor, bottom sand and coral. The closer ships are able to anchor to the buoy, the faster turn-around on barges will be attained. *Warning:* Occasional strong N.W. winds, known as "Shamal" will make discharging impossible and *it is very important* that ships have engines on "stand-by" during such times. Ships allowed enter and leave anchorage at any time of day or night. Launch service through Agent's ship to shore from anchorage, and ship's own boats can also be used without Authorities' permission.

RESTRICTIONS: All cargo discharged into barges at anchorage. Coasters with drafts of 11 ft. 6 in. or less can enter creek and discharge alongside. Such vessels usually require a tug boat to pilot them into the creek. Tugs available through Agent. Importation of artificial pearls is prohibited. Purchase of liquor forbidden except by permit.

HEALTH: Prior arrival, Masters are required to send a cable to the Port Health Dept. addressed "Quarantine-Municipality-Dubai" on the following lines:

(Vessel's name). . . ETA . . . Hour . . . Date . . .
Crew all healthy request Free Pratique
Master

Normally all vessels declared healthy by the Master are automatically allowed to berth immediately on arrival, and Health Dept. personnel will board vessels after berthing.

Arrival: Ships boarded immediately upon arrival weather permitting, and Masters then have to complete a short Arrival Report. No formalities of any kind with Port Authorities and ships allowed to arrive/sail at any time.

Departure: No Port Clearance is issued in Dubai. A letter will be issued by Agent which may be produced at next port of call instead of usual departure clearance.

RADIO: "Khor Dubai" R/T (VHF MF/SSB) near entrance, 24 hour watch on 2182 kHz (MF/SSB), Channel 16/14 VHF. Controls movements and berthing, broadcasting navigation warnings and weather forecasts.

TUGS: Required, on basis of overall length, for Northern reaches and bridges, details available from Khor Dubai Radio and Agents.

BERTHING:

Khor Dubai: 2,300 m. of unnumbered berthing exists on the West Bank of the Khor and 3,300 m. on the East Bank. Depth between 3.0 m. and 5.5 m. Details from "Khor Dubai" Radio. Whereabouts of vessel to be reported on berthing.

Hamriya Port: Main Breakwater Light 25° 18' N., 55° 20' E.

Flag: UAE and Dubai.

Documents: The following should be airmailed to Agent prior to ship's arrival.

2 Dangerous Cargo Lists.
2 Stowage Plans.
2 Hatch Lists.
2 Freight Manifests.
7 Cargo Manifests.
1 Copy of Bill of Lading.
4 Crew Lists required (on arrival).

Approaches: Approach channel and entrance dredged to 6.0 m. Breakwaters are lit.

Pilotage: No organised Pilot Service, but Pilots can be arranged by Agents.

Restrictions: Vessels will not be allowed to remain alongside the quay when not working cargo if other vessels are waiting.

Draft at Berths: There are no berth numbers. However, there are 3 quays. One measuring 450 m. in length with a draft of 4.5 m., 1 – 160 m. and 1 – 900 m., the last 2 with draft of 6 m.

Tugs: Required on basis overall length as instructed by "Khor Dubai" Radio and arranged by Agents.

Radio: "Khor Dubai" Radio (VHF MF/SSB) near Khor mouth, the station controls movements, etc. in Mina Hamriya. 24 hours watch on 2182 kHz. and Channels 16 and 14. Navigation Warnings, weather forecasts, etc. are also broadcast.

The Port Signal Station (call sign: "Khor Dubai") equipped with VHF and M/F SSB is situated near the entry to Dubai Creek. Vessels should contact the station by VHF Channel 16 or 12 or on RT 2182 kHz. Signal station is manned 24 hours.

Pratique: Not applicable.

Berthing: Berthing is reported to Khor Dubai Report Station.

Fresh Water: Presently available at one point only. The supply is mad by Port & Customs Office and vessels may directly order the requirement or through Agents.

Fuel: E.G.P.C. supply fuel at bunker point opposite entrance.

Cargo Handling: Port is not involved in the cargo discharge operation

There is no equipment available in the port such as cranes, forkli etc. and if required, to be arranged by Agent.

Neither shed nor yard is available and therefore cargo is accepted o direct delivery basis only.

Stevedores: No stevedoring company in port, labour arranged by Agen

Telephones: No connections at the quays. However, there ar telephones in the adjacent Customs Office.

Lighterage: Available.

Shore Pass: After berthing, all Passports and Seaman's Books shoul be surrendered to the Customs Office situated in the port area wi 3 copies of Crew List against which shore passes issued. Before sailin of the vessel, a clearance should be obtained from the Port & Custom Office (Launch Section) and produced to the Customs Office for releasin the Seaman's Books/Passports.

Lay-By/Laying-Up Berth: 16 bollards available on Lee Breakwater fo Mediterranean Moor of Lay-by/Lay-up vessels.

Port Authority: Department of Ports & Customs, Government of Duba

DISCHARGE TURN: Priority of discharge given to ships carrying ma and/or passengers for Dubai. Ships carrying less than 100 weight o measurement tons have priority and are supplied with one barge fo discharge of cargo immediately on arrival, whether turn is in force o not. Should there be congestion, Agents require Stowage Plan showin clearly that all Dubai cargo is freely available and Master's signature o a request for discharge turn. Based on this, vessels will be registere for turn. Registration can only be performed during office hours.

After confirmed registration, at which will be given a deadline for tur ships may proceed to other ports for discharge, but must return Duba prior time and date given, otherwise turn is lost. Particular cargoes fo H.H. The Ruler have priority, This should be evidenced by Manifes which will be produced to Customs Authorities in Dubai for approva The cargoes must be accessible for immediate discharge, which shou be verified by stowage plan.

STEVEDORES: Loading/Discharging Rates: Stevedores, tally clerk supervisors, etc., will be supplied from shore at the same time as shi are supplied with barges. These people working under vesse supervision and responsibility.

First Shift: from 0800 hrs. to 1800 hrs. Second shift: from 1800 hr to 2400 hrs. Third Shift: from 0000 hrs. to 0800 hrs. Very difficult to g stevedores to work third shift unless ship will complete within reasonable time into the third shift. First 2 shifts always worked.

Drinking water must be supplied by ship free of charge to all men fro shore but food only to supervisors, tally clerks, watchmen and foreme

Expected outturn working three hooks:

Bagged cargo	400 – 500 tons
Cased cargo	150 – 200 tons
Timber on deck	300 – 350 tons
Timber in hatches	200 – 250 tons

Usually 5 ships can work at one time.

MEDICAL: Qualified doctors available ashore and also a hospital. Mo medicines available at fairly low prices. Dentist also available. Walki cases should be brought ashore *in the morning* for treatment, but emergency, a doctor will board the ship.

TANKERS: See "Port Rashid".

FRESH WATER: Supplied at the Bunker Berth, otherwise supply is b road tanker.

FUEL: 3 small vessel bunker berths by Al Shindaga Fish mark otherwise refuelling carried out by road tanker.

FIRE FIGHTING: No facilities available at anchorage.

CONSULS:

Egypt
Great Britain
India
Iran
Italy
Kuwait
Netherlands
Norway
Pakistan
Qatar
Saudi Arabia
Sweden
Switzerland
U.S.A.

Additional Embassies/Consulates in Abu Dhabi.

REPAIRS: Fully equipped engineering workshops, radar and ra technicians capable of carrying out extensive repairs availa Underwater cleaning, repairs and other works connected with this a available. See also Dubai Dry Dock under "Port Rashid".

DRY DOCK: Two ship-lifts of 450 tons and 2,850 tons (Nomina respectively, plus adjacent berthing, side travellers, etc., are installe Al Jadaf in Khor Dubai Lagoon on the North West Bank. Over five s and engine repair companies have workshops in this compound. *Br transits* through opening span regulated by time and tide, are arran with Police/Ship Docking Yard by Agents.

SURVEYORS: Lloyd's.

CUSTOMS ALLOWANCES: *Tobacco:* 1,000 cigarettes or 200 ciga 1 kilo of tobacco. *Perfumes:* 1 litre of toilet water (Eau de Cologne not more than 150 grams of perfume. *Currency:* Unlimited.

REPATRIATION: Visa is required for non-UAE citizens visiting D for a period exceeding 7 days. Agent can assist provided com Passport details given well in advance. Excepted are British Sub with right of abode in the U.K. who are permitted to remain in U without visas for a period of 1 month. For temporary visitors of d nationalities the Agent can arrange under its sponsorship transi valid for 7 days provided the person holds a ticket showing a conf flight out of U.A.E. However, person must leave U.A.E. via airport th which he entered.

When advise arrival flight details also advise Seaman's Book nu and nationality.

Seven days' transit visa:

From 1st February, 1985 a new form will be used by the Immigration Authorities in Dubai for persons entering Dubai on Transit Visa.

As the form has to be typed out in both English and Arabic it is essential that full details of arriving persons are in hand at least 48 hours prior to arrival.

The information required is as follows:

1. I, the undersigned wish to sponsor the undermentioned who wishes to enter the country for ....
2. Name of the sponsored................Father's Name ....
3. Nationality ....Passport No........................
Category: Normal/Diplomatic Service.
4. Place and Date of Issue.................Expiry Date ....
5. Place and Date of Birth..................Profession ....

AIRPORT: Regular international scheduled flights. Also domestic flights within Gulf area.

TIME: GMT plus 4 hours.

HOLIDAYS: 1st January; 10th February; 23rd June*; 6th August*; 25th August*; End of Ramadan 3 – 5 days holidays, End August. 1st November*; 21st November*; 2nd December; 25th December.

*Not fixed.

SHORE LEAVE: Officers and crew may come ashore during daylight hours for shopping and recreation. They shall then carry a valid Passport, ID-card or Seaman Book, which will be placed at the Immigration Office when landing. The Passport, ID-card or Seaman Book will be returned upon returning to ship. No alcoholic beverages allowed to be brought ashore.

LAUNDRY: Available but about 2 – 3 days required.

PROVISIONS: Fresh vegetables, frozen stuff, bonded stores, etc., available. Requirements should be given immediately on arrival. (The liquor and beer prices are high.).

GENERAL: Dunnage – not available. Heavy lifts – not available at anchorage. Shore cranes have lifting capacity up to 30 tons.

Weather: Summer months in the 40's Centigrade and humid. Winter months in the 20's Centigrade and dry.

Alcoholic Beverages: Allowed to be stored and consumed on board also in port, while sale of this and pornographic materials is strictly forbidden.

Accommodation: Construction of many hotels completed and rooms in all price ranges are now readily available in Dubai on both the Deira and Dubai side.

Business Office Hours: Normally 0800 to 1300 hrs. 1600 to 1800 hrs. Government offices: 0800 – 1200 hrs. Banks: 0800 – 1200 hrs.

Ship Spares in Transit: Agents in Dubai advise that spares arriving in Dubai even with valid invoice, certificates of origin and packing lists attached are now opened by the Dubai Airport Customs. All Owners and operators are thus warned not to include any items which are banned in boxes containing spare parts as if detected they will be confiscated.

Further to the above, Agents give below a list of prohibited articles:

(a) All pornographic literature, videos, films, pictures.
(b) Alcohol.
(c) Narcotic drugs.
(d) Wireless transmitters.
(e) Firearms and ammunition.
(f) Products of Israeli – blacklisted manufacturers.
(g) Exposed cinematographic (movie) films.
(h) Political and religious literature.

– need prior approval from the Ministry of Information. The Customs are particularly sensitive about video tapes and when found in luggage they are subject to check. The checking is taking time and passengers are kept waiting sometimes for hours. To avoid trouble and irritation strongly recommend that crew arriving Dubai should be advised by principals not to carry any video tapes.

AUTHORITY: Government of Dubai, Department of Ports and Customs, Marine Adviser's Office, P.O.Box 2001, Dubai, United Arab Emirates. *Tel:* 457772. *Telex:* 49787 Khord Em. *FAX:* 00971-4-450810. *Contact:* Captain W. Nelson, Marine Adviser.

AGENT: Gulf Agency Company (Dubai) L.L.C., P.O.B. 2404, Dubai, U.A.E. Tel: 457555 (24 hours service). After office hours 384541, 489212. Telex: 45448, 45809 "Gacdb Em". Cables: "Confidence" Dubai. Fax: 457202, 450644. Radio: Marine VHF radio, stand-by on Channels 16 and 23 and SSB 2182 kHz. Call sing "Confidence Dubai".

Operators of ships' supply service and shipping agency: Crew changes, mail, spares and/or delivery of provisions, fresh water and lube oil, as well as arranging of bunkers and Ship-to-Ship transfers.

Owners, Operators and Masters are welcome to contact G.A.C. Dubai by cable or telex regarding requirements and for coordination of rendezvous positions off Dubai, Fujairah, Khor Fakkan and Mina Saqr (Ras Al Khaimah).

FATEH TERMINAL (offshore Dubai): 25.35 N. 54.25 E. (See Plan)

Oil Loading Terminal of the Dubai Petroleum Company (DPC).

Note: All tankers loading Fateh Terminal cleared by Dubai Petroleum Company, taking care of all necessary documentation concerning cargo. DPC does not charge owners/operators for this service (at the present time). However, for all other agency services DPC refers owners/operators to regular shipping Agents in Dubai.

According present oil company regulations vessels not allowed receive any deliveries or any launch alongside while loading at Terminal. Deliveries of mail, spare parts and performance of crew changes will, therefore, take place at Terminal anchorage, Dubai anchorage, or at a rendezvous point.

Weather permitting, Fateh Terminal operates 24 hours a day, 7 days a week. Weather permitting, and providing berth available, tankers arriving within their laydays will normally be berthed on arrival.

LOCATION: Fateh Terminal consists of the crude oil production and export facilities of the Fateh, S.W. Fateh, Falah and Rashid Fields. The terminal limits are bounded by the following co-ordinates:

(i)	Lat. 25° 38' 00" N.	Long. 54° 05' 16" E.
(ii)	Lat. 25° 40' 00" N.	Long. 54° 30' 00" E.
(iii)	Lat. 25° 15' 00" N.	Long. 54° 30' 00" E.

Within this area the anchoring of vessels is prohibited and the Terminal Safety Regulations have effect.

DOCUMENTATION: *Documentation and Ship's Agency:* In the normal course of events, DPC acts as tanker Agent and prepares all crude oil loading documents. For these services no charge is made.

Early Departure Procedure: At the Master's discretion. In order to expedite turn-round of vessels in this port and avoid undue delays caused by weather or other circumstances, Masters of vessels on arrival are requested to sign blank cargo documents.

Normally, completed cargo documents required by the Master will be placed on board prior to sailing. If this is not possible without incurring undue delays, the relevant documents will be airmailed to the Master to await the vessel's arrival at her discharge port.

The official cargo, i.e. quantity loaded, will be transmitted by radio whilst unmooring. In the event of a dispute, the receipt of a Letter of Protest will be acknowledged by the Mooring Master. Any protests by the Master concerning the quality of cargo should be made before departure and any resulting investigation should be made before the vessel sails.

Outward Clearance: A tanker will be considered clear to depart Fateh Terminal when the crude oil loading documents have been delivered to the Master, or in the case of early departure, clearance will be given through the Mooring Master.

Mail: Official ship's mail and crew's personal mail will be handled and shipowners debited accordingly.

PILOTAGE: Pilotage is compulsory within the Terminal limits. Vessels to be moored at Fateh Terminal will be boarded by a DPC Mooring Master in the Anchorage Area. The Mooring Master will advise the ship's Master on approaches to the SPM, mooring and unmooring, connecting and disconnecting hoses and all other operations within the Terminal area including all manoeuvring of the vessel. The Master or one of his qualified deck officers must be on the bridge at all times while the tanker is being manoeuvred.

The services of a Mooring Master are provided without charge, upon the express understanding and condition that when any Mooring Master furnished by DPC goes aboard a vessel for the purpose of assisting such a vessel, he becomes for such purposes the servant of the owners of the vessel and DPC shall not be liable for any damage or injury resulting from the advice or assistance given or made by such Mooring Master while aboard or in the vicinity of the assisted vessel.

NAVIGATIONAL AIDS: All platforms, structures, SPMs and floating storage vessels are fitted with a white light Fl. "U" ev. 30 secs. vis. 5 miles and horn every 30 secs. sounding "U" in Morse.

Numerous working lights are also fitted on platforms, etc.

Six flares in position:

(1)	Lat. 25° 35' 50" N.	Long. 54° 25' 50" E.
(2)	Lat. 25° 35' 56" N.	Long. 54° 25' 20" E.
(3)	Lat. 25° 35' 48" N.	Long. 54° 25' 18" E.
(4)	Lat. 25° 29' 44" N.	Long. 54° 18' 29" E.
(5)	Lat. 25° 33' 30" N.	Long. 54° 11' 30" E.
(6)	Lat. 25° 21' 00" N.	Long. 54° 29' 00" E.

The flares give an orange light which may be visible from the Terminal, depending on atmospheric conditions, in addition the flare structures show a white light flashing "U" in Morse every 30 seconds visible for 5 miles.

Numerous small unlit buoys for the use of working craft may be encountered within the Terminal area.

APPROACHES: On approaching Terminal, Masters of incoming tankers should head for Anchorage Area (See "Anchorage") where, under normal conditions, their vessel will be boarded by a DPC Mooring Master.

ANCHORAGE: An area immediately East of Terminal Limits is designated as the Anchorage Area, centred on position as follows:

Lat. 25° 36' N. Long. 54° 31' E.

This co-ordinate represents the centre of a circle with a radius of approximately 1 mile which must be used by vessels requiring to wait at anchor. Anchoring within the Terminal limits is strictly prohibited. For reference purposes, the anchorage area bearing from Dubai Trade Centre Light is 298° true, distance 47.8 miles and from Jazirat Sirri Light 185.5° true, distance 18.2 miles.

If a tanker is not scheduled to berth on arrival (e.g. another vessel is in the berth, or the port is closed on account of adverse weather conditions, etc.) Masters will be advised by radio and requested to anchor.

FACILITIES: For the export of crude oil 2 single point moorings have been installed in positions:

SPM No. 1 Lat. 25° 34' 36" N. Long. 54° 28' 18" E.
Bearing 242° true 2.83 miles from anchorage.
Depth of water 150 ft.
The berth is normally restricted to vessels of less than 300,000 tonnes deadweight, but more than 70,000 tonnes deadweight.

SPM No. 2 Lat. 25° 35' 12.6" N. Long. 54° 24' 36.6" E.
Bearing 262° true, 5.85 miles from anchorage.
Depth of water 150 ft.
Berthing normally restricted to tankers of between 50,000 tonnes and 300,000 tonnes deadweight.

Also see "Max. Size".

READINESS: After arrival at the Anchorage Area and when the tanker is ready in every respect to load, the Master may tender his Notice of Readiness.

Notices of Readiness will be accepted provided one or other of the following events shall have transpired:

(a) The Master shall have received the Mooring Master on board or;
(b) The Master shall have dropped the anchor in the Anchorage Area.
(c) The tanker is arriving within her accepted laydays.

Port Closed: Notices of Readiness will not be accepted during periods when the port is closed. The port is "closed" when the weather is such that it is too rough for incoming tankers to berth. The decision regarding the opening and closing of the port will rest with the Fateh Terminal Superintendent or his Deputy.

Order of Berthing: Vessels will normally berth in order of arrival.

MAX. SIZE: Vessel size not to be less than 50,000 d.w.t. or more than 300,000 d.w.t. With prior terminal approval, vessels of up to 350,000 d.w.t.* may be accepted between the months of May and October.

* D.w.t. refers to conventional tonnage. Double hulled tankers and other vessels with reassigned Load Lines to incorporate Segregated Ballast Tanks (SBT) will only be accepted if their overall dimensions do not exceed those of similar sized conventional tankers.

RADIO: *Communications with DPC:* Cable Address: Dupetco, Dubai. Telex: 45557 or 45423 DPC EM. Fax: (9714) 4062200.

Initial Communication: Initial communication between ships and DPC should be via Bahrain Radio (cali sign "A9M") which operates on a 24 hour basis.

Communications Within 60 miles of Terminal: Once ships are within about 60 miles of Fateh Terminal communication may be established by radio telephone on International Marine VHF Channel 16 (156.8 MHz). This frequency is monitored continuously. Once contact has been made on Channel 16, further conversation should be conducted on Channel 12.

Communications after DPC Mooring Master has Boarded: A DPC Mooring Master will board incoming tankers in the anchorage area and will bring with him portable UHF radio telephone units. From that time onwards all communications between ship and platform will be conducted by the Mooring Master via the portable UHF units, unless owing to failure of portables it is necessary to revert to mains VHF Channels.

Advice of Tanker Arrivals:

Initial Estimated Time of Arrival (ETA): When a tanker bound for Fateh Terminal is within 72 hours of arrival at Fateh Terminal, the Master should notify DPC by cable via Bahrain Radio giving the following information:

(i) Name of tanker.
(ii) ETA in GMT (Dubai time is GMT plus 4 throughout the year).
(iii) Quantity of cargo required.
(iv) Maximum loading rate.
(v) Deballasting time (if any).
(vi) Size of hose connections.
(vii) If vessel proceeding to any port(s) prior to Fateh, and if so, any delays anticipated.
(viii) If vessel is fitted with an OCIMF approved SPM/Mooring chain stopper.
(ix) Sailing draft and displacement.
(x) What helicopter landing facilities available.
(xi) Inert gas system status.

Subsequent ETAs: Sections *(a)* and *(b)* of the above message should be repeated via Bahrain Radio when the tanker is within 24 hours and again when within 12 hours of arrival at the Fateh Terminal.

Unreasonably insufficient or inaccurate ETA messages may alter the order of berthing of ships to the disadvantage of those ships giving sufficient and accurate ETA messages.

Radio Telephone Communication when Approaching Fateh Terminal: When about 60 miles off the Terminal contact may be made by radio telephone on International Marine VHF Channel 16, and communications should continue via this method until a DPC Mooring Master boards.

MOORING: *Preparation for Mooring:* Vessels are requested to have pilot ladder, hoist and/or accommodation ladder safely and securely rigged for immediate use and long enough to meet the Mooring Master's launch. Vessels will provide a lee for the Mooring Master on the port side both when boarding and leaving.

For vessels with a freeboard of 40 ft. or more, the accommodation ladder shall be rigged and lowered down so the platform is not more than 10 ft. from the water and a short pilot ladder rigged to facilitate access to the platform.

Tankers are requested to have ready on the forecastle head the following:

(a) 2 towing ropes, polypropylene or other man-made fibre.
(b) 2 messenger ropes, minimum lengths of 300 ft.
(c) Selection of shackles, wirestrops and tools.

When the approach to the terminal commences, the berthing tug will be available to assist in berthing. The method and position in which the tug will be utilised will be dependent upon the weather and tidal conditions prevailing. At this time, the mooring launch will prepare the mooring and standby at the SPM.

Approach to the SPMs necessarily involves passing, in close proximity, various platforms and other structures. It is therefore imperative that all measures are taken to ensure that there is no loss of power or steering during these manoeuvres.

The mooring launch will be situated about 600 ft. from the SPM with a 10 in. circumference polypropylene pick-up rope secured to the main mooring, which consists of 2×18 in. circumference nylon ropes, connected to a standard O.C.I.M.F. chafing chain and a 40 ft.×3.5 in. circumference pick-up wire rope.

During the approach of the tanker towards the SPM, ship's crew, with the advice of the Mooring Master's Assistant (MMA) will prepare the forecastle for the mooring operation. This will include passing a messenger rope through the centre bow fairlead (or other fairlead designated by the MMA) taking the end to the after port corner of the forecastle and, from this point, lowering the end to the waters edge. The mooring attachment will also be prepared, and will be, in order of preference:

(a) Bow stopper (AKD).
(b) Towing bracket or futtoch (Smit).

Vessels which, in the Mooring Master's opinion, do not have a suitab method of attaching the mooring, will be refused permission to bert Should bitts have to be utilised, or should the towing bracket be locate at a substantial distance from the fairlead, wire snotters of 2 in. diamete and various lengths are available from the berthing tug.

Upon the close approach of the tankers bow, the mooring launch wi manoeuvre alongside the port shoulder and attach the mooring pick-u rope to the ship's messenger line. The tanker will then heave up th messenger and pick-up rope, carefully picking up the slack as the tanke approaches the SPM. The mooring launch will now be stationed at th end of the floating hose string in order to tow the hoses clear of th ship's side should this become necessary.

The pick-up rope should be continually hove in as the tanker nea the SPM. The distance between the bow and the SPM will b continuously relayed to the Mooring Master on the bridge by the MMA from the forecastle and by the berthing tug. When the pick-up wire ha been brought inboard through the fairlead, it may be necessary to adjus the direction of pull and assist the chain through the fairlead. Actio required by the tanker's crew in this respect will be advised by th Mooring Masters Assistant.

When the chain is inboard, depending upon the method of attachme available, the connection will be made. It should be noted that should a Smit Bracket or bitts be utilised, the first triangular plate on the chai must only be connected on tankers of less than 100,000 d.w.t. and o vessels of greater size, the chain must be hove in and the connectio made on the second, larger, triangular plate.

After the connection to the mooring is made, it may be necessary t run the engines astern to ensure the tanker does not contact the SPM The Mooring Master will then advise "Finished with Engines", but at n time during the tankers stay in port shall the engines be immobilised.

Shortly after the mooring operation is completed, the berthing tug wi be secured from the stern of the tanker on a long ships rope polypropylene if possible.

LOADING: *Lifting Hoses:*

SPM 1: Two 16 in. diameter hoses will be lifted by ship's gear on th port side. Each lift is 9 tons.

SPM 2: Two 16 in. diameter hoses will be lifted by ship's gear on th port side. Each lift will be 9 tons.

The hoses shall be hoisted and connected by ship's crew. The Moorin Master will advise the ship's officer in charge concerning liftin techniques.

Sundry Hose Connecting Equipment: Tankers shall be equipped wi the necessary blocks, tackle, wrenches, gaskets, bolts, nuts, etc., t efficiently effect the hose connection.

Flange Sizes: 16 in. – 12 in. reducers will come on board the tanke with the mooring gear thus enabling tankers with either 16 in. or 12 i ASA 150 lb. flanges to connect directly to the Terminal hoses. Flang size 16 in. – 12 in., 16 in. – 10 in. reducers with ASA 150 lb. flange are available if required to enable tankers with 12 in. – 10 in. manifo connections to connect to the Terminal hoses.

Communications During Loading: (See "Radio"). All communicatio relative to the loading of the vessel shall be routed through the Moorin Master who will remain in contact with the Production Platform constant via portable UHF units. In case of temporary breakdown of the portab UHF circuit, contact may be continued on International Marine Channe 16 or 12 if the vessel is so fitted.

Failure of Communications: Should communication with the Productio Platform fail, loading will cease.

Emergency Shut-Down: An emergency cessation of loading may b effected by the ship's VHF Channel 16.

Cargo: Oil loaded at Fateh is Dubai Stabilised Crude with an averag API of 31.7. Loading temperature varies between 90°F in the Winter 105°F in the Summer months. The oil is relatively free of sediment a low in wax and asphaltenes.

Loading Rate: At SPM No. 1 the maximum loading rate is 60,0 bbls.p.h. At SPM No. 2 the maximum loading rate is 70,000 bbls.p.h

Terminal equipment dictates a minimum loading rate of 40,000 b.p through 2×16 in. hoses. Vessels which cannot accept this loading ra or 2 hoses will be rejected.

BALLAST: *Precautions Regarding Pollution:* It is the responsibility the ship's Master to see that no crude (or bunkers', diesel or bilge) or dirty ballast is pumped or spilled overboard from his ship whilst in t area. Drip pans should be used, especially when disconnecting hos in order to prevent spillage overboard.

Scuppers to be Plugged: Before loading commences, all overs scuppers shall be made oil-tight.

No facilities for Receiving Dirty Ballast: At Fateh Terminal there are slop tanks or facilities for receiving dirty ballast. Tankers must arrive w clean ballast. In the event a tanker does have dirty ballast it will not allowed to be pumped overboard. The dirty ballast will be collected i one tank, measured and left aboard.

Terminal Regulations require that tankers remain seaworthy a manoeuvrable throughout their stay in port. To comply with t requirement, the propellor must remain fully immersed, and a stern-t in excess of 1.5% of the tanker's length must never be allowed develop.

Discharging Ballast at Night: During the discharge of ballast in darkne the sea shall be adequately lighted in the area of discharge.

MEDICAL: At Fateh Terminal medical and dental services are available. In emergencies requiring hospitalisation, the patient wi taken by boat from the tanker to the Production Platform, hoisted to upper deck of the platform and flown by helicopter to Dubai. shipowner will be charged for all expenses incurred.

DENSITY: 1030.

FUEL: Bunker supply not available at Fateh.

Fuel oil (IFO 180 cSt) can be arranged at Jebel Ali. Gas oil can be arranged.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None, offshore terminal.

CURRENCY: U.A.E. Dirhams (Drhs).

GENERAL: The following are not available at Fateh Terminal: Fresh water, stores, boats for hire; repair facilities; facilities for changing ship's crew.

There is no shore leave.

Charts: Charts covering the approach to and the area of Fateh Marine Terminal are:

British Admiralty Nos. 2837, 2887, 2888, 2889.
U.S. Hydrographic Office No. 3647.

AUTHORITY: Dubai Petroleum Company, P.O.Box 2222, Dubai, U.A.E. *Tel:* Dubai 442990. *Telex:* 45423 or 45557 Dpc EM. *Cables:* Dupetco, Dubai. *FAX:* 4062200. *Contact:* Captain F. Maclennan, Marine Superintendent. Captain J.A. Petty, Mooring Master.

AGENT: Gulf Agency Co. (Dubai) L.L.C., P.O.B. 2404, Dubai, U.A.E. Cables: "Confidence", Dubai. Tel: 457555 (24 hours service). After hours 489212. Telex: 45448, 45809 (Gacdb Em). Radio: Marine VHF radio, stand-by on Channels 16 and 23 and SSB 2182 kHz. Call sign "Confidence Dubai". Fax: 457202, 450644.

Operators of ships' supply service and shipping agency; crew changes, mail, spares and/or delivery of provisions, fresh water and lube oil as well as arranging of bunkers and Ship-to-Ship transfers.

Owners, Operators and Masters are welcome to contact GAC Dubai by cable or telex regarding requirements and for coordination of rendezvous positions off Dubai, Khor Fakkan, Fujairah and Mina Saqr (Ras Al Khaimah).

FUJAIRAH: 25.10 N. 56.21 E. (See Plan)

LOCATION: Lat. 25° 10.5' N., 56° 21' E., 3 km. North of Fujairah town and 20 km. South of Khor Fakkan.

PORT LIMITS: Within area bounded by a line drawn:–

Lat. 25° 09' 35" N., Long. 56° 21' 00" E. due North to Lat. 25° 10' 05" N., 56° 21' 00" E., thence due West for 65 m. to the West side of the old road and following the West side of the old road to Lat. 25° 11' 30" N., thence due East to Lat. 25° 11' 30" N., Long. 56° 22' 30" E., thence South to Lat. 25° 09' 00" N., Long. 56° 22' 30" E., thence due West to Lat. 25° 09' 00" N., Long. 56° 21' 30" E., thence due West to Lat. 25° 09' 00" N., Long. 56° 21' 00" E. and include all waters, land and installations contained within that area.

DOCUMENTS: The provisional requirements are:–

Immigration:	Crew List	3 copies
	Passenger List	3 copies
Customs:	Crew List	2 copies
	Passenger List	2 copies
	Cargo Manifests	2 copies
	Alcoholic Beverages/ Bonded Stores List	2 copies
Port Operations:	Cargo Manifests	2 copies
	Stow Plan/Hatch List	2 copies
	Dangerous Cargo List	2 copies
	Transhipment Cargo	2 copies
	Heavy Lift List	2 copies
	Ro/Ro Discharge List	2 copies
For Inspection:	Last Port Clearance, Ship's Log.	
Certificates:	Safety Equipment, Construction, Load Line, Radio, Oil Record Book.	

All documents relating to cargo should be forwarded prior to vessels' arrival.

Also see "Notices".

PILOTAGE: Compulsory, except for 'Country Craft' and M.E.N.A.S. tender.

Notice of ETA and request for a Pilot must be made not less than 24 hours before ETA at Fairway Buoy via vessels' Agents. Pilot launch will keep listening watch on VHF Channel 16, 2 hours prior to ETA. Pilots work on VHF Channel 12.

The Pilot boarding point is 0.5 miles E.N.E. of the Fairway Buoy. Pilot boarding arrangements must be according to IMO Rules. Vessels awaiting inbound berth space within Fujairah must anchor East of Long. 56° 25' E. approx. 3 miles offshore. There is good holding ground in 40 m. to 59 m. of water.

ANCHORAGE:

Notice to Mariners No. 42 – Amendment to Fujairah Offshore Anchorage Area:

The Fujairah Ports Authority has made amendments to the geographical co-ordinates of Fujairah Offshore Anchorage due to reasons given below:

(1) Directive has been received from the U.A.E. Coast Guard, which advise us to prohibit vessels anchoring within the Coastal Clear Zone that extends 4 nautical miles seawards from the shore line.

(2) To reduce congestion experienced currently at the 'B' Anchorage area and problems of manoeuvring reported by the Shipmasters, particularly of VLCC and ULCC vessels.

Listed below are the revised geographical co-ordinates of the anchorage area, designated for vessels to anchor according to their nature of calls.

(1) "A" Anchorage: For vessels awaiting orders or long term expected stay. There will be a minimum manning scale for these vessels: 1 qualified Master, 1 experienced Deck Officer, 1 qualified Engineer, 1 Motorman, 2 A.B's and 1 Cook.

Total (13) anchorages.

Co-ordinates:	Lat. 25° 18' N.,	Long. 56° 26' E.
	Lat. 25° 14.5' N.,	Long. 56° 26' E.
	Lat. 25° 14.5' N.,	Long. 56° 27.5' E.
	Lat. 25° 15' N.,	Long. 56° 27.5' E.
	Lat. 25° 15' N.,	Long. 56° 28' E.
	Lat. 25° 18' N.,	Long. 56° 28' E.

(2) "B" Anchorage: For vessels that require bunkering services and S.T.S. operations.

Total (30) anchorages.

Co-ordinates:	Lat. 25° 15' N.,	Long. 56° 27.5' E.
	Lat. 25° 10.5' N.,	Long. 56° 27.5' E.
	Lat. 25° 15' N.,	Long. 56° 32' E.
	Lat. 25° 10.5' N.,	Long. 56° 32' E.

(3) "C" Anchorage: For vessels that require offshore services such as crew changes, stores, water, underwater hull clearing, etc.

Total (13) anchorages.

Co-ordinates:	Lat. 25° 14.5' N.,	Long. 56° 25.5' E.
	Lat. 25° 10.5' N.,	Long. 56° 25.5' E.
	Lat. 25° 14.5' N.,	Long. 56° 27.5' E.
	Lat. 25° 10.5' N.,	Long. 56° 27.5' E.

(4) "D" Anchorage: For vessels carrying hazardous cargoes and explosives.

Total (6) anchorages.

Co-ordinates:	Lat. 25° 18' N.,	Long. 56° 28.5' E.
	Lat. 25° 15.5' N.,	Long. 56° 28.5' E.
	Lat. 25° 15.5' N.,	Long. 56° 30.5' E.
	Lat. 25° 18' N.,	Long. 56° 30.5' E.

(5) "W" Anchorage: For vessels waiting for inbound berth space within Fujairah Port.

Total (6) anchorages.

Co-ordinates:	Lat. 25° 10.5' N.,	Long. 56° 23.5' E.
	Lat. 25° 09.5' N.,	Long. 56° 23.5' E.
	Lat. 25° 09.5' N.,	Long. 56° 26.5' E.
	Lat. 25° 10.5' N.,	Long. 56° 26.5' E.

Vessels arriving to anchor will be allocated their respective anchorage area, and geographical position plus bearing and distance from the North Breakwater Light.

Vessels arriving at the anchorage must have to inform, by VHF, the Fujairah Port Control, 2 hours before their arrival and provide following information: Vessel name, vessel type, vessel condition, anchorage position and time, vessel agency, nature of call, last port, next port and ETD. Also, when sailing from the anchorage area, the vessel has to report the departure time and destination.

Harbour Master's Notice to Mariners No. 43, dated 26th April 1995.

"Please note that the following should be considered as an addendum to our Notice to Mariners No. 42, dated 14th April 1993 (See "above").

1. All LPG/LNG carriers calling at Fujairah offshore anchorage area, whether in loaded or ballast condition, must use 'D' Anchorage Area for required offshore services that include bunkering, de-slopping, etc.
2. We strictly prohibit rendezvous-ing between steaming vessels or between steaming vessels and service boats at Fujairah offshore anchorage area.
3. Movements of vessels in double banking position (side-by-side) are prohibited at Fujairah offshore anchorage area.
4. Every vessel approaching Fujairah offshore anchorage area shall, at all times, be liable to maintain proper actions and apply rules of the "International Regulations for Preventing Collisions at Sea" for averting the risk of collision.
5. Permission to anchor must be obtained from the Port Control Tower prior to anchoring at Fujairah offshore anchorage areas."

Agent's Comment: The Port of Fujairah Authority is endeavouring to improve control of offshore traffic.

In an effort to accomplish this, the port's intention is to introduce a safe passing distance between vessels anchored in the designated areas and vessels on passage (B.A. Chart No. 3521).

Vessels underway and not intending to anchor should, therefore, maintain a minimum safe passing distance of 10 nautical miles from Fujairah Port Breakwater, which will ensure a 1 mile separation from the seaward limit of 'B' Anchorage.

GAC's offshore supply service rendezvous for running vessels will now be located at a position 10 nautical miles East of Fujairah Port Breakwater, in position Lat. 25° 10.5' N., Long. 56° 33.5' E.

Vessels at anchor and vessels in transit will thereby benefit, since it will be unnecessary for moving vessels to pass through the busy designated anchorage areas.

The Port Authority does not require vessels in transit, using ships' supply services, to report arrivals/departures, but they must be outside Fujairah offshore anchorage area.

Vessels requiring Port Authority certification recording arrival/ departure dates and times must, however, anchor in the area designated by the Port Controller and should report ETA, as per Notice to Mariners No. 42.

"Lay-up at Fujairah Offshore Anchorage Area: Please be advised that scrap vessels, VLCCs and ULCCs will not be allowed to be laid up at Fujairah Offshore Anchorage Area".

Also see "Notices".

RESTRICTIONS: *Draft Restrictions – Main Quay:*

1. Vessels with a draft of less than 11.5 m. can be moved at any state of the tide.
2. Vessels with a draft of between 11.5 m. and 12.0 m. can only be moved from 2 hours before to 4 hours after predicted HW.
3. Vessels with a draft in excess of 12.0 m. can be moved only at a time agreed by the Harbour Master.

Any variances to the above restrictions will be agreed by the Harbour Master, Port of Fujairah.

MAX. SIZE: Ships up to 280 m. LOA and 12.5 m. draft can be accepted.
HEALTH: Normal quarantine regulations apply. Radio Pratique can be obtained, via the vessel's Agent, providing the Master can state that no serious illness has occurred on board during the preceding 30 days.
RADIO: *Notice of Arrival:* Vessels should advise their ETA, Fujairah, at least 72 hours prior to arrival, giving draft, LOA and details of cargo operations. Agents should re-confirm 24 hours prior to vessels' arrival.
Also see "Health".
VHF: Fujairah Port Authorities, call sign "Fujairah Port Control" equipped with Marine Band VHF Radio Telephone Transceiver maintains continuous watch on Channels 16 and 12.

Vessels should establish radio contact with Fujairah Port Control Station if they intend anchoring in Fujairah Waters or are proceeding to Fujairah Port.

Following Channels are used by the Fujairah Port Authorities:

Station	*Hours of Watch*	*Channel*	*Function*
Fujairah Port Control	24	16	Distress, Safety and
		10	Calling Frequency
Fujairah Port Operations	24	12	Pilot Services
Tugs	24	10 & 12	Berthing/Unberthing
Working Channels	24	9, 10, 11, 12	

Vessels in the Fujairah area are reminded not to use the above Channels except for the purposes specified.
RADAR: Port Control is equipped with radar. The pilot launch is equipped. However, fog is almost unknown though visibility is restricted by dust mainly – July and August.
TUGS: The use of tugs will be compulsory except at discretion of the Harbour Master. 2 tugs of 16 tonnes bollard pull are in operation fitted with foam monitors. A third tug of 31 tonnes bollard pull is also in service.
BERTHING: There are 4 berths on the Main Quay 780 m. long with a least depth of 12.5 m. for 600 m. and 10.6 m. for 180 m. This is a concrete capped and concrete blockwork constructed quay with rubber fendering.

There is a further 290 m. of quay with a least depth of 7 m. suitable for country craft and shallow draft vessels. This is a concrete capped sheet piled quay with continuous timber fendering.

There are 2 jetties for rock and aggregate cargoes.

There is a transit shed with 12,000 sq.m. of floor space with LCL facility.
PORT EQUIPMENT:

Equipment	*No.*	*Capacity*
Quay Cranes	3	40.0 tons
Quay Cranes	3	40.6 tons
R.T.G.	11	40.6 tons
Mobile Cranes	2	25 tons
Toploader	7	35/40 tons
Empty Handlers	3	12 tons
Forklifts	3	5 tons
Forklifts	5	2.5 tons
Ro-Trucks	37	50 tons
Trailers	40	1×45, 1×40 or 2×20 tons
Low Bed/Goose Neck Trailers	18	Different capacities.

Quay Crane Limits:

Maximum SWL:	3×40 tons	3×40.6 tons
Outreach from face of fenders:	2×34.5 m., 2×40 m.	2×40.7 m.
Height from Quay to U/Side of Spreader:	2×26.2 m., 1×29.3 m.	1×30 m.

Reefer Storage: 152 points × 220 volts. 80 points × 440 volts.
Open Storage (container/general cargo): 54,000 sq.m. paved storage area.
STEVEDORES: The port will work on a 24 hour 7 day week basis. Requirements for port labour must be submitted to Operations Department by 1200 hrs. prior to to day required.
MEDICAL: Hospital facilities are available.
FRESH WATER: Good potable water is available and supplied by road tanker or water barge by prior arrangement through agents.
FUEL: Gas oil available ex-jetty. Fuel oil by prior arrangement through local Agent – supplied by bunker barge.
REPAIRS: Routine maintenance of medium engineering type is available. Offshore hull cleaning and repairs available.
SURVEYORS: Classification Societies and Surveyors can be brought from Dubai at short notice.
HATCHES: Rigging ship's gear, opening and closing of hatches, are the responsibility of the vessel.
REPATRIATION: Permissible via Dubai and Sharjah Airports, about 1.5 hours by road. Valid Seaman's Book and Passport required.
AIRPORT: Fujairah International Airport is a few minutes drive from City Centre. Gulf Air operate a flight on Thursday to and from Bahrain.
DRY DOCKS: None.
TIME: GMT plus 4 hours permanent.
SHORE LEAVE: Shore leave is permitted.
HOLIDAYS: 1st day of Id Al Fitr, 1st day of Id Al Adha.
TELEPHONES: This service will be available aboard ships at the quay by prior arrangement through Agents.
SHIP SERVICING: Gulf Agency Co. operate ship servicing along Lat. 25° 10' N. See "Agent" and "Anchorage".

Barwil Shipping Services, Fujairah. Tel: 224800/224801. Telex: 89040.
Fujairah Maritime & Mercantile International, Tel: 228238/228239. Telex: 89017 Gray Fu Em.
Fujairah National Shipping Agency. Tel: 228151. Telex: 89040.
BANKS: Abu Dhabi Commercial Bank. Tel: 223052.
National Bank of Abu Dhabi. Tel: 222633.
National Bank of Fujairah. Tel: 224513.
Bank of Oman. Tel: 222493.
Bank Melli Iran. Tel: 222551.
Bank Saderat Iran. Tel: 222241.
Bank of Baroda. Tel: 222730.
Union National Bank. Tel: 222747.
British Bank of Middle East (BBME). Tel: 222221.
Arab Bank. Tel: 222802.

GARBAGE DISPOSAL: Garbage service is compulsory. Skips a provided alongside at Drhs 50 per collection, which is made upon reque from ship. Arrangements can be made through Port Operations Dep Tel: 09-228800, Extension 220.
WASTE OIL DISPOSAL: Service available from local agents.
SEAMAN'S CLUBS: A duty free shop selling wines, spirits, bee cigarettes, cigars, electrical goods, cameras, luxury goods, gift item and providing refreshments, snacks, darts and pool is available.
CURRENCY: U.A.E. Dirhams (Drhs).
NOTICES: Port Clearance/Anchorage Certificates: Quoted below the circular fax, reference MD/FAX/94/415, issued by the Port of Fujair on 12th December 1994:
"Further to our Fax 94/201, dated 23rd January 1994, on this subje please be advised that, henceforth, submission of Port or Anchora Clearance Certificate, issued from the concerned Authority of t vessel's last port of call, is mandatory for obtaining Anchorage Clearan Certificate from this Authority."

Quoted below is the circular fax, reference MD/FAX/94/403, issu by the Port of Fujairah, on 26th November 1994:
"Fujairah Port Authority regulations of S.T.S. Oil Transfer Operations Fujairah Offshore Anchorage Area 'B' only.

Please be advised of the following requirements which must complied with:

1. *Notice of Arrival:*
1.1 Ships should advise their ETA Fujairah at least 72 hours prior arrival, giving ship's particulars and details of cargo operation and when in range they must contact Fujairah Port Control VHF Channel 16.
1.2 Local Agent of the vessel should reconfirm 24 hours prior tanker's arrival and confirm that all certificates specified Clause 5 must be available for inspection and valid. Agents liaise with the Port of Fujairah for arranging permission for S.T operations to proceed.
2. *Vessel's Condition and Operation:*
2.1 Vessel must be normal for cargo transfer operation and mechanical safety devices should be in full working condition.
2.2 Readiness status consistent with SOLAS/MARPOL and the r of ICS/OCIM (International Chamber of Shipping/Oil Compan International Marine Forum) and "Ship to Ship Transfer Guid (Liquefied gases).
3. *Emergency Plan:*
An emergency plan shall be construed as a plan agreed betwe both ships before the operation commences, allocating spec duties for all ship's personnel in an emergency affecting trans operation that should include "Firefighting System and Oil S Contingency Plan".
4. *Oil Spill Incidents:*
4.1 We would like to draw your attention that the Port of Fujairah do not itself have anti-pollution equipment in the event of a major disastrous oil spill at offshore anchorage area, but limi equipment is available from third parties.
4.2 Following is a list of equipment and chemicals currently availa in the event of a minor oil spill incident:
4.2.1 Oil dispersent (Maxiclean) 1,300 U.S. gallons.
4.2.2 Six units of back pack sprayer (capacity 5 gallons each).
4.2.3 250 bags of 'Sanol' oil spill absorbent (for final recovery).
4.2.4 300 m. of 'Sanol' oil spill absorbent in single boom.
4.2.5 4 speed boats.
4.2.6 3 harbour tugs, total capacity of oil dispersent 7 cu.m.
4.3 In case of any major oil spill incident, the ship's Owner and ship's Agent must arrange anti-pollution equipment. With prejudice, the Port of Fujairah reserves the right to raise consequences against the ship's Owner and Agent. The Ag however, has to provide guarantee for the payment of additio cost, such as air surveillance, pollution cleaning, damage marine environment and the fine.
4.4 In the event of an oil spill or sighting of pollution in the vicinit vessels anchored, it is the duty of the ship's Master to immedia inform the Fujairah Port Control Tower.
5. *Documents:*
The following certificates must be available and valid on bo the vessel before commencing S.T.S. operation.
5.1 Load Line Certificate.
5.2 Cargo Ship Safety Construction Certificate.
5.3 Cargo Ship Safety Equipment Certificate.
5.4 Cargo Ship Safety Radiotelegraph/Radiotelephone Certifica
5.5 Oil Liability Certificate (TOVALOP).
5.6 Oil Liability Certificate (CLC).
5.7 The International Oil Pollution Prevention Certificate (IOPP)
5.8 Register Certificate.
5.9 Classification Certificate.
5.10 Derat Certificate.
6. *Information:*
It is the responsibility of the ship's Agent to furnish the follo information. This information shall be relayed by fax or tel the Marine Department of the Port of Fujairah.
6.1 Geographical Position at Anchorage Area 'B'.
6.2 Date and time of hose connection/disconnection.
6.3 Date and time of commencing cargo transfer operation.
6.4 Date and time of completion of cargo transfer operation.
6.5 Quantity and type of cargo transferred.
6.6 Name of vessels involved.

Please advise ship's Masters that we are looking forward to cooperation for a clean marine environment, free from all kin pollution around Fujairah waters."
Agent's Comment: "The Authority will only issue Port Clearanc Anchorage Certificates to vessels which have physically arrive reported their arrival to the Port Authority. Vessels failing to follow instructions will not be provided with these documents.

Vessels proceeding to bunker rendezvous positions, outside F territorial waters, should first enter Fujairah waters and inform the Port Authority on VHF Channels 8, 9, 10, 12 or 16. "Confidence Fujairah" Channels 25 or 16 should be similarly informed.

A copy of the vessel's clearance from her last port of call will also be required by the Port Authority prior to provision of the subject Certificates/ Clearances."

GENERAL: Derat Exemption Inspectors are available.

Ship Chandlers: Complete chandlering facilities will be available.

SHIPMASTER'S REPORT: March 1985.

Called for bunkers (ex-barge) also crew changes.

Anchorage: Instructed by bunker barge to anchor 3 miles East of breakwater entrance in 25 fathoms of water, good holding ground, 6 shackles of cable used.

Stores: Fresh provisions are available by prior arrangement with Agent.

Repatriation: Any crew joining/leaving are landed by fast launch and then taken by minibus to/from Dubai (about 2 hours drive).

Time: GMT plus 4 hours – permanent.

VHF: Agency (Gulf Agency), Port Control and bunker barge all have VHF, contact initially Channel 16 then shift to working frequency.

AUTHORITY: The Fujairah Ports Authority, P.O.Box 787, Fujairah, U.A.E. *Tel:* Fujairah 228800. *Telex:* 89085 Fport Em. *Fax:* 228811 (Administration), 228555 (Operations), 228022 (Marine). *Contact:* Captain Mousa Morad, General Manager. Captain Tamer Masoud, Harbour Master.

AGENT: Gulf Agency Co. (Fujairah) PVT. W.L.L., P.O.Box 590, Fujairah, U.A.E. Cables: "Confidence", Fujairah. Telex: 89046 ("Gacfuj EM"). Tel: 228300, 228301, 228302 (24 hour service). After hours 229690. Fax: 228269. VHF: Channels 16 and 25.

Operators of ships' supply service and shipping agency: Crew changes, mail, spares and/or delivery of provisions, fresh water and lube oil, as well as arranging of bunkers and Ship-to-Ship transfers.

Owners, Operators and Masters are welcome to contact G.A.C. Dubai by cable or telex regarding requirements and for coordination of rendezvous positions off Dubai, Fujairah, Khor Fakkan and Ras Al Khaimah.

HAMRIYAH, Sharjah: 25.35 N. 55.24 E. (See Plan)

LOCATION: Hamriyah Oil Terminal is located in the Emirate of Sharjah, United Arab Emirates, and consists of a shore tank with related onshore facilities, an offshore loading berth composed primarily of one single point mooring buoy and a 30 in. submarine pipeline which runs from the shore tank to the loading berth. The shore tank is located outside the village of Hamriyah on the coastline between Umm Al Qaiwain and Ajman in approximate position Lat. 25° 29.5' N., Long. 55° 30.7' E. The loading berth is located in 71 ft. of water and is situated in an open and unsheltered roadstead approximately 7.6 miles offshore on a bearing of approximately 308° (T) from the shore tank and in approximate position Lat. 25° 34' 31.68" N., Long. 55° 24' 5.8" E.

Hamriyah Oil Terminal is owned by Amoco Sharjah Oil Company and is operated 24 hours a day, 7 days a week, weather and other circumstances permitting. Vessels are loaded and unmoored at any hour, weather and other circumstances permitting. Vessels are moored during daylight hours only, weather and other circumstances permitting.

Company's Facilities: The Company's administrative offices are located in the town of Sharjah and the Company's terminal offices, storage tank and laboratory for testing stock are located onshore near the village of Hamriyah.

FLAG: Vessels are required to fly the flag of the United Arab Emirates on the foremast during daylight hours while in Sharjah waters. The Sharjah territorial waters extend 12 nautical miles seaward from the Sharjah coastline.

DOCUMENTS: The following documents are required when calling at Hamriyah Oil Terminal:

Health Declaration.
Crew List.

PILOTAGE: *Mooring Masters:* Vessels to be moored at the loading berth will be boarded by 2 Mooring Masters about 3 miles due North of the loading berth in approximate position Lat. 25° 37.5' N., Long. 55° 24.1' E. The Mooring Masters will be provided by the Company and vessels will not be allowed to approach or depart from the loading berth without the Company designated Mooring Masters being on board. The Mooring Masters will advise vessel personnel on the approaches to the loading berth; the operations of mooring and unmooring; the raising, connecting, disconnecting and lowering of the floating cargo hose and in all other operations within the loading berth area. All manoeuvring of vessels within the loading berth area shall be performed by vessel personnel as directed by the vessel's Officer in charge and in accordance with the procedure advised by the Mooring Masters.

Vessels are required to have a clean and efficient pilot ladder fitted with spreaders and manropes, safely and securely rigged, ready for the Mooring Masters to immediately embark and disembark on the port side of the vessel and of sufficient length to reach the Mooring Masters' launch. At night, adequate lighting must be rigged overside for the Mooring Masters to approach or depart from the port side of the vessel and to use the pilot ladder safely. A lifebuoy with safety line and self-igniting light together with a rope messenger for the Mooring Masters' bag shall also be available at the pilot ladder head. Vessels shall afford a "Good Weather Lee" and shall reduce speed as directed by the Mooring Masters in order to effect the safe embarking or disembarking of the Mooring Masters.

Whenever, as in the case of large vessels in light condition, the height of the deck above the water exceeds 30 ft., the accommodation ladder shall also be used in conjunction with the pilot ladder and shall be lowered to about 12 ft. above the water with the pilot ladder rigged immediately adjacent to the bottom platform of the accommodation ladder. A mechanical hoist of an approved pattern shall be considered an acceptable alternative to a conventional pilot ladder for use in conjunction with the accommodation ladder, but a mechanical hoist whose operation relies upon a single wire shall not be considered of an approved pattern. The rigging of the pilot ladder for the embarkation and disembarkation of the Mooring Masters shall be supervised by a responsible vessel Officer and shall be effected so that the ladder is well clear of any overboard discharge and so that each step of the ladder rests securely against the vessel's side. If, in the opinion of the Mooring Masters, the pilot ladder is not safe, the Mooring Masters may refuse to board the vessel and any delay caused by such refusal shall be for the vessel's account.

Vessels shall provide food for the Mooring Masters while on board the vessel and shall accommodate the Mooring Masters in cabins, equivalent to that required for an officer of the vessel. The Mooring Masters shall have access to the bridge and/or central area of the vessel and such areas shall not be locked or otherwise arranged to prevent immediate entry at any time by the Mooring Masters.

Vessels shall also provide accommodation and food for the Cargo Inspector.

ANCHORAGES: The customary anchorage area for vessels awaiting the loading berth at Hamriyah Oil Terminal is a circle 2.0 miles in diameter and with its centre located 3 miles due North of the loading berth in approximate position Lat. 25° 37.5' N., Long. 55° 24.1' E. Anchorage within 2 miles of the loading berth or of the 30 in. submarine pipeline which runs from the shore tank to the loading berth is prohibited unless otherwise designated by the Company or the Mooring Masters.

HEALTH: The rules governing the quarantine of vessels are the same as those found in other parts of the world.

MAX. SIZE: Max. draft 16.0 m. Maximum displacement at any time is 150,000 tonnes.

Also see "Berthing".

RADIO/VHF: *Initial Radio Communications:* The radio station at Bahrain will handle the initial radio communications between vessels and the Company. The station call sign is "A9M" and the station operates on a 24 hour basis.

Advice of Arrival: It is important that vessels establish radio contact with the Company and with Lamnalco (Sharjah) Ltd. when 3 days distant from Hamriyah Oil Terminal and maintain such contact until just prior to arrival at Hamriyah Oil Terminal. Vessels should send an ETA telex to the Company (Telex: 68685 Amcosh EM) and Lamnalco (Sharjah) Ltd. (Telex: 68433 Lamshj EM) not less than 72 hours prior to arrival at Hamriyah Oil Terminal, providing the following information:

1. The ETA;
2. The estimated draft, fore and aft, upon arrival;
3. The quantity of crude oil to be loaded and the grade of such;
4. The estimated sailing draft and displacement;
5. The last port of call;
6. Whether the vessel has a clean Bill of Health;
7. The distance from the bow to the centre of the vessel's manifold.

This first ETA message should also include a definite statement of the details of any equipment required from shore for connecting the floating cargo hose to the vessel's manifold. Further ETA telexes should be sent to the Company and Lamnalco (Sharjah) Ltd. when the vessel is 48 hours and 24 hours distant from Hamriyah Oil Terminal confirming or giving notice of any change in the 72 hour ETA and at any other time after the 24 hour ETA telex when a change by more than 2 hours occurs in the ETA. The 24 hour ETA telex should include a positive statement regarding the vessel's readiness to load on arrival and the number of hours that will be required by the vessel to discharge clean ballast. Local time is GMT plus 4 hours and Daylight Saving Time (Summer time) is not applicable.

Ship-To-Shore Communications: The Company and Lamnalco (Sharjah) Ltd. are equipped with VHF radiotelephone using international frequencies and maintain a radio watch on the international VHF Marine Channel 16 and on Channel 74. Not less than 12 hours prior to the vessel's ETA at Hamriyah Oil Terminal, the vessel is required to maintain a radio watch on R/T frequency 2182 kHz and on VHF Channel 16. Masters are recommended to use this facility as soon as the vessel is within range since such communications are the best means of avoiding delay in the mooring of the vessel. While a vessel is at the loading berth, the Mooring Masters will be in direct charge of the portable VHF ship-to-shore radiotelephone and all ship-to-shore communications will be by portable VHF radiotelephone. The use of the vessel's radio station and/ or battery charging equipment is prohibited during cargo loading operations.

Radio Watches: While at the anchorage awaiting the loading berth, vessels should maintain a listening watch on R/T frequency 2182 kHz and on VHF Channel 16 with the Company and Lamnalco (Sharjah) Ltd.

TUGS: *Mooring Launch:* The Company will provide a mooring launch which is owned by Lamnalco (Sharjah) Ltd. to assist in the mooring and unmooring of the vessel. The mooring launch will be harboured in the town of Sharjah at the boat pier used by Lamnalco (Sharjah) Ltd. and will operate under the direct control of the Mooring Masters.

BERTHING: Tenders to load crude oil will normally be accepted and the loading berth will be assigned to a vessel in the order of its arrival, provided the vessel has a nomination for crude oil valid at the time and is in all respects equipped and ready to moor. In the event that mooring is delayed on account of weather, the vessel will keep its position in line. Should the vessel be required to leave the area on account of weather, the vessel should keep in radio contact with Hamriyah Oil Terminal in order to make the vessel available as soon as the weather moderates. The Company reserves the right to load vessels "Out of turn" following the return of good weather, to the extent that such loading "Out of turn" does not materially delay the loading of other vessels in line. For example, should weather make it necessary for a specific vessel waiting at the loading berth or at the anchorage to vacate the area, the Company may load another vessel which arrived at the anchorage after the specific vessel but before the return of the specific vessel which was waiting in line ahead of the the other vessel.

When the vessel proceeds to within a reasonable distance from the loading berth and upon advice from the Mooring Masters, the mooring lines of the vessel will be carried by the launch to the floating buoy lines, secured thereto, and brought on board the vessel. On the vessel's end of the mooring lines there is a steel chafing chain which can be observed when the floating buoy lines come out of the water. This chafing chain will be secured to the vessel's bitts by way of Company-supplied mooring strops in such a manner that the floating buoy lines shall remain outside the vessel, thereby allowing the chafing effect at the fairleads to be taken by the chafing chain. All mooring details and the sequence of movements shall be directed by the vessel's Officer-in-charge, following consultation with the Mooring Masters. When the mooring operations have been completed, fire wires of at least 150 ft. in length will be secured to the vessel's bitts and run out at the bow and stern of the vessel's starboard side and held in place on short stoppers with the eyes approximately 6 ft. above the surface of the water, so that they can be readily available to a tug in case of an emergency.

Loading Berth: Vessels are loaded by means of a 30 in. submarine pipeline which runs from the shore tank to the loading berth and by means of a floating cargo hose which runs from the loading berth to the moored vessel.

Vessels meeting the following requirements will be accepted at the loading berth:

(1) Maximum draft is 16.0 m., at any time.
(2) Maximum displacement of the vessel is 150,000 metric tons, at any time.
(3) If deballasting is required by the vessel, the vessel must either deballast and load cargo simultaneously or after completion of loading.

In exceptional cases, vessel in excess of these requirements may be allowed to berth at the facility, provided written permission has first been obtained from the operators.

Mooring Facilities: The Single Point Mooring Buoy moors vessels from the bow and consists primarily of a cylindrical buoy which is secured to the seabed by 6 catenary anchor legs each of which are tethered to the seabed by a heavy duty anchor system. The cylindrical buoy is 5.3 m. in height, fitted with a skirt 16 m. in diameter, and equipped with a radar reflector and a racon beacon coded "Zulu", frequency 48 seconds. The cylindrical buoy is also equipped with a navigational light, white flashing code "U", which has a range of 5.7 miles with transmission factor of 0.85 and is visible through 360°.

Vessel's Alertness: The loading berth is on an open and unsheltered roadstead; therefore, from the time the Mooring Masters board the vessel until the vessel has loaded her cargo and the Mooring Masters have disembarked, full power must be available at all times on all deck winches and windlass and other gear of the vessel and the vessel's engines, steering machinery and other efficient manoeuvring equipment must likewise be maintained in constant readiness with full power for immediate use so as to allow the vessel to depart from the loading berth at any time following a request by the Mooring Masters or the Company to do so.

The vessel's personnel should be at their stations and alert at all times during mooring, unmooring, hose handling and cargo loading operations. Where vessels are equipped with an electric clutch control to the propeller shaft, such vessels must disconnect the electrical clutch control and the manual clutch control so that there will be no possibility of the engine engaging the propeller shaft while the vessel is moored. Constant observation in the engine room, control room and deck control room shall be provided at all times while vessels are at or in the vicinity of the loading berth.

Whilst a vessel is moored to the SBM a crew member must be stationed on the forecastle at all times (24 hours) and will report immediately to the officer in charge if the vessel approaches within 10 m. of the buoy.

READINESS: *Loading Readiness and Arrival Time:* Upon arrival of the vessel at the customary anchorage for the loading berth, the Master or his Agent shall give the Company notice by letter, telegraph, wireless, or telephone that the vessel is ready to load. Laytime shall commence upon the expiration of 6 hours following the acceptance of such notice by the Company provided that the vessel has been nominated to load cargo and the terminal holds such cargo nomination and further provided that the Mooring Masters have deemed the vessel to be in all respects ready to moor and load. As no berthing may be undertaken during hours of darkness, the Notice of Readiness will be accepted only between the hours of 0600 hrs. and 3 hours before sunset, provided that the vessel is apparently in all respects ready to moor and receive the cargo. The time of sunset will be determined by the current nautical almanac. Notice of Readiness will not be accepted during a period when the port is closed, on account of adverse weather, and may not be accepted, if the vessel arrives prior to the date upon which it is nominated to load.

If, however, the vessel is moved to the loading berth without delay after having arrived at any time and the vessel is in all respects ready to moor and load in the opinion of the Mooring Masters, the Notice of Readiness will be accepted at the time the Mooring Masters board the vessel. Laytime shall continue until the floating cargo hose has been disconnected from the vessel's manifold.

LOADING: *Vessel's Gear:* Prior to the arrival of any vessel at the Mooring Masters Boarding Area, the port derrick of the vessel should be up and ready to lift the mooring and hose connection gear on board the vessel from the mooring launch, and the vessel must be equipped on the forecastle head with at least 2 good quality mooring lines, each not less than 120 fathoms in length and of buoyant material if possible, together with an adequate supply of lashing ropes and shackles. The mooring lines should be laid out free for running adjacent to bitts and warping winches. The warping winches or windlass should be in good working order and must be adequate to handle mooring lines un heavy strain.

On the port side, opposite to the vessel's manifold, there must equipment capable of lifting the floating cargo hose, a 7.5 ton lift, saf and efficiently from the sea surface over the port rail to the vesse manifold. Vessels must also have adequate mooring or loading facilit or lines or gear, the Mooring Masters must so inform the vessel's Mas and in such event the vessel will not be brought into the loading be until the facilities or lines or gear are deemed satisfactory by the Moor Masters.

Connecting Hose: After the vessel has been securely moored, t floating cargo hose will be hoisted to the vessel's port side rail amids by vessel's equipment. The floating cargo hose is a 20 in. (reducing 16 in.) diameter floating hose, 920 ft. in length, fitted with a 150 A flat face flange for connection to the vessel's manifold. The vessel sho have adapters and fittings on board so as to enable such floating ca hose to be connected to the vessel's manifold. The raising, connecti disconnecting and lowering of the floating cargo hose will be perform by the vessel's crew as directed by the vessel's Officer-in-charge w must be present at all times during such operation and in accordan with the procedure advised by the Mooring Masters, who will remain board the entire time the vessel is at the loading berth. Particular ca should be taken during all such hose operations to avoid damage to t floating cargo hose and its fittings.

Rate of Loading: The crude oil flow is by pump and the maximum cru oil loading rate for vessels using one 16 in. deck hose and 150 p.s.i. vessel's rail is approximately 23,000 barrels per hour. In order to sa vessel time and make the loading berth available for other vessels, it requested that ballast be pumped as fast as possible and that vesse receive oil as fast as it can be delivered, with both operations havi due regard for safety. It is requested that any impediment (such as "Y's strainers or mud boxes) to the flow of crude oil into the vessel, b removed before the arrival of the vessel at the loading berth.

Responsibility: Prior to the commencement of any cargo loadi operation, the Mooring Masters and the Officer-in-charge of the loadi operations for the vessel shall engage in a pre-loading conference formulate a loading plan and to ensure that the vessel is in all respec ready to load. No cargo loading shall take place without the permissi of the Mooring Masters, which permission shall not be given until t pre-loading conference has been completed. The vessel's Master sh remain responsible for the safety of the vessel and all operations board the vessel at all times. The Mooring Masters will advise t Officer-in-charge of the loading operations for the vessel with respect the loading pressures and hazards but the Mooring Masters will not dire any aspect of the loading except as may be necessary to protect t loading berth and related facilities and equipment. The manipulation the vessel's valves is the direct responsibility of vessel's personnel. T Mooring Masters shall have the right to suspend cargo loading operatio or to require the vessel to unmoor and depart from the loading berth any time when the mooring plan, pre-loading plan or the saf requirements and regulations set forth herein are not being followed the vessel, or at anytime the Mooring Masters believe or become awa of the existence of any other reason which in his opinion shall requ the suspension of the mooring or the loading of the vessel.

Oil Valve Control: The incoming oil stream is controlled onshore and t vessel's valves must not be closed against the incoming oil stream. Su a procedure creates an excessive pressure which may damage the ho or other terminal facilities and could result in a pollution incident. Vess will be held legally responsible for any damage resulting from the vesse failure to observe this precaution. Frequent checks of the cargo load must be made by vessel personnel during the loading operation so t a reduction in the loading rate, before topping of the final tank or tan may be arranged through the Mooring Masters by t Officer-in-charge of the loading operations for the vessel. A nor standby warning should be given about 15 minutes before the shutdo of the loading operations. Upon the request from a vessel to shut do the loading operations, a minimum of 5 minutes will be normally requ to stop the flow of crude oil. Vessel's personnel shall be responsible the call to stop the loading of the vessel. When cargo has ceased flow, the valves on the shore will be closed and the vessel's mani valves may then be closed.

Emergency Signal: Emergency signals and messages will be relayed VHF/UHF radios and radio telephone links available with the Moor Masters.

Code Flag: During all cargo loading operations, the International C Flag "B" shall be displayed from a topmast signal halyard during day hours and a red light shall be displayed during the hours of darkn The red light should be of a character as to be visible at a distanc at least 1 mile and show an unbroken light around the horizon.

Shore Stops: Request for the terminal to stop the flow of crude oil predetermined tonnage must be made in writing to the Company will be deemed to include the statement and understanding tha Company will not be responsible for (1) any errors, costs or claims a from such request and (2) any crude oil loaded in excess of requested will not be pumped back ashore. Some delays in sto the flow of crude oil are always incurred when such a shore stop re is made.

BALLAST: There are no facilities for the off-loading of dirty ballas clean oil-free ballast may be discharged overboard from the ves is the Master's responsibility to see that no oil (crude, bunker, d bunker C, or oily bilge water) is pumped or spilled overboard fro vessel. All deck scuppers must be plugged tight and adequate dri and sand must be provided where necessary on deck for use at all t especially when disconnecting hoses, in order to prevent any suc of oil overboard. The waters in and adjacent to the loading bert not be polluted and only clean oil-free ballast may be discharge

The discharge of oil mixtures from vessels while en-route to Ha Oil Terminal is prohibited.

Masters are warned that when disposing of dirty ballast or bilge water, all pipelines, sea suctions, strainers and pumps which are later to be used to discharge clean ballast, must be flushed clean, so that there will be no chance of even a small amount of pollution when the clean ballast is pumped overboard.

Vessels must have sufficient ballast for safe manoeuvring and, where practicable, should arrive at the loading berth with the propeller completely submerged and trimmed 8 ft. to 10 ft. by the stern.

Due to the sudden and often unexpected onset of high winds in this area, it is essential that this condition is maintained, and the vessel is fully manoeuverable at all times, and also that the vessel is able to commence loading without delay as soon as the hose is connected. Therefore, vessels, arriving with clean ballast to discharge, must arrange this ballast in such a way that either it can be discharged concurrently with loading or after departure, while maintaining satisfactory segregation from the cargo.

The Mooring Masters may refuse to permit the mooring of any vessel not in compliance with these requirements until the vessel takes on sufficient ballast and/or alters her trim to meet these requirements.

As soon as practicable after arrival, vessel's tanks will be inspected for evidence of oil in ballast and during the discharge of ballast a similar inspection will take place.

Vessels must keep a constant watch on the side of the vessel from which clean ballast is being discharged for any indication of water discolouration or oil sheen. Discharge of ballast must be immediately suspended should there be any indication of discolouration or sheen and the Mooring Masters shall be immediately informed of such. An investigation of any such discolouration or sheen shall be carried out by the vessel and the findings reported to the Mooring Masters. Discharging shall not resume without permission of the Mooring Masters.

If, during any inspection or during the process of loading, it is revealed that a vessel's tank is not oil-tight, the vessel will be rejected by the Mooring Masters and refused further loading until satisfactory evidence of effective repairs is submitted and the vessel is duly certified by Lloyd's Register of Shipping, American Bureau of Shipping or another similarly recognised classification society.

In addition to the lights usually displayed, vessels are required to illuminate the vessel and the waters around the vessel with all available and suitable searchlights and floodlights during the discharge of clean ballast and the loading of crude oil during the hours of darkness. Such illumination must be to the satisfaction of the Mooring Masters and must be undertaken so as to assist in the loading operations and in order that any oil on the surface of the sea may be readily detected and appropriate action taken. Vessels unable to illuminate the sea satisfactorily may not discharge ballast or engage in the loading of crude oil during the hours of darkness and any such delay shall be for the account of the vessel.

MEDICAL: Vessels requiring emergency medical assistance should contact Hamriyah Oil Terminal by VHF radio and supply the necessary pertinent information which will be passed on to the vessel's Agent. Neither medical or hospital facilities are available at Hamriyah Terminal, but private doctors and hospital facilities are available in the town of Sharjah.

CONSULS: There are no consulates in the village of Hamriyah; however, consular or diplomatic representatives for many nations maintain offices in the cities of Abu Dhabi and Dubai.

REPAIRS: The Masters of vessels loading at the loading berth are advised that the loading berth is considered an "open and unsheltered roadstead" and under no circumstances may engines be shut down for repairs while the vessel is at the loading berth. There are no facilities for making vessel repairs at Hamriyah Oil Terminal and no repairs will be allowed at the loading berth. However, arrangements can be made through the vessel's agent to utilise the repair facilities at other ports.

SURVEYORS: No cargo inspectors or marine surveyors are based at the village of Hamriyah but inspectors and surveyors who reside at other ports can be arranged through the vessel's Agent.

SHORE LEAVE/REPATRIATION: Vessel personnel (other than medical emergency cases) are not allowed to embark or disembark from the vessel at the loading berth. There are no facilities for crew change at the loading berth.

WEATHER: *Climate:* The climate along the coastline of Sharjah is characterised by cool Winters and very hot Summers. The annual mean rainfall is 4.2 in. and the relative humidity varies considerably according to the time of day with the highest relative humidity generally in the early morning and the lowest relative humidity generally in the early afternoon. The air temperature is generally moderate in the Winter, but is high in the Summer and can be extremely high in the interior on Summer afternoons.

Weather Data Summary:

Annual mean rainfall	4.2 in.
Lowest mean daily minimum air temperature	55°F.
Highest mean daily maximum air temperature	102°F.
Lowest average monthly sea surface temperature	72°F.
Highest average monthly sea surface temperature	90°F.

Winds: The winds in the Southern part of the Gulf are usually light and generally blow from the Western quadrant most of the year but are occasionally interrupted by winds from varying directions. The visibility along the Sharjah coastline is generally good but from June to September the Shamal blows over the Gulf area and frequently produces rough seas and stirs up dust clouds which can affect visibility at sea. The cold fronts which move down the Gulf from November to April frequently cause a North or N.W. wind of 20 knots or more along the Sharjah coastline with accompanying swells.

Tides: The tide for Sharjah can be predicted with reasonable accuracy through use of the tide tables for Shatt Al Arab with the appropriate correction factor for Sharjah applied.

Currents: The current along the Sharjah coastline has a predominantly counter-clockwise circulation throughout the year. The maximum current is up to 3 knots.

Seas: High waves generally do not occur along the Sharjah coastline since the winds are usually light in the vicinity of the coastline. On those occasions when the wind does become strong, the wave heights generally remain somewhat limited since the distance over which the wind can blow to generate waves is somewhat short from most directions due to the bend in the Gulf which tends to reduce the fetch of North winds at Sharjah (e.g., waves over 8 ft. occur 0.2 per cent of the time).

SAFETY: The vessel's personnel are responsible for the safety of the vessel and themselves and shall take all necessary precautions, whether or not so advised by the Company or the Mooring Masters, having in mind the hazards of the loading operation, the cargo being handled, the weather condition and any other circumstances requiring special care or caution. The vessel's personnel shall also adhere to all safety precautions generally followed in the marine industry as well as all requirements and regulations imposed by the Company. Any safety precautions, requirements and regulations imposed by the Company and disregarded by the vessel's Master, Officers or crew will be considered a just cause for rejection of the vessel and all expenses related thereto shall be for the vessel's account. While the vessel is moored or within the vicinity of the loading berth, the vessel's personnel and the vessel's operations must comply or be in accordance with the following safety requirements:

(a) All ports opening onto the decks of the vessel are to be kept closed during cargo loading operations and all doors opened for access other than the pumproom doors must be closed immediately after use.

(b) Smoking is strictly prohibited on board the vessel and on the loading berth except in those areas designated by the Master as smoking areas. No areas outside of the accommodation areas shall be so designated. The Master is responsible for ensuring that all vessel personnel are informed of the designated smoking areas and shall post suitable notices regarding same. The Mooring Masters may request the Master to further limit the vessel's "No Smoking" areas as conditions warrant. Matches and lighters for personal use shall not be carried while outside the designated smoking areas and personnel shall be so instructed. The Master shall instruct the Officers and crew of the vessel not to throw lighted cigars or cigarettes overside or out of port holes. There may be occasions when smoking will be entirely prohibited.

(c) The use of portable lamps, naked lights or electrical equipment on extension cords is prohibited and only approved intrinsically safe self-contained flashlights are permitted on deck.

(d) Ventilators must be so trimmed as to exclude flammable gases entering the area and if this cannot be done the ventilators must be completely closed.

(e) The vessel's engines, steering gear and other essential manoeuvring equipment and deck machinery must remain ready with full power for immediate use to permit the vessel to clear the area upon instruction from the Company or the Mooring Masters to do so.

(f) Window type air conditioners must be disconnected from their power source and not used unless a certificate can be produced from a recognised authority to show that the unit is safe to operate in flammable gas areas.

(g) The vessel's main radio and radar equipment must not be energised while the vessel is handling cargo or ballast. The use of intrinsically safe VHF radios for cargo handling and safety operations are permitted.

(h) A continuous and efficient fire watch must be maintained on deck and in the engine room at all times. The vessel's fire fighting equipment shall be ready for instant use at all times throughout the vessel. Fire hoses of sufficient length to reach all parts of the vessel must be laid out and connected to hydrants and there must be full pressure on the deck line.

(i) Recommendations contained in the I.C.S. International Safety Guide for oil tankers and terminals covering the loading and discharge of tankers shall be strictly followed at all times.

(j) The only open flames allowed while the vessel is at the loading berth are those in the vessel's boilers and galley equipment. Sufficient fire extinguishers must always be provided near the galley and boilers.

(k) Burners, tubes, uptakes, exhaust manifolds and spark arrestors shall be maintained in good working order and kept clean. Funnel uptakes and boiler tubes shall not be blown while the vessel is at the loading berth. Highly volatile cleaning solvents shall not be used in the engine room for any purpose whatsoever while the vessel is at the loading berth.

(l) In the event of fire breaking out on any part of the vessel, however minor the fire may be, the fire alarm must be given immediately. The fire alarm will consist of a succession of long blasts on the vessel's whistle together with a rapid and continuous ringing of the vessel's bell.

(m) Not less than 1 Deck Officer and 3 seamen shall be on duty, alert, available and in charge of the operations on deck at all times while the vessel is at the loading berth.

(n) Not less than 1 engineer shall be on duty, alert, available and in charge of the engine room at all times while the vessel is at the loading berth.

(o) A member of the vessel's crew, not one involved in any way with the loading operation, must be stationed on the bow of the vessel while the vessel is at the loading berth and a constant watch must be maintained on the moorings.

(p) During the discharge of clean ballast and the loading of crude oil, the vessel and the waters around the vessel must be illuminated during the hours of darkness with all available and suitable searchlights and floodlights.

(q) Before the floating cargo hose is brought on board the vessel, all deck scuppers must be plugged tight and adequate drip pans and sand must be provided where necessary on deck for use at all times. The deck scuppers must remain plugged until the floating cargo hose has been disconnected. All other materials necessary to clean up any oil spillage on deck must be on hand for immediate use.

(r) All unused bunker connections, cargo connections and vessel manifolds must be fitted with blank flanges including the stern discharge line if fitted.

(s) All cargo tank hatch covers and ullage port covers are to be kept closed except where tanks are to be hand sampled or hand ullaged in which case the ullage openings may be opened to sample or ullage the cargo.

(t) All cargo and ballasting operations shall be suspended during electrical storms in the vicinity of the vessel.

(u) Prior to the commencement of any loading operations, all empty vessel cargo tanks and tanks carrying cargo must be under positive pressure and fully inerted with gas having an oxygen content of less than 8 per cent.

(v) THE COMPANY DOES NOT HAVE A TUG OR VESSEL IN THE AREA EQUIPPED WITH FIRE FIGHTING APPARATUS.

GENERAL: *Government Officials:* Sharjah Officials such as the Customs Officer, Quarantine Officer, Immigration Officer, Captain of the Port and Police, are stationed in the town of Sharjah. Should Customs Guards be stationed on board the vessel while at the loading berth, it is expected that the vessel will provide food for these guards and other Sharjah Officials. Vessels calling at the loading berth must provide an accommodation ladder rigged on the port side for such Sharjah Officials.

Visitors: Visitors are not allowed to embark or disembark from the vessel at the loading berth.

Supplies: Commissary supplies, steward's stores, laundry services, fresh water, marine lubricants and bunkers are not available through the Company and may not be loaded at the loading berth. Any questions concerning the availability of such items from other sources and the loading of such items elsewhere should be handled through the vessel's Agent.

Contraband: The Company prohibits unauthorised craft from coming alongside vessels while at the loading berth without the permission of the Mooring Masters. To avoid the possibility of undesirable items getting aboard vessels, it is recommended that Masters discourage any such craft from coming alongside while vessels are at or in the vicinity of the loading berth.

Garbage: The dumping of garbage and refuse overside is prohibited.

Agency: The Company does not perform any vessel Agency functions. Vessels calling at Hamriyah must arrange for their own Agents.

SHIPMASTER'S REPORT: July 1983 (Updated 1986).

Location: Hamriyah Oil Terminal is owned by Amoco Sharjah Oil Company. The terminal is located in the Emirate of Sharjah, United Arab Emirates. A 30 in. pipeline runs from the shore tank to a S.P.M. located in position Lat. 25° 34' 31.68" N., Long.55° 24' 05.8" E. and is operated by Lamnalco.

Documents: Health Declaration and Crew Lists. Customs, Immigration and Quarantine Officers have an office in Sharjah but usually do not come on board.

Pilotage: A pilot ladder to be prepared on vessel's Port side and lowered to about 12 ft. above the waterline. If the height of the deck exceeds 30 ft. a pilot ladder in conjunction with the accommodation ladder must be rigged.

Anchorages: The customary anchorage for vessels awaiting the loading berth of Hamriyah Oil Terminal is 3 miles North of the S.P.M. Anchorage within 3 miles is strictly prohibited unless instructed by the Mooring Masters.

Max. Size: Vessels up to 250,000 tons have been accepted, subject to weather conditions.

Health: Rules are the same as found all over the world.

Radio/VHF: Amoco Sharjah and Lamnalco should be contacted by radio 3 days prior arrival via Bahrain Radio and maintain contact until prior arrival.

Telex: 68685 Amcosh EM and 68433 Lamshj EM.

Following information is required by both parties:

1. ETA.
2. Arrival Draft.
3. Quantity to be loaded.
4. Estimated sailing draft.
5. Last port of call.
6. Whether vessel has clean bill of health.
7. Distance bow to manifold.
8. Confirm vessels ability to load/deballast concurrently or alternatively to deballast after loading.

Both companies keep watch on international VHF Marine Channel 16.

Berthing: This cylindrical buoy is equipped with a navigational white flashing light code "U", range 5.7 miles, a radar reflector and a racon beacon coded "Zulu".

On forecastle, vessel should have 4 good quality mooring lines, minimum length of 120 fathoms and preferably of the floating type. Vessel's lines to be used to pick up the mooring lines of the buoy. The end of the buoy's mooring line consists of a steel chafing chain and will be secured onto vessel's bitts by mooring strops supplied by Lamnalco.

Port derrick should be up and ready for lifting moorings and cargo hose connecting gear and capable of lifting 7.5 tons safely.

Mooring Masters and Cargo Oil Surveyor stay on board while vessel is on the berth and both to be accommodated in an officer's cabin and meals served in officer's messroom.

Notice of Readiness: Will only be accepted between 0600 and 1800 h but will not be accepted at times when the Hamriyah Oil Terminal closed on a public holiday or Friday (Moslem Sabbath). However, if t vessel is moved to the berth without delay after having arrived at a time and vessel is ready for mooring and loading the Mooring Maste will accept the N.O.R. at the boarding time. Laytime shall commen upon expiration of 6 hours after accepting the N.O.R. and shall contin until hose has been disconnected from vessel's manifold.

Loading: The floating hose is 20 in. diameter with a 16 in. hose t connecting to the vessel's manifold. Loading rate approximately 23,0 bbls.p.h. Only one type of oil available, being crude oil condensa approximate API 50/60° and loading temperature approximately 95°F

Ballast: There are no dirty ballast reception facilities and all vessels mu arrive with sufficient clean ballast for manoeuvring with the prope submerged and a trim of 8 ft. – 10 ft. by the stern. Non-permanent clea ballast to be discharged prior to commencing of loading.

Medical: Neither medical nor hospital facilities are available at Hamriya Oil Terminal. Requests for emergency medical assistance should passed to Hamriyah Oil Terminal by VHF and the information will passed to vessel's Agent. Private doctors and hospital are available the town of Sharjah.

Supplies: Stores, fresh water, laundry services, bunkers and lubrica not available via Amoco and may not be loaded at the berth. Availabi of items should be handled through vessel's Agent and loading carrie out elsewhere.

Consuls: No consulates in Sharjah; however, many nations ha consular or diplomatic representatives in Abu Dhabi and Dubai.

Repatriation/Shore Leave: Not permitted while at loading berth.

Currents: Predominantly counter-clockwise circulation throughout t year along the Sharjah coastline and is generally not strong. Stronge in January (0.4 – 0.8 knots) and in April (0.6 – 1.7 knots).

Weather: Winds are usually light from Western quadrant, except dur June to September when the Shamal blows and from November to Ap during passing of cold fronts with winds up to 20 knots producing rou seas.

SHIPMASTER'S REPORT: August 1994.

The SPM Buoy is owned by Amoco, but on their behalf operated a maintained by Lamnalco. ETA's and N.O.R. are to be telexed to Amo Sharjah (Telex: 68685 Amcosh Em).

Vessel is usually not accepted for loading before Laydays speci in Charter Party, even if the loading berth is vacant. On an avera 4-5 ships are loading at this buoy in a month.

There are no formalities for Health Clearance, Free Pratique a Immigration, etc., for vessels calling to load at Hamriyah Off-sho Terminal.

While vessel is at the SBM, no operations, such as receiving sto or crew changes, can be carried out. These operations should undertaken while at anchorage. Provisions and bonded stores a available through local ship chandlers. Crew shore leave is not allow

Vessel is moored to SPM Buoy using 2 chains. If vessel is equipp with only one bow chain stopper, the other chain is made fast to b using additional snotters and shackles, etc. Loading Master advised t for insurance purposes, 2 chains have to be fastened, even thou OCIMF recommends one chain sufficient for vessels of less t 100,000 d.w.t. Terminal should be informed in advance if vesse equipped with only one bow chain stopper, so that additional gear c be supplied.

Two Loading Masters and one surveyor board the vessel Nort SPM Buoy from a service vessel, which also brings the required g (shackles/snotters/plates, etc., for mooring and ship/shore connectio Mooring, unmooring, hose connection, disconnection is handled ship's crew under Loading Master's supervision. While moor unmooring (as is usual), one Loading Master stays on forecastle w Chief Officer and the other on bridge. Mooring is done during dayt only, unmooring any time. Mooring procedure/sequence is given "Guide to Port Entry" in detail.

Loading Masters require "Officers" accommodation and sepa cabins. They refuse to accept ship's hospital or crew's accommoda (vessel had to move one Officer out of his cabin to provide room Loading Master).

Floating hose has a 16 in. connection flange and is always connec on port side. Max. loading rate is 24,000 bbls./hr. Only crude conden is handled at this SBM. Loading Master advised that A.P.I. of condensate never varies beyond 59.8 to 60.1.

Vessel can request either "Ship stop" or "Shore stop". Howeve "Shore stop" is requested at a certain cargo quantity, specified by s ship-shore difference should be taken into account, which can be c large at times. Ship-shore difference in quantity pumped by shore quantity received onboard can be checked every hour by asking Term by radio for quantity pumped.

After completion of loading, vessel is immediately unmoored moved slightly closer to breakwater, towards Fairway Buoy. Vessel drifts and awaits documents, which usually takes 2 hours. An representative comes by launch and brings all documents, Bill of La and Port Clearance. All Protest Letters by vessel are signed by Loa Master. Agents do not board the vessel, and if Crew List is to be for Visa Endorsement (if vessel proceeding to U.S.A.), it should be to Agents through Loading Master.

AUTHORITY: *Operator:* Amoco Sharjah Oil Company, P.O.Box Sharjah, United Arab Emirates. *Tel:* (9716) 355100. *Telex:* 6 Amcosh EM. *FAX:* 355142. *Contact:* B. G. Bramley, General Man

AGENT: See "Sharjah".

HAMRIYAH LPG TERMINAL: 25.28 N. 55.29 E.

(See Plan)

LOCATION: The Terminal is located in position Lat. 25° 27' 37.3" N., Long. 55° 29' 12" E. outside the village of Hamriyah on the coastline between Umm Al Qaiwain and Ajman.

The Hamriyah LPG Terminal is owned by Sharjah LPG Company Limited ("Shalco") and operated by Amoco Sharjah Oil Company and is operated 24 hours a day, 7 days a week, weather and other circumstances permitting.

The Terminal consists of 2 storage tanks for propane and butane, and a marine loading facility capable of loading vessels ranging in size from 30,000 cu.m. to 83,000 cu.m. 2 liquid loading lines and 2 vapour return lines are mounted on the trestle connecting the breakwater and the loading platform.

DOCUMENTS: The following documents are required when calling at the Hamriyah LPG Terminal:

Health Declaration.
Crew List.
Clearance from last port of call.

Officials: No immigration, Customs or Health Officials stationed at the Terminal.

APPROACHES: *Approach Channel:* The approach channel's entrance is located in an approximate position of Lat. 25° 30' 45" N., Long. 55° 27' 23" E. The Fairway Buoy (Fl. "A" ev. 15 sec.) is located in position Lat. 25° 32' 05" N., Long. 55° 25' 59" E. The channel's length is 4,000 m. The width is 180 m. in the seaward channel, 250 m. in the intermediate channel and 180 m. in the near harbour channel. the channel depth has been dredged to 15 m.

Buoys:

Location	Nominal Range (nautical miles)	Light Colour
Fairway	5	White
Channel Marker	3	Red
Channel Marker	3	Green
Channel Marker	3	Red
Channel Marker	3	Green
Channel Marker	3	Red
Channel Marker	3	Green
Channel Marker	3	Red
Channel Marker	3	Green
Channel Marker	3	Red
Channel Marker	3	Green
Basin Limit Marker	2	Yellow
Basin Limit Marker	2	Yellow
Basin Limit Marker	2	Yellow

Beacons:

Location	Nominal Range (nautical miles)	Light Colour
Main Breakwater	13	Green
Lee Breakwater	5	Red
Leading Light	(White) 5	Green 2° Sectored White 1° Red 2°
Northern Training Wall	5	Red
Southern Training Wall	5	Green

PILOTAGE: Pilotage is compulsory from the seaward entrance of the dredged channel. The Pilot will board at or near the designated anchorage. The Pilot will be provided by the Operator and vessels will not be allowed to approach or depart from the port without the Operator's designated Pilot being on board. The Pilot will advise vessel's personnel on the approach through the channel to the jetty and all operations of mooring and unmooring. All manoeuvring of vessels within the loading berth area shall be performed by vessel's personnel as directed by the vessel's Master in accordance with the procedure advised by the Pilot. The vessel's Master must be on the bridge at all times while the vessel is manoeuvring.

Vessels shall provide food for the Pilot and Terminal Supervisor while on board the vessels and shall accommodate the Pilot and Terminal Supervisor in suitable accommodation equipped with private toilet facilities. The Pilot and Terminal Supervisor shall have access to the bridge and/or central area of the vessel and such areas shall not be locked or otherwise arranged to prevent immediate entry at any time by the Pilot and Terminal Supervisor.

Vessels are required to have a clean and efficient pilot ladder, fitted with spreaders and manropes, safely and securely rigged ready for the Pilot to immediately embark and disembark and of sufficient length to reach the Pilot's launch. A lifebuoy with safety line and self-igniting light together with a rope messenger for the Pilot's bag shall also be available at the pilot ladder head. Vessels shall afford a "Good Weather Lee" and shall reduce speed as directed by the Pilot in order to effect the safe embarking or disembarking of the Pilot.

Whenever, as in the case of large vessels in light condition, the height of the deck above the water exceeds 30 ft., the accommodation ladder shall also be used in conjunction with the pilot ladder and shall be lowered to about 12 ft. above the water with the pilot ladder rigged immediately adjacent to the bottom platform of the accommodation ladder. The rigging of the pilot ladder for the embarkation and disembarkation of the Pilot shall be supervised by a responsible officer and shall be positioned so that the ladder is well clear of any overboard discharge and such that each step of the ladder rests securely against the vessel's side.

If, in the sole opinion of the Pilot, the pilot ladder is not safe, the Pilot may refuse to board the vessel and any delay caused by such refusal shall be for the vessel's account.

Pilotage Radio Contact: Pilot/Vessel contact will be maintained on VHF Channel 16 or other frequency as mutually agreed by Operator's Marine Representative and vessel's Master.

Arrival at Anchorage/Pilot Boarding Area: Means of access to the vessel by the Pilot shall be provided by the vessel in accordance with the requirements of SOLAS. At night, the access area shall be adequately illuminated to provide a safe approach and boarding by the Pilot, Government Officials and Terminal Representatives.

The Conditions of Use of Shalco's Terminal Facilities will be presented to the Master for acceptance and signature on behalf of himself and the Owners prior to departures from the Anchorage/Pilot Boarding Area.

As no berthing may be undertaken during hours of darkness, the Notice of Readiness will be accepted by the Terminal only between the hours of 0600 and 1500, provided that the vessel is apparently in all respects ready to moor and accept the cargo. Notice of Readiness will not be accepted during a period when the port is closed on account of adverse weather, and may not be accepted if the vessel arrives prior to the date upon which it is nominated to load. Berthing is not allowed during winds from Northeast.

ANCHORAGE: The customary anchorage area for vessels awaiting loading at the Hamriyah LPG Terminal is a circle 1 mile in diameter with its centre in an approximate position of Lat. 25° 30' N., Long. 55° 25' E. There is an existing SBM located at approximately Lat. 25° 34' N., Long. 55° 24' E. for the Hamriyah Oil Terminal. the SBM is fitted with a flashing light and racon. This existing SBM may be used as a reference to the LPG Terminal anchorage which is 3 miles W.S.W. of the LPG entrance channel.

When within VHF communication range, Masters of vessels should ascertain berthing prospects from the terminal. In all cases where tankers are instructed to anchor, Masters should obtain clearance for their intended anchorage position from the Operator.

Radio Watches: While at the anchorage awaiting the loading berth, vessels should maintain a listening watch on VHF Channel 16 with the Terminal Operator.

Caution: Masters are cautioned that a 30 in. submarine pipeline runs 7.6 miles from the Hamriyah Oil Terminal to an offshore SBM facility.

RESTRICTIONS: Vessels will be moored/unmoored in daylight only, but the loading will be performed at any hour, weather and circumstances permitting.

Also see "Pilotage".

MAX. SIZE: The harbour has been dredged to a depth of 14 m. Maximum draft for vessels calling at the Hamriyah LPG Terminal is 12.6 m.

Max. Size: 83,000 cu.m. Max. LOA 230 m.
Minimum LOA 186 m. Minimum flat side 80 m.

HEALTH: No officials stationed at the terminal.

RADIO: *Initial Radio Communications:* The radio station at Bahrain will handle the initial radio communications between vessels and the Operator. The station call sign is "A9M" and the station operates on a 24 hour basis.

Advice of Arrival: It is important that vessels establish radio contact with the Operator and with the Operator's designated marine service when 3 days distant from Hamriyah LPG Terminal and maintain such contact until just prior to arrival at Hamriyah LPG Terminal. Vessels should send an ETA telex to the Operator (Telex No. 68685 a/b Amcosh EM) and to the Operator's designated marine service (Telex: 68433, a/b Lamshj EM) not less than 72 hours prior to arrival at Hamriyah LPG Terminal, providing the following information:

1. ETA.
2. Estimated arrival draft, fore and aft.
3. Estimated sailing draft, fore and aft.
4. Whether part-loaded or in ballast. If part-loaded, nature and quantity of cargo.
5. Last port of call.
6. Last 3 cargoes carried.

Further ETA telexes should be sent to the Operator and the Operator's designated marine service when the vessel is 48 hours and 24 hours distant from Hamriyah LPG Terminal confirming or giving notice of any change in the 72 hour ETA and at any other time after the 24 hour ETA telex when a change by more than 2 hours occurs in the ETA. The 24 hour ETA telex should include a positive statement regarding the vessel's Readiness to Load on arrival. Local time is Greenwich Mean Time plus 4 hours and Daylight Saving Time (Summer time) is not applicable.

VHF: *Ship-to-Shore Communications:* The Company and its designated agents are equipped with VHF radios using international frequencies and maintain a radio watch on the international VHF marine Channel 16.

On approach to Hamriyah LPG Terminal, the vessel is required to maintain a radio watch on VHF Channel 16. Masters are recommended to use this facility as soon as the vessel is within range since such communications are the best means of avoiding delay in the mooring of the vessel. While a vessel is at the loading berth, the Pilot may be replaced by a Mooring Master (Safety Officer) who will be in direct charge of the portable VHF ship-to-shore radio and all ship-to-shore communications will be by portable VHF radio. The use of the vessel's radio station and/or radar is prohibited during cargo loading operations.

The following are terminal call signs in use during loading:

LPG Terminal UHF Channel 1, Monitor VHF Channel 3:

Amoco 410 – LPG Terminal Control Room.
Amoco 411 – LPG Terminal Operator.
Amoco 412 – LPG Terminal Spare Operator.
Amoco 415 – LPG Jetty Control Operator.
Amoco 416 – LPG Jetty Mooring Crew.
Amoco 417 – Lead Tug.
Amoco 418 – Second Tug.
Amoco 419 – LPG Tanker.
Amoco 420 – Amoco Terminal Supervisor.

TUGS: Tugs will be provided by the Terminal Operator. Due to the infrequency of LPG liftings, tugs will vary as to individual specifications. However, 2 tugs will normally attend each lifting and each will have a minimum of 1,500 h.p. and a bollard pull of 15 tons.

BERTHING: *Due to equipment limitations, it is not possible to purge inert gas from arriving vessels. Only vessels arriving in an LPG purged and cooled down condition will be accepted at Hamriyah LPG Terminal. Checks made with an oxygen analyser must read at 2 per cent oxygen or lower.*

Berthing: The berth is fitted with 2 shock absorbing fenders, 70 m. apart. Design is based on a 57,000 d.w.t. LPG vessel. Dredged depth alongside the jetty face is 14.8 m. at mean lowest low water level. The vessel turning diameter in the harbour is 600 m.

Vessel Specifications: Based on the above, vessel specifications *must be:*

Length: Maximum 230 m., minimum 186 m.
Draft: Maximum 12.60 m.

Mooring: The berth is equipped with 2 breasting dolphins which have 2 quick-release hooks along with powered capstans. The 4 mooring dolphins are each equipped with 3 quick-release hooks. All quick-release hook units are provided with attached powered capstans. All quick-release hooks have a capacity of 60 tonnes, and can be manually operated. The capstan capacity is 2 tonnes with a rope speed of 30 m. per minute. Bollards, bitts and cleats are also provided.

For safety reasons, vessels will be moored with their portside only to the jetty.

Ships should remain adequately secured in their moorings. Ranging of the ship is to be prevented by the vessel's personnel keeping all mooring lines taut. Attention is to be given by vessel's personnel to the movement caused by passing ships, wind, currents, tides, and the cargo operation in progress. Adequate mooring of the vessel is the Master's responsibility and the vessel and its Owner shall be responsible for all damage to the loading berth and related facilities in any way attributable to the failure of the vessel's personnel to keep all mooring lines taut. Operator may suspend cargo operations and have the vessel put off the berth for any failure to comply with this provision with all resulting delay to be for the account of the vessel.

Vessel's personnel should be at their duty stations and alert at all times during mooring, unmooring, hose handling and cargo operations. Ships fitted with automatic tension winches should not use such winches in the automatic mode as they may not always hold the vessel in position at the berth.

LOADING: *Tanker/Jetty Manifold Connections:* The jetty has a basic configuration of VLLV. Butane and propane can be loaded down either liquid line, and concurrently. However, the Terminal's preferred configuration is butane forward and propane aft, and ships should endeavour to comply with this if possible. Complete vessel's particulars shall be supplied for Company's approval at the nomination stages. Vessels are required to load both products concurrently when lifting both products. Therefore, manifold configuration must be adhered to stringently. The vessel manifold arrangement must be VLLV.

The maximum loading rate for one product at a time is 1,300 metric tonnes per hour, and the minimum 600 metric tonnes per hour. For concurrent loading, the maximum loading rate is 1,000 metric tonnes per hour per product, and the minimum acceptable loading rate 600 metric tonnes per hour per product, apart from commencement and completion.

It is emphasised that venting of vapour to atmosphere is not allowed. Vapour should be returned to the Terminal via the vapour return lines provided or reliquified and returned to the cargo tanks.

The propane and butane loading arms are 12 in. in diameter. The return vapour arms are 8 in. in diameter. Each arm is fitted with a hydraulic coupler which can be adapted to fit different sizes. The loading arms can be adapted to fit 16 in., 12 in. and 10 in. standard 150 lbs ANSI flanges. The vapour return lines can be adapted to fit 10 in. and 8 in. standard 150 lbs ANSI flanges.

Any other flange size or ratings other than the above stated will require special fabricated spool pieces to meet the foregoing flange specification. Spool pieces must be furnished and installed by the vessel. Terminal personnel will connect the hydraulic couplers to the proper ship's flange. Vessels without proper spool pieces will be rejected.

Ship's manifold connections must meet loading arm envelope configuration and must provide space and support on which to place loading arm support legs.

	Min.	*Max.*
Distance of ship's manifold from ship's side:		
12 in. Loading Arm	2.0 m.	6.0 m.
Distance centre to centre for 12 in. ship's manifold	1.5 m.	3.5 m.
Height of centre point of manifold above deck	0.85 m.	2.1 m.

Jetty Emergency Shutdown Systems and Purge Systems: The jetty is equipped with an Emergency Shutdown (ESD) system to stop loading operations. The system is activated by pushing an electronic stop button in the jetty control room or on the pendant which will be placed on board the vessel. The pendant with the ESD button placed aboard the vessel is to be used only in an emergency, and is used in preference to the ship's systems. On activating the ESD system, all loading pumps and loading arms will be shut down.

Documentation: Before and after completion of loading operations the vessel shall be ullaged. A Bill of Lading, Cargo Manifest, Ullage Report, Time Sheet, Certificate of Quality, Certificate of Quantity and Certificate of Origin will be completed. All such documents will be signed by the Master of the vessel prior to the vessel's departure and by the Operator's Terminal Supervisor, as appropriate. If required or requested by the Master of the vessel, the Agent of the vessel may sign the documents on behalf of the vessel's Master. The official quantity of the LPG delivered to the vessel shall be determined by the use of vessel gauges applied to cargo tank volume calibrations. Tests for quality determinations shall be carried out by the Licensed Inspector.

The vessel may depart after receipt of the Port Clearance document duly signed by the appointed Government Official and the Operator's Terminal Supervisor.

Cargo Information: The vessel's Master will be informed of th approximate gravity and loading temperature of the LPG prior t commencement of loading. An official and final figure for specific gravi will be provided as soon as practical after completion of loading.

BALLAST: There are no facilities for off-loading ballast at Hamriya LPG Terminal. Oil-free ballast suitable for pumping directly to the se may be discharged overboard from the vessel. Export vessels arrivin with ballast unsuitable for pumping to the sea may be rejected for loadin or made to keep such unsuitable ballast segregated on board. It is strict against the law to pollute the waters of the United Arab Emirates, an any Master, his vessel and Owners, shall be subject to prosecution b the United Arab Emirates authorities if such pollution does occur.

FIRE PRECAUTIONS: The vessel's fire fighting appliances, includin its main and emergency fire pumps shall be kept on standby and read for immediate use. Before berthing operations comence, fire hoses sha be uncoiled and connected to the fire main which should be ke pressurised. Fire monitors should be elevated and maintained f immediate use. The water spray system of the vessel must be teste and maintained ready for use. The dry powder system or portable uni shall be ready for use and in close proximity to the vessel's manifold

The vessel is solely responsible for, and presumed capable of, fightin any fire on the vessel without assistance from terminal sources.

Should fire break out on either the vessel or the berth, the vessel Master or deputy must immediately report the fire by the quickest mean possible (VHF/UHF/telephone contact, sounding ship's siren, etc.) to th Terminal. The vessel's Master or deputy must also notify the Jet Supervisor by means of VHF Channel 16. All cargo and balla operations will be stopped immediately and then all valves closed. A the vessel's Master or deputy assisted by the crew is responsible f fighting the fire on board the vessel, he should stand-by to disconne hoses or metal arms.

The jetty supervisor will be responsible for initiating the terminal fi alarm system and actuating the terminal emergency plan. He sha contact the senior deck officer on board the vessel to ascertain wh assistance can be rendered by Terminal equipment and personnel.

In the event of an emergency, an alarm signal (continuous siren) w be sounded.

The loading platform fire fighting system has one main motor drive fire water pump and one stand-by diesel engine driven fire water pum Both pumps are capable of handling 1,500 g.p.m. at 150 p.s.i.g. pressu and are located on the jetty trestle.

The vessel's Master or his deputy will alert ship's personnel to stan by for special instructions from the Terminal Supervisor. Thes instructions may require immediate departure of the vessel from t berth.

MEDICAL: Vessels requiring emergency medical assistance shou contact Hamriyah LPG Terminal by UHF Radio (Amoco 210) or t Terminal Supervisor by UHF Radio (Amoco 420). Private doctors a hospital facilities are available in the town of Sharjah.

DENSITY: 1029.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: There are no Consulates in the village of Hamriya however, the Consular or Diplomatic Representatives for many natio maintain offices in the towns of Abu Dhabi and Dubai.

REPAIRS: There are no facilities for making vessel repairs at Hamriy LPG Terminal and no repairs will be allowed at the jetty. Howev arrangements can be made through the vessel's Agent to utilise t repair facilities at other ports.

SURVEYORS: No Cargo Inspectors or Marine Surveyors are based the village of Hamriyah but inspectors and surveyors who reside at ot ports can be arranged through the vessel's Agent.

CUSTOMS: Masters are advised that drinking or sale of alcoh beverages is strictly forbidden to U.A.E. national citizens and is contro for other nationals. Masters are warned of the serious consequences offering such drinks to the Terminal staff or other officials who may bo the vessel.

REPATRIATION: Not possible as no officials based at the terminal.

POLICE/AMBULANCE/FIRE: Contact terminal operator.

WEATHER/TIDES: *General:* The Company can advise of the follow general environmental characteristics for the Sharjah coastline area the navigator is referred to the published sailing instructions a directions for the area for more detailed information on the clima weather, wind, tide, current and sea.

Climate: The climate along the coastline of Sharjah is characterised cool Winters and very hot Summers. The annual mean rainfall is 4.2 and the relative humidity varies considerably according to the time day with the highest relative humidity generally in the early morning the lowest relative humidity generally in the early afternoon. The temperature is generally moderate in the Winter, but is high in Summer and can be extremely high in the interior on Summer afterno

Weather:

Annual mean rainfall	4.2
Lowest mean daily minimum air temperature	55°
Highest mean daily maximum air temperature	102°
Lowest average monthly sea surface temperature	72°
Highest average monthly sea surface temperature	90°

Winds: The winds in the Southern part of the Gulf are usually ligh generally blow from the Western quadrant most of the year bu occasionally interrupted by winds from varying directions. The vis along the Sharjah coastline is generally good but from June to Septe the Shamal blows over the Gulf area and frequently produces r seas and stirs up dust clouds which can affect visibility at sea. The fronts which move down the Gulf from November to April frequ cause a North or N.W. wind of 20 knots or more along the Sh coastline with accompanying swells.

Tides: The tide for Sharjah can be predicted with reasonable acc through use of the tide tables for Shatt Al Arab with the appro correction factor for Sharjah applied.

Currents: The current along the Sharjah coastline has a predominantly counter-clockwise circulation throughout the year and is not generally strong. The strongest current is usually during the month of January (0.46 to 0.8 knots) and during the month of April (0.6 to 1.7 knots).

Seas: High waves generally do not occur along the Sharjah coastline since the winds are usually light in the vicinity of the coastline. On those occasions when the wind does become strong, the wave heights generally remain somewhat limited since the distance over which the wind can blow to generate waves is somewhat short from most directions due to the bend in the Gulf which tends to reduce the fetch of North winds at Sharjah (e.g. waves over 8 ft. occur 0.2 per cent of the time).

GENERAL: *Flag:* Vessels are required to fly the flag of the United Arab Emirates on the foremast during daylight hours while in Sharjah waters. The Sharjah territorial waters extend 12 nautical miles seaward from the Sharjah coastline.

Government Officials: Sharjah officials such as the Customs Officer, Quarantine Officer, Immigration Officer, Port Authorities and Police are stationed in the town of Sharjah. Should Customs Guards be stationed on board the vessel while at the jetty it is expected that the vessel will provide food for these Guards and other Sharjah officials.

Quarantine Regulations: The rules governing the quarantine of vessels are the same as those found in other parts of the world.

Contraband: During loading it is prohibited for any unauthorised craft to come alongside vessels while at the LPG Terminal.

Garbage: The dumping of garbage and refuse overside is prohibited.

Shore Leave and Crew Changes: Vessel's personnel (other than medical emergency cases) are not allowed to embark or disembark from the vessel at the jetty. There are no facilities for crew changes at the jetty.

Visitors: Visitors are not allowed to embark or disembark from the vessel at the jetty.

Supplies: Commissary supplies, stewards stores, laundry services, fresh water, marine lubricants and bunkers are not available through the Operator and may not be loaded at the jetty. Any questions concerning the availability of such items from other sources and the loading of such items elsewhere should be handled through the vessel's Agent.

Readiness: As no berthing may be undertaken during hours of darkness, the Notice of Readiness will be accepted by the Terminal only between the hours of 0600 and 1800 provided that the vessel is apparently in all respects ready to moor and receive the cargo. Notice of Readiness will not be accepted during a period when the port is closed on account of adverse weather or when the vessel arrives prior to the date upon which it is nominated to load.

The foregoing paragraph notwithstanding, in no event shall a Notice of Readiness, whether previously accepted or not, be valid or binding on the Terminal unless and until such time as the vessel, her tanks and equipment, are, in fact, in every respect whatsoever in the proper condition and operation to receive the cargo.

Agency: The Operator does not perform any vessel agency functions. Vessels calling at Hamriyah LPG Terminal must arrange for their own Agents.

AUTHORITY: *Owner:* Shalco (Sharjah LPG Co.) P.O.Box 787, Sharjah, United Arab Emirates. *Tel:* 543666. *Telex:* 68799.

Operator: Amoco Sharjah Oil Company, P.O.Box 1191, Sharjah, United Arab Emirates. *Tel:* 355100. *Telex:* 68685. *FAX:* 355142.

Contact: B. G. Bramley, General Manager.

LPG Terminal, Hamriyah, Sharjah, United Arab Emirates. *Tel:* 883744, 883894. *Contact:* Captain H. Dietze.

AGENT: See "Sharjah".

HULAYLAH TERMINAL, Ras Al Khaimah:
25.58 N. 55.56 E.

LOCATION: The geographical location of the Hulaylah Terminal SPM is: Lat. 25° 57' 26" N., Long. 55° 56' 11" E.

Hulaylah Terminal is the export crude oil facility operated by Ras Al Khaimah Gas Commission (RAKGAS) and is located approximately 7 miles offshore from Mina Saqr, Ras Al Khaimah, United Arab Emirates.

Crude oil from the Saleh Offshore Field is transferred to shore tanks located in approximate position 25° 58' 26" N., 55° 56' 17" E. from where it is transferred to the SPM by pipeline.

Saleh Field production facilities are located at the following positions:

	Latitude	*Longitude*
Saleh 1 and Production Platform	26° 11' 31" N.	55° 42' 27" E.
Saleh 1 Flare	26° 11' 45" N.	55° 42' 35" E.
Saleh 2 Platform	26° 10' 43" N.	55° 42' 16" E.
Saleh 3 Platform	26° 10' 11" N.	55° 41' 47" E.
Saleh 4 Platform	26° 10' 27" N.	55° 45' 37" E.
Saleh 5 Platform	26° 09' 51" N.	55° 45' 11" E.
Saleh 6/7 Platforms	26° 11' 34" N.	55° 43' 51" E.

DOCUMENTS: None required.

PILOTAGE: The Mooring Master Boarding Area for the Hulaylah Terminal is 3 miles Westward of the SPM, or boarding will be at the anchorage as appropriate.

The RAKGAS Mooring Master will remain on board throughout the export vessel's stay on the berth to co-ordinate the petroleum transfer operation; therefore, suitable and adequate accommodation shall be provided for him on board the export vessel.

Arrival at Pilot Station/Anchorage: Means of access to the vessel by the RAKGAS Mooring Master shall be provided in accordance with the requirements of SOLAS, and early advice will be given by RAKGAS as to the side of the vessel that access should be provided.

At night the access area shall be adequately illuminated to provide for the approach and boarding of the RAKGAS Mooring Master, Government Officials and for RAKGAS Representatives.

The Conditions of Entry into and Use of Hulaylah Terminal and Agreement for the Hiring of Tugs will be presented to the Master of the export tanker and shall be signed by him on behalf of himself, the vessel and its Owners prior to departure from the Pilot Station/anchorage and commencement of berthing operations.

The Notice of Readiness will be accepted only between the hours of 0600 and 1500 provided the RAKGAS Mooring Master is satisfied that the export vessel is apparently in all respects ready to moor and load. Notice of Readiness will not be accepted during a period when the port is closed on account of adverse weather, or when an export vessel arrives prior to the date upon which it is nominated to load.

The foregoing paragraph notwithstanding, in no event shall a Notice of Readiness, whether previously accepted or not, be valid or binding on the Terminal unless and until such time as the export vessel, her tanks and equipment, are, in fact, in every respect whatsoever in the proper condition and operation to receive the cargo.

ANCHORAGES: Should it be necessary to anchor, then vessel should proceed to the recommended Tanker Anchorage Area which is within a circle 0.5 miles in diameter and with its centre located in position Lat. 25° 58' N., Long. 55° 53' E.

MAX. SIZE: Max. deadweight 300,000 tons. Larger vessels require prior clearance by the terminal.

HEALTH: No health clearance requirements currently in force.

RADIO: Following receipt of a nomination of an export vessel to load at the Hulaylah Terminal, RAKGAS will cable to that vessel via Bahrain Radio (A9M) or advise vessel's Agent details of nomination, loading API and temperature, and berthing prospects.

On receipt of this cable, and in any case not later than 72 hours prior to arrival time at Hulaylah Terminal, the export vessel is required to cable to RAKGAS via Bahrain Radio or via the Agent, the following information:

(a) Name of vessel.
(b) ETA in GMT (U.A.E. time is GMT plus 4 hours throughout the year).
(c) Name of Master.
(d) Estimated arrival draft, fore and aft, and displacement.
(e) Time for discharging clean ballast, if any.
(f) If vessel proceeding to any port(s) prior to Hulaylah, and if so, any delays anticipated.

Sections (a) and (b) of above message should be repeated via Bahrain Radio 48 hours, 24 hours and again 12 hours prior to the export vessel's arrival at the Hulaylah Terminal and at any other time when ETA changes more than 1 hour.

When approaching the Terminal, an export vessel should contact the Terminal on VHF Channel 16 (156.8 MHz), establishing a working channel and confirm ETA.

VHF: *Export Tanker:* When the export tanker is berthed at the SPM, communication between the Terminal and the export tanker will be established on VHF Channel 16 or on a mutually agreed VHF channel.

In those cases where the VHF equipment on board the export tanker is not compatible with the Terminal equipment, the RAKGAS Mooring Master will arrange for the availability of compatible VHF sets for use during the transfer operation. These sets shall be returned to the RAKGAS Mooring Master prior to his departure from the export tanker.

Approach to the Anchorage/Mooring Master Boarding Area: When within VHF communication range, Masters of export tankers should ascertain berthing prospects from the Terminal.

TUGS: Suitable tugs and line boats are chartered for each lifting and are for export tanker's account.

BERTHING: *Mooring/Unmooring Arrangements:* The export tanker will be moored to the SPM according to a mooring plan to be agreed between the RAKGAS Mooring Master and the Master of the export tanker.

LOADING: *Transfer Operations:* The RAKGAS Mooring Master will remain aboard the export tanker throughout the petroleum transfer operation and will co-ordinate all activities on board the export tanker with the Terminal.

The maximum loading rate available for the transfer operation will be about 10,000 bbls.p.h.

At all times during the transfer operation, a responsible deck officer shall be in charge of operations, either on deck or in the control room. On vessels with a central control room from which all operations are controlled, a deck watch in contact with the control room is required to continuously patrol the cargo deck, and monitor the manifold area of the export vessel. A crew member shall be kept on watch on the bow.

When the responsible export tanker officer has declared the export tanker ready to load with all necessary valves open, the Mooring Master will instruct the Terminal to commence the transfer.

At any time during the transfer operation, the rate can be reduced as requested by the Master or responsible officer of the export tanker.

The RAKGAS Mooring Master shall be given advance notice by the Master or responsible officer on the export tanker when a reduction of loading rate is required preparatory to completion of transfer.

After completion of loading, the vessel will be ullaged. A Bill of Lading, Cargo Manifest, Ullage Report, Certificate of Quantity, Certificate of Quality, Certificate of Origin, and Port Time Log will be completed. All such documents shall be signed by the Master of the export tanker prior to that vessel's departure. If required or requested by the Master of the export tanker, the Agent for the export tanker may sign the cargo documents on behalf of the export tanker's Master. The official quantity and quality of the crude oil delivered to the export tanker shall be determined by RAKGAS and shall be final and binding on the export tanker and her Owners and Charterers.

Hose Handling: The storage vessel will present a single 16 in., 150 ASA connection, hose will be connected on the port side. Hose connection/disconnection will be carried out by the export tanker's crew who are required to be at all times under the control of a responsible deck officer and undertake hose handling operations in co-operation with procedures advised by the RAKGAS Mooring Master.

The export tanker will be required to have ready a derrick at the port manifold area for the handling of the flexible hose.

Minimum Derrick Capacity:

Vessel size	*Derrick capacity*
up to 70,000 d.w.t.	7.5 tons
70,000 – 150,000 d.w.t	10.0 tons
over 150,000 d.w.t.	15.0 tons

Cargo Information: Oil loaded at the Hulaylah Terminal is Saleh Crude with an average API gravity of approximately 60°. The loading temperature will vary from 73°F in the Winter to 85°F in the Summer months. Some H_2S may be present in the crude oil.

Hydrogen Sulphide: Vessels nominated to load at the Hulaylah Terminal SPM should be advised that Saleh Crude may contain H_2S. Continued exposure over long periods to even small concentrations of hydrogen sulphide can cause headache and nausea. Exposure to high concentration may be dangerous and even fatal. Masters should ensure that personnel involved in the loading operation take the appropriate precautions as recommended by their Owners for handling cargo containing H_2S.

Deballasting Operations: Export vessels are required to arrive with sufficient ballast or cargo and be adequately trimmed for safe manoeuvring.

Hulaylah Terminal has no ballast reception or slop disposal facilities, and therefore, export vessels are required to arrive with sufficient clean ballast suitable for pumping directly to the sea. Export vessels arriving with ballast unsuitable for pumping to the sea may be rejected for loading, or will be required to keep that portion of their ballast unsuitable for discharge to the sea segregated on board. RAKGAS will not accept any claims for vessels unable to meet such requirements.

It is strictly against the law to pollute the waters of the United Arab Emirates, and any Master, his vessel and Owners, may be subject to prosecution by the United Arab Emirates Authorities if such pollution does occur.

Simultaneous Deballasting and Loading of Cargo Tanks: Under certain weather/sea conditions this practice may be necessary. In such circumstances, simultaneous deballasting and loading may be requested by the RAKGAS Mooring Master.

If such operations are found necessary, it shall be done at the sole risk of the export vessel, its Master and Owners, and the most stringent care and attention shall be taken by the export tanker. The Owners, shall remain fully responsible for, and indemnify and hold RAKGAS, its parent companies, subsidiaries, and affiliates, harmless from, any and all claims, demands, damages, liabilities, costs, fines, and expenses, of every kind whatsoever, arising out of, on account of, or in any way connected with the simultaneous deballasting and loading of the export tanker.

Inert Gas Systems: All crude tankers of 20,000 d.w.t. or greater nominated to load shall arrive with cargo tanks inerted to 8% oxygen or less by volume and pressurised as required by the SOLAS Convention. Normally cargo tanks under pressure will not be inspected by the Terminal Representative provided a declaration is signed by the Master prior to commencement of loading confirming that all compartments of the vessel have been prepared in all respects as required for the cargo to be loaded.

(a) Tank Inspection, Gauging, Sampling, Water Dips and Temperatures: Should it be necessary for tanks to be inspected, then it should only be done on a tank-by-tank basis. The system shall be maintained at about 200 mm. water gauge pressure except for the individual tank to be opened which, if possible, is to be isolated from the system and the sighting port opened with care. On completion of inspection the tank shall be secured and re-pressurised. The next tank is not to be isolated and opened until the preceding tank is secured and open to the IG system. All gauging, sampling, water dips and temperatures will be taken either through special fittings provided; or if it is necessary to open up tanks for this purpose, then this will be done one tank at a time as described above.

(b) Failure of IGS: If at any time the IGS is not maintaining the prescribed conditions, the RAKGAS Mooring Master shall order a suspension of transfer operations. The cost of any delays will be for the export vessel's account.

MEDICAL: Doctors and dentists available.

DENSITY: 1030.

FRESH WATER: Not available.

FUEL: It is not permitted to load bunkers while berthed at the SPM. Bunkers can be arranged at anchorage by vessels' local Agents.

CONSULS: At Dubai.

REPAIRS: Repair facilities are not readily available.

Repairs will not be permitted when the export vessel is berthed at the SPM.

SURVEYORS: At Dubai.

CUSTOMS ALLOWANCES: Most crew transit through Dubai where import allowances are:

1. 1,000 cigarettes or 200 cigars or 1 kilo of tobacco.
2. One litre toilet water and 150 gms. perfume.
3. No alcohol of more than 2% permitted without an import licence.
4. There are no restrictions outbound.

REPATRIATION: Launch service available.

AIRPORT: Ras Al Khaimah has an international airport but Dubai Airport has greater frequency of flights.

SHORE LEAVE: Permitted.

GARBAGE DISPOSAL/WASTE OIL DISPOSAL: Offshore facility – no services.

WEATHER: The winds in the Southern part of the Gulf are usually l and generally blow from the Western quadrant most of the year but a occasionally interrupted by winds from varying directions. The visib along the Ras Al Khaimah coastline is generally good, but from June September the Shamal blows over the Gulf area and frequently produ rough seas and stirs up dust clouds which can affect visibility at s The cold fronts which move down the Gulf from November to A frequently cause a North or N.W. wind of 20 knots or more along t Ras Al Khaimah coastline with accompanying swells.

High waves generally do not occur along the Ras Al Khaimah coast since the winds are usually light in this area. On those occasions wh the wind does become strong, the wave heights generally remain limi since the distance over which the wind can blow to generate waves relatively short from most directions. This is due to the bend in the G which tends to reduce the fetch of North winds (e.g. waves over 8 occur 0.2% of the time).

Currents are omnidirectional and variable in strength. During the mo of January 1984, currents in excess of 1 knot were recorded.

SAFETY: *Safety Requirements:* Masters will be given the RAKG Safety Requirement Letter by the RAKGAS Mooring Master prior commencement of berthing operations, and a signed acknowledgem will be required.

Safety Check List: On completion of berthing and prior to t commencement of deballasting or cargo loading, the Ship Safety Che List will be completed following a joint inspection by the RAKG Mooring Master and a responsible export tanker's officer. The RAKG Safety Check List is based on the recommendations of the "Internatio Safety Guide for Oil Tankers and Terminals" (ISGOTT).

GENERAL: *Operating Procedures:* Procedures for cargo and ball operations shall be agreed in writing between the RAKGAS Moor Master and the export tanker's Master and Chief Officer.

Flags: The national flags of the United Arab Emirates and Ras Khaimah shall be permanently displayed by vessels at the Hulay Terminal.

Alcohol: Masters are advised that drinking or sale of alcoholic beverag is strictly forbidden to U.A.E. National Citizens and are warned of t serious consequences of offering such drinks to the Terminal staff w may board the vessel.

Storing: It is not permitted to load stores while berthed at the SPM.

Agency: RAKGAS does not perform any vessel Agency functio Vessels calling at the Hulaylah Terminal are required to arrange th own Agency representation from an Agency operating in Ras Khaimah.

AUTHORITY: Ras Al Khaimah Gas Commission (RAKGAS), P.O.B 434, Ras Al Khaimah, United Arab Emirates. *Tel:* (07) 222555, 6683 *Telex:* 99155 Raknoc Em. *FAX:* (07) 222733, 6680 *Contact:* D. Van Galen Last, Manager (Tel: 222555). E.J. Shree Operations Superintendent.

AGENT: See "Mina Saqr".

JEBEL ALI, Dubai: 25.00 N., 55.03 E. (See Pla

FLAG: U.A.E. and Dubai Emirate.

LOCATION: The Port of Jebel Ali is a major port situated some 35 S.W. of the city of Dubai.

The Port Control Tower is situated in position Lat. 24° 59.4' Long. 55° 02.9' E.

The Jebel Ali approach channel commences 12 km. off shore, entrance to the channel being marked by a fairway buoy. The buo situated in Lat. 25° 06.9' N., Long. 54° 56.5' E.

The approach channel with a depth of 15.0 m. is buoyed and run a direction 315°T – 135°T towards the port. After 10.5 km. the cha takes a 25° bend and becomes the entrance channel which leads the port on an alignment of 340°T – 160°T.

The approach channel has a width of 280 m. reducing to 235 m the bend the channel widens to 300 m. and in the entrance chann 340 m.

The Outer Basin is 2.3 km. long and 600 m. wide with depth of 14 and the Inner Basin is 3.7 km. long and 425 m. wide with a dept 11.5 m. The main axis of both basins is 047° – 227°.

All channel, basin and docks' bottoms are sandstone.

A dual purpose berth for LPG and other tankers is situated in the o basin. Ships using this berth, for which a berth booking system opera will generally be berthed starboard side to. A second tanker berth been opened at Berth No. 2 in the 14 m. basin and is used main vessels loading or discharging high flash point products. On this b vessels will normally berth starboard side to. A chemical tanker be situated on Quay 7, Berth 51, with depth of water at 11.5 m. Ves may berth port or starboard side to. No ballast reception facilities provided at these berths.

In all other berths ships can secure port or starboard side to.

DOCUMENTS: The following documentation shall be delivered t Authority's Documentation Section at least 48 hours prior to the ves arrival. The Authority reserves the right not to commence o operations until the below listed documents are received.

(a) Discharging Vessels

3 copies Cargo Stowage Plans
3 copies Cargo Manifests
3 copies Cargo Declaration
3 copies Crew List
3 copies Hazardous and Dangerous Cargo Declaration
3 copies Hatch List
3 copies Arrival/Cargo Advice
1 copy Each Bill of Lading/Packing List
3 copies Passenger Manifest

(b) *Loading Vessels:*
- 3 copies Cargo Stowage Plans
- 3 copies Cargo Loading List
- 8 copies Hazardous and Dangerous Cargo Declaration
- 1 copy Customs Endorsed Export Declaration (for each consignment).
- 3 copies Passenger Manifest

On completion of loading, 3 copies of the vessel Manifest endorsed by Ports & Customs must be provided.

Note: For categories (a) and (b), in the absence of any hazardous or dangerous cargo, "Nil" Declaration *must* be made.

(c) *Tankers:*
- 3 copies Manifest
- 3 copies Cargo Plans
- 1 copy Certificate of discharge of previous cargo.

A copy of the "Notice of Readiness" should be made available to the Harbour Master on rquest.

Immigration: Three Crew Lists are required on arrival.

Immigration Offices are established in the port. The service is available 24 hours a day. However, Masters should advise their Agent that the ship may leave outside normal office hours and that the Agent should check that Immigration Officials will be available to clear the vessel outward. This also applies to public holidays.

Masters are advised that "Immigration Clearance" must be on board and sighted by the Pilot before he can take the vessel to sea.

MINIMUM REQUIREMENTS:

In the interest of avoiding delays, all vessels programmed for Jebel Ali should comply with the following minima and be fitted with:
- (i) Fully operational Radar.
- (ii) Fully operational VHF Radio with normal marine channels.
- (iii) Sufficient crew to handle tugs' lines and moorings efficiently.
- (iv) Efficient propulsion and deck machinery.
- (v) Efficient and adequate moorings to secure vessel safely.
- (vi) Efficient signalling equipment.
- (vii) Fully operational Tachometer, Rudder and Helm indicators.
- (viii) Efficient mooring stations communications systems.
- (ix) An efficient anchor windlass and anchors.

If any of the above requirements cannot be complied with, the Harbour Master should be advised prior to arrival via "Jebel Ali Port Control".

APPROACHES: Ships should make for "Mina Jebel Ali" light float in position Lat. 25° 10.5' N., Long. 54° 52.3' E. (Gp. Fl.3 every 12 secs. 15 miles). This float lies on the axis of the channel leading into Jebel Ali Port, i.e. from this float vessel should steer 135° to approach Pilot Boarding Area.

Vessel should await Pilot in the area North of the seaward end of the buoyed channel, marked by a fairway buoy. This buoy is a safe water mark painted red and white vertical stripes. Light character is LF1. 10 sec. The centre of this waiting area, with a radius of 1 mile, is Lat. 25° 09' N. and Long. 54° 54' E.

PILOTAGE: Pilots are available on a 24-hour/day basis. Ships requiring a Pilot should call "Jebel Ali Port Control" on VHF Channel 16 at least 2 hours before arrival at Pilot Boarding Area.

All ships other than excepted ships, navigating whether by entry, leaving or moving within Jebel Ali shall be under the charge of a pilot.

The following ships will be excepted ships:
- (i) Ships of War.
- (ii) Pleasure Craft.
- (iii) Ships of less than 150 n.r.t.
- (iv) Tugs, dredgers, barges or similar vessels whose ordinary course of navigation does not exceed beyond the Gulf.
- (v) Tenders of M.E.N.A.S.
- (vi) Country Craft.

Pilots will board from fast launches, marked "Pilots" equipped with VHF, watch kept on Channel 16. Call sign "Jebel Ali Pilots".

Vessels requiring a Pilot should give at least 2 hours notice of arrival in the Pilot Boarding Area, but vessels may be instructed to approach the channel entrance by Port Control.

Outbound ships should request Pilot at least one hour prior to departure. Masters should obtain "Master's Report" from the Inward Pilot and return it completed before the Pilot leaves. Masters are advised, that Outward Pilot cannot take the ship to sea, without having sighted valid "Immigration Clearance" first.

Pilot Boarding Areas: The Pilot boarding area is located North of the channel entrance. The centre of this area is in position Lat. 25° 09' N., Long. 54° 54' E. with a radius of 1 mile.

Pilots will normally meet and embark incoming vessels at the above mentioned Pilot boarding area.

Masters are reminded to provide a safe lee.

Pilot Ladder Requirements: The following points are stressed:
- (i) The rigging of pilot ladders and the embarkation and disembarkation of Pilots thereby shall be supervised by a responsible officer of the ship.
- (ii) Every pilot ladder shall be secured in a position clear of any possible discharges from the ship, and so that each step rests firmly against the ship's side.
- (iii) Every pilot ladder shall be secured in a positon where the Pilot can gain convenient access to the ship after climbing not less than 5 ft. and not more than 30 ft..
- (iv) Whenever the distance from the water to the point of access to the ship exceeds 30 ft., access from the pilot ladder to the ship shall be by means of an accommodation ladder or equally safe and convenient means.
- (v) A light shall be provided at night so that the pilot ladder overside and also the position where the Pilot boards the ship shall be adequately lit.
- (vi) Lifebuoy and heaving line should be available at the ladder.
- (vii) When a pilot hoist is provided as the method of access, it must be of an "approved" type, complying with the recommendations of the "European Maritime Pilots Association".

ANCHORAGE: The holding ground is poor, ships are recommended to use more chain than usual.

The anchorage is an area enclosed by the following four positions:

1.	Lat. 25° 11.3' N.	Long. 54° 49.8' E.
2.	Lat. 25° 08.3' N.	Long. 54° 53.2' E.
3.	Lat. 25° 04.9' N.	Long. 54° 49.5' E.
4.	Lat. 25° 07.9' N.	Long. 54° 46.2' E.

Ships will anchor here in a depth of approximately 16 m. – 20 m. (9 – 11 fathoms).

Pipe-line: All ships are warned that an untrenched pipeline lies East of the channel. This line comes ashore in position 25° 01' N., 55° 04' 30" E. From this position it lies in a direction of 345° for approximately 10 miles, thence assumes a direction of 313° towards the "Fatah Field" i.e. it is from 2 to 5 miles East of the buoyed entrance channel. Other untrenched pipelines are laid on the seabed and are clearly marked on the Admiralty Charts of the area. Ships should **not** anchor near this or other pipelines, nor should they approach the area with anchors walked back or trailing.

MAX. SIZE: No limit on LOA except Tanker Berth. Max. LOA Tanker Berth 273 m.

Also see "Berthing", "Bulk Handling Facilities" and "Tankers".

RADIO: *ETA requirements:* (Also see "Tankers").

Vessels arriving at the Port of Jebel Ali are required to provide the Harbour Authority with the following estimated times of arrival:
- (i) At least 48 hours prior to arrival or on leaving the last port, whichever is later, via Bahrain Radio, Inmarsat, Telex No. 47398 DPA EM or Fax: 04-835430. Ship/shore telephone may be used on 04-835326 only.
- (ii) Confirm the vessel's estimated time of arrival at least 24 hours before arrival at the designated pilotage area.

Communications: The Port radio station maintains continuous listening watch on VHF Channels 16 and 69. The Port Emergency Channel is 18A. On coming within VHF range of "Jebel Ali Port Control", vessels should establish VHF contact for the purpose of updating the estimated time of arrival, and at least 2 hours' notice of arrival in the Boarding Area should be given.

Vessels are warned that VHF Channels are monitored and taperecorded and any misuse of VHF Channels will be reported to the proper Authorities.

Notice of Arrival: Each vessel Owner, Operator or Charterer expecting to dock a vessel at the port for the purpose of loading or discharging cargo shall give the Authority 2 days prior notice of the arrival of such vessel and furnish such information as the Authority may require. Reconfirmation of the vessel's arrival shall be made by the vessel's Master on the day prior to arrival.

Pre-Arrival Information: Prior to arrival, all vessels regardless of tonnage calling at the Port of Jebel Ali should provide "Jebel Ali Port Control" with the following information:
- (i) Name of vessel
- (ii) Port of Registry
- (iii) Name of Master
- (iv) Gross Tonnage
- (v) LOA
- (vi) Draft
- (vii) Cargo to discharge or load
- (viii) Pilot boarding arrangements
- (ix) Number of crew, indicating the number of deck crew available for manoeuvring
- (x) Health information
- (xi) Last port of call.

VHF: See "Radio" and "Pilotage".

RADAR: VTS harbour radar in Port Control Tower in position 29° 59.4' N., 55° 02.9' E.

The Control Tower is equipped with a Sperry Radar Vessel Traffic System. This equipment consists of a dual radar system combined with a data processor and computer. Traffic movements are monitored, and recorded within the Port limits and approaches. The Tower is continually manned by qualified Radar/Radio Operators.

TUGS: Three fire-fighting tugs "Asad", "Namer" and "Shadeed" are maintained in service by Dubai Ports Authority. These tugs are fully equipped with radar, VHF, towing winches and towlines. "Asad" and "Namer" are of 2,300 h.p. with a bollard pull of over 30 tons; "Shadeed" is of 3,100 h.p. with a bollard pull of over 40 tons. These vessels are fitted with multi-channel VHF radios. Other privately owned tugs are occasionally available in the port to assist if necessary.

Mooring boats: Three mooring boats, the "Dina", "Laila" and the "Wafa" are available at all times. These boats are also equipped with towing hooks and VHF.

BERTHING:

Berths No. 1 – 17: Depth 14.0 m.
Berths No. 18 – 66: Depth 11.5 m.
Tanker/LPG Berth No. 1: Depth 15 m.
Tanker Berth No.2: Depth 14 m.
"Star Energy" Berths: Depth 14.0 m.
Bulk Grain Berths: Depth 14.0 m.
Dubal Terminal: Depth 14.0 m.

Moorings: Bollards on the various quays and wharves are of capacity and spacing as listed below.

Quay/Wharf	*Capacity* (Tonnes)	*Spacing* (m.)
1, 2, 3	100	27
4A, 4B	70	30
5, 6, 7	70	30
8, 8 Basin	30	30
9 West	70	30
9 East, 10	70	20
West Wharf	15	14.4
East Wharf	15	14.4
Bitumen Wharf	30	20

It is essential that whilst alongside quays, moorings are tended carefully and regularly and conform with recommended mooring patterns for ship sizes. The average rise and fall is 1.14 m.

There are special 250 tonne bollards on Berths No. 5, 7, 22, 23, 25, 26, 43, 44, 45, 46, 48 and 49 for vessels over 300 m. in length. These berths can cater for laid-up VLCCs and are fitted with electric points and shore telephone points. All berths can be connected to fresh water points. Enquiries for further information and conditions to the Harbour Master.

General Cargo Areas: These are located on Quays No. 5, 6 and 10 with 21 m. – 30 m. wide paved aprons, covered and open storage, truck delivery and receiving docks.

Prior arrangements must be made with the Cargo Handling Manager for the discharge of obnoxious and hazardous cargo.

Storage: Seven transit warehouses provide more than 50,000 sq.m. of covered storage. Nine Dutch barns provide 24,000 sq.m. of semi-covered storage. Over 400,000 sq.m. paved open storage areas are provided.

Equipment: A full supply of supporting cargo handling equipment to complement general cargo operations is available. This includes 5 mobile hydraulic cranes (1×20 tons, 2×40 tons, 1×60 tons and 1×100 tons capacity) and 2 Gottwald cranes (1×260 E and 1×280 E) capable of lifting 80 tons and 100 tons respectively. Port Operations should be contacted to verify weight limits at various radii.

Ro-Ro Terminal: The Ro-Ro Terminal is situated at Berths 32-34, with two ramps specially designed for stern discharging vessels, and a water depth of 11.5 m.

Cold Store: The Cold Store is situated at Berth 31 and has a capacity of approximately 7,000 tons. Temperature can be separately controlled in each of eight rooms in the range of −29°C. to 13°C.

BULK HANDLING FACILITIES: *Dubai Terminal:* This facility is located on Quay 1, Berth No. 1. A travelling unloader equipped with 2 booms having a travel of 140 m. is used for discharging of alumina powder. Hourly capacity 380 t.p.h. through 2 booms. Outreach of boom 27 m. Max. draft 13.25 m.

Bulk Grain Terminal: This facility is located on Quay 1, Berths No. 3 – 4. Two travelling loader/unloader arms, with an outreach of 22.5 m. and a loading/unloading rate of approximately 800 t.p.h. each, are installed, and can travel 460 m. parallel with quay face. Max. draft 13.25 m.

CONTAINER FACILITIES: The Container Terminal is situated at Berths No. 13 – 17, totalling 1,535 m., with 60 m. wide concrete aprons and a water depth of 14 m. Max. draft 13.25 m.

Storage: The Container Yard can accommodate over 46,000 T.E.U's.

The Container Freight Station provides 10,000 sq. m. of covered storage.

Temperature-controlled warehouse provides 6,700 sq.m. of cool storage at +10°C to +15°C as required.

Equipment: 2 fourth generation Reggianis, 1 third generation Deer Park, 3 third generation Mitsubishi and 2 Hitachi. All gantries are electric with telescopic spreaders to handle 20 ft., 35 ft., 40 ft. and 45 ft. containers and appropriate fittings for overheight and flat rack units. Maximum crane specifications:

S.W.L. under the spreader	41.0 tons.
S.W.L. under cargo hook beam	51.0 tons.
Distance from face or rubber fender to centre line of container at maximum outreach	43.0 m.
Top of container at maximum lift above quay level	32.3 m.
Top of container at lowest position below quay level	16.5 m.
Quay level above highest tide	2.0 m. (6 ft. 6 in.)
Quay level above lowest tide	4.0 m. (13 ft. 1 in.)
Container crane travel	1,535 m.
Container crane reach behind back rail	15.0 m.
Maximum weight of 20 ft., 35 ft., 40 ft. and 45 ft. container handled by spreader	41 tons
Maximum heavy lift with spreader removed	80 tons.

34 rubber tyred gantries, 30 at 1 over 5 stack height, four at 1 over 4 stack height. 20 toploaders of 35 tons capacity and 16 empty container handler lift trucks.

400 × 380 Volt reefer ISO and 42 × 230 Volt Mipco refrigerated container plugs with 24 hour monitoring service.

Flat bed trailers, low bed trailers, tractor units, mafis, goosenecks and an assortment of trucks.

Truck scale with a capacity of 50 tons.

A container cleaning service is available.

Container Terminal Crane Booking: Dubai Ports Authority operates a Crane Booking System for the Container Terminal. Cranes are booked in order of receipt of request. Agents should be consulted to assure timely booking of container cranes.

STEVEDORES: Dubai Port Authority (Jebel Ali).

Normal Working Hours:

The normal working hours from Saturdays to Thursdays inclusive (but excluding Public Holidays) will be 0700 hrs. – 1200 hrs. and 1300 hrs. – 1600 hrs.

Any activity outside of normal working hours must be arranged with the Authority and overtime rates may apply.

Working hours are subject to change during the month of Ramadan.

MEDICAL: Medical facilities are provided by Dubai Hospitals, arrangements should be made by Agents. 24 hour emergency medical services are available. Ships should call Jebel Ali Port Control on VHF Channel 16 (Tel: 04-835251) or Port Security (Tel: 04-816222) to arrange ambulance.

TANKERS: *Tanker/LPG Berth No. 1:* This berth provides facilities for product tankers as well as LPG and condensate carriers. 6 loading arms are available to handle Product tankers through 10 in. connections with reducers available. On the LPG half of the jetty, there are 3 loading arms with 16 in. connections. Two vapour return lines are also fitted, 1 for propane and 1 for butane with 14 in. connections. Various reducers and straight pieces are also available. The depth of water in the berth is 15 m. Max. draft 14.00 m. on H.W. Max. LOA 273 m.

This berth is equipped with mooring hooks of 100 tons strength, each fitted with electric capstan. The hooks are tripped manually.

Tankers will generally be berthed starboard side to the Berth.

Tanker Berth No. 2: This berth provides facilities for product tank using 10 in. Chicksan arms. For certain products flexible pipe connections are permissible. Various reducers are available. On t berth, Class 1 products can also be handled. Max. draft 13.25 Max. LOA 225 m.

Chemical Tanker Berth: A designated Chemical Tanker berth operational at Berth No. 51. Depth of water at the berth is 11.5 Max. draft 10.75 m.

"Star Energy Resources" Berths: Star Energy Resources oper 2 product tanker berths on Quay 2 (Berths No. 8 and 9). Two ships u 255 m. LOA each can be accommodated simultaneously on the berths, which are equipped with 2×12 in. Chicksan arms. Berths a also equipped with mooring hook assemblies, each fitted with capsta The hooks are tripped manually. Maximum draft 13.25 m. Tankers c be berthed port or starboard side to the quay.

Vessels are warned that no dirty ballast discharge will be allow within the limits of Jebel Ali. There are no shore ballast reception facilit

Also see "General".

Vessel Requirements: Below, are details of information required by t terminal operators for accepting vessels for LPG, LNG and Condensa loading and Port Authority of Jebel Ali's requirements and regulatio for a tanker in berth.

Dubai Port Authority (Jebel Ali) – Tanker Berth: Uniform mooring syst is advisable, i.e., all synthetic or all wire for all moorings exce backsprings. D.P.A. does not allow the use of nylon tails on w moorings. Backsprings must be of wire.

Concerning deballasting requirements P.A.J.A. allows the dischar of permanent segregated clean ballast in the harbour. Clean tank ball can only be discharged if a surveyor appointed by Agents at Owne Charterer's expense, certifies that the tank ballast is clean, that all car pumps and lines are clean and the surveyor remains on board to witne and if necessary stop the discharging of cargo tank ballast if it prov to be unclean. This operation takes place during daylight hours only

It is also recommended that all efforts be made to cut down time tak by ships for documentation purposes after completion.

Bunkers may not be taken during cargo operations.

On all occasions, D.P.A. would berth all ships starboard-side-to the tanker berth unless some particular "one off" technical reas prevents this.

LPG – Vessel Particulars: The following items shall be submitted w each vessel nomination. In the event that all the data is not availab the nominated vessel acceptance shall be tentative and subject to t approval of "Seller" Dubai Natural Gas Company Limited.

1. Vessel name and flag.
2. Vessel Master's name.
3. Vessel ETA at Jebel Ali.
4. Vessel communication channel.
5. Vessel description (weight, length, dimensions, etc.).
6. Loading connection: (a) Size. (b) Rating. (c) System – ASA/Met British, etc.
7. Height of the loading connection from the centre line of the flan to the first obstacle downward below each flange.
8. Distance from the loading flange face to ship's rail.
9. Distance between loading and vapour return connection centr
10. Distance from the loading flange to the first obstacle toward manifold.
11. Height of the ship's rail in front of the loading manifold.
12. Previous cargo and its origin.
13. Manifold sequence of the loading and vapour return connectio
14. Loading rate per product for this particular lifting.
15. Cargo tanks temperature per product upon vessel arrival at loading port.
16. Can propane and butane be loaded simultaneously?
17. Cargo on board, its origin and specification per tank upon ves arrival for loading.
18. Vessel meets Government, D.P.A. and seller regulation, or spe which regulation the vessel meets.
19. Vessel in possession of reducers, their type, size and rating.
20. Demurrage rate and conditions, if any.
21. Specify if vessel will install any mesh screens in their mani during this lifting.
22. Amount to be loaded.
23. Vessel has nylon mooring lines.
24. Buyer or Agent to notify Dugas of the vessel location, quanti be loaded and its ETA 72, 48 and 24 hours before the first da the vessel's scheduled ETA.
25. Can propane and butane be purged and/or cooled simultaneou (If applicable.)

LNG – Vessel Particulars: The following items shall be submitted each vessel nomination. In the event that all the data is not avail the nominated vessel acceptance shall be tentative and subject t approval of "Seller" Dubai Natural Gas Company Limited.

1. Vessel name and flag.
2. Vessel Master's name.
3. Vessel ETA at Jebel Ali.
4. Vessel communication channel.
5. Vessel description (weight, length, dimensions, etc.).
6. Loading connection:
   (a) Size.
   (b) Rating.
   (c) System – ASA/Metric/British, etc.
7. Height of the loading connection from the centre line of the f to the first obstacle downward below each flange.
8. Distance from the loading flange face to ship's rail.
9. Distance between loading connection centres.
10. Distance from the loading flange to the first obstacle towa manifold.
11. Height of the ship's rail in front of the loading manifold.
12. Previous cargo and its origin.
13. Vessel gas vapour venting system.

14. Loading rate for this particular lifting, per single loading arm connection.
15. Ballast on board condition (clean, dirty, etc.).
16. Deballasting estimated time required after berthing.
17. Cargo on board, its origin and specification per tank upon vessel arrival for loading.
18. Vessel meets Government, D.P.A. and seller regulation, or specify which regulation the vessel meets.
19. Vessel in possession of reducers, their type, size and rating.
20. Demurrage rate and conditions, if any.
21. Specify if vessel will install any mesh screen in their manifold during this lifting.
22. Amount to be loaded.
23. Vessel has nylon mooring lines.
24. Buyer or Agent to notify Dugas of the vessel location, quantity to be loaded and its ETA 72, 48 and 24 hours before the first day of the vessel's scheduled ETA.

Condensate – Vessel Particulars: The following items shall be submitted with each vessel nomination. In the event that all the data is not available, the nominated vessel acceptance shall be tentative and subject to the approval of "Seller" Arco Dubai.

1. Vessel name and flag.
2. Vessel Master's name.
3. Vessel ETA at Jebel Ali.
4. Vessel communication channel.
5. Vessel description (weight, length, dimensions, arrival draft fore and aft, estimated departure draft, etc.).
6. Loading connection:
   (a) Size.
   (b) Rating.
   (c) System – ASA/Metric/British, etc.
   (d) Is manifold located centre line of LOA.
7. Height of the loading connection from the centre line of the flange to the first obstacle downward below each flange.
8. Distance from the loading flange face to ship's rail.
9. Distance between loading connection centres.
10. Flange thickness. Maximum acceptable: 37 mm.
11. Clearance behind connecting flange for coupling claws. Minimum requirement: 240 mm.
12. Height of the ship's rail in front of the loading manifold.
13. Previous cargo and its origin.
14. Loading rate for this particular lifting. Minimum requirement 25,000 bbls p.h. per single loading arm connection.
15. Specify quantity of permanent and cargo tank ballast on board. Only permanent segregated ballast discharge allowed at Jebel Ali port. Repeat only permanent segregated ballast discharge allowed.
16. Estimated deballasting time required after berthing. Specify if simultaneous with loading.
17. Cargo on board, its origin and specification per tank upon vessel arrival for loading.
18. Vessel in possession of reducers, their type, size and rating.
19. Please confirm agreement release inert gas pressure in all tanks for inspection by Arco Surveyor.
20. Buyer or Agent to notify Arco of the vessel location, quantity to be loaded and its ETA 72, 48 and 24 hours before the first day of the vessel's scheduled ETA.
21. Arco Dubai advise starboard side alongside.
22. Arco Dubai advise loading arm size nominal 16 in. with provision for 16, 14 and 12 in. connection by hydraulic coupler.
23. Quantity to be loaded, in barrels. Arco Dubai advise
    API:– Temp.:–

DENSITY: 1032.

FRESH WATER: Supplied by Dubai Water Department (Tel: 04-816749). Order through Agents. Water laid on at all berths.

FUEL: A Bunkering Barge is stationed in Jebel Ali operated by "E.P.P. Co.". Arrangements for bunkers are to be made through vessels' Agents. Barge can deliver diesel oil and/or fuel oil. Delivery by road tanker also available. Tel: 04-816759.

Lubricating Oils: Available, transported by road.

CONSULS: Embassies and Consulates in Dubai (Area Code 04).

Embassies:

Germany	Tel: 523352
United Kingdom	Tel: 521070

Consulates:

Bangladesh	Tel: 628966.	Norway	Tel: 533833
China	Tel: 453357	Pakistan	Tel: 524412
Egypt	Tel: 511222	Panama	Tel: 263366
France	Tel: 232442	Qatar	Tel: 221216
India	Tel: 519666	Romania	Tel: 383580
Iran	Tel: 521150	Saudi Arabia	Tel: 367885
Iraq	Tel: 664145	Sweden	Tel: 457716
Italy	Tel: 314167	Switzerland	Tel: 313542
Jordan	Tel: 517500	Syria	Tel: 663354
Kuwait	Tel: 221900	Taiwan	Tel: 448857
Lebanon	Tel: 239524	Turkey	Tel: 314788
Malaysia	Tel: 285695	U.S.A.	Tel: 313115
Netherlands	Tel: 528700		

The foregoing are Embassies and Consulates situated in Dubai. Most countries maintain diplomatic missions/embassies, etc., in Abu Dhabi – some 120 km. from Jebel Ali.

REPAIRS: Berths are available for afloat repairs to be done by local contractors.

Lay-up Berths for long and short periods can be arranged for vessels up to 550,000 d.w.t. with draft up to 13.25 m. Special bollards are installed to provide 6 berths for ULCC class vessels.

Marine engineering firms with specialised workshops in Dubai, undertake engineering repairs. Agents will make necessary arrangements.

Repairs to radar, radio, echo sounders and other electronic navigational and communication aids are available by major manufacturers' Agents, (i.e. Marconi, Decca, Kelvin-Hughes, Telefunken, etc.), being represented in Dubai and sets serviced by trained engineers. Agents will advise.

A Port Authority diver can be arranged through vessel's Agent.

SURVEYORS: Lloyd's, B.V., A.B.S., N.V., N.K. and the Salvage Association as well as other private qualified cargo, hull and engine surveyors and consultants are available.

Gas Free Certificates, Inert Gas Certificates and Hot Work Permits can be obtained through independent qualified surveyors who must be on Dubai Port's Authority (Jebel Ali) approved list. Agents will arrange.

Surveys: The following surveys and certification can be carried out in Jebel Ali: Load Line, Safety Equipment, Safety Construction, Radio.

TELEPHONES: Ship board telephones available by arrangement.

Important Telephone Numbers at Jebel Ali:

Port Control	835326
Harbour Master & Port Control	835251
Police	816111
Port Health	816892
Customs	816374/5
Immigration	816844/816334
Ambulance and Fire Service	816222 (24 hours)
Security	816846/816578 ext. 218, 232, 394, 395

SHORE LEAVE: The following is the standard procedure for shore leave as dictated by the Port Immigration Department.

Crew members wishing to go ashore are to report to the Port Immigration Office (Agent to arrange) and collect a "Marine Landing Permit" which should be carried at all times. On returning to the ship, the permit should be handed back to the Port Police. The process is to be repeated on every subsequent shore leave.

GARBAGE DISPOSAL: Skips are compulsory for domestic garbage and are provided alongside ships and changed as necessary. Charges Drhs. 70 per day and Drhs. 150 per skip change. Skips can also be rented for industrial garbage. Contact Harbour Master for details.

WASTE OIL DISPOSAL: The port has no waste oil disposal facilities but several local companies can arrange disposal by tanker truck. All agents can arrange these facilities. Charges are negotiable. Municipality kapproval is required. Contact Harbour Master for details.

SEAMAN'S CLUBS: International Seamen's Club (Tel: 435551). Norwegian Seamen's Mission (Tel: 470561/3). Jebel Ali International Seamen's Centre: Situated on Quay No. 10. Tel: 835297. Hours: 1100-2359 daily. Facilities: Bus service to and from berths; international telephones; post box and stamps; small shop for tobacco, toiletries, writing materials, etc.; money changing; pool and darts; T.V. and video; library; snacks and full bar service.

CURRENCY: U.A.E. Dirhams (Drhs). U.S.$ 1.00 = Drhs 3.65 (Fixed Rate).

WEATHER: *Weather and Currents:* Cross currents of up to 1.75 knots may be experienced in the Approach Channel. These currents are wind and tide induced.

Fresh winds are frequently experienced at Jebel Ali. However, during evening, night and morning hours, light Southeasterly winds prevail, veering to N.W. by noon and freshening to Force 4-5.

On occasions, especially during November-March, fog may be prevalent during early morning.

GENERAL: *Dirty Ballast and Refuse:* All vessels are warned that no dirty ballast, bilges, etc., should be pumped out in the vicinity of the Port of Jebel Ali. Offenders will be prosecuted and the U.A.E. and Dubai Police maintain maritime and helicopter patrols to ensure no dirty ballast is discharged and no refuse is thrown overboard.

These rules apply while vessels are alongside and the Harbour Master may instruct offending vessels to leave or bar them from returning to Jebel Ali.

Rubbish skips supplied by the Port Authority at a charge and are compulsory.

Ballast Requirements: For the purpose of safe manoeuvring, the Harbour Master requires all vessels to maintain an acceptable ballasted condition.

Vessels should carry sufficient ballast so that the propeller can have maximum immersion whilst maintaining an acceptable stern trim.

Masters are reminded that no dirty ballast will be allowed to be discharged in Jebel Ali.

Tanker Ballast Discharge Rules:

1. Clean water ballast from tankers segregated ballast tanks may be discharged overside.

2. Clean water ballast from dedicated clean ballast tanks as defined in Marpol 73/78 may also be discharged in the port. However, if no separate ballast pumping system exists then such discharge must be monitored by an independent surveyor and the ballast discharged must be certified clean. This discharge operation may take place during daylight hours only.

3. Ships in the "C.O.W." mode may not discharge ballast from cargo tanks, unless such tanks have been thoroughly cleaned and have reverted to the status of C.B.T. since last carrying oil.

4. "Clean" ballast means ballast containing less than 15 parts per million of Hydro Carbons.

5. Not withstanding all the above, if any visible signs of pollution are seen on or below the surface around the ship discharging ballast, the ballast discharge will be stopped and no further discharge will be permitted.

Fumigation: Fumigation can be carried out by specialist firms.

Ships' Chandlers, Ship Supplies: All types of provisions – fresh and dry, and all types of fresh and frozen meat are available ex-Dubai. Arrangements through Agent and/or through direct VHF contacts with ship chandlers and provision merchants. Paints, ropes, etc., available as well as charts. Laundry services are also available.

Visitors Port Passes: Any Person entering the Port is required to have either a permanent or visitors temporary/day pass. Passes can be obtained from the Pass Office situated at the Main Entrance. The Pass Office operates daily from 0700 hours to 1900 hours.

Permanent passes cost Dh. 25 each and are valid for 12 calendar months from date of issue. Applicants are required to produce a Sponsor's letter and complete an application for Pass Form. Documents such as Passports and photographs are not required.

Temporary or Day passes which are free of charge are only issued to irregular visitors who have a confirmed appointment to visit the Port. No more than one of these passes a month will be issued to any individual. Day Passes can be obtained from the Pass Office or any Terminal Checkpoint.

Shops: A small supermarket is open in the port. Hours of work are: 0800 – 1300 hrs. Saturday to Thursday inclusive.

Bank: A bank complex is situated just outside of the port main gate. Most major banks or their correspondents have branches there.

Transport: Arrangements for taxis can only be made through the Agent.

Charts and Publications:

Charts:

British Admiralty Charts 2889, 3176, 3739.

Pilot Books: Admiralty Sailing Directions Volume No. 63, Defence Mapping Agency Publication No. 62.

Lights: Admiralty List of Lights Volume D. United States List of Lights Publication No. 117B (Pacific/Indian Ocean Area).

Radio Aids:

British: Admiralty List of Radio Signals, Volume 6.

American: Radio Navigational Aids (Defence Mapping Agency), Publication No. 117B (Pacific/Indian Ocean Area).

SHIPMASTER'S REPORT: June 1990.

Location: A third tanker loading/discharging facility is situated at Berths No. 8 and No. 9, on the N.E. face of the 14 m. basin. This facility is operated by Star Energy Corporation (See "Berthing").

Star Energy are based in Abu Dhabi, Telex No. 24160.

Documents: The documents listed in the "Guide" do not apply to tankers. Requirements for tankers are:

- 1 copy Arrival/Cargo Advice (supplied by Pilot).
- 2 copies Bonded Stores List.
- 2 copies Drugs and Firearms Declaration.
- 2 copies Crew Declaration.
- 3 copies Crew List.
- 1 copy Maritime Declaration of Health (only if sickness on board, or if it is necessary to have any vaccinations performed).

Ship's Agency also usually has own Arrival/Sailing forms to be completed.

Anchorage: The Eastern corner of the anchorage area has been found to have very poor holding ground, and it is suspected that there may be scattered coral heads in this area, as this vessel dragged anchor there in moderate weather conditions, and anchor flukes were later found to have been damaged by the nature of the bottom.

Radio: Jebel Ali Port Control listen on Channel 16, and usually conducts operations thereafter on Channel 69.

Tugs: There are usually 3 modern tugs, owned by the Port Authority, on duty: The 'Asad', 'Namer' and 'Shadeed'.

Tankers: Tanker Berth No. 8: Alongside continuous fendered quay at N.E. end of 14 m. basin, equipped with 1×12 in. Chickan arm. Products handled at present are naphtha, gas oil and fuel oil.

Tanker Berth No. 9: Adjacent to No. 8, on same continuous quay, equipped with 2×12 in. Chicksan arms. As far as is known same products handled as at Berth No. 8.

Both berths can accommodate product carriers of up to, and sometimes in excess of 100,000 d.w.t., the larger vessels usually only part-load.

The terminal acts as a trans-shipment depot, for oil products supplied from other ports and refineries in the Gulf.

Vessels are berthed either side alongside at both berths.

Star Energy Complex: This is a self-contained area within the Jebel Ali Port Complex. The Operators enforce very strict security and safety procedures.

Crew members are not permitted to wander about or walk to the entrance gate, but must use the transport provided. This only operates on the hour, being summoned by radio. A pass is issued to each person leaving the area, and also a book must be signed. The passes will allow re-entry to the area on return, and are quite separate from the passes required by the Immigration Authorities. Provided the seamen are not leaving the Port Complex itself, e.g. visiting the Seaman's Club, no further passes are necessary.

Should, however, anyone wish to leave the Jebel Ali Port Area itself, to go to Dubai, the following procedure is necessary.

On arrival, most Shipping Agents supply forms which act as requests to the Immigration Authorities to issue a Shore Pass. This form is taken, along with a Passport size photo, and either Seaman's Book or Passport, to the Immigration Office near the Main Gate. An official pass will then be issued, with the photo affixed, after which the individual may leave the Port Area. *It is very important that this document is not lost.*

On return to Jebel Ali, the reverse procedure is necessary, presentation of the official pass will usually obtain the return of the identity document, after which the individual may proceed to his vessel. If the vessel is berthed at the Star Energy facility, their previously mentioned pass is required for admittance.

There are occasions when it may not be possible for individuals to recover their identity documents personally, or some may not have time to wait, in which case the official passes should be returned to the Master, and the Agent can take these to Immigration when Clearance is sought, when the documents in question will be given to him for return to the vessel. Clearance will not be issued until everything is in order, which is the reason for taking care not to allow anything to happen to the official pass.

Lengthy delays may be incurred in the case of any lost pass, as the individual in question must then go, in person, with the Agent, to the Immigration Office, if possible with an explanatory letter from the ship's Master. The procedure outlined above must be adhered to, so that there are no problems.

Departure: Pilots require minimum 1 hour's notice, via Harbour Con of vessel's sailing time. They are required to sight the clearance bef leaving the berth, therefore it has been found advisable to actually ha it on board before confirming sailing time.

AUTHORITY: Dubai Port Authority (Jebel Ali), P.O.Box 17000, Dub U.A.E. *Tel:* Jebel Ali (04) 835251/816578. *Telex:* 47398 DPA E *FAX:* Jebel Ali (04) 816093, 835430 (Marine). *Contact:* Capta P.J. Derry, Harbour Master. Captain J.P. Snape, Assistant Harbo Master. D. Gibbons, Executive Director.

AGENT: Gulf Agency Co. (Dubai) L.L.C., P.O.B. 2404. Dubai, U.A Cables: "Confidence", Dubai. Tel: 457555 – 24 hour service). After offi hours: 384541. Telex: 45448, 45809 (GACDB EM). Radio: Marine V radio, stand-by on Channels 16 and 23, and SSB 2182 kHz. Call si "Confidence Dubai". Fax: 457202, 450644.

Operators of ships' supply service and shipping agency; cre changes, mail, spares and/or delivery of provisions, fresh water and lu oil as well as arranging of bunkers and Ship-to-Ship transfers.

Owners, Operators and Masters are welcome to contact GAC Du by cable or telex regarding requirements and for coordination rendezvous positions off Dubai, Fujairah, Khor Fakkan and Mina Sa (Ras Al Khaimah).

JEBEL DHANNA – RUWAIS: 24.11 N. 52.37 E.

(See Pla

(A) GENERAL
(B) JEBEL DHANNA – SEA BERTHS TERMINAL
(C) RUWAIS – REFINERY TERMINAL
(D) RUWAIS – NGL TERMINAL
(E) RUWAIS FERTILISER INDUSTRIES (FERTIL)
(F) ADNOC RUWAIS SULPHUR HANDLING TERMINAL

(A) GENERAL

AUTHORITY: Abu Dhabi National Oil Company, – Petroleum Po Authority (ADNOC-PPA), the Governing Authority for the petroleum po in the Emirate of Abu Dhabi. *Address:* P.O.Box 898, Abu Dhabi, U.A *Tel:* Abu Dhabi 6023450/1. *Telex:* 22215 EM. *FAX:* Abu Dhabi 69233 6023422, 660106.

Abu Dhabi Petroleum Ports Operating Company (ADPPOC), P.O.B 61, Abu Dhabi, U.A.E. *Tel:* 336700, 333718. *Telex:* 22209, 522 *FAX:* 216002. *Contact:* Operations Manager and/or Station Mana (Ruwais). (ADPPOC is the service company contracted by the Petrole Ports Authority).

Two Port Officers working on rotational basis represent the P Authority at the Port. They are Captain A.Osman and Captain S.A.Sha Telex: 52207 Apocru Em. Tel: Ruwais (081) 72089. Fax: (081) 721

PORT LIMITS: All waters Southward of Lat. 24° 26' 48" N., to the co up to Spring High Water Mark, between meridians of Long. 52° 33' 36 and Long. 52° 46' 36" E., (that is, with reference to Chart 3780 B.A USHO, the whole waters of that Chart) and shall include all jett wharves, structures, sea-berths, reefs, rocks, sand-bars and islan excluding Sir Bani Yas Island, within the said area.

PILOTAGE: Pilotage is compulsory for all ships navigating within limits other than exempted ships (See "General"). Ships may, howe drop anchor or sail from Gasha Anchorage without a Pilot. This ru not applicable to U.A.E. Naval, Coast Guard vessels or country c who may, having ascertained channel clearance from Port Con proceed without the service of a Pilot.

Pilot Station: Pilots will board and disembark at the main Gasha P Station as delineated on B.A. Chart No. 3780.

Use of North Channel: Masters of Exempted ships of suitable draft sh use the North Channel and East Yabr Relief Channel when enterin leaving the port.

Pilotage Exemption Certificate: Port Pilotage Exemption Certificate be granted to Masters of regular trading vessels of less than 3,000 upon the Port Officer's satisfaction of their competency. Such certific shall be renewed annually.

Berthing and Unberthing at Oil and Gas Berths: Notwithstanding any contained in these Rules berthing or unberthing at oil and gas bert Jebel Dhanna or Ruwais shall be under the control of a Pilot.

Pilot Ladder: A clean and efficient pilot ladder fitted with spreaders manropes shall be made available for the Pilot to embark or disem and at night the ladder shall be illuminated with an efficient and light.

Accommodation Ladder and Pilot Ladder: Whenever as in the cas large vessels, the height of the deck above the water exceeds 3 the accommodation ladder shall also be used in conjunction wi pilot ladder, and shall be lowered to about 22 ft. (7.0 m.) above the with the pilot ladder immediately adjacent to the bottom platform accommodation ladder.

Mechanical Hoist: A mechanical hoist of an approved pattern sh considered an acceptable alternative to a conventional pilot ladder used in conjunction with the accommodation ladder.

NOTE: Mechanical hoists whose operation relies upon a sing are not of approved pattern under these rules.

Supervision of Pilot Ladders: The rigging of the pilot ladders for the embarkation and disembarkation of Pilots shall be supervised by a responsible ship's officer, and shall be so effected that the ladder is well clear of any overboard discharge and so that each step of the ladder rests securely against the side of the ship.

Safe embarkation and disembarkation: A Master of any ship navigating in the port, shall afford such suitable "weather lee" and speed reductions as may be directed by the assigned Authority Pilot in order to provide a safe embarkation or disembarkation operation.

Pilot to Advise Course and Speed: Vessels navigating within Port Limits shall proceed on such a course and at such speed as the Pilot advises.

Provided that when passing through the inner anchorage areas every vessel whether under Pilotage charge, or navigated by her Master with an Exemption Certificate, shall proceed with caution and at a moderate speed duly considering other vessels and cargo operations in the area.

Small High Speed Vessels: High speed vessels as of "Crew Boat" type shall proceed at a moderate speed to reduce the wave making wash in the vicinity of vessels, working cargo, dredging or construction works, diving operations, etc., until past and clear of these vessels or operations.

Anchors Ready for Use: Every ship prior to any movement within the port shall have both Bower Anchors (if two fitted) prepared for immediate emergency use. Masters shall, however, consult with the assigned Pilot (if any) before lowering an anchor to the sea surface.

Any Damage to Ship to be Notified: Before entry the Master shall inform the Port Authority of any damage to the vessel or any projection from the hull above or below water which may affect the vessel's draft, shiphandling qualities or berthing capability.

NOTE:

To ensure greater safety in the Jebel Dhanna Channel, in consultation with Messrs ADPPOC and executive manager of Petroleum Ports Authority, it has been decided to minimise the amount of paperwork the Pilot is expected to complete while in transit from Gasha Beacon to inner anchorage area.

Therefore a vessel arriving at Gasha while tendering her "Notice of Readiness" will henceforth be required to pass to Jebel Dhanna:

1. Name of vessel.
2. Tonnage required.
3. Her maximum loading rate, always assuming 2×16 in. hoses.
4. Number of hours ballast.
5. Any health hazard infectious diseases/or none.
6. Draft outwardbound.
7. Any other pertinent information.

The Pilot is to obtain signature on "acceptance of port regulations" booklet prior to entering channel. All other documentation can be completed after vessel is made fast in the berth. This will ensure no distractions while in transit in the channel and further enhance the exemplary safety standards.

All parties are kindly requested to comply with the slight change in Jebel Dhanna/Ruwais documentation procedures to enhance safety requirements.

Note:

(i) The date, which the ship was built, is to be included in Ship's Particulars.

(ii) Vessels over 20 years old will be subject to a daylight safety inspection.

TIDAL STREAMS: In the outer approaches to Jebel Dhanna-Ruwais, tidal streams would appear to attain a maximum of 1 knot while 1.7 knots may be encountered in the channel N.E. of Jazirat Sir Bani Yas.

Tidal currents in the area of the berths seldom exceed 0.4 knots.

The tides are generally diurnal, winds from N.E. and N.W. may cause an increase up to 0.6 m. in the height of the tide.

The highest average, spring high tide is 2.0 m. above chart datum.

The highest average, neap high tide is 1.0 m. above chart datum.

AIDS TO NAVIGATION: Approaches to Jebel Dhanna-Ruwais (See Admiralty Charts No. 3778, 3779 and 3780).

The outer channel for deep drafted vessels between Jazirat Zarakhuh (Zirku) and Gasha Anchorage is marked by 6 buoys and 2 light floats as follows:

Name/No.	*Description*	*Characteristic*	*Position*
Outer Fairway	Safe Water Mark	Iso 10 secs.	24° 45' 48" N. 52° 53' 12" E.
O1	Conical Green	Fl.G. 5 secs.	24° 46' 20" N. 52° 49' 30" E.
Creagh Shoal	Light Float	Fl. 10 secs. 14 M Racon "C" 72 secs.	24° 43' 00" N. 52° 42' 15" E.
Patch	Conical Green	Fl.G. 3 secs.	24° 40' 00" N. 52° 41' 32" E.
O5		Qk.Fl.(2) G. 10 secs.	24° 37' 43" N. 52° 38' 13" E.
Dalma	Light Float	Qk.Fl.(9) 15 secs. Racon "D" 72 secs.	24° 32' 24" N. 52° 27' 48" E.
O7	Conical Green	Gp.Fl.(3) G. 10 secs.	24° 29' 27" N. 52° 29' 24" E.
Gasha	West Cardinal	Qk.Fl.(9) 15 secs.	24° 25' 46" N. 52° 34' 25" E.

MENAS Notice No. 49/92:

Southern Gulf:

Jebel Dhanna Outer Fairway. The following buoy stations have been established:

Position: Lat. 24° 36.70' N., Long. 52° 35.70' E.
Name: JBD 05A.
Character: Fl (3) 10 sec. Shape – Pillar. Colour – BYB.

Position: Lat. 24° 34.80' N., Long. 52° 32.40' E.
Name: JBD 06.
Character: Fl R 6 sec. Shape – Can. Colour – Red.

Charts effected B.A. 3779 and 3780.

A relief route known as North Channel passes from the outer fairway buoy S.E. of Creagh Shoal and enters the port East of Gasha Island. It is marked by:

Obstruction	Isolated Danger Mark	Gp.Fl.(2) 10 secs.	24° 37' 50" N. 52° 47' 17" E.
North Channel	Safe Water Mark	Iso. 10 secs.	24° 30' 00" N. 52° 41' 36" E.
West Kurkum	West Cardinal	Qk.Fl.(9) 15 secs.	24° 23' 51" N. 52° 41' 31" E.
East Gasha	Green Conical	Fl.G. 5 secs.	24° 23' 54" N. 52° 41' 15" E.

The least depth in this channel 7.5 m. (1980) occurs about 0.8 nautical miles North of the Gasha/Kurkum entrance.

A Beacon was established at Price Shoal (1980) consisting of a pile with a bottle chamber at the top and a gas lantern.

Price Shoal	Red Pile Structure	Fl. 5 secs. 12 m. 14 miles Racon "P" 48 secs.	24° 17' 24" N. 52° 42' 09" E.

ANCHORAGES: The main anchorage positions are defined on Chart No. 3780, and are identified by the letters of the alphabet. Vessels to anchor not less than 2 miles West of Gasha Buoy and to keep Channel Entrance clear.

Explosives Anchorage: Anchorage bounded by the following points:

(i) 24° 13' 30" N., 52° 44' 55" E.
(ii) 24° 12' 46" N., 52° 45' 48" E.
(iii) 24° 13' 18" N., 52° 46' 18" E.
(iv) 24° 14' 00" N., 52° 45' 27" E.

Explosives Buoy: Mooring buoy in position Lat. 24°09'36" N., Long. 52°46'18" E., for the purpose of temporary mooring of barges or pontoons carrying explosives.

CHANNELS:

Deep Water Channel: The channel marked at its outer end by:

Gasha Buoy in position Lat. 24° 25' 46" N., Long. 52° 34' 25" E. marked on the West side by:

Buoy No. 1 in	Lat. 24° 24' 28" N.	Long. 52° 36' 26" E.
No. 3	Lat. 24° 23' 50" N.	Long. 52° 37' 18" E.
No. 5	Lat. 24° 23' 02" N.	Long. 52° 38' 37" E.
No. 7	Lat. 24° 21' 33" N.	Long. 52° 40' 14" E.
No. 9	Lat. 24° 20' 33" N.	Long. 52° 41' 22" E.
No. 11	Lat. 24° 19' 49" N.	Long. 52° 41' 52" E.
No. 13	Lat. 24° 17' 42" N.	Long. 52° 40' 34" E.
No. 15	Lat. 24° 14' 55" N.	Long. 52° 39' 26" E.
No. 17	Lat. 24° 11' 41" N.	Long. 52° 41' 42" E.

and marked on the East side by:

Buoy No. 2 in	Lat. 24° 25' 18" N.	Long. 52° 35' 40" E.
No. 4	Lat. 24° 24' 18" N.	Long. 52° 37' 07" E.
No. 6	Lat. 24° 23' 57" N.	Long. 52° 37' 34" E.
No. 8	Lat. 24° 22' 46" N.	Long. 52° 39' 06" E.
No. 10	Lat. 24° 21' 37" N.	Long. 52° 40' 21" E.
No. 12	Lat. 24° 20' 58" N.	Long. 52° 41' 08" E.
No. 14	Lat. 24° 20' 29" N.	Long. 52° 41' 42" E.
No. 16	Lat. 24° 19' 49" N.	Long. 52° 42' 18" E.
No. 18	Lat. 24° 18' 42" N.	Long. 52° 41' 48" E.
No. 20	Lat. 24° 17' 45" N.	Long. 52° 41' 28" E.

North Channel: The inward/outward route marked at its Southern end by:

East Gasha Buoy	in	Lat. 24° 23' 54" N. Long. 52° 41' 15" E.
West Kurkum Buoy	in	Lat. 24° 23' 51" N. Long. 52° 41' 31" E.

Yabr Channel: The route East of Jazirat Yabr marked by:

North Yabr Buoy	in	Lat. 24° 20' 54" N. Long. 52° 43' 18" E.
Yabr Channel	in	Lat. 24° 18' 55" N. Long. 52° 45' 11" E.
South Yabr Channel	in	Lat. 24° 15' 46" N. Long. 53° 43' 24" E.

Halat Al Alaq Island is now marked by:

North Alaq	in	Lat. 24° 15' 20" N. Long. 52° 40' 54" E.
West Alaq	in	Lat. 24° 14' 27" N. Long. 52° 40' 27" E.
N.W. Alaq	in	Lat. 24° 15' 06" N. Long. 52° 40' 21" E.
South Alaq	in	Lat. 24° 13' 48" N. Long. 52° 41' 30" E.
East Alaq	in	Lat. 24° 14' 23" N. Long. 52° 41' 38" E.

Ruwais Approach: The channel to N.E. of Ruwais middle marked by:

(i) Buoy No. 22	in	Lat. 24° 13' 38" N. Long. 52° 42' 12" E.
(ii) Buoy No. 24	in	Lat. 24° 12' 24" N. Long. 52° 44' 42" E.
(iii) Buoy North Middle	in	Lat. 24° 12' 42" N. Long. 52° 43' 41" E.
(iv) Buoy East Middle	in	Lat. 24° 12' 08" N. Long. 52° 44' 26" E.
(v) Buoy South Middle	in	Lat. 24° 11' 07" N. Long. 52° 43' 46" E.
(vi) Buoy West Middle	in	Lat. 24° 11' 39" N. Long. 52° 42' 29" E.
(vii) Buoy No. 26	in	Lat. 24° 12' 17" N. Long. 52° 45' 48" E.
(viii) Buoy No. 28	in	Lat. 24° 11' 17" N. Long. 52° 45' 19" E.
(ix) Buoy No. 30	in	Lat. 24° 10' 10" N. Long. 52° 45' 24" E.
(x) Buoy No. 32	in	Lat. 24° 10' 15" N. Long. 52° 45' 45" E.

Bulk Cargo Terminal (BCT): Turning basin marked by buoys:

(i) BCT 1	in	Lat. 24° 09' 29" N.	Long. 52° 43' 54" E.
(ii) BCT 2	in	Lat. 24° 09' 24" N.	Long. 52° 44' 12" E.
(iii) BCT 4	in	Lat. 24° 09' 07" N.	Long. 52° 44' 16" E.
(iv) BCT 6	in	Lat. 24° 08' 57" N.	Long. 54° 44' 14" E.

A relief channel East of Sir Bani Yas Island is marked by:

(i) N.E. Yas	in	Lat. 24° 21' 58" N.	Long. 52° 39' 21" E.
(ii) Stewart	in	Lat. 24° 20' 09" N.	Long. 52° 40' 05" E.

The entrance to the Construction Wharf is marked by:

CW1	in	Lat. 24° 19' 12" N.	Long. 52° 40' 20" E.
CW2	in	Lat. 24° 09' 10" N.	Long. 52° 45' 07" E.
CW3	in	Lat. 24° 09' 09" N.	Long. 52° 45' 04" E.
CW4	in	Lat. 24° 08' 34" N.	Long. 52° 45' 08" E.

PROHIBITED AREAS: Prohibited Areas exist for a distance of 2 cables (1,200 ft. – 365 m.) around any berth at which any ship is engaged in loading or discharging any petroleum cargo of whatever description including crude oils and refined products whether in bulk or containers, LNG or LPG and no vessels or craft may enter such restricted areas without instructions from the Port Authority or Oil Company.

RESTRICTED AREAS:
Sea Berths: A restricted area exists around ADCO's sea-berths within an area bounded by a line from:

(a) Jebel Dhanna Jetty Light in Lat. 24° 11' 20" N., Long. 52° 37' 51" E., thence 359° to

(b) Light Beacon "T.13" in Lat. 24° 13' 06" N., Long. 52° 37' 49" E., thence 060° to

(c) in Lat. 24° 14' 00" N., Long. 52° 39' 30" E., thence to 139° to

(d) Buoy No. 17 in Lat. 24° 11' 41" N., Long. 52° 41' 42" E., thence 255.5° to the coast to

(e) in Lat. 24° 10' 48" N., Long. 52° 37' 57" E.

Navigation and anchorage within this area is strictly prohibited to all unauthorised vessels and those not under the control of a Pilot.

Refinery/GASCO/FERTIL: A restricted area exists around the Refinery, GASCO Jetties and FERTIL Jetties at Ruwais within an area bounded by a line from:

(a) in Lat. 24° 08' 36" N., Long. 52° 42' 12" E., thence 000° to
(b) in Lat. 24° 10' 24" N., Long. 52° 42' 12" E., thence 035.75° to
(c) in Lat. 24° 10' 48" N., Long. 52° 42' 30" E., thence 103.5° to
(d) in Lat. 24° 10' 18" N., Long. 52° 44' 42" E., thence 119.5° to
(e) in Lat. 24° 09' 57" N., Long. 52° 45' 24" E., thence 195° to
(f) Construction harbour jetty head in Lat. 24° 08' 12" N., Long. 52° 44' 54" E.

Navigation and anchorage is prohibited to all unauthorised vessels not under control of a Pilot. Within this area no vessel or craft may secure or make fast to the Petroleum Jetty without instruction from the Pilot, Port Officer or the Oil Company.

RESTRICTIONS:
Times of Entry or Leaving: Subject to limitations upon draft, under keel clearance and extreme adverse weather conditions, vessels may enter or leave at any time during the day or night.

Minimum Under Keel Clearance: To ensure safe channel passage, a minimum under keel clearance is required for all ships entering or leaving the port when deep loaded, as follows:

(a) 3 ft. (0.91 m.) for ships of less than 100,000 Summer d.w.t.
(b) 4 ft. (1.22 m.) for ships between 100,000 and 250,000 Summer d.w.t.
(c) 5 ft. (1.52 m.) for ships of over 250,000 Summer d.w.t.

And such under keel clearance may be increased at any time at the Port Authority's discretion having due regard to weather conditions.

NOTE: While observing the safety requirements of under keel clearance, tidal delays may be experienced as follows:

(a) Ships drawing 44 ft. (13.4 m.) may sail at any time.
(b) Ships drawing 45 ft. (13.7 m.) will rarely have to wait for the tide.
(c) Ships drawing 46 ft. (14.0 m.) will usually have to wait for the tide.
(d) Ships drawing 47 ft. (14.3 m.) will always have to wait for the tide.
(e) Ships drawing 48 ft. (14.6 m.) will occasionally be neaped.
(f) Ships drawing 49 ft. (14.9 m.) will be neaped ±294 days per year.

The best months are June, July and August.

Meteorological conditions may reduce the height of the tide by up to 1 ft. (0.305 m.)

Movements Within the Port Limits: No vessel may enter, leave or move within the confines of the port unless permission for moving is first obtained from the Port Control Office.

Outward Priority: When one ship is ready to leave and another to enter simultaneously, a deep loaded outward bound ship which requires to transit the "Deep Water Channel" on account of draft in excess of 30 ft. (9.14 m.) shall have priority subject to the provisions of Rules mentioned above.

HEALTH: *Quarantine and Medical Clearance:* The standard International Declaration of Health is required upon arrival. Free Pratique is obtained by radio.

There are no facilities for Derat at Ruwais.

If Free Pratique has not been granted prior to the vessel's arrival, the Master may contact Port Control for advice/instruction as per Port Health instructions.

Every vessel within the port shall display the appropriate quarantine signals as prescribed in the International Code of Signals.

ARRIVAL/DEPARTURE NOTICES: *Notice of Arrival:* The Master Agent shall inform the Port Officer 72 hours prior to the vessel's arriv giving the following details:

1. Name of vessel.
2. Flag.
3. G.r.t., n.r.t. and Summer Deadweight.
4. Arrival draft.
5. Nature of cargo and amount to be discharged or loaded if know
6. ETA and subsequent amendments.
7. Deballasting time, type and quantity of ballast to be discharged
8. Inerting time.
9. Date of expiry of the following certificates:
   (a) Load Line.
   (b) Ship Safety Construction Certificate.
   (c) Ship Safety Equipment Certificate.
   (d) Ship Safety Radio-Telegraphy – as appropriate.
   (e) Ship Safety Radio-Telephony – as appropriate.
   (f) Oil Liability Certificate (TOVALOP).
   (g) International Oil Pollution Liability (CLC).
   (h) Derat/Exemption Certificate.
   (i) Any other service required.

And shall confirm or amend such information at 48 hours and 24 hou before arrival.

Vessels should also advise:

1. The date and final port and country of her last loading at an G or Omani port.

2. A list of ports and countries at which the vessel has called betwe 1. above and her arrival at Jebel Dhanna.

3. Should the tanker not have loaded in the Gulf or an Omani p since building, then a list of ports and countries at which the vessel h called from the date of building to her arrival at Jebel Dhanna.

In order to expedite Pilot attendance, Masters should endeavour confirm their final ETA to "Port Control" Jebel Dhanna/Ruwais on V radio, Channel 9, 6 hours and 2 hours prior to arrival at anchorage.

Notice by Agent: The Agent shall also supply the Port Health Offic Customs and Immigration, the requisite ship information 48 hours pr to arrival.

Notice of Departure: The Master or Agent of any ship within the p shall inform Port Control giving at least 12 hours' notice of depart and shall further confirm the time of departure 2 hours before bei ready to sail.

BERTHING FACILITIES: The Port of Jebel Dhanna-Ruwais consists two main oil terminals, one petroleum gas terminal, one bulk car terminal, a sulphur handling jetty and a small cargo harbour (S Admiralty Chart No. 3780).

The Crude Oil Terminal at Jebel Dhanna is operated by the Abu Dha Company for Onshore Oil Operations (ADCO) and consists of 3 C.B Berths and 1 SBM capable of accepting tankers up to 330,000 d.w and 1,215 ft., (370.3 m.) in length. Minimum depths at the berths ar

Berth No. 1: 51 ft. (15.54 m.) max. length of ship 950 ft. (289.6 m
Berth No. 2: 52 ft. (15.85 m.) max. length of ship 1,100 ft. (335.3 m
Berth No. 3: 55 ft. (16.76 m.) S.B.M.
Berth No. 4: 55 ft. (16.76 m.) max. length of ship 1,215 ft. (370.3 m
Also see "Section B".

The Refinery Terminal at Ruwais about 2.5 miles S.E. of the Je Dhanna Terminal Berths is owned and operated by the Abu Dh National Oil Company Ruwais Refinery and consists of a 3 km. jetty w 2 deep water berths and 4 coastal tanker berths for the exportatio refined petroleum products and importation of crude oil.

Also see "Section C".

The Abu Dhabi Gas Industries Ltd. (GASCO) Terminal consisting a 2.6 km. trestle jetty and one berth lies about half a mile East of t Refinery Jetty and can accept LPG carriers in the range 28,000 cu to 125,000 cu.m. There is a minimum depth alongside of 17.0 m.

Also see "Section D".

The Ruwais Fertiliser Industries (FERTIL) Jetty is designed berthing combinations of vessels up to 2 fully laden 200 m. lo 25,000 d.w.t. bulk cargo vessels along its Eastern side. Provision is ma at the Northern end of the jetty for the loading of liquid ammonia.

Also see "Section E".

A bulk sulphur export jetty with 6 berthing face piles capable handling cargo vessels up to 25,000 tons d.w.t. with a depth of 3 Loading via a single gantry. The jetty is also capable of receiving li sulphur.

Also see "Section F".

RUWAIS CARGO HANDLING SERVICE CONSTRUCTION JETT
General Information: ADPPOC, as the Port Operator, provides ca handling service for the prime purpose of serving the construction commissioning of the ADNOC and GASCO Refineries and Petro Export Terminals.

This undertaking is provided on an independent basis as an addi port facility and may be utilised by any importer who wishes to cargo through the port to destinations in the Western region of Abu Dh

A harbour, known as the Construction Jetty, consisting of 4 small c ship berths and 1 Ro-Ro Berth, is situated to the East of the Ru Petroleum complex. Vessels and barges with a draft of less than 4. may enter and lie safely alongside to discharge cargo. Larger c ships with a draft in excess of 4.2 m. will anchor in the cargo anchorages located N.N.W. 2 miles (approximately) from Construction Jetty and discharge onto barges.

Extent of Service: Cargo will be worked in the cargo anchorages, wea permitting, during daylight hours only. The target minimum ra discharge of general cargo will be 700 freight tons per day. In sp circumstances these limitations may be modified to suit the dispatc turn-round of the discharging freighter.

Procedure:

1. Consignee or his Agent must sign a Cargo Handling Indemnity form before discharge and vessel's Manager must sign Port's Conditions of Use receipt before entering port and berthing.

2. All Customs cargo documentation and clearance of vessels is the responsibility of the Shipping Agent/Consignee. Tally receipts will be supplied by the ADPPOC Cargo Representative on site.

3. The ship will normally be charged for port dues only as per 1984 Regulations and Tariff, except that, for working overstowed cargo, a charge per gang hour will be levied to the ship.

4. The consignee will normally pay the full handling charge per freight ton. The charge covers ship stevedoring, barge and towage, and either barge discharge to landed on quay, direct to trailer, or delivered to Custom's Pound.

5. Agents and/or consignees should advise their requirements, vessel ETAs and supply cargo manifests and stowage plans to: The Port Officer, Jebel Dhanna-Ruwais Port, ADPPOC, Ruwais, P.O.Box 61, Abu Dhabi. Tel: Ruwais 72018 daytime or Port Control Ruwais 75700, ext. 5762 (24 hours). Telex: 52207 Apocru EM. Fax: 72102.

PORT EQUIPMENT/CRAFT: The following craft and equipment are available in the port and subject to utilisation may be chartered or hired on application to the Station Manager who will advise the current rates.

Vessels:

3×3,200 h.p. twin screw shiphandling tugs with a bollard pull of 40 tons.

Equipped for fire fighting and oil dispersant spraying, fitted with 2 centrifugal pumps producing 680 cu.m. water/foam per hour to a height of 120 m. through a horizontal distance of 85 m.

Each tug carries 45 metric tons of foam and 11 metric tons oil concentrate dispersant.

3×15 m. twin screw mooring launches, 480 h.p. with 2 live-on-board crew.

4×15 m. single screw mooring launches, 360 h.p. each, no accommodation.

3×16 m. twin screw pilot-cum-ambulance vessels, 20 knots with live-on-board accommodation.

1 twin screw diving tender vessel.

1×12 m. single screw general purpose workboat.

1 barge with reinforced deck for heavy lifts.

Shore Equipment:

1×55 ton Manitowoc mobile crane with 30 m. boom.

1×10 ton forklift.

Miscellaneous:

Fully equipped marine workshops for repairs, overhauls to tugs, launches, vehicles, mooring buoys, etc.

Two double lock (2 man) decompression diving chambers in air conditioned module.

MEDICAL: If any person suffers a serious injury or sickness within the port limits and immediate medical attention becomes necessary the Master of the vessel concerned or the person in charge of the location shall notify the emergency to the Port Control on VHF Channel 9.

N.B. The Port "Casevac" system for such emergencies will be put into immediate effect by the Port Control.

Masters of all vessels are hereby advised that a brief but concise description of the injury or sickness must be stated at the time of reporting. In the event a crew member has to be landed for hospitalisation the following items should accompany the casualty:

(a) Passport and/or Seaman's Discharge Book
(b) Vaccination Certificates
(c) Address of next of kin
(d) Brief report (if necessary pinned to an unconscious person) comprising:
  1. Time and cause of accident/sickness
  2. Time and description of medication administered, if any
  3. Further details of First Aid given, and/or symptoms noticed.
(e) Masters of vessels which are not berthed alongside the Ruwais jetties should prepare invalid cases for landing in a fast launch or picking up by helicopter e.g. Niel Robertson stretcher; and afford a weather lee (if possible) in adverse weather conditions.

Medical/Police Assistance: The Master of any vessel within the Port for which Medical or Police assistance is required shall make request for such assistance through the Agent.

FRESH WATER: Fresh water is obtainable at the refinery berths and should be arranged through the ship's Agent.

FUEL: Bunkers are obtained at the refinery berths and should be arranged through the ship's Agent.

The following bunker fuels are available:

A. Marine Diesel Oil

Test and Spec. Limits	*Method*	*ASTM*
1. Viscosity Kin. at 33°C, CS, Max.	1.4	D445
2. Carbon Residue Conradson Wt. Pct. Max.	1.5	D189
3. Flash Point °C, Min.	66	D93
4. Water Cont. Pct. Vol. Max.	0.25	D95
5. Sediment Pct. Wt. Max.	0.02	D473
6. Ash Pct. Wt. Max.	0.02	D482
7. Sulphur Pct. Wt. Max.	1.80	D129
8. Pour Point °C Max.	12	D97

B. Marine Fuel Oil

1. Kin. Viscosity at 50°C. Max.	180	D445
2. Flash Point, °C. Min.	60	D93
3. Water Cont. Vol. Pct. Max.	1.0	D95
4. Sediment Pct. Wt. Max.	0.25	D478
5. Ash Pct. Wt. Max.	0.20	D482
6. Sulphur Point °C. Max.	4.0	D129
7. Pour Point °C. Max.	24	D97
8. Sp. Gravity at 60/60° F. Max.	0.990	D1298

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: U.A.E. Dirhams (Drhs).

CLIMATE: The cool winter season extends over November to February with mean daily maximum temperatures of 25° C. to 30° C. and night temperatures of 10° C. to 15° C. The lowest recorded temperature being 4° C. Ground frost can occur inland.

The hot summer season extends over May to September with maximum day temperatures between 40° C. to 45° C.: the highest recorded being 48° night temperatures are about 20° C. to 25° C.

Relative humidity is high throughout the year averaging between 50 and 60 per cent by day and 75 to 80 per cent by night. Heavy dew may be experienced throughout the year.

Rainfall is usually associated with thunderstorms which are prevalent from November to May giving a total annual rainfall of 10 mm. to 50 mm. Rain is rare during the remaining months while in some years there is none at all.

Throughout the year the prevailing winds are from the West to North North-East sector. They are strongest during November to April when they occasionally reach gale force. Gusts of up to 50 knots have been recorded (April) and a 24-hours mean wind speed of 32 knots from the North-West is on record (January) the Shamal or strong North-West wind may blow for periods up to three days and raise a rough sea with waves up to 4.5 m. off Gasha buoy and up to 2 m. at the berths in Jebel Dhanna. 'Land and Sea' breezes are experienced throughout the year.

Visibility is 10 nautical miles for 70% of the time and less than 2 nautical miles up to 5% of occasions due to dust haze or radiation fog. Fog can occur during any month of the year but is most frequent in Winter: normally it develops during the night and early morning and clears by 1000 hrs. Usually the fog banks drift to seaward towards Sir Bani Yas Island.

Sea temperatures at 3 m. depth range from 20° C. (Winter) to 32° C. (Summer). During the Summer the 15 m. depth temperature is only a degree or so lower than that at the surface.

GENERAL:

Stores: Emergency stores may be obtained by giving 48 hours' notice to the Ship's Agent. These stores are not permitted to be loaded at an oil or gas berth and must be taken on board in the anchorage.

Agency: Agency work is carried out by registered Shipping Agents who are appointed by the vessel's owners, Charterers or Master.

In no instance will ADPPOC or any of the Oil Companies undertake the agency of a ship.

M.E.N.A.S. Light Dues: Masters are advised that the "M.E.N.A.S." Light Dues for the Gulf navigation aids, when applicable, are collected by the vessel's Agents for payment direct to "M.E.N.A.S.", Bahrain.

Flag: Every vessel within the port shall fly her own national flag and the flag of the United Arab Emirates from sunrise to sunset.

Inward Clearance: No person other than the Pilot, Police, Customs, Immigration and Port Health Officers shall be allowed on board any vessel before Inward Clearance has been granted by such officials.

Port Clearance: The Owner, Master or Agent of every vessel wishing to leave the Port shall obtain a Port Clearance.

Port Clearance may be withheld from any ship by the Port Authority for non-payment of dues or for any legal cause or restraint which has been duly ordered by the Court in Abu Dhabi.

Exempted Ship: To mean ships exempted from pilotage whose Master has been granted a Pilotage Exemption Certificate by the Harbour Master.

Excepted Ship: To mean vessels excepted from paying Port Dues. Excepted ships shall include the following vessels:–

(a) Vessels of the U.A.E. Defence Forces.

(b) Vessels belonging to U.A.E. Customs, Medical and Police Services.

(c) Dredgers, Survey Vessels and special ancillary non-cargo craft, on contract to the Port Authority, ADNOC.

(d) Light tenders belonging to or on contract to M.E.N.A.S.

(e) Vessels and Ships excepted from such charges by order of H.E. the Ruler.

Port Control: The officers currently situated at Ruwais Construction Wharf are responsible for all vessel traffic movements within the port limits and the implementation of the Port Officer's instructions pertaining to the management of the port.

N.B. – Vessels should communicate with the Port Control via VHF radio.

Heavy Lift: Any piece of cargo inclusive of transportation cradle whose deadweight is in excess of 35 long tons (35.56 tonnes).

Country Craft: Mechanically propelled vessels less than 100 n.r.t. engaged in the coastal trade which may also rely upon sails for motive power.

Rat Guards: Rat guards must be fitted to all mooring ropes and wires immediately a vessel is secured alongside a berth on a jetty or wharf.

Mooring Launches: All ships berthing or unberthing at a main sea berth, oil jetty or cargo wharf will be provided with a suitable Port Authority mooring launch (if required) to assist with the running of moorings and the lifting of submarine loading pipelines in the case of ADCO's sea berths.

Main Engine Readiness: Every vessel berthed at an Oil Terminal or cargo wharf shall maintain her engines in a state of constant readiness to move at all times. No repairs which may immobilise the vessel shall be permitted to be carried out while vessels are in the berths.

A Master of any ship securely anchored in an assigned anchorage area, may request permission from the Port Control to carry out routine engine repairs or overhaul. The granting of such permission will be subject to the respective Terminal approval that the berthing time factor is sufficient.

Sufficient Crew Onboard: Every vessel within the Port shall retain on board at all times a sufficient number of crew as may be necessary to perform any duties concerned with the safety and movement of the vessel.

Fire Wires: All ships berthed at the GASCO and Refinery Terminals shall provide 2 Tug Fire Wires, 1 forward and 1 aft, throughout the period of occupying such berth. The wires shall be robust, with one end fitted with a spliced eye, which shall be maintained at a height of 2 ft. above the sea surface on the outboard side of the ship, (i.e. opposite side from jetty). The inboard end of the wire shall be made fast securely on deck.

Craft Alongside: No Craft shall attempt to make fast to or go alongside a ship manoeuvring in the port before such ship has anchored unless specially permitted by the Master and if there is a Pilot on board, the Pilot.

Dirty Ballast: Whenever a ship enters port with ballast which it is necessary to discharge before or during loading, such ballast, in the case of water ballast, shall be clean and not liable to cause pollution of the sea and a certificate to that effect shall be handed to the Port Authority's representative before deballasting commences.

Pollution: Ashes, oils, chemicals, bilge water and other refuse shall not be discharged to the sea or thrown overboard within Port Limits.

The discharge to the sea of any substance whether liquid or solid, other than clean water ballast shall be deemed to cause pollution to the harbour.

The Master of any vessel, the Person in charge of a Terminal or construction operation contravening this rule so as to cause pollution shall be charged with an offence against these Rules and upon conviction be liable to a fine and shall also pay any expenses which may be incurred in the removal of such pollution.

Diving/Swimming: No person shall swim or dive from or near any vessel, jetty, quay or pier for the purposes of trading, recreation or sport.

Diving: No person shall engage in diving with the assistance of breathing apparatus within the Restricted Areas mentioned in Section 4 of these Rules without the written permission or instruction from the Port Authority.

Commercial Diving: Notwithstanding anything contained above, any person or company wishing to operate a Diver for commercial reasons within the Port, shall inform the Harbour Master giving full information of the Diving Operations, and shall conform with such precautions as he may direct in Permission to Dive.

Use of Ship's Radio: The use of the ship's radio within Port Limits is prohibited for the transmission of private messages.

When a ship is secured to an oil or gas loading berth the use of the ship's main radio equipment is totally prohibited. Intrinsically safe VHF radio equipment may be used for necessary port communications.

Ship's Dangerous Stores: Ship's stores of an inflammable or explosive nature, including pyrotechnic distress signals carried in accordance with the Convention for the Safety of Life at Sea shall be kept in a safe place securely closed and sealed while the vessel is moored in a berth. This Rule shall also apply to the vessel's paint locker.

Explosives: No person may bring explosives or dangerous goods into the Port without the written permission of the Port Authority. Vessels importing "explosives" or dangerous goods of an inflammable or corrosive nature will normally be assigned the "Explosives" anchorage on arrival. A Port Authority Representative will inspect the cargo and consult with the Master and Agent before discharge.

The unauthorised handling and detonating of any explosive or pyrotechnic device within the Port Limits is strictly prohibited. Where explosives are required for construction purposes the Contractor concerned must apply to the Harbour Master for written permission. Blasting for commercial purposes shall be under the strict control of the Port Authority.

Pollution Emergency: In the event that pollution of the Port waters occurs, regardless of cause the Person in charge or responsible for the operation, works or location where the pollution was initiated should immediately report the incident to the Port Control.

Where the pollution is serious, particularly oily pollution, the incident must be treated as a full emergency situation, and the call for assistance to the Port Control should be prefixed by the words "MAYDAY, MAYDAY" in order to gain immediate attention.

The Master of the vessel concerned or the Person in charge, shall also take such steps as may stop further pollution and contain or clean up any spillage of oil, etc., on the vessel's deck or jetty surfaces to remove the fire hazard potential.

N.B. – All port Users and Operators are advised that failure to report a pollution incident is an offence against these Rules and Persons found contravening this requirement will be prosecuted in the Abu Dhabi Courts and liable to heavy fines.

Ship's Lifeboats: The lowering of ship's lifeboats within the Port, except in the course of a regulation Lifeboat Drill duly authorised by the Port Authority, is strictly prohibited and during such drill the lifeboats shall not land on any part of the shore.

The use of any boat carried on any vessel solely for the purpose of recreation, pleasure or fishing shall be allowed only at the discretion of the Port Authority subject to the current Security Regulations in force at any time.

Inert Gas System: As the Government of Abu Dhabi have now ratified the Solas Convention, with effect from 1st January, 1984, no tanker will be accepted for loading in this port unless an Inert Gas System has been fitted.

Cargo Discharge Certificates: Abu Dhabi National Oil Company require documentation for cargoes of Refined Products loaded at Ruwais as follows:

1. Discharge Certificate showing:
   (a) Port of discharge.
   (b) Discharge quantity in tonnes.
   (c) Date(s) of discharge.
   (d) Name and nationality of vessel.
   (e) Name of Master.
2. Copy of Bill of Lading.

Both documents must be signed by receiver and countersigned by Port Authorities and returned to:

A.D.N.O.C. Marketing Rpd Sl,
Post Box 898,
Abu Dhabi,
U.A.E.

In the event that cargoes of Refined Products are loaded at Umm al Nar the same procedure should be followed.

(B) JEBEL DHANNA – SEA BERTHS TERMINAL

LOCATION: 24° 11' N. 52° 38' E.

OPERATOR: ADPPOC is service contractor to Abu Dhabi Company Onshore Oil Operations (ADCO).

APPROACHES: *(Inward Passage).*

Outer Route between Jazirat az Zarqa and Ghasha Tower Beac marked by 2 light floats and 4 buoys. The 2 light floats are both p hand marks, and the buoys starboard hand, as indicated by shape, col and light characteristics.

Inner Channel, from Ghasha Buoy to berths at Jebel Dhanna mark by 21 light buoys. Least depth in this channel is 46 ft. and minimu width of 800 ft. between Buoys No. 7 and 10.

(Outward Passage)

After clearing berth an outward bound vessel should steer to pa midway between Buoys No. 13 and 20, leaving Alaq Island to starboa From Buoys No. 13 and 20 the same track is followed as for inwa passage.

Navigation in shallow waters: The navigation of deep drafted vessels high speeds in shallow waters introduces certain hazards. Masters ships should be guided by the following:

Due consideration should be given to the effect of squat at speed vessel's draft in shallow water, bearing in mind vessel's trim.

If possible, confirm actual height of tide against predictions and if n bear in mind that after strong winds the actual height of tide may reduced and extra caution must be exercised for a few days during a after bad weather.

Ensure accuracy of vessel's draft reading, including the midship dra having in mind the tendency of vessels to sag and the adverse effe of a small list.

Reduce to minimum safe speed to pass over and near shoal area

Reduce to a minimum safe speed when negotiating turns in order reduce heel under helm.

Note that list can mean an appreciable increase in draft.

When strong tidal streams are running across a channel, ex vigilance is required, and allowance made for set, particularly at reduc speed, to ensure vessel proceeds along mid channel.

DOCUMENTS:

2 Crew Lists.
2 Passenger Lists.
2 Manifests.
1 International Maritime Declaration of Health.

READINESS TO LOAD: If an accepted Tankship arrives at the Port Jebel Dhanna and tenders Notice of Readiness to Load:

(i) Within its Set Range then running hours shall commence, berth no berth, either six hours after such Notice of Readiness or at t time of connection of cargo loading hoses, whichever is the earli

(ii) Prior to the commencement of its Set Range then running hou shall commence at 1400 hrs. on the first day of its Set Range, be or no berth, notwithstanding the fact that loading may ha commenced for any reason prior to 1400 hrs. on the first day of Set Range; or

(iii) After expiry of the Set Range, then running hours shall commen at the time of connection of cargo hoses.

Running hours shall finish at the time of disconnection of cargo load hoses.

The Company will make every effort to load the tanker on arr provided a berth is available and weather permitting.

MAX. SIZE: See "Berthing".

Also see Section "A" – "Restrictions".

VHF: Vessels are to maintain watch on VHF Channel 9 when berth

EQUIPMENT: Port and Starboard anchors to be fitted with anchor bu and sufficient line to facilitate recovery of anchor in the event of los

4 good mooring lines of not less that 120 fathoms each and suitable size for the vessel. 2 additional 120 fathoms lines securely ta to the first lines for occasions where 120 fathoms may not reach stern buoys initially.

For vessels of 50,000 d.w.t. and larger, power mooring winches 200 fathoms wire mooring rope are recommended.

Suitable new rope stoppers to be available forward and aft.

2 good stoppers for use on 40 mm. diameter wires. Preferably pa carpenter's stoppers.

2 good boat ropes 4.5 in. circumference of at least 200 ft. long.

A clean, safe pilot ladder of adequate length battened so as to prev turning. A suitable line to be ready for hauling gear on board, such hose clamps, reducers and elbows. A lifebuoy should be placed ha to this ladder.

Tankers of 40,000 d.w.t. and over should have rigged, when in ball an accommodation ladder lowered to about 12 ft. above water. This be adjusted to suit the conditions. A pilot ladder should be rig immediately adjacent to the accommodation ladder platform, to w 2 ft. of the water. This will enable the Pilot and others when the ve is moored to ascend the pilot ladder clear of the launch and then on to the lower platform of the accommodation ladder.

Deck machinery must be available at all times.

Whistle or siren must be available at all times.

Adequate deck lighting should be provided for night-time operat with special emphasis on the following areas:

1. Overside at boarding position for Pilot.
2. Overside abreast of manifold, for hose lifting.
3. Working area around manifold.
4. Poop working area, for handling mooring ropes and wires.

Note: "Aldis" type signalling lamp to be available when mooring

BERTHING: Berthing is by mooring to 2 anchors and stern buoy CBM's or to SPM Berth. Arrangements in advance by contacting Dhanna Pilots on Channels 9 and 16.

Berths are approached on W.S.W. course passing S.E. of Alaq Is Leading lights have been established which will lead ships on th of the 2 anchors when in berth. A small marker buoy has established to assist the Mooring Master in placing starboard anchor in correct position. Vessels berth heading N.W. Holding ground good. Bottom consists of clayey silt.

Sea Line Loading Berths. 4 Sea-Line Berths No. 1, 2, 3 and 4. Nos. 1 and 2 supplied by single 36 in. lines, and Nos. 3 and 4 supplied by 42 in. lines, each terminating in a header which passes under vessel in berth.

Berth Criteria:

Parameters	*Berth 1* *CBM*	*Berth 2* *CMB*	*Berth 3* *SPM*	*Berth 4* *SPM*
DWT (tons) Max.	140,000	250,000	450,000	450,000
DWT (tons) Min.	20,000	70,000	100,000	100,000
Length (ft.) Max.	950	1,100	1,237	1,237
Length (ft.) Min.	559	800	820	950
Max. Loading Rate (t.p.h.)	6,000	6,000	7,500	9,500
Strings of Flexible Hose	2×16 in.	2×16 in.	2×16 in.	2×16 in.
Length of Sealine Approx. (ft.)	16,200	16,000	20,500	17,200

Least depth of water available in berth, and swinging circle, after deducting 6 ft. for height above sea bed of sea line cradle is as follows: Berth No. 1, 51 ft.; Berth No. 2, 52 ft.; Berths No. 3 & 4, 55 ft.

Swinging circle defined as one and a half ship's lengths from dropping position of ship's inshore anchor.

The approximate draft limits quoted above are based on an underkeel clearance in the berths of 6 ft., rising tides permit deeper loading in berths.

Seawards ends of pipelines, terminate in 16 in. flexible hoses. Hoses are lifted on the port side of the vessel.

Additional information obtainable from Jebel Dhanna Pilots on Channel 16 prior to vessel's arrival.

HOSES: Derricks or cranes must be capable of lifting a string of hoses from the sea-bed to a height of 30 ft. above the deck. For lifting 16 in. diameter hoses, the lifting gear should have a SWL of not less than 10 tons.

Gear should be rigged on port side of the vessel in order to lift hoses. It may be convenient to handle blank flanges, reducers, etc., with the derrick or crane. Reducers or adaptors should be bolted to the ship's flanges, so as to take 16 in. hoses.

Note: Where a vessel has 2 or more loading connections, those used should not be less than 7 ft. apart.

Hose Hang-off bitts are required at about 10 ft. from the ship's rail at the loading manifold to secure the submarine hoses on port side for CBM berths and the tanker rail hoses on port side for SPM berth.

S.B.M.: 30 sections × 30 ft. × 16 in.

LOADING: *Flash Point:* The flash point of Murban Crude is below 32° F.

Crude Oil Temperatures: While every effort will be made to keep the loading temperatures of export crude below 150° F., there may be times when this temperature is exceeded.

Whenever possible Masters will be advised when this temperature increase is likely to occur, but in Jebel Dhanna the temperature ashore varies according to loading rate, production rate, changes in production pattern from the field, tank levels, etc., and the temperature difference between shore and ship varies according to loading rate, quantity of cargo taken, berth occupied and when last used, etc., thus the ship's temperature obtained on a previous voyage may be substantially different to that obtained on the current voyage and the previous vessel's temperature can be taken as an approximate guide only.

ADCO will not accept any responsibility for the failure by the Master of any tanker loading at Jebel Dhanna to take appropriate action to receive hot oil, prevent any damage to his vessel and/or injury to his crew.

H_2S Content: Murban Crude contains concentrations of H_2S (Hydrogen Sulphide). Hydrogen sulphide has a disagreeable odour characteristic of rotten eggs which quickly deadens the sense of smell so that a dangerous concentration may be present which cannot be detected by odour. It is, therefore, important that when the presence of the gas is detected the area or compartment concerned should be left with all possible despatch until adequate ventilation can be carried out. The combustible gas indicator may not detect this type of gas. The foregoing must be dealt with in the light of experience where large quantities of crudes of this type have been carried without accident and we do not wish to exaggerate the dangers. However, the under-noted precautions have been evolved as necessary to provide against a possible accident and should be strictly observed.

During loading gas should only be allowed to escape via the agreed venting arrangements.

When ullaging or sampling, personnel should stand facing at right angles to the wind direction and so avoid inhaling gas. If H_2S is inadvertently inhaled the man should leave the area and not return until his sense of smell has been restored which means that at least two people should attend the operation.

No one should enter any pump room or any compartment where gas could collect unless another person is standing by.

Life lines, breathing apparatus and resuscitator should be readily available.

As a precautionary measure, the gas ejector for pump room should be put into operation at any time entry is made into this space whilst the possibility of H_2S gas entering pump room from cargo or empty tanks exist.

Loading Operations: The advice from the vessel which states she is ready to receive cargo is considered as final, and as indicating that every operation necessary aboard the vessel has been completed. As soon as possible after such a signal has been received, and without further advice, loading will commence. Damage to hoses can occur if ship's valves are not open at the start of loading. The Mooring Master will not transmit any loading instructions to the shore until the officer-in-charge of the deck has satisfied him that the hoses are connected correctly and that all valves have been set for receiving cargo.

While in berth, ships should be ready to move under their own power in the event of their breaking adrift, catching fire, fire in adjacent berths or other emergency. No repairs are to be carried out while in berth which would immobilise the ship or impair her fire-fighting efficiency.

The Mooring Master will instruct the Master of the Ship as to any signals needed for local requirements.

The Mooring Master will bring a portable radio to the ship.

The radio may not be used for private conversation. Use of the ship's radio while at the loading berth is strictly prohibited.

When loading, the cargo being received shall be frequently measured, thereby preventing loss of oil through a leaking hose. This particularly applies at night, as seepage of oil is practically invisible on the water during darkness.

Caution: The oil loading rates to ships are controlled on shore and an extremely dangerous situation can arise if a ship's valves are closed against the flow of oil.

Particular care must be exercised by ship's personnel to ensure that the Terminal is given timely advice should any reduction be required in the loading rate and adequate "Stand-by" notice must be given before the Final "Stop". At all times the Terminal must be advised when an increase in the loading pressure can be expected due to switching tanks, topping up, etc. To prevent excessive pressure from surge on ship/shore connections, ship's valves should be closed slowly.

The Terminal facilities at Jebel Dhanna have been designed so that tankers can be loaded by turbine driven loading pumps at max. rates up to 6,000 t.p.h. in Berth 1 and 7,500 t.p.h. in Berth 3, and 9,500 t.p.h. in Berth 4. Availability of max. loading rates is dependent on the number of berths occupied and operational circumstances.

If vessel is unable to accept the max. loading rate available, then ADCO will be grateful if you will give a brief explanation of the reason for the limitation and we suggest some of the reasons which may govern your restrictions:

(a) Inadequate venting system.
(b) Condition of ship's lines and valves.
(c) Inexperience of crew.

and there may be other reasons.

We are anxious to obtain this information in order to assist in formulating plans for future development.

The quantity of cargo received on board is the responsibility of the ship and no overage may be sent back ashore.

When loading is completed, hoses will be disconnected and lowered to the sea bed, under the supervision of the Mooring Master.

Ships will then proceed to an anchorage allocated by the Port Authority or direct to sea.

BALLAST: No facilities for disposal of slops or dirty ballast.

When a vessel enters port waters in ballast, the ballast water for overside discharge must be clean and a declaration signed by the Master and delivered to the representative of the Terminal to this effect. Ashes, oil, oily water or other refuse must not be discharged overboard in port waters. Vessel's scuppers must be effectively plugged and leakage or spillage of oil aboard ship must not be swept or washed overboard whilst in port waters.

It is essential that vessel is adequately ballasted to ensure safe handling and manoeuvring. Please comply with the Mooring Master's requests as to ballast quantity and disposition.

Jebel Dhanna is an open roadstead and subject to sudden changes in weather. On occasions it is of great advantage to commence loading whilst discharging ballast or prior to completely deballasting to avoid having the vessel in a flying light condition.

There must be no cleaning of boiler tubes whilst ship is in port.

MEDICAL: A hospital run by the Abu Dhabi National Oil Company (ADNOC) is situated adjacent to the Ruwais Industrial Complex. Ambulance facilities are available.

DENSITY: 1031.

FRESH WATER: Not available.

FIRE PRECAUTIONS: As laid down in the Abu Dhabi (Petroleum Ports) Law No. 12 of 1973 and ISGOTT Safety Guide.

CONSULS: None.

REPAIRS/DRY DOCKS: No facilities.

GANGWAY/DECK WATCHMEN: Not necessary.

CUSTOMS ALLOWANCES: Tobacco: No restrictions in quantity on board but must not be conveyed ashore or from one vessel to another without appropriate written permit from Customs Authorities and Port Officer. Wine and/or Spirit: Conveyance of alcoholic liquor from any vessel to the shore or from the shore to any vessel, or from one vessel to another, prohibited without appropriate written permits from Port Officer.

Shipmaster's Report: 1978.

All alcoholic liquor must be under bond and sealed.

REPATRIATION: With sufficient notice Agents will assist in any repatriation. Landing permit is required for all sign on/sign off personnel for which Agent requires Full Name/nationality/Seaman's Book/Passport Number and also 4 to 5 working days to process same. However, facilities are limited and if possible crew changes should be made at other ports.

Shipmaster's Report: 1978.

Immigration Authorities require at least 4 days' notice and preferably 7 days' notice via Agent.

AIRPORT: One mile distant, air strip owned by ADCO for private use. Nearest International Airport is Abu Dhabi the capital of the State.

TIME: Local time GMT plus 4 hours. No alterations to clocks during year.

POLICE/AMBULANCE/FIRE: The Abu Dhabi Defence Force, Oilfield Security Section maintains a police post at Jebel Dhanna and Ruwais and is responsible to act in case of accident or other emergency, whether ashore or in territorial waters.

TELEPHONES: Jebel Dhanna is connected to the international telephone system.

SERVICES: None.

SHORE LEAVE: Crews not allowed ashore.

IDENTIFICATION CARDS: Not required.

SHIPMASTER'S REPORT: December 1979.

Anchorage: Ghasha Anchorage apparently has good holding ground, bottom is sand with a little clay.

VHF: Call on Channel 16 or 9 (continuous watch). All operations carried out on Channel 9.

Medical: Any injury requiring treatment ashore necessitates having the following documents ready before the injured seaman can be transported to Ruwais Hospital.

1. Extract of Ship's log.
2. Master's report of the incident.
3. Two eye witness reports (if possible).
4. Pilot's report.
5. Letter from Master accepting responsibility for the injured man.

He must also take his Seaman's Book/Passport with him and all the above documents must be signed and ship's stamped by Master.

Gangway: Accommodation ladder usually port side but best to wait until vessel is nearly moored in order to determine best lee side.

Customs Allowances: Customs can be very strict. All alcohol must be locked up before arrival and they will then give an issue.

(C) RUWAIS – REFINERY TERMINAL

OPERATOR: ADPPOC is the service contractor to Abu Dhabi National Oil Co., (ADNOC).

GENERAL: The ADNOC Ruwais Refinery Terminal is situated about 2.5 miles SE of the Jebel Dhanna Sea Berths and consists of a trestle jetty 3 km. in length with 2 deep water berths and 4 coastal tanker berths. Vessels will berth port or starboard side at the discretion of the Pilot having regard for the tide and weather conditions.

RADIO: *Format for information required from vessels prior to berthing at Ruwais Refinery Terminal:*

A. Firm ETA Ruwais 72, 48, 36, 24 and 12 hours prior to arrival.
B. Cargo(es) (with quantity in M.tons) to be loaded and acceptable loading rate per hour per line. Number of lines for each cargo.
C. Cargo(es) on board on arrival (if any), with tanks and last port loaded.
D. Will cargo(es) ex-Ruwais be commingled with cargo on board. If so, indicate details.
E. Stowage of clean ballast to be discharged overboard. Indicate under ballast details below if discharge will take place during or prior to loading, as applicable.
   1. Quantity of clean ballast in tanks No.... nominated for Cargo loading at Ruwais.....M.tons
   2. In segregated ballast tanks.....M.tons
   3. In permanent ballast tanks.....M.tons
   4. Total time required for ballast discharging, prior to loading.....Hours

Note: Clean ballast oil content must be below 15 p.p.m. and samples will be drawn for tests to ensure compliance.

F. Quantity of dirty ballast (if any) to be discharged to the Refinery dirty ballast system and time required for discharging. This is subject to acceptance by the Refinery. Dirty ballast must be free of lead and/or chemical washings.
G. Last three cargoes handled by vessel in the following sequence:
   (i) The very last Cargo(es)/Stowage arrangements.
   (ii) The 2nd last Cargo(es)/Stowage arrangements.
   (iii) The 3rd last Cargo(es)/Stowage Rrangements.
H. Full details of tanks washing and cleaning carried out since the discharge of the last Cargo(es).
I. Draft on arrival and maximum expected draft on sailing.
J. Maximum freeboard on arrival after discharging ballast prior to loading and expected freeboard on sailing (including height from deck to connections at manifold) in metres.
K. Distance from vessel's rails to manifold connection and height of rails from deck.
L. Distance between manifold connections centre to centre in metres.
M. Displacement on arrival and expected displacement on sailing.
N. Bunkers/Water requirements.
O. Any other requirements.
P. SOLAS Protocols with latest revisions are strictly applied in this port and vessels should fully comply with all relevant regulations while in the port area.
   Accordingly, please advise if tanks are inerted per SOLAS requirements and condition of inert gas system fitted in vessel.

Please note vessels should arrive with all tanks properly inerted as applicable under SOLAS Protocol, unless otherwise advised by Ruwais Refinery to arrive in gas free condition to enable internal inspection at inner cabotage by Third Party Inspectors, prior to loading. In this case please advise time required to inert vessel's tanks after completion of inspection.

The above information should be made available 72 hours prior to arrival at Ruwais and is additional to the requirements of the Ruwais Port Officer.

Also see "Shipmaster's Report" dated January 1992.

VHF: The Refinery Terminal maintains VHF watch on Channel 16 and Channel 9 for ship/shore communications and once berthed, the vessel will be connected to the terminal by land line telephone, and a UHF hand set will be provided by shore.

The Pilot will bring on board UHF Hand Set for manoeuvring purposes only.

Arrival Telegram Ship/Shore: After the Pilot boards the Ship/Shore Arrival Telegram will be passed by VHF Radio Channel 16/9 as follows:

(1) Name of Vessel.
(2) Nationality and Port of Registry.
(3) a – Gross Registered Tonnage.
  b – Net Registered Tonnage.
  c – Summer Deadweight.
(4) Size of manifold.
(5) Are reducers to 12 in., 10 in. and 8 in. available on board?
(6) Are adequate nuts and bolts and gaskets available on board?
(7) Number of hours required to de-ballast and quantity.
(8) Vessel's maximum loading rate.
(9) Quantity and type of cargo.
  a –
  b –
  c –
(10) Last Port.
(11) Next Port.
(12) Master's Name.
(13) Date and time of arrival.
(14) Date and time of Pilot on Board.
(15) ETA at Berth.
(16) Arrival Draft.
(17) Estimated Departure Draft.
(18) Bunkers requirements (quantity and type).
(19) Drinking Water requirement quantity.
(20) Is the ballast lead free?

Also see "Shipmaster's Report" dated January 1992.

BERTHING:

Berth "B"

Berth "B" is designed to accommodate tankers in the range 9,10 104,000 tons displacement. Length of ship 118.5 m. to 280 m. T minimum depth alongside the berth is 12.7 m.

The berth consists of the Loading Platform, four mooring dolphins a four breasting dolphins connected by walkways.

On the Loading Platform a bank of six cargo Chicksan arms serve load or discharge ships, namely:

2×12 in. dia.	Each arm is provided for Fuel Oil loading and ba unloading.
2×12 in. dia.	Each arm is provided for Gasoline (Premium a Regular), Kerosene, Jet Fuel and Diesel Oil.
1×10 in. dia.	For Bunker 'C' and Marine Diesel Oil loading.
1×12 in. dia.	For Naphtha loading.

One 3 in. hose for drinking water is provided.

Products available for loading are Naphtha, Fuel Oil, Gasol Kerosene/Jet Fuel, Diesel Oil, Marine Diesel and Bunker 'C'.

Flow rates are as follows:

Naphtha	2,000 cu.m./h.
Reformate	1,400 cu.m./h.
Reg. Gasoline	1,400 cu.m./h.
Prem. Gasoline	1,400 cu.m./h.
Kerosene	2,800 cu.m./h.
Diesel Oil	3,000 cu.m./h.
Fuel Oil	3,200 cu.m./h.
Crude Oil	6,000 cu.m./h.
Bunker 'C'	1,000 cu.m./h.
Marine Diesel Oil	300 cu.m./h.
Drinking Water	100/300 cu.m./h.
Ballast	1,500 cu.m./h.

The loading arms are provided with:

(i) Hydraulic quick coupling.
(ii) Automatic drain system (emergency condition).
(iii) Electro hydraulic operation.
(iv) Range control system.
(v) Remote Control.
(vi) Connecting flange mating device.
(vii) Vacuum Breaker.

Berth "C"

Berth "C" is designed to accommodate vessels with range 26,00 130,000 tons displacement. Length of ship 180 m. to 295 m. T minimum depth alongside the berth is 16.8 m.

The berth consists of the Loading Platform, six mooring dolphins four breasting dolphins connected by walkways.

On the Loading Platform a bank of seven cargo Chicksan arms s to load or discharge the ship, namely:

3×12 in. dia.	Each arm is provided for Crude Oil, ballast unloa and Fuel Oil loading.
2×12 in. dia.	Each is provided for Gasoline, Kerosene, Diese loading.
1×10 in. dia.	For Bunker 'C' and Marine Diesel Oil loading.
1×12 in. dia.	For Naphtha loading.

One 3 in. hose for drinking water is provided.

Products available for loading are Naphtha, Gasoline, Kerosen Fuel, Diesel Oil, Fuel Oil, Marine Diesel and Bunker 'C'.

Flow rates are as follows:

Naphtha	2,000 cu.m./h.
Reformate	1,400 cu.m./h.
Reg. Gasoline	1,400 cu.m./h.
Prem. Gasoline	1,400 cu.m./h.
Kerosene	2,800 cu.m./h.
Diesel Oil	3,000 cu.m./h.
Fuel Oil	3,200 cu.m./h.
Crude Oil	6,000 cu.m./h.
Bunker 'C'	1,000 cu.m./h.
Marine Diesel Oil	300 cu.m./h.
Drinking Water	100/300 cu.m./h.
Ballast	1,500 cu.m./h.

The loading arms are provided with:

(i) Hydraulic quick coupling.
(ii) Automatic drain system (emergency condition).
(iii) Electro hydraulic operation.
(iv) Range control system.
(v) Remote control.
(vi) Connecting flange mating device.
(vii) Vacuum Breaker.

Also see "Shipmaster's Report" dated January 1992.

Berth "E"

	Minimum	*Maximum*
Vessel Deadweight	20,000	333,000 (Partially loaded to 210,000)
Vessel Length Overall (m.)	180	360
Vessel Beam (Extreme) (m.)	22.4	57.5
Parallel Body Length (m.)		345
Displacement (tons)		255,000
Water Depth (m.)		19.6
Draft (m.)	9.5	17.0 (Partially loaded)
Freeboard up to Manifolds (m.)	4.9	24.1
Distance between Manifolds (m.)	1.6	3.0
Height – Deck to Centre of Manifold (m.)		2.1
Distance Rail to Manifold (m.)		4.6
Distance between Breasting/ Mooring Dolphins		48 m. – 2 Inner B.D. 30 m. – Inner/Outer B.D.

Product	*Arm No.*	*Size (in.)*	*Flow Rate (cu.m./hr.)*
Bunker C	260-VLA-34	10	1,000
Marine Diesel			300
Fuel Oil (380cSt)			1,000
Bunker C	260-VLA-35	12	1,000
Marine Diesel			300
Fuel Oil (380cSt)			1,000
Fuel Oil (Alm Res)	260-VLA-36	12	2,800
Crude			2,000
Ballast			1,500
Fuel Oil (Atm Res)	260-VLA-37	12	2,800
Crude			2,000
Ballast			1,500
Fuel Oil (Atm Res)	260-VLA-38	12	2,800
Crude			2,000
Ballast			1,500
Naphtha A	260-VLA-39	16	1,400
Naphtha B			2,000
Condensate			3,000
Pentane Plus			4,200
Naphtha A	260-VLA-40	16	1,400
Naphtha B			2,000
Condensate			3,000
Pentane Plus			4,200
Kero – Jet Fuel	260-VLA-41	16	2,500
Gasoil A			3,000
Gasoil B			1,800
Kero – Jet Fuel	260-VLA-42	16	2,500
Gasoil A			3,000
Gasoil B			1,800
Prem. Gasoline	260-VLA-43	12	1,400
Reg. Gasoline			1,400

Coastal Berth 1

Coastal Berth 1 is the Inner Berth on the North side of the Cabotage Jetty. The Berth consists of the loading platform, four mooring dolphins and four breasting dolphins. Length of ship 70 m. to 118.5 m. The loading platform has a bank of five Chicksan loading arms with 8 in. diameter connections. The minimum depth alongside the berth is 9.1 m. Vessel size 2,600 to 9,100 tons displacement.

Products available are: Fuel Oil, Diesel, Kerosene/Jet Fuel, Gasoline, Bunker 'C' and Marine Diesel Oil. Ballast will be pumped ashore.

Flow rates are as follows:

Reg. Gasoline	1,000 cu.m./h.
Prem. Gasoline	1,000 cu.m./h.
Kerosene	900 cu.m./h.
Diesel Oil	900 cu.m./h.
Fuel Oil	800 cu.m./h.
Marine Diesel Oil	300 cu.m./h.
Bunker 'C'	900 cu.m./h.
Ballast	400 cu.m./h.
Drinking Water	100/300 cu.m./h.

One 3 in. flanged connection for fresh water.

The loading arms are provided with:

(i) Electro hydraulic operation.
(ii) Manual quick coupling and hydraulic emergency release.
(iii) Range control system.
(iv) Vacuum breaker.
(v) Remote control system.
(vi) Connecting flange mating device.

Coastal Berth 2

Coastal Berth 2 is the Inner Berth on the South side of the Cabotage Jetty and consists of the loading platform; four mooring dolphins and four breasting dolphins. Length of ship 70 m. to 118.5 m., size 2,600 to 9,100 tons displacement. The minimum depth alongside the berth is 8.7 m. The loading platform has a bank of two 8 in. diameter loading arms.

vis. 1×8 in. to discharge ballast.
1×8 in. to load Bunker 'C', Marine Diesel or Fuel Oil. TEL unloading facilities are available by flexible hose.

Flow rates are as follows:

Fuel Oil	800 cu.m./h.
Marine Diesel Oil	300 cu.m./h.
Bunker 'C'	900 cu.m./h.
Ballast	400 cu.m./h.
Drinking Water	100/300 cu.m./h.

One 3 in. flanged connection for fresh water.

The loading arms are provided with:

(i) Electro hydraulic operation.
(ii) Manual quick coupling and hydraulic emergency release.
(iii) Range control system.
(iv) Vacuum breaker.
(v) Remote control system.
(vi) Connecting flange mating device.

Coastal Berths 3 & 4

The Outer Berth North and South side of the Cabotage Jetty each consist of four breasting dolphins and three mooring dolphins with a fourth common mooring dolphin with Berths 1 & 2. Length of ship 70 m. to 118.5 m., size 2,600 to 9,100 tons displacement.

The minimum depth alongside the berth is 9.4 m. (No. 3) and 9.2 m. (No. 4). The berths are equipped with four 8 in. loading arms and a 3 in. water connection.

Products available are: Diesel Oil, Kerosene/Jet Fuel, Gasoline, Marine Diesel Oil, Bunker 'C'.

Ballast water will be pumped ashore.

Flow rates are as follows:

Reg. Gasoline	1,000 cu.m./h.
Prem. Gasoline	1,000 cu.m./h.
Kerosene	900 cu.m./h.
Diesel Oil	900 cu.m./h.
Fuel Oil	800 cu.m./h.
Marine Diesel Oil	300 cu.m./h.
Bunker 'C'	900 cu.m./h.
Ballast	400 cu.m./h.
Drinking Water	100/300 cu.m./h.

The loading arms are provided with:

(i) Electro hydraulic operation.
(ii) Manual quick coupling and hydraulic emergency release.
(iii) Vacuum breaker.
(iv) Remote control system.
(v) Range control system.
(vi) Connecting flange mating device.

BERTHING AIDS:

Berths 'B' and 'C' are equipped with a radar operated safety berthing system indicating by means of coloured lights the forward and aft berthing velocity of the ship.

Two groups of coloured lights one forward and one aft indicate the safe/acceptable/dangerous lateral approach of the ship from a distance of 50 m. off the berth.

BALLASTING/DEBALLASTING: Ruwais Refinery has dirty ballast water treatment equipment and all dirty ballast shall be discharged ashore for treatment. (No dirty ballast may be discharged into the sea and pollution of the waters of the port is an offence against the Port Regulation and the laws of Abu Dhabi).

Accepting dirty ballast into the refinery storage is subject to approval by refinery, a sample of the dirty ballast may be required for analysis, a letter from Master requesting permission to discharge is to be made (letter is provided for Master's signature).

During loading/unloading all deck scuppers must be plugged. All precautions shall be taken to prevent oil or oily waters escaping into the sea during connection and disconnection of loading arms.

Normally the terminal Control Room will give a 10 minutes warning before deballasting may commence. Deballasting shall commence at slow speed to check systems and back pressure.

Simultaneous deballasting with loading of cargo is permitted only in the case of cargo of Bunker 'C'.

While encouraging quick turn around and the use of minimum ballast upon arrival, sufficient ballast must be retained on board for the safe manoeuvring of the vessel at the Pilot's discretion.

LOADING AND UNLOADING:

(i) The Master should give the terminal a 'STAND BY' warning 10 minutes before ready to commence loading or discharging.
(ii) Upon 'COMMENCE LOADING' from the Master only one pump will be used to ensure a slow flow rate until it is established that all systems are operating correctly and pressures are constant. Full loading rate may then be ordered.
(iii) The vessel's cargo tanks shall be inspected prior to and during loading and should it be found that the tanks are not tight all loading shall cease, the vessel be rejected and further loading refused. The vessel will not be accepted later until satisfactory evidence of repair is produced duly certified by ABS, Lloyd's or other officially accredited classification society or surveyor.
(iv) During the hours of darkness vessels loading products or discharging crude oil or ballast shall rig overside lights to illuminate the surface of the sea around the ship to the Terminal Operators satisfaction to ensure that any oily products on the surface may be detected quickly and early action taken as appropriate.

DERAT: There are no facilities for Derat at Ruwais.

FUEL: Bunkers are obtainable at Refinery berths and should be arranged through the ship's Agent.

FRESH WATER: Fresh water is obtainable at Refinery berths and should be arranged through the ship's Agent.

STORES/PROVISIONS: Stores and provisions are not permitted to be loaded at Refinery berths and must be taken on board in the anchorage.

SHIPMASTER'S REPORT: January 1992 (Updated 1994).

Vessel called to load 25,000 tonnes of Reformate.

Documents:

1 copy Port Clearance.
2 copies Crew List.
2 copies Crew Personal Effects List.
2 copies Bonded Stores List.

As Customs and Immigration Officers do not come on board anymore for sealing Bonded Stores, etc., all paperwork is dealt with by ship's

Agent. Consequently alcoholic liquor will not be under bond and sealed. However conveyance ashore or to another vessel is prohibited.

Restrictions: With winds of 18 knots or more, port is closed.

Radio: Prior to arrival, vessel received two telexes from ship's Agent, one for the Port Officer – Petroleum Ports Authority, and the other for Ruwais Refinery.

Message:

Following information required by Port Officer – Petroleum Port Authority 72 hours prior to the vessel's arrival, giving the following details in the given format:

Question Answer
1. ETA.
2. Flag.
3. G.r.t., n.r.t., and Summer d.w.t.
4. Arrival and departure drafts.
5. Cargo to be loaded/discharged.
6. Type and quantity of ballast and deballasting time.
7. Status of Inert Gas System (I.G.S.).
8. Status of Air Conditioning (A.C.).
9. Expiry of certificates.
I. Load Line.
II. Safety Construction.
III. Safety Equipment.
IV. Safety Radio.
V. Oil Liability (Tovalop).
VI. Oil Pollution Liability (C.L.C.).
VII. International Oil Pollution Prevention (I.O.P.P.).
VIII. Classification.
IX. Certificate of Fitness (Gas Carriers).
X. Derat Certificate.

The ETA is to be amended as necessary 48 hours, 24 hours and 12 hours prior to arrival.

Deballasting: Dirty ballast/slops can be discharged ashore as long as it does not contain any leaded petroleum residues or cleaning chemicals.

(D) RUWAIS – NGL TERMINAL:

LOCATION: 24° 09' 49" N. 52° 43' 16" E.

OPERATOR: Abu Dhabi Gas Industries Ltd. (GASCO).

GENERAL INFORMATION: The Terminal Regulations are issued for the information and guidance of Masters of vessels loading at the GASCO Jetty at Ruwais. After receipt of the first ETA advice from a gas carrier GASCO will cable the Master of the vessel instructions to carry out following tests and checks 24 hours prior to arrival:

1. Check condition (oxygen content) of atmosphere in void spaces around cargo tanks.
2. Check all reliquefaction units fully operational.
3. Check settings of cargo tank safety relief valves.
4. Test ESD (Emergency Shut Down) of cargo valves/pumps/boosters from all activating stations.
5. Check gas detecting unit with suitable spangas and have unit working continuously.
6. Test water spray system deck area, flush all lines and check nozzles for proper operation and coverage.
7. Check ventilation of control room and compressor room and have ducts set for LPG.
8. Check over-pressurising and motor-trip system of motor room.
9. Check navigation equipment and steering gear fully operational.

The results of above tests should be cabled to GASCO not less than 18 hours prior to arrival.

On arrival at the terminal, the Terminal Representative will discuss with the Master the safety requirements. Attention is drawn to the International Safety Guide for Oil Tankers and Terminals (ISGOTT) and the Safety Inspection Guildelines and Terminal Safety Check List for gas carriers as published by the International Chamber of Shipping and Oil Companies International Marine Forum (OCIMF). For efficient loading it is essential that the ship should be fitted with adequate equipment. Improvisations made after the ship has arrived alongside the jetty are not sound practice and result in delays and possible damage to the loading arms and other equipment.

Abu Dhabi Gas Industries Ltd. (GASCO) have equipped their terminal with loading machinery and mooring arrangements which will ensure tankers and gas carriers receiving their cargoes at a reasonable rate, thereby extending to the ship the benefit of a rapid turnaround.

Mooring, loading and unmooring are carried out by night as well as by day. Co-operation between the Ship's Officers and Terminal Representatives is essential to secure the full benefit of the facilities provided.

MAX. SIZE: *Gas Carriers:* 28,000 cu.m. – 125,000 cu.m.

Tankers: Minimum Size – 15,000 tonnes S.D.W.T. Max displacement on arrival 95,000 tonnes. Max. LOA 320 m.

TUGS: Twin screw tugs (35 tons bollard pull) are used for both berthing and unberthing of vessels. The number of tugs to be used is to the discretion of the Pilot but will normally be two for berthing and for unberthing. The tugs will use their own ropes and/or wires. The tugs are fitted with foam/water monitors, including one at approximately 19 m. above sea level, to assist in fire-fighting. Also fitted are spray booms to apply dispersants in case of oil spills.

BERTHING: *The Jetty:* The centreline of the GASCO-NGL Jetty Loading Platform is situated in 17 m. of water in position Lat. 24° 09' 49" N., Long. 52° 43' 16" E. with the berthing line in direction 305°/125°. Vessels are normally berthed heading 305°. A piping trestle and road, approximately 2,650 m. long, leads to the shore where the processing plant and storage tanks are located.

The jetty head comprises a loading platform (10 m. above chart datum), a utilities building, 4 breasting dolphins and 6 mooring dolphins. The dolphins are inter-connected by walkways. The distance between the 2 outermost dolphins is 340 m., between the 2 innermost breas dolphins 42 m. and between the 2 outermost breasting dolphins 97

On the loading platform there are 2×12 in. loading arms for load Pentane Plus and discharge of dirty ballast/slops, 4×12 in. loading ar for loading/vapour return of Propane and Butane and 1×8 in. load arm for bunkering (Rate – MFO 400 cu.m.p.h. and MDO 300 cu.m.p. (For distance and disposition of loading arms see "Plan"). The L loading arms are fitted with an Emergency Release System (ERS). loading arms except the bunker arms are fitted with an Emergen Shutdown System (ESD). Both ERS and ESD can be actua automatically or manually. For detailed information about these syste you are referred to the separate letter on ESD/ERS handed over Master by the Terminal Representative. The Master is to ensure t the personnel responsible for cargo operations are fully familiar w these systems.

On the Western end of the loading platform is a gangway tower w a 1.5 ton crane forming a integral part of this tower. On the Eastern e of the platform there is a tower mounted fire water and foam moni This monitor can be controlled manually or remotely from the jetty he or from the foot of the jetty aided by a television monitor.

An additional manually controlled firewater monitor is situated on ea of the 2 inner breasting dolphins. In addition to this, water spray delu systems are covering the loading arms area, the gangway, the su drum area and the utilities building. Gas detection equipment strategically placed near the loading arms and will give alarm in ca of inadvertent gas escape. The loading arms area and tanker manif area are monitored by closed circuit television from the control roo situated in the utilities building on the jetty and from the main cont room.

On the Eastern side of the loading platform is a boat landing sta where the mooring boats can tie-up.

Draft: The minimum water depth alongside the jetty is 17 m. below ch datum (C.D.). However, the Deep Water Channel imposes d limitations on vessels departing from and entering the Port of Je Dhanna – Ruwais:

Also see Section "A" – "Restrictions".

Moorings: When at berth, vessels must be moored to the en satisfaction of the Pilot and Terminal Representative. Vessels can be either side alongside, depending on the ship's manifold layout and the prevailing weather conditions. The breasting dolphins are ea equipped with 1,250 KN double quick release hooks and a pow operated capstan. The mooring dolphins are each equipped w 1,250 KN triple quick release hooks and power operated capstan.

The minimum mooring requirements are 3 heading, 3 breast lin each end, 2 spring lines each end and 3 stern lines. Vessels must ready at all times to put out extra moorings as requested by Termi Personnel or dictated by weather changes. It is the Maste responsibility to ensure that vessel's mooring lines are check frequently to prevent excessive movement of the vessel in berth, wh could activate the ESD/ERS systems and/or cause severe damage the loading arms and other terminal equipment.

Experience has shown that wholly synthetic moorings have too mu elasticity and allow the vessel to range or drift away from the berth dur periods of adverse weather.

Therefore the moorings should preferably be all steel wires.

As it is recognised that some vessels are not fitted out with compl steel wire moorings, such vessels may use synthetic moorings for he or stern ropes, but breasting and spring moorings are to be steel wir However, mixed mooring for the same service is strictly prohibited. NOTE: (October 1982). With immediate effect all vessels calling at t GASCO NGL Jetty are to be fitted with wires, for spring lines. Vess unable to comply will be subjected to an inspection of mooring ropes the Pilot on arrival and will be berthed only if Pilot is satisfied with mooring lines available, and provided the weather forecast is favoura during the vessel's stay alongside. Pilot inspection of mooring lines be carried out only during daylight hours.

The breasting dolphin's fender design criteria are based on provid for berthing energies acting in the horizontal plane for maxim displacement of 95,000 tonnes with an approach angle to the bert line of 7° at a contact velocity of 15 cm. per second.

Yokohama Fenders protrude approximately 3.3 m. from the fac the loading deck, they provide for 100% contact of fenders on the vess perpendicular mid-body at light and loaded drafts, for the full rang vessel sizes.

Tension Winches: Vessels equipped with automatic tension wind should not use the automatic device and set the manual brake on th winches.

BALLAST: The jetty is equipped with dirty ballast/slops recep facilities. Tankers discharging dirty ballast/slops ashore will use Pentane Plus loading arms from where a 24 in. pipeline runs to t in the Refinery adjacent to the LPG plant. The maximum ballast recep rate is 1,500 cu.m./hr. At least 48 hours prior to arrival, the Master advise GASCO how much dirty ballast/slops he expects to dischar the shore facilities.

When the vessel arrives with clean ballast for overside discharge ballast water must be clean and a declaration to this effect needs t signed by the Master and delivered to the Terminal Represent There is a danger of violating pollution regulation if ballast taken polluted water is discharged in port. If it is necessary to take on ba in polluted areas, this should be discharged during passage and repl by cleaner ballast.

Ashes, oil, oily water, garbage or other refuse must not be discha overboard in port waters. Scuppers must be effectively plugged leakage or spillage of oil aboard ship must not be swept or wa overboard whilst in Port waters. However, gas carriers scuppers be kept unplugged when not engaged in bunkering operations.

It is essential that the vessel is adequately ballasted to ensure handling and manoeuvring. Masters will be expected to accept the advice as to the ballast quantity and disposition.

There must be no cleaning of boiler tubes whilst the ship is in

POLLUTION: Abu Dhabi Gas Industries Ltd. (GASCO) follows a clean seas policy, and in this respect the "Oil Record Book" referred to in the International Convention for the Prevention of Pollution from Ships, of 1973/78 can be inspected. Any vessel, the Master of which does not allow inspection of the "Oil Record Book," will be refused the use of the Company facilities at Ruwais.

If it is found that the information entered in the "Oil Record Book" is not in accordance with the requirements of the Convention the matter will be reported to the appropriate authority.

It is an offence to discharge dirty ballast, pump bilges or discharge refuse within the Port limits.

The Port Officer, or his nominee, is authorised to take samples, in accordance with an approved procedure, of ballast water to be discharged, or being discharged at Ruwais. Should test carried out on these samples indicate an average oil in water content of more than 15 p.p.m. then this may be used in evidence in any proceedings against you brought by the Port Authority in accordance with the Law.

In the event of your vessel discharging dirty ballast or spilling oil, cost for cleaning the pollution, third party claims and other expenses and fines shall be borne by the vessel.

COOLDOWN OF GAS CARRIERS: Vessels, when presenting themselves to load at GASCO terminal should in all cases be ready to load in all respects. For a gas carrier this means that the cargo tank atmosphere should be compatible with the product to be loaded and the cargo tank temperature close to the temperature of the product to be loaded (Propane −42°C, Butane −4°C).

Notwithstanding the above and providing notice is given well in advance, GASCO may, in exceptional cases, accept gas carriers not fully cooled-down. Each occasion will be considered separately giving due regard to the shipping programme and any other circumstances or restrictions.

GASCO will not accept any responsibility for the failure by the Master of any gas carrier loading at Ruwais to take appropriate action to receive cold liquefied gas, prevent any damage to his vessel and jetty installation and/or injury to his crew or Terminal personnel.

VENTING: During the loading of Pentane Plus, vessels should only allow vapours to escape via the agreed venting arrangement. If there is little wind movement, vapour may persist on deck. When there is a wind, it may, in crossing a deck house or structure, create a low pressure on the lee side thereby causing vapour to be carried towards the house or structure.

Either of these wind conditions may result in high local vapour concentration and, if so, it may be necessary to stop loading while the conditions persist.

Gas carriers are not allowed to have any vapours escape to atmosphere. During loading the pressure in the cargo tanks should be controlled by the use of their reliquefaction plant or by the use of the vapour return line to the shore. The control room should be notified prior to returning vapour ashore via the vapour return line and before stopping the return of vapour ashore.

Your attention is drawn to the information, as provided to you by the Terminal, on the properties and dangers of the cargo to be loaded on board your vessel, together with the actions required in case of an accident.

LOADING: *Loading Arms:* The LPG and Pentane Plus loading arms presentation flanges are 12 in. ANSI – 150 – flat face spiral groove.

For centre to centre distances and disposition of the loading arms, see "Plan Section". The LPG arms operating envelope parameters are as follows:

Vertical plane : From 7.7 m. to 24.0 m. above chart datum.
Horizontal plane : From 4.1 m. to 8.7 m. off the jetty face over the full vertical plane.
Safety Provision : Horizontal plane drift of 4.6 m. on either side of the centre line.
Lateral plane drift of 4.6 m. outside the normal operating box envelope.

All four LPG loading arms can be connected to ships' manifold with a centre to centre spacing range of 1.6 m. to 3.5 m. for the full envelope including the outer drift envelope box.

The Pentane Plus loading arms operating envelopes are as follows:

Vertical plane : From 2.3 m. to 20.75 m. above chart datum.
Horizontal plane : From 6.4 m. to 9.3 m. off the jetty face over the full vertical plane.
Safety Provision : Horizontal plane drift of 4.6 m. on either side of the centre line.
Lateral plane drift of 4.6 m. outside the normal operating box envelope.

However, to secure free access of Pentane Plus loading arms towards vessel's manifold, the height of railing in way of manifold on arrival should not exceed 16.2 m. above Chart Datum.

The Pentane Plus loading arms can be connected to ships' manifolds with a centre to centre spacing range of 0.6 m. to 2.1 m. for the full envelope including the outer drift envelope box.

Notwithstanding the above, the loading arms are fitted with ESD systems and additionally the LPG arms with ERS which is actuated before the loading arms reach the outer limits of their envelopes.

The LPG loading arms are linked to the shore system which provides the following flexibility:

Loading arms are numbered from the gangway tower to East.
No. 1 – Propane Liquid or Propane Vapour Return
No. 2 – Propane Liquid or Propane Vapour Return
No. 3 – Butane Liquid or Butane Vapour Return
No. 4 – Butane Liquid or Butane Vapour Return

After berthing you are required to remove the blind flanges from the manifold connections to be used for loading and to indicate which product is to be loaded through them and which connections are to be used for the Vapour Return lines, if required. The connection/discon- nection of the 12 in. ANSI 150 loading arms and 8 in. ANSI 150 bunker arm will be carried out by Terminal personnel under the supervision of a responsible ship's officer. If your manifold sizes do not correspond with the loading/bunker arms, you are requested to provide and fit the appropriate reduction pieces accordingly. Masters of gas carriers are to ensure that the reduction pieces and gaskets used are suitable for loading of cryogenic cargoes.

Communications: To maintain necessary communications permanently during cargo operations and also in emergencies, you will be provided with a handie-talkie and a telephone.

We require that the handie-talkie is at all times attended to by the officer responsible for cargo operations. The handie-talkie enables the officer to communicate directly with the main control room and the jetty control room.

Furthermore, a telephone will be placed on your vessel. Additionally a console for activating the ESD will be put on board.

A ship's crew member, able to converse in English, must be present near the ship's manifold at all times. The loading arm and ship's manifold area are covered by closed circuit televisions from the jetty control room and main control room.

Emergency Procedures: In case of an **emergency on board** your vessel, we require you to take the following action:

Raise the appropriate alarm and take the required action
Inform the Terminal via handie-talkie, telephone and jetty attendant or by activating the ESD.
Cease all cargo operations immediately and shut-down cargo system completely.
Prepare to vacate the berth.

In case of an **emergency ashore,** we require you to take the following action:

Cease cargo operations immediately and shut-down cargo systems completely.
Stand-by on handie-talkie and telephone and keep contact with jetty attendant.
Stand-by to give any assistance.
Prepare to vacate the berth.

NOTE: The shore installation has been equipped with a range of safety devices and emergency shutdown systems, these could be activated automatically or manually from the jetty or on board the vessel as the situation will call. All shutdowns are preceded or accompanied by an alarm.

Loading Operations: The maximum loading rates for each product are as follows:

Product	*Tons/hr.*	*cu.m./hr.*
Propane	1,500	2,550
Butane	1,800	3,000
Pentane Plus	2,800	4,200

Propane and Butane can be loaded simultaneously. Loading rates can be adjusted either by stopping/starting one or more pumps or by opening/closing of the recirculation valves on the loading platform.

After berthing, the terminal representative will discuss with you the loading operations and emergency procedures. You are reminded that the responsibility as to the quantity of cargo to be loaded, rests with you as Master of the vessel and no cargo may be sent back ashore.

Whilst alongside the jetty, ships should be ready to move under their own power in the event of their breaking adrift, catching fire or emergencies. No repairs are to be carried out whilst alongside which would immobilise the ship or impair her fire-fighting efficiency.

CAUTION: The loading rates are controlled on shore and due to the long pipelines from the shore product tanks to the jetty head, and the high loading rates, an extremely dangerous situation can arise if ship's valves are closed against the flow of liquids, which could lead to pressure surges liable to cause the blowing out of pipeline gaskets and/or severe damage to the loading arms.

Loading rates, loading rate reductions and stopping of cargo procedures will be discussed with you prior to commencement of loading.

While alongside the jetty, no craft are allowed alongside the vessel. The lowering of lifeboats whilst alongside the jetty is strictly prohibited except in emergencies.

Immediately after completion of loading, the loading arms will be disconnected and the vessel must be ready to proceed to sea or anchorage as directed.

STORES: The taking-on and/or landing of stores and ship's spares over the jetty is not allowed.

SHORE LEAVE: Crew members are not permitted shore leave.

SIGNALS: Vessels, whilst alongside the GASCO NGL-jetty, shall, in addition to those described in the port regulations, display the following signals: by day: a red flag, by night: a red light visible from all directions.

SHIPMASTER'S REPORT: December 1981 (Updated 1994). (Vessel loading Propane/Butane, g.r.t. 45,000, d.w.t. 56,000, draft 13.1 m., capacity 79,970 cu.m.).

Ruwais lies in the same general port area that encompasses Jebel Dhanna and at the moment consists of a petroleum products jetty and another to the S.E. which handles Pentanes and LPG.

Further again to the S.E. there is more port development for an ammonia/fertiliser berth and dry-cargo berths.

Ruwais is administered by ADPPOC, Abu Dhabi Petroleum Ports Operating Company, while the LPG berth comes under the immediate control of GASCO, Abu Dhabi Gas Industries Ltd.

The LPG loading platform is situated in position: Lat. 24° 09.8' N., Long. 52° 43.3' E., the trend of the platform and mooring dolphins being about 305° True, more or less in line with the current flow.

Approach: The vessel should have B.A. Charts 3778, 3779, 3780 and the recommended track on these should be followed for arrival and departure since it provides adequate water for a vessel of this size and draft. The route is well marked with large buoys and light floats which show up well visually and on the radar. An approach in poor visibility should thus be possible and made with confidence.

See Pilot Books and "Guide to Port Entry".

A waiting anchorage is provided off Gasha Buoy.

Pilotage: Pilots board off Gasha Buoy from launch of about 12/16 m. length; at the moment two launches are in commission.

Pilot ladder required about 1 m. above the water.

The length of pilotage to the first line ashore is about 2 hours.

Communications: Through Bahrain Radio. There is considerable evidence pointing to huge delays in cables between this radio station and the eventual recipient.

Before arrival the Agents sent a comprehensive questionnaire requesting safety checks and ship information. This is a standard cable and originates from GASCO.

VHF contact originally made on Channel 16 with the Pilots and Port Control, but their usual working frequency is Channel 9.

On boarding the Pilot issues a copy of the Port Regulations which should be studied prior to berthing.

Berth: This consists of the loading platform and mooring dolphins at the end of a 3 km. trestle. Minimum reported depth alongside is 16 m.

The jetty head consists of the loading platform, 42 m. long with two breasting dolphins at each end. Beyond these are the mooring dolphins, three forward and aft, the total length of the mooring system being 340 m., thus providing adequate moorings for most vessels.

The loading platform carries seven Chicksans, two for Pentane, one for bunkers and four for LPG. There is a control building on the berth together with closed circuit TV, gas detecting equipment, fire fighting monitors and sprinkler system.

The loading arms are all 12 in. 150 ASA. The Chicksans are fitted with automatic quick release and this will operate if the vessel surges more than 4 m. (two for'd and two metres aft) from her moored position. An automatic shutdown system is also fitted and the vessel is provided with a control box for these together with comprehensive instructions. A time of 10 secs. is quoted from operation to complete shutdown.

There is provision for two vapour return lines and two loading lines within the four Chicksan configuration and these are interchangeable to a degree.

Ship/shore communication is provided by the terminal who place on board, 2 portable VHF radios and a telephone close to the gangway.

Mooring: The normal 3.2.2 was recommended and there is a large mooring boat to assist. Dolphins are fitted with quick release hooks. Wires are required for spring and breast lines. Mixed mooring for the same servcie is not allowed.

Springs must be on mooring winches and the use of self tensioning winches is not allowed.

There are powerful tugs (3,300 h.p.) available for berthing.

Gangway: Ship's gangway should be turned in for berthing, a shore gangway is provided.

N.O.R.: Agent advised me to tender Notice of Readiness at the time of passing the Gasha Buoy.

E.D.P.: There is no Early Departure Procedure, the Master must sign Bills of Lading before sailing. Allow three to four hours after completion of loading to complete all paperwork.

Load Rates: Maximum loading rates for Propane and Butane are 2,550 and 3,000 cu.m./hr. respectively. The plant were able to supply at a very low initial rate at the commencement of loading.

Note: The Propane delivery temperature at vessel's manifold is −40°C during initial loading and −41°C thereafter.

Butane loading temperature was about 0°/−1°C.

Cargo Survey: Watson Gray, Inchape, S.G.S. and Saybolt are extending their service.

Density: Water density 1031.

General:

Stores: Not available.

Shore Leave: Definitely not allowed under any circumstances other than medical urgency.

Relief/Repatriation: Not possible.

Lloyd's Surveyor: A minimum of seven days' notice required.

Repairs: There are no repair facilities available. Whilst alongside main engines must be kept in immediate readiness.

Lifeboats: Permission *must* be sought from Port Authorities to carry out lifeboat drills. However, offshore lifeboat to be lowered to embarkation deck for emergency escape purpose.

Bonded Stores: No restrictions on tobacco. All alcohol should be collected and sealed. All cameras have to be collected and placed under seal.

Medical: Unless in cases of extreme urgency, totally unavailable.

Rat Guards: Must be fitted to all moorings.

Fresh Water: Not available.

Walport Films: Exchanges readily available with usual notice.

Entering Inwards: After the vessel's cargo nomination has been accepted she is allowed an "acceptance period" of one or two days in which to arrive at the port. Thus we arrived 7.5 hours after the expiration of our acceptance period and a vessel arriving 20 hours later received priority. This should be brought to the notice of Owners or Charterers, before arrival.

Papers: 1 copy Crew Declaration.
1 copy Bonded Stores List.
2 copies Crew List and Maritime Declaration of Health.

Bonded stores' seal checked on sailing. Customs checked both bars.

Note: Abu Dhabi operates a boycott against Israel.

The Master has to sign an undertaking to the effect that the cargo will not be discharged at a port under boycott and is given a form to be posted to Abu Dhabi from the discharge port as proof.

SHIP OPERATOR'S REPORT: February 1982 (Updated 1994).

The following is the criteria for gas carriers programmed to load propane/butane at Ruwais Terminal:

1. Maximum capacity 125,000 cu.m.
2. Minimum capacity 28,000 cu.m.
3. Minimum distance centre of manifold to end/start of flatside is 28 m.
4. Height of manifold above Chart Datum between 7.7 m. and 24.0 m.
5. *Maximum height of railing above Chart Datum in way of manifold is 21.8 m.*
6. Distance between ship's side and 12 in. manifold connectio between 1.5 m. and 6.1 m.
7. Four loading arms (2 liquid, 2 vapour) can be connected if cen to centre distance between 12 in. connection is between 1.6 m. a 3.5 m.
8. Two loading arms (vapour or liquid) can be connected if centre centre distance is between 1.1 m. and 1.6 m.
9. Vessel not to have carried ammonia on her latest two subseq voyages.
10. Cargo tanks will be cooled down on arrival as per follow temperatures:

    Propane Bottom −40°C
    Middle −30°C
    Top (excluding dome space) −20°C
    Butane Bottom −2°C
11. The cargo tanks pressure on arrival not to exceed 70 mbs.
12. Vessels calling at Ruwais for the first time, to inform GASCO Ruw not less than 48 hours prior to arrival of the disposition of manif connections from bow to stern, indicating which connection to used for Propane, Butane, liquid or vapour together with the cen to centre distances between them (e.g. P/V-2.1, P/L-1.7, B/L-2 B/V), also an indication whether connections are dedicated or c be changed at short notice.

    Vessels fitted with non-standard OCIMF manifold will load one gra at a time, delays resulting from consecutive loading will be to t vessel's account.
13. Vessel to be able to load at combined minimum rate 1,800 tonnes.p.h. if loading Propane/Butane simultaneously 1,000 tonnes.p.h. when loading Propane or Butane only, with t vapour return connected and operational.

    Failure to load at above rate will result in delays to the vesse account.
14. Minimum mooring requirements are as follows:

    3 head lines
    3 breast lines each end
    2 spring lines each end
    3 stern lines

    Preference is for all wire moorings, but 2 wires each end for spr lines are essential. Also mixed mooring for the same service is n allowed.

    Vessels unable to present wires for spring lines will have t mooring lines inspected by the Pilot on boarding. This inspect can only be carried out during daylight. If found satisfactory, t vessel will berth, provided the weather forecast, for the period t vessel is expected to be alongside, is favourable. Any dela resulting from vessel not able to present wires for spring lines, be for vessel's account.
15. Although it is recommended to regulate vessel's manifold valv closure time is 30 seconds. The minimum allowed time to close t liquid manifold valves in case of ESD activation is 20 seconds case of non-compliance, manifold valve closure time may dict the loading rate.
16. Maximum allowable tank pressure throughout vessel's s alongside is 70% of pressure safety relief valve (PSRV) set val
17. Towing-off wires shall be made fast to bitts as far forward and as practicable on the offshore side. The wires shall be in g condition, of adequate strength and secured with minimum 5 tu on the bitts, a towing-off wires shall lead directly to the chock w 20 m. slack on deck. A heaving line made fast to the eye shal used to maintain the eye of the wire between 1 m. and 2 m. ab the water line at all times.
18. Vessel to possess valid Certificate of Fitness or relevant lette compliance.

The following criteria for tankers programmed to load Pentane Plus Ruwais Terminal:

1. Maximum displacement on berthing 95,000 tonnes.
2. After berthing and throughout the period when the loading arms connected to the ship's manifold, height of railing in way of mani shall not exceed 16.2 m. above Chart Datum.

    Note: Maximum water depth alongside is 17.0 m. below C Datum.
3. On completion of loading the minimum distance of manifold ab Chart Datum is 2.3 m.
4. Maximum distance centre of manifold to bow/stern is 160 m.
5. Minimum distance centre of manifold to start/end of flatside is 3
6. Distance ship's side to 12 in. manifold connection:

    Maximum 6.4 m.
    Minimum 3.5 m.
7. Centre to centre distance between manifold connections:

    Maximum 2.5 m.
    Minimum 0.6 m.
8. A minimum under-keel clearance is required for all ships ente or leaving the port when deep loaded, as follows:

    (a) 3 ft. (0.91 m.) for ships of less than 100,000 S.d.w.t.
    (b) 4 ft. (1.22 m.) for ships of between 100,000 250,000 S.d.w.t.
    (c) 5 ft. (1.52 m.) for ships of over 250,000 S.d.w.t.

    While observing the safety requirements of under-keel cleara tidal delays may be experienced as follows:

    (a) Ships drawing 44 ft. (13.4 m.) may sail at any time.
    (b) Ships drawing 45 ft. (13.7 m.) will occasionally have t for the tide.
    (c) Ships drawing 46 ft. (14.0 m.) will usually have to wa the tide.
    (d) Ships drawing 47 ft. (14.3 m.) will always have to wa the tide.
9. Vessel normally to arrive with segregated ballast for over discharge. Vessel arriving with dirty ballast/slops can disc these ashore, at a cost, provided:

(a) ADNOC Refinery has adequate space to receive slops/dirty ballast.
(b) Ample notice is given.
(c) Composition of slops/dirty ballast is given.
(d) Slops/dirty ballast is free of lead and chemicals.

GASCO cannot be held responsible for delays/deadfreight/etc., in case of the Refinery cannot accept dirty ballast/slops.

10. Vessels should be able to vent gases only through suitable vent stacks fitted with proper spark arresters. High velocity valves shall be strictly maintained on "Auto" mode during the vessel's stay alongside.

11. Vessels fitted with fixed ullaging machines should load with a closed system. Manual ullage could be taken during topping, provided the ullage openings are opened momentarily only, and fitted with spark arresters.

12. Vessel's tanks to be inerted on arrival, with oxygen content below 6% by volume.

13. Minimum mooring requirements are as follows:
    3 head lines
    3 breast lines each end
    2 spring lines each end
    3 stern lines

Preference is for all wire moorings, but 2 wires each end for spring lines are essential. Also mixed mooring for the same service is not allowed.

Vessels unable to present wires for spring lines will have their mooring lines inspected by the Pilot on boarding. This inspection can only be carried out during daylight. If found satisfactory, the vessel will berth, provided the weather forecast, for the period the vessel is expected to be alongside, is favourable. Any delays resulting from vessel not able to present wires for spring lines, will be for vessel's account.

14. Vessels should be able to load at a rate of 6% of their S.d.w.t. in tonnes (e.g. S.d.w.t. 30,000 tonnes = Loading rate 1,800 tonnes). Failure to load at above rate will result in delays to the vessel's account.

GASCO maximum loading rate through 2 loading arm connections is 4,200 cu.m./hr.

15. Towing-off wires shall be made fast to bitts as far forward and aft as practicable on the offshore side. The wire shall be in good condition, of adequate strength and secure with minimum 5 turns on the bitts, a towing-off wire shall lead directly to the chock with 20 m. slack on deck. A heaving line made fast to the eye shall be used to maintain the eye of the wire between 1 m. and 2 m. above the water line at all times.

SHIPMASTER'S REPORT: December 1995.

Charts: B.A. Chart No. 2889, 3733, 3779 and 3780.

Location: A sub-port of Jebel Dhanna, about 110 miles West of Abu Dhabi.

Ruwais was developed about 20 years ago to cater for the increasing products offtake from crude oil.

Channel: Long and somewhat tortuous, although well buoyed and little traffic. 95 miles from Zaqqum Racon. Maximum draft is 13.5 m. at anytime, generally 14.3 m., dependant on tidal state.

Draft restriction is between the pilot boarding ground at Gasha Racon Buoy to the berths, notably near Buoys No. 8, 10 and 18, where 14.0 m. CD is charted (verified by echo sounder).

The channel is narrow in these areas, being only 160 m. in width at Buoys No. 7/10.

VHF: As per ALRS. Communication is normally established around Creagh Shoal, about 40 miles in a direct line from Ruwais.

Vessel to have all particulars ready as per ALRS, notably GRT, NRT, draft on arrival and departure, Agent, cargo to be loaded, tank status, is vessel ready to load on arrival.

Public correspondence can be established through Emirates Radio as ALRS, but expensive.

Pilots: A mixture of British and Arab personnel are employed by the oil company.

24 hours berthing possible at jetties with wind speed up to 15 m./sec. A higher wind speed can be handled at Jebel Dhanna buoy berths.

Pilot for all berths boards at Ghasha Racon Buoy from a fast black hulled cutter with blue upperworks. Pilot boat comes out from Ruwais.

There is no set wind speed for departure from berths, but when above 15 m./sec. conditions are closely monitored.

Tugs: 6 tugs up to 8,000 h.p. are available for both Jebel Dhanna and Ruwais. One tug is on stand-by off jetties at all times. Pilots report that tugs are generally too powerful for Ruwais berths. When mooring a 75,000 cu.m. gas carrier, tugs only use half power. Tug's lines used.

Anchorage: Vessels awaiting a cargo nomination anchor off Ghasha Buoy (as per B.A. 3779) in 30 m. Holding not good, especially in 'Shamal' conditions.

Vessels with nomination awaiting free berth or gas carriers cooling down anchor off Ruwais berths/Jebel Dhanna as per B.A. 3780. Anchorages "A" to "K" for Jebel Dhanna and Anchorages "N" to "T" for Ruwais, including ammonia/fertiliser berths.

Berths: The LPG berth is marked as LNG on B.A. 3780, known as Gasco Jetty. Steel pile loading platform with outlying mooring dolphins connected by catwalks.

Flat face between fenders 97 m.

Jetty platform length 42 m.

Three mooring dolphins each side of jetty, extending 121 m.

Fenders consist of 4×4.5 m. Yokohama type floating fenders secured by chains against *former* flat face piling. Flat face discontinued some years ago after damage. Yokohama fenders present berthing difficulties as securing chains liable to part, so vessels cannot slide into position.

Port or starboard berthing dependent on vessel's manifold configuration.

Berth line is 305° – 125°.

Minimum depth alongside 17.0 m. CD.

Connected to shore by trestle pier 1.4 miles in length, running North/South.

Quick release mooring hooks on each dolphin.

Shore gangway on North end of loading platform.

Moorings: Normally 3-3-2. One line boat. Springs sent away first. Wires and ropes cannot be mixed on same system. Springs to be wires. All wires to have tails.

Cargo: At present the Gasco Pier loads propane, butane and pentane. By the end of 1995, pentane loading moving to the Liquid Products Jetty.

LPG shipments to be increased in near future.

Chicksans (See "Plan" for layout).

LPG arms have airdraft envelope of 7.7 m. to 24.0 m.

Product comes from tanks about 3.0 km. away along 16 in. pipeline. Presently, 2×20,000 cu.m. propane tanks interconnected and 1×30,000 cu.m. butane tank. Tankage is being increased.

Propane is generally warm. From experience, when loading at 1,000 tonnes/hr., temperature at manifold is −40.6°C.

Propane ethane content is high at 1.8%.

Maximum loading rate using 2 shore pumps on each grade – Propane 1,470 tonnes/hr. and butane 1,780 tonnes/hr. at maximum back pressure of 5 kg. With one pump, up to about 800 tonnes/hr.

When topping-off tanks, rate can be stopped from 500 cu.m.

Butane can be loaded into propane atmosphere but VRL not allowed, except in emergencies.

Loading will be stopped if pressure in ship's tanks exceeds 70% of MARVS.

For berthing acceptance, tank conditions to be as follows:
  Propane bottom – 40°C.
  Propane middle – 30°C.
  Propane top – 20°C.
  Butane – 4°C.
  Pressure 100 mbs.

Vapour return line: In theory available for usage without charge. Always connected for emergency use.

On investigation a charge is levied indirectly by way of reduced Bill of Lading compared to ship figures, even though vapour is being returned to shore tank, generally not same tank as that loading from.

Samples of ship's tanks taken before use (except in emergency). Minimum acceptable standards:

	Propane	Butane
Ammonia	Nil	Nil
Propane	Min. 85% Vol.	Butane Min. 80% Vol.
Dewpoint	−55° or lower	−28° or lower
Nitrogen	less than 1%	less than 1%
Carbon-Dioxide	Nil	Nil

Terminal gives vessel walkie-talkie for communication to Jetty Control Tower. Telephone to Control Tower at gangway steps (48735/48740).

Gas carriers cannot cool down alongside, after taking coolant, they have to proceed to inner anchorage to cool tanks to Gasco specification.

General: Gasco: Telex 0893-352224.

Offside lifeboat to be turned out alongside.

Safety check round before loading. Valve closing times and gas analyser liable to be checked.

No personnel – Joiners/repatriations allowed.

No stores/freight allowed.

Medical attention, by prior arrangement if possible, can be arranged.

Security on jetty is very tight.

The Liquid Products Jetty is being extended N.W. by about 300 m. to incorporate a third products berth, due to commence operation by December 1995. Pentane loading will then move to Liquid Products Jetty.

Pilots and tugs also cover the Ammonia/Fertiliser Bulk Cargo Terminal about 1 mile S.E. of Gasco Berth.

Bunkers: Available ex-Gasco and Liquid Products Jetties. 8 in. Chicksans. IFO 180 cst and MDO.

Documentation: Agent boards once only, soon after arrival, and clears vessel inwards giving outward clearance at same time.

No port officials/Customs/Immigration board.

Agent requires:
  6 copies Crew List plus 2 copies to Jetty.
  1 copy Ship's Stores List.
  1 copy Crew Declaration.
  1 copy Ports of Call List.
  1 copy Maritime Declaration of Health.

Long Arrival Check List given by Pilot and has to be filled in before berthing. He requires photocopy of Tonnage Certificate, particulars of all Ship's Certificates and Officer's Licences.

On completion of loading, at present, vessel remains alongside to complete Cargo Documentation/Bills of Lading. Normally Pilot booked about 2.5 hours after completion of loading.

EDP probably to be instituted shortly when terminal capacity increases.

OPERATOR: Abu Dhabi Gas Industries Ltd., P.O.Box 665, Abu Dhabi, U.A.E. *Tel:* 651100. *Telex:* 22365. *Cables:* Ongas. *FAX:* 6047414. *Contact:* Marine Superintendent.

(E) RUWAIS FERTILISER INDUSTRIES (FERTIL)

The bulk cargo terminal (FERTIL) at Ruwais comprises a 512 m. long jetty with in line berths to suit the export of bulk/bagged Urea and Liquid Ammonia. Three mooring dolphins at the seaward end of the jetty serve a Liquid Ammonia berth. Max. draft is 11 m., a 500 m. turning circle is provided off the jetty and vessels will normally be berthed port side alongside with ship providing its own access. Mooring lines should preferably be all steel wires. If this is not possible ropes and wires are not to be led to the same dolphin. A shore deballasting system is provided.

Provision has been made along the jetty for bag and bulk conveyors to load vessels with urea from a fertiliser plant 1 km. inshore.

The loading of ammonia is carried out from a loading arm at the North end of the jetty where vessels can berth using 3×100 ton capacity mooring dolphins.

OPERATOR: ADPPOC is the service contractor.

LOCATION: The jetty alignment and conveyor main setting out line is 10° West of North. The seaward limit of the jetty works are defined by the Northernmost mooring dolphin.

The terminal is located in 12 m. of water, due East of the NGL Jetty, and West of the Construction Wharf and is approached from a deep water channel serving other Ruwais jetties.

A turning basin is located N.E. of the jetty and is of 500 m. diameter and has a minimum dredged depth of 12 m. below chart datum.

Vessels will normally be berthed against fender piles alongside the jetty on a heading of 350°.

NOTICE: *Ship's Arrival Advice:* It is strongly requested that full details of the vessel including the number of crew and their nationalities should be advised to us. This information is required by the oil installations protection unit. In the absence of this information the protection unit would refuse permission for berthing of the ship. Therefore, you must ensure timely availability of this information so that it can be forwarded to the authorities. Any delay caused in berthing due to non-availability of information shall be to your account.

Further, please note that the above information should be made available as soon as the ship is nominated but not later than 24 hours after the nomination is confirmed. *Signed*: Plant Manager, Fertil.

BERTHING: *Jetty:* The jetty is designed for berthing combinations of vessels up to 2 fully laden 200 m. long (25,000 d.w.t.) bulk cargo vessels along its Eastern side. Provision is made at the Northern end of the jetty for the loading of liquid ammonia.

The jetty deck is of concrete construction and is supported by vertical 1 m. diameter tubular steel pipes.

Two turnround areas for jetty traffic are provided, one mid-way along the jetty, the other at the Northern end.

The jetty is designed to support up to 3 ship loaders with a backing conveyor system and up to 3×300 mm. diameter liquid ammonia lines.

The 3 mooring dolphins at the Northern end of the jetty serve the Ammonia Berth and each has a bollard capacity of 100 tonnes and is connected to the jetty by a system of concrete walkways.

The jetty and dolphins have a deck level 7.4 m. above Jebel Dhanna Chart Datum.

The minimum dredged depth at the berth is 12 m. below Chart Datum.

Fenders: The fender system has a design capacity of 55 tonne metres per fender pile and the recommended berthing angle is 5°. The fender system absorbs energy by deflection of single 1,300 mm. diameter tubular steel cantilever piles and twin Bridgestone Cell units which have a frontal frame 4.2 m. high by 1.7 m. wide.

The fender face is set 4 m. seaward of the jetty deck edge.

The fender spacing is generally 15 m. along the main length of jetty and this extends to 31 m. for the Northern fenders located East of the mooring dolphins.

The fenders are suitable for vessels between 5,000 d.w.t. and 25,000 d.w.t.

Mooring: Ship lines will be taken to 100 ton "Bean Type" mooring bollards located along the cope edge of the jetty. The general bollard spacing is 15 m. whilst at the shore end this extends to 30 m.

100 ton "Bean Type" bollards are positioned on the 3 mooring dolphins located at the seaward end of the jetty. Ships' lines may be taken to the dolphins by boat or via the concrete walkways provided from the jetty deck.

Landing Stage: A landing stage for small harbour craft is located adjacent to the jetty near Pile Bent 55, some 600 m. South of the outermost dolphin.

Access Ladders: Access ladders to water level are provided on the fender piles at a spacing of 60 m. All mooring dolphins are provided with access ladders.

Services: Provision has been made for future electrical and mechanical services in the jetty by ducts cast into the concrete deck or provision for hanger supports beneath the deck.

Loader Rails: A flat bottom loader rail having a gauge of 11 m. is secured to the concrete deck by Molyneaux Clips. Buffer stops are provided at both the inshore and offshore limit of the rail. Provision has been made for the future extension shorewards of the loader rail.

Approach From Shore: The approach to the jetty is via a dual carriageway off the Corniche Road. The access road leading to the jetty is 600 m. long and 8 m. wide and bounded on one side by the export conveyor housing.

Breakwaters: Rubble mound breakwaters protect the cooling water intake channel located West of the jetty.

Rubble mound reclamation bunds built just landward of the reef define the land area.

A rock armoured cooling water outfall channel is located within the reclamation and located mid-way between the jetty and construction wharf.

LOADING: *Urea Loading Operation Procedure:* Firstly, the Shift Supervisor, after the arrival of the vessel, and after getting Clearance Certificate, will discuss the necessary loading sequence for keeping the vessel trim with ship's Cargo Officer.

When the sequence of operation has been agreed, the Shift Supervisor will inform operational group in Bagging Control Room and shiploaders of the sequence required.

On receipt of this information, Bagging Control Operators will pre-set the bag counters or scales and line up other conveyors and machines depending upon the method of shipping required (i.e. bagged or bulk product) to the quantity agreed with the ship Cargo Master. Meanwhile, the Shiploader Operator will have positioned his machine ready for loading into the appropriate cargo hold defined by the sequence of operation.

Shiploader Operator will then give signal as "Shiploader in Load Position" and Bagging Control Room Operator will start sending bag bulk urea to jetty.

The pre-set bag counters or belt weighers will trip the conveyor syst (excluding the jetty conveyors) when the pre-set capacity has be realised. The signal to start again will be given by the "Shiploa Running" signal. On receipt of this signal in the Bagging Control Roo the shiploader will have traversed to its new loading position and will ready for the next batch of product.

Photocells are provided in conveyors at bagging area to indicate act number of bags loaded in ship's load. A cumulative reading (in numbe is recorded in Bagging Control Room.

For bulk urea loading, urea going to jetty conveyor is measured weighing scales inside the Bagging Building. The weighing scale h load cells and belt speed detector for measuring the flow rate. The fe rate is indicated and also totalised cumulatively at Bagging Con Room, and also at the local control panel of weighing scale.

Normal operational shut-down shall be sequential and initiated fro Bagging Control Room.

(F) ADNOC RUWAIS SULPHUR HANDLING TERMINAL (SH

The ADNOC Ruwais Sulphur Handling Terminal is situated at the E of the existing Fertil's Bulk Cargo Terminal at Ruwais and consists an overall water length of 350 m., which lies in a S.E. direction at t existing jetty. This facility will accommodate at the present, the exp of only granulated sulphur in bulk into bulk cargo vessels between t range of 5,000 d.w.t. to 25,000 d.w.t. and max. LOA 175 m.

The overall berthing arrangement includes 3 mooring dolphins a 6 breasting piles. The 2 centre breasting piles are equipped with qu release hooks for receiving vessels spring lines.

The loading of bulk sulphur is carried out by the telescopic boom the quadrant shiploader which has 123 m. long travelling arc, having design loading capacity of 1,000 tonnes/hr. and minimum loading r of 400 cu.m./hr.

RADIO: *Format for Information required from Vessels prior to Berth at SHT:*

(AAA) ETA Ruwais.
(BBB) Cargo quantities (in tonnes) to be loaded with intend stowage and acceptable loading rate per hour.
(CCC) Cargo on board on arrival (if any) with stowage.
(CCC) Last 3 cargoes carried by the vessel with stowage.
(EEE) Details of hatch cleaning after the discharge of last cargo
(FFF) Any deballasting prior/during loading, quantity and t required.
(GGG) Arrival and sailing draft/displacement.
(HHH) G.r.t., n.r.t., Official No., year of built, Owner's name.
(III) S.d.w.t., LOA, beam, flag, Port of Registry and Master's nar
(JJJ) No. and type of hatches and their capacities.
(KKK) No. of derricks and their capacities.
(LLL) Last Port of Call, last port of discharge and next Port of C
(MMM) Any requirements.
(NNN) Any special requirements by Charterers/Owners with resp to N.O.R., loading before Laydays, etc.

Please note that vessels older than 15 years will be subject to day inspection by PPA prior to berthing.

OPERATOR: ADPPOC is the service contractor to ADNOC.

AGENT: National Shipping Gulf Agency Co. (Abu Dhabi) Ltd., Je Dhanna, United Arab Emirates. Tel: (971-2) 730500. After hours: A Dhabi 794490. Cables: "Confidence", Abu Dhabi. Telex: Abu Dh 22248 ("Gacauh EM"). Fax: Abu Dhabi 731328.

KHOR FAKKAN, Sharjah: 25.22 N. 56.22 E. **(See Pl**

PORT LIMITS: See Plan of Khor Fakkan on B.A. Chart No. 3518

DOCUMENTS: The following documents must be in the possessio the ship's Master on arrival, or must be forwarded to ship's Agent to arrival:

Immigration: board on arrival
- Crew Lists (2 copies)
- Passenger Lists (2 copies)
- Passports/Seaman's Identity Cards

Customs:
- Crew Lists (2 copies)
- Passenger Lists (2 copies)
- Cargo Manifests (2 copies)
- List of Alcoholic Beverages (2 copies)

Port Operator:
- Certificate of Registry (1 copy) on request
- Classification Certificates (1 copy) on request

The following documents should be handed to the Port Operator ship's Agent at least 24 hours prior to the vessel's arrival.
- Cargo Plan (1 copy)
- Discharge List (1 copy)
- Transhipment List (1 copy)
- Dangerous Cargo Manifest (1 copy)
- Refrigerated Container Manifest (1copy)

PILOTAGE: Pilotage is compulsory for all ships proceeding beyond the Fairway Buoy. Port Khor Fakkan operates a 24 hour, 7 day a week pilotage service. Vessels approaching the Port should await Pilot to seaward of the Fairway Buoy. The extremity of the breakwater (Lat. 25° 21' 28" N., Long. 56° 22' 43" E.) is marked by a white occulting light visible 10 miles.

"Gulf Pilot Khor Fakkan" on VHF Channel 16. Also on 2182, 2638, 2738, 3270, 3710 and 4136.3 kHz.

ANCHORAGE: A limited number of vessels may anchor in Khor Fakkan Bay to the North of the fairway with the prior approval of the Port Operator. Otherwise, anchoring not permitted within 12 miles of Khor Fakkan as the area is a prime tourist area.

MAX. SIZE: Max. draft entering and leaving is 39 ft., range max. 3.0 m., height of wharf at HW 1.8 m.

No restrictions on LOA.

HEALTH: Normal quarantine regulations apply. Radio Pratique will be granted on receipt of radio message from Master via his Agent, stating that no serious illness has occurred during the preceding 30 days.

All crew members must be in possession of valid cholera certificate. The Health Officer will board when the vessel is alongside.

RADIO: Bahrain Radio A9M.

Notice of Arrival: Vessel should advise its Agent ETA Port Khor Fakkan, giving draft, LOA and intended cargo operations to be performed at least 72 hours prior to arrival and confirm 48 hours and 24 hours prior to arrival.

Agents should arrange berthing and labour with the Port Operator. Vessel should contact Port Khor Fakkan Signal Station on VHF Channel 16 when within range.

VHF: Khor Fakkan Harbour Office can be contacted on Channel 16. All movement in and out of the harbour shall be notified to the control and permission to proceed obtained for each movement.

TUGS: 2 tugs of 2,100 h.p. each

BERTHING: Length of berth 430 m. Depth alongside 12.5 m. at LW. Mooring gangs and berthing launches are provided.

Port Equipment: 2×40 ton Booatse Gantry Cranes, 2×40 ton Mitsubishi gantry cranes; 4×40 ton electric transtainers; yard tractors and trailers. Additional equipment such as forklifts, mobile cranes, pallets and barges available on request from the Port Operator.

Storage Facilities: The terminal comprises an area of 100,000 sq. m. and is capable of handling 150,000 t.e.u.s per year.

Container Freight Station: A container freight station is available at Port Khalid, Sharjah close to the main highway linking Sharjah with its West coast neighbours.

Priority: Given to Container and Ro-Ro vessels.

STEVEDORES: *Working Hours:* The port will work on a 24 hour, 7 day a week basis ashore and afloat. Additional charges will apply outside normal working hours which are defined as follows:

Saturday to Thursday except Public Holidays (0600 – 2200 hrs.).

Normal working hours are subject to change during Ramadan when working hours will be at the discretion of the Port Operator. Requirements for port labour must be submitted by ship's Agent to the Port Operator by 1600 hrs. previous day.

MEDICAL: Upon application to ship's Agent, medical examination of crew members can be arranged. Personnel will either be sent to private doctor or to Public Health Department as circumstances dictate. Serious cases will be referred to Government Hospital Doctor.

FRESH WATER: Fresh water is obtainable. Agents must notify the tonnage required 48 hours prior to ship's arrival.

FUEL: Limited gas oil facilities only at present.

REPAIRS: Marine engineering workshops capable of handling most repairs are available.

SURVEYORS: Services are available upon request.

REPATRIATION: Proximity of Sharjah International Airport will permit efficient crew changes and repatriation. Offshore crew change facilities can be arranged.

Transit visas are not required for crew changes. Ship's passengers require a valid visa for transit or temporary stay.

AIRPORT: Sharjah and Dubai.

TIME: GMT plus 4 hours. Permanent.

BANKS: British Bank of the Middle East, P.O.Box 10030, Khor Fakkan, U.A.E. *Telex:* 89011 Bbmefj EM (stating for KFK.)

Grindlays Bank Ltd., P.O. Box 10149, Khor Fakkan, U.A.E. *Telex:* 89025 Grnly EM.

STORING: At anchorage – by off-shore crew change boats. Alongside – by truck alongside ship. Fork lift trucks and local labour available if required.

SHORE LEAVE: Shore leave is permitted.

GARBAGE DISPOSAL: Garbage skips can be arranged through the Port Authority and are placed alongside at the quay. Charges are U.A.E. Dirhams 50 per day.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: U.A.E. Dirhams (Drhs). U.S.$ 1.00 = Drhs 3.685 (Fixed Link).

GENERAL: Pollution: The provisions of the Khor Fakkan Maritime Law shall apply with respect to the operation of vessels in Khor Fakkan coastal waters.

Ships' Chandlers: Complete chandlering facilities are available, handling provisions, laundry and bonded stores.

Water for Labour: A supply of potable water is to be made available to port labour working on board a vessel.

SHIPMASTER'S REPORT: January 1986

If vessel calling for bunkers only Port Control insist that vessel anchors at least 4 miles off the Fairway Buoy. No Agent or port entry papers required in this case. If however, stores are taken or any crew members changed, an Agent must be appointed and port entry papers completed.

AUTHORITY: Sharjah Ports Authority, Port Khor Fakkan, P.O.Box 10542, Khor Fakkan, U.A.E. *Tel:* Khor Fakkan 85324/85027. *Telex:* 89023 SEAGUL EM. *Cables:* Mina Khor Fakkan. *Contact:* Captain Abdul Razik El Sharif, Harbour Master.

Port Operator: Khor Fakkan Container Terminal Ltd., (A Division of Gulftainer), P.O.Box 10326, Khor Fakkan, U.A.E. *Tel:* 85604/5. *Telex:* 89064 Servic EM. *Contact:* Captain N. Smith, Terminal Manager.

AGENT: See "Sharjah".

MINA SAQR, Ras Al Khaimah: 25.59 N. 56.03 E.

(See Plan)

PORT LIMITS: "Mina Saqr" and its limits include all waters, installations and the creek of Hanna bounded within 3 mile radius to seaward from the main breakwater light in position Lat. 25° 58' 48.35" N., Long. 56° 02' 43.7" E.

LOCATION: The Port of Mina Saqr is situated 15 miles by sea and 22 km. by road North of Ras Al Khaimah. On Chart BA. 2888 it is 1 km. North of Hanna Creek in Lat. 25° 58' N., Long. 56° 03.5' E. Jubail Al Harim (6,843 ft.) overlooks the port, and is 10 miles East. The port is bounded by main and lee breakwater.

DOCUMENTS: Following documents to be forwarded to the Agents at least 7 days prior to the vessel's arrival:

3 copies Dangerous Cargo List.
2 copies Stowage Plans.
2 copies Hatch List.
6 copies Cargo Manifests.
1 copy each of Bills of Lading.

On vessels arrival, 4 copies of Crew Lists, 4 copies of Vaccination Lists, Crew Health Certificates, Ship's Certificates, etc. to be kept ready for inspection by the Officers.

PILOTAGE: Pilotage is compulsory. Pilot may board from launch or by tug at Approach Buoy (R and W pillar buoy Int. Qk. Fl.) in position Lat. 26° 00' N., Long. 56° 02' E. and in all cases a pilot ladder should be provided and a lee given. Pilotage service available 24 hours. Leading light PEL on 20 m. high tower, Red 3°, White 4°, Green 3°.

Master to contact "Mina Saqr Port Control" on VHF Channel 16 at least 2 hours prior to arrival. ETA cables to be sent to the "Harbour Master MINASAQR Ras Al Khaimah" and also to Agents. Vessels to keep listening watch on VHF Channel 16 and await instructions from port.

ANCHORAGE: The area bounded by the port limits and to seaward of the main breakwater has been reputed as an area with good holding ground. The co-ordinates of the anchorage on Chart B.A. 3737 are:

1. Lat. 25° 58' 36" N., Long. 56° 01' 48" E.
2. Lat. 25° 59' 24" N., Long. 55° 59' 02" E.
3. Lat. 26° 01' 12" N., Long. 56° 02' 11" E.

Depths are from 20 m. to 28 m.

MAX. SIZE: No restrictions on breadth of a vessel but length not to exceed 244 m. for easy berthing. Permissible draft in all the berths is 11.5 m. Range of tide is maximum 1.6 m.

HEALTH: Normal quarantine regulations apply and Pratique is granted subject to Port Health Authorities' approval. The Health Officer boards the ship only when vessel alongside. Suspected disease or fever on board vessel to be reported to Harbour Master by cable prior arrival and await instructions.

RADIO: All cables to be routed through Bahrain Radio. Vessels should cable their Agent, at least 72 hours prior to arrival, the ETA, LOA, expected draft on arrival, cargo and hatchwise stowage.

VHF: Port equipped with VHF Radio standby Channel 16 with other working Channels, port working Channel 67. Port Signal Station is manned 24 hours a day and should be contacted at least 2 hours prior to vessel's arrival. Vessels should report the ETA, LOA, draft, details of cargo to be discharged, stowage, etc.

RADAR: Port is equipped with 2 radars with range of 90 miles.

TUGS: 3×5,000 h.p. Tugs join the vessel at anchorage, the practice being to secure alongside, using ship's lines. Derricks should be swung in and gangways hoisted. Tugs are fitted with VHF.

BERTHING: The harbour and entrance channel is 12.2 m. MLWST. A draft limit is imposed of 11.5 m. The harbour provides 165 acres of sheltered water and is enclosed by main and lee breakwaters. Deep water quays totalling 1,690 m. in length will provide berthing facilities for 8 ships. Included in this are 2 Ro/Ro ramps. 4 container cranes and supporting equipment are available.

The small boat harbour and fishing harbour provide a further 725 m. of quay, and offer a dredged depth of 4.5 m.

All the 8 berths, including 2 Ro/Ro berths are now in operation.

Distance between quay and water level maximum 3.8 m. at LW and 2.2 m. at HW.

Discharging to be carried out using port cranes. All berths are general cargo berths. Berths No. 3 and 5 have ramps for Ro/Ro vessels.

CRANES: 4 shore cranes available at any berth. Max. capacity 45 tons at 29 m. and 29.5 tons capacity at 41 m. radius, to handle containers loaded up to 35 tons under automatic spreader, as well as bulk materials with 10 cu.m. max. grab capacity at maximum of 41 m. outreach, and 3 mobile cranes 35 tons capacity available for small ships up to 7,000 tons d.w.t.

BULK CARGO FACILITIES: Berth No. 5 is allocated for loading of bulk cargo and Berth No. 7 for loading bulk cement. Bulk cargoes handled at present are iron ore, gypsum, cement, bauxite, clinker and aggregates, and vessels with these cargoes are allotted any of the general cargo berths subject to availability. No conveyor system or special equipment exist at present.

SPECIALISED CARGO HANDLING FACILITIES: 2 berths, Nos. 3 and 5 with ramps to accommodate Ro/Ro vessels. There is also one berth for bulk cement loading (Berth No.7). Length 180 m. Max. draft 11.5 m., rate of loading cement with hoses is 600 t.p.h. maximum.

An automatic moving shiploader for aggregate and limestone has been installed on Berth No. 5, length 200 m. Max. draft 11.5 m. alongside. The shiploader maximum loading rate is 1,500 t.p.h.

The port has container handling facilities at Quay No. 1, rate 50 – 60 TEU/hr.

STEVEDORES: Advance ETA cable to be sent by Master to the vessels' Agents to order required gangs to work on board vessels. Labour gangs are supplied by RAK Stevedoring Company. Telex No. 99129 RSC EM. Fax: (077) 67363., (who can be contacted via the Signal Station) and the gangs work on board the vessel directly under the supervision of the vessel's Officers RAK Stevedoring Company accepting no responsibility whatsoever for any damage either to the vessel or its cargo. *Working Hours:* 0700 – 1400 hrs. and 1500 – 2100 hrs.

MEDICAL: Advisable for Agents to receive at least 24 hours' advance notice of required medical attention but can also attend to this at short notice. Hospital facilities are available. Officers/Crew should have valid Cholera and Yellow Fever Certificates.

TANKERS: No tanker berth in port. Tankers will discharge at Berths No. 1, 2 and 3 through bunker line – this will be fuel and diesel oils only. Fuel line 12 in., diesel line 8 in. and 6 in. hose. SBM offshore for loading crude oil (See "Hulaylah Terminal").

DENSITY: 1024 – 1028.

FRESH WATER: Fresh water available in Berths No. 1 to 6 with 2 points to service tanks fore and aft as required on a 24 hour basis. Cost of water will be Dh. 7/– per ton.

FUEL: Fuel oil, marine diesel oil, and gas oil can be supplied through RAK Refuelling (Shell) or E.G.P.C. Telephone and telex numbers are available through the Port Signal Station. All sizes of reducers are available and pumping rates are fuel oil 200 t.p.h. and gas oil 250 t.p.h. – 300 t.p.h., subject to vessel's receiving capacity. Presently there are 6 bunker points in Berths No. 1, 2 and 3.

Marine lubricants of all brands can also be supplied provided nomination through the suppliers is received sufficiently in advance.

FIRE PRECAUTIONS: The port has its own auxiliary fire brigade and, when required, the services of the Ras Al Khaimah Fire Brigade are available.

CONSULS: None at this port but most of the consulates can be contacted at Abu Dhabi or Dubai.

REPAIRS: Small repairs can be carried out in the port, but major work can only be carried out by companies in Dubai.

DRY DOCK: No dry dock in Mina Saqr. The nearest drydocks are at Ajman and Dubai.

SURVEYORS: Draft, on-off hire and Bunker surveys are arranged through the Port Authority. All Classification Societies, Salvage Associations and cargo inspection companies are available in Dubai and Sharjah.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

HATCHES: Opening/closing of the hatches to be carried out by the crew with the assistance of the stevedores, if necessary.

CUSTOMS ALLOWANCES: Normally, bonded stores are not sealed by the Customs Authorities. However, only limited stock should be left with the Officers/crew for their consumption on board vessel and the rest should be kept locked under the custody of the Master. Sale of bonded stores is strictly prohibited and persons indulging in this will be punished according to local custom.

REPATRIATION: Efficient crew changes and repatriation can be carried out on receipt of advance information.

AIRPORT: Ras Al Khaimah International Airport, situated about 45 km. South of Mina Saqr, operate daily flights to various destinations.

TIME: Local time is GMT plus 4 hours.

HOLIDAYS: Normal Muslim holidays during which time port working hours will be restricted. Fridays are the weekly holidays.

POLICE/AMBULANCE/FIRE: All police, fire and ambulance emergencies should be notified on 999. General telephone numbers are: 29351 for Police, 26668 for Ambulance and 21212 for Fire.

TELEPHONES: No telephones available for placing on board vessels. However, a telephone is available in the Port Signal Station 24 hours a day.

For international calls, Agent's offices situated outside port area should be used. Ras Al Khaimah has excellent communication to most countries as it has its own earth satellite station.

SERVICES: Ship chandlers, laundry, exchange of films, etc. available in Ras Al Khaimah. Radio/radar repairs, tank cleaning equipment, scamping (underwater cleaning) facilities, etc. can be arranged. Garbage reception facilities available.

BANKS: National Bank of Ras Al Khaimah, Bank of Melli Iran, United Arab Bank, National Bank of Abu Dhabi, Bank of Baroda, Bank of Oman, British Bank of Middle East, Banque du Caire, Commercial Bank of Dubai, Bank of Arab Coast, Middle East Bank and Bank Libanaise pour le Commerce.

STORING: See "Prelims".

1. By truck or barge.
2. No restrictions.
3. Yes.
4. Yes.
5. None.
6. Yes.

SHORE LEAVE: Can be granted and for this purpose the Agents should hand over a Crew List to the Immigration Department who will issue shore passes in exchange for Seaman's Book or Passport. Prior to vessel's departure, Master to ensure that all shore passes are handed over to the Agents who will surrender them to the Immigration Department, Seaman's Books/Passports will then be returned. Agents should advise Immigration Department by letter if any crew changes to be effected.

GARBAGE DISPOSAL: Service available, drums are provided alongside. Tel: 668444. Charges Dhs 50.00 per trip (24 hour service).

WASTE OIL DISPOSAL: No facilities available.

SEAMAN'S CLUBS: None.

CURRENCY: Local currency is the U.A.E. Dirham.

REGULATIONS: None.

DELAYS: No berthing delays.

AUTHORITY: Ras Al Khaimah Port Services, P.O.Box 5130, Ras Khaimah, U.A.E. *Tel:* (07) 668444 (4 lines). *Telex:* 99280 Rakps E *FAX:* (07) 668533. *Cables:* Minasaqr. *Contact:* Captain Hazem Ra Assaad, Port Manager.

AGENT: Gulf Agency Co. (Ras Al Khaimah) Ltd. L.L.C., P.O.Box 51 Ras Al Khaimah, U.A.E. Cables: "Confidence", Ras Al Khaima Telex: 99226 ("GACRAK EM"). Tel: 221266, 7221966. After office ho 352449. Fax: 229499. VHF: Channel 16 during office hours.

Operators of ships' supply service and shipping agency: Cr changes, mail, spares and/or delivery of provisions, fresh water and lu oil, as well as arranging of bunkers and Ship-to-Ship transfers.

Owners, Operators and Masters are welcome to contact G.A.C. Du by cable or telex regarding requirements and for coordination of rend vous positions off Dubai, Fujairah, Khor Fakkan and Ras Al Khaima

MINA ZAYED, Abu Dhabi: 24.32 N. 54.23 E. (See Pla

COURTESY FLAG: Vessels calling at ports in the Emirate of Abu Dh should fly the flag of the United Arab Emirates as a courtesy flag.

DOCUMENTS: 5 copies of Cargo Manifest are required, with full ca particulars, such as Bill of Lading number, marks/numbers, descripti weight and measurement and IMO Class if any. It is essential that this information against consignee/notify parties name, full cont address is given on the Manifest for each consignment. The Manife should reach the Agent prior to arrival of vessel in order to be submit to the Port Authorities 48 hours before the ship's arrival.

Also stowage particulars should be submitted with the Manifest in or that the Agent may advise the Port Authority of the equipment and lab required for efficient handling of the vessel.

Customs Require:

1 copy Crew List.
1 copy Stores List.

Immigration Require:

2 copies Crew List.
2 copies Passenger List, if any.

Quarantine Require:

Crew List
International Health Certificate.
Vaccination List.

PILOTAGE: Pilotage is compulsory for all vessels entering/leaving M Zayed. Pilotage 24 hours. Pilot will board incoming vessels withi radius of 1 nautical mile seaward of the Fairway Buoy (Lat. 24° 39.15' Long. 54° 14.1' E.). Ships should wait for Pilot in the area stated ab and not enter the channel unless instructions to the contrary are giv

ANCHORAGE: Recommended anchorage for ships over draft of 9.45 is approximately 1 mile N.E. of Abu Dhabi Racon and for ships u 9.45 m. draft approximately 0.9 miles S.W. of "Z 11" in posi Lat. 24°35.5' N., Long. 54°18.93' E.

MAX. SIZE: Largest vessel up to draft 13.0 m. at general cargo ber 13.0 m. at Container Terminal, no restriction on beam or length.

Max. rise and fall of tide is 2.0 m.

RADIO: Vessels are to give their ETAs by cable through Musca Bahrain Radio, addressed to "Port Authorities – Port Zayed, Harb Office" at least 72 hours prior arrival. Port Control Tower equipped HF transceiver operating on 2 frequencies and continuous watch 2182 kHz.

VHF: Port Control Tower on VHF Channels 16, 12, 11, 9 and 6.

TUGS: 4 harbour tugs available, 2×2,400 h.p. and 2×1,250 h.p. T fitted with VHF.

BERTHING: 21 deep water berths with a total quay length of 4,30 Berths No. 1, 2, 3 and 4 Container Terminal with depth 10.5 m. to 13.0 Berths No. 5, 6, 7, 8 and 9 with depth 9.5 m.; Berths No. 10, 11, 12 13 with depth 6.0 m.; Berths No. 14, 15, 16, 17, 18 and 19 with d 11.5 m.; Berths No. 20 and 21 with depth 10.5 m.

Storage: The Port has 13 closed storage sheds over an area 102,300 sq.m. There are also 9 open sheds with a total are 45,000 sq.m. and an open area (paved) of 1,104,000 sq.m. fo stacking or storage of various types of cargo such as timber, s construction materials and cars.

CRANES: Cranes for discharging available. Mobile cranes from 5- tons available. 3 container cranes 40 tons, fork-lift trucks and tra 2×40 tons straddle carriers.

CONTAINER HANDLING FACILITIES: *Container and Ro/Ro Faci* Container Terminal has 4 berths with a total length of 800 m. Two b have a depth of 13.0 m. and 2 berths have a depth of 10.5 m. The b are equipped with 3 Krupp modern container cranes of 40 tons cap with an outreach of 39 m. 2×40 ton rail-mounted yard cranes, 2 tons, 2×15 tons, 2×8 tons Forklift trucks, 2×40 ton straddle ca 25 HK stacking containers, which accommodate 15,000 TEU's and is a large LCL Terminal and a large area set aside for Ro/Ro equip 148 reefer plugs (480 volt, 32 amp), workshop for maintenanc repair of cranes and other equipment. Computer equipped control radio network linking cranes, other equipment and offices and sh

BULK HANDLING FACILITIES: Bulk grain silo at Berth No. 19 storage capacity of 60,000 tons with discharge rate of 240 t.p.h.

STEVEDORES: Skilled manpower available for all kinds of operations.

Working Hours: Working hours for stevedoring from 0700-2100 hrs overtime on request.

Cargo is also handled on Fridays.

Container Terminal works 24 hours, 7 days a week.

MEDICAL: Fully equipped Government hospital, most medicines available. Private clinics available.
TANKERS: See "Das Island", "Umm Al Nar" and "Jebel Dhanna – Ruwais".
FRESH WATER: Available at all berths, or by barges.
FUEL: Diesel oil and gas oil is available by barges.
FIRE PRECAUTIONS: Port Zayed Fire Brigade is available 24 hours a day. The harbour tugs are fitted with fire-fighting equipment.
SURVEYORS: Lloyd's Agents: Abu Dhabi Maritime & Mercantile International, P.O.Box 247, Abu Dhabi, Tel: (2) 323131. Telex: 22245.
LAUNDRY: Reasonably good laundries available.
PROVISIONS: Can be arranged through ship's Agent.
AIRPORT: Abu Dhabi International Airport is 40 km. There are daily flights to all Gulf State Countries.
TIME: GMT plus 4 hours.
HOLIDAYS: Friday is weekly holiday. Cargo movement generally not affected by holidays.
SHORE LEAVE: Permitted. A permit can be obtained from Immigration Department. Absolutely necessary that every crew member be in possession of valid Seaman's Book.
GARBAGE DISPOSAL: Garbage collection service is available by providing drums alongside free of charge.
WASTE OIL DISPOSAL: Waste oil collection service is available. At present waste oil is collected by tankers which are provided by ship's agents at any time.
SEAMAN'S CLUBS: No clubs operating at the port. Public telephone service and postage facilities are available.
CURRENCY: U.A.E. Dirham (Drhs).
GENERAL: *Vessels discharging cargo at anchorage:* Anchorage ETA required: The Port Authority should like to draw the attention of all shipping agencies in Abu Dhabi, to supply the Traffic Department with the date of arrival of ships which are going to discharge their cargo at anchor.

To enable the Traffic Department to take the necessary action and to render the required facilities, it is necessary that manifests, documents relating to cargo and the date of arrival should be forwarded 48 hours before the actual arrival of ships.
DEVELOPMENTS: Fishing harbour under construction South of the Dhow Harbour.
AUTHORITY: Abu Dhabi Seaport Authority – Port Zayed, P.O.Box 422, Abu Dhabi, U.A.E. *Tel:* 730600. *Telex:* 22731 Portex EM. *FAX:* 731023.
Officials: H.H. Sheikh Saeed bin Zayed Al Nahyan, Chairman.
H.E. Hassan Mousa Al Qamzi, Under Secretary.
Mr. Mubarak Mohamed Al Buainain, Port Director.
Mr. Hamad bin Ali Al Darmaki, Deputy Port Director.
Mr. Hamad R. Al Nouami, Manager, Chairman's Office.
Captain Said Darwish Al Rumaithy, Harbour Master.
Mr. Rashid Hilal Al Busaidy, Container Terminal Manager.

AGENT: National Shipping Gulf Agency Co. (Abu Dhabi) Ltd., P.O.B. 377, Abu Dhabi, U.A.E. Cables: "Confidence", Abu Dhabi. Tel. 730500 (10 lines). After office hours Tel: 794490. Fax: 731328. Radio: Marine VHF radio, stand-by on Channel 16, Call sign "Confidence, Abu Dhabi". Telex: 22248 ("Gacauh EM").

MUBAREK TERMINAL, Sharjah: 25.49 N. 55.11 E.
(See Plan)

LOCATION: The Mubarek Oil Terminal is situated off the island of Abu Musa, and is under the jurisdiction of the Emirate of Sharjah and operated by the Crescent Petroleum Company.
DOCUMENTS: One Crew List and valid Health Certificate.
EARLY DEPARTURE PROCEDURE: In force. Vessel's Agent signs all documents on behalf of the Master including Bills of Lading.
PILOTAGE: Vessels to be moored, anchored or manoeuvred at Mubarek Oil Terminal will be boarded by Company Mooring Master in the close vicinity of the suggested anchorage area. Vessels must not enter the restricted limits of the terminal unless a Company Mooring Master is on board.

Ships are requested to have a pilot ladder safely and securely rigged and ready for immediate use and long enough to reach the Company Mooring Master's launch. A combination of pilot ladder and ship's accommodation ladder so arranged that personnel can first use pilot ladder until part way up the vessel's side and then transfer to the accommodation ladder is recommended, especially on very large ships. There should be adequate lighting at night. Vessels will provide a lee for the Company Mooring Master's launch when boarding and leaving.

The Company Mooring Master may require the vessel to anchor at any time he deems it necessary for the safety of the vessel or moorings or both or for infringement of the terminal regulations.

The Company Mooring Master shall be the sole authority as to when the terminal is open or closed for normal working due to weather conditions.
NAVIGATION AIDS: A floating oil storage vessel (F.S.U.) *Mubaraka* (87,000 d.w.t.) is used for storage of crude oil and for accommodation and headquarters of terminal personnel lies permanently moored to the SPM in position 25° 49' N., 55° 10' E. The *Mubaraka* is equipped with normal navigational warning lights and aids as required by convention.

A fixed oil production platform, incorporating crude oil treating facilities, rises approximately 50 ft. above water at Lat. 25° 50' 43" N., Long. 55° 11' 49" E. Said structures are equipped with 1 clear light and a fog horn, each with characteristics Mo(U) 30 secs. A permanently fixed flare structure (tripod) rises 150 ft. (flare tip) above water at Lat. 25° 50' 56" N., Long. 55° 12' 00" E., approximately 037°, 1,716 ft. from the oil production platform. In addition, there are numerous oil well head structures within the restricted area described below. All structures have standard navigation aids with characteristics the same as mentioned above.
READINESS: Notice of Readiness will not be accepted at time of arrival unless the vessel is in all respects ready to load. Arrival time will be considered the time the Company Mooring Master boards the vessel, or the time the vessel is within the approved anchorage area, whichever occurs first. Notice of Readiness is to be in English.
ANCHORAGE: An anchorage area diameter 6,000 ft. has been established with the centre in position Lat. 25° 46' 45" N., Long. 55° 13' 13" E.
RESTRICTED AREA: A restricted area of approx. 38 square miles has been established with a boundary formed by an imaginary line from:
(a) 25° 54' 26" N., 55° 13' 49" E. in a W.S.W. direction to
(b) 25° 15' 14" N., 55° 07' 19" E. thence in a S.S.E. direction to
(c) 25° 46' 33" N., 55° 09' 37" E. thence in a E.N.E. direction to
(d) 25° 49' 44" N., 55° 16' 08" E. thence in a N.N.W. direction to the position above.
Note: There are now 11 platforms within the restricted area and a New Central Platform was installed in position Lat. 25° 50.7' N., Long. 55° 11.7' E. in 1992.
RESTRICTIONS: Max. distance bow to manifold 555 ft. (169 m.).
MAX. SIZE: Max. berthing deadweight 275,000 tons.
HEALTH: When arriving fly "Q" flag by day, and red over white light at night for quarantine service.
RADIO: Initial communication by radio between ship and Crescent Petroleum Company should be via Bahrain Radio, call sign "A9M", operating on a 24 hour basis or directly by telex to 68015 CRESPT EM.

Company Mooring Master will have sole control of radio installations during the period a vessel is manoeuvring or moored, and no radio transmissions will be permitted on board ship except by the express permission of the Mooring Master in each case, only the Mooring Master may transmit on Channels 71 and 17 during the period he is on board. He will have a VHF radio telephone with him.

Mubarek Oil Terminal Radio Station call sign "Crescent – 5" particulars are as follows:

Operated by Crescent Petroleum Company, Sharjah, position: Lat. 25° 49' N., Long. 55° 10' E.
Frequencies: Channels 71 and Marine Private 33 (157.650 MHz).
Hours of operation: 24 hours per day.

Mubarek Oil Terminal Control Centre keeps continuous watch on VHF radio telephone Channel 71 and 33. Vessel approaching the terminal not having Channel 71 will be contacted on Channel 16 when the terminal will request her to switch to an alternate channel.

Channel 71 is reserved and as an alternative Channel 17 for communications between ships in moorings and Mubarek Oil Terminal Movements Control Centre. This is a safety measure since oil flow to ships is controlled through Channel 71, which therefore must be clear at all times in case of need to stop oil flow for any cause.

Channel 16 is for calling and safety use only.

It is most important that ships establish communications with the terminal not less than 72 hours prior to arrival at the terminal giving ETA. Further ETA signals should be sent when the vessel is 24 hours, 12 hours and 4 hours distant, or any time a change of 1 hour in original ETA occurs. These messages should state specifically whether ETA is given in GMT or Local Time. The 72 hour signal should include the following:
ETA.
Last Port of Call.
If any Sickness on Board.
If vessel has Clean Bill of Health.
Cargo quantity and Grades expected to be lifted in barrels at 60°F.

The 12 hour signal should include definite indication as to whether the vessel is ready to load or not and should also include information on the time she will require to discharge ballast after arrival. Precise time of arrival should be given when the ship is 4 hours distant from the terminal.

Unreasonable insufficiency or inaccuracy in ETA messages may alter the order of berthing of ships to the advantage of those ships giving sufficient and accurate ETA messages. Acceptance of Notice of Readiness will also be affected by such insufficiency or inaccuracy.

On receipt of first signal from a vessel, terminal will transmit a message to her giving preliminary requirements of terminal. Masters are urged to comply with this in all details in order to facilitate vessel turnaround and government formalities.
TUGS: The Company maintains launches to assist in mooring and unmooring vessels. These are under the direct supervision and control of the Company Mooring Master.
BERTHING: Vessels to load crude oil cargo will be normally accepted and berthed in chronological order of arrival provided such vessels have current nomination for cargo valid at the time of tender, carry clean ballast if any, and have cargo tanks in a fit condition to receive cargo. Also, they must be in all respects properly equipped and ready to moor. Should berthing be delayed on account of bad weather, vessels will keep their position in line.

Vessels required to leave the terminal area on account of bad weather should keep in contact with the terminal via the Company radio station at Mubarek Oil Terminal, call sign "Mubarek Terminal", in order that they may be available when the weather is fit for resumption of operations. The Company reserves the right to load vessels out of turn following the return of good weather, to the extent that such loading "out of turn" does not materially delay the loading of other vessels in line. Further the Company reserves the right to decline to moor a specific vessel if its condition or facilities are unsafe for mooring or loading even though the terminal may be open to other vessels.

The Company Terminal Superintendent's decision on this will be final.
Mooring: Mooring is by the "Tandem" method, with the bow of the export tanker moored to the bow of the storage tanker *Mubaraka*. The mooring rope is a standard 21 in. circumference × 200 ft. nylon SPM rope, fitted with a 3 in. OCIMF chafe chain.

During the mooring-up operation a tug is made fast to the stern of the visiting tanker and remains attached throughout the entire loading operation, in order to maintain both vessels in alignment.

Tug and mooring boats are supplied by the Terminal, also vessels should note that mooring crews must be available fore and aft. Normally the tug will use its own tow rope, therefore a good quality messenger must be ready aft, as well as forward.

Average loading rate is 16,000 b.p.h.

EQUIPMENT: Vessels must have suitable winches or capstans in good operating condition on the forecastle and poop decks.

All vessels should have ready messenger lines on forecastle head for bringing the mooring line aboard from single point mooring.

Mooring winches on forecastle head for handling 1×12 in. circumference synthetic fibre floating pick-up line.

Adequate mooring bitts to secure mooring line. A bow stopper designed to O.C.I.M.F. standard is required at all times.

Hose lifting winch, derrick and gear rigged for 10.0 tons.

HOSES: After the vessel is securely moored the cargo hose will be hoisted on the port side. The hose is lifted by ship's gear and crew, and all connecting of the hose will be done by them. The lifting derrick, equipment tackle, etc., should be topped off and ready on arrival. Terminal loading hose is fitted with ASA 150 pound flat face 12 in. "Camlock" coupling and ships should have adapters and fittings to enable this hose to be connected to the ship's manifold. The Company Mooring Master advises the ship's personnel in hose lifting and connecting procedure; however, a deck officer must be present and must direct the ship's crew in all handling. The Company Mooring Master may reject a ship for unsatisfactory hose handling.

Do not close valves against crude flow.

Emergency flow stop signal if all communications fail will be a continuous sounding of the ship's whistle from either export tanker or *Mubaraka*.

CARGO SPECIFICATIONS: Mubarek Condensate Blend: Approximate API 50°.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: Various consulates are located in Abu Dhabi and Dubai.

REPAIRS: No repairs, painting, etc., are to be made while berthing unberthing or in the berth.

CUSTOMS: Cigarettes, cigars, tobacco, matches, spirits, wines, beers, perfume, arms, ammunition and possibly other items have to be locked up under Customs seal from time of arrival of ship until time of leaving territorial waters.

TIME: Local time is GMT plus 4 hours throughout the year.

SERVICES: No supplies of any kind and no medical services (except in case of emergency and subject to a doctor being available), or other services are available at Mubarek Oil Terminal.

SHORE LEAVE: Not permitted.

GARBAGE DISPOSAL: No facilities (Offshore Terminal).

WASTE OIL DISPOSAL: No facilities.

CURRENCY: U.A.E. Dirham.

GENERAL: *Light Dues:* The Middle East Navigation Aids Service (MENAS) charges light dues according to the size of the vessel and the number of visits to the Gulf during the year.

Positively no provision is made for dirty ballast: Any ship arriving with dirty ballast will be rejected and all costs accruing therefrom will be to the ship's account. Notice of Readiness shall not be accepted until vessel returns with clean ballast and tanks fit to receive cargo. She will on second arrival tender a new notice of readiness to load.

Fire towing wires required fore and aft.

No swimming permitted whilst vessel in berth.

No fishing permitted at the berth or within the restricted navigation area.

SHIPMASTER'S REPORT: December 1979 (Updated 1988).

Pilotage: Pilot flies out from Sharjah by helicopter and he carries out all entry procedures. He will also take mail ashore for delivery to vessel's Agents. Mail must be placed in one envelope, addressed to Agents and marked ship's mail.

Tankers: Loading rate commences at 1,000 t.p.h. and when everything satisfactory increased to max. 2,000 t.p.h. Normal parcel is 500,000 bbls. ±0.0%. If vessel requires a plus % then give a Note of Protest to the Pilot.

AUTHORITY: *Operator:* Crescent Petroleum Company, P.O.Box 211, Sharjah, U.A.E. *Tel:* Sharjah 543000. *Telex:* 68015 Crespt EM. *Cables:* "Crespt Sharjah". *FAX:* Sharjah 54200. *Contact:* Captain R. Harcus, Marine Superintendent.

AGENT: Gulf Agency Co. (Sharjah) W.L.L., P.O.B. 435, Sharjah, U.A.E. Cables "Confidence", Sharjah. Telex 68019 ("Gacshj EM"). Tel: (971-6) 544446. After office hours 354249. Fax: (971-6) 722093.

MUBARRAZ ISLAND, Abu Dhabi: 24.26. N. 53.32 E. (HALAT AL MUBARRAZ) (See Plan)

DOCUMENTS:

2 Crew Lists.
2 Passenger Lists.
2 Manifests.
International Maritime Declaration of Health.

FLAG: All vessels calling at Mubarraz are required to fly the national flag of U.A.E. which are available from ship's Agent.

LOCATION: Mubarraz Island is located approximately Lat. 24° 28' N., Long. 53° 22' E., some 55 miles West of Port of Abu Dhabi.

The island constitutes export terminal of crude oil produced by Abu Dhabi Oil Company Limited (Japan). Crude oil produced from the Company's Mubarraz oilfield is transported to Central Facilities Platform (CFP) situated approximately 19 miles E.N.E. of Mubarraz Island by 4 in. to 14 in. flowlines, thence relayed by a 18 in. transmission line to the Island. The Company has tank storage for 2,238,000 barrels of crude oil on the island.

Tanker loading is accomplished by means of a single-buoy-mooring (SBM) system installed about 8 miles offshore East of the Island.

Average API Gravity of crude oil to be located is 36.5° and flash point is below 35° Fahrenheit.

PORT LIMITS: The port area of Mubarraz and its approaches cover area bounded by straight lines connecting the following points:

(a) Lat. 24° 30.0' N., Long. 53° 36.0' E.
(b) Lat. 24° 24.0' N., Long. 53° 36.0' E.
(c) Lat. 24° 24.0' N., Long. 53° 27.0' E.
(d) Lat. 24° 26.7' N., Long. 53° 21.7' E.
(e) Lat. 24° 30.0' N., Long. 53° 21.7' E.

Masters of all vessels entering the Port must follow instruction fr the Company's Port Master as to approaches, anchoring, berthing a unberthing.

APPROACHES: *Approaches to Mubarraz:* Japanese Charts No. 31 and No. 3174 cover the approaches to Mubarraz. For tankers arriv at Mubarraz without necessary charts full information shall be given telegram if a request is sent to "Confidence" Abu Dhabi via "A9 Bahrain Radio a few days before arrival.

Alternatively, if the vessel has VHF, the buoy positions shall be giv to her upon request to "Mubarraz Terminal" as she approaches but pr notice of requiring this service should be given in the vessel's arri message.

Charts: The following charts are recommended for use in Abu Dha waters:

Japanese Charts No. 3173 and 3174
British Admiralty Charts No. 3733, 3734, 2889 and 3716.

Approaches to Mubarraz – Navigational Aids:

Buoy Nos.	*Latitude North*	*Longitude East*	*Colour*	*Light Character*
Mubarraz Approach	24° 57.00'	53° 18.39'	Red	Fl. R.ev. 5 sec.
Mubarraz Entry	24° 52.34'	53° 18.42'	Red	Fl. R.ev. 10 sec.
1	24° 49.44'	53° 17.29'	Green	Fl. G.ev. 10 sec.
3	24° 43.89'	53° 21.60'	Green	Fl. G.ev. 5 sec.
4	24° 42.01'	53° 27.38'	Red	Fl. R.ev. 3 sec.
5	24° 38.56'	53° 31.68'	Green	Fl. G.ev. 3 sec.
6	24° 31.87'	53° 40.58'	Red	Fl. R.ev. 2 sec.
7	24° 33.93'	53° 40.12'	Green	Fl. G.ev. 5 sec.
8	24° 30.81'	53° 40.93'	Red	Fl. R.ev. 5 sec.
9	24° 31.93'	53° 40.20'	Green	Fl. G.ev. 2 sec.
10	24° 29.97'	53° 40.72'	Red	Fl. R.ev. 3 sec.
11	24° 30.33'	53° 40.43'	Green	Fl. G.ev. 3 sec.
12	24° 28.93'	53° 40.43'	Red	Fl. R.ev. 5 sec.
13	24° 27.33'	53° 38.17'	Green	Fl. G.ev. 5 sec.
14	24° 26.17'	53° 37.00'	Red	Fl. R.ev. 3 sec.
15	24° 26.38'	53° 36.63'	Green	Fl. G.ev. 3 sec.
17	24° 26.00'	53° 33.00'	Green	Fl. G.ev. 2 sec.

Note: Green coloured and green flashing buoys are showing t starboard side of the channel.

Red coloured and red flashing buoys are showing the port s of the channel.

"Mubarraz Approach", Mubarraz Entry, No. 1, No. 3, No. 4, No No. 6, No. 7, No. 8, No. 9, No. 10, No. 12, No. 13 and No. 1

How to Steer in the Mubarraz Channel: (Inward)

Point Nos.	*Position Lat. North*	*Position Long. East*	*Course (°True)*	*Dist (miles*
1	24° 57.00'	53° 17.80'		
			180	7.4
2	24° 49.55'	53° 17.80'		
			144	6.5
3	24° 44.30'	53° 22.05'		
			120	10.5
4	24° 39.00'	53° 32.00'		
			123	8.9
5	24° 34.10'	53° 40.30'		
			176	4.0
6	24° 30.20'	53° 40.70'		
			214	3.5
7	24° 27.30'	53° 38.55'		
			240	2.2
8	24° 26.20'	53° 36.40'		
			261	3.1
9	24° 25.70'	53° 33.05'		
			Total Distance:	46.2

Anchorage Position	Lat. 24° 26.80' N.	Long. 53° 34.00' E.
S.B.M. Position	Lat. 24° 25.98' N.	Long. 53° 31.54' E.

Navigation in Shallow Waters: There are some shoals with dep 14.9 m. (49 ft.) in the area between Buoys No. 14 and No. 15. Mas of outgoing vessels should pay due consideration to the effect of s at speed on vessel's draft in the shallow water, bearing in mind ves trim.

Conspicuous Marks: Quick flash white navigation lights (visibility n 5 miles) are fixed on following platforms and the flare stacks adj to each platform are visible from distance:

MR-6 Platform	Lat. 24° 35' 44" N.	Long. 53° 43' 53" E
CFP	Lat. 24° 30' 09" N.	Long. 53° 42' 09" E
AA Platform	Lat. 24° 26' 10" N.	Long. 53° 39' 55" E

PILOTAGE: Pilot is provided by the Oil Company at the request o vessel's Master based on express understanding and condition th is aboard the vessel for the purpose of assisting the Maste becomes, for such purpose, the servant of the owners of the ves

It is recommended that the Master of the vessel calling at Mub for the first time requests Pilot to go aboard the vessel for both i and outward passage of the channel. The Pilot will normally boa vessel in the vicinity of Buoy No. 5 and will advise the Mas approaches to the berth and he will remain on board to act as M Master and direct loading operations.

Mooring Master: The Mooring Master provided by the Company will undertake pilotage, mooring and unmooring of the tankers.

The Mooring Master shall board vessels to be moored at SBM in the anchorage area or in the vicinity of Buoy No. 17. The Mooring Master will advise the Master of vessel on approaches to the SBM, mooring, unmooring, connecting and disconnecting hoses and all other operations within the port area. All manoeuvring of vessels within the port area shall be done only in accordance with the advice of the Mooring Master, subject to the understanding that in all cases and circumstances the Master of the vessel shall remain solely responsible for the safety and proper manoeuvring of the tanker. Master or one of his qualified deck officers must be on the bridge at all times while the vessel is being manoeuvred.

ANCHORAGE: The tanker anchorage is within 0.5 miles radius of Lat. 24° 26.8' N., Long. 53° 34' E. Depth of water from 15.5 m. – 18 m. (50 ft. to 59 ft.). The sea bed all around the anchorage is coral with approximately 6 ft. of loose sand. Holding is poor and a vessel is advised to pay out at least six shackles of chain.

Vessels will be advised by radio of a suitable anchorage if both anchorage and the berth are not immediately available. Vessels should under no circumstances anchor or wait at the South area of Lat.24° 57' N. without obtaining prior approval of the Port Master.

Anchorage for Dry-cargo Ships: Anchorage for dry-cargo ships is directed by Port Master by VHF radio.

Prohibited Area for Navigation and Anchorage: The area within 1.15 miles radius from CFP is prohibited for navigation and anchorage. No vessels shall anchor within the range of 1.5 miles from submarine pipelines.

MAX. SIZE: See "Approaches" – depth over shoal areas; also see "Tides".

HEALTH: Vessels arriving at Mubarraz Terminal must carry the usual Bills of Health for ports visited on the voyage. Masters of vessels are requested to inform the Company if there is any person ill on board or if there has been sickness within the week prior to arrival.

Pratique is usually granted by Port Medical Officer through the Mooring Master or Agency Clerk.

RADIO: *Notice of Arrival:* Vessels should advise their ETA Mubarraz at least 72 hours and again 24 hours before arrival through normal radio service. As an alternative to the route through Bahrain Radio Station (A9M) vessels may send their first message through Singapore or Bombay.

Confirmation of ETA should be made a few hours before arrival at "Approach Buoy" by calling "Mubarraz Terminal" on Channel 16 VHF. After anchoring, vessels should advise their time of anchoring through VHF and thereafter maintain a continuous listening watch on Channel 16 until the Company's Mooring Master boards.

Tankers bound for Mubarraz should advise their ETA and other information 72, 48 and 24 hours before arrival.

Vessels may find it helpful to route their first message through Singapore, Bombay or Bahrain Radio Station. All cables should be addressed to the Company through ship's Agent.

The first message should be sent according to the following form, but any items which are the same with a recent previous voyage to this port may be omitted.

(1) ETA Mubarraz.
(2) Last Port.
(3) Next Port.
(4) Deballasting time.
(5) Quantity of cargo required.
(6) Maximum loading rate.
(7) Diameter of cargo manifold.
(8) Distance from manifold to ship's side.
(9) Derrick capacity.
(10) Diameter of fairlead.
(11) Name of Master.
(12) Number of crew.
(13) Whether Pilot is required or not.
(14) Acceptance of E.D.P. (Early Departure Procedure).

Radio Station in Mubarraz Terminal Office.

Short-range communication to Mubarraz Terminal Office can be made by calling "Mubarraz Terminal" on VHF radio telephone. Vessels should inform the office with their ETA preferably when they pass the Strait of Hormuz. After anchoring, vessels should advise anchoring time and maintain a listening watch on Channel 16 until Mooring Master boards.

Call Sign: "Mubarraz Terminal".

Frequency:	*Reception*	*Transmission*
F3	Channel 16	Channel 10, 12, 14

Operating Periods: Round the clock.

BALLAST: All vessels arriving at this port are required to have on board sufficient clean ballast to give a safe draft for manoeuvring purposes. Vessels arriving with insufficient ballast may be required to increase the quantity, should the Mooring Master consider that it would not be safe to berth the vessel for loading. As a general rule, vessels shall not start discharging ballast until mooring is completed.

Upon completion of deballasting the Mooring Master will inspect the tanks. If the tanks are not satisfactory, he may require further pumping until such time as they meet the required standard.

It is strictly prohibited to discharge oil, oily water or other refuse that may result in pollution of the sea. International oil pollution regulations must be strictly observed by all vessels. *The terminal does not have facilities to receive oily ballast.*

TUGS: One tug/workboat is always available for use for marine operations at this port and one mooring boat is available during loading.

BERTH: *Position of Buoy:* Lat. 24° 25.98' N., Long. 53° 31.54' E.

Depth of Water: 15.5 m. (50.85 ft.).

The berth is a single-buoy-mooring system consisting of a buoy 44.32 ft. (13.5 m.) in diameter, moored to 6 pendant legs of 3 in. high strength chain shackled to anchor piles at a radius of 855 ft. (260 m.), and having a rotating deck carrying the pipeline and mooring connections.

One 32 in. crude oil line has been laid approximately 52,500 ft. (16 km.) from the shore to a position close under the buoy. From the underwater manifold the crude oil goes to the buoy through a 20 in. underwater hose. The connection between turntable piping of SBM and tanker manifold consists of 1 hose string composed of 24 in. and 20 in. (Length 770 ft.) floating hoses and 2 hose strings composed of 16 in. (Length 120 ft.) tail hoses.

LOADING: The maximum loading rate of crude oil is 32,700 bbls./hr. or 5,200 kl./hr.

Notice of Readiness: The Master of each vessel should present a Notice of Readiness to load to the Company's Mooring Master who will sign it on behalf of the Company.

The Notice of Readiness should be tendered at the time of the vessel's arrival at the tanker anchorage area, which is, in principle, understood to be either the time of dropping the anchor in the anchorage, or, if the vessel does not anchor, the time that the Mooring Master boards to commence berthing.

The vessel, however, is prohibited from berthing unless she reaches Buoy No. 5 at least 5 hours before the sunset, and Notice of Readiness will not be accepted until the next sunrise even if the vessel has already anchored in the tanker anchorage area.

Notice of Readiness will not be accepted during periods when the port is closed. The port is "closed" when the weather is such that it is too rough for incoming tankers to berth. The decision regarding the opening and closing of the port will rest with Port Master.

When the vessel is ready in all respects for loading the ship's officer must inform the Mooring Master who will transmit the necessary messages to the control room on shore. Mooring Master is authorised to control all the loading operations.

All cargo documents and shore figures are usually prepared on board and the Mooring Master will sign the documents on behalf of the company

MOORING: The Company reserves the right to refuse to accept for berthing or loading any vessels considered unsuitable by reason of inadequate or unsatisfactory mooring equipment, insufficient derrick capacity, unusual manifold connection, inability to comply with the Safety Regulations, or any circumstances which would create unusual risk to the Company's berth, facilities, personnel and equipment whatsoever.

Preparation: Before Mooring Master boards, vessels should have ready the following:

(a) Jacob's Ladder on lee side.
(b) Hawser 1 each at fore and aft deck, polypropylene if possible.
(c) 1 steel crowbar.
(d) Port derrick with double wire rigged for minimum lift 5 tons.

After vessel is anchored, the Company's mooring and hose connection crew will board and pick up mooring and hose connection materials from tug/workboat. Vessel is requested to provide windlass and winch operators.

Mooring at Berth: Unless pilotage is required the Mooring Master will board the arriving vessels in the anchorage area. Vessels are requested to have pilot ladder safely and securely rigged ready for immediate use and long enough to meet the Mooring Master's launch. Vessels should have their crew standing by ready to receive mooring and hose connection materials and should maintain a lee until this is completed. Mooring Master will instruct the crew in the setting up of the forward mooring.

2 bollard ropes are made fast round the port bitts with their attached shackles about 5 ft. inboard from the fairleads as far forward as possible. The size of the fairlead opening should be at least 300 mm. (12 in.) to prevent chain from jamming in the fairleads.

Attached to the mooring connections on the buoy are two 18 in. nylon ropes (144 mm. dia., breaking strain 250 tons). These ropes are 50 m. long, and have at their free end a length of stud link chain which includes enlarged end link for receiving the shackles used on the deck of the tanker. From the outer end of this chain there are connected 2 mooring lines consisting of pick-up wires, pick-up ropes and a towing rope (port side only). The nylon rope is supported by "doughnut" floats and the chain is hung by large plastic buoys 5 ft. in diameter and coloured red and yellow.

Hose Connection: After completion of mooring the boat which has been holding the hoses clear during berthing will bring the floating hose to the ship's side and connect the derrick runner to the balance buoy. These are lifted aboard one by one and connected by distance piece which was already connected to vessel's manifold by hose connection crew during mooring operation.

Unmooring: After the hose disconnection is completed, mooring ropes are slacked off and then dropped into the water. Tug/work-boat will come alongside either before or after the vessel backs off the berth, whichever is convenient, and will receive mooring and hose connection materials.

MEDICAL: The Company operates a small clinic at Mubarraz. Master may obtain medical attention for ship's personnel from the ship's Agent who may in the case of serious illness or injury recommend treatment at the Abu Dhabi government hospital. The ship owner will be charged for all expenses incurred.

FRESH WATER: Not available at Mubarraz except in case of extreme emergency.

FUEL: Not available.

FIRE-FIGHTING: Tug/workboat stationed at Mubarraz Island is equipped for fire fighting and is usually on emergency stand-by during tanker loading operations.

CONSULS: No consular business is available at Mubarraz. However, various countries have representations in Abu Dhabi.

REPAIRS: There are no repair facilities at Mubarraz. However, radar and electronics repairs are available in Abu Dhabi and technicians can be sent to Mubarraz for repairs through notifying the ship's Agent.

SURVEYORS: Lloyd's, ABS, Veritas Surveyors are available in Abu Dhabi and they can be brought in if ample notice is given to ship's Agent.

CUSTOMS: Under normal circumstances Customs Officers do not board tankers at this port but upon arrival the Master is required to submit to the Customs through the ship's Agent a manifest of any cargo to be landed at Mubarraz.

After loading is completed the Mooring Master will sign on behalf of Customs an Outward Manifest and issue the port clearance. These will be handed to the Master by the Agent.

REPATRIATION: Not possible.

TIME: Local standard time at Abu Dhabi is GMT plus 4 hours throughout year.

GARBAGE DISPOSAL: Not available (S.B.M.).

WASTE OIL DISPOSAL: Not available (S.B.M.).

SEAMAN'S CLUBS: None.

TIDES: The maximum tidal range in this area is 6 ft., the average tidal range at the Spring tide 3 ft. and the Chart Datum is 0.7 ft. below ISLW. Tidal stream is variable according to the place and the lay of the land. But the flowing tide usually runs South-Eastwards and ebbing tide North-Westwards. Speed of a current is around 2 knots at the highest.

"Tide and Current Table" is published annually by the Company, applicable to Mubarraz and the surrounding area, and will be obtained on application to the Company.

WEATHER: Local weather at Mubarraz is almost similar to that of Jebel Dhanna and Abu Dhabi City, being extremely hot and humid in Summer. Temperature sometimes soars as high as 50° Centigrade with almost 100 per cent humidity in July and August.

GENERAL: *Engine:* The main engines and all gear must be in an operable condition and in a state of immediate readiness whilst the vessel is on the berth.

Stores: Provisions and deck stores not available.

Divers: The services of the Company diver may be available to vessels where it is essential that a diver's services are required to enable a vessel to sail. All requests for such services should be routed through the ship's Agent to the Port Master.

Currency: All currencies approved except Israeli.

Mail: Mail can be received and sent through ship's Agent.

Dry Cargo Discharge: A "T" shaped jetty at Mubarraz Island can accommodate a vessel with maximum 12 ft. draft. Discharge of dry cargo must be arranged well in advance through ship's Agent in Abu Dhabi who will supply labour and barges from Abu Dhabi. No gear whatsoever is available at Mubarraz.

SAFETY:

No Smoking: Smoking on board the ship is strictly prohibited except in the smoking room situated in the aft accommodation and which has been jointly agreed between the Mooring Master and the Master.

The responsibility for the strict observance of the safety of these rooms rests with the ship, and the Company reserves the right to prohibit smoking in these rooms also should situation require at any time.

Accommodation: All accommodation doors, port holes and ventilators must be closed during loading operations, and doors and openings to machinery spaces in vicinity of ship's tanks are also to be closed.

Galley and Boiler Fires: As a general rule, the use of galley and boiler is not permitted. However, those appropriately equipped are considered safe for use, and their use will be mutually agreed between the Master and the Mooring Master.

Radio Equipment: Radio, radar or other electronic equipment must not be energized while the ship is on the berth.

Air-conditioning Units: For safety, it is preferable that these units recirculate the air within the accommodation but their use when drawing air from outside the accommodation may be permitted provided that the Master and the Mooring Master agree that no danger exists. Should any gas be detected within the accommodation or should there be any danger of gas within the accommodation these units must be stopped and the intakes closed. Window-type air-conditioners are forbidden at all times.

Ship's Fire-fighting Equipment: This equipment must be in constant readiness at all times with sufficient people on board for its efficient operation.

Fire Watches: While the vessel is within the port area a continuous and efficient fire watch shall be maintained on deck and in the engine room by the ship's crew. Fire-fighting equipment shall be in instant readiness throughout the vessel and additional extinguishers must be available at the loading manifold while hoses are being connected and disconnected. Water should be available on deck service lines at all times and fire hoses connected at all fire stations for immediate use.

Swimming: No swimming in the sea berth area is permitted while vessels are on berth.

AUTHORITY: Abu Dhabi Oil Co. Ltd. (Japan), P.O.Box 630, Abu Dhabi, United Arab Emirates. *Tel:* Abu Dhabi 661100. *Telex:* 22260 Adoco EM. *Cables:* "Oiljapan Abu Dhabi". *Contact:* Manager – Marine & Transport Department.

AGENT: National Shipping Gulf Agency Co. (Abu Dhabi) Ltd. are appointed by Abu Dhabi Oil Co. Ltd. (Japan) as exclusive shipping Agents for all vessels calling at Halat Al Mubarraz Terminal. The address particulars are as follows:

National Shipping Gulf Agency Co. (Abu Dhabi) Ltd., P.O.B. 377, Abu Dhabi, United Arab Emirates, Cables: "Confidence", Abu Dhabi. Telex: 22248 ("Gacauh EM"). Tel.: 730500 (10 lines). Fax: 731328. After office hours 794490.

ETA messages shall be sent to National Shipping Gulf Agency Co. (Abu Dhabi) Ltd., cable address: "Confidence", Abu Dhabi, via Dammam Radio.

Under favourable weather and transmitting conditions communication can also be performed over the VHF radio on the following frequencies: standing by on Channel 16 and transmitting on Channel 10, call sign "Confidence", Abu Dhabi.

PORT RASHID, Dubai: 25.16 N. 55.16 E. (See Pla

FLAG: U.A.E.

DOCUMENTS: The following should be airmailed to Agent to arr 48 hours prior to arrival of vessel.

3 copies Hazardous and Dangerous Cargo Declaration.
3 Stowage Plans.
3 Hatch Lists.
8 Cargo Manifests.
1 each Bill of Lading.
3 copies Passenger Manifest.
3 copies Cargo Declaration.
3 copies Arrival/Cargo Advice.
3 Crew Lists.

Radio Officer's Report: May 1989.

Agent: 5 copies Crew List.

Customs:
2 copies Crew Declaration.
2 copies Goods in the Care of the Master (i.e. Foreign Currency).
2 copies Drugs and Firearms Declarations.
2 copies Bonded Stores List.

Quarantine:
1 copy Maritime Declaration of Health.
1 copy Vaccination List.

Immigration:

Officials will not board the ship. Shore passes are obligatory and c be obtained at the main gate. The Agent will provide the shore pa request forms and photographs if needed. Our ship was at the contai terminal so this might be different to other parts of the port.

APPROACHES: Black and white Pillar Buoy, flashing every 10 secs position Lat. 25° 21' N., Long. 55° 14' E. Marked "Dubai Approach".

Main light in position Lat. 25° 13' 33" N., Long. 55° 17' 15" E. (Situat on top of the Dubai Trade Centre – Centre Building) Gp. Fl. (2) wh every 30 secs. 157 m. above MHWST. Visible 44 km.

Main Breakwater Light: Flash green twice every 30 sec.

Lee Breakwater Light: Flash red every 2.5 sec.

There are no hazards. Minimum depth in channel 13.0 m. Approa is from the North on a course of 182° true.

PILOTAGE: Compulsory. Pilot will board 24 hours a day, from a laun and a regulation pilot ladder must be provided, with manropes, and lee given. Large vessels calling should provide an accommodation lad with its lower platform within about 12 ft. above the waterline and a p ladder rigged on ship's side adjacent to the accommodation lad platform.

The Master must sign the indemnity form provided by the Pilot bef entering the harbour.

ANCHORAGE: Vessels should contact Dubai Port Control on V Channel 16, shifting to a working channel as instructed. Fai instructions they should anchor approximately 2 miles from the p entrance. Holding ground – Generally poor.

RESTRICTIONS: Minimum depth in channel 13 m. Max. rise and 2.0 m.

Vessels not working cargo immediately may enter port at the discret of the Port Authority. Vessels may leave at any time.

MAX. SIZE: Depth alongside at Port Rashid Container Termina 12.8 m. and the tide is not expected to go as low as zero heigh average more than 55 days in any one year. Therefore, Port Rashid prepared to berth vessels up to 12.8 m. draft, at minimum speed a times, provided vessels can discharge in such a manner as not to so as to cause an increase in maximum draft.

Maximum draft at general cargo berths is 11.5 m. Depths of wate general cargo berths varies from 9.3 m. – 11.5 m.

Vessels in excess of 260 m. length overall will be berthed at Harbour Master's discretion.

Port Rashid consider that keel clearance is at the Master's discret and are prepared to berth vessels with minimum of 0.25 m. clearance.

RADIO: The Port Signal Station (Call sign "Port Rashid Control" equipped with VHF radio and watch is maintained 24 hours per da Channel 16, switching to Channel 68 for port operations.

The Control Room is situated on the top floor of the Marine Opera Building situated at the seaward end of Berth No. 1 at a height of above sea level.

Vessels should contact the signal station by VHF Channel 16 request berthing instructions.

Vessels should advise their Agents the arrival time, LOA, draft position of bunkering points should bunkers be required. Amended should be advised by VHF, telex or radio. Vessel's Agent will in pass on the above information to the Port Authority.

Also see "Jebel Ali".

HEALTH: Normal quarantine regulations apply and Pratique ca given by the Pilot on cargo vessels, always subject to the H Authorities approval. Health Authorities only board when the vess alongside, except in the case of a suspected ship.

TUGS: Three tugs of 2,400 h.p. are available with fire-fighting, po and salvage facilities, the practice being to secure alongside with ropes therefore, gangway and derricks should be secured in-boa

Tugs are fitted with VHF. Contact should be made via Duba Control or the Harbour Master.

STEVEDORES: Ship's gangs are available for distribution to ve through Agents, vessels should advise their requirements before The gangs board and operate under the supervision of ship's o No quay cranes are provided, so ship's derricks/cranes must be

BERTHING:

Berth No.	*Length of each Berth (m.)*	*Depth of Water (MLWS) (m.)*	
1-4	177.105	10.05	No. 1
	192.48	9.77	No. 2
3-4	182.78	9.3	
5		9.3	
6-10	213	9.3	No. 6-8
		10.66	No. 9-10
11-15	172	9.3	
16	215	11.5	
17-24	180	11.5	
25	180	11.5	
26-27	180	11.5	
28-30	180	11.5	
31-32	230	11.5	No. 31
		12.8	No. 32
33-35	300	12.8	
S.O.T.		11.5	
Depth over pipeline		11.5	

General Cargo: 30 deep water berths with 17 storage sheds (each 120 m. × 60 m.) adjacent are available plus a coastal berth for small craft and vessels with less than 6.10 m. (20 ft.) draft. All berths are backed by extensive hard surface yard storage area.

Container Terminal: Comprising of Berths 31-35 with quay length of 1,350 m. served by 2×30 ton Tango, 4×41 ton Mitsubishi, 1×45 ton Kocks and 2×41 ton Regganne cranes.

Storage area with CFS consisting on 8 sheds (120 m. × 60 m. each).

27 straddle carriers and 18 RTG's radio linked to controller, 6 terminal/Ro-Ro tractors, 3×15 ton forklifts and 130 roll trailers.

Bunkers and water available alongside.

Computer controlled stacking areas and container tracking available to Agents/Owners.

Berth No. 35 also has large Ro/Ro ramp and Berths No. 15 and 17, each have a small Ro/Ro ramp.

Side and quarter ramp vessels can be accommodated at all berths.

CARGO HANDLING: *General Cargo Working hours:* Saturday – Thursday, 1st shift: 0700 – 1400 hrs. Special shift: 1400 – 1600 hrs.; 2nd shift: 1830 – 0030 hrs. Special shift: 0030 – 0530 hrs.

Container Terminal: Shift arrangement. 0700-1900, 1900-0700, seven days a week, 365 days a year.

Working hours are at the discretion of the Port Operations Manager.

Cargo is handled on Fridays and most Public Holidays. The Port Operations Manager may require full night work or special shifts in the interest of the Port. Overtime charges apply to all shifts worked outside of Normal 0700 hrs. – 1400 hrs. Saturday to Thursday, and all shifts worked on Fridays and Public Holidays.

Refrigerated cargoes should be stowed consignment by consignment, to facilitate discharge and Direct Delivery to consignees.

Each general cargo berth is provided with fork-lift trucks and tractor units and trailers.

Pallets are provided free of charge to assist cargo handling.

MEDICAL: A comprehensive range of medical and dental services are available at Dubai.

TANKERS: Berth operated by Shell Markets (M.E.) Ltd., capable of taking vessels up to 260 m. long. Max. draft 11.3 m., vessels of 11.3 m. but not over 11.6 m. draft may be berthed by arrangement with the Harbour Master at HW.

FRESH WATER: Available at all berths. Rate 20 t.p.h. per hose.

FUEL: Shell Bunker Fuels are available at Berths No. 1 to 4, 6 to 9 and 16 to 35 in addition to Tanker Berth and include fuel oil, thin fuel oils, diesel and gasoil, pumping rate 300 t.p.h.: 48 hours' notice should be given to local Agents or Shell Markets (M.E.) Ltd., P.O.Box 307, Dubai. Tel: 450451; Telex: 5478 DB; Cables: Shell Dubai. Marine Lubricants and chemicals are available for delivery to the ship.

Delivery of fuel oil and gas oil at the Petroleum Jetty via 12 in. loading line at up to 500 long t.p.h.

CONSULS:

Belgium
China
Egypt
France
Germany
India
Iran
Japan
Jordan
Kuwait
Lebanon
Netherlands
Norway
Pakistan
Qatar
Saudi Arabia
Sweden
Taiwan
U.K.
U.S.A.

REPAIRS: All types of deck and engine-room repairs available.

Container repair yard located near container terminal.

DRY DOCK: *Dubai Dry Dock:* A complete ship repair facility East of Port Rashid. Vessels up to 1,000,000 d.w.t. can be docked. Approach areas dredged to 11.5 m. enclosed by breakwater.

Dock No. 1	370 m.×66 m.	(350,000 tonnes)
No. 2	525 m.×100 m.	(1,000,000 tonnes)
No. 3	415 m.×80 m.	(500,000 tonnes)

Dockside Cranes:

2×120 tonnes Safe working load at 65.5 m. radius.
1× 25 tonnes Safe working load at 80.0 m. radius.
2× 15 tonnes Safe working load at 70.0 m. radius.

Tank Cleaning: Facilities available.

JOINING/REPATRIATION: Arriving crew holding valid Seaman's Book can be cleared from the airport and placed on board on the strength of a guarantee letter from the Agent to the Immigration Office.

According to the Immigration Regulation in force Agent is required to furnish the following Passport particulars to the Authorities for arranging the Transit Visa:

Full Name.
Father's Name.
Present Nationality.
Sex.
Occupation.
Religion.
Marital Status.
Place of Birth.
Date of Birth.
Qualifications.
Passport No.
Place and Date of Issue and Date of Expiry.

At times Agent receives incomplete details and there were instances when Agent had to collect the full details from the transit passenger himself to process the application prior to his clearance.

It is absolutely essential that wives wishing to join their husbands onboard vessels off Dubai or Fujairah must carry a photocopy of their husband's Seaman's Book.

This is essential as if a photocopy of the husband's Seaman's Book cannot be shown to the Immigration Authorities, the wife will be repatriated immediately.

Repatriating crew can be brought ashore with a similar guarantee tendering the air ticket to the Port Immigration Office. They must be picked up from the ship 24 hours prior to departure.

SURVEYORS: Cargo, Ship, Classification Societies and Salvage Association Surveyors available locally.

AIRPORT: International airport, 3.2 km.

EMERGENCY CO-ORDINATION CENTRE: Coastguard located adjacent port. Tel: 450520.

TELEPHONES: Situated in sheds, no connection made to vessels.

SHIP SUPPLY SERVICE: Crew changes, delivery of ship's mail, stores, spares, etc., can be effected by service boats off Dubai or Fujairah. Service is carried out by all local shipping Agents. See "Agent".

STORING: Complete shipchandling facilities available at short notice (via Agent).

SHORE LEAVE: Agents collect all passports on vessel's arrival, together with 3 copies of Crew List. Temporary shore leave passes are issued by the Immigration Office against Passports and Crew Lists.

GARBAGE DISPOSAL: Use of garbage skips in the port is compulsory. Skips are provided alongside each vessel at a daily rate of Drhs 30 per day, collection as required. Skips are also available for rubbish other than garbage at a daily rate of Drhs 150 per skip. Additional skip or rubbish disposal can be arranged via the agents.

WASTE OIL DISPOSAL: A waste oil disposal service is available. The service is carried out by Dubai Labour Supply Co. Tel: 534020. Fax: 534082. There are no shore storage tanks available, so waste oil is disposed of at Municipality disposal dumps, prior permission is required from Dubai Municipality. Road tanker capacity up to 6,000 gallons. Arrangements for disposal can be made via the vessel's agent who will obtain costs on application.

SEAMAN'S CLUBS: Dubai International Seafarers Centre, situated outside Port Rashid, approximately 10 minutes walk from main port gate. The centre is a non-religious club catering for all nationalities. Facilities include telephone, food and coffee shop, bar, swimming pool, pool table, darts, currency exchange, postal service, library, TV and video, family room, barbeque area, table tennis, bus and information service.

CURRENCY: U.A.E. Dirhams (Drhs). U.S.$ 1.00 = Drhs 3.673 (Fixed Rate).

AUTHORITY: Dubai Ports Authority, P.O. Box 17000, Dubai, U.A.E. *Tel:* 971-4-51800. *Telex:* 47398 Dpa Em). *FAX:* 4-816093 (Main Fax), 815929 (Admin.), 835430 (Marine), 816354 (General Cargo).

Officials: Sultan Ahmed Bin Sulayem, Chairman & Managing Director.
Jamal Majid Bin Thaniah, Assistant Managing Director Administration and Human Resources.
Saeed Al Tayer, Assistant Managing Director Free Zone.
H. Edward Bilkey and David Gibbons, Executive Directors.
Ahmed Butti Ahmed, Assistant Managing Director.
Roger Cornwell, Finance Director.
Edward Butler, Commercial Director.
Mohammed Majid Bin Thaniah, Operations Director.
S. Ghanem, Director of Engineering.
Saif Sultan, Director FZ Sales and Marketing.
Len Chapman, Technical Director.
Mohammed Al Muallem, Deputy Technical Director.
Abdulla Al Hamli, Director Information Systems and Technology.

AGENT: Gulf Agency Company (Dubai) L.L.C., P.O.B. 2404, Dubai, U.A.E. Tel: 457555 (24 hours service). After office hours 384541, 489212. Telex: 45448, 45809 "Gacdb Em". Cables: "Confidence" Dubai. Fax: 457202, 450644. Radio: Marine VHF radio, stand-by on Channels 16 and 23 and SSB 2182 kHz. Call sign "Confidence Dubai".

Operators of ships' supply service and shipping agency; Crew changes, mail, spares and/or delivery of provisions, fresh water and lube oil, as well as arranging of bunkers and Ship-to-Ship transfers.

Owners, Operators and Masters are welcome to contact G.A.C. Dubai by cable or telex regarding requirements and for coordination of rendezvous positions off Dubai, Fujairah, Khor Fakkan and Mina Saqr (Ras Al Khaimah).

RAS AL-KHAIMAH: 25.45 N. 56.01 E.

There is a jetty, length 100 m., suitable for berthing smaller vessels, which is protected by a breakwater, and dredged to a depth of 3 m.

This is a small port for very small vessels only. *All* cargo vessels with cargo for Ras Al-Khaimah should assume discharge/loading will be carried out in Mina Saqr. For all other information, see entry for Mina Saqr.

Also see "Mina Saqr".

GARBAGE DISPOSAL: Available, drums are provided alongside. Service free of charge in daylight only. Tel: 332422.

AUTHORITY: Ras Al-Khaimah Port Services, P.O.Box 5130, Ras Al-Khaimah, U.A.E. *Tel:* 668444. *Telex:* 99280. *Cables:* Minasaqr. *FAX:* (07) 668533. *Contact:* Captain Hazem Raouf Assaad, Port Manager.

AGENT: See "Mina Saqr".

SHARJAH (Mina Khalid): 25.22 N. 55.24 E. **(See Plan)**

DOCUMENTS: The following documents must be in the possession of the ship's Master on arrival or must be forwarded to ship's Agent prior to ship's arrival:

Immigration: The U.A.E. Immigration Department's office in Port Khalid, Sharjah operates 24 hours, 7 days per week. Master to submit Crew List, photographs of each crew member (photos not returned) and Passports/C.D.C. to Immigration Office on arrival. Passport/C.D.C. will be returned to vessel before sailing. Joining/leaving crew must report to the Immigration Office before proceeding to vessel/airport.

Customs:
2 Crew Lists.
2 Passenger Lists.
2 List of Alcoholic Beverages.
2 Cargo Manifests.

Port Operations:
2 Cargo Manifests.
2 Dangerous Goods List.
2 Stowage Plans.
Certificate of Registration.
Classification Certificates.

The original of all the ship's Certificates shall be produced to any Port Official on demand. Where a ship is more than 15 years old, a valid Certificate of Condition issued by a recognised Surveyor shall be on board.

Where Certificates are found to be invalid, the ship may be removed from the Port Area, at ship's expense and re-entry permitted only after validity has been established.

Failure to produce any Certificate to a Port Official when demanded renders the Master liable to a fine of up to Dh. 5000, and the removal of the ship from the Port Area.

PILOTAGE: Pilotage is compulsory for all ships entering and leaving the deep water harbour. On entry, Pilots will board to seaward of the Fairway Buoy; a pilot ladder should be provided. Port Khalid operates a 24 hour, 7 day week pilotage service. Notice is required before 2200 hrs. for pilotage requirements between 2400 hrs. and 0600 hrs.

ANCHORAGE: The Fairway Buoy in position Lat. 25° 22.9' N., Long. 55° 22.9' E. is a red and white pillar, Isophase every 6 secs. Vessels approaching should await Pilot to seaward of Fairway Buoy, anchoring if necessary.

Protected Anchorage: A limited number of vessels may anchor at moorings within the deep water harbour with prior approval of the Port Operator.

MAX. SIZE: Approach channel dredged to 12.0 m. MLLW. Max. draft 11.5 m.

HEALTH: Normal Quarantine Regulations apply.

Radio Pratique will be granted on receipt of radio message from Master, via his Agent, stating that no serious illness has occured during the preceding 30 days. All crew members must be in possession of valid cholera certificates. The Health Officer will only board when the vessel is alongside.

RADIO: *Notice of Arrival:*

Vessels should advise their Agent ETA Port Khalid, giving draft, LOA, and intended cargo operations to be performed, at least 72 hours prior to arrival.

Agents should arrange berthing and labour with the Port Operator.

VHF: Vessels should contact Port signal station on VHF Channel 16 (Call sign "Sharjah Port Control") when within range. Working Channels 6, 12, 11, 74 and 67.

TUGS: Tug services are available for all ships entering the deep water harbour. At the discretion of the Port Operator ships may be obliged to use the services of a tug or tugs.

Tugs are fitted with VHF.

The harbour tugs are fitted with fire fighting hoses and monitors and foam tanks.

BERTHING: Arrangements made with Harbour Master by ship's Agent for necessary berthing as required.

Berth No.	*Depth at MLLW*	*Usage*
1A	11.5 m.	Containers
1	10.5 m.	Containers
2	10.5 m.	Containers
3	8.5 m.	General Cargo
4	8.5 m.	General Cargo
5	9.5 m.	General Cargo/Ro-Ro
6	9.5 m.	General Cargo/Ro-Ro
7	9.5 m.	General Cargo/Ro-Ro
8	8.5 m.	Reefer
9	8.5 m.	General Cargo/Reefer
10	8.5 m.	General Cargo
11	9.5 m.	General Cargo

Total length Berths No. 1A, 1 and 2 – 575 m. Total length Berths No. 3, 4, 5, and 6 – 725 m. Deep water Berth No. 6 – 274 m. Berth No. 7 – 220 m.

Total length Berths No. 8 and 9 – 360 m. Berth No. 10 – 210 m. Berth No. 11 – 195 m.

Equipment: The Sharjah Container Terminal (SCT) which comprises Berths No. 1A, 1 & 2 in the deep water harbour is equipped with 2 Liebherr T115 35 tonne gantry cranes; 2 Valmet 30 tons SWL transtainers. SISU TV10 tugmaster tractor units for Ro-Ro top lift container handlers and forklifts; LCL facilities available; 44 reefer points for containers. These berths are also equipped with specialised equipment to handle containers in the storage area. Each berth is provided with fork lift trucks, trailers and yard hustlers to facilitate the movement of cargo. Pallets are available to assist cargo handling. 2 heavy lift mobile cranes of 40 tons and 90 tons capacity are available on request from the Port Operator. Other equipment, including cranes, trailers, etc., will be made available upon request to the Port Operator with 24 hours' notice.

Lighterage; Lighterage services are available.

Storage Facilities: Storage facilities consists of 11 sheds (2 of which located in the Container Terminal area) having an area under roo 28,000 sq.m. In addition, hard surfaced yards and Sharjah Contai Terminal Stacking/Packing area provide extensive storage capacity.

Cold Store: A 5,000 ton capacity cold store (frozen and chilled) is loca at Berth No. 8 with mechanical handling from ship's hold to store. Seco cold store of 3,500 tons capacity also available.

STEVEDORES: The port will operate on a 24 hour, 7 day week ba ashore and afloat. Additional charges will apply outside normal work hours which are defined as follows:

Saturday to Thursday except public holidays.

First shift	0600 to 1400 hrs.
Second shift	1400 to 2200 hrs.
Third shift	2200 to 0600 hrs.

Overtime Rate Applicable:
General Cargo/Container Vessels: 3rd shift, Fridays and holiday
Reefer Cargo Vessels: Fridays and holidays.
Car Carriers: Nil.

Normal working hours are subject to change during Ramadan, wh working hours will be at the discretion of the Port Operat

Requirements for port labour must be submitted by ship's Agent the Port Operator by 1600 hrs. for work during the first shift on t following day and by 1100 hrs. on the same day for work during t second and third shifts.

MEDICAL: Upon application to ship's Agent, medical examination crew members can be arranged. Personnel will either be sent to priva Doctor or to Public Health Department, as circumstances dictate. Serio cases will be referred to Government Hospital Doctor. Distance Al Qassemi Hospital in Sharjah is 8 km.

TANKERS: Tanker jetty situated in harbour on main breakwat Max. size 60,000 d.w.t. Max. draft 9.5 m. Limited bunkering facilities

DENSITY: 1025/1028.

FUEL: Deliveries of fuel oil, gas oil or blends may be arranged throu vessel's Agents. Marine lubricants will be delivered to ship's si Both services require 48 hours' notice.

FRESH WATER: Fresh water is obtainable at all berths.

REPAIRS: Good facilities for repairs. Divers available. Largest vess for repairs 220,000 d.w.t.

DRY DOCKS: None.

SURVEYORS: Services are available upon request.

REPATRIATION: Proximity of Sharjah International Airport will per efficient crew changes and repatriation. Off-shore crew changes facili can be arranged.

Transit visas are not required for crew changes. Ship's passeng require a valid visa for transit or temporary stay.

AIRPORT: Dubai and Sharjah. Distance to Sharjah International Airp is 15 km.

HOLIDAYS: The following are days that will be observed as pu holidays. Premium tariff rates will apply on these days.

1st January	New Year's Day
*22nd February	Ascension of the Prophet Night
*26th April	Eid al Fitr
*27th April	
*28th April	
*2nd July	Eid al Adha
*3rd July	
*4th July	
*5th July	
*23rd July	Hiriji New Year
11th October	Prophet's Birthday (Eid al Mawled)
2nd & 3rd December	U.A.E. National Day

*Dates are subject to change from year to year.

TIME: GMT plus 4 hours. Permanent.

SHORE LEAVE: Shore leave is permitted for crew members (0800 – 2000 hrs.) provided identification card or seaman's papers deposited with Immigration office situated in the port and collected u return. Also see "Documents."

GARBAGE DISPOSAL: Garbage skips can be arranged through Port Authority and are placed alongside at the quay. Charges are U.A Dirhams 50 per day.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: U.A.E. Dirhams (Drhs). U.S.$ 1.00 = Drhs 3.685 (F Link).

GENERAL: *Pollution:* The provisions of the Sharjah Maritime Laws apply with respect to the operation of vessels in Sharjah Coastal Wa Garbage disposal services are provided by the Port Operator and compulsory.

Ship's Chandlers: Complete ship chandlering facilities are avail handling provisions, laundry and bonded stores.

Chart: B.A. Chart No. 3714.

National Restrictions: No alcoholic beverages, explosives, firearm contaminated food.

AUTHORITY: Sharjah Port Authority, P.O.Box 510, Sharjah, U *Tel:* (06) 541666. *Telex:* Seagul EM 68138. *FAX:* (06) 54 *Cables:* Seagul. *Contact:* Sheikh Saud Bin Khalid Al Qasimi, Chai of Ports and Customs. Sheikh Abdul Rehman Bin Salem Al Qa Deputy Chairman of Ports and Customs. Abdul Aziz Suleiman Al S Director General of Ports. Mr A. Ashcroft, Port Engineer. Ca Mohammed Saleh – Port Operations Manager. Captain Magh Suwedy, Harbour Master. Mr. Simon Keen – Marketing Manager

AGENT: Gulf Agency Co. (Sharjah) W.L.L., P.O.B. 435, Sharjah, U Cables: "Confidence" Sharjah. Tel.: (971-6) 544446. After office 354249. Telex: 68019 ("Gacshj EM"). Fax: (971-6) 722093. Marine VHF radio, stand-by on Channel 16. Call sign: "Confid Sharjah.

Air-freighted spare parts and ships' mail to Sharjah shou addressed to GAC Sharjah, but sent to Sharjah International Air

Dubai Airport marked "Ship's Stores In Transit for M/S . . ." Certificates of Origin should follow the airwaybill or in cases of emergency be sent to GAC Sharjah, soonest after shipment. Cable "Confidence" Sharjah, of flight details and airwaybill number.

UMM AL NAR, Abu Dhabi: 24.27 N. 54.29 E. (See Plan)

LOCATION: The Umm Al Nar Petroleum Port is situated at the South Eastern tip of Abu Dhabi Island and consists of 2 island type berths connected to the shore through a causeway. Vessels will use Mina Zayed and Khawer Al-Bhagi navigation channels to the Port. The total length of both channels is 16 nautical miles. Vessels will berth port or starboard side to, at the discretion of the Pilot.

APPROACHES: *Water Depths:*

The channel depths are as follows:

(a) 13.0 m. for Mina Zayed navigation channel.

(b) 11.0 m. for Khawer Al Bhagi Navigation Channel keeping in mind that all levels are relative to C.D.

MAX. SIZE: The 2 jetties have been equipped with marine facilities to accommodate vessels having the following characteristics:

Max. size of vessel	30,000 d.w.t.
Min. Size of vessel	5,000 d.w.t.
Length overall	170 m.
Beam (max.)	26.50 m.
Draft (max.)	9.25 m.

HEALTH: Masters will be required to produce the standard International Bill of Health.

RADIO: *Arrival Telegram Ship/Shore:* On ship's arrival at the Pilot Station, a telegram shall be passed to the refinery through the ship's Agent with the following information:

ETA at berth.
Arrival draft.
Estimated departure draft.
Quantity and type of Cargo/Cargoes.
Vessel's maximum loading/discharging rate.
Quantity of dirty ballast and discharging rate.
Quantity of clean ballast to be discharged overboard and time required.
Size of manifold.
Are reducers to 6 in., 8 in. and 10 in. available on board?
Any vessel's requirements.
Master's Name.

VHF: All tankers calling at Umm Al Nar Petroleum Port should adhere to the following:

1. Tanker has to call Umm Al Nar Port Control on VHF Channel 9 2 hours prior to arriving Abu Dhabi Fairway Buoy.
2. Tanker has to call Umm Al Nar Port again on arrival at the Fairway Buoy and to confirm ETA Mina Zayed Breakwater.
3. In case of any changes of the ETA (Earlier/later than the scheduled time), tanker should report the same to Umm Al Nar Port Control on Channel 9.
4. All tankers should keep watch on Channels 9 and 67 at all times.

Non-compliance will cause unnecessary delay.

Please note that vessels can also contact Abu Dhabi Port Control on Channels 16 and 67 for movements/berthing/unberthing arrangements.

BERTHING: Umm Al Nar Refinery Jetty consists of 2 berths, each of which accommodates vessels in the range of 5,000 d.w.t. to 30,000 d.w.t. and is provided with the following facilities:

(a) Loading platform.
(b) 4 mooring dolphins.
(c) 5 breasting dolphins (with 2.16 m. berthing line).
(d) 4 × 60 ton quick release hooks with capstan.
(e) 2 × 30 ton bollards.
(f) Hydraulically operated gangway.
(g) 2 fire-fighting monitor towers.

Each platform is provided with 6 loading arms having the following flexibility:

No.*	Size of Flanges (in.)	Cargo Flexibility	Max. Rate cu.m./hr.
1	6	Lub. oil	400
2	8	A.T.K.	1,000
3	6	Straight Run Residue	500
4	8	Mogas	1,000
5	10	Gas oil/Naphtha	1,500
6	10	Straight Run Residue/Ballast	1,000
7	3	Fresh water	13

*The loading arm numbers are from the gangway side.

Berthing Aids: Umm Al Nar Refinery Jetties are equipped with navigational aids to allow safe navigation during day and night, namely:

(a) 2 white coloured leading lights to affix navigation for channel's centre line, placed ashore at 5.0 m. and 11.0 m. above the ground level.

(b) 6 navigation lights with radar reflectors to define basin limits.

(c) Each jetty is provided with 4 red coloured lanterns, 2 at each end, at 5.0 m. above deck level. This is in addition to the operational flood lights.

(d) Each mooring dolphin is provided with flood lighting.

Moorings: When at berth, vessels must be moored to the entire satisfaction of the Pilot. The breasting dolphins are each equipped with 60 ton quick release hooks and a power operated capstan. the mooring dolphins are each equipped with 60 ton quick release hook and a power operated capstan.

Vessels must be ready at all times to put out extra moorings as requested by terminal personnel, or as dictated by weather changes. It is the Master's responsibility to ensure that vessel's mooring lines are checked frequently to prevent excessive movement of the vessel in berth, which could activate the ESD/ERS systems and/or cause severe damage to the loading arms and other terminal equipment.

LOADING/UNLOADING: Also see "Berthing."

(i) The Master must give the Terminal a "Stand By" warning 10 minutes before being ready to commence loading or discharging.

(ii) Upon "Commence Loading" from the Master or his deputy only 1 pump will be used to ensure a slow flow rate until it is established that all systems are operating correctly and pressures are constant. Full loading rate may then be ordered.

(iii) The vessel's cargo tanks shall be inspected prior to and during loading and should it be found that tanks are not tight all loading shall cease, the vessel be rejected and further loading refused. The vessel will not be accepted later until satisfactory evidence of repair is produced duly certified by ABS, Lloyd's or other officially accredited classification society or surveyor.

(iv) During the hours of darkness vessels loading/discharging products, lub. oil or ballast shall rig overside lights to illuminate the surface of the sea around the ship to the Terminal Operators satisfaction to ensure that any oily products on the surface may be detected quickly and early action taken as appropriate.

Deballasting: The jetties are equipped with dirty ballast/slops receiving facilties. Vessel discharging dirty ballasts/slops ashore will use the deballasting arm. The maximum ballast reception rate is 1,000 cu.m./hr.

Prior to arrival the Master is to advise Umm Al Nar Refinery (through the arrival telegram) how much dirty ballast/slops on board to be discharged to the shore facilities. (A "Declaration Letter" is provided for Master's signature) accepting clean ballast for overside discharge is subject to a declaration signed by the Master and delivered to the terminal representative.

Communications: To maintain the necessary continuous communications between refinery, vessels and shore control rooms during cargo operations and also in emergencies, the vessel will be provided with a walkie-talkie set. It is required that this set must remain at all times with the officer responsible for the cargo operation.

FRESH WATER: Fresh water is obtainable at Refinery berths and should be arranged through the Ship's Agent.

FUEL: No Bunker facilities in Umm Al Nar Refinery Terminal.

GENERAL: *Customs:* Custom's officers will board the ship on arrival and prior to sailing for necessary port clearance.

Stores and Provisions: Stores and provisions are not permitted to be loaded at Refinery berths and must be taken on board in the anchorage.

South Basin: The South Basin has been closed for shipping recently due to its proximity to the intakes of the Power Station.

AUTHORITY: Petroleum Ports Authority – ADNOC, P.O.Box 898, Abu Dhabi, U.A.E. *Tel:* 6023450/1 and 6026386. *Telex:* 22215 ADNOC EM. *FAX:* 562687, 660106. *Contact:* Captain H. Masri, PPA – Manager. Captain A. M. Massoud, Port Officer.

AGENT: See "Mina Zayed".

ZIRKU ISLAND, Jazirat Zarakku, Abu Dhabi: 24.52 N. 53.04 E. (See Plan)

LOCATION: Zirku Island is located at 24° 52' N., 53° 04' E. approximately 75 nautical miles W.N.W. of Abu Dhabi.

It is 5 km. long and 2.5 km. wide.

A zone of very rugged hills with ridges is located in the N.N.W. with an elevated point of 163 m. and a low flat sandy and dusty zone in the S.S.E. where the airport lies.

(A) SERVICE HARBOUR
(B) OIL TERMINAL

(A) SERVICE HARBOUR

PORT LIMITS:

(a) Lat. 25° 03.0' N., Long. 52° 53.3' E.
(b) Lat. 25° 00.0' N., Long. 52° 53.3' E.
(c) Lat. 24° 48.9' N., Long. 53° 04.8' E.
(d) Lat. 24° 48.9' N., Long. 53° 11.0' E.
(e) Lat. 24° 56.8' N., Long. 53° 11.0' E.
(f) Lat. 25° 03.0' N., Long. 53° 04.4' E.

Refer to British Admiralty Chart 3778.

NAVIGATION: *Manoeuvring and Navigation:* All vessels should manoeuvre and navigate within the port in accordance with the International Regulations for the Prevention of Collision at Sea.

Lights and Shapes: All vessels should exhibit such lights and/or daytime marks as defined by International Regulations for the Prevention of Collisions at Sea.

Special attention should be paid by vessels, barges or tugs moored or anchored in the vicinity of the jetties which should show at night the lights defined in these regulations.

High Tide Manoeuvres: Deep draft vessels and barges will be berthed at high tide only.

Shallow Water: While proceeding to the jetties, Masters should pay sharp attention to navigation due to the presence of shallow water existing in the vicinity.

Caution: Masters should consider the possibility of having less water than predicted by tide tables after a long period of bad weather.

Harbour Facilities: No tugs or mooring launches are presently available, accordingly, vessels calling at Zirku harbour should have very good manoeuvrability.

Navigation Aids:

1. Flashing lighthouse (Zirku, Zarakuh or Zarqa) located at the top of the pylon on the hill.
Height = 200.86 m.
Lat. 24° 53.0' N. Long. 53° 04.1' E.
One flash every 10 seconds.
2. Flashing lighthouse at the end of the sea water intake.
Lat. 24° 53.0' N. Long. 53° 05.3' E.
Height=9 m.
V.Q. (3) 5 secs.
3. Flashing lighthouse at the end of the main jetty.
Lat. 24° 52.3' N. Long. 53° 05.5' E.
Flash=Fixed and flashing (1) 10 secs.
Height=11 m.
Colour=Green.
Obscured approximately 70° – 150° (80°).
4. *Aero Lights* (occasional).
Located on the airport control tower (green).
Lat. 24° 51.6' N. Long. 53° 04.6' E.
Located on the hill (red).
Lat. 24° 52.5' N. Long. 53° 04.1' E.
Height=67 m.
5. *Two Flares:*
Lat. 24° 52.5' N. Long. 53° 04.3' E.
Height=145 m.
Fixed red lights.
6. *Pylon on the hill top.*
Height=200 m.
Fixed red lights.
7. *Anchorage Buoy.*
Lat. 24° 51.3' N. Long. 53° 06.9' E.
Yellow cylindrical.
Flashing yellow (1) 5 secs.
8. *Zirku Flare Platform "ZFP".*
Lat. 24° 51.5' N. Long. 53° 02.6' E.
Height=85 m.
Mo "U" every 15 sec.
Range=15 miles.

ANCHORAGE:
Waiting Anchorage: Small vessels and barges waiting for a berth alongside the main jetty can anchor beyond 0.5 mile in the S.S.E. of the end of existing jetty in approximately 7 m. of water depth.

Three fixed mooring buoys without lights have been installed at around 0.7 mile in the South and S.E. of the main jetty.

Sharp lookout must be kept when navigating in these areas.

An anchoring buoy (yellow Fl. (1) 5 secs.) has been installed in position: Lat. 24° 51.3' N., Long. 53° 06.9' E. marking the N.E. corner of the waiting anchorage area (See Admiralty Chart 3778).

Prohibited Anchorage Areas: To avoid the underwater oil pipelines being damaged, prohibited anchorage areas are defined as follows:

0.5 nautical miles on each side of the M.O.L. (Main Oil Line) input line.

0.5 nautical miles on each side of the loading lines.

0.5 nautical miles on each side of the SATAH lines.

M.O.L. input line from Zakum field comes ashore on the middle of the East Coast.

Loading lines to the oil terminal SPMs leave the Island from the N.N.W. point of the Island.

Anchorage Berths and Moorings: All vessels or barges entering the port should occupy such anchorage berth or mooring as may be directed by the Port Supervisor and shall move to any other anchorage, berth or mooring as and when required by this authority.

No vessel or barge shall shift or change the anchorage, berth or mooring allotted without Port Supervisor authorisation except if instructed to do so.

No claim will be accepted by Company for berthing or mooring due to arrival priority.

RADIO: International VHF Channels 16, 64, 68 and 19 have been allotted to "Zirku Island Traffic". Permanent watch maintained by "Zirku Island" on Channel 68, semi-duplex for vessels to Zirku Island and vice versa.

When contact established, change to Channel 64 or 19.

Channel 68 is to be used for ship to ship calling and conversation.

ARRIVAL ADVICE: *Notice of Arrival:* Vessels and barges calling at Zirku harbour should advise their ETA at least 48 hours before their arrival by telex to Zirku Marine.

In case of change of the scheduled ETA by more than 6 hours Zirku Marine should be informed by the same way.

Confirmation of ETA should be sent a few hours before arrival at Zirku as soon as a radio link can be set up on VHF Channel 62 or 68 with "Zirku Island" radio room.

Berthing prospects will be given to incoming ships by "Zirku Marine" at this time. If the vessel is instructed to anchor, she must keep a permanent watch on VHF Channel 16 or 68.

During berthing operations contact will be set up with "Zirku Marine" on VHF Channel 68.

Arrival Message: The first message should be sent according to the following form but any items which are the same as a recent previous voyage to this port may be omitted.

Name of vessel (tug or barge):
ETA Zirku.
Type of vessel.
Length.
Width.
Max. draft on arrival.
Cargo loaded (briefly).
Contractor charterer.
Name of Master.
Coming from and ETD.

BERTHING: Zirku Island Harbour is a private port, hence only vess and barges chartered by the Company Zadco (Zakum Developm Company), acting on behalf of ADNOC (Abu Dhabi National Company) and its contractors are allowed to moor alongside the jett

Jetties: The main jetty located on the East coast of the Island is allot to the general supplying of the Island and the transit of equipment the Company.

Temporary jetty "A" (on the South of the Island) is now comple silted up.

Temporary jetty "B" (on the West of the Island) is now deteriorat and no longer in use.

Vessels: Contractors shall charter tugs, barges, landing crafts, sup boats, etc. whose dimensions, weight and draft are suitable to t existing jetty.

Emergency use: Other craft may use this harbour only in emerge and must immediately report their arrival to the Port Supervisor.

All craft using the harbour are subject to the control of the p operating company representative. (Zirku Marine Superintendent or deputy) and the Petroleum Ports Authority (Port Officer)

Berth Occupancy: The Port Supervisor will define the allocation of be in accordance with the Company's requirements of priority up Manager's recommendations.

Contractors should start discharging as soon as vessel or barge berthed and should unload until all the cargo has been discharged.

Contractors should not store their cargo on the jetty. They must remo it as unloading proceeds.

Vessels and barges should leave as soon as the handling of carg completed in order to free the quays. The Port Supervisor can or vessels and barges to leave the quay at any time (even though completely unloaded), so they must be able to move, therefore ba shall keep a tug alongside during the whole time of unloading.

BERTHING FACILITIES: *Main Jetty:* The main jetty located on the E coast of the island is approximately 1,200 m. long and orienta N.W./S.E.

The quay at the end of the main jetty has a water depth of 2 m. a is 12.5 m. long (41 ft.) at the inward end; 2.3 m.×40.5 m. long (132 in the centre and 3 m.×57 m. long (187 ft.) at the seaward end (wa depth is calculated under chart datum C.D.)

The quay is fitted with 8×30 ton bollards, 12 pairs of rubber fend from a level of 1.50 below C.D. to top of quay level and 3 steel ladd running from a level of 1.50 m. below C.D. to the top of quay level.

The quay available for berthing is 110 m. long (360 ft.) orienta N.W./S.E. as is the main jetty breakwater.

At the inward end a 20 m. long quay orientated S.W./N.E. is availa for small launches though badly equipped with mooring points.

The Port Supervisor Office and Police ward room are located on top part of the jetty. The jetty working area has been asphalted.

CRANES: Mobile cranes up to 100 tons are available.

Contractors have to supply the Island with their own mobile equipm to discharge vessels and barges, if not previously arranged Company.

As soon as the unloading is completed users should remove mobile equipment to keep the jetty area clear.

Location of Cranes: The main quay can bear anywhere a 30 ton cr (up to 45 tons for exceptional cases). For heavy loads two locations defined as follows:

100 tons crane: one rectangle of which axle is situated at 15 m. f the inward end of the quay.

300 tons crane: the centre of the crane must be situated at 15 m. f the edges of the jetty seaward end.

MEDICAL: A medical officer is resident on the Island for emerge cases only. The Company maintains a small hospital.

FRESH WATER/FUEL:
Water and Fuel Loading and Unloading Critical Area:

Connection pipes are located on the inward and outward ends of quay.

Inward end of the quay is fitted with 3 in. and 1 in. diesel oil connect and with 3 in. fresh water connection.

The outward end of the quay is fitted with 3 in. connections for f water and diesel oil and 8 in. line for fresh water. The Ship's Ma should apply the safety rules and inform Zirku Marine about any un conditions.

Ships coming for diesel oil or fresh water should be fitted with suffic length of hoses to be connected to the Island fixed pipe.

A safety ball valve is required on shore and diesel oil hose.

SHORE LEAVE: No person may go on shore without authorisation the Zirku Police Authority and only if in possession of Oil Field Sec Pass.

SAFETY: *Reporting of emergency:* Should any vessel be in da through fire, explosion, collision or whatsoever cause, the Master s immediately report the fact to the Port Supervisor and Port O (Petroleum Port Authority) by VHF Channel 62 or 68.

When alongside the main jetty they can report through the s telephone system located on the jetty. Grey for Island Network, Re Safety.

Phone Numbers:
Day and Night: Safety 56333
Radio Room 56666/56403
Clinic 56222.
Day: Marine Superintendent 56400.
Port Officer (PPA) 56471

Fire fighting equipment: There are 2 monitors and 3 hydrants su by a 12 in. pipe able to reach any point of the main jetty on emer call.

Ship's fire fighting equipment: This equipment must be in co readiness at all times with sufficient skillful personnel on board efficient operation.

Particular safety requirements for vessels unloading inflammable products:

All cargo/bunker tank lids must be closed.

A fire fighting hose must be ready for use and supplied with water near the piping and connection on the deck.

In the same way extinguishers must be disposed on the deck.

Cargo/bunker hoses must be properly rigged without leakage.

Cargo tanks being discharged and open to atmosphere must be fitted with an agreed venting system.

Foam and/or dry powder monitors, if fitted, shall be ready for use.

Portable fire extinguishers, shall be conveniently placed for use near the ship's hoses' connection.

A checking will be performed by the Safety Supervisor jointly with the Port Supervisor and the vessel's Master, and a form will be signed by the same, after which offloading of said hazardous cargo will be authorised.

EMERGENCY: *Emergency moving of vessels:* In case of accident vessels shall be able to move quickly, so no repairs to engines are allowed when alongside for self propelled vessels. Barges shall keep a tug alongside during the whole time of unloading.

WEATHER: *Winds:* Four kinds of winds on the Island: The most frequent (54% of the time) are named Shamals they blow from W.N.W. to N. principally in Winter. From N.N.E. to E.N.E. some 20% of the time the Noshi. Local effects of Monsoon, the Kaus blows from E. to S. 17% of the time.

Finally, during the Winter only, and 9% of the time blows from W.S.W. to W. the Suhaili.

Tides: Around Zirku Island the tide is of mixed type with small diurnal predominance, however this semi diurnal effect is not of great significance and for all practical purposes it can be taken that there is only one high water and one low water per day.

The mean spring tide range is approximately 1.2 m. The maximal range would be of about 1.4 m. The mean usual range would be 0.9 m.

Zirku Island tide prediction supplied by operating company, copy can be obtained from Marine Zirku.

There is a tide recorder on the main jetty. Tidal information also available from Zirku Marine on VHF, Channel 68.

Tidal Currents: At Zirku Island tidal currents are semi diurnal roughly flow runs from West to East and Ebb runs from East to West. Eddies are created at vicinity of any obstacle, (breakwater, jetties etc.) especially close to the South sandy end of the island. Currents can reach a speed of 2 knots. It is expected that these data are profoundly changed by winds, especially Shamal.

GENERAL: *Marks:* Name or number and draft marks should be readable from the jetties.

Unsuitable Vessels: The Port Officer reserves the right to refuse berthing and unloading of any vessels considered unsuitable by reason of inadequate or unsatisfactory mooring equipment, insufficient derrick capacity, insufficient fender protection, overloading, inability to comply with the safety regulations or any circumstances which would create unusual risk to the Company's jetties, quays, facilities, personnel and equipment whatsoever.

Prevention of Sea Pollution: It is strictly prohibited to discharge or throw overboard oil, oily water, chemicals, ashes, bilge water or other refuse within the port limits that may result in pollution of the sea.

International oil pollution conventions must be strictly observed by all vessels or crafts.

The Master of any vessel contravening this rule so as to cause pollution shall be charged with an offence against these rules and upon conviction be liable to a fine and shall be incurred in the removal of such pollution.

The harbour users, Contractors and all vessel Masters, before leaving and/or sailing should make sure that jetty area is clean and all their refuse has been removed.

National Courtesy Flag: All vessels calling at Zirku are required to fly their national flag and the national flag of Abu Dhabi.

Swimming & Diving: No person shall swim or dive from or near any vessel or alongside quay or berth.

No person shall engage in diving with the assistance of breathing apparatus within the above mentioned areas without the permission or instruction from the Port Authority.

GARBAGE DISPOSAL: See "Section B".

WASTE OIL DISPOSAL: See "Section B".

SEAMAN'S CLUBS: See "Section B".

CURRENCY: See "Section B".

(B) OIL TERMINAL

PORT LIMITS: The port area of Zirku Petroleum Port covers the area bounded by straight lines connecting the following points:

A:	Lat. 25° 03' N. Long. 52° 53.3' E.	B:	Lat. 25° 00' N. Long. 52° 53.3' E.
C:	Lat. 24° 48.9' N. Long. 53° 04.8' E.	D:	Lat. 24° 48.9' N. Long. 53° 11' E.
E:	Lat. 24° 56.8' N. Long. 53° 11' E.	F:	Lat. 25° 03' N. Long. 53° 04.4' E.

Masters of all vessels entering the port must follow instructions given by the Company's Marine Superintendent as to approach, anchoring, berthing and unberthing.

DOCUMENTS: On arrival the tanker should prepare the following documents to be handed over to the different authorities coming on board:

Tanker Enquiry Form (ZADCO Form).
Navigation Aids Dues Certificate (M.E.N.A.S. Form).
Notice of Readiness.
Crew List.
Certificate of Registry.
Load Line Certificate.
Safety Certificate (Equipment).
Oil Liability TOVALOP/CLC.
Derat Certificate.
Radio Certificate.
International Oil Pollution Prevention Certificate.
Suez Canal Tonnage Certificate.
Panama Canal Tonnage Certificate.

PILOTAGE:

1. *General:* On arrival and on departure the pilotage is compulsory within the Port Limits. The Company reserves the right to render the pilotage compulsory through the departure route for any reason. Nevertheless, upon Masters request Zirku Pilots could assist any tanker on Zirku Departure Route to and from Buoy No. 6 (Lat. 25° 13' N., Long. 52° 59' E.). Within Port Limits and on Zirku Departure Route the speed *shall not exceed 8 knots.*

2. *Direct Berthing:* Instructions for berthing having been received by voice communication the tanker should proceed to the agreed Pilot boarding point.

3. *Waiting:* In case of a berth not being available, the approaching tanker will be instructed to proceed to an anchorage area and anchor at the agreed location. The tanker will wait at this allotted location until further instructions.

4. *On Departure:* A Pilot will assist loaded tanker as stipulated in No. 1 above.

5. *Pilot Access:* The Pilot access should be in good condition, safe, clean and ready. Pilot ladders constructed of light material such as aluminium will not be accepted. Where the freeboard exceeds 10 m. the vessel should have a combination of accommodation ladder and pilot ladder rigged. The bottom of the accommodation ladder shall be at least 7 m. above the water line.

6. *Pilot Embarkation:* To embark the Pilot safely, the incoming tanker should reduce speed (no more than 5 knots), make a good lee to minimise adverse weather conditions and take the way off. On the tanker's deck the boarding of the Mooring/Loading Master should be attended by at least one officer and one A.B.

7. *Pilot Boat:*

Name	Gain
Engine	2×860 h.p.
Speed	20 knots
Marked	Zirku Pilot
Fibre Glass Hull	

NAVIGATION AIDS:

Separation Scheme: A traffic separation scheme between Zakum Field and Umm Shaif Field crosses the port area.

This scheme includes:

(a) A separation zone, 0.75 nautical miles wide.
(b) A traffic lane for Westbound traffic, 1.25 nautical miles wide.
(c) A traffic lane for Eastbound traffic, 1.25 nautical miles wide.

The main traffic directions are: 050° – 230°
072° – 252°

This scheme is marked by the following two light buoys.

1. Zakum Middle
Lat. 25° 59.15' N. Long. 53° 08.50' E.
R.W.V.S. Pillar L.Fl. 10 sec.
2. Zakum West
Lat. 24° 56.60' N. Long. 52° 59.85' E.
R.W.V.S. ISO 6 sec.

Reference Charts: British Admiralty 3733, 3952, 2889, 3778.

Zirku Island:

Zirku, Zarakuh or Zarqa beacon:
Lat. 24° 53.0' N. Long. 53° 04.2' E.
Fl. 10 sec. 22 miles Height 200 m.

Main Jetty:
Lat. 24° 52.2' N. Long. 53° 05.4' E.
Fixed Green 7 miles and Flash 10 sec. Height 11 m. 9 M.

Sea Water Intake:
Lat. 24° 53' N. Long. 53° 05.3' E.
3 Fl. W. 5 sec. Height 9 m.

Radio Tower:
Lat. 24° 53' N. Long. 53° 04.1' E.
Fixed Red light – Height 198 m.

Zirku Flare Platform 'ZFP":
Lat. 24° 51.5' N. Long. 53° 02.6' E.
Flashing White light, morse "U" every 15 sec. Range 15 miles.

Flares:
Lat. 24° 52.5' N. Long. 53° 04.3' E.
Fixed Red light – Height 145 m.

Repeater Platform:
Lat. 25° 01.7' N. Long. 52° 55.7' E.
2 White flashing lights Morse "U" 15 sec. at level +18 m.
2 Red lights at level +34 m.
2 Red lights at level +51 m.
Horn Morse "U" every 30 sec.

Isolated Danger Mark:
Capped well-head.
Lat. 24° 59.8' N. Long. 52° 57.1' E.
Black-Red-Black – Pillar Fl. 2.5 sec.

Navigation Warning within Port Limits:

All vessels transiting through the Zarakkuh Port Limits are to follow the following procedures:

1. Vessels transiting along the Separation Zone may do so as normal.
2. Vessels intending to cross the Separation Zone Northwards must inform Zarakkuh Radio on Channels 16 or 68 of their intention and follow the instructions given.
3. Vessels Southbound, intending to cross the Northern Port Limits, must inform Zarakkuh Radio of their intention on Channels 16 or 68 and follow the instructions given.

4. No vessel is to pass between Buoy No. 1 (Lat. 25° 02' N., Long. 53° 00.8' E.) and the oil loading terminal or enter the no unauthorised entry limits around the oil loading terminal or the Repeater Tower (Lat. 25° 01' 42" N., Long. 52° 55' 40" E.), or "ZFP" (Lat. 24° 51.5' N., Long. 53° 02.6' E.).

MAX. SIZE: The SPMs are suitable for berthing tankers from 30,000 d.w.t. up to 350,000 d.w.t. loaded at 80% of their capacity.

The max. draft allowed for departure is 21 m.

ANCHORAGES: *Small Vessels Anchorage:* Located close to Zirku Main Jetty is designated for small vessels to service harbour.

1 Yellow buoy Fl. 5 sec. in N.E. corner (Lat. 24° 51.3' N., Long. 53° 06.9' E.).

Limits:	Lat. 24° 51.3' N.	Lat. 24° 50.0' N.
	Long. 53° 07.0' E.	Long. 53° 07.0' E.
and	Lat. 24° 51.3' N.	Lat. 24° 50.0' N.
	Long. 53° 05.4' E.	Long. 53° 05.4' E.

Tankers East Anchorage:

Limits:	Lat. 24° 56.8' N.	Lat. 24° 54.8' N.
	Long. 53° 11' E.	Long. 53° 11' E.
and	Lat. 24° 56.8' N.	Lat. 24° 54.8' N.
	Long. 53° 07.8' E.	Long. 53° 07.8' E.

Tankers North Anchorage:

Limits:	Lat. 25° 03' N.	Lat. 25° 00' N.
	Long. 53° 02.2' E.	Long. 53° 02.2' E.
and	Lat. 25° 03' N.	Lat. 25° 00' N.
	Long. 53° 04.4' E.	Long. 53° 04.4' E.

where 2 buoys are installed at Eastern corners. Colour yellow – Flash yellow 5 sec.

This area is designated for incoming and outgoing deep draft tankers.

Prohibited Anchorage Area: Anchorage within Port Limits, outside waiting anchorage areas is prohibited. Exceptional authorisation may be given by the Port Officer.

Sea-bed: The sea-bed in the Terminal area is rock, covered by a few inches of loose sand. Some patches of coral can be found. Holding is poor and vessels are advised to pay out more cable than usual.

RADIO: Messages can be sent to the Company by the following means:

Telex or Telegram through Bahrain Radio addressed to ZADCO Marine. Telex No.: 22948 ZDCAUH EM. Cable: ZIR Marine.

Voice communication to "Zirku Marine" by SSB. Operation Mode A3J Upper Side Band within a range of approximately 250 km.

Permanent watch on carrier frequency: 2036.4 kHz.

Talking on standard Marine Duplex HF Channel: 405, 605, 828

Notice of Arrival: Arrival Message shall be sent to ZADCO Marine 96 hours before arrival at the Port Limits.

Confirmation shall be given 72 hours, 48 hours, 24 hours and 6 hours from ETA.

Voice contact shall be made with "Zirku Marine" by SSB or VHF 6 hours prior to arrival.

Arrival Message: Arrival Message should contain the following:

Vessel's name and Master's Name/Abu Dhabi Agent's Name/Port of Registry/n.r.t.
ETA Port Limits
Arrival drafts/Departure draft forward and aft
Quantity of ballast
Estimated deballasting time
Possibility of simultaneous operation/permanent ballast
Cargo required
Maximum loading rate and IGS and air-conditioning operative.
Part cargo and slops/to comingle
Expiry date Tovalop/CLC/IOPP
Derrick capacity/No. and size of manifolds/mooring brackets
Last Port of call and next Port/EDP accepted
Direction of approach

VHF: Voice communication to "Zirku Marine" by VHF Channels: 16, 19, 64 and 68. Channel 68 is used by the Pilots.

Permanent simultaneous watch maintained on these Channels.

Arrival: VHF contact should be made with Zirku Marine requesting instructions.

Once contact has been established through Channel 16 further conversation should be conducted on either Channel 64 or 19 upon operator's instructions.

Pilot/Loading Master on board: Although he will bring on board his own VHF communication units with private frequencies, the tanker VHF should remain operational at all times.

At Anchorage: Permanent watch should be kept on Channel 16 and on other Channels (64 or 68) as requested by the Zirku Marine operator.

Traffic Separation: North-bound vessels intending to cross the Separation Scheme, and South-bound vessels intending to cross the North port limit, should report their intention on Channels 16 or 68 and follow instructions.

TUGS: A tug of 2×1,500 h.p. and a mooring launch of 2×275 h.p. will assist the berthing. A second tug of similar dimensions will be added to the terminal operations in late 1994.

SPMs: The terminal of Zirku Petroleum Port is located about 8 nautical miles N.N.W. of Zirku Island and consists of two single Point Mooring buoys whose exact coordinates are as follows:

SPM "Alpha"	Lat. 25° 00' 32" N.	Long. 52° 59' 02" E.
SPM "Bravo"	Lat. 25° 01' 36" N.	Long. 52° 59' 30" E.

A small mooring buoy for small craft is in position: 0.3 miles West of No. 1 channel buoy.

SPM Description: Both buoys are identical.

Buoy Body: The buoy is a circular steel structure with a diameter of approximately 12.5 m. It has a rotating assembly. The colour is orange.

Hoses: The buoy is equipped with 2×20 in. floating hoses with a 16 in. tail end hose connection. The outer hose string is 296 m. and the inner one 285 m. Each string is equipped with winker lights.

Hawser: The mooring systems consist of a single 18 in. circumferen grommet hawser of double braided nylon, with an overall length 53.4 m., ended by a short length of 76 mm. diameter chafe chain.

Light: The buoy is fitted with a navigation light emitting a Morse flashing signal every 15 seconds visual on 360° up to a 5 nautical mi range.

Fog Horn: Fitted on the buoy, emits a Morse "U" blast every seconds and is activated when necessary by a remote control syste

Radar Reflector: A radar reflector is installed on the buoy structur

Water Depth: The minimum water depth in the vicinity of the SPM Bu is 27 m. above chart datum.

MOORING: All vessels arriving at this port are required to have adequa draft and trim for safe manoeuvring purposes. The propeller should completely immersed. The recommended trim for manoeuvring in balla is 3.0 m. List will not be tolerated.

Tanker Material Equipment: The tanker must have the port side derr rigged for lifting the shore equipment on board, the minimum derr capacity shall be 10 tons.

A good messenger line of approximately 4 in. circumference nylon li to be ready on the forecastle.

The forecastle should be fitted with Smit or Chain Stopper ty brackets, strong mooring bitts and Panama Leads.

Terminal Material Equipment: One basket will be lifted on board w hose connection equipment and tanker mooring equipment if necessa

Procedure: Full power must be available on tankers' main engine.

Once the optimum approach route has been selected the tug will p away the hose strings and the tanker will proceed toward the buoy a suitable speed.

When approximately 300 m. from the buoy the mooring launch will instructed to bend on the messenger line from the Panama Lead to t mooring hawser pick up line.

The tanker will be brought to a dead stop at 60 m. from the buoy.

The chafe chain will then be winched aboard and secured.

Once the tanker is secured, the tug will pass its towline to the tanke stern and then maintain tension on the towline throughout, to avoid a buoy kissing.

Emergency Fire Wire: All ships shall have a fire wire hanging from t bow and the stern to enable tugs to immediately connect in case emergency – Circumference of wire to be at least 6 in.

Weather Limits: Mooring operation can be carried out in up to 25 kn wind speed and significant waves up to 5 ft.

HOSE CONNECTION: *Terminal Connection Team:* After mooring completed, the hose connection team will board, to assist the crew.

Tanker Connection Team: An officer should attend the hoses with least 3 deck hands and 1 boatswain. In addition one skilful winchm will be required.

Tanker Material Required: Miscellaneous tools, shackles, wires, rop plus fire hose and extinguisher should be ready close to the manifo The area around the manifold should remain free of all equipment enable safe hose handling.

Terminal Material Supplied: 16 in. to 16 in. Spool pieces. Chain hois tirfors, gaskets, wrenches, flange bolt sets, butterfly valve handles, of miscellaneous chains, ropes, slings, etc.

Flange size: The tail end hose flange size is a 16 in. camlock coupli Before berthing the tanker manifold should be ready for di connection, blind flange removed, and 16 in. to 16 in. spool piece fit

The two tanker manifold connections should be chosen in such a w that access to both flanges is possible.

Procedure: Having completed the mooring operation, the mooring lau will proceed to the end of the floating hoses to tow them to a posi beneath the tanker's derrick hook.

The inner (or shorter) of the hoses will be lifted above deck level a the end swung inboard.

The hose will be lifted by such length to match the distance betw the rail and the tanker manifold, then held with snubbing chains and hose end lowered and connected to the manifold flanges.

The same operation will be performed on the outer (or longer) o

LOADING: *Rate:* The maximum loading rate will be 12,500 cu.m. using both hoses.

Care will be taken not to exceed the rated working pressure t supported by the hoses which is 15.5 bars (225 p.s.i.).

Procedure: Once the hoses have been connected and checked, butterfly valves opened and the tanker pipe network set up, the Loa Master can give the go-ahead upon request from the Chief Officer pumping will commence at slow speed at the beginning (by grav approximately 7,000 bbls./p.h., then the rate increased up to the requested by the Chief Officer.

An inspection of the floating hose strings and the buoy, inclu waters around the terminal, should also be made during the first minutes of cargo transfer to ensure there is no leakage.

Once reached, the flow rate will be maintained until further instru is given by the Chief Officer to the Mooring/Loading Master.

Valve Closure: No valves which will stop or seriously impair or red the flow rate of oil from the shore pumps are to be operated wi prior agreement with the shore control room (ZCC) through the Loa Master.

10 minutes' notice should be given to the Loading Master for red the loading rate or stopping.

The practice of throttling back on the ship's cargo valves is t avoided. If a lower rate is required, the shore is to be advised an pumping rate will be reduced to the required level.

The Master will be held liable for any damage arising from the su cessation of flow caused by default of the ship.

It cannot be over-emphasised that to do so can be extr dangerous and cause extensive damage to equipment in addi possible oil pollution.

Failure of Communication: In case of failure of communications be the Loading Master and Zirku Control Room (ZCC), the loading automatically stopped.

Accommodation: Cabins: Two single cabins on board the tanker must be allotted to the Mooring/Loading Master and his Assistant.

Terminal Team: A rest room must be allotted to the hose connection team (3/4 people) should they be required to stay on board by the Mooring/Loading Master. This will only be the case in adverse weather conditions.

Working Location: The working location of the Mooring/Loading Master is the cargo control room.

A portable unit of around 25 kgs. will be installed in this room and operate from either a 110/115 v. or 220/240 v., 50/60 kHz. supply, such a socket must be available in the cargo control room.

Terminal Personnel: As long as the tanker is secured to the Buoy a permanent watch will be performed by the Mooring/Loading Master and/or his assistant in the cargo control room with the portable unit.

Contact will be permanently kept with the Zirku Control Room (ZCC) private VHF Channel.

Tanker Personnel: A tanker officer speaking English should be permanently on duty with the Mooring/Loading Master. The Chief Officer must be available at any time during the deballasting and loading operations (room and telephone number).

In addition to the tanker officer at least two crew members will be in contact with control room through adequate W/T and must be on duty permanently on the deck keeping watch on the tanker and terminal equipment.

Accommodation ladder will be continuously adjusted by the crewmen with regard to the sea state and tanker draft to provide safe access to the deck at any time of the operations.

Ullages: Ullage measurements shoud be taken by remote gauge while loading.

Opening the tank ullage lids should be avoided.

When necessity involves opening the lids the Mooring/Loading Master's approval must first be obtained.

The Mooring/Loading Master will check and approve the Ullage Report according to ullage measurements.

Characteristics:

API: around 34.5
S.G.: around 0.85
Temperature 20°C. to 35°C.

More accurate characteristics will be transmitted to the tanker on arrival.

BALLAST: *Quantity:* Tankers arriving at Zirku Petroleum Port for berthing should keep onboard at least 30% of their d.w.t. as ballast until further instructions received from the Mooring/Loading Master.

Tankers capable of deballasting and loading simultaneously should have on board a total of not less than the 30% d.w.t. requested for berthing so that in normal circumstances they will not be flying light whilst moored at the buoy.

Vessels arriving with insufficient ballast may be required to increase the quantity, should the Mooring/Loading Master consider it necessary.

Quality: Vessels arriving with ballast on board to be discharged into the sea must ensure that the ballast, lines and pumps are clean and free from oil before commencing discharge. If necessary the initial quantity and the drainings should be pumped into the slop-tank. A permanent deck watch shall be kept during this operation with overside lights displayed at night on both sides of the vessel at the discharge points.

Deballasting Facilities: There are no deballasting facilities at Zirku Terminal for receiving dirty ballast.

UNMOORING/DEPARTURE: As soon as the loading operation is completed, the vessel will vacate the berth.

The tanker's cargo manifold valves and butterfly valves at the hose end will be closed. The hoses once disconnected will be swung outboard and lowered to the water with the derrick and released.

The tanker will leave the terminal by slipping the mooring. Once the mooring is slipped, the tanker will put the engines astern, drop back until clear of the floating hose, and then steam clear of the terminal.

The mooring launch will be positioned to tow the floating hoses clear, where necessary. The tug will help the tanker to clear the terminal if so required by the Mooring/Loading Master. The mooring connection team will disembark at this stage and the terminal equipment be lowered into the tug. It will be necessary to make a lee to perform these operations safely.

Waiting Area: In the case of no "Early Departure Procedure" arrangements having been made, the tanker will be anchored in one of the anchorage areas waiting for cargo, documents which will be sent by the pilot boat as soon as possible.

In case of the tanker being delayed from sailing for any reason (engine repairs, waiting order, etc) the Mooring/Loading Master will disembark once securely anchored.

When the tanker is ready to sail through the North Departure Route, 2 hours' notice will be given to the Mooring/Loading Master.

Departure Route: Any deep draft tanker leaving Zirku Petroleum Port will proceed through the following departure route at a speed not exceeding 8 knots.

Buoy No. 1	Lat. 25° 02' N., Long. 53° 00.8' E.
East Mark	BYB VQ(3)5s.
Buoy No. 2	Lat. 25° 04.4' N., Long. 53° 02.4' E.
Safe Water	RW Occ 15s.
Buoy No. 3	Lat. 25° 06.4' N., Long.53° 03.0' E.
Safe Water	RW LFl 10s.
	Crossing Pipe 30 in.
Buoy No. 4	Lat. 25° 09.8' N., Long. 53° 02.6' E.
Safe Water	RW Occ 8s.
	Crossing 3 pipes 18 in. & 30 in.
Buoy No. 5	Lat. 25° 11.2' N., Long. 53° 00.2' E.
Safe Water	RW MO(A) 10 s.
Buoy No. 6	Lat. 25° 13.0' N., Long. 52° 58.9' E.
West Mark	YBY VQ(9) 10s.

To Das Channel Buoy No. 10. Leave to starboard.

MEDICAL: Although a medical officer is resident on Zirku Island, consultations will be possible only on an emergency basis.

DENSITY: The salinities are high as a result of the high rate of evaporation.

At the terminal, the water density depending on the sea temperature ranges from 1030 to 1035.

SERVICES: Following services are NOT available at Zirku Petroleum Port:

Bunkers.
Fresh Water.
Food.
Engine Repairs.
Deratisation.
Shore leave for the crew.
Crew changes.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: U.A.E. Dirhams.

WEATHER: *Seasons:* Two principal seasons can be distinguished in the Gulf. The cool "Winter" season extends from mid November to mid March and the hot "Summer" season from mid May to mid September. The two intermediate periods are transitional and the weather experienced may have either Summer or Winter characteristics.

Winds: The most frequent (54% of the time) is named 'Shamaal' and blows from W.N.W. to N. principally in Winter. The 'Noshi' blows from N.N.E. to E.N.E. for 20% of the time.

Local effects of Monsoon, called the 'Kaus', blows from E. to S. 17% of the time.

Finally, during Winter only, the 'Suhaili', blows for 9% of the time from W.S.W. to W.

The strength of these winds is approximately proportional to their probability of occurrence but at their strongest they can give rise to sandstorms and rough seas for several consecutive days.

Temperature: The extreme monthly mean values of air temperature are 20°C in February and 34°C in August with a lowest minimum of 9°C and a highest maximum of 44°C during the same months.

Tides: Around Zirku Island the tide is variable with small diurnal predominance. However this semi diurnal effect is not of great significance and for all practical purposes it can be said that there is only one high water and one low water per day.

The maximum range is about 1.5 m.

The mean usual range is 1.0 m.

Currents: At the terminal tidal currents are semi diurnal.

The current speed reaches 1 knot regularly at each tide.

Roughly the flood runs S.W. and the ebb N.E. but the turn of tide is very slow when the current directions are variable.

Predictions may be found to be considerably influenced by strong winds, especially the 'Shamaal'.

GENERAL: *Navigation Aids Dues:* The light dues for the Gulf navigational aids will be levied for the account of M.E.N.A.S.

These dues will be paid once per voyage at the first port of call in the Gulf.

Masters are requested to keep the receipt as a voucher if requested by any other Port authority within the Gulf.

Agency: Ship-owners must have their own representative Agency in Abu Dhabi.

Zadco will be acting as a sub-Agency to liaise with the main Agency in Abu Dhabi for all queries regarding mail, telexes, medical assistance, letters of Protest etc.

AUTHORITY: Petroleum Ports Authority – ADNOC, P.O.Box 898, Abu Dhabi, U.A.E. *Tel:* Abu Dhabi 6023450/1 or 6056471. *Telex:* 22948 ZDC AUH EM – Zirku. *FAX:* 6056472. *Contact:* Captain A. M. Gabal, PPA – Acting Manager. Captain H. Al-Holli or Captain M. Abu Shahba, Zirku – Port Officers.

AGENT: National Shipping Gulf Agency Co. (Abu Dhabi) Ltd., P.O.Box 377, Abu Dhabi, U.A.E. Cables: "Confidence" Abu Dhabi. Telex: 22248 ("Gacauh Em"). Tel: 730500. After hours 794490. Fax: 731328.

United Kingdom

HEALTH – ALL PORTS:

PORT HEALTH (The Public Health (Ships) Regulations) 1979.

1. Simpler procedures for health clearance of ships arriving in the United Kingdom came into operation with effect from 1st April 1978.

2. Under these rules the Master of a ship arriving from a foreign port must report to the Port Health Authority†

(1) The occurrence on board during the voyage* of
(a) death, other than by accident,
(b) illness where the person or persons concerned
(i) has or had a temperature of 38°C or greater which was accompanied by a rash, glandular swelling or jaundice, or persisting for more than 48 hours;
(ii) has or had diarrhoea severe enough to interfere with work or normal activities, or

(2) the presence on board of
(a) a person suffering from an infectious disease or who has symptoms which may indicate the presence of infectious disease
(b) any animal or captive bird of any species including rodents and poultry, or mortality or illness among such animals or birds.

(3) any other circumstances which are likely to cause the spread of infectious disease.

If there is nothing to report under any of these headings the Master has no need to obtain health clearance unless an authorised officer otherwise directs. A proportion of ships will be boarded and checked. If any of the conditions in (1)a (1)b and (2)a or (3) have occurred permission (Free Pratique) from an authorised officer will be necessary before disembarkation or commencing operation.

3. If the Master has something to report under 2 above he must:

(1) send a radio message not more than 12 hours and where practicable not less than 4 hours before arrival, giving the relevant information, to the Port Health Authority
or, if the ship is not equipped with a radio transmitter, notify the Port Health Authority, wherever practicable before arrival and otherwise immediately on arrival;

(2) show or give the appropriate day or night signal when the ship enters the jurisdiction of the Port Health Authority (the codes are set out below);

(3) Until "Free Pratique" for health purposes has been given see to it that no person, other than Pilot, Customs officers, Immigration officer or authorised officer boards or leaves the ship without the permission of the medical officer;

(4) complete a Maritime Declaration of Health and arrange for it to be handed to the authorised officer.

In relation to the presence or illness of animals on board, etc., the requirements at (2), (3) and (4) do not apply but where plague has occurred or is suspected amongst rats or mice or there has been abnormal mortality among them, a Maritime Declaration of Health should be completed.

The requirement at 3(4) above does not apply to a ship which has come directly from a port in the excepted area of the Council of Europe, i.e., Belgium, France, Greece, the Irish Republic, Italy, Netherlands, Norway, Portugal, Spain and the United Kingdom.

4. Where it is necessary to obtain "Free Pratique" for health purposes the Master should have already to hand the authorised officer, a list of passengers and crew leaving the ship together with the addresses they are going to in the United Kingdom.

5. The Port Health/Medical Officer may, in circumstances other than those set out above, direct that the Master shall complete a Maritime Declaration of Health and that the Master shall apply restrictions on boarding or leaving the ship.

6. The Master of a ship that has met another ship, which has proceeded from a foreign port, or has met an off-shore installation, is required to comply with the rules in paragraphs 2-3 (but if the ship has proceeded from an excepted port a Maritime Declaration of Health need not be completed).

7. If the Port Health Authority† is satisfied that the Master of a ship was aware, or should have been aware, of conditions and failed to report them then action may be taken under the Public Health legislation which may result, on summary conviction, to a maximum fine of £5,000.

† Or the local Authority responsible for Port Health Control.

* If more than 4 weeks have elapsed since the voyage began it will suffice to give particulars for the last 4 weeks.

Animals/Animal Products: Animals and products of animal origin (including fishery products, eggs, honey, etc.), imported from countries outside the European Union, are subject to veterinary control and can only be landed at ports designated by the EC as Border Inspection Posts for specific products.

INTERNATIONAL CODE OF SIGNALS
PRATIQUE MESSAGES

ZS	My vessel is "healthy" and I request Free Pratique	Q
	*I require Health Clearance	QQ
ZT	My Maritime Declaration of Health has negative answers to the six health questions.	
ZU	My Maritime Declaration of Health has a positive answer to question(s)..........(indicated by appropriate number(s)).	
ZV	I believe I have been in an infected area during the last thirty days.	
ZW	I require Port Medical Officer.	
	ZW1 Port Medical Officer will be available at (time indicated).	
ZX	You should make the appropriate Pratique signal.	
ZY	You have Pratique.	
ZZ	You should proceed to anchorage for Health Clearance (at place indicated).	
	ZZ1 Where is the anchorage for Health Clearance?	
	I have a doctor on board.	AL
	Have you a doctor?	AM

*By night, a red light over a white light may be shown, whe it can best be seen, by vessels requiring Health Clearan These lights should *only* be about 2 m. (6 ft.) apart, sho be exhibited within the precincts of a port, and should be vis all round the horizon *as nearly as possible.*

Health Clearance may be given in three ways:
(a) Wholly in plain language.
(b) Partly in the above signal code, remainder in pl language.
(c) Wholly in the above signal code.

Issued by the Health Departments of the United Kingdo

AUTHORITY: Association of Port Health Authorities, Dutton Hou 46 Church Street, Runcorn, Cheshire WA7 1LL. *Tel:* (01928) 58044

GENERAL:

Regulations for tankers entering or leaving ports in the Uni Kingdom:

Application of the Regulations: The British Government have issued t following regulations, which came into force on 15th October, 19 applicable to tankers of 1,600 g.r.t. and over of any nationality whic

Have a cargo of chemicals, gas or oil in bulk, or;

Have not been declared gas free after having carried such a carg

Reports: Before entering the limits of any harbour a report must be ma to the Harbour Master of that harbour giving the following informatio

(a) Name and call sign.
(b) Country of register.
(c) Length, draft and beam.
(d) Destination. (This may not be the same as the harbour throu which the tanker is passing).
(e) ETA at Pilot Station or harbour limits.
(f) Brief description of cargo and quantity in tonnes.
(g) Is vessel fitted with inert gas system?
(h) If inert gas system is fitted, is it operational?
(i) Have cargo tanks been rendered non-inflammable?
(j) Has a certificate been issued that the vessel complies with t IMO Codes for the Construction and Equipment of Ships carryi
  (i) Dangerous chemicals in bulk, or;
  (ii) Liquefied gases in bulk?
(k) Any defect in the hull, machinery, or equipment which may:
  (i) affect the safe manoeuvrability of the tanker or;
  (ii) affect the safety of other vessels in the vicinity of t harbour, or;
  (iii) constitute a hazard to the marine environment, or;
  (iv) constitute a hazard to persons or property in the vici of the harbour.

Any changes to the above which occur before entering the harb limits or while within those limits must be notified to the Harbour Mast

Check List: A Check List is required by the Pilot and the Harbour Mas giving the following information:

Details and classification of the vessel.

State of machinery, anchor, fire-fighting, navigational and ra equipment.

State of Safety Certificates and other documents.

Details of officers' Certificates of Competence.

Check List Forms can be obtained from Department of Transp Marine Offices at the following ports: Aberdeen, Avonmouth, Belf Cardiff, Dover, Falmouth, Glasgow, Great Yarmouth, Greenock, H Leith, Liverpool, London, Middlesbrough, Milford Haven, Newcas Plymouth, Shetland (Mossbank), Swansea.

SHIP MOVEMENT REPORTING: Notice to Mariners No. 631/1986

Ship Movement Reporting in the English Channel and Dover Str

From 1st July, 1986, a revised message format is to be used in t voluntary ship movement reporting system for the English Channel a Dover Strait (MAREP). The changes will bring the MAREP system i agreement with the General Principles for Ship Reporting Syst adopted by the International Maritime Organisation (IMO).

This Notice gives the new message format and also inclu amendments to the description of the MAREP system which was g in former Notice No. 1520/81.

Ship Movement Reporting (MAREP): *Introduction:*

(1) The objective of the MAREP scheme is to assist the Marine improve safety of navigation in the English Channel and Dover St and to reduce the risk of pollution of the coasts of the United King and France in this area. Participation in the scheme is voluntary and International Maritime Organisation (IMO), through its Maritime Sa Committee, has recommended that ships to which the scheme app should participate. The transmission of reports is free of charge.

(2) The MAREP scheme provides for certain categories of ship report-in to a number of designated shore stations in the area o Traffic Separation Schemes and associated Inshore Traffic Zones Ushant, off Casquets and in the Dover Strait. Broadcasts will be m by shore stations on a regular basis and as required and will inc information on any known situations which could affect the navigation of ships in these Traffic Separation Schemes or asso Inshore Traffic Zones.

(3) Ships with certain defects and ships in other categories are invited to report when elsewhere in the English Channel.

Participation:

(4) Ships of the following categories intending to enter the described in paragraph 5 below are invited to participate:

(a) All loaded oil and chemical tankers and loaded gas carrie 1,600 g.r.t. and over.
(b) Any ship "not under command" or at anchor in a traffic sep scheme or associated inshore zone.
(c) Any ship "restricted in her ability to manoeuvre", ships eng in towing, deep draft ships, or ships with a defect in propulsion or steering.
(d) Any ship with a defect in those navigational aids which adversely affect her navigation under prevailing condition

When to Report:

(5) Ships mentioned above are invited to report to the designated shore stations (paragraph 8 below) when intending to enter:

(a) The Traffic Separation Schemes off Ushant and off Casquets, or their associated inshore traffic zones:

(i) Reports should be made at a distance of 10 nautical miles before entering the area described in (a) above.

(b) The Traffic Separation Scheme in the Dover Strait or the associated inshore traffic zones:

(i) On proceeding Eastward into this Scheme or its associated inshore traffic zones when arriving within 2 nautical miles of a line joining the Royal Sovereign Light Tower and Bassurelle Light Buoy and extended to the French coast.

(ii) When proceeding Southwestward, when arriving within 2 nautical miles of a line from North Foreland extended through the Falls Light Vessel to the Belgian coast.

(iii) When departing from a port within the associated inshore traffic zones.

(6) The phrase "entering a Traffic Separation Scheme" covers ships intending to use the traffic separation lanes, joining them from the side, or crossing the Schemes as described in Rule 10(b) and (c) of the International Regulations for Preventing Collisions at Sea, 1972.

(7) Any ship not under command or any ship of the categories described in paragraph 4(c) and (d) above wherever it is in the English Channel area (East of a line joining Ushant S.W. Buoy and Bishop Rock Lighthouse and West of the line described in paragraph 5(b) (ii) above) is invited to report to a shore station. These ships may be asked to make subsequent pre-arranged reports to shore stations.

Reports and Shore Stations:

(8) Ships with no defects should make a Position Report (POSREP). Ships with defects, i.e. when not under command, with a defect in propulsion or steering or as described in paragraph 4(d) above should make a Defect Report (DEFREP). Where appropriate a subsequent Change Report (CHANGEREP) should be made. Reports in the English language should be transmitted by VHF using the format at the Appendix and using for guidance the IMO Standard Marine Navigational Vocabulary and the International Code. The reports should be made to the following designated shore stations:

Traffic Separation Zone	*MAREP Receiving Station*	*VHF Frequency*
(a) Ushant	Ouessant Traffic	16 – 11
(b) Casquets	Jobourg Traffic	16 – 11
	Portland Coastguard	16 – 69

Channel 11 should be used for calling and working Ouessant and Jobourg Traffic, but these stations should be called outside the times set for broadcasts in paragraph 10.

Channel 69 should be used for calling and working Portland Coastguard.

(c) Dover Strait	Gris Nez Traffic	16 – 69
	Dover Coastguard	16 – 69

Channel 69 should be used for calling and working these stations.

(d) Ships requiring further information or assistance may be transferred by the Centres at Ushant, Jobourg and Gris Nez Traffic to Channel 79 and by Dover Coastguard to Channel 80.

(9) Ships referred to in paragraph 7 should make their report to the nearest designated station. If unable to make contact with any of these stations the report should be made through a Coast Radio Station and addressed to one of the designated stations.

Information Broadcasts:

(10) Routine broadcasts will be made by the Centres at Ushant, Jobourg, Gris Nez and Dover on VHF Channel 11 with additional routine broadcasts in restricted visibility at the following times:

	Clear Weather	*Restricted Visibility*
Ushant Traffic	H+10	H+25
	H+40	H+55
Jobourg Traffic	H+20	H+05
	H+50	H+35
Gris Nez Traffic	H+10	H+25
Dover Coastguard	H+40	H+55

(11) Urgent broadcasts will be transmitted as necessary at any time.

(12) All broadcasts will be preceded by forewarning on VHF Channel 16.

(13) Broadcasts will cover navigational and traffic information of immediate interest and information on movements of ships which appear to be navigating within a traffic separation scheme contrary to the requirements of Rule 10 of the International Collision Regulations.

Ship's Radio Watch:

(14) In order to derive the fullest benefit from the MAREP scheme a continuous watch should be maintained between routine broadcasts on VHF Channel 16 (and on Channel 11 where two channel reception is available).

Caution

(15) It is emphasised that the MAREP scheme does not absolve the Master from his sole responsibility for the safe conduct of his ship.

APPENDIX: Ship Reporting System:

System Identifier	MAREP
Type of Report	POSREP (Position Report) or DEFREP (Defect Report) or CHANGEREP (Change Report)

Heading	*Text*	*Explanation or Example*
Identification of message	MAREP	
Type of message	POSREP	
Identity of ship	ALFA+name of ship plus call sign	
Group date/hour	BRAVO+6 figure (Zulu)	Date of month: 2 figures. Hours and minutes: 4 figures
Position	CHARLIE+Latitude and Longitude	Latitude: 4 figures followed by N or S Longitude: 5 figures followed by E or W
	or CHARLIE+name of port of departure	If the vessel is sailing from a port in the coastal zone
	or DELTA+bearing – distance in relation to a sea mark	Bearing: 3 figures in degrees. Distance: 2 figures in miles from land/sea mark indicated
True Course	ECHO+true course	3 figures in degrees from North
Speed	FOXTROT+speed in knots and tenths of knots	3 figures
Destination	INDIA+name of port of destination and probable time of arrival	
Radio-Communications	MIKE+VHF Channel number	Give number of VHF Channel monitored and if applicable number of second Channel monitored
Draft	OSCAR+maximum present draft	4 figures in metres and centimetres
Cargo	PAPA+industrial name of product or IMDG Code No.+quantity	Nature of cargo. Quantity expressed in tonnes
Navigational Restrictions	QUEBEC+brief description in clear	Stopped, moored, hampered by draft; generally any restriction on manoeuvrability
Additional Comments	X-RAY+brief particulars	Any other information which may be useful.

Note: The headings QUEBEC and X-RAY can be omitted when there is nothing to report.

Specimen Messages:

1 Position Report	MAREP
	POSREP
ALFA	NONSUCH/MIKE BRAVO CHARLIE DELTA
BRAVO	ZERO TWO ONE ZERO THREE ZERO ZULU
CHARLIE	FIVE ZERO FIVE FIVE N
	ZERO ZERO ONE TWO EIGHT E
ECHO	ZERO FOUR ZERO
FOXTROT	ONE FIVE FIVE
INDIA	EUROPORT
MIKE	SIXTEEN
OSCAR	TWO ONE FIVE ZERO
PAPA	CRUDE
2. Defect Report	MAREP
	DEFREP
ALFA	SUCHNON/MIKE BRAVO CHARLIE LIMA
BRAVO	ONE SIX ZERO FOUR THREE FIVE ZULU
DELTA	THREE FOUR FIVE DEGREES ONE THREE MILES FROM CASQUETS
INDIA	THAMES
MIKE	SIXTEEN
PAPA	GENERAL
QUEBEC	NOT UNDER COMMAND MAIN ENGINE FAILURE AWAITING TUG

GARBAGE/WASTE OIL DISPOSAL: *General Information:* Ports and terminals in the United Kingdom must by law provide reception facilities for oily mixtures, chemicals and garbage from ships which need to discharge these substances. The level of provision varies according to the requirements of the ships usually visiting the port, some facilities are only provided to meet specialised needs, whilst facilities for garbage are almost universal. In some ports waste disposal companies are contracted to provide the service, this is often by means of road vehicles. *Advance Notice Requirements:* The use of specialised facilities may demand advance notice and when this is required arrangements are usually made by the ship's agent or by radio. Information on advance notice requirements is detailed, where available, under the relevant ports entry, and is also available from the ports or terminals.

Fees: Ports and terminals may make a reasonable charge for the use of reception facilities.

General: The responsible authorities must be informed if any waste to be landed is contaminated by pest or disease organisms or where its disposal on land would present a risk to human or animal health or to the environment.

Should any inadequacies be observed in the system, then such information should be reported to the local Marine Office of the Department of Transport, which are listed below.

Marine Offices, Department of Transport:

London District, Central Court, 1 B Knoll Rise, Orpington BR6 0JA. Tel: (01689) 890400. Telex: 8812573 dtisurg. Fax: (01689) 890446.

Bristol Channel District, Oxford House, Hills Street, Cardiff CF1 2TD. Tel: (01222) 29556. Telex: 497663 dtisurg. Fax: (01222) 229017.

South and South West of England District, Southwestern House, Canute Road, Southampton SO9 1NP. Tel: (01703) 223061. Telex: 47124 dtisurg. Fax: (01703) 335818.

Liverpool District, 2nd Floor, Derby Square, Liverpool L2 7SQ. Tel: (0151) 2366901. Telex: 628474 dotlvg. Fax: (0151) 2360032.

West of Scotland and Northern Ireland District, 15 Muirhouse Street, Glasgow G41 1QW. Tel: (0141) 4240330. Telex: 778410 dotglag. Fax: (0141) 4230807.

East of Scotland and Northern Ireland District, Blaikies Quay, Aberdeen AB9 2AZ. Tel: (01224) 574122. Telex: 73689 dtiabng. Fax: (01224) 571920.

North East and East of England District, Government Buildings, Broadway West, Gosforth, Newcastle upon Tyne NE3 2JL. Tel: (0191) 2857171. Telex: 537045 dotsurg. Fax: (0191) 2847464.

ABERDEEN: 57.09 N. 02.03 W. (See Plan)

DOCUMENTS:
1 Maritime Declaration of Health.
1 Crew's Effects List.
2 Ship's Report by Master.
1 Home Office Form 1B6.
1 Stores List.
1 Certificate of Deck Cargo Tonnage.
1 Light Certificate.
1 Port Dues Certificate.
Ship's Certificate of Registry.
Mercantile Marine Office Certificate – for British ships only.
Load-line Certificate.
Safety Equipment Certificate.
Lloyd's Certificate.
Derat Certificate.
Ship's Register.
Light Bills.
Safety Radio Certificate.

In addition, Manifests and Bills of Lading are usually sent to Agent direct from loading port.

PILOTAGE: Pilotage is compulsory except for vessels under 75 m. in length and there are 6 licensed Pilots. Boatage service, although not compulsory, is available. There are 10 licensed boatmen.

Vessels requiring a Pilot should give at least one hour's notice to Port Control.

Pilots normally board vessels in the vicinity of the Fairway Buoy. The pilot vessels fitted with VHF radio are of the MFV type and have a black hull with white cabin and the word "Pilot" displayed in front of the cabin.

There is Navigation Control Service equipped with harbour surveillance radar which is operated by Navigation Control Officers who operate on a 24 hour basis.

RESTRICTIONS: Navigation Channel: Max. designed width 33.5 m., max. designed depth at HWOST 10.25 m. Traffic signals regulate the movement of vessels in the Navigation Channel.

Entrance to Victoria Dock, depth at MLWS 6.6 m., clear width at entrance 43 m.

MAX. SIZE: Assuming no siltation the port can accommodate vessels up to 160 m. in length, 24.4 m. beam and drawing up to 9.3 m. at MHWS or 8.3 at MHWN. Larger vessels may be accepted after consultation with the Harbour Master. A vessel 166 m. in length has been handled.

HEALTH: Foreign arrivals to complete Maritime Declaration of Health. They are cleared immediately on arrival by either a port doctor or an Officer of H.M. Customs depending on where the ship comes from and whether there is sickness on board.

Vessels arriving from ports within accepted area (N. European ports) and coastal arrivals need not present Declaration in all cases; when there is sickness on board the Port Health Authority must be informed preferably not more than 12 hours and not less than 3 hours before arrival.

Also see "Health – All Ports" before first UK port.

VHF: There is a VHF radio communications system which operates on Channels 6, 11, 12 and 16.

BERTHING: Tidal:

	Length	*Depth* MHWS
Tidal Harbour	1,574 m.	8.4 – 10.3 m.
Albert Basin	1,525 m.	8.4 – 13.6 m.
River Dee (Navigable)	928 m.	8.4 – 10.9 m.
River Dee Dock	410 m.	9.3 – 10.9 m.
Upper Dock	429 m.	9.0 – 10.3 m.
Victoria Dock	1,500 m.	10.3 – 13.6 m.

Deep-Water Berths:

No. 1 Atlantic Wharf: This is 137 m. long with 9.3 m. at MLWS. Excellent road and rail connection.

No. 2 Pacific Wharf: This is 205 m. long with 9.9 m. at MLWS. Open quay. 2×20 ton and 1×50 ton electric portal cranes capable of handling heavy lifts and containers. 1×3,000 t.p.d. grain conveyor, outreach of boom 27 m.

No. 3 Waterloo Quay: This is 172 m. long with 9.9 m. at MLWS. 2×20 ton cranes at Waterloo Quay West. Ro-Ro service operated by P&O to Shetland.

No. 4 Regent Quay East: This is 255 m. long with 9.9 m. at MLWS. Two transit sheds. Excellent road connections. Forest products terminal in operation.

No. 5 Multi Berth Facility: 520 m. long with 9.6 m. of water at MLWS and 13.3 m. at MHWS. Two transit sheds.

CRANES: *Mobile Cranes:* 1×30 tons and 6×18 tons.

Also see "Berthing".

FRESH WATER: This service is provided by the Grampian Region Water Services and is available at all quays.

REPAIRS: Ship repairing facilities and shipping supplies are offered by a number of private firms and individuals with premises beside the harbour.

DRY DOCKS: (Pontoon Docks).

	Overall Length (m.)	*Breadth at Entrance* (m.)	*Depth on Blocks* (m.)	*Lifting Capacity*
No. 1	55	8.8	4.9	700 tonnes
No. 4	64	11.6	5.5	1,000 tonnes

There is also one dry dock of 113 m. × 21 m.

SURVEYORS: Lloyd's and Det Norske Veritas.

MEDICAL: Doctors and hospitals facilities available. Agents should b advised in advance of any medical attention required.

CUSTOMS ALLOWANCES: At the discretion of Local Custon Inspector. Normal allowances are equivalent to 8 oz. of tobacco per ma and equivalent to 1 bottle of wine per man. Allowances may be halve for home trade vessels. Vessels in port for more than 3 or 4 days ma receive extra allowances.

CONSULS:
Danish Consulate, 59 Marischal Street, Aberdeen. Tel: 589921.
Faroes Commercial Attache, 150 Market Street, Aberdeen. Tel: 59277
Finnish Consulate, 59 Marischal Street, Aberdeen. Tel: 589921.
French Consulate, (Home address) Corrennie, Sauche
Tel: (013303) 257.
German Consulate, 12 Albert Street, Aberdeen. Tel: 634467.
Icelandic Consulate, 59 Marischal Street, Aberdeen. Tel: 589921.
Italian Consulate, 6 King Street, Aberdeen. Tel: 640916/647135.
Netherlands Consulate, 16 Union Terrace, Aberdeen. Tel. 639106.
Norwegian Consulate, 59 Marischal Street, Aberdeen. Tel: 589921.
Swedish Consulate, 59 Marischal Street, Aberdeen. Tel: 589921.

AIRPORT: International airport nearby at Dyce. There are frequent da jet services to London operated by British Airways, and in addition Britis Airways also operate services to Edinburgh, Glasgow, Prestwick, Wic Orkney and Shetland. There are also services to Manchester an Birmingham.

Air U.K. operate direct services from Aberdeen to Amsterdam, Berge London (Stansted), Stavanger, Edinburgh, Leeds/Bradford, Humbersid Norwich and Teesside.

TIME: BST is GMT plus 1 hour. GMT during Winter months.

HOLIDAYS: 1st and 2nd January; Spring Holiday (variable dat Summer Holiday (variable date); September Holiday (variable dat Christmas Day (25th December).

POLICE/AMBULANCE/FIRE: Dial 999 from any telephone and ask t service required.

TELEPHONES: There are berths at which GPO telephone service ca be made available to vessels. All operational posts are linked t telephone network.

GARBAGE DISPOSAL: The Port Authority provide skips for shi garbage. These skips are placed in suitable positions all around t harbour and there is no charge for this service. There are numero private local companies which can supply skips, and the agent ca supply details of these.

WASTE OIL DISPOSAL: A collection service by road tankers is operation. There are several local companies, details of which local age can supply. There are no barges or shore storage tanks within the po

SEAMAN'S CLUBS: Royal National Mission to Deep Sea Fisherma 5 Palmerston Road, Aberdeen. Tel: 584651.

CURRENCY: U.K. Pound (U.K.£).

AUTHORITY: Aberdeen Harbour Board, 16 Regent Quay, Aberde AB9 1SS, United Kingdom. *Tel:* (01224) 592571. *FAX:* (01224) 5715 *Contact:* R.B. Braithwaite, General Manager. Captain C. Park Harbour Master.

ARBROATH: 56.33 N. 02.35 W. (See Pl

APPROACHES: Arbroath, situated between Dundee and Montrose, h been recently downgraded from a commercial port to a fishing harbo

There is a bar 400 m. S.E. of the Piers, depth 0.609 m. LWS, wh is dangerous in heavy Easterly weather.

MAX. SIZE: Largest vessel, 65 m. length, 4 m. draft.

BERTHING: Outer harbour has an area of 1.5 ha., depth of 4.57 m HWST. Length of quayage 451 m.

Inner harbour has an area of 1 ha. Length of quayage 390 m.

FRESH WATER: Available.

FUEL: Diesel available.

AIRPORT: Dundee, 29 km.

REPAIRS: Can be carried out at repair yard.

DRY DOCKS: None. Patent Slipway 122 m. long. Length of cr 32.6 m. Slipway can take vessels up to 250 tonnes displacement.

POLICE/AMBULANCE/FIRE: Dial 999.

Arbroath Harbour is a station for a R.N.L.I. Lifeboat "Inchcape" an inshore inflatable boat.

GARBAGE DISPOSAL: A skip is provided free of charge and is by the slipway.

WASTE OIL DISPOSAL: No collection service available within the but BCS (Waste Oil) Ltd, Tel: Montrose 671267, may collect was A portable hand pump with a vertical lift of 18 ft. and a filter th which oily bilges can be pumped is available free from Harbour Ma Oil may be placed in waste oil tank situated on oil jetty (capacity ap 200 gallons).

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Angus Council, Harbour Office, Arbroath Ha Tayside, DD11 1PD. *Tel:* (01241) 872166. *FAX:* (01241) 87 *Contact:* Captain G.D. Easton, Harbour Master.

ARDRISHAIG: 56.01 N. 05.27 W. (See Plan)

DOCUMENTS: Crew List, Passenger List, Customs Documents, Manifest, ship's papers and certification, Bills of Lading.
PILOTAGE: Not applicable.
RESTRICTIONS: Entry and departure from half tide to full tide only.

Vessels to berth with bow head-in, so as to leave stern in deeper water.
MAX. SIZE: LOA 80 m., draft 5.0 m. (H.W.) and 2.0 m. (L.W.).

The bottom is soft sand, so "bottoming" during low water should present no difficulty.
VHF: Call "Crinan Canal" on Channel 16, working Channel 74.
RADAR: No port service. All radars to be switched off when alongside berth.
TUGS: No tug service available.
BERTHING: Main quay: Length 80 m.
CRANES: By arrangement, but ship required to use own gear, unless by prior notice.
BULK CARGO FACILITIES: Bulk cargo and timber handled by ship's gear. Cargo area: 780 sq.m.
STEVEDORES: No service available. Ship's crew undertake loading and discharging.
MEDICAL: Cottage hospital and dentist available.
TANKERS: No facilities.
FRESH WATER: Not available.
FUEL: By tanker lorry with prior agreement.
REPAIRS: Only small craft repair service.
DRY DOCKS: None.
SURVEYORS: None.
GANGWAY/DECK WATCHMEN: Not required or provided.
HATCHES: All working by crew. No stevedores service.
CARGO GEAR: Ship's own gear.
AIRPORT: Glasgow, 86 miles.
TIME: GMT. GMT plus 1 hour in Summer.
HOLIDAYS: Christmas and New Year, working by arrangement. Added payment to cover overtime.
POLICE/AMBULANCE/FIRE: Police (01546) 602222.
EMERGENCY CO-ORDINATION CENTRE: Coast Guard. Tel: (01475) 29988.
TELEPHONES: Not available.
BANKS: Bank of Scotland, Lochgilphead Branch.
Clydesdale Bank, Lochgilphead Branch.
STORING: See "Prelims".
(1) Yes.
(2) —
(3) Yes.
(4) —
(5) —
(6) No.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Seaman's Book sufficient.
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
DELAYS: Weather and tide only.
AUTHORITY: British Waterways, Pier Square, Ardrishaig, Argyll PA30 8DS. *Tel:* (01546) 603210. *FAX:* (01546) 603941. *Contact:* Alec Howie, Daniel Kenney – Harbour Masters.

ARDROSSAN: 55.38 N. 04.49 W. (See Plan)

DOCUMENTS: Normal documents required:
Customs Documents.
Health Documents.
Crew List.
Passenger List.
Ship's Papers, etc.
PILOTAGE: Pilotage compulsory for vessels over 160 m. LOA. Pilotage operated by Clydeport Operations Ltd. Pilot boards off Little Cumbrae Island. Pilot boat on VHF Channels 16 and 14.

24 hours notice required and amendment if ETA changes.
ANCHORAGE: In 12 to 15 fathoms 1 mile S.W. of breakwater.
RESTRICTIONS: 3 red lights vertically day and night above Port Control Tower (See "Plan") indicates "Port Closed".

Traffic control signal lights exhibited from the Harbour Control Tower regulate movements to the harbour and yachting marina situated in Eglinton Dock (See "Plan").
MAX. SIZE: Contact General Manager Marine.
HEALTH: All vessels requiring attention of Medical Officer shall show flag signal ZW by day, or between sunset and sunrise, either morse signal ZW by lamp, or a red light over a white light, not more than 6 ft. apart. Other vessels shall show flag signal "Q" by day, or between sunset and sunrise either morse signal Q by lamp or a red over a white light, not more than 6 ft. apart.

Certificate of Pratique will be issued by Customs Boarding Officer on receiving a satisfactory and fully completed Maritime Declaration of Health. No further formalities required at subsequent ports of call in the U.K.

Also see "Health – All Ports" before first U.K. port.
RADIO: VHF Channels 12, 14, and 16. Radio telephone via Portpatrick.
TUGS: On application to Clyde Tug Owners.
BERTHING: No special requirements except with draft over 16 ft. when vessel may be delayed waiting for tide.
STEVEDORES: Orders to be given by 1130 hrs. previous day.
MEDICAL: No advance notice required unless medical attention is necessary immediately on vessel's arrival. No hospital facilities in Ardrossan, nearest hospitals being at Irvine, 6 miles and Crosshouse 10 miles.
TANKERS: No facilities.
DENSITY: 1025.
FRESH WATER: Available continually at all berths.
FUEL: Marine oils available by road tanker.
FIRE PRECAUTIONS: As contained in Clydeport Port Regulations and Emergency Procedures book, handed to Master on arrival.
CONSULS: Norwegian Vice Consulate, Danish Vice Consulate: C.A. Mair (Shipping) Ltd., Winton Buildings, Ardrossan. Tel. 605284.
REPAIRS: Limited repair facilities.
GANGWAY/DECK WATCHMEN: Recommended.
OPENING/CLOSING HATCHES: Opened and closed by crew.
CERTIFICATES: Following Certificates are requested: Load Line, Safety Radio, Safety Equipment, Safety Construction, Derat, and Current Trinity House Light Bills.
CUSTOMS ALLOWANCES: Standard U.K. allowances.
REPATRIATION: Customs Boarding Officer acts for Immigration Dept. and arrangements for repatriation can be arranged in conjunction with ship's Agent.
AIRPORTS: Prestwick 18 miles. Glasgow 25 miles.
TIME: BST, that is GMT plus 1 hour. GMT in Winter months.
HOLIDAYS: 1st and 2nd January; Easter Monday; May Day, First Monday in May; Third Monday in July; First Monday in October; Christmas Day and Boxing Day. Cargo work may be available on certain holidays by special arrangement.
POLICE/AMBULANCE/FIRE: Police Tel. Saltcoats 468236; Ambulance, Fire: Ask telephone operator.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Service available. Can be arranged by ship's Agent.
WASTE OIL DISPOSAL: No shore tanks/barges or special berth available. The following companies operate a collection service:
Surface Control Ltd., Lloyd Street, Rutherglen.
Ailsa Industrial Services, 37 Clark Street, Paisley.
Mitchell Thomson Ltd., Robslee Drive, Thornliebank.
Amicoil, Braybrooke Chemical Services, Uddingston.
Kelvin Tank Services, Twechar Works, Kilsyth.
Tank Cleaners (Glasgow) Ltd., Robslee Drive, Giffnock, Glasgow G46 7TY.
SEAMAN'S CLUBS: None.
CURRENCY: U.K.Pound (UK£).
DEVELOPMENTS: Roll-on/Roll-off berth for specialised traffic.
AUTHORITY: Clydeport Operations Ltd., 16 Robertson Street, Glasgow G2 8DS. *Tel:* (0141) 2218733. *FAX:* (0141) 2483167. *Contact:* Captain W.D. Gillespie, General Manager Marine.

AYR: 55.28 N. 04.38 W. (See Plan)
TROON: 55.33 N. 04.40 W. (See Plan)

LOCATION: *Ayr:* On the West coast of Scotland, at the mouth of the River Ayr.
Troon: 14.5 km. (9 miles) North along the coast from Ayr.
DOCUMENTS:
Customs Require:
2 copies Form XS1.
Ship's Register.
Load Line Certificate.
Safety Radio Certificate.
Passenger List.
Crew List.
Port Health Require:
Derat Certificate.
Agents Require:
1 copy Form XS4.
Bills of Lading.
2 copies Manifest.
PILOTAGE: Compulsory for vessels over 65 m. LOA. Pilot boards off Bar Light Buoy. 24 hours' notice of ETA advisable for Pilot via Agent or Dock Authority. Ayr Pilots listen on Channel 16 and work on Channel 14 VHF. VHF watch hours: 24 hours, 7 days a week.
ANCHORAGE: To Pilot's advice. Easterly winds Ayr Bay, Westerly gales anchor East side of Arran Island.
RESTRICTIONS: Draft restriction at LW. Enter on Pilot's advice.
MAX. SIZE: Dock: Length 95 m. Max. draft 6.00 m. River (Ayr): Length depending on berth. Max. draft 6.20 m. Max. length for turning 110 m.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: VHF radio only, operating on Channel 14 and listening on Channel 16.
TUGS: 1 tug of 5 tonnes bollard pull.
RADAR: No radar station.
BERTHING:

Dock	*Quay Length (Total)* (m.)	*Depth of Water* (m.)	*Maximum Size of Vessel*		
			Length (m.)	*Beam* (m.)	*Draft* (m.)
Ayr:					
Tidal	610	6.0	95	18.0	5.8
River (North)	549	6.8	—	—	6.2
River (South)	488				5.0
Troon:					
Tidal	366	6.0	50	12.2	5.2
Outer	1,372	7.0	110	No restriction	6.2

Storage and Warehousing Facilities: Open storage space totalling 2.7 hectares.
Cranage and Mechanical Handling: 2 mobile cranes 6 tonnes; 1 mobile crane 3 tonnes, 7 mechanical shovels from 0.5 to 0.9 cu.m. capacity. 3 forklifts 5 tonnes. Fixed coaling appliance capable of loading 1,200 tonnes/hr.
STEVEDORES: 24 hours notice of ETA should be given to stevedores.
Port Working Hours: Monday-Thursday 0800 – 1700 hrs. Friday 0800 – 1600 hrs. Overtime by arrangement.
Saturday 0600 – 1200 hrs. Sunday 0800 – 1700 hrs. Any other hours by arrangement.
MEDICAL: Hospital facilities nearby in town.
DENSITY: Varies according to weather.
FRESH WATER: Available at all berths.
FUEL: All grades available, 24 hours notice.
REPAIRS: Most engine and deck repairs available.
DRY DOCKS: Two at Troon, Ailsa–Perth Ltd.
No. 1 Dock: 85.3 m. long, 11 m. wide, 3.5 m. depth over sill.
No. 2 Dock: 140.4 m. long, 17 m. wide, 4.7 m. depth over sill.
GANGWAY/DECK WATCHMEN: Deck watchman required; may be supplied by arrangement with stevedores.
OPENING/CLOSING HATCHES: Performed by ship's crew.
AIRPORT: Glasgow. U.K., Irish and continental flights.
TIME: GMT plus 1 hour, reverting to GMT in Winter months.
HOLIDAYS: Christmas Day and Boxing Day.
POLICE/AMBULANCE/FIRE: Dial 999, and ask for service required.
TELEPHONES: No connection on board vessel.
SERVICES: Special arrangements can be made for tank washing and compass adjusting.
SHORE LEAVE: No restrictions on shore leave.
IDENTIFICATION CARDS: Seamen's identity cards should be carried.
AUTHORITY: Associated British Ports – Ayr & Troon, Port Office, North Harbour Street, Ayr KA8 8AH, United Kingdom. *Tel:* (01292) 281687. *FAX:* (01292) 287787. *Contact:* P.J. Condliffe, Port Manager. Captain N. Brown, Harbour Master.

BANGOR: 54.39 N. 05.40 W. (See Plan)

PORT LIMITS: A line drawn from Wilson's Point to Luke's Point.
DOCUMENTS: Standard U.K. documentation.
PILOTAGE: Not compulsory but advisable if unfamiliar with the area. Pilot may be obtained from the Pilot Station at Carrickfergus after call on VHF Channel 16.
ANCHORAGES: 2 cables off North Breakwater or in Ballyholme Bay with offshore winds.
RESTRICTIONS: Due to limited amount of berthing facilities, permission should be sought from the Harbour Master before entering the Harbour.
MAX. SIZE: LOA 70 m. Draft 4.0 m. at HWOST. Vessels of up to 75 m. in length are able to berth at the New Centre Pier, which is a steel piled structure with a depth alongside of 2.9 m. at LW.
HEALTH: Standard regulations apply. Vessels should inform Port Health Officer Belfast of any sickness on board.
VHF: A listening watch is kept on VHF Channel 11 throughout 24 hours.
TUGS: Can be ordered from Belfast if required. Work boat of 28 h.p. available.
BERTHING: See "Max. Size" and "Developments".
BRIDGES: None.
STEVEDORES: None locally.
MEDICAL: Full hospital facilities available.
TANKERS: No facilities.
FRESH WATER: Available on Central Pier.
FUEL: Petrol and diesel available from tank on pier or by road tanker.
CONSULS: Nearest at Belfast.
REPAIRS: Minor repairs only.
SURVEYORS: Available from Belfast.
GANGWAY/DECK WATCHMEN: Not usually available.
HATCHES: Opening/closing done by ship's crew.
CUSTOMS ALLOWANCES: U.K. Regulations apply.
CARGO GEAR: The harbour's 5 tonne crawler crane has been removed, and in future vessels will have to use their own cargo gear, or hire one of the available mobile road cranes in the district.
REPATRIATION: Can be arranged by Agent.
AIRPORT: Aldergrove Airport, or Belfast City Airport (12 miles).
TIME: GMT plus 1 hour from late March – late October. GMT for rest of year.
POLICE/AMBULANCE/FIRE: Dial 999.
TELEPHONES: Cannot be placed on board. Several in vicinity of berth.
GARBAGE DISPOSAL: Bins available in waste compound and collection service is available.
WASTE OIL DISPOSAL: 300 gallons tank available. Arrangements should be made for large quantities.
SEAMAN'S CLUBS: None. All town facilities within walking distance.
SHORE LEAVE: No restrictions.
DELAYS: Berthing times will depend on the arrival drafts and fishing traffic.
DEVELOPMENTS: The new North Breakwater runs in a Northwesterly direction with seaward side built of S.H.E.D. units, and the sheltered S.W. side of corrugated steel piling, where safe berthing is available over a distance of 95 m. with a minimum depth of 3.7 m. at LW.
A 600 berth marina has been constructed in the inner harbour, where the minimum depth is approximately 2.0 m. at LW.
AUTHORITY: North Down Borough Council, Town Hall, Castle Grounds, Bangor, Co. Down, Northern Ireland BT20 4BT. *Tel:* (01247) 270371. *Contact:* Andrew Jaggers, Harbour Manager, Bangor Marina, Bangor BT20 5ED. Tel: (01247) 453297. Fax: (01247) 453450.

BARROW-IN-FURNESS: 54.07 N. 03.14 W. (See Pla

PORT LIMITS: The seaward boundaries of the port extend from Sca Channel in the North to Lightning Knoll Buoy in the South (Position Lat. 53° 59.8' N., Long. 03° 14.2' W.).
DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
Health Declaration.
Ship's Certificates and Cargo Documents.
PILOTAGE: Pilot boards at Lightning Knoll Buoy, using Pilot cutte usually 2 or 3 hours before high water.
Barrow Pilot Vessel on VHF Channels 16 and 12. Vessels bound t Barrow should communicate their ETA at the Pilot Station through the local Agents or to the Harbour Master Barrow, at least 24 hours befo arrival, or 36 hours before arrival between Friday (1600 hrs.) and Monda (0745 hrs.).
ANCHORAGE: At Lightning Knoll Buoy, depth of 10 m. at LW. In adver weather conditions vessels proceed to Ramsey Bay, 70 km. away, t shelter.
RESTRICTIONS: A new dock entrance was constructed in 1991. Th new entrance allows access from 2.5 hours before H.W. until 1 ho after H.W. The width of the new entrance is 36.6 m. with a sill 3.0 r below L.A.T. Access to the port, which is protected from the prevaili Westerly winds by Walney Island, is gained from the Irish Sea throu Piel Harbour along the well-defined Walney Channel. The depth of wat on the New Ramsden Dock entrance sill can range from 13.00 m. highest high water springs to 9.4 m. at high water neaps.
MAX. SIZE: Length approx. 200 m. Beam 35 m. (approx.). Dra according to tide.
HEALTH: Vessels arriving from abroad are given Pratique by Custo Boarding Officers. In case of suspected disease or fever on board not Agent prior arrival. Agent will advise Port Health Authorities.
Also see "Health – All Ports" before first U.K. port.
RADIO: Local stations: Anglesey Radio, Port Patrick Radio a Morecambe Bay Radio.
VHF: Port VHF service. Call sign 'Ramsden Dock Radio'. Channel (156.8 MHz) Calling and Safety. Channel 12 (156.6 MHz) P Operations.
TUGS: Liverpool tugs available on request. Notice required.
Small workboats up to 10 tonne bollard pull available locally.
BERTHING:

Docks	*Water area in Hectares*	*Width of entrance*
Ramsden	22.5	30.48 m.
Buccleuch	13.0	30.48 m.
Devonshire	5.0	24.4 m.

Walney Channel Deep-water Berth: 140 m.×20 m.×5.5 m. depth.
Ramsden includes: Ramsden Dock Basin with 3 berths with a t quayage of 378 m., taking vessels of up to 9.15 m. draft, and Anch Line Basin with four berths 256 m., 152.4 m., 274.3 m. and 215 m., l respectively, taking vessels of up to 7.3 m. draft. Anchor Line be equipped for Ro/Ro traffic.
DENSITY: 1015 to 1025.
FRESH WATER: Available from quayside hydrants.
FUEL: Can be obtained from bunkering facility at No. 3 Berth, Rams Dock Basin and Ramsden Dock Lock.
CONSULS: Netherlands, Portugal, Spain (Vice-Consul) represented James Fisher & Sons PLC. Tel. 22323.
GANGWAY/DECK WATCHMEN: Compulsory.
OPENING/CLOSING HATCHES: Handled by ship's crew.
AIRPORT: Manchester Airport. Walney Airport by arrangement.
TIME: As for other UK ports.
HOLIDAYS: As for other ports in England.
POLICE/AMBULANCE/FIRE: In emergency Tel. 999; for enquiries other calls – Police: 824532; Ambulance: (01228) 20345; Fire Serv 821363.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Seaman's Book or Passport required non-British crew.
GARBAGE DISPOSAL: Garbage skips will be provided by w disposal contractors on request.
WASTE OIL DISPOSAL: Waste oil may be collected by waste disp contractors on request.
SEAMAN'S CLUBS: None.
DEVELOPMENTS: Walney Channel and the approaches to Barrow dredged during 1991 to provide deeper access for the new entrance.
AUTHORITY: Associated British Ports – Barrow and Silloth, Port O Ramsden Dock Road, Barrow-in-Furness, Cumbria, LA14 *Tel:* (01229) 822911. *FAX:* (01229) 835822. *Contact:* Ca J.W. Green, Port Manager and Harbour Master.

BARRY: 51.24 N. 03.16 W. (See P

DOCUMENTS: Required for arrival:

C.142	2 copies	Crew Declaration
C.14	3 copies	Stores Declaration
C.13	2 copies	General Declaration (completed by Agent)
C.16	2 copies	Cargo Inward Declaration
C.74	1 copy	Master's Authority (Agent's compl
C.1320	2 copies	Cargo in un-registered spaces.

These documents are to be completed and presented with co manifests and ship's documents at the time of report.

PILOTAGE: A.B.P. Pilots, Pier Head, Barry Docks. Amount of advance notice of ETA required: 24 hours. Final confirmation to be given by VHF or R/T when within 2 hours of Pilot Station. VHF channel or frequency to be used when contacting pilot boat or Pilot Station: VHF Channel 16 thence working channels as required.

Pilot Cutter: Black hull with "Pilot" in white on same and white superstructure.

Pilot boat is located near Breaksea Lanby Buoy. Smaller vessels may be boarded in Barry Roads.

Also see "Cardiff".

ANCHORAGE: Barry Roads, 10 fathoms, safe anchorage. Large vessels should anchor West of Breaksea Lanby Buoy. Small vessels 0.75 mile S.E. of Barry Dock Entrance.

RESTRICTIONS: Entrance only 4 hours before HW to 4 hours after HW.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Barry Docks Radio, Channel 11.

VHF: Channels 16, 11 and 22.

TUGS: Join vessel at Barry Roads. Tug's or ship's lines utilised.

BERTHING:

Dock	*Quay Length (Total)* (m.)	*Normal Depth of Water* (m.)	*Max. Size of Vessel*			*Max. d.w.t.*
			Length (m.)	*Beam* (m.)	*Draft* (m.)	
No. 1 Dock	2,894	9.8	178	23	9.1	23,000
No. 2 Dock	(9,490 ft.)	9.8	178	23	9.1	23,000
No. 3 Dock Basin		Semi-tidal	178	23	9.1	23,000

Vessels up to 22.9 m. beam can be accepted on favourable tides. Max. 23,000 d.w.t. with draft of 9.1 m.

Storage and Warehousing Facilities: 3,700 sq.m. transit shed and 1,860 sq.m. temperature controlled holding store within dock basin. No. 2 Dock provides a further 2 transit sheds totalling 7,413 sq.m. Additional covered storage within the port area comprises 4 sheds totalling 7,686 sq.m. (82,650 sq. ft.). Ample open storage space is also available.

Cranage and Mechanical Handling: No. 3 Dock Basin: 4 × 6 tonne. No. 2 Dock, South Side: 4 × 6 tonne and 2 × 5 tonne. Berth No. 31: 5 × 10/11.5 tonne grabbing cranes.

Specialised Facilities:

(i) One of the largest tank storage facilities in Britain with tank capacity of more than 110,000 cu.m. suitable for oil, chemicals, and natural gas.

(ii) The port is licensed to handle explosives both in dock and at specially approved anchorages.

(iii) A bulk loading conveyor installed at No. 2 Dock is capable of handling coal and coke at a speed of 450 tonnes per hour and is served by road and rail, with stocking areas.

(iv) Windward Terminal: 6,400 sq.m. of storage area (temperature controlled). 4×6 ton quay cranes. Terminal can accommodate vessels of 10,000 d.w.t.

BRIDGES: Bridge swung to vessel's requirements.

STEVEDORES: An early ETA essential. Enables planning to be effected in conjunction with other work in port.

Port Working Hours: Monday – Thursday: 0700 – 1630 hrs. Friday 0700 – 1530 hrs.

Daily and weekend overtime available and shiftwork can also be arranged on request.

MEDICAL: Hospital facilities available. Advance notice desirable.

TANKERS: 6 tanker berths, maximum draft 28 ft.

DENSITY: Density 1020.

FRESH WATER: 15/20 t.p.h. per hose.

FUEL: By barge or road transport.

CONSULS: None. Many located at Cardiff 8 miles East of Barry.

REPAIRS: All types of repair undertaken by private ship repairers.

DRY DOCKS: One dry dock, length 286.5 m. and width 23.9 m. – not in use.

GANGWAY/DECK WATCHMEN: The services of watchmen provided at discretion of Shipowner or Agent.

OPENING/CLOSING HATCHES: Work normally undertaken by ship's crew but the port will, if requested, provide a crane to assist in this work on completion of a "Hatch beam form". Riggers may be employed on this work at request of shipowner.

CUSTOMS ALLOWANCES: Refer to Customs. Tel: (01446) 420240.

REPATRIATION: All facilities available.

AIRPORT: Cardiff (Wales) Airport, 4 miles, served by regular airlines.

TIME: GMT, except late March – late October when British Summertime (GMT plus 1 hour) is in operation.

HOLIDAYS: Bank Holidays. Arrangements made to work if essential.

POLICE/AMBULANCE/FIRE: Call operator by dialling 999.

TELEPHONES: At main berths.

SHIP SUPPLY SERVICE: A Ship Supply Service could be provided by Cory Ship Towage with their tugs at Cardiff if required. Address: Cory Ship Towage Ltd., S.E. Wales Office, Alexandra Dock, Newport, Gwent NP9 2NP. Tel: Newport 56835/6.

IDENTIFICATION CARDS: Not needed by Port Authority.

AUTHORITY: Associated British Ports, Pierhead Building, Bute Docks, Cardiff, South Glamorgan CF1 5TH. *Tel:* (01222) 471311. *Telex:* 498542. *FAX:* (01222) 471100. *Contact:* L.R. Gravestock, Port Manager, Cardiff and Barry. Captain R.S. Grubb, Dock and Harbour Master.

Barry: A.H. Starke, Dock Superintendent, Barry. *Tel:* (01446) 700311. *FAX:* (01446) 700100.

BELFAST: 54.36 N. 05.56 W. (See Plan)

DOCUMENTS:

1 Passenger and Crew List for Immigration.
1 Crew Declaration C142 (for H.M. Customs).
1 List of Ship's Stores (for H.M. Customs).
1 Maritime Declaration of Health.
1 Cargo Manifest.

PILOTAGE: Pilotage compulsory for vessels over 100 m. LOA in the Outer Harbour and vessels over 75 m. in the Inner Harbour. Pilot station is situated at Belfast. It is manned continuously. Vessels requiring a Pilot should give as much advance notice as possible of ETA, but in any case not less than 2 hours. Pilots may be ordered through:

Port Operations Station, Tel. 553010 or VHF Channel 12.
Belfast Harbour Office, Tel. 554422, 0900 – 1700 hrs. Monday-Friday.

There are 3 motor launches servicing Pilots. "Pilot Boat 1" is 33 ft. long, "Pilot Boat 2" is 44 ft. long, and "Mabel Helen" is 46 ft. 8 in. long. All vessels are painted orange with word "Pilot" in white letters on each side.

Pilot launches may be contacted on VHF Channel 12.

Usual international signals should be made for a Pilot. Pilots board from 1.5 to 2 miles S.E. of Carrickfergus. In poor visibility the pilot launch makes a sound signal of 4 short blasts. Vessels may be led into calm water before boarding.

ANCHORAGES: Safe anchorages, according to draft and size of vessel are available through Belfast Lough East of a line from Carrickfergus to Grey Point.

RESTRICTIONS: Intended depths in the entrance channels: Victoria Channel, sea to Refinery berths – 30 ft. below datum. Refinery to Thomson Wharf – 26 ft. below datum.

Musgrave Channel, 24 ft. below datum.
Herdman Channel, 24 ft. below datum.

MAX. SIZE: Vessels' size is restricted only by depth of water available. See "Restrictions", "Berthing" and "Tankers".

HEALTH: Use International Code quarantine signals. Master of a ship approaching a port in Northern Ireland from a foreign port other than an excepted port must ascertain state of health of all persons on board, and must fill in and sign Declaration of Health. It should be completed and ready to deliver to the Customs Officer, or authorised officer of the Port Health Authority, whichever first boards the ship.

If any suspected diseases on board, Free Pratique will not be granted by Her Majesty's Customs until the ship has been visited by the Port Medical Officer. Therefore in these cases notify "Portelth Belfast" by radio in advance.

Also see "Health – All Ports" before first U.K. port.

RADIO: The best station for messages, cables, etc., is Port Patrick, call signal GPK.

VHF: Belfast Port Operation and Information Service is situated at Port Control Office, located in Milewater Basin. A continuous watch is maintained on VHF on Channel 12. Call sign is Belfast Harbour Radio.

TUGS: Tugs are owned by Cory Ship Towage Ltd., Tel. 777447. They are fitted with VHF Channels 16, 14, 12, 8 and 6. Tugs normally meet inward bound vessels in vicinity of No. 20 beacon. Use of tugs' lines is optional.

BERTHING: The following berths are equipped for handling containers or drive-on, drive-off traffic:

Berth	*Max. draft (ft.)*
Victoria Terminal 1 Ro/Ro	24
Victoria Terminal 2 Ro/Ro	24
Donegall Quay 4 – Ro/Ro	18
Donegall Quay 5 – Fast Ferry	18
Albert Quay – Ro-Ro	18
York Dock 1 and 2 (1×30 ton transporter crane)	24
Herdman Channel West – Unit load/Ro-Ro	18
Stormont Wharf 2 (200 tonne cantilever crane)	28
Pollock Dock 7 (1×35 tonne derrick crane)	28

Numerous general cargo berths and cranage from 3 – 15 tonnes.

Gatx Terminals Ltd. have constructed a bulk liquid terminal for the storage of petroleum, chemical products, etc. Special tankers ship liquid gas to the storage installation of Calor Kosangas (Northern Ireland) Ltd. and Flogas at Musgrave Channel.

STEVEDORES: Direct employment by private stevedores, 24 hours if required.

MEDICAL: All kinds of medical treatment are available. Agent should be given as much notice as possible for arrangements to be made.

TANKERS: Tankers have to observe (i) Chamber of Shipping Tanker Safety Code. (ii) The M.S. (Reporting Requirements for Ships carrying Dangerous and Polluting Goods) Regulations 1995. (iii) The Dangerous Substances in Harbour Areas Regulations (Northern Ireland) 1991.

Tanker Berths: Oil Berth No. 4 – 35 ft. Oil Berth No. 1 – 28 ft. Oil Berth No. 2 – 28 ft. Oil Berth No. 3 – 28 ft.

DENSITY: Average density of water in Inner Harbour is about 1012, and Outer Harbour is about 1024.

FRESH WATER: Available at almost all berths. Delivery is by hose at a rate of approx. 30 t.p.h. Arrangements can be made through Harbour Radio.

FUEL: All grades of fuel oil are available by road tanker only. 48 hours' advance notice of requirements should be given.

FIRE PRECAUTIONS: Special precautions for vessels carrying petroleum, explosives, calcium carbide and dangerous goods are set out in the appropriate by-laws. A copy of general port fire notice, delivered to all ships on arrival.

Also see "Tankers".

CONSULS:

Belgium	Hillsborough 682671
Denmark	Belfast 230581
Dominican Republic	Belfast 230321
France	Belfast 660325
Germany	Ballymena 41412
Greece	Belfast 242242
Italy	Belfast 778353
Netherlands	Belfast 243126
Norway	Belfast 242242
Spain	Belfast 227571
Sweden	Belfast 230581
Switzerland	Carrickfergus 61195
U.S.A.	Belfast 228239

REPAIRS: All types of deck and engine repairs are possible.
DRY DOCKS: Belfast Dry Dock, length of floor 1,100 ft. breadth of floor 167 ft., breadth of entrance 165 ft., level of sill 26 ft. 6 in. below datum.

Harland and Wolff Building Dock, length of floor 1,825 ft., breadth of floor and entrance 305 ft., level of sill 16 ft. 10 in. below datum.

Two other dry docks available.

GANGWAY/DECK WATCHMEN: Normally, a member of ship's company acts as watchman. Shore watchmen may be obtained through Agent.
OPENING/CLOSING HATCHES: By crew or stevedores.
CERTIFICATES: Register. Radio Certificate. Load Line Certificate. Safety Equipment Certificate. Safety Construction Certificate. Light Bills. Passenger Certificate if applicable. Chain Register. Derat Certificate.
CUSTOMS ALLOWANCES: Tobacco: 8 oz. tobacco are permitted per man and issues are made at 8 day intervals. Wine and/or Spirits: Wine, beer and spirit issues are made, in moderation, at 4 day intervals.
REPATRIATIONS: Crew may be changed and repatriations arranged. Immigration must be informed.
AIRPORT: Aldergrove Airport is approximately 17 miles from Belfast. There are daily flights to all parts of United Kingdom. Belfast City Airport has daily flights to many U.K. cities.
TIME: British Standard Time is kept, that is GMT plus 1 hour. Reverting to GMT in Winter months.
HOLIDAYS: Stevedore holidays are 1st January, 17th March, Easter Monday and Easter Tuesday, 12th and 13th July and 25th and 26th December.
POLICE/AMBULANCE/FIRE: All can be contacted by telephoning 999 and ask for services required. Additionally: Fire Brigade Belfast; Ambulance 241212; Harbour Police 232235; *or* through Belfast Harbour Radio on VHF Channel 12.
TELEPHONE: Telephone can be placed on board at certain berths.
SERVICES: All principal makes of radio, radar and gyro equipment can be serviced. Compass adjusting and D/F calibration can be carried out.

Charts and publications available from Class A Admiralty Chart Agent, Todd Chart Agency Ltd., 4 Seacliff Road, The Harbour, Bangor, County Down, BT20 5EY. Tel: (01247) 466640. Fax: (01247) 471070.

SHORE LEAVE: Normally no restrictions on shore leave.
IDENTIFICATION CARDS: Seamen's identity cards required.
GARBAGE DISPOSAL: Services available through local agent.
WASTE OIL DISPOSAL: Service available. Contact Capital Fuels Ltd., Ballynahinch, Co.Down. Tel: (01238) 561574. Fax: (01238) 561576.
SEAMAN'S CLUBS: Stella Maris (Residential), and Flying Angel. All services and facilities available.
GENERAL: *Charts:* B.A. No. 2198, 1753.
Pilot Books: NP40, Irish Coast Pilot.
Lights: Admiralty List of Lights, Volume A (NP74).
AUTHORITY: Belfast Harbour Commissioners, Corporation Square, Belfast BT1 3AL. *Tel:* (01232) 554422. *Telex:* 74204. *FAX:* (01232) 554411. *Contact:* Captain W.E. Luney, Harbour Master. G. Irwin, Chief Executive. I. Watson, Port Operations and Development Manager. W. Wilson, Port Services Manager.

BERWICK-UPON-TWEED: 55.46 N. 00.59 W.

(See Plan)

PORT LIMITS: One mile from Berwick Lighthouse.
DOCUMENTS: Usual U.K. requirements.
PILOTAGE: Compulsory for all vessels over 40 m. LOA.
ANCHORAGES: 8 cables E.S.E. from lighthouse.
MAX. SIZE: 110 m. LOA if fitted with bow thruster and 70 m. LOA if not fitted with bow thruster. Max. beam 17.0 m. Max. draft 4.6 m.
VHF: Forth Radio on Channel 24. Harbour Master on Channels 16 and 12.
TUGS: None available.
BERTHING: Tweed Dock: 3 berths (1×110 m., 1×100 m. and 1×90 m.).

Vessels take bottom on level mud bottom.

Stone Berth: Max. LOA 22 m.

Vessels take bottom on sandy bottom.

CRANES: 3×7 tonnes.
BULK CARGO FACILITIES: Bulk stone handling at Stone Berth, maximum 400 t.p.h.

4 elevators available for loading at Tweed Dock.

STEVEDORES: W. Lindsay & Co. (Stevedore Ltd.), 1 Dock Road, Tweedmouth.
MEDICAL: Hospital available locally.
TANKERS: No facilities available.
DENSITY: 1010 – 1025.
FRESH WATER: Available.
FUEL: Available by road tanker.
REPAIRS: Facilities available.
DRY DOCKS: None.
SURVEYORS: Available from Newcastle or Edinburgh.
GANGWAY/DECK WATCHMEN: Not available.
OPENING/CLOSING HATCHES: By ship's crew.
CUSTOMS ALLOWANCES: Usual U.K. allowances.
CARGO GEAR: Shore gear normally used.
REPATRIATION: Facilities available.
AIRPORT: Newcastle, 60 miles. Edinburgh, 60 miles.
EMERGENCY CO-ORDINATION CENTRE: Forth Coastguard.
TELEPHONES: Not available.
BANKS: All major U.K. banks.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: No requirements.
GARBAGE DISPOSAL: Collected from ship.
WASTE OIL DISPOSAL: Small quantities only.
SEAMAN'S CLUBS: None.
AUTHORITY: Berwick Harbour Commission, Harbour Master's Offic Tweed Dock, Tweedmouth, Berwick-upon-Tweed TD15 2A *Tel:* (01289) 307404. *FAX:* (01289) 306101. *Contact:* Capta J.H. Jenkinson, Harbour Master.

BIDEFORD: 50.01 N. 04.13 W.

(See Pla

PILOTAGE: Pilotage district of the port of Bideford lies within line dra 270° for 2 nautical miles from Baggy Point (Lat. 51° 09' Long. 04° 16' W.) thence 180° to the coast. Pilotage is compulsory all vessels over 350 g.r.t., except those exempted by law. Pilot boar at Bideford Bar, weather permitting. ETA 12 hours prior to arrival. Pi boat operates on VHF Channels 16 and 12.
ANCHORAGES: Weather permitting, 5 cables West of Bideford Fairw Buoy.
RESTRICTIONS: Tidal estuary protected by sand bar. Entry only flood tide.
MAX. SIZE: LOA 80 m., beam 12.0 m., airdraft 24.0 m., draft depen on height of predicted tide.
VHF: Pilot on Channels 16 and 12.
BERTHING: 2×82 m. length loading berths. Cargo handled: Bu fertiliser and clay.
CRANES: 2×3 ton capacity crawler cranes.
BULK CARGO FACILITIES: All cargo handled by 2 cranes.
BRIDGES: One road bridge, North of harbour. Airdraft 24.0 m.
STEVEDORES: Evans Transport, Pottington Industrial Esta Barnstaple.
MEDICAL: Bideford Hospital, 1 mile.
TANKERS: Tankers (LOA 70 m. × 12 m. beam and 1,600 d.w.t.) be at B.P.Yelland in the lower estuary on River Taw.

No tanker facilities in Bideford harbour.

DENSITY: Tidal river.
FRESH WATER: Available.
FUEL: Supplied by road tanker at quay.
REPAIRS: Facilities available.
SURVEYORS: M.S.A. Plymouth.
AIRPORT: Exeter, 40 miles.
TIME: GMT. GMT plus 1 hour in Summer.
HOLIDAYS: Normal U.K.
POLICE/AMBULANCE/FIRE: Dial 999.
BANKS: Main U.K. banks located in High Street.
GARBAGE DISPOSAL: Daily collection.
AUTHORITY: Torridge District Council, River Bank House, Bide Devon FX39 2QG. *Tel:* (01237) 476711. *FAX:* (01237) 478 *Contact:* R.J. Hopkins, Harbour Master.

BLYTH: 55.08 N. 01.30 W.

(See Pl

DOCUMENTS:
- Certificate of Registry.
- Load Line Certificate.
- Safety Radio Certificate.
- Safety Equipment.
- Safety Construction.
- Light Dues Payments.
- Customs Forms C13 and C142.
- Bills of Lading, Manifest and Stowage Plan usually sent in adv of vessel.
- List of Members of Crew (of ship arriving in U.K.) who are alie were engaged outside U.K. (Home Office Form I.B.6A). Pass form to be completed when reporting vessel's arrival from f ports.

PILOTAGE: Call by VHF Channels 12 and 16 when approxim 2 hours off port. Pilot boats have black hull with white superstru with word "Pilot" in black letters on the superstructure. Letters in Fly International Pilot Flag at masthead and at night show Interna Light Signals for pilot boat on station.

Vessel requiring Pilot sounds 2 short and 3 long blasts or e International Code Flag "G". By night flashes International Code S "G" or "PT". Pilot boats operate and will board within radius of 2 of East Pier Lighthouse, or further, weather permitting. Pilots bo Pier end area during adverse weather.

ANCHORAGES: No anchorages within harbour – in good w vessels can anchor off port East of Fairway Buoy.

RESTRICTIONS: No night restrictions. Entry according to draft. Channel dredged to 7.6 m. LAT and approaches 8.5 m. LAT. Upper River and South Harbour 6.7 m. LAT. Rise of tide 4.3 m. Springs, 2.1 m. Neaps.

MAX. SIZE: Bulk carriers up to 22,500 d.w.t. discharge at Alcan (U.K.) Limited Terminal. Max. draft 9.8 m. LOA 190 m.

For other berths max. length 190 m., draft 8.5 m.

HEALTH: International quarantine signals to be used. Pratique will be granted by Customs or Port Health Officer if Maritime Health Declaration is clean. If suspected diseases on board radio "Portelth Blyth" in advance advising details.

Also see "Health – All Ports" before first U.K. port.

RADIO: Cullercoats Radio, VHF Channel 26.

VHF: Details of movements within port given over VHF from Port Control Office (Tel: (01670) 352678). Calling Channel 16, working Channel 12.

TUGS: Normally join vessel at harbour entrance. Extra charge for use of tugs lines.

BERTHING: Alcan Bulk Alumina Terminal, dredged depth alongside 10.4 m. LAT. Alcan is offering the use of its ship unloading terminal at Blyth Harbour to other firms requiring bulk cargo unloading facilities.

North Quay, South Harbour, depth alongside 8.5 m. LAT.

Coal-loading berths and waiting berths, 5.2 m. to 8.5 m. LAT. West Quay, dredged depth 7.0 m. LAT (Sto-Ro/Ro-Ro Terminal "Blyth Progress"). South Side Berths, dredged depth 8.6 m. LAT. Wimbourne Quay (Sto-Ro Terminal – "Link Blyth" – Pontoon) dredged depth 6.7 m. LAT.

STEVEDORES: Blyth Harbour Commission, Traffic Department, South Harbour, Blyth. Tel. (01670) 352066. ETA requested day before arrival.

MEDICAL: Notice not necessary but advisable. Hospital facilities available. Inoculation, vaccinations and/or certificates not specifically required.

DENSITY: Sea water. Fresh water effect negligible.

FRESH WATER: Obtainable from shore hydrants. Rate of delivery varies from 10 t.p.h. – 50 t.p.h. according to location.

FUEL: Not available.

CONSULS: (At Newcastle-upon-Tyne) Denmark, Norway, Netherlands.

REPAIRS: All types of deck and engine repairs possible.

GANGWAY/DECK WATCHMEN: Not usually employed as these duties are carried out by the crews.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: Tobacco: 50/250 grammes. Wine/Spirit: Wine up to 0.75 litres. Spirits up to 0.375 litres.

REPATRIATION: Can be arranged by H.M. Immigration Office, Blyth.

AIRPORT: 24 km. Served by regular airlines.

TIME: BST is GMT plus 1 hour. GMT in Winter months.

HOLIDAYS: Christmas Day; New Year's Day; Good Friday; Easter Monday; May Day (first Monday in May); Spring Bank Holiday (last Monday in May) and Late Summer Holiday. Cargo work can be arranged on these days by request.

POLICE/AMBULANCE/FIRE: Tel: 999.

TELEPHONES: Can be fixed aboard by arrangement.

IDENTIFICATION CARDS: Seaman's Book or Passport desirable.

GARBAGE DISPOSAL: Disposal skips are provided on BHC general cargo quays, for ships domestic garbage. Arrangements for other garbage should be made direct by agents or through the port authority for a contractor. As a guide, the undermentioned contractors have indicated an interest in contracting their services: T.James (Bedlington) Ltd., West Sleekburn, Northumberland NE22 7DJ (Tel: (01670) 823153) and Hargreaves Clearwaste Ltd., Newtown Industrial Estate, Birtley, Chester-le-Street, Co. Durham, DH3 2QN (Tel: (0191) 4106621).

WASTE OIL DISPOSAL: The following companies are willing to undertake the collection of waste oil and oily waste from vessels. Arrangements for these services can be made through the local ship's agencies:

Cleanaway Ltd., Waste Services Division, Service Centre, Meadowfield, Ponteland, Newcastle upon Tyne, NE20 9SN. Tel: (01661) 72640.

Hargreaves Clearwaste Ltd. Environment & Construction Materials Division, Newtown Industrial Estate, Birtley, Chester-le-Street, Co. Durham DH3 2QN. Tel: (0191) 4106621.

Effluents Services Ltd., 140 Moss Lane, Macclesfield, Cheshire, SK11 7YT. Tel: (01625) 29666.

SEAMAN'S CLUBS: None.

CURRENCY: U.K. Pound (U.K.£).

AUTHORITY: Blyth Harbour Commission, 79 Bridge Street, Blyth, Northumberland NE24 2AW, United Kingdom. *Tel:* (01670) 352066. *FAX:* (01670) 368540, 355169. *Contact:* I. Robertsham, Chief Executive. M. Lawlor, Commercial Director.

BOSTON: 52.58 N. 00.01 W. (See Plan)

DOCUMENTS: Usual U.K. requirements.

PILOTAGE: Compulsory for all vessels greater than 50 g.r.t. Pilot boards at Clay Hole from launch in the approaches to River Witham or at Boston Roads (non-compulsory). Pilot Office Tel: (01205) 362114.

ANCHORAGES: Vessels awaiting tide anchor to South of Buoy No. 9 in depths of 7.3 m.

Anchorages available in Boston Deeps, depths 5.5 m. to 9.1 m.

RESTRICTIONS: Entrance to dock normally restricted to 2.5 hours before and 1.5 hours after HW.

Lock Dimensions: Lockable length 88.0 m., width 13.6 m., depth on sill 5.4 m. MHWN; 7.5 m. MHWS.

Sill clearance of 1.5 m. normally required.

MAX. SIZE: Dock: Length 100 m. Riverside quays: Length 90 m. Larger vessels may be accepted, tides permitting.

HEALTH: Normal U.K. procedure. Port Health Officer, Tel: (01205) 363271.

VHF: Port radio station maintains VHF watch (Channels 16 and 12) during office hours and from 2.5 hours before till 1.5 hours after HW.

TUGS: 1 tug available, 7 tons bollard pull.

BERTHING: *Boston Dock:*

North Quay: Length 251 m.

South Quay: Length 257 m. Transit shed 2,787 sq.m.

West Quay: Length 137 m. Transit shed 2,160 sq.m.

Two Ro/Ro ramps.

Riverside Quay: Length 750 m. Transit shed 1,765 sq.m. Berths dry out at LW.

CRANES: At Boston Dock:

3×6 tonnes electric portal cranes.

1×25 tonnes Scotch Derrick.

3 mobile cranes.

1 Gottwald mobile heavy lift crane (50 tons).

At Riverside Quay: 1×7.5 tonnes electric portal crane.

Forklifts available at both Boston Dock and Riverside Quay.

BULK CARGO FACILITIES: Two silos, each capable of storing 5,000 tonnes.

(i) Banks Silos at Riverside Quay, with 2 loading towers.
(ii) Witham Wharf, opposite Riverside Quay. Privately owned.

Lingrain Silos: There is a 46,000 tonne grain silo adjacent to Dock and connected to North Quay. Mobile shiploaders available.

SPECIALISED CARGO-HANDLING FACILITIES: Containers are discharged at South Quay, using a 25 tonne Scotch Derrick and by a 35 ton container gantry on the North Quay. 20 ft. and 40 ft. containers are handled.

Container handling yard (2.1 ha.) with two reach stackers.

BRIDGES: A power cable with 150 ft. vertical clearance exists to East of lock.

STEVEDORES: Several local companies can supply stevedores.

MEDICAL: Doctors, dentists and hospital available locally.

FRESH WATER: Available.

FUEL: Available from road tankers. Contact Agents to make arrangements.

CONSULS: Denmark, Vice-Consul; Netherlands, Vice-Consul; and Norway, Vice-Consul.

REPAIRS: Can be undertaken by local companies.

CUSTOMS ALLOWANCES: Usual U.K. Regulations. H.M. Customs, Tel: 01205-363070.

TIME: GMT; Summertime kept from late March – late October (GMT plus 1 hour).

POLICE/AMBULANCE/FIRE: Dial 999 for emergency service.

GARBAGE DISPOSAL: MARPOL skips situated on dock. Larger quantities by arrangement with the port.

WASTE OIL DISPOSAL: By arrangement with Orcol (Tel: (01532) 533571) or Hall & Campy, Nottingham (Tel: (01602) 780321).

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Port of Boston Ltd., Dock Office, Boston PE21 6BN. *Tel:* (01205) 365571. *FAX:* (01205) 310126. *Cables:* Neptune, Boston. *Contact:* Captain B.D.C. Franklin, Harbour Master. Tel: (01205) 362328 (direct). J.S. Sutcliffe, Managing Director. J. Healy, General Manager.

BRAEFOOT BAY: 56.02 N. 03.19 W. (See Plan)

Braefoot Bay Marine Terminal is a facility shared between Exxon Chemical Olefins Inc. and Shell U.K. Exploration and Production, as the shipping point for the products of the Mossmorran gas fractionation complex situated approximately 7 km. inshore from the Terminal. The Terminal is located on the Fife Shore of the River Forth between the communities of Dalgety Bay and Aberdour and is separated from the main shipping fairway by the Island of Inchcolm.

The Eastern jetty is operated by Exxon Chemical Olefins Inc. and exports Ethylene, Gasoline and Pentane Plus products in ships between 4,000 cu.m. and 12,000 cu.m. capacity and gasoline in ships up to 20,000 tonnes S.d.w.t. and not exceeding 165 m. LOA.

The Western Jetty is operated by Shell U.K. Exploration and Production for the export of propane, butane, and natural gasoline in ships of up to approximately 60,000 cu.m. Ships of less than 15,000 cu.m. may be accommodated by special arrangement, provided their moorings are suitable and their manifolds are compatible with the loading arm envelope.

Each jetty carries out loading operations independently, while the co-ordination and administration of marine activities is the responsibility of the Braefoot Bay Supervisor who is the local senior representative for Braefoot Bay Marine Terminal appointed by Shell U.K. Exploration and Production and acting on behalf of itself and Exxon Chemical Olefins Inc. with direct responsibility for the Management of all ship-related activities at Braefoot Bay.

The products from Mossmorran are Ethylene, Propane, Butane, Gasoline and Pentane Plus products, of which the Ethylene and Pentane Plus product are manufactured and handled over the Eastern Jetty of the Terminal by Exxon Chemical Olefins Inc., while the other products are handled by Shell U.K. Exploration and Production over the Western Jetty of the Terminal. Shell U.K. Exploration and Production also have the facility to export Gasoline across the Eastern Jetty.

DOCUMENTS: See "Leith".

APPROACHES: "General Directions for Navigation in the River and Firth of Forth" are published by the Forth Ports PLC and administered by the Forth Navigation Service. Vessels entering or navigating the Forth must notify Forth Navigation Service 24 hours before entering and 1 hour before leaving a berth, of their proposed intentions and obtain subsequent clearance to carry out such intentions. Forth Navigation Service can be contacted on VHF Channels 6 and 71, with working Channels 2 and 20.

PILOTAGE: Pilotage is compulsory for all vessels calling at or sailing from Braefoot Bay Marine Terminal.

Pilots are authorised by the Forth Pilotage PLC and must be ordered for both inward and outward passages through the ship's agent.

Vessels bound for the Forth must give 4 hours' notice of ETA and should confirm their ETA 2 hours before arrival at Pilot Station.

Pilots may be contacted by calling "Forth Pilots" on VHF Channel 71 and working on VHF Channel 72.

ANCHORAGE: Vessels requiring anchorage in the Forth Estuary (other than in emergency) should apply to the Forth Navigation Service (Harbour Master) for direction to a designated anchorage.

RESTRICTIONS:

(a) All movements are subject to the directions of the Forth Navigation Service.

Pilotage is compulsory for all ships arriving at, or departing from Braefoot Bay Marine Terminal.

Pilotage Exemption Certificates are not acceptable at Braefoot Bay Marine Terminal.

(b) (i) *Vessels will not be berthed if the weather as forecast by Glasgow Weather Centre over the planned time alongside indicates sustained wind speeds of 45 knots or more.*

(ii) *Vessels are not allowed to berth at the Braefoot Bay jetties if the mean wind speed exceeds 27 knots. Vessels will not sail if the wind speed exceeds 27 knots. However, if the forecast is for the wind to increase to greater than 50 knots, the berths may be cleared following consultation with the Chief Harbour Master.*

(iii) *Vessels will not be accepted for berthing at Braefoot Bay and departures will not be authorised unless visibility is at least half a nautical mile at the Braefoot Bay jetties.*

(c) In accordance with the agreement of the Terminal and Forth Ports PLC, the following directions for Navigation apply or as advised by the Terminal from time to time:

(i) All vessels may approach and depart from the Terminal via the Eastern or Western Channel of Mortimers Deep. Those vessels approaching from the East will berth starboard side alongside on the ebb tide, whilst vessels approaching from the West berth, port side alongside on the flood tide. Berthing and sailing times are dependent on the tidal range.

(ii) A 2.0 m. under-keel clearance along the intended ship's track should be maintained. Vessels may sail at any state of the tide, provided a minimum calculated under-keel clearance of 2.0 m. is available. An allowance for 30 minutes passage time between berth and Bar on a rising tide and 1 hour passage time on a falling tide should be allowed for Easterly departures.

(iii) On arrival at the pilot station, anchors should be cleared and at least two crew members standing-by on stations. On departure, anchors should be cleared and at least two crew members should be on station both forward and aft until the tug has finally departed.

(iv) No two ships are to move in Mortimers Deep at the same time.

(v) A minimum separation distance of 50 m. is to be maintained for ships passing one already alongside the other berth.

(vi) If a vessel is berthed starboard side alongside, she will in general depart to the West, and if berthed port side alongside, she will generally depart to the East. However, where a swing off the berth is required, it shall be done under the following conditions:

All vessels over 145 m. LOA requiring to swing off the berth shall have a minimum of two tugs.

Vessels over 185 m. LOA can only swing off the berth after consultation and agreement between Forth Ports, the Duty Pilot and the Braefoot Bay Ship Scheduler.

(vii) Vessels departing to the West shall maintain a 2.0 m. under-keel clearance.

(viii) When the Shell Jetty is occupied, a vessel over 145 m. LOA berthed on the Exxon Jetty shall not depart to the West on a flood tide.

(ix) Vessels over 145 m. LOA require 2 tugs for departure to the West.

(x) Where possible and when the mean winds exceed 20 knots, consideration will be made for berthing vessels head to wind and tide.

Also see "Regulations".

MAX. SIZE: Western Jetty: Depth 15.0 m. Eastern Jetty: Depth 10.0 m. Eastern exit channel bar depth (Hawkcraig Point leading line) – least depth by sounding 9.5 m., swept depth 8.5 m. below chart datum.

HEALTH: See "Health – All Ports" before first U.K. Port.

RADIO: *Pre-arrival information:*

Masters must send ETAs at least 72 hours in advance of arrival and thereafter advise of any variation of more than 12 hours.

Confirmation ETA should be sent at least 24 hours in advance of arrival and thereafter advise of any variation of more than 4 hours. (When voyage duration is less than 72 hours, Masters should send ETA as soon as possible.)

A standard pre-arrival message will be sent to each gas carrier requesting the following information/confirmation. A similar message, excluding items (l) to (s) will be sent to Gasoline Tankers.

(a) Advise any defect in your vessel or equipment that may affect cargo operations or manoeuvrability.

(b) Confirm vessel has full P & I Club cover.

(c) Confirm (if fitted) that Bow (and/or) Stern Thrusters are operational and fully submerged.

(d) Last port of call.

(e) Last 3 cargoes. Last: 2nd Last: 3rd Last:
Bottom temperature of each tank, for LPG cargo.

(f) Amount and grades of any cargo required.

(g) Anticipated maximum loading rate and the arrival tank botto temperature.

(h) Anticipated loading time.

(i) Arrival drafts.

(j) Sailing drafts.

(k) Confirm that only clean segregated ballast will be discharged a the Terminal.

(l) Confirm that remotely-operated valves have been operated through a complete open/closed cycle to ensure prope functioning and ascertain valve type (Ball, Gate, etc.) and actua valve closing time.

N.B. *Remote valves must close within 30 seconds o operation but so that the final 20% of valve movemen takes at least 6 seconds.*

(m) Gas detection system is operational and set (high or low sensors) Calibrated for the cargo to be loaded.

(n) Cargo transfer emergency stops tested from all locations t ensure correct operations of valves, alarms and interlocks.

(o) Ensure operation of the Tank high level and pressure alarms and interlocks.

(p) Where adjustable setting safety valves are installed, confirm they are set for the cargo to be loaded.

(q) Confirm fire-fighting equipment, including water spray system fully operational and tested. Ship's fire main to be pressurised whilst alongside at Terminal.

(r) Manifold configuration and presentation (forward to aft), e.g LVVL. It is most important that the specific duty (Ethylene Propane, etc., liquid or vapour service) of each presentatio flange is known to the Terminal at least 24 hours prior to the ship's arrival. Vessels should arrive alongside with the correct size spoo pieces fitted to allow immediate connection of the loading arms Delays consequential on non-compliance with this requiremen will be for ship's account.

(s) If loading more than one grade, confirm that both can be loade concurrently.

N.B. *Vapour samples taken on arrival. Masters must ensu all tanks have positive pressure.*

(t) FOR FIRST TIME CALLERS – MANIFOLD CONFIGURATIO

(i) Size rating and standard of connecting flanges, e.g 12 in. ANSI 150/8 in. ANSI 300/6 in. ANSI 300/10 i ANSI 300.

(ii) Distance of manifold centre line from bow.

(iii) Height above uppermost continuous deck.

(iv) Distance of manifold from ship's side.

(v) Maximum loaded draft.

(vi) Minimum draft whilst at berth.

(vii) Distance from face to first retaining bracket (maximu acceptable is 1,200 mm.).

(viii) Height of manifold above keel.

(ix) Distance between manifold flange centres.

(u) Details of *any defects in vessel or equipment* affecting carg operations or manoeuvrability or confirmation that there are n known defects.

(v) Slip tubes must not be operated without prior written agreeme from the Terminal.

(w) Confirm that the minimum mooring deployment will be as th mooring analysis information supplied by the Terminal.

(x) To allow the Terminal to monitor ships navigational standar within pilotage waters, Masters are required to ensure charts us during pilotage showing courses and position fixing througho the pilotage are available for Terminal inspection until 4 hou after berthing.

(y) Masters of gas carriers and tankers berthing at and sailing fr Braefoot Bay Terminal should have anchors cleared and rea for letting go prior to arrival at the pilot station and upon depart the berth. Additionally, at least two crew members should be station both forward and aft, on arrival prior to entering Mortim Deep and on departure, until the final tug has been dismissed

(z) Confirm SIGGTO link for ship/shore shut-down, if fitted operational.

Notes: The foregoing information is required in addition to the p arrival information requirements of the Forth Ports PLC, the Merch Shipping (Reporting Requirements for Ships Carrying Dangerous Polluting Goods) Regulations 1995 and Merchant Shipping No M1630.

Condensate Tankers fitted with Inert Gas systems are to arrive t inerted (oxygen content below 8%) ready to load as inerting of ca tanks is not permitted alongside.

Under Forth Ports guidelines, Tanker Masters are advised that Authority does not permit tank washing and/or other like operation illicit discharges to take place within port limits. Masters of liquefied carriers are advised that the Authority does not permit venting of ga atmosphere while the vessel is within port limts.

Failure to send this message may result in the vessel being dela outside port limits.

Telex: A telex machine is sited at Braefoot Bay. The number is 728 MOSHIP G and is operable 24 hours per day. This telex number sh be used when relaying ETA, pre-arrival or other information relat expected loading. Otherwise messages should be transmitted thro the ship's agent.

FAX: A facsimile machine is also available at Braefoot Bay. The number is (01383) 892100.

VHF: "Braefoot Terminal" maintains a listening watch on VHF fro least 3 hours before a vessel's berthing time until clear of port lim departure on Channel 16 and may work on Channels 10, 12, 1 48, 69 or 73. (Channel 69 is the normal working Channel for Bra Bay Marine Terminal). Vessels at other times may establish ne communication with Braefoot Bay Marine Terminal via Forth Navi Service or ship's agent.

RADAR: Port and Estuary Radar Service operated by Forth Navigation Service. (See "Leith").

TUGS: Only tugs licensed by the Forth Ports PLC to operate at Braefoot Bay Marine Terminal may do so. Tugs are available, provided 24 hours' notice of requirement is given through the ship's agent to Forth Estuary Towage Ltd.

The Companies reserve the right to suspend berthing/unberthing operations if, in the reasonable opinion of the Braefoot Bay Supervisor, vessels have not obtained adequate tug attendance. Delay costs incurred from such suspension will be for the vessel's own account.

Availability of tugs is assured by Forth Estuary Towage Ltd., provided at least 24 hours' notice of requirements is given in accordance with the agreed ordering and call-out procedures set out in the published Tariff. Tug orders placed through ships' Agents are to Forth Estuary Towage Ltd., Leith. 24 hours' notice of towage requirements is necessary for programming tug commitments and obtaining priority for service. In the event of ship delays within the 24 hours' notice period, cancellation or ETA adjustment for service previously ordered will not be subject to charge, provided that adjustment notice is received during normal working hours and that the tugs have not left their normal berths to attend on the vessel's original order.

The tugs available are as follows:

1×12 tonne bollard pull Voith Schneider.
2×19 tonne bollard pull Voith Schneider.
1×30 tonne bollard pull Voith Schneider.
1×50 tonne bollard pull Voith Schneider.

Minimum Requirements: As a guide to ordering in advance and to avoid delays it is strongly recommended that the following table is regarded as minimum requirements for tug assistance:

East Jetty Towage Requirements:

LPG Carriers:

	Under 4,000 cu.m.	Over 4,000 cu.m. with Bow Thruster	Over 4,000 cu.m.
Berthing	1 × Small	1 × Small	2 × Small
Sailing	1 × Small	1 × Small	2 × Small

Condensate Carriers with Bow Thruster:

	Under 20,000 S.d.w.t.	Over 20,000 S.d.w.t.
Berthing	1 × Small	2 × Large
Sailing	1×Small (12 ton B.P.)	1 × Large

Condensate Carriers without Bow Thruster:

	Max. 20,000 S.d.w.t.	Over 20,000 S.d.w.t.
Berthing	2 × Small	2 × Large
Sailing	2 × Small	2 × Large

Western Jetty Towage Requirements:

LPG Carriers:

	Under 16,000 cu.m.	16,000 – 40,000 cu.m.	Over 40,000 cu.m.
Berthing	2 × Small	2 × Large	3 × Large
Sailing	2 × Small	2 × Large	2 × Large

All Berthings and Sailings are classed as Full Towage.

Condensate Carriers with Bow Thrusters:

	Under 20,000 S.d.w.t.	Over 20,000 S.d.w.t.
Berthing	1 × Small	2 × Large
Sailing	1 × Small	1 × Large

Condensate Carriers without Bow Thruster:

	Under 20,000 S.d.w.t.	Over 20,000 S.d.w.t.
Berthing	2 × Small	2 × Large
Sailing	2 × Small	1 × Large

All vessels over 145 m. LOA require 2 tugs for a departure to the West and swinging off the berth.

Tugs attending vessels will normally rendezvous with arriving ships North of Inchkeith Island, and also escort departing vessels to Buoy No. 9. Tugs will make fast East of the Oxcars when approaching from the West and Braefoot Buoys No. 1 and 2 when approaching from the East.

At all times that the vessel is alongside the berth, a harbour tug will be in attendance. This tug will be moored at its dedicated buoy, 1 mile to the East of the Terminal. In the event of adverse weather with wind speeds above 35 knots, the tug will be called upon to provide assistance as required. A Pilot will also be called to attend the vessel.

Out of hours and in emergency, tugs may be contacted through the Forth Navigation Service Duty Officer on VHF Channel 16, or direct on Channel 71.

Procedure for Stand-by Tug at Braefoot Bay: A minimum of one tug will be in attendance at Braefoot Bay whenever there is a vessel on either jetty. The tug will be moored to a specially laid mooring buoy situated to the South of the Eastern exit channel between Buoys No. 4 and No. 6, maintaining a listening watch on VHF Channel 69. Alternatively in the case of a heavy Easterly swell, the tug may moor to an Admiralty buoy off Dalgety Bay.

Vessels will not berth if forecast winds for the duration of the stay alongside indicates sustained wind speeds of 45 knots or more. If forecast wind speed exceeds 30 knots, then extra moorings, i.e. extra stern lines and forward spring, will be deployed on arrival at the Terminal.

Trigger Points for Action: These are based on a vessel already alongside the Terminal, with action to be taken when the actual sustained wind registered on the jetty wind anemometer or forecast wind as indicated in the following:

Wind Speed:	Action to be taken:
30 knots actual	Tug on stand-by. If additional moorings not deployed at time of mooring, ship will be requested to run out extra moorings as required.
35 knots actual	Tug will be requested to come alongside vessel after loading has stopped. Pilot will be called out.
40 knots actual	Request tug to push "on" vessel. Pilot on board.
50 knots actual	Discuss with Braefoot Bay Supervisor sailing/re-berthing intentions.

Boatmen: Only boatmen licensed by the Forth Ports PLC and approved by the Companies to do so may operate at Braefoot Bay Marine Terminal. Mooring boats will be available provided 24 hours' notice of requirement for berthing and reasonable notice of unberthing is given through ship's agent to the Mooring Contractor.

Pre-ordered mooring boats and mooring crews will be in attendance at the terminal 30 minutes in advance of the arranged berthing/departure time and can be contacted on VHF Channel 69.

Cancellation charges will be levied in the event of less than 3 hours' notice being given for amendments to previously confirmed berthing/sailing arrangements.

MOORING:

(a) All vessels will be subject to a computer mooring analysis to prove the required integrity of the mooring arrangements. This will be carried out by Braefoot Bay Marine Terminal. Every vessel will be required to deploy a minimum of 7 lines at each end.

If a vessel has a cubic capacity of greater than 39,000 cu.m., this analysis must be carried out prior to the vessel being accepted by the Terminal.

If a vessel has a cubic capacity of less than 39,000 cu.m., she may berth prior to the results of the analysis being known. In this interim period, the vessel will be required to deploy 6 head/stern lines, 2 breast lines and 3 springs at her Western extremity and 4 head/stern lines, 2 breast lines and 3 springs at her Eastern extremity.

Once the mooring integrity has been proven by the analysis, the vessel will be supplied with a copy of the required mooring pattern. The vessel will then be required to deploy her moorings as per this analysis. This mooring pattern is only permitted so long as the vessel complies with the lines and leads used in the mooring analysis. If the Master wishes to deviate from the mooring pattern upon which the analysis was carried out, he must first obtain the express permission of the Terminal and the Harbour Master. It must be stressed however, that permission would not normally be granted. Masters may increase the number of moorings to their requirements, over and above those required by the Terminal.

All mooring lines should be in good condition and without splices in their working length. Mooring ropes should be turned up on the bitts in the figure of eight style.

Masters should not hesitate to increase the number of moorings if the weather is forecast to deteriorate.

Mooring wires/ropes must be spooled in the correct direction on the winch drum, ropes made fast on the drum ends backed up on bitts are not acceptable.

(b) Mooring lines used in any particular direction of service (head/stern lines, breast lines, springs) shall be of similar breaking strength, elasticity and material. Under no circumstances will a mixture of wire and synthetic ropes in the same direction of service and to the same dolphin be acceptable, except moorings additional to the requirements of (a) above.

(c) If conditions as in (a) cannot be complied with, the loading arms will not be connected.

(d) Once moored, ship's winches must be secured with the brakes hardened up. Winches must not be left on Automatic Tension.

Winch brakes should be tested as per OCIMF Guidelines and Recommendations, which states that they should be tested individually every two years or after completion of any modification or repair involving the winch brakes, or upon any evidence of premature brake slippage or related malfunctions. The Braefoot Bay Supervisor may ask to see records to confirm that such test have been carried out.

(e) Masters of vessels are responsible for ensuring that:

(i) their vessels are safely secured in accordance with the preceeding paragraphs.
(ii) a strict watch is kept on the vessel's moorings and that they are tended as required to prevent slack or overtaut lines and undue movement of the vessel.
(iii) their vessel's mooring ropes or wires are secured only to the proper fixtures provided for that purpose, additionally fixed moorings are correctly wound onto the winch drums.
(iv) sufficient persons are on duty to attend moorings whilst vessel is alongside.

(f) Whilst not removing the responsibility from the Master of ensuring that his vessel is securely moored, regular checks on moorings will be undertaken by the Braefoot Bay Supervisor, accompanied by a Ship's Officer.

(g) Failure of vessels to adequately tend to moorings will be considered as a breach of the Jetty Regulations.

BERTHING: *Pre-Operations Meeting and Inspection:*

Before any ship operations commence, a meeting will take place between the Braefoot Terminal Supervisor and the Ship's Master (or his authorised deputy). They will:

(a) Complete/carry out the ship/shore Safety Check Lists and Safety Inspection in accordance with the O.C.I.M.F. Standards.

(b) Discuss any deficiencies shown up by (a) above and agree any additional precautions required. The terminal reserves the right to refuse to load or discharge a vessel if the required standards are not met.

(c) Complete a loading/discharge plan that includes:

Connecting/disconnecting procedures
Quantities and grades of cargo to be loaded/discharged
Loading/discharge rates (See "Loading" – Pressure Surges)
Deballasting procedure (See "Ballast")
Vapour return procedure
Cargo line cooldown procedures.
Maximum permitted pressure at ship's rail
Location of Emergency Stop Buttons/use of Shore ESD Pendant.

Ensure that ship has on board data sheets for product being handled

Emergency Procedures (See "Safety").

Assigned smoking areas.

Static precautions.

(d) Check the previous cargo record (last 3 cargoes) and agree that ships' tanks are ready to receive product.

The Companies reserve the right to:

(i) Sample and analyse the condition of ships' tanks or quality of cargo and ballast tanks before commencing to load or discharge.

(ii) Instruct a third party independent surveyor for the sampling and measurement of cargo and/or tanks, the costs of which will be for the account of the Jetty Operating Company.

(iii) Place approved portable equipment on board as required for sampling, testing or communication purposes during loading/discharging operations.

(iv) Refuse to load product and/or accept return vapour when ships' tanks are not within specification for product to be loaded.

(e) The Master shall certify that, in accordance with the cargo plan of operation that has been tabled and discussed, the stress on the vessel's hull will not exceed tha maximum permissible level by the Classification Society and that she will have adequate stability throughout to leave the berth at any time.

BERTHING FACILITIES:

Western Jetty:

Jetty Operating Company: Shell U.K. Exploration and Production.

Manifold Limitations:

LPG/GASOLINE 12 in. 150 ASA flanged presentation arms:

Manifold flange set back from Ship side (m.)	*Manifold height above waterline* *Maximum* (m.)	*Minimum* (m.)
9.6 – 3.0	19.65	5.15
2.7	13.00	5.15
2.0	8.00	5.15

For multiple 12 in. arm connections, centre-to-centre distances for adjacent connections are minimum 1.3 m. and maximum 3.0 m.

For connection to 8 in. flange manifold, maximum allowable manifold height above waterline is 12.8 m.

LPG 8 in. 300 ASA flanged presentation arms:

Manifold flange set back from Ship side (m.)	*Manifold height above waterline* *Maximum* (m.)	*Minimum* (m.)
8.6 – 2.0	11.15	1.95

For connection of 2×8 in. arms, centre-to-centre distances for adjacent connections are minimum 0.75 m. and maximum 2.5 m.

N.B. For connection to any arm: Distance between ship's outboard presentation flange and the ship's first manifold piping restraining bracket must not exceed 1,200 mm. to prevent cantilever overstressing of ship's manifold pipework.

Berth Limitations: Maximum LOA 210 m., vessels over 39,000 cu.m. must have had a satisfactory Mooring Analysis carried out by Braefoot Bay Marine Terminal before being accepted as suitable for loading.

Minimum acceptable dimensions are: From mid-point of manifold to bow – 50 m.; from mid-point of manifold to stern – 60 m., provided that adequate moorings can be deployed and the vessel can comply to OCIMF mooring standards.

Product Loading and Vapour Return Facilities: Marine loading arms are capable of liquid or vapour service. Arrangement of loading arms is as follows when viewed from seaward:

West <——> East

Arm No.	7	4	3	2	1	6	5
Size (in.)	8	12	12	12	12	8	8
ASA	150	150	150	150	150	300	300
Duty	Unused	Butane or Gasoline	Butane or Gasoline	Propane	Propane	Butane or Propane	Butane or Propane

Only one loading arm can be designated for liquid duty for each product loaded. Provided vessel's manifold arrangement is suitable, propane and butane may be loaded simultaneously using 12 in. loading arms. For LPG loading, 2 arms will be connected for each product, one for liquid duty and the other for vapour return.

The following loading rates are available:

LPG via 12 in. arm	3,000 cu.m./hr.
LPG via 8 in. arm	1,100 cu.m./hr.
Gasoline via 12 in. arm	2,000 cu.m./hr.

LPG Loading: Product will be delivered to ships in a fully refrigerated state, i.e. Propane −42°C and Butane −4°C.

The operating company, at its sole discretion, will accept vapour return to storage, always subject to quality being acceptable to the company. Vapour samples will be taken from ship's tanks on arrival. Masters must be sure of positive pressure, and provided the following specification is not exceeded, then vapour return to storage will normally be authorised.

(i) 0.3% vol. oxygen
(ii) 0.5% vol. non-condensable gas
(iii) 0.5% vol. propylene
(iv) 0.1% vol. butadiene
(v) 1.0% vol. nitrogen
(vi) 10 ppm ammonia
(vii) 10 ppm VCM
(viii) 5 ppm water vapour
(ix) 1 ppm H_2S
(x) 50 ppm methanol
(xi) 100 ppm acetone

Acceptance for vapour return to storage does not imply ship's tanks are suitable for loading from a commercial cargo contamination point of view.

In an emergency or in exceptional circumstances, the use of the shore vapour system to the flare will be permitted for a very limited period to prevent possible venting of cargo vapours to atmosphere. Under n circumstances may the shore vapour system be used if the oxyge content of the vapour contained within the ship's tanks exceeds 4 volume.

Eastern Jetty:

Jetty Operating Company: Exxon Chemical Olefins Incorporated.

Manifold Limitations:

Ethylene: 6 in. 300 ASA flanged presentation arms:

	Max. (m.)	*Min.* (m.)
Manifold height above waterline	11.2	2.75
Manifold set back from ship side	4.6	0.85

For connection of 2 arms, the minimum centre-to-centre adjace connection distance is 0.75 m. and the maximum distance is 1.5 m.

Vapour Return Requirements: Vapour return arm will be connecte before loading operations commence to enable vessels to return vapou to storage tanks or flare. Vapour return may go to flare, always provide the oxygen content of such vapour to flare does not exceed 2.0% b volume maximum, as may be established under the pre-operation meeting/inspection.

Exxon Chemical Olefins Inc., at its sole discretion, may accept vapou return to storage, always subject to the quality being acceptable to Exxo Chemical Olefins Inc. and provided that the last cargo was Ethylene o that the vessel has been purged with Ethylene vapour to the satisfactio of Exxon Chemical Olefins Inc.

Specification for ship's vapour for return to Shore Storage Tanks:

(i)	Ethylene	99.90 min. Mol %
(ii)	Methane and Ethane	1,000 max. Mol ppm
(iii)	Ethane	500 max. Mol ppm
(iv)	Hydrogen	10 max. Mol ppm
(v)	Propylene and Heavy Hydrocarbons	10 max. Mol ppm
(vi)	Acetylene	5 max. Mol ppm
(vii)	Carbon Monoxide	2 max. Mol ppm
(viii)	Carbon Dioxide	5 max. Mol ppm
(ix)	Oxygen	5 max. Mol ppm
(x)	Sulphur	2 max. Mol ppm
(xi)	Ammonia	1 max. Vol ppm
(xii)	Nitrogen	100 max. Vol ppm
(xiii)	Water	10 max. Wt ppm
(xiv)	Solvents	10 max. Vol ppm
(xv)	Oil	Negligible Vol ppm

However, Exxon at its sole discretion may accept vapour return fro any vessel to shore storage provided that the quality of such vapou return is acceptable to Exxon. When appropriate, ships returning vapou to shore storage will be automatically credited for such returns.

Ethylene Loading/Vapour return rates available to ships are, via 6 i loading arms, upto 460 cu.m./hr.

Note: Ethylene is delivered to ships in fully refrigerated sta i.e. approximately −101°C.

There are no cargo heating facilities at this Terminal.

Gasoline/Pentane Plus Product: 1×10 in. 300 ASA flanged presentati arm with a piggy back 6 in. vapour return line suitable for loading gasoli and Pentane Plus Product.

10 in. × 300 ASA – 6 in. 150 ASA
10 in. × 300 ASA – 4 in. 150 ASA

	Max.	Min.
Manifold height above waterline	16.5 m.	1.45 m.
Manifold set back from ship side	4.6 m.	0.85 m.

Maximum loading rate for Gasoline 2,000 cu.m./hr.

Maximum loading rate for Pyegas 550 cu.m./hr.

LOADING:

Marine Loading Arms: All products are delivered to ships via mar loading 'hard arm' units which are individually fitted with Emergen Release Systems (ERS).

The emergency release systems consist of 2 ball valves located abo the presentation flange. Only after closure of the ball valves, will t hydraulic clamp between the ball valves open, leaving one ball va closing off the ship's manifold and the other closing off the loading a The loading arm then returns to a position clear of the vessels's manif

On hearing 'ERS' alarm (an audible oscillating tone accompanied a flashing red beacon) all staff should vacate the vicinity of the manif loading arms. The emergency release system will be manually initia from onshore or AUTOMATICALLY in the case of over extension of loading arms, e.g. if ship drifting outside the loading arm envelope.

Pressure Surge Precautions: Non-routine closing of the loading syste automatic intervention or 'fail-safe' closure of shipboard Emergency S Down (ESD) valves can generate dangerous surge pressures. A ca check of ship's ESD system will be made prior to loading. The Ma (or his deputy) will be asked to operate the system to enable timin the valves and may be requested to have valves adjusted accordi the provisions of the IMO Codes for Ships Carrying Liquified Gase Bulk. The Terminal Operating Companies reserve the right to res loading rates if valve closure times are not compatible with otherwise agreed. Excess loading times caused by such a restrictio be charged to the ship if port time/lay time is exceeded.

The shore system is designed to withstand the high surge press which can be generated and safe emergency shut down wi accomplished by using the shore ESD pendant control provide vessels.

In the event of an emergency the pendant 'ESD' must be activ which will immediately result in:

1. On shore loading valves closure.
2. The stoppage of cargo flow.

Only Then May The Vessel Manually Activate Its Own ESD.

Ships Must Never Close Valves Against The Shore Loading Pu

Those ships, fitted with a SIGGTO Link for linking ship and shore systems, are required to use this when berthed on the Western J

Masters are referred to ICS Safety Guide (Liquified Gas) paras and 4.5.2 and the International Safety Guide for Oil Tankers Terminals paragraphs 6.5.5, 7.3 and 7.6.8 and Appendixes A and

Operational Procedures: The Loading/Discharge Plan and operation must comply with the following procedures:

(a) The Company will be responsible for connecting/disconnecting loading arms/hoses to the agreed ship's presentation flanges as indicated by the responsible ship's officer. In the event that the vessel does not have the appropriate reducer, a shore reducer may be available. The Terminal must be advised in the pre-arrival message of this requirement. The fitting and removal of the reducer is the responsibility of the ship. The Master must take adequate precautions to ensure the safety of Company workers and ensure that, where necessary, suitable guard rails are provided.

(b) The Loading Arms are normally purged and remain under Nitrogen between loading operations. Vessels must, therefore, be prepared to receive a small volume of Nitrogen vapour at the commencement of loading operations. (0.5 cu.m. at the Eastern Jetty, 10 cu.m. at the Western Jetty.)

The terminal staff will pressurise the loading arm with Nitrogen against the ship's manifold valve and the loading arm connection will be tested for leaks. When manifold has been proven 'tight' the loading arm will be depressurised and transfer commenced at the agreed starting rate.

(c) The responsible terminal representative and ship's officer will agree that systems are correctly lined up before transfer operations begin.

Loading must be commenced slowly to avoid rapid pressure build up. When liquid flow is established the terminal will increase rate as requested by the ship up to the agreed maximum bulk rate.

(d) During transfer operations, ship will confirm with the shore at intervals not exceeding 1 hour that they are in agreement with the quantity of product actually transferred and the quantity/time estimated to complete the operation.

(e) EXCEPT IN EMERGENCY VENTING OF LPG OR ETHYLENE VAPOURS TO ATMOSPHERE IS PROHIBITED AT BRAEFOOT BAY.

All such displaced vapour must be reliquified on board by ship's systems and/or returned to shore via the vapour line

During loading of liquified gas carriers, the Jetty Operator must be advised of and log the ship's tank pressure every half hour if the vessel is retaining vapours on board, and every hour if vapours are being sent to shore or at the discretion of the Braefoot Bay Supervisor.

In all cases, the LPG vapour return line will be connected and available for pressure relief.

Displaced Gasoline vapour shall only be vented to atmosphere as prescribed in the International Safety Guide for Oil Tankers and Terminals, Sections 3.3.2, 6.2.3 and 7.6.3. Closed loading procedure to be adopted at all times.

(f) During transfer operations:
  (i) An Operator/Technician will remain on the jetty at all times whilst the vessel is alongside.
  (ii) A responsible English speaking ship's officer equipped with an approved portable UHF radio tuned to the agreed ship/shore communication channel shall be on duty at all times. A portable radio will be provided on loan from the Terminal.
  (iii) A responsible member of the ship's crew capable of understanding and relaying the Jetty Operator/Technician's communications to the Responsible Ship's Officer shall be stationed on deck so that he can:
    (a) observe the manifold connections
    (b) observe the gangway
    (c) exchange visual/vocal signals with the Jetty Operator/Technician.
    (d) keep a visual check on moorings.
  (iv) The ship must inform the Terminal and the Terminal must advise the ship of any deviation from the agreed Loading/Discharge Plan.
  (v) Ships loading Gasoline must inform the Terminal 15 minutes before topping off any cargo tank.
  (vi) On both jetties, cargo operations will be stopped when a vessel lists at 3°. Vessels MUST maintain an upright condition during loading and take early remedial action to correct any list. Any delays to the loading operation caused by excessive listing will be for the ship's account.
  (vii) On the East Jetty, cargo operations will be stopped when a vessel rolls 2° (e.g. 1° either side of the upright). Cargo operations may be stopped earlier by the Duty Supervisor, should he consider the movement so excessive that it may cause damage to the facility.

(g) At least 5 minutes' notice must be given of transfer rate changes being required, and at least 15 minutes' notice for final completion of loading, except in emergency when the requirements of "Pressure Surge Precautions" (see above) must be observed.

(h) If for any reason there is an unusual evolution or accumulation of gas, loading shall be stopped or the loading rate into a particular tank reduced at the discretion of either the Terminal Supervision or responsible Ship's Officer. This includes sustained wind speeds of less than 5 knots for gasoline tankers venting to atmosphere.

(i) The vessel must by day fly Flag 'B' of the International Code, and by night exhibit an all round red light.

(j) Prior to, and on completion of loading/discharging an Operating Company Representative will witness ship's dips/ullages and obtain from the Master the quantity loaded according to ship's figures.

(k) Operations shall be stopped during electrical storms in the vicinity of the ship and all cargo valves shall be closed.

(l) During periods of high winds and/or on the instruction of either the Harbour Master or Braefoot Bay Supervisor, operations shall be stopped and the loading arms disconnected in accordance with tables (tables are in "Jetty Regulations and Information", supplied to vessel). Wind speeds are measured on the respective jetty anemometer. Suspension of operations will occur when sustained wind speed limits or frequent gusts are experienced.

(m) At suitable intervals (not exceeding 4 hours) with regard to the estimated duration of cargo transfer, the responsible Terminal Representative and Ship's Officer will carry out a repetitive check and confirm that:

The Safety Check List remains valid
Operational procedures are satisfactory
Jetty Regulations are not being contravened.

BALLAST: *Avoidance of Pollution:*

(a) No oil or mixture containing oil shall be discharged or allowed to escape from a vessel while at the terminal, the approaches or in the River and Firth of Forth.

No garbage, or other materials, either liquid or solid shall be discharged overboard from a vessel, but shall be retained in suitable receptacles on board or arrangements made for disposal ashore.

(b) Discharge of clean, segregated ballast water overboard is permitted subject to approval and/or inspection by the Braefoot Supervisor. It is expected that ships will be exercising ballast water control procedures as described in British Merchant Shipping Notice "M" 1533 and to IMO M.E.P.C. Resolution 50(31), adopted 04/07/91.

The Fort Ports Plc Harbour Master will be informed if inspection, either before or during discharge, shows ballast water is contaminated and such discharge shall immediately cease.

All ballast water other than that contained in segregated ballast tanks shall be retained on board.

DIRTY BALLAST CANNOT BE DISCHARGED AT THIS TERMINAL

(c) Prior to the transfer of any Gasoline, the Anti-Pollution Check List must be completed and no leakage or spillage shall be swept or allowed to leak overboard. Swabs, sawdust or sorbents used for mopping up spillages must be brought ashore for destruction.

(d) Vessels are prohibited from the internal transfer of any oil or slops whilst alongside.

Any leakage or spillage must be reported immediately to the Terminal Supervisor and operations suspended until the leakage or spillage has been cleaned up to the satisfaction of the Terminal Supervisor and the Harbour Master. The Terminal Supervisor may mobilise resources to assist in the containment and cleaning of pollution caused by a ship, without the authority of the Master but in such action he shall be considered to be acting on behalf of the Master and with his approval.

It is statutory requirement that any pollution be immediately reported to the Harbour Master.

MEDICAL: Doctors and Hospitals in Kirkcaldy and Inverkeithing.

DENSITY: 1015 – 1025 (depending on rainfall).

FRESH WATER: Potable fresh water is normally available from hydrants at each jetty. Ships requiring water are responsible for supplying and connecting their own hoses to the jetty hydrant as indicated available by the Jetty Operator. Shore technicians will start and stop potable water on West Jetty at ship request.

FUEL: Supply of Bunker Fuel Oil is not possible from the jetties, however, bunkering arrangements can be made at anchorage or, if suitable, from Grangemouth.

CONSULS: See "Leith".

REPAIRS/DRY DOCKS: See "Grangemouth".

AIRPORT: Edinburgh Airport 20 miles.

POLICE/AMBULANCE/FIRE: Control have a direct line.

TELEPHONES: A public telephone is located at the jetty trestleway root. This telephone will only accept phone cards, a supply of which can be purchased from the ship's agent.

Smoking is expressly prohibited in the telephone kiosk, infringements by individuals of this regulation will necessitate withdrawal of the facility.

A public card-operated payphone is located in the Security Gatehouse at the main entrance. There is also a metered telephone available at the Gatehouse for use at the Master's discretion, all charges being authorised by the Master for payment by ship's agent.

STORING: *General cargo, bunkering and stores handling:*

(a) Handling of general cargo is not permitted at the Terminal.

(b) Bunker services are not available to ships ex-jetty.

(c) The handling of ship's stores may be permitted during cargo operations provided the Terminal is given prior notice of the requirement. On arrival, the Braefoot Bay Supervisor and Master will agree the timing for taking stores and any special precautions required, subject to the following:
  (i) the cargo operations remain adequately supervised.
  (ii) any cargo operation which may allow vapours to escape on deck should be stopped whilst stores are being handled, e.g. sampling or disconnection of loading arms.

(d) Flammable or dangerous goods in drums or other containers, liquified gas in cylinders, drums of oil or paint, steel plates and any other heavy metal parts shall not be handled during:
  (i) loading or transfer of LPG, Ethylene or Natural Gasoline.
  (ii) gas-freeing, purging or tank cleaning.
  (iii) whenever loading arms are connected.

(e) Stores items contained within section (d) should not be landed directly onto a vessel's steel deck. Rubber or suitable matting should be used to prevent possible spark generation. At no time may drums or gas cylinders be rolled along the deck or jetty.

(f) The jetty cranes are for hose-handling and other jetty purposes. They may only be operated by Terminal staff and may only assist in loading items of ship's stores, provided that Terminal staff are available to operate a crane without detriment to their other duties.

(g) Under no circumstances will stores delivery vehicles be allowed on the jetty head or approach beyond the designated points for setting down ship's stores. One vehicle at a time is permitted to visit a vessel. Other vehicles scheduled to deliver stores must queue outside the main gate until given permission to enter. All delivery vehicles are to be parked as directed by Terminal staff, such that access for the Emergency Services is not obstructed.

(h) The size and weight of ship's stores delivered by road vehicle are to be such that they can always be physically manhandled and carted between set-down point and ship by delivery staff or ship's crew. Larger deliveries of stores and heavy items of equipment may be loaded from a barge by arrangement with agents and subject to Regulation 15.

(i) Delays due to storing are for vessel's account where lay/port time is exceeded.

GARBAGE DISPOSAL: The terminal provides facilities for the reception and disposal of ship's garbage. Under SI.1988 No.2293, "Garbage" is defined as all kinds of victual, domestic and operational waste, excluding fresh fish and parts thereof, generated during the normal operation of the ship and liable to be disposed of continuously or periodically, except sewage originating from ships.

To comply with the regulations, the following arrangements have been made:

(a) 6 Eurobins (capacity 1.1 cu.m.) are positioned at the jetty root for the disposal of double bagged and tied food waste. Additionally one mini-skip has been placed with the above disposal of solid waste, e.g. general rubbish but *not food waste*.

(b) All garbage must be double-bagged and sealed. A stock of heavy-duty plastic bags and ties are held and issued on request to vessels requiring to land garbage.

(c) After berthing, vessel confirms request to land garbage by completing relevant section in Ship/Shore Check List. All garbage must be sealed and labelled as to their contents. No leaking or open bags will be acceptable and cost of cleaning shore facilities in the event of spillage will be passed on to vessel. Garbage bags must not be thrown from the ship onto the jetty. They must be either hand-carried or the shore crane utilised before loading arms are connected or after loading arms are disconnected.

Note: Vessels requiring to dispose of hypodermic needles, pharmaceutical compounds, pyrotechnics, etc., must make special arrangements through their Agents.

(d) Ship's crew must collect the Eurobins from the jetty root area and return them there after completion of landing garbage. The bins should not be filled to such extent that the covers will not close.

(e) The Eurobins are mounted on wheels for easy transportation.

WASTE OIL DISPOSAL: The terminal regulations state that:

(a) No oil or mixture containing oil shall be discharged or allowed to escape from a vessel while at the Terminal, the approaches or in the River and Firth of Forth.

No garbage or other materials, either liquid or solid, shall be discharged overboard from a vessel, but shall be retained in suitable receptacles on board or arrangements made for disposal ashore.

(b) Discharge of clean, segregated ballast water overboard is permitted subject to approval and/or inspection by the Terminal Supervisor.

The Forth Ports Authority Harbour Master will be informed if inspection, either before or during discharge, shows ballast water is contaminated and such discharge shall immediately cease.

All ballast water other than that contained in segregated ballast tanks shall be retained on board.

(c) By arrangement with the Terminal Supervisor, oily residues and bilge slops may be discharged ashore provided that such discharge is not concurrent with product transfer and that delays so incurred are for ship's account if port time/lay time is exceeded.

(d) Prior to oil (including natural gasoline) or slops transfer, the anti-pollution Check List must be completed and no leakage or spillage shall be swept or allowed to leak overboard. Swabs or sawdust used for mopping up spillages must be brought ashore for destruction.

(e) Vessels are prohibited from the internal transfer of oil whilst alongside.

(f) Dirty ballast cannot be discharged at this Terminal.

Any leakage or spillage must be reported immediately to the Terminal Supervisor and operations suspended until the leakage has been cleaned up to his satisfaction and that of the Harbour Master. The Terminal Supervisor may mobilise resources to assist in the containment and cleaning of pollution caused by a ship without the authority of the Master, but in such action he shall be considered to be acting on behalf of the Master and with his approval.

It is a statutory requirement that any pollution be immediately reported to the Harbour Master.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

SAFETY: *Emergency Signals:*

(a) Fire and onshore emergency alarm.
1. At the Western Jetty: Intermittent siren.
2. At the Eastern Jetty: Continuous sound for 30 seconds.

In the event of siren failure alarm will be sounded by air horns.

(b) Onshore emergency (other than fire).
1. At the Western Jetty: Air Horns.
2. At the Eastern Jetty: Continuous warble for 30 seconds.

(c) Shipboard emergency (or reported from ship): At least 6 blasts, each of not less than 10 seconds duration.

NOTE: Onshore, alarm may be raised by activating one of the "Break Glass" fire alarms situated at numerous points throughout the terminal – this will also automatically activate the jetty spray systems.

Actions in Event of Emergency:

Ashore: Sound alarm signal.
Terminal staff will communicate with you via:
1. The UHF portable radio (supplied on arrival).
2. The jetty operator.
3. The jetty loudspeaker system.
4. The Marine VHF Channel 16.

In any emergency, terminal staff will shut down loading operations, may activate fixed water spray system and implement the Terminal Emergency Plan as appropriate to the incident:

Aboard: Sound alarm signal.
Inform terminal by communications systems as listed above.
You must be prepared to:
1. Cease all cargo operations.
2. Close all cargo valves.
3. Disconnect ship to shore pipelines (shore hard loading arms may be emergency disconnected by terminal staff).
4. Move your ship (engines to immediate readiness) subjec the overriding control of the Harbour Master.

Emergency Towing Wires: Emergency towing wires of adequate streng and condition must be positioned on both the offshore bow and quart of the ship with the towing eyes maintained just above water level.

They must be properly made fast on the ship's bollards while havin sufficient slack flaked out on deck for effective towing, the slack bein secured from running free by rope yarns or other easily broken mean

Emergency Precautions: In order to meet emergencies ships must:

(a) Retain sufficient suitable crew members on board at all times t man emergency services and to move the ship if so directed by Termin or Port Authority personnel.

(b) Have adequate emergency equipment and fire fightin appliances, including main emergency fire pumps, ready for immedia use. Fire main to be pressurised *before berthing* and for the duration o berth occupancy. The appliances will include at least:

(i) Two fire hoses, fitted with jet/spray nozzles, uncoiled an connected to the fire main on the main deck.

(ii) Portable fire extinguishers, of the dry chemical typ conveniently placed near the ship's fire manifold.

(iii) An International Ship/Shore Connection available and *clea signposted* at an agreed position on the ship's fire main for read connection to the shore main.

(iv) Where a vessel is equipped with a fixed dry powder syste hoses should be run out and control boxes open for access.

(v) The ship's offshore lifeboat shall be rigged ready for lowerin and use as an emergency escape.

(vi) A pilot ladder or accommodation ladder shall be rigged positioned on the outboard side of the vessel ready f immediate lowering as a means of escape in the event of a emergency.

In the event of an emergency, the Master must proceed as agreed the "Pre-Operations Meeting and Inspection".

State of Readiness and Engine Immobilisation:

(a) The ship must be able to move under its own power at sho notice.

(b) Repairs or other work which may immobilise the vessel are n allowed. If unavoidable breakdown occurs, then repairs may be allowe alongside provided approval is given in writing by the Braefoot Ba Supervisor who shall also obtain the Harbour Master's agreement a is conditional on the Master hiring sufficient standby tugs to move t vessel if so required.

(c) Should immobilisation as in (b) above occur, the respective je Operating Companies reserve the right to order tug or tugs as abo on the Master's behalf.

(d) *Engines are not to be tested whilst hard-arms are connected a or the gangway is on deck.*

Vehicle and Personnel Access and Security:

(a) Only authorised persons or those with entry permits issued b the Terminal Management will be allowed through the terminal secu gates.

Ship's personnel must have a temporary pass for clearance with t security guard at the entrance gate.

Masters will be provided with a supply of suitable pass envelopes the Braefoot Bay Supervisor. The Master or ship's Agent is require furnish a list of chandlers, services, new crew members and authoris visitors expected during the ship's stay at the terminal. Ship's agen required to provide Security staff with a crew list as soon as possi after berthing.

Persons who have not been authorised or notified as above wil refused entry to the terminal until the Security Guard has been gi clearance from the Braefoot Bay Supervisor.

(b) As pedestrians (other than plant employees and authoris personnel) are not allowed passage through the terminal, transpor the main gate will be provided by Security staff on request from the j root (Western Jetty) or the safety boat landing (Eastern Jetty), by cal "Braefoot Control" on the radios provided.

(c) Visiting vehicles are not normally allowed beyond the gateho parking area and must not proceed onto the jetty trestleways wi the express permission of the Braefoot Bay Supervisor. No vehicle proceed past any "NO ENTRY" sign indicating that Class A petrol is being handled or that petroleum vapour may be present.

Vehicles and their contents which are permitted to enter the Ma Terminal do so at the owners' risk and drivers must obey all traffic s plant traffic regulations, or directions given by Terminal Staff. S vehicles shall not be parked in position obstructing fire hydrants, road alarms or other traffic. If parked, keys will be left in ignition, the ig switched off and the doors unlocked. If required, any unattended ve may be moved by Terminal Staff.

(d) In the interests of Safety and Security any vehicle or pe entering or leaving the terminal is liable to be searched for contra material or unauthorised persons. Acceptance of this requiremen condition of entry. Persons who appear to be under the influen alcohol or drugs will not be allowed access to or from ships at the ter unless escorted by a responsible Ship's Officer.

Personnel Access to/from Ships:

(a) When available, access between jetty and vessel will be pro by the Company by means of a gangway tower structure. The ope of such gangway will be the responsibility of the jetty Ope Company, but Masters shall ensure that personnel can safely tr between the ship's main deck and the gangway. When, for any re the gangway tower is not available, Masters of vessels shall pro means of safe access between jetty and ship, which shall necessary include an upper platform and bulwark ladder to provid access to the ship's deck. The means of access shall be provide stanchions, guard ropes, securing lines and safety netting, sh adequately illuminated and shall be maintained in a clean and well condition.

A lifebuoy with at least 25 m. of lifeline attached shall be positioned on the vessel near the gangway.

(b) No person other than H.M. Customs and Excise, Port Health Authorities, Pilots or other H.M. Customs Authorised personnel is allowed to board or disembark from a vessel berthing at the Marine Terminal from a foreign port until Clearance and the Master's permission has been obtained.

(c) Boarding and disembarking shall be by gangway only except in emergency.

Scuppers and Drip Trays: During transfer of gasoline and slops, deck scuppers and drain holes must be suitably plugged and accumulated water drained off as required. Scuppers should otherwise remain open during LPG loading operations.

Drip trays must be placed under connections and likewise drained of accumulated water.

Prior to transfer of any oil product the ANTI-POLLUTION CHECK LIST MUST BE COMPLETED.

Portable R/T Sets, Hand Lamps and Electrical Equipment: Portable R/T sets, lamps and hand lamps, electric or otherwise shall not be used unless of an approved type (e.g. B.A.S.E.E.F.A.).

The use of portable electric lamps and equipment on wandering electric cables is prohibited in any cargo or adjacent ballast space, pumproom, compressor room, cofferdam, bunker compartment, hold or anywhere over the cargo tanks.

Portable domestic radios, photographic flash equipment, electronic calculators, tape recorders or any other battery powered equipment of non-approved type shall not be used on the main deck nor in any other place where petroleum gases may be encountered. Mobile telephones may be transported through the Terminal to the ship for use in an approved area providing all battery power is disconnected and transported separately during the transit.

Ship's Radio and Radar Equipment: Except for VHF and UHF communications (with radiated power of 1 watt or less), ship's main radio station, including emergency transmitters, shall not be used while the ship is within 400 m. of the Terminal. While berthed at the Terminal, the transmitting aerials shall be disconnected and earthed.

It is *prohibited* to operate ship-borne radar having a *peak pulse in excess of 60 kW.* within the following distances of the Terminal:

1. Radar operating below 2 GHz – 400 metres.
2. Radar operating above 2 GHz – 200 metres.

The preceding prohibitions and restrictions do not preclude the testing of a vessel's normal communications transmitter operating on a frequency between 415 kHz and 26 kHz or ship-borne radar with a peak pulse power exceeding 60 kW in the area of the Terminal, providing the vessel's associated electrical equipment does not present a source of ignition, *and that the express permission of the Harbour Master and Marine Superintendent have been obtained prior to testing.*

Repair Work: Repair work involving either hot or cold work or the use of naked lights is prohibited unless the permission of the Braefoot Bay Supervisor has been requested and granted in writing and the conditions and precautions required by the Braefoot Bay Supervisor are rigidly observed.

Repair work includes but is not restricted to boiler tube clearing, chipping and scraping, hull painting, testing or servicing of electrical equipment (including radar and radio installations).

If permission is granted a list of shore workmen employed on the vessel must be given to the Braefoot Bay Supervisor before work commences.

(The Harbour Master's permission is also required in the case of hot work and certain repair work including test transmissions of radio or radar equipment.)

Tank Cleaning/Gas Freeing: Tank cleaning, inerting, purging or gas freeing *may not* be carried out at this terminal. In unavoidable and exceptional cases, and then under specific circumstances, approval in writing may be granted in advance or under a repair work permit as in "Repair Work" above.

Movements of Tugs and Other Craft: During berthing, unberthing and cargo handling operations no vessel or small craft shall be allowed alongside the vessel unless authorised by the Braefoot Bay Supervisor and agreed by the Master.

When tugs or authorised craft are alongside or assisting a vessel, all cargo system openings must be closed unless tanks are gas free.

GENERAL:

Forth Ports Authority/Dockyard Port of Rosyth: The Forth Ports PLC is the controlling body for the waters of the Firth of Forth in conjunction with the Ministry of Defence through the Queen's Harbour Master, Rosyth.

The Rules as to Navigating in the dockyard port of Rosyth are published under the Dockyard Port of Rosyth Order 1975 and are summarised as a note to the "River of Firth of Forth Byelaws". As general information, the Rules impose a speed limit of 12 knots on vessels exceeding 120 m. in length and 15 knots on vessels less than 120 m. in length.

The Rules also detail the signals for prohibition of movement in the "Protected Channel" (being approximately the Main Fairway in a Westerly direction from Buoy No. 13, passing South of Inchcolm Island) to Rosyth Dockyard and the signals (3 red lights in a vertical line or black cylinder by day) denoting one of Her Majesty's vessels underway, and from which, other vessels shall keep clear (within the Dockyard Port).

Copies of the "River and Firth of Forth Byelaws" and "Directions for Navigation" may be obtained from the Forth Ports PLC, Shipping Agents or on request to the Terminal Supervisor.

Tides: The predicted tides in the Forth Estuary may be significantly affected by weather conditions, e.g. strong winds from N.N.E. through E. to E.S.E., or heavy rainfall.

The range for Spring Tides is 5.0 m., the range for Neap Tides is 2.5 m.

The Highest Astronomical Tide is 6.3 m. The Lowest Astronomical Tide is 0.0 m.

The breasting line of the jetties at Braefoot Bay is 052°/232° and the direction of tidal flow is approximately 260° on the Flood and 066° on the Ebb, with maximum rates of 2.6 knots (Springs) and 1.3 knots (Neaps).

Shipping Agents: There are approximately 30 companies operating as shipping agents in the Forth Estuary, therefore Masters are requested to confirm their Agents' name in any direct communication to the Terminal.

Communications:

UHF Radio: The terminal will supply an approved UHF handset radio to the vessel's Master or his deputy for use during the loading operation. The radio will be used for contact with the Terminal Staff during normal loading operation and for notification of an emergency condition.

The handset radio must be returned to the Braefoot Bay Supervisor prior to departure.

Acknowledgement of the return of the handset radio will be noted on the vessel's copy of the "Master's Receipt for Shipping Documents".

Normal UHF operations channel is UHF Channel 2. All communications must be directed through *"Shell Braefoot Control" for vessels on the Western Jetty and through "Exxon Braefoot Control" for vessels on the Eastern Jetty.*

Klaxon: The Western Jetty is equipped with air horns for audible alarm of fire, and an oscillating tone siren for imminent E.R.S. activation. One short blast may be sounded if required to gain attention of ship's deck personnel if there is an urgent need for communication.

REGULATIONS: *Rules for the Movement of Tankers using Braefoot LPG Terminal:*

1. Every tanker destined for the terminal shall regulate its approach so as not to arrive before the agreed berthing time.

2. When a tanker is turning from the channel for deep draft vessels into Mortimer's Deep to approach the terminal from S.W., no other vessel shall enter that section of the channel between No. 15 light-buoy and a line joining Hound Point and Hopeward Point; or when turning into Mortimer's Deep to approach the terminal from the East, no other vessel shall enter that section of the channel between Nos. 7 and 11 light-buoys.

3. When any tanker is leaving the terminal it shall do so, except in an emergency, in an Easterly direction.

4. When a tanker having left the terminal is entering the channel for deep draft vessels from Mortimer's Deep in an Easterly direction, no other vessel shall enter that section of the channel between Nos. 7 and 11 lightbuoys. In addition if such a tanker is loaded with liquified gas and is more than 145 m. in length, no other vessel, whether navigating within or without the channel for deep draft vessels, shall approach within 1 mile of the tanker while it is within that section of the channel between No. 13 light buoy and Fairway light buoy at 3° W.

5. When tankers are navigating within or without the channel for deep draft vessels between Fairway light buoy and a line joining Hound Point and Hopeward Point it may be necessary to hold or slow down other vessels. Inward bound vessels may be directed to a holding area North of No. 3 light buoy until an outward bound tanker is sufficiently far downstream.

6. No vessel shall enter Mortimer's Deep when the terminal is occupied or when a tanker is manoeuvring in the area, except that a second tanker may enter and berth when the first tanker is securely berthed.

7. Radio transmissions and the operation of radar are prohibited in the vicinity of the terminal, except that a vessel's normal equipment may be tested provided that a source of ignition is not present and that the Chief Harbour Master's permission has been obtained.

Ship's radar equipment having a peak pulse of less than 60 kW. may be operated for berthing and unberthing and at times when cargo operations are not taking place.

SHIPMASTER'S REPORT: November 1984 (Updated 1996).

Vessel called at Braefoot Bay Marine Terminal for the purpose of loading LPG (Butane).

The terminal is operated by Shell Expro and Exxon Chemical Olefins, and is located 3 miles East of the Forth Railway Bridge on the North side of the Firth.

Port Limits: Within the area of the Firth of Forth Navigation Authority.

Documents:

Register and Light dues.
All Safety Certificates.
Derat Certificate.
Health Declaration.
Cargo Documents.
Last Port Clearance or Coastwise Documents.
2 copies C.13 Customs General Declaration.
3 copies C.14 Customs Stores Declaration.
2 copies C.142 Customs Crew Declaration.
6 copies Crew Lists.
2 copies Ship's Stores Lists.

Pilotage: Compulsory in the Firth of Forth. Pilot boards at Fairway Buoy in position 56° 03.5' N., 03° 00' W. VHF Channel 16. 24 hours' advance notice required.

Anchorage: Allocated by Forth Navigation Service, usually Aberlady Bay.

Restrictions: Vessels enter Mortimer's Deep from the West, leave to the East, in what is called clockwise navigation.

Therefore berthing is done on the start of the flood, turning off Buoy No. 17, ensuring, especially in a Westerly wind, that the tide has really started to flood.

Sail an hour before high water to cross the bar at about the top of the flood.

The Exxon jetty may, however, allow berthing/entry from the East for smaller vessels.

Max. Size: Shell Jetty 60,000 cu.m. Esso Jetty 12,000 cu.m.

Health: See 'Health – All Ports' before first UK port.

Radio: Wick GKR.

VHF: Forth Navigation Service Channel 71 (working on Channel 20) controls traffic and reporting in points.

Braefoot Terminal: Channel 69.

Tugs: Channel 69.

Public Channels: Forth Radio Channels 16 and 24.

Radar: Forth Navigation Service locates vessels at Port Limits, and checks identity by VHF.

Ships Radars are to be switched off within 300 m. of the terminal and must not be switched on whilst alongside, except for pre-sailing checks provided loading operations have been completed.

Tugs: Join the vessel off Inchkeith and make fast (tugs lines) before Oxcar. 4 tugs are available, 1×50 tonnes bollard pull, 1×30 tonnes bollard pull and 2×19 tonnes bollard pull.

In an emergency tugs take 1.5 hours to reach the vessel.

Berth: Shore gangway used.

Medical: Good facilities nearby at Dunfermline and Kirkcaldy.

Density: 1025.

Fresh Water: Available ex-mains for nominal fee.

Fuel: Not available.

Fire Precautions: Normal for LPG – 3 allocated onboard smoking areas.

Consuls: Numerous in Edinburgh. If vessel bound for U.S.A. then Consulate requires 48 hours to visa 2 Crew Lists, thus these should be left behind with the Agent who will arrange for express delivery to the discharge port.

Gangway/Deck Watchmen: Not necessary.

Customs Allowances: Normal U.K. Regulations apply.

Repatriation/Airport: Edinburgh Airport nearby has shuttle flights at one to two hour intervals to London Heathrow.

Time: GMT plus 1 hour (BST) in Summer months.

Police/Ambulance/Fire: Telephone 999.

Emergency Co-ordination Centre: VHF Channel 16, Forth Navigation Service and/or Forth Coastguard.

Telephones: None onboard, Public Pay phone at jetty root.

Storing: Stores have to be manhandled/hand trucked along 200 m. of jetty before lifting onboard with jetty crane. Alternatively they can be delivered by barge, but not concurrent with cargo and liable to weather delays.

Only Diesel engined stores lorries are permitted in the terminal and Ship Chandlers and Laundries should be made well aware of this.

Shore Leave: Permitted, but personnel are not allowed to walk through the installation. Braefoot security provide transport to the main gate when necessary.

Identification Cards: Shore passes are issued.

If visitors for the ship's complement are expected, it is wise to leave a list with Security at the terminal gate, to expedite their boarding (Normally done by ship's Agent).

Regulations: 72 hours in advance of arrival send to Agents, asking them to relay same, questionnaire replies to Harbour Master Forth Ports and also to Braefoot Terminal. (See "Radio" – pre-arrival information and "General" before first UK port.)

General: Laundry facilities are available, good quality.

AUTHORITY: Shell U.K. Exploration and Production, P.O.Box 16, Mossmorran, Cowdenbeath, Fife KY4 8EL. *Tel:* (01383) 892000, 892123. *Telex:* 728244 Moshell G. Shipping Department 728245 Moship G. *FAX:* (01383) 892100. *Contact:* Captain D.J. Pringle, Terminal Supervisor. Captain P.W. Marsland, Day Co-ordinator.

BRIDGWATER (including Dunball and Combwich Wharves): 51.10 N. 03.00 W. **(See Plan)**

PORT LIMITS: Bridgwater Bay, from Brean Dawn to Hinkley Point, and River Parrett to Bridgwater Town.

DOCUMENTS:

2 copies Crew List.
2 copies Passenger List.
2 copies Master's Declaration C.13.
2 copies Arms and Ammunition List.
1 copy Health Declaration.
1 copy Derat Certificate.
1 copy Load Line Certificate.
1 copy Tonnage Certificate.
1 copy Nationality Certificate.
1 copy Safety Equipment Certificate.
2 copies Bills of Lading.
2 copies Manifest.

PILOTAGE: Compulsory in River Parrett for vessels over 30 m. LOA.

Pilot boards off Burnham-on-Sea.

Prior arrangement required. No continuous watch (Tel: (01278) 782180).

ANCHORAGES: One mile West of Gore Buoy.

Good holding ground, but exposed.

MAX. SIZE: Normal max. LOA 72 m. Max. LOA 84 m. on occasion by arrangement with Harbour Master.

HEALTH: Usual requirements for U.K. ports.

VHF: Channels 16 and 8.

RADAR: Radar in pilot house at Burnham-on-Sea is used to advise vessel approaching from Gore Buoy.

TUGS: Not available.

BERTHING: *Dunball Wharf:* Length 198 m., depths 4.5 m. on some Springs, 1.8 m. on Neaps.

Combwich Wharf: Ro-Ro berth. Depth up to 6.0 m. Springs, 3.0 m. Neaps.

CRANES: 2 cranes of 5 tons capacity at Dunball Wharf.

BULK CARGO FACILITIES: Available at Dunball Wharf.

SPECIALISED CARGO HANDLING FACILITIES: Ro-Ro facilities Combwich.

BRIDGES: Power cables, 37 m. headroom 0.7 miles below Combw Wharf.

STEVEDORES: Watts Shipping Ltd. (Tel: 01278-789930). Normal hou 0700 hrs. – 1700 hrs. Stevedores will work almost any time on reque

MEDICAL: Hospital, doctors and dentists at Bridgwater.

TANKERS: No facilities.

DENSITY: Variable, from 1000 to 1030.

FRESH WATER: Supplied by hose from quay.

FUEL: By road tanker, arrange with Agent, Watts Shipping Ltd.

FIRE PRECAUTIONS: Smoking prohibited in cargo handling areas.

CONSULS: See "Bristol".

REPAIRS: Available. Contact Avonmouth Ship Repairers.

DRY DOCKS: None.

SURVEYORS: Available from Bristol.

GANGWAY/DECK WATCHMEN: At Master's discretion.

OPENING/CLOSING HATCHES: By crew.

CUSTOMS ALLOWANCES: Normal U.K. allowances.

CARGO GEAR: Shore gear.

AIRPORT: Bristol Airport.

TIME: GMT in Winter. B.S.T. in Summer.

HOLIDAYS: Normal U.K. holidays. Stevedores will work holiday perio if required.

POLICE/AMBULANCE/FIRE: Tel: 999 in emergency.

EMERGENCY CO-ORDINATION CENTRE: H.M. Coastgua Swansea, call VHF Channel 16.

TELEPHONES: In Agent's office at Dunball Wharf.

SERVICES: Radio and radar repairs, chart supply, etc., available arrangement with Agent.

BANKS: All major U.K. banks at Bridgwater.

STORING: See "Prelims".

(1) Truck.
(2)
(3) Yes.
(4) Yes.
(5) —
(6) Yes.

SHIP SUPPLY SERVICES: A.G. Watts Shipping. Tel: (01278) 7899

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Seaman's Book sufficient.

GARBAGE DISPOSAL: Skips provided by arrangement with Agent

WASTE OIL DISPOSAL: By arrangement with Agent.

SEAMAN'S CLUBS: None.

DELAYS: Berthing at high water only.

GENERAL: Berths are sheltered, all dry out but are level and safe.

DEVELOPMENTS: Combwich Ro-Ro Wharf coming back into in 1996.

AUTHORITY: Port of Bridgwater, Sedgemoor District Council, 1 Gr Road, Burnham-on-Sea, Somerset TA8 2HF. *Tel:* (01278) 7821 *FAX:* (01278) 788861. *Contact:* P.H. Lee, Harbour Master.

Note: All berths in private hands, contact for Dunball: Shaun Wa A.G. Watts Ltd., Brue Way, Highbridge, TA9 4AW. Tel: 01278-7899 Fax: 01278-781146.

BRIDLINGTON: 54.05 N. 00.12 W.

DOCUMENTS:

Crew List.
Passengers List.
Ship's Register.
Customs Documents.
Manifests.
Bills of Lading.
Ship's papers.

PILOTAGE: Vessels approach within 0.25 mile, flying "G" Flag. fishermen act as Pilots and board approx. 1 hour prior to berthing

ANCHORAGES: For small vessels of not more than 12 ft. 1 mile S.E. of harbour. Deeper-drafted vessels 3 miles East of Har Good holding grounds except in heavy weather from East to Sou

RESTRICTIONS: In accordance with state of tide and draft restric

HEALTH: Pratique required from all vessels other than from a B port. "Q" Flag to be flown.

Also see "Health – All Ports" before first U.K. port.

RADIO: Humber Radio Station is the best for a vessel to route etc.

VHF: Call sign "Bridlington Harbour". Call on Channel 16. Workin and 14.

TUGS: None available.

BERTHING: No cargo vessels. Fishing harbour handles fishing ve and yachts.

MEDICAL: Agents require advance notice of required medical att Hospital facilities available. Relevant medical information, i.e. feve required.

DENSITY: Sea water.

FRESH WATER: Unlimited quantity available. Delivery from pipeline at the rate of 3 t.p.h.

FUEL: All grades available. Delivery by road tankers.

CONSULS: No local Consuls. Nearest port of availability is Hul

REPAIRS: Limited engine and deck repairs.

REPATRIATION: No facilities exist for crew change.

AIRPORT: Yeadon, 45 miles, served by regular airlines.

HOLIDAYS: Normal Bank Holidays. Fish landings can be wor these days.

POLICE/AMBULANCE/FIRE: Police Bridlington 672222; Ambulance 0482 – 881198; Fire 73585.
TELEPHONES: No arrangements exist for placing telephones aboard.
SHORE LEAVE: Crew members allowed ashore.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: A skip is provided for depositing bagged garbage and other refuse.
WASTE OIL DISPOSAL: A tank (approx. capacity 160 galls.) is provided for waste sump oil, etc. Collection can be arranged through the Harbour Master's Office.
SEAMAN'S CLUBS: None.
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Bridlington Harbour Commissioners, Harbour Office, Gummers Wharf, West End, Bridlington, East Yorkshire YO15 3AN. *Tel:* (01262) 670148/9. *FAX:* (01262) 602041. *Contact:* W.J. Mason, Harbour Master.

BRIGHTLINGSEA: 51.48 N. 01.02 E.

PORT LIMITS: Brightlingsea Creek only (to East of Bateman's Tower).
PILOTAGE: Available by prior arrangement through ship's Agent. Pilot on VHF CHannel 68. Pilotage available from Buoy No. 13 (Colne River).
ANCHORAGE: Brightlingsea Anchorage – To the East of Mersea Island (Lat. 51° 48′ N., Long. 01° 00.5′ E.).
RESTRICTIONS: No restrictions, except on size of vessel and draft.
MAX. SIZE: 3,500 tonnes (S.d.w.t.). LOA 110 m. (approximately). Maximum draft 5.2 m.
HEALTH: Health formalities arranged through Agent.
VHF: Brightlingsea Harbour and Brightlingsea Port on Channel 68.
RADAR: Not available.
TUGS: Available on request.
BERTHING: 3 drying berths. Max. length 150 m. Vessels may discharge, using own gear or shore side equipment.
CRANES: 3×12.5 tonnes and 1×25 tonnes. Larger mobile cranes available on request.
BULK CARGO FACILITIES: Bulk cargo equipment available (cranes or conveyors).
SPECIALISED CARGO HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: Arranged by ship's Agent.
MEDICAL: Local doctor available. Emergency treatment available in Colchester (8 miles).
TANKERS: No facilities available.
DENSITY: 1025.
FRESH WATER: Available on quay.
FUEL: Tanker lorries arranged through Agent.
FIRE PRECAUTIONS: As per Health and Safety Requirements.
CONSULS: All consuls in London (80 miles).
REPAIRS: Minor repairs undertaken locally.
DRY DOCKS: None.
SURVEYORS: Available on request.
GANGWAY/DECK WATCHMEN: Ship's crew.
HATCHES: Opened and closed by ship's crew.
CUSTOMS ALLOWANCES: Usual U.K. allowances.
CARGO GEAR: Usually shore gear.
REPATRIATION: Arranged through ship's Agent.
AIRPORT: Stansted (40 miles).
TIME: GMT. British Summertime in Summer.
HOLIDAYS: Weekends and Bank Holidays only.
POLICE/AMBULANCE/FIRE: Dial 999.
EMERGENCY CO-ORDINATION CENTRE: Thames Coast Guard, Walton-on-Naze.
TELEPHONES: Not available.
SERVICES: Most services available through ship's Agent.
BANKS: Most British banks locally or in Colchester (8 miles).
STORING: See "Prelims".
(1) Yes.
(2) No.
(3) Yes.
(4) Yes.
(5) Yes.
(6) Yes.
SHIP SUPPLY SERVICE: Via ship's Agent.
SHORE LEAVE: Possible.
IDENTIFICATION CARDS: No requirements.
GARBAGE DISPOSAL: Available.
WASTE OIL DISPOSAL: Available on request.
SEAMAN'S CLUBS: None locally.
REGULATIONS: None.
DELAYS: Very few delays.
AUTHORITY: Brightlingsea Harbour Commissioners, The Harbour Office, 4 Copperas Road, Brightlingsea, Essex CO7 0AP. *Tel:* 01206-302200. *Contact:* Captain P. Coupland, Harbour Master.

BRISTOL (Avonmouth): 51.30 N. 02.43 W. (See Plan)

DOCUMENTS:
1 Maritime Declaration of Health.
1 Vaccination Certificate.
1 Crew's Effects List.
2 Ship's Report by Master.
1 Home Office Form I.B.6.
1 Stores List.
1 Certificate of Deck Cargo tonnage.
1 Grain Certificate.
1 Light Certificate.
1 Port Dues Certificate.
1 Passenger List.
1 Landing Card for each passenger.
Ship's Certificate of Registry.
Derat or Derat Exemption Certificate.
Mercantile Marine Office Certificate (British ships only).
In addition, Manifests and Bills of Lading are usually sent to Agent direct from loading port.

APPROACHES: *Cautionary Advice:* Several points should be borne in mind.

Tides in the Bristol Channel are strong (up to 5 knots at Springs) and their effect must be allowed for accordingly.

Vessels should slow down in ample time before reaching the Pilot Station.

From the English and Welsh Grounds Lightbuoy inwards, navigation becomes more difficult as the channel for deep draft vessels narrows. Traffic is heavier and more congested with vessels entering and leaving the docks, some of which are small vessels without Pilots. The channel, however, is well buoyed.

PILOTAGE: Compulsory for vessels of 85 m. LOA and over and for vessels carrying dangerous substances in bulk of 70 m. LOA and over.

Boarding and landing station is one mile North of Breaksea Lightfloat. Pilots board from 50 ft. motor pilot boat, black hull, white superstructure, "Bristol and Gloucester Pilots" in white letters amidships, operating from Barry Harbour. VHF Channel 16 calling, 6 working.

Pilot ordering: Tel: (0117) 9822257. Fax: (0117) 9235320. Telegraphic Address: "Brispilot Avonmouth". Details of rates and other particulars available from Haven Master, R.E. Dock Entrance, Avonmouth.

Pilotage is from sea to berth and vice versa.

ANCHORAGES: Barry Road affords good anchorage in moderate weather for small vessels awaiting a Pilot. Large vessels should anchor West of Breaksea, clear of pilot boarding area.

RESTRICTIONS: Royal Portbury and Royal Edward Locks are manned from 4.5 hours before to 3.5 hours after HW.

MAX. SIZE: *Royal Portbury:* Max. length 300 m., max. beam 41.5 m., draft 14.5 m.
Royal Edward: Max. length 200 m., max. beam 30.1 m., draft 11.0 m.
Avonmouth Dock: Max. length 170.7 m., max. beam 22.9 m.

Note: The above quoted drafts are for tides that reach below Mean High Water i.e. on many tides a greater draft could be accommodated, on a few tides vessels of the quoted draft would be neaped.

HEALTH: Foreign arrivals are required to complete Maritime Declaration of Health and to report to Port Health Authority by radio, sickness, prior to arrival if possible, otherwise report on arrival at dock entrance.

Onus of reporting sickness is the personal responsibility of the Master.

All vessels are required to report the presence of animals or birds aboard vessel and any disease amongst such animals or birds.

Vessels arriving from ports within the excepted area and coastal arrivals need not present Declaration, but when there is sickness on board Port Health Authority must be informed.

Also see "Health – All Ports" before first U.K. port.

RADIO: See Admiralty List of Radio Signals, Volume 1.
Pre-Arrival Information: Vessels complying with Dangerous Substances and Tanker Reporting Regulations should do so through ships' agents or by Tel: (0117) 9822257 or by Fax: (0117) 9235320 or by Telex: 44240 PBAAM G marked "Urgent Attention Avonmouth Signal Station", or by Telegraph "Brispilot Avonmouth".

VESSEL TRAFFIC SERVICE: For estuary and port approaches: Calling and Working: VHF Channel 12, alternative Working Channels 9 and 11. Call sign "Avonmouth Radio". Vessels should report on passing Breaksea Lightfloat, English and Welsh Grounds Lightbuoy and Welsh Hook Buoy. Radar coverage of all port approaches maintained. VTS will provide on request radar, tide, weather, navigational warnings and traffic information. Vessels should maintain continuous listening watch on VHF Channel 12 whilst in tidal waters.

Port Operations Service for lock working and enclosed docks: Calling and Working: VHF Channel 14. Call signs: "Royal Portbury Dock Radio" or "Royal Edward Dock Radio" as required.

TUGS: Large ships for Royal Portbury Dock are normally met by tugs West of Portishead and other vessels in King Road.

Ships for Royal Edward Dock docking on flood tide normally meet tugs at old oil jetty to Northward of the entrance lock. Vessels docking on ebb tide, tugs join between Firefly and Cockburn Buoys.

BERTHING: Boatmen and Hobblers should be ordered to take lines in lock and on berth unless vessel intends to use own crew.

The port is owned and operated by First Corporate Shipping Ltd. trading as the Bristol Port Company. The Bristol Port Company is the statutory harbour authority for the commercial port and its tidal approaches.

Avonmouth, Royal Edward Docks: There is 12,320 ft. of operational quay at the Royal Edward Dock, Avonmouth, including dry and liquid bulk berths with a self contained oil basin containing 8 berths, 4 of which are equipped with common user pipeline systems. The LPG berth is in the oil basin.

Other berths are equipped to handle forest products (crane discharge), bulk commodities, animal feedstuffs, metals and general cargo. There are dedicated berths for the Bell Line Container Terminal, food grains, cement, sulphuric acid and dredged aggregates.

Royal Portbury Dock: The Bristol Port Company's modern Royal Portbury Dock is equipped to handle Lo/Lo and Ro/Ro traffic. Berths No. 1 and 2 (length 575 m.) are backed by 24 hectares of paved area for forest products. 100,000 sq.m. of modern warehouses dedicated to forest products is also available. Berths No. 3 and 4 are predominantly dedicated to car and vehicle imports and exports, and can accommodate the largest side ramp or quarter ramp Ro/Ro vessels, and also offer fixed quay cut out ramps for smaller vessels. In addition to paved quays, there are in excess of 42 hectares of paved areas available, with a further 42 hectares as yet uncommitted. Walon Ltd. operates two terminals of 100 acres.

The Bristol Port Co., in a joint venture with National Power, has built and commissioned the most advanced bulk terminal in Europe on Berths No. 5 and 6. The bulk stockyard is connected to a rail loading facility at Avonmouth via a tunnel under the River Avon. The bulk terminal is capable of handling animal feedstuffs direct to 2 major new storage warehouses located on Berth No. 5, operated as a joint venture by the Bristol Port Co. and Tate & Lyle Ltd.

United Molasses Company, a Division of Tate & Lyle Ltd., operates an import and distribution depot with a tankage capacity of 53,000 tonnes. This development is situated behind Berth No. 4, where Redland Plasterboard have constructed a plasterboard manufacturing terminal on a 30 acre site.

Developments on the Portbury Estate include factories for Ashton Corrugated (Southern) and Christies Panel Products, and the retail giant ASDA, who have built a regional distribution centre on a 20 acre site. These new developments join a large cold store owned by Frigoscandia, an animal compounding mill for BOCM-Silcock Ltd. and the Peter Lane Group's transport and distribution depot. Proton Cars of Malaysia has its new U.K. Headquarters on the Portbury Estate.

CRANES: Various types up to 12.5 tonnes at Avonmouth together with one 150 tonne floating crane.

STEVEDORES: At least 24 hours notice required in order that necessary labour may be allocated.

MEDICAL: Absolutely necessary for Agent to have as much notice as possible of any medical attention required. All facilities available.

DENSITY: Avonmouth Docks: Average density 1012 to 1015; in the river fluctuates according to tides.

FRESH WATER: Available at most berths, 24 hours a day from hoses connected to standpipe. Delivery rate 25 – 30 t.p.h.

FUEL: Most grades available – 24 hours notice required.

FIRE PRECAUTIONS: Approval needed to carry out hot work on board or on the adjacent quay. Special regulations apply in the oil basin.

CONSULS:

Belgian Consul
Chilean Consul
Danish Consul
French Consular Agent
Finnish Vice Consul
German Consul
Greek Consul
Italian Consular Agent
Netherlands Vice Consul
Norwegian Vice Consul
Spanish Vice Consul
Swedish Vice Consul

REPAIRS: Most types of repairs are carried out. Contact Avonmouth Ship Repairers Ltd., Royal Edward Dock, Avonmouth, Bristol. Tel: (0117) 9820615.

DRY DOCK:

	Total length	*Length over blocks*	*Width of Entrance*	*Depth of water on sill*
Avonmouth Docks	875 ft.	850 ft.	100 ft.	32 ft.

GANGWAY/DECK WATCHMEN: Not absolutely necessary – Available if required.

OPENING/CLOSING HATCHES: If crew open hatches on the first day then they must continue to do so whilst vessel is discharging/loading, otherwise dockers attend to this.

CERTIFICATES: Load Line Certificate, Safety Equipment Certificate, Lloyd's Construction Certificate, Derat Certificate, Ship's Register, Light Bills, Safety Radio Certificate.

CUSTOMS ALLOWANCES: Current allowance for crew members of British and foreign ships in British waters available on request from H.M.Customs.

REPATRIATION: Repatriation can be effected to all parts of world.

AIRPORT: Local airport approximately 12 miles away. London can be reached in 1.5 hours by train.

TIME: BST is GMT plus 1 hour. GMT in Winter months.

HOLIDAYS: New Year's Day; Easter (varies); May Day; Spring Bank Holiday (last Monday in May): Summer Bank Holiday (varies, usually last Monday in August); Christmas Day (25th December); Boxing Day (26th December). Work can be arranged on these holidays, except 25th December.

POLICE/AMBULANCE/FIRE: *Royal Portbury and Avonmouth Docks:* Dock services can be contacted by dialling 4444 on port's exchange or 820000, Extension 4510, on British Telecom exchange.

Otherwise dial 999 on British Telecom. Exchange for national emergency services.

MARINE RESCUE CO-ORDINATION CENTRE: H.M. Coastguard, Mumbles, Swansea, West Glamorgan. Tel: (01792) 366534, 367761.

TELEPHONES: Can be put on board at most berths.

BANKS: National Westminster Bank Ltd., 1 Gloucester Road, Avonmouth. Tel: 823991.

Barclays Bank Ltd., Gloucester Road, Avonmouth. Tel: 822814.

Lloyds Bank Ltd., 265 Avonmouth Road, Avonmouth. Tel: 827191/2.

(Major international banks located in Bristol's finance sector centred mainly around the "Corn Street" locality).

SHIP SUPPLY SERVICE: At Avonmouth limited services could be provided by the tug company, Cory Towage, Tel: (0117) 9822021.

The pilot boat at Barry occasionally assists with sick crew members, limited numbers of personnel and small packages. Tel: (0117) 9822354.

IDENTIFICATION CARDS: Not necessary unless being repatriated.

GARBAGE DISPOSAL: Palladin bins available throughout the docks. Free collection twice weekly. Bins placed alongside at ship's request, £ 15 charge for ship's stay. Cargo waste is incinerated by Port Authority, as is dunnage. Contact Keith Young. Tel: 9820000.

WASTE OIL DISPOSAL: Reception facilities for tank washin contaminated bilge water and other large quantities of oily waste can arranged by ship's Agent to road tanker vehicle on the berth. Furth advice can be obtained from Avonmouth Signal Station, Tel: (011 9822257. Fax: (0117) 9235320.

Drums placed around dock for small quantities of oily waste. Was oil is collected by Port Authority and is taken to motor shop and recycl (750 galls. tank). If ship's waste is in ship's own drums, the Port Author will collect on request. Private companies can be contracted by ship required.

SEAMAN'S CLUBS: Avonmouth International Seafarers Cent Gloucester Road, Avonmouth, Bristol. Tel: (0117) 9822335. Facilit include shop, telephone, postal facilities, currency exchange, snook pool, table tennis, chapel, TV and video, books, bar and transport request.

CURRENCY: U.K.Pound (U.K.£).

DEVELOPMENTS: See "Berthing".

AUTHORITY: The Bristol Port Company, St.Andrew's Roa Avonmouth, Bristol BS11 9DQ. *Tel:* (0117) 9820000. *Telex:* 442 *FAX:* (0117) 9820698. *Contact:* T. Mordaunt, Chairman.

AGENT: Denholm Shipping Services Ltd., Avonmouth Doc Avonmouth, Bristol BS11 9DN. Tel: (0117) 9820491. After office hou (01454) 633490. Telex: 44168. Fax: (0117) 9826272. Cables: "Denho Avonmouth".

BRIXHAM: 50.24 N. 03.30 W. (See Pla

PORT LIMITS: The area below the level of high water enclosed by

(a) An imaginary line drawn from Shoalstone Point in the Parish Brixham, extending in a W.N.Westerly direction for a distance of 6,50 or thereabouts, until it intersects the imaginary line next described;

(b) An imaginary line drawn from the centre of the Old Quarry at O Ref. SX91445723, in a N.Easterly direction for a distance of 3,000 or thereabouts, until it intersects the imaginary line first described, a

(c) The land line of the coast from the centre of Old Quarry afores to the said Shoalstone Point.

DOCUMENTS:

1 Crew List,
1 Passenger List,
2 General Declarations (Customs),
1 Health Document,
1 Manifest,
1 Each Bill of Lading,
1 Ship's Papers,
1 Ship's Certificates,
or
as for other small U.K. Ports.

PILOTAGE: Competant Harbour Authority (C.H.A.) pilot. Tel. (018 882214. If no reply after hours, Tel. (01803) 882060.

DEEP SEA AND COASTAL PILOTAGE: Pilots for all European U.K. ports including the Baltic.

Ships requiring a Pilot at Brixham should cable at least 48 hours be arrival to "Deep Sea and Coastal Pilots" (Telex: 911847 Pilots G "Hammond, Dover" advising and updating ETA Brixham.

2 hours before arrival Brixham – contact "Brixham Pilots" on V Channel 9. Pilots board by fast launch 1 mile N.E. Berry Head (or arrangement). Pilot boats, length 40 ft. and 50 ft., black hull, ora wheelhouse, with "Pilot" in black on wheelhouse. Listening V Channel 9.

Also see "London" – Pilotage.

ANCHORAGES: In Torbay or outside port limits. Contact Pilot Sta on VHF Channel 9 for advice.

MAX. SIZE: Unlimited at anchor. Also see "Berthing".

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Landsend Radio/Niton Radio/Portishead Radio.

VHF: Brixham Coastguard – Channel 16.

Harbour Office – "Brixham Port Radio" – Channels 16 and 14.

Pilots and/or Agents – "Brixham Pilots" – Channel 9.

TUGS: By arrangement.

BERTHING: Small coastal vessels in inner harbour by arrangement Harbour Master, however M.F.V.'s have priority for berthing. P William Marina is situated in S.E. corner of outer harbour (See "Pl Tel. (01803) 882711 or VHF Channel 37.

CRANES: 1×8 tons.

MEDICAL: Contact Brixham and Torbay Shipping Agents.

DENSITY: 1025.

FRESH WATER/FUEL: Available by arrangement.

REPAIRS: Electronic, gyro, engine welding, plumbing by local fir

SURVEYORS: West Marine Surveyors & Consultants Lin Consulting Marine Surveyors, Engineers & Naval Architects, To Devon. Tel: (01803) 865810, 865835. Telex: 42962 Survey G.

REPATRIATION: See "Services".

AIRPORT: Exeter 35 miles away, Plymouth 34 miles away (daily to/from London).

POLICE/AMBULANCE/FIRE: Brixham 2231 or 3065 or 999.

SERVICES: No tank cleaning.

Torbay and Brixham Shipping Agents Ltd. Tel: (01803) 882214. 42737. Cables: Dencade. VHF: Channels 9 and 16. Services of Boarding and landing deepsea and river pilots, technicians engineers, superintendents, repair squads, surveyors, crew chang repatriation facilities, medical assistance, divers/underwater inspe chemist, charts/publications, compass adjuster, spares, provisions, engine/radio/radar/gyro repairs.

Small loads and personnel by fast launch.

Supply boats/barge facilities for storing.

Vessels serviced off-limits, underway or safe deep water anch

SHORE LEAVE: Allowed.

GARBAGE DISPOSAL: Collection service available. Skips provided alongside. Contact Haul Waste. Tel: (01803) 557181. Cleanaway. Tel: Bovey Tracey 833755.

WASTE OIL DISPOSAL: No waste oil disposal system or service is available. Collection may be arranged through BCS Waste Oil Ltd., Unit 2, Whittons Yard, Station Road, Cullompton. Tel: (01884) 33316. J.R.Transport, Honiton, Devon. Tel: (01404) 84378. 3,000 gallons capacity per tanker.

SEAMAN'S CLUBS: Royal National Mission to Deep Sea Fishermen, Overgang, Brixham, TQ5 8AR. Tel: (01803) 859123. Facilities include telephone, church services, postage, cafe.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Borough of Torbay, Town Hall, Torquay TQ1 3DR. *Tel:* (01803) 853321. *Telex:* 42929. *FAX:* (01803) 852434. *Contact:* Captain R. Wells, Harbour's Administrator. Captain N. Jardine, Harbour Master.

BUCKIE: 57.41 N. 02.57 W. (See Plan)

PILOTAGE: Pilots keep VHF watch (Channel 16) 1 hour prior to arrival of vessel.

ANCHORAGES: 1 mile West of West Mucks Beacon.

RESTRICTIONS: Vessels with max. draft berth/sail at HW only.

MAX. SIZE: LOA 82 m., beam 12 m., draft 4.5 m.

BERTHING: Depth at entrance 3.3 m. below LAT. Depth alongside 5.2 m. below LAT.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Deck, engine, radio and radar repairs undertaken.

AIRPORT: Dyce (Aberdeen), 55 miles away.

GARBAGE DISPOSAL: Drums and skips are provided alongside. No charges at present. Collection is at the Harbour Master's discretion.

WASTE OIL DISPOSAL: Limited waste oil disposal service available.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Harbour Master – Buckie, Harbour Office, 28B Commercial Road, Buckie AB56 1UN. *Tel:* (01542) 831700. *FAX:* (01542) 834742. *Contact:* Captain W.S. Mackay, Harbour Master.

Grampian Regional Council, Woodhill House, Westburn Road, Aberdeen AB9 2LU.

BUDE: 50.50 N. 04.33 W. (See Plan)

DOCUMENTS/HEALTH/CONSULS: Port not equipped to accept vessels from abroad.

PILOTAGE: Not normally available (special arrangements may be made).

ANCHORAGES: Outer Harbour dries out at half tide.

Inner Harbour (Canal) 8 ft. draft maximum.

MAX. SIZE: Inner Harbour (Entry via Lock): Length 90 ft. Beam 25 ft. Draft 8 ft.

RADIO: MF Ilfracombe Radio. VHF Severn and Celtic Radio.

VHF: Bude Harbour Office listens on VHF Channel 16 when a vessel is expected.

FRESH WATER: Available via 0.5 in. hose pipe.

TELEPHONE NUMBERS: Harbour Master Bude 353111 (Office), Bude 354719 (Home), Coastguard Falmouth (01326) 317575*, Police Bude 352131.

*Nearest Coastguard.

GENERAL: Port little used by commercial shipping.

GARBAGE DISPOSAL: By arrangement.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

SPECIAL REGULATIONS: Entry to the Harbour is made by leaving Chapel Rock (linked to the Main Land by a Breakwater) to starboard. Head towards the Lock in the Channel marked by 2 pairs of Leading Beacons.

The outer pair of Beacons, bearing 075° 30' (T) consist of a front mark – white Spar with Yellow Diamond Topmark, rear mark – white flag staff, both on cliff top on North side of Harbour.

The inner pair of Beacons, bearing 131° 30' (T) consist of a front beacon – white Pile Beacon with Yellow Triangle Topmark, rear beacon – white spar with Yellow Triangle Topmark, placed 0.5 cable West of Lock Entrance.

The approach to Bude, either from the North or South, should be made from a S.W. direct direction in line with the first pair of Leading Marks.

Immediately on passing Barrel Rock (0.5 cable North of Chapel Rock and marked by a Beacon Barrel) turn to starboard and pick up the inner pair of Leading Marks from which the Lock is clearly visible.

Entry to the Harbour at night not recommended.

Heavy ground swell and breaking seas may prohibit entry and exit.

The Harbour dries out at each Tide and entry of vessels is normally restricted to 2 hours either side of High Water.

For Locking, 18 ft. minimum of water above Chart Datum is required to Lock. A heavy swell may also prohibit the operation of the Lock.

Prior notification of arrival should be made to the Harbour Master if possible.

AUTHORITY: North Cornwall District Council, Trevanion Road, Wadebridge, Cornwall PL27 7NU. *Tel:* (01208) 815073,(01288) 353111. *FAX:* (01208) 893455. *Contact:* M.G. Vanstone, Harbour Master (Home Tel: (01288) 354719).

BURGHEAD: 57.42 N. 03.29 W. (See Plan)

PORT LIMITS:

Lat. 57° 41.976' N., Long. 03° 29.279' W. to
Lat. 57° 41.965' N., Long. 03° 30.337' W. to
Lat. 57° 42.309' N., Long. 03° 30.348' W. to
Lat. 57° 42.318' N., Long. 03° 29.786' W. to
Lat. 57° 42.267' N., Long. 03° 29.768' W.

DOCUMENTS:

1 copy Crew List.
1 copy Manifest Cargo for Discharge.

For Customs documents please contact Head Office of H.M. Customs.

PILOTAGE: Compulsory. Contact Harbour Master. Tel/Fax: (01343) 835337.

ANCHORAGES: One mile West of breakwater.

MAX. SIZE: LOA 60 m., draft 3.5 m. Draft of 3.5 m. – 4.0 m. would be considered on Springs, normally 2 hours before H.W. to 1 hour after H.W.

RADIO: No radio station.

VHF: Call Harbour Office on Channels 16/14.

TUGS: None available.

BERTHING: Vessels will be aground shortly after ebb tide commences.

CRANES: Local stevedore company has 10-50 tonne mobile cranes.

BULK CARGO FACILITIES: Discharge by grabs. Loading by grabs or mobile elevator. Rate about 1,000 tonnes/day.

BRIDGES: None.

STEVEDORES: Local stevedore company is B.L. Cranes. Tel: (01343) 835360.

Normal working hours 0700 hrs. – 2100 hrs. Overtime by arrangement.

MEDICAL: Grays Hospital at Elgin, 9 miles. Local surgery also available. Dental facilities available through Agent.

TANKERS: No facilities.

DENSITY: Nearly always 1025.

FRESH WATER: Available on berths. Rate about 10 t.p.h. (contact Harbour Master).

FUEL: Diesel available by road tanker.

CONSULS: None locally (nearest main port is Aberdeen, 70 miles away).

REPAIRS: Small engineering firms available.

DRY DOCKS: None.

SURVEYORS: Classification surveys from Aberdeen, 70 miles away. Cargo surveyors by shipper/receiver own arrangement.

GANGWAY/DECK WATCHMEN: Not normally required, but could be arranged.

OPENING/CLOSING HATCHES: By crew.

CARGO GEAR: Normally gearless ships use this port.

REPATRIATION: Facilities available.

AIRPORT: Inverness 30 miles. Aberdeen 70 miles.

TIME: GMT. Summertime from March to October.

HOLIDAYS: Cargo may be worked any day by arrangement.

POLICE/AMBULANCE/FIRE: Police: 999. Ambulance: (01542) 832222. Fire: (01343) 546392 or 999,

EMERGENCY CO-ORDINATION CENTRE: Contact Harbour Office.

TELEPHONES: None.

SERVICES: Radio and radar repairs arranged through Buckie, about 24 miles away (Agent will arrange).

Nautical publications and charts from Aberdeen (70 miles away).

BANKS: Bank of Scotland (only open in morning). Tel: (01343) 835314.

STORING: See "Prelims".

(1) Truck.
(2) —
(3) Alongside.
(4) Yes.
(5) —
(6) Yes.

SHIP SUPPLY SERVICE: Pilot boat may be hired for personnel changes, and small amounts of stores.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Seaman's Book sufficient.

GARBAGE DISPOSAL: Normally left on quayside in black plastic bags (no charge).

WASTE OIL DISPOSAL: Waste oil accepted in 40 gallon drums (no charge).

SEAMAN'S CLUBS: None.

DELAYS: None.

AUTHORITY: Grampian Regional Council, Woodhill House, Westburn Road, Aberdeen AB9 2LU. *Tel:* (01224) 664781. *FAX:* (01224) 662005. *Contact:* Hugh Jamieson, Assistant Director of Harbours.

BURNTISLAND: 56.03 N. 03.14 W. (See Plan)

DOCUMENTS: See "Leith".

PILOTAGE: Compulsory. See "Leith".

RESTRICTIONS: Dock gates normally opened from 3 hours before HW until HW.

MAX. SIZE: Width of dock gate 18.2 m. Max. width through gates 16.8 m. Max. depth 8.6 m. MHWS.

RADIO: See "Leith".

RADAR/VHF: Through Forth Navigation Service from Leith.

TUGS: Available from Leith.

BERTHING: 443 m. of quayage at East Dock. Depth 8.6 m. MHWS.

CRANES: 2×10 tonnes grabbing cranes. Mobile cranes available.

BULK CARGO FACILITIES: Bauxite vessels discharge into 2×8,000 tonne barges at anchor. The barges are unloaded by shore cranes in the East Dock.

STEVEDORES: Forth Ports PLC. Tel: (01333) 426725.

REPAIRS: Fabrication yard situated in West Dock. 2×300 ft.×85 ft. bays, depth 19 ft. Local repair companies available.
GARBAGE DISPOSAL: No service is available at the port. All garbage collection is arranged via ship's agents who maintain a list of contractors offering this type of service.
WASTE OIL DISPOSAL: No service is available at the port. All garbage collection is arranged via ship's agents who maintain a list of contractors offering this type of service.
SEAMAN'S CLUBS: None.
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Forth Ports PLC. All enquiries to Forth Ports PLC, Dock Office, Methil, Fife KY8 3RE. *Tel:* (01333) 426725. *Telex:* 72208. *FAX:* (01333) 424873. *Contact (at Methil):* Captain T.S. Sutherland, Port Superintendent. *Tel:* (01333) 426725.

CALEDONIAN CANAL: 57.27 N. 04.18 W.

PORT LIMITS: Craft are considered to be within the Canal when they have entered the sea lock structures.
DOCUMENTS: Masters of craft on through passage must report to the Sea Lock Office at Corpach with the ship's measurement certificates to enable toll declaration to be made. Masters of craft on partial passage starting and returning to the East coast should report to the Clachnaharry Canal Office.
PILOTAGE: Approach pilotage compulsory at Inverness end. Contact Inverness Pilots by Link Call through Inverness 232845 or 235264 (Ships of NRT under 100 tons are exempted). Pilotage within the Canal and West approaches optional. For Pilotage into Corpach from the West for Canal Pilotage, by Link Call to Caledonian Canal Office, Inverness 233140.
RESTRICTIONS: *Caledonian Canal – Opening Hours 1996:*

1st January – 8th March	0915 –1600 hrs.	Mon. – Fri.inclusive.
11th March – 4th May	0800 – 1650 hrs.	Mon. – Sat. inclusive.
6th May – 29th September	0800 – 1800 hrs.	Daily
30th September – 26th October	0800 – 1650 hrs.	Mon. – Sat. inclusive.
28th October – 7th March 97	0915 – 1600 hrs.	Mon. – Fri. inclusive

Lunch break: A 50 minute lunch break will take place at some point between 1200 hrs. and 1400 hrs., the precise time will depend on canal traffic conditions.

Lock and bridge operations take some time to complete, so please try to arrive at each location in time for the last operation before closing time.
MAX. SIZE: 48.77 m. (160 ft.) length overall × 10.67 m. (35 ft.) beam × 2.74 m. (9 ft.) draft fresh water or, alternatively, 45.72 m. (150 ft.) × 10.67 m. (35 ft.) × 4.11 m. (13 ft. 6 in.) draft fresh water.

Corpach sea lock will admit craft to the Corpach Basin only of size 61.87 m. (203 ft.) length overall × 10.67 m. (35 ft.) beam × 4.11 m. (13 ft. 6 in.) draft fresh water.

All dimensions are overall and *NOT* moulded.
HEALTH: Vessels from foreign ports (Non-EEC countries) will be boarded by the Customs/Immigration/Health at the sea locks and they should fly the appropriate international flags on approach.

Also see "Health – All Ports" before first U.K. port.
RADIO: Western approaches via Oban Radio. Eastern approaches via Wick or Stonehaven Radio.
VHF: VHF at Corpach Sea Lock. Call Sign "Corpach Dock".

VHF Channel 74 at Clach sea-lock.
RADAR: None.
TUGS: Not available.
BERTHING: At Corpach Old and New Wharves (limited Customs approval). At Inverness Glenmhor and Glen Albyn Wharves below Muirton and Upper Muirton Wharf at the top of Muirton. Water depth available for craft having 4.110 m. (13 ft. 6 in.) F.W. Normally ships gear or road mobile cranes used.
BRIDGES: Road and rail swing bridges are operated to permit the passage of craft.

Kessock Bridge at Inverness: Headroom restricted to 29.0 m. over highest spring tide. Canal restricted to 27.40 m. by overhead cables.
STEVEDORES: Traffic to Scottish Pulp and Paper Mills at Corpach unloaded by Pulp Mill gangs. Elsewhere arranged through Shipping Agent. Canal office can advise.
MEDICAL: Normal General Practitioners service available at main centres along the Canal. Full Hospital facilities at Inverness.
FRESH WATER: Fire hose supply available at Glen Albyn Wharf, Inverness. Small domestic supplies available at the main lock flights.
FUEL: Available by road tanker from principal oil companies by telephoning Shell, Inverness 238850 or B.P., Fort William 2404; Esso, Inverness 237222.
REPAIRS/DRY DOCK: Limited repairing facilities at the Inverness Boatbuilding, Inverness.

Slip facilities at Corpach Boat Builders, Corpach.
AIRPORT: Highlands and Islands domestic flights from Inverness (Dalcross).
POLICE/FIRE/AMBULANCE: Emergency calls to these services on 999.
GARBAGE DISPOSAL: Eurobins at all locations.
WASTE OIL DISPOSAL: This can be arranged through local companies.
SEAMAN'S CLUBS: None.
GENERAL: The Caledonian Canal is part of the Customs Port of Inverness.
AUTHORITY: British Waterways Scotland, Caledonian Canal Office, Seaport Marina, Muirtown Wharf, Inverness IV3 5LS. *Tel:* (01463) 233140. *FAX:* (01463) 710942. *Contact:* At Corpach: P. Kennedy. Tel: (013977) 249. At Inverness: R. Sawicki, Canal Manager. Tel: (01463) 233140.

CAMPBELTOWN: 55.25 N. 05.36 W. (See Pla

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
1 Stores List.
1 Personal Effect List.
Ship's Register.
1 Manifest or Bill of Lading.
PILOTAGE: Although *not* in Clyde Port Authority area, where lar vessels are concerned, it is advisable to have the services of a qualif Clyde River Pilot or where applicable a Certificated Naval Pilot. A neither are based in Campbeltown, it is essential that at least 24 hou notice be given to Agent, when required.
ANCHORAGE: For large vessels in 6 to 10 fathoms in the area betwe the Orange leading lights and the Methe Bank Buoy, for smaller vesse a wider area can be used but South side of loch best holding.
HEALTH: Normal UK Port requirements. In event of disease or fev prior notice should be given to Agent.

Also see "Health – All Ports" before first U.K. port.
RADIO: All messages through normal coastal stations or by rad telephones via Portpatrick Radio when nearer port. Cables should addressed to Agents.
RADAR/VHF: No port radar service. Direct contact with Harbo Authority on VHF Channels 12, 13 and 14. P.O.L. Depot, Campbelto can be called on 30 – 40 mile radius on Channels 6, 12, 18. Sa channels for tugs, lying off port, when arranged previously.
TUGS: Must be ordered at least 24 hours beforehand as they co from Glasgow area further North on River Clyde. Precise requireme concerning arrival/departure times requested owing to heavy co entailed for waiting time.
BULK CARGO FACILITIES: Berth for vessel up to 230 ft. in length w maximum permissible draft 12 ft. (Salt water). Discharge by shore cra Maximum lifting 5 tons.
SPECIALISED CARGO HANDLING FACILITIES: One berth for Ro on/Roll-off ferry inside harbour, max. draft of vessel 12 ft. General ca discharged.
STEVEDORES: Agents arrange all cargo discharges, includ mechanical handling. Portable cranes only available. Ship's gear us when available to minimise costs.
MEDICAL: One casualty hospital available. Serious casualt transferred to Glasgow either by air or road, according to condition. F local doctors.
TANKERS: All intended arrivals should be notified to Officer-in-Char P.O.L. Depot, Campbeltown (Tel: (01586) 552226) at earliest.

P.O.L. Jetty, minimum depth, 40 ft. One discharging berth availab
FRESH WATER: Available at all times, delivery by hose.
FUEL: Marine gas oil supplied on commercial quay. Naval requireme by arrangement with P.O.L. depot.
REPAIRS: Minimal repairs only. Notify Agent as early as possible.
SURVEYORS: Arrange through shipping Agents.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: Ship's option.
CARGO GEAR: See "Stevedores". Ship's gear preferred whe possible.
REPATRIATION: Air service available once daily in morning, exc Sunday.
AIRPORT: Machrihanish – 3 miles distant.
TIME: GMT. GMT plus 1 hour in Summer.
HOLIDAYS: New Years Day (1st January) Christmas Day, Boxing D 3 Statutory Local Holidays, Annual Holidays 1st fortnight in August.

Work can be carried out by arrangement with Stevedores.
POLICE/AMBULANCE/FIRE: Dial 999.
EMERGENCY CO-ORDINATION CENTRE: Coastguard, New Qu Campbeltown, Tel: 2770.
TELEPHONES: By arrangement.
SERVICES: Laundry/Dry Cleaner, Minimal Radar/Radio, VHF Repa No tank-cleaning equipment available or compass adjusting.
IDENTIFICATION CARDS: Not required. P.O.L. Depot requ production of Seamen's Cards.
BANKS: Bank of Scotland, 9 Longrow, Campbeltown. Tel: 552274
Royal Bank of Scotland, 11 Castlehill, Campbeltown. Tel: 553611
Clydesdale Bank, 19 Longrow, Campbeltown. Tel: 552130.
Trustees Savings Bank, Bolgam Street. Tel: 552550.
SHORE LEAVE: After clearing inwards, crew members are allowe go ashore without special permission.
GARBAGE DISPOSAL: Skips are provided on the quay and collected on Tuesdays and Thursdays.
WASTE OIL DISPOSAL: No service available locally.
SEAMAN'S CLUBS: No Seamen's Clubs. Sporting events ca arranged with prior notice to local clubs.
CURRENCY: U.K.Pound (U.K.£).
GENERAL: Basin of the Clyde: Lat. 55° 25' 0" N., Long. 5° 35' 30" Yacht pontoons available, to the North of the Old Quay. Dredg 3.0 m. MLWST to accommodate 40 yachts.

Tides: Spring rise 8.9 ft; Neap rise 7.5 ft.; depth at sea entrance, low water spring tide; there is a rise of 8 ft. in spring tide in harbo
AUTHORITY: Argyll and Bute Council, Harbour Office, Old Q Campbeltown. *Tel:* (01586) 552036, 552552. *FAX:* (01586) 55 *Contact:* W. MacDonald, Harbour Master, Campbeltown.

P.O.L. Depot, Campbeltown. Officer-in-Charge, Kilkerran R Campbeltown. *Tel:* (01586) 552226.

CARDIFF: 51.29 N. 03.10 W. (See Plan)

PORT LIMITS: A vessel is considered as "arrived" when it is in the lock.

DOCUMENTS: Documentation required for arrival:

C142	2 copies	Crew Declaration
C14	3 copies	Stores Declaration
C13	2 copies	General Declaration (completed by Agent)
C16	2 copies	Cargo Inward Declaration
C74	1 copy	Master's Authority (Agents complete)
C1320	2 copies	Cargo in un-registered spaces

These documents are to be completed and presented with copies of manifests and ship's documents at the time of report.

PILOTAGE: Pilotage not compulsory except for vessels carrying passengers. Pilots embark from pilot cutters operating from Barry Harbour.

A.B.P. Pilot cutters are marked with "Pilots" in white on each side and operate radio continuous watch on VHF. Minimum of 24 hours notice required of ETA.

Pilot operations from Marine Operations Office in Barry.
Tel: (01446) 732665, 735466.
Fax: (01446) 735466.
Telex: 498180 Sewpil G.
24 hour manning.

Pilot cutter keeps watch on VHF Channel 16 and then as required.

ANCHORAGE: Barry Roads: Good anchorages in moderate weather in depths from 5 to 6 fathoms (9.1 m. to 11 m.) about 0.5 miles S.W. of the entrance to Barry Docks. Clay bottom.

RESTRICTIONS: Entry to docks restricted to a period of 4 hours before and 3 hours after high tide, according to size and draft of vessel.

Entrance lock 850 ft. length, 90 ft. wide.

MAX. SIZE:

Queen Alexandra Dock: LOA 650 ft., beam 88 ft. 3 in., max. draft 34 ft.
Roath Dock: LOA 650 ft., beam 85 ft., max. draft 33 ft.

Vessels near maximum dimensions may be accepted on certain tides after consultation with the Dock and Harbour Master.

HEALTH: Maritime Declaration of Health to be made to Port Authority or Customs Officer, whoever boards ship first. In event of contagious fever on board, Port Health Authority must be advised by radio before arrival. No Pratique necessary if vessel is entering port from another port in U.K.

Also see "Health – All Ports" before first U.K. port.

RADIO: Ilfracombe Radio and Portishead Radio.

VHF: A port operation VHF service maintained at dock entrance during tidal hours. Call sign "Cardiff Radio" calling on Channel 16 and operating on Channel 14 or Channel 11. There is also "Severn Radio".

TUGS: Tugs normally join vessel 0.5 mile to seaward of Outer Wrach Channel Buoy, and arrangements for attendance of tugs should be made through ship's Agent.

BERTHING: Arranged through Dock and Harbour Master, and berths within docks are flat quays. Rise and fall usually varies up to 1 ft.

Dock	*Quay Length (Total)* (m.)	*Normal Depth of Water* (m.)	*Max. Size of Vessel* *Length* (m.)	*Beam* (m.)	*Draft* (m.)	*Approx. d.w.t.*
Queen Alexandra	2,234	11.3	198.12	26.9	10.37	33,000
Roath Dock and	2,181	11.0	198.12	26.06	10.37	33,000
Roath Basin	1,174	11.0	158.00	21.30	8.50	18,000

Storage and Warehousing Facilities: Quayside: 5 transit sheds – 32,810 sq.m. (351,050 sq.ft.).

Back sheds: 13,870 sq.m. (149,280 sq.ft.).

Open storage: 8.7 hectares (21.5 acres) with a further 17.4 hectares (43 acres) managed by independent terminal operators.

Cranage and Mechanical Handling: Crane capacity: 1×15 tonnes; 8×7.5 tonnes; 3×5 tonnes; 7×3 tonnes.

1 × Wellman 30 tonne ship-to-shore gantry crane. The port provides a fleet of fork lift trucks for quayside cargo handling ranging from 4,000 lb. to 88,000 lb. capacity.

SPECIALISED CARGO HANDLING FACILITIES:

(i) Cold Storage: King's Wharf Cold Store, owned by Associated British Ports has a capacity of approximately 9,200 tonnes and can operate with temperatures down to −28°C.

(ii) Cool Storage: Cool store with a capacity of approximately 60,000 cartons at any one time. The store is equipped with cooling machinery to maintain temperatures at 50°F – 55°F. (10°C – 13°C.).

(iii) Timber Terminals: Bulk carriers received at deep water berths, discharge of 2,000 cu.m. of timber in a single gang shift, large hardstanding storage areas plus covered accommodation for woodpulp and specialised timber products.

(iv) Combi Vessels: A modern front loading truck of 40 tonne capacity, capable of stowing containers three-high, available for handling.

(v) Bulk Cargoes: 1 grain loading appliance.

(vi) 2 Scrap Berths.

(vii) Container Terminal, South Side, Queen Alexandra Dock, operated by Coastal Container Line.

BRIDGES: Bridges throughout the port can be operated on tide times.

STEVEDORES: Arrangements for employment of stevedores undertaken by A.B.P. through ship's Agent.

Port Working Hours:

	Day Work	*Shift Work*
Monday – Friday	0700 – 1630	0600 – 1400 1400 – 2200
Saturday	0700 – 1130	0600 – 1000 1000 – 1400
Sunday	0600 – 1400	0600 – 1400 1400 – 2200

Vessels may also choose to work 0700 – 1630 (2 hours extra to finish if need be), Monday – Friday.

MEDICAL: All facilities available. Agents should be advised in advance if medical services required.

TANKERS: 2 tanker berths available, one in Queen Alexandra Dock and one in Roath Dock. Special instructions are issued to Master on arrival at port. Average discharge approximately 448 cu.m.p.h.

DENSITY: 1008-1018.

FRESH WATER: Available 24 hours daily from quayside, delivery 20 t.p.h. maximum.

FUEL: Fuel of all grades available.

FIRE PRECAUTIONS: For tankers, strict fire precautions required in accordance with latest safety procedures (Notice to Masters refers).

Emergency Action – Fire: In the event of an outbreak of fire (no matter how small) immediately dial 999 on the ship-to-shore telephone. When the operator answers, say "Fire", and wait until you are connected to the Fire Station Control. Then repeat: "Fire at Berth, (name of berth)". In event of the ship-to-shore telephone being inaccessible or out of order, use short blasts on ship's siren to alert Police and Port Authority. VHF can be used on tide times.

REPAIRS: All types of repairs possible.

DRY DOCKS:

	Length	*Width at Entrance*
Bute Dry Dock	182 m. (597 ft.)	21.7 m. (71 ft.)

Bute Dry Dock owned and operated by Bristol Channel Ship Repairs Ltd.

GANGWAY/DECK WATCHMEN: Performed by ship's crew and necessary for tankers.

OPENING/CLOSING HATCHES: Carried out by ship's crew.

CUSTOMS ALLOWANCES: Usual U.K. allowances.

REPATRIATION: Facilities exist to exchange crews and repatriate to any part of world.

AIRPORT: Airport 11 miles from Cardiff, serving other airports to all parts of world.

TIME: GMT. GMT plus 1 hour in Summer.

HOLIDAYS: New Year's Day; Good Friday; Easter Monday; Whit Monday (Spring Holiday); May Day (1st Monday in May); August (Summer Holiday) one day; Christmas Day; Boxing Day.

POLICE/AMBULANCE/FIRE: Dial 999 on public telephone service and ask for service required, or short blasts on ship's siren to alert Dock and Harbour Master.

TELEPHONES: Ship/Shore telephone supplied at certain berths – service organised through ship's Agent.

SHIP SUPPLY SERVICE: A Ship Supply Service could be provided by Cory Ship Towage with their Tugs at Cardiff if required. Address: Cory Ship Towage Ltd., S.E. Wales Office, Alexandra Dock, Newport, Gwent NP9 2NP. Tel: (01633) 56835/6.

IDENTIFICATION CARDS: Not needed.

GARBAGE DISPOSAL: A covered skip can be provided by the port authority on request. The charge is £80 and this facility can be arranged on application to Dock and Harbour Master.

WASTE OIL DISPOSAL: Service available by road tanker only.

SEAMAN'S CLUBS: The Mission to Seamen, Cargo Road, Bute Docks, Cardiff. Tel: 487634.

CURRENCY: U.K.Pound (U.K.£).

GENERAL: Cardiff is a port which has very big range of tides and important that accurate ETAs and max. drafts supplied by ship's Master in order that Agent may place orders for tugs and Pilots in sufficient time to be in attendance when required.

AUTHORITY: Associated British Ports – Cardiff and Barry, Pierhead Building, Bute Docks, Cardiff, South Glamorgan CF1 5TH. *Tel:* (01222) 471311. *Telex:* 498542 ABPCB G. *FAX:* (01222) 471100.

Contact: L.R. Gravestock, Port Manager – Cardiff and Barry. J.P.L. Davey, Operations Manager. Captain R.S. Grubb, Dock and Harbour Master. N.G. Glenton, Commercial Manager. D.J. Harrison, Assistant Port Manager/Port Engineer.

CARRICKFERGUS: 54.43 N. 05.48 W. (See Plan)

PORT LIMITS: No. 1 Buoy Belfast Lough.

DOCUMENTS:

2 Crew Lists,
2 Passenger Lists,
1 Stores List,
1 Personal effects List,
Ships Register,
1 Manifest or Bill of Lading.

PILOTAGE: Port Pilotage not compulsory but advisable. Pilots based at Carrickfergus Harbour. All Pilotage carried out by Belfast Pilots. Pilots board at No. 1 Buoy, Belfast Lough. Pilots can be contacted by VHF Channel 12.

ETA Messages: Advise Agents at least 24 hours before arrival through any British Coast Station and Pilots not less than 1 hour before arrival. (A) ETA No. 1 Buoy (B) ETA GMT or BST (C) Draft SW.

ANCHORAGE: Midway between Harbour and Greypoint.

HEALTH: No Certificates required, in event of disease contact Agents.

Also see "Health – All Ports" before first U.K. port.

RADAR/VHF: No Port Radar Service. Harbour VHF Channels 14, 12 and 16 operated approximately 3 hours before HW to 1 hour after if ships are due. Contact Harbour on Channel 16.

TUGS: Tug available in harbour. Notice required 30 minutes.

BERTHING: Harbour Tidal:

Depth alongside all berths MHWST	4.88 m.
Depth alongside all berths MLWST	1.83 m.
Max. draft of vessels	4.88 m.
Max. Beam of vessels	12.20 m.
Width at entrance	19.80 m.

Quays:

Length of Commercial Quay	278 m.
No. 1 Berth (Caustic Acid)	64 m.
No. 2 Berth (Tanker Berth)	74 m.
No. 3 Berth (Most bulk cargoes)	76 m.
No. 4 Berth (Coal,Sulphur, Meal, etc.)	64 m.

Vessels discharging take bottom on soft mud.

Average discharge 2 grabs 150 t.p.h. at No. 3 and 4 Berth.

STEVEDORES: Provided by Messrs. John Kelly Ltd., Tel: 62612. Telex: 74210 and Kane Shipping, Tel: 51999.
MEDICAL: One hospital available.
TANKERS: Discharge controlled by Texaco Ltd., as plant is owned by them privately. Rate of discharge approximately 200 t.p.h. 2×8 in. diameter pipes and 1×6 in. pipe.

Usual safety precautions prevail.

Tankers not to enter port without permission of Harbour Master.

Max. draft MHWST 4.88 m.
DENSITY: 1024.
FRESH WATER: Supplied alongside quay approximately 10 t.p.h.
FUEL: Supplied by road tankers. All grades available from major Oil Companies.
CONSULS: None. Most countries are represented at Port of Belfast approximately 9 miles from harbour.
REPAIRS: Light repairs and welding only major repairs can be arranged at Belfast.
DRY DOCKS: None. Nearest at Belfast.
SURVEYORS: Most Classification Societies based at Belfast.
GANGWAY/DECK WATCHMEN: Not compulsory.
OPENING/CLOSING HATCHES: All vessels by crew.
CERTIFICATES: Ship's Register on arrival.
CUSTOMS ALLOWANCES: 200 cigarettes each crew member. Spirit, wine, etc., at discretion of Water Guard.
CARGO GEAR: Three crawler mounted diesel grab cranes, 3,100 kg. and 3,045 kg.
REPATRIATION: Good facilities for crew changes. Good railway and bus services.
AIRPORT: Belfast Airport approximately 22 miles served by regular lines.
TIME: GMT, plus 1 hour in Summertime.
HOLIDAYS: New Years Day, Easter Monday and Tuesday. 12th and 13th July, Christmas Day and Boxing Day.
POLICE/FIRE/AMBULANCE: 62021.
TELEPHONES: Not possible to place on board. Good telephone service convenient to ships.
SERVICES: All services readily available from Port of Belfast.
SHIP SUPPLY SERVICE: Off-shore service operated from the Port of Carrickfergus by 2 tugs, the "Ceres" and "Cobh".

Lagan Marine Services, 2 Downhill Park, Newtownabbey, Co. Antrim BT36 6TX, Northern Ireland. Tel: Glengormley 2353, Belfast 746051.
GARBAGE DISPOSAL: Skips provided for general garbage but no galley slops allowed. They are collected once weekly by Carrickfergus Borough Council, free of charge.
WASTE OIL DISPOSAL: Service available using 16 tonne tanker trucks. Contact Irish Waste, 116-120 Duncrue St., Belfast BT3 9AR. Tel: Belfast 746327.
SEAMAN'S CLUBS: Nearest seamans clubs are in Belfast, 12 miles distant. Mission to Seamen and Stella Maris.
CURRENCY: U.K.Pound (U.K.£).
SHORE LEAVE: After clearing inwards no restriction on shore leave.
IDENTIFICATION CARDS: Not required.
AUTHORITY: Carrickfergus Borough Council and Harbour Master, Town Hall, Carrickfergus, Co. Antrim BT38 7DN. *Tel:* (019603) 51604 (Council), 51292 (Harbour Master). *FAX:* (019603) 66676 (Harbour Master). *Contact:* Captain R.S. Heddles, Harbour Master/Manager.

CASTLETOWN, Isle of Man: 54.04 N. 04.39 W.

PORT LIMITS: Castletown Bay, North of line between Scarlet Point and Langness Lighthouse.
DOCUMENTS: Same as U.K.
PILOTAGE: Not compulsory. If required, Pilot will board East of can buoy in bay.
ANCHORAGE: About 2 cables East of red can buoy. Exposed to S.-S.W.'ly weather.
RESTRICTIONS: Berthing at HW only. Max. draft 11.5 ft. Springs, 9.5 ft. Neaps.
MAX. SIZE: LOA 170 ft., beam 27.5 ft., draft subject to tides.
HEALTH: Same as U.K. ports.
VHF: Calling Channel 16, working Channel 12. Listening only when vessels due.
TUGS: None.
BERTHING: 2 berths, 170 ft. max. length. All dry out.
CRANES: Mobile crane, SWL up to 25 tonnes available.
BRIDGES: At entrance to Inner Harbour. Opened on request.
STEVEDORES: 24 hours notice should be given to Agent.
MEDICAL: Full hospital facilities available.
TANKERS: No facilities.
DENSITY: 1025.
FRESH WATER: Available ex-hydrant at all berths.
FUEL: Diesel available by road tanker.
FIRE PRECAUTIONS: Usual.
CONSULS: None.
REPAIRS: Minor repairs only.
DRY DOCKS: None.
SURVEYORS: I.O.M. Department of Transport, Marine Administration. Tel: (01624) 686643. Fax: (01624) 627238.
HATCHES: Crew or stevedores to operate hatches.
CUSTOMS ALLOWANCES: Same as U.K.
CARGO GEAR: Ship's gear or mobile crane used.
AIRPORT: 2 miles away. Daily flights to U.K. and Eire.
TIME: GMT and BST.
HOLIDAYS: December 25th and 26th, January 1st and 2nd, Go Friday, Easter Monday, Spring Bank Holiday, July 5th and August Ba Holiday.
POLICE/AMBULANCE/FIRE: Police – Tel: (01624) 8222 Ambulance/ Fire – Tel: 999.
EMERGENCY CO-ORDINATION CENTRE: Liverpool Coastgua Tel: (0151) 9313341.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Seaman's Book sufficient.
AUTHORITY: Department of Transport, Harbours Division, S Terminal Building, Douglas, Isle of Man IM1 2RF. *Tel:* (01624) 6866 *FAX:* (01624) 626403. *Contact:* Captain E.E. Kaighin, Director Harbours.

Castletown Harbour is administered from Port St. Mary Harbo (Tel/Fax: (01624) 833206). See "Port St. Mary".

CLYDE PORT (Including Glasgow, Greenock, Finnart a Hunterston): 55.51 N. 04.16 W. **(See Pla**

PORT LIMITS: For limits of jurisdiction see "Plans" – "Firth of Cly and Sea Lochs".
DOCUMENTS: Following required on arrival:

3 Crew Lists on IMO Standard Form.
3 General Declarations. Customs Form C13.
3 Ships Stores Declarations. Customs Form C14.
2 Cargo Manifests. Customs Form C16.
1 Personal Effects Declaration. Customs Form C142.
Declaration of Health.
Bills of Lading.
Register.
Load Line Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Safety Construction Certificate.
Derat or Derat Exemption Certificate.

PILOTAGE: Compulsory pilotage.

1. *The Seaward Limit of Compulsory Pilotage* means an imaginary commencing at the intersection of the line of Longitude 05° 06' with the North shore of Loch Striven, and then proceeding due So to the North shore of the Island of Bute, and by the same line Longitude, from the South shore of the Island of Bute, to the Latitu of Gull Point on Little Cumbrae Island; thence by a line extend due East (T) to Gull Point; thence by a line proceeding in the direct 143° (T) for a distance of 7 nautical miles; and thence by a l proceeding in the direction 053° (T) to the Northern boundary of Harbour of Saltcoats.

   The Landward Limit of Compulsory Pilotage means the West s of Albert Bridge in the City of Glasgow.

   The Inner Pilotage Area means that part of the River and Firt Clyde, including Greenock. The navigable river channels Garelo Loch Long and Loch Goil contained within an imaginary line fr Kempock Point proceeding in the direction 295°(T) to Strone Po

   The Outer Pilotage Area means that part of the Firth of Clyde, H Loch and Loch Striven within the area bounded by an imaginary from Kempock Point proceeding in the direction 295°(T) to Str Point and The Seaward Limit of Compulsory Pilotage.

   The Compulsory Pilotage District means that part of the area jurisdiction of the Clydeport Ltd. as defined in the Clydeport Autho Confirmation Act 1965 and subsequent amendment(s) contai between the seaward limit of Compulsory Pilotage and the landw limit of Compulsory Pilotage.
2. The following vessels will be required to engage the services o authorised Clyde Pilot when navigating within the Compu Pilotage Area of Clydeport.
   (a) Vessels over 80 m. length overall (LOA), carrying danger substances as defined in the Dangerous Substances in Har Areas, Regulations 1987, in bulk and all vessels which are Gas Free.
   (b) All vessels of 25 m. length overall (LOA), carrying in exce 12 passengers.

Note: Passenger vessels as above (b) proceeding to Loch Fyne or K of Bute will also require the services of a licensed Pilot.

3. A vessel not carrying passengers navigating within the Compu Pilotage Areas and complying with the following conditions sh exempt from Compulsory Pilotage.

   In the Inner Pilotage Area:
   (a) Vessels not exceeding 70 m. length overall (LOA).
   (b) Vessels not exceeding 60 m. length overall (LOA) proce East of No. 1 Buoy.
   (c) Vessels under tow, dumb barges, etc., when proceeding of No. 1 Buoy not exceeding 35 m. length overall (LOA)

In the Outer Pilotage Area:

(a) All vessels up to 120 m. length overall (LOA) transiting the area. Vessels up to 80 m. length overall (LOA) proceeding to Hunterston, Loch Strivan, Inverkip, or other berths or anchorages within the Outer Pilotage Area.

(b) Ardrossan, vessels not exceeding 100 m. length overall (LOA).

4. In the event of the Master or First Mate of any of above vessels holding a current Pilotage Exemption Certificate issued by Clydeport, the services of an Authorised Clyde Pilot will not be required unless requested and available.

5. *Voluntary Pilotage:*
If requested and subject to the services of a Pilot being on offer, any vessel may request pilotage when navigating within the jurisdiction of Clydeport.

6. The Clydeport directs that vessels, which are subject to Compulsory Pilotage or request voluntary pilotage as aforementioned, shall:

(1) Give such notice of estimated time of arrival or departure as may be required by Clydeport Notice to Mariners or other appropriate notification. Failure to provide such notice, or failure to arrive or depart within 2 hours of the notified time, will be penalised by a charge in accordance with that specified in the Clydeport Schedule of Charges.

(2) Board or disembark a Pilot at a previously arranged location determined by the Pilotage Area to be served and weather conditions prevailing.

ANCHORAGES: Anchorages are available for vessels of all drafts in the Tail of the Bank area (off Greenock) and lower Firth of Clyde.

Anchorages are allocated by Clyde Port Estuary Radio. The anchorage positions are shown on Admiralty Charts Nos. 1907 and 1994.

RESTRICTIONS: Vessels entering the river channel are restricted to a maximum fresh water draft of 9.7 m. Entry time for deeply laden vessels is dependent on the rise of tide.

Damaged vessels and vessels that are not in class must have a current Seaworthy Certificate and prior permission from the Harbour Master before entering the area of jurisdiction of the port.

MAX. SIZE: As agreed by Clydeport Ltd. for berths in Glasgow and Greenock and subject to consideration of particular circumstances prevailing in each case.

HEALTH: Masters should report by radio to "Porthealth Glasgow" any infectious illness which has occurred, or which has been suspected, during the voyage.

Also see "Health – All Ports" before first U.K. port.

RADIO: Traffic should be routed through any British coast station.

VHF: Clyde Port Estuary on Channels 16, 14, 12 and 11 for all communications regarding pilotage and navigation.

RADAR: There is no port radar.

TUGS: As required by Master and under advice of the Marine Management. Tug's lines are always used.

BERTHING: *General, Bulk, Scrap and Project Cargoes:* Discharged and loaded at Shieldhall Riverside Quay and King George V Dock, Glasgow.

Bulk Cargoes, Forest Products, Container and Ro-Ro Vessels: Handled at Greenock Terminal where 2 ships can work simultaneously. Berth is equipped with 1×40 ton and 2×35 ton transporter cranes with an outreach of 105 ft. beyond the line of the cope. The quay is 1,200 ft. long with a depth of 12.6 m. at Chart Datum.

Ro-Ro Units: Can be handled at King George V Dock, Glasgow and at James Watt Dock and Garvel Basin, Greenock.

BULK HANDLING FACILITIES: Iron ore and coal are handled at Clydeport Hunterston Terminal where discharging vessels up to 350,000 d.w.t. and loading vessels up to 70,000 d.w.tonnes can be accommodated. Depth alongside up to 29 m. Max. draft 26.0 m. 2 unloaders, rates up to 3,000 tonnes per hour for ore and 1,000 tonnes per hour for coal.

Scrap iron and minerals are handled at Rothesay Dock (Clydebank) where vessels up to 535 ft. in length with a draft up to 9.4 m. in fresh water may be accommodated. With prior arrangement vessel in excess of 535 ft. may be accepted. Product tankers are also handled within this dock.

Bulk molasses is handled at a berth within the Great Harbour Greenock. Vessels using this berth are restricted to a fresh water draft of 7.1 m.

Bulk cargoes are grab discharged at Meadowside Quay (Glasgow) to shore transport. Max. draft for vessels using Meadowside Quay is 9.7 m. in fresh water.

CRANES: Cranes presently in use by Clydeport Ltd. at Glasgow are: 2×10 tons, 1×25 tons, 1×30 tons, 1×35 tons, 1×160 tons.

BRIDGES: Erskine Bridge, which spans the navigable river channel, has a 59.92 m. on centre line, clearance above chart datum 1975.

STEVEDORES: Arranged by ship's Agent in accordance with Master's advice of ETA.

MEDICAL: Full medical and hospital facilities available.

TANKERS: BP Oil Ltd.: Privately operated crude oil terminal at Finnart.

The terminal is located on the East side of Loch Long (Lat. 56° 07' N., Long. 04° 50' W.) 25 miles from the Pilot Station off Little Cumbrae. There are 2 berths of which No. 3 accommodates about 300,000 d.w.t. tankers with a max. draft 75 ft. and No. 2 Berth, to the S.W., is used for about 200,000 d.w.t. with a max. draft 54.5 ft. and smaller tankers.

Berth Approach and Berthing: The berths are well sheltered, the water in Loch Long is deep and, with little tidal flow, berthing can be done at any state of the tide.

Berthing is done only in daylight, but ships can sail at any time. Vessels are turned about 0.5 miles seaward with tug assistance and backed up to the berth port side to, head out.

Tugs push on the off-shore side to breast the vessel alongside until secured.

Moorings: Ship's moorings are landed by launches. The usual pattern of moorings at Berth No. 3 is 5 head ropes, 5 stern ropes, 1 ship's breast rope at each end and 2 backsprings at each end to the jetty head. A 5.5 in. wire with "braidline" tail is provided by the shore as an additional breast mooring at each end. All ship's ropes are secured to quick release hooks.

At Berth No. 2 vessels secure to bollards with 4 head ropes, 4 stern ropes and 1 backspring at each end to the jetty head. A shore wire is provided at each end as a breast mooring.

Gangway: At Berth No. 3 a shore gangway is provided. At Berth No. 2 the ship must provide a safe gangway. Access to and from the ship must be by the gangway only.

Limitation on Height of Ship's Manifold: Prior notice must be given to the terminal if the height of the ship's manifold will exceed 68 ft. above waterline.

Cargo Handling: Each berth has the following Woodfield Combination hose/booms: 4 for crude oil (10 in. on Berth No. 2, 16 in. on Berth No. 3), and 2 for fuel oil imports and bunkering (8 in. on Berth No. 2, 10 in. on Berth No. 3). These connect with tankfarm by 2×12 in. fuel oil pipelines and 14×12 in., 24 in., 42 in. crude oil pipelines.

The maximum pressure allowed is 200 p.s.i.

There are facilities for loading lube oils.

Ballast and Slops: There is no facility for receiving dirty ballast or slops at the terminal. The tank cleaning berth at Greenock is no longer in operation.

Density of Water: The specific gravity averages 1.012 at the berths.

Services: No bunkers are available over the jetty. Ample prior notice is required for delivery by barge. Fuel and diesel oils are delivered by a barge with a fuel oil capacity of 440 tons and a diesel oil capacity of 118 tons. A 6 in. hose is used and the barge delivers both grades at 100 t.p.h.

Fresh water, of good soft quality, is piped to the berths at 50 t.p.h. Maximum quantity is 500 tons.

Normal domestic services, stores, laundry, etc. may be handled over the jetty with permission of the Terminal Authority.

A 1.5 ton crane is available for use at the berths.

A coin-operated telephone will be put on board, upon request.

Esso: Located at Bowling. This is a privately owned product distribution terminal, located 11 miles from Kempock Point and 9 miles up the River Clyde on the North Bank. The terminal is now supplied by land pipeline. The tanker berth is currently non-operational.

DENSITY: Glasgow – Fresh; Greenock – Brackish; Hunterston – Salt.

FRESH WATER: Available by hose at all berths operated by Clydeport Ltd.

FUEL: Most major oil companies are represented in Glasgow. All grades of bunker oil can be supplied by road tanker and by pipeline at Bowling Terminal.

FIRE PRECAUTIONS: Masters of vessels at the Authority's berths are given, on arrival, a copy of the Port Regulations and Emergency Procedures.

Oil tanker berths are privately owned and the operators issue their own Fire Regulations.

CONSULS:

Belgium
Brazil
Canada
Cyprus
Denmark
Domincan Republic
Ecuador
Finland
Gambia
Germany
Greece
Iceland
India
Italy
Netherlands
Norway
Panama
Peru
Philippines
Poland
Portugal
Spain
South Africa
Sweden
Thailand
Uruguay

REPAIRS: All types of repairs can be effected in the area.

DRY DOCKS: Largest dry dock is 1,000 ft. long with 145 ft. clear width at entrance.

In addition there are 4 other smaller dry docks in the Glasgow and Greenock area and 2 Patent slipways at Renfrew (1×1,000 tons and 1×125 tons).

SURVEYORS: The following are represented in the area: Lloyd's Register of Shipping, Norske Veritas Register of Shipping, Bureau Veritas Register of Shipping, American Bureau of Shipping, The Salvage Association.

In addition, a number of independent marine and cargo surveyors are available.

GANGWAY/DECK WATCHMEN: Shore watchmen are available from private contractors but need only be engaged at the discretion of the Master.

HATCHES: Opening and closing of hatches may be carried out by ship's crew.

CUSTOMS ALLOWANCES: Standard United Kingdom allowances.

CARGO GEAR: Under normal circumstances, cargo is handled by shore equipment.

REPATRIATION: Repatriation can be arranged to all countries.

AIRPORT: Glasgow Airport (12 miles from city centre) and Prestwick Airport (30 miles from city centre) are both served by a number of major airlines.

Air UK have flights from Glasgow to Amsterdam and London (Gatwick and Stanstead).

TIME: GMT, but British Summer Time (1 hour ahead of GMT) in force during the Summer.

HOLIDAYS: Details of official dock holidays on which cargo work cannot be arranged can be obtained from the Marketing Department of the Port Authority, on request.

POLICE/AMBULANCE/FIRE: Can be called on the public telephone system by dialling 999 or by contacting Clyde Port Estuary Radio on VHF Channel 16.

EMERGENCY CO-ORDINATION CENTRE: H.M. Coast Guard (Marine Rescue and Co-Ordination Centre), Navy Buildings, Eldon Street, Greenock. Tel: (01475) 729988. Fax: (01475) 786955. Telex: 777006.

TELEPHONES: British Telecom can supply telephones at most berths. Agent will arrange and advise costs.

SERVICES: Facilities are available for repairs and service to radio equipment and navigation aids. A compass adjuster is based at Glasgow.

There are no facilities for cleaning oil tankers, but small quantities of oil/sludge may be removed by road vehicles.

BANKS: All National and many European and International banks have branches in Glasgow.
SHIP SUPPLY SERVICE: *Surface Craft:* Clyde Marine Motoring Co. Ltd., Princes Pier, Greenock, Renfrewshire.
Clyde Shipping Tugs Ltd., Clydesdale Bank Building, Greenock, Renfrewshire.
Cory Ship Towage (Clyde) Ltd., 12 Brymer Street, Greenock, Renfrewshire.
Maritime Craft Services (Clyde) Ltd., 87 Main Street, Fairlie, Ayrshire.
R. Ritchie, Esq., Royal Street, Gourock, Renfrewshire.
Talisman Offshore Services, 46 Cambusdoon Place, Kilwinning, Ayrshire.
Helicopters: Air Charter (Scotland) Ltd., Glasgow Airport, Paisley.
Burnthills Aviation Ltd., Glasgow Airport, Paisley.
McAlpine Helicopters Ltd., Glasgow Airport, Paisley.
SHORE LEAVE: Shore leave is at Master's discretion.
IDENTIFICATION CARDS: Not required to be carried.
GARBAGE DISPOSAL: Disposal carried out by contractors with covered skips.
WASTE OIL DISPOSAL: Disposal carried out by contractors with road tankers.
SEAMAN'S CLUBS: Stella Maris Guest House, 10 Hillhead Street, Glasgow. Tel: (0141) 3392494.
CURRENCY: U.K.Pound (U.K.£).
REGULATIONS: Special regulations apply to the handling and transit of explosives.

There are special requirements in force regarding the production of a gas free certificate for OBO and ore/oil vessels calling at Clydeport Hunterston Terminal.

It is a requirement of Clydeport Ltd. that every vessel in excess of 1,600 g.r.t., constructed or adapted for the carriage of oil, chemicals or gas in bulk, complies with the reporting procedures as specified in Merchant Shipping Notice No. M1630 reporting requirements for vessels bound for or leaving Community ports and carrying dangerous and polluting goods (European Council Directive 93/75/EEC), and general requirement for United Kingdom ships carrying dangerous or polluting goods.
AUTHORITY: Clydeport Operations Ltd., 16 Robertson Street, Glasgow G2 8DS. *Tel:* (0141) 2218733. *FAX:* (0141) 2483167. *Contact:* J. Mather, Chairman and Chief Executive. Captain W. Gillespie, General Manager Marine.

COLCHESTER: 51.54 N. 00.55 E. (See Plan)

PORT LIMITS: Colne Point – No. 1 Buoy.
DOCUMENTS: As normal British port.
PILOTAGE: If Pilot required from Sunk to Brightlingsea, notice to be given to vessel's local Agent. Pilots board near Sunk Light Vessel. ETA's for ships proceeding directly to Brightlingsea can be passed through Harwich, which has a far greater range than Colchester. River pilots can also be ordered directly via "Colchester Harbour Radio", if during operating hours on Channel 68.
ANCHORAGES: Off Brightlingsea, in approximately 8 m. – 10 m.
RESTRICTIONS: Vessels with deck cargoes of timber, and vessels which are large for the port not worked at night.
MAX. SIZE: Max. length at Colchester, 63 m. Max. length at Rowhedge up to 96 m. Vessels over 85 m. LOA must be cleared with the Harbour Master. Depths of water available – Tables supplied on request.
HEALTH: Normal procedure. Any abnormal conditions advise Harbour Master. Pratique automatic if from U.K. port.
Also see "Health – All Ports" before first U.K. port.
RADIO: North Foreland Radio, Humber Radio or Niton Radio. 2182 kHz.
VHF: "Colchester Harbour Radio", VHF Channel 68. Office hours watch plus tide time watch when ships expected. Vessels should call when approaching port anchorage, giving draft fore and aft and total cargo tonnage, and keep listening watch on Channel 68 when manoeuvring.
RADAR: None.
TUGS: Small motor tug available through Harbour Master. Private tugs also available.
BERTHING: 1,500 m. of public (corporation) quays. 150 m. quay at Rowhedge.
CRANES: A number of 4 ton – 6 ton mobile cranes.
BULK CARGO FACILITIES: Bulk cargoes handled at most berths, 3 grain silos.
STEVEDORES: Arranged by Local Agents. Average rate for all cargoes 100 t.p.h.
MEDICAL: Advance notice if possible. Hospital available.
TANKERS: No facilities.
DENSITY: Density varies with tide, average 1015.
FRESH WATER: Fresh water points on quays, rate approximately 9 tonnes/p.h., cost £43.30 per delivery.
FUEL: All fuel deliveries by road tanker.
FIRE PRECAUTIONS: None.
CONSULS: None.
REPAIRS: No facilities.
SURVEYORS: Lloyd's Agent (W. Fieldgate & Son) or ship's Agent can arrange.
GANGWAY/DECK WATCHMEN: Not normally required.
OPENING/CLOSING HATCHES: By crew.
CUSTOMS ALLOWANCES: British standard allowance.
CARGO GEAR: Shore gear, no heavy lifts.
REPATRIATION: Arranged by Agents.
AIRPORT: London 70 miles. Stansted 30 miles.
TIME: GMT. GMT plus 1 hour in Summer.
HOLIDAYS: Normal British holidays, work sometimes arranged.
POLICE/AMBULANCE/FIRE: Tel. 999.
EMERGENCY CO-ORDINATION CENTRE: U.K. Coastguard – Dial or VHF Channel 16 or Tel: Walton-on-Naze 5518. Harbour Emergenc – Call on VHF Channel 16 or Tel: 827316.
TELEPHONES: None.
SERVICES: Compass adjusting arranged by Agents.
BANKS: Barclays, Midland, Nat-West and Lloyd's all have branches the town.
STORING: See "Prelims".
1. By truck.
2. Not applicable.
3. Yes, subject to cargo handling.
4. Yes
5. Normal U.K. Requirements.
6. Yes.
GARBAGE DISPOSAL: Bins on quays.
WASTE OIL DISPOSAL: By arrangement with Harbour Office.
SEAMAN'S CLUBS: None.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Not required.
DELAYS: Normally tidal delays only.
AUTHORITY: Colchester Borough Council, Harbour Office, Wa Radcliffe Way, Wivenhoe, Essex CO7 9JR. *Tel:* (01206) 8273 *FAX:* (01206) 827023. *Contact:* Captain R. Harris, Harbour Master.

COLERAINE: 55.08 N. 06.40 W. (See Pla

PORT LIMITS: 5.5 mile tidal stretch of the River Bann to the entrance.
River entrance: 55° 10' N., 06° 46' W.
DOCUMENTS: Normal U.K. requirements.
PILOTAGE: Compulsory, order through Agents or direct from Harb Office or Pilot. 24 hours notice preferred. Pilot Station, Portstewart B Pilot boat call sign "S. G. Martin", call on Channel 12, working Chan 12.
ANCHORAGES: Vessels awaiting tide can anchor in Portstewart B in offshore winds or in Skerry Roads, East of Portrush.
RESTRICTIONS: The port is tidal and deeper vessels are restricted high tides. Limited night working.
MAX. SIZE: The recommended maximums are 75 m. length, 12.0 breadth and 4.2 m. draft.
HEALTH: Normal U.K. procedure.
TUGS: Not normally required, nearest available tug is at Londond Harbour.
BERTHING: Main Quay 900 ft., 2 detached wharves 140 ft. and 15 Max. draft vessels may ground safely on mud at LWST.
CRANES: Two Priestman Lion 35 grabbing cranes for bulk coal, 1×35 ton Henderson derrick crane for containers or heavier lifts.
SPECIALISED CARGO HANDLING FACILITIES: No facilities Ro/Ro traffic.
BRIDGES: A railway bridge with 60 ft. lifting span crosses the 0.5 miles down stream from the Harbour.
STEVEDORES: Messrs. Callan Enterprises Shipping. Tel: (012 320829. Fax: (01265) 321191.
MEDICAL: Full hospital/medical facilities available.
DENSITY: Varies between fresh and salt, depending on weather tide conditions.
FRESH WATER: Fresh water is available from mains hydrants berths.
FUEL: All grades available, 48 hours notice advisable.
REPAIRS: Local engineers can carry out most repairs. Divers available for underwater work.
DRY DOCKS: None.
HATCHES: Hatches normally opened or closed by the crew.
AIRPORT: Belfast International (Aldergrove) 40 miles. Belfast (har airport) 60 miles, Eglinton, 24 miles.
HOLIDAYS: 1st January, Easter Monday/Tuesday, May Day, 12th July, Last Monday in August, 25th/26th December.
POLICE/AMBULANCE/FIRE: Tel: 999 in emergencies.
GARBAGE DISPOSAL: Plastic bags made available and remove harbour staff. No charge. Skips can be arranged at cost throug harbour office. Large skips £35.25, small skips £25.85, plus £15.5 tonne landfill tax.
WASTE OIL DISPOSAL: Service available using local contractors clean waste oil, contact Capital Fuels, Ballynah Tel: (01238) 561574. For dirty waste oil, contact Irish Waste Serv Belfast. Tel: (01232) 746327. Small quantities can be accepte harbour's own facility.
SEAMAN'S CLUBS: No seaman's clubs.
CURRENCY: U.K.Pound (U.K.£).
DELAYS: Vessels may be delayed by swell at the river entrance weather conditions.
AUTHORITY: Coleraine Harbour Commissioners, The Harbour 4 Riversdale Road, Coleraine, Co. Londonderry BT52 1RY. *Tel:* (0 42012. *FAX:* (01265) 52000. *Contact:* W.J.L. Duddy, Harbour Ma

COWES (including Newport, Isle of Wight): 50.46 N. 01.18 W. (See Plan)

PORT LIMITS: As shown on British Admiralty Charts.
DOCUMENTS: As for "Portsmouth".
PILOTAGE: Pilotage is compulsory for vessels of 50 m. and above in length overall and passenger vessels of 20 m. and above in length overall whilst carrying more than 12 passengers/sub-standard ships.

Boarding/landing points for Cowes Pilots: Vessels up to 61 m. in length overall, in vicinity of Prince Consort Buoy. Vessels of 61 m. and above in length overall (bound to/from Cowes): (a) Western Limit ABP Southampton, in vicinity of Gurnard Buoy. (b) Eastern Inner Limit ABP Southampton (North Sturbridge Buoy).
Note: Vessels of 61 m. – 150 m. LOA may board a Cowes Pilot on a voluntary basis at the New Grounds – in the vicinity of the Eastern Outer Limit (Nab Tower).
Note: 6 hours (minimum) notice required.

Cowes Pilots also conduct vessels to berths in Newport Harbour area of jurisdiction.

Pilots board from launches "Thosbro"/"Blaavand", which are equipped with multi-channel VHF radio. During office hours Pilots can be obtained by link call to the Harbour Office Cowes (01983) 293952 or by VHF radio ("Cowes Harbour Radio") Channel 69. After office hours telephone (01983) 292033/882935/295733.
ANCHORAGES: Vessels less than 61 m. LOA waiting to proceed to Cowes or Newport should anchor in Cowes Roads, S.E. of Prince Consort Buoy and North of all yacht moorings. Vessels of more than 61 m. LOA, awaiting a Pilot, should anchor in the vicinity of the Saltmead Buoy (Western Solent) or St. Helens Roads (Eastern Solent) (Note: If these anchorages are unsuitable, owing to weather conditions, then vessels of 61 m. – 150 m. LOA may embark a Cowes Pilot and proceed to anchor in Cowes Roads (Triangle) to await entry into Cowes Harbour). The prohibited anchorage on either side of the leading line must be respected, and vessels must not obstruct the fairway into Cowes, nor the deep water channel used by large vessels bound for Southampton. The mooring buoy is reserved for the Trinity House lighthouse tender and naval vessels. Mooring chains run East and West for 500 ft. from each of these mooring buoys. Tidal streams in the anchorage are strong. Cowes is an international yachting centre, and the anchorage is often crowded with small craft, especially during July, August and September.

Cowes Roads anchorage, North of the deep water channel, is used by large vessels waiting to berth in Southampton Water, taking bunkers or changing crews.
MAX. SIZE: Cowes – 95 m. (312 ft.) long, 4.7 m. (15 ft. 06 in.) draft at MHWN, 5.3 m. (17 ft.06 in.) draft at MHWS. Vessels must expect to take the bottom in soft mud at LW. Newport – 150 ft. long, 9 ft. 06 in. draft at MHWS. Newport Harbour practically dries out at LW.
RESTRICTIONS: Tankers may load and discharge at all times, subject to the Petroleum Acts.
FLOATING BRIDGE: A chain ferry plies between East and West Cowes. An all-round flashing white light is shown from the leading end of the bridge when under way. Approaching vessels should sound 1 prolonged blast on the whistle when not less than 0.5 mile away and establish VHF radio contact before passing (See "Radio/VHF"). The bridge gives way to all river traffic. The chains of the ferry are at least 2 ft. above the river bottom in mid-channel at all times.
HEALTH: See "Portsmouth".
RADIO/VHF: Commercial vessels should make an "All Ships" call on VHF Channel 69 before entering the harbour or leaving a berth in the harbour. The call should give the name of the vessel and its intentions. Such vessels should maintain a listening watch on VHF Channel 69 when underway within the harbour and respond to other vessels' calls.

Port radio: Call sign "Cowes Harbour Radio", VHF Channel 69. Listens during office hours Monday – Friday, and harbour launches listen at weekends.

Commercial vessels should establish contact with Floating Bridge, call sign "Cowes Chain Ferry", on VHF Channel 69 before passing, both inward and outward.

Southampton VTS, the port operations and radar station for the port of Southampton, will often assist in cases of difficulty, although there is no obligation for them to do so and they accept no responsibility. Southampton VTS on VHF Channels 16, 14, 12, 11, 10, 18, 20 and 22. Medium frequency through Niton Radio.
TUGS: Harbour tug (3.5 ton bollard pull) and tow-boat launches are available to assist vessels.
BERTHING: *Medina Wharf:* Vessels 17 ft. 06 in., Spring draft, LOA 312 ft. Loading and unloading bulk cargoes of stone, coal, fertilisers, grain, etc.
Kingston Wharf: Vessels of 17 ft. 06 in. draft (MHWS). LOA 245 ft. Unloading bulk cargoes of stone, aggregates and fuel oil.
CRANES:

Medina Wharf: 2 grabbing cranes of 4.5 cu.m. for bulk cargoes.

Kingston Wharf: 1 grabbing crane for stone/aggregate cargoes. 3 marine arms for bulk fuel oil.
STEVEDORES: By arrangement with Agent and wharf owners. Normal working hours: 0800 – 1700 hrs. Monday to Friday. Overtime on Saturdays, etc., by arrangement. No work on public holidays.
MEDICAL: All medical facilities are available. Agent should be given advance notice of requirements. If call is solely to land sick personnel, see "Southampton" entry.
DENSITY: Cowes – 1025 salt water.

Newport – varies according to amount of recent rainfall and state of tide.
FRESH WATER: Available on all commercial wharves.
FUEL: Fuel and Diesel oil available by arrangement with Agent.
OPENING/CLOSING HATCHES: By ship's crew.
REPAIRS: All hull and engine repairs undertaken to vessels capable of Cowes entry.
SERVICES: Compass adjuster, radar and radio mechanics available locally. Charts and general stores available locally.
SHIP SUPPLY SERVICE: *Thomas Bros.:* 2×40 ft. launches (20 knots) available throughout 24 hours for stores – 12 persons – liberty boats, surveys, etc., and marine contract work – U.K. and Northern France. Tel: (01983) 293812.
Solent Cruises: 2×45 ft. fast vessels with twin screw, D.O.T. Load Line Exemption, able to carry up to 89 persons (reduced number in Winter).

Solent Cruises are contractors to the local authorities for the transfer of sick persons from the Isle of Wight to the mainland.

Contact on VHF Channel 16, (Jenny Lee – 2 RAH) when afloat or Telephone Isle of Wight (01983) 564602.

A 24 hour service is offered for transport of personnel, stores and passengers.
Marine Support and Towage Limited: Tel: (01983) 295369, 296424, 297363 (24 hours). Office (01983) 296934.

Details of Vessels:

Name	*Length*	*General Description and Capabilities*
Roperunner	33 ft.	Heavily fendered steel work launch, used for running mooring ropes/wires for large vessels 6,000 tons – 250,000 tons. Large open after work space, forward wheelhouse. Fitted with radar and multi-channel VHF radio. 120 h.p. diesel, 1 ton bollard pull. Speed 8 knots.
A. Stopford	40 ft.	Keith Nelson twin screw diesel fast launch, for personnel transport and light storage duties, open after cockpit with towage facility. Licenced for 12 passengers. 2×145 h.p. diesels. Speed 16 knots – 18 knots. Fitted with radar, VHF radio and echo sounder.
Beaver	32 ft.	Steel work launch used for running mooring ropes/wires and towage. Large open after work space, forward wheel house. Fitted with multi-channel VHF radio, radar pending, diesel engine, 2 tonne bollard pull.
Trio	47 ft.	Steel work launch used for running mooring ropes/wires and towage duties. Fitted with radar and multi-channel VHF radio, diesel engine, 4 tonne bollard pull.

These vessels are available on hourly, daily or long term charter, U.K. coast or continent. Company is experienced in offshore back-up, ship supply, etc. A 24 hour office facility call out is maintained.
St. Helens Laundry Ltd.: Tel: (01983) 872250, 873731.

Able to supply laundry and dry cleaning services to any vessels at Southampton Docks, Fawley Terminal, Netley, The Solent, Portsmouth Harbour or Docks, and the St. Helens Roads and Nab Anchorages.
OIL POLLUTION: Cowes and the Solent are world-famous yachting centres. Pollution is dealt with severely.
EMERGENCY CO-ORDINATION CENTRE: H.M.Coastguard, Lee-on-Solent. Call "Solent Coastguard" on VHF Channel 16 (24 hours) for all emergencies, including oil pollution.
GARBAGE DISPOSAL: All commercial wharves are privately owned and operated. Owners/operators are required to provide garbage collection. Shipping agents can arrange.
WASTE OIL DISPOSAL: By arrangement with shipping agents.
SEAMAN'S CLUBS: None.
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Cowes Harbour Commissioners, Harbour Office, Town Quay, Cowes, Isle of Wight PO31 7AS. *Tel:* (01983) 293952. *FAX:* (01983) 290018. *Contact:* Captain H.N.J. Wrigley, Harbour Master/Chief Executive Officer. Captain P.G. Wood, Deputy Harbour Master.

CREAKSEA: 51.37 N. 00.47 E.

PILOTAGE: Pilotage is compulsory for all vessels of 50 m. LOA and over.

Pilot boards and lands in the vicinity of the Sunk Light Vessel, using Harwich Haven Pilot vessels. See "Harwich" for contact and other information.
ANCHORAGE: Vessels awaiting a Pilot anchor in the "Sunk" anchorages. Temporary anchorage is available off Holliwell Point and in Cliff Reach, as designated by the Pilot.
BERTHING:
Overall Site: 42 acres (17 hectares).
Sheds/Warehouses: 19,973 sq.m.
Berth Frontage: Outer 110 m., inner 69 m.

Both berths have minimum 7.6 m. at low water.
Draft: 6.8 m. (Neap Tide), 7.3 m. (Spring Tide).
Maximum Size Vessel: Outer Berth: LOA 137 m. Inner Berth: LOA 82 m.
Equipment: Mobile cranes: 2 × Jones HLB, with capacity of 6 tons – 18 tons at 18 m.
Forklift Trucks: 22 × 5/7 tons capacity.
Terminal Trailers: 12 × 30 tons capacity.
Tugmasters: 4 Plan Equipment.
Operator: Baltic Terminal Ltd., Baltic Wharf, Wallasea Island, Rochford, Essex SS4 2HA. Tel: (01702) 258551. Fax: (01702) 258221/258455. Telex: 99107.
GENERAL: The Crouch Harbour Authority's jurisdiction covers the whole of the River Crouch and Roach and out to Whittaker Buoy No. 6.
AUTHORITY: The Crouch Harbour Authority, Harbour Office, The Quay, Burnham-on-Crouch, Essex CM0 8AS. *Tel:* (01621) 783602. *Contact:* Commander W.A. Twist, OBE, Harbour Master/General Manager.

CROMARTY FIRTH PORT (See Plan)

(A) INVERGORDON/EVANTON: 57.41 N. 04.10 W.
(B) NIGG OIL TERMINAL: 57.41 N. 04.02 W.

(A) INVERGORDON/EVANTON

DOCUMENTS: *At Boarding on arrival:*
1 copy Derat Exemption.
Form I.S.6 – List of members of the crew who are aliens or who were engaged outside the United Kingdom. (in duplicate).
Form C.13 – General Declaration (in duplicate).
Cargo Manifest (in duplicate).
Form C.142 – Crew Declaration (in duplicate).
Form C.196 Coastwise Shipping (Transire).
Form C.44d Coastwise removal of uncleared foreign cargo.
Vessels arriving from outside the E.C. require Form C 1600A (For presentation of goods carried).
Delivery of forms. When a vessel is not boarded by a Customs Officer on arrival, 1 copy of each of the forms listed must be delivered by the Master or his authorised agent to the proper place at the port of arrival. The Regulations require delivery of these forms within 3 hours of the vessel's arrival at the place of loading or unloading. The second copy of Forms C.13 and C.142 must be retained on board by the Master or other responsible officer for use by Customs Officers who may subsequently visit the vessel.
Certificate of Registry.
Certificate of British Tonnage.
Light Dues Certificate relating to the vessel.
To the Agent:
Bills of Lading.
Cargo Manifests.

PILOTAGE: Pilotage available 24 hours. Vessels under 300 G.T. are exempt. Cruising station of pilot boat is the Cromarty Lighthouse where Pilot will board. Pilot boat painted black hull, orange upper structure.

Pilot boards from tug at Fairway Buoy for large tankers and oil rigs.

Approaching vessels may give their ETA to Pilot Station via VHF Channel 16, when in the vicinity of 30 miles, but a 24 hour notice will be required. In the event of bad weather, vessels will be guided by Pilot launch to safety where Pilot will board. Watch kept on VHF Channels 16 and 11 (24 hours) by Cromarty Firth Port Authority. Call sign "Cromarty Firth Port Control". Local weather forecasts available.

ANCHORAGES: Large tankers anchor 1 mile South of Fairway Buoy (L. Fl. 10 secs. Racon). Main anchorage West of Cromarty Ness Light.

RESTRICTIONS: Vessels bound for Invergordon or Evanton with a draft over 13.0 m. are not handled at low water.

MAX. SIZE: Max. permissible length 1,000 ft., max. draft 40 ft.
Ro-Ro: LOA 108 m., beam 18.4 m., draft 6.0 m.
Nigg Oil Terminal: See "Section B".

HEALTH: International quarantine signals to be used. Advise "Portelth Dingwall" in advance if any suspected diseases on board.

Also see "Health – All Ports" before first U.K. port.

RADIO: Vessels approaching from North should pass their ETA cable via Wick Radio GKR 431, and vessels approaching from East via Stonehaven Radio GND 458 to their Agents.

VHF: Link calls through Cromarty Radio on Channel 16 and working Channel 84. Also see "Pilotage".

TUGS: J.P. Knight (Caledonian) Ltd. Tel: Invergordon 852611. Suitable tugs up to 50 tonnes bollard pull stationed at the port which work in conjunction with Pilots. Tug's lines used.

BERTHING: *Admiralty Wharf:* Berths 1 and 2 (Outer South): Lengths 135 m. Max. draft 10.9 m. Max. LOA 294 m.
Berth 3: Max. draft 5.5 m. Max. LOA 89 m.
Berth 6: Max. draft 5.5 m. Max. LOA 61 m.

British Alcan Pier: Outer Berth: Length 97 m. Dredged depth 11.0 m. MLWS (1990). Max. berthing length 244 m. approx. using dolphins. (50,000 d.w.t.)

Inner Berth: Length 61 m. Depth 6.0 m. MLWS (1990).

Invergordon Oilfield Support Base, Invergordon: Front berth 150 m., side berth 60 m. Front dredged to 8.9 m. below C.D. Side 5.5 m. minimum. New deep water Berth No. 4 opened late 1993. Dredged to 14.5 m. at Chart Datum. Berthing face length 52 m. By using Berths No. 2, 3 and 4 combined, vessels up to 300 m. and 9.0 m. draft can be accommodated for berthing or voyage repairs. Bunkers diesel – see "Fuel".

A Ro/Ro freight service to Kirkwall operates from the West Harbour, Invergordon to Kirkwall, passage time 9 hours. Also see "Developments".

Queen's Dock: Length 150 m. Depth at Chart Datum 12.0 m. Also see "Developments".

Highland Deephaven – Evanton: Berthing face length 35 m. Minimum dredged depth 6.0 m. at Chart Datum. Berthing is mainly used by pipe-spooling vessel "Apache" for mooring stern on to berth. Berth also used for conventional coasters and supply vessels up to about 80 m. length and 6.0 m. draft.

CRANES: Mobile cranes up to a maximum 130 tonnes available from stevedoring firms, plus crane-barge of up to 200 tonnes capacity.

STEVEDORES: F. Lyons (Stevedores and crane hirers) – Tel: (01343) 835360. James Jack (Stevedores and crane hirers) – Tel: (01349) 853000. Bannerman Bros. (Stevedores and crane hirers) – Tel: (01862) 892322.

MEDICAL: Medical cases can be dealt with at short notice through local Agent. Hospital facilities available.

TANKERS: See "Section – B".

DENSITY: 1022.

FRESH WATER: Obtainable alongside quay. Rate of delivery 30 t.p.h., each hydrant. Rate of delivery at Supply Base is 80 t.p.h.

FUEL: This can be ordered through local Agent, delivery by road tanker, or ex-quay at Invergordon Supply Base (up to 2,500 tonnes of diesel).

REPAIRS: General repairs undertaken by:
J.P.Knight (Caledonian) Ltd. Tel: (01349) 854100.
MacKay & MacLeod. Tel: (01349) 830363.
MacGregor Engineering. Tel: (01349) 853853.
Scottish Rig Repairers. Tel: (01349) 852788.

GANGWAY/DECK WATCHMEN: Ship's gangway and safety required. Watchmen from ship's personnel.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: The following Certificates are required to be held board for production when required:
International Load Line Certificate.
International Tonnage Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Oil Pollution Prevention Certificate.
Oil Pollution Insurance Certificate (Tankers).

CUSTOMS ALLOWANCES: Following quantities are generally left for use on board by each member of crew:

Ships from foreign ports: Tobacco 250 gm. (8 oz. or 200 cigarette Spirits 0.5 litre, wine 2 litres.

REPATRIATION: Can be arranged.

AIRPORT: Dalcross Airport at Inverness, flights by British Airwa Business Air and Loganair, distance from Invergordon 30 miles. Flig to London, Manchester, Glasgow, Aberdeen, Kirkwall, Stornowa Dundee and Shetland.

TIME: British Summer Time, 1 hour advanced on GMT. GMT in Win months.

HOLIDAYS: 1st and 2nd January and Christmas Day. These holida can be worked by arrangement.

POLICE/AMBULANCE/FIRE: Police, tel. Invergordon 852222 or d 999; Ambulance, arrangements through local doctor, tel. Invergord 852522; Fire Station, dial 999 and ask for their service.

TELEPHONES: By arrangement in advance at Admiralty Pier or Sup Base.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Garbage skips available. Contact ship's Age for service.

WASTE OIL DISPOSAL: Various waste oil disposal contract available. Contact ship's Agent for service.

SEAMAN'S CLUBS: None.

DEVELOPMENTS: Queen's Dock, opened in late 1987, includ warehousing and nearly 30 acres of lay down area for cargoes such timber, coal, scrap, containers, etc.

A new Ro/Ro Terminal opened in Spring 1992, and is served by M "Contender" (owned by Orcargo), which operates a daily service Kirkwall in the Orkney Islands. The M.V. "Contender" is 80 m. in leng 2,292 g.r.t., and carries 12 freight trailers and 12 passengers.

(B) NIGG OIL TERMINAL

LOCATION: Nigg Oil Terminal operated by B.P., provides shipp facilities for crude oil piped ashore from the Beatrice Field in the Mo Firth and third party traffic brought in by sea. The terminal is located the North side of the Cromarty Firth in approximate posit Lat. 57° 41.5' N., Long. 4° 02.5' W. and comprises a single berth je linked to the shore by a trestled roadway.

PILOTAGE: Pilotage is compulsory. Invergordon Pilot will board fro tug at the Fairway Buoy. Call "Invergordon Pilots" on VHF Channels or 11, working on Channel 13.

ANCHORAGE: The recommended anchorage for vessels awaitin berth is 1 mile South of the fairway buoy in approximate posi Lat. 57° 40' N., Long. 3° 54' W. An anchorage within the Cromarty F may be made available by the Port Authority.

RESTRICTIONS: *Depth alongside berth:* A minimum depth of wate 21 m. below chart datum is available alongside the berth.

Channel depths: The least depth in the approaches to the termina March 1988 was 15.1 m. below C.D. and occurred in the buoyed fair approximately 0.5 nautical miles within the port limits. Loaded tank may sail with a draft up to 17.5 m. dependent on the tide. Advice sho be sought from Cromarty Firth Port Authority prior to vessel's arriva

Tidal range: M.L.W.S. 0.8 m., M.H.W.S. 4.3 m.

Tidal restrictions: Subject to draft, vessels will be able to berth and at any state of the tide, possibly excepting Spring ebbs. Berthing h Eastwards is to be preferred.

MAX. SIZE: *Length restrictions at berth:* Max. 290 m. LOA. Minim 190 m. LOA.

Max. displacement: 157,500 tonnes.

VHF:

Communications:	Port Authority	Channel 11 & 16
	Port Emergency	Channel 11
	Invergordon Pilot	Channel 13
	Tugs	Channel 13
	Pollution Control	Channel 10
	Nigg Oil Terminal	Channels 49, 50

Portable VHF/UHF sets: These must not be used within the Term Area unless they are classed as "intrinsically safe". The Termina lend approved VHF equipment if necessary.

TUGS: Berthing and unberthing operations will be assisted by a min of 2 tugs of 50 tons and 38 tons bollard pull respectively. A relief t 40 tons bollard pull may be substituted for either of these tugs. A tug of 34 tons bollard pull will also be available if required. The ves agent will arrange for tugs as required by the Master. A firefightin will remain on standby at all times when a tanker is at the Nig Terminal Jetty. Whilst underway within Port limits a 1 tug esc required.

BERTHING: *Berthing velocity:* Vessels must not exceed a berthing velocity of 20 ft./min., regardless of displacement, and should aim to achieve a berthing velocity of less than 10 ft./min.

Mooring arrangements: The Plan (See "Plan") depicts a mooring arrangement for a typical 80,000 d.w.t. vessel. Similar configurations will be employed for all vessels in the range 40,000/160,000 d.w.t.

Seebeck quick release mooring hooks are fitted on all dolphins.

Each mooring dolphin is fitted with a 3-hook assembly; each hook of 100 tonnes capacity.

Each berthing dolphin is fitted with a 2-hook assembly; each hook of 100 tonnes capacity.

The 50 tonnes bollards at the corners of the jetty head are for use by small craft only.

LOADING: *Loading arms:* 3×16 in. Emco Wheaton loading arms, each designed to ANSI 150 lb. pressure rating, are installed on the jetty head. Each arm may be used either for deballasting or for loading and these operations can take place concurrently provided that the terminal approves the system of onboard separation. These loading arms are also used for discharging crude oil.

The minimum acceptable ship's figure size is 12 in. Nominal Bore. The M.I.B. couplings can be adjusted to 12 in., 14 in. or 16 in. flange sizes. Vessels must present manifold flanges with a minimum clearance of 8 in. behind the flange and 3 ft. axial clearance around the centre of the flange face in order to provide adequate clearance for the coupling jaws. If necessary spool pieces must be fitted. Flanges of steel or nodular iron must be presented. Cast iron manifold materials are not acceptable. The vessel's manifold connections must remain within an envelope between 2.85 m. and 6.1 m. off the berthing face and between 4.6 m. and 25.6 m. above chart datum.

If ranging or drift-off exceeding 2.7 m. occurs the coupling ball valves will close and the couplings will automatically disconnect.

If sustained wind speeds exceed 35 knots loading operations will stop and arms will be drained. Arms will be disconnected if wind speeds exceed 40 knots.

Loading rates and pressures: Loading rates of 50,000 bbls.p.h. are attainable utilising 2 loading arms. the maximum pressure permitted at the ship's rail is 128 p.s.i.

Ballast reception: Ballast water reception facilities are available at the Terminal. Ballast must not be discharged overboard within the port. Vessels not having segregated ballast tanks must deballast ashore. Vessels with segregated ballast must retain their ballast onboard for inspection and analysis after berthing, and disposal of this ballast is subject to the results of this inspection and analysis. Permission will not be granted for the overboard discharge of segregated ballast with an oil content in excess of 5 parts per million.

FRESH WATER: Fresh water is available on request from the Terminal from a connection on the jetty head. Approximate maximum delivery rate is 30 t.p.h.

FUEL: Bunkers are not available at Nigg Oil Terminal but may be available at Invergordon (See Section "A").

REPAIRS: Repairs may only be commenced upon receipt of a work permit signed by the Terminal Superintendent. Immobilisation of a vessel alongside the jetty is only permitted with the written permission of the Terminal Superintendent and of the Port Authority.

Readiness to vacate berth: Engines and all other essential equipment of vessels alongside the jetty must be maintained in a state of readiness for vacating the berth at short notice.

STORING: Loading of stores onto a vessel alongside the jetty may be carried out only with the specific permission of the Terminal Superintendent and in a manner and at a time approved by him.

SHORE LEAVE: A pass system will operate. Shore leave will normally be by launch from the jetty launch landing pontoon. Shore leave arrangements are the responsibility of the vessel's Master and will normally be made by the ship's Agent. Details of the arrangements are to be provided to the Terminal Superintendent.

GARBAGE/WASTE OIL DISPOSAL: See Part (A).

GENERAL: *Loading Master:* A B.P. Loading Master remains on board the vessel at all times during the vessel's stay at Nigg Oil Terminal.

Permanent watch: During operations a responsible member of the ship's crew must be stationed in the vicinity of the manifold.

Smoking: No smoking is permitted in the Terminal Area or on the weather deck of any vessel in the Terminal Area. Smoking may be permitted at the Master's discretion in two onboard locations, to be approved by the Terminal Superintendent.

Emergency: In the event of an emergency any assistance required must be summoned via the Terminal Control Room.

Craft alongside: Craft may not lie alongside a vessel at the jetty without the written permission of both the Master of the vessel and the Terminal Superintendent.

Refuse: No refuse or waste may be disposed of overboard from a vessel within the Port.

I.S.G.O.T.T.: Vessels must be provided with a copy and be familiar with the contents of the International Safety Guide for Oil Tankers and Terminals. Reference copies are available on temporary loan from the Terminal.

Important telephone numbers:

Nigg Oil Terminal: Nigg (01862) 851631.
Cromarty Firth Port Authority: (01349) 852308.

AUTHORITY: Cromarty Firth Port Authority, Port Office, Shore Road, Invergordon, Ross-shire IV18 0HD. *Tel:* (01349) 852308. *Telex:* 75263. *FAX:* (01349) 854172. *Contact:* Captain D.R.F. Miller, Harbour Master. Captain I. Dunderdale, Deputy Harbour Master. Captain W. Thomas, Pilot/Marine Officer. Captain N. Robertson, Pilot/Marine Officer. Captain S.R. Thompson, Pilot/Marine Officer.

DARTMOUTH: 50.21 N. 03.34 W. (See Plan)

PORT LIMITS: A line from Inner Froward Point to Combe Point.

DOCUMENTS: Normal documents for U.K. ports.

PILOTAGE: No direct radio contact with Pilots. Contact local Agent, Harbour Authority or Berry Head Coastguard Station who will telephone Pilot.

Pilot station 5 cables S.S.E. Castle Ledge Conical Buoy.

ANCHORAGE: Anchor at Pilot Station.

MAX. SIZE: Max. length 143 m., max. draft 8.3 m.

HEALTH: Contact Port Health (Tel: (01803) 861234).

Also see "Health – All Ports" before first U.K. port.

RADIO: Route cables, etc., through Niton or Lands End Radio Stations.

VHF: Watch maintained on Channels 11 and 16, 0900 hrs. – 1700 hrs. during weekdays and 0900 hrs. – 1200 hrs. on Saturday. Call sign "Dartnav".

TUGS: No tugs available.

BERTHING: All berthing on midstream buoys.

MEDICAL: All medical services are available; if possible give notice of requirement.

DENSITY: Normally salt. 1025.

FRESH WATER: Available at the South Embankment.

FUEL: Diesel available by barge.

FIRE PRECAUTIONS: Normal.

GANGWAY/DECK WATCHMEN: It is advisable to have watchmen.

OPENING/CLOSING HATCHES: Crew open.

CARGO GEAR: Ship's gear.

REPAIRS: All repairs unless of a major or underwater type can be carried out.

SURVEYORS: Philip Ltd. Tel: (01803) 833351.

REPATRIATION: Facilities exist.

AIRPORT: 35 miles from Exeter airport. Internal and short range Continental flights.

TELEPHONES: Not available.

HOLIDAYS: Not applicable.

POLICE/AMBULANCE/FIRE: Dial 999 for emergencies. Local hospital adjacent to Harbour Office.

SHORE LEAVE: Permitted. Seaman's Book adequate.

GENERAL: Dartmouth does not now operate as a commercial port although the harbour is suitable for ships of 18,000 displacement tons and cruise liners, mooring buoys are available for such vessels.

Lay-up facilities available for vessels up to 18,000 tons displacement.

AUTHORITY: Dart Harbour and Navigation Authority, Dart House, Oxford Street, Dartmouth, Devon TQ6 9RL. *Tel:* (01803) 832337, 833767. *FAX:* (01803) 833631. *Contact:* Captain C.J. Moore, Harbour Master.

DOUGLAS, Isle of Man: 54.09 N. 04.28 W. (See Plan)

PORT LIMITS: That part of the coast including all creeks, bays and headlands from HW mark Ordinary Spring Tides which extends from Port Soderick Landing Jetty (Lat. 54° 07' 24" N., Long. 04° 31' 48" W.) in a Northerly direction to the most Easterly point of Clay Head (Lat. 54° 11' 42" N., Long. 04° 23' 05" W.) thence in a straight line drawn in a 135° True (S.E.) direction for 3 nautical miles, thence in a straight line drawn to a position 3.5 nautical miles 135° True (S.E.) from Port Soderick Landing Jetty, thence in a straight line drawn to Port Soderick Landing Jetty.

All shipping entering the above defined area should contact Douglas Radio on Channel 16 VHF.

DOCUMENTS: Same as for all U.K. Ports.

PILOTAGE: Not compulsory. Arrangements usually made at least 24 hours before vessels' arrival, through Ships' Agent, or to Harbour Master, Douglas – Tel: 686628. Call Douglas Radio on Channel 16 and then transfer to Channel 12 for instructions 1 to 2 hours before ETA Douglas Bay.

RESTRICTIONS: Enter only on Harbour Master's instructions.

Traffic Signals: International Port Traffic Signals (See Admiralty Notice to Mariners 568/83) are exhibited when required, by day and night, from a mast at the head of Victoria Pier, visible from seaward and from inside the harbour, as follows:

Signal	*Meaning*
3 fixed red lights, disposed vertically	Vessels may not proceed
Fixed green, white, green lights, disposed vertically	A vessel having received specific permission by RT may proceed
3 fixed green lights disposed vertically	All vessels may proceed

ANCHORAGES: In Douglas Bay:

Douglas Head bearing 196° (T) 7 cables in 6 fathoms.
" " " 199° (T) 9.3 cables in 7 fathoms.
" " " 200° (T) 8 cables in 6.5 fathoms
" " " 212° (T) 7.9 cables in 10 fathoms

MAX. SIZE: Max. size of cross channel vessels 125 m. LOA, draft 6.0 m.

Max. size of cargo vessels 62 m. LOA, draft 4.0 m. Spring tides, 2.75 m. Neaps to Inner Harbour, dries out at LW.

Max. size of tankers 90 m. LOA, draft 5.5 m. at LWOST.

HEALTH: See "Health – All ports" before first U.K. port.

RADIO: Port Patrick for vessels coming from North. Anglesey for vessels coming from South.

VHF: Douglas Harbour Radio manned at all times. Channel 16 and 12 only.

RADAR: Port Radar available for use in fog or when required. Used with Channel 12 VHF.

TUGS: None available.

BERTHING: Passenger vessels – 4 berths for vessels of 350 ft. in length, 15 ft. draft LWST at Victoria Pier.

Cargo vessels up to 350 ft. and 4.0 m. draft handled on South side of Edward Pier, and Ro-Ro vessels up to 410 ft. and 6.0 m. draft handled at North side of Edward Pier.

Office Berth – vessels 68 m. LOA, draft 5.0 m. spring tides. 3.5 m. neap tides, dries out at LW.

Coffee Palace Berth will accommodate vessels of 62 m. LOA, draft 4.0 m. Springs, 2.75 m. Neaps, dries out at LW.

Market Berth same as Coffee Palace Berth.

Battery Pier – Tankers up to 90 m. LOA, draft 5.5 m. at LWOST. Discharging of cargo vessels and container vessels can be done by shore crane.

All berths at Douglas are salt water.

CRANES: *Mobile Cranes:* 2×25 tonnes, 1×72 tonnes, 1×5 tonnes and 1 mobile grab crane.

BULK CARGO FACILITIES: Bulk cargoes of coal and scrap metal are handled at Coffee Palace and Market Berths described above, and timber at King Edward Pier.

Rate of discharge for coal about 60 t.p.h. – 70 t.p.h. by grab crane.

SPECIALISED CARGO HANDLING FACILITIES: Ro/Ro service operated to Victoria Pier by I.O.M. Steam Packet Co.

Ro/Ro cargo service operated by Isle of Man Steam Packet Co. to King Edward VIII Pier.

LPG cargoes are handled at Battery Pier as described above.

BRIDGES: Swing Bridge only to Inner Harbour.

STEVEDORES: Advice required to Ship's Agent. Rate of discharge – cement 60 t.p.h.; coal 60 – 70 t.p.h.

MEDICAL: Advise Agent when possible, alternatively contact Harbour Master with advance warning. Hospital available.

TANKERS: Tankers pipelines 6 in. Tanker berth at Battery Pier – Max. draft. 5.5 m. at LW Spring tides. Discharging rate 180 t.p.h. – 200 t.p.h.

DENSITY: Density of water salt (1025).

FRESH WATER: Fresh water available on request to Agent or Harbour Master.

FUEL: Fuel delivered by road tanker only. Contact Manx Petroleum, Esso or Total.

FIRE PRECAUTIONS: Fire precautions as normal.

CONSULS: None.

REPAIRS: Limited facilities only.

DRY DOCKS: None.

SURVEYORS: Four I.O.M. Marine Department Surveyors.

GANGWAY/DECK WATCHMEN: Could be arranged by Agent.

OPENING/CLOSING HATCHES: Handled by crew.

CUSTOMS ALLOWANCES: Same as U.K.

CARGO GEAR: Cargo can be discharged by ship's own gear or mobile cranes.

REPATRIATION: Repatriation only done through arrangement with Agents.

AIRPORT: Ronaldsway Airport 8 miles from Douglas and served by regular airlines.

TIME: Same as U.K.

HOLIDAYS: Good Friday, Easter Monday, Spring Holiday, T.T. Friday (1st week in June), Tynwald Day (5th July), August Holiday, Christmas Day, Boxing Day, New Year's Day.

TELEPHONES: Connections to ships can be arranged at passenger piers.

POLICE/AMBULANCE/FIRE: Police Tel: 631212; Ambulance Tel: 663322; Fire Brigade Tel: 673333.

EMERGENCY CO-ORDINATION CENTRE: H.M. Coastguard, Liverpool. Tel: (0151) 9313341.

STORING: See "Prelims".

1. By truck.
2. Not applicable.
3. Trucks can go alongside vessels except tankers when working cargo or ballasting.
4. Fork lift trucks could be permitted.
5. U.K. Customs regulations.
6. Storing usually done by crew.

SERVICES: None.

SHIP SUPPLY SERVICE: General Marine Services Limited (Tel: (01624) 628904, 629710), who operate the pilot launch and ship to shore transfers of personnel, stores, etc. This launch is kept afloat and a 24 hour service is available.

There is no helicopter service on the Island.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Identification Cards not required for British Ships. Same as U.K.

REGULATIONS: No unusual regulations.

DELAYS: Delays can be expected due to tidal conditions, or awaiting a berth; also delays caused by N.E. gales, which make Douglas Outer Harbour untenable.

GARBAGE DISPOSAL: 4 skips are available on harbour property. Contact Island Skip-Hire (Tel: (01624) 629525) or Merit Skip-Hire (Tel: (01624) 824569). Charges are £58.75 for 2/3 days hire.

WASTE OIL DISPOSAL: Not available.

SEAMEN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Isle of Man Department of Transport, Harbours Division, Sea Terminal Building, Douglas, Isle of Man IM1 2RF. *Tel:* (01624) 686628. *FAX:* (01624) 626403. *Contact:* Captain E. Kaighin, Director of Harbours.

DOVER: 51.07 N. 01.18 E. (See Pl

PORT LIMITS: The seaward boundary of the Port extends 1 mile both the Eastern and Western entrances.

DOCUMENTS: Required on arrival:

Crew List H.O. Form I.S.6. or IMO FAL Form 5 (in duplicate).
Crew Declaration Form C.142 (in duplicate).
Ship's General Declaration (in duplicate) C13.
Ship's Surplus Stores Declaration (in triplicate) C14.
Derat Certificate available for inspection.

It is required to report and clear a vessel at Customs Hous remaining in port more than 24 hours for loading and discharging ca or embarking and disembarking passengers, with following:

Passenger List.
Cargo Manifests (2 copies).
Ship's documents.

PILOTAGE: Requests for pilotage are normally made by local agen Pilotage is compulsory for all ships navigating within the Dover Pilota Area (defined as port limits above) subject to the following exceptio

(a) Ships of less than 20 m. overall, fishing boats of less than 47.5 H.M. Ships and foreign war ships.

(b) Ships (other than those referred to in (a) above) of less than 80 overall length, provided that any such ship is either not carry dangerous substances in bulk or not substandard or in any w hampered.

All ships subject to compulsory pilotage shall board or land pilots or close to the seaward limit of the Dover Pilotage area.

DEEP SEA AND COASTAL PILOTS: For Channel, North Sea a British Coast.

Contact agency 48 hours before arrival by radio, giving ETA Do and destination port(s).

Agencies are: "Deep Sea and Coastal Pilots" (Telex: 911847 Pilots and "Hammond Dover" (See "Agent").

On approaching Dover contact Port Control by VHF Channel 74 instructions.

Pilots will also board at any U.K. or continental port as required.

ANCHORAGE: Limited space available in Outer Harbour. Contact P Control in advance for instructions.

The Outer Harbour comprises an area of approximately 600 acr The Northern extremity indicated by two buoys 'East' and 'West' an intermediate marker buoys, the Southern extremity denoted by a l through the Southern most tip of the Prince of Wales Pier and t Southern most tip of the Eastern Arm. The Eastern boundary is form by a S.E.'ly line drawn through East Buoy and the Western boundar formed by a S.E.'ly line drawn through West Buoy.

The maximum depth at MLWS is 7.3 m.

RESTRICTIONS: Attention is drawn to the strict requirement of obtain permission from Port Control to enter or leave the harbour.

It will be noted that although the traffic control signal may be exhib for entry/departure, every vessel manoeuvring to enter or leave the p is required to obtain specific permission to enter or leave, as the ca may be.

Vessels awaiting permission to proceed should keep at a safe distan of at least 1.5 miles clear of the entrance until so authoris Responsibility for entering or leaving with caution and the safe navigat of each vessel subsequent to the receipt of permission to proce continues to remain the responsibility of the Master.

Explosives – Dangerous Cargo: Declaration is to be made a permission obtained prior to entering the harbour. Dover Harbour Bo is not compellable to receive within the harbour any articles which their opinion would endanger safety of harbour or vessels or goods

HEALTH: Pratique, obtained by radio via Coastguard Station giv name of ship, ports of call during voyage, nature of cargo, numbe crew and passengers, port of destination and Agent, condition and he of all on board with details of any sickness. Coastwise vessels from U ports have automatic Pratique.

Also see "Health – All Ports" before first U.K. port.

RADAR/VHF: Port Control and Admiralty Pier Signal Station are fi with radar and VHF, vessels can make initial contact with "Dover P Control" on VHF Channels 74, 16 and 12. Operational frequenc Channel 74. See "Pilotage".

BERTHING: All berths in the Outer Harbour can be reached at all tim There are 3 berths available on the Eastern Arm fitted with Yokoha fenders, depth at MLWS is 8.5 m. Berths are used for lay-by, gen cargo and vessels taking water, stores and crew changes. There is a berth on the South Jetty of Eastern Docks having 200 m. of q available with a depth of 8.5 m. at MLWS. There is 5,500 sq.m. of co shed and open storage space and additional temperature contr storage of 7,500 sq.m.

Those berths in the Wellington and Granville Docks can normall reached from 1 hour before each high water. All berthing requirem are allocated by Port Control.

Western Docks: This comprises the International Hoverport, catam berth and the Admiralty Pier, and Train Ferry Berth, the Inner Har Tidal Basin incorporating the tug haven, Granville and Wellington Do

Granville Dock: This dock is non-tidal and comprises an area of 4.5 a with depths of water of 21 ft. (6.4 m.) at MHWS, 17 ft. (5.2 m.) at MH The entrance is 65 ft. (19.8 m.) wide and depth on the sill at MHW 21 ft. (6.4 m.). Transit sheds and open storage space are availab the Dockside.

Berth No.	*Length* (m.)		
1/2	146	Fruit/Veg/General	Portal crane
3	76	Fruit/Veg/General	Portal crane
4	40	Lay-by/Ro/Ro	
5	73	For lay-by only (no hot work)	
6	137	Grain	No cranes
7	96	Coal/Limestone/Coke/Pumice (leased to Cory Bros.)	

Wellington Dock: This dock is non-tidal and comprises an area of 8 acres with depth of water 15 ft. (4.6 m.) at MHWS, 11 ft. (3.4 m.) at MHWN. The entrance is 70 ft. (21.3 m.) wide and depth on the sill at MHWS is 15 ft. (4.6 m.). Transit sheds and open storage space are available.

This dock is now principally used by pleasure craft.

Prince of Wales Pier: This separates the inner and outer harbours. Please note that berthing alongside the Prince of Wales Pier is only permitted by special arrangement with the Harbour Superintendent.

Hoverport: All hovercraft services operate from the Hoverport adjacent to and West of the Prince of Wales Pier. "Hoverspeed" operate daily to Calais.

Admiralty Pier: Length 4,140 ft. (1,260 m.), with depths alongside ranging from 6.0 m. to 9.1 m., incorporating the Cruise Terminal (360 m.) with depth alongside 10.0 m.

Tidal Basin: This forms the entrance to the Wellington and Granville Docks and is entered between the Admiralty and Prince of Wales Piers. It comprises an area of approximately 12 acres.

The entrance is 140 ft. (42.7 m.) wide, with a depth of 10.8 m. at MHWS. Much of the Tidal Basin is used for pleasure craft berths.

A tug haven has been constructed in the Tidal Basin adjacent to Clarence Quay. The jetty 45 m. in length is positioned perpendicular and to the Southern end of Clarence Quay. To the North of the new breakwater is positioned a pontoon 90 m. long parallel to Clarence Quay, providing berths for all harbour craft including the 2 tugs, dredger, patrol launch, work boats and RNLI Lifeboat. Private berth users will not be allowed to use the berth without express permission from the Harbour Superintendent or Duty Marine Officer.

Eastern Docks:

The docks comprise the Eastern Arm and Car Ferry Berths.

Car Ferry and Freight Terminal: Operated by Dover Harbour Board. Berth No. 1, situated at the North end of the Eastern Arm, is a general purpose Ro-Ro berth for all classes of Ro-Ro vessels.

Berths No. 2 and 3, situated either side of Pier A are for large Ro-Ro ferries of length 168 m. and beam 28 m. with double deck and double width loading bridges. Pier "B" is used as a lay-by berth. Berths No. 5 and 6 situated at Pier 'C', with double lane loading bridges of 23 m. plus covered passenger bridges. The Seacat berth is situated on the East side of Pier D, whilst Berth No. 7 on the West side of Pier D is now operational and similar to Berth No. 3. The car ferry/freight berths provide berthing for vessels up to 180 m. in length with depths of water of 7.0 m. at MLWS. Berths are connected with loading bridges to enable cars, coaches and freight to drive on direct on board the vessels, operating to Calais and Zeebrugge. Shore facilities provide modern reception buildings, a new passenger handling complex, Customs clearance halls, 2 restaurants/shop complexes, banking facilities, shipping operators' offices, spacious assembly car parks.

TUGS: Two tugs of 2,900 h.p. each. Tug names 'Deft' and 'Dextrous'. Twin engined Voith Schneider. Tugs will normally join vessels outside harbour entrance, but may meet vessels inside by arrangement. Tug's rope used. Tug charges on application from Dover Harbour Board.

BULK HANDLING FACILITIES: 2×550 t.p.h. shiploaders for grain operated by Dover Stevedoring Co. Ltd. Two shiploaders for grain operated by P.D. Wharfage.

CRANES: *Enclosed Docks:* There are 2 electrical portal cranes of SWL 3 tonnes installed at Berths 1, 2 and 3 in the Granville Dock also 3 mobile cranes with SWL of 10, 20 and 70 tonnes available for cargo handling. The 2 mobile cranes may be employed for other duties. Hire charges on application to Dover Harbour Board.

Eastern Docks: 2×20 tonnes SWL and 1×36 tonnes SWL container cranes are available for hire. There are 2×40 tonnes mobile cranes available. Hire charges are available from Dover Harbour Board.

CARGO HANDLING FACILITIES: Seven berths equipped for handling scheduled Ro/Ro traffic.

STEVEDORES: No particular ETA required as ship's Agent makes all necessary arrangements.

MEDICAL: Medical assistance can be arranged by Agent to vessels passing Dover Harbour. Doctor will board a vessel in English Channel or on arrival at anchorage in Outer Harbour. Hospital facilities are available.

DENSITY: 1020.

FRESH WATER: Available to all vessels by pipeline 25 t.p.h.

FUEL: All grades of fuel oil and gas oil available by barge from Shell UK Ltd. (Tel: 071-257-3018).

CONSULS:

France	Dover 204080
Italy	Folkestone 53692
Denmark	Dover 201201 (office) Dover 203333 (night)
Finland	
Germany	
Iceland	
Netherlands	
Norway	
Spain	
Sweden	

REPAIRS: Facilities available for minor engine repairs. Radio and Radar repairs also possible.

GANGWAY/DECK WATCHMEN: Supplied on request.

OPENING/CLOSING HATCHES: By crew.

CERTIFICATES: Certificates to be obtained for foreign clearance: Register, Load Line, Safety Construction, Passenger and Safety Equipment.

REPATRIATION: All facilities exist.

AIRPORT: Most repatriations by air through London/Gatwick and London/Heathrow.

TIME: Local time: BST (British Summer Time) 1 hour in advance of GMT. Reverting to GMT in Winter months (late March to late October).

HOLIDAYS: Official holidays: 1st January; Good Friday; Easter Monday; May Day Holiday; Spring Holiday (end May); August Bank Holiday; Christmas Day; Boxing Day.

The port is open every day for cargo and passengers.

POLICE/AMBULANCE/FIRE: Dial 999.

TELEPHONES: Not available.

BANKS:

Barclays Bank Ltd., Tel: 214516.

Lloyd's Bank Ltd., Tel: 240808.

Midland Bank Ltd., Tel: 201131.

National Westminster Bank Ltd., Tel: 201308.

National Westminster Bank Ltd., (Car Ferry Terminal, Eastern Docks), Tel: 201474, 202744.

Trustee Savings Bank, Tel: 202037.

SHIP SUPPLY SERVICE: Dover Harbour Board offer a 24 hour launch service (Tel: (01304) 240400).

The Dover Motorboat Co. Limited, a Hammond subsidiary, operates a 24 hours a day launch service to provide vessels off the port with Pilots and stores, etc., telephone (01304) 206809 or alternatively call the Dover Harbour Board Port Control on VHF Channel 74 to contact the Dover Motorboat Co. and allocate a working channel.

SERVICES: Repairs to radar equipment, compass adjusting, supply of charts and crew changes can be arranged outside Dover Harbour through local Agents at all times.

SHORE LEAVE: Allowed, subject to Port Passes (See "Identification Cards").

IDENTIFICATION CARDS: Are necessary, plus passes for ship's personnel at Eastern Arm berths having to pass through Eastern Docks Terminal. Passes obtainable from Mooring Party foreman.

GARBAGE DISPOSAL: Facilities can be provided. The ship's Agent will make arrangements for a skip to be provided and collected as necessary.

WASTE OIL DISPOSAL: No shore tanks. Disposal would be facilitated using road tankers.

SEAMEN'S CLUBS: British Sailors Society, 168 Snargate Street, Dover (Tel: (01304) 201410). Facilities include shop and international telephone service.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Dover Harbour Board, Harbour House, Dover, Kent CT17 9BU. *Tel:* (01304) 240400. *FAX:* (01304) 240465. *Cables:* Harboard, Dover. *Contact:* J. Sloggett, Managing Director. Captain C. Jacklin, Manager.

AGENT: George Hammond PLC., Marine Services Division, Limekiln Street, Dover, Kent CT17 9EE. Tel: (01304) 201201, (01304) 203333 after hours. Telex: 96115. Fax: (01304) 240374. Lloyd's Agent and Agent for leading P & I Clubs.

DUNBAR: 56.01 N. 02.31 W. (See Plan)

PORT LIMITS: A line drawn across seaward end of entrance channel.

DOCUMENTS: Standard U.K. documents.

APPROACHES: Leading lights bearing 198°, occulting green 6 secs.

PILOTAGE: Local pilotage may be obtained.

ANCHORAGES: Safe anchorage in Castle Bay except in Northerly gales.

RESTRICTIONS: No berthing if heavy swell entering harbour.

MAX. SIZE: LOA 50 m., draft 4 m. at HWS. Vessels lie aground on sandy bottom at LW.

HEALTH: Standard U.K. procedure.

RADIO: Forth Radio.

VHF: None.

RADAR: None.

TUGS: None.

BERTHING: Prior permission must be obtained for vessels of 20 m. LOA or greater.

Cargo unloaded by ship's own gear.

CRANES: None.

MEDICAL: No medical facilities at harbour.

FRESH WATER: Available on quayside by hose connection.

FUEL: From road tanker by prior arrangement.

CONSULS: None.

REPAIRS: Minor repairs possible.

SURVEYORS: Lloyd's at Leith Docks.

GANGWAY/DECK WATCHMEN: By arrangement with Harbour Master.

CARGO GEAR: By ship's gear or mobile crane (by arrangement with Harbour Master).

AIRPORT: Edinburgh (Turnhouse) 35 miles.

TIME: GMT. GMT plus 1 hour in Summer (late March – late October).

HOLIDAYS: None.

POLICE/AMBULANCE/FIRE: Dial 999 in an emergency. Police, Tel: (01368) 862718.

EMERGENCY CO-ORDINATION CENTRE: H.M. Coastguard, Maritime Rescue Sub-Centre, Forth District, Crail. Tel: (01333) 50666.

BANKS: Local branches of Bank of Scotland and Royal Bank of Scotland only.

STORING: Small quantities of stores can be loaded from quay. Trucks can come alongside at quay.

AUTHORITY: East Lothian Council, Council Buildings, Court Street, Haddington, East Lothian. *Tel:* (01620) 824161. *Contact:* R. Brunton (Tel: (01368) 863206).

DUNDEE: 56.28 N. 02.57 W. (See Plan)

PORT LIMITS: A vessel is considered to be an "arrived ship" when:
(a) For berthing turn-arrival at Fairway Buoy.
(b) For Laytime – usually "off or at the berth" and subject to Charter-Party terms.

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
Tobacco Manifest.
Health Declaration.
Cargo Manifests.
Bills of Lading.
Derat Certificate.
Lights Certificate.

PILOTAGE: The port is approached by a well-defined main channel with up-to-date navigational aids and radar surveillance. To provide information on navigation and safety the Authority operates a Port Control Service which maintains a 24 hour listening watch on VHF Channels 16 and 12.

Pilotage is compulsory in Dundee Pilotage District. Pilots board incoming vessels at either inner Pilot Station (Lady Buoys) or outer Pilot Station (Fairway Buoy), depending on weather conditions and/or type of vessel. The pilot boat is only on sea station when shipping is expected and accurate ETAs are essential.

ETA should be given 6 hours before arrival either by radiotelephone link call to Dundee Port Control (Tel: (01382) 224121. Fax: (01382) 200834) or by radiotelegram to "Dockyard Dundee" Dundee. Amendments should be made up to 2 hours before the original ETA. When within VHF range (approx. 25 miles from Tay Fairway Buoy) ETAs may be confirmed by contacting "Dundee Harbour Radio" on Channel 16 and transferring to Channel 12 to pass messages.

Pilot boats, when on station, keep a listening watch on Channel 12.

ANCHORAGES: Pilots are instructed where to anchor vessels. There are 3 deep-water anchorages to accommodate vessels up to 8.5 m. draft. Two anchorages for vessels up to 6.7 m. draft, and other minor anchorages.

RESTRICTIONS: Tide and draft 9.0 m. at MHWS. Vessels enter 3 hours before HW. 8.0 m. at MHWN. Vessels enter 3 hours before HW.

MAX. SIZE: Length 245 m., beam 44 m., draft 9.0 m.

HEALTH: Health Declaration on arrival – if clean, automatic Pratique. Suspect disease as per international requirements. Pratique automatic if already called at another port.

Also see "Health – All ports" before first U.K. port.

RADIO: Any UK coast station. Nearest stations – Stonehaven and Forth.

VHF: See "Pilotage" and "Tugs".

TUGS: Towage is operated by the Authority's tug – 'Abertay' (1,280 h.p. Bollard pull 17 tons). Tug joins vessel in the vicinity of Craig Buoy. Tug operates on Channels 16, 12 and 6 (Channel 6 when attending vessels). Tug lines optional, charge made if tugs lines used. Additional towage by arrangement.

CARGO HANDLING FACILITIES: All types of general cargo are handled, including packaged timber and side-loading of forest products. Grab facilities for bulk material. 4 conveyors are arranged for grain and suitable bulk materials.

Cold Storage: Private cold storage in the vicinity of the port is accessible on application.

Containers: Container handling with ship's gear or mobile cranes and stevedores' transporters.

Cranage: Wide range of cranage, both mobile and portal, with grabb facilities. Heavy lifts up to 100 tonnes can be arranged.

Grain Handling: Grab facilities.

Grain Storage: Temporary shed accommodation leased by Grainfax a Port of Dundee.

Minerals Handling: Lander hydraulic grabs.

Sheds: All riverside berths are equipped with transit sheds not less t 30.5 m. wide, fronted by broad concrete aprons. Total shed area 69,672 sq.m. Within the harbour area there is extensive storage a and warehouse facilities.

Ro/Ro Berth: At Eastern Wharf. Accepts vessels up to 25 m. beam w stern ramps up to 12.5 m. wide. Linkspan single-lane carriageway 4 wide. Road vehicles up to 50 tonnes. Trailer park adjacent. Also 2 Sec Trailer Parks.

STEVEDORES: One ETA to Agent or port suffices for all services. Full stevedoring facilities are arranged by Port of Dundee Ltd.

MEDICAL: Advance notice required for ordinary medication for arriva week-ends. Hospitals and casualty stations available.

TANKERS: Diameter of hoses – 10 in. Slop discharge facilities n available. One tanker berth with depth 9.5 m. at L.A.T.

DENSITY: 1010 at MLWS. 1015 at MHWS.

FRESH WATER: Available, 24 hour service. Delivery, hose from qua Rate, 30 t.p.h.

FUEL: Bunkering is available to any vessel by direct pipeline or by ro tanker. Large quantities of any fuel type by coastal tanker, subject 3 or 4 days' notice.

FIRE PRECAUTIONS: Regulations are handed to Master on arrival

CONSULS: (Area Code 01382)

Denmark	223044	Netherlands	223111
Finland	223111	Norway	223044
France	21252	Sweden	21061
Italy	65222		

REPAIRS: Dundee can offer fitting-out wharves and heavy lift capac Various local firms undertake engine and electrical repairs to vesse Construction, repair and maintenance services for the offshore industry are now well developed.

DRY DOCKS: One dry dock available.

SURVEYORS: Lloyd's and D.O.T.

GANGWAY/DECK WATCHMEN: Recommended for large vessels.

OPENING/CLOSING HATCHES: By crew.

CERTIFICATES: As required by Department of Transport (Lifesavi Radio, Registry, Drugs, Crew Agreement, Load Line) also Derat.

CUSTOMS ALLOWANCES: Foreign-going: 25 cigarettes or 1 tobacco per day. 8 days allowance granted. Home trade: same as foreign-going but only 4 days allowance granted. Spirits: quarter pint day for 4 days, further issue granted after 4 days for foreign-going o

REPATRIATIONS: Facilities exist.

AIRPORT: Dundee Airport: Only U.K. flights and charter flights availab

TIME: British Standard Time (GMT plus 1 hour). GMT in Winter mont

HOLIDAYS: 1st, 2nd and 3rd January; 1st Monday in April; 1st Mond in May; Last Monday July; 1st Monday October; Christmas Day a 26th December.

POLICE/AMBULANCE/FIRE: Tel: 999.

TELEPHONES: Quay telephones installed.

SHORE LEAVE: At the discretion of the Master.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Garbage skips for normal domestic waste f vessels sited within port. Additional skips can be arranged if requi Charges depend on requirements.

BERTHING:

Deep-drafted vessels must arrive at the Fairway Buoy at least 3 hours before HW to berth on same tide.

Wharves	*Length*	*Depth LAT*	*Cranes No.*	*Capacity*	*Type*	*Shed Accommodation*	*Other Facilities*
King George V	445 m. (1,459 ft.)	8.5 m. (28 ft.)	3 1	7 tonne 5 tonne	Grabbing/General Grabbing/General (Hydraulic/Mechanical)	17,800 sq.m.	Road Connections Open Container A
Eastern	213 m. (700 ft.)	8.0 m. (26.25 ft.)		Mobile cranes unrestricted		14,830 sq.m.	Road Connections Ro-Ro Berth (50 tons) Trailer Parks
*Princess Alexandra	256 m. (840 ft.)	8.0 m. (26.25 ft.)	Mobiles up to 30 tonnes can be arranged			3,440 sq.m.	Open Areas
*Queen Elizabeth	194 m. (636 ft.)	7.0 m. (23 ft.)	2	5 tonne	General	3,300 sq.m.	Open areas Road Access
*Caledon West Tanker Berth	76 m. (249 ft.)	9.5 m. (31.17 ft.)		Dredged Berth L = 305 m. B = 55 m.		3,790 sq.m.	
Caledon East	150 m. (492 ft.)	5.80 m. (19 ft.)			Heavy Lift Mobile	—	Open Areas Warehouse Area
*Prince Charles	115 m. (377 ft.)	8.0 m. LAT (26.25 ft.)					Marine Repair an Fabrication Bert

Docks	*Water Area*	*Quay-age*	*Depth*	*Entrance Width*	*Cranes*	*Shed Accommodation*	*Other Facilities*
Camperdown	3.04 ha. (7.5 acres)	739 m. (2,425 ft.)	4.3 m. (14 ft.)	16.5 m. (54 ft.)	Can be arranged	2,150 sq.m. (2,571 sq.yds.)	Lay-up Berths
Victoria	4.33 ha. (10.7 acres)	840 m. (2,755 ft.)	4.3 m. (14 ft.)	16.5 m. (54 ft.)	Can be arranged	6,934 sq.m. (8,300 sq.yds.)	Lay-up Berths Repair Berths

WASTE OIL DISPOSAL: Service available by contacting local agents.
SEAMAN'S CLUBS: None.
REGULATIONS: Absolutely no smoking, penalty £50.
GENERAL:
Electric Power: Electric power to vessels available at repair berths.
Fire Fighting: Tayside Fire Brigade Services.
Mooring: The Authority provide boatmen's services for the mooring and unmooring of ships.
Motor Vehicle Compounds: An area of 1 acre which can be extended.
Navigation Lights: The main estuarial approach light is the Abertay Racon Buoy supported by port and starboard buoys marking the main channel as detailed in Admiralty Chart 1481.
Passenger Cruise Liners: Dundee is a port of call for passenger cruise liners at riverside berths. The city has quick access to some of Scotland's finest scenery and places of historic interest.
Policing: Effective security is provided by Tayside Police and contracted security company.
Ships Stores: Ship supplies are offered by a number of private firms with premises adjacent to the harbour. These include the special requirements of the offshore oil industry.
Steelyards: The port has 2 fully computerised road transport weighbridges.
Tidal Reference: Tide heights are related to Lowest Astronomical Tide (Admiralty Chart Datum).
Range of tides at HWN – 2.4 m.
Range of tides at HWS – 4.7 m.
AUTHORITY: Port of Dundee Ltd., Harbour Chambers, Dock Street, Dundee DD1 3HW. *Tel:* (01382) 224121. *FAX:* (01382) 200834. *Cables:* Dockyard, Dundee. *Contact:* Captain G.T. Dobbie, General Manager/Harbour Master. Captain M.J. Clark, Marine Manager. D.T. Boyack, Operations Manager.

DUNOON: 55.57 N. 04.55 W. (See Plan)

Priority is given to the ferry services using this pier, although other shipping may use the facility.

The wharf has two access arms to shore and an adjustable Ro/Ro link span for side loading vessels. The main berth is 150 m. long with a depth of 4.3 m. below Chart Datum. Fresh water is available. VHF Channels 16, 12 and 31 are available, call sign "Dunoon Pier".
GARBAGE DISPOSAL: No facilities.
WASTE OIL DISPOSAL: No facilities.
SEAMAN'S CLUBS: None.
AUTHORITY: Argyll and Bute Council, Department of Roads and Transportation, Manse Brae, Lochgilphead, Argyll PA31 8RD. *Tel:* (01546) 602233, 602882. *FAX:* (01546) 603749. *Contact:* A. Gow, Director.

Strathclyde Regional Council (SRC), Department of Roads, Strathclyde House, 20 India Street, Glasgow G2 4PF. *Tel:* (0141) 2272475. *Contact:* D. Carruthers, Director. Piermaster, *Tel:* (01369) 2652.

FALMOUTH: 50.09 N. 05.04 W. (See Plan)

DOCUMENTS:

2 Crew's Effects Lists (C142).	If from outside E.E.C.
1 Home Office Form IMO FAL Form 5.	
2 General Declarations (C13).	
Declaration of Cargo (if applicable).	
Light Certificate if applicable.	
1 Port Dues Certificate	
Ship's Certificate of Registry.	For clearance to outside E.E.C.
Mercantile Marine Office Certificate for British ships only.	
Load Line Certificate.	
Safety Equipment and Construction Certificates, Radio Certificate.	
Derat Certificate.	
International Oil Pollution Prevention Certificate.	

The Crew Effects Lists (C142) and the General Declarations (C13) must be delivered to the Customs Officer if boarded on arrival. If not boarded on arrival one copy of each must be delivered to the designated post box at the Customs House within 3 hours of arrival.
PILOTAGE: This is a compulsory pilotage district with certain exemptions. The Pilot will board from a boat, 3 miles South of St. Anthony's Lighthouse. Pilots maintain VHF watch on Channel 16 and can be contacted through coast stations throughout 24 hours – Call sign "Falmouth Pilot Radio"; preferred working frequency Channel 9 or Vodaphone (0836) 661668.
ANCHORAGES: Vessels in excess of 203 m. usually anchor in Falmouth Bay. Other vessels in outer harbour. Mooring Buoys available.
MAX. SIZE: See "Tankers".
HEALTH: See "Health – All ports" before first U.K. port.
VHF: Falmouth Harbour Radio (office hours) Channels 16, 14, 13 and 12.
TUGS: 4 tugs available. On call during working hours and outside of hours when required if advance notice given. Tug's lines are to be used.
STEVEDORES: Falmouth Cargo Handling: Tel: (01326) 212100. Telex: 45175. Fax: (01326) 211674.
MEDICAL: Doctors and hospital facilities available. Agents should be advised in advance of any medical attention required.
TANKERS: Berth available at Eastern Jetty (248 m.) for tankers with max. draft 8.4 m. (approx.), depending on length of vessel. Fuel oil receiving terminal for loaded vessels up to approximately 28,000 tonnes d.w.t. Slop reception and tank cleaning facilities available.
BERTHING:

Name	*Length of Wharf* (m.)	*Length of Berth* (m.)	*Depth (at C.D.) Alongside* (m.)
County Wharf	204.0	160.0	7.8
Duchy Wharf	235.5	190.0	7.8
Western Wharf	*184.0	*184.0	5.5 (Cat)
Kings Jetty			
South Side	246.0	183.0	7.3
North Side	240.5	192.0	7.3
Queens Jetty			
South Side	159.0	152.0	6.4
North Side	189.5	189.5	7.3
Northern Arm (Wharf partially demolished – works and in-fill in progress)			
South Side	209.5	198.0	6.1
North Side	209.5	209.5	6.1
Eastern Breakwater	291.0	150.0	8.5
		180.0	7.3
		210.0	5.3

* Wharf partially demolished. Works and in-fill in progress, 184 m. remaining up to new in-fill.

13 deep-water berths. Combined frontage 8,000 ft. Vessels of 865 ft. have been accommodated. Draft LWOST 5.5 m. – 7.5 m. depending on berth.
CARGO HANDLING FACILITIES: 25 ton dockside crane, grab cranes and elevators. 100,000 sq.ft. warehousing and 4 acres open storage.
Cross Roads Buoy and St. Just Moorings: Max. size of vessel normally permissable on the Cross Roads Buoy, except by special arrangement with the Harbour Master: LOA: 183 m. (600.5 ft.): Draft: No limit. Anchor cable size: 77 mm. SQ (U2) steel.

Max. size of vessel on fore and aft St. Just Mooring normally permissable except by special arrangement with the Harbour Master: Length overall: 205 m. (672.5 ft.) Draft: No limit. Anchor cable size: 82 mm. SQ (U2) steel.
Caldy and Frigate Buoys: Max. size of vessel normally permissable on either of these buoys except by special arrangement with the Harbour Master: Length overall: 61 m. (200 ft.) Draft: 3.5 m. (11.5 ft.). Anchor cable size: 28 mm. SQ (U2) steel.
Offshore Exploration: Falmouth Docks and Engineering Co. operates an offshore supply base with all services and on an exclusive basis.
FUEL AND FRESH WATER: Full marine bunkers service by Falmouth Oil Services (Tel: (0326) 211333). Gas oil is available and water is piped on the Dock Company wharves. At the repair berths, or in Carrick Roads or Falmouth Bay, bunkers and water must be delivered by barge.
Offshore Bunkering:
Falmouth Oil Services – Bunkering Procedure:

Whenever possible, the barge will make fast along your starboard side. The Barge Master and/or Terminal will advise you of the barge's ETA.

Please expedite the operation by ensuring the following:
(A) Your derrick/crane/hoist is rigged ready for lifting the barge hose(s).
(B) Sufficient crew are standing-by (with heaving lines) to receive the barge's mooring ropes.
(C) Sufficient crew are available for connecting the hose(s) on board your vessel.
(D) The completed and signed copies of forms "Important Notice" and "Safety Check List" are both returned to the Barge Master before bunkering commences.
(E) A crew member is continually present by your bunker manifold throughout the operation (A crew member of the barge will always be on the barge deck throughout the operation).
(F) Sufficient crew are available for disconnecting the hose(s) and letting-go the barge's mooring ropes.

Contact Numbers:

Terminal:	Tel: (01326) 211033 Telex: 45764 Fosoil G Fax: (01326) 211539
Barges:	'Falmouth Enterprise' (Fuel/clean oils) 'Falmouth Endeavour' (Fuel/clean oils) 'Falmouth Industry' (Gas oil/water)
VHF Channels:	16 – All barges 16/9 – 'Falmouth Pilots' 11 – 'Spindrift' Dockmaster 102 – 'Fos Terminal' (Private channel)

Agents Instructions to Master: Master to advise 45764 Fosoil G and ETA's immediately 72/48/24 hours and 12 hours prior arrival Falmouth, thereafter any change exceeding 1 hour – all times GMT (Z).

Following information required with first communication:

AA	Ship's name.
BB	Flag/Port of Registry.
CC	Last port.
DD	Next port.
EE	Ballast/loaded?
FF	Tonnage g.r.t./n.r.t./d.w.t.
GG	ETA Falmouth in GMT.
HH	Arrival draft.
II	Freeboard at bunker manifold.
JJ	Length overall.
KK	Quantity/grade bunker required.
LL	Distance from stern to manifold.
MM	Manifold size(s) in pitch circle diameter.
NN	Average receiving rate per grade.
OO	Last port: Agent's Tel.No./telex No./station monitored.

Master to call 'Falmouth Pilots' on VHF Channels 16/9. Pilot boarding position is 2 cables N.E. of Helston (2D) Buoy, which is in position Lat. 50° 04.9' N., Long. 05° 00.7' W.

Normal agency services available, including arrangement of repair facilities (afloat, alongside, or D/D) diving services, chandlery, etc.

CONSULS: France, Germany, Netherlands, Norway and Spain represented by G. C. Fox & Co.

REPAIRS: All ship repairs can be carried out by A & P Falmouth Ltd. Dockmaster – call sign "Spindrift", maintains VHF watch on Channel 16, working on Channel 11 during office hours. Tel: 212100 (Ext. 251) or Fax/Tel: (01326) 319451.

DRY DOCKS: A & P Falmouth Ltd. (Tel: (01326) 212100).

Total wharf space: 2,438 m. Minimum depths alongside 6.10 m. to 7.5 m. LWOST. 24 hour access.

Cranage up to 48 tons.

Services: Electricity, water, steam and air.

Gas-freeing and tank cleaning facilities.

Bunkering.

Dry Docks	*Length* (m.)	*Breadth* (m.)	*Depth on Sill at HWOST* (m.)
No. 1	169	22.9	7.9
Queen Elizabeth Dock	259	39.6	11.0
No. 3	229	26.8	8.5
No. 4	198	26.2	8.2

Dry docks can accommodate vessels up to 100,000 d.w.t.

Repairs can be carried out at 13 deep-water berths and in deep-water harbour.

Engineering, fabrication and electrical services; grit blasting and high pressure water-washing. Sea-going maintenance teams.

Personnel experienced in handling all types of cargo, including explosives. Rail links to berths. Open storage, warehousing and office accommodation. Diving services. Management and secretarial services. Helicopter Pad. Security – 24 hour patrol.

GANGWAY/DECK WATCHMEN: Available in shipyard on request.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: Usual U.K. allowances.

REPATRIATION: Facilities available.

AIRPORTS: London (Heathrow) 75 minutes by air from Newquay Airport, or 4.5 hours by train from Truro.

Distances from Falmouth: Newquay – 28 miles. Bristol – 183 miles. London – 277 miles.

TIME: British Standard Time is GMT. British Summer Time – GMT plus 1 hour (Summer).

HOLIDAYS: 1st January; Good Friday (variable date); Easter Monday (variable date); Spring Bank Holiday (variable date); August Bank Holiday (variable date); Christmas Day (25th December); Boxing Day (26th December).

POLICE/AMBULANCE/FIRE: Dial 999 from any telephone and ask for service required. Or County Police, 72231; Dock Police, 212100; County Fire Service, 212412; Docks Fire Service, 212100; Ambulance, Truro (01872) 78181.

EMERGENCY CO-ORDINATION CENTRE: Coastguard MRCC, dial 999 or 317575 or VHF Channel 16 – Falmouth Coastguard.

TELEPHONES: Can be placed on board in dry dock and most repair berths but not at Eastern Oil Wharf.

SERVICES: *Storing:* Storing by sea or alongside and no restrictions on vehicle access at most berths.

GARBAGE DISPOSAL: For collection alongside the docks, applicaton should be made to the port's General Manager. For collection whilst afloat, arrangements should be made through ship's agent.

WASTE OIL DISPOSAL: Full tank cleaning and slops receipt service available on the Eastern Jetty.

SEAMEN'S CLUBS: Falmouth Seafarer's Centre, Bar Road, Falmouth (Tel: 0326-312149). Facilities include accommodation, transport, chapel, shop, video/TV, games, laundrette, telephone, currency exchange, postage facilities, snacks, books, juke box, bar and football.

CURRENCY: U.K.Pound (U.K.£).

SHORE LEAVE: Granted.

AUTHORITY: Port of Falmouth, Falmouth Harbour Commissioners, 44 Arwenack Street, Falmouth TR11 3JQ. *Tel:* (01326) 211376. *FAX:* (01326) 211352. *Telex:* 45349 Falhar G. *Contact:* Captain D.G. Banks, Chief Executive and Harbour Master.

A & P Falmouth Ltd., The Docks, Falmouth TR11 4NR. *Tel:* (01326) 212100. *Telex:* 45536 Faldoc G. *FAX:* (01326) 319433. *Contact:* Captain Jim Skelley, Dockmaster. Tel: (01326) 319451 (direct line). Fax: (01326) 319451 (direct line).

FELIXSTOWE: 51.57 N. 01.21 E. (See Plan)

DOCUMENTS:

Stores List.
Crew List.
Health Declaration.
Manifests.
Bills of Lading.
Ship's papers, including Register, Load Line Certificate, Safety Equipment Certificate, Radio Certificate, U.K. Light Dues, if any.

Radio Officer's Report:

2 copies Master's Declaration.
2 copies Crew List.
1 copy Crew Declaration (No "Magazines" permitted).

APPROACHES: Traffic Regulatory Systems in effect. Details of current harbour Bye-laws and General Directions for navigation available. See "Radar/VHF" – "Harbour Operations Service".

PILOTAGE: PROCEDURE AND INFORMATION ON ETAs/ETDs FOR SHIPS REQUIRING THE SERVICES OF AN AUTHORISED PILOT:

Arrival Notification: Ships bound for the Haven Ports of Harwich, Felixstowe, Ipswich and Mistley and requiring a Pilot, shall notify Harwich Operations Control, 8 hours in advance, giving the ETA at the "Su or "Cork" Pilot Stations, as appropriate and LOA, gross tonna maximum draft, departure port and destination port.

Confirmation of ETA should be given at least 3 hours before ar on VHF Channel 9.

Failure to provide the ETA and subsequent confirmation could re in delay to the ship.

In the case of a ship engaged in the short sea trade, the initial E may be passed at the time of leaving the last port of call, if passa time is less than 8 hours.

A ship having complied with the above conditions and then hav anchored before embarking a Pilot must give Harwich Operations Con adequate notice of requiring the services of a Pilot. Failure to give su notice could result in delay to the ship.

Requests from inward-bound ships for the services of a Pilot for Rivers Blackwater, Colne, Crouch or Roach may also be passed thou Harwich Operations Control.

Departure Notification: Outward-bound ships, or ships moving within compulsory Area, which require the services of a Pilot, shall give at le 2 hours' notice of their Estimated Time of Departure and update required by giving 30 minutes confirmation.

Boarding and Landing Arrangements: The pilot boarding point for inwa bound ships will be within the voluntary pilotage area, (see below), su that the Pilot is boarded in good time before entering the Compuls Area.

The boarding position will be agreed with Harwich Operations Cont having due regard to the size and draft of the ship and the prevail circumstances.

For vessels arriving from the North via the Shipway, and small a medium sized vessels from the South, the normal boarding point is t Cork Pilot Station, which is 2 miles E.N.E. of the Shipway Buoy. La and deep draft vessels will normally be expected to board their Pi at the Sunk Pilot Station, 1.5 miles E.N.E. of the "Sunk" Light Flo Small vessels unfamiliar with the area will also be boarded at the "Su Pilot Station on request.

Boarding and landing will take place from pilot launches operat from Harwich Harbour. The launches will have the word "HAV PILOTS" on the side of the wheelhouse, fly the pilot flag by day and night, exhibit lights and signals in accordance with Rule 29 of t International Regulations for Preventing Collisions at Sea.

If the pilot launch is unable to operate in the normal locations due stress of weather, or other unforeseen circumstances, alterna arrangements will be advised by Harwich Operations Control.

GEOGRAPHICAL LIMITS OF THE HAVEN PORTS PILOTAGE AR (THE COMPULSORY AREA):

The area bounded by the following limits:

(a) As much of the River Orwell as lies below Ipswich Dock.
(b) As far up the River Stour as the tide flows.
(c) To seaward of Landguard Point, the area bounded as follow
  (i) In an Easterly direction as far as 01° 24' E.
  (ii) In a Southerly direction as far as 51° 54.5' N.
  (iii) In a Northerly direction as far as 51° 57.4' N.

Voluntary Pilotage: The Board will provide pilotage upon request in area to seaward of the compulsory Area as far as a line drawn betw the following points:

(a) Bawdsey Cliff – Lat. 52° 00' N., Long. 01° 26' E.
(b) Lat. 52° 00' N., Long. 01° 41' E.
(c) Lat. 51° 49' N., Long. 01° 41' E.
(d) Lat. 51° 49' N., Long. 01° 15' E.

ANCHORAGES: For vessels needing to anchor at the Sunk to a Pilot or berthing:

(i) Recommended Deep Water Anchorage approximately 4 m N.E. of the "Sunk" Light Float.
(ii) Inner Sunk Anchorage approximately 3 miles S.W. of L Vessel.

For vessels proceeding via Cork:

(i) Recommended Deep Water Anchorage at the Bawd Anchorage.
(ii) The Cork Anchorage North of the Harwich Channel Approa

Inside Harwich Harbour are the:

(i) Platters Anchorage, South of the Pitching Ground Buoy.
(ii) For small vessels, the Shelf and River Stour Anchorages.

Information on all these anchorages is available from Harwich Har Radio VHF Channel 71. See "Radar/VHF" – "Harbour Operat Service".

RESTRICTIONS: Approach Channel dredged to 12.5 m. (below C Datum). Deepest water alongside is 14.0 m. (C.D.) at Trinity Conta Terminal. At least 0.3 m. keel clearance (except Landguard whic 0.5 m.) required at all times between channel bed and keel of vess

MAX. SIZE: General cargo vessels: Dock Basin 39.0 m. wide entra Depth 6.7 m. (C.D.). No lock gates. Suitable vessels able to leav any state of tide.

North Quay: 191 m. in length.
South Quay: 186 m. in length.
East Quay: 132 m. in length.

Container Vessels: Landguard Container Terminal, depth 11 (C.D.) for 280 m. of quay, 9.75 m. (C.D.) for remainder. Max. draft 9 – 11.4 m.

Trinity Terminal – Berth No. 1: Depth 11.6 m. (C.D.). Max. draft 11
Trinity Terminal – Berth No. 2: Depth 11.9 m. (C.D.). Max. draft 11
Trinity Terminal – Berth No. 3, 4 and 5: Depth 13.4 m. (Max. draft 13.1 m. Berths No. 6 and 7: Depth 14.0 m. (C.D.). Max 13.7 m.

Ro/Ro vessels Ferry Terminal: Ro/Ro Bridge No. 1: Vessels 184.6 m. overall, depth 7.3 m. (C.D.). Ro/Ro Bridge No. 2: Vess to 151.0 m. length, depth 7.3 m. (C.D.) Ro/Ro Bridge No. 3: Vess to 137.2 m. length, depth 7.3 m. (C.D.). Ro/Ro Bridge No. 4: 9.75 m. (C.D.). Vessels up to 213 m. overall.

Tanker Jetty: Vessels 180 m. overall, depth 9.75 m. (C.D.).

All berths subject to siltation between maintenance dredging p

HEALTH: Pratique flag in daylight and lighted signals in darkness to be displayed by vessel on arrival. Health Declaration to be given in writing or verbally by Master on arrival. If disease suspected, then report to Pilot Station who will advise Health Authorities.

Also see "Health – All ports" before first U.K. port.

RADIO: North Foreland, Humber, Niton (or any other radio station convenient to vessel's position).

RADAR/VHF: *Harbour Operations Service:* An Operations Service is operated by the Harwich Haven Authority, and is provided from the Harbour Master's Office, Navigation House, Harwich on a 24 hour basis to provide all vessels using the harbour with navigational information and advice. The following facilities are available:

VHF Radio:	Channel 16	Safety.
	Channel 9	Pilotage and ETAs.
	Channel 71	VTS and Reporting.
	Channel 6	Pilot Launches.
	Channel 69	Tugs.
	Channel 20	Harwich Radar Assistance.
	Channel 11	Harbour Craft.
Telephone:	(01255) 243000	Harbour Operations.
	(01255) 243111	Pilot Orders.
Telex:	98472 HAROPS G.	
Fax:	(01255) 241325	

Dangerous substances in Harbour Areas notifications should be sent by telex or fax 24 hours prior to arrival or at time of leaving last port.

The centre is equipped with comprehensive radio and telecommunications, advanced radar surveillance displays, VHF and direction finding equipment, electronic tide gauges, and wind instruments, to provide full and up to date navigational information to seafarers.

All vessels over 50 gross tons must carry suitable VHF R/T equipment, capable of communicating with the Harwich Harbour Operations Service (Call sign "Harwich Harbour Radio") and must maintain a listening watch on Channel 71 (156.575 MHz) while navigating within the harbour and approaches. Vessels entering or leaving the harbour must contact the Operations Service for permission to navigate through the area, in accordance with the procedures laid down in current Harwich Harbour General Directions for Navigation.

Traffic regulatory procedures exist with respect to the Harwich Deep Water Channel and within other areas of the harbour, depending on circumstances. The Harbour Operations Service will keep vessels suitably advised.

TUGS: Up to 5 tugs (Up to 40 tons bollard pull) join vessels in Harwich Approaches, or where ordered by Pilot. Tugs listen on Channel 16 and Channel 71 (24 hours). Main tug working Channel when engaged in towing is Channel 69.

In addition 3 dock tugs up to 13 tons bollard pull are available. Contact on Channel 71 or via Harbour Operations.

BERTHING: All berthing information available through Harbour Operations via Harwich Harbour Radio, who have direct links to Berthing Master's Office at the Port of Felixstowe.

CONTAINER TERMINALS:

Terminal	*Berth* No.	*Length* (m.)	*Depth* (m.)
Landguard	–	440	9.75 – 11.90
Trinity	1	2,084	11.6
Trinity	2		11.9
Trinity	3, 4, 5		13.4
Trinity	6, 7		14.0

All berths are dredged annually.

Container Handling Equipment:

Landguard:

Container Cranes:	1 Paceco ship/shore container crane (1×50 ton capacity). 2 Morris ship-shore container cranes (2×50 tons capacity). 1 OMG ship/shore container crane (Post Panamax 70 tons capacity).
Park Gantry Cranes:	13×35 ton Paceco rubber tyred gantry cranes.
Container Park:	28 ha. (ground slots – 3,893 TEU's; capacity – 9,733 TEU's).
Reefer Points:	120 (20 ft.).

Trinity:

Container Cranes:	10 Davy Morris ship-shore container cranes (Post-Panamax) 7×50 tons capacity and 3×70 tons capacity. 2 I.H.I./M.G.M. container cranes (Post-Panamax) 50 tons capacity. 2 I.H.I./M.G.M. container cranes 50 tons capacity. 2 Conrad Stork container cranes 50 tons capacity.
Park Gantry Cranes:	47×35 ton rubber tyred gantry cranes. 35×Davy Morris, 5×M.G.M., 9×Paceco and 4×Morristac.
Container Park:	76 ha. (ground slots – 14,200 TEU's; capacity – 46,600 TEU's).
Reefer Points:	752.

Rail Facilities: All berths are served by rail including 2 Freightliner Terminals, one situated at the Landguard Container Terminal and the other situated at Trinity Container Terminals.

CARGO HANDLING FACILITIES: *General Cargo Division:* 4 mobile cranes up to 33 tonnes capacity and 2 Scotch derrick cranes, capacity 32 tons at 90 ft. radius.

Roll-on/Roll-off Division: No. 1 Berth: P & O European Ferries Terminal. Upper and Lower deck loading ramps. Electric travelling crane, capacity 32 tons at 110 ft., depth 6.7 m. – 7.3 m.

No. 2 Berth: P & O European Ferries Terminal: One hydraulic loading ramp designed to carry loads up to 140 tons. Upper loading ramp designed to carry loads up to 32 tons. Least depth 7.3 m.

No. 3 Berth: Hydraulic loading ramp designed to carry two lanes of traffic with loads up to 140 tons. Electric travelling crane with capacity of 35 tons at 95 ft. radius, least depth 7.3 m.

No. 4 Berth: Allows a combination of Roll-on/Roll-off and container vessels to be accommodated. The hydraulic loading ramp is designed to carry two lanes of traffic with loads of up to 140 tons. Depth 9.75 m.

STEVEDORES: 24 hours notice required by Agent to advise stevedores of vessel's ETA, in order to arrange berthing and allocation of labour. All stevedoring arranged between Dock Company and vessel's Agent.

MEDICAL: Prior notice desirable through Agent to arrange attention. All services available.

TANKERS: 4 in. and 6 in. connections. No slop facilities, except as required by MARPOL Regulations. No facilities for gas freeing alongside or in harbour.

One tanker berth available. Vessels up to 180 m. overall, 25,000 tons displacement and max. draft 9.1 m. at C.D.

DENSITY: 1025 salt water.

FRESH WATER: Pipeline connections to all quays. Delivery approx. 40 t.p.h. Tug service available for supplies to vessels at anchor.

FUEL: Marine diesel and gas oil available, pipeline and barge delivery. 24 hours notice required.

FIRE PRECAUTIONS: Standard precautions at all berths.

CONSULS: Royal Swedish Vice-Consul, Harwich 241063; Icelandic Vice-Consul, Felixstowe 285651/4; Netherlands and Germany, Harwich 506666; Finnish Honorary Consul, Felixstowe 604500.

REPAIRS: Facilities exist for small repairs only.

DRY DOCKS: None available.

OPENING/CLOSING HATCHES: Work undertaken by crew.

CERTIFICATES: Valid Derrick and Rigging Certificates, Ship's Register, Load Line, (Light Dues Receipts), Safety Equipment, Radio, Derat, Construction.

CUSTOMS ALLOWANCES: 100 cigarettes or equivalent in tobacco or cigars per man. 1 bottle spirits.

REPATRIATION: All facilities available.

AIRPORTS: Ipswich – 10 miles; Stanstead – 65 miles; Southend – 70 miles; Heathrow – 90 miles. International flights.

Air UK flights from Norwich to Aberdeen, Amsterdam, Bergen, Edinburgh, Humberside, Leeds/Bradford and Teesside.

TIME: GMT. In Summer months, April to October, time advanced 1 hour.

HOLIDAYS: Shipwork every day except Christmas Day. Parks and warehouses closed at Easter and Christmas/New Year. Exact dates and times advised in advance.

POLICE/FIRE/AMBULANCE: Emergency points on all quays. Tel. 4300 or, outside dock area, 999.

TELEPHONES: Shore connections available by prior arrangement for vessels on regular trades.

SERVICES: Most services available for dry cargo vessels, but no special tank cleaning or tank washing facilities for tankers.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not necessary if in possession of Seaman's Book or Passport.

GARBAGE DISPOSAL: Skips are placed at strategic points on quayside, and are emptied as and when required by Hales Waste Control, Papermill Lane, Bramford, Ipswich IP8 4DE (Tel: (01473) 831725) who can also arrange to dispose of excessive amounts of waste.

WASTE OIL DISPOSAL: Can be supplied by Hunting Secon Ltd., Cecil House, 27 High Street, Hoddesdon, Herts EN11 8UZ. Tel: (01992) 451848. Fax: (01992) 446596. They will collect sludge and waste oil by 20 ton tanker lorry. Any reasonable quantity can be accepted. 24 hour/7 days a week service. Cost on application, depending on water content, no special berth necessary.

SEAMEN'S CLUBS: Felixstowe Seafarers Centre, The Dock, Felixstowe (Tel: (01394) 673599). Facilities include games room, pool table, TV, darts, table tennis, food available, shop, international telephone, church services, minibus collection, postage facilities. Open 7 days a week.

CURRENCY: U.K.Pound (U.K.£).

GENERAL: ETA to Agent required 72 hours, 48 hours, and 24 hours prior arrival.

AUTHORITY: Felixstowe Dock & Railway Co., Tomline House, The Dock, Felixstowe, Suffolk IP11 8TB. *Tel:* (01394) 604500, 604789. *Cables:* Dock, Felixstowe. *Telex:* 98277 or 98535 (Operations). *FAX:* (01394) 604998. *Contact:* D. Harrington, Managing Director. P. Bennett, Deputy Managing Director. D. Barr, Director of Operations. Captain J.M. Bubb, Port Operations Manager.

FISHGUARD: 52.01 N. 04.58 W. (See Plan)

DOCUMENTS: See "Cardiff".

PILOTAGE: Local Pilot available on request. Pilotage compulsory.

ANCHORAGES: Eastward of a line joining Northern and Eastern breakwaters.

MAX. SIZE: Max. draft 18 ft.

HEALTH: See "Health – All ports" before first U.K. port.

RADIO/VHF: Fishguard Radio, VHF Channel 16 and 14.

TUGS: None.

FACILITIES: Stern loading, car and Roll-on/Roll-off Ferry Port. Also Lift-on/Lift-off crane of 22 tons.

CRANES: 1×6 tons and 1×22 tons.

STEVEDORES: No stevedores – vessels worked by Stena Line staff.

MEDICAL: Doctors available. Hospital facilities 16 miles away.

DENSITY: 1025.
FRESH WATER: Available alongside quay.
FUEL: Available with prior warning.
GANGWAY/DECK WATCHMEN: Ship's crew.
OPENING/CLOSING HATCHES: Crew.
REPAIRS: Minor repairs by Stena Line workshops and contractors.
SURVEYORS:

1. Cargo Surveyor: Captain D. Hughes. Tel: 873880.
2. Lloyd's Surveyor. Tel: (016462) 4811.

CUSTOMS ALLOWANCES: (Crew allowance) 40 cigarettes. No wine or spirits unless proceeding on leave.
AIRPORT: Cardiff, Swansea and Haverfordwest.
POLICE/FIRE/AMBULANCE: Dial 999. British Rail police and Stena Line Port Supervisor on duty 24 hours.
EMERGENCY CO-ORDINATION CENTRE: Coastguard – Tel: Dale 218.
BANKS: Barclays Bank, The Square, Fishguard, Dyfed. Tel: 873226. No telex.

Midland Bank, West Street, Fishguard, Dyfed. Tel: 872232. No telex.

Lloyds Bank, West Street, Fishguard, Dyfed. Tel: 872309. No telex.

STORING: See "Prelims".

1. Vessel can be stored by barge or truck, limited space of approximately 15 ft. width available for trucks.
2. Loading of stores can be carried out from barge with ships equipment.
3. Trucks of limited size can proceed alongside berth.
4. Fork lifts can be used to handle stores.
5. Prior notification to local customs,.
6. Stena Line can assist with stores if given prior notification.

SHORE LEAVE: Allowed.
AUTHORITY: Stena Line Ports Ltd., Fishguard Harbour, Goodwick, Pembrokeshire SA64 0BU. *Tel:* (01348) 404406. *FAX:* (01348) 404443. *Contact:* N. Saul, Ship and Port Manager.

FLEETWOOD: 53.55 N. 03.00 W. (See Plan)

LOCATION: The Port of Fleetwood is situated on the Lancashire coast approximately 38 km. (24 miles) North West of Preston and 42 km. (26 miles) South West of Lancaster.
DOCUMENTS:

Manifests.
Bills of Lading.
Ship's papers.
Crew Lists.
Customs Documents.
Health Documents.

PILOTAGE: Pilot to be picked up off No. 1 Fairway Buoy. Ordered through ship's Agent giving 24 hours notice of ETA.
ANCHORAGES: Good anchorage 1.0 miles North of Fairway in outer limits of harbour in Lune Deeps in 14 fathoms.
RESTRICTIONS: Vessels under power must not navigate any portion of this harbour above Beacon No. 11 at a greater rate of speed than is necessary to navigate safely, also on passing other vessels, either steam or sail, hopper barges, pontoons in tow, etc., in the channels outside the above mentioned Beacon No. 11 and within harbour limits due care must be taken to pass them at a rate of speed that will not cause risk from displacement or what is commonly called "backwash", and that all vessels must be navigated in this harbour strictly in conformity with Rule 9 (Narrow channels) contained in the Collision Regulations for Preventing Collisions at Sea, 1972.

Vessels bound into Fleetwood must not enter the river without being sure they have sufficient depth of water to ensure their getting to the quays or piers to which they are bound.

In the event of any vessel grounding on the "Tiger's Tail" or in any other part of the Fleetwood Harbour, the Master shall not attempt to refloat the vessel by reversing the engines, or by any other means whatsoever, until all incoming vessels following have passed the stranded vessel and the channel is clear of shipping.

Locks are normally open from 2 hours before HW and after HW.

MAX. SIZE: (Within enclosed docks): 58 m. LOA: 14.1 m. beam.

So far as draft is concerned, allowances have to be made for clearing the lock invert. These allowances vary according to the beam of the ship and the following scale may be taken as a guide:

Beam of Vessel (m.)	*Clearance Required* (m.)
11.28	0.69
13.41	1.22
14.02	2.21
14.17 maximum	3.12

HEALTH: See "Health – All ports" before first U.K. port.
VHF: VHF Port Operations and Information Service. Fleetwood Harbour works on Channel 11 and Fleetwood Dock works on Channel 12.

All movements of vessels arriving for and sailing from the Harbour and Docks are controlled by the Harbour Master using the VHF Port Operations and Information Service located in the Harbour Master's Office on the West side of Fleetwood Harbour. (Lat. 53° 55' 30" N., Long. 3° 00' 12" W.).

TUGS: Tug service available.
MEDICAL: Ship's Agent will organise medical attention if required.
DENSITY: 1015 at half tide; 1025 at high water.
FRESH WATER: Fresh water available through stand pipes. Charge according to consumption (sliding scale).
FUEL: All grades of fuel available.
FIRE PRECAUTIONS: No specific requirement outside usual "No smoking" precautions.
GANGWAY/DECK WATCHMEN: Ship's watchmen required.
BERTHING: Under normal conditions the lock gates operate for 2 h before and after HW.

There is a Roll-on/Roll-off berth in the harbour. This is a twice d service to Larne for wheeled vehicles and trailer loads.

Dock	*Quay Length (Total)* (m.)	*Depth of Water (Absolute Min.)* (m.)	*Max. Size of Vessel Length* (m.)	*Beam* (m.)	*Draft* (m.)	*App d.w*
Fish Dock	800	5.5	107	14.1	5.5	3,50
Harbour/ Ro-Ro Berth	150	4.5	152	20.3	4.2	5,00
	To suit vessel					
Isle of Man Berth	91	As required	107	—	4.2	–

Fish Dock: Modern facilities for fish handling, marketing processing are available operated by Wyre Fish Dock Management and a large number of wholesale fish merchants.

Ro-Ro Berths: Separate berths handling Irish Sea and Isle of freight and passenger ferry services are located within the port. An land is available for development of Ro-Ro business.

OPENING/CLOSING HATCHES: Normally carried out by crew.
REPAIRS: One slipway located in Fish Dock with lifting capacity 1,050 tons.
REPATRIATION: Arranged through ship's Agent.
AIRPORT: Squires Gate, Blackpool, 10 miles away.
TIME: GMT in Winter. GMT plus 1 hour in Summer months.
HOLIDAYS: Christmas Day and Boxing Day; New Years Day; G Friday and Easter Monday; Spring Bank Holiday; May 1st; Autumn B Holiday.
POLICE/AMBULANCE/FIRE: Police 999; Ambulance 999; Fire 999
TELEPHONES: Can be arranged through Post Office.
SERVICES: Compass adjusting.
SHORE LEAVE: Crew members are allowed ashore.
GARBAGE DISPOSAL: Service available through Wyre Mini S (Tel: 872171, mobile: 01860-771530) every working day.
WASTE OIL DISPOSAL: Service available through B & M Salv Fuels, Fleetwood (Tel: 779650).
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Associated British Ports – Fleetwood, Dock Office, W Dock, Fleetwood, Lancs. FY7 6PP. *Tel:* (01253) 872323. *FAX:* (012 777549. *Contact:* Captain J. Green, Port Manager. Captain P.L. Sh Pilot/Harbour Master. C. Couper, Port Superintendent.

FOSDYKE BRIDGE: 52.52 N. 00.02 W.

APPROACHES: Common approach channel shared with Port of Bos
PILOTAGE: Compulsory. A joint service for the two ports is provide conjunction with the Port of Boston Authority. Tel: (01205) 362114. Channels 16and 12.
MAX. SIZE: Spring tides: Draft up to 5.0 m.; LOA 58 m. (exceptio *with prior approval* 59 m. – 90 m.).

Lowest Neap tides: Draft 2.8 m.; LOA 50 m. – 52 m.

VHF: Fosdyke Port Radio operates on Channel 12. A listening wat maintained during shipping movements on the River Welland.
TUGS: Service operated by wharfingers.
BERTHING: Private wharf 69.50 m. long, giving 1/2 berths alongsi vessel up to 90 m. LOA, subject to hold length not exceeding 70 m. wharf is situated on the North bank of the river, operated Port of Fosdyke Ltd.
FRESH WATER: Available.
GARBAGE DISPOSAL: A skip is provided for disposal of dom refuse, etc.
WASTE OIL DISPOSAL: Not available.
SEAMEN'S CLUBS: None.
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Port of Fosdyke Ltd., Fosdyke Bridge, Boston, PE20 2DB. *Tel:* (01205) 85240. *FAX:* (01205) 85400. *Contact:* A. or Mrs. P. Fish.

AGENT: Welland Ships' Agents, Fosdyke Bridge, Fosdyke, Lincs. PE20 2DB. Tel: (01205) 85240. Fax: (01205) Contact: A. Blay or (After hours – K. Peak, Tel: (01406) 425092).

FOWEY: 50.20 N. 04.39 W. (See P

PORT LIMITS: The whole of the Fowey River to a line acros entrance to the harbour. A vessel is considered to have arrive entering the harbour unless she is anchored just outside by the await suitable conditions for entering, in which case she is cons to have arrived on being so anchored.
DOCUMENTS:

Crew and Passenger Lists are essential, using IMO forms.
Aliens List is essential.
List of Bonded Stores, including beer.
List of Personal Dutiable Articles owned by Crew.
Bill of Health, if available.
Derat Certificate.
Manifest of all cargo on board.
Copies of Bills of Lading.
Stowage plan, if available.
Normal Ship's Papers.

PILOTAGE: Compulsory within the harbour limits. Vessel requiring Pilot gives ETA as far in advance as possible to Agent. Vessel displays normal signals off port. VHF calling Channel 16, working Channel 9. Pilot cutter (LOA 16.5 m.) has a black hull and orange upperworks. The Pilot boards off entrance. Vessels can anchor South of entrance if necessary.

Pilots VHF station open for messages from arriving ships up to 2 hours before time of ETA received by Agent. Pilots telephone No. (01726) 832816 (Fax: (01726) 832826) (calls are automatically diverted to duty pilot).

RESTRICTIONS: Vessels can enter at any time, if their draft is less than 6.0 m. Otherwise according to tide. Depth of ship channel at LWOST – 7.0 m.

MAX. SIZE: LOA 164 m., beam 18.0 m. Loaded draft of 8.5 m. Vessels of this draft have to be handled at or near high water.

Beam restriction is for loading purposes only. No restriction on manoeuvring.

Max. LOA for cruise vessels in the lower harbour is 200 m.

Vessels up to 164 m. in length are handled, but subject to prior consultation with the Harbour Master and owners of the loading berths.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Land's End Radio, Niton, Pendennis or Portishead.

VHF: For arriving vessels see "Pilotage".

Fowey Harbour Commissioners "Fowey Harbour Radio" calling Channel 16, working Channel 12, ECC Ports Ltd., loading berths operators, "Fowey Port Radio", calling Channel 16, working Channel 12. Note: A listening watch is kept on Channel 12. Vessels are requested to call on this channel in preference.

TUGS: Three diesel tugs are available and normally join vessels at harbour entrance. Ship's lines usually used. No tug required for vessels under 90 m. in length under normal conditions. Only 1 tug required for vessels under 100 m. length. Two tugs required for vessels over 100 m. length. Harbour Master may require particular vessels to enter with tug assistance.

BERTHING: Vessels waiting for berths are normally moored, using their own anchor with their stern to a buoy. On the berth, vessels require long ropes.

Berth	*Max. LOA (approx.)* (m.)	*Depth of Water at LWOST* (m.)
Jetty No. 3	110	7.0
Jetty No. 4	120	7.3
Jetty No. 5/6	170	6.7
Jetty No. 8	164	8.5

CARGO FACILITIES: The port is specially equipped to handle china clay and ball clay in bulk and to a limited extent in bags. Occasional cargoes of timber are handled. Discharge is by mobile crane. There are 5 berths. Berth No. 4 has a bulk conveyor capable of handling up to about 330 t.p.h., Berth No. 6 up to 500 t.p.h. and Berth No. 8 up to 1,000 t.p.h. Berth No. 3 for liquid slurry coal only. 6 tonne and 3 tonne mobile cranes are available.

STEVEDORES: Earliest ETA possible is required, especially when a vessel arrives over week-end.

MEDICAL: If Medical Officer is required on arrival, advise Agent earliest opportunity. Hospital facilities are available.

DENSITY: River fully salt at all states of the tide.

FRESH WATER: Available at all jetties, delivered by hose and rate very variable.

FUEL: Gas oil only available by bunker barge in port (deliveries by sea for quantities over 50 tons from Falmouth or Plymouth) or by road. 2×80 ton storage tanks available in the port. As much notice as possible is advisable.

CONSULS: None.

REPAIRS: Fowey Harbour Commissioners have repair facilities for engine repairs, minor repairs and welding.

SURVEYORS: West Marine Surveyors & Consultants Ltd., Consulting Marine Surveyors, Engineers & Naval Architects, The Old Custom House, Brixham, South Devon. Tel: (018045) 2604. After normal office hours: Tel: (01803) 842925. Cables: Surveyor, Brixham. Telex: 42962 Survey G.

GANGWAY/DECK WATCHMEN: Not normally employed.

OPENING/CLOSING HATCHES: Carried out by crew.

CUSTOMS ALLOWANCES: 200 cigarettes *or* 100 cigarillos *or* 50 cigars or 250 grams tobacco. Drink over 22% alcohol 0.5 litre *or* under 22% alcohol 1 litre *or* 1 litre fortified sparkling wine. 2 litres still wine. 50 grams perfume. 0.25 litre toilet water. Half this allowance for vessels arriving from home trade ports which for this purpose is from Elbe/Brest range of ports.

REPATRIATION: Facilities exist.

HOLIDAYS: Saturdays, Sundays, and all Public Holidays.

POLICE/AMBULANCE/FIRE: Telephone 999 or VHF Channel 16.

Emergencies in harbour handled by Fowey Harbour Emergency and Pollution Plan under Harbour Master's direction.

TELEPHONES: No arrangements made for connection on board.

SERVICES: Compass adjusting can be arranged.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Not needed.

DELAYS: There is a possibility of delay in heavy rain and wind.

GARBAGE DISPOSAL: Skips are provided on quays adjacent to loading berths. Special arrangements made by agents and ECC Ports for Haul Waste to provide specific services. In Summer months a skip is afloat in the harbour for leisure craft and ashore at landing points (Port Waste management plan details available from Harbour Master).

WASTE OIL DISPOSAL: Can be arranged by Agent with contractors.

SEAMEN'S CLUBS: Flying Angel Mission to Seaman is in the dock area adjacent to agent's office. Tel: (01726) 833102, 833505.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Fowey Harbour Commissioners, Albert Quay, Fowey, Cornwall PL23 1AJ. *Tel:* (01726) 832471. *FAX:* (01726) 833738. *Contact:* Captain M.J. Sutherland, Chief Executive and Harbour Master. Captain D.I. Gammons, Deputy Harbour Master.

GARLIESTON: 54.47 N. 04.21 W. (See Plan)

LOCATION: Garlieston Harbour is situated approximately 15 km. North of Burrow Head on the West coast of Wigtown Bay in the Solway Firth.

PILOTAGE: Larger vessels require to be piloted.

APPROACHES: The approach to this sheltered harbour is along the Pouton Burn Channel, which can be negotiated by fishing vessels up to 3.5 hours either side of high tide.

RESTRICTIONS: Tidal restrictions.

BERTHING: There is a shipway and 3 main berths which dry out at low tide, so vessels must be able to take the bottom. The longest berth is approximately 85 m., and maximum beam at Berths No. 1 and 3 is 7.5 m. due to siltation. Depth of water at M.H.W.S. is 5.5 m. Vessels up to 1,000 tons can be accommodated at Berth No. 1.

Grain and fertiliser are landed at the harbour which is also used regularly by fishing vessels.

CRANES: None available.

BULK CARGO FACILITIES: None.

MEDICAL: Stranraer Hospital, 32 miles. Dumfries Hospital, 60 miles.

FRESH WATER: Available on quay.

FUEL: By tanker lorry.

REPAIRS: Local craftsman available.

AIRPORT: Prestwick, 70 miles. Glasgow, 100 miles.

POLICE/AMBULANCE/FIRE: Stranraer (01776) 702112. Newton Stewart (01671) 402100.

BANKS: At Whithorn and Newton Stewart.

AUTHORITY: Dumfries and Galloway Regional Council, Council Offices, English Street, Dumfries DG1 2DD. *Tel:* (01387) 53141 (ext. 227/237). *Contact:* Robert Houston, Harbour Master (part-time), 13 North Crescent, Garlieston. Tel: (019886) 00259.

GARSTON: 53.21 N. 02.54 W. (See Plan)

LOCATION: On the North bank of the River Mersey, 10 km. from Liverpool city centre.

DOCUMENTS, HEALTH: and all general information, refer to "Liverpool".

RESTRICTIONS: Locking into/out of Garston commences 3 hours before HW and ceases 3 hours after for vessels up to 76.2 m. length. Larger vessels enter or leave the dock in the period approximately 1 hour before to 30 minutes after HW, when the dock is open to the river.

MAX. SIZE: Length 152.4 m. and beam 19.2 m.

VHF: Docking and berthing instructions can be supplied through (call sign) "Garston Docks" on Hague Channel 20, or through Liverpool Port Radar (call sign) "Mersey Radio" on Hague Channels 12, 18 or 22.

BERTHING:

Dock	*Quay Length (Total)* (m.)	*Maximum Size of Vessel* *Length* (m.)	*Beam* (m.)	*Approx Draft* (m.)	*d.w.t.*
Stalbridge Dock	975	152	19.2	8.3*	10,000
Old & North Docks	1,405	152	19.2	8.3*	6,500

* Subject to tidal condition.

Storage and Warehousing: Garston in association with its customers provides covered storage facilities in excess of 16,000 sq.m.

Port Facilities:

	No.	*Capacity*
Cranes – Stalbridge	1 (Scotch Derrick)	32 tonnes
	2	10 tonnes
	2	7 tonnes
	1	6 tonnes
Old	1 (Scotch Derrick)	32 tonnes
	2	7 tonnes
North	2	6 tonnes

Frank Armitt & Son operate, at Stalbridge Dock, a specialised steel handling terminal, offering 1,022 sq.m. of covered storage served by 2×25 tonnes overhead gantry cranes.

A specialised bulk export facility of 2,880 sq.m. at the East side, North Dock has recently been developed between Associated British Ports and Frank Armitt & Son Ltd.

A bulk loading coal shipping terminal is situated in Stalbridge Dock with a loading capacity of 300 tonnes per hour.

STEVEDORES: *Port Working Hours:* By arrangement.

(a) Garston Port Stevedores Ltd.,
Dock Road, Garston, Liverpool.
Telephone: (0151) 4273835
Fax: (0151) 4278110

(b) Mersey Stevedores Ltd.,
Johnsons Lane, Widnes, Cheshire.
Telephone: (0151) 4941040
Fax: (0151) 4941044

(c) North West Stevedores Ltd.,
26-30 South Road, Weston Point, Runcorn, Cheshire.
Telephone: (01928) 575926
Fax: (01928) 568150

DENSITY: 1025.

FRESH WATER: Available Monday to Friday 0800 to 1600 hrs. All watering required outside of these hours is by arrangement.

OPENING/CLOSING HATCHES: Hatches to be opened and closed by the crew except on request.

AIRPORT: Liverpool Airport, 3 km. distant.

POLICE/FIRE/AMBULANCE: Dial 999 and ask for service required.

TELEPHONES: Shore based facilities available.

AUTHORITY: Associated British Ports – Garston, Port Office, Dock Road, Garston, Liverpool L19 2JW. *Tel:* (0151) 4275971. *FAX:* (0151) 4943232. *Contact:* S.F. Pearse, Port Manager.

GIRVAN: 55.15 N. 04.51 W. (See Plan)

DOCUMENTS: Normal U.K. documentation. H.M. Customs attendance obtained by contacting Harbour Master.
PILOTAGE: By local fishermen only – contact Harbour Master.
ANCHORAGES: To seaward clear of channel approaches. This area is hazardous in gales, particularly from the N.W.
RESTRICTIONS: Draft occasionally restricted at MLWS due to siltation. Harbour Master will advise on water depths available.
MAX. SIZE: LOA 50 m., beam 9 m., draft 3.5 m. Vessels with max. draft will only be moved at or near HW.
HEALTH: Under H.M. Customs control.
RADIO: ETA messages, etc. via Portpatrick Radio Station, Call on 2182 kHz – VHF Channel 16 (British ships may call on 2381 kHz but listen on 1792 kHz).
VHF: Harbour VHF ship to shore available 0900 – 1700 hrs. daily, Monday to Friday inclusive. Calling: Channel 16; Working: Channel 12.
TUGS: None.
BERTHING: South Pier Quay: 107 m. long, depth 2.1 m. MLWS.
Ailsa Berth: 49 m. long, depth 2.2 m. MLWS.
Fish Wharf: 42 m. long, depth 2.1 m. MLWS.
Fish Quay: 62 m. long, depth 2.2 m. MLWS.
Note: Fish Wharf and Fish Quay used only for fishing vessels.
CRANES: No port cranes available. Mobile cranes can be hired from local companies.
MEDICAL: Small local hospital, contact Harbour Master for assistance.
DENSITY: Water brackish, being sea water with fresh water river discharge.
FRESH WATER: Available.
FUEL: Diesel fuel only.
FIRE PRECAUTIONS: Normal safety procedures.
CONSULS: None, nearest at Glasgow.
REPAIRS: Small engine and deck gear repairs may be carried out alongside.
DRY DOCKS: None. 2 slipways, max. length of vessel which can be slipped, 21 m. – 33 m. overall.
SURVEYORS: Not available.
GANGWAY/DECK WATCHMEN: None. If desired would have to come from ship's crew.
HATCHES: Worked by crews.
CUSTOMS ALLOWANCES: Apply to H.M. Customs Officers.
CARGO GEAR: Hire-in mobile cranes or ship's own gear.
REPATRIATION: No arrangements.
AIRPORT: Prestwick, distance 38.4 km. Glasgow, distance 91 km. Internal U.K./Europe/Scandinavian and North Atlantic services.
TIME: Winter – GMT. Summer – March to October, British Summer Time i.e. 1 hour ahead of GMT (dates as announced).
HOLIDAYS: Cargo working unlikely on Christmas Day and New Year's Day.
POLICE/FIRE/AMBULANCE: In emergency dial 999 otherwise telephone numbers are: Police: (01465) 3587. Fire: (01292) 267471. Ambulance: (01465) 2571.
EMERGENCY CO-ORDINATION CENTRE: Marine Rescue Co-ordination Centre, (H.M. Coastguard), Greenock. Tel: (01475) 29014, 29988. Telex: 777006.
TELEPHONES: No ship links.
SERVICES: No special services available locally. Compass adjuster available from Glasgow.
BANKS: Local banks only.
STORING: See "Prelims".
3. Yes.
4. Yes.
There is no accommodation for storage.
SHORE LEAVE: Unrestricted after Customs clearance.
IDENTIFICATION CARDS: Clear requirements with Customs.
GARBAGE DISPOSAL: Refuse bin available adjacent to Harbour Master's Office.
WASTE OIL DISPOSAL: No facilities available.
SEAMAN'S CLUBS: None.
REGULATIONS: No unusual regulations.
DELAYS: Normal breakdown/weather delays.
GENERAL: The harbour is formed at the mouth of the river known as "Water of Girvan". The water in the channel and basin is, therefore, a mixture of sea and fresh water.

A breakwater protects the inner part of the channel on the North side. A timber and steel sheet pile jetty protects the basin from river scour. Access is hazardous in N.W. gales.

In 1988 the harbour channel was deepened to give a minimum depth of water of 3 m. at MLWS. Siltation is a continuing problem and the depth available has been reduced as noted in previous sections.

The harbour is primarily a fishing port. However, it is used regularly by small tankers and cargo vessels of the coasting type, bringing in raw materials for local industry. As may be noted, berthing accommodation is very restricted.
AUTHORITY: South Ayrshire Council, Department of Strategic Services, Wellington Square, Ayr KA7 1DR. *Tel:* (01292) 612000. *FAX:* (01292) 612143. *Contact:* Neil McC Provan.
R. Lietch, Harbour Master, Girvan. *Tel:* (01465) 713648.

GLENSANDA: 56.34 N. 05.32 W. (See Pla

LOCATION: Glensanda is on the Western shore of Loch Linnhe so 9 miles North of Oban in approximate position 56° 34' N., 05° 32' Glensanda is over 6 miles along a track from the nearest road and t road is only a narrow highland lane, thus it is necessary to apprec that Glensanda is remote and that its services are severely restric The only commodity that can be supplied at Glensanda is crush granite.
PORT LIMITS: The limits of the Company's jurisdiction are from posi 56° 35.862' N., 05° 29.982' W. on the shore, S.E. to posi 56° 34.826' N., 05° 27.922' W., then S.W. to position 56° 31.165' 05° 33.975' W., then N.W. to the shore at position 56° 31.839' 05° 35.312' W.
DOCUMENTS: Usual U.K. requirements. Customs attend from Oba
APPROACHES: The approaches to Glensanda Harbour and to the be are deep and clear. The port is well served by a Pilot, mooring launch lighthouses and beacons. Vessels can enter Loch Linnhe from the So via the Firth of Lorne, between the islands of Mull and Lismore, and fr the North via the Sound of Mull.
PILOTAGE: Compulsory for vessels over 6,000 d.w.t. Vessels un 6,000 d.w.t. generally berth without a Pilot, under the Harbour Master instructions from the jetty. Pilot boards vessels over 6,000 d.w.t at t Southern harbour limits in position Lat. 56° 31' N., Long. 05° 35' 3.5 miles from Glensenda Jetty.
ANCHORAGE: Large vessels: 2 miles South of Glensenda Jetty in 60
Vessels under 6,000 d.w.t.: East of Jetty in 25 m.
RESTRICTIONS: Berthing of conventional Panamax vessels is genera restricted to daylight hours only. Unberthing can be performed at a time.
MAX. SIZE: Panamax or 100,000 d.w.t. – 120,000 d.w.t. part load.
VHF: The Quarry Office and Pilot maintain watch on Channel 14.
TUGS: 1 tug (25 ton bollard pull). The tug is available from the Ri Clyde at 14 hours notice for berthing large vessels without bow thruste
RADIO: Masters should keep Glensanda well informed of their approa with notices to the Glensanda Harbour Master (Telex: 777792. Ca address "Glensanda Oban") 5 days, 3 days, 2 days and 1 day prior arrival. Over the last 3 days these ETA's should be timed to rea Glensanda for their opening (0700 hrs.) to permit their day's work to planned and to be ready for the ship.

Ships are asked to guard Portishead Radio Station whilst on pass to Glensanda as the Agent and Harbour Master will use that station preference should they have a message for the ship.

Masters are especially asked to telex Yeoman (Morvern) Ltd. (S "Authority") with the following details from their previous port:
1. Ship's particulars.
   (a) Ship's name.
   (b) Master's name.
   (c) Flag.
   (d) Radio call sign.
   (e) Satcom number.
   (f) Marine telex number.
   (g) Summer deadweight.
   (h) Gross registered tonnage.
   (i) Number of hatches.
2. Proposed Stowage.
   (a) Tonnage to be loaded in each hold.
   (b) Grade to be loaded in each hold.
   (c) Sequence and Tonnages in which each hold is to be loaded

VHF: All vessels should call "Glensenda Harbour" on VHF Channe when passing Lady Rock Lighthouse, when approaching from the So or, on entering Loch Linnhe after clearing the Sound of Mull, w approaching from the North.

VHF watch is only maintained when vessels are expected, and w vessels are in port.
BERTHING: The depth of water at the berth is at least 12.3 m. at c datum. To this depth may be added the rise of tide in the range of 0. at low water to a maximum of 4.4 m. at high water (spring tides).
LOADING: *Conditions:* The matter of ballast is of particular interes manoeuvrability must be maintained. The vessel's propeller and thr must be fully submerged for berthing.

The air draft of the ship loading arm can be raised to 21 m. above highest high tide, so high that there is no need to ballast deeply t a ship below it.

The shiploader is intended to load at 6,000 tonnes per hour and almost to achieve this speed if demurrage is to be avoided on s contracts of affreightment.

It is Glensanda's experience that large bulk carriers (i.e. Pana class) can berth and rapidly deballast if they approach with their tanks, ballast hold and top wing tanks full and their double bottom b tanks empty. If the ballast hold is needed for cargo, it is of no con if its tank top is damp or even has puddles when it is loaded.
CARGO: The aggregate is manufactured in 4 basic grades, by diam
(a) 40 mm. – 20 mm. – for rail ballast.
(b) 20 mm. – 10 mm. – for concrete.
(c) 10 mm. – 5 mm. – for road surfacing.
(d) 5 mm.– dust – for various uses.

These basic grades are frequently mixed to form special cate for specific requirements. The final grades must not be co-mi For each final grade, hold separation is required.

Base Grades Diameter (mm.)	*Stowage Factors* (Tonnes per cu.m.)	*Angles Repos*
(a) 40 – 20	1.37	36°
(b) 20 – 10	1.45	38°
(c) 10 – 5	1.46	39°
(d) 5 – dust	1.56	43°

(i.e. every grade stows at about 24 cu.ft. to 28 cu.ft. per long ton

All holds must be thoroughly cleaned prior to arrival Glensa remove all traces of previous cargo residues.

On self-discharging vessels, all conveyor belts, transfer chutes, etc. must be thoroughly cleaned of all previous cargo residues.

Holds will be inspected at Glensenda prior to commencement of loading.

For loading aggregate, holds may be damp, as the material is immune to fresh water. On completion of loading, hatches are to be covered to reduce the weight of rain water in the cargo. However, salt water is an unacceptable contaminant and must be avoided. Hatches must be watertight.

The cargo is loaded by automated shiploader. This machine can span the full length and width of all the hatches of a 60,000 ton – 70,000 ton bulk carrier without having to shift the ship. The loader operates at up to 6,000 tonnes an hour and can distribute the cargo without peaks forming. It is operated from the deck of the ship by radio control allowing direct contact between the ship's staff and the loading supervisor.

Loading is performed around the clock on every day of the year except for Christmas Day and New Year's Day. Rain will not interrupt loading but the shiploader will cease work if the wind speed exceeds 48 knots.

MEDICAL: Emergency medical services are available. Glensanda has a small airstrip. The Yeoman staff includes first aid men and a doctor is available from Oban's small hospital and Port Appin.

DENSITY: 1023 – 1025.

FRESH WATER: Not available.

FUEL: Not available.

SURVEYORS: If required, surveyors attend from Glasgow.

Belt weight figures used for Bill of Lading.

REPAIRS: Repairs are not to be contemplated, partly because the weather can rapidly deteriorate and partly because there is no service for repairs in the vicinity.

REPATRIATION: Not recommended.

HOLIDAYS: Christmas Day and New Year.

GARBAGE DISPOSAL: No facilities.

WASTE OIL DISPOSAL: No facilities.

SEAMAN'S CLUBS: None.

GENERAL: *Visitors:* To visit Glensanda, other than by ship, needs Yeoman's co-operation. Visitors can take a train to Oban or fly to Glasgow and take a car to Yeoman's Rhugh Garbh depot which is some 10 miles North of Oban on the A828 main road towards Fort William. Yeoman's passenger launches ply on a regular schedule between Rhugh Garbh and the Glensanda Quarry. This journey takes about 30 minutes to cover the 8 miles down Loch Creran and across Loch Linnhe to the quarry.

Harbour Conditions: Loch Linnhe is free of swell as its approaches are well protected by the islands of Mull and Lismore.

The waters of Glensanda Harbour are virtually free of tidal streams at any depth. A sluggish stream of up to 1 knot has been irregularly observed during the fall ebb of spring tides.

Glensanda's times of high and low water are observed to follow closely those of Oban. Glensanda has a tide pole clearly visible from the berth. It is noticeable that the level of high water stands for about 90 minutes after each high tide before falling rapidly.

Wind observations have been made from a meteorological station set on a knoll some half a mile from the berth. At the berth the Harbour Master believes winds are less strong and more inclined to blow from the N.E. or S.W. It is difficult to draw any conclusions, but Glensanda is a windy place. Winds tend to vary in strength and direction in an unpredictable manner though S.W. and N.E. winds do predominate. The berth lies along this S.W./N.E. axis.

Services: Glensanda ought not to be depended upon for any services except those to cover the immediate work in hand of loading aggregate.

Cash: By prior arrangement and transfer, the Agent can supply the Master with cash, in Sterling, on arrival.

Notary: A local Oban Notary can accept Notices of Protest, though the time taken to reach his office and to return to the ship may delay vessel's sailing.

AGENCY: *The Glensanda Harbour Agent:* Morvern Shipping Agency Limited, Rhugh Garbh Depot, Barcaldine, Oban, Argyll PA37 1SE. Tel: (01631) 730441. Telex: 777792. Fax: (01631) 730460. Cables: "Glensanda Oban".

The Quarry Office maintains radio watch on VHF Channel 14 during office hours and around the clock when a ship is approaching or is in the port.

The Glensanda Harbour Master shares these communication facilities with the Agent. The Harbour Master's Office and home telephone number is (01631) 73537. He may be reached on VHF radio by calling "Glensanda Harbour Master".

The Agent can provide Masters with details of any other services that are required. H.M. Customs attend ships in the normal manner. Masters can always contact emergency services if the Agent is not available through the Oban Coastguard on VHF Channel 16.

AUTHORITY: Yeoman (Morvern) Limited, Rhugh Garbh Depot, Barcaldine, Oban, Argyll PA37 1SE. *Tel:* Office (01631) 730441. *Telex:* 777792. *FAX:* (01631) 730460. *Cables:* Glensenda Oban. *Contact:* Captain J.A. Jackson, Harbour Master. Tel: (01631) 730537 (Office and house on-site), 01967-402470 (Home, when not on-site).

GOOLE: 53.42 N. 00.50 W. (See Plan)

PORT LIMITS: Goole is a river port with Conservancy jurisdiction to the junction of rivers Humber, Ouse, Trent. However, laytime commences from commencement of next normal working shift after ship is on berth and ship's Agent has issued "Notice of Readiness". This may be 0800 hrs. or 1300 hrs. dependent on time of issue of notice.

Precedence of order of arrival of vessels is determined by arrival time at Ocean Lock Entrance – Goole Docks.

DOCUMENTS:

Bills of Lading/Manifests (prepared by Agents at port of origin).
"Imperfect" Customs Entry.
Request (to work vessel).
*Request for Immigration Officer to be in attendance – if carrying passengers.
*Crew List to Immigration Officer (for foreign personnel).
Ship's Register.

*Ship's Agent will normally notify Immigration Officer.

PILOTAGE: Compulsory from Spurn to Goole, except for vessels claiming exemption by reason of length or by possession of a Pilotage Exemption Certificate.

ANCHORAGES: Bull Anchorage on chart of Humber Estuary, or in Hull Roads, otherwise only on advice of Pilot.

RESTRICTIONS: State of tide, Springs or Neaps. Port entered during tidal hours, 3 hours 30 minutes before HW to 1 hour (approx.) after HW, according to draft. Pilots will advise.

Locks: 3 entrance locks, largest being 104 m. long and 24.4 m. wide. Depth on sill 8.0 m. (MHWS) and 6.0 m. (MHWN).

MAX. SIZE: Subject to suitable tides, vessels of approximately 100 m. overall length, 5.5 m. draft, 24 m. beam and 4,500 d.w.t. (approx.) can be accepted. It should be noted that vessels with a beam in excess of 13.4 m. will find certain berths in the port inaccessible due to bridgeway restrictions.

HEALTH: Pratique issued by H.M. Customs Waterguard (in absence of Port Health Official). Pratique accepted when entering after calling at another port in the U.K.

Also see "Health – All Ports" before first U.K. port.

TUGS: Tugs available but not normally used. If required, to be arranged through Ship's Agent.

BERTHING: Berthing instructions given to vessel on arrival at entrance locks. No specific requirements.

RADIO: Via Humber Radio, call sign GKZ – call on Channel 16. Give ship's name and call sign and pass message.

VHF:

Station	*Call Sign*	*Channel No.*	*Operational Times*	*Remarks*
Vessel Traffic Services Humber, Queen Elizabeth Dock, Hedon Road, Hull	"Vee Tee Ess Humber"	16 12	Continuous watch maintained	Calling and safety. Navigation and safety information etc. for Rivers Humber, Ouse and Trent.
Blacktoft Jetty	"Blacktoft Jetty Radio"	14	3 hours before HW Goole until 1 hour after HW Goole	Port Operations and berthing instructions for Blacktoft.
Goole Docks	"Goole Docks Radio"	14	Continuous watch maintained	Port operations and docking instructions for Goole.

Also see "Hull".

SPECIALISED CARGO HANDLING FACILITIES: Boothferry Terminal for specialised container handling, 26,000 sq.m. hard standing and sheds, equipped with 4 heavy duty fork lift trucks, Liebherr gantry crane and a 70 tonne capacity crawler crane.

Aldam Terminal served by mobile container crane and Scotch Derrick crane on Jubilee Quay.

1 mobile shiploading conveyor for grain, rate 100 t.p.h.

10×7.5 tonne and 5×6 tonne quay cranes, equipped with suitable grabs for sand, ores, fertilisers, coal, grain, sulphur, scrap, etc.

5 mobile cranes up to 40 tonne capacity and fleet of forklift trucks with capacities up to 35 tonnes and capable of lifting 20 ft., 30 ft. and 40 ft. containers.

3×32 tonne Scotch derrick cranes for container handling, one at Stanhope Dock, one at Jubilee Quay East and one at Jubilee Quay West.

50 tonne electric travelling crane for heavy lifts.

2 Ro/Ro ramps for abnormal loads of up to 450 tonnes – otherwise no special facilities needed as water is maintained at a constant level.

Some bulk liquids (creosote, tar), direct to or from road tanker vehicles.

Timmgrain Ltd. operate 2 separate silo facilities which give 13,000 tonnes of storage capacity for grain, maize, maize products, etc.

Damac Bulk Handling Ltd. operate 2×3,000 tonne silos for cement cargoes. Discharge rate 180 tonnes per hour.

STEVEDORES: Arrangements made by ship's Agent who should be given ample notice of time of arrival of vessel.

Port Working Hours:

Monday to Thursday	0800 – 1200	1300 – 1700
Friday	0800 – 1200	1300 – 1600

Overtime available 24 hours a day, 7 days a week.

MEDICAL: Ship's Agent will arrange for attendance of doctor on notification. Doctor's, dentists and hospital services available. Ship's Agent can arrange service required.

DENSITY: Water in Goole Docks is fresh water and is maintained at constant level. Entry is by locks. Density 1000.

FRESH WATER: Delivery by waterboat through hose pipes. Rate 30 t.p.h.

FUEL: All grades available on reasonable notice being given to Ship's Agent.

FIRE PRECAUTIONS: No specific precautions unless there are exceptional circumstances, when special arrangements can be made with local Fire Service.

CONSULS: France, Netherlands and Denmark.

REPAIRS: All types of deck and engine repairs possible by local ship repairers.

DRY DOCKS: Dry Dock No. 2: 91 m. length, 15.2 m. width at entrance, 4.75 m. depth on sill. One other dry dock. The water in the wet docks at Goole is maintained at a constant level and all dry docks are entered direct from the wet docks.

GANGWAY/DECK WATCHMEN: Necessary. Usually provided from crew. Otherwise by negotiation locally.

OPENING/CLOSING HATCHES: Responsibility of crew.
SHIP CERTIFICATES:

- Ship's Register (including load-line)
- Ship's Gear Certificates (when gear is used in port)
- Radio Safety
- Life-Saving
- Light Dues
- Change of Articles
- Derat Certificate

CARGO GEAR: Normally not required, as ample port facilities available.
REPATRIATION: Arranged by Ship's Agent.
AIRPORT: Humberside Airport. Daily services to Amsterdam, Aberdeen, Bergen, Edinburgh, Newcastle, Norwich, Stavanger and Teeside.
TIME: GMT in Winter; GMT plus 1 hour in Summer months.
HOLIDAYS: Facilities available on all Bank Holidays, except Christmas Day, Boxing Day and New Year's Day.
POLICE/AMBULANCE/FIRE: Dial 999 and ask for service required.
EMERGENCY CO-ORDINATION CENTRE: Contact Port Manager's office.
BANKS: Midland Bank, Tel: 762401. Barclays Bank, Tel: 762431. National Westminster Bank, Tel: 764541.
TELEPHONES: No arrangements for ship connection.
GARBAGE DISPOSAL: Waste disposal skips placed at a number of locations on quays. Skips emptied on a weekly basis.
WASTE OIL DISPOSAL: Disposal by road tanker available through ship's agent.
SEAMEN'S CLUBS: Goole Mariners Club, Bridge Street, Goole. Tel: (01405) 764730, 762058.
CURRENCY: U.K.Pound (U.K.£).
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: May be required to be produced to Immigration Officer or H.M. Customs Offical, especially in the case of foreign flags.
REGULATIONS: Visitors to vessels require permits from Port Authority and Master or ship's Agent. Smoking not permitted ashore in dock area.
AUTHORITY: Associated British Ports – Goole, East Parade, Goole, North Humberside DN14 5RB. *Tel:* (01405) 762691 (6 lines). *Telex:* 57626. *FAX:* (01405) 767419. *Contact:* C. Silvester, Port Manager.

GRANGEMOUTH: 56.01 N. 03.43 W. (See Plan)

PORT LIMITS: At Grangemouth a vessel is not considered to be an "arrived vessel" until she is tied up at the allocated berth.
DOCUMENTS:

- 1 Crew List.
- 1 Passenger List.
- 1 List of all high duty goods in crew's possession.
- 1 Cargo Manifest.

All Valid Certificates.
PILOTAGE: Compulsory in river. Pilot boards at Inchkeith. Pilot boat on VHF, also see "Radio".
ANCHORAGES: North of Grangemouth West Buoy, 2 fathoms. Charleston Roads 5 fathoms. East of Inchkeith, up to 8 fathoms.
RESTRICTIONS: 24 hour locking system in operation depending on draft. The height of the tide must always be taken into account when dealing with larger vessels.
MAX. SIZE: Dry cargo vessels: Length 600 ft., beam 90 ft.

Tankers: Length 575 ft., beam 90 ft. Draft according to state of tide. Vessels other than tankers max. draft 25 ft. 6 in. Tankers, up to 34 ft. max. draft.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Wick, Stonehaven and Cullercoats coastal stations and Forth Radio.

Port VHF (FM) Communications: Station: Lock Control Office, Lock Entrance, Grangemouth. This centre will maintain a continuous watch. Call sign: Grangemouth Docks.

Channel 16 (156.8) calling and safety. All vessels should maintain a listening watch on this Channel and use it to establish contact with Grangemouth Docks. Once contact is established the Duty Operator will request vessels to shift to the Port Operations Channel.

Channel 14 (156.7 MHz), Port Operations. A working Channel restricted to messages relating to the movement and safety of ships, and in emergency, to the safety of persons.

Channel 10 (156.6 MHz), Inter-ship. A working Channel for tug-to-tug and tug-to-bridge communications.

Channel 6 (156.3 MHz), Inter-ship. A working Channel for communication with other vessels.

Channel 9 (156.5 MHz). A working Channel for tug to tug and tow to tow communications.

No message of a personal character or messages of any other nature than those pertaining to the general navigation and safety of ships and persons within the Port Area can be accepted.
TUGS: Tugs can join vessel at Hen and Chicken Buoy or Lock Gates and should be pre-booked. Tugs' lines used. 2×25 ton bollard pull tugs available.
BERTHING: The water in Grangemouth Docks is maintained at the same level by impounding pumps. On passing through the lock entrance berthing is allocated according to the nature of the cargo and draft of vessel.

The depth of water available at the berths varies in each dock, the max. depths being approx.: Grange Dock 26 ft.; Carron Dock 23 ft.; Old Dock 17 ft.

CARGO HANDLING FACILITIES: Bulk cargoes can be handled at m berths within the port. The East Wall berth has 4×10 ton grabbing cran 2×7.5 tonne mobile cranes are available. Other berths have 10 and 6 cranes. 1×35 tonne Scotch derrick. Container berth is 1,000 ft. long a has 2×32 ton transporter cranes.

A Ro-Ro berth in operation. Liquid chemicals and LPG Carriers a handled at the LPG berth and BP jetties. No. 1 North Jetty, which i common user jetty handles chemicals.
STEVEDORES: No particular advice necessary to stevedor Essential, however, advise Agent 24 hours prior arrival, who will adv stevedores.
MEDICAL: No advance notice necessary. Hospital facilities availabl immediate district.
TANKERS: B.P. Refinery (Grangemouth) Limited. Private jetties Eastern Channel. South Side Jetties "J2" and "J3" 34 ft. "J4" and "J 19 ft. 6 in. North Side Jetties "E1" and "E2" 34 ft. No. 1 North Side Je pipelines connected to Ross Chemical and Storage Co. are 1.5 nitrogen line, 6 in. chemical line, 10 in. heavy fuel line, 2 in. fresh wa supply, 8 in. motor spirit line, 8 in. gas oil line. Draft at No. 1 No 32 ft. 6 in.
DENSITY: 1019 average.
FRESH WATER: Available in most berths. Watermen supervise deliv on request. Delivery rate varies depending on berth.
FUEL: All grades available from oil installations.
GANGWAY/DECK WATCHMEN: Not necessary but can be done ship's personnel.
OPENING/CLOSING HATCHES: Custom of port is crew open and clo hatches but stevedores will do so if required.
CUSTOMS ALLOWANCES: At the discretion of Local Custo Inspector. Normal allowances are equivalent of 5 ounces tobacco man and equivalent of 1 bottle of wine per man. Allowances may halved for home trade vessels. Vessels in port more than 3 or 4 da may receive extra allowances.
CERTIFICATES: For Customs Clearance valid Certificates in resp of Radio, Load Line, Construction, Safety Equipment, Deratisati necessary.
CONSULS: Norwegian, Danish and Swedish Consuls available loca
REPAIRS: All types of repairs can be carried out afloat.
DRY DOCKS: Carron Dry Dock: Length 350 ft., breadth 50 depth 22 ft.
SURVEYORS:

(1) Macleod & McAllister Ltd., Old Granary Office, Meadowside Qu Glasgow G11.
(2) Thomas Nicol and Son, 11 Bothwell Street, Glasgow G2.
(3) S. A. Greer & Co., 15 North Claremont Street, Glasgow G3.
(4) E. K. Wallace & Son Ltd., 11 Bothwell Street, Glasgow G2.
(5) Lloyd's Register of Shipping, 27 Thistle Street, Edinburgh.

REPATRIATION: All facilities exist.
AIRPORT: 1 hour from Glasgow and Edinburgh airports wh numerous connections for London thence world wide travel.
TIME: British Standard Time (1 hour ahead of GMT). GMT during Wi months.
HOLIDAYS: First 3 weekdays in January; Easter Monday; 1st Mon May; 3rd Monday July; 2nd Monday September; Christmas Day a 26th December.
POLICE/AMBULANCE/FIRE: In public telephone dial 999 and ask appropriate service. With dock circuit telephone dial 222 and ask Police/Fire/Ambulance.
EMERGENCY CO-ORDINATION: Coastguard Fifeness Tel: 013 666. Major Port Emergencies are controlled by the Police dial 99 contact through Harbourmaster Grangemouth Tel: 486839.
SERVICES: Compass adjusting, calibrating, etc., can be done in n No equipment for tank cleaning but can accept tank washings ash
BANKS: Royal Bank of Scotland, La Porte Precinct, Grangemouth.

Bank of Scotland, La Porte Precinct, Grangemouth.
STORING: See "Prelims".

Vessels may be stored by trucks alongside dry cargo berths. T are no facilities for storing, by trucks, vessels berthed at jetties in Eas Channel.

Trucks may, by prior arrangement, proceed alongside dry cargo be to store vessels.

Stevedores fork lifts may be employed to handle ship's stores.

Customs regulations are in force for stores remaining on board. De of stores, including bonded goods such as spirits, etc., must be sup to Customs on arrival, and a constant check is kept whilst the ship Port. Regarding stores loaded aboard, any bonded goods mus presented to Customs for inspection and approval. Restricted amo only are permitted.

Local riggers may be employed for storing.
SHORE LEAVE: Allowed.
GARBAGE DISPOSAL: Skips are provided on quayside an collected as required.
WASTE OIL DISPOSAL: Collection by road tanker by Kelvin Wa
SEAMEN'S CLUBS: None.
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Forth Ports PLC, Dock Office, Grangemouth, Stirling FK3 8UE. *Tel:* (01324) 482591. *Telex:* 777432. *FAX:* (01324) 66 *Contact:* A. McEwen, Port Manager.

GRANTON: 55.59 N. 03.13 W. (See Plan)

DOCUMENTS: See "Leith".
PILOTAGE: Pilot station Firth of Forth located at Granton, boarding station West of Fairway Buoy at Longitude 3° West. Contact with pilot cutters can be made on VHF Channel 16 and R/T 2182 kHz. Pilotage not compulsory for vessels passing South of Inchkeith Island.
ANCHORAGES: Good holding ground at Leith roadstead 8 m. – 19 m. at C.D. Request should be made to Forth Navigation Service for suitable anchorage position.
RESTRICTIONS: The entrance between the breakwaters is 103 m. in width. The rise of tide, 5.182 m. at Springs and 3.658 m. at Neaps, permits the entry or exit of vessels up to 7.07 m. draft at HW.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Forth, Stonehaven and Cullercoats radio stations.
RADAR/VHF: Port and estuary radar service. Contact should be made with "Leith Harbour Radio" for berthing instructions on VHF Channel 12. Forth Navigation Service should be contacted on VHF Channel 71 by all vessels passing Forth Ports Authority seaward limit (line joining North and South Carr Beacons), working on Channels 20 and 12.
TUGS: Sound signal for vessels requiring tug services is four long blasts. Tugs, if required, join the vessel in the roads. Tugs towing gear available, and compulsory.
BERTHING: Middle Pier: Quayage 210 m. max. depth 5.1 m. LWOST. In addition, there is a 122 m. crosspiece at the end of the pier where depth of water is 5.1 m. LWOST. Ro-Ro ramp available.
West Pier: Closed to all traffic.
MEDICAL: No advance notice of medical attention required. All hospital facilities available.
TANKERS: Jetty closed.
FRESH WATER: Available alongside at all berths.
FUEL: All grades available subject 24 hours notice in advance.
CONSULS: See "Leith".
REPAIRS: Facilities available for all minor repairs.
AIRPORT: Edinburgh Airport, served by regular airlines, situated about 6 miles away.
HOLIDAYS: Public holidays observed annually: Third Monday in April; third Monday in September; Christmas Day (25th December); 26th December; 1st, 2nd and 3rd January.
AUTHORITY: Forth Ports PLC, Leith Port Office, 1 Prince of Wales Dock, Edinburgh EH6 7DX. *Tel:* (0131) 5544343. *Telex:* 72192. *FAX:* (0131) 5551212. *Contact:* Captain H. MacLellan, Harbour Master – Leith and Granton. A. Burns, Port Manager.

GREAT YARMOUTH: 52.34 N. 01.44 E. (See Plan)

DOCUMENTS: Usual U.K. requirements.
PILOTAGE: A 24 hour service is provided, subject to 8 hours notice and confirmation 2 hours before arrival. Pilots can be contacted on VHF Channel 12.
RESTRICTIONS: When large or awkward vessels are navigating within the port, it may be necessary to hold or slow down other vessels.
TRAFFIC CONTROL SIGNALS:
By Night:
(a) When entrance to the Haven is *prohibited* 3 fixed red lights vertically disposed (3 F.R (vert)) 2.0 m. apart, will be exhibited on the South Pier brick building, the lower being at a height of 11.0 m. above MHWS, arc of visibility 235° (T) through 270° (T) to 295° (T) from seaward.

In the event of it not being possible to exhibit these lights, the night signal for prohibiting entrance to the Haven will be the extinguishing of: The Brush Light, the Leading Lights, the Main Light and the South Pier Lights and/or as advised by Yarmouth Port Radio on VHF Channel 12.

(b) Control of vessels proceeding South down the Haven:
3 fixed red lights vertically disposed (3 F.R. (vert)) 2.0 m. apart are exhibited on the North side of the White Port Control Office Gorleston at the root of the South Pier, to indicate that NO vessel when proceeding down the Haven is to come South of the lifeboat shed on the Gorleston side of the river.

In the event of failure of these lights vessels will be advised by Yarmouth Port Radio on VHF Channel 12.

By Day:
(c) The lights as described in (a) when entrance to the Haven is prohibited also the lights as described in (b) for controlling vessels proceeding South down the Haven will also be exhibited during the day. In the event of failure, vessels will be advised by Yarmouth Port Radio on VHF Channel 12.

TIDAL SIGNAL: When the tide is flooding between the piers, a quick flash amber (Q.Am) is exhibited on the South Pier brick building, arc of visibility from 235° (T) through 270° (T) to 295° (T) from seaward.
Also see "Bridges".
MAX. SIZE: Max. length 138 m., max. draft 5.7 m. HWOST.
With a tidal range of only 1.9 m. and a minimum entrance depth of 4.3 m., Great Yarmouth can be used by vessels up to 4,000 d.w.t. and with a length of up to 120 m.
HEALTH: Usual U.K. procedure. Contact Port Health Officer for Derat, Fumigation, Quarantine or Livestock Quarantine.
VHF: Masters of vessels intending to enter the harbour must notify the Harbour Master at least 1 hour before arriving off South Pier, giving ETA, max. draft, gross tonnage, any dangerous cargo and last port of call (Also see "Pilotage"). Masters must also obtain clearance before starting to navigate through the entrance between the piers.
Where possible, VHF Channel 12 must be used for giving information and obtaining clearance to navigate from the Harbour Master.
Yarmouth Radio keeps a continuous watch on Channels 12 and 16. The Haven Bridge operates on Channel 12.
Reporting: All vessels over 50 g.r.t. and any others fitted with VHF must report to Yarmouth Radio when passing Ocean Terminal, Atlas Berth and Turntide Jetty (Breydon Water), giving direction of travel.
TUGS: The port's 550 h.p. tug *Hector Read* has a bollard pull of nearly 7 tonnes and can be used for all harbour work. It is fully equipped with salvage and fire fighting pumps. Contact should be made through the Harbour Master.
BERTHING:
East Side:
Bowling Green Wharf: Length 65 m. Bulk cargoes.
South Quay: Length 475 m. General cargo and Lay-By.
Mayer Parry: Length 98 m. Scrap cargoes.
ABC Wharf: Length 123 m. Repairs afloat.
Atlas Terminal: Length 460 m., including Ro-Ro, container and general cargo.
Wood Group Berth: Length 349 m. Offshore vessels and bunkering.
Milpark Berth: Length 59 m. Offshore vessels.
Former Phillips Berth: Length 85 m. All vessels.
GY Warehousing: Length 154 m. General cargo and offshore vessels.
Ocean Terminal: Length 130 m. Heavy lift quay.
Amoco Berth: Length 131 m. Offshore vessels.
East Quay: Length 160 m. General and bulk cargoes.
Lay-By Berth: Length 100 m. Offshore and general cargoes.
North Discharge Berth: Length 158 m. Lay-by, offshore and general cargoes.
South Discharge Berth: Length 82 m.
Discharge Bunker Terminal: Length 172 m., offshore and general cargoes.
South Denes Marine Base: Length 320 m. Offshore vessels.
West Side:
Clarkes Quay: A.W. Cushion. Length 78 m. Durum wheat.
Bunns Quay: Length 125 m. Fertiliser imports.
Southtown Wharf: Length 73 m. General and bulk cargoes.
British Gas berth: Length 76 m. Offshore vessels.
Turmerics Berth: Length 170 m. Fabrication Yard.
Portland Wharf: Length 120 m. Offshore vessels.
Richards Shipbuilders: Length 152 m. Ship construction repair yard.
Palgrave Browns: Length 225 m. General and bulk cargoes.
Yeoman Berth: Length 179 m. General and bulk cargoes.
Bollard Quay: Length 394 m. General cargoes and lay-by.
Gas House Quay/Grootcon Quay/EAE Quay: Length 370 m. Offshore vessels, general cargoes and fabrication.
CRANES: The Port Authority have 5 mobile cranes, including 3 that can lift up to 24 tonnes and two that can lift up to 32 tonnes. All are equipped with grabs and hooks. Truck mobile cranes up to 80 tonnes S.W.L. and higher are available from the Port Authority.
BRIDGES:
Haven Bridge Lights:
1. Western Buttress: At both the North and South ends, 2 fixed red lights vertically disposed (2 F.R. (vert)).
2. Eastern Buttress: At both the North and South ends, 2 fixed green lights vertically disposed (2 F.G. (vert)).
3. At Centre Span: On both the North and South sides, a fixed red light (F.R.).
4. Traffic Control Signals: By Day and Night.

When *passage* through the bridge is *prohibited* from the South going upriver, 3 fixed red lights vertically disposed (3 F.R. (vert)) will be exhibited above the Eastern Buttress.

When *passage* through the bridge is *prohibited* from the North going downriver, 3 fixed red lights vertically disposed (3 F.R. (vert)) will be exhibited above the Western Buttress.

In the event of failure of these lights, vessels will be advised by the Haven Bridge Master on VHF Channel 12.

Breydon Bridge Lights:
1. Southern Buttress: On both the upriver and downriver ends, 2 flash red lights vertically disposed every 5 seconds (2 Fl.R. 5s (vert)).
2. Southern Dolphins: On both the upriver and downriver, 2 fixed red lights vertically disposed (2 F.R. (vert)).
3. North Buttress: On both the upriver and downriver ends, 2 flash green lights vertically disposed every 5 seconds (2 Fl.G.5s (vert)).
4. Northern Dolphins: On both the upriver and downriver dolphins, 2 fixed green lights vertically disposed (2 F.G. (vert)).
5. At Centre Span: On both the upriver and downriver sides, a fixed amber light (F.Am.).
6. When the bridge is lifted above a 45° angle, on each side near the end of the lifting span, a fixed red light is exhibited (F.R.) (Aircraft warning light).
7. Traffic Control Signals: By day and night.

When *passage* through the bridge is *prohibited* going West upriver on to Breydon Water, 3 fixed red lights vertically disposed (3 F.R. (vert)) will be exhibited on the main structure of the bridge on the Southern Buttress.

When *passage* through the bridge is *prohibited* going East downriver towards Haven Bridge, 3 fixed red lights vertically disposed (3 F.R. (vert)) will be exhibited above the Control Building.

In the event of failure of these lights, vessels will be advised by the Breydon Bridge Operator on VHF Channel 12.

8. Restricted Visibility – Fog Signal: This is a horn which gives 2 blasts every 30 seconds (2 Bl.ev 30s).

STEVEDORES: There are various stevedoring companies offering a full range of services for offshore and cargo vessels.
MEDICAL: Doctors and dentists can be arranged through Agents. Hospital facilities available.
FRESH WATER: Water is available on most operational quays.
FUEL: Wood Group operate two bunkering facilities with a gas oil delivery rate of up to 100 t.p.h. Storage capacity about 3,000 tons and 1,200 tons, depending on berth.

CONSULS: Belgium: Consul, Harwich. Tel: (01255) 252101.
Denmark: Vice-Consul, Great Yarmouth. Tel: 856831.
Finland: London Embassy. Tel: (0171) 2359531.
France: Consul, London. Tel: (0171) 5815292.
Italy: London Embassy. Tel: (0171) 2358643.
Netherlands: Vice-Consul, Great Yarmouth. Tel: 856831.
Norway: Vice-Consul, Great Yarmouth. Tel: 850431.
Spain: London Embassy. Tel: (0171) 2355555.
Sweden: Consul, Felixstowe. Tel: (01394) 673884.

REPAIRS: Several ship repair companies are located in Great Yarmouth and most types of repairs can be undertaken.

DRY DOCKS: Richards Dry Dock and Engineering Ltd. repairs ships up to 85 m. long and 12.5 m. beam. Sill depth 4.4 m. at MST. Also a shipbuilding berth.

SURVEYORS: Both Marine and Cargo Surveyors can be arranged through the Agent.

AIRPORT: Flights are available by helicopter and light aircraft from North Denes Airfield, 5 km. from the North of the town.

Air U.K. operate scheduled daily flights from Norwich to British and Continental destinations.

TIME: GMT. Summertime (GMT plus 1 hour) kept from March to October.

POLICE/AMBULANCE/FIRE: Dial 999 in an emergency.

SEARCH AND RESCUE CO-ORDINATION CENTRE: H.M. Coastguard, Tel: 851338.

SERVICES: Compass adjusting can be carried out.

As this port services the oil industry, many types of oil-related services are available from several companies.

BANKS: Barclays Bank Plc. Tel: 634100.
Lloyd's Bank Plc. Tel: 855177.
Midland Bank Plc. Tel: 843631.
National Westminster Bank Plc. Tel: 857521.

GARBAGE DISPOSAL: Regular collection service from alongside by waste disposal company. Domestic refuse must be double wrapped prior to disposal.

WASTE OIL DISPOSAL: Waste oil disposal by various companies arranged direct or via local ship's agents.

SEAMEN'S CLUBS: Great Yarmouth International Seafarer's Centre, South Denes Road, Great Yarmouth, Norfolk. Tel: (01493) 331222.

CURRENCY: U.K.Pound (U.K.£).

DEVELOPMENTS: There are plans for the development of an outer harbour.

AUTHORITY: Great Yarmouth Port Authority, 20/21 South Quay, Great Yarmouth, Norfolk NR30 2RE. *Tel:* (01493) 855151. *FAX:* (01493) 852480. *Telex:* 975102 (Gyportg). *Contact:* M.C.M. Boon, Chief Executive. M.L. Goodall, Commercial and Marketing Manager.

Operations and Dangerous Goods: Captain A. Goodlad, Harbour Master. *Tel:* (01493) 855153. *Telex:* 975367 Gyuts. *FAX:* (01493) 653464.

GRIMSBY: 53.34 N. 00.04 W. (See Plan)

VESSEL TRAFFIC SERVICES HUMBER: See "Hull".

NOTICES: See "Hull".

DOCUMENTS: See "Immingham".

PILOTAGE: See "Immingham".

ANCHORAGES: Hawke and Sunk Roads, Haile, Spurn and Bull Anchorages. See "Hull". The Pilots will advise where to proceed to anchor and also provide Pilot.

RESTRICTIONS: See "Berthing" – entrance locks.

MAX. SIZE: Maximum breadth 20.6 m., maximum length of vessel that can be locked 81.7 m. but vessels of greater length can enter docks on HW when all lock gates are open. 0.91 m. clearance under the keel is required. Vessels having a draft of 5.8 m. can normally enter the docks on any tide when the height of water is sufficient to allow 0.91 m. clearance. Vessels with 6.4 m. draft can be taken on spring tides. Vessels can enter usually approx. 3 hours before and 2.5 hours after high water.

Commercial Docks: Max. LOA 145 m., draft 5.8 m., beam 20.6 m.

Fish Docks: Max. LOA 73 m., draft 5.8 m., beam 12.8 m.

HEALTH: Master has to report any "Reportable" illness as detailed in Form "Port 38" to "Porthealth Grimsby". Also see "Health – All Ports" before first U.K. port.

RADIO: Humber Radio, 2182 kHz, or VHF Channel 16. Also see "Hull".

VHF: See "Hull" – Vessel Traffic Services Humber.

TUGS: Normally join in Grimsby roads. Optional whether use ship's or tug's lines. Tugs operate from Immingham so plenty of notice required.

BERTHING: *Grimsby Docks:*

	Commercial Docks	Fish Docks
Entrance Locks:		
Length	85.0 m.	21.4 m.
Width	21.4 m.	13.0 m.
Sill level MHWN	6.8 m.	6.8 m.

There are 2 Ro/Ro berths in the Royal Dock. There are also 2 Ro/Ro berths in the Alexandra Dock for motor vehicles.

There is a Lo/Lo Terminal operated by Humber Terminals Ltd. on the West side of the Royal Dock. It is equipped with a 35 ton gantry crane.

CRANES: 3×7.5 tonne electric grabbing cranes, 6×3 tonne electric and 1×30 tonne (private) gantry crane.

STEVEDORES: Vessels are allocated labour in order of arrival so it is only necessary to give the Agent the ETA preferably before noon on the previous day. Normal working hours 0800 – 1700 hrs. Monday to Thursday, and 0800 – 1600 hrs. on Friday. Overtime can be worked 1700 – 1900 hrs. Monday to Thursday. On Saturdays and Sundays as required.

MEDICAL: Hospitals and all other medical facilities are readily available. If immediate attention is required on arrival please advise Agent by radio or telegram.

FRESH WATER: Available at all quays. Rate approx. 20 t.p.h.

FUEL: Normal gas and diesel oils available by both road and barge w at least 24 hours notice. This is also quayside tankage in fish docks

CONSULS:

Belgium, Vice-Consul	Hull	227255
Denmark, Vice-Consul	Grimsby	357521
Finland, Consul	Immingham	571387
France, Consular Agent	Grimsby	47221
Germany	Hull	25781
Greece, Vice-Consul	Hull	224151
Iceland	Grimsby	357543
Netherlands, Vice-Consul	Immingham	76246
Norway, Vice-Consul	Hull	224151
Sweden, Vice-Consul	Immingham	571387

REPAIRS: Facilities are available for all deck and engine repairs.

DRY DOCKS: None.

SURVEYORS: See "Immingham".

GANGWAY/DECK WATCHMEN: Not necessary, but the service available if Master requires it.

OPENING/CLOSING HATCHES: Responsibility of the crew. The ha beams can be removed and replaced by the shore cranes but ther an extra charge for this operation.

CUSTOMS ALLOWANCES: 200 cigarettes per 8 days. 1 bottle w and 1 bottle spirits per 4 days. All seals to be broken.

CARGO GEAR: In accordance with the regulations laid down by H Factories Inspector.

REPATRIATION: Can be arranged if required.

AIRPORT: Humberside, 15 miles from Grimsby, daily service Amsterdam (3 flights daily), Bergen, Stavanger, Norwich and Aberde Easy access to all major airports via rail, etc.

Leeds Bradford Airport, 3 flights daily to Amsterdam, Aberde Belfast, Norwich, Paris and Edinburgh. One flight to Dublin.

HOLIDAYS: New Year's Day; Christmas Day; Boxing Day; Good Frid Easter Sunday and Monday; May Day; Spring Bank Holiday (end Ma Late Summer Bank Holiday (end August). All except Christmas D New Year's Day, Good Friday and May Day can be worked as overti if sufficient staff are willing.

POLICE/AMBULANCE/FIRE: Port Security 352713; Grimsby Po 359171. Emergency – Police/Fire/Ambulance 999.

EMERGENCY CO-ORDINATION CENTRE: See "Immingham".

TELEPHONES: Not available for connection on board.

SERVICES: Compass adjusting, tank cleaning, etc., are available.

BANKS: See "Immingham".

STORING: See "Immingham".

SHORE LEAVE: Crew are allowed ashore.

IDENTIFICATION CARDS: Some sort of identification whilst crew ashore is advisable. (Seaman's Book or Passport).

GENERAL: The Grimsby Dock Master can be contacted on V Channel 16 and then change to Channel 18 or 9 for speaking.

GARBAGE DISPOSAL: In dock, collection service available along vessels using private hire skips for kitchen/galley waste. Contact BIF Tel: (01472) 351185. Some port authority skips available on the quays for dunnage waste disposal only.

On the jetties, garbage skips are available.

WASTE OIL DISPOSAL: In dock, collection service is made avail by tanker trucks alongside vessel. Contact Waste Oil Serv (Tel: (01472) 827112) and BIFFA (Tel: (01472) 351185).

SEAMEN'S CLUBS: Danish Mission, 2 Cleethorpe Road, Grims Tel: (01472) 342257.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Associated British Ports, Port Office, Cleethorpe R Grimsby, South Humberside DN31 3LL. *Tel:* (01472) 359 *Telex:* 52250. *FAX:* (01472) 348275. *Contact:* D. Dunn, Port Mana

HARTLEPOOL: 54.42 N. 01.12 W. (See Pl

PORT LIMITS: The Port facilities extend from Hartlepool Fairway B to all berths.

Arrival Time is accepted as time of passing Hartlepool Dock He time of anchoring in Hartlepool Bay.

DOCUMENTS: *Ship's Official Papers including:*
Ship's Register.
Ship's Construction Certificate.
Load Line Certificate.
Derat Certificate.
Safety Equipment Certificate.
Radio Equipment Certificate.
U.K. Light Dues Certificate.
Crew List.
Bills of Lading, Manifest and Stowage Plan (Usually sent in adv
Ship's Stores List.

RESTRICTIONS: Small vessels can berth in outer harbour at any of tide. Deep draft vessels enter in accordance with tide.

Vessels for the enclosed docks enter or depart from 3 hours b High Water to 1 hour after High Water.

Entrance Channel 1.1 km. long., 65 m. wide. Nominal dredged 5.7 m. below LAT.

PILOTAGE: Call by VHF when 2 hours from port and again 30 m before arrival. 2 hours required for sailing. VHF Channels 9, 14 a Tel: (01642) 485648.

Pilotage compulsory for:
(a) Vessels of 95 m. LOA and over navigating in Victoria Harbo
(b) Vessels of 85 m. LOA and over navigating in Impounded Do
(c) Vessels requiring services of a tug.

Pilot usually boards in vicinity of Longscar Buoy from a cutter s the usual international signals.

ANCHORAGE: Vessels are prohibited from anchoring:
(i) Inside the dredged channel.
(ii) Within a radius of 1,113 m. of the charted position of the Fairway Buoy.
(iii) Within the limits of divergent lines starting and extending from the dredged channel limits 244 m. apart at the South Gare Light Station, to 550 m. apart between their respective points of intersection with the circumference of the circle defined in (ii)

Vessels should not anchor within 2.5 cables of the Ekofisk Oil Pipeline or Everest Gas Pipelines.

Caution should be exercised by the Mariners wishing to anchor in Tees or Hartlepool Bays, especially during periods of onshore winds. Local weather forecasts may be obtained from the Coast Guard or Coast Radio Station. Continuous anchor watches must be maintained and frequent confirmation of the vessel's position obtained to ensure the vessel is not dragging. Engines should be maintained in a state of readiness so that the vessel may heave up if required.

MAX. SIZE: Overall length 190 m. Beam 30.5 m., draft of 8.00 m. Vessels approaching any of the max. sizes must consult the Tees Harbour Master in advance. Keel clearance of 1.2 m. required.

HEALTH: The Public Health (Ships) Regulations in force.

Also see "Health – All Ports" before first U.K. port.

RADIO: Cullercoats Radio.

VHF: VHF watch kept on Channels 16 and 12, working Channel 12.

V.H.F. Station	*Call Sign*	*Channel*
Tees Harbour Master	"Tees Port Control"	14, 16
Dock Master's Office	"Hartlepool Harbour Radio"	16,12,11,8.
Tugs "Hart" and "Stranton"	Tug Name	All frequencies
Tees Bay Pilot Cutter	"Tees Bay Pilot"	67,16,14,12,9,6.

TUGS: Two twin screw diesel (1,200 h.p.) tugs available during tidal periods. Tugs ropes available at extra charge.

BERTHING: Victoria Harbour, Deep Water Berth. Length 295 m. Depth 9.5 LAT. Equipped with 5 × 10 tonne cranes. Ro/Ro pontoon available.

Victoria Quay: Length 150 m., depth 9.5 m. 2 × 10 ton cranes and 1 × 7.5 tonne crane.

Irvines Quay: Length 380 m., depth 9.5 m. 3×10 tonne cranes and 1×25 tonne crane.

North Basin (Non-Tidal): Length of Dock 182.87 m. Depth on sill is 3.1 m. below LAT. No Cranes.

Mobile bulk conveyor available in deep water harbour.

STEVEDORES: All stevedoring undertaken by Port Authority on day work basis with voluntary overtime available (including week-ends). Shift working can also be provided.

MEDICAL: Full hospital and emergency services available at all times. Shore Telephone No. 999 or call on VHF 16.

DENSITY: 1025.

FRESH WATER: Available from shore hydrants at 20 t.p.h. Quantities up to 50 tons available by tug.

FUEL: Available by road and bunkering vessels.

CONSULS: Belgium, Denmark, Finland, French Consular Agency, Germany, Netherlands, Norway, Portugal, Sweden.

REPAIRS: Deck and engine repairs available.

SURVEYORS: Hull and cargo surveyors available through Shipping Agent.

GANGWAY/DECK WATCHMEN: Available by private arrangement through Agents.

HATCHES: To be opened and closed by ship's crew.

AIRPORT: Teesside Airport nearby with regular U.K. and Continental Services.

TIME: GMT and BST (GMT plus 1 hour) during Summer months.

HOLIDAYS: Normal Bank Holidays.

EMERGENCY CO-ORDINATION CENTRE: Tees Harbour Office.

STORING: See "Prelims".

1. Yes.
2. Yes – no regulations concerning storing.
3. Yes.
4. Yes.
6. Yes.
5. Normal standing regulations.

IDENTIFICATION CARDS: Seaman's Book or Passport advisable.

GARBAGE DISPOSAL: A skip is provided at the end of the finger pontoon.

WASTE OIL DISPOSAL: No shore facilities.

SEAMAN'S CLUBS: None.

GENERAL: *Charts:* B.A. Charts No. 2566 and 2567.

Depths: All depths given are subject to siltation and updated information may be obtained from the Tees Harbour Master. Tel: (01642) 452541.

Tidal and Weather Information: Strong winds from the N.W. through N. to N.E. increases tides. The flood tide sets S.S.E. on the coast, therefore strong S.E. winds depress the heights of the tides.

Tidal Variations:

M.H.W.S.	5.05 m.	M.H.W.N.	4.01 m.
M.L.W.S.	0.75 m.	M.L.W.N.	1.75 m.

AUTHORITY: Tees and Hartlepool Port Authority – Hartlepool Docks, Middleton Road, Hartlepool, Cleveland TS24 0SE. *Tel:* (01429) 276771. *Telex:* 58669. *FAX:* (01429) 222291. *Contact:* N. Britton, Director.

HARWICH (Including Harwich International Port (Previously Parkeston Quay) and Navyard Wharf): 51.56 N. 01.15 E. (See Plan)

The Harbour Authority is the Harwich Haven Authority whose jurisdiction extends from the Shipwash Bank to the mouth of the River Orwell on one hand and as far up the River Stour as the tide flows on the other.

The Harbour Master's Office is at Navigation House, Angel Gate, Harwich (Tel: (01255) 243030. Telex: 98472), at which is based the Harwich Harbour Operations Service maintained on a 24 hour basis.

The Harbour Operations Service (Call sign "Harwich Harbour Radio") maintains a listening watch on Channel 16, and operates on Channel 71.

The service is equipped with surveillance radar, radar information is available on request.

Harwich International Port Ltd. (H.I.P.) keep a 24 hour listening watch on Channel 16 and work on Channel 18.

DOCUMENTS:

1 Home Office Form 1.B.6 may be obtained from H.M. Customs Boarding Officer.
1 C.142 Crew Declaration List.
1 Maritime Declaration of Health ("Q" Flag procedure).
2 Ship's Report by Master.
1 Stores List.
1 Certificate of Deck Cargo Tonnage (if carried).
1 Grain Certificate (if carried).
1 Light Certificate.
1 Port Dues Certificate.
1 Passenger List required by vessels other than packet vessels.
1 Landing Card for each passenger.
1 Ship's Certificate of Registry.
1 Mercantile Marine Office Certificate – for British vessels only.
1 Load Line Certificate.
1 Safety Equipment Certificate.
1 Lloyd's Certificate.
1 Derat Exemption Certificate.
1 Ship's Register.
1 Lights Bill.
1 Radio Safety Certificate.

In addition Manifests and Bills of Lading are usually sent to Agent direct from loading port.

Dangerous Goods: Notification is required to Harwich Harbour VTS 24 hours in advance of the vessel's arrival at the port. Notification may be made by the following means:
(1) By facsimile – Fax No. (01255) 241325.
(2) By telex – Telex No. 98472.
(3) By telephone – (01255) 243000 (24 hour number) in exceptional circumstances only.

PILOTAGE: PROCEDURE AND INFORMATION ON ETAs/ETDs FOR SHIPS REQUIRING THE SERVICES OF AN AUTHORISED PILOT:

Arrival Notification: Ships bound for the Haven Ports of Harwich, Felixstowe, Ipswich and Mistley and requiring a Pilot, shall notify Harwich Operations Control, 8 hours in advance, giving the ETA at the "Sunk" or "Cork" Pilot Station, LOA, gross tonnage, maximum draft, departure port and destination port.

Confirmation of ETA should be given at least 3 hours before arrival at the pilot station.

Failure to provide the ETA and subsequent confirmation could result in delay to the ship.

In the case of a ship engaged in the short sea trade, the initial ETA may be passed at the time of leaving the last port of call, if passage time is less than 8 hours.

A ship having complied with the above conditions and then having anchored before embarking a Pilot must give Harwich Operations Control adequate notice of requiring the services of a Pilot. Failure to give such notice could result in delay to the ship.

Requests from inward-bound ships for the services of a Pilot for the Rivers Blackwater, Colne, Crouch or Roach may also be passed though Harwich Operations Control.

Departure Notification: Outward-bound ships, or ships moving within the compulsory Area, which require the services of a Pilot, shall give at least 2 hours' notice of their Estimated Time of Departure.

Boarding and Landing Arrangements: The pilot boarding point for inward bound ships will be within the voluntary pilotage area, such that the Pilot is boarded in good time before entering the Compulsory Area.

The boarding position will be agreed with Harwich Operations Control, having due regard to the size and draft of the ship and the prevailing circumstances.

For ships arriving from the North via the Shipway, and small/medium sized ships from the South, the normal pilot boarding point is the "Cork" Pilot Station, which is 2 miles E.N.E. of the Shipway Buoy. Large or deep draft vessels will normally be expected to board their Pilots at the "Sunk" Pilot Station, 1.5 miles E.N.E. of the "Sunk" Light Float. Small ships, unfamiliar with the area will also be boarded at the "Sunk" Pilot Station on request.

Boarding and landing will take place from pilot launches operating from Harwich Harbour. The launches will have the word "HAVEN PILOTS" on the side of the wheelhouse, fly the pilot flag by day and, at night, exhibit lights and signals in accordance with Rule 29 of the International Regulations for Preventing Collisions at Sea.

If the pilot launch is unable to operate in the normal locations due to stress of weather, or other unforeseen circumstances, alternative arrangements will be advised by Harwich Operations Control.

GEOGRAPHICAL LIMITS OF THE HAVEN PORTS PILOTAGE AREA (THE COMPULSORY AREA):

The area bounded by the following limits:
(a) As much of the River Orwell as lies below Ipswich Dock.
(b) As far up the River Stour as the tide flows.

(c) To seaward of Landguard Point, the area bounded as follows:
 (i) In an Easterly direction as far as 01° 24' E.
 (ii) In a Southerly direction as far as 51° 54.5' N.
 (iii) In a Northerly direction as far as 51° 57.4' N.

Voluntary Pilotage: The Board will provide pilotage upon request in the area to seaward of the Compulsory Area as far as a line drawn between the following points:
(a) Bawdsey Cliff – Lat. 52° 00' N. Long. 01° 26' E.
(b) Lat. 52° 00' N., Long. 01° 41' E.
(c) Lat. 51° 49' N., Long. 01° 41' E.
(d) Lat. 51° 49' N., Long. 01° 15' E.

APPROACHES: Traffic Regulatory System in effect.

ANCHORAGES:

Erwarton: Situated to the North and West of Harwich International Port with an average depth of 5.5 m. at LW.

Parkeston: Situated to the North of Harwich International Port with an average depth of 5.5 m. at LW.

Shelf: Situated on the Western side of the main Channel between the North and South Shelf Buoys. Average depth of 3.7 m. at LW.

Platters: Situated at the Pitching Ground. Average depth 8.0 m. at LW.

Cork: Situated to the North of the Harwich Channel. Area approx. 2 miles×1 mile. Average depth 6.5 m.

RESTRICTIONS: *H.I.P.:* Normal max. draft allowed alongside the berths at Harwich International Port is 8.0 m. – 10.0 m.

Normal cargo working at Harwich International Port throughout 24 hours.

MAX. SIZE: *H.I.P.:* Normal max. permissible length 250 m. Arrangements for larger vessels can be made. Normal max. permissible breadth for Roll-on/Roll-off is 24 m. Normal max. permissible draft – 8.0 m. The height of the tide does not restrict a vessel berthing alongside the quay if her draft is within 8.0 m.

HEALTH: Maritime Declaration of Health required ("Q" Flag procedure). Obtain Pratique through H.M. Customs Boarding Officer if no sickness on board.

If there is sickness on board the Customs Official will notify the Duty Port Medical Officer.

If the vessel is from another port in the U.K. Pratique is automatic.

Also see "Health – All Ports" before first U.K. port.

RADIO: North Foreland Radio (call sign GNF) or Humber Radio (call sign GKZ) are the most convenient stations to pass ETA cables, etc., to Agents or receivers

VHF: *Port Operations:*

	Channel 16	Safety.
	Channel 9	Pilotage and ETAs.
	Channel 71	VTS and Reporting.
	Channel 6	Pilot Launches.
	Channel 69	Tugs.
	Channel 20	Harwich Radar Assistance.
	Channel 11	Harbour Craft.
Telephone:	(01255) 243000	Harbour Operations.
	(01255) 243111	Pilot Orders.
Telex:	98472 HAROPS G.	Fax: (01255) 241325

Dangerous substances in Harbour Areas notifications should be sent by telex or fax 24 hours prior to arrival or at time of leaving last port.

TUGS: 5 tugs are available in Harwich Harbour for use in the area. M.T. "Sun London", M.T. "Trimley", M.T. "Deben", M.T. "Ganges" and M.T. "Oakley" 40 tons bollard pull. Tugs' lines usually used.

24 hour service, 7 days per week. Constant watch on Channel 16 VHF. Additional tugs up to 2,250 h.p. can be obtained from London at 24 hours' notice.

BERTHING: *H.I.P.:* There are 8 berths at Harwich International Port, of which 2 are Portal Ro-Ro berths and 3 Pontoon Ro-Ro berths. Normally max. draft permissible alongside is 8.0 m. – 10.0 m.

Berthing, etc., by arrangement. Applications for berths must be made through the Ship and Port Manager, Harwich International Port, giving as much advance notice as possible.

Operator: Harwich International Port Ltd., Parkestone Quay, Harwich, Essex CO12 4SR. *Tel:* 01255-242000. *Contact:* T.W. Davies, Terminals Manager.

Also see "Navyard, Harwich" before "Authority".

STEVEDORES: *H.I.P.:* Arrangements for their use must be made through the Ship and Port Manager, Harwich International Port.

MEDICAL: Prior notice through Harwich International Port, desirable to arrange attention. All services are available.

TANKERS: A berth is available for tankers for the purpose of discharging and loading to the local oil refinery.

DENSITY: 1025 (sea water).

FRESH WATER: Fresh water can be supplied from quayside hydrants.

FUEL: Can be arranged by either barge or road tanker.

CONSULS: Dutch, German, Danish, Belgian.

REPAIRS: Minor repairs can be carried out by port workshops. As much advance notice as possible required.

GANGWAY/DECK WATCHMEN: Watchmen are not provided or required by the port, but ships may use their own watchmen.

OPENING/CLOSING HATCHES: To be carried out by ship's crew.

CARGO GEAR: There are 3 transporter cranes (2×30 tons and 1×39 tons SWL) and 4×30 ton Goliath rubber tyred gantries. A 45 ton mobile crane is available at Harwich International Port.

REPATRIATION: All facilities available.

AIRPORT: Nearest is Stanstead, 50 miles; Southend, 70 miles.

HOLIDAYS: The port is open 24 hours a day all year round, except Saturday nights, Christmas Day and Boxing Day.

POLICE/FIRE/AMBULANCE: Dial 999 and ask for service required.

TELEPHONES: Arrangements can be made, with advance notice given. Pay telephones available in Passenger Terminal.

SHIP SUPPLY SERVICE:

The Alexandra Towing Co. (Felixstowe) Ltd., The Dock Office, Felixstowe Dock, Felixstowe, Suffolk.

Felixarc Marine, Felixstowe Dock, Felixstowe, Suffolk.

Orwell & Harwich Navigation Co., The Quay, Harwich, Essex.

IDENTIFICATION CARDS: Seaman's Identity Cards sufficient.

GARBAGE DISPOSAL: Leigh Environmental (Tel: (01206) 8711 0700 hrs. – 1700 hrs. Skips provided alongside. One day's no required.

WASTE OIL DISPOSAL: Southern Economy Fuels, tanker tru (20 tons) (Tel: (01394) 272236. Fax: (01394) 271540). 24 hours serv 48 hours notice required.

CURRENCY: Thomas Cook Foreign Exchange Bureau in Passen Terminal. Tel: (01255) 503088. Open daily 0630 hrs. – 2115 hrs.

DEVELOPMENTS: New cruise facility to be opened in 1996.

NAVYARD, HARWICH:

Operators: Harwich Dock Co. Ltd. Naval House, Kings Quay Str Harwich, Essex CO12 3JJ. Tel: (01255) 241341. Telex: 982 Fax: (01255) 241441. Contact: F.A. Hatchard, Managing Direc D.M. Lucey, Commerical Manager. Listens on VHF Channel 16, work Channel 22.

Berths:

Berth No. 1: Length 42 m.
Berth No. 3: Length 160 m., depth 8.6 m.
Berth No. 4: Length 90 m., depth 6.5 m.
Berth No. 5: Length 160 m., depth 6.5 m.
(Berths 3 and 5 equipped with Ro/Ro ramps).

Stevedores:

All labour at Navyard is employed by Harwich Dock Co. Ltd. Be and labour must be booked through Operations Manager (24 h service available).

Cargo Equipment:

1 Demag M.H.C. – capacity 60 tonnes.

Other equipment includes 14 tugmasters, 10 forklifts to 45 tonnes

Other Services:

Telephones, fresh water, bunkers, medical services can al arranged. Mann and Son (London) Ltd. provides ships and goods age services at this and other ports.

Garbage Disposal: Collection service available on request.

Waste Oil Disposal: Collection available by road tanker.

AUTHORITY: Harwich Haven Authority, Navigation House, Angel Ga Harwich CO12 3EJ. *Tel:* (01255) 243030. *Telex:* 98472. *FAX:* (012 240933. *Contact:* Captain I. Whale, Marine Manager and Harb Master.

HEYSHAM: 54.02 N. 02.55 W. (See Pla

DOCUMENTS: As for other British ports plus Walney Light Dues.

PILOTAGE: Heysham Pilots. Compulsory for all vessels over 5 LOA.

ANCHORAGES: Heysham Lake. 0.5 mile W.N.W. of No. 1 B Position: Lat. 53° 59.6' N., Long. 3° 00.0' W. Depth: 40 ft. at LW.

RESTRICTIONS: Entry possible at all states of tide. Harbour mainta at 4.1 m. below Admiralty chart datum of Chart No. 1552.

MAX. SIZE: 525 ft. (160 m.) length, draft 17 ft.

HEALTH: See "Health – All Ports" before first UK port.

RADIO: Heysham Harbour Radio, VHF Channels 16, 14 and 74.

TUGS: None available locally. Tugs on call from Liverpool.

BERTHING: Vessels may be berthed at any time, subject to vess draft. 2 Ro/Ro ramps, 1 berth exclusively for gas base, 1 general ca berth North Quay, 2 general cargo berths South Quay and 1 berth W Quay.

CRANES: 1×30 ton portal crane on North Quay; 1×23 tonne p crane, 4×7.5 ton portal cranes and 1×10 tonnes on South Quay.

DENSITY: Salt water.

FRESH WATER: Available at all quays, except West Quay.

FUEL: Gas oil by road vehicle.

REPAIRS: Small repairs possible, no docking facilities.

GANGWAY/DECK WATCHMEN: Ship's watchmen required.

AIRPORT: Nearest, Liverpool and Manchester; 60 miles.

PROVISIONS: Available locally.

POLICE/AMBULANCE/FIRE: Telephone 999 in emergency.

SHORE LEAVE: No restrictions on landing.

GARBAGE DISPOSAL: Skips and road vehicles available. Charge variable by arrangement with local contractor. Contact Heysham Limited (Tel: (01524) 852373).

WASTE OIL DISPOSAL: A waste oil collection service can be arra with a local contractor (prior notice required). Contact Heysham Po (Tel: (01524) 852373).

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£). U.S.$ 1.00 = U.K.£ 0.63 (31.1

AUTHORITY: Heysham Port Ltd., Heysham, Lancs. LA3 *Tel:* (01524) 852373. *FAX:* (01524) 853301. *Contact:* Ca P.A. Read, Port Manager. P.L. Fenton, General Manager.

HOLYHEAD: 53.19 N. 04.41 W. (See P

DOCUMENTS:

1 Crew List and where applicable a Passenger List.
1 Pratique issued by Customs.
1 Crew Declaration (C.142 for H.M. Customs).
1 List of Consumable Stores (tobacco, alcohol).
1 Declaration of Health.
1 Cargo Manifest.
1 Ship's Report.

PILOTAGE: Pilotage is compulsory for all vessels over 40 m. in Any vessel requiring a Pilot should give at least 24 hours notice wh possible, by contacting the Harbour Authority on Tel: 01407-6 Fax: 01407-606622, or via VHF Channels 16 or 14 (Port Op Channel), call sign "Holyhead Radio". The Pilot will board at the limits. Pilot boat has a black hull.

ANCHORAGES – PROHIBITED ANCHORAGE: The breakwater affords partial shelter to the outer anchorage and complete protection to New Harbour; there are depths of up to 12.0 m. in the former and of up to 12.0 m. in the latter.

The accommodation for vessels of deep draft in New Harbour is limited. Small vessels should always proceed into New Harbour and anchor in the S.W. part, leaving the outer part and the roadstead for large vessels. The bottom is hard, overlaid with mud but the holding ground is sufficiently good if an adequate amount of cable is veered. During Easterly winds an uncomfortable sea is raised; vessels may then obtain shelter in the Eastern part of outer anchorage. Anchorage is prohibited within 1.5 cables on either side of the track followed by Passenger Ferries from the head of the breakwater to the entrance to Old Harbour; the limits of this area are shown on charts.

MAX. SIZE:

Inner Harbour: Restricted to vessels of 4.5 m. draft and vessels exceeding this draft will only be accepted after consultation with the Port Manager or Harbour Master.

New Harbour: Vessels of approximately 60,000 tons can be accepted alongside the Anglesey Aluminium Jetty where the berth is dredged to 13.5 m. at L.A.T.

Ro-Ro vessels up to 150 m. length and 7.0 m. draft accepted.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO/VHF: Call sign "Holyhead Radio". Stena Line Ports Ltd., the Port of Holyhead, maintains a listening watch on Channels 16 and 14 throughout 24 hours.

RADAR: Port radar surveillance only, no VTS.

TUGS: Available through Agents. Tugs up to 1,375 h.p.

BERTHING: By prior arrangement with the Port Authority via Port Control.

Terminal 1:	Situated within the Inner Harbour, there is a facility which is designed to berth HSS vessels only, these high speed craft berth stern to, to a linkspan.
Refit Berth:	Also within the Inner Harbour for lay-over berthing. Alongside depth 4.4 m. Quay length 110 m. Fresh water available.
Public Quay:	Within the Inner Harbour. Alongside depth 3.0 m. Quay length 90 m. Fresh water available.
Terminal 2:	Admiralty Pier, at the entrance to the Inner Harbour. Ro-Ro berth. Alongside depth 5.2 m. Quay length 200 m. Beam 22.0 m. Pontoon linkspan 38 tonnes. Fresh water available.
Terminal 3:	East side of Salt Island. Ro-Ro berth. Alongside depth 7.1 m. Quay length 190 m. Beam 25.0 m. Hydraulic double linkspan 38 tonnes.
Terminal 4:	North side of Salt Island in New Harbour. Ro-Ro berth. Alongside depth 7.1 m. Quay length 180 m. Beam 25.0 m. Ramp 50 tonnes.
South Quay:	Run by the Anglesey County Council, Langefni, Gwynedd. Suitable for small craft and fishing vessels only, due to max. depth of 3.5 m. Pontoons and fuel/ice facilities on Quay.

STEVEDORES: No stevedores. Vessels loaded and discharged by making prior arrangements with Agent.

MEDICAL: Local hospital, medical assistance available through Port Control or Holyhead Coastguard.

DENSITY: Salt water (1025).

FRESH WATER: Available at all berths within the Inner Harbour and alongside Anglesey Aluminium Jetty.

FUEL: Notice to Port Authority required. Available via road tanker and at South Quay for smaller vessels.

GANGWAY/DECK WATCHMEN: Required at all times when vessels are in port.

REPAIRS: No facilities.

SURVEYORS: Cargo Inspectors can be contacted, if required.

Surveyors representing Lloyd's Register, Bureau Veritas, etc., can be contacted on request.

AIRPORT: Manchester International Airport, 184 km.

HOLIDAYS: No restrictions due to holidays, port available 365 days.

POLICE/AMBULANCE/FIRE: Tel. 999.

EMERGENCY CO-ORDINATION CENTRE: Maritime Rescue Sub-Centre, Coastguard. Tel: (01407) 762051.

TELEPHONES: No telephone connection for outside vessels. Public telephone within port limits.

SERVICES: Compass adjusting can be arranged. Agency can be arranged through Port Authority.

BANKS: British banks only available in the Holyhead area, exchange facilities are provided.

STORING: See "Prelims".

1. Vessels can be stored by barge or truck, usually by truck.
2. Vessels can be stored during loading or discharging.
3. Trucks can proceed alongside at the berth.
4. Forklift trucks can be used to handle stores.
5. Customs Regulations, where applicable, in force.
6. Local riggers can be employed, if necessary.

SHORE LEAVE: Allowed.

GARBAGE DISPOSAL: Garbage disposal can be provided on request.

WASTE OIL DISPOSAL: Waste oil disposal can be provided on request, 48 hours notice required.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Stena Line Ports Ltd., Stena House, Holyhead, Gwynedd LL65 1DQ. *Tel:* (01407) 606700. *FAX:* (01407) 606622.

Contact: C. Hetherington, Ship and Port Manager.

HOUND POINT: 56.00 N. 03.22 W. (See Plan)

LOCATION: The Terminal consists of 2 steel and concrete island structures, situated to the East of the Forth Railway Bridge. Berth No. 1 in position Lat. 56° 00.3' N., Long. 3° 21.7' W., and Berth No. 2 in position Lat. 56° 00.3' N., Long. 3° 21.0' W.

DOCUMENTS:

1 Crew List.
1 Passenger List.
1 Crew's Effects List.
1 Stores List.
All valid Certificates.

PILOTAGE: Pilotage in Firth of Forth is compulsory. Contact "Forth Pilot" VHF Channel 16. Pilot boards large vessels in vicinity of Fairway Buoy (56° 03.5' N., 03° 00' W.) as there is limited depth and manoeuvring space at normal Pilot boarding ground East of Inchkeith. For large vessels in ballast, Pilots require gangway/pilot ladder combination rig.

Shipmaster's Report: January 1993: The Terminal has its own Check List and the Pilots require Pilot Card on boarding.

ANCHORAGE: When vessel has to wait for Pilot, berth or tide, "Forth Navigation Service" will assign anchorage. These anchorages are in a line E.S.E. to S.W. of Fairway Buoy. Good holding ground at anchorages.

RESTRICTIONS: Vessels will be berthed at any state of the tide, except where tidal range is more than 4.9 m.

MAX. SIZE: Berth No. 1 is designed to accommodate vessels in the range of 50,000 – 300,000 tonnes deadweight, where the maximum permissible berthing displacement is 150,000 tonnes. The minimum parallel mid-body length acceptable is 47.5 m. on either side of the vessel's manifold centreline.

Berth No. 2 is designed to accommodate vessels in the range of 50,000 – 150,000 tonnes deadweight, where the maximum permissible berthing displacement is 174,000 tonnes. The minimum parallel mid-body length acceptable is 32.0 m. on either side of the vessel's manifold centreline.

Max. Draft: Maximum Departure Draft: Following discussions at the Pilotage Management Committee and the Sub-Group of the Hound Point Liaison Committee, the following system has been established to obtain the maximum draft of a vessel sailing from the Hound Point Terminal.

The minimum depths in the approaches to the Hound Point Terminal are two patches of 19.0 m. and 19.2 m. respecitively which lie approximately 200 m. to the North and East of the berthing face of No. 2 Jetty (see Admiralty Chart No. 736).

The maximum draft of a vessel sailing from the Terminal should be established as follows:

Minimum Charted Depth	19.0 m.
Plus Predicted Height of Tide (Leith Gauge) at departure time	+
Less	– 2.5 m.
Maximum Draft	

Vessels of maximum draft should have a departure time no later than 2 hours before predicted High Water (Leith) in order to be at Buoy No. 1 by High Water.

To establish the Height of Tide (Leith) required before a vessel can safely depart from the Terminal on a rising tide, the following rule applies:

Height of Tide required = Draft – 16.5 m.

N.B. The above maximum draft calculations must be used for all vessels having loaded draft of 16.5 m. or greater.

This maximum draft calculation supersedes any previous information issued on this subject.

Berth No. 1: Minimum Depth 24.50 m.
Max. Draft (Springs) 21.30 m.
Max. Draft (Neaps) 20.24 m.

Berth No. 2: Minimum Depth 22.40 m.
Max. Draft (Springs) 21.30 m.
Max. Draft (Neaps) 20.24 m.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: *Pre-Arrival Telex Format:* Prior to arrival at the Terminal, the Master shall advise the Company of the following:

AA	ETA – Last Cargo – Last Port – Destination.
BB	Quantity of ballast to pump ashore.
CC	Estimated Deballasting time.
DD	Can vessel load/deballast simultaneously.
EE	Quantity and type of any slops to be discharged.
FF	Confirm vessel carries onboard valid Oil Pollution Certificate.
GG	Confirm vessel carries onboard all appropriate charts and that these are up to date.
HH	Confirm aft leading accommodation ladder available.
II	Confirm I.G. System fully operational and all cargo tanks inerted to 8% or less oxygen content.
JJ	Confirm cargo tanks do not contain high concentrations of H_2S which may result in emissions during loading being in excess of the Threshold Limit Value.
KK	Was the Last Cargo carrying a High Sulphur Crude.
LL	Required Loading Rate.
MM	Confirm vessel can perform Closed Loading Operations.

RADAR/VHF: Estuary radar service. VHF contact can be made with Forth Navigation Service on Channels 16 and 71, working Channels 20 and 12. B.P. Grangemouth VHF Channel 16 (calling) and Channel 19. Berth Supervisor on Channel 19. Forth tugs, Fire tug and Anti-Pollution tug on Channels 16 and 9.

Hound Point Terminal operates on VHF Channel 9 for berthing and unberthing operations.

If simultaneous operations are being carried out at both berths, Berth No. 1 will operate on Channel 9 and Berth No. 2 on Channel 17.

TUGS: Two tugs of 60 tonnes bollard pull and 4 tugs of 35 tonnes bollard pull available. Tugs wires are used.

Berth No. 1: Vessels up to 265 m. LOA normally use 3 tugs for berthing and 2 tugs for unberthing. Vessels over 265 m. LOA normally use 4 tugs for berthing and 3 tugs for unberthing.

Berth No. 2: Vessels berthing and unberthing use 2×60 tonnes bollard pull tugs in the push/pull mode.

BERTHING: Hound Point Terminal (leased and operated by British Petroleum) is in the Firth of Forth about 13 miles from Fairway Buoy. The datum depth in the approach channel is 19.9 m. and least depths of 24.5 m. (Berth No. 1), and 22.0 m. (Berth No. 2), are available. Both berths are aligned in a 064° – 244° direction on the North Western faces of the structures. Mean tidal range is 4.8 m. (Springs), and while stream rates of 3.5 knots are normal, rates of 5 knots can be experienced.

Vessels are berthed either side to with the assistance of tugs. Rate of approach equipment is fitted on both berths. A combination of vessel and shore moorings is used, and vessels must have available a minimum of 6 suitable lines at each end.

Vessels above 1,600 g.r.t. shall comply with the requirements of Statutory Instrument 1077 The Merchant (Tankers) (EEC Requirements) Regulations 1981, and Statutory Instrument 1637 The Merchant (Tankers) (EEC Requirements) (Amendment) Regulations 1982.

A vessel will only be accepted at a berth providing it is compatible with all aspects of the berth design.

Special attention is made to a vessel's manifold arrangements, which must be of a fixed and permanent design (including pipelines, valves, supports, etc.), and form part of the vessel's structure. Cast iron manifolds are not acceptable.

All vessels should have manifold arrangements which comply with the standards recommended by the Oil Companies International Marine Forum – Standards for Tanker Manifolds and Associated Equipment.

Operators of vessels which are unable to comply with the above recommendations must confirm with the Company the suitability of a vessel for a cargo operation.

Shore gangways are normally provided.

Marine band VHF radio operating on Channels 9, 10, 12, 16, 19 and 46 are used on Berth No. 1, and full multi-channel VHF is used on Berth No. 2.

Crude Oil (approximate density 0.8250 (API 40.0), temperature 15° – 33°C), is loaded at rates up to 14,000 tonnes/hr. (Berth No. 1), and 12,000 tonnes/hr. (Berth No. 2).

Ballast water contained in cargo tanks must, where necessary, be discharged to the shore facility which can normally receive up to 50,000 tonnes without prior approval (Max. shore capacity from any one vessel is 100,000 tonnes). The Terminal is capable of simultaneous handling of crude oil and ballast.

Masters should note that it is necessary to overcome a system back pressure of 4.5 bar when discharging ballast and should estimate deballasting time accordingly.

Ballast water containing chemicals or waste incompatible with shore facilities must not be discharged ashore.

Clean ballast from a Segregated Ballast System may be discharged overboard, subject to the approval by the Port Authority and the Company.

Contents of a vessel's slop tanks may be dicharged to the shore reception facility after analysis and with the prior approval of the Company. If material for discharge is incompatible, arrangements for disposal of the material must be made with the vessel's Agent, who keeps a list of contractors licensed to handle hazardous material.

Vessels normally receive full documentation at time of departure, but it may, on occasions, be necessary to utilise an Early Departure Procedure.

On completion of operations, vessels may be required to vacate the berth and proceed to an anchorage to carry out cargo measurements (this includes operations carried out by Independent Cargo Surveyors).

Four loading arms are normally available for use on each berth presenting 16 in. ASA 150 conection flanges. The loading arms are designed to operate within an envelope 4.5 m. – 31.0 m. on Berth No. 1 and 4.5 m. – 25.1 m. on Berth No. 2. Vessels should arrive with appropriate reducing pieces fitted to the manifold.

Loading arms on Berth No. 2 are fitted with an Emergency Release System (ERS), which activates in the event of a vessel movement outside the arms operating envelope.

Mooring hooks on Berth No. 2 are fitted with a Mooring Load Monitoring System, with remote readout visually displayed in the control room.

Remote Release of moorings can be activated from the control room.

Berthing and Unberthing: The number of tugs employed will vary according to the size of the vessel and the prevailing weather conditions.

Berthing is undertaken during daylight or darkness.

Minimum acceptable visibility for berthing and unberthing is 1 mile.

Berthing will not be attempted if the wind is in excess of 20 knots (Force 5) blowing onto or off the berth from a direction up to 45° either side of a line at right angles to the longitudinal axis of the berth, or if in excess of 30 knots (Force 7) from any other direction.

The unberthing of vessels in excess of 54 ft. draft will also be restricted by the tidal rise, otherwise, any other limit conditions will be assessed at the time of unberthing.

At Berth No. 1, speed of approach equipment is provided to assist in ensuring a safe speed during the final breasting in manoeuvre. The equipment operates a display panel which indicates the distance each end of the vessel is off the berthing fenders by means of 2 white bar lights which diminish in length as the vessel approaches. Speed of approach for each end of the vessel is indicated by 2 "traffic light" systems which show:

Flashing Red – dangerous speed, 8 cm./sec. and above.
Flashing Amber – marginally safe speed, 5 – 8 cm./sec.
Steady Green – safe speed, 5 cm./sec. and below.

At Berth No. 2, the equipment operates a display panel giving digital readings of distance off, speed of approach and angle of approach.

A stand-by fire tug on 15 minutes notice will remain in attendance at the specially provided buoy mooring while the berth is occupied. A stand-by pollution tug is also on 15 minutes notice.

Mooring Arrangement: The Master shall ensure that:

1. Ropes and Wires: The vessel is secured alongside with suita ropes or wires which are to the satisfaction of the Manager minimum of 6 mooring lines must be used at each end of the ves The use of mooring lines of dissimilar materials in the same direc shall be avoided. The use of wire springs (with or without synthe fibre rope tails which should not exceed 11.0 m. in length ove and should have a breaking strain at least 25% greater than breaking load of the wire to which they are attached), is requi Alternatively, low stretch synthetic ropes may be substituted for if the elongation of the rope at 55% breaking load does not exc 3% of the rope length.
2. Winches: Mooring ropes or wires shall only be fastened to the pro fixtures provided for this purpose. Self-tensioning winches must be used in automatic mode, and winch brakes must be k hardened up, except when moorings are being tended.
3. Wire Reeling: Mooring wires and lines shall be reeved on their dru in the direction which enhances brake holding power.
4. Deck Watch: A strict watch is kept on moorings, and they are ten to prevent undue movement of the vessel.
5. Emergency Towing Wires: Towing wires of a minimum 50 ton breaking strength (approximately 32 mm. diameter), are provid rigged and secured to the offshore bow and quarter with the tow eyes maintained just above water level, and with sufficient sl maintained on deck.

SAFETY:

Health Hazard: *Partly Laden Vessels:* The Master will inform Terminal of the name and nature of the part cargo on board. If the cargo has characteristics which indicate a health hazard may e e.g. Hydrogen Sulphide (H_2S):

1. Will be required to isolate the venting system of the tanks contai cargo from that of the tanks to be loaded.
2. Ensure that the tanks to be loaded are not contaminated with ga from the cargo on board.
3. Release gases from the part cargo only in an emergency.
4. Gauge the tanks containing the part cargo using fixed system sonic tapes with approved vapour locks.
5. Sample the cargo onboad using closed sampling devices approved vapour locks.

Note: If no such system is fitted and samples are required, arrangeme should be made to carry out such operations either before vessel berths or after the vessel sails.

Vessels in Ballast: The Master of a vessel whose previous cargo characteristics indicating a health hazard may exist:

1. Will take all precautions to prevent high concentration of H_2S ga being vented to atmosphere during loading. Precautions sho include Crude Oil Washing and the purging of all tanks prior to ar so that venting does not result in emissions which are above Threshold Limit Value (TLV). Under United Kingdom Contro Substances Harmful to Health (COSHH), this is referred to Occupational Exposure Standards (OES).
2. If any doubt exists whether an acceptable tank atmosphere has b attained, then before the vessel berths arrange for an indepen chemist to issue a certificate which records the level of H_2S in a tank.
3. Will incur a delay in berthing when cargo tank atmospheres co levels of H_2S.

Note: *If on arrival tank atmospheres are found to contain high leve H_2S, the vessel will be required to vacate the berth.*

DENSITY: 1020 – 1025.
FRESH WATER: Not available.
FUEL: Not available.
CONSULS: See "Leith".
TIME: GMT in Winter. GMT plus 1 hour in Summer.
GARBAGE DISPOSAL: Heavy duty bags supplied to vessel. Gar is then transported to the terminal by ship's staff and handed i terminal vessel by B.P. staff for carriage ashore.

A minimum of £120 is charged for this service, but if a sizeable qu of garbage is transported then additional charge will be le Arrangments made via B.P. Berth Supervisor.

WASTE OIL DISPOSAL: Slops can be discharged to shore rece via ballast facilities, but this may be restricted dependent upon the n of the slops.

No alongside barge facilities available for waste oil.

SEAMAN'S CLUBS: None.

GENERAL: Outside the Firth of Forth, clear of the land on the S side, streams are weak, spring rate up to 1 knot, but at spring ti velocity at the terminal is up to 3.5 knots (Refer to Tidal Stream A

Storing: The exposed location of the Terminal does not normally p the safe handling of bulk stores. Subject to prior authorisation permitted to transfer small packages which can be hand carried a the Terminal.

Telephone Numbers:

	Telephone Payphone	Inte
Refinery Switchboard		
(0830 hrs. – 1700 hrs. (Monday-Friday))	01324 483422	
All other times	01324 483422	
Dalmeny Control Room	0131 331 1488	230
Terminal Asset Manager	0131 331 1488	2
Berth No. 1 Supervisor	0131 331 1325	235
Fax	0131 331 4850	
Ship at Berth No. 1	0131 331 1341	
Berth No. 2 Supervisor	0131 331 5581	2
Fax	0131 331 5611	
Ship at Berth No. 2	0131 331 5582	
Forth Ports PLC	0131 554 6473	
Forth Navigation Service	0131 553 1151 0131 553 1152	
Forth Tugs	01324 482401	

Emergency Services, Police/Fire/Ambulance should be contacted via Shore Personnel on extensions 235/229 (Berth No. 1), 246/229 (Berth No. 2), by dialling 999 on payphone or via Forth Navigation Service on VHF Channel 16.

Extensions 241 (Berth No. 1), and 233 (Berth No. 2), of the shore installation telephone system is placed onboard every vessel for operational and emergency use.

AUTHORITY: Forth Ports PLC, Port Office, Tower Place, Leith, Edinburgh EH6 7DB. *Tel:* (0131) 5544343. *Telex:* 72681. *Cables:* "Harbour Leith". *Contact:* Captain A.F. Wilks, Chief Harbour Master – Firth of Forth.

Operator: B.P. Oil Grangemouth Refinery Ltd., Dalmeny Installation, Dalmeny, South Queensferry, West Lothian EH30 9UA. *Tel:* (0131-331) 1488. *Telex:* 778142 (Grangemouth). *FAX:* (0131-331) 4100. *Contact:* J. Anthony Pollock, Operations Engineer – Hound Point.

HOWDEN (Howdendyke): 53.44 N. 00.51 W.

DOCUMENTS: From non-EEC ports:

Master's Declaration, C13.

Crew Declaration, C142.

Crew List.

From EEC ports:

Crew List.

PILOTAGE: Spurn Pilot embarks at Spurn Roads at least 5 hours before H.W. at Howdendyke. Pilots changed at Goole, where a Selby Pilot takes over.

RESTRICTIONS: Vessels berth/unberth on or near H.W. (N.A.A.B.S.A. berths). Airdraft restriction 26.0 m. (Hook Railway Bridge 3 miles below berths).

MAX. SIZE: LOA 88 m., beam 14.0 m., max. draft 5.0 m. (F.W.).

Large vessels acceptable after prior consultation.

HEALTH: Any major illness to be advised to U.K. Coastguard prior to arrival.

RADIO: Portishead Radio.

VHF: Call on Channel 14 to advise VTS Humber of arrival anchorage 2 hours prior to arrival. Vessel uses Channel 12 whilst on passage up river.

RADAR: VTS Humber on VHF Channel 12.

TUGS: None available at Howdendyke.

BERTHING: Four N.A.A.B.S.A. berths available over 3 jetties. Variety of cargo, including steel, timber and bulk cargo handled over 3 main berths. Western Jetty usually reserved for bulk cargo. Fresh water along berths.

No. 1 Jetty (2 berths): Length 110 m.

No. 2 Jetty: Length 36 m.

No. 3 Jetty: Length 39 m.

Shore equipment used for all discharge and loading.

CRANES: 6 mobile crawler cranes available. Max. Lift 35 tonnes. Also see "Cargo Gear".

BULK CARGO FACILITIES: No. 3 Jetty: Specialised cargo silos and associated equipment located adjacent.

Weighbridge with 50 ton capacity.

SPECIALISED CARGO HANDLING FACILITIES: None.

BRIDGES: Hook Railway Bridge, max. beam 14.0 m. Max. airdraft 26 m.

STEVEDORES: Normal hours 0700 hrs. – 1800 hrs. Overtime by arrangement. Order labour before 1700 hrs. previous day.

MEDICAL: Doctor and dentist available locally. Nearest hospital at Goole (3 miles).

TANKERS: No facilities.

DENSITY: Fresh water (1000).

FRESH WATER: Available. Rate 1 tonne/hr. No charge.

FUEL: Available by road tanker at 48 hours notice.

FIRE PRECAUTIONS: No specific precautions.

CONSULS: None. Most European countries represented at Hull and Goole.

REPAIRS: Minor repairs only.

DRY DOCKS: None.

SURVEYORS: Most representatives available at short notice.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: By crew.

CUSTOMS ALLOWANCES: As per current U.K. regulations.

CARGO GEAR: 3×35 tonne cranes; 3×5 tonne cranes; 1×25 tonne forklift; 2×18 tonne forklifts; 2×12 tonne forklifts; 4×7 tonne forklifts; 4×4 tonne forklifts.

REPATRIATION: Possible.

AIRPORT: Humberside Airport, 40 miles. Leeds Airport, 40 miles. Manchester Airport, 80 miles.

TIME: GMT. GMT plus 1 hour in Summertime (March – October).

HOLIDAYS: New Year's Day; Good Friday; Christmas Day; Boxing Day.

POLICE/AMBULANCE/FIRE: Dial 999 in an emergency.

TELEPHONES: Only from Office (200 m. – 300 m. from berth).

SERVICES: Most available for equipment purposes: Radio/radar repairs, surveys, extension of Certificates.

BANKS: All major U.K. banks represented locally.

STORING: See "Prelims".

(1) Only by truck.

(2) —

(3) Yes, with prior notice.

(4) Yes, with prior notice.

(5) Current U.K. regulations.

(6) Yes.

SHIP SUPPLY SERVICE: None.

SHORE LEAVE: Unlimited.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Skips provided alongside vessel.

WASTE OIL DISPOSAL: Only by truck. Prior notice required.

SEAMAN'S CLUBS: None.

CURRENCY: Pound Sterling. £1 = U.S.$1.60 (31.10.96).

DELAYS: None normally.

DEVELOPMENTS: None.

AUTHORITY: Port of Howden, Riverside Jetty, Howdendyke, Nr. Goole, DN14 7UW. *Tel:* 01430-430646. *FAX:* 01430-431581. *Telex:* 57604 Hslhow G. *Contact:* G. Godber, Agent.

HULL: 53.44 N. 00.14 W. (See Plan)

VESSEL TRAFFIC SERVICES HUMBER:

The Humber Ports Operation and Information Service operates radar surveillance between Spurn and Humber Bridge, and VHF (FM) radio telephone service available to all vessels navigating the Rivers Humber, Ouse, and Trent from the Queen Elizabeth Dock.

A continuous watch is maintained on Channels 10, 12, 14, 16 and 52. The call sign is "VEE TEE ESS" Humber. The telephone number is (01482) 701787. Telegraphic address "Humberops". Telex: 597656. Fax: (01482) 795221.

The Service provides information regarding the arrival, berthing, anchoring and departure of vessels and also information on navigational aids, navigation generally, visibility, and the safety of vessels and persons. Tidal information, including the height of tide at Spurn Pilot Jetty, Immingham, Hull, Humber Bridge, Blacktoft and Keadby, is also available on request. Messages of any other nature and messages of a personal character cannot and will not be accepted. Messages of this kind should be passed through the British Telecom Ships Telephone Service via "Grimsby Radio" on Channel 27.

Other VHF (FM) Stations situated on the River Humber and the Channels used are shown in the Appendix to this Notice. These Stations provide direct communication between a vessel and the Dock or Pier Master at the place of destination. In general, vessels should obtain their navigation and safety information from the Vessel Traffic Services Humber and their berthing, docking and other pre-arrival information from the Station serving their destination.

A general broadcast giving weather reports, tidal information and navigational warnings is made by the Vessel Traffic Services Humber on Channel 12 every 2 hours commencing at 0103 hrs., prior notification being given on Channel 16.

Procedure:

(i) Vessels fitted with appropriate VHF R/T equipment on approaching the Humber should set watch on Channel 16.

(ii) Vessels wishing to communicate with the Pilot Station should call "Spurn Pilot" on Channel 16 and shift to Channel 14 for exchange of traffic.

(iii) On entering and before sailing or moving in the Humber, vessels should call "VEE TEE ESS" Humber on Channel 16. When contact is established they will be requested to transfer to Channel 12 for exchange of arrival or departure information. Watch should then be resumed on Channel 16 and 12.

(iv) Vessels wishing to communicate with the Station serving their destination should do so at the appropriate time on the Channels shown in the Appendix, reporting their departure from Channel 12 to "VEE TEE ESS" Humber. Vessels are advised that, when communicating with these Stations, contact with the Vessel Traffic Services Humber can only be re-established through Channels 16 and 12 and it is particularly advisable to maintain a listening watch on Channel 16 whenever practicable in the event of unforeseen circumstances developing in the River.

All times in messages should be given in local time using the 24 hour notation.

To achieve the full advantage of efficient communication, strict telephone discipline and attention to procedure, particularly on the Calling Channel, is imperative. The operating procedure should be in accordance with that laid down in Chapters VI and VII of the G.P.O. Handbook for Radio Operators (1975 Edition, with Supplements).

These services will be offered and will be rendered on the condition that neither the Associated British Ports, nor any of its servants or Agents, shall be liable to any person for loss or damage of any kind howsoever caused or arising whether as a result of negligence or otherwise or as a result of the non-availability of the services.

NOTICES:

GENERAL DIRECTIONS FOR NAVIGATION IN THE HUMBER:
PROCEDURE AND INSTRUCTIONS FOR SHIPS USING
THE RIVER HUMBER

1. *Time of arrival. ETA:*

1.1 Ship Owners, Masters and Agents are required to inform the Associated British Ports (A.B.P.) of the Estimated Time of Arrival of their vessels as per the General Directions together with relevant information regarding draft, air draft if proceeding under the Humber Bridge, EEC Check Lists, hazardous cargo, last port of call, nationality of vessel. In this context the Associated British Ports means the Dock Master at the particular port to which the vessel is bound, the Vessel Traffic Services Humber and the Pilot Office at Spurn. Reference British Transport Docks Board Notice to Mariners Nos. 2 and 3 of 1974.

1.2 Ship Owners or Agents are requested to inform the Masters of their vessels of the importance of amending ETA's as necessary due to changing circumstances. Such amendments can be passed to the Associated British Ports by radio through Grimsby Radio either in the form of a link call or telegram.

Appendix:

Station	Call Sign	Channel Nos.	Operational Times	Remarks
ASSOCIATED BRITISH PORTS				
Vessel Traffic Services Humber, Queen Elizabeth Dock, HULL	"VEE TEE ESS" Humber	16 12 10, 14 and 52	Continuous watch maintained	Calling and safety. Navigation and safety information, etc., the Rivers Humber, Ouse and Trent
Grimsby Docks	"Grimsby Docks Radio"	16 18 9	Continuous watch maintained	Calling and safety Docking instructions for Grimsby Docks Short range berthing instructions.
Immingham Docks	"Immingham Docks Radio"	16 19 22 9	Continuous watch maintained	Calling and safety Berthing instructions for tankers. Docking instructions for Immingham Docks. Short range berthing instructions.
Saltend Jetties	"Saltend Radio"	16 19	Continuous watch maintained	Calling and safety. Berthing instructions for tankers.
King George Dock	"King George Dock Radio"	16 20 9 10	Continuous watch maintained	Calling and safety. Docking instructions for King George Dock. Short range berthing instructions.
Blacktoft Jetty	"Blacktoft Jetty Radio"	16 14	3.25 hours before HW Goole until 0.75 hour after HW Goole	Calling and safety. Port Operations and berthing instructions for Blacktoft.
p				
Goole Docks	"Goole Docks Radio"	16 14	Continuous watch maintained	Calling and safety. Port Operations and docking instructions for Goole.
CRUDE OIL TERMINALS (HUMBER) LIMITED (Operated by Conoco, Ltd.)				
Tetney Oil Terminal	"Tetney Base"	16 19 48	Continuous watch maintained	Calling and safety. Berthing instructions for Mono-Mooring Buoy.
SPURN SHIPPING COMPANY LIMITED	"Oil Base"	9	Continuous watch maintained	Short range berthing instructions for Immingham Oil Terminal.
HULL CORPORATION				
River Hull Port Operational Service	"Drypool Radio"	16 9 6	2 hours before HW Hull until 1 hour after HW Hull, Mon. to Sat. 0900 – 1100 hrs. Sat. irrespective of tide.	Calling and safety. Port Operations in River Hull. Inter-ship use.

1.3 Within the Associated British Ports organisation Vessel Traffic Services Humber will disseminate relevant information received to all interested parties.

1.4 Within the river any message related to the movement and safety of vessels will be passed by Vessel Traffic Services Humber to the vessel concerned and Ship Owners and Agents may avail themselves of this service at any time.

2. *Time of Departure. ETD:*

2.1 In order to maintain a complete and up to the minute picture of traffic movement Dock Masters are requested to notify the Vessel Traffic Services Humber of the intended time and actual time of departure of vessels from their docks. This information should be passed by land line. Exchange of information thus engendered should ensure that all Officers of the Associated British Ports are fully informed of traffic movements. In the case of berths not under the jurisdiction of a Dock Master (e.g. wharves on the River Trent), requests for services of Pilots on Telex No. 527393 Spilot g duplicated to Telex No. 597656 Vtshumg.

3. *Navigation of the river:*

3.1 Vessels entering the river should communicate with the Vessel Traffic Services Humber (VHF Channels 16 and 12). A two way exchange of information is essential to ensure the smooth flow of traffic on the Humber necessary for the safety of vessels using the ports. In addition the Vessel Traffic Services Humber can fully advise Owners, Agents and Dock Masters, etc., as to the movement on the river of the vessels in which they are interested. Vessels approaching their destinations desirous of communication with the station serving their destination should do so as per the instructions in Notice to Mariners No. 3 of 1974.

4. *Completion of passage or departure from river:*

4.1 Inward bound vessels should on completion of their passage report to Vessel Traffic Services Humber indicating the closing down of their station. R/T should not be used whilst laid alongside in dock.

4.2 On departure from the river vessels are requested to report the disembarking of their Pilots and their intention of proceeding to sea.

4.3 All reported departures from normal traffic movement (e.g. engine failures, vessels weather bound at Spurn etc.), will be disseminated by the Vessel Traffic Services Humber to the appropriate authorities.

DOCUMENTS:

1 Maritime Declaration of Health.
1 Crew's Effects List.
2 Ship's Report by Master.
1 Home Office Form 1B6.
1 Stores List.
1 Certificate of Deck Cargo Tonnage.
1 Grain Certificate.
1 Light Certificate.
1 Port Dues Certificate.
1 Passenger List.
1 Landing Card for each passenger.
Ship's Certificate of Registry.
Mercantile Marine Office Certificate – for British Ships only.
Load Line Certificate.
Safety Equipment Certificate.
Lloyd's Certificate.
Derat Certificate.
Ship's Register.
Light Bills.
Safety Radio Certificate.
EEC Check List.

In addition Manifests and Bills of Lading are usually sent to Ag direct from the loading port.

PILOTAGE: Compulsory. *Humber Pilotage District – Spurn Pilot Sta* Mariners are advised that the Pilotage Control Station (Tel: (019 650392; Telex: 527393 Spilot G) is established on the Spurn Penins in a position Lat. 53° 34' 29" N., Long. 00° 06' 48" E.

The station is manned at all times with a Pilot Master in attenda and vessels bound to the Humber requiring the services of Humber Pi must give advance notice by signal through a G.P.O. Coast Statio by telex to the Spurn Pilot Station giving ETA at the seaward limit the Humber Pilotage District, draft, and destination at least 12 hou advance. Any adjustment to the time should be given at least 2 ho before arrival.

Vessels wishing to communicate direct with the Spurn Pilot Sta by VHF radiotelephony may if within VHF range (approximately 20 mi call "Spurn Pilot" on VHF Channel 16 and after contact transfe Channel 14 for passing messages.

(Note: Attempts to establish communication on VHF at extreme ra can cause unnecessary interference).

All requests for Pilots for ports or berths on the Humber, Ouse or T will be processed from Pilotage Control Station at Spurn (Telex: 52 Spilot G. Tel: (01964) 650392).

Compliance with this procedure will ensure, as far as possible shipping of Pilots without delay.

ANCHORAGES: The undermentioned anchorages have designated for the use of sea-going vessels. Masters are asked t operate by using these anchorages and to avoid anchoring in the Fa or elsewhere.

Spurn Anchorage for vessels awaiting Pilot, Bull Anchorage for ve awaiting berth and vessels outward (awaiting orders, etc.), Anchorage for small vessels and vessels sheltering and Haile Anch for vessels carrying explosives.

Spurn Anchorage. From position "A" 121° distant 3.65 miles from S Lighthouse, in a 125° direction 1.60 miles; thence in a 020° di 0.60 mile; thence in a 077° direction 1.00 mile; thence in a 347° di 0.70 mile; and thence in a 257° direction 2.40 miles to position "

Haile Anchorage: (Explosives): From position A, 216° distant 2.18 from Spurn High Lighthouse in a 284° direction 0.77 mile; then 139° direction 0.80 mile; and thence in a 027° direction 0.46 position A.

Bull Anchorage: From Position "A", 193° distance 2.1 miles from High Lighthouse, in a 090° direction 1.96 miles thence in a 294° di 1.76 miles, thence in a 274° direction 0.93 miles, thence in a direction 1.0 miles, thence in a 116° direction 0.88 miles, then 026° direction 0.55 miles to Position "A".

Hawk Anchorage:

(1) Lat. 53° 35' 00" N., Long. 00° 04' 14" E.
(2) Lat. 53° 36' 16" N., Long. 00° 01' 33" E.
(3) Lat. 53° 36' 09" N., Long. 00° 00' 52" W.
(4) Lat. 53° 34' 51" N., Long. 00° 04' 02" E.

RESTRICTIONS: Vessels may be accepted through the day and night, the only restrictions on the larger vessels being influence of tides together with the undermentioned physical limitations. The larger deep drafted vessels are usually docked from 3 hours before HW until HW, with similar restrictions on vessels sailing. Ships drawing up to 19 ft. can have access to the docks over the full 24 hours on Neap tides and can be docked/undocked over an 18 hour period on Spring tides.

Locks	*Entrance lock* *Length* m.	*Width* m.	*Depth of water on sill* *at MHWS* m.	*at MHWN* m.
King George Dock	228	25.7	12.75	11.25
Albert and William Wright Docks	97	24.3	8.52	7.02
			at MLWS	
Salt End Jetty Number 1	tidal		10.64	
Salt End Jetty Number 3	tidal		10.64	
Alexandra Dock	167	25.7	10.20	8.70

MAX. SIZE: The maximum permissible dimensions for a general cargo/bulk carrier vessel (excluding tankers) requiring a berth in the enclosed docks are as follows: King George & Queen Elizabeth Docks, length 196 m., beam 25.5 m., draft 9.5 m. at Neaps, up to 10.4 m. at Springs.

A vessel of LOA 222 m. recently entered King George Dock by special arrangement.

HEALTH: Pratique is normally automatic. In case of suspected illness, death on board or the presence of captive birds or animals on board, Master must radio the Hull and Goole Port Health Authority through the Post Office or Coastal Radio Stations not more than 12 hours or less than 4 hours before arrival using the following telegraphic address "Portealth Hull" or through the Vessel Traffic Services Humber using call sign "Vee Tee Ess" Humber on VHF Radio Channel 12. The usual flag or light signals should be shown except where only animals are present and Free Pratique should be obtained from the Hull and Goole Port Health Authority.

RADIO: Portishead Radio – call sign GKL but when within 200 miles of the Humber can go through Grimsby Radio – call sign GKZ.

VHF: See "Vessel Traffic Services Humber".

TUGS: Head boat normally joins vessel in vicinity of Salt End, about 2 miles from dock, and the other tug or tugs connect with vessel when approaching the dock. Where vessel supplies own ropes for towage these to be good stout hawsers. Wire ropes will not be accepted. There is a charge for use of tug's hawsers.

BERTHING:

Dock or Jetty	*Length of Operational Quays* (m.)	*Normal Depth* (m.)	
Alexander Dock	4,082	6.5	Tidal
King George	3,423	11.5	Impounded
Queen Elizabeth	1,646	11.5	
Albert and William Wright	3,453	HW	
Salt End Jetty No. 1	79	9.8	At C.D. which is at L.A.T.
Salt End Jetty No. 2	121	9.8	
Riverside Quay	325	4.8	

CONTAINER FACILITIES: Container terminal at Queen Elizabeth Dock equipped with 3 container gantry cranes of 35 tonnes, 40 tonnes and 45 tonnes capacity, 5 rubber-tyred gantries and a fleet of tractors and trailers.

Ro/Ro container services operated from King George and Queen Elizabeth Docks.

BULK HANDLING FACILITIES: Cargill UK operate a grain storage and export facility for vessels up to 34,000 d.w.t. Loading rate 1,200 tonnes/h. Storage capacity 60,000 tonnes. The facility can handle vessels with length 650 ft., beam 83 ft. and draft 32 ft.

Edible oil storage available.

CRANES: 41×3-10 tonnes, 2×32 tonnes and 1×35 tonnes capacity.

STEVEDORES: Enable Agent order gangs important receive accurate ETA. See "Holidays".

Working hours: 24 hours a day.

MEDICAL: Necessary for Agents to be advised of any urgent cases of illness in order that they can arrange for a doctor or if necessary an ambulance to be available immediately on berthing. Hospital facilities available.

If vessel required to remain in river awaiting berth, arrangements can be made for any serious case to be taken from vessel by lifeboat and conveyed to Grimsby for immediate treatment.

TANKERS: The Oil terminal at Salt End handles refined or semi-refined chemical, liquefied ammonia and petroleum products which are transferred from the vessel along the oil jetties through a series of chemical and service pipes which range from 4 in. for chemicals, 8 in. and 12 in. for spirit, 16 in. for fuel oils and molasses and 8 in. (300 ASA) for ammonia.

There are 2 tanker berths at Salt End and maximum dimensions of vessels are length 214 m., draft 10.4 m. Max. size 40,000 d.w.t.

Berthing Operations: Vessels normally berth on a rising tide from 2.5 hours before HW, swinging off berth and mooring port side to jetty. Late arrivals may be taken on up to 1 hour after HW, berthing starboard side to jetty but this is subject to tidal and weather conditions prevailing at time.

Moorings are to dolphins and buoys and normally consist of a minimum 2 head lines (to buoys), 2 stern lines (to dolphins), 2 breast lines forward (to buoys), 2 breast lines aft (to dolphins), 2 springs forward (to jetty), 2 springs aft (to jetty).

Cargo Handling and Requirements: Ship's derricks are needed to assist in hose connection. Shore hoses have 6 in., 8 in. and 10 in. 150 ASA flanges.

Discharge rates are governed by a maximum back pressure of 7 kg. (100 p.s.i.).

Facilities and Services:

Fresh water available.
Ship's gangway required.
Public telephone situated at jetty head.
No deballast or slop facilities are available.

Unberthing: Normally up to one hour either side of HW or LW slack.

DENSITY: 1013/1015.

FRESH WATER: King George and Queen Elizabeth Docks. Rate of delivery – 15 t.p.h. Also available at Salt End if berth vacant, at 50 t.p.h.

At Albert Dock water is delivered by water boat.

If water required urgently after 1700 hrs. weekdays or on Saturdays or Sundays Agents must be notified in good time to enable them order men out.

FUEL: Fuel oil available, viscosity up to 3,500 secs. Redwood. Gas oil and diesel also available. At least 24 hours notice required. Delivered by barge or road tanker.

FIRE PRECAUTIONS: Masters receive an emergency services dock plan with an explanatory leaflet.

CONSULS:

	Tel.		*Tel.*
Denmark	(01482) 655875	Netherlands	(01482) 224911
Finland	(01482) 25781	Norway	(01482) 224151
France	(01432) 631159	Spain	(01482) 29764
Germany	(01482) 842511	Sweden	(01469) 72387
Iceland	(01482) 24024	Thailand	(01482) 29925
Italy	(01482) 447118		

REPAIRS: Facilities available for all types of deck and engine repairs.

DRY DOCKS: Wm. Wright Dock.

Net length	137.0 m.
Width at cope level	25.9 m.
Width at entrance.	15.2 m.
Depth of water on sill MHWS	6.6 m.
Depth of water on sill MHWN	5.1 m.

GANGWAY/DECK WATCHMEN: Watchmen available if required by Master.

OPENING/CLOSING HATCHES: Can be carried out by stevedores when ordered. Ship charged with actual cost, but ship's crew may do so if required.

CUSTOMS ALLOWANCES: Foreign trade – max. allowance 0.5 lb. cigarettes or cigars or tobacco. Home Trade – (Elbe/Brest limits) half the above. Wine and/or Spirits. Foreign Trade – 1 pint – opened. Home Trade – (Elbe/Brest limits) half the above allowance.

CARGO GEAR: When working with ship's gear a Register of Machinery, Chains and Wire Ropes, etc., with all Test Certificates and record of inspections to be produced to the stevedores before work commences.

REPATRIATION: Crew changes can be effected and repatriation arranged by sea or air.

AIRPORT: Humberside Airport. Air UK operate flights to Aberdeen, Amsterdam, Bergen, Norwich, Stavanger and Teesside.

TIME: BST (British Standard Time) GMT plus 1 hour, GMT during Winter months.

HOLIDAYS: New Year's Day; Good Friday (movable Holiday); Easter Monday (movable Holiday); May Day (1st Monday after May 1st.); Spring Holiday (last Monday in May); Bank Holiday (last Monday in August); Christmas Day (25th December); Boxing Day (26th December).

POLICE/AMBULANCE/FIRE: Emergency Calls – Police – Fire – Ambulance – Coastguard – Dial 999 and ask the operator for the service required, or by VHF Channels 16 or 12 to VTS Humber.

TELEPHONES: Can be placed on board at the majority of berths in King George and Queen Elizabeth Docks.

SERVICES: Tank cleaning, facilities for discharge of tank washings slop (residue), compass adjusting, etc., available.

SHORE LEAVE: Crew members allowed ashore.

DEVELOPMENTS: The Alexandra Dock, which closed in 1982, is to re-open to cater for increased trade using the port.

Parliamentary powers have also been granted allowing A.B.P. to construct 3 riverside Ro/Ro berths adjacent to King George and Queen Elizabeth Docks.

AUTHORITY: Associated British Ports, P.O.Box No. 1, Port House, Corporation Road, Hull, North Humberside HU9 5PQ. *Tel:* (01482) 27171. *Telex:* 592251. *FAX:* (01482) 26283. *Contact:* M.G. Fell, Port Manager.

IMMINGHAM: 53.37 N. 00.12 W. (See Plan)

VESSEL TRAFFIC SERVICES HUMBER: See "Hull".

NOTICES: See "Hull".

DOCUMENTS:

2 copies Immigration, Crew and Passenger List, H.O. Form I.S.6 Supplied by Agents.
Form C.13 General Declaration (In duplicate).
Form C.14 Ship's Stores (In triplicate).
Form C.142 Crew Declaration (In duplicate).
Form C.143 Small Parcels List. (1 Copy) if appropriate.
Form D.C.1 Self Declaration Deck Cargo (In duplicate).
1 copy Cargo Manifest.
1 copy Dangerous Cargo List.

PILOTAGE: Compulsory.

Humber Pilotage District – Spurn Pilot Station: A Pilotage Control Station (Tel: (0196) 46392; Telex No. 527393) is established on the Spurn Peninsula in a position Lat. 53° 34' 29" N., Long. 00° 06' 48" E.

The station is manned at all times with a Pilot Master in attendance and vessels bound to the Humber requiring the services of Humber Pilots must give advance notice by signal through a Coast Station to the Spurn Pilot Station giving ETA at the seaward limits of the Humber Pilotage District, draft, and destination at least 12 hours in advance. Any adjustment to the time should be given at least 2 hours before arrival.

Vessels wishing to communicate direct with the Spurn Pilot Station by VHF radio telephony may if within VHF range (approximately 20 miles) call "Spurn Pilot" on VHF Channel 16 and after contact transfer to Channel 14 for passing messages.

(Note: Attempts to establish communication on VHF at extreme range can cause unnecessary interference).

Inward vessels bound for ports up river of Hull desiring to pick up a Goole or Trent Pilot in Hull Roads should give at least two hours advance notice of their ETA in Hull Roads to the Vessel Traffic Services Humber on VHF Channels 16 or 12 or through a Coast Station (telegraphic address "Humberops") or by telex No. 527656.

Compliance with this procedure will ensure, as far as possible, the shipping of Pilots without delay.

ANCHORAGES: "Hawk", "Bull" and "Haile Explosives Anchorage".

The Pilot station will advise where to proceed to anchor and also provide Pilot. See "Hull".

RESTRICTIONS: No restrictions, vessels may enter the harbour day or night. Max. draft for entering harbour 10.36 m. HW. Compulsory Pilots boarding Spurn Light-vessel, decide whether vessel shall proceed up river or anchor and await suitable state of tide.

Locks: Length 256.2 m., width 27.4 m.

MAX. SIZE: Also see "Tetney Terminal" and Immingham Oil Terminal under "Tankers".

Immingham Dock: Max. length 198 m., breadth 26.2 m., draft 10.36 m. on density 1010.

HEALTH: Master to report any "Reportable" illness as detailed in form "Port 38" to "Porthealth Immingham".

See "Health – All Ports" before first U.K. port.

RADIO: Humber Radio – 2182 kHz or VHF Channel 16. Dock Master VHF Channel 16. Tankers use Channel 19.

VHF: See "Hull" – Vessel Traffic Services Humber.

TUGS: Will join vessel off dock entrance, optional use of tow lines. If using tug's tow lines, charge for this service, depending on vessel's length.

BERTHING: Unless Master or Agent indicates preference, the Port Authorities will decide which side alongside. River Pilot deciding in conjunction with Dock Master most suitable berthing time for harbour and river installations.

Ro/Ro Terminals: The enclosed dock system incorporates 2 Ro/Ro freight terminals: 1×4 berth facility is operated by Exxtor while a second single berth terminal is available on a common user basis.

BULK HANDLING FACILITIES: Immingham Bulk Terminal – Ore, Coal and Coal Products:

Immingham Bulk Terminal is an off-shore jetty, some 525 m. long, sited approximately 0.5 miles upstream from Immingham Dock.

It is serviced from the shore by a single lane roadway, which has height and weight restrictions, which must be conformed with.

Ore Berth: All depths are to L.A.T. Datum.

Sea Channel	A deep Buoyed Channel to Humber Light Vessel.
Sunk Channel designed depth **	9.2 m.
Berth designed depth **	14.8 m.
Average Tidal Range – Springs	6.4 m.
Average Tidal Range – Neaps	3.2 m.
Max. Berth length	303.0 m. Stern lines to mooring dolphin.

Ship's Dimensions:

Max. length overall	303.0 m.
Beam	47.0 m.
Draft **	14.5 m.
Max. height of hatch coaming or side covers above High Water	15.80 m.
Max. working length of vessel	260.42 m.

** Subject to alteration due to local tidal conditions.

Additional Berth Data:

Designed stockpile capacity imported coal	350,000 tonnes
Seasonal restrictions	None
Designed stockpile capacity (ore)	600,000 tonnes
Discharge system	2 unloaders
Maximum designed hourly discharge	4,000 tonnes (ore) 2,600 tonnes (coal)
Average hourly discharge	2,300 tonnes (ore) 1,200 tonnes (coal)
Outreach of grab beyond fender line	37.4 m.
Clearance of unloader boom from High Water	29.84 m.
Clearance of unloader boom from Low Water	35.94 m.
Travelling length of unloader along jetty	287.72 m.

All oil/ore carriers must be in possession of a valid Gas Free Certificate, and be fitted with an Inert Gas System. If any slops remain on board, these must be inerted as per Charter Party B.S.C. CORE 7 CL48.

Discharge is continuous, including Bank Holidays.

Small quantities of stores can be supplied by road. However, chandlers must consult with the Jetty Officer before delivery (Tel: 571300, Ext. 127). Larger quantities and heavy loads are by barge only.

All oil bunkers are supplied by barge only.

Parking facilities on the Jetty are very limited.

A ship-shore access gangway is available.

Garbage disposal by arrangement with Agents and Termi management.

Maximum vehicle dimensions are:

Height – 3.20 m. (10 ft. 6 in.).

Width – 3.05 m. (10 ft. 0 in.).

Length – 9.70 m. (32 ft. 0 in.).

Axle weight – not to exceed 9 tonnes.

Contact: Immingham Bulk Terminal, Humber Road, Sou Killingholme, South Humberside DN40 3LZ. Tel: (01469) 5713 Fax: (01469) 571750.

Grain: 2×500 t.p.h. shiploaders available.

CRANES: 16 electric cranes 3 – 20 tonnes capacity and 3 mobile cran with capacity 40/60 tonnes.

1×40 ton crane at Exxtor berths.

STEVEDORES: Firm ETA to Agent required if possible before noon previous day before arrival.

Working Hours: Monday – Thursday, 0800 – 1700 hrs.; Friday, 080 1600 hrs.; overtime by arrangement.

MEDICAL: No advance notice necessary for medical treatment as hospital facilities available.

TANKERS: Also see "Tetney Terminal".

Immingham Oil Terminal: Berths No. 1 & 2: Up to 284,480 d.w.tonn with max. load displacement of 172,720 tonnes. Length up to 1,100 breadth no restriction and max. draft 42 ft. Four 12 in. lines for crude Two 12 in. lines for fuel oil and three 10 in. lines for white oils. One 8 line for fuel oil bunkers. Gas oil bunkers by barge.

Berth No. 3: Max. 80,000 d.w.tonnes with max. load displacem 110,000 tonnes. Length up to 1,100 ft. and max. draft 42 ft. 3 load arms (2×12 in. for fuel oil and ballast and 1×12 in. for distillate, s and ballast). All bunkers by barge.

Finger Pier: 8 in. loading arms for fuel and white oils

Mooring Operations: Large vessels normally berth at HW port side jetty. Ideally, vessels of maximum size should stop off jetty and appro beam on at rates of no more than 55 ft. per minute. Number of t depends on vessel size.

Mixed moorings in the same service (i.e. headlines, stern lines, brea and springs) are not permitted unless previous authorisation has b given and then only when stand-by tugs and Pilot remain on stand throughout vessel's stay alongside.

Vessels are not allowed to berth or unberth without the attendanc the Associated Petroleum Terminal's Berthing Master.

There is no fixed doppler or berth approach rate indicators instal on jetty.

Normal mooring pattern is indicated in the "Plan Section".

Various wind speed restrictions in force for berthing and sai operations.

Gangway: Shore gangways available if sufficient deck space availa – and will be used where possible. In the event of shore gangway be out of service, the vessel will be informed via Pilot/VTS and will rig gangway.

Unberthing: Due to the strong tidal currents which develop in the vici vessels normally sail on or around HW or LW slack.

Maximum size vessels, having made fast their tugs, come off the b bodily, and swing in a position just to the N.E. of the terminal.

Eastern Jetty: Max. Length approx. 650 ft. breadth, no restriction, d depends on LW, range 27 ft. to 36 ft. Lines 10 in., 8 in., 6 in. depe on Receivers. Bunker line available.

Western Jetty: Max. Length approx. 800 ft. breadth, no restriction, d depends on LW, range 27 ft. to 36 ft.

Berthing Operations: (Eastern and Western Jetties): Normal ber time for vessels is not more than 1 hour either side of HW or LW sl

Vessels berth either port or starboard side to jetty dependin weather and tidal conditions prevailing at time.

Jetties are of wooden piling and fender construction and consequ care should be taken to ensure vessel does not land too heavily w berthing.

Draft restrictions can be calculated by taking the ABP predictio the outer sill at Immingham for LW and adding 0.5 m. (1.6 ft.).

Normal mooring pattern is 3 headlines, 3 sternlines, 2 breast forward, 2 breastlines aft, 2 springs forward and 2 springs aft.

Unberthing; Normal sailing time, in view of strong tidal conditions w develop, is at HW or LW slack or up to one hour either side of t times.

Killingholme North: Max. length 580 ft., beam, no restric Draft 30 ft. 6 in. One 8 in. line. One 4 in. bunker line.

Berthing Operations: Normal berthing time for vessels is at HW o slack and not more than 1 hour either side of these times. Vessels either port or starboard side to jetty depending on weather o conditions prevailing. The mooring pattern is similar to that us Immingham East and West Jetties (see above).

Unberthing: Normally up to one hour either side of HW or LW sla

Killingholme South: Max. length 800 ft.; beam, no restriction. Max will be advised. 10 in. loading arms. Bunkers by barge. Ship's ga required.

Berthing Operation: Vessels berth at H.W. or L.W. (if draft accep

Unberthing: One hour before H.W. or at L.W. (if draft acceptabl

Small vessels normally berth and unberth at anytime.

Head and stern lines must be a minimum of 100 m. length.

LPG FACILITIES: Humber Gas Terminal located at South Killing

Max. Vessel Size: LOA – 280 m. (Min. 65 m.). Beam – No res Capacity – 80,000 cu.m. (L.P.G) or 55,000 d.w.t. (white oil)

Max. Draft: Berth dredged to 12 m. Draft dependent on low wate Mud bottom on berth. Capable of future dredging to 14.8 m belo

Tidal Range: Springs – 6.4 m. (21 ft.) (approx.) Neaps – 3.2 m. ((approx.)

Max. Tidal Ebb Speed: Springs – 4.5 – 5 knots. Neaps – 2.54 –

Approach to Berth: Sunk Dredged Channel and Main Chann Channels are marked by light buoys and light floats. Pilotage com

Jetty Berth: 6 facing fenders. 6 mooring dolphins (3 Fore/3 Aft). Minimum flat side vessel – 32 m. with manifolds midships.
Presentation Arm: 1 × 10 in. L.P.G and 1×10 in. white oil.
Jetty Pipelines: 1×14 in. L.P.G., 2×10 in. and 2×12 in. white oil lines.
Cargo Handling Rates: L.P.G. exports – 2×300 cu.m.p.h. pumps. L.P.G. imports – up to 1,000 cu.m.p.h. White oil exports – up to 1,200 cu.m.p.h.
Fresh Water: Available from berth.
Bunkers: Available only by barge.
Gangway: Ship's gangway required.
Stores: Limited access to Jetty. Rigid vehicles only but no parking facility at Jetty Head. (Always refer to Agent).

DENSITY: In harbour 1010.
FRESH WATER: Available all berths by hose. Rate of delivery 20 t.p.h.
FUEL: 24 hours notice required. All grades available.
FIRE PRECAUTIONS: Copy of these regulations handed to the Master on arrival.
CONSULS:

Finland	Immingham 573187	Netherlands	Immingham 76246
Denmark	Grimsby 357521	Norway	Hull 224151
Greece	Hull 224151	Sweden	Immingham 571387

REPAIRS: No facilities.
DRY DOCKS: None.
SURVEYORS: Classification/P&I and cargo surveyors available.
GANGWAY/DECK WATCHMEN: Watchmen not usually employed, but left to the discretion of the Master.
OPENING/CLOSING HATCHES: See "Grimsby".
CERTIFICATES:

Ship's Register.
Load Line.
Safety Radio.
Safety Equipment.
Safety Construction and any British Light Dues Receipts.
Derat Certificate.
Oil Pollution Certificate (Tankers).

CUSTOMS ALLOWANCES: 8 days – 200 cigarettes per person approx. Wine/spirits, 4 days – 0.25 pt. per day; this depends on the Customs Officer's discretion.
CARGO GEAR: This must comply with the Department of Employment and Productivity regulations. Normally discharge carried out by shore cranes, although overside berths available.
REPATRIATION: All facilities exist for dealing with crews and passengers.
AIRPORTS: Leeds Bradford Airport and Humberside Airport for Amsterdam (3 flights from each daily), Aberdeen and London for International destinations.
TIME: GMT. Summertime, GMT plus 1 hour.
HOLIDAYS: See "Grimsby".
POLICE/AMBULANCE/FIRE: Port Security – 72067, 72068. County Police – 76444. Ambulance; County – Cleethorpes 692912. Fire; 999 ask for Fire.
EMERGENCY CO-ORDINATION CENTRE: Humber Estuary, Humber Ports Operations and Information Service. Tel: Hull 35599 – Hull Radio on VHF Channels 16 and 12.
TELEPHONES: Public telephones available.
BANKS: All major U.K. Banks have branches in the area.
STORING: See "Prelims".

1, 2, 3. It is normal practice for such stores to be delivered to ships side at in-dock berths by road vehicles. At the Eastern and Western River Jetties at Immingham, however, vehicles are not permitted and the approximate distances fom the root of the Jetties to ships side is from 400 m. to 500 m. South Kilingholme Jetty – access by foot only.

4. Forklift trucks could be used at in-dock berths, if necessary.

If proceeding to NCB/BSC or Immingham Oil Terminals – check with Terminal Authorities.

IDENTIFICATION CARDS: Seaman's Book or Passport sufficient for crew members going ashore.
GARBAGE DISPOSAL: In dock, collection service available alongside vessels using private hire skips for kitchen/galley waste. Contact BIFFA (Tel: (01472) 351185). Some Port Authority skips available on the quayside for dunnage waste disposal only.

At the jetties, garbage skips are also available.

Immingham Oil Terminal: Garbage disposal available at each berth. Skips permanently in position and are emptied 3 times per week. Service administered by jetty contractor, Delta Catalytic Port Services (Tel: (01469) 574044). Ships up to 6,000 d.w.t. included in mooring tariff at finger pier. Other vessels at other berths, £39.00 per vessel. Same facilities at South Killingholme Jetty and Immingham Gas Terminal.

WASTE OIL DISPOSAL: In dock, collection service available using tanker trucks alongside vessel. Contact Waste Oil Services (Tel: (01472) 827112) or BIFFA (Tel: (01472) 351185).

Killingholme Jetty has no access for vehicles to come alongside vessels, but other jetties can be facilitated similarly to vessels in dock.

SEAMAN'S CLUBS: Immingham Seaman's Club, Immingham Dock. Tel: 0469-574195. Danish Mission, 2 Cleethorpe Road, Grimsby. Tel: 0472-342257.
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Associated British Ports, Port Office, Cleethorpes Road, Grimsby, South Humberside DN31 3LL. *Tel:* (01472) 359181. *FAX:* (01472) 242488, 240255. *Contact:* D. Dunn, Port Manager.

Dock Office, Immingham Docks. *Tel:* (01469) 571555. *FAX:* (01469) 571559. *Contact:* Dock Superintendent.

INVERNESS: 57.29 N. 04.14 W. (See Plan)

DOCUMENTS:

2 Crew Lists.
2 Passenger Lists.
Customs and Excise and Health Documents.
Manifest.
Bills of Lading, etc.

PILOTAGE: Compulsory for all vessels over 50 m. Apply direct to Agent or to Pilot, telephone Inverness 715715. ETA 24 hours. Pilot equipped with VHF. Pilot cutter is a blue launch. Pilot station Meikle Mee Buoy. Location of anchorage while awaiting Pilot – Munlochy Buoy.
ANCHORAGES: Munlochy Buoy in 5 – 8 fathoms. Beauly Basin in 15 fathoms.
RESTRICTIONS: Vessels may enter and leave from 2 hours before HW until HW.
MAX. SIZE: Ship max. 125 m. length, 6.25 m. draft, high water springs. 5.5 m. draft, high water neaps
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Wick Radio.
VHF: Harbour Office on VHF Channels 16, 14 and 12 during office hours.
TUGS: Available from Invergordon.
BERTHING: *Longman Quay:* Length 180 m. Depth 5.0 m L.A.T.
Thornbush Quay: Length 156 m. Depth 3.0 m L.A.T.
New Citadel Quay, Old Citadel Quay and *Central Quay:* Each about 100 m. in length, and *Shore Street Quay,* about 150 m. in length, form a continuous length of quayside on the East side of the harbour at its upper end; there are depths of 3 m. alongside. L.A.T.
BRIDGES: Kessock Road Bridge, max. clearance 29 m. at MHWST.
STEVEDORES: Arrange through Agent. 24 hours notice required.
MEDICAL: Doctor available.
DENSITY: 1002.
FRESH WATER: Available on demand, 5 t.p.h., ex-hose on quay.
FUEL: Marine diesel and petroleum on request.
CONSULS: Sweden (Mr. John Fraser), Tel: 238366.
REPAIRS: Thornbush Slipway Tel: 711048.
GANGWAY/DECK WATCHMEN: Supplied by ship.
OPENING/CLOSING HATCHES: Done by crew.
CUSTOMS ALLOWANCES: Tobacco/Wines/Spirits. Usual amount allowed by Customs and Excise.
REPATRIATION: Facilities available.
AIRPORT: Dalcross, 7 miles from Inverness.
HOLIDAYS: 1st and 2nd January; Easter Monday; July Bank holiday; First Monday in October; and Christmas Day. All official holidays, cargo work can be arranged on these days.
POLICE/AMBULANCE/FIRE: Police 715555; Fire Brigade 222722; Ambulance 231511.
TELEPHONES: Adjacent to quays.
SHORE LEAVE: Unrestricted.
IDENTIFICATION CARDS: None.
GARBAGE DISPOSAL: Rubbish bins available on quay, free of charge, emptied as required.
WASTE OIL DISPOSAL: Full service into tanker trucks available. Charges according to quantity and commodity. Contact Agent for details.
SEAMAN'S CLUBS: None.
AUTHORITY: Inverness Harbour Trust, Harbour Office, Longman Drive, Inverness IV1 1SU, Scotland. *Tel:* (01463) 715715. *FAX:* (01463) 715705. *Contact:* Captain J.B. Fairgrieve, Harbour Master.

IPSWICH: 52.03 N. 01.10 E. (See Plan)

DOCUMENTS: Masters can conclude all documentation in port. Ship's Agent will give the necessary advice.
PILOTAGE: On behalf of the Ipswich Port Authority. Pilotage Authority – Harwich Haven Authority.
Compulsory Area: River Orwell and Harwich Harbour as far seaward as the following outer boundaries:

Eastwards to Longitude 01° 24' E.
Southwards to Latitude 51° 54.5' S.
Northwards to Latitude 51° 57.4' N.

Pilotage is compulsory for all vessels over 50 m. LOA navigating within this area except H.M. Ships and vessels of less than 100 m. LOA operating exclusively within the port area.

Boarding Point: Boarding and landing of pilots is carried out by fast launches operating from Harwich. The boarding position will be outside the compulsory area, and must be agreed with Harwich Harbour Operations, having regard to the size and draft of the ship, and other prevailing circumstances.

ETA's/ETD's: Inward vessels to give 8 hours Notice of Arrival at Harwich Approach Buoy, (Latitude 51° 56.4' N., Longitude 01° 31.2' E.), together with details of Gross Tonnage/Gross Register Tonnage, Draft (Maximum), Departure Port and Destination.

Confirmation of ETA required 3 hours before arrival.

Outward vessels must give a minimum of 2 hours' notice before sailing from or moving within the compulsory area.

Communications: Call sign "Harwich Harbour Radio", VHF Channel 9.

VHF Radio:	Channel 16	Safety
	Channel 9	Pilotage and ETAs
	Channel 71	VTS and Reporting
	Channel 6	Pilot Launches
	Channel 69	Tugs
	Channel 20	Harwich Radar Assistance
	Channel 11	Harbour Craft

Telephone: (01255) 243000 Harbour Operations, or (02155) 243111 Pilot Orders.
Telex: 98472 HAROPS - G.
Fax: (01255) 241325.

Pilot Launches: VHF Channels 6 and 71.
Director of
Pilotage: Captain I.T.Whale, Tel: (01255) 243030.
Ipswich Harbour
Master: Captain D.H.Winter, Tel: (01473) 211066 (manned 24 hours).

ANCHORAGES: No anchorages within port. All vessels will proceed direct to berth, otherwise anchorage provided in Harwich Harbour or as indicated by Harwich Harbour Radio (VHF Channel 71).

RESTRICTIONS: Up to 80 m. in length the lowest permissible U.K.C. is 0.75 m. Over 80 m. and up to 110 m. in length the lowest permissible U.K.C. is 1.0 m. Over 110 m. in length by special arrangement. (U.K.C.=Under Keel Clearance).

See "Notices" – "Guidelines – Vessels Navigating the River Orwell and the Port of Ipswich" and "Dangerous Substances in Harbour Areas Regulations".

MAX.SIZE: LOA 140 m., draft 7.7 m. (inward) and draft 7.4 m. (outward), both on a 3.6 m. tide.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Masters to contact ship's Agent through North Foreland, Humber, Niton or Portishead depending on position of vessel. All these radio stations hold cable addresses and staff telephone numbers of Agents.

VHF: A 24 hour VHF radio facility is in operation. Vessels arriving should contact "Ipswich Port Radio" on VHF Channels 16/14 on entering the River Orwell and report and/or maintain a listening watch as instructed. Channels 14 and 12 will be used for the passing of messages which should be restricted to the safety of navigation or persons.

TUGS: Vessels of 110 m. in length and up to 130 m. will use 1 tug. Vessels of 130 m. in length and over will use 2 tugs.

Special consideration may be given to vessels fitted with bow thrust facilities trading regularly to the port.

BERTHING: Vessels bound for berths in the Wet Dock should arrive off the lock 2 hours before HW.

Power Station Quay: Length 143 m.
Depth of water alongside: 7.5 m., subject to silting.
Approach channel: 5.6 m. below chart datum.

Cliff Quay: Length: 3,250 ft (990 m.).
Depth of water alongside: 7.5 m. below Chart Datum. Subject to silting.
Approach Channel: 5.6 m. below Chart Datum.
Cranes: 5 portal jib cranes from 10 tonnes to 35 tonnes lifting capacity. A Karrilift container gantry is also available.

Largest vessel which can be accommodated: 460 ft. (140.2 m.) overall in length, 25 ft. 6 in. (7.7 m.) draft inwards, 24 ft. 6 in. (7.4 m.) outwards.

The Quay handles containers and heavy lifts up to 35 tonnes and is particularly well equipped to handle cargoes direct to and from both road and rail transport. The South end has been developed as a modern terminal for handling all types of general cargo, including containers, flats, palletised units and bulk cargoes. Spacious modern transit sheds and a container park are sited on part of this Quay. Vessels up to 25 ft. 6 in. (7.7 m.) draft can be handled at the terminal.

Grain Terminal: Located at Cliff Quay. Capable of handling vessels up to 10,000 tonnes capacity at a loading rate of 550 t.p.h. (malt) and 700 t.p.h. (other grain products). Grain silo capacity 11,000 tonnes.

Container Terminal: The terminal has a 40 tonne ship to shore luffing crane and 2 shoreside gantries with 1-9-1 configuration.

West Bank Terminals: These terminals provide 3 berths with a total quay frontage of 310 m. and are dredged to 5.8 m. below Chart Datum. 2 container berths are backed up by 5.5 hectares of hardstanding, including a transit shed of 2,750 sq.m. floor area. The berths are served by portal cranes of 40 tonnes, 37.5 tonnes and 10 tonnes capacity and are adjacent to a Freightliner Terminal offering daily services and incorporated into the Railfreight Speedlink network.

A Ro-Ro berth is backed up by 7 hectares of hardstanding. The bridge ramp is designed to carry a load of 180 tonnes with maximum axle loads of 45 tonnes. The ramp has a carriageway of 36.9 m. long×7 m. wide and can handle traffic at all states of the tide.

The Dock: The dock is situated within the town of Ipswich. It is some 26.25 acres (10.63 hectares) in extent and is approached by an entrance lock.

NAVIGATION - THE ENCLOSED DOCK, ISPWICH

VHF Radio: The Lock Master is equipped with VHF Marine Radio and may be contacted through the Orwell Navigation Service (Ipswich Port Radio) on Channel 14.

Maximum Size Vessels that can:
(a) Lock In or Out: 80.76 m. LOA and 14.50 m. beam.
(b) Enter the Dock: 114 m. LOA and 14.50 m. beam. (Vessels over 80.76 m. LOA can only enter the Dock when the Outer and Inner Lock-gates are open, that is for approximately one hour prior to HW on most tides but this is not guaranteed).
(c) Maximum Draft: Owing to the shape of the Lock Pit, modern vessels require a minimum Under Keel Clearance depending upon their beam. To ascertain the maximum permissible draft *add* the following to the height of the Tide above Chart Datum at time of entry.

Vessel's Beam (m.)	(m.)
12.00	+2.09
12.50	+1.81
13.00	+1.59
13.50	+1.43
14.00	+1.28
14.50	+1.17

Notwithstanding the above, the maximum draft for any vessel in the enclosed dock is 5.50 m.

Locking Times:
(i) Commercial Vessels:
May Lock In or Out from 2 hours before HW to 40 minutes at HW.
Special arrangements may be made for vessels to enter or lea one hour either side of these times, subject to the Lock Mas being advised during the preceeding tide, there being suffic water and at additional cost to the User.
(ii) Non-Commercial Vessels:
Should enter or leave the Dock from one hour to quarter ho prior to HW, if possible.

Entry Signals:
Lights fixed above the Orwell Navigation Service Building on t East-side of the Lock indicate to vessels whether the Lock is op or closed for entry from the River or the Dock as appropriate.
ONE RED LIGHT *Lock closed* to vessels entry.
ONE GREEN LIGHT *Lock open* for vessels entry.

Flood Protection Gates:
These gates are closed when the tide level is 4.6 m. or mo above Chart Datum. During this period the Dock Entrance closed to navigation.

Inside, in addition to some 2,700 ft. (823 m.) of private quays own by merchants having warehouses or mills adjoining, where small vess can berth, there are the following quays owned by the Authority:

(i) *South West Quay:* This quay is 800 ft. (244 m.) in length wit depth of 19 ft. (5.79 m.) of water alongside at mean dock level. The qu is served by 3 modern 7.5 tonne portal electric travelling cranes a mobiles as required.

(ii) *Timber, Public Warehouse,* and *End Quays* total 940 ft. (286 in length and have a depth of water alongside varying from 12 ft. (3.65 to 20 ft. (6.09 m.). Public warehouse is served by mobile cranes capa of lifting up to 5 tonnes.

(iii) *Tovell's Wharf* is a 600 ft. (183 m.) reinforced concrete quay w 22 ft. (6.70 m.) of water alongside. It is served by mobile cranes up 5 tonnes lifting capacity.

(iv) *Orwell Quay* is 775 ft. (236 m.) in length, with 18 ft. (5.48 m.) water alongside and includes a Ro/Ro berth. One transit shed, wit floor area of 10,100 sq.m. is situated immediately behind the quay ap together with further extensive covered and open areas.

BRIDGES: The River Orwell Bridge has a clearance of 38.8 m. abo MHWOST (43.07 m. above Chart Datum).

Masters of larger vessels are advised to check their air drafts an in any doubt contact their Agent or the Ipswich Port Authority bef proceeding up the River Orwell.

STEVEDORES: Ship's Master normally advises his Agent of his E distribution of cargo on board, and all relevant details. The Agent pas this information to Stevedores.

MEDICAL: All medical facilities available in port. Vessels requ medical assistance on arrival should advise all details by radio teleph or in their ETA cables.

TANKERS: It is desirable that when Master of a tanker gives an E he also indicates the size of pipeline, size of connection and dischar point in order that necessary arrangements can be made at dischar point of receiving oil terminal. There are no slop facilities at Por Ipswich, however arrangements can be made, through the Port Autho (Tel: (0473) 231010) for firms using road tank vehicles to remove slu or oily-waste. All cleaning and gas-free operations must be carried outside precincts of the Harwich Harbour Board. Only one tanker b at Ipswich but there are 6 intake points on quay and it is usual 3 coastal tankers to be accommodated, depending on the overall len and berth availability. A maximum draft on the berth of 23 ft. (7 subject to silting.

Also see "Notice".

DENSITY: Approximately 1020, depending on the amount of fresh w in river due to heavy rain.

FRESH WATER: Available at all quays. Delivery by hose through m at 10 t.p.h.

FUEL:
Gas oil 35 secs. Redwood.
Light fuel oil 200 secs. Redwood.
Medium fuel oil heated 950 secs. Redwood.
Heavy fuel oil heated 3,500 secs. Redwood.
At least 24 hours' notice required.

CONSULS: Vice-Consul for Sweden and Vice-Consul for Nor Tel: (01473) 59281.

REPAIRS: Only small repairs on board.

DRY DOCKS: Slipway available for vessels up to 80 m. LOA 1,000 tons.

SURVEYORS: Lloyd's Register, Tel: (01502) 81117.

GANGWAY/DECK WATCHMEN: No watchmen required by Authority, but sufficient men available at all times to move vess necessary.

OPENING/CLOSING HATCHES: Hatches opened and closed by s crew.

CERTIFICATES: Following certificates are required by Agents in to arrange Customs Clearance: Ship's Register, Radio Certificate, Line Certificate, Safety Equipment Certificate, Derat Certificate, B Tonnage Certificate, if required.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes, or equiva tobacco, per man. Wine and/or Spirits, 1 bottle per man.

CARGO GEAR: Cargo working gear is supplied by steve Normally, quayside cranes are used for discharging and loading. In of cargo gear being used in port, Ship's Gear Certificate, duly cer that all gear has been examined and is in every way workab suitable for discharge and/or loading of cargo, is to be produced.

REPATRIATION: Facilities exist at port for effecting crew chang arranging repatriation.

AIRPORT: Ipswich Airport is 2 miles from the port. Charter available for ship's crew. Tel: (01473) 70111. Stansted Airport 40 all international flights available.

HOLIDAYS: Normal holidays for English ports.
TIME: GMT in Winter months. Summer time, GMT plus 1 hour.
POLICE/AMBULANCE/FIRE: In emergency dial 999. Otherwise Police - (01473) 725363.
SHORE LEAVE: Allowed.
DENTIFICATION CARDS: Not required as long as each crew member as in his possession a Seaman's Book and/or Passport.
GARBAGE DISPOSAL: Garbage disposal is available, skips are placed longside vessels. Contact Port Authority.
WASTE OIL DISPOSAL: Service available using private contractors. Contact Cleanaway Ltd. (Dry Cargo, Tel: (01953) 452374. Wet Cargo, el: (01223) 423231) or Hales Containers. (Tel: (01473) 831725).
SEAMAN'S CLUBS: Ipswich Mission to Seamen, 20 Camberley Road, pswich IP4 5QF. Tel: (01473) 727822.
CURRENCY: U.K.Pound (U.K.£).
NOTICES: *Guide Lines – Vessels Navigating the River Orwell and the Port of Ipswich (B.A. Chart No. 2693).*

. *Length and Under Keel Clearance (UKC):*
Vessels up to 80 m. LOA – lowest permissible UKC 0.75 m.
Vessels between 80 m. LOA – 140 m. LOA – lowest permissible UKC 1.0 m.
Vessels over 140 m. will only be accepted by special arrangement with the Harbour Master.
Air draft under the Orwell Bridge is 43.07 m. above Chart Datum.

2. *Towage:*
Up-river from Buoy No. 5, vessels between 110 m. LOA and 130 m. LOA – 1 Tug. Vessels 130 m. LOA and above – 2 Tugs.
Special consideration may be given by the Harbour Master to vessels fitted with bow thrust facilities which trade frequently to the Port of Ipswich.

3. *Speed:*
A Master of a vessel will at all times navigate with caution and at such speed that no damage to the environment, or hazard will be created to other craft which may be navigating or moored in the vicinity.
The speed of vessels must be reduced to the minimum consistent with safe navigation when passing the yacht anchorages at Pin Mill, Woolverstone and other places, or other vessels moored, or dredgers operating; or works of repair, maintenance or construction in progress within the Harbour and from a point abreast of East Fen Buoy to the Lock Gates and while within the Dock.
The maximum speed for vessels under 50 g.r.t. shall be deemed to be 6 knots.

4. *Position Reporting:*
(a) A Master shall report to the Orwell Navigation Service on VHF Channel 14/12.
  (i) On entering the River approaching Buoy No. 1.
  Passing Buoy No. 4.
  Passing Cathouse.
  Passing Buoy No. 9.
  When secure on berth.
  If any such vessel is in a damaged condition which renders such vessel in any way unseaworthy, or inhibits the vessel's ability to manoeuvre, full particulars of the damage shall be given in such report.**
  ***Note:* The Harbour Master on receiving a report from a Master of a vessel may give directions to the Master of such vessel under powers in that behalf given by Section 59 (2) of the Ipswich Dock Act 1971.
  (ii) On leaving the Port, report to the Orwell Navigation Service at the following positions:
    Prior to leaving the berth
    On clearing berth and proceeding
    Passing Cathouse Buoy
    Passing Buoy No. 4
    Passing Buoy No. 2
    Immediately before leaving the Port.
  (iii) While navigating within the Port at all times maintain a listening watch as directed by Orwell Navigation Service.
(b) If such vessel is not fitted with VHF radio-telephone or is fitted with one which is not operational at the time of entry into the Port or departure from a berth therein, on arrival at a berth owned or occupied by the Authority, prior to leaving a berth in the Port and before moving from one berth to another, report to the Orwell Navigation Service in person or by telephone.

5. *Restrictions (Navigational):*
(a) Inward Bound Vessels:
To satisfy the conditions in 5/1 and 5/2, Masters and/or Pilots of Inward bound vessels *must* contact the Orwell Navigation Service and liaise, if necessary, with any outward bound vessel.
(b) Outward Bound Vessels:
The Master and/or Pilot of outward bound vessels *must* ascertain the position in the Channel from the Orwell Navigation Service, prior to leaving the berth and liaise, if necessary, with any Inward bound vessel.
(1) Vessels over 90 m. LOA:
A vessel of 90 m. LOA or more, *must not pass* or *overtake* another vessel of 90 m. LOA or more in the River Orwell between the Butt Buoy and the Port of Ipswich.
(2) Petroleum Tankers and Chemical Tankers with Hazardous Cargo:
These vessels may navigate at any time (subject to the above and to tidal constraint if appropriate) provided that:
(i) Between one hour after sunset to one hour before sunrise there is no opposing traffic on the River above the Butt Buoy, the size or draft of which would present a potential hazard.
(ii) Weather and visibility conditions are of a standard acceptable to the Master and the Pilot concerned.

6. *Sound Signals:*
In addition to the Sound Signals required to be made by the Regulations for the Prevention of Collisions at Sea, the following signals will be used by vessels navigating in the River Orwell:
  4 short blasts followed by 1 short blast = Vessel swinging to starboard.
  4 short blasts followed by 2 short blasts = Vessel swinging to port.
  1 long blast, given when approaching the Woolverstone and Pin Mill areas between the hours of sunrise and sunset. (Inward bound vessels between Buoys No. 4 and 5, and outward bound vessels when passing Buoy No. 7.).
  1 long blast when leaving Cliff Quay or West Bank berths during daylight hours on Saturdays and Sundays.

7. Nothing in these Guide Lines will remove from any Pilot the right to advise Masters against navigating in the River if in the professional opinion of the Pilot a proposed course of action is considered to be imprudent.

8. Notwithstanding anything contained in the generality of these or other arrangements regarding the navigation of the River Orwell, vessels of over 140 m. LOA may, under certain special circumstances and conditions, navigate in the River subject to prior consultation with the Ipswich Harbour Master.

9. Nothing in these Guide Lines shall preclude the Ipswich Port Authority Harbour Master, after consultation, if relevant, with the Haven Pilots, from giving consideration to the exemption of a specific vessel from any of the conditions and requirements herein before mentioned.

Signed: Harbour Master
Date: 1st February 1990.

Dangerous Substances in Harbour Areas Regulations 1987:

1. A Ship Master; Agent; Transport Operator; Contractor or any person who intends to bring a dangerous substance, as defined in Regulation 1(a) of the Merchant Shipping (Dangerous Goods) Regulations 1981, into the Harbour or Harbour Area of the Port of Ipswich, either from Inland or from the Sea, is required under the above regulations to give the Harbour Master and the Berth Operator advance notice of their intention.
The Harbour Master reserves the right to refuse transit through the Harbour Area of certain highly dangerous substances, or to require them to be handled direct to or from transport into a vessel or vice versa.

2. Notification should be made to both the Harbour Master and the Berth Operator from 14 days to 24 hours prior to the goods entering the Harbour Area. However, under certain circumstances the following may apply:
Inward Cargoes: Harbour Master's Information.
In the case of ship reporting Inward from Continental passage, where it is impracticable to comply with the foregoing, then the maximum notice possible should be given but *never less* than *6 hours*.
This to include R O B (Remaining on board) Dangerous Substances in transit through the Port.
This information to be telexed to No. 98642 or Fax to (0473) 230915 at the Orwell Navigation Service (Port Radio) and should also be sent to the Berth Operator.
Export Cargoes: Berth Operator's Information.
In cases where it is not possible to comply with the above regulation, a lesser notification *may* by accepted but *never less* than *12 hours* prior to the arrival of the goods in the Harbour Area.
This information to be transmitted to the Berth involved (Berth Operators – See No. 3).

3. *Berth Operators:*
Ipswich Port Authority: West Bank – Ro-Ro and Container Terminal (excluding Bell Berth).
Fax: (0473) 602266
For internal transmission to Berth
Letter by hand or GPO: Ipswich Port Authority
(Dangerous Substances Notification)
West Bank Terminal Office
Wherstead Road
Ipswich IP2 8LY.
Telephone: Enquiries/Notification
(0473) 692222. Ext. 600.

Ipswich Port Authority: East Bank – Cliff Quay and Dock
Fax: (0473) 232064
For internal transmission to Berth
Letter by hand or GPO: Ipswich Port Authority
(Dangerous Substances Notification)
Superintendents Office
c/o No. 1 Stevedores Office
Cliff Quay
Ipswich IP3 0BS
Telephone: Enquiries/Notification (0473) 230934. Ext.543.

Bell Terminal
Telephone: (0473) 690909
Fax: (0473) 686286
Telex: 987855
Letter by hand or GPO: Bell Terminal Ltd
(Dangerous Substances Notification)
Bell Terminal
Wherstead Road
Ipswich IP2 8NB

4. *Notification:*
Notification must include full details of Dangerous Substance to be presented into the Harbour Area, which should be given in the following format.
(a) Name of Agent and/or Operator presenting the notification.
(b) Name of Vessel.
(c) Berth.
(d) Date/Time due.
(e) Dangerous Substance.
(f) UN Number/Flash Point.

(g) Quantity.
(h) Method of Packaging.
(i) Transport Company involved.

5. *Radio Active Substances and Explosives:*
Radio Active Substances and Explosives which are subject to the Port's Licence may only be brought into the Harbour Area after prior booking and by agreement with the Harbour Master and the Berth Operator as to the type, quantities and dates of transit in line with the foregoing.

6. *Other Regulations:*
A Dangerous Substance brought into the Harbour or Harbour Area under the Merchant Shipping (Dangerous Goods) Regulations 1981, must also conform to the following regulations:

International Maritime Organisation – Dangerous Goods Code.

Classification, Packaging and Labelling of Dangerous Substances Regulations 1984.

Dangerous Substances (Conveyance by Road in Road Tankers and Tank Containers) Regulations 1981.

The Classification and Labelling of Explosives Regulations 1983.

Radioactive Substances (Carriage by Road, GB Regulations 1974). Regulations for the Safe Transport of Radioactive Materials. – Ionising Radiation Legislation 1985.

International Carriage of Dangerous Goods by Rail (RID).

International Carriage of Dangerous Goods by Road (ADR) Geneva 1957.

Road Traffic (Carriage of Explosives) Regulations 1989.

7. *Documentation:*
When Dangerous Substances arrive at the Harbour Area, the Ipswich Port Authority will require, in addition to the Unit Load Note/Interchange Note, the following:

(1) Dangerous Substance Documentation Showing:
  (a) IMO Class.
  (b) The UN Number.
  (c) The correct Chemical name of substance – Trade Name not acceptable.
  (d) Flash Point (if applicable).
  (e) The number and type of packages and, if explosive, the nett explosive content.
  (f) Emergency contact telephone number.
(2) Labelling:
The Packages/Unit to be labelled in accordance with the IMDG Code and old label/s to be removed.
(3) Certificates and Licences:
If Radioactive Substances, the appropriate packaging certificates and Licences.

Signed: Harbour Master.
Date: 6th November 1989.

DEVELOPMENTS: Main channel at Harwich presently being dredged to 11.0 m.

AUTHORITY: Ipswich Port Authority, Old Custom House, Key Street, Ipswich IP4 1BY. *Tel:* (01473) 231010. *Telex:* 988787 (Head Office). *FAX:* (01473) 230914. *Contact:* A.J. Hanson, Commercial Manager.

Captain D.H. Winter, Harbour Master. Harbour Master's Office, New Cut East, Ipswich, Suffolk IP3 0EA. *Tel:* (01473) 211771. *FAX:* (01473) 230906.

KEADBY: 53.35 N. 00.42 W.

PORT LIMITS: Spurn Point.
DOCUMENTS: From EEC: Crew List only.
From outside EEC: Master's Declaration, Crew List, Crew Effects List and Ship's Certificates.
PILOTAGE: Spurn Pilots: VHF Channels 16 and 14. Telex: 527393 Spilot G.
ANCHORAGES: Bull Anchorage or Hawle Anchorage.
RESTRICTIONS: LOA 80 m. (conventional vessels). 88 m. (Rhein type construction vessels). Draft subject to conditions.
MAX. SIZE: 3,500 tonnes d.w.t.
HEALTH: If health problem, contact VTS Humber on VHF Channel 12, or telex: 597656 Vtshum G.
RADIO: Humber Radio.
VHF: Channels 12, 8 and 20.
RADAR: VTS Humber, Tel: 597656.
BERTHING: Quay length 60 m. (N.A.A.B.S.A. Berths).
CRANES: 2 mobile cranes, maximum capacity 26 tonnes.
STEVEDORES: Normal working hours: 0700 hrs. – 1800 hrs. Overtime on request.
MEDICAL: Doctor and dentist available on request.
DENSITY: Brakish to fresh water.
FRESH WATER: Available by pipeline on jetty.
FUEL: Contact bunker broker.
REPAIRS: Facilities available.
SURVEYORS: Available at 24 hours notice.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: By crew.
CARGO GEAR: Shore gear.
REPATRIATION: As requested.
AIRPORT: 40 minutes by taxi.
POLICE/AMBULANCE/FIRE: Dial 999.
EMERGENCY CO-ORDINATION CENTRE: Via Port Agent or VTS Humber.
STORING: See "Prelims".
(1) Truck.
(2) No.
(3) Yes.
(4) Yes.
(5) Via ship's Chandler.
(6) Yes.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Seaman's Book sufficient.
GARBAGE DISPOSAL: Skip on quay.
WASTE OIL DISPOSAL: At 24 hours notice by road tanker.
AUTHORITY: Associated Waterway Services Ltd., Station Ro Keadby, Scunthorpe, North Lincolnshire DN17 3BN. *Tel:* (017 783714. *Telex:* 527861 Awskby G. *FAX:* (01724) 7829
Contact: P.J. Everett, General Manager.

KING'S LYNN: 52.45 N. 00.24 E. (See Pla

DOCUMENTS:
Pilot Note to be filled in and signed by the Master on completio pilotage services both inwards and outwards.

Cargo tonnage return to be completed by the ship's Agent.

PILOTAGE: Pilotage is compulsory between an East-to-West through King's Lynn Buoy No. 3 in the Wash and the Freebridge King's Lynn.

Vessels may be boarded from pilot cutter in the Wash from app 2.5 hours before HW between King's Lynn Buoy No. 1, the Sunk B and Roaring Middle Light Float. Unless prevented by weather breakdown a pilot cutter cruises between King's Lynn No. 1 Light B and the Sunk Light Buoy approx. 2.5 hours before HW until such as it is too late for a vessel to transit the Approach Channel on that

Requests for a Pilot sent at least 24 hours before the service is requ (with amendments if necessary up to 14 hours before) to the Pilot Off Common Staith, King's Lynn (Tel: 773411, Telex: 817588, Fax: 768 or telegrams "Conservator" King's Lynn) or through local Agent. Pilot Office is at the Harbour Office and maintains VHF R/T watch Channels 16 and 14 from 0900 – 1700 hrs. Monday to Friday and 4 hours before HW until 1 hour after HW on each tide after 1700 and before 0900 hrs. The pilot cutter listens on Channel 16 when station and is fitted with Channels 14, 12, 11 and 6 as working chann

Pilot launches "United" and "Denver" are 12 m. fibre glass craft blue hulls, white superstructure and orange tops to the wheelhouses the event of bad weather the pilot launch on duty will fore-run vess into Teetotal Channel (Lat. 52° 53' N., Long. 00° 18.3' E.) before board Pilots.

Requests for Pilots for ships in port, should be made to the Pilot Of at least 2 hours before the Pilot is required to attend the ship. The sig to be used or displayed where the services of a Pilot are require accordance with the provisions of the Merchant Shipping (Pilot Sign Order, 1970.

ANCHORAGE: In the Wash vessels anchor within an area bounde the Roaring Middle Light Float and the King's Lynn No. 1 Light B and the Sunk Light Buoy. Anchoring close to Buoy No. 1 in suffic depth of water assists early boarding of Pilots. Depth of water 6.0 minimum.

RESTRICTIONS: King's Lynn Harbour is situated on the River G Ouse about 2 miles inland from its mouth, at the S.E. corner of the W

The shipping channel in the approaches to King's Lynn and approaches in the Wash is subject to changes in depth and directio published on Admiralty Charts.

Harbour Master will advise in advance upon the suitability of ves and tides.

All ship movements are at HW, times in accordance with a pos list maintained at the Harbour Office on the basis of information sup in advance from Masters of vessels and their Agents.

At the Docks entrance lock docking signals are exhibited from a s mast.

MAX. SIZE: The largest vessels can be accommodated at the A Riverside Quay and within the enclosed docks (see below).

Max. dimension for vessels entering the Harbour Berths: Length (Berth No. 6, South Quay), beam 13.8 m., draft 3.3 m., on lowest tides, and 5.5 m. on highest Spring tides. Access over high tide Harbour Master to be consulted for vessels approaching these lim

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: The King's Lynn Conservancy Board operates in the River Ouse and its approaches in the Wash, a VHF (FM) port operations information radio-telephone service in the International Maritime call signs: "King's Lynn Harbour Radio" (Channels 16, 14, 12 and "King's Lynn Pilots" (Channels 16, 14, 12, 11 and 6).

Associated British Ports operates a docks operations and inform service, call sign: "King's Lynn Docks Radio" (Channels 16, 14 an

TUGS: Controlled by King's Lynn Conservancy Board and in atten at the discretion of the Board's Harbour Master. Vessels joined Wash Approaches and/or lower reach of River Great Ouse (Mars Vessels should provide own hawsers. If ordered, tug hawser ava

Harbour Master may require any vessel to use and employ a tu

BERTHING: *A.B.P. Riverside Quay:* Total berthing length Located between lock entrance and Fisher Fleet. Vessels up to length, beam unlimited and draft up to 5.5 m. on highest Spring Access over high water only. Vessels take the ground at low wa *Alexandra Dock:* Size 238 m. × 94 m. Approached from the River Ouse and King's Lynn Harbour by a lock. Vessels of length 119 beam 13.80 m. can be accepted. The depth of water on sill is 6.7 7.9 m. (Springs) and 5.5 m. (Neaps). Vessels with draft up to accepted on highest Spring tides.

Bentinck Dock: Size 305 m. × 122 m. Connected with the Alexandra Dock by a passage and gates over which pass 2 swing bridges. Also double-sided jetty 71.6 m. long.

The quays of the 2 docks have a water frontage of approximately 1 mile and provide a total of 16 berths.

Quay cranes available up to 35 tonnes.

South Quay (King's Lynn Harbour): Grain loading and discharging facilities at South Quay Berth No. 6. Lay-by facilities at South Quay Berth No. 1. Ships berthing at South Quay take the ground at LW.

STEVEDORES: Associated British Ports within enclosed docks. Gangs usually can be provided at minimum notice. Main commodities and handling rates: timber (200 cu.m. pre-pack, pre-slung, per gang-hour), steel coils (250 tons per gang-hour), tinplate (90 tons per gang-hour), grain (200 t.p.h. per elevator), bulk materials 200 – 350 t.p.h. per crane, also Ro/Ro and container handling.

TANKERS: 3 tanker berths in enclosed docks. Discharge from vessels is to 150 mm. connecting pipes feeding 200 mm. pipes to chemical and fuel storage tanks.

MEDICAL: It is advisable to give advance notice of required medical attendance via Agent. In emergency the Harbour Office will pass on requests received over the VHF R/T Port Operations and Information Service. For other medical information, refer to the Port Medical Officer of Health and H.M. Customs.

FRESH WATER: Available on all berths through 100 mm. pipes off hydrants from public supply.

FUEL: Available at berths alongside King's Lynn Harbour on 24 hours previous notice. Light-grade fuel oil, gas oil, petrol and paraffin only.

OPENING/CLOSING HATCHES: Done by crew. Cranes available for heavy beams.

GANGWAY/DECK WATCHMEN: Vessels responsible for providing own gangways at King's Lynn Harbour berths, where the Regulations require the Master or other person having the care of any ship or other craft to have a proper number of hands on board to attend moorings and to comply with all the requirements and directions of the Harbour Master or his Deputy or Assistants.

CONSULS: Vice-Consul for the Netherlands and Germany.

REPAIRS: Limited facilities only available locally for hull and engine repairs.

AIRPORT: Charter flights and some regular flights, from Cambridge and Norwich Airports about 45 miles from King's Lynn. Regular flights from London (Heathrow) about 100 miles from King's Lynn.

POLICE/AMBULANCE/FIRE: In emergency dial 999 and ask for the service required. Normal service: Police 761311; Ambulance 773503, 773910; Fire Service 775163.

HOLIDAYS: Cargo work available at overtime rates on Saturday and Sundays and on all public holidays.

GARBAGE DISPOSAL: Waste skips are provided at specific points on the dockside. This service is currently provided at a charge of £6.50 per vessel.

WASTE OIL DISPOSAL: No specialised facilities, local agents can arrange collection via road tanker.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: The King's Lynn Conservancy Board, Harbour Office, Common Staith, King's Lynn, Norfolk PE30 1LL. *Tel:* (01553) 773411. *Telex:* 817588. *FAX:* (01553) 768185. *Contact:* Captain D.W. Garside, Harbour Master, Pilot Master and Chief Executive.

Associated British Ports, – King's Lynn, St. Ann's Fort, King's Lynn, Norfolk PE30 2EU. *Tel:* (01553) 691555. *Telex:* 81368. *FAX:* (01553) 761335. *Contact:* D.R. George, Port Manager. J. Redhead, Operations Manager.

KIRKCALDY: 56.07 N. 03.09 W. (See Plan)

DOCUMENTS/PILOTAGE: See "Leith".

RESTRICTIONS: Dock gates are opened and closed upon request.

MAX. SIZE: Vessels of 1,500 d.w.t. regularly use the port. Width at dock gates 15.2 m. Max. width to enter 14.6 m.

Note: Due to siltation, published depths are no longer available. Mariners should contact the Port Superintendent for further information.

RADIO: See "Leith".

Vessels are requested to give the Port Authority 24 hours notice prior to arrival at Kirkcaldy.

VHF/RADAR: Forth Navigation Service from Leith or Methil Harbour Radio.

TUGS: Towage available.

BERTHING: 494 m. of berthing space available in dock.

CRANES: Mobile cranes available.

STEVEDORES: Available from Methil.

GARBAGE DISPOSAL: All garbage collection is arranged via ship's agents who maintain a list of contractors offering this service.

WASTE OIL DISPOSAL: All collection's are arranged via ship's agents who maintain a list of contractors offering this service.

SEAMAN'S CLUBS: None. No clubs for seamen are located in Fife.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Forth Ports PLC, Dock Office, Methil KY8 3RE. *Tel:* (01333) 426725. *Telex:* 72208. *FAX:* (01333) 424873. *Contact:* Captain T.S. Sutherland, Port Superintendent.

KIRKWALL: 58.59 N. 02.58 W. (See Plan)

PORT LIMITS: See "Plan".

DOCUMENTS:

Maritime Declaration of Health.
Vaccination List.
Immigration Form H.O. Form IS6.
Crew List – 2 copies.
Ship's Stores List.
Crew Personal Effects Declaration. Customs Form C142.
Last Port Clearance.
Ship's Register.
Load Line Certificate.
Safety Construction Certificate.
Safety Radio and Safety Equipment Certificates.
Derat Certificate.
Previous British Light Dues Receipt.

Customs and Health: Customs, Immigration, Health and Agent will embark at anchor in Kirkwall Bay or alongside pier.

PILOTAGE: Non-compulsory except for passenger vessels over 65 m. LOA and all other vessels over 80 m. LOA. Pilotage limits same as harbour limits. 10 licensed Pilots available. Arrange through Harbour Authority Office, Scapa. Tel: (01856) 873636. VHF Channel 16. Telex: 75475 or by local Agents.

ANCHORAGES: Two areas. See "Plan".

RESTRICTIONS: Kirkwall Pier tidal berthing restrictions on draft. See "Berthing".

MAX. SIZE: See "Berthing".

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Coast station call sign "Orkney Radio" (Wick Radio). Call Channel 16 VHF, working Channel 26 VHF.

VHF: Continuous watch Channel 16 VHF, call sign "Orkney Harbour Radio". Working on Channels 9, 10, 11 and 20 from 0800–1700 hrs. weekdays and when vessel expected. "Kirkwall Harbour Radio" Channel 16 VHF, working Channel 12.

RADAR: No facilities at Kirkwall Harbour.

TUGS: Pilot boat/tug "Kirkwall Bay" of 9 tons bollard pull.

BERTHING: See "Plan" for berths.

Tidal Reference: Range 3.0 m. at Springs and 2.0 m. at Neaps.

Cargoes: Load/discharge ship's gear and mobile crane. Cargoes: Bulk, general, livestock, fuel oils (not petrol), passengers.

CRANES: One Jones 355 mobile crane with grab SWL 11 tons at 12 ft. radius and 2.75 tons at 40 ft. radius. One Jones 971 mobile crane SWL 40 tons at 12 ft. radius and 11.2 tons at 40 ft. radius.

STEVEDORES: Contact local stevedores for detailed information.

MEDICAL: Medical and dental services are available by arrangement. Hospital facilities are available at Balfour Hospital at Kirkwall.

DENSITY: 1025.

FRESH WATER: Available at all berths by 51 mm. mains supply. May be restricted in dry periods. £1.06 per tonne.

FUEL: Available by road tanker only from Esso – Shell/B.P.

FIRE PRECAUTIONS: Standard precautions. Local fire brigade.

CONSULS: Denmark, Netherlands, Norway, Germany.

REPAIRS: Several small engineering firms can carry out minor repairs.

DRY DOCKS: None.

SURVEYORS: Not available.

GANGWAY/DECK WATCHMEN: Not available.

HATCHES: Opening/closing by crew.

CUSTOMS ALLOWANCES: As per British Customs scales.

REPATRIATION/TRAVEL: There are daily air services during the week to Aberdeen, Inverness, Glasgow and Edinburgh from Kirkwall Airport. There is no service on Sunday. There is a daily ferry service from Stromness to Scrabster to connect with British Rail. During the Winter months there is no service on Sunday.

AIRPORT: Approximately 4 miles from Kirkwall. Airlines: British Airways and British Airways Express.

TIME: GMT. BST (GMT plus 1 hour) March – October.

HOLIDAYS: Public holidays vary except for Christmas and New Year (25th and 26th December, 1st and 2nd January).

POLICE/AMBULANCE/FIRE: Emergency – 999. Police: 872241. Ambulance: 872763.

EMERGENCY CO-ORDINATION CENTRE: Coast Guard. Tel: 873268. Telex: 75211.

SERVICES: Radio/radar technicians, divers, charts, etc., all available. Contact Agents.

BANKS:

Bank of Scotland, 56 Albert Street, Kirkwall. Tel: 872169.

Bank of Scotland, 99 Victoria Street, Stromness. Tel: 850238.

Clydesdale Bank plc, 3 Broad Street, Kirkwall KW15 1DH. Tel: 873237.

The Royal Bank of Scotland plc, P.O.Box 6, 1 Victoria Street, Kirkwall. Tel: 872718. Telex: 75327.

The Royal Bank of Scotland plc, P.O.Box 1, 3 Victoria Street, Stromness. Tel: 850217.

SHORE LEAVE: No restrictions.

GARBAGE DISPOSAL: Skips provided on piers free of charge and collected as required.

WASTE OIL DISPOSAL: Facilities available for small quantities only via 250 galls. tank provided on pier. The tank is collected as required.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

DELAYS: Stevedores also work Stromness when required, delays to vessels at Kirkwall can be expected due to lack of labour.

AUTHORITY: Department of Harbours, Orkney Islands Council, Harbour Authority Building, Scapa, Orkney KW15 1SD. *Tel:* (01856) 873636. *Telex:* 75475. *FAX:* (01856) 873012. *Contact:* Captain R.C. Sclater, Director of Harbours. Captain R.S. Moore, Deputy Director.

LARNE: 54.51 N. 05.48 W. (See Plan)

DOCUMENTS: See "Belfast".
PILOTAGE: Not compulsory. Private Pilots available through Ships' Agents. Pilots board off Fairway Buoy. Contacted through Port Information Service on Channel 14, Call Sign 'Larne Harbour'. ETA 3 hours and 1 hour in advance, giving name, nationality, length, draft and gross tonnage. For Ballylumford Power Station call Belfast Pilots on VHF Channel 12.

Berths arranged by Harbour Master in advance.
ANCHORAGES: Anchorage outside Fairway Buoy in 11 m.
MAX. SIZE: Draft dependent on berth. Minimum depth at Curran Quay is 7.5 m. at C.D. Oil tankers proceed to Ballylumford Power Station which lies across Larne Lough directly opposite Larne Harbour. Approach channel has a minimum depth of 9.1 m. below datum and berth has 10.5 m. below datum.

The port can accommodate vessels up to 175 m. LOA and 30 m. beam.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Portishead/Portpatrick.
VHF: Port Information Service maintains continuous watch on Channels 14 and 16. Call sign 'Larne Harbour'. The service provides information regarding arrival, berthing, anchoring, departure and movements of vessels. Also information including pilots, wind direction and strength, visibility, tidal information, etc.
TUGS: 1×18 ton, 1×7 ton and 1×3.5 ton bollard pull tugs are stationed at Larne. Tugs from Belfast serve oil tankers to Ballylumford.
BERTHING: 1 berth equipped with 2×5 ton cranes for grabbing and general cargo work. One berth is equipped with a crane of 32 tons capacity for handling containers. 4 berths (3 twin level ramps for vessels up to 175 m.) are equipped with Ro/Ro ramps, capable of taking loads up to 180 tons and ships up to 30 m. beam.
STEVEDORES: Larne Harbour Ltd. carry out all the stevedoring. 24 hours' notice required for arrangements. Normal hours 0800 — 1700. Overtime by arrangement.

Main commodities: Fertiliser in bulk (150 t.p.h.), palletised fertiliser (200 t.p.h.), pulp (200 t.p.h.), steel plates and general cargo, etc.
MEDICAL: No advance notice required. Hospital facilities available within 20 miles.
TANKERS: For Ballylumford, see "Max. Size".
DENSITY: 1025.
FRESH WATER: Available at all berths. Order through Agent. Rate 15 t.p.h.
FUEL: Bunkering carried out by road tanker. Major grades of bunker fuel, diesel and marine lubes can be obtained through suppliers.
CONSULS: Consuls in Belfast (20 miles) can be contacted through ship's Agent.
REPAIRS: Small repairs by local firms. Major repairs by Belfast firms.
DRY DOCKS: See "Belfast".
GANGWAY/DECK WATCHMEN: Ship's gangway. Watchmen by arrangement with Agents.
OPENING/CLOSING HATCHES: Performed by ship's crew.
CUSTOMS ALLOWANCES: Usual allowances as per H. M. Customs and Excise.
CERTIFICATES:
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Load Line Certificate.
Ship's Register.
Derat Certificate.
REPATRIATION: Crew changes and repatriation without difficulty by sea and air.
AIRPORT: Belfast International Airport and Belfast City Airport, both 20 miles distant. Frequent flights to all parts of U.K.
HOLIDAYS: Christmas Day and New Year's Day. No cargo worked on these days, except by special arrangement.
POLICE/FIRE/AMBULANCE: Dial 999 and ask for Emergency service required. Also through Port Information Service on VHF Channels 14 and 16.
TELEPHONES: Placed on Cross Channel vessels. Public telephones in port area.
SERVICES: Charts and publications available from Class 'A' Admiralty Chart Agent, Todd Chart Agency Ltd., 4 Seacliff Road, Bangor, County Down BT20 5EY. Tel: (01247) 466640. Fax: (01247) 471070.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
SHIP SUPPLY SERVICE: John McLoughlin & Son (Shipping) Ltd., North End, The Harbour, Larne. Tel: 273785, 274085.

Ship supply and personnel transfer to ships alongside or at anchor.
GARBAGE DISPOSAL: Service available using skips on a cost of £43/skip. Food waste skip requires a Dept. of Agriculture licence at a cost of £120/skip. Contact D. Campbell (01960) 378067.
WASTE OIL DISPOSAL: Service available at all berths. Waste oil transferred to tanker trucks. Contact Capital Fuels, Ballynahinch. (Tel: (01238) 561574. Fax: (01238) 561576).
CURRENCY: U.K.Pound (U.K.£).
GENERAL:
Charts: B.A. 2198, 1237.
Pilot Books: NP40, Irish Coast Pilot.
Lights: Admiralty List of Lights, Volume A (NP74).
AUTHORITY: Larne Harbour Ltd., 9, Olderfleet Road, Larne BT40 1AS, County Antrim, Northern Ireland. *Tel:* (01574) 279221. *FAX:* (01574) 274601. *Contact:* Captain A.K.W. Gardiner, Harbour Master/Operations Manager. D.P. Galway, General Manager.

LEITH: 55.59 N. 03.10 W. (See Pl

DOCUMENTS: Arrival from Non-E.E.C. port:
2 Report Forms (C. 13). } One Combined
3 Stores Declarations (C. 14). } Form
2 Crew Declarations (C. 142).
2 Crew Lists
2 Passenger Lists
Cargo Manifest

Also additional forms for specific circumstances, e.g. hazardous ca livestock, etc.
Arrival from E.E.C. port:
2 Report Forms (C.13), with Manifest.

Master's Information Note (Form TC12), issued by Custo Authorities in the originating member state.
Light Dues: £0.35 per n.r.t. One payment per month or 7 visits in a one year, coastwise or foreign.
(Also see "Clydeport".)
APPROACHES: *Cautionary Advice:* Tidal streams set across approach channel with rates up to 1.5 knots (in a 080/260° (T) directio Great care should be exercised in ensuring sufficient set is allowe maintain the correct approach course when slowed down in the chan immediately prior to entering the locks.
PILOTAGE: Pilot station Firth of Forth located at Granton, boar station West of Fairway Buoy at Long. 3° West. Contact with pilot cut can be made on VHF Channel 16 (working Channel 14) and ra telephone 2182. Pilotage not compulsory for vessels approaching So of Inchkeith Island.

Large vessels are normally docked 1.5 hours before HW. Vessels to 20 ft. draft, dock at any time.
ANCHORAGES: Good holding ground at Inchkeith Island and L roadstead, depths 8 m. – 19 m. at C.D. Request should be made Forth Navigation Service (calling on Channel 71, working on Chan 20). Other anchorages as per Admiralty Charts of the area.
RESTRICTIONS: None. Vessels can enter harbour day or night.
Lock: Entrance to the port is from the Firth of Forth through the entra lock which is 259 m. long and 31.6 m. wide between fenders, depth o the outer sill MHWST 12.293 m. Maximum dimensions: LOA 210 beam 30 m.

The lock is operated 24 hours a day, 7 days a week with the excep of December 25th and January 1st, when it is operated in emergenc only.
MAX.SIZE: Governed by draft of vessels. Max. permissible d alongside in Imperial Dock 9.15 m. and in Western Harbour 9.75 m dock water density is 1015.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Forth, Stonehaven and Cullercoats Radio Stations.
RADAR/VHF: Port and Estuary radar service. VHF contact can be m with Leith Harbour Radio on Channel 12. Forth Navigation Service m be contacted on VHF Channel 71 by vessels entering Forth Port Autho Seaward Limit (line joining North and South Carr Beacons), wor Channels 20 and 12.
TUGS: 5 Voith tractor tugs, 12-15 tonnes bollard pull. Attend inw bound vessels in Leith roads. Tug's towline available and compuls Tugs on VHF Channels 16, 6, 8, 11, 12 and 14.
CRANES: 1×9 tonnes, 1×7.5 tonnes and 1×3 tonnes mobile d cranes. Also see "Berthing".
BULK HANDLING FACILITIES: See "Berthing".
Grain Storage: Imperial Basin: 55,880 tonnes. Western Harbour (pri 53,848 tonnes.
STEVEDORES: ETA advices given by Master to ship's Agent conveyed by them to stevedores.
MEDICAL: No advance notice of medical attention required. All hos facilities available. Fully equipped Occupational Health Centre in do
TANKERS: 2 tanker berths – max. permissible draft 9.15 m. in t water of density 1015. Discharge lines 10 in. and 8 in. (See "Berthi No slop discharge facilities. 2 tanker berths for distillates with 8 in and 4 in. bunker line.
DENSITY: 1015.
FRESH WATER: Available alongside at all berths.
FUEL: All grades available subject to 24 hours notice in advance
CONSULS:

Australia: Miss J. Richardson, Consul, 4 Hanover Street, Edinb EH2 2HQ. Tel: (0131) 2266271.

Austria: I.D. Millar, Consul, 16 Heriot Row, Edinburgh EH3 5 Tel: (0131) 5562896.

Belgium: R. De Maere, Acting Consul, 3rd Floor, 13 Charlotte Sq Edinburgh. Tel: (0131) 2253490.

Denmark: R.S. Salvesen, Consul, 50 East Fettes Avenue, Edinb EH4 1EQ. Tel: (0131) 5527101. J. Ralph, Vice-Consul, Mandal H South Shore Road, Grangemouth. Tel: (01324) 486721.

Germany: Dr.W.A. Thonnes, Consul General, 16 Eglington Cres Edinburgh EH12 5DC. Tel: (0131) 3372323.

Finland: Hemming Renlund, Consul (for Scotland), 27 Aberc Place, P.O. Box 69, Edinburgh EH3 6UD. Tel: (0131) 557 G.H. Elliot, Honorary Consul (for Edinburgh), 50 East Fettes Av Edinburgh EH4 1EQ. Tel: (0131) 5527101.

France: Rene Gros, Consul General, 7 Wemyss Place, Edinburg 6EL. Tel: (0131) 2257954.

Greece: George Tombazis, Consul General, 9 Regent Te Edinburgh EH7 5BW. Tel: (0131) 5561701. I.D. Ross, Consul, 1 Court, Edinburgh EH2 1DE. Tel: (0131) 2256744.

Iceland: S. Magnusson, Consul General, 2 Orchard Brae, Edi EH4 1NY. Tel: (0131) 3325856. Snjolaug Thomson, Vice-C 5 Abinger Gardens, Edinburgh EH12 6DE. Tel: (0131) 3372066.

Italy: Dr. Pietro Lonardo, Consul General, 6 Melville Cr Edinburgh EH3 7JA. Tel: (0131) 2263631.

Latvia: R.D. Cairns, Consul, 1 Royal Terrace, Edinburgh EH Tel: (0131) 5565362.

BERTHING:

Dock/Basin	Quayage (m.)	Maximum Draft (m.)	Entrance Width (m.)	Quayside Cargo Handling Equipment No.	Capacity (tonnes)	Type	General Information
Imperial Basin Common User Oil Jetty	200	9.15	31.6	3 Arms	10 in. Fuel Oil 8 in. Distillate 8 in. Spirit	Woodfield Arms	2 × 6 in. dedicated stainless steel pipelines available as required, connected by flexihose for receipt or delivery. 1 × 4 in. metered bunkering facility.
Imperial Passage	200	9.60	31.6				See Imperial Dock
Imperial Dock	1,396	9.15	31.6	3	220 t.p.h.	Grain suction elevators.	The 3 travelling grain elevators are connected by overhead gantry to grain warehouse. Storage capacity 55,880 tonnes in 100 & 200 tonnes bins, some fitted with aeration equipment. Warehouse fitted with dust collection plant and pelletiser. Intake and delivery facilities available. Bunker line 4 in., Distillate line 8 in. Road and rail access. Ro/Ro operations can be carried out at corner berths on South Side of Imperial Dock. Quay/Water level 2.0 m. *Edible Oil Tank Farm:* 7 tanks with total capacity of 2,200 tonnes. Served by 2×15 cm. dedicated lines. Flow rates are dependant on vessel's pumps.
				2	15/25	Grabbing/General cargo cranes	
				1	15/16		
				2	10		
				2	7.5/10		
				2	7.5	General cargo cranes	
				2	6	General cargo cranes	
				1	355 t.p.h.	Siwertell bulk discharger	
Albert Dock	844	7.20	18.2	1	6	General cargo crane	The container gantry is fitted with a telescopic spreader beam allowing 20 ft., 30 ft. & 40 ft. containers and flats to be lifted. Gross weight of container must not exceed 27.3 tons. A Ro/Ro ramp is available. Height of landing above water level is 1.0 m. and door width must not exceed 7.0 m. Road access. *Bulk Cement Loading Plant:* Tank capacity 2,000 tonnes. Facility to load vessels direct from road tanker.
				2	3	General cargo cranes	
				1	30	Container gantry	
				1	20	Scotch derrick	
Edinburgh Dock	1,120	7.20	18.2	1	6	General cargo crane	
				1	3,000 t.p.h.	Coal loading plant	
				2	15 in. sludge	Conemsco Arms	Lothian Regional Council sewage sludge loading berth. Road and rail access.
Victoria Dock	570	6.00	18.2				No longer in use.
Harbour Berths No. 4	80	6.00					2 × 30 m. mobile grain conveyors, each with a rated capacity of 500 t.p.h., fitted with telescopic chutes and trimmer/thrower spouts. Each machine has an integral feeder allowing multi-vehicle discharge.
No. 6	150	7.20					
No. 8-12	305	9.15	31.6	2	500 t.p.h.	Mobile grain	
				4	100 t.p.h.	conveyors	
Western Harbour	580	9.75	31.6	1	150 t.p.h.	Grain suction	Grain warehousing (privately operated by Rank Hovis and Chancelot Mills). 33,000 tonnes capacity. 1,000 tonnes storage capacity. Cruise Liner berth and Passenger Reception Hall.
				1	100 t.p.h.	Elevators	
				1	100 t.p.h.	Pellet Loading Plant	

Monaco: F.J. Steward, Consul, 39 Castle Street, Edinburgh EH2 3BH. Tel: (0131) 2251200.

Netherlands: Mr. Souness, Consul, Life Association of Scotland Ltd., 8-12 George Street, Edinburgh 2. Tel: (0131) 2258494.

Nigeria: Dr. Onoh, Deputy High Commissioner, 3-11 North St. Andrew Street, Edinburgh EH12 1HJ. Tel: (0131) 5570275.

Norway: Knut Sagen, Royal Consul General (for Scotland), 86 George Street, Edinburgh EH2 3BU. Tel: (0131) 2265701. L. Kidd, Consul, J.T. Salvesen & Co. Ltd., Grangeburn Road, Grangemouth. Tel: (01324) 482801. L.M. Harper Gow, Honorary Consul (for Edinburgh), 50 East Fettes Avenue, Edinburgh EH4 1HQ. Tel: (0131) 5527101.

Portugal: J.F. Hall, Consul, Gogar Park, 167 Glasgow Road, Edinburgh EH12 9DJ. Tel: (0131) 3395345.

Sweden: John D. Bottomley, Consul, 6 John's Place, Edinburgh EH6 7FP. Tel: (0131) 5546631.

United States of America: Leonard Willems, Consul General, Miss N.C. Abell, Consul, 3 Regent Terrace, Edinburgh EH7 5BW. Tel: (0131) 5568315.

REPAIRS: Facilities available to carry out all types of deck and engine repairs.

DRY DOCKS: Largest dry dock "Imperial", length 167.6 m., width of entrance 21.3 m. and depth over blocks at 7.3 m., also 2 smaller dry docks.

GANGWAY/DECK WATCHMEN: Usually supplied by ship but shore watchmen arrangeable by special agreement.

OPENING/CLOSING HATCHES: Custom of the port is that this work is normally carried out by ship's crew.

CERTIFICATES: Ship's Register, Load Line, Safety Radio, Safety Equipment, Cargo Construction, Derat Certificates, Light Dues receipt.

CUSTOMS ALLOWANCES: Usual amounts allowed by Customs and Excise.

CARGO GEAR: No additional requirements necessary to comply fully with local safety regulations as all gear supplied by stevedores.

REPATRIATION: All facilities available for effecting crew changes and repatriation by sea, air and rail.

AIRPORT: Edinburgh Airport served by regular airlines and located approx. 9 miles from Leith.

TIME: British Standard Time, GMT plus 1 hour. GMT in Winter months.

HOLIDAYS: Public holidays observed annually: 3rd Monday in April; 3rd Monday in September; Christmas Day (25th December); 26th December; 1st, 2nd, and 3rd January. Cargo work can be arranged on public holidays except 25th December and 1st and 2nd January.

POLICE/AMBULANCE/FIRE: Tel. 999 and ask for service required or call Leith Harbour Radio on VHF Channel 12.

TELEPHONES: Can be arranged with B.T.

SERVICES: Compass adjusting facilities available.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not required.

GARBAGE: Local ship's Agents order skips as required from local disposal companies. Small amounts of garbage can be arranged through the port.
WASTE OIL DISPOSAL: Collection by road tanker, contact Agent.
SEAMAN'S CLUBS: No local clubs. Agents can arrange social activities and tours.
CURRENCY: No restrictions. Exchange rates available in all local banks.
DELAYS: Minimal delays in berthing, loading and discharging.
AUTHORITY: Forth Ports PLC, Leith Port Office, 1 Prince of Wales Dock, Edinburgh EH6 7DX. *Tel:* (0131) 5544343. *Telex:* 72192. *FAX:* (0131) 5551212. *Contact:* Captain H. MacLellan, Harbour Master – Leith & Granton. A. Burns, Port Manager.

LERWICK: 60.09 N. 01.08 W. (See Plan)

PORT LIMITS: All waters contained within the following boundaries including Dales Voe and Aith Voe.

Straight line drawn from the N.E. extremity of Hawks Ness (Lat. 60° 13' 27" N., Long. 1° 10' 00" W. approx.) in an East Southeasterly direction to the N.E. extremity of Green Holm and thence in a Southeasterly direction to the N.E. extremity of Score Head in the island of Bressay. Thence in a Westerly and Southerly direction along the HW mark of all foreshores to Bard Head thence in a direction 259°(T) to Skeo. Thence along high water mark of all foreshores in a generally Northerly direction to Hawks Ness.
BUOYAGE: Buoyage in Lerwick Harbour is IALA System "A".
DOCUMENTS: See "London".
PILOTAGE: *Pilot Office:* Pilot Office and Harbour Master's Office located at Albert Building on the Esplanade. Licenced Pilots always available on 24 hour service subject to following correct procedure given below.
Call Sign: Lerwick Harbour Radio.
Frequencies: Calling: VHF Channel 16. Working: VHF Channel 12. Pilot Cutter: VHF Channels 6, 11, 12 and 16.
Port Control: Fitted with VHF Channels 11, 12 and 16. Continuous watch is maintained 24 hours per day, 7 days per week on Channel 16 except when working vessels on Channel 12.
Procedure: The Port Control Office controls the movement of all vessels arriving or departing by either entrance and all movement within the harbour from public or private quays or supply bases, whether such vessels are under the control of Pilots or not.

(a) Vessels requiring pilotage should arrange with Agent not less than 24 hours before arrival. Vessels without Agent should contact Lerwick Harbour Master through Coast Radio Stations not less than 24 hours before arrival. Vessels leaving ports less than 24 hours steaming away should advise time of sailing, projected speed and ETA at time of leaving last Port. Vessels inward from Continental Shelf should advise time of leaving location, projected speed and ETA at time of leaving last location. Amended ETAs should be advised 2 hours before the time given in the last transmitted ETA. VHF contact should be made with Lerwick Harbour Radio while still 1 hour away when final pilotage and berthing arrangements will be made. Port control cannot guarantee a Pilot on station unless 1 hour's notice is given.

(b) ETA messages should also contain information on which harbour entrance is to be used, draft and length overall. Vessels entering by the South entrance will be boarded West of Kirkabister Lighthouse or near Knab Point if weather conditions are unsuitable. Vessels entering by the North entrance will be boarded abeam of the Green Holm and 0.5 miles N.E. of Beosetter Holm. If boarding conditions in this area are unsuitable the South entrance must be used.

(c) "Knab", 18.6 m. black hull, white upperworks. Pilot boat and tug, can be used for towing, bollard pull 8 tons.

(d) Outward vessels should call the Port Control 1 hour before departure when information on traffic movement will be given and arrangements for pilotage will be made. When moving within the harbour all vessels should maintain a continuous listening watch on Channel 16. All vessels moving within the harbour should report to the Port Control immediately prior to leaving the berth or anchorage, whether a Pilot is on board or not.

(e) Pilotage compulsory for oil tankers over 1,600 g.r.t. and for all vessels over 3,000 g.r.t. in the Inner Harbour defined by; in the North, a straight line between Rova Head and the Ness of Beosetter, and in the South, a straight line between the Knab and Taing of Ham.

(f) Telephone number of Lerwick Harbour Master and Pilot Station is Lerwick (01595) 692991.
ANCHORAGE: Ample anchorages in harbour roads.
Inner South Harbour depth up to 60 ft.
Breiwick Bay (Inner South Harbour) depth up to 90 ft.
MAX. SIZE: Vessels up to 9.0 m. draft and 169 m. long alongside berth as routine. Vessels of greater length and for draft may be accommodated alongside after discussion with Harbour Master. Anchorages available for any size of vessel subject to prior consultation with Harbour Master, if above 10,000 g.r.t.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO/VHF: Nearest Coast Radio Station "Shetland Radio" Freque and other details as for "Wick Radio" except for VHF working Chan which is Channel 27.
"Lerwick Harbour Radio" see "Pilotage".
TUGS: A tug "Kebister" of 24 tons bollard pull is available. The p cutter will also give towage assistance.
BERTHING: Berths are available for the handling of most carg including Roll-on/Roll-off and arrangement should be made thro Agents well in advance of arrival. No berths available for handling li chemicals. Mobile cranes available from Harbour Authority up to 50 t capacity or through private operators to 110 tons capacity.

	Length of Quay (ft.)	*Depth* (ft.)
South Harbour	3,000	10 – 35
Shell & B.P. Bases, Holmsgarth	1,000	15 – 25
Holmsgarth, 5 berths, including 2 Ro-Ro	3,000	18 – 35
O.I.L. (Shetland) Ltd.	2,656	18 – 24
Dales Voe Rig Repair Base	164	41

STEVEDORES: Arranged through Agent.
MEDICAL: Medical aid can be arranged through Agent or Coastgu at any time day or night.
TANKERS: BP Oil have their own discharging berth. Tankers are a able to discharge at various offshore oil industry supply berths Power Station supplied from Holmsgarth No. 1.
DENSITY: Density 1025 at all states of tide.
FRESH WATER: Available at most berths, 65 t.p.h. to 100 t No water boat.
FUEL: Gas oil available on demand.
FIRE PRECAUTIONS: No-smoking regulations in operation inside transit sheds. Usual tanker terminal regulations in operation. Hand of explosives covered by local Bye-Law.
CONSULS:

Denmark	(C.W.L. Aitken)	Tel. (01595) 692533
Finland	(J. Smith)	692556
France	(W.H. Stubbings)	692556
Germany	(J. Smith)	692556
Iceland	(C.W.L. Aitken)	692533
Norway	(J. Smith)	692556
Sweden	(I. Tulloch)	692533

REPAIRS: Repairs to fishing vessels and other small craft in steel, w and fibre glass. Also engine and machinery repairs. Comprehen electronics repair facilities.
DRY DOCKS: At Holmgarth No. 2 (See "Plan"), Floating Dock 11 × 21.9 m. Lifting capacity 2,750 tons. Vessels up to 15.2 m. beam be accommodated. Slip available to take small vessels up to 100 d
GANGWAY/DECK WATCHMEN: Ships usually supply own watchm No fixed sum if shore watchman is employed.
OPENING/CLOSING HATCHES: Crew open hatches.
CUSTOMS ALLOWANCES: Tobacco, wine/spirits; at the discretio the Customs and Excise.
REPATRIATION: Facilities exist.
AIRPORT: 25 miles to airport. Regular daily services to Aberd operated by British Airways and Business Air. Charter flights by d airlines.
HOLIDAYS: Scottish holidays. Working can be arranged on these d if so desired.
POLICE/AMBULANCE/FIRE: Emergency telephone 999 or call Control VHF Channel 16. Harbour Master and Port Control (01 692991 night or day.
COASTGUARD: Lookout on top of Knab Point manned 24 hours a Fitted with MF and VHF Radio Channels 16, 67, 73 and Zero.
TELEPHONE: Ships telephones not available.
SERVICES: Tank-cleaning available via private contractors. Com adjuster can be procured if necessary.
BANKS:
Bank of Scotland, 117 Commercial St., Lerwick. Tel: (01595) 69
Clydesdale Bank, 106 Commercial St., Lerwick. Tel: (01595) 69
Royal Bank of Scotland, 81 Commercial St., Lerwick. Tel: (01 694520.
Trustee Savings Bank, Esplanade, Lerwick. Tel: (01595) 6936
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Foreign seamen have to supply same behind, i.e. hospital, etc.
GARBAGE DISPOSAL: Covered skips are provided on all qua use by vessels. Private contractors are also available. Contact Scottish Ferries (Tel: (01595) 694848) or Layfields (Lerwick (Tel: (01595) 692974) for further details.
WASTE OIL DISPOSAL: Contact Burgess & Garrick (Oil Ser Limited (Tel: (01806) 242107).
SEAMAN'S CLUBS: Royal National Mission to Deep Sea Fisher Harbour Street, Lerwick (Tel: (01595) 692703) and Havly C Mounthooly Street, Lerwick (Tel: (01595) 694369).
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Lerwick Harbour Trust, Albert Building, Espl Lerwick, Shetland, ZE1 0LL. *Tel:* (01595) 692991. *Telex:* *FAX:* (01595) 693452 (Main Office); (01595) 695911 (Port C *Contact:* A.S. Wishart, General Manager. Captain D.I. Polson, H Master.

LITTLEHAMPTON: 50.48 N. 00.33 W. (See Plan)

PORT LIMITS: Harbour limits at end of West Pier.
Pilotage limits 3 miles offshore.
DOCUMENTS: Standard U.K. documentation (EEC ruling would apply).
PILOTAGE: Compulsory for all vessels over 50 G.T. Pilots cruise for vessels giving ETA's. Listening watch on VHF Channels 16 and 71 (Port Operations).
ANCHORAGES: 2 nautical miles South of harbour. Sheltered anchorage in Solent.
MAX. SIZE: 70 m. LOA, 15.0 m. beam and 4.5 m. draft.
HEALTH: Port Health. Tel: (01903) 716133.
RADIO: Niton Radio.
VHF: For Port Operations, footbridge and pilotage, call Littlehampton Harbour on Channel 71.
TUGS: None available.
BERTHING: UMA Wharf: 80 m. length. Drying berth. Shore crane discharge.
Railway Wharf: 80 m. length. Drying berth. Electric crane discharge.
CRANES: 3 tonne Stothert and Pitt travelling crane.
BRIDGES: Retractable bridge organised by Pilots.
STEVEDORES: Available through Agent.
MEDICAL: Worthing Hospital.
TANKERS: No facilities.
DENSITY: Variable.
FRESH WATER: Available.
FUEL: By road tanker.
OPENING/CLOSING HATCHES: By crew.
AIRPORT: Gatwick Airport, 35 miles.
POLICE/AMBULANCE/FIRE: Police, Tel: (01903) 716161.
EMERGENCY CO-ORDINATION CENTRE: Lee-on-Solent Coastguard, Tel: (01705) 552100. Littlehampton Coastguard, Tel: (01903) 715512.
SHORE LEAVE: No restrictions.
GARBAGE DISPOSAL: By skip.
WASTE OIL DISPOSAL: By arrangement.
SEAMAN'S CLUBS: Missions to Seamen, Southern Regional Headquarters. Tel: Littlehampton 726969.
AUTHORITY: Littlehampton Harbour Board, Harbour Office, Pier Road, Littlehampton, West Sussex BN17 5LR. *Tel:* (01903) 721215. *FAX:* (01903) 721215. *Contact:* P.R. Naish, Harbour Master.

LIVERPOOL: 53.28 N. 03.02 W. (See Plan)

DOCUMENTS: Required on arrival, Crew List Form I.B.6 to be completed; this list to include all passengers and any British subjects who joined vessel outside of U.K. If any person falling into this category should be on board they must not leave until permission to land is granted by Immigration Officer.

Customs Form C.142, Declaration of goods obtained abroad or during a voyage, must be completed and signed by Master, and each crew member. Health Declaration must be completed. Above forms should be obtained from Pilot.

Manifest and Bills of Lading should be forwarded to vessel's Agent so as to be available before vessels arrival.

Ship's Papers Required:
Ship's Register.
Certificate for British Tonnage (if issued).
Safety Equipment Certificate.
Safety Radio Certificate.
Safety Construction Certificate.
International Load Line Certificate.
Derat Exemption Certificate.

PILOTAGE: Pilotage is compulsory for all vessels navigating within the Port of Liverpool (as defined in the M.D. & H.C. Act 1971). The M.D. & H.C. is also empowered to act on behalf of Garston Docks for Pilotage Directions. The following vessels shall be exempt from Compulsory Pilotage:

1. Any vessels belonging to Her Majesty.
2. Any vessel which is under 82 m. LOA, provided that this exemption shall not apply to any such vessel which is:-
   (a) Carrying hazardous cargoes.
   (b) The navigation of which is, in the opinion of the company, affected by a defect in or damage to the vessel or her equipment, or inadequacy of the Master or crew.
   (c) Navigating solely to adjust her compasses within the Port limits.

Attention is drawn to the General Directions for Navigation in the Port of Liverpool No. 4, the Pilotage Directions 4:1 and the Mersey Channel Collision Rules.

Boarding Position: The normal boarding position will be in the vicinity of the Bar Buoy, but vessels may, by arrangement, board their Pilots at Point Lynas. Both stations are served by launches controlled from "Port Operations Control" in Liverpool. The Control Centre operates on VHF Channel 11 (and 9, 12 or 16) with the call sign 'Liverpool Pilot'. The Pilot launches will show the appropriate Pilot Flag or Lights and will have the words "Liverpool Pilot" painted on the superstructure.

Inward Bound Vessels: Vessels requiring a Pilot must give not less than 24 hours notice before the expected time of arrival of the relevant vessel at the Pilot Station at which the Pilot is to be boarded; via Agents, via G.P.O. Coast Stations to the Liverpool Pilotage Control Centre, or via telex to 626264 P.T.O.P.S. Liverpool and ETA's must be kept up-dated. Penalty charges are made for non-compliance with the ETA Regulations (Reference Pilotage Directions No. 7).

Outward Bound Vessels: Vessels requiring a Pilot must give not less than 3 hours notice before the expected time of departure of the relevant vessel to the Port Operations Control Centre, between the hours of 0800 hrs. to 1630 hrs. on weekdays and 0800 hrs. to 1000 hrs. on Saturdays, Sundays and Bank Holidays.

ANCHORAGE: In the event of berths not being readily available for vessels, normally they must wait at the Mersey Bar Anchorage which is in the open roadstead. There are river anchorages, but these are only usually for vessels about to enter the dock system.

RESTRICTIONS: No restrictions on night entry, except VLCCs, tidal restrictions depend on vessel's draft and to which berth vessel proceeding, larger vessels usually have to wait for HW.

MAX. SIZE: Tranmere: up to 41 ft. (12.5 m.) draft dependent on tide. Birkenhead: Up to 28 ft. 6 in. (8.68 m.) draft.
Liverpool Docks: Up to 42 ft. (12.8 m.) draft.
Royal Seaforth Dock: 42 ft. (12.8 m.) of water depth, up to 75,000 d.w.t.

HEALTH: Maritime Declaration of Health Form must be completed and handed to Customs Officer or Port Health Officer, whoever first boards ship. This form is obtainable from Pilot. In event of any suspected disease or fever on board, or if ship has called during last 4 weeks at any port in Brazil, China, Indo-China, India, Pakistan, Myanmar (Burma), Colombia and the port of Dar-es-Salaam, West African ports between Lat. 20° North and 20° South, the Master should, prior to entering port, make radio contact with Liverpool Port Health Authority, via Portishead Radio or Port Radar Station (Signal "Portelth Liverpool") giving them following information:

1. Name of Ship. 2. Date of departure from and name of last infected port. 3. Number, ages and sex of any cases of infectious diseases or other relevant information. 4. Expected time of arrival at Rock Light.

Before reaching the Rock Light, if medical clearance has not been obtained, the following signal must be displayed: By day – fly the flag signal "Z W". By night – show red light over white light.

When medical clearance is obtained Pratique will be issued at discretion of Customs Officer.

If there is no suspected disease on board and vessel has not called at any of the above ports listed, Master can radio for Free Pratique. Unless otherwise instructed, Customs Officer will again issue Pratique.

Vessels arriving from another U.K. port do not require Pratique or health clearance.

Also see "Health – All Ports" before first U.K. port.

RADIO: Portishead Radio, call sign: GKL; Landsend Radio, call sign: GDL; Wick Radio, call sign: GKR; but on approaching Liverpool, the local radio station is Anglesey Radio, call sign: GLV.

RADAR/VHF: VTS operational. Vessels should establish contact by VHF with the Port Operations Control, call sign "Mersey Radio", before sailing and inward bound when within VHF range and not later than when in the vicinity of the Bar Lighted Buoy.

Harbour Radar: The radar coverage extends seaward over Liverpool Bay for a radius of 20 miles from the station and in the River Mersey as far South as the approaches to the Manchester Ship Canal.

Vessels entering or leaving the Port in conditions of low visibility can, on request, be supplied with continuous information of their position whilst navigating in the river or sea channels.

A general situation and movement statement, giving all intended movements inwards and outwards for the Port of Liverpool, Eastham, Garston and Cammell Lairds and approximate times at the dock entrance or river berth, together with a list of Local Navigation warnings in force, latest weather reports and area forecast, is broadcast on Channel 9 at 3 hours before each HW. This full statement is repeated with any amendments and the disposition of the River Anchorages North and South at 2 hours before each HW.

Any local navigation warning, gale warnings and amendments to gale warnings are broadcast on receipt on Channel 12.

A full list of navigation warnings and gale warnings is broadcast on Channel 9 every 4 hours, commencing at 0001 hrs. No separate broadcast of this list is made during the period from 4 hours before HW to 1 hour before HW as such warnings are included in the General Situation and Movement Statement.

Docking Instructions: The VHF Stations at the Dock Entrances and Stages are provided to facilitate docking and berthing operations and to provide direct communication between the Dock Master or Stage Master and a vessel. The Range of these stations is limited to a distance of 6 miles to 8 miles.

Tug Communications: Channels 8 and 10 are reserved for tug communications and should not be used for any other purpose. Due to the heavy working of these Channels, especially at tide time, and in order to minimise interference, vessels and their tugs when communicating to one another on VHF, should, when possible transmit on reduced power.

Large Vessels Swinging: Vessels of 150 m. or over in length intending to swing in the river should give advance notice of at least 10 minutes to Mersey Radio of their intentions so that Mersey Radio can broadcast on Channel 12 a swinging warning to all ships.

Port VHF Radio Telephone Communications System:

Station	*Call Sign*	*Hague Channel Number*	*Remarks*
Liverpool Port Operations Control	Mersey Radio	16	Calling and safety
		12	Port Operations – Calling and navigation.
		9	Port Operations and routine broadcasts
		18	Port Operations and Radar information
		19	Radar information and general, for tanker traffic for Tranmere only.

A continuous watch is kept on Channels 16 & 12 at Port Radar Station

GARBAGE: Local ship's Agents order skips as required from local disposal companies. Small amounts of garbage can be arranged through the port.
WASTE OIL DISPOSAL: Collection by road tanker, contact Agent.
SEAMAN'S CLUBS: No local clubs. Agents can arrange social activities and tours.
CURRENCY: No restrictions. Exchange rates available in all local banks.
DELAYS: Minimal delays in berthing, loading and discharging.
AUTHORITY: Forth Ports PLC, Leith Port Office, 1 Prince of Wales Dock, Edinburgh EH6 7DX. *Tel:* (0131) 5544343. *Telex:* 72192. *FAX:* (0131) 5551212. *Contact:* Captain H. MacLellan, Harbour Master – Leith & Granton. A. Burns, Port Manager.

LERWICK: 60.09 N. 01.08 W. (See Plan)

PORT LIMITS: All waters contained within the following boundaries including Dales Voe and Aith Voe.

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BUOYAGE: Buoyage in Lerwick Harbour is IALA System "A".
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DENSITY: Density 1025 at all states of tide.
FRESH WATER: Available at most berths, 65 t.p.h. to 100 t No water boat.
FUEL: Gas oil available on demand.
FIRE PRECAUTIONS: No-smoking regulations in operation inside transit sheds. Usual tanker terminal regulations in operation. Hand of explosives covered by local Bye-Law.
CONSULS:

Denmark	(C.W.L. Aitken)	Tel. (01595) 692533
Finland	(J. Smith)	692556
France	(W.H. Stubbings)	692556
Germany	(J. Smith)	692556
Iceland	(C.W.L. Aitken)	692533
Norway	(J. Smith)	692556
Sweden	(I. Tulloch)	692533

REPAIRS: Repairs to fishing vessels and other small craft in steel, w and fibre glass. Also engine and machinery repairs. Comprehen electronics repair facilities.
DRY DOCKS: At Holmgarth No. 2 (See "Plan"), Floating Dock 11 × 21.9 m. Lifting capacity 2,750 tons. Vessels up to 15.2 m. beam be accommodated. Slip available to take small vessels up to 100 d
GANGWAY/DECK WATCHMEN: Ships usually supply own watchm No fixed sum if shore watchman is employed.
OPENING/CLOSING HATCHES: Crew open hatches.
CUSTOMS ALLOWANCES: Tobacco, wine/spirits; at the discretio the Customs and Excise.
REPATRIATION: Facilities exist.
AIRPORT: 25 miles to airport. Regular daily services to Aberd operated by British Airways and Business Air. Charter flights by d airlines.
HOLIDAYS: Scottish holidays. Working can be arranged on these d if so desired.
POLICE/AMBULANCE/FIRE: Emergency telephone 999 or call Control VHF Channel 16. Harbour Master and Port Control (01 692991 night or day.
COASTGUARD: Lookout on top of Knab Point manned 24 hours a Fitted with MF and VHF Radio Channels 16, 67, 73 and Zero.
TELEPHONE: Ships telephones not available.
SERVICES: Tank-cleaning available via private contractors. Com adjuster can be procured if necessary.
BANKS:
Bank of Scotland, 117 Commercial St., Lerwick. Tel: (01595) 69
Clydesdale Bank, 106 Commercial St., Lerwick. Tel: (01595) 69
Royal Bank of Scotland, 81 Commercial St., Lerwick. Tel: (0 694520.
Trustee Savings Bank, Esplanade, Lerwick. Tel: (01595) 69360
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Foreign seamen have to supply same behind, i.e. hospital, etc.
GARBAGE DISPOSAL: Covered skips are provided on all qua use by vessels. Private contractors are also available. Contac Scottish Ferries (Tel: (01595) 694848) or Layfields (Lerwick (Tel: (01595) 692974) for further details.
WASTE OIL DISPOSAL: Contact Burgess & Garrick (Oil Se Limited (Tel: (01806) 242107).
SEAMAN'S CLUBS: Royal National Mission to Deep Sea Fishe Harbour Street, Lerwick (Tel: (01595) 692703) and Havly Mounthooly Street, Lerwick (Tel: (01595) 694369).
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Lerwick Harbour Trust, Albert Building, Esp Lerwick, Shetland, ZE1 0LL. *Tel:* (01595) 692991. *Telex:* *FAX:* (01595) 693452 (Main Office); (01595) 695911 (Port *Contact:* A.S. Wishart, General Manager. Captain D.I. Polson, Master.

LITTLEHAMPTON: 50.48 N. 00.33 W. (See Plan)

PORT LIMITS: Harbour limits at end of West Pier.
Pilotage limits 3 miles offshore.
DOCUMENTS: Standard U.K. documentation (EEC ruling would apply).
PILOTAGE: Compulsory for all vessels over 50 G.T. Pilots cruise for vessels giving ETA's. Listening watch on VHF Channels 16 and 71 (Port Operations).
ANCHORAGES: 2 nautical miles South of harbour. Sheltered anchorage in Solent.
MAX. SIZE: 70 m. LOA, 15.0 m. beam and 4.5 m. draft.
HEALTH: Port Health. Tel: (01903) 716133.
RADIO: Niton Radio.
VHF: For Port Operations, footbridge and pilotage, call Littlehampton Harbour on Channel 71.
TUGS: None available.
BERTHING: UMA Wharf: 80 m. length. Drying berth. Shore crane discharge.
Railway Wharf: 80 m. length. Drying berth. Electric crane discharge.
CRANES: 3 tonne Stothert and Pitt travelling crane.
BRIDGES: Retractable bridge organised by Pilots.
STEVEDORES: Available through Agent.
MEDICAL: Worthing Hospital.
TANKERS: No facilities.
DENSITY: Variable.
FRESH WATER: Available.
FUEL: By road tanker.
OPENING/CLOSING HATCHES: By crew.
AIRPORT: Gatwick Airport, 35 miles.
POLICE/AMBULANCE/FIRE: Police, Tel: (01903) 716161.
EMERGENCY CO-ORDINATION CENTRE: Lee-on-Solent Coastguard, Tel: (01705) 552100. Littlehampton Coastguard, Tel: (01903) 715512.
SHORE LEAVE: No restrictions.
GARBAGE DISPOSAL: By skip.
WASTE OIL DISPOSAL: By arrangement.
SEAMAN'S CLUBS: Missions to Seamen, Southern Regional Headquarters. Tel: Littlehampton 726969.
AUTHORITY: Littlehampton Harbour Board, Harbour Office, Pier Road, Littlehampton, West Sussex BN17 5LR. *Tel:* (01903) 721215. *FAX:* (01903) 721215. *Contact:* P.R. Naish, Harbour Master.

LIVERPOOL: 53.28 N. 03.02 W. (See Plan)

DOCUMENTS: Required on arrival, Crew List Form I.B.6 to be completed; this list to include all passengers and any British subjects who joined vessel outside of U.K. If any person falling into this category should be on board they must not leave until permission to land is granted by Immigration Officer.

Customs Form C.142, Declaration of goods obtained abroad or during a voyage, must be completed and signed by Master, and each crew member. Health Declaration must be completed. Above forms should be obtained from Pilot.

Manifest and Bills of Lading should be forwarded to vessel's Agent so as to be available before vessels arrival.

Ship's Papers Required:
Ship's Register.
Certificate for British Tonnage (if issued).
Safety Equipment Certificate.
Safety Radio Certificate.
Safety Construction Certificate.
International Load Line Certificate.
Derat Exemption Certificate.

PILOTAGE: Pilotage is compulsory for all vessels navigating within the Port of Liverpool (as defined in the M.D. & H.C. Act 1971). The M.D. & H.C. is also empowered to act on behalf of Garston Docks for Pilotage Directions. The following vessels shall be exempt from Compulsory Pilotage:

1. Any vessels belonging to Her Majesty.
2. Any vessel which is under 82 m. LOA, provided that this exemption shall not apply to any such vessel which is:-
   (a) Carrying hazardous cargoes.
   (b) The navigation of which is, in the opinion of the company, affected by a defect in or damage to the vessel or her equipment, or inadequacy of the Master or crew.
   (c) Navigating solely to adjust her compasses within the Port limits.

Attention is drawn to the General Directions for Navigation in the Port of Liverpool No. 4, the Pilotage Directions 4:1 and the Mersey Channel Collision Rules.

Boarding Position: The normal boarding position will be in the vicinity of the Bar Buoy, but vessels may, by arrangement, board their Pilots at Point Lynas. Both stations are served by launches controlled from "Port Operations Control" in Liverpool. The Control Centre operates on VHF Channel 11 (and 9, 12 or 16) with the call sign 'Liverpool Pilot'. The Pilot launches will show the appropriate Pilot Flag or Lights and will have the words "Liverpool Pilot" painted on the superstructure.

Inward Bound Vessels: Vessels requiring a Pilot must give not less than 24 hours notice before the expected time of arrival of the relevant vessel at the Pilot Station at which the Pilot is to be boarded; via Agents, via G.P.O. Coast Stations to the Liverpool Pilotage Control Centre, or via telex to 626264 P.T.O.P.S. Liverpool and ETA's must be kept up-dated. Penalty charges are made for non-compliance with the ETA Regulations (Reference Pilotage Directions No. 7).

Outward Bound Vessels: Vessels requiring a Pilot must give not less than 3 hours notice before the expected time of departure of the relevant vessel to the Port Operations Control Centre, between the hours of 0800 hrs. to 1630 hrs. on weekdays and 0800 hrs. to 1000 hrs. on Saturdays, Sundays and Bank Holidays.

ANCHORAGE: In the event of berths not being readily available for vessels, normally they must wait at the Mersey Bar Anchorage which is in the open roadstead. There are river anchorages, but these are only usually for vessels about to enter the dock system.

RESTRICTIONS: No restrictions on night entry, except VLCCs, tidal restrictions depend on vessel's draft and to which berth vessel proceeding, larger vessels usually have to wait for HW.

MAX. SIZE: Tranmere: up to 41 ft. (12.5 m.) draft dependent on tide. Birkenhead: Up to 28 ft. 6 in. (8.68 m.) draft.
Liverpool Docks: Up to 42 ft. (12.8 m.) draft.
Royal Seaforth Dock: 42 ft. (12.8 m.) of water depth, up to 75,000 d.w.t.

HEALTH: Maritime Declaration of Health Form must be completed and handed to Customs Officer or Port Health Officer, whoever first boards ship. This form is obtainable from Pilot. In event of any suspected disease or fever on board, or if ship has called during last 4 weeks at any port in Brazil, China, Indo-China, India, Pakistan, Myanmar (Burma), Colombia and the port of Dar-es-Salaam, West African ports between Lat. 20° North and 20° South, the Master should, prior to entering port, make radio contact with Liverpool Port Health Authority, via Portishead Radio or Port Radar Station (Signal "Portelth Liverpool") giving them following information:

1. Name of Ship. 2. Date of departure from and name of last infected port. 3. Number, ages and sex of any cases of infectious diseases or other relevant information. 4. Expected time of arrival at Rock Light.

Before reaching the Rock Light, if medical clearance has not been obtained, the following signal must be displayed: By day – fly the flag signal "Z W". By night – show red light over white light.

When medical clearance is obtained Pratique will be issued at discretion of Customs Officer.

If there is no suspected disease on board and vessel has not called at any of the above ports listed, Master can radio for Free Pratique. Unless otherwise instructed, Customs Officer will again issue Pratique.

Vessels arriving from another U.K. port do not require Pratique or health clearance.

Also see "Health – All Ports" before first U.K. port.

RADIO: Portishead Radio, call sign: GKL; Landsend Radio, call sign: GDL; Wick Radio, call sign: GKR; but on approaching Liverpool, the local radio station is Anglesey Radio, call sign: GLV.

RADAR/VHF: VTS operational. Vessels should establish contact by VHF with the Port Operations Control, call sign "Mersey Radio", before sailing and inward bound when within VHF range and not later than when in the vicinity of the Bar Lighted Buoy.

Harbour Radar: The radar coverage extends seaward over Liverpool Bay for a radius of 20 miles from the station and in the River Mersey as far South as the approaches to the Manchester Ship Canal.

Vessels entering or leaving the Port in conditions of low visibility can, on request, be supplied with continuous information of their position whilst navigating in the river or sea channels.

A general situation and movement statement, giving all intended movements inwards and outwards for the Port of Liverpool, Eastham, Garston and Cammell Lairds and approximate times at the dock entrance or river berth, together with a list of Local Navigation warnings in force, latest weather reports and area forecast, is broadcast on Channel 9 at 3 hours before each HW. This full statement is repeated with any amendments and the disposition of the River Anchorages North and South at 2 hours before each HW.

Any local navigation warning, gale warnings and amendments to gale warnings are broadcast on receipt on Channel 12.

A full list of navigation warnings and gale warnings is broadcast on Channel 9 every 4 hours, commencing at 0001 hrs. No separate broadcast of this list is made during the period from 4 hours before HW to 1 hour before HW as such warnings are included in the General Situation and Movement Statement.

Docking Instructions: The VHF Stations at the Dock Entrances and Stages are provided to facilitate docking and berthing operations and to provide direct communication between the Dock Master or Stage Master and a vessel. The Range of these stations is limited to a distance of 6 miles to 8 miles.

Tug Communications: Channels 8 and 10 are reserved for tug communications and should not be used for any other purpose. Due to the heavy working of these Channels, especially at tide time, and in order to minimise interference, vessels and their tugs when communicating to one another on VHF, should, when possible transmit on reduced power.

Large Vessels Swinging: Vessels of 150 m. or over in length intending to swing in the river should give advance notice of at least 10 minutes to Mersey Radio of their intentions so that Mersey Radio can broadcast on Channel 12 a swinging warning to all ships.

Port VHF Radio Telephone Communications System:

Station	*Call Sign*	*Hague Channel Number*	*Remarks*
Liverpool Port Operations Control	Mersey Radio	16	Calling and safety
		12	Port Operations – Calling and navigation.
		9	Port Operations and routine broadcasts
		18	Port Operations and Radar information
		19	Radar information and general, for tanker traffic for Tranmere only.

A continuous watch is kept on Channels 16 & 12 at Port Radar Station

Station	Call Sign	Hague Channel Number	Remarks
Gladstone Dock Master's Office	Gladstone Dock	5	Port Operations and Docking Instructions.
Langton Dock Master's Office	Langton Dock	21	
Alfred Dock Master's Office	Alfred Dock	22	
Tranmere Stage Master's Office	Tranmere Stage	19	
Associated British Ports			
Garston Dock Master's Office	Garston Dock	20	Port Operations and Docking Instructions.
M.D.C.			
Canning	Canning Dock	37	Berthing Instructions
Manchester Ship Canal			
Eastham Locks Office	Eastham Locks	7	Port Operations and Docking Instructions
M.D. & H.C. Pilot Stations			
Point Lynas Shore Station	Lynas Pilot	16 9	Calling and safety Ship to shore.
Liverpool Control Centre	Liverpool Pilot	16 12 11	Initial calling Initial calling Calling & ship to shore

Local Priority Messages: A vessel which has an urgent message to transmit to Mersey Radio concerning urgent navigation matters and which message should receive priority over normal Port Operations R/T Communications, should indicate the urgency of the message by prefixing the call sign of the Port Operations Control with the spoken word "PRIORITY" i.e. "PRIORITY MERSEY RADIO" repeated 3 times followed by normal procedure.

In special circumstances such as the launch of a vessel or in an emergency such as a wreck, it may be necessary temporarily to establish a patrol for the control of traffic. Vessels will be warned of the existence of any such patrol by "Mersey Radio" and any such patrol vessels or launches will maintain a listening watch on Channel 12 and communicate with other vessels on Channel 6.

VHF Procedure

Channels to be used for Calling and for Preparatory Signals: Mersey Radio and ship stations will call on Channel 12. Channel 16 should only be used for distress, urgency or safety communications.

Channels for Reply: Calls received on Channel 12 should be replied to on the same Channel, but if calls are received on Channel 16, replies should be made on this Channel.

Indication of the Channel to be used for VHF Traffic: When communication has been established on Channel 12 between a ship and "Mersey Radio", the shore station will indicate the Channel to be used for passing and receiving information if Channel 12 is busy.

Times: All times in messages should be given in local time, i.e. BST or GMT, using the 24 hour notation.

VHF Discipline: To ensure that the full advantage of efficient communication is achieved, strict VHF discipline and attention to procedure, particularly on the calling Channel is imperative. Channel 16 must only be used for establishing contact between ship and shore or ship and ship, and must not be used for the passing of messages except in cases of distress within Port limits. Channel 12 should be used for establishing contact between ship and shore or ship and ship.

Sequence of VHF Communication for Vessels Entering the River Mersey: (i) Vessels wishing to communicate with the Liverpool Pilotage District Point Lynas Shore Station should call "Lynas Pilot" on Channel 9. Channel 16 shall only be used in case of difficulty in establishing initial contact.

(ii) Vessels wishing to communicate with the Liverpool Pilotage Control Centre should call "Liverpool Pilot" on Channel 11. Channels 16 and 12 should only be used in cases of difficulty in establishing initial contact.

(iii) When within VHF range and not later than when in the vicinity of the Bar Lighted Buoy the vessel should establish contact with Mersey Radio on Channel 12 and pass her arrival information on Channel 12 or other Channel indicated by Mersey Radio, watch should be kept on Channel 12 unless instructed to remain on another working Channel for Port Operational reasons. A vessel at anchor at the Bar anchorage should keep watch on Channels 16 and 12.

(iv) Vessels requiring radar information or assistance will be requested to shift to Channel 18.

(v) Vessels should inform Mersey Radio when they are ceasing to keep a listening watch on Channel 12. If they are shifting to a tug or a dock entrance or Tranmere Oil Stage Channel they should inform Mersey Radio of such intention.

Vessels Sailing from the River Mersey: Vessels, on sailing from any Stage or Dock, should establish contact with Mersey Radio on Channel 12 and then maintain watch on that Channel unless instructed to remain on another working Channel for Port Operational reasons. Vessels requiring radar information or assistance will be requested to work on Channel 18.

TUGS: Join vessel after passing Rock Light. Normally use tug's lines but optional. Charge for tug's hawsers.

BERTHING: 35 general cargo berths.

BULK CARGO FACILITIES: *Grain Berths:* Royal Seaforth Grain Terminal accommodates ships of up to 75,000 d.w.t. up to 260 m. overall length and 12.8 m. draft. Discharge is by 2 marine towers at up to 2,000 tonnes p.h. into 133,000 tonnes capacity silo. 2×750 tonnes per hour dischargers (Buhler) for animal feedstuffs at Berth S.2, storage capacity 30,000 tonnes. 1 × 220 tonnes per hour Vigan pneumatic discharger for heavy grains and animal feedstuffs ex-small vessels up to 4,000 d.w.t.

Grab Cargoes: (Minerals, ores, coal, meals, etc.).

S.1 Canada Dock: Equipped with mobile crane (10 m. reach) with grab.

S.E.2 Alexandra Dock: Vessels up to 8.84 m. draft, equipped with 3 grabbing cranes for handling animal feeding stuffs; discharge to road via hoppers and direct by conveyor to silo storage.

Cavendish Quay: 2 × 20 tonnes level luffing jib cranes with a grab capacity of 15 tonnes. Each designed to handle up to 450 t.p.h. Load to road or rail with 2 × 100 tonnes capacity mobile weigh hoppers.

Duke St. Wharf: Vessels up to 8.7 m. draft discharged 2 × 7.5 tonnes electric level luffing cranes.

S.2 Gladstone Dock: Bulk terminal with length 250 m. a depth 12.5 m. The terminal handles Panamax (75,000 tonnes) vess with 4 grab cranes. Daily rate 14,000 tons.

BULK LIQUID FACILITIES: *Tranmere:* Petroleum oils at Tranm South Stage, accommodating tankers up to 115,000 tons displacem max. draft 11.1 m. plus height of tide and Tranmere North St accommodating tankers after lightening up to 210,000 t displacement, max. draft 12.0 m. plus height of tide. Facilities opera by Shell U.K. Ltd.

Cautionary Advice: Vessels which are required to pump over the t must discharge so as to reach, 30 minutes before LW, a draft not grea than 41 ft. plus height of LW at the North stage, or 38 ft. plus heigh LW at the South stage. (These figures may vary slightly from tim time and should be checked with the Berthing Master).

Liverpool: N.2 Gladstone (edible oils berth, total quay length 175 12.8 m. draft).

S.1 Canada (edible oils and molasses, up to 213 m. len 9.75 m. draft).

S.E. Nelson (wines and spirits, for vessels up to 99.1 m. len 6 m. draft).

Birkenhead: N. Alfred (8.6 m. draft, edible oils).

Ilchester Wharf (8.6 m. draft).

E. Lewis (edible oils, bulk chemicals and molasses for vessels u 192 m. in length, 8.7 m. draft).

SPECIALISED CARGO HANDLING FACILITIES: *Containers:* T container terminal at Royal Seaforth Dock has a continuous q 1,100 m. in length, served by 6 gantry cranes up to 40 tons capa and a fleet of straddle carriers working to a 22 ha. container p supported by a 26 ha. back-up area. Tractor trailer units are used feed the integral Freightliner Rail Terminal, which links with di services through the channel tunnel.

Containers can also be handled at all general cargo berths.

Timber and Forest Products: At the Royal Seaforth Timber Termi 793 m. of continuous quay are served by 4 × 10 tonnes cra discharging packaged timber to a 26 ha. stacking and back-up ar 3 sheds provide covered storage of 16,000 sq.m. for plywood, pulp- dried timber.

Ro/Ro: There are 10 berths in the port with Ro/Ro ramp facili Royal Seaforth, S.3, S.6 and S.10; Gladstone No. 3. N.W. Alexan E. Langton, N.E. 3 Canada, S.E. Nelson, S.E. Trafalgar and S. Bids (Birkenhead).

Heavy and Indivisible Loads: Good road access and specialised faci include 3 berths strengthened to accept loads of up to 300, 400 1,000 tonnes respectively. 250 tonne capacity sea-going floating cra

STEVEDORES: Earliest possible ETA to be given to arrange gang

MEDICAL: If doctor is required to attend immediately on arrival of ves prior notice will be required, but generally doctor is arranged for m convenient time after vessel's arrival.

Hospitalisation is available, but seamen will only be admitte immediate treatment is required. It is preferred for foreign sea requiring hospital treatment to be repatriated, if able to travel.

Dentist available by appointment only.

TANKERS: See "Bulk Liquid Facilities".

DENSITY: River Mersey salt water. Docks approximately 1024.

FRESH WATER: Available at all berths, ex-quay. No water ba available. Rate of delivery 15-20 t.p.h.

FUEL: Most major oil companies are represented and can supply ra of fuels of various viscosities. Notice required depends on the ber which vessel is lying as bunkers are supplied ex-lighter at most be Notice required can vary depending on availability of barges. generally at least 3 to 4 days notice is required.

FIRE PRECAUTIONS: Tankers may not carry out repairs whil discharging berth unless permission is obtained from Har Authorities. Fire precautions notice is placed on board by Har Authorities.

CONSULS: The following countries have representatives in Liverp

Dominican Republic
Ecuador
El Salvador
Finland
France
Germany
Panama
Thailand

REPAIRS: All types of deck and engine repairs can be carried ou

DRY DOCKS: 5 small dry docks (M.D.H.C., Wright and Beyer Mannings Marine).

SURVEYORS: (1) Caleb Brett and other companies available.

(2) Lloyds, A.B.S. and B.V. are available.

GANGWAY/DECK WATCHMEN: Watchmen not necessary available if required.

OPENING/CLOSING HATCHES: Carried out by ship's crew fo cargoes and by stevedores for general cargoes.

CERTIFICATES:

Register/Certificate of Measurement.
Certificate of British Tonnage (if issued).
Safety Radio Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Load Line Certificate.
Derat Certificate.
Cargo Gear Test Certificates.

CUSTOMS ALLOWANCES: Crew members who remain on during vessel's stay in port may be allowed, under certain condi keep, for their own use on board, small quantities of any tobacco and other goods declared on Customs Form C.142. The amount a depends on the number of days the vessel is in port.

CARGO GEAR: Cargo Gear Certificates must be produced w necessary up-to-date endorsement.

EPATRIATION: Can be effected, but must be arranged through Agent, o that Immigration Clearance can be arranged.

IRPORT: City Centre to Airport approximately 7 miles, regular service London for international connections.

egular Services from Liverpool Airport to:

Belfast	British Airways
Dublin	Ryan Air
Isle of Man	Manx Airlines
Jersey	British Midland

IME: British Standard Time, which is 1 hour in advance of Greenwich ean Time, reverting to GMT in Winter months.

OLIDAYS: Good Friday; Easter Monday (movable); 1st Monday in ay; last Monday in May; last Monday in August or first Monday in eptember, whichever may be closest to August 31st. December 25th-th and New Year's Day. Weekly holidays Saturday, Sunday. Cargo an be worked on official holidays, other than 25th-26th December, also rangements can be made for cargo to be worked on Sundays.

OLICE/AMBULANCE/FIRE: Telephone 999, ask for service required.

MERGENCY CO-ORDINATION CENTRE: "Liverpool Coast Guard" el: (0151) 9313341/43.

ELEPHONES: A temporary telephone can be placed on board a vessel, most berths, whilst in port.

ERVICES: Compass adjusting, D.F. calibration can be arranged.

ANKS: Allied Irish Bank Ltd, 5/9 Renshaw Street, Liverpool 1; Banco xterior C A, 6 Victoria Street, Liverpool 1; Bank of Ireland, 25 Victoria treet, Liverpool 1; *Citibank Trust Ltd, Tower Buildings, 22 Water Street, verpool 2; *American Express International, Travel Agents, Lord Street, verpool 2.

*Not Banks as such but possibly undertake closely allied functions.

TORING: See "Prelims".

1. All vessels can be stored by either barge or truck.
2. Barge storing at Tranmere Oil Stages is restricted to "Approved" arges.
3. Trucks do not always have direct access to vessels by driving along uayside. Approach may be via sheds.
4. Forklift trucks can be used in most cases.
5. As per British Customs Regulations.
6. Riggers can be employed.

HIP SUPPLY SERVICE: Howard Smith Towage, Castle Chambers, 3 Castle Street, Liverpool 2. Tel: (0151) 2272151.

Carmet Tug Co. Ltd., Lock Head, Bromborough, Wirral. Tel: (0151) 455579.

Cory Towing Co. Ltd., Odyssey Works, Corporation Road, Birkenhead, erseyside. Tel: (0151) 6476263.

In addition the Port of Liverpool has the Buoyage Tender and Salvage essel "Vigilant" which has fire fighting capability and is classed 100 A1 r River Mersey and Liverpool Bay Service.

HORE LEAVE: All bona fide crew members may be granted temporary hore leave during the vessel's stay in port, on condition that they leave the same ship. This permission does not apply to any alien member f the crew who is refused leave to land by an Immigration Officer, or whom an Immigration Officer has given notice prohibiting him from anding without leave.

DENTIFICATION CARDS: Not required.

ARBAGE DISPOSAL: Skips can be provided alongside. Bootle Barge td: (0151) 4422508. M.D.H.C. (Cleansing and Salvage Section) (0151) 005124.

VASTE OIL DISPOSAL: Not available.

EAMAN'S CLUBS: Stella Maris Seamans Club, Washington Parade, iverpool 20. Tel: (0151) 9226161.

URRENCY: Pound Sterling.

EVELOPMENTS: Floating crane "Mersey Mammouth" with capacity 50 tonnes operational.

UTHORITY: The Mersey Docks and Harbour Company, Maritime entre, Port of Liverpool, Liverpool L21 1LA. *Tel:* (0151) 9496000. *elex:* 626264. *FAX:* (0151) 9496150. *Contact:* Captain G. McShane, arine Operations Manager (Tel: (0151) 9496112 (Direct). Fax: (0151) 496150 (Direct)).

LIVERPOOL BAY (OSI): 53.41 N. 03.33 W. (See Plan)

LOCATION: The OSI (Oil Storage Installation) is situated North of the Douglas Production Platform in Liverpool Bay, in position Lat. 53° 41.0' N., Long. 03° 32.6' W.

The Liverpool Bay Oil Storage Installation: The Liverpool Bay Oil Storage Installation is a purpose-built Fixed Floating Oil Storage and Off-loading Installation, classified by Lloyd's Register as a Fixed Floating Installation. The OSI consists of an oil storage barge, permanently moored on location, by means of a CALRAM (Catenary Anchor Leg Rigid Arm Mooring).

Stabilised crude oil is transferred to the OSI by sub-sea pipeline from the Douglas processing platform.

The OSI has a storage capacity of 137,000 cu.m.

Crude oil is transferred, via a single 16 in. (40.64 cm.) double carcass floating hose string, to off-take tankers using 2 electrically driven single stage centrifugal pumps, rated at 2,250 cu.m./hr. each, giving an expected maximum loading rate of 4,500 cu.m./hr.

DOCUMENTS: *Documentation and U.K. Port Requirements:*

Pratique and Quarantine: There is no formal requirement to declare whether the ship is healthy and free of disease, unless this is not the case.

Customs and Immigration: H.M. Customs & Excise do not require any documentation. Tel: 0151-922-9661. Fax: 0151-922-7697 (Liverpool).

H.M. Immigration do not require any documentation. Tel: 01772-254212. Fax: 01772-204993 (Preston).

Should any crew changes occur (due to medical emergency), then H.M. Immigration will be advised of this, and an Immigration Officer will ensure the completion of the necessary documentation at the doctor, hospital, or airport.

PILOTAGE: Pilotage at the Terminal is compulsory, and any such service provided by the Terminal shall be strictly subject to Terminal Regulations & Terminal Conditions. The Terminal Mooring Master and his Mooring Assistant will board the off-take tanker approximately 2 miles N.E. of the OSI, and the Master is reminded of the IMO Rules for pilot ladders and the provision for safe access to and from the tanker, including the need for a good lee. In addition, the off-take tanker must have its port side derrick/crane rigged, and be ready in all respects to take on board the mooring equipment basket.

A responsible English speaking watchkeeping officer MUST be in attendance for the embarkation/disembarkation of all personnel.

APPROACHES: *Anchoring and Exclusion Zone:* Off-take tankers visiting the Terminal shall not anchor or manoeuvre in or near to the Exclusion Zones, which currently extend to a 800 m. radius, centred on the OSI. Masters of visiting off-take tankers may, at their discretion, use the recommended anchorage (See "Plan"). The Plan also gives all pipeline co-ordinates, and Masters of off-take tankers must not anchor in or near these areas.

Approaches to Terminal: The Terminal Mooring Master will advise the off-take tanker on arrival at the Terminal of any anchoring and/or berthing instructions. Anchoring and manoeuvring in, or close by, any of the Exclusion Zones is prohibited, see "Plan", where recommended anchorage areas are shown. The Master of off-take tanker arriving at the Terminal should bear in mind, that berthing at the Terminal may be delayed or refused, if the tanker's trim is excessive, or the draft is too light, or the propeller is not fully immersed.

Hazards to Navigation: Off-take tankers visiting the Terminal shall not manoeuvre within any of the Exclusion Zones, or their associated structures. Numerous sub-sea pipelines and equipment exist in close proximity to the installations listed below:

Douglas Platform	Lat. 53° 32' 17" N., Long. 03° 34' 32" W.
Lennox Platform	Lat. 53° 37' 56" N., Long. 03° 10' 30" W.
Hamilton Platform	Lat. 53° 34' 01" N., Long. 03° 27' 11" W.
Hamilton North Platform	Lat. 53° 38' 50" N., Long. 03° 28' 35" W.

For the positions of sub-sea pipelines, Masters of off-take tankers visiting the Terminal, should consult the relevant charts of the area and current Notices to Mariners.

Off-take tankers visiting the Terminal shall keep well clear of the above structures and manoeuvre with extreme caution whilst navigating in this area. Various off-shore support vessels work in, and near, the areas mentioned above and should be given a wide berth.

READINESS: *Notice of Readiness:* The off-take tanker upon arrival at the Terminal may tender its Notice of Readiness when the tanker is ready in all respects to load cargo in accordance with the Terminal Regulations and Conditions. The Terminal representative will only accept an off-take tanker's Notice of Readiness when he is satisfied that the tanker is ready, in all respects, for loading at the Terminal. This acceptance time will normally be hose connection time.

RESTRICTIONS: Berthing daylight only. Unberthing at any time.

Bow to centre manifold not to exceed 150 m.

MAX. SIZE: 150,000 d.w.t. (175,000 tonnes displacement).

Depth at mooring in excess of 30 m.

RADIO/VHF: *Pre-Arrival Information:* An off-take tanker intending to use the Terminal shall advise the BHP Petroleum Marine Superintendent and the Terminal OIM (Offshore Installation Manager) of their ETA and ship's particulars, initially at 72 hours prior to arrival, and then their ETA only at 48 hours and 24 hours respectively, by Telex or Fax, using the standard format message listed as follows:

AA	Ship's name, and previous name (if applicable).
BB	Off-take tanker's international call sign.
CC	Inmarsat I.D. No., Tel. No. and Fax No.
DD	Arrival draft.
EE	Maximum displacement.
FF	Distance from bow to manifold.
GG	Last port.
HH	Last cargo.
II	Master's full name.
JJ	Tanker's ETA at Terminal Anchorage (local time).
KK	Cargo quantity required: GSV bbls./cu.m.

Communications with the OSI: The OSI is equipped with all modern radio communications equipment, and a continuous watchkeeping routine is maintained. Contact with the OSI may be made using any of the following links:

Landline	Tel: (44) 1492511460. Fax: (44) 1492511461.
Inmarsat 'A' Voice/Telex	871-1453407 LBFD G.
VHF	Channel 15 (Calling), the working channel will be advised by the Terminal.
Marine Superintendent	Fax: (44) 1745881221.

The pre-arrival information telex should be addressed to th OIM of the OSI, Liverpool Bay, at least 72 hours before arrival at the Terminal.

A portable VHF set for use by the off-take tanker's Cargo Control Room will be loaned temporarily to facilitate communications with the OSI during the loading operation.

BERTHING: *Berthing Parameters:* The berthing of the off-take tanker will normally take place during the hours of daylight, but may, at the Terminal's discretion, take place at other times. In all cases, the decision to berth the off-take tanker will rest with the Terminal OIM in consultation with the Mooring Master (See "General – Local Conditions").

Standard of Off-Take Tankers: Accepted off-take tankers to the Terminal will be within the range of 60,000 d.w.t. to 150,000 d.w.t., and having a maximum displacement tonnage of 175,000 tonnes. Appendix 'A' (which see) is a sample of the Questionnaire to be completed by all off-take tankers visiting the Terminal. The off-take tanker's Operator is obliged to provide all the answers to the Questionnaire, and submit a current Forecastle Mooring Diagram (with appropriate measurements), before being nominated to visit the Terminal. It is imperative that if the particulars given in the answers to (a) the Questionnaire, or (b) the Forecastle Mooring Diagram, are deemed to be inaccurate, or change in any respect, BHP's Marine Superintendent and the OIM of the Terminal MUST be notified forthwith in writing, by letter, fax or telex.

Without prejudice to any other consequence of such inaccuracy or change, failure to so notify, and to provide all necessary details relating thereto, may cause serious delays at the Terminal.

Visiting off-take tankers shall be aware of the OCIMF publication "Recommendations for Equipment Employed in the Mooring of Ships at Single Point Moorings", and shall be fitted with the appropriate equipment in accordance with these recommendations, including a manifold derrick or crane with a 15 tonne SWL. The windlass, winches or capstans used to handle moorings, shall also be capable of lifting at least 15 tonnes.

The bow windlass or winch which will be used for mooring, shall be capable of picking up the mooring hawser and chafe chain, which will normally have a combined weight of not more than 3.2 tonnes. When assessing the capabilities of the windlass, or winch, allowance should be made for the loss of efficiency due to friction caused by the possible change of directional lead of the 'pick-up' line on the off-take tanker's forecastle between the bow Panama fairlead and the windlass or winch. The drum must have a good hauling lead from the Panama fairlead to the chain stopper, in order to retrieve smoothly the chafe chain and mooring hawser.

On the off-take tanker's arrival at the Terminal, the windlass, or winch, must have one drum empty, and be capable of accepting:

100 m. × 32 mm. pick-up messenger.
100 m. × 72 mm. pick-up rope.

Under no circumstances shall an open drum end be used to moor the tanker.

Given the particular requirements of the Terminal, the off-take tanker should ensure that their mooring arrangements and equipment are checked for suitability, and can comply in all respects with the Terminal requirements before finalisation of Charter arrangements and before arrival at the Terminal. Failure to comply in all respects with these requirements could result in serious delays at the Terminal. All and any costs so incurred will be strictly for the tanker Owner's account, as defined in the Terminal Conditions.

An off-take tanker visiting the Terminal shall comply with the latest SOLAS and MARPOL conventions and protocols. A tanker found to be sub-standard or deficient in any safety requirements, after initial vetting by the Terminal, will be refused entry to the Terminal.

An off-take tanker visiting the Terminal shall have the IGS (Inert Gas System) fully operational throughout the tanker's stay at the Terminal. The Terminal representative will check the condition of the Tanker's tanks on arrival at the Terminal, and monitor the condition of the tanks throughout the tanker's stay at the Terminal.

In the event of failure of the tanker's IGS, or any deviation in gas level readings from the SOLAS maximum permissible safe limits, during the tanker's stay at the Terminal, may result in cessation of operations, in which case the off-take tanker may be unmoored and directed to a safe anchorage position outside the Terminal limits.

The Owners and/or Operators of the off-take tanker, or any Charterer concerned therewith, shall be a party to TOVALOP, and be fully insured against liabilities under the International Convention of Civil Liabilities for Oil Pollution Damage 1969. The cargo to be loaded shall be covered by CRISTAL and/or the International Convention on the Establishment of International Fund for Compensation of Oil Pollution Damage 1971. Owners and/or Operators of the off-take tanker shall have in place a minimum of U.S.$700 million cover available through P&I Club Insurance for oil pollution liability.

An off-take tanker visiting the Terminal must be covered by a current ITF Certificate or the equivalent. Off-take tankers visiting the Terminal will be required to provide suitable meals and accommodation for all or any of the following personnel during the tanker's stay at the Terminal:

Mooring Master.
Mooring Assistant.
Cargo Surveyor.

Mooring/Unmooring Criteria: Also see "Berthing – Parameters" above.

The weather conditions prior to and during an off-take tanker's mooring operation will be closely monitored, and the OIM or his representative may, if the limiting criteria for mooring/unmooring is approached, decide to suspend mooring operations. In the event of deteriorating weather conditions during a mooring operation, the Mooring Master may abort the operation if he feels the safety of the Terminal may be compromised. A tanker which is moored to the OSI, whether loading or not, may be unmoored due to deteriorating conditions at any time. It is at the Mooring Master's discretion, in consultation with the OIM, to suspend operations at any time.

The theoretical maximum criteria for tankers mooring at the Terminal are:

Wave height: 3.5 m.
Wind speed: Less than 25 knots.
Time: Within + or − 1 hour of slack water, or during a change of tide or current direction.

The theoretical maximum criteria for tankers unmooring at the Terminal are:

Wave height: 3.75 m.
Wind speed: 30 knots.

Tension Limits: Off-take tankers will be unmoored if there are 3 occurrences of a peak mooring-hawser-tension greater than 150 tonnes force within one hour, or a single occurrence of a peak mooring-hawser-tension greater than 200 tonnes force.

Berthing and Mooring Operations: The berthing and mooring operation will be carried out by the Terminal Mooring Master and his Mooring Assistant.

A tug/support vessel will be on hand to assist with the berthing as when directed by the Mooring Master. The final decision to moor tanker will rest with the Mooring Master, depending on the exis circumstances and conditions.

The Mooring Master's Assistant will be stationed aft to direct tanker's crew to receive on board the tow line from the tug/support ves This tow line will be taken onboard during the off-take tanker's approach to the OSI, and in all cases only when the Mooring Maste satisfied it is safe to do so.

The responsibility to ensure there are sufficient crew to handle tow line will rest with the Master of the off-take tanker, and he sho ensure there are adequate messengers, heaving lines, chain stoppe etc., to expedite the operations.

The tow line must be made fast aft to suitable mooring bitts on near, the tanker's centre line, and MUST NOT be left on the winch dru The tug/support vessel will remain attached to this tow line through the entire off-take operation.

A ship's mooring rope, capable of being used as an emergency line, must be kept at hand on the after mooring deck.

Alternatively, depending on the circumstances at the time of berthi the tug may be made fast on the starboard shoulder to give a pull/pu mode of operation.

Once the tow line is made fast to the Mooring Master's satisfact the tanker's crew under the direction of the Mooring Master's Assist will proceed to the forecastle in readiness to moor the tanker to the

Once the off-take tanker is securely moored, and is lying settled tandem with the OSI, then the tanker's crew together with the Moor Master and his Assistant, will proceed to the manifold to commence hose connection.

Inclement Weather Operations: If at any time the Terminal OIM decid that due to deteriorating weather conditions, Terminal operations m become unsafe, then the Master of the off-take tanker will be inform of this decision, and operations will cease.

Unmooring and Departure Procedures: In the interest of safety, the take tanker shall be unmoored as soon as practicably possible a completion of transfer operations. To implement the above policy, off-take tanker may be asked to participate in an Early Departure P to expedite the lifting in the interest of all parties.

LOADING: *Watchkeeping:* Whilst the off-take tanker is moored to OSI, it will be the Master's responsibility to ensure that adequate d and cargo watches are kept by a responsible English speak watchkeeping officer, and in addition, a continuous forecastle watch m be maintained, to monitor the aspect and distance of the tanker in relat to the OSI. During transfer operations, and at all times that the hos connected to the off-take tanker, a continuous manifold watch must maintained.

Hose Connection: The Terminal is equipped with a single hose strin 16 in. double carcass floating hose, approximately 300 m. in length. hose is fitted with a quick release 16 in. Camlock coupling at the take tanker's rail hose end, to fit a standard 16 in. ANSI 150 po flange (Note: 16 in. = 406 mm.).

The hose string is also fitted with a self-sealing 'Breakaway' coupl

Off-take tankers should arrive at the Terminal with a single port s manifold, ready in all respects to accept this coupling, and if necess fit the required reducer.

On completion of the mooring operation, the Terminal tug/sup vessel will tow the floating hose string to the off-take tanker's port s below the manifold.

The rail hose end will then be connected to the tanker's derrick/c hook and hoisted on board for the connection to the manifold. It is duty of the tanker's crew, under the direction and control of the Moo Master and his Assistant for the hose connection, and the Master of off-take tanker shall ensure that a responsible English spea watchkeeping officer is in attendance at the manifold during the h connection.

Pumping Rate: 4,500 cu.m./hr.

Liverpool Blend Crude Oil: A general description of the Douglas B crude oil is given below:

API	44.4 at 60°F.
Density	0.8041 at 15°C.
Loading temperature	10°C – 25°C.
RVP	5 – 10 psi at 30°C.
H_2S	<5 ppm.

Oil Transfer: The Terminal will be in full control of all transfer opera under the direction of the OIM and his deputies, all rates and press shall be agreed upon between the Terminal and the off-take tanker to any oil transfer operation. The responsibility for routine monitor the loading of cargo shall rest with the off-take tanker's officers and However, the Mooring Master or his representative onboard the of tanker shall be deemed to be available for liaison between the and the Terminal if the situation demands.

An off-take tanker intending to load oil at the Terminal must be ca of accepting a line displacement of approximately 330 bbls. of sea immediately prior to receiving oil cargo, which may be kept, if so req in a separate slop tank segregated from the cargo. In addition, th take tanker must allow space in a cargo or slop tank for a final dra of the floating hose immediately prior to completion of tra operations.

Suspension of Transfer Operations: The Terminal maintains the r cease all transfer operations, when any of the occurrences listed are imminent:

Any radio communications failure between the Terminal and th take tanker.
Any requested stop by the off-take tanker.
Any requested stop by the Mooring Master.
Any stop desired by the Terminal.
Any emergency situation concerning the Terminal, off-take tan ancillary loading equipment.
Any helicopter operations at or near the Terminal.
When weather parameters exceed safety limits.

When in the opinion of the Mooring Master a proper deck and cargo watch is not being maintained.

When there is a breach of Terminal Conditions.

When in the opinion of the Mooring Master the off-take tanker is considered to be in an unsatisfactory ballast/loading condition.

The Mooring Master will post on board a list of the relevant methods of communication, and the emergency whistle signals to be used, in the event of communications failure.

Early Departure Plan: The cargo loaded figure is computed initially by the Terminal, using the 'Oil Sales Metered Volume' method with a provisional density figure.

The loaded 'Gross Standard Volume' figure will then be recorded on the 'Approximate Quantity Report', and then passed to the off-take tanker.

The hose will be disconnected.

The tanker will then be unmoored from the OSI.

The Cargo Surveyor will complete his calculations on board the tanker, and then return to the Terminal with the Mooring Master and other personnel on board not sailing with the tanker.

The off-take tanker is then released from any further obligations to the Terminal and may commence her voyage.

The API, and figures for S&W will be determined by the Terminal through laboratory analysis, who will then calculate the Gross and Net Oil figures of cargo loaded, which will be passed to the Master of the off-take tanker as soon as possible after sailing, by VHF or Satcom.

The final Gross and Net Oil figures for cargo loaded will then be introduced to the Bill of Lading in the designated section.

This will then be faxed to the Master for confirmation, who, if in agreement, should then authorise his Agent to sign on his behalf.

The off-take tanker's Master will be required to authorise his Agent to sign any Bills of Lading on his behalf, and may tender any Note of Protest to the Terminal by telex or fax directly or via his Agent.

BALLAST: *Deballasting Operations:* Whilst the off-take tanker is moored to the OSI, no ballasting or deballasting operations may be commenced without prior consultation with, and agreement from, the Mooring Master. The off-take tanker shall endeavour to maintain a properly loaded/ballasted condition and keep her propeller fully submerged, without allowing the forefoot to come out of the water.

Note: There are no reception facilities for dirty ballast or slops at the Terminal, and under no circumstances shall dirty ballast, slops or garbage be discharged to the sea.

MEDICAL: *Medical and Dental Services:* There are no medical or dental services at the Terminal, but in an emergency, medical evacuation can be arranged through the OIM of the Terminal to facilities in Liverpool.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: Repairs of any description which may affect the full operational status of the off-take tanker are not permitted, while the tanker is moored to, or manoeuvring at, the Terminal. Under no circumstances are an off-take tanker's main engines to be disabled whilst visiting the Terminal.

REPATRIATION: There are no facilities for crew changes at the Terminal, except in an emergency.

TIME: The local time at the Terminal is UTC (in Summer months: UTC plus 1 hour), and all messages and communications with the Terminal should relate to local time.

SHORE LEAVE: Not permitted.

APPENDIX 'A':

OFF-TAKE TANKER QUESTIONNAIRE

Fax to: BHP Petroleum Limited, E/R/A/ME
Attention of: Shipping Co-ordinator
From:
Fax No.: (44) 171-408-7236
Date:

The following tanker details are required prior to Acceptance to lift cargo from the Liverpool Bay OSI, Fixed Floating Storage and Off-Loading Terminal.

A legible copy of the Forecastle Plan, clearly showing the proposed lead from the Panama fairlead, via the chain stopper, to the winch drum, MUST accompany this Questionnaire.

This Plan must be endorsed with the Company's/Ship's stamp, dated and signed by a person of authority, to acknowledge that the Plan is accurate, and all equipment shown is fully operational.

A completed copy of the Plan and Questionnaire MUST be sent to Master of the off-take tanker.

GENERAL PARTICULARS OF TANKERS (please answer all questions):

1. Name of Tanker ....
2. Previous Names ....
3. Flag and Port of Registry ....
4. Name of Owner ....
5. Name of Operator ....
6. Address of Operator ....
....
....
7. Classification Society ....
8. Year Built ....
9. Is the Tanker an 'OBO'? Please circle answer. If answer is Yes, please give last 3 cargoes. Yes No
10. International Call Sign ....
11. Inmarsat Number ....
12. Gross Tonnage ....
13. Nett Tonnage ....
14. Summer d.w.t./Re-measured Summer d.w.t. ....
15. Maximum Displacement ....
16. Length Overall ....
17. Maximum Breadth ....
18. Distance Bow to Manifold ....
19. Distance Manifold to Ship's side ....
20. Diameter of Manifold lines ....
21. Reducers and Sizes carried ....
22. Segregated Ballast capacity ....
23. Maximum Cargo capacity (98% full) ....
24. Maximum Loading Rate on single 16 in. line in cu.m./hr. ....
25. Derrick/Crane S.W.L. ....
26. Nationality of Officers ....
27. Nationality of Crew ....
28. Distance between Fairlead and Chain Stopper (m.) ....
29. Type and Size of Bow Stopper (give acceptable maximum chain link size) ....
30. Forward Panama Fairlead size (mm.) ....
31. Mooring Winch lifting capacity ....
32. Arrival Draft (Tanker's trim must not exceed 3 m.) ....
33. Name of P&I Club Insuring Tanker ....
34. Limit of Pollution Liability Insurance U.S.$ ....
35. Tanker's Last Port ....
36. Name of Port where ship may be inspected by BHP Representative, prior to hire. ....
37. Are the following Personnel Familiar with Tanker Operations, and have their Certificates of Competency been suitably endorsed?
    - Master Yes No
    - Chief Officer Yes No
    - Second Officer Yes No
    - Chief Engineer Yes No
    - Second Engineer Yes No
38. Are there at least Two Certificated Personnel on board capable of undertaking COW Operations? Yes No
39. Is all Equipment used on Deck intrinsically safe in preventing ignition source? Yes No
40. Is there a Permit to Work System in Operation? Yes No
41. Are there NO SMOKING Regulations in place? Yes No
43. Is there a "Drugs and Alcohol" Policy in force? Yes No
44. Does the Tanker comply with an 'ITF' Agreement or equivalent? Yes No
45. Is the Tanker participating in TOVALOP? Yes No
46. Do all Personnel involved in the Operation speak English? Yes No
47. Does Manifold Equipment conform to OCIMF Guidelines? Yes No
48. Has Tanker a Bow Chain Stopper conforming to OCIMF Guidelines? Yes No
49. Can Chain Stopper accept 76 mm. Stud Link Chain? Yes No
50. Has the Tanker a Winch Drum, (capable of handling and storing 100 m.×76 mm. + 100 m.×32 mm. polypropylene rope) in-line with Panama Fairlead and Stopper? Yes No
51. Does the Tanker have a copy of the Liverpool Bay OSI Berthing and Terminal Handbook? If Yes, what is the Revision No. . . . . . Yes No
52. Does the Tanker operate a Management System in-line with 'ISO' 9002? Yes No
53. Are the Tanker's Officers and Crew familiar with Hydrogen Sulphide and it's associated Hazards and Dangers? Yes No
54. Has the Tanker been the cause of any major Safety or Environmental Incidents, e.g.:
    - (a) Fire on board.
    - (b) Spill of crude oil cargo.
    - (c) Non-conforming effluent disposal.
    - (d) Serious injury or loss of life.
    - (e) Any reported violations of Marine Law. Yes No

ACKNOWLEDGEMENT AND DECLARATION:
I declare that all information stated and included in this Questionnaire is true and accurate at the date of completion shown below:
Signed: . . . . .
Full Name: . . . .
Company: . . . . .
Date: . . . . . .
Company's Official Stamp

GENERAL: *Rejection and Termination:* If BHP Petroleum Limited, the OIM of the Terminal or his representative, form the opinion that the off-take tanker is unsuitable for any reason, the BHP Petroleum Ltd., or the OIM of the Terminal, will have the right to reject the off-take tanker and/or terminate the provision of any services, including the loading of oil to the off-take tanker at any time prior to that tanker's arrival at the Terminal, or whilst at the Terminal, as the case may be. All and any costs incurred by the off-take tanker by such rejection or termination shall be for the off-take tanker Owner's or Operator's account.

Action in an Emergency: The OSI has in force an Emergency Response Plan, which is coordinated with the on-shore gas terminal at Point of Ayr. Through this Response Plan, shore based emergency support during an off-shore emergency situation can be activated and controlled. As stated in the Terminal Conditions, the Master of the off-take tanker is fully responsible for the off-take tanker at all times. In an emergency situation at the Terminal, the OIM will inform the off-take tanker and give advice to the Master of any action to be taken.

Similarly, if an emergency situation arises on the off-take tanker, the Mooring Master will immediately inform the Terminal of the situation and any action being taken.

Emergency Procedures: Emergency procedures should be implemented by the off-take tanker, if any of the following specific emergency situations arise, and for any other emergency which may affect the safety of the off-take tanker, and/or the OSI, and/or any operation connected therewith:

Fire on the off-take tanker.

Tank overflow, or hose burst, or any pollution incident.

Off-take tanker's main engines failure (See "Tanker Check List (Not reproduced)).

Structural failure of mooring hawser.

Failure of off-take tanker's ballast system.

Loss of communications.

Impending collision.

H_2S and Hydrocarbon gas concentrations.

In addition to the off-take tanker's internal emergency procedures, the OIM of the OSI, the Mooring Master and/or his Assistant must be informed of any emergency situation, or potential emergency situation, as it arises.

In no circumstances should the off-take tanker close any valves against the OSI without first warning the OSI Control Room.

For any emergency situation and any of the above mentioned emergencies, the Emergency Shut-Down procedure shall be implemented using the following signals:

Radio: The spoken message "OSI Emergency Stop".

Sound: Short rapid blasts on ship's whistle.

Light: Short rapid flashes by daylight signal lamp, directed at the stern of OSI.

Note: The above light and sound signals need only be used if radio communications fail to produce a stop.

Main Engine Readiness: Any off-take tanker visiting the Terminal shall keep its main engines in a state of readiness to manoeuvre at all times during the visit. The shutting-down of main propulsion machinery and associated auxiliaries is strictly prohibited. Whilst any off-take tanker is moored to the OSI, all deck machinery must be kept operational, and in a constant state of readiness for use.

Pollution Control: Off-take tankers visiting the Terminal shall comply fully with all relevant provisions of the MARPOL 1973/78 Convention. In the event of any pollution incident, the off-shore support vessels are fully equipped for oil spill response and recovery in the field in compliance with UK "M" Notice 1234 and have "Oilrec" notation from their Classification Society.

Without derogation from the Terminal Conditions, liability for any pollution caused by oil which has passed the off-take tanker's permanent hose connection, will be for the account of, and recoverable from, the off-take tanker's Owners (as defined in the Terminal Conditions).

Firefighting: In the event of fire breaking out on board the off-take tanker, it will be the Master's responsibility to make every effort to fight the fire with the tanker's firefighting capability, although every assistance will be given by the Terminal personnel and equipment to avoid the fire spreading.

Safety Checks on Off-Take Tankers: Any off-take tanker visiting the Terminal shall, upon arrival, present herself for Safety Checks by the Terminal Mooring Master. The check prior to any mooring or loading operations will consist of:

Pre-Berthing Check List (not reproduced).

The checks on completion of mooring and prior to loading operations will consists of:

Tanker Safety Check List (not reproduced).

Tank Condition and IGS Check.

An off-take tanker arriving at the Terminal, which does not comply with the Terminal Conditions, or fails to meet the relevant safety standards of the Terminal in the opinion of the Terminal OIM or his representative, may be refused access to the Terminal and it's services.

The OSI Terminal Conditions (not reproduced) provide that the OIM of the OSI may refuse to allow the off-take tanker to berth, or may order the off-take tanker away from the berth, or otherwise suspend or terminate provision or performance of services to the off-take tanker, if at any time the off-take tanker fails to meet the relevant safety standard.

Drugs and Alcohol Policy: An off-take tanker visiting the Terminal will be required to have in force, and to comply with, a Drug and Alcohol Policy that conforms to OCIMF guidelines. Any off-take tanker visiting the Terminal which does not comply with this requirement will be rejected for any future liftings from any Terminal operated by BHP Petroleum Ltd.

It is a BHP Petroleum policy that under no circumstances shall any alcohol or drugs be consumed, or carried, or possessed by any of it's personnel, for any reason, at any time, whilst operating on any of the Company's facilities. BHP Petroleum requests that all off-take tanker's personnel respectfully observe this requirement whilst visiting the Terminal.

Local Conditions: Winds are predominantly in the S.W. to N.W. quadrants, but may be variable on and off-shore in the Summer months. During the Winter months, severe storms and squalls may be experienced, giving wind speed in excess of 40 knots.

Masters of off-take tankers arriving in Liverpool Bay to load from the OSI are reminded that due to the exposed position of the Terminal and the unpredictability of the local weather they are to make every effort to ensure that their vessel is in a suitable and seaworthy condition of ballast. If, in the opinion of the OIM and the Mooring Master, the vessel is not properly ballasted, then mooring may be delayed until such time as the situation is rectified by the off-take tanker's Master.

For further information, Shipmasters are advised to consult the Admiralty Sailing Directions, and the West Coast of England and Wales Pilot.

The tide in the Liverpool Bay area is semi-diurnal, providing two high tides and two low tides per 24 hour period. The lowest astronomical tide recorded being −0.1 m., and the highest astronomical tide recorded being +10.4 m., giving water depths at the Terminal of between 30.8 m. and 42.2 m. Reductions and water depth calculations should be made with reference to the Admiralty Tide Tables for the Port of Liverpool.

The swell factor for the Liverpool Bay area is generally low, except during persistent N.W. gales. Reference should be made to the Admiralty Sailing Directions, and the West Coast of England and Wales Pilot concerning yearly averages and wave heights.

Charts and Oceanographic Information: The Liverpool Bay Area covered by British Admiralty Charts No. 1826 and 1981.

The average water depth in the area is 40 m. and the nature of bottom is predominantly mud, sand and ooze, which affords good hold ground. Masters of tankers using the Terminal should refer to Admiralty Sailing Directions for the area, and be guided by the W Coast of England and Wales Pilot.

Fishing: Fishing is not permitted from the off-take tanker whilst ins the Exlusion Zones.

Visitors to the Terminal: Visits to the Terminal will only be arrang through the Marine Superintendent, and permission must be sough least 4 working days in advance. Visits will usually only be arranged persons who have attended the necessary off-shore survival and saf training courses. Day visitors to the Terminal need not complete the off-shore safety courses.

Stores: Stores are not available at the Terminal.

Supplies and Services: There are no facilities for taking stores at Terminal and no service suppliers.

Shipping Agencies: The following list of Shipping Agents have offices the Liverpool area:

Graypen Ltd., Kings Mill, Merseyton Road, Ellesmere Port, So Wirral L65 2AP. Tel: (44) 151-357-2918. Fax: (44) 151-357-29 Telex: 628320 GPENMY G.

Inchcape Shipping Services (UK) Ltd., Pacific Chambers, Cana No. 1 Dock, Regent Road, Liverpool L20 1DF. Tel: (44) 151-944-11 Fax: (44) 151-944-1229. Telex: 629510 ISSLIV G.

OPERATOR: BHP Petroleum Limited, Point of Ayr Terminal, Talac Holywell, Clwyd CH8 9RD. *Tel:* (01745) 881200. *FAX:* (01745) 8812

Contact: Ross Nicholls, Marine Superintendent (Tel: (01745) 88120

LOCHMADDY: 57.36 N. 07.11 W. (See Pla

PORT LIMITS: Westward of a line running Southward from Weav Point to Leacham Madadh.

PILOTAGE: Pilot can be arranged if required. VHF Channels 16 and Tel: (01876) 500337, 500282, 500226 or (01870) 602425 (ext. 859) at night (01870) 610294.

ANCHORAGES: Available in Lochmaddy Bay.

RADIO: Skye Radio.

VHF: Lochmaddy Harbour on Channels 16 and 12.

RADAR: No radar service.

TUGS: None.

BERTHING: Length of berth 370 ft. (South Face). Depths alongside LWS: East end 6.0 m., West end 4.5 m.

Length of berth 180 ft. (North Face). Depth alongside at LWS is 4.0

CRANES: Available by arrangement. 10 ton lift.

BULK CARGO/SPECIALISED CARGO-HANDLING FACILITIES:

Ro-Ro Linkspan at North West end of South Face berth on pier.

BRIDGES: None.

MEDICAL: Doctor and hospital available.

TANKERS: No facilities.

DENSITY: Salt water.

FUEL: Gas oil available. Tel: (01870) 610238.

FIRE PRECAUTIONS: None.

CONSULS: None.

REPAIRS/DRY DOCKS/SURVEYORS: None.

GANGWAY/DECK WATCHMEN: Available if required.

HATCHES: Opening/closing carried out by crew.

AIRPORT: 20 miles to Benbecula Airport. Daily service to and Glasgow, Stornoway and Barra, except Sunday. Onward connec flights available.

POLICE/AMBULANCE/FIRE: Police Tel: (01876) 500328. Ambula Tel: (01876) 500324. Fire Tel: (01463) 222722.

SERVICES: None.

BANKS: Bank of Scotland Tel: (01876) 500323, 500266.

SHIP SUPPLY SERVICE: Crew members, and essential stores ca transported between ship and shore at Lochmaddy by launch. S requiring such service should contact Harbour Office. VHF Chann or Telephone (01876) 500337, 500282, and at night (01876) 500

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Required for cruise ships only, and conform to the Aviation and Maritime Security Act 1990.

REGULATIONS: None.

GARBAGE DISPOSAL: 1100 ltr. wheeled skips are available fr charge. For bulk refuse contact local authority (Tel: (01870) 60 Fax: (01870) 602332). Charges are approximately £15.00 per hou collection time by arrangement.

WASTE OIL DISPOSAL: By prior arrangement with local au (Tel: (01870) 602425. Fax: (01870) 602332) or through Port Ma (Tel: (01876) 500337).

SEAMAN'S CLUBS: No club, but local facilities include hotel, 2 s sub-post office, bank, church.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Western Isles Islands Council, Council Offices, Sa Road, Stornoway, Isle of Lewis. *Tel:* (01851) 703773. *FAX:* (705349. *Contact:* Captain R. Frater, Harbour Master. Home tel: (870268. Captain C. Macleod, Assistant Harbour Master. Tel: (602425. Fax: (01870) 602332.

Local Authority: The Port Manager, Harbour Office, Lochmaddy North Uist. *Tel:* Office (01876) 500337 and (01876) 500282. After (01876) 500226. *FAX:* (01876) 500412. *Contact:* U.I.M. Roberts Manager.

LONDON and Thames District (Including Tilbury):

51.30 N. 0.05 W. **(See Plan)**

PORT LIMITS: The seaward limit means lines drawn from Lat. 51° 37' 00" N., Long. 00° 57' 19" E. (Foulness Point in the County of Essex) to Lat. 51° 46' 05" N., Long. 01° 20' 32" E. (Gunfleet old lighthouse) and thence to Lat. 51° 26' 36" N., Long. 01° 25' 30" E. and thence to Lat. 51° 24' 55" N., Long. 00° 54' 21" E. (Warden Point in the County of Kent).

An arrived ship is considered (subject to Charter Party terms) to have arrived when vessel is instructed to anchor at a designated anchorage, as ordered by the Port Authority, if berth where vessel's operations are to be carried out is not available. Otherwise when vessel is alongside. Usual anchorage for larger vessels is below Southend, which is allocated to vessels by the Port Authority.

DOCUMENTS:

1 copy of H.M. Customs and Excise Form C.142 to be completed showing each crew members declaration as to the amount of cigarettes, tobacco, spirits, wine, radios, lighters, etc., belonging to them on board the ship to enable Customs to ascertain if in conformity or excess of requirements.

1 copy of IMO Crew List.

1 copy of List of Passengers on board, showing names, place of joining vessel, passport details.

Ship's Register to be available for inspection on arrival.

List of space occupied by cargo in unregistered spaces.

Chief Engineer's declaration as to the quantity of fuel carried in double bottom tanks.

Details of any livestock on board.

Ship's Stores Declaration arrival Form C.14 to be completed.

Details of previous ports of call.

PILOTAGE: Compulsory Pilotage:

1. DEFINITIONS:

"Upper Area" means so much of the River Thames as is between Putney Bridge and London Bridge, but does not include a closed dock, lock or other closed work.

"Inner Area" means so much of the Thames as is between London Bridge and the Former Seaward Limit.

"Outer Area" means so much of the Thames as is between the Former Seaward Limit and the Seaward Limit of Pilotage Jurisdiction.

"The Thames" means so much of the River Thames, the Thames Estuary, rivers, streams, creeks, watercourses and the sea as is between London Bridge and the Seaward Limit of Pilotage Jurisdiction, but the area does not include:

(i) A closed dock, lock or other closed work.

(ii) Any part of the Medway Ports.

(iii) The River Lee or Bow Creek above the South boundary stones referred to in Section 3 of the Lee Conservancy Act 1988.

"The Former Seaward Limit" means the former seaward limit of the Port of London Authority which is a line drawn from the pilot mark at the entrance of Havengore Creek in the County of Essex on a bearing 166° reckoned clockwise from the true North point of the compass to mean high water level on the Kent bank of the Thames.

"The Seaward Limit of Pilotage Jurisdiction" means lines drawn from Lat. 51° 37' N., Long. 00° 57.317' E. (Foulness Point in the County of Essex) to Lat. 51° 46.083' N., Long. 01° 20.533' E. (Gunfleet Old Lighthouse), thence to Lat. 51° 48' N., Long. 01° 40' E. (Long Sand Head), thence to Lat. 51° 36' N., Long. 01° 23.083' E., thence to Lat. 51° 26.6' N., Long. 01° 25.5' E. and thence to Lat. 51° 24.917' N., Long. 00° 54.35' E. (Warden Point in the County of Kent).

"Specified Vessel" means any vessel having on board quantities of the following (IMO codings in brackets):

(i) Explosives (Class 1), or

(ii) LNG, LPG in bulk or non-gas free following discharge of these cargoes (Class 2), or

(iii) Low flash petroleum spirit in bulk or non-gas free following discharge of this cargo (Class 3.1 and 3.2), or

(iv) Low flash point and toxic chemicals in bulk or non-gas free following discharge of these cargoes (Class 3.1, 3.2, 6.1 and 8.0).

"Passenger Vessel" means a vessel which is certificated to carry more than 12 passengers.

2. COMPULSORY PILOTAGE:

The Port of London Authority (a competent harbour authority within the meaning of the Pilotage Act 1987), in the exercise of its powers under Section 7 of that Act, directs that on and after 1st June 1991, pilotage shall in all circumstances be compulsory for ships of 50 m. or more in length navigating in the Upper Area.

3. THE INNER AREA:

Pilotage is compulsory for all ships navigating in the Inner Area, except ships of less than 50 m. in length overall.

4. THE OUTER AREA:

Pilotage is compulsory for all ships navigating in the Outer Area, except:

4.1 Specified vessels and passenger vessels of less than 50 m. in length overall.

4.2 All ships of less than 80 m. in length overall other than specified vessels and passenger vessels.

5 A ship which is being navigated in the compulsory area and in circumstances in which pilotage is compulsory for it, must be under the pilotage of:

(a) An authorised Pilot, or

(b) A person who is bona fide, the Master or First Mate of the ship, and possesses a Pilotage Exemption Certificate granted by the Port of London Authority in respect of the area (or a specified part thereof) and ship.

Pilotage Exemption Certificates may be granted by the Authority for the following geographical areas within the compulsory area. Areas ONE and TWO below comprise the Outer Areas, and Areas THREE and FOUR comprise the Inner Area.

Area One: Between the Seaward Limit of Pilotage Jurisdiction in the vicinity of the Outer Tongue Buoy and Sea Reach No. 1 Buoy, via the Edinburgh and the Princes Channels.

Area Two: Between the Seaward Limit of Pilotage Jurisdiction in the vicinity of the Sunk Head Tower Buoy and Sea Reach No. 1 Buoy, via the East Swin Channel/Barrow Deep and the Black Deep.

Area Three: Between Sea Reach No. 1 Buoy and a line drawn due North from Gravesend Pilot Station.

Area Four: Between a line drawn due North from Gravesend Pilot Station and London Bridge; but a certificate will relate only to the part of the area between Gravesend Pilot Station and a point half a mile above a specified berth within the area.

6. TAKING ABOARD AND LANDING PILOTS:

6.1 A ship for which pilotage is compulsory in the Inner Area, but not in the Outer Area, shall take aboard or land a Pilot in the vicinity of the Warp/Oaze Deep, East of Sea Reach No. 1 Buoy.

6.2 A ship for which pilotage is compulsory in the Outer Area shall take aboard or land a Pilot beyond the Seaward Limit of Pilotage Jurisdiction as follows:

6.2.1 All ships with an actual draft of less than 6.0 m. in the vicinity of N.E. Spit Buoy.

6.2.2 All ships with an actual draft of 6.0 m. or more, when entering or leaving from or to the North, in the vicinity of the Sunk Light Vessel.

6.2.3 All ships when entering or leaving from or to the South, in the vicinity of N.E. Spit Buoy.

7. ADVERSE WEATHER CONDITIONS:

In adverse weather conditions, the boarding or landing of an authorised Pilot at the points referred to in Paragraph 6 of this direction may be impracticable. In such circumstances, a ship may board or land a Pilot in more sheltered waters in accordance with advice notified at the time by the Port of London Authority from the London Port Control Centre at Gravesend. An authorised Pilot will at such times be stationed at the London Port Control Centre at Gravesend in order to give advice to ships navigating in the area.

8. PROCEDURE FOR OBTAINING THE SERVICES OF AN AUTHORISED PILOT:

It is imperative that good notice is given of the requirement for the services of a Pilot. To comply with the compulsory procedure, an order for a Pilot must relate to the time that the Pilot is required at the boarding point whether inward bound or departing from the port. If the pilot service is unable to supply a Pilot, due to stress of weather or other unforeseen circumstances, due allowance will be made. Ships' Owners or Masters who fail to provide the proper information in a timely manner may be liable to a surcharge and may cause a delay to the ship.

9.1 *ETA's for Inward Bound Ships:*

Ships requiring the services of an authorised Pilot at the N.E. Spit, Sunk, Warp/Oaze Deep or Gravesend boarding/landing stations must make a provisional order and notification of arrival to the London Port Control Centre at Gravesend, *24 hours in advance*, stating the ETA at the appropriate boarding/landing station, g.r.t./g.t., length overall, draft and destination (name of berth or anchorage). This notification may be in the form of a provisional order and will not incur surcharge penalties.

Confirmation of the above information and a CONFIRMED order for a Pilot must be given to the London Port Control Centre *not later than 8 hours in advance* (This constitutes the COMPULSORY NOTICE after which time a surcharge may be imposed).

Up to 4 hours in advance, any change to an ETA must be notified to the London Port Control Centre. Thereafter, any further changes and the final advice of ETA must be given when the ship is in VHF radio contact with the appropriate Pilot Station.

Ships engaged in short sea voyages may give notice of the CONFIRMED order for a Pilot and ETA at the time of leaving the previous port, where this is less than the above compulsory notice.

Should the services of an authorised Pilot be cancelled within 4 hours of the confirmed ETA, a cancellation charge will be made.

Note: Ships bound for London (or where applicable the Medway), which anchor in the general vicinity of either the Sunk, Outer Tongue or Margate Roads (i.e. at outer anchorage) or are inward from any port adjacent to the limits of the London Pilotage Area, are required to give not less than 8 hours notice of the requirement for a Pilot and anything less will incur a surcharge.

9.2 *ETD's for Outward Bound Ships, Ships Proceeding from one Berth to another or Ships Moving from an Anchorage:*

Ships requiring the services of an authorised Pilot to depart from a berth, buoy or tier, in the Port of London, move from one berth to another, or to move from an anchorage, must notify London Port Control Centre *24 hours in advance*, giving their ETD from the berth, buoy, tier or anchoage, g.r.t./g.t., length overall, draft, destination and landing point. This notification may be in the form of a provisional order and will not incur surcharge penalties.

Confirmation of this information and a CONFIRMED order for a Pilot must be given to London Port Control Centre *not later than 4 hours in advance* (This constitutes the compulsory notice, after which time a surcharge may be imposed). Thereafter, changes to the ETD must be notified to the London Port Control Centre until 2 hours before sailing, when contact should be made direct to the Gravesend Pilot Station by VHF radio or telephone.

Should the services of an authorised Pilot be cancelled within 3 hours of the confirmed ETD, a cancellation charge will be made.

9.3 *Ships Anchoring in the Port of London:*
Ships required to anchor before proceeding to their berth, must confirm with the Duty Port Controller at London Port Control Centre by VHF radio, that the Pilot may remain on board until the ship is required to get underway. No arrangement may be made with any individual Pilots.

Under normal circumstances, when a ship anchors for an extended period, the Pilot will disembark and be replaced by another Pilot when the ship proceeds.

Inward or outward bound ships required to anchor and which have used the services of an authorised Pilot must, as soon as is practicable, advise the Gravesend Pilot Station on VHF radio of their ETA at the anchorage in order to land the Pilot. When a Pilot is required to move from the anchorage, the ship must comply with the requirements of Paragraph 9.2 above.

9.4 *Ships Requiring Pilots to Join or Disembark at Continental Ports:*
Shipowners/Agents wishing a Pilot to board the ship at a continental port or to remain on board to a continental port, must obtain the approval of the Pilotage Coordinator at the Gravesend Pilot Station (Tel: Gravesend (0474) 562333, *not later than 5 days* before the service is required. Charges for this service will be published by the P.L.A. No arrangements may be made with individual Pilots.

Should the services of an authorised Pilot be cancelled within 2 days prior to the date required to join the ship at a continental port, a cancellation fee will be made.

Pilots authorised by the P.L.A. may only act as Pilots within the Port of London compulsory pilotage area. The P.L.A. does not provide deep sea pilotage services.

9.5 *Berthing Pilots:*
Ships of 160 m. or more in length overall or 11,000 g.r.t. or more, whichever is less, are required to employ the services of an authorised Berthing Pilot when berthing or unberthing at the oil wharves or jetties at Shellhaven, Coryton, Canvey Island or the Canvey Methane Terminal.

9.6 *Inner List Pilots:*

9.6.1 Oil Jetties:
Ships of 275 m. or more in length overall or 12.3 m. draft or more, whichever is less, are required to employ the services of an authorised Inner List Pilot when navigating between the Seaward Limit of Pilotage Jurisdiction and the oil wharves or jetties at Shellhaven, Coryton, Canvey Island or the Canvey Methane Terminal.

9.6.2 Ships bound to or from the Medway Ports:
Ships of 12.0 m. draft or more are required to employ the services of an authorised Inner List Pilot, when navigating between the Seaward Limit of Pilotage Jurisdiction and Former Seaward Limit bound to or from the Medway Ports.

10. BOARDING AND LANDING POINTS FOR SHIPS BOUND TO OR FROM THE PORT OF LONDON:
Boarding and landing of Pilots will be carried out by launches operating from Harwich (Sunk Light Vessel), Ramsgate (N.E. Spit Buoy), Sheerness (in the vicinity of the Warp/Oaze Deep to the East of Sea Reach No. 1 Buoy) and Gravesend as appropriate. Pilot boats have a black hull, the word PILOTS on the side of the wheelhouse and fly a pilot flag by day and by night display the signals required by Rule 29 of the International Regulations for Preventing Collisions at Sea 1972 (as amended). Under normal circumstances, these pilot launches operate from their respective bases to ship and land Pilots.

10.1 *N.E. Spit Buoy:*
All ships with an actual draft of LESS than 6.0 m. and all other ships approaching the Port of London from the East and South or departing to ports to the East or South will, subject to weather conditions, ship and land their Pilots (provided by launch from Ramsgate) in the general vicinity of N.E. Spit Buoy and the Elbow Buoy, the charted location being Lat. 51° 25' N., Long. 01° 30' E. Ships which are constrained by reasons of their draft from using the North Edinburgh Channel, may embark their Pilot at N.E. Spit or proceed direct to the Sunk boarding and landing station.

10.2 *Sunk Light Vessel:*
Only ships with an actual draft of 6.0 m. or more approaching the Port of London from the North and N.E. directions or departing to the same area will, subject to weather conditions, ship and land their Pilots (provided by launch from Harwich) in the vicinity of the Sunk Light Vessel. The charted location being Lat. 51° 51' N., Long. 01° 35' E. Ships with an actual draft of less than 6.0 m. will only be permitted to ship or land their Pilot at the N.E. Spit Buoy Station. Any ship, arriving at the Sunk and taking a Pilot on boad, having advised in advance a draft of 6.0 m. or more, is found to have an actual draft of less than 6.0 m., will be liable to a surcharge.

10.3 *Warp/Oaze Deep:*
Ships which are exempt from compulsory pilotage for Areas 1 and 2, as defined in Paragraph 1.1 of these Regulations, will, subject to weather conditions, ship and land their Pilots (provided by launch from Sheerness) in the vicinity of the Warp/Oaze Deep and to the East of Sea Reach No. 1 Buoy.

10.4 *Gravesend:*
Ships which are exempt from compulsory pilotage for Areas 1 and 3, or 2 and 3, as defined in Paragraph 5 of these Regulations, will normally ship and land their Pilots at Gravesend off the Royal Terrace Pier.

11. SHIPPING OR LANDING A PILOT:
Mariners will appreciate the need to provide a satisfactory lee when shipping or landing a Pilot and may be requested by the pilot launch to change speed and course to enable the operation to be carried out safely.

12. SHIPS CLAIMING EXEMPTION OR EXCEPTION FR COMPULSORY PILOTAGE:
Ships claiming exemption or exception from compulsory pilota as defined in these Regulations, must notify the London P Control Centre *24 hours in advance* of their intention to cla exemption or exception; giving ETA/ETD as appropriate, s name, g.r.t./g.t., length overall, maximum draft, name, initials a exemption certificate number of the Master or First Mate who be piloting the ship on that voyage. Failure to provide t information will necessitate the ship taking the services of authorised Pilot, and could involve the ship in a delay as well the imposition of a surcharge on the pilotage dues. Ships, arriv from ports less than 24 hours distant, must provide the informat immediately after departure from that port.

13. COMMUNICATIONS:
The London Port Control Centre operates 24 hours a day and the centre for all initial orders for Pilots. It is equipped with V radio, telephones, telex and facsimile equipment.

Long range ETA's from ships at sea may be passed throug United Kingdom Coast Radio Station by M/F or VHF ra telephone, telex or telegraph addressed to "London Port Contr The Gravesend Pilot Station, situated at the London Port Con Centre, operates 24 hours per day and is the administration cen for all pilotage services and is able to provide advice Shipowners/Agents on all pilotage arrangements. It is equipp with VHF radio, telephones, telex and facsimile equipment.

RESTRICTIONS: Certain restrictions are placed on the navigation vessels carrying petroleum, chemicals, explosives and other hazardo commodities (See "Notices").

Vessels which are carrying any of the above mentioned cargo should call Gravesend for details of these restrictions and ascert whether it is permitted for them to navigate.

Notwithstanding any of the aforementioned restrictions, all vess should comply with the "General Directions for Navigation in the Por London 1991". (Copies obtained from the Chief Harbour Master, P of London Authority, London River House, Royal Pier Road, Gravese Kent DA12 2BG.

The tides at London Bridge have a range of 4.6 m. at Mean Nea and 6.6 m. at Mean Springs.

The sea approach to Shellhaven is dredged to allow the passage vessels to 13.7 m. at Mean Neap tides. For latest channel depths cont the Harbour Master or Thames Navigation Centre.

PORT CONTROL – LONDON:

London Port Control Centre: (Call sign "Port Control London") is t main operations centre for traffic information within the Port of Lond Authority area of jurisdiction. All information required by the Autho regarding ETAs and ETDs, etc., should be passed to this Centre. It a deals with matters concerning moorings in the River and enqui concerning Byelaws, regulations and shipping information.

Communications: VHF radio: Channels 16, 9, 13, 12, 18, 20. Telepho Gravesend 560311. Telex: 262880 Platns G. Facsimile: Grou Gravesend 352996.

Radar coverage and area of responsibility: Crayfordness to the sea

Tidal Information: Information on tidal heights from gauges at Walt Margate, Shivering Sands, Southend, Tilbury, Coryton, Denton, E Silvertown, Charlton, Tower Pier, Westminster and Richmond available on request.

Procedures: All vessels must report to this station on entering the P Limits inward bound or when leaving a berth within the area responsibility outward bound or when moving from one berth to anot It is also a requirement to report the vessel's progress at the "repor points" indicated on the Admiralty Charts of the area. Regular half-ho broadcasts of navigational information are made on VHF Channel 1 the hour and 30 minutes past the hour for traffic to the West of Reach No. 4 Buoy and 15, and 45 minutes past the hour for traffi seaward of Sea Reach No. 4 Buoy.

Thames Barrier Navigation Centre: (Call sign "Woolwich Radio") sub-centre to the Thames Navigation Centre with particular responsi for controlling navigation through the Thames Flood Barrier.

Communications: VHF Radio Channels 16, 14, 22. Tel: (0181) 855 Telex: 896157 Plabar G.

Radar coverage and area of responsibility: Radar from Crayfordne Greenwich. Area of responsibility from Crayfordness to Teddingto

Tidal Information: Tidal information from a gauge at North Woolwic other stations are available on request.

Regular half hourly broadcasts of Navigational information are on VHF Channel 14 at 15 minutes and 45 minutes past each hou

Procedures: All vessels navigating in the area of responsibility inform this station of their intention to do so and maintain a liste watch on VHF radio. Progress reports should be made at the "rep points" indicated on the Admiralty Charts. Special regulations a existence for navigating through the Thames Flood Barrier and Barrier Control Zone (Margaretness to Blackwall Point). See P London – annual summary of Notice to Mariners 1994.

Port of Tilbury: All vessels wishing to enter or leave the Port of T must book a time with the Harbour Master (VHF Channel 4). Tel: (0 852456. Fax: 01375-852251. The Harbour Master also deals enquiries for dock tugs, dummy pontoons and other services for ve in the Dock. Tilbury is operated by The Port of Tilbury London L

Patrol Service: A 24-hour patrol service is maintained by the Au whose launches can be contacted on VHF radio (Call sign "Th Patrol") on VHF Channels 16, 12, 14 and 6. They can also be con through "Port Control London" or Woolwich Radio.

General: The London Port Control Centre maintains close liaiso Owners, Agents, Pilots, Watermen, Port Health, Customs and and all the Emergency Services. It is available to give help and on any matters affecting ships and shipping.

ANCHORAGES: Great Nore and Little Nore Anchorages allocated by Medway Port Operations, all other anchorages allocated by the London Port Control Centre dependent upon the size and draft of vessel, the length of stay required at the anchorage and the specific details of the vessel, i.e. explosives, petroleum, etc.

Explosives anchorage at Chapman Anchorage for discharging/loading to/ex barge to/from appointed river wharves.

MAX. SIZE: Tankers:

Berth	*Depth at Chart Datum*	*Length*
Coryton	14.0 m. maximum	1,100 ft.
Shellhaven	14.6 m. maximum	1,200 ft.
Holehaven	11.2 m. maximum	720 ft.
Purfleet	8.6 m. – 11.2 m. maximum	700 ft.
Grays	11.2 m. maximum	620 ft. - 750 ft.

Other river and tanker berths restrictions apply according to tides and berth.

Passage for deep-draft tankers for berthing at Shellhaven and Coryton is sometimes over a period of 2 tides. Passage on the first tide to deep water anchorage, vessel to leave anchorage on make of second tide and arrive off the installation half an hour before HW of this tide.

RADIO: Outside U.K. waters from the South, call long range station "Portishead Radio"; approaching London, "Niton Radio" or "Northforeland Radio", giving Agent vessel's draft and ETA. "Port Control London" when in the Thames and its estuary.

TUGS: Tugs usually pick up vessels for Shellhaven and Holehaven in reaches approaching berth, or Gravesend for berths/docks up river. Tugs and lines can be hired from Alexandra Towing Co. (London) Ltd., Alexandra House, Royal Pier Road, Gravesend, Kent. Tel: (01474) 359361.

HEALTH: Port of London Health Authority:
Public Health (Ships) Regulations, 1979.

Notes for the guidance of Masters/ships Agents:

(1) It is the responsibility of the Master of a vessel due to arrive in the Port of London to report to the Port Health Authority the presence of sickness, animals or captive birds on board, or of the occurrence, during the voyage, of the death, other than by accident, of a crew member or passenger.

(2) This information should be transmitted to North Foreland Radio Station for forwarding to "Portelth London", not more than 12 hours or less than 4 hours before vessel's arrival in the Port.

(3) Vessels already in the Port can contact the Port Health Authority directly by telephoning (013752) 2663.
At Public Holidays (and all times other than 0900 – 1700 hrs. Monday to Friday) an answering machine is connected to this number giving the telephone number of the Duty Officer who will give any advice or assistance required.

(4) The Port of London Health Authority District includes that part of the River Medway comprising Sheerness, Isle of Grain, Ridham Dock and Queenborough.

Also see "Health – All Ports" before first U.K. port.

BERTHING:

Port of Tilbury: The enclosed dock system at Tilbury is operated by Port of Tilbury London Ltd.; the whole port area, approximately 300 hectares, being designated a Freeport.

The Port of Tilbury's cargo handling activities are divided into 3 operational areas – Containers, Conventional and Grain – all equipped with modern facilities to handle the full range of cargo types.

In addition to the above-mentioned berths, facilities exist at dedicated terminals for the handling of aggregates, scrap metal, bulk cement and, at a temperature-controlled store, chilled and frozen food produce. A dedicated container and trailer groupage depot is operated by the Port.

Depths of water shown for berths in the enclosed docks and for the riverside berths are the authorised depths to which the berths may be dredged. Actual depths may be less than the authorised depth and the advice of the Port of Tilbury's Harbour Master should be sought if necessary.

Entrance lock dimensions: Length 305 m. Width 33.5 m. Depth 7.3 m. below C.D.

Max. size: LOA 262 m., beam 32.3 m. and max. draft 11.4 m.

Access to berths (except the Grain Terminal, Northfleet Hope Container Terminal, riverside Ro/Ro terminal and passenger landing stage) is gained through an entrance lock.

Berth	*Length* (m.)	*Depth* (m.)	*Equipment*	*Remarks*
Container Terminal	952	11.6	4 high profile container cranes 30 tonnes, 1 low profile container crane 40 tonnes. Straddle carriers, tractor/trailer units and forklift trucks. Bromma tilt rotating spreader.	Container Division: Multi-user terminal offering a range of stevedoring and quay services for containers. Heavy lift and out-of-gauge cargoes handled by arrangement. 26 hectares fully paved to container standards. Up to 3,000 ground slots. Electric points for reefer containers. Ship working 24 hours a day, 7 days a week. Grid working 2300 hrs. Sunday to 1500 hrs. Saturday.
Forest Products Berths	3,000	10.8 to 11.6	Full range of specialist handling equipment including heavy duty forklift trucks, tractor/trailers.	Conventional Division: Over 60 hectares of storage space for forest products, of which 19 hectares undercover. Normal hours of working 0600 hrs. – 2200 hrs., Monday to Friday. Overtime working in accordance with customers' requirements.
General Purpose Berths	1,000	10.8 to 11.6	Full range of cranes, forklift trucks, tractor/trailer units.	Conventional Division: Ro/Ro and general cargoes (loose and palletised goods), project, awkward and heavy cargoes, vehicles and rolling cargoes, containers and other unitised traffics. Normal hours of working as above.
Riverside Ro/Ro Terminal	Ship length up to 152 m.	6.1		Suitable for bow or stern ramp vessels.
Passenger Landing Stage (London International Cruise Terminal)	Ship length up to 225 m.		2 covered gangways	Embarkation and disembarkation of passengers for vessels. Tilbury/Gravesend local foot passenger ferry.
Tilbury Grain Terminal	274.3 m. deep sea berth 70 m. short sea berth	12.8	100,000 tonnes silo capacity – 196 separate bins of varying size. Capacity of over 2 million tonnes p.a. Intake via water, road, rail and adjacent mills. 2×1,000 tonnes/hr. marine leg elevator towers. 2×200 tonnes/hr. pneumatic booms. 6 loading spouts at 1,000 tonnes/hr. Mobile loading conveyor.	Grain Division: Import and export of grains. Highly specialised and fast discharge systems together with purpose-built automated facility for handling grain for export. Terminal has direct feed by conveyor to adjacent mill sites. Normal hours of working 0700 hrs. – 2100 hrs., Monday to Friday. Overtime working in accordance with customers' requirements.
Northfleet Hope Container Terminal	260 m. in dock, 305 m. on riverside	10.7 m. in dock, 12.5 m. on riverside	5 container cranes (1×35 tonne and 1×45 tonne in dock and 3×35 tonne at riverside), straddle carriers, tractor/trailer units.	Tenant operation of Tilbury Container Services. Accommodation for 5,000 TEU, including 1,464 reefers. 24 hour working.

Private Wharfingers: († = not operational).

Berth	*No. of Berths*	*Length (ft.)*	*Depth (ft.)*	*Equipment*	*Remarks*
Bridge Wharf (Bow Creek) †	7 (barges)	270-290	15.0 (MHWS)	Up to 20 tonnes, mobile.	Metals of all descriptions and bu ore by grabs.
Bridges Wharf (Battersea) †	1	225	13.0 (MHWS) Dries at LW	2 cranes up to 10 tons.	Handling and storage of inflammable and hazardous chemical products etc.
Convoys Wharf	1	243 m.	7.5 m. (MLWS)	Ro/Ro pontoon and jetty, 6×2 tonne cranes 1× 50 tonne mobile crane.	Equipped with 2 floating Ro/Ro berths handling newsprint, forest products and general cargo.
	1	442	18.0 (MLWS)	Ro/Ro pontoon.	Operators of nationwide warehousing, transport and freigh forwarding.
Thames Europort Ltd.	2	200 m. (downstream) 150 m. (upstream)	36 (LLW)	1 Sku container mover, 12 tractor units, 4 forklift trucks.	2 Ro/Ro berths (bow, stern or quarter ramp) 22 acres hardstanding. 4,260 sq.ft. transit shed. Extended driver facilities a restaurant.
Denton Wharf	1	145 m.	10.4 m. (MHWS)	6×3 – 30 tonnes. 2×30 tonne container park gantries.	Discharge and loading of all type of conventional cargo and containers to and from ships and barges. Groupage service. Licensed for handling explosives.
Erith Deep Wharf (not operational)	1 (ship) 2 (barges)	600 600	21.0 (MLWS)	4×6.5 – 7.5 tonnes. 2×4.5 tonnes.	Direct handling ship/road transpo or ship/warehouse. Handling of forestry products. Lash/Seebee barges.
Imperial Wharf	1	91 m.	9.0 m. (LAT)	3×5 tonnes.	Forest products.
London Steel Terminal	2	90 m.	5.0 m. (MHWS)	2 cranes up to 30 tonnes.	Handling of steel using electro-mechanical grabs for steel coils. All operations including shipwork carried out under cantilevered ro providing all weather working. Max. size 3,000 d.w.t.
Lovells Wharf	1	280	18.0 (MHWS)	2 cranes up to 20 tonnes.	Steel and other metals (London Metal Exchange approved warehouse).
Mast Pond Wharf †	1	220	16.5 (MHWS)	1×5 tonne, mobile.	Bulk handling, overside or direct delivery.
Mulberry Wharf	1	69 m.	5.2 m. (MHWS)	1×5 tonne mobile, 1×2.5 tonne fixed.	Bulk handling, overseas and dire delivery.
Northfleet Terminal	3	614	9.75 m. (MLWS)	3×2.5 tonnes	1 deep water jetty (max. LOA 183 m.), 1 berth for oil barges and 1 barg bay. Open storage 20,000 sq.m. Covered storage 2,000 sq.m. Wood pulp and lumber handled.
Phoenix Wharf	2	625-800 (floating jetty)	21.0 (MLWS)	5 cranes up to 30 tonnes. (8 – 10 tonnes ex-ship's hold). 9 quay cranes up to 10 tonnes.	Forest products in all forms, ste fertilisers and bulk cargoes, emp containers. Bulk wine and spirits. General cargo.
Purfleet Deep Wharf	1 (Ro-Ro Berth)	450	16.0 (MLWS)	3 tugmasters.	For continental ferry service and Import/Export of motor vehicles.
	3 (2 Ro-Ro)	1,640	27.5 (MLWS)	6 (jetty)×5 – 6 tonnes. 2 (shoreside)×40 tonnes.	Equipped with modern floating Ro/Ro berth. Handling of foresty products and general cargo.
Tate & Lyle Sugars (Silvertown)	1	162 m.	8.9 m. (LW)	I grab crane 1 continuous ship-unloader	Max. LOA 560 ft. – 570 ft. Max. draft 29 ft. Max. size 23,000 d.w.t. Discharge rate 750 tons per day. Fresh water and fuel available.
Tower Wharf (Northfleet)	3	650	38.0	4×5 tons 3×40 tonnes gantry cranes.	Wharf operated by Cargo Trans Services Ltd. Max. size 40,000 d.w.t. Max. draft 11.0 m. Max. LOA 200 m. Steel, forest products and gene cargo handled.
Victoria Deep Water Terminal	1 (coasters)			1×5 tons	Fuel available by barge or truc Fresh water not available.
	2	850	22.0 (MLWS)		Currently used for aggregates.
	1	350	15.0 (MHWS)		

The depths quoted are to be taken as approximate only. For detailed information contact the Wharf Operator or London Port Control Cen

TANKERS: (Also see "Notices"). There are about 40 berths for tankers in the Thames District, main terminals of which are listed below. Recommended that Masters cable terminal with discharge manifold size, enabling wharf have correct pipes ready. Slop tanks are available at most wharves.

Company	*Berths*	*Length* **(ft.)	*Depth* **(ft.)	*Remarks*
Maxwells	1	170.0	—	Able to handle aggregate vessels 3,000 d.w.t.
BP (Fulham)	1	—	—	Lube oil, gas oil and spirits.
Esso (Purfleet) No. 1 (not in service)	1	Max. LOA 628	26.5 (LWS)	Max. size 28,000 d.w.t. Products handled: F.O., G.O., D.O., kero, gasoline. 4×10 in. (clean products); 2×10 in. (fuel oil). Max. pressure 150 psi.
Esso (Purfleet) No. 2	1	Max. LOA 117.4 m.	26.5 (LWS)	Max. size 8,000 d.w.t. Max. draft 6.9 m. Products handled: F.O., lube oil, G.O., kero. 3×6 in. (lube oil); 2×6/8/10 in. (fuel oil); Max. pressure 150 psi. Total capacity (Berths No. 1-2): White oils 187,000 tons. Fuel oil 126,000 tons. Lube oil 39,000 tons.
Mobil* (Coryton) No. 1	1	Max. LOA 650	Max. draft 33 (MLW)	Max. displacement 40,000 tons. Products handled: L.P.G., gas oil, lube oil, fuel oil, gasoline.
Mobil* (Coryton) No. 2	1	—	Max. draft 18 (MLW)	Coaster berth, max. displacement 2,000 tons. Products handled: Same as Berth No. 1 (excluding L.P.G.).
Mobil* (Coryton) No. 3	1	Max. LOA 900	Max. draft 44 (MLW)	Max. displacement 100,000 tons. Products handled: Crude and fuel oil (3,000 t.p.h.), gas oil (2,000 t.p.h.), gasoline (1,000 t.p.h.), products (350 – 500 t.p.h.). Other products handled: Diesel oil, naphtha and Av. Tur.
Mobil* (Coryton) No. 4	1	Max. LOA 1,200	Max. draft 45 (MLW)	Max. displacement 230,000 tons (320,000 d.w.t. with part load). Crude oil only handled. 4×16 in. steel arms. Rate 3,500 t.p.h. each arm.
Mobil* (Coryton) No. 5	1	Max. LOA 192 m. Max. draft 37 ft.	Depth 43 (MLW)	Max. displacement 40,000 tons. 4×10 in. arms for loading/discharging fuel oil, gasoline and gas oil (rate 2,000 t.p.h.). 1×10 in. arm for receiving refrigerated butane.
Conoco Ltd.	1	256 Max. LOA 625 ft.	44.0 (MHWS)	White oils, capacity 76,000 tonnes.
Oikos Storage Ltd., Canvey Island	1	720	37.8 Av. LW	Low flash bonded storage for hydrocarbon oils, chemicals and edible oils. 115 tanks totalling 350,000 cu.m. with tanks ranging from 25 cu.m. – 20,350 cu.m. Max. LOA 219 m., max. draft 11.5 m. at M.L.W.S.
Pinnacle Storage Ltd., Dagenham	1 (ship) 2 (barge)	750	34.0 (MLWS)	Mild and stainless steel storage – 238 tanks totalling 111,000 cu.m. with tanks ranging from 27 cu.m. – 4,532 cu.m. Low/high flash, bonded storage for chemical, minerals, fuel and edible oils. Max. LOA 228 m., max. draft 10.0 m. at M.L.W.S.
Murco Petroleum Ltd.	2	730	37.0 (MLWS)	Motor spirit, distillates. Storage capacity: 52,000 tonnes motor spirit. 10,870 tonnes distillates. Shares Blue Circle Industries Ltd.'s Wouldham Jetties with Unitank Storage Company Ltd.
Powell Duffryn Terminals Ltd.	7	840	10.5 m. (MLWS)	Hydrocarbon oils and all chemicals. Total storage capacity: 423,000 cu.m. Oil storage capacity: 365,000 cu.m. Chemical storage capacity: 58,000 cu.m. (50 cu.m. to 15,000 cu.m. capacity tanks). Max. LOA 238 m., max. displacement 45,000 tonnes.
Van Ommeran (West Thurrock)	3	750	34.0 (MLWS)	Hydrocarbon oils, chemicals, vegetable oils. Storage capacity: 352,000 cu.m. (134 tanks – 200 cu.m. to 10,500 cu.m. capacity). Max. LOA 228 m., max. draft 11.2 m. (LW). Max. size 40,000 d.w.t.
GATX	2	750	37.0 (MLWS)	High and low flash petroleum, some chemicals. Storage capacity: 310,000 cu.m. in 52 mild steel tanks (1,700 cu.m. – 20,800 cu.m. capacity). Shares Blue Circle Industries Ltd.'s Wouldham Jetties with Murco Petroleum Ltd. Max. LOA 228 m., max. draft 11.2 m. (LW).
Shell (Shell Haven) "A"	1	Max. LOA 150 m.	† 9.5 m.	LPG vessels only. Max. size 5,000 cu.m. due to loading arm envelope. Berth kept clear if VLCC on Jetty B. 1×6 in. LPG line.
Shell (Shell Haven) "B"	1	Max. LOA 355.0 m.	†14.6 m.	VLCC's and large crude carriers berth head down river at slack HW. Berth handles crude, fuel and white oils. 4×10 in. and 4×8 in. (white oils and fuel oil). 4×10 in. and 4×16 in. (crude).
Shell (Shell Haven) "C"	1	Max. LOA 238.0 m.	†11.0 m.	Max. deadweight 40,000 tons. Berth handles black and white oils. Max. deadweight allowed if VLCC on Jetty B is 12,000 tons. 4×10 in. lines.
Shell (Shell Haven) "E"	1	Max. LOA 183.0 m.	†9.5 m.	Max. displacement 20,000 tons. Chemicals and luboil only handled. 5×6 in. lines.
Shell (Shell Haven) "G"	5	No LOA restriction	(outer) †8.0 m. (inner) †4.0 m.	Berths No. 3, 4 and 5 are for estuarial craft only, max. deadweight 1,000 tons. Berth No. 1 (outer) max. deadweight 3,500 tons. Berth No. 2 (outer) max. deadweight 10,000 tons. if vessel over 3,000 deadweight tons on Berth G2 then restricted size only on Berth G1. 6×8 in. lines at outer berths and 5×6 in. lines at inner berths.
Oikos Storage Ltd.	1	Max. LOA 580 ft.	Depth (subject to dredging) 40 ft. Max. draft 32 ft.	Products handled: Gasoline, gas oil, diesel, kerosine, jet fuel. Pumping rates into barges, 200 – 250 t.p.h. with max. pressure 100 p.s.i. Discharge rate 400 – 1,500 t.p.h.

Other Wharves: In addition to the above some manufacturing and service industries have their own riverside premises with ship berths. London Port Control Centre will assist with information. Otherwise contact Waterside Manufacturers and Associated Industries. Tel: (0171) 4813681.

*Bunkers available at all berths. Fresh water not available.

**Unless otherwise stated.

†All berths subject to siltation, and Marine Superintendents should be consulted for current depths.

‡Tank cleaning is permitted when back loading operations are to take place. Tank cleaning for other purposes may take place only after agreement from the Terminal.

Dirty ballast separator system allows a cumulative rate of 1,500 cu.m./hr. from all jetties. No waxy material, chemicals or chemical additive is accepted.

Vessels should arrive with minimum possible ballast commensurate with safe handling of vessel.

Shell – Shellhaven: *Cautionary Advice:* Shellhaven Terminal is situated on the concave side of a bend in the river and, as a consequence, the tide does not run parallel to the berths. There is a strong outflow of tide from behind Berth "A" and "B" (the VLCC berth) during the ebb.

When swinging off the terminal before berthing or (for smaller ships) on sailing, due allowance must be made for the run of the tide and a close watch kept on passing traffic. Before a VLCC is berthed on Berth B the adjacent Berths A and C should be vacant or occupied by small craft.

Berthing Pilots: All vessels of 160 m. or more in length or of 11,000 g.r.t. or more, whichever is less, bound for oil jetties in the Shellhaven area are required to employ the services of a Berthing Pilot. (Drawn from senior P.L.A. Pilots). The Berthing Pilot will normally board the vessel from one of the berthing tugs.

Berthing Procedures: Deep draft ships (over 12 m.) are swung before berthing and should, therefore, arrive off the berths on a flood tide. Other ships berth heading up or down river according to the tidal direction at the time of arrival (always head to tide).

Tugs are made fast off No. 7 Sea Reach Buoy. Ships are swung off the berth with due allowance for the set of the tide being made. Extreme care should be exercised in selecting the precise swinging position as the flood tide sets strongly onto "Mucking Flats".

During the swing all tugs are on the hook. For VLCCs there are 3 tugs from the forecastle head and 1 from the poop. When swinging, 2 forward tugs will let go and come alongside to push the ship onto the berth. The vessel should always land on the fenders parallel to the berth. 2 "boatmen" will board the ship in the vicinity of the berth to assist and liaise between ship's crew, the mooring boats and the jetty during mooring operations. Moorings are taken ashore by motor boats (one at each end of the vessel). Spring lines are normally taken first, followed by breast lines, then head and stern lines. Liaison between the Pilot/Berthing Master and the terminal in positioning the ship is not always good, and it is recommended that a ship's officer with portable VHF be stationed near the manifold to assist in positioning.

Moorings – Cautionary Advice. During Spring tides a surface current of up to 2 knots setting out from behind the berth can be experienced on the ebb tide. Large deep ships should be securely moored prior to the start of operations. Upstream moorings in particular, must be of good material and well positioned. Mixed moorings of wire and fibre are not recommended and the terminal recommends that fibre tails be removed from wire moorings. There are no shore moorings.

Mobil – Coryton: *Berthing Pilots:* All vessels of 11,500 g.r.t. and over, bound for jetties in the Coryton area are required to employ the services of a Berthing Pilot. (Drawn from senior P.L.A. Pilots). The Berthing Pilot will normally board the vessel from one of the berthing tugs.

Berthing Procedures: Regardless of draft, VLCCs must not enter the berth dredged box until 1 hour prior to HW.

Deep draft ships (over 12 m.) are swung before berthing and should, therefore, arrive off the berth on a flood tide. Other ships berth heading up or down river according to the tidal direction at time of arrival (always head to tide).

Tugs are made fast at No. 6 Sea Reach Buoy. Ships are swung off the berth with due allowance for set and tide being made.

During the swing all tugs are on the hook. For VLCCs there are 3 tugs from the forecastle head and 1 from the poop. When swung 2 forward tugs will let go and come alongside to push the ship onto the berth. Berth 4 (VLCC) is fitted with a Marconi Semi Mark II approach speed measuring device. Information from this equipment is supplied to the ship by means of VHF radio telephone. (The service will be offered to the vessel when radio contact is first made, and radios will be placed aboard the vessel prior to its arrival off the berth).

Maximum impact velocity is 25 ft. per minute for a maximum displacement of 230,000 tons at a maximum angle of 12°.

Mooring arrangements for Berth 4 are as follows:

4 mooring dolphins are provided to take the breast ropes and head ropes from vessels. The 4 mooring dolphins are of equal strength and are capable of taking a load of 150 tons. Each mooring dolphin is fitted with triple hook assemblies capable of taking a load of 50 tons on a single hook.

Mooring hook assemblies are also fitted to each of the 2 berthing dolphins and at either end of the jetty head. Each assembly comprises two hooks which are capable of taking a load of 50 tons on a single hook. These mooring arrangements are intended to take the spring lines of vessels and have been designed to be capable of taking a load of 100 tons acting either parallel to berth face or up to an angle of 20° from this line. Any significant load applied at an angle greater than 20° from the berthing line may cause severe damage to the jetty head.

Mooring diagrams will be available to each vessel from tugs or boatmen.

2 shore breasting wires are provided, and it is recommended that vessels should make use of these.

2 "boatmen" will board the ship in the vicinity of the berth to assist and liaise between the ship's crew, the mooring boats and the jetty during mooring operations. Moorings are taken ashore by motor boats (one at each end of the vessel).

Moorings: Cautionary Advice. Strong tidal flows, especially during Spring ebb tides which can generate tidal flows up to 4 knots, demand a diligent tendering of vessel's moorings at all times.

Esso – Purfleet: *Berthing:* A vessel should come up river on the flood tide so as to arrive off the berth about 2 hours before HW. Then turn to starboard and berth port side to the jetty head.

Moorings: At Berth No. 1 the first lines run are a head rope to the buoy and a spring to the jetty. When the vessel is secured, she should have 2 head/stern ropes to the buoys, 2 breast lines to shore, and 2 backsprings to the jetty head. For large vessels the eye of a 5 in. shore wire is taken aboard and put over a set of bitts located aft. This wire is tensioned from ashore.

For large vessels or in bad weather, additional heavy wire/combination backsprings may be available from shore.

The vessel must provide "emergency towing wires" on her offsho bow and quarter, with eyes maintained at water level.

Van Ommeran – West Thurrock: *Cautionary Advice:* Both main bert are of similar construction. Berth No. 2 (down-river) is subject to hea silting.

Berthing: Depending on the size of the ship and the weather, 2 or 3 tu usually accompany the vessel from Gravesend. They secure with t tug's towline on the hook when about 1 mile from the terminal. Whe sailing, 1 or 2 tugs are used depending on the flash point of the produ

Vessels berth head to tide and may secure either side to jetty. Thos with drafts not exceeding 25 ft. can berth at any stage of the tide. Dee draft vessels (34 ft.) usually berth about 1 hour before HW, during t last of the flood tide, and turn off the terminal and secure port side t the jetty.

Moorings: No particular pattern of mooring is specified. Vessels usua secure with 2 or 3 head and stern ropes, 1 or 2 breast ropes, and spring at each end. 2 mooring launches are in attendance while berthin The vessel must provide emergency towing on her offshore bow a quarter, with eyes placed at water level.

No shore moorings are available.

CRANES: See "Berthing".

BULK CARGO FACILITIES: See "Berthing".

SPECIALISED CARGO HANDLING FACILITIES: See "Berthing".

BRIDGES: No bridges below Tower Bridge which opens for shipping request.

Queen Elizabeth II Bridge now open. Guaranteed headroom of 54 above M.H.W.S. is available between the white isophase lights on t main span. Vessels with an air draft in excess of 45 m. should conta the Harbour Master at the London Port Control Centre to arrange controlled passage.

STEVEDORES: Ordered by the Agents; no ETA to stevedores fro vessel necessary.

MEDICAL: Not necessary to contact Agents once port heal requirements satisfied unless urgent medical treatment required board on arrival. All medical treatment, vaccinations available.

DENSITY: Varies according to position and tides.

FRESH WATER: Available at all berths either from shore or barge.

FUEL: All types, grades available by barge, or from terminals.

FIRE PRECAUTIONS: Tankers – no smoking on open decks, o cabins. Deck fire hoses to be connected. Fire monitors to be trained manifold area. Explosive workings at Chapman Anchorage, sa precautions. Red flag to be flown by these vessels. Fire tug to be attendance when explosives being worked. Smoking not permitted the docks or berths.

CONSULS: All British Commonwealth countries are represented London by a High Commissioner's Office.

Most foreign countries maintain embassies or a consu representative in London.

REPAIRS: All repairs, gas freeing possible; pre-advice recommende

DRY DOCKS: Tilbury Dry Dock is closed. Nearest small dry docks in the Medway.

SURVEYORS: *Classification Societies:*

American Bureau of Shipping, 1 Frying Pan Alley, London E1 7H Tel: (0171) 2473255.

Det Norske Veritas, European Head Office, Veritas House, 112 Stat Road, Sidcup DA15 7BU. Tel: (0181) 3097477.

Germanischer Lloyd, Riverdale House, 68 Molesworth Str Lewisham SE13 7EY. Tel: (0181) 3181319.

Korean Register of Shipping, Room 319, Premier House, 10 Greyco Place, London SW1P 1SB. Tel: (0171) 2222840.

Lloyd's Register of Shipping, 71 Fenchurch Street, Lon EC3M 4BS. Tel: (0171) 7099166.

Registro Italiano Navale, UK Office, 52 Aberdour Road, Goodmay Ilford IG3 9PG. Tel: (0181) 5906543.

Inspection Services:

Cargo Superintendents (London) Ltd., 29 Cambridge Park, Wanst London E11 2PU. Tel: (0181) 9895191. (Bulk grain, vegetable minerals, chemicals).

Moore Barrett & Redwood Ltd., Old Station Approach, London Ro Purfleet. Tel: (01708) 865601. (Petroleum, petrochemicals, calibratio tanks and meters)

SGS Inspection Services Ltd., Testing Division, Gaw House, Alpe Lane, Alperton, Wembley HA0 1WU. Tel: (0181) 9982171. (Labora testing quality of raw wool, textiles, toys, electrical and consumer go

GANGWAY/DECK WATCHMEN: Available but not compuls Master's discretion.

OPENING/CLOSING HATCHES: Liner vessels by crew, with steve assistance. Tramp vessels according to charter party.

CERTIFICATES: These certificates to be on board.

Ship's Register.
Load Line.
Safety Radio.
Safety Equipment.
Safety Construction.
Oil Record Book.
Derat Exemption.
Previous U.K. Light Due Bills.
Cargo Gear and Chain Register complying to U.K. Factory Act
British Tonnage Certificate if available.

CUSTOMS ALLOWANCES: Customs usually permit 200 cigare 0.25 lb. tobacco per person on board for 4 days. They can ref issue duty free or amount allowed at their discretion. Usually 1.3 pints or 1 bottle spirits per person for 4 days. They can issu or refuse to allow as duty free at their discretion.

CARGO GEAR: To comply with Merchant Shipping Regulations chain and Cargo Gear Register to be on board. Stevedores supply cargo slings, etc.

BANKS: All British and most foreign banks represented in Lo British banks have branches in Thameside towns.

REPATRIATION: All facilities exist for changing crews, repatria

AIRPORTS: London Heathrow, London City Airport, Luton, Stansted and Gatwick Airports. Southend Airport serves domestic and Continental services.

TIME: British Summer Time which is 1 hour in advance of GMT. GMT during Winter months.

HOLIDAYS: *Public Holidays:* Work is available on official holidays if practical. New Year's Day, Good Friday; Easter Monday; May Day Monday; Spring Bank Holiday Monday; August Bank Holiday Monday; Christmas Day; Boxing Day.

POLICE/AMBULANCE/FIRE: Contact by public telephone; dial 999 and ask for service needed.

EMERGENCY CO-ORDINATION CENTRE: See "London Port Control Centre" and "Notices".

TELEPHONES: Ship to shore connections available at most berths.

SERVICES: All types of service for navigational aids, radar, compass adjusting, nautical instruments repaired, slop discharge barges available. Tank-cleaning, gas-freeing services available.

GARBAGE DISPOSAL: Garbage collection services are provided by private contractors at most berths. Contact should be made through ship's Agent.

WASTE OIL DISPOSAL: Service available through private contractors, and at certain private berths. Contact should be made through ship's Agent.

SEAMAN'S CLUBS:

Queen Victoria Seaman's Rest. Tel: (0171) 9875466.
Anchor House, Canning Town. Tel: (0171) 4766062.
Stella Maris, Tilbury. Tel: (013752) 5641.
Merchant Navy Hotel, Lancaster Gate. Tel: (0171) 7238831.
All of the above offer accommodation.
Flying Angel, Tilbury. Tel: (013752) 2080.
Flying Angel, Gravesend. Tel: (01474) 363383.
Norwegian Seamen's Mission. Tel: (0171) 2375587.
Swedish Seamen's Mission. Tel: (0171) 2371644.
Finnish Seamen's Mission. Tel: (0171) 2374668.
British International Sailor's Society. Tel: (01474) 537875.
German Seaman's Mission. Tel: (01375) 378295.

SHORE LEAVE: Crew members allowed ashore.

IDENTIFICATION CARDS: Seamen's Identity Book required to be retained on board in port.

REGULATIONS: No livestock allowed ashore without permission Customs and Port Health Authorities. Rabies regulations enforced.

NOTICES: *Emergency Procedures for Vessels on The River Thames:* Report immediately by the quickest means available to either London Port Control Centre on VHF radio, "Port Control London", VHF Channels 12 or 13; Woolwich Radio, VHF Channel 14, or public telephone Tel: 999.

For vessels in Tilbury Dock – Contact "Tilbury Control" on VHF Channel 4.

Message: Vessel's name and present position together with details of emergency and assistance required.

Collision, Fire or Other Accident: If involved in or sighting a collision or accident report as above.

Human Injury or Man Overboard: In event of serious personal injury or recovery of a person from the river when vessel's crew require additional assistance report as above.

Machinery or Steering Failure: In event of machinery or steering failure report as above.

If necessary to anchor then endeavour to anchor clear of the fairway if size and draft permit.

Details of Port of London Authority Combined Accident Procedure Applicable to Vessels (POLACAP): In event of a major accident, the London Port Control Centre will broadcast on appropriate VHF Channels an outline of the accident, including in the message:

Word	*Meaning*
"POLACAP"	Serious accident as specified has occurred – Combined Accident Procedure is in force.

Action by Vessels on Receipt of POLACAP Message: Maintain current communications watch, keeping requests for information to MINIMUM. If in vicinity of accident be prepared for traffic regulation, which, if required, will be operated by PLA Harbour Master's Launches.

If directly involved in or assisting with the accident, switch to VHF Channel 16 for inter-ship/craft communications, and report to London Port Control Centre.

On scene control will be exercised from the forward control craft using call sign POLACHIEF. This craft will identify itself by a blue rotating light and in addition by day will hoist a red ball at the masthead.

When Combined Accident Procedure is no longer in force, London Port Control Centre will pass:

Words	*Meaning*
"CANCEL POLACAP"	Combative measures to deal with the major accident are completed and no further action required.

Merchant Shipping (Tanker) Regulations 1981 and (Amendment) Regulations 1982 (EEC Requirements):

In compliance with the above regulations: (Statutory Instruments 1981, No. 1077 and 1982 No. 1637). The Master of any tanker of 1,600 g.r.t. or over which is:

(a) Carrying a cargo of chemicals, gas or oil in bulk; or
(b) Non gas free from any of these cargoes shall:

Section I: Make a report to the Harbour Master by telex (Telex No. 262880) or via G.P.O. Coast Station before entering or navigating within the limits of the Port of London which shall provide the following information in the order listed:

(a) Tanker's name and call sign.
(b) Country where registered.
(c) Length, beam and arrival draft.
(d) Destination and ETA.
(e) Tankers bound for the Medway, ETA at Medway Buoy.
(f) Nature and type of cargo (together with Flash Point if known).
(g) Is an inert gas system fitted?
(h) If an inert gas system is fitted, is it fully operational?
(i) Do any of the cargo tanks have an atmosphere which has been rendered non-flammable?
(j) If the tanker has a cargo of chemicals or gas has it been issued with a certificate stating that it complies with:
  (i) IMO Code for Ships carrying dangerous chemicals.
  (ii) IMO Code for Existing Ships carrying Liquefied Gas.
  (iii) IMO Code for Ships carrying Liquefied Gas.
(k) Does the tanker have any hull, machinery or equipment defects which may materially affect:
  (i) Its safe manoeuvrability.
  (ii) The safety of other vessels.
or constitute a hazard to:
  (iii) The marine environment.
  (iv) Persons or property.

If the answer is 'Yes' to any of the 4 questions contained in (k), then details of the problem must also be provided.

If the Master fails to make a report or knowingly provides false information to the Port Authority or to a Pilot when boarding his ship he shall be guilty of an offence and liable on summary conviction to a fine not exceeding £1,000 or on conviction on indictment a fine.

If any Pilot boarding a ship to pilot it in or out of the port believes there are defects as described in sub-section (k) which have not been reported to the Port Authority he shall inform the Master of those defects and if the Master then fails to inform the Port Authority the Pilot shall forthwith give such information to the Authority himself.

Section II: Make a Check List available to the Pilot when he boards the vessel and make a copy of the same Check List available to the Harbour Master (if necessary through the vessel's agents).

If the Master fails to make a Check List available the Pilot shall forthwith notify the Harbour Master.

If the Master knowingly makes a Check List available which is materially false he shall be guilty of an offence and liable on summary conviction to a fine not exceeding £1,000 or on conviction on indictment a fine.

Inert Gas Systems and Crude Oil Washing (COW): (Reference Statutory Instruments No. 541, 544 and 687 of 1980).

The attention of tanker Masters are drawn to the following conditions, which must be observed whenever crude oil washing of tanks is to be undertaken in the Port of London.

1. *Notification*

(a) At least 24 hours prior notification of the intention to COW is to be given to the Harbour Master (through the London Port Control Centre) together with written assurance that all systems have been checked and found satisfactory in accordance with the ship's COW Manual and IMO requirements.

(b) One hour before the actual commencement of COW, a further advice must be given to the Harbour Master (through the London Port Control Centre) that COW is about to commence and that all systems are fully operational.

2. *Terminal Approval*

No vessel is to undertake COW without the approval of the Terminal Management and having complied with IMO COW requirements applicable to that ship.

3. *Failure of Systems*

Following the failure of the inert gas system to supply either the correct quality or quantity of inert gas, or a failure of any other part of a COW system, all cargo discharge, de-ballasting and tank cleaning must cease forthwith, and the Authority is to be immediately advised. Operations are NOT to be resumed until after consultation has taken place and agreement reached between the Authority, the Terminal Management and the ship's Master.

4. *Tanker Drafts*

No tanker crude oil washing is to be accepted at any berth where the vessel cannot safely be afloat at any state of the tide.

Notice:

Dangerous Substances in Harbour Areas Regulations 1987

1. INTRODUCTION

The Dangerous Substances in Harbour Areas Regulations 1987 ("DSHA Regulations") came into force on 1st June 1987. They apply in every harbour and harbour area in Great Britain, including therefore the Port of London. (Attention is also drawn to the Port of London Dangerous Substances in Bulk Byelaws 1991.).

2. MEANING OF "DANGEROUS SUBSTANCE"

The term "dangerous substance" is defined in Regulation 3 of DHSA Regulations. For a full understanding of the term, reference should be made to that definition. Essentially, however, it means any substance which by reason of its characteristic properties creates a risk to the health or safety of any person when the substance is in a harbour or harbour area. It includes any substance or article which is within the definition of "dangerous goods" in Regulation 1 (2) of the Merchant Shipping (Dangerous Goods) Regulations 1981.

3. NOTICE OF ENTRY

Regulation 6 requires that a dangerous substance shall not be brought into a harbour or harbour area, unless *notice* containing the required particulars has first been given. The notice must be of *not less than 24 hours* unless –

(a) the Harbour Master requires a *longer* time (up to 14 days) for operational reasons; or
(b) a *shorter* time is agreed, if it is not reasonably practicable to give 24 hours' notice.

A. *Entry by Vessel – Notice by Master or Agent*

A.1 *Persons to be notified*

If a dangerous substance is intended to be brought in by a vessel, the notice must be given by the Master or Agent to –

(a) the PLA's Harbour Master at the address mentioned below (*Note* – the requirement applies even if the vessel is in transit to or from the Medway); *and*

(b) the berth operator (*Note* – if the berth is at the Port of Tilbury, notice must be given to the Tilbury Harbour Master and the Berth Superintendent on Fax: (01375) 852354).

A.2 *Form*

The PLA's Harbour Master and the berth operator must be *in receipt* of the notice *before* the specified time. Notices should therefore preferably be sent by *telex* or *facsimile*.

The notice to the Harbour Master should be sent to –

The Harbour Master, Port Control London, Royal Pier Road,
Gravesend, Kent DA12 2BG
Telex: 262880. Fax: Group 3 – (01474) 352996.

A.3 *Contents*

The notice must contain such information as is *adequate to evaluate the risk* created by the substance and –

(a) Name of vessel, and PLA voyage reference number (if allocated).

(b) Berth to be used.

(c) Whether substance is to be discharged or remain on board in transit.

(d) Product name
IMO class
UN number
IMDG Code page number
Weight in tonnes or kilos.

(e) Mode of carriage: i.e. bulk, containers, Ro/Ro trailer or general.

(f) If in bulk –
  (i) whether petroleum or chemical, and
  (ii) Flash Point (FP) closed cup (if only an open cup FP can be given, this fact should be stated).

(g) Whether vessel has current certificate of fitness (if recommended by IMO).

(h) If an oil tanker, whether vessel has valid cargo-ship Safety Construction and Safety Equipment Certificates (if required under a SOLAS convention).

B. *Entry by Road or Rail – Notice by Transport Operator and Ship's Agent.*

B.1 *Transport Operator*

If a dangerous substance is intended to be brought in by road or rail, the notice must be given by the transport operator.

The notice must be given to the Harbour Master and Berth Operator and must contain such information as is *adequate to evaluate the risk* created by the substance and –

(a) Name of the transport operator.

(b) Berth to which substance is to be sent.

(c) Name of vessel for which intended (if known), with date and estimated time of departure.

(d) Product name
IMO class
UN number
IMDG Code page number
Weight in tonnes or kilos.

(e) Method of packaging.

Note: In the case of Port of Tilbury, notify Tilbury Harbour Master.

B.2 *Ship's Agent*

Information about the loading and estimated time of departure of the vessel (as required at (c) above) is important but may not be readily available to the transport operator. Also, the PLA's Harbour Master needs to have the information in a *form* which related mainly to the vessels on which the substances are to be carried. The information given by transport operators under the DSHA Regulations will not normally be in this form, but information in this form has hitherto been given by ship's agents in accordance with Merchant Shipping (Tankers) Regulations 1981 and Amendment Regulation 1982 (E.E.C. Requirements).

Ship's agents should therefore *continue* to give notice to the PLA's Harbour Master at least *24 hours before* a dangerous substance is *loaded* on to a vessel *anywhere* in the Port of London. The notice should be given in the manner stated at A.2 above and should contain the information stated at A.3 above (except for item (c)).

4. TILBURY DOCKS

Dangerous goods intended for loading or discharge in the Tilbury Docks continue to be subject to the PLA's published Schedule of Dangerous Goods. Attention is particularly drawn to the terms and conditions for explosives (class 1) and radio-active substances (class 7).

In addition to notification under the DSHA Regulations, some descriptions of dangerous substances (designated in the Schedule as Group 3, require the *prior approval* of the Port of Tilbury Harbour Master before entering the docks. Application should be made to the Harbour Master, Port of Tilbury London Ltd., Tilbury Freeport, Tilbury, Essex RM18 7EH. Tel: (01375) 852456. Telex: 995441. Fax: (01375) 852354.

5. FURTHER REQUIREMENTS OF DSHA REGULATIONS

It is impracticable to set out all the provisions of the DSHA Regulations in this notice, but particular attention is drawn to the following:

5.1 Movement of Vessels

(a) Regulation 7 confers on the Harbour Master powers of prohibition, removal and regulation relating to dangerous substances.

(b) Regulation 10 requires that a vessel shall not be placed alongside another vessel carrying Schedule 3 dangerous substance without the permission of the Master of the other vessel and of –
  (i) the berth operator, or
  (ii) the Harbour Master (if the vessel is not at berth).

(c) Regulation 14 requires the Master of a vessel carrying dangerous substance to anchor or moor his vessel only whe directed by the Harbour Master.

(d) Regulation 15 requires that the Master of a vessel (other tha dumb barge) carrying a Schedule 3 dangerous substance sh ensure that the vessel is in a state of readiness to be moved any time (tidal conditions permitting).

5.2 *Permission for Certain Operations*

(a) Regulation 20 requires the Master of a vessel to obtain t Harbour Master's written permission before transferring dangerous substance by pipeline to another vessel.

(b) Regulation 22 requires the Master of a vessel carrying or whi has carried dangerous substance in bulk to obtain the Harbo Master's permission before discharging slops or ballast, pump bilges, gas-freeing or purging tanks and before crude oil washi a cargo tank.

5.3 *Marking of Vessels*

(a) A vessel carrying a Schedule 3 dangerous substance must car the lights or flags required by Regulation 8.

(b) A barge carrying one or more dangerous substances in t quantities stated in Regulation 11 (1) must display the haza warning panels required thereby (or those panels and the labe required by regulations 11 (2)).

6. OTHER PROVISIONS

Attention is drawn to the following:

Port of London River Byelaws 1978

No. 6 – Escape of dangerous substance – vessel not to proce above No. 1 Sea Reach Buoy except with permission Harbour Master.

No. 7(f)– Spillage of liquid in bulk to be forthwith notified to Harbo Master.

AUTHORITY: Port of London Authority, London River House, Royal P Road, Gravesend, Kent DA12 2BG. *Tel:* (01474) 562267, (0147 262880. *Telex:* 995553. *FAX:* (01474) 562277. *Contact:* D.J. Jeffe Chief Executive. Rear Admiral Bruce Richardson, Chief Harbour Mast

Port of Tilbury London Ltd., Leslie Ford House, Tilbury Freepo Tilbury, Essex RM18 7EH. *Tel:* (01375) 852200. *Telex:* 99511 *FAX:* (01375) 855106. *Contact:* Charles Hammond, Managing Direc

LONDONDERRY (incl. Moville): 55.02 N. 07.16 W.

(See Pla

The main port of Londonderry is now situated at Lisahally, about 17 mi from the sea, at the confluence of the River Foyle with Lough Foyle

PORT LIMITS: Extend from Craigavon Bridge to a line drawn fr Greencastle Fort in Co. Donegal to the Tower on Magilligan Poin Co. Londonderry.

DOCUMENTS: For Londonderry see "Belfast". For "Moville" s "Dublin".

Since the Port of Londonderry falls within the Republic of Ireland a the United Kingdom, both Governments are concerned in regar Customs documents. Moville, which is situated down river fr Londonderry, is located in the Republic of Ireland and is the anchor where deep-sea vessels lie prior to proceeding to Londonderry. Sho vessels discharge cargo or load cargo at this anchorage, Irish docume are required. The port is under the control of the Londonderry Port a Harbour Commissioners who are recognised by both Governments

PILOTAGE: The Londonderry Port and Harbour Commissioners are Pilotage Authority for the Londonderry Pilotage District. For informa regarding pilotage application should be made to The Secretary, Har Office, Londonderry, Northern Ireland. Tel: (01504) 860555.

Pilotage is compulsory, vessels normally taking the Pilot Carrickarory Pier, Moville. A Pilot may be taken at the Fairway buo special arrangement.

The Pilot station is located at Carrickarory Pier, Moville, in pos Lat. 55°10'57" N., Long. 07°03'27" W.

Deep-draft vessels usually take Pilot 2 hours before HW t Londonderry, so as to arrive at Londonderry on the top of HW.

Pilotage service may be obtained in response to following signal

Inward-bound vessels: By day. 1. The International Code Signa 2. The International Code Signal P.T.; 3. The Pilot Jack hoisted a fore. If required after hours telephone Harbour Radio (Tel: (01 860313).

By night. Pilot Station unattended at night. Vessels should co harbour radio on VHF Channel 14 or Tel: (01504) 860313.

By day or night. 1. By VHF (FM) Channel 14 to the Pilot Stat Carrickarory Pier. 2. By VHF (FM) Channel 14 to the pilot launch "F Leader." 3. After hours and weekends VHF (FM) Channel 14 to Har Radio.

In poor visibility. By sounding the letter G in Morse Code o steam whistle or siren.

As visibility to seaward from Carrickarory Pier is restricted important that Owners, Masters or Agents notify the Berthing M (Tel: (01504) 861113) or outside Office hours Harbour (Tel: (01504) 860313) of the name of vessel; estimated time of a at the Pilot Station; draft of water of the vessel. It is also importa VHF (FM) communication be established with Pilot Station, pilot la "Foyle Leader", or Harbour Radio as early as possible before ar Lough Foyle. Call signs, frequencies and procedure are as follow

VHF (FM) Communications:

1. Pilot Station at Carrickarory Pier, Moville: Call sign "Foyle Equipment VHF (FM) R/T single frequency working. A con listening watch is kept during office hours on Channel 14 (156.70 except when pilot launch is operating, when watch is transferred launch.

2. **Harbour Radio:** A continuous listening watch is kept on Channel 14 (156.70 MHz) outside of office hours.

3. **Pilot launch:** Name of vessel "Foyle Leader". Equipment VHF (FM) R/T single frequency working. When launch is operating a listening watch is kept on Channel 14 (156.70 MHz).

4. **Harbour Office, Londonderry:** Call sign "Harbour Office". Equipment VHF (FM) R/T single frequency working. All vessels fitted with VHF (FM) R/T while navigating in the river or at anchor in Moville Bay should keep a listening watch on Channel 14 (156.70 MHz).

Messages must be restricted to those related to the movement of vessels and safety of vessels and persons. Messages of any other nature and messages of a personal character cannot be accepted.

A continuous listening watch is kept on Channel 16 (156.80 MHz) which is only to be used in circumstances involving distress and safety.

Outward-bound vessels and vessels shifting:

When the services of a Pilot are required for an outward-bound vessel or for shifting a vessel, 3 hours' notification should be given to the Berthing Master (Tel: (01504) 861113) during office hours, of name of vessel; time of departure; draft of water of vessel; where bound. Early notification should be given to enable Pilot to board vessel in good time.

ANCHORAGES: The only anchorage at Londonderry is located at Moville.

RESTRICTIONS: See "Max. Size".

MAX. SIZE: For vessels using main port of Londonderry, overall length 190 m., beam 26 m. and draft 9.3 m. H.W.O.S.T.

Due to overhead power cables at Culmore Point, height clearance 39 m. H.W.O.S.T.

For vessels using N.I.E.S. Oil Jetty, Coolkeeragh, Londonderry, overall length 190 m., draft (salt water) 7.2 m.

HEALTH: Pratique is automatic except in the case where the Master suspects one of the dangerous diseases on board when he should notify the Agent.

Also see "Health – All Ports" before first U.K. port.

RADIO: Malin Head Radio Station, Republic of Ireland, covers W/T and R/T transmissions and Portpatrick Radio Station, Scotland, covers R/T transmissions.

TUGS: One tug is available which is owned by the Londonderry Port and Harbour Commissioners. Tugs lines normally used.

BERTHING: Vessels of deep draft or large dimensions can only berth at Londonderry to arrive on top of high water. Decisions in this matter are taken by the Pilots in conjunction with the Harbour Master.

A total of 365 m. of ferro-concrete wharf is available. All berths dredged to 10.0 m. LWOST

CRANES: 1×45 tonne mobile grab crane, 1×40 tonne mobile grab crane with automatic container spreader, 2×10 ton mobile grab cranes, 1×4 ton mobile grab crane and 1×4 ton mobile hook crane.

STEVEDORES: ETA advices should be given before 1600 hrs. on weekdays to arrange work for the next morning and before 1100 hrs. on Saturday to arrange work for Monday morning.

MEDICAL: Doctors and hospital facilities available. Agents should be advised in advance of any medical attention required.

TANKERS: No slop facilities available. Deep-sea tankers discharge heavy fuel oil for electricity power station at N.I.E.S. Jetty, depth 7.4 m., Coolkeeragh, diameter of pipes 8 in. Crew are required to connect and disconnect hoses under port conditions.

Shell Oil: Max. LOA 120 m. Depth 6.0 m.

Du Pont: Depth 7.8 m.

DENSITY: Water at Londonderry is brackish and average density 1005 to 1018.

FRESH WATER: Available at all berths direct from shore lines.

FUEL: Gas-oil and light marine diesel available by road tankers and from Shell Jetty at Pennyburn. Shell Mex and B.P. can supply light, medium and heavy fuel oil by road tanker.

CONSULS: Nearest at Belfast.

REPAIRS: Deck and engine repairs are carried out by a local engineering works. No major repairs available.

GANGWAY/DECK WATCHMEN: Can be covered by crew; shore watchmen available if required.

OPENING/CLOSING HATCHES: This is required to be carried out by ship's crew under local port labour conditions.

CARGO GEAR: Ship's winches and derricks should be in good working order and have DTI Certificates or equivalent. Cluster lighting is required for night work.

REPATRIATION: Can be arranged by ship's Agent on request.

AIRPORT: Eglington Airport 9 miles from city centre. Aldergrove International Airport (Belfast) 60 miles from Londonderry.

HOLIDAYS: Port Holidays at Londonderry are: New Year's Day; St. Patricks Day (17th March); Easter Monday; Easter Tuesday; First Monday in May; Last Monday in May; 12th July; 1st Monday and Tuesday in August; Christmas Day and Boxing Day.

POLICE/AMBULANCE/FIRE: Dial 999 and ask for service required, or Police 265161; Ambulance 45171; Fire 264321.

TELEPHONES: No telephones available for connecting on board.

SERVICES: Compass adjusters available from Glasgow.

Charts and publications available from Class 'A' Admiralty Chart Agent, Todd Chart Agency Ltd., 4 Seacliff Road, Bangor, County Down BT20 5EY. Tel: (01247) 466640. Fax: (01247) 471070.

IDENTIFICATION CARDS: Not obligatory but should be carried.

GARBAGE DISPOSAL: Collection or skip provided on request.

WASTE OIL DISPOSAL: Service available using sub-contractor's road tanker. Contact Capitol Oils, Ballynahinch (Tel: (01238) 561574. Fax: (01238) 561576). 48 hours notice required.

SEAMAN'S CLUBS: Non-residential Missions to Seamen at main gate.

CURRENCY: U.K.Pound (U.K.£).

REGULATIONS: Copies of Port Bye-Laws may be obtained through Agent.

GENERAL:

Charts: B.A. 2798, 2499.

Pilot Books: NP40 Irish Coast Pilot.

Lights: Admiralty List of Lights, Volume A (NP74).

AUTHORITY: Londonderry Port and Harbour Commissioners, Harbour Office, Port Road, Lisahally, Londonderry BT47 1FL, Northern Ireland. *Tel:* (01504) 860555. *FAX:* (01504) 861168. *Contact:* S.J. McIlvenny, Chief Executive. G.S. Wilson, Secretary.

LOWESTOFT: 52.29 N. 01.45 E. **(See Plan)**

DOCUMENTS:

Crew List (at least 2 copies).
Passenger List (at least 2 copies).
Manifest (at least 3 copies).
Customs & Health Documents (normal U.K. regulations).
Ship's Papers (to be presented to Customs and Port Authorities).

PILOTAGE: Pilots on standby at all times. Pilot launch fitted with VHF and maintains listening watch on Channel 14. Pilots can also be ordered by R/T via Humber and Northforeland Radio, hence by phone.

Pilot's telephone No. 560277, or at the Lowestoft Harbour Masters Office, Tel: 572286 (this number manned 24 hours). Pilot boat, black hull, orange upper work with "Pilot" painted on each side. Light and sound signals as laid down in the International Code of Signals.

Pilot boards vessel at West Holm Buoy or East Barnard Buoy. Vessel should not approach harbour closer than these limits when awaiting Pilot.

ANCHORAGES: Pilotage anchorage North of a line joining West Holm Buoy and Lowestoft Lighthouse.

RESTRICTIONS: No specific restrictions provided the height of tide is sufficient for draft of vessel. Large vessels normally enter on slack tide due to cross currents at entrance.

There are regulations governing the passage of vessels through the harbour entrance. Masters of vessels shall observe the Harbour Control Light (See Local Notice to Mariners No. 4 of 1992 (below)).

A green occulting light is shown on the North Pier Head and a red occulting light on the South Pier Head, from sunset to sunrise.

Several Inner Pier lights will be clearly visible from a vessel upon entering the harbour and some will also be visible from certain directions before entry.

A "horn" signal is fixed on the South Pier Head for use in foggy weather. 4 blasts of 2 seconds each will be given every minute.

Local Notice to Mariners No. 4/1992:

International Port Traffic Signals – Lowestoft

All Mariners using the Port of Lowestoft are advised that International Port Traffic Signals (No. 2 and No. 5) have been installed on the South Pier as an up-graded replacement for the white flashing traffic signal.

The new signals are sectored in favour of all marine traffic and are designed to convey the following messages:

Three vertical red lights	– Vessels shall not proceed.
Green, white, green vertical lights	– A vessel may proceed only when it has received specific orders to do so.

In the interests of marine safety, all vessels must observe these international port signals and navigate with the understanding that the Port Control, and departing vessels in the Outer Harbour, have extremely limited vision to the North of the entrance piers.

Note: Whilst accurate VHF communication by arriving and departing vessels is essential, small craft without VHF may consider the green, white, green signal in favour of *proceeding with extreme caution and navigational courtesy.*

Signed: Dock and Harbour Master.
14th December 1992.

MAX. SIZE: Max. length approx. 410 ft. Draft up to 20 ft. MHWS. (Check with Port Authority for current situation.)

HEALTH: See "Health – All Ports" before first U.K. port.

TUGS: A number of tugs are available; tug's lines normally used.

BERTHING: *Outer Harbour* (comprising Hamilton and Waveney Docks and Trawl and Yacht Basins). Used largely for fish traffic, liquid bulks and offshore module construction.

Width at entrance	144 ft.
Depth at entrance	23 ft. MHWS
Water area	40 acres
Length of quays	4,500 ft.
Depth of water at quays	18 ft. MHWS 12 ft. MLWS

Inner Harbour. Used for general cargo and grain traffic.

Width of bridge	74 ft.
Water area	70 acres
Length of quay	6,800 ft.
Depth of water at quays up to	23 ft. MHWS 17 ft. MLWS

CRANES: 1×35 tonne crane and 1×32 tonne container crane. Mobile cranes also available.

CARGO HANDLING FACILITIES: *Grain:* Silo with a capacity of 8,500 tonnes. Loading rate up to 300 tonnes/hr. and discharging rate up to 200 tonnes/hr.

Cement: Silos with a capacity of 3,600 tonnes.

Containers: Purpose built container terminal is equipped with a 32 tonne container crane and 2 park-gantry cranes.

Transit Sheds: 4 sheds with total area of 8,500 sq.m.

Open storage also available.

STEVEDORES: Shipping Agent should be advised of ETA, etc., to enable gangs to be available. Working hours: As required.

MEDICAL: Advance notice desirable of medical attention required on arrival. Hospital facilities available in the district.
FRESH WATER: Can be supplied at various points on quays from hydrants.
FUEL: Marine diesel available from road tankers or bunker berth located in outer harbour.
FIRE PRECAUTIONS: Local fire services available in an emergency. Special arrangements can be made for taking fire-fighting equipment to sea. Normal harbour fire-prevention regulations apply to all berths.

CONSULS:		
Netherlands	Tel: Lowestoft	572301
Norway	" "	"

REPAIRS: All types of deck and engine repairs are possible in the port.
DRY DOCKS: One dry dock. Length 248 ft. Width at entrance 48 ft. Depth of water on sill 14.5 ft. MHWS.
OPENING/CLOSING HATCHES: Carried out by crew.
AIRPORTS: Nearest international airport served by regular airlines is London (Heathrow). Smaller airport at Norwich (27 miles) served by regular airlines (Frequent flights to Amsterdam).
POLICE/AMBULANCE/FIRE: In an emergency dial 999 and ask for service required. For normal enquiries: Police 562121; Ambulance 572572; Fire 561700.
GARBAGE DISPOSAL: Skips are available by private arrangement or on request to Port Authority. Normal commercial rates.
WASTE OIL DISPOSAL: Service available by tanker trucks. Contact Caird Environmental (Oil) (Tel: (01493) 857264, mobile pager: 03991133-788088) or S&L Waste Oil Collection (Tel: (01493) 4420561). Tank cleaning: S&L Waste Oil Collection (Tel: (01493) 4420561).
SEAMAN'S CLUBS: Royal National Mission to Deep Sea Fishermen, 16 Waveney Road, Lowestoft, NR32 1BT. Tel: (01502) 565269.
CURRENCY: U.K.Pound (U.K.£).
SERVICES: Compass adjusting. VHF, Radar, radio repairs. All ships' provisions are available by arrangements with the shipping Agencies.
SHORE LEAVE: Leave is permitted.
GENERAL:
Air/Sea Rescue Services at R.A.F. Cottishall (35 miles).
Royal National Lifeboat Institution, lifeboat berthed at Lowestoft.
Modern transit sheds.
AUTHORITY: Associated British Ports, Port House, Lowestoft, Suffolk, NR32 1BG. *Tel:* (01502) 572286/7. *FAX:* (01502) 500032. *Contact:* A.D. MacFarlane, Port Manager. Captain J. Woolley, Harbour Master. Port Control, Fax: (01502) 586375.

LYDNEY: 51.43 N. 02.33 W. **(See Plan)**

PILOTAGE: Available from Sharpness.
RESTRICTIONS: Entry and exit only possible at HW and for a very short period afterwards.
VHF: Not permanently manned. Used solely for directing vessels. Standard multi-channel. Channel 16 for call up.
BERTHING: *Tidal Basin:* 82.3 m.× 22.8 m. Width of entrance 10.5 m. Depth at HWST 7.3 m.
Inner Dock: 237.7 m.×32 m. Width of entrance 7.0 m. Depth 3.6 m.
FRESH WATER: Limited supply from small bore tap.
FUEL: Not available.
AIRPORT: Gloucester (Staverton) 24 miles, Bristol 24 miles, Cardiff 30 miles.
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: U.K.Pound (U.K.£).
GENERAL: The port does not offer any cargo handling facilities.
AUTHORITY: Environment Agency, Midlands Region, Riversmeet House, Newtown Industrial Estate, Northway Lane, Tewkesbury, Gloucestershire GL20 7JG. *Tel:* (01684) 850951 *FAX:* (01684) 293599. *Contact:* R.J. Bishop, General Manager. C. Hardy, Harbour Master, Tel: (01594) 516399 (part-time only – 48 hours notice required).

MACDUFF: 57.40 N. 02.30 W. **(See Plan)**

PILOTAGE: Not compulsory but advisable (Contact Harbour Master).
ANCHORAGES: 2 cables N.W. of harbour entrance.
RESTRICTIONS: *Harbour Depths:* Depth of the entrance channel and outer basin is 10 ft. (3.04 m.) below MLWS, while the inner or Princess Royal Basin is 8 ft. (2.43 m.) below MLWS. As a general rule, local fishing vessels can enter at any state of the tide during Neap tides, but larger vessels may be restricted from entering one hour either side of low water at Spring tides.
MAX. SIZE: Max. LOA 61 m., max. draft 4.0 m. and max. beam 11.0 m.
RADIO: Stonehaven Radio.
VHF: Harbour Master on Channel 16, working on Channel 12.
BERTHING: A general cargo and fishing port, Macduff has a slipway with side slipping arrangements for up to 7 vessels. There are around 30 vessels fishing regularly out of Macduff, and the harbour has a completely enclosed fish market where sales are conducted from Monday to Saturday. The port's steady cargo trade consists of the export/import of barley, fertilisers, maize, distillers' dark grain and coal.
MEDICAL: Banff Health Centre.
FRESH WATER: Available on request.
FUEL: Available on request, 24 hours service.
REPAIRS: Facilities available.
SURVEYORS: Available through Agent.
OPENING/CLOSING HATCHES: By crew.
AIRPORT: Aberdeen, 45 miles.
POLICE/AMBULANCE/FIRE: Available through Harbour Office, dial 999 in an emergency.
BANKS: Bank of Scotland and Clydesdale Bank.
GARBAGE DISPOSAL: Skips available on quay.
WASTE OIL DISPOSAL: Tanker available through Agent.
AUTHORITY: Aberdeenshire Council, Harbour Office, Macd Aberdeenshire. *Tel:* (01261) 832236. *FAX:* (01261) 8336 *Contact:* W.J. West, Harbour Master.

MALLAIG: 57.01 N. 05.50 W.

PILOTAGE: Advisable to take Pilot, if first time call.
ANCHORAGES: In Loch Nevis.
VHF: Port Radio – Channels 10 and 9.
BERTHING: Length 85 m., depth 5.0 m.
CRANES: 1×10 ton mobile crane.
FRESH WATER: Available at all berths. Rate 20 t.p.h.
FUEL: Marine diesel available by road tanker.
GANGWAY/DECK WATCHMEN: Can be supplied upon request.
AIRPORT: Glasgow, 233 km. and Inverness, 180 km.
POLICE/AMBULANCE/FIRE: Dial 999.
BANKS: Bank of Scotland and Royal Bank of Scotland.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Skip available in harbour.
SEAMAN'S CLUBS: Mission to Deep Sea Fishermen.
DEVELOPMENTS: New basin to be built in 1996.
AUTHORITY: Mallaig Harbour Authority, Harbour Offices, Mal PH41 4QB. *Tel:* (01687) 462249. *FAX:* (01687) 4621 *Contact:* J.B. Murray, Harbour Master.

MANCHESTER: 53.29 N. 02.14 W. **(See Pla**

GENERAL: The Port of Manchester includes the whole of Manchester Ship Canal and Queen Elizabeth II Dock. The Cana approximately 36 miles long from its entrance at Eastham on R Mersey to the Manchester Docks.
DOCUMENTS:
1 Maritime Declaration of Health.
1 Crew Effects List.
2 Ship's Report by Master.
1 Home Office Form 1B6.
1 Stores List.
1 Certificate of Deck Cargo Tonnage.
1 Grain Certificate.
1 Light Certificate.
1 Port Dues Certificate.
1 Passenger List.
1 Landing Card for each Passenger.
Ship's Certificate of Registry.
Mercantile Marine Office Certificate – for British ships only.
Load Line Certificate.
Safety Equipment Certificate.
Lloyd's Certificate.
Derat Certificate.
Ship's Register.
Light Bills.
Safety Radio Certificate.
In addition, Manifests and Bills of Lading are usually sent to Agent from loading port.
PILOTAGE: Compulsory. Orders for Pilots may be lodged wi Harbour Master's Office at Eastham (Tel. (0151) 3271242/4). As notice as possible should be given, particularly in the case of in bound vessels due to arrive at Eastham. Helmsmen can be obtai same manner.
RESTRICTIONS: Eastham Locks. The main entrance to the Cana Eastham where there are two locks side by side, one 600 ft. by and the other 350 ft. by 50 ft. The outer or lower sill of each l 11.36 ft. below Chart Datum (1975). The levels of upper sills of the and 50 ft. locks are 32 ft. and 29 ft. respectively below statutory level in Canal.

Both locks are operated for incoming and outgoing vessels of s draft during a period of 8 hours on each tide, i.e. from 4 hours high water to 4 hours after high water.

The size of vessel which can navigate the Canal is governed dimensions of locks, the height of fixed bridges and limitations draft of vessel.

Maximum length: The greatest length measured be perpendiculars drawn at the foreside of the foremost extremity the afterside of the aftermost extremity of the hull or any attac to the hull shall not exceed 560 ft. The acceptance of ships pro above Ince with overall length greater than 530 ft. is subject to a of the Harbour Master.

The length measured between perpendiculars drawn at the foreside of the stern and at the afterside of the rudder post, or through centre of the rudder stock if there is no rudder post, on the Summer load waterline shall not exceed 535 ft.

The length measured between perpendiculars drawn at the afterside of the rudder plate and at the foreside of the foremost extremity of any part of the hull which is below a horizontal line drawn through the top of the rudder plate shall not exceed 544 ft.

Maximum beam: Vessels not proceeding beyond Ince Oil Berth: 72 ft. overall. Vessels proceeding beyond Ince Oil Berth: 63 ft. 6 in. overall.

Provided the height of masts and/or funnels or other structures is not more than 70 ft. 9 in. from water-line, vessels can pass under all fixed bridges under normal conditions. As, however, the headroom is less during periods of high-water levels, a vessel, in order to avoid possible detention, should reduce masts and funnels or other structures to 70 ft. above the water-line. The restriction as regards height does not apply to vessels proceeding only as far as Runcorn Bridge.

Facilities are available at Eastham for removing and replacing tops of masts and funnels.

MAX. SIZE: When vessels are loading inwards for the Canal, Masters should take these facts into their calculations and have regard to the following limitations, all of which are expressed as maximum draft in fresh water:

Vessels inward bound to a berth	*Arrival draft (in fresh water) at Eastham not to be such as would exceed:*
Between Eastham Locks and Ince Oil Berth	8.78 m.
Between Ince Oil Berth and Runcorn Lay-by (Other than Runcorn Docks)	8.07 m.
Between Runcorn Lay-by and Mode Wheel Locks	7.31 m.
In the Manchester Docks upstream of the Inner Gates of Mode Wheel Locks and downstream of the Railway Swingbridge.	5.48 m.

HEALTH: Foreign arrivals to complete Maritime Declaration of Health. They are cleared immediately on arrival by either a port doctor or an officer of H.M. Customs depending on where ship comes from and whether there is sickness on board.

Vessels arriving from ports within accepted area (N. European ports) and coastal arrivals need not present Declaration in all cases; when there is sickness on board the Port Health Authority must be informed preferably not more than 12 hours and not less than 3 hours before arrival.

Also see "Health – All Ports" before first U.K. port.

RADIO: FM VHF R/T equipment is installed at Eastham, Stanlow, Latchford, Irlam, Barton and Mode Wheel Locks as an aid to navigation on the Canal.

Ships which are equipped with the appropriate R/T channels are requested to establish contact with the nearest shore station before leaving a berth or lock within the harbour and thereafter to maintain a continuous listening watch on Channel 14.

Station	*Call sign*	*Channel*	
Eastham Locks	Eastham Locks	7	Docking instructions: When approaching Eastham Locks from seaward.
Eastham Locks	Eastham	14	Port operations: Vessels moving within the harbour should maintain a listening watch on Channel 14. After contact has been established the shore station will request the ship to switch to the appropriate speech Channel. Irlam, Barton and Mode Wheel Locks are for emergency use only.
Stanlow Oil Docks	Stanlow	14 20	
Latchford Locks	Latchford Locks	14 20	
Irlam Locks Lockmaster's Office	Irlam Locks	14 20	
Barton Locks Lockmaster's Office	Barton Locks	14 20	
Mode Wheel Locks Lockmaster's Office	Mode Wheel Locks	14 20	
Ship/tug communications	Name of ship/tug	8 10	Inward bound Outward bound

TUGS: The Canal Company maintains a fleet of high-powered tugs which may be hired to assist vessels, 12 hours notice required.

BERTHING:

Locality	*Miles above Eastham*	*Bank N–North S–South*	*Total Length in feet*
Queen Elizabeth II Dock	—	S	3,155
Eastham Laybyes	—	N	645
Eastham Laybyes	—	S	1,560
30-ton Crane Berth	0.50	S	600
Manisty Wharf	2.00	S	1,100
Ellesmere Port	2.875	S	2,250
Associated Octel Wharf	4.00	S	600
Shell Company of the United Kingdom Ltd., Shell Chemical Berth	4.25	S	500
Stanlow Oil Docks No. 1 & 2	4.50	N	2,070
Stanlow Laybye	4.625	S	600
Shell Company of the United Kingdom Ltd., Ince Coaster Berth	5.25	S	352
Shell Company of the United Kingdom Ltd., Ince Oil Berth	5.375	S	600
Ince (Powergen) Berth	5.50	S	600
I.C.I. Salt Berth	11.25	S	500
Runcorn Docks	12.25	S	7,500
Du Pont Co. UK. Ltd., Acton Grange Wharf	17.50	N	300
Warrington Wharf	19.00	N	350
Partington	27.375	N	1,885
Partington	27.375	S	1,236
Iriam Wharf	27.75	N	600
Barton Oil Berth	31.875	S	508
Irwell Park Wharf	32.25	N	1,100
Eccles Oil Wharf	32.50	N	600
Cerestar Wharf	32.75	S	700
Weaste Oil Wharf	33.25	N	557
Southern Oil Wharf	33.625	N	500
Manchester Docks	34.50	N & S	—

Weston Point Docks: Near Runcorn, 11 miles from canal entrance at Eastham. 10-12 berths for vessels up to 2,500 tonnes. Fixed, portal and mobile cranes for handling bulk cargoes.

CARGO HANDLING FACILITIES: Heavy duty floating crane with capacity up to 120 tonnes. Roll-on/Roll-off berth with strengthening to take loads of 300 tonnes.

STEVEDORES: The stevedores require to sight a certificate covering inspection and S.W.L. of slings used in pre-slung cargoes.

MEDICAL: Doctors and hospital facilities available. Agent should be advised in advance of any medical attention required.

TANKERS: *Queen Elizabeth II Dock:* This dock is adjacent to the locks at Eastham which give access to the Canal, and is approached from River Mersey through its own entrance lock. This lock is 807 ft. long by 100 ft. wide. The level of outer sill is 18.36 ft. below Chart Datum (1975). The dock covers an area of 19 acres in the form of a square and has four berths designed to accommodate large tankers, the dimensions of berths being as follows:

Berth No. 1	800 ft.	Berth No. 3	900 ft.
Berth No. 2	725 ft.	Berth No. 4	730 ft.

The dock is directly connected to oil installations by pipelines.

Stanlow Oil Docks: No. 1 & 2 (5 berths) 4.5 miles above Eastham Lock. Length 560 ft., draft 28 ft., beam 72 ft.

Ince Oil Berth: 5.5 miles above Eastham Lock. Length 560 ft., draft 28 ft., beam 72 ft.

Ince Coaster Berth: Max. length 350 ft., beam 53 ft., draft approx. 21 ft. dependent on current survey.

Barton: 32 miles above Eastham Lock. Length 508 ft., draft 24 ft., beam 63 ft. 6 in. Max. height above water-line 70 ft.

DENSITY: The water in lower section of the Canal between Eastham Locks and Latchford Locks is brackish. In all sections above Latchford Locks the water is fresh.

FRESH WATER: Available.

FUEL: Oil bunkers may be taken by arrangement with oil companies either from craft alongside or at various oil berths along the Canal.

CONSULS:

Austria
Bangladesh
Belgium
Bolivia
Denmark
Dominican Republic
Finland
France
Germany
Greece
Iceland
Italy
Jamaica
Latvia
Lebanon
Liberia
Monaco
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
U.S.A.
Venezuela

CUSTOMS ALLOWANCES: At discretion of local Customs Inspector. Normal allowances are equivalent to 0.5 lb. tobacco per man and equivalent to 1 bottle of wine per man. Allowances may be halved for home trade vessels. Vessels in port for more than 3 or 4 days may receive extra allowances.

TIME: British Standard Time is GMT plus 1 hour. Reverting to GMT during Winter months.

HOLIDAYS: New Years Day (January 1st); Good Friday (variable date); Easter Monday (variable date); May Day (variable date); Spring Bank Holiday (variable date); August Bank Holiday (variable date); Christmas Day (25th December); Boxing Day (26th December).

POLICE/AMBULANCE/FIRE: Dial 999 from any telephone and ask for service required.

AUTHORITY: The Manchester Ship Canal Company, Collier Street, Runcorn, Chester WA7 1HA. *Tel:* (01928) 567465. *FAX:* (01928) 567469. *Contact:* J.B. Chilton, Port Director. Captain R. Bailey, Harbour Master.

MEDWAY PORTS

(A) MEDWAY
(B) SHEERNESS
(C) ISLE OF GRAIN
(Kent Terminal and Thamesport)
(D) CHATHAM DOCKYARD
(E) ROCHESTER
(F) OTHER FACILITIES
1. BLOORS WHARF
2. FAVERSHAM
3. KINGSNORTH JETTY
4. OAKHAM NESS JETTY
5. OTTERHAM QUAY
6. QUEENBOROUGH
7. RIDHAM DOCK
8. GROVEHURST JETTY

(A) MEDWAY (See Plan)

PILOTAGE: *Pilotage to and from the Medway:*

Pilotage for vessels bound to or from the River Medway is compulsory for vessels 50 m. and over in length, and for vessels 80 m. and over in length seaward of the Medway Buoy. The Medway Pilots are stationed at Medway Navigation Service, Garrison Point, Sheerness, and operate a 24 hour service, 365 days a year. The compulsory area extends to Rochester, and includes The Swale, but 'mud' pilots are available, by arrangement, above Rochester and for creek wharves. The recognised seaward Boarding and Landing Station is in the vicinity of N.E. Spit Buoy, served by launches at Ramsgate.

Pilotage Exemption Certificates are available to certain regular traders, by application on the prescribed form.

VHF/RADAR: Medway Navigation Service (Medway Ports) is situated at Garrison Point, Sheerness. Tel: Sheerness 663025. Telex: 96435 (Call sign "Medway Radio"). Fax: (01795) 666596. Fitted with VHF, Channels 16, 74, 73, 9, 11 and 22. The station has radar service surveillance of Inner Estuary, Sea Reach, Medway Approach Channel and Lower Reaches of River Medway.

REGULATIONS: All vessels required to proceed in accordance with instructions of Port Authority. Vessels are requested to advise Medway Ports – Medway Navigation Service (Call sign "Medway Radio") VHF Channels 16 and 74 of ETA, shifting of sailing movements.

Prior notification to Medway Ports is required, detailing the carriage of all explosives and "dangerous goods".

GENERAL:

Tidal Information:

Tidal streams in the River Medway vary between about 2.5 knots at Springs and 1.5 knots at Neap Tides, although velocities vary considerably from Reach to Reach, the areas of maximum encountered velocities are: off Garrison Point Sheerness and through Rochester Bridge.

Average Tidal Heights are as follows: (metres)

Sheerness	5.8 MHWS	4.7 MHWN
Chatham	6.1 MHWS	4.8 MHWN
Rochester	6.0 MHWS	4.9 MHWN

High Waters occur approximately:

Margate	45 minutes	before Sheerness
Herne Bay	20 minutes	before Sheerness
Whitstable	10 minutes	before Sheerness
Rochester	9 minutes	after Chatham
Wouldham	20 minutes	after Chatham
New Hythe	25 minutes	after Chatham
Allington Lock	41 minutes	after Chatham

Tide Tables may be obtained at the offices of Medway Ports.

(B) SHEERNESS: 51.27 N. 00.44 E. (See Plan)

Situated on Isle of Sheppey at junctions of Thames and Medway Rivers.

DOCUMENTS: See "London".

PILOTAGE: See "Medway".

ANCHORAGES: For vessels entering River Medway up to 107 m. length, Little Nore Anchorage, Sheerness. Over 107 m. length – as directed by Medway Navigation Service (Medway Radio) or Thames Navigation to Great Nore, Sea Reach or Warps.

RESTRICTIONS: Subject to tidal conditions and under keel clearance appropriate size of vessel. Minimum depth of Medway Approach Channel 11.0 m. at Chart Datum.

Entry as directed by Medway Navigation Service (Medway Radio). Station keeps watch on VHF Channels 16 and 74.

Occasional restriction for vessels over 130 m. overall length entering approach channel between sunset and sunrise when the Traffic Warning Lights are exhibited from Garrison Point.

MAX. SIZE: Five deep water terminals for vessels up to 230 m. in length and 11.0 m. in draft.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Portishead. Local Stations: From South – Lands End, Niton, Northforeland. From North, Cullercoats, Humber, Northforeland.

VHF/RADAR: See "Medway".

TUGS: River Medway – For Sheerness, Ridham Dock, Isle of Grain, Oakham Ness – Tugs usually meet vessels at Garrison Point, Sheerness. Tug's lines used, no extra charge.

BERTHING: Sheerness, deep water berths and Ferry Terminal – directed by Medway Navigation Service (Medway Radio).

Berths equipped for handling containers, forest products, mo vehicles and general cargo of all kinds, including fresh fruit a vegetables.

Storage facilities available for vehicles, forest products and t warehousing of general cargo.

Sheerness Deep Water Berths – No. 1 – Suitable for vessels up to 230 length and 11.0 m. draft.

No. 2. Suitable for vessels up to 210 m. length and 11.0 m. draft.

No. 1/2. Retractable Ro/Ro pontoon serves both bert simultaneously, capable of 60 tonne payload.

No. 3. Suitable for vessels up to 230 m. length and 11.0 m. draft.

No. 4. (Vehicle Terminal) Suitable for vessels up to 250 m. length a 9.0 m. draft.

No. 5. Car and Ro-Ro Terminal for vessels of 110 m. length a 5.5 m. draft.

Ferry Terminal – Berth 10. Suitable for either bow or stern door vess of up to 165 m. in length and 7.0 m. in draft.

Car and Ro-Ro Terminal – Berth 11: Suitable for vessels up to 160 and 7.0 m. draft.

CRANES:

Berth No.	*Remarks*
1	3×5 tonne Electric 1×30 tonne Container Gantry
2	4×3 & 5 tonne Electric
3	5×3 & 5 tonne Electric
4	None (Car Terminal)
11	Ro/Ro/Ferry Terminal
12A	Mobile (Marine Services)

STEVEDORES: All stevedoring at Sheerness is provided by Medw Ports.

MEDICAL: 24 hours notice to Agents so that Port Medical Officer c be advised. Normal boarding point – Garrison Point Sheerness. All us hospital facilities available within 15 mile range of Sheerness.

DENSITY: Average density 1021/22.

FRESH WATER: Available alongside all berths (except Berths No and No. 5) at Sheerness.

FUEL: By barge, 48 hours notice required.

REPAIRS: All types of deck and engine repairs can be carried out eit in berth or at river buoys.

DRY DOCKS: None.

SURVEYORS: Cargo Surveyors available from London or Gravesen Lloyd's Agent in docks.

GANGWAY/DECK WATCHMEN: Gangway watchmen – servic recommended as all berths at Sheerness are tidal with average rise a fall of 5 m.

OPENING/CLOSING HATCHES: Within Sheerness Docks rigg gangs are employed by Medway Ports for this purpose.

REPATRIATION: Usual facilities available for crew changes repatriation can be arranged by various air/sea routes.

TELEPHONES: Police: Sheerness 661451; Fire: Sheerness 66238 dial 999 and ask for Fire Service; Ambulance: Sheerness 664079.

There are coin boxes on berths (except Berths No. 10 and No. 1

EMERGENCY CO-ORDINATION CENTRE: Medway Navigat Service, Garrison Point Fort, Sheerness Docks, Sheerness, K ME12 1RX. Tel: Sheerness 663025.

STORING: See "Prelims".

1. Yes.
2. No limitations except when loading dangerous goods or explosi
3. Yes.
4. Yes.
5. Standard practice – 24 hour customs availability.
6. No.

REGULATIONS: See "Medway".

GENERAL: All shipping movement co-ordinated by Medway Naviga Service, Tel: Sheerness 663025, all arrangements being made a notification of arrival or departure by vessel's Agent.

AUTHORITY: Medway Ports, Archway House, Sheerness Do Sheerness, Kent ME12 1RX. *Tel:* (01795) 561234. *Telex:* 96 *FAX:* (01795) 660093. *Contact:* B. Majumdar, General Mana Captain D. Stoyles, Harbour Master.

(C) ISLE OF GRAIN:

(1) Kent Terminal
(2) Thamesport

(1) KENT TERMINAL: 51.26 N. 00.43 E. (See P

DOCUMENTS:

2 Crew's Effects Lists.
2 Stores Lists.
Ship's Certificate of Registry.
Load Line Certificate.
Safety Equipment Certificate.
Derat Certificate.
Ship's Register.
Safety Radio Certificate.
Safety Construction Certificate.
2 Cargo Declarations.
1 Oil Pollution Certificate (OPIC).

PILOTAGE: See "Medway".
ANCHORAGES: *Estuary Passage and Anchorages:* Vessels proceeding to Isle of Grain will initially contact the Thames Navigation Service (Gravesend Radio Channels 16-12) and comply with the 'General Directions for Navigation in the Port of London 1975' until entering the Medway Area. Prior contact should be made with the Medway Navigation Service (Medway Radio, Channels 6-74-9-22). Anchorages are allocated according to size and draft of vessel and if outside the Medway area are nominated by the T.N.S.
RESTRICTIONS: Tidal port. 24 hour movements, subject to tidal conditions and under-keel clearance appropriate to size of vessel. The declared depth in the Medway Approach Channel is 11.0 m. at chart datum.

No vessels of 130 m. length and above can pass each other in the Medway Approach Channel between sunset and sunrise.
HEALTH: Under new procedures which apply from April 1st, 1978 a Health Clearance is only required if the vessel is "Suspect". In this case the Port Health Authority should be advised by radio message addressed to "Portelth London" not more than 12 hours and where practicable not less than 4 hours before arrival.

See "Health – All Ports" before first U.K. port.
RADIO:

Notice of 72 hours and over	– Portishead Radio.
Notice of 12 – 72 hours	– Landsend Radio.
Notice up to 12 hours	– from South, Northforeland Radio.
	– from North, Humber Radio.

RADAR/VHF: See "Medway".
TUGS: 3 tugs available from 0900 hrs.–1700 hrs. weekdays. If required outside these hours they must be ordered by 1600 hrs. the previous day for night work or by 1600 hrs. on Friday for weekend work. One tug is equipped for fire-fighting. Tugs join and leave vessels at Garrison Point, Sheerness. Normally use tug lines, cost included in tug hire.
BERTHING: There is one jetty (No. 1) of "T" headed design, suitable for coastal and ocean going vessels, which can accommodate vessels of various sizes up to a maximum of 45,000 tonnes displacement and 200 m. LOA. Maximum safe draft for the Medway Approach Channel and on the berths can be advised on request.

Jetty No. 2 is situated 1.5 cables to the East of Jetty No. 1 and is not in general use.

No deballasting facilities are available.
MEDICAL: Advance notice of medical attention and inoculations required is advisable. Hospital facilities available in surrounding areas.
DENSITY: Approx. 1020.
FRESH WATER: Not available.
FUEL: There are no bunkering facilities on site, prior arrangements can be made for the delivery of fuel by barge.
FIRE PRECAUTIONS: *Safety Regulations:* A copy of the BP Oil Kent Distribution Terminal Jetty Safety Regulations is put on board each vessel on arrival. The booklet additionally contains various tear-out Check Lists, forms for confirmation of bunker requirements and requests for immobilisation and permitted repairs. These must be completed by ship and shore representatives before operations commence.
REPAIRS: Local marine repair company can undertake repairs of general nature. No drilling or hot-work permitted alongside jetties.
GANGWAY/DECK WATCHMEN: *Gangways:* Vessels provide their own gangway and are responsible for maintaining it as a safe means of access.
CUSTOMS ALLOWANCES: At the discretion of the local Customs Officer. Normal allowances are 200 cigarettes (F.G.) or 100 cigarettes (H.T.) or equivalent and 1 bottle of spirits per man. Additionally 1.5 litres of wine per man per day. Separate arrangements apply when crew are leaving ship. Vessels in port more than 4 days may receive an additional allowance.
REPATRIATION: All facilities for repatriation by land, sea and air, through London and Dover. Attendance of Foreign Consulate Officials arranged through Agent.
TIME: British Standard Time is GMT plus 1 hour. GMT in Winter months.
TELEPHONES: Public telephone kiosks on the foreshore road.
SHORE LEAVE: The Shift Supervisor will board each vessel on arrival to collect from the Master a copy of the Crew List. This should specify which crew members are leaving the vessel, the names of wives or other visitors expected and, if known, details of crew members joining. It should also note if any crew members are not permitted to go ashore.

The list will be retained by the Shift Supervisor and passes will be issued when crew members pass out and collected from them on their return.
GARBAGE DISPOSAL: A skip is provided free of charge at the rear of Jetty No. 1 for general waste. Arrangements for the disposal of hazardous wastes can be made with prior notice, a charge will be made.
WASTE OIL DISPOSAL: There are no waste oil disposal facilities at the site.
SEAMAN'S CLUBS: None. Phone box available at rear of Jetty No.2.
CURRENCY: U.K.Pound (U.K.£).
GENERAL: Agents have difficulty in providing most services at weekends, therefore, requests for Bond, cash, Consular Officials, etc., should be radioed as soon as possible.
OPERATOR: Strath Services Limited on behalf of BP Oil Aviation/Bitumen Terminal, Isle of Grain, Rochester, Kent ME3 0AY. *Tel:* (01634) 271571. *FAX:* (01634) 270442. *Contact:* M. Bromley, Operations Manager.

(2) THAMESPORT: 51.26 N. 00.42 E. **(See Plan)**

DOCUMENTS: Same as "Kent Terminal" plus 2 copies Immigration Crew List and 1 copy Port Health Declaration.
PILOTAGE: Same as "Medway", except Pilots require 24 hours, 8 hours and 4 hours notice of ETA Pilotage Station, i.e. "North East Spit" or "Sunk".
ANCHORAGE: See "Medway".

Details via Medway Navigation Service based on vessel's dimensions and nature of cargo.
RESTRICTIONS: Max. draft for access from N.E. Spit through Edinburgh Channel 6.3 m. low tide. As an alternative, vessel can traverse via Long Sand Head, adding approximately one hour passage time to berth. Therefore, 24 hour access to port available.
MAX. SIZE: See "Berthing".
HEALTH: Port Health Declaration to be completed.

Also see "Kent Terminal".
RADIO: See "Kent Terminal" and "Pilotage".

ETA messages should be addressed to Telex No. 965873.
RADAR/VHF: See "Medway".
TUGS: Tugs should be ordered through Agent.

Towage is undertaken by Medway Towage Ltd., Sheerness. Tel: (01795) 664311.

3 tugs stationed for Medway operations: 1×30 tonne bollard pull 2,000 h.p. single screw, 1×30 tonne bollard pull 3,200 h.p. 3,200 h.p. with twin Z propellers, 1×40 tonne bollard pull 2,000 h.p. single screw. 1×55 tonne bollard pull 3,200 h.p. with twin Z propellers.
BERTHING: *Location:* Strategically placed where the River Medway meets the Thames Estuary; just 35 miles from London, connected to the B.R. Rail Network.

Thamesport provides 550 m. length of berth with a depth of 13.5 m., linked to the container park by 2 approach bridges. Phase 3 of the port development will extend the berth to 750 m., providing 300 m. alongside with a dredged depth of up to 16.0 m.
Mooring: Through Thamesport (London) Ltd.
Data Systems: A PC network comprising super-micro computers with fault tolerant disks provides full container control, tasking, inventory, ship-planning, warehousing, railfreight terminal and documentation facilities and is linked by RDT to computer terminals in all mobile equipment. Domestic and EDI facilities to fit specific customer requirements on Edifact standards, for example Bayplans, link to the port to its customers and to all statutory bodies.
CRANES: *Ship to Shore:* Manufactured by Magrini Galileo Meccanica, Padua, Italy.
Weight: 735 tonnes.
Height: 60 m.
Outreach: 47.5 m.
Lift Capacity: 52.8 tonnes.
Cycle Speed: 60 seconds, permitting up to 60 box moves per hour.
Operational in wind speeds up to 45 m.p.h.

Fourth generation, high-tech cranes with remote-read condition monitoring and fault diagnosis systems. Serviced from the landside stacking area by a fleet of 22 tractors (Douglas and Terberg) together with over 70 trailers.
Park Gantry: Manufactured by MGM and Davy Morris.
Weight: 195 tonnes.
Height: 23 m.
Width: 30 m.
Lift Capacity: 35 tonnes under the spreader.

The 14 fully automated storage area gantries serve an area with capacity for almost 20,000 TEU at a time.
BULK CARGO FACILITIES: Covered storage amounting to 18,500 sq.m. is utilised for loose cargo for and from containers, with full frontier status for meat and other food products. Some 500,000 tonnes per year of imported and coastal coal is also processed and distributed from the Terminal.
BRIDGES: None.
STEVEDORES: Labour will be arranged based on vessel's final ETA.
MEDICAL: 24 hours advance notification required by Agents for any medical requirements.
TANKERS: See "Kent Terminal".
DENSITY: Approximately 1020.
FRESH WATER: No pipelines on quay at Thamesport. Fresh water available by barge, 24 hours notice required via Agent.
FUEL: See "Kent Terminal".
FIRE PRECAUTIONS: Shift managers attend each vessel on arrival, and provide full safety requirements and full emergency co-ordination instructions.
CONSULS: See "Rochester".
REPAIRS/SURVEYORS/REPATRIATION: All available through prior notification via Agent.
GANGWAY/DECK WATCHMEN: See "Kent Terminal".
HATCHES: Handled amicably by either party.
CUSTOMS ALLOWANCE: See "Kent Terminal".
TELEPHONES: Available on quay and in nearby offices.
STORING: Many local ship supply services available. Vessels can be stored ex-quay under terminal supervision, and stevedore assistance can be provided as required.
SHORE LEAVE: Possible, bar any immigration restrictions.
DELAYS: None anticipated.
DEVELOPMENTS: See "Berthing".
AUTHORITY: Medway Ports.
Operator: Thamesport (London) Ltd., Isle of Grain, Kent ME3 0EP. *Tel:* (01634) 271511. *Telex:* 965873/96108. *FAX:* (01634) 270384. *Contact:* A.R.G.Macleod, Managing Director.

(E) CHATHAM DOCKYARD: 51.24 N. 00.33 E. (See Plan)

Until 1984 the Naval Dockyard and now operated by Medway Ports, a trading division of Mersey Docks and Harbour Company.
DOCUMENTS: See "London".
PILOTAGE: See "Medway".
ANCHORAGES: See "Sheerness".
RESTRICTIONS: Movement of vessels subject to tidal conditions and under keel clearance appropriate to the size of vessel. Entry as directed by Medway Ports on VHF Channel 73.

Limiting Depths: Medway Approach Channel 11.0 m. at Chart Datum.
Long Reach 5.8 m. at Chart Datum.
North Lock 3.3 m. at Chart Datum.
South Lock 3.5 m. at Chart Datum.

MAX. SIZE: All berths in Basin No. 3 can accommodate vessels drawing up to 8.0 m. The locks can accept vessels of 143 m. length provided the beam does not exceed 25 m. Canalling can be arranged for vessels in excess of 143 m. subject to turning circle limit. Vessels drawing up to 4.5 m. can be accommodated at any state of the tide.
HEALTH: See "Medway (Rochester)".
RADIO: Portishead. From South: Lands End, Niton, North Foreland.
From North: Cullercoats, Humber, North Foreland.
VHF/RADAR: See "Medway".
TUGS: A number of tugs are available, operated by Medway Towage and Crescent Wharves.
BERTHING: Access to Basin No. 3 is via the North or South Lock situated at Bull Nose in Gillingham Reach. A & P Chatham Limited carry out voyage repairs, services, etc. in Basin No. 3. Tel: (01634) 812401, 827369.

All 8 berths are confined to No. 3 (Outer) Basin.

Berth No.	*Length (m.)*	*Cranes (tons)*	*Operator*	*Remarks*
1	136	None	Kent Wire Ltd.	Weldmesh Manufacture
2	190	None		Ro/Ro Berth
3	244	1×5 1×20 1×11 (mobile)	Crescent Wharves Limited	General Cargo
4				Ro/Ro Berth
5	108	1×5	A & P Chatham	Shiprepairing
6	152	None		Ro/Ro Berth
7	108	None	Nordic Recycling	Ro/Ro – Sto/Ro Berth
8	184	2×6 1×20	Shiplink Terminals (in receivership)	Ro/Ro – Sto/Ro Terminal

For further details contact: Miss S. Bilney, Administration Manager. Tel: (01634) 405397, 814936.
STEVEDORES: All stevedoring provided by the berth operators (See "Berthing").
MEDICAL: Advance notice of medical attention and inoculations required is advisable. Hospital facilties available in surrounding area.
DENSITY: 1020 (within Basin No. 3).
FRESH WATER: Metered supply available on all berths.
FUEL: No facility within the dockyard for the supply of fuel, although subject to weather conditions being suitable, bunkering from barges can take place in the anchorages.
REPAIRS: All types of deck and engine repairs can be carried out either in berth, in dry dock or at river buoys. (See "Berthing").
DRY DOCKS: No dry dock available at Chatham Docks. Dry docks available at Chatham Historic Dockyard.
SURVEYORS: Cargo surveyors available from London or Gravesend.
GANGWAY/DECK WATCHMEN: Ship's responsibility.
REPATRIATION: Usual facilities available for crew changes. Repatriation can be arranged by various sea routes or by air through Heathrow or Gatwick.
TELEPHONES: 4 public telephone kiosks are available on the quayside. In an emergency contact Docks Security on Medway 827130 or Locks Office on Medway 827317, or by radio, call sign "Bullnose" on Channel 73. Alternatively call Medway Navigation Service, call sign "Medway Radio" on Channels 16 or 74 (Tel: (01795) 663025).
REGULATIONS: See "Medway".
GENERAL: All shipping movements co-ordinated by Medway Port Operations and Information Service.
GARBAGE DISPOSAL: To be arranged direct with Terminal Operator.
WASTE OIL DISPOSAL: To be arranged direct with Terminal Operator.
SEAMAN'S CLUBS: None.
AUTHORITY: Medway Ports, Flagstaff House, Chatham Docks, Chatham, Kent ME4 4SW. *Tel:* (01634) 814936. *FAX:* (01634) 830915.
Contact: Miss S. Bilney, Administration Manager.

(F) ROCHESTER: 51.23 N. 00.30 E. (including Chatham, Strood, Upnor, Gillingham, Snodland, Halling & New Hythe) (See Plan)

DOCUMENTS: See "London".
PILOTAGE: See "Medway".
ANCHORAGES: See "Sheerness".
RESTRICTIONS: No entry restrictions only as to state of tide and draft and as directed by Medway Radio (Medway Navigation Service, Garrison Point). Station keeps watch on Channels 16 and 74. Channel 74 is allocated for port operations generally. For vessels exceeding 106.67 m. (350 ft.) in length, normally daylight navigation.
MAX. SIZE:
Ship Berths: Max. Length: 114 m. (122 m. LOA with spec dispensation obtained from the Harbour Master. Bow thruster, tug, et required). Max. draft 7.6 m.
River Berths: Length 49 m. – 122 m. Depth 4.3 m. – 7.6 m. MHW 2.7 m. – 6.1 m. MHWN. Max. LOA 46 m. – 122 m.
HEALTH: Pratique obtained on arrival at Berth.
Also see "Health – All Ports" before first U.K. port.
RADIO: From South: Lands End, Niton, Northforeland.
From North: Cullercoats, Humber, Northforeland.
TUGS: Medway Towage Ltd. ((01795) 662821), cover the whole of t Medway Ports Area.

The following companies operate within the Medway Ports Area or smaller scale with towing and recovery services:

Medway Towing & Light Recovery – (01634) 54300.
N.E. Murray (Marine Contractors) – (01795) 663701.
P.E. Woodger (Craft Hire) Ltd. – Sittingbourne 23874.
Medway Port Services (Towage) – (01634) 723628, 716113.

BERTHING:
Rochester: There are 3 buoy berths maintained by Medway Ports, a mooring buoys to accommodate 15 lighters situated between Chatha Reach and Rochester Bridge.

Size restrictions vary from 46 m. to 140 m., the latest minimum dept can be obtained from the Medway Navigation Service situated Sheerness (Garrison Point).

The facilities or riverside berths are operated by commercial interes

Arco Shipping Ltd. at Neptun Wharf	Medway 7167
Transit Freights Ltd. at Crown Wharf	Medway 7178
Honigs (Rochester) Ltd. at Limehouse Wharf	Medway 8462
Wm. Cory & Sons Ltd. at Cory's Wharf	Medway 8410
Stanley's Wharf	Medway 4072
Eurowharf	Medway 7167
Scotline	Medway 2951

Details of alongside berths handling equipment, latest depths a relevant information can be obtained from the appropriate wh concerned.

Current depths can be ascertained from Medway Navigation Servi

Pier Wharf: (Lat. 51° 24' North; Long. 0° 33' East)

Situated at the Western Arm of Gillingham Dock. Length of wh 183 m. with varying depths from 3 m. to 5 m. at MHWS. Stora warehouses and storage capacity available.

Ship repair and boat builder – Medway Marine Engineering – (016 576600.

Tylers Wharf: (Lat. 51° 24.6' North; Long. 0° 34' East)

Situated at West Hoo Creek owned and operated by the Life Moulding Co. Ltd. Length of wharf 73 m. with a depth of 3 m. at MHW Large sheerlegs of 30 tons and mobiles available. Boat builders a outfitters.

Mooring Facilities: Buoys are provided at points within the River Medw and Swale. Arrangements to use these buoys and current charges be made through Medway Ports.

Kethole Reach: Buoys 20, 21, 22, 23 and 24: 4 fore and aft moori to accommodate vessels up to 200 m. length and 16,000 ton displacement.

Saltpan Reach:

Buoy No.	*Class*	*Maximum Displacement*	*Remarks*
1	3rd	1,000 tons	Max. Length 122
5	4th	1,000 tons	
9	4th	1,000 tons	
10	4th	1,000 tons	

MEDICAL: Port Medical Officer available if necessary on arriva Sheerness with 24 hours notice to Agents. Doctor and hospital facil available at Rochester.
DENSITY: 1020 unless excessive land water coming down river.
FRESH WATER: Quantities up to 200 tons available for delivery by w barge.
FUEL: By barge or road tanker, 48 hours notice required.
CONSULS:
Vice-Consul Netherlands, Tel. Medway 43256.
Consul Sweden, Tel. Medway 44632.
Vice-Consul Finland, Tel. Medway 44632.
REPAIRS: Acorn Shipyard, Gas House Road, Rochester, Kent 1PJ (Tel: (01634) 41355/6/7), provide ship repair facilities at the Is Grain; Sheerness and River Medway, and operate 1 patent slipwa 85.0 m. working length and 1 grid situated at Rochester.

Ailsa Perth. Tel: (01634) 811622, dry dock and full repair servi

DRY DOCKS: All repair facilities available on river berths for ve up to 60.96 m. (200 ft.) in length; on a grid for up to 76.19 m. (25 and a slipway for up to 42.67 m. (140 ft.).
OPENING/CLOSING HATCHES: To be carried out by crew.
CARGO GEAR: Discharge by ship's gear at ship berth and by m cranes up to 10 tons at all river berths.
AIRPORTS: London (Heathrow), Southend, Gatwick and Roches
POLICE/AMBULANCE/FIRE: Dial 999 and state service requir where vessel berthed, also contact Medway Radio in cas emergency.
SERVICES: Compass adjustors available.
REGULATIONS: See "Medway".
DEVELOPMENTS: Development of Frindsbury Marshes (Roche
AUTHORITY: Medway Ports (See "Sheerness").

(G) OTHER FACILITIES:

(1) BLOORS WHARF – RAINHAM CREEK: 51° 22' 48" N., 00° 36' 42" E.

Situated at the head of Rainham Creek a distance of 10.3 nautical miles from Rochester. Main wharf 183 m. long with 3.1 m. at MHWS. The Western arm is 61 m. long with a depth of 2.1 m. at MHWS. 5×2.5 tonne grab cranes and 2×40 tonne crawler cranes.

Mobile cranes, forklifts and crushing equipment available. Large storage capacity and warehouses also available. Shipbreaking and recycling of metals.

(2) FAVERSHAM: 51° 19' N., 00° 54' E.

DOCUMENTS: See "London".
PILOTAGE: Not compulsory. Advisable to engage local person by arrangement with Agent or contact Medway Navigation Service.
ANCHORAGE: The Swale (East) 1 mile (approx.) upstream of the Sand End buoy.
RESTRICTIONS: No night restrictions. Tidal creek – vessels enter from 1.5 hours before High Water according to draft.
MAX. SIZE: 43 m. LOA, 7.6 m. beam, 2.7 m. draft, on Spring tides only. Larger vessels may be accepted under certain conditions on application to the Harbour Master.
RADIO: North Foreland.
VHF/RADAR: See "Medway".
TUGS: None available.
BRIDGES: Maximum size of vessels proceeding to basin above Faversham Swing Bridge – 43 m. length, 7 m. beam. Draft – the minimum clearance for vessels up to 34 m. in length is 0.5 m. over the sill, and for longer vessels 0.6 m. over the sill (Bridge temporarily closed for repairs (March 1994)).
MEDICAL: Notify Agent of any medical treatment required.
FRESH WATER: Available on some berths.
FUEL: No local installation. Bunkers may be obtained by road tanker – contact Agent.
REPAIRS: Minor repairs can be carried out locally. For nearest grid, slipway and dry dock facilities see "Rochester" and "Sheerness".

(3) KINGSNORTH: 51° 25' N., 00° 36' E.

DOCUMENTS: See "London".
PILOTAGE: See "Medway."
ANCHORAGES: Vessels proceeding to Kingsnorth must contact Medway Navigation Service (VHF Channels 16 and 74) when a designated anchorage will be allocated appropriate to the size of the vessel.
RESTRICTIONS: Tidal port. 24 hour movements, subject to tidal conditions and under keel clearance appropriate to size of vessel. Minimum depth of 6.0 m. in Long Reach at Chart Datum.
MAX. SIZE: Max. length: 229 m. No breadth restriction. Depth: 8.0 m. min. depth alongside at Chart Datum.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Notice of 72 hours and over, Portishead Radio. Notice of 12-72 hours. Landsend Radio. Notice of up to 12 hours, from South, Northforeland Radio, and from North, Humber Radio.
RADAR/VHF: See "Medway".
TUGS: Although tugs are not normally required for berthing at Kingsnorth 5 tugs are available, 2 of them equipped for fire fighting. Tugs join and leave vessels at Garrison Point, Sheerness. Normally use tug lines, cost included in tug hire.
BERTHING: *Kingsnorth Jetty:*

Lat. 51° 24' 36" N.
Long. 0° 36' 18" E.

The jetty is owned and operated by Powergen and is situated at the Western end of Long Reach a distance of 6.3 nautical miles from Sheerness and 5.85 nautical miles from Rochester.

The jetty is of concrete construction and is 580 m. long and "L" shaped with a 306.3 m. face, there is a single upstream connected dolphin making an overall face of 330.7 m.

The size of vessels using the jetty are governed by draft.

Minimum depth at MLWS is 10.0 m.
MHWS is 15.5 m.

There is an inner spur situated on the approach arm 396 m. from the jetty face. It is primarily intended for stern Ro/Ro craft, and has 2 starboard berthing dolphins situated at 30.5 m. and 61.0 m. respectively.

Depth at MLWS is 0.6 m. above Chart Datum.
MHWS is 5.3 m.

The jetty is used for the import of coal for Kingsnorth Power Station.

Address: Kingsnorth Power Station
(South Eastern Region)
Hoo, Rochester,
Kent ME3 9NQ
Telephone: (01634) 250088 Telex 965015

MEDICAL: Advance notice of medical attention and inoculations required is advisable. Hospital facilities available in surrounding areas.
TANKERS: Advisable radio Agents connection sizes required. No slop tank available. 1 large tanker berth only.
DENSITY: Approx. 1018.
FRESH WATER: Available by pipeline on jetty.
FUEL: Bunkers not usually available on jetty, but may be delivered by barge. Advance notice essential.
FIRE PRECAUTIONS: No immobilisation or repairs allowed without prior authorisation. No hot-work allowed alongside jetty.
REPAIRS: Local marine repair company can undertake repairs of general nature. No drilling or hot-work permitted alongside jetty.
GANGWAY/DECK WATCHMEN: Services of shore watchmen not necessary. Shore gangway may be used.
REPATRIATION: All facilities for repatriation by land, sea and air, through London and Dover. Attendance of British Ministry and Foreign Consulate officials arranged through Agent.
POLICE/AMBULANCE/FIRE: Dial 999 from public call box. Medway Navigation Service can be alerted on Channel 16 and 74 to call these services.
TELEPHONES: No facilities exist for placing telephones onboard.
GENERAL: Agents have difficulty in providing most services at weekends, therefore, requests for bond, cash, consular officials, etc., should be radioed as soon as possible.

(4) OAKHAM NESS JETTY: 51° 24' 55" N., 00° 38' 45" E.

The jetty is jointly owned and operated by Powergen and K.C.A. International Ltd. and is situated in Kethole Reach a distance of 4.5 nautical miles from Sheerness (Garrison Point). The jetty is of concrete construction and is 1,960 m. long. The jetty head is 27.5 m. long with upstream and downstream attached dolphins making a 85 m. face. There are 2 further berthing dolphins unattached, both upstream and downstream. The max. size of vessel permitted on the jetty is restricted to 55,000 d.w.t. with a max. length of 229 m.

The depth at MLWS is 10.6 m.
at MHWS is 16.7 m.

Powergen have a separate storage capacity of 300,000 tons for crude oil primarily for Kingsnorth Power Station.

(5) OTTERHAM QUAY – RAINHAM: 51° 22' 30" N., 00° 37' 42" E.

Situated at the head of Otterham Creek a distance of 2.75 nautical miles from the junction of Long Reach and Kethole Reach and 10.25 nautical miles from Rochester.

There is 192 m. of quay space with a max. length restriction imposed on loaded vessels of 73 m. There is 3.3 m. at HWNT and 4.6 m. at HWST.

The Quay is owned and operated by Crescent Port Services Ltd. Tel: (01634) 815501. Telex: 96312.

(6) QUEENBOROUGH: 51° 26' N., 00° 44' E.

Area of harbour extends from Queenborough Spit to Long Point in the West Swale. Queenborough Creek is landlocked and small commercial interests operate within the creek which is buoyed, all berths dry out but are safe berths.

MHWS 5.8 m. Weather – prev. S.W.

The ex-Coal Wharf known as the Washer Wharf, situated at Loden Hope is operated by Queenborough Rolling Mill Ltd. (Tel: Sheerness (01795) 668080) and is primarily used for loading scrap metals.

(7) RIDHAM DOCK: 51° 23' N., 00° 46' E.

Situated 900 m. (0.5 nautical miles) S.E. of Kingsferry Bridge in the Swale. Restrictions on vessels governed by Pilots in the light of water available in the Swale, Kingsferry Bridge and restricted bends in the navigational channel. Max. LOA 102 m. Beam 15.3 m. and draft 6.7 m.

Beam of vessels transitting Kingsferry Bridge restricted to 15.3 m. maximum.

Vessels of 82 m. and over LOA require a tug in attendance.

Ridham Dock is owned and operated by Ridham Sea Terminals (Tel: (01795) 470881). The terminal has 4 berths, 2 of 244 m. and 2 of 213 m. approximately. These are serviced by 8 electric cranes 2×6 tonnes and 6×5 tonnes. There is a fleet of forklift trucks 8,000 lbs. to 36,000 lbs. plus a 25 ton container handler. 5 hectares of marshalling area for containers including refrigerator points.

Vessels dock only on or near HW and take the ground at LW, the bottom being soft mud. Special facilities for reefer ships going aground.

The terminal covers approximately 26.7 hectares and 13,000 sq.m. of warehousing are available.

Authority: Ridham Sea Terminals Ltd., Ridham Dock, Sittingbourne, Kent. *Tel:* (01759) 470881. *Telex:* 96409.

(8) GROVEHURST JETTY: 51° 22' N., 00° 46' E.

Situated 1.5 miles S.E. of Kingsferry Bridge in the Swale. Max. length of vessel 88.3 m. Vessels over 82.0 m. LOA handled in daylight only and with tug assistance.

Grovehurst is owned and operated by "Knauf" for import of gypsum. Berth has 2×7 tonne cranes. Depth alongside 2.0 m. at C.D. Swinging circle 1.0 m. at C.D.

METHIL: 56.11 N. 03.01 W. (See Plan)

DOCUMENTS/PILOTAGE: See "Leith".
ANCHORAGES: Deep water anchorages available in Largo Bay.
RESTRICTIONS: Dock gates opened from 3 hours before HW until HW.
MAX. SIZE: Max. beam 14.6 m. to pass dock gates.
RADIO: See "Leith".
VHF: Methil Harbour Radio on Channel 16. Working Channel 14.
TUGS: Available from Leith.
BERTHING: Dock No. 1 has 340 m. of berthing space, max. depth alongside 6.7 m. MHWS. Dock No. 2 has 500 m. of berthing space, max. depth alongside 7.9 m. MHWS. Transit shed with 2,000 sq.m.
CRANES: 4×4 tonne mobile cranes (with grabs) and 2×10 tonne quayside cranes available.
BULK CARGO FACILITIES: 2×1,000 tonnes capacity grain silos and discharge plant at No. 1 Dock (private).

2,000 tonne capacity storage shed and 50 tonne weighbridge (Private).

STEVEDORES: Forth Ports PLC.
GARBAGE DISPOSAL: To be arranged by local agents.
WASTE OIL DISPOSAL: To be arranged by local agents.
SEAMAN'S CLUBS: None.
AUTHORITY: Forth Ports PLC, Dock Office, Methil KY8 3RE. *Tel:* (01333) 426725. *Telex:* 72208. *FAX:* (01333) 424872. *Contact:* Captain T.S. Sutherland, Port Superintendent.

MILFORD HAVEN: 51.42 N. 05.10 W. (See Plan)

PORT LIMITS: The seaward boundary of the port is 4 miles from St. Ann's Head.

DOCUMENTS:

5 Crew Lists.
2 Crew Stores Declarations (C.142), if from outside EEC.
2 Master's Declarations (C.13)
*2 E.E.C. Safety Check Lists.

Agents will prepare other Customs papers.

* As per "M" Notice No. M1630, Schedule 2 required to be faxed to signal station prior to arrival and departure for all tankers.

Ship's Papers:

Register.
Load Line Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Oil Pollution Insurance Certificate (tankers).
ITC 1969.
U.K. Light Dues for current year (if applicable).

PILOTAGE: Pilots normally board incoming ships from a green-hulled pilot vessel, in a position S.W. of Mid-Channel Rock Light-tower, as close thereto, as weather, size of ship and circumstances permit. When the Western Channel is being used by very large ships other ships may be requested by the Port Signal Station, to use the Eastern channel, if draft, and length of ship permit, in which case the Pilot will board close to Sheep Buoy. Deep-draft ships should not approach too close whilst awaiting the pilot vessel. They should remain at least 4 miles S.W. of Mid-Channel Rock Light-tower. It is important, when manoeuvring at slow speeds to embark a Pilot to make proper allowance for the set of the tidal stream, which sets across the entrance.

Accurate times of arrival are requested so that the pilot vessel may be on station at the correct time. ETAs should be given at least 12 hours before arrival and amendments should be made 2 hours before the latest ETA.

ETAs and subsequent amendments should be passed by Fax/Telex or radio telephone through any United Kingdom Coast Station to Milford Haven Signal Station (Tel: 692342, 692343. Telex: 48575. Fax: 01646-690179) or to the local Agent of the ship. Alternatively when within 30 miles of St. Ann's Head ETA's may be passed direct to Milford Haven Port Authority Signal Station calling on VHF Channel 16 then transferring to Channel 12 (the Port working frequency). In addition pilot vessels are equipped with MF radio calling on 2,182 kHz and transfer to the working frequencies 2,241, 2,246 or 2,301 kHz. However, VHF contact is preferred.

ANCHORAGES: Anchorage normally available for vessels up to 40 ft. draft in Dale Roads. Anchorage for smaller vessels normally available in Dale Shelf or Stack anchorages. Signal Station will advise mariners on the availability of these anchorages.

RESTRICTIONS: The West Channel with minimum depth of 55 ft. at the entrance and 54 ft. inside is the channel used by the largest tankers. The East Channel with minimum depth of 32 ft. is available to all vessels of suitable size and vessels able to do so are requested to use it when the largest tankers are entering or leaving in the West Channel. The inner channel between Chapel Buoy and Westward of Texaco Jetty has a minimum depth of 53 ft.

MAX. SIZE: Vessels of 65 ft. draft can be handled on virtually all high waters, but draft restriction always dependent on tide, 63 ft. at worst HW Neaps, or up to 68 ft. in favourable conditions.

HEALTH: The Port Health Authority must be notified in advance if any animals on board or of any suspected disease or fever (Milford Port Health Authority. Tel: (01646) 692486. Fax: (01646) 690505).

Also See "Health – All Ports" before first U.K. port.

RADIO: Lands End Radio, Ilfracombe Radio, Celtic Radio and Cardigan Bay Radio (use working channels to call).

VHF: It is important to maintain continuous radio telephone contact with Signal Station when within one hour's steaming of St. Ann's Head, and at all times when in Haven and not safely moored to an alongside berth, including all times spent at anchor or at buoys.

All vessels equipped with VHF radio should adopt following procedures:

Entering the Harbour: Contact Signal Station on Channel 16 when within 90 minutes steaming of St. Ann's Head. After making contact ship will be requested to maintain watch on Channel 12 until vessel safely moored alongside or at anchor.

Going to anchor or to a buoy mooring: Report to Signal Station when secured and then maintain a continuous watch on Channel 16.

Berthing alongside: Report to Signal Station when safely moored and may then shut down.

Leaving the Haven: Maintain continuous listening watch on Channel 12 until Pilot has disembarked, when Signal Station should be informed and vessel should maintain a continuous watch on Channel 16 until one hour after passing St. Ann's Head.

Navigating within the Haven: Maintain a continuous watch on Channel 12. When radio telephone is used between vessel and tugs during berthing operation, Channel 6 or 8 will be used and Signal Station should be informed before vessel comes off Channel 12.

Signal Station will answer calls on Channel 16 for any ship in the port which has been instructed to move off international calling frequency.

RADAR: Harbour surveillance radar in operation, range 24 miles.

TUGS: Tugs normally join vessels to Westward of Herbrandston Jetty, but Master will be advised by Pilot. Tug's lines used, cost of lines inclusive of towage charge.

BERTHING: VLCCs enter at HW and normally berth heading East. Vessel will be required to swing after unloading and prior to departure.

Milford Docks: Enclosed dock, minimum depth on sill 26 ft., lock length 550 ft., width 69 ft., 5,033 ft. of quayage includes 420 ft. fish market and modern cargo handling berth, 455 ft. in length. Vessels of up to 30 ft. draft may be handled on Spring tides.

Pembroke Dock:

Quay	*Length* (ft.)	*Depth at C.D.* (m.)	*Remarks*
1	600	7.4	Can accept bulk carriers and container vessels up to 700 ft.
2	354	7.0	Can accept bulk carriers and container vessels up to 450 ft.
3	235	5.0	Can accept general cargo vessels up to 340 ft.
4	1,000	—	To be built.

Vessels with Ro/Ro ramps (bow or stern) can berth in the bas between Berths No. 2 and 3.

Mainport Jetty: One cargo berth, depth 20 ft., for vessels up to 350 length. Max. size approximately 6,500 d.w.t.

CRANES: In Milford Docks – 1×25 ton mobile, 2×6 ton electric. Furth mobile cranage available if required.

SPECIALISED CARGO HANDLING FACILITIES:

Containers: Container traffic is handled at Milford Docks although the is no specialised container handling equipment.

Ro/Ro: Pembroke Dock Ferry Terminal has one Ro/Ro berth, dep alongside 21 ft., and can accommodate ferries up to 425 ft. in leng max. size 6,000 g.r.t. (approx.).

LPG: LPG is handled at the Elf, Gulf and Texaco oil terminals.

STEVEDORES: Ordered prior to arrival.

MEDICAL: All oil terminals have well equipped medical centres. Loc hospital facilities available.

TANKER TERMINALS:

Elf:

Berth No. 1: Depth 64 ft., 4×16 in., crude line, 1×12 in. and 3×8 i product lines, max. size 275,000 d.w.t.

Berth No. 2: Depth 38 ft., 6×8 in. product lines and 1×6 in. LPG li max. size 30,000 d.w.t.

Berth No. 3: Depth 22 ft., 4×6 in. product lines, 1×8 in. LPG li max. size 5,000 d.w.t.

Herbrandston:

Ex-Esso Terminal. New general purpose terminal with 5 berths, ab to handle VLCC size ships to coasters (1 large berth only in use).

Gulf Oil:

Berth No. 1: Depth 44 ft., 4×10 in. and 1×12 in. cargo lines, max. si 65,000 d.w.t.

Berth No. 2: Depth 55 ft., 2×10 in. and 4×12 in. cargo lin max. size 870 ft. LOA.

Berth No. 3: Depth 32 ft., 3×8 in. cargo lines and 1×6 in. LP max. size 12,000 d.w.t.

Texaco:

Berth No. 1: Depth 66.25 ft., 4×16 in. crude, two of which can used for fuel oil, and 4×12 in. clean oil cargo lines. All clean oil and t oil arms can take ballast. Max. size 275,000 d.w.t.

Berth No. 2: Depth 47.56 ft., 2×12 in. LPG ship discharge lines w 1×8 in. vapour return line, 6×10 in. black oil, 6×10 in. clean oil a 2×10 in. ballast/bunker lines, max. size 100,000 d.w.t. (75,000 cu LPG).

Berth No. 3: Depth 39.36 ft., 1×12 in. Refrigerated Butane sh discharge with 1×4 in. vapour return line and LPG ships with a 4 arm. 2×12 in. black oil and 4×10 in. clean oil lines. All clean oil a fuel oil arms can take ballast. Max. size 35,000 d.w.t. (30,000 cu LPG).

Berth No. 4: Depth 19.02 ft., 1×6 in. black oil and 3×8 in. clean 1×6 in. LPG and 1×6 in. ballast lines, max. size 2,000 d.w.t.

Berth No. 5: Depth 20.00 ft., 1×8 in. black oil, 1×6 in. and 3×8 clean oil, 1×6 in. LPG and 1×6 in. ballast lines, max. size 4,500 d

Berth No. 6: Depth 65.92 ft., 4×16 in. cargo lines, max. s 275,000 d.w.t.

Berth No. 7: Out of commission.

Berth No. 8: Out of commission.

No ballast facilities at Berth No. 6.

Report: *Cautionary Advice:* In-Port: There are 3 major oil terminals w the Haven and the previous Esso Terminal, now the Herbrands General Purpose Terminal, which is located less than 2 miles E.N.E the Angle Buoy. Ships bound for this terminal make tugs fast betw the Angle Buoy and South Hook Buoy.

VLCCs which require 5 or 6 tugs have little but adequate time to m them fast. It is, therefore, extremely important for a deep tanker bo for a terminal in the Haven to have everything ready and the crew stations prepared to make tugs fast by the time the Angle Buoy is reac and that after the turn is made the speed over the ground is red quickly so that by the time the South Hook Buoy is reached, all tug fast and speed reduced to about 2.5 knots.

Ships bound upstream of Herbrandston Terminal must proceed a slowest speed consistent with safe navigation, as they pass quite c to ships lying alongside other terminals and can cause consider "passing ship" problems. They usually make tugs fast after pa South Hook Buoy.

Berth Approaches: Ships are strongly advised against steaming int berths at any terminal.

The only safe manoeuvre being to bring the ship to rest, stopped the ground, parallel to and about 40 m. – 60 m. off the berth b breasting in.

This particular manoeuvre is of importance to vessels of 70,000 and over.

Most of the incidents during berthing operations have arisen bec of a combination of an angled approach to the berth, excessive hea and berth approach speed with a sheer resulting from strong a engine movements.

Anchorages: Ships for which there is no berth available on arriv find anchorage within the Haven. (See below). Deeper draft ships have to wait for tide or berth should remain outside the port well o maintaining a listening watch on VHF Channel 16, and allowing su time to reach the entrance at the proper time for shipping the enter port.

Anchorages within the Haven: The recognised anchorages within the Haven are shown on the large scale charts, and the Milford Haven Port Authority Signal Station must be consulted before ships use their anchorages.

Dale Roads is the only anchorage for ships up to 7.00 m. It is exposed to wind and swell and has an uneven rocky bottom which does not always afford a good holding ground. *Many ships have dragged anchor here and several have lost an anchor, and it is emphasised that a full anchor watch must be maintained on all ships with a listening watch on VHF Channel 12.*

If at anchor in Dale Roads at the onset of a gale, it is usually sound advice to pick up the anchor and proceed to sea. After rounding the Angle Buoy, if Mid-Channel Rock Lighthouse is kept fine on the port bow, this will take a ship clear of dangers. Before departing, the status of the buoys should be checked out with the Signal Station and then proceed with caution.

The 2 entrance buoys should not be relied upon as they sometimes drag out of position during gales.

Stack Anchorage can be used by medium sized ships of up to 7.00 m. draft. It is a little more sheltered and has a better holding ground.

Small ship anchorages are at Dale Shelf and Sandy Haven. Some small ships find shelter South of the channel opposite the Herbrandston Terminal.

Herbrandston Terminal – Cautionary Advice: Each berth has a designed maximum speed of approach for the maximum size ship acceptable.

The berths are in an exposed position with prevailing winds blowing on to the berths. Strong winds from the Northerly semi-circle do occur and usually with a sudden shift in wind. Ships with high freeboard can be badly affected by these strong winds and it is, therefore, very important that moorings are kept tight and are properly tended at all times.

Description of Berthing Procedures: All vessels berth head to tide. Ships of less than 265 m. and 14.6 m. draft can be berthed on the flood tide and, therefore, swung before berthing. These ships are usually swung off the berth. Ships of greater draft will always berth at HW or on the ebb tide and will, therefore, always be port side to.

All moorings are taken ashore by boat and lifted on to the dolphins by power winch.

Breast and spring lines are usually put out first.

Good messengers are required at each position for this operation. This system is for VLCCs only.

DENSITY: 1025.

FRESH WATER: Available at all berths.

FUEL: All oil terminals can supply all grades of bunkers. Fuel also available within Milford Docks and from bunkering barge elsewhere in the Haven.

FIRE PRECAUTIONS: Fire wires to be rigged fore and aft on all tankers.

CONSULS: The following countries are represented by Consuls at the port or elsewhere in South Wales: Others may be available.

Belgium
Denmark
Finland
France
Italy
Liberia
Netherlands
Norway
Sweden
Thailand
Turkey

REPAIRS: All types of deck and engine voyage repairs carried out.

DRY DOCKS: One dry dock at Milford Docks, 600 ft. × 63 ft. × 18 ft. with cranage.

SURVEYORS: Lloyd's at Swansea, ABS and NV in South Wales. Cargo inspectors available – Inspectorate, Inchcape Testing Services, Saybolt, Moore, Barrat and Redwood have local offices.

GANGWAY/DECK WATCHMEN: Available if necessary – very rarely required.

CUSTOMS ALLOWANCES: Tobacco, 0.045 kg. per man per day. Spirits, 0.185 litres per man per day.

REPATRIATION: Crew changes frequently carried out and repatriation arranged. Crew arriving by rail to join vessels at Elf, Herbrandston, Gulf and Milford Docks should be directed to Milford Haven station. If joining vessels at Texaco to Pembroke station, and for vessels at Port Operators and Storage or Pembroke Dock Ferry Terminal, to Pembroke Dock station.

AIRPORT: Nearest main airport is Cardiff (Wales) Airport, distance approximately 100 miles. Some international flights for onward connections.

TIME: GMT in Winter months, BST (GMT plus 1 hour) March to October.

HOLIDAYS: Oil Terminals operate 24 hours/365 days. Other berths observe standard U.K. holidays but cargo work can be arranged if required.

POLICE/AMBULANCE/FIRE: Police – Milford Haven 692351, Pembroke 682121; Ambulance – Haverfordwest 763355, 236444; Fire – A Division, Carmarthen 231184, B Division, Haverfordwest 762131.

EMERGENCY CO-ORDINATION CENTRE: Emergencies within the port are co-ordinated by the Milford Haven Port Authority Signal Station. Emergencies outside the port and S.A.R. co-ordinated by H.M. Coastguard Milford Haven (Tel: 01646-690909).

TELEPHONES: No telephones on board. Public call boxes exist on all oil jetties.

SERVICES: Ministry of Defence compass adjuster available subject to operational commitments.

STORING: Vessels can be stored by barge or truck and local riggers are available to assist. Storing can normally take place during cargo operations but, in the case of oil tankers, trucks cannot proceed alongside the ship and storing from a barge must be carried out near the stern of the ship. Fork lift trucks cannot be used to store oil tankers.

SHIP SUPPLY SERVICE: D.V. Howells and Sons Ltd., P.O. Box 14, Milford Haven, Pembrokeshire SA73 3ER. Tel: (01646) 693091, 692418. Telex: 48575.

Marine & Port Services Ltd., The Dockyard, Pembroke Dock, Pembrokeshire SA72 6TF. Tel: (01646) 682271/5. Telex: 48303.

Additionally, there is a tug company operating in Milford Haven with a fleet of locally based tugs whose prime duty is the berthing and unberthing of tankers at oil terminals in the Haven and firefighting responsibilities, although occasionally a tug may be called offshore for salvage purposes. The tug company is Cory Towage Ltd., Slip Hill, Milford Haven, Pembrokeshire SA73 3BB. Tel: (01646) 692296/7.

SHORE LEAVE: Shore leave allowed. Crew List to be deposited with security.

IDENTIFICATION CARDS: Not necessary.

GARBAGE DISPOSAL: Service provided by terminal operators.

WASTE OIL DISPOSAL: Service provided by terminal operators.

SEAMAN'S CLUBS: The Merchant Navy Club, Robert Street, Milford Haven, Pembrokeshire. Tel: 692553. Facilities include telephones, bar, snacks, restaurant, juke box, TV lounge, pool, library.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Milford Haven Port Authority, P.O.Box 14, Milford Haven, Pembrokeshire SA73 3ER. *Tel:* (01646) 693091 office, Milford Haven Signal Station (01646) 692342 or 692343. Signal Station – 24 hours. *Telex:* 48575 – 24 hours. *FAX:* (01646) 690179. *Contact:* Captain M.C. Andrews, Harbour Master.

AGENT: Inchcape Kelway Services, Murray Crescent House, The Rath, Milford Haven, Pembrokeshire SA73 3JR. Tel: Milford Haven 692313. After hours: (0850) 692313, (01646) 693341, 695587. Telex: 48213. Fax: (01646) 692706.

MISTLEY: 51.57 N. 01.05 E. (See Plan)

LOCATION: Private port situated on the River Stour within Harwich Harbour. Seven tidal berths, vessels lay safe aground (Also see "Harwich").

DOCUMENTS: Normal requirements – local Agents will advise.

PILOTAGE: Order via Agents or direct with Harwich Pilots.
Call sign: "Harwich Pilots".
VHF: Channel 16 and 9.
Telephone: (01255) 243129.
Telex: 98472.

Compulsory ETA 8 hours before arrival and 2 hours confirmation. Details required: Name of vessel, ETA, destination, max. draft., g.r.t.

ANCHORAGES: Safe anchorage in Harwich Harbour or Cork Pilot Station.

RESTRICTIONS: Vessels can enter/depart on HW, according to state of tide and draft. Day and night navigation.

MAX. SIZE: No length or beam restrictions. Draft varies between 3.3 m. Neap tides to 4.3 m. Spring tides except Berth No. 1 and Baltic Wharf with a draft variation of 4.3 m. neap tides to 5.3 m. spring tides.

HEALTH: As per Port Health Regulations. See "Harwich".

RADIO: Northern Approach: Humber Radio, Tel: (01521) 73447. Southern Approach: North Foreland Radio, Tel: (01843) 20592.

VHF: Harwich Harbour Radio, Channel 14.

TUGS: Available from Felixstowe and Mistley via ship's Agents.

BERTHING: Instructions given via Pilot or Agents. Loading/discharging via shore cranes/elevators.

CRANES: Mobile cranes up to 12 tons, and Scotch Derrick up to 30 tons.

BULK HANDLING FACILITIES: Bulk cargo facilities available for discharge of grain, ores, fertilisers, etc., by grab. Loading elevators for grain, etc.

STEVEDORES: All cargo handling instructions and enquiries to: Mistley Quay and Forwarding, High Street, Mistley, Manningtree, Essex. Tel: (01206) 394431. Fax: (01206) 393882.

MEDICAL: All requirements via Agents with advance notice.

DENSITY: 1026.

FRESH WATER: Available with notice. Up to 12 tons-charge £50.00 plus overtime charges if incurred.

FUEL: Bunkers available from major suppliers via Agents.

SURVEYORS: Cargo inspectors, superintendents and surveyors are available locally via Agents.

GANGWAY/DECK WATCHMEN: Ship's gangway, watchmen not necessary.

HATCHES: Opening and closing by crew.

CUSTOMS ALLOWANCES: Normal U.K. Regulations.

CARGO GEAR: All work by shore cranes, heavy lift up to 30 tons.

REPATRIATION: Facilities via Agents.

TIME: GMT. Summertime, GMT plus 1 hour.

HOLIDAYS: No work on public holidays unless overtime working is arranged in advance.

POLICE/AMBULANCE/FIRE: See "Harwich".

TELEPHONES: No onboard facilities available.

SHORE LEAVE: Possible.

IDENTIFICATION CARDS: Not necessary.

DELAYS: None.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

DEVELOPMENTS: Dredging of the approach channel to Mistley and within the port to increase acceptability of larger vessels is presently in hand but at present it is not possible to indicate when such improvements will be completed. Please enquire to the Port Owners, Mistley Quay & Forwarding.

AUTHORITY: *Port Owners:* Mistley Quay & Forwarding, High Street, Mistley, Manningtree, Essex CO11 1HB. *Tel:* (01206) 394431. *FAX:* (01206) 393882. *Contact:* I.J. Forbes, Port Director.

Local Port Authority: Harwich Haven Authority, Harbour House, The Quay, Harwich, Essex CO12 3HH. *Tel:* (01255) 243030. *FAX:* (01255) 241302. *Contact:* Captain I. Whale, Harbour Master.

MONTROSE: 56.42 N. 02.27 W. (See Plan)

PORT LIMITS: The port is bounded by a line drawn in a Northwesterly direction from Scurdie Ness Lighthouse to the Annat Bank and thence by both banks of the river to the road bridge which completes the inner boundary.

DOCUMENTS:

1 Crew List.
1 Passenger List.
1 Stores List.
1 Personal Effects List for baggage coming ashore.
1 Manifest or Bill of Lading.
Ship's Register, Load Line Certificate, Radio Certificate, LSA and Safety Certificates to be sighted.

PILOTAGE: Pilotage is compulsory. Pilots are available throughout the 24 hours. International Code Flag "G" to be exhibited.

Vessels should approach the port to a position with Scurdie Ness Lighthouse bearing 250° distance 0.5 mile where Pilot will normally board.

Pilot cutter *"Southesk"* has a black hull with white upper works and "Pilots" painted in black on each side of the wheelhouse. The normal red and white pilot flag is flown during daylight and regulation lights exhibited at night. VHF Channel 16 for calling with a working frequency on Channel 12.

In bad weather it may be necessary for a ship to proceed inwards at the radioed directions of a Pilot to a position on the outer leading marks and inside the lighthouse where the Pilot may board safely. This will only apply during periods of strong Easterly gales and very heavy seas and may be applicable for only a few times in a year. Similarly the port may be closed under severe weather conditions, on average 2.5 days per year.

ETA Messages: Masters should cable Agent with 24 hours' notice of arrival giving overall length and deepest draft and also call "Montrose Port Control" within 2 hours of arrival at the Pilot Station.

ANCHORAGE: In position mentioned above with Scurdie Ness bearing 250° distance 0.5 mile, in about 13 m.

MAX. SIZE: Since the harbour was reconstructed and deepened ships of 165 m. LOA and 16,700 d.w.t. have been handled on a max. draft of 7.5 m.

HEALTH: "Q" flag to be flown when coming from a foreign country until cleared inwards. In event of disease or fever onboard, advise Agents by radio. Strict attention paid to quarantine regulations regarding dogs which are not allowed ashore.

Also see "Health – all ports" before first UK port.

RADIO: Messages to Agents may be sent through Stonehaven Radio. Harbour service is on Channel 12. Call Montrose Port Control on Channel 16.

RADAR/VHF: No port radar service. Harbour service and pilot vessel work on VHF Channels 16 and 12.

TUGS: Pilot vessel is equipped with towing hook and pusher bow to assist in berthing and unberthing if necessary. Vessel's lines used. Small charge made for such work.

In addition to the pilot vessel, the tug "Glenesk", 425 b.h.p. (4 ton bollard pull) is available.

BERTHING: North Riverside Quays: No. 6 – 113 m., No. 7 – 141 m., No. 8 – 87.5 m., No. 9 – 69 m. No., 10/11 – 152 m.

Depths vary from 18 ft. at No. 8 (See "Developments") to 16 ft. at No. 10/11 at Chart Datum.

South Riverside Quays: Berths No. 12, 13, 14, 15, 16, (Berth No. 16 dredged to a depth of 25 ft. (7.6 m.) at MLWS) and 17. These are extensively used by oil related vessels.

Total wharf length available is 1,600 ft. with depth alongside 20 ft. at MLWS.

Fixed Ro/Ro Ramp available between Berths No. 6 and 7. Vessels able to land bow or stern ramp of width 8 m. Depth alongside 18 ft.

CARGO HANDLING FACILITIES: The stevedores are well equipped with mobile cranes, fork lifts, etc., and only rarely is ship's gear used unless it is of rapid, modern type. Grab discharge is used for bulk cargoes and conveyor belt systems for loading same.

Rates of loading or discharge:— Bagged cargoes 250 tons per gang per day; Bulk 400 tons; Bulk grain loading 3,000 tons; Unitised pulp 500 tons; Paper 500 ton; Timber 500 tons all per gang per day.

A large motor transport fleet is always available at the port and the Agents also have their own road haulage company.

STEVEDORES: Provided by: J.M. Piggins & Co.Ltd. Tel: 72827. Telex 76251. Ceres (UK) Ltd., Stracathro. Tel: (0167484) 491. Fax: 0167484-608.

MEDICAL: Small hospital in Montrose. Several major units within easy reach by road.

TANKERS: There is no oil berth in the harbour except the facilities offered by Rix Petroleum for the receipt into their 3,000 ton storage depot of gas oil.

DENSITY: At high water average 1024 but can be as low as 1005 at LW during heavy river outflow.

FRESH WATER: Supplied from quayside hydrants at all berths.

FUEL: Obtainable from road tanker, gas oil and H.S.D. from more prominent oil companies. Rix Oils can supply gas oil from local stocks. Contact J. Piggins.

FIRE PRECAUTIONS: Normal rules to be observed.

CONSULS: None in Montrose.

REPAIRS: Minor deck and engine repairs can be carried out.

DRY DOCKS: None.

SURVEYORS: Cargo ship and engine surveyors Johnston & Smart or Pirie & Smith available from Aberdeen at short notice.

Cargo Superintendents regularly working at the port on loading out and discharging various bulk cargoes, include Cargo Superintendents (London) Ltd., 50 Wellington Street, Glasgow; James Patterson, The Old Granary Buildings, Meadowside Quay, Partick, Glasgow, and Malcolm Main at same address.

GANGWAY/DECK WATCHMEN: Can be arranged. Owing to rang tide on riverside berths mooring watch strongly recommended.

OPENING/CLOSING HATCHES: Normally done by ship's crew.

CERTIFICATES: On arrival Ship's Register may be asked for.

CUSTOMS ALLOWANCES: As arranged between Customs Officer a Master.

CARGO GEAR: The port is equipped with mobile cranes which can used at any berth. These are of various capacities and the maxim lift is 100 tons for which prior notice is required.

REPATRIATION: Facilities available with excellent railway connectio Air connections from Aberdeen.

AIRPORT: Aberdeen 36 miles. Montrose has facilities for light airc and helicopter landing.

TIME: GMT with 1 hour advance for British Summer Time, approximat March to October.

HOLIDAYS: *Port Holidays:* Christmas Day; Boxing Day; 1st and 2 January; One day Spring, mid-Summer and Autumn Trades Holiday

POLICE/AMBULANCE/FIRE: Report to Dock Office immediately. D 999 and ask for whichever emergency service required.

EMERGENCY CO-ORDINATION CENTRE: Maritime Rescue S Centre – Forth District Tel: Crail 666.

TELEPHONES: Not possible to place telephones aboard. Kiosk Wharf near Agents office. Comprehensive connections to Continenta Telex services from Agent's office.

SERVICES: Laundry, Ship Chandlers and Lloyd's Agent immediate Compass Adjuster, Radio/Radar Mechanics can be called in fr Aberdeen at short notice.

BANKS: Usual branches of Scottish banks all in High Stre No American or European banks.

STORING: Vessels can be stored by truck. Trucks can proceed alo side vessel. Fork lifts can be used if required. Customs notificat required for all bonded stores.

Stevedores can be employed to assist with storing and also lash and fastening deck cargo.

SHORE LEAVE: No restrictions on crew members after inw clearance.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: The Port Authority provides skips for garba disposal, however they are not to be used for disposal of waste foo

WASTE OIL DISPOSAL: Can be arranged through ship's agents.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

DEVELOPMENTS: Berth No. 8 has been reconstructed to prov 293 m. of continuous quayside with a minimum depth of 18 ft. bel C.D.

AUTHORITY: Montrose Port Authority, Harbour Office, South Qu Ferryden, Montrose, Tayside DD10 9SL. *Tel:* (01674) 672302, 673 672729. *FAX:* (01674) 675530. *Contact:* Captain H.J. Johans Harbour Master/Chief Executive.

MOSTYN: 53.19 N. 03.16 W.

PILOTAGE: Compulsory for vessels over 50 m. LOA. ETA requ 24 hours in advance. Contact Mostyn Docks Ltd. Tel: (01745) 560 Update ETA by VHF Channel 14, 2 hours prior to H.W. Pilots bo 1.5 hours before H.W. at Dee Buoy (Lat. 53° 22' N., Long. 03° 18.8'

ANCHORAGES: Anchorage in Mostyn Deep, 7.0 m. depth at low wa

RESTRICTIONS: Vessels enter port between 1 hour before high w and high water.

MAX. SIZE: Max. LOA 100 m., max. beam 14.5 m. and draft 4.0 m. than Liverpool high water prediction.

RADIO: Advise Mostyn Dock Ltd. of ETA. Telex: 61245 Mos Fax: (01745) 560324.

VHF: Channel 14 monitored at Mostyn Dock from 2 hours before water to high water.

TUGS: One tug of 4.5 tons bollard pull available. Line tender available.

BERTHING: 3 berths available (2×75 m. and 1×110 m.). All berths completely at low water. Dock bottom absolutely flat. Vessels mus able to take bottom.

CRANES: Cranes up to 75 tons capacity and various grabs avail

STEVEDORES: Normal hours: 0800 hrs. – 1600 hrs., Monday to Fr except Bank Holidays. Overtime possible between 0600 hrs. 2200 hrs.

MEDICAL: Hospitals and dentists nearby.

TANKERS: No facilities.

DENSITY: 1020.

FRESH WATER: Available by hose. Cost £2.50 per tonne.

FUEL: Available by road tanker.

FIRE PRECAUTIONS: Normal precautions to be taken.

SURVEYORS: Cargo inspectors available, also Lloyd's.

GANGWAY/DECK WATCHMEN: Watchmen not required.

OPENING/CLOSING HATCHES: By crew.

REPATRIATION: Facilities available.

AIRPORT: Manchester Airport, 40 miles.

EMERGENCY CO-ORDINATION CENTRE: Liverpool Coast Tel: (0151) 931-3341. Holyhead Coastguard, Tel: (01407) 7620

STORING: See "Prelims".

(1) Truck.
(2) —
(3) Yes.
(4) Yes.
(5) —
(6) Yes.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Skips provided on quay free of charge.
WASTE OIL DISPOSAL: By road tanker.
DEVELOPMENTS: New berths in outer river planned.
AUTHORITY: Mostyn Docks, Mostyn, Holywell, Clwyd CH8 9HE. *Tel:* (01745) 560335. *FAX:* (01745) 560324. *Telex:* 61245. *Contact:* Captain R.C. Hyde-Linaker, Harbour Master.

NEW HOLLAND: 53.42 N. 00.21 W. (See Plan)

PILOTAGE, DOCUMENTS, ANCHORAGES, ETC.: See "Hull".
RESTRICTIONS: Vessels arrive and depart on high water. Vessel always aground (N.A.A.B.S.A.).
MAX. SIZE: Max. size 5,000 d.w.t. Max. LOA 100 m. No restriction on beam or air draft. Max. draft at Spring tide 7.0 m. – 7.5 m.
TUGS: Not necessary.
BERTHING:
Imports: The Terminal specialises in the import of feeding stuffs, fertilisers, coals, cokes, etc. The import route has been designed to off-load cargo, from ship to storage or direct to carrier, efficiently and fast and offers via drop-scale and weighbridge, full documentary control and management.
Terminal: With two berths, an inner berth for vessels of 2,500 d.w.t. and an outer berth with a maximum capacity of 5,000 d.w.t., the Terminal reaches into deep water channels of the River Humber and enjoys the advantage of only requiring one Pilot from Spurn Point. Unloading by grab discharge direct to covered conveyor belts, the import route is rated at a capacity of between 230 – 300 tonnes per hour and incorporates full bypass facilities.
Weighing: Grains and derivatives can be passed through a drop-scale with a capacity of 250 tonnes per hour; coals, cokes and other bulk commodities moving from the site are weighed by means of 2×60 tonne road and/or 100 tonne rail weighbridges.
Storage: Grains and derivatives can be passed by the conveyor systems direct to 4 flatstores with an approximate capacity of 43,000 tonnes, all with movable and fixed partitions. Coals, etc., are directed to open storage for ease of distribution.
Distribution: Direct ship to road haulage is made possible by 2 overhead lorry hoppers. Recovery from the flatstore is by means of Front End Loaders, and if required, import commodities can be loaded via the export system, weighed or unweighed.
Exports: The Terminal has a dual capability for simultaneous import and export and has been designed for the export of grains and other bulk commodities.

The export route has many features unique to Humberside, and with full weight control and documentation offers the ideal export venue for any product.
Terminal: With two export berths, an outer berth of 5,000 d.w.t. capacity and an inner berth with a maximum capacity of about 1,500 d.w.t., loading is rated at 400 tonnes per hour via the covered conveyor belt which feeds 4 loading spouts, direct to the ship's cargo holds. Vessels approaching New Holland from the North Sea need only one pilot in and outward, thereby reducing costs.
Reception: The Terminal is the only specially designed export terminal in Humberside that can receive grain direct from railcars. With extensive private sidings and shunting locomotive, full train loads can be handled in intake pits. Road haulage delivery is either by intake pit or direct to open compound. Reception of grains also includes a grain testing station for quality control.
Direct or Indirect Loading: Grain intake can either be pre-assembled into 5 silos with an approximate overall capacity of 3,500 tonnes and then loaded directly to ship. Coals, coke, etc., are fed directly to the main export belt from their pre-collected storage areas.
Weighing: All commodities entering the site are weighed by fully computerised weighbridges, 2×60 tonne road and 1×100 tonne rail weighbridges. Export of grain related products is also monitored by 2 dropscales weighbridges prior to being loaded onto export vessels.
CRANES: 2×8 ton electric rail mounted cranes.
STEVEDORES: Work around the clock, from Monday 0600 hrs. – Friday 2200 hrs.

Saturday and Sunday work by arrangement.
FRESH WATER: Available at 5 t.p.h. No charge, included in jetty dues.
FUEL: Available by barge from Hull.
REPAIRS: Local shipyard can undertake minor repairs.
HATCHES: Opening and closing by ship's crew.
AIRPORT: Humberside Airport is 15 minutes away by road. Air U.K. have flights to Aberdeen, Amsterdam, Bergen and Teesside.
TELEPHONES: No shore connections. Public telephone available on pier.
GENERAL: The New Holland Bulk Terminal is situated on the South bank of the River Humber, about 4 miles East of the Humber Bridge, and about 20 miles inland from Spurn Point. Close proximity to the U.K.'s motorway and dual carriageway network gives the terminal a competitive and strategic position for the import and export of bulk commodities. Close connections to the M1, A1, M18 and A15 Humber Bridge link road ensure optimal North/South connections with the M180, M62 and A6 offering good East/West connections. The terminal has its own railway sidings, connected directly to the British Rail network.
GARBAGE DISPOSAL: Skip provided at Jetty Head for ship's use at no charge to vessel.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: New Holland Bulk Services Ltd., Old Ferry Terminal New Holland, P.O. Box 1, Barrow upon Humber, South Humberside, DN19 7SD. *Tel:* (01469) 531102. *Telex:* 527157 Nhship G. *FAX:* (01469) 531966. *Contact:* J.G. van Velzen, General Manager. J. Lyne, Operations Manager.

NEWHAVEN: 50.47 N. 00.04 E. (See Plan)

PORT LIMITS: A line drawn from a position 300 ft. South of breakwater in a 075° direction to Seaford Bay.
DOCUMENTS: See "London".
PILOTAGE: Pilotage compulsory for all vessels over 50 m. length. Contact Newhaven Radio, VHF Channels 12 and 16, advising ETA 12 hours in advance.
RESTRICTIONS: 5.5 m. through entrance to port LWOST. Inner harbour then dredged depth of 4.5 m. in accordance with chart datum 3.5 m. below OD Newlyn (tide gauge readings are directly applicable to soundings).
MAX. SIZE: Max. LOA 520 ft. 25 ft. draft taking bottom on soft mud at low water. Vessels greater than 350 ft. LOA length must either be towed into or out of port. Vessels for North Quay must not exceed 250 ft. length, draft 17 ft.
HEALTH: See "Health-All Ports" before first U.K. port.
RADIO: Radio Station Newhaven Radio, call sign Newhaven Radio.
RADAR/VHF: No radar service. Ship's may contact West Pier control point on Channel 16, working on Channel 12.
TUGS: One tug available upon request, owned by Newhaven Port and Properties Ltd.
BERTHING: Vessels may be berthed at any time, with prior notice given.
CRANES: 4×3 ton and 1×30 ton (container gantry).
BRIDGES: Vessels requiring to berth at North Quay must arrive within 2 hours either side of HW in order to pass through swing bridge which governs access to this quay.
STEVEDORES: ETA should be given as far in advance as possible and not less than 24 hours before ETA.
DENSITY: Salt water.
FRESH WATER: Available on request. Supplied by shore hosepipe.
FUEL: Available by previous arrangement.
FIRE PRECAUTIONS: Usual no-smoking precautions on quayside in port area.
CONSULS: Norwegian Vice-Consul and French Consular Agency.
REPAIRS: Repairs of a temporary nature only may be carried out by Newhaven Port and Properties Ltd. workshops, Ship & Industrial Repairs Ltd., Unit A3, Beach Road, Newhaven and C. R. Irving Ltd., Chapel Street, Newhaven.
GANGWAY/DECK WATCHMEN: Not provided by Port Authorities but recommended at discretion of Ship's Master.
AIRPORT: Nearest airport Gatwick, distance 30 miles. Served by regular airlines and Shoreham, distance 17 miles.
POLICE/AMBULANCE/FIRE: Police: Civil, Newhaven 515219; Port, Newhaven 514131 (extension: 229). Ambulance: 0830 – 1700 hrs., Lewes 515400; 1700 – 0830 hrs., Lewes 512819; Fire: 999.
SHORE LEAVE: Allowed.
AUTHORITY: Newhaven Port and Properties Ltd., Beach Road, Newhaven Harbour, Sussex BN9 0BG. *Tel:* (01273) 514131. *FAX:* (01273) 512902. *Contact:* P.M. Doran, Port Manager.

NEWLYN: 50.06 N. 05.33 W. (See Plan)

PILOTAGE: Compulsory for all passenger vessels over 20 m. in length, and all other vessels over 50 m. in length. Call "Mount's Bay Pilots" on VHF Channel 16 (Tel: (01736) 66113 (Office), (01326) 319323 (Home) and 0860-207249 (Mobile)).
ANCHORAGES: As shown on B.A. Chart No. 2345, in Mount's Bay.

No anchoring within Newlyn Harbour.
MAX. SIZE: Length 90 m. Draft (loaded) 5.5 m. (forward) and 6.0 m. (aft).
VHF: "Newlyn Harbour" on Channels 16, 12 and 9.
BERTHING: See "Plan".
FRESH WATER: Available at up to 10 tonnes per hour.
FUEL: Fuel barge in harbour able to visit berths. Maximum capacity 450 tonnes.

Road tankers able to visit berths.
REPAIRS: Most electronic (radio, radar, etc.) repairs can be undertaken.
AIRPORT: Flights each day from Newquay to London (Heathrow) via Plymouth. Mounts Bay Boarding Service arrange collection and delivery of passengers between Newquay and Penzance. Travel time Penzance – Heathrow 2.5 hours.
Helicopters: British Airways operate a regular service between Penzance and the Isles of Scilly (30 miles S.W. of Land's End). Mounts Bay Boarding Service can charter helicopters to rendezvous with ships at sea.
BANKS: All large clearing banks available in Penzance (2 km.) from Newlyn.

Barclay's and Lloyd's in Newlyn.
GENERAL: Newlyn is primarily a fishing harbour with a turnover of £24m. of fish landed in 1995.

The only commercial traffic, using the port (South Pier), are those vessels calling for bunkers, water or stores.

The width of the harbour entrance is 45 m. The area of the harbour is 33 acres and is tidal.
AUTHORITY: Newlyn Pier and Harbour Commissioners, Harbour Office, Newlyn, Penzance TR18 5HW. *Tel:* (01736) 62523. *FAX:* (01736) 51614. *Contact:* A.T. Munson, Harbour Master.

NEWPORT: 51.35 N. 02.59 W. (See Plan)

DOCUMENTS: Required for arrival.

C142	2 copies	Crew Declaration
C14	3 copies	Stores Declaration
C13	2 copies	General Declaration (completed by Agent)
C16	2 copies	Cargo Inward Declaration
C74	1 copy	Master's Authority (completed by Agents)
C1320	2 copies	Cargo in unregistered spaces

These documents are to be completed and presented with copies of manifests and ship's documents at the time of report.
PILOTAGE: Telegraphic address – "Sewpil G 498180". Advance notice required – 24 hours. VHF Channel – Channel 16 for contact, thence Channel 6 for conversation. Description of pilot boat – diesel launch, black hull, white superstructure. Particular light or sound signals to be made by vessels requiring a Pilot – Code Signal 8, i.e. 3 longs 2 shorts. Pilot boat is located in vicinity of Breaksea Lightvessel, or in vicinity of Merkur Buoy, for small vessels. Maintain VHF contact (if possible) with pilot cutter and obey instructions with reference to positioning of vessel to facilitate boarding of Pilots.
ANCHORAGES: Large vessel should anchor in deep water to North of one Fathom banks. Deeper water anchorage (10 – 14 fathoms) in area between Breaksea Lightvessel and North 1 Fathom Bank Buoys to the South, and shallow water off Barry Roads to the North. Small vessels will find safe anchorage in Barry Roads in varying depth, depending on weather conditions and draft.
RESTRICTIONS: Entrance to Newport Docks is by means of a sea lock 1,000 ft. long, 100 ft. wide. Entry possible from 4 hours before to 4 hours after HW, depending on size of vessel.
MAX. SIZE: Max. size of vessels accepted at Newport is 244 m. long, 30 m. beam, 10.5 m. draft.
HEALTH: Port Health Authority board vessel at entrance lock and Pratique is automatic.
See "Health – All Ports" before first U.K. port.
RADIO: At sea – Land's End radio station, call sign GIL. Within Bristol Channel use Portishead Radio.
VHF: Vessels requiring entry can contact port on VHF radio Channels 71 and 69.
TUGS: Normally join at Newport Deeps. Ship's line used.
BERTHING: South Dock, normal depth of water 10.7 m. North Dock, normal depth of water 8.2 m.
CRANES: Heavy lift/container cranes: 2×25 tonne electro-hydraulic cranes.
Bulk handling: 6×10.0 tonne electric grabbing cranes.
General cargo: 7×10.0 tonne, 13×6 tonne electric cranes and 1×45 tonne mobile harbour crane.
Handling equipment up to 27 tonnes capacity with a comprehensive range of attachments is available.
SPECIALISED CARGO HANDLING FACILITIES:
Combi Ship Operations: Heavy lift/containers for combi vessels are handled by the 25 tonne cranes at the same berth where breakbulk general cargo is handled.
Forest Products: Surfaced open storage: The North side, South Dock area.
Hardwood Terminal: South Dock (East side) covering 3 hectares.
Banana Imports: There is a terminal of 3 hectares for a weekly Jamaican/Costa Rican service importing bananas and exporting general cargo. Included within the terminal is a temperature controlled transit shed.
BULK HANDLING FACILITIES: Coal and coal products are handled at a dedicated 1.2 hectare facility.
Animal feedstuffs are imported through an Animal Feed Terminal.
STEVEDORES: Labour is allocated to vessels on arrival.
Working Hours: Monday to Friday: 0800 – 1700 hrs., 0600 – 1400 hrs., 1400 – 2200 hrs.
Saturday: 0730 – 1200 hrs., 0600 – 1400 hrs., 1000 – 1400 hrs.
Sunday: 0600 – 1400 hrs., 1400 – 2200 hrs.
MEDICAL: No advance notice of medical attention for crew members is required and hospital facilities are available.
DENSITY: Average density of water in docks is 1016.
FRESH WATER: Available at all berths.
FUEL: All classes of fuel available.
REPAIRS: All wet dock and engine repairs possible.
DRY DOCK: Bristol Channel Ship Repairers Ltd., 454 ft. × 64 ft.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CUSTOMS ALLOWANCES: Tobacco, 0.5 lb. per crew member, reduced by 50% on coastal trade. 1 pint of spirit and 1 pint wine per crew member, reduced by 50% on coastal trade.
REPATRIATION: All facilities for the changing of crew and repatriation are available.
AIRPORT: Glamorgan Rhoose Airport terminal 28 miles from Newport. Regular connection planes to London Airport.
TIME: BST, GMT plus 1 hour. GMT in Winter months.
HOLIDAYS: Work not undertaken on Christmas, Easter, Spring and Summer Bank holidays. With the exception of Christmas holiday (25th and 26th December) dates on other holidays vary.
POLICE/AMBULANCE/FIRE: Telephone number 999 stating which service is required.
TELEPHONES: Telephone facilities are available aboard vessels.
SERVICES: Tank cleaning equipment. Facilities for tank washing, compass adjusting are available.
SHIP SUPPLY SERVICE: A ship supply service could be provided by Cory Ship Towage with their tugs at Cardiff if required. Address: Cory Ship Towage Ltd., S.E. Wales Office, Alexandra Dock, Newport, Gwent, NP9 2NP. Tel: Newport 56835/6.
SHORE LEAVE: No restrictions to crew members.
IDENTIFICATION CARDS: Not required.
AUTHORITY: Associated British Ports, Dock Office, Alexandra Dock, Newport, Gwent NP9 2UW. *Tel:* (01633) 244411. *Telex:* 498585. *FAX:* (01633) 221285. *Contact:* R.C.F. Williams, Port Manager.

PADSTOW: 50.35 N. 04.55 W. (See Pla

PORT LIMITS: A line from Stepper Point to Gulland Rock, thence N to Newland Rock, thence S.E. to Pentire Point.
DOCUMENTS: All usual documentation required by H.M. Governme
PILOTAGE: Pilot compulsory. Contact via Harbour Office, Tel: (018 532239. VHF via Padstow Harbour Office on Channel 16 during all of hours and 2 hours either side of HW at Padstow. ETA's should be gi at least 12 hours before arrival, amendments up to 2 hours before E Pilot boards off Stepper Point in normal conditions. In adverse conditi ships should endeavour to close the pilot boat as near to the starbo hand buoy as possible in safety. Padstow Bay experiences heavy grou swell. Anchorage not recommended in onshore wind or sea.
MAX. SIZE: Max. length approximately 350 ft. (depending on dra Max. draft 11 ft. any tide. Up to 18 ft. draft on Spring tides. No aird restriction.
VHF: Harbour office, call sign 'Padstow Harbour' listens VHF Channe during office hours and 2 hours either side of HW at Padst Call on Channel 16, working Channel 12.
TUGS: Not available. Local fishing vessels may assist.
BERTHING: All berths dry to firm mud or sand bottom. Depth alongsi South Jetty 11 ft. every tide and 18 ft. Springs. Depth alongside So Dock and West Quay 9 ft. every tide and 16 ft. Springs. Lesser dep in Inner Harbour and Outer Basin.
Inner Harbour to be kept "wet" with entry either side of high wate the use of a tidal gate. Max. size 45 m. LOA, 9.5 m. beam a 3.5 m. draft.
CARGO HANDLING: Undertaken by Padstow Harbour Commissione Dry bulk and unitised cargoes handled. Limited storage facilities. Cra hired by Harbour Commissioners to suit requirements.
FRESH WATER: Available, delivery from standpipes.
FUEL: Marine gas oil available direct from bunker tank on South P
REPAIRS: Welding and general engineering services readily availa
DRY DOCKS: A & J Marine (Cornwall) Ltd. Tel: (01841) 533114. dry dock – 70 ft. × 32 ft. × 12 ft. draft at Springs.
STORES: All usual stores available.
GARBAGE DISPOSAL: Skips available onshore.
WASTE OIL DISPOSAL: Can be arranged through the harbour off
SEAMAN'S CLUBS: Assistance available.
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Padstow Harbour Commissioners, Harbour Off West Quay, Padstow, Cornwall PL28 8AQ. *Tel:* (01841) 532 *FAX:* (01841) 533346. *Contact:* Captain J. Hinchliffe, Port Administra Harbour Master.

PEEL, Isle of Man: 54.14 N. 04.40 W. (See Pl

PILOTAGE: Not compulsory.
MAX. SIZE: See "Berthing".
VHF: Channels 16 and 12 available only when vessels expe Coverage provided throughout 24 hours by Douglas Harbou Channels 16 and 12.
BERTHING: Outer Harbour: Max. LOA 250 ft. Max. draft 14 ft. afloat over LWOST. Not tenable with strong Northerly winds. Ves up to 350 ft. and max. draft 10 ft. can be accommodated in ce conditions.
Inner Harbour: Max. LOA 160 ft., draft 10 ft. on Neaps, 13 ft Springs. Dries out at LW. No quay space for storage.
GARBAGE DISPOSAL: There is an enclosed skip on the break for waste.
WASTE OIL DISPOSAL: Arranged through the Harbour M (Lubricating oil only).
SEAMAN'S CLUBS: None.
CURRENCY: Isle of Man currency is the same value as U.K., but ca be used in U.K.
AUTHORITY: Isle of Man Department of Transport, Harbours Div Sea Terminal Building, Douglas, Isle of Man. *Tel:* (01624) 68 *FAX:* (01624) 626403. *Contact:* Captain E.E. Kaighin, Direct Harbours.
Port Manager at Peel: Captain M. Brew. Tel/Fax: (01624) 8423

PENZANCE: 50.07 N. 05.32 W. (See P

PORT LIMITS: The seaward boundaries of the Port for the purpo charter parties are considered to be the harbour walls.
DOCUMENTS: H.M. Customs require the Master or Agent of any arriving from a Port outside the United Kingdom to present the fo documents at the Customs House within 3 hours of the vessel's a during office hours (0900–1230) Monday to Friday or within 6 during night hours.

1 copy	Crew Declaration (Form C.142)
1 copy	General Declaration (Form C.13)
1 copy	Stores and Livestock Declaration (Form C.14)
2 copies	Deck Cargo Declaration (if any) (Form SUR.238)
2 copies	Crew List (IMO Fal.Form 5)

The above is intended to be a guide only, not a definitive list.
PILOTAGE: Pilots are available at all times. Call "Mounts Bay during normal working hours or when vessel is expected on VHF 16. Working Channels 12 and 9 are also available. Ships are a give advance notice by R/T or telegram through Land's End Radi to either the Pilot or Local Agent. Alternatively, through the Po which maintains watch on Channel 16, 12 and 9. The Pilot boa point immediately adjacent to the Low Lee Buoy (50° 05° 21.2' W.) from the pilot boat operated in Mounts Bay. Th operated from Newlyn has a black hulled, white deck hou "Dayglow" roof.
The pilot boat only cruises when a vessel is expected.

ANCHORAGE: Vessels awaiting orders or entry into Penzance may anchor in a minimum depth of 15 m., in position 50° 06.1' N., 05° 31.5' W.
RESTRICTIONS: The dock gates at Penzance are normally open, enabling vessels to enter from 2 hours before high water until one hour after high water, although this period may be increased so that the gate is open earlier or later by prior arrangement. The depth on the dock gate at MHWS is 5.49 m. and at MHWN 4.4 m. The entrance is 15.3 m. wide.
MAX. SIZE: Vessels up to a maximum of 95 m. in length and 2,000 net registered tonnes may normally enter within the draft and beam limitations listed.
HEALTH: No health or Pratique documents are required under normal circumstances.
RADIO: Vessels may pass messages, telegrams or link calls through Land's End Radio (GLD).
VHF: Penzance Harbour maintains VHF Radio watch on Channels 16 and working Channels 12 and 9, whenever the dock gates are manned from 2 hours before high water until one hour after high water on both tides, 7 days a week throughout the year. In addition, the radio is manned Monday to Friday between 0830 hrs.–1200 hrs. and 1300 hrs.–1630 hrs.
RADAR: There is no port radar.
TUGS: Tugs are available with prior notice, however, normal berthing is undertaken with the aid of pilotage workboats.
BERTHING: The wet dock has an entrance 15.3 m. wide and has 5 berths. Vessels discharging cargo should have a maximum length of 90 m.

The outer harbour has 4 berths. Berth No. 1 is for the use of the Isles of Scilly Ferry and Berth No. 7 is normally designated as a drying out berth for ship repair.
CRANES: Cranes are available with maximum lifts of up to 15 tonnes. Dual gear is normally used for discharge and mobile cranes of greater capacity are available locally.
BULK CARGO FACILITIES: Bulk cargo is discharged and loaded by Grab.
SPECIALISED CARGO HANDLING FACILITIES: There is one drying berth with an operational depth of 4.7 m. at MHWN which has been adapted for heavy lift Ro/Ro vessels. This berth is available by prior arrangement.
BRIDGES: A swing bridge provides access into the dry dock basin.
MEDICAL: Full hospital and dental services are available in Penzance through the Agents or Port Medical Officer. Evacuations are arranged through the Port Medical Officer and the Mounts Bay Boarding Service.
STEVEDORES: Generally 24 hours notice is needed to provide stevedores.
DENSITY: The density of the dock water is 1025. Fresh water can be provided on all berths, delivery rates nominally 15 tonnes per hour.
FRESH WATER: Available on all berths.
FUEL: Marine gas oil by pipeline at 3 bunkering points along the South Pier with up to 55,000 litres available immediately from harbourside tanks. Greater quantities may be supplemented by road tanker. Lubricating oil and other fuel plus liquid petroleum gas available through ship's Agent.
CONSULS: Vice-Consuls for France and the Netherlands are resident in Penzance and Consulates for Denmark, France, Greece, Norway, Spain, Sweden and Germany are located nearby.
REPAIRS: All types of engine and deck repairs carried out to both cargo and tanker vessels.
DRY DOCKS: There is one dry dock 74.73 m. long with a breadth of 11.9 m. and a maximum draft of 3.35 m.
SURVEYORS: Department of Transport, Lloyd's, Norsk Veritas, Bureau Veritas, American Bureau and the Salvage Association have surveyors readily available at Penzance, as are several independent surveyors and consultants.
GANGWAY/DECK WATCHMAN: The employment of a watchman would only be needed in Penzance wet dock if the vessel is unmanned.
OPENING/CLOSING HATCHES: The opening and closing of hatch covers is usually carried out by the ship's crew.
CUSTOMS ALLOWANCES: The following are permitted from Ports within Home Trade limits:

Items	*Descriptions*	*Quantities*
Tobacco	Cigarettes	100
	Cigarillos	50
	Cigars	25
	Smoking Tobacco	125 grams
Alcohol	Over 20% volume	0.25 litre
	Under 20% volume and fortified or sparkling wine	0.50 litre
	Still table wine	1 litre

Arrival from Ports outside home trade limits:

Items	*Descriptions*	*Quantities*
Tobacco	Cigarettes	200
	Cigarillos	100
	Cigars	50
	Smoking Tobacco	250 grams
Alcohol	Over 20% volume	0.50 litre
	Under 20% volume and fortified or sparkling wine	1 litre
	Still table wine	2 litres

REPATRIATION: Facilities are readily available for effecting crew changes and repatriation where this is necessary and may be done with medical escort or not as required (See "Ship Supply Service").
AIRPORT: Newquay Airport has connecting flights to London (Heathrow) via Plymouth and/or Exeter and also regular flights to Aberdeen. Total travel time Penzance to London (Heathrow) is 2.5 hours. There is also a Heliport in Penzance with regular flights between the Isles of Scilly.
TIME: Local time GMT. Summertime GMT plus one hour.
HOLIDAYS: Public Holidays in the United Kingdom: New Year's Day, Good Friday, Easter Monday, early and late May Bank Holidays (Mondays), August Bank Holidays (first and last Monday), Christmas Day and Boxing Day.

The Harbour does not close for any of these holidays.
FIRE/POLICE/AMBULANCE: The Emergency Services are obtainable by dialling 999 or on more routine matters on the following telephone numbers: Police (01736) 62395; Fire Service (01736) 62918; Ambulance (01872) 78181; Coastguard (01326) 317575.
EMERGENCY CO–ORDINATION CENTRE: Falmouth Marine Rescue Co–ordination Centre is available on Falmouth (01326) 317575 or on Telex 45560. The station maintains a 24 hours, 365 day watch.
SERVICES: Compass adjusting at 2 hours notice, vessels can be swung in daylight hours in Mounts Bay. Divers, engineers, welding, hydraulic repair, radar, radio and other electronic repairs or servicing are available 7 days a week.
BANKS: The four principal clearing banks have branches in Penzance: Midland, Lloyd's, Barclays and National Westminster.
STORING: Vessels can be stored alongside from lorries which park immediately alongside the vessel. The operation can usually be carried out by the ship's crew, however, forklift trucks can be made available.
SHIP SUPPLY SERVICE: *Mount's Bay Boarding Service:*

By helicopter: British International Helicopters operate a regular service between Penzance and the Isles of Scilly (30 miles S.W. of Land's End). Mount's Bay Boarding Service (MBBS) can charter helicopters for rendezvous with ships at sea for transfer of equipment and personnel.

Parcels: MBBS collect and despatch stores, parts, charts, etc, via British Rail "Red Star" parcels service, T.N.T. "Overnite" and "Courier", part of the G.P.O. Datapost and Securicor.

Charts: All British Admiralty charts and publications are available within 12 hours.

Stores: Fresh, frozen and dry stores are obtainable within 6 hours notice, while Bonded stores are available at 24 hours notice.

Spare parts: MBBS arrange clearance, forwarding and transport of spare parts to meet vessels on arrival. Undivided lifts of 1.5 tonnes can be handled (up to 10 tonnes by arrangement).

Crew transfer: MBBS can land and clear crew through Customs and Immigration as well as arranging for their travel onward to worldwide destinations. MBBS can also meet crew and either embark or accommodate them until the vessel's arrival.

Landing sick crew: Although in urgent cases, vessels are in direct contact with Falmouth's Coastguard MRCC, MBBS arrange the landing of non-urgent cases. In both instances MBBS liaise with local Coastguards, Customs, Immigration, Doctors and Hospitals, and can usually provide interpreters for non–English speaking crew. MBBS visit and look after the interests of hospitalised crew, and can report to their company/family. MBBS arrange travel and repatriation of crew members either with or without medical escort, according to Doctors' or hospital instructions.

Contact: J.H. Bennetts Ltd., 72 Market Jew Street, Penzance, Cornwall TR18 2LF. Tel: (01736) 330808 (Direct), 330505 (Exchange). Fax: (01736) 67024.
SHORE LEAVE: There are no restrictions on crew shore leave.
IDENTIFICATION CARDS: An International Seaman's Card is sufficient identification for crew members.
REGULATIONS: There are no unusual Regulations affecting the Port.
DELAYS: Vessels will berth on the tide and will either commence discharge upon arrival or the following morning if they have arrived overnight.
GARBAGE DISPOSAL: Skips are available on quays. Also contact BIFFA (Tel: (01736) 60736).
WASTE OIL DISPOSAL: By road tanker, contact Pellows (Tel: (01872) 863927).
DEVELOPMENTS: Port development is under review.
AUTHORITY: Penwith District Council, St. Clare, Penzance, Cornwall TR18 3QW. *Tel:* (01736) 62341. *FAX:* (01736) 66114.

Harbour Master, Harbour Office, Wharf Road, Penzance, Cornwall TR18 4AB. Tel: (01736) 66113 office hours; 62341 Ext: 294 office hours; 61119 outside office hours. *FAX:* (01736) 66114. *Contact:* Captain M. Tregoning, Harbour Master. Mobile Tel: 0860-207249.

PERTH: 56.24 N. 03.25 W. (See Plan)

LOCATION: On River Tay, 35.4 km. above Dundee and 48.3 km. from sea.
DOCUMENTS: Normal documentation for arrival and departure U.K.
PILOTAGE: Navigation on the River Tay between Dundee and Perth is difficult and can be hazardous. The Perth Harbour Master will arrange for the services of local Pilots to assist vessels in making passage between Dundee and Perth. The contract for the services of a Pilot is between the Pilot and the vessel's Owner. The account will be rendered direct from the Pilot to the Shipping Agent for the charge to the Owner. Masters are strongly advised to make use of this facility, although it is not compulsory and is not provided under the terms of the Pilotage Act 1987. Pilotage from sea to Dundee is compulsory.
ANCHORAGES: Off Birkhill, depth 5.0 m. at L.W.O.S.T. (Emergency use only).
RESTRICTIONS: Air draft – Road Bridge at Dundee 22.0 m. Railway Bridge at Dundee 23.8 m. M.H.W.O.S. Vessel's draft for acceptance at the discretion of Perth Harbour Master, up to a maximum of 4.2 m. (F.W.). Normal safe F.W. draft is 0.2 m. less than predicted tide height, weather conditions permitting.

MAX. SIZE: LOA 90.0 m., beam 13.0 m. and deadweight 3,000 tonnes.

RADIO/VHF: Perth Radio on Channel 9 for upper river transit.

TUGS: Tug assistance is not normally required, however during periods when River Tay is fast running, tug assistance may be necessary and can be arranged through Agent.

BERTHING: Vessels sit on bottom (soft mud).

Berths No. 1 and 2 – total length 146 m.

Berth No. 3 normally only used for harbour requirements – length 55 m.

Berths No. 4 and 5 – length 145 m.

Berth No. 6 – 67 m.

Average depth throughout harbour – 0.76 m. at L.W.O.S.T. Harbour never dries out.

Tidal Range: Spring tides: M.H.W.S.T. 4.26 m. M.L.W.S.T. 0.76 m.

Neap tides: M.H.W.N.T. 2.89 m. M.L.W.N.T. 1.08 m.

Loading and discharging at all berths is by shore equipment. Lighting for nightwork is available at all berths.

CRANES: Ample mobile cranes available with S.W.L. between 5 tonnes and 40 tonnes. Ample forklifts and elevators for handling bulk cargoes.

STEVEDORES: Tay Stevedoring and Storage Ltd. Tel: (01738) 621114. Fax: (01738) 621682. Telex: 76342.

Calport of Perth. Tel: (01738) 626675. Fax: (01738) 639039.

Normal working hours for both companies 0800 hrs. – 1700 hrs. Overtime will be worked on request, night-time, weekends and holidays.

DENSITY: Fresh water at Perth Harbour.

FRESH WATER: Available at all berths. Rate of delivery 5 t.p.h. – 7 t.p.h. Cost (1996): £ 1.75 per cubic metre – minimum charge £ 20.00.

FUEL: Available by road tanker, arranged through Agent.

REPAIRS: Small repairs undertaken locally by good engineering firm. Major repairs undertaken at Dundee.

SURVEYORS: Cargo surveyors, samplers and tallying available by arrangement through Agent. Classification surveys available by arrangement through Agent.

REPATRIATION: Available by arrangement through Agent.

AIRPORT: Edinburgh 70 km., Glasgow 115 km., Aberdeen 160 km. and Dundee 35 km. Good main road system to all airports.

HOLIDAYS: Stevedores may work on Public Holidays if required.

POLICE/AMBULANCE/FIRE: Police: 621141. Ambulance: 622123. Fire: 622226. All three services can be reached by dialling 999.

SERVICES: Provisions available.

GARBAGE DISPOSAL: Garbage bag supplied to each ship on arrival for small quantities of domestic refuse, then collected by District Council. Removal of larger quantities of refuse and other items can be arranged through agents.

WASTE OIL DISPOSAL: Collection service available by road tanker from all berths. Arrangements can be made through Agent.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: (a) Perth and Kinross Council, Roads & Transport Department. *Contact:* G. Fraser, Head of Transport.

(b) Perth Harbour Office, Lower Harbour, Friarton Road, Perth PH2 8BH. *Tel:* (01738) 624056. *FAX:* (01738) 622263. *Contact:* F.G. Bissett, Harbour Master. D.T. Bain, Assistant Harbour Master.

PETERHEAD BAY HARBOUR: 57.30 N. 01.47 W.

(See Plan)

DOCUMENTS: Vessel's arrival and departure documents required for presentation to H.M.Customs and Excise are as follows:

On arrival ("Report"):

2 copies Master's Declaration, Form C13.

2 copies Crews Declaration, Form C142.

Cargo Declaration (Manifest).

2 copies Cargo Release.

If these "Report" documents have not been collected from the vessel, within 3 hours of making fast alongside (24 hours of anchoring), by H.M.Customs and Excise or the vessel's Agent, then one copy of Forms C13 and C142 are to be lodged in one of H.M.Customs and Excise's post boxes, keeping the other copy together with the manifest and release notes on board. There is one post box on the ASCo North Base, one on the ASCo South Base and one at the Customs House.

On departure ("Clearance"):

2 copies Master's Declaration, Form C13.

Cargo Declaration (Manifest), normally presented by the Charterer or Agent.

PILOTAGE: Pilotage is compulsory for all vessels over 3,500 g.r.t. unless the Master or Mate has a valid Pilotage Exemption Certificate. Pilotage is also compulsory for vessels carrying dangerous goods in bulk and all tankers, unless the Master or Mate has a valid Pilotage Certificate. Masters must call "Peterhead Pilots" on VHF Channel 16, giving minimum one hour's notice of ETA.

In the message of ETA, the following information must be included:

1. Name/call-sign of vessel.
2. Nationality.
3. Length, draft and g.r.t.

Pilot boards within 0.5 miles of breakwaters in fair weather. In adverse weather Pilot boards inside the breakwaters.

ANCHORAGE: Depth within bay up to 12.5 m. Poor holding in Easterly gales.

VHF: Peterhead Harbour Radio – Channel 14. Pilotage operations – Channel 9.

TUGS: Harbour towage can be arranged through shipping Agents, provided sufficient notice is given.

BERTHING: Aberdeen Service Co. (North Sea) Ltd. operate t purpose-built North Sea Oil service bases:

The North Base consists of a 2 berth open pile jetty with depth 7.0 m. The North Breakwater, which has a purpose-built rig moor system provides 4 additional berths with depths of up to 14.0 m.

The South Base consists of a 470 m. quay, depths of 6.8 m. a contains 7 berths supported by warehousing and storage space. T South Breakwater provides 5 berths with depths of 7.8 m.

The Princess Royal Jetty is a 170 m. long open piled jetty whi provides 3 berths protected by Trellex Arch fendering. These berths ha a minimum water depth of up to 6.8 m. at MLWS.

The Tanker Jetty built to import fuel oil for the nearby Peterhead Pow Station, is designed to accommodate vessels up to 50,000 tonn deadweight with a draft of 11.5 m. and a length of 250 m. It is also us for the servicing of North Sea supply vessels, diving support vesse survey vessels and vessels loading grain and other similar bulk cargoe It may also be available for the short term lay-up and maintenance oil rigs.

Peterhead Bay Marina offers fully serviced pontoon berthing 92 locally based and visiting boat owners.

Note: Breakwaters are subject to closure during adverse weather a vessels must be ready to leave at short notice.

CRANES: Numerous mobile cranes available up to 500 tonnes capac

BULK HANDLING FACILITIES: The Princess Royal Jetty is suitab for the handling of various bulk cargoes including grain, peat, fertili and frozen fish. Adjacent storage space is available, and cargo handl is carried out by experienced local contractors. Berths at the breakwat may be available for larger vessels.

TANKERS: See "Berthing".

FRESH WATER: Available at Tanker Jetty, South Base, Princess Ro Jetty, North Base Jetty and North Breakwater. There is no fresh wa at the South Breakwater.

FUEL: Marine gas oil available by pipeline at South Base, Princess Ro Jetty, North Base Jetty and North Breakwater. Bunkering by road tan is possible at the Tanker Jetty and South Breakwater.

REPAIRS: Most deck and engine repairs can be carried out.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: Aberdeen, Dyce 30 miles. Feeder routes to main internatio airports, some continental air transportation.

TIME: GMT. Clocks advanced 1 hour last Sunday in March.

Last Sunday in October, clocks retarded 1 hour.

POLICE/AMBULANCE/FIRE: Emergency 999. Police 4725 Ambulance 472494. Fire (emergency only) 999.

BANKS: Abbey National PLC, 6 Marischal Street, Peterhe Tel: (01779) 472552. Fax: (01779) 470306.

Bank of Scotland PLC, 32 Broad Street, Peterhead. Tel: (017 478303. Fax: (01779) 472834.

Clydesdale Bank PLC, 43 Broad Street, Peterhead. Tel: (017 477321. Fax: (01779) 478618.

Royal Bank of Scotland PLC, 10 Marischal Street, Peterhe Tel: (01779) 476336. Fax: (01779) 478646.

TSB Bank Scotland PLC, 14 Queen Street, Peterhead. Tel: (017 472638. Fax: (01779) 470225.

RESCUE CO-ORDINATION CENTRE: Aberdeen Coastguards. Cal VHF Channel 16 or Tel: (01224) 592334.

GARBAGE DISPOSAL: Skips for ship's garbage are provided on quays.

WASTE OIL DISPOSAL: Collection service available through Sha & McEwan, Blackdog Centre, Murcar, Aberdeen, Tel: (01224) 2484

SEAMAN'S CLUBS: Royal National Mission to Deep Sea Fisherm Union Street, Peterhead. Tel: (01779) 72940.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Peterhead Bay Authority, Bath House, Bath St Peterhead AB42 6DX. *Tel:* (01779) 474020, after hours (01779) 474 *Telex:* 73749. *FAX:* (01779) 475712. *Contact:* Captain A.M. Flett, 0 Executive/Harbour Master.

PLYMOUTH: 50.22 N. 04.09 W.

(See Pl

DOCUMENTS: Importer to supply Agent with Customs documenta e.g. original B/L with cheque to cover various details; plus copi Invoice and Forms C.105 with packing lists. Derat or Exem Certificate required.

PILOTAGE: Compulsory for merchant vessels. Call sign FSG, or 4 blasts on whistle. Vessels not subject to compulsory pilotage may d Docking Pilot in Plymouth Sound otherwise Pilot Station off Penlee P

Pilot boat is motor boat with white upperworks, black hull. "Pil black on wheelhouse.

ANCHORAGES: In Plymouth Sound.

MAX. SIZE: Maximum depth of water 9.0 m. Vessel drawing would leave anchorage 2 hours before HW. Also see "Berthing"

Ro/Ro Berth No. 1: Max. LOA 145 m. Max. beam 20 m. Max. draft

Ro/Ro Berth No. 2: Max. LOA 200 m. Max. beam 30 m. Max. draft

HEALTH: Pratique – Apply to Customs Waterguard. Pratique is when requirements satisfied.

See "Health – All Ports" before first U.K. port.

RADIO: *Pilots:* The calling and listening frequency is 2182 kHz a working frequencies are 2246 or 2301 kHz. A listening watch is k 2182 kHz at every even hour to 15 minutes past, local time a longer periods when a ship is expected.

VHF: The pilot vessel is equipped with VHF and should be cal Channel 16; the working Channels 6, 8 or 12 should be used for p messages. Alternatively the shore-based Trinity House Pilot S Plymouth, call sign "Cattewater Harbour Radio", maintains a con watch on Channel 16 (calling Channel) and is fitted with Chan (first choice Port Operations Channel) and 18.

TUGS: Available in Sound by arrangement.
BERTHING: *Millbay Docks:* (Associated British Ports).

Outer Harbour:

Water Area	11.00 Hectares
Length of West Wharf	200 m.
Depth alongside MLWST	8.6 m. – 9.0 m.
Length of Trinity Pier	146 m.
Depth alongside Northside at MLWST	4.6 m.
Ro/Ro Berth No. 1 (3 Round dolphins)	
Max. length of vessel	145 m.
Depth alongside MLWST	6.5 m.
Ro/Ro Berth No. 2	
Max. length of vessel	200 m.
Depth alongside MLWST	9.0 m.

Fresh Water available at all berths.
Large transit sheds on Trinity Pier and West Wharf.

Note: Inner Basin closed to shipping.
Victoria Wharves: Pier No. 1. Length 475 ft. Depth 20 ft. LWOST. Pier No. 2. Length 350 ft. Depth 20 ft. LWOST. Max. beam 45 ft. (Larger with prior notice.) Max. d.w.t. 5,000 tons. Bulk products (grain, clay and feed) loaded by conveyor ex-lorry. General cargo handled. 3×15 ton mobile cranes.
Cattedown Wharves: Length 712 ft. Depth 6.3 m. – 7.6 m. LWOST. Max. LOA 560 ft. Max. draft 7.6 m. (West end) and 6.3 m. (East end). Max. size 12,000 g.r.t.
CRANES: 3 quayside cranes (1×12 tonnes and 2×6 tonnes).
STEVEDORES: Commodities regularly handled include fresh fruit and vegetables, timber and general cargoes.
Imports: Fertiliser, clinker, pumice and bulk cargoes.
Working Hours: Monday – Thursday 0800 – 1700. Friday 0800 – 1600. Overtime by arrangement.

Shift working is also regularly undertaken 7 days per week to meet specific requirements, (i.e. Ro/Ro vessels in ABP – Millbay Docks).
MEDICAL: No advance notice required; hospital facilities in Plymouth.
TANKERS: Tankers of up to 10,600 g.t. can be handled at Cattedown Wharves. Max. draft 26 ft. 4 hose connections, diameter 10 in. 1 for black oil and 3 for white oil.
FRESH WATER: Available from shore at all berths.
FUEL: All normal grades available at short notice.
CONSULS:

Belgium	65154	Italy	63445
Dominican Rep.	63175	Netherlands	64846
France	65154	Norway	65154
Germany	66444	Spain	65154
Greece	60604	Sweden	65154

REPAIRS: Ship repairing facilities available.
OPENING/CLOSING HATCHES: Performed by ship's crew or by stevedores at request of ship.
CERTIFICATES: Tonnage registration.
HOLIDAYS: Cargo work can often be arranged on Public Holidays subject to prior notice.
POLICE/AMBULANCE/FIRE: Telephone 999.
TELEPHONES: By special arrangement with British Telecom, can be placed on board.
SHIP SUPPLY SERVICE: Cory Ship Towage Ltd., 1-3 Buller Road, Torpoint, Cornwall PL11 2LD.

Bellamy & Co. (Plymouth) Ltd., Millbay Docks, Plymouth PL1 3SA. Tel: (01752) 665156. After hours 779586, 330338, 775957. Telex: 45225.

The Royal Navy maintain a helicopter service for landing sick crew men from ships beyond the port limits.
GARBAGE DISPOSAL: Arranged on request.
WASTE OIL DISPOSAL: Arrangements can be made for collection by tanker trucks. Contact Haul Waste (Tel: (01752) 339551. Fax: (01752) 342663).
SEAMAN'S CLUBS: None.
AUTHORITY: Associated British Ports, Port Office, Millbay Docks, Plymouth, Devon PL1 3EF. *Tel:* (01752) 662191. *FAX:* (01752) 222070. *Contact:* A.S. Kent, Port Manager. R.A.L. Escrig, Port Superintendent.

Cattedown Wharves Ltd., Cattedown Road, Plymouth, Devon PL4 0RP. *Tel:* (01752) 665231. *Telex:* 45778. *FAX:* (01752) 220409. *Contact:* R.J. Love, Managing Director.

Victoria Wharf Ltd., Victoria Wharf, Plymouth, Devon PL4 0RF. *Tel:* (01752) 663175. *FAX:* (01952) 223029. *Contact:* M. East, Manager.

POOLE: 50.43 N. 01.59 W. **(See Plan)**

DOCUMENTS: As for other British ports.
PILOTAGE: Pilot compulsory for all vessels over 50 m. LOA, unless Master holds a current Poole Pilotage Exemption Certificate. Pilots board 0.5 mile South of Poole Bar Buoy from cutter. Prefer ladder 0.50 m. from water and a good lee. VHF watch kept on Channel 16 working Channels 9 and 14. As much notice as possible. Address: Pilots, Poole.
ANCHORAGE: Vessels can anchor anywhere in Poole Bay and Studland Bay. Good holding ground and protected in all but Easterly gale.
RESTRICTIONS: Vessels drawing up to 5.2 m. can enter at any state of tide. Drafts in excess of 5.2 m. must wait for the tide.
NOTE: Advertised depth in main shipping channel:
From Bar Buoy Entrance to Terminals 2 and 3 is 6.0 m. at Chart Datum, but to Terminal No. 1 it is 5.2 m. at Chart Datum.
MAX. SIZE: Max. length 140 m., beam – no limit, draft 5.2 m.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Vessels using the Port may call direct on VHF Channel 16 – working frequency Channel 14 call-sign "Poole Harbour Control".
TUGS: 2 tugs, 8 ton and 7 ton bollard pull. Join at Stakes Buoy, by special application arrangements can be made to join at North Haven Point. Ship's lines. No difference in charges.

Pilots will advise whether a tug is necessary or not. Any vessel in excess of 1,000 d.w.t. or 300 ft. LOA due to pass through the Poole Bridge is required to take a tug. The gap in the bridge is 60 ft.
BERTHING: Berthing time depends on draft at some private quays. No restriction at New Quay or Ro/Ro berths.
Ro/Ro Terminal (CFFT):
Size of vessel:
Max. draft 5.5 m.
Max. length 160 m.
Max. depth 5.2 m. at Ro/Ro No. 1 and 6.5 m. Ro/Ro No. 2 and 3 at Chart Datum.

Berths/Equipment: Three linkspan berths for Ro/Ro vessels, Berth No. 1 utilises mooring dolphins, Berth No. 2 has 90 m. long working quay. Berth No. 3 has 130 m. long working quay and a two tier linkspan. Vehicles up to 180 tonnes gross weight can be handled subject to prior approval of Port Authority. A total of some 16 hectares (40 acres) of terminal is surfaced to a high standard, providing parking places for 400 heavy goods vehicles. A further 2 hectares (5 acres) of reclaimed land is available for future port expansion. Warehousing facilities; self weighing weighbridge; fleet of Tugmasters and fork lift trucks; 35 tonne gantry crane in Terminal for handling 20/30/40 ft. containers to/from road.
New Quay:
Length: 158 m.
Depth alongside: 4.5 m. at Chart Datum.

Equipment: 3 ton capacity level luffing rail-mounted crane, 25 ton and 32 ton Scotch derricks and 35 tonne capacity crawler crane equipped for hook/bulk/grab/spider grab duties giving an operational capacity of 6 tonnes at 18 m.; warehousing 3,000 sq.m. plus open storage; mobile crane capacity up to 200 tonnes.
Yard Quay:
Length: 200 ft. (61 m.).
Depth alongside: 2.6 m. at Chart Datum.
Equipment: Warehousing facilities; limited open storage.
Ballast Quay:
Length: 256 ft. (78 m.).
Depth alongside: 3.8 m. at Chart Datum.

Equipment: 6.5 ton capacity level luffing crane fitted with grab/hook for bulk handling/general cargo duties.
Poole Town Quay:
Length: 1,300 ft. (396 m.).
Depth alongside: 3.6 m. – 4.5 m. at Chart Datum.
Equipment: Mobile crane capacity 40 tonnes.
Bulwark Quay:
Length: 91 m.
Depth alongside: 4.3 m. at Chart Datum.

Equipment: 25 ton Scotch Derrick; warehousing facilities; open storage.
Private Quays:
J. T. Sydenham (Timber Wharf)
Length: 250 ft. (76 m.).
Depth alongside: 4.2 m.
Equipment: Mobile crane capacity 45 tonnes.
Other Private Quays:
Corrals (Fuel)
J. Bolson & Son Ltd. (Marine Repair & Engineering).
South Coast Sand & Ballast (Sea Dredged Aggregates).
Sunseekers International (Boat Builders).
West Quay Marina – Yacht Berths.
Central Electricity Generating Board.
Sydenhams (Timber).
Oil Jetty:
Length: 270 ft. (82 m.).
Depth alongside: 4.9 m. at Chart Datum.
BRIDGES: Poole Bridge (Max. width 60 ft.) at West end of Poole Quay. Will open at any time on request by commercial vessel.
STEVEDORES: Normal notice for gangs.
MEDICAL: Advance notice required for ambulance services. Normal medical and hospital services available. Distance to hospital is 2 miles.
TANKERS: 2 oil berths. Diameter of load/discharge lines 6 in.
DENSITY: 1021.
FRESH WATER: Delivery 25 t.p.h. by 2 in. hose.
FUEL: Gas oil only.
CONSULS: At Southampton.

Belgium
Danish
Finnish
French
German
Greek
Italian
Netherlands
Norwegian
Spanish
Swedish

REPAIRS: All types deck and engine repairs can be carried out. Slipways (2) available for vessels up to 220 ft. LOA by 40 ft. beam and 120 ft. LOA by 30 ft. beam.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: Work carried out by crew.
AIRPORT: Charter flights for crew changes can be carried out from Hurn Airport 9 miles away from port.
POLICE/AMBULANCE/FIRE: Call 999 and ask for service required.
SHIP SUPPLY SERVICE:
Poole Harbour Commissioners: 2 small tugs (448 Kw and 320 Kw) speed 7 knots and 10 knots.
J. Harvey & Sons (Poole) Ltd.: West Quay Road, Poole. Tel: 674063. Operators of small passenger boats.
Crosons Ltd.: New Quay Road, Hamworthy, Poole. Tel: 673201. Operators of passenger vessels carrying up to 200 persons.
Hurn Airport: Situated 9 miles from Poole. Full international facilities. Suitable for helicopter landing etc.

IDENTITY CARDS: Required in Ro/Ro terminal.
GARBAGE DISPOSAL: Free skip service available for cargo vessels loading/discharging at the commercial quay. Skips located adjacent to all berths.
WASTE OIL DISPOSAL: Waste oil collection service provided by local road haulier for all ships using the port at all berths. Prior arrangement and charges through local agents.
SEAMAN'S CLUBS: None.
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Poole Harbour Commissioners, 20 New Quay Road, Hamworthy, - Poole, Dorset BH15 4AF. *Tel:* (01202) 440200. *FAX:* (01202) 440231. *Contact:* Captain G.W. Wareham, Harbour Master.

PORT ASKAIG: 55.51 N. 06.07 W. (See Plan)

Operated mainly as a ferry port although other shipping may use the facilities available.

The wharf operated by Strathclyde Regional Council (SRC) is 60 m. long with a depth of 4.06 m. below Chart Datum. It has a Ro/Ro ramp suitable for use by end loading vessels. Fresh water is available. Strathclyde Regional Council operate a second Ro/Ro berth at Port Askaig.
GARBAGE DISPOSAL: No facilities.
WASTE OIL DISPOSAL: No facilities.
SEAMAN'S CLUBS: None.
AUTHORITY: Strathclyde Regional Council (SRC), Department of Roads, Strathclyde House, 20 India Street, Glasgow G2 4PF. *Tel:* (0141) 2042900. *Contact:* D. Carruthers, Director.

Strathclyde Regional Council, Department of Roads, Manse Brae, Lochgilphead, Argyll PA31 8RD. *Tel:* (01546) 602233. *FAX:* (01546) 603749. *Contact:* The Area Engineer.

Port Askaig: Piermaster. *Tel:* (0149) 684208.

PORT ELLEN: 55.37 N. 06.13 W.

Operated by Caledonian MacBrayne Ltd., used mainly by ferries. Chart B.A. 2037 covers the area.
APPROACHES: Harbour entrance 7 cables wide, depth 7 to 8 fathoms.
PILOTAGE: Not compulsory.
ANCHORAGE: Approach with Carraig Fhada Light bearing 332°(T) until 2 cables off light. Alter course to 026°(T) till lighthouse bears 270°(T) × 2.2 cables, then altering course to 353°(T). Anchorage position is reached when lighthouse bears 206°(T) × 3.6 cables, equidistant with Na Sglithean Beach, 3.6 cables. Depth at anchorage 5 fathoms.
BERTHING: Car Ferry Berth can accommodate vessels up to 1,200 g.r.t. either side of the dolphin. Inner Berth can accommodate vessels up to 600 g.r.t. Depth at pier 12 ft. LWOST, range 3 ft. to 4 ft.
MEDICAL: Doctor's surgery locally and dentist 10 miles from pier.
GARBAGE DISPOSAL: Collection service available on request. Tel: (01496) 810332.

Skip for garbage available on pier at all times (Caledonian MacBrayne owned) Tel: (01496) 302209, 302047.
WASTE OIL DISPOSAL: No collection service available.
SEAMAN'S CLUBS: No seamen's clubs locally. The shops are 3 minutes walk from pier.

Church of Scotland and Baptist Church locally.
Local football pitch within 5 minutes of pier.
Sub-Post Office within 3 minutes of pier.
Local taxi service available.
CURRENCY: Royal Bank of Scotland within 2 minutes of pier.
AUTHORITY: Caledonian MacBrayne Ltd., The Ferry Terminal, Port Ellen, Isle of Islay, PA42 7DW. *Tel:* (01496) 302209, 302047. *FAX:* (01496) 302557. *Contact:* D. Ramsey, Port Manager - Port Ellen.

PORT PENRHYN: 53.14 N. 04.07 W. (See Plan)

PORT LIMITS: Dock entrance.
DOCUMENTS: Basic Customs documents required.
PILOTAGE: Compulsory, arranged via Agent.
ANCHORAGES: Menai Straits: Bangor Pool (1.6 km.), Friars Roads (4.8 km.), and both with depth 25 ft. at L.W.
RESTRICTIONS: Movement restricted to 1 hour before to 1 hour after H.W. Depth 5.4 m. (Springs), 3.0 m. (Neaps).
MAX. SIZE: Length 76 m., beam 18.0 m., 2,500 d.w.t.
HEALTH: Master to report any illness.
VHF: Channel 16 (daytime only).
TUGS: Available upon request.
BERTHING: Two berths of 400 ft. length, and one berth of 300 ft. length. All berths drying.
CRANES: Cranes up to 70 tons available on request.
SPECIALISED CARGO HANDLING FACILITIES: One Ro-Ro ramp of 300 tons.
STEVEDORES: Upon request to Agent.
MEDICAL: All facilities available.
TANKERS: No facilities.
FRESH WATER: By tanker.
FUEL: By tanker.
REPAIRS: Welding services on dock.
GANGWAY/DECK WATCHMEN: Recommended.
OPENING/CLOSING HATCHES: By crew.
REPATRIATION: Crew changes possible.
AIRPORT: Manchester and Liverpool Airports.
TIME: GMT and BST.
POLICE/AMBULANCE/FIRE: Dial 999.
EMERGENCY CO-ORDINATION CENTRE: Holyhead Coastgua Tel: (01407) 762051.
BANKS: Major U.K. banks in Bangor.
STORING: See "Prelims".

(1) Yes.
(2) No.
(3) Yes.
(4) Yes.
(5) None.
(6) Yes.
SHIP SUPPLY SERVICE: Via Agent.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Seaman's Book sufficient.
GARBAGE DISPOSAL: By arrangement.
WASTE OIL DISPOSAL: By arrangement.
SEAMAN'S CLUBS: None.
DELAYS: None.
AUTHORITY: Port Penrhyn Plant Ltd., The Dock Office, Port Penr Bangor, Gwynedd LL57 4HN. *Tel:* (01248) 352525. *FAX:* (012 352525. *Contact:* S.R. Murray, Harbour Master.

PORT ST. MARY, Isle of Man: 54.04 N. 04.44 W. (See Pla

PILOTAGE: Not compulsory.
MAX. SIZE: See "Berthing".
VHF: Channels 16 and 12 available only when vessels expected.
BERTHING: Outer Harbour (Alfred Pier): Max. LOA 170 ft., draft no exceed 10.5 ft. to lie afloat over LWST.

Inner Harbour: Max. LOA 160 ft., draft 8.5 ft. at Neaps, 12 ft Springs. Harbour dries out at LW. No quay space for storage.
AUTHORITY: Department of Transport, Harbours Division, Terminal Building, Douglas, Isle of Man IM1 2RF. *Tel:* (01624) 6866 *FAX:* (01624) 626403. *Contact:* Captain E.E. Kaighin, Director Harbours.
Local Office: Port St. Mary Harbour Office, The Quay, Port St. Mary, of Man IM9 5EA. *Tel/FAX:* (01624) 833206. *Contact:* Captain K. Hors Port Manager/Harbour Master.

PORT TALBOT: 51.35 N. 03.49 W. (See Pl

DOCUMENTS: Documentation required for arrival:

C142	2 copies	Crew Declaration
C14	3 copies	Stores Declaration
C13	2 copies	General Declaration (completed by Agent)
C16	2 copies	Cargo Inward Declaration
C74	1 copy	Masters Authority (Agents complete
C1320	2 copies	Cargo in unregistered spaces

These documents are to be completed and presented with copie Manifest and ship's documents at the time of report.
PILOTAGE: Compulsory. Station – Swansea Bay. Usual Internat signals. VHF Channels 16 and 12.
ANCHORAGES: Swansea Bay.
RESTRICTIONS: *Ore Terminal* in New Harbour, entrance cha 1.5 miles long, 550 ft. wide. Depth 20.9 m. MHWS, 16.75 m. MHW
MAX. SIZE: *Bulk Terminal:* Approximately 160,000 tons d.w.t. carriers fully loaded at draft 16.7 m. Larger vessels partly loade 16.7 m. draft are accepted.

Largest cargo to date under these conditions: 130,000 tons of iro in M.V. "British Steel" (LOA 287 m., beam 47.07 m., full deadw 173,000 tons).
HEALTH: See "Health – All Ports" before first U.K. port.
TUGS: Join off Breakwater.
BERTHING: *New Harbour:* British Steel Plc provide 3 unlo appliances on the South side of the jetty and also a conveyor-belt s to carry iron ore and coal to stocking grounds. The three discha appliances can achieve approximately:

Iron ore – maximum 5,000 t.p.h. – average 3,000 t.p.h.
Coal – maximum 2,000 t.p.h. – average 1,000 t.p.h.

The berth on the North side of the jetty has been designed for self-discharge vessels equipped with their own conveyor/boom restrictions at this berth are the same as the grab berth at 48 ft.

Discharge rates of 2,800 t.p.h. for iron ore and 1,000 t.p.h. f have been achieved.
STEVEDORES: ETA advices sent by vessels to local Agent an advised to British Steel Corp. as stevedores. Labour ordered by from B.S.C.
DENSITY: Ore Terminal 1025.
FRESH WATER: By gravity 10 t.p.h. Harbour pumping 100 t.p.
FUEL: By barge or road tanker. Any grade available.
CONSULS: None at Port Talbot, contact Swansea.
REPAIRS: Facilities exist.
SURVEYORS: Cargo Surveyors available locally.

Hull surveyors available from Swansea and Cardiff.
GANGWAY/DECK WATCHMEN: None, but bye-laws state tha must be manned.
OPENING/CLOSING HATCHES: Performed by crew.

CUSTOMS ALLOWANCES: Tobacco, 1 oz. per day/man, max. 8 days. Wine/Spirits, 0.25 pint per day/man, every 4 days.
REPATRIATION: All facilities exist.
AIRPORT: Rhoose Airport 25 miles away. Mainly short trips connecting with main airports.
TIME: GMT plus 1 hour. GMT in Winter months.
HOLIDAYS: It is the custom, at the Tidal Harbour, to work on Bank Holidays, except Christmas and New Year.
POLICE/AMBULANCE/FIRE: Dial 999 and ask for service required.
EMERGENCY CO-ORDINATION CENTRE: Search and Rescue Centre – Mumbles. Tel: Swansea 66534.
TELEPHONES: Can be connected on board.
BANKS: Lloyds Bank Ltd., Station Road. Tel: Port Talbot 891401.
Barclays Bank Ltd., Station Road. Tel: Port Talbot 887655.
STORING: See "Prelims".

1. Yes.
2. None.
3. Yes.
4. No.
5. Usual regulations.
6. Riggers not available.

SHIP SUPPLY SERVICE: It is the practice for pilot cutters of Swansea and Port Talbot to ferry personnel, stores, etc. to vessel off shore and due to dock at the respective ports.
Contact: Swansea and Port Talbot Pilotage, Port Office, King's Dock Lock, Swansea. Tel: (01792) 650855
IDENTIFICATION CARDS: Crew members are advised to carry identity documents when ashore. Security checks are carried out by mobile patrols and at the entrances.
DEVELOPMENTS: Two new 2,800 t.p.h. grab unloaders were installed during 1991 to replace the two oldest units.
AUTHORITY: Associated British Ports, Harbour Office, Lockhead, King's Dock Lock, Swansea, West Glamorgan SA1 1QR. *Tel:* (01792) 650855. *Telex:* 48150. *FAX:* (01792) 650729. *Contact:* A.R. Klinck, Port Manager.
Captain M. Ingamells, Dock and Harbour Master.

PORTLAND: 50.34 N. 02.26 W.

PILOTAGE: Available from Weymouth. Pilot boards in position Lat. 50° 36' N., Long. 02° 24' W.
ANCHORAGE: Vessels seeking shelter from Westerly gales are likely to find more room and better shelter outside the breakwaters in Weymouth Bay.
VHF: All Harbour movements are controlled on VHF Channel 13.
Traffic Regulations: Due to the frequent movements by vessels in the vicinity of Portland Harbour, all vessels approaching Portland Harbour, which are fitted with VHF, should make reports on the appropriate channel to Harbour Master, Portland, when passing through various Radio Reporting Points, whose positions can best be seen on the charts. In addition it is mandatory that such vessels should keep watch on the appropriate channel when within 3 nautical miles of "A" Head (50° 35' N., 20° 25' W.). For details of frequencies see "Admiralty List of Radio Signals".
Radio Reporting Points:
Positions 'EE' and 'CB' are for inward bound vessels.
Position 'CH' is for inward bound vessels proceeding to the Noise Range buoys, moored 0.75 miles S.E. of "D" Head, and for outward bound vessels proceeding between Bill of Portland and The Shambles.
Position 'CG' is for inward bound vessels, and for outward bound vessels proceeding East of The Shambles.
Position 'CF' is for inward bound vessels approaching Portland Harbour from East, and for outward bound vessels proceeding in an Easterly direction.
Reports should include the following information:
Inward bound vessels:
Name of ship.
Position (i.e. Reporting Point letters).
Destination and ETA.
Outward bound vessels:
Name of ship.
Position (i.e. Reporting Point letters).
Intended route East or West of The Shambles (if appropriate).
TUGS: Admiralty tugs available.
BERTHING:
Castletown Pier: Castletown Pier is a commercial wharf and leased to A.R.C. for the discharge of fertilisers. Max. LOA of vessel 82.3 m, beam 12 m. with max. draft 5.3 m.
CRANES: 1 mobile crane.
FUEL: Available by road tanker.
GENERAL: The Harbour, which is protected by breakwaters, is easily accessible by the North Ship Channel (12 m. LWS) or East Ship Channel (12.5 m. LWS). The South Ship Channel is blocked both above and below the surface and is only suitable for small boats.
AUTHORITY: Portland Port Ltd., Castletown, Portland, Dorset DT5 1PP. *Contact:* The General Manager

PORTREE: 57.24 N. 06.07 W. **(See Plan)**

PILOTAGE: Pilot available with 24 hours notice.
ANCHORAGE: No defined areas, left to the discretion of the ship's Master. Care should be taken not to anchor near sewage line.
RESTRICTIONS: Berthing of larger vessels dependent on state of the tide. Larger vessels tend to anchor off and transhipment carried out by ship's tender.
MAX. SIZE: LOA 65.5 m., beam 11.25 m., draft 4.08 m. (Summer) and 3.99 m. (Winter).
VHF: Harbour Master's office on Channels 16 and 12.
BERTHING: Depth alongside 4.8 m. (Neaps) and 6.3 m. (Springs). Depth at entrance 9.1 m.
TANKERS: Fuel oil discharged to B.P. storage depot by means of fuel line under pier.
MEDICAL: Hospital, doctor and dentist located nearby.
FRESH WATER: There are 2 water supply outlets.
FUEL: Ordinary gas oil available from B.P. Depot during normal working hours.
GANGWAY/DECK WATCHMEN: At the discretion of the ship's Master.
OPENING/CLOSING HATCHES: By ship's crew.
CARGO GEAR: Ship's gear used. 18 tonne mobile crane available.
REPATRIATION: No facilities.
AIRPORT: At Broadford, 50 km. from the harbour.
TIME: GMT in Winter. GMT plus 1 hour in Summer.
HOLIDAYS: January 1st, 2nd and 3rd; Good Friday; Easter Monday; May 1st; Christmas Day and Boxing Day.
POLICE/AMBULANCE/FIRE: Police Tel: Portree 2888.
EMERGENCY CO-ORDINATION CENTRE: Coastguard: Shetland District for Portree. Tel: Oban 63720. Station at Portree not continually manned.
SERVICES: The following are NOT available: Radio, radar, tugs, stevedores, consuls, repairs, surveyors, telephones.
BANKS: Royal Bank of Scotland plc, Bank Street, Portree.
Clydesdale Bank plc, Portree.
Bank of Scotland, Somerled Square, Portree.
SHIP SUPPLY SERVICE: Launch available.
GENERAL: General stores, fruit and vegetables available in local shops.
GARBAGE DISPOSAL: Skip available on pier.
WASTE OIL DISPOSAL: Oil tank with capacity 150 gallons available.
SEAMAN'S CLUBS: No club available. Contact Harbour Master to arrange football matches. Shops and swimming pool available locally.
AUTHORITY: Highland Regional Council, Department of Roads and Transport, Regional Buildings, Glenurquhart Road, Inverness IV3 5NX. *Tel:* (01463) 234121. *Telex:* 75313. *FAX:* (01463) 710184. *Contact:* R. Massie.
The Harbour Master, Divisional Engineer's Office, Dunvegan Road, Portree, Isle of Skye. *Tel:* (01478) 2926. *FAX:* (01478) 2255. *Contact:* Captain M. MacArthur, Harbour Master.

PORTSMOUTH: 50.48 N. 01.07 W. **(See Plan)**

PORT LIMITS: *Area of Jurisdiction:* The area of jurisdiction for Portsmouth CHA is – So much of the area of the Solent outside the harbour as extends from Gilkicker Point Light (Lat. 50° 46.4' N., Long. 01° 08.4' W.) to the Western end of Ryde Pier (Lat. 50° 44.3' N., Long. 01° 09.6' W.) and from a position at Culver Cliff on the Isle of Wight (Lat. 50° 40' N., Long. 01° 05.6' W.) to the Nab Tower (Lat. 50° 40' N., Long. 00° 57.1' W.), thence to a position 1.1 miles due South of Selsey Bill (Lat. 50° 43.3' N., Long. 00° 47.2' W.), thence on a line due North to a position 0.1 miles due South of Selsey Bill, thence to Chichester Beacon (Lat. 50° 45.9' N., Long. 00° 56.4' W.), thence to Horse Elbow Foul Buoy (Lat. 50° 44.4' N., Long. 01° 03.4' W.) and thence due North to the shore line (Lat. 50° 46.9' N., Long. 01° 03.4' W.), and all the tidal water within Portsmouth Harbour.
Also see "Plan".
DOCUMENTS: (Those marked* to be produced to H.M. Customs Boarding Officer.)
*1 Maritime Declaration of Health.
*1 Crew's Effects List C142.
2 Ship's Reports by Master.
*1 Home Office Form 1B6.
*1 Stores List.
*1 Certificate of Deck Cargo Tonnage.
*1 Grain Certificate.
1 Light Dues Certificate.
1 Port Dues Certificate.
*1 Passenger List.
*1 Landing Card for each non-British passenger.
*Ship's Certificate of Registry.
Mercantile Marine Office Certificate (British ships only).
*Load Line Certificate.
*Safety Equipment Certificate.
Lloyd's Certificate.
*Derat Certificate.
Ship's Register.
Light Bills.
Safety Radio Certificate.
*List C143 for packages not cargo or crew/passenger effects.
*Danish Tollpass for ships arriving from Denmark.
Form of Authority for Agent to make Report and clear vessel outwards for Master.
Note: Where cargo is to remain on board for unloading at another port after Portsmouth, 3 copies of Ship's Report are required by the Customs House.
APPROACHES: *The Main Channel:* The outer part of the main approach channel into Portsmouth Harbour lies between Horse and Dean Sand and Spit Sand. The inner part of the channel lies between Spit Sand and East Sand with a narrow coastal bank fronting the coast North-West of Southsea Castle. The channel is dredged to a depth of 9.5 m. and is well marked by leading marks and light buoys. Within the harbour entrance the main channel is bounded on both sides by the 10 m. line.

Portsmouth Harbour has a mean tidal range of 4.1 m. at Springs and 2.0 m. at Neaps. Particular reference should be made to Admiralty Charts and other publications for information on tidal streams in the Harbour entrance and approaches.

PILOTAGE: The normal boarding point for Portsmouth Pilots for ships approaching from the South and East and not exceeding 150 m. in length is approximately 1 mile South of the Warner Buoy. For ships exceeding 150 m. in length, the boarding point will be in the vicinity of the Nab Tower. For ships from the West Solent, the boarding point will be in the vicinity of the North Sturbridge Buoy. Pilot boat can be called direct on VHF Channels 11 or 12, and Queen's Harbour Master and Portsmouth Harbour Radio on Channel 11. Pilots require 24 hours notice of arrival. This notice to include draft, length, beam, particulars of cargo, last port of call and intended berth. Vessels should also contact Pilot 8 hours and 1.5 hours prior arrival at the Warner Buoy.

When leaving the port, the Pilots require 8 hours notice (Tel: (01705) 297395).

Strict compliance with the requirements of the Merchant Shipping (Pilot Ladders) Safety Rules is requested by the Pilots, who may refuse to board vessels with unsatisfactory and dangerous ladders. Manropes are not required. Ladders should reach to about 3 ft. from the water, each rung resting firmly against the ship's side; a good lee should be provided whilst making approximately 3 to 7 knots headway.

Notice: The following is part of local Notice to Mariners (No. 34 of 1992), dated 24th June 1992.

Compulsory Pilotage:

3. The following categories of vessels are subject to compulsory pilotage:

(a) A vessel of 48 m. or more in overall length.

(b) A vessel of 20 m. or more in overall length, carrying more than 12 passengers.

4. The following categories of vessels are exempted from compulsory pilotage by Portsmouth CHA:

(a) A vessel in transit through the Solent on passage to or from any position West of the line Gilkicker Point Light to Ryde Pier, provided such vessel does not proceed North of a line from Gilkicker Point Light to Horse Sand Fort Light to Horse Elbow Foul Buoy.

(b) A vessel in Government service, except when berthing or unberthing at any non-Ministry of Defence facility.

(c) A vessel with an Admiralty Pilot embarked while proceeding to or from any Ministry of Defence facility. Such a vessel, proceeding between a Ministry of Defence facility and a commercial facility, is not exempt compulsory pilotage for the berthing or unberthing operation at the commercial facility.

(d) An inward vessel bound to any position West of the line Gilkicker Point Light to Ryde Pier, or going to an anchorage in St.Helen's Roads.

(e) A vessel of an overall length not greater than 150 m., while to the S.E. of the line from Nettlestone Point (Lat. 50° 43.27' N., Long. 01° 06.40' W.) to the Warner Buoy, thence in a N.W.'ly direction to Horse Elbow Foul Buoy, thence due North to the shoreline.

Pilot Boat Recognition and Boarding Points:

5. The Portsmouth Pilot Boat may be recognised by the legend 'Portsmouth Pilots' in black letters on each side of the wheelhouse. There will not be a pilot boat permanently on station.

6. (a) The boarding points for vessels to the South and East of the Isle of Wight are:

(1) For vessels requiring pilotage from the NAB Tower, a position 1 mile to the West of the Nab Tower.

(2) For vessels of an overall length not greater than 150 m., the Pilot will board in vicinity of 1 mile South of the Warner Buoy.

(b) For vessels approaching from the Western Solent, the boarding point for Portsmouth Pilots is approximately 0.8 nautical miles West of the North Sturbridge Buoy.

7. In adverse weather, these points may be altered, and up-to-date information can be obtained from 'Portsmouth Pilots' on VHF Channel 11.

8. Direct communication may be made with the pilot boat on VHF Channel 11 or 12 when on station.

9. Portsmouth Pilots can be contacted on Telex: 9312110368 PMG or on Tel: (01705) 297395. Further details of Ordering Procedures including Notice Required are contained in the Pilotage Arrangements Handbook, obtainable from Port Manager's Department, Harbour Offices, Continental Ferry Port, George Byng Way, Portsmouth PO2 8SP.

Also see "Southampton" – "Notices".

ANCHORAGES: Merchant vessels may only anchor in the Man-of-War Anchorage at Spithead, with the permission of The Queen's Harbour Master, Portsmouth.

If anchorage is prohibited in Spithead, St. Helen's Roads, Ryde Roads or Cowes Roads are the nearest safe anchorages. Mooring Buoy No. 3, off North Corner in the Harbour is sometimes used. Pilots will be fully informed before the vessel's arrival.

RESTRICTIONS: *Speed:* Speed limit of 10 knots in harbour and when within 1,000 yards of shore in any part of the dockyard port; 12 knots within 1,000 yards of any H.M. ships in any part of the Dockyard Port not covered by the 10 knots limit. Dockyard Port boundaries are shown on Admiralty charts.

Also see "General".

MAX. SIZE: See "Berthing".

HEALTH: Foreign arrivals to complete Maritime Declaration of Health. They are cleared immediately on arrival by either a Port Doctor or an officer of H.M. Customs, depending on where ship comes from and whether there is sickness on board.

Vessels arriving from ports within accepted area (North European ports) and coastal arrivals need not present Declaration in all cases; when there is sickness on board, Port Health Authority must be informed, preferably not more than 12 hours nor less than 3 hours before arrival. See "Health – All Ports" before first U.K. port.

RADIO/VHF: Dockyard Port of Portsmouth – Local Notice to Marin – No. 32 of 1991.

VHF Communications in the Solent:

1. The Queen's Harbour Master Portsmouth has overall jurisdic concerning measures for the safety of navigation within the Dockya Port of Portsmouth, inclusive of Portsmouth Harbour, the East So and Eastern Approaches thereto, as defined on Admiralty Charts. T co-ordination of shipping movements within the Solent is carried ou Southampton Vessel Traffic System (Call sign "Southampton VTS Portsmouth Harbour Control (Call sign "QHM") controls the tra entering or leaving Portsmouth Harbour, North of a line between F Gilkicker and Horse Sand Fort.

2. This Notice is issued taking note of current Notices to Marin issued by the Port of Southampton and when taken together the conte of these Notices provide for continuity of communications and the ordination of shipping movements. It is issued in agreement with Harbour Master Southampton.

3. *Entry to the Solent:* Southampton VTS has radar coverage of East Solent up to a line joining Horse Sand Fort and No Mans Land F (but not the Portsmouth Harbour approach channels, North of a l joining Gilkicker Point and Horse Sand Fort). The Duty VTS Offic responsible to the Port of Southampton Harbour Master, maintains rad surveillance and VHF communications in accordance with curr Notices to Mariners issued by the Port of Southampton.

4. All vessels in excess of 20.0 m. in length bound to or from, or pass through the Port of Southampton, vessels bound to or from Portsmo or passing through the Dockyard Port of Portsmouth and vessels bou to or from anchorages or other locations in the Solent are require communicate by VHF with Southampton VTS as shown on Admira Charts and in the Admiralty List of Radio Signals Volume 6, Part 1.

5. *Use of VHF Channels:* All vessels entering and leaving the E Solent are to report to Southampton VTS on VHF Channel 12 wh passing Lat. 50° 40' N., giving their position as a distance East or W of Nab Tower. Vessels proceeding to an anchorage in the Solent shelter or subsequent berthing must report to Southampton VTS wh anchored, together with their approximate position. Whilst at anch vessels must maintain a listening watch on VHF Channel 12. Vess leaving a sheltered anchorage must also report and advise Southamp VTS of their intended destination and whether they are leaving the So via the East or West Solent.

6. *Entry to Portsmouth:* After making the appropriate reports, vess are to revert back to listening watch with Southampton VTS until pass across a line drawn between Fort Gilkicker and Horse Sand Fort wh listening watch is to be changed to Channel 11. Vessels not fitted VHF Channel 11 should remain on VHF Channel 16. Vessels not us the main approach channel are to report before entering the Swashw

7. *Portsmouth Harbour:* The Queen's Harbour Master Portsmouth co-ordinate all shippig movements within Portsmouth Harbour an approach channels to the North of the line joining Gilkicker Point Horse Sand Fort. Advice will be given regarding other ship movements and matters affecting navigation in the Harbour. T Queen's Harbour Master maintains a continuous listening watch on V Channels 11 and 13 and uses these channels for the co-ordinatio shipping movements. Portsmouth is now one of the busiest harbou the U.K. and the need for strict circuit discipline on Channels 11 an cannot be too strongly emphasised. Routine administration traffic is to be passed on these channels. The Commercial Port Manager sign "Portsmouth Harbour Radio") also maintains a constant watc Channel 11. Channel 13 is the Naval Port Operational channel an used by the Royal Navy to control tugs. In the event of overloadin Channel 11, QHM may authorise the use of Channel 13, in which it is the responsibility of QHM to rebroadcast pertinent information.

8. *Requirement by all Vessels to maintain a Listening Watch* vessels, if more than 20.0 m. overall length when underwa Portsmouth Harbour and approach channels North of the line jo Gilkicker Point and the Horse Sand Fort, are to maintain a contin listening watch on VHF Channel 11. All such vessels must req permission from the Queen's Harbour Master to sail or move withi Harbour before leaving their berth.

TUGS: Tow-boat services are available for commercial vesse commercial berths. In addition Admiralty tugs available at comme berths by arrangement with Queen's Harbour Master.

BERTHING: Commercial berths: Camber – length 80 m., depth below C.D. Flathouse – length 300 m., depth 7.0 m. below C.D. Ve up to 156 m. LOA can be accommodated. Albert Johnson Quay – le 210 m. Depth 7.0 m. below C.D. Continental Ferry Port Ro/Ro Links – Max. length 180 m., depth No. 1 – 5.0 m. below C.D., depth No and 4 – 7.0 m. below C.D. North Quay – Max. LOA 110 m., depth below C.D.

Vessels at the Camber Quay must expect to take the bottom mud.

CRANES: 32 ton Scotch Derrick at Flathouse Quay. Mobile provided by stevedoring companies.

STEVEDORES: Available by arrangement with stevedoring comp

MEDICAL: All medical facilities available. Agent should be adv advance. (See "Southampton" entry if arrival is solely to lan personnel).

DENSITY: 1025 salt water.

FRESH WATER: Available.

FUEL: Fuel and Diesel Oil available by road tanker or bunker from Fawley.

FIRE PRECAUTIONS: Notices will be delivered to Master if ber any jetty where special precautions apply.

CONSULS:

Belgium
Denmark
Finland
France
Netherlands
Norway
Sweden

REPAIRS: Minor deck and engine repairs can be carried out Larger repairs and dry dock facilities at Southampton.

OPENING/CLOSING HATCHES: By ship's crew.

CUSTOMS ALLOWANCES: As for "Southampton".

REPATRIATION: All facilities exist.
AIRPORT: Fast train service from Portsmouth to London Airport. Eastleigh Airport local, but mainly short flights to Channel Islands and feeder services.
TELEPHONES: None on board.
GARBAGE DISPOSAL: Vessel operators contract with various waste management companies to provide a service for their ships. Separate contracts are maintained by each vessel operator. Bins are provided at Camber Quay.
WASTE OIL DISPOSAL: Vessel operators contract with various waste management companies to provide a service for their ships.
SERVICES: All marine, radio and radar services can be obtained from Southampton.
SHIP SUPPLY SERVICE: J. Butcher & Sons (Port Services) Ltd., 19 Pembroke Road, Old Portsmouth PO1 2NS. Tel: (01705) 822584. After hours 821347 and 821033.

The Company provides the majority of the towing services in the commercial port, operating in the Eastern Solent from Cowes to Nab Shoal including Spithead, The Mother Bank and St. Helen's Roads. A fleet of 11 vessels is operated, headed by the 525 b.h.p. Kort Nozzle Tugs "Janet James" and "Carol James" providing towing services (including tow boats for smaller ships) and boats for mooring, rope running and berthing purposes. The passenger launch and workboat service transports ships' crews, Agents, technicians, stores and equipment within the harbour area and Eastern Solent.

The tugs and tow boats have been purpose built for berthing and unberthing ships up to 140 m. at the commercial port.

Services of an Admiralty tug available on application to the Queen's Harbour Master.

GENERAL: *Dockyard Port of Portsmouth – Local Notice to Mariners: No. 44 of 1992.*
Portsmouth Harbour – Local Visual Signals:

Notice is hereby given that the following signals affecting traffic are hoisted by H.M. ships or at signal stations at Portsmouth. All other signals are to purely Naval interest.

	Signal	*Meaning and Application*	*Hoisted/Displayed by*
1. *Day*	Red Flag with white diagonal bar.	Large vessel underway in Main Channel or Harbour.	Central Signal Station Blockhouse Signal Station.
Night	Red Light over 2 Green Lights vertical.	Other vessels may be required by QHM to wait alongside or hold in a waiting position.	
2. *Day*	Red Flag with white diagonal bar over one black ball.	Large vessel leaving Harbour. Vessels entering Harbour will be kept clear by QHM. Vessels leaving Harbour will be allowed to proceed clear of the large vessel.	Central Signal Station Blockhouse Signal Station.
Night	White Light over Green Light.		
3. *Day*	One Black Ball over Red Flag and white diagonal bar.	Large vessel entering harbour. Vessels leaving harbour will be kept clear by QHM.	Central Signal Station Blockhouse Signal Station.
Night	Green Light over White Light.	Vessels entering harbour will be allowed to proceed clear of the large vessel.	
4. *Day*	International Code Pennant. Superior to Pennant Zero.	Warship or RFA underway in Main Channel or Harbour warning signal to other ships. Specific instructions will be given by QHM.	Warship or RFA.
5. *Day*	International Code Pennant Superior to Pennant NINE.	Warship or RFA underway in Main Channel or Harbour warning signal to other ships. Specific instruction will be given by QHM.	Central Signal Station Blockhouse Signal Station.
Night	Three Green Lights vertical.		
6. *Day*	Flag E	Submarine entering or leaving Haslar Creek. Warning signal to other ships.	Blockhouse Signal Station, Blockhouse Pierhead (Note: The Amber Light at Blockhouse Pierhead will flash when submarines are actually underway).
Night	Red Light Amber Light	Specific instructions will be given by QHM but all vessels less than 20 m. in length are to be kept clear.	

NOTES:
(a) Within the context of this Notice, a large vessel is deemed to be one that is constrained by her length or draft to maintain the centreline of the Channel.
(b) Instructions from QHM will be passed on VHF Channels 11 or 13 as appropriate.
(c) Vessels less than 20.0 m. may continue to use the Portsmouth Harbour Entrance Boat Channel (See Notice 11/92) when the signals in paragraph 1, 2 or 3 are being displayed.
Dated: 14th September 1992.
Signed: Queen's Harbour Master, Portsmouth.

DEVELOPMENTS: With the opening of the Portsmouth section of the M27 and M275, there is immediate access to Albert Johnson Quays at the Rudmore Roundabout. At present, P & O operate services to Bilbao, Cherbourg and Le Havre; Brittany Ferries to Caen, St. Malo and Santander.

Commodore Shipping operates freight ferries to the Channel Islands.
AUTHORITY: City of Portsmouth, Port Manager's Department, Harbour Officers, George Byng Way, Continental Ferry Port, Portsmouth PO2 8SP. *Tel:* (01705) 297391 (Administration), 297395 (Operations). *Telex:* 9312110368 PM G. *FAX:* (01705) 861165. *Contact:* Captain M.S. Putman, Port Manager. Captain M.J. Evans, Harbour Master.

RAMSEY, Isle of Man: 54.19 N. 04.21 W. (See Plan)

PORT LIMITS: Line joining Shellag Point (3.25 miles North of harbour entrance) and Cor Stack (2.75 miles S.E. of harbour entrance) defines the port limits.
DOCUMENTS: Same as other U.K. ports.
PILOTAGE: Service provided by Harbour Master and is not compulsory. There is no regular pilot boat. Pilot will board 0.5 miles East of harbour entrance.

Contact Harbour Master direct by telephone (01624) 812245 or by VHF Channels 16 and 12 at tide times only. In all cases as much notice as possible should be given.
ANCHORAGES: No specific anchorages, but anchoring not permitted within 4 cables of harbour entrance or within 4 cables of Queen's Pier (3.5 cables S.E. of harbour entrance). Moderately good holding ground in sand, often used by sheltering vessels in S.S.W. or N.W. gales.
RESTRICTIONS: Harbour dries out each LW.
MHWN: Max. available depth 3.80 m.
MHWS: Max. available depth 5.50 m.
MAX. SIZE: For East Quay and West Quay: Max. length 61 m., breadth 9.0 m. Draft 3.0 m. on Neap tide, 4.0 m. at Spring tides.

For Channel Berth: Max. length 70 m., breadth 13 m.

For all berths max. available depth will vary according to tide.
HEALTH: Standard U.K. procedure.
RADIO: R/T, W/T and VHF through Portpatrick Radio (GPK) or Anglesey Radio (GLV).
VHF: Coverage from Harbour Master's Office includes port and approaches, Channels 16 and 12 at tide times only.

Coverage of North Irish Sea from Snaefell Summit by Douglas Harbour Radio, continuous 24 hour watch on Channel 16. Messages may be passed through Douglas Harbour Radio to amend ETA Ramsey, etc.
RADAR: No port radar.
TUGS: None.
BERTHING: All berths dry out each LW. Bottom is sand and shingle.

Name	*No.*	*Length (m.)*	
Channel Berth	1	76	
East Quay	2 & 3	116	
West Quay	4	80	
North Quay	10	73	For lay-by only. Use restricted by sea conditions.

With exception of North Quay all berths readily accessible to road traffic. Load/discharge by ship's gear or shore equipment at ship's discretion.
CRANES: No cargo handling gear at any berth. Mobile cranes can be arranged through Agents with reasonable notice.
BULK CARGO FACILITIES: Bulk cement handling facility at East Quay No. 2 Berth with 2×500 ton silos. Privately owned.
SPECIALISED CARGO HANDLING FACILITIES: No Ro/Ro or bulk liquid handling facilities. Privately owned container handling facilities available.
BRIDGES: Access to upper harbour through swing bridge, by arrangement with Harbour Master. Sufficient depth of water usually available 2 hours either side of HW. At least 24 hours' notice required to swing the bridge outside normal working hours, weekends and holidays. Within normal working hours less notice is acceptable.
STEVEDORES: Arranged through Agent. A minimum of 24 hours' notice required and all working hours are negotiable in advance. Main commodities discharged are all types of general cargo and coal by mobile crane with grab – average discharge rate is approx. 90 t.p.h. Occasional grain cargo loaded by mobile elevator at approx. 40 t.p.h.
MEDICAL: Hospital and dental facilities available without prior notice.
TANKERS: No tanker facilities or berths available.
DENSITY: 1025.
FRESH WATER: Available by hose at approx. 30 t.p.h. on East, West and North Quays. Labour charge £9.85 (1996) plus £1.875 (1996) per 1,000 gallons.
FUEL: Delivery by road tanker from Douglas and Peel to all berths except North Quay. Gas oil and medium fuel oil available at 24 hours' notice. Manx Petroleum (Shell), Tel: (01624) 74652. 100 gallons minimum. Total, Tel: (01624) 844000. 100 gallons minimum.
CONSULS: None.
REPAIRS: All types of deck and engine repairs possible by small shipyard in upper harbour.
DRY DOCKS: No dry docks but 2 slipways; one for vessels about 200 g.r.t. and one for about 50 g.r.t. Both slipways in upper harbour.

Also a grid in upper harbour which dries out at approx. half tide, length 40 m., breadth 7.5 m. This grid used occasionally by vessels of up to 300 g.r.t. for bottom plate inspection/repairs. At least 72 hours' notice required, more if possible. Grid hire arrangement through Harbour Master.

SURVEYORS: Isle of Man, Department of Transport, Marine Administration. Tel: (01624) 686634.

GANGWAY/DECK WATCHMEN: Not required.

HATCHES: Normally handled by ship's crew.

CUSTOMS ALLOWANCES: Standard U.K. allowance.

CARGO GEAR: Loading/discharging of general by ship's gear or mobile crane. Discharge of bulk by grab equipped mobile cranes. A wide range of mobile cranes up to 25 tons available for hire at reasonable notice.

REPATRIATION: Facilities available for repatriation of crew members.

Daily scheduled aircraft connections to London and other U.K./Irish airports. Daily ferry services to Heysham. These services operate all year with supplementary air and sea services to other destinations during the Summer.

AIRPORT: 25 miles distant.

TIME: GMT and BST.

HOLIDAYS: New Year's Day, Good Friday, Easter Monday, May Day, Whit Monday, Senior TT Race Day (usually 1st or 2nd Friday in June), Tynwald Day (5th July), August Bank Holiday, Christmas Day, Boxing Day.

Cargo not normally worked on these days but all working hours are negotiable in advance.

POLICE/AMBULANCE/FIRE: All emergency services available by telephoning 999 on any telephone, no charge is made for this call. Assistance possible from H.M. Coastguard on VHF Channel 16.

EMERGENCY CO-ORDINATION CENTRE: Liverpool Coastguard. Tel: (0151) 9313341. Telex: 629448. Fax: (0151) 9313347. VHF: Channel 16.

TELEPHONES: There are no facilities for telephones to be placed on board.

SERVICES: Lloyd's Agent available. Decca, Kelvin Hughes, Furuno, etc., repairs and servicing available locally. Divers available via Harbour Master.

BANKS: Barclays Bank, 52 Parliament Street. Tel: (01624) 813124.

I.O.M. Bank, 20 Parliament Street. Tel: (01624) 812829.

Lloyd's Bank, 71 Parliament Street. Tel: (01624) 812225/814233.

Midland Bank, St. Paul's Square. Tel: (01624) 814000.

Nat. West Bank, Douglas. Tel: (0624) 29292.

Major banking facilities are available in Douglas.

STORING: See "Prelims".

1. Vessel may be stored by barge or truck.
2. No restrictions unless dangerous cargo being handled. If dangerous cargo being handled as cargo or as part of the stores then all other cargo work/storing to cease.
3. Berths accessible to all road traffic.
4. Forklift trucks may be used on quayside.
5. Bonded stores available through local agent, who will arrange necessary clearance, etc. H.M. Customs may attend at their discretion.
6. Riggers may be arranged through local agent at reasonable notice.

SHIP SUPPLY SERVICE: See "Douglas".

SHORE LEAVE: When Immigration and Customs requirements satisfied (for vessels arriving from a port outside the U.K.), no restriction on crew shore leave provided that they rejoin prior to the vessel's departure.

IDENTIFICATION CARDS: Not required.

DELAYS: Berthing delays are not usual (disregarding awaiting tide) except when strong N.E. to S.E. winds make navigation in the harbour entrance hazardous. These conditions may cause 1-2 days delay if severe.

GARBAGE DISPOSAL: Garbage skip on East Quay, near to Harbour Office. No charge for this service. Access available at all times.

WASTE OIL DISPOSAL: Collection service available at all berths by road tanker operated by Colas (Isle of Man) Ltd. (Tel: (01624) 823360) capacity 2,000 gallons.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Isle of Man Department of Transport, Ports and Properties, Harbours Division, Sea Terminal Building, Douglas, Isle of Man. *Tel:* (0624) 686626 *Telex:* 629335 IOMHARG. *FAX:* (01624) 626403. *Contact:* Captain E.E. Kaighin, Director of Ports.

Harbour Master's Office, East Quay, Ramsey, Isle of Man IM8 1BG. *Tel:* (01624) 812245. *FAX:* (01624) 812245. *Contact:* The Harbour Master.

RAMSGATE: 51.20 N. 01.24 E. (See Plan)

(A) RAMSGATE WESTERN TERMINAL (PORT RAMSGATE)
(B) ROYAL HARBOUR

(A) RAMSGATE WESTERN TERMINAL (PORT RAMSGATE)

DOCUMENTS:

- 2 copies C142, Crew Declaration.
- 3 copies C13, General Declaration, including stores (normally completed by Agent).
- 2 copies C16, Cargo Declaration (if no manifests).
- 1 copy C74, Master's Authority (completed by Agent).
- 2 copies C1320, Cargo in Unregistered Spaces.

These documents should be completed and presented with copies of all manifests and ship's documents when making report.

APPROACHES: *Approach Channel:* The approach channel extends East from Long. 01° 25.30' E. for a distance of 2,133 m. from the Ramsgate breakwater heads. The channel has a depth of −6.5 m (CD) with a base width of 110 m.

The tidal range is +0.3 m. (CD) to +6.2 m. (CD) (predicted).

CHANNEL MARKINGS:

East Brake Buoy: East Cardinal QK FL. 3 every 10 seconds Lat. 51° 19.46' N., Long. 01° 29.1' E.

Starboard Channel Buoy No. 1: Green conical with green con topmark. FL. every 5 seconds G; Lat. 51° 19.51' N., Long. 01° 27.2'

Port Channel Buoy No. 2: Red can with can topmark. FL. 4 ev 10 seconds R; Lat. 51° 19.45' N., Long. 01° 27.2' E.

Channel Buoy No. 3: Green conical with green conical topma FL. every 2.5 seconds G; Lat. 51° 19.51' N., Long. 01° 26.65' E.

Channel Buoy No. 4: Red can with red can topmark. QK FL Lat. 51° 19.45' N., Long. 01° 26.65' E.

Dike Buoy No. 5: South Cardinal. QK FL. 6 plus 1 every 15 seconds Lat. 51° 19.51' N., Long. 01° 26' E.

Quern Buoy No. 6: North Cardinal. QK FL. W; Lat. 51° 19.45' Long. 01° 26' E.

East Breakwater Light Tower: Lat. 51° 19.31' N., Long. 01° 25.34 Day mark red and white. Qk. Fl. Green.

West Breakwater Light Tower: Lat. 51° 19.25' N., Long. 01° 25.30 Day mark green and white. Qk. Fl. Green.

Front Lead Beacon: Lat. 51° 19.29' N., Long. 01° 24.59' E. Occul 8 secs. on, 2 secs. off. Racon beacon fitted. Coloured sectors light: gre 10°, white 2°, red 10°.

Rear Lead Beacon: Lat: 51° 19.29' N., Long. 01° 24.44' E. Fl. ev 8 secs. White.

Harbour Signals: The harbour has established, at the West Pier Sig Station, signals which conform with the International Harbour Sign Regulations.

Port Ramsgate Turning Basin: Maximum dimensions 500 m. Nort South; 550 m. East – West, giving a free swing diameter of 300 (ref. to Chart No. 1827 Ramsgate Harbour and Approaches).

VHF: *Vessel Traffic Services:* All arriving vessels are to notify Ramsgate VTS Office at the West Pier Control Tower on VHF Chann 14 or 16, or by telephone (01843) 592277 (24 hours), of intended arr and requirements.

Vessels should report when approximately 1 hour from Point (Romeo) which is defined as a radius of 2.5 miles from the centre line joining the Channel Entrance buoys.

PILOTAGE: Compulsory for most merchant vessels. Tel: (018 592277 (24 hours). VHF Working Channels 16 and 9.

Minimum notice: Inward 12 hours. Outward: 2 hours.

ANCHORAGE: Anchorages available at Margate Roads, Broadst Knoll and The Downs off Deal (Chart No. 1828; Dover to North Forel applies).

TUGS: 1×13 tonne bollard pull and 1×45 tonnes bollard pull.

BERTHING: Berths/Linkspans No. 1, 2 and 3: All have a dept −6.5 m. (CD). Beam 25 m. (vessels). 9 point mooring system along centre line of the berthing structure, 4 fenders on each side.

Fender positions from the front face of the pontoon: No. 1 – 38 No. 2 – 63 m.; No. 3 – 80 m.; No. 4 – 100 m. (the outer bollard posi 110 m.).

All 3 linkspans are of the same pontoon type, depth moulded 4.4 depth working 1.0 m., ship ends freeboard variable.

Ramp Details: Length 40 m., width 9.1 m. – 10.7 m.; free w 7.0 m. – 9.7 m.; axle loads 50 tonnes.

CARGO HANDLING FACILITIES: *Port Plant:*

3 (4×4) terminal tractors, 70 tonnes drawbar pull.
9 (2×4) terminal tractors, 50 tonnes drawbar pull.
Forklifts of 12 tonnes, 7.5 tonnes, 1.5 tonnes and 1 tonne capac
Container handling forklift truck of 38 tonnes capacity.
Container transhipment gantry of 32 tonnes capacity, handling 2 30 ft. and 40 ft. units.
4×80 passenger motor buses.
Baggage trolleys.
Freight shed of 25,000 sq.m. internal area, equipped with full han equipment.
Cold store facilities for cargo inspection.
Open storage areas, total parking areas of 126,000 sq.m.
Craneage available up to 100 tonnes capacity at 24 hours notic
Hazardous bund facilities.
Tipping pen and conveyor for handling bulk Ro/Ro cargoes.

MEDICAL: Hospital, doctor and dentists available.

FRESH WATER: Available at all 3 berths.

FUEL: Available at berths by road tanker.

FIRE PRECAUTIONS: Fire hydrants available at all berths.

REPAIRS: Possible.

A. & P. Appledore, Military Road, Ramsgate.
Ramsgate Marine, Royal Harbour, Ramsgate.
Walkers Marine, Military Road, Ramsgate.

REPATRIATION: Possible.

EMERGENCY CO-ORDINATION CENTRE: Coastguards: Bas Dover. Tel: (01304) 210008 – VHF Channels 16 and 11.

AIRPORT: 3 miles West of Ramsgate is Kent International A (Manston).

With the longest runway of all regional airports in the Midland Southern England, 24 hours Customs, and its easy access to Lo the airport is ideally situated for air-freight shipments, or as an clearance depot for trucks coming over from Europe.

The airport is in discussions with various airlines, and hopes to d commuter services to major European destinations.

DEVELOPMENTS: Since commencing operations in 1981 in ex £24 million has been invested in the development of Port Ramsg an all-weather Ro/Ro port. The present land area is 143,000 sq of which has been reclaimed from the sea.

The port's facilities include a six-bay freight inspectio transhipment shed, a cold store and chilled cargo inspection u freight drivers cafe and wash room facilities in addition to the ferry passenger terminal buildings and passenger car parks.

In order to handle the increasing demand for container and swap body traffic, a 38 tonne container handling forklift has been brought into operation to augment the 32 tonne container gantry.

1991 also saw the streamlining of the port's traffic whilst within the port area and the completion of the first phase of the re-development of the terminal complex, an on-going development which will result in the construction of new accommodation for the port staff and port official bodies and passenger processing areas.

A new access route, by-passing the town of Ramsgate, linking the port area directly with the A299 trunk road is projected.

AUTHORITY: Thanet District Council, Harbour Office, Military Road, Ramsgate, Kent CT11 9LG. *Tel:* (01843) 592277. *Telex:* 965861. *FAX:* (01843) 590941. *Contact:* Captain J.F. Ewing, Harbour Master.

West Pier Control Tower, Ramsgate Harbour, Ramsgate. *Tel:* (01843) 592277.

Operator: Port Ramsgate Ltd., Ramsgate Harbour, Ramsgate, Kent CT11 8RP. *Tel:* (01843) 587661. *Telex:* 966340. *FAX:* (01843) 589570. *Contact:* R. Cooper, Managing Director. Lester Champs, Operations Manager. T. Lofts, Business Development Manager.

(B) ROYAL HARBOUR

ANCHORAGE: Vessels waiting to enter Ramsgate may anchor in Margate Roads or in the vicinity of the Broadstairs Knoll Buoy, paying due regard to the presence of submarine cables.

APPROACHES: *Approach Channel:* The main channel, 110 m. wide at the base, extends 2,133 m. to seaward from the harbour entrance. Additionally a turning area has been dredged West of the harbour entrance and in the vicinity of the ferry terminal. The centre of the channel is indicated by leading lights and marks 090° – 270° True.

Harbour Signals: Permission to enter the channel and the Royal Harbour may be requested by radio from the Harbour Control. Harbour signals, to conform with the International Harbour Signals, are displayed by the Harbour Control and also at the Lock Head to the marina.

RESTRICTIONS: *Times of Entry:* The main channel has been dredged to a depth of 7.5 m. below datum, allowing unrestricted entry to the Western Terminal. The entrance to the Royal Harbour is liable to sand build-up outwards from the Eastern side, and vessels are advised to consult with the Harbour Office or Port Control for the latest information.

MAX. SIZE: Max. LOA 105 m. Max. draft 4.8 m. (2 hours either side of HW).

VHF: *Vessel Traffic Service:* Commercial vessels wishing to enter Ramsgate Harbour must report to the Harbour Control on Channel 14 when arriving at a point 2.5 miles from the channel entrance buoys. This point is referred to as "Point Romeo" and permission must be obtained to enter the channel before proceeding further.

BERTHING: Commercial Quay: Length 109 m. Width 18.0 m. Berthing possible on the East side.

Ro/Ro Berth: Linkspan available.

CRANES: 1×18 ton crane available. Private cranes up to 130 tons capacity may be hired. Forklift trucks available.

STEVEDORES: Available locally.

MEDICAL: Hospital, doctors and dentists available locally.

FRESH WATER: Available.

FUEL: Small quantities available by barge. Larger quantities available by road tanker.

CONSULS: See "Dover".

REPAIRS: Minor repairs possible. Slipway for up to 500 tons capacity.

SURVEYORS: Available locally.

HATCHES: Opened and closed by crew.

AIRPORT: See "Port Ramsgate".

POLICE/AMBULANCE/FIRE: Dial 999.

EMERGENCY CO-ORDINATION CENTRE: The RNLI maintains a motor lifeboat stationed in the harbour.

SERVICES: The following are available: Radio repairs, ship chandler, diving services, charts and compass adjusting.

GARBAGE DISPOSAL: A collection service is provided daily and skips are provided for all vessels at a charge.

WASTE OIL DISPOSAL: A disposal facility for waste oil is available on request for large amounts. This is done by road tanker.

SEAMAN'S CLUBS: There is no seaman's club. The Royal Temple Yacht Club provides certain club facilities for visiting seamen and yachtsmen. There is also a Sailors Church within the harbour (Church of England) holding regular services during the Summer months.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Thanet District Council, P.O.Box 9, Margate, Kent CT9 1XZ. *Tel:* (01843) 25511. *Telex:* 966182.

Ramsgate Harbour Office, Military Road, Ramsgate, Kent CT11 9LG. *Tel:* (01843) 592277. *Telex:* 965861. *FAX:* (01843) 590941. *Contact:* Captain K. Gray, Harbour Manager/Harbour Master.

RYE: 50.56 N., 00.47 E. **(See Plan)**

PORT LIMITS: An imaginary line between No. 2 red light and No. 1 white light.

DOCUMENTS: Usual documents required for Customs.

PILOTAGE: Call "Rye Pilots" 1 hour before to 1 hour after HW. Pilots attend station when vessels expected – ETA 24 hours in advance.

Vessels fitted with VHF Radio should keep watch on Channel 14 when arriving and sailing from Rye and call for instructions on traffic movements.

Pilotage compulsory for vessels over 30 m. LOA.

ANCHORAGES: Vessels may anchor at the Fairway Buoy or shelter from Southwesterly winds in the East Roads (St.Mary's Bay).

NAVIGATION: *Leading Marks:* Inner Leading Light – Occulting Green 4 secs. with white sector 326°T to 331°T.

Tide Signals: Shown from harbour office, 0.75 miles inside harbour entrance on East Bank.

Night – 7 ft. to 10 ft. on bar. Fixed Green.
Over 10 ft. on bar. Fixed Purple.

Day – None, but horizontal timbers on tripod beacon at harbour entrance indicate plus 5 ft., plus 10 ft., plus 15 ft. above Ordnance Datum.

Traffic Signals: International signals showing either 3 fixed red lights or Green – White – Green when commercial traffic moving.

Fog Signals: East Pierhead Horn every 7 secs.

RESTRICTIONS: Night navigation possible for vessels of less than 240 ft. LOA, subject to Harbour Master's approval.

Also see "Berthing".

MAX. SIZE: LOA 235 ft. (278 ft. on request). Max. draft 13 ft. 06 in.

VHF: Call sign "Rye Harbour Radio" Channels 16 and 14. 0900 – 1700 hrs. daily. "Dover Coastguard" VHF Channels 16 and 67.

TUGS: None available. Harbour launch will assist if requested.

BERTHING: Cargo vessels entering Rye Bay should follow the coast from Dungeness coming from the East or Fairlight coming from the West keeping at least 2 miles offshore until Rye Fairway Buoy is reached (Spher. R.W. Fl. 10 secs.), position 149° T, 1.8 miles from the harbour entrance. Anchorage 5 fathoms. at MLWS.

The entrance is 42 m. (140 ft.) wide and is recognised by a conspicuous tripod beacon (Fl. 5 secs. Red), 30 m. seaward of the West Groyne which is 240 m. seaward of the East Pier with the light tower (Qk. Fl.(9) 15 secs.). The channel virtually dries and is liable to change. The East Pier submerges at HWS and is marked by starboard hand beacons. There is a strong eddy inside the East Pier during the flood stream.

Inside the entrance the channel narrows to 30 m. and runs straight for half a mile (329°T) to Rye Harbour Village where there is an inner leading light (Occ. W.G. 4 secs.). Strict attention should be paid to Port Hand Beacons (4 with Qk. Fl. Red) which mark a training wall on the West side of the channel (submerged at plus 8.3 O.D.N.)

The Rother has a strong flood stream and as the harbour dries out it should NOT be approached 3 hours either side of LW. In gales from the S.E. through to S.W. waves break across the entrance.

The best time for any vessel to enter or leave the port is 1 hour either side of HW but care is needed because movement of cargo vessels takes place during this period (See "Navigation" – "Traffic Signal"). Visiting yachts may berth at the Admiralty Jetty by the Harbour Office and in mud berths at Strand Quay in Rye by arrangement with the Harbour Master. Subject to weather conditions it is possible for vessels drawing less than 1.5 m. to enter the harbour at HW minus 2.5 hours (before the flood tide flows at maximum rate) to plus 3 hours.

H.M. Customs clear craft entering from Non-E.E.C. Countries at the Harbour Office.

Wharf is located 1 mile from the entrance on the West bank of the river.

Length of quay 600 ft. Berth handles grain, aggregate, fertilisers, general cargo, etc.

CRANES: 2 mobile cranes of 3 tons (SWL) available for cargo handling. Stores are loaded by these cranes.

BRIDGES: No air draft restrictions.

STEVEDORES: Stevedores ordered through vessel's agent. Usual working hours 0730 – 1700 hrs., Monday to Friday. Overtime is possible by arrangement.

MEDICAL: Conquest Hospital at Hastings (15 miles) maintains a 24 hour casualty service. Doctors and Port Health Officers available locally.

TANKERS: No facilities.

DENSITY: 1025.

FRESH WATER: Available from the quay by hose.

FUEL: Agent arranges supply through a local supplier.

FIRE PRECAUTIONS: Usual precautions necessary.

CONSULS: None locally.

REPAIRS: Minor engineering repairs possible. Radio and radar repairs by arrangements.

DRY DOCKS: None locally.

SURVEYORS: Cargo inspectors arranged by agent. No Classification Society surveyors locally.

GANGWAY/DECK WATCHMEN: Not available.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: Standard British allowances.

REPATRIATION: Possible. Crew may be repatriated through Heathrow or Gatwick Airports, or Dover and Newhaven for continental ferry services.

AIRPORT: Heathrow or Gatwick.

EMERGENCY CO-ORDINATION CENTRE: Contact Dover Coast Guard on VHF Channels 16 and 67.

TELEPHONES: Not available.

SERVICES: Any services required should be arranged with the agent prior to arrival.

BANKS: Major banks located in Rye.

STORING: See "Prelims".

1. By truck.
2. N.A.
3. Yes.
4. Yes.
6. Yes.

SHORE LEAVE: Permitted.

DELAYS: None.

GENERAL: *Tidal Information:* These tide tables are referred to Ordnance Datum Newlyn and GMT.

Chart Datum equals O.D. Newlyn minus 4 m. (13 ft.)
O.D. Newlyn equals Chart Datum plus 4 m. (13 ft.)
Duration of Mean Rise at Rye Harbour:
Spring – 3 hours 15 minutes.
Neaps – 5 hours 00 minutes.

Latest Surveys (September 1987) indicate that the main channel leads E.S.E.'ly from red light marking end West Groyne. Average depth in the channel at the entrance:

At MHWS – 5.5 m. (19.2 ft.)
At MHWN – 4.5 m. (15 ft.)

Depth over bar:

At MHWS – 4.2 m. (13.8 ft.)
At MHWN – 2.5 m. (8.2 ft.)

For depth at HW at Alsford's Quay add 1.52 m. (5 ft.) to predicted height given in tables.

For depth at HW at Strand Quay mud berths deduct 0.6 m. (2 ft.) from predicted height.

The following approximate corrections for level and time of HW should be added/subtracted to convert these tables for use at the undermentioned coastal areas:

Hastings	minus 0.8 ft.	minus 2 minutes
Dungeness	plus 0.9 ft.	minus 6 minutes
Folkestone	minus 1.6 ft.	minus 15 minutes

GARBAGE DISPOSAL: Collection arranged through wharf owners. (Tel: 0797-222501). Closed approved skips on quayside. Being reviewed.

WASTE OIL DISPOSAL: Oil disposal arranged through wharf owners. 45 gallon drums available and disposal is via local chemical works.

SEAMAN'S CLUBS: No clubs but town is within easy walking distance.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Environment Agency, Guildbourne House, Chatsworth Road, Worthing, West Sussex BN11 1LD. *Tel:* (01903) 820692. *FAX:* (01903) 821832.

Harbour Office, New Lydd Road, Camber, Rye, East Sussex TN31 7QS. *Tel:* (01797) 225225. *FAX:* (01797) 227429. *Contact:* Captain C. Bagwell, Harbour Master.

ST. HELIER: 49.27 N. 02.07 W. (See Plan)

LOCATION: St. Helier Harbour, the only commercial Island port for the loading and discharge of cargoes, is siutated on the South coast of the Island. Passenger services also operate from St. Helier and Gorey Harbour in the East.

Rock, shallows and outcrops abound in the narrow approaches to the port, combined with a spring range of tide in excess of 12.0 m., a mariner inexperienced in Channel Island waters is required to navigate with extreme caution.

The approaches to St. Helier are explained in the Channel Islands Pilot (NP 27), and Admiralty Charts No. 3677, 1137 and 3278 refer.

PORT LIMITS: Reporting points for Inward Clearance – abeam of Noirmont Point or Demie de Pas Beacon.

DOCUMENTS: *Customs and Excise:* Crew List, Cargo Manifest, Bills of Lading/Consignment notes, Crew Declaration and Stores List.

Immigration and Nationality Department: Required for foreign arrivals: Crew List and Passenger List.

PILOTAGE: Pilotage is compulsory for vessels of 50 g.r.t. and over. Pilots normally board off Point Le Fret in the North Western passage, or at Demie de Pas Lighthouse for the Eastern Passage.

Pilotage available 24 hours, subject to tide.

ANCHORAGES: Cruise liners visiting the Island may anchor in St. Aubin's Bay, in the approaches to St. Helier, or near St. Catherine's Breakwater at the N.E. point of the Island. The St. Aubin's Bay anchorage is limited to vessels of maximum length 140 m. if fitted with a bow thruster or 120 m., both being subject to draft. Launches can land passengers at Berth No. 5 pontoon on the Albert Pier.

The anchorage at St. Catherine, about 1 mile off the breakwater, is in open waters with a depth of 20 m. below C.D. Passengers land, subject to weather conditions, at a pontoon on the South side at the root of the breakwater. This anchorage is subject to strong N.W./S.E. tidal streams at Spring tides, and thus not suitable for low powered launches at these times.

RESTRICTIONS: Entry to the port is controlled by St. Helier Port Control. The period of entry may be restricted due to tidal limitations and the vessel's draft.

Entry 24 hours, subject to tide.

MAX. SIZE: The largest vessel to have regularly used the port is "Rozel", the BCIF Ro-Ro ferry of the following dimensions: Length 130 m, breadth 22.6 m. and draft 5.2 m.

HEALTH: Rabies prevention regulations prohibit the landing of any animal susceptible to rabies.

RADIO: Jersey Radio, the local coast radio station, maintains a continuous listening watch on 2,182 kHz. and VHF Channels 16, 25 and 82. Vessels approaching St. Helier should advise Jersey Radio of their ETA at the pilot station and confirm when 1 hour off. VHF and link call facilities are available. Local navigation warnings and weather forecasts for the Channel Island area are broadcast regularly.

VHF: St. Helier Port Control maintains a continuous listening watch on VHF Channel 14 only. The watch tower is situated at the Victoria Pierhead, from where traffic signal lights are displayed. All vessels should keep a listening watch in the approaches and when manoeuvring in the harbour.

St. Helier Port Control Signals: Green lights exhibited from the Port Control Tower mean that vessels may enter harbour, but that no vessel may leave harbour.

Red lights exhibited mean that vessels may leave harbour, but that no vessel may enter harbour.

When both red and green lights are exhibited, no vessel may enter or leave harbour.

In addition to the normal red and green control lights exhibited f
the Port Control Tower, quick flashing orange lights will be u
whenever possible to expedite the entry and departure of power dr
craft.

This signal, exhibited from both sides of the tower, indicates that po
driven craft of 25 m. or under in length may enter or leave, contrar
the signal lights displayed at the time.

Before entering or leaving the port, or shifting berth within harbo
Masters of vessels must obtain prior permission from Port Control
VHF Channel 14.

TUGS: "Duke of Normandy" 575 h.p. (8.5 ton B.P.). One hour's no
required.

Licensed boatmen will attend all commercial vessels on request. Th
have an 11 m., 170 h.p. launch, used to assist the manoeuvring
vessels in the port. They also act as linesmen and operate 2 moor
launches.

BERTHING: The port consists of 5 main quays or piers, namely Alb
Pier, New North Quay, Victoria Quay, Elizabeth Harbour and La Colle
Tanker Terminal (See "Tankers").

Albert Pier: 4 landing stages are available for vedette and catama
passenger services which operate from this pier, serving inter-island
adjacent French coast routes. A pontoon at Berth No. 5 can be used
cruise ship passenger tenders.

The Albert Pier has a dredged sump of 3.9 m. below Datum, measur
106 m. × 21 m.

The RNLI 47 ft. "Tyne" class lifeboat "Alexander Coutanche"
stationed at Berth No. 5.

New North Quay: The main commercial freight quay with the follow
luffing cranes: 2×10 tons, 2×7 tons, 2×5 tons and a 35 tons Sco
derrick. The quay has a total length of 158 m., adjoined by a dred
sump of 5.2 m. below Datum, measuring 170 m. × 24 m.

Elizabeth Harbour: The main Ro-Ro berths of the port are situated
the Elizabeth Harbour. The East and West berths have two lane
linkspans, the West having a safe working load of 120 tonnes w
connected to a ship. Both berths have a sump of 6.0 m. below Da
(130 m. × 30 m.) and are fitted with powered passenger gangways
a minimum height of 15 m. above Datum. Each gangway is connec
to the passenger terminal by covered walkways and tunnels separa
from the vehicle and freight area. The passenger terminal is provi
with full Customs, Police, Immigration and baggage handling facili
and is provided with a shop, cafeteria, bar and offices. All toilets, moth
room and public areas are accessible to wheelchairs. Adjacent
parking is available.

Victoria Quay: The quay has 3 berths, the East Cross, West Cross
London Berths respectively, with lengths of 137 m. (East Cross and W
Cross) and 73 m. The quay has 1×10 tons, 2×7 tons, 1×5 tons luf
cranes and a 35 ton Scotch derrick at the East Cross Berth. Depth
the East and West Cross are 3.0 m. and in the London Berth 2.
below Datum.

Cruise Liners: See "Anchorages".

CRANES: See "Berthing".

STEVEDORES: The port is open on a 24 hour basis and the nor
working hours for cargo vessels are 0800 hrs. – 1700 hrs.; overtime
be worked between 0600 hrs. – 2359 hrs.

MEDICAL: Modern general hospital nearby (300 m.).

TANKERS: La Collette Tanker Terminal is situated to the South of
main harbour and has a jetty head of 57 m. It is able to accommo
tankers, subject to their pumping manifold connections being compat
in a dredged sump of 5.5 m. below Datum. The largest tanker to regu
use the Terminal is "Esso Penzance" of 91.4 m. length. The Term
can handle all grades of petroleum spirit, diesel and heavy oils via
discharge arms. LPG is also discharged by flexible hose. Bow and s
lines are secured to the shore and a mooring buoy.

DENSITY: 1025.

FRESH WATER: Available. Rate 20 t.p.h.

FUEL: Gas oil and light fuel oil available by road tanker wagon onl
lube oils available. Suppliers: Total Ltd. (Tel: 25927); fuel supplies (S
(Tel: 875699); Esso Ltd. (Tel: 876433).

CONSULS:

Belgium	Tel: (01534)	609000
Denmark	"	70300
Finland	"	609000
France	"	26256
Germany	"	71263
Ireland	"	45551
Italy	"	854083
Latvia	"	601010
Netherlands	"	609000
Norway	"	30175
Portugal	"	77188
Sweden	"	80545

REPAIRS: Minor repairs by Raffrays Ltd., Commercial Buil
Tel: (01534) 23151.

DRY DOCKS: None.

SURVEYORS: Surveyors: Alan Buchanan Naval Architects
(Tel: (01534) 865536.

Peter Williams Ltd. Tel: (01534) 857281.

Lloyd's Agents: F.B. Perry, Jersey Shipping Co.Ltd., 6 Caledonia
St. Helier. Tel: (01534) 20452.

OPENING/CLOSING HATCHES: By crew.

CUSTOMS ALLOWANCES: 200 cigarettes or 100 cigarillos or 50
or 250 gm. tobacco. One litre alcohol over 22% or 2 litres unde
2 litres of wine.

REPATRIATION: Facilities available.

AIRPORT: Jersey Airport with regular services to the UK a
Continent is situated 4 miles away at St. Peter.

HOLIDAYS: *Public Holidays:* Dates as per England and Wales
9th May and Liberation Day.

POLICE/AMBULANCE/FIRE: Dial 999.

EMERGENCY CO-ORDINATION CENTRE: Sea Rescue Centre in Harbour Office.
TELEPHONES: Available by special arrangement.
BANKS: Most of the major world banks have branches in Jersey.
SHORE LEAVE: No restrictions.
GARBAGE DISPOSAL: Facilities available.
WASTE OIL DISPOSAL: Limited quantities (2,000 litres) can be handled.
GENERAL: *Pollution:* Boom and various anti-pollution equipment held in store by Harbour Department.
DEVELOPMENTS: A 600 berth marina is being constructed N.W. of the Elizabeth Terminal. Land reclamation is taking place to the S.E. of La Collette Tanker Terminal.
AUTHORITY: States of Jersey, Harbours Department, Harbour Office, P.O.Box 599, St. Helier, Jersey JE4 9XF, Channel Islands. *Tel:* (01534) 885588. *FAX:* (01534) 885599. *Contact:* Captain R.M. Bullen, Harbour Master.

SCALLOWAY: 60.08 N. 01.16 W. (See Plan)

Scalloway is a small port on the Atlantic side of the Mainland of Shetland and is located only 7 miles by road from Lerwick.

The main trade is centred around the catching, processing and export of fish, but there has been a marked increase in general trade since the recent improvement of port facilities.

Most services are available and can be arranged through the local shipping Agents.

Communications: Listening watch is maintained on Channel 16 only during office hours. At other times contact to be made through Shetland Radio. Local shipping agent T.T.F. Ltd., Tel: (01595) 880636 (office), (01595) 880304 (after office hours). Pier Master, Tel: (01595) 880574 (office), (01595) 880324 (home). Assistant Pier Master, Tel: (01595) 693485 (home).

ANCHORAGES: Good holding bottom in Scalloway Bay.

Anchorage may also be obtained at several locations within the port approaches and vessels intending to do so should advise the Scalloway Pier Master via VHF who will provide advice on areas encumbered by static fishing gear.

PILOTAGE: Licensed Pilots are available and requests for pilotage should be made at least 12 hours in advance of ETA and confirmed 1 hour before arrival by calling Scalloway Harbour Radio on VHF Channels 12 or 16. Requests for pilotage should be made through Scalloway Harbour Office Tel: (01595) 880574, through Sullom Voe Port Control Tel: (01806) 242551 or Telex: 75142 (manned 24 hours), or through agents. No particular light or sound signals are required and pilot boat freeboard is 1.5 m. Pilot boarding stations are charted on the current edition of B.A. Chart No. 3294. Masters should advise the intended pilot boarding station when confirming ETA and should note that the Northerly station is preferred in bad weather or high swell. Pilotage is not compulsory except for vessels carrying hazardous cargoes for which it is compulsory.
RESTRICTIONS: No night time or tidal restrictions. Largest scale and up to date charts essential.
MAX. SIZE: Max. loaded displacement 3,500 tonnes. Maximum length 90 m., max. draft 6.0 m. Vessels exceeding these dimensions may be accepted by prior arrangement. A tide gauge has been installed, and precise tidal heights will be available on request by radio.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Shetland Radio.
VHF: Vessels should listen to Channel 16 VHF when in VHF range.
BERTHING:

Berth No.	*Length* (m.)	*Least Depth* (m.)
1	Out of use.	
2	120	6.5
3	120	6.5
4	110	6.2
5	130	4.6

CRANES: Mobile cranes available. Ships normally employ their own cranes.
STEVEDORES: Should be arranged through Agents.
MEDICAL: Doctor based at Scalloway. Hospital at Lerwick.
FRESH WATER: Available from standpipe at all berths, rate 10 t.p.h.
FUEL: Marine gas oil by pipe or from road tanker. 1 hour advance notice through Agent.
REPAIRS: Most types deck and engine repairs.
SLIPWAYS: Slip accommodation for vessels up to 180 tons.
SURVEYORS: Lloyd's Agency at Lerwick: Hay and Company (Lerwick) Ltd., 106a Commercial Street. Tel: (01595) 3057. Telex: 75295.
CUSTOMS ALLOWANCES: See "Lerwick".
REPATRIATION: Facilities for effecting crew changes.
AIRPORT: Sumburgh Airport 25 miles. British Airways several times daily. Tingwall Airstrip 3 miles.
HOLIDAYS: Cargo or shipping operations not affected by holidays.
POLICE/AMBULANCE/FIRE: Dial 999.
TELEPHONES: No arrangement for placing telephones on board. The Port Authority provide a telephone box in the harbour area.
SERVICES: Compass adjusting. Provisions of all kinds can be obtained locally.
SHORE LEAVE: Crew members allowed ashore.
AUTHORITY: Shetland Islands Council, Marine Operations Department, Port Administration Building, Sella Ness, Graven, Mossbank, Shetland ZE2 9QR. *Tel:* (01806) 242551, 244200. *Telex:* 75142. *FAX:* (01806) 242237. *Contact:* Captain G.H. Sutherland, Director of Marine Operations. Captain M. Brannan, Manager – Small Ports.

SCAPA FLOW (Flotta Terminal), Orkney Isles: 58.53 N. 03.05 W. (See Plan)

NOTICE: Issued by Director of Harbours in August 1993.
Recommendations on Navigation for vessels bound to or from the Flotta Oil Terminal and Scapa Flow:

The tidal flow in the Pentland Firth is such that Masters should pay particular attention to the information and details contained in the Admiralty Tidal Stream Atlas – Orkney and Shetland Islands (NP 209), prior to their arrival in the area and also before departing Scapa Flow. Failure to do so could result in difficulties arising for their vessels, due to the strong tidal currents experienced in the area.

RECOMMENDED ROUTES:

The recommended routes for arriving at the Pilot Station for the first time are as follows:

Approaching from South East, bound for Westerly Pilot Boarding Area:

Vessels should pass 1.5 miles East of Duncansby Head then steer a course to pass midway between Swona and Stroma Islands.

When approaching with the flood tide (Easterly flow) vessels should maintain a Westerly course until at least 1.5 miles West of Swona Island before proceeding to the Pilot Boarding Area.

With the Ebb tide (Westerly flow) vessels can steer towards the Pilot Boarding Area once they are clear of the South end of Swona Island.

Approaching from West, to Westerly Pilotage Boarding Area:

Vessels should pass at least 2.5 miles South of Torness on the Island of Hoy before setting course to the Pilot Boarding Area.

Easterly Pilotage Boarding Area - North of Swona Island:

It is not recommended that first time callers proceed between the islands of Swona and South Ronaldsay unless instructed to do so by the Pilot who should be on station at the Boarding Area prior to the vessel entering the Harbour area. Masters who are familiar with the area may proceed between Swona Island and South Ronaldsay, but must ensure that when proceeding with the flood tide they do not set on to the Lother Rock and with ebb tide do not set on to Swona Island.

Passage between South Ronaldsay and Muckle Skerry:

It is not recommended that vessels use this Channel.

DEPARTING SCAPA FLOW:

Recommended Routes following disembarking Pilot:

The Pilot will normally disembark between Nevi Skerry and Stanger Head to allow the vessel to build up to full sea speed prior to encountering the tidal flow in the Pentland Firth.

West Bound Vessels:

The Master should proceed into the Pentland Firth passing one mile East of Switha Island and set a course to pass at least 1.5 miles South East of South Walls.

South East Bound Vessels:

The Master should proceed into the Pentland Firth passing one mile East of Switha Island and then proceed on a South Westerly course keeping at least 1.5 miles West of Swona Island. A course can then be set to pass midway between Swona and Stroma Islands.

The vessel should then make a course to pass 1.5 miles North East of Duncansby Head.

The Master must keep a careful watch on the effect that the flood and ebb tides have on his vessel whilst turning to port.

With the ebb tide the vessel may be slow to respond due to the vessel's bow encountering the ebb tide whilst the stern is still in the eddy West of Swona.

Passage East of Swona Island:

It is not recommended that first time callers use this Channel. Providing Masters are fully aware of the tidal currents which will effect the vessel when passing between Swona Island and the Lother Rock, it is acceptable for vessels to proceed down this Channel.

It cannot be emphasised strongly enough that vessels will experience strong tidal set both Eastwards with flood tide and Westwards with ebb tide as they proceed down this Channel and also once clear of the South end of Swona Island.

Masters should make a course to pass midway between Swona and South Ronaldsay when Stanger Head is 0.5 miles abeam.

When abeam of the North end of Swona Island the Master should steer a course keeping to the middle of the Channel. A careful watch must be maintained on the vessel's course and speed as the very strong tides can quickly set the vessel towards the Lother Rock with flood tide and towards Swona Island with the ebb tide.

Once clear of the Lother Rock a course can then be set to pass 1.5 miles East of Duncansby Head.

Passage between South Ronaldsay and Muckle Skerry:

It is not recommended that vessels use this Channel.

MANOEUVRING SPEEDS - BOARDING AND LANDING PILOTS:

Masters should where possible, when approaching the Pilot Boarding Area, maintain full sea speed until advised to reduce by the Pilot. Masters should also bring their vessels up to full sea speed once the Pilot has disembarked. The normal speed for boarding and landing pilots is 6 knots.

The Master should ensure that his vessel is in hand steering and not in automatic pilot prior to entering the Pentland Firth and also until well clear of the area.

Normal *Rule of the Road* applies in all cases when vessels are approaching or departing the Pentland Firth or Scapa Flow.

SUSPENSION OF BOARDING AND LANDING PILOTS:

In severe weather conditions boarding and landing of Pilots may be suspended. Masters will be advised by Orkney Harbour Radio as soon as possible when these restrictions are in operation. They will be kept fully informed on the most suitable area to await instructions to proceed to the Pilot Station once boarding and landing of Pilots is resumed.

ORKNEY HARBOUR RADIO:

Masters should contact Orkney Harbour Radio on VHF Channel 16 at least 2 hours prior to arrival at Pilot boarding areas for update on shipping, tidal and pilotage information.

If in any doubt regarding pilotage, tidal or shipping movements in the Pentland Firth or Scapa Flow contact Orkney Harbour Radio on VHF Channel 16.

Masters and Owners should note that the above details are recommendations only and the final decision remains with the Master regarding the safe navigation of his vessel.

Editor's Note: Please also see Notice to Mariners No. 44 of 1993 (Notice No. 3706 – Scotland, North Coast – Shetland Islands – areas to be avoided and precautionary areas), and Admiralty List of Radio Signals – Volume 6 (specifically Notice to Mariners No. 45 of 1993 – Notices A 1591 and A 1599 which come into force on 28th November 1993).

DOCUMENTS:

Maritime Declaration of Health (Form supplied by Pilot or Agent).
Vaccination List.
Immigration Form H.O. Form IS6.
Crew Lists — 2 required.
Ship's Stores List.
Crew Personal Effects Declaration, Customs Form C.142.
Last Port Clearance.
Ship's Register.
Load Line Certificate.
Safety Construction Certificate.
Safety Radio and Safety Equipment Certificates.
Derat Certificate.
Previous British Light Dues Receipts.

Customs and Health: Weather permitting, Customs, Immigration, Health and Agent will embark inside Scapa Flow.

Customs House: Customs clearance inward and outward will be the responsibility of ship's Agents.

Light dues will be paid by the vessel.

Cargo Documents: Bills of Lading; Cargo Manifest, Quantity and Quality Report; Tanker Time and Loading Report; Certificate of Origin; Ship's Cargo and Ullage Reports; Master's Receipt for Shipping Documents and Documentation Transmittal Reports will be prepared by Company Representative.

Ship's Agent: All ship's business other than Cargo and Customs documentation and the shipping documents under section above will be conducted by the ship's Agent.

EDP: Early Departure Procedures apply to most vessels. Blank Bills of Lading are signed by the Master on arrival, and the tonnages inserted on completion of loading.

APPROACHES: The approach to the Terminal is through the Pentland Firth from East or West, and then Northward through Hoxa Sound, the main entrance to Scapa Flow. Consult Admiralty Sailing Directions Vol. 52, and Admiralty Tidal Stream Atlas for Orkney and Shetland, Publication No. 209. Principal charts are as follows and Decca coverage is available: Admiralty Chart Nos. 2162, 2581, 35.

PILOTAGE: Pilot vessels *Scapa Pathfinder, Scapa Pilot* and *Scapa Pioneer* watch VHF Channel 16.

Inside Pilot Station (Lat. 58° 46′ N., Long. 03° 07′ W.) located 2 miles × 180° from Cantick Head Lighthouse.

Unfamiliar vessels, VLCCs, also any vessel without full information about the unusually strong currents in Pentland Firth is recommended to embark the Pilot at the appropriate outside position (Refer to Tidal Stream Atlas, Admiralty Publication H.O. Number NP 209).

Port Restrictions which may cause delays: Weather preventing embarkation of Pilot at either inside or outside positions.

Local wind conditions in Scapa Flow preventing a safe approach to the berth.

Remarks: In Scapa Flow the weather conditions, in particular the wind, can change suddenly and quickly deteriorate, not only in Winter but at any time of the year.

Mooring Masters: A Company Mooring Master will board vessels to the Northward of the Calf of Flotta or at her designated anchorage within Scapa Flow prior to berthing at any Terminal Facility. A Company Mooring Master will be on board during the time that a vessel is moored and he will liaise between the Terminal and ship personnel throughout any deballasting, loading or discharging operation.

The Company Mooring Master may ensure that Masters of vessels are familiar with, and strictly observe, all local regulations concerning the safety of operations and pollution of the sea by oil whilst laid at the Company's facilities.

Vessels using the Company's facilities are required to provide the Mooring Master with accommodation and messing of a standard equivalent to that enjoyed by the vessel's officers.

ANCHORAGE: Inside Scapa Flow several anchorages are available depending upon prevailing winds. Sea anchorage outside, in the approaches to the Pentland Firth, is not possible.

MAX. SIZE/RESTRICTIONS: The current maximum sizes of crude tankers permissible at Flotta is 200,000 d.w.t. at the SPMs and 150,000 d.w.t. at the jetty.

Since the advent of segregated ballast tankers, an anomaly has arisen between the physical size of tankers, upon which these maximums are based and the deadweight capacity. In order to prevent confusion as to the size of tanker that is acceptable, the following guidelines will be enforced.

	Conventional Ballast Tankers	*Segregated Ballast Tankers*
SPMs	200,000 d.w.t.	170,000 d.w.t.
Jetty	150,000 d.w.t.	130,000 d.w.t.

Prior to accepting crude vessels it must be clarified whether the vessel is a segregated ballast tanker or a conventional ballast tanker. If a segregated ballast tanker then the deadweight must be indicated. If the tanker has been converted from a conventional ballast tanker to a segregated ballast tanker, then the original deadweight should also be indicated.

RADIO: Arrival Notices.

Pilots: By coastal radio station 24 hours and 12 hours prior to arr VHF contact at least 3 hours prior to arrival at the Pilot Station.

Terminal: By coastal radio station 7 days, 72, 48 and 12 hours prio arrival at the Pilot Station.

VHF contact should be established at least 3 hours prior to arriva the Pilot Station.

The Terminal must be advised by VHF via the "Harbour Contr when the Pilot has boarded or when 6 miles from Stanger Head at entrance to Hoxa Sound.

INFORMATION REQUIRED PRIOR TO ARRIVAL:

Radio Advice Prior to Arrival: Terminal operated by Elf Enterp Caledonia Ltd., Flotta Terminal, Telex: 75212 (Eecflo G), via Portish Radio, of ETA with following details. Also advise Agent of ETA, dra fore and aft for arrival, and any immediate requirements on arrival.

Standard Message to Crude Vessels (Initial Visit): Masters are advis that reception facilities are available for clean ballast only. All ball must be discharged to reception facilities ashore. No ballast from ei cargo or permanent ballast tanks is permitted to be discharged i Scapa Flow.

Please advise the following details:

AAA	Arriving and sailing drafts and ETA.
BBB	Cargo requirements in metric tonnes.
CCC	Grade of previous cargo.
DDD	Quantity of Cargo tank ballast and position uplifted.
EEE	Quantity of permanent ballast and position uplifted.
FFF	Quantity of ballast for discharge ashore.
GGG	Last port and destination.
HHH	Is inert gas system fully operational and cargo tanks inert
JJJ	Oxygen level in cargo tanks.
KKK	Gross nett and summer d.w.t. tonnages.
LLL	Maximum loading rate.
MMM	Total time for deballast.
NNN	Number and size of cargo manifolds.
OOO	Availability of reducers to adapt manifolds to suit 16 in. 150 ASA flanges three required.
PPP	Can vessel load and deballast simultaneously while maintaining a minimum of a two valve separation?
QQQ	Is vessel equipped with a patent A.K.D. stopper or simila capable of accepting an 80 mm. end link?

Vessels are required to load part cargo prior to discharging ballas Minimum 10 ton SWL derrick required on port side for SPMs. Der required at jetty if it is necessary to fit spool pieces to accept load arms. Ballast manifold is aft of two crude connections on SPM.

Your attention is drawn to the serious view taken by Port and Termi Authorities of pollution. Heavy fines are imposed to which is added cost of clean-up operations. Please ensure all crew members conversant with and comply with pollution requirements.

Principal pollution causes are leaking sea valves overboard discha valves and cargo or bunker overflows. We recommend sea valv overboard discharge and bilge discharges are checked tight. Prior ar cargo and bunkering procedures should be reviewed with chief off and chief engineer. All scuppers to be plugged.

NOTE: On subsequent visits vessels should only answer AAA to inclusive.

Standard Message to Liquid Gas Carriers (Initial Visit):

LIQUID GAS CARRIERS ARRIVING AT SCAPA.

LPG vessels arriving at Flotta Terminal with ballast for discharg Scapa Flow will comply with the following instructions in respect of ballast.

1. Ballast for discharge must have been taken on board w 24 hours of arrival and at a distance of at least 12 miles off shore.

2. The Master will provide the Terminal with signed advice sta date, time and positions between which ballasting operations carried out, quantity of ballast for discharge and tanks in which contained.

Harbour Authority Officials may board vessels to ascertain that th procedures have been adhered to and the quality of the ballast is sui for discharge. The Authority's decision as to whether or not the ba is acceptable for discharge will be final. Non compliance will resu delays being occasioned by the vessel.

Masters are advised that this concession for discharge of perma ballast relates only to LPG carriers and your attention is drawn t serious attitude adopted by Port and Terminal Authorities to pol incidents of any kind.

To prevent problems arising due to surge pressures caused b rapid closure of emergency shutdown valves (ship side) it is req that the minimum closure rate from fully open to completely clos 9 seconds when loading LPG or 13 seconds for Ethane loading.

Please advise the following details:

AAA	Arriving and sailing draft and ETA.
BBB	Cargo requirements in metric tonnes.
CCC	Previous cargo and quality of tank atmospheres.
DDD	Tank temperature on arrival.
EEE	Time required for cooldown.
FFF	Height of manifold above water line at arrival draft.
GGG	Closure timed of emergency shutdown valves.
HHH	Quantity of ballast and amount to discharge.
JJJ	Last port and destination.
KKK	Gross, nett and summer deadweight tonnages.
LLL	Maximum and cooldown loading rates.
MMM	Availability of deck tanks to accept coolant and qu required.
NNN	Size of cargo/vapour return manifold and position of return manifold relative to cargo manifold.

Purging and/or coolant is not carried out alongside.

Vessel will require to load sufficient coolant for purging and/or c to be carried out at anchor.

NOTE: On subsequent visits vessels should only answer AAA inclusive.

VHF: *Harbour Pilots and Harbour Control:*
VHF Listening: 16 Telex: 75475
Working: 9, 11 and 20
Mooring Masters/Terminal:

Mooring Masters	161.15	Private Frequencies Only
Terminal	161.30	
Loading Operations	161.15	Private Frequencies Only
" "	161.30	

N.B. Launches are fitted with VHF Listening Channel 16.
Working Channels 14, 12, 8, 6

HEALTH: See "Health – All Ports" before first U.K. port.

READINESS: *Notice of Readiness to Load/Discharge:*

Notice of Readiness will be accepted subject to the following conditions;—

a. The Terminal is open (this decision shall be communicated to the Master of the vessel by the Company).

b. (i) The vessel has been boarded by the Company Mooring Master prior to her proceeding towards the berth *or*

(ii) The vessel has anchored within the anchorage area awaiting a berth.

N.B. Although vessels will be loaded in order of acceptance of Notice of Readiness, it should be borne in mind that acceptance of Notice of Readiness is contingent upon complete compliance with all the requirements of Port Conditions.

c. Acceptance of Notice of Readiness may be withdrawn by the Company upon the occurrence of any of the following events:

The decision by the Mooring Master that the vessel's drafts, equipment and/or appurtenances are not suitable for berthing at the Terminal. If this decision has not been taken, for reasons within the Mooring Master's control, within 24 hours from Acceptance of Notice of Readiness, the Company shall be deemed to have waived its right to withdraw acceptance under this sub-paragraph.

Any supervening decision of the Harbour Authority which prevents the vessel from berthing.

N.B. A derrick or crane with a safe working load of not less than 10 tons is required for handling hoses at the SPM berths.

TUGS: 3 tugs (2×50 ton bollard pull and 1×54 ton bollard pull) are available, and compulsory, for berthing. They are fire fighting tugs and equipped with Warren Springs pollution dispersent equipment.

Whenever a tanker is on a berth, 1 stand-by tug is anchored in the close vicinity for safety and pollution purposes. Fire wires must be rigged off-side forward and aft.

1 tug (standby tug) is towing aft whilst tanker is moored to SPM.

BERTHING: *Position:*

SPM 1: Lat. 58° 52' 11.86" N., Long. 3° 07' 20.68" W.
SPM 2: Lat. 58° 52' 17.72" N., Long. 3° 05' 47.79" W.

Main Control Building (Radio Mast): Lat. 58° 50' 31.05" N., Long. 3° 07' 08.01" W.

SPM Particulars:

Pillar Type Single Buoy Mooring – 2.
Tanker Size – 35,000 d.w.t. – 200,000 d.w.t.
Minimum Water Depth – 75 ft.
Max. Draft – 72 ft.
Mooring System – 10 m.×3 in. chain, 40 m.×21 in. rope grommet, 10 m.×3 in. chain and 6 m.×2.625 in. chain.
Crude Manifolds – 2×16 in.
Ballast Manifolds – 1×16 in.
Maximum Loading Rate – 80,000 bbls.p.h.
Hose Weight – Minimum 7.5 tons

Ballast connection is positioned aft of the 2 crude connections.

A load monitoring system is fitted to each SPM giving constant strain readings to the Terminal Control Room and the Mooring Master on board the tanker. In adverse weather conditions strain gauge readings will indicate when vessel should prepare to vacate the berth.

LPG/Crude Oil Jetty:

Finger type jetty with breasting dolphins.
Tanker Size – 4,000 d.w.t. – 150,000 d.w.t.
Minimum Water Depth – 63 ft.
Maximum Draft – 62 ft.
LPG Manifolds – 1×10 in. loading plus 1×10 in. vapour return.
LPG Loading Rate – 10,000 bbls.p.h.
Crude Manifolds – 4×16 in.
Crude Loading Rate – 80,000 bbls.p.h. maximum.
Ballast Manifold – 1×16 in. (crude gantry only).
Maximum Deballasting Rate – 40,000 bbls.p.h.

LPG: Gas tankers also load at the jetty and in their case the only relevent restriction is a requirement for the cargo manifold flange to be able to work within the operating envelope of the LPG loading arms which have the following parameters: Max. Airdraft 13.18 m.; Min. Airdraft 1.75 m.; Max. distance ship's side to flange 7.0 m.; Min. distance ship's side to flange 3.1 m.

Terminal Capacity:

1. Crude Oil:

There are 5 tanks, each of 500,000 bbls. nominal capacity for storage of stabilised crude oil, plus a further 2 of 1,000,000 bbls. each.

2. Liquid Petroleum Gas:

There are 2 tanks, each of 100,000 bbls. nominal capacity for storage of propane.

3. Ethane:

There are 5 ethane tanks, each of 500 cu.m. nominal capacity.

Remarks: Vessels moored to the SPMs are required under conditions to maintain a tug towing astern to keep the mooring system under a tension of 15 tons – 20 tons.

When ship's piping does not permit the pumping of permanent ballast through the manifold, the possibility to load some cargo prior to deballasting the cargo tanks' clean ballast may be granted by prior arrangement with the terminal. In all cases where ships intend to deballast and load simultaneously there must be at least a 2 valve separation.

Lightering Operations: Ship-to-ship lightering operations can be carried out in Scapa Flow on vessels up to 72 ft. draft.

Tug facilities and oil pollution equipment readily available.

DENSITY: 1025.

MOORING AND HOSE HANDLING:

On SPMs: Ship's derrick (SWL 10 tons) and manifold connections will require to be prepared on the port side. An accommodation ladder will be rigged to starboard with a pilot ladder ready to port.

Securing equipment for single chain mooring forward and hose connecting gear will be hoisted on board from Company work launch by ship's derrick. A good mooring line will be required from forecastle head as a messenger for the buoy mooring.

Tanker Loading Pier: The loading pier is equipped with rigid articulated pipe arms mounted on gantries for loading liquid petroleum gas and also for loading crude oil. The crude oil gantry is also fitted with a ballast discharge arm.

There is an access roadway between the Pier head and the shore. Mooring lines are run to dolphins by terminal mooring boats. Vessels with tension winches when moored at the pier must have winches on 'Manual brake'.

Arrival Draft: Vessels must arrive at the Company's facility in an adequate ballast condition compatible with safe manoeuvring during handling. Excessive trim or insufficient ballast could incur delay until such time as an acceptable condition is reached.

BALLAST: All berths are equipped with water ballast discharge lines. There is a water ballast tank of 500,000 bbls. capacity and a ballast treating facility capable of handling 40,000 bbls.p.h. It is prohibited to discharge water ballast into Scapa Flow.

Bilge Ballast Discharge: Vessels should arrive in Scapa Flow with clean ballast only.

The discharge of bilges and/or ballast by vessels into Scapa Flow is strictly prohibited.

N.B. All ballast water including permanent ballast must be discharged through the Terminal ballast reception and cleaning facility.

Discharge of ballast and simultaneously lifting of cargo is not permitted unless approval has been given by the Mooring Master.

The salvage in ballast shall become the property of the Company, in consideration of the Company's operation of the Terminal ballast reception and cleaning facility.

MEDICAL: Medical and dental services are available by arrangement. Hospital facilities are available at Balfour Hospital, Kirkwall.

FRESH WATER: Not available.

FUEL: Bunkers not available at present, but lubricants in small quantity available. Ships should cable requirements to Agent as soon as possible.

CONSULS: Denmark, Netherlands, Norway and Germany.

REPAIRS: There are no dry-docking facilities available, but local engineering firms undertake minor repairs to machinery and equipment.

Immobilisation of Engines: Not allowed on any of the berths, and not recommended when at anchor. When at the anchorage, however, in special circumstances, and provided the Harbour Master's permission is first obtained, it may be possible.

TRAVEL: There are daily air services, during the week, to Aberdeen, Inverness, Glasgow and Edinburgh from Kirkwall Airport. There is no service on Sunday, There is a daily ferry service from Stromness to Scrabster to connect with British Rail. During the Winter months there is no service on Sunday.

LAUNCH SERVICES: Launch services from Flotta and SPM berths are available by arrangement with local Agents to Scapa Pier.

SAFETY: Should communications fail, the Mooring Master will authorise continuous soundings of the ship's whistle or siren as a signal to stop loading (ships in the vicinity capable of so doing should inform the Terminal Control by VHF that this signal is being sounded in case it is inaudible ashore). Ships hearing the signal and unable to contact the Terminal should inform "Harbour Control".

SERVICES: Stores are of good quality, and the laundry facilities are good, but limited. Tank cleaning facilities are not available.

GARBAGE DISPOSAL: Skip provided on Scapa Pier free of charge and collected as required, otherwise by arrangement through local agent.

WASTE OIL DISPOSAL: No waste oil disposal facility.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

SHORE LEAVE: There are no restrictions on shore leave for ships' personnel. For vessels moored at SPMs arrangements can be made with the Agent for a launch service to be operated to the shore. For safety reasons, the boat selected for this service must have good stability, to prevent accidents in cases of hazardous boarding due to weather conditions.

GENERAL: *Accidental Spills and Leakage:* All oil spills and leakages must be immediately reported to the Mooring Master, who will inform the Harbour Authority forthwith. All deballasting/loading/discharging operations will be immediately suspended until the cause of the spill/leakage has been determined, and rectified to the satisfaction of the Mooring Master, and the Harbour Authority.

Galley and Other Refuse: Dumping of all refuse into Scapa Flow and approaches is prohibited. Refuse must be retained on board in sealed containers. (Vessels in port over a long period may make arrangements with their local Agent for collection).

Lighting: Sufficient lighting must be provided in the way of all overboard discharge points to facilitate detection of leaks or spillage. Adequate lighting must also be provided at the loading manifold.

Lifting of Stores; When tankships are at SPMs, loading or off-loading of stores, provisions, drums or any other goods or articles on, to or from the main tank deck is prohibited while cargo is being lifted.

Under certain circumstances and with the approval of the Company's Mooring Master, stores may be worked on the poop during the cargo lifting.

When tankships are moored at the pier, vessels and boats are prohibited from coming alongside during cargo lifting, unless all cargo operations are shut down, all tank openings are closed and secured, and permission from the Mooring Master has been obtained.

Working of stores over the pier will not normally be allowed.

During Loading/Deballasting Operations at SPMs: Mooring Masters will carry Company communication equipment. Ship's VHF must also be available to the Mooring Master at all times. Ship's whistle must be available throughout the time a Mooring Master is on board.

Emergency signals in the event of complete communication failure will be as follows:

By day: Continuous blasting of ship's whistle accompanied by the hoisting of 2 black balls in a position conspicuous to the Terminal Control Room.

By night: Continuous blasting of ship's whistle accompanied by continuous flashing on an Aldis type signal lamp aimed towards the Terminal Control Room.

In the event of such a communication failure all loading operations shall cease until an effective means of communications has been established.

AUTHORITY: Orkney Islands Council, Department of Harbours, Harbour Authority Building, Scapa, Orkney KW15 1SD. *Tel:* (01856) 873636. *Telex:* 75475. *FAX:* (01856) 873012. *Contact:* Captain R.C. Sclater, Director of Harbours. Captain R.S.Moore, Deputy Director.

Operator: Elf Enterprise Caledonia Ltd., Flotta Terminal, P.O.Box 14, Kirkwall, Orkney. *Tel:* (01856) 884000. *Telex:* 75212 Eecflo G. *Fax:* (01856) 884715. *VHF:* Channels 16 and 69. Call Sign "Flotta Terminal". *Contact:* Duty Marine Superintendent.

SCRABSTER: 58.37 N. 03.33 W. (See Plan)

LOCATION: Inside Holborn Head on Thurso Bay.

PILOTAGE: Not compulsory. Pilots can be contacted on Channel 16, working Channel 12.

ANCHORAGE: Excellent anchorage in bay, close to high land on North side. Good shelter.

APPROACHES:
Scrabster Harbour Ro/Ro ferry pier – LT.QK.FL.G4.M.
Inner harbour entrance East pier head – LT.2FG(vert).
West pier head – LT.2FR(vert).

MAX. SIZE: Ro/Ro Berth: LOA 90 m., draft 6.0 m.
Lay-By: LOA 80 m., draft 4.5 m.
LOA 120 m., draft 3.0 m.

The entrance to the tanker berth is 26.0 m. wide and to the inner harbour 15.0 m. wide.

VHF: Multi-Channel VHF set in Harbour Office. Calling Channel 16, working Channel 12 (24 hours).

TUGS: None.

BERTHING:

Berth	*Length* (m.)	*Depth at L.A.T.* (m.)
Deep Water – Ro/Ro	96.0	5.5
Lay-By	100.0	4.5
Tanker Berth	72.0	3.0
Old Fish Market	114.0	1.0
New Fish Market	123.0	4.5
New Landing/Lay-By	140.0	4.5

Ro/Ro Facility: Ramp: 100 tonne maximum on 8 axles, 4 m. wide roadway. No height restrictions, all states of tide.

CRANES: Mobile cranes up to 100 tons available.

SPECIALISED CARGO HANDLING FACILITIES: Mineral handling by single grab at rate of 500 tons per day direct into lorries. No storage available at present.

STEVEDORES: Cargo worked 24 hours.

TANKERS: Vessels up to 2,000 d.w.t. can use Tanker Terminal.

FRESH WATER: Available at Fuel Berth, Ice Quay and Lay-By berths.

FUEL: Available from Harbour Terminal, B.P. or Texaco by road tanker. No overtime charges for Harbour Terminal.

REPAIRS: Engine and hull repairs can be undertaken at 24 hours notice.

AIRPORT: Nearest at Wick, 32 km. away.

HOLIDAYS: Usual U.K. holidays.

GENERAL: *Charts:* B.A. Charts No. 2162 and 1462.

Ice Plant: 100 tonnes per day. Storage 300 tonnes tube ice.

Tidal Reference: H.W. Dover – 2 hours 30 minutes. Range 5.0 m. M.H.W.S. and 3.7 m. M.H.W.N.

Stores: Available.

Bonded Stores: Available at 48 hours' notice.

AUTHORITY: Scrabster Harbour Trust, Harbour Office, Scrabster, Caithness KW14 7UJ. *Tel:* (01847) 892779/894618. *Telex:* 75449 Thurso G. *FAX:* (01847) 892353. *Contact:* R. Sampson, C.B.E., Chief Executive. Captain P.J. Bale, Harbour Master.

AGENT: Scrabster Harbour Trust, Shipping Agents, see above.

SEAHAM: 54.50 N. 01.19 W. (See Plan)

PILOTAGE: Not compulsory. Pilotage Service available with VHF watch on Channel 16 over tidal period. Call sign: Seaham Harbour Pilots. Tel: (0191) 5813246.

ANCHORAGE: Good anchorage approximately 1 mile N.E. of North Pier Lighthouse. Shallow water and rocks to South of South Pier (Liddle Scars). Depth on bar at HWST 6.85 m.

RESTRICTIONS: The entrance to harbour is formed by North and South Piers and is 84.34 m. wide. South Dock gates are manned from 2.5 hours before HW to 1.5 hours after HW. Gateway to South Dock 19.81 m. wide.

No vessel can enter at LW and entrance should not be attempted during strong on-shore winds.

MAX. SIZE: *Largest Vessel:* 120 m. LOA, 16.5 m. beam and draft su to tidal rise.

VHF: VHF watch on Channel 16 over tidal period and during office h (0800 – 1800 hrs.) Monday – Friday. Working Channels 6 and 12

TUGS: 1 tug with 8 tons bollard pull available.

BERTHING: *South Dock:* 8 berths. 625 m. quayage with cranage u 100 tons capacity. Gravity spouts and conveyors for loading vesse to 6,000 tons. 60 ton weighbridges with 18.4 m. platforms avail Railway connections.

North Dock: Used by fishing boats only.

CRANES: Five crawler cranes with capacity up to 35 tons.

BULK CARGO FACILITIES: Chute, conveyor and cranage hand facilities available for loading/discharging bulk cargoes from/to transport.

SPECIALISED CARGO-HANDLING FACILITIES: *Container* *Ro–Ro Facilities:* Area available for handling containers. 42 ton conta handling forklift truck available.

STEVEDORES: *Working Hours:* Monday to Friday 0800 – 1200 1230 – 1700 hrs. Overtime to be ordered by 1300 hrs.

Saturday and Sunday: Work at overtime rates can be arranged 8 hour minimum period. Weekend overtime to be ordered by 1600 Friday. Shift working can be arranged with prior notice.

Public Holidays: Overtime possible except New Year's Day, Christ Day and Boxing Day.

MEDICAL: Hospital at Sunderland, distance 6 miles.

TANKERS: No facilities.

FRESH WATER: Available on quay.

FUEL: Available by barge or road tanker.

REPAIRS: Facilities available at Sunderland and the Tyne.

OPENING/CLOSING HATCHES: By crew.

AIRPORT: Newcastle Airport, 32 km. Teesside Airport, 40 km.

HOLIDAYS: Christmas Day, Boxing Day and New Year's Day.

POLICE/AMBULANCE/FIRE: Dial 999.

EMERGENCY CO-ORDINATION CENTRE:
Maritime Rescue and Search Centre. Tel: (0191) 2572691.

BANKS: Barclays, National Westminster, Lloyd's and Midland.

GENERAL: *Chart:* B.A. Chart No. 1627.

Weather: The prevailing winds are from the West.

Tides: Normal range in enclosed dock: 1.97 m. Spring range 4.4 Neap range 3.5 m.

Provisions: Available from local chandlers.

Storage: Transit shed of 1,394 sq.m. and warehouse spac 16,000 sq.m. Open storage of 10 acres also available.

GARBAGE DISPOSAL: Bins and skips are sited in port area for g and operational waste. No charge unless large quantities involved

WASTE OIL DISPOSAL: Road tanker collection service availab Port Authority. Charges are quoted case by case on request.

SEAMAN'S CLUBS: Seaham Seafarers Centre is adjacent to the entrance, facilities include telephone, television, book exchange, table and bar.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: The Seaham Harbour Dock Co., Seaham House, Terrace, Seaham, Co. Durham SR7 7EU. *Tel:* Administration 5813877; Harbour Office (0191) 5813246; Security (0191) 581 *FAX:* (0191) 5130700. *Contact:* M.J. Blades, Managing Dir G. Hicks, Operations Director/Harbour Master.

SHARPNESS and GLOUCESTER: 51.43 N. 02.29 (See P

The Port of Gloucester comprises the enclosed Docks at Sharpnes Gloucester connected by the 16 mile ship canal named "The Glou and Sharpness Canal" and all waters within.

Gloucester Harbour, the esturial waters of the River Severn, ext N.E. from the limits of the Ports of Newport and Bristol to Bigs the River Wye and the Weirs at Gloucester on the River S Gloucester Harbour Trustees act as the Navigation Authority respo for all pilotage and conservancy matters.

PORT LIMITS: Sharpness Dock sea lock sill.

DOCUMENTS:
1 Crew's Effects List.
2 Ship's Report by Master.
1 Home Office Form 1B.6.
3 Stores Lists.
1 Cargo Declaration – Non EEC Cargoes Form C1600A.
1 Grain Certificate.
1 Light Certificate.
1 Port Dues Certificate.
1 Passenger List.
1 Landing Card for each passenger.
Ship's Certificate of Registry.
Oil Pollution Certificate.

In addition Manifests and Bills of Lading are usually sent t direct from loading port.

PILOTAGE: Pilotage is compulsory. Masters of vessels bound Ports of Gloucester, Sharpness, Chepstow and Lydney requ services of a Pilot at the Barry Roads Station must give at least notice of their intended arrival at the Pilot Station. Failure to notice could lead to a vessel being delayed. Draft and Summ are also required. Masters who expect their passage time to than 24 hours should send advice from their sailing port wi tonnage, draft, speed and ETA. Masters of vessels bound for C should also state mast height above the appropriate water whether masts can be lowered. (Vertical clearance limited by 52 ft. (15.8 m) above MHWS)

Vessels are boarded at Barry Roads by the Bristol and Gloucester Pilot Cutter which is equipped with VHF Channels 16, 6, 8, 9, 11 and 14. Radio contact with the Cardiff Pilot Cutter should be made not later than 1 hour before arrival at Breaksea Buoy. In fog ships sound "9" (4 longs, 1 short). Pilot replies the same. Masters can send ETAs direct to the Duty Pilot. Tel: (0860) 232736.

Dock Pilots: Dock Pilots are available, not compulsory but advisable for berthing in Sharpness Dock, transit of the Sharpness Canal and in Gloucester Dock.

ANCHORAGES: Barry Roads afford good anchorage in moderate weather for vessels awaiting a Pilot.

RESTRICTIONS: The minimum clearance over the sill at Sharpness is dependant on the beam of the vessel as follows, though weather and tidal conditions may require such minimum clearance to be increased at the discretion of the Harbour Master:

Beam	*Clearance Required*
Less than 10.36 m.	0.61 m.
10.36 m. – 13.71 m.	0.76 m.
13.72 m. – 16.76 m.	0.91 m.

Note: Sharpness Dock sill dries out at LW.

MAX. SIZE: Maximum Length – no restriction. Maximum beam – 55 ft. (16.76 m.) Maximum draft – 21 ft. 6 in. (6.55 m.) fresh water.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Niton Radio, Lands End Radio, Ilfracombe Radio.

VHF: Sharpness Radio Channels 16, 17, 14 and 9. Range normally within pilotage waters only.

TUGS: *(River):* Larger vessels normally pick up tugs off Avonmouth if required by Pilot. *(Dock Tugs):* Not suitable for river work. 2 tugs available in Sharpness Dock and for use between Sharpness and Gloucester if required. All tugs take ships lines.

BERTHING: Max. draft 21 ft. 6 in. (6.55 m.) Fresh Water. Range of dock level 4 in. (0.1 m.)

Available Berths: 10 to 14 berths depending on ship length. This includes a scrap berth. Available length of Quay – 12,000 ft. (3,660 m.).

Cargo Equipment and Methods: Cranes 3×3 tons, 5×6 tons, all Portal and 1 Scotch Derrick of 32 tons. 3×6 tonnes Mobile Cranes, Grabs, Slings and Pallets, etc. Load/discharge by shore gear.

BULK CARGO FACILITIES: 1×10,000 ton grain silo, 2 cement silos, 1 scrap terminal, 300,000 sq.ft. covered storage space, 1 Ro/Ro berth. 1 fertiliser terminal. Wide range of equipment, including bagging – blending facilities. Ample open storage area.

The port can handle most general cargoes. Recent examples include:

Bulk: Fertilisers, minerals, animal feed, grain, coal, granite, cement, scrap.

Unitised: Timber and fertiliser.

BRIDGES: 16 swing bridges between Sharpness and Gloucester. Mast height restriction 32 m. (105 ft.)

STEVEDORES: British Waterways Board.

Normal Working Hours: Monday – Thursday 0745 hrs. – 1300 hrs., 1400 hrs. – 1700 hrs. Friday 0745 hrs. – 1300 hrs., 1400 hrs. – 1600 hrs. Overtime as requested.

MEDICAL: Absolutely necessary for Agent to have as much notice as possible if any medical attention is required. All facilities available.

DENSITY: 1000/1003.

FRESH WATER: Available by stand pipe, 20 t.p.h.

FUEL: Through Agents, 12 hours notice, most grades available.

FIRE PRECAUTIONS: According to local laws available on request.

CONSULS: See "Bristol".

REPAIRS: All types of deck and engine repairs are possible.

DRY DOCK: 360 ft. by 47 ft. by 14 ft. over blocks.

SURVEYORS: Most Societies are available.

GANGWAY/DECK WATCHMEN: Ship's personnel, but watchmen can be arranged if necessary.

HATCHES: Opened by ship's crew.

CUSTOMS ALLOWANCES: As for other U.K. ports.

REPATRIATION: All arrangements through Agents.

AIRPORT: London or Birmingham within 2 hours. Local taxi service available.

TIME: BST is GMT plus 1 hour. GMT in Winter months.

HOLIDAYS: Easter (varies). May Day. Spring Bank Holiday (last Monday in May). August Bank Holiday (varies, usually last Monday in August). Christmas Day (25th December), Boxing Day (26th December). Work can usually be arranged on these holidays although unusual to work 25th/26th December.

POLICE/AMBULANCE/FIRE: Telephone 999 ask for service required.

TELEPHONE: No ship to shore connection. Public telephone kiosks available.

SERVICES: Taxi. Laundry. Ship chandlery.

SHORE LEAVE: Possible.

IDENTIFICATION CARDS: Not necessary unless being repatriated.

GARBAGE DISPOSAL: Garbage skips provided on quays with frequent collections and no separate charges. Any special requirements arranged through agents.

WASTE OIL DISPOSAL: Collection by tanker trucks from working berths. Arranged and charged through ship's agents.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

REGULATIONS: British Waterways Board Byelaws 1962.

GENERAL: *Gloucester and Sharpness Canal and Gloucester Dock:* Maximum size of vessel: Length 205 ft. (62.5 m.), beam 31 ft. (9.45 m.), draft 11 ft. 6 in. (3.5 m.) fresh water. Vessels exceeding these dimensions may be considered subject to Harbour Master's approval.

AUTHORITY: British Waterways Board, Dock Office, Sharpness Docks, Gloucestershire GL13 9UX. *Tel:* (01453) 811644. *Telex:* 43375 BWB SDS G. *FAX:* (01453) 811990. *Contact:* M. Vale, General Manager. Captain G.A. Boyack, Harbour Master. Captain K. Badsey, Assistant Harbour Master. D. Simmons, Operations Development Manager.

SHOREHAM: 50.50 N. 00.15 W. (See Plan)

DOCUMENTS and all general information, refer to "London". Distance from London, 80 km.

PILOTAGE: Pilotage is compulsory for all vessels over 50 m. LOA. Send ETA 12 hours and 2 hours in advance, including max. draft. Pilot boards within 2 nautical miles of harbour entrance. Tel: Brighton (0273) 592366. VHF: Channels 16 and 14. Hours: Tidal hours.

ANCHORAGE: Off Harbour. Depths as per English Channel Charts.

RESTRICTIONS: No night restrictions. Locks manned 4 hours either side of HW. According to size and draft these times can be extended by prior arrangement.

Main entrance channel, 122 m. wide, leads into a 91.4 m. channel to the Eastern arm.

Dimensions of Prince Philip Lock: 113.9 m. length, 17.3 m. width.

MAX. SIZE: *Canal:* Length 105.9 m., beam 16.4 m., draft 6.7 m. (subject to tide). Vessels over 103 m. are subject to the Harbour Master's approval.

Western Arm: Length 82.3 m., beam 14.3 m., draft subject to tide and up to a maximum of 5.5 m.

East Arm: Max. LOA 120 m. Max. Draft 6.7 m., subject to tide and Harbour Master's approval.

HEALTH: See "Health – All Ports" before first UK port.

RADIO: Niton Radio/Northforeland Radio. ETA to Shoreham Harbour Master 24 hours prior to arrival.

VHF: When within VHF range advise Harbour Master (via "Shoreham Harbour Radio"), ETA, draft, beam, LOA and of any circumstances which may affect seaworthiness or handling capacity of the vessel.

Port Operation and Information Service manned continuously, contact by VHF calling Channel 16, working Channel 14. Station is situated on the locks. Tel: (01273) 592366.

TUGS: One tug (Bollard Pull 10 tonnes). Tug lines used for which no extra charge. Communications between vessel and tug take place on VHF Channel 11.

BERTHING: See "Restrictions".

A grain silo terminal with a storage capacity of 13,000 tonnes has been constructed within the canal.

STEVEDORES: Reasonable ETA is sufficient for gangs to be called.

MEDICAL: All facilities available.

TANKERS: Texaco in the Canal.

DENSITY: Approx. 1025.

FRESH WATER: Available at most berths.

FUEL: Available by road tanker.

CONSULS: Denmark.

REPAIRS: Minor repairs possible.

SURVEYORS: Available locally.

GANGWAY/DECK WATCHMEN: Recommended.

HATCHES: Opening and closing by crew.

REPATRIATION: Possible.

AIRPORT: Gatwick Airport.

POLICE/AMBULANCE/FIRE: Dial 999.

TELEPHONES: There are no arrangements for placing telephones aboard ship.

BANKS: Barclay's, National Westminster, Lloyd's and Midland Bank all have branches locally.

STORING: No restrictions. Stevedores not required to load stores.

SHORE LEAVE: Possible.

GARBAGE DISPOSAL: Individual berth operators provide skips alongside.

WASTE OIL DISPOSAL: Service available from local contractor by tank vehicles only. Contact Hales Waste Control Ltd. (Tel: Burgess Hill 243444).

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Shoreham Port Authority, Harbour Office, Albion Street, Southwick, Brighton BN4 4ED. *Tel:* (01273) 592613. *FAX:* (01273) 592492. *Contact:* Captain B. Fountain, Harbour Master. B. Tatterton, General Manager.

SILLOTH: 54.52 N. 03.24 W (See Plan)

PORT LIMITS: A vessel is considered to be an "arrived vessel" for the purposes of stemming when she arrives at the Pilot Station off Workington (see Admiralty Chart No. 1346). Laytime normally commences when the vessel berths in the New Dock, Silloth.

DOCUMENTS: Normal U.K. requirements.

PILOTAGE: Compulsory for all vessels of 50 m. in length and over, except for those qualifying for special exemption. Vessels should send their ETA to local Agents or to the Dock Master, Silloth, at least 12 hours before arrival. Pilot boat is stationed at Workington when vessels are expected and listens out on Channels 16, 14 or 12 VHF. Pilot boards vessels between 2.5 hours and 1.5 hours before HW, Silloth.

ANCHORAGES: Vessels may anchor at the Pilot Station in good weather, but are advised to seek shelter in Ramsey Bay, Isle of Man or Wigtown Bay in adverse weather conditions.

RESTRICTIONS: The port lies in a relatively sheltered position in the Solway Firth, and in consequence, access during adverse weather is mainly governed by the practicability of boarding and landing Pilots off Workington.

MAX. SIZE: *Neap Tides:* Length 85 m., beam 13 m., draft 4 m.

Spring Tides: Length 85 m., beam 13 m., draft 6 m.

Vessels over 85 m. LOA may be accepted, depending on ship and weather conditions.

Typically, the port is used by vessels of between 500 tonnes and 3,000 tonnes deadweight.

VHF: A "Port Operation" and Information Services operates on Channels 16 and 12 from 2.5 hours before HW, Silloth, call sign, "Silloth Harbour Radio".

TUGS: There are no tugs available at the port.

BERTHING: The port comprises two docks:

The outer, Marshall Dock is tidal and contains no berths.

The inner, New Dock is enclosed by dock gates which are opened from 1 hour before to 1 hour after HW. Minimum depths in the New Dock are maintained at 5.0 m. on Neaps and 7.0 m. on Springs. The specific gravity of the water in the dock is normally about 1.022.

Cargo Berths: The New Dock contains 7 berths:

Berth No. 1: A "single user" bulk grain import berth operated by Carr's Flour Mills Ltd. Suction elevators, 60 tonnes p.h.

Berth No. 2: A general cargo berth with limited quay space.

Berth No. 3: A specialised bulk molasses import terminal operated by Carr's Flour Mills Ltd. and general cargo berth.

Berth No. 4 'A': A "common user" import terminal for bulk agricultural materials (mainly animal feeds) operated by D. A. Harrison & Co. Suction elevators and grabs; 100 tonnes p.h., automated handling and storage.

Berth No. 4 'B': A specialised import/export bulk cement terminal operated by D. A. Harrison & Co. 100 tonnes p.h., automated handling and storage of cement powders.

Berth No. 5: Main general cargo berth. Mobile cranes and elevator, heated-covered storage.

Berth No. 6: Specialised livestock import terminal under the control and supervision of M.A.F.F. officials. Lairaging facilities for 800 cattle. The berth can also be used for general cargo.

Berth No. 7: General cargo berth for small vessels of up to 50 m. in length.

BULK CARGO FACILITIES: See "Berthing".

CRANES: 3×30 tonne mobile cranes are permanently available in the port. Larger or additional cranes can be conveniently hired in. Ship's gear is never used.

STEVEDORES: D.A. Harrison & Co., Anvil House, West Newton, Aspatria, Cumbria. Tel: (016973) 20529. Telex: 64493. Working hours in the port are unlimited 24 hours per day, 365 days per year.

Storage: Stevedores D.A. Harrison & Co. also operate a large covered storage facility adjacent to the Port with a capacity of more than 40,000 tonnes, and can provide inland road transport to and from this facility to all parts of the United Kingdom using own vehicles.

FRESH WATER: Available at all berths.

FUEL: Fuel oil can be loaded from road tanker.

REPAIRS: Any type of repair which does not require dry dock facilities can be carried out by local contractors.

DRY DOCKS: None.

HATCHES: Always handled by ship's crews.

AIRPORT: Nearest airports are Carlisle, 39 km., Newcastle 140 km., Prestwick 225 km. and Manchester 260 km.

POLICE/FIRE/AMBULANCE: Police: Tel. 999 or (016973) 31313; Fire: Tel. 999; Ambulance: Tel. 999. Local doctor's surgery (016973) 31309. The nearest public telephone is at the entrance to the docks.

BANKS: The Midland Bank, Station Road, Silloth. The National Westminster Bank, Eden Street, Silloth.

GARBAGE DISPOSAL: Skips are provided alongside and can be ordered through the agent or port authority. Skips delivered and collected during normal office hours, or outside by arrangement.

WASTE OIL DISPOSAL: Up to 10 tonnes can be collected by road tanker. Contact D.A.Harrison. (Tel: (016973) 44000).

SEAMAN'S CLUBS: No Seaman's club. A small town is within 5 minutes walk, and can provide most requirements.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Associated British Ports, Dock Office, Silloth Docks, Cumbria CA5 4JQ. *Tel:* (016973) 31358. *FAX:* (016973) 31358.

Contact: Captain C. Puxley, Dock and Marine Superintendent.

SOUTHAMPTON (Including Fawley): 50.54 N. 01.24 W. (See Plan)

DOCUMENTS:

1 Maritime Declaration of Health.
1 Crew's Effects List.
2 Ship's Reports by Master.
1 Home Office Form 1B6.
1 Stores List.
1 Certificate of Deck Cargo Tonnage.
1 Grain Certificate.
1 Light Certificate.
1 Port Dues Certificate.
1 Passenger List.
1 Landing Card for each Passenger.
Ship's Certificate of Registry.
Mercantile Marine Office Certificate – for British ships only.
Load Line Certificate.
Safety Equipment and Safety Construction Certificates.
Lloyd's Certificate.
Derat Certificate.
Ship's Register.
Light Bills.
Safety Radio Certificate.

In addition, Manifests and Bills of Lading are usually sent to Agent direct from loading port.

APPROACHES:

(a) Prolonged high barometric pressure or strong N.E./N.W. winds reduce predicted tide levels by 0.45 m. – 0.6 m.

(b) Deep drafted vessels enter via the Nab dredged channel. The currents set at almost 90° to this channel, at certain stages o tide, and, as it is marked by buoys on one side only, care mus taken to keep within the confines of the channel. At its Nor end the channel swings about 45° to the West, but it is not ma on either side.

CAUTION: Dangerous wreck exists in position Lat. 50° 43.1 Long. 00° 59.46' W., marked by N, S, E and W Cardinal M (Portsmouth local Notice to Mariners No. 23/91 refers).

(c) When passing Portsmouth, ships should be prepared to encou crossing traffic to and from that port.

(d) The most difficult part of the navigation between Nab and Fa is that between Prince Consort Buoy, Cowes Roads, Black J Buoy and Calshot, particularly for VLCCs on maximum draft w have to take a wide sweep down to East Gurnard Buoy, be making a 145° starboard turn into Western approach channel w narrows to 305 m. Tidal currents in this area are somew uncertain but can reach up to 3.5 knots on a Spring ebb tide 2.5 knots on a Spring flood tide. In Summer many yachts and o small pleasure craft are encountered. The closest contact sh be maintained with Southampton VTS.

(e) VLCCs are not to enter the Thorn Channel on a flood tide w the wind is between West and S.W. and in excess of 30 knots. Pilot will board VLCCs with the latest weather report and will ad Masters accordingly.

(f) It is also important, before the VLCC and container vessel en Thorn Channel, that Southampton VTS is contacted to confirm no ship which, by virtue of its size or draft, could interfere with safe navigation and manoeuvring of the VLCC, will be allowe enter the main channel between Cadland and Prince Consort Bu after the VLCC has entered this channel.

PILOTAGE: Pilotage in the Port of Southampton Competent Har Authority area (See "Plan") is compulsory, except for Pilotage Exem Certificate holders, naval vessels and other small exemptions.

In addition to 48 hours notice to local Agent, advise Southampton Centre as appropriate, ETA 48 hours, and again 2 hours to 3 h immediately prior to arrival. The pilot boarding areas are serviced by launches (black hulls, orange wheelhouses) under the control of the Officer at the VTS Centre, Associated British Ports, Berth 37, Eas Docks, Southampton. The VTS Officer keeps a continuous watc VHF Channel 16, call sign "Nab", "Sturbridge" or "Lepe Pilot appropriate. Working frequency Channel 9 only. No medium frequ facility, M/F and R/T messages via Niton Radio. VTS Centre Telep No. (01703) 632345/6. Telex No. (0703) 477161. Fax: (01703) 23

The launches only put to sea when required. Failure to sen accurate ETA 2 hours to 3 hours before arrival could cause delay t offending vessel.

Strict compliance with the requirements of the Merchant Shipping Ladders) Safety Rules is requested by the Pilots who may refus board vessels with unsatisfactory and dangerous ladders. Manrope required. Ladders should reach to approximately 1.0 m. from the w each rung resting firmly against the ship's side; and a good lee pro whilst making approximately 5 knots to 7 knots headway.

Eastern Outer Limit: All vessels over 150 m. (492 ft.) LOA, and all ves carrying LPG/LNG in bulk (i.e. in tanks which form part of the perma structure of the vessel), pilot boarding point is at the Nab Tower. Ve exceeding 70,000 d.w.t. may board Pilots 3 miles South of Nab T by arrangement.

(Note: Vessels having carried cargo referred to above, and which not been rendered gas free or the cargo spaces completely inerte be subject to the same conditions as specified above).

Eastern Inner Limit: All other vessels for which compulsory pil applies not specified above, the pilot boarding point is in the vici the North Sturbridge Buoy area. Voluntary Pilotage is also availabl the Nab Tower.

Vessels 61 m. – 150 m. LOA when carrying a bulk cargo of dang or polluting goods will embark/disembark Pilot to the East of W Buoy (See "Notices" – "Notice No. 12/1996").

Western Limit: All vessels for which compulsory pilotage applie pilot boarding area is in the vicinity of the West Lepe Buoy in the Solent.

Voluntary/Optional Pilotage: West Solent including the Needles Ch A facility is available by prior arrangement to engage a Pilot voluntary/optional basis from the Needles Fairway Buoy to the W Compulsory Pilotage Limit of the Port of Southampton CHA p area.

Voluntary/Optional Pilotage: East Solent from Nab Tower to the E Inner Limit and vice-versa. A facility is available, by prior arrang to engage a Pilot on a voluntary/optional basis for those vessels 150 m. (492 ft.) LOA to/from the Inner Compulsory Pilotage Limit Solent.

GENERAL NAVIGATION: A VTS Officer, responsible to the Master Southampton, maintains a continuous watch in the VTS (Berth 37), call sign "Southampton VTS". He is to be informed any movement to, from or within the port area, and will give info on the movement of other vessels.

Harbour radar information and guidance will be given on requ radar reference line shown on the Admiralty Charts is superimp the Harbour Radar displays. Particular attention should be Masters to the designated "Reporting Points" marked on the A Charts. Reports should be made on VHF to "Southampton enable the proper identification and co-ordination of the ship mo to be made to the benefit of all mariners navigating within the area. This applies equally to naval and non-compulsory vesse

The following VHF Channels are operated within the port:
Southampton VTS: Channels 16, 14, 12, 9, 18 and 20.
Harbour Patrol Launch (call sign S.P.): Channels 16, 14, 12.

Southampton Pilot Launches (call sign Nab/Sturbridge/Lepe Pilot as appropriate): Channels 16, 14, 12, 9 and 6.

Tugs when berthing vessels: Channels 71 or 74.

Esso Petroleum Terminal, Fawley: Channels 16, 14 and 19.

BP Oil UK Ltd, Hamble: Channels 16, 19, 46 and 71.

A patrol launch (Harbour Master flag by day, all-round blue light by night) is controlled by the VTS Officer Southampton for pollution detection and keeping channels clear of pleasure craft for the passage of large vessels.

Vessels (a) drawing more than 10.5 m., (b) more than 288 m. in length, and (c) or more than 100,000 d.w.t., exhibit a large black cylinder by day and 3 vertical red lights by night. Vessels showing these signals, and LPG vessels, are not to be passed or overtaken within channel limits between the "West/East Bramble" and "Hook" Light Buoys; these vessels are considered to be constrained by their draft and restricted in their ability to manoeuvre, and may not be able to comply with the Collision Regulations. Will indicate inability by 5 short blasts on the whistle. "Clear Channel" control is exercised by the VTS Officer at the VTS Centre, Associated British Ports, Berth 37, Eastern Docks, Southampton. Also see "Notices".

ANCHORAGES: The Thorn Channel has a limited depth of 12.6 m. at low water datum. Up to 7 vessels, other than LPG vessels (only 3 LPG) of under 91.4 m. in length, are permitted with prior permission to anchor out of the channel to the East of the "Hook" Buoy in the designated Small Ships Anchorage, the limits of which must be strictly observed. Three numbered anchorages are available in an emergency for vessels not exceeding 168 m. in length in Fawley Reach, where vessels must moor to two anchors. Permission to anchor, including within the Small Ships Anchorage and numbered anchorages, must be obtained from the VTS Officer, Southampton VTS Centre.

Also see "Notices".

MAX. SIZE: The largest passenger and container vessels call regularly at Southampton. Tankers: Fawley can accept partly loaded VLCCs up to 14.9 m. draft.

Also see "Developments".

HEALTH: See "Health – All Ports" before first UK Port.

TUGS: 2 firefighting/anti-pollutant tugs are permanently stationed at Fawley. During loading operations at Hamble, an anti-pollutant and a firefighting tug are standing by. If more than 2 tugs are required, it should be noted that weekend requirements have to be advised to the tug operators not later than 1530 hrs. on Friday of each week. If a vessel requires more than 2 tugs and is due to arrive at Fawley between 0001 hrs. Saturday and 0900 hrs. Monday, ETAs must be submitted well in advance of 1530 hrs. on the Friday prior to arrival. It is usual to use the wires provided by the tugs for towing.

All VLCC's bound for Fawley are required to take the services of an escort tug from South of the Nab Tower to the berth.

BERTHING: The Pilot boarding the ship at the Sea Station or anchorage will also berth the ship. Non-compulsory vessels can obtain or disembark a Pilot in the vicinity of the "N.W. Netley" or "Hook" Buoys by contacting "Southampton Pilot" on VHF.

Dock or Quay	*Berths Nos.*	*Nominal Dredged Depth * below Chart Datum†*		*Length of Quays*	
		(m.)	(ft.)	(m.)	(ft.)
Container Berths	204 – 205	12.8	42	620	2034
	206 – 207	13.6	44.6	730	2394
Cable ship Berth	203	9.1	30	274	900
Car Import/Export Terminal	202	12.2	40	274	900
	201	10.2	33.5	280	919
Western Docks	101 – 104	10.2	33.5	1118	3668
	105 – 106	11.7	38.5	525	1722
	107 – 109	11.7	33.5	620	2034
	Cross-Berth	11.7	38.5	60	197
Ocean Dock (Entrance 121.9 m., 400 ft. wide)	42	10.2	33.5	36	118
	43 – 44	11.7	38.5	450	1476
	45	10.2	33.5	189	620
	46	10.2	33.5	255	836
	47	11.7	38.5	230	755
Test Quays	51	—	—	205	673
	50	4.1	13.5	110	360
	48 – 49	7.1	23.3	226	743
	41	8.7	28.5	172	565
	40	9.3	30.5	192	630
	38 – 39	10.5	34.5	316	1038
Dock Head	37	7.8	25.5	143	470
Empress Dock (entrance 48.5 m., 159 ft. wide)	20 – 21	7.5	24.5	258	848
	22 – 23	6.8	22.3	234	770
	24 – 27	7.2	23.5	502	1647
tchen Quays	29	5.6	18.5	106	350
	31 – 33	9.1	29.8	263	879
	34 – 35	9.1	29.8	284	932
	36	9.9	32.5	200	656

Other berths are available. Lesser draft berths not shown. The depths of water are maintained as far as practicable, but are subject to variation and are not guaranteed.

* To find the depth of water in the berths add the tidal rise to the depths shown in the above table.

† Chart datum is approximately the lowest low water level.

BULK HANDLING FACILITIES: Grain handling at Berths No. 36, 47 and 102.

Berth 36: Southampton Grain Silo: 8×1,600 tonnes capacity cells and 4 cells with total capacity 15,000 tonnes.

Receiving rate by truck 500 t.p.h. 1×1,000 t.p.h. shiploader available with travel of 135 m. (443 ft.).

Berth 47: Continental Grain: 16×1,000 tonnes silos. 1×1,000 t.p.h. shiploader with travel of 220 m. (720 ft.).

Western Docks: 1×32,500 tonne grain silo.

Berth No. 107: Fertiliser and animal feeds.

Berth No. 108: Cement.

Ro/Ro facilities at Berths No. 105 and 201 – 202 (Linkspan).

Eastern Docks: Ro/Ro facilities at Berths No. 25 and 30 (Linkspan).

CRANES:

Type	*No.*	*Capacity in tonnes*
Container cranes	9	Up to 65
Quayside cranes	26	Up to 35
Floating crane	1	200
Mobile crane	1	10

MEDICAL: Doctors and hospital facilities available. Agent should be advised in advance of any medical attention required.

An organisation exists for hospitalisation of sick seamen from vessels off Cowes, Isle of Wight. Arrange through Niton Radio, Nab, Lepe or Southampton Pilot or through vessel's Agent. Minimum delay to vessel.

TANKERS:

Esso Marine Terminal, Fawley:

For further details of information contained herein, refer to Fawley Marine Inspection Group and/or the Fawley Marine Terminal Manoeuvring Guidelines.

All ships normally berth stemming the tide. If the Master/Pilot considers conditions warrant an alteration to this plan, discuss with Esso Headquarters when passing Hook Buoy.

For VLCCs there is a turning width of about 1.5 ship's lengths off Berth No. 5 which is the Pilots' preferred swinging position. Because of these tight turning conditions it is VERY IMPORTANT that:

(a) The ship is in the correct position in relation to the channel before commencing to swing. For this the Pilot uses the 326° – 327° leading lights shown on the chart.

(b) THE SHIP MUST BE STOPPED OVER THE GROUND BEFORE COMMENCING TO SWING. For several reasons the Pilots prefer to swing to port, i.e. to the West and towards the jetty and a serious accident has occurred because a VLCC was not stopped over the ground whilst swinging and collided with the jetty,.

In order to protect both ship and jetty, equipment to positively indicate to the ship that it is stopped over the ground is being provided on the jetty.

Procedures: On closing the berth, either after swinging or when berthing port side to, advice as to the bodily speed of approach will be provided for all VLCCs using Berth No. 5 over UHV pocketfone, one of which is also issued to the Pilot acting as communications officer. The MAXIMUM IMPACT VELOCITY SHOULD NOT EXCEED 0.21 knots (21 ft./minute) normal to the jetty faceline.

The doppler speed of approach equipment can also be used to provide accurate speed along the channel axis information up to a point when ship is about 500 m. South of Berth No. 5.

Prior to arrival off the berth, mooring lines should be lowered to 3 m. above the water and the winches of the first ropes on the mooring plan provided by the Pilot to be in gear ready to pay out the moorings to the rope running launches. Prevailing winds are off berth and the emphasis is on the use of springs and breast lines. The number used will depend on the size of the ship, condition of mooring lines and positions of fairleads, but generally minimum requirements are 2 spring lines and 3 breast and 2 level/stem lines each end, or according to the pre-determined mooring plans forwarded direct to the Pilots. Additional head and stern lines may be required. Mooring plans are taken on board VLCC's by the Pilot. These must be closely followed.

Backsprings are always first lines ashore.

Tugs on hooks usually let go and push up on offside during the mooring operation.

Approach: Terminal is approached by either the Nab or the Needles. The Nab with a dredged channel of 43 ft. (13.3 m.) below Chart Datum admits the larger vessel. Double HW with an average tidal range of 13.25 ft. (Springs) and 7.75 ft. (Neaps). Rate of Spring tide 2 knots, Neap tide 1 knot.

Anchoring in the Small Ships Anchorage adjacent to the terminal requires permission from Southampton VTS. Approval will only be given to vessels of 300 ft. or under. Usual practice is not to moor with both anchors. This applies to Controlled Anchorage only. Depth of 41 ft. LW is available. Anchorages in the Solent and Cowes Roads are more generally used. Good holding ground with depth of 50 ft. LW.

Accommodation: Terminal has 2 approach trestles, 1,900 ft. long leading seaward to the main pierhead trestle with its 9 berths. This trestle is 4,575 ft. long and lies parallel with the channel. 5 main ocean berths are on the seaward side and the 4 coastal berths on the landward side. Dimensions of the berths are as follows:

Berth	*Length of 'T' Head*	*Distance between centres*
No. 1	222 ft.	800 ft.
No. 2	222 ft.	800 ft.
No. 3	222 ft.	800 ft.
No. 4	222 ft.	800 ft.
No. 5	300 ft.	1,000 ft.
No. 6	80 ft.	395 ft.
No. 7	80 ft.	400 ft.
No. 8	80 ft.	400 ft.
No. 9	100 ft.	440 ft.

Equipment: Suitable cargo hose handling equipment is positioned at each of the 9 berths. To facilitate the handling of mooring lines, air powered hoists are available at each of the berths. Mooring boats are in attendance for running lines. VLCCs are required to meet minimum standards with regard to their mooring equipment. All water ballast containing oil or likely to contain oil must be pumped ashore. 2×67,000 barrel ballast tanks are provided on shore. With the approval of the Terminal Manager minor repairs can be undertaken whilst discharging/loading at the Terminal. Major repairs can be undertaken at anchor or at Southampton Docks. Working is continuous throughout. Facilities installed at the berths and available for use by tankers include fresh water, bunkers, steam, compressed air, nitrogen. Ship's stores of all kinds are available in any quantity at Southampton. All deliveries of stores must be made by water transport. For quarantine purposes vessels are either boarded prior to berthing or immediately after berthing. Two firefighting tugs of at least 2,530 h.p. are permanently stationed at the Marine Terminal. Additional tugs can be provided on notice from

Southampton.* All tugs are equipped with Radio Telephone and operate on Channels 8 or 10 of the Port Operations Service. Provision of shore steam is made in exceptional circumstances.

*A stand-by charge is levied on all vessels. Subject to availability, an escort tug, for which a charge will be levied, will be deployed to escort all vessels 60,000 d.w.t. and above on the inward and outward passage. The tug will be attached to the stern of the vessel.

Pilotage: Compulsory. Inward-bound vessels embark Pilots at the Nab or Lepe entrances. Tankers up to 250,000 d.w.t. berthed at any time during the day or night subject to tidal conditions.

Berthing:

1. Cautionary Advice:

Prevailing strongest winds are off berth and a considerable number of large container ships, passenger ships and ferries pass the terminal at close quarters. Drift-offs and excessive surging have been experienced at Fawley berths and have caused damage. It is therefore very important that ships, particularly deep draft or high freeboard ships, pay particular attention to moorings.

2. Mooring Requirements and Procedures:

In the case of VLCCs, minimum mooring requirements are laid down. These preclude mixed moorings except under special circumstances agreed prior to acceptance of the ship.

Moorings reeled on winches must be held by brakes hardened up to full torque. Self-tensioning devices are not allowed. The moorings must be reeled in such a direction as to assist the brake, not oppose it. Where split drum winches are used, a minimum of one layer should be on the working drum when the mooring reaches the shore bollards or mooring hooks. Brakes must be in good condition and certificate of brake holding power should be available.

VLCCs should strictly adhere to requested order of running. This is done by motor launches.

There are limits applicable to freeboard both from a windage point of view and also because of the upper reach limit of the hard arms. These together with maximum operable wind speed will be discussed with Masters of VLCCs by a terminal supervisor shortly after the ship berths.

Special attention must be paid to ballasting of permanent ballast spaces and use of over-deck systems into emptied cargo tanks during cargo discharge and, if necessary, and with the agreement of terminal supervision, into emptied cargo tanks using the cargo system, in order to keep the freeboard within reasonable limits.

The ship must be held firmly against the fenders at all times. It is unnecessary and dangerous to slack away lines, even if they appear taut, if the ship is not against fenders.

Rules for Berth Planning: The following limitations are now in force when planning berth movements.

1. Berth size restrictions:
   Berth No. 1: Max. size of vessel 51,000 tonnes displacement.
   Berth No. 2: Max. size of vessel 83,000 tonnes displacement.
   Berth No. 3: Max. size of vessel 66,000 tonnes displacement.
   Berth No. 4: Max. size of vessel 179,000 tonnes displacement.
   Berth No. 5: Max. size of vessel 244,000 tonnes displacement.
   Berth No. 6: Max. size of vessel 4,900 tonnes displacement.
   Berth No. 7: Max. size of vessel 3,600 tonnes displacement.
   Berth No. 8: Max. size of vessel 3,600 tonnes displacement.
   Berth No. 9: Max. size of vessel 8,200 tonnes displacement.
2. Vessels on Berth 6 must not exceed 330 ft. (100.5 m.) in length.
3. Distance between vessels secured on any berths must be 100 ft. (30.48 m.) or more. (This is required under local by-laws for fire regulations.)
4. Distance allowed for berthing vessels must not be less than vessel's length + 40% length. (Agreement with Pilots).
5. Maximum draft of vessels:
   Berth No. 1 33 ft. 03 in. (10.2 m.)
   Berth No. 2 41 ft. 00 in. (12.6 m.)
   Berth No. 3 41 ft. 00 in. (12.6 m.)
   Berth No. 4 49 ft. 00 in. (14.9 m.)
   Berth No. 5 49 ft. 00 in. (14.9 m.)
   Berth No. 6 18 ft. 06 in. (5.6 m.)
   Berth No. 7 18 ft. 06 in. (5.6 m.)
   Berth No. 8 18 ft. 06 in. (5.6 m.)
   Berth No. 9 21 ft. 08 in. (6.6 m.)

   These drafts are subject to change and are therefore updated as required. Deep draft vessels must refer to Fawley Draft Memo, to ensure arrival draft will not interfere with berthing prospects.
6. Tide charts are to be prepared for Nab and Thorn Channels for vessels over 40 ft. (12.19 m.) draft.
7. Check product can be loaded on nominated berth.
8. Check product or ullage availability before berthing vessel.
9. Any maintenance must be sanctioned by the direct permission of the Marine Terminal.
10. No vessels to berth on Ocean Berths with mean wind speed above 30 knots from N.W. through to S.W. to S.E. through N.E.
11. On coaster berths with 25 to 30 knot wind from N.W. through S.W. to S.E., then after consultation with Pilot/Master and Marine Superintendent/Deputy, vessels may berth/sail, providing a suitable tug is used.
12. Ensure liaison maintained with VTS regarding sailings coinciding with movement of high speed vessels (catamarans and hydrofoils).

Fawley Coastal Berth Manoeuvring Requirements: Fawley Coastal Berths comprise Berths 6, 7, 8 and 9 and are situated on the inside (Western Side) of the Marine Terminal complex.

Before any manoeuvring is undertaken on these Berths the following requirements are to be followed:

1. Marine Controllers are to be informed of vessel manoeuvring plan.
2. Vessels without bow thruster capability should berth stemming the tide.
3. All vessels over 61 m. (200 ft.) LOA must have the assistance of the Esso mooring boat when:
   (a) berthing.
   (b) sailing if berthed starboard side to, if wind on berth is over 15 knots.
4. Vessels over 85 m. (279 ft.) in length will not normally swing of a line between Fawley Buoy and the S.E. of Fawley Jetty. Excep may be made only *after* consultation between Terminal and the P Master of the vessel. Due account must be made of wind, tide, we and time. Only then will vessels be permitted to swing West of tha referred to above.
5. Vessels over 85 m. (279 ft.) LOA without bow thruster capab must have in attendance when berthing port side to or sailing after starboard side to:
   (a) Esso mooring boat, *and one tug.*

   Such vessels when berthing starboard side to or sailing after port side to must have in attendance:
   (a) Esso mooring boat.

   They may also be required to have a tug if prevailing cond require it.
6. Vessels of 91.5 m. (300 ft.) LOA or more when berthing at No 7 or 8 to have at least one adjacent berth vacant during the ber movement.
7. No vessel to berth when wind is from South to West with wind speed above 25 knots, i.e. within S.W. quadrant.
8. The Esso mooring boat will be made available on request to a with any vessel not covered in these instructions. Its communic Channel is 71 (74 in an emergency). These boats must not be use towing.

Grade/Rates:

MAIN BERTHS:

Grade	*Line*	*Berths*
Plus Gasoline	321	1, 2, 3, 4
Unleaded 98	322	1, 2, 3, 4
Naphtha	4939	1, 2, 3, 4
Naphtha	328	1, 2, 3, 4
Unleaded 95	121	1, 2, 3, 4
Vaporising Oil	4921/337	1, 2, 4
ATF. 2494	324	1, 2, 3, 4
Diesel Fuel Oil	323	1, 2
Diesel Fuel Oil	323	3, 4
Gas Oil	325	1, 2
Gas Oil	325	3, 4
Gas Oil	1053	1, 2
C.E. Fuel Oil	332	1, 2, 3, 4
F.O. Heavy	332	1, 2, 3, 4
F.O. Heavy	336	1, 2, 3, 4, 5
F.O.	331	1, 2, 3, 4
F.O.M.	376	1, 2, 3, 4, 5
Butane (Pressure)		1, 2
Propane (Pressure)		1, 2
Butane (Refrig.)		1, 2
Propane (Refrig.)		1, 2
M.E.K.		4
Toluene		4
Lubes	1, 2, 3, 4	2, 3
Spent Caustic		4
COASTER BERTHS:		
Plus Gasoline	321	6, 7, 8
Unleaded 98	322	6, 7, 8
Unleaded 95	121	6, 7, 8
Naphtha	4939	6, 7, 8
Vaporising Oil	4921	6, 7, 8
Diesel Fuel Oil	323	6, 7, 8, 9
Gas Oil	325	6, 7, 8, 9
Bitumen	12/13	6
F.O. Heavy	332	6, 7
F.O. Heavy	336	6, 7, 8, 9
F.O.	331	6, 7, 8, 9
F.O. Medium	376	6, 7, 9
Benzene	1032	7, 9
Toluene	1031	7, 9
M.E.K.		7, 9
Heptene/Nonene/Octene/Decene	7001	4, 7, 8
A.T.F. 2494	324	7, 8
Chem. LPG (Rich C_4)		8
(Spent C)		8
(Butadiene)		
(Isoprene)		
(Isobutylene)		
Ethylene		9

B.P. Terminal, Hamble. Situated immediately opposite Fawley Lat. 50° 50' 54" N., Long. 01° 19' 32" W.

Ship's personnel must be transported by bus through the Ter the Main Gate. Hamble Village is close by, where public tran Southampton is frequent.

VHF: Marine band VHF radio operating on Channels 12, 14, 16 is available. A listening watch is kept on Channel 12 one hour vessel is due on the berth.

Limits:

D.W.T.: 110,000 tonnes.
Displacement: 64,000 tonnes.
LOA: 260 m.
Draft: 13.10 m.
Depth – approaches: 11.25 m. U.K.C. – 1.00 m.
– alongside: 13.60 m. U.K.C. – 0.50 m.
Loading Arms: Crude oil 5.1 m. to 21.94 m. Operating Env

Fresh Water: Available alongside via a meter.

Fuel: Bunkers are not available at the berth.

Type/Moorings: Alongside.

Berth: Coasters acceptable as they lie between dolphins and fendered jetty head. Minimum height of manifold above

2.74 m., therefore it may be necessary to disconnect over low water period and incur subsequent delay.

Product tankers must comply with "closed loading" requirements.

Length: Minimum parallel mid-body length for crude oil tankers is 47.5 m. forward and aft of manifold centreline; no restriction for product carriers.

Draft: Max. draft 13.10 m., at all states of the tide.

Cargo Grades: 2×16 in. crude loading arms. Vessel must present 16 in. 150 ASA flanges. Height above waterline max. 21.94 m., min. 5.1 m. Manifolds must conform to OCIMF standards. Loading rate 6,000 tonnes/hr.

3×10 in. 150 ASA product loading arms. Vessels must arrive with appropriate reducing pieces fitted. Vessels unable to comply may be acceptable subject to prior check with terminal. Height above waterline max. 15.88 m., min. 2.74 m. Products are loaded at 250 tonnes/hr. and discharging vessels must not exceed 10 bar line pressure.

Dirty Ballast: Clean ballast from segregated ballast system may be discharged overboard, subject to Port and Terminal approval and hydrocarbon contamination not to exceed 5 ppm. No shore reception facilities for ballast or contents of slop tank.

General: Berth operated by B.P. Oil U.K.

Products are imported from various size vessels, and on occasions exported. Crude oil is exported (from Wytch Farm), cargo sizes have ranged from 43,000 tonnes to 81,000 tonnes.

Also see "Notices".

For further information contact B.P. Oil U.K., Hamble. Tel: (01703) 456654.

CONSULS:

Country	*Status*	*Address/Telephone No.*
Belgium	Consul	c/o P & O Container – Europe, Richmond House, Terminus Terrace, Southampton, SO14 3PL Tel: (01703) 533200 Telex: 47384
Denmark	Vice-Consul	c/o Ackerleys, Canute Chambers, Canute Road, SO14 3ND Tel: (01703) 635311
Finland	Vice-Consul	c/o Sandell Bros. Ltd., Ryde Terrace, SO14 5AM Tel: (01703) 630966
Germany	Consul	c/o Wainwright Bros. Bowling Green House, 1 Orchard Place, SO14 3PX Tel: (01703) 223671
Greece	Vice-Consul	Anthony G. Miller, 41 Arches Road, SO14 2AF Tel: (01730) 225585
Netherlands	Consul	Jonathan T. Bennett, 204-260 Berths, Prince Charles Container Port, SO15 1DA Tel: (01703) 703703
Norway	Consul	Alan Haswell (Dean), Ryde Terrace, SO14 5AH Tel: (01703) 630966
Philippines	Consul	Francisco del Rosario, The Anchor Suite, Royal Mail House, Terminus Terrace, SO14 5FD Tel: (01703) 220129
Sweden	Consul	Richard J. Hardie, Northam Iron Works Princes Street Northam SO14 5RP Tel: (01703) 234567

BUNKERS AND WATER: All grades of fuel oil and diesel oil are available and water is piped on all berths. Bunkers and stores can also be obtained by barge in Cowes Roads anchorage, but water is not readily obtainable there.

REPAIRS/DRY DOCKS: All ship repairs can be effected. Largest dry-dock is 1,141 ft. long overall, 132.5 ft. wide and has 34 ft. over the blocks.

SURVEYORS: Lloyd's Register. Tel: 220353.
Salvage Association, Tel: 227983.
Topmarine, Tel: 220585.
Murray Fenton & Associates, Tel: 229787.
International Shipping Trustees (UK) Ltd. Tel: 37596.

OIL POLLUTION: Southampton Water is an international yachting centre and has many holiday beaches on its shores. Consequently, oil pollution is treated very severely and heavy fines are imposed on offenders.

The Esso Refinery, the B.P. Oil Terminals, Williams Shipping and the Oil Spill Service Centre operate a clean-up service, the full economic cost of which is billed to the offending ship.

CUSTOMS ALLOWANCES: By statute, crews of vessels in port are allowed 25 cigarettes per day per man. 0.3 litres (0.5 pint) of spirits and 1 bottle of table wine per day per man.

AIRPORT: Eastleigh Airport. Air U.K. – flights to Guernsey and Jersey. KLM – flights to Amsterdam. British Airways – flights to Paris and U.K. Airports.

TIME: British Standard Time is GMT plus 1 hour, reverting to GMT in Winter months.

HOLIDAYS: Good Friday (variable date); Easter Monday (variable date); May Day; Spring Bank Holiday (variable date); Autumn Bank Holiday (variable date); Christmas Day (25th December); Boxing Day (26th December); New Year's Day (1st January).

POLICE/AMBULANCE/FIRE: Dial 999 from any telephone and ask for service required.

SHIP SUPPLY SERVICE: Williams Shipping Company (Fawley) Limited, Clyde Buildings, Town Quay, Southampton SO1 1LX. Tel: (01703) 225271. Telex: 47436.

Services Supplied: Fast launches for personnel ship to shore, essential small packages and/or sick crew members.

D.O.T. approved to operate; not more than 6 passengers, area Swansea to Selsey, not more than 5 miles offshore.

Motorised barges for all types of supplies, deck and engine, and stores. Also, vessel with U.K. load line that can meet vessels passing in the English Channel with essential stores.

Mainly used for storing vessels in Oil Terminals, Cowes Roads and Motherbank.

Also see "Cowes".

DEVELOPMENTS: The main channel from Fawley to Prince Charles Container Port is currently being deepened from 10.2 m. to 12.6 m. below Datum (See "Notices" – "Notice No. 16/1996").

NOTICES:

All Notices are issued by Associated British Ports – Southampton.

Notice to Mariners No. 2 of 1992.

SOUTHAMPTON

VESSEL TRAFFIC SERVICES AND PROCEDURES

VESSEL TRAFFIC SERVICES embracing VHF COMMUNICATIONS, PILOTAGE, NAVIGATIONAL AND RADAR ADVISORY SERVICES, TRAFFIC INFORMATION, DATA COLLECTION/EVALUATION are effective in the PORT OF SOUTHAMPTON and its PILOTAGE AREA.

Messages on Port Operations channels must be restricted to the movement and safety of ships and life. Communications should normally be established on the working channels indicated, avoiding Channel 16.

All signal message traffic concerning Dangerous Substances, Pilotage, EEC Tanker Check List, ETA's and other ship visit information addressed to the Harbour Master – Southampton must be properly addressed.

Registered Telegraphic Address – Harbour Master Southampton:
Telex Number – 477161.
Telephone Number – (01703) 339733.
Facsimile – (01703) 232991.

1. MARINE INCIDENTS AND ACCIDENTS:

A vessel involved in a marine incident must report immeditaly to "Southampton VTS", and state whether assistance is required.

THE SOLENT AND SOUTHAMPTON WATER MARINE EMERGENCY PLAN (SOLFIRE):

This plan has been prepared to deal with any serious marine incident occurring in the Ports of Portsmouth and Southampton or elsewhere in the Solent, and is intended to ensure that adequate Service and Civilian resources are made available to deal with any emergency.

2. VHF COMMUNICATIONS (See "Appendix"):
   (a) The Vessel Traffic Services Centre Southampton, call sign "Southampton VTS", maintains watch on Channels 9, 12, 14, 16, 18, 20 and 22, and monitors Channels 71 and 74.
   (b) The Queen's Harbour Master Portsmouth, call sign "QHM", guards Channels 11, 13 and 73.
   (c) Vessels should maintain watch on VHF Channel 12 and report to "Southampton VTS" when passing the designated reporting points and, in addition if embarking a pilot, when the pilot has boarded.

3. PILOTAGE:

The Port of Southampton is responsible for providing Pilotage Services throughout the East and Central Solent, Southampton Water, Rivers Itchen and Test. Pilotage is compulsory for all vessels exceeding 61 m. LOA (Pilotage is non-compulsory in the West Solent/Needles).

SHIPS requiring a pilot must signal "Southampton VTS" through a U.K. Coastal Radio Station, not less than 12 hours in advance of ETA. Ship Owners, Masters or Agents may order a Pilot by Telex No. 477161, Fax. No. (01703) 232991 or Telephone No. (01703) 632345. Destination, draft and BOARDING POINT must be indicated. The ETA should be verified with "Southampton VTS" 2 hours prior to arrival.

3.1 BOARDING POINTS:
   (a) NAB PILOT STATION provides pilots for all vessels exceeding 150 m. LOA, bound for the Port of Southampton from the East (embracing all wharves, jetties, docks and oil terminals). Pilots are embarked/disembarked at NAB TOWER in moderate weather, deep draft ships exceeding 70,000 d.w.t. may board 3 miles South by appointment. During stormy weather, the service is withdrawn to ST.HELEN'S or SPITHEAD. Radio call sign "NAB PILOT".
   (b) STURBRIDGE PILOT STATION provides pilots for vessels not exceeding 150 m. LOA, bound for the Port of Southampton from the East. Pilots may be embarked/disembarked in the vicinity of North Sturbridge Buoy. Radio call sign "STURBRIDGE PILOT".
   (c) LEPE PILOT STATION provides pilots for all vessels exceeding 61 m. LOA, bound for the Port of Southampton from the West via the Needles Channel. Pilots may be embarked/disembarked between East Lepe and West Lepe Buoys. Radio call sign "LEPE PILOT".

NOTE: PILOT BOATS DO NOT CRUISE ON STATION but put-out when their services are required by appointment.

4. CO-ORDINATION OF SHIPPING MOVEMENTS:

(a) A continuous watch is kept by the Duty VTS Officer (VTSO) responsible to the Harbour Master Southampton.

Telephone (01703) 330022, extn: 2440 (office hours).
Telephone (01703) 339733 (other times).
Telex 477161 DHMSPR.
Facsimile (01703) 232991.

(b) The movement of vessels and the general situation in the Port and its approaches are monitored continuously. Information will be passed to Masters and Pilots. The fullest exchange of information is essential to efficient operations, and the need to maintain communications with "SOUTHAMPTON VTS" is emphasised.

(c) In co-ordinating the movement of vessels, it will be necessary for the Duty VTSO to instruct certain vessels to remain alongside or at anchor, or regulate their time of entry, departure or progress.

5. MOVEMENT REPORTING PROCEDURE:

(a) All vessels in excess of 20 m. in length, bound to or from or passing through the Port of Southampton, vessels bound to or from or passing through the Dockyard Port of Portsmouth, and vessels bound to or from anchorages or other locations in the Solent are required to communicate by VHF with "Southampton VTS" (Call sign "Southampton VTS"). Specifically vessels are to establish contact with "Southampton VTS".

(b) *All vessels in excess of 20 m. LOA, entering or leaving the East Solent, are required to report to "Southampton VTS" (Vessel Traffic Services) on VHF R/T Channel 12 when passing Latitude 50° 40' N., giving their position as a distance East or West of Nab Tower.*

(c) Vessels proceeding to an anchorage for shelter in the Solent or subsequent berthing, must report to "Southampton VTS" when anchored, together with their approximate position. Whilst at anchor, vessels must maintain a listening watch on VHF R/T Channel 12.

(d) Vessels leaving a sheltered anchorage must also report and advise "Southampton VTS" of their intended destination, and whether they are leaving the Solent via the East or West Solent.

(e) Inbound vessels should establish communications with VTS when approaching Nab or Needles.

(f) Vessels outbound from the Port of Southampton should establish communications at least 15 minutes prior to leaving the berth and obtain permission from "Southampton VTS" before letting go.

(g) Vessels clearing Portsmouth Harbour should establish communications with VTS when passing Southsea War Memorial.

(h) Vessels leaving an anchorage, whether inbound or outbound, should establish communications with VTS at least 15 minutes before getting underway.

(i) Vessels inbound or outbound from Portsmouth Harbour are also required to report to "QHM". See Dockyard Port of Portsmouth – Local Notices to Mariners.

6. MOVEMENT REPORTING POINTS:

(a) Vessels inbound or outbound from the Ports of Southampton and Portsmouth, or other destinations in the area or passing through the Solent, are required to report by VHF when passing Movement Reporting Points indicated on Admiralty Charts.

(b) The initial report by all inbound vessels should include:

1. Ship's name and International Radio Call Sign (IRCS).
2. Deepest draft.
3. Destination and last Port of Call.
4. ETA at various locations as requested.
5. Deficiences of ship, navigation equipment, machinery and cargo.
6. Additionally tankers should report any change in the information notifiable under the Merchant Shipping (Tankers) (EEC Requirements) Regulations 1981, and confirm that a Check List has been completed.

(c) The initial report by vessels outbound from the Port of Southampton should include:

1. Ship's name and IRCS.
2. ETD.
3. Deepest draft.
4. Other information requested.
5. Where applicable, tug working channel to be used.
6. ETA at various locations as requested.
7. Next Port of Call.

(d) The initial report by vessels from anchorages and other locations in the Solent should follow the procedure for inbound and outbound vessels as appropriate.

7. HARBOUR PATROL:

The Duty VTSO is supported by a Marine Officer who maintains a continuous surveillance of seamarks and shipping channels from a harbour patrol launch and guards VHF Channels 12 and 16, call sign "SP". At night, the harbour patrol launch exhibits a blue all round light at the mast head.

8. HEIGHT OF TIDE:

Automatic tide gauges are located at Calshot, Dock Head and Prince Charles Container Port. Tidal information is available upon request and is recorded.

9. WIND SPEED AND DIRECTION:

Wind speed and direction information is available upon request and is recorded.

10. HARBOUR RADAR:

(a) Remote controlled Radar Stations are situated at Calshot Spit and Hythe. Each station is fitted with a 25 ft. horizontal aperture scanner 110 ft. above MHWS, searching over a 0.3° horizontal and 4° vertical beam width, rotating at 20 r.p.m. in winds up to 80 knots.

(b) Vessels can be supplied with continuous information relat their progress, approach to navigation marks and other ves transits and turning marks, channel margins and the mann which the vessel is progressing round the West Bramble Calshot turns. Manoeuvring instructions will not be given u specifically requested by the Master or Pilot.

(c) An independent scanner is fitted at the VTS Centre to mo shipping in the RIVER TEST, but the computer ass measurement, accuracy of bearings, distance and tra associated with CALSHOT and HYTHE scanner is not avail

(d) Computer Assisted Measurement System:

This system employs a small digital computer and a var marker which can be placed over any target on the displ provide the following information:

1. The bearing and distance between the scanner and sele target.
2. The bearing and distance between any two targets.
3. The course made good by a selected target.

Facilities are available to store up to 24 targets, such navigation buoys, vessels at anchor, etc. The bearing distance from any selected target to any one of the stored ta can be quickly obtained, and the closest point of appr determined.

(e) Accuracy of Bearing and Distance Measurement:

Accuracy of bearing from Point A to Point B is to 0.5°, distances are to ±25 m., or to 0.3% of the most distant echo the scanner, whichever is the greater.

(f) Radar Reference Line:

An alternative position fixing system indicates the position vessel relative to a Reference Line electronically produce points one cable apart on the radar display linked to the Ca Radar only. The Radar Reference Line is shown on the Adm Charts of the area as a broken line with points at one cable circles where the line changes direction.

(g) Radar Coverage:

Effective radar coverage extends to a line joining NO M LAND FORT and HORSE SAND FORT to the East STANSORE PT. and SALTMEAD BUOY to the West.

A vessel underway upon request will be given her position the distance between the points of the Reference Line as a to estimate the position:

1. As a distance RIGHT or LEFT of the Reference Line, re to her direction of progress.
2. As a distance along the Reference Line to a navigational or marks in transit.

The position of another vessel will be given:

3. As a distance from the Reference Line ON THE SAME or ON THE OTHER SIDE.
4. As a distance along the Reference Line.

NOTE: In areas where a Reference Line is not shown, pro will be indicated relative to navigational marks and other ve

(h) Bearings and Distances:

Bearings and distances will be related to the bow of the v concerned unless otherwise stated.

11. CANCELLATION OF PREVIOUS NOTICES:

Notices to Mariners No. 2 of 1989, No. 6 of 1990 and No. 2 o are hereby cancelled.

This Notice is issued in agreement with QHM Portsmouth.

Signed: Harbour Master – Southampton.
Dated: 1st January 1992.

Appendix: ANNEX TO NTM 2 of 1992 – SOUTHAMPTON VT COMMUNICATIONS SCHEDULE

Station	*Channel (No.)*	*Frequency (MHz)*	*Details*
Southampton	16	156.80	CALLING, SAFETY and DISTRESS Continuous Watch.
Vessel Traffic Services	12	156.60	PORT OPERATIONS Calling and W All vessels are required to establish
Call Sign SOUTHAMPTON VTS	14	156.70	communications with Southampton one of these channels when appro the NAB or NEEDLES inbound, wh passing SOUTHSEA WAR MEMOR outbound from Portsmouth and at l 15 minutes before leaving a berth anchorage.
	18	156.90 161.50	PORT OPERATIONS Selected Wo and Harbour Radar Information.
	20	157.00 161.60	PORT OPERATIONS Selected Wo and Harbour Radar Information.
	22	157.10 161.70	PORT OPERATIONS Selected Wo and Harbour Radar Information.
	71	156.575	PORT OPERATIONS Manoeuvring Tug – Pilot/Berthing Master.
	74	156.725	PORT OPERATIONS Manoeuvring Tug – Pilot/Berthing Master.
Southampton Patrol	16	156.80	CALLING, SAFETY AND DISTRE Continuous Watch.
	12	156.60	PORT OPERATIONS Continuous
Call Sign SP	All	All	MARITIME INTERNATIONAL VHF All channels available as applicab PORT OPERATIONS and Maritim
Pilots Call Sign SOUTHAMPTON PILOT			
NAB PILOT	9	156.45	WORKING CHANNEL
STURBRIDGE PILOT			
LEPE PILOT			

Station	Channel (No.)	Frequency (MHz)	Details
TUGBOATS	19	156.95 161.55	WORKING CHANNEL Esso Marine Terminal Fawley and BP Oils Ltd. Terminals Hamble.
Call Sign TUG NAME or ALL TUGS	71	156.575 156.725	MANOEUVRING Ship/Tug – Pilot/Berthing Master.
	74	156.725	MANOEUVRING Ship/Tug – Pilot/Berthing Master.
Esso Marine Terminal Fawley	14	156.70	WORKING CHANNEL Continuous.
Call Sign ESSO HQ	19	156.95 161.55	WORKING CHANNEL.
BP Oil Terminal Hamble Call Sign BP HAMBLE	19	156.95 161.55	WORKING CHANNEL Occasional.
Queen's Harbour Master Portsmouth	11	156.55	PORT OPERATIONS Calling and Working – Commercial Vessels.
	13	156.65	PORT OPERATIONS Calling and Working – HM Vessels.
Call Sign QHM	73	156.675	PORT OPERATIONS Calling and Working – Dockyard Craft. NOTE: Consult DOCKYARD PORT OF PORTSMOUTH NTM.

Notice to Mariners No. 4 of 1992:

PORT OF SOUTHAMPTON APPROACHES
CALSHOT REACH AND WESTERN APPROACH CHANNEL

NOTICE IS HEREBY GIVEN that:

1. DIRECTIONS TO BE OBSERVED BY MASTERS OF VESSELS WITH LENGTH OVERALL OF 183 M. (600 FT.) OR MORE:

No two vessels each having a length overall of 183 m. (600 ft.) or more shall pass or overtake each other in WESTERN APPROACH CHANNEL, THORN CHANNEL or CALSHOT REACH to seaward of Hook Buoy. (PORT OF SOUTHAMPTON HARBOUR BYE LAW NO. 11 (1) refers).

2. OUTBOUND VESSELS - FLAG SIGNALS:

Yachts and other small craft in the Solent sometimes experience confusion when an outbound vessel in the Thorn Channel is approaching the West Bramble Buoy, as there is doubt whether the vessel will direct its course to the East (Nab) or West (Needles).

To improve safety, outbound vessels shall hoist the following INTERNATIONAL CODE flag signals during daylight hours.

Hoist	Meaning
ECHO over ANSWERING PENDANT	I am bound East (Nab)
ANSWERING PENDANT over WHISKY	I am bound West (Needles)

It is important that these signals should be read as indicating only a local geographical direction.

3. CANCELLATION OF PREVIOUS NTM – Notice to Mariners No. 4 of 1989 is hereby cancelled.

Signed: Dock and Harbour Master – Southampton.
Dated: 1st January 1992.

Notice to Mariners No. 7 of 1992:

THE DOCKYARD PORT OF PORTSMOUTH
AND THE PORT OF SOUTHAMPTON
MOVEMENT OF GAS TANKERS IN THE SOLENT

1. NOTICE IS HEREBY GIVEN that these directions have been jointly promulgated by the Queen's Harbour Master Portsmouth and the Harbour Master Southampton to ensure the safe navigation of gas tankers within the Solent.
2. This Notice applies to all gas tankers loaded or partly loaded and gas tankers which have not been rendered gas free.
3. Gas tankers in transit within the Solent may not enter an area in which the visibility is less than 0.5 miles.
4. Before navigation within the area between the North Sturbridge Buoy and the Warner Buoy, all gas tankers must establish communications with the Queen's Harbour Master Portsmouth on VHF Channel 11 to advise of their transit and to ascertain movements into and out of Portsmouth Harbour.
5. Gas tankers when navigating between Hook Buoy and West Bramble Buoy in the Western Approach Channel should be given the sole occupancy of that channel.
6. Gas tankers when navigating between East Bramble Buoy and Calshot Buoy in the North Channel shall be given the sole occupancy of that channel.
7. No vessel may anchor closer to a gas tanker than a distance equal twice their combined lengths.
8. At no time will more than 3 gas tankers be permitted to remain at anchor within the designated Small Ships Anchorage in Southampton Water.
9. Gas tankers exceeding either 8,000 cu.m. total capacity or 6,000 g.r.t. ARE NOT PERMITTED to enter or leave the Port of Southampton by the West Solent.
10. Notice to Mariners No. 7 of 1989 is hereby cancelled.

Signed: Harbour Master – Southampton.
Dated: 1st January 1992.

Notice to Mariners No. 8 of 1992:

DANGEROUS SUBSTANCES IN HARBOUR AREA REGULATIONS 1987 (SI No. 37 OF 1987) RELATED TO THE PORTS OF SOUTHAMPTON, PORTSMOUTH COMMERCIAL DOCKS AND DOCKYARD PORT OF PORTSMOUTH

1. NOTICE IS HEREBY GIVEN that Masters of all vessels carrying Dangerous Substances when entering, leaving or lying in the Port of Southampton or the Commercial Port of Portsmouth, will be required to comply with these Regulations. Failure to do so may lead to the prohibition or removal of the dangerous substance, its container and the vehicle or vessel from the Port in accordance with Clause 7 of the Regulations.

2. APPLICATION:

These Regulations apply in every Harbour and Harbour Area and to any part of a Harbour in the territorial waters of Great Britain. Dangerous Substances are defined at Clause 3 of the Regulations.

NOTE: The expression Harbour Authority when used in the following text shall mean:

- (a) Alongside in Southampton, Fawley and Hamble: Harbour Master Southampton.
- (b) Underway in the approaches to Southampton or in the East or West Solent: Harbour Master Southampton (call sign "SOUTHAMPTON VTS".
- (c) Underway in the Dockyard Port of Portsmouth, North of Outer Spit Buoy: Queen's Harbour Master (call sign "QHM").
- (d) Alongside in the Commercial Port of Portsmouth: Harbour Master Commercial Docks.

3. MARKING AND NAVIGATION OF VESSELS:

(a) Flags and Lights to be displayed by vessels:

Vessels carrying Dangerous Substances to which these Regulations apply are required to show a red flag during the daytime and, when moored or anchored, an all round red light at night. The use of the red light at night when a vessel is underway or moving within the Solent will not be permitted.

(b) Vessels to keep a safe distance from moored or anchored vessels displaying the flags or light required by Paragraph 3(a):

A Master shall not bring his vessel alongside a moored or anchored vessel which is displaying any flag or light required by Paragraph 3(a), without the permission of the Harbour Authority and the Master of that vessel, and shall otherwise keep his vessel at a safe distance from that vessel.

(c) Use of VHF:

The Master of a vessel to which these Regulations apply shall ensure at all times in the Port of Southampton or in the approaches to the Port in the East and West Solent, a listening watch is kept on VHF Channels 12 or 14, or when North of Outer Spit Buoy on VHF Channel 11 or 13.

Except

1. When a vessel is at a berth; or
2. For short periods when the radio is tuned to another frequency for operational purposes.

(d) Anchoring and mooring of vessels:

The Master of a vessel which is carrying a dangerous substance or on board which any dangerous substance is to be loaded, shall anchor or moor his vessel only at such places and at such times as the Harbour Authority directs, and shall ensure that any conditions imposed by the Harbour Authority with regard to anchoring or mooring are complied with. The Master shall not permit his ship to be moved from anchorage or berth until he is so authorised by the Harbour Authority.

(e) Mobility of vessels:

The Master of a vessel carrying dangerous substances, must ensure that his vessel is in a state of readiness to be moved at all times, tidal conditions permitting, and shall not immobilise his vessel without first seeking an Exemption Certificate in writing from the Harbour Authority. Any such exemption may be granted subject to conditions and to a limit of time and may be revoked at any time by a certificate in writing. Vessels carrying Class 1 Dangerous Substances (Explosives) will not be given an exemption.

4. FITNESS OF VESSELS:

The Master of a vessel which is designed to carry either Dangerous Chemicals in bulk or Liquified Gases in bulk shall not carry, load or unload any dangerous liquid or dangerous substance in bulk in either Portsmouth or Southampton unless:

- (a) The vessel has a valid Certificate of Fitness for the carriage of the substance in bulk issued under the authority of the Government of the country of registration of the vessel, and he complies with any conditions of carriage laid down in that certificate.
- (b) The Harbour Authority has given permission in writing.

5. PERMISSION FOR TRANSFER BETWEEN VESSELS:

The Master of a vessel carrying a liquid dangerous substance in bulk shall not cause or permit that substance to be transferred by pipeline to another vessel unless the Harbour Authority, and where the vessel is at berth, the Berth Operator, have given their permission in writing for that transfer to take place.

6. OPERATIONS FORBIDDEN ON VESSELS WITHOUT PRIOR PERMISSION:

(a) The Master of any vessel carrying or which has recently carried, a liquid dangerous substance in bulk shall ensure that none of the following operations are commenced:

1. The discharge of ballast or slops contaminated with any dangerous substance.
2. The cleaning or ventilation of any tank which was last used to carry a dangerous substance.
3. The pumping overside of bilges contaminated with any dangerous substance.

(b) The Master of any vessel carrying or which has recently carried, flammable liquid in bulk shall ensure that none of the following operations are commenced:
  1. The gas-freeing of any tank which was last used to carry the substance.
  2. The cleaning of such a tank with water, stem, detergents or other chemicals.
  3. The purging of such a tank with inert gas.
  4. The washing of a tank with crude oil while unloading.

Unless the following conditions have been complied with:

(a) Where the vessel is at a berth:
  1. The Berth Operator has given permission, or
  2. The Harbour Authority has given permission to manned vessels.

(b) Where the vessel is not at a berth, the Harbour Authority has given permission.

7. UNTOWARD INCIDENTS:

The Master of a vessel carrying any dangerous substance shall immediately inform the Harbour Authority and if the vessel is at a berth, the Berth Operator, of any untoward incident which has occurred on the vessel. Untoward incident means an incident involving or threatening the containment of a dangerous substance.

8. VESSELS LOADED WITH EXPLOSIVES TO BE TAKEN OUT OF THE HARBOUR AREA:

When loading a vessel with explosives has been completed, the Master shall ensure that the vessel is taken out of the Harbour or Harbour Area as soon as reasonably practicable, unless the Harbour Authority and, where the vessel is at a berth, the Berth Operator, otherwise agree.

9. NOTICE OF ENTRY OF DANGEROUS SUBSTANCES ARRIVING BY SEA FOR DISCHARGE OR IN TRANSIT:

Advance notification of dangerous substances arriving by sea into the Solent Area will be required in the form shown in Paragraph 10 by the Harbour Authority from Masters of vessels or their Agents, and must be received at least 24 hours prior to the arrival of the vessel in the Solent. In the case of tankers in excess of 1,600 g.r.t./g.t., this report will combine the details required under the Merchant Shipping (Tankers) (EEC Requirement) Regulation 1981 (SI No. 1077 of 1981).

It should be noted that tankers having carried one or more cargoes and which have not been rendered gas free, purged or cargo spaces completely inerted, will also be required to provide the advance notification.

The advance notification report should be sent to:

(a) In the case of Southampton, the Harbour Master – Southampton and received in writing by one of the following means:
  1. Telex: 477161 DHMSPR.
  2. Ships Telegram Service – Telegraphic Address: Harbour Master Southampton.
  3. By hand to the Harbour Master, Vessel Traffic Services Centre, Berth 37, Eastern Docks, Southampton.
  4. Facsimile: (01703) 232991.

  In the event of vessels whose passage time is less than 24 hours inbound to the Port of Southampton, the notification should be sent by telex from the last port of call, to ensure that details have been received prior to the vessel's arrival at the Nab/Needles area.

(b) In the case of the Portsmouth Commercial Docks, the Harbour Master Portsmouth Commercial Docks, marked DANGEROUS SUBSTANCES NOTICE and received in writing by one of the following means.
  1. Telex 265452 MONRES G or electronic mail network number 9312110368 PM.
  2. By hand to the Harbour Master, Harbour Offices, Continental Ferry Port, Portsmouth.

  Where the voyage is less than 24 hours duration, a shorter period of notice may be accepted, but notice must ALWAYS be given BEFORE the ship passes the Nab or Cowes inbound for Portsmouth in the form prescribed, except in the case of Dangerous Substances for Albert Johnson Quay, Flathouse Quay and private wharves, and Dangerous Substances of Class 1 and Class 7 for the Continental Ferry Port, for which the minimum period of notice is 24 hours in ALL cases. Only those Class 1 materials which are of Division 1.4 – Compatibility Group 5, or any other explosives (except Compatibility Group L) of total quantity not exceeding 10 kilograms, will be considered for Portsmouth Commercial Docks.

(c) In the case of the Queen's Harbour Master and on the assumption that the information has already been passed to the Harbour Master – Southampton and the Harbour Master – Portsmouth Commerical Docks, the information be passed by VHF Channel 11 in the form shown in Paragraph 11, but is only required on sailing from either Southampton or Portsmouth or on passing Nab Tower inbound.

10. NOTIFICATION OF DANGEROUS SUBSTANCES:

(a) Non-Tankers:
  1. Ship's name and International Radio Call Sign (IRCS).
  2. Flag.
  3. Overall length, draft and beam.
  4. Destination within the Harbour Area.
  5. ETA Nab or Needles.
  6. Last Port of Call.
  7. Possession of a Certificate of Fitness, where appropriate.

(b) Dangerous Substances being carried:
  (Specify for discharge or in transit).
  1. Correct technical name of Dangerous Substance.
  2. UN Number.
  3. Quantity of each substance.
  4. Classification.
  5. Details of the number and type of packages to be individu handled (where appropriate), including the carrying unit t e.g. vehicle, container, etc.
  6. Flashpoint in degrees Centigrade (where appropriate).

(c) In the case of Explosives:
  (Specify for discharge or in transit).
  1. UN Number.
  2. Class.
  3. Division.
  4. Compatibility group.
  5. Net explosive content.

(d) Tankers (Vessels under 1,600 g.r.t./g.t.):
  1. Ship's name and IRCS.
  2. Flag.
  3. Overall length, draft and beam.
  4. Destination within the Harbour Area.
  5. ETA Nab or Needles.
  6. Last Port of Call.

(e) Dangerous Substances being carried:
  (Specify for discharge or in transit).
  1. Correct technical name of Dangerous Substance.
  2. UN Number.
  3. Quantity of each substance.
  4. Classification.

(f) Tankers (Vessels over 1,600 g.r.t./g.t.):
  1. Ship's name and IRCS.
  2. Flag.
  3. Overall length, draft and beam.
  4. The harbour where the Master intends first to berth the tan i.e. anchorage or berth.
  5. Destination within the harbour area.
  6. ETA Nab or Needles.
  7. Last Port of Call.
  8. Nature and quantity of any chemicals, gas or oil carried by tanker.
  9. Whether tanker is fitted with an inert gas system and, if is fully operational.
  10. Whether the cargo tanks have an atmosphere which been rendered non-flammable.
  11. Whether or not a certificate has been issued in respe the tanker:
    (a) If its cargo includes chemicals, that it complies wit IMO Code for Ships carrying Dangerous Chemicals
    (b) If its cargo includes gas, that it complies with the Code for Existing Ships carrying Liquified Gases.
  12. Defects in hull, machinery or equipment of the tanker w may:
    (a) Effect materially the safe manoeuvrability of the ta or
    (b) effect materially the safety of other vessels in or vicinity of, the approaches to the harbour; or
    (c) constitute a hazard to the Marine Environment; or
    (d) constitute a hazard to persons or property on land the vicinity of the harbour.

(g) Dangerous Substances being carried:
  (Specify for discharge or in transit).
  1. Correct technical name of Dangerous Substance.
  2. UN Number.
  3. Quantity of each substance.
  4. Classification.

11. DETAILS REQUIRED BY THE QUEEN'S HARBOUR MAS PORTSMOUTH:

Details required by the Queen's Harbour Master Portsmouth on departure from Portsmouth or Southampton or on arrival Nab To
  1. Ship's name and IRCS.
  2. Flag.
  3. Overall length, draft and beam.
  4. Either
    (a) Destination within the Solent, or
    (b) Time of passing Nab Tower.

5. Reference of the letter, telex or facsimile sent to Harbour Ma Southampton or Habour Master – Portsmouth Commercial D containing the information required by Paragraph 10. If this infor has not been forwarded, a full report in accordance with Parag is required.

12. This Notice issued jointly by the Queen's Harbour Portsmouth, the Harbour Master Southampton and the Harbour Portsmouth Commercial Docks.

13. Notice to Mariners No. 8 of 1989 and No. 6 of 1990 is cancelled.

Signed: Harbour Master – Southampton.
Dated: 1st January 1992.

Notice to Mariners No. 10 of 1992:

THE DOCKYARD PORT OF PORTSMOUTH AND THE PORT OF SOUTHAMPTON

VESSELS CONSTRAINED BY THEIR DRAFT

1. NOTICE IS HEREBY GIVEN that these directions promulgated by the Queen's Harbour Master – Portsmouth Harbour Master – Southampton are compatible with the Regulations to ensure the safe navigation of large vessels in Solent and the dredged approach channel to Southampton Wa

2. There are two areas in the Solent in which vessels constr their draft inbound from the Nab Tower to Southampton, are in

danger from outbound vessels; these are when passing the Portsmouth entrance channel, and when passing the North Sturbridge Buoy and shaping course to pass to the South of Ryde Middle Shoal. Vessels proceeding to seaward out of the Portsmouth entrance channel or from Southampton, North of the Ryde Middle Shoal, should take every possible precaution to avoid endangering the movements of these vessels, and in particular to avoid presenting them with a crossing situation.

3. DEFINITIONS:
In the Dockyard Port of Portsmouth and the Port of Southampton, a vessel having a draft of 10.5 m. (34.5 ft.) or more, a length of 288 m. (945 ft.) or more, or a deadweight tonnage of 100,000 tons or more shall be considered to be a VESSEL CONSTRAINED BY HER DRAFT for purposes of definition within the International Regulations.

4. ACTION TAKEN TO AVOID IMPEDING THE SAFE PASSAGE OF A VESSEL CONSTRAINED BY HER DRAFT:
Vessels are warned that in taking action to avoid impeding the safe passage of a vessel constrained by her draft within the navigationally restricted waters of the Solent and Southampton Water, due regard must be given to the safe navigation of the latter vessel, which may prevent her from keeping her course and speed.

5. SHIPPING MOVEMENT CONTROL:
Vessels constrained by their draft or size, and vessels restricted in their ability to manoeuvre, shall not operate in the Dockyard Port of Portsmouth or the Port of Southampton without the permission of the Queen's Harbour Master – Portsmouth or the Harbour Master – Southampton respectively.

6. SOUTHAMPTON DEEP WATER CHANNEL:
All vessels navigating within the Port of Southampton shall ensure that a vessel constrained by her draft or size shall be given the sole occupancy of the Deep Water Channel between Hook Buoy and the seaward limit of the WESTERN APPROACH CHANNEL.

7. Notice to Mariners No. 10 of 1991 is hereby cancelled.
Signed: Harbour Master – Southampton.
Dated: 1st January 1992.

Notice to Mariners No. 11 of 1992:

SPEED OF VESSELS AND PASSING DISTANCES OFF JETTIES AND BERTHS

1. NOTICE IS HEREBY GIVEN that special care must be exercised by all vessels navigating within the limits of the Port. Vessels should proceed at a reduced speed as safe navigation permits, and in such a manner as not to endanger the lives of persons ashore or afloat, including passengers embarking or disembarking from harbour ferries, or cause damage to vessels alongside or at moorings, or to sea walls and other works. Particular care should be exercised when passing Oil Terminals where vessels are loading or discharging petroleum products and hazardous chemicals.

2. Special consideration should be given to the effects caused by the underwater form and the draft of vessels in order to reduce the resulting pressure waves and displacement of water. Particular attention should be given to the increased effects caused during low water periods.

3. Attention is drawn to Merchant Shipping Notice No. M 930 – INTERACTION BETWEEN SHIPS.

4. The special attention of Masters, Pilots and others having command or charge of vessels is drawn to the presence of vessels loading or discharging petroleum products or stores from small craft at ESSO MARINE TERMINAL – FAWLEY and BP OIL TERMINAL – HAMBLE, and other vessels loading stores or cargo in anchorages. Attention is also drawn to the presence of craft at moorings or alongside the Military installations at HYTHE and MARCHWOOD.

5. As safe navigation permits, vessels drawing 6.0 m. (19.7 ft.) and over when approaching or passing the ESSO MARINE TERMINAL – FAWLEY and BP OIL TERMINAL – HAMBLE must not exceed 7 knots over the ground. All ferries and vessels of less than this draft are reminded of the dangers inherent with oil terminals, and should reduce speed as safe navigation permits (Port of Southampton Bye Law No. 9 refers).

6. Any vessel passing the ESSO MARINE and BP OIL TERMINALS should navigate not less than 130 m. from the face of the jetties. This limit is intended to protect vessels moored alongside, guard against the interaction of passing vessels and the risk of naked lights and sparks within these areas (Port of Southampton Bye Law No. 9 refers).

7. Notice to Mariners No. 12 of 1989 is hereby cancelled.
Signed: Harbour Master – Southampton.
Dated: 1st January 1992.

Notice to Mariners No. 8 of 1996:

PORT OF SOUTHAMPTON WESTERN APPROACH CHANNEL "AREA OF CONCERN" MOVING PROHIBITED ZONE AROUND VESSELS EXCEEDING 150 M. LOA

1. Notice is hereby given that the Main Navigable Channel, as defined on Admiralty Charts No. 1905, 394 and 2040, which lies between a line drawn from Prince Consort to South Bramble Buoys and a line drawn between Black Jack and Reach Buoys is designated as an "Area of Concern".

2. All vessels of over 150 m. length overall (LOA) whilst navigating in the "Area of Concern" will be given a "Moving Prohibited Zone" around the vessel of 1,000 m. ahead and 100 m. either side of the vessel as depicted on the accompanying chartlet (See "Plan").

3. Small vessels of under 20 m. LOA will be prohibited from entering the Moving Prohibited Zone. This measure coincides with the spirit of Rule 2 and the Steering and Sailing Rules of the International Regulations for Preventing Collisions at Sea 1972.

4. Nothing in this notice shall relieve vessels of less than 20 m. in length or sailing vessels from their obligation under Rule 9 of the collision regulations to not impede the passage of any vessel which can navigate only within a narrow channel or fairway.

5. All vessels of over 150 m. LOA when navigating in the "Area of Concern" are required to display, where it can best be seen by day, a Black Cylinder, and by night 3 all-round red lights in a vertical line, as defined by Rule 28 of IRPCAS to visually indicate the presence of the moving prohibited zone ahead and either side of the vessel.

6. Nothing in this Notice will prevent "Vessels Constrained by their draft" as defined by Notice to Mariners No. 10 of 1992 from displaying these lights and shapes as required by IRCPAS in other areas of the Solent or Southampton Water.

7. When operationally possible, the Southampton harbour patrol launch (VHF call sign "SP" Channel 12) will precede these vessels within the "Area of Concern" showing, in addition to the normal steaming lights, a blue flashing light. The absence of the patrol launch will not invalidate the implementation of the moving prohibited zone.

8. To assist recreational vessels, the Port of Southampton Vessel Traffic Centre (Call sign "Southampton VTS") will make hourly TRAFFIC INFORMATION BROADCASTS on VHF Channel 14 on the hour from 0600 hrs. to 2200 hrs. Fridays to Sundays, inclusive of Bank Holiday Mondays, from Easter to the last weekend in October. From 1st June to 30th September the Traffic Information Broadcast will be made on a daily basis between the hours specified above. The broadcast will identify those large vessels and approximate times in which a moving prohibited zone will apply whilst navigating in the "Area of Concern" and any other relevant information for the safety of small vessels.

Announcements of imminent Traffic Information Broadcasts will first be made on VHF Channels 16 and 12.

9. This Notice was first introduced in 1993 following consultations with Shipowners and Recreational Sailing interests on behalf of the users of the Solent and the Port of Southampton.

10. This Notice replaces Notice to Mariners No. 5 of 1993 which is hereby cancelled.
Signed: Harbour Master.
Dated: 4th April 1996.

Notice to Mariners No. 12 of 1996:

SOUTHAMPTON PILOTAGE DIRECTIONS AMENDMENTS TO THE ARRANGEMENTS FOR EMBARKING AND DISEMBARKING PILOTS FOR THE SOUTHAMPTON CHA EASTERN INNER PILOTAGE LIMIT

1. Notice is hereby given of a change to the arrangements for embarking/disembarking Pilots to/from all vessels of between 61 m. and 150 m. LOA when carrying a bulk cargo of Dangerous or Polluting Goods (The arrangements for vessels carrying LPG/LNG in bulk remain unchanged as detailed in Southampton Pilotage Direction 2.2a).

2. Currently these vessels are subject to compulsory pilotage from the Southampton CHA Eastern Inner Limit and embark/disembark the pilot in the vicinity of the North Sturbridge Buoy (0.7 nautical miles North West of the North Sturbridge Buoy as depicted on British Admiralty Chart No. 394).

3. With effect from the issue of this Notice all such vessels carrying a bulk cargo of Dangerous or Polluting Goods and using the Eastern Approach to the Solent will be required to embark/disembark their pilot in a position to the East of the Warner Buoy.

4. Southampton VTS will advise such an arriving vessel of the intended boarding position on receipt of the 2 hour notice of ETA message from the vessel on VHF Channel 9. This will be up-dated if necessary when the vessel reports in to VTS on VHF Channel 12 on arrival at Nab Tower.

5. "Dangerous Goods" for the purpose of this Notice are those classified as such in the IMDG Code, Chapter 19, of the IGC Code or Chapter 17 of the IBC Code.
"Polluting Goods" means:
Oil as defined by MARPOL Annexe I.
Noxious Liquid Substances as defined by MARPOL Annexe II.
Harmful Substances as defined by MARPOL Annexe III.

6. "In Bulk" for the purpose of this Notice means that the Dangerous or Polluting Goods have been loaded in a loose or homogenous form into the vessel's cargo hold(s) or tank(s) and/or form a substantive part of the deadweight cargo.

7. All other vessels subject to compulsory pilotage from the Southampton CHA Eastern Inner Limit will continue to use the existing pilot boarding position referred to in Paragraph 2 above unless they elect on a voluntary basis to take their pilot from the outer pilotage limit in the vicinity of the Nab Tower.

8. Restricted Visibility. In the event of visibility falling below 0.5 nautical miles in the vicinity of the published Eastern Inner Limit boarding area then the boarding area for vessels referred to in Paragraph 7 above will also be temporarily re-located to the East of the Warner Buoy and they will be advised by Southampton VTS in accordance with Paragraph 4.

9. Traffic Congestion. In the event of traffic congestion in the vicinity of the published Eastern Inner Limit Boarding Area then Southampton VTS may similarly elect to temporarily re-locate pilot boarding as described in Paragraph 8.

10. Southampton Notice to Mariners No. 34 of 1993 is hereby cancelled.
Signed: Harbour Master.
Dated: 12th June 1996.

Notice to Mariners No. 16(T) of 1996:

CAPITAL DREDGING WORKS – SOUTHAMPTON MAIN CHANNEL DEEPENING BETWEEN FAWLEY AND 207 BERTH

1. Notice is hereby given that on or after Monday 5th August dredging works associated with the deepening of the Southampton Water main channel between Fawley and 207 Berth in the River Test will commence.

2. Works will continue until the Summer of1997 in phases each of which will be the subject of a separate Notice to Mariners.

3. Works will commence with the trailing suction dredger "Cristoforo Colombo" and be completed when the channel between Fawley Reach and the Container Port has been deepened to 12.6 m. below Chart Datum.

4. Dredging operations will continue on a 24 hour basis and mariners should expect to pass dredging plant at any time between the Nab dumping area and the River Test.
5. Dredgers will display lights and shapes as required by the International Prevention of Collision Regulations and mariners are requested to reduce speed as safe navigation permits when passing dredgers engaged in underwater operations.
6. Mariners may request information on dredging activity from Southampton VTS on VHF Channel 12.
7. Further Notices on the works will be issued as appropriate.

Signed: Harbour Master.
Dated: 26th July 1996.

AUTHORITY: Associated British Ports, Ocean Gate, Atlantic Way, Southampton SO14 3QN. *Tel:* (01703) 330022. *Telex:* 47334. *FAX:* (01703) 336402. *Contact:* A. Kent, Port Manager. Captain J.S. Chestnutt, Deputy Port Manager and Harbour Master.

STORNOWAY: 58.12 N. 06.22 W. (See Plan)

PORT LIMITS: Extend to a line from Southern end of Holm Island on the East to Rudh A'Bhaigh Uaine on the West – approximately 7.5 cables to seaward of Arnish Point Light.
PILOTAGE: Pilotage not compulsory. Vessels requesting Pilot request same with ETA 24 hours prior to arrival. Confirmation or amendment required 2 hours prior to arrival. Boarding off Arnish Point Lighthouse.
ANCHORAGES: Anchorage in harbour between Goat Island and mouth of Creed River, 8 fathoms.
RESTRICTIONS: Entry night or day and at any state of tide. No bar on entrance.
MAX. SIZE: 400 ft. by 60 ft. by 22 ft. draft to berth alongside, 600 ft. length by 35 ft. draft for anchorage in bay.
HEALTH: The customary flying of "Q" flag.
Also see "Health – All Ports" before first U.K. port.
RADIO: Wick Radio or alternatively Stonehaven Radio.
RADAR/VHF: R/T-VHF established in harbour, call "Stornoway Harbour" on Channels 16 and 12. Emergency messages may be passed through Stornoway Coastguard on 81.8 m. There is a radar set in the watchroom but no V.T.S. service is provided.
TUGS: No tugs available at port. Fishing vessels have been used, when necessary, for this purpose.
BERTHING: Vessels can be berthed at any time, provided berth is free.
Ro/Ro ferry terminal for Stornoway/Ullapool service in operation.
Depth of Water at Low Water Spring Tides: West side No. 1 Pier: 24.5 ft. shallowing to 12 ft. at junction of North Beach Quay. East side No.1 Pier: 24.5 ft. shallowing to zero at inward end. West side No. 2 Pier: 17.5 ft. shallowing to zero at inward end. East side No. 2 Pier: 16.5 ft. shallowing to zero at inward end. Inner Harbour decreases from 12 ft. at junction of Esplanade Quay to 8 ft. at upper end of Cromwell Street Quay.
STEVEDORES: Arranged by Agents on receipt of ETA.
MEDICAL: Advance notice desirable, Hospital facilities available in the town.
TANKERS: Normal safety requirements. One tanker berth only 15 ft. mean draft, max. length 220 ft.
DENSITY: Practically always dead salt; 1025 density.
FRESH WATER: Fresh water available by hose at 15 t.p.h.
FUEL: 24 hours notice required.
CONSULS: French, Swedish, Norwegian; Tel: Stornoway 702920, 702054, 703173 respectively.
REPAIRS: Minor deck and engine repairs can be carried out locally.
DRY DOCKS: No dry dock but one slipway of 750 tons displacement.
SURVEYORS: Marine & Engineer Surveys (Hebrides) Ltd., Stornoway.
GANGWAY/DECK WATCHMEN: Service of watchmen not necessary. Watchmen from shore may be employed if required.
OPENING/CLOSING HATCHES: Normally crew.
REPATRIATION: Facilities exist for this service.
AIRPORT: 3 miles from port, served regularly by British Airways from Glasgow and Inverness.
HOLIDAYS: New Year's Day, Christmas Day and all other local Bank Holidays. Cargo work can be arranged except New Year's Day. (No Sunday work.)
POLICE/AMBULANCE/FIRE: Police, Stornoway 702222 (can deal with all three services).
EMERGENCY CO-ORDINATION CENTRE: Stornoway Coastguard Tel: 702013 or 702014.
TELEPHONES: Can be arranged by prior application through Aberdeen office.
STORING: See "Prelims".
1. By truck.
2. –
3. Yes.
4. Yes.
5. Notice No. 69.
6. Yes.

IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Skips available at no charge.
WASTE OIL DISPOSAL: Only small amounts by tanker truck (7,000 litres capacity). Service carried out by local authority, but arranged through Port Authority.
SEAMAN'S CLUBS: Royal National Mission to Deep Sea Fishermen, North Beach Street, Stornoway. Tel: (01851) 704424.
GENERAL: ETA to be sent 24 hours beforehand so that necessary arrangements can be made.
DEVELOPMENTS: New Ro-Ro ramp under construction. Len 280 m., depth 6.5 m. Completion expected October 1996.
AUTHORITY: Stornoway Pier and Harbour Commission, Amity Hou Esplanade Quay, Stornoway, Isle of Lewis HS1 2XS. *Tel:* (018 702688. *Cables:* Harbour Commission. *FAX:* (01851) 7057 *Contact:* M. Macleod, General Manager. Captain A.M. Macken Harbour Master.

STRANRAER: 54.55 N. 05.02 W. (See Pla

DOCUMENTS: As for other British ports.
PILOTAGE: Not compulsory.
ANCHORAGE: Deep water anchorage at Lady Bay.
MAX. SIZE: Largest vessel handled 130 m. long. Working draft 5.0 at Stena Line.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: VHF watch kept on Channel 16 at Stena Line Ports Ltd. F Terminal. Working Channel is 14.
TUGS: Not available.
BERTHING: *East Pier:* One berth, depth 5.0 m. at L.A.T. with vehic ramp (single tier).
Ross Pier: Length 153 m. Dredged to 5 m. at L.A.T. Double tier vehic ramp at this berth.
MEDICAL: Medical Centre and hospital in town.
FRESH WATER: Available at all berths.
FUEL: Limited quantities of fuel oil can be supplied from road tank
REPAIRS: Small repairs can be carried out by local engineering fi
GENERAL: Inshore lifeboat based at Stranraer.
AUTHORITY: *East Pier:* Stena Line Ports Ltd., Sea Terminal, Stran Harbour, Stranraer DG9 8EL. *Tel:* (01776) 802121. *Telex:* 778 *FAX:* (01776) 802104. *Cables:* Sealink Port Stran *Contact:* E.S. Bird, Ship and Port Manager.
West Pier: Dumfries and Galloway Regional Council, Ailsa House, Street, Stranraer DG9 7JL. *Tel:* Harbour Office (01776) 702 *Contact:* John C. Colvin, Harbour Master.

STROMNESS: 58.58 N. 03.18 W. (See Pl

DOCUMENTS:
1 copy Maritime Declaration of Health.
1 copy Vaccination List.
1 copy Immigration Form H.O. Form IS6.
2 copies Crew List.
2 copies Ship's Stores List.
2 copies Crew Personal Effects Declaration (Form C142).
1 copy Last Port Clearance.
1 copy Ship's Register.
1 copy Load Line Certificate.
1 copy Safety Construction Certificate.
1 copy Safety Radio and Safety Equipment Certificate.
1 copy Derat Certificate.

PILOTAGE: Compulsory for passenger vessels over 65 m. LOA a other vessels over 75 m. LOA. Pilot boards 2 miles West of Grae Low Light or 1.5 miles South of Cantick Head Light. Pilot on Channel 16 throughout 24 hours, working on Channel 11.
ANCHORAGES: Cairston Road: Lat. 58° 57.5' N., Long. 03° 16.5 depth 11.0 m.
RESTRICTIONS: Stromness Pier is tidal. Berthing restrictions on
MAX. SIZE: LOA 130 m., beam 20.0 m., draft 6.0 m. at L.A.T.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO/VHF: Coast station, call sign "Orkney Radio" (Wick Radio VHF Channel 16, working on Channe! 26.
Continuous watch VHF Channel 16, call sign "Orkney Harbour R working on Channels 9, 10, 11 and 20. From 0800 hrs. – 170 weekdays and when vessel expected.
Stromness Harbour Radio on Channel 16, working on Channe
TUGS: See "Scapa Flow". 1×54 ton bollard pull, 2×50 ton bolla all with firefighting facilities.
BERTHING: 3 berths.
Ro-Ro Berth: 122 m. × 6.0 m. draft.
North Pier: 125 m. × 6.0 m. draft.
South Pier: 136 m. × 5.0 m. draft.
CRANES: One Jones 355 mobile crane with grab SWL 11 tons radius and 2.75 tons at 40 ft. radius.
BULK CARGO FACILITIES: Crane with grab, see details abo
SPECIALISED CARGO HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: Contact local stevedores for detailed informat
Working hours: 0800 hrs. – 1700 hrs.
MEDICAL: Medical and dental services are available by arran
Hospital facilities are available at Balfour Hospital, Kirkwall.
TANKERS: No facilities.
DENSITY: 1025.
FRESH WATER: Available at all berths by 51 mm. mains. Su be restricted. Cost £1.06 per tonne.
FUEL: Available by road tanker from Esso, Shell and B.P.
FIRE PRECAUTIONS: Standard precautions, local fire available.

CONSULS: At Kirkwall: Denmark, Germany, Netherlands and Norway.
REPAIRS: Minor repairs possible.
DRY DOCKS: None.
SURVEYORS: Not available.
GANGWAY/DECK WATCHMEN: Not available.
OPENING/CLOSING HATCHES: By crew.
CUSTOMS ALLOWANCES: As per British Customs Scales.
REPATRIATION: See "Kirkwall".
AIRPORT: At Kirkwall, 20 miles away. British Airways and British Airways Express.
TIME: GMT and BTS (GMT plus 1 hour March – October).
HOLIDAYS: See "Kirkwall".
POLICE/AMBULANCE/FIRE: Emergency 999. Police 850222. Ambulance 872763.
EMERGENCY CO-ORDINATION CENTRE: Coastguard at Kirkwall. Tel: 873268. Telex: 75211.
SERVICES: Radio and radar repairs.
BANKS: Bank of Scotland, Victoria Street. Tel: 850238.
Royal Bank of Scotland, 3 Victoria Street. Tel: 850217.
STORING: See "Prelims".
(1) Truck.
(2) —
(3) Can proceed to berth.
(4) Yes.
(5) Contact Customs.
(6) Contact Stevedores.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Seaman's Book sufficient.
GARBAGE DISPOSAL: Skips provided on pier free of charge and collected as required.
WASTE OIL DISPOSAL: Facilities available for small quantities only via 250 cu.m. tank provided on pier.
SEAMAN'S CLUBS: None.
DELAYS: As stevedores also work in Kirkwall when required, delays may arise due to lack of labour.
AUTHORITIES: Orkney Islands Council, Department of Harbours, Harbour Authority Building, Scapa, Orkney KW15 1SD. *Tel:* (01856) 873636. *Telex:* 75475. *FAX:* (01856) 873012. *Contact:* Captain R.C. Sclater, Director of Harbours.

SULLOM VOE: 60.27 N., 01.17 W. (See Plan)

GENERAL: The Port of Sullom Voe is a major deep water harbour. It is owned and operated by the Shetland Islands Council as Harbour Authority.

The Sullom Voe Oil and Gas Complex is located within the port limits on Calback Ness in position 60° 27.5' N., 01° 17.0' W. and is operated by BP Petroleum Development Limited on behalf of several oil company participants. The oil delivered to Sullom Voe through the Brent and Ninian pipelines is collected from a group of oilfields located in the East Shetland basin.

The Port Administration Building, from which all marine operations are monitored and controlled, is located on Sella Ness in position: Lat. 60° 26.8' N., Long. 01° 16.5' W.

Services offered by the Harbour Authority and financed through conservancy charges include port radar, navigational advice to Shipmasters, intensity controlled navigational lighting to assist in poor visibility, meteorological advice and shore access gangways at all oil and gas jetties. Services offered and financed through separate charging structures include pilotage and mooring boat services. Boat hire can be arranged for vessels anchored or standing off. Helicopter hire is also available at times. The towage service is operated by a separate towage company and financed directly through towage charges.

The harbour is presently designed to routinely accept tankers up to around 365 m. LOA, with a draft of up to 22.6 m. and LPG carriers up to around 260 m. in length with a draft up to 15.9 m. In addition to liquid bulk and LPG cargo, the port is designed to handle general, dry bulk, Ro/Ro, containerised cargo and quarried rock.

There are 2 entrances to Yell Sound. The primary Northern route, suitable for oil and gas tankers, lies on the Western side of Yell Sound and is marked by leading lights situated on Gluss Isle. The South Eastern approach is considered suitable for vessels of up to 200 m. LOA and having a draft of not more than 11.6 m.

Both routes merge at the entrance to Sullom Voe; the lead into the Voe is indicated by leading markers located on Fugla Ness. In the case of vessels other than coasters, all manoeuvres South of Lamba Island will be assisted by tugs.

Ships will generally be berthed starboard side alongside at the oil loading berths. This will involve swinging each vessel within the Voe in areas adjacent to the tanker jetties. Vessels may be berthed port side alongside during adverse wind conditions.

For the purpose of manoeuvring within the harbour area a minimum under keel clearance of 2.0 m. is required at all times.

Although current rates of up to 7 knots may be experienced in areas of Yell Sound, records indicate that the maximum current likely to be experienced within Sullom Voe on the deep draft route, is unlikely to exceed 1 knot.

The maximum tidal range within the Harbour Area is 2.3 m. at Springs and minimum 0.6 m. at Neaps. The main tidal current flows to the South on the flood and to the North on the ebb.

Moorings: Strong winds are frequently experienced at Sullom Voe and may be accompanied by sudden gusts from any direction. The prevailing wind direction is S.W.

It is essential that whilst alongside the jetty, moorings are tended carefully and regularly and conform with the mooring requirements. (See "Plan").

SHIP SYSTEM FAILURES: Following the main engine problems experienced by the vessels in Sullom Voe, the following additional regulations are in effect:

1. In the event of a vessel suffering a machinery failure affecting seaworthiness or ability to manoeuvre prior to berthing or whilst alongside, an independent survey must be commissioned into the ability of the ship's machinery to perform after repair. Any surveyor appointed must be approved by a recognised classification society; be fully able to certify the integrity of the machinery or repair and must not, at the time of survey, be a member of the vessel's crew. The vessel will not be permitted to sail until the Director of Marine Operations is satisfied by the surveyor that the vessel is fully operational in every respect or that there are satisfactory arrangements in place to ensure that the vessel may depart from Shetland waters safely. All survey and other costs involved in this matter will be for the ship's account.
2. In the above circumstances, the vessel will be required to employ 4 tugs for sailing, which will remain in attendance until the vessel has cleared port.
3. No large scale crew changes for vessels stemmed for Sullom Voe will be permitted in Shetland waters.

WAITING OFF SHETLAND: It is often the case that vessels have to wait off the coast line of Shetland until a berth is available or there is a break in the weather.

In the past, some vessels have stopped engines, displayed Not Under Command signals and drifted for extended periods.

However, such practice has conflicted with fishing vessels in the area who must tow in finite routes due to rocks on the seabed. The fishing vessels do not know if the ship is indeed Not Under Command, and so cannot give way to the vessel engaged in fishing or simply stopped and should start engines to move out of the way.

The British Government, Department of Transport, has ruled that such a display of Not Under Command signals is an abuse of the collision regulations. Vessels stopped in the water should *not* display Not Under Command signals unless they are disabled and unable to manoeuvre. Should the ship's Master wish to stop and drift, the engines should be available in good time to move out of the way of any vessel as required by the collision regulations.

The oil pollution surveillance helicopter, operated by the Harbour Authority, will report any vessels displaying Not Under Command signals to H.M. Coastguard for further action.

CONDUCT OF VESSELS ENTERING YELL SOUND:
(a) Masters of tankers and gas carriers entering the Port of Sullom Voe are advised to refer to Charts B.A. 3298, 3297 and 3292.
(b) Navigation within the Harbour Area is prohibited unless the vessel is mechanically and navigationally sound, anchors are ready for letting go and there is a responsible person who can speak and understand English on the bridge.
(c) The berthing of tankers and gas carriers is suspended when wind speeds are regularly and frequently gusting in excess of 30 knots. Masters will be advised by Port Control in the event of such suspension.
(d) Vessels should afford a safe lee for the pilot boat during boarding and landing operations.
(e) When inbound tankers are at Reporting Point B ('Bravo') the Master should alert the crew in preparation for securing tugs, while speed is reduced accordingly.
(f) The bow and stern tugs will be made fast when it is considered safe to do so, soon after passing the Outer Skerry.
(g) The alongside tugs shall be secured as soon as possible thereafter.
(h) The vessel's speed must not exceed 5 knots South of a line joining Skaw Taing and Trumba Point.
(i) Standard practice requires vessels to be swung on arrival (except when weather conditions dictate otherwise) and berthed starboard side alongside the jetty designated (See "Plans" for mooring guidelines).

Note: Tugs will use their own lines for securing.

MINIMUM REQUIREMENTS: In order to avoid delays, all vessels programmed for Sullom Voe should comply with the recommendations of the Council of the European Committee for Vessels Transiting Community Seaports, and be fitted with:
(i) Fully operational radar.
(ii) Fully operational VHF radio with Channels 16, 14, 20, 12, 10 and 9.
(iii) Sufficient crew to handle tugs' lines and moorings efficiently.
(iv) Efficient propulsion and deck machinery.
(v) Efficient and adequate moorings to secure vessels safely.
(vi) Efficient signalling equipment.
(vii) Fully operational tachometer, rudder and helm indicators.
(viii) Efficient mooring stations communications systems.
(ix) An efficient anchor windlass and anchors.
(x) A complete and valid set of Safety Certificates.
(xi) All officers to be properly qualified and carry recognised certificates of competency.

Note: If any vessel cannot comply with any of the above, Sullom Voe Port Control should be advised prior to arrival or departure.

DOCUMENTS:
General Declaration (C13). In duplicate.
Crew List (IMO FAL 5) or equivalent.

In additional to the above, the following are required if arriving from a Non-EC Port.
Cargo Manifest (if appropriate).
Crew Declaration (C142). In duplicate (incorporating small parcels).
Procedure:
(i) The Master of a ship is responsible for making Report.
(ii) The Report is to be completed in duplicate on arrival.

(iii) If the ship is visited on arrival, the Report is to be handed to the visiting Officer.

(iv) If the ship is not visited on arrival, the original copy of the Report is to be lodged at the Designated Place (H.M. Customs & Excise, Charlotte House, Lerwick), not later than 3 hours after the ship has arrived at its place of loading or unloading.

PILOTAGE: Pilotage is compulsory within the Sullom Voe harbour area.
Pilots: Authorised Pilots are available on a 24 hour basis. A continuous VHF watch is maintained. Call "Sullom Voe Harbour Radio" on Channel 16 or Channel 14.
Pilot Boarding Arrangements: In all normal circumstances the boarding and landing of Pilots at Sullom Voe will be carried out by the Authority's pilot vessels, which are approved for this purpose. Helicopters may be used at certain times and under certain conditions as set out below.
Harbour Area: The Sullom Voe Harbour Area is defined in 'The Sullom Voe Harbour Revision Order 1980' as: "The entire area of Yell Sound and Sullom Voe and adjacent inlets within a line commencing at Ell Wick thence in a Northerly direction along the line of the low water mark on the West side to a point in Latitude 60° 38.27' N., Longitude 01° 18.27' W. on the line of low water mark at the Northern extremity of the Point of Fethaland, thence in an Easterly direction following a straight line to a point in Latitude 60° 38.23' N., Longitude 01° 11.13' W. on the line of low water mark at the Northern extremity of Fogla Lee on the Island of Yell, thence generally in a Southerly and Easterly direction along the line of low water mark on the East side to a point in Latitude 60° 29.15' N., Longitude 01° 05.80' W. on the line of low water mark at the South-eastern extremity of the Ness of Copister, thence in a Southerly direction to a point in Latitude 60° 28.68' N., Longitude 01° 05.97' W. on the line of low water mark at the South–Eastern extremity of the Island of Orfasay, thence in a South–westerly direction following a straight line to a point in Latitude 60° 27.73' N., Longitude 01° 08.37' W. on the line of low water mark at the Southern extremity of Samphrey Island, thence in a Westerly direction following a straight line to a point in Latitude 60° 27.75' N., Longitude 01° 10.82' W. at the root of Mossbank Pier and thence generally in a Northerly and Southerly direction following the line of low water mark to the point of commencement.
Pilot Boarding Areas: Ships arriving from sea which are compelled to take a pilot in compliance with this Direction, or otherwise require a pilot, shall take the pilot on board in the following areas:

(a) Ships approaching the North Entrance of Sullom Voe Harbour Area should rendezvous with the pilot in position Lat. 60° 38.3' N., Long. 01° 14.8' W., with Point of Fethaland lighthouse bearing 260° (T)×1.8 miles.
(b) Ships approaching the South East Entrance of Sullom Voe Harbour Area should rendezvous with the pilot in position Lat. 60° 28.5' N., Long. 00° 56.5' W., with Firths Voe lighthouse bearing 260°(T)×7 miles.
(c) Ships may take a pilot on board in other areas only if expressly directed to do so by an authorised pilot or the Harbour Master.

Note: Vessels boarding pilots by helicopter will usually carry out such operations near North of the normal boarding position for the North Entrance given in (a) above. This may be varied due to weather or other cause and vessels should proceed in accordance with advice from Sullom Voe Port Control when helicopters are used.
Exemption from Compulsory Pilotage: Without prejudice to the generality of the foregoing, the following ships shall be exempt from compulsory pilotage within the Sullom Voe Harbour Area unless as may otherwise be directed by the Harbour Master:

(a) All ships of not more than 300 tons gross registered tonnage which do not have on board dangerous substances to which the provisions of the Dangerous Substances in Harbour Areas Regulations 1987 apply.
(b) All fishing vessels.
(c) All tugboats operating as such exclusively within Sullom Voe Harbour Area.
(d) All ships *in transit* through the Sullom Voe Harbour Area which do not pass South of a line joining the most Northerly point of Gluss Isle and the most Northerly point of Calback Ness.
(e) All ships belonging to Her Majesty.

Pilotage Exemption Certificates: The Secretary of State has directed that the Shetland Islands Council may refuse to grant such Certificates in respect of vessels using Sullom Voe Harbour Area.
Pilot Boats: The Authority has 3 boats for use at the Port of Sullom Voe.

(i) "Sullom Mareel" LOA 16.2 m., service speed 16 knots.
(ii) "Sullom Spindrift" LOA 19.8 m., service speed 20 knots.
(iii) "Sullom Shoormal" LOA 19.8 m., service speed 20 knots.

All boats are of GRP construction and are fully equipped with modern navigational aids.
The freeboard of each boat is approximately 1.5 m.
Pilot Ladder Requirements: All vessels calling at the Port of Sullom Voe must comply with "The Merchant Shipping (Pilot Ladders and Hoists) Regulations 1987 (S.I. 1961)".
The following points are stressed:

(i) The rigging of pilot ladders and the embarkation and disembarkation of Pilots thereby shall be supervised by a responsible deck officer of the ship.
(ii) Every pilot ladder shall be secured in a position clear of any possible discharges from the ship, and so that each step rests firmly against the ship's side.
(iii) Every pilot ladder shall be secured in a position where the Pilot can gain safe and convenient access to the ship after climbing not less than 1.5 m. and not more than 9.0 m.
(iv) Whenever the distance from the water to the point of access to the ship exceeds 9.0 m., access to the ship must be by means of a combination of a pilot ladder and an accommodation ladder, or an equally safe and convenient means.
(v) Owners, Charterers and Masters of vessels should be aware Sections 6 and 7 of the M.S. (Pilot Ladders and Ho Regulations 1987 specifies very clearly the conditions u which accommodation ladders are permitted to be used combination with a pilot ladder when the freeboard exceeds The attention of those involved is drawn particularly to Sec 7(2)(A) of these regulations which reads as follows ". . . the lo end of the accommodation ladder rests firmly against the sid the ship within the parallel body length of the ship and, as fa is practicable, within the mid-ship half section *and leading a* Masters are advised that these regulations will be strictly enfor by the Harbour Authority. Any vessels unable to comply with above section in every particular way should contact their Ag in good time before arrival in order to arrange alternative me for embarking the Pilot.
Any delays and/or additional costs incurred by vessels unab comply with the above regulations will be strictly to the ship's a account.
(vi) Adequate lighting shall be provided at night so that the pilot lad overside and also the position where the Pilot boards the s shall be properly illuminated.
(vii) Actual sea conditions for small craft are not always apprecia when viewed from the bridge of a large vessel. Boarding a landing of pilots is a potentially hazardous operation w requires whole-hearted co-operation between those in contr both the tanker and pilot boat. Hard and fast rules cannot be down to fit every set of circumstances but the following point guidance should be noted.
  (a) All vessels being serviced should be at the Pilot Statio the agreed time and not significantly early or late.
  (b) All vessels being serviced should be ready to respond t reasonable requests from the pilot boat to ensure a s transfer. Agreement as to how and where the transfer take place should be reached in ample time and manoeuvre executed where sufficient sea room exists.
  (c) All vessels being serviced should inform the pilot boat of t intention to change their heading and when that chang heading has been completed.

Pilot Hoists: Pilots are not obliged to use pilot hoists. Any use of th devices must only be at the option of the Pilot, and in general, pilot ho are not acceptable for the boarding and landing of Pilots at Sullom V

Any pilot hoist offered must, in any case, comply fully with t recommendations on performance standards for mechanical pilot ho and also with the recommendations of the European Maritime P Association.
Note: Because of the low ambient air temperature combined with st wind conditions, experience has shown that it is not uncommon for hoists driven by compressed air to freeze. Careful attention shoul paid to this equipment during the Winter months.

Pilot Transfer by Helicopter: Sea conditions at the North Entranc Yell Sound can at times prevent the boarding and landing of Pilo boat even though wind speeds may be within operational li Helicopters may be used at the discretion of the Authority to carry Pilot transfer when such conditions exist. Helicopters may also be in cases where a vessel is unable to provide a satisfactory pilot lad accommodation ladder. Factors affecting the use of helicopters for t purposes are set out below.

1. At present an MBB Bolkow 105 helicopter is contracted t Authority on a sole user basis for purposes of Pilot transfer. helicopter may also be available for ad hoc use by applicat the Director of Marine Operations.
2. The first choice helicopter is capable only of landing on ves to be serviced. Winching operations cannot be carried out b aircraft. It is a small twin-engined helicopter of approxim 2 tonnes weight and with a rotor height of 3 m. Experience shown that this helicopter can safely land on 90% of ves calling at Sullom Voe.
   Winch-capable helicopters may be available but will take longer to obtain and delays could result to the requesting ve
3. The permission of the Master and/or Agents as appropriat be obtained prior to any transfer taking place using the Bolkow 105 helicopter.
4. All transfers by helicopter will be carried out strictly in accord with the U.K. CAA Regulations and the Procedures set out "Guide to Helicopter/Ship Operations" published by International Chamber of Shipping (see extracts reprinted b
5. Any helicopter service is available only to crude carriers combination carriers provided with suitable helicopter oper areas. It is not available to LPG carriers.
6. Any helicopter service is available during daylight hours Service by winch – capable aircraft may be available only ordinary airport opening hours which are typically 0730 weekdays and 1045 – 1430 Sundays.
7. No extra charge will accrue to the vessel when pilots are b and landed by the MBB Bolkow 105 helicopter for reas weather and/or adverse sea conditions. The regular and pu boarding and landing fee is applied.
8. When the MBB Bolkow 105 Helicopter is used to service a with defective boarding and landing equipment, a cha £1,500 plus the regular published boarding and landing operation plus re-charges at cost will be applied.
9. Helicopter operations are co-ordinated by Sullom Vo Control. Vessels serviced in this manner should follow instr issued by Sullom Voe Port Control to facilitate such tran
10. Helicopters used at Sullom Voe are operated only by established companies, currently Bond Helicopters L British International Helicopters Ltd., which operate to the standards and are approved by the Harbour Authority to transfers of personnel.

11. Only experienced aircrew are used and Marine Pilots of this Authority are all experienced in this mode of transfer and trained in accordance with Section 8(h) of the ICS Guide to Helicopter/Ship Operations.

12. When continuous service by MBB Bolkow 105 Helicopter is not available, vessels which require helicopter services for reasons of defective pilot boarding equipment must give early and specific advice of this requirement if delays are to be avoided. Helicopters may be obtained on an ad hoc basis for this purpose subject to availability and will generally transfer by winching only. Only helicopter operators approved by the Harbour Authority will be used.

Note: The Sullom Voe Harbour Authority will endeavour to advise a vessel's Agent or Operator when an additional cost is likely to be incurred due to use of a helicopter for pilot transfer(s). However, all Agents and Operators should be aware that notwithstanding the above, the Harbour Authority will, at its sole discretion, secure helicopters for the purpose of pilot transfers when they deem such service is required. The costs of such operations will be charged to the vessel as appropriate.

For convenience of ships Masters the following extracts from the current "Guide to Helicopter/Ship Operations" are reproduced by kind permission of the International Chamber of Shipping:

5.1 Operational Checks

The Officer in charge should check all operational requirements on deck shortly before the arrival of the helicopter. Different types of ships may require specialist checks.

The general requirements for all types of ships are listed below.

5.1.1 Ship Checks

- (a) All loose objects within and adjacent to the operating area must be secured or removed;
- (b) All aerials and standing or running rigging above or in the vicinity of the operational area should be lowered or secured;
- (c) Fire pumps should be running with sufficient water pressure on deck;
- (d) Fire hoses should be ready. (Hoses should be near to but clear of and, if possible, upwind of the operating area pointing away from the helicopter);
- (e) Foam equipment operators (at least 2 wearing the prescribed firemen's outfits) should be standing by, and have foam nozzles pointing away from the helicopter;
- (f) A rescue party should be detailed with at least 2 members wearing firemen's outfits;
- (g) The man overboard rescue boat should be ready for immediate lowering;
- (h) The following items of equipment should be to hand:
  - (i) Portable fire extinguishers.
  - (ii) Large axe.
  - (iii) Crowbar.
  - (iv) Wirecutters.
  - (v) Red emergency signal/torch.
  - (vi) Marshalling batons (at night).
  - (vii) First aid equipment.
- (i) The correct lighting and signals (including special navigation lights) should be switched on prior to night operations;
- (j) The deck party should be ready, and all passengers clear of the operating area;
- (k) Hook handlers should be equipped with electricians' strong rubber gloves and rubber soled shoes to avoid electric shocks from static discharge;
- (l) All the deck crew should be wearing bright coloured life vests and protective helmets securely fastened with a chin strap;
- (m) The Officer of the watch on the bridge should be consulted about the ship's readiness.

5.1.2 Landing On (These checks are additional to those in 5.1.1):

- (a) The deck party should be made aware that a landing is to be made;
- (b) The operating area should be free of heavy spray or seas on deck;
- (c) Awnings, stanchions and derricks and, if necessary, side rails should be lowered or removed.

As outlined under "Pilot Transfer by Helicopter" the Port Authority uses a MBB Bolkow 105 Helicopter for boarding and landing of pilots in certain circumstances.

The primary purpose is to provide a service when sea and swell conditions at the boarding stations are such that boatwork must be suspended, but it is also used when vessels are unable to provide the correct pilot boarding equipment.

This helicopter cannot carry out pilot transfer by winching and must land on the vessel to be serviced. The arrangements approved by the United Kingdom Civil Aviation Authority for the MBB Bolkow 105 to land on vessels are shown in the "Plan Section". However, for a trial period, approval has been given by the CAA which allows the helicopter to land on vessels to be serviced at Sullom Voe without the necessity for the vessel to lower the shipside rails. This temporary approval may not continue in the longer term and owners and managers of vessels trading to Sullom Voe who wish to continue to avail themselves of the service must now consider carrying out the minor structural modifications shown in the "Plan Section".

The modifications required are adaptation of the ship-side rails in way of the landing area to allow these to fold down inboard and remain secured in the folded down position and the application of non-skid paint to the landing circle. Both items are inexpensive and may be carried out without waiting for the next drydock or repair schedule.

Operators of ships trading regularly to Sullom Voe are hereby strongly urged to ensure that their vessels are adapted and equipped to comply with this requirement at the earliest opportunity.

Should further clarification be required this may be obtained by contacting the Port Authority.

APPROACHES: *Routeing and Aerial Surveillance in Shetland Waters.*

Vessel routes in Shetland Waters:

Applicable to all tankers, combination carriers and LPG vessels, loaded or in ballast calling at Sullom Voe.

Shetland Islands Council, conscious of the dangers to navigation around the Shetland coast, due largely to offshore obstructions, strong tides, rapid weather changes and the presence of fishing vessels, vigorously discourages navigation close to the Shetland coastline. The International Maritime Organisation has now ratified this "area of avoidance" as from 16th November 1991, with extended areas as from 28th November 1993 and a new area is established around Fair Isle.

1. Mariners should observe the IMO scheme as detailed on the navigation charts for the Shetland area. Any vessels found within an "Area to be Avoided" will be reported to the flag state in addition to Owners and Charterers.
2. Vessels which use the Pilot Station at the South East entrance to Yell Sound are requested to navigate as follows:
   (a) Vessels approaching the Shetland Islands from the South and making for the Pilot Station at the South East entrance to Yell Sound or wishing to anchor in Colgrave Sound are advised to navigate to a position 20 miles East of Out Skerries, before altering course to the Pilot Station or to Colgrave Sound.
   (b) Vessels approaching from the North and making for the Pilot Station at the South East entrance to Yell Sound or wishing to anchor in Colgrave Sound are advised to navigate to a position 20 miles East of Fetlar, before altering course to the Pilot Station or Colgrave Sound.
3. Where for any reason of safety or emergency, it is not possible to comply with the foregoing, you are required to notify immediately your intentions with reasons, to Sullom Voe Port Control by VHF Channel 16 or via Agents.
4. Charts should not be cleaned off before berthing at Sullom Voe to allow checking by Harbour Authority.
5. In the event of breakdown and your vessel drifts, or is likely to drift, within the Areas to be Avoided/Precautionary Areas, you must contact Sullom Voe Port Control or Shetland Coastguard by VHF Channel 16 at the earliest opportunity.

Areas to be Avoided:

1. Area to be Avoided, North of Shetland:
   Vessels should avoid the area bounded by lines connecting the following positions:
   (1) 60° 39.5' N., 1° 09.3' W.
   (2) 61° 04.3' N., 1° 09.3' W.
   (3) 61° 04.3' N., 0° 29.7' W.
   (4) 60° 38.4' N., 0° 12.2' W.
   (5) 60° 34.2' N., 0° 48.0' W. (Funzie Ness)
   (6) 60° 33.8' N., 0° 53.5' W. (Rams Ness)
   Thence up the Eastern side of Colgrave Sound to
   (7) 60° 35.8' N., 0° 55.4' W.
   (8) 60° 36.8' N., 0° 58.0' W.
   (9) 60° 38.4' N., 0° 58.8' W.
   Thence along the coastline to position (1).
2. Areas to be Avoided, West and South of Shetland:
   Vessels should avoid the area bounded by lines connecting the following positions:
   (10) 60° 02.50' N., 1° 10.20' W. (Heli Ness)
   (11) 59° 59.87' N., 1° 09.37' W. (Perie Bard Lt.)
   (12) 59° 41.0' N., 1° 12.0' W.
   (13) 59° 42.7' N., 1° 26.0' W.
   (14) 60° 02.0' N., 2° 48.0' W.
   (15) 60° 15.0' N., 2° 48.0' W.
   (16) 60° 42.5' N., 2° 09.0' W.
   (17) 60° 42.5' N., 1° 22.0' W.
   (18) 60° 40.0' N., 1° 17.0' W.
   (19) 60° 37.3' N., 1° 17.9' W.
   Thence along the West coastline to position (10).
3. Areas to be Avoided, Fair Isle:
   Vessels should avoid the area contained wihtin a circle of radius 6.5 nautical miles centered 59° 32.0' N., 1° 38.0' W.
4. Precautionary Area, Northern Approaches to Yell Sound:
   Bounded by a line connecting the following positions:
   (20) 61° 04.3' N., 1° 09.3' W.
   (21) 60° 39.5' N., 1° 09.3' W.
   (22) 60° 40.0' N., 1° 17.0' W.
   (23) 60° 42.5' N., 1° 22.0' W.
   (24) 60° 42.5' N., 2° 09.0' W.
5. Precautionary Area, Southern Approaches to Yell Sound:
   Bounded by a line connecting the following positions:
   (25) 60° 27.4' N., 1° 02.4' W.
   (26) 60° 24.0' N., 0° 02.5' W.
   (27) 60° 38.4' N., 0° 12.2' W.
   (28) 60° 34.2' N., 0° 48.0' W.
   (29) 60° 33.8' N., 0° 53.5' W.
   Thence up the Eastern side of Colgrave Sound to
   (30) 60° 35.8' N., 0° 55.4' W.
   (31) 60° 36.8' N., 0° 58.0' W.
6. Precautionary Area, Approaches to Lerwick:
   Bounded by a line connecting the following positions:
   (25) 60° 27.4' N., 1° 02.4' W.
   (26) 60° 24.0' N., 0° 02.5' W.
   (12) 59° 41.0' N., 1° 12.0' W.
   (11) 59° 59.87' N., 1° 09.37' W. (Perie Bard)
   IMPORTANT: By local agreement with the oil industry at Sullom Voe, all vessels loaded or in ballast should abide by the above Areas to be Avoided and Precautionary Areas.

ANCHORAGES: There are no suitable anchorages available for large tankers in the Port of Sullom Voe.

However, certain vessels may be anchored in the harbour at the discretion of the Harbour Master.

Vessels are permitted to anchor in Colgrave Sound (Lat. 60° 35' N., Long. 00° 57' W. approx.) when circumstances dictate that this is appropriate. In doing so, Masters should make reference to charts B.A. 3282 and 3292, the North of Scotland Pilot – NP. 52, page 99 and "Routeing and Aerial Surveillance in Shetland Waters", see "Approaches".

In addition, the following guidance to the usage of Colgrave Sound is relevant and all vessels intending to anchor there should comply with the advice given herein.

1. Colgrave Sound is used extensively by fishing craft throughout the year and Masters of other vessels are requested and required to give such fishing vessels a wide berth.
2. Three designated anchorages in Colgrave Sound have been identified as being suitable for large vessels and clear of established fishing grounds. These anchorages should be used in preference to any other area of Colgrave Sound. (See "Plan").
3. Colgrave Sound is outside the Sullom Voe Harbour Area and also outside the extended area of coverage of the Harbour surveillance radar. It is however observed several times each day by the surveillance aircraft. Therefore any information given by Sullom Voe Port Control to vessels proposing to anchor in Colgrave Sound is given in good faith and on the understanding that neither the Harbour Authority nor its servants will accept liability for the consequences of any vessel dragging anchor, colliding with any other vessel, stranding, causing pollution, or any other occurrence occasioned by or to the vessel concerned whilst navigating or at anchor within Colgrave Sound and its approaches.
4. Sullom Voe Harbour Authority will, however, give every assistance to any vessel seeking information about the Colgrave Sound area with the objective of establishing orderly navigational disciplines in the area for the benefit of all users.
5. To this end any vessel (including oil rigs, oil exploration vessels, barges and supply craft) wishing to anchor in Colgrave Sound is requested, in the first instance, to contact Sullom Voe Port Control. The vessel will then be advised which designated anchorage is believed to be unoccupied and which may therefore be used by the vessel.
6. The designated anchorages are identified by the numbers 1, 2 and 3 (See "Plan") and also by bearing and distance of the White Hill Lighthouse (Lat. 60° 34.9' N., Long. 01° 00.1' W.) as follows:
   Anchorage 1: White Hill Lighthouse bearing 238°T×1.50 miles.
   Anchorage 2: White Hill Lighthouse bearing 253°T×0.95 miles.
   Anchorage 3: White Hill Lighthouse bearing 260°T×1.68 miles.
7. Masters of vessels making use of any of the designated anchorages are requested to provide Sullom Voe Port Control with details of their anchorage position when brought up.
8. Masters of vessels approaching or at anchor within Colgrave Sound are requested to strictly observe the regulations prohibiting the dumping of industrial debris, offensive and noxious substances and oil pollution.

Masters should beware of 2 submarine oil pipelines on the East Side of Shetland shown on the latest charts and referred to in "North Coast of Scotland Pilot", pages 94 and 95.

Except when advised otherwise, Masters should proceed to a point 10 miles off Gruney Island (Lat. 60° 39' 00" N., Long. 01° 18' 00" W.). Thereafter, Masters should follow directions in "North Coast of Scotland Pilot", page 54, noting, however, that there are areas of poor VHF communication with Sullom Voe Harbour Radio to the West and North of Yell Sound.

RESTRICTIONS: *Vessels with large Windage Areas:* Vessels of more than 6,400 sq.m. windage will be subject to a 20 knot wind restriction on berthing. Windage should be calculated as LOA times mean freeboard.

MAX. SIZE: See "Berthing", "Loading/Discharging Facilities" and "Liquefied Petroleum Gas Facilities".

HEALTH: The following Port Health procedure applies at the Sullom Voe Terminal.

The Master has no need to obtain health clearance unless:

(i) An authorised officer otherwise directs.
(ii) A death or illness has occurred as defined in the Public Health (Ships) (Scotland) Regulations.
(iii) An abnormal mortality among rats or mice on board has occurred.

Where it is necessary to obtain "Free Pratique" for health purposes, the Master should provide the following documents:

(i) Maritime Declaration of Health.
(ii) A list of passengers and crew leaving the ship, together with the addresses they are going to in the United Kingdom.

Derat Exemption Certificates: The Sullom Voe Terminal is an "approved" Port, and Derat Exemption Certificates will be issued by the Director of Environmental Health and Trading Standards of the Shetland Islands Council. Also see "Health – All Ports" before first U.K. port.

RADIO: *ETA Requirements:* Vessels bound for Sullom Voe are required to provide the Harbour Authority with the following information.

(i) An estimated time of arrival at least 24 hours prior to arrival or on leaving the last port (whichever is later). In addition to this ETA, Masters are to include the estimated time of crossing Lat. 58° 20' N. and estimated longitude on crossing that latitude, and the intended inward courses and turnpoints from that position to the Pilot Station. Vessels arriving from the North Atlantic or Northern North Sea should use a position 200 miles from the Pilot Station.
(ii) Confirm the vessel's ETA at least 6 hours before arrival at the seaward limit of the Harbour Area and thereafter notify any significant change in excess of 1 hour.
(iii) On coming within range of "Sullom Voe Harbour Radio", the ETA to be given by VHF (Channel 16 or Channel 14).

Pre-Arrival Information: 24 hours prior to arrival, all vessels call Sullom Voe should cable "Portcontrol Sullomvoe" the foll information (metric units to be used where appropriate):

(i) Ship's name and call sign.
(ii) Port of Registry.
(iii) Name of Master.
(iv) G.R.T.
(v) Summer deadweight (metric tonnes).
(vi) Length overall and beam (metres).
(vii) Draft fore and aft.
(viii) Bunkers/Fresh Water/Stores quantity on board.
(ix) Whether loaded or in ballast. If loaded, nature and quant cargo.
(x) Whether vessel is carrying segregated ballast.
(xi) If so, quantity and at which port taken onboard.
(xii) Dirty ballast quantity (tonnes).
(xiii) Berthing deadweight as a percentage of the Summer d (minimum acceptable 35%).
(xiv) Which Pilot Station on arrival.
(xv) Pilot boarding arrangements.
(xvi) Number of crew.
(xvii) Last Port of call.
(xviii) Does ship have a fully operational inert gas system and a cargo/deep tanks inerted to a maximum of 8% oxygen co (2% for LPG carriers)?
(xix) Berthing displacement (tonnes).
(xx) P & I Club name.
(xxi) Previous cargo type.
(xxii) Confirm cargo tank gases have less than 100 p.p.m. H_2S.
(xxiii) Is all navigation, safety, anchoring and mooring equipment operational and ready for use? If not, specify. All anchors t cleared away on arrival at the Pilot Station.
(xxiv) Confirmation to be given that vessels are complying in all resp with "The Merchant Shipping (Tankers) (EEC Requirem Regulations 1981".
(xxv) Confirm that engines will be tested to come astern before boards.
(xxvi) Vessel's Inmarsat and Telex numbers.

NOTE: All segregated ballast tanks are sampled and analysed b permission is given to discharge into the harbour.

VHF: *VHF Radio Communications:*

1. Sullom Voe Harbour Radio maintains a continuous listening w on the following VHF Channels: 16, 9, 10, 12, 14 and 20. Ve should, where possible, only use Channel 16 for initial calling refrain from using Channel 10, which is designated for emerg purposes and Channel 9 which is the primary pilotage/tug wo channel.
2. ALL vessels entering or leaving the Sullom Voe Harbour Are requested to contact "Sullom Voe Harbour Radio" initially on Channel 16, or Channel 14. This includes all vessels in t through Yell Sound.
3. Any vessel intending to use the deep water channels mark the leading lights of Gluss Isle, the white sector of Queyfirth the white sector of Skaw Taing Light, the Fugla Ness leading or the Sella Ness leading light, for the purpose of fishing must such intentions to "Sullom Voe Harbour Radio" and rep intervals not exceeding 2 hours while fishing.
4. Any vessel may receive traffic information on request by cont "Sullom Voe Harbour Radio" on Channel 16 or Channel 14.
5. Brief local weather forecasts will be broadcast on request "Sullom Voe Harbour Radio" on Channel 16 or Channel 14.

Misuse of VHF Radio:

Owners, Masters and Skippers are reminded to read Me Shipping Notice No. M1026, which refers to the misuse of VHF in

The improper use of VHF is illegal and can cause serious distur to communications concerned with the movement of shipping in tho area.

The co-operation of all port users is requested to ensure that misuse does not occur.

Port Operation and Control Services: All shipping movements wi Harbour Area are monitored from a Port Control Room in the Administration Building at Sella Ness.

The Port Control Room is manned on a 24 hour basis by Officers who are licensed Pilots.

These Marine Officers, in their capacity as Port Controllers, m a continuous VHF and radar watch. They provide advice to Maste Pilots on all navigational aspects (including weather forecasts) wi area, direct shipping movements within the port, and liaise w Terminal Operator and emergency services.

The following VHF Channels are continuously monitored in th Control Room:

Channel 16	Calling, Safety and Distress.
Channel 9	Tanker pilotage and tug handling.
Channel 10	Port emergency, fire or oil pollution.
Channel 12	Secondary Port Control working frequency.
Channel 14	Main Port Control working frequency.
Channel 20	Secondary Port Control working frequency.

The call sign for Sullom Voe Pilots is "Sullom Voe Harbour R

In addition, Sullom Voe Terminal monitors Channels 16 and arrival information will be given on Channel 19. Initial contact sh made on Channel 16 using call sign "Sullom Voe Terminal".

It is emphasised that Masters should try to contact the Ter soon as possible prior to arrival at the Pilot Boarding Area, so tha information may be exchanged before commencing the inward p through Yell Sound.

Channel 24 – Link calls for commercial radio traffic can be a on this channel. Call-sign "Collafirth Radio".

Control of Traffic: The Port Controller may direct the moveme vessel within the Harbour Area. Overtaking and passing is pro the Deep Water Channel within an area bounded by a lin

Queyfirth Light and the Northern extremity of Lamba Island and a line joining Skaw Tang Light and the front leading light on Gluss Isle.

No vessel having an overall length in excess of 50 m. shall navigate so as to pass or overtake an LPG carrier underway anywhere within Yell Sound or Sullom Voe between lines drawn between the Northern extremity of Muckle Holm (Lat. 60° 35.1' N., Long. 01° 15.8' W. approximately) and the Northern extremity of the North Holm of Burravoe (Lat. 60° 35.4' N., Long. 01° 18.2' W. approximately) and between the Northern extremity of Lunna Holm (Lat. 60° 27.5' N., Long. 01° 02.4' W. approximately) and the Southern extremity of Heoga Ness (Lat. 60° 29.4' N., Long. 01° 02.4' W. approximately).

Reporting Positions: During transits of Yell Sound and approaches to Sullom Voe, all vessels are required to report to Port Control when passing the following positions:

A. Lat. 60° 38.25' N., Long. 01° 14.82' W. with Point of Fethaland Lighthouse bearing 260° T×1.8 miles.
B. Lat. 60° 34.95' N., Long. 01° 16.56' W. with Muckle Holm Lighthouse bearing 105°T×0.35 miles.
C. Lat. 60° 31.35' N., Long. 01° 18.49' W. with Queyfirth Lighthouse bearing 285°T×0.49 miles.
D. Lat. 60° 29.32' N., Long. 01° 17.47' W. with Skaw Taing Lighthouse bearing 118°T×0.41 miles.
X. Lat. 60° 28.50' N., Long. 01° 10.70' W. with Mossbank Lighthouse bearing 175°T×1.25 miles.

RADAR: Full radar coverage exists for Yell Sound and Sullom Voe. Comprehensive coverage includes the 'funnel' of approach to the Northern Pilot Boarding Station and also the S.E. entrance channels and the associated seaward approaches.

The main scanner is located on the Hill of Vats Houlland (Lat. 60° 27.96' N., Long. 01° 17.49' W. and the secondary scanner, which provides coverage of the S.E. entrance and Western approach channels, is located near Brough (Lat. 60° 28.90' N., Long. 01° 13.04' W.). Both scanners are connected by microwave links to displays in the Port Control Room.

Port Control maintains a continuous radar watch, and the passage of each vessel is monitored and recorded. Advice is available to vessels on request.

TUGS: At present a fleet of harbour tugs provide a towing service for vessels at the Port of Sullom Voe. These are stationed at the Sella Ness Jetty adjacent to the Port Administration Building.

The fleet is operated by Shetland Towage Ltd., a private company owned and operated by a joint venture between Shetland Islands Council, Clyde Shipping Company and Cory Ship Towage.

The fleet consists of 3 twin screw 3,800 h.p. vessels, each having a bollard pull of 55 tons. These vessels are fully equipped as fire-fighting tugs and pollution control vessels and were built by Hall Russell and Company Ltd., in Aberdeen, in 1978. Named after Shetland birds, they are:

"Stanechakker", "Swaabie", "Lyrie"

Two additions to the fleet are Voith water tractors, built in 1983 by Ferguson Ailsa Ltd., at Port Glasgow. These vessels have twin 32G Voith units developing 4,000 b.h.p. and a bollard pull of 45 tons. Also given bird names, they are:

"Tirrick", "Shalder"

The use of tugs and their numbers will be as directed by the Harbour Master. Prior to arrival, vessels should ensure that heaving lines of adequate length and breaking strain are readily available to assist in securing the tugs.

Tugs will normally meet incoming vessels at a position close South of Outer Skerry. Officers and crew should be standing by to receive lines and all necessary tugs must be secured before the vessel's ability to manoeuvre becomes restricted.

When a vessel is berthing, tugs will be secured to the bow and stern of the vessel with towing lines and alongside in a push pull mode. Their mode of operation and disposition will be fully explained by the Pilot on arrival. Tug lines will normally be used throughout, either from towing hook or towing winch.

It is requested that wherever possible tug orders for movements before 0900 hrs. be placed before 1700 hrs. on the preceding day.

BERTHING: The following criteria apply to conventional vessels loading at crude and gas jetties at Sullom Voe.

The minimum under-keel clearance permitted is 1 m. alongside jetties and 2 m. elsewhere in the Harbour Area.

Oil tankers/combination carriers in the range of 18,000 tons deadweight to 350,000 tons deadweight may be accepted at Sullom Voe, as a matter of routine.

Vessels outside the parameters listed below and vessels of unconventional design may be accepted at Sullom Voe subject to individual consideration by the Harbour Master and Terminal Operator.

Limiting Vessel Sizes:

Jetty No. 1:	**Crude Oil Carriers**
LOA	170 m. to 280 m.
Depth alongside	16.9 m.(minimum)
Max. allowed draft	15.9 m.
	LPG Carriers
LOA	140 m. to 260 m.
Capacity	10,000 cu.m. to 75,000 cu.m.
Jetty No. 2:	**Crude Oil Carriers**
LOA	210 m. to 365 m.
Depth alongside	23.1 m. (minimum)
Max. allowed draft	22.1 m.
Jetty No. 3:	**Crude Oil Carriers**

(Jetty No. 3 was taken out of service in September 1989)

Jetty No. 4:	**Crude Oil Carriers**
LOA	210 m. to 365 m.
Depth alongside	23.6 m. (minimum)
Max. allowed draft	22.6 m.

Note: (i) Vessels entering in ballast or partially loaded conditions should ensure that their draft does not exceed 13 m. as this is the draft normally allowed in the South Turning Area.

(ii) In all cases where the arrival draft is likely to exceed 13 m., prior permission from the Harbour Master shall be obtained before the vessel is fixed to load at Sullom Voe.

Loading Systems:

All crude loading arms are 150 ASA 16 in. hydraulic connections. This includes Jetty No. 1 where 16 in. connections are attached to 12 in. arms. All LPG loading arms have 150 ASA Camlock connections.

No. 1	Crude	4×12 in.	Loading arms	hydraulic connections.
	LPG	2×12 in. 1× 8 in.	Loading arms	hydraulic connections.
No. 2	Crude	4×16 in.	Loading arms	hydraulic connections.
No. 4	Crude	4×16 in.	Loading arms	hydraulic connections.

Manifold Heights:

	Heights above chart datum *Max.*	*Min.*
No. 1 Crude	22.70 m.	1.80 m.
LPG	21.50 m.	3.50 m.
No. 2 Crude	31.30 m.	2.60 m.
No. 4 Crude	31.30 m.	4.23 m.

Maximum allowable pressure on lines and connections: 150 p.s.i.

Jetty Orientation:

No. 1	280°/100°
No. 2	135°/315°
No. 4	145°/325°

Gangway: Shore tower type gangways are provided at all times. If for any reason, a shore gangway will not be available, ships will be advised in good time, and will themselves be required to provide ship/shore access.

MOORING: The 3 loading jetties (and No. 3 Jetty which is now retired) are located in deep water on the Northern shores of Sullom Voe, adjacent to the Terminal complex at Calback Ness.

The berths are numbered 1 to 4 in sequence from East to West. Jetty No. 1 has facilities for both crude and LPG carriers and can accommodate vessels up to 120,000 d.w.t. Jetties No. 2 and 4 have crude loading facilities only and are designed to accommodate tankers up to 350,000 d.w.t. range. (Larger tankers may be accepted at the discretion of the Harbour Master and Terminal Operator). Jetty No. 3 was taken out of service in September 1989.

Each jetty is of conventional "T" shaped construction with 4 breasting dolphins in line with the jetty head. The mooring dolphins are offset from the line of breasting dolphins to provide an optimum lead for mooring lines. Vessels may land at a maximum angle of 8° to the jetty face. Quick release mooring hooks are fitted on all dolphins. For use with large vessels, quick release mooring pulleys have been fitted on Berths No. 2 and 4. These pulleys, one at each end of the berth are designed to accept a ship's mooring wire in the form of a bight.

Large flexible rubber fenders are fitted to the outer faces of each breasting dolphin. Each has a generous energy absorbing capacity.

Each mooring operation will be assisted by a purpose-built mooring boat.

ACTIONS TO BE TAKEN IN SEVERE WEATHER CONDITIONS

1. At least 1 tug shall be called out by the ship's Master to assist in keeping *any* vessel alongside when all the following conditions exist:
   (a) Where the mean freeboard height of the vessel exceeds the mean draft,
   (b) When the wind is of sufficient speed for loading to be suspended.
   (c) When the wind is from a direction within an arc extending from 10° seaward of the berthing line through North to 10° seaward of the berthing line.
2. At the time of suspending loading/deballasting operations because of deteriorating weather conditions, the Terminal Loading Supervisor will advise Port Control immediately of any vessels in the condition stated in 1(a) above.
3. When a tug is called out under the conditions stipulated in (1) above:
   (a) The Terminal Loading Supervisor will notify the Master of the situation and request that the vessel be brought to a state of immediate readiness.
   (b) With the exception of the Port Controller, such Pilots as are available will station themselves aboard those vessels which are considered to be most vulnerable, and any vessel with a tug alongside must be attended by a Pilot throughout the period a tug is required.
   (c) The Duty Harbour Master will be notified by the Port Controller.
4. Tugs may be necessary to assist in keeping vessels alongside when some of the conditions in (1) above are absent, and may or may not be called for by the vessel. In such circumstances any vessel requiring tug assistance will also be attended by a Pilot who will board the vessel as soon as possible and remain on board throughout the whole period a tug is in attendance. In these circumstances the Duty Harbour Master will be informed by the Port Controller.
5. Notwithstanding anything contained in 1 – 4, the Duty Port Controller may, *before consultation with the Harbour Master,* call out such tugs as are required, at any time, if he feels the situation warrants this action. In the case of large vessels in light condition for example, it may be prudent in certain circumstances to call out the tugs when the wind off the berth is less than that stated in paragraph 1(b) above. In such cases the Duty Port Controller should exercise his discretion.
6. In all situations where tugs are required to assist a vessel moored alongside, a Pilot will also be stationed on board that vessel as soon as possible after tugs are called out, and will remain on board throughout the whole period the tugs are in use.

General Mooring Requirements:

1. Masters should ensure that mooring lines are in good condition. Winch brakes or securing devices should be in efficient operating order and should have a holding power of at least 60% of the breaking load of the vessel's mooring lines. (On vessels constructed before 1978 these conditions may be met by placing the winch in gear and applying power in addition to applying the brake).

2. Any known defects in the vessel's mooring system or limitation of mooring winch brakes should be reported to the Pilot and the Terminal before arrival in order that, if necessary, additional precautions may be agreed.
3. In order to avoid damage to loading arms and the serious consequences of oil pollution, the vessel should be kept close alongside at all times.
4. It is recommended that wires (or wires fitted with synthetic fibre rope tails of at least 25% greater breaking load than the wire), should be used for all mooring lines.
5. The following mooring requirements shall apply to all crude and gas tankers in excess of 10,000 tons gross and in general all mooring operations shall be conducted in accordance with the OCIMF "Guidelines and Recommendations for the Safe Mooring of Large Ships at Piers and Sea Islands".
    - 5.1 Where a crude or gas tanker has undergone a mooring audit on a previous visit to Sullom Voe, the ship must be moored exactly in accordance with the mooring plan. If for any reason this is not possible the ship should be secured in compliance with Section 5.2, 5.3 or 5.4 as appropriate and the details reported to the Port Controller for the attention of the Director of Marine Operations. Audited mooring plans shall not be altered, amended or edited without the approval of the Director of Marine Operations.
    - 5.2 Where a crude or gas tanker is equipped with synthetic mooring lines or a random mixture of synthetic and wire mooring lines, the ship shall be secured by a minimum of 4 head lines/stern lines, 4 breast lines and 2 springs at each end of the ship.
    - 5.3 Where a crude or gas tanker is equipped with wire mooring lines only, the ship shall be secured in accordance with the appropriate mooring guide plan (See Plan).
    - 5.4 Where a crude or gas tanker has not undergone a mooring audit and is not designed or equipped to comply with the requirements outlined in Section 5.2 and 5.3 it shall be secured as near to these requirements as possible and in any case to the satisfaction of the Master, the Pilot and the Loading Supervisor. If such ships cannot be secured satisfactorily, the loading arms must not be connected and the duty Harbour Master shall be contacted immediately.
    - 5.5 Mooring lines leading in the same directon of restraint shall be of similar material and construction throughout their lengths from jetty mooring point(s) to vessel's securing point(s).
6. Particular care should be taken to ensure sufficient transverse restraint from breast moorings. When synthetic fibre mooring lines are used, pre-tensioning of these lines on making fast will help prevent drift of the vessel away from the berth in "off the berth" wind conditions.
7. As soon as the vessel is secured, brakes on all mooring winches should be firmly applied. Winches must not be left on automatic tensioning. Full steam pressure or power to all mooring winches should be maintained at all times when alongside. On split drum mooring winches only one layer of rope shall be permitted on the working half of the drum. *Notwithstanding any of the foregoing it is the Master's responsibility to ensure that his vessel remains securely moored at all times.*
8. An efficient watch must be maintained on the vessel's moorings at all times to ensure that all lines are properly tensioned and tended when required. The deck watch should make regular checks that mooring winch brakes are applied at the correct setting.

NOTE: A Master advised (December 1992) that rope tails on wires should be about 9.0 m. in length.

LOADING: *Maximum Loading Rate per Arm:*

Crude:		
Jetty 1	12 in. loading arm	2,500 metric t.p.h.
Jetty 2	16 in. loading arm	5,000 metric t.p.h.
Jetty 4	16 in. loading arm	4,100 metric t.p.h.
LPG:		
Jetty 1	8 in. loading arm	900 cu.m./hr.
Jetty 1	12 in. loading arm	2,100 cu.m./hr.

Connection of Loading Arms: Confirmation to be given that vessels will arrive with the required spool pieces fitted to their manifold for either crude or LPG fitting.

Manifolds should comply with latest OCIMF Standards. As a minimum there must be 500 mm. between faces of spool/reducer presented for connection. Reducers must be equally tapered.

Failure to present correct reducer/spool will result in delays. The Terminal does not have reducers, but does have 16 in. to 16 in. spool pieces. Should it be necessary to use the Terminal's spools a charge will be levied.

CRUDE The connection of loading arms will be undertaken by shore personnel. Vessels should arrive with 16 in. 150 ASA manifolds, ready for connecting to the loading arms.

LPG The connection of loading arms will be undertaken by shore personnel. Vessels must have 150 ASA manifolds for connection to the loading arms. Sizes will either be 12 in. or 8 in. as directed by the Terminal.

Ships manifolds should be presented as Class 150 ASA using ship's reducers.

Failure to present correct reducer/spool will result in Terminal levying a charge for their own equipment, if available.

Masters should ensure that the deck firemain is pressurised at all times and fire extinguishers and fire hoses are ready for use at the ship's manifold in accordance with Jetty Regulations.

Crude Oil Storage: 16 conventional floating roof storage tanks constructed, each with a capacity of 600,000 bbls. These provide sto facilities in the event of berthing delays and ensure sufficient stoc enable tankers to load without delay.

The storage tanks have been constructed with bases as muc 30 m. above sea level, to allow gravity loading. However 6 oil loa pumps are installed to increase the loading rate as may be require the vessel.

Loading Rates: Maximum loading rates of 10,000 tonnes/hr. at Jet 17,500 tonnes/hr. at Jetty 2; 16,400 tonnes/hr. at Jetty 4 can be prov at the terminal.

The LPG loading system delivers up to 3,000 cu.m./hr.

Cargo Measurement: Meters are installed for cargo measurem Bill of Lading quantities are calculated from meter readings.

LIQUEFIED PETROLEUM GAS FACILITIES: There is a single insulated pipeline from the LPG storage area to Jetty No. 1 for ta loading. The LPG tankers using Jetty No. 1 range in size from 10 to 75,000 cu.m. capacity and they transport butane and propane u refrigerated conditions as in the onshore tankage.

Navigation, Mooring, Berthing: Except by permission obtained from Harbour Master, no LPG ship shall at any time be navigated in, l or be moored in any part of the harbour.

No LPG ship shall be anchored or moored except

(a) at a quay duly approved by the Harbour Authority
or

(b) in such position as the Harbour Master shall from time to direct

and no LPG ship shall be removed from such last mentioned pos except in accordance with the order or permission of the Harbour Ma or for the purpose of leaving the harbour forthwith.

An LPG ship shall at all times lie safely afloat.

While an LPG ship is at a quay

(a) it shall be securely made fast as close alongside as pos in a manner approved by the Harbour Master.

(b) its moorings shall be adjusted from time to time to allo the rise and fall of the tide and for the loading and discha of cargo.

Except in accordance with such conditions as may from time to be prescribed by the Harbour Master, no ship or harbour craft when moored, unmoored or anchored, lie or pass within 30 m. o LPG ship which is moored or anchored, without permission o Harbour Master.

Loading and Discharging: All jetty LPG drains and ships' scu whereby LPG can, in case of spillage, escape to the Harbour sh open before loading or discharging commences and shall be kept during the whole period of such operations.

All vessels calling at Sullom Voe Terminal must be in possess a Certificate of Fitness under the terms of the IMO code fo construction and equipment of ships carrying liquefied gases in and be in possession of an appropriate Classification Soc Certificate.

Also see "Report" dated October 1983.

DRY CARGO FACILITIES:

Construction Jetty: A concrete pier suitable for coastal traffic is lo in Garths Voe, East of Jetty No. 1.

This pier, orientated on a 108°/288° axis is 100 m. long and can a ships on both the North and South faces.

The North Berth is equipped with a fixed Ro/Ro ramp which width of 10.7 m., a total length of 23.7 m. and a fixed gradient o The height of the sill is 1.67 m. above MHWS.

The pier is well fendered with patent fenders and tyres. The d at the pier range from 9.9 m. at the Eastern extremity, rising to at the Ro/Ro ramp.

Bunkers can be supplied by road tankers to vessels using this

There is no permanent dock labour force available on site at S Voe. However, stevedoring services can be obtained as and required from Lerwick, arrangements for which should be made th the local ships' Agents or receivers of cargo, as appropriate.

Garths Pier: This 2 finger jetty is situated adjacent to Sella Ness Ind Estate.

The inside berths have a length of 41 m. and the outside berth a of 65 m. Each finger is 7.3 m. wide. There is a depth of 4 m. alo for the lengths stated; thereafter the depth decreases rapidly.

Graven Pier: A small concrete fishing pier is situated on the So shore of Garths Voe. The pier has been designated as an structure and must not be used. Vessels previously using Grav should now use Garths Pier.

Tug Jetty: Harbour tugs and pilot boats are stationed at an "L" s jetty located on the Southern shore of Garths Voe adjacent to Sell This jetty, of cellular design is constructed of concrete and stee

Fendering arrangements consist of used tyres suspended at i along the jetty face. This pier is suitable for coastal traffic but is n as such on a regular basis.

The present minimum depth off the main face of the approximately 6.9 m.

Limited supplies of gas oil are available from a bunkering poi jetty. Further supplies are available by road tanker.

Gaza Jetty: (Lat. 60° 26' 10" N., Long. 01° 21' 02" W.).

A small jetty has been constructed at Gaza near Sullom for the of exporting aggregates from nearby quarries. The jetty face is on the N.E. side of the seaward extremity of a rock armoured ca The jetty face is 30 m. in length and is well fendered. The orie on a 111°/291° axis. The depths alongside the pier range fro to 3.7 m. below chart datum at the landward extremity.

An anchor with cable and clump weight has been laid S.W. o head. A wire is attached to the cable for the purpose of atta vessel's mooring lines.

At the Harbour Master's discretion vessels up to 75 m. in le use the jetty.

Colla Firth Pier: (Lat. 60° 32' 24" N., Long. 01° 20' 47" W.).

A small jetty has been constructed in the North West corner of Colla Firth which is located on the West side of Yell Sound. The pier is utilised by both fishing and commercial vessels and is licensed to handle explosives.

The main berthing face is 55 m. in length and has an orientation of 100°/280° and a minimum depth of 6 m. Berthing for smaller vessels is also available on the Northern side of this pier.

OIL POLLUTION SURVEILLANCE: Only clean ballast contained in tanks completely segregated from main cargo tanks will be allowed to be discharged into the Harbour, but then only after testing by the Terminal Operator and approval by the Port Authority.

Recent pollution of beaches and serious damage to wildlife around the shores of Orkney and Shetland suggests that certain vessels have disregarded the IMO Conventions on Oil Pollution and discharged dirty ballast whilst approaching or immediately after sailing from Sullom Voe.

Such procedures cannot be condoned by the U.K. Department of Transport, Local Authorities or the Terminal Operator, and with the object of preventing this practice (which is contrary to internationally agreed rules) air surveillance of all shipping in waters around Orkney and Shetland has been introduced.

As detailed in the section entitled "ETA Requirements" (See "Radio"), Masters are requested to advise Sullom Voe Port Control (Telex: Sulvoe 75142. Telegraphic Address: Portcontrol Sullomvoe) of their ETA 24 hours in advance of arrival. In addition, this message is to include the estimated time of crossing Lat. 58° 20' N., Longitude on crossing this Latitude, and the intended inward courses and turnpoints to the Gruney Island Pilot Station (Lat. 60° 38.6' N., Long. 01° 15.3' W.). Vessels arriving from the North Atlantic or Northern North Sea should use a position 200 miles from the Pilot Station.

Prior to sailing from Sullom Voe, all vessels are requested by the Harbour Authority to indicate intended outward bound courses and turnpoints until South of Lat. 58° 20' N. or 200 miles from the Pilot Station as appropriate. This should be detailed on the Tanker Safety Check List provided by your Agent.

Any vessel sighted discharging dirty ballast will be immediately reported to the U.K. Government Authorities for appropriate action to be taken. In such circumstances, vessels may be liable to extensive delay until investigations have been completed.

Prevention of Oil Pollution: Prior to arrival, vessels must ensure that all crew members are conversant with the anti-pollution regulations, which must be complied with at all times.

Principal causes of pollution are leaking ship side valves, cargo/bunker overflows and pumping engine room bilges. Therefore it is recommended that sea valves, overboard discharges (which should be shut) and ballast/cargo/bunker/bilge operations are checked by the Chief Officer and the Chief Engineer before arrival. Scuppers must be plugged on main and poop decks in respect of vessels loading/discharging bulk oil.

On arrival the terminal will give all assistance necessary but are empowered to take action in the event of contravention of pollution prevention requirements.

Masters must advise if their vessel has sustained any damage which could cause oil pollution and confirm any known oil losses from hull or sea valves.

Vessels are required to arrive at the Sullom Voe Terminal with a total deadweight of not less than 35% of Summer d.w.t including bunkers, fresh water and stores.

Vessels should confirm in advance the amount of ballast, including the quantities of segregated ballast, and cargo tank ballast, separately. (See "Radio" – Pre-arrival information).

BALLAST:

Ballast Requirements: For the purpose of manoeuvring, all vessels are required to maintain a reasonable ballasted condition, subject to the requirements specified in the section dealing with Oil Pollution Surveillance.

Vessels should carry sufficient ballast so that the propeller remains immersed whilst maintaining a reasonable stern trim.

Masters are advised that the Port Authority requires, unless otherwise directed by the Harbour Master, that the propeller of any ship to be immersed at all times when vessels are alongside. When operations permit, the proportion of cargo loaded to ballast remaining onboard must be such as to ensure that the vessel can be safely manoeuvred at any time whilst in the harbour. It must be understood that shifts of wind and changes of wind force in Sullom Voe are at times violent and the adoption of an adverse trim in relation to the ship's optimum manoeuvring characteristics will not be accepted.

Ballast Reception Facilities: It is prohibited to discharge any ballast other than segregated clean ballast into the waters of Sullom Voe.

All dirty ballast or non-segregated ballast will be discharged ashore for treatment.

Non-segregated ballast includes ballast contained in any tank designed for or capable of being used for the carriage of crude oil. Tanks having a permanent connection to the cargo piping system are not considered to be segregated ballast tanks.

The Terminal can accept dirty ballast whilst providing the vessel with cargo. Ballast will initially be pumped into settling tanks where excess oil will be skimmed off into recovered-oil tanks. The remaining ballast will undergo further treatment before being discharged into Yell Sound. The ballast water will be monitored throughout the cleaning process.

The Terminal is unable to accept tank washings or slops from a cargo which has been heated or where the pour point is such that heating is required.

Inert Gas: A random check of the quality of the inert gas in several of the vessels' tanks will be made on arrival alongside to ensure the vessel complies with the statutory requirements regarding inert gas. If any of the tanks are found to have an oxygen content in excess of 8% the vessel will be required to vacate the berth and return to sea to complete inerting.

Purging of tanks whilst alongside is not permitted.

Vessels must arrive at the berth with positive I.G. pressure.

Discharge of Dirty Ballast Water: The discharge of ballast water from oil cargo tanks or non-segregated ballast tanks or any ballast water containing quantities of oil or high levels of mineral or chemical pollutant, into the waters of the harbour is prohibited.

The discharge of ballast water from segregated or permanent ballast tanks into the waters of the harbour will be permitted provided that:

1. The Master of the vessel advises the Harbour Authority prior to arrival:
   (a) The place at which the ballast was taken.
   (b) The quantity of the ballast.
   (c) That to his knowledge the ballast is free from oil contamination.
2. Samples have been taken and analysed by the Terminal Operator. Hydrocarbon level to be 5 p.p.m. or less.

The Oil Pollution Control Officer of the Harbour Authority will on occasions board vessels carrying segregated ballast to obtain samples. Analysis will be made of these samples to ascertain the quantity of hydrocarbon, colliforms and heavy metal pollutants within the ballast. The Harbour Authority may, as a result of information so obtained, refuse permission for the discharge of segregated ballast water taken on board in certain locations.

The discharge of segregated ballast is not to commence before permission has been received from the Loading Supervisor. He will have confirmed with the laboratory that the hydrocarbon level is 5 p.p.m. or less.

MASTERS ARE STRONGLY ADVISED TO CLOSELY MONITOR THE DISCHARGE OF SEGREGATED BALLAST AT REGULAR INTERVALS TO ENSURE THAT OIL IS NOT ENTRAINED IN THE BALLAST WATER.

CONSULS: In Lerwick.

Denmark	(Mr. C.W.L. Aitken)	66 Commercial Road, Lerwick.	Tel (01595) 2533 After Hours 5238 Fax 2781 Telex 75295
Finland	(Mr. L.J. Smith)	Garthspool, Lerwick.	Tel (01595) 2556 After Hours 2186 Fax 5949 Telex 75176
France	(Mr. W.H. Stubbings)	Garthspool, Lerwick.	Tel (01595) 2556 4400
Germany	(Mr. L.J. Smith)	Garthspool, Lerwick.	Tel (01595) 2556 After Hours 2186 Fax 5949 Telex 75176
Iceland	(Mr. C.W.L. Aitken)	66 Commercial Road, Lerwick.	Tel (01595) 2533 After Hours 5238 Fax 2781 Telex 75295
Netherlands	(Mr. C.R. Duncan)	66 Commercial Road, Lerwick.	Tel (01595) 2533 After Hours 3227 Fax 2781 Telex 75295
Norway	(Mr. F. Garriock)	Garthspool, Lerwick.	Tel (01595) 2556 After Hours 2186 Fax 5949
Sweden	(M.M. Shearer)	Birka, Bressay.	Tel (0159 582) 363

MEDICAL: Medical attention for ship's crews is available on request through Agents. Some specialist services including inoculation and vaccination are available.

FRESH WATER: Potable water can be supplied to tankers at Sullom Voe in an emergency. A small charge is levied for the use of the facility.

Vessels requiring fresh water should inform their Agents prior to arrival.

FUEL: There are no bunkering facilities available for tankers calling at the Port of Sullom Voe.

REPAIRS: Engineering facilities are available to carry out repairs afloat to hull and machinery. Drydock facilities do not exist for vessels over 120 ft.

Electronic Navigational Aids and Radio: All major companies have agencies in Shetland. Repair facilities exist for all types of electronic equipment.

Engine Readiness: Main engines must be maintained in a state of readiness for vacating the Terminal at short notice at all times except in the cases of approved repair work as detailed in Regulation 19 of "Jetty Safety Regulations".

CUSTOMS: A selective system of boarding commercial vessels arriving from a non-U.K. port, will apply at the Sullom Voe Terminal.

REPATRIATION: Crew changes can normally be arranged. Air and sea connections are available to mainland destinations.

It should be borne in mind, however, that during the Winter months delays to air traffic are not uncommon due to prevailing weather conditions whilst in Summer delays can be experienced due to low visibility.

Ships will not be permitted to retain their berth awaiting the arrival of crew members.

Also see "Ship System Failures".

AIRPORT: Shetland's airport network is within easy reach of Sullom Voe and scheduled flights are available daily to all major U.K. cities, with connections to worldwide destinations.

BANKS:

Bank of Scotland. Tel: Lerwick 2624. Telex: 75309.
Clydesdale Bank. Tel: Lerwick 5664.
The Royal Bank of Scotland. Tel: Lerwick 4520.

GENERAL:

The following services can be provided for vessels by the Shipping Agencies. Masters are requested to provide notice of requirements prior to arrival.

Compass Adjusting: A service is available for large vessels. Requests should be made in good time to ship's Agents in order that the adjuster may board with the Pilot on arrival.

Storing: Due to the high berth occupancy at Sullom Voe it is not possible to carry out major storings. However, a limited amount of fresh provisions for immediate store requirements can be supplied providing it can be easily handled by the ship's crew.

Fresh and frozen meat can be supplied in any quantity with Shetland lamb a speciality. Shetland knitwear goods of high quality are available at reasonable prices. Other local products include sheepskin rugs, traditional jewellery, handicrafts and salmon (fresh and smoked).

Bonded Stores: Bonded stores are available in any quantity.

Lubricating Oils: Most major oil companies have authorised dealers in Shetland. Lubricating oils of all grades are available at competitive prices.

Charts and Nautical Publications: Available on application to ship's Agents. Advance notice is required for the supply of large sets.

Lloyd's and Salvage Association: If service or survey is required, this may be obtained through their Shetland Agents, Hay & Co. (Lerwick) Ltd.

Sea Travel: P&O Ferries maintain a regular Ro/Ro and Passenger ferry service between Lerwick and Aberdeen.

Provisioning: This service is provided by ship's Agents on request.

Shore Leave/Taxis: All personnel proceeding ashore must be in possession of a shore pass, a supply of which is handed to Masters on the vessel's arrival.

Transport is provided free from the root of each jetty to Seafarers' Centre, and taxis can be arranged for those wishing to travel further afield in Shetland.

There is a limited public transport service serving the Sullom Voe area.

Telephones: This facility is provided at the Seafarers' Centre operated by the British Sailors' Society and situated outside the main gate.

There are public telephone boxes on the roadside adjacent to the end of each jetty. There are portable telephones available for use aboard a vessel, however, these are NOT intrinsically safe and must only be used within the accommodation spaces. The ship's Agent will supply a list of all call details after use.

Weather Routeing: This service is available to Shipmasters on application to Shetland Weather Centre.

British Sailors' Society: The British Sailors' Society has a Seafarers' Centre just beyond the Terminal Entrance. A free mini-bus service is provided between the jetties and the centre which is open from 1100 hrs. to 2300 hrs. Monday to Saturday and from 1230 hrs. to 1430 hrs. and 1900 hrs. to 2300 hrs. on Sundays.

Amongst the facilities provided are the following: A Chapel, Library, 3 International Telephones, Television Room, Snooker and Pool Tables, Darts, Shop, Fully Licensed Bar and Light Meals.

The resident manager is there to assist all seamen whatever their Nationality, Colour or Creed and there are 3 Honorary Chaplains whose services are also available.

Any Seafarer in need of practical, spiritual or welfare help is invited to contact the manager or his staff on Sullom Voe 242715.

CHARTS AND PUBLICATIONS:

Charts: British

B.A. 1119	Orkney and Shetland Islands, Fair Isle Channel.
B.A. 3281	Shetland Islands, N.W. Sheet
B.A. 3282	Shetland Islands, N.E. Sheet
B.A. 3283	Shetland Islands, South Sheet
B.A. 3297 (INT 1531)	Sullom Voe.
B.A. 3298	Yell Sound.
B.A. 3292	Eastern Approaches to Yell Sound, etc.
B.A. 1233	Northern Approaches to Shetland Islands.

Pilot Books: North Coast of Scotland Pilot N.P. 52 and current supplement.

Admiralty Tide Tables: Orkney and Shetland Islands N.P. 209.

Tidal Stream Atlas: Approaches to Port of Sullom Voe and South Eastern approach to Port of Sullom Voe (Shetland Islands Council Publication).

Lights: Admiralty List of Lights, Volume A.

Admiralty Agents for the supply of hydrographic charts and publications are Hay & Co. (Lerwick) Ltd.

NOTICES:

Landing in Great Britain of Live Animals, Live Birds and Meat:

The attention of Masters is drawn to "Notice to Masters of Vessels and Commanders of Aircraft (IM24 (Rev 79))" of which the following are extracts:

Diseases of Animals Acts 1950 and 1975, Rabies Act 1974, Destructive Imported Animals Act 1932 and Ponies Act 1969.

WARNING: Her Majesty's Government exercise strict controls at ports and airports to prevent the introduction of animal disease and destructive animals into Great Britain. Severe penalties may be applied to those who do not comply with the import regulations.

Dogs, cats and other mammals (including ship's pets) brought to Great Britain on board a vessel which are not intended to be landed do not need a licence, but must at all times be securely confined in an enclosed part of the ship so as to prevent their escape and must not come in contact with any other animals except those similarly confined. The authorities must be informed immediately if any animal should escape.

Notice to Mariners 4/82:

Spur Booms

Anti-Pollution Spur Booms have been established at several permanent sites around the shores of Sullom Voe, and mooring buoys have been laid to facilitate quick deployment at each location as follows:

Location	*Boom Layout*	*Buoy Position*	
		Latitude	*Longitude*
Tivaka Taing	Spur Boom	60° 28' 41" N.	01° 18' 37" W.
Fugla Ness	Spur Boom	60° 27' 04" N.	01° 18' 50" W.
Lang Ayre	Twin Boom	60° 26' 53" N.	01° 20' 12" W.
Voxter Voe	Twin Boom	60° 24' 36" N.	01° 20' 40" W.
Calna Taing	Spur Boom	60° 26' 26" N.	01° 19' 21" W.
Scatsta Voe	Twin Boom	60° 26' 38" N.	01° 16' 50" W.
R.A.F. Jetty	Spur Boom	No buoy used.	
Roe Clett	Spur Boom	60° 28' 56" N.	01° 17' 19" W.

Buoy Description: Body: Yellow Pillar; Character: Gp. Fl. (4) ev. 12 sec.; Daymark: Yellow St. George's Cross; Range: 3 miles; Light: Yellow.

Notice to Mariners 5/82:

Bight of Haggrister: Mooring Buoy. A permanent barge moorin been established in position: Lat. 60° 24' 37" N., Long. 1° 22' 02 Description: Yellow cylindrical; unlit.

Mariners are requested to exercise caution when navigating i vicinity of these locations.

Notice to Mariners 5/88:

Navigating Large Vessels in Areas where Fishing Vessels Operat

Masters of vessels which load at Sullom Voe Oil Terminal are ad that a significant number of fishing vessels operate in the sea which are regularly used by the tankers and it is recommended tha vigilance and caution be exercised at all times on passage to or Sullom Voe.

Masters should note in particular that use of Deep Draft Route of the Hebrides does not give deep draft vessels any privi whatsoever when navigating this Route and responsibilities in rel to other vessels, as set out in Rule 18 of the 'International Regula for Preventing Collisions at Sea 1983', still apply.

HYDROGRAPHIC NOTES:

Prohibited Anchorages

1. Owing to the existence of the tanker turning area within the vi of Sella Ness and Scatsta Ness, Mariners are advised that anch East of a line joining the following positions is prohibited, viz.:

From Position: Lat. 60° 26' 57" N., Long. 01° 19' 17" W.
To Position: Lat. 60° 26' 32" N., Long. 01° 18' 10" W.

2. Owing to the existence of an outfall pipe between Skaw Taing Swarta Taing, all vessels are advised that fishing and anchori prohibited within the area bounded by Little Roe and lines prod seawards from 2 sets of day transit marks diamond in shape and ye in colour which are established in the following positions:

A: Lat. 60° 29' 15" N., Long. 01° 16' 42" W.
Lat. 60° 29' 10" N., Long. 01° 16' 44" W.
B: Lat. 60° 29' 10" N., Long. 01° 16' 21" W.
Lat. 60° 29' 06" N., Long. 01° 16' 21" W.

Outfall Marker Buoy – Calback Ness: A yellow spherical navigat buoy with a yellow St. Andrews cross topmark and a radar ref showing a light Gp. Fl. 4(Y). ev. 12 secs. has been established in pos

Lat. 60° 29' 20" N., Long. 01° 16' 08" W.

This buoy marks the seaward end of the ballast water outfall p

Permanent Navigation Marks at Tanker Jetties – Sullom Voe

Permanent navigation marks have been established on the mo dolphins at either extremity of the tanker jetty complex as follows

Jetty No. 1 East end dolphin in position Lat. 60° 27' 21' Long. 01° 17' 02" W., two fixed red lights ver disposed 2 m. apart, the lower of which is 5 m. MHWS.
Visible 3 miles.

Jetty No. 4 West end dolphin in position Lat. 60° 27' 56 Long. 01° 18' 20" W., two fixed red lights ver disposed 2 m. apart, the lower of which is 5 m. MHWS.
Visible 3 miles.

SAFETY: *Smoking:* Smoking is prohibited in vessels during lo operations, except in 2 or at most 3 smoking rooms allocated Master and approved by the Terminal Representative.

Matches and lighters must not be carried by personnel outsi approved smoking areas, or on the jetties or anywhere with terminal.

The Seaman's Pass issued to personnel going ashore by Sullo Terminal carries the information that matches are available at th Gate for use outside the Terminal premises. The matches are free of charge.

Special arrangements have been made for ship's personnel or joining vessels at the terminal, details of which are in the Te Regulations, or can be advised by the ship's Agent.

Fire Precautions: Every vessel's fire-fighting appliances, (includin and emergency fire pumps) must be kept ready for immediate us at least 1 fire pump maintaining pressure on the main.

Before deballasting and loading/discharging operations com and during periods when permitted repair work is being carried least 2 fire hoses must be uncoiled and connected to the fire ma of the fire hoses must be sited forward and the other abaft the m

An International Shore connection shall be available on the fire main in the vicinity of the gangway.

Jetty Fire-Fighting Facilities: The oil loading jetties are each eq with 2 independent fire-fighting systems, one for water alone second for either water or foam mixture.

These jetties supply hydrants which are spaced along the jetty road and jetty head.

Monitors are installed to provide a water curtain in the area of head and between the access tower and manifold area. monitors are also positioned at the top of the access and monitor A sprinkler system protects the access tower.

Hose couplings are 2.5 in. standard instantaneous female the fire main to the access tower can accept international conn

The working pressure of the fire system is 250 – 260 p.s.i. A connection is situated on the construction jetty to allow fire-figh to link into the system.

POLLUTION: It will be appreciated that oil spillages are viewed by Government, Local Authorities, Port Authorities and Operators. Spillages will be investigated by the appropriate a and the Master and/or Owner may be liable to prosecution. De vessel could well arise.

Masters are therefore requested to ensure that every prec taken to prevent oil spillages at the Sullom Voe Terminal.

COASTGUARD SERVICES: H.M. Coastguard is the responsible for initiating and co-ordinating all sea and coast and rescue operations in the Shetland sea area. They also kee touch with the S.A.R. organisations of all countries in adjoining

Regular stations are maintained at Lerwick M.R.S.C. (Marine Rescue Sub-Centre), with sector offices in the Port Administration Buildings at Sella Ness and Lerwick. Stations manned by Auxilliary Coastguards are maintained at Baltasound, Mid Yell, Gloup, Fetlar, Out Skerries, Whalsay, Bressay, Noness, Sumburgh, Fair Isle, West Burra Isle, Walls, Huxter, Hillswick, North Roe and Papa Stour.

N.B. Sector Offices and Auxilliary stations are not constantly manned. All enquiries should be directed to Lerwick MRSC. A 24 hour radio watch on VHF Channel 16 is maintained by Lerwick MRSC which enables safety and distress calls from up to 40 miles out from Shetland to be picked up on the Coastguard VHF network.

On receiving a call for assistance or advice, the Coastguard can instantly alert the appropriate facility.

Weather forecasts are broadcast every 4 hours on VHF Channel 67 at 0105, 0505, 0905, 1305, 1705 and 2105 GMT, followed by a ship movements broadcast.

Other VHF Channels available are 0, 6, 10, 67 (working) and 73.

A VHF/DF facility on Channels 0, 6, 10, 67 and 73 is maintained at Compass Head.

A Civilian SEARCH AND RESCUE HELICOPTER is based at Sumburgh, contracted by the Department of Transport (H.M. Coastguard) for long range search and rescue purposes. The helicopter is fitted for winching, and carries comprehensive rescue equipment including a de-watering pump and inflatable dinghy capable of being dropped to vessels in distress.

It has a speed of about 110 knots and a radius of action of approximately 150 nautical miles from Sumburgh. Navigation equipment includes V.O.R., I.L.F., Decca A and D/F Console. Communications facilities are:

MF	2182, 3095 and 3023 kHz.
VHF AM	118/135.95 MHz.
VHF FM	Marine frequencies.

R.N.L.I. STATIONS: The following lifeboats are on station:

Lerwick:	52 ft. Arun Lifeboat 'Soldian'.
Details:	Speed 18 knots, range approximately 220 nautical miles. Navigation – Radar, Decca, VHF/DF, MF/DF. Communications – MF and VHF/FM (Marine Band) 60 channel set.
Aith:	52 ft. Arun Lifeboat 'Snolda'.
Details:	Speed 17 knots, range approximatel 220 nautical miles. Navigation – Radar, Decca, MF D/F, VHF D/F. Communications MF and VHF/FM (Marine Band) 60 Channel set.

All requests for lifeboat or helicopter assistance should be routed through Shetland Coastguard M.R.S.C.

MEDICOS: Vessels requiring medical advice or medical assistance should adhere to the radio regulations and contact either Collafirth or Shetland Radio on VHF Channel 16. If unable to contact the radio station, vessels can contact Shetland Coastguard direct on Channel 16 VHF.

EMERGENCY SERVICES AND PROCEDURES: Fire, Ambulance, Security and Oil Pollution. Tel: 222 (Emergency internal line).

All emergency services at the oil terminal are co-ordinated by the "Emergency Response Control Room" situated at the Terminal fire station.

On vessel's arrival at the Terminal, the responsible ship's officer and the Loading Supervisor will discuss action to be taken in an emergency situation. The Master of the vessel should study and comply with the 'Jetty Safety Regulations', a copy of which will be supplied.

Safety inspections will be undertaken by Terminal personnel throughout the vessel's stay alongside. Spot checks will also be made by the Terminal's Operations Support Branch.

In the event of an emergency, vessels should immediately contact Sullom Voe Port Control 242494/242495/242551 or VHF Channel 10 and emergency messages will be passed to the Terminal Emergency Response Control Room.

GARBAGE DISPOSAL: Skips are provided on board, and collected. No charge is currently made. Arrangements made by Shetland Islands Council.

WASTE OIL DISPOSAL: Available on request. Contact ship's agent.

TELEPHONE NUMBERS: SV=Sullom Voe.

Sullom Voe Harbour Authority:

Sullom Voe Harbour Authority, main switchboard, 24-hours,	(01806) 242551
Director of Marine Operations, Capt. G.H. Sutherland	ext. 201
Deputy Director of Marine Operations Capt. K.J. Radley	ext. 202
Manager, South Ports, Capt. C.J. Nicolson	ext. 203
Divisional Manager, Engineering, Mr.D.M. Drummond	ext. 214
Oil Pollution Control Officer, Mr.J.T. Dickson	ext. 209
Assistant Oil Pollution Control Officers	ext. 210
Support Services Manager, Mr.E.F. Thompson	ext. 211
Port Control Room (Pilots)	ext. 280/1/2/3/4/5

Sullom Voe Harbour Authority (All Departments):

Telephone:	(01806) 242551
Telex:	75142
Cables:	Portcontrol Sullomvoe
Telefax (Group 3):	(01806) 242237

Sullom Voe Terminal Control:

Main Switchboard (24 hours): (01806) 243000
Fax: (01806) 243200
Telex: 75268

	Internal Telephone System	*External Lines*
Terminal Emergency Services	222	SV 242798
Fire	222	SV 242798
Ambulance	222	SV 242798
Oil Pollution	222	SV 242798
Terminal Security	222	SV 242798
Emergency Services – Administration		SV 243000

External Numbers:

	Telephone	*Fax*	*Telex*
Police	01595 2110	01595 3311	
Coastguard – Sullom Voe	01806 242561		
Coastguard – Lerwick	01595 2976/4600	01595 4810	75141
Lifeboats – Lerwick	0159 582 363		
– Aith	0159 581 207 (Night 0159 581 346)		
H.M. Customs & Excise	01595 6166	01595 5550	
CCU (24 hrs.)	0131 556 5832	0131 558 3536	
Shetland Towage Limited	01806 242708	01806 242272	
Shetland Weather Centre	01806 242069	01806 252070	75404
Department of Transport (Marine Office)	01806 242090		
Wick Radio	01955 2271/2272		75284

SEAMAN'S CLUBS: British Sailors Society, Tel: (01806) 242715, is situated just outside the terminal.

Norwegian Seamen's Mission, "Havly", Lerwick, Shetland, Tel: Lerwick 4369, situated about 30 miles from terminal.

Also see "General".

SHIPMASTER'S REPORT: 1983.

It is necessary to provide access to the vessel on the offshore side, in the form of accommodation ladder with vessels having high freeboard, at all times when alongside.

All crew members require passes for shore leave and must use transport from the jetty. This transport is arranged by the security guard in the hut at shore end of jetty.

Usually with moorings it is springs first then breast lines. The Terminal is not concerned with head or stern ropes. Some of the dolphins are fitted with shore based pulley systems and these count as 2 ropes for mooring purposes.

Telephone calls may be made from the Mission (U.K. and International) and paid for in pounds sterling.

REPORT: October 1983.

Gas Carriers: Gas carriers shall conform to the following requirements and the pipeline operators concerned shall, at the time of nomination, confirm to the terminal operator that the carrier nominated so conforms throughout the time she will be within the port limits.

a. The tanker conforms to the standards required in the EEC memorandum of understanding or to state control.
b. The tanker complies with the Statutory Instrument 1981 No. 1077 Merchant Shipping, Merchant Shipping (Tankers) (EEC requirements) Regulations 1981.
c. The tanker can comply with the conditions of carriage as specified on her IMO Certificate of Fitness.
d. The tanker will during the loading and simultaneous handling of ballast follow the procedures as outlined in her approval trim and stability document.
e. The tanker can be adequately moored to equivalent OCIMF standards, i.e. resisting loads due to any of the following current conditions acting simultaneously with a 60 knot wind from any direction:
   3 knots at 0° and 180°
   2 knots at 10° and 170°
   3/4 knots from direction of maximum beam current loading.
f. The tanker can accept a minimum bulk loading rate per hour of 3% of her total cargo carrying capacity up to a maximum of 3,000 cu.m./hr.
g. The tanker reliquefaction units are capable of handling a minimum bulk loading rate per hour of 3 per cent of her total cargo carrying capacity up to a maximum of 3,000 cu.m./hr.:
   (a) without venting to atmosphere and:
   (b) without the use of a vapour return line to shore.
h. All cargo tanks will be cooled down on arrival and the vessel ready to commence loading. Any vessel that cannot comply and requires to purge and/or cooldown prior to loading will only be accepted on the basis of prior agreement having been reached between the terminal operator and the pipeline group nominating the vessel.
i. That the following tests will be carried out within 24 hours before arrival and any defect, and any change in the status of the systems thereafter, be reported to the Port Authorities:
   (a) ventilation of compressor/pump/control room.
   (b) gas detection system
   (c) emergency shut down system
   (d) pressure and temperature control units
   (e) cargo tanks' safety relief valves setting.

SHIPMASTER'S REPORT: August 1984 (Updated 1988).
Vessel: 140,000 d.w.t.
Tugs: Normally 4 tugs for berthing and 2 tugs for sailing, tugs' lines. All tugs make fast and 2 push. On arrival the forward tug requires a heaving line from the main deck, he then steams forward to pass his line up through the centre fairlead.
Moorings: Under normal conditions first 2 back springs, then 2 to 3 breasts, then 2 to 3 head/stern lines.
Gangway: Shore gangway.
Departure: On departure Pilot normally boards 1 hour after completion of loading. EDP is standard procedure.
Surveyor: Lloyd's Surveyor comes from Aberdeen and requires 2 to 3 days' notice.

AUTHORITY: Shetland Islands Council, Marine Operations Department, Port Administration Building, Stella Ness, Mossbank, Graven, Shetland ZE2 9QR. *Tel:* (01806) 242551. *Telex:* 75142 Sulvoe G. *FAX:* (01806) 242237. *Cables:* Portcontrol Sullomvoe. *Contact:* Captain G.H. Sutherland, Director of Marine Operations, Harbour Master – Sullom Voe. K.J. Radley, Deputy Director. James T. Dickson, Port Safety Manager.

SUNDERLAND: 54.55 N. 01.21 W. (See Plan)

DOCUMENTS:
1 copy Crew List.
2 copies Passenger List.
1 copy Stowaway List.
2 copies Tobacco/Spirits/Personal Effects List.
1 copy Stores List.
1 copy Arms and Ammunition List.
1 copy Health Certificate.
1 copy Derat Certificate.
1 copy Load Line Certificate.
1 copy Tonnage Certificate.
1 copy Certificate of Nationality.
1 copy Safety Equipment Certificate.
1 set Bill of Lading.
1 set Manifest (freighted).
1 set Manifest (unfreighted).

PILOTAGE: Call Sunderland Harbour Radio, Channel 16, working Channel for port is 14. Pilotage compulsory in South Docks and upriver of Corporation Quay. Pilotage also compulsory on all vessels carrying dangerous goods or with mechanical defects, under tow. Pilots maintaining continuous watch on VHF Sound signals for vessel requiring Pilot is Morse Code No. 6. Pilot boards 0.5 to 0.75 miles off piers. In bad weather pilot cutter leads vessel into inner harbour, and Pilot boards there.

ANCHORAGES: 0.5 to 0.75 miles N.E. of Roker Pier Lighthouse.

RESTRICTIONS: Vessels may enter South Dock from 2 hours before until half an hour after high-water. Vessels may lock in outside of these times depending on draft and state of tide. Corporation Quay restrictions depend on draft and state of tide.

MAX. SIZE: Harbour: LOA 183 m., beam 42.7 m., draft 8.2 m.

South Docks: LOA 141 m., beam 18.9 m., draft 7.16 m. (MHWN), 8.08 m. (MHWS).

HEALTH: Pratique procedure: Pratique granted by Port Health Authority on arrival.

Suspected disease or fever: All ships from suspected areas must radio Port Health Authority 24 hours in advance of arrival, stating general condition of crew members. Pratique is automatic when ships arrive from other U.K. ports.

Also see "Health – All Ports" before first U.K. port.

RADIO: Cullercoats.

TUGS: Join vessel at or outside harbour entrance. Tug's ropes normally used.

BERTHING: In South Dock vessel must arrive from 2 hours before up to 30 minutes after high water. Vessels may lock in as under "Restrictions". At Corporation Quay, vessels berth at any time. Large vessels usually berth at same time as mentioned for South Dock.

STEVEDORES: Multi-skilled labour force is engaged on cargo handling operations.

Arrangements and Hours of Working:
Normal hours of operation are:
0800 – 1700 hrs. (Monday to Friday).

Work outside these core hours (overtime working) may be ordered as required.

Weekend working on Saturday and Sunday and Bank Holiday working can be arranged as necessary, with the exception of Christmas Day, Boxing Day and New Year's Day.

MEDICAL: Well served with General practitioners and hospital facilities, and attention can be arranged at very short notice. However, unless urgent, 24 hours notice desirable.

TANKERS: 4 installations (lines either 0.16 m. or 0.2 m.) 3 installations in South Dock and 2 berths, the S.E. Oil Berth 98 m., the S.W. Oil Berth 89 m. One vessel of maximum length 142 m. can use this berth. At Corporation Quay, one tanker vessel may berth.

DENSITY: Usually 1025. May be less after heavy rain.

FRESH WATER: Available. Arrangements can be made to supply water at any time.

FUEL: By direct pipeline, road or coastal tanker. All grades available at Corporation Quay and Hendon Dock.

CONSULS:

Belgium	Tel.	0191 232 8345
Chile	"	0191 261 1661
Denmark	"	0191 296 0134
Finland	"	0191 261 2711
France	"	0191 297 0011
Germany	"	0191 477 2531
Iceland	"	0191 213 1010
Liberia	"	0191 261 2711
Luxembourg	"	0191 232 8345
Netherlands	"	0191 567 5441
Norway	"	0191 232 6358
Sweden	"	0191 295 3071

REPAIRS: All repairs possible.

DRY DOCKS: One dry dock in use, length 112 m., breadth 16.5 m.

GANGWAY/DECK WATCHMEN: Watchmen's services recommended.

OPENING/CLOSING HATCHES: This work is normally carried out by ship's crew, otherwise shore riggers.

CERTIFICATES: See "Documents".

CUSTOMS ALLOWANCES: As per H.M. Customs and Excise Regulations.

REPATRIATION: Facilities available for effecting repatriations, with good rail, road and air communications.

AIRPORT: Approximately 20 miles. Newcastle Airport served by regular airlines, all the year round, connecting most parts of the world.

HOLIDAYS: Official Holidays for General Cargo ships: New Year's Day (no work except by special agreement); Good Friday; Easter Monday; May Day; Spring Bank Holiday; Summer Bank Holiday; Christmas Day (no work except by special agreement); Boxing Day (no work except by special agreement).

POLICE/AMBULANCE/FIRE: Police Station Tel: (0191) 5102 Ambulance Control Tel: (0191) 2731212; Fire Tel: (0191) 567933 call 999 from any telephone and ask for service required.

TELEPHONES: Permanent arrangements do not exist, but a tempo arrangement can be made at any time.

IDENTIFICATION CARDS: Not required. Must possess valid Seam Book and/or Passport.

GARBAGE DISPOSAL: Skips placed at all working berths and char when requested by port authority. Charges included in port dues.

WASTE OIL DISPOSAL: C.M.R. Ltd. provide this service in the S Dock (Tel: (0191) 5653827, Fax: (0191) 5140628, Telex: 5373 Discharge via pipeline is available at SE Oil Berth, Hendon Dock.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Port of Sunderland Authority, Barrack Street, Sunder SR1 2BU. *Tel:* (0191) 5532100. *Fax:* (0191) 5532
Contact: I.R. Duncan, Harbour Master. F. Major, General Manager.

SWANSEA: 51.37 N. 03.56 W. (See P

DOCUMENTS:

C142	2 copies	Crew Declaration
C14	3 copies	Stores Declaration
C13	2 copies	General Declaration (completed by Agent)
C16	2 copies	Cargo Inward Declaration
C74	1 copy	Master's Authority (Agents complete)
C1320	2 copies	Cargo In unregistered spaces

These documents are to be completed and presented with cop manifests and ship's documents at the time of report.

PILOTAGE: Compulsory for vessels of 1,600 g.r.t. (Base International g.r.t. in Lloyd's Register) and above. Request Swansea Pilots by telephone call. Telegraphic address for Swansea Pil "Pilority, Swansea".

Advance notice of ETA required at least 12 hours. VHF Channe 11 and 6. Pilot boat has bright yellow hull with red boot-topping or hull; superstructure painted white. Pilot cutter's sound signal is 3 short and 2 long blasts. The area of boarding is usually 1 mile S Mumbles Lighthouse in all weathers. Usual requirements for ladde in force, and Pilots require ladder to be about 4 ft. to 5 ft. above

ANCHORAGE: About 1 mile S.E. of the Mumbles Lighthouse.

RESTRICTIONS: Berthing is in accordance with tide. King's Dock operates for a maximum of 8 hours on Spring tides. River-side and Swansea Ferryport Terminal operate over a greater period.

No night-time restriction of entry.

MAX. SIZE: Max. size for entry is 655 ft. long, 88 ft. beam, 32 ft draft.

These vessels are docked over HW period. Any vessel w dimensions are approaching maximum for port should advise Manager well in advance. Special arrangements may be necessar as daytime only docking.

HEALTH: Usual international health regulations are to be observed vessel which is suspect should inform Port Medical Officer of He

RADIO: All communications for ship movements through "Sw Dock Radio" VHF Channel 14 calling and working. Agents, rec etc., can be called through usual coastal radio stations – this in Ilfracombe Radio.

TUGS: Towage undertaken by private operators. The Alexandra T Co. Ltd., at present use a modern fleet of tugs at Swansea an Talbot. It is optional whose lines are used, but if tugs line is tak extra charge will be made.

BERTHING:

Dock	*Quay Length (Total)* (m.)	*Depth of Water (Absolute Min.)* (m.)	*Maximum Size of V*		
			Length (m.)	*Beam* (m.)	*Draft* (m.)
Kings Dock	3,586	10.1	199	26.5	9.9
Prince of Wales Dock	2,050	8.1	122	20.7	7.3
Queen's Dock	Oil Jetties (Operated by BP Co.)	10.7	199	26.5	9.9

Ro/Ro Berth: Situated on the East bank of the River Tawe, this provides a 137 m. berth, hinged shore bridge 76 m. long, with roadway. Adequate vehicle marshalling areas and Customs/ pa facilities are available. The nose of the bridge can be lowered 12.95 m. to allow for variation in tides and ship's flotation.

Containers: Swansea Container Terminal plc operates a full co terminal with a 35 tonne gantry crane.

BULK HANDLING FACILITIES: *Petro Chemicals:* One jetty in Dock. 4 jetties for bulk liquid fuels, feedstock, etc. operated Chemicals International Ltd., also in Queen's Dock.

Bulk Cargoes (Coal, ores, etc.): Two berths in King's Dock a with 1×7.5 ton and 5×10 ton grabbing cranes. Operated by As British Ports. Private berths use mobile cranes.

Ferryport: On East bank of River Tawe.

CRANES: 2×25 ton and 9×11.5 ton, 4×7.5 ton and 7×6 to cranes.

40 forklifts up to 11.5 tons, 1×25 tonnes capacity, 1×4 capacity and 3×28 tonnes capacity.

BRIDGES: One in dock bridge is under direction of duty Assistant Dock Master. A vessel which has to pass will be informed by the Assistant Dock Master as to the availablity.

STEVEDORES: Stevedoring services are provided by Associated British Ports and Swansea Container Terminal plc. Advice of labour requirements must be received by the following times:

General Cargo: By 0700 hrs. to start work at 0700 hrs.
Weekend work to be ordered by 1030 hrs. on Friday.

MEDICAL: Port Medical Officer of Health has an office on King's Dock Lock. Medical attention can be obtained at short notice. In emergencies, the duty Assistant Dock Master can be communicated with, to obtain medical help. Hospital facilities available, and there is a first-class medical centre on the Prince of Wales Dock. Vaccination and fever certificates will be examined when receiving Pratique.

TANKERS: All tankers arriving, working cargo, and departing are required to observe port's Petroleum By-laws and Oil in Navigable Waters Act. British Petroleum Company has further private directives for oil tankers. 5 main tanker berths, 1 petrochemical berth, 2 coastal tanker berths and 2 lay-by berths in Queen's Dock. 1 tanker/general cargo berth in King's Dock. Deepest draft permitted is 32 ft. 6 in.

Tankers of 1,600 g.r.t. and over to observe Merchant Shipping (Tankers – E.E.C. Requirements) Regulations 1981.

DENSITY: King's Dock Lock density is 1025.

FRESH WATER: Fresh water supplied from hydrants on quays by watermen. Rate of delivery is 2,000 g.p.h., approx., depending on the demand.

FUEL: Various grades of gas oil and diesel can be supplied by barge or road vehicles, or it can be delivered ex-pipeline at Queen's Dock.

FIRE PRECAUTIONS: All matches and lighters must be declared at entrance to oil installation. There are arrangements at the Queen's Dock depot for shore cooking and eating. There is an oil boom between the King's Dock and Queen's Dock to serve as an oil fire break between two docks.

CONSULS:

France	Tel: Swansea 650021
Norway	Tel: Milford Haven 2313
Vice-Consuls:	
Belgium	Tel: Milford Haven 2313
Sweden	Tel: Gorseinow 895881

REPAIRS: All types of deck and engine-room repairs are possible.

DRY DOCKS: 2 dry docks in port are entered from King's Dock. Dry docks: "Duke of Edinburgh" 670 ft.×92 ft.; "Palmers" 560 ft.×75 ft. Operated by Swansea Dry Docks Ltd.

SURVEYORS: Cargo Inspectors available locally.
Ship Surveyors located in Swansea and Cardiff.

GANGWAY/DECK WATCHMEN: Under Port Regulations, there shall always be on board sufficient men to move or take care of the vessel. Some vessels employ watchmen.

OPENING/CLOSING HATCHES: Normally done by the ship's crew, but if riggers are employed by vessel for general duties they open up hatches.

CUSTOMS ALLOWANCES: At discretion of local H.M. Customs Inspectors.

CERTIFICATES:

Certificate of Freeboard.
Certificate of Registry.
Certificate of Pratique.
Light Bill.
Manifest.
Bill of Health.
Bills of Lading.

REPATRIATION: Arrangements can be made for repatriation through the Consular Channels.

AIRPORT: Nearest airport at Swansea, 8 miles from Docks. Next are Rhoose (Cardiff) and Bristol Airports where regular scheduled flights are handled.

TIME: Local time is British Standard Time which is plus 1 hour to Greenwich Time. Reverting to GMT during Winter months.

HOLIDAYS: Christmas (25th December); Boxing Day (26th December); New Year's Day; Easter, Good Friday and Monday (movable dates); Spring Holiday, May Day, Summer Bank Holiday (both movable dates). No cargo is worked on these days.

POLICE/AMBULANCE/FIRE: Call 999 from any telephone, and ask for service required.

EMERGENCY CO-ORDINATION CENTRE: S.A.R. Centre based at Mumbles. Tel: Swansea 66534.

TELEPHONES: Arrangements at most berths for placing telephones on board ships in port.

BANKS: Lloyd's Bank Ltd., 25 Wind Street, Swansea. Tel: 475555.
Barclays Bank Ltd., 57 Wind Street, Swansea. Tel: 465007.
National Westminster Bank, 52 Wind Street. Tel: 652125.

STORING: See "Prelims".

1. Yes
2. No interference with cargo work.
3. Yes
4. Yes
5. —
6. Yes.

SHIP SUPPLY SERVICE: It is the practice for the Swansea and Port Talbot pilot cutter to ferry personnel, stores, etc., to vessels offshore and due to dock at the respective ports. Alternative arrangements have to be made for large quantities and heavy items (Contact A.Doig & Co.).

Swansea and Port Talbot Pilotage, Port Office, King's Dock Lock, Swansea, West Glamorgan, South Wales. Tel: (01792) 650855.

IDENTIFICATION CARDS: Not compulsory, but they are helpful if a crew member has to identify himself to Authorities.

GARBAGE DISPOSAL: Arranged through local Agents.
Brisco. Tel: (01792) 584585.
Dragon Skip Hire. Tel: (01792) 310688.

WASTE OIL DISPOSAL: Arranged through local Agents.
Caarleon Ltd. Tel: (01792) 458646.

SEAMAN'S CLUBS: Flying Angel, Kings Dock, Swansea. Tel: (01792) 653436. Hours: 1900 – 2300 hrs. Full facilities, except for accommodation.

GENERAL: Entrance lock is 875 ft. in length, 90 ft. across at cope level. The inner sill is 7 ft. higher than the outer sill. The outer sill is 2.8 m. below Admiralty Chart datum (Chart No. 1161).

Tugs are available at the port for in-dock as well as sea towage.

A diver can usually be obtained by enquiry to the A.B.P. Port Engineer, Swansea.

Port Manager: Tel: 650855/265. Port Engineer: Tel: 650855/275. Dock Master and Fire Officer: Tel. 650855/260.

AUTHORITY: Associated British Ports, Harbour Office, Lockhead, Kings Dock, Swansea, Glamorgan SA1 1QR. *Tel:* (01792) 650855. *Telex:* 48150. *FAX:* (01792) 650729. *Contact:* A.R. Klinck, Port Manager. Captain M.J. Ingamells, Harbour Master.

TEES RIVER: 54.39 N. 01.08 W. (See Plan)

PORT LIMITS: The Port facilities extend from the river entrance to the I.C.I. Billingham Oil Jetty 16 km. up river.

Arrival in the port is accepted as time of passing South Gare Lighthouse inward, or time of anchoring in the Tees Bay.

DOCUMENTS: Ship's official papers including:

Register.
Load Line Certificate.
Derat Certificate.
Safety Equipment Certificate.
Radio Safety Certificate.
Construction Safety Certificate.
U.K. Light Dues.
Oil Pollution Certificate. (Tankers).
Crew List.
C14 Ship's Stores List.
C13 Arrival General Declaration.
C142 Crew Declaration.
Schedule 2 Check List.

ANCHORAGE: Vessels are prohibited from anchoring:—

(i) inside the dredged channel.
(ii) within a radius of 1,113 m. of the charted position of the Fairway Buoy.
(iii) within the limits of 2 divergent lines starting and extending from the dredged channel limits 244 m. apart at the South Gare Light Station, to 550 m. apart between their respective points of intersection with the circumference of the circle defined in (ii).

Vessels should not anchor within 2.5 cables of the Ekofisk Oil Pipeline or the Everest Gas Pipeline.

Caution should be exercised by the Mariner wishing to anchor in Tees or Hartlepool Bays, especially during periods of onshore winds. Local weather forecasts may be obtained from the Coast Guard or Coast Radio Station. Continuous anchor watches must be maintained and frequent confirmation of the vessel's position obtained to ensure that the vessel is not dragging. Engines should be maintained in a state of readiness so that the vessel may heave up if required.

Masters are asked to note that the area to the North of the Ekofisk pipeline is a sensitive fishing area and should be avoided whenever possible.

PILOTAGE: The Tees Pilotage Area is that part of the harbour for the time being, as specified in the Tees & Hartlepool Port Authority Act 1966 and all statutory modifications thereto falling within an area from the waters of the River Tees below the Newport Bridge at Middlesbrough, including all docks and tidal creeks connected therewith and the waters of the sea bounded by a line bearing 047°(True) from the Port Boundary Stone at Seaton Carew and extending seaward from that stone for a distance of 3.95 miles, thence clockwise along a circle of a radius of 3.5 miles from the South Gare Lighthouse at the mouth of the River Tees to the shore at Redcar, always excluding any port of the area enclosed by a circle of radius of 1.5 miles from the seaward end of the Hartlepool Breakwater.

Official address: The Tees & Hartlepool Pilotage Co. Ltd., 13 – 17 Queen's Square, Middlesbrough, Cleveland. Tel: (01642) 485648 (24 hours).

Pilot station is situated at South Gare and pilot cutter on duty is moored there. Cutters are painted blue with white or orange upper structure and fly the pilot flag by day when on duty and International Regulation lights by night. The duty cutter is equipped with VHF Radio, call sign "Tees Pilots" on Channel 16. Radar is also fitted.

As much advance notice of a vessel's arrival as possible should be given to Pilots. Minimum requirement for vessel arriving is 1 hour and for vessel sailing 1 hour 15 minutes.

Pilot boards in vicinity of Tees Fairway Buoy although smaller vessels are occasionally boarded off the South Gare lighthouse. During severe weather the duty cutter may move to Tees Dock and the Pilot will board as far seaward as the conditions permit.

Pilotage is compulsory for certain classes of vessel.

Class of ship requiring a Pilot:

1. (a) Ships of 95 m. LOA and over, navigating in the "Tees Approach Channel" and the "Tees River Channel" seawards of Light Buoy No. 27 (Position: Latitude 54° 35' 02.2" N., Longitude 01° 11' 46.8" W.).
   (b) Ships of 80 m. LOA and over, navigating in the "Tees River Channel" between Light Buoy No. 27 and Tees "Newport" Bridge.

2. Ships navigating in the "Tees Approach Channel" or "Tees River Channel" up to Tees "Newport" Bridge.
   (a) Of 20 m. LOA and over, having on board a dangerous substance.
   (b) Requiring the services of a tug.

Pilotage Exemption Certificates: Certain Masters and Mates may be entitled to a "Pilotage Exemption Certificate" upon application to the Tees & Hartlepool Port Authority. Details are obtainable from the Harbour Master, Harbour Master's Office, Tees Dock, Grangetown, Middlesbrough, Cleveland, TS6 6UD.

RESTRICTIONS: *Traffic Control:* This is operated by the Harbour Master when vessels over 200 m. in length are moving within the river limits. The primary purpose is to allow the subject vessel to negotiate the channel without embarrassment from other traffic. Overtaking/passing is decided by the Harbour Master when circumstances favour such actions.

Restricted Transit Control: This is imposed by the Harbour Master upon vessels carrying certain hazardous cargoes. The subject vessel is intended to proceed from sea to berth or from berth to sea without meeting other traffic. As a consequence such vessel must be restrained from entering the main channel until an 'all clear' route is available. Some regulated passing.

Port Safety Control: Masters of ALL vessels before committing their vessels to the River Tees Channel are required to satisfy the Harbour Master in respect of shipboard equipment by affirming to the following questionnaire:

Question No. 1: Your vessel is in all respects seaworthy.
Question No. 2: All secondary power or mechanical systems are in operation and *immediately* available in the event of failure of any primary system.
Question No. 3: Steering is under direct manual control.
Question No. 4: Anchors are ready for use.

In view of the controls it is essential for contact to be made with the Harbour Master before considering entering the river, leaving the berth.

VHF Radio use Channel 14 to contact. Tel: (01642) 452541. Telex: 58145. Fax: (01642) 467855.

Tees Barrage: A newly constructed barrage came into operation in December 1994, located at Blue House Point, approximately 9 miles from the entrance.

This has the effect of truncating the flood tide, and during periods of heavy rain and melting snow, this has been observed to have the effect of extending the ebb tide flow in parts of the river.

Note: All depths are expressed as nominal dredged depths at Lowest Astronomical Tide (LAT). These depths are affected by both siltation and tidal conditions. Users should always obtain detailed information from the Harbour Master, Tees. Tel: (01642) 452541.

MAX. SIZE: This matter is constantly under review. At present the largest dimensions acceptable are quoted as: Length 305 m. (1,000 ft.); beam 48.0 m.; draft 17.0 m. This depends on the berth nominated, tidal influence and prevailing weather.

Vessels requiring in excess of 16.15 m. (53 ft.) draft should be the subject of prior consultation with the Harbour Master.

A vessel with unusual dimensions e.g. oil rig, or any vessel with dimensions approaching the port maxima, must be the subject of consultation with the Harbour Master.

HEALTH: New Regulations. The Public Health (Ships') Regulations in force from 1.4.78.

See "Health – All Ports" before first U.K. port.

RADIO: Ships approaching from the North or at anchor in Tees Bay use Cullercoats Radio. Ships approaching from Southward use Humber Radio or Whitby Radio which is a slave-station to Cullercoats.

VHF Station	*Call Sign*	*Channel Fitted (min.)*
Harbour Master's Office	TEES PORT CONTROL	14,16,22,12
Harbour Master's Launch	TEES HARBOUR LAUNCH	16,14,12,11,9,8,6
Tees & Hartlepool Port Authority Maintenance Craft	"NAME"	16,11,6, etc.
Tees Pilot Cutter	TEES PILOTS	16,14,12,9,8,6
Tees Pilot Station (South Gare)		16,14,9
Tees Tugs	NAME	16,14,12,8,6, etc.

Tees Port Control is manned 24 hours per day and is also available to Hartlepool shipping for relaying port operational messages.

Channel	*Use*
14	Port Operations (Tees)
22	Port Operations (Tees)
9	Pilot Operations (Tees and Hartlepool)
16	Calling and Safety.

Vessels should listen on Channel 14 at all times when underway in the port.

RADAR: 4 scanner sites give full radar coverage from Tees Offshore Base/Tees Dockyard Ltd. to Fairway Buoy and up to 20 miles to seaward. Advice/information available to Masters/Pilots at any time. Advice in poor visibility in prescribed form. Call "Tees Port Control". (See "VHF").

The Ekofisk oil pipeline runs 220 miles from the Ekofisk oilfield to Teesside, coming ashore just North of the Tees Entrance; the Everest high pressure gas pipeline runs from the Central Graben gas/oil field, coming ashore just South of the Tees Entrance; the inshore sections are vulnerable to anchor damage from large ships and to give the pipelines optimum protection, a computerised radar has been installed in the Harbour Office.

TUGS: Official Address: Cory Towage (Tees) Ltd., Tees Wharf, Dockside Road, Middlesbrough, Cleveland TS3 6AB. Tel: Middlesbrough 247277 day and night.

Fleet of 6 tugs between 2,200 h.p. and 3,650 h.p. Tugs join vessel in Redcar Reach between Buoys No. 9 and No. 17 depending on size, draft and destination. Tug's lines are used.

Tugs are on duty daily and available on 6 hours' notice for sailing and arriving after normal office hours.

BERTHING: Small vessels can usually berth at any stage of the Deep drafted vessels enter in accordance with the tide.

T.H.P.A. General Cargo Facilities:

Tees Dock: Quay No. 1: 4 conventional general cargo berths ea 183 m. length, 1 of 208 m. in length with flush faced quay. Road rail access to all vessels. Ample cranage and spacious sheds ground. Nominal dredged depth 10.9 m. below LAT.

Quay No. 2: Two berths, one at 183 m. in length and one at 20 in length, equipped with electric luffing cranes up to 25 tonnes cap and 1×100 tonnes capacity Demag mobile crane. Nominal dre depth 10.9 m. below LAT.

BULK HANDLING FACILITIES: *Redcar Ore Terminal:* Handles iro imports for British Steel. Berth dredged to nominal 17.30 m. and ab accommodate vessels up to 305 m. in length, approx. 150,000 3 ore dischargers capable of handling 2,000 t.p.h.

Teesbulk Handling Ltd.: Built on the East side of Tees Dock, this loa discharging facility is for the export of Potash mined in North Yorks Dredged to a nominal depth of 10.90 m., the quay is intende accommodate vessels simultaneously. The main loader is capab 1,500 t.p.h. or 1,000 t.p.h. each to 2 vessels. A silo on the site h storage capacity for 56,900 tons. Grain is exported from the ter utilising a 7,500 ton silo as well as direct transport. Coal, soda ash bentonite also handled.

ROLL-ON/ROLL-OFF FACILITIES: A link span Ro/Ro berth in Dock can accommodate ships of up to 160 m. in length and 23 beam. Nominal dredged depth of 8.7 m.

Designed for loads up to 182 tonnes (when carried on 4 axles).

A second Ro/Ro pontoon is located at Tees Dock, Berth No. 5 can accommodate vessels of up 200 m. LOA, and has a no dredged depth of 10.4 m. below LAT.

CONTAINER FACILITIES: A privately operated (Bell) purpose Container Berth utilising 2 gantry cranes of 32 tonnes and 45 to capacity is established downstream of Tees Dock.

CONSTRUCTION FACILITIES: There are a number of specialising in oil-rig module construction work, all capable of han flat-top barges up to 92 m. and unit loads to 4,000 tons.

SLP Engineering on the South side of the river, while Trafalgar Brown are on the North side.

STEVEDORES: In order to prepare for loading/discharging, i.e. ord of gangs, transport, etc., it is necessary to give ETA through their A not less than 24 hours before arrival.

In Tees berths, the port works 2 shifts daily, i.e. 0600 – 1400 hrs 1400 – 2200 hrs. Mondays to Fridays, with voluntary overtim weekends.

MEDICAL: All medical facilities available. Vessels requiring doc board are advised to give maximum notice. Emergency medical att can be arranged through VHF radio contact to Tees Port Cont Channels 22, 16 or 14.

TANKER BERTHS:

Jetty/Berth Name	*Max. LOA (m.)*	*Nominal Depth (m.)*	*Max. d.w.t.*
Phillips No. 1	305	18.2	150,000 (Crud
Phillips No. 2	305	18.2	150,000 (Crud
Phillips No. 3	213	14.1	48,000 (Gas
Phillips No. 4	306	18.2	150,000 (Crud
Phillips No. 5	305	18.2	150,000 (Crud
Phillips No. 6	114	9.3	2,400 (Gas
Phillips No. 7	114	9.3	2,400 (Gas
Phillips No. 8	114	9.3	2,400 (Gas
Crude Oil Jetty (See "Developments)	265	13.32	100,000 d.w.t.
Simon Storage No. 1	190	10.4	30,000
No. 2	140	9.7	5,000
Tees Storage No. 1	90	11.0	6,000
No. 2	210	11.0	40,000
No. 3	130	8.5	18,000
B.A.S.F. No. 1	148	7.2	3,500
No. 2	148	7.2	10,000
Teesport QE II	198	10.9	25,000
Teesport West Byng	200	10.9	25,000
Arthur Taylor	–	6.8	3,000
North Tees I.C.I.			
No. 4	271	12.7	80,000
No. 3	250	11.8	35,000
No. 2	201	10.9	25,000
No. 1	120	7.2	5,000
"A"	140	7.0	5,000
Billingham Oil Wharf	100	4.5	4,000

Clarence/Deep Water Wharves also handle tankers.

Note: Depths given are nominal and subject to siltation. information should be sought from Tees Harbour Master.

Report: *Cautionary Advice:* Vessels approaching River Tees have B.A. Charts 2566 and 2567. Both are large scale charts complete coverage of River Tees and associated terminals, a Bay. B.A. Charts 134, 152 and 1191 are recommended for seaward to the Tees Bay area.

It should be noted that there are two 15 m. wrecks outside line in positions within 3 miles of the Fairway Buoy (54° 41' N., and 54° 42.5' N., 1° 24' W. (PA)). Tides in the vicinity of the Buoy and the pilot boarding areas set at approximate right ang channel, with rates up to 1.5 knots. Great care should be exerc slowing down to embark the Pilot.

During or after Northeasterly gales, a heavy ground swell up in this area.

Phillips North Sea Petroleum Teesside: Docking and Berthing normal practice to berth port side to. The vessel is swung Channel turning circle and backed into the berth. There are no speed indicators on the jetties. Mooring boats are used to ru ashore (usually spring lines first, followed by a head line and a stern line). All moorings should be of the same construction and material.

ICI North Tees: Docking and Berthing: Vessels may berth either side to any of these jetties, according to tide and weather conditions, but port side to is favoured by Harbour Authorities so that the vessel is heading seaward. If the vessel is berthing port side to, normal practice is to swing off Tees Dock. There are no approach speed indicators. Also see "Shipmaster's Report" – April 1988.

Tees Storage Terminal: Docking and Berthing: Vessels may berth either side to at No. 2 Jetty according to tide and weather conditions prevailing, but port side to is favoured by Harbour Authorities so that the vessel is facing seaward. Vessels berthing port side to are swung in the Tees Dock turning circle and then pushed into berth with the aid of tugs.

Teesport Oil Jetties: Docking and Berthing: Vessels may berth either side to these berths according to tide and weather conditions prevailing, but starboard side to is favoured by Harbour Authorities so that the vessel is facing seaward. If the vessel is berthing starboard side to, it is swung in the Tees Dock turning circle. There are no approach speed indicators.

Billingham Oil Jetty: Docking and Berthing: Vessels may berth port or starboard side to depending on weather and tidal conditions prevailing at the time.

If vessel berths port side to, an anchor is sometimes used when swinging the vessel off the berth. 2 springs are run from each end of the vessel, then 2 messengers are passed from jetty deck to vessel, one to bow and one to stern. 2 shore head lines and 2 shore stern lines are brought on board and made fast.

B.A.S.F. Terminal: Docking and Berthing: Vessels may berth either side to according to tide and weather conditions prevailing at the time, but port side is favoured by Harbour Authorities so that vessel is facing seaward. If vessel is berthing port side to it is swung in the turning circle off Tees Dock and then pushed into the berth with the aid of tugs.

DENSITY: The density of the river water fluctuates with the seasons and rain amount, being between 1015 and 1025 mainly. Below Tees Offshore Base/Tees Dockyard Ltd. the fresh water influence is minimal.

FRESH WATER: Plentiful from wharf and small quantities available from tug in emergency, approx. 20 t.p.h.

FUEL: All grades available by road or river delivery. 48 hours notice of requirements is requested for barge delivery.

CONSULS: Sweden, Norway, Denmark, Netherlands, Germany, Finland. Also French Consular Agency.

REPAIRS: Facilities available for all deck or engine repairs.

DRY DOCKS: Tees Dockyard Ltd. has 3 dry docks:

No. 1 Dry Dock 175 m.×22.25 m., capacity 26,000 tons.
No. 2 Dry Dock 83.21 m.×17.31 m.
No. 4 Dry Dock 137.16 m.×20 m.

Cranage: 5 tons, 10 tons, 15 tons and 30 tons.

SURVEYORS: 1. SGS Redwood Ltd., and Caleb Brett cargo inspectors available.

2. Lloyd's Register, American Bureau, German Lloyd, Bureau Veritas, Salvage Association, U.S. Salvage, N.K.K., RIMA and Corporation of China available.

GANGWAY/DECK WATCHMEN: Recommended. Majority of berths are tidal with 5 m. range at Springs.

OPENING/CLOSING HATCHES: Always by crew. Riggers available.

CUSTOMS ALLOWANCES: 0.5 lb. tobacco or 200 cigarettes. (0.25 lb. tobacco for coasters). 1 spirit and 1 wine bottle (0.5 bottle spirit and 0.5 bottle wine for coasters).

REPATRIATION: All facilities exist.

AIRPORT: Teesside Airport with regular flights to London, etc. is 12 miles from Middlesbrough Centre.

Air U.K. have flights to Aberdeen, Amsterdam, Bergen, Humberside, Norwich and Stavanger.

TIME: GMT in Winter months. BST (GMT plus 1 hour) operates between late March and mid-October as decided by government.

HOLIDAYS: Normal English Bank Holidays. On certain holidays work can be arranged if suitable notice is given.

POLICE/AMBULANCE/FIRE: Telephone 999 in emergency. If no phone available contact the Harbour Master on VHF Radio Channel 16 or 14.

EMERGENCY CO-ORDINATION CENTRE: H.M. Coast Guard Maritime Rescue Sub-Centre, Tyne/Tees. Tel: (0191) 2572691. Telex: 58839.

TELEPHONES: Many berths can be connected to telephone system using coin boxes; a connection charge is made.

BANKS: All major U.K. banks have branches in Middlesborough, Redcar and Hartlepool.

STORING: See "Prelims".

1. Both.
2. Tankers – No.

Storing may take place before or after cargo operations, while all tanks are battened down.

3. No. Distance varies from 100 yards to half mile depending on berth.
4. No.
5. Applicable to spirits, cigarettes, tobacco and bonded meat only.
6. Yes, but normally by suppliers/ship's crew.

IDENTIFICATION CARDS: Not used in Tees.

GARBAGE DISPOSAL: There are several reputable firms in the area. Collection service is available by arrangement through local shipping agencies, but must be sanctioned by the berth operator (this is particularly important at tanker berths). Skips are usually about 6 cu.m. and charges vary according to time involved, but average about £35 to £40 per skip in normal working hours.

WASTE OIL DISPOSAL: Collection can be arranged by local shipping agencies, however it is necessary to specify what oils and chemicals are present in the waste oil. Usually collected by road tankers of about 20 tons capacity and charges would vary according to quantity and content. Typical current charge for Lub and Fuel Oil waste, £150 per 1,000 galls.

SEAMAN'S CLUBS: The Missions to Seamen, The Flying Angel Club, Tees Dock, Grangetown, Middlesbrough, Cleveland TS6 6UD. Tel: (01642) 460994, 468527, 460244.

German Seamen's Mission, 67 The Avenue, Linthorpe, Middlesbrough, Cleveland, TS5 6QU. Tel: (01642) 825084.

Swedish Missions Church, 386 Linthorpe Road, Middlesbrough, Cleveland, TS5 6HA. Tel: (01642) 819878.

Seafarers Christian Friends Society, 7 Lampton Road, Stockton on Tees, Cleveland, TS19 0ER. Tel: (01642) 603247.

CURRENCY: U.K.Pound (U.K.£).

SHIPMASTER'S REPORT: April 1988.

Chart: BA. Chart No. 2566.

Pilot: Pilot boards at Tees Fairway Buoy (Racon) from a fast sea cutter. If the weather is poor the Pilot boards inside South Gare.

When leaving, extra charges are incurred if the Pilot has to standby for more than 1 hour.

Entry: It is about 30 minutes from the Pilot to ICI North Tees.

Tugs: There are several powerful tugs available. Tugs are not normally used by small vessels. When ordering tugs, 2 hours' notice required.

Berthing: For ethylene, Jetty A only can be used, depth of water approximately 7.5 m. at low water.

When berthing, side alongside is dependent on the tide, but in general vessels berth starboard side to. Vessels swing off the berth and sometimes the anchor is used. Good fendering is provided by 3 large 'Yokahama' type fenders which ride up and down with the tide on the wooden quay face. Mooring boat assists with running the lines.

Great care should be taken when lining vessel up with the manifolds as shore personnel alignment may not be accurate. The ICI Jetties can handle Gas Ships up to a maximum of 60,000 cu.m.

Cargo: There is an 8 in. liquid line and a 6 in. vapour line. The shore personnel connect and disconnect the Chicksan arms. There are often long delays between connection of arms and commencement of operations.

The shore compressor extracts ship's vapour, so can use all ship's plant for internal cooling.

Negative cool down on completion. We had a temperature of −101.7° C on completion of loading. This can vary from −101° C to −102° C, depending on the time of year.

Average loading rate 124 t.p.h. (shore maximum). We stopped loading 12 tonnes before being full (there is a stop button at the ship's manifold) and the remaining product was blown to the ship in about 45 minutes.

Oxygen samples taken before loading.

All documentation, including Bills of Lading, handled by Surveyor, who accepts Notice of Readiness and Protests. The Supervisor is located in a cabin near the vessel and was very helpful.

General: Fresh water is obtainable from a hydrant on the Jetty and is free.

Transport delivering stores is permitted to within 25 m. of the ship's side.

Ship's gangway used but was troublesome due to the rise and fall of the tide.

There is a public telephone near the vessel. Collect calls may be made via the operator (no coin box). The Master is able to use the telephone in the Supervisor's office for any local official business.

Customs are very strict, all forms are to be completely correct.

AUTHORITY: Tees and Hartlepool Port Authority, Harbour Master's Office, Tees Dock, Grangetown, Middlesbrough, Cleveland TS6 6UD. *Tel:* (01642) 468127. *Telex:* 58145 HMTees G. *FAX:* (01642) 467855 (office hours only). *Contact:* Captain P.J. Lewis, Harbour Master.

TETNEY MARINE TERMINAL: 53.32 N. 00.07 E.

LOCATION: Tetney Marine Terminal is the deep water crude oil terminal of Crude Oil Terminals (Humber) Limited, operated by Conoco Limited.

The position of the mono-buoy is 53° 32' 18" N., 00° 06' 48" E., accommodating vessels up to 50 ft. draft and about 2.5 miles offshore.

Tetney is an open roadstead in the entrance of the River Humber on the East coast of England. The tidal rates in the vicinity of the mono-buoy reach 3.5 knots during Spring tides and the direction of the ebb and flood tides is generally East and West respectively. The tidal range varies between 7 ft. and 22.5 ft.

DOCUMENTS: The following documents should be completed for arrival:

General Declaration – Form C13 (duplicate).
Crew Declaration – Form C142 (duplicate).
Crew List – IMO (duplicate).
Tanker Check List – Schedule II EEC.

Normally the Agent will board the tanker from one of the berthing tugs prior to berthing, and the previously mentioned documentation, with the exception of the Tanker Check List (which will be handed to the Berthing Master, together with cargo documents) will be handled by him.

Stores can be taken at the berth provided the Agents are given the order at least 72 hours before arrival. Stores and water are available by workboat, arrange via Agent.

The Master of the tanker shall notify to the Harbour Master prior to arrival the information required under S.I. 1981 No. 1077, The Merchant Shipping (Tankers) (EEC Requirements) Regulations 1981.

PILOTAGE: Vessels are requested to send ETA and draft to Spurn Pilot 12 hours before arrival and any adjustment to that time at least 2 hours before arrival. Spurn Pilots listen continuously on VHF Channel 16 and use Channel 14 as a working frequency.

Additionally, Agents should be advised of ETA 72 hours before arrival and arrival draft should be included in the cable.

Pilotage is by Humber Pilots who board in the vicinity of the Humber Light Vessel from a fast launch. Additional berthing information can be obtained from Tetney Base.

The Berthing Masters will board as the vessel approaches the mono-buoy and will assist the Pilot in the mooring operation. They will advise the ship's Officers during the mooring operation, hose connection and disconnection, and will act as Company representatives throughout the vessel's stay in the berth. Berthing Masters (2), Pilot and Cargo Surveyors(s) remain onboard during vessel's stay.

Vessels must provide a pilot ladder for the Pilot and Berthing Masters to board and whilst in the berth a suitable gangway with a pilot ladder near the end in order to board from a small boat. The ladder must be clean and conform to SOLAS Regulations.

RESTRICTIONS: Berthing on H.W., sailing at any time.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: *Pre-Arrival Procedure:*

In addition to the ETA requirements the following information is required by the terminal within 6 hours of clearing the previous port, or as soon as receiving orders for Tetney.

(a) Name of ship.
(b) Name of the last port from which the vessel cleared and the name of the loading port if different from above.
(c) Estimated date and time of arrival at Humber.
(d) Cargo loaded (barrels and metric tons – gross and nett).
(e) API and gravity.
(f) Arrival draft fore and aft.
(g) Lifting capacity of derricks.
(h) Size of manifolds.
(i) Slops in cargo.

About 48 hours from the Pilot Station a second cable should be sent to the Agent with the following information:

(a) Name of Ship and Master.
(b) Amended time of arrival.
(c) Names of crew leaving the vessel.
(d) Requirements in way of doctor and dentist.
(e) Stores and water.
(f) Additional requirements.

About 24 hours from the Pilot Station a final cable should be sent to the Agent confirming:

a) Time of arrival.
(b) Ship's bond remaining on board.
(c) Amendments.

VHF: There is a VHF station at Tetney which is manned 24 hours a day and has the call sign, 'Tetney Base'. A continuous watch is kept on VHF Channels 16, 21 and 48. Channel allocation is as follows, 16 calling, 21 ship to shore, and 48 port operations. UHF (467.725 MHz) is allocated for use by the Conoco Berthing Master, Tetney Terminal and the Conoco owned work boats.

The Pilot and Berthing Masters carry portable VHF hand sets for use during berthing for inter-ship and ship to tug communications, Channel 73.

BERTHING: Hose hang-off chains and securing equipment are placed aboard the vessel when the Berthing Masters board from the Conoco service craft, "Spurn Haven".

Vessels will moor using an OCIMF Approved Mooring Stopper suitable for use with 76 mm. chafe chain.

The vessel approaches the mono-buoy on a Westerly heading. A messenger (min. 40 mm. diameter) should be lowered to the water and this will be picked up by the Conoco mooring launch "Monogirl" when approx. 150 m. from the mono-buoy. This messenger will be made fast to a 64 mm. × 90 m. polypropylene pick up rope which should be heaved up as the vessel makes the final approach to the buoy. When the chafing chain is in the fairlead it is secured to the bow stopper.

HOSES: Hoses are taken on the port side and the port derrick (minimum S.W.L. 10 tons) should be rigged and ready for use on arrival.

2×16 in. hoses are taken aboard, manifolds should be 16 in. 150 ASA. Should a vessel have any other size of manifold or be unable to provide adaptors to suit 16 in., Tetney Terminal will need to be notified at least 72 hours before arrival.

Hose connection and disconnection is carried out by the ships crew under the supervision of the Berthing Master. Upon completion of discharge the hoses will be filled with sea water by the ship after which disconnection can commence. When the hoses are blanked off they will be hung off until just before sailing when they will be lowered to the Spurn Haven for towing clear.

POLLUTION: It is the Master's responsiblity to see that no oil of any kind is pumped or spilled overboard from his vessel. This includes oil water from the bilges, crude residues from previous voyages or any other matter that may result in the pollution of the sea. Owners and Masters should comply with any international regulations and recommendations concerning the prevention of pollution of the sea, especially in regard to the river Humber.

SHORE LEAVE: None of the officers or crew shall be allowed shore leave and no boats of any kind, except in an emergency, shall be lowered during the vessel's stay in the berth.

GARBAGE DISPOSAL: Skip provided, arranged through Agent.

WASTE OIL DISPOSAL: Waste oils, with no chemical additives, may be accepted for disposal with prior permission from the Operator.

OPERATOR: Tetney Marine Terminal, Crude Oil Terminals (Humber) Ltd., Tetney Lock Road, Tetney, Nr. Grimsby, South Humberside DN36 5NX. *Tel:* (01472) 814101. *Telex:* 527111 Contet. *FAX:* (01472) 210275. *Contact:* Captain R.C. West, Harbour Master.

TYNE DISTRICT: 55.01 N. 01.24 W. (See Pl

(Including Newcastle, North and South Shields, Jarrow, Tynemo Wallsend and Gateshead).

PORT OPERATIONS AND INFORMATION SERVICE: VHF: Call "Tyne Harbour Radio" on Channel 16, frequency 156.80 MHz and Channel 12, frequency 156.60 MHz. The control station is situate the Harbour Master's Office, North Shields (Tel: (0191) 2572 2570407), and is manned on a 24 hour basis. Vessels must ob permission by VHF from the control station before entering the similar permission must be obtained before movement within, or be sailing from the port. A service is provided for the passing of informa to shipowners and Agents.

DOCUMENTS:

1 Crew List for H.M. Immigration Office.
1 Form C.142 (Tobacco List) supplied by H.M. Customs.
1 List of Private Addressed Packages not manifested (C.143), supp by H.M. Customs.

Details of Oil in double bottom tanks, also measurement in cubic of cargo in non-registered spaces.

PILOTAGE: Pilotage is compulsory for all vessels over 50 m. LOA Port of Tyne Authority pilotage district includes the port and its sea approached within a radius of 3 miles from the North and South Pi Pilot will board by arrangement either inside piers or at sea.

24 hours advance notice via agent required.

Call 'Tyne Harbour Radio' on VHF Channels 16 and 12 to order Efficient pilot ladder required as per D.O.T. Regulations.

ANCHORAGE: Off entrance River Tyne, recommended 1.5 mile of North Pier. Minimum 12 fathoms.

RESTRICTIONS: The river channel is dredged to the following de below Chart Datum: From sea to Jarrow Quay Corner (East end) 8. thence to Jarrow Staith (West end) 6.0 m., thence to Newcastle Bri 5.2 m. (except in the main channels of the Swing Bridge and High Le Bridge, Newcastle). West of Newcastle Bridges, there is no autho depth.

MAX. SIZE: Harbour entrance, length and breadth: no limit. Draft 8.1 any state of tide: up to 11.0 m. at high water.

Riverside Quay, draft up to 10.00 m. Depth 10.51 m. to 11.0 m. b C.D.

Tynemouth Terminal, draft up to 9.00 m. Depth 9.51 m. below C Newcastle Quay, 27 – 28 berths, 6.0 m.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Cullercoats Radio W/T "GCC." Cullercoats Radio on R/T.

TUGS: Normally join inside piers, and use tug's wires. Rate application to Cory Towage Ltd. Tel: (0191) 4540314.

BERTHING:

Albert Edward Dock:

Heavy Load Berth (Ro/Ro No. 2) for heavy unit loads on transpo up to 510 tonnes; depth of water 7.9 m. at normal dock level.

Tyne Commission Quay: Lay-by berth 335 m. long, depth of 7.11 m.

Tyne Commission Quay Extension: 118 m. long, depth of 6.21 m.

International Car Ferry Terminal:

Ro/Ro No. 3: 125 m. long, depth of water 7.11 m. Linkspan 4 wide; minimum headway clearance 5.0 m.; axle loading 45 to

Ro/Ro No. 4: 140 m. long, depth of water 7.5 m. Linkspan 9.4 m no headway restriction; max. axle loading 120 tonnes.

Whitehill Point Jetty: 90 m. long, depth of water 6.5 m.

Tyne Dock:

North West Quay: 243 m. long, depth of water 8.2 m. at norma level.

Factory Quay: 196 m. long, depth of water 7.0 m. at normal dock

Riverside Quay: 514 m. long, depth of water 10.5 m. to 11.0 m. C.D.

Tynegrain Ltd. (Extension of Riverside Quay): Terminal, 36,500 silo capacity. Loading rate 1,000 tonnes per hour. Max. size d.w.t. Depth of water 10.51 m.

Tyne Coal Terminal: 1 berth, depth of water 10.5 m. Loadi 2,000 tonnes per hour.

Tyne Car Terminal:

Berth No. 1: 250 m. long, depth of water 9.5 m.

Berth No. 2: 150 m. long, depth of water 7.0 m.

Berth No. 3: 140 m. long, depth of water 6.5 m.

Newcastle Quay:

Spillers Tyne Mill: 237 m. long, depth of water 6.0 m., discha 75 tonnes per hour. Silo capacity 34,000 tons.

Aggregate Berths:

Howdon Jetty (Tilcon): Length 150 m., depth of water 7.0 m.

Gateshead (Redland Aggregates): Length 80 m., depth of wate

BRIDGES: At Newcastle 10 miles from entrance, Swing negotiated against tide; other bridges, minimum headway cle 24.7 m. above MHWS.

STEVEDORES: Principal Stevedores Port of Tyne Autho arrangements through Agent. Stowage plan required prior to a

Plant pool as follows:

Albert Edward Dock:

Ro/Ro Berths – 4 terminal tractors.

Whitehill Point: 2 cranes, 10 tonnes.

Tyne Dock:

Riverside Quay – 4 cranes, 1 – 10 tonnes; one 40 tonne crane; 1 container gantry crane 35 tonne capacity under s 40 tons capacity under the hook beam.

North West Quay – 3 cranes, 5 tonnes – 10 tonnes.

There is a pool of 26 forklift trucks of 2,500 kg. to 42 tonnes available for any location. These trucks can be fitted with atta for handling paper, pulp, etc.

Container handling plant – 1 Hyster 40 tonnes, 6 yard tracto 40 ton flatbeds, 4×40 ft. skeletal trailers.

Also see "Dry Docks".

MEDICAL: Hospitals available, Advise Agent in advance if medical attention required on arrival.

TANKERS:

Velva Liquids, North Shields:

Ocean Jetty: 274 m. long, depth of water 9.5 m.

Tanker Berth: 248 m. long, depth of water 7.1 m.

Coaster Jetty: 167 m. long, depth of water 6.0 m.

Jarrow Oil Jetty: Length 189 m.

Rohm & Haas Ltd. Jarrow: Chemical Berth, length 180 m. Depth 5.6 m.

Report: *Cautionary Advice* – Port Approaches: The approach to the Tyne Piers is clear of danger and adequate navigation aids are provided and well maintained. The entrance, however, is exposed to Easterly winds and early contact should be made with "Tyne Harbour Radio" on VHF when bad weather prevails to facilitate boarding and avoid unnecessary delays.

In addition to close attention to other coastal traffic, a sharp lookout should be maintained for local fishermen whose craft are often badly lighted and poorly painted, with colours which may blend rather than contrast with the background.

Entry: Provided that the out-going stream is not making strongly, which causes maximum turbulence, there should be no difficulty entering the port with winds between N.E. and S.E. It is preferable to enter while the in-going stream is still running although at that time it also sets across the entrance. This precaution is especially necessary during N.E. gales, which cause the heaviest seas at the entrance. In Northerly gales vessels should keep close under the lee of North Pier and in Southerly gales, especially with the out-going stream running, close under the lee of South Pier.

Entry: After embarking Pilot prior to entry, vessel proceeds at half to full speed keeping leading lights in line 258°(T).

Normal entry times for maximum draft vessel (although sufficient water at any state of tide) from 3 hours before HW to HW River Tyne North Shields.

During this period tide sets across entrance from North to South in a 160° direction with Spring rates up to 1 knot.

Vessels must approach entrance with sufficient speed and set allowed to maintain a true course of 258°(T) keeping leading marks and lights in line.

Leading line must be disregarded as soon as the Tyne Piers are passed, when a vessel should reduce speed and be guided by the light buoys and beacons.

Inside the piers, tidal streams tend to run with the channel at rates up to 3 knots during Spring tides.

Vessels should pass in mid channel between Nos. 1 and 2 light buoys on the North side and Herd Light Buoy and Herd Groyne Light Structure on the South side.

Regulations also state that vessels are to keep Southward of mid channel when proceeding to sea and Northward of mid channel when entering, so as to pass each other port side to port side.

Distance from Tyne Piers to Herd Groyne 0.8 miles, course approx. 255°(T).

Tugs meet vessel in the area between Tyne Pier and Herd Groyne.

Passage up river from Herd Groyne to Tynemouth Terminal is approximately another 2 miles. Vessels speed when transitting this region should be between Dead Slow and Slow. This tends to be a very busy area with numerous riverside berths. Two bends, one to port and one to starboard, are negotiated before vessel reaches the swinging area off Tynemouth Terminal.

Vessels late for the tide are accepted on a spot basis and have been berthed up to 2 hours after HW. In these cases, vessels go straight alongside, starboard side to, and swing in the turning area outward bound.

Prescribed turning area is 360 m. in diameter.

Tugs are made fast between Herd Groyne and the swinging area, and normal practice is to swing to starboard heading vessel to the jetty when all way is off the vessel.

Mooring boats are employed for running the ship's lines to shore.

DENSITY: Entrance/Tyne Dock – 1025; Tyne Dock/Jarrow 1020; Newcastle Quay 1005/1010.

FRESH WATER: Available ex-water boat, rate of delivery up to 150 t.p.h.

FUEL: Available at Tyne Tanker Berth or by road tanker.

GANGWAY/DECK WATCHMEN: Available if required.

OPENING/CLOSING HATCHES: Crew allowed open and close.

CERTIFICATES:

- Register.
- Load Line.
- Safety Construction.
- Safety Equipment.
- Safety Radio.

CUSTOMS ALLOWANCES: At the discretion of Local Customs Inspector. Normal allowances are equivalent of 0.5 lb. tobacco per man and equivalent to 1 bottle wine per man. Allowances may be halved for home trade vessels. Vessels in port more than 3 or 4 days may receive extra allowances.

CONSULS:

Belgium	Tel.	Tyneside (0191)	2328345
Denmark	Tel.		2960134
Finland	Tel.	(01642)	243231
Germany	Tel.	Tyneside (0191)	4772531
Iceland	Tel.		2811012
Liberia	Tel.		2612711
Luxemburg	Tel.		2328345
Netherlands	Tel.		2301220
Norway	Tel.		2326358
Sweden	Tel.		2950777
Spain	Tel.		2364126

REPAIRS: All types of repairs possible at many building/repair yards.

DRY DOCKS:

Name of Owner or Occupier	Dock	Length on Bottom (m.)	Breadth at Entrance (m.)	Depth on Sill at M.H.W.S (m.)
NORTH SIDE OF RIVER				
A & P Tyne Limited				
Wallsend	No. 1	170.7	23.2	7.8
	No. 2	143.4	21.3	7.6
	No. 3	173.7	24.4	7.9
	No. 4	217.9	32.0	8.8
A & P Tyne Limited North Shields	No. 5	216.1	29.6	8.5
SOUTH SIDE OF RIVER				
Tyne Dock Engineering Co. Ltd.,	No. 1	96.0	13.7	5.0
South Shields	No. 2	85.3	14.0	5.6
Tyne Dock Engineering Co. Ltd.,	No. 1	103.6	14.6	5.5
South Shields	No. 2	145.4	17.7	6.4
Middle Dock	No. 3	152.4	19.5	7.2
	No. 4	195.0	24.4	7.9
Tyne Dock Engineering Co. Ltd.,	No. 1	100.9	14.6	5.2
West Yard, South Shields	No. 2	152.4	19.8	6.1
Tyne Tees Dockyard Co.	No. 2	259	44.2	10.56

Slipways:

Name of Owner or Occupier	No. of Slipways	Length of Cradle
SOUTH SIDE OF RIVER		
Tyne & Weir Marine Ltd.	1	30 m.
Tyne Slipway	1	13.7 m.

Heavy Lift Cranes:

Offshore Technology Park, Walker: 250 tonnes. Depth of water 6.9 m. C.D.

Titan III Floating Crane: 150 tonnes.

REPATRIATION: All facilities available.

AIRPORT: Newcastle Airport: Regular scheduled services operating to European Continent, Scandinavia and Ireland. Daily scheduled services to London Heathrow, London Gatwick, Manchester, Birmingham, Cardiff, Bournemouth, Norwich, Glasgow and Aberdeen.

Air U.K. flights to Amsterdam.

TIME: British Standard Time, GMT plus 1 hour. GMT in Winter months.

HOLIDAYS: New Year's Day; Good Friday; Easter Monday; May Day; Spring Holiday; Late Summer Holiday; Christmas Day; Boxing Day.

POLICE/AMBULANCE/FIRE: Dial 999, and ask for service required.

TELEPHONES: Can be arranged on board at certain berths.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Required by crews of passenger vessels at Terminal Berths at North Shields.

GARBAGE DISPOSAL: Skips are provided at certain berths at Tyne Dock, South Shields, Albert Edward Dock, North Shields and Fish Quay, North Shields Operators of private berths make their own arrangements for the reception of garbage. In the first instance enquiries regarding garbage reception facilities should be made by the Master of a vessel to Tyne Harbour Radio (Channel 12) preferably when giving the ETA. Enquiries from other sources should contact Tel: (0191) 2572080.

WASTE OIL DISPOSAL: Facilities for the reception of oily wastes vary depending on the berth concerned. Enquiries should be made in the same manner as for Garbage Disposal.

SEAMAN'S CLUBS: Missions to Seamen, Mill Dam, South Shields. Tel: (0191) 4560878.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Port of Tyne Authority, Bewick Street, Newcastle upon Tyne NE1 5HS. *Tel:* (0191) 2325541. *FAX:* (0191) 2619739. *Contact:* E.W. Oakes, Director of Marketing.

WARRENPOINT: 54.06 N. 06.16 W. (See Plan)

PORT LIMITS: Seaward to a line from Ryland River (South Coast) to Ross Memorial (North Coast) approximately 3,000 m. from Warrenpoint.

DOCUMENTS:

- 2 Crew Lists.
- 2 Passenger Lists.
- 1 Stores List.
- Vessel's Papers and Certificates.
- 1 Manifest or Bill of Lading.

PILOTAGE: Compulsory. Tel: (016937) 62549. Pilot station at Greencastle Pier at entrance (North side) to Carlingford Lough. VHF (Warrenpoint Pilot) radio, Channels 16 and 12. Notice to Agents of ETA at 48 hours and 24 hours.

ANCHORAGES: Safe anchorage at Firemount Roads S.E. Greenore and also inside Carlingford Lough N.E. of Buoy No. 25.

RESTRICTIONS: None except draft of vessel. Advise Agents.

HEALTH: No certificate necessary. In event of disease or fever contact Agent in advance. Hospitals available.

Also see "Health-All ports" before first U.K. port.

RADIO: All messages to Agents through Portpatrick Radio or Anglesea Radio.

VHF: Pilot station (Warrenpoint Pilot) on Channels 16 and 12. Port Radio (Warrenpoint Harbour) on Channel 12.

TUGS: 2 tugs available, contact Pilot Station.

BERTHING: All berths except Town Dock have 5.4 m. at LWOST.

STEVEDORES: Warrenpoint Harbour Authority. Tel: (016937) 73381, 52878. Fax: 73962.

CARGO HANDLING FACILITIES:
- 2×35 tonne Liebherr Transporter container cranes;
- 1 Poclain HC300 hydraulic crane;
- 1 Jones 971 HLB dockside crane;
- 1 Gottwald 40 tonne harbour mobile crane;
- 1 Gottwald 25 tonne harbour mobile crane;

BULK CARGO FACILITIES: See "Cargo Handling Facilities".
Grain discharged at up to 250 t.p.h. to Grain Silo of 8 bins, total capacity about 4,800 tonnes. Flat grain store capacity 4,000 tonnes also available.
SPECIALISED CARGO HANDLING FACILITIES: Ro/Ro berth with 17 ft. at LWOST. Ramp 6 m. wide Marshalling area about 6 acres.
FRESH WATER: Available on request.
FUEL: Available by road tankers. 48 hours' notice usually required.
CONSULS: Finland.
REPAIRS: Small repairs can be undertaken.
DRY DOCKS: None.
SURVEYORS: Lloyd's – BFL Shipping Services. Tel: 73500.
GANGWAY/DECK WATCHMEN: Gangway and safety net obligatory. Watchmen advisable.
HATCHES: Opening and closing by crew.
CUSTOMS ALLOWANCES: As permitted by U.K. Customs and Excise.
REPATRIATION: Air and sea passenger services available from Belfast and Dublin. Both are about 1.5 hours by road from Warrenpoint.
AIRPORTS: Belfast (Aldergrove) 60 miles. Dublin 75 miles. Schedule flights daily to London.
TIME: GMT. GMT plus 1 hour in Summer.
HOLIDAYS: New Year's Day; St. Patrick's Day (17th March); Easter Monday and Easter Tuesday; 1st Monday in May; 12th July; 13th July; 15th August; Christmas Day and Boxing Day.
POLICE/AMBULANCE/FIRE: Dial 999 and ask for service required.
TELEPHONES: Not possible to place telephones on board.
SERVICES: Check with Agents. Most services can be supplied given 24 hours' notice.
SHORE LEAVE: After clearance inwards, Crew members allowed ashore without restriction. No passes issued.
DELAYS: Delays in loading or discharging are minimal and infrequent.
GARBAGE DISPOSAL: Shore skip for dry garbage. Wet garbage arranged with ship's agent.
WASTE OIL DISPOSAL: Service available by road tanker. Prior notice required by ship's agent.
SEAMAN'S CLUBS: None. Usual local facilities.
CURRENCY: U.K.Pound (U.K.£).
SERVICES: Charts and publications available from Class 'A' Admiralty Chart Agent, Todd Chart Agency Ltd., 4 Seacliff Road, Bangor, County Down BT20 5EY. Tel: (01247) 466640. Fax: (01247) 471070.
GENERAL:
Charts: B.A. 44, 2800.
Pilot Books: NP40 Irish Coast Pilot.
Lights: Admiralty List of Lights, Volume A (NP74).
AUTHORITY: Warrenpoint Harbour Authority, The Docks, Warrenpoint, County Down, Northern Ireland BT34 3JR. *Tel:* (016937) 73381, 52878. *Telex:* 74660. *Cables:* Harbour Authority. *FAX:* (016937) 73962, 52875. *Contact:* Q. Goldie, Chief Executive. Captain T. Stephenson, Operations Director/Harbour Master.

WATCHET: 51.11 N. 03.20 W. (See Plan)

DOCUMENTS: Crew List, Stores List, Ship's Register, Manifest or Bills of Lading.
PILOTAGE: West Somerset District Pilotage Authority. Compulsory, ETA 24 hrs. before arrival to Harbour Master's Office, Watchet (01984) 31264, after hours Minehead (01643) 3430.
ANCHORAGE: Safe anchorage Blue Anchor Road.
RESTRICTIONS: Accordance with state of tide and draft. Vessels enter 2 hours before HW.
MAX. SIZE: Max. permissible length 95 m., breadth 16 m., draft restrictions according the height of tides, max. draft Neap tides 12 ft. and Spring tides 14 ft. – 18 ft.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: It is best for vessels to give ETA by R/T to Lands End or Ilfracombe Radio.
VHF: Watchet Radio Channels 16, 12, 14 and 9.
TUGS: None.
BERTHING: 2 quays, 1×150 m., 1×120 m.
CRANES: 3 cranes, 2×5 tons, 1×10 tons.
BULK CARGO: Cranes with grabs.
STEVEDORES: Watchet Marine Ltd.
MEDICAL: Port Doctor in Watchet.
DENSITY: Salt 90%.
FRESH WATER: Available on the quay.
FUEL: All grades, advance notice required.
FIRE PRECAUTIONS: Normal port precautions.
CONSULS: At Bristol.
REPAIRS: Normal repairs to ships possible notice required.
SURVEYORS: West Marine Surveyors & Consultants Limited, Consulting Marine Surveyors, Engineers & Naval Architects, The Old Custom House, Brixham, South Devon. Tel: (018045) 2604. After normal office hours Tel: (01803) 842925. Cables: Surveyor, Brixham. Telex: 42962 – Survey G.
OPENING/CLOSING HATCHES: Carried out by crew.
CUSTOMS ALLOWANCES: Decided by the Customs Officer in charge.
CARGO GEAR: Shore gear, cranes and forklifts.
REPATRIATION: Facilities exist for crew changes.
AIRPORT: Nearest airport at Bristol.
TIME: GMT and British Summertime.
HOLIDAYS: Cargo work can be arranged.
POLICE/AMBULANCE/FIRE: Phone 999 for all three services.
TELEPHONES: None on quay.
SERVICES: Chandler available.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: None required.
GARBAGE DISPOSAL: Collection service available. Skips are prov alongside the quay. Contact Tel: 0984-33695 for details.
WASTE OIL DISPOSAL: Collection service is provided by W Disposal Services (Tel: (0117) 9552286). No shore facilities withi port area.
SEAMAN'S CLUBS: None.
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: West Somerset District Council, East Wharf, Wat Somerset. *Tel:* (01984) 31264. *Cables:* Port of Watchet. *FAX:* (01 33022. *Contact:* Captain C. Muller, Harbour Master.

WEYMOUTH: 50.36 N. 02.27 W. (See P

LOCATION: Situated to the North of Portland Bill, midway bet Southampton and Plymouth. Weymouth is the nearest U.K. po Cherbourg and the Channel Islands.
PILOTAGE: Compulsory for all vessels exceeding 150 ft. LOA. The boards 1.0 miles East of the Harbour entrance. Notice of ETA request for a Pilot must be advised at least 24 hours in advance any amendment of this ETA must be made not less than 2 hours to vessel's arrival at the Pilot Station. Weymouth Pilot listens on Channel 16 and working frequency is Channel 9. Messages for the may be relayed via Weymouth Harbour Radio (VHF 16/12) or Por Coastguards (VHF 16/67) or Queen's Harbour Master, Portland 16/13).
ANCHORAGE: Good holding ground can be found 1.5 miles to 1.0 East of the Harbour entrance.
RESTRICTIONS/MAX. SIZE: Vessels up to 125 m. LOA wi maximum draft of 5.2 m. can enter or leave at all states of the entrance being made to a sheltered harbour between two piers Pier Heads are 137 m. apart and the channel is 76 m. wide.
HEALTH: Weymouth Port Health Authority offer facilities for food examination and health clearance requirements.
RADIO: Weymouth Harbour Radio, hours of duty when vessel exp or during working hours 0630 – 2200. Calling Channel VHF 16, W Channel VHF 12.
VHF: See "Pilotage" and "Radio".
TUGS: Not available.
BERTHING: There is a deep-water berth inside the pier heads dredged depth of 5.2 m. (Berth No. 1). This berth can take vess up to 115 m. LOA and is used for Lo/Lo operations of bulk cargo Ro/Ro side loading/discharging.

Linkspan and Ro/Ro facilities are available at Berth No. 3 with general cargo/lay-by berths at Berths No. 5 and 6.
CRANES: Berth No. 1 has a 20 tonne SWL Mobile Crane. Other can be hired locally up to 80 tonnes SWL.
STEVEDORES: As required.
MEDICAL: Full hospital facilities are available without notice.
TANKERS: No facilities.
FRESH WATER: Available at all berths.
FUEL: Available at all berths by road tanker.
CONSULS: All consulates and agencies are at Southampton.
REPAIRS: Hull and engine repair facilities are available.
DRY DOCKS: None.
SURVEYORS: At Southampton.
HATCHES: Opened and closed by crew.
REPATRIATION: Possible.
AIRPORT: Hurn and Exeter Airports.
POLICE/AMBULANCE/FIRE: Dial 999.
EMERGENCY CO-ORDINATION CENTRE: Contact U.K. Coas Tel: (01305) 760439.
TELEPHONES: Not available.
SERVICES: Radio and radar repairs. Charts and publications av
SHORE LEAVE: Permitted.
GARBAGE DISPOSAL: Collection service available by hired contractor facility. Contact Drinkwater Sabey Ltd.
WASTE OIL DISPOSAL: Collection service available by mobile from contractors. Contact Drinkwater Sabey Ltd., or Cleansing Group. Tel: (014892) 2232/6.
SEAMAN'S CLUBS: None.
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Weymouth and Portland Borough Council, Master's Office, Municipal Building, North Quay, Weymouth DT4 8YA. *Tel:* (01305) 206278. *FAX:* (01305) *Contact:* John New, General Manager.

WHITBY: 54.30 N. 00.36 W. (See Plan)

PORT LIMITS: Within 2 miles of the entrance.

DOCUMENTS: C13 Master's Declaration, C142 General Declaration, 1 Crew List and all normal trading certificates.

PILOTAGE: Pilotage is compulsory for all vessels over 30 m. LOA entering the harbour. Call Whitby Harbour Radio on Channel 16/11 during office hours. To arrange a Pilot in advance, telephone Whitby Harbour Office on (01947) 602354. Vessels can enter 2 hours either side of high water.

ANCHORAGES: Vessels may anchor safely to the West of the Fairway Buoy. Holding ground moderate, untennable in heavy weather from N.E. to N.W.

MAX. SIZE: LOA 85 m., beam 14.0 m. and draft 4.5 m. Larger vessels and deeper draft possible on Spring tides by arrangement.

HEALTH: See "Health – All Ports" before first U.K. port.

TUGS: None. Pilot boat can provide some assistance.

BERTHING: Endeavour Wharf, upper harbour, West side, 203 m.
Eskside Wharf, upper harbour, East side, 122 m.
Vessels will sit aground on soft mud at L.W. on both berths.

BRIDGES: Commercial berths and marina are in the upper harbour above the swing bridge. The bridge is manned 2 hours either side of H.W. and can be contacted on VHF Channels 16/11.

STEVEDORES: Available by arrangement with Agents, Whitby Port Services. Tel: (01947) 602272.
Cranes and Cargo Handling Gear: Cranes up to 79 tonnes. Higher capacity mobile cranes can be brought in, if required, with suitable notice. Forklifts up to 28 tons. Container spreaders. Bulk grabs. All usual equipment.

MEDICAL: Routine matters by arrangement with Agent. Emergencies handled at local hospital.

FRESH WATER: Available on all berths.

FUEL: Available by road tanker.

REPAIRS: Most repairs can be carried out by local firms.

DRY DOCKS: One floating dock, max. lifting capacity 300 tons.

HATCHES: Opened and closed by ship's crew.

CUSTOMS: Standard U.K. allowances.

REPATRIATION: Fully available, good road and rail links, nearest airport Teeside (40 miles).

TIME: GMT in Winter. BST (GMT + 1 hour) in Summer.

HOLIDAYS: New Year's Day, Good Friday, Easter Monday, May Day, Spring Holiday, Late Summer Holiday, Christmas Day and Boxing Day.

POLICE/AMBULANCE/FIRE: Dial 999, ask for the service required.

STORES: Provisions available locally, stores by truck alongside.

SHORE LEAVE: Allowed.

AUTHORITY: Scarborough Borough Council, Harbour Master's Office, Pier Road, Whitby, N.Yorkshire YO21 3PU. *Tel:* (01947) 602354. *FAX:* (01947) 602354. *Contact:* Captain W. Estill, Harbour Master.
Operator: Whitby Port Services Ltd., Endeavour Wharf, Whitby, N.Yorkshire YO21 1DN. *Tel:* (01947) 602272. *FAX:* (01947) 606229. *Contact:* M. Firth, Assistant General Manager.

WHITEHAVEN: 54.33 N. 03.36 W. (See Plan)

DOCUMENTS: Usual required for clearing a vessel from foreign port, i.e. Crew List, Passenger List, Customs Documents, Ship's Register, Manifest and Bills of Lading.

PILOTAGE: Request for Pilot is made by International Code signal G, sound and visual. ETA should be sent 12 hours in advance either to ship's Agent or Harbour Master or both. Area for taking Pilot on board 4 to 5 cables West of Harbour. Pilot boats are Trinity House Pilot Boats – "Viking" and "Cumbria". VHF is installed.

ANCHORAGE: Same area as for boarding Pilot according to draft.

RESTRICTIONS: Vessels may dock from 1.5 hours before HW till 1 hour after HW according to draft.

MAX. SIZE: 270 ft. length, 40 ft. beam and 17 ft. draft (deepest) on Spring tides, 14 ft. draft (deepest) on Neap tides.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Port Patrick and Anglesey Radio Stations.

TUGS: No tugs.

CRANES: 2×10 tonnes lifting capacity.

MEDICAL: Agent should receive notice in advance of any medical treatment required. Hospital services are readily available.

DENSITY: Any state of tide density is 1025.

FRESH WATER: Fresh water is available on all berths, any quantity on request to ship's Agent.

FUEL: Most grades and types available.

FIRE PRECAUTIONS: Usual precautions are taken when inflammable cargo is being loaded or discharged.

CONSULS: Norway, Sweden, Denmark and the Netherlands.

REPAIRS: All types of deck and engine repairs carried out.

GANGWAY/DECK WATCHMEN: Advisable to have a watchman but not absolutely necessary.

OPENING/CLOSING HATCHES: Always opened and closed by crew.

CERTIFICATES: Derat Certificate, Load Line Certificate, Radio R/T Certificate, etc.

CUSTOMS ALLOWANCES: 200 cigarettes, 1 bottle spirits.

REPATRIATION: Facilities exist for effecting crew changes and arranging any necessary repatriations.

AIRPORTS: Nearest airports are at Manchester, Newcastle and Prestwick, all approx. 130 miles away.

HOLIDAYS: Cargo may be worked on following days: New Year's Day, Good Friday, Easter Monday, Whit Monday, August Monday, Christmas Day and Boxing Day.

POLICE/AMBULANCE/FIRE: Telephone numbers of these services in order are: 692616, 693181 and 692151.

TELEPHONES: No special arrangements exist for placing telephones on board vessels.

SHORE LEAVE: Crew members may come and go at all times.

IDENTIFICATION CARDS: None required.

GARBAGE DISPOSAL: Skips are available for garbage disposal at two sites in the Queens Dock.

WASTE OIL DISPOSAL: A road tanker service can be made available for waste oil disposal. There is no special berth for this purpose but a berth can be made available.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

DELAYS: There are very seldom any delays in berthing and none in loading, discharging or bunkering.

AUTHORITY: Whitehaven Harbour Commissioners, Harbour Office, Pears House, 1 Duke Street, Whitehaven, Cumbria CA28 7HW. *Tel:* (01946) 692435. *FAX:* (01946) 691135. *Contact:* R. Rigg, General Manager.

WHITSTABLE: 51.21 N. 01.02 E. (See Plan)

APPROACHES: Vessels are advised to arrive at the Whitstable Street Buoy not later than 1.5 hours before HW.

To ensure that vessel's approach on the correct heading, (122.5°), and to assist in identifying the entrance, the Whitstable Oyster Buoy has been established in a position bearing 310°×1,950 ft. from the light on the Dolphin on the Western side of the Harbour. This is a red can, flashing 2 red every 10 seconds.

The entrance to the Harbour is marked by a Sector Light fixed to the West Quay Dolphin and shows White, Green and Red. The outer end of the East Quay is marked by 2 fixed Vertical Red Lights. The outer end of the West Quay is marked by 2 fixed vertical green lights.
Harbour Signals: A fixed Red Light shown below the fixed Harbour White Light at night means entry of vessels is prohibited. A fixed White Light *only* means Port open for entry.

PILOTAGE: Pilotage is available but Pilots must be ordered through the local Agent. A minimum of 4 hours notice is required as Pilots are from Medway Ports Authority.

MAX. SIZE: The Harbour is tidal and dries out at LW with berths of soft mud capable of accepting vessels of up to 2,000 tonnes capacity (largest vessel: LOA 95 m., max. draft 4.5 m. and 3,274 d.w.t.). There are 4 quays having a total overall length of 2,205 ft. (679 m.), with accommodation for up to 8 vessels at drafts of 15 ft. 6 in. (4.72 m.) at Spring tides and 12 ft. 0 in. (3.66 m.) at Neap tides.

VHF: Ship to shore communication is maintained by VHF Radio, the call sign being "Whitstable Harbour Radio", listening on Channel 9 (working) and 16 and 12. The station is manned for 3 hours before HW to 1 hour after HW and daily from 0800 hrs. – 1700 hrs.

TUGS: The services of a tug can be made available via Lloyd's Agent, 24 hours notice is required.

BERTHING:
East Quay: Length 228 m. 3 berths.
Bins – Stone, Slag and Ballast.
South Quay: Length 500 ft. (152.4 m.). 2 berths. 100 m. used for commercial purposes and remainder for fishing vessel.
Storage – 1. Warehouse 9,000 sq.ft. (836 sq.m.)
2. Warehouse 7,000 sq.ft. (650 sq.m.)
Open Storage – Bulk Stone, etc. – 2,000 tonnes.
North Quay: Length 58 m. Fishing vessels only.
West Quay: Length 172 m., width 40 m. Timber storage.

Depth of Water:

Quay:	*MHWS*	*MHWN*
North	13 ft. 6 in. (4.11 m.)	10 ft. (3.05 m.)
South	15 ft. 6 in. (4.72 m.)	12 ft. (3.66 m.)
East	15 ft. 6 in. (4.72 m.)	12 ft. (3.66 m.)
West	15 ft. 6 in. (4.72 m.)	12 ft. (3.66 m.)

CRANES: Cranes are privately owned and consist of 2 mobile cranes on tracks. SWL up to 10 tonnes.

FRESH WATER: Available.

FUEL: Available.

GARBAGE DISPOSAL: Skips are provided. Black plastic bags are available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: U.K.Pound (U.K.£).

AUTHORITY: Canterbury City Council, Whitstable Harbour Office, Harbour Street, Whitstable, Kent CT5 1AB. *Tel:* (01227) 274086. *FAX:* (01227) 265441. *Contact:* Captain J.E. Clayton, Harbour Master.

WORKINGTON: 54.39 N. 03.34 W. (See Plan)

DOCUMENTS: Standard U.K. documents.
PILOTAGE: Compulsory. Minimum notice 12 hours via vessel's Agents. Pilot boards 1 mile West of entrance.
ANCHORAGES: 1.5 miles to 2 miles N.W. of the entrance.
MAX. SIZE: 10,000 d.w.t., length 137.2 m. beam 20.4 m. and draft 8.0 m.
HEALTH: Standard U.K. procedure.
VHF: Workington Harbour Radio operates on Channels 16, 14 and 11. A listening watch is maintained daily from 2.5 hours before HW until 2 hours after HW.
TUGS: Vessels over 92 m. LOA shall, if the Harbour Master so requires, be assisted by a tug or tugs.

The port has its own tug on permanent station (10.5 ton bollard pull), 24 hours notice required.

The Port Authority also reserves the right to appoint a tug or tugs to attend any vessel if, with due regard to the prevailing circumstances, the Harbour Master deems it necessary.
BERTHING: *Tidal Harbour:* 853 m. of quayage for fishing vessels and other small craft. Depths are from 4.1 m. Neap tides to 7.2 m. Spring tides.

Prince of Wales Dock: Enclosed dock, width of entrance 21.2 m. There is 772.7 m. of quay frontage with depths from 7.2 m. Neaps to 10.2 m. Springs. The dock is 97.8 m. wide at the West end, 76.2 m. at the East end. There is a transit shed situated at the general cargo berth.
CRANES: 1 × 7 tonnes and 1 × 10 tonnes cranes are available. There are also 2 new dockside cranes with a capacity of 12 tonnes at 28 m. radius and 28 tonnes at 13 m. radius.
BULK CARGO FACILITIES: All dock cranes equipped for bulk handling. Average tonnage rate 300 t.p.h. – 400 t.p.h.
SPECIALISED CARGO HANDLING FACILITIES: Ro/Ro facility available.
STEVEDORES: Normal working 0800 hrs. – 1700 hrs. with 3 hours evening overtime if requested. Shift working is available on request from 0600 hrs. – 1400 hrs. and 1400 hrs. – 2200 hrs.
TANKERS: Tanker Terminal operated by Simon Storage Limited at Berth No. 4.

Facility for storage up to 42,000 tons of bulk liquids, including phosphoric acid, petroleum products and chemicals.
FRESH WATER: Available.
FUEL: Available.
CONSULS: Denmark and the Netherlands: J.G. Oldfield & Co. Shipping Limited, Prince of Wales Dock, Workington, Cumbria. Tel: (01900) 64591. Fax: (01900) 604823.
TIME: GMT plus 1 hour (late March – late October), otherwise GMT.
GARBAGE DISPOSAL: One large skip provided by port which is emptied every Friday. Garbage skip's can be hired from Alco and placed immediately alongside ship (Tel: (01900) 602205). Rates by agreement.
WASTE OIL DISPOSAL: No shore tanks. Disposal is by tanker trucks, capacity 20 tonnes. Contact Alco (Tel: (01900) 602205, Fax: (01900) 601886) or Unblock (Tel: (01900) 825549).
SEAMAN'S CLUBS: None available. The port is 10 minutes walk from town of Workington.
CURRENCY: U.K.Pound (U.K.£).
AUTHORITY: Port of Workington, Harbour Office, Prince of Wales Dock, Workington, Cumbria CA14 2JH. *Tel:* (01900) 602301. *Telex:* 64253. *FAX:* (01900) 604696. *Contact:* Captain W.S. Worthington, Harbour Master and General Manager. D.P. Cousins, Operations Manager.

NOTES

Please also advise Shipping Guides Ltd.

United States of America

GENERAL

SHIPMASTER'S REPORT: January 1987.

Preparation for arrival in U.S.A. Ports

Refer to:

1. Annual Summary of Notices to Mariners (British) No. 22 – Charts and Publications.

2. C.F.R. Title 33, Part 164 (especially 164.25/164.30/164.33, 35, 37, 38, 41, 53, etc. Also 159.59 and 155.440, 700, 740, 750).

Action Required:

Purchase (if necessary) large scale U.S. charts, current Coast Pilot and Light Lists, Tide Tables, Loran Charts, Tidal Stream Tables; but British publications are usually acceptable if up to date and charts are of largest scale.

Arrival Preparations:

U.S. Department of Agriculture prepare for inspection of:

1. Galley, storerooms, and possible sealing of prohibited fruits and meats.
2. Covered and leakproof garbage cans.
3. Rat guards.
4. Declare all animals and birds.
5. Hold inspections for grain, etc. Carried out by teams of 2 men, and extremely severe. Failure of holds will result if loose paint scale, loose rust scale, insects or deposits of past cargoes are found. High powered flash-lights used to probe the most remote corners. They are very experienced and know where to look!

U.S. Public Health Service: Ship not boarded unless sickness is reported or vessel is from an infected area.

U.S. Coast Guard: Do a preliminary check, using a "Vessel Compliance Check-List" or an old "Vessel Inspection Form". Before arrival ensure navigation equipment is tested as per C.F.R.33, Part 164.25 and a good Log entry has been made. Check Oil Record Book (151.35); Placard re-discharge of Oil (155.440); Oil transfer procedures are posted (155.750); Marine Sanitation device is working and instructions for use are visible.

Read British Annual Notice to Mariner 4B (The Amver System), especially paragraph 5, (Constructive compliance with C.F.R.33, Part 161.7).

U.S. Customs: Will examine all Certificates.

U.S. Bureau of Labour: Will examine Cargo Gear Register and Certificates.

Documents:

4 Crew Lists (Form I-418).
4 Passenger Lists (Form I-418).
4 Ship's Stores Declarations (Form 1303), to include Shop and Bond Lists, Steward Stores Lists, Medicine Lists, Fire-arms Lists.
4 Crews' Effects Declarations (Form 1304).
1 Master's Oath (Form 1300).
3 Cargo Manifests (Form 1302), if cargo on board original showing all cargo on board and 2 copies showing only cargo for this port.
1 General Declaration (Form 1301), usually completed by Agent.

All ship's certificates should be to hand. Also Last Port Clearance and previous Tonnage Tax Vouchers.

All entry papers must be prepared on proper U.S. Customs Forms, with no attachments permitted.

The Crew List must be made out correctly in alphabetical manner as prescribed. Also a Crew List must be prepared at the previous port and visaed by the U.S. Consulate. For this purpose 2 copies are made.

The original has Columns 1 to 3 completed as usual, but the duplicate must list in Column 4 the date, city and country of birth, and in column 5 the Place and Authority issuing the crew member's passport or document. If this visaed Crew List cannot be produced on arrival a waiver can be granted, for which the Agent must pay U.S.$15 in cash. If the vessel has crew from the People's Republic of China or other communist countries, then shore leave will not be granted at all, without that visaed Crew List. No waiver will be issued for them.

Crewman's Landing Permits (Form I-95A) must be prepared before arrival for each man. Previously used shore passes can be used again, but only if the seaman is still on the same ship.

Some ports require less than the number of documents stated above. The Mississippi consists of 3 Custom areas (New Orleans, Gramercy, and Baton Rouge). If the the ship moves to another area, then new forms may be needed, so extra copies are useful, in the case of Forms 1303 and 1304.

AGRICULTURE: All ports.

Arrival Notification: The vessel's Master or Port Agent must provide advance notification of intent to arrive. Notice is to be received by the U.S. Department of Agriculture (USDA) no less than 12 hours before the estimated time of arrival and must include:

1. The name or other identifying feature of the vessel.
2. The date and estimated time of arrival.
3. The specific location of arrival (dock, pier, mole, anchorage, etc.).
4. The names of all foreign and noncontinental United States ports where any cargo, crew or passenger destined for the continental United States has been boarded since the vessel's most recent arrival in the United States.

Changes in the above information must be communicated as soon as known. If the place of arrival is an anchorage; subsequent movement to a pier, wharf, etc., must be reported as soon as known.

Documents: The cargo, stores, and crews' effects lists or manifests must be available for review by the boarding USDA Inspector.

Inspection: The USDA Inspector will examine the galleys, storerooms, lockers, mess areas, and crew quarters in some instances for prohibited plant materials (fruits, vegetables, and plants) and meat products. Also, inspections may be made of on-board cargo and cargo holds.

Stores Sealing: The USDA Inspector will place under seal certain fresh fruits and vegetables in stores aboard vessels calling at ports in Florida, Mississippi, Alabama, Louisiana, Texas and California. Routine sealing will be limited to fruits likely to carry exotic tropical fruit flies. In addition, USDA Inspectors at any port may require sealing of any vessel stores when pest infestations are detected. It is recommended that each vessel construct a special compartment for sealing fruits and vegetables so that it will not be necessary to seal the entire vegetable locker.

Garbage: All food wastes aboard vessels arriving from foreign or offshore areas (except Canada) must be handled in accordance with USDA Regulations. Garbage must be held aboard vessels in leakproof, covered containers inside the rails for later disposal or, it may be removed with permission and under supervision of a USDA Inspector for incineration or sterlisation in approved facilities.

Penalties: Monetary civil penalties may be imposed for violation of USDA Regulations including, but not limited to:

1. Failure to provide adequate arrival notification.
2. Breaking U.S. Department of Agriculture seals.
3. Unauthorised or unsupervised removal/disposal of garbage.
4. Unauthorised removal of fruits, vegetables, meats or animal products, or live plants.
5. Failure to keep garbage in other than closed, leakproof containers.

Treatments: If quarantine-significant pests are found aboard a vessel, an Emergency Action Notification may be issued to the Master. It will prescribe what treatments are required to the affected articles or area of the vessel and when this treatment must be accomplished.

Honeybees: Honeybees may not be brought into the United States. This is a precaution to keep out Africanised bees, which could gravely upset beekeeping in North America. Do not disturb any signs of bees on board, such as live swarms, dead bees, or hives. Contact the ship's Agent before entering U.S. ports for appropriate instructions regarding disposal and treatment from the USDA inspector.

Animals/birds: All live animals or birds aboard vessels must be retained on-board and reported to the USDA Inspector.

For additional information: Write to "Quarantines", USDA, APHIS, PPQ, Port Operations, 4700 River Road, Unit 60, Riverdale, Maryland 20737, U.S.A. Tel: (301) 734-8295. Fax: (301) 734-5786.

Notice

To: Ship's Masters:
From: United States Department of Agriculture, Animal and Plant Health Inspection Service.

On April 1st, 1985, the Animal and Plant Health Inspection Service (APHIS) will implement routine sealing of certain fresh fruits and vegetables in stores aboard vessels calling at ports in Florida, Mississippi, Alabama, Louisiana, Texas and California. Routine sealing will be limited to fruits likely to carry exotic tropical fruit flies. In addition, APHIS Officers at any port may require sealing of any vessel stores when pest infestations are detected.

This is an interim measure in preparation for full implementation of a new Maritime Clearance and Monitoring Guideline on or about June 1st, 1985. You will receive additional information in the near future.

It is recommended that each vessel construct a special compartment for sealing their fruits and vegetables so that it will not be necessary to seal the entire vegetable locker.

You are reminded that the following may result in a civil/monetary penalty:

1. Breaking U.S. Department of Agriculture seals.
2. Unauthorised or unsupervised removal/disposal of garbage.
3. Unauthorised removal of fruits, vegetables, meats or animal products, or live plants.
4. Failure to keep garbage in other than closed, leakproof containers.

Further information can be obtained by calling (713) 229-3541.

Purser's Note: It is advisable to have a locker ready prior to arrival in order that fruit and vegetables may be transferred for sealing.

ALCOHOL:

OPERATING A VESSEL WHILE INTOXICATED
COMMERCIAL VESSELS (33 CFR PART 95)

1. *Applicability:*	Any crew member, pilot, or watchstander not a regular crew member, on any U.S. vessel anywhere or any foreign vessel in the national waters of the U.S. (out to three miles offshore).
2. *Standard of intoxication:*	Blood alcohol concentration of 0.04% or more by weight; *OR* Effect of intoxicant (drug or alcoholic) on person's manner, disposition, speech, muscular movement, general appearance or behaviour is apparent by observation.
3. *Evidence of intoxication:*	Chemical test or personal observation.
4. *Who may require testing:*	Law enforcement officer or marine employer when reasonable cause exists.
5. *Reasonable cause for testing:*	When individual is directly involved in marine casualty; *OR* Individual is suspected of being intoxicated.
6. *Refusal to submit to test:*	Is admissible as evidence in any administrative procedure if ordered by marine employer *and further* will be cause for presumption of intoxication if ordered by law enforcement officer.
7. *Prohibited acts of individual while aboard vessel:*	A. Be intoxicated at any time. *B. Perform or attempt to perform any scheduled duties within four hours of consuming any alcohol. *C. Consume any intoxicant while on watch or duty.

8. Penalties (46 USC 2302(C):	A. Civil penalty of up to $1,000. B. Criminal penalty of up to $5,000 and/or imprisonment for up to one year.
9. Responsibilities:	Marine employers shall exercise due diligence to ensure compliance. If any marine employer has reason to believe a person may be intoxicated he shall not allow that individual to stand watch or perform any other duties.

*Apply only to vessels which are inspected or subject to inspection (U.S. and foreign).

HEALTH: All ports.

The U.S. Public Health Service does not maintain Quarantine Stations at each port of entry. The smaller ports are under the jurisdiction of Quarantine Stations located at strategic ports of entry. Matters of public health significance occurring on vessels destined to ports not staffed by Public Health Service personnel should be reported to the Quarantine Station having jurisdiction over that port.

U.S. Public Health Service
Centers for Disease Control and Prevention
National Center for Infectious Diseases
Division of Quarantine

QUARANTINE STATIONS	JURISDICTION
California:	
U.S. Quarantine Station (Los Angeles) Los Angeles International Airport 380 World Way, Box N19 Los Angeles, CA 90045 Tel: 310-215-2365 Fax: 310-215-2285 Officer in Charge: Michael Marty Email: mjm9@cpsod1.em.cdc.gov	(a) All ports in the Southern half of California. (b) All ports in Arizona, Colorado, Texas and New Mexico. (c) The entire U.S. – Mexico border. (d) Las Vegas, NV.
U.S. Quarantine Station (San Francisco) Public Health Service P.O. Box 280548 SFIA San Francisco CA 94128-0548 Tel: 415-876-2872 Fax: 415-876-2796 Officer in Charge: Susan Dwyer Email: sadi@cpsod1.em.cdc.gov	(a) All ports in Northern half of California, Utah. (b) Reno, NV.
Florida:	
U.S. Quarantine Station (Miami) Miami International Airport P.O. Box 996488 Miami, FL 33299-6488 Tel: 305-526-2910 Fax: 305-526-2798 Officer in Charge: Tony W.Drew Email: awd1@cpsod1.em.cdc.gov	(a) All ports in Alabama, Florida, Louisiana, Mississippi, Oklahoma, Tennessee. (b) All sea ports in Georgia. (c) All ports in Puerto Rico and Virgin Islands.
Hawaii:	
U.S. Quarantine Station (Honolulu) Honolulu International Airport 300 Rodgers Boulevard, No. 67 Honolulu, HI 96819-1897 Tel: 808-861-8530 or 8531 Fax: 808-861-8532 Officer in Charge: Robert Tapia Email: rot1@cpsod1.em.cdc.gov	(a) All port in the State of Hawaii.
Illinois:	
U.S. Quarantine Station (Chicago) O'Hare International Airport P.O. Box 66012 Chicago, IL 60666-0012 Tel: 312-894-2961 (1200 – 2000 hrs. daily), 312-894-2960 (24 hour answering service) Fax: 312-894-2970 Officer in Charge: Martha S. Remis Email: msr1@cpsod1.em.cdc.gov	(a) All ports in Illinois, Indiana, Kentucky, Michigan, Minnesota, Missouri, Ohio, Pennsylvania (Erie) and Wisconsin. (b) Toronto, Canada.
New York:	
U.S. Quarantine Station (New York City) J.F.Kennedy International Airport Room 2339 International Arrivals Bldg. Jamaica, NY 11430-1081 Tel: 718-553-1685, 6, 7 Fax: 718-553-1524 Officer in Charge: Margaret A. Becker Email: mab1@cpsod1.em.cdc.gov	(a) All ports in Delaware, New Jersey, New York, Pennsylva (except Erie), Connecticut, Maine, Vermont, Massachus New Hampshire, Rhode Isla Maryland, Virginia, North Carolina, South Carolina. (b) District of Columbia. (c) Montreal, Canada.
Washington:	
U.S. Quarantine Station (Seattle) Seattle-Tacoma International Airport Room S-212 Seattle, WA 98158-1720 Tel: 206-553-4519 Fax: 206-553-4455 Officer in Charge: Jenny Ansdell Email: jwa3@cpsod1.em.cdc.gov	(a) All ports in Idaho, Montana, North Dakota, Oregon and (b) Washington. (c) Alaska. Vancouver, British Columbia, Canada.

Masters of Vessels arriving at United States ports

Effective July 1, 1973, Radio Pratique as a method of Quaran Clearance was discontinued at all ports under control of the Un States.

Vessels Subject to Public Health Inspection

The only vessels that will be subject to on-board public he inspection upon arrival or during stay at ports under control of the Un States are those carrying crew or passsengers having:

1. Temperature of 100°F.(38°C.) or greater, accompanied by a glandular swelling, or jaundice, or which has persisted for more 48 hours; or
2. Diarrhoea, defined as the occurrence in a 24-hour period of t of more loose stools or of greater than normal (for the person) am of loose stools; or
3. On-board occurrence of death, regardless of the signs symptoms above.

Procedures. In accordance with regulations, you must, through vessel's Agent, inform the quarantine station, having jurisdiction the intended port of your vessel's first arrival in the United States, occurrence of illness as specified above. Arriving vessels no longer to complete a Maritime Public Health Declarataion.

These changes reflect our confidence that you will continue to re in advance of arrival in the United States, the on-board occurrenc death or illness compatible with the signs and symptoms specified ab or death or illness while in port if such occurs after arrival.

AUTHORITY:

Headquarters:

Centers for Disease Control and Prevention National Center for Infectious Diseases Division of Quarantine (E-03) Atlanta, Georgia 30333	(a) Hartsfield Atlanta International Airport

Atlanta Quarantine Station
Hartsfield Atlanta International Airport
(not yet open):
Tel: 404-639-1220

Division of Quarantine Duty Officer
Pager: 404-415-0597

David F. Rogers
Program Analyst
Tel: 404-639-8107
Email: dfr1@cpsod1.em.cdc.gov

Thomas A. DeMarcus
Assistant Chief
Program Operations Branch
Tel: 404-639-8108
Email: tad1@cpsod1.em.cdc.gov

Tony D. Perez
Chief, Program Operations Branch
Tel: 404-639-8107
Email: tdp1@cpsod1.em.cdc.gov

Terrence Daley
Chief, Visa Medical Activity
Tel: 404-639-8109
Email: tdd1@cpsod1.em.cdc.gov

Duty Officer
Centers for Disease Control
Tel: 404-639-2888

Division of Quarantine
Fax: 404-639-2599

Health information for international travel – 24 hour telephone No. 404-332-4559.

CONTROLLED FLAG VESSELS:

SHIPPING AGENT GUIDELINES
UNITED STATES
PORT ENTRY REQUIREMENTS
FOR
SPECIAL INTEREST VESSELS
REVISED JUNE 1993
PREVIOUS EDITIONS OBSOLETE
Issued by Department of Transportation
Commandant U.S. Coast Guard (G-MCO)
2100 2nd Street, S.W.
Washington, DC 20593-0001
Tel: (202) 267-0480

PLEASE NOTE: The following is under constant review due to political changes taking place (See "Notes" at end of text).

1. General Requirements.

A. *INTRODUCTION.*

1. *Applicability:* This document provides guidance on requirements for entry into the United States territorial sea, internal waters, and ports for vessels registered to, or under the effective control of the nations listed below. These port entry requirements apply to commercial cargo, passenger, fishing and fisheries support vessels, public vessels and private yachts. Owners, Masters, Agents or persons in charge of these vessels should adhere to these requirements to facilitate legitimate entry of their vessels into the U.S. territorial sea, internal waters and ports.

   (a) Restricted countries:
   - Armenia
   - Azerbaijan
   - Byelarus
   - Cambodia
   - Georgia
   - Kazakhstan
   - Kyrgyzstan
   - Moldova
   - Russia
   - Tajikistan
   - Turkmenistan
   - Ukraine
   - Uzbekistan
   - Peoples Republic of China
   - Vietnam

   (b) Non-entrant countries:
   - Cuba
   - Iran
   - Iraq
   - Libya
   - Peoples Republic of Korea (North Korea)
   - Sudan
   - Syria

   Vessels registered to, owned or operated by, or chartered by *Non-Entrant Nations* are not permitted to enter the U.S. territorial sea or U.S. ports. Nations appear on this list because of U.S. diplomatic sanctions against them.

   (c) Although shipping Agents may be hired to provide services for *public vessels*, all public vessel Entry Applications and changes are handled on a government-to-government basis at the embassy level via the Department of State, and should be made at least 14 days prior to desired entry date. See Section 1.B.11. for a definition of a public vessel.

2. *Intent:* These guidelines are intended to assist shipping agents in obtaining port calls for vessels associated with the nations listed in Section 1.A.1. Access to U.S. ports by *any* foreign vessel is subject to compliance with applicable laws and regulations of the federal government and state and local authorities in the areas of their jurisdiction. Vessels from nations listed in Section 1.A.1. must comply with all applicable foreign vessel regulations *and* any additional requirements found in these guidelines.

3. *Authority:* National security interests require that the movement of any vessel within the territorial sea or internal waters of the United States be subject to U.S. Government review. Authority for this is found in the Magnuson Act (Title 50, United States Code, Section 191, 1950). The President implemented this statute by Executive Order (E.O.) 10173, as amended since by E.O.s 10277, 10352 and 11249. These orders promulgated regulations in Part 6, Chapter 1, Title 33 of the Code of Federal Regulations (CFR). These regulations assign port security responsibilities to the U.S. Coast Guard.E.O. 10173 further directed all agencies and authorities of the United States Government and all state and local authorities to support, conform to, and assist in the enforcement of these regulations and any supplemental regulations issued.

4. *Maritime Agreements:* These guidelines implement and support provisions of treaties, conventions, agreements and similar instruments in force between the Government of the United States and the Governments of certain nations concerning maritime matters. Title I, United States Code, Section 112a, directs the Secretary of State to compile a publication *United States Treaties and Other International Agreements* (UST) which contains all treaties to which the United States is a party. It also states that the UST "shall be legal evidence of the treaties, ... in all courts of the United States, ...". In some instances, these instruments and supporting documents state specific procedures for entry to United States ports, should be consulted for a complete understanding of requirements applicable to affected vessels. These guidelines address only those port entry requirements administered by the U.S. Coast Guard.

B. *DEFINITIONS.*

1. *2-Day Request (for Itinerary Changes).* This period is exactly 48 hours. It commences at the hour and minute that an Agent's Change Application Message is received at Coast Guard Headquarters. Weekends and federal holidays have no effect on 2-Day Requests.
2. *3-Day Notice:* This period is 72 hours after time of receipt, (e.g. to obtain clearance for a port call on a Saturday 0800 hrs., the notice is required at the local COTP no later than the preceding Wednesday 0800 hrs.).
3. *4-Day Request:* This period excludes the day of receipt and the day of entry (e.g., to obtain clearance for a port call on a Tuesday, the request must be received by Commandant (G-MCO) no later than the proceding Thursday).
4. *7-Day Request:* This period excludes the day of receipt and the day of entry, but not weekends or federal holidays. For example, to obtain clearance for a ship to call on the 15th, the request must be filed by the 7th of that month.
5. *Government-to-Government:* These requests are co-ordinated at the embassy level. They are handled through diplomatic channels between the two governments only. When the Initial Itinerary Request is government-to-government, all desired future itinerary changes must also be handled on a government-to-government basis.
6. *Agent-to-Coast Guard:* Co-ordination of applicable port entry requests, itinerary changes, and special waivers are specifically conducted between the U.S. Coast Guard Headquarters Special Interest Vessel Desk and the U.S. Shipping Agent representing vessels covered by these guidelines.
7. *U.S. Coast Guard Special Interest Vessel (SIV) Desk:* The individual entry of all vessel's covered by these guidelines into the U.S. territorial sea and ports is co-ordinated by the USCG's SIV Desk. The SIV Desk or Duty Officer is available 24 hours a day. During working hours, call (202) 267-0480; after hours and weekends for *non-routine matters,* call Coast Guard Headquarters Command Center at (202) 267-2100, and ask for the SIV Duty Officer.
8. *Port Call:* A port call includes anchoring or mooring within the territorial sea or, for ports not adjacent to the territorial sea, the waters of the geographical limit of the port area described in "Enclosure No.1". A vessel may be within these limits as long as it is either en route to an approved port call or departing from such a port call. A vessel's presence within these limits is only permitted within the time frame of the previously approved port call. Vessels must have either a Commandant (G-MCO) approved itinerary or provide advance notification to the local Captain of the Port for any U.S. port call.
9. *Port Area Descriptions:* Geographical port limits are defined for certain U.S. ports for purposes of administering this programme. See "Enclosures No.1 and 2" of port area descriptions. The port area descriptions apply to port calls involving the nations covered by these guidelines. Port areas, for which there is no geographical description, include that area which encompasses the physical facilities of the port, the internal water approaches, and the seaward approaches to the limits of the territorial sea.
10. *Free-Flag Vessel:* Any vessel which is registered to or owned by any nation other than those listed in Section 1.A.1.(a) or (b) of these requirements.
11. *Public Vessel:* A vessel which is owned or operated by a state and used only in non-commercial, government service. The term state (or nation) includes political subdivisions of the state as well as agencies of the state or its subdivisions. The term public vessel does not include vessels merely subsidised by the government, state-owned vessels chartered to private parties and engaged in commercial activities, or privately-owned vessels operated by government personnel that are engaged in commercial activities.
12. *Yacht:* Any vessel, under power or sail, operating for pleasure and not carrying cargo or passengers for hire.
13. *Greenwich Mean Time (GMT):* All times used in message communication are in GMT. Agents are responsible for converting GMT to local time as necessary.

C. *CHARTERED VESSELS:*

The U.S. Port Security Program also applies to free-flag vessels chartered by nations listed in Section 1.A.1.(b) of these guidelines.

1. Free-flag vessels chartered by *non-entrant nations* are considered to be under the effective control of the chartering nations, and are held to the same restrictions as vessels from non-entrant countries.

D. *NON-STANDARD ENTRIES:*

1. *Force Majeure:* Force majeure is a doctrine of international law which confers limited legal immunity upon vessels which are forced to seek refuge or repairs within the jurisdiction of another nation due to uncontrollable external forces or conditions. This limited immunity prohibits coastal state enforcement of its laws which were breached due to the vessel's entry under force majeure. A claim of force majeure is supported only by the existence of overwhelming conditions or forces of such magnitude (e.g. severe storm, fire, disablement, mutiny) that they have threatened loss of the vessel, crew or cargo, unless immediate corrective action is taken. Vessels entering U.S. waters under claim of force majeure are subject to boarding to validate the claim, and may be directed to a specific location, and not to the port of their choice. Each Coast Guard Captain of the Port has the authority to verify and accept or reject claims of force majeure for the purpose of enforcing applicable laws.

2. *Innocent Passage:* All foreign ships, including warships, are entitled to the right of passage through the U.S. territorial sea, provided the passage is innocent under the United Nations Conventions on the Law of the sea. Innocent passage means continuous and expeditious traversing of the territorial sea either without entering internal waters or passage for the purpose of proceeding to or from internal waters. It may include stopping or anchoring only when this is incident to ordinary navigation (such as when awaiting a favourable tide to traverse a particular narrows).

Innocent passage specifically does not include hovering, stopping or anchoring for other reasons, and it does not include fishing. Anchoring or slow steaming within the U.S. territorial sea to avoid early arrival in port for which the vessel holds an approved itinerary will not be considered innocent passage and may result in cancellation of the vessel's itinerary, except when the vessel's movements are directed by a Coast Guard Vessel Traffic Service (VTS) for purposes of safety or navigation.

3. *Medical Emergency:* Foreign flag vessels not previously approved for a U.S. port call may enter U.S. waters for the sole purpose of removing a crew member in need of *immediate* medical attention, or for the removal of a deceased crew member. The cognisant Coast Guard District Commander may grant permission for a vessel to enter territorial waters for a MEDEVAC (Medical Evacuation) or may also arrange a MEDEVAC outside the territorial sea. If the vessel is given permission to enter the territorial sea for a MEDEVAC, the vessel must depart upon completion of the transfer of the affected crew member. Notify the Coast Guard District Commander as soon as possible prior to desired entry.

4. *Repatriation:* It is the Department of State's position that repatriation of foreign nationals who have been evacuated for emergency medical treatment should be arranged and paid for by their countries of citizenship. Local INS and Customs should be notified of proposed repatriations. Requests for entry of vessels into U.S. territorial seas for the purpose of repatriation should be forwarded to Commandant (G-MCO) for consideration.

5. *Vessels Enroute Canadian Ports:* All vessels, including those from non-entrant nations, must pass through U.S. waters in the St.Lawrence Seaway, the Great Lakes or the Straits of Juan de Fuca enroute to ports in Canada. Vessels transiting U.S. waters for this purpose are considered to be engaged in innocent passage and Coast Guard permission for such passage is not necessary.

6. *Remote Ports Under U.S. Jurisdiction:* The requirements of this program apply to remote Alaskan ports as well as to Guam, American Samoa and the Commonwealth of the Northern Marianas Islands (CNMI – Saipan, Rota, Tinian).

7. *Deepwater Ports:* Port calls at U.S. deepwater ports require the same conditions of advance notification for entry as applicable in U.S. coastal ports (refer to Title 33, U.S.C., Section 1518(c)).

2. Port Entry Application Procedures.

A. *PORT ENTRY APPLICATION REQUIREMENTS.*

1. *General:* Agents should file Itinerary Requests for only those U.S. ports for which they will be acting as Agents. All port entry applications must be in writing. Telephone inquiries are welcome during normal business hours (0700 hrs. to 1530 hrs. Eastern time). The Special Interest Vessel Desk, in the Marine Compliance Division at U.S. Coast Guard Headquarters, can be reached by calling Tel: (202) 267-0480. For non-business hour emergencies, call U.S. Coast Guard Headquarters Command Center at Tel: (202) 267-2100. Port Entry Applications (except government-to-government) should be submitted by the vessel's Agent directly to Coast Guard Headquarters. *Telex messages are preferred.* Port Entry Applications will *not* be accepted by local or regional Coast Guard commands. Shipping Agents are responsible for ensuring that requests, whether sent electronically, by mail, or delivered by hand, arrive at Coast Guard Headquarters in time to meet all requirements. Coast Guard Headquarters will send a receipt confirmation telex within 24 hours of receiving a telex from a shipping Agent. *If you do not receive this confirmation telex within 48 hours, call the SIV Desk to inquire about your request.*

Make application only to one of the following USCG Headquarters addresses:

(a) Telex address: "Commandant (G-MCO), U.S. Coast Guard, Washington, D.C. 20593-0001. Telex No. 892427, Answerback COASTGUARDWSH."

(b) TWX address: "Commandant (G-MCO), U.S. Coast Guard, Washington, D.C. 20593-0001. TWX No. 710 822 1959, Answerback CGDOTWSH."

(c) Western Union address: "Commandant (G-MCO), U.S. Coast Guard, 2100 2nd Street, S.W., Washington, D.C. 20593-0001." (Prepaid).

(d) Port entry applications may also be sent by mail or delivered by hand. The mailing address is:

Commandant (G-MCO-2)
U.S. Coast Guard Headquarters
2100 Second Street, S.W.
Washington, D.C. 20593-0001.

2. *Required Information:* All port entry applications must provide certain information in an orderly manner (See Figure 3-A of Enclosure 3 for an example of an Initial Itinerary Request). Agents should double check all information, including spelling of foreign translations, since requests with incomplete information will be denied. All Port Entry Applications *must* include the following:

(a) Shipping agent's complete address, commercial telephone number, point of contact, and Telex/TWX number with answer back code or Western Union address.

(b) Appropriate message title identification: For example, 4-Day Request or 7-Day Request.

(c) Itinerary number: For example, Initial Itinerary, or Change 1, 2, 3, ...

(d) Vessel type: This information must precede the vessel's na
Use applicable abbreviation as follows:

Merchant Vessel	M/V
Passenger Vessel	P/V
Fishing Vessel	F/V
Fishing Support Vessel	F/V
Research Vessel	R/V
Sailing Vessel	S/V
Yacht	YCT

(e) Vessel's name, flag, call sign, and Lloyd's Number.

(f) Itinerary Information:
  (1) U.S. ports of call in the order desired. See Section for the definition of a port call.
  (2) Desired arrival and departure dates.

(g) Cargo information: Type of cargo loaded/unloaded; load port of cargo being discharged; destination for cargo b loaded.

(h) Masters' name.

(i) Next and last foreign port of call.

(*Note:* Information above is *required*; failure to provide requ information will result in denials or cancellations.)

3. *Arrival and Departure Dates:*

(a) Only one day overlap is allowed for multiple port calls Port St. Joe, 6/17-6/19, Port Canaveral 6/19-6/21, Pensa 6/21-6/27).

(b) All Approved Itineraries automatically terminate upon vessel's departure en route a foreign port of call, except w the vessel departs en route to Canadian ports, which h been noted on the Initial or Change Itinerary Message.

(c) An Approved Port Call terminates upon departure of the ve from the described port area. For instance, if a vesse approved 6/04-6/10, but departs the port area on 6 it cannot re-enter port unless a new Initial Itinerary is file

(d) The vessel's official notification period begins upon recei the agent's telex request or notice at Coast G Headquarters communication center. By return te Commandant (G-MCO) will inform the agent of the e *Greenwich Mean Time* (GMT) his message was receive

(e) Port approvals are in effect through 2359 (one minute be midnight) GMT on the final day stated on Port Call Appr Vessels must be outside of the port area by this time. Ves may not wait until this time to begin their outbound depa

4. *Advance Notices of Arrival:* None of the procedures outlined in document relieves the Master or Agent of the requirement to pro advance notice of arrival to each local Coast Guard Captain o Port (COTP) in accordance with 33 CFR 160, Subpart C, an comply with other applicable laws and regulations.

5. *Approved Itinerary Entry Times: (Port Entry).* If the vessel's itin is approved, the Agent will be notified by message specifyin dates that the vessel is authorised to be in the port(s). The ve may enter that specified port at any time during the approved d The vessel must depart the port no later than 2359 GMT o final day stated on the port call approval unless the Agent requested and received approval for an extension of the port

6. *Denials:* Vessels will be denied U.S. entry when there is insuffi information or if the agent's application message does not the time limits required by these guidelines. All denials are se the vessel's agent by the end of the working day, following the of receipt of the telex. An agent may, however, submit a corrected Entry Application for the vessel. In such cases, the o notification period commences upon receipt of the corrected E Application, not the original Entry Application which was den

7. *Early Arrival:* A vessel which holds an Approved Itinerary United States port entry shall not enter the U.S. territorial sea e than the first day on the approved itinerary. A vessel is cons to have arrived in port when it enters U.S. territorial waters, ports not adjacent to U.S. territorial waters, the port descriptions listed in "Enclosure No.1".

B. *ITINERARY CHANGE REQUESTS.*

1. *General:* Agents seek Itinerary Change Requests genera three reasons: To add ports, to change the previously app port call sequence and/or dates, and to cancel planned po after receiving approval to enter. In each case, the agent's me request must list the vessel's full remaining itinerary, in add the desired change. Failure to list the vessel's entire desir port calls will lead to cancellation of the vessel's itinerary oth the requested change. For example, if the Initial Itinerary req Providence, Morehead City and Miami, and the Agent change listing only Providence, the vessel would be cons only for entry into Providence. Two days is the minimu necessary to process itinerary change requests. Use the fo Figure 3-B to Enclosure 3 for Itinerary Change Requests. applicable to three types of itinerary change requests follo

2. *To add Port Calls:* Requests for additional port calls are re using the same criteria as for initial port calls. The followin

(a) Agent messages should be titled CHANGE 1, 2, 3, e

(b) Additional ports must be requested far enough in adv comply with the applicable request period (i.e. 7-days

(c) When an initial government-to-government req required, all requests for additional ports must be ma Embassy level.

3. *To Change Port Call Sequence/Dates:* Change requests to a vessel's approved port call sequence/dates are accepted by Commandant (G-MCO), and normally approved, provided the following criteria are met:

(a) The initial port request was not government-to-government. (All others which are government-to-government must continue to be handled at the Embassy level).

(b) The Itinerary Change Request was submitted far enough in advance. Two days is the minimum processing time required by the Coast Guard to process requests for changes in port sequence or dates. Whenever possible, the Coast Guard will try to expedite the itinerary changes, however, requests made within the minimum processing time may be delayed. Agents should submit change requests *as early as possible.*

(c) The change was submitted prior to the close of the approved itinerary (See Section 2.A.5.).

(d) The new date requested meets the minimum advance request period specified.

4. *Cancelled Port Calls:* Occasionally, cargo loading plans change and certain previously requested U.S. port calls may not be desired. Agents should notify the Coast Guard of cancelled port calls as far in advance as possible. Failure to arrive at a port within the approved itinerary dates will lead to cancellation of a vessel's remaining itinerary, and may subsequently delay entry to a previously approved port.

5. *Waivers:* The Coast Guard recognizes that unusual circumstances arise, which require agents to request waivers of the advance itinerary request period. *Approval of waiver requests will be the exception rather than the rule, and all waiver requests should be well documented.* Agents must fully elaborate on their justification for the Coast Guard to consider a waiver of these entry requirements. Agents should allow at least 48 hours for waiver requests to be processed. Waivers are not ordinarily approved for purely economic reasons.

3. Specific Entry Requirements for Restricted Nations.

A. GENERAL: Vessels that bear the flag of Restricted nations may enter the territorial sea, ports and internal waters of the United States subject to certain limitations. The following contains specific entry requirements by country for vessels registered to Restricted countries.

B. *People's Republic of China (CH):*

(1) Access for vessels from the PRC is governed under the bilateral Maritime Transport Agreement of 15th December 1988. Under the agreement, commercial cargo, fishing, fisheries support vessels, vessels engaged in hydrographic, oceanographic, meteorological or terrestrial magnetic field research, and private yachts bearing the flag of the PRC must submit a 4-day request to Commandant (G-MCO) and receive an approved itinerary for entry into Controlled Ports.

(2) Commercial cargo, passenger, fishing, fisheries support vessels, vessels engaged in hydrographic, oceanographic, meteorological or terrestrial magnetic field research, and private yachts bearing the flag of the PRC need only submit advance notice of arrival required by 33 CFR 160, Subport C, for entry into all other U.S. ports.

(3) All other PRC vessels must submit a government-to-government request and receive approval from the Department of State for entry into U.S. ports.

C.

Armenia	*(AM)*	*Moldova*	*(MD)*
Azerbaijan	*(AJ)*	*Russia*	*(RS)*
Byelarus	*(BO)*	*Tajikistan*	*(TI)*
Cambodia		*Turkmenistan*	*(TX)*
Georgia	*(GG)*	*Ukraine*	*(UP)*
Kazakhstan	*(KZ)*	*Uzbekistan*	*(UZ)*
Kyrgyzstan	*(KG)*	*Viet Nam*	

(1) Commercial cargo, passenger, fishing, fisheries support vessels and yachts bearing the flag of the above countries must submit a 7-Day Request to Commandant (G-MCO) and receive an approved itinerary for entry into the following Controlled Ports:

Kings Bay, GA
New London/Groton, CT
Port Canaveral, FL
Port Hueneme, CA
San Diego, CA

(2) Commercial cargo, passenger, fishing, fisheries support vessels and yachts bearing the flag of the above countries must submit a 3-Day Notice to the appropriate COTP for entry into the following controlled ports:

Charleston, SC
Hampton Roads, VA
Honolulu, HI
Panama City, FL
Pensacola, FL
Portsmouth, NH
Port St. Joe, FL

(3) Public vessels bearing the flag of the above countries must submit a government-to-government request and receive approval from the Department of State for entry into controlled ports.

(4) Vessels from the above listed countries need only submit advance notice of arrival required under 33 CFR 160, Subpart C, for the entry into all other U.S. ports.

Enclosure No. 1.
PORT AREA DESCRIPTION:

U.S. Port	*Geographical Description*
Alameda, California	See San Francisco, California.
Albany, New York	North of Castleton, New York Bridge Mile 135.6 on the Hudson River and South of U.S. Lock 1 at Troy, New York on the Hudson River.
Anchorage, Alaska	The waters of Cook Inlet, Northward from line drawn between Cape Douglas and Cape Elizabeth.
Antioch, California	See Stockton, California.
Apra Harbour, Guam	The waters of Apra Outer Harbour and Apra Inner Harbour.
Astoria, Oregon	Coincident with Clatsop County, Oregon.
Baltimore, Maryland	North and West of a line from North Point to Bodkin Point, but including Annapolis anchorage area between the Chesapeake Bay Bridge and Kent Point.
Bar Harbor, Maine	The waters of Frenchman Bay and Blue Hill Bay, North of Great Duck Island, East of Blue Hill Neck, and West of Schoodic Point.
Baton Rouge, Louisiana	See New Orleans, Louisiana.
Bay City, Michigan	The Saginaw River entrance to the limits of navigation.
Beaumont, Texas	The Neches River, from the Intracoastal Waterway (ICW) to Interstate 10 Bridge.
Bellingham, Washington	Bellingham Bay.
Benicia, California	See San Francisco, California.
Berkeley, California	See San Francisco, California.
Boca Grande, Florida	Boca Grande Channel, from sea buoy to Port Boca Grande on Gasparilla Island.
Boston, Massachusetts	Boston Harbour proper, including Mystic River and Chelsea River to limit of navigation and the harbors of Gloucester, Lynn, Salem and Plymouth, Massachusetts.
Brownsville, Texas	The Brownsville Ship Channel, from the sea buoy to the Brownsville Turning Basin.
Buffalo, New York	Outer Harbour, including Buffalo River to limits of navigation. Black Rock Canal, from the entrance channel downstream to its termination abeam of Placid Harbour. The Niagara River, downstream from Placid Harbour to limits of navigation.
Burnside, Louisiana	See New Orleans, Louisiana.
Camden, New Jersey	See Philadelphia, Pennsylvania.
Cape Cod, Massachusetts	An area extending from the Western Terminus of the Cape Cod Canal, Eastward (including Cape Cod Bay, Chatham, Sandwich and Provincetown).
Charleston, South Carolina	See "Enclosure No. 2."
Charlotte Amalie, St. Thomas, U.S.V.I.	St. Thomas Harbour, including East and West Gregerie Channels, Long Bay, Cay Bay, Crown Bay, Krum Bay and the Inner and Outer Harbor Anchorages.
Chicago, Illinois	Between Burns Harbour (including Burns Waterway Harbour) and Northern limits of Chicago Harbour, including Lake Calumet and other waterways, inland to intersection of the Chicago Sanitary and Ship Canal with Calumet Sag Channel.
Christiansted Harbour, St. Croix, U.S.V.I.	Christiansted Harbour proper.
Cleveland, Ohio	Cleveland Harbour, including Cuyahoga River to limits of navigation.
Coos Bay, Oregon (including North Bend)	All of Coos Bay to North of Coos River.
Corpus Christi, Texas	The Corpus Christi Channel, from the sea buoy to the Viola Turning Basin, and the La Quinta Channel from its junction to the Corpus Christi Channel.
Detroit, Michigan	All waters of the United States within the St.Clair River, Lake St.Clair, and Detroit River from Fort Gratiot Light to the Detroit River Light.
Duluth, Minnesota/Superior, Wisconsin	Duluth/Superior Harbour only.
Dutch Harbour, Alaska	The bays and harbours of Dutch Harbour, Illiliuk Bay, Illiliuk Harbour, Captain's Bay, Nateekin Bay, Broad Bay, Wide Bay, and Unalaska Bay to a distance 3 miles seaward of the Northern end of Unalaska Island.
Erie, Pennsylvania	Presque Isle Bay.
Eureka, California	Humboldt Bay.
Everett, Washington	N.E. end of Possession Sound.
Fall River, Massachusetts (Including North Tiverton, Rhode Island and Somerset Massachusetts)	Mount Hope Bay and Taunton River.

Fernandina, Florida	All waters of the St. Mary's River Entrance Channel West of the COLREGS Demarcation Line as described in Title 33 CFR Part 80.720 (c) and all waters of the Amelia River South to Intracoastal Waterway Statute Mile 718.
Frederiksted, St. Croix, U.S.V.I.	Frederiksted Harbour proper.
Freeport, Texas	Freeport Entrance Channel of the Old Brazos River to the Stauffer Turning Basin, to include the Brazos Harbour.
Galveston/Texas City, Texas	The Galveston and Texas City Channels from their intersection with the Houston Ship Channel to their respective Turning Basins.
Georgetown, South Carolina	Entrance channel between Sand and North Island and North Island at South Island Bend through Wingah Bay, including all Georgetown and Sampit River, North to where Waccamaw River and Pee Dee River merge at U.S. Route 17.
Gloucester, Massachusetts	See Boston, Massachusetts.
Green Bay, Wisconsin	Port area of Green Bay, including the Fox River upstream to the limit of commercial navigation.
Guanica, Puerto Rico	Bahia de Guanica proper.
Guayanilla, Puerto Rico	Bahia de Guayanilla and Bahia de Tallaboa.
Gulfport, Mississippi	Ship Island Pass and Gulfport Ship Channel from the sea buoy to the harbour basin.
Hampton Roads, Virginia (including Norfolk, Newport News, Jamestown, Yorktown and Portsmouth, Virginia)	See "Enclosure No. 2"
Harrisville, Michigan	See Detroit, Michigan.
Hilo, Hawaii	Eastern end of Kohio Bay on N.E. coast of the Island of Hawaii.
Honolulu, Hawaii	See "Enclosure No. 2".
Houston, Texas	The Houston Ship Channel, from Five Mile Cut to the Houston Turning Basin and the Bayport Turning Basin.
Humboldt Bay, California	All waters of Arcata Bay and South Bay shoreward of a line drawn from Humboldt Bay Entrance Light 4 to Humboldt Bay Entrance Light 3.
Huron, Ohio	Huron River to limits of deep draft navigation.
Jacksonville, Florida	All waters of the St. John's River upriver of the COLREGS Demarcation Line as described in Title 33 CFR part 80.723 (c) terminating at the Highway 295 bridge.
Juneau, Alaska	Auke Bay and Gastineau Channel, N.W. of a line between Pt. Salisbury to Marmion Island and S.E. of a line between Pt. Louisa to outer point on Douglas Island.
Kalama, Washington	See Longview, Washington.
Kenosha, Wisconsin	Line drawn from Breakwater Light to South Pier Light.
Ketchikan, Alaska	Tongass Narrows Northwest of a line between Mountain Point and Gravina Point, and Behm Canal North of a line between Vallenar Point and Caamano Point, and South of a line between Point Francis and Escape Point, including Vallenar Bay.
Kings Bay, Georgia	See "Enclosure No. 2".
Kodiak, Alaska	All waters of Woman's Bay, St.Paul Channel and Chiniak Bay N.W. of line from Cliff Point to Southern point of Woody Island.
Laguna de Las Mareas, Puerto Rico	Laguna de Las Mareas proper.
Lake Charles, Louisiana	The Calcasieu River, from Light "83" North to the Interstate 10 Bridge, including the Industrial Canal, Prien Lake, Lake Charles and the Turning Basins.
Limetree Bay, St. Croix, U.S.V.I.	Limetree Bay, Limetree Bay Channel, and Krause Lagoon (also known as Alucroix or Martin Marietta Channel).
Long Beach, California (including Eastern part of Terminal Island).	That portion of San Pedro Bay and Cerritos Channel within the City of Long Beach, California.
Longview, Washington	Columbia River, between Mile 62 and Mile 70.
Los Angeles, California (including San Pedro, Wilmington, and Western Terminal Island)	That portion of San Pedro Bay and Cerritos Channel within the City of Los Angeles, California, and the Chevron El Segundo Offshore Mooring.
Louisiana Offshore Oil Port (LOOP)	All waters comprising the LOOP Safety Zone and Safety Fairway as described in 33 CFR Appendix A and 33 CFR 166.200(d)(52) respectively.
Martinez, California	See San Francisco, California.
Mayaguez, Puerto Rico	Bahia de Mayaguez, Mayaguez Approach Channel and Mayaguez Terminal Channel.
Menominee, Michigan/ Marinette, Wisconsin	Breakwater entrance to the limits of navigation.
Miami, Florida	Upper Biscayne Bay, South of MacArthur Causeway and North of Rickenbacker Causeway, including Government Cut. The Miami River E of the Brickell Ave. Bridge.
Milwaukee, Wisconsin	Milwaukee Breakwater to limits of navigation.
Mobile, Alabama	The Mobile Ship Channel, from the s buoy to the Cochran Bridge, and the Hollinger's Island Channel from its junction with the Mobile Ship Channe
Morehead City, North Carolina	Morehead City Harbour, including Ra Island from the sea buoy at Beaufor Inlet, North Carolina.
Muskegon, Michigan	Muskegon Lake to limits of navigatio within Muskegon Breakwater.
New Bedford, Massachusetts (including Fairhaven, Massachusetts)	The area North of a line extending fr Wilbur Point in the East to Mishaum Point in the West.
New Harbor, Maine	The waters of Muscongus Bay, Nort Monhegan Island, East of Pemaquid Point, and West of Georges Island.
New Haven, Connecticut	The waters of New Haven Harbour bounded on the South by a line from Oyster River Point, West Haven, CT the RW"NH" Mo (A) Buoy, thence t Morgan Point, East Haven, CT. and the North by the Quinnipiac River Bridge.
New London and Groton, Connecticut	See "Enclosure No. 2".
New Orleans, Louisiana	Sea Buoy to Mississippi River Mile 255.2. Includes New Orleans, Baton Rouge and Burnside, Louisiana.
New York, New York (including the Port Authority of New York and New Jersey).	North of a line drawn between Sand Hook, NJ. and East Rockaway, NY. West of the Throgs Neck Bridge, So of the George Washington Bridge a East of Interstate 95 in New Jersey.
Newport, Rhode Island	Narragansett Bay, South of a line extending from Conanicut Point to C Point.
North Bend, Oregon	See Coos Bay, Oregon.
Oakland, California	See San Francisco, California.
Ogdensburg, New York	Ogdensburg Harbour, including the Oswegatchie River to the limits of navigation.
Olympia, Washington	Coincident with Thurston County, Washington.
Orange, Texas	The ICW from Mile 276.5 to Mile 2 the Sabine River from the intersect with the ICW; North to the Navy Ya
Oswego, New York	Oswego Harbour, including Osweg River to Lock 8.
Pago Pago, American Samoa	Pago Pago Harbour and access channel, located on the South side Tutuila Island at 14° 16.5' S., 170° 42' W.
Pascagoula, Mississippi	From the sea buoy of Horn Island Channel Pass to Mile 1 of the Pascagoula River, including the Pascagoula Channel; and from the Bayou Cassote Harbour proper to junction buoy of Bayou Cassotte Channel and the Pascagoula Chan
Panama City, Florida	See "Enclosure No. 2".
Pensacola, Florida	See "Enclosure No. 2".
Philadelphia, Pennsylvania	The waters of the Schuylkill River, Delaware River, and Delaware Ba from Trenton, New Jersey to the Demarcation at the entrance to Delaware Bay, excluding the port of Wilmington, Delaware.
Pittsburg, California	See Stockton, California.
Point Comfort, Texas	The Matagorda Ship Channel fro sea buoy to the Calhoun County Navigation District Turning Basin.
Point Judith, Rhode Island	Narragansett Bay South of a line extending from Sauga Point Eas to Conanicut Point.
Ponce, Puerto Rico	Bahia de Ponce proper.
Port Arthur, Texas	The ICW from Mile 276.5 to Mile including the East Basin, West B and Turning Basin of Taylor Bay
Port Canaveral, Florida	See "Enclosure No. 2".
Port Everglades, Florida	The Atlantic Intracoastal Waterw South of the 17th Street Causew North of, but not including the D Cutoff Canal, including the Oute Cut and Bar Cut.
Port Hueneme, California	See "Enclosure No. 2".
Port Huron, Michigan	See Detroit, Michigan.
Port St.Joe, Florida	See "Enclosure No. 2".

Portland, Maine	Hussey Sound and Fore River to the limits of navigation at the Veterans Memorial Bridge at Mile 3.0 on the Fore River.
Portland, Oregon	Three Oregon Counties: Multnomah, Clackamas, and Washington, and the Port of Vancouver, Washington.
Portsmouth, New Hampshire (including Kittery, Maine, and Dover, New Hampshire, on the Piscataqua River).	See "Enclosure No. 2".
Providence, Rhode Island (including East Providence and Pawtuckett)	Seekonk River, Providence River and Narragansett Bay extending North of a line stretching from Sauga Point East to Conanicut Point and Carr Point.
Quonset Point, Rhode Island	Includes that area between and including Sauga Point, Quonset Point and Davisville, Rhode Island.
Redwood City, California	See San Francisco, California.
Richmond, California	See San Francisco, California.
Richmond, Virginia	James River from Benjamin Harrison Memorial Bridge, Hopewell, Virginia, to limits of navigation.
River Rouge, Michigan	See Detroit, Michigan.
Rockland, Maine	The waters of Rockland Harbor and West Penobscot Bay North of a line drawn from Owls Head Light to Browns Head Light and South of a line drawn from Northeast Point to Webster Head.
Rota Harbour, Rota, CNMI	The waters of Sasanhaya Harbour, all waters North of a line drawn between Puntan Pona and Puntan Taipingot. The waters of Sasanlago Harbour, all waters West of the Island of Rota within an arc of 1.5 miles drawn from the centre of the town of Rota.
Sacramento, California	All waters of the Sacramento River Deep Water Ship Channel from Sacramento River Deep Water Ship Channel Light 1 to the William G. Stone Lock.
San Diego, California	See "Enclosure No. 2".
San Francisco, California (including Alameda, Oakland, Berkeley, Richmond, Martinez, Benicia, and Redwood City)	All waters of Suisan Bay, the Carquinez Straits, and San Pablo Bay and all waters of San Francisco Bay shoreward of a line drawn from Point Bonita Light through Mile Rocks Light to the shore.
San Juan, Puerto Rico	Bahia de San Juan proper.
San Pedro, California	See Los Angeles, California.
Savannah, Georgia	Savannah River from the Route 17 Bridge to the territorial sea limit.
Seattle, Washington	Waters coincident with King County, Washington.
Seward, Alaska	All headwaters of Resurrection Bay to a line from Cape Resurrection to Callisto Head.
Sitka, Alaska	Sitka Sound and Silver Bay, North of a line between Cape Edgecomb on Kruzof Island to Pavorotni Point on Baronof Island and South of a line between Point Brown on Kruzof Island to Lisianski Point on Baronof Island.
Skagway, Alaska	Taiya Point (in Tiaya Inlet on Lynn Canal) to the town of Skagway, Alaska.
Stockton, California	All waters of the New York Slough, the San Joaquin River, and the Stockton Deep Water Channel from Suisan Bay Light 30 to the Interstate 5 Bridge.
Superior, Wisconsin	See Duluth, Minnesota.
Tacoma, Washington	Coincident with Pierce County, Washington.
Tampa, Florida	That portion of Tampa Bay contained within Hillsborough County.
Tanapag Harbour, Saipan, CNMI	The waters of Garapan Lagoon and Puetten Tanapag (Tanapag Harbour) North of 15° 30.0' N. and South of 15° 15.5' N.
Terminal Island, California	See Los Angeles, California.
Texas City, Texas	See Galveston, Texas.
Tinian Harbour, Tinian, CNMI	The waters of Tinian Harbour and Sunharon Roads enclosed within a line drawn between Carolinas Point and Gurguan Point.
Tiverton, Rhode Island	Sakonnet River from the Route 138 Bridge to a line extending from Sachuset Point to Sakonnet Point.
Toledo, Ohio	Maumee River to limits of navigation.
Trenton, Michigan	See Detroit, Michigan.
Vancouver, Washington	See Portland, Oregon.
Whittier, Alaska	All waters of Passage Canal, West of Trinity Point.
Wilmington, California	See Los Angeles, California.
Wilmington, Delaware	The waters of the Delaware River and Bay, including the Christina River and the Salem River, from the Delaware/ Pennsylvania state border to the Line of Demarcation at the entrance to Delaware Bay.
Wilmington, North Carolina	The Cape Fear River, from the Sea Buoy to Point Peter, and then the N.E. River to the Turning Basin at Mile 2.
Woods Hole, Massachusetts	See New Bedford, Massachusetts.
Yabucoa, Puerto Rico	Puerto de Yabucoa proper.

Enclosure No. 2:
CONTROLLED PORT AREA DESCRIPTIONS:

U.S. Port	*Geographical Description*
Charleston, South Carolina	Charleston Harbour and approaches from the sea buoy to the navigable limits of the Cooper River, Wando River and Ashley River.
Hampton Roads, Virginia (including Norfolk, Newport News, Jamestown, Yorktown and Portsmouth, VA.)	All the waters of a line from Cape Henry Light to New Point Comfort, which includes the Southwest portion of Chesapeake Bay, Hampton Roads, and the Elizabeth and York Rivers.
Honolulu, Hawaii	All internal waters and waters of the Pacific Ocean out to three nautical miles from and including Honolulu Harbor Westward to and including Barbers Point Harbor (with the exception of Pearl Harbour).
Kings Bay, Georgia	All waters of Cumberland Sound from the entrance to St.Marys River at Intracoastal Waterway Statute Mile 712.5 North to the entrance of Crooked River at Statute Mile 705.
New London/Groton, Connecticut	All waters encompassed by a line from Goshen Point, Waterford, CT. to Dumping Ground Buoy Y"NDA", thence to Avery Point, Groton, CT.
Panama City, Florida	From the Panama City Harbour Channel Entrance Buoy "SA" to Panama City proper, including St.Andrews Bay.
Pensacola, Florida	The Pensacola Ship Channel from the sea buoy to Pensacola Bay, inclusive.
Port Canaveral, Florida	All waters of the Atlantic Ocean within 3.0 nautical miles of the seaward extremity of the Port Canaveral Entrance Channel jetties including all waters of the Entrance Channel Westward to the Canaveral Barge Canal Lock.
Port Hueneme, California	The waters of Port Hueneme Harbour shoreward of a line drawn from Port Hueneme East Jetty Light 4 to Port Hueneme West Jetty Light 3.
Port St. Joe, Florida	From Port St.Joe Harbour proper to Buoy 6 of the Port St.Joe Entrance Channel, the entrance to the Gulf County Canal and St.Joseph Bay.
Portsmouth, New Hampshire (including Kittery, Maine and Dover, New Hampshire on the Piscataqua River)	Portsmouth Harbor from the COLREGS Demarcation Line to the limits of navigation on the Piscataqua River to include Kittery and Eliot, Maine, and Portsmouth, Newington and Dover, New Hampshire.
San Diego, California	San Diego Bay and all waters of the Pacific Ocean adjacent to the cities of Ocean Beach, San Diego, Coronado, National City and Chula Vista out to three nautical miles.

Enclosure No. 3.
FIGURE (A)

INITIAL ITINERARY REQUEST

FM: Agency Name
Complete Address (Street, City, State, Zip Code)
Point of Contact (Person)
Commercial Phone Number (include Area Code)
Telex/TWX No. (Include Answer Back Code)

TO: Commandant, U.S. Coast Guard (G-MCO)
Washington, D.C. 20593-0001
Telex No. 892427 (See Section 2.A.1. for other message addresses.)

7-Day Request.
Initial Itinerary
(Vessel Type, Vessel Name, Flag, Call Sign, Lloyd's Number)
M/V Kapitan Kapital UR YZQE L9000008
Port Canaveral, FL. 6/30-7/04
Cargo: Discharge Wood Products from Vladivostok.
Load Bulk Corn for Vladivostok.
Master: Ivan Boranoff
Last Port of Call: Naples, Italy.
Next Port of Call: Vladivostok, RS.

Note: List *only* those ports for which you will be acting as Agent for the vessel.

FIGURE (B)

CHANGE REQUEST

FM: Agency Name
Complete Address (Street, City, State, Zip Code)
Point of Contact (Person)
Commercial Phone Number (include Area Code)
Telex/TWX No. (Include Answer Back Code)

TO: Commandant, U.S. Coast Guard (G-MCO)
Washington, D.C. 20593-0001
Telex No. 892427 (See Section 2.A.1. for other message addresses.)

7-Day Request.
Change 1, 2, 3, etc.
(Vessel Type, Vessel Name, Flag, Call Sign, Lloyd's Number)
M/V Kapitan Kapital UR YZQE L9000008
New London, CT. 6/30-7/04
Kings Bay, GA. 7/21-1/25
Cargo: Discharge Wood Products from Vladivostok.
Load Bulk Corn for Vladivostok.
Master: Ivan Boranoff
Last Port of Call: Naples, Italy.
Next Port of Call: Vladivostok, RS.

FIGURE (C)

CANCELLATION OF PORT CALL

FM: Agency Name
Complete Address (Street, City, State, Zip Code)
Point of Contact (Person)
Commercial Phone Number (include Area Code)
Telex/TWX No. (Include Answer Back Code)
TO: Commandant, U.S. Coast Guard (G-MCO)
Washington, D.C. 20593-0001
Telex No. 892427 (See Section 2.A.1. for other message addresses.)

1. Cancellation of Port Call(s).
2. (Vessel Type, Vessel Name, Flag, Call Sign, Lloyd's Number)
M/V Kapitan Kapital UR YZQE L9000008
New London, CT. 6/30-7/04
Kings Bay, GA. 7/08-13
Port Canaveral, FL. 7/14-16
Cargo: Discharge Wood Products from Vladivostok.
Load Bulk Corn for Vladivostok.
Master: Ivan Boranoff
Last Port of Call: Havana, Cuba.
Next Port of Call: Vladivostok, RS.

FIGURE (D)

SPECIAL WAIVER REQUEST

FM: Agency Name
Complete Address (Street, City, State, Zip Code)
Point of Contact (Person)
Commercial Phone Number (include Area Code)
Telex/TWX No. (Include Answer Back Code)
TO: Commandant, U.S. Coast Guard (G-MCO)
Washington, D.C. 20593-0001
Telex No. 892427 (See Section 2.A.1. for other message addresses.)

1. Special Waiver Request.
2. (Vessel Type, Vessel Name, Flag, Call Sign, Lloyd's Number)
M/V Kapitan Kapital UR YZQE L9000008
New London, CT. 6/30-7/04
Cargo: Discharge Wood Products from Vladivostok.
Load Bulk Corn for Vladivostok.
Master: Ivan Boranoff
Last Port of Call: Baltimore, MD.
Next Port of Call: Vladivostok, RS.

On behalf of the vessel's Owners, we request that the vessel be allowed to enter the port of New London with only a 2-Day Request due to failure of refrigeration system causing food to thaw and spoil. Estimate repairs to be completed within 48 hours.

NOTE: This must be received at the SIV desk no later than the close of the Official Port Approval Date and Time.

LIGHTERING ZONES IN THE GULF OF MEXICO: (See Plan)

Note: Refer to 33 CFR 156 for full text.

General: *Summary:* The Coast Guard is designating 4 lightering zones in the Gulf of Mexico, each more than 60 miles from the baseline from which the territorial sea of the United States is measured. By using these lightering zones, single hull tank vessels contracted for after 30th June 1990, and older single hull tank vessels phased out by the Oil Pollution Act of 1990, will be permitted to offload oil in the U.S. Exclusive Economic Zone (EEZ) until 1st January 2015, for transhipment to U.S. ports. This rule establishes the first lightering zones designated by the Coast Guard. It also establishes 3 areas in the Gulf of Mexico where all lightering will be prohibited.

Effective Date: This rule is effective on 29th August 1995. The Director of the Federal Register approves as of 29th August 1995, the incorporation by reference of certain publications listed in Art. 156.111.

Addresses: Unless otherwise indicated, documents referred to in this preamble are available for inspection or copying at the office of the Executive Secretary, Marine Safety Council (G-LRA/3406), U.S. Coast Guard Headquarters, 2100 Second Street, S.W., Room 3406, Washington, DC 20593-0001, between 0800 hrs. and 1500 hrs., Monday through Friday, except Federal holidays. Tel: (202) 267-1477.

For Further Information, Contact: Project Manager, Oil Pollution Act (OPA 90) Staff, (G-MS-A), Tel: (202) 267-6740. This telephone is equipped to record messages on a 24 hour basis.

Pre-Arrival Notices: In addition to the other requirements, the Mas Owner or Agent of a vessel that requires a Tank Vessel Examina (TVE), or other special Coast Guard inspection in order to lighter i designated lightering zone, must request the TVE or other inspec from the cognizant Captain of the Port at least 72 hours prior commencement of lightering operations.

Designated Lightering Zones: The following lightering zones designated in the Gulf of Mexico and are more than 60 miles from baseline from which the territorial sea is measured:

(a) *Southtex – Lightering Zone:* This lightering zone and the geogra area for this zone are co-terminous and consist of the waters boun by a line connecting the following points beginning at:

Latitude	Longitude
27° 40' 00" N.,	93° 00' 00" W., thence to
27° 40' 00" N.,	94° 35' 00" W., thence to
28° 06' 30" N.,	94° 35' 00" W., thence to
27° 21' 00" N.,	96° 00' 00" W., thence to
26° 30' 00" N.,	96° 00' 00" W., thence to
26° 30' 00" N.,	93° 00' 00" W., and thence

to the point of beginning.

(b) *Gulfmex No. 2 – Lightering Zone:* This lightering zone and geographic area for this zone are co-terminous and consist of the wa bounded by a line connecting the following points, beginning at:

Latitude	Longitude
27° 53' 00" N.,	89° 00' 00" W., thence to
27° 53' 00" N.,	91° 30' 00" W., thence to
26° 30' 00" N.,	91° 30' 00" W., thence to
26° 30' 00" N.,	89° 00' 00" W., and thence

to the point of beginning.

(c) *Offshore Pascagoula No. 2 – Lightering Zone:* This lightering and the geographic area for this zone are co-terminous and consis the waters bounded by a line connecting the following points, begin at:

Latitude	Longitude
29° 20' 00" N.,	87° 00' 00" W., thence to
29° 12' 00" N.,	87° 45' 00" W., thence to
28° 39' 00" N.,	88° 00' 00" W., thence to
28° 00' 00" N.,	88° 00' 00" W., thence to
28° 00' 00" N.,	87° 00' 00" W., and thence

to the point of beginning.

(d) *South Sabine Point – Lightering Zone:* This lightering zone and geographic area for this zone are co-terminous and consist of the wa bounded by a line connecting the following points, beginning at:

Latitude	Longitude
28° 30' 00" N.,	92° 38' 00" W., thence to
28° 44' 00" N.,	93° 24' 00" W., thence to
28° 33' 00" N.,	94° 00' 00" W., thence to
28° 18' 00" N.,	94° 00' 00" W., thence to
28° 18' 00" N.,	92° 38' 00" W., and thence

to the point of beginning.

Prohibited Areas: Lightering operations are prohibited within following areas in the Gulf of Mexico:

(a) *Claypile – Prohibited Area:* This prohibited area consists waters bounded by a line connecting the following points, beginni

Latitude	Longitude
28° 15' 00" N.,	94° 35' 00" W., thence to
27° 40' 00" N.,	94° 35' 00" W., thence to
27° 40' 00" N.,	94° 00' 00" W., thence to
28° 33' 00" N.,	94° 00' 00" W., and thence

to the point of beginning.

(b) *Flower Garden – Prohibited Area:* This prohibited area consis the waters bounded by a line connecting the following points, beg at:

Latitude	Longitude
27° 40' 00" N.,	94° 00' 00" W., thence to
28° 18' 00" N.,	94° 00' 00" W., thence to
28° 18' 00" N.,	92° 38' 00" W., thence to
28° 30' 00" N.,	92° 38' 00" W., thence to
28° 15' 00" N.,	91° 30' 00" W., thence to
27° 40' 00" N.,	91° 30' 00" W., and thence

to the point of beginning.

(c) *Ewing – Prohibited Area:* This prohibited area consists of the bounded by a line connecting the following points, beginning at:

Latitude	Longitude
27° 53' 00" N.,	91° 30' 00" W., thence to
28° 15' 00" N.,	91° 30' 00" W., thence to
28° 15' 00" N.,	90° 10' 00" W., thence to
27° 53' 00" N.,	90° 10' 00" W., and thence

to the point of beginning.

Maximum Operating Conditions: Unless otherwise specifie maximum operating conditions in this section apply to tank operating within the lightering zones designated in this subpart.

(a) A tank vessel shall not attempt to moor alongside another when either of the following conditions exist:

(1) The wind velocity is 56 km./hr. (30 knots) or more, or
(2) The wave height is 3.0 m. (10 ft.) or more.

(b) Cargo transfer operations shall cease and transfer hoses drained when:

(1) The wind velocity exceeds 82 km./hr. (44 knots); or
(2) Wave heights exceed 5.0 m. (16 ft.).

Operations:

(a) Unless otherwise specified in this subpart, or when authorised by the cognizant Captain of the Port (COTP) o Commander, the Master of a vessel lightering in a zone desi this subpart shall ensure that all officers and appropriate me the crew are familiar with the guidelines in Paragraphs (b) a this section and that the requirements of Paragraphs (d) – section are complied with.

(b) Lightering operations should be conducted in accordance with the Oil Companies International Marine Forum Ship to Ship Transfer Guide (Petroleum), Second Edition, 1988, to the maximum extent practicable.

(c) Helicopter operations should be conducted in accordance with the International Chamber of Shipping Guide to Helicopter/Ship Operations, Third Edition, 1989, to the maximum extent practicable.

(d) The vessel to be lightered shall make a voice warning prior to the commencement of lightering activities via VHF Channel 13 and 2,182 kHz. The voice warning shall include:

- (1) The names of the vessel involved;
- (2) The vessels geographical positions and general headings;
- (3) A description of the operations;
- (4) The expected time of commencement and duration of the operations; and
- (5) Request for wide berth.

(e) In the event of a communications failure between the lightering vessels or the respective persons-in-charge of the transfer, or an equipment failure affecting the vessel's cargo handling capability or ship's manoeuvrability, the affected vessel shall suspend lightering activities and shall sound at least 5 short, rapid blasts on the vessel's whistle. Lightering activities shall remain suspended until corrective action has been completed.

(f) No vessel involved in a lightering operation may open its cargo system until the servicing vessel is securely moored alongside the vessel to be lightered.

(g) If any vessel not involved in the lightering operation or support activities approaches within 100 m. of vessel engaged in lightering, the vessel engaged in lightering shall warn the approaching vessel by sounding a loud hailer, ship's whistle, or any other appropriate means.

(h) Only a lightering tender, a supply boat, or a crew boat, equipped with a spark arrestor on its exhaust, or a tank vessel providing bunkers, may moor alongside a vessel engaged in lightering operations.

(i) Lightering operations shall not be conducted within 1 nautical mile of offshore structures or mobile offshore drilling units.

(j) No vessel engaged in lightering activities may anchor over charted pipelines, artificial reefs, or historical resources.

(k) All vessels engaged in lightering activities shall be able to immediately manoeuvre at all times while inside a designated lightering zone. The main propulsion system must not be disabled at any time.

(l) In preparing to moor alongside the vessel to be lightered, a service vessel shall not approach the vessel to be lightered closer than 1,000 m., unless the service vessel is positioned broad on the quarter of the vessel to be lightered. The service vessel must transition to a nearly parallel heading prior to closing to within 50 m. of the vessel to be lightered.

AUTHORITY: See "General" above.

PILOTAGE: North West Coast of U.S.A.

Columbia River Bar Pilots are "Sea Pilots" for all ports in Columbia and Willamette Rivers. Namely, Astoria and Portland (Oregon), Longview, Kalama and Vancouver (Washington) – when entering from sea and if providing above Astoria, Columbia River Pilots relieve Bar Pilots for balance of transit.

COLUMBIA RIVER BAR PILOTS
Foot of 14th Street,
P.O.Box 87, Astoria, Oregon 97103
TWX 9104668014
FAX (503) 325-5630
Marisat 00259104668014+
Telephones (503) 325-2641 or 325-2642

RADIO FACILITIES

Pilot Boat Peacock..........................WS 7217
Pilot Boat Columbia.......................WYE 7344
Bar Pilots Office, Astoria ....KOK 360
(Ch. 16) (156.80 MHz)
Astoria Marinephone "KFX"
Ship's Call on .... 2206 kHz
KFX Answers on......................... 2598 kHz
Or call on and receive KFX on Channel 26.

In order there be no delays, vessels due to arrive at the Columbia River and desiring a Bar Pilot, must cable or telephone the Columbia River Bar Pilots. (Pilot normally not on station unless cable or telephone message received.) USE RADIO STATION KLB, EVERETT, WASHINGTON at least 12 hours before arrival at the lightship. Code address, "BAR PILOT ASTO, STATING THE TIME OF ARRIVAL". If transmitted by any other radio station, delay may occur. If vessel is equipped with VHF, use Channel 16 (156.80 MHz) to call the pilot boat or Bar Pilots' Office, Astoria (KOK 360) and shift to Channel 13 (156.65 MHz).

PILOT LADDER INSTRUCTIONS

1. Please contact the pilot boat via voice radio (Channel 16 or Channel 13 approximately 30 minutes prior to arrival for desired lee and boarding instructions.

2. The Columbia River Bar Pilots have 2 pilot vessels; the "Peacock" and the "Columbia". When the "Peacock" is on station, Masters will be instructed to rig their pilot ladder 4 ft. above the water's edge. When the "Columbia" is on station, the Master will be instructed to rig the ladder 10 ft. – 12 ft. above the water's edge. The above-mentioned distances above the water are of the utmost importance, particularly in the case of the "Columbia", as the pilot boat can and has pulled the ladder down when it becomes pinched between the pilot boat and the side of the vessel. Pilot ladders and boat ropes shall not be permitted to drag in the water. No tag lines, pull ropes or trailing lines shall be attached to the bottom of the ladder. All pilot ladders must comply with SOLAS Regulations.

3. Pilot ladders shall be rigged amidships, over "draft marks" clear of all obstructions, such as accommodation ladders, and clear of overside discharges from the engine room and deck scuppers.

4. The pilot ladder should be kept clean and used for embarking and disembarking Pilots only. The ladder shall be made in one continuous length, not 2 sections shackled or lashed together. The ladder shall be equipped with spreaders approximately 10 ft. apart in accordance with SOLAS regulations. The ladder must be in good condition, the treads horizontal and the upper surface of rough non-skid quality.

5. The ladder must be adequately lit at night by means of a light shining well over the ship's side in the vicinity of the ladder. The area of the deck where the Pilot boards and leaves should be free of debris and well lighted. Where portable stanchions and bulwark steps are used, they shall be rigidly attached to the ship's structure. A life ring with water light and lifeline attached should be ready at hand. Rigging of the ladder and embarking and disembarking of the Pilot must be under the supervision of a licensed officer.

6. Boat ropes are not to be used, all pilot boats are power propelled.

7. Manropes shall be of manila 3 in. circumference. The manropes shall be free of any knots including the lower end. The manropes should be rigged 1 ft. – 2 ft. longer than the pilot ladder. Manropes are not to be rigged for boarding unless otherwise advised.

8. If vessel is to take a deck load of logs, please discuss with your Agent the building of a catwalk to provide safe passage to and from the pilot ladder.

Long Island Sound and Connecticut Ports:

The Connecticut State Pilots Association is offering pilot service for all foreign and registered vessels en route to and from Connecticut Ports via the Long Island Sound. U.S. enrolled vessels will continue to be services by Interport Pilots using the same boats and pilots. Pilots are licensed by the Federal Government and the State of Connecticut.

The Pilot Station established off Montauk Point provides a more direct route to Long Island Sound ports. Vessels using Connecticut State pilots through the mile wide, 58 ft. deep, Montauk Passage, will save between 1 hour and 3 hours steaming time as opposed to being diverted to Pilot Stations at Point Judith or Brenton Reef, Rhode Island.

The U.S. Navy uses the Montauk Passage for its nuclear submarines bound to and from Connecticut ports and, as Interport Pilots, we have used this route for vessels in the coastwise trade for over 30 years.

Notice of Arrival is required. A 24 hour to 36 hour advance notice of ETA is suggested. A 12 hour update and a 6 hour update is necessary in order to co-ordinate dispatching of pilots.

The Pilot boarding point is 3 miles East of Montauk Sea Buoy.

Connecticut State Pilots Association, State Pier, New London, Ct. 06320. Tel: 1 (800) 346-4877 or in New Jersey 1 (201) 291-1310. Cables: Port Pilots, Atlantic Highlands, N.J. Pilot Boat: Call Sign – "Connecticut Pilot".

Constitution State Pilots Association also offer pilot service in Long Island Sound and all Connecticut ports.

Constitution State Pilots Association, offer a pilotage service in Block Island Sound, Long Island Sound, the Harbours of Bridgeport, New Haven and New London, Connecticut and Long Island Sound platforms. They also provide docking pilot services in the afore-mentioned harbours, and have 2 Pilot Stations, one located at Montauk Point in Block Island Sound (Lat. 41° 01.7' N., Long. 71° 41.8' W.) 3 miles East of Montauk Sea Buoy, and the other station at Block Island (Lat. 41° 18' N., Long. 71° 35' W.). These stations are serviced by the Pilot Boat "Constitution", a 65 ft. blue and white vessel which monitors VHF Channels 16 and 8.

Constitution State Pilots Association, 500 Waterfront Street, New Haven, Connecticut 06512. Tel: 203-468-0255 (24 hours). Fax: (516) 582-6550. Telex: 940103 WU Pubtlx BSN. All Constitution State Pilots carry cellular telephones and are in constant communication with Agents and Terminals.

The Long Island Sound State Pilots Association is offering total pilot service for all foreign and registered vessels on Long Island Sound and Connecticut Harbours, also New York Platforms.

U.S. Enrolled Vessels will also be served by Long Island Sound Pilots Association. Licensed by the U.S. Federal Government and State of Connecticut, Long Island Sound State Pilots Association have established the first pilot boat station off Montauk Pt., Long Island, New York, for a shorter route to the Sound and Connecticut (See "Plan").

Vessels using Long Island Sound State Pilots Association will save between 2-3 hours of steaming time, as opposed to being diverted to Pilot Station at Pt.Judith, Rhode Island.

Long Island Sound State Pilots have been serving the Industry for over 30 years.

Long Island Sound State Pilots Association Inc., 1440 Whalley Avenue, Suite 123, New Haven, Connecticut 06515. Tel: (203) 772-0101 (24 hours). Cables: Lispilot New Haven, Connecticut. Fax: (302) 629-9392.

Southwest Alaska Pilots Association: P.O. Box 977, Homer, Alaska 99603. Tel: (907) 235-8783. Fax: (907) 235-6119.

SWAPA is the only service authorised to provide pilotage in the Southcentral Alaska region which extends from 141° to 156° West longitude. This includes Icy Bay, all of Prince William Sound, Seward/Resurrection Bay, all Cook Inlet ports and all Kodiak Island ports.

Pilotage services can be arranged through the Agent or directly to the Pilots. SWAPA maintains 24 hour dispatch at Homer via Tel: (907-235-8783) for all ports except Valdez. Facsimile messages during business hours (Monday – Friday, 0800 hrs. – 1700 hrs.) can be sent to the Homer Dispatcher (907-235-6119).

Pilot Boarding Stations:

- (1) Icy Bay – 9.0 miles × 180° true from Claybluff Point Light; approximate position Lat. 59° 49.0' N., Long. 141° 35.0' W.
- (2) Cordova – 2.0 miles × 180° true from Sheep Point; approximate position Lat. 60° 35' N., Long. 146° 00' W.
- (3) Valdez and Whittier – approximately 3.6 miles × 246° true from Bligh Reef Buoy; approximate position Lat. 60° 49' N., Long. 147° 01' W.

(4) Seward – 1.1 miles × 152° true from Caines Head Light; approximate position Lat. 59° 58' N., Long. 149° 22' W.
(5) Cook Inlet – 1.0 miles × 180° true from Lands End Light; approximate position Lat. 59° 35' N., Long. 151° 25' W.
(6) Kodiak (City) or Womens Bay – 2.0 miles × 100° true from St. Paul Harbor Entrance Light; approximate position Lat. 57° 44' N., Long. 152° 22' W.
(7) Discoverer Bay – 2.0 miles × 000° true from Posliedni Point; approximate position Lat. 58° 28' N., Long. 152° 20' W.
(8) Port Wakefield – 1.0 miles × 298° true from Kekur Point; approximate position Lat. 57° 52' N., Long. 152° 49' W.
(9) Port Bailey – 1.5 miles × 000° true from Dry Spruce Bay Light; approximate position Lat. 57° 59' N., Long. 153° 06' W.
(10) Uganik – 2.0 miles × 284° true from East Point; approximate position Lat. 57° 51' N., Long. 153° 32' W.
(11) Larsen Bay – 1.0 miles × 090° true from Harvester Island; approximate position Lat. 57° 39' N., Long. 153° 57' W.
(12) Alitak – 2.4 miles × 131° true from Cape Alitak Light; approximate position Lat. 56° 49' N., Long. 154° 15' W.
(13) Old Harbor – 1.0 miles × 082° true from Cape Liakik; approximate position Lat. 57° 07' N., Long. 153° 25' W.

AUTOMATIC RADAR PLOTTING AIDS: With effect as from July 1st, 1982, vessels carrying oil or hazardous materials in bulk must have automatic radar plotting aids.

A fine for failure to carry an ARPA could be multiplied by the number of days of the violation.

The United States Coast Guard has stressed, however, that its official policy is enforcement by denial of entry and restriction of operation and not primarily by the enforcement of fines.

While the Coast Guard recognises that the Public Law enables financial penalties to be incurred, it is believed that the terms of the Port and Tanker Safety Act under which the U.S. Coast Guard operates directs it to monitoring and identification of previous offenders and enforcement by prevention of entry into U.S. ports or subsequent restriction of trade and departure.

COAST GUARD REGULATIONS: The U.S. Coast Guard has announced its intention to develop the following regulations implementing sections of the 1978 U.S. Port and Tanker Safety Act requiring:

1. Existing crude oil carriers of 20,000 d.w.t. or above but less than 40,000 d.w.t. to have segregated ballast tanks (SBT) or a crude oil washing system (COW) by January 1st, 1986, or when they reach 15 years of age, which ever occurs later; and
2. Existing product carriers of 20,000 d.w.t. or above but less than 40,000 d.w.t. to have SBT or dedicated clean ballast tanks (CBT) by January 1st, 1986, or when they reach 15 years of age, whichever occurs later.

POLLUTION: Any vessel which does not have a valid I.O.P.P. Certificate on board will not be allowed to transit U.S. waters.

NOTICE: *B.A. Notice to Mariners No. 3013(T) of 1983:*

UNITED STATES OF AMERICA – Chart and Publication requirements.

A statement concerning the U.S. Navigation Safety Regulations relating to Navigation, charts and Publications has been issued in the U.S. Notices to Mariners Weekly 44/83. This is reproduced below. Admiralty Annual Notice to Mariners No. 22 will be amended as appropriate in the 1984 edition.

CHART AND PUBLICATION REQUIREMENTS

Sections 164.30 and 164.33 of Title 33 of the Code of Federal Regulations Part 164 (33 CFR 164), which detail requirements for the carriage of nautical charts and publications, are amended effective October 28, 1983. The regulations contained in these sections are applicable to each self-propelled vessel of 1,600 g.r.t. or more, operating on the navigable waters of the United States, except the St. Lawrence Seaway, and are reprinted as follows:

§164.30 Charts, publications, and equipment: General.

No person may operate or cause the operation of a vessel unless the vessel has the marine charts, publications, and equipment as required by §§164.33 through 164.41 of this part.

§164.33 Charts and publications.

(a) Each vessel must have the following:

(1) Marine charts of the area to be transited, published by the National Ocean Service, U.S. Army Corps of Engineers, or a river authority that:

(i) Are of a large enough scale and have enough detail to make safe navigation of the area possible; and

(ii) Are currently corrected.

(2) For the area to be transited, a currently corrected copy of, or applicable currently corrected extract from, each of the following publications:

(i) U.S. Coast Pilot.

(ii) Coast Guard Light List.

(3) For the area to be transited, the current edition of, or applicable current extract from:

(i) Tide tables published by the National Ocean Service.

(ii) Tidal current tables published by the National Ocean Service, or river current publication issued by the U.S. Army Corps of Engineers, or a river authority.

(b) As an alternative to the requirements for paragraph (a) of this section, a marine chart or publication, or applicable extract, published by a foreign government may be substituted for a U.S. chart and publication required by this section. The chart must be of large enough scale and have enough detail to make safe navigation of the area possible, and must be currently corrected. The publication, or applicable extract, must singly or in combination contain similar information to the U.S. Government publication to make safe navigation of the area possible. The publication, or applicable extract must be currently corrected, with the exceptions of the tide and tidal current tables, which must be the current editions.

(c) As used in this section, "currently corrected" means corrected with changes contained in all Notices to Mariners published by Defense Mapping Agency Hydrographic/Topographic Centre, or an equivalent foreign government publication, reasonably available to the vessel, and that is applicable to the vessel's transit.

SHIP'S OFFICER'S REPORT: The information given for the port of N Orleans (U.S.A.) applies to all the ports in the U.S.A. in the event of vessel arriving from abroad or from a previous U.S. port. All documents such as Crew List, Passenger List (Form I-418), De Engine, Steward's and Bonded Stores Lists (Form 1303), Crew's Effe Declaration (Form 1304), are required in duplicate at each port for en inward.

ALBANY, New York: 42.40 N. 73.45 W. (See Pla

DOCUMENTS: If first port of call in U.S., 2 complete Customs Manife describing all cargo on board and ports of discharge. Also 1 Cargo L for Albany cargo, 3 Crew Lists, 3 Stores Lists, 3 Curio Lists, Sh Register, Load Line Certificate and Tonnage Tax Certificate.

PILOTAGE: Hudson River Pilot boards vessel off Yonkers, N.Y. Ca address: "Hudpilots, Yonkers, N.Y."

ANCHORAGES: Several anchorage areas in Hudson River en rout Albany if required due to weather. Vessels cannot anchor at Por Albany.

RESTRICTIONS: Hudson River Channel to Albany has controlling de of 32 ft. MLW. Vessels with draft in excess of 28 ft. will be require transit river on favourable tide as directed by Pilot.

MAX. SIZE: Max. permissible length 750 ft., breadth 110 ft., draft u 31 ft. Turning basin at Albany 1,100 ft. in width.

HEALTH: See "Health: All Ports" before first U.S.A. port.

AGRICULTURE: See "Agriculture" before first U.S.A. port.

TUGS: One 2,000 h.p. tug stationed at port at all times; additional t available upon advance request. Normally 1 tug is sufficient for tur and docking. Tug's lines are used.

BERTHING: 5,000 linear ft. of marginal wharf available at APDC term for general cargo, grain, lumber, etc., 25 ft. – 31 ft. alongside wh Various privately operated deep-water petroleum terminals in port at

Facilities: 13.5 million bushel grain elevator. 17 million gallon molas storage – 2 terminals. Scrap Iron Terminal, 350,000 sq. ft. cove warehouse space.

Equipment: Available at the Port of Albany:

2 Diesel powered 5,000 lb. lift trucks.
2 Diesel powered 6,000 lb. lift trucks.
4 Diesel powered 52,000 lb. lift trucks.
8 Diesel powered 9,000 lb. lift trucks, all are available with bale cla
1 Diesel powered 30,000 lb. lift truck.
1×225 ton capacity crawler type crane.

BRIDGES: Minimum vertical clearance of bridges on Hudson Rive route to Albany is 135 ft.

STEVEDORES: Rates and information can be obtained from Fe Marine Terminals Inc.

TANKERS: Bray/Getty Terminal:

Location: The Bray/Getty Terminal is located approximately 126 m from the Battery (NYC), about 0.8 miles Northward of Island Cree is an offshore wharf 250 ft. long with a dock height above the wate of 11 ft.

Berthing: Normal berthing is starboard side to with the use of only 1,800 h.p. tug. An additional tug may be required if adverse wea conditions exist. The vessel approaches the berth from midstrea approximately a 30° angle to the pier. The tug is used on the por to control the direction of the vessel during the approach. Once alon the pier, spring lines are run out and the vessel is held in positio her own engines until the tug is secured. See "Plan".

Gangway: The terminal does not provide a gangway.

Fresh Water: Not available at this terminal.

Bunkers: Fuel is not available at this terminal.

Slop/Deballast: The terminal is not equipped to receive slops or ballast.

Security: The terminal is fenced and guarded.

Pollution: Although an oil boom is permanently in place inside the area, outside contractors must be contacted for clean-up in the ev the oil spill.

Firefighting: The terminal is equipped with one 150 lb. dry che extinguisher with additional firefighting support by shorebased fire f

Cirillo Terminal:

Location: The Cirillo Terminal is located approximately 125 miles the Battery (NYC), about 0.5 miles Northward from Island Creek bulkhead wharf 280 ft. long with a dock height above the wate 10 ft. It is owned by Albany Port District Commission and opera Cirillo Brothers.

Berthing: Normal berthing is port side to with the use of one 1,8 tug. An additional tug, may be required if adverse weather con exist. The vessel approaches the berth on the ebb tide and approaches the marginal berth in the usual manner. The curren area sets fair with the dock face creating an ideal docking enviro See "Plan".

Gangway: The terminal does not provide a gangway.

Fresh Water: The terminal can supply fresh water upon reques

Slop/Deballast: The terminal is not equipped to receive slops ballast.

Security: The terminal is fenced and guarded at all times.

Pollution: Although an oil boom is readily available for containment, all clean-up must be performed by outside contra

Metropolitan/Arco Terminal:

Location: The Metropolitan/Arco Terminal is located appro 126 miles from the Battery (NYC). The dock is of an offsho construction with dolphins.

Berthing: Normal berthing is starboard side to with the 2×1,800 h.p. tugs. All ships are usually docked at Slack Hig The vessel approaches the dock from the centre of the chann carefully breasted alongside the pier, using her tug and the slide over against the breasting dolphins. Spring lines are followed by breasts, then head and stern lines. See "Plan".

Gangway: The terminal does not provide a gangway.
Fresh Water: Piped fresh water is available.
Bunkers: Fuel is not available at the dock.
Slop/Deballast: The terminal is not equipped for slops or dirty ballast receipt.
Security: The terminal is fenced and guarded. The main gate is locked when no vessels are at the dock. When a vessel arrives the dock is continually manned by terminal employees.
Pollution: The terminal is equipped with a workboat and 1,000 ft. of boom for spill containment. Local contractors must be contacted for clean-up operations.
Firefighting: The dock is equipped with one 150 lb. dry chemical extinguisher. Additional back-up is supplied by local firefighting departments.

Niagara/Mohawk Terminal:
Location: The Niagara/Mohawk Terminal is located approximately 125 miles from the Battery (NYC).
Berthing: Normal docking is port side to with the assistance of one 1,200 h.p. tug. The vessel approaches the marginal berth at minimum velocity with the ship's engines used to maintain relative position of vessel while lines are passed. The tug assists in the breasting of the vessel towards the dock. See "Plan".
Gangway: The terminal does not provide a gangway.
Fresh Water: Piped fresh water is available at the dock.
Bunkers: Fuel is not available at this terminal.
Slop/Deballast: The terminal is not equipped to receive slops or dirty ballast.
Security: The terminal is fenced and guarded.
Pollution: The dock is equipped with 2,500 ft. of boom for oil spill containment.
Firefighting: Portable CO_2 extinguishers provide adequate firefighting capabilities.

Sears Terminal:
Location: The Sears Terminal is located approximately 124 miles from the Battery (NYC), about 1.2 miles Southward of Island Creek. It is an offshore wharf 191 ft. long with a dock height of 10 ft. above the waterline.
Berthing: Normal berthing is port side to with the use of one 1,800 h.p. tug. An additional tug may be required if adverse weather conditions exist. The vessel approaches the dock on the first of the ebb tide, slowly stemming the tide during the approach. The tug is positioned on the starboard bow to control the vessel's movements. After a normal approach, the vessel is spotted and spring lines are led out. The vessel is then held in position with the tug and own engines while the breast, head and stern lines are led out. See "Plan".
Gangway: The terminal does not provide a gangway.
Fresh Water: Not available at this dock.
Bunkers: Fuel is not available.
Slop/Deballast: The terminal is not equipped to receive slops or dirty ballast.
Security: The terminal is fenced and guarded at all times.
Pollution: Although the terminal is equipped with a workboat and boom for oil spill containment, all clean-up equipment and personnel must be secured through local contractors.

Roseton, N.Y.: Central Hudson Gas & Electric Terminal:
Location: The Central Hudson Gas and Electric Terminal is located on the Hudson River approximately 74 miles from the seabuoy.
Berthing: Normal berthing is starboard side to with use of one 3,500 h.p. tug. An additional tug may be required during adverse weather conditions. The vessel proceeds to a point opposite to or a little above the dock, turns midstream with the aid of the tug and comes down parallel to the dock. She is then breasted in and held alongside by the tug while the spring and breast lines are led out. The tug then handles the head and stern lines (synthetic required). See "Plan".
Gangway: The terminal does not provide a gangway.
Fresh Water: Not available at the dock.
Bunkers: Fuel is not available at this terminal.
Security: The terminal is fenced and guarded.
Pollution: Booms and absorbent materials are available on the dock in the event of an oil spill.
Firefighting: The dock is equipped with one 250 lb. purple K extinguisher, 2×2.5 in. fire hoses with fog nozzles on a 6 in. main.

Ravena, N.Y. (Port of Albany): Atlantic Cement Terminal:
Location: The Atlantic Cement Terminal is located on the Hudson River approximately 127 miles from the seabuoy and is under the jurisdiction of the Port of Albany.
Berthing: All vessels must dock and undock during daylight hours only. Normal berthing is port side to with the use of one 2,100 h.p. tug. An additional tug may be required during adverse weather conditions or when docking on a rising tide. The dock is of a marginal design, parallel to the channel axis. Normal approach is with a tug breasting the vessel onto the dock.
Gangway: The terminal does not provide a gangway.
Fresh Water: Not available at the dock.
Bunkers: Fuel is not available at this terminal.
Slop/Deballast: The terminal is not equipped to receive slops or dirty ballast.
Security: Although the terminal is not fenced or guarded, dock personnel are in attendance at all times.
Pollution: In the event of an oil spill, the containment and clean-up equipment available at the dock consists of:

1. 7,400 ft. of 12 in. collar boom.
2. Oil retention gate mounted on dock.
3. 23 ft. 150 h.p. tow boat.
4. 30 ft. deck barge for oil boom.
5. 500 ft. of 2.5 in. fire hose.
6. 100 bags of oil absorbent material.
7. 15 bags plastic "Oil Snares".
8. Air bubbling system-along dock face.

Firefighting: The dock is equipped with one 500 lb. dry chemical extinguisher, 350×2.5 in. hose and fog nozzles located adjacent to the dock manifold.

FRESH WATER: Supplied during regular working hours daily, except Saturdays, Sundays, and holidays, at $2.75 per 100 cu. ft. plus $22.00 service charge per daily delivery on straight time. Additional charge if supplied during other periods.
CONSULS: Italian Vice-Consulate located at Albany, other consulates available at New York City.
REPAIRS: Minor deck and engine repairs can be handled.
GANGWAY/DECK WATCHMEN: Available via ship chandler, not required but recommended.
AIRPORT: 7 miles distant from port: served by Allegheny, America, Altair and Executive Airlines.
TIME: Eastern Daylight Saving, (GMT minus 4 hours) from first Sunday in April till last Sunday in October.
HOLIDAYS: Standard U.S. holidays; cargo work can be arranged on all holidays at overtime rates, except July 4th, Labour Day and Christmas Day.
SHORE LEAVE: Crew members allowed ashore unless restricted by Customs or Immigration requirements.
GARBAGE DISPOSAL: Service not available.
WASTE OIL DISPOSAL: Arranged through local Agents.
SEAMAN'S CLUBS: None.

SHIPMASTER'S REPORT: February 1980.
Pilotage: Compulsory. Pilot boards at Ambrose Light Tower and Hudson River Pilot boards at Yonkers.
Restrictions: Vessels able to enter and leave during darkness at any stage of the tide.
Max. Size: LOA 750 ft. (Approx). Max. Draft: 31 ft. to 32 ft. depending on height of river.
Tugs: One tug stationed at Albany (approx. 2,500 h.p.). Additional tugs come from New York.
VHF: Tug only listens out on VHF before vessel arrives.
Services: Following services available: Fresh water, fresh provisions, small repairs, machine shop, airport, Lloyd's surveyor (from New York), Salvage surveyor (from New York), lubricating oil, groceries and meats.
Berthing: Pier No. 2 Albany: Berth located 3 miles from Albany and 145 miles from the entrance. Vessel's size limited by draft and space available in swinging room in basin. Max. size approx. LOA 600 ft., draft 31 ft. Least depth of water in channel from sea to berth 33 ft. (approx). Vessels able to dock and undock at any stage of the tide, day or night.
Grain Loading Facilities: Available.
Ro/Ro Facilities: Available in New York Harbour.

AUTHORITY: Albany Port District Commission, Administration Building, Port of Albany, Albany, N.Y. 12202. *Tel:* (518) 463-8763. *FAX:* (518) 463-8767. *Contact:* F. Keane, General Manager.

ALEXANDRIA, Virginia: 38.48 N. 77.03 W. (See Plan)

LOCATION: On the Potomac River 7 miles from Washington D.C.
DOCUMENTS/PILOTAGE: Refer to "Hampton Roads".
RESTRICTIONS: Anchoring necessary between 2200 hrs. – 0600 hrs. Berthing daylight only.
Channel: Width 200 ft. Depth 24 ft. Turning basin: length 6,700 ft. Width 300 ft.
MAX. SIZE: Governed by draft only – max. 22 ft. 6 in. all times.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: WMH Baltimore, Md.
TUGS: None required.
BERTHING: 2 open piers. Berthing 0600 hrs. to 2200 hrs.
BRIDGES: 1 bridge, closed Monday through Friday 1600–1830 hrs. and 0630–0900 hrs.
STEVEDORES: Informally arranged through Receivers or Shipper's Agents.
MEDICAL: Hospital available.
FRESH WATER: Available at berth – 10 t.p.h.
FUEL: Not available.
REPAIRS: Minor facilities.
GANGWAY/DECK WATCHMEN: Shore watchman provided.
OPENING/CLOSING HATCHES: Stevedores. Vessel – depending on understanding.
REPATRIATION: Facilities exist.
AIRPORT: 3 miles. Washington National – multiple flights.
TIME: GMT minus 5 hours.
POLICE/AMBULANCE/FIRE: Agents arrange. Watchmen on duty.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Required by Immigration.
DELAYS: No unusual delays.
SERVICES: Searle Consortium, Ltd. in Alexandria (Tel: (703) 768-6026) and their sister company, Seaward Marine Services can provide the following: Diving and general underwater inspection services; underwater hull cleaning; Salvage survey and underwater repairs of a salvage nature; assistance in the refloating of stranded vessels and assistance in the arranging/engineering of towage.
AUTHORITY: Virginia Port Authority, 600, World Trade Center, Norfolk, Va. 23510. *Tel:* (804) 683-8000. *Telex:* TWX 710-881-1231. *Cables:* Vastports-Norfolk. *FAX:* (804) 683-8500. *Contact:* J. Robert Bray, Executive Director.

ANACORTES, Washington: 48.31 N. 122.36 W. **(See Plan)**

DOCUMENTS: Refer to "Tacoma".
PILOTAGE: Port Angeles Pilots. Tel: Seattle 728-6400, Dispatcher 448-4455. Pilots on VHF Channels 13 and 14.
ANCHORAGES: East End Guemes Channel, 54 ft. minimum depth.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Join vessel in Guemes Channel at Anacortes – lines optional.
BERTHING: *Pier No. 1:* Length 580 ft., depth 34.5 ft.
Pier No. 2: Length 452 ft., depth 44 ft.
CRANES: 1×15 tonne mobile crane.
TANKERS: *Texaco:* Berth No. 1: Length 1,000 ft., depth 45 ft.
Berth No. 2: Max. LOA 650 ft., depth 40 ft.
Shell: Outer Berth: Max. LOA 810 ft., max. draft 45 ft.
Inner Berth: Max. draft 40 ft.
STEVEDORES: Request 24 hours' notice. Working hours: 0800 – 1200 and 1300 – 1700, 1800 – 0300 and 0300 – 0800.
Weekend work on overtime rates.
FRESH WATER: Available from city water system.
FUEL: Available from Shell and Texaco (Bunker "C" and light diesel).
REPAIRS: Minor repairs only.
DRY DOCKS: Synchrolift (306 ft. × 75 ft.) with capacity 5,000 tons. It can accommodate vessels up to 350 ft. LOA.
Floating dry dock (312 ft. × 90 ft.) with capacity 9,000 tons. It can accommodate vessels up to 400 ft. LOA.
GANGWAY/DECK WATCHMEN: Not required by port.
OPENING/CLOSING HATCHES: Stevedores or crew before vessel's arrival.
CUSTOMS ALLOWANCES: No definite quantities prescribed; reasonable allowance at discretion of Customs Inspector.
CARGO GEAR: ILWU requirements.
AIRPORT: 75 miles Seattle International.
TIME: GMT minus 8 hours. From end April to end October, Pacific Daylight Saving Time, GMT minus 7 hours.
HOLIDAYS: See "Tacoma".
POLICE/AMBULANCE/FIRE: Police, Ambulance and Fire dial 911.
TELEPHONES: Available at Pier 2 and at Pier 1 by Phone Co.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Required.
AUTHORITY: Port of Anacortes, P.O.Box 297, Anacortes, Washington 98221. *Tel:* (206) 293-3134 (Scan System (206) 576-6371). *FAX:* (206) 293-9608. *Contact:* M. Hardy, Marine Terminal Supervisor.

ANCHORAGE, Alaska: 61.12 N. 150.00 W. **(See Plan)**

DOCUMENTS:
- 3 copies Cargo Manifest (Form 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
- 2 copies Crew Manifest (Curio List).
- 2 copies Stores List.
- 2 copies Passenger List (Form I-418).
- 2 copies Crew List (Form I-418).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port:
Master's Oath (Customs Form 1300).
All foreign clearances.
U.S. Certificates of payment of tonnage tax (Customs Form 1002).
Certified Crew List.
PILOTAGE: The Pilot Station for Anchorage is at Homer, Alaska (See "Homer").
ANCHORAGES: The best anchorage for deep-draft vessels is West of Anchorage in depth of 10 fathoms to 12 fathoms, silt bottom. Holding ground is good.
TIDE AND CURRENTS: The diurnal range of tide is 29.6 ft., currents from 1.7 knots to 6 knots or more in mid-channel.
RESTRICTIONS: Flow and pan ice is encountered in the Cook Inlet from approximately the end of November until the end of February. This ice does not freeze solid due to the tidal action. The port is in year-round use and expert information on Winter conditions may be obtained from any of the highly qualified licensed ship pilots available in the area.
MAX. SIZE: All berths 35 ft. MLLW.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Port of Anchorage "KBT-42" on HF-AM and SSB. "WHJ-82" on VHF-FM.
Radio Advice: Masters must notify Agents at Anchorage of ETA at Homer Spit, Alaska, as early as possible. Homer Spit position: 59° 35′ N., 151° 40′ W. To avoid confusion ETA message to Anchorage should indicate Time Zone used. Alaska Communication System Stations are located at Juneau – call sign AKM – Keeping watch on 500 kHz and working on 452 kHz. This station is reported to be very difficult to contact and is closed during weekends.

The fastest way to forward radio messages in the North Pacific is via San Francisco Radio KPH.

The U.S. Coast Guard Station Kodiak – call sign NOJ – keeps W/T watch on 500 kHz, working on 470 kHz.

Due to difficulties reported in contacting local Alaskan stations, Masters of vessels engaged on trans-Pacific crossings are advised to route radio messages to Alaska and Europe via Singapore Radio or Choshi Radio until the dateline, thereafter via San Francisco radio.
TUGS: Join vessel 1.5 miles S.W. of docks.
BERTHING: 180 ft. P.O.L. No. 2 "T" Dock with dolphins (600 ft. LOA).
415 ft. P.O.L. Terminal with dolphin.
600 ft. General Cargo Terminal No. 1, apron width 95 ft., live road 600 lb. per sq. ft.
General Cargo Terminals No. 2 and 3, 610 ft. and 893 ft. respect apron width 69 ft.
Depth alongside all Terminals 35 ft. at MLLW.
SPECIALISED CARGO HANDLING FACILITIES: 2×30 ton and 1×40 ton Mitsubishi container cranes servicing general Terminals 1, 2 and 3; private bulk cement pipelines to shore Ro-Ro service available.
CRANES: Portable, Paceco and Mitsubishi container cranes. Capa Portable to 150 tons. Container cranes 30 tons and 40 tons. Outr from fender face is 79 ft. for the Paceco and 86 ft. for the Mitsub Clear height above MLLW is 132 ft.
STEVEDORES: *Working Hours:* Stevedores do not work on Jan 1st, September 6th, November 25th and December 25th. The 6 hours of any shift between 0800 hrs. and 1500 hrs. is at the str time rate. Work performed on Saturdays, Sundays, holidays between 1700 hrs. and midnight is at overtime rate. Meal breaks 1145 hrs. to 1300 hrs. and 1745 hrs. to 1900 hrs. Stevedores between 0100 hrs. (double overtime rate) and 0700 hrs.
MEDICAL: All facilities available. 3 local hospitals.
TANKERS: Petroleum Terminal No. 1 at the Port of Anchora contiguous to the general cargo piers. The POL Pier is 612 ft. long contains multiple petroleum manifolds. Depth alongside 35 ft.
Petroleum Terminal No. 2 is a new "T" Pier located South of existing facility. POL No. 2 is 645 ft. long including dolphins and con multiple manifolds. Pier will accommodate vessels to 600 ft. alongside 35 ft.
DENSITY: From 1009 to 1010.
FRESH WATER: Public Health Service certified water station.
FUEL: All grades available.
SURVEYORS: B. J. Logan and Associates, (Lloyd's Agas correspondence to AIMU; National Cargo Bureau), 237 E. Third Ave Anchorage, Alaska 99501. Tel: (907) 272-7724.
GANGWAY/DECK WATCHMEN: Required shipside.
OPENING/CLOSING HATCHES: By stevedores.
CUSTOMS ALLOWANCES: At the discretion of Customs Of Normal allowance is 200 cigarettes or 2 lb. tobacco and 1 quart wi spirits per man. Additional allowances may be given if consi necessary, due to length of vessel's stay in port.
AIRPORT: 5 miles; served by regular foreign and domestic airline
HOLIDAYS: New Year's Day (January 1st); Lincoln's Bir Washington's Birthday; Seward's Day (March 30th); Memorial Independence Day (July 4th); Labour Day; Columbus Day; Alaska (October 19th); Veterans' Day; Thanksgiving Day; Christmas (December 25th).
POLICE/FIRE/AMBULANCE: Police 786–8900; Ambulance/Fire 4900.
BANKS:
Alliance Bank
First National Bank of Anchorage
Key Bank
National Bank of Alaska
Ranier Bank Alaska
STORING: See "Prelims".
1. Yes.
2. No restrictive regulations.
3. Yes: Immediately adjacent to ship.
4. Yes.
5. No.
6. Yes.

EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Anchorage, Alaska 99513. Tel: (907) 271-5137.
TELEPHONES: Telephones available shipside.
IDENTIFICATION CARDS: Standard U.S. Immigration Forms be made up for each crew member on arrival. Not necessary men already holding Form I–95, issued for the same vessel.
GARBAGE DISPOSAL: No skips or drums provided. Agents arrangements.
Service provided by Dynair Service Inc., c/o D.J.Orr, P.O.Bo 408, Anchorage, AK 99519-0408. Tel: (907) 243-3403.
WASTE OIL DISPOSAL: 7,000 gallons per day per tanker truck $ 0.50 per gallon (oil). Contact: Alaska Pollution Control, P.O.B 374, Anchorage, AK 99510. Tel: (907) 344-5036.
SEAMAN'S CLUBS: None.
AUTHORITY: Port of Anchorage, 2200 Anchorage Port Anchorage, Alaska 99501, USA. *Tel:* (907) 272-1531. *Telex:* 090 *FAX:* (907) 277-5636. *Contact:* H. Glenzer, Jr., Port Director.

ASHTABULA, Ohio: 41.53 N. 80.48 W. **(Se**

Refer to "St. Lawrence Seaway" for important general inform
PILOTAGE: Nearest Pilot Station is the Welland Canal, Cana
ANCHORAGES: No anchorage inside boundaries. Good a outside to East of the entrance, depth approx. 20 fathoms.
HEALTH: See "Health: All Ports" before first U.S.A. port (Alb
AGRICULTURE: See "Agriculture" before first U.S.A. port (A
RADIO: Contact Lorain, Ohio ship-to-shore station for local co

TUGS: Tugs normally join vessels just inside harbour entrance. Use ship's or tug's lines optional; if tug lines used an additional charge of 10% of the tonnage will be added. For tug service call ship-to-shore tug Idaho, FM Channel 51.

BERTHING: Pinney Dock and Transport Co.: Dock No. 4 – length 2,000 ft., depth 27 ft. 2×45 ton cranes

Pinney Dock and Transport Co. (Ex-Con Rail Minnesota slip): Realigned berth with length 1,500 ft. and depth 28 ft.

Con Rail: Dock No. 10 – length 1,200 ft., depth 27 ft. 1 shiploader, rate 7,000 t.p.h. Max. size: LOA 1,000 ft., beam 105 ft. and max. draft 26 ft.

STEVEDORES: Work gangs for loading and unloading provided by the Pinney Dock and Transport Company.

MEDICAL: Vessels requiring medical attention call U.S. Coast Guard station located in the main river by calling AM Channel 20. Ambulance and hospital service available. No inoculation, vaccinations, or fever certificates required.

DENSITY: Fresh water.

FRESH WATER: Available at stevedoring dock.

FUEL: Available on 24-hour notice.

FIRE PRECAUTIONS: City fire department. Also water line on face of the dock available.

CONSULS: Nearest at Cleveland.

REPAIRS: All types of deck and engine repairs available; also topside shell repairs.

GANGWAY/DECK WATCHMEN: Overseas stevedoring dock enclosed wire fence, watchmen on dock at all times, guard at main gate.

OPENING/CLOSING HATCHES: Optional by crew or stevedores.

CUSTOMS ALLOWANCES: Only allotments per person consumed aboard allowed.

REPATRIATION: Can be arranged.

AIRPORT: Nearest airport approx. 10 miles South with commuter services to Cleveland Hopkins Airport. Cleveland Hopkins Airport approximately 70 miles West.

TIME: Local Eastern Standard Time except from first Sunday in April till last Sunday in October – Daylight Saving Time.

HOLIDAYS: Stevedoring docks double time on holidays and time plus one-half on Saturdays and Sundays.

POLICE/AMBULANCE/FIRE: Police, 998-2221; Ambulance, 998-2345; Fire, 998-2121.

TELEPHONES: No provisions for placing telephones aboard vessels.

SHORE LEAVE: Crew allowed ashore.

IDENTIFICATION CARDS: Required.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany). Service available. 72 hours notice required.

WASTE OIL DISPOSAL: Service available using tanker trucks. 72 hours notice required.

SEAMAN'S CLUBS: None.

CURRENCY: U.S.Dollar (U.S.$).

AUTHORITY: Ashtabula Port Authority, 4400 Main Avenue, Ashtabula, Ohio 44044. *Tel:* (216) 992 8428. *Contact:* Ron Kiester, Chairman.

ASTORIA, Oregon: 46.11 N. 123.50 W. (See Plan)

PILOTAGE: Columbia River Bar Pilots, Astoria, Oregon, 97103. See "General – Pilotage" before first U.S.A. port (Albany).

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Tugs are available for assisting ships at the option of the vessel.

BERTHING: The 3 piers, including Ro-Ro facilities and barge ramp, comprising the Port of Astoria Terminals are located in the Western part of the City of Astoria at the confluence of Youngs Bay and the Columbia River. Astoria is served by 1 railroad, 3 major highways and 6 barge lines. The piers extend to the main ship channel, allowing vessels to berth or sail at any time. The terminals are operated by the Port of Astoria Commission as a public property open to all carriers and shippers.

Pier No. 1:

Location: Foot of Portway Street, adjacent to Pier No. 2, and separated therefrom by a water slip 400 ft. in width.

Principal Commodities: General commodities, break bulk, plywood, frozen tuna, grain, sacked goods.

Berths: 2 vessels. 875 ft. face or Northerly end; 1,000 ft. slip or Westerly side, depth 40 ft.

Pier Apron: Width 24 ft., slip side; 70 ft., face or end. Dock is 16.1 ft. above MLW.

Equipment: Dock tractors, 2 container straddle carriers, fork lift trucks, trailer trucks, hand trucks and other necessary miscellaneous cargo handling equipment.

Water Services: Portable meters and hose connections for vessel service. Rates of delivery, 10,000 g.p.h. Water pressure about 110 p.s.i.

Fire Protection: Hose stand pipes.

Electric Current: Face Pier No. 1 – 440 volt, 3 phase. Lighting 110 volt, 2 phase, 60 cycle, 35 amperes, alternating current. Portable meter and plug-in service available at all berths.

Pier No. 2:

Location: Between Piers No. 1 and 3. Separated from Pier No. 1 by a water slip, 400 ft. wide, and from Pier No. 3 by a water slip, 350 ft. wide.

Warehouse Shed: 65,000 sq.ft. steel building with foundation and sprinkler system.

Principal Commodities: Lumber, logs, general cargo, break bulk, bulky cargo in open storage.

Berths: 5 vessels; 425 ft. face or Northerly end; 1,307 ft., slip Easterly side, 40 ft. depth; 1,445 ft., slip Westerly side, 35 ft. depth.

Open Dock: 535,000 sq.ft. Dock level 16.1 ft. above MLW.

Equipment: Modern lighting. Tractors, fork trucks, etc. as listed under Pier No. 1, when required. Portable meters and hose connections. Pipe lines on pier for bunkering.

Barge Ramp: A barge ramp capable of handling loads up to 50 tons is now in operation at the outer berth of Pier No. 2. The ramp is utilised for transfer of cargo from barge or vice versa.

Water Service: City service. Portable meters and hose connections for service to vessels. Rate of delivery, 10,000 g.p.h. Water pressure about 110 p.s.i.

Electric Current: Lighting 110 volt, single phase, 60 cycle, 35 amperes, alternating current. Power 220 volts, 3 phase, 60 cycle, 35 amperes, alternating current. Portable meters and plug-in service at all berths.

Pier No. 3:

Location: Foot of Hamburg Avenue, (adjacent to and separated from Pier No. 2 by water slip 350 ft. wide).

Principal Commodities: Canned goods, wood pulp, paper products, general cargo, break bulk, dry bulk.

Berths: 2 vessels. 1,750 ft. slip on Easterly side; 20 ft. in depth.

Warehouse Transit Shed: Floor area 248,000 sq.ft. Floor load 600 lbs. East side; 1,000 lbs. West side, per sq.ft.

Shed width 160 ft. Shed length 1,550 ft. Mill type reinforced concrete walls and floor construction. Concrete and blacktop floor. Complete automatic sprinkler system.

Pier Apron: Width, slip side 24 ft. Dock level, 16.1 ft. above MLW.

Equipment: Tractors, trailers, fork trucks, etc., as listed under Pier No. 1, when required.

Water Supply: Portable meters and hose connections for service to vessels. Rate of delivery, 10,000 g.p.h. Water pressure about 110 p.s.i.

Fire Protection: Automatic dry sprinkler system. Hose stand pipes.

Electric Current: Lighting 110 volts, single phase, 60 cycle, 35 amperes, alternating current. Power 220 volts, 3 phase, 60 cycle, 35 amperes, alternating current. Portable meters and plug-in service available at all berths.

CONTAINER HANDLING: Container Yard (West of Pier No. 3) 11.5 acres paved, fenced and lighted.

CRANES: 30 ton crane on Pier No. 2 and 1 × P+H 6250TC mobile crane.

STEVEDORES: Stevedore Services of America and Jones-Oregon-Rogers.

FRESH WATER: Available, delivery to vessel through portable hose.

FUEL: Bunkering oil facilities for ocean vessels are maintained at Pier No. 2. The rate of delivery for heavy fuel oil is 1,500 b.p.h., and for diesel oil, 800 b.p.h.

GARBAGE DISPOSAL: Garbage disposal is available locally for American vessels; foreign vessels calling at Port of Astoria can contract this service through companies located in Portland, Oregon.

WASTE OIL DISPOSAL: Waste oil disposal not available on location. This service may be obtained through companies located in Portland, Oregon, who can truck/barge waste disposal away.

GENERAL: The Port of Astoria Terminals are located 10 miles up-stream from the mouth of the river and 86 miles downstream from the City of Portland, Oregon.

The channel in the Columbia River, from the ocean to Astoria, has a width of 600 ft. and project depth at low water of 53 ft.

At Astoria, the mean range of tide is 7.5 ft. with extreme tidal range of about 12 ft. On a flood tide a velocity of 2 knots is seldom exceeded, but the velocity sometimes attains 5 knots during the ebb tide. This variation is due largely to the strength of the river discharge, with maximum velocity during the freshets which occur during the months of May, June and July. These freshets, however, do not effect the height of water at Astoria. The Columbia River is navigable throughout the year.

A total of 9 berths at the Port of Astoria Terminals are periodically dredged to 35 ft. and 40 ft. at zero tide, but depths vary from time to time.

AUTHORITY: Port of Astoria, 1 Portway, Astoria, Oregon 97103. *Tel:* (503) 325-4521. *FAX:* (503) 325-4525. *Contact:* Jonathan Krebs, Executive Director.

BALTIMORE, Maryland: 39.17 N. 76.35 W. (See Plan)

PORT LIMITS: North Point is the outer limit of Baltimore Harbour for arrival purposes. The anchorage off Annapolis at Thomas Point, for vessels assigned thereto, is considered arrived for charter purposes.

DOCUMENTS:

3 copies Cargo Manifest (Form 1302).

Direct Arrival – 2 All Cargo on Board.
1 Cargo this Port.

Coastwise Arrival – 1 All Cargo on Board.
2 Cargo this Port.

3 copies Crew Manifest (Curio List) (Form 1304).
3 copies Stores Lists (Form 1303).
3 copies Passenger List (Form I-418).
3 copies Crew List (Form I-418).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port.

Master's Oath (Customs Form 1300) 3 copies.
General Declaration (Customs Form 1301) 3 copies.
All foreign clearances.
U.S. Certificates of payment of tonnage tax (Customs Form 1002).
U.S. vessels from foreign ports to submit Form 226 "Foreign Repairs" in order to calculate duty.
Certified Crew List (Visa Crew List – U.S. Immigration).

International Tonnage Certificate showing the official gross and nett tonnage of the vessel.

Note: Masters must retain all CF 368 "Customs Receipts" on file from previous U.S. ports of call.

PILOTAGE: Each vessel entering the Chesapeake Capes under foreign flag or carrying foreign cargo is required to employ a Pilot of the Association of Maryland Pilots. Pilots are furnished with a small transistorised portable radio unit, which provide ships' bridge to bridge communication system to ensure navigational safety while traversing the waters of Chesapeake Bay. It is a positive means of communication to ensure ship's position reporting, the safety and movement of vessels, as well as messages related to the operational needs of vessels proceeding to the port, and provide the Pilots' communication instructions expediting operations of vessels when they are aboard.

Under selective conditions, Pilots carry DGPS units for position determination.

Send ETA via Telex to pilots or vessel's agent, 48 hours before arrival and confirm 24 hours before arrival.

The ETA message should state whether arriving via Chesapeake and Delaware Ship Canal or Cape Henry, and deepest draft and speed of vessel.

Cable address of Pilot: "Marpilot Baltimore". Cape Henry Pilot Tower on VHF Channels 11, 13 and 16. Telex: 87-574. Telephone: (410) 342-6013. Fax: (301) 276-1364.

The large ocean station pilot vessel has been removed from station. Inbound and outbound traffic is monitored by the new Cape Henry Pilot Tower on shore just seaward of Cape Henry Light. The Pilot Tower maintains both a radar and radio watch for the area. Vessels should contact the Pilot Tower on VHF Channel 16 whence they will be directed to a working frequency. Vessels are requested to contact the tower 2 hours prior to arrival at the pilot boarding area.

Pilots are despatched from Lynnhaven Inlet by high-speed all-weather boarding launches and will rendezvous with vessels at CBJ Buoy, approximately 2 miles ENE of Cape Henry Light.

Pilots may request a relief pilot during transit who will board the vessel at the Pilot Transfer Station located 90 miles Northward near the Patuxent River. Under certain conditions of speed and draft, 2 pilots will be provided at the outset of the transit (Currently a second Pilot is provided if the passage is expected to be more than 15 hours). Relief pilots are provided at no extra charge.

ANCHORAGES: Numerous anchorages located within harbour limits for ocean-going vessels. 6 such areas are available for vessels of light and deep draft. 4 of these anchorages are located on the East side of the main ship channel between the entrance channel to the Canton Grain Elevator and Fort Carroll. 2 are on the West side of the main ship channel. Anchorage space is limited for large vessels and a 72 hour limit is in effect. At Thomas Point, approximately 22 miles South of Baltimore, there is an emergency anchorage in natural deep water with depth of 50 ft. or more. The U.S. Coast Guard is responsible for the anchorages, but in practice, the Pilots make the assignments.

RESTRICTIONS: There are two different approaches and exits to the sea lanes. The principal route is by way of the Southerly course through the Chesapeake Bay and Cape Henry to the ocean. The distance by this route is approximately 150 nautical miles. There is a main ship channel 20 miles long from Baltimore to the Chesapeake Bay; this channel is 700 ft. wide and 50 ft. deep (There are 60 miles of channels marked by buoys).

The other route to the sea lanes is via the Chesapeake and Delaware Ship Canal. This offers a short protected route between Baltimore and other leading North Atlantic ports by way of Delaware Bay and allows ships serving North Atlantic European ports to save about 125 miles sailing distance.

Entrance to the Chesapeake and Delaware Ship Canal is located about 50 miles North of Baltimore. Depth of channel 35 ft. The width of the channel is 450 ft. Max. LOA 960 ft. Vessels longer than 760 ft. must have bow thruster. Max. draft 33 ft. 06 in. The canal itself is 15 miles in length, and from the Delaware Bay side the distance to sea lanes is about 60 miles. Navigation lights are maintained so the canal is open to navigation day and night. Mean range of tide is 1.1 ft. at Baltimore. Currents are 0.8 knot on flood and ebb tides.

MAX. SIZE: Length 1,250 ft., draft 50 ft. at Consolidated Coal Sales and Bayside Coal Piers. No restriction on beam.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: See "Pilotage".

TUGS: The port has an efficient fleet of tugs in operation. The tugs usually take vessel in tow at Francis Scott Key Bridge. Tug's lines are used at no extra charge.

BRIDGES: The Chesapeake Bay Bridge-Tunnel is located across the entrance to the Bay, between Cape Henry and Cape Charles. This vehicular crossing consists of fixed causeways and bridges 15 miles in length, and 2 tunnels – one under the Chesapeake Channel and one under the Thimble Shoal Channel. A horizontal clearance of 1,400 ft. at 60 ft. water depth exists.

The Francis Scott Key Memorial Bridge crosses the main ship channel in Baltimore Harbour and is 8,640 ft. long, with main channel horizontal clearance of 800 ft. and vertical clearance of 185 ft. Vessels en route to the harbour from the ocean via the Chesapeake Bay pass under the Chesapeake Bay Bridge (2 parallel bridges), about 138 statute miles above the ocean entrance to the bay. This bridge is 3.7 miles long from shore to shore; its Western end is 0.5 miles S.W. of Sandy Point and its Eastern end is on Kent Island, 4 miles S.W. of Love Point. Least clearance width of 1,500 ft. and vertical clearance 186 ft.

By way of the Chesapeake and Delaware Canal the least horizontal clearance is 500 ft. and vertical clearance to + 136 ft. (Current air draft for vessels is 136 ft.).

The Curtis Creek and Middle Branch sections of harbour are each crossed by highway and railroad bridges (lift and swing).

BERTHING: Major piers and terminals:

Abbreviations:

WC = Whirley Crane (Tower Gantry)
CC = Container Crane
M.T. = Marine Terminal
LT = Long Ton
T = Net Ton

Breakbulk – Container, General Cargo:

Name	*Berths* (ft.)	*Water Depth* (ft.)	*Cranes*	*Other Feature*
Pennwood Wharf	1–870	32		
Dundalk M.T.	1–1050	38	10 CC at 40 LT	2 Ro-Ro ramp
	1–840	38		7 container be
	2–730	34		
	1–750	38	2 WC at 60 T	
	7–600	34		
Sea Girt M.T.	1–700	32	1 CC at 27.5 T	1 container be
	3–1000	42	7 CC at 50 T	3 container be
Rukert Terminals	1–575	34		
	1–525	36		1 ore crane
Clinton St. M.T.	4–550	32		
Locust Point, North Piers 3, 4 & 5	7–600	34	2 WC at 75 T 1 CC at 40 T	
Locust Point, South	4–850	36	3 CC at 40 LT 1 WC at 100 T	2 container be
Chesapeake Terminal	1–700	30		
Atlantic Terminal	1–500	33		Mooring dolphi
Fairfield Auto Terminal	1–832	35		Mooring dolphi

Dry Bulk:

Name	*Berths* (ft.)	*Water Depth* (ft.)	*Commodity*	*Cranes*
Sparrows Point	2–1020	45	Iron Ore	3×26 T Ore unloa
Curtis Bay Ore Pier	1–650	42	Ore	2×22 T Ore cran
Rukert Pier 5	1–820	40	Ore	1×21 T Ore cran
Hawkins Point	1–720	36	Ore (Alumina)	1×30 T Ore cran
CCSC Coal Pier	1–1253	50	Coal	1 Shiploader 7000 T per hour
Bayside Coal Pier	1–1000	50	Coal	1 Shiploader 6000 T per hour
Curtis Bay Coal Pier	1–900	42	Coal	1 Shiploader 6000 T per hour
Pier 7, North Locust Point	1–1000	38	Grain	4 conveyor boom & 3 spouts, 75,00 bushels per hour
Canton Grain Elevator	1–690	39	Grain	9 loading spouts on East side and elevated electric loaders with no spouts on West s
	1–1418	33		
National Gypsum Pier (Gold Bond)	1–594	33	Gypsum	Receiving hoppe belt, 500 T per hour
U.S. Gypsum Dock	1–746	32	Gypsum	Receiving hoppe belt, 900 T per hour
Amstar Corp.	1–970	32	Sugar	2×12 T unloading towers 600 T per hour
Davison Chemical Co. Rock Pier	1–345	28	Sulphuric acid and sodium silicate	

Liquid Bulk:

Name	*Berths* (ft.)	*Water Depth* (ft.)	*Commodity*
Pier 10, Locust Point North M.T.	1–610	34	Molasses, Latex and asphalt
ST Services Pier	1–900	36	Petroleum, edible and chemical
	1–900	35	Liquids
	1–628	20	Liquids
Olin Corp Main Wharf	1–800	28	Liquid Sulphur
Berths 5 & 6 Dundalk M.T.	2–600	34	Molasses
Agrico Pier	1–450	30	Liquid fertiliser
Pier 4 & 5, North Locust Pt. M.T.	1–600	34	Latex (Guthrie)
	1–600	34	Latex (Firestone)
Pier 3, North Locust Point M.T.	1–600	34	Latex (Firestone)
Hawkins Point Pier	1–720	36	Liquid Fertiliser, Hydrogen Peroxide
Continental Dock 188	1–585	32	Petroleum and petroleum produ
Continental Pier 189	1–785	34	Petroleum and petroleum produ
Amoco Oil Dock No. 1	1–675	33	Petroleum and petroleum produ
BP-Texaco Pier	1–435	33	Petroleum and petroleum produ
Amerada Hess Pier	1–700	37	Petroleum and petroleum produ
Apex Oil Co.	1–800	40	Petroleum Products

CRANES: *Floating:* 1×150 tons.

Also see "Berthing".

DENSITY: Brackish (1005 – 1008).

MEDICAL: All facilities available.

TANKERS:

Apex: The Apex Oil Terminal in Baltimore Harbour is located from the Sea Buoy and consists of one berth. The controlling this terminal is:

Navigation Channel – 49 ft. Berth 40 ft.

The max. size vessels received:

LOA 800 ft.
97,179 d.w.t.

Vessels dock and undock at all stages of the tide. Northwesterly winds may cause some variation in tide.

At this terminal there are terminal personnel on the scene who will advise vessels of any critical conditions.

When docking and undocking, vessels normally use 2 tugs

On approach to the berths, vessels transit the Fort McHen with a controlling depth of 50 ft. MLW and minimum width of

FRESH WATER: Can be supplied at berths. At general cargo berths, vessels supply hoses. Water barge service available from Vane Bros. Co. (Tel: 631-7773).

FUEL: All grades supplied by numerous oil companies by barge, tanker truck or ex-wharf at the oil berths.

Bunkering, Fuel Oil and Lubricants:
Aqua Tankers, Inc. Tel: 410-631-7494. Fax: 410-631-7781.
Fewell Trading Co., Inc. Tel: 410-532-2335. Fax: 410-532-7756.
Marine Launch Co. (Vane Brothers Co.). Tel: 410-631-7773. Fax: 410-631-5099.

CONSULS:
Belgium
Denmark
Dominican Republic
Ecuador
Finland
France
Guatemala
Honduras
Italy
Netherlands
Norway
Pakistan
Senegal
Spain
Turkey

REPAIRS: *Bethship:* At the Sparrows Point Shipyard, vessels up to 300,000 d.w.t. are repaired, and the facilities include all the necessary equipment for the construction of large and small vessels. Tel: (410) 388-6383. Fax: (410) 388-6687.

In addition to the above mentioned facilities there are numerous companies specialising in minor ship's repairs, tank cleaning, repair of all types navigational and optical instruments, fumigation (See "Ship Services").

SURVEYORS:
Allcargo Surveyors, Inc. Tel: 633-4656. Fax: (410) 633-3149.
American Bureau of Shipping and ABS Worldwide Technical Services, Inc. Tel: 633-5692. Fax: (410) 633-3609.
Baltimore Ship Repair. Tel: (410) 354-7400. Fax: (410) 354-7410.
John L. Bauer & Associates, Inc. Tel: 321-8488.
Bulk Liquid Surveys Inc. Tel: (410) 485-0374.
Cranford and Co. Tel: (410) 821-0010. Fax: (410) 821-0913.
Carman & Co., Inc. Tel: 633-5940. Fax: (410) 633-5948.
Hull and Cargo Surveyors, Inc. Tel: 646-0606. Fax: (410) 646-5956.
Inchcape Testing Services/Caleb Brett. Tel: (410) 354-3010. Fax: (410) 354-4543.
International Cargo Surveyors, Inc. Tel: 633-3340/41. Fax: (410) 633-7848.
Lloyd's Register of Shipping. Tel: 547-1150. Fax: (410) 752-4360.
Luard & Company Inc. Tel: 633-6257. Fax: (410) 633-8157.
Maloney Commodity Services Inc. Tel: (212) 490-1155. Fax: (212) 490-3780.
Marserv, Inc. Tel: 583-9137. Fax: (410) 583-9172.
Mid Atlantic Cargo Services, Inc. Tel: 788-5006. Fax: (410) 788-0208.
Mid Atlantic Marine Surveyors Inc. Tel: (410) 284-8175. Fax: (410) 633-7397.
National Cargo Bureau, Inc. Tel: 633-6680. Fax: (410) 633-6812.
Captain Heiner Popp, Inc. Tel: 544-1422. Fax: (410) 544-7142.
Port Supervision, Inc. Tel: (410) 633-3396. Fax: (410) 255-6918.
SGS Control Services Inc. Tel: (410) 563-1822 (Grain). Fax: (410) 563-1602.
Sulzer Marine Services. Tel: (215) 459-4138.
Toplis and Harding, Inc. Tel: 288-1447. Fax: (410) 288-3604.
Unicorn International. Tel: (800) 443-4652. Fax: (908) 351-8393.
Andrew Vazquez, Inc. Tel: 282-7770.

CUSTOMS ALLOWANCES: At the discretion of Customs officers. Normal allowance is 200 cigarettes or 2 lb. tobacco and 1 quart wine or spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.

REPATRIATION: Crew changes can be made and repatriation arranged at the port.

AIRPORT: BWI Airport, 8 – 10 miles or 20 minutes from harbour by vehicle with 32 regular scheduled airlines and 580 flights daily.

HOLIDAYS: Note: Some dates may change.

January 1st *	(Saturday)	– New Year's Day
January 17th	(Monday)	– Martin Luther King, Jr.'s Birthday
February 12th	(Saturday)	– Lincoln's Birthday
February 21st	(Monday)	– Washington's Birthday
March 17th	(Thursday)	– Thomas W. Gleason's Birthday
April 1st	(Friday)	– Good Friday
April 3rd *	(Sunday)	– Easter Sunday
May 30th **	(Monday)	– Decoration Day (Memorial Day)
July 4th	(Monday)	– Independence Day
September 5th *	(Monday)	– Labour Day
September 12th	(Monday)	– Defender's Day
October 10th	(Monday)	– Columbus Day
November 8th	(Tuesday)	– Election Day
November 11th	(Friday)	– Veteran's Day
November 24th	(Thursday)	– Thanksgiving Day
December 24th *	(Saturday)	– Christmas Eve
December 25th *	(Sunday)	– Christmas Day
December 31st	(Saturday)	– New Year's Eve

* Baggage and mail only.
** As per agreement with I.L.A. – Federal date will be observed.

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight saving time from first Sunday in April till last Sunday in October.

POLICE/AMBULANCE/FIRE: Baltimore City Police Tel: 911, Fire Tel: 911, Ambulance Tel: 911, Baltimore County Tel: 911, Maryland Port Administration Tel: 633-1066.

EMERGENCY CO-ORDINATION CENTRE: No official Centre at Baltimore. In an emergency contact Captain of the Port – Coast Guard. Tel: 962-5100. VHF Channel 81 (157.075 MHz) is monitored.

BANKS:
First National Bank of Maryland. Tel: (410) 244-4500. Fax: (410) 539-4594.
Maryland National Bank. Tel: 605-6444.
Mercantile – Safe Deposit & Trust Co. Tel: 237-5900. Fax: (410) 237-5351.
Signet Bank/Maryland. Tel: (410) 332-5771. Fax: (410) 752-7357.
The Bank of Baltimore. Tel: 244-3360.
Chase Bank of Maryland. Tel: 576-0030.
Provident Bank of Maryland. Tel: 281-7000.
Nations Bank. Tel: 800-222-7162.

STORING: See "Prelims".

1. Normally by truck. Possible by barge at anchorage.
2. Varies from terminal to terminal. Normally vessels can be stored during working hours. No specific port regulations.
3. In most cases truck can go alongside.
4. Yes. (Where apron size and capacity permits).
5. Customs regulations apply to bonded goods.
6. Yes.

SHIP SERVICES:

Launch Services:
Al Bembe. Tel: (410) 956-4146 (Annapolis Area).
Baltimore Launch and Marine Services, Inc. Tel: 633-6464.
Bay Taxi Service, Inc. Tel: 675-2900.
Standard Marine Supply & Service Co., Inc. Tel: 276-5756, Nights and Holidays 363-3122.
The Vane Brothers Inc. Tel: 631-7773.

Ship Services:
American Ship Service Co., Inc. Tel: 342-8810.
Arkay Steamship Corporation. Tel: 788-0073. TWX: 710-236-9013 (ARKAY SS BAL) Cable: "ARKAY" Baltimore.
Baltimore Ship Repair (Phillyship of Baltimore). Tel: (410) 355-7400. Fax: (410) 354-7410.
Bluementhal – Kahn Electric. Tel: (410) 363-1200. Fax: (410) 363-1215.
Chesapeake Shiprepair Co. Tel: (410) 255-9171. Fax: (410) 360-9175.
Davis Group Inc. Tel: (410) 625-2672. Fax: (410) 625-2677.
General Ship Repair Corp. Tel: (410) 752-7620. Fax: (410) 752-4650.
Key Marine Refrigeration Inc. Tel: (410) 563-2880.
Maryland Nautical Sales (Charts). Tel: 1-800-596-7245, (410) 752-4268. Fax: (410) 685-5068.
Multimarine Refrigeration. Tel: (410) 355-7012. Fax: (410) 354-5237.
Port Supervision, Inc., Rm. 801, 207 E. Redwood St., 21202. Tel: 539-5158. TWX: 87495.
Wartsila Diesel Inc. Tel: (410) 573-2100. Fax: (410) 573-2200.

Divers:
Baltimore Ship Repair. Tel: 355-7400.
Bob Croot. Tel: 1-923-2116.
Divers Den, Inc. Tel: 668-6866.
The General Ship Repair Corp. Tel: 752-7620.
Martin G. Imbach, Inc. Tel: 355-6121.
J & L Industries, Inc. Tel: 488-0800.
McLean Contracting Company. Tel: 553-6700.
Parks Diving Corp. Tel: 655-8744.
A-J Marine Contractors. Tel: 744-0803.
Accu-Dive. Tel: 276-4461.
Coastal Marine Services. Tel: 987-9870.
Maryland Diving Services. Tel: 298-4471.
Mid-Atlantic Diving Contractors. Tel: 461-1155.
Peregoy Marine Towing and Salvage. Tel: 269-6767.
Stearns Diving Co. Tel: 294-9414.

Ship Chandlers:
Columbia Marine Supply Co. Tel: (410) 539-3280. Fax: (410) 332-1356.
Magnus Aske Ship Supply Inc. Tel: (410) 342-1424. Fax: (410) 243-1650.
New Star Ship Supply Co. Inc. Tel: (410) 675-4321. Fax: (410) 675-5154.
R.S. Stern Inc. Tel: (410) 342-7676. Fax: (410) 243-1650.
Samuel Meisel & Co. Tel: (410) 787-1414. Fax: (410) 761-2422.
Vane Brothers Ship Chandlery. Tel: (410) 631-5167. Fax: (410) 631-7781.
Walter Spieker & Co. Tel: (410) 675-6703. Fax: (410) 243-1650.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I – 95 to be made up for each Crew member on arrival. Not necessary for crew man already holding Form I – 95, issued for the same vessel.

GARBAGE DISPOSAL: Skips provided alongside.

WASTE OIL DISPOSAL: By tanker trucks only.

SEAMAN'S CLUBS: *Seamen's Services and Organisations:*
American Ship Service Co., Inc. Tel: 342-8810. Fax: 342-8812 (Crew Transport).
Baltimore Baptist Port Ministry. Tel: (410) 488-3606.
Catholic Port Chaplaincy. Tel: 752-0205.
International Seamen's Center. Tel: (410) 282-7876. Fax: (410) 539-6861.
Greek Orthodox Cathedral of the Annunciation. Tel: 727-1831. Fax: (410) 727-7602.
International Visitors Center. Tel: 837-7150. Fax: (410) 837-7931.
Norwegian Seamen's Church-Mobile Service. Tel: 426-3177. Fax: (410) 319-9370.
Seafarer's International Union. Tel: 327-4900. Fax: (410) 528-2228.
Travelers Aid Society of Baltimore, Inc. Tel: 685-3569. Fax: (410) 332-1625.

DEVELOPMENTS: Brewerton Extension Channel to Baltimore is dredged to 35 ft. and widened to 450 ft., with portions to 600 ft.

SHIPMASTER'S REPORT: October 1991 (Updated 1994).

Charts: Delaware: B.A. Charts No. 2564 and 2603.

Chesapeake and Delaware Canal: B.A. Chart No. 2922.

Chesapeake: B.A. Charts No. 2919, 2920, 2921 and 2850.

Pilotage: If vessel is coming from the North it is best to take Delaware Pilot at Cape Henlopen and transit the Delaware River, and Chesapeake and Delaware Canal. This reduces the distance to the port by some 153 miles, as opposed to entering through Chesapeake Bay.

The Delaware Pilot embarks at Buoy No. 8 from a fast cutter which is stationed in the breakwater harbour.

Pilots have radar coverage which extends out to Five Fathoms Light Float. The Delaware Pilot takes the vessel to Chesapeake City in the Chesapeake and Delaware Canal. The Maryland Pilot takes over about 13 miles from the Delaware entrance.

The distance from Cape Henlopen to Locust Point berths at Baltimore is 106 miles.

From Baltimore to Cape Henry using Chesapeake Bay is 150 miles (or about 12 hours at 13 knots). For vessels with an expected transit time of more than 15 hours, 2 Pilots are required (Note: No extra pilotage fee). In this case, either 2 Pilots board or a single Pilot changes at Patuxent River which is 75 miles above Cape Henry. The pilot launch is stationed at Solomon's Island in the river mouth and the actual boarding position is Lat. 38° 20' N., Long. 76° 20' W.

Channel: The Delaware River allows transit for vessels drawing 40 ft. (FW) and transit for deep-draft vessels takes place on a rising tide.

Deep-draft vessels occasionally have to wait outside Cape Henlopen if there is a swell, to avoid "bottoming" off Cape Henlopen.

The Chesapeake and Delaware Canal is continuously being improved with bend straightening, and dredging in the Western part. The present maximum draft is 33 ft. 6 in. (1994) (FW), with Panamax vessels usually being the largest vessels to transit. At the present time traffic is reduced to 3 or 4 ocean-going vessels per day.

Transit from the Delaware River entrance (Dutch Neck) to Tolchester Channel takes about 5 hours at 10 knots (46 miles). The Canal is under the control of a Despatcher on the South bank opposite Chesapeake City. There are video cameras at intervals along the Canal and speed is strictly observed. The Canal is open throughout 24 hours each day of the year, except at times of fog and if the vessel is already in the Canal it proceeds at its own risk.

Chesapeake Bay has been dredged to 50 ft. from Baltimore to the sea at Cape Henry and the present maximum draft is 47 ft. but may be increased to 48 ft. in the near future.

Anchorages: Bigstone Beach Anchorage (B.A. Chart No. 2564) on the Delaware River can accommodate 12 large tankers with up to 55 ft. draft.

There are numerous anchorages in the upper reaches for smaller vessels.

Chesapeake and Delaware Canal has anchorages in the Western part.

Vessels have been known to anchor in the Canal itself if proceeding against the current.

Chesapeake Bay has numerous anchorage areas.

Berths: Baltimore is the largest latex port in the U.S.A. The berths are Locust Point No. 3 (Goodyear and Firestone), Locust Point No. 4 (Guthrie) and Locust Point No. 10 (Ennar Latex).

Locust Point No. 10: The berth is an old railroad dock which has been modernised and has a reported depth of 31 ft. at MLW, tidal range about 1 ft. Vessels can berth either side alongside. The berth is nearest to the city and is in the Northwest Harbour, about 1.5 miles from the Inner Harbour (See "Plan").

There are a lot of old pier piles near the berth so the berthing operation is to be conducted very carefully.

There is above ground latex tankage for about 300,000 U.S. gallons (10,500 tonnes). Shore pumps and lines used. Cargo is also discharged into rail cars.

Fresh water only available by barge. Brow gangway required. Storing is difficult as trucks are not allowed alongside. Asphalt also handled at this berth.

Locust Point No. 3: The berth is situated at the end of Pier No. 3 and is about 0.5 miles East of Berth No. 10.

Vessels berth starboard side alongside in order that they may leave the berth without tugs.

If weather conditions are favourable, Masters are requested to leave the berth without a pilot or tug in order to save expense (pilot not compulsory). The Bay pilot takes over once the vessel is in the Northwest Harbour. When we left the berth, the wind was very squally so we obtained a pilot and tug for departure.

The fenders on the quay were good. The berth is an old general cargo quay with 19 latex tanks above ground. Capacity of each tank is 30,000 U.S. gallons (1,000 tonnes).

Discharge is with shore pumps and lines, either direct into the tanks or to rail cars. The berth is very busy with product being continuously shipped out by road and rail tankers.

Depth alongside the berth reported to be 35 ft.

Brow gangway required. Stores truck can proceed alongside.

Fresh water is available from a shore hydrant through a meter at a reasonable rate. Ship's hoses and an international shore connection are required.

Fresh Water: There is a water barge with capacity 400 tonnes, early booking is recommended.

Fuel: Fuel is available by barge, or tank truck at Locust Point No. 3, but is reported to be expensive.

Health: Health inspectors may make lightning visits to the vessel and will impose fines for the slightest violations. One vessel was fined U.S.$300.00 when discarded fruit was found on the after deck.

Airport: Baltimore Washington International Airport is about 15 miles S.W. of Baltimore.

AUTHORITY: Maryland Port Administration, World Trade Center Baltimore, Baltimore, Maryland 21202-3041, U.S.A. *Tel:* (410) 385-4400. *Telex:* 710-234-1075. *FAX:* (410) 333-1126. *Cables:* Marport. *Contact* : Michael Angelos, Executive Director.

BANGOR (including Brewer and Orrington), Maine: 44.49 N. 68.47 W. **(See Pla**

LOCATION: Bangor is located on the West bank of the Penobscot R at the head of navigation. Brewer is on the East bank of the river oppo Bangor and Orrington is on the East bank of the river 2 miles be Brewer.

DOCUMENTS:

1 copy of Crew List.
1 copy of Passenger List.
2 copies of Stores Lists.
2 copies of Foreign Purchase Lists.
2 copies of Inward Foreign Manifest.
1 Form 1300 (Master's Oath on entry of vessel).
2 Forms 1374 Outward Foreign Manifest.

PILOTAGE: Pilotage is compulsory for all foreign vessels and vessels under register in the foreign trade, with a draft of 9 ft. or m entering or departing from any port or harbour within the water Penobscot Bay and Penobscot River North of a line drawn from Mars Point Livat Port Clyde, thence to Matinicus Rock Light, and thenc Western Head, Isle Au Haut. Pilotage is optional for vessels powe by sail.

Cable PENBAY via Chatham Radio. Ship's Agent usually notifies 48 hours and 24 hours before arrival at the Pilot Station. Pilot boat usu stands by on their radio 1 hour before ETA on RT 2182 kHz and Channel 16. Pilot boards at Monhegan Is., Lat. 43° 45 Long. 69° 22' 5" W. Pilot uses a white boat 36 ft. long and displays by day and the Pilot signals at night. Vessels awaiting Pilot in weather must heave-to outside.

ANCHORAGES: The usual anchorage for vessels waiting at the entrance for a towboat or favourable wind and tide is Northward of Point on the West side of the channel.

Vessels bound up the river anchor anywhere in the channel wh soft bottom is found. Vessels towing to Bangor, if the tide does not se often anchor off Winterport. On account of the strong ebb current, better for vessels going to Bangor, particularly large vessels, to an off Fort Point and start up the river about 3 hours after LW.

RESTRICTIONS: CHANNEL:– The controlling depth in the ma channel in Penobscot River from Bucksport to Bangor is 19 f Winterport, thence 13 ft. to Bangor. The channel is marked by buoy a point about 1.5 miles below South Brewer.

Caution: Deep-draft vessels should exercise caution above Fort P as depths of 31 ft. to 32 ft. are in mid-channel, about 0.5 miles East of Sandy Point, and rocky ledge, covered 34 ft., also in mid-chann reported about 0.2 miles S.W. of Odom Ledge Daybeacon.

The most difficult sections for vessels are off Lawrence and Coves just North of Bucksport where it is difficult to mark the best and off Frankfurt Flats where large vessels experience difficulty wi sharp turns.

The channel in Penobscot River is crooked and narrow in places frequent changes occur. Vessels should not attempt to carry greater than 10 ft. to Bangor at LW. With a deeper draft a Pilot or tow should be used; 14 ft. or 15 ft. is carried to Bangor and Brewer at and deeper drafts occasionally to the oil berth at South Brewer. safest time is on a rising tide. Navigation of the river at night is extre dangerous due to lack of lighted navigation aids. After unusually tides many logs, dangerous to small craft, are in the river. At tim maximum ebb currents, buoys are occasionally pulled under.

Tides: The mean range of tide varies from 10.3 ft. at Fort Point to 1 at Bangor. Currents of 3 knots are not unusual from Odom Led Orrington, and during Spring runoff currents approaching 5 knots be encountered. Because of these currents, larger vessels shoul caution navigating the river. Passage up the river is more adv during flood current.

Ice impedes but usually does not prevent navigation above Wint for nearly 5 months each year, beginning about December. D extreme Winters the river is closed to the mouth. The most difficul below Winterport is abreast Fort Knox, where ice jams occur. If ve can pass this point, they usually can go to Winterport. The river open by an icebreaker, which prevents much of the damage tha otherwise be caused by ice and freshets. However, in recent according to local information, there has been very little ice and th has seldom frozen over below Bangor. The brackish water form tidal action and the river current no doubt have contributed to th

Freshets occur in the river during March and April; at times th dangerous to vessels.

MAX. SIZE: At present ships of 560 ft. are taken up the river before HW during daylight. Size and draft of ship depend on the

HEALTH: See "Health: All Ports" before first U.S.A. port (Alban

AGRICULTURE: See "Agriculture" before first U.S.A. port (Alba

RADIO: Vessels arriving Bangor use radio station at Chatham, or call on the R/T through station WOU at Boston, Mass.

TUGS: 4 tugs available up to 1,200 h.p. Tugs join at Belfast in turning and berthing.

BERTHING:

Texaco Oil Co. Terminal: A timber pile, timber-decke approximately 5,250 sq.ft., used for berthing oil tankers. Th 8 storage tanks and 1 warehouse/office building with 1,920 sq.ft space.

Mobil Oil Co.: A timber crib pier approximately 8,500 sq.ft., berthing tankers. There are 10 storage tanks and a garage at this

Webber Terminal Inc.: A timber crib pier, approximately 2,340 sq for berthing tankers. Adjacent to this pier, there is another tim pier, approximately 5,280 sq.ft., also used for berthing tanke are 2 storage tanks and a storage building with 480 sq.ft. of flo

Astroline Petroleum Corp. of Maine: There is a log filled bulkh for berthing tankers. This facility includes 5 storage tanks an shed.

Bangor Municipal Dock: A new wooden and steel float with gangway, 1,500 sq.ft. located just below the Joshua Chamberlain Bridge, so 4×4 ton guest moorings are available for recreational use.

Webber Tanks Inc. – Brewer: A rock and timber crib, timber decked pier, approximately 7,200 sq.ft., used for berthing tankers. There are 5 storage tanks and a warehouse with approximately 3,850 sq.ft. of floor area.

C. H. Sprague – Brewer-Orrington: A timber pile wharf, approximately 1,600 sq.ft., used for berthing tankers. The wharf is in Orrington and fuel is pumped to 3 storage tanks located in Brewer. There is one building, a pump house, approximately 600 sq.ft.

Hampden Recreational Boating Facility: 2 launch ramps with ground float; landing dock; 2 guest moorings, 8 ft. MLW to ramps, 80 ft. wide channel.

Town Launch Ramp – Orrington. This is a paved launch ramp; no docking facilities. There is a 40-space (30 car – 10 trailer) gravel parking area.

BRIDGES: 1 suspension bridge below Bucksport with a height of 135 ft. at HW. Horizontal clearance is 750 ft.

The overhead power cable that crosses the river just above Bucksport has a clearance of 145 ft.

MEDICAL: No advance notice required. There are 3 large hospitals.

TANKERS: 1 berth for ocean-going vessels. 1×8 in. hose with a 10 in. line. 22 ft. at low water. Also see "Berthing".

DENSITY: Nearly fresh water.

FRESH WATER: Supplied at ocean-going berth at the rate of 50 t.p.h.

FUEL: Only available at oil berth.

CONSULS: None.

REPAIRS: Only machinery repairs.

CERTIFICATES:

Load Line.
Foreign Clearance.
Safety Certificate.
Radio Operator's Licence.

CUSTOMS ALLOWANCES: 200 cigarettes per man, 1 bottle wine/spirits per man.

REPATRIATION: Arrangements must be made ahead of time by telegram.

TIME: GMT minus 5 hours in the Winter and minus 4 hours from first Sunday in April till last Sunday in October in the Summer.

AIRPORT: Bangor International is 2 miles from the city.

POLICE/AMBULANCE/FIRE: Police 9427377; Ambulance 9893311; Fire 9422293.

TELEPHONES: None put aboard. 1 pay phone on ocean-going berth.

SHORE LEAVE: Allowed subject to Immigration approval.

IDENTIFICATION CARDS: Form I – 95 must be filled out upon arriving unless seaman has made one out before on a previous trip.

AUTHORITY: State of Maine, Department of Transportation, State House Station No. 16, Child Street, Augusta, Maine 04333, U.S.A. *Tel:* (207) 287-2841. *FAX:* (207) 287-8300. *Contact:* Robert D. Elder, Director.

BATON ROUGE, Louisiana: 30.28 N. 91.12 W.

(See Plan)

DOCUMENTS:

Original and 3 copies Crew Lists.
Original and 3 copies of Passenger Lists.
Clearance from last foreign port.
Original and 3 copies of Inward Manifest.
Derat Certificate.
Load Line Certificate.
Safety Certificate.
Ship's Register.
3 copies Curio List.

PILOTAGE: Advise Agents ETA sea-buoy 48 hours in advance. Agent then makes arrangements for Pilots. Seven 46 ft. pilot boats – red hulls white cabins, flying white and blue pilot flags. Suggest pilot ladder 6 ft. above water level, no life-line. Call on 2738 kHz or VHF Channel 9, 30 miles to 40 miles out. Safe anchorage within 2 miles South Pass or S.W. Pass entrance.

ANCHORAGES: Anchorages within the river are limited; therefore, whenever possible, vessels should utilise the large anchorage area located East of the entrance of Southwest Pass.

RESTRICTIONS: No night-time restriction for entry or clearance, docking or undocking.

Caution should be exercised when anchoring in the vicinity of pipelines.

MAX. SIZE: Federal Project Depth of 45 ft., from the entrance to the jetties to Head of the Passes and up to Mile 180, is obtained through continuous maintenance dredging.

Exxon Terminal: LOA 810 ft. (246.8 m.); Beam, no restriction; Displacement, 90,000 ton; Draft, normally 45 ft. alongside.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: ETA cables can be routed through Tropical Radio WNU New Orleans.

If destined for Exxon Terminal, send ETA messages to "Stanship Baton Rouge"; 72 hours, 48 hours and 24 hours in advance of arrival at Southwest Pass. Telex: 510-993-3575, Answerback: HOBRM. Also, contact Exxon Docks (KZA 891) on VHF Channel 16, 3 hours prior to berthing. Berthing instructions will be provided on Channels 9 or 18.

TUGS: Available at Baton Rouge for docking and undocking. Ship's lines used.

At Exxon, 2 tugs are required for all vessels in excess of 12,000 d.w.t., for docking and undocking.

BERTHING: No time restrictions on berthing. One general cargo dock with total 462,000 sq. ft. transit shed and 3,000 ft. long, 40 ft. – 60 ft. wide apron with double marginal tracks; grain elevator and bulk terminal at Burnside, for handling ores, concentrates, etc.; container marshalling yard adjacent cargo docks; also 20-acre paved staging area for project cargo.

CRANES: 4×150 ton crawler; 2×70 ton crawler; 1×250 ton crawler.

BULK HANDLING FACILITIES:

Grain: Cargill Grain Elevator: Max. draft 40 ft. Loading rate 1,000 t.p.h. Silo storage 160,000 tons.

Dry Bulk: Burnside Terminal: 2 unloading gantries for bauxite. Rate 2,000 t.p.h. Max. draft 40 ft. See "Burnside".

Molasses: Molasses terminal, leased to Westway, has an 11 million gallon capacity.

Midstream Transfer: The Port's midstream anchorage buoy facility is located in the Mississippi River just opposite its docks for the transfer of cargo between barges and ships. Primarily for the transfer of export coal, the operation is capable of handling import or export steel, salt, coke, unitised cargoes in slings and other bargeborne commodities by the use of floating cranes.

BRIDGES: Sufficient clearance for all stages of river at all times; 3 bridges cross at New Orleans, 1 at Baton Rouge, 1 at Gramercy, and 1 at Luling-Destrehan.

STEVEDORES: May be obtained by Agent with 4 hours' notice.

MEDICAL: Agents should receive 24 hours' notice when medical attention is required. 2 excellent hospitals at Baton Rouge, U.S. Public Health Hospital at New Orleans.

TANKERS: *Exxon Refinery Terminal:* 4 tanker berths available with 2,260 ft. of berthing space. Normally handles 3 tanker simultaneously. See "Max. size".

Exxon also have a gas dock on the West bank of the river opposite the tanker terminal.

Oil slop facilities available, but 48 hours advance notice required to be given to terminal.

Baton Rouge Port Authority: 4 berths; 914 m.; Apex Oil – heavy fuel oil; and Westway – Molasses.

Placid Oil Company: Crude and products, 330 m. berthing space.

Formosa Plastics: Caustic soda, ethylene dichloride, 240 m. berthing space.

Report:

Approaches – Cautionary Advice: Vessels make arrival at the S.W. Pass Sea Buoy located in position Lat. 28° 52.7' N., Long. 89° 26' W. Approach to the Sea Buoy should be made from the South to S.E. Vessels should remain in the fairways because of numerous structures in the approach area. Pilots board just South of the Sea Buoy. Precautions should be taken to remain to the East of the Sea Buoy, Buoy No. 1, and Buoy No. 3, when approaching the bar. At times strong cross-currents are encountered in the area of S.W. Pass Channel Entrance and precautions should be taken to prevent the vessel from being set onto shoal grounds on the West side of the channel. There is a large anchorage area to the East of the S.W. Pass Entrance Channel.

Exxon Refinery Terminal:

Docking: 1 tug is used for docking and 1 is used for undocking. On a very high river with a swift current 2 tugs should be used to turn the vessel when sailing, due to the close proximity of the Baton Rouge Highway Bridge as well as the limited turning basin. 2 tugs should also be used when the ship must be berthed between 2 other vessels. Vessels berth starboard side to. Vessels should not drop anchor due to numerous submerged pipelines.

A normal mooring configuration should be used with additional head lines in view of the river current.

Cautionary Advice: Channel traffic which is passing close by could cause ships to move away from the berths which could result in damage to the hard arms. It is essential that more than usual attention be given to maintaining the ship in position alongside. It is recommended that several crew members be specifically assigned to tend the mooring lines and winches.

Under no circumstances should mooring lines be slack.

Exxon U.S.A. Refinery Terminal: 232 miles AHP: The refinery dock, consisting of 5 berths, is a concrete and steel structure 50 ft. wide and running in a North – South direction along the river bank for about 2,750 ft. The berths are numbered 1 through to 5 from South to North. All products are transferred through hoses or 10 in. hydraulically operated steel loading arms. The loading arms for crude oil at No. 1 Berth, however, are 12 in. connections. Cargo hoses are handled by electric hoisting equipment. Vessels are moored to 50 ton quick release hooks located on the dock. Electric capstans are used for hauling the mooring lines to the mooring hooks.

The loading arms and hose connections are manifolded to permit washing into a slop line for change of grade.

All hose diameters are 4 in., 6 in. and 8 in. The 10 in. loading arms have 8 in. reducers.

Each berth has an office equipped with a telephone which is tied into a public address system. In addition, each berthman is equipped with a portable radio for communicating with the dock as well as all control centres. The emergency shut down system for the dock can be operated from each office.

The main control centre for the entire dock is equipped with telephones, a process radio, an FM and AM marine radio and the control station for the public address system. All loading line pressures are displayed on a panel. The public address system provides communication with each transfer location or berth office. The dock emergency shutdown system may also be operated from the control centre.

Cargo Handled and Shore Installations: Berth No. 1 handles nearly all products except lubes and some chemicals. It is also the primary berth for receiving crude oil.

Berth No. 2 handles specialties, chemicals, carbon black, asphalt and wax. Caustic soda is not handled at this berth.

Berth No. 3 handles clean products, lubes, chemicals, carbon black and dirty products.

Berth No. 4 handles clean and dirty products, chemicals and carbon black.

All berths can handle crude.

Pipelines range from 4 in. to 24 in.

Berthing: The River Pilot berths the vessel starboard side to.

Approach to Berth No. 1 should never be attempted from directly below the dock, due to a shoal area. This shoal area is known to the Pilots and must be given a wide berth. The Pilot should be consulted as to the exact location of the shoal area.

Vessels should approach dock at dead slow ahead and as parallel to it as possible.

All vessels over 30,000 d.w.t. must use 2 tugs for docking and undocking. Light vessels under 30,000 d.w.t. must dock and undock with at least 1 tug. A bow thruster does not substitute for a tug. A normal mooring configuration should be used with additional head lines due to the river current. Minimum mooring requirements are 4 bow lines, 2 breast lines, 2 forward springs, 2 after springs and 2 stern lines. Mixed moorings in the same direction are discouraged.

When the Baton Rouge River gauge is 30 ft. and above, vessels greater than 30,000 d.w.t. must use a minimum of 6 bow lines plus 2 breast lines. In addition, all vessels over 60,000 d.w.t. must be attended by a tug actively pushing on the bow until the vessel has discharged 75% of its cargo.

When the Baton Rouge gauge is above 40 ft. a tug is required during entire time vessel is alongside Berth No. 1, regardless of ship size.

In the event of an emergency, tugs are readily available within 15 minutes. Tugs can be contacted via VHF Channel 13.

Mooring: Mooring is provided through the use of fairleads and quick release hooks at all of the ship berths. These hooks are rated at 38 tons and 50 tons throughout the berths.

The refinery provides a line handling crew for each ship berthing/unberthing. The line handling crew is assisted by electric driven capstans. This service is provided at no extra charge to the vessel.

Normal mooring line sequence: Forward springs, head and forward breast lines, after springs and stern lines. It is the ship's responsibility to provide all mooring equipment.

Terminal monitors mooring throughout operations and provides each vessel with a standard mooring plan.

Terminal has no requirements to limit wind area of vessel; however, in the event of unexpected high winds, vessel may be required to ballast down.

Manifold Criteria: The vessel's manifold must not be allowed to get more than 42 ft. above or below the dock deck. When connected to a vessel, the end of the arm should be positioned between 13 ft. and 19 ft. from the edge of the vessel if the 12 in. loading arms are used; between 4 ft. and 10 ft. for the 8 in. arms. The vessel's flanges to which the arms are to be connected must be spaced at least 3 ft. 6 in. apart and be vertical and parallel to the vessel's side. The vessel's flange should be no more than 3 ft. from the last permanent support and it should be attached to that support.

Before a vessel arrives at the dock, vessel personnel are advised of the size of flanges needed for connection to the loading arms or hoses.

Dock Communications: The Baton Rouge dock is equipped with a positive ship-to-terminal radio communications system. On arrival, vessel will be provided with a radio for which a signed receipt is required. The radio must be monitored by the English-speaking person in charge at all times. The ship's personnel will be instructed in the proper use of these radios at the time of receipt. If these radios are not returned in good condition, a charge of $2,000 will be levied against the vessel.

Each berthman is equipped with a portable radio on the same frequency as the radio provided to the ship. This will be the primary means of communication.

The main control centre for the entire dock is equipped with telephones, a radio on the same frequency as the berthman and an AM/FM marine radio with Channels 9, 16, 18 and 22.

Bunkers and Fresh Water: Bunker C, diesel and fresh water are available.

Ballast Facilities: Ballast facilities are limited to 20,000 barrels.

DENSITY: No tide – fresh water at all times.

FRESH WATER: At public docks. At Exxon, water available for flat fee, presently $300. Ship's crew to make water connections.

FUEL: All grades subject inquiry. Barging essential.

No fuel available at Exxon.

FIRE PRECAUTIONS: Usual fire lines and sprinkler systems. Fireboat "Exxon Bayou State" on station.

Ship's fire plan should be available at gangway.

CONSULS: Norwegian only, all other consuls at New Orleans – 85 miles distant.

REPAIRS: All types of deck and engine repairs may be carried out.

At Exxon, no repairs allowed without permission from terminal. Vessels shall be able to get underway as soon as possible.

SURVEYORS: *Testing, Sampling, Weighing and Cargo Certification:*

Caleb Brett USA Inc., P.O.Box 46039, Baton Rouge 70895. Tel: 927-0020.

Chas. Martin, Inspectors of Petroleum, 2835 Plank Rd., Baton Rouge. Tel: 355-8833.

Pittsburgh Testing Lab., 2166 Monroe Ave., Baton Rouge. Tel: 355-2641.

Saybolt, E. W. Co., 10023 Mammoth Avenue, Baton Rouge. Tel: 925-1231.

Transport Management & Consulting, Inc., 4137 Sherwood Forest Blvd., Suite 110, Baton Rouge 70816. Tel: 293-3025.

USDA, FGIS, Port Allen. Tel: 389-0373.

USDA, FGIS Field Office, Lutcher. Tel: 536-2811.

Marine Surveyors:

McAnally Engineering Co., Box 66012, Baton Rouge 70809. Tel: 766-8992.

National Cargo Bureau, 7414 Perkins Rd., Suite 180, Baton Rouge. Tel: 769-6353.

GANGWAY/DECK WATCHMEN: Only if Master requires.

OPENING/CLOSING HATCHES: Depending on terms of char
usually by ship's crew.

CUSTOMS ALLOWANCES: Tobacco, each crew member allo
1 carton cigarettes. Master allowed reasonable quantity. Wine and
Spirit, each crew member allowed 1 bottle each of wine and spi
Master allowed reasonable quantity.

CARGO GEAR: Safety Certificate required for ship's gear.

REPATRIATION: Crew repatriation and crew changes may be mad

AIRPORT: 6 miles to Ryan Airport, served by regular airlines.

TIME: Local time is Central Standard Time – GMT minus 6 hours; fr
April through October local time is CS daylight saving time, GMT mi
5 hours.

POLICE/AMBULANCE/FIRE: Tel. Nos. Public Dock: Police 343 – 92
Ambulance 343 – 6691; Fire 343 – 6691.

TELEPHONES: No arrangements for placing telephones aboard.

SERVICES: Because of restricted river width inadvisable ad
compasses. This is usually accomplished below New Orleans wh
river of sufficient width to permit large vessels to swing. 3 firms engag
in tank cleaning, namely, Watson Marine, Robin Hood Fleeting and F
Allen Marine Cleaning Plant. Slop facilities available at the Exxon O
Refining Co. dock.

SHIP SUPPLY SERVICE: *Launch Service:*

Capital Marine Supply, Inc., Box 3018, Baton Rouge. Tel: 343-83

Tri-G Marine Supply, Inc., Box 3808, Baton Rouge. Tel: 344-766

SHORE LEAVE: Shore leave permitted except when detained abo
by U.S. Immigration.

IDENTIFICATION CARDS: Usual Passports.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. p
(Albany). Collection service available through Browning-Ferris Indust
(Tel: (504) 356-2478). Garbage disposal boxes and liners are availa
at $2.00 each. Disposal of each box is $49. 24 hours notice is requ
before providing this service, collection as required. The boxes ca
placed on board. The vessel's agent will make all the necess
arrangements with Browning-Ferris Industries.

WASTE OIL DISPOSAL: Waste oil will be received by Port Allen Ma
Services Inc., for disposal. 24 hours notification period is required.
barge will come alongside the vessel to receive the waste oil and
the capability to pump from the vessel. The cost of this service depe
on the mixture to be disposed of. The agent will make the necess
arrangements for this service.

SEAMAN'S CLUBS: A Seaman's Center is located on port property
a minibus is provided for transportation to and from the Center.
facility has indoor recreation such as table tennis and pool tab
Transportation is provided to the various locations within the area
shopping. International telephone service is available. The Seam
Center is a function of the Ministries to Internationals. Judson Ba
Association located in Baton Rouge. Tel: (504) 927-6500. Rev.
Hilburn is the Center's coordinator who will arrange for seam
activities at the Center.

CURRENCY: U.S.Dollar (U.S.$).

DELAYS: Normally no delays at Exxon Oil docks in berthing ex
when vessel's tanks unsuitable for loading. Normally no delay a
wharf.

Vessels loading Isopropanol Alchohol must have tanks appr
before berthing.

NOTICE: To all Masters from a Ship's Agent:

Please be advised that the Agent will need a copy of the Notic
Readiness and Dry Tank Certificate. The Agent will pick these
certificates up from the Master on sailing of vessel. These are nee
by the Agents to send out to the Owners and/or Charterers along
the other documents. We have been having problems receiving t
documents from the terminal and/or Cargo Surveyor. The termina
require, on the vessel's arrival at the berth, one copy of the Bill of La
and/or Customs Manifest. It would be appreciated if you could mak
additional copy of these documents when they are prepared by
vessel.

GENERAL: Tankers in ballast advised of drift wood conditions in
and ballast their vessels accordingly so as to avoid propeller dam

AUTHORITY: Port of Greater Baton Rouge, P.O.Box 380, Port
Louisiana 70767-0380, U.S.A. *Tel:* (504) 342-1660. *FAX*
342-1666. *Contact:* Gary C. Pruitt, Executive Director. Wesley
Director of Trade Development. Richard Savoy, Director of Ter
operations.

BAYTOWN, Texas: 29.44 N. 95.01 W. **(See**

DOCUMENTS, PILOTAGE, etc.: Refer to "Houston".

HEALTH: See "Health: All Ports" before first U.S.A. port (Alban

AGRICULTURE: See "Agriculture" before first U.S.A. port (Alba

RADIO/VHF: Exxon Dock "KNQ-Baytown" on VHF Channel 19

TUGS: Required. Tel: 713-928-5406.

BERTHING: All berths at Baytown 40 ft. (Fresh water). Agent
verify safe arrival/departure draft with Exxon Docks prior vessel

STEVEDORES: Available. Call L. S. Mitchell Co. Tel: 713-4264

MEDICAL: All medical assistance available.

TANKERS: *Caution:* Channel traffic which is passing close b
cause ships to move away from the berths which could result in
to the hard arms. It is essential that more than usual attention b
to maintaining the ship in position alongside. It is recommend
several crew members be specifically assigned to tend the moo
and winches.

Under no circumstances should mooring lines be slack.

The terminal prefers the use of self-stowing winches with
wires.

Berthing: Tugs of up to 4,000 h.p. and bollard pull of up to 60 tons are available. Tugs use the "alongside" method. Tugs normally use a head line and quarter line; however, larger tugs will usually use 2 head lines.

By pre-planning discussions with the Pilot, Masters are to assure themselves that a sufficient number of tugs, each with sufficient horsepower, are ordered well in advance by the Pilot.

Depending on the size and draft of the vessel, 2 – 4 tugs will meet the vessel in the vicinity of the tunnel about 1 mile below Baytown and escort the vessel into the turning area. Vessels scheduled to Berth No. 1 will moor starboard side to, bow up stream. Vessels at Berth No. 2 will be turned about and moor port side to. Vessels scheduled to Berths No. 3, 4, 5 or 6 will be turned and backed into the berth, bow out. There are virtually no exceptions to these mooring rules. Winch mounted wires are preferred, however, mooring ropes are acceptable. Additional lines will be required for vessels not equipped with all wire moorings. Vessels are passed close to by ships transitting the Ship Channel, therefore, all moorings must be well-tended and tight.

Tidal height is monitored by the Baytown Dock Co-ordinator. This information may be obtained prior to berthing by calling KNQ Exxon on VHF Channel 19.

This information is particularly important when turning ship and backing into Berth No. 5.

Exxon Berth No. 1: Vessels assigned to this berth must dock starboard side to, bow upstream.

Products handled at this berth include gasolines, distillates, lube oils, and various petro-chemicals. All products are handled through 4 in., 6 in. or 8 in. hoses. All hose connections are bolted-type connections. Maximum pressure that all products are pumped at is 100 p.s.i. Ballast and slops are handled at this terminal. Maximum pumping pressure for ballast and slops is 100 p.s.i.

Exxon Berth No. 2: Bow to manifold should not exceed 320 ft. and stern to manifold is limited to 400 ft. due to berth overhang and interface with Berth No. 3.

Vessels assigned to this berth must dock port side to, bow downstream.

Products handled at this berth include gasolines, distillates, lube oils, and various petro-chemicals. All products are handled through 6 in. or 8 in. hoses. All hose connections are bolted-type connections. Maximum pressure that all products are pumped at is 100 p.s.i. Ballast and slops are handled at this terminal. Maximum pumping pressure for ballast and slops is 100 p.s.i.

Exxon Berths No. 3 and 4: Berth No. 3 has a beam restriction of 106 ft. and Berths No. 3 and 4 have a restriction of maximum displacement of 50,000 tons.

Vessels assigned to these berths are backed alongside the berth and then pushed by tugs against the dock. Extreme care should be taken not to approach the berth at too great an angle, and every effort should be made to manoeuvre into position prior to making contact with the breasting works. 2 or more tugs are required depending on vessel size and weather conditions.

Vessels always manoeuvre stern first into the slip utilising the turning area adjacent to the docks. Vessels are moored starboard side to Berth No. 3 and port side to Berth No. 4.

Winch mounted wires are preferred, but ropes are acceptable. Usually the spring lines are taken first followed by the stern then bow moorings.

Berthing of vessels at Berth No. 4 is predicated by the presence of a ship or tows at adjacent Berth No. 5. Terminal regulations are based upon the sum of the beam of vessels in adjacent berths to allow sufficient room for manoeuvring.

Products handled at Berth Nos. 3 and 4 include motor fuels, aviation fuel, distillates, solvents, petro-chemicals and bunkers. All products are transferred through 6 in., 8 in. and 10 in. hoses, and 12 in. arms. Maximum pumping pressure for all products is 100 p.s.i. Ballast and slops are handled at both berths.

Exxon Berths No. 5 and 6: Vessels always manoeuvre stern first into the berth, utilising the turning area adjacement to the berth. 3 or 4 tugs are usually used to assist the vessel, depending on vessel size and weather conditions. Vessels are moored starboard side to Berth No. 5 and port side to Berth No. 6. Products handled include crude oil, process gas oil and fuel oil. Products are transfered through 8 in. and 12 in. hoses. Max. pumping pressure for all products is 125 p.s.i.

Docking: There is a large round mooring dolphin at the head of the finger-pier forming Berth Nos. 5 and 6 where loaded 80,000 – 90,000 d.w.t. vessels normally berth.

Although this dolphin has a fender system its sole purpose is to provide mooring points. It is not suitable to land on nor can it be used as a turning dolphin. On several occasions ships have come into contact with this structure resulting in both hull damage and damage to structure itself.

To prevent recurrence of such incidents it is necessary that the Master:

1. Before the berth approach is made reviews with the Pilot the intended docking manoeuvres which provide the widest possible berth to the mooring dolphin.
2. Monitors the docking manoeuvre carefully and plans corrective action in a timely fashion so that ship's contact with the dolphin will be prevented.

Tug Assistance: 3 tugs of minimum 3,000 h.p. each are to be used for loaded 80,000 + d.w.t. vessels. The tugs making fast on the outward side – not facing the berth – should use 2 headlines and a quarterline.

The Master should include these tug requirements in his first ETA message to the port Agent and ask for confirmation that such arrangements have been made.

Tidal Information: Having knowledge of tidal conditions in the Baytown area is of particular importance with regard to the docking manoeuvre.

Information on the velocity and direction of the current should be obtained from the Pilot.

Water level information should be obtained from the Baytown Dock Co-ordinator by VHF radio.

DENSITY: Mainly fresh.
FRESH WATER: Available ex-wharf.
FUEL: No bunkering by barge.
REPAIRS: Should be cleared with terminal before vessel arrives at dock.
GANGWAY/DECK WATCHMEN: Required only if crew detained by Immigration.
CUSTOMS ALLOWANCES: Each man 300 cigarettes or 100 cigars or 1 lb. tobacco; 1 quart wine/spirits.
STORING: Only permitted in an emergency.
SHORE LEAVE: No restrictions. Terminal bus transports crew from dock to refinery entrance.
GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany). Service available. Contact BFI - Tel: 635-6225.
WASTE OIL DISPOSAL: Ballast system can only handle clean ballast.
SEAMAN'S CLUBS: None.
AUTHORITY: Port of Houston Authority.
Operator: Exxon Company, U.S.A., P.O.Box 3950, Baytown, Texas 77520, U.S.A. *Tel:* (713) 425-4452, 425-4453. *FAX:* (713) 425-3539. *Contact:* Dock Co-ordinator.
Secondary Contact: Sea River Shipping Company, P.O.Box 3251, Baytown, Texas 77520, U.S.A. *Tel:* 713-427-7370. *Contact:* Department Head.

BEAUMONT, Texas: 30.05 N. 94.05 W. (See Plan)

LOCATION: On Neches River, above Sabine Lake.
DOCUMENTS, PILOTAGE, RADIO, etc., Refer to "Port Arthur".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Meet vessel in Neches River before arriving at berth. Normally 2 tugs used for docking, 1 for undocking.
BERTHING:

Wharf	*Length* (ft.)	*Depth* (ft.)	*Remarks*
1	580	30	
2, 3 and 4	1,373	38	Ro-Ro Ramp
5, 6 and 7	1,483	36	
Harbour Island Marine Terminal	1,200	40	Ro-Ro Ramp
Carroll St. Wharf	1,165	40	
Grain Wharf	543	40	3.5 million bushel grain elevator Loading Rate: 1,875 t.p.h. (grain); 1,100 t.p.h. (soya).

CARGO HANDLING FACILITIES: For container ships, conventional break-bulk ships, heavy lift ships or side-loading Ro-Ro ships, the Harbour Island Marine Terminal – 1,200 linear ft. berthing space; 150,000 sq.ft. transit shed; 93 ft. wide apron facing transit shed; 18 acres heavy duty hard stand adjacent to wharf; twin marginal rail tracks for full length of wharf; 220 ton capacity truck-mounted mobile crane for containers and heavy lifts; 40 ton forklift machine with, expandable spreaders for container handling and 3-high container stacking or, blades for heavy cargo; 780 ft. undercover working track for all-weather rail car unloading inside transit shed; 40 linear ft. of truck height unloading platform along rear of open wharf; 20 ft. high × 18 ft. wide shed doors for high wide loads and entry for all-weather truck unloading or container stuffing; 40 ft. of water alongside; 1,200 lb. per sq. ft. deck load capacity.

Carroll Street Wharf extension, recently constructed, provides an additional 700 linear ft. of open dock and berthing area. This facility also provides an additional 600 linear ft. of barge docking area and 40 linear ft. of truck height unloading platform on open dock.

For stern loading Ro-Ro vessels, wharves 2 and 3 – 758 ft. in length with 75 ft. wide Ro-Ro platform at one end of the wharf. Ro-Ro platform deck elevation +15.89 ft. above mean low Gulf. (12 ft. 7 in. above average tide) 36 ft. of water alongside wharf; convenient roadway access to Ro-Ro platform from 15 acre storage area adjacent to the wharf; double marginal rail tracks for full length of wharf; 60 ton capacity gantry crane travels 700 ft. along face of wharf; 120,000 sq. ft. open wharf space; wharves 2 and 3 may also be used as an alternate to Harbour Island Wharf for containers, conventional break bulk, heavy lift or side loading Ro-Ro vessels. Covered wharf 4 is adjacent, extending total wharf length to 1,300 ft. and offering 57,000 sq. ft. covered area.

For security of cargo, all Port of Beaumont wharves are entirely within a chain link, barbed wire topped security fence, and all vehicular access is through the port's main gate, guarded 24 hours a day. The port is an approved outport of the Military Traffic Management Command, Eastern Areas, U.S. Army, is heavily used for shipments of military material, equipment and supplies, and is subjected to regular security inspections by Army personnel who have given the port high ratings.

For security of small, high value items that are considered especially subject to possible pilferage, the port will permit fencing and shelving of a limited designated security area within a transit shed.

For heavy lift requirements beyond the capacity of the 60 ton gantry (at Wharf No. 2 & 3) or the 220 ton mobile crane (at Harbour Island Marine Terminal), a 500 ton capacity derrick barge is available.

STEVEDORES: *Public Wharves:* Normal working hours 0800/1200 and 1300/1700 Monday to Friday.
MEDICAL: All facilities available.
TANKERS: *Amoco:* Terminal is located on the Neches River Channel 44 miles from the sea buoy. The controlling depth for the channel and turning basin is 40 ft. while the controlling depth for the North and South berth is 35 ft. The water is fresh (density 1000). The maximum size vessel normally received at the terminal is approximately 28,000 d.w.t. The limited strength of the docks combined with passing traffic should be noted. Vessels dock and undock day and night. A minimum of 2 tugs are used to dock and undock vessels. Pilings are not to be used as

turning points. Vessels in ballast are turned prior to berthing starboard side to. Loaded vessels are berthed port side to and turned after discharge. Judicious use of tugs during turning manoeuvres is essential as vessels have a tendency to "overshoot" the pier when turning. Several mooring dolphins have been knocked out of position. Short wire springs are accepted. All other lines must be rope due to the weak pile clusters. Docks do not have winches nor do they supply a gangway.

Fuel and water are not available.

The terminal is fenced and guarded.

Pollution Control: Consists of 2,000 ft. of spill booms and a launch. Amoco is a member of Neches River Oil Control Committee.

Fire Protection includes a foam system with a tank on the dock. Water monitors and hoses are kept in readiness.

Mobil: Terminal is located on the Neches River Channel 56 miles from the sea buoy. The controlling depth for the channel and turning basin is 40 ft. The water at the terminal is brackish. The maximum size vessel normally received at the terminal is 50,000 d.w.t. Depth alongside 36 ft. The berths are subject to passing traffic and Master's are advised to keep mooring lines tight. No repair work may be done while transferring cargo at this port.

While berthing, a minimum of 2 tugs are used. 1 tug is needed when unberthing. 3 hours advance notice is required when ordering tugs.

Vessels normally proceed to the berth directly from the channel, prior communications establish whether ship will berth head-up or head-down the channel depending upon the LOA and hose connections. Ships can berth starboard side to; however, port is preferred. A normal complement of mooring lines is used. Wire lines are accepted with nylon pendants recommended. A mooring contractor is employed. The vertical range of hoses is 40 ft., 50 ft., if vessel uses its own derrick.

Fuel and fresh water are available at the Mobil Terminal.

The terminal is fenced and guarded.

Pollution Control consists of 1,500 ft. of spill boom and a launch. Terminal has vacuum trucks.

Fire protection is provided by a terminal fire brigade. Monitors are situated on the shore, foam and water along with dry chemical are located on the dock. Fire hose is on reels, water is under pressure and spray nozzles are located under the wharf.

Also see "Smith's Bluff".

DENSITY: Fresh water.

FRESH WATER: Available at berths, or by barge.

FUEL: Available ex-wharf at Mobil Terminal. All grades available by barge to other locations.

CONSULS: Nearest at Houston.

REPAIRS/DRY DOCKS: Beaumont's Trinity Shipyard offers all types ship repair or reconditioning – plus vessel conversion and jumboizing. 2 side-launching ways over 800 ft. each. Floating dry dock with extreme length of 648 ft.; length on bottom 576 ft.; breadth at entrance, 87 ft.; and lifting capacity 17,500 tons. Active in design and construction of mobile drilling platforms and oil and gas production and storage facilities for service offshore.

GANGWAY/DECK WATCHMEN: Not required unless crewmen detained by Immigration.

CUSTOMS ALLOWANCES: 300 cigarettes and 1 quart wine/spirits for each man.

HOLIDAYS: Longshore holidays are: New Year's Day: Martin Luther King's Birthday (January 15th); Lincoln's Birthday (February 12th); Washington's Birthday; Texas Independence Day (March 3rd); St. Patrick's Day (March 17th); Good Friday; Memorial Day (last Monday in May); Emancipation Day (June 20th); Fourth of July; Labour Day; Columbus Day; Veteran's Day (November 11th); Thanksgiving Day; Christmas Day.

IDENTIFICATION CARDS: Foreign crew require only Immigration landing permit.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany). Service provided by Browning-Ferries Ind. Waste Systems, 100 Ginger St. & Hwy. 69, P.O.Box 1056, Nederland. Telex: 77627. Services provided: Shoreside and ship generated garbage collection alongside as required. Collection service provided. Reference: MARPOL Annex V. No monies involved.

WASTE OIL DISPOSAL: Service available from Carotex Inc., 110 Yacht Club Rd., P.O.Box 3901, Port Arthur, Texas 77642. Services provided: Provide for the receipt of oily waste from ships at the Port of Beaumont in accordance with MARPOL 73/78 (33CFR 154-156) Annex V.

SEAMAN'S CLUBS: Beaumont International Seamen's Center, Port of Beaumont, Harbor Island Terminal, Beaumont, Texas. Tel: (409) 833-8931. Services available: International telephone services, minibus transportation, postage service, games available, library books, give-away bibles all languages, snacks available free of charge.

CURRENCY: U.S.Dollar (U.S.$).

AUTHORITY: Port of Beaumont, P.O.Drawer 2297, 1255 Main Street, Beaumont, Texas 77704, U.S.A. *Tel:* 409-835-5367. *FAX:* 409-835-0512. *Contact:* Billy G. Masters, Port Director.

BELLINGHAM, (Including Cherry Point), Washington: 48.45 N. 122.31 W. (See Plan)

DOCUMENTS: Refer to "Tacoma".

PILOTAGE: Compulsory.

ANCHORAGE: Deep water available, but poor holding ground.

RESTRICTIONS: Channel depth 32 ft.

HEALTH: See "Health: All Ports" before first U.S.A. Port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available, join vessel in Bellingham Bay.

BERTHING: Whatcom International Shipping Terminal, Berths No 2, length 1,360 ft., depth alongside 31 ft. MLLW. Berth No. 3, le 400 ft., depth alongside 25 ft. MLLW. Georgia Pacific Dock, Be length 600 ft., depth alongside 28 ft. MLLW. Ro-Ro facilities ava within the port.

STEVEDORES: 8 local gangs. Additional gangs imported if requ

MEDICAL: All medical facilities available. 2 local hospitals.

TANKERS: Cherry Point: 48° 52' N., 122° 30' W. 3 oil jetties.

Arco Jetty: Depth 70 ft.

Intalco Jetty: Depth 37.5 ft.

Tosco Jetty: Depth 43 ft.

Deadweight limit in Puget Sound is 125,000 tons.

DENSITY: Salt water.

FRESH WATER: Available at all wharves.

FUEL: Available. Barge delivery only.

REPAIRS/DRY DOCKS: *Fairhaven Terminal:* Home to Mar Contractors, Inc., large vessels repair and the Port's 2,800 ton cap floating dry dock, which can accommodate vessels up to 166 m. le and 18 m. beam. 1×50 ton floating crane.

Fairhaven is the Southern Terminus of the Alaska Marine Hig System at Bellingham Cruise Terminal (BCT). A Ro-Ro ramp is ava for cargo at BCT.

GANGWAY/DECK WATCHMEN: Required only if detainees abo

CUSTOMS ALLOWANCES: No definite quantities presc reasonable allowance at discretion of Customs Inspector.

AIRPORT: 3 miles from the city.

HOLIDAYS: See "Tacoma".

TELEPHONES: Available.

GARBAGE DISPOSAL: Ship's Agent makes arrangements.

WASTE OIL DISPOSAL: See above.

SEAMAN'S CLUBS: None.

AUTHORITY: Port of Bellingham, 625 Cornwall Avenue, Belling Washington 98227-1737. *Tel:* (360) 676-2500. *FAX:* (360) 671- 738-0282. *Contact:* Jim Darling, Executive Director.

BENICIA, California: 38.03 N. 122.10 W. (See

DOCUMENTS: Health and all General Information: Refer to Francisco".

PILOTAGE: Port located about 25 miles above Golden Gate B River Pilot joins at San Francisco, using VHF for traffic inform Passage includes passing under 2 bridges, Carquinez Strait B having the least clearance, with 146 ft. (HW) and 151 ft. (LW) North Channel). River passage is timed to arrive at Benicia at th of ebb tide; this is approximately 2.5 hours after HW at Fort Point (G Gate).

ANCHORAGE: At San Francisco.

RESTRICTIONS: Tankers must lighten to 36 ft. fresh water draf is done at No. 7 Anchorage, 1.5 miles East of Alcatraz Island. This will later be pumped back to the tanker as barges cannot ove shore back pressure. Turning basin off the berths, radius 1,800 f

HEALTH: See "Health: All Ports" before first U.S.A. port (Alban

AGRICULTURE: See "Agriculture" before first U.S.A. port (Alba

TUGS: 1 small tug assists berthing. Only 1 normally requir unberthing.

BERTHING: Continuous wharf 2,404 ft. long with berth for 3 ve The West berth is used for the loading of petroleum products, a centre and East berths are equipped for handling general an cargoes. East of this facility is another berth that will accommod tanker for discharge of crude oil (Exxon), depth alongside – 38

MOORINGS: 2 head wires, 4 breasts and 2 springs forward. necessary because of current off the bank during ebb tide. 2 ster 2 breast lines and 2 springs aft.

BULK HANDLING FACILITIES: Waterside silos' capacity 26,0 with loading conveyor belt capacity 1,000 t.p.h.

TANKERS: Crude oil discharge through 2×12 in. Chicksan arm 36 in. shoreline, 2.5 miles long. Shore tanks are situated 164 ft sea level, initial back pressure 65/70 p.s.i.

FRESH WATER: Available from shore lines.

FUEL: Can only be delivered by barge. Averate rate 300 t.p.h.

DEVELOPMENTS: Current plans call for development of a co container terminal.

AUTHORITY: Benicia Port Terminal Company, P.O.Box 315, California 94510, U.S.A. *Tel:* (707) 745-2394. *FAX:* (707) 74 *Contact:* J.A. Gaidsick, Vice-President.

BOCA GRANDE, Florida: 26.43 N. 82.15 W. (See

LOCATION: On the Eastern side of the Southern end of G Island, about 60 miles South of Tampa Bay.

DOCUMENTS: See "Tampa".

Government Officials must travel from Tampa to Boca G vessel's expense.

APPROACHES: The oil tanks are clearly indicated on the approximately 25 miles distance.

PILOTAGE: Compulsory for all foreign-going merchant vess Pilot boards vessel near the sea buoy. Pilotage available 24 day.

Request should be made to ship's Agents via Tampa Marine VHF Channels 16, 12 and 13.

ANCHORAGES: Good holding ground near the sea buoy (Lat. 26° 39.8' N., Long. 82° 19.6' W.)

RESTRICTIONS: The channel is less than 300 ft. wide in some places. Project depth 32 ft. at MLW. The traffic is one way and vessels enter only when the stream is half strength or less. Strong Westerly winds may cause a swell which prevents vessels using the channel.

MAX. SIZE: Beam: 80 ft. with 24 ft. max. distance from outside ship's hull to inside hatch coaming.

Draft: 28 ft. recommended by Pilots. The channel is 30 ft. deep at MLW.

Length: 700 ft. should be a maximum.

HEALTH: Same procedure as for any other U.S. port.

A U.S. Public Health physician is located on the island.

RADIO: Tampa Radio – WPD.

VHF: Pilots on VHF Channels 16, 12 and 13. U.S. Coast Guard on Channel 16.

TUGS: A small tug for light towing operations is available.

BERTHING: An oil handling berth with 28 ft. depth is located close Southward of the phosphate pier.

TIDES: Approximately 2 ft. variation.

TANKERS: *Oil Terminal:* Depth 28 ft.

Vessels enter and berth only when currrent is at half strength or less. The strength of the current has been reported to reach 4 knots. The current generally flows in 030°–210° direction, although the flood tide varies in direction. The pier face lies in a 060°–240° direction. A vessel uses an anchor to swing around and then to hold its head up into the current while mooring lines are run out to mooring buoys and the breasting cells. 2 mooring buoys forward for headlines and 2 mooring buoys aft for stern lines are used. A total of 14 mooring lines are required to safely tie up. Wires are permitted as spring lines only. Lines must be carefully tended and maintained in a tight condition with vessel snug alongside at all times.

Also see "Berthing".

DENSITY: Salt water.

FRESH WATER: Available.

FUEL: No local facilities. Prior arrangements with ample notice must be made via the ship's Agent at Tampa.

CONSULS: See "Tampa".

REPAIRS: No local facilities. To be arranged via Agents with ample notice.

SURVEYORS: The nearest Lloyds' office is at Jacksonville. American Bureau available from Tampa.

STORES AND PROVISIONS: No facilities available for normal ship chandlering. Prior arrangements should be made via Tampa.

GENERAL: All agents are based at Tampa, about 100 miles by road.

AUTHORITY: Robert W. Johnson, Harbour Master. P.O.Box 274, Boca Grande, Fl. 33921. *Tel:* (813) 964-2348. *FAX:* (813) 964-2245.

BOSTON, Massachusetts: 42.21 N. 71.05 W. (See Plan)

DOCUMENTS:

- 3 copies Cargo Manifest (Form 1302), 2 copies showing all cargo on board, and 1 copy showing only cargo for this port.
- 3 copies Crew Manifest (Form 1304).
- 3 copies Stores List (Form 1303).
- 3 copies Passenger List (Form I-418).
- 3 copies Crew List (Form I-418).

Customs Boarding Officer will also examine Ship's Register, Safety Equipment Certificate and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States Port:

- General Declaration (Form 1301).
- Health Pratique.
- Master's Oath (Customs Form 1300).
- All foreign clearances.
- Certificate of Financial Responsibility (Oil Pollution).
- U.S. Certificates of payment of tonnage tax (Customs Form 1002).
- Certified Crew List.

PILOTAGE: Pilotage is compulsory for all foreign vessels, with few exceptions, and for United States vessels under register in foreign trade. It is optional for coastwise vessels which have on board a Pilot licensed by the Federal United States government for these waters.

Pilot boats meet vessels within sight of Boston Lighted Horn Buoy B. During Winter, with a Northwesterly wind, pilot boats may meet vessels to the Northwestward of Boston Approach Light Buoy BG. Pilot boats often land or pick up Pilots at the town wharf at Nahant Harbour.

Both the 70 ft. (21.3 m.) "Boston Pilot" and the 52 ft. (15.8 m.) "Thomas Knox" have black hulls with the word "Pilot" in black letters on either side of the white superstructure. Both are equipped with radar and maintain a 24 hour radio watch on VHF Channel 16 and a 0700 to 1800 hrs. watch on VHF Channel 11.

Vessels are asked to give a 4 hour advance notice of their time of arrival. Pilots for Weymouth, Quincy, Lynn and Saugus are obtained from the Boston pilot boat. Pilots can be notified by radio, telegraph or by radiotelephone through the Boston Marine Operator.

Boston Pilots: Pier 1, Bremen Street, East Boston, MA. 02128. Tel: (617) 569-4500. Cable: BOSPILOT.

ANCHORAGES:

ANCHORAGE No. 1. *Upper Harbour Anchorage:* Steam and motor vessels permitted to anchor in this basin anchor within the following area: S.E. of a line bearing 205° True from N.E. corner of Boston and Albany Pier No. 5, East Boston; N.E. of a line bearing 122° True from S.E. corner of Lewis Wharf, North Pier; S.W. of a line bearing 292° True from N.E. corner of Southernmost Airport Approach Pier; N.W. of a line bearing 025° True from Buoy No. 12, Fl.R.6 sec.

ANCHORAGE No. 2. *President Roads Anchorage* (40 ft. anchorage): All vessels anchoring in this basin anchor within an area beginning at a point bearing 237°, 522 yards from Deer Island Light; thence to a point bearing 254°, 2,280 yards from Deer Island Light; thence to a point bearing 261°, 2,290 yards from Deer Island Light; thence to a point bearing 279°, 2,438 yards from Deer Island Light; thence to a point bearing 319°, 933 yards from Deer Island Light; thence to a point bearing 319°, 666 yards from Deer Island Light; and thence to point of beginning. *President Roads Anchorage* (35 ft. anchorage): All vessels anchoring in this basin anchor within an area beginning at a point bearing 256°, 2,603 yards from Deer Island Light; thence to a point bearing 258°, 3,315 yards from Deer Island Light; thence to a point bearing 264°, 3,967 yards from Deer Island Light; thence to a point bearing 261°, 2,290 yards from Deer Island Light; and thence to point of beginning.

ANCHORAGE No. 3. *Nantasket Roads Anchorage:* Vessels anchoring in this anchorage basin anchor within following area: Westerly of a line bearing 143° from wharf at Gallups Island to Bell Buoy No. 2, S.W. of Georges Island; Northerly of a line bearing 260° from Bell Buoy No. 2, Georges Island, to the Northerly end of Rainsford Island; Northerly of a line bearing 273° from the Northerly end of Rainsford Island to Bass Point, Long Island; Southerly of a line bearing 270° from the wharf at Gallups Island to Long Island.

ANCHORAGE No. 5. *Peddocks Island and Explosive Anchorage:* Vessels anchoring in this anchorage basin anchor within following area; S.W. of a line bearing 122° True from the Easterly end of Rainsford Island to the N.E. end of Rainsford Island to the N.E. end of Peddocks Island, N.E. of a line bearing 165° True from the Westerly end of Rainsford Island to the S.E. end of Peddocks Island.

RESTRICTIONS: There are 3 main entrance channels from sea to President Roads.

Broad Sound North Channel from Broad Sound to President Roads from N.E. Dredged 35 ft. deep and 1,500 ft. wide and is deepened to 40 ft. in a width of 900 ft. to 1,100 ft. It is well marked by lighted buoys.

Broad Sound South Channel from Broad Sound S.W. and Westerly to President Roads. Dredged 30 ft. deep and 1,200 ft. wide. This channel is well marked by buoys and ranges but most aids to navigation are not lighted.

The Narrows is channel leading into Boston Harbour from S.E. between Boston Lighthouse and Lovells Island on the N.E. and Point Allerton, Georges Island and Gallups Island on S.W. Depth is 27 ft. Width is generally 1,000 ft. except in a section between Narrows Light and Georges Island where shoaling on N.E side limits it to 700 ft. Channel is well marked.

The Main Ship Channel of Boston Harbour extends from President Roads to the mouths of the Chelsea and Mystic Rivers and to Charlestown Bridge on the Charles River. Channel has been dredged 35 ft. deep and 1,200 ft. wide to the inner end where widths decrease near the river mouths. It has been deepened to 40 ft. for 600 ft. width from President Roads to the mouth of the Mystic River, with a widening to 1,200 ft. at the bend just Northerly of Commonwealth Pier No. 5, South Boston.

Charles River is approach by water to Cambridge and Watertown. About 0.5 mile above the lower bridge there is a dam with a lock 45 ft. by 350 ft. with depth of 17 ft. over the lower sill. Depths above dam decrease gradually to 9 ft., basin level, at head of navigation.

Mystic River is approach by water to Everett, Malden and Medford. Controlling depths are 35 ft., from Mystic River bridge to approximately 1 mile above, thence 20 ft. from the 35 ft. channel to 800 ft. above the Malden Bridge to a point abreast Monsanto Chemical Company plant.

Chelsea River is approach to City of Revere. Channel from entrance to a point opposite the Belcher Oil Co. Terminal has a controlling depth of 35 ft.

Weymouth Fore River is approach by water to Quincy and Weymouth. Controlling depth is 30 ft. to Fore River Bridge. Controlling depth for a distance of 2,800 ft. above Fore River Bridge is 30 ft.

Town River extends N.W. from Weymouth Fore River at Quincy Point. River has a controlling depth of 34 ft. from deep water in Weymouth Fore River to a point opposite the Quincy Oil Co. Terminal. Opposite Quincy Oil Co. Terminal there is a turning basin 34 ft. deep, 400 ft. wide and 1,000 ft. long.

MAX. SIZE: The primary entrance to Boston Harbour is via the North Channel and President Roads. Controlling depth is 35 ft. MLW. Average rise of the tide in Boston is 9.5 ft.

Generally speaking, vessels drawing 40 ft. are taken at the top of the tide to Belcher Oil Terminal and Exxon only. Vessels going to berths in the Mystic River above the Mystic River Bridge are limited by the bridge's vertical clearance of 135 ft. MHW.

Vessels consigned to berths in the Chelsea Creek are limited to a length of 661 ft., beam of 90.5 ft. and draft of 36 ft. high water docking. Furthermore, vessels which exceed 630.5 ft. length and 85.5 ft. beam going above the Chelsea Street Bridge are restricted to daylight docking. Daylight sailing is required from the berths above the McArdle Bridge if the vessel is over 585 ft. long.

As a rule, vessels are docked bow in at the Chelsea Creek berths. If docked between the bridges, departure is stern first through the McArdle Bridge. If docked above the Chelsea Street Bridge, then on sailing, the vessel is turned in the basin West of the B.P. and Belcher Terminals.

The controlling depth in the channel leading to Weymouth Fore River is 28 ft. MLW. Vessels with a max. draft of 33 ft. 6 in. will be taken at high water, but it should be noted that docking and undocking in Fore River are daylight operations – between sunrise and sunset – and no vessel longer than 628 ft. will be handled.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: *Advance Notice of Arrival:* 24 hours advance notice of arrival be given. This notice is made to the office of the Captain of the Port – 223-3025.

The information to be provided consists of: Vessel's Agent's name; Vessel's name, type, flag, and call sign; the ETA; Berth; Last port and next port; Dangerous cargo on board. In return the Captain of the Port will assign a consecutive log number to the vessel.

In the event the vessel's ETA is changed by more than 24 hours from first notice, the Captain of the Port should be so notified, identifying the vessel by its assigned log number.

VHF: The following VHF Channels are able:

Coast Guard, Boston pilot boat and shore station: 6, 10, 11, 12, 13, 14, 16, 21, 22, 23, 81 and 83.

Distrigas: 16 and 10.

In the event of an emergency, Channel 16 or 13 will be guarded.

TUGS: Vessels can proceed from the sea to Boston Upper Harbour under own power. Barges usually left by the outside tugs at the anchorage grounds, to be docked later by harbour tugs.

Tugs up to 4,300 h.p. are available at Boston for towing, docking, undocking and shifting. Tugs maintain radio communications on VHF Channel 18. Inbound vessels are usually met in the vicinity of Anchorage Areas 1 or 2. Arrangements are usually made in advance through ship's Agents.

BERTHING: There are 114 piers or wharves in the Port of Boston. Many of them have railroad connections. The depths of water available alongside these terminals range up to a maximum of 40 ft. at mean low water. Practically all terminals fronting on main ship channel are in close proximity to storage warehouses, both cold and dry which greatly facilitates transfer of cargo between vessel and warehouse.

Conley Terminal, Castle Island, South Boston:

Operator – Massachusetts Port Authority. Tel. 973-5354.

Stevedore – John T. Clark and Son. Tel: 330-7810.

Type of Pier – Single face. 6 berths 3,705 ft. (Berths No. 11 – 16). Berths No. 12 – 15 handle break bulk general cargoes. Berth No. 11 – containers. Berth No. 16 – automobiles. 4 million sq.ft. open storage (including 32 acres fenced in automobile storage), total 103 acres. 50 ton crane, rail service. Terminal equipped with 2×40 ton gantry cranes and 1 × 30 ton Paceco portal crane.

Depth alongside at MLW – 40 ft.

Normal ship side to dock – Varies.

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side. Minimum 40 ft. apron.

Products handled – General cargo, containers.

J. F. Moran Container Terminal, Charlestown:

Operator – Massachusetts Port Authority. Tel. 973-5354.

Type of pier – Single face, 1,100 ft. long. 1×45 ton container crane, 1×70 ton container crane, 38,000 sq.ft. container stuffing shed, 50 acre container storage area, rail service.

Depth alongside at MLW – 40 ft.

Normal ship side to dock – Varies.

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side.

Products handled – Containers.

Boston Army Base, South Boston:

Operator – Port Terminals, Inc. Tel. 542-4500.

Type of Pier – Single face, three sides: South 3,705 ft., East 351 ft., North 964 ft., 950,000 sq.ft. covered storage, rail service, 2×27.5 ton rail mounted cranes.

Depth alongside at MLW – 35 ft.

Normal ship side to dock – Varies.

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side. 50 ft. apron incorporates rail lines.

Products handled – General cargo, containers.

Massport Marine Terminal – South Boston:

Owned and operated by: Massport, Maritime Department. Tel: 973-5391.

Adjacent to the former South Boston Naval Annex, this terminal features a 47 acre (19 ha.) site used for discharge and handling of automobiles; 800 ft. (244 m.) face; 38 ft. (11.58 m.) alongside depth; 16 ft. (4.88 m.) deck height; 750 lb./sq.ft. (340 kg./sq.cm.) load capacity. Railway track connection; stevedore equipment available as needed. An estimated 50,000 imported cars processed here yearly.

Black Falcon Cruise Terminal, South Boston:

Operator – Massachusetts Port Authority, Maritime Department. Tel. 330-1500.

Type of Pier – Single face, 600 ft.

Depth alongside at MLW – 32 ft.

Normal ship side to dock – Varies.

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side. 20 ft. apron incorporates rail lines.

Used for docking excursion vessels, and occasional passenger vessels.

Pier 1, East Boston: No cargo activity.

Operator – Massachusetts Port Authority. Tel. 567-0331.

Type of Pier – Single face, three sides: East and West 605 ft., South 390 ft., 196,000 sq.ft. covered storage.

Depth alongside at MLW – 35 ft.

Normal ship side to dock – Varies.

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side.

Coastal Oil New England, South Boston:

Operator – Coastal Oil New England. Tel. 284-4494.

Type of Pier – Single face.

Depth alongside at MLW – 40 ft.

Normal ship side to dock – Port (bow in).

Line handling boat – required.

Access to vessel (for stores and repairs) – limited, trucks can appr only to within 150 ft. of gangway or ship's side.

Products handled – Avjet, Heating Oil, No. 6 Oil, Molasses.

Size and number of pipelines – Numerous – 24 in., 20 in., 16 in.,

Bbls. per hour discharge capacity – 12,000 to 18,000.

Average distance to storage tanks – 1,000 ft.

Pollution control equipment – 1,600 ft. boom, 16 ft. boat, absorbent pillows, 2,000 gallon pumpout truck.

Atlantic Fuels Marketing Corp., Chelsea:

Operator – Atlantic Petroleum. Tel. 729-3000.

Type of Pier – Timber pile, offshore.

Depth alongside at MLW – 35 ft.

Normal ship side to dock – Starboard (bow in).

Line handling boat not required.

Access to vessel (for stores and repairs) – by hand cart only.

Products handled – Heating Oil, No. 6 Oil.

Size and number of pipelines – 2 × 8 in.

Bbls. per hour discharge capacity – 6,000 to 8,000.

Storage tanks adjacent to berth.

Pollution control equipment – 1,000 ft. boom, 18 ft. boat, 50 absor pillows, 150 gallons Aqua-clene.

Note:– Bow to manifold 370 ft. No wire ropes used to moor vess

Vessels require 3 tugs while docking, depending on the deadwe of the vessel. A minimum of 2 tugs are required for undocking. Ca is advised while docking and undocking due to traffic congestion in area of the channel.

Exxon Company U.S.A., Everett:

Operator – Exxon Company U.S.A. Tel. Marine Department 387- Marketing Terminal 381-2828.

Type of Pier – Timber pile wharf with caissons.

Depth alongside at MLW – 42 ft.

Normal ship side to dock – Starboard.

Line handling boat not required.

Access to vessel (for stores and repairs) – by rail-mounted hand

Products handled – Asphalt, Chemicals, Diesel Oil, Jet Fuel, Kerosene, Gasoline, No. 2 and No. 6 Oil.

Size and number of pipelines – numerous.

Bbls. per hour discharge capacity – Up to 35,000.

Average distance to storage tanks – 5,000 ft.

Pollution control equipment – 1,500 ft. boom, skiff.

Vessels meet tugs and Docking Master off Castle Island and proceed up the main channel. Vessels pass under the Mystic Bridg the approach to the berth and then dock starboard side to. If the v is equipped with a bow thruster 2 tugs are required when docking undocking, otherwise 3 tugs are required. The vessel turns on depa from berth. A gangway is provided by the Terminal.

Distrigas of Massachusetts Corporation, Everett:

Operator – Distrigas of Mass. Corporation. Tel. 381-9444.

Type of Pier – Single face, 165 ft. long, with 900 ft. berthing s with dolphins and use of adjacent wharves. Concrete platform co 5 Chicksan Marine LNG unloading arms.

Depth alongside at MLW – 36 ft.

Normal ship side to dock – Port (bow out).

Line handling boat is required.

Access to vessel (for stores and repairs) is limited.

Products handled – Liquefied Natural Gas.

Prolerized New England, Everett:

Operator – Prolerized New England Company. Tel. 389-8300.

Type of Pier – Straight face.

Depth alongside at MLW – 36 ft.

Normal ship side to dock – Port (bow out).

Access to vessel (for stores and repairs) – trucks to ship's sid access may be limited due to vessel's position at conveyor.

Products handled – Ferrous scrap (including Prolerized shr scrap).

General notes: Pier is equipped with 2×50-ton cranes. Shr scrap is loaded from fixed conveyor requiring vessel to be shi each hatch is served.

U.S. Gypsum, Charlestown:

Operator – U.S. Gypsum Co. Tel. 241-9100.

Type of Pier – Single face. (410 ft.).

Depth alongside at MLW – 27 ft.

Normal ship side to dock – Port.

Line handling boat not required.

Access to vessel (for stores and repairs) – access to berth.

Products handled – Gypsum rock from Nova Scotia, ca company's own vessels, specially fitted and adapted for disch this berth. Silo storage 25,000 tons. Open storage 38,000 tons

Mobil Oil, East Boston:

Operator – Mobil Oil Corporation. Tel. 567-9080.

Type of Pier – Straight face, with centre relieving platform.

Depth alongside at MLW – 32 ft.

Normal ship side to dock – Starboard.

Line handling boat required.

Access to vessel (for stores and repairs) – trucks to ship's

Products handled – Gasoline, Heating Oil.

Size and number of pipelines – Various.

Bbls. per hour discharge capacity – 8,000.

Average distance to storage tanks – tank farm adjacent to

Pollution control equipment – 950 ft. boom.

Amerada Hess Oil Terminal – East Boston: (No cargo activity).
Owned and operated by: Amerada Hess Corp.
For receiving and shipping petroleum products; 20 ft. (6 m.) face, 296 ft. (90.2 m.) total berthing space with dolphins, 35 ft. (10.67 m.) alongside depth, 13 ft. (3.96 m.) deck height. Pipe-lines extend from wharf to 10 steel storage tanks with total capacity of 595,250 bbls.

Gibbs (B.P.) Oil Company, Revere:
Operator – Gibbs (B.P.) Oil Company. Tel. 289-4201.
Type of Pier – Timber pile, wooden deck.
Depth alongside at MLW – 10 ft. – 35 ft.
Normal ship side to dock – Starboard.
Line handling boat not required.
Access to vessel (for stores and repairs) – only by hand cart.
Products handled – Heating Oil, Gasoline.
Size and number of pipelines – 3×10 in., 2×12 in.
Bbls. per hour discharge capacity – 8,000 per line.
Average distance to storage tanks – 2,500 ft.
Pollution control equipment – 1,600 ft. boom, 16 ft. boat.
3 tugs are normally used for docking and undocking vessels at this berth. Vessels normally dock starboard side to.

Belcher New England Ship Pier – Revere:
Owned and operated by: Belcher New England, Inc.
Used for receiving and shipping petroleum products, the South side of pier has 600 ft. (182.88 m.) of berthing space; 37 ft. (11.27 m.) LW alongside depth; 15 ft. (4.57 m.) deck height. Pipe-lines extend to storage tanks with 1.25 million barrel capacity.

Coastal Oil New England Inc., Revere:
Operator – Coastal Oil New England Inc. Tel. 284-4494.
Type of Pier – Timber pile, wooden deck.
Depth alongside at MLW – 37 ft.
Normal ship side to dock – Port.
Line handling boat required.
Access to vessel (for stores and repairs) – only by hand cart.
Products handled – Heating Oil, Mogas, Alcohol, No. 6 Oil.
Size and number of pipelines – 5×12 in.
Bbls. per hour discharge capacity – 8,000 per line.
Average distance to storage tanks – 2,500 ft.
Pollution control equipment – 1,600 ft. boom, 16 ft. boat. (Shared with B.P., Arco, Northeast.)
Vessels meet tugs and Docking Master in vicinity of Castle Island. The maximum size vessel which can be safely accommodated at this berth is about 38,000 d.w.t. Vessel normally require 2 tugs when docking and undocking at Union Oil Terminal. Vessels dock starboard side to, and when undocking are turned in the turning basin. Vessels must utilise their own gangway at this berth. Fully loaded vessels are docked or undocked at HW only, day or night.

Gulf Oil Company, Chelsea: (Cumberland Farms)
Operator – Gulf Oil Company. Tel. 884-5980.
Type of Pier – Single face.
Depth alongside at MLW – 36 ft.
Normal ship side to dock – Port.
Line handling boat not required.
Access to vessel (for stores and repairs) – trucks to ship's side.
Products handled – Heating Oil, Gasoline, Jet Fuel.
Size and number of pipelines – 5×12 in.
Bbls. per hour discharge capacity – 8,000 per line.
Average distance to storage tanks – 1,000 ft.
Pollution control equipment – 1,600 ft. boom, 16 ft. boat.
Vessels require 3 tugs when berthing and normally 2 when unberthing. Vessels dock daylight only, normally port side to, and when undocking proceed up river to the turning basin and are turned before proceeding outbound.

Atlantic Fuels, Chelsea:
Owned and operated by: Atlantic Petroleum Inc.
Used for receiving and shipping petroleum products, bunkering vessels; can accommodate vessels up to 690 ft. (210.3 m.) in length; 33 ft. (10 m.) alongside depth; 14 ft. (4.26 m.) deck height. Pipe-lines extend from wharf to 14 steel storage tanks with total 660,000 barrel capacity.

Coastal Oil New England, Chelsea:
Operator – Coastal Oil New England. Tel. 289-4494.
Type of Pier – Single face.
Depth alongside at MLW – For 575 ft. vessels: 31 ft. fwd., 34 ft. aft. For 624 ft. vessels: 21 ft. fwd., 34 ft. aft.
Normal ship side to dock – Port.
Line handling boat not required.
Access to vessel (for stores and repairs) – trucks to ship's side.
Products handled – Avjet, Diesel Oil, Gasoline.
Size and number of pipelines – 7×12 in.
Bbls. per hour discharge capacity – 5,000 to 10,000.
Average distance to storage tanks – tank farm adjacent to berth.
Pollution control equipment – Automatic boom being installed.
3 tugs are normally required for berthing and 2 for unberthing. Vessels require a 300 ft. messenger fore and aft for handling lines. Vessels normally dock port side to. Due to the limited manoeuvring area adjacent to the berth, vessels when unberthing are towed out stern first and then turned in the main channel.

Quincy Oil, Quincy:
Operator – Quincy Oil Company. Tel. 773-2500.
Type of Pier – Timber pile, timber deck, offshore wharf.
Depth alongside at MLW – 35 ft.
Normal ship side to dock – Port.
Line handling boat not required.
Access to vessel (for stores and repairs) – by hand cart only.
Products handled – Gasoline, Heating Oil.
Size and number of pipelines – 2×8 in.
Bbls. per hour discharge capacity – 6,000.
Average distance to storage tanks – tank farm adjacent to berth.
Pollution control equipment – 800 ft. boom, work boat.
Vessels meet tugs and Docking Master in the vicinity of Nantasket Roads and then proceed up the Weymouth Fore and Town Rivers to the Quincy Terminal.
Vessels should enter Town River at S.W. Extreme caution should be used when turning into Town River because of the narrow channel. Narrow channels demand extreme caution when navigating up to the terminal. Vessels normally berth port side to, and are swung around in the turning basin when unberthing. 3 tugs are required when docking or undocking. Vessels must utilise their own gangways.

Proctor and Gamble, Quincy:
Operator – Proctor and Gamble. Tel. 770-3155.
Type of Pier – T-head with dolphins.
Depth alongside at MLW – 32 ft.
Normal ship side to dock – Starboard.
Line handling boat not required.
Access to vessel (for stores and repairs) – trucks to ship's side.
Products handled – Palm Oil.
Size and number of pipelines – Various.
Bbls. per hour discharge capacity – 8,000.
Average distance to storage tanks – tank farm adjacent to berth.
Pollution control equipment – shared with Sprague.

C.H. Sprague & Son Co., North Weymouth:
Operator – C.H. Sprague & Son Co. Tel. Terminal 337-2040, Offices (603) 431-1000.
Type of Pier – Timber pile, concrete deck.
Depth alongside at MLW – 35 ft. 06 in.
Normal ship side to dock – Starboard.
Line handling boat not required.
Access to vessel (for stores and repairs) – trucks to ship's side.
Products handled – No. 6 Oil.
Size and number of pipelines – 2×12 in.
Bbls. per hour discharge capacity – 10,000 per line.
Average distance to storage tanks – 2,500 ft.
Pollution control equipment – 500 ft. boom, 16 ft. boat. (Shared with Mobil.).
Vessels dock and sail during daylight only. 3 tugs are required when berthing and unberthing. Vessels met the tugs and Docking Pilot in the vicinity of Nantasket Roads and then proceed to the manoeuvring area near the berth where the vessels are turned and berthed starboard side to. Vessels must utilise their own gangway at this berth.

Citgo Petroleum Corp., Braintree:
Operator – Citgo Petroleum Corp. Tel. 848-2595.
Type of Pier – 4 cylindrical caissons.
Depth alongside at MLW – 35 ft.
Normal ship side to dock – Starboard.
Line handling boat not required.
Access to vessel (for stores and repairs) – trucks to ship's side.
Products handled – Heating Oil, Gasoline.
Size and number of pipelines – 1×10 in., 4×12 in.
Bbls. per hour discharging capacity – 10,000.
Average distance to storage tanks – 2,500 ft.
Pollution Control Equipment – 1,500 ft. boom, work boat.
Vessels meet tugs and Docking Master in the vicinity of Nantasket Roads and then proceed up the Weymouth Fore River, through the Fore River Bridge, and berth starboard side to at the terminal. Vessels dock and undock during daylight hours only. 3 tugs are normally required when docking and undocking. Vessels must utilise their own gangways.

Bulk Cement Piers:
There are 2 berths in Boston used exclusively for the discharge of bulk cement from barges. Both are in the Mystic River.
No. 28: Independent Cement Corp.
No. 33: Blue Circle Atlantic Cement Company, Inc. Tel: 241-9040.

CRANES: 1×60 ton floating crane and mobile cranes up to 150 tons capacity.

SPECIALISED CARGO HANDLING FACILITIES: Also see "Berthing".

	Location	Depth at MLW (ft.)
Bulk Cement		
Blue Circle Atlantic Cement	Charlestown	30
Independent Cement	Everett	20
Coastal Cement	South Boston	38
General Cargo Terminals		
Massport Marine Terminal	South Boston	40
Conley Terminal	South Boston	40
Container Terminals		
J.F. Moran Container Terminal	Charlestown	40
Conley Terminal	South Boston	40
Gypsum Rock		
U.S. Gypsum Company	Charlestown	27
Salt		
Piers 48, 49 & 50 (Mystic Pier)	Charlestown	25
Scrap		
Prolerized N.E. Co.	Everett	37
Vegetable Oil, Liquid Caustic Soda, etc.		
Proctor & Gamble Mfg. Co.	Quincy	32
Automobiles		
Conley Terminal	South Boston	40
Massport Marine Terminal	South Boston	40
LNG Terminals		
Distrigas	Everett	36
Passenger Cruise Terminal		
Black Falcon Cruise Terminal	South Boston	32

STEVEDORES: Available at various rates.

FRESH WATER: Plentiful supply of excellent water in Boston. It is supplied by terminal at prevailing rates.

FUEL: All grades available in various viscosities. Normally supplied by barge subject to advance notice.

TANKERS: Also see "Berthing".

Tanker Berths	*Location*	*Depth at MLW (ft.)*
Coastal Oil New England Inc.	South Boston	40
Distrigas LNG Terminal.	Everett	36
Exxon Terminal.	Everett	42
Atlantic Fuels Marketing Corp.	Chelsea	35
Coastal Oil New England Inc.	Chelsea	35
Gulf Oil Terminal (Cumberland Farms).	Chelsea	36
Belcher Oil Terminal (Revere).	Revere	37
Northeast Petroleum.	Revere	36
BP, also used by Global.	Revere	35
Mobil.	East Boston	32
Citgo Petroleum Corp.	Braintree	35
C.H. Sprague.	Weymouth	35

Berthing at all berths normally effected on a rising tide. It is the practice of the port for deep draft vessels to pump part cargo overside in order to bring vessel to a safe draft by the next Low Water. Berthing at Sprague, North Weymouth is usually starboard side to, which involves swinging vessel.

LNG/LPG: Handled at Distrigas on the Mystic River, Everett.

U.S. Coast Guard Instructions: The following is only part of the instructions. Full copies may be obtained from U.S.C.G. Marine Safety Office, 447 Commercial Street, Boston, MA 02109-1096. Tel: (617) 565-9000.

Foreign flag vessel owners intending to transport liquefied gases in U.S. ports must obtain a Certificate of Compliance from the Coast Guard. The procedures for obtaining a Certificate of Compliance are detailed in 46 CFR 154. Both U.S. and foreign flag vessels must meet essentially the same requirements. Most requirements conform to the IMO Gas Carriers Code, but some construction requirements are more stringent.

PART A – LNG/LPG VESSEL OPERATIONS IN BOSTON HARBOUR

I. NOTIFICATION

The Master of an LNG/LPG vessel notifies COTP Boston 72 hours in advance of arrival at Broad Sound Anchorage. This advance notice of arrival is by message and includes the vessel's Agent in Boston, distance from keel to highest projection, maximum draft, and a statement by the Master to the effect that:

"To the best of my knowledge and belief, there are no known casualties to this vessel or its machinery which might affect her seaworthiness. I further state that all cryogenic handling and detection equipment is in proper operating condition and has been operating for the duration of this passage."

Signed ____________

Master ____________

Should any deficiency develop after the 72 hour advance notice is given, another message describing the discrepancy or condition in detail is sent to COTP Boston immediately.

Telex 910-2506309 (Answerback "US CG")

In addition to the certification of equipment, the Master includes the names and qualifications of crew that have changed since the last port visit.

The Vessel Movement Office (VMO) at the U.S. Coast Guard Marine Safety Office, Boston is the contact point for all notifications and requests of the COTP. Upon notification of arrival, the VMO:

a. Initiates an action file including vessel data, messages, letters, etc.
b. Reviews the vessel history and communicates any special requirements with the Coast Guard inspectors.
c. Notifies appropriate Coast Guard units.
d. Maintains daily updates of the vessel's estimated time of arrival.
e. Arranges and co-ordinates Coast Guard inspection, escort and monitoring details.
f. Passes any unusual or additional information to interested parties.
g. Obtains a long range weather forecast for the period of transit and transfer and compiles updates as they occur.

One day prior to arrival of the vessel, the VMO:

a. Firms up probable transit time for planning purposes.
b. Prepares and transmits Oporder and marine information broadcast messages, and
c. Notifies other concerned parties of the estimated time of harbour transit and any special requirements affecting harbour transit.

II. ARRIVAL AND ENTRY

U.S. Coast Guard inspectors from MSO Boston board and inspect each vessel prior to its entry into port. The purpose of this inspection is to ensure that the vessel meets the requirements of its certificate and that all cargo control equipment and safety equipment is operative. Vessels will normally anchor in Broad Sound pending inspection.

The vessel's Master must provide safe access for the Coast Guard inspectors. Should sea conditions preclude a safe boarding while anchored, the LNG/LPG vessel may be required to resume manoeuvring and provide a lee. A combination of the vessel's accommodation ladder and pilot ladder is acceptable.

While the vessel is at anchor, a live bridge watch shall be maintained. LNG/LPG vessels arriving at the Port of Boston must maintain a radio guard on VHF-FM Channels 13 (156.65 MHz) and 16 (156.8 MHz). A round of bearings fixing the vessel's position shall be taken and recorded at least hourly, followed by a report if there is a significant change in position or other problem aboard the vessel. The report may be made to COTP Boston by radio via the U.S. Coast Guard Group Boston or via the vessel's agent if timely notification is possible.

An LNG/LPG vessel must have its cryogenic sensing and indicating instrumentation and gas detection system in operation while the vessel is in U.S. waters. The Master of the ship must be prepared to demonstrate that the cryogenic handling and gas detection equipment is in proper working order. The vessel shall have on board a cylinder of properly certified span gas for testing the gas detection system.

In addition to a valid Certificate of Compliance, vessels must h onboard all required ship's documents and an up-to-date set of pl in English, specifying:

a. Cargo tank arrangement
b. Cargo tank venting arrangement
c. Cargo piping arrangement
d. Capacity plan
e. Firefighting plan
f. Up-to-date cargo system operating and safety procedures.

The vessel may enter the harbour only after the vessel equipm publications and documents are inspected, confirmed to be satisfactory condition, and COTP Boston has cleared the vessel for en

The U.S. Coast Guard, Captain of the Port must ascertain that cr are qualified to carry out transfer operations safely. On U.S. flag vess carrying LNG, the Master, Chief Engineer, Chief Mate and First Assis Engineer must be licensed and certified by the Coast Guard. On vess other than U.S. flag, a valid Certificate of Compliance issued by Coast Guard and a valid Certificate of Fitness (issued in complia with the IMO Gas Carriers Code) is evidence of compliance with spec U.S. equipment requirements and home state requirements certification.

Crew training standards of the Code (Chapter 18) require t personnel involved in cargo operations be adequately trained. All offic should be trained to deal with emergencies involving cargo leaks, s or fires. The code also refers to the 1978 International Convention Standards of Training, Certification and Watchkeeping for Seafarers

Each officer and rating with specific duties involving cargo and ca equipment should complete a course of instruction, or undergo onbo training, applicable to his or her duties. As crew members change, operator must keep the Coast Guard apprised of the new memb training. A company initiated letter or message indicating the comple of an administration approved formal training course will serve evidence of this training. All crew members should have formal train or onboard instruction, in the special hazards of LNG and LPG and awareness of the general safety features of the vessel.

Serious discrepancies found during any boarding or examination wh affect the safety of the port must be corrected prior to vessel entr cargo transfer operations. Examples of serious discrepancies are lea cargo tanks, inoperative leak detectors or inoperative fire-figh equipment. Determination to permit or deny port entry or cargo tran is made by the COTP. In unusual circumstances, however, Comman (G-MTH) may be requested to advise or furnish a techn representative.

A fully or partially loaded LNG/LPG vessel will always transi harbour within a moving safety zone. This concept enhances safe avoiding crossing or passing situations. The LNG/LPG vessel may enter the main ship channel until clearance is received from C Boston and U.S. Coast Guard escort vessel is in position to begin es

III. LNG/LPG VESSEL TRANSIT MANAGEMENT

Fully or partially loaded LNG/LPG vessels may transit the harbour during the hours between sunrise and sunset and then only du periods of adequate visibility.

One hour prior to scheduled LNG/LPG vessel transit, the Ve Movement Officer assumes the watch in Group Boston Communica Centre, to perform the following duties:

a. Ensure that the tugs and the Coast Guard escort vessel a position, two emergency towing lines are rigged fore and a the LNG vessel within 6 ft. of the water, and the inspectors found no discrepancies in the condition of the vessel.
b. Contact the LNG/LPG vessel and initiate the transit.
c. Ensure that the Marine Information Broadcast is being pro sent by Group Boston and the escort craft. Keep Group Bo Duty Officer informed of LNG/LPG vessel position as report the escort vessel.
d. Notify Logan Airport Control Tower of the LNG/LPG vessel t when the vessel approaches Deer Island.
e. Monitor Channel 13 VHF-FM and communicate with vess ensure no unauthorised vessels get underway in violation o safety zone.
f. Address all vessel movement questions received via radi telephone during the transit.
g. Keep the COTP informed of the progress of the evolution.
h. Notify Group Boston Duty Officer when safety broadcast a terminated.
i. Maintain a logbook with appropriate entries (transit comme escort craft and adequate number of tugs on scene, emer tow lines rigged, names of Boston Pilot and Docking M onboard, vessel moored etc.).

The Vessel Movement Officer (VMO) can be contacted at the V Safety Office (565-9000) or by radio (Channel 13 VHF-FM)

If the visibility falls to less than 2 miles at any point in the trans Master shall notify the VMO of the situation and request autho to proceed.

When the LNG/LPG vessel enters Boston North Channel inbou Master notifies the Vessel Movement Officer via Channel 13 VH The VMO will then notify the Chief or Assistant Chief Controller at Airport. The Federal Aviation Administration imposes flight rest over the LNG/LPG vessel in keeping with the desire to m maximum standards of safety during an LNG/LPG vessel move

The vessel's Master shall ensure that calculations are comparing the air draft of the LNG/LPG vessel to the height of a objects under which it must pass. These calculations are to be available to the Docking Master as an assurance that the LN vessel can safely transit Boston Harbour.

Tugs meet the incoming LNG/LPG vessel at the Eastern President Roads and are used as needed during the vessel's Boston Harbour. During the docking and undocking operation will be strategically positioned consistent with the Master's judgement and consultation with the Docking Master. Emergenc lines must be rigged fore and aft within 6 ft. of the water durin

For vessels under 60,000 cu.m. cargo capacity, a minimum of 3 tugs with total of 5,400 shaft horsepower or greater shall attend the needs of the vessel.

Vessels of 60,000 cu.m. or over will be required to use a minimum of 5 tugs. Two of the tugs must be 3,000 h.p. or greater. The remaining 3 tugs must be 1,200 h.p. or greater. Note that the referenced 3 or 5 tugs are minimums. Nothing herein should be construed to overrule the Master's sound judgement in employing additional tugs.

While a fully or partially loaded LNG/LPG vessel is underway in the harbour, all other vessels in the harbour are required to remain moored unless otherwise authorised by the COTP. The COTP has given permission for towing vessels without tow and other vessels under 100 gross tons to transit outside the main ship channel:

IF they establish bridge to bridge radio contact with the LNG/LPG vessel upon their approach and advise the Master of their intent, AND they can safely navigate outside the main ship channel.

Other examples of vessel movements that may be allowed are:

a. A cargo ship requests permission to get underway in the main ship channel and transit Boston Harbour outbound while a LNG/LPG vessel is inbound. Permission may be granted by the COTP for the transit outbound if the cargo ship will not approach within 2 nautical miles ahead or one nautical mile astern of the LNG/LPG vessel.

b. A tankship requests permission to get underway for inbound transit of the harbour at the same time an LNG/LPG vessel is inbound. Permission by the COTP may be given for the tanker to proceed but to remain at least one nautical mile astern of the LNG/LPG vessel.

During an LNG/LPG vessel transit, the maximum allowable speed for any vessel permitted within the moving Safety Zone will be 8 knots. This speed applies to all vessels within the restricted area. At least one Coast Guard escort craft will be present to enforce the safety zone restrictions. Additional craft may be assigned to the escort if conditions warrant.

Marine information broadcasts will be made on Channel 16 VHF-FM, switching to Channel 22, beginning 24 hours prior to the ship's harbour transit. The escort craft will issue a broadcast bridge to bridge on Channel 13 at the beginning of the transit and every 30 minutes thereafter until the LNG/LPG vessel is moored. At the end of each broadcast, the escort craft will state the current location of the LNG/LPG vessel.

The escort craft should normally take station several hundred yards ahead and to one side of the bow of the LNG/LPG vessel and precede it through the harbour. The escort craft is responsible for enforcing the vessel movement requirements of the safety zone. The escort craft will monitor and use Channel 13 VHF-FM to provide vessel traffic control during the transit of the LNG/LPG vessel.

An officer from MSO Boston will be assigned to ride each LNG/LPG vessel during the inbound transit. The senior member of the pre-arrival inspection team will assume this role when the inspection and transit occur on the same day. When these events occur on separate days, arrangements will be made to place an officer aboard the vessel prior to commencing the harbour transit.

This officer will remain in the pilothouse, maintain radio communications with the VMO via Channel 13 VHF-FM, and shall be responsible for the following:

a. Serve as a direct communications link to the VMO to report any casualties or unusual incidents, obtain amplifying information, and relay instructions to the vessel's Master or Pilot as directed by the VMO.

b. Assist in making determination as to the nature and seriousness of a casualty and if the inbound vessel should be directed to exit the harbour and return to anchorage in Broad Sound or if it should be permitted to proceed to its berth.

c. Remain vigilant and report any situation that could affect the safety of the port or that could adversely impact the safety zone and vessel escort.

Should an emergency situation occur aboard the LNG/LPG vessel (loss of steering, grounding, fire, etc.) the Master/Pilot will immediately notify the MSO Officer on board who will inform the VMO of the emergency via Channel 13 VHF-FM. The escort craft will then provide traffic control to keep all vessels (other than tugs, fireboats, etc.), clear of the LNG/LPG vessel.

IV. CARGO TRANSFER OPERATIONS

The COTP will provide personnel to ensure safety during the process of cooling down and to monitor the progress of transfer operation. A Coast Guard patrol craft will also be present to provide continuous waterside safety zone enforcement to prevent any vessel approaching within 50 yards of the LNG tanker while it remains in a loaded condition or is conducting cargo operations.

LNG/LPG vessels must moor bow to seaward with at least 2 wire cable mooring lines (firewarps) at the water's edge, fore and aft on the outboard side, for emergency towing hook-up if the need should arise. The vessel must be maintained in a state of readiness with sufficient crew on board to enable the ship to get underway and clear the pier in an emergency within 30 minutes of notification. The LNG/LPG vessel must also be capable of navigating out of the Port of Boston, using the main ship channel, at all times and under all prevailing tidal conditions.

The following minimum personnel must be on board the vessel during transfer operations:

a. Two Licensed Officers, fully qualified to supervise cargo transfer operations.

b. Two deckhands.

c. One Licensed Deck Officer for duties other than cargo transfer.

The officers on the vessel supervising cargo transfer operations should be fully rested prior to commencing tranfer operations. A minimum of 8 hours sleep is recommended. All ship's personnel directly involved in the transfer operation must be able to communicate in the English language, or be provided with an interpreter.

Venting cargo gas to the atmosphere is not permitted in port. However, nothing in this instruction should be construed to require or authorise elimination of installed ship safety equipment. If emergency venting is necessary, the officer supervising cargo transfer on the vessel will immediately notify the COTP Boston. This notification should include location and amount of venting, the cause of the emergency venting, wind velocity and direction at the time of venting.

All LNG/LPG facilities in the Port of Boston shall meet the requirements of 33 CFR 127. The facility will be responsible for controlling access to the vessel while it is at the dock.

The facility and the vessel must discuss arrangements for emergency shutdown of cargo transfer and emergency breakway of the vessel from the facility.

During cargo transfer, the facility shall have at least one person onboard the vessel and one person in the facility control centre who will be in constant communication with each other at all times. In addition to sufficient personnel to safely conduct all physical transfer operations, a person specially trained and certified as knowledgeable in the properties and hazards of the cargo to be tranferred shall oversee all discharge operations.

The permission of the Captain of the Port is required before loading stores or bringing vessels alongside the LNG/LPG vessel during cargo transfer operations. Bunkering or other transfer of petroleum products or other compressed or liquefied gases is prohibited while the vessel has gas or liquid cargo in the transfer piping.

The transfer of liquid cargo shall not begin until the Coast Guard inspector is satisfied with cooldown. The inspector must certify that all items in the Cooldown Inspection List are examined. The primary function of this inspection is to ensure that all connections, piping, pumps, etc. are in satisfactory operating order and that no deficiencies develop during the cooldown phase. Full pumping may commence upon satisfactory completion of cooldown operations.

The monitoring detail supervises the LNG/LPG transfer operation from hookup to disconnect and maintains an official logbook. The primary function of the monitor is to ensure compliance with safety requirements during the transfer and to maintain an alert security posture.

The individual Coast Guardsmen that make up the monitoring detail represent the Captain of the Port. Their responsibility is to keep informed of the progress of transfer and to oversee the safety of the operation. The person representing the facility onboard the vessel and the vessel cargo officer *must* promptly report all problems or abnormal conditions encountered during transfer operations, on the vessel or facility, to the Coast Guard watchstander. Updates of the condition and corrective action planned are also required.

The monitoring detail logs the commencement of pumping, completion of pumping, disconnecting times and any unusual occurrences and informs the COTP at each stage in the operation.

All cargo operations must cease if electrical storms are observed nearby. However, cargo transfer connections should be maintained. If gale warnings are posted, additional mooring lines and/or tug assistance may be required.

Should an emergency occur, the monitoring detail should immediately get clear and inform the COTP of the situation. Detailed emergency instructions to the monitoring detail can be found in Part B (Emergency Operations) of this plan.

The safety zone enforcement craft will be located so that vessel movements within a mile of the LNG/LPG vessel can be readily observed in order to detect any unusual waterborne activities that may pose a threat to either the vessel or the facility. Any unusual circumstances such as suspicious craft in the vicinity of the LNG/LPG vessel, approaching thunderstorms, sudden changes in the direction or increase in wind speeds, or any leaking gas vapour cloud wil be reported to the monitoring detail.

All firefighting equipment on the safety zone enforcement craft will be on standby, ready for immediate use in the event of an emergency. In the event of a threat of or actual fire or explosion, the enforcement craft will be positioned upwind and clear of the danger area to assist in response efforts.

Upon completion of the transfer operations when all cargo transfer piping is disconnected, the monitor on watch will notify COTP Boston. The MSO Duty officer will ensure that the safety zone broadcast is cancelled. A safety zone will normally be continued after cargo operations are complete and until the LNG/LPG vessel clears Deer Island Light *only* if the LNG/LPG vessel is partially loaded. When the vessel is empty, the VMO notifies Group Boston Communications Centre and releases the safety zone enforcement vessel.

V. LNG/LPG VESSEL DEPARTURE

A fully or partially loaded LNG/LPG vessel will always transit the harbour within a moving safety zone. This concept enhances safety by avoiding crossing or passing situations involving other vessels in the harbour. A U.S. Coast Guard escort craft will enforce the safety zone until the outbound LNG/LPG vessel clears Deer Island Light. The same requirements set forth in Section A-III will be used for transit of LNG/LPG vessels if a safety zone is set for departure.

LNG/LPG vessels departing the Port of Boston that are empty (in heel) will not require a safety zone. A Coast Guard escort or other additional requirements may be established in certain circumstances at the discretion of COTP Boston. Empty LNG/LPG vessels may transit the harbour during darkness.

When an empty LNG/LPG vessel gets underway outbound, the Master notifies the Vessel Movement Officer. The VMO will then notify the Chief or Assistance Chief Controller at Logan Airport. The Federal Aviation Administration imposes flight restrictions over the LNG/LPG vessel in keeping with the desire to maintain maximum standards of safety during an LNG/LPG vessel movement.

CERTIFICATES AND DOCUMENTS
(May be completed by Master prior to vessel entry and checked by attending inspector.)
____SOLAS Cargo Ship Safety Construction Certificate
Issued by at expires
____SOLAS Cargo Ship Safety Equipment Certificate
Issued by at expires
____SOLAS Cargo Ship Safety Radiotelephony/telegraphy Certificate
Issued by at expires
____Load Line Certificate of Fitness
Issued by at expires endorsed
____IMO Certificate
Issued by at expires endorsed
____International Oil Pollution Prevention (IOPP) Certificate
Issued by at expires endorsed
____Certificate of Compliance
Issued at expires Last Entry
____Registry Certificate/Certificate of Inspection
Issued by at expires
____Certificate of Financial Responsibility
Issued by at expires
____Certification of Cargo Relief Valve Settings
by date
____Cargo Manual (if no IMO Certificate) yes______no
____Crew List and Officer Competency date______
____(3) Deck Officer Watchstanders? ________
____(3) Engineering Officer Watchstanders? ________
____(2) Cargo Officers (not watchstanders)? ________

CONSULS:
Austria
Belgium
Canada
Cape Verde
Chile
Colombia
Denmark
Dominican Rep.
Ecuador
Finland
France
Germany
Great Britain
Greece
Haiti
Honduras
Ireland
Israel
Italy
Japan
Korea
Luxemborg
Mexico
Netherlands
Peru
Portugal
Spain
Sweden
Switzerland
Venezuela

REPAIRS/DRY DOCKS: Any type of repair undertaken.

East Boston, Massachusetts	Length	Capacity
Floating Dry Dock No. 1	622 ft.	18,000 tons
Floating Dry Dock No. 2	479 ft.	20,000 tons
Graving Dry Dock No. 4	256 ft.	

Modern facilities for repair, overhaul, and conversion of vessels of all sizes:

(a) a 10,000 ton capacity floating dry dock serviced by 2×150 ton overhead cranes with a yoked capacity of 350 tons. The 5-section dock is 415 ft. long, 120 ft. wide, and has an inside dimension of 85 ft. 7 in.

(b) 3 building basins (actually a 3-positioned graving dock). 2 are 132 ft. wide, 867 ft. long; 1 is 150 ft. wide, 938 ft. long. Each basin serviced by 2 Whirley type cranes of 75 and 50 ton capacity.

(c) 4 outfitting piers capable of handling up to 10 ships simultaneously provide adequate space for dockside work and for mooring personnel or service barges.

(d) 3 conventional "sliding" ways capable of handling ships up to 1,000 ft. in length.

Major Shops: 2-bay fabricating shop served by 17 bridge cranes. Machine shop equipped with large vertical and horizontal mills planers, lathes and a complete small machine complement. Fully equipped sheet metal, joiner, boiler, blacksmith, pattern foundry, galvanising, pipe and copper, and electrical shops. Complete facilities for inspection of all types including non-destructive testing such as radiography, magnetic particle, liquid penetrant and ultrasonic.

General Ship Corporation, East Boston: Dry docks for vessels up to 680 ft. × 90 ft. Damage and voyage repairs.

CUSTOMS ALLOWANCES: At the discretion of Customs officers. Normal allowance is 200 cigarettes or 2 lb. of tobacco and 1 quart wine or spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.

GANGWAY/DECK WATCHMEN: Available at prevailing prices.

OPENING/CLOSING HATCHES: Performed by stevedores.

REPATRIATION: Good facilities exist.

AIRPORT: Logan International Airport, East Boston.

HOLIDAYS: New Year's Day (1st January); Martin Luther King's Birthday (15th January) Washington's Birthday (3rd Monday in February); Evacuation Day (17th March); Patriots' Day (3rd Monday in April); Memorial Day (last Monday in May); Bunker Hill Day (17th June); Independence Day (4th July); Labour Day (first Monday in September); Columbus Day (8th October); Veteran's Day (11th November); Thanksgiving (fourth Thursday in November); Christmas Day (25th December).

Note: "Or any day celebrated in lieu thereof".

POLICE/AMBULANCE/FIRE:POLICE/AMBULANCE/FIRE: Boston Fire Dept. 725-2880; Boston Police Dept. (Harbour Master) 242-6096; Everett Fire Dept. 387-7443; Everett Poice Dept. 3878-1212; Chelsea Fire Dept. 884-1410; Chelsea Police Dept. 884-1212.

IDENTIFICATIONIDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.

GARBAGEGARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany). Service available through the following contractors:

BFI Waste Systems (Brown-Ferris Industries), 170 Market Street, Brighton, MA 02135. Tel: (617) 254-1800.

Laidlaw Waste Systems, 66 Cambridge Street, Charlestown, MA 02129. Tel: (617) 445-8383.

Waste Management of MA, Inc., 530 East First Street, South Boston, MA 02127. Tel: (617) 269-5800.

Charles Lee Disposal, Inc., 1 Ellery Street, So. Boston, MA 02127. Tel: (617) 361-3900.

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight savin from first Sunday in April till last Sunday in October.

WASTE OIL DISPOSAL: Oil Pollution Clean-up Contractors:

Clean Harbors, 900 East First Street, Boston, MA 0 Tel: (617) 269-5830.

Jet Lines Services, 441 Canton Street, P.O.Box 180, Stoug MA 02072. Tel: (617) 344-2510.

SEAMAN'S CLUBS: Boston Port and Seaman's Aid Society, Mar House, 11 North Square, Boston, MA 02113. Tel: (617) 227-3979.

New England Seaman's Mission, Inc., Bremen Street, E.Bo MA 02128. Tel: (617) 569-6179.

Boston Seaman's Friend Society, 45 Church Street, Bo MA 02116. Tel: (617) 426-1665.

AUTHORITY: Massachusetts Port Authority, Executive Of Transportation Building, Ten Park Plaza, Boston, Massachusetts 0 3971, U.S.A. *Tel.* (617) 973-5500. *Telex:* 940365.

Massachusetts Port Authority, Maritime Department, Fish Pier E Northern Avenue, Boston, MA. 02210, U.S.A. *Tel:* (617) 973- *Telex:* 940365. *FAX:* (617) 973-5357. *Contact:* Ralph Cox, Mar Director.

BRIDGEPORT, Connecticut: 41.07 N. 73.11 W.

(See P

DOCUMENTS: Refer to "New York".

APPROACHES: *Via New York:*

Charts: 12339, 12366, 12367, 12363, 12369.

Vessels leaving New York bound for Bridgeport will be transitting York's East River and Western Long Island Sound. All shoals and are well marked and the close proximity to the shore line provid excellent radar target for position checking. During Summer mo thick fog will present a hazard on this route. Long Island Sound is a major yachting centre, so extreme care must be exercised transitting this area. There are several dangers to be wary of making the passage from New York to Bridgeport.

In order of approach they are:

1. East River and Hell Gate are areas of strong tidal cur averaging 4.6 knots for the ebb current which sets in Southwe direction. Vessel drawing up to 35 ft. may transit Hell Gate at slack Water only. Sluggish handling vessels should arrange for tug assis up the East River and through Hell Gate.
2. 26-ft. Buoy "32A" usually passed well clear to the South.
3. Cable and Anchor Reef usually passed to the South.

Via Block Island:

Charts, 13205, 13215, 13209, 12354, 12369.

Block Island's Southern shore high rock cliffs provide a good target. Also, bearings can be taken from the RDF station at S.E. Care should be exercised by vessels deeper than 30 ft. to a approach Block Island to East in views of the numerous shoals Western side of the Island.

It is also advisable to remain at least 1 mile to the East of Block due to the numerous shoals close in shore.

There are numerous dangers to be wary of when making the pa from the Pilot Station to Bridgeport. In order of approach they ar

1. Block Island North Reef Buoy "1B1" marks a dangerous sho should be passed well clear.
2. The Race is a narrow channel into Long Island Sound. Stron to West currents exist during maximum ebb or flood and knowle position should be maintained in view of the possibility of unusu Valiant Rock may be passed on either side.
3. Great caution should be exercised during the Summer m when transitting through Block Island and Long Island Sound due heavy small boat traffic, especially the area in proximity to The R
4. Dense fog is prevalent during the Summer months. judgement should be used before transitting the area during fog.

Good water is found in Long Island Sound from The Race to Bri as long as the mid-channel Buoys "P1" and "CF" are passed aboard and care is taken so as not to pass North of Twenty-Eig Shoal buoy.

Vessels usually pass one mile to the South of Stratford Shoa before altering course for Bridgeport. Radar is the best navigatio in this area. There are numerous RDF stations that can be u conjunction with echo sounder readings to ascertain positions.

PILOTAGE: Vessel usually notifies Agent 48 hours before arriv will arrange Pilot boarding. Pilot boards either at Brenton Reef in Lat. 41° 25' N., Long. 71° 23' W. or Point Judith in position Lat. 41 Long. 71° 29' W.

Note: Non-U.S. flag vessels and U.S. flag vessels under approaching from Block Island embark Pilot about 2.5 miles S Point Judith.

U.S. flag vessels under enrolment approaching from Bloc embark Pilot 1.4 miles East of Old Harbour - Block Island.

Constitution State Pilots provide Docking Masters for the po

Notice from State of Connecticut, Department of Transportatio

Pilotage is compulsory for vessels transitting the waters of Lo Sound via Block Island Sound bound to or from ports and ha Long Island Sound. Vessels bound for Bridgeport via Block Isla Island Sound usually board a pilot at either the Point Judith Pil (41° 17.2' N., 71° 28.5' W., 2 miles South of the Point Judith R "2 buoy) or the Montauk Pilot Station (41° 02' N., 71° 42' W., 3 m East of Montauk whistle buoy Mo (A) "MP"). Some Block Isl Island Sound pilots also serve as pilots for Bridgeport Harbour. harbour pilot is to be boarded, he will usually board vessel in Bridgeport Sea Buoy, marked "BH" – short and long flash; red vertical stripes.

ANCHORAGE: 2 miles South of the entrance with depths in 50 ft.

RESTRICTIONS: Entrance channel has a project depth of 35 ft. at MLW, is 400 ft. wide and 3 miles in length.

Normal time allowed for transit from outside to off the dock is 30 – 40 minutes. Docking time varies from 30 minutes to 1 hour, dependent on which terminal is the destination, and weather conditions.

The New Haven – Bridgeport Pilots Association believe 4 ft. of water in excess of the ship's draft is needed. As a rule of thumb, 31 ft. at low to 37 ft. at high. Any variations from this, a Pilot should be directly consulted. The range of tide is 6.7 ft. Wind strongly affects the tide in the main entrance channel. Flood and ebb cross the channel at a right angle, and velocities depend on the rise of tide for the day.

Vessels up to 70,000 d.w.t. and LOA 825 ft. call at the port.

MAX. SIZE: See "Berthing and Restrictions".

HEALTH: Vessel to cable Agent 24 hours prior to arrival of any illness on board, otherwise Radio Pratique not necessary.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Vessels arriving from North use Chatham Radio. Vessels from South use Amagansett Radio on Long Island.

BERTHING: *Cilco Terminal:* Cilco is a bulkhead dock, length approximately 1,100 ft. Vessels dock port or starboard side to. Two ships can moor at the same time. This is a dry cargo facility. Ships load or discharge all kinds of products. Several mobile cranes are available. Depth 33 ft. at MLW. Bunkers are only available by truck. Fresh water is available.

TUGS: Tugs available from Red Star. The Despatcher monitors VHF and is available 24 hours a day through Channel 24 at Bridgeport.

MEDICAL: All facilities available.

TANKERS: *Bridgeport Shell – Buckley Bros.:* The Shell berth is located on the East side at right angles to the main entrance, and ships must be turned 90° to approach the dock. The dock is approximately 200 ft. long with 2 main dolphins and catwalks to shore. Head lines and stern lines are run ashore by a messenger. The size of vessels is governed by manifold distance. Light oil products 300 ft. and heavy oil 350 ft. Vessels of length 700 ft. have been moored, 38 ft. at MLW in ship berth. Ships dock port side to.

Bunkers and fresh water are available.

United Illuminating: Berth is 0.6 miles inside the breakwater on the West side of the channel. A turn to port of 120° must be made into a dredged cut 140 ft. wide. The dock is concrete caissons on pilings with catwalks and centre platform. Depth 32 ft. to 37 ft. at MLW. Vessels of 70,000 d.w.t. call, but bow to manifold distance governs size of vessel (350 ft. – 375 ft.). Vessels dock starboard side to.

Fresh water is available, but bunkers are not. Every tanker, when moored here, has an anti-pollution boom placed around it.

FRESH WATER: Available at all berths.

FUEL: No fuel barge service available. In emergency, tank truck delivery can be arranged.

CONSULS: All countries represented in New York.

AIRPORT: Bridgeport Airport about 3 miles away. New York airports about 50 miles distant.

TIME: Daylight Saving Time, GMT minus 4 hours from April to October.

HOLIDAYS: New Year's Day (1st January); Lincoln's Birthday (12th February); Washington's Birthday (18th February); Good Friday; Memorial Day; Independence Day (4th July); Labour Day; Columbus Day (14th October); Veterans' Day; Election Day (5th November); Thanksgiving Day (28th November); Christmas Day (25th December).

SERVICES: Ship's stores and launch service available from New Haven. Vessels must provide their own gangway at all docks.

AUTHORITY: Bridgeport Port Authority, 177 State Street, Bridgeport, Connecticut 06604, U.S.A. *Tel:* (203) 384-9777. *FAX:* (203) 384-9686. *Contact:* Joseph C. Savino Jr., Harbour Master (After hours Tel: 374-7795).

BROWNSVILLE, Texas: 25.54 N. 97.28 W. **(See Plan)**

DOCUMENTS: See "Houston".

PILOTAGE: When a vessel is scheduled to arrive at Brownsville, the vessel's Agent notifies the Harbour Master's office of the approximate ETA. Later, when a firm ETA is received, the Harbour Master's office notifies the pilot office that the vessel is expected on the bar at a certain time and also gives the time which she would like to enter.

The telegraphic address of the pilot office is: Brazos-Santiago Pilots, c/o Harbour Master, Port of Brownsville, Brownsville, Texas.

If possible, it is desired that the Harbour Master's Office be notified 2 hours in advance of the ETA of any vessel.

The VHF Channel to be used when contacting the pilot boat and Harbour Master is 16. When contact is made, this will be switched to Channel 12.

The pilot boat is a steel hull length 43 ft., beam 16 ft. and draft 8 ft. 250 h.p. diesel. Gross tonnage 36 tons.

No light or sound signals are necessary from vessels requiring a Pilot, although light signals may sometimes be used at night – ordinarily a vessel is picked up by visual sighting.

The pilot boat is located on the South tip of Padre Island – the Pilot station is adjacent to the entrance to ship channel with a clear view of the approach to the jetties.

The Pilot is taken on board an incoming vessel at the sea buoy which is located 2 miles off shore.

The anchorage for a vessel awaiting Pilot is 1.5 miles North of sea buoy.

ANCHORAGES: Anchorages are marked on charts.

RESTRICTIONS: *Brazos Island Harbour:*

Name of Channel	*Width* (ft.)	*Dredged Dimensions Length* (miles)	*Depth* (ft.)	*Minimum depths in channel entering from seaward Left Outside Quarter* (ft.)	*Middle Half of Channel* (ft.)	*Right Outside Quarter* (ft.)
Brazos Santiago Pass:						
Entrance Channel	300	1.9	38	40.0	39.0	37.0
Channel across Laguna Madre	200	2.9	36	38.0	38.0	38.0
Brownsville Channel:						
Junction Basin to Boca Chica Passing Basin	200	4.0	36	38.0	38.0	38.0
Boca Chica Passing Basin to Goose Island Passing Basin	200	5.4	36	38.0	38.0	38.0
Goose Island Passing Basin to Brownsville Turning Basin	200	2.8	36	37.0	38.0	37.0
Brownsville Turning Basin (extension)	500	1.4	36	37.0	38.0	37.5
Brownsville Turning Basin	500-1000	0.5	36	36.0	37.0	35.0

MAX. SIZE: The max. permissible length 875 ft., beam 135 ft., draft 35 ft.

RADIO: ETA cables to Agent, etc., should be addressed to the Agent via WLC – Galveston, WLO – Mobile or Slidell Radio. When within 60 miles range of the port, calls may be made through the Harbour Master's office on VHF Channel 16 and the calls will then be transferred to land lines to any point. Also Brownsville Marine Operator, VHF Channel 26.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

VHF: A vessel approaching the Port of Brownsville may contact the Harbour Master's office on VHF Channel 16.

TUGS: Tugs normally join an incoming vessel 1.25 miles before she enters the turning basin. The tug's lines are used for which there is no charge.

BERTHING: Cargo facilities include over 7,500 ft. of modern, marginal dry cargo wharves, 9 deep sea dry cargo docks, 4 deep sea liquid cargo docks and 10 barge berths, together with over 583,000 sq.ft. of transit shed space. In addition there is 242,000 sq.ft. of open storage space at the deep-draft docks and 271,000 sq.ft. of open storage at the shallow draft docks.

BULK HANDLING FACILITIES:

Public Grain Elevator: Located at the approach to the Turning Basin, the privately and operated elevator has a capacity of over 3,800,000 bushels. An adjacent bulk plant provides flat storage for all types of dry bulk commodities.

Two large gantry cranes handle the loading of vessels. The maximum spout clearance for loading vessels is 45 ft. above the water.

Equipped with two truck dumps and two hopper car dumps, the elevator has the rated loading capacity of 1,200 short tons per hour (1,000 L/T per hour on bulk carriers without wing tanks and 600 L/T per hour on tween deckers).

The 400 ft. wharf is 12 ft. above water and has an unlimited berth length. The draft at dockside is 34 ft. and the channel control depth is 36 ft.

The grain elevator also has the flexibility of unloading vessels (barge unloading capacity is 300 t.p.h.).

Liquid Bulk Handling: Total liquid bulk storage available for petrochemicals and combustible oils is 3.4 million barrels, tank capacities from 1,000 to 200,000 barrels, at Itapco, Statia, Petro Liquids, and Brownsville Refinery terminals. Additionally, Citgo and Interlube maintain private terminals. Four liquid cargo docks on the North side of channel and one on the South side serve these entities. Three terminals, Itapco, Petroliquids and Statia, have Foreign Trade Zone status.

CRANES: Two large floating cranes, rated at 150 metric tons each, are available for heavy lifts at any dockside location in the port area.

STEVEDORES: To arrange for gangs the vessel needs to notify the ship's Agent of ETA; the Agent will in turn notify the stevedores. It is necessary that the Agent be advised of an ETA before 1900 hrs. for an 0800 hrs. start.

Main commodities and average load discharge rates:

Grain	Bulk carrier 1,200 t.p.h.
Grain	tween deck 600 t.p.h.
Cotton	100 bales per hour per gang
Lead and zinc pigs	40 tons per hour per gang
Citrus in boxes	22 tons per hour per gang
Onions and carrots in bags	22 tons per hour per gang
General cargo	25 tons per hour per gang

MEDICAL: When medical attention is required, advance notice should be given to the Agent by ship's radio.

TANKERS: Ballast facilities are available up to 6,000 barrels per hour. The port loads refined petroleum products. The port has 4 tanker berths, with max. draft 34 ft. 7 in.

Vessels proceeding to Brownsville normally turn in the basin and berth Port side to. Berthing at Port Isabel Oil Wharf also generally Port side to. Mooring boat employed.

DENSITY: The average density is 32 parts per 1,000.

FRESH WATER: Fresh water is available and can be delivered to a vessel through hose or pipeline at 150 gallons per minute.

FUEL: No fuel is available locally. It must be barged in from Corpus Christi – advance arrangements are necessary.

FIRE PRECAUTIONS: Preferred berthing for tankers, head out.

CONSULS: Mexico: Tel. 542-4431.

REPAIRS: Amfels, located at the port, is equipped to handle all normal temporary ship repairs.

DRY DOCKS: None available.

GANGWAY/DECK WATCHMEN: Such services are necessary only when detainees are held on board.

AIRPORT: The regional airport, Valley International, is located 30 miles from the port. American, Southwest and Continental Airlines provide passenger service.

Brownsville – South Padre Island International Airport, 5 miles from seaport, provides freight/package service via Federal Express, Burlington Northern and Continental passenger service.

OPENING/CLOSING HATCHES: This work is done by the stevedores.
REPATRIATION: There are facilities for this service.
TIME: Local Time is 6 hours behind GMT.
HOLIDAYS: The following holidays are observed here: Veterans' Day (4th Monday of October); Thanksgiving; Christmas; New Year; Washington's Birthday (Feb. 22nd); Texas Independence Day (March 2nd); Emancipation Day (June 20th); July 4th; Labour Day (1st Monday in September); Decoration Day (last Monday in May).

No work shall be performed on Labour Day or Christmas Day except in case of fire or where property is in danger. When holidays fall on Sunday, the following day will be recognised as the holiday. Also, no work will be performed between 1600 and 1900 hrs. on election days.
POLICE/AMBULANCE/FIRE: Sheriff 544-0860; Emergency Fire and Ambulance, dial 911.
TELEPHONES: Telephones are not available for placing on ships.
SERVICES: Tank cleaning service is available at the port. Ballast facilities are available at Oil Docks 1, 2 and 3. P.I.B. can take care of compass adjusting, etc.
IDENTIFICATION CARDS: Immigration requires Form No. I - 95 Landing permit.
GARBAGE DISPOSAL: BFI Waste Systems. Tel: 512-542-5550.

Containers provided by reservation, alongside or may be lifted aboard ship. Collection as required.
WASTE OIL DISPOSAL: Bilge water and contaminated ballast water discharge available at Oil Dock No. 1. Contact party, S.A.Beckwith, Port Safety Director/Environmentalist. Tel: 512-831-4592. Fax: 512-831-5006. Vessel must provide hoses to manifold. List of waste engine oil disposal companies available upon request.
SEAMAN'S CLUBS: Port of Brownsville International Seaman's Centre, P.O.Box 4033, Brownsville, Tx. 78520. Tel: 512-831-4304. Rev. Wilbur Aten. Facilities: Shop, international telephone service for seafarers, church services, mini-bus collection, postage facilities, games.
DELAYS: There are no delays unless an incoming ship has been assigned to a berth now occupied. Bunkers must be barged in; arrangements may be made ahead of time to avoid delay.
DEVELOPMENTS: The Federal Government has commenced deepening the channel to 42 ft., widening up to 400 ft., and enlarging the turning basin to 1,200 ft. Anticipated completion date 1996.

One new liquid cargo dock, 42 ft. depth, out for construction bids.

One new heavy lift/dry bulk dock, 42 ft. depth, for construction 1996.

The Port of Brownsville/Mexico International Truck/Rail Bridge Project is awaiting Presidential Permits from the U.S. and Mexican Federal Governments. Funding for the project is in place.
AUTHORITY: Brownsville Navigation District, Port of Brownsville, P.O.Box 3070, Brownsville, Texas 78523-3070, U.S.A. *Tel:* (512) 831-4592. *FAX:* (512) 831-5006. *Contact:* C. James Kruse, Port Director. E.E. Cockrill, Deputy Port Director – Marine Services. Rey Ramirez, Harbour Master. Judy Adams, Foreign Trade Zone Manager.

BRUNSWICK, Georgia: 31.09 N. 81.30 W. (See Plan)

DOCUMENTS:
- Crew Lists: 1 certified copy for Immigration; 2 copies uncertified for Customs.
- 1 copy Pratique.
- 3 copies Inward Customs Manifests.
- 3 copies each Stores, Curio & Narcotics List.

APPROACHES: The harbour is located about midway between Savannah and Jacksonville. The harbour is reached by a channel from the Atlantic Ocean, running between St. Simons and Jekyll Island. The channel has a minimum width of 500 ft. and a depth of 32 ft. to St. Simon's Sound, thence a width of 400 ft. and a depth of 30 ft. to Sidney Lanier Bridge, where the channel divides, 13 miles from sea. The Northern branch leads to Lanier Dock, State Dock and the city, 400 ft. wide and 30 ft. deep. The other branch leads N.W. to the pulp plant dock, chemical docks and electrical generating plant, 300 ft. wide and 30 ft. deep.
PILOTAGE: Compulsory. 24-hour Pilot service arranged by Agent with 48 – 24 hour prior notice from ship. Pilot boards vessel day or night approximately 1 mile outside "STS" Buoy (Lat. 31° 03' 20" N., Long. 81° 15' 20" W.). Distance to East River Terminals is 13 miles. Pilot contacted on VHF Channels 12, 14 and 16. Pilot boat is 25 ft. white hull. Marking is "Pilot" on hull.

Brunswick Bar Pilots' Association, 411 Arnold Road, St. Simons Island, Ga. 31522. Tel: (912) 638 2380.
ANCHORAGES: 3 miles S.E. of Buoy "STS", sand and mud bottom. In event of deep draft (30 ft.) and high winds, anchorage obtained near Ocean Buoy "2B" and inform Pilot as in "Pilotage". Vessels in need, or for other good reason, may anchor in St. Simon's Sound, depth 10 fathoms.
RESTRICTIONS: Vessels with a draft of 28 ft. may enter at any time and over 28 ft. on flood tide. Max. size vessel is Panamax. Vessels with draft of 34 ft. may proceed to or from Colonel's Island on high tide. Vessels with 30 ft. draft berth in the East River on high tides. Tidal range 6 ft. – 8 ft.
MAX. SIZE: Max. permissible length 650 ft. Max. d.w.t. over 33,000 tons.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Prior arrival, use Commercial Lantana, Chatham Radio for advices to Agent, 48-24 hours in advance.
TUGS: Tugs join vessel near Sidney Lanier Bridge if inbound fo East River and Mayor's Point Terminals and just West of Lanier B if bound for Colonel's Island. Harbour pilot on board vessel carrie the docking manoeuvre with tugs. 3 small tugs (500 h.p.)
BERTHING: 1,600 ft. continuous marginal wharf; steel and con construction, 57 ft. wide apron. Vessels normally turned to moor side alongside unless deck cargo or other vessel obstruction m cargo may not be worked over port side. Gantry crane of 27 tons cap available.

The Brunswick Port Authority operates a bulk commodity termin Lanier Dock. The facility is 500 ft. long and constructed of steel concrete, with a project depth of 30 ft. MLW (mean low water), equi with a grab bucket, conveyors and marginal tracks for handling cargoes at rates up to 600 t.p.h. It operates covered warehouses a capacity of approx. 60,000 tons. A limited amount of open sto space is available equipped with a conveyor system and reclaim facil Lanier Dock lies directly adjacent to the Brunswick State Docks warehouses. Both wharves have a turning basin of 1,000 ft. in le and 600 ft. wide with a project depth of 30 ft. MLW also Barge facility 250 ft. long.

Colonel's Island: Multi-product dry bulk facility. 1×2,400 t.p.h. trav ship-unloader, outreach 100 ft. Length of berth 600 ft. Storage 135,000 sq.ft.

Mayor's Point: 3 berths. Total length 1,500 ft. 235,000 sq.ft. of t sheds and 5 acres of open storage.
BRIDGES: Lanier Bridge lift bridge; 235 ft. horizontal clearance bet fenders, 139 ft. vertical clearance in up position at HW. Vessels u control of Pilot and tugs when passing through.
STEVEDORES: Radio to Agent 48-24 hours prior arrival with nu of gangs, working hatches and space in hatch, and special fa e.g. pilferable cargo, autos, heavy-lifts, etc.
MEDICAL: Advance notice to Agent, or notify on arrival.
TANKERS: Liquid bulk cargo is pine oil distillates loading. Petro storage 310,000 barrels, 3 tanks.

Outward Passage – Cautionary Advice: The berth is located just up from the Sidney Lanier Bridge.

In view of the short distance to the bridge and the fact t considerable course alteration must be made to port just before rea the bridge, it is essential that the ship is properly lined up on the b before proceeding into the bridge passage.

It is advisable that the Master acquaints himself with the Pilot's for the approach and passage of the bridge.

An anchor party should be standing by and anchors should be to let go. Special attention should be given to make certain tha helmsman accurately follows the Pilot's orders.
DENSITY: Average 1016 (high) to 1014 (low). Water inside consi brackish.
FRESH WATER: From shore connections at 20 t.p.h.
FUEL: Bunker "C" available at piers. Distillate and blends by bar required. 72 hour advance notice to Agent, giving type and quant
CONSULS: None. Consulates at Savannah, Ga., and Jacksonville may be used as required by vessel.
REPAIRS: Limited to minor replacement parts to engine, radio, ra standard makes. Major repairs may be arranged with shipyar Savannah or Jacksonville.
DRY DOCKS: None.
SURVEYORS: American Bureau of Shipping (912) 232-3793. A Marine Surveying, Inc. (912) 354-9938. Coleman, Kenney & Sila (912) 352-7420. International Adjusters Southern Ltd. (912) 352- National Cargo Bureau, Inc. (912) 236-1527. SGS Control Servic (912) 232-1995. L. O. Smith, Inc. (912) 233-9876. Southeastern Surveying Company (912) 233-4157. J. W. Tarver, Jr. (912) 233- Charles T. Theus, Inc. (912) 233-3588.
GANGWAY/DECK WATCHMEN: Not required but available.
OPENING/CLOSING HATCHES: "MacGregor" hatches mu opened by vessel prior working. All others may open at discre save turn-around time.
CERTIFICATES: Registry, U.S. tonnage tax, CFR Pollution, Lo SOLAS, Derat.
CUSTOMS ALLOWANCES: Tobacco, 2 cartons. Customs w bonded stores on request. Spirits, reasonable amount.
REPATRIATION: Through Agent.
AIRPORT: 20 minutes' drive from quays; 4 flights daily.
TIME: GMT minus 5 hours. Daylight Saving Time from first Su April till last Sunday in October. April: advance; October: retard
HOLIDAYS: 1st January, 22nd February, 30th May, 4th July, 1st in September, 4th Thursday in November, 25th and 26th Dece
POLICE/FIRE/AMBULANCE: Numbers given in Boarding Broc
TELEPHONES: None placed aboard. Public pay (coin) teleph quay clearly marked.
IDENTIFICATION CARDS: U.S. Immigration Landing Permits.
GENERAL: Brunswick, Georgia, is a small port specialising in e woodpulp in bales, pine-tree products in drums. Imports bulk fertiliser materials and gypsum, some break-bulk general cargo requirements handled by Agent in residence, communication by or R/T essential in advance.
AUTHORITY: Brunswick Port Authority, P.O.Box 1039, Sou Brunswick, Georgia 31521-1039. *Tel:* (912) 265-3700. *Telex:* T 7825071. *Contact:* Robert W. Turner, General Manager.

BUFFALO, New York: 42.55 N. 78.55 W. (See Plan)

DOCUMENTS: For vessels arriving from foreign ports:

3 Unfreighted copies of Complete Manifest covering all cargo to be discharged in the Great Lakes.
4 Personal Effects Lists.
4 Crew Lists.
4 Narcotics Lists.
Vessel's Registry and copies of Paid Tonnage Tax Certificates.
Health Pratique.
Clearance from previous port.

PILOTAGE: Not compulsory. Seaway Pilots will assist if required.
ANCHORAGE: Inside South Breakwater, depth 27 ft.
RESTRICTIONS: St. Lawrence Seaway navigation season. Approximately from 1st April to 15th December. Controlling depth 27 ft.
MAX. SIZE: Limited by Seaway Locks. 730 ft. length and Seaway draft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: WBL – Buffalo.
TUGS: Available, but not normally required.
BERTHING: Outer Harbour: Total berth space 2,400 ft.; depth alongside 27 ft. LW. 2 transit sheds – total of 184,000 ft. dry dock space; sprinkler system equipped, seaway piers for bulk cargoes. South and North Piers 3,506 ft. of berth space, 200 acres open storage area. Depth alongside 27 ft.
BULK HANDLING FACILITIES: *Grain:*

Frontier
Operator: General Mills, Inc. Berthing Space - 705 ft. Max. OA Dimensions (with turning) 647 ft.×70 ft. Storage Capacity: 4,200,000 Bushels.

Depth at Dock (ft.)	*Depth in Channel* (ft.)	*Unload Legs*	*Unload Speed* (b.p.h.)	*Load Spouts*	*Load Speed* (b.p.h.)	*Deepest Vessel Can Unload* (ft.)
22	22	2	21,000	None	–	36

Lake and Rail:
Operator: International Multifoods, Inc. Berthing Space - 535 ft. Max. OA Dimensions 647 ft.×70 ft. Storage Capacity: 4,600,000 Bushels.

Depth at Dock (ft.)	*Depth in Channel* (ft.)	*Unload Legs*	*Unload Speed* (b.p.h.)	*Load Spouts*	*Load Speed* (b.p.h.)	*Deepest Vessel Can Unload* (ft.)
22	22	2	23,000	None	–	36

Pillsbury:
Operator: The Pillsbury Co. Berthing Space - 875 ft. Max. OA Dimensions 647 ft.×70 ft. Storage Capacity: 5,000,000.

Depth at Dock (ft.)	*Depth in Channel* (ft.)	*Unload Legs*	*Unload Speed* (b.p.h.)	*Load Spouts*	*Load Speed* (b.p.h.)	*Deepest Vessel Can Unload* (ft.)
22	22	2	30,000	1	17,000	36

Stone, Sand and Dry Bulk:
Gateway Metroport: Operator: Gateway Trade Centre, Inc.
Dock Length: 3,900 ft. Depth: 26 ft. Storage Capacity: (West side) Coke - 40,000 tons; salt – 25,000 tons; steel – 100,000 tons. (East side) stone - 300,000 tons; steel – 200,000 tons; salt – 300,000 tons. Loading Equipment: (West side) 1×100 tons movable crane; 2 portable conveyors (800 t.p.h. each). (East side) 1×100 tons movable crane and 1×230 tons gantry crane. Rail alongside entire dock. Short line service with connections to all Class 1 railroads.
SPECIALISED CARGO HANDLING FACILITIES: A mobile gantry crane capable of handling lifts of 55 tons at 40 ft. and portable bulk conveyors. Crawler crane, capacity 230 tons. Conveyor, capacity 2,200 t.p.h. Additional heavy lift equipment available from the Port of Buffalo and commercial sources.
STEVEDORES: Gangs to be ordered by 1700 hrs. for 0800 hrs. start following day, ample gangs available.
MEDICAL: U.S. Public Health Outpatient Clinic as well as numerous hospital facilities.
DENSITY: Fresh water.
FRESH WATER: Available at most berths.
FUEL: All grades available by tank truck delivery or by harbour tank barge.
CONSULS: Canada, Costa Rica, Ecuador, France, Germany, Italy, Mexico, Netherlands and Sweden.
REPAIRS: Machinery and above-water repairs available.
AIRPORT: 5 miles, served by 4 regular airlines.
SHORE LEAVE: No restrictions when cleared by U.S. Immigration Officials.
GENERAL: Refer to "Great Lakes Pilot".
AUTHORITY: Gateway Metroport, 2544 Clinton Street (P.O.Box 880), Buffalo, NY 14224. *Tel:* (716) 826-7310. *FAX:* (716) 826-1342. *Contact:* Fred W. Finger, Port Director.

BURNS HARBOUR, Indiana: 41.38 N. 87.11 W. (See Plan)

The entrance to Burns International Harbour is at Lat. 41° 38' N., Long. 87° 11' W., and is located on the South shore of Lake Michigan at Portage, Indiana, some 30 miles East of Chicago in an area known as the Indiana Dunes.
PILOTAGE: Compulsory.
RESTRICTIONS: Average Navigation Season: Domestic cargo by lake freighters – March 15th to February 1st. Ocean going vessels via Seaway – April 1st to December 15th. Lake river barges – 12 months.
Approach to Harbour: Controlling depth of water at harbour entrance 30 ft., entry is from deeper water. Length and beam limitations – none. Approach open 24 hours per day.
Harbour: Controlling depth of water for outer harbour 28 ft.; East and West harbour arms 27 ft. Turning basin – 1,600 ft. radius with water depth of 28 ft. Accessible 24 hours a day. Length and beam limitations – none.
MAX. SIZE: Max. draft 8.22 m. (27 ft.).
VHF: Port on Channel 16.
TUGS: Available if required.
BERTHING: General Cargo, Ro-Ro and Bulk: 9 berths for vessels up to 230 m. (755 ft.) in length; depth alongside 8.22 m. (27 ft.).

Liquid bulk and containers also handled at these berths.

Tankers: 114.3 m. (375 ft.) barge berth, and 198.11 m. (650 ft.) ship berth.

Storage/Warehousing: Warehouse storage capacity of 13,560 sq.m. (146,000 sq.ft.) for general cargo; 2 dry bulk storage buildings of 5,600 sq.m. (60,000 sq.ft.) and 19,500 sq.m. (210,000 sq.ft.), or 60,000 tons and 150,000 tons respectively; open storage area of 7.3 ha. (18 acres); grain elevator storage capacity of 176,196 cu.m. (6,222,360 cu.ft.); refrigerated storage capacity of 465 sq.m. (5,000 sq.ft.).
Equipment:
1×300 ton 4600 W. Manitowoc.
4×240 ton Manitowoc.
2×150 ton 4000 Manitowoc.
1×80 ton 318 link belt.
1×60 ton 3900 Manitowoc.
1×40 ton wagon crane.
Buckets: 1×26 cu.yd.; 1×22 cu.yd.; 2×21 cu.yd.; 1×11 cu.yd.; 1×10 cu.yd.; 1×6 cu.yd.
6×72 in. magnets.
3 grapples.
14 caterpillar loaders.
2 D6 caterpillar bulldozers.
3 light loaders (bobcats).
24 forklifts.
1×100 ton Winslow truck scale.
1×60 ton Cardinal truck scale.
Loading conveyors: 42 in × 130 ft. portable belt type; 3 tractors with 3 low-boy 100 ton trailers; 3×100 ton dump trailers; specialised gear for heavy-lift or project cargo on site.

MEDICAL: Porter Memorial at Valparaiso.
TANKERS: See "Berthing".
DENSITY: 1000.
FRESH WATER: Available.
FUEL: Available.
CONSULS: See "Chicago".
REPAIRS: Facilities available.
AIRPORT: Chicago (O'Hare International) and Gary Regional.
HOLIDAYS: *Port Holidays:* New Year's Day; President's Day; Good Friday; Memorial Day; Independence Day; Labor Day; Election Day; Veteran's Day; Thanksgiving Day and Christmas Day.
SERVICES: Launch service, provisions, gyro/radio repairs, surveys, dirty ballast, garbage collection.
AUTHORITY: Burns International Harbour – Port of Indiana, Indiana Port Commission, 150 West Market Street, Suite 603, Indianapolis, IN. 46204, U.S.A. *Tel:* (317) 232-9200. *Telex:* 510-601-4224.

Port of Indiana – Burns International Harbour, 6600 U.S. Highway 12, Portage, Indiana 46368, U.S.A. *Tel:* (219) 787-8636. *FAX:* (219) 787-8842. *Contact:* James H. Hartung, Port Director.

BURNSIDE, (including Convent and St. James), Louisiana: 30.08 N. 90.55 W. (See Plan)

Also see "South Louisiana".
DOCUMENTS/PILOTAGE: For all general information refer to "New Orleans".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Normally required, see "Tankers".
BERTHING: Bulk Marine Terminal: Berth 877 ft. long, 45 ft. depth.

Ormet Corporation: Situated at Mile 170 AHP. Max. LOA 305 m. Max. beam 41 m. Max. draft 12.19 m. (60,000 d.w.t. or 130,000 d.w.t. part load) 2 travelling gantry cranes (1,000 t.p.h. each) and 1 shiploader (1,500 t.p.h.). Height above LWL 27.5 m., outreach 19.2 m. Travel 198 m. Loading rate 600 – 1,000 t.p.h.

Rogers Terminal and Shipping (Cargill Inc.): Floating feed transfer facility at Convent. 330 ft.×75 ft. Loading rate to vessels 1,300 t.p.h.

TANKERS: *Shell – St. James:* The facility is located on the West bank of the Mississippi River at Mile 160 above Head of Passes (AHP).

There are 2 berths, one of which is 800 ft. long and the other 1,100 ft. long. At the newer dock there are 2×16 in. arms and the berth is capable of unloading 28,000 bbls.p.h.

The depth alongside these berths is 55 ft. to 60 ft. However, the draft of the vessel is limited to that available at Southwest Pass.

It is important to note that due to the design of this terminal it is impracticable for vessels to receive stores at this location. Additionally there are no bunkers provided at this terminal nor is there any fresh water available from the terminal and there is no authorised anchorage in the immediate area of this facility. Vessels expecting less than 24 hours delay awaiting berth are generally anchored at New Orleans and then proceed to the terminal (which is a different port of entry for Customs) otherwise vessels would have to anchor at Burnside which is about 10 miles up river from St. James.

Because of an underwater pipeline near the dock, the terminal management requires all vessels using their facility to have at least 1 tug of 1,800 h.p. to assist in docking and undocking.

As a point of reference it generally takes approximately 15 or 16 hours transit from Southwest Pass to St. James Terminal for most vessels.

Texaco – Convent: The Texaco Dock is located 167 miles AHP. The berths are located near the edge of the navigable channel and interaction caused by downbound laden vessels can result in excessive surge by deeply loaded vessels docked alongside.

Current in the river at this location varies between 3 and 8 knots, depending on the height of the river.

The docks are located near an area of revetment, therefore anchors should not be used while alongside.

Cargo Handled and Shore Installations: Berth No. 1 handles mainly clean products and petrochemicals, e.g., aviation gas, jet fuel, unleaded gasoline, hi-test gasoline, etc., and serves mainly as a loading dock.

Berth No. 2 handles clean as well as dirty products including crude oils, charge stocks, petrochemical feed stock, furnace and fuel oils, etc. This dock both ships and receives cargoes.

All cargo transfer is made through 12 in. Chicksan arms which are bolted at the ship's manifold. Maximum rail pressure for discharging vessels is 125 p.s.i.

An emergency loading stop control is located in each dock house and portable unit is provided for vessels docked at the berths.

Docking: Docking is always performed by the River Pilot or Docking Master, with the aid of at least 2 tugs. 2×1,800 h.p. tugs are required for vessels up to 60,000 d.w.t. docking and undocking, vessels larger than 60,000 d.w.t. are required to use 3×1,800 h.p. tugs for these operations. Approach is made parallel to the berths, stemming the current with 2 or 3 tugs on the port side. Mooring lines, either wire or synthetic, are run to mooring dolphins by boat.

At least 12 mooring lines are required for all vessels, i.e., 2 head lines, 2 stern lines, and a combination of 4 breast and or spring lines, depending on available leads, both forward and aft.

Nylon messengers or heaving lines are not permitted and will be refused by line handlers in the boats or on the docks.

Bunkers and Fresh Water: Bunker-C and fresh water are available upon request; however, no barges are allowed alongside vessels at any time.

Ballast/Slop Facilities: A maximum of 10,000 bbls. of oily slops may be discharged ashore for storage/treatment.

DENSITY: Fresh water, 1000.

FRESH WATER: Available ex-berth.

FUEL: Not available.

NOTICE:

Agent to Shipmaster:

Vessels over 100,000 Summer Deadweight:

This is to advise you that the Pilots will not allow your vessel to transit outbound between Pilottown and Southwest Pass during darkness hours if your vessel is at a draft in excess of 35 ft. fresh water upon arrival at Pilottown outbound. The times involved are from 1600 hrs. until 0700 hrs. the next day.

We feel certain with various ballasting procedures you will be able to comply with this draft upon reaching Pilottown even though you may leave the *St. James Berth* at a greater draft. If you cannot comply, please advise your Agent boarding with this letter in order that he may inform all parties interested.

By anchoring at Pilottown you will be costing yourself an additional $3,500 minimum in tug and Pilot expense. Therefore, we sincerely require your utmost co-operation.

SHIPMASTER'S REPORT: February 1979.

Location: St. James – West Bank.

Documents: Ship's stamp on cash receipts.

Anchorage: Usually at Grandview in the Customs District of Gramercy, where launch service available and about 1 hour's drive to New Orleans.

From Capline (St. James) about 45 minutes' drive to Baton Rouge.

VHF: All berthing and river pilotage on Channel 13.

Tugs: 3 tugs recommended.

Berthing: Always port side to. No shore gangway, moorings 4, 2, 2 each end for tankers of 100,000 d.w.t. and upwards.

Cranes: Not available.

Tankers: Require ship's gangway at Berth No. 2.

Consuls: Honorary British Consul at New Orleans. (321 St. Charles Avenue). Open 1000 hrs. – 1200 hrs. and 1400 hrs. – 1600 hrs.

AUTHORITY: Port of Greater Baton Rouge, P.O.Box 380, Port Allen, Louisiana 70767, U.S.A. *Tel:* (504) 342-1660. *FAX:* (504) 342-1666. *Contact:* Gary C. Pruitt, Executive Director.

Burnside Bulk Marine Terminal, P.O.Box 25, Highways 44 22, Burnside, Louisiana 70738. *Tel:* (504) 473-0793. *Contact:* Dan Hales, Vice-President and General Manager. Glenn Schernayer, Sales.

The Port of South Louisiana, 152 Belle Terre, P.O.Box 909, La Place, Louisiana 70069-0909. *Tel:* (504) 652-9279, 568-6269. *FAX:* (504) 652-9518. *Contact:* Virginia D.Simons, Assistant Port Director - Economic Development.

Note: The Port of South Louisiana has jurisdiction from River Mile 114.9 A.H.P. to River Mile 168.5 A.H.P. which area includes St.Charles, St.John the Baptist and St.James parishes.

CAPE COD CANAL, (including Sandwich Oil Termina Massachusetts: (See Pla

The Cape Cod Canal is a sea-level canal, extending from a point Cape Cod Bay about 50 miles S.E. of Boston Harbour, Mass., Cleveland Ledge Lt., Buzzards Bay, Massachusetts.

PILOTAGE: The Corps of Engineers, Department of the Army , do not maintain pilot service but independent Pilots, licensed by the U Coast Guard, are usually available at the canal.

Pilotage is compulsory and available 24 hours.

Pilot boards:

1. East Entrance: Position Lat. 41° 47.9' N., Long. 70° 28.5' midway between the Sea Buoy and the breakwaters.
2. West Entrance: Near West end of Cleveland Ledge.
3. By special request: Near Brenton Reef Light (Lat. 41° 25.6' Long. 71° 23.4' W.) or 2 nautical miles South of Point Judith Light Bu No. 2 in position Lat. 41° 19.2' N., Long. 71° 28.5' W.

Pilots are available from the following associations:

Northeast Marine Pilots Incorporated, Newport, Rhode Island (T 401-847 9050 (HJ), 401-331 4824 (HN) and 800-274-1216).

Interport Pilots Associates. Tel: 201-291 1310 and 800-346-4877,

Boston Pilots, East Boston. Tel: 617-569 4500.

Associated Coast Pilots. Tel: 201-887 7114.

Association of East Coast Pilots. Tel: 609-435 1239.

NAVIGATION: Navigators are warned to be on the alert for possi "bank suction" and "bank cushion", the effects of which may caus vessel to take a sudden and decided sheer. Shipmasters are direc to notify the Marine Traffic Controller in advance of entering the chan of any known defects their ship may have which would effect the hand of their vessel in the Canal.

(a) Vessel traffic drawing 25 ft. and over are directed not to enter Canal Channel at the Cleveland Ledge Light entrance and s lay-to or anchor in the vicinity of Buzzards Bay Buoy No.11 (Fl & Bell) until clearance is granted by the Marine Traffic Control

(b) Vessel traffic with drafts in close proximity to the 32 ft. mean water project depth of the Canal should make themselves t aware of the controlling dimensions of the waterway and tra the Canal during the maximum stages of high water at a sp consistent with safe navigation.

Aids to Navigation:

(a) Aids to navigation for the Cape Cod Canal approach chan are under the jurisdiction of the First Coast Guard District, Bos Massachusetts, and are shown on U.S.Coast & Geodetic Sur Charts No. 13230, 13236, 13246 and 13218, and are descri in Department of Transportation, U.S.Coast Guard, "Light Atlantic Coast of the United States, Volume I, CG-158", a amendments thereto.

(b) The channel limits of Cleveland Ledge and Hog Island Chan are defined by buoys. The navigation beacon lights in Hog Is Channel No. 3, 5, 7, 9 and 11, and No. 4, 6 and 8, are loca 125 ft. outside the limits of the channel, in shoal water. Bea lights No. 12, 18 and 20 are located on Hog Island, Basset P and Greenwood Point, respectively, and are South of Southerly limit of the channel as follows: No. 12, 481 ft.; No 100 ft. and No. 20, 90 ft. Beacon Light No. 27 is a fixed ye mercury light located 120 ft. North of the Northerly channel at Canal Station 391 (Canal Administration Area).

Please note: The buoys have since been re-numbered, see Coast and Geodetic Survey Chart No. 13236, for correct num and loctions.

(c) The Canal in the Land Cut Section is lighted at night by La 500 ft. apart, 140 ft. from the edge of the channel and 25 ft. a mean high water. The lights are yellow on the North bank white on the South bank.

(d) Red navigation lights are installed on the lower chords o Bourne and Sagamore Highway Bridges 250 ft. North and S of the centre line to mark the 480 ft. wide channel. Green l denote the centre of the channel.

(e) Immediately preceding the lowering of the Railroad Bridge s the operator will sound 2 long blasts on an air horn. Immed preceding the raising of the span, the operator will sound long blast on an air horn. When the bridge span (nor maintained in an open or raised position) is in a down or low position, during periods of low visibility, there will be 4 blas an air horn on the span every 2 minutes. The navigation (360°) are fixed green when the lift span is in a fully raised po and stay green until the span starts to lower (6 ft. to 8 ft.) it becomes a fixed red. The 4 red flasing lights affixed to th of the bottom chord on both East and West sides of the start flashing when the centre light becomes red and con flash red until the bridge returns to the raised position, wh centre light becomes green.

RESTRICTIONS:

	Width bottom (ft.)
Easterly Entrance (Station -75 to Station -12)	540
Canal Land Cut, (Station -12 to Station 413)	480*
Hog Island Channel, (Station 413 to Station 661)	500
Cleveland Ledge Channel, (Station 661 to Station 880)	700

*Except narrows to 450 ft. opposite State Pier (Buzzards Bay) and through the railroad bridge.

The canal and approach channels have been dredged to the depth of 32 ft. below MLW.

HEALTH: See "Health: All Ports" before first U.S.A. port (Alba

RADIO/VHF: Direct communications with the Cape Cod Canal are available at all hours by means of telephone and radio telephone. The telephone number is 508-759-4431. Direct radio communications may be made with the Cape Cod Canal office on VHF radio telephone. Call the Cape Cod Canal office on Channel 13 to establish contact. The radio transmissions will then be switched to Channel 12 or 14 as the working channels to pass information. Channel 16 is also available at the Canal office; however, Channel 16 use should be limited to emergency situations or whenever vessels do not have one of the other above channels.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: The U.S. Army Engineer Division, New England, Corps of Engineers, Cape Cod Canal Field Office does not supply towage service, except in emergency situations

BERTHING: *Mooring Basins:* Mooring basins are located at the East and West ends of the Canal Land Cut.

The East Mooring Basin is located on the North side of the Canal at Sandwich. It is 550 ft. wide and 1,660 ft. long at the line of dolphins and approximately 3,000 ft. in length at the approach to the basin from the Canal channel and has been dredged to a depth of 25 ft. at M.L.W. There are 9 steel mooring dolphins located along the Northerly basin limit, spaced approximately 85 ft. apart.

The West Mooring Basin is located on the S.E. side of Hog Island Channel, Buzzards Bay. It is 350 ft. wide and 2,700 ft. long at the line of dolphins and approximately 4,000 ft. in length at the approach to the basin from the Canal channel and has been dredged to a depth of 32 ft. at M.L.W. There are 7 steel mooring dolphins along the Southerly limit of the basin for a length of 775 ft. Vessels moored at the Sandwich Bulkhead and East and West Mooring Basins shall have sufficient crew aboard at all times to ensure the safety of the vessel.

Small Boat Basins and Channels:

(a) The East Boat Basin located on the South side of the Canal opposite the East Mooring Basin has been dredged to 13 ft. at M.L.W. for 4.3 acres and 8 ft. M.L.W. for 4 acres.

(b) An improved channel, 15 ft. at M.L.W. and 100 ft. in width leads from the N.W. side of Hog Island Channel, abreast of Hog Island, to the existing harbour for small vessels in Onset Bay.

(c) An improved channel, 7 ft. deep at M.L.W. and 100 ft. wide, leads from a point opposite the Easterly end of the West Mooring Basin at approximately Canal Station 435 and extends to deep water in Cohasset Narrows at the approach to Buttermilk Bay. The natural channel leading into Buttermilk Bay is crossed by 2 fixed bridges, having a least horizontal clearance of 25 ft. and a vertical clearance of 6 ft. at M.L.W.

Seasonal Yacht Facilities:

(a) At the Easterly entrance of the Canal in the East Boat Basin, water, fuel, oil and gasoline are obtainable for the convenience of vessels from private sources.

(b) At the West end of the Canal Land Cut, there is a 15 ft. improved channel into Onset Harbour where water, fuel and supplies of all kinds are obtainable from local, private sources.

Coast Guard Station: A U.S. Coast Guard Station is located near the Easterly entrance of the Canal on the South bank.

BRIDGES: 2 fixed span high-level highway bridges and 1 vertical lift railroad bridge cross the canal. The horizontal distance between channel piers is 550 ft. at the highway bridges and 500 ft. at the railroad bridge.

The minimum bridge clearance for the available width of channels are as follows:

	Horizontal Clearance	*Vertical Clearance (MHW)*
Highway Bridges	480 ft.	135 ft.
Railroad Bridge (vertical Lift)	466 ft.	135 ft. (open) 7 ft. (closed)

TANKERS: See "Shipmaster's Report".

GENERAL: *Tides:* The mean tidal range in Cape Cod Bay is 9.4 ft., and in Buzzards Bay it is 4.0 ft. Predicted times and heights of tides for each day of the year can be obtained from the National Oceanic and Atmospheric Administration publication, "Tide Tables, Atlantic Ocean, East Coast of North and South America, (including Greenland)". A Canal Tide book is published annually and is available from the Cape Cod Canal Field Office at Buzzards Bay, Massachusetts.

Currents: Strong tidal currents occur in the Canal. Predicted times and velocities of maximum Eastward and Westward currents and predicted time of slack tide for each day of the year are given in the National Oceanic and Atmospheric Administration Tidal Current Tables publication, "Current Tables, Atlantic Coast of North America".

Cable Crossings: A submarine telephone cable crosses the Hog Island Channel, positioned in a direction of 319° True at a point on the centre line of the channel, 1,000 ft. West of Hog Island Beacon No. 9. The least depth of water over the utility is 36 ft. at M.L.W. Two aerial power cables cross the Canal at Bournedale, 1.2 Statute Miles West of the Sagamore Bridge and have a least vertical clearance of 160 ft. above M.L.W.

Traffic Lights: Red, Green and amber yellow signal lights, visible for a distance of about 2 miles in clear weather, day or night, are located at the following points:

(a) Eastern (Cape Cod Bay) entrance on the South side of the Canal with a mean elevation of 55 ft. above M.H.W.

(b) Western (Buzzards Bay) entrance to Hog Island Channel at Wings Neck, East side of the Canal at a mean elevation of 48 ft. above M.H.W.

Two Way Traffic: Two way traffic through the Canal will be allowed when, in the opinion of the Division Engineer's representative charged with controlling traffic, conditions are suitable.

SHIPMASTER'S REPORT: September 1984.

Sandwich Oil Terminal: 41° 46.3' N., 70° 30.9' W. (See "Plan").

Location: 2,200 m. inside North Breakwater from Cape Cod Bay, South side of Cape Cod Canal.

Max. Draft: 40 ft. (salt water).

Salinity: 1025.

Anchorage: Good anchorage N.E. of Breakwater.

Berthing: Berthing and unberthing only when slack tide.

Berthing port side alongside when arrival from Cape Cod Bay.

Berth must be approached with care.

Ship's gangway to shore.

Derrick rigged to take onboard two cargo hoses 10 in. diameter.

After discharging, vessel to proceed through Cape Cod Canal as there is no turning basin. Max. draft 28 ft. Airdraft 135 ft. when passing 3 bridges.

Vessel can also enter from Buzzard Bay but draft according to Canal Control is 28 ft.

AUTHORITY: Department of The Army, New England Division, Corps of Engineers, Cape Cod Canal Field Office, P.O. Box 1555, Buzzards Bay, Mass. 02532-1555, U.S.A. *Contact:* F.N. Ciccone, Engineer-in-Charge.

CASTLE ISLAND, Alaska: 56.39 N. 133.11 W.

Located in Duncan Canal off Kupreanof Island between Wrangell and Petersburg. Open all year.

DOCUMENTS: See "Anchorage, Alaska".

PILOTAGE: From sea via Dixon Entrance up Clarence Strait to Guard Island. Under pilotage from Guard Island.

ANCHORAGE: Fair weather anchorage only.

MAX. SIZE: Harbour depth 45 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TIDES: Diurnal range 16 ft. Also see "Berthing".

CUSTOMS: Quarantine and Immigration available from Guard Island. Customs available from Petersburg or Guard Island.

TUGS: From Wrangell, 3 available 500 h.p. each.

BERTHING: Alaska Barite facility: Dolphins and 2 floats. Present facilities limited to about 22,000 ton ships. Loading equipment consists of 1 loading spout for bulk cargo. Production average of 1,000 t.p.h.

STEVEDORES: Sufficient to work ore loading facility 24 hours a day when necessary.

MEDICAL: Facilities available in Petersburg or Wrangell.

REPAIRS/WATER/FUEL: None.

AIRPORT: Charter airplane only.

AUTHORITY: Chromalloy Mining and Minerals, P.O.Box 650, Petersburg, Alaska 99833. *Contact:* D.Brant, Harbour Master.

CHARLESTON, South Carolina: 32.47 N. 79.56 W. (See Plan)

DOCUMENTS:

3 Crew Lists.

3 Curio Lists.

3 Stores Lists.

3 Manifests.

At least 1 copy of Bill of Lading, if provided by shipper, and 1 copy of Parting Crew List.

PILOTAGE: Shipmasters to notify Agent 48, 24 and 12 hours prior arrival at C-2 Buoy. Pilot may be contacted by VHF Channels 16 and 18. Pilot boards on lee side from black-painted launch with "Pilot" painted in white letters on the side. Normally vessel is berthed by Docking Master from tug company.

Charleston Branch Pilots Association: 2 North Adgers Wharf, Charleston. Tel: (803) 577-6695. Monitors VHF Channel 16 and 18A, Channel 14 also available.

Masters please advise ETA and deepest draft and changes in ETA as soon as possible. If no contact is made please announce ETA and draft over the air. Savannah and Cape Fear Pilot Stations will also pass on this information for you.

Pilot vessels: Call sign WZF 7266 "Carolina" 55 ft. length; "Palmetto State" 55 ft. length; "Sis" 37 ft. length.

Pilot vessel when on station guards following frequencies: VHF Channel 16; VHF Channel 13; VHF Channel 18A, 156.95 MHz.

Location of Pilot Station: Charleston C-2 Buoy Lat. 32° 40.7' N., Long. 79° 42.9' W., in 42 ft. of water.

Pilot ladder requirements: Have ladder in good repair, clean and approximately 6 ft. above water. Please provide escort to and from bridge. Personal portable VHF transceivers are carried by Pilots.

Distances from Pilot Station to all berths approximately:

	Nautical Miles
Union Pier	12
Columbus Street	12.5
Exxon Dock	14.5
Wando Terminal	14
Ship Yard River	15 – 16
Navy Yard	16 – 19
Other Oil Docks	19 – 20
State Port Terminals of North Charleston	21
Army Transportation Docks	22
Naval Weapons Station	25
Cainhoy	22.5

ANCHORAGES: Rarely required.
RESTRICTIONS: Only restriction affecting operation relates to channel depth of 35 ft. at low tide.
MAX. SIZE: Can handle vessels 930 ft. long. Present private tanker facilities measure 475 ft. from centre of discharge pipeline to end of dock.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
RADIO: Normal procedure. No special or unusual procedures required.
RADAR/VHF: Services required are handled through Agent.

Tug Companies: Marine Contracting and Towing: 723-7442 Radio frequency Channel (7A).

White Stack Towing: 577-6556 Radio frequency Channel 19A.
Marine operator on Channel 26 VHF.
Weather Station on Channel 39 VHF.

TUGS: Tugs usually join tankers between Cooper River Bridge and Coal Pier, approximately 0.5 miles from dock. Tug lines used. No charge made for this service.

Tugs are required for any vessel docking at or sailing from any state port berth which has a crane.

BERTHING: *Union Pier:* State Pier No. 2: 4 berths. Break-bulk terminal, length 2,470 ft. (752.86 m.) Depth 40 ft. MLW. LASH barge handling capabilities, and 12 acres (48,561 m.) of open storage area.

Columbus Street Terminal: State Pier No. 8. 6 berths. Length 3,875 ft. (1,181 m.) Depth 40 ft. MLW. Terminal handles break-bulk and containers. 1×75 ton gantry crane, 1×50 ton gantry crane and 1×150 ton gantry crane serve 1,940 ft. of berthing space along the South end of the pier. 1×90 ton truck crane and 3×40 long ton container cranes.

North Charleston Terminal: State Pier No. 15: Total length 2,500 ft. 3 container berths, 6 container cranes, one grain elevator, capacity 1.5 million bushels. 131 acres open container support space.

Wando Terminal: 4 container berths, total length 3,800 ft. 4 container cranes each 40 tons capacity, 3 Morris container cranes and 2 IHI container gantry cranes. Depth 40 ft. MLW. Paved container storage area of 126 acres.

BULK HANDLING FACILITIES: *Shipyard River Coal Terminal:* Operator: Massey Coal Terminal Corp. Max. size: 50,000 d.w.t. Max. draft 38 ft.

Accommodation includes a single ship berth at the confluence of the Shipyard and Cooper Rivers. The pier is served by a travelling and shuttling shiploader with telescopic chute, which has a maximum capacity of 2,500 t.p.h. and loads at an average of 1,650 t.p.h.

CRANES: 1×40 ton, 1×90 ton, and 2×140 ton mobile cranes are available to work any Port Authority Terminal.
BRIDGES: *Cooper River Bridges Specifications:* Main Channel Span: 150 ft. above MHW at Centre Line, 750 ft. horizontal.

Town Creek Span: 135 ft. above MHW at Centre Line, 750 ft. horizontal.

STEVEDORES: *Working Hours:* Labour may be ordered for work to start at the following times: 0800, 1000, 1200 and 1900 hrs. Labour will usually work as long as necessary; shift system not used in this port.
MEDICAL: Advance notice when possible.
TANKERS: *Private Facilities:* Discharge lines all 8 in. dia. and 1 solvent line 8 in. Adapter to conform to ship's discharge lines supplied. Draft not to exceed 35 ft. low tide. Tanker berths operated by Humble Oil, Shell Oil, Hess Oil, BPT, and Phillips Petroleum, all suitable for 35 ft. draft. Gulf Oil Berth, max. draft 30 ft. Texaco Berth, max. draft 32 ft.
Report: *Exxon Terminal:* The berth, located 14.5 miles from the Sea Buoy, is of marginal type construction, and traffic passes in close proximity to the facility. Passing traffic combined with tidal conditions experienced on ebb tide require that a vessel be moored as follows:

Vessels arriving at the Port of Charleston with a draft in excess of 33 ft. (salt) are scheduled to commence channel transit 2 hours after LW slack at the channel entrance. This schedule allows the vessel to berth and be fully secured prior to the start of the strong ebb current out of Shipyard Creek. (See Chart: U.S. 11524).

On arrival, the vessel is breasted into the berth port side to, and 1 forward spring run to assist in spotting and maintaining vessel's position.

With vessel positioned, attending tug will work bow of vessel in. Once an angle of 5° is attained, vessel will then run 5 head lines and 3 forward breast lines. Efficient stoppers shall be available to "stop off" mooring lines during transfer from winch to bitts without loss of tension. With aforementioned lines all fast, attending tug will then work stern of vessel in; any required adjustment of head and/or breast lines to attain equal tension on all leads shall be undertaken during this period. With vessel in position, an additional forward spring line will be used. Recommended stern leads are as follows:

(a) 2 spring lines. (b) 2 breast lines. (c) 3 stern lines.

Mooring lines are to be kept taut during cargo transfer. Any required slacking of head lines shall only be attempted during flood tide. Vessel to consult tide tables for times of HW and LW. Also see "Plan" for mooring arrangements.

Vessels arriving with a draft of less than 33 ft. begin transit approximately 1 hour after LW slack at the channel entrance and follow the same procedures when mooring.

The U.S. Coast Guard has recommended that moored vessels maintain a listening watch on VHF Channel 13 and to pay close attention to moorings while deep draft vessels are transiting the North Charleston and Filbin Creek Reaches. Since maintaining a bridge watch to monitor VHF during the entire discharge is not practicable, nor is it permissible to operate radio equipment at any time during cargo transfer, it is suggested that vessels consult with the Agent to obtain advice on expected times of transit of passing vessels. Prior to vessels passing, crews should exercise particular care in maintaining a close watch on mooring lines to make certain vessel is alongside and mooring lines are in taut condition.

Failure of vessels to moor in a safe and proper manner will result in terminal's refusal to connect cargo hoses. Tidal conditions experienced at the berth require a full deck and engine room watch be kept; failure to comply will result in suspension of cargo transfer.

FRESH WATER: Available via 2.5 in. hose at a rate of 500 bbls.
FUEL: Bunker "C" at API of 14.4 to 16.6 (approx.) and blended Bo Intermediate grades from 1 to 30.
FIRE PRECAUTIONS: Normal precautions.
CONSULS:

Chile: Dr. Carlos Salinas, 948 Equestrian Dr., Mount Pleas S.C. 29464, Tel: (803) 792-2489, (803) 884-6224.

Denmark: G. L. Buist Rivers, Jr., 28 Broad St., P.O. Box 993, 29 Tel: (803) 577-4000.

Norway: James D. Lucas, III, 198 East Bay Street, Post Office 536, Charleston, S.C. 29402. Tel: (803) 577-5782.

Switzerland: Dr. Hans Kuhn, 176 West Park Drive, Spartanb S.C. 29301. Tel: (803) 585-3922.

REPAIRS: Available.
DRY DOCKS: 1×10,000 ton floating dock, 1×1,500 ton, 2×1,000 ton floating docks.
SURVEYORS:

ABS, 960 Morrison Drive, Suite 307, 29403-4232. Tel: 722-6661

Atlantic Marine Surveyors, 15 Briarcliff Dr., 29407. Tel: 571-4 572-7297 (pager).

William P. Cart, Jr., 1043 Fort Sumter Dr., 29412. Tel: 795-0233

Charleston Marine Surveyors, Inc., 60 Shadowmoss Park P.O.Box 38006, 29414. Tel: 723-8111.

Coastal Container Surveyors, P.O.Box 1305, 29402. Tel: 554-0 728-7167 (pager).

GAB Business Services, Inc., 1180 Hwy. 7, P.O.Box 31858, 29 Tel: 571-5210.

Intermodal Transportation Services, P.O.Box 1001, 29 Tel: 747-1442, 728-8472 (pager).

Lucas & Brown, Inc. (representing American Institute of Ma Underwriters, Lloyd's Agency), 198 East Bay Street, P.O.Box 29402. Tel: 577-5782.

Dana C. McLendon Co. (representing Institute of London Underwr International Adjusters-Southern-Ltd.), 18 Broad St., Suite P.O.Box 1233, 29402. Tel: 723-9274.

Captain Vincent J. Mitchell, P.O.Box 33, 1005 E. Ashley Ave., Beach, S.C., 29439. Tel: 588-9566.

George Shane, Tel: 899-6821.

Alfred A. Sorensen & Associates, Building 52, Suite 134, Berk Square, Goose Creek, S.C. 29445. Tel: 797-5555.

GANGWAY/DECK WATCHMEN: Supplied by Agent upon request Shipmaster only.
CERTIFICATES: Normal International Certificates.
CUSTOMS ALLOWANCES: Tobacco, Wine and/or Spirits, governe length of time in port and existing Customs Regulations.
REPATRIATION: Facilities available.
AIRPORT: 10 miles from Terminal, served by regular airlines.
HOLIDAYS: Work continues on holidays (except New Year's July 4th, Labour Day and December 25th).
EMERGENCY CO-ORDINATION CENTRE:

Marine & Air Emergency, Oil & Chemical Spills: 196 Tradd St., P.O 724, 29402, Tel: 724-7600.

Captain of the Port, Marine Safety Office, 196 Tradd St., P.O.Box 29401-1899, Tel: 724-7683.

Georgetown: Belle Isle, P.O.Box 1440, 29440, Tel: 546-2742.

POLICE/AMBULANCE/FIRE: Emergency Medical Service, 577- Hospital (Roper), 724–2147; Charleston Fire Dept., 911; City Police County Police, 911.
TELEPHONES: No arrangements exist for placing phones ab vessels. Phone facilities are situated within 100 ft. of vessel at do
SERVICES: No tank cleaning/washing facilities available at dock be arranged and handled at local shipyard. Practically any other se available at dockside.
BANKS:

NCNB, 1 Broad St., P.O.Box 610, 29402. Tel: 723-6800.

Citizens & Southern National Bank of South Carolina, Main O 46 Broad Street., P.O.Box 10608, 29411. Tel: 554-0860.

First Union National Bank of South Carolina, 145 King Street, P. 995, 29402. Tel: 724-1000.

Southern National Bank, 151 Meeting Street, P.O.Box 935, 2 Tel: 722-3333.

South Carolina National Bank, 16 Broad Street, P.O.Box 700, 2 Tel: 723-8311.

STORING: See "Prelims".

1. Yes
2. Yes
3. Yes
4. Yes
5. Standard U.S. Regulations
6. Yes

SHORE LEAVE: Subject to Shipmaster's permission and Immigration Regulations.
DELAYS: Normally, no delays beyond normal time required to disconnect hoses.
DEVELOPMENTS: The main navigation channel has been to 40 ft.

Floating Ro/Ro ramp in operation.

SHIPMASTER'S REPORT: April 1989.
Chart: B.A. Chart No. 2806.
Approaches: Found to be as charted and described in the Pil
Depths: Controlling depth in Charleston Harbour is given by (See "Developments" above).
Pilotage: Pilots require a minimum of 2 hours notice of ar departure. Radio signals show 2 days notice required.

Pilot Office monitors VHF Channels 16 and 18A and capable Channel 14.

Pilot vessels guard VHF Channels 16, 13 and 18A.
Pilot station is at the Sea Buoy with Racon 'K'.
Pilot ladder to be rigged 8 ft. above the water.

Pilots board from a large launch and request a speed of about 7 knots, instructions will be given for any special requirements due to weather conditions.

Pilots leave either in the buoyed channel or at the Sea Buoy depending on weather conditions and entering traffic.

The dock Pilot boards from a tug.

Sea Pilot will leave by launch and will request a pilot ladder to be rigged.

Tugs: When going to Shipyard River Coal Terminal, tugs will join the vessel just above the fixed bridges.

Berth: The Shipyard River Coal Terminal is on the South side of the entrance to Shipyard Creek, and is marked on the chart as dolphins (Dns).

The face of the berth is well fendered and long enough for this vessel to be loaded without shifting.

Accommodation ladder can be used at high water when light, but due to the dockside saveall and discharging conveyor belt, it is difficult to land on the dockside, so a short brow is required for access at most times.

Ship's cranes will reach over the conveyor belt for storing, and access for trucks is good.

Mean tidal range is given as 5.2 ft. (1.6 m.), but it is as much as 2.0 m. at Springs.

The dockside fenders are above the maindeck level when loaded at low water and for this reason every effort should be made to complete on high water or considerable damage could be done to shipside rails, tank vents and timber stanchions. Possibly this could be considered not a safe berth according to the Charter party, at low water.

The foreman advised that vessels had been loaded to 38 ft. on the Coal Berth and that dredging was expected to increase this to 40 ft. at high water. There is therefore adequate water at all states of the tide for this vessel.

Berthing: Vessel berthed starboard side to, turning with tug's assistance inside the Shipyard Creek.

One line boat is in attendance, taking lines first to the forward dolphins and then coming aft for the stern lines.

Similar procedure for departure, letting go the head lines first then the stern lines.

Loading: Loading is by chute on a movable gantry and as mentioned before, all hatches can be loaded without shifting. Loading capability is about 600 tonnes per hour.

Cargo: All available cargo was loaded.

Stoker coal stowing at 52/53 cu.ft./ton (1.4498/1.4776 cu.m./tonne).

Total cargo loaded by shore weights 6755.556 tonnes.
by draft survey 6761.71 tonnes (Ship's figure).
6760.28 tonnes (Surveyor's figure).

The Surveyor's figure was used for the Mate's Receipt and Bill of Lading.

Hold distribution:

	Pre-stow Estimate	Actual	Slack	Possible Max.
No. 1	1531	1624.28	Nil	1624.28
No. 2	1800	1639.94	181	1820
No. 3	1800	1778.43	43	1820
No. 4	1697	1717.63	Nil	1717.63
Totals	6828	6760.28		6981.91

Pre-stow estimates were calculated using the untrimmed grain capacities of the holds, charter party calling for spout trimmed stowage.

Hold No. 4 was filled giving a stowage factor of 1.46 cu.m./tonne (52.37 cu.ft./ton). Foreman's estimate of space remaining in Hold No. 3 was 40 tonnes and in No. 2 170 tonnes, working on the stowage factor from Hold No. 4, these holds would take 1820 tonnes, being close to the Foreman's estimate.

Estimating Hold No. 1 with the same stowage factor, it would take 1550 tonnes, however this hold was filled and shore weights of 1624.28 tonnes were given, a stowage factor of 1.393 cu.m./tonne (49.86 cu.ft./ton). Either the shore weights are incorrect or there is an overestimation of the void space left in Hold No. 1. This is likely as the distance to the fore and after ends of the hold are shorter than in Holds No. 2 and 3 and the fore end has less width, but the same percentage loss is used as for the larger hatches although Hold No. 4 also with shorter ends but less taper has a smaller percentage loss. Therefore estimate that in future 6,982 tonnes of this coal could be loaded and the arrival draft of 21 ft. maintained with full bunkers at Charleston.

Fresh Water: Available from the berth, but delivery is reported to be slow.

Services: All services expected in a United States port are available.

AUTHORITY: South Carolina State Ports Authority, Port of Charleston, 176 Concord Street, P.O.Box 817, Charleston, South Carolina 29402. *Tel:* (800) 845-7106. *FAX:* (803) 577-8616. *Cables:* SC Portsauth. *Contact:* W. Don Welch, Executive Director. William P. Lempesis,, Harbour Master. *Tel:* (803) 577-8192.

Berthing Office: Tel: (803) 577-8192, 24 hours / 7 days a week, VHF call KPC 636 on Channels 16 and 14.

Harbour Services 577-8659.

CHICAGO, Illinois: 41.50 N. 87.45 W. **(See Plan)**

DOCUMENTS:

For Agent in Montreal:

3 unfreighted copies of Complete Manifest for Seaway Toll purposes, covering all cargo to be discharged in the Great Lakes.

In first U.S. port: a "Traveller" is made up by the Customs Inspector with the following documents:

2 complete sets of U.S. Cargo Manifests, plus 6 copies for Agents.
- 1 set Manifest of Cargo for first U.S. port.
- 4 Stores Lists.
- 4 Personal Effects Lists.
- 4 Firearms and Ammunition Lists.
- 4 Crew Lists, Form I-418.
- 4 Narcotics Lists.
- 4 Vessel's Itinerary Lists.
- Vessel's Registry and copies of Paid Tonnage Tax Certificates.
- Health Pratique.
- Clearance from previous port.
- 2 sets Bills of Lading.
- 3 copies Stowage Plan.

In subsequent U.S. ports the following are required:
- 5 sets Manifest of Cargo for that port.
- The "Traveller" and Permit to Proceed issued in previous port.
- 2 Stores Lists.
- 2 Personal Effects Lists.
- 2 Firearms and Ammunition Lists.
- 2 Crew Lists.
- 2 Narcotics Lists.
- 2 sets Bills of Lading.
- 3 copies Stowage Plan.

PILOTAGE: Compulsory unless Master holds Exemption "B" Licence. 24 hours' notice of arrival required by Agents who arrange Pilot.

ANCHORAGES: In Chicago Harbour, Anchorages A and B designated for merchant ships and marked on charts. In Calumet Harbour vessels should not anchor within 1,000 ft. of the breakwaters.

RESTRICTIONS: St. Lawrence Seaway navigation season approx. from April 1st to December 15th. Controlling depth 27 ft.

Inland waterways to New Orleans open 12 months.

MAX. SIZE: Limited at Seaway Locks. 740 ft. length, 26 ft. 03 in. draft and beam 78 ft. Depth alongside terminals 27 ft.

Inland waterway handles barges with draft 9.0 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Port can be contacted by Illinois telephone station WAY. Vessels are required to give notice on radio upon entering Calumet River.

Notice of Arrival: Master must give at least 24 hours' notice to Commander, 9th Coast Guard District, Cleveland, Ohio, of the vessel's ETA at Snell Lock. Also at least 24 hours' notice of ETA at first U.S.A. discharge port is required.

TUGS: Available, not compulsory and not required at Iroquois Landing Terminals, but recommended for downriver transit to Lake Calumet berths.

BERTHING: *Calumet River Terminals:* Iroquois Landing Lakefront Terminals. Operator: Ceres Marine Terminals. Facilities at the mouth of the Calumet River. Handles general cargoes, steel products and containers. The terminal has 3,000 ft. of berthing space. Heavy lift cranes run from 75 tons to 140 tons in capacity. Also numerous lift trucks, with capacities to 46,000 lb.

2×100,000 sq. ft. terminal warehouse facilities. 90 acres of the 194 acre site has been paved and set aside for maritime operations adjacent to the 3,000 ft. of berthing space on the South side of the Calumet River entrance at Lake Michigan.

Federal Marine Terminals Inc. handles general cargo, steel products and containers. This facility has 730 ft. of berthing space, 34,000 sq. ft. of covered storage space and 11 acres of open storage space. Heavy lift cranes at Federal Marine range from 20 tons to 150 tons. Lift truck capacities range up to 52,000 lb.

KCBX Terminals Co. on the Calumet River specialises in handling, storing and distributing raw materials or dry bulk commodities. KCBX's twin bulk loading facilities offer 2 deep-water berths, each more than 700 ft. long. The facility has railroad yards that accommodate 2,200 rail cars adjacent to the dock. The twin loading towers provide fast handling at up to 2,500 t.p.h.

Lake Calumet Terminals: Stolt Terminals (Chicago) Inc. in Lake Calumet transfers liquid bulk cargoes – animal fats, vegetable oils and chemicals. Stolt Terminals has 600 ft. of berthing space, with storage capacity of more than 750,000 barrels and 16,000 sq. ft. of drumming warehouse space. This facility has a transfer capacity of approximately 200 t.p.h. Stolt also has 5 miles of internal railroad trackage and a switch engine.

Ceres Terminals (North), Inc. at Lake Calumet handles steel, ores, pig iron, scrap and containers. The terminal was designed for easy interchange of cargoes to and from deep sea vessels. Mississippi River barges, Great Lakes vessels, railroads and trucks – both local and interstate. Truck and railcar weighing services are available also. Ceres has 1,500 ft. of berthing space; 45,000 sq. ft. of covered storage and 27 acres of open storage. Heavy lift equipment includes 5 cranes ranging from 125 tons to 150 tons. Lift truck capacities range up to 50,000 lb. per unit.

Reserve Warehousing, Inc. in Terminal sheds 2 and 3 on Lake Calumet has 100,000 sq.ft. of general covered storage with access to additional 68,000 sq.ft. Equipment includes lift trucks to 52,000 lbs. capacity, cranes 100 tons – 150 tons; 1,000 ft. of berthing for deep-draft vessels and inland barges. Speciality in steel, non-ferrous metals, lumber, pulp and general cargoes.

Emesco (Dockside) Terminals warehousing and marine terminal facilities on Lake Calumet are designed for efficient handling of steel, machinery, containers, scrap, pig iron, ferro-alloys and other metallic bulk commodities. Emesco's 800 ft. of heavy duty bulkhead and

2×75 ton gantry mounted cranes operating over 3,700 ft. of tracks provide more than 1,000,000 sq. ft. of open storage under cranes. Emesco has 100,000 sq. ft. of heated warehouse. Other features are 25 acres of open storage, miscellaneous auxiliary cranes, an electronic truck and rail scale, 25,000 ft. of railroad track, ship to barge transfer.

Port District operates Foreign Trade Zone No. 22 for warehousing, storage and distribution. 526,000 sq.ft. covered warehouse and 36 acres of open storage area have FTZ designation.

BULK HANDLING FACILITIES: Continental Grain Company's Elevator "B" on the Calumet River has a storage capacity of 6,800,000 bushels. Elevator "B" has 5 loading spouts with a shipping capacity of 40,000 bushels per hour. Unloading capacity from barges is 15,000 bushels per hour. Receiving capacity from rail cars is 10,000 bushels per hour and from trucks 15,000 bushels per hour. The berthing space at Elevator "B" is 1,025 ft.

The Cargill Inc. grain elevator on the Calumet River has a capacity of 23 million bushels. In addition to grain, this facility handles salt, molasses, and grain by-products. Cargill has 3,600 ft. of berthing space – 1,200 ft. of this for elevator use, and 20 acres of open storage. Loading capacity is 60,000 bushels per hour, while unloading is 12,500 bushels per hour. Cargill has 3 marine legs, and 5 loading spouts.

The Gateway Elevator of the Countrymark Co-Operative at Lake Calumet offers storage capacity of 7,500,000 bushels for bulk grains. The 8 loading spouts have a capacity of 20,000 bushels each per hour. Unloading speed is 10,000 bushels per hour. Berthing space is 1,000 ft.

Elevator "C" at Lake Calumet has a capacity of 6,500,000 bushels of bulk grain and grain products. The 8 loading spouts have a capacity of 20,000 bushels each per hour. Unloading capacity is 10,000 bushels per hour. This facility has 1,000 ft. of berthing space.

DENSITY: Fresh water.

MEDICAL: Doctors, hospital and all facilities available.

FRESH WATER: Available at most berths.

FUEL: All grades available, ex-wharf, or delivered by barge.

SEAMAN'S CLUBS: Chicago Seaman's Mission, 12800 S. Butler Dr., Chicago, IL 60633. Tel: (708) 758-5460.

CURRENCY: U.S.Dollar (U.S.$).

CONSULS:

Argentina
Australia
Austria
Belgium
Brazil
Canada
China
Colombia
Costa Rica
Cyprus
Denmark
Dominican Republic
Ecuador
El Salvador
Finland
France
Germany
Great Britain
Greece
Guatemala
Haiti
Honduras
Iceland
India
Ireland
Israel
Italy
Jamaica
Japan
Korea
Liberia
Lithuania
Luxembourg
Mexico
Netherlands
Norway
Pakistan
Panama
Paraguay
Peru
Philippines
Poland
Portugal
Senegal
South Africa
Spain
Sri Lanka
Sweden
Switzerland
Thailand
Turkey
Venezuela
Yugoslavia.

REPAIRS: All marine repairs can be effected.

SHIP SUPPLY SERVICE: Services are available for ship to shore transfer of personnel. The U.S. Coast Guard is also available with boats as well as a helicopter for emergency situations.

Calumet Marine Towing Co., Chicago, IL 60617. Tel: (312) 721-1180.
Canonie Transportation Muskegon, MI 49443. Tel: (616) 722-6641.
North American Towing Co., Chicago, IL 60633. Tel: (312) 646-0101.
U.S. Coast Guard, Chicago, IL 60607. Tel: (312) 353-6601.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany). Service available. Contact Great Lake Disposal Inc., 13546 S. Western Avenue, Blue Island, IL 60406. Tel: (708) 388-9999.

WASTE OIL DISPOSAL: Service available. Contact Clean Harbors, 11800 S. Stony, Island Ave., Chicago, IL 60617. Tel: (312) 646-6202. Fax: (312) 646-6381.

GENERAL: Refer to "St. Lawrence Seaway" for important general information.

AUTHORITY: Illinois International Port, 3600 E. 95th Street, 95th Street & Lakefront, Chicago, IL 60617-5193, U.S.A. *Tel:* (312) 646-4400. *FAX:* (312) 221-7678. *Contact:* Anthony Ianello, Executive Director.

CLEVELAND, Ohio: 41.31 N. 81.43 W. (See Pl

DOCUMENTS:

For Agent in Montreal:

3 Unfreighted copies of Complete Manifest for Seaway Toll purpo covering all cargo to be discharged in the Great Lakes.

In first U.S. port: A "Traveller" is made up by the Customs Inspe with the following documents:

2 complete sets of U.S. Cargo Manifests, plus 6 copies for Agen
1 set Manifest of Cargo for first U.S. port.
4 Stores Lists.
4 Personal Effects Lists.
4 Firearms and Ammunition Lists.
4 Crew Lists, Form I-418.
4 Narcotics Lists.
4 Vessel's Itinerary Lists.
Vessel's Registry and copies of Paid Tonnage Tax Certificates.
Health Pratique.
Clearance from previous port.
2 sets Bills of Lading.
3 copies Stowage Plan.

In subsequent U.S. ports the following are required:

5 sets Manifest of Cargo for that port.
The "Traveller" and Permit to Proceed issued in previous port.
2 Stores Lists.
2 Personal Effects Lists.
2 Firearms and Ammunition Lists.
2 Crew Lists.
2 Narcotics Lists.
2 sets Bills of Lading.
3 copies Stowage Plan.

It is especially important that vessels try to have their visaed List on board, which is required by U.S. Immigration at first U.S. Failure to have this visaed Crew List can result in all personnel detained on board. Visa waivers are applied for and granted regularly but Immigration has the discretion to refuse these at will.

PILOTAGE: Compulsory, unless Master has a "B" Certificate on bo Vessels are not permitted to transit the lakes from Port Colborn Cleveland without either a "B" Certificate on board or a special Wa from the U.S. Coast Guard.

ANCHORAGE: In the outer harbour, 28 ft. depth, mud and sand bot

RESTRICTIONS: St. Lawrence Seaway navigation season approx. April 1st to December 15th. Controlling depth 26 ft. Access to ber the River is limited by height restriction of 97 ft. above waterline.

MAX. SIZE: Limited at Seaway Locks, 730 ft. length, 26 ft. draft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany

RADIO: U.S. Coast Guard can be contacted by R/T on 2182 kHz

Notice of Arrival: Master must give at least 24 hours' notic Commander, 9th Coast Guard District, Cleveland, Ohio, of the ves ETA at Snell Lock. Also at least 24 hours' notice of ETA at first discharge port is required.

AGRICULTURE: See "Agriculture" first U.S.A. port (Albany).

TUGS: Available and use is compulsory in Cuyahoga River and River Channel.

BERTHING: See "Tables" on Pages 2385 and 2386.

TANKERS: See "Table" on Page 2386.

DENSITY: Fresh water.

MEDICAL: Doctors, hospital and all facilities available.

FRESH WATER: Available at most berths.

FUEL: Marine gas oil and diesel oil readily available, ex-wha delivered by barge.

CONSULS:

Austria
Belgium
Canada
Colombia
Denmark
Dominican Republic
Finland
France
Germany
Honduras
India
Italy
Japan
Korea
Luxemborg
Netherlands
Norway
Philippines
Sweden
Switzerland
United Kingdom
Yugoslavia

REPAIRS: Edward E. Gillen Co. Tel: (414) 744-9824. Telco Tel: (216) 447-0331.

SURVEYORS: Lloyd's and ABS.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A (Albany). Service available through Browning Ferries Industries. are provided on board upon request. Vessel's agent mak arrangements.

WASTE OIL DISPOSAL: Can be done anywhere in port by arrangements with vessel's agent.

SEAMAN'S CLUBS: Seamen's Centre provides telephone, information, TV and reading materials.

CURRENCY: U.S.Dollar (U.S.$).

GENERAL: Refer to "St. Lawrence Seaway" for important information.

AUTHORITY: Cleveland-Cuyahoga County Port Authority, 101 E Avenue, Cleveland, Ohio 44114. *Tel:* (216) 241-8004. *FAX* 241-8016. *Contact:* Gary L. Failor, Executive Director. Stephen Deputy Director.

BULK HANDLING FACILITIES: (Cleveland)

Ore: *Unloading Docks:*

Dock and Location	*Operator*	*Unloading Equipment*	*Total Discharge Rate (t.p.h.)*	*Length (ft.)*	*Width (ft.)*	*Out-Board Reach*	*Storage Capacity (tons)*	*Depth at Dock (ft.)*	*Remarks*
"C. & P." (Lakefront)	Ohio & Western Pennsylvania Dock Co.	Self-unloaders only		1,875	535		1,000,000	27	
LTV Steel (Cuyahoga River)	LTV Steel Co.	Self-unloaders only		1,250	360		785,000	23	633 ft.×72 ft. max. O.A. dimensions
		Self-unloaders only		3,340	360		750,000	23	633 ft.×72 ft. max. O.A. dimensions

Note: Also receives limestone at this dock by self-unloader. Storage capacity: 35,000 and ship's pig iron and steel. Storage capacity: 10,000 tons.

Dock and Location	*Operator*	*Unloading Equipment*	*Total Discharge Rate (t.p.h.)*	*Length (ft.)*	*Width (ft.)*	*Out-Board Reach*	*Storage Capacity (tons)*	*Depth at Dock (ft.)*	*Remarks*
LTV Steel (Cuyahoga River)	LTV Steel Co.	Self-unloaders only	—	1,780	54	—	850,000	23	633 ft.×72 ft. max. O.A. dimensions

Note: Also receives limestone at this dock. Storage capacity: 150,000 tons.

Stone, Sand and Dry Bulk Cargo Docks: (Cleveland)

Dock and Location	*Operator*	*Loading Equipment*	*Total Load Speed (t.p.h.)*	*Unloading Equipment*	*Total Unload Speed (t.p.h.)*	*Storage Capacity (tons)*	*Dock Length (ft.)*	*Depth at Dock (ft.)*	*Remarks*
Akzona-International Salt (Whiskey Is., Old River)	Akzona, Incorporated	1 Shuttle Conveyor Belt	1,200	None	—	6,000 Salt (covered) 55,000 Salt open storage	602	21	617 ft.×64 ft. max. O.A. dimensions

Note: Outboard reach from Face of Dock to end of pulley is 38 ft. 6 in. Underside of belt to L.W.D. is 37 ft. Stationary. Vertical movement downward.

Dock and Location	*Operator*	*Loading Equipment*	*Total Load Speed (t.p.h.)*	*Unloading Equipment*	*Total Unload Speed (t.p.h.)*	*Storage Capacity (tons)*	*Dock Length (ft.)*	*Depth at Dock (ft.)*	*Remarks*
CBS "Cuyahoga Plant" (Below West 3rd Street Bridge)	Cleveland Builders Supply Company	None	—	Self-unloaders only	—	20,000 Sand or Salt	750	20	631 ft. max O.A. Length
CBS No. 1 (Above Jefferson Street Bridge)	Cleveland Builders Supply Company	None	—	Self-unloaders only	—	45,000 Stone 25,000 Sand	480	20	561 ft. max. O.A. Length
CBS No. 2 (Between Nickel Plate Bridge & West 3rd Street Bridge)	Cleveland Builders Supply Company	None	—	Self-unloaders only	—	120,000 Stone 50,000 Sand 15,000 Salt	1,680	22	633 ft.×72 ft. max. O.A. dimensions
Clifton Concrete (Foot of Mahoning Avenue)	Clifton Concrete & Supply Company	None	—	Self-unloaders only	—	25,000 Stone 18,000 Sand	690	18	610 ft. max. O.A. Length
Dock 20 (Foot of Old River Road, River Mouth)	Cleveland-Cuyahoga County Port Authority	None	—	Self-unloaders only	—	500,000 Bulk Commodities	1,300	27	1,000 ft. max. O.A. Length
Ford Motor (Above Lorain-Carnegie Viaduct)	Ford Motor Co.	None	—	Self-unloaders only	—	780,000 Sand and Stone Pig Iron and scrap direct to cars.	630	21	633ft. max. O.A. Length
Huron Cement (Sycamore Slip)	Cement Division National Gypsum Co.	None	—	Unloading pipes	—	31,332 Cement	415	24	502 ft.×68 ft. max. O.A. dimensions
LTV Steel (Just below Union Terminial Viaduct)	LTV Steel Co.	None	—	Self-unloaders only	—	100,000 Iron Ore and Stone	620 & 300	23	633 ft.×72 ft. max. O.A. dimensions
LTV Steel East Pier (Above Turning Basin)	LTV Steel Co.	None	—	Self-unloaders only	—	87,000 Stone 8,300 Fluorspar	2,565	23	633 ft.×72 ft. max. O.A. dimensions

Note: Dock also receives ship's pig iron, steel products and scrap.

Dock and Location	*Operator*	*Loading Equipment*	*Total Load Speed (t.p.h.)*	*Unloading Equipment*	*Total Unload Speed (t.p.h.)*	*Storage Capacity (tons)*	*Dock Length (ft.)*	*Depth at Dock (ft.)*	*Remarks*
M.C.C. (Above Eagle Street Bridge)	Mid-Continental Coal & Coke Co.	2 Shuttle Conveyors	500	None	—	30,000 Coke Breeze	1,550	23	633 ft. max. O.A. Length, 72 ft. Beam
Merwin Avenue Dock (Between Foot of British Street and Viaduct)	Cuyahoga Lime Co. Incorporated	None	—	Self-unloaders only	—	45,000 Stone 65,000 Marl	245	23	666 ft.×72 ft. max. O.A. dimensions
Ontario Stone No. 1 (Above Penn Central Bridge, Mouth Cuyahoga River)	Ontario Stone Corp.	None	—	Self-unloaders only	—	125,000 Stone	495	23	664 ft. max. O.A. Length
Ontario Stone No. 2 (Left Bank, above West 3rd Street Bridge)	Ontario Stone Corp.	None	—	Self-unloaders only	—	75,000 Stone	695	23	633 ft.×72 ft. max. O.A. dimensions
Ontario Stone No. 3 (Old River Bed, on Whiskey Island)	Ontario Stone Corp.	None	—	Self-unloaders only	—	175,000 Bulk commodities	700	24	647 ft.×70 ft. max. O.A. dimensions
Sand Products (Whiskey Island, Old River)	Sand Products Corp.	None	—	Self-unloaders only	—	95,000 Sand	850	22	633 ft. max. O.A. Length, 72 ft. Beam

Grain: (Cleveland)

Elevator	*Depth at Dock (ft.)*	*Depth in Channel (ft.)*	*Unload Legs*	*Unload Speed (t.p.h.)*	*Load Spouts*	*Load Speed (t.p.h.)*	*Deepest Vessel Can Unload (ft.)*
CEREAL FOOD Operator: Cereal Food Processors, Inc. Berthing Space – 350 ft. 621 ft.×60 ft. max. O.A. Dimensions Con Rail	20	23	1	4,500	None	None	35

Storage capacity: 590,000 tons

This elevator is located on the Cuyahoga River directly beneath the Superior Avenue high level bridge.

CHANNELS

Cleveland Harbour entrance is maintained at 28 ft. Cuyahoga River is maintained at 23 ft. throughout above the Con Rail Railroad Bridge just above the harbour entrance. Width of the channel is generally 250 ft. throughout the Cuyahoga River.

BERTHING: General Cargo Docks (Cleveland)

Pier	*Owner/ Operator*	*Berth features*	*Depth (ft.)*	*Mechanical Equipment*
Dock 24 West 9th St. Pier	Cleveland Stevedore Co.	East 670 ft. North 519 ft. West 640 ft.	27	8 Mobile Cranes 40 to 200 tons. Fork Trucks to 62,500 lbs. Complete container handling gear. 1 Magnetic mobile crane. Fro loader.
Dock 26 West 6th St. Pier	Cleveland Stevedore Co.	East 698 ft. North 297 ft. West 721 ft.	27	
Dock 28	Cleveland Cuyahoga County Port Authority	North 553 ft.		
Dock 28 West 3rd St. Pier	Cleveland Cuyahoga County Port Authority	West 710 ft.	27	One 150 ton Heavy Lift Stiff-Leg
Dock 30 Stadium Pier	Cleveland Cuyahoga County Port Authority	North 500 ft.	27	7 Mobile Cranes 65 to 200 tons. Fork Trucks to 62,500 lbs. Complete container handling gear.
Dock 32 Stadium Pier	Ceres Terminal	East 712 ft. North 572 ft.	27	7 Mobile Cranes 65 to 200 tons. Fork Trucks to 62,500 lbs. Complete container handling gear.

TANKERS: (Cleveland)

Dock & Location	*Operator*	*Type of Dock*	*Type of Cargo Handled*	*Size of Pipe-line (in.)*	*Storage Capacity barrels*	*Distance from Dock to Storage Tanks (ft.)*	*Length of Dock (ft.)*	*Depth at Dock (ft.)*	*Remarks*
Allied Oil (Old River, Slip No. 2, Whiskey Island)	Allied Oil Co. Division of Ashland Oil, Inc.	Loading and Unloading	No. 6 Fuel Oil	8	372,000	270	435	20	430 max. O.A Length
Byerlite-Koppers (Foot of Mary Street Cuyahoga River)	Byerlite Co. of Koppers Company, Inc.	Unloading	Asphalt	8	47,620	1,100	210	19	
C.I.L. (West Bank below Foot of Mary Street)	C.I.L. Chemicals Inc.	Unloading	Sulphuric Acid	12	29,760	800	500	22	
LTV Steel (Cleveland Works)	LTV Steel Co.	Unloading	No. 6 Fuel Oil	10	238,500	2,100	390	23	
LTV Steel East Side (East Bank Cuyahoga River, above Turning Basin)	LTV Steel Co.	Unloading	No. 6 Fuel Oil	24	285,700	2,000	967	19	631 ft.×65 ft. max. O.A. dimensions.
Marathon (Above W. 3rd St. Bridge at Bend, East Side)	Marathon Petroleum Company	Unloading	Asphalt	8	165,000	200	800	23	638 ft.×68 ft max. O.A. dimensions

COOS BAY, Oregon: 43.22 N. 124.13 W. (See Plan)

DOCUMENTS: Local Port Authority does not require any documents from merchant vessels entering this harbour. This does not preclude United States Customs requirements for documents.

PILOTAGE: No specified amount of advance notice of ETA required. Radio contact may be made on frequency 8182 kHz, also on frequency 2182 kHz. Most used frequency is VHF Channel 16. Pilot will be taken on board at entrance to Coos Bay Channel. No designated anchorages for vessels awaiting a Pilot.

ANCHORAGES: North of Entrance Buoy.

MAX. SIZE: Max. permissible length is 725 ft., breadth 110 ft. A 2 ft. clearance under keel is considered necessary for safe navigation. Vessels entering Coos Bay from sea draw down about 0.166 in. per foot of draft because of difference in density.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

RADIO: Pilots, Agents and stevedores monitor VHF Channel 16.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Pilot vessel acts as Tug. Emergency small harbour tugs available and ship's lines generally used.

BERTHING: *Note:* All berths with the exception of oil berths dredged to 35 ft. in 1979.

'T' Dock: Distance from entrance 6 miles.

Barge Facility: Distance from entrance 6.5 miles.

Roseburg Lumber Co. Dock: Length 1,000 ft. Depth alongside at MLW 38 ft. No fresh water available. Distance from entrance 8 miles.

Ocean Terminals Dock: Length 400 ft. Depth alongside at MLW 39 ft. No dock cranes available. Fresh water available. Distance from entrance 11 miles.

Export Services: Length: (Lumber Dock) 1,433 ft. (Wood Chip Dock) 694 ft. Depth alongside at MLW 35 ft. No dock cranes available. Fresh water available. Distance from entrance 12 miles.

Bayshore Dock: Length 504 ft. Depth alongside at MLW 35 ft. No dock cranes available. Fresh water available. Distance from entrance 13 miles.

Dolphin Terminals: Vessels moor to dolphins adjacent to apron 60 ft. long and 26 ft. wide which is joined to the shore by a causeway length 190 ft. and width 12 ft. Depth alongside at MLW 36 ft. Fresh water available. Distance from entrance 13 miles.

Central Dock: Length 1,380 ft. Depth alongside at MLW 35 ft. No dock cranes available. Fresh water available. Distance from entrance 13.5 miles.

Portland Dock: Length 576 ft. Depth alongside at MLW 36 ft. No dock cranes available. Fresh water available. Distance from entrance 15 miles.

Coos Bay Dock: Length 1,326 ft. Depth alongside at MLW 37 ft. No dock cranes available. Fresh water available. Distance from entrance 15 miles.

BRIDGES: 2 bridges cross the main ship channel. The Southern R railway drawbridge 9 miles from the entrance and the Coast Hig Bridge 9.6 miles from the entrance. Clearance height of the Hig Bridge is 149 ft. in the centre of the span at MLW. Clearance w swinging railway bridge 197 ft.

STEVEDORES: Should have minimum of 48 hours to arrange Also see "Radio".

MEDICAL: Advance notice of required medical attention is desira order to expedite use of ambulance, if necessary.

TANKERS: 2 tanker berths, Standard Oil and Union Oil Co., dra Tankers discharge into tank farms. Union Oil Co. is the bunkering

FRESH WATER: Available. Cost per ton is negotiable.

FUEL: 24 hours advance notice desirable, both bunker and dies available.

CONSULS: None.

REPAIRS: Only minor deck and engine repairs possible.

DRY DOCKS: Largest dry dock handles vessels not exceeding

GANGWAY/DECK WATCHMEN: Service of watchman at discre ship's Master.

OPENING/CLOSING HATCHES: Normally by stevedores.

REPATRIATION: Repatriation through local Customs and Imm Office.

AIRPORT: All docks within 5 miles of airport. Airport served by airlines.

TIME: GMT minus 8 hours, clocks advanced 1 hour on first Su April, clocks retarded 1 hour last Sunday in October.

HOLIDAYS: All legal holidays observed, plus state-wide elections work through negotiations with stevedore contractors.

POLICE/AMBULANCE/FIRE: Police: Coos Bay 269-1181, Nor 756-3161; Ambulance 756-3234; Fire: Coos Bay 267-4123, Nor 756-6111. Emergencies: Dial 911.

SHORE LEAVE: Crew members allowed ashore except when Directives may be applied to a specific vessel.

IDENTIFICATION CARDS: Not required by local authorities.

SHIP SUPPLY SERVICE: For general ship stores: Day Ship 602 W. Hemlock St., Coos Bay, Oregon 97420. Tel: (503) 267

For transportation of personnel: The Coos Bay Pilots' Ass P.O.Box 254, Coos Bay, Oregon 97420. Tel: (503) 267-4186 the initial contact.

There are also numerous charter boat operators who provid services.

For emergency services the U.S. Coast Guard maintains a squadron in port. They bring sick crew members directly to the Their information phone number is (503) 756-4142, and their e number is 756-4141.

GARBAGE DISPOSAL: See "Agriculture" before first U.S. (Albany). Service available through local contractors. Contact

Coos Bay Sanitary Service. Tel: (503) 267-6675.
Les's Sanitary Service. Tel: (503) 267-2848.
North Bend Sanitation, Inc. Tel: (503) 756-5211.

WASTE OIL DISPOSAL: Service available through local contractor. Contact: Environmental Services, Tel: (503) 269-5050. Services for emergency spills, oil, gas, diesel, bilge cleaning, sewage disposal.

SEAMAN'S CLUBS: The Seamen's Centre of the Port of Coos Bay is a non-profit organisation and is sponsored by thirteen area churches, Local No.12 of the International Longshoremen's and Warehousemen's Union, United Way of Coos County and other donations. The Centre is open every night, including holidays, from 1800 hrs. to 2300 hrs. Each church serves for one week and supplies hosts/hostesses and free refreshments, and transportation between ships and the centre in a fifteen passenger van. Information sheets have been printed in the languages of seamen who call in the port and these are posted on board the ships.

Telephone, postage, local maps, and church services are among the facilities provided, also a games room which includes two pool tables, two table tennis tables, a football table, a table shuffleboard, a bumper pool table and darts. There are also two coin operated video games. A television set, snack bar, table games, magazines, telephones, souvenirs, post cards and foreign language bibles are all available in the "front room".

The Seamen's Center is located at 171 N.Broadway, Coos Bay, Oregon 97420. The mailing address is: P.O.Box 628, Coos Bay, OR 97420.

DELAYS: No delays in berthing, loading or discharging, or bunkering can normally be expected.

GENERAL: New enterprise zone and foreign trade zone within port district.

DEVELOPMENTS: Depth of channel at entrance 45 ft. MLLW. Inner channel, to head of channel 35 ft. MLLW. An additional anchorage (Turning Basin) will be installed, directly East of Beacon 17.

AUTHORITY: Oregon International Port of Coos Bay, Port Building, 326 N. Front Street, Coos Bay, Oregon 97420. *Tel:* (503) 267-7678. *FAX:* (503) 269-1475. *Contact:* Paul W.Vogel, General Manager. Don Yost, Harbour Master.

CORDOVA, Alaska: 60.33 N. 145.46 W. (See Plan)

Located at S.E. side of Prince William Sound at the head of Orca Inlet. Open harbour year round.

DOCUMENTS: See "Anchorage, Alaska".

APPROACHES: Via Prince William Sound.

PILOTAGE: Compulsory. Pick-up point is Sheep's Point. Prior arrangements required.

ANCHORAGES: Good holding ground. Mud bottom between Spike Island and Municipal dock.

MAX. SIZE: Recommend max. draft 25 ft. Tidal variation: 18 ft. – 19 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Contact port on VHF Channels 16 and 68; Citizens Band, Channel 5 or SSB 2509 kHz.

TUGS: Limited availability. Prior arrangements need to be made.

BERTHING: Berthing Permit required. Advance notice of 48 hours requested.

Municipal Dock: 25 ft. deep, 408 ft. long, 72 ft. wide. Open storage of 10 acres. 1×45 ton crane.

Container and Ro/Ro Facilities: Movable ramp, 4.57 m. wide, available for Ro/Ro operations. 4 ha. container staging area.

STEVEDORES: ILWU No. 66, Box 335, Cordova, Alaska, 99574. Tel: (907) 424-5447.

Working hours – 24 hours.

MEDICAL: 23 bed hospital and a medical clinic, with 3 doctors, 1 dentist also public health nurse.

REPAIRS: Radio, radar, welding, machining and light engine repairs can be effected.

FRESH WATER: Available at docks.

FUEL: No bunker "C" available. Fuel oil available.

CUSTOMS: Quarantine – local. Immigration and Customs from Anchorage, Alaska.

AIRPORT: 13 miles from city centre. Daily scheduled flights to Anchorage and Juneau.

TIME: Alaska Standard time.

HOLIDAYS: None.

POLICE/FIRE/AMBULANCE: All available. Tel: (907) 424–6100.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany). Dumpsters are provided at the dock. Charges for this service are paid by the port. Collection daily.

WASTE OIL DISPOSAL: Tanker truck available upon request, contact Tel: (907) 424-6400. For quantities under 100 galls. there is no charge. For quantities over 100 galls. which meet standards for oil to be burned for energy recovery, the charges are $40.00 /man hour. If oil is unsuited for energy recovery, then the charges are $30.00/galls. plus $40.00/man hour plus cost of shipping and handling.

SEAMAN'S CLUBS: None.

CURRENCY: U.S.Dollar (U.S.$).

AUTHORITY: City of Cordova, Box 1210, Cordova, Alaska 99574. Tel: (907) 424-6400. *FAX:* (907) 424-6000. *Contact:* Dale Muma, Harbour Master/Port Director.

CORPUS CHRISTI, Texas: 27.48 N. 97.23 W. (See Plan)

PORT LIMITS: Corpus Christi's port limits include all of Nueces County, which has been officially designated as Port of Corpus Christi Authority of Nueces County, Texas. The Corpus Christi Turning Basin, Avery Point Turning Basin, Chemical Turning Basin, Tule Lake Turning Basin and the Viola Turning Basin are interconnected by the Industrial Canal; the Tule Lake Channel and the Viola Channel constitute the Corpus Christi Inner Harbour. Other Bay points included in the Port of Corpus Christi area are: Harbor Island, the North end of Mustang Island, near the inner end of the Aransas Pass Entrance, and Port Ingleside and La Quinta along the route of dredged deepwater channels on North side of Corpus Christi Bay; and the Rincon Barge Canal System. All of the ship channel has now been deepened to 45 ft.

DOCUMENTS:

3 copies Cargo Manifest (Form 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
2 copies Crew Manifest (Form 1304).
2 copies Stores List (Form 1303).
2 copies Passenger List (Form I–418).
2 copies Crew List (Form I–418).

Customs Boarding Officer will also examine Ship's Register, Load-Line Certificate, Safety Equipment Certificate and Certificate of Financial Responsibility. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port:

Master's Oath (Customs, 2 copies Form 1300).
General Declaration (2 copies Form 1301).
All Foreign clearances.
U.S. Certificates of payment of tonnage tax (Customs Form 1002).
Certified Crew List.

PILOTAGE: Pilot boards off Port Aransas.

RESTRICTIONS: No restrictions, 24 hour service. The Port of Corpus Christi is situated on the West side of Corpus Christi Bay, in South-Western Texas. Port facilities at Inner Harbour lie along a 9.5 miles stretch of dredged channels and basins about 18 miles from Aransas Pass entrance at the Gulf of Mexico. Channel depth 45 ft., minimum width 400 ft.

Turning Basins: 5 turning basins in the Inner Harbour range from 800 ft. to 1,200 ft. wide and more than 1,000 ft. in length.

MAX. SIZE: Cargo vessels: 45 ft. draft. Tankers: 45 ft. draft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: KLC ITT-Radio-Arcadia, Texas. KLC RCA-Radio-Galveston, Texas.

VHF: KKQ 769 – Harbour Master – Channels 12 and 16. WR 8879 – Pilot Boat. KQU – Pilot Office – Aransas-Corpus-Christi Pilots Channels 12 and 16. KBP 384 – Harbour Tugs – Channel 12. U.S. Coast Guard – Channels 16 and 22. Pilot Office KQU 371.

TUGS: Tug assistance available. Tugs join vessels berthing at Harbor Island in Jetty channel. Tugs accompany vessels entering Inner Harbour outside Corpus Christi Harbour Bridge.

BERTHING: The Corpus Christi Main Turning Basin is over a mile long and 800 ft. wide. There are 4 additional basins in the Inner Harbour, which extends Westward from Corpus Christi Harbour Bridge for 7.5 miles. The water in all basins, channels and canals is 45 ft. deep.

Draft for public docks will be furnished upon request to the Harbour Master or steamship Agent. Draft for private docks will be furnished upon request to the dock owners or steamship Agents.

Also see "Port Limits".

Inner Harbour – Public Docks: The length limit indicator is not of necessity the max. length for a vessel as larger vessels can berth if adjacent berth is not occupied.

Cargo Docks No.	*Length Limit* (ft.)	*Cargo Docks* No.	*Length Limit* (ft.)
2	700	14 – 15	1,000
8	1,060	Bulk Materials Dock 1	835
9	750	Bulk Materials Dock 2	1,300
10	700	Public Grain Elevator Dock	900
12	700		

Inner Harbour – Private Docks: (Other than oil docks).

Citgo Cargo Dock: Length of pier 450 ft. Length of Head 100 ft. Producers Grain Port Terminal Elevator Dock; Gulf Coast Portland Cement Co. Dock; Berry Contracting Company; Centex Cement Company.

Open Storage Areas: Over 15 acres available on the South side area and over 125 acres located near the North side general cargo facilities.

Ro-Ro Ramp: A Ro-Ro ramp for stern or bow ramped vessels is available between Cargo Dock 9 and 10 on the North side of the channel.

CONTAINER FACILITY: Container facility in operation located on 15.5 acres behind Cargo Dock 14. Terminal provides full service for receiving, delivering and handling of marine containers. Containers are handled with a M 250 Manitowac 275 ton crawler crane, a Taylor top lift machine and a Kalmar lift machine with capacity of 90,000 lb. The Kalmar and Taylor have spreaders for handling 20 ft. or 40 ft. units. U.S. Customs maintain on site inspection facilities.

BULK CARGO FACILITIES: *Ore, Minerals, Coal, Petroleum Coke:* Bulk Materials Dock with travelling unloading tower capable of direct discharge from vessels to railcars or trucks at rate of 1,000 t.p.h.

A Bulk Loading Terminal to load vessels directly from trucks, railcars or stockpiles at rate of 1,500 t.p.h. is also available. The dock has a 45 ft. draft alongside, 63 ft. airdraft and 1,300 ft. slip length.

Grain: 2 export grain elevators are located in the Inner Harbour. The Corpus Christi Public Elevator has a 5,000,000 bushel capacity. Rated truck unloading capability is 1,000 t.p.h.; railcars can be unloaded simultaneously at 2,000 t.p.h. The Interstate Grain Port Terminal Elevator is privately owned and has a 6,400,000 bushel capacity.

MEDICAL: Ample hospital and dental facilities available.

TANKERS: Between Corpus Christi Turning Basin and Viola Basin are 11 public and 10 private Oil Docks, some capable of berthing tankers of 150,000 d.w.t. capacity. Also see "Berthing".

Inner Harbour – Public Docks:

Oil Dock	No. 1	Length Limit 1,000 ft. Max. Draft 45 ft. (SW)
	No. 2*	Length Limit 260 ft.
	No. 3*	Length Limit 246 ft.
	No. 4†	Length Limit 850 ft. Max. Draft 45 ft. (SW)
	No. 6*	—
	No. 7†	Length Limit 850 ft. Max. Draft 45 ft. (SW)
	No. 8	Length Limit 1,000 ft. Max. Draft 45 ft. (SW)
	No. 9	Contact Harbour Master
	No. 10*	—
	No. 11†	Length Limit 850 ft. Max. Draft 45 ft. (SW), subject to Pilot's approval
	No. 12*	—

*Limited to barge operations.
†Larger vessels may be berthed when adjacent berth not occupied.

Inner Harbour – Private Docks:
Southwestern Refining Co.
  Oil Dock No. 1 (barge only).
  Oil Dock No. 2. Max. draft 40 ft. (SW).
  Oil Dock No. 3. Max. draft 45 ft. (SW).
Citgo Refining,
  Oil Dock No. 1. Max. draft 40 ft. (SW).
  Oil Dock No. 2 (barge only).
  Oil Dock No. 3. Max. draft 45 ft. (SW).
Valero Refining Co.
  Oil Dock No. 1 (barge only).
  Oil Dock No. 2. Max. draft 45 ft. (SW).
  Oil Dock No. 3. Max. draft 45 ft. (SW).

Outside of Inner Harbour – Private Docks:
Harbor Island
  American Petrofina Oil Dock. Max. draft 45 ft. (SW). Also see "Shipmaster's Report" – dated September 1987.
Ingelside
  Sun Pipe Line Co. Oil Dock. Max. draft 45 ft. (SW).
La Quinta Channel
  Du Pont Ship Liquid Chemicals Dock.
  Du Pont Ship Liquid Chemicals Barge Dock No. 1.
  Du Pont Ship Liquid Chemicals Barge Dock No. 2.
  Reynolds Metals Co. Bauxite Unloading Pier. (Also see "Shipmaster's Report" – dated April 1988.)
  Reynolds Metals Co. Alumina Loading Dock. (Also see "Shipmaster's Report" – dated April 1988.)

Report: *Cautionary Advice:* Special precautions and procedures are required for all vessels calling at Harbor Island (our of service in 1994) because of tidal current, wind conditions and passing traffic. Masters must ensure that their vessels are properly moored at all times to minimise the effect of these conditions and prevent the vessel from breaking out of the berth.

The special precautions and procedures, for deep-loaded vessels (34 ft. draft or deeper) are:

Deep-loaded vessels experience maximum effect from tidal current during the flood tide which forces the vessel away from the dock, particularly when clearance between the keel and bottom is 5 ft. or less.

Accordingly, deep draft vessels are docked at the end of the flood tide to allow ample pumping time so that maximum underkeel clearance be attained before the next flood tide reaches full strength.

(Vessels should anchor off the sea buoy to await the suitable stage of the tide.)

Vessels equipped with segregated ballast capability should not commence ballasting these systems until draft is 30 ft. or less.

If during the flood tide the vessel's draft is in excess of 34 ft. (mean), a tug should be in attendance to assist the vessel in staying alongside the dock. To ensure tug availability, the Master should advise the Agent 3 hours in advance if planned pumping does not proceed to permit a lesser draft than 34 ft. at the full strength of the next flood tide.

Vessels with drafts that exceed 34 ft. (mean) should be equipped with 12 mooring wires. If they are not so equipped, the Dockmaster will require the vessel to use additional mooring ropes.

Wind Conditions: Winds from the Northern quadrants, which occur particularly during the Winter months, place heavy loads on mooring lines when a vessel is in a fully light condition.

A contract weather service provides an alert to Masters (via the Agent and/or Dockmaster) and to the Dockmaster when abnormal weather conditions are predicted. The Dockmaster will require cargo transfer shutdown when wind velocity exceeds established limits.

In order to minimise wind effect, the vessel's segregated ballast tanks should be filled before completion of cargo discharge.

Combined Wind and Tide Conditions: Particular attention should be paid to unfavourable combinations of wind, tide and current which will place high loads on mooring lines.

Passing Traffic: The close proximity of the Harbour Island Berths to the Corpus Christi Channel results in interaction from passing traffic. This can be severe, depending on the speed and displacement of the passing vessel.

Propeller wash from vessels (mooring/unmooring) at the Petrofina Berth and the wash from assisting tugs also have an unfavourable effect. Special attention must be given to spring lines to ensure they are kept taut at all times.

Harbor Island has established wind and current limitations at which cargo operations should be stopped. Cargo operations are also stopped if a vessel moves off the berth. Hoses are disconnected by the terminal when required due to wind, current, etc.

Port Approaches: Vessels should approach Aransas Pass throug prescribed Safety Fairways, exercising due caution at all times a lanes are unmarked. Numerous fishing vessels may be encoun The low shore lines will start to show on radar at a range of bet 15 and 20 miles. A large number of shore lights in the background it difficult to distinguish the navigational aids. The entrance cha through Aransas Pass is protected by jetties. The outer bar channe Jetty channel and the inner harbour basin have project depth of 4 *Tugs:* Tugs will come alongside at Buoys No. 9 and 10. A minimu 3 tugs are usually required for a loaded vessel and 2 for a vess ballast under good conditions. Tugs up to 3,200 h.p are available

CARGO GEAR: Heavy lift facilities: Mobile crane located at Dock with a capacity of 275 tons; can handle containers and heavy otherwise ship's gear used. Heavy lift facility also available at Bay

Facilities are available for all types of liquid cargo, dry bulk and ge cargo, but cannot handle restricted cargo such as ammunition explosives.

BRIDGES: Corpus Christi Harbour Bridge: Vertical clearance at is 138 ft.

Upper Harbour Lift Bridge: Vertical clearance at MHW when rais 138 ft.

FRESH WATER: Water available at all public docks for $2.50 1,000 gallons; minimum charge of $25.00 for each connection.

FUEL: 24 hours notice required.

Bunker C, Marine diesel, Light diesel – Pipe-line or Barge, Truc

FIRE PRECAUTIONS: No working barges alongside (except bunk barges) and normal precautions such as shut down cargo opera during lightning, storm, etc.

CONSULS: Danish Consul, 4517 Baldwin. Tel: (512) 884-6344.
German Consul, 5440 Old Brownsville Rd. Tel: (512) 289-2416.
Mexican Consul, 1740 First City Tower I. Tel: (512) 882-3375.
Spanish Consul, 19833 Melissa Lane. Tel: (512) 887-7246.

REPAIRS: See "Services".

SURVEYORS: American Bureau of Shipping; J. E. Orrell, Lloyd's Agency and National Cargo Bureau.

GANGWAY/DECK WATCHMEN: Not necessary.

HATCHES: Hatches may be opened by crew before entering har after the ship has entered harbour it is carried out by stevedores.

CUSTOMS ALLOWANCES: 300 cigarettes per man. 1 quart liqu man.

AIRPORT: Approximately 7.75 miles from Port. Serviced by 3 re airlines.

TIME: Daylight Saving Time from first Sunday in April till last Sund October (minus 5 hours GMT). Central time remainder of year (6 hours GMT).

HOLIDAYS: New Year's Day (January 1st); Martin Luther Birthday (January 15th); Lincoln's Birthday (February Washington's Birthday (3rd Monday of February); Texas Indepen Day (March 2nd); Good Friday (varies); Memorial Day (last Mond May); June 20th; July 4th; Labour Day (First Monday of Septe Columbus Day (2nd Monday of October); Veterans' Day (4th Mo of October); Thomas W. Gleason's Birthday (November Thanksgiving (4th Thursday of November); Christmas Day (Dece 25th).

Possible to work on any holiday, except Labour Day or Chris only in case of fire or danger to property. If holiday falls on Su Monday is observed.

POLICE/AMBULANCE/FIRE: Police 882-1911, Ambulance 882 City Fire 884-5563 or 911, Refinery Terminal Fire Co. 882-7801.

EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard Emergency (512) 937-1898.

TELEPHONES: No arrangements exist.

SERVICES: Jay Bludworth, Inc., Ship Repairs. Tel: (512) 887-7
International Marine, Ship Repairs. Tel: (512) 884-2491.

Ship Chandlers:
Galley Stores & Supply Company, Inc., Mr. L. A. Harahan. Tel 535-1946.
Gunderland Marine Supply, Inc., Mr. Harvey Heinrich. Tel 882-4231.
Beach International. Mr. Bob Beauchamp. Tel: (512) 882 Telex: 496-1774.
Offshore Galley Supply Company, Ms. Gloria Neely. Tel 887-0281.

Local Radio Repair:
Radio-Holland Texas, Inc., 6205 Brookhill, Houston, TX. Tel: (713) 649-2811.

SHIP SUPPLY SERVICE:

Helicopter Charter, Rental and Leasing:
Evergreen Helicopters, P.O.Box 7781, Corpus Christi, TX. Tel: (512) 854-995.
Home Office (Evergreen Helicopters), Route 3, Box 198, Ga TX. 77553. Tel: (409) 740-0231.
Omniflght Offshore, Inc., P.O.Box 7519, Corpus Christi, TX. Tel: (512) 289-1181.

SHORE LEAVE: Possible.

IDENTIFICATION CARDS: Standard Immigration Forms I-9 made up for each crew member on arrival. Not necessary for cr already holding Form I-95, issued for same vessel.

GARBAGE DISPOSAL: Shipboard garbage service is available vessel's Agent.

WASTE OIL DISPOSAL: Collection service is available throu Services, 7330 Greenwood, Corpus Christi, Texas. Tel: (512) 8 Fax: (512) 855-5419. Ability to handle ballast water, environmen (oil rags, etc.); vacuum truck service.

Alamo Petroleum Exchange. Mr. Pierre Kuypers. Tel: (512) 8

SEAMAN'S CLUBS: Corpus Christi International Seamen's 1501 Mesquite Street, Corpus Christi, Texas 78401. Te 883-5011, 883-8405. Services: Shop, international telephone church services, mini-bus collection, postage facilities, games

CURRENCY: U.S. Dollar.

SHIPMASTER'S REPORT: September 1987.
Vessel: Tanker, 95,000 d.w.t.
Coastguard: For U.S.C.G. annual tank inspection, the authorities need to inspect the Cargo Gear Book, in addition to all other documents. Additionally U.S.C.G. require that for tankers, stores, gas cylinders, etc., must not be on cargo tanks.
Pilot: The Pilot requires the ladder 8 ft. above the water.
Berthing: Berthing carried out 24 hours a day.

At the Petrofina Berth at Harbour Island, fresh water and telephone are not available. Due to strong currents and passing vessels, the moorings consisted of 4 head/stern lines, 2 breast lines and 4 springs at each end. Three tugs assisted in berthing. Bunkers may be taken whilst alongside but this will usually depend on the Charterers or Receivers permission.

Just off the Petrofina Berth there is a shallow patch where deep draft vessels usually touch the bottom, but it appears to be soft mud.

The pilots, tugs and linesmen all require 2 hours notice.

At Oil Dock No. 8, 2 tugs are required and if vessel turns before berthing then only 1 tug will be required when unberthing. Moorings consisted of 3 head/stern lines, 2 breast lines and 2 springs at each end.

The ship's gangway was required at both berths.

If vessel is cleared for a foreign port and diverted to another U.S. port, the Agent at the sailing port should be informed, in order that he may advise the authorities accordingly. If the authorities are not advised the vessel is liable to a fine of U.S.$1000.00. Vessels have to pay a user fee to U.S. Customs of U.S.$397.00 regardless of size. Also if vessel is diverted to another U.S. port after being cleared for a foreign port, advise the Agent of any slops on board for Customs purposes.

SHIPMASTER'S REPORT: April 1988.
Berth: Gregory.
Location: 27° 52' 43" N., 97° 15' 38" W.

The private docks of Reynolds Metals Co. are located on the North side of Corpus Christi Bay, Texas, on Chart No. 11309. The facility is known as Gregory Reynolds Sherwin Plant Dock.
Weather: Humid sub-tropical climate with prevailing winds onshore from East and Southeast at 10 – 15 knots. "Northers" may be expected from November to March with winds over 20 knots. These may be severe from December to February and up to 50 knots. Generally lasting from 1.5 – 3 days. Tropical storms/hurricanes may occur from June to October, reaching a peak in September, infrequently in May and November.
Communications: Reynolds Metal Co., Richmond, Va. Telex No. 827448 AAB REMETCOGO RCH, or via Agent.
Pilot: Aransas Corpus Christi Pilots are on VHF Channel 12, call sign "KQU 371".
Time: GMT minus 6 hours. Summer time of GMT minus 5 hours is applied from first Sunday of April to last Sunday of October each year.
Channel: Navigation to Sherwin Dock is via Main Corpus Christi Channel from Aransas Pass inlet, thence via La Quinta Channel to the Dock. Total distance 22 miles. Several commercial marine installations and private homes border the channel. These are susceptible to wash damage from vessels' wakes. Vessels are cautioned to reduce speed on approaching such installations and enter the reduction in the ship's log book.
Draft: Channel controlling depths are published in Notice to Mariners. Draft is presently restricted to 45 ft. Bauxite Pier Facility No. 5 – depth of water 45 ft. Alumina Pier Facility No. 90 – depth available 38 ft. at MLW (subject to shoaling).
Density: Generally 1022.
Tidal Range: 1.4 ft. Strong winds also affect water levels in Corpus Christi Bay as much as the tides.
Bauxite Pier Facility No. 5:
Max. LOA: 800 ft.
Max. beam: 106 ft. (larger vessels by arrangement).
Air draft: Max. of 50 ft. from top of hatch cover in open position to water line.
Hold depth: Max. of 66 ft. from top of hatch cover in open position to bottom of hold.
Min. hatch size 39 ft. × 39 ft.
Max. overhang into wings: 36 ft.
Min. distance after end last hatch to front of accommodation: 10 ft.

Washing of holds at the berth is permitted but the wash water cannot be pumped overboard or a fine will result. Free surface in the holds is also detrimental to the clean up process, as the vessel must be kept as level as possible because of the rotary motion on the tank top by unloader as it makes its final pass. Gantry travel of the Sumitomo Continuous Unloader is 606 ft. Max. unloading rate 2,000 tonnes per hour. Overall average rate 1,000 – 1,200 tonnes per hour. Plant personnel used exclusively. Plant labour make a good job of residue removal, but at the same time 2 or 3 crew may work in hold during final clean-up.

Vessel design: Deck should be clear of obstructions such as cranes, raised deck houses, light stands at side, log racks, etc.
Alumina Pier Facility No. 90:
Max. LOA: 680 ft. but this depends on distance from forward hatch to stern, which should not exceed 550 ft.
Loading chute outreach from fender line: 67 ft.
Air draft: Max. of 31 ft. 06 in. at ship's rail/bulwark.

The chute travels out on an incline so can usually accept 33 ft. 06 in. at hatch coaming, depending on distance in from side of vessel. If necessary list the vessel to meet this requirement. A list of 5° – 7° is considered the maximum allowable by plant personnel for working safely and ballasting cannot be started until boarding party is off the vessel and a draft survey complete. Most large vessels find it necessary to fill one cargo hold with water ballast to meet this restriction and caution must be taken when deballasting not to exceed loading rate. Loading rate about 500 tons per hour. Cargo stows at 55 lb./cu.ft. or 41 cu.ft. – 43 cu.ft./ton. Cargo is very dusty and abrasive. Wheelhouse should be sealed and accommodation ventilation "air washers" should be used if fitted. It is also helpful if a positive pressure of about 1 p.s.i. can be maintained in the accommodation by adjusting the supply/exhaust fans. There is no shore scale and although Plant may use a Surveyor to determine Bill of Lading quantity, vessel is responsible to advise terminal when loading is complete.

Hatches must be clean, fresh water washed and dry, with no residue in hold or underside of covers. A Surveyor will carry out a "Cleanliness" inspection before the vessel will be accepted. Crew must open/close hatches and haul ship alongside berth during loading operation. Gangway of the vessel used and safety net is recommended. Vessels normally turn and berth head out, port side to, using 2 tugs.

Fuel oil and Diesel oil are available by barge and small amounts of diesel oil available by tank truck, but some vendors do not like to deliver during cargo operations due to dust. U.S.C.G. also prohibits tank truck hose from loading over water so coordination with loading sequence is essential at Alumina Berth. Barging cost from Corpus Christi is about U.S.$3,600.

Fresh water may be taken in quantities up to 300 – 400 tons at no cost, but ship's crew must connect/disconnect and use own hose. Connection must be tight with no water leaking to dock.

AUTHORITY: Port of Corpus Christi Authority, P.O.Box 1541, Corpus Christi, Texas 78403. *Tel:* (512) 882-5633. *FAX:* (512) 882-7110. *Contact:* John La Rue, Executive Director. Frank C. Brogan, Director of Engineering Services. Ed Altemus, Director of Trade Developoment. Jim Burns, Harbour Master.

DETROIT, Michigan: 42.19 N. 83.05 W. (See Plan)

Refer to "St. Lawrence Seaway" for important general information.
PILOTAGE: Compulsory unless Master holds Exemption "B" Licence. 24 hours' notice of arrival required by Agents who arrange Pilot.
ANCHORAGES: In depths from 29 ft. – 51 ft. in the Detroit River off the marine terminals and away from main channel.
RESTRICTIONS: St. Lawrence Seaway navigation season approx. from April 15th to December 15th. Controlling depth 27 ft. Minimum depth of 25 ft. in the Detroit River. The Amherstburg Channel has a depth of 27 ft. 6 in. for upbound traffic.
MAX. SIZE: Limited at Seaway Locks. 730 ft. length, 26 ft. draft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Available, not compulsory but recommended for some terminals.
BERTHING: *Detroit Marine Terminals:*
2,100 ft. dock with 27 ft. LW depth.
2 berths.
3×250 ton diesel crawler cranes.
1×200 ton diesel crawler crane.
1×50 ton diesel electric travelling gantry crane.
1×25 ton diesel electric travelling gantry crane.
1×15 ton diesel electric travelling gantry crane.
Lift trucks up to 65,000 lb. capacity.
Harridon Terminal, Inc:
790 ft. dock.
1 berth.
3×5800 link belt hydraulic crawler cranes.
Michigan Marine Terminal:
650 ft. dock.
Liquid bulk products (from No. 2 Oils to heavy residual fuels).
Liquid bulk products (asphalt).
17 storage tanks.
Can ship and receive by water, truck and rail. Can receive by Buckeye and Wolverine pipelines.
Hickman, Williams and Co.:
1 berth.
Load bulk materials with conveyor. Unloading by self-unloaders.
Nicholson Terminal & Dock Company:
3,400 ft. dock with 27 ft. LW depth.
4 berths.
195,000 sq.ft. covered storage.
Total 50 acres.
2 cranes, 70 ton capacity at 40 ft. radius.
2×4100 Manitowac crawler cranes.
2×12 ton gantry cranes.
3×30 ton diesel locomotive cranes.
1×85 ton Lima truck crane.
1×72 ft. combination rail/truck scale.
2×Diesel electric locomotive engines.
2×87 in. magnets.
11×65 in. magnets.
5×55 in. magnets.
12 buckets: 1.5 yds. to 30 yds. capacity.
4 front end loaders 8 yds. to 12 yds. capacity.
1×Trojan 1500 loader 1.5 yds. bucket.
25×forklifts 5000 lb. to 80,000 lb. capacity.
2×25 ton overhead cranes for cargo.
1×6 yds. scrap grapple.
Motor City Internmodal Distribution, Inc.:
500 ft. dock with 28 ft. LW depth.
1 berth.
140,000 sq.ft. covered storage.
Total 18 acres.
6 forklift trucks.
1×60 ft. truck scale 300,000 lb. capacity.
DENSITY: Fresh water.
MEDICAL: Doctors, hospital and all facilities available.

FRESH WATER: Available at most berths.
FUEL: All grades available, ex-wharf, or delivered by barge.
CONSULS:

Australia
Austria
Barbados
Belgium
Belize
Canada
Chile
Colombia
Costa Rica
Denmark
Dominican Republic
El Salvador
Finland
France
Germany
Guatemala
Haiti
Iceland
Italy
Japan
Jordan
Korea
Lebanon
Liberia
Luxembourg
Malta
Mexico
Netherlands
Norway
Panama
Paraguay
San Marino
Spain
Sweden
Switzerland
Yemen

REPAIRS: All marine repairs can be effected.
SURVEYORS:

Champness & Associates, 10573 W. Jefferson Avenue, River Rouge 48218. Tel: 849-2345.

Fisher Marine Surveys, Inc., 11772 Postlane, South Lyon 48178. Tel: 1-437-9655.

General Adjustment Bureau, 30100 Van Dyke, Suite 306, Warren 48093. Tel: 573-7600.

Robert Harris, 1812 Wiltshire, Berkley 48072. Tel: 544-8736.

Intermodal Technical Services Inc., 30100 Van Dyke, Suite 335, Warren 48093. Tel: 575-9311/2.

Intersurvey, Inc., 22519 Maxine, St. Clair Shores 48080. Tel: 779-8954.

John P. Kauserud, 262 Fowlerville Road, Fowlerville 48836. Tel: 517-223-9730.

Robert V. Ricard, 17372 Collinson, East Detroit 48021. Tel: 776-6220.

Lennon A. Thompson Marine Consultants, Ltd., 2936 Biddle, Wyandotte 48192. Tel: 282-0052.

Toplis and Harding, Inc., 1150 Griswold – Suite 1400, Detroit 48226. Tel: 965-3033.

BANKS: Banks with International Department:

Comerica, 211 West Fort Street, Detroit, Michigan 48275-1103. Tel: (313) 222-3300.

First Independence National Bank of Detroit, 234 State Street, Detroit, Michigan 48226. Tel: (313) 256-8200.

First of America, International Division, 645 Griswold, Room 639, Detroit, Michigan 48226. Tel: (313) 965-1900, ext. 6650.

Liberty State Bank, P.O.Box 5823, Troy, Michigan 48007-5823. Tel: (313) 362-5000.

Lloyds Bank International Ltd., 100 Renaissance Center, Suite 2070, Detroit, Michigan 48243. Tel: (313) 259-1160.

Manufacturers National Bank of Detroit, International Dept., P.O.Box 659, Detroit, Michigan 48231. Tel: (313) 222-4000.

Michigan National Bank of Detroit, 30665 Northwestern Highway, Farmington Hills, Michigan 48018. Tel: (313) 737-3119.

National Bank of Detroit, 611 Woodward Avenue, Detroit, Michigan 48226. Tel: (313) 225-1174.

AUTHORITY: Detroit-Wayne County Port Authority, 151 West Jefferson, Suite 275, Detroit, Michigan 48226, U.S.A. *Tel:* (313) 259-1166. *FAX:* (313) 259-8961. *Contact:* James H. Kellow, Executive Director.

DONALDSONVILLE, Louisiana: 30.05 N. 91.00 W.

(See Plan)

Also see "South Louisiana".

SHIPMASTER'S REPORT: September 1980 (Updated 1994).

The report was compiled over 4 visits between August 1979 and August 1980.

APPROACHES: The coastline is low at the mouth of the river and consequently does not give a good radar return. The Racon on East jetty shows up between 12 to 17 miles. Fog and mist is a complication as it is very prevalent with the added problem of the oil rigs. These are located mainly on the East side of the safety fairway but in August 1980 construction was proceeding on a structure right on the Western boundary of the safety fairway about 4 miles S.W. of the East pier.

The Sea Buoy is difficult to locate, vessel should approach as per the leading line indicated.

A strong West flowing current across the entrance can be encountered.

Draft restriction varies throughout the year and should be ascertained in good time. August 1980 at 40 ft.(FW) but patches of 39 ft. 6 in. in places. (Mud, so no difficulty.)

Officially the Bar at the S.W. Pass is the limiting factor but in practice other areas of the river up to New Orleans are as much of draft restriction factor.

Above New Orleans to Baton Rouge a battle is being fought against silting up and a large dredging programme will have to be commenced soon, otherwise the draft will be severely limited – still at 40 ft. officially.

A new road bridge about 15 miles above New Orleans is under construction called 'Ascension', clearance is likely to be 150 ft., the lowest on the river, at zero gauge or about 130 ft. at High River.

PILOTAGE: Pilot boards at Sea Buoy from a fast cutter. Ladder/gangway arrangements 6 ft. from water, normal port gangway at S.W. Pass.

Change at Pilot Town about 1 hour 45 minutes above S.W. Pass and New Orleans about 6 hours above Pilot Town.

If at anchor and requiring a Pilot a minimum of 3 hours' notice is required. Normally order Pilot through Agent. The Baton Rouge-New Orleans Pilots may only berth ships at Donaldsonville about 3 times per month.

ANCHORAGES:

Belle Chase	Mile post 75	1 hour below New Orleans
12 Mile Pt.	Mile post 81	30 minutes below New Orlea
Bonte Carre	Mile post 128	2 hours above New Orleans
Burnside	Mile post 169	4 hours above New Orleans

All anchorages are standing moor operations, if proceeding down 2 tugs will be required to swing vessel into current, this is *essent* High River season.

The bank is steep and muddy and as long as vessel lies quietly bank little damage can result. In fact this is preferable to hanging midstream and getting hit by passing barge strings and shipping.

VHF: Public correspondence as per ALRS. Moving upriver-Venice, Orleans, Convent (Channel 25) and Baton Rouge. Just about in cove all the way up from Pilot Town to berthing, all stations very bu working hours.

Pilot ordered through Agent and on Channel 16.

USCG: Follow VTS booklet.

Boat service: At 12 Mile Point anchorage a launch service operate Channel 20. Pilots and Agent board by this service.

MAX. SIZE: *C.F.I.:* Max. draft 40 ft.

TUGS: 'Crescent' tugs of around 2,000 h.p. are stationed at Burn which are available if not handling larger vessels.

BERTHING: *Berth approach and depths:* This is the cause of concern at Donaldsonville. The channel is at its narrowest off Triad (the downstream berth 0.5 miles below C.F. Industries at Mile 173.5), having a minimum depth of 30 ft. (Zero Gauge at Donaldson over a width of 140 ft. and is steep to, falling to 20 ft. over 180 width.

Gauge reading can vary from about +5 ft. after a dry Summe +26 ft. or more at the end of the Winter season when the snows North are melting.

There is a set onto the Triad Berth varying with the main current. as the river height increases, the current varies from 0.5 knots in Summer to upwards of 5 knots or more in late Winter. Effect is incre by a Northerly wind.

Berth Approach: Head upriver on berthing, unberth stern first until of shoal, approximately when bow is 50 ft. downriver of lower Do on Triad Berth, then swing with aid of tugs. Actual depth alongside Gauge) C.F.I. Berth = 44 ft. (minimum) Triad Berth = 41 ft. (minim

Guidelines for berthing as follows:

C.F.I. Berth: Berthing or unberthing in daylight only. No vessels on Triad, berthing or unberthing.

Triad Berth: Night movements dependent on wind, tug power, etc.

The question of taking bunkers thereby increasing the draft a If berthing at Triad only, can take before berthing. If also berthi C.F.I. it is best left until clear of C.F.I. Berth.

Berths: C.F.I. Berth: Reasonable condition. Short steel jetty 2 dolphins plus mooring buoy at either end, the nearest dolphins side of the jetty are interconnected by a catwalk.

At 26 ft. the maindeck is level with dolphins so gangway mu turned in. B.O.T. type gangway by pilot ladder position to after do Port side alongside.

Berth also used for loading bulk fertiliser. Watch the bulk boom is left unsecured and can be fouled.

Triad: 0.5 miles downstream from C.F.I. (plants back onto each

Basically the same as C.F.I. but dolphins not connected to je mooring buoys, all dolphins, not as good condition as C.F.I. Bulk fe also loaded. Port side alongside, B.O.T. type gangway amidships

Moorings: Basically 3, 2, 2, crossed after springs each berth. M boat which moors forward first then aft. Lets go aft first – very han propeller is clear quickly. (See "Plan") – have moorings ready arrival.

CARGO: Ammonia only at both berths plus bulk fertiliser. Labo both berths assists in connecting up.

C.F.I.: Ship's 12 in. to 8 in. reducer plus shore 150 – 300 ASA piece.

No vapour return line, no venting. Loading at 450 t.p.h. but de on pumps available, normally two. Emergency stop for ship ope

Triad: Ship's 12 in. to 8 in. reducer. No VRL, no venting. Load 350 t.p.h. but again depends on available pumps. Shore tanks back further than C.F. Industries and line heating is apparent.

FRESH WATER: Not available at Triad Berth or C.F.I. Berth. Barg New Orleans costs about $1,500.

TELEPHONE: On Triad berth through the terminal operator. Loc free, long distance calls collect. Pay telephone on deck at C.F.I.

GENERAL: Donaldsonville Town nearby, about $5.00 in Baton Rouge about 45 minutes away. The International Air New Orleans is about 1.5 hours away.

Stores: Lorries can back down jetty roadway to within a few manifold area. A permit has to be obtained at both berths.

USCG: Usual pre-arrival hazardous ship reports to Coast Guard New Orleans.

Necessary to have a Coast Guard escort through New Orleans must be made that the Pilot is advising the USCG of the vessel's and that she requires an escort. Escort with blue flashing light (fa launch) joins off Algies Point and goes through to Huey P. Long and vice versa.

THE FOLLOWING REPORT (Dated November 1980) IS TO BE IN CONJUNCTION WITH THE REPORT ABOVE.

SW Pass: The West flowing current is very strong, about 5 knots entrance and in region of Fairway Buoy. Steer well to the East

9 Mile Anchorage: Boat charges $35.00 per boat, any number 24 hour basis. Runs on hour every hour for shore leave pur arrangement. Call 'Port Ship Services Poydras' on Channel 20. to New Orleans at $5.00 per person can be arranged.

Tugs/Pilot: Minimum 2 hours' notice, order through Agent.

VHF: Agent: On Channel 16 and 73, Tricon (Trammo A Channel 16 and 73. Chandler: Sarussen Marine, on Channel

Films: Sea View Films: Best to cable direct as per Walport Ins Also change Vidpack. Change from launch if required whe New Orleans.

Burnside Anchorage: Boat Charges: $20 per boat plus $5 per person. Call "Webber Marine" Burnside on Channel 16 and 18A.

Agents: Call Tricon Burnside on Channel 16 and 73 (Trammo Agents).

Donaldsonville: Depths – See latest chart, shoaling alongside CF Industries and off Triad.

Berthing/Leaving scraped alongside Triad berth, maximum 30 ft. off.

Turn when one ship's length below "Triad", lower dolphin.

Three "Parish" tugs used in and out.

To line up manifold at C.F.I., pilot ladder gate should be in line with gangway on lower dolphin.

Water rate is 5 t.p.h. from fire hydrant stand pipe, not hose.

Water by barge from Baton Rouge at $4.00 per tonne. Minimum 100 tonnes plus $85.00 per hour for tug. Minimum 4 hours =$740.00.

No bunkers officially allowed alongside, but can probably take diesel at night.

Agents: Tricon in Burnside are now Trammo Agents.

AUTHORITY: *Operator:* C. F. Industries Inc., Donaldsonville Nitrogen Complex, P.O.Box 468, Donaldsonville, Lousiana 70346, U.S.A. *Tel:* (504) 473-8291. *FAX:* (504) 473-0202. *Contact:* Vance Barry, Port Captain.

DULUTH-SUPERIOR, Minnesota: 46.49 N. 92.09 W.

Refer to "St. Lawrence Seaway" for important general information.

PILOTAGE: U.S. or Canadian Pilot compulsory except when Master or officer specially qualified to navigate waters concerned. Pilots obtained from Western Great Lakes Pilots Association, 2231 Catlin Avenue, Superior, WI 54880. Duluth entry – Pilots picked up at point 2 miles due East of pierhead lights. Superior entry – pick up Pilot 2 miles N.N.E. of lighthouse. Advise Agents 24 hours in advance of ETA for scheduling Pilot, Customs, Immigration, and Agricultural Inspection. Masters should hold to the South of convergence of shipping lanes at the Duluth Entry and to North of this convergence at Superior Entry when approaching to embark a Pilot.

ANCHORAGES: Anchorage areas near Duluth and Superior entries are South and Eastward and North and Eastward respectively of main channel through harbour. Marked by anchorage buoys. Vessels must only anchor clear of channels at all times.

RESTRICTIONS: Because of varying conditions of wind and current, no restriction placed on speed passing through entry piers at either Duluth or Superior entry. Speed throughout harbour limited to 7 knots. Speed through bridges other than the Aerial Bridge at Duluth entry limited under normal conditions to 6 miles per hour. Because of current conditions at inner end of Duluth entry, both inbound and outbound vessels must leave vertical black/white striped mid-channel or traffic buoy on starboard hand. This gives outbound ships maximum straight run.

MAX. SIZE: Draft 26 ft. Duluth Harbour Entry: Duluth ship's canal, minimum width 300 ft. Superior Entry: Minimum width 500 ft. minimum depth at inner end of 27 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Prior to entering harbour vessels must make "Security Call" on Channel 51 from 10 to 20 minutes in advance advising intended movement. All vessels should monitor Channel 51 at all times when under way to determine position and intent of other vessels moving in constricted areas within harbour and approaches.

BRIDGES: Aerial Bridge spanning Duluth entry vertical clearance of 138 ft. Signal for opening bridge shall be given by vessels approaching from lakes, in all circumstances, when not less than 1 mile from bridge. A flashing amber light on harbour side of Aerial Bridge warns outbound vessel of approach of inbound vessel in lake.

TUGS: Available, not compulsory.

BERTHING: *Clure Public Marine Terminal.*

Length of dock: 6,600 lineal ft., 7 ship berths, 4 for unloading/loading, 3 for fitting, cleaning, standby, etc. Water depth: 27 ft. 2×90-ton Clyde gantry cranes. 12 grain loading berths.

Bulk Cargo Docks	*Berth Length* (ft.)	*Depth* (ft.)	*Storage Capacity* (tons)	*Main Commodities*
Amoco Oil	550	21	703,000 (bbls.)	Petroleum Products
*Burlington Northern 1	2,244	27	110,000	Taconite
Burlington Northern 2	2,100	27	52,500	Ore, Taconite Pellets
Burlington Northern	816	28	72,000	Taconite Pellets
Cutler–Magner Superior	1,250	27	500,000	Limestone
Cutler Magner Salt	1,000	26	300,000	Granulated & Rock Salt
**DM & IR Dock 5	2,304	28	Out of Service	
**DM & IR Dock 6	2,304	28	110,000	Taconite Pellets & Ore
Hallett Dock 7	2,000	24	(outside)(inside) 500,000 125,000	Misc.
Hallett Dock 5	2,373	27	550,000	Coal, Stone, Misc.
Hallett Dock 6	2,060	23	600,000 (Liquid Storage Tank – 3,000,000 Gal. Cap.)	Coal, Ore, Stone, Steel, Misc.
Lafarge Corp. Duluth	345	22	14,000	Cement
Lafarge Corp. Superior	1,186	26	8,290	Cement
Marine Fuelling	980	22	90,000 (bbls.)	Petroleum Products
C. Reiss Terminal Duluth	2,854	23	800,000	Coal, Stone, Misc.
St. Lawrence Cement	600	27	43,000	Cement
Superior Midwest Energy Terminal	1,200	27	7,000,000	Coal

*Burlington Northern also has 5.2 million ton pellet storage yard.

**Dm & IR also has 2.75 million ton Lakehead Storage Facility for pellets.

Grain Elevators	*Berth Length* (ft.)	*Water Depth* (ft.)	*Total Spouts*	*Capacity* (Bushels)
Cargill B–1	1,000	27	2	7,800,000
Cargill B–2	1,000	27	4	2,000,000
Peavey Co. Elevator M	800	28	0	2,100,000
Peavey Co. Connors Point	790	30	6	3,500,000
Peavey Co. Globe Elevator	620	27	3	4,000,00
General Mills Elevator A Bagging Plant	1,900	27	2	3,792,000
Harvest States Cooperatives No. 1	700+Gallery	30	10	8,000.000
Harvest States Cooperatives No. 2	1,250	27	6	11,000,000
AGP	930	27	1	4,100,000

Private Terminals	*Berth Length* (ft.)	*Depth* (ft.)	*Closed Storage* (tons)	*Open Storage* (tons)	*Cranes*
Lake Superior Warehousing Co., Inc.	6,600	27	315,000	30 acres	2×90 ton
Hallett 5	2,373	27	20,000	550,000	None
Hallett 6	2,060				
(Dry)		23	None	600,000 tons	2×18 ton
(Liquid)				Liquid Tank storage 3,300,000 gals.	
Hallett 6A	2,000	24	125,000	500,000	None
Hyman Michaels Co. Div. of Azcon Corp.	1,586	26	None	75,000	2×40 ton 1×50 ton 1×30 ton Gantry 2×50 ton Crawlers
C. Reiss Terminal Duluth	2,854	23	None	800,000	None

MEDICAL: All medical assistance available.

DENSITY: Fresh water.

FRESH WATER: Available at most docks in both ports.

FUEL: Available from dock or by barge.

FIRE PRECAUTIONS: No open fire permitted on deck of any vessel while in harbour. This restriction does not apply to a vessel at a shipyard which will be governed by the shipyard's local rules, nor to vessels in lay-up or fit-out status at ore docks.

Ocean vessels, upon docking, shall put on off-shore side of vessel, wire rope lines fore and aft as tow lines for use in pulling ship off dock face in case of fire. Such tow line shall be securely made fast to bitts with eye about 1 ft. above the water.

REPAIRS: All ship repairs can be effected.

DRY DOCKS: At Superior: Fraser Shipyards: one 831 ft. by 95 ft. and one 628 ft. by 76 ft.

CERTIFICATES: Masters are required to present Safety Inspection Certificate of cargo handling equipment and gangways to stevedoring companies and other employers of harbour labour upon request.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Required by Immigration.

GARBAGE DISPOSAL: North Star Marine Operators, 365 S. 7th Avenue W., Duluth, MN. 55802. Tel: 218-727-6969.

WASTE OIL DISPOSAL: See "Garbage Disposal".

SEAMAN'S CLUBS: Twin Ports Ministry to Seafarers Inc., 2024 W. Third Street, Duluth, MN. 55806. Tel: 218-727-5897.

AUTHORITY: Seaway Port Authority of Duluth, P.O.Box 16877, Duluth, Minnesota 55816-0877, U.S.A. *Tel:* (218) 727-8525. *FAX:* (218) 727-6888. *Contact:* Davis Helberg, Executive Director.

EASTPORT, Maine: 44.54 N. 66.59 W.

DOCUMENTS: Basic Customs documents required for entry.

Information Required: Vessel's Particulars: Vessel's name, Flag, Port of Registry (Date and official No.), Call Sign, Place built and date; deadweight, Gross/Nett registered tons, LOA, Breadth, type/No. of cranes/capacity; No. of holds and hatches; Max. arrival draft; Horsepower of any bow/stern thrusters.

Certificate Expiry Dates: Safety Construction, Safety Equipment, Safety Radio, International Load Line, IOPP, Certificate of Financial Responsibility (Certificate No., Owner as appears on Certificate and expiration date).

Voyage Information: Last foreign port other than Canada port prior to USA arrival; Previous U.S. or Canadian ports prior to arrival Eastport; Voyage rotation after sailing from Eastport.

Crew/Passenger Information: Name of Master, number of crew (including Master), number of passengers. Visaed Crew List or individual visas if arriving from foreign port. Crewmen should all possess Crewman's Landing Permit (Form I-95A).

Vessel's ETA: 96, 72, 48, 24 hours prior to arrival.

Communications: Radio station vessel using, type of communication equipment and pertinent information (i.e. call letters, Inmarsat No. and answerback, etc.).

Generally radio communications to Eastport are via WCC (Chatham Radio) or CGRS VCS HFX (Canadian Coast Guard Radio, Halifax NS) or Inmarsat.

Vessel Requirements: Any husbandry requirements should be supplied well in advance so far as practicable.

PILOTAGE: Compulsory.

Quoddy Pilots Association and Eastport Pilots. Tel: (207) 259-7770 or (207) 853-6027.

Pilots board at West Quoddy Head (Lat. 44° 49' N., Long. 66° 54' W.) or alternative pilot station at East Quoddy Head (Lat. 44° 58' N., Long. 66° 52' 48" W.). East Quoddy most likely used, Pilot will advise.

Pilots monitor VHF Channels 16, 10 and 14.

ANCHORAGES: Pilots usually board on arrival, but if berth not available, vessels anchor in Friar Road (Lat. 44° 53' N., Long. 66° 58' W.).

RESTRICTIONS: Depth alongside 12.2 m. MLW.

MAX. SIZE: 50,300 d.w.t., LOA 215 m. and max. draft 12.0 m.

HEALTH: See "Health – All Ports" before first U.S.A. port (Albany).

RADIO: See "Documents".

Vessels should advise Federal Marine Terminals (Telex: 705229 Fedmarud. Fax: (207) 853-4111. Tel: (207) 853-6096) of ETA, 72 hours, 48 hours and 24 hours prior to arrival.

VHF: Vessels must advise "Fundy Traffic" on VHF Channel 14 prior to entering Bay of Fundy (Ecareg).

Pilot and Federal Marine Terminals on Channel 16.

RADAR: Fundy Traffic.

TUGS: 3 tugs (1×1,400 h.p., 1×600 h.p. and 1×300 h.p.) operated by Passamaquoddy Towing Service (Tel: (207) 853-4483).

BERTHING: *Wharf:* Length 420 ft. (distance between dolphins 700 ft.). Depth 12.2 m. at MLW.

Truck and crawler cranes up to 100 tons capacity (Ship's gear can be used). 10 forklift trucks up to 17.5 tons capacity. Bale and roll clamps available. 15 woodpulp spreaders. 24 flatbed tractors/trailers.

Cargoes handled: Woodpulp, paper rolls, granite, logs and lumber.

CRANES: See "Berthing".

STEVEDORES: Federal Marine Terminals. See "Radio".

Northeast Longshoremen's Association.

Working hours are continuous.

MEDICAL: Hospital at Calais and medical centre at Eastport.

TANKERS: No facilities.

DENSITY: 1021.

FRESH WATER: Available on request to ship's Agent.

FUEL: Available by truck, on request to ship's Agent.

CONSULS: None locally.

REPAIRS: Contact Moose Island Repairs (Tel: (207) 853-6058) for minor repairs.

DRY DOCKS: None.

SURVEYORS: None.

GANGWAY/DECK WATCHMEN: Available from Port Authority, but only during cargo operations.

OPENIG/CLOSING HATCHES: Normally by crew.

REPATRIATION: Can be arranged.

AIRPORT: Eastport Municipal Airport has a 4,000 ft. runway. Distance to airport 3 km.

Bangor International Airport, 190 km.

HOLIDAYS: Work is carried out on all holidays with the exception of 4th July and 25th December.

POLICE/AMBULANCE/FIRE: Police, Tel: (207) 853-4221. Ambulance, Tel: (207) 853-4828. Fire, Tel: (207) 853-2544.

EMERGENCY CO-ORDINATION CENTRE: Contact U.S. Coast Guard.

BANKS: First National Bank, Fleet Bank, Bangor Savings Bank.

STORING: See "Prelims".

(1) By truck.
(2) No.
(3) Yes.
(4) No jetty forklifts on pier.
(5) As per U.S. Customs.
(6) —

SHORE LEAVE: Allowed. U.S. Customs and Immigration must have a visaed Crew List. Tel: (207) 853-4313. Notify ship's Agent.

IDENTIFICATION CARDS: Seamen's Book sufficient.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

DEVELOPMENTS: New pier with 1,100 ft. berthing space (Outside berth 20.0 m. draft. Inside berth 13.0 m. draft) (Dolphin to dolphin 900 ft.).

AUTHORITY: Eastport Port Authority, P.O. Box 278, 3 Madison Street, Eastport, Maine 04631, U.S.A. *Tel:* (207) 853-4614. *FAX:* (207) 853-9584. *Contact:* Jonathan T. Daniels, Port Director. Thomas D. Armentano, Operations Director.

EL SEGUNDO, California: 33.54 N. 118.27 W.

OPERATOR: El Segundo is a Chevron U.S.A. offshore multi-buoy marine terminal and refinery.

LOCATION: The terminal Sea Buoy is located approximately 1,750 ft. due West of Berth No. 3 in 78 ft. of water at Lat. 33° 54' 42" N., Long. 118° 27' 30" W. This lighted bell buoy is painted red with 6 in. high white letters reading, "2 ES". It exhibits a white flashing light every 4 seconds (flash 0.4 secs., eclipse 3.6 secs.). The lantern is 13.5 ft. above water. A current meter and Racon beacon have been installed. The Racon transmitter will be transmitting Morse code "C".

In addition to the many tanks of the El Segundo Refinery, the chimneys of power plants adjacent to the Marine Terminal form prominent landmarks. 2×334 ft. chimneys painted with alternating red and white horizontal stripes mark the Los Angeles Department of Water and Power Scattergood Steam Plant located just North of the Terminal. Directly South of the Terminal is a set of 4 shorter chimneys at the Southern California Edison Co. Power Plant.

DOCUMENTS: Four copies each of the following documents required for entry and clearance:

Crew List (I-418).
Master's Oath (1300).
General Declaration (1301).
Ship's Stores Declaration (1303).
Crew Effects Declaration (1304).
Application for Entry (3171).
Inward Foreign Manifest (1302).

If vessel is to discharge at more than one port, each port, wi cargo, must be listed on a separate manifest.

MAX. SIZE:

Berth No.	*Maximum Draft* (ft.)	*Maximum Length* (ft.)	*Vessel Tonnage* (d.w.t.)	*Water D at ML* (ft.)
1	Removed 1984			
2	Removed 1993			
3	51	1,000	Up to 150,000	65
4	56	1,000	Up to 150,000	70

RADIO: *Pre-arrival radio message to ship:*

The vessel's Agent will normally advise the vessel by radio following general information when the vessel is approximately out:

Mooring Master boards 2 miles S.W. of sea buoy (Approxima Lat. 33° 53.5' N., Long. 118° 29' W.).

Have starboard hose boom derrick rigged (if so equipped) and strong mooring lines ready – 3 main deck forward, 3 main dec 4 poop deck (polyester lines only).

Sumatran Crude average cargo temperature must be 125°F on a

Long term anchorage is generally in Long Beach. Anchorage "A" or "B" have been established in the vicinity of the Sea Buoy. Fe regulations require a Pilot.

Have pilot ladder rigged on starboard side.

Assure 125 p.s.i. pressure on riser during discharge.

Any Customs, quarantine, etc., special information.

Advise if all cargo pumps are in good operating condition, and average discharge rate.

Radio Communication Prior to Arrival:

Estimated time of arrival (ETA) and requirements for services be directed to the ship's Agent. ETAs should be sent 7 days repeated 3 days and 24 hours, prior to arrival.

Within 2 hours of arrival, communications may be established wi El Segundo Marine Terminal or mooring launch on VHF Channel

Radio and Telephone Ship to Shore Communications:

UHF Radio. The Mooring Master is equipped with a UHF rad direct communications with the Terminal Control room at all times the start of mooring until the vessel has cleared the moorin departure.

BERTHING: Vessel will provide berthing and messing facilities 3 man launch crew as well as for the Mooring Master and Environm Cargo Officer.

Mooring Gear: Each anchor shall be equipped with no less 10 shackles of chain. Vessels over 50,000 d.w.t. shall have at 12 shackles on each anchor. Wires on mooring winches should least 1,000 ft. (preferably 1,200 ft.) and should have 110,000 220,000 lb. breaking strength, depending upon the size of the v Constant tension winches must be braked by means of manual

Synthetic lines on fixed winch drums should also be 1,000 should have 130,000 – 270,000 lb. breaking strength. Doub synthetic lines should be 720 ft. long with a breaking streng 165,000 lb.

No synthetic line with elongation over 15% at full breaking st will be accepted. Aramid fibre ropes (Kevlan, Spectra) are perm they meet wire breaking strength requirements. Ropes are availa a rental basis from the Terminal.

Mooring lines should be located as follows:

1. At least 3 lines on the main deck forward
2. At least 3 lines on the main deck aft
3. At least 4 lines on the poop deck.

If vessel over 100,000 d.w.t. fittings must permit doubling of a Each synthetic line requires a separate bitt.

Mooring Facilities: Berth No. 3 is a 7-point mooring used for the of fuel, crude and refined products. It is located approx 2,400 yards offshore. There are 2×12 in. hoses available.

Berth is equipped with 1 unlit spar buoy and 2 can buoys. The s spar buoy marks the location of the offshore end of the submarin when the hose is on the bottom. A can buoy, or hose marker b connected to the end of the submarine hose by a chain. The sub hose string in Berth No. 3 is connected to the seaward end of submarine pipeline and a 12 in. line for circulation, by seve diameter × 25 ft. lengths of hose followed by one 12 in.×25 ft hose and one 12 in. diameter × 30 ft. long over-the-rail hose.

Berth No. 4 is equipped with 1 unlit spar buoy and 1 unlit ca The inshore spar buoy marks the end of the 36 in. submarine 14 in. circulation line. One hose string comes off the mai submarine line. The hose string consists of 5×35 ft. long lengths hose, followed by a reducer and then 2×25 ft. long lengths and long over-the-rail length of 16 in. hose. The end of the hose connected to a can buoy by a chain.

NOTE: VHF marine operator is also available, marine oper located at Redondo Beach and San Pedro.

Hose Handling: The vessel will be expected to have suitable e on deck and ready for making the connection to the submarin

Berth No. 3 requires a lifting capacity of at least 7 long tons fo up to 30,000 d.w.t. and at least 10 long tons for vessels over 30,0

Berth No. 4 requires a lifting capacity (calculated load) of 10

Procedure for Discharging: At the completion of most cargo d the vessel will be required to receive a 150 bbl. hose wash disp of cutter stock or gas oil. This is to prevent the hose from plug not in use.

Product Transfer Rates, Pressure and Temperature: Gasoline and jet fuel loaded at Berth No. 3 are usually transferred at 7,000 – 12,000 bbls.p.h. with a pressure at the ship's rail not to exceed 50 p.s.i. Gasoline and jet fuel are discharged at Berth No. 3 with a pressure not to exceed 125 p.s.i. at the ship's rail. Hoses are rated to 150 p.s.i.

Fuels and crude are loaded at Berth No. 3 at rates to 20,000 bbls.p.h. No. 3 Berth hoses are heavy duty 275 p.s.i. rated. Vessels are expected to maintain discharge pressure of at least 125 p.s.i. at the ship's rail and/or a flow rate of 20,000 – 25,000 bbls.p.h.

No. 4 Berth hoses are heavy duty 275 p.s.i. rated, and the system has a normal working pressure of 180 p.s.i. On this one hose system, vessels are expected to maintain flow rates of up to 50,000 bbls.p.h.

Sumatran Crude cargo will not be accepted by the facility unless the ship's average tank temperature is at least 125°F. However, the average temperature for Sumatran Crude should not exceed 130°F. in order to avoid excessive vaporization of the light fractions in the crude. Heavy viscous residue fuel cargo will not be accepted from a ship unless the ship's average tank temperature is at least 130°F.

MEDICAL: Several hospitals are available in the area. U.S. Coast Guard or local ambulance service may be expected to know what hospital is best suited to handle a particular emergency.

FRESH WATER: Potable water is not available at this mooring. Water barge service is not available in the area. Closest supply is the harbour at San Pedro.

FUEL: Bunker fuel for ship's use is not available in the moorings of the El Segundo Marine Terminal.

BALLAST: No ballast can be accommodated at the Terminal.

CONSULS: Consulates of most of the maritime Nations are maintained in both the cities of Los Angeles and Long Beach.

AIRPORT: The Terminal is located approximately 2 miles South of Los Angeles International Airport.

TIME: Standard Time along the entire West Coast of the United States is GMT minus 8 hours. Daylight Saving Time is from first Sunday in April till last Sunday in October. Clocks are advanced 1 hour in Summer.

WINDS/TIDES/CURRENTS: *Winds:* Westerly, onshore winds usually prevail. Gales are very rare in Santa Monica Bay, but the local thermal winds blowing from a Northerly direction sometimes necessitate interruption of transfer operations and require moving a ship from the mooring to anchor.

Northerly winds occur during the period from October through May. In the Autumn and Spring, duration averages 4 to 6 hours

In November, December and January, duration averages 10 hours. Velocities up to 52 knots have been recorded.

Tides and Currents: Normal tides of approximately 6 ft. pose no significant problems in this open roadstead.

Currents run unpredictably North or South along the coast in the vicinity of the Terminal. The current is most commonly from North to South and is stronger in Summer than in Winter.

GENERAL: *Supplies:* Modest quantities of supplies may be taken aboard while at the moorings if absolutely necessary, provided the Mooring Master gives prior approval. This practice is discouraged in view of the sea swell and wind conditions that can develop in the open roadstead of the moorings, as well as the long distances to normal marine supply facilities.

Launch service: A company operated launch may be chartered for vessel's use through the vessel's Agent at the option of the Owner's representative. This launch operates between the moorings and the Port-O-Fino Dock in King Harbour, Redondo Beach, on a published 4 hours' schedule which may be obtained from the Mooring Master. A one-way trip takes approximately 40 minutes.

Pilot Ladder: The vessel shall rig a safe and secure pilot ladder or pilot hoist (not accommodation ladder) for the Mooring Master and Government Officials to use in boarding and leaving the vessel.

Air Pollution: Any vessel showing visible smoke in excess of 3 minutes is in violation and may expect to be cited and required to pay substantial fines.

Dumping of Garbage: Dumping of rubbish or garbage overboard within 50 miles of the coastline is prohibited.

AUTHORITY: *Operator:* Chevron Shipping Co., 1006 Pier "F" Avenue, Long Beach, CA 90802, U.S.A. *Tel:* (310) 983-3660. *Telex:* TWX 910-345-6396. *FAX:* (310) 983-3666. *Contact:* Steve A. Swinburn, Port Superintendent.

U.S.C.G., Captain of the Port, Los Angeles/Long Beach, 165 N. Pico Avenue, Long Beach, CA 90802. Tel: (213) 590-2315.

El Segundo is an open roadstead marine terminal with no official Port Authority other than U.S.C.G.

ERIE, Pennsylvania: 42.10 N. 80.05 W. (See Plan)

Refer to "St. Lawrence Seaway" for important general information.

PILOTAGE: Not compulsory. Seaway Pilots will assist if required.

RESTRICTIONS: Navigation season from 14th April to 26th December approx. The port is connected to Lake Erie by an entrance channel, depth 28 ft. Vessel's size restricted by Seaway locks.

MAX. SIZE: 730 ft. length; 26 ft. draft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Quarantine procedure undertaken at Quebec City for incoming vessels from foreign ports.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Master must give at least 24 hours' notice to Commander, 9th Coastguard District, Cleveland, Ohio, of the vessel's ETA at Snell Lock. Also, at least 24 hours' notice of ETA at first U.S. discharge port is required.

TUGS: Available. Not compulsory, but sometimes necessary in bad weather.

BERTHING:

Erie Marine Enterprises, Inc.: New ship assembly yard with graving dock (largest on Great Lakes), available for dry dock repairs.

Ore Dock: 1,000 ft. long, 26 ft. – 27 ft. of water alongside. The ore dock has 400,000 ton storage pad available for lease.

Port Authority East Bay Industrial Site: 75 acres available for sale or lease.

Erie International Marine Terminal: Leased to Mountfort Terminals Ltd., stevedores for the Port of Erie; 1,400 ft. long, with 28 ft. of water. Terminal used for bulk and general cargo; 23 acres; 750,000 sq. ft. of warehousing and transit sheds with truck and rail loading facilities; 2×200 ton and 1×230 ton mobile cranes equipped with magnets, buckets and gear for heavy lifts, also 300 ton stiff leg crane. Terminal served by ConRail with reciprocal switching for N&W and B&LE railroads. A total of more than 100 acres of waterfront property is available where an industrial complex may be constructed.

DENSITY: Fresh water.

MEDICAL: All facilities available.

FRESH WATER: Obtainable by pipeline at all docks.

FUEL: All grades available by pipeline at all docks.

REPAIRS: Local shipbuilding company can handle most repairs. Dry dock available.

GARBAGE DISPOSAL: Service not available.

WASTE OIL DISPOSAL: Service not available.

SEAMAN'S CLUBS: None.

AUTHORITY: Erie-Western Pennsylvania Port Authority, 17 West Dobbins Landing, Erie, PA 16507-1424, U.S.A. *Tel:* (814) 455-7557. *FAX:* (814) 455-8070. *Contact:* Larry Morosky, Executive Director.

EUREKA, California: 40.48 N. 124.10 W. (See Plan)

DOCUMENTS: In addition to the documents detailed below, Agent will present to Master normal Customs forms to be signed, such as Master's Oath, Permit to Lade, Inward & Outward Manifest, etc. These forms will be filled out by local Agent and Customs Broker and presented to local Customs house when entering and clearing vessel:

Foreign Flag Vessels:

I. Entering from another U.S. port:
  3 Crew Lists.
  3 Passenger Lists (only if passengers on board).
  3 Curio Lists.
  3 Stores Lists.
  Permit to Proceed (issued at last U.S. port).
  Travelling Manifest (only if there is foreign cargo on board).
  Ship's Register.
  International Tonnage Certificate.
  U.S. Tonnage Certificates.

II. Entering from a foreign port:
  3 Crew Lists.
  3 Passenger Lists (only if passengers are on board).
  3 Curio Lists.
  3 Stores Lists.
  Travelling Manifest.
  Permit to Proceed.
  Ship's Register.
  International Tonnage Certificate.
  Ship's Tonnage Tax Certificate (U.S.).
  Clearance from a foreign port.

PILOTAGE: Telegraphic address of Pilot station "Humbar". 24 hours advance notice of ETA; in case of change in ETA give minimum 4 hour notice. Contact pilot boat on VHF 156.8 MHz (Channel 16). Radio watch is maintained 2 hours prior to arrival at sea buoy on Channel 16. Working Channels are 13, 10 and 77.

No Pilot boat on station. Local Pilots use tug "Avenger" length 97 ft. Tug colours: red funnel, buff and white superstructure and black hull. As no Pilot boat on station, sound signals not required. Visual international flag and light signals observed. Pilot will board vessel within 1 mile radius North, South and West of sea buoy. Sea-buoy located 1.4 miles from end of North jetty lined up with range lights bearing 105° true.

Specific requirements: *(a)* Pilot ladder with spreaders in accordance with Solas Regulations, and 3.0 m. above water. *(b)* At night – brilliant light to illuminate ladder. *(c)* Recommended anchorage outside Humboldt Bay located 1 mile South of sea-buoy in 15 fathoms of water.

ANCHORAGES: Inside harbour, weather permitting. Light draft vessel (22 ft. or less) South of Fairhaven Dock (Simpson) and West of Standard Oil Dock, if not over LOA 535 ft.

RESTRICTIONS: Humboldt Bay is a 24 hour port; restrictions if any would depend upon manoeuvrability and horsepower of vessel during peak tide. Range of tide normally 6 ft., extreme cases 10 ft.

MAX. SIZE: Max. LOA 740 ft., max. beam 115 ft. Max. draft 35 ft.

HEALTH: See "Health: All ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Send cables through one of the following stations:

ITT World Communications, Inc. – San Francisco Marine Radio Station KFS.

RCA Global Communications – San Francisco Marine Radio Station KPH.

TUGS: 2 tugs available, 1 tug acts as pilot boat, other tug joins vessel when in harbour. Tug's lines are normally used, occasionally a ship's line is used. No extra charge assessed for use of tug's line. Two tugs minimum are used.

BERTHING: No specific requirements relating to berthing; normal procedures prevail. Vessel normally docks stemming the tide.

Berths presently available at Eureka as follows:
Pacific Affiliates Dock "A".
Simpson Pulp Co.
Sierra Pacific Industries.
Louisiana-Pacific Corporation.
Humboldt Bay Forest Products.
Chevron USA.
Unocal.
Louisiana Pacific Chip Export Dock.

Harbour channels maintained to 35 ft. zero tide except for South Bay Channel to Humboldt Bay Forest Products which is maintained at 26 ft. Most of berths at above-mentioned docks also maintained at 35 ft. zero tide; however, some occasionally fill in and recommended check with Agent as to depth available at specific dock where vessel intends moor and load.

STEVEDORES: 4 local gangs available. Groups ordered at 0630 hrs. in the morning for both day and night gangs. Therefore essential that local Agent or stevedore company receives accurate ETA by 0600 hrs. in the morning. Normally, vessel will advise arrival sea-buoy with a 24–hour ETA and correct ETA at a later time if necessary. The basic commodities exported from Eureka are woodpulp, woodchips, logs and lumber.

Westfall Stevedore Co. Cable Address: Westfall, Eureka. Tel. (707) 443-5688.

MEDICAL: Not necessary for Agent to receive advance notice of required medical attention unless ambulance and doctor are required on arrival. 3 hospitals in immediate area. Inoculation and vaccination certificates should be up-dated.

TANKERS: 2 tanker berths available: Chevron USA – Barges only. Unocal – deepest draft 30 ft. at zero tide. Normally only Company tankers use own facilities. Facilities privately owned and are not available for bunkering other vessels.

DENSITY: 1024-1027 (depending on time of year).

FRESH WATER: Available all berths. Delivery by hose. Rate of delivery: 10 t.p.h.

FUEL: If bunkers required, Agent must go through major contractors, who in turn will inform their local supplier of requirements. The bunkers usually diesel grade and delivered by truck on a prearranged schedule.

CONSULS: None. Nearest consuls at San Francisco.

REPAIRS: Small welding jobs, and minor machine work only. Major repairs normally carried out in San Francisco.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: Services of gangway guards available if required by ship.

OPENING/CLOSING HATCHES: Normally stevedores' work unless done prior to docking. Vessel's crew may assist in opening and closing hatches, if hatches require special attention.

CERTIFICATES: Ship's Register, Load Line Certificate, Derat Certificate, Cargo Gear Certificate, Tonnage Tax Certificate and all other usual certificates required.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes and 1 lb. of tobacco. Wine and/or Spirit, 1 bottle (approx. 1 quart).

CARGO GEAR: Must be in good order and safe operating condition and all cargo gear certificates must be valid.

REPATRIATION: Normally done in conjunction with San Francisco, Portland, Los Angeles or Seattle Agent (Prior notification recommended).

AIRPORT: Airport located approximately 20 miles North of Eureka. Limousine service available. Major airline, United Express. At present 3 flights per day to San Francisco.

TIME: Local time is Pacific Standard Time and is GMT minus 8 hours. However, from first Sunday in April till last Sunday in October, Eureka is on Daylight Saving Time.

HOLIDAYS: No work performed by longshoremen on following holidays: New Year's Day (January 1st); July 5th; Labour Day (1st Monday in September); Thanksgiving Day; Christmas Day (December 25th).

POLICE/AMBULANCE/FIRE: Eureka City Police 442-4545; Eureka City Ambulance 442-4551; Eureka Fire Department 443-5656; Humboldt County Sheriff Department 443-5671; Arcata Fire District 822-2424; Humboldt Fire District No. 1 442-1212.

TELEPHONES: No arrangements for placing telephones on board; however, there are pay phones nearby at each dock as well as phones in nearby offices.

SERVICES: Specific services such as tank cleaning, compass adjusting, tank washing,etc., are not normally performed in the port of Eureka and are usually performed in one of the close major ports such as San Francisco; however, there are facilities available for minor repairs and metal fabrication.

SHORE LEAVE: Crew members allowed ashore unless restricted for Customs or Immigration reasons.

IDENTIFICATION CARDS: Alien seamen require Crewman Landing Pass (U.S. Form I-95).

DELAYS: Berthing delays seldom incurred primarily due to the fact that the prime Agents are always in contact with the local Agent at Eureka informing them of vessel's ETA and prime Agent is always advised with regard to all arrivals and possible berth conflicts at this port.

AUTHORITY: Humboldt Bay Harbor, P.O.Box 1030, Eureka, CA 95502-1030, U.S.A. *Tel:* (707) 443-0801. *FAX:* (707) 443-0800. *Contact:* David Hull, Chief Executive Officer.

EVERETT, Washington: 47.59 N. 122.13 W. (See

DOCUMENTS, PILOTAGE, etc.: Refer to "Tacoma".

PILOTAGE: Pilot boards off Port Angeles Pilot Station. Tel: Seattl 6400, dispatcher 448-4455.

ANCHORAGE: Unlimited deep water anchorage in Possession S

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany

AGRICULTURE: See "Agriculture" before first U.S.A. port (Alba

VHF: Pilots on Channels 13 and 14.

TUGS: Available, join vessel off berth. 17 tugs, 150 to 900 h.p.

BERTHING:

South Terminal: Length 705 ft. Approach depth 40 ft. Depth alon 39 ft. MLLW. Transit shed 22,500 sq.ft. Access by road, rail and 25 acres adjacent paved storage area (currently used for forest proc with log debarker. 1 dolphin berth for 600 ft. vessel. Depth 40 ft. M Light vehicle access to gangway only.

Pier No. 1 South: Usable berth length 600 ft. Approach depth 40 ft. alongside 45 ft. MLLW. Pier of concrete construction. Two rail spu dock. 1×45 ton capacity crawler mounted container crane. Acce road, rail and barge.

Pier No. 1 North: Usable berth length 600 ft. Approach depth 40 ft. alongside 45 ft. MLLW. Pier of concrete construction. Two rail spu dock. 36,000 sq.ft. chill facility adjacent to pier.

Pier No. 3 South: Usable berth length 650 ft. Approach depth 40 ft. alongside 38 ft. MLLW. Pier of concrete construction. Pneumatic alumina unloader on dock. Access by road and barge.

Pier No. 3 North: Usable berthing length 650 ft. Approach depth Depth alongside 40 ft. MLLW. Pier of concrete construction. 10 paved storage area. Access by road and barge.

STEVEDORES: 11 local gangs, additional gangs may be impo required.

MEDICAL: Doctors and local hospital available.

DENSITY: Changes daily as port is at the mouth of a fresh water

FRESH WATER: Available at wharves.

FUEL: Available by barge from Seattle or by road tanker.

GANGWAY/DECK WATCHMEN: Required only if detainees abo

CUSTOMS ALLOWANCES: No definite quantities presc reasonable allowance at discretion of Customs Inspector.

AIRPORT: Seattle – Tacoma International Airport is 45 miles So City of Everett on excellent highway. Driving time is approx. 45 min

HOLIDAYS: See "Tacoma".

POLICE/AMBULANCE/FIRE: Port of Everett Security: Tel: 259 Everett City Police: Tel: 259-8711; Everett City Fire Dept.: Tel: 252 Ambulance Service: Tel: 252-1234.

TELEPHONES: Will be placed on board vessel on request. Charg only for calls made. Arrangements should be made through ship's

SHORE LEAVE: Crew members are able to visit Everett at all ti

GARBAGE DISPOSAL: Tel: 259-0044 for service.

WASTE OIL DISPOSAL: Handled by tanker trucks from Seattle

SEAMAN'S CLUBS: Nearest are at Seattle.

AUTHORITY: Port of Everett, 2911 Bond Street, P.O.Box 538, E Washington 98206, U.S.A. *Tel:* (206) 259-3164. *FAX:* (206) 252 *Contact:* E. Paskouskis, Director.

FALL RIVER, Massachusetts: 41.42 N. 71.10 W. (See

DOCUMENTS: If first port of call in U.S., 2 complete Customs Ma describing all cargo on board and ports of discharge. Also 1 Ca for Fall River cargo; 3 Crew Lists; 3 Stores Lists; 3 Curios Ship's Register, Load Line Certificate and Tonnage Tax Certific

PILOTAGE: Vessel first contact ship's Agent for Pilot a arrangements. Northeast Pilots' Association radio call letters K on frequency 156.9 MHz, Channel 18. Usual Pilot pick-up is at B Reef Light Tower off Newport, R.I.

HEALTH: See "Health: All Ports" before first U.S.A. port (Alba

AGRICULTURE: See "Agriculture" before first U.S.A. port (Alb

RADIO: Chatham Radio or Amagansett Radio.

TUGS: Tugs for N.E. Power Station meet at Buoy 6; all other North, meet tugs at Buoy 10. Tugs provide own lines at no extra

2 tug companies serve Narragansett Bay and Port of Fall Ri

4 tug boats – 24 hour dispatching service. 2×3,000 h.p. boa

BERTHING: *State Pier:* Principal maritime cargo terminal at Sta Berth 600 ft. long with depth of 35 ft. MLW alongside.

Ro-Ro facility 80 ft. wide by 42 ft. inboard depth. (8° incline a edge – concrete deck on wood piling).

All utility services available. Further information telephone 5707 or ship Agents.

BRIDGES: All bridges have 135 ft. clearance with exce Brightman Steel Bridge at approach to Montaup Electric Co. Oil docks. This bridge has a draw clearance of 97.5 ft. and allowed for vessels with less than 75 ft. beam. No unusual requ Practice is to depart on flood tide. (See "Developments").

TANKERS: Berth at Shell Oil Docks. Depth alongside 35 ft.

FRESH WATER: Available at most berths. State Pier deli 125 pounds pressure.

OPENING/CLOSING HATCHES: Usually performed by steve

CERTIFICATES: All certification of vessel, safety conditions facilities should be available for U.S. Coast Guard.

CARGO GEAR: No additional safety requirements.

TIME: Eastern Standard Time, GMT minus 5 hours. Daylig Time GMT minus 4 hours from first Sunday in April till last October.

HOLIDAYS: New Year's Day (January 1st); Washington's Birthday (February 22nd); Patriots' Day (April 19th); Memorial Day (May 30th); Independence Day (July 4th); Labour Day (1st Monday in September); Columbus Day (October 12th); Veterans' Day (November 11th); Thanksgiving Day (last Thursday in November); Christmas Day (December 25th); or any day celebrated in lieu thereof.
TELEPHONES: Available at most berths. Contact Agents.
SHORE LEAVE: Permitted, but consult Agents.
IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95 issued for the same vessel.
DEVELOPMENTS: Plans for construction of a new 150 ft. wide draw bridge to replace the existing Brightman Street Bridge. This will mean unobstructed use of the entire port area.

SHIPMASTER'S REPORT: October 1991.
Charts: B.A. Charts No. 2730, 2731 and 2732.
Pilotage: The pilot boards 2.5 miles S.E. of Brenton Reef Light Tower from a fast cutter. On departure the pilot officially leaves in the same position but in practice he normally disembarks just North of the tower. The boarding position is an official position required by State law due to environmental requirements.

The pilot boards and disembarks in all types of weather and a good lee is always required. The pilot is ordered through the agent.

"N.E. Marine Pilot" can be called on VHF Channels 16, 18A, 14 and 10. The pilot office is located at Newport, Rhode Island and is manned between 0800 hrs. and 1600 hrs. (local time) from Monday to Friday. At nighttime, weekends and public holidays the Despatcher can be called at home (Tel: (401) 331-4824). He can also be obtained through local radio station. The pilot office is located at 243 Spring Street, Newport, Rhode Island. (Tel: (401) 847-9050), Cables "Rispilot Providence".

The pilot boat is manned 2 hours before the latest ETA. The pilot takes the vessel through Narragansett Bay and berths and unberths the vessel.

The Pilot Association covers all Long Island Sound from New York Harbour Eastern limits, East to the Cape Cod Canal and all ports in between, including all Narrangansett Bay.
Anchorages: If vessel is waiting for pilot or orders the anchorage is 1.5 miles – 2.5 miles S.E. of Brenton Reef Light Tower. The anchorage can experience large Southeasterly swells so additional anchor chain is recommended. There is little shelter from Southerly winds and the holding ground is only fair.

There are a number of anchorages in Narragansett Bay and all require a pilot when anchoring.

A popular anchorage when waiting for a berth is Prudence Island Anchorage which is located in position Lat. 41° 36.5' N., Long. 71° 17.2' W. (see B.A. Chart No. 2730).
Channel: The maximum draft for vessels proceeding to Providence is 39 ft. The channel in the bay is wide.

From Brenton Reef Light Tower it is about 20 miles to Fall River State Pier and 24 miles to Providence.
Restrictions: LPG vessels only berth during daylight hours and are subject to U.S.C.G. Inspection at the anchorage before berthing (inner or outer anchorage, depending on weather).
Tugs: Tugs up to 3,000 h.p. are available.
Berths: Borden and Livingstone Wharf: The berth is about 500 m. South of the State Pier (see B.A. Chart No. 2732). The minimum depth alongside was 23 ft. 09 in. at MLW on the S.W. end of the berth (See "Plan"). The tidal range is about 4 ft.

Vessels can berth either side alongside and generally use 2 tugs for berthing and unberthing. Vessels berth against 3 or 4 breasting dolphins, depending on length. The latex and caustic soda manifolds are on the centre breasting dolphin. The dock is a private facility and has its own linesmen. Vessels are berthed and unberthed throughout 24 hours.
Cargo Operations: Discharge is through shore pumps and lines into 36 underground tanks and 30 above ground tanks of various capacities. The total capacity is 350,000 U.S. gallons (12,500 tonnes).

Caustic soda is also discharged into the underground storage.
Density: Density at H.W. was 1020.
Fresh Water: Fresh water is available at no charge. Ship's hoses are used and the rate is moderate.

Also see "Providence" – "Shipmaster's Report dated October 1991".

AUTHORITY: Fall River Port Authority, State Pier, Water Street, Fall River, Massachusetts 02721. *Tel:* (508) 674-5707. *Contact:* William J. Torpey, General Manager.

FERNDALE, Washington: 48.49 N. 122.43 W. (See Plan)

DOCUMENTS/HEALTH/etc.: Refer to "Seattle".
PILOTAGE: Compulsory. Pilot boards at Port Angeles.
TUGS: Tug escort required if vessel is loaded and is larger than 40,000 d.w.t. Tug horsepower must be 5% of d.w.t. Available up to 3,000 h.p. Additional tugs ordered from Seattle if required.
RESTRICTIONS: Vessels enter any hour day or night.

Regulations prohibit tankers larger than 125,000 d.w.t. in U.S. waters East of a line from Discovery Island Light to New Dungeness Light.
MAX. SIZE: Length 1,000 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
BERTHING: Terminal used for crude and product discharging. Vessels berth alongside finger pier, lines to quick release hooks. Inner berth for barges only. Outer berth 900 ft. long, depth alongside 60 ft. at MLW. Dirty ballast water 3,000 long tons with prior notification.
OPERATOR: Tosco Refining Company, Ferndale Refinery, P.O. Box 8, Ferndale, WA 98248-0008, U.S.A. *Tel:* (360) 384-8349. *Telex:* 910-449-2412. *FAX:* (360) 384-8360. *Contact:* Marine Terminal Supervisor.

FORT PIERCE, Florida: 27.27 N. 80.19 W.

PILOTAGE: Compulsory. Pilot boards at sea buoy. Send vessel's ETA to Agent 72 hours, 48 hours and 24 hours prior to arrival.
ANCHORAGE: Vessel anchors and awaits Pilot 0.5 miles seaward of sea buoy.
RESTRICTIONS: Vessels are able to berth and unberth during hours of darkness if the weather is clear. The leading lights are good but the channel is narrow and a number of buoys are unlit. Diameter of turning basin 1,100 ft. Least depth of water in the channel from sea to berth 28 ft.
MAX. SIZE: Max. draft 28 ft. Range of tide averages 2 ft.
RADIO: Tampa Radio.
VHF: Channels 16 and 13. Watch only maintained when vessel expected.
TUGS: One 500 h.p. tug and one 1,000 h.p. tug available. Large vessels should use tugs when berthing.
BERTHING: Berthing at Fort Pierce is at Indian River Terminal. This privately owned facility has berths of 454 ft., 330 ft., 150 ft. and 200 ft. There is an adjacent facility with mooring for small vessels including a Ro-Ro ramp used by a landing craft trading with the Bahamas.

Vessels up to 600 ft. have safely berthed at the terminal facility which is well maintained and fendered. Vessels can arrive or depart at any stage of the tide, however, the port's Pilot has temporarily restricted vessels over 24 ft. 6 in. draft to high water movements only.
CARGO HANDLING FACILITIES: Indian River Terminal provides excellent facilities for general cargo. The pierside refrigerated warehouse serves the citrus industry. Shore side cranes are available on request but most cargoes are discharged and loaded at this facility with ship's gear. The terminal and local stevedores are fully equipped with forklifts, hand trucks, slings and pans for handling palletised or breakbulk products, most particularly fruits and vegetables. Containers and heavy lift cargoes have also been loaded at this facility which is serviced by a rail spur directly from the FEC railroad main line. The adjacent city facility provides berthing for several small craft and presently accommodates a cross state waterway inland cruise vessel and a small island trader.

A tug/barge bulk facility that handles argonite occupies an area North of the Indian River Terminal. This facility has a 3-dolphin mooring system for vessels up to 28 ft. draft.
MEDICAL: Doctor and hospital available.
FRESH WATER: Available.
FUEL: Light diesel is available by truck from nearby facilities. Heavier fuel must be barged or trucked from Port Canaveral or Port Everglades.
REPAIRS: No facilities available.
AIRPORT: Local airport 5 miles from port with U.S. Customs on site. Commercial flights available from Palm Beach and Melbourne, both 1.5 hours by car.
SERVICES: Fresh provisions, laundry services, groceries and meats available.
GENERAL: The Port of Fort Pierce is on the threshold of development. The present level of activity at Indian River Terminal indicates a need for additional facilities to accommodate the expanding export citrus trade and other business. The United States Corps of Engineers has recently completed a harbour deepening and expansion project to allow vessels up to 28 ft. draft to berth. This project was completed late 1995. Local community leaders are working to acquire port side undeveloped land that is presently privately held. The Port Authority at the present time does not own or operate any port property.

Stevedores at Indian River Terminal excel in handling breakbulk and palletised citrus fruit. Production and quality of stow are excellent.

Agency and stevedoring personnel are keen, helpful and anxious to co-operate fully.

For more information contact: Morris Adger, Port Director, 2300 Virginia Avenue, Fort Pierce, FL 34982-5652. Tel: (407) 462-1732. Fax: (407) 462-1718.
AUTHORITY: St. Lucie Port and Airport Authority, 2300 Virginia Avenue, Fort Pierce, FL 33482-5652, U.S.A. *Tel:* (407) 462-1732. *FAX:* (407) 462-1718. *Email:* FPPort@AOL.Com *Contact:* Morris Adger, Port Director.

FREEPORT, Texas: 28.57 N. 95.21 W. (See Plan)

DOCUMENTS: See "Houston".
PILOTAGE: VHF Channels 6, 8, 12, 13, 14, 16 at sea buoy. Pilot Office (tel. 233-1120), 200 West 2nd, Freeport, Texas; Pilot boards 0.25 mile North of sea buoy. Anchor 1 mile from sea buoy if awaiting Pilot.
ANCHORAGES: 1 to 2 miles from sea buoy.
RESTRICTIONS: Depth 45 ft. at bar.
MAX. SIZE: Length 670 ft., draft 43 ft. for ships from bar to within upper turning basin, 36 ft. from upper turning basin to Public Facilities. Tide governing these dimensions – plus or minus 3 ft.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
RADIO: Galveston Marine Operator.
TUGS: Join vessel at shore line. Tug's lines to be used, and no charge for use of lines.
BERTHING: 1 hour to reach berth. Deep water terminals at Public Facilities consist of 1,250 linear ft. of deep water bulkhead wharf with 3 modern transit sheds consisting of 200,000 sq.ft. 1 berth of 250 linear feet of deep water bulkhead wharf with transit shed of 36,000 sq.ft. In addition a back-up warehouse is available consisting of 60,000 sq.ft. The large transit sheds and back-up warehouse have railroad tracks under cover, permitting all-weather work and preventing cargo damage.

Ro-Ro facility in operation.

A new public liquid barge dock and tank farm in operation (in connection with the Old River Co.).

The Navigation District owns a total of 9,700 acres of land for future Port and industrial development, 6,500 ft. of this land is situated on the Brazos River.

CRANES: Vessel is required to use own gear, shore cranes are available in area for hire.

STEVEDORES: Obtained through Agent.

MEDICAL: Obtained through Agent and advance notice required. Doctors, hospital available.

TANKERS: Facilities operated by Phillips Petroleum, Dow Chemical and Seaway Pipeline Inc.

Report: Entering and Berthing: Vessels inbound over 630 ft. LOA are to enter harbour only during daylight hours from sunrise to:

1. 30 minutes before sunset going to berths below Phillips Terminal.
2. 1.5 hours before sunset going to berths at Phillips Terminal and above when loaded.
3. Vessels under 630 ft. judged unsafe for handling after dark will be limited to daylight hours.
4. Inbound operations will be suspended during times when weather conditions do not permit safe navigation.

DENSITY: 1020.

FRESH WATER: Available ex-wharf at Brazos Harbor.

FUEL: All grades available by barge from Houston.

CONSULS: None. Nearest at Port Arthur or Houston.

REPAIRS: Available.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: None required but available through Agent.

OPENING/CLOSING HATCHES: Stevedore contract.

CUSTOMS ALLOWANCES: Local Customs Agent control.

REPATRIATION: Possible, through Agent.

AIRPORT: Houston Intercontinental Airport – Houston, Texas (80 road miles to Brazos Harbor); Metro Airlines – Shuttle to Angleton, Texas (15 miles from Brazos Harbor).

TIME: GMT minus 6 hours. Daylight saving time starts last Sunday in April and ends the last Sunday in October – GMT minus 5 hours.

HOLIDAYS: New Year's Day (January 1st); Martin Luther King's Birthday (January 15th); Lincoln's Birthday (February 12th); Washington's Birthday (Third Monday in February); Good Friday; Texas Independence Day (March 2nd); St. Patrick's Day (March 17th); Decoration Day (Last Monday in May); Emancipation Day (June 19th); Independence Day (July 4th); Labour Day (First Monday in September); Columbus Day (Second Monday in October); Veteran's Day (November 11th); Thomas W. Gleason's Birthday (November 8th); Thanksgiving Day (Fourth Thursday in November); Christmas Day (December 25th). No work on Christmas Day or Labour Day.

If any of the above holidays fall on Saturday or Sunday the following Monday will be recognised as the holiday.

POLICE/AMBULANCE/FIRE: Police 239-1211; Fire 233-2651; Ambulance Service 233-2651.

TELEPHONES: No arrangements exist for placing telephones on board.

BANKS: First Freeport National. Tel: (409) 233-4401.

SERVICES: Tank-cleaning facilities available locally. Compass adjusting available from Houston.

SHORE LEAVE: Crew members allowed ashore.

GARBAGE DISPOSAL: Garbage collection service according to Marpol Annex V Regulations, arranged by the Port Authority. Rates for services charged according to Port Tariff. Collection times set by Port Authority.

WASTE OIL DISPOSAL: Collection service available by commercial tank trucks. No special berths available for this service. Service provider will quote rates at time of service.

IDENTIFICATION CARDS: None needed.

SEAMAN'S CLUBS: Seaman's Service Center, 230 East Fifth Street, Freeport, TX 77541. Tel: (409) 233-5641. Contact: Rev. Joe Jones.

DEVELOPMENTS: The port has commenced a dredging and widening project, which will on completion give a channel depth of 45 ft. and an alongside depth of 36 ft. The main channel will be widened to 400 ft.

Berths No. 1 and 2 to be extended Eastward to provide a new berth (Berth No. 3) with a length of 640 ft. Berth will be dedicated to rice export.

Berth 'A' is to be extended by 400 ft.

AUTHORITY: Port of Freeport, Brazos River Harbor Navigation District of Brazoria County, 1001 Pine Street, P.O.Box 615, Freeport, Texas 77541. *Tel:* (409) 233-2667. *FAX:* (409) 233-5625. *Contact:* A. J. Reixach, Port Director.

GALVESTON, Texas: 29.17 N. 94.50 W. (See Plan)

DOCUMENTS:

- 1 visaed Crew List.
- 3 Passenger Lists.
- 3 or more copies of complete Manifests of Cargo for discharge at all United States ports.
- 2 or more copies of Manifest of Cargo for each United States port.
- 2 Souvenir Lists.
- 2 Stores Lists.
- Ship's Register.
- Tonnage Tax.
- Load Line Certificate.
- Nationality Certificate.
- Certificate of Financial Responsibility.
- I.O.P.P. Certificate.
- No health document required.

APPROACHES: Mariners are advised that ship-to-ship lightering ac is regularly conducted in the following general vicinities which 50 – 60 miles from the Galveston Sea-Buoy.

Lat. 28° 35' N., Long. 94° 15' W.
Lat. 28° 25' N., Long. 94° 34' W.

Mariners are urged to use caution when transitting these area they make their way to the Port of Galveston.

ANCHORAGES: In Bolivar Roads, 6.7 miles inwards from sea No. 1. Depths 32 ft. – 34 ft.

PILOTAGE: Radio to local Agent who arranges Pilot and spe boarding time. United States Coast Guard require 24 hours' noti arrival at Galveston Bar. Contact pilot boats and Pilot Station on Channel 14. Pilot boats can be signalled by light in international Pilot taken on board at sea buoy No. 1 located 6.7 miles from Galve

RESTRICTIONS: Prolonged North winds can reduce water leve much as 4 ft. in Winter. Channel depth 40 ft. F.W.

MAX. SIZE: No length or height restrictions. Draft according to depth.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Alban

RADIO: International Telephone and Telegraph station Galve call sign KLC.

TUGS: Available if required.

BERTHING: See "Table".

STEVEDORES: Order before 1800 for 0700 or 0800 hrs. following During day can be ordered at 2 hours' notice. Gangs must be ord before 1800 hrs. on Saturday for Sunday or holiday.

MEDICAL: All medical assistance available.

FRESH WATER: Available at all wharves.

FUEL: All grades available from Galveston Terminals Inc. Tel: (409) 6351

CONSULS: Italy and Norway.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: Required only if crewmen deta by Immigration.

OPENING/CLOSING HATCHES: By stevedores only.

CUSTOMS ALLOWANCES: Each man 300 cigarettes, or 100 ciga 1 lb. tobacco; 1 quart wine/spirits.

TIME: Central Standard Time. Daylight Saving Time effective from to October.

HOLIDAYS: *ILA Holiday:* January 1st; Martin Luther King President's Day; Texas Independence Day; Good Friday; Memorial Emancipation Day; July 4th; Labour Day; Veterans Day; Thanks Day; Christmas Day.

POLICE/AMBULANCE/FIRE: All services provided. Tel: (409) 2100.

SHORE LEAVE: No restrictions unless detained by Immigration.

IDENTIFICATION CARDS: Immigration Form I-95 required.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A (Albany).

The following information was received from the Port of Galves "To arrange for garbage and trash pickup, contact the Harbour M

Any vessel whose previous port of call was outside the cont limits of the United States, or who has residue of food stuffs purc outside the continental limits of the U.S. on board, must have their arrange for garbage pickup by an authorised transporter prev approved by the Department of Agriculture. All such garbage mu inspected by the Dept. of Agriculture prior to being discharged as

Trash and garbage from coastwise vessels, outer continental supply and seismograph boats, and other nondescript water cra normally be picked up by the Galveston Wharves mainte department. 150 cu.ft. trash trucks and garbage containers provided alongside on the dock upon request, availability permit

All trash and garbage must be retained onboard until s containers are available. Under no circumstances shall trash or ga be deposited directly onto the pier aprons. All garbage must be w or packaged in leak-proof containers or plastic bags. All empty ca boxes shall be broken down flat to conserve space.

No lead-acid batteries containing liquid will be discharged. No oil, chemicals, or other hazardous material shall be dumped or in with trash and garbage. Trucks shall not be loaded within 6 below the top of the sideboards.

The tariff for hauling away trash and garbage will be $125.00 first truck load and $75.00 for each truck load thereafter.

In the event no Galveston Wharves equipment is available to trash and garbage at the time requested, the Harbour Mast authorise vessels to contract directly with commercial transporters who are properly franchised with the City of Galve accordance with Section 15-61 of the Galveston City Code. A co list of those authorised contractors will be provided by the Master upon request.

The Harbour Master will also authorise an outside contractor to containers at any time for large amounts of scrap metal, used any other material which because of size or weight makes it bey capability of wharves equipment to properly handle.

Any vessel not in compliance with the above procedure will be to vacate its berth."

The following is a list of authorised contractors:

Affordable Disposable Company, 1624 Avenue M., Galvesto
Tel: 762-5842.

Best Waste Systems, 1555 F.M. 517 West, Dickinson
Tel: (713) 337-3903.

Browning-Ferris Industries, P.O.Box 1379, La Porte
Tel: (713) 471-9142.

William Blue, 6806 Woodrow, Texas City, Texas. Tel: 938-
Freddie Swanson, 1109 46th Street, Galveston, Texas. Tel: 7
Trashmasters, Galveston, Texas. Tel: 762-5392.

BERTHING: (Galveston)

Pier No.	Apron Length (ft.)	Depth (ft.)	Shed Area (sq. ft.)	Open Area (sq. ft.)	Truck Served	Rail Served
Pier 10 (Container Terminal)	1,346	40	—	1,839,975	★	★
Pier 12	845	34	—	—		
Pier 14 East (Containers)	664	36	—	142,000	★	★
Pier 14 West (Containers)	689	35	—	142,000	★	★
Pier 15	664	35	84,916	56,600	★	★
Pier 16/18 Banana Terminal	1,203	34	109,012	261,400	★	★
Pier 19 – Shrimp Fleet	620		—	—		
Pier 21 (Festival Market Place)	620		—	291,800		
Pier 23/26 (Break Bulk Cargoes)	1,585	32	244,144	—	★	★
Pier 25 (Upper Cruise Terminal)	1,585	32	26,000	—		
Pier 27	169	32	—	104,500	★	★
Public Elevator B (Export Elevator)	850	45	6 million bushel storage	—	★	★
Farmland Industries (Export Elevator)	1,000	45	3 million bushel storage	—	★	★
Pier 30/33 (Break Bulk)	632	38	184,795	73,500	★	★
Pier 34	632	38	—	370,300	★	★
Warehouse 35 (Break Bulk)	—	33	92,173	—	★	★
Pier 35/36 T Head (Import Sugar Terminal)	642	36	30,000 ton storage	—	★	★
Pier 36 (Break Bulk)	1,200	33	238,753	—	★	★
Pier 37/38 (Break Bulk)	P37-1,160 P38-1,185	31-33 38-20	75,000	352,836	★	★
Pier 39 (Break Bulk)	1,173	34	234,304	—	★	
Pier 39/40 T-Head	787	34	—	30,142	★	
Pier 40 (Break Bulk)	1,163	34	223,816	—	★	★
Pier 41 (Break Bulk) (2-Storey)	1,195	34	471,283	—		★
Pier 41 T-Head	373	34	—	13,017	★	★

★ = Yes

East End Container Terminal, wharf 1,346 ft. length, equipped with 4 container cranes handling 40 tons under the spreader or 60 tons with cargo hooks at 100 ft. outreach – depth alongside 40 ft.

Bulk loading rate at Farmland Industries Elevator is 2,000 t.p.h. (2 spouts) and at Public Elevator B 1,700 t.p.h.

Note: Water depths are based on MLW. Depths may be less due to siltation.

Pelican Island Terminal: A multi-use facility, the Pelican Island Terminal consists of 9 ship berths, warehouse and other shop space and over 225 acres of open land. Cargo, rig and other ship repair and maintenance, and lay-berthing operations, can be implemented.

Pier No.	Apron Length (ft.)	Pier No.	Apron Length (ft.)
A	950	C-1	668
B-1	1,040	C-2	668
B-2	1,040		
D-1	1,157	E-1	697
D-2	1,157	E-2	697

Depth: The depth at the Terminal is expected to be 28 ft. – 30 ft.

WASTE OIL DISPOSAL: Service available from Malone Company, P.O.Box 709, Texas City, Texas 77592. Tel: (409) 945-3301, (713) 487-6500, under requirements of 33CFR 158. 130 barrel vacuum tractor trucks and 50 barrel vacuum bobtail trucks available at any berths. This contractor meets response time, transfer rates, and capacity requirements under 33CFR 158.

SEAMAN'S CLUBS: United Ministry to the Port of Galveston, Inc., 2002 Mechanic, Galveston. Tel: (409) 762-0026. Facilities include ship's store, international telephone service, church services when requested, games organised (soccer), postage facilities, bus collection to and from ship, hospital transportation, pool, videos, table tennis, TV, restaurant, and bibles provided in numerous languages.

CURRENCY: U.S.Dollar (U.S.$).

DEVELOPMENTS: Future plans include the expansion of the container terminal by filling and paving the slip area between Piers No. 12 and No. 14 and resurfacing Pier No. 14, adding approximately 9 acres. Additionally, the extension of the container dock to 3 full berths is proposed.

AUTHORITY: Port of Galveston, P.O.Box 328, Galveston, Texas 77553. *Tel:* (409) 765-9321, 766-6119. *Telex:* 765436 Prt. Galv. *FAX:* (409) 766-6107. *Contact:* Ron Surobic, Acting General Manager/Port Director, Tel: (409) 766-6103. Robert Schulz, Director of Operations, Tel: (409) 766-6117. D. Jack Collier, Director of Port Development, Tel: (409) 766-6112. Oscar Molina, Harbour Master, Tel: (409) 766-6115.

GEISMAR (Including Sunshine), Louisiana:
30.13 N. 91.01 W. **(See Plan)**

East bank of Mississippi River, about 187 miles from sea.

DOCUMENTS/PILOTAGE: For all general information, refer to "New Orleans".

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available if required; normally not used (See "Tankers").

BERTHING: BASF Corporation: Berth 620 ft. long, 32 ft. depth. BASF Corporation Chemical Division, P.O.Box 457, River Road, Geismar, Louisiana 70734. Tel: (504) 473-9871. Telex: 510-600-7967. Contact: Plant Security.

TANKERS: *BASF Corporation: – Geismar:* General: The BASF Chemical Dock is located on the North side of the river, approximately 180.4 miles above Head of Passes (AHP). A series of mooring dolphins interconnected by rubber faced steel pile fenders form a 615 ft. berthing face. Electric driven warping winches on the dock and mooring dolphins handle vessel's mooring lines.

Cargo Handled and Shore Installations: Various chemicals are handled at this dock, e.g., methanol, ethylene dichloride, perchloroethylene, caustic soda, etc. All chemicals are generally loaded through 6 in. hoses connected to shore lines which are generally 6 in. diameter and vary in length from 0.5 miles to 4 miles.

An emergency loading stop control is located on the dock.

Docking: All vessels are required to use a 600 h.p. tug for assistance in docking and undocking. Vessels should approach the dock stemming the current with a tug on the port bow. The vessel is then manoeuvred alongside for a starboard side to docking.

Docking and undocking are generally performed by the River Pilot.

Nordix/No. 1 – Sunshine: General: The Nordix Dock is located on the left descending bank of the Mississippi River, approximately 170 miles AHP. The dock consists of a hose platform attached by catwalk and fender system to several mooring dolphins for a total dock length of 960 ft.

River current at the dock varies from 1 knot to 4 knots, depending on the height of the river.

Cargo Handled and Shore Installations: Crude is transferred through 2×8 in. hoses at a maximum discharge pressure of 100 p.s.i. on the dock.

Docking: Docking is strictly starboard side to and is performed by the River Pilot. 2×1,200 h.p. tugs are required for all docking/undocking operations.

The normal mooring arrangement calls for 2/3 head lines, 2 stern lines, 1 spring line forward and 1 spring line aft. The leads for breast lines are poor.

Willow Glen/No. 1 – Sunshine: General: The Willow Glen Terminal, approximately 180 miles AHP is on the left descending bank of the Mississippi River. The dock consists of a 150 ft. hose handling platform, 2 breasting dolphins and 4 mooring buoys. All mooring points are equipped with electric capstans for line handling. The dock is normally served by barge but is capable also of handling tankers.

Current at this dock varies between 1 knot and 4 knots, depending on river height.

Cargo Handled and Shore Installations: No. 2 and No. 6 fuel oil are the only products handled. These are transferred to the dock through 4×8 in. Chicksan arms at a maximum discharge pressure of 100 p.s.i. Portable jacks are provided by the terminal to support the cargo arms on the ship.

Docking: Docking is performed by the River Pilot and is strictly starboard side to, vessels of 30,000 d.w.t. or greater are required to use 2 tugs for docking and undocking; smaller vessels are required to use a single tug for these operations.

The normal mooring arrangement calls for 2 head lines, 1 breast line forward and 1 aft, 1 spring line forward and 1 aft and 2 stern lines. Wire or synthetic mooring lines may be used.

Petro United – Sunshine: General: The Petro United Dock is located approximately 170 miles AHP on the left descending bank of the Mississippi River. The dock consists of a 65 ft. hose handling platform and 6 mooring dolphins interconnected by 2 catwalk and fender systems.

At high river the current often causes swirling eddies off the dock which should be accounted for when approaching, docking and undocking.

Shore Installations: 4×10 in. and 2×12 in. hoses are available for the transfer of cargo.

Docking: 2 tugs are normally required for docking and undocking operations. All tugs must come from St. James or Baton Rouge so that a minimum of 2 hours advance notice must be given to the terminal and Agent prior to docking or undocking. Extensive delays have been known to occur due to tug unavailability and insufficient advance notice of docking/undocking requirements.

Docking is performed by the River Pilot and is strictly starboard side to. The terminal generally requires the use of 3 head lines, 2 stern lines, 2 breast lines forward, 2 breast lines aft, 3 spring lines forward and 2 spring lines aft.

DENSITY: Fresh water (1000).
FRESH WATER: Available ex-wharf.
FUEL: Not available.

SHIPMASTER'S REPORT: December 1990.
Berth: Arcadian (formerly Allied Chemical) located at Mile Statute 187 above Head of Passes.

The private wharf is said to be 1,175 ft. long. It is equipped with one travelling gantry crane and grab. Conveyor belt to yard storage within chemical plant. Phosphate rate is about 12,000 tonnes per day. Vessel guaranteed 39 ft. fresh water and berthed against 5 "Bridgestone" type inflated fenders. Vessel was 12 ft. from wharf and 12 ft. – 15 ft. below safety rails on arrival in low river. Ship's MOT type gangway and ship's bulwark steps are required on shore. Fenders were removed when ship's draft less than 32 ft. Gangway required frequent adjustment, and was changed to short size, then changed again to long size when aftermost hatch finished. Vessel moored with 4 headlines, 1 breast rope, 2 forward back springs, 2 after back springs and 4 stern/breast ropes aft. Stern nearly level with end of berth.

No fresh water available from quay, but a water barge can be hired from Burnside. Cost was U.S.$140 per hour for towage and $3.50/4.00 per ton for the water.

Only limited provisions allowed across dock, no chemicals or hazardous materials.

Visitors require prior authorisation, insurance, safety helmet, goggles and lifejacket.

No bunkering allowed.

Density ranges from 0.994 in Summer to 0.999 in Winter.

GEORGETOWN, South Carolina: 33.22 N. 79.17 W.

(See Plan)

PILOTAGE: Available. Make contact on VHF Channel 16. Pilot boards at Sea Buoy "2WB" in position 33° 11.6' N., 79° 05.4' W. for the 14 mile passage to Georgetown.
ANCHORAGE: Vessels wait for berth at Buoy "2WB".
RESTRICTIONS: Vessels over 600 ft. LOA dock during daytime only.
MAX. SIZE: Max. LOA 700 ft. Max. beam 100 ft. Depth at all terminals 27 ft. MLW.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
VHF: Pilot and tug on Channel 16. Port Authority have no facilities.
TUGS: Tugs assist vessels from Buoy 28 to the dock. Georgetown Towing operate 2 tugs, and McAllister Towing operate 3 tugs.
BERTHING:

Berth No.	*Wharf Length* (ft.)	*Depth at LW* (ft.)
1	500	27
2	700	27
Steel Dock	600	27

CRANES: 1×90 ton P & H truck crane at the terminal.
BULK CARGO FACILITIES: Holnam Cement Corporation: Bulk storage facility with capacity 20,000 tons. Discharge rate for cement 700 t.p.h.
STEVEDORES: Advise requirement 1600 hrs. day prior to arri order to commence work 0800 hrs. next day.
MEDICAL: Georgetown Memorial Hospital 3 miles from port.
TANKERS: No facilities.
FRESH WATER: Available.
FUEL: Bunkers available through ship's Agent.
CONSULS: None locally.
REPAIRS: Minor repairs and small engine repairs possible.
DRY DOCKS: Tugs and barges only.
SURVEYORS: Available.
GANGWAY/DECK WATCHMEN: Ship's gangway used. Watc available.
OPENING/CLOSING HATCHES: Opened by crew or stevedores.
REPATRIATION: Facilities available.
AIRPORT: 35 miles from port.
TIME: Eastern Standard Time. Daylight Saving Time from first Su in April till last Sunday in October.
POLICE/AMBULANCE/FIRE: Police 527-4454. Ambulance 546- Fire 546-5151.
DEVELOPMENTS: Delta Cement Corporation: Bulk storage fa recently completed. Capacity 20,000 tons. Discharge rate for ce 700 t.p.h.
AUTHORITY: South Carolina State Ports Authority, Port of Georget Dock Road, State Pier 31, P.O.Box 601, Georgetown, South Ca 29442, U.S.A. *Tel:* (803) 527-4476. *FAX:* (803) 527-2601. *Telex* 677-2265. *Contact:* L. David Schronce, Director.

GLOUCESTER, Massachusetts: 42.35 N. 70.40 W.

(See P

LOCATION: On the North shore of Massachusetts Bay at Cape 32 miles North of Boston.
DOCUMENTS:
4 copies Crew List.
4 copies Passenger List.
4 copies Bonded Stores List.
4 copies Stores List.
1 Derat Certificate.
1 Load Line Certificate.
1 Tonnage Certificate.
Safety Certificates.

Documents required for Government Inspection – excluding U.S vessels:

I. Vessels arriving from foreign ports:
A. For U.S. Customs Inspection:
1. Master's Oath, CF 1300 (1 original and 3 copies).
2. General Declaration, CF 1301 (1 original and 3 copies).
3. Cargo Declaration, CF 1302 (if any) (1 original and 3 copie
4. Ship's Stores Declaration, CF 1303 (1 original and 3 copie
5. Crew's Effects Declaration, CF 1304 (1 original and 3 copi
6. Crew List, I-418 (1 original and 3 copies).
7. Passenger List, I-418 (if any) (1 original and 3 copies).
8. Clearance from last Port.
9. Register (original only).
10. Tonnage Certificate (original only).
11. FMC Certificate of Financial Responsibility (original only) (Pollution).
12. Tonnage Tax Receipts (if any from previous voyage) (c only).
13. Load Line Certificate (copy acceptable).
14. Safety Equipment (SOLAS) Certificate (copy acceptable).

B. For Immigration Inspection:
1. Crew List, I-418, Visaed by Americal Consul (1 original). (Note: Requirements for visa may be waived under exten circumstances such as no American Consul at last port, diverting at sea, visa lost in mail, etc.).
2. Crewman's Landing Permit, Form I-95 or I-184 (one fo crewman).
3. Passenger List, I-418 (if any) (1 original).
4. Passenger Landing Permit, Form I-94 (one for each pass
5. Passport or Seaman's Book for each crewman.
6. Passport with valid U.S. Visa for each passenger (It is a vi of U.S. Law to carry a passenger not in possession of a val Visa into the U.S.).

C. For Department of Agriculture Inspection:
1. Ship's Stores Declaration, CF 1303 (1 copy).
2. Cargo Declaration, CF 1302 (if any) (1 copy).

II. Vessels Arriving from U.S. Ports:
A. For Customs Inspection:
Same as Section I, sub-section A above, except:
1. Cargo Declaration, CF 1302, if any foreign cargo rema board, will consist of a copy of the Manifest submitted at U.S. port, certified by Customs at said port, known as a "Tr Manifest" and another copy consisting only of the car discharged at this port, known as "Port Copy" or "Pier C
2. Clearance from last Port will consist of a copy of a Declaration, CF 1301, endorsed by Customs at previous U

PILOTAGE: Compulsory. Pilot station at Lat. 4 Long. 70° 40' W. Pilot available 24 hours. Distance from pilot s entrance – 1 mile. Distance from pilot station to berth – 3 miles

Contact: Eastern Point Pilots. Tel: 1-800-835-8927 or (617) and VHF Channel 16.

ANCHORAGES: Good anchorage S.E. of Tenpound Island harbour in 9.0 m. depth. Bottom is mud and sticky.

APPROACHES: A breakwater extends 4 cables W.N.W. from Eastern Point to Dog Bar. Channel between Dog Bar and Round Rock Shoal is narrow, with only 6.0 m. (20 ft.) depth.

The West channel between Round Rock Shoal and Mussel Point is 6 cables wide and has depths of 11.5 m. – 14.0 m. (38 ft. – 47 ft.). This is the recommended approach channel.

A channel dredged to 6.0 m (20 ft.) leads from the N.E. part of the outer harbour to the head of the inner harbour.

MAX. SIZE: LOA 475 ft., max. draft 24 ft.

RADIO: Boston Radio "WOU".

VHF: Gloucester Marine Operator available 24 hours.

BERTHING: There are many piers and wharves, of which 3 wharves are about 100 m. each in length and are used by cargo vessels, i.e. Quincy Market Wharf with 7.4 m. (24 ft.) depth alongside, Row Square Wharf, 90 m. N.E., with 5.8 m. (19 ft.) depth, and East Gloucester Wharf, facing South Channel, with 5.8 m. (19 ft.) depth alongside.

MEDICAL: Hospital locally.

FRESH WATER: Available.

FUEL: By truck or barge.

REPAIRS: Facilities available.

DRY DOCKS: Dry docks at Boston.

AIRPORT: Beverly, 25 km., and Logan International Airport at Boston, 60 km.

AUTHORITY: Port of Gloucester, P.O. Box 118, Gloucester, Mass. 01930, U.S.A. *Tel:* (508) 282-3012. *Contact:* Harbour Master.

GRAND HAVEN, Michigan: 43.04 N. 86.15 W.

(See Plan)

LOCATION: On the East shore of Lake Michigan, opposite Milwaukee, at the mouth of Grand River and about 1,000 miles from Montreal.

DOCUMENTS: Documents required for Government Inspection – excluding U.S. Flag vessels:

I. *Vessels arriving from foreign ports:*

A. For U.S. Customs Inspection:

1. Master's Oath, CF 1300 (1 original and 3 copies).
2. General Declaration, CF 1301 (1 original and 3 copies).
3. Cargo Declaration, CF 1302 (if any) (1 original and 3 copies).
4. Ship's Stores Declaration, CF 1303 (1 original and 3 copies).
5. Crew's Effects Declaration, CF 1304 (1 original and 3 copies).
6. Crew List, I-418 (1 original and 3 copies).
7. Passenger List, I-418 (if any) (1 original and 3 copies).
8. Clearance from last Port.
9. Register (original only).
10. Tonnage Certificate (original only).
11. FMC Certificate of Financial Responsibility (original only) (Water Pollution).
12. Tonnage Tax Receipts (if any from previous voyage) (original only).
13. Load Line Certificate (copy acceptable).
14. Safety Equipment (SOLAS) Certificate (copy acceptable).

B. For Immigration Inspection:

1. Crew List, I-418, Visaed by Americal Consul (1 original). (Note: Requirements for visa may be waived under extenuating circumstances such as no American Consul at last port, vessel diverting at sea, visa lost in mail, etc.).
2. Crewman's Landing Permit, Form I-95 or I-184 (one for each crewman).
3. Passenger List, I-418 (if any) (1 original).
4. Passenger Landing Permit, Form I-94 (one for each passenger).
5. Passport or Seaman's Book for each crewman.
6. Passport with valid U.S. Visa for each passenger (It is a violation of U.S. Law to carry a passenger not in possession of a valid U.S. Visa into the U.S.).

C. For Department of Agriculture Inspection:

1. Ship's Stores Declaration, CF 1303 (1 copy).
2. Cargo Declaration, CF 1302 (if any) (1 copy).

II. *Vessels Arriving from U.S. Ports:*

A. For Customs Inspection:

Same as Section I, sub-section A above, except:

1. Cargo Declaration, CF 1302, if any foreign cargo remaining on board, will consist of a copy of the Manifest submitted at the first U.S. port, certified by Customs at said port, known as a "Travelling Manifest" and another copy consisting only of the cargo to be discharged at this port, known as "Port Copy" or "Pier Copy".
2. Clearance from last Port will consist of a copy of a General Declaration, CF 1301, endorsed by Customs at previous U.S. port.

PILOTAGE: Pilotage is compulsory. Great Lakes Masters are licensed Pilots for Great Lakes waters and ports in general.

Shipping Agents of foreign vessels should contact Great Lakes Pilots Association, Cape Vincent, New York. Tel: (315) 654-2900.

Pilots board 0.5 miles outside Grand Haven pier entrance.

ANCHORAGES: In Lake Michigan.

APPROACHES: A dredged entrance channel leads East from deep water in the lake between parallel piers at the mouth of the river.

The channel has an official depth of 7.0 m. (23 ft.), and the pierheads are marked by lights.

RESTRICTIONS: Max. speed in port is 7 knots.

Navigation season from mid-March until early January.

MAX. SIZE: Max. draft 19 ft.

RADIO: Advise local Agent of ETA.

VHF: Harbour Master on Channels 16 and 9.

U.S. Coast Guard monitors Channel 16, working on Channels 21 and 23.

TUGS: Available by special arrangement.

BERTHING: Deep water facilities are located along the banks of the river which has a channel of 6.4 m. (21 ft.) official depth extending 2.2 miles upstream from the river mouth.

Municipal Dock with 133 m. berthing space and 4.0 m. (13 ft.) depth alongside, for receipt of coal from self-unloading vessels.

Bulk Cargo Dock has 305 m. face with 6.4 (21 ft.) of water, for receipt of coal, limestone, and other bulk materials.

Sand Dock is 107 m. long and has 6.1 m. (20 ft.) depth alongside, for shipment of sand and gravel.

BULK CARGO FACILITIES: The bulk dock is rail-connected. Open storage for 70,000 tons of coal and 200,000 tons of dry bulk materials. Sand shiploader with trimmer has loading rate of 4,500 t.p.h.

MEDICAL: Hospital and medical services available.

TANKERS: No facilities.

FRESH WATER: Available.

FUEL: Available by truck.

REPAIRS: Minor hull and engine repairs possible.

AIRPORT: Grand Haven Airport. Tel: (616) 842-4430.

Muskegon County Airport. Tel: (616) 798-4596.

EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard S.A.R. monitor VHF Channel 16, working on Channels 21 and 23.

AUTHORITY: City of Grand Haven, 519 Washington Street, Grand Haven, Michigan 49417, U.S.A. *Tel:* (616) 842-3210. *FAX:* (616) 842-0085. *Contact:* Harbour Master.

U.S. Coast Guard, Group Grand Haven, 650 South Harbour Drive, Grand Haven, Michigan 49417, U.S.A. *Contact:* Commander James Bjostad.

GRAYS HARBOR, Washington: 46.55 N. 124.08 W.

(See Plan)

DOCUMENTS, etc.: Refer to "Tacoma".

PILOTAGE: *Boarding Area:* Near Grays Harbor Buoy.

Pilot Ladder: Near midships, 3.0 m. – 4.0 m. above water. No manropes. Automatic ladders are acceptable for boarding. Use only Jacob's ladder for disembarking.

Pilot Boats: "Chehalis": 20 m. orange and green steel boat, pilot house aft. "Grays Harbor": 18 m. orange and green steel boat, pilot house amidships.

Notification: To be sure of service give maximum advance notice, at least 24 hours via the Marine Exchange, Seattle, WA., VHF Channel 20. Pilot boat does not cruise on station. Keep pilots advised of changes in arrival time. Four hour minimum notice required on pilot orders. Orders for pilots on weekends should be received by 1700 hrs. Friday.

Communications: Pilot radio station (call WRD 709 or Grays Harbor Pilots (360) 532-2761). Guards Channels 12 and 16. If contact is made on Channel 16, be prepared to switch promptly to another channel, preferably Channel 12. Same procedure applies to pilot boats when manned. In emergency, a message may be relayed through U.S. Coast Guard Station, Westport, using above procedure.

Maximum Draft: Loaded vessels are limited to 11.0 m. visible draft for departure at flood tide. In case of severe silting in channel this figure may be reduced. The allowable draft for incoming vessels is substantially less because of difficulty in turning around. The safe handling of loaded ships outbound through the bridge requires a little trim by the stern.

Maximum Width and Length: Vessels passing through the bridges over the Chehalis River are restricted to 26 m. beam and 183 m. length.

Vessel Condition: All vessels arriving or departing Grays Harbor are asked to have all hatches covered. Deck cargo must be properly stowed and secured. A safe walk-way must be provided to the pilot boarding area.

ARRIVED VESSEL: Vessels must be inside Grays Harbor Bar to be considered an "arrived vessel".

ANCHORAGES: No specific areas in Grays Harbor have been designated as anchorage grounds. The best area is Southward of Sand Island Shoal in depths of 35 ft. to 40 ft.; the holding ground is good.

RESTRICTIONS: Bar Channel depth 48 ft. MLLW, and Approach Channel depth 36 ft. MLLW. Turning Basin width of 900 ft. Mean tidal range of approximately 10 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available.

BERTHING: Three deep-draft berths with depths of 41 ft. MLLW and one shallow draft berth with depth of 34 ft. MLLW. The channel is maintained at a depth of 36 ft. MLLW.

Terminal No. 4: (Wharf-Dolphin).

2 berths: Each 700 ft. in length.

Deck height: 18 ft., berth depth 41 ft. MLLW, depth continuously maintained with water-jet system.

Alignment of pier: 274°.

Fender spacing: Continuous.

Bollard/cleat spacing: Variable.

Two × 60 ton cargo cranes.

New on-dock rail system with 4 parallel spurs, 50 railcar capacity, serviced by 2 main line railroads and connected to transit sheds.

Two new 30,000 sq.ft. transit sheds adjacent to on-dock rail system.

Services: Water, lights, taxi.

Use: Bulk, breakbulk, neobulk, Ro-Ro, general cargo, cruise ships.

Terminal No. 2: (Wharf-Dolphin).
1 berth: Length 600 ft.
Deck height: 18 ft., berth depth 41 ft. MLLW.
Alignment of pier: 274°.
Fender spacing: Continuous.
Bollard/cleat spacing: Variable.
50,000 sq.ft. and 40,000 sq.ft. warehouses behind Terminals 2 and 1.
Services: Water, lights, taxi.
Use: Bulk, breakbulk, neobulk, Ro-Ro, general cargo, cruise ships.

Terminal No. 1: (Dolphin).
1 berth: Width 50 ft., length 480 ft. with dolphins.
Deck height: 18 ft., berth depth 34 ft. MLLW.
Alignment of pier: 302°.
Fender spacing: None, 3 dolphins parallel to face.
Bollard/cleat spacing: Variable.
Services: Water, lights, taxi.
Use: Barge services, small cruise ships and others.

All 3 Port Terminals are backed up by 175 acres of lighted, partially paved cargo yard. In addition, a total of 150,000 sq.ft. of covered storage is available on-dock or adjacent to the terminal areas. The federal navigation channel up to the Port docks is federally maintained at a depth of 36 ft. MLLW. Major commodities handled through the Port of Grays Harbor are forest products, metals, equipment, liquid products, and other bulk, breakbulk and neobulk commodities.

Private:

Name	*Length*(ft.)	*Use*
ITT-Rayonier Sawmill Dock	600	Pulp and logs.
Citifor Dock	500	Logs.
Weyerhaeuser Bay City Dock	800	Logs.
Weyerhaeuser Sawmill Dock	900	Lumber.

BULK CARGO FACILITIES: All berths (See "Berthing") are available for bulk, Ro-Ro, and general cargo activity, and are backed up by 150,000 sq.ft. of warehouse space as well as 175 acres of lighted, partially paved cargo yard. Two × 60 ton cargo cranes are also available at Terminal No. 4, as well as an on-dock rail system.

STEVEDORES: Jones Washington Stevedoring, Tel. Steve Bouch (360) 533-2561; and Stevedoring Services of America, Tel. Will Sheahon, (360) 532-4650. 20 local gangs available. Additional gangs brought in if needed.

MEDICAL: All medical facilities available. Local hospital.

DENSITY: Salt water.

FRESH WATER: Available at all wharves.

FUEL: Available at berth or anchorage. Capacity of barge 15,000 bbls.

GANGWAY/DECK WATCHMEN: Required only if detainees aboard.

CUSTOMS ALLOWANCES: No definite quantities prescribed; reasonable allowance at discretion of Customs Inspector.

HOLIDAYS: See "Tacoma".

POLICE/AMBULANCE/FIRE: Dial 911 for emergencies.

Ambulances:	
Aberdeen	532-1252
Hoquiam	532-3311
Hospitals:	
Grays Harbor Community Hospital	532-8330
Fire Departments:	
Aberdeen, Cosmopolis	532-1252
Hoquiam	532-3311
Police Departments:	
Aberdeen	533-2123
Hoquiam	533-2244
Cosmopolis	532-9232

GARBAGE DISPOSAL: The vessel/Agent is responsible for ordering garbage service through Harbor Disposal Company Inc., 4201 Olympic Highway, Aberdeen, WA. 98520. Tel: (360) 532-3240. Containers, drop boxes and compactors are available.

WASTE OIL DISPOSAL: No facilities available.

SEAMAN'S CLUBS: Seamen's Service of Grays Harbor, 313 South "I" Street, Aberdeen, WA. 98520. A wide variety of services are available.

AUTHORITY: Port of Grays Harbor, P.O.Box 660, Aberdeen, Washington, WA. 98520-0141, USA. *Tel:* (360) 533-9528. *FAX:* (360) 533-9505. *Contact:* Jack Thompson, Commission President. Don Fleming, Executive Director. Ron Popham, Director of Business Services.

GREEN BAY, Wisconsin: 44.32 N. 88.02 W. **(See Plan)**

For important general information refer to St. Lawrence Seaway.

DOCUMENTS: No special documents required. All necessary Customs and St. Lawrence Seaway documentation should be accomplished prior arrival.

PILOTAGE: Pilot not compulsory although some Masters prefer Pilot aboard. Pilot boards prior to arrival.

CHANNEL: From Grassy Island, outside mouth of Fox River, to FV&W Railway bridge, channel is maintained 24 ft. below low-water-datum (576.8 ft. above Father Point, Quebec) and 300 ft. width except through bridges. Above Railway bridge channel and turning basin is maintained at 20 ft. below low-water-datum. From Grassy Island lakeward channel maintained at 26 ft. below low-water-datum varying in width from 300 ft. to 500 ft. for approximately 8 miles. 24 ft. deep turning basin maintained at confluence of Fox River and East River opposite Leicht's North Dock. Currents will flow up and down river and will influence channel depths at times. Present high-water will add1 ft. – 2 ft. to channel depths.

RESTRICTIONS: Entry may be made at any time of day or night subject to Master's discretion.

MAX. SIZE: Subject water depths and width of bridge openings.

HEALTH: See "Health: all Ports" before first U.S.A. port (Albany
Pratique may be obtained prior to entry of St. Lawrence Se
Suspected disease should be reported locally.
Rat guards required on all lines.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Alba

RADIO: Ships' Agents located at Milwaukee and Chicago, ETA s
be directed accordingly.

TUGS: Join vessel at any designated point. Charges should be ob
from tug operators. Use ship's lines.

BERTHING: General cargo at Leicht's North Dock, 1,500 ft. leng
channel depth. Discharge by ship's gear and shore based equip
Bulk cargo handled at several docks.

CRANES: Shore based lifting devices to 20 tons. 100 ton stiff-l
derrick available for heavy cargo.

BULK CARGO FACILITIES: Available at several places for coa
fertiliser, chemicals, liquid cargo, stone, pig-iron, etc.

BRIDGES: No bridge opening restrictions for railroad bridges. Hi
bridges permit vessels of 300 tons or over to transit at any time. How
heavy land traffic occurs about 0730 – 0830 hrs., 1145 – 1315 hrs
1630 – 1730 hrs., and co-operation of Masters is urged during
times so that city bridges may remain closed.

STEVEDORES: Services performed by Leicht Transfer and Stora
and arrangements should be handled by ship's Agent or direct
Leicht's.

MEDICAL: Subject to regulations of U.S. Customs and Immigratio
St. Lawrence Seaway Authorities. 3 excellent hospitals.

TANKERS: The major oil companies have facilities. Limited o
harbour dimensions.

DENSITY: Fresh water.

FRESH WATER: Available through ship's Agent and water comp

FUEL: Fuel oil available in any quantity. Normal fire precautions

CONSULS: No consuls. Nearest are at Milwaukee, Chicago
Minneapolis.

REPAIRS: Topside and engine repairs available. Complete
service available at Sturgeon Bay, 45 miles North.

DRY DOCKS: No local facilities. Available at Sturgeon Bay, Wisco

SURVEYORS: Available through ship's Agent.

GANGWAY/DECK WATCHMEN: Available at ship's option.

OPENING/CLOSING HATCHES: By stevedores.

REPATRIATION: Available through local Immigration officials.

AIRPORT: 8 miles from port. Served by regular airlines with
30 flights daily.

TIME: Central Standard Time. Central Daylight Saving Time in
from the first Sunday in April to the last Sunday in October.

HOLIDAYS: January 1st (New Year's Day), May 31st (Memorial
July 4th (Independence Day), 1st Monday in September (Labor
Last Thursday in November (Thanksgiving Day), December
(Christmas).

POLICE/AMBULANCE/FIRE: Police: Green Bay – Administrative
448-3200, Emergency 911, Sheriff 911, Ambulance 432-0305, Fire
Rescue – 911, Fire: 911.

TELEPHONES: On board service. Contact Wisconsin Telephone

SERVICES: Tank cleaning, fumigation, waste disposal, chandler

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Proper identification should be carrie

GARBAGE DISPOSAL: Service available on request.

WASTE OIL DISPOSAL: Service available on request.

SEAMAN'S CLUBS: Seafarer's Ministry of Green Bay, P.O.Box
Green Bay. Tel: 494-0958.

DELAYS: Expect no delays for berthing or harbour movement.

AUTHORITY: The Port of Green Bay, Brown County Board of
Commissioners, P.O.Box 23600, 305 E. Walnut Street, Gree
Wisconsin 54305-3600. *Tel:* (414) 448-4290. *FAX:* (414) 448
Contact: Alan T. Johnson, Port Director. Captain J.A. Finley, H
Master (Mobile: 621-6705).

GULFPORT, Mississippi: 30.21 N. 89.05 W. **(See**

DOCUMENTS: See "New Orleans".

PILOTAGE: Compulsory from Outer Sea Buoy to docks, prov
Gulfport Pilots Association, arranged through Agent. Pilot boards
Buoy.

Pilot boat has red hull, white superstructure with "Pilot"
lettering. When pilot boat is underway, contact can be made
Channel 16.

RESTRICTIONS: The Gulfport Channel is 12 miles long running
Ship Island and Cat Island. Channel is 225 ft. wide and has a
depth throughout of 36 ft. at MLW. Harbour is dredged rectangu
about a 0.25 mile wide and 0.5 mile long, this area being pro
piers. Depth in harbour and along wharves is 36 ft. with a 2
variation. No entry restrictions as to time.

MAX. SIZE: Length of vessel is restricted to approximately
turning basin, no breadth restrictions.

HEALTH: See "Health: All Ports" before first U.S.A. port (Alb

AGRICULTURE: See "Agriculture" before first U.S.A. port (A

RADIO: Gulfport Radio KJC 768 – VHF Channel 16. Continuous

TUGS: 2 tugs (1,200 h.p. and 2,000 h.p.) available but not
unless requested to assist in berthing.

BERTHING: 5,850 linear ft. of berthing space (See "Plan").

CARGO HANDLING: 50,000 sq.ft. transit shed refrigerated
2 container cranes, 1×30 ton and 1×35 ton, in operation. S
usually used but mobile cranes available with 48 hours' notice

STEVEDORES: Must have 12 hours' notice to arrange longshore gangs. Normal work day 0800 – 1200 hrs., and then 1300 – 1700 hrs. Monday to Friday.
MEDICAL: No advance notice required for medical attention, doctor and hospital care readily available.
DENSITY: Brackish.
FRESH WATER: Fresh water is available. Rate 10 t.p.h.
FUEL: Suppliers of marine fuel at the port provide direct barge to ship service. A 185,000 gallon fuel barge is moved from its mooring and placed alongside the vessel for refuelling. The barge is manoeuvred by an 800 h.p. twin screw push boat. Once alongside, pumps on the barge deliver fuel at a rate of 32,000 gallons per hour. Shallow draft coastal traffic can be fuelled at the port or 6 miles South in the Intra-coastal Waterway.
CONSULS: Many countries have consuls within a 100 mile radius of Gulfport.
REPAIRS: Most deck and engine repairs could be arranged within port facilities.
SURVEYORS: Available from Mobile or New Orleans.
GANGWAY/DECK WATCHMEN: Port guards.
REPATRIATION: Can be arranged.
AIRPORT: Gulfport Municipal Airport is approximately 4 miles from the port and served by regularly scheduled airlines.
TIME: The Port of Gulfport is on Central Standard Time, GMT minus 6 hours; clocks are moved ahead 1 hour during Summer months.
HOLIDAYS: United States national holidays are observed, cargo work can be arranged on these days at a penalty time.
POLICE/FIRE/AMBULANCE: Telephone number for all emergency services is 911.
TELEPHONE: Can be placed aboard only by special arrangement; not normally available.
GARBAGE DISPOSAL: Waste Management of Mississippi, Inc., P.O.Box 3869, Gulfport, Ms. 39505. Tel: 601-832-3144. Service available 0800 hrs. – 1700 hrs.

Browning-Ferris Industries, P.O.Box 550, Ocean Springs, Ms. 39564. Tel: 1-800-443-6562, 601-392-5108. Service available 0800 hrs. – 1700 hrs.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: The International Seamen and Truckers Center on West Pier (Tel: (601) 868-2525).
CURRENCY: U.S.Dollar.
AUTHORITY: Mississippi State Port Authority at Gulfport, P.O.Box 40, Gulfport, Mississippi 39502. Street Address: One Hancock Plaza. *Tel:* (601) 865-4300. *Telex:* 785197 Gulfp Port Gup. *FAX:* (601) 865-4335. *Contact:* Anthony J. Taormina, Executive Port Director.

HAINES, Alaska: 59.15 N. 135.25 W. (See Plan)

In Lutak Inlet. Located 5 miles N.W. of Haines. Open all year.
DOCUMENTS: See "Anchorage, Alaska".
APPROACHES: Lynn Canal to Lutak Inlet.
PILOTAGE: Pilot pick-up point located in vicinity of Point Retreat.
ANCHORAGE: Lutak Inlet.
MAX. SIZE: Harbour depth 36 ft. at zero tide. Tides: Diurnal range 16 ft. Also see "Berthing".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
BERTHING:

1. Haines Dry Cargo Dock can be secured by request through City of Haines (Telephone: Area code 907 number 766-2231). Berthing length – 967 ft. and an open surface of over 300 ft. in width. Depth at face of dock – 36 ft. MLLW. No covered sheds, 6 acre open staging area. Crane may be available. Continuous to 300 ft. Alaska State Ferry facility.

Ro/Ro cargo facility at N.W. end of Dry Cargo Dock.

2. Schnabel Lumber Co. Dock: Berthing length – 640 ft. long and 80 ft. wide. Depth at face of dock – 45 ft. No covered storage. Open storage. 35,000-ton capacity for bulk cargo storage. Chip loader with 350 t.p.h. capacity. Crane available.

TUGS: 3 available.
STEVEDORES: 4 gangs.
MEDICAL: Doctor/dentist available.
FRESH WATER: Available in small quantities in temperate seasons only.
FUEL: Not available.
REPAIRS: None.
CUSTOMS: Quarantine, Immigration and Customs locally.
TRANSPORTATION: Air, ferry. Haines Highway principal route connecting Southeast Alaska with the Alcan Highway leading to the interior of Alaska and Canada.
AUTHORITY: City of Haines, P.O.Box 1049, Haines, Alaska 99827. *Tel:* (907) 766-2448. *FAX:* (907) 766-3179. *Contact:* Robert Stokley, Harbour Master.

HAMPTON ROADS DISTRICT, Virginia: (See Plan)

NORFOLK: 36.51 N. 76.19 W.
NEWPORT NEWS: 36.59 N. 76.26 W.
PORTSMOUTH: 36.50 N. 76.17 W.

DOCUMENTS:

3 copies Cargo Manifest (Forms 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
2 copies Crew Manifest (Curio List).
2 copies Stores List.
2 copies Passenger List (Form I-418).
2 copies Crew List.

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours of arrival from a United States port:

Health Pratique.
Master's Oath (Customs Form 1300).
All foreign clearances.
U.S. Certificates of payment of Tonnage Tax (Customs Form 1002).
Certified Crew List.
F.M.C. Certificate of Financial Responsibility.

PILOTAGE: Compulsory; is generally arranged through port Agent. Vessels approaching port may use VHF telephone, Channel 16, radio telephone 2738 kHz. Advance notice of 24 hours is required of ETA. Pilot Lookout Tower located at Cape Henry, Virginia, the entrance to Chesapeake Bay.

The Virginia Pilot Association can be contacted by telephone at (804) 496-0995. Pilot monitors tower VHF-FM Channel 11 and VHF-FM Channel 16.

ANCHORAGES: 4 deep draft anchorages have been dredged at Hampton Roads. Two of the anchorages at Sewell's Point, one of which was dredged to 45 ft. and the other to 40 ft. The other 2 anchorages at Newport News are each 40 ft. deep.

Additional deep draft anchorages exist in the protected waters of the Chesapeake Bay at Cape Charles and Lynnhaven. These 2 anchorages, located near the entrance to the Hampton Roads harbour, have a water depth ranging to 47 ft. and can accommodate approximately 120 vessels. In addition, the inner harbour anchorage areas of lesser depth can accommodate up to 40 vessels.

Anchorage Regulations: A change in U.S. Coast Guard Regulations permits colliers and other bulk carriers, such as grain ships, to use the Big Stone Anchorage in Delaware Bay. Previously, the anchorage was open only to oil tankers. The new rules are advantageous to super colliers that are able to carry up to 150,000 tons, taking advantage of the anchorage's minimum natural depth of 55 ft. The super colliers then can be partly loaded up to about 90,000 tons, at Hampton Roads, Virginia, and topped off at the Stone Anchorage by two 30,000 ton barges.

RESTRICTIONS: Ships entering Hampton Roads from the sea follow a course between the Virginia Capes, across the lower end of Chesapeake Bay via Thimble Shoal Channel into the deep waters of Hampton Roads.

Thimble Shoal Channel: Extends from the Virginia Capes across the lower end of Chesapeake Bay into the deep waters of Hampton Roads. Thimble Shoal Channel is presently 1,000 ft. wide and approximately 13 miles long. The channel is 50 ft. deep within the 650 ft. wide outbound lane and 45 ft. deep within the remaining 350 ft. wide inbound lane.

Two channels extend through Hampton Roads, one southward into Norfolk, Portsmouth and Chesapeake, and one Westward to Newport News and up the James River.

Norfolk Harbour Channel: Extends from Hampton Roads into Southside cities via the Elizabeth River into Norfolk, Portsmouth and Chesapeake. Beginning at the Hampton Roads Bridge Tunnel, the Norfolk Channel is 19.6 miles long. Between deep water in Hampton Roads and Sewell's Point the Channel is 1,000 ft. wide and 50 ft. deep. Between Sewell's Point and a point just South of the Norfolk Southern Railway coal piers at Lambert's Point the channel is 50 ft. deep within the 650 ft. to 800 ft. wide outbound lane. Opposite the Naval Base at Sewell's Point and extending upstream to Norfolk International Terminals, the channel is 45 ft. deep within the 600 ft. wide inbound lane. Authorised improvements provide for deepening the Norfolk Channel to 55 ft. between Hampton Roads Bridge Tunnel and Lambert's Point. A 40 ft. channel extends from the coal piers to the N&W Railway Bridge on the Southern Branch. Beyond this point a 35 ft. channel extends 4.6 miles to a point 0.8 miles above the Interstate 64 Bridge, where the channel connects with the Atlantic Intracoastal Waterway route through the sounds of North Carolina to the South Atlantic Coastal States. Funding is available for the engineering and design study of deepening this portion of the Norfolk Harbour Channel to 45 ft., deepening a portion of the Southern Branch to 40 ft. and enlarging the turning basin at the Southern end of the channel.

The width of the Norfolk Harbour Channel is 1,000 ft. from its outer end to a point opposite Norfolk International Terminals; thence 1,250 ft. to the N&W Railway Coal Piers; thence 750 ft. to the junction of the Eastern and Southern Branches; thence up the Southern Branch 450 ft. wide to the Belt Line Railroad Bridge; thence 375 ft. wide for one mile to the N&W Railway Bridge; thence 250 ft. wide to its junction with the Atlantic Intracoastal Waterway route.

Newport News Channel: Extends 6.0 miles Westward from Hampton Roads to Newport News and thence up the James River, 68 miles and 90 miles respectively to the ports of Hopewell and Richmond. The Channel to Newport News has a depth of 50 ft. over a width of 800 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Radio-telephone communications in the Hampton Roads area are furnished by the Chesapeake and Potomac Telephone Company of Virginia. A regular ship-to-shore channel transmits to ship on 2538 kHz and the ship returns the call on 2142 kHz. A "day-time" ship-to-shore channel transmits to ship on 2450 kHz and the ship returns the call on 2366 kHz. In the very high frequency band, "XY" ship-to-shore is available which transmits to the ship on 161.9 MHz and the ship returns the call on 157.3 MHz. A second "day-time" ship to shore channel transmits on Channel 20 and monitors Channel 16.

TUGS: Tugs are arranged for by the vessel's Agent according to ETA information. The required number of tugs and the horsepower are determined by the assigned tonnage, handling characteristics and final berth destination. Should vessel be unable to manoeuvre normally, Master to advise the Agent and request additional tug power. There are 17 tugs with horsepower up to 4,300 available in the port.

BERTHING: *Public General Cargo Facilities:*

Lambert's Point Docks:

		Length (ft.)	*Depth* (ft.)	*Remarks*
Pier L	Berth 1	756	32	Tanker berth for Norfolk Oil Transit Inc. and lay-by berth
	Berth 2	756	32	
	Berth 3	756	32	
	Berth 4	756	32	
Pier N	Berth 1	550	32	Breakbulk
	Berth 2	550	32	Breakbulk
	Berth 3	550	32	Breakbulk
	Berth 4	550	32	Breakbulk
Pier P	Berth 1	600	32	2×40 ton Am Clyde gantry cranes, 1×35 ton and 1×40 ton rubber tyres container gantry cranes and 2×41 ton reach boom top loaders.
	Berth 2	600	32	
	Berth 3	600	32	
	Berth 4	600	32	

Norfolk International Terminals:

Pier 1	Berth 1	660	35 (N. side)	Lay-by berth
	Berth 2	660	35 (N. side)	"
	Berth 3	660	35 (S. side)	Breakbulk
	Berth 4	660	35 (S. side)	"
	Berth 5	300	35 (offshore)	"
Pier 2	Berth 1	660	30 (N. side)	"
	Berth 2	660	30 (N. side)	"
	Berth 3	660	35 (S. side)	"
	Berth 4	660	35 (S. side)	"
	Berth 5	300	35 (offshore)	"
Marginal	North berth	950	36	Ro/Ro
Pier 3				
Pier A	Berth 1	600	35	Breakbulk
	Berth 2	600	35	"
Pier B	Berth 1	600	35	Lay-by berth
	Berth 2	600	35	"
Pier A and B	Berth 1	498	35 (offshore)	"
Container Pier	Berth 1	896	35	1×30 ton and 3×40 tons Paceco Portainer cranes, 3×40 ton Kone cranes
	Berth 2	896	41	
	Berth 3	896	41	
	Berth 4	1,540	41	
North Expansion – Phase 1 Container Pier	Berth 1	1,000	40	3×45 ton portainer cranes (under construction – scheduled for completion early 1999).

Newport News Marine Terminal:

		Length (ft.)	*Depth* (ft.)	*Remarks*
Pier B	Berth 1	600	34 (N. side)	Ro-Ro, cruise
	Berth 2	600	40 (offshore)	Breakbulk
	Berth 3	600	36 (S. side)	"
Pier C	North	935	40	2×30 ton Paceco cranes and 1×40 ton Paceco Portainer crane and 1×42 ton CMI crane capable of lifting 182 ton heavy lifts.
	South	935	40	

Portsmouth Marine Terminal

Berth 1 Berth 2 Berth 3	3,500	40	2×30 ton Paceco Portainer cranes, 1×40 ton Paceco Portaine crane, 1×40 ton Kone crane,1×40 ton Cemco portainer crane and 1×110 Clyde gantry rail. crane; 350 ton heavy lift derrick barge crane serves entire port area. Ro-Ro platform available.

Sealand: Sealand handles container cargo at Portsmouth with 2×30 ton Paceco cranes. Facility has private cargo facilities: 1 berth, 1,000 ft. long, 38 ft. depth.

Elizabeth River Terminal Inc.:

Pier 1	1,200	35	1×50 ton Clyde gantry crane, 1×250 ton Manitowac crane and 1×150 ton link belt crane, all equipped with clamshell and buckets. Shiploader with rate 1,000 t.p.h.
Pier 2	750	35	

Port Area: Metro Machine Works Nos. 2 and 3, 27 ft. depth; Former U.S. Coast Guard Base, 1 berth 500 ft. long, 25 ft. depth; N.B. & C Line Piers, 4 berths, 800 ft. long, 20 ft. depth; Koch Industries, 3 berths, 372 ft. long, 35 ft. depth.

CRANES: 350 ton capacity floating crane operated by Tide Construction Corp.

Capacities (short tons)	*Outreach from edge of barge* (ft.)
350	50 ft.
299	60 ft.
218	80 ft.
154	100 ft.

Virginia Marine Services Inc. operate 1×1,000 ton and 1×15 floating crane.

BULK HANDLING FACILITIES: Grain: *Norfolk:* Cargill Inc.: S Elevator – One berth. Length 500 ft., depth 40 ft., airdraft 55 ft. 2 gantry shiploaders with combined loading rate of 60,000 bushe hour. Storage for 6.8 million bushels of grain and shed for stora 15,000 tonnes of soyabean meal and/or bulk products. Berth accommodate vessels up to 950 ft. LOA and 130 ft. beam.

Cargill Inc.: North Elevator – Length 1,035 ft., depth 38 ft., airdraft 3 shiploaders can load at rate 50,000 bushels per hour. Elevator st capacity 3,300,000 bushels. Berth can accommodate vessels u 850 ft. LOA and 115 ft. beam.

Coal: *Newport News:* Pier IX Terminal Co. – Pier 9: 2 berths, le 1,200 ft., width 88 ft., airdraft 75 ft., depth 50 ft., max. size – 1,000 ft., beam 155 ft., draft 45 ft. Shiploader: Travel 65 max. outreach from fender face 103 ft. Loading rate 8,000 t.p.h.

Also see "Plan".

Dominion Terminal Associates: 2 berths. Length each side 1,2 Depth 50 ft. Airdraft 79 ft. Max. loading rate 6,500 t.p.h. best 8 hou 48,840 tons. Best 24 hour shift 123,271 tons.

Norfolk: Norfolk Southern Corp. – Pier No. 6, 2 berths, 1,850 ft. 50 ft. depth. Max. airdraft 55.5 ft. Loading rate 10,000 t.p.h.

BRIDGES: Sufficient clearance at all times.

STEVEDORES: Labour arranged through International Longshore Association.

1. Straight Time – work between the hours of 0800 and 120 between the hours of 1300 and 1700 daily except Saturdays, Su and holidays.
2. Double Time – hours daily between 0600 to 0700 and 12 1300, 1800 to 1900, 2400 to 0100 hrs. and all Sundays.
3. Time and one-half – shall be all those hours not included a except holidays.

TANKERS:

Operator	*Location*	*Length* (ft.)	*Depth* (ft.)	*Remarks*
Amoco	Chesapeake	60	27-29	1×3 ton derrick w 2×45 ft. booms fo hose handling. 65 barrels storage fo gasoline, light fue and asphalt.
Crown Central Petroleum Corp.	Chesapeake	40	30-31	3×6 in. pipelines. 8 storage tanks. Total capacity 9 m gallons. Products handled are No. 2 oil, diesel oil and gasoline.
Koch Fuels Inc.	Newport News	Tanker Dock	34.0	1×20 in., 5×12 in 2×10 in. and 2× pipelines to stora tanks total capac 520,000 barrels. Products handled diesel fuel oil, bu fuels, asphalt, ce and coal tar.
		Barge Dock	19-27	
Mobil Oil	Chesapeake	45 ft. Face	36.0	4×8 in. loading a with 8 in. Tanker connections. 14 storage tanks 9.8 million gallon marine bunker fu 3.7 million gallon marine diesel an No. 2 fuel oil; 2 m gallons for MDO 2 million gallons No. 2 diesel and 21.2 million gallo unspecified prod
IMTT	Chesapeake	50 ft. Face	34.0	1×14 in., 2×10 3×8 in. pipeline storage tanks (9 barrels). 2×10 loading arms fo loading ocean g tankers. Produ handled: fuel oi bunker oils and asphalt. 1×8 in manifold for liq fertiliser produ
Texaco Inc.	Chesapeake	600 ft. Face	32.0	1×12 in, 3×10 4×8 in. 5×6 in 13×4 in. Pipeli extend to 163 f shore. Produc handled: fuel oi gasoline, lubric and asphalt.

Operator	Location	Length (ft.)	Depth (ft.)	Remarks
Louis Dreyfus	Chesapeake	45 ft. Face	15-20	4×8 in. mechanical loading arms with 10 in. pipeline. 7 storage tanks (capacity 400,000 barrels). Products handled: gasoline, fuel oil and diesel oil.
Atlantic Energy Inc.	Chesapeake	–	32	Extreme dolphins 800 ft. apart 2 breasting dolphins 125 ft. either side of dock. 1×14 in. line for propane or butane and 1×6 in. vapour return line. 1×12 in. hydraulically operated marine arm on dock. Safe working height of arm 67 ft. 1×4 in. vapour return hose. Controlling air draft at MHW is 135 ft. (3 bridges). Max. draft in channel at MLW is 35 ft. Storage capacity 20 million gallons. Also see "Shipmaster's Report dated June 1992.

Amoco: The terminal of the Amoco Company is located on the Southern Branch of the Elizabeth River, in Chesapeake, about one mile South of the Norfolk Naval Shipyard. This company has a site comprising 80 acres, with a splendid waterfront, on which are erected a ship and barge pier, pipelines, storage tanks, boiler house, tank-car and truck loading racks, and other facililties requisite to a modern petroleum storage terminal.

The terminal has storage capacity of 655,000 barrels for handling gasoline, light fuel oil, bunker C and asphalt.

Vessels carry petroleum products to its terminal from various refineries located in the U.S.A. and from abroad. Petroleum products are also received through the Colonial Pipeline system.

Fuel oil deliveries may be made to vessels at the company's wharf. Deliveries are also made by water to any section of Hampton Roads, Richmond, various other points in the Chesapeake Bay area and its tributaries. Loading equipment for making such delivery consists of barges with the necessary pumps, hose, flanges and other equipment for making up connections. Also see "Shipmaster's Report" dated November 1992.

Mobil: The Mobil Oil Corporation's terminal is located on the Southern branch of the Elizabeth River. Terminal facilities include bulk storage for 10 million gallons of gasoline, 6.7 million gallons of kerosene, 9 million gallons of fuel oil, 2 million gallons of diesel, and 11 million gallons of bonded bunker and marine diesel fuel.

The Mobil Oil terminal can accommodate vessels up to 32,000 d.w.t. Maximum length allowed is 660 ft. with maximum beam up to 90 ft. Maximum draft allowed is 35 ft. Water at this berth is brackish.

MTT: The oil terminal complex is located on the Southern branch of the Elizabeth River. This is a deep water port that can accommodate vessel drafts of 35 ft. and lengths up to 630 ft. with beams to 90 ft.

The Company's facility has a storage capacity of more than 850,000 barrels and handles a complete range of industrial fuel oils including No. 2 fuel oil, No. 4 fuel oil, No.6 fuel oil and bunker oils. The terminal operates around-the-clock and is connected with the Colonial Pipeline system.

Koch: The Koch Terminal is situated adjacent to the C&O Railroad yards in Newport News. It has a storage capacity in excess of 520,000 barrels for handling diesel fuel, No. 2 fuel oil, No.4 fuel oil, No.5 fuel oil, No. 6 fuel oil, bunker fuels and asphalt.

Products are received into the terminal by tanker and barge. This is a deep water port that is located 24 miles from the sea buoy. Maximum draft allowed is 34 ft. Max. length of vessel allowed is 630 ft. with a beam up to 90 ft.

Limitations from environmental factors on berth operations do not exist. The tidal current sets across the approach. Vessels generally sail at any stage of the tide. Controlling depths in the navigation channel are 45 ft. and at the berth the controlling depth is 33 ft. Flood tide is in a N.W. direction, ebb tide is in a S.E. direction. Current velocities are between 1.1 knots and 1.4 knots.

Equipment available at the terminal to contain oil spills include: 200 ft. of boom, launch, oil snares, and absorbent material. Firefighting equipment on the pier is limited, but includes: 2×150 lb. dry powder extinguishers, and 2×20 lb. dry powder extinguishers. There is no water under pressure on the pier. A public telephone is the only means on the pier used for fire emergencies.

Norfolk Oil Terminal Inc.: The terminal is located at Lambert's Point Docks in Norfolk. At Pier L, commodities are handled via 3×4 in. and 2×6 in. lines. At Pier N, commodities are handled through 1×6 in. line. 16 storage tanks with capacities 8,000 – 768,000 gallons. Total storage 3,205,000 gallons (73,331 barrels). Commodities handled include animal fats and oils, vegetable oils, chemicals, latex and fatty acids.

Shipmaster's Report: November 1992.

Vessel (87,000 d.w.t.) berthed at Amoco Jetty.

Max. draft is 34 ft. (F.W.) for any tide, and 35 ft. (F.W.) for high tide only.

Vessels have to return to Hampton Roads to take bunkers.

Stores may be loaded from barge whilst alongside.

Pilot and tugs require 6 hours notice, but Virginia Pilots require 2 hours notice.

Vessels over 100,000 d.w.t. can only transit during daylight hours.

Shore gangway available and adjustable.

Amoco provide transport from the head of the "T" Jetty to the gate (distance 2.5 miles).

DENSITY: Average 40% fresh.

FRESH WATER: Available at all berths. Barge service available if required.

FUEL: All grades available at oil company berths. Delivery by barge to all other locations.

CONSULS: The following countries are represented at Norfolk:

Belgium	Germany	Netherlands
Brazil	Iceland	Norway
Denmark	Italy	Panama
Finland	Mexico	Sweden
France		

GANGWAY/DECK WATCHMEN: Not required unless crew members detained by Immigration.

CERTIFICATES: Cargo Gear Certificate, Derat, Radio, Safety Equipment, and Ship's Register.

REPAIRS: Newport News Ship Building and Dry Dock Company in James River; 5 outfitting piers up to 1,160 ft. length. Floating cranes up to 67 tons capacity. Gantry crane to 900 tons capacity. Other repair facilities and cranes also available.

Norfolk Ship Building and Dry Dock Corporation, situated on East Branch of Elizabeth River. Channel depth 25 ft.; 7 piers equipped for ship's repairs. 4×30 ton diesel locomotive cranes.

Other repair companies in addition.

DRY DOCKS: Norfolk: 1 dry dock 450 ft. long, 57 ft. beam. Berkley plant features the Titan Steel floating dock 950 ft. long, with lifting capacity of 54,250 long tons and second floating dock 670 ft. long, 126 ft. wide lifting capacity 20,000 tons.

Newport News: Dry docks:

	Length inside gate	*Width of entrance*	*Depth of water over sill MHW*
No. 1	650 ft.	92 ft.	33 ft.
No. 2	862 ft.	118 ft.	31 ft.
No. 3	459 ft.	72 ft.	33 ft.
No. 4	525 ft.	75 ft.	33 ft.
No. 10	962 ft.	125 ft.	35 ft.
No. 11	1,100 ft.	137 ft.	40 ft.
No. 12	1,613 ft.	250 ft.	33 ft. 7 in.

Slipways: The shipyard has 2 inclining slipways with lengths up to 650 ft.

SURVEYORS: American Bureau of Shipping, P.O.Box 5189, Newport News 23605 and 65 Broadway, New York, New York 10006.

Eagleton, Henry, Co., Inc., (Lloyd's Agent) P.O.Box 1569 (01).

Fife, Alyn F, 38 Green Oaks Road, Newport News 23601.

Hull & Cargo Surveyors, Inc., Suite 209, Bldg. 20, Koger Executive Center (02).

Lloyd's Register, 532 Dominion Tower, 999 Waterside Drive.

National Cargo Bureau, Inc., 1128 W. Olney Road (07).

Nicholson, Alfred L., Ltd. (Correspondent-American Institute of Marine Underwriters), 201 Granbys 40 Mall (10).

Salvage Association, 1504 United Va. Bank Bldg. (10).

Stott and Ogram, Inc. P.O.Box 232 (01).

United States Salvage Association, Inc., 11 Koger Executive Center, Suite 109, (02).

Williams, Rolf (Surveyor for Scandinavian Marine Claims Office, Inc. and Det Norske (Veritas)), 201 E. City Hall Ave. (10).

CUSTOMS ALLOWANCES: At the discretion of Customs Officers. Normal allowance is 200 cigarettes or 2 lb. tobacco and 1qt. wine/spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.

AIRPORT: Norfolk International Airport, and Patrick Henry International Airport at Newport News, over 100 flights daily to 50 cities.

TIME: Eastern standard time, GMT minus 5 hours. Daylight saving time, GMT minus 4 hours, from first Sunday in April till last Sunday in October.

HOLIDAYS: New Year's Day; Martin Luther King's Birthday; Lee's Birthday; Washington's Birthday (3rd Monday in February); Good Friday; Memorial Day (Last Monday in May); Jefferson Davis Day; Independence Day (July 4th); Labour Day; Election Day (1st Tuesday after 1st Monday in November); Veterans Day (November 11th); Thanksgiving Day; Christmas Day. No work can be arranged on New Year's Day, Labour Day or Christmas Day.

TELEPHONES: Onboard telephones only available at shipyards.

IDENTIFICATION CARDS: Identification required by Immigration for shore passes.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany).

Service available from Incendere Inc., 508 E.Indian River Road, Norfolk, VA 23523. Contact Paul A.Underdown, Jr. Tel: (804) 454-8960. Fax: (804) 543-7661. Service includes dockside pickups at $100.00 each, 44 galls. corrugated containers for packaging of waste at $12.50 each, transporting waste to incinerator, incinerate and deposit ash in an approved landfill, destruction of garbage at $0.30 per pound, provide signed manifest certifying that the waste has been properly disposed of.

WASTE OIL DISPOSAL: Services available from the following private contractors:

Industrial Marine Service, Inc., 1301 Marsh Street, P.O.Box 1779, Norfolk, VA 23501. Tel: (804) 543-5718. Fax: (804) 543-4561. Estimated daily capacity, 6,394 tonnes. Tank trucks. No special berth for this service. Charges are available through the ship's agent.

Marpol, Inc., 1125 East Water Street, P.O.Box 569, Norfolk, VA 23501. Tel: (804) 622-9915. Fax: (804) 626-1806. Estimated daily capacity, 11,017 tonnes. Trucks and tank barges (3,714,000 galls., 378,000 galls., 96,600 galls.). 700 ft. berth at facility. Charges are available through the ship's agent.

PetroChem Recovery Services, Inc., P.O.Box 1458, Norfolk, VA 23501. Tel: (804) 627-8791. Fax: (804) 640-1261. Estimated daily capacity, 7,000 tonnes. Tank trucks. No special berth for this service. Charges are available through the ship's agent.

SEAMAN'S CLUBS: International Seamen's Friend House, 2901 West Avenue, Newport News, Virginia. Tel: (804) 247-6112. Centre of ministry shared between Catholic and non-Catholic sister organisations. Facilities include snacks, currency exchange, international telephone, transport to town/centre.

Lighthouse Baptist Seamen's Mission, 1455 West 38th Street, Norfolk, VA 23508. Tel: (804) 626-3935. Fax: (804) 627-8199. Baptist Seamen's mission – dealing with seamen of any religion. Facilities include telephone, transportation to town, postal services, church services, free bibles and christian literature, currency exchanges, special purchases.

International Seamen's House, 1222 W.Olney Road, Norfolk, Virginia. Tel: (804) 623-4222. Fax: (804) 627-7872. Centre of ministry shared between Catholic and non-Catholic sister organisations. Facilities include snacks, football, shop, currency exchange, international telephone, transport to town.

DEVELOPMENTS: *Authorised Channel Improvement:* Major improvements to the channels serving Hampton Roads were authorised in August 1985 and construction began in March 1987 on the first element of these improvements, consisting of a 50 ft. outbound channel. The authorised improvements provide for deepening the Norfolk Harbour Channel to 55 ft., deepening the Newport News Channel to 55 ft, and constructing a new channel in the Atlantic Ocean to a depth of 60 ft. The authorised improvements also provide for deepening the Norfolk Harbour 40 ft. channel to 45 ft., and a portion of the Southern Branch 35 ft. channel to 40 ft. A deep draft anchorage opposite the City of Hampton will also be constructed in connection with the 55 ft. channel improvements.

Port Expansion: Newport New Marine Terminal: Plans include extension of Pier B on the North side to allow for the berthing of large import automobile Ro-Ro vessels and large cruise passenger vessels; dredging to a depth of 34 ft. at MLW; and modification of Pier B transit warehouse for cruise terminal facilities.

NIT: North expansion Phase I is underway. Project includes dredging new access channel and vessel berthing areas to a depth of 40 ft. at MLW; constructing a new 1,500 ft. long marginal container pier; developing 61 acres of open containerised cargo storage area and new access road with associated landside/waterside facilities. Project is scheduled for completion early 1999.

Expansion is also being undertaken at the coal piers. Dominion Terminal Associates announced plans to expand its facility area by nearly 50%, from it's current 68 acres to 101 acres, in order to accommodate demand for coal. The additional space will serve a wider variety of coal qualities and will accommodate more transhippers interested in moving coals to export and domestic markets.

SHIPMASTER'S REPORT: June 1992.

Berth: Atlantic Energy – Norfolk.

Charts: B.A. Charts No. 2919, 2814 and 2813.

Approach: From the South, the new IMO approved buoyed channel is very well marked and shows up well.

Chesapeake Lt. Tower and Racon is conspicuous from South or East.

Pilots: As per ALRS. Call "Virginia Pilot" on VHF Channel 16, generally works on Channel 11. Pilot control is in Radar Tower, which controls all pilotage movements at the Chesapeake Bay Entrance. It is manned by both Virginia and Maryland Pilots. Position: Lat. 37° 55.6' N., Long. 76° 00' W., close by Cape Henry Lighthouse.

Virginia Pilots operate four fast modern cutters of 23 knots speed (although Pilots report that they have been downrated to 19 knots to assist maintenance). The Cutter Base is in Lynnhaven Inlet (37° 54.4' N., 76° 05.6' W.).

Pilots generally board in the vicinity of "CB" Buoy.

One Pilot takes vessel near the berth, where Berthing Pilot boards from a tug.

Anchorage: Numerous anchorages available, all at the entrance to Chesapeake Bay, which is very exposed to Easterly and North Easterly winds.

All Gas Carriers under Gas Vapours and Liquids are required by U.S.C.G. to anchor in Lynnhaven Roads for inspection. This is mandatory, before proceeding to the berth.

The numerous old wrecks and obstructions in Lynnhaven Roads are "off-putting", but Pilots report all sunk and no hindrance to anchoring.

Pilot is required both Inwards and Outwards, to and from Lynnhaven Anchorage.

Gas Carriers under Vapours and Liquids cannot anchor in Hampton Roads.

All stores, etc., and engine maintenance has to be done in Lynnhaven Roads.

Another acceptable anchorage, with U.S.C.G. approval for laden Gas Carriers, is off Cape Charles Township to the North. At present (1992), U.S. Navy Rapid Deployment Ammunition ships are taking the most suitable anchorages, and the U.S.C.G. does not permit Gas Carriers to presently use the area.

As mentioned, Lynnhaven is very exposed, and there is always a swell running, even in calm conditions.

We used 5 shackles whilst our engine was undergoing a survey.

Tugs: Many tug companies available. We used Moran, taking 2 Tugs joining and leaving at Town Point, Norfolk City. Tugs lines forward and aft.

If a loaded Gas Carrier has to immobilise, a stand-by tug is req under U.S.C.G. Rules. We had to engage a stand-by tug (Mora Lynnhaven Anchorage for 9 hours whilst doing a main engine be inspection.

Channel: From Cape Henry to Atlantic Energy Berth (Chesapea 30 miles, or about 3.5 hours pilotage.

Maximum draft in Channel is 35 ft. from Jones Creek South North of Jones Creek, 40 ft. can be accommodated to the Grain in Jones Creek. For the first stage in Thimble Channel, maximum is called for.

Stand-by forward is required from and to Old Point Comfort.

For Gas Carriers under Vapours or Liquids, the U.S.C.G. only pe daylight navigation. Such ships can anchor at Lynnhaven Ancho during darkness.

Ocean navigation is available in Elizabeth River as far as Mains Turning Basin (36° 46.2' N., 76° 17.9' W.).

To Atlantic Energy Berth, 3 lift-bridges have to be passed thr The Southern most bridge (Norfolk and Western Rail Road) is the restrictive. Vertical clearance (air draft) is 134 ft. H.W. (not 135 charted). Horizontal (breadth) clearance is 218 ft. (not 220 ft. as cha This bridge is about 1.5 miles North of Berth. Therefore, restrictio far as the berth are 35 ft. draft, 134 ft. air draft and 218 ft. breadth breadth calculations, there is a tug strapped alongside.

In general, Panamax size vessels are a maximum normal for Gas Carriers of 52,000 cu.m. partly loaded, regularly use the ber

U.S.C.G.: Very restrictive. As previously mentioned, the U.S.C.G. re Gas Carriers transiting Hampton Roads to load or discharge LPG to undergo Arrival Inspection at Lynnhaven Roads. This is mand even if the vessel has just had an inspection the day before at an U.S. port.

Daylight transit inwards and outwards for all Gas Carriers Vapours or Liquids.

U.S.C.G. conducts inspections from 0700 hrs. to 1600 hrs. Gen inspections take about 3 – 4 hours, with all safety items checked a standard U.S.C.G. Check List, but with particular emphasis on the Analyser and Emergency Shut Downs.

U.S.C.G. escort is provided inwards and outwards from Old Comfort.

U.S.C.G. will not allow fuel deliveries by either tanker truck or whilst on the berth and vessel connected. No boats alongside connected.

With special permission, U.S.C.G. allowed fresh water from a truck to be pumped aboard and provisions to be loaded with ship's from jetty whilst loading in progress.

U.S.C.G. in attendance whilst connecting and disconnecting, and a "rule" about the use of non-sparking tools.

Berth: A trestle (concrete and steel structure) which has been upg over the years. Minimum depth alongside quoted as 31 ft. We density to be 1005 with 3 ft. tidal range.

Vessels up to 750 ft. LOA would have head and stern lines as breasts, otherwise moorings good.

Port side alongside.

Ships midship accommodation ladder/gangway can be landed

Cargo: 1×12 in. Chicksan with auto-disconnect commissioned 1992, with 4 in. VRL attached, but not at present in use.

Shore connect/disconnect.

One Loading Master in hut on jetty at all times whilst connec

Terminal personnel generally helpful and cooperative.

A storage facility only, comprising of 2×1,000,000 U.S. refrigerated tanks (about 4,000 tonnes each) with road and rail discharge/loading facilities. As a general rule, Propane is impor Butane exported. We loaded Butane at −5°C at 85 tonnes/hr., w the maximum loading rate with terminal's 2 pumps. Going down pump barely gets product up the arm and into the ship.

The ship after us was going to discharge Propane, dischar about 400 tonnes/hr.

When road tankers are discharging into the facility, this decrea loading time by 15 minutes a tanker truck. Product from Amoco near by.

Saybolt Surveyor very strict and knows his job.

Terminal Official Title: Atlantic Energy Inc., 2901 South Highway, P.O.Box 1156, Chesapeake, VA.23320-1156. Tel: 8 1018. Fax: 804-487-5084.

Facilities: Generally poor.

No public telephone at Terminal. Nearest public telephone is gate to the right and about 1.5 miles away.

Officers can use Terminal Office telephone for local calls international calls, if they have a credit card.

Fresh Water: Not available on berth. Barge available, 20 minimum, no matter how little taken. Cost U.S.$ 2,900 for 20 including barge. We arranged road tanker delivery and U.S.C.G. permission to pump whilst loading cargo. Truck can to about 75 m. from ship's side. Ship's hoses used. We took 4 23 tonnes nominal capacity each, actually delivered about 80 all. First load very expensive with connecting time and truck pr (U.S.$ 243.00), then next 3 loads at U.S.$ 160.00 each. We 5% discount for cash. Overall charge was U.S.$ 7.50 per 80 tonnes.

Stores: Trucks cannot get within 75 m. of ship's side. U.S not give permission for stores derrick/crane to be used for lif objects (pipes, steel, bottles, drums) whilst Chicksan connecte barge also not allowed alongside.

We obtained permission to use derrick to load provisions an whilst connected. Fortunately our derrick was well aft of Otherwise stores have to be taken when Chicksan disconne Lynnhaven Anchorage.

Fuel: Not available by barge or truck whilst connected. This applies to lub oil. Another restriction for lub oil is that barge will not deliver to Lynnhaven Anchorage, due to swell.

Chandler: With experience over 2 visits, the best chandler is a local firm, Virginia Marine (Telex: 212356. Tel: 804-623-1036). Excellent service and cooperation, good prices.

Out of town chandlers are generally from Baltimore.

Repairs: Phillyship provide good service for commercial shipping in Chesapeake Bay area. Local machine shop at Portsmouth, VA. (Tel: 804-397-7400. Telex: 901086).

Norshipco, near Norfolk City, with extensive engineering and large docking facilities tend to be more orientated to U.S. Navy work, and put too many restrictions in way of commercial repair work.

Charts: There is a local firm, W.T.Brownley & Co., who can supply local U.S. Publications, but are not comprehensive.

The nearest Admiralty "A" Class Agent is Maryland Nautical. Found to be very good. Despatch to Norfolk by UPS or Federal overnight.

Mall: Greenbrier Mall about 4 miles away, is the nearest good shopping. Cost U.S.$ 12.00 in taxi. Loading Master will arrange taxi.

Surveyors: The National Cargo Bureau can provide an independent survey service (they also do Liberian and Panamanian Annuals) (Tel: (804) 622-2393. Fax: (804) 622-8193).

Lloyd's have an exclusive Surveyor at Norfolk. DNV use a freelance or an exclusive from Baltimore.

Airport: Norfolk Airport to North of city, near the Bay coast. About 45 minutes in taxi, outside rush hour.

Boat Service: At Lynnhaven Anchorage, a stores and personnel launch service operates out of Lynnhaven Inlet. Very expensive, especially in overtime hours.

Authorities: Officials will board at Lynnhaven Anchorage if weather fair. Customs and Immigration board with Agent and U.S.C.G.

We found Immigration quick and no difficulties encountered. We had Visaed Crew List done by U.S. Consul in Recife and couriered to U.S.

U.S. Public Health Inspector boards on berthing and each day. Very particular. Vessel is fined U.S.$ 250.00 for any fresh food garbage not in sealed drums, and checks disposal of plastics.

Liberian Inspector: Home of Liberian Inspection Division nearby at Reston, Va. We had Liberian Annual Safety by National Cargo Bureau, very particular over documentation, particularly Officers Licences and Discharge Books. Required Safety/Boat muster and boat lowered. Also required emergency forward fire pump run with water jets and emergency generator run on load.

Notices: Notice from Agent to Master (dated May 1992).

Below is a copy of a letter from the U.S. Immigration and Naturalisation Service dated November 30th 1990, which outlines higher fines and penalties for violations of INS Laws.

Quote:

Please note, if you are going to more than one (1) U.S. port, it is the responsibility of the Agent at the last U.S. port to file with the Immigration Service a "Departure Crew List". This Crew List will show all crew changes made during this voyage. Furthermore, it is your responsibility to advise your Agent at your last U.S. port of all crew changes made at the previous U.S. ports. He should collect the Shore Passes for joining crew members only and pick up a copy of Immigration Form 1-408 (Applicaton to pay-off or discharge alien crewmen). Failure of the above taking place will result in an Immigration fine against the vessel.

Unquote.

This letter is meant to assist you and bring your attention to laws that may not have been enforced in the past, but are *definitely* being enforced presently.

Letter from Atlantic Energy, Inc., to ship's Agent (dated June 1992):

Quote:

Prior to the arrival of the vessel (under your Agency), which is scheduled to arrive in Norfolk on or about 1st June 1992, would you please contact the ship's Master and advise him of Atlantic Energy's cargo connections as follows:

Liquid connection: 12 in. ASTM A150.
Vapour connection: 4 in. ASTM A150.

We request that the vessel advise Atlantic Energy of their cargo manifold sizes, should they be unable to adapt to our flanges. If the vessel has the correct adaptors onboard, would you please ask that they be in place upon arrival at our berth.

Please advise all interested parties that the vessel shall be docked "port-side-to" at our berth.

We request that you arrange for line handlers for both the ship's arrival and departure.

Enclosed is information that should be of interest to the Master of the vessel. Would you please see that this information is given to the Master upon the vessel's arrival at anchorage or before, if at all possible (See "Plan Section").

AUTHORITY: Virginia Port Authority, 600 World Trade Centre, Norfolk, Virginia 23510-1696, U.S.A. *Tel:* (804) 683-8000. *FAX:* (804) 683-8500. *Cables:* Vastports. *Contact:* J. Robert Bray, Executive Director.

HILO, Hawaii: 19.46 N. 155.06 W. (including Kawaihae 20.02 N. 155.50 W.) **(See Plan)**

DOCUMENTS:
4 Crew Lists.
4 Passenger Lists.
Customs Documents.
Clearance, Travelling Manifest.
Local Manifests.
Health Documents.
Bill of Health and Vaccination Certificates.
4 Manifests.
4 Bills of Lading.
Ship's Papers.
Certificate of Registration or Enrolment.
Annual Inspection Certificate.
Load Line Certificate.
Derat Certificate.
Drinking Water Certificate.
Radio Certificate and Licence.
4 Stores Lists.

PILOTAGE: Pilots boats have VHF. Contact is made on VHF Channel 16, then switch to Channel 12. Pilot service is provided on a 24-hour basis upon suitable advance notice.

At Hilo, Pilot boards on starboard side in position 0.75 mile due East of Paukaa Light. In picking up Pilot, vessels should be on Southerly course with enough speed for steerageway. Special instructions will be given by radio telephone.

At Kawaihae, Pilot station in position 1 mile 287° true from Buoy No. 2. Pilot usually boards on port side with vessel on course for the entrance at dead slow speed.

ANCHORAGES: No safe anchorages either Hilo or Kawaihae for vessels awaiting Pilot. In this situation, a vessel should heave to or steam. Under good weather conditions, safe anchorage can be had in Hilo Bay. Anchorage is inside pilotage waters and requires local knowledge for safety; vessels should not anchor without Pilot.

RESTRICTIONS: At Hilo, under good weather conditions, vessels with draft up to 32 ft. 6 in. can be handled at any time.

At Kawaihae, vessels with draft up to 33 ft. handled anytime.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Communicate through RCA or ITT stations in Honolulu.

TUGS: Tugs join vessels at entrance at Kawaihae and at Coconut Island at Hilo. Tug's lines are usually used at no extra charge.

BERTHING: There are many factors which affect berthing at Hawaii Island ports, the most important of which are surge and wind. Vessels should be well equipped with long mooring lines and sufficient additional line to make up 2×900 ft. buoy lines. In all instances, berthing instructions will be given after details concerning vessel and her cargo are received.

Pier No. 1 in Hilo handles bulk sugar vessels and container vessels, 1,220 ft. of berthing space.

Pier No. 3 in Hilo handles tankers, 575 ft. of berthing space.

Kawaihae has one overseas berth which handles tankers, 1,150 ft. of berthing space.

CRANES: Shore cranes available, max. capacity 90 tons.

STEVEDORES: Hilo Transportation and Terminals Co. (Hilo) and Kawaihae Terminals Inc. (Kawaihae).

MEDICAL: All facilities available.

DENSITY: Variable in Hawaii area due to fresh water run-off.

FRESH WATER: Available from county of Hawaii by pipeline.

FUEL: Can be supplied subject advance notice.

REPAIRS: Limited repair service available; almost any type of machine work, welding and ordinary electrical repairs can be handled.

GANGWAY/DECK WATCHMEN: Required for tankers. Other ships as may be necessary due to special circumstances.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes, 50 cigars per man, and one U.S. quart bottle, wine or spirit.

REPATRIATION: Direct air service to Continental United States and to Honolulu International Airport.

AIRPORT: About 1 mile from Port of Hilo and 26 miles from Kawaihae, and is served by regular airlines.

POLICE/AMBULANCE/FIRE: *Hilo:* Police 9353311; Ambulance and Fire 961-6022.

Kawaihae: Police 8857334; Ambulance 885-7334; Fire 961-6022.

TIME: GMT minus 10 hours all year round.

TELEPHONES: Special arrangements may be made with Hawaiian Telephone Co.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Seamen's Passports only required.

AUTHORITY: State of Hawaii, Department of Transportation, Harbours Division, Port of Hilo, Hilo, Hawaii 96720. *Tel:* (808) 933-4778. *FAX:* (808) 933-4781. *Contact:* Ian Birnie, District Manager/Harbour Master.

HOMER, Alaska: 59.36 N. 151.25 W. **(See Plan)**

DOCUMENTS: See "Port of Anchorage, Alaska".

APPROACHES: Via Cook Inlet. Port located at mouth of Kachemak Bay on Kenai Peninsula.

PILOTAGE:

(1) Southwest Alaska Pilots' Association. Tel: (907) 235-8783. Fax: (907) 235-6119.

Pilot boards 1 mile South of Lands End Lt. (59° 35′ N., 151° 25′ W.).

(2) The Southwest Alaska Pilots' Association serves all ports in Cook Inlet, Prince William Sound, Resurrection Bay, Kodiak Island, the Aleutian Islands, Bristol Bay and Bering Sea. The Pilot Station cable address is "Homerpilot". The Pilot Station stands by on VHF Channels 10 and 16, 24 hours a day; call sign "KCE-203 Southwest Pilots".

ANCHORAGES: Kachemak Bay is excellent anchorage for vessels of any size. Foreign vessels may enter bay to anchor, but must have a Pilot aboard to come to dock.

MAX. SIZE: Harbour depth 40 ft. MLLW. Tidal range 28 ft. (−6 ft. to +22 ft.) Max. draft for berthing 30 ft. at MLLW.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

VHF: Homer Port Radio monitor Channel 16. Call sign "WHG-651".

TUGS: 2 tugs available.

BERTHING: Homer City Main Dock, 410 ft. long and 50 ft. wide. Limited to draft of 30 ft. at MLLW. 3 privately owned mobile cranes available. Capacity 15, 35 and 70 tons.

410 ft. face with sloping bottom suitable for vessels with 20 ft. draft or less at chine. Inside and outside storage is available for holding and staging. Water, gasoline and diesel are available on dock.

Deep Water Dock: Length 344 ft. Depth 40 ft.

MEDICAL: Homer Hospital is a 38 bed hospital with 5 full-time doctors.

FRESH WATER: Available from the berth at both docks.

FUEL: Available at Main Dock.

REPAIRS: Minor repairs possible.

EMERGENCIES: Police department and a volunteer fire department are available plus a rescue truck.

AIRPORT: Daily air service.

GARBAGE DISPOSAL: Skips are provided. Port Authority requests prior notification for large quantities of rubbish.

WASTE OIL DISPOSAL: Available with advance notice.

SEAMAN'S CLUBS: None.

SHIPMASTER'S REPORT: February 1993.

Berths: Two berths at Homer capable of taking average size merchant vessels.

The old wood pile construction City Dock, used by the Alaskan Ferry and U.S.C.G. cutter and the new Ocean or Deep Water Dock, North of the fishing/boat harbour constructed in 1990 for wood chip exports.

At the City Dock, 30 ft. MLW is available, and at Deep Water Dock, 35 ft. MLW is available.

Berthing can be difficult to impossible on either dock, if a strong N.E. wind is blowing. Berthing is not undertaken on the ebb. Best berthing conditions are on the last of the flood which runs N.W. to S.E. Berthing at either dock is always port side alongside.

Departure can be undertaken on the ebb, but best at near slack water.

The Deep Water Dock is used by cruise liners in Summer and is available for diesel bunkers by tank truck. The Dock has a flat face length of 105 m., plus a further 70 m. to the North (forward) mooring dolphin. Fenders are wood flats on sprung rubber and are very good. New mooring dolphins are to be constructed at the South (aft) end during 1994.

The export of wood chips to Japan from the pier is to be commenced in April 1993, when a conveyor belt will be built down to the connecting roadway.

Ship's gangway required at both berths. Use of normal accommodation ladder not possible due to tidal range (about 25 ft. at Springs).

Also see "Nikiski" – "Shipmaster's Report" dated February 1993.

AUTHORITY: Port of Homer, 4350 Homer Spit Road, Homer, Alaska, AK 99603-8005, U.S.A. *Tel:* (907) 235-3160. *FAX:* (907) 235-3152. *Contact:* Richard David, Harbour Master. Dennis Erlandson, Port Director.

HONOLULU, Hawaii: 21.19 N. 157.52 W. **(See Plan)**

(A) HONOLULU AND PEARL HARBOUR
(B) BHP PETROLEUM AMERICAS REFINERING INC. (BHPPAR) – BARBER'S POINT
(C) CHEVRON U.S.A. INC. – BARBER'S POINT.

(A) HONOLULU AND PEARL HARBOUR

DOCUMENTS:

4 Crew Lists.
4 Passenger Lists.
Customs Documents.
Clearance, Travelling Manifest.
Local Manifests.
Health Documents.
Bill of Health.
Vaccination Certificates.
4 Manifests.
4 Bills of Lading.
Ship's Papers.
Certificate of Registry.
Annual Inspection Certificate.
Load Line Certificate.
Derat Certificate.
Radio Certificate and Licence.
4 Stores Lists.

Vessels scheduled to call at Pearl Harbour are required to 6 copies of Crew Lists and Passenger Lists, if applicable, a 1 working day prior to arrival, for Naval security requirement.

The United States Immigration Service requires that the Ma vessels manned by alien crew members arriving from a forei present the United States Immigration and Naturalisation Se Officer with a current Crew List (Form I-418) properly visaed i possession. An I-94 should be prepared for each passenger p vessel's arrival.

U.S. Immigration Department representatives are not stationed Hawaiian outports. Customs Officials, however, are stationed at a ports and accomplish both Customs examination and Immigratio

The United States Agriculture Service examines and seals stores from restricted ports. Special arrangements for garbage d may also be required by this Agency, if for example meat abo been purchased in a port where there is a high incidence of "ho mouth" disease. All garbage should be disposed of prior to ar port.

All regulatory bodies assess overtime charges for services o personnel if rendered on Saturdays, Sundays, holidays or after on week-days.

PILOTAGE: Pilot requested by Agent. Channels 16, 12 and 9, call 456". Pilot boat, 37 ft. cabin cruiser, yellow with black striping. On flag necessary for vessel requiring Pilot. Pilot station, Lat. 21° 16' Long. 157° 53' 24" W., no alternative.

ANCHORAGE: Except during strong Kona (Southerly) anchorages for deep-draft vessels exist outside the harbour in M Bay off Sand Island and West of the Main, or Fort Armstrong Ch The anchorage is located within 600 yards on either side underwater sewer outfall line. Anchorage is not permitted ins harbour due to the limited swinging room. An explosives anchorag lies 1.3 miles West of Sand Island's Kalihi Channel, directly of Lagoon.

RESTRICTIONS: Entry at any time subject to harbour control s 24 hours' notice of arrival is obligatory.

MAX. SIZE: *Entrance Channel:* Depth 45 ft. *Harbour:* Depth 40 f

HEALTH: See "Health: All Ports" before first U.S.A. port (Alban

AGRICULTURE: See "Agriculture" before first U.S.A. port (Alba Illness Reports made to Honolulu Quarantine Station.

RADIO: VHF Channel 16, call WHX 528, Aloha Tower Harbour Station.

BERTHING: Berthing given on a "first-come-first-served according to type of vessel and particular requirements as to bunkering, etc. Must be arranged through a local shipping Agen

Pier No.	*Length* (ft.)	*Depth* (ft.)	*Use*
1	1,266	40	Containers, autos, lumber, he machinery, paper and genera cargo.
2	1,779	35	Containers, autos, heavy machinery, lumber, paper pro and general cargo.
4	–	–	U.S. Coast Guard.
5	–	15	Small cruise ships.
6	160	15	Small cruise ships.
7	710	15-26	Small cruise ships.
8	595	35	Cruise and passenger ships.
9	608	34	Cruise and passenger ships.
10	496	35	Cruise and passenger ships.
11	460	35	Cruise and Passenger ships.
12	50	24	Small cruise ships.
18	212	20	Fish loading.
19	1,107	33-35	Sugar, lumber, general carg barges containers, chemicals vehicles, conveyor/gantry for raw sugar.
20	–	35	General cargo, autos, liquid fertiliser and lumber.
21	494	17–28	Tugs and bunker fuel.
22	446	6-33	Tugs and bunker fuel.
23	434	31	Grain storage, conveyor, ga feedmill.
24	575	24-31	Inter-Island and containers.
25	360	31	Inter-Island and containers.
26	695	23-30	Inter-Island, fuel, Roll-on/Ro
27	890	30	Inter-Island, autos, Roll-on/R
28	540	29-31	Inter-Island, bunkering barg petroleum products.
29	750	20-31	Inter-Island, petroleum prod
30	270	33	Chevron U.S.A. petroleum storage.
31, 31A, 32,33	1,540	32-33	Petroleum products, genera cargo, lumber, autos, bulk commodities, caustic soda asphalt, steel products, che products, newsprint.
34	209	35	Petroleum products, bulk c bunkering vessels.
35	705	18-28	Scrap metal and general c
36	978	20-35	Pineapples and general ca
38	62	12	LPG.
39	2,139	13-33	Autos, steel, general and b cargoes.
40	2,260	26-34	Autos, lumber, cement, gra general and bulk cargoes.
51A	556	38	Containers and jet fuel.
51B	800	38	Containers.
52-53	1,746	41	Containers, general cargo molasses, autos and Roll- off.

TUGS: 30 tugs. Tugs normally join vessel within harbour limits. Both ship's lines and tug's lines used depending on conditions.
STEVEDORES: Gangs must be ordered 24 hours in advance. General cargo, average load per hour: 15 long tons; average discharge per hour: 15 long tons.
MEDICAL: Agents would like as much advance notice as possible. Complete medical facilities available. Vaccinations in accordance with U.S. Public Health requirements.
TANKERS: 4 tanker berths, max. draft 36 ft. No slop discharge facilities. *Pearl Harbour:* U.S. Navy Terminal. Max. LOA 800 ft. Max. draft 38 ft. 6 in.
Also see Sections "B" and "C".
DENSITY: Pure salt water, no fresh water allowance.
FRESH WATER: Delivered via 2.5 in. fire hose with meter on pier. Rate of delivery between 30 t.p.h. and 60 t.p.h., depending on the berth.
FUEL: All U.S. grades available, no advance notice other than establishment of credit.
FIRE PRECAUTIONS: Fire wires required by tankers berthed alongside. Permit required for hot work whilst in port.
CONSULS: The following countries are represented in Honolulu:

American Samoa
Australia
Austria
Denmark
Finland
France
Germany
Great Britain
Guatemala
India
Indonesia
Italy
Japan
Korea
Mexico
Monaco
Nauru
Netherlands
New Zealand
Norway
Panama
Philippines
Portugal
Sweden
Switzerland
Thailand
Western Samoa

REPAIRS: All types of deck and engine repairs possible. Hull repairs below water-line in accordance with dry dock capacities.
DRY DOCKS: Commercial within Honolulu Harbour. Dry dock: 2,800 long ton lifting capacity, 385 ft. long, 56 ft. wide. Floating Dock: Lifting capacity 2,620 tons. Length 200 ft. Width 100 ft. Marine railway: 1,400 long ton lifting capacity, 223 ft. long, 65 ft. wide.
Commercial within Barber's Point Harbour. Dry dock: 7,875 long tons lifting capacity, 516 ft. long, 110.5 ft. wide.
GANGWAY/DECK WATCHMEN: Services of watchman recommended, usually arranged by Agent.
OPENING/CLOSING HATCHES: Normally carried out by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes, 50 cigars per man, and 1 bottle, U.S. quart, wine or spirits.
REPATRIATION: All facilities, crews generally leave State within 24 hour period.
AIRPORT: International airport, served by all major airlines, 5 miles from harbour.
TIME: GMT minus 10 hours all year round.
HOLIDAYS:

New Year's Day	January 1st or following Monday
Dr.Martin Luther King, Jr. Day	Third Monday in January
President's Day	Third Monday in February
Kuhio Day	March 26th or nearest Monday or Friday
Good Friday	Friday before Easter
Memorial Day	Last Monday in May
Kamehameha Day	June 11th or nearest Monday or Friday
Independence Day	July 4th or nearest Monday or Friday
Admission Day	Third Friday in August
Labour Day	First Monday in September
General Election Day	First Tuesday after First Monday in November (election year)
Veteran's Day	November 11th or nearest Monday or Friday
Thanksgiving Day	Fourth Thursday in November
Christmas Day	December 25th

POLICE/FIRE/AMBULANCE: Police, Ambulance, Fire - Dial 911.
TELEPHONES: Telephones can be placed on board at any dock.
SERVICES: All services found in major U.S. ports are available.
SHIP SUPPLY SERVICE:

Name & Address	*Vessels*	*Services*
Hawaiian Tug & Barge Pier 21, Honolulu, HI 96817 (Tel: 5439325)	Mioi, Huki, Manele Bay, Eleu, Nohea, Malanae and others	Ship stores and fuel.
P & R Water Taxi, Pier 39-1A, Honolulu, HI 96817 (Tel: 8412113)	Hikino, Keoki, Hoike Kai, Hanai, Hapai	Water taxi, ship stores, spare parts.
Sause Bros., Pier 20, Honolulu, HI 96817 (Tel: 5215082)	Fuel barge, Pepeekeo	Fuel only.
Uaukewai Diving Salvage & Fishing, Inc. 1750 Kalakaua Ave., No. 1205 Honolulu, HI 96826 (Tel: 9476881; 7374312)	Nene, Naina, Nahiku, Niau, Naupaka, Nunui Noholoa, Nohea	Diving, mooring, ship support service.
American Workboats Pier 14, Honolulu (Tel: 545-5190)	Holokai, Lokalia, American Quest, American Contender	Ship support services.

Helicopters:
AG Helicopters Inc., Maui. Tel: 878-1202 or 879-1637.
Papillon Hawaiian Helicopters. Tel: 836-1566.
M&H Helicopters Inc. (Based at Hotel Inter-Continental Maui Maui). Tel: 879-1601.
Pacific Helicopter Tours, Kahului Airport, Maui. Tel: 871-9771.
Many other companies also operate helicopters.
SHORE LEAVE: No restrictions if papers are in order.
IDENTIFICATION CARDS: Seamen's Passports needed.
GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany). Available through ship's agent.
WASTE OIL DISPOSAL: Available through ship's agent.

SEAMAN'S CLUBS: None.
CURRENCY: U.S.Dollar (U.S.$).
AUTHORITY: State of Hawaii, Department of Transportation, Harbours Division, Oahu District, P.O.Box 397, Honolulu, Hawaii 96809. *Tel:* (808) 587-2050. *FAX:* (808) 587-2075. *Contact:* B. Kim, Oahu District Manager. P.E. Torres, Harbour Master.

(B) BHP PETROLEUM AMERICAS REFINERING INC. (BHPPAR) – BARBER'S POINT

LOCATION: The BHPPAR CALM – Type Single Buoy Mooring (SBM) is approximately 2 miles bearing 146° True from Barber's Point Light on the Island of Oahu, Hawaiian Islands. Position: Lat. 21° 16.2' N., Long. 158° 05.3' W.
DOCUMENTS: *Arrival and Departure Requirements:* All arrival and departure requirements are handled through the ship's Agent. All matters related to arrival or departure should be referred to that Agent.
VESSEL ACCEPTANCE: In order to maintain safe control, all vessels must be nominated to and accepted by BHPPAR prior to arrival. BHPPAR reserves the right to refuse any nomination due to vessel's specifications or previous experience with vessel or similar vessels. As a guide, vessels calling at the BHPPAR SBM should be in compliance with the "OCIMF" publications "Recommendations for Equipment Employed in the Mooring of Ships at Single Point Moorings", and "Standards for Oil Tanker Manifolds and Associated Equipment".

The minimum SWL for the vessel's port hose handling boom or crane should be 10 tons for all vessels. The bow windlass must be capable of pulling 15 tons.

Tankers should have sufficient clean ballast for safe manoeuvring.

Officer accommodation should be available for 2 Pilot/Mooring Masters and one Inspector, meals are to be provided for all three.
PILOTAGE: The area of the BHPPAR and Chevron moorings at Barbers Point were designated as a Federal Pilotage Area, effective 1st May 1991. Tankers will be boarded by a team of 2 BHPPAR Pilots/Mooring Masters approximately 3 miles South of Barbers Point light, or at anchorage if the vessel is proceeding to the SBM from waiting at anchor. The pilot ladder should be rigged to provide an adequate lee for safe boarding. The vessel, if underway should maintain minimum headway. The end of the ladder should be 1.0 m. above the water and crew should be standing-by on deck with a heaving line, in order to take aboard the Pilots' equipment and gear. The Pilot/Mooring Masters will usually board from a small assist mooring tug.

The Pilot/Mooring Masters will initially meet with the Master and advise on approaches to the SBM berth, mooring and unmooring and all cargo operations to be undertaken by the vessel. Manoeuvring of ships within the limits of the terminal shall be done with the advice of the pilot, subject to the understanding that in all cases the Master of the vessel being manoeuvred shall remain solely responsible on behalf of his vessel's owners for the safety and proper manoeuvring of the vessel. The Master or a qualified Deck Officer must be on the bridge at all times when the vessel is manoeuvring.
ANCHORAGE: Vessels have anchored in the vicinity of 21° 16.6' N. and 158° 03.5' W. while waiting for their berthing opportunity. In doing so they are cautioned to remain clear of the approaches to both the BHPPAR and Chevron offshore terminals. Vessels are also cautioned not to anchor within the charted restricted anchorage to the East of the mooring area.

The Honolulu Harbour Master has directed that all tankers awaiting their turn at the Barber's Point moorings shall anchor in the vicinity of the moorings in lieu of the anchorages off-port Honolulu.

As this is a Federal Pilotage Area, the vessel should contact its Agent regarding pilotage requirements and a proper anchorage location so as not to interfere with ongoing tanker operations at the two petroleum berths in the area.
TUGS: Two assist boats and a tug are used during the mooring operation. One boat will assist with lifting the mooring hawser/chain to the vessel, one will attend the floating hose string, and the tug will be made fast astern to assist in manoeuvring. The tug astern will use its own hawser and the ship's crew should be prepared to have it on board shortly after the Pilot/Mooring Masters board. Following mooring, the tug will remain made fast to the tanker's stern to prevent the tanker from over-riding the SPM. One of the assist boats will help in lifting and connecting the floating hoses. One assist boat will then stand-by as an emergency/oil spill response boat.

By order of the U.S. Coast Guard Captain of the Port, all laden or partially laden tankers, mooring or unmooring at the BHPPAR SBM must have adequate tug assistance standing by until safely moored or unmoored and well clear of the terminal.

Tug and assist boat will be arranged through the Agent and approved by BHPPAR Pilot/Mooring Master prior to the tanker's arrival.
RESTRICTIONS: Berth and terminal operate 24 hours a day. Mooring and unmooring during hours of darkness is customary. At times weather and sea conditions can deteriorate to the extent that mooring operations are suspended and/or vessel must be unmoored.
MAX. SIZE: In general, tankers having these maximum particulars are acceptable:

LOA	945 ft.
Summer d.w.t.	150,000 tons
Bow to centre manifold	470 ft.
Draft	65 ft.

RADIO: 72 hours, 48 hours and 24 hours prior to arrival, tankers should advise BHPPAR Hawaii Marine Operations (Telex 7430292) of their ETA.

VHF: During loading/discharging operations, the Pilot/Mooring Master will have 2 portable VHF transmitter/receiver radios for communications between the tanker and BHPPAR Pumphouse Control Station.

BHPPAR use the following Simplex VHF frequencies:

Channel 6	Emergency	156.30 MHz
Channel 9*	Ship to Shore (primary)	156.45 MHz
Channel 16	Calling/Emergency	156.80 MHz
Channel 19A*	Ship to Shore (Secondary)	156.95 MHz

(*Either 9 or 19A may be used as working Channel).

BHPPAR Pumphouse	Call Channel 16, Communicate Channel 9/19A, Call sign: "KTD 466".
BHPPAR Hawaii Marine Operations	Call Channel 16, Communicate Channel 9, Call sign: "KZG 757" (Not guarded).

Other useful VHF Channels are:

Aloha Tower, Honolulu Harbour Control:	Call Channel 16, Communicate Channel 12, Call sign: "WHX 528" (Guarded 24 hours)
Honolulu Pilots:	Call Channel 16, Communicate Channel 12, Call sign: "WXZ 456"
Chevron Shipping:	Call Channel 16, Communicate Channel 10, Call sign: "KEN 778"
Davies Marine Agencies:	Call Channel 16, Communicate Channel 11, Call sign: "KXJ 712"
Inchcape Shipping Agencies:	Call Channel 16, Communicate Channel 9, Call sign: "WQB 626"
P & R Water Taxi	Call Channel 16 Call sign: "WYH 6327"
Hawaiian Tug & Barge (Pier 21)	Call Channel 16, Communicate Channel 18A Call sign: "WLX" (Guarded 24 hours)
Uakewai Diving, Salvage & Fishing, Inc./Marine Logistics, Inc.	Phone: 528-0702, 538-6824 or 521-5515
M/V "Nene"	Call sign: "WSR 3068"
M/V "Na'ina"	Call sign: "WBZ 6634"
M/V "Nahiku"	Call sign: "WCH 3325"
M/V "Nunui"	Call sign: "WBD 2554" Call Channel 16, Communicate any working Channel

TERMINAL FACILITIES: BHP Petroleum Americas Refinery (BHPPAR) is located onshore to the East of Barber's Point Light about 2 miles from the offshore marine terminal.

The offshore terminal consists of a CALM type single point mooring buoy. A 30 in. crude pipeline, a 20 in. clean product pipeline and a 16 in. bunker pipeline connect the SBM to the shore. 3×840 ft. long 16 in. floating hoses reduced to 12 in. over the rail, connect the tanker to the SBM for cargo operations. The bunkering over-the-rail hose is 8 in. Flanges are standard 150 lb. ANSI-B lap ring type.

Crude oil is normally discharged through 2 hoses with a max. operating pressure of 150 p.s.i. and a max. flow rate of 33,000 bbl./hr. per hose. Loading rates vary between 6,000 bbl./hr. and 12,000 bbl./hr., depending on the product.

BALLAST: Normally, no dirty ballast is accepted. However, with prior notification, facilities can be made available to receive limited quantities. The vessel will be charged for use of the refinery ballast facilities.

Tankers must arrive with sufficient clean ballast for safe handling, having due regard to existing weather and sea conditions. It is the responsibility of the Master to ensure that no oil or contaminated ballast of any kind is pumped overboard. Inspection of ballast is strict. Any trace of oil on the surface of the ballast will preclude overboard discharges.

Tankers equipped with a segregate ballast system are permitted to discharge cargo and load ballast simultaneously with prior approval of the Pilot/Mooring Master.

MOORING/UNMOORING: Prior to mooring, the Pilot/Mooring Master will deliver a copy of the "Terminal Conditions" letter to the ship's Master for his signature (See "Appendix"). By his signature he agrees, on behalf of his owners, to comply with all relevant terminal conditions.

The ship will moor to a single hawser through the forward centreline Panama fairlead. The hawser is 180 ft. long, connected to a 26 ft. long chafe chain. A 500 ft. long 10 in. poly pick-up line is attached to the chain for heaving it on board. The chafe chain will be secured using either a bow chain stopper or vessel's bitts with a terminal supplied nylon snotter, depending on the type of mooring equipment installed on the vessel.

The size of the chafe chain is 76 mm. (3 in.). A 54 mm. (2.15 in.) piece of chain can be installed only if absolutely necessary for smaller vessels.

The ship's crew is responsible for securing the mooring chafe chain with advice from the Pilot/Mooring Master. A suitable messenger line should be available on the fo'castle to retrieve the mooring hawser pick-up line. A ship's deck officer shall be on the bow during mooring and unmooring operations. The Pilot/Mooring Master will be stationed on the bridge to advise the Master and crew during approach and mooring operations. A second Mooring Master will be stationed on the bow.

HOSES/CARGO OPERATIONS: The ship's crew is responsible for connecting and disconnecting hoses. A ship's deck officer shall be in the area of the cargo manifolds during hose handling operations. A Pilot/Mooring Master will be available to advise the crew during hose operations. The ship's crew is responsible for all cargo operations. The Pilot/Mooring Master will advise with respect to operating conditions and hazards, but will not direct the loading or unloading.

It is dangerous to close ship's valves against the oil stream. Such a procedure creates excessive pressure which may damage terminal facilities. Tankers will be held liable for damages resulting from to observe this precaution.

The Pilot/Mooring Master reserves the right to suspend oil tr operations, if necessary, to protect the terminal facilities o environment.

All rules and regulations concerning safety, local conditions, te operations and oil transfer will be carried aboard the tanker by the Mooring Master.

The following are specific requirements for all vessels while m at the BHPPAR SBM:

1. The vessel's main engines, steering gear and all nec equipment shall be maintained in a condition to allow imm manoeuvring of the vessel.
2. The Master or his qualified deputy must be available to re immediately on the bridge to take control in the event of an eme or upon request of the Pilot/Mooring Master.
3. A qualified bow/SBM lookout shall be maintained to report if th begins to encroach upon the buoy. This lookout shall be in contact with the deck watch officer.
4. Sufficient crew shall be available to disconnect hoses, unmo get underway at all times.
5. An officer fluent in English shall be on duty at all times.
6. Oil transfer shall cease if radio communication with the term lost.
7. Oil transfer shall cease and the U.S. Coast Guard notified i spilled.

All tankers are expected to unmoor as soon as practicable completion of cargo operations. The ship's crew will disconnect and unmoor. During unmooring a Pilot/Mooring Master will be sta on the bridge to advise the Master. A second Mooring Master a assist from the bow.

FRESH WATER: Not available at SBM. Available at limited locat Honolulu Harbour.

FUEL: Subject to availability, bunker and diesel fuel can be supp the SBM. Prior arrangements with BHPPAR are required. Fuel delivered by barge in Honolulu or off port.

Bunker orders: Telex 7430292 or Telephone 808-547-3269, 3

MEDICAL: Honolulu has many excellent medical facilities and ho Services can be arranged by local agent.

REPAIRS: Limited ship repair facilities are located in Honolulu.

STORES: Stores are available in Honolulu. Stores cannot be while the tanker is in the mooring, except with express permis the Pilot/Mooring Master.

AIRPORT: Honolulu International Airport has regularly schedule to all parts of the world.

TIME: The Hawaiian Islands observe "Hawaiian Standard Time round which is GMT minus 10 hours. Daylight Savings Time observed.

SAFETY: Tankers are to comply with the OCIMF/ICS pub "International Safety Guide for Tankers and Terminals", current

The tanker's Master, Officers and crew are responsible for al aspects regarding their vessel.

WEATHER/TIDES: The Master is referred to published instructions for this area for information on tides, currents, w weather.

The Hawaiian Islands are dominated in all seasons by trad from the N.E. These tradewinds are present about 75% of the ti their average velocity is 12.5 m.p.h. They exceed 2 approximately 2% of the time; however, gusts approaching 10 are possible.

Hawaii's average temperature ranges from about 74°F in M 79°F in September. Almost everywhere in Hawaii, the warm coolest months differ, on the average, by only 9° or less.

"Kona" weather refers to the Southerly winds which occ frequently during the months of October through April. Durin storms, heavy rainfall and cloudiness can be expected. M scheduled during these months may be subject to delay.

The predicted times and heights of the high and low tides are pu for Honolulu. The periodic tides around Barber's Point average to 2 ft. and are normally mixed. The effect of strong winds a normal tidal action may cause water levels to fall considerab chart datum and/or rise considerably above MHHW. At Barbe where the trades usually blow directly off the land, a shift to Ko or to a calm has been observed to raise the tide level a few a foot.

Currents at the mooring normally run parallel to shore in an and Westerly direction. The maximum velocity varies from 3 second on the surface to 1.3 ft. per second 3 ft. above the sea

Tsunamis or tidal waves are possible in this area althou infrequent. On receipt of a tsunami warning, tankers will be u and will proceed to safe locations until the warning is lifted or th is passed.

APPENDIX: TO: Master
SUBJECT: TERMINAL CONDITIONS – BHP PETROLEUM A
REFINING, MARINE TERMINAL

Welcome to BHP Petroleum Americas Refining (BHPPAR Terminal, Barbers Point, Oahu, Hawaii. You are advised that at our Terminal, your vessel is subject to all applicable regulations of the United States and the State of Hawaii, regulations issued by the U.S. Coast Guard and other federal executive agencies. The following instructions and guide provided to promote safe operations while your vessel is moo BHPPAR Marine Terminal.

The following definitions are used herein:

"Terminal" means the oil transfer facility operated by the BH Barbers Point, Oahu, Hawaii, and all associated buoys, hos valves and other appendages in or beneath the sea at the T

"Terminal Operator" means BHPPAR and its parent a companies, and their directors, officers, employees, contractors and agents.

"Terminal Services" means any and all services of any description (whether compulsory, voluntary or otherwise) provided or performed (whether for consideration or otherwise) by or on behalf of the Terminal Operator at or on or about the Terminal and/or the tanker within 3 nautical miles of the Terminal and rendered directly or indirectly in connection with the mooring and/or transfer of crude oil or petroleum product at the Terminal, including without limit to the foregoing, pilotage, navigation, berthing, mooring, unmooring, transfer procedures, communications, watch, divers, tug or workboat assistance or other services, assistance, direction, advice, instruction or conduct whatsoever.

"Tanker" means the vessel requiring Terminal Services to be provided or performed.

"Tanker Owners" means, jointly or severally, the Tanker, her Owners, Charterers, Owners of cargo and/or bunkers aboard the Tanker, and their respective directors, officers, employees (including Master and crew), agents and contractors.

"Information Manual" means the BHPPAR SPM Marine Terminal Information Manual, latest issue.

"Operations Manual" means the United States Coast Guard approved Marine Oil Transfer Facility Operations Manual for the BHPPAR SPM Terminal, latest issue.

The provision or performance of any Terminal Services are rendered in consideration of, and accepted by the Tanker and Tanker Owners and expressly subject to agreement with the following conditions:

1. At all times and under all circumstances, the Master of the Tanker will remain solely responsible for the proper navigation, operation, manoeuvring, mooring and unmooring of the Tanker, connecting and disconnecting hoses, discharging and loading cargo and bunker fuel, ballasting and deballasting, safe loading of the Tanker, pollution prevention and compliance with all laws, regulations and orders issued by the competent authority, as well as the instructions herein the Information Manual and the Operations Manual.
2. The Terminal Operator shall not be responsible for or liable to the Tanker or Tanker Owner or any other person in respect to any death, personal injury, illness, loss or damage to property or delay arising directly or indirectly from the performance or non-performance of any Terminal Service.
3. It is agreed that all persons employed or contracted by the Terminal Operator in connection with performance of Terminal Services are supplied on the condition that in so providing or performing each is a servant of the Tanker in every respect and not the servant of Terminal Operator. The presence of such persons in or about the Tanker and performance or non-performance of Terminal Services in no way relieves the Tanker, her Master or crew of any obligation, responsibility or liability in connection with the safety, condition, operation or proper navigation of the Tanker or its property and cargo. It is further agreed that the Tanker and Tanker Owner shall indemnify and hold harmless Terminal Operator from any liability, loss, claims or damages arising out of the rendering of any Terminal Services to the Tanker, including but not limited to services performed by Pilots/Mooring Master(s), operators, crews and boats, whether or not arising out of the fault of said Pilots/Mooring Master(s), operators, crew or Terminal Operator.
4. That while the Terminal Operator will endeavour to insure that Terminal Services are safe and suitable, no warranty, guarantee or representation (express or implied) as to the safety or suitability or otherwise is given.
5. That the Tanker Owners shall be solely responsible for all liability for pollution or contamination by oil or any other substance, and for the direct and indirect consequences of same, if such pollution or contamination is caused directly or indirectly by the Tanker, whether negligently or otherwise, or if the pollution or contamination occurs as a result of escape of oil or other substance from any point on the Tanker. Should a spill occur at the Terminal, Tanker and Tanker Owners shall immediately take the action necessary to clean up the spill and mitigate its effects. Terminal Operator is authorised, at its option with or without notice to Tanker and Tanker Owners to take the action and incur the expenses necessary in its judgement to clean up any spill and to mitigate its effects, and Terminal Operator shall be entitled to reimbursement by them for any expenses which it may incur.
6. That if the Tanker or any part of it sinks, or becomes a wreck or an obstruction in any part of the Terminal or its approaches, the Terminal Operator shall be empowered and have the right to remove the obstruction or wreck with or without notice to the Tanker and Tanker Owners. All expenses of such removal shall be borne by the Tanker and the Tanker Owners at the time of the incident which caused the wreck or obstruction, and Terminal Operator shall be entitled to reimbursement by them for any expenses which it may incur in surveying and removing the wreck or obstruction.
7. That the Tanker Master acknowledges receipt of a copy of the Information Manual, and agrees to comply with the provisions therein.
8. That the Pilot/Mooring Master, as representative of the Terminal Operator, is entitled to suspend Terminal Services and the transfer of cargo or bunkers in the event of any of the following:

The Tanker fails to comply with any applicable federal or state law, regulations or orders issued by competent authority, the provisions of the Information Manual, or the Operations Manual.

The Tanker is not in all respects ready or fit to berth at the Terminal and conduct transfer operations.

Weather or other environmental conditions exceed or are expected to exceed safe operational limits.

9. These conditions shall be governed and construed according to the laws of the State of Hawaii.

By his or her signature below, the Tanker Master acknowledges receipt, understanding and agreement to the provisions of these Terminal Conditions, on behalf of the Tanker and Tanker Owners.

Pilot/Mooring Master –
On behalf of the Terminal Operator

Tanker Master –
On behalf of the Tanker and Tanker Owners

Date and Time

GENERAL: All tankers calling at United States ports must undergo inspection by the United States Coast Guard. Upon successful completion they will be issued a "Tank Vessel Examination Letter" that is valid for one year. No tanker is permitted to transfer oil without a valid "TVEL".

"Notice of Readiness" will not be accepted at time of arrival unless the tanker is in all respects ready to load or discharge.

Laws of the United States govern this terminal and all personnel are required to abide by them. Regarding any matter in question, it is the responsibility of the Master to obtain the necessary clarifications from his local agents.

OPERATOR: BHP Petroleum Americas Refining Inc., 733 Bishop Street, P.O.Box 3379, Honolulu, Hawaii 96842. *Tel:* (808) 547-3395/3715/3769. *Telex:* ITT 7430292. *FAX:* (808) 547-3807, 3080. *Contact:* Peter Latham, Superintendent – Marine Maintenance/Operations.

(C) CHEVRON U.S.A. INC. – BARBER'S POINT:

LOCATION: Chevron U.S.A. Inc. has been granted the use of the following anchorage for its Barber's Point Offshore Tanker Terminal:

> The waters of the Pacific Ocean within an area beginning at a point in Latitude 21° 16' 58" N. and Longitude 158° 04' 39" W., thence on a bearing of 090° true, 850 yards, thence on a bearing of 180° true, 450 yards, thence on a bearing of 270° true, 850 yards, thence on a bearing of 000° true, 450 yards to the point of commencement.

The centre of the above described area is on an "approximate" bearing of 119° true, 2.3 miles from the Barber's Point Light. The four corners of the mooring are marked by buoys. The two Southerly corners of the area are marked by lighted buoys which are painted yellow and red and are in 84 ft. of water. The Northerly corners of the area are marked by white spar buoys and are in 66 ft. of water. The area is designated as Area "C" – See "Plan".

The offshore terminal facilities in the above described area are owned and operated by the Chevron U.S.A. Inc., Hawaiian Refinery, and serve to handle cargo between the refinery at Barber's Point and tankers calling at the terminal.

The offshore tanker terminal is the responsibility of the Blending and Shipping Area Supervisor, Chevron U.S.A. Inc., Barber's Point, Oahu, Hawaii. The marine representative in Hawaii is the Chevron Shipping Company Port Captain. He is responsible for all ship operations.

DOCUMENTS:

A. *For Immediate Entry for Customs* (for Preliminary Entry Certificate Issuance):
   - Original and 3 copies of I–418, Crew List and Passenger List.
   - Original and 3 copies of CF–1304, Customs Crew Effects Declaration.
   - Original and 3 copies of CF–1303, Customs Ship's Stores Declaration.
   - Original and 3 copies of CF–1301, Customs General Declaration.
   - Original and 3 copies of CF–1302, Customs Inward Foreign Manifest.
   - Original and 3 copies of CF–1300, Customs Master's Oath of Entry.

   For Immigration Inspector:
   - Visaed Crew List (Form I–418) or Waiver prepared in lieu – fee U.S.$15.00.
   - Form I–95, completed for each crew member for issuance of D–1.

   For USDA Inspector (when entering Honolulu Harbour):
   - Shipmaster's Declaration (AIQ–43) – (Inspector will bring on board).

B. *Required for Formal Entry and Clearance at U.S. Customs House:*

   Entry:
   - Original set of Preliminary Entry Manifest as prepared dockside (see above).
   - Port Clearance (last port).
   - Vessel's Certificate of Registry.
   - U.S. Tonnage Tax Receipts (CF–1002), prior voyages.
   - SOLAS Certificate (Safety Equipment Certificate).
   - Load Line Certificate.
   - Certificate of Financial Responsibility (CFR).

   Clearance:
   - Master's Oath of Clearance, original and 2 copies, CF–1300.
   - General Declaration, original and 2 copies, CF–1301, signed by Master.

PILOTAGE: Pilotage is compulsory for all vessels using the berth. This service is performed by the Chevron Shipping Company Mooring Master who remains aboard the vessel the entire time the vessel is in the berth. The Mooring Master will advise the vessel's Master on approaching and departing the berth, mooring, and unmooring. With the concurrence of the vessel's Master, this advice may take the form of directions to members of the vessel's crew. All manoeuvring within the mooring area should be done in accordance with the advice of the Mooring Master. Nevertheless in all cases the Master of the vessel shall remain solely responsible on behalf of the vessel's owner, for the safety and proper manoeuvring of the vessel. The vessel's Master and a qualified deck officer must be on the bridge at all times while the vessel is manoeuvring.

Pilot Station: When not anchoring on arrival, a Chevron Shipping Company Mooring Master will board arriving vessels. For vessels arriving, the Mooring Master boards about 2 miles South of the anchorage area.

ANCHORAGE: Pilotage is not required for anchoring in the Barber's Point Terminal area. Foreign flag vessels, however, should not enter inland waters North of a line connecting Barber's Point Light to Diamond Head Light and all vessels must remain clear of several prohibited anchorage areas. Masters should be aware that this is a very limited area for anchorage with deep water and poor holding ground. Vessels awaiting berth may anchor, however, in such a position so that the approach to and departure from the berths is not impeded. Chevron recommends (but does not warrant the safety of) anchoring within a 500 yard radius circle centred on position: Latitude 21° 16.2' North, Longitude 158° 03.7' West (approximately 3.2 miles East–Southeast of Barber's Point Light). Vessels should not anchor directly South of the Chevron U.S.A. Berth unless next scheduled for berthing as notified by Chevron Shipping Company, Honolulu.

RESTRICTIONS: Mooring operations are conducted in daylight only. Unmooring operations can be conducted at any time, day or night, weather permitting.

MAX. SIZE: *Berth Capacity:*

A. Maximum length overall 1,000 ft.

B. Maximum distance stern to centre manifold 500 ft.

C. Maximum deadweight tonnage 150,000. Chevron may allow vessels of a larger size under special circumstances to be determined on a case–by–case basis by Chevron Shipping Company.

D. Maximum draft 50 ft. (salt water) in the Summer. Max. draft is 52 ft. in the Winter. Vessels with a draft greater than 50 ft. (salt water) may be accepted on a case–by–case basis.

HEALTH: Vessels arriving from a foreign port must clear with U.S. Customs and Immigration before handling cargo. This is normally done with the assistance of a local agent. Either the vessel or the agent is required to furnish the U.S. Coast Guard at least 24 hours' advance notice of the ship's arrival time.

The agent brings the port authorities to the mooring area in a launch where they board.

Should a vessel arrive from a foreign port with sickness on board, the U.S. Public Health Service must be notified. This is usually done through the agent.

TUGS: It is a U.S.C.G. requirement that all laden tankers are required to use tugs for mooring and unmooring. A mooring launch is used to attach the vessel's lines to the mooring buoys and assist in picking up the submarine hoses. A mooring launch stands by continuously to assist in unmooring and in any emergency which may arise while the vessel is in the berth.

BERTHING: Within the mooring area there are 7 mooring buoys. Vessels should moor by using both of the ship's bow anchors and by running lines to the mooring buoys.

Mooring Equipment: Chevron U.S.A. Inc. reasonably believes, but does not warrant, that vessels meeting the following criteria may safely moor at the berth.

A. All ground tackle must be in good working condition. Vessels up to 50,000 d.w.t. must have at least 10 shackles of chain on each anchor. Vessels over 50,000 d.w.t. must have at least 12 shackles of chain on each anchor.

B. Mooring wire and rope requirements are shown on the "Summary of Minimum Wire and Rope Requirements" – See "Appendix".

C. To accommodate wires and/or ropes, winches, fairleads, bitts and chocks must be so placed that mooring lines (wires or ropes) may be handled as follows:

1. Vessels smaller than 80,000 d.w.t.:
   (a) 3 lines on the forecastlehead or main deck forward (2 to weather side, 1 to lee side).
   (b) 3 lines on the main deck aft (2 to weather side, 1 to lee side). It is desirable that winch or warping head arrangement be capable of working one line or wire out of each side simultaneously.
   (c) 4 lines on the poop deck (2 to weather side, 1 aft and 1 to lee side).
2. Each synthetic line must be secured to a separate bitt.
3. For vessels larger than 80,000 d.w.t., fittings must permit doubling of all lines for a total of 14 mooring lines.

D. Each mooring winch must be capable of heaving the first layer of wire or rope on the drum at a no-load speed of at least 150 ft./min. and a loaded speed of at least 75 ft./minute. The respective winch speed must be maintained during simultaneous operation of one winch on the main deck forward, one winch on the main deck aft, 2 winches on the stern and one anchor windlass operating.

E. Mooring winches must be capable of warping the vessel in position without tug assistance. On a case-by-case basis the Mooring Master may waive this requirement and utilise tug assistance instead. Tugs will be for vessel's account.

Berthing Procedures: The procedure is modified to fit conditions of the berth, wind, current, sea state, vessel size/loading, limitations of vessel's mooring gear, and other factors as recognised with the advice of the Mooring Master.

In general, the following procedure is followed for typical berthing.

Vessel approaches the mooring on a due North heading, passing approximately 200 yards East of No. 6 mooring buoy.

Starboard anchor is let go at Point A and 9 – 9.5 shackles of chain are paid out on the run, starboard chain is then held.

When starboard chain fetches up leading aft, port anchor is dropped at Point B and stern is worked into berth as the starboard chain is held and the port chain is paid out to approximately 8 shackles and the lines are run to the mooring buoys. Then both chains are adjusted as necessary to position the vessel properly in the berth.

Wind and current will largely govern usage of tug assistance and which mooring lines are run out first.

Miscellaneous Vessel Requirements:

A. Vessels should be equipped with a searchlight on each bridge at to assist in illuminating buoys during mooring and unmooring at

B. The ship's crew is required to perform all hose handling (including raising, connecting, adjusting, disconnecting, and lo the hoses), and adjusting of mooring wires and anchor chai addition, the crew will be required to take aboard a gear baske to return it to the mooring launch before departure. All of this will be done with the advice of the Mooring Master.

C. All vessels are required (at their expense) to provide food accommodation for the Mooring Master and up to 3 mooring la personnel for the duration of the visit.

D. All vessels shall comply with regulations and procedures set fo the Operations Manual for the Chevron Barber's Point Of Tanker Terminal in addition to U.S. Coast Guard Regulatio forth in Title 33 of the Code of Federal Regulations (33 CFR). event of conflicts between the Operations Manual and the Regulations, the provisions of the USCG Regulations shall p except when provisions set forth in the Operations Manual are stringent than USCG's and other government regulations.

E. All vessels are subject to inspection to confirm their suitability Barber's Point berth. Vessels not meeting any one o requirements may be refused berthing.

F. Vessels may be required to unberth and/or otherwise incur during adverse weather conditions.

Departure from Berth: The procedure for leaving the berth is conve for such moorings and includes the following steps:

Hose is disconnected, blinded and lowered to the sea botto

Lines to buoys are slacked by the vessel's crew then releas the buoy by the mooring launch crew.

Anchors are either heaved in simultaneously or the port and heaved in first, while No. 5 line is held until the vessel's stern clear of the spar buoys.

Mooring Master leaves the vessel after it is underway and of the moorings.

MEDICAL: Arrangements must be made with the ship's Age medical services. Medical services are normally obtained by taki patients to Honolulu by launch. This is a distance of 12 miles (one Ambulance service is provided by the City & County of Honolulu th the island–wide emergency telephone No: 911.

HOSES: Two pipelines serve to transfer products between the te and the refinery, 1×20 in. diameter and 1×30 in. diameter. Hose attached to the ends of each of these pipelines are raised by lift free end of the hoses by their attached buoys and chains. Whe free end of the hose string is above the vessel's deck, the hose is secured to the vessel by an attached chain bridle between th and second lengths of the hose string. The end of the hose is lowered in a smooth curve to the deck, the cap removed and the connected to the vessel's manifold. Both pipelines and hose s terminate on the port side of the vessel.

The hose string description is as follows:

Pipeline	*Hose Order from Shore*	*No. of Sections*	*Hose Diameter* (in.)	*Hose Length* (ft.)
20 in.	1	1	16	25
	2	5	16	30
	3	2	12	30
	Total	8		Total
30 in.	1	1	16	25
	2	10	16	30
	3	2	12	30
	Total	13		Total

Each hose string is terminated on the free end of the last diameter section by a lever–operated, blanked butterfly valve standard 12 in. 150 ANSI flange. The 20 in. system is normally u transferring gasoline products. The 30 in. system is normally u transferring crude oil and fuel oil.

The submarine pipelines extend nearly 2 miles to the shore a approximately one additional mile across flat land to the C Refinery. Both submarine pipelines contain internal gut water line can be used to provide heat when hot water is circulated throug Water is pumped out one gut line from the refinery and returns the other. The two gut lines are connected at the seaward end by submarine hose.

Hose Handling/Cargo Transfer Equipment Requirements:

A. Port hose boom and related equipment shall have minim working load capacity of 10 long tons except that vesse 30,000 d.w.t. may have 7 long ton minimum safe work capacity.

B. Bitts for hanging-off the hose chain should be provided in fro port side manifold. If the vessel is to load bunkers while cargo, separate bitts shall be provided for the bunker hose the port side.

C. Rail to manifold distance should not be less than 15 ft. T bar should not be higher than the lower lip of the manifold

D. All fittings, piping and valves outside of and including the on the ship's cargo and bunker systems must be of steel co and properly supported by a permanent installation (i.e., ve meet the Arco Cast Iron Clause). No more than one reduc the vessel's permanent installation will be allowed and in all connections must be made inside the oil drip pan.

E. All vessels must have the capability of loading segregated ballast during discharge equal to at least 30% of vessel deadweight. Those with the capability of handling segregated ballast quantity above 30% will be less subject to delay during adverse weather conditions. Vessels may load segregated ballast during discharge of cargo. Ballast may be loaded into unsegregated systems either during cargo discharge or when discharge is interrupted, but only if piping used for ballast is segregated from cargo piping by at least two valves. Single valve separation is acceptable if it can be shown that no leakage will occur through the valve except that in this case ballast cannot be loaded concurrently with transfer of cargo. Vessels not capable of meeting these requirements may be forced to vacate the berth prior to completion of discharge.

BALLAST: There are no shore facilities for handling either dirty or clean ballast at the terminal.

Pollution: It is imperative that no oil or pollutants of any type escape into the water. All regulations regarding pollution of the sea or air must be complied with.

Reporting Oil Discharges or Spill: Any oil spill into the water from a vessel in the moorings, at anchor, or underway in the vicinity of the Terminal shall be immediately reported to United States Coast Guard and the Terminal facility. If a Mooring Master is onboard, he shall notify the shore facility by radio as appropriate. In addition, the ship's Master shall in all cases notify the vessel's agents of the occurrence of the spill, no matter how small nor from what cause. If no Mooring Master is aboard, the vessel shall inform the Terminal facility by the most expeditious means available. Any other notifications required of the vessel by law shall also remain the responsibility of the vessel to carry out.

FRESH WATER: Not available.

FUEL: Bunkering is not permitted or available at the mooring.

REPAIRS: Repairs which render the vessel incapable of getting underway are prohibited while the vessel is in the berth.

TIME: All islands in the State of Hawaii are on Zone plus 10 (10 hours slow of Greenwich Mean Time) throughout the year. All communications should be in local time.

WEATHER: *Normal/Storm Conditions:* The local weather is usually moderate with temperatures between 75°F. to 85°F. and N.E. trade winds between 10 to 15 miles per hour. Tropical storms and hurricanes occasionally affect the islands between June and November. They cause high surfs and wind conditions at the mooring. In Winter months, storms with strong southerly winds called "Kona" winds may render the berth unusable for several days at a time. All vessels must be especially alert to the dangers caused by this type of weather condition.

Other violent winds may occur with the passing of a frontal system or a trough. These are more localised and occur from either the North or the South with violence and little warning.

A complete discussion of local weather is contained in the U.S. Coast Pilot No. 7. Up-to-date weather information is broadcasted by the National Weather Service on 162.55 MHz.

Any changes in the weather should be immediately brought to the attention of the Mooring Master so he may take appropriate action.

Tides and Currents: The maximum tidal range at the Mooring Area is approximately 3 ft. Mean higher high water is 2.0 ft., mean tide level is 0.8 ft. and mean lower low water is 0.0 ft. The extreme low water is −1.0 ft.

Currents normally set from East to West and are unpredictable. However, they do sometimes reverse.

Visibility: The visibility in the mooring area is usually excellent with only rare occasions of limited visibility.

SAFETY: *Fireboats:* A fireboat is available only from Honolulu harbour. Because of the distance to the harbour, this fireboat would be called upon only in the event that the ship's equipment cannot control a fire.

Crude Washing: Crude washing should be undertaken only with approval of Mooring Master. The Shore Control Operator shall also be notified.

Inert Gas Systems: Normally a vessel fitted with an inert gas system (IGS) will not be permitted to carry on cargo operations unless the inert gas system is in good order and in operation. When an IGS equipped vessel arrives with the system inoperative, the vessel will not be berthed until the IGS is repaired and/or put in operation. If after a reasonable time the system is not operative and/or cannot be repaired, the terminal may elect to berth the vessel and carry on the cargo operation under strictly controlled conditions and in compliance with existing governmental regulations. If the IGS breaks down after the vessel has berthed, all cargo operations will be stopped and the terminal may elect to take the vessel off the berth unless the IGS is repaired in a reasonable time. If the IGS cannot be repaired, the terminal may elect to carry on cargo operations under strictly controlled conditions and in compliance with existing governmental regulations.

All time lost because of the IGS being inoperative and/or out of order will be for the vessel's account.

Containment Equipment: The area of the refinery where the marine pipelines emerge above ground is protected by dykes which are designed to adequately impound any oil leakage from valve packings, flange leaks or pipeline leaks.

The Refinery is a member of Clean Islands Council Oil Spill Cooperative (CIC). Should an onshore or offshore oil spill occur, the Refinery has access to all the CIC equipment.

A 650 ft. Rotopak oil boom is placed aboard the ship prior to mooring. This equipment is to provide immediate first response capability in case of an offshore oil spill.

Onshore response time is within one hour. Offshore deployment time is dependent on the availability of tugs. A mooring tug is available to assist in the event of an offshore oil spill, under the operational control of the Mooring Master. Depending on the reason for the spill, ocean conditions, and the vessel's situation, the Mooring Master may or may not allow the tug to return to port to obtain the spill containment equipment.

GENERAL: *Charts and Publications:*

The anchorage area is shown on the following charts:

National Oceanic and Atmospheric Administration
19362 – Oahu, Ahua Point to Barber's Point.
19357 – Island of Oahu.

Publications of value and interest are:

Current edition of United States Coast Pilot No. 7 (Pacific Coast).
Hawaiian Refinery Emergency Plans and Procedures Manual.
U.S. Coast Guard Regulations 33CFR153, 154, 155 and 156.

Rules of the Road: All vessels should be aware that inland rules apply inshore of a line connecting the Diamond Head Light and Barber's Point Light.

Provisions: Arrangements for provisions are made with the ship's Agent. Provisions are brought from Honolulu to the ship by launch. Weather conditions usually allow loading only on the vessel's port side. Terminal Regulations prohibit lifting stores with the hose boom while the submarine hose is connected.

Launch Service: If shore leave is allowed, the vessel's Master must make arrangements with the Agent to provide personnel launch service. A mooring launch is provided for line handling. The mooring launch does not leave the terminal area while the ship is in the berth.

Check List: A Marine Terminal Check List has been prepared for vessels using the berth. It must be signed by the vessel's Master and Chief Engineer and the Mooring Master before cargo can be handled. Its purpose is to ensure that important safety and anti-pollution procedures are followed by all personnel aboard the vessel.

AUTHORITY: See Section (A).

Operator: Chevron U.S.A. Inc., P.O.Box 1299, Honolulu, HI 96807.
Tel: (808) 527–2764. *Telex:* TWX 7238372, answerback 8373 Chevr Hr.
FAX: (808) 533–2807.

APPENDIX: SUMMARY OF MINIMUM WIRE AND ROPE REQUIREMENTS.

Vessel Size d.w.t.	*Wires* Number	*Wires* Diameter (in.)	*Wires* Length (Note 2) (ft.)	*Wires* Breaking Strength (lb.)		*Synthetic Lines* Number	*Synthetic Lines* Circumference (in.)	*Synthetic Lines* Length (ft.)	*Synthetic Lines* Material	*Synthetic Lines* Breaking Strength (lb.)	
Up to 50,000	7	1.25	1,000	130,000	OR	4	8 (minimum) 10 (maximum)	720	Note 3	130,000	
	any combination of wires and ropes (per above)				OR						
						11	9 (minimum) 10 (maximum)	720	Note 3	175,000	Note 1
50,000 to 80,000	7	1.5	1,000	165,000	OR	4	8 (minimum) 10 (maximum)	720	Note 3	175,000	
	any combination of wires and ropes (per above)				OR						
						11	9 (minimum) 10 (maximum)	720	Note 3	175,000	Note 1
Over 80,000	7	1.5	1,000	165,000		7	8 (minimum) 10 (maximum)	720	Note 3	175,000	

Notes:
(1) Vessels equipped with fewer than 7 wires may be required to unberth and/or otherwise incur delay during adverse weather conditions.
(2) Synthetic rope pendants may be used to achieve the necessary length if the breaking strength of the pendant is at least 1.25 times that required for the wire.
(3) Polyester required. Nylon or polypropylene not acceptable.

HOUSTON, Texas: 29.45 N. 95.20 W. (See Plan)

DOCUMENTS:

1 Visaed Crew List.
3 Passenger Lists.
3 or more copies of complete Manifests of Cargo for discharge at all U.S. ports.
2 or more copies of Manifest of Cargo for each individual U.S. port.
1 Souvenir List.
1 Stores List.
Ship's Register.
Tonnage Tax.
Load Line Certificate and Nationality Certificate.
No health document required.
Also see "Shipmaster's Report" dated June 1995.

Tankers: Customs required copy of Bill of Lading, ship ullage on loading and shore ullage on loading.

PILOTAGE: Compulsory. Radio to local Agent who arranges Pilot and specifies boarding time. U.S. Coast Guard requires 24 hours' notice in advance of arrival Galveston Bar. Pilot boats and station on VHF Channel 66, Bridge to Bridge is Channel 13 and tugs for docking and off-docking on Channel 14. 3 Pilot boats marked "HP No. 1" – 53 ft., "HP No. 2" – 61 ft. and "HP No. 3" – 106 ft. in length. Pilot boats contacted by light in International Morse code; no sound signal. Pilot taken on board at Sea Buoy No. 1, located 6.7 miles from Galveston. Seldom, if ever, is water too rough for boarding at above location. Anchorage located in Bolivar Roads, 6.7 miles inward from Sea Buoy No. 1.

Report: 1993.

Sabine Bank Pilot to Houston uses VHF Channels 16, 14 and 12.

ANCHORAGES: Vessels are prohibited from anchoring in the Houston Ship Channel or Turning Basin, except in cases of emergency, in which circumstances they shall anchor as near as possible to the channel edge or Turning Basin so as not to interfere with free navigation or obstruct the approach to any pier.

Vessels may anchor in the Gulf of Mexico in the Galveston Entrance Anchorage Areas, just inshore of the intersection of the Galveston Safety Fairway with the Coastwise Fairway. Inside Galveston Harbour, a federally designated anchorage area has been established along the North side of the Inner Bar Channel, this area is described as follows: bounded by the North edge of the channel, extending West from Buoy 10 (Lat. 20° 20' 48.5" N., Long. 94° 42' 52.5" W.); thence to Buoy 12 (Lat. 29° 20' 43" N., Long. 94° 44' 46.5" W.) thence 029° to Buoy B (Lat. 29° 21' 15" N., Long. 94° 44' 47" W.) thence 096° to Buoy A, (Lat. 29° 21' 05.3" N., Long. 94° 42' 51.4" W.); thence 183.5° to the point of origin. This anchorage area is for temporary use of vessels of all types, but especially for naval and merchant vessels awaiting favourable weather and travel conditions. Except when stress of weather makes sailing hazardous, vessels are not permitted to anchor in this area for periods exceeding 48 hours, unless longer periods are expressly authorised by the Captain of the Port.

In Galveston Bay, small craft can anchor anywhere outside the dredged channels where the depth is sufficient. The water in the bay may be lowered as much as 2 ft., by a "Norther" and vessels should anticipate this when selecting an anchorage during the Winter.

RESTRICTIONS: None with respect to time of day or night, or with state of tide.

Authorised Project Dimensions
Houston Ship Channel and Ancillary Channels

Section of Waterway	*Depth** *(MLT)* (ft.)	*Bottom Width* (ft.)	*Length of Section* (ft.)
Galveston Harbour:			
Entrance Channel	42	800	24,999
Outer Bar Channel	42	800	8,764
Inner Bar Channel	40	800	16,864
Bolivar Roads Channel	40	800	5,048
Houston Ship Channel:			
Bolivar Roads to Morgan Point	40	400	138,154
Morgan Point to Boggy Bayou	40	400	67,385
Baytown Bend Easing	40	525(1)	2,700
Boggy Bayou to Greens Bayou	40	300	12,465
Greens Bayou to Sims Bayou	40	300	27,800
Hunting Bayou Turning Basin	40	900-1,000 (2)	1,375
Clinton Island Turning Basin	40	800	1,592
Sims Bayou to Southern Pacific Slip	40	300	2,881
Southern Pacific Slip to Houston Turning Basin	40&36(3)	300	15,571
Brady Island Turning Basin	36	300-700(2)	1,100
Houston Turning Basin	38	400-1,000	3,100
Upper Turning Basin	38	150	1,000
Brady Island Channel	10	60	4,800
Barbour Cut Terminal Channel	40	100	7,800
Turning Basin	40	1,100	1,000
Five Mile Cut Channel	8	125	10,000
Light Draft Channel:			
Upper Turning Basin to Jensen Dr.	10	60	21,898
Turkey Bend Channel	10	60	4,400
Jensen Dr. to White Oak Bayou	10	60	7,900
Greens Bayou Channel:			
Mile 0.0 to Mile 0.37	36	175	1,754
Mile 0.37 to Mile 1.65	15	100	6,646
Mile 1.65 to Mile 2.73	12	100	Inactive

Notes: (1) Includes 400 ft. channel width.
(2) Includes 300 ft. channel width.
(3) 40 ft. to Brady Island. Authorised.

*All depths refer to the plane of mean low tide.

Tidal Range and Currents of Galveston Bay:
Under ordinary conditions, mean tidal range is 0.6 ft. to 1.3 ft. in lower and upper parts of Galveston Bay and 0.5 ft. to 1 ft. in the Jacinto River and Buffalo Bayou. Extreme ranges, under ordi conditions, are about 2 ft. in the lower part of Galveston Bay, 1.2 f the upper part of the bay and 1 ft. in San Jacinto River and Bu Bayou. Freshets cause rises of over 12 ft. in Buffalo Bayou, howe this condition has not occurred since completion of Addicks and Ba Dams for flood control on the upper watershed of Buffalo Bayou. He of tides is dependent largely on the wind, and during strong "Northe in Winter season the water surface of Galveston Bay may be depres 2 ft. below mean low tide.

Report: Mariners are advised that ship-to-ship lightering activi regularly conducted in the following general vicinities which 50 miles – 60 miles from the Galveston Sea-Buoy.
(1) Lat. 28° 35' N., Long. 94° 15' W. (2) Lat. 28° 25' N., Long. 94° 34

Mariners are urged to use caution when transitting these areas they make their way to the Port of Houston.

MAX. SIZE: Navigation safety guidelines on the Houston Ship Char between Galveston Bar and the Turning Basin, Houston, Texas – Bo Roads to Barbours Cut: Maximum vessel size 950 ft. LOA beam 135 ft.

Barbours Cut to Baytown: Maximum vessel size 900 ft. LOA beam 135 ft.

Baytown to Boggy Bayou (Shell): Maximum vessel size 860 ft. beam 120 ft. Vessels exceeding 800 ft. LOA or 39 ft. draft wil restricted to daylight passage only above Baytown.

Boggy Bayou to Sims Bayou (Arco): Maximum vessel size 750 ft. beam 116 ft. Vessels exceeding 105 ft. beam, but not exceeding 11 shall not be allowed to meet any ship traffic above Boggy Bayou.

Sims Bayou to Houston Turning Basin: Maximum vessel size 75 LOA with beam 106 ft. Vessels exceeding 700 ft. LOA or 37 ft. draf be restricted to daylight passage only between Sims Bayou and Houston Turning Basin.

Note: The permitted draft may be less than 37 ft. because of condi of the channel or tide.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany

RADIO: International Telephone and Telegraph – ITT – Galveston letters KLC.

TUGS: Tugs come alongside just off dock or immediately prior to ente turning basin if vessel is to turn, or at Pilot's discretion.

Towing Companies:

Intracoastal Towing & Transportation Co. Tel: 524-5522.
Bay Houston Towing Co. Tel: 529-3755.
Suderman & Young Towing Co. Tel: 529-9944.

BERTHING: No special requirements other than authority from term operator local Agent.

Public Wharves – Port of Houston Authority Facilities:

Wharves	*Length* (ft.)	*No. of Berths*	**Project Depth* (ft.)	*Remarks*
No. 1	827	1	33	
No. 2	521	1	33	
No. 3	802	2	33	
No. 4	779	2	26	
No. 8	624	1	38	Ro/Ro
No. 9	581	1	34	
No. 10	600	1	33	
No. 11	530	1	33	
No. 12	530	1	33	
No. 13	460	1	33	
No. 14	480	1	34	
No. 15	525	1	34	
No. 16	554	1	38	
No. 17	600	1	38	
No. 18	600	1	38	
No. 19	577	1	38	
No. 20	593	1	38	
No. 21	600	1	38	
No. 22	600	1	38	
No. 23	600	1	38	
No. 24	600	1	38	
No. 25	600	1	38	
No. 26	600	1	38	
No. 27	600	1	38	
No. 28	600	1	38	
No. 29	600	1	38	
No. 30	600	1	38	
No. 31	576	1	38	
No. 32	800	2	38	25 acre open a
Nos. 41-48	3,428	8	31	
Manchester No. 2	500	1	36	
Manchester No. 3	500	1	36	(Planned renovation 199
Bulk Plant No. 1	650	1	40	
Bulk Plant No. 2	600	1	40	
Jacintoport No. 1	630	1	38	
Jacintoport No. 2	600	1	38	
Jacintoport No. 3	600	1	38	
Barbours Cut				
LASH Ship Berth	287	1		
Barbours Cut Container				
Berth No. 1	1,000	1	40	
No. 2	1,000	1	40	
No. 3	1,000	1	40	
No. 4	1,000	1	40	
No. 5	1,000	1	40	
Berth No. 6	1,000	1	40	See "Develop

Wharves	Length (ft.)	No. of Berths	*Project Depth (ft.)	Remarks
Barbours Cut Ro/Ro Platform		2		
Woodhouse Terminal				
Wharf No. 1	660	1	36	
Wharf No. 2	600	1	34	
Wharf No. 3	650	1	33	
Wharf No. 4 **	600	1	37	
Care Terminal				
Wharf No. 1	500	1	38	
Wharf No. 2	500	1	38	(Planned addition early 1997).

* Dredging is accomplished every 4 years.

** Used for grain elevator operations at Houston Public Elevator No. 2.

Care Terminal: Acquired by Port Authority in 1996. Located 12 miles East of Houston. Deep-water terminal on Jacintoport Slip. Length 500 ft. by 70 ft. Wharf can accommodate loads up to 1,000 lbs. per sq.ft. 45,900 sq.ft. of covered storage and 9.6 acres of paved marshalling area. Work will begin on a second 500 ft. long berth in 1996. Depth alongside 38 ft.

Turning Basin Terminal: Multi-purpose complex of wharves and storage facilities. Accommodates containers, breakbulk and project cargo. Alternate arrangement of open wharves and docks backed by transit sheds. More than 2 million sq.ft. of covered storage; 3.4 million sq.ft. of paved area. A second 40 ton gantry crane is being added to handle containers. Max. LOA 750 ft.

Manchester Terminal Company: 3 ship berths – 1,650 ft. in length (including 1 piling cluster). Depth 32 ft.

Served by 1 marginal track and 2 outside tracks behind docks plus loading tracks to all other facilities. Special loading-unloading docks for motor trucks available.

Equipment: 62 lift machines; 7 tractors; 1 towmotor, 30,000 lbs. capacity; 4 sweepers, 3 scrubbing machines.

Manchester Terminal Company also has 18,000 cargo pallets.

New Terminal Warehouse Corporation: Capacity 3 ship berths. Wharf 1,400 ft. long. Open storage areas of 50,000 sq.ft. Covered storage areas of 200,000 sq.ft.

Other Wharf Facilities: In addition to the for-hire terminals Port of Houston has some 43 ship berths plus various barge facilities on the Ship Channel maintained and used exclusively by industries. Most of these facilities are tanker ship berths at the refineries. There are also 4 liquid-bulk terminals for hire: Amerada Hess Terminal and General American Tank Storage Terminals, the latter having 2 separate locations; South Coast Terminals; Robertson Terminals, Inc.

Fentress Bracewell – Barbours Cut Terminal: The Port of Houston Authority continues development of its massive intermodal facility. Barbours Cut is located 2.5 hours from open sea where the Houston Ship Channel enters Galveston Bay. The facility is equipped to handle container, Ro/Ro and LASH services. There are 6 container berths each 1,000 ft. in length, representing 6,000 ft. of continuous quay. The channel is dredged to a depth of 40 ft. Additionally, 12 Paceco Portainers service the 6 container berths. The 6 container berths are backed up by approximately 203 acres of container marshalling are suitable for both grounded and wheeled operations. 20 rubber tyred yard cranes handle the stacking of containers in the container yard.

A Ro/Ro platform is provided for vessels equipped with ramps. There are two 100,000 sq.ft. Ro/Ro transit sheds with rail service available as well as 44 acres of concrete paved open storage for heavy equipment and automobiles. A "U" head pier and mooring dolphins provide for berthing of LASH ships. Additionally, a barge fleeting area and barge mooring dolphins are provided.

There is a container freight station with 55,000 sq.ft. of covered storage and rail service available. A railroad yard or ramp point with 1 lead track, 1 storage track and 2 working tracks provides a facility to unload containers and trailers to and from flat cars. The car capacity on the working and storage tracks is approximately 121 ft.×89 ft. long cars. Rail improvements planned for completion in 1997.

Container and chassis repair services are available on and off terminal. Container storage areas are available adjacent to the terminal as are automobile storage and preparation facilities.

Ned S. Holmes Bayport Terminal Complex: A 300 ft. wide by 38 ft. deep Bayport Ship Channel and its 1,600 ft. diameter turning basin connects with the Houston Ship Channel in Galveston Bay and extends approximately 3 nautical miles inland to provide berths for deep-draft tankers and bulk freighters. Petro United Inc., Celanese Corporation, American-Hoechst Corporation and Hudson Oil Company have docks and facilities on the Bayport Ship Channel.

BULK HANDLING FACILITIES:

Public Bulk Materials Handling Plant: At Greens Bayou. Loading capacity at 67 lb./cu.ft. material, unloading capacity at 94 lb./cu.ft. material free digging rate. Fully automatic plant handles dry bulk commodities rapidly to and from ships and barges through the loading and unloading towers, conveyor systems, hoppers, pits, surge bins and scales; with rail and truck facilities and ample ground storage. Rail cars are rapidly moved with large rubber-tyre tractors. Boom of unloading tower reaches 60 ft. from face of dock, bucket capacity is 12 tons; loading tower boom reaches out 66 ft. from dock face and is equipped with automatic trimmer. Both towers can travel the full length of the dock. Mooring facilities for a waiting vessel have been installed next to existing dock. Also available: 2 heavy-duty front-end loaders and 4 heavy-duty car shakers. Max. LOA 750 ft. (larger if cleared with Houston Pilots prior to chartering). Max. beam 116 ft. Max. draft 39 ft. Air draft 40 ft. Depth of water 40 ft. Minimum hatch size 25 ft.×25 ft. Travel of loader 500 ft.

Elco Shipside Elevator Company: 2,000,000 bushel capacity elevator which loads up to 25,000 bushels per hour to vessels berthing at Dock No. 2 of the Port Authority's Manchester Wharves. Length of berth 500 ft. Depth 32 ft.

Woodhouse Terminal/Houston Public Elevator: Grain elevator with 12,000,000 bushel capacity – 4 ship berths. Also general cargo handling. Max. draft 40 ft. Loading rate 1,000 t.p.h.

Adams Terminal: Phillips Terminal Company. 2,700 linear ft., capacity 5 vessels. Bulk cargo loading conveyor system rated at 400 t.p.h.; horizontal boom, hammerhead-type clamshell unloader equipped with five-yard ore bucket, rated at 150 to 250 t.p.h.; 2 gantry cranes, capacity 40 tons at 30 ft. radius; Robbins heavy-duty car shakeout; 20-ton truck mounted crane. One D & H gantry crane modified to handle five-yard bucket for bulk ore discharge. 100 t.p.h. Specialists in import and export bulk cargo. Covered storage – 73,000 sq.ft.

Jacintoport Terminal: Deep-water shipside terminal located on the North side of the Ship Channel some 15 miles downstream from the Turning Basin.

Three ship berths (length 1,835 ft.) with water depth alongside the wharf at 36 ft. 82,500 sq.ft. of transit sheds. Transcontinental or Houston Deepwater, the present Jacintoport Operators, have preferential berthing at Wharves No. 2 and No. 3 for vessels that have at least 500 short tons of boxed or bagged cargo. Harbourside Refrigerated Services operate the cold storage facility located adjacent to Jacintoport and has preferential berthing at Wharf No. 1 for vessels that have at least 500 short tons of refrigerated or frozen cargo. Rail service by the PTRA. Slip is 4,200 ft. long and 400 ft. wide, owned by Port of Houston Authority.

Cargill, Inc.: Grain elevator with a capacity of 5,700,000 bushels. 2 ship berths. Max. draft 40 ft. Loading rate 70,000 bushels per hour to 140,000 bushels per hour.

CRANES: (Capacities 1 ton = 2,000 lbs.)

Mobile Crane – Diesel: Capacity 80 tons.

Gantry, American Revolver R-25 Electric: Capacity at 65 ft. radius – 50 tons.

Gantry, Clyde Whirley, Diesel Electric: Capacity at 45 ft. radius – 30 tons.

Gantry, Portainer, Electric: Capacity at 81 ft. reach – 27.5 tons.

Gantry, Portainer, Diesel Electric: Capacity at 113 ft. reach – 44 tons.

Gantry, Portainer, Electric: Capacity at 140 ft. reach – 30 tons.

Stiff Leg Derrick, Electric: Capacity at 50 ft. reach – 75 tons.

Floating derrick barge crane 500 ton capacity, Owner Joe D. Hughes, Halliburton Co.

Gantry, Portainer, Electric: Capacity at 127 ft., outreach 50 long tons.

Rubber tyred mobile crane, diesel with 300 short ton capacity operated by Ryan Walsh Stevedoring and Shippers Stevedoring.

BRIDGES: Three bridges cross the channel at this time, the I-610 Bridge, immediately East of Wharf No. 32, has a clearance of 135 ft., the Beltway 8 Toll Bridge, immediately West of the Shell Terminal, has a clearance of 175 ft. and the Baytown Bridge has a minimum clearance of 175 ft.

STEVEDORES: Stevedore, on advice from representative of local Agent, must order labour prior to 1700 for 0700 or 0800 hrs. start the following day. Can order at 0800 for 1000, 1100 for 1300 and 1700 for 1900 hrs. start. Gangs must be ordered prior to 1700 hrs. on Saturday for Sunday or holiday.

MEDICAL: Give sufficient notice to order doctor or ambulance. Numerous hospitals available. Seaman's health certificate required.

TANKERS: No specific requirements for oil carriers with respect to load/discharge lines. 12 tanker berths available

Restrictions: The Houston Ship Channel has vessel size limitations as set forth by the Houston Pilots Association (See "Max. Size").

Deadweight tonnage is restricted by zone as follows:

Bolivar Roads to Baytown – 95,000 d.w.t.
Barbours Cut to Boggy Bayou (Shell Terminal) – 80,000 d.w.t.
Boggy Bayou to Sims Bayou (Arco Terminal) – 55,000 d.w.t.
Sims Bayou to Turning Basin – 45,000 d.w.t.

All dead ships and LPG/LNG vessels greater than 550 ft. LOA daylight transit only through the entire Houston Ship Channel.

Arco/Sims Bayou: General: The Arco Refinery Terminal consists of berths "B" and "C". This terminal is located in the vicinity of Sims Bayou, approximately 48 miles from Sea Buoy.

Mooring and Berth: At both berths 2 or 3 tugs are used for docking, while only 1 is necessary for undocking. The tugs and Docking Master meet the vessel 1 mile below the berths and turn the ship at the Arco Turning Basin for a starboard side berthing. The terminal does not provide a gangway.

Cargoes handled at both berths include crude, gasoline, distillate, lube oil, av. gas, jet fuel, and petro-chemicals. Sizes of cargo hoses are 4 in., 6 in. and 8 in. All cargoes are pumped at 100 p.s.i. Both berths can receive ballast and slops. Only av. gas and jet fuel are handled by a common pipeline.

Charter International Oil – Traweek: General: The Charter International Oil Company Berth is the Traweek Dock located 49 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berth: Tug requirements are determined by the vessel's Master. Vessels are generally turned, if light, in the vicinity of the berth and moored starboard side to. Breasting units keep the vessels directly off the side of the dock. All lines are doubled-up. Long bow/stern leads allow considerable fore and aft movement of the vessel. To counter the movement good spring lines are required. Hooks on shore are secured to 2×1.625 in. wires to a "deadman" on the upper bank. All lines are handled by a workboat. The terminal does not provide a gangway.

Passing ships in the Ship Channel affect vessels at this berth. Strict attendance to mooring lines is essential.

Cargoes handled at this terminal include gasoline, fuel oils, jet fuel, No. 6 fuel oil, and kerosene. All cargoes are transferred through 8 in. lines and hoses at a maximum pressure of 100 p.s.i. Connections at the manifold are made with bolted flanges. Both ballast and slops can be received at this berth.

Crown Central Petroleum Co.: General: The Crown Central Petroleum Co. Berth is located 50 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berth: 2 or 3 tugs are used for docking and 1 or 2 tugs are used for undocking. Tugs meet the vessel below the berth depending on existing conditions and turn the vessel prior to docking. No gangway is provided at this terminal.

Cargoes handled at this terminal include distilliate, gasoline, petro-chemicals, heavy fuel oil and crude oil. Petro-chemicals are handled through 6 in. lines at 40 p.s.i. All other products and crude are handled through 8 in. lines with pressures varying between 30 p.s.i. and 100 p.s.i. All cargo hose connections are ASA-type connections. Ballast and slops are received at this terminal.

GATX No. 1 and No. 2 – Galena Park: General: The Galena Park Terminal of GATX consists of 2 berths, No. 1 and No. 2. Storage capacity: 5 million barrels.

Mooring and Berth: 2 tugs are used for both docking and undocking. Vessels are usually turned when in the light condition. The terminal does not provide a gangway.

Cargoes handles at both berths include heavy fuel oil, special petroleum products, solvents, and other clean products. Heavy fuel oils are handled through 8 in. lines only. All other products are handled through 4 in., 6 in. and 8 in. lines. Maximum pumping pressure for all products is 100 p.s.i. All connections are ASA flange connections.

GATX – Pasadena: Mooring and Berth: Tug requirements are determined by the vessel's Master. Vessels are normally turned in the light condition. The berth is close to the Houston Ship Channel and vessels can be affected by passing traffic. Vessels moored at this berth should be well moored and all lines kept taut. The terminal does not provide a gangway.

This terminal handles a variety of products. Crude oil or products requiring heating are not handled by this terminal. All products are handled through 4 in., 6 in. and 8 in. lines at 100 p.s.i. Hose handling may be expected to be slow on account of the limited equipment on the pier.

Hess No. 1: General: The No. 1 Ship Dock of the Amerada Hess Corp. is located 48 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berth: Vessel's Master determines tug requirements for docking and undocking. The vessel proceeds past the berth when docking and backs into the berth for a port side berthing. The stern will be approximately 100 ft. from the North bulkhead of the berth. The terminal does not provide a gangway. Gangway placement is critical.

Cargoes handled at this terminal include crude oil, fuel oil, light oil and gasoline. Fuel oil is handled through a 10 in. line at 150 p.s.i. All other cargoes are handled through 12 in. lines at 150 p.s.i. Connections are all "quick connections". There are no ballast or slops storage space at this terminal.

Hess No. 2: General: The Amerada-Hess Corp. No. 2 Ship Dock is located 45 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berth: A minimum of 2 tugs are used for docking and undocking. Loaded vessels approach from the channel, normally starboard side to. After discharging the vessel is than turned to seaward. A loaded vessel can be turned should a port side mooring be required. All lines are carried to mooring dolphins by a small boat. A gangway is not provided by the terminal.

Intercontinental No. 1: Mooring and Berth: 2 tugs are required for docking and undocking. The vessel is met by the tugs and Docking Master near Lynchburg Crossing. As the vessel approaches Slough, tugs assist in turning the vessel broadside to the channel and in line with the berth. The vessel is then manoeuvred into the berth. Most vessels are moored starboard side to. A gangway is not provided by the terminal.

Various clean products are handled by this terminal. There are no facilities for receiving ballast or slops.

Oil Tanking No. 1, No. 2 and No. 3: General: These berths are located at the Oil Tanking of Texas Terminal which is 42 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berth: 2 or 3 tugs are used for docking and 2 tugs are used for undocking. Vessels docking at Berth No. 1 are turned to starboard for a port side mooring. Vessels are moored head-in, starboard side to in Berth No. 2 and port side to, head-in at Berth No. 3. At Berth No. 2 and No. 3 mooring lines are handled by a launch. Bollards on the outer breasting/mooring platform are fitted with hooks on steel wire pennants so as to be accessible to the boat crew. The terminal can provide a gangway at all 3 berths.

Vessels should use extra spring lines leading aft as there are no stern line leads available. The terminal plans to install a mooring buoy between the platform and the nearer channel line.

Crude oil and clean products are handled at Berth No. 1. Crude oil is the only product handled at Berth No. 2 and No. 3. All cargo transfer lines are 16 in. Connections are made with ASA flanges, reducers are furnished by the terminal. There are no facilities for ballast or slops.

Paktank No. 1 – Deer Park: Cautionary Advice: There is a considerable chance that passing traffic and/or wind could cause a ship exceeding 630 ft. LOA to break away from the berth, which could lead to disastrous consequences with regard to oil pollution.

General: The Paktank Terminal is located at Deer Park which is 36 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berth: A mooring buoy has been installed by the terminal to secure stern lines. This mooring buoy is apparently inadequate both from a standpoint of proper location and strength.

2 tugs are normally used for docking and undocking. The vessel is turned into the berth directly off the channel, upbound. A complement of mooring wires and leads are used at this terminal.

Crude oil, petro-chemicals, and various refined petroleum products are handled by this terminal. All transfer hose and lines are 6 in. or 8 in. Connections to the manifold are bolted. Maximum pumping pressure is 100 p.s.i. There are no facilities for receiving ballast or slops.

Shell No. 1, No. 2, No. 3 and No. 4 – Deer Park: General: The S Oil Company Refinery is located 42 miles from the Sea Buoy on Houston Ship Channel.

Mooring and Berthing: When docking at any of the 4 berths at terminal, 1 or 2 tugs are used. 1 tug is normally used for undock Vessels are turned prior to docking for a starboard mooring. The u complement of mooring lines and/or wires are used at these be Constant attention must be paid in keeping proper tension on all l due to the surging effect caused by passing ships in the chan Gangways are provided by the terminal at all 4 berths.

Crude oil, No. 6 fuel oil, gasoline, diesel fuel, jet fuel, aviation fu and other refined petroleum products are handled at this terminal cargoes are transferred through 8 in. lines with bolted connection the ship's manifold. Maximum pumping pressure for all product 100 p.s.i. The terminal has facilities for handling ballast and slops.

Warren Gas No. 2 and No. 5: General: The Warren Gas Terminal B No. 2 and No. 5 are located 46 miles from the Sea Buoy on the Hou Ship Channel.

Mooring and Berthing: Tug requirements for undocking and dock are determined by the Master. Vessels proceed directly into Berth N for a port side mooring. A motor launch is used to run wires or lines the mooring points. Gangways are only provided when requested p to arrival.

Propane and butane are handled at Berth No. 2 and No. 5. All tran lines are 12 in. at Berth No. 2 and 16 in. at Berth No. 5. Connection ship's manifold are bolted. Maximum pumping pressure is 100 p.s Berth No. 2 and 150 p.s.i. at Berth No. 5.

Shipmaster's Report: September 1992.

Deer Park is a good place to take stores, as there are shore cra available.

DENSITY: Classed as full fresh but varies with rainfall and tide, usu 4 in. to 5 in. allowance on full draft.

FRESH WATER: Available at all terminals through pipe and hose.

FUEL: All grades and viscosities available.

FIRE PRECAUTIONS: All standard precautions per code of Fed Regulations plus local ordinances. Tankers, unless gas free, permitted at wharves in the immediate turning basin area.

CONSULS: Albania, Argentina, Australia, Austria, Belgium, Be Bolivia, Brazil, Cameroon, Chile, China, Colombia, Costa Rica, Cyp Czech Republic, Denmark, Dominican Republic, Ecuador, Egyp Salvador, Finland, France, Germany , Greece, Guatemala, H Honduras, Hungary, Iceland, Indonesia, Ireland, Israel, Italy, Ja Jordan, Korea, Liberia, Malta, Mexico, Morocco, Netherlands, N Zealand, Nicaragua, Norway, Panama, Paraguay, Peru, Philipp Portugal, Saudi Arabia, Senegal, Spain, Sweden, Switzerland, S Tunisia, Turkey, United Kingdom, Venezuela.

REPAIRS: All types available.

DRY DOCKS: Todd Shipyard, 12,000 ton dry dock at Greens Ba and 14,000 ton capacity (length 400 ft.) dry dock in the Houston S Canal.

GANGWAY/DECK WATCHMEN: Not required, but are available can be arranged by local Agent at Master's request.

OPENING/CLOSING HATCHES: By stevedores only – vessel wi charged for this work if done by crew.

CARGO GEAR: Cargo gear safety certificate required.

CUSTOMS ALLOWANCES: Tobacco, 300 cigarettes, 100 cigars, of tobacco or combination for each man. Wine and/or Spirit, 1 bottle for each crew member.

SURVEYORS: District Headquarters for the following Societies:

Panama Bureau of Shipping, Inc. Tel: (713) 944-5026.
Registro Italiano Navale. Tel: (713) 923-3900.
Hellenic Register of Shipping.
8200 La Porte Road, Suite 2,
Houston, Texas 77012-3734.
Telephone: 713-923-3900.
Telefax: 713-923-8010.
Telex: 795403 Marisurv Hou (Wu).
225530 Marisurv Hou (RCA).
A.B.S. Tel: (713) 873-2101.
Bureau Veritas. Tel: (713) 450-3291.
Korean Shipping Register. Tel: 665-0440.
Salvage Association. Tel: 961-0591.
S.G.S. Tel: 479-7170.
Saybolt Inc. Tel: 477-8171.
Caleb Brett. Tel: 946-2420.

REPATRIATION: Danner Guard Service or Central Dispatch can h all phases.

AIRPORT: Approximately 0.5 hours by car; served by regular ai

TIME: Central Standard with daylight saving time effective from A October.

HOLIDAYS: January 1st; January 15th; February 12th; 3rd Mon February; March 2nd; March 17th; Good Friday; last Monday i June 19th; July 4th; First Monday in September; 2nd Monday in Oc November 8th; November 11th; 4th Thursday in November; Dec 25th. When holiday falls on Saturday or Sunday the following M will be holiday.

POLICE/FIRE/AMBULANCE: All services provided or available

TELEPHONES: Currently no arrangements for placing tele aboard but easily accessible on wharves.

SERVICES: All services available.

SHORE LEAVE: Shore leave granted except when individu qualified.

IDENTIFICATION CARDS: Immigration Form I-95 card requir

GARBAGE DISPOSAL: Browning-Ferris Ind. (solid waste sy Tel: 713-635-7777.

WASTE OIL DISPOSAL: Waste Management of Houston. T 695-4055.

SEAMAN'S CLUBS:

Barbours Cut Seafarers' Center, P.O.Box 1434, Laporte, TX 77571. Tel: (713) 470-8332.

At the Turning Basin, Houston International Seafarers' Center, (H.I.S.C.), P.O.Box 9506, Houston, TX 77261-9506. Tel: (713) 672-0511. Facilities include chapel, library, gift shop, cafe, T.V., table tennis, pool tables, outdoor track and canopied basketball court.

Volunteers from both centres will pick up seafarers at the dock. Please call as early in the day as possible to make arrangements.

DEVELOPMENTS: Channel depths to be maintained at 40 ft.

Ned S. Holmes Bayport Terminal Complex has 2 privately owned Terminals (Baytank Inc. and Petro-United Terminals Inc.) operating the facility which is also open for public use.

The Barbours Cut Container Terminal has plans to build Berth No. 6 and expansion of the rail ramp adjacent to the facility is underway.

The multi-user Wharf Manchester No. 3 will start renovation in 1996, improving access to all.

SHIPMASTER'S REPORT:

Customs:

Bond remained sealed.

2 copies of Curio Lists.

2 copies Stores Lists.

1 copy Crew List.

Immigration:

No visit. 1 copy Crew List.

Agents:

Given Travelling copies of Clearance last port, Tax Tonnage receipt last port plus cargo manifests.

Agricultural Dept: Re-sealed meat and vegetable rooms. Inspected Galley Messrooms, etc. Garbage cans to be covered.

Provisions and Stores: Satisfactory. Select own ship chandler.

Laundry: Facilities available but not used.

Coast Guard: No visit.

National Cargo Bureau: Same as New Orleans.

Watchmen: None placed on board. Security at gate strict.

Telephone: None placed on board. Use dock office.

Fresh Water: Available.

Fuel: Available by barge if required. Do not over stem.

Engineering and Repairs: Efficient and satisfactory. Price high compared to N.Z.

Radio Messages: Send ETA after departure New Orleans to Agents and Houston Pilots with draft. Notify Agents of any explosives.

Stevedores: Hours of work. 0800 to 1200 hrs., 1300 to 1800 hrs., 1900 to 2300 hrs. Weekday gangs will work through meal hours to finish. At weekend, day labour works right through to midnight if necessary on time and a half then double time for meal hours.

Crew must not clean hatches. Labour has claim on cleaning and has to be paid in addition to crew. Crew open and close hatches, but not until hatch foreman present. Not before labour working hours.

Working heavy lifts with ship's gear loading rate very slow, especially at end of shift. Due to nature of deck cargo; 11 ton lifts 52 ft. long.

Constant supervision needed for deck cargo.

Head stevedore checks Factory Act Book before starting.

If detailed plan is required for break bulk (general cargo) additional clerk must be ordered.

General: Pilot boards from large grey metal cutter off Fairway Buoy. Flash every 2.5 seconds. Give good lee and have ladder 8/10 ft. above water with usual manropes, heaving line, etc.

If you have to anchor, most vessels use the Eastern anchorage about 1.5 miles East of fairway buoy and clear of fairway marked channel. Soft mud bottom. Use plenty of cable.

Berth: Ships spaced very close to each other. Rise and fall of tide about 1 ft.

Moorings: At least 4 head lines and stern lines plus 2 springs each end. Ships frequently passing and channel narrow consequently a good deal of surge. Lines to be frequently looked at and kept tight. Parted 3 springs in as many days!!! Gangway also to be watched. General rule is to use ship's gangway. Wide apron in front of sheds with rail lines but fork-lifts used most.

Agents have office on wharf with direct line to city office and outside lines.

Wooden piling which acts as fenders. Bollards of the large cleat type. Sufficient but not plentiful. Two linesmen each end when arriving and departing. No permanent cranes but mobile ones can be hired. Quay about 25 ft. above water.

Recommended not to walk about or up to bus especially at night. Better for 2 or more to get a taxi. Fairly good, 3–4 dollars to Houston.

Seaman's Mission near by. Very good, new and modern.

Tugs: Used for berthing and unberthing. Had 2 on arrival due to strong wind and close proximity of mast top to bridge.

Sailing had 1 tug lashed up alongside forward shoulder.

Tugs use own lines.

Bridge: There is a bridge above Upper Clinton Bend from Manchester on the South to Clinton Park on the North. This is a relatively new bridge to be passed under with a clearance of only 135 ft. Check the rise of tide on way up.

SHIPMASTER'S REPORT: August 1980.

Tenneco Terminal – Vessel discharged ammonia.

Approaches: B.A. Chart 975.

The safety fairway is usually very busy and it is advisable to ensure that you are in fact keeping to the starboard side.

At the entrance to the fairways there are many oil rigs. With the predominately low lying coast, radar positions are extremely difficult. Satellite navigator is highly useful in this respect. The first good check is off the buoys in the final safety fairway. These showed on radar at about 7 miles.

Some radar echoes are received from Galveston itself.

The charted rigs in Anchorage 'A' are in fact in those positions.

Pilotage: If anchored, the pilot boat will call vessel into the "Whistle Buoy" for boarding.

The cutter is a large, fast launch and usually lies inside until working a vessel.

Pilot ladder about 8 ft. from the water to clear the boarding platform.

Contact can be made via Galveston Pilots initially on Channel 16 who will relay the messages. Houston Pilots themselves work on Channel 14.

One Pilot, the length of pilotage is about four hours to the first line ashore. Two tugs used.

No night time pilotage for a vessel of this size (32,000 g.r.t.) and type. There is a TV video surveillance system operating throughout the length of the channel.

Berth: About 4 miles below Warren Terminal.

Plant and terminal now owned by Occidental (Oxy) but Tenneco rent the berth.

Berth is far too small for this vessel, at least as far as the moorings are concerned. Typical American 'T' barge jetty, the head of which is only about 25 m. long, with walkways leading to 3 dolphins at each end. The bow and stern overlap these mooring dolphins and head and stern lines are taken to posts on the river bank. These are only breast lines and it is advisable to make advance preparations to put out as many as 4 springs at each end. There is a great deal of traffic passing continuously.

Gangway: The gangway should remain stowed until in position. Whether vessel can use the accommodation ladder will depend on draft. If vessel deeper than 26 ft. there will not be sufficient clearance from the fender so a "B.O.T." type gangway resting on accommodation turntable will have to be used.

When the accommodation ladder is used it has to be turned through 120° and landed on the aft dolphin immediately adjacent to the jetty head.

Discharge: 12 in. flexible hose 150 ASA used. 'T' piece, two shore hoses.

Max. back pressure allowed is 50 p.s.i. Vapour return line is 4 in.

The plant ashore is only equipped to export cargo and its re-liquefaction plant is small.

A shore walkie-talkie is placed with the officer of the deck.

Discharge rate can vary (October 1979 – 260 t.p.h., August 1980 – 550 t.p.h.).

Shore surveyors figure taken for bill of lading. Density 1001.

USCG: No inspection prior to commencement, apparently this is normal. The port is far too busy for them to visit every ship. But be prepared, they are very particular on navigation equipment and Officers' Certificates and experience.

General: It is possible to load bunkers by barge alongside the terminal if prior arrangements and permission are obtained but it depends on Agent and Authorities.

Fresh water is available from the jetty, at a very low rate.

Storing can present difficulties as the after crane does not plumb the dolphin. By arrangement, vessel can use shore crane when the operation is not too difficult.

Public telephone on dock – minimum charge 25c.

Liferaft service available, 24 hours' service.

A considerable distance from the city, which rather complicates services and communications.

Agents leave a radio onboard for contact with Agent and office, but often outside range, office on maximum range.

No private transport (taxis) allowed into refinery area. Transport to the gate by their own minibus and then telephone for taxi. Crew transport service allowed into berth area with pass from Agent.

SHIPMASTER'S REPORT: October 1991.

Approaches: Galveston Light is visible at over 25 miles. There are Racons on the oil rigs in the approach safety fairways which are conspicuous. The "G.B." Buoy is equipped with a Racon and is also conspicuous.

Anchorage: The Fairway Anchorage is to the East of the "G.B." Buoy and the traffic separation area. It is often very crowded and has poor holding and there is no shelter.

Bolivar Roads Anchorage off the Inner Bar Channel near Galveston is the only inner anchorage for vessels awaiting berths that have been cleared inward. This anchorage is often used by vessels changing berths or awaiting berths.

Pilotage: The pilot boards and leaves near the "G.B." Buoy from a large cutter which is nearly always on station outside the Galveston breakwaters. The cutters have accommodation for 5 pilots and maintain watch on VHF Channel 14.

The pilot requires 6 hours notice of ETA when arriving from sea, with updates every 2 hours. The pilot for sailing from the berth requires an initial notice of 4 hours and if a vessel is delayed, the pilot can be re-ordered within 2 hours.

The distance from the "G.B." Buoy to Deer Park Basin is 41 miles and time from pilot boarding to first line ashore is about 4 hours.

There is no dock pilot. The sea pilot docks vessels and also boards for shifting in the berth.

The channel depth is maintained at 40 ft.

Tugs: Tugs are supplied by Bay Houston Towing Co., who have about 10 tugs up to 4,500 h.p. stationed at Houston. They usually secure "American Style".

Services: Laundry: Ship's Laundry of Houston were very good and prompt and provide a 24 hour service. Tel: 713-661-5315.

Supplies: We used Cross & Co. (Tel: 713-673-3100. Telex: 775602) who we found to be very good. The quality of provisions was also good.

Telephones: The agent provides a mobile telephone and pager unit for the Master. Only U.S. calls are possible.

At Paktank 1 there is a telephone in the dock office adjacent to the dock.

At Paktank 2 there is a telephone adjacent to the dock.

At Paktank 3 no telephone is available.

At ITC 1, 2 and 3 there are telephones about 100 m. West of ITC 1.

Airport: It takes about 1 hour to get to Houston International Airport, which is North of the ship canal.

Berthing:
Paktank 1: The berth is an 'L' shaped pier with a length of 50 m. and depth alongside 35 ft. Vessels can berth either side alongside. Ship's gangway required. Fresh water not available. Stores cannot be taken at the berth. Flexi-hoses are required for handling of products. Crane available. We loaded Exxon additives at 140 tonnes/hr. per line.
Paktank 2: The berth is located in the N.E. corner of the basin and vessels can berth either side alongside. The length of the berth is 80 m. and depth alongside 35 ft. This is the best berth for storing of all the berths as trucks are allowed within 25 m. of the ship's side. A crane is available for hire at U.S.$100.00 per hour. No fresh water available at the berth. Ship's brow gangway required.

Products are handled through flexi-hoses or Chicksans. Additives are loaded either from Paktank storage tanks at 150 tonnes/hr. or from manufacturing facility which is about 5 miles away but the rate is only 30 tonnes/hr. Shore cranes are available for hose handling.
Paktank 3: The berth was completed in 1990 and is in the main ship canal. The location of the flat faced concrete pier is Lat. 29° 44.89' N., Long. 95° 05.88' W. The length of the berthing face is 100 m. and the depth alongside is 40 ft. The fendering system is good and is made up of flat shock spring timber and rubber. When berthed alongside, the vessel heads up channel with port side alongside. Ship's brow gangway required. Products are handled through flexi-hoses and there are cranes available for hose handling. We loaded additives at 120 tonnes/hr. per line. No fresh water available. Store trucks may not proceed closer than 100 m. from the vessel. Good moorings are required, they should be kept tight at all times due to passing traffic.
ITC 1: The berth is a flat faced concrete jetty on the S.W. side of the basin. Vessels berth head in only, starboard side to. Fresh water available at a very slow rate. Good berth for handling of stores. Ship's accommodation ladder can be used. Flexi-hoses required for handling of products.
ITC 2: This flat faced pier is an extension of ITC 1. Vessels can berth either side alongside. Depth at berth 33 ft. Fresh water available at a very slow rate but storing is not possible. A brow gangway is required at the berth. Flexi-hoses and Chicksans are available for cargo handling. We loaded additives at 180 tonnes/hr. per line.
ITC 3: The berth is opposite ITC 2 and has recently been dredged to 35 ft. Length of berth 150 m. Fresh water is available at a slow rate but storing is difficult. Vessels berth head in only, port side alongside. Brow gangway required. Chicksans and flexi-hoses are available for handling products.
Fuel: Bunkers are not usually taken at ITC Berths as a surcharge is imposed on the barges. No bunker surcharge at Paktank Berths.
SHIPMASTER'S REPORT: June 1995.
Documents:
1 Visaed Crew List (Only required if personnel do not have U.S. C1/D Visa).
3 copies Crew List (Crew only).
3 copies Passenger List.
3 copies List of Passengers and Crew.
AUTHORITY: Port of Houston Authority, P.O.Box 2562, Houston, Texas 77252-2562. (111 East Loop North, Houston, Texas 77002) *Tel:* (713) 670-2400. *FAX:* (713) 670-2564. *Contact:* H. Thomas Kornegay, Executive Director. John Horan, Director of Operations.

HUENEME, California: 34.09 N. 119.12 W. (See Plan)

PORT LIMITS: No laytime boundary. "Arrived Ship" status commences at berth dockside.
DOCUMENTS: See "San Francisco".
PILOTAGE: It is requested that ships entering port stand-by 1 mile off harbour entrance just seaward of the Port Hueneme seabuoy designated "PH" (Fl. R. 4 secs. Bell) and await port Pilot who will board from a tug. The U.S. Coast Guard Station at the Channel Islands Marina maintains a radio beacon. Contact Pilot or "Port Hueneme" on VHF Channel 16, shifting to Channel 14 for Administration; VHF Channel 65A for tug/pilot/bridge.

All vessels 300 g.r.t. and over or carrying a foreign flag entering, leaving and shifting within the Port of Hueneme, including area of the Oxnard Harbour District, must be piloted by a port Pilot duly licensed to perform the services of piloting vessels within the Port of Hueneme. The Oxnard Harbour District does not maintain Pilots; licensed Pilots are available on a 24-hour-a-day basis from Port Hueneme Pilots' Association (Captain Carl Dingler at (805) 984-4933).
ANCHORAGES: If there is a wait for Pilot caused by weather, visibility, congestion in harbour, or any other reason, the anchorage area is 1.7 miles South of Port Hueneme Lighthouse on the 13 fathom curve.
RESTRICTIONS: The length of entrance channel is 2,300 ft. The narrowest width of harbour entrance channel is 330 ft. However, because of prevailing fresh winds, this is a one-way channel; thus, deep-draft ships not able to manoeuvre easily in a restricted channel have precedence over smaller craft. Vessels may enter/leave at any time day or night.
MAX. SIZE: Due to the 1,400 ft. × 1,200 ft. turning basin, vessels with greater length than 700 ft. requires U.S. Navy permission to enter. Longest vessel berthed in harbour was 826 ft. Vessels draft normally to be 2 ft. – 3 ft. less than water depth.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

Ships required to pass quarantine may enter port and moor. "Q" Flag is to be flown. Upon mooring, ship must post gangway watch until ship has passed quarantine. When Port of Hueneme is its port of first arrival in the United States from foreign ports or from States other than California, a ship must be inspected by the Department of Agriculture. There is a local representative in Oxnard. The Oxnard Harbour District will order officials if requested by ship or Agent.

RADIO: The "Port Hueneme Wharfinger" guards Channel 16 and normally shift to Channel 14 for administrative purposes. The har tugs guard Channel 16 continuously. The harbour Pilots, when expec a commercial merchant vessel guard Channel 16 voice circuit and vo call "Port Hueneme Commercial Pilot".

Tugboat working frequency is VHF Channel 65A (156.275 MHz).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: 3×2,000 h.p. twin screw tugs. Tug services for Port of Huene are furnished by the Oxnard Harbour District, Port Hueneme, Califor Requests for tug services may be made to the Executive Directo Director of Operations of the Oxnard Harbour District, who will ac Agent for ship in forwarding them. 3 tugs are available on a 24 h basis. The number of tugs to be used on any movement is determi by port Pilot in charge of the movement. Tugs are not available for de sea towing, except in case of emergency to save life or property. A screw 500 h.p. pusher/pilot boat is also available for small tows assistance work. As a service to all vessels, the Oxnard Harbour Dist acting as Agent for vessel, will pay all tug fees to United Sta Government when necessary, subject to reimbursement conditions arranged between the vessel, her Owners, or Agents, and the Execu Director, Oxnard Harbour District. Seldom are tug charges more the minimum due to the short transit time to berths.
BERTHING: Berthing arrangements should be made with the Direc of Operations by Agent as far in advance of arrival date as possi specifying dates of arrival and sailing, and nature and quantity of ca to be handled. Agent is requested to submit Berthing Application in tim manner. The Oxnard Harbour District also has a licence agreement the U.S. Naval Construction Battalion Center, Port Hueneme, for the of additional berths and terminal facilities on an "as available" ba Prior arrangements must be made, should use of these additio facilities be desired or necessary. The Port of Hueneme has 5×60 berths with depth 35 ft. MLW and appropriate terminal facilities. At present time there are 11 deep-draft berths within the entire port a

Bottom is sand and mud. Mean low water is + 1.5 ft. Height of w above the MLLW is 13 ft. 6 in. – 14 ft.
CRANES: Many land cranes available which can handle loads u over 100 tonnes in most cases.
STEVEDORES: Stevedore work is presently performed by resid stevedores, the Marine Terminals Corporation, Stevedore Services America and Metropolitan Stevedoring Co., who also have offices in Francisco, Long Beach, etc. MTC maintain an office at 111 Pond Street, Port Hueneme; SSA at P.O.Box 549, Port Hueneme, CA 93 and MSC at P.O.Box 547, Wilmington, CA 90748. They provide mod handling equipment to suit cargo's need. There is no special fixed handling equipment available as yet. Longshoremen are members the International Longshoremen's and Warehousemen's Union conform to the Pacific Coast Longshore Agreement. Hours of work as outlined in this agreement. Longshoremen at this port do all cove and uncovering of hatches and rig the gear. There are 8 gangs availa in the port. Day and night gangs for Tuesday through Saturday (exc Monday through Saturday, 1900 hrs. initial start) must be ordered 1500 hrs. the previous day. Night gangs required Monday for a 1900 initial start, and Sunday and Monday gangs must be ordered by 1100 Saturday. Cancellation time is same as ordering time, if gangs w have been ordered are cancelled after the aforementioned deadli the agreement's 4 hour minimum applies. Normal day shifts beg 0800 hrs. and normal night shifts at 1800 hrs. Each shift consist 8 hours and on sailing day 10 hours may be worked by the final There are no obstructions on the wharf to keep all hatches from b worked concurrently.
MEDICAL: Patients are provided with medical attention at the Med Center, Port Hueneme, or St. John's Hospital, Oxnard Califor Temporary visa must be obtained from Department of Immigration Transportation if a crew man or passenger must remain after the sails.
FRESH WATER: Fresh water is available. There are hydrants alon wharves and delivery to ship is effected by hose. Water is good to but is hard. It is not suitable for boilers. Contact wharfinger on du delivery of water. Boiler feed water is available by truck upon requ
FUEL: Diesel oil and bunker fuel is available by pipeline at all whar
REPAIRS: Minor repairs may be made in port. Machine shops in Ve and Oxnard are qualified for normal voyage repair work.
GANGWAY/DECK WATCHMEN: Gangway or special wharf watch are available upon request.
HOLIDAYS: U.S. Federal and State holidays are observed by the and Terminal management. If stevedoring is required on holiday performed in accordance with the International Longshoremen's Warehousemen's Union-Pacific Coast Longshore Agreement.
TELEPHONES: Pay telephone booths are located at the centre of W 2 and 12 pay telephone booths on Wharf No. 1. The wharfinger's has a telephone which may be used by people calling in to conta ship. This telephone is manned 24 hours a day for convenienc number is (805) 488-4615. The Port of Hueneme office telephone available to ship's officers and Agents for local calls or collec distance calls.
SHIP SUPPLY SERVICE: Port Hueneme Marine Supply, Hueneme Road, Port Hueneme, CA 93041. Tel: (805) 488- Fax: (805) 488-3141. Total ship chandlery, except food.
AUTHORITY: The U.S. Navy (Commanding Officer, U.S. Construction Battalion Center) exercises overall Port Control Au the Oxnard Harbour District is solely responsible for its comm operations.

Port of Hueneme, Oxnard Harbour District, P.O.Box 608 Hueneme, California 93041-0608. *Tel:* (805) 488-3677. *Contact* K. Harmuth, Director of Marine Operations. William Buenger, Ex Director.

HUNTINGTON BEACH, California: 33.38 N. 118.00 W. (See Plan)

LOCATION: Approximately 1.3 miles off Huntington Beach as shown on United States West Coast California San Pedro Channel Chart 18746, published by the U.S. Department of Commerce National Oceanic and Atmospheric Administration.

A lighted Bell Buoy "HB" is located 2,242 ft. from the spar buoy at the Western approach to the Seaberth. It is a private aid to navigation and is shown on the above chart.

PILOTAGE: Mooring Master will board the vessel in the Los Angeles area for an inspection and acceptance of the ship's mooring facilities. He may accompany this vessel, after agreement, to the Seaberth. On repeat visits, he may join vessel at Seaberth area.

RESTRICTIONS: In addition to max. size, wind force, wave height and direction in conjunction with mooring lines, sizes, place limits on conditions for remaining in the mooring. When these conditions are approached or predicted the vessel will return the submarine hose to the seabed after flushing, as necessary, to avoid damage to the crude unloading facilities. The determination of these limitation conditions is made by the Mooring Master and vessel's Master.

MAX. SIZE: Length 930 ft., beam 145 ft., draft varies depending on sea state.

TUGS: A mooring vessel will run the ship's lines to the buoys and serves also as a first response Pollution Control Vessel. It has aboard, for immediate deployment, 1,000 ft. of Model 3000 Expandi Boom.

BERTHING: *Multi Point Mooring:* Consists of 8 buoys. Water depth 50 ft. Tidal range 5 ft. to 6 ft. Bottom sand. Current max. 1.7 knots, excluding storm conditions.

Normal Mooring: Bow anchors and 7 buoys are used.

Mooring Equipment: Require 14 lines, either 9 in. synthetic or 1.25 in. wire rope minimum. Minimum length for 9 in. synthetic rope 720 ft. Minimum length of 1.25 in. wire rope on drum 720 ft. Both bow anchors serviceable with an appropriate length of chain for vessel's size according to Lloyd's or ABS requirement. Usual mooring conditions require 8 to 10 shackles of chain in the water.

A tug, charged to the vessel's account, is required to assist the vessel's approach, mooring, unmooring and exit from the berth.

If mooring wires are used, the synthetic tail or eye, if so fitted, must be in good condition and of 125 per cent breaking strength of the wire. The tail or eye, if so fitted, shall be connected to the wire with a Mandell Shackle or equal. A minimum pennant length of 30 ft. is requested for ease of handling by the mooring vessel.

General: The moorings at seaberth have been modified to allow handling of vessels up to 150,000 d.w.t. under certain wind, wave and sea conditions. This modification includes the repositioning of all buoys, increasing the size of the dip and riser chain to 3.125 in. and the installing of additional 5 ton anchors to supplement the 10 ton existing anchors.

No. 4 or D Buoy, which is at the stern of the vessel, has 2×3.125 in. dip and riser sections and 4 shackles of 3.125 in. chain. Mooring lines to this buoy are doubled during each mooring operation. Weight has been added to each buoy to decrease the buoyancy. An additional buoy, No. 8 or H, was added to allow the moorings to be used by barges.

DISCHARGING: *Lifting Equipment Requirements:* Derrick that can be utilised to lift the 12 in. hose from the seabed and swing the hose to the ship's manifold. Minimum lifting capacity, 5 tons.

Products Received: Crude, Naphtha and other refinery requirements.

Discharge Rate: Maximum 22,000 bbls./p.h. through 8 or 9 lengths (200 ft. – 225 ft.) of hose, 12 in. diameter into 22 in. I.D. sealine. Emergency flush possible from cross connected 10 in. line from shore. Pumping distance to shore tanks 9,479 ft. Height to shore tank 3 ft. – 4 ft. Tank height max. 39 ft. 6 in.

Temperature Limitation at Rail: Maximum product, Crude or Fuel Oil temperature of 150°F.

General: Refinery will furnish the Mooring Master with pertinent information on crude pours and vessel charter conditions, e.g. pump rates or lay time, in order that the Mooring Master can be fully appraised of the Charter Party Terms and conditions. Deviations from the Charter Party Terms furnished, if not correctable in discussions with the vessel's Master, will be discussed via radio with the Supervisor of Pipe-lines and Terminals to determine if a protest should be filed.

FRESH WATER: Not available.

FUEL: Not available.

BALLAST: No facilities.

GARBAGE DISPOSAL: Not available. See "Agriculture" before first U.S.A. port (Albany).

WASTE OIL DISPOSAL: Only as per 33 CFR 158.

SEAMAN'S CLUBS: None.

AUTHORITY: Berth within Los Angeles Customs District.

Operator: Golden West Refining Co., 13539 E. Foster Road, Santa Fe Springs, CA 90670. Postal address: P.O.Box 2128, Santa Fe Springs, CA 90670, U.S.A. *Tel:* (310) 921-3581. *FAX:* (310) 921-7510. *Contact:* F.N. Sampieri, Director – Shipping and Receiving.

HURON, Ohio: 41.24 N. 82.35 W.

Refer to St. Lawrence Seaway for important general information.

PILOTAGE: None required other than what is required for Great Lakes.

ANCHORAGES: Depth 3 to 10 fathoms.

MAX. SIZE: Length 716 ft., breadth 75 ft., draft 26 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: WMI Lorain.

TUGS: Meet vessel at the pier head. Use ship's lines.

BERTHING: Norfolk and Western Ore Dock, operated by the Lake Erie Dock Co., can handle 15,000 tons of ore in 8 hours. Ore slip is 1,400 ft. long with 26 ft. of water.

Limestone Dock, 700 ft. length with 26 ft. of water.

Grain loading facilities operated by the Pillsbury Company. Load speed, 20,000 bushels; unload speed, 15,000 bushels; berthing space, 832 ft.; max. length 610 ft.

STEVEDORES: None available.

FRESH WATER: Available.

FUEL: None available.

CONSULS: Nearest at Cleveland.

REPAIRS: No facilities.

REPATRIATION: No facilities.

AIRPORT: 50 miles from port (Cleveland International Airport).

POLICE/AMBULANCE/FIRE: 433-4114.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Required by Immigration.

AUTHORITY: The Huron Joint Port Authority, P.O.Box 468, Huron,Erie County, Ohio 44839. *Tel:* (419) 433-5240. *Contact:* F.James, Chairman.

JACKSONVILLE, Florida: 30.20 N. 81.40 W.(See Plan)

DOCUMENTS:

Public Health:

Maritime Quarantine Declaration Form HSM 13.19.

Customs:

3 U.S. Customs Manifests for cargo to be discharged at first port of entry.
2 U.S. Customs Manifests covering all other cargo on board vessel for discharge at other than first port of entry.
3 Stores Lists.
3 Crew Lists.
3 Passenger Lists.
3 Curio and Crew Personal Items Lists.
Vessel's Clearance from last port.
Vessel's Register and Load Line Certificate.
Vessel Utilisation and Performance Report.
Form MA.578 for dry cargo vessels.

Immigration:

1 Certified Crew List and Landing Permit form I-95 for each crew member.
Valid Passport for each crew member.

PILOTAGE: Vessels approach Pilot Entrance Buoy STJ No. 2 (Red) approximately 6 miles at sea off jetty entrance to St. John's River. Pilot station located just inside jetty on river channel at Mayport Naval Station. Pilot station operates both VHF and HF frequencies, VHF Channels 16 and 18 A. HF Frequencies 2738 and 2182 kHz. Pilot cable address "Jaxpilot". Pilot boards from pilot boat "Jaxpilot" just East of Entrance Buoy STJ No. 2. Pilot boat does not maintain station at sea but answers call or is dispatched on information by vessels' Agents. Vessels anchoring awaiting Pilot should anchor as near Entrance Buoy as safely possible.

ANCHORAGES: 2 anchorages located inside harbour near dock sites with depth of about 31 ft.

RESTRICTIONS: For vessel drawing not more than 38 ft. water no restrictions and vessel can enter and clear harbour on 24 hour basis. Pilots and tug assistance available all hours day or night. Vessels drawing more than 38 ft. required to await tide.

MAX. SIZE: Draft should not exceed 38 ft. for dry cargo vessels and tankers.

Note: St. John's Bar Pilot Association advises max. draft 37 ft. (20th April, 1982).

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Tropical Radio, Miami, Fla. Call letters WAX. Lantana Radio, Boynton Beach, Fla. Call letters WOE.

TUGS: Under normal conditions with vessels able to proceed under own power, tugs approach vessel in vicinity of pier at which vessel is to dock. Tugs use own lines but no charge made.

BERTHING: Vessels can dock day or night. Transit time from Pilot Station to berths about 2 hours.

Blount Island Terminal: Operator: Jacksonville Port Authority. Length of berth, 6,300 ft. Depth alongside at MLW 38 ft. (11.6 m.). Containers, autos, paper and general cargo are handled.

Blount Island has 3 on-terminal transit sheds with a total cargo floor area of 372,000 sq. ft. There are also 357 acres of paved open storage area. For cargo handling, Blount Island offers 3×40 ton capacity Paceco container cranes, 2×40 ton capacity IHI container cranes, 3×70,000 lb. container stackers; a 100 ton capacity gantry crane; a 40 ton Le Tourneau straddle hoist; a 50 ton capacity gantry crane; 2 self-propelled multi-level rail car automobile loading ramps; and 390 reefer outlets. 2 Ro/Ro berths. Berth No. 1, depth 38 ft. Berth No. 2, depth 30 ft.

Tallyrand Docks and Terminals: Operator: Jacksonville Port Authority. Length of berth 4,660 ft. Depth alongside at MLW 38 ft. Cargo handled – general, cars, lumber, containers, steel, coffee and petroleum.

There is over 275,000 sq. ft. of warehouse space available, with 40,000 cu. ft. being refrigerated. Talleyrand's cargo handling equipment includes 4×40 ton capacity container cranes; 1×100 ton multi-purpose, level luffing gantry Whirley crane; 1×50 ton gantry Whirley crane; 1×35 ton container stacker; 1×40 ton container stacker; 3×10,000 lb. capacity forklift trucks; 3×10,000 lb. capacity clamp trucks; 2×30,000 lb. capacity forklift trucks; 1×46,000 lb. capacity forklift truck; 310 refrigeration outlets; and tanker discharge facilities.

Talleyrand and Blount Island are served by railroad and truck service. 2 surface tracks on the pier apron and 2 platform-level tracks serve both facilities.

Commodore Point Terminal: Length of wharf 2,750 ft. Depth alongside 34 ft. Cargo handled: Oil, cement and liquid chemicals. Terminal also occupied by North Florida Shipyards. Storage facilities: Charter Oil; 340,000 barrels. Glidden – Durkee: 60,171 barrels for chemical storage. Atlantic Cement; 6 silos capacity 40,000 tons. Universal Atlas Cement; 6 silos capacity 32,000 tons.

Jacksonville Bulk Terminals: A subsidiary of Occidental Petroleum. Length of loading berth 1,000 ft. Depth MLW maintained at 36 ft. – 38 ft. 2 fixed loading towers capable of loading vessel at a rate of 2,850 long tons of phosphate per hour. Maximum outreach 81 ft., clearance above MLW of 40 ft. Terminal also capable of loading superphosphoric acid, phosphate rock, zircon sand (of sufficiently low moisture), granular fertilisers, tachonite, ilmenitite and mullite. Storage facilities: 6 concrete silos, each with a designed capacity of 5,000 tons of phosphate rock. Six tanks with capacities of 15,000 tonnes of superphosphoric acid each.

Dunns Terminal: Length of wharf 1,000 ft. Depth 38 ft. Leased for exclusive use by Military Sea Transportation Services.

Celotex Corp: Tel: (904) 751-4800. Berth: 635 ft. (205 m.) with dolphins. Depth: 32 ft. (9.8 m.). Terminal for receipt of gypsum rock by self-unloading vessels.

BRIDGES: Only 1 bridge that vessel would have to negotiate and that only if docking at Commodore Point terminal.

STEVEDORES: Master should keep Agents closely advised by radio of ETA and any amendments to first ETA given. Recommended that Master give ETA 72, 48 and 24 hours in advance of arrival. Enables ordering gangs or cancelling gangs ordered in event of delayed ETA.

MEDICAL: Hospital facilities available. International Vaccination Certificates required by all crew members.

TANKERS: All petroleum terminals provide own hose ranging from 8 in. to 12 in. Prior to arrival, Master should request information from Terminal Company size of connection required.

Private Terminals:

Amerada Hess: Tel: (904) 765-4427. Berth: 200 ft. (60.1 m.) with dolphins. Depth: 30 ft. (9.2 m.). Tank storage capacity: 460,000 barrels. Receipt of petroleum products.

Alton Box Board Company: Tel: (904) 353-3611. Berth: 750 ft. (230 m.) with dolphins. Depth: 24 ft. (7.2 m.). Receipt of residual fuel oil.

Eastern Seaboard Petroleum Company: Tel: (904) 355-9676. Berths 250 ft. (80 m.) with dolphins (1); 160 ft. (48 m.) with dolphins (2). Depth: 18 ft. (5.5 m.). Tank storage capacity: 1,266,000 barrels.

Shipping of petroleum products by barge; loading of barges for bunkering vessels at berth in the harbour; fueling of tugs and small vessels.

Gulf Oil & American Oil: Berth: 200 ft. (60.1 m.) with dolphins. Depth: 33 ft. (11.5 m.). Tank storage capacity: 900,000 barrels.

Gulf: Tel: (904) 765-5541.
American: Tel: (904) 768-2583.

Receipt of petroleum products and loading of barges.

Phillips Petroleum Company: Tel: (904) 353-6740. Berth: 205 ft. (60.2 m.) with breasting dolphins. Depth: 34 ft. (10.5 m.). Tank storage capacity: 243,000 barrels. Receipt of petroleum products.

Shell Oil Company Wharf: Tel: (904) 355-5521. Berth: 230 ft. (98 m.) with dolphins. Depth: 33 ft. (10 m.). Tank storage capacity: 448,500 barrels. Receipt of petroleum products; occasionally fuels towboats and loads barges for bunkering vessels at berth in the harbour. Light marine diesel fuel only.

Standard Oil Company Terminal: Tel: (904) 353-1094. Berths: Barge – 300 ft. (92 m.) with dolphins; Tanker – 760 ft. (230 m.) with dolphins. Depth: Barge – 10 ft. (3.1 m.); Tanker – 32 ft. (9.8 m.). Tank storage capacity: 595,000 barrels. Receipt and shipment of petroleum products. No bunkering of vessels.

Texaco Pier: Tel: (904) 356-6344. Berth: 550 ft. (167 m.) with dolphins. Depth: 32 ft. (9.8 m.). Tank storage capacity: 320,000 barrels. Receipt and shipment of petroleum products; fuels towboats.

Report: *Approaches:* The Jacksonville Sea Buoy lies outside the entrance of the St. Johns River on the edge of the Gulf Stream where a strong Northerly current is usually experienced. The Sea Buoy ("2STJ") is a red/white, lighted and whistle (Morse (A)) buoy. A counter current setting to the South is usually found close along the coast just inshore of the Sea Buoy. Both the direction and velocity of currents and counter currents vary depending on past and prevailing weather conditions.

Broken ground with least depths of 4 to 5 fathoms lies from 4 to 6 miles from the coast for a considerable distance Northward and Southward of the St. Johns River entrance.

Numerous fish havens are Eastward of the entrance to St. Johns River; the outermost, marked by a private unlighted buoy, is about 27 miles Eastward of St. Johns Light.

All vessels should approach Jacksonville Sea Buoy from between S.E. and N.E. to avoid shallow water along the coast. There are many bright lights ashore at night which would cause confusion or mistaken identity with navigation lights. Refer to current N.O.S. charts regarding danger and cautionary areas.

Sea traffic, especially Southbound ships steaming inshore near the Sea Buoy to avoid the force of the Gulf Stream and take advantage of the counter current, may be encountered.

Naval vessels may be encountered entering and departing Mayport and may also be encountered on exercises outside the Sea Buoy area.

Entrance Channel: A Federal project provides for a channel depth of 42 ft. from the ocean to St. Johns Point. A lighted whistle buoy is about 2 miles off the entrance to the river. The 800 ft. wide entrance channel between 2 converging rubblestone jetties is marked by lighted buoys. Two-way traffic is normal.

The echo sounder should be monitored continuously for any silting that may occur and findings reported.

Anchorages: Vessels waiting outside the entrance to St. Johns River can anchor in depths of 36 ft. – 50 ft. N.N.E. of the jetties if wind and sea permit. Anchorage South of the jetty is not recommended because of heavy shrimp boat activity in that area.

Pilots sometimes anchor vessels in the channel opposite Mayport Basin or at St. Johns Bluff in emergencies or while waiting for weather to clear upstream; however, these anchorages are not recommen due to strong currents. A tug should be stationed alongside to a turning during change of tide.

St. Johns River Designated Permanent Anchorages:

General (Upper) Anchorage: Located on the South shore off Commo Point between Miller Creek and Empire Point. Vessels remaining in anchorage more than 24 hours require a permit from the USCG Cap of the Port.

Quarantine (Lower) Anchorage: Located in the area off the Tallyr Docks and Terminal. Use requires permit from the USCG Captain o Port.

The holding ground in both anchorages is only fair and both somewhat constricted. It is not recommended that vessels with d over 34 ft. use these anchorages.

DENSITY: Varies from fresh water 1000 density to mixed salt w 1007.5 density. St. John's River is fed from fresh water sources and most practical purposes may be considered fresh.

FRESH WATER: Potable water is available through hose connecti at all berths operated by the Port Authority. No water barges.

FUEL: Most grades marine fuels available ranging from bunker "C light marine diesels with intermediate blends in between. Most majo companies have bunkering facilities.

FIRE PRECAUTIONS: No smoking except in officers' lounge and cre lounge. No open flames. No sparking from funnel.

OPENING/CLOSING HATCHES: Crew may open hatches prior vessel's arrival at dock. After arrival at dockside this work reserved longshoremen. Vessels equipped with MacGregor type or o automatic opening devices, crew may open hatches at any ti Longshoremen do not open and close these type hatches.

CERTIFICATES: Vessel Register, Load Line, Gear Certificate, Der

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes per man. If ves remains in port over extended period of time, sea stores can be ope under Customs supervision and additional allowances made. W Spirits: No specific limits as to quantity allowed per man; Customs acc Masters' recommendations for allowances so long as they reasonable. This applies to beers, wines and spirits.

GANGWAY/DECK WATCHMEN: Watchmen services available but necessary.

CONSULS: Costa Rica, Denmark, Dominican Republic, Finland, Fra Germany, Guatemala, Italy, Netherlands, Norway, Spain and Swed

REPAIRS: All types engine and deck repairs possible. 2 well-equip shipyards.

DRY DOCKS: 3 large dry docks of 18,000 to 33,000 tons capacity 6 smaller with capacity of 1,000 to 12,000 tons.

SURVEYORS: *Hull Surveyors:*

American Bureau of Shipping. Tel: (904) 725-8554.
John M. Bell Marine Surveyors, Inc. Tel: (904) 249-2741.
Fortson Marine Surveyors, Inc. Tel: (904) 389-0904.
Hull & Cargo Surveyors, Inc. Tel: (904) 348-3605.
Intramarine, Inc. Tel: (904) 353-0828.
Lloyd's Register of Shipping. Tel: (904) 396-6788.
Robert L.Martin. Tel: (904) 641-9018.
The Salvage Association. Tel: (904) 396-1861.
Strocchi & Company. Tel: (904) 398-1862.
David E.Swan. Tel: (904) 398-0305.

Cargo Surveyors:

Gay & Taylor, Inc. Tel: (904) 721-0617.
Horvath Associates, Inc. Tel: (904) 284-1000.
Hull & Cargo Surveyors, Inc. Tel: (904) 348-3605.
Intermodal Transportation Services Inc. (Auto). Tel: (904) 725-3
National Cargo Bureau. Tel: (904) 356-7171.
Richard & Co. Inc. Tel: (904) 356-7171.
E. W. Saybolt & Co., Inc. Tel: (904) 724-7057. Telex: 277 Fax: (904) 724-7633.
SGS Commercial Testing & Engineering Co. Tel: (904) 693-01
South Atlantic Surveys. Tel: (904) 221-0061.
Toplis and Harding, Inc. Tel: (904) 281-0304.
Wignall & Company. Tel: (904) 259-4837.

REPATRIATION: Facilities available to effect crew changes repatriation.

AIRPORT: Airport 20 miles. Daily flights to most major U.S. cities

TIME: Eastern Standard Time and Daylight Saving Time during Su from first Sunday in April till last Sunday in October.

HOLIDAYS: Holidays observed by Stevedores: New Year's Day 1st); Martin Luther King's Birthday (Jan. 15th); Lincoln's Birthday 12th); George Washington's Birthday (Feb. 22nd); Good F Memorial Day (May 30th); Independence Day (July 4th); Na Election Day; Labor Day (First Monday September); Columbus (October 12th); Armistice Day (Nov. 11th); Thanksgiving (Thursday November); Christmas Eve, Christmas Day; New Year's

When holidays fall on Sunday, the following Monday observed extent of paying overtime and 8 hour minimum pay period shall No work performed on the following holidays: New Year's Independence Day, Labor Day, Christmas Day.

POLICE/AMBULANCE/FIRE: Police and Fire 911. Ambulance 2211.

EMERGENCY CO-ORDINATION CENTRE: *U.S. Coast Guard:*

U.S. Coast Guard, Captain of the Port, Marine Inspection Office Talleyrand Avenue, Room 200, Jacksonville, FL 32206. Tel: (904 2648, (904) 246-7341, if no answer. Cable: CG Captain of the Po Contact: Captain of the Port or Officer in Charge.

Certification of U.S. merchant vessels, port safety and se licensing and certificating of merchant vessel personnel, docume and marine environmental protection.

U.S. Coast Guard, Group Mayport, State Road A1A, P.O.Bo Mayport, FL 32267. Tel: (904) 246-7341 (No TWX. or Contact: Commanding Officer.

Search and Rescue, and law enforcement between Sa Georgia, and Cape Canaveral, Florida. 24 hour monitor; Chan FM-VHF and 2182 kHz; HF-SSB emergency radio communica

TELEPHONES: No facilities available for placing phones on board vessels except in shipyards.
SERVICES: Compass-adjusting, radar, navigational equipment. No tank-washing or tank-cleaning services available.
BANKS: American National Bank of Florida. Tel: (904) 396-8111.
Barnett Bank. Tel: (904) 791-7579.
Beneficial Savings Bank of Jacksonville. Tel: (904) 739-0140.
First Federal of Jacksonville. Tel: (904) 350-1200.
First Guaranty Bank & Trust Company of Jacksonville. Tel: (904) 384-7541.
First National Bank of Jacksonville. Tel: (904) 778-0480.
First Union Bank. Tel: (904) 632-6565.
Florida National Bank of Jacksonville. Tel: (904) 359-5140.
Kingsley Bank. Tel: (904) 269-1980.
Marine National Bank of Jacksonville. Tel: (904) 355-1642.
NCNB National Bank of Florida. Tel: (904) 359-7001.
Pan American Bank. Tel: (904) 731-4600.
Southeast Bank, N.A. Tel: (904) 391-1841.
Sun Bank/North Florida, N.A. Tel: (904) 632-2500.
STORING: See "Prelims".
1. Vessel can be stored by barge or truck.
2. No regulations concerning barge storing except when vessel is loading or discharging dangerous cargo.
3. Trucks can proceed alongside at the berth.
4. Yes, fork lift trucks can be used on the jetty to handle stores.
5. Customs regulations in force regarding storing – ship's stores usually supplied free of U.S. excise taxes and supplies (such as alcoholic beverages and tobacco products) must be loaded under the supervision of the U.S. Customs Service for tax exemption to apply.
6. If possible, local Riggers can be employed to assist with storing but usually deliveries are made directly by the supplier.

SHORE LEAVE: No restriction on shore leave if not detained by Immigration.
IDENTIFICATION CARDS: Form I-95A only.
GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany).
Various local companies can provide these services. Contact agent for details.
WASTE OIL DISPOSAL: Environmental Recovery Group, 251 Levy Road, (P.O.Box 548), Atlantic Beach, Florida 32233. Tel: (904) 241-2200. Fax: (904) 241-4732. This company has the necessary licences and permits to carry out this type of work and offers a large range of services and equipment. Charges vary with type and quantity of oil.
SEAMAN'S CLUBS: Seafarers Fellowship has two local facilities, one at Blount Island and the other at Talleyrand Avenue. Contact Charles Lawhon, Director. Tel: 751-3785 (Blount Island), 633-9971 (Talleyrand), 744-9685 (Home). Usual facilities provided including indoor games, postal and telephone, TV, newspapers, books, bibles and church services.
CURRENCY: U.S.Dollar (U.S.$).
REGULATIONS: No garbage to be disposed overside, no pumping of dirty ballast into river. Smoke emissions must be controlled to minimum.
AUTHORITY: Jacksonville Port Authority, P.O.Box 3005 (2831 Talleyrand Avenue), Jacksonville, Florida 32206-3496. *Tel:* (904) 630-3070. *Telex:* (510) 600-2478. *FAX:* (904) 630-3010. *Contact:* C. Mendoza, Managing Director.

JUNEAU, Alaska: 58.18 N. 134.24 W.

Located at N.E. side of Gastineau Channel, 8 miles from Stephens Passage. Juneau is the capital of Alaska. Open all year.
DOCUMENTS: See "Anchorage, Alaska".
APPROACHES: Via Chatham Straits, Lynn Canal and Stephens Passage.
PILOTAGE: Pilot provided by Southeast Alaska Pilots Association. Pick–up point is Guard Island.
Also see "General" – "Pilotage" before first U.S.A. port.
ANCHORAGE: 16 fathoms in centre of Juneau Harbour.
Restrictions: A Safety Zone has been established, comprising the area between the shore and a line extending 9 cables N.W. from No. 2A light-buoy. Within this zone, which is effective from June 1st to September 30th annually, no vessel other than passenger carrying vessels of 500 gross tons and over (including cruise ships and ferries) may anchor without the express consent of the Captain of the Port. There is no restriction on vessels navigating within the area.
MAX. SIZE: Harbour depth 15/19 fathoms. Tides: diurnal range 16.4 ft. Also see "Berthing".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
CUSTOMS: Quarantine, Immigration and Customs, locally.
BERTHING:
1. Foss Alaska Line Dock: berthing length 550 ft. 36 ft. LW. No cranes.
2. Juneau Cold storage: berthing length 250 ft., 36 ft. LW. Cranes, 2 electric hoists, 3 lift trucks, 40,000 sq. ft. covered shed space. Fresh water.
3. Juneau Ferry Terminal: berthing length 400 ft. 32 ft. LW. No cranes. This is a Ro/Ro facility for wheeled vehicles and self-propelled or towed. 35 tons capacity. No covered shed space. Fresh water.
4. Coast Guard Dock: 750 ft. long, 31 ft. deep at face. No storage. Restricted use.
5. Trucano Construction Co. Dock: Length 500 ft. Crane with 90 ft. boom available, capacity 50 tons.

STEVEDORES: 1 gang.
MEDICAL: Hospital available.
FRESH WATER: Available.
FUEL: Available.
REPAIRS: Engine repairs possible.
TRANSPORTATION: Air and ferry.
AUTHORITY: The City and Borough of Juneau, Harbor Department, 155 South Seward Street, Juneau, Alaska 99801. *Tel:* (907) 586-5255, 9425. *FAX:* (907) 586-5367. *Contact:* Joseph L. Graham, Harbour Master.

KAHULUI, Hawaii: 20.53 N. 156.28 W. (See Plan)

DOCUMENTS:
4 Crew Lists.
4 Passenger Lists.
Customs Documents.
Clearance, Travelling Manifest.
Local Manifests.
Health Documents.
Bill of Health and Vaccination Certificates.
4 Manifests.
4 Bills of Lading.
Certificate of Registry.
Annual Inspection Certificate.
Load Line Certificate.
Derat Certificate.
Radio Certificate and Licence.
4 Stores Lists.
PILOTAGE: Request for Pilot normally made through Agent. Contact Pilot on VHF Channel 12. Pilot boards 0.25 mile East of Waihee Reef lighted Buoy No. 2. Anchorage 0.5 mile East of Buoy.
ANCHORAGES: No anchorage inside breakwaters. Only anchorage 0.5 miles East of Waihee Reef lighted Buoy No. 2 in 9 to 12 fathoms.
RESTRICTIONS: 24 hours' notice of arrival is obligatory. No tide restrictions.
MAX. SIZE: Max. length 900 ft. Max. draft 34 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany). (Agriculture: Domestic Overseas Arrivals Tel: 877-7801. Foreign Arrivals Tel. 244-3882.)
RADIO: Communicate through RCA or ITT stations in Honolulu.
TUGS: 1 × 1,500 h.p. tug stationed at Kahului. Additional tugs dispatched from Honolulu if necessary. Tug joins vessel between breakwater and Waihee Reef Lighted Buoy No. 2. Tug's lines normally used. No extra charge.
CARGO HANDLING: Kahului has 1 berth specially equipped to load bulk sugar.
Young Brothers Ltd. operate a forklift to move containers.
Dock Load Limits: 500 lb./sq.ft. over the area supported by piles, cylinders or seawall. 1,000 lb./sq.ft. over the area supported by land or fill.
STEVEDORES: To be ordered by 1500 hrs. of day prior to operations.
MEDICAL: Hospital facilities available. Tel: 244–9056.
TANKERS: Discharge only. 12 in. line for molasses, 12 in. line for heavy fuel oil, 6 in. lines for light fuel oils. No slop discharge facilities. One berth available for tankers, max. draft 34 ft. Two berths available for barges.
FRESH WATER: Available from 2 in. water line at each berth. Rate of delivery about 200 gallons per minute.
FUEL: Available by tank truck only.
REPAIRS: Minor deck and engine repairs only.
GANGWAY/DECK WATCHMEN: Services of watchman recommended, usually arranged by Agent.
OPENING/CLOSING HATCHES: Normally carried out by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes, 50 cigars per man, and 1 bottle wine or spirits. (Customs Port Director Tel: 877-6013).
AIRPORT: Distance to airport 1.5 miles. Served by Inter Island Airlines.
TIME: GMT minus 10 hours all year round.
POLICE/FIRE/AMBULANCE: Police 911; Ambulance 911; Fire 911.
EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard: Tel. Honolulu 536-4336 or Locally Tel. 244-5256.
TELEPHONES: Arrangements made with Hawaiian Telephone Co. (Tel: 242-5211), to install on board.
STORING: 48 hours' free time for domestic cargo. 120 hours' free time for foreign cargo. Trucks allowed alongside to handle special cargoes; bulk and heavy lifts.
GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany). Rubbish bins are available on the pier. Bins are provided by contractor providing services. User must contact contractor directly for services. Contact:
BFI Waste Systems. Tel: (808) 871-9727,
Best Disposal Inc. Tel: (808) 871-8431, or
Maui Disposal Co. Inc. Tel: (808) 871-4917.
WASTE OIL DISPOSAL: Available through Agent.
SEAMAN'S CLUBS: None.
DELAYS: Occasional delays due to limited berthing space and shortage of stevedore gangs.
AUTHORITY: State of Hawaii, Dept. of Transportation, Harbors Division, 103 Ala Luina Street, Kahului, Maui, Hawaii 96732-0216. *Tel:* (808) 877-5713. *FAX:* (808) 877-0554. *Contact:* James R. Costello, District Manager and Harbour Master.

KETCHIKAN, Alaska: 55.20 N. 131.38 W. (See Plan)

DOCUMENTS: See "Anchorage, Alaska".
APPROACHES: Port located on Revillagigedo Island. Open all year round. Ships coming from Hecate Straits or outside Graham Island proceed into Dixon Entrance to vicinity of Guard Island where the Pilot will meet them.

Vessels coming up the inside passage from Vancouver, B.C., are met at Lucy Island Pilot Station.
PILOTAGE: South Eastern Alaska Pilots' Association, Box 6100, Ketchikan, Alaska 99901. Telegraphic address; Alaska Pilots Ketchikan.

The Alaska Pilot Service requires 5 days, 48 hours, and 12 hours advance notice of ETA and can be contacted on Channel 16 VHF or 2182 kHz.

The pilot boat "Jenny B" (RG 2437) normally rendezvous with the vessel 0.75 miles from Guard Island.

Pilotage is compulsory for Cross Sound and Icy Strait. Vessels proceeding to the Point Retreat Pilot Station are excluded from compulsory use of a pilot if travelling via Cape Ommaney and Chatham Strait.
ANCHORAGE: Safe anchorage can be obtained in the area for deep draft vessels; however there are no specified anchorage areas.
MAX. SIZE: The largest vessel to be berthed to date is a 26,000 ton freighter; however larger vessels could be accommodated.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Cables to Agent, Receivers, and Pilots can best be routed through AKM Juneau.
TUGS: Tugs can be arranged through the ship's Agent. Lines from tug are normally used with no additional charge.
BERTHING: City Berth I: Length 1,450 ft., depth 45 ft. LW.

City Berth II: Length 575 ft., depth 33 ft. with 2 mooring dolphins, combined length 780 ft.

Ketchikan Pulp Company (at Wards Cove, 6 miles North of Ketchikan): Private dock, berthing length 800 ft., depth 33 ft. at low water. 50 ton crane on rails, also mobile units and forklifts.
STEVEDORES: Stevedores obtained through shipping Agent. 24 hours' notice normally required.

4 or possibly 5 gangs available dependent on obtaining casual labour.
MEDICAL: Medical matters may be referred to shipping Agent. Excellent hospital and out-patient treatment facilities are available.
TANKERS: Tow lines (fire wires) required fore and aft.
FRESH WATER: Water available at City Berths. Contact Harbour Master for service charge.
FUEL: Fuel available for deep draft vessels: No. 2 Diesel and gasoline.
CONSULS: The nearest Consul is in Anchorage, Alaska.
REPAIRS: Excellent welding and machine-shop services are available.
DRY DOCKS: Ketchikan Shipyard, 600 ft., depth 30 ft.; 434 ft. floating dry dock. Facility in first stage of shipyard development.
GANGWAY/DECK WATCHMEN: Recommend security watch for passenger vessels. Watchmen can be arranged through the shipping Agent.
OPENING/CLOSING HATCHES: Done by longshoremen.
REPATRIATION: Repatriation matters can be handled through the shipping Agent and Immigration Officials.
AIRPORT: Daily flights to and from Seattle as well as points North may be obtained.
TIME: Ketchikan is on GMT minus 8 hours during the Winter and GMT minus 7 during the Summer. Time changes from first Sunday in April till last Sunday in October.
IDENTIFICATION CARDS: Crew identification cards are required by Immigration Officials.
GARBAGE DISPOSAL: Service can be arranged by ship's Agent with the City of Ketchikan, Solid Waste Department.
WASTE OIL DISPOSAL: Can be arranged with Ketchikan Shipyard Inc.
SEAMAN'S CLUBS: None.
AUTHORITY: City of Ketchikan, Port and Harbours Department, 334 Front Street, Ketchikan, Alaska 99901, USA. *Tel:* (907) 225-3610. *FAX:* (907) 247-3610. *Contact:* A.D. Ensley, Director. M. Nickich, Harbour Master.

Supervisor, U.S. Coast Guard, Marine Safety Detachment, c/o U.S. Coast Guard Base, Ketchikan, Alaska.

KODIAK, Alaska: 57.47 N. 152.24 W. (See Plan)

Located near the N.E. tip of Kodiak Island in the Gulf of Alaska, South of Anchorage and East of the Alaska Peninsula.
DOCUMENTS: See "Port of Anchorage".
APPROACHES: North Entrance: Buoy No. 4 off Spruce Cape.

Pick-up Point: Hutchinson Reef Buoy.

East Channel Entrance: Humpback Rock off Cape Chiniak. Steer 280°T until reaching St. Paul Buoy.
PILOTAGE: Pilot can be contacted through Southwest Pilots' Association in Homer, Alaska, Tel: (907) 235-8783, Fax: (907) 235-6119. 24 hours' notice should be given when requesting a Pilot. Pilot Station: Lat. 57° 42' 24" N., Long. 152° 14' 12" W. (St. Paul's Rock Morris Alpha Buoy).

Pilot boat is tug "Kodiak King". Tel: (907) 486-5503. VHF Channels 10, 12 and 16 and Single Side Band 4125 kHz.
ANCHORAGES: Safe anchorage between Puffin and Gull Islands East of shipping channel.
Prohibited Anchorage: The City of Kodiak has declared that vessels are prohibited from anchoring within the Inner Boat Harbour Light 1 (LLNR 3536.10) to a point at position 57° 46' 56" N., 152° 25' 09" W., thence to the North Pacific Fuel Pier (formerly the old Union Oil Pier at po 57° 47' 05" N., 152° 25' 18" W.) due to possible fouling and dama waste water discharge from the canneries in that vicinity (St. Harbour anchor zone).
Note: Mooring buoys available in St. Paul inner anchorage an St. Herman Harbour.
MAX. SIZE: Harbour depth in excess of 30 ft. Tides: Range app imately 10 ft.
HEALTH: See "Health": All Ports before first U.S.A. ports (Albany
RADIO/VHF: Stevedoring Agent: Sea-Land Services, Inc. Tel: (907) 5795 or 486-4137. Call Sign KKI 38, VHF Channel 10, SSB 4419

Harbour Master's Office, Tel: (907) 486-8080 or 486-8085. Call KXE 279 for Channels 12 and 16. CB Channel 9 and SSB 4125.
TUGS: Alaska Tug and Salvage: Tel: (907) 486-5503. Radio Call WYN66116. VHF Channel 10, 12 and 16. SSB 4125 kHz.
BERTHING: Pier 1/Ferry Dock: 204 ft.×28 ft., 26.6 ft. at ML Use: Mooring, loading and unloading and bunkering.

Pier 2/City Dock: 925 ft.×64 ft., 38 ft. at MLLW. Use: Loading unloading commercial freight vessels, moorage for fishing ves Covered warehouse space available. 20 ton and 90 ton cranes avail Various size forklifts.

Pier 3/Container Terminal: 490 ft.×64 ft. (880 ft. bollard to boll 38 ft. at MLLW, container services/general cargo, 30 ton gantry c available.
CRANES: See "Berthing" and "Stevedores".
STEVEDORES: Sea-Land Services, Inc., Operations Department, Shelikof Street, Kodiak, AK 99615. Tel: (907) 486-5795 or 486-413

Mobile cranes 20 tons, 40 tons and 90 tons available.
MEDICAL: Ample hospital facilities available. Also paramedics, doc dentists and optometrists.
FRESH WATER: Available through Harbour Master or stevedo company.
FUEL: Light fuels only. 2 fuel companies. 24 hour service availab
REPAIRS/SERVICES: Most deck, hull, engine, R/T, radar, hydraulic, electrical, refrigeration and most types of marine elect repairs. Divers available for underwater surveys and repairs.
SURVEYORS: Alaska Marine. Tel: (907) 486-6001.

Lamont. Tel: (907) 486-3733.
DRY DOCKS: None available for large vessels.
AIRPORT: 5 miles from city centre. Various flights available depen on time of year. Ferry service available March to December.
POLICE/FIRE/AMBULANCE: Emergency 911, Police (907) 486-8 Fire and Ambulance 911.
EMERGENCY CO-ORDINATION CENTRE: Coast Guard, Search Rescue (Kodiak Island) 1-800-478-5555 anywhere in Alaska. Channel 16.
DEVELOPMENTS: The Port of Kodiak is responding to the incre activity by planning an ambitious 15 year program of developm Included is a proposal to build a 1,000 ft. deep draft pier to accommo commercial and military vessels, some 2,000 ft. of loading docks i the harbour, plus dredging and development of additional staging a
AUTHORITY: Port of Kodiak, Harbour Department, 403 Marine Kodiak, Alaska 99615, U.S.A. *Tel:* (907) 486-8080 or 486-8 *FAX:* (907) 486-8090. *Contact:* Martin H. Owen, Harbour Master Administrator.

LAKE CHARLES, Louisiana: 30.13 N. 93.15 W. (See P

PORT LIMITS: Buoy No. 26, In Calcasieu Ship Channel, 3 mile Cameron, Louisiana.
DOCUMENTS:
U.S. Customs: If foreign cargo on board for discharge at any port

3 copies of Cargo Manifest of all Cargo.
3 copies of Crew List.
3 copies of Stores List.
3 copies of Curio List (crew personal effects).
3 copies of Passenger List if carrying passengers.

If vessel in ballast, only 2 copies of above documents required

If vessel in ballast and carrying passengers, 3 copies of a documents required.

1 copy of Clearance from last port.
2 copies of Customs Form 1300 (Master's Oath).
2 copies of Customs Form 1301 (General Declaration).

U.S. Customs Boarding Officer must examine Load Line Cert Safety Equipment Certificate, Tonnage Tax Receipt, Certific Financial Responsibility (Oil Pollution), Ship's Register and Certificate of Nationality (if any).

1 copy of Certified Crew List (If American Ship).

Bonded lockers may be sealed by Customs.
U.S. Immigration:

1 copy of Visaed Crew List from American Consul at foreign clearance (if any).
1 I-95 (Identification Card) for each crew member on board.
All Passports must be validated for each crew member.

U.S. Bureau of Etomolgy:

All meat lockers and freezers with restricted meat will be All fruit from prohibited countries will be confiscated. All animals from foreign countries must remain on board.
PILOTAGE: Radio Agent ETA, who will arrange Pilot board at Ca Bar. Vessel to stand-by on VHF Channel 66A.
ANCHORAGE: At Calcasieu Bar only.
RESTRICTIONS: Entrance channel 40 ft. depth. Distance 40 m

During LNG/LPG movements, special restrictions may be pl the waterway by the local Coast Guard Captain of the Port.
MAX. SIZE: 1,000 ft. length, 38 ft. draft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first USA port (Albany).
RADIO: Tropical – New Orleans, WNU.
VHF: Pilots may be contacted on Channel 12, 13, 65 and 66.
TUGS: Meet vessel 30 minutes away from berth. Use tugs' own lines. 2 for berthing, 2 for unberthing.
BERTHING: General Cargo Berths: 10 with total length: 5,675 ft. All have draft of 36 ft. (fresh water).
CRANES: Mobile pneumatic and track cranes available with lifts up to 50 tons.
BULK HANDLING FACILITIES: 3 bulk-loading berths: No. 1, West bank of Calcasieu River, 8 miles below main port facilities, 1,200 ft. length, 40 ft. depth, loading rate 1,600 t.p.h. Clam bucket type ship unloading crate, unloading rate of 600/800 short tons per hour.

No. 2, Contraband Bayou Section, main port, 920 ft. length, 35 ft. depth, loading 480 t.p.h. 16,000 long tons storage facilities.
SPECIALISED CARGO HANDLING FACILITIES: 1 berth suitable for Ro/Ro traffic. 2 berths at main port for liquid chemicals, No. 5 for heavy liquid import and No. 6 for import/export. Private berth for private company for receiving LNG.
BRIDGES: One bridge with vertical clearance of 135 ft.
STEVEDORES: Notice of firm ETA and request for gangs must be received prior to 1600 hrs. CST for work following day.
MEDICAL: Hospital facilities available.
TANKERS: Citgo Petroleum Corp. B-Dock, 673 ft. length, 36 ft. depth; C-Dock, 660 ft. length, 34 ft. depth; D-Dock 665 ft. length, 36 ft. depth. Also see "Shipmasters Report No. 1".

Continental Oil Co. Berth 1, 1,000 ft. length, 40 ft. depth; Berth 3, 1,000 ft. length, 40 ft. depth. (Also see "Report" dated April 1994).

PPG, 700 ft. length, 40 ft. depth.

Olin Corp. Dock: 400 ft. length, 28 ft. depth. Also see "Shipmaster's Report No. 2".
DENSITY: Salt water in Summer, fresh water in Winter. Allow density 1000 for drafts.
FRESH WATER: Available at all berths.
FUEL: Bunker "C" and diesel available at Cities Service berths; other berths served with bunkers by barge.
FIRE PRECAUTIONS: Usual precautions.
REPAIRS: Small repairs carried out only; very limited facilities.
DRY DOCKS: None.
SURVEYORS:
1. Cargo inspectors are available.
2. Surveyors are available.

GANGWAY/DECK WATCHMEN: Not required.
HATCHES: Rigging performed by stevedores. MacGregor-type hatches opened by crew, others by stevedores.
CARGO GEAR: Shore cranes available at ship's request.
CUSTOMS ALLOWANCES: At the discretion of Customs officers. Normal allowance is 200 cigarettes or 2 lb. tobacco and 1 litre wine or spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.
REPATRIATION: Facilities exist. Arrange through Agent.
AIRPORT: 7 miles from port. 26 flights per day.
TIME: CST, that is GMT minus 6 hours.
HOLIDAYS: Only 2 days affected on which no work carried out – Labour Day and Christmas Day.
POLICE/AMBULANCE/FIRE: Police or Fire, 911. Fire only 491–1350. Police only 491–1311. Ambulance 433–1677, 433–4411 and 433–1668.
EMERGENCY CO-ORDINATION CENTRE: United States Coast Guard, Sabine, Texas. Tel: (713) 971–2361.
TELEPHONES: None on board ship.
BANKS: Calcasieu Marine National Bank, 844 Ryan Street, Lake Charles, Louisiana 70601.

Premier Bank of Lake Charles, 3401 Ryan Street, Lake Charles, Louisiana 70605.

Gulf National Bank, 825 Ryan Street, Lake Charles, Louisiana 70601.

Lakeside National Bank, One Lakeside Plaza, Lake Charles, Louisiana 70601.

National Bank of Commerce, 535 Kirby Street, Lake Charles, Louisiana 70601.
STORING: See "Prelims".
1. Vessel can be stored by barge or truck.
2. Vessel can be stored during loading/discharging as long as it does not interfere.
3. Trucks can proceed alongside berth.
4. Forklifts can be used on docks.
5. No customs regulations for United States stores.
6. Longshoremen must be employed to assist in storing.

SHIP SUPPLY SERVICE: *Offshore Waters Personnel Transfer:*

Air: ERA Helicopters, Inc., P.O.Box 6566, Lake Charles, La. 70606. Tel: (318) 478-6131.

Petroleum Helicopters Inc., P.O.Box 16490, Lake Charles, Louisiana 70616. Tel: (318) 433-6658, 433-1749.

Boat: McCall Boat Service, P.O.Box 186, Cameron, La. 70631. Tel: (318) 775-5685.

Inland Waters Personnel Transfer:

Land and Water: Port Shuttle, Inc., P.O.Box 1772, Lake Charles, La. 70601. Tel: (318) 433-1613.
SHORE LEAVE: Allowed if not detained by Immigration.
IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.
GARBAGE DISPOSAL: Service available from Browning Ferris Industries and Cities Service Highway.
WASTE OIL DISPOSAL: Service available from Ali Marine Inc., Lake Charles. Tel: (318) 436-8656.
SEAMAN'S CLUBS: Lake Charles Seafarers Center, 150 Marine Street, Lake Charles. Tel: (318) 436-1315.
DELAYS: Very few delays encountered at any berth.

SHIPMASTER'S REPORT No. 1: 1977.

Cities Services Oil Co., Clifton Ridge:
Location: Lat. 30° 09' 32" N., Long. 93° 19' 30" W.
Max. Size: Length 805 ft., beam 115 ft., draft 39 ft. (FW).
Density: 1005.
Restrictions: Vessels may berth and unberth at any stage of the tide day or night.
Anchorage: At Bar: 2 miles East of seabuoy in depth of 42 ft. For Bunkering: South of Clooney Island in Old Calcasieu River Channel in midstream.
Distance to Berth: Sea buoy to berth 45 miles.
Terminal Information: 2 × 10 in. Chicksan arms. Max. discharge pressure 150 p.s.i. Derricks not required. Accommodation ladder not required.
Services: Fresh water, provisions, fuel oil, diesel and lube, doctor, hospital, airport and laundry.

The following services are not available: Repairs, drydocks, Lloyd's Surveyor and slop tanks.
Telephone Numbers: Dock 318-583-2432. Terminal Supervisor 318–491–6121, 318–491–6437.

SHIPMASTER'S REPORT No. 2: 1979. Olin Chemical Berth.
Approach: If without Loran "C" or satellite navigator the approach at night can be awkward, best made in daylight.

Due to flat coastline, lack of European navigation aids (Decca and Racon) plus numerous oil rigs the entrance to Calcasieu River (like Sabine) is difficult to make.

Calcasieu and Sabine D/F good.

Numerous oil rigs South of buoyed channel which are either side of safety fairway. This corridor can be clearly seen on radar and provides a good longitude.

The soundings, in particular the 100 fathom line, give a good latitude.

The wreck buoy on chart 975 – (Approach to Calcasieu River) at Lat. 29° 19.5' N., Long. 93° 12' W. has been removed.

'CC' Buoy was picked up at 6 miles.
Pilot/Channel: (B.A. Chart 975). The channel is easy to follow as long as U.S. system of buoyage is remembered. Vessels under 30 ft. can go out of the channel on their starboard side leaving starboard hand buoys to port. This is quite in order up to Pilot Area No. 1. Do not go on port side or West as this is spoil ground.

A Westerly current sets across channel 90% of the time and up to 1 knot. The boarding area is as Vol. No. 6 ALRS. If vessel takes a Pilot at Area No. 3 it costs $300 more than No. 1 (not necessary unless vessel restricted by draft – 24 hour service).

Pilot boat is an ex-fishing cutter. White, very fast and strong. Minimum notice for Pilots: Boarding at Area No. 1 four hours, Area No. 3 six hours. For sailing from Lake Charles 2 hours. From Area No. 1, one Pilot to Lake Charles, from Area No. 3, two Pilots. Pilot will *not* use hoist.
VHF: Calcasieu Pilots Channels 12, 13 and 16. Difficult to contact Pilot Station until well into channel North of 'CC' Buoy.
Public Correspondence: Several stations in area – Port Arthur, Cameron, Erath, Lake Charles, a number, notably Erath and Lake Charles have the "80" Channels which they use in preference to "20" Channels. Very busy, but if you search around you can get through fairly quickly. As with all U.S. Marine Operators, overseas ships have difficulty if not calling 'Collect'.
Calcasieu Channel: About 35 miles to Lake Charles from breakwaters. 5 hours from Pilot Area No. 1 to 'Olin' Chemical Dock.

With Northerly wind and heavy rain on ebb, a current of up to 5 knots at Cameron at entrance just North of breakwater.

Bridge: Highway 102 gives 135 ft. clearance HW. 3.75 hours North of breakwater.
Draft: Max. transit draft of 38 ft. 6 in. (FW) from No. 30 buoy to Lake Charles Docks. We consistently had 39 ft. on echo sounder.
Tugs: 2 tugs of 2,500 h.p. and 3,200 h.p. secure in American style, port side, at bridge 102 and leave in same area.
Berthing: Olin Chemical.
Dock: At head of seagoing navigation at bridge interstate 10. In cut, so no traffic passing. New concrete pier upgraded from barge dock. Min. depth 30 ft. Head in, starboard side to. Vessel left at 0200 hrs. without difficulty.
Moorings: 3 headlines, 2 breast lines and 2 springs each end. Springs go on to bollards on the jetty and breast lines and stern lines on to hooks on the bank.
Cargo Hoses: 8 in. × 300 ASA and spool piece to 12 in. × 150 ASA. 3 lengths, ship connects. Takes about 1 hour to connect and disconnect.
VRL: No.
Venting: No, on shore there are detectors on the tanks for ammonia. Generally the wind is onto the works which makes the detection of venting immediate. Vessel has to wait for a change of wind from the North.
Samples: Taken by chemist of tank atmosphere before loading. Must have min. 97% NH_3 by volume before loading.
Rate: Max. 330 t.p.h. (15 minutes of notice if possible, to stop).
Nitrogen: Available but not for hose purge.
Fresh Water: Water on berth very acid. Difficult to get hold of fresh water barge.
Stores: Ship's crane can reach end of jetty. Also small crane on hose platform on jetty which can be used for stores. Lorry cannot get to ship's side.
Gangway: No difficulties. Some ships have to use pilot ladder.
Developments: LPG dock at Beacon 85/86 about half way up the canal owned by Citgo Petroleum Corp. Good mooring facilities. 1 Chicksan. Dredged area 1,000 ft. long, 45 ft. deep.

SHIPMASTER'S REPORT No. 3: June 1988.

Louisiana pilot's office works on Channel 66. Passage in and out varies between 2 hours and 5 hours, depending on tide and where vessel leaves pilot on way out.

The Customs District for this port is New Orleans.

At Conoco Berth (Clifton Ridge), their regulations prohibit the loading of any flammable goods while vessel discharging cargo. (I pointed out that we were discharging 66,000 tonnes of flammable goods, i.e. crude oil and on our return we were able to load flammable goods during discharge). However, vessels unable to take bunkers alongside and have to go further up river and then anchor, 1 shackle in water and lie against the bank. This means that vessels require 2 tugs when departing from anchorage.

REPORT: April 1994.
Berth: Conoco Refinery Dock – Dock No. 1 Facility.

Transit time from Pilot Station Buoy "CC" to dock is approximately 6 hours (No daylight restrictions in ballast or loaded condition).

Cargo/Commodities handled: Diesel, gasoline, naphtha, heavy oils, gasoil and kerosene.

Size and number of cargo hoses/arms: 1×12 in. arm.
Cargo arms connected by dock crew only.
Number of products handled simultaneously: Normally one.
Permanent line for nitrogen supply: Yes.
Fresh water available alongside: Yes.
Vapour recovery installation: Yes.

Average load rate:	
Diesel	6,000 bbls./hr.
Gasoline	4,000 bbls./hr.
Naphtha	4,000 bbls./hr.
Gasoil	2,800 bbls./hr.
Heavy oil	800 to 3,000 bbls./hr.

Size of pipeline from dock to shore tank: 4 in. to 16 in.
Distance of pipeline from dock to shore tank: 1.5 miles to 2 miles.
Store/provision deliveries permitted via truck only.
Dock No. 1 Restrictions:
Air draft restriction: 135 ft. mean low water (I-210 Bridge).
Maximum permissible height from waterline to manifolds: 50 ft.
Maximum permissible length alongside: 800 ft. (Can be 825 ft. – 850 ft. max.).
Maximum safety draft permissible alongside: 37 ft. fresh water (36 ft.).
No bunkers available at berth.
No bunker barge permitted alongside vessel.
No lube oil transfers permitted in bulk via barge or truck.
No stores/provision deliveries permitted via barge.
No dangerous goods delivery permitted via barge (Truck delivery permitted with permission from dock).
No cargo transfers permissible via barge.
No shore gangway available.
No shore ballast facility available.
No pumping overboard while alongside of any ballast from cargo tanks (only S.B.T. ballast permitted to be pumped overboard).
Request vessel to be inerted on arrival alongside.
Request vessel to always sail at even-keel.
Minimum mooring lines requested: 12 lines.
3 bow lines, 2 forward springs, 1 breast.
3 stern lines, 2 aft springs, 1 breast.
Prefer to use synthetic ropes for spring lines, bow and stern.
No engine or other repairs permitted alongside (require vessel's main engine power to be available at all times).

AUTHORITY: Lake Charles Harbor and Terminal District, Port of Lake Charles, 150 Marine Street, P.O.Box AAA, Lake Charles, Louisiana 70602. *Tel:* (318) 439-3661. *Telex:* 502449 Port Lk Chas. *FAX:* (318) 493-3523. *Contact:* William T. Duke, Executive Director.

LONG BEACH, California: 33.45 N. 118.13 W.

(See Plan)

DOCUMENTS:

Certificate of Registry.
International Load Line Certificate – Tonnage Certificate (Admeasurement).
Inspection Certificate.
Derat Certificate.
Safety Radio Certificate.

Inbound cargo for discharge – United States must have a Travellers' Manifest (Form 7527), original manifest, and dock inspection copy covering cargo to be discharged at first U.S. port of entry, Custom's Utilisation Form 1302 (Inbound), Form 1302A (Outbound) must be filed within 10 working days after vessel's entry at first U.S. port. Landing permits must be made out prior to arrival (Form I-95) for each crewman of alien origin for the U.S. Department of Immigration (and Form I-418 for each passenger of alien origin). 3 sets of Crew Lists (Form I-418) must be presented to U.S. Customs, plus 2 sets to the Immigration Inspector, and 1 for the U.S. Public Health Service (Quarantine), and 3 sets Stores Lists plus 3 sets Curio Purchases List for U.S. Customs.

American Ships from Foreign Ports:
Safety Equipment Certificate.
Cargo Ship Safety Construction Certificate.
Customs Form CF 226 Affidavit of Repairs Abroad.
Certified Crew List.

Foreign Ships:
1 copy of Visaed Crew List for Immigration (Form I-418 & 5 copies). Other forms may be necessary under certain circumstances, but normally can be taken care of after the vessel's arrival.

If a foreign vessel from a foreign port departs for a foreign port, 2 copies of (Form I-418) covering crew changes in the United States must be submitted to the Department of Immigration upon sailing of the vessel.

(*a*) Number of copies required: all single except as noted.
(*b*) The reports mentioned above are all government laws, reque by U.S. Customs, U.S. Immigration, Department of Agricu Public Health Service, and B.I.A.
(*c*) Purpose of documents: to record all vessel movements suc cargo, crew changes, health standards, etc.
(*d*) Procedure of presenting documents: documents must presented to Quarantine Boarding Officer and Customs Br and/or Agent, during or immediately after Quarantine.

PILOTAGE: Pilots ordered by local Agents. Order placed by teleph to 435-6354/5. Pilots require 2 hours notice prior to arrival. Pilot sta contacted on VHF radio Channel 12 (156.6 MHz) or Channel 16 (15 MHz). Call sign KMA – 372 Long Beach Pilots. Pilot boats motor cruis light grey, fly International Flag "H". Local whistle signal for a Pil ship's whistle, 1 short and 1 long blast. Pilot boat normally meets vess in vicinity Long Beach Sea Buoy or approximately 1 mile Sout breakwater entrance. Vessels should have a Pilot ladder on starbo side, weather permitting. In bad weather vessels may be require proceed inside breakwater entrance prior to Pilot boarding. Pilot boa VHF Channel 13.

Shipmaster's Report: March 1994.

Vessels en route to Long Beach must contact "Long Beach Pilot VHF Channel 74.

APPROACHES: VTIS: See "Los Angeles".

ANCHORAGE: Preferably outside anchorage approximately 0.5 m S.E. of Long Beach Sea Buoy in 66 ft. of water. Inside ancho available N.E of channel in outer harbour at approximately 8 fathom water depth. Special explosive anchorages available by request, on sides of entrance channel in 48 ft. of water.

U.S. Coast Guard Anchorage Regulations:

1. The Master of every vessel upon anchoring shall notify the C Guard Captain of the Port giving vessel name, anchorage number time anchored.
2. The Master of every vessel upon departing anchorage shall n the Coast Guard Captain of the Port giving vessel name, ancho number, time underway and destination; i.e., bound for sea or for b number.
3. For the above reports, the call to the Coast Guard Captain o Port should be made on VHF Channel 16.

RESTRICTIONS: Vessels with dangerous cargoes aboard or loadi discharging such cargo within port district shall obtain permit from Coast Guard, countersigned by Long Beach Fire Prevention Bureau Long Beach Port Authority, subject to safety inspection prior ent assigned anchorage or berth. (Application for entry or han dangerous cargoes must be requested by Steamship Compan authorised Agent and approved prior entry.)

Also see "Tankers" last paragraph.

MAX. SIZE: (1) Designed depth of water at general cargo bert 30 ft. – 42 ft. at MLLW.

The Entrance Channel is maintained at 65 ft. MLLW.

(2) No length or breadth restrictions at general cargo berths.

(3) Dry bulk facility berths designed depth at MLLW is 36 ft. to No restriction on length. However, ships with over 130 ft. beam experience some difficulty in loading without turning ship.

There are 10 bulk oil facilities, 2 with 76 ft. of water at MLLW with 37 ft. to 52 ft. of water at MLLW alongside berths. It is feasible vessels over 1,000 ft. in length could use the deep-water oil fac There are no restrictions as to beam.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany

QUARANTINE: Quarantine Station, U.S. Public Health Se 380 World Way, L.A. International Airport, Los Angeles, CA 9 Tel: (310) 215-2365. Hours: 0600 – 1800 hrs. regular boarding h 1800 – 0600 hrs. overtime boarding hours.

STANDARD PROCEDURE FOR MARITIME BOARDING

Dockside Boarding: Vessels subject to Quarantine Inspectio normally boarded upon arrival in berth.

A vessel crewman should be stationed at the gangway to preve crew member from going ashore and shore personnel from co aboard until the vessel has been passed by the Quarantine Bo Officer.

Vessels are boarded at anchor.

Boarding in the Stream: Vessels are boarded at anchor:

Only if ship is to be at anchor for some time, such as waiting etc.

Or upon special request by the ship's Agent.

Effective July 1st, 1973, Radio Pratique as a method of qua clearance was discontinued at all ports under control of the States. Changes in regulations, policies, and procedures con Maritime Public Health Clearance has been promulgated.

Vessels Subject to Routine Inspection: Only vessels in the fo categories will be subject to on board Public Health Inspectio arrival at ports under control of the United States:

A. Vessels which, during the 15 days prior to arrival in the States, or since the last U.S. port (whichever period is s have or have had on board among passengers or crew the following conditions or illness signs or symptoms:
   1. Temperature of 100°F (38°C) or greater (a) which p for 2 days or more; or (b) which was accompanied or b by any one or all of the following: rash, jaundice, g swelling; *or*
   2. Diarrhoea severe enough to interfere with work o activity; *or*
   3. On board occurrence of death, regardless of the s symptoms above.

B. Vessels which have been in plague infected country in the prior to arrival in the United States.

Procedures: Vessels in any of the categories A or B above will be granted Provisional Pratique and boarded upon arrival for inspection. In addition, vessels boarded for quality control may be boarded upon or subsequent to arrival. IN ACCORDANCE WITH REGULATIONS YOU MUST INFORM THE QUARANTINE STATION, THROUGH YOUR VESSEL AGENT, AT OR NEAREST THE INTENDED PORT OF YOUR VESSEL'S FIRST ARRIVAL IN THE UNITED STATES OF THE OCCURRENCE OF ILLNESS AS SPECIFIED IN A ABOVE. Based on information you provide your Agent, or information your Agent already possesses regarding your vessel's itinerary, your Agent will notify the Quarantine Station if your itinerary included a plague infected country.

ARRIVING VESSELS NO LONGER NEED TO COMPLETE A MARITIME PUBLIC HEALTH DECLARATION UNLESS BOARDED FOR INSPECTION AS DESCRIBED ABOVE. THE BOARDING INSPECTOR WILL PROVIDE THE DECLARATION.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Station KOU Marine Operator, San Pedro.

Channel 1 — ship transmit on 2009 kHz
ship receive on 2566 kHz
Channel 4 — ship transmit on 2126 kHz
ship receive on 2522 kHz

Station KOU also monitors Channel 16 (156.8 MHz) and Channel 26 (157.3 MHz) for distress, safety and calling.

Hours of report 0805, 2005 PST. Operator gives notice 5 minutes prior to each report. No ship traffic is handled during report period.

TUGS: Tugs will meet vessel inside breakwater prior reaching inner harbour area. Pilot and tugs are in communication.

RADAR/VHF: Radar service provided to vessels only if Pilot aboard, in which case radar advisory information will be fed from shore-based radar at Pilot Station and Pier J.

Use	*Channel*	*Frequency* (MHz)
Distress, Safety and Calling	16	156.80
Safety, S.A.R.	6	156.30
Bridge to Bridge	13	156.65
Marine Exchange VTIS	14	156.70
Marine Exchange Non-VTIS	12	156.60
Long Beach Pilots, KMA 372	12	156.60
Los Angeles Pilots, KEB 260	73	156.675
U.S. Navy, Control No. 2	12	156.60
Harbour tugs, primary	77	156.875
Harbour tugs, secondary	65A	156.275
San Pedro Marine Operator	24	157.20
San Pedro Marine Operator	26	157.30

Note: The Marine Operator does not guard Channel 16.

Channel 77 – Pilot/Tug channel: This channel is restricted to communications by a harbour pilot and support personnel in the movement and docking of ships. The use by commercial and recreational boat users is *in strict violation* of FCC rules. The loss of communications between a pilot and his assisting tugs due to interference by unauthorised users could result in a serious catastrophe within a harbour.

Channels 12, 14, 65A – Port Operations channels: Messages are restricted by FCC Rules to "the operational handling, movement and safety of ships and, in emergency, to the safety of persons." Other use is a violation of FCC rules.

Channel 13 – Navigational Bridge to Bridge channel: Use of this channel is restricted by FCC rules to navigational communications, such as meeting and passing arrangements, and vessel traffic services. No shore-based of this channel is permitted in this harbour area except Marine Exchange VTIS and the Cerritos Channel lift bridges.

Vessel Traffic Information Service: Upon entering the precautionary area, vessels are encouraged to contact the Marine Exchange on VHF Channel 13 (Call Sign KGW-299) to ascertain what vessel traffic may be expected.

BERTHING: No requirements as to time of entry providing berthing arrangements have been made with Port Authority. Assignments classified as follows:

Preferential Assignments. Secondary Assignments, Subordinate Right granted for use of Preferential Assigned Berth. Temporary Assignment – temporary permission granted to use certain berth.

Note: All berth assignments shall be held by Assignee subject provisions of Port of Long Beach Tariff as to charges, rates, rules and regulations applicable thereto, and to all of terms, conditions and provisions contained in such assignment.

Depths/Elevations: Average elevation of wharf decks above mean lower low water datum and design depth of water alongside berths below mean lower low water datum. (Design Depths are subject to change. Consult Pilot Station for latest information).

	Berth	*Elevation* (ft.)	*Design Depth* (ft.)
Pier B:			
	B76	19.0	40
	B77	19.0	40
	B78	19.0	40
	B82	14.6	38
	B83	14.8	38
	B84	16.6	52
	B85	16.8	52
	B86	17.0	52
Pier C:			
	C60	15.0	42
	C62	15.0	42
	C69	11.7	40
	C73	—	36
Pier D:			
	D28	10.8	43
	D29	11.0	43
	D30	11.0	43
	D31	12.2	43
	D32	14.0	36
	D33	14.1	36
	D34	13.9	36
	D43	13.0	40
	D44	13.0	40
	D46	12.0	36
	D48	17.1	36
	D49	17.1	36
	D50	17.6	36
	D52	10.6	36
	D53	10.7	36
	D54	11.4	36
Pier E:			
	E12	22.2	32
	E13	22.0	32
	E16	10.7	21
	E17	19.0	32
	E18	18.7	36
	E20	18.0	32
	E21	18.1	32
	E22	18.8	32
	E23	11.1	32
	E24	11.3	35 (Ro-Ro)
	E25	17.6	35
	E26	17.4	35
	E27	13.0	14 (Ro-Ro)
Pier F:			
	F1	25.3	30
	F2	25.3	30
	F3	22.2	30
	F4	22.3	30
	F6	14.9	50
	F8	15.0	50
	F10	15.0	50
	F201	16.0	32
	F204	18.4	36
	F205	18.5	36
	F206	18.4	32
	F207	18.5	32
	F208	19.0	40
	F209	19.1	40
	F210	19.1	40
	F211	19.2	40
Pier G:			
	G212	18.6	50
	G214	18.4	37
	G227	15.5	42
	G228	15.5	42
	G229	15.4	42
	G230	15.4	42
Pier J:			
	J232	16.0	36
	J233	15.9	36
	J234	15.9	42
	J242	14.9	36
	J243	15.8	42
	J244	15.9	42
	J245	15.9	36
	J246	15.8	36
	J247	15.8	36
	J266	14.9	45
	J268	14.9	45
	J270	14.9	45

GENERAL CARGO FACILITIES:

Berth F201:
Terminal Operator: Port of Long Beach.
Cargoes Handled: Standby berth.
Length of Berth: 600 ft. (183 m.)
Wharf Height: 16 ft. (4.9 m.)
Wharf Area: 18,000 sq.ft. (1,673 sq.m.)
Apron Width: 30 ft. (8.1 m.)
Open Storage Area: 12,000 sq.ft. (1,115 sq.m.)
Design Depth of Water: 32 ft. (9.8 m.)
Special Equipment/Facilities: None.

Berth F208:
Terminal Operator: MCC – Lucky Cement.
Cargoes Handled: Cement.
Total Terminal Area: 5.7 acres (2.3 ha.)
Length of Berth: 600 ft. (183 m.)
Wharf Height: 19.1 ft. (5.8 m.)
Wharf Area: 24,000 sq.ft. (2,044 sq.m.)
Apron Width: 40 ft. (12.2 m.)
Loading Platform Area: 14,000 sq.ft. (1,300 sq.m.)
Design Depth of Water: 40 ft. (12.2 m.)
Special Equipment/Facilities: Cement storage facility. Kovako-B.V. vacuum discharge system. Unloading capacity 800 t.p.h. Covered storage 50,000 sq.ft., 58,000 tons capacity.

Berths E12, E13:

Terminal Operator:	Chiquita Brands, Inc.
Cargoes Handled:	Bananas.
Total Terminal Area:	20.4 acres (8.3 ha.)
Length of Berths:	2,696 ft. (821 m.)
Wharf Height:	18.7 ft. – 22.2 ft. (5.7 m. – 6.8 m.)
Wharf Area:	108,462 sq.ft. (10,076 sq.m.)
Apron Width:	45 ft. – 200 ft. (13.7 m. – 61 m.)
Open Storage Area:	186,325 sq.ft. (17,310 sq.m.)
Loading Platform Area:	12,000 sq.ft. (1,115 sq.m.)
Design Depth of Water:	32 ft. – 36 ft. (9.7 m. – 11 m.)
Transit Shed Area:	180,000 sq.ft. (16,722 sq.m.)
Special Equipment/Facilities:	Mobile cranes, forklifts, Ro/Ro ramp. Heavy lift capability. 3 chilled storage refrigeration chambers.

Berths E17, E18, D28, D29:

Terminal Operator:	California United Terminals.
Cargoes Handled:	Breakbulk general.
Total Terminal Area:	30 acres (12.1 ha.)
Length of Berths:	2,190 ft. (688 m.)
Wharf Height:	10.5 ft. – 18.5 ft. (3.2 m. – 5.6 m.)
Wharf Area:	126,000 sq.ft. (11,705 sq.m.)
Apron Width:	45 ft. – 130 ft. (13.7 m. – 39.6 m.)
Open Storage Area:	288,600 sq.ft. (26,811 sq.m.)
Loading Platform Area:	9,000 sq.ft. (836 sq.m.)
Design Depth of Water:	36 ft. – 43 ft. (11 m. – 13.1 m.)
Transit Shed Area:	96,000 sq.ft. (8,922 sq.m.)
Special Equipment/Facilities:	Stevedoring equipment. Access for rail to heavy lift berths. Ro/Ro ramp.

Berth T122:

Terminal Operator:	Weyerhaeuser Company† Fremont Forest Products‡
Cargoes Handled:	Lumber and lumber products.
Total Terminal Area:	22.2 acres (9 ha.)†
Length of Berth:	600 ft. (183 m.)
Wharf Height:	22.9 ft. (7.0 m.)
Apron Width:	40 ft. (12.2 m.)
Open Storage Area:	210,000 sq.ft. (1,951 sq.m.)‡
Design Depth of Water:	40 ft. (12.2 m.)
Transit Shed Area:	3 dry storage sheds total 15,000 sq. ft. (1,394 sq.m.)‡
Special Equipment/Facilities:	150 ft. notched wharf to accommodate barges and lumber handling equipment. Notch height – 12.7 ft. (3.9 m.) Weyerhaeuser storage located at Berths No. T115 – T116.

Berths F204, F205:

Terminal Operator:	Cooper/T. Smith.
Cargoes Handled:	Steel products, plywood and lumber.
Total Terminal Area:	19.7 acres (8 ha.)
Length of Berths:	1,265 ft. (386 m.)
Wharf Height:	18.5 ft. (5.6 m.)
Wharf Area:	130,000 sq.ft. (12,077 sq.m.)
Apron Width:	50 ft. – 150 ft. (15.2 m. – 45.7 m.)
Open Storage Area:	673,847 sq.ft. (62,600 sq.m.)
Loading Platform Area:	9,000 sq.ft. (836 sq.m.)
Design Depth of Water:	36 ft. (11 m.)
Transit Shed Area:	180,000 sq.ft. (16,722 sq.m.)
Special Equipment/Facilities:	Recyclable steel facility. Terminal services.

Berths F206, F207:

Terminal Operator:	Crescent Terminal, Inc. (SSA).
Cargoes Handled:	Steel products, plywood and lumber.
Total Terminal Area:	22 acres (8.9 ha.)
Length of Berths:	1,200 ft. (366 m.)
Wharf Height:	18.5 ft. (5.6 m.)
Wharf Area:	57,500 sq.ft. (5,341 sq.m.)
Apron Width:	48 ft. (14.6 m.)
Open Storage Area:	530,000 sq.ft. (49,237 sq.m.)
Loading Platform Area:	13,800 sq.ft. (1,288 sq.m.)
Design Depth of Water:	32 ft. (9.8 m.)
Transit Shed Area:	190,000 sq.ft. (17,651 sq.m.)
Special Equipment/Facilities:	Stevedoring equipment.

Berths D50, D52, D53, D54:

Terminal Operator:	Forest Terminals Corp.
Cargoes Handled:	Newsprint.
Total Terminal Area:	13.8 acres
Length of Berths:	4 wharfs, 2,220 ft. (677 m.)
Wharf Height:	10.2 ft. – 17.1 ft. (3.1 m. – 5.2 m.)
Wharf Area:	63,645 sq.ft. (5,912 sq.m.)
Apron Width:	30 ft. – 38 ft. (9.1 m. – 11.6 m.)
Open Storage Area:	6.9 acres lumber storage
Loading Platform Area:	9,750 sq.ft. (906 sq.m.)
Design Depth of Water:	36 ft. (11.0 m.)
Transit Shed Area:	494,800 sq.ft. (45,968 sq.m.)
Special Equipment/Facilities:	Specialised ships and barges designed for newsprint vacuum handling, loading and unloading. Vacuum lift truck on dock. Easy access to L.B. Frwy. Minimum time truck loading.

Berths B82, B83:

Terminal Operator:	Toyota Motor Sales, U.S.A.
Cargoes Handled:	Automobiles.
Total Terminal Area:	177 acres.
Length of Berths:	1,300 ft. (396 m.)
Wharf Height:	14.6 ft. (4.5 m.)
Wharf Area:	61,750 sq.ft. (5,737 sq.m.)
Apron Width:	95 ft. (30 m.)
Open Storage Area:	2,730,000 sq.ft. (253,617 sq.m.) 2,100,000 sq.ft. (195,090 sq.m.)
Design Depth of Water:	38 ft. (11.6 m.)
Special Equipment/Facilities:	Toyota Motor Sales, U.S.A. – off and processing buildings, body shop, car wash, truck bed installation building.

Berth T117 – T118:

Terminal Operator:	To be named.
Cargoes Handled:	Recyclable steel for export.
Total Terminal Area:	18.9 acres (7.6 ha.)
Length of Berth:	750 ft. (229 m.)
Wharf Height:	22 ft. (6.7 m.)
Apron Width:	65 ft. (19.8 m.)
Open Storage Area:	590,000 sq.ft. (54,813 sq.m.)
Loading Platform Area:	65 ft. (19.8 m.)
Design Depth of Water:	36 ft. (11 m.)
Transit Sheds:	None
Special Equipment:	None.

CONTAINER FACILITIES:

Berths F6, F8, F10:

Terminal Operator:	Long Beach Container Terminal
Total Terminal Area:	95 acres (38.4 ha.)
Length of Berths:	2,700 ft. (823 m.)
Wharf Height:	15 ft. (4.6 m.)
Crane Truck Gauge:	100 ft. (30.4 m.)
Clear Lift/Above Water:	105 ft. (32 m.)
Boom Outreach:	137 ft. (41.8 m.)
Backreach:	50 ft. (15.2 m.)
Open Storage Area:	3,216,000 sq.ft. (298,766 sq.m.)
Design Depth of Water:	50 ft. (15.2 m.)
Cargoes Handled:	General cargo in containers.
Special Equipment/Facilities:	Ground and chassis operation. 5 travelling container cranes of 40 long ton capacity; 45 tons wit spreader. 7 transtainers, 4 high stacking. 10,000 TEU ground capacity, incl. 340 reefer outlets 2,700 FEU chassis slots, 504 FE chassis stacked vertically.

Berths E24 – E26:

Terminal Operator:	California United Terminals.
Total Terminal Area:	75 acres (38.8 ha.)
Length of Berths:	1,950 ft. (594 m.)
Wharf Height:	11.3 ft. – 18.4 ft. (3.4 m. – 5.6 m
Crane Truck Gauge:	50 ft. (15.2 m.)
Clear Lift/Above Water:	98 ft. (29.9 m.)
Boom Outreach:	141 ft. (43 m.)
Backreach:	50 ft. (15.2 m.)
Open Storage Area:	2,520,000 sq.ft. (234,108 sq.m
Design Depth of Water:	41 ft. (12.5 m.)
Cargoes Handled:	General cargo in containers.
Special Equipment/Facilities:	2 Ro/Ro ramps, one stern ram 5×40 ton travelling container c transtainers, top handlers, side handlers. Container storage sp for 14,400 TEU ground capaci 2,500 FEU chassis slots, 360 outlets. 11-lane main gate and 6 scales. Rail spurs.

Berths G227, G228, G229, G230:

Terminal Operator:	Sea-Land Service, Inc.
Total Terminal Area:	95 acres (40.4 ha.)
Length of Berths:	2,550 ft. (778 m.)
Wharf Height:	15.6 ft. (4.8 m.)
Crane Truck Gauge:	100 ft. (30.4 m.)
Clear Lift/Above Water:	106 ft. (32.3 m.)
Boom Outreach:	115 ft. – 127 ft. (35 m. – 38.7
Backreach:	60 ft. (18.3 m.)
Open Storage Area:	5,317,200 sq.ft. (493,619 sq.
Design Depth of Water:	42 ft. – 44 ft. (12.8 m. – 13.4
Cargoes Handled:	General cargo in containers
Special Equipment/Facilities:	Ground and chassis operatio 6×30 ton travelling container cranes. Space for 10,230 TEU conta 2,550 grounded, 5,900 chass including 482 reefer chassis Container freight station sep from terminal with 71,150 sq (6,610 sq.m.). 4 transtainers

Berths J232, J233, J234:

Terminal Operator: International Transportation Services, Inc.
Total Terminal Area: 123 acres (49.8 ha.)
Length of Berths: 2,300 ft. (701 m.)
Wharf Height: 16 ft. (4.9 m.)
Crane Track Gauge: 50 ft. – 100 ft. (15.2 m. – 30.4 m.)
Clear Lift/Above Water: 92 ft. – 115 ft. (29.3 m. – 35.1 m.)
Boom Outreach: 115 ft. – 145 ft. (35 m. – 44.2 m.)
Backreach: 35 ft. – 45 ft. (10.7 m. – 13.7 m.)
Open Storage Area: 2,980,460 sq.ft. (276,885 sq.m.)
Design Depth of Water: 36 ft. – 42 ft. (11 m. – 12.8 m.)
Cargoes Handled: General cargo in containers.
Special Equipment/Facilities: Ground and chassis operation. 3×30 and 4×40 long ton container cranes. 7×40 long ton and 6×30 long ton capacity transtainers. Space for storing 12,800 TEU containers on ground, including 384 reefer outlets. 4,000 TEU chassis slots. Container Freight Station with 70,000 sq.ft. (6,505 sq.m.).

Berths J245 – J247:

Terminal Operator: Pacific Container Terminal.
Total Terminal Area: 110 acres (44.5 ha.)
Length of Berths: 3,300 ft. (1,006 m.)
Wharf Height: 15.9 ft. (4.8 m.)
Crane Track Gauge: 50 ft. (15.2 m.)
Clear Lift/Above Water: 91 ft. – 106 ft. (27.7 m. - 32.3 m.)
Boom Outreach: 115 ft. – 125 ft. (35 m. – 38 m.)
Backreach: 50 ft. (15.2 m.)
Open Storage Area: 2,500,000 sq.ft. (232,250 sq.m.)
Design Depth of Water: 36.4 ft. – 42 ft. (11 m. – 12.8 m.)
Cargoes Handled: General cargo in containers.
Special Equipment/Facilities: Grounded and chassis operation. 6 travelling container cranes with 40 ton capacity, 40 ton transtainers. Athwartship and overweight capabilities. Space for storing 12,000 TEU containers. Complete reefer container services and storage with 222 reefer outlets.

Berths J266 – J270:

Terminal Operator: Maersk Pacific, Ltd.
Total Terminal Area: 107 acres (43.3 ha.)
Length of Berths: 2,711 ft. (826 m.)
Wharf Height: 15 ft. (4.6 m.)
Crane Track Gauge: 50 ft. & 100 ft. (15.2 m. & 30.4 m.)
Clear Lift/Above Water: 106 ft. (32.3 m.)
Boom Outreach: 115 ft. – 125 ft. (35 m. – 38 m.)
Backreach: 50 ft. (15.2 m.)
Open Storage Area: 2,787,840 sq.ft. (259,005 sq.m.)
Design Depth of Water: 43 ft. (13.7 m.)
Cargoes Handled: General cargo in containers.
Special Equipment/Facilities: Grounded and chassis operation. 2×50 ton and 4×40 ton ship to shore cranes. 3×40 ton rubber tyred gantry cranes. 4,147 TEU wheeled slots for containers, 388 of which are dual voltage 220/440 V. On-dock double-stacked rail yard.

Berths C60 – C62:

Terminal Operator: Hanjin Shipping Company.
Total Terminal Area: 58.9 acres (23.8 ha.)
Length of Berths: 1,804 ft. (550 m.)
Wharf Height: 15.0 ft. (4.5 m.)
Crane Track Gauge: 100 ft. (30.4 m.)
Clear Lift/Above Water: 115 ft. (35 m.)
Boom Outreach: 155 ft. (47.2 m.)
Backreach: 50 ft. (15.2 m.)
Open Storage Area: 2,477,689 sq.ft. (231,560 sq.m.)
Design Depth of Water: 45 ft. (13.7 m.)
Cargo Handled: General cargo in containers.
Special Equipment/Facilities: 3×40 long ton container gantry cranes, 50 tons with cargo beam. 4,000 TEU grounded capacity. 1,384×40 ft. chassis slots, 2,014 TEU stacked and 200 spaces for reefer boxes. Additional 3.2 acres of off-dock container yard.

DRY BULK FACILITIES:

Berths D32, D33:

Terminal Operator: Pacific Coast Cement Corp.
Cargoes Handled: Bulk cement.
Total Terminal Area: 2 acres (0.8 ha.)
Length of Berths: 1,100 ft. (335 m.)
Wharf Height: 13.8 ft. (4.2 m.)
Open Storage Area: 87,525 sq.ft. (8,131 sq.m.)
Design Depth of Water: 36 ft. (11 m.)
Special Facilities/Equipment: Silo capacity 50,000 tons. Screw-type unloader capacity 600-800 t.p.h., unloads to conveyor system direct to silos. Highest elevation vertical screw 70 ft., lowest elevation vertical screw 38 ft. Max. reach 94 ft. from face of wharf (concrete), 91.5 ft. from pierhead line. Vertical clearance under boom at MHW 89 ft., under vertical screw at MHW 20 ft. Truck loading spouts.

Berth D46:

Terminal Operator: Domtar Gypsum.
Cargoes Handled: Gypsum.
Total Terminal Area: 10 acres (4 ha.)
Length of Berth: 640 ft. (195 m.)
Wharf Height: 17.2 ft. (5.2 m.)
Design Depth of Water: 40 ft. (12.2 m.)

Berth B82:

Terminal Operator: National Gypsum Co.
Cargoes Handled: Bulk gypsum.
Total Terminal Area: 19.9 acres (8 ha.)
Length of Berth: 650 ft. (198 m.)
Wharf Height: 14.6 ft. (4.5 m.)
Open Storage Area: 65,340 sq.ft. (6,076 sq.m.)
Design Depth of Water: 38 ft. (11.6 m.)
Special Facilities/Equipment: Adjustable, elevated receiving hopper served by an elevated electric belt conveyor system extending to a 40,000 ton capacity storage building. 800-900 t.p.h. capacity.

Berth F208:

Terminal Operator: MCC-Lucky Cement Co.
Cargoes Handled: Bulk cement.
Total Terminal Area: 4.2 acres (1.7 ha.)
Length of Berth: 520 ft. (158 m.)
Wharf Height: 18.9 ft. (5.8 m.)
Open Storage Area: None.
Design Depth of Water: 40 ft. (12.2 m.)
Special Facilities/Equipment: Kovako BV. Vacuum discharge system. Maximum outreach 45 m. Unloading capacity 800 t.p.h. Covered storage 50,000 sq.ft.; 58,000 ton capacity.

Berth F210:

Terminal Operator: Morton Salt
Cargoes Handled: Bulk salt.
Total Terminal Area: 5.1 acres (2.1 ha.)
Length of Berth: 1,100 ft. (335 m.)
Wharf Height: 19.0 ft. (5.8 m.)
Open Storage Area: 117,740 sq.ft. (10,938 sq.m.)
Design Depth of Water: 40 ft. (12.2 m.)
Special Facilities/Equipment: Movable inclined elevated electric belt conveyor system with receiving hopper extending from wharf to stock pile area. Packaging plant adjacent.

Berth 211:

Terminal Operator: Koch Carbon Co.
Cargoes Handled: Petroleum coke.
Total Terminal Area: 12.8 acres (5.2 ha.)
Length of Berth: 1,100 ft. (335 m.)
Wharf Height: 19.3 ft. (5.9 m.)
Open Storage Area: 291,000 sq.ft. (27,000 sq.m.)
Design Depth of Water: 40 ft. (12.2 m.)
Special Facilities/Equipment: Receipt, storage, blending and vessel loading of petroleum coke.

Berths G212, G213, G214, G215:

Terminal Operator: Metropolitan Stevedore Co.
Cargoes Handled: Bulk petroleum coke, coal, potash, borax, soda ash and prilled sulphur.
Total Terminal Area: 22.9 acres (9.3 ha.)
Length of Berths: 2,110 ft. (643 m.)
Wharf Height: 18.5 ft. – 18.8 ft. (5.6 m. – 5.7 m.)
Open Storage Area: 782,000 sq.ft. (6,691 sq.m.)
Design Depth of Water: 50 ft. (15.2 m.)
Special Facilities/Equipment: Two electric, travelling bulk shiploaders.

Loader No. 1:
Outreach: 56 ft. (17.7 m.)
Clear Height: 47.7 ft. (14.5 m.)
Travelling Distance: 1,800 ft. (548.6 m.)
Designed Capacity: 3,500 t.p.h.
Actual: 1,500-2,000 t.p.h.
Working hours: 16 hrs./day.

Loader No. 2:
Outreach: 79 ft. (24.1 m.)
Clear Height: 64 ft. (19.5 m.)
Travelling Distance: 700 ft. (213.4 m.)
Designed Capacity: 5,000 t.p.h.
Actual: 2,500-3,000 t.p.h.
Working hours: 16 hrs./day.

Rail Facilities: 100 car unit trains can be accommodated while waiting movement to dump sites. One rotary and 3 bottom-dump systems. Bulk materials are handled by 48 in. (1.2 m.) and 72 in. (1.9 m.) belt conveyor systems extended to shiploader through tunnel from storage facilities.

Storage Capacities: Covered storage: 575,000 tons. Silo storage (Prilled sulphur): 30,000 tons (2×15,000 ton silos).

TANKERS:

Berths D30, D31, D32:

Terminal Operator:	Baker Commodities Inc.
Cargoes Handled:	Tallow, vegetable oils (coconut oil, palm oil, cotton seed oil).
Total Terminal Area:	1.2 acres (0.5 ha.)
Length of Berths:	1,480 ft. (451 m.)
Wharf Height:	19.5 ft. (5.9 m.)
Design Depth of Water:	43 ft. (13 m.)
Special Facilities/Equipment:	2×6 in. pipelines from Wharf D-30 to storage tanks. Storage capacity 6.7 million gallons. Also 3×10 in. pipelines from Berth D-32 to storage tanks.

Berths C73, C74:

Terminal Operator:	Powerline Oil Company.
Cargoes Handled:	Crude oil and fuel oil.
Total Terminal Area:	2.8 acres (1.2 ha.)
Length of Berths:	830 ft. (253 m.)
Wharf Height:	11.7 ft. (3.6 m.)
Design Depth of Water:	37 ft. (11.3 m.)
Special Facilities/Equipment:	Storage capacity: 570,000 bbls.

Berths B76 – B80:

Terminal Operator:	ARCO Terminal Services.
Cargoes Handled:	Petroleum products: Gasoline, blending stocks, MTBE, diesel, naphtha jet fuel, nonenes tetramers, fuel oils, carbon black, crude oil.
Total Terminal Area:	19.9 acres (8.1 ha.)
Length of Berths:	2,192 ft. (668 m.)
Wharf Height:	14.4 ft. (4.4 m.)
Design Depth of Water:	46 ft. (14 m.)
Special Facilities/Equipment:	Capacity for storage: 1,800,000 bbls. Terminal has several pipeline connections to other companies. Loading arms on dock are 8 in. Chicksan and are capable of loading rates of 10,000 – 15,000 bbls./hr. Three vessels can be loaded or discharged simultaneously.

Berths B82, B83:	Petro-Diamond.
Terminal Operator:	Gasoline, gasoline blend stocks,
Cargoes Handled:	diesel, toluene, MTBE and lube oil.
Total Terminal Area:	5.7 acres (2.3 ha.)
Length of Berths:	1,060 ft. (323 m.)
Wharf Height:	14.4 ft. (4.4 m.)
Design Depth of Water:	38 ft. (11.6 m.)
Special Facilities/Equipment:	Terminal has pipeline connections which allow petroleum products to be shipped to most L.A. Basin Refiners and common carrier pipelines. 1×8 in. dock hose connecting into one of 2×500 ft., 12 in. dock lines capable of receiving up to 7,500 bbls./hr. Truck rack at the Terminal is capable of loading 100 trucks per 24 hour period. Permits are available for DSP and bonded storage. Capacity for petroleum products: 410,000 bbls.

Berths B84, B85, B86, B87:

Terminal Operator:	Texaco Refining and Marketing.
Cargoes Handled:	Crude oil, petroleum products, bunker fuel.
Total Terminal Area:	10.7 acres (4.3 ha.)
Length of Berths:	1,980 ft. (604 m.)
Wharf Height:	16.8 ft. (5.1 m.)
Design Depth of Water:	52 ft. (15.8 m.)
Special Facilities/Equipment:	Discharge capacity 32,000 bbls./hr.; 24 in. pipeline to storage and tank farm. Storage capacity: 245,000 bbls.

Berth S101:

Terminal Operator:	Dow Chemical Co.
Cargoes Handled:	Miscellaneous bulk liquid chemicals.
Total Terminal Area:	10 acres (4 ha.)
Length of Berth:	700 ft. (213.4 m.)
Wharf Height:	15.5 ft. (4.7 m.)
Design Depth of Water:	36 ft. (11 m.)
Special Facilities/Equipment:	Dedicated pump and piping systems to transfer products to and from ships, barges, railcars and tank trucks. Storage capacity: 15 million gallons.

Berth T121:

Terminal Operator:	ARCO Western Pipeline.
Cargoes Handled:	Crude oil and petroleum produc
Total Terminal Area:	11.7 acres (4.7 ha.)
Length of Berth:	1,250 ft. (381 m.)
Wharf Height:	20 ft. (6.1 m.)
Design Depth of Water:	76 ft. (22.4 m.)
Special Facilities/Equipment:	4×16 in. diameter articulated cru unloading arms and 1×8 in. diameter articulated bunker/dies loading arm; 275 p.s.i. max. wor pressure; designed to accommo tankers from 50,000 to 265,000 d.w.t. tankers; arms are FMC Chicksan with hydraulic coupling Storage tanks available at ARCO facilities in Carson and the inner harbour via 42 in. and 24 in. pipelines.

Berths G211A:

Terminal Operator:	Chemoil Terminal.
Cargoes Handled:	Petroleum products and bunker
Total Terminal Area:	6.2 acres (2.5 ha.)
Length of Berth:	1,630 ft. (496 m.)
Wharf Height:	19.1 ft. (5.8 m.)
Design Depth of Water:	40 ft. (12.2 m.)
Special Facilities/Equipment:	Storage capacity: 425,000 bbls. Pipeline system to handle ships, barges, trucks and railcars to Pie F, J, G, E and D. Pipeline connection to Carson Tank Farm which supplies petroleum produc to most L.A. Basin refiners and terminals.

Berth J242:	Westway Trading Corp.
Terminal Operator:	Miscellaneous bulk liquid chemic
Cargoes Handled:	Vegetable oils and tallow.
	4.5 acres (2.2 ha.)
Total Terminal Area:	700 ft. (213.4 m.)
Length of Berth:	15.0 ft. (4.6 m.)
Wharf Height:	36 ft. (11.0 m.)
Design Depth of Water:	Pumping and pipeline system
Special Facilities/Equipment:	designed to handle product from barges, ships rail cars and truck Heavy duty pumps to handle a variety of bulk liquids. Storage capacity: 5.2 million gallons.

The following is part of a letter sent by the Captain of the Port to a operator:

The safety of the port and the VLCC tankers using the harbo bunkering and provisioning is of paramount concern to the Coast G Consequently the following guidelines have been established for al vessels 200,000 d.w.t. and larger when utilising the Outer Harbour (i of the breakwater) of the ports of Los Angeles/Long Beach:

(a) Vessels may enter or depart the harbour areas insid breakwater only during daylight if over 56 ft. draft.
(b) Minimum visibility of 1 mile is established for vessel move
(c) Adequate tugboat assistance shall be provided when pa through the breakwater entrances upon entering or departur when navigating inside the breakwater to and from ancho
(d) A qualified Pilot must be onboard when entering or depart harbour. One way traffic is to be maintained during the V transit through the breakwater entrance.
(e) Vessel must have a 10% draft clearance under the keel crossing either the Los Angeles or Long Beach entrance.
(f) No "dead ship" status will be permitted without prior appr the Captain of the Port.
(g) No vessel with a beam in excess of 200 ft. shall enter harbour without the permission of the Captain of the Port.

CRANES: Barge cranes available capacity 45 tons – 275 tons. Navy floating crane capacity 385 tons available for hire.

BRIDGES: No restrictions into Port of Long Beach. The Gerald De Bridge over Back Channel has vertical clearance of 155 ft. (Channel which connects Long Beach through Back Channel to Los Angeles has 2 bridges which must be opened for passage of v *Signal for Opening:* 3 long blasts on horn or whistle. During in weather, call through a megaphone or make a loud and distinct on a bell.

MEDICAL: Advance notice preferable. Adequate hospital and facilities available for providing necessary or emergency car information available, Public Health Department may, if required certain information prior to granting Free Pratique for inoc Vaccination/Fever Certificates.

DENSITY: Local water density 1.025 grams per millilitre or water at all stages of tide.

FRESH WATER: Potable fresh water available all Municipa through 2 in. lines. Rental charge for use of each 50 ft. length wa when furnished.

FUEL: All grades (viscosities) of bunker fuels available in any through pipelines at most Municipal berths, and by barge at a at berths if desired. Notify quantity and type desired to local S Company or Agent.

FIRE PRECAUTIONS: 2 fire boats and 1 fire station; in addition City fire service available.

Special fire precautions required at all berths handling petroleum products or dangerous cargoes. In addition to all applicable provisions of Long Beach Municipal Code, flammable and combustible liquids and flammable gases shall be handled and stored at Marine Petroleum Terminals in accordance with minimum fire safety requirements promulgated by Chief, Department of Fire, City of Long Beach.

CONSULS:

Country	*Status*	*City*	*Telephone*
Argentina	Consul General	Los Angeles	(213) 943-9155
Australia	Consul General	Los Angeles	(310) 229-4800
Austria	Consul General	Los Angeles	(310) 444-9310
Belgium	Consul General	Los Angeles	(213) 857-1244
Botswana	Consul	Los Angeles	(213) 626-8484
Brazil	Consul General	Beverly Hills	(213) 651-2664
Burkina Faso	Consul General	Los Angeles	(310) 575-5555
Canada	Dty. Con. General	Los Angeles	(213) 346-2700
Chile	Consul General	Century City	(310) 785-0047
China	Consul General	Los Angeles	(213) 380-3105
Colombia	Consul General	Los Angeles	(213) 382-1136 (213) 382-1137
Costa Rica	Consul General	Los Angeles	(213) 380-7915
Cyprus	Consul General	Los Angeles	(213) 397-0771
Denmark	Consul General	Los Angeles	(310) 443-2090
Dominican Rep.	Consul Emeritus	Culver City	(213) 870-5756
Ecuador	Consul General	Los Angeles	(213) 628-3014
El Salvador	Consul General	Los Angeles	(213) 383-5776
Estonia	Consul	Canoga Park	(818) 884-5850
Finland	Consul General	Los Angeles	(310) 203-9903
France	Consul General	Los Angeles	(310) 235-3200
Gambia	Consul General	Los Angeles	(310) 476-0532
Germany	Consul General	Los Angeles	(213) 930-2703
Greece	Consul General	Los Angeles	(310) 826-5555
Guatemala	Consul General Vice Consul	Los Angeles Los Angeles	(213) 365-9251 (213) 383-6938
Guyana	Consul	Inglewood	(213) 222-0899
Honduras	Consul General	Los Angeles	(213) 383-9244
Hungary	Consul General	Los Angeles	(310) 473-9344
Iceland	Consul General	Los Angeles	(310) 474-8485
Indonesia	Consul General	Los Angeles	(213) 383-5126
Israel	Consul General	Los Angeles	(213) 852-5503
Italy	Consul General	Los Angeles	(310) 820-0622
Jamaica	Consul	Los Angeles	(310) 559-3822
Japan	Consul General	Los Angeles	(213) 617-6700
Kenya	Consul General	Beverly Hills	(310) 274-6635
Korea	Dty. Con. General	Los Angeles	(213) 385-9300
Lebanon	Consul General	Hollywood	(213) 467-1253
Liberia	Consul General	Malibu	(310) 457-1967
Lithuania	Consul General	Westlake Village	(805) 496-5324
Luxembourg	Honorary Consul	Malibu	(310) 456-8547
Malawi	Consul	Vista	(619) 598-1836
Malaysia	Consul General	Los Angeles	(213) 892-1238
Marshall Isl.	Consul General	Newport Beach	(714) 474-0331
Mauritius		Los Angeles	(310) 557-2009
Mexico	Consul General	Los Angeles	(213) 351-6811
Monaco	Consul General	Toluca Lake	(818) 952-8800
Morocco	Consul General	San Marino	(818) 570-9307
Netherlands	Consul General	Los Angeles	(310) 268-1598
New Zealand	Consul General	Los Angeles	(310) 207-1605
Nicaragua	Consul General	Los Angeles	(213) 252-1178
Norway	Consul General	San Francisco	(415) 986-0766
Oman	Honorary Consul	Los Angeles	(310) 443-4175
Pakistan	Consul General	Los Angeles	(310) 441-5114
Panama		Beverly Hills	(310) 859-7583
Paraguay	Consul General	Huntington Beach	(714) 536-2259
Peru	Consul General	Los Angeles	(213) 383-9895
Philippines	Consul General	Los Angeles	(213) 387-5321
Poland	Consul General	Los Angeles	(310) 442-8500
Portugal	Consul	Los Angeles	(310) 277-1491
Saudi Arabia	Consul General	Los Angeles	(310) 479-6000
Singapore	Consul General	Newport Beach	(714) 476-2330
South Africa	Consul General	Beverly Hills	(310) 657-9200
Spain	Consul General	Los Angeles	(213) 938-0158
Sri Lanka	Honorary Consul	City Lake View Terrace	(310) 306-5457
Sweden	Consul General	Los Angeles	(310) 441-9233
Switzerland	Consul General	Los Angeles	(310) 575-1145
Thailand	Consul General	Los Angeles	(213) 937-1894
Turkey	Consul General	Los Angeles	(213) 937-0118
United Kingdom	Consul General	Los Angeles	(310) 477-3322
Uruguay	Consul General	Santa Monica	(310) 394-5777

REPAIRS: Within greater port area facilities to accomplish all types of deck and engine repairs.

DRY DOCKS: Within greater port area one large private commercial dockyard, National Steel with large floating dry docks and repair facilities. Also, 3 large capacity graving docks located at Naval Shipyard available for emergency use by merchant vessels when not occupied by naval vessels.

SURVEYORS:

1. Lloyd's Register (local office), 1328 N. Avalon Blvd., Wilmington, CA 90744, (P.O.Box 575) 90748. Tel: (310) 834 2334.

American Bureau of Shipping, 200 Pine Ave., Suite 503, Long Beach, CA 90802. Tel: (310) 437-6488. Fax: (310) 491-1840.

2. Pacific Cargo Inspection Bureau, Pier A, Berth 4, Long Beach, CA 90802. Tel: 435-7861.

Jacobsen and Associates, Inc., 1324 N. Avalon Blvd., P.O.Box 248, Wilmington, CA 90748. Tel: 834-4553. Fax: 834-3586.

GANGWAY/DECK WATCHMEN: Normally used, but only compulsory when detainees aboard.

OPENING/CLOSING HATCHES: Crew can open or close hatches at sea or at anchor. If closed or opened at dockside, the use of longshoremen compulsory.

CUSTOMS ALLOWANCES: Tobacco, each crew member entitled to 300 cigarettes, 50 cigars and 3 lb. of tobacco or combination of above. If the stay in port is such that additional tobacco is required, Customs will so issue. Wine and/or Spirit, not to exceed 1 quart of alcoholic beverage each adult non-resident. This exemption for alcoholic beverages may be applied to more than one kind but not to an aggregate volume of more than 1 quart for each adult crew member.

Note: Upon arrival of vessel from foreign port, or vessel engaged in foreign trade from a domestic port, sea stores and ship's stores not required for immediate use or consumption on board while vessel in port, and articles acquired abroad by officers and members of crew, for which no permit to land has been issued, shall be placed under seal, unless Customs Officer is of the opinion that circumstances do not require such action.

CARGO GEAR: Employer shall not use ship's cargo handling gear until he has ascertained that vessel has a current and valid Cargo Gear Register and Certificate indicating that cargo gear has been tested, examined and annealed in accordance with requirements of International Labour Organization Convention No. 32.

REPATRIATION: Through U.S. Department of Justice, Immigration and Naturalisation Service, and clearance of personal effects by U.S. Customs.

AIRPORT: Los Angeles International Airport approximately 18 miles from port, and provides regular scheduled and international airline service.

TIME: GMT minus 8 hours. United States observes Daylight Saving Time, from first Sunday in April till last Sunday in October.

POLICE/AMBULANCE/FIRE: Port of Long Beach – Police 435-6711 (routine), 911 (emergency); Fire Department and Paramedics 911; Harbour Security Officers 590-4195.

In an emergency dial 911.

EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard, Captain of the Port, 165 N. Pico Ave., Long Beach, CA 90802. Tel: (310) 980-4444. Fax: (310) 980-4413.

HOLIDAYS: The subject Legal holidays are defined as follows: New Year's Day (1st January); Lincoln's Birthday (12th February); Washington's Birthday (3rd Monday February); Memorial Day (Last Monday May); Independence Day (4th July); Labour Day (1st Monday September); Admission Day (9th September); Columbus Day (2nd Monday October); Veterans' Day (11th November); Thanksgiving Day (4th Thursday November); Christmas Day (25th December).

Notes: (1) Also, every Statewide Election is a holiday.
(2) Also, any other legal holiday that may be proclaimed by State or National authority is a holiday.
(3) When one of the above days falls on Sunday, the following Monday shall be observed as a holiday.

TELEPHONE: Installation of telephone aboard ship at Municipal berths.

SERVICES: All services from tank cleaning to compass and instrument repair available at various locations within greater port area.

STORING: See "Prelims".

1. Vessel can be stored by barge or truck by prior arrangement.
2. No restriction on storing from barge while vessel is discharging or loading except when the vessel is handling hazardous cargo, petroleum products or bunkering.
3. Truck can proceed alongside the berth for the purpose of delivering or receiving stores and chandlery supplies.
4. Forklift trucks may be used on the berth to handle stores with approval of the stevedoring company.
5. Customs Regulation regarding storing: Stores *not in bond* may be taken on board the vessel on an export declaration certified by the Customs' Inspector on duty. Stores *in bond* must be signed off by the bonded warehouse on a vessel supply export document and received on board the vessel by the Customs' Inspector on duty.
6. Riggers employed to assist with storing, stevedores or longshoremen assist with the stores on the wharf but the storing on board vessel is done by the ship's crew.

SHIP SUPPLY SERVICE: See "Los Angeles".

SHORE LEAVE: Crewmen allowed shore leave providing necessary application presented to U.S. Immigration Officer is approved and crewmen's Landing Permit issued (Form 5129). Customs declaration required for articles to be landed by crew members (1 quart of alcoholic beverage with seal broken is allowed).

IDENTIFICATION CARDS: U.S. Department of Justice, Immigration and Naturalization Service Form I-95-A (Form I-94 for passengers) must be completed.

GARBAGE DISPOSAL: Not available. See "Agriculture" before first U.S.A. port (Albany).

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: International Seafarer's Centre, 120 So. Pico Avenue, Long Beach, CA 90802-6247. Tel: (310) 432-7560. Facilities include telephone, postage, shop, pool tables and basketball.

CURRENCY: U.S.Dollar (U.S.$).

DELAYS: Arrival at berths are normally on time as scheduled. However, there are times of inclement weather or lack of cargo at a berth which create a short delay. Shortage of longshoremen can also cause a delay in discharging or loading cargo. No delay experienced in bunkering.

GENERAL: For information regarding various social organisations, call 436-9041. Long Beach Recreation Department, for information.

AUTHORITY: Board of Harbor Commissioners, Port of Long Beach, P.O.Box 570, (925 Harbor Plaza), Long Beach, California 90801-0570. *Tel:* (310) 437-0041, (310) 775-3469 (Los Angeles). *Telex:* 656452. *FAX:* (310) 437-3231. *Cables:* Portobeach. *Contact:* Steven R. Dillenbeck, Executive Director. Don Wylie, Director of Trade and Maritime Services. Hal Hilliard, Marketing Manager.

LONGVIEW, Washington: 46.10 N. 122.55 W.

(See Plan)

DOCUMENTS:

3 Complete Cargo Manifests.
3 Stores Lists.
3 Possessions Lists.
3 Crew Lists on Immigration forms.
Vessel's Documents.
Tonnage Tax Statement.
Quarantine Form completed.

At first port of arrival, ship is boarded and inspected by Customs, Immigration, Public Health and Agriculture officials. At each subsequent port only Customs Agent will board prior to docking.

PILOTAGE: See "General – Pilotage" before first U.S.A. port.

ANCHORAGE: Safe anchorages indicated by Columbia River Pilots.

RESTRICTIONS: None in regard to arrival time or state of tide. Channel depth 40 ft. at mean low water and tidal range varies between 2.5 ft. and 4 ft.

MAX. SIZE: No limitation on length or breadth. Depth alongside 40 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Columbia River Pilots have knowledge of tug positions and other knowledge pertaining to tugs aiding a vessel.

BERTHING: 7 berthing facilities are available at Port Longview, starting adjacent to the Lewis & Clark Bridge and extending upstream for a distance of nearly a mile.

Berths 1 through 4 are located on one continuous wharf 2,155 ft. long. Berths 1, 2 and 3 are equipped to handle general cargo, pelletised feed grains, bulk ores and chemicals. One gantry crane serves Berths 1 and 2 and a 600-ton capacity heavy lift is located at Berth 3. A paved 2.8 acre assembly area fronting Berth 2 is suitable for handling lumber or multi-commodity project shipments. 3 transit sheds and 1 gear locker are located near the three berths.

Berth 4 is used for receiving and shipping grain and is served by a 5 million bushel grain elevator operated by the Port.

Berth 5 is a 515 ft. wharf and is an exporting facility for the shipment of bulk chemicals. It is also available for the loading of logs using ship's gear from the water side of the vessel, and handling barges.

Berths 6 and 7 form a continuous wharf 1,500 ft. long. The ship-side container crane is located at Berth 7. An open cargo handling area of 54 acres is located adjacent to the 2 berths. On the dock is one large transit shed (100,666 sq.ft.). 3 rail tracks are located along the length of the apron. There is a rail spur on the inland side of the transit shed.

Port Longview operates its own facilities and performs all terminal services between ship's tackle and consignees or inland carriers.

In addition to these facilities operated by the Port, there are 9 other berths operated privately in the Longview Port District. Weyerhaeuser Company owns 6 berths and Reynolds Metals Company, International Paper Company and Longview Fibre Company each operate 1 berth apiece. 6 of the 9 berths are used primarily for export while the other 3 are used mainly for receiving raw materials used by the mills.

BULK HANDLING FACILITIES:

Containers: Port Longview's container facility centres around a 30 long ton, electrically operated, rail mounted crane.

The crane has a rated lifting capacity of 30 long tons below the spreader and 37 long tons below the cargo beam. The telescopic spreader can be adjusted to handle 20 ft., 27 ft., 35 ft. and 40 ft. containers. It is designed to handle 20 load/discharge containers per hour.

The boom can be raised and lowered to provide clearance of ship superstructure and is designed for through-leg rapid load-handling.

With an outreach of 124 ft. from the waterside rail and a vertical reach of 110 ft., the crane can service Panamax size vessels.

Utilising a unique "trailer-train" system, a continuous flow of containers can be maintained between storage and staging areas to sustain loading/unloading operations.

A 40-acre area located behind Berth 6 – 7 is for use as a container storage yard.

Containers received from the vessel can be immediately inspected and rerouted either to warehouses for devanning or to rail or truck for ongoing movement. Export containers are staged to the vessel in loading sequence in the adjacent cargo assembly area.

Grain: The Port operates the 5,165,000 bushel capacity grain elevator at the Port of Longview Terminal.

Pellets/Soda Ash/Coke/Fertiliser: Port Longview has three dry bulk shipping facilities. Sugar beet pulp pellets are loaded at Berth No. 1 through a 600 t.p.h. loader.

At Berth 2, a new state-of-the-art loader went into operation in the Summer of 1990 to handle bulk chemicals and minerals at 1,800 t.p.h.

Atlantic Richfield Co. uses a calcined coke storage/loading facility at Berth No. 5 that loads at 900 t.p.h.

Two portable hoppers with belt conveyors are available to handle inbound free flowing dry bulks unloaded by ship's gear or dock Whirley cranes equipped with clams.

Roll-on/Roll-off: A 240 ft. extension to the upstream end of Berth 7 to accommodate Ro/Ro vessels is available at the Port of Longview. 96 ft. of the extension is constructed at a level 8 ft. lower than the remainder of the dock and serves as the loading/unloading area to accommodate a Ro/Ro vessel's stern ramp.

BRIDGES: One bridge crossing Columbia River at Longview has sufficient clearance so as not to present a problem. Clearance 169 ft. – 185 ft. depending on season.

CRANES: 1 electric-powered gantry crane serves Berths 1 and 2 on 550 ft. of track. It is equipped with a 130 ft. boom and has a capacity of 60 tons at a 45 ft. radius.

The 'Columbia Giant', a 600-ton capacity shore-based crane loc at the port, is one of the largest capacity lifting facilities on the Coast. The twin booms of the derrick reach 130 ft. above the dock have a tested lifting capacity of 660 tons. The blocks can be ho separately or in tandem. The lifting system is certified by Federal State agencies and has passed safety requirements for heavy lift AEC controlled projects. The 'Columbia Giant' is available for single ranging from 65 short tons up to its rated capacity of 600 short to

Also see "Berthing" – Berths No. 6 and 7.

STEVEDORES: At least 24 hours notice necessary to arrange ga before ETA. Arrange through Port Office via Ship's Agent.

MEDICAL: Hospital facilities available.

TANKERS: No facilities.

DENSITY: Columbia River is fresh water at Longview.

FRESH WATER: Available through 8 in. line with 2.5 in. connect Rate of delivery approx. 14.5 t.p.h.

FUEL: Available by tanker trucks only.

CONSULS: At Portland, Oregon.

REPAIRS: Some deck and minor engine repairs are possib Longview.

GANGWAY/DECK WATCHMEN: Arrangements for security guards be made.

OPENING/CLOSING HATCHES: Work carried out normally stevedores.

CUSTOMS ALLOWANCES: See "Portland, Oregon".

REPATRIATION: No facilities for effecting crew changes repatriations.

AIRPORT: Nearest airport served by regular airlines is in Port Charter flights may be arranged from a small local airport.

TIME: GMT minus 8 hours. In addition, clocks are moved ahead 1 on the first Sunday in April and returned back 1 hour on the last Su in October, at 0200 hrs. local time on those 2 days.

HOLIDAYS: New Year's Day (January 1st); Martin Luther King Birthday (3rd Monday in January); President's Day (3rd Mond February); Memorial Day (last Monday in May); Independence Day 4th); Special Longshore Holiday (July 5th); Labour Day (first Mond September); Veteran's Day (November 11th); Thanksgiving Day Thursday in November); Christmas Day (December 25th). Cargo can be arranged on most of these holidays.

POLICE/FIRE/AMBULANCE: Police 911; Fire 911; Ambulance

TELEPHONES: Available at dockside.

BANKS: Security Pacific Bank and Seattle First National Bank.

STORING: See "Prelims".

1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. —
6. Yes.

SHIP SUPPLY SERVICE: The only firm currently engaged in the of personnel from ship to shore in the Columbia River in the Longview area is Brix Maritime Co. Their address is: Brix Maritime 611 East "A" Street, Rainier, Oregon 97048, U.S.A. Tel: (206) 577-

SHORE LEAVE: Crews allowed ashore if papers are in order.

IDENTIFICATION CARDS: Advisable but not necessary.

GARBAGE DISPOSAL: Collection receptacles can be placed on alongside ship by a private firm, Waste Control Ltd. Tel: 425- Charges will be quoted by the firm.

WASTE OIL DISPOSAL: No service available.

SEAMAN'S CLUBS: Seaman's Information Service, 455 Orego (about 1 km. from the dock). Tel: 636-0450.

AUTHORITY: Port Longview, P.O.Box 1258, 10 Port Way, Long Washington 98632. *Tel:* (206) 425-3305. *FAX:* (206) 425-
Contact: Ken O'Hollaren, Executive Director.

L.O.O.P. TERMINAL (Louisiana Offshore Oil Port), Louisiana: 28.53 N. 90.01 W.

(See

OPERATOR:

Official Address: LOOP Inc., One Seine Court, Box 6638, New O Louisiana 70174-6638.

Requests for Port Information: LOOP Inc., One Seine Court, Bo New Orleans, Louisiana 70174-6638. Attention: Vice-Pre Operations. Fax: (504) 363-7284.

TWX Address: LOOP Inc. (810) 950-5875 (LOOP MARTERM 951-5165 (LOOP Inc., Nola).

Telephone Number:

New Orleans Office	(504) 632-6980.	Contact: C.W. Blair, M.J. Le Blanc, Port Superintendents Tel: (504) 632-1400 (direct line)
Operations Centre	(504) 632-6970	
Marine Terminal	(504) 632-6980	

Radio Contact:

Call sign "KR-7808" – "Loop Radar".

Frequencies:

VHF-FM

U.S. Channel	10	156.500 MHz	(Simplex only)
U.S. Channel	16	156.800 MHz	(Simplex only)
U.S. Channel	74	156.725 MHz	(Simplex only)

LOOP Personnel involved in Tanker Discharge:

(1) Port Superintendent: Resident at Marine Terminal who has overall authority over the Marine Terminal and port.

(2) Vessel Traffic Controller: Resident at marine terminal. Responsible for traffic control at the port.

(3) Mooring Master/Assistant Mooring Master: Assists the Master in mooring and unmooring the vessel. Remains on board to coordinate the discharge.

(4) Deck Watch: Maintains a watch of tanker's manifold and bow while vessel is moored.

(5) Oil Movement Controller: Resident of Galliano Operations Centre. Supervisor of cargo discharge. In constant radio contact with the Mooring Master.

Time Zone: Local-Central Standard Time (CST). Greenwich Mean Time (GMT) minus 6 hours or Zone plus 6.

Note: From the first Sunday in April to the last Sunday in October, this is modified by use of Daylight Saving Time to minus 5 hours GMT or Zone plus 5.

Official Language: English.

U.S. Coast Guard: Telex: 701801 (USCG NLN-UD).

The LOOP Inc. deepwater port and associated facilities are designed for unloading crude oil cargoes from deep draft tankers. The marine terminal is located in open waters of the Gulf of Mexico approximately 29 km. (18 statute miles) offshore from the State of Louisiana.

The port is owned and operated by LOOP Inc. under licenses granted by the Government of the United States of America and the State of Louisiana. The port is governed by the laws of the United States in the same manner as if the port were an area of exclusive federal jurisdiction located within a state.

LOOP shall not permit a tanker registered in a foreign state or flying the flag of a foreign state to utilise its facilities unless the foreign state involved does not object to the jurisdiction of the United States over the tanker and its personnel while the tanker is located within the safety zone of the port, and unless the tanker owner or operator has designated an agent in the United States for receipt of service of process in the event of any claim or legal proceeding resulting from activities of the tanker or its personnel while located within the port safety zone, and unless the tanker owner or operator carries insurance or demonstrates financial responsibility as required by Title 33, United States Code Annotated, Section 1517 and any amendment.

At the time of nomination of a tanker, LOOP shall require the person nominating the tanker, or his authorised agent nominating the tanker, to provide LOOP with the name and address of the tanker's designated agent in the United States.

The United States Coast Guard's Marine Safety Office, whose office is in Morgan City, La., has governmental authority over LOOP.

LOOP's Port Superintendent has overall authority over the marine terminal and port. This encompasses all personnel at the port, including contract personnel, and all vessel and aircraft operations at the port. During emergency conditions, all response activities at the port are directed by the Port Superintendent. This includes the shutdown of tanker cargo discharge. Emergency conditions are those that, in the Port Superintendent's judgment, involve or could involve safety, environmental protection, personnel injury or property damage. Examples of these emergencies include, but are not limited to, the following, if they occur at the marine terminal, or on a tanker, or other vessel or aircraft, or at any other location anywhere in that portion of the deepwater port that lies within the safety zone:

(a) Oil spill.
(b) Fire or explosion.
(c) Tanker collision, actual or potential, with another vessel or with the pumping platform complex.
(d) Tanker grounding.
(e) Electrical power failure on the platform.
(f) Disruption of communications between shore and the port.
(g) Aircraft disaster.
(h) Serious illness, injury or death.
(i) Presence of poisonous gas.
(j) Evacuation operation of the platform (usually due to impending hurricane).

The Port Superintendent is present at the port at all times.

ABBREVIATIONS:

AMM – Assistant Mooring Master
ANSI – American National Standards Institute
AST – Atlantic Standard Time (GMT + 4)
BHP – Brake Horsepower
BPH – Barrels Per Hour
CB – Citizens Band (radio)
CFR – Code of (U.S.) Federal Register
CMH – Cubic Meters Per Hour
COW – Crude Oil Washing
CST – Central Standard Time (GMT + 6)
CW – Continuous Wave
DWT – Dead Weight Tons
ERV – Emergency Response Vessel
EST – Eastern Standard Time (GMT + 5)
ETA – Estimated Time of Arrival
FERC – Federal Energy Regulatory Commission
FM – Frequency Modulation
ft – Feet
GCLW – Gulf Coast Low Water (Datum)
GMT – Greenwich Mean Time
GPM – Gallons Per Minute
HF – High Frequency
hr – Hour(s)
Hz – Hertz (cycles per second)
ICS – International Chamber of Shipping
IGS – Inert Gas System
IMO – International Maritime Organisation
In – Inches
INC. – Incorporated
ISGOTT – International Safety Guide for Oil Tankers and Terminals
KHz – Kilohertz (thousands of cycles per second)
kg – Kilogram
km – Kilometers
LOOP – Louisiana Offshore Oil Port
m – Meters
M – Thousands (used with barrels of oil)
MBPH – Thousands of Barrels Per Hour
MHz – Megahertz (million of cycles per second)
mi – Miles
MHW – Mean High Water
MM – Mooring Master
mm – Millimeters
MPH – Miles Per Hour
NM – Nautical Mile
NOAA – National Oceanographic and Atmospheric Administration
OCIMF – Oil Companies' International Marine Forum
OTS – Oil Transfer System
PLEM – Pipeline End Manifold (at the SPM)
RACON – Radar Beacon
SALM – Single Anchor Leg Mooring
SOLAS – Safety of Life At Sea
SPM – Single Point Mooring
UHF – Ultra High Frequency
ULCC – Ultra Large Crude Carrier
USCG – United States Coast Guard
VHF – Very High Frequency

PLATFORMS: *Pumping Platform Complex:*

The Marine Terminal pumping platform complex consists of the pumping platform and the control platform. The two platforms are connected by a walkway bridge between the lower decks. The top of the lower deck of each platform is 21.3 m. (70 ft.) above MHW.

The pumping platform measures 61 m.×65.5 m. (200 ft.×215 ft.) and contains equipment for receiving, measuring, sampling, controlling and pumping oil to assist in cargo unloading.

The control platform contains a control room manned 24 hours a day for communications, traffic control, monitoring and surveillance purposes. Also, a supervisory control and monitoring system provides the capability for the control room personnel, when so directed, to assume control of all marine terminal processes otherwise normally initiated from the Operations Centre located near Galliano, Louisiana.

The control platform is a two-deck structure measuring approximately 21.3 m.×21.3 m. (70 ft.×70 ft.). The lower deck contains platform utility equipment and supporting facilities. The upper deck supports a two-level control building.

DOCUMENTS: See "New Orleans".

PILOTAGE: *Boarding Considerations:* Actual sea conditions for small craft are not always appreciated when viewed from the bridge of a large vessel. Boarding of personnel is a potentially hazardous operation requiring complete cooperation. Although specific rules for this transfer cannot be made, the following points should be used as a guide:

(a) Agree when and how the transfer of personnel will take place.
(b) Allow sufficient time and sea room.
(c) Tanker should always advise delivering vessel of any change in heading.

Pilot and Accommodation Ladders: Size, draft and manoeuvring requirements of vessels calling at LOOP may not always allow the ship to create a lee side for boarding by alteration of heading alone. Therefore, *LOOP requires that all tankers using the Port be equipped with accommodation ladders on the port and starboard sides, leading aft.* The requirements are as follows:

(a) All pilot and accommodation ladders must be clean, in good condition, and comply with all existing IMO/SOLAS requirements.
(b) The rigging of pilot and accommodation ladders and the embarkation and disembarkation of personnel shall be supervised by a responsible deck officer of the ship.
(c) Every pilot ladder shall be secured in a position clear of any possible discharges from the ship, and so that each step rests firmly against the ship's side.
(d) If the freeboard exceeds 10 m. at any time, an accommodation ladder shall be rigged in conjunction with the pilot ladder.
(e) *All vessels shall have an accommodation ladder on the port and starboard side.*
(f) The lower end of the accommodation ladder must rest firmly against the side of the ship within the parallel body midlength and as far as practical within the midship half section.
(g) The accommodation ladder must lead aft.
(h) Adequate lighting shall be provided so that the pilot and accommodation ladders and the position where personnel board the ship will be properly illuminated.

Also see "Tanker Arrival".

MAX. SIZE: See "Berthing".

TANKER ARRIVAL: *Arriving from Seaward:* Tankers will normally approach LOOP via the 63 mile Safety Fairway. Communications with LOOP shall be established when the tanker is 20 miles from the entrance of the Safety Zone on the International Calling Frequency 156.800 MHz (Channel 16). The Vessel Traffic Controller will assign a working frequency, usually 156.725 MHz (Channel 74) and will pass instructions to the vessel. The arrival time for a tanker is recorded as the time and date the inbound tanker enters the Safety Zone, either enroute to LOOP's anchorage or to moor or anchor outside of the Safety Zone in the vicinity of the port. Tankers must enter and depart the port via the Safety Zone between Buoys 1 and 2.

1. *Berthing Order:* When a buoy becomes available, the tanker with the earliest Firm Arrival Window will be berthed, provided that tanker has issued its Notice of Readiness to Discharge. LOOP may adjust a tanker's position in the queue, a maximum of one position, when such adjustment is necessary for optimum operations of the LOOP system.

2. *Navigational Assistance:* During the mooring operation, including transit of the approach and terminal sections, the Mooring Master and the Assistant Mooring Master perform the following functions:
   (a) The Mooring Master advises the tanker's Master on operational and ship control matters and regulations that are peculiar to the port, such as navigational aids, depth of water and current characteristic of the manoeuvring area during existing conditions, mooring equipment and procedures, emergency towing procedures, and the port's vessel control procedures. The Mooring Master will maintain communications with the Vessel Traffic Controller, mooring launches and the Assistant Mooring Master until the mooring operation has been completed.
   (b) The Assistant Mooring Master is stationed on the forecastle of the tanker during mooring operations to assist the Mooring Master by reporting position approach data relative to the SPM and to advise the tanker's personnel in the handling of mooring equipment peculiar to the port.
3. *Transiting the Approach, Terminal and Anchorage Sections:* The Master of the tanker, a licensed deck watch officer, and a competent helmsman must be on the bridge, and machinery spaces must be manned by a licensed engineer, at all times while the tanker is manoeuvring in the approach and anchorage sections or transiting the terminal section of the Safety Zone and approaching a SPM to moor. A competent deck officer is to be on the bow along with one seaman as lookout, who is capable on command of letting go the anchor, if necessary.
4. *Manoeuvring Capabilities:* LOOP SPM buoys are located on a radius of 2,438 m. (8,000 ft.) from the Marine Terminal pumping platform complex with spacing between buoys of 1,981.2 m. (6,500 ft.). Tanker must have the capability to perform the manoeuvring required to approach and depart from a SPM within an area not greater than 1,524 m. (5,000 ft.) radius from the buoy. LOOP may require evidence of a tanker's capability to approach and enter the Safety Zone. The Mooring Master may determine this by pre-berthing checks of a tanker's manoeuvring characteristics. It is recommended that vessels endeavour to arrive on an even-keel whenever possible.
5. *Securing Anchor: Prior to approach and while at the SPM, anchors are to be positively secured with locking pawls and/or securing wires/turnbuckles. No work on windlass or anchoring gear which requires releasing the brake or removal of securing gear/pawls is allowed while at the SPM.*

Tankers Proceeding Directly to a Mooring:
(a) The Mooring Master, Assistant Mooring Master, deck watch and oil inspectors will board the tanker, and the port furnished equipment is picked up by the tanker prior to entering the Safety Zone. The boarding area is usually at the North end of the Safety Fairway where it turns and joins the approach section at the Safety Zone. The entrance to the Safety Zone is marked at the lateral boundaries by Buoys No. 1 and 2. (Note: Also see "General" – "Helicopter Transfer of Personnel and Supplies" – Section (B) for times when Mooring Master boarding is done by helicopter).
(b) Weather permitting, a pilot ladder shall be rigged port and starboard 5.0 m. above the water. An accommodation ladder in conjunction with a pilot ladder shall be rigged prior to arrival if the freeboard exceeds 10 m. and prior to completion of discharge if the sailing freeboard exceeds 10 m. The tanker will be advised of what side the mooring and connecting equipment will be handled, so that the appropriate derrick can be topped and rigged in preparation for lifting the equipment aboard and for handling the hoses after mooring. The derrick block should be plumbed midway between the rail and the manifold at the manifold centreline. Tankers are asked to provide a lee in order to allow for a safer boarding and an easier equipment handling operations. *The tanker must have operative and ready for immediate use, bow and stern emergency towing equipment, as recommended by IMO.*
(c) Equipment brought aboard the tanker for use in the mooring arrangement shall be transported to the bow by ship's personnel and returned to the manifold in the way of the derrick at completion of port operations. Ship's personnel, supervised by a deck officer and advised by the Assistant Mooring Master, shall prepare and arrange the tanker's mooring equipment to the satisfaction of the Assistant Mooring Master and the tanker's Master.
(d) After the Mooring Master is aboard, the tanker may proceed under his guidance into the Safety Zone to the assigned berth for mooring. The shipper and tanker owner shall be responsible and liable to LOOP for any damage or injury done by his tanker to any LOOP facility, equipment or personnel. Services of the Mooring Master, Assistant Mooring Master, deck watch, mooring launches and their crews, and such other LOOP personnel as may be required aboard the tanker are provided with the express understanding that the Master of the tanker has and accepts the ultimate responsibility for the tanker and crew. If it becomes necessary for the Master of a tanker to disregard a Mooring Master's advice in order to ensure the safety of his ship, it is requested that a written report from the Master be submitted promptly to LOOP.
(e) Specific tanker speed will be recommended by the Mooring Master to the vessel, consistent with the International Rules for Navigation, Rule 6 – Safe Speed.

Tankers Proceeding Directly to LOOP's Anchorage (in Safety Zon
(a) Tankers proceeding directly to LOOP's anchorage may pro into the Safety Zone without a Mooring Master on board w the following conditions are met:
   (1) The tanker is proceeding directly to the designated ancho section.
   (2) Entry is via the designated Safety Fairway through B No. 1 and 2.
   (3) Clearance is obtained from the Vessel Traffic Controlle
   (4) No other tankers are underway in that portion of the S Zone that is South and East of Buoys No. 3 and 4.
   (5) No more than 4 tankers are anchored in the desig anchorage.
(b) Specific tanker speeds are to be consistent with the Internat Rules for Navigation, Rule 6 – Safety Speed.
(c) The shipper and tanker owner shall be responsible and liab LOOP for any damage or injury done by his tanker to any L facility, equipment or personnel.

Anchoring at LOOP: LOOP has a designated 2.0 nautical mile 4.0 nautical miles anchorage area inside the Safety Zone to provid safety and continuity of operations. All vessels are expected to u this anchorage unless such vessels are proceeding directly to moor arrival. While the tanker is at anchor in the anchorage section o safety zone, a competent deck officer shall be stationed at all time the bridge to watch for any dragging of the anchor which can be dete by taking radar ranges or rounds of bearings as necessary on pumping platform or on any other fixed objects and to mo Channel 16 (156.800 MHz.) and Channel 74 (156.725 MHz.). Ves *at anchor must maintain engines and propulsion machinery in read to clear the marine terminal area under full power on short notice repairs are permitted which would interfere with this requirement anchorage is in the open sea and is not in a harbour. A 10 minu less ready stand-by requirement for engines and anchors will be inv in the event of rough weather. The Port Superintendent will invok rough weather advisory.*

Tankers Proceeding to Mooring from Anchor (in Safety Zone):
(a) The Vessel Traffic Controller advises the tanker of the arriva of the Mooring Master, Assistant Mooring Master, deck watc oil inspectors, and of the equipment to be made ready. (Note: See "General" – "Helicopter Transfer of Personne Supplies" – Section (B) for times when Mooring Master boa is done by helicopter).
(b) Upon receiving clearance from Vessel Traffic Controller, t may get underway without a Mooring Master on board fo purpose of making a lee only. The Mooring Master will then b the vessel and proceed to the bridge to pilot the vessel to b
(c) Equipment brought aboard the tanker for use in the mo arrangement shall be transported to the bow by ship's pers and returned to the manifold in the way of the derrick at comp of port operations. Ship's personnel, supervised by a deck o and advised by the Assistant Mooring Master, shall prepar arrange the tanker's mooring equipment to the satisfaction Assistant Mooring Master and the tanker's Master.
(d) Specific tanker speed will be recommended by the Mo Master to the vessel, consistent with the International Rul Navigation, Rule 6 – Speed.

Tanker Proceeding to Mooring from Anchor (Outside of S Zone):
(a) The Vessel Traffic Controller advises the tanker of the arriva of the Mooring Master, Assistant Mooring Master, deck watc oil inspectors, and of equipment to be made ready. Include instructions for preparation of an accommodation ladder a pilot ladder, equipment hoist and operative emergency t equipment. (Note: See "General" – "Helicopter Trans Personnel and Supplies" – Section (B) for times when M Master boarding is done by helicopter). Tanker may raise a and get underway prior to Mooring Master's arrival, but un circumstances shall the tanker enter the Safety Zone u Mooring Master is on board.
(b) Equipment brought aboard the tanker for use in the m arrangement shall be transported to the bow by ship's pe and returned to the manifold in the way of the derrick at com of port operations. Ship's personnel, supervised by a deck and advised by the Assistant Mooring Master, shall prepa arrange the tanker's mooring equipment to the satisfactio Assistant Mooring Master and the tanker's Master.
(c) Specific tanker speeds will be recommended by the M Master to the vessel consistent with the International R Navigation, Rule 6 – Safe Speed.

Navigational Assistance: During the mooring operation the M Master and the Assistant Mooring Master perform the following fu
(a) The Mooring Master advises the tanker's Master on ope and ship control matters and regulations that are pecul port, such as navigational aids, depth and current chara of the manoeuvring area during existing conditions, equipment and procedures, and the port's vessel procedures. The Mooring Master will maintain commu with the Vessel Traffic Controller, mooring launches Assistant Mooring Master until the mooring operation h completed.
(b) The Assistant Mooring Master is stationed on the fore the tanker during mooring operations to assist the Moori by reporting position approach data relative to the SP advise the tanker's personnel in the handling of equipment peculiar to the port.

Manoeuvring Capabilities: LOOP SPM buoys are located on a 2,438 m. (8,000 ft.) from the Marine Terminal Pumping Complex, with spacing between buoys of 1,981.2 m. (6,500 ft.) must have the capability to perform the manoeuvring re approach and depart from an SPM within an area not gre

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1,524 m. (5,000 ft.) radius from the buoy at speeds not exceeding 5.5 km./hr. (3 knots). LOOP may require evidence of a tanker's capability to approach and enter the safety zone. The Mooring Master may determine this by pre-berthing checks of a tanker's manoeuvring characteristics.

Berthing Order: When a buoy becomes available, the tanker with the earliest Firm Arrival Window will be berthed, provided that tanker has issued its Notice of Readiness to discharge. LOOP may adjust a tanker's position in the queue a maximum of one position when such adjustment is necessary for optimum operations of the LOOP system.

VESSEL REQUIREMENTS: *General Condition of Vessels:* Each tanker calling at LOOP shall be seaworthy, have a fit crew, and not be leaking oil and not be in a condition which presents a risk or threat of a prohibited oil discharge.

CAUTION: *Prior to arrival, the Master shall ensure that the vessel does not have stern seal leakage. Stern seal pressure shall be monitored throughout the cargo discharge to ensure that changes in draft or trim do not cause a stern seal leak.*

Navigation Equipment: Any vessel calling at LOOP must meet the U.S. Coast Guard navigational equipment requirements for a vessel entering U.S. waters (i.e. 33 CFR 164.35). Coast Guard personnel will board selected arriving vessels to ensure compliance with Federal Regulations.

Pre-arrival, Connection and Transfer:

Preparations, procedures, tests and inspections to be followed both by the tanker and by the LOOP platform during the pre-arrival time, connection and transfer must meet the requirements of 33 CFR 150(D), and the recommendations of the OCIMF Safety Guide.

The Mooring Master will have a LOOP Check List, which includes a Declaration of Inspection, that shows all the items to be tested or inspected in order to comply with the Federal Regulations and with current OCIMF recommendations. The inspection is to be made and the Check List is to be signed both by the tanker's Master and by the Mooring Master before the start of oil transfer operations.

Oil Transfer Equipment:

All tankers must meet the requirements of 33 CFR 155 and 46 CFR, sub-chapter (d) (Tank vessels), with regard to oil transfer equipment. Cargo hoses must be connected by the tanker's personnel, under the guidance of the Mooring Master or the Assistant Mooring Master.

The Mooring Master will provide a remotely operated Emergency Shutdown Signalling Device to be kept in the Cargo Control Room. Activation of this alarm requires an immediate, rapid stopping of the pumping operation. The Mooring Master will explain the use of the Emergency Shutdown Signalling Device.

Physical Parameters of Vessel:

Tankers to be accepted by LOOP must:

(a) Have oil transfer equipment that conforms to the technical recommendations of the Oil Companies' International Marine Forum (OCIMF).
(b) Be equipped with shipboard mooring fittings installed and located for safe and effective mooring to an SPM and in compliance with current OCIMF recommendations and LOOP requirements.
(c) Be equipped with a derrick, located near the cargo manifold for hose handling, capable of lifting and sustaining a safe working load of 10 tons to a height of 13.7 m. (45 ft.) above deck level. (ULCCs should have a 15 ton crane because of the extra hose weight due to their greater freeboard).
(d) Be equipped with emergency towing equipment that is in place and in compliance with IMO Assembly Resolution A535(13) and LOOP requirements.
(e) Not exceed maximum mooring load limitations of SPMs. See "Berthing".
(f) Have serviceable pumping equipment.
(g) Be capable of delivering a cargo size or quantity that is in accordance with LOOP's Terms and Conditions of Service.

Hull Condition: Hulls of tankers calling at LOOP shall be free of obstructions, (e.g. barnacles) which could cause damage to marine hoses, pollution, or injury to personnel.

Deck Floodlighting:

Illuminated Locations: In addition to the light usually displayed, tankers are required to furnish adequate additional lighting for night operations including:

(a) Proper safety lighting of the accommodation ladder for personnel embarkation and disembarkation. This is particularly essential for arriving and departing tankers when the Mooring Master and Assistant Mooring Master board or depart the tanker. A deck officer is required to supervise these procedures.
(b) Lighting of the forecastle area.
(c) Lighting of areas encompassing the derricks, deck and water during equipment and hose handling operations.
(d) Lighting to illuminate the cargo manifold.
(e) Portable or hand-held safety lanterns for inspections and other deck activities that may require particular attention.

Type of Equipment: Only explosion-proof lighting equipment and electrical apparatus certified intrinsically safe for use in a hazardous area is permitted to be used on deck while a tanker is at an SPM. Portable electric lamps or other apparatus with flexible cable shall not be used without permission from the ship's officer-in-charge and from the Mooring Master/Assistant Mooring Master aboard the tanker. In this regard, the recommendations of ISGOTT should be followed.

Accommodation: Tankers discharging at LOOP must provide meals and accommodation for the Mooring Master, the Assistant Mooring Master and deck watch, during their time on board and for an independent Petroleum Inspector during his required time on board.

Vessel Readiness:

Equipment/Personnel: Vessels at moorings or anchorage must maintain engines, propulsion machinery and emergency towing equipment in readiness to clear the Marine Terminal area under full power on short notice. *No repairs are permitted which would interfere with this requirement.* Vessel trim and draft should also be considered in determining vessel manoeuvring capability. Masters of tankers are advised to have sufficient personnel aboard and on watch to enable them to depart upon advice from the Vessel Traffic Controller. The Master of a tanker may, in an emergency, for the protection of life or property, depart without clearance from the Vessel Traffic Controller, if the Master advises the Vessel Traffic Controller of the circumstances by radio at the earliest moment.

Minimum Ballast: The Master is to maintain his vessel in a seaworthy condition and be ready to sail and manoeuvre at all times. This port is in the open sea and *is not in a Harbour.* Weather can change rapidly as mentioned in section on weather. The Master is to maintain his vessel with sufficient ballast to obtain full immersion of the propeller at all times while maintaining a reasonable stern trim. These additional factors must be considered by the Master in maintaining the seaworthy condition and readiness to sail and manoeuvre.

A 10 minute or less ready standby requirement for engines and anchors will be invoked in the event of rough weather. The Port Superintendent will invoke the rough weather advisory.

Emergency Towing Equipment: LOOP employs an Emergency Response Vessel (ERV) at the Port for the designed purpose of providing escort and, if required, emergency towing response to disabled tankers. For emergency towing response to be effective, LOOP requires all tankships calling at the Port to be fitted in accordance with IMO Assembly Resolution A535(13) "Recommendations on Emergency Towing Requirements for Tankers".

NAVIGATION AIDS: *SPM Buoys:* In addition to the port name "LOOP" and an SPM number, each SPM buoy is painted white on top with yellow sides and is equipped with the following navigational aids:

(a) A quick flashing (0.3 seconds "on", 0.7 seconds "off") white light installed on the buoy at a height of 5.5 m. (18 ft.). The light can normally be seen through 360° of arc at a range of 7.4 km. (4 nautical miles). It is actuated by a solar photo-electric switch.
(b) A 406.4 mm. (16 in.) diameter all-directional radar reflector mounted on the highest point of the buoy.
(c) Buoy number daymarks at 90° intervals around the buoy hull.

Platform Complex Beacon Light: A rotating beacon which shows a flashing white light (6 flashes per minute) is mounted above the pumping platform atop the communications tower at an elevation of 64 m. (210 ft.) above MHW and it is visible all around the horizon. It is actuated from the control platform. The light is 47,000 candela and is visible for at least 18 miles.

Platform Complex Obstruction Lights: Obstruction lights are installed at each corner of both platforms and one on the bridge connecting the structures. The lights on the pumping platform are 25 m. (81 ft.) above MHW and on the control platform are 23 m. (76 ft.) above MHW. They are quick flashing white (0.3 seconds "on", 0.7 seconds "off") (60 flashes per minute). They flash in unison and are placed so that at least one light can be seen for a minimum of 5 nautical miles from any approach angle to the platform complex. They are actuated from the Control Platform at night and in periods of low visibility.

Platform Complex Fog Signals: 2 fog horns are installed at the platform complex. One is hung below the lower deck near the middle of the Northwest edge of the pumping platform about 21.3 m. (70 ft.) above MHW, and the other is hung below the lower deck on the Southern edge of the control platform. The signals are synchronized to sound a 650-800 Hz 2 second blast every 20 seconds and can be heard for at least 3.7 km. (2.0 nautical miles). They are actuated from the control platform.

Buoys: The following table lists the characteristics of the buoys marking the approach section of the safety zone:

Buoy Daymark	*Buoy Colour*	*Water Depth Metres*	*Water Depth Feet*	*Lantern Colour*	*Radar Reflector*	*Fog Signal*
No. 1	Green	47.5	156	Green	X	X
No. 2	Red	46.3	152	Red	X	None
No. 3 No. 4	See "Plan" for new locations.					

From seaward, Buoys No. 1 and 3 define the port (left) lateral limits of the approach section and Buoys No. 2 and 4 the starboard (right) lateral boundary. Buoys No. 1 and 2 are located at the entry to the approach section when proceeding from seaward.

Safety Zone Navigation Buoys: The Safety Zone is shown in "Plan Section" together with the location of floating aids to navigation and marine terminal components. International "Rules of the Road" apply in the safety zone. The purpose of a deepwater port safety zone is to define an area in which any activity that may directly or indirectly increase the environmental and safety risks associated with port operation may be minimised or prohibited. The IMO vessel routing measure known as a precautionary area; i.e. a routing measure comprising an area within definite limits where ships must navigate with particular caution and within which the direction of traffic flow may be recommended, has been adopted as the concept for U.S. deepwater port safety zones. The safety zone is made up of 3 parts; the approach section, the anchorage section, and the terminal section. Inside the terminal section there are 4 "areas to be avoided"; one is 600 m. in radius around the pumping platform complex and 3 are 500 m. in radius around each of the SPMs. "Areas to be avoided" conform to IMO measures to keep ships or certain classes of ships outside a delineated area. 4 navigational marker buoys define the boundaries of the approach section of the safety zone. Proceeding from seaward, the 2.0 nautical miles wide approach section extends 5 nautical miles from the Safety Fairway to the terminal section.

The buoys have the following characteristics:

Daymarks:	Reflective, located at 90° intervals around buoy superstructures; visible range 3.7 km. (2 nautical miles) minimum.
Lights:	Installed at 4.6 m. (15 ft.) above the water; slow flashing (0.6 seconds "on", 5.4 seconds "off"); light intensity 75 candela, actuated by solar photoelectric switches.
Radar Reflectors:	All-directional; detectable from at least 15 km. (8.0 nautical miles) by typical shipboard radar systems.
Fog Signal:	(Buoy No. 1 only) minimum audible range approximately 1 km. (0.5 nautical miles); programmed to send Morse code "L" at 20 second intervals. This buoy's fog signal operates continuously.

Safety Fairway: The LOOP Safety Fairway, shown in NAV 3A, "Plan Section", has no marker buoys. To lessen the chance of accidents, ships enter and leave U.S. Gulf Coast ports via safety fairways. The fairways are 2 miles wide. No offshore drilling rigs or structures are permitted in them. LOOP recommends that tankers enter or leave the LOOP Safety Fairway at its Southernmost point or at least South of 28° 18' N. NOAA Chart 11359 has details of the LOOP Deepwater Port including pipelines within the safety fairway and safety zone.

Service Vessel Mooring Buoys: The buoys provided for mooring port service vessels at the marine terminal are white with a horizontal blue band between the top of each buoy and the waterline. The buoy identification is reflective. Battery powered, slow flashing (0.4 seconds "on", 3.6 seconds "off") white lights are installed 2.4 m. (8 ft.) above the water, and are actuated by solar photoelectric switches.

Also see "Anchorage".

ANCHORAGE: *Anchorage Section Buoys:*

The designated anchorage section of the safety zone is a 3.7 km.(2.0 nautical miles) wide area beginning at safety zone Buoy No. 2 and extending 7.4 km. (4.0 nautical miles) along and next to the Eastward boundary of the safety zone. Buoys "L-B" and "L-A" mark the corners and define the outer boundaries of the anchorage section. The anchorage section buoys have characteristics as follows:

Daymarks:	Reflective, located at 90° intervals around buoy superstructures; visible range 3.7 km. (2.0 nautical miles) minimum.
Lights:	Installed at 4 m. (13 ft.) above the water; slow flashing (0.6 seconds "on", 5.4 seconds "off"), actuated by solar photoelectric switches.
Radar Reflectors:	All-directional; detectable at 15 km. (8.0 nautical miles) by typical shipboard radar systems.

Buoy	*Buoy*	*Water Depth*		*Lantern*	*Radar*	*Fog*
Daymark	*Colour*	*Metres*	*Feet*	*Colour*	*Reflector*	*Signal*
L-B	Yellow	45.7	150	Yellow	X	None
L-A	Yellow	37.1	122	Yellow	X	None

Also see "Tanker Arrival".

RADIO/VHF: *Notices of Arrival:*

The Master of a tanker bound for LOOP should send his first arrival advice message as nearly as possible to 7 days before his expected date of arrival, even if he is in port at the time. If his trip to LOOP is less than 7 days he should also send another arrival advice as soon as possible after leaving his loading port. His next arrival advice should be sent 72 hours before the estimated time of arrival. The arrival advice should be transmitted and updated again at 48 hours and again not later than 24 hours before the estimated time of arrival. An arrival advice message can and should be sent at any time when there is a significant change in a previously estimated arrival time. These arrival advice messages should be sent to LOOP INC. The first message should contain, at a minimum, the following:

1. Tanker's name and call sign.
2. Estimated time of arrival at LOOP.
3. (a) Arrival draft, fore and aft.
   (b) Fore and aft draft at completion of discharge.
   (c) Departure draft, fore and aft.
4. Type(s) and amount(s) of cargo on board.
5. Basic discharge plan, times and pumping rates.
6. Cargo manifold size and type, if 16 in. not available.
7. Type of mooring equipment installed.
8. Expected discharge rate.
9. Expected number of ballast hours upon completion.
10. Type of Emergency Towing Equipment.
11. Any special requirements which need early actions.

These messages can be sent by Western Union International TWX (810) 950-5875, LOOP MARTERM or by radio to coast stations WNU Slidell, WLO Mobile or WPA Port Arthur. It is suggested that ETA advice also be sent to tanker's Agents, with logistics requirements.

Pre-Arrival Instructions: A message will be sent to LOOP-bound tankers approximately 72 hours prior to their arrival, outlining arrival procedures and discharge planning recommendations. See "Pre-Arrival Instructions" below.

LOOP's Pre-Arrival Instructions:

To Master:

(a) Mooring Master Station is 28° 47' N., 89° 53' W. Recommend approach via existing safety fairways. If anchoring on arrival, you may enter the LOOP Safety Zone Anchorage. Anchoring in LOOP Anchorage will facilitate berthing. You do not need a Mooring Master to anchor in LOOP Anchorage, but must have permission from LOOP Radar. You may also anchor outside.
(b) LOOP Terminal call sign is "LOOP Radar" and guards Channel 16, VHF-FM.
(c) Advise "LOOP Radar" when 20 nautical miles from Mooring Master Boarding Area. Have officer accommodation for 2 Mooring Masters and accommodation for 2 deck watch personnel.
(d) Advise unloading plan and arrival draft. Include any shut-downs for stripping and COW. Advise usable slop tank capacity.
(e) For efficient discharge, it is important during bulk discharge that the vessel pumps at a constant maximum rate.
(f) Rate, reductions for COW, ballast or stripping should be handled during arranged shut-down periods.
(g) The vessel shall maintain sufficient ballast to obtain full immersion of the propeller at all times while maintaining reasonable stern trim.
(h) Plan your discharge accordingly, subject to safety considerations prevailing at all times.
(i) Upon arrival, the Master shall submit detailed discharge plans for review.
(j) Advise ETA.

24 Hour Message: By regulation, the 24 hour arrival message sha addressed both to the Coast Guard Captain of the Port, Morgan (Telex 701801 USCG NLN-UD) and to LOOP INC. This message sh contain the following:

1. Name, gross tonnage, and draft of the tanker.
2. Type and amounts of cargo on board.
3. Any condition on the tanker that may impair its navigation, s as fire, malfunctioning propulsion machinery or steering equipmen limitations on navigational or radiotelephone capabilities becaus equipment or material malfunctions. (No vessel will be allowed t underway in the Safety Zone with any steering or propulsion equipm deficiency or with inoperative emergency towing equipment recommended by IMO).
4. Any leaks, structural damage, or machinery malfunctions that impair cargo transfer operations or cause a discharge of oil.
5. ETA at the Safety Zone: If the information reported changes at time before entering the Safety Zone, or while the tanker is in the Sa Zone, the Master of the tanker shall report the changes to the C Guard Captain of the Port and to LOOP INC. as soon as possible cable and single side band.

Radio Frequencies for Berthing: In addition to the above notices, r communication on the International VHF Maritime Band (Channel 156.725 MHz.) should be started at a distance of 20 nautical miles the safety zone, or more, if possible. This Channel should be use a "twenty-mile", final arrival notice, and for communications with terminal and with the Mooring Master, until he boards the tanker.

Radio Communications at the Port: The LOOP platform always gu the international calling frequency 156.800 MHz. (Channel 16). LOO working frequencies are VHF Maritime Channel 74 (Primary), Channel 10 (Secondary). Use of shipboard radar and HF rad forbidden while moored to an SPM. While in port, LOOP communic with the tankers via the Mooring Master's UHF portable radio.

LOOP's Communications Facilities: LOOP has the ability to use following communications for vessels trying to contact the Port:

Type of Communications	*Frequencies*	*Call S*
VHF-FM Maritime Mobile	(Carrier assigned in MHz)	KR-78
	156.500, Channel 10, Commercial Working.	
	156.800, Channel 16, Distress, Safety and Calling.	"LOO Rada
	156.725, Channel 74, Port Operations.	

Transit Traffic: LOOP maintains a VHF Maritime radio system cap of communicating with vessels other than tankers or LOOP su vessels if such vessels are equipped with comparable equipment. W necessary to communicate with vessels of unknown communic capabilities, the Vessel Traffic Controller will attempt to contact vessel on VHF Channel 16. If such efforts at radio communicatio unsuccessful, a LOOP mooring launch or personnel boat wi dispatched to advise the vessel of any potential danger to the vess observed by the Vessel Traffic Controller's surveillance and al advise the vessel operator of the port's precautionary areas and to be avoided.

When requested by a Master of a vessel other than a LOOP s vessel or tanker, the Vessel Traffic Controller shall furnish inform concerning tankers, support vessels, and other vessels underw moored in the safety zone.

Weather Advisory System: Coast Guard radio stations make two of marine information broadcasts: radiotelephone (voice) for all sea users, and radiotelegraph (CW) for vessels carrying trained operators. Scheduled radiotelephone broadcasts include routine we reports, small craft warnings, storm warnings, navigational inform and other advisories on working frequencies, following a prelimina on the voice international distress and calling frequencies. Urgen safety broadcasts are made upon receipt of the information, u information is repeated 15 minutes later, and both are included next scheduled broadcast unless cancelled before that time. Add broadcasts may be made at the discretion of the originator. U broadcasts are preceded by the signal: "PAN" for radiotelepho "XXX" for radiotelegraph. Both the urgency signal and messa transmitted on 2182 kHz and 156.80 MHz (Channel 16). broadcasts are preceded by the signal: "SECURITE" for radiotele and "TTT" for radiotelegraph. After a preliminary call on 2182 k 156.80 MHz, the station shifts to its assigned working frequency broadcast.

The following Coast Guard Radio stations make urgency, saf scheduled marine information broadcasts preceded by a prelimin on 2182 kHz or 156.8 MHz, at the times and on the working frequ indicated:

Station	*Working Frequency*	*Time(s)*
NCF, Miami Beach, Florida	2670 kHz.	0400, 0600, 0800, 1300, 1900 and 22
	157.10 MHz (Channel 22)	0630, 1200 and 17
NOK, Key West, Florida	157.10 MHz (Channel 22)	0600, 1200 and 17
NMA-21, St. Petersburg, Florida	2670 kHz	0920 and 2320 ES
	157.10 MHz (Channel 22)	0650, 1250 and 17
NMG, New Orleans, Louisiana	2670 kHz	0435, 0635, 1035, 1635 and 2350 CS
	157.10 MHz (Channel 22)	0450, 1050 and 16
NMG-15, Grand Isle, Louisiana	157.10 MHz (Channel 22)	0435, 1035 and 16

Station	Working Frequency	Time(s)
NOY, Galveston, Texas	2670 kHz	0450, 0650, 1050 and 1650 CST
NOY-3, Port Aransas, Texas	157.10 MHz (Channel 22)	0440, 0640, 1040 and 1640 CST
NCH, Port Isabel, Texas	2670 kHz	0440, 0640, 1040 and 1640 CST
	157.10 MHz (Channel 22)	0435, 1035 and 1635 CST
NMR, San Juan, Puerto Rico	2670 kHz	1100 and 2300 AST
	157.10 MHz (Channel 22)	0710, 1310 and 1810 AST

Scheduled radiotelegraph broadcasts include routine weather reports, small craft warnings, storm warnings, navigational information and other advisories on working frequencies following a preliminary call on the radiotelegraph international distress and calling frequency 500 kHz. Urgent and safety broadcasts are made as follows:

(a) Safety broadcasts are made upon receipt of the information; urgent broadcasts are also made upon receipt of the information except within 10 minutes of the next silent period.

(b) Safety and urgent messages are made during the last 15 seconds of the first silent period after receipt, and are repeated at the end of the first silent period which occurs during the working hours of one-operator ships, unless the warning has been cancelled or superseded by a later warning message. Urgent broadcasts are preceded by the signal "XXX". Both the urgent signal and the message are transmitted on 500 kHz. Safety broadcasts are preceded by the signal "TTT". After the preliminary call on 500 kHz, the station shifts to its assigned working frequency to transmit the broadcast. The following Coast Guard radio stations in the Gulf of Mexico area and its approaches make urgent, safety and scheduled marine information broadcasts preceded by a preliminary call on 500 kHz, at the times and on the working frequencies indicated:

Station	Working Frequency	Time(s)
NMA, Miami, Florida	440 kHz	1100 and 2000 EST
NMG, New Orleans, Louisiana	428 kHz	1120 and 1830 CST
NMR, San Juan, Puerto Rico	466 kHz	1220 and 2120 AST

LOOP also has weather and sea monitoring equipment installed at the Marine Terminal and receives NOAA weather advisories. Upon request, weather information will be transmitted to tankers in the vicinity.

In addition, NOAA gives continuous weather information, forecasts and warnings on the following frequencies:

WX1 162.500 MHz WX2 162.400 MHz.

Weather facsimile information is available via WLO, Mobile on the following frequencies:

6852.0 kHz.
9157.5 kHz.

RADAR: *Navigation Advisory System (Surveillance Radar):* 2 radar surveillance systems, X-band and S-band frequencies, are installed at the marine terminal. The systems provide coverage from the platform complex to a range of about 50 km. (27 nautical miles) for tankers, and include, among other things, a collision avoidance system. After an incoming tanker makes radio contact on the VHF system about 20 miles from the safety zone, the Vessel Traffic Controller will advise of the location of navigational hazards as well as relative positions and estimated courses and speeds of other vessels within radar range of the platform.

Radar Beacon: The LOOP radar beacon (RACON) operates 24 hours daily on the X-band frequency from 9300 to 9500 MHz. The transponder is mounted on top of the communications tower 64 m. (210 ft.) above MHW. The RACON will respond to incoming signals by transmitting Morse coded letter "O" as the identifying signal for the marine terminal platform complex. The RACON has a range of about 40 km. to 48 km. (22 nautical miles to 26 nautical miles), depending on the height of shipboard radar antennas.

TUGS: Support Vessels: *List of Characteristics by Vessel Name:* The following 2 launches are operated by LOOP for the primary purpose of assisting in mooring operations:

Names: "Loop Line" and Loop Loader".
Length overall: 26 m. (85 ft.).
Beam: 7.9 m. (26 ft.).
Draft: 2.1 m. (7 ft.).
Propulsion: 2 model 16V-92 GM diesel engines, twin screw, 1,200 h.p. total.
Maximum speed: 10 knots.
Bollard pull: 3,629 Kg. (8,000 lb.) line pull.
Navigation and Communications: Sitex 48 mile radar, digital fathometer, Loran C, SSB and VHF radios (Channel 10, 16 and 74) plus an 8 Channel LOOP UHF radio.
Construction material: Steel.
Fuel Capacity: 75,708 litres (20,000 gallons).

The LOOP maintenance vessel functions primarily for inspection, servicing, and maintenance of marine terminal components.

Name: "Loop Lifter".
Length overall: 61 m. (200 ft.).Beam: 15.2 m. (50 ft.).
Draft: 3.7 m. (12 ft.).
Propulsion: 2 D-399 Caterpillar engines, twin screw, 3,000 h.p. total.
Maximum speed: 11 knots.
Navigation and communication: Auto pilot, Sitex 48 mile radar, fathometer, Loran C, SSB and VHF radios (Channels 10, 16, and 74), plus an 8-Channel LOOP UHF radio.
Construction material: Steel.
Fuel Capacity: 80,000 gallons.
Fire pump: 9,475 litres per minute (2,500 GPM).

The following vessel is operated by LOOP for the primary purpose of escorting and emergency response to tankers calling at the port:

Name:	LOOP Responder
Length:	47.2 m. (155 ft.)
Beam:	15.7 m. (51.5 ft.)
Draft:	4.9 m. (16 ft.)
Main Engines:	2 Model 3608 Caterpillar 7,300 BHP
Propulsion:	2-Voith Schneider 36 IIG
Maximum Speed:	13 knots
Tow Winch:	Single drum line handling 150 ft./min. line recovery rate
Hawser:	1,000 ft. 3.75 in. diameter spectra
Fuel Capacity:	60,000 gallons
Portable Water:	15,000 gallons
Fire Pumps:	2×1,000 h.p.
Fire Monitors:	2×7,000 GPM each
Foam Capacity:	5,000 gallons
Construction:	Steel
Fendering:	Full

BERTHING: LOOP single point moorings (SPM) are the single anchor leg mooring (SALM) type, designed for tankers up to 700,000 d.w.t. The SPMs are numbered clockwise and are described as follows:

SPM 102:

Water Depth	35.1 m. (115 ft.)
Maximum Tanker Draft*	28.7 m. (94.3 ft.)
Maximum Mooring Load	650 tons
Tail/Rail Hose Diameter	406 mm. (16 in.)
Maximum Discharge Rate	15,900 cu.m./h. (100 MBPH)

SPM 103:

Water Depth	35.7 m. (117 ft.)
Maximum Tanker Draft*	29.4 m. (96.3 ft.)
Maximum Mooring Load	650 tons
Tail/Rail Hose Size	406 mm. (16 in.)
Maximum Discharge Rate	15,900 cu.m./h. (100 MBPH)

SPM 104:

Water Depth	35.1 m. (115 ft.)
Maximum Tanker Draft*	28.7 m. (94.3 ft.)
Maximum Mooring Load	650 tons
Tail/Rail Hose Diameter	406 mm. (16 in.)
Maximum Discharge Rate	15,900 cu.m./h. (100 MBPH)

*The maximum drafts shown here allow for a gross underkeel clearance of 6 m. (19.7 ft.) during Gulf coast LW and calm seas. The maximum drafts result in a clearance of 2.9 m. (9.4 ft.) above the SPM base U-joints, since the U-joints are 3.4 m. (11.3 ft.) above the ocean bottom. Gross underkeel clearance means the distance between the keel of a tanker and the ocean bottom when the tanker is moored in calm seas. Net underkeel clearance means the distance between the ocean bottom and the keel of a tanker that is anchored, considering ship motion in response to wind, wave, tide and current conditions. It is required that there be a net underkeel clearance of 4.7 m. (15.3 ft.) during bad weather.

The limiting drafts at various significant wave heights that will result in a 4.7 m. (15.3 ft.) underkeel clearance during bad weather, when a tanker may be pitching or rolling, are shown on graphs in the "Plan Section".

Note: Significant wave height is the average height of the highest one-third of all waves passing a point in a given period of time.

MOORING:

Mooring Equipment and Hawser System: Before a tanker is accepted for offloading and *prior to arrival, the ship should notify LOOP of the type of SPM mooring equipment installed* to determine if the equipment is capable of sustaining the safe working load that will be imposed on it and if fitted in accordance with the 1992 OCIMF recommendations for mooring of tankers at SPM's. *All tankers are required to utilise the two hawser system to moor at the SPM.* LOOP requires that all ships be fitted as follows:

Requirements effective 1st April 1993:

(a) All vessels will be fitted with 2×76 mm (3 in.) bow stoppers and two, one each side of the centreline, bow chock openings, capable of allowing free passage of 76 mm. (3 in.) chafe chain.

(b) Pedestal roller fairlead and winch drums or capstans to provide proper leads and clearances (drum end of anchor windlass is acceptable).

The exact arrangement will be determined by the Assistant Mooring Master after inspection of the ship's fittings and equipment. *Mooring and unmooring is to be done by the crew of the tanker with the advice of the Assistant Mooring Master.*

Two launches will normally assist in mooring. One launch will tend the hawser systems. Successively for each of the two hawser systems, the launch personnel will secure the tanker's messenger line to a pick-up line in order for the hawser system chafe chains to be winched aboard the tanker and secured to the shipboard mooring fittings. The second launch tends the floating hose strings during the tanker mooring, drawing the hose strings aside from the tanker's track during the approach and mooring. LOOP has no tugs to routinely assist in mooring.

HOSES: *Floating Hoses:* The floating hoses, which extend approximately 1,100 ft. from each buoy, consist of 2×24 in. crude oil discharge hoses with 16 in. inside-diameter tails, each with 150 ANSI flanges for connection to the tanker's manifold. Each hose-string has a one Candela yellow light on a pick-up buoy at its end. In order to avoid delays in connecting hoses, tankers should have an adequate number of reducing spools to fit 16 in. standard ANSI flanges. Tankers are requested to remove the blank flanges from their discharge manifolds before mooring so as to expedite the connecting of the floating hoses. *Connecting and disconnecting of the cargo hoses is to be performed by the tanker crew under the advice of the Assistant Mooring Master.*

Hose Handling: Mooring launches tow each floating hose into position beneath the tanker's lifting derrick. The derrick runner is lowered to the launch and secured to the hose pick-up sling. After the hose is lifted above the level of the tanker's rail, it is swung inboard. A snubber chain connected between the first and second hose-lengths is then used to control its angle (i.e., to guide it towards its proper place on the cargo manifold). When the hose has been raised enough to span the distance between the tanker's rail and the cargo manifold, the snubbers can be made fast. The hose end is then lowered to the manifold and connected to it. Upon completion of discharge, each hose is disconnected from the manifold after its weight is borne up by the derrick runner. It is then swung outboard, lowered to the water, and released.

Care in Raising and Lowering the Hose: Care is necessary in raising the hoses before discharge and particularly in lowering them after discharge. At these times they are especially vulnerable to kinking.

Damaging Configurations for the Hose: While the cargo transfer hose is connected to the tanker, certain positions that the tanker might take relative to the SPM could cause the hose to bend excessively and thus could damage it.

For example, if a tanker overrides the buoy, it could damage both the hose and the buoy. This condition can be corrected by the tanker going astern or being pulled astern.

Another damaging position could happen if the SPM seabed swivel does not turn as the tanker swings around it. In such a case the Mooring Master will seek LOOP's assistance. If this situation is not immediately resolved, the Port Superintendent or the Mooring Master should issue the order to stop pumping cargo.

Also see "Tanker Arrival".

CARGO OPERATIONS: *Tanker Discharge Planning:* Ship's officers should be aware of LOOP's requirements prior to preparing their pre-arrival discharge sequence planning. Consistent with maintaining vessel seaworthiness and readiness to sail and manoeuvre, LOOP encourages the highest possible bulk discharge rate followed by a stoppage for consolidation of strippings and Crude Oil Washing (COW). This runs counter to conventional tanker practice of always keeping some flow going ashore but is necessary at LOOP in order to maximise pipeline utilisation. While stopped for stripping and/or COW, another ship will normally be pumping at a high rate.

Discharge Operation: The discharge operation will be controlled and personally supervised by a ship's officer, to the satisfaction of the Mooring Master or the Assistant Mooring Master. Upon being informed by the ship's officer on watch that the tanker is ready to begin discharging, the Mooring Master will request the discharge operation to proceed according to a previously agreed upon plan regarding start-up rates and maximum discharge rates. *In the event of any emergency, either on board the tanker or on the operating platform, or anywhere in the LOOP system, all oil transfer must be stopped and all oil transfer valves closed.*

These emergencies are:

(a) Fire or explosion of a tanker, on the platform, or anywhere on the LOOP system.
(b) Loss of power or steering on a tanker underway in the safety zone.
(c) Breakage of a hawser.
(d) Rupture of a floating hose.
(e) Any confirmed pipeline rupture in the LOOP system.
(f) Power failure at any LOOP pipeline facility.
(g) Severe electrical storm in the area of the port. (Ballast receipt must also be stopped during such electrical storms.)
(h) Failure of the UHF radio communication system.

In the event of failure of the UHF radio communication system, the tanker will sound 5 long blasts on her whistle. Cargo discharge is then stopped until communications are re-established.

Oil Transfer Watch: One crew member will be stationed at the bow and an additional crew member stationed at the cargo manifold area. A licensed officer and pumpman will be based in the cargo control room, with the pumpman moving onto the deck as necessary. During the cargo transfer, the watch organisation must provide the capability to shut down pumping on short notice and to stay in constant communication with the Mooring Master and LOOP personnel at the Marine Terminal and the Galliano Operations Centre. Communications for cargo handling will be directly with the Mooring Master through the LOOP UHF portable radio system. (NOTE: Each Tanker shall have an officer who is fluent in English on duty at all times.).

Crude Oil Washing (COW): Crude Oil Washing of cargo tanks is allowed after LOOP is assured that the operation will be done safely. In order for Crude Oil Washing to be undertaken, the tanker and the tanker's personnel must satisfy the following requirements:

(a) Strict compliance with USCG Regulations 33 CFR 157. A copy of this regulation must be aboard the tanker and readily available to key shipboard personnel.
(b) Strict adherence to ISGOTT Recommendations for Crude Oil Washing are required. A copy must be aboard the tanker and readily available to key shipboard personnel.
(c) Notwithstanding the above regulations and guidelines, no COW will be permitted until the Mooring Master is satisfied that:
    1. All cargo tanks have discharged at least 1 m. of cargo depth in order to eliminate any water that may have accumulated on the bottoms of cargo tanks.
    2. The Chief Officer or the person in charge of the COW operation has participated at least twice in Crude Oil Wash operations aboard a tanker similarly equipped.
    3. There is a sufficient number of adequately trained personnel onboard to assist in the dual operations of transferring cargo and crude oil washing, in order to ensure that:
        (i) Gun nozzles are rotating in proper sequence.
        (ii) Enough source product remains in the tank supplying the cleaning oil.
        (iii) The on-deck piping system carrying the cleaning oil is continuously watched.

Note: Consideration should be given to washing dirty ballast tanks as soon as is practical to allow for ballasting, should the weather condition deteriorate.

Inert Gas Systems (IGS): The Masters of tankships calling at LOO required by 46 CFR 32.53 to have IGS operational and capab maintaining an inert atmosphere in the cargo tanks at the req positive gas pressure of 100 mm. (4 in.) of water on filled cargo and during loading and unloading, except when the cargo tanks ar free. Additionally, all tankships calling at LOOP will be in strict compl with 46 CFR 32.51-1 through 46 CFR 32.53-85 to ensure tha approval, operation (including instructions), control and instrumen of IGS are valid and functional in all respects.

DEPARTURE: *Normal Departure Procedure:* Upon completion o cargo discharge, the tanker's Master or Chief Officer and the Mo Master together estimate the time needed to prepare the tanke departure. This time will be given to the Vessel Traffic Controller o control platform, so that clearance for departure can be planned an that a mooring launch can be summoned to assist the tanker i operations of unmooring.

When the tanker is ready to leave the SPM, the Assistant Mo Master on the bow recommends the use of the tanker's engines in to ease the load on the mooring lines. When the load is eased en the tanker's crew can then disengage the mooring hawser and the mooring lines to the water.

Departure time is the time when the last mooring line is cast off. the tanker is unmoored, she manoeuvres to go clear of the SPM and to take a course for departure through the safety fairway.

Departure from the SPM to the disembarking point of the Mo Master is done under the Mooring Master's guidance and the Ve Traffic Controller's surveillance.

Emergency Departure Procedures: An emergency departure ca initiated either from the control platform or from the tanker. If ini from the platform, the Mooring Master is so notified. The tanker's eng must then be made ready for immediate service, and if cargo is discharged, the tanker's pumps must be shutdown in accordance the seriousness of the emergency. *If an abrupt shutdown of the platfo booster pumps is necessary, it is essential that the tanker's pumps be immediately shutdown or else immediately shifted to a recircu mode.* In accordance with the nature of the emergency, cargo may be lowered by line-slipping to the water. All other procedure the same as those initiated from the ship. The Master of a tanker in an emergency, for the protection of life or property, depart fro SPM without clearance from the control platform.

Emergency Shutdown: Following are the procedures to be follow case the offload pumping must be quickly stopped because of emergency.

(a) LOOP's Cargo Transfer Supervisor notifies the tanker's officer and the Mooring Master of the emergency shutdown activates the Emergency Shutdown Signalling Device.
(b) The LOOP system automatically goes into a pumping reduction, and shuts down the pumps and meters as the flo dictates.
(c) The tanker's manifold valves and the hose end butterfly are closed as soon as LOOP's pumps and the tanker's are shut off.
(d) The Pumping Platform Supervisor shuts LOOP's PLEM va
(e) If the emergency is one that makes a quick departure of the necessary, the emergency departure procedures of the pre paragraph will then be followed.

MEDICAL: Agents can arrange medical and dental treatment as consultation and hospitalisation at short notice.

FRESH WATER: Not available.

FUEL: LOOP does not provide any bunkering services or faci tankers operating in the LOOP deepwater port area. Such bunker be conducted by private concerns under arrangements made w owners or operators of tankers.

Bunkering will not be allowed to interfere with the safe and expe unloading of crude oil from tankers. All companies, craft, equipme personnel involved in bunkering inside LOOP's deepwater port are have LOOP's prior approval and must also follow LOOP's Bu Guidelines and Regulations, copies of which are available upon from LOOP.

FIRE PRECAUTIONS: As per the "International Safety Gu Tankers and Terminals".

REPAIRS: Skilled craftsmen are available for all on-board through Agent.

SURVEYORS: *Petroleum Inspectors:* A contracted "Insp Record" is available at the port to make shipboard inspection cargo. Use of this service is at the option of the shipper and is at sh expense. Shipper shall have the right to have representatives the inspection. Shipper should contact LOOP or the "Insp Record" regarding the prevailing fees and to make known in regarding use of the service.

AIRPORT: New Orleans International Airport is serviced b airlines with world wide connections. The airport is located 90 mi LOOP.

WEATHER: *Waves and Currents:* At the port, significant wave less than 1.8 m. (6 ft.) for 72% of the time, and greater than 3 m for 5.4% of the time. Currents take a generally Westerly direc of the time. Average current speed is 0.72 knots, but 3% of the current can reach a speed of 2 knots or more.

Weather at the Port: LOOP's Marine Terminal is located in a sem zone. Average Summer temperature is 29°C (84°F), and averag temperature is 14°C (57°F). Lowest temperature recorded (10°F) and highest is 38°C (100°F).

Thunderstorms in Summer and cold fronts in Winter develo and can be quite severe, with storm winds (up to Force 10) de for short periods. The Terminal is in a hurricane zone, and altho storms are an infrequent occurrence at the port, the area is ofte adversely between the months of June and November by h passing East or West of the port. Poor visibility occurs mos January when visibility of 2 nautical miles or less occurs 2% o

Weather Operating Rules: Mooring operations, hose hook-up and the operation of LOOP support vessels are weather determinant, which includes, but is not limited to, consideration of state of sea and swell, wind direction and velocity, visibility and current strength and direction. In general, the LOOP Port Superintendent may use the following guidelines in determining whether to intitate, continue or terminate any activities in the port.

(a) Generally, tanker mooring and hose hook-up can be conducted in significant seas of up to 2.0 m. Significant seas in excess of 2.0 m. will cause the activity to be reviewed by the Port Superintendent in order to consider the benefit of a lee side.

(b) Operation of LOOP support vessels and cargo discharge can generally be conducted in significant seas up to 4 m. In the event that seas increase beyond, or are predicted to increase beyond 4 m. significant wave height, especially as a result of a building storm, cargo operations may be discontinued and cargo hoses disconnected.

(c) Tankers may be required to depart the SPM when the conditions below exist, or are predicted:
  (1) if seas become greater than 5 m.
  (2) if winds become greater than 44 knots.
  (3) if current becomes greater than 1.8 knots and is aligned with winds of 40 knots or more.
  (4) if current becomes greater than 1.2 knots and is perpendicular to 40 knots winds.

(d) The complete shut-down of all systems and the evacuation of the port will be ordered when it is predicted that the centre of a hurricane will pass within 160 nautical miles of the port. Normally evacuation orders will be issued 36 hours before the storm's expected arrival.

(e) A hurricane alert is issued 72 hours ahead of an approaching hurricane. Incoming tankers will not normally be berthed after a hurricane alert, and berthed tankers will complete discharging as soon as possible and depart the port.

Also see "Radio".

REPATRIATION: Crew changes and repatriation of crew members can be arranged through Agent.

GENERAL:

List of United States Federal Regulations referenced in this Port:

Title 33 USCA 1517	– Deepwater Ports – Liability.
Title 33 CFR 150(D)	– Oil Transfer Operations.
Title 33 CFR 150.345	– Regulated Vessel Activities.
Title 33 CFR 155	– Oil Pollution Prevention Regulations for Vessels.
Title 33 CFR 157	– Rules for the Protection of the Marine Environment Relating to Tank Vessel Carrying Oil in Bulk.
Title 33 CFR 157.25 – 157.49	– Vessel Operations.
Title 33 CFR 159.7	– Marine Sanitation Devices – Requirements for Vessel Operators.
Title 33 CFR 164	– Navigation Safety Regulations.
Title 33 CFR 164.35	– Equipment: All Vessels.
Title 46 CFR 32.53	– Inert Gas System.
Title 46 CFR 34.05	– Fire Fighting Equipment.
Title 46 CFR 35.01	– Special Operating Requirements.
Title 46 CFR 35.30	– General Safety Rules.
Title 46 CFR 35.35	– Cargo Handling.

Annex V of MARPOL 73/78.

Charts: The following official charts of the National Oceanographic and Atmospheric Administration (NOAA) are recommended for use when approaching LOOP's Marine Terminal:

11340 (U.S. Gulf Coast – Mississippi River to Galveston).
11358 (U.S. Gulf Coast – Barataria Bay and Approaches).
11359 (U.S. Gulf Coast – Louisiana, LOOP Deepwater Port).

The latest editions of NOAA charts are listed in NOAA's publication "Dates of Latest Editions", which is issued quarterly and available free from National Ocean Survey, Division C44, Riverdale, Maryland 20840, U.S.A.

Support Vessel Base: National Oceanographic and Atmospheric (NOAA) Administration Chart No. 11358 shows the navigable route from the Marine Terminal to the Small Boat Harbour located on the East shore of Bayou Lafourche near Belle Pass where the support vessels are based.

Onshore Components: Major onshore components are: the Clovelly Dome Storage Terminal for receiving and storing the oil coming from the Marine Terminal and for delivering it to connecting facilities; the Operations Centre for controlling and monitoring system operations; and the Fourchon Booster Station for helping to pump the crude oil from the Marine Terminal to Clovelly Dome Storage Terminal.

Services: LOOP does not provide facilities for logistic services to tankers using the port. The company is not an "Agent", but does render to all tankers calling at its terminal the services necessary to effect a prompt, efficient turnaround. LOOP provides those services and facilities necessary for scheduling, receiving, mooring, unloading of cargo and departure of tankers calling at the port. Arrangements for logistic services must be made through each tanker's agent. Lists of logistic services can be obtained from the Agents. Messages concerning such requirements, except in an emergency, will not be accepted by LOOP.

Vessel used to deliver bunkers and tanker supplies must be approved by LOOP. Such vessels must apply for approval in accordance with the LOOP Guidelines and Regulations covering logistical service. Lists of currently approved vessels are available from LOOP on request. No telephone service is available to the ships.

Included in tanker services that need to be arranged through tankers' agents are mail services, medical services and garbage pick-up. Garbage collection shall be in compliance with Annex V of MARPOL 73/78. There are no facilities for handling mail. *It is important that mail for tankers not be addressed to LOOP Inc.* There is no medical service on LOOP's offshore platforms. Medical service ashore, as well as helicopter service for medical evacuation, is available through the Agents.

Helicopter Transfer of Personnel and Supplies: Helicopter operations are sanctioned on tankers, subject to the Master's and the Port Superintendent's approval, for the following situations:

(a) Medical evacuation, personnel transfer and replenishment of supplies by helicopter is permitted on an individual basis. The Port Superintendent has authority to determine when conditions are not safe for such helicopter operations. Shoreside treatment for medically evacuated patients must be arranged by the tanker through the tankers' agent. LOOP will assist with communication relays for emergency medical purposes but will not act as agent.

(b) In order to facilitate decisions about the safety or feasibility of helicopter operations on tankers, LOOP advises Masters of the characteristics of any helicopters that LOOP itself dispatches.

Personnel Transportation: LOOP provides no boats for transportation of tankers' personnel to shore. When transportation is required, it must be arranged through tanker's agents. There is almost no public transportation on land from towns near the LOOP platform. Any such land transportation should also be arranged in advance through tanker's agents.

Small Boats and Visitors: No boats are permitted or authorised to come alongside tankers calling at the port except those required by LOOP or by the ship to furnish services or carry out official business, and then only after clearance from the Vessel Traffic Controller and Mooring Master.

It is strongly recommended to Masters of tankers that visitors to the ship be restricted to a minimum, because of the hazards involved. Visitors to the ship and crew are not allowed to embark or disembark by the way of LOOP's platforms or launches.

Masters of vessels are advised that decks and the ship's ladders should be well lighted and ladders should be kept well clear of the water during unloading to prohibit unauthorised persons from boarding the ship.

Cargo Documentation: The Cargo Quantity and Quality Report, which is a LOOP document, will be completed as much as possible by LOOP personnel before each tanker's arrival. After the tanker finishes discharging, the Mooring Master receives the necessary figures by radio from the Control Transfer Supervisor, so that the document can be completed before sailing. Cargo quantity is measured by representatives of LOOP by using turbine meters and provers on the pumping platform. Cargo quality is monitored by automatic sampling devices on the platform, and for accounting purposes manual tests are done on samples taken from the automatic sampler on the platform. LOOP furnishes United States Customs authorities with the necessary documentation.

Pollution: Discharge of oil or oily slops into the sea is strictly forbidden. LOOP has no facilities for receiving any oil residues or oily ballast water. Tankers wishing to offload such substances must do so elsewhere. Tankers that release oil or oily ballast water either at the SPM or in the anchorage area will be held responsible for all clean-up costs. The U.S. Coast Guard Regulations concerning water discharges at sea are contained in 33 CFR 157.25 to 157.49. Regulations in 33 CFR 159.7 require an operable marine sanitation device aboard all vessels in United States waters. For purposes of these regulations the LOOP safety zone is considered U.S. waters.

Note: All ballast and bilge overboard discharge valves are to be shut and sealed and all deck scuppers plugged while at a LOOP SPM or anchorage, although scuppers can be temporarily opened to drain off rainwater.

Safety: LOOP maintains a vigorous safety programme. The Mooring Master will discuss and review LOOP's safety requirements and procedures with tanker's Master and Chief Officer before cargo discharge begins. Coast Guard Inspectors will board all foreign vessels, at least annually, to ensure compliance with federal regulations, including Part 164, Title 33 of the United States Code of Federal Regulations, Navigation Safety.

Drug and Alcohol Policies: It is the company's belief that the use of drugs or alcohol impairs employee performance and creates unsafe working conditions, thereby posing dangers to employees, contractors, vessel personnel and to the environment. LOOP is committed to maintaining a productive and safe working environment. To that end, all LOOP employees and employees of contractors performing services for LOOP, are not permitted to consume or have in their possession any alcohol or drugs, while on Company premises. For this policy's purpose, the Safety Zone is considered to be Company premises.

Masters, whose ships are in the Safety Zone, are strongly encouraged to voluntarily follow LOOP's policy concerning consumption of alcohol and drugs by crew members, thus contributing to a safer discharge.

Customs: LOOP furnishes customs authorities with documentation of volumes and evidence of quality of cargoes received into the system based on measurements at the Marine Terminal pumping platform. Arrangement for the posting of such sureties and payment of fees or duties, and for other documentation that may be required, is the responsibility of the importer and/or operator of the tanker. The importer's customs broker, or his other authorised representative, will advise the importer regarding procedures and the amount of duty or fees levied on oil shipped through the port complex.

Storage: Procedures and charges for storage of crude oil by shippers in excess of normal residence time are covered in the Terms and Conditions of Service.

State Fees: There are presently no usage fees directly assessed by Louisiana to shippers and tankers at the deepwater port. If Louisiana imposes any fees in the future, tankers will be responsible to pay them.

Provisions: All deck and engine room stores are available in quantity. High quality fresh and frozen provisions available through Agent.

Regulated Vessels Activities: Vessel activities permitted and prohibited at the port, controls on those activities, and the specific safety zone areas in which the controls apply are set forth in 33 CFR 150.345.

	Safety Zone		
Regulated Vessel Activities	*Areas to be avoided around each PPC and SPM*[1]	*Anchorage Area*	*Remaining Portion of Safety Zone*
Tanker calling at port.	C	C	C
Support vessel movement.	C	C	C
Transit by vessels other than tankers or support vessels.	N	P	P
Mooring to SPM by vessel other than tankers or support vessels.	F		
Anchoring by vessels other than tankers or support vessels.	N	F or P	N
Fishing, including bottom trawl (shrimping).	N	P	N
Mobile drill operations or erection of structures[2].	N	N	N
Lightening/transshipment[3].	N	N	N

[1] The radius of areas to be avoided around each PPC is 600 m. and around each SPM is 500 m.

[2] Not part of Port Installation.

[3] Exception, 33 CFR 150.423(e).

Note: The person in charge of any vessel planning to enter a Safety Zone should contact the port's Vessel Traffic Supervisor on Channel 10 or 74 VHF-FM before entry and comply with that person's instructions.

Key to regulated activities:

- F – Force Majeure.
- N – Not permitted.
- C – Tanker calling at port and support vessel movements: Permitted when cleared by Vessel Traffic Supervisor.
- P – Vessels other than tankers or support vessels: Permitted when not in immediate area of tanker, clearance by Vessel Traffic Supervisor required.

Communications with Vessel Traffic Supervisor required.

For transitting foreign flag vessels, the requirement for clearance to enter the Safety Zone is advisory in nature.

AUTHORITY: LOOP Inc. (See "Operator").

LOS ANGELES, California: 33.43 N. 118.16 W.

(See Plan)

PORT LIMITS: The seaward boundary of the Port of Los Angeles is, for most purposes, the breakwater through which arriving vessels pass at Angels Gate Lighthouse.

DOCUMENTS: *First Port of Arrival (Not handled directly by Port):*

1 Complete Manifest deposited with Customs, original and traveller.
1 Complete Manifest returned to vessel (Traveller).
1 Manifest of first port cargo deposited with Customs broker.
2 Quarantine Declarations (Form PHS 43).
2 Agriculture Declarations (Form AIQ 43).
1 Visaed Crew List (Form I-418) 5 additional copies.
1 Crewman's Landing Permit (Form I-95A) for each crew member and (Form I-94) for each passenger.
1 Dangerous Cargo Manifest deposited with Captain of the Port. 1 copy in hands of Chief Officer for review by the Fire Department.

The Coast Guard Captain of the Port must be informed of vessel's ETA 24 hours prior to vessel's arrival.

Second and each subsequent Port of call in U.S:

2 Manifests of Cargo for second U.S. port left with Customs.
1 Travelling Manifest returned to Master.

(Note: Travelling Manifest is carried and deposited with Customs at final port of discharge in U.S. – in addition to above required documents 4 additional copies should be available.)

U.S. Coast Guard: The U.S. Coast Guard periodically boards foreign-flagged commercial vessels to conduct safety inspections under our Port State Control program. The goal of these safety inspections is to ensure compliance with both applicable U.S. regulations and international treaties and conventions (SOLAS, MARPOL, ICLL, ILO 147, STCW 78, etc.). Vessel documentation is checked as well as structural, propulsion, electical, steering, firefighting, navigation, pollution prevention and lifesaving requirements. In addition, the crew will be assessed based on operational tests of some of the vessel's equipment. All foreign vessels will be boarded at least annually.

Documents (to be checked by the Coast Guard):

Crew List.
Officer's Licenses (Issued by flag state).
Safe Manning Document.
Shipboard Oil Pollution Emergency Plan (SOPEP).
Ship's Particulars.

Radio Officer's Report: April 1991.

Immigration: Hand over form issued by Immigration at previous U.S. port.

Customs Broker:

1 copy Travelling Manifest.
2 copies Master's Oath (Form 1300).
2 copies Crew List (Form 1-418).
2 copies Ship's Stores List (Form 1303).
2 copies General Declaration (Form 1301).

Agriculture: Officials will board the vessel and inspect and seal stores.

Crew Signing-off: Fill in Crew Declaration (Form 5129), state only nu of suitcases and bags. Hand over 1-95A to Agent to prepare Immigr matters (together with Passport).

Crew Signing-on: Crew member to hand over Form 1-94 to Age Immigration.

PILOTAGE: Request made through Agent. Contact can be m through VHF Channel 73 (156.675 MHz). Call: KEB 260 Los Ang Pilots. Tel: (310) 732-3805. Fax: (310) 832-3811. Not less than 2 h notice of arrival or departure. 1 long and 1 short blast on ship's wh or siren, or international signal. Pilot will board in vicinity of sea-b ("LA" entrance buoy, lighted bell buoy "L.A." red and white ve stripes. Radar reflector).

Under normal weather conditions, the pilot ladder should be on starboard side 1 m. above water.

Arriving vessels should keep to Eastward of Los Angeles Sea-B

Departing vessels should keep to Westward of Los Angeles Sea-B

Masters or Agents are requested to advise the Pilot Station when there is a change in the arrival or sailing time.

Note: Ships arriving can usually make good VHF radio contact ex between Point Vicente and Point Fermin.

Shipmaster's Report: March 1994.

Vessels enroute to Los Angeles must contact "Los Angeles Pilot VHF Channel 73.

ANCHORAGES: Anchorages will be redesignated by the Coast G in June 1996 due to significant port expansion/improvement proje

Tank vessels, chemical carriers, and all ships 600 ft. LOA and are not to anchor in Anchorages F-1 to F-4 or G-1 to G-4 adjace the Federal Breakwater.

The Vessel Traffic Information Service (VTIS) controls the designa of anchorages outside the breakwater; the Long Beach Pilots contro inside anchorages.

No permit required to anchor less than 10 days. Permit for ove days obtained from Captain of the Port, USCG and Harbour Depart Port Warden. Permit is required for Explosives anchorage.

Anchorage Regulations: Reports required per U.S. Coast Guard:

(1) The Master of every vessel upon anchoring shall notify the C Guard Captain of the Port, giving vessel name, anchorage nu and time anchored.
(2) The Master of every vessel, upon departing anchorage, shall n the Coast Guard Captain of the Port, giving vessel name, ancho number, time underway and destinaton, i.e. bound for sea or b for Berth No....
(3) For the above reports, the call to the Coast Guard Captain o Port should be made on VHF Channel 16.

APPROACHES: Vessels approaching the ports of Long Beac Angeles should use the prescribed traffic separation scheme. Be ad that the traffic separation scheme has been temporarily mod pending adoption of permanent changes by the Maritime S Committee. The modification reconfigures the Western approach t Los Angeles/Long Beach precautionary area in the following man portion of the TSS separation is reduced from 2 miles to 1 mile in and merges with the existing separation zone at a slightly adjuste point; the outbound lane has been shifted 1 mile South of its pr charted location; and the precautionary area is reduced in size Eastern side. Vessel charts should be corrected as per most r Notice to Mariners for geographical positions of these changes (C required by Captain of the Port (COTP) – NOAA: 18720, 18740, 1 18749 and 18751; or British Admiralty: 899, 1063, 1081 and 10 other foreign equivalent). Large tankers should pick up the Pilo 2 miles South of the sea buoy and Pilots should have the oppo to board without excessive way on the vessel so as to have her control before entering the breakwater area. All vessels entering th should pass Eastward of the respective sea buoy and vessels out shall pass Westward of the sea buoy. The Master should use ex caution in the Precautionary Area due to proximity of outbound and numerous small craft, when at night, their lights are not distinguishable in and around breakwaters or against the backgro harbour lights. Outbound vessels should avoid setting course clearing South of the sea buoys and adjoining anchorages and b for crossing traffic.

Also see "VTS".

MAX. SIZE: Restrictions on draft only. Supertanker terminal in harbour has fairway of 51 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Alban

Foreign Quarantine: U.S. Public Health Service Quarantine S 380 World Way, Box N-19, Los Angeles International A Los Angeles, California 90045. Tel: (213) 215-2365.

Standard Procedures: Radio Free Pratique clears a vessel to ent harbour without inspection. Inspection Officer will board a vessel on the following criteria:

A. 15 days prior to entering a U.S. port, if any crew mem passenger exhibits these symptoms:
   (1) Temperature of 100° or higher for 2 days, or is accom by:
      (a) rash
      (b) jaundice or
      (c) glandular swelling
   (2) Diarrhoea severe enough to prevent performing norma
   (3) Death aboard ship.
B. Any ship visiting a plague-infested country within 60 days entering a U.S. port.
C. Any ship that has requested a Deratting Inspection/Ex Certificate.

If subject to inspection, vessel boarding hours are 060 1800 hrs., Monday – Saturday regular time. 1800 hrs. – 060 overtime, including Sundays and holidays.

Reporting or request for boarding must be relayed and rec the office 24 hours prior to a ship's arrival. Under Conditions above, the quarantine flag may be ordered flown.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: International Telephone and Telegraph, call letters "KOK" Los Angeles Radio.

RADAR/VHF: The Los Angeles Harbour Pilot's station equipped with radar for use of Pilot and is manned 24 hours a day. The Pilots also monitor VHF Channels 14 (156.7 MHz) and 16 (156.8 MHz). Also see "Long Beach" and "Services".

VTS: *Vessel Traffic Information Service – VTIS:* A Vessel Traffic Information Service is in operation on the approaches to Los Angeles and Long Beach Harbours. Operated jointly by the U.S. Coast Guard and civilian specialists from the Marine Exchange, the VTIS provides round-the-clock information about commercial and military vessel traffic. Covered vessels are required to participate in the VTIS. The following are considered covered vessels:

1. Vessels of 300 or more gross tons that are propelled by machinery.
2. Vessels of 100 or more gross tons carrying one or more passengers for hire.
3. Vessels certified for 150 passengers or more for hire.
4. Commercial vessels 26 ft. or more in length that are towing other vessels alongside, astern or by pushing ahead.
5. Dredge and floating plants.

Key Points:

1. The 20 mile outer limit is defined by a 20 mile arc from Point Fermin (Lat. 33° 42.3' N., Long. 118° 17.6' W.).
2. There is no speed limit between the 20 mile limit and the Precautionary Area. However, ships are required to be at 12 knots or less upon entering the Precautionary Area.
3. A minimum vessel separation of 0.25 nautical miles is required in the Precautionary Area.
4. Code of Federal Regulations, CFR 33, Part 165, Sub-section 165.1109, identifies the Precautionary Area as a Regulated Navigation Area.

Upon Entering 20 Mile Outer Limit: Call the Vessel Traffic Centre (VTC, VHF Channel 14, call sign "LA Long Beach Traffic"). Provide the following information:

1. Vessel name/call sign.
2. Position, course and speed.
3. Vessel destination.
4. State whether or not taking a Pilot.
5. Estimated time of arrival to breakwater.

Decrease speed to 12 knots or less upon entry to Precautionary Area.

Upon Entering Precautionary Area: Call Vessel Traffic Centre. Provide the following information:

1. Confirm vessel speed is 12 knots or less.
2. Confirm Master is on the bridge.
3. Confirm vessel is in hand steering.
4. Contact Pilots (Channel 73 for Los Angeles or Channel 12 for Long Beach).

TUGS: On stand-by 24 hours a day. However, should be ordered prior to arrival. Tugs join vessel in main channel, tug lines used, except when towing astern.

BERTHING: Generally arranged through Agent. Berthing under control of Port of Los Angeles' Chief Wharfinger.

Berth No.	*Depth* (ft.)	*Berth* No.	*Depth* (ft.)
45-47	51	171-173	35
49-50	51	174-176	45
51-55	35	177-179	35
56	35	180-181	35-37
57-60	30	187	35
70-71	35	188-190	45
72	25	191	35
73 A-E	25	195-199	32-36
73 W-Z	25	200 A	34
87-89	35	200 G,H	25
90-92	35	206	45
93 A-B	35	207-209	40
118-119	35	210-211	35
120	35	212-215	45
122-125	45	216-217	45
126-131	38	218-221	45
134-135	35	222-225	35
136-139	45	226-229	45
142-144	35	230	45
145-146	45	231-233	45
147	35	234-235	38
148-149	35	236	45
150-151	35	238-239	35
153-155	35-36	240 A,B	30
163-164	32	259	18
165-166	37	261-264	15-20
167-169	35	265-267	15-20

Whenever a vessel is scheduled, which would approach the design depth of a particular berth, the Pilot Station Management should be contacted, so that an individual judgment can be made.

SPECIALISED CARGO HANDLING FACILITIES:

Automobile Terminals:

Pasha/Honda: Berth 87 – 89.
Operated by: Pasha Properties Inc.
Contact: Bruce Peyton, Vice President of Operations, Automobile Division, The Pasha Group. Tel: (310) 832-9803.
Total land area: 25 acres (10 ha.).
Total berth length: 800 ft. (244 m.)
Vehicle manufacturerers served: American Honda Motor Co. Inc. and Acura Division.
Services offered: Complete automobile processing.

Distribution and Auto Service Inc. (DAS): Berths 195 – 199.
Operated by: DAS (at the Port of Los Angeles since 1969).
Contact: Robert L. Miller, Director of Marketing, DAS. Tel: (310) 835-6000.
Total land area: 83 acres (34 ha.).
Building size: 120,000 sq.ft. (11,148 sq.m.).
Total berth length: 2,267 ft. (691 m.).
Vehicle manufacturers served: Nissan Motor Corp. in USA, Infiniti Division, Mercedes-Benz of North America Inc., Kia Motors America Inc., Hino Diesel Trucks (USA) inc. and Mitsubishi Fuso Truck of America Inc.
Services offered: Complete automobile processing.

Auto Warehousing Co.: Berths 200A.
Operated by: Auto Warehousing Co.
Contact: Steve Rodriguez, Terminal Manager, Auto Warehousing Co. Tel: (310) 522-9555.
Total land area: 14 acres (6 ha.).
Total berth length: 736 ft. (224 m.).
Vehicle manufacturers served: Hyundai Motor America and American Suzuki Motor Corp.
Services offered: Complete automobile processing.

Breakbulk/Neobulk Terminals: Berths 54 – 55.
Operated by: Stevedoring Services of America (SSA).
Contact: John Di Bernardo, Regional Vice President, SSA. Tel: (310) 432-8100.
Total land area: 11 acres (5 ha.).
Total berth length: 1,340 ft. (408 m.).
Stevedores: SSA.
Transit shed capacity: 211,290 sq.ft. (19,629 sq.m.).
Other features: Rail access.
Shipping lines served: Lauritzen Reefers A/S and CSAV-Chilean Line.

Worldport LA: Berths 153 – 155.
Operated by: Worldport LA.
Contact: Property Management Division. Tel: (310) 732-3860.
Total land area: 13 acres (5 ha.).
Total berth length: 1,720 ft. (524 m.).
Stevedores: Optional.
Transit shed capacity: 232,525 sq.ft. (21,602 sq.m.).
Other features: Rail access.
Shipping lines served: Facility available upon request and approval.

OMNI Terminals:
Rio Doce Pasha Terminal L.P. (RDP, a limited partnership): Berth 143 – 146.
Operated by: RDP Terminal L.P.
Contact: Fred Van Deventer, Contract Administration Manager, RDP Terminal L.P. Tel: (310) 233-2000.
Total land area: 15 acres (6 ha.).
Total berth length: 2,100 ft. (640 m.).
Mode of Operation: Grounded, wheeled, palletised and chassis.
Number of cranes: Three, each with 40 long ton (41 metric ton) capacity.
Stevedore: RDP Terminal L.P.
Transit shed capacity: 200,000 sq.ft. (18,581 sq.m.).
Other features: Rail access.
Shipping lines served: Docenave and Wilhelmsen Lines (SSA).

Rio Doce Pasha Terminal L.P. (RDP, a limited partnership): Berths 174 – 181.
Operated by: RDP Terminal L.P.
Contact: Fred Van Deventer, Contract Administration Manager, RDP Terminal L.P. Tel: (310) 233-2000.
Total land area: 40 acres (16 ha.).
Total berth length: 3,300 ft. (1,006 m.).
Mode of operation: Wheeled and grounded.
Number of cranes: Two, each with 40 long ton (41 metric ton) capacity.
Stevedore: RDP Terminal L.P.
Transit shed capacity: 255,000 sq.ft. (23,690 sq.m.).
Other features: Ondock rail access.
Shipping lines served: Hyundai Merchant Marine (America) Inc., Intermarine Inc., Maruba s.c.a., Pan Ocean Shipping Co., Star Shipping (USWC) Inc. and Yukong Line Ltd.

CONTAINER HANDLING FACILITIES:
American President Lines Ltd. (APL): Berths 121 – 126.
Operated by: Eagle Marine Services Ltd.
Contact: Charles Savre, Port Manager. Tel: (310) 548-8777.
Total land area: 129 acres (52 ha.).
Total berth length: 2,000 ft. (610 m.).
Mode of operation: Wheeled and grounded.
Number of cranes: Five, each with 40 long ton (41 metric ton) capacity.
Stevedore: Eagle Marine Services Ltd.
Other features: Container freight station and maintenance and repair station.
Shipping lines served: APL, Australia-New Zealand Direct Line (ANZDL), Mitsui O.S.K.Lines Ltd. (MOL), Orient Overseas Container Line (OOCL), Philippines, Micronesia & Orient Line (PM&O Line) and Transportacion Maritima Mexicana (TMM).

Yang Ming Line (YML): Berths 127 – 131.
Operated by: Marine Terminals Corp.
Contact: Captain Derek Luo, Assistant Regional General Manager, Solar International Shipping Agency Inc. Tel: (310) 548-4629.
Total land area: 63 acres (26 ha.).
Total berth length: 1,800 ft. (549 m.).
Mode of operation: Grounded and chassis.
Number of cranes: Three, each with 40 long ton (41 metric ton) capacity.
Stevedore: Marine Terminals Corp.
Other features: Maintenance and repair facility.
Shipping lines served: YML.

Trans Pacific Container Service Corp. (TraPac): Berths 136 – 139 and 142.
Operated by: TraPac (a subsidiary of Mitsui O.S.K. Lines Ltd.).
Contact: Frank N. Pisano, Regional Vice President/General Manager, Los Angeles. Tel: (310) 830-2000.
Total land area: 88 acres (36 ha.).
Total berth length: 2,050 ft. (625 m.), with preferential assignment for an additional 1,300 ft. (396 m.).
Mode of operation: Wheeled and grounded.
Number of cranes: Four, 100 ft. (31 m.) gauge, each with 40 long ton (41 metric ton) capacity, with preferential assignment for 3 additional cranes, each also having 40 long ton capacity.
Stevedore: TraPac.
Other features: 450 reefer plugs (wheels), 48 grounded plugs, 2 portable generators that maintain an additional 64 plugs, a 28,000 sq.ft. (2,601 sq.m.) maintenance shop, a wash system for the exterior of containers, a wash system for the interior of containers, 3 transtainers, 4 side-handlers and one toplift.
Shipping lines served: Mitsui O.S.K. Lines Ltd. (MOL), Dole Ocean Liner Express, American President Lines Ltd., Orient Overseas Container Line, d'Amico Line, Italia Line and Nedlloyd Lines.

Matson Navigation Co.: Berths 206 – 209.
Operated by: Matson Terminals Inc.
Contact: Bal Dreyfus, Vice President/Area Manager, Matson. Tel: (310) 519-6501.
Total land area: 91 acres (37 ha.).
Total berth length: 2,180 ft. (665 m.).
Mode of operation: Grounded and chassis.
Number of cranes: Four, each with 40 long ton (41 metric ton) capacity.
Stevedore: Matson Terminals Inc.
Other features: Container freight station, rail-mounted Morgan cranes, maintenance and repair facility, refrigerated container wash rack, empty container handlers and tophandlers.
Shipping lines served: Matson Navigation Co., Blue Star Line, Columbus Line, CSAV, Grancolombiana Line, Navicana Line and SERPAC.

Yusen Terminals Inc. (YTI): Berths 212 – 215.
Operated by: YTI (a subsidiary of Nippon Yusen Kaisha).
Contact: Kazuo Kobayashi, President/Chief Executive Officer, YTI. Tel: (310) 548-8000.
Total land area: 104 acres (42 ha.).
Total berth length: 2,000 ft. (610 m.).
Mode of operation: Wheeled and grounded.
Number of cranes: Four post-Panamax, 100 ft. (30.5 m.) gauge, each with 40 long ton (41 metric ton) capacity, and two 50 ft. (15 m.) gauge, each with 40 long ton capacity.
Stevedore: Centennial Stevedoring Services.
Other features: 21,937 sq.ft. (2,038 sq.m.) administration/in-gate building, 23,386 sq.ft. (2,173 sq.m.) maintenance and repair building with 10 bays, 4,798 sq.ft. (446 sq.m.) marine building, 3,355 wheeled slots (including 400 reefer plugs), 20 container capacity wash rack system, 10 entry lanes with 6 scales, 4 exit lanes, vertical chassis stacking capacity (1,008), 46 hustlers, 2 top picks, 6 side handlers and 2 chassis stackers.
Shipping lines served: NYK Line, Hapag-Lloyd (America) Inc., Neptune Orient Lines Ltd. (NOL) and Pacific Shipping Ltd.

Evergreen America Corp.: Berths 229 – 236.
Operated by: Marine Terminals Corp.
Contact: Captain James Chien, Senior Vice President, Evergreen. Tel: (310) 519-6800.
Total land area: 118 acres (48 ha.).
Total berth length: 3,900 ft. (1,189 m.).
Mode of operation: Grounded and chassis.
Number of cranes: Eight, each with 40 long ton (41 metric ton) capacity.
Other features: Container freight station, maintenance and repair facility, refrigerated container wash rack, transtainers and top/side handlers.
Shipping lines served: Evergreen.

BULK HANDLING FACILITIES:
Berths 49 – 53:
Operated by: Kaiser International Corp., 411 North Harbor Boulevard, Suite 300, San Pedro, CA 90731. Tel: (310) 514-2880.
Contact: Richard E. Holdaway or James E. Holland.

Depth alongside of 51 ft. (16 m.) enables bulk carriers exceeding 100,000 d.w.t. tons to call at this dry bulk terminal. The facility can stockpile more than 170,000 metric tons of commodities, including coal and petroleum coke. Unit trains carrying coal, copper concentrates and other dry bulk products are unloaded by rotary car dumping. Petroleum coke is delivered by railcars and bottom dump trucks. Export commodities are transferred from hoppers by conveyor belt either directly to ships for export or to a rail-mounted stacker for storage. The shiploader handles 1,400 tons (1,270 tonnes) of coal an hour, moving between hatches for a spread of up to 600 ft. (183 m.). An 800 ft. (242 m.) concrete wharf supports the shiploader. Import commodities are discharged using a dock rail-mounted Whirley gantry crane and clamshell bucket. Imports are stockpiled or directly loaded to railcars or trucks.

Berth 191:
Operated by: Wilmington Liquid Bulk Terminals Inc., 401 Canal Avenue, Wilmington, CA 90744. Tel: (310) 549-0961.
Contact: Jay Johnston.

Wilmington Liquid Bulk and CPC Terminals operate a bulk cement distribution facility at this site. Built to handle up to 1,000,000 tons of cement annually in an 86,000 sq.ft. (7,989 sq.m.) warehouse, the Terminal features state-of-the-art computerisation, dust control and pneumatic conveying. Two 250 t.p.h. pneumatic Kovako units discharge up to 38,000 tons of cement from bulk carriers to either the warehouse or silo storage areas. The cement is then distributed by truck throughout Southern California. Wilmington Liquid Bulk also operates Berths 187-190.

Berths 210-211:
Operated by: Hugo Neu-Proler Co., P.O.Box 3100, Terminal Is
CA 90731. Tel: (213)775-6626 or (310) 831-0281.
Contact: Jeffrey P. Neu.

This 22 acres (9 hectares) dry bulk facility handles all grades of fer and non-ferrous scrap metal, which is transported in by truck throughout Southern California. A bulkloader is used to load cut shredded grades of scrap metal into 25,000 ton to 33,000 ton ves The onsite shredder processes approximately 900 tons of automo and light-gauge scrap metal and non-ferrous metals daily. A 2,00 onsite shear processes an additional 300 tons of unprepared h melting steel scrap. The berth has an alongside depth of 38 ft. (12

BRIDGES: *Horizontal and Vertical Clearances:* Vertical clearance given above Mean High Water (4.7 ft.).
Vincent Thomas Bridge:
Horizontal usable width (of channel): 1,150 ft.
Vertical clearance: 165 ft.
Middle 500 ft. width: Vertical clearance 185 ft.
Badger Avenue (Henry Ford) Bridge:
Replacement of the existing bridge will result in restricted or prohi use of the Cerritos Channel through January 1997. Consult the Coast Guard Aids to Navigation and Notice to Mariners.
Commodore Heim Bridge:
Horizontal clearance: 180 ft.
Vertical clearance: Bridge down – 37 ft.
Bridge up – 162 ft.
Cerritos Channel Drawbridges – Consolidated Requirements:
(The U.S. Coast Guard has consolidated the requirements for drawb operations, including Cerritos Channel, as contained in Code 3 Federal Regulations, Part 117).
(a) The draw of the Commodore Schuyler F. Heim Highway Br Mile 4.5 at Long Beach, shall open on signal, except that 0630 hrs. – 0800 hrs. and 1530 hrs. – 1800 hrs., Monday thr Friday, except federal holidays, the draws need not open fo passage of vessels.
(b) The draw of the Henry Ford Avenue Railroad Bridge sha maintained in the open to navigation position, except when a is crossing or when maintenance work is being performed.
(c) The opening signal for the Commodore Schuyler Heim Brid 3 prolonged blasts. The acknowledging signal is 2 prolonged b followed by 1 short blast when the draw will open immediately 5 short blasts when the draw cannot open immediately.
(d) If the draw of the Henry Ford Avenue Railroad Bridge is in the c position, the opening signal is 2 short blasts, followed by 1 prolo blast. The acknowledging signal is 2 prolonged blasts, followe 1 short blast when the draw will open immediately, and 5 short b when the draw cannot open immediately.
(e) Radiotelephones are installed to enable the drawtender a Commodore Schuyler Heim Bridge and the Henry Ford Av Railroad Bridge to communicate with vessels on radiotelep frequency 156.65 MHz (Channel 13), or such other frequen may be assigned by the Federal Communications Commissio

Gerald Desmond Bridge:
Horizontal usable width (of channel): 260 ft.
Vertical clearance: 155 ft.
Southern California Edison Co. – Overhead Power Cables:
Vertical clearance: 153 ft.

TANKERS: Load and discharge lines have 6 in. and 8 in. sta flanges (super-tanker terminal has 12 in. lines with standard flang not so equipped ship must furnish its own "C" clamps. Recommen have reducers on board to handle 6 in. and 8 in. flanges. Re discharge facilities available for limited quantities. All types and g of petroleum available. Also see Long Beach – "Tankers".

Berth 45 – 47:
Operated by: GATX Tank Storage Terminals Corp., 2000 Sepulveda Boulevard, Carson, California 90810. Tel: (310) 518-7
Contact: Jack Szallai.

GATX Terminals operates this facility, which is designed to h larger sized crude vessels carrying in excess of one million bar ANS and/or imported crude. The facility is located in the out Angeles Harbour, allowing vessels easier and quicker access berths. The dock features 12 in. (31 cm.) and 16 in. (41 cm.) lo unloading arms, and is capable of flow rates in excess of 35,000 per hour. The maximum draft is 512 ft. (16 m.) and the length o 898 ft. (274 m.). Pipelines from the facility connect to GATX Angeles Marine Terminal at Berth 172 and Mobil's Sou Terminal 1. GATX also operates port facilities at Berths 70 – 71 119, 120, and 171 – 173.

Berths 118 – 119:
Operated by: GATX Tank Storage Terminals Corp., 200 Sepulveda Boulevard, Carson, California 90810.
Contact: Jack Szallai.

GTX operates this public liquid bulk terminal for receiv exporting petroleum products. Featuring usable berthing length o (250 m.) and depth alongside of 36 ft. (11 m.), the fac accommodate either one large tanker or 2 smaller vessels o simultaneously. GATX uses 5 pipelines running from the 14 storage tanks, which have a total product storage capacity of barrels. Most petroleum products can be accommodated at the including oxygenates, gasolines, distillates, jet fuels, blendsto refinery feedstocks. In addition, the Terminal is directly connected to an additional 4,600,000 barrels of tankage lo GATX's Carson Terminal. GATX also operates port facilities a 45 – 47, 70 – 71, 120 and 171 – 173.

Berth 120:
Operated by: GATX Tank Storage Terminals Corp., 2000 East Sepulveda Boulevard, Carson, California 90810.
Contact: Jack Szallai.

GATX and Petrolane both utilise this berth. GATX uses Berth 120 to accommodate tankers and barges unloading/loading fuel oils, cutter stocks and bunker fuels. In addition to being pipeline-connected to Berths 118 – 119 for bunkering operations, Berth 120 is also directly pipeline-connected to GATX's 410,000 barrel Gaffey Street Terminal. Petrolane utilises Berth 120 for transporting petroleum, LNG and LPG to their 600,000 barrel tank farm adjacent to Gaffey Street. The facility features usable berthing length of 418 ft. (122 m.) and depth alongside of 35 ft. (11 m.). An LPG swivel boom, petroleum products flex hose and valve connections are used to handle cargo. GATX also operates port facilities at Berths 45 – 47, 70 – 71, 118 – 119 and 171 – 173.

Berths 148 – 151:
Operated by: Unocal, Berth 150, Pier A Place, Wilmington, California 90744. Tel: (310) 834-4691.
Contact: Frank Lopez.

Unocal operates this liquid bulk terminal primarily for vessel loading of partly or fully refined petroleum products from onsite storage tanks. Usable berthing length totals 1,344 ft. (410 m.) and depth alongside measures 35 ft. (11 m.). A pneumatically operated mast and boom derrick are used to unload cargo.

Berth 164:
Operated by: Ultramar Inc., 961 La Paloma Street, Wilmington, California 90744. Tel: (310) 834-7254.
Contact: Jim Leary. Tel: (310) 522-8828.

Operated by Ultramar Inc., this liquid bulk facility imports intermediate refining feedstocks to support the Ultramar Refinery operation nearby. Exporting of distillates and gas oils is another aspect of the operation. The berth, which has total length of 1,000 ft. (305 m.), includes frontage on Berth 163. The draft is 33 ft. (10 m.) alongside Berth 164. The facility operates round-the-clock, 365 days a year.

Berths 165 – 166:
Operated by: U.S. Borax Inc., 300 Falcon Street, Wilmington, California 90744. Tel: (310) 522-5300.
Contact: Duke D. Vetor.

U.S. Borax Inc., a wholly-owned subsidiary of the RTZ Corp., operates this bulk loading terminal to ship refined borates. The facility has a product storage capacity of 35,000 tons (31,752 metric tons), and can transfer cargo to vessels at a rate of up to 1,000 tons (907 metric tons) hourly. Maximal berthing length totals 679 ft. (207 m.). Providing an international service, U.S. Borax Inc. exports principally to Western Europe.

Berths 167 – 169:
Operated by: Shell Oil Products Co., P.O. Box 6249, Carson, California 90749. Tel: (310) 834-2638.
Contact: David M. Felger.

Shell receives petroleum products at this liquid bulk terminal, which has a wharf of 1,249 ft. (380 m.), usable berthing length of 1,310 ft. (400 m.), depth alongside of 38 ft. (12 m.) and a dolphin. Five derricks, equipped with nine 35 ft. (11 m.) booms, are used to handle petroleum. In addition, the facility features 11 storage tanks with a total product storage capacity 530,000 barrels on a 10 acres (4 hectares) site adjacent to the berths.

Berths 171 – 173:
Operated by: GATX Tank Storage Terminals Corp., 2000 East Sepulveda Boulevard, Carson, California 90810. Tel: (310) 518-7700.
Contact: Jack Szallai.

GATX operates this public liquid bulk terminal to receive and export crude, refinery feedstocks, black oils, and bunker fuels. The facility has 18 storage tanks with a total product storage capacity of 980,000 barrels, as well as 1,412 ft. (430 m.) of usable berthing length and 35 ft. (11 m.) of depth alongside. In addition to handling full-size vessels, the terminal can also accommodate barges that are loaded for bunkering. The terminal is also directly pipeline-connected to an additional 4,600 barrels of tankage located at GATX's Carson Terminal. GATX also operates port facilities at Berths 45-47, 70-71, 118-119 and 120.

Berths 187 – 190:
Operated by: Wilmington Liquid Bulk Terminals Inc., 401 Canal Avenue, Wilmington, California 90744. Tel: (310) 549-0961.
Contact: Jay Johnston.

Wilmington Liquid Bulk stores and ships cargo at this public terminal, which features a draft alongside of 45 ft. (14 m.), pipeline access, truck receiving facilities and a rail link. In addition, the liquid bulk terminal has 83 storage tanks with a total product storage capacity of 2,500,000 barrels, including lube oil, diesel fuel, caustic soda and vegetable oils. The company also operates a cement handling facility at Berth 191.

Berths 238 – 240C:
Operated by: Mobil Oil Corp., 3700 190th Street, Torrance, California 90509. Tel: (310) 212-1743.
Contact: John Sisk.

Mobil operates this 17 acre (7 hectare) liquid bulk terminal, which is connected by pipeline to a 21 acre (9 hectare) tank farm. With 2,621 ft. (799 m.) of water frontage, the facility handles tankers and barges transporting crude oil, as well as finished and semi-finished petroleum products. The berths serving tankers have an alongside depth of 35 ft. (11 m.), and the berths handling barges have an alongside depth of 35 ft. (11 m.).

CRANES: *Barge Cranes:* 1×350 tons capacity (Manson Construction).
STEVEDORES: Agents make necessary arrangements.
MEDICAL: Necessary to notify Agents of required medical attention: this can be done when final ETA is determined. Hospital facilities available (private).

Vaccinations/fever certificates, etc., shall conform with rules and models prescribed by the International Sanitary Regulations.

DENSITY: Average density 1026 (exception during or after heavy rain).
FRESH WATER: Availability unlimited, delivery universal, rate of delivery 100 t.p.h.
FUEL: Unlimited fuel, all grades at attractive rates. 48 hours' advance notice generally required.
FIRE PRECAUTIONS: Whenever vessel bunkering, sufficient serviceable fire hose with suitable nozzles attached to reach all parts of vessel shall be connected to fire main on vessel and made ready for instant use at all times during bunkering operations. If no adequate water pressure available on board, connections shall be made to shore lines to obtain adequate pressure. All tankers shall be moored bow seaward and have wire towing pendants rigged fore and aft readily available for emergency use, fire hoses shall be connected as above at all times while vessel in port.

International fire signals will be used in case of fire (5 prolonged blasts of ship's whistle or siren of 4 to 6 seconds duration).
CONSULS: See "Long Beach".
REPAIRS: All types of deck and engine repairs possible.
DRY DOCKS: Largest dry dock 559 ft. by 110 ft., 22,000 displacement tons.
SURVEYORS: ABS, Det Norske Veritas, Lloyd's Register and NKK. SGS, Toplis and Harding Inc., and many other marine surveyors available.
GANGWAY/DECK WATCHMEN: Gangway watch recommended. Tankers and vessels handling dangerous cargo required to have gangway and deck watch.
OPENING/CLOSING HATCHES: Automatic hatches may be opened and closed by crew, manual hatches opened and closed by stevedores.
CERTIFICATES: *All Vessels:*

Certificate of Financial Responsibility (COFR) required. May be obtained from the National Pollution Funds Centre (Arlington, Virginia).

International Oil Pollution Prevention Certificate.

Cargo Vessels:

Safety Construction Certificate.

Passenger Vessels:

May have a Passenger Ship Safety Certificate vice Safety Construction, Safety Equipment and Safety Radio Certificates.

Tank Vessels:

Tank Vessel Exam Letter for Oil Carriers.

Letter of Compliance with Sub-chapter "O" Endorsement for chemical carriers.

Must have a Coast Guard Headquarters approved Tank Vessel Response Plan geographic-specific appendix for Los Angeles-Long Beach.

CUSTOMS ALLOWANCES: Tobacco, either 300 cigarettes, 50 cigars, or 3 lb. of smoking tobacco, for the personal use of crew member. Wine and/or spirit, 1 quart for personal use of crew member.
CARGO GEAR: Gangway net attached between ship and dock; extending 5 ft. beyond turntable in one direction and 5 ft. beyond point of intersection of gangway and stringpiece in the other direction. Preventer guy must be rigged separately to head of boom from working guy. Exception if cast head of boom is capable of withstanding the stress of all the lines attached thereto. (This is a West-Coast requirement.)
REPATRIATION: Arrangements can be made through Immigration on request of Agent to have crewman change ship or return to home port.
AIRPORT: Approximately 20 miles to International Airport which serves all major airlines.
TIME: Standard Time, GMT minus 8 hours. Daylight saving time GMT minus 7 hours (April through October).
HOLIDAYS: Cargo may be worked on holidays with holiday pay scale.
POLICE/AMBULANCE/FIRE: The telephone numbers are Fire (213) 832-4241, Police (213) 832-7211, Ambulance (213) 832-4243. Fire Alarm boxes adjacent to all cargo sheds. Emergency number is 911.
EMERGENCY CO-ORDINATION CENTRE: Coast Guard Rescue Co-ordination Centre. Tel: (310) 980-4444, 1-800-221-USCG.
TELEPHONES: For passenger vessels at passenger terminals only.
SERVICES: A ship-reporting service "The Marine Exchange" located at Angels Gate Park near Los Angeles Harbour.They monitor Channels 14 (156.7 MHz) and 16 (156.8 MHz) VHF and have Channel 9 (156.45 MHz) VHF as their own. Primary duties are reporting arrivals, departures and locations of vessels.
BANKS: Over 50 international banks.
SHIP SUPPLY SERVICE: The port is served by numerous ship suppliers offering a wide range of services.
SHORE LEAVE: Crew members are allowed ashore.
IDENTIFICATION CARDS: 1 crewman's landing permit (Form I-95A) or Immigration card (Form D-1).
GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany).

This service is provided by the terminal operators, who should be able to provide details on request.
WASTE OIL DISPOSAL: This service is provided by the terminal operators, who should be able to provide details on request.
SEAMAN'S CLUBS: Worldport LA, The Port of Los Angeles, produce a small booklet – Mariners Guide – detailing the facilities available to seafarers, including seafarers centres, public transportation, and a port map amongst others.

There follows a list of the seafarers centres from whom further information can be obtained:

Seafarers' Communications Center, World Cruise Center, Berth 93A-Cargo Mezzanine. Tel: (310) 832-2964.

Seamen's Church Institute, 101 West 11th Street, San Pedro, CA 90731. Tel: (310) 832-2563.

Norwegian Seamen's Church, 1035 South Beacon Street, San Pedro, CA 90731. Tel: (310) 832-6800.

Swedish Seamen's Church, 1035 South Beacon Street, San Pedro, CA 90731. Tel: (310) 832-6800.

International Seafarers Center, 120 South Pico Avenue, Long Beach, CA 90802. Tel: (310) 432-7560.

REGULATIONS: Permits required for hot work (welding, cutting, etc.). Permit required for any dangerous cargo. Permit to discharge ballast (clean water) required. Restrictions on bunkering operations (scuppers plugged, valves closed). No bunkering or lightering outside the Federal Breakwater.
DELAYS: No delays in berthing, load or discharge or bunkering can be expected.
DEVELOPMENTS: Pier 300/400 Dredging and Landfill Project: Much of the Los Angeles side of San Pedro Bay will be filled in to create 220 new acres of container, tank farm and dry bulk facilities.

The Los Angeles Main Channel has been altered within the breakwater due to this project. The Coast Guard has designated a safety zone around this area which is marked with platforms and buoys. No vessel may enter this safety zone (see Title 33, Code of Federal Regulations, Part 165.1110 for specific boundaries) without the permission of the U.S. Coast Guard Captain of the Port.
AUTHORITY: Port of Los Angeles, P.O.Box 151, (425 S. Palos Verdes Street), San Pedro, California 90733-0151. *Tel:* (310) 732-3840. *FAX:* (310) 831-0439. *Contact:* Ezunial Burts, Executive Director.

MANITOWOC, Wisconsin: 44.06 N. 87.38 W.

LOCATION: Situated on the Western shore of Lake Michigan, 70 miles North of Milwaukee. Port open all year round.
DOCUMENTS: Vessels cleared by Quarantine Officials at Quebec. Customs Officer stationed at Green Bay.
PILOTAGE: Not locally required or available. Pilots should be taken on board prior to entering harbour.
MAX. SIZE: Max. draft 21 ft., vessels up to 600 ft. LOA can berth.
HEALTH: See "Documents".
TUGS: Not available.
BERTHING: 2 breakwaters protect the harbour. Entrance dredged to 25 ft. Outer harbour from pier heads to inner red light dredged to 23 ft. Inner harbour up to Medusa Cement Company dredged to 21 ft. Maximum depth alongside docks, 19 ft. Turning basin, 600 ft. radius.

All berths owned by private industry and located as follows from harbour entrance:

1. Manitowoc Public Utilities: 2 slips capable of handling 400 ft. car-ferries which handle railroad freight cars or Ro/Ro vehicles. Located port side at a right angle to river channel South side of harbour.
2. C. Reiss Coal Company, 509 Jay Street: A 900 ft. slip just inside car-ferry docks, at a right angle to river channel, South side of river.
3. Manitowoc Company Inc., 500 South 16th Street: 800 ft. long. South side of channel, parallel docking.
4. Busch Agricultural Resources Inc., 605 Washington Street: 490 ft., South side, has marine leg for unloading grain.
5. McMullen & Pitz Construction Company, 901 Commercial Street: 300 ft. North side of river between 8th and 10th Street bridges.
6. Soo Line Railroad Company, 923 Commercial Street: 300 ft. North side of river just above 10th Street bridge. This includes an unused car-ferry slip capable of handling a 400 ft. car-ferry. Also, 600 ft. North side just above car-ferry dock but is unimproved.
7. Manitowoc Company Inc., 500 South 16th Street: Approximately 8 berths varying in length from 180 ft. to 850 ft., port side bordering the peninsula.
8. Medusa Cement Company, 1801 Spring Street: Final large dock upriver, 1,200 ft. starboard side.
9. Consumers Steel & Dock, 1311 Spring Street: 330 ft. starboard side just prior to Medusa dock.

CRANES: Manitowoc Company Inc.: One fixed crane max. 80 tons lift. Travelling crane max. 70 tons lift.
BRIDGES: Operating regulations in effect. Contact City Police or the Harbour Master in advance.
DENSITY: 1000.
FRESH WATER: Available.
FUEL: Available.
REPAIRS: Can be undertaken by Bay Shipbuilding Co.
DRY DOCKS: Floating dock available. Length 604 ft., width 70 ft., depth over blocks 13 ft., max. LOA 640 ft. – Bay Shipbuilding Co., Sturgeon Bay, Wis.

Bay Shipbuilding Co. have a drydock which will accept vessels of 1,000 ft. LOA and 35,500 gross tons. Depth over sill 17 ft.
SURVEYORS: Lloyd's Surveyor available from Cleveland.
AIRPORT: Manitowoc County. N.W. side of City off Monasha Avenue. Simmons Airlines, commercial feeder line, passenger and freight.
TIME: GMT minus 6 hours.
GARBAGE DISPOSAL: Daily operation with 2 containers. Contact: Manitowoc Disposal. Tel: (414) 682-7758.
WASTE OIL DISPOSAL: Contact Manitowoc Fire Department. Tel: (414) 683-5421.
SEAMAN'S CLUBS: None.
AUTHORITY: City of Manitowoc, Harbour Commission, 817 Franklin Street, Manitowoc, Wisconsin 54220, U.S.A. *Tel:* (414) 683-4550. *Contact:* E. Steckmesser, Harbour Master. Tel: (414) 682-8349.

METLAKATLA, Alaska: 55.08 N. 131.35 W.

LOCATION: Located on Annette Island. Open all year.
DOCUMENTS: See "Anchorage, Alaska".
PILOTAGE: Ships coming up from the Hecate Straits or outsi Graham Island proceed into Dixon Entrance to the vicinity of McCartey where the Pilot will meet them. Vessels coming up the passage from Vancouver, B.C. are met at Lucy Island Pilot Statio
ANCHORAGES: Good anchorage in gravel and mud.
RESTRICTIONS: Usually daylight berthing only.
MAX. SIZE: Depths in harbour 120 ft. Tides: diurnal range – 14 Also see "Berthing".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany
AGRICULTURE: See "Agriculture" before first U.S.A. port (Alban
CUSTOMS: Quarantine, Immigration and Customs, from Ketchika
VHF: Harbour Master monitors Channel 16.
TUGS: Available in Ketchikan. A minimum of 2 tugs required for be and unberthing. Arrangements made with Pilot from Ketchican.
BERTHING: 2 berths:

1. City Dock: 400 ft. long and 60 ft. wide. More than 35 ft. deep to shallow water at East end, a starboard landing is usually made covered storage, temporary open sto 4 fork lifts, 2 of 20,000 lb. capacity.
2. Annette Island Canning Co.; 200 ft. long and 23 ft. deep. crane and 2 forklifts. 1×25 ton forklift.

CRANES: No Port Authority cranes.
STEVEDORES: 4 gangs available.
MEDICAL: Hospital available in Ketchikan; small clinic in Metlaka
SUPPLIES: Bonded and unbonded stores from Ketchikan.
FRESH WATER: Available.
FUEL: Not available.
REPAIRS: Facilities at Ketchikan.
SURVEYORS: Cargo Inspectors and Surveyors available in Ketch
AIRPORT: Small charter plane only. Jet to Juneau and Seatt Ketchikan Airport only.
EMERGENCY CO-ORDINATION CENTRE: At Ketchikan.
BANKS: National Bank of Alaska.
STORING: See "Prelims".

1. By truck.
2. Yes.
3. Yes.
4. Yes.
5. None.
6. Yes.

DEVELOPMENTS: New state ferry pier under construction.
AUTHORITY: Port of Metlakatla, P.O.Box 434, Metlakatla, 99926. *Tel:* 886-4646. *FAX:* (907) 886-3124. *Contact:* Bruce G Harbour Master. *Tel:* 886-3531 (Residence).

MIAMI, Florida: 25.46 N. 80.10 W. (See

PORT LIMITS: The Miami Harbour embraces the artificial basins and channels that have been dredged along the bay front of Miam in the bay and through the shoal water of Biscayne Bay to the and is located generally at Lat. 25° 46' N., Long. 80° 10' W.
Administration: The Port of Miami is a "non-operating" port, tax owned and administered by the Seaport Department, a func Metropolitan Dade County Government. Permanent facilities are to port users and operators. All equipment (except the gantry is owned and operated by private companies. The gantries are operated under Seaport Control. Berth space is authorised by Director, and scheduled by Seaport Operations. The U.S. Coast serves as Captain of the Harbour.
Physical:
Total port land area: 650 acres (263.07 hectares).
Total lineal dimension: 30,000 ft. (9.144 km.).
Bulkhead berth space: 16,440 ft. (3.1 miles) (4.98 km.)
Dodge and Lummus Islands connected by two-lane partial, tem connecting causeway.
DOCUMENTS:
Customs: All foreign and "in bond" goods entering the Port/Cou subject to Customs examination and duty. Manifest of foreig inbound must be presented to the Customs Boarding Officer commencing discharge.

Ship's Agent must notify Customs 2 hours prior to the ship's Regular working hours, Monday through Saturday 0800 - telephone 536-5261. Outside normal working hours, telephone 526-2305; overtime is charged.
Forms required:
2 Master's Oath on Entry of Vessel in Foreign Trade Form
2 General Declaration Form
2 Ships Manifests Form
2 Ship's Stores Declaration Form
2 Crews' Effects Declaration Form
Crew Members' Declaration Form
(1 Declaration for each Crew member)
1 Application -- Permit – Special Licence Form
(Unloading, loading, overtime services)
2 Passenger Lists Form
2 Crew Lists Form
Customs Declaration (Passengers) Form 6
(1 Declaration for each family)
2 Declarations of foreign repair to vessels Fo
(U.S. flag vessels only)

Immigration: An Immigration Inspector will meet all ships entering port. Valid travel documents/passport/visa/entry permit are required in some cases.

Ship's Agent must notify Immigration at least 1 hour prior to ship's arrival. Regular working hours, Monday through Friday 0800 – 1630, telephone 350 – 5739. Outside normal working hours, telephone contact 526 – 2626; overtime is charged.

Forms required:

Crewmen's Landing Permit	Form I – 95
Alien Passengers' Landing Permit	Form I – 94
Passenger List	I – 418
Crew List	I – 418

PILOTAGE: All vessels with a draft of 7 ft. or more are required to take a Pilot who boards near the Outer Sea Buoy, 2.5 miles offshore.

Request Pilot through Biscayne Bay Pilots Association, 24 hours in advance, call sign KGW 303, VHF Channel 16, direct from ship or through vessel's steamship Agent accompanied by particulars of draft and berthing assignment. Ship to confirm on VHF Channel 16 one hour prior to arrival. Channel 16 is monitored 24 hours and station can monitor VHF Channels 10, 12 and 14. Ship may cable Pilot Station direct through RCA Radio Lantana, Florida, call sign, Miami Pilots. Estimated time of departure should be made when ship docks and must be confirmed by phone (375-9453) 1 hour prior to the Pilot boarding.

ANCHORAGES: The prescribed anchorage area for vessels anchoring outside the harbour is located Eastward of a line about 1.5 nautical miles offshore and Northward of a line about 0.2 miles nautical miles North of the sea buoy at the entrance to the ship channel. The entire anchorage area lies North of the entrance channel to Miami. The Northern and Southern extremities of this area are marked by spar buoys. Vessels desiring to anchor off the entrance to the Harbour of Miami are required to do so within this area, to avoid possible damage to cables laid on the ocean bottom in the vicinity. Refer to anchorage area 202.188 on Coast and Geodetic Survey Chart No. 547.

RESTRICTIONS: *Locations:* Main Turning Basin: Lat. 25° 47' N., Long. 80° 11' W. Sea Buoy and Channel Entrance: Lat. 25° 46' N., Long. 80° 06' W. (approx.).

Channels, Turning Basins: The main channel is marked by 2 sea buoys about 2 miles (3.38 km.) East of the port, at the Western fringe of Gulf Stream shipping lanes. From that point, at which the depth is 44 ft. (13.41 m.), the channel runs 1.02 miles (1.65 km.) at 256° magnetic to a bend, changing to a control depth of 42 ft. (12.80 m.) and turning to 296° for 3.64 miles (5.82 km.), terminating in a 1,700 ft. (518.16 m.) (along North-South axis) by 1,650 ft. (502.92 m.) (East-West) turning basin. MLW depth in the main channel, at Northside berths and in the turning basin, is 36 ft. (10.96 m.). At a distance of 1.3 miles (2.08 km.) from the entrance channel bend at the outer bar cut, the Fisherman's Channel (South Channel) branches off due West for 1.01 miles (2.69 km.), then turns parallel to the main channel for another 1.01 miles, then turns to 247° for 1,500 ft. (467 m.) to intersect the Intracoastal Waterway. Depth along the entire Fisherman's Channel is 25 ft. (7.62 m.), except for the Easternmost 3,300 ft. (975.36 m.), where it is 42 ft. deep. Width of the main channel is 400 ft. (121.92 m.) from the sea buoys, for 3.65 miles (5.84 km.), and 900 ft. (247.32 m.) wide along Dodge Island and into the main turning basin. Width of Fisherman's Channel is 500 ft. (152.4 m.) along its entire length.

MAX. SIZE: No limit to length at port complex. Dodge Island has 4,300 ft. (1,310.64 m.) of lineal berthing space for general cargo, quarter ramp and side ramp vessels plus 4,740 ft. (1,444.75 m.) for 10 Ro-Ro berths at MLW depths from 25 ft. (7.62 m.) to 36 ft. (10.97 m.). Lummus Island container berth has 4,500 ft. (1,371.5 m.) of berthing with a MLW depth of 42 ft. (12.80 m.).

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

Ship's Agent must request quick clearance, "Pratique", from United States Public Health Department.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

An Agriculture inspector will board all foreign, coastwise and domestic ships on arrival.

Ship's Agent must notify Agriculture at least 1 hour prior to ship's arrival. Regular working hours, Monday through Friday 0800 – 1630, telephone contact 536-4758. Outside normal working hours, telephone contact 526 – 2821; overtime is charged.

Forms required:

1 copy of Cargo Manifest.
1 Report of Ship's Stores and Port of Origin.

Forms provided by and filled out by the inspector:

Cargo Form 212
Boarding Report 288

RADIO/VHF: The Coast Guard and Pilot Station can be raised on VHF Channel 16. Telephone contact to Agents, receivers, etc., can be made via Miami Marine Operator.

Port of Miami maintains a guard on VHF Channel 16, call letters "KCE 254".

TUGS: Large tugs up to 3,000 h.p. available 24 hours per day. Request tug service via Pilot Station.

Captain Dan's Marine Towing & Salvage, 3177 N.W. 26th St., Miami, FL 33155. Tel: 305-532-5844.

Coastal Tug & Barge, Inc., P.O.Box 025500, Miami, FL 33102-5500. Tel: 305-551-5380. Fax: 305-220-0224.

Florida Marine Towing Co.Inc., 1201 N.W. South River Drive, Miami, FL 33125. Tel: 305-324-4242. Fax: 305-324-8451.

Moran Towing of Miami Inc., 1001 N. America Way, Suite 105, Miami, FL 33132. Tel: 305-375-0455. Fax: 305-375-0161.

BERTHING: Berths are all marginal berths, no piers or slips. 16,440 ft. at MLW depths of 25 ft. (7.62 m.) and 42 ft. (12.8 m.). Large ships are able to turn at berthside in the 900 ft. (274.32 m.) wide main (North side) channel or may continue into the 1,700 ft. (518.16 m.) × 1,650 ft. (502.89 m.) turning basin. The new (Fisherman's Channel) South Channel is 500 ft. (152.40 m.) wide and 42 ft. (12.80m.) depth at the Eastern end for a distance of 3,500 ft. (1,066.8 m.) and continues Westerly at a depth of 25 ft. (7.62 m.) for its remaining 10,000 ft. (3,048 m.) with 3 turning basins: one at the confluence with the main channel, one midway and one (under construction) at the Western junction with the Intracoastal Waterway. There are 10 Ro-Ro berths for bow and stern loading vessels. Lummus Island container berth at port's Eastern end is 4,500 ft. (1,371.5 m.) long with a MLW depth of 42 ft. (12.80 m.). (Note: 42 ft. plus 1 ft. overdredge from Government Cut to West of Container Berth No. 3; 44 ft. plus 1 ft. overdredge from Government Cut out to Sea Buoy. 1,200 ft. diameter turning basin East of Lummis Island).

Berth/Location	*Length*		*Depth Alongside*	
	(ft.)	(m.)	(ft.)	(m.)
Passenger Terminal 6/7 (Ro-Ro)	750	229	32	9.75
Passenger Terminal 1 – 5 and 10 (Bays 1 – 25.75)	3,220	982	36	11.00
Bays 25.75 – 38	1,600	488	36	11.00
Passenger Terminals 8 and 9 (Bays 38 – 45)	1,680	512	36	11.00
Bays 45 – 55	1,200	366	36	11.00
Bay 55W (Ro-Ro)	900	274	36	11.00
Bay 59W (Ro-Ro)	550	168	32	9.75
Bay 65W (Ro-Ro)	690	210	32	9.75
Gantry Crane Berths	4,377	1,335	42	12.80
Bays 67E and 67W	400	122	25	7.60
Bay 70	470	143	25	7.60
Bay 74 (Ro-Ro)	670	204	25	7.60
Bay 76 (Ro-Ro)	110	34	25	7.60
Bays 85 – 97	1,450	442	25	7.60
Passenger Terminals 12/14 (Bays 101 – 126)	1,450	442	25	7.60

Notes:

1. Ship's berths are noted with bay numbers that begin at the N.W. corner of Dodge Island. Bay numbers increase in a clockwise direction around the port in increments of approx. 125 ft./bay.
2. Bulkheads are concrete capped, steel sheet pile with 7.5 ft. minimum height above MLW. Apron areas are asphalt paving over compact fill or re-inforced concrete decking on piling.

Cold Storage Cargo: Current port facilities provide in excess of 50,000 sq.ft. of refrigerated space. In addition, there are approximately 600 reefer outlets throughout the port.

Commercial Warehouses: Ample on the mainland. On Port, 81,754 sq.m. in 7 modern transit cargo buildings.

CRANES/EQUIPMENT: *Container Cranes:* 7×50 long tons (50 MT) with spreader, 70 long tons (71.12 MT) with hook and beam; 3×40 long tons (30.64 MT) with spreader, 45 long tons (45.72 MT) with hook and beam.

Mobile Truck Cranes: 1×225 ton American; 2×200 ton American; 1×150 ton Lorain; 1×110 long ton Gottwald mobile container crane; 1×200 ton linkbelt portable crane.

Handling Equipment:

1×170,000 lb. (77,112 kg.) Hyster port packer.
2×90,000 lb. (40,824 kg.) Rago-Wagner port packers.
12×85,000 lb. (38,556 kg.) Taylor port packers.
1×80,000 lb. (36,288 kg.) reach stacker P&H.
1×80,000 lb. (36,288 kg.) reach stacker Kalmar.
2×80,000 lb. (36,288 kg.) Mitsubishi.
3×80,000 lb. (36,288 kg.) Kalmar.
3×70,000 lb. (31,752 kg.) Rago-Wagner port packers.
7 Fantuzzi empty container stackers.
1×70,000 lb. (31,752 kg.) Hyster forklift.
1×70,000 lb. (31,752 kg.) silent hoist forklift.
2×62,000 lb. (28,123 kg.) Taylor forklifts.
1×60,000 lb. (27,216 kg.) Apache forklift.
1×52,000 lb. (23,587 kg.) Taylor forklift.
1×45,000 lb. (20,412 kg.) Taylor forklift.
1×30,000 lb. (13,608 kg.) Taylor forklift.
1×30,000 lb. (13,608 kg.) Clark forklift.

Plus approximately 125 smaller forklifts, 3,000 lb. to 30,000 lb. capacity.

BRIDGES: There are no bridges between the open sea and the port, or the Miami River. The new South Channel provides direct access from shipping lanes and the river, as well as all berthing on the seaport's South side. A highway and rail bridge spans the Intracoastal Waterway between the island seaport and the mainland. Only smaller ships enter the Miami River, which is dredged to 15 ft. at HW and is 150 ft. wide for a distance of 3 miles above entrance. A bridge about 0.5 miles from entrance is closed from 0700 hrs. to 0900 hrs. and 1600 hrs. to 1800 hrs. local time.

STEVEDORES: All receiving, recording, moving, loading and discharge of cargo is performed by the stevedoring companies. They employ longshoremen members of the International Longshoremen's Association (I.L.A.). Normal working hours 0800 – 1700. Overtime is charged for Saturdays, Sundays, and holidays. Port open 24 hours per day.

Contract Stevedores at the Port:

Continental Stevedoring & Terminals Inc., 655 Asia Way, P.O.Box 015269, Miami, Florida 33101. Tel: (305) 379-3700. Fax: (305) 371-9969. Telex: 514901. Contact: Carlos Arocha.

Florida Stevedoring Inc., 125 N.E. 9th Street, P.O.Box 01-1254, Miami, Florida 33132. Tel: (305) 373-4765. Fax: (305) 374-7231. Telex: 519154. Contact: Jorge Rovirosa, Frank Rovirosa III.

Oceanic Stevedoring Co., 1007 North America Way, Miami, Florida 33132. Tel: (305) 374-6400. Fax: (305) 381-6512. Telex: 807063. Contact: Don Quinn, Dan Quinn.

I.T.O. Corp. of Florida, 1007 North America Way, Suite 310, Miami, FL 33132. Tel: (305) 381-9624. Fax: (305) 381-9741. Contact: Christopher C. Morton.

Universal Maritime Service Co., 1007 North America Way, 4th Floor, Miami, Florida 33132. Tel: (305) 371-5308. Fax: (305) 358-5106. Telex: 3767556. Contact: Mark Baker.

MEDICAL: Clinics available.

TANKERS: No slop (residue) discharge facilities in the Port.

Private facility: Coastal Fuels, Fisher Island – No slop (residue) discharge facilities. One tanker berth available, 760 ft. Max. draft of 34 ft. at MLW. No special fittings required. Telephone contact 672-1065.

Report: Cautionary Advice – Approaches: All approaches to the Sea Buoy should be made from the East to avoid shoal areas to the North and South of the Entrance Channel. The Gulf Stream current running to the North may be felt just outside the Sea Buoy. A counter current usually sets to the South in the vicinity of the Sea Buoy and Southbound traffic is usually encountered 1 mile off the Sea Buoy.

Miami has numerous passenger ships calling at this port. Most movements between Sea Buoy and berths take place between 0500 to 0700 hrs. and again at about 1700 hrs.

Care must be taken to carefully identify each navigation light to avoid mistaken identity with bright lights along the coast.

Vessels may anchor to the Northward of the Sea Buoy outside the 50 ft. depth line.

Entering and Berthing: Vessel should have full manoeuvring power available and competent helmsman at the wheel. The currents around Fisher Island are strong (3 to 4 knots reported), and the ebb tide runs from a direction of 270° at the berth to approximately 300° in the Main Channel. Ranges and buoys are used to identify channel limits. The Outer Channel is 500 ft. wide and the Main Channel starting between the jetties narrows to 400 ft. The distance between Sea Buoy and Fisher Island is 4.5 miles.

The draft of a tanker berthing at Fisher Island is limited due to depth limitation at the berth and just offshore of the bow and stern areas of a vessel in the berth. (See "Plan").

Berthing is limited to beginning of ebb tide period in order to take advantage of higher water level as well as to stem the outgoing tide. The ship is difficult to control in the Turning Basin off the berth with a strong current running. Unberthing is carried out during flood tide when current is weak.

The berth at Coastal Oil Terminal has a total berthing face of 700 ft. with a total of 8 pier bollards spaced 100 ft. apart. The ship berths port side to the pier.

Gangway: There is no pier gangway available. There is ample room on the pier deck for the ship's gangway.

FRESH WATER: Available every 240 ft. at Port of Miami, Dodge Island and at Container Berth, Lummis Island. Delivered via hose.

FUEL: All grades; bunker, intermediate and marine gas oil, Diesel, bunker C. Ships fuelled at dockside from Coastal Fuels barges.

All deliveries in both ports are made by barge.

FIRE PRECAUTIONS: Usual safety precautions on smoking, flying "B", mooring pendant available, ample persons aboard to fight fires, fire hose led out, etc.

Coastal Fuels tugs equipped with fire fighting equipment.

CONSULS: (Area Code 305).

Antigua-Barbuda	Tel: 381-6762	Israel	Tel: 358-8111
		Italy	Tel: 374-6322
Argentina	Tel: 373-7794	Jamaica	Tel: 374-8431
Austria	Tel: 325-1561	Japan	Tel: 530-9090
Bahamas	Tel: 373-6295	Luxemborg	Tel: 373-1300
Barbados	Tel: 599-1310	Mexico	Tel: 716-4979
Belgium	Tel: 932-4263	Netherlands	Tel: 789-6646
Belize	Tel: 751-5655	Nicaragua	Tel: 220-6900
Bolivia	Tel: 358-3450	Norway	Tel: 358-4386
Brazil	Tel: 285-6200	Panama	Tel: 371-7031
Canada	Tel: 579-1600	Paraguay	Tel: 573-5588
Chile	Tel: 373-8623	Peru	Tel: 374-1305
Colombia	Tel: 448-5558	Portugal	Tel: 444-6311
Costa Rica	Tel: 871-7485	Senegal	Tel: 371-4286
Denmark	Tel: 446-0020	Spain	Tel: 446-5511
Ecuador	Tel: 539-8214	Sweden	Tel: 467-3507
France	Tel: 372-9798	Switzerland	Tel: 274-4210
Germany	Tel: 358-0290	Thailand	Tel: 445-7577
Great Britain	Tel: 374-1522	Togo	Tel: 371-4286
Guatemala	Tel: 443-4828	Tunisia	Tel: 576-5049
Haiti	Tel: 859-2003	Turkey	Tel: 371-4286
Honduras	Tel: 447-8927	Uruguay	Tel: 443-9764
Iceland	Tel: 920-7977	Venezuela	Tel: 577-3834

REPAIRS: All deck and engine dockside repairs available.

DRY DOCKS: None.

SURVEYORS: *Classification Societies:*

American Bureau of Shipping, 2250 S.E. 17th St. Causeway, Fort Lauderdale, FL 33316. Tel: 305-462-2559. Fax: 305-761-8604.

Det Norske Veritas, 1001 N. America Way, Suite 201, Miami, FL 33132. Tel: 305-358-0156. Fax: 305-358-3918.

Marine Surveyors and Consultants:

Alpha Marine Surveyors, 1470 N.W. 107th Avenue, Ste. B, Miami, FL 33172. Tel: 305-594-0076. Fax: 305-594-8518.

Ascher & Associates, 899 S. America Way, Miami, FL 33132-8006. Tel: 305-579-0194. Fax: 305-579-0194.

Associated Independent Marine Surveyors, 330 Biscayne Blvd., Miami, FL 33132. Tel: 305-375-9475. Fax: 305-375-0898.

Caleb Brett USA, Inc., 7270 N.W. 12th St., Suite 750, Miami, FL 33126. Tel: 305-593-7455. Fax: 305-593-0610.

Captain Tom Smith & Associates, 11320 S.W. 108th Ct., Miami, FL 33176. Tel: 305-238-0202.

Inchcape Testing Services, 7270 N.W. 12th St., Suite 410, Miami, FL 33126. Tel: 305-593-7455. Fax: 305-593-1528.

Inter-Caribe Marine Surveyors, 11340 Peachtree Drive, North Miami, FL 33161. Tel: 305-893-2990. Fax: 305-940-8627.

Marine Consultants Associates, 601 N.W. 11th St., Miami, FL 33136. Tel: 305-358-4368. Fax: 305-372-3802.

McCrory & Associates, 5224 S.W. 89th Ave., Miami, FL 33132. Tel: 305-358-4775. Fax 305-371-7301.

Nelson & Associates Inc., 610 N.W. 183rd St., Miami, FL 33169. Tel: 305-653-4884. Fax: 305-651-6030.

Shoreside Consultants Ltd., 1007 N. America Way, Suite 305, Miami, FL 33132. Tel: 305-381-9544. Fax: 305-374-6052.

GANGWAY/DECK WATCHMEN: Usual shipboard watches to lines. Special guards (security) through Wackenhut, Burns Security

OPENING/CLOSING HATCHES: Normally done by longshoremen

CUSTOMS ALLOWANCES: See "Jacksonville".

AIRPORT: Miami International Airport is located 8 miles, or 15 min by expressway, from downtown Miami and the Port of Miami. serviced by 46 foreign (12 cargo only) and 32 U.S. (9 cargo scheduled air carriers.

TIME: Eastern Standard Time, GMT minus 4 hours. Daylight S Time in effect from first Sunday in April to last Sunday in October adds 1 hour to Eastern Standard Time.

HOLIDAYS: *Port Legal Holidays:* New Year's Day, January Washington's Birthday; Martin Luther King's Birthday, 3rd Monday January; 3rd Monday in February; Memorial Day, Last Monday in Independence Day, July 4th; Labour Day, 1st Monday in Septem Columbus Day, 2nd Monday in October; Veteran's Day, November Thanksgiving Day, 4th Thursday in November; Christmas December 25th.

In the event a legal holiday falls on a Saturday, it is celebrated on preceding Friday, and in the event a legal holiday falls on a Sund is celebrated on the succeeding Monday.

POLICE/AMBULANCE/FIRE: Emergency only Tel: 911, City of M Police Tel: 579 – 6640, Dade County Police Tel: 547 – 7911. Dade Fire Rescue, Tel: (305) 579-2587.

TELEPHONES: Telephone available by order to telephone compan addition to public telephones located throughout the port.

SERVICES: All types of special services such as tank cleaning, com adjusting, admeasurement, radar/radio repairs, rathometer repairs available.

SHORE LEAVE: Crew members are allowed ashore after clearanc Customs, Immigration and Quarantine.

IDENTIFICATION CARDS: Definitely needed in order to return to at night. A security guard at Port of Miami will check.

BANKS: Foreign Banks:

ABN AMRO Bank, N.V. Tel: (305) 372-1596. Fax: (305) 372-23

American Express Bank Ltd. Tel: (305) 350-7750. Fax: 374-4524.

Atlantic Security Bank. Tel: (305) 372-0762. Fax: (305) 374-25

Banco Atlantico. Tel: (305) 374-7515. Fax: (305) 374-7521.

Banco Banorte, S.A. Tel: (305) 577-0472. Fax: (305) 577-0474

Banco Bilbao Vizcaya. Tel: (305) 371-7544. Fax: (305) 577-48

Banco Boliviano Americano, S.A. Tel: (305) 372-8838. Fax: 372-8858.

Banco Central Hispanoamericano S.A. Tel: (305) 373-2020. Fax: 577-3304.

Banco Espanol de Credito. Tel: (305) 374-1442. Fax: (305) 539-

Banco Industrial de Venezuela C.A. Tel: (305) 374-5060. Fax: 374-5178.

Banco International de Costa Rica. Tel: (305) 374-0855. Fax: 381-6971.

Banco Portugues do Atlantico. Tel: (305) 577-9793. Fax: 377-4380.

Banco de la Nacion Argentina. Tel: (305) 371-7500. Fax: 374-7805.

Banco del Pichincha C.A. Tel: (305) 372-3601. Fax: (305) 372-

Banco do Brasil S.A. Tel: (305) 358-3586. Fax: (305) 577-054

Banco do Estado de Sao Paulo, S.A. Tel: (305) 358-9167. Fax: 381-6967.

The Bank of Tokyo Ltd. Tel: (305) 445-2100. Fax: (305) 446-1

Banque Nationale de Paris. Tel: (305) 539-2000. Fax: (305) 539-

Barclays Bank plc. Tel: (305) 374-1043. Fax: (305) 579-2066.

Credit Lyonnais. Tel: (305) 374-0900. Fax: (305) 577-8925.

Credit Suisse. Tel: (305) 995-6500. Fax: (305) 995-6515.

Deutsch-Sudamerikanische Bank AG. Tel: (305) 373-0000. Fax: 374-6912.

Fuji Bank Ltd. Tel: (305) 374-2226. Fax: (305) 381-8338.

Israel Discount Bank, Ltd. Tel: (305) 682-3700.

Korea Exchange Bank. Tel: (305) 530-0077. Fax: (305) 539-8

Lloyds Bank plc. Tel: (305) 579-8900. Fax: (305) 371-8607.

The Royal Bank of Canada (Miami). Tel: (305) 539-5200. Fax: 539-5250.

GARBAGE DISPOSAL: Waste Management of Dade County. Tel 247-1000. Roll-off containers provided. State-of-the-arts dispatched trucks. Service charges depends on size of con $ 225.00 for 20 cu.yd. to $ 350.00 for 40 cu.yd. Collection time dispatched.

WASTE OIL DISPOSAL: Ricky Oil Service. Tel: (305) 822 Fax: 822-8004. Tanker truck capacity 7,000 gallons. Fast respo radio dispatched trucks, on call 24 hours. Charges are $ 65.00 p for man and equipment and up to U.S.$ 0.65 per gallon o water/oil.

Cliff Berry Inc., P.O.Box 13079, Fort Lauderdale, FL 33316. T 763-3390. Fax: 305-764-0415. Miami Terminal Office: 3033 N.W River Drive, Miami, FL 33142. Tel: 305-638-2030. Fax: 305-63

Services: Complete environmental services, including emergency chemical and oil spill response, waste petroleum a water removal, tank cleaning and sludge disposal.

SEAMAN'S CLUBS: Leif Eriksson Seamen's Center, 1180 S. Way, Miami, Florida 33132. Tel: (305) 371-8909. Services international telephone booths, swimming pool, tennis courts pitch, track and field, gift shop, newspapers, watch repair, film de and stamps.

CURRENCY: U.S. Dollar. No restrictions placed on seafarers.

AUTHORITY: Port of Miami, 1015 North America Way, Miam 33132, U.S.A. *Tel:* (305) 371-7678. *FAX:* (305)

Contact: Mr. Carmen J. Lunetta, Port Director.

MILWAUKEE, Wisconsin: 43.01 N. 87.53 W. (See Plan)

PORT LIMITS: The Port of Milwaukee limits are generally considered to be the harbour breakwall housing the harbour entrance lighthouse. However, unless specifically declared to the contrary in the covering charter party, a vessel will be considered an "arrived ship" upon anchoring outside the harbour breakwall, in the event that a proper berth and/or anchoring space inside the harbour breakwall is not available.

DOCUMENTS:

Vessels from Canadian ports:

Dominion clearance and Public Health Pratique (both issued at Montreal).

Vessels from all other nations:

Inward Foreign Manifest(s)
Stores Lists, over Master's oath.
Curio Lists, over Master's oath.
Permit to Lade and Unlade.
Discharge Manifest.
Inspection by U.S. Dept. of Immigration (Crew List).
Inspection by U.S. Dept of Agriculture.
Receipt of Entrance fee.
Receipt of Tonnage Tax.

Additional documents may be required, dependent on commodity involved in the carriage, point of origin, flag or any unusual circumstances existing.

PILOTAGE: Pilot boards at Montreal and at several other stations along St. Lawrence Seaway route.

ANCHORAGES: The chart does delineate anchorage area for large vessels and shows the 27 ft. depth just East of South Piers 1, 2, and Liquid Cargo Pier. This deep area, about 2,400 ft.×5,400 ft., used by large vessels for anchorage.

MAX. SIZE: 730 ft. × 78 ft. with 26 ft. F.W. draft. No tidal effect, although lake levels vary seasonally. Minimum depth above low water level 27 ft.

HEALTH: See "Health: All Ports" before first U.S. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Radio station at Port Administration Building. Harbour Master and Dock Superintendent can be reached at this facility Monday through Friday between 0800 and 1630 hrs.; 156.8, 156.6 and 156.5 MHz.

TUGS: Normally pick up vessel inside breakwater. Tugs optional at discretion of ship's Master. Fee for use of tug's lines.

BERTHING: The time of passing harbour entrance lighthouse establishes order of berthing, provided vessel is ready to work.

BRIDGES: No bridges are transited, except to smaller, shallow draft (22 ft.) private docks up river. This portion of the harbour generally reached only by small Laker vessels and barges. Bridges closed between 0730 hrs. and 0830 hrs. and 1630 hrs. and 1730 hrs. except on Sundays and 8 legal holidays. In addition, 2 hours' notice required for opening bridges across Milwaukee River North of and including Buffalo Street.

SPECIALISED CARGO HANDLING FACILITIES: In addition to the 3 general cargo terminals of approx. 340,000 sq. ft. covered area (9 berths), and dry bulk terminal, the port is served by a refrigerated warehouse of 10,000 sq. ft.; 1 open dock area (2 berths) for handling bulk commodities such as pig iron; 1 open dock (3 berths) for heavy lifts and equipped with a 220-ton stiff leg crane and 2 gantry cranes of 70 and 50 tons; 1 liquid cargo pier for edible and inedible fats, greases and allow; 2 grain elevators of 3.5 million and 2.5 million bushel capacity and 2 scrap iron loading facilities. The port is also equipped with a mobile heavy lift/container crane, of 200 tons capacity, capable of serving all berths.

STEVEDORES: Vessel should provide a stowage plan, manifest of nbound cargo and exceptions list (unusual vessel or cargo characteristics affecting facilitation of cargoes). Vessel should comply with the U.S. Dept. of Labor's safety regulations.

MEDICAL: Advance notice desirable. Hospitalisation available.

TANKERS: Diameter of load lines and discharge lines 8 in. and 10 in. Slop residue facilities. 4 berths available, with draft to seaway depth.

FRESH WATER: Potable water available at most berthing areas.

FUEL: All grades of fuel oil available by truck delivery at shipside, also 24 hour refueling berths available for bunkering.

CONSULS: The following countries are represented:

Belgium	Dominican Republic	Norway
Costa Rica	France	Sweden
Denmark	Nicaragua	Yugoslavia

REPAIRS: Full service repairs, except large vessel dry docking.

GANGWAY/DECK WATCHMEN: Not necessary, but available on request.

OPENING/CLOSING HATCHES: At the option of ship.

CERTIFICATES:

Registry of Ship.
Master's Licence.
1st, 2nd and 3rd Officer's Licences.
Radio Licence.
Wireless Operator's Licence.
Derat Certificate (done each year).

(Additional certificates may be required, dependent upon Registry, cargo, trade route engaged in, nationality of crew, etc.).

CUSTOMS ALLOWANCES: Tobacco, 10 packages or 200 cigarettes in possession at any time. Wine and/or Spirits, 1 bottle per officer.

REPATRIATION: Local Agents effect repatriation.

AIRPORT: 5 miles distant.

TIME: U.S.A. Central Time. Central Daylight Time from early April to late October – 5 hours behind GMT. Central Standard Time from late October to early April – 6 hours behind GMT.

HOLIDAYS: Memorial Day, Columbus Day, Veterans Day, July 4th (if on a Sunday, Monday is a holiday); First Monday in September; Fourth Thursday in November; Christmas Day; New Year's Day. Cargo can be worked on these days at holiday pay.

POLICE/AMBULANCE/FIRE: Police – non-emergencies Tel: 273-8660; Emergency, including emergency ambulance service Tel: 765-2323; Fire, including rescue squad service Tel: 347-2323.

TELEPHONES: Can be arranged, but unnecessary because sufficient phones available in dockside offices.

SHORE LEAVE: Crew allowed ashore.

IDENTIFICATION CARDS: U.S. Immigration rules.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany).

Two companies, both certified by U.S. Coast Guard, can provide mobile reception facilities. Containers up to 30 cu.yd. can be made available alongside vessel with 24 hours prior notice.

BFI Waste Removal, Inc., Town & Country Division, College Ct., Muskego, WI 53150. Tel: (414) 679-0860.

Waste Management, Inc., Best Disposal Division, 10627 S. 27th Street, Franklin, WI 53132. Tel: (414) 761-2100.

WASTE OIL DISPOSAL: Collection of waste oil provided by mobile reception facility. Contractors are certified by U.S.C.G. 24 hours notice required. Contact AAA Environmental Industries, Inc., 6510 W. Forest Home Avenue, Milwaukee, WI 53220. Tel: (414) 541-1462.

DELAYS: No delay.

GENERAL: Chandlery services for foodstuffs, ship complements and laundry services available. Garbage and waste disposal are available through private operators, chandler usually making the arrangements.

The Liquid Cargo Pier is also available for non-petroleum liquid cargoes and vessel bunkering.

DEVELOPMENTS: Milwaukee inner harbour berth for maximum size bulk vessels under-going comprehensive site enhancement.

AUTHORITY: Port of Milwaukee, 2323 S. Lincoln Memorial Drive, Milwaukee, Wisconsin 53208, U.S.A. *Tel:* (414) 286-3500. *Telex:* TWX 910-262-3042. *Cables:* Milharcomil. *FAX:* (414) 286-8506. *Contact:* Kenneth J. Szallai, Municipal Port Director. Eric C. Reinelt, Marketing Manager.

MOBILE, Alabama: 30.40 N. 88.02 W. (See Plan)

DOCUMENTS:

3 copies Cargo Manifest (Form 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
2 copies Crew Manifest (curio list).
2 copies Stores List.
2 copies Passenger List (Form I.418).
2 copies Crew List (Form I.418).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port:

Health Pratique.
Master's Oath (Form 1300).
All foreign clearances.
U.S. Certificates of Payment of Tonnage Tax (Customs Form 1002).
Certified Crew List.

PILOTAGE: Pilotage is compulsory.

ANCHORAGES: If berth is congested, vessel may anchor at the bar (35 miles from harbour).

RESTRICTIONS: Controlling depth: 40 ft. for entrance, channel and anchorages. Mean tidal range 1.5 ft. Nature of bottom: soft mud. Vessel can dock and sail at any hour at any stage of the tide.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: There are 7 tugs, available 24 hours, with max. 2,600 h.p.

BERTHING: There are 34 berths at most of which, direct loading or unloading can be effected from quayside tracks. Ro/Ro berth available.

Public Grain Elevator: Depth alongside 40 ft. Loading rate 115,000 bushels/hour for grain. Grain received by rail, truck and barge.

McDuffie Terminals: 3 berths. No. 2 with dolphins, total length 320 m., No. 1, length 315 m. Bulk coal handling plant, depth alongside the berth is 45 ft. Berth No. 3, length 315 m. will be ready late 1996. Shiploaders can load over 4,000 t.p.h. or 7,000 t.p.h. combined. 3 stacker/reclaimers can handle 4,000 t.p.h., one tipple for rail cars which can dump 30 cars per hour and one tipple that can dump 60 cars per hour, rated at 4,000 t.p.h. and 3 barge unloaders that work 3,500 t.p.h. each. A conveyor belt system connects the entire complex.

Bulk Handling Plant: 2 berths, depth alongside 40 ft. Total quay length 1,500 ft. 2 unloading towers which can unload 3,000 t.p.h. and 2 loading conveyors, rate 2,000 t.p.h.

Depth alongside other public berths as follows:

Pier 2	38 ft. MLW	Pier River End B	38 ft. MLW
Pier 3	38 ft. MLW	North Pier B 1	40 ft. MLW
Pier 4	38 ft. MLW	Pier North B 2	40 ft. MLW
Pier 5	38 ft. MLW	Pier North B 3	40 ft. MLW
Pier 6	38 ft. MLW	Pier South C1	41 ft. MLW
Pier 7	38 ft. MLW	Pier South C 2	41 ft. MLW
Pier 8	38 ft. MLW	Pier South C 3	41 ft. MLW
Pier South A	37 ft. MLW	Pier River End C	38 ft. MLW
Pier River End A	30 ft. MLW	Pier North C 1	39 ft. MLW
Pier North A 1	38 ft. MLW	Pier North C 2	37 ft. MLW
Pier North A 2	38 ft. MLW	Pier D	37 ft. MLW
		Berth E	40 ft. MLW
Pier North A 33	38 ft. MLW	Berth 1 tipple	Under repair
Pier South B 1	41 ft. MLW		
Pier South B 2	41 ft. MLW	Berth 2 tipple	44 ft. MLW
Pier South B 3	41 ft. MLW	Berth 3 tipple	40 ft. MLW

CRANES: 1,600 ton capacity (1,200 tons at 208 ft.) crane, 75 ton stationary crane, 50 ton mobile crane and 80 ton floating crane.

SPECIALISED CARGO-HANDLING FACILITIES: Container berth, length 894 ft., equipped with 1×45 ton lift capacity crane.

1 Ro/Ro berth at Pier A (Berth E Ro-Ro berth will be ready mid-1996).

STEVEDORES: Normal working hours for the port are 0800/1700 hrs. Monday through Friday.

TANKERS: Max. length 950 ft. restricted by turning basin. American Bituminals & Asphalt Co. – Jetty berth dredged to 38 ft.

Magazine Point: Hess Terminal: Jetty berth dredged to 43 ft.

FRESH WATER: Available ex-wharf at all berths.

FUEL: Most grades fuel/diesel available via pipeline, barge or truck.

DENSITY: 1000 (Fresh Water).

REPAIRS: *Atlantic Marine, Inc.* – Dry Docks ranging from 5,000 to 18,000 tons displacement all serviced by 51 ton gantries. Dock length range from 380 ft. to 620 ft. Also available is a 70 ton floating crane. Any type of repair can be effected.

Bender Ship Repair. Dry docks ranging from 4,000 – 18,000 tons displacement. Majority of repair work is dry docking, but also makes topside repairs. 100 ton floating crane available.

CUSTOMS ALLOWANCES: At the discretion of customs officers. Normal allowance is 200 cigarettes or 2 lb. tobacco and 1 quart wine or spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.

HOLIDAYS: Normally no work is performed on New Year's Day, Easter, July 4th, Labour Day, Christmas Eve (1200 hrs.–2400 hrs.), Christmas Day and New Year's Eve (1200 hrs.–2400 hrs.). Working holidays are New Year's Eve (0001 hrs.–1200 hrs.), Martin Luther King's Birthday Holiday, Mardi Gras Day, Monday after Easter, Veteran's Day, Thanksgiving Day and Christmas Eve (0001 hrs.–1200 hrs.).

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany).

Under the provisions of Annex V of MARPOL 73/78, port reception facilities for ships garbage and separation on board vessel of various waste are required. Garbage is defined as "all kinds of victual, domestic and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the ship and liable to be disposed of continuously or periodically". In order to accommodate the needs of shipping through facilities of the Alabama State Docks, the Department has filed an Application for a Certificate of Adequacy with the Captain of the Port, United States Coast Guard, for garbage reception facilities. Applicants for berth at any facility of the Alabama State Docks shall provide, upon request, the reception facilities which meet the requirements contained in 33 CFR, Parts 151, 158. Berth applicants shall require a 24 hour notice of vessel's intent to discharge garbage and reception facilities for food, plant, meat, and other potentially infectious waste shall be provided by the berth applicant or his designated contractor when requested by the vessel in accordance with the above and with the requirements set forth in 7 CFR 330 and 9 CFR 94. Regluated food waste must be handled at a facility approved by the Animal and Plant Health Inspection Service (APHIS). Berth applicants or their designees shall provide the necessary reception facilities when requested to do so for other than APHIS regulated garbage from any commercial, full-service solid waste firm. The firm listed below has indicated to the Captain of the Port of Mobile that they are interested in contracting their services in this regard and are approved by the Department of Agriculture, Animal and Plant Health Inspection Service.

Waste Management, 4770 Hamilton Boulevard, Theodore, Alabama, 36582.

WASTE OIL DISPOSAL: If desiring to discharge oily waste, a vessel, her owners and agents are responsible for selecting an inspected and approved company that meets United States Coast Guard requirements for receipt of oily waste and further are responsible for making the necessary arrangements for discharging the oily waste. Such discharge operations are to be reported to the Superintendent or Terminal Manager in charge of the particular facility prior to the actual discharge.

The firms listed below have indicated to the Captain of the Port of Mobile that they are interested in contracting their services in this regard. Their listing herein does not indicate a preferential recommendation on the part of the Alabama State Docks Department but merely reflects the company's desire to function in the above capacity and the Captain of the Port's recognition of the firm with respect to the Alabama State Docks Department's application. All enquiries should be directed to the Captain of the Port, United States Coast Guard. Any contractor is subject to the applicable regulations for the transfer of oil (33 CFR 154-156).

Aaron Oil Company, Inc., P.O.Box 2304, Mobile, Alabama, 36652.

Midstream Fuel Service, Inc., P.O.Box 2626, Mobile, Alabama, 36652.

SEAMAN'S CLUBS: Catholic Maritime Club, 273 Dauphin Street, Mobile. Tel: 432-7339.

International Seaman's Center, 605 Texas Place, Mobile. Tel: 432-7953.

CURRENCY: U.S.Dollar (U.S.$).

DEVELOPMENTS: The 400 ft. wide ship channel was recently dredged to 45 ft. and to be dredged at a later stage to 55 ft. with a width of 550 ft.

The Alabama State Docks is currently involved in a $55 million capital improvement program, which will add 2 warehouses and a pier to the general cargo warehousing and docking facilities and add a 864 ft. pier, ship unloader and new conveyor system at McDuffie Terminal. A 365,000 sq.ft. forest products warehouse and steel and heavy lift berth has been built to better serve dock customers. A 14 acre waterfront site was recently purchased and renovated providing a 1,400 ft. pier system, open storage area and a 175,000 sq.ft. warehouse.

AUTHORITY: Port of Mobile, Alabama State Docks Department, P.O.Box 1588, Mobile, Alabama 36633-1588, U.S.A. *Tel:* (334) 441-7100. *Telex:* TWX 810-741-7748. *FAX:* (334) 441-7110. *Contact:* J. Ravan, Port Director/CEO. E.G. Browning, General Manager/Head of Operations. Captain D. Carey, Harbour Master.

MOREHEAD CITY, N. Carolina: 34.43 N. 76.42 W.

(See P

DOCUMENTS:

3 copies Cargo Manifest (Form 1302), the original showing all
on board, and 2 copies showing only cargo for this port.
2 copies Crew Manifest (Curio List).
2 copies Passenger List (Form I-418).
2 copies Crew List (Form I-418).

Customs Boarding Officer will also examine Ship's Register and Line Certificate. In addition, the following documents will be require formal entry to be made within 48 hours of arrival from abroa 24 hours from arrival from a United States port:

Health Pratique.
Master's Oath (Form 1300).
All Foreign Clearances.
U.S. Certificates of Payment of Tonnage Tax (Customs Form 1
Certified Crew List.

PILOTAGE: Pilots obtained from Morehead City Pilots' Associa Morehead City, North Carolina 28557. Tel: 919-726-4068.

The Port Terminal at Morehead City is 3.5 miles from the Sea B The port is located on the Intracoastal Waterway and is situated 75 S.W. of Cape Hatteras and 14 miles West of Cape Lookout.

Pilots should be given 24 hours notice and then contacted by Channel 16 about 2 hours before arrival at Sea Buoy R "2BI".

Pilot boat is about 40 ft. long, with white hull and superstructure hull is marked with "Pilot" in black letters on both sides.

RESTRICTIONS: Ocean Bar is 47 ft. at MLW.

The channel at Morehead City is maintained at a controlled dep 45 ft. at MLW.

The East Turning Basin has a depth of 45 ft. and the West Tu Basin has a depth of 35 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany

AGRICULTURE: See "Agriculture" before first U.S.A. port (Alban

TUGS: Available. Service provided by (1) Morehead Towboat, Island, Morehead City, North Carolina 28557. Tel: 919-726- (2) Delta Marine Inc., P.O.Box 3546, Morehead City. Tel: 726- Fax: 763-7119.

BERTHING: The wharf is 5,500 ft. long. This length enables the provide berths for 10 × 500 ft. general cargo ships and 1 petro tanker at any given time.

Adjacent to the general cargo dock area is a 1,000 ft. deep water for out-loading through the bulk handling facility.

The wharf is constructed of concrete and steel and has marginal and crossovers for full length. Truck ramps are located at various for easy Roll-on/Roll-off access.

Morehead City also provides a barge terminal with 1,487 ft. of m berths. This terminal was developed as a part of the bulk han facilities, but is also used for the loading or off-loading of a vari cargoes.

Bulk Handling Facilities: 6,000,000 ton annual capacity bulk faci receipt, conveyance, storage and shipment of bulk cargoes. Lo capacity 3,000 t.p.h. Storage capacity 225,000 tons (used mai phosphate).

Woodchip handling facility which can outload 1,000 s/tons per annual capacity two million tons.

CRANES: 2×115 ton capacity gantry cranes with container ha capability.

FUEL: Available from Colonial Oil and Texaco Inc.

SURVEYORS: Saybolt, Lloyd's, S.G.S. and National Cargo Bure

REPATRIATION: This is possible but should be avoided as there Immigration Office. Closest airport is about 1 hour's drive from the

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight Time, GMT minus 4 hours from first Sunday in April till last Sun October.

SERVICES: There are no shipyards in the port. Service on any electronic equipment is not available.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I- made up for each crew member on arrival. Not necessary for cre already holding Form I-95, issued for the same vessel.

GARBAGE DISPOSAL: See "Agriculture" before first U.S. (Albany).

Garbage disposal is available though it must be pre-arranged port before vessel's arrival. Drums and skips are normally alongside ship. Charges and collection times will be given wh arrangements are made. Contact James Lawrence, Superintendent, Morehead City Port, Morehead City, North Tel: (919) 726-3158.

WASTE OIL DISPOSAL: Waste oil disposal is availab pre-arrangement must be made. All docks are serviced by tanker Contact James Lawrence, Dock Superintendent, Morehead Morehead City, North Carolina. Tel: (919) 726-3158.

SEAMAN'S CLUBS: There is a Seaman's Center at the port sponsored by the local churches. This facility is located near water tank and provides telephones to call home and general as

CURRENCY: U.S.Dollar (U.S.$).

AUTHORITY: North Carolina State Ports Authority, P.O.Dra 113 Arendell Street, Morehead City, North Carolina 28557. 726-3158. *FAX:* (919) 726-1190. *Contact:* Robert D. McMah Director.

NAWILIWILI, Hawaii (including Port Allen): 21.57 N. 159.21 W. (See Plan)

DOCUMENTS:

4 Crew Lists.
4 Passenger Lists.
Customs Documents.
Clearance, Travelling Manifest.
Local Manifests.
Health Documents.
Bill of Health and Vaccination Certificates.
4 Manifests.
4 Bills of Lading.
Ship's Papers.
Certificate of Registration or Enrolment.
Annual Inspection Certificate.
Load Line Certificate.
Derat Certificate.
Drinking Water Certificate.
Radio Certificate and Licence.
4 Stores Lists.

PILOTAGE: Vessel's Agent orders Pilot 48 hours in advance by telephone, correcting ETA as necessary with 4 hours final notice if a last minute change occurs. Pilot boat "Anini" from Hawaii Pilots Association serves Nawiliwili and Port Allen. Tel: (808) 521-2780. Pilot boards 1 mile East of Nawiliwili and 0.5 miles South of Port Allen. Signals in accordance with International Code.

ANCHORAGES: *Nawiliwili:* Between Nawiliwili Light and Carters Point in 5 – 9 fathoms. Not good in strong trade-wind weather. Fair holding ground. Not recommended.

Port Allen: 0.5 miles South of Port Allen Breakwater Light in 5 – 10 fathoms. Fair holding ground. Untenable in Kona or S.W. storms which occur from November to March.

RESTRICTIONS: 24 hours notice of arrival is obligatory. Nawiliwili: Arrivals sunrise, departures sunset time. From October 21 to March 21 Pilot boards at 0630 hrs. Balance of year 0600 hrs. Port Allen: No time restrictions.

MAX. SIZE: *Nawiliwili:* Length 800 ft., draft 32 ft. 6 in.

Port Allen: Length 687 ft., draft 32 ft. on North side and 28 ft. on South side. Pier is 600 ft. long, so larger vessels overhang.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

RADIO: Communicate through RCA or ITT stations in Honolulu. Also KQM marine operator for radio telephone and telephone to Kauai.

TUGS: One 2,000 h.p. tug meets vessels off port and in outer harbour. Both ship's lines and/or tug's line may be used. Has radio telephone, "WTT 3602" and Channel 12 is usually used. Extra tugs available from Honolulu.

BERTHING: Limited to one large vessel at Nawiliwili and one at Port Allen. Considerable barge traffic. Prior reservations by Agent necessary with Marine Cargo Specialist. Berth conflicts usually solved in Honolulu by rerouting of Island ports.

Ro/Ro barge facility at Piers 2 and 3.

Pier 1 renovation presently underway. Scheduled completion is September 1996.

CARGO HANDLING FACILITIES: Nawiliwili has one sugar loading gantry on Pier 2; no equipment or storage to handle grain, ore, coal, sulphur. Fertiliser is discharged by self-unloading barge, and the bulk hauled away via truck. There is a container yard but no facilities to off-load containers. Weekly service is by a self-unloader. Roll-on/Roll-off cargo is moved on ramps furnished by barges. LPG and petroleum product lines are privately owned.

STEVEDORES: All stevedoring by McCabe Hamilton and Renny Co. Ltd., with headquarters in Honolulu and branches in outports. 48 hours notice by Agent for labour and equipment. Inward cargo is containers, general, bulk fertiliser, petroleum products, and building and construction materials. Outward is raw sugar, general and molasses. Foreign vessels are subject to heavy fines for carrying stevedore gear inter-island without Customs Clearance.

MEDICAL: 2 hospitals on Kauai with 2 doctors under contract to United States Public Health Service. Standard international inoculations and vaccination required. Advance notice by Agent desirable but not necessary.

TANKERS: All piers have pipeline connections for incoming cargo and outgoing molasses. Fuel oil 10 in., molasses 10 in., water line 6 in., gasoline, kerosene and diesel 8 in. These are the main lines under the wharves. Hose connections to ships vary with the type of riser and hose so size of fittings should be checked with Agent. No slop discharge facilities available. 5 tanker berths available.

DENSITY: Varies from full salt to brackish in periods of heavy rainfall with freshets in the streams. No specifics available.

FRESH WATER: Available from 2 in. dock hydrants via ship's hose. About 100 gallons per minute. No water available at Port Allen Harbour.

FUEL: Bunker C not available for large vessels. Diesel fuel available via tank truck with 6 hours notice. Weekend and holidays order previous day.

CONSULS: All in Honolulu.

REPAIRS: Light machine shop, welding and burning and pipe work available. Plantations may do some heavy repairs if part can be sent to their shop. Their engineers are helpful in emergencies. Heavy or technical repairs must be done in Honolulu.

GANGWAY/DECK WATCHMEN: Tankers discharging gasoline required to have uniformed dock watchman. Usually off duty policeman. All ships provide own gangway and deck watch.

OPENING/CLOSING HATCHES: Normally done by stevedores. A few foreign ships prefer doing it with own crew.

CUSTOMS ALLOWANCES: 200 cigarettes, 50 cigars per man, and one bottle, U.S. quart, wine or spirits.

REPATRIATION: Agent can arrange by air via Honolulu. Immigration clearance necessary.

AIRPORT: Lihue is 3 miles from Nawiliwili and 20 miles from Port Allen; served by inter-island regular carriers. Numerous lines, and charter flights available.

TIME: GMT minus 10 hours, all year round.

HOLIDAYS: National: New Year's Day (January 1st); President's Day (February 22nd); Memorial Day (May 25th); July 4th; Labour Day (first Monday in September); Election Day (first Tuesday in November); Veteran's Day (November 11th); Thanksgiving Day (November 26th) and Christmas Day (December 25th). Cargo can be worked but at penalty rates.

POLICE/AMBULANCE/FIRE: Emergency calls – Dial 911 for all services, or dial "O" for operator.

EMERGENCY CO-ORDINATION CENTRE: Coast Guard Search/Rescue Centre, Tel: (808) 246-0390.

TELEPHONES: Arrangements by Agent.

SHORE LEAVE: Permitted after Immigration check. Eastern Bloc visitors may be restricted.

IDENTIFICATION CARDS: Desirable but not required by law.

DEVELOPMENTS: Turning basin may be enlarged to handle liners and large bulkers. Project depth 35 ft. Also see "Berthing".

AUTHORITY: State of Hawaii, Department of Transport, Harbours Division, 3242 Waapa Road, Lihue, Kauai, Hawaii 96766, U.S.A. *Tel:* (808) 246-6996. *FAX:* (808) 246-9344. *Contact:* Robert B. Crowell, Harbour District Manager.

NEW BEDFORD, Massachusetts: 41.38 N. 70.55 W. (See Plan)

DOCUMENTS: See "Boston".

PILOTAGE: Compulsory. 3 Massachusetts State Pilots available, ordered through Agent. VHF Channel 16 monitored. Pilot on station only after 12 hours notice. Small pilot vessel with basic communication equipment. Pilots board all vessels at Buzzards Bay Buoy at the entrance to New Bedford Outer Harbour situated at Lat. 41° 30' 42" N., Long. 70° 50' 07" W.

ANCHORAGE: It is recommended that vessels delayed due to weather, etc., anchor 0.5 miles South of Buzzard's Bay Bell Buoy.

RESTRICTIONS: A modern harbour approach begins at Buzzard's Bay Buoy and runs a straight course of 7.5 miles direct to the pier facilities. The channel is 350 ft. wide and has a depth of 30 ft. MLW. The channel leads into a moderate size (1,000 yd.) turning basin.

Hurricane dyke barrier gate 150 ft. wide with depth of 30 ft. MLW.

MAX. SIZE: 700 ft. length. Vessels over 30 ft. draft restricted by tides.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

HEALTH: See "Health: All Ports" before first U.S. port (Albany).

RADIO: RCA Chatham Radio, New Bedford Marine Operator for VHF, and Boston Marine Operator for ship to shore frequencies.

VHF: Pilot vessel on Channels 16 and 13. Pilot office on Channels 16 and 18A.

TUGS: Tugs join vessel in inner harbour. Tug lines used. 2 tugs available. Tugs are not normally used at the State Pier in docking and undocking of deep-water vessels. The large turning harbour basin, the wind-sheltered position of the pier and lack of tidal current minimise use of tugs. In extreme weather conditions tugs are used.

BERTHING: At State Pier, berthing space for 3 ships:
North side 600 ft. length, South side 775 ft. length, East side 450 ft. length.

Depth of water at all berths is 30 ft. MLW.

Maritime Terminal, depth 27 ft.

BRIDGES: Passage to upper reaches of harbour to Maritime Terminal requires navigation through the New Bedford and Fairhaven Bridge only in daylight for larger vessels over 250 ft. length.

STEVEDORES: 24 hour notice required for New Bedford Stevedoring Corporation to prepare gear. 25 tons discharged or loaded per hour as average production per gang. Nearly all cargoes handled.

MEDICAL: 24 hours notice required. Excellent hospital facilities available.

DENSITY: Static, since tidal variations light. Density same as ocean water.

FRESH WATER: Fresh water available.

FUEL: All types available, to be ordered in advance.

CONSULS: Most Consuls available in Boston, 50 miles or 1 hour away.

REPAIRS: All types of minor ship repairs available.

GANGWAY/DECK WATCHMEN: Watchmen available. Non police or police.

OPENING/CLOSING HATCHES: Depends on negotiated contract and cargo handled.

CUSTOMS ALLOWANCES: Designated by U.S. Customs with regard to particular circumstances.

REPATRIATION: Agent can handle formalities.

AIRPORT: 3 airports within 1 hour's drive. All international services.

HOLIDAYS: New Year's Day (January 1st); Washington's Birthday (February 22nd); Patriot's Day (April 19th); Memorial Day (May 30th); Independence Day (July 4th); Labor Day (first Monday in September); Columbus Day (October 12th); Veterans' Day (November 11th); Thanksgiving Day (last Thursday in November); Christmas Day (December 25th).

TELEPHONES: No telephones on board, but exist adjacent to pier.

SERVICES: All services can be obtained if required.

SHORE LEAVE: If U.S. Immigration has cleared crew member, he is allowed ashore.

GARBAGE DISPOSAL: Garbage containers are available on most piers and wharves. Contact: A.B.C. Disposal. Tel: (508) 995-0544 and Frades Disposal. Tel: (508) 995-9121.

WASTE OIL DISPOSAL: Contact Franklin Recycling Co. Tel: (508) 995-1179.

SEAMAN'S CLUBS: None.

SHIPMASTER'S REPORT: December 1982.

Documents: See "Boston"

Pilotage: Compulsory. Pilot boards at "BB" in Buzzards Bay. Advise Agent 6 hours prior to arrival.

Restrictions: Vessels enter and leave on rising tide during daylight hours. The approach is hazardous as vessel has to pass through hurricane barrier (width 150 ft.) and swing bridge (width 94 ft.).

Max. Size: LOA. 600 ft. Beam 85 ft. Draft 25 ft. Underkeel clearance of 5 ft. required in channel. Mean tidal range 3 ft.

Radio: Chatham Radio.

Tugs: 3 tugs available (2,000 h.p.). 2 tugs are normally sufficient for berthing/unberthing.

VHF: Pilot on VHF Channel 16.

Berthing: Maritime Terminal Wharf: Distance from "BB" Buoy to Berth is 9 miles. U.S. and U.K. Pilot Books indicate 30 ft. to 31 ft. at berth. Least depth in Channel from sea to berth 30 ft. Nature of bottom at berth – very soft mud. Density 1025. Good security. Palletised cargo and 20 ft. and 40 ft. containers handled. Ample storage space for containers.

Services: Fresh water, fresh provisions, limited repair facilities, Lloyd's Surveyors (at Boston), Salvage Surveyor (New York), laundry service, (Boston). Bunker fuel oil, diesel oil, lubricating oil, doctor, hospital, groceries and meats (Boston).

AUTHORITY: City of New Bedford, Harbor Development Commission, Wharfinger Building, Fisherman's Wharf, New Bedford, Massachusetts 02740. *Tel:* (508) 993-1770. *FAX:* (508) 991-6181. *Contact:* Martin Manley, Director.

NEW HAVEN, Connecticut: 41.14 N. 72.55 W.

(See Plan)

DOCUMENTS: Refer to "New York".

APPROACHES: *From New York:*

Charts: 12339, 12366, 12367, 12363, 12354, 12371.

Vessels leaving New York bound for New Haven will be transiting New York's East River and Western Long Island Sound. All shoals and rocks are well marked and the close proximity to the shore line provides an excellent radar target for position checking. During Summer months, thick fog will present a hazard on this route. Long Island Sound is also a major yachting centre, so extreme care must be exercised while transiting this area.

There are numerous dangers to be wary of when making the passage from New York to New Haven. In order of approach they are:

1. East River and Hell Gate are areas of strong tidal currents averaging 4.6 knots for the ebb current which sets in a Southwesterly direction. Vessels drawing up to 35 ft. may transit Hell Gate at HWS only. Sluggish handling vessels should arrange for towboat assistance up the East River and through Hell Gate.
2. 26 ft. Buoy "32A" usually passed well clear to the South.
3. Cable and Anchor Reef usually passed to the South.
4. Stratford Shoals deep draft vessels pass at least 1 mile off the South of the shoal then alter course to New Haven Sea Buoy.

From Block Island:

Charts: 13205, 13215, 13209, 12354, 12371.

On approaching Block Island from the Southerly direction, Block Island's Southern shore is mainly high rock cliffs, and a good radar target is obtained along with bearings taken from the RDF station at Southeast Light.

Care should be exercised by vessels deeper than 30 ft. to always approach Block Island to the East due to the numerous shoals found on the Western side of the island.

It is also advisable to remain at least 1 mile to the East of Block Island due to the numerous shoals close in shore.

There are numerous dangers to be wary of when making the passage from the Pilot Station to New Haven. In order of approach they are:

1. Block Island North Reef Buoy "1B1" marks a dangerous shoal and should be passed well clear.
2. The Race is a narrow channel into Long Island Sound. Strong East to West currents exist during maximum ebb or flood and knowledge of position should be maintained in view of the possibility of unusual set. Valiant Rock, with a least depth of 19 ft., nearly in the middle of the Race, is surrounded by shoal area. A lighted bell buoy is Northward of the rock.
3. Great caution should be exercised during the Summer months when transiting through Block Island and Long Island Sound due to the heavy small boat traffic, especially in the area in proximity to The Race.
4. Fog is prevalent during the Summer months and is heavy. Good judgement should be used before transiting the area during fog.

Good water is found in Long Island Sound from The Race to New Haven as long as the Mid-Channel Buoys "P1" and "CF" are passed close to and care is taken so as not to pass North of "Twenty-Eight Foot Shoal" lighted bell buoy. When a vessel is within 4 or 5 miles of New Haven, the depth of the water is reduced, so caution is again needed. Radar is the best navigational aid in this area. There are numerous RDF stations that can be used to ascertain positions. Also fathometer readings will be helpful.

PILOTAGE: Compulsory. State Pilots are available on a 24 hour b and are usually arranged through the ship's Agent or directly by ship companies. Pilot will board vessel in vicinity of New Haven Sea B marked "N.H." – short and long flash; black and white vertical str Boarding will be from a 44 ft. steel launch named *New Haven P* blue hull with "Pilot" marked on both sides in white letters, or fro tug-boat. Contact can be made via VHF telephone, Channel 13 (15 MHz), Channel 16 (156.80 MHz), or Channel 19A (156.95 MHz).

Dock Masters provided by Constitution State Pilots.

Pilotage Association Report: The New Haven – Bridgeport P maintain a tide gauge, from where they depart to meet vessels. normal tidal range is 6 ft. They believe that 4 ft. of water in exces the ship's deep draft is necessary for a safe transit. A rule of thu used by them, is 31 ft. on LW, and 37 ft. on HW. (For any variatio this, a Pilot should be consulted.) A normal transit time from the entra buoy to any of the berths in the inner harbour is 45 minutes to 1 h Docking time of 30 minutes to 1 hour should be added to this aver dependent on where the ship is berthing, as well as possible wea conditions.

There was a maintenance dredging of New Haven Harbour, comp in 1994. The after-dredging survey submitted to them by the U.S. A Corps of Engineers shows a controlling depth, with rock bottom of 3 at MLW. This rock is located at South West Ledge Light at a point w a 35° turn is executed by the ship.

Prevailing winds are Westerly, and have a decided effect on the of tide. The tide gauge is the determining factor as to the time of e when wind conditions do exist.

Advice from State of Connecticut, Department of Transportation:

Pilotage is compulsory for vessels transitting the waters of Long Is Sound via Block Island Sound bound to or from ports and harbour Long Island Sound. Vessels bound for New Haven via Block Island/L Island Sound usually board a Pilot at either the Point Judith Pilot St (41° 17.2' N., 71° 28.5' W.; 2 miles South of the Point Judith R "2" wh buoy), or the Montauk Pilot Station (41° 02' N., 71° 42' W.; 3 miles East of Montauk whistle buoy Mo (A) "MP"). Some Block Island/L Island Sound Pilots also serve as Pilots for New Haven. If a local har Pilot is to be boarded, he will usually board vessel in vicinity of Haven Sea Buoy, marked "N H" – short and long flash; red and w vertical stripes.

ANCHORAGES: Vessels awaiting berth, and or tides, will find anchorage up to 40 ft. draft within 1 mile S. – S.E. of the "N.H." B

RESTRICTIONS: Vessels can proceed to and from berths in New Ha Harbour at any hour during the day or night, weather and tide permit Entrance channel dredged to 35 ft. MLW and width 400 ft.

MAX. SIZE: Draft up to 38 ft. subject weather and tides. Vesse 50,000 d.w.t. with part cargo, do call occasionally, but should co with the Pilot and terminal concerned.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Alban

HEALTH: See "Health: All Ports", before first U.S.A. port (Albany

RADIO: Vessels arriving from North use Chatham Radio. Vessels South use Amagansett Radio on Long Island.

Bridgeport Marine Operator on VHF Channels 24 and 27.

TUGS: Gateway Towing operates tugs based in New Haven and s Long Island Sound ports. The office is on VHF Channel 13, 24 ho day. The 24 hour telephone number is (203) 469-7288. The 4 stationed in New Haven have 2,400 h.p. with twin screws. There ar other New York based tug companies serving this area, Spenton Red Star Co., Tel: (800) 223-5470.

BERTHING:

Wyatt Inc.: Pink Tanks:

In the Winter of 1994, this terminal, on the West side of the har was dredged to 36 ft. The dock on the East side has been close ships of 715 ft. LOA can be docked portside to on the West dock

Wyatt Inc.: T Dock:

In the Winter of 1994, this terminal, on the East side of the ha was dredged to 36 ft. The dock is parallel to the main channe manifold area and dolphins connected by walkways. Ships are d portside to.

Gulf Terminal: The Gulf Dock is located parallel to the channel o East side of the inner harbour, and ships of 35,000 d.w.t. with d 35 ft. and LOA of 675 ft. are considered to be maximum size. (from bow to manifold.)

The dock parallels the channel and consists of 2 main caiss centre platform and dolphins connected by a catwalk. Ships cons for Gateway Terminal use this facility.

Gateway Terminal: Gateway Terminal is an independent deep marine terminal owner and operator, handling various types of d liquid bulk cargoes. It features its own petroleum transfer and oil s tank farm (4 tanks), with an aggregate capacity of approx 500,000 barrels. The fuel transfer facility is connected to the Bu Jet line Pipeline System servicing central Massachusetts, and working arrangement with Gulf Oil to utilise a number of their imme adjacent facility components, including their T – dock.

Gateway Terminal has a newly constructed concrete pier, length by 60 ft. width, which is at a 90° angle to the main chann pier provides up to 3 berths and can accommodate on the Sou 40,000 d.w.t. tankers and dry cargo vessels up to 68,000 d.w.t. LOA, 106 ft. beam and 36 ft. draft at MLW. Smaller vessels and with up to 35 ft. draft at MLW use the North side. Also avail 3×9,000 ton elevators for cement storage. The pier provides a rubber cushion 50 ft. on centre fendering system. Two high spee cranes with capacity 40 tons are on the pier and additional mobi with capacity 25 tons are available. Advanced truck loading an stations are immediately adjacent to the pier. Ships can bert starboard side to.

Bunkers, petroleum products and fresh water are available at a

New Haven Terminal, Inc.: This facility has 3 ship berths on a 90° heading from the channel, dredged in 1994. The Scrap Dock, as it is called, is a continuous pier, with a wearing strip cushioned by a rubber backing. The pier is 650 ft. long, with 35 ft. at MLW. Scrap is loaded from here and all types of dry cargo handled. Two gantry cranes are on the dock and additional mobile cranes are available. Railroad cars can be brought on to the dock. Ships berth port side to.

The Finger Pier on the North side is a continuous pier, 650 ft. long, and is mainly used as a tanker berth. Bow to manifold is 350 ft. (additional hoses can be added to increase this distance.) The slip is 196 ft. in width, and 2 ships may be accommodated at the same time, as long as 30 ft. is allowed for a tug boat between the ships. Depth 35 ft. at MLW.

The South side is a tanker or general cargo berth, with 38 ft. at MLW. Bow to manifold is 350 ft. and additional hoses may be used. Ships of 700 ft. may be secured at all 3 of these berths.

Bunkers can be trucked in, and fresh water is available at all berths. New Haven Terminal Inc., 100 Waterfront Street, New Haven. Tel: (203) 469-1391. Telex: 710-465-2994. Fax: (203) 469-1318.

Exxon Terminal: Exxon Dock parallels the main channel. The dock is 750 ft. long with 2 main caissons, dolphins, and platform connected by a catwalk.

Ships of 50,000 d.w.t. call at this dock, with a draft of 36 ft., docking on the rising tide. Ships are docked starboard side to. Bunkers are not available, though fresh water is.

MEDICAL: All facilities available.

TANKERS: See "Berthing".

BALLAST: There are no slop lines available.

FRESH WATER: Available at all terminals.

FUEL: Available from oil terminals or delivered by barge.

CONSULS: All countries represented in New York.

CUSTOMS ALLOWANCES: At the discretion of Customs Officers. Normal allowance is 200 cigarettes or 2 lb. of tobacco and 1 quart wine/spirits per man. Additional allowances may be given if considered necessary, due length of vessel's stay in port.

AIRPORT: New Haven Airport 1 mile distant. New York International Airport 70 miles distant.

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight Saving Time, GMT minus 4 hours from first Sunday in April till last Sunday in October.

HOLIDAYS: New Year's Day (1st January); Washington's Birthday (22nd February); Memorial Day (30th May); Independence Day (4th July); Labor Day (first Monday in September); Columbus Day (12th October); Veteran's Day (11th November); Thanksgiving (fourth Thursday in November); Christmas Day (25th December).

SERVICES: Professional Sea Services (monitor Channels 16 and 19A) of New Haven offers launch service to ships at anchor, movement of stores, and skin divers. Tel: (203) 932-2159.

Sea Support, 500 Waterfront Street, New Haven, CT. 06512. (P.O.Box 9166, New Haven, CT. 06532). Tel: (203) 467-1590 (24 hours). Fax: (203) 468-2670. Telex: 413474 Conn Marine. Contact: Ralph Gogliettino. Services: Complete ship chandlery and repair services. Boom deployment, oil containment and recovery, air, sea and shore terminal services.

GARBAGE DISPOSAL: Agent must make arrangements with Department of Agriculture.

Charges: U.S.$ 250.00 per container; haulage U.S.$ 10.00 per container; disposal U.S.$ 80.00 per net ton.

WASTE OIL DISPOSAL: Service available and must be arranged through ship's Agent.

See "Services".

SEAMAN'S CLUBS: None.

GENERAL: Through a co-operative agreement, all the terminals have a slick boom, skimmers and absorbent available at all times.

There are no slop tanks available in this port for pumping ballast.

None of the terminals supply gangways; ships must use their own.

AUTHORITY: U.S. Coast Guard, Captain of the Port, Long Island Sound.

Contact: Captain D.V. Monks, New Haven – Bridgeport Pilots' Association, 45 Alison Avenue, Wallingford, Connecticut 06492. *Tel:* (203) 230-0778, (203) 265-3673 (Residence).

NEW LONDON (Including Groton), Connecticut:

41.21 N. 72.06 W. **(See Plan)**

DOCUMENTS: Refer to "New York".

PILOTAGE: Pilotage is compulsory for vessels transiting the waters of Long Island Sound via Block Island Sound bound to or from ports and harbours on Long Island Sound. Vessels bound for New London harbour via Block Island/Long Island Sound usually board a pilot at either the Point Judith Pilot Station (41° 17.2' N., 71° 28.5' W., 2 miles South of the Point Judith R "2" whistle buoy,) or the Montauk Pilot Station (41° 02' N., 71° 42' W., 3 miles due East of Montauk whistle buoy Mo (A) "MP"). Some Block Island/Long Island Sound pilots also serve as pilots for New London. If a local harbour pilot is to be boarded, he will usually board the vessel at General Anchorage "E" or if under way inbound, approximately one mile South of New London entrance buoys "1" and "2". Vessel's agent will arrange pilotage and advise vessel of pilot boarding area.

Dock Masters provided by Constitution State Pilots.

ANCHORAGES: General Anchorage "E": In the waters off the mouth of New London Harbour, approximately 1.5 miles S.S.E. of New London Ledge Light (See "Plan").

RESTRICTIONS: Vessels can proceed to or from berths in New London or Groton at any hour during the day or night, weather and tide permitting. Transits of the Thames River to or from Dow Chemical's Terminal at Allyn Point are limited to daylight hours.

The U.S. Navy has dredged New London Harbour to provide a main ship channel with depths of 36 ft. and 40 ft. at MLW, 500 ft. wide from Long Island Sound to the Route I-95 bridge.

MAX. SIZE: Dry cargo vessels of approximately 600 ft. – 650 ft. and tankers of approximately 800 ft. have been using the harbour.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

RADIO: Vessels arriving from North use Chatham Radio on Cape Cod. Vessels from South use Amagansett Radio on Long Island. However, either one may serve the purpose.

VHF: New London Marine Operator monitors Channels 25, 26 and 86.

TUGS: Usually join vessel at Ledge Light if a dry cargo vessel and near entrance buoys "1" and "2" if a tanker. Tugs use their own lines. Three tugs of about 1,000 h.p. – 3,000 h.p. are usually available with advance notice. Tel. (203) 443-9433.

BERTHING: Advance ETA must be made for berthing.

State Pier No. 1: Depth-pending completion of hydrographic survey, pilot and terminal should be consulted (Vessel's draft normally not to exceed 31 ft. – 32 ft.).

Long Wharf: Consult Pilot and Terminal Operator regarding draft limitation/availability of Long Wharf for berthing.

Dow Chemical Co. Wharf: Depth 22 ft. MLW (docking on rising tide), daylight docking and undocking.

Hess Groton: Depth 36 ft. MLW.

City Pier (South side): Depth approximately 18 ft. MLW (not used as a cargo terminal). Contact New London Marine Commerce and Development Office. Tel: (203) 443-8331.

BRIDGES: There are no bridges across Main Ship Channel. However, at New London, at the head of the Main Harbour, the Thames River is crossed by 1 drawbridge and a twin fixed bridge: the Amtrak Railroad bascule bridge with a horizontal clearance of 151.5 ft. and a vertical clearance of 30.9 ft. at high water and a fixed highway bridge with a vertical clearance of 135 ft. for a middle width of 200 ft.

STEVEDORES: Gangs must be requested on weekdays no later than 1630 hrs. preceding the scheduled work day.

MEDICAL: All facilities available.

TANKERS: Amerada Hess Oil Dock: Max. draft 36 ft. (Lines 10 in. and 12 in.).

Pfizer Wharf: Barge berth, currently not handling tankers.

Report: Port Approaches – Cautionary Advice: When approaching Block Island from the South or East, prior to picking up the Pilot, all mariners should be aware of the precautionary zone to the S.E. of Block Island. Usually ships bound for Point Judith Pilot Station will make for 1 mile East of Block Island S.E. lighted whistle buoy then, traffic permitting, head due North, to pick up the Pilot. All traffic in this area should be monitoring VHF Channels 13 and 16. Principal navigational aids used in making landfall are RDF stations at Montauk Point, S.E. Point, Point Judith, Brenton Reef Light and Buzzards Bay Light Tower. The high bluffs on the South side of Block Island also provide excellent radar targets for position fixing. Ships bound for Point Judith Pilot Station are advised to approach the Pilot Station from the East side of Block Island due to the shoals found on the island's Western side. Ships bound for the Montauk or Point Judith Pilot Station should be cautioned against proceeding past the pilot boarding area without a pilot on board. Vessel agents arranging boarding at Montauk Pilot Station should consult pilots regarding draft restrictions for vessels transitting the Montauk-Block Island Channel, S.W. of Block Island. Among the dangerous shoals in that area is Southwest Ledge, marked by a lighted buoy. There are numerous dangers to be wary of when making the passage from the Pilot Station to Groton. In order of approach they are:

Block Island North Reef Buoy "1BI" marking a dangerous shoal which should be given a wide berth.

"The Race" which is a narrow channel leading into Long Island Sound. Strong Easterly and Westerly currents exist during maximum flood and ebb tides (flood set to the West) and an accurate position should be maintained at all times so that any unusual set may be observed.

It should also be noted that sport fishing boats frequent the area in great numbers practically all year round. Tugs with large barges on long hawsers can also be expected. Valiant Rock, with a least depth of 19 ft., nearly in the middle of The Race is surrounded by shoal area. A lighted bell buoy is northward of the rock. Security broadcasts should be made on VHF Channels 16 and 13 when approaching the area and passing situations discussed before entering "The Race".

Cautionary Advice: Extreme caution should be exercised during the Summer months when transiting through Block and Long Island Sounds due to heavy small boat traffic, especially in the area around "The Race".

Submarine operating areas are in the approaches to New London Harbour and off the Northern end of Long Island. Submarines may be operating either surfaced or submerged in these areas.

Fog is prevalent during the Summer months and can be very dense. Prudent judgement should be used before transitting the area during fog because of the aforementioned hazards.

Berthing: (Hess Oil – Groton): The harbour provides excellent room for manoeuvring. Currents of up to 0.5 knots exist but set fair with the channel. The tidal range averages 2.6 ft. with a spring range of 3.1 ft. Vessels approach the berth at a small angle. Usually vessels dock starboard side to. Once alongside the platform, the bow will be secured first, followed by the stern. The Platform is well protected by rubber fenders. Lines are run to offshore piles and a mooring buoy by a small boat. 12 mooring lines are used under normal weather conditions. (See "Plan").

FRESH WATER: Available at pier side through 2.5 in. and 1.5 in. hoses.
FUEL: Bunker or marine diesel not normally available (arrangements are possible, if ship's Agent is given sufficient advance notice).
CONSULS: Nearest at New York.
REPAIRS/DRY DOCKS: Drydocks of sufficient size/capacity to handle cargo ships currently unavailable to the public. Towing and minor repairs are available through Thames Shipyard, Inc. in New London. Tel: (203) 442-5349.
GANGWAY/DECK WATCHMEN: Not required and not recommended.
OPENING/CLOSING HATCHES: May be performed by stevedores or ship's personnel.
REPATRIATION: Facilities exist.
AIRPORT: Nearest airport is Groton - New London Airport, situated in the Southeast part of Town of Groton, Connecticut. USAir provide scheduled commercial service to this field.
TIME: Eastern Standard Time, GMT minus 5 hours. Daylight Saving Time, GMT minus 4 hours, from first Sunday in April till last Sunday in October.
HOLIDAYS: Eleven holidays may affect stevedore services at State Pier. With the exception of Labor Day, cargo work can be arranged on holidays. The Terminal Operator should be contacted at Tel: (203) 442-3939 for information concerning observed holidays.
POLICE/AMBULANCE/FIRE: Dial 911.
TELEPHONES: Available if required.
GARBAGE DISPOSAL: For specific information regarding garbage disposal contractors, the State Pier Terminal Operator should be consulted at Tel: (203) 442-3939. Necessary arrangements might also be made through the vessel's Agent.
WASTE OIL DISPOSAL: Upon request, information concerning Waste Oil Contractors will be available through the Terminal Operators, vessel's Agent or the Office of Waterways, located at State Pier. Tel: (203) 443-3856.
SEAMAN'S CLUBS: None.
CURRENCY: U.S.Dollar.
AUTHORITY: State of Connecticut, Dept. of Transportation, Bureau of Aviation and Ports (Office of Waterways), State Pier, New London, Connecticut 06320, U.S.A. *Tel:* (203) 443-3856. *FAX:* (203) 437-7251. *Contact:* D. Douglas Brown, Director of Port Operations.

NEW ORLEANS, Louisiana: 29.56 N. 90.04 W.

(See Plan)

DOCUMENTS:
3 copies Cargo Manifest (Form 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
2 copies Crew Manifest (Curio List).
2 copies Stores List.
2 copies Passenger List (Form I-418).
2 copies Crew List (Form I-418).
2 copies previous Tax Certificates (Form 1002).
2 copies Certificate of Financial Responsibility.
2 copies General Declaration (Form 1301).
2 copies Vessel Repairs (Form 226) (Required only for American Flag vessels arriving from foreign ports).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States Port:
Master's Oath (Customs Form 1300).
All foreign clearances.
Certified Crew List.

The Bureau of Customs at New Orleans, Louisiana, will not, regardless of the circumstances, accept Customs Entry Papers from vessels unless they are on the proper U.S. Customs Forms and properly prepared.

Specially referred to are Customs Forms 1303 (Ship's Stores Declaration), 1304 (Crew Effects Declaration) and 1302 (Inward Foreign Manifest).

U.S. Customs at New Orleans require that the 1303 be completed, that is all stores (deck, engine, etc.) be listed on the form; it must also include firearms and medicines. They will not accept "as per attached list".

Form 1304, Crew Effects List, must likewise be properly completed. All effects and curios will have to be listed on the form. The term "souvenirs" is not sufficient and may not be used. All values have to be listed. Attachments to the 1304 are not permitted. (This does not apply to American Flag vessels using the Form I-418 Crew List with Crew Declaration numbers listed for their souvenir list.)

Also see "Berthing – Ama (Shipmaster's Report) – General" regarding Customs' areas of jurisdiction.

APPROACHES: *Operator's Report:* 1984 (Corrected to 1988 conditions).

The coastline of the Mississippi River delta is low lying and generally swampy, having no easily distinguished geographic characteristics. The oil rigs and drilling platforms off Southwest Pass are usually sighted well before any navigational aids or landmarks. The first navigational aid to be seen is normally the Southwest Pass Entrance Light near the end of the East Jetty, a red tower on a white dwelling, 85 ft. above the water. The Entrance Light is also equipped with a Racon displaying Morse K (– · –) and Radio Beacon "OT" (307 kHz). The East End Jetty is also a conspicuous navigational aid consisting of a red triangular daymark on a red skeleton tower, 50 ft. above the water.

The sea buoy ("SW") is a red/white light (Morse (A)) buoy located approximately 1.6 miles South of the jetties and may be difficult to distinguish at long range due to the numerous oil wells and other lights in the vicinity.

Entry and transit should not be attempted during dense fog or any other unfavourable conditions.

River Transit: *General:* The Army Corps of Engineers has responsibility for maintaining a project depth of 45 ft. in the entran and along the navigable channel in the Mississippi River u Mile 150 AHP and 40 ft. from Mile 150 AHP to Baton Rouge. How even with regular dredging, there will be occasions when the p depth cannot be maintained, resulting in a reduction of the transit A decrease in water depth is most likely to occur when:
(a) the river stage is at its highest usually between January and and
(b) the river current velocity decreases causing siltation primaril major Winter and Spring run-offs of rain and melted snow.

The influence of the above factors on water depth cannot be accu predicted, neither for the day nor the location in the river. While t not of concern for many miles of the river where deep water is al available, it is of particular concern within the 9 crossings between Orleans and Baton Rouge.

Within these crossings it is, therefore, necessary for the Corp Engineers to take frequent soundings not only to keep track of w the least water depth is, but also to determine the priority crossin dredging.

Soundings taken for this purpose are very comprehensive, i.e., of soundings within each crossing are along the centre line range well as along parallel lines 125 ft. to 250 ft. on either side of the c line; soundings are recorded on these lines at about 150 ft. inter The maximum allowable transit drafts within the river are determine the available water depth in the deepest 250 ft. wide channel in the 5 wide crossings. As a result, Pilots in selecting such a navigable may not always proceed on the centre line ranges of a crossing maximum draft will never exceed 45 ft. to Mile 150 AHP and 40 ft. Mile 150 AHP to Baton Rouge.

Currents in the river vary according to the stage of the river (cu due to tides are a negligible factor) being of greater strength and ve during high river flood stages and of lesser velocity during low stages. High river stages normally occur in April and the low stag October. Vessels transiting the river during flood stages should precautions to avoid wash damage to the banks.

Extra caution is required in navigating the river in the vicinity of A Point, particularly when the river is high. When the Carollton G reaches 10 ft. on a falling stage, all vessels in the vicinity of Algiers shall be governed by the Governor Nichols and Gretna traffic Furthermore, low powered vessels should not navigate the area u they can clear Algiers Point during daylight.

When transiting the river it should be noted that the VTS is operation. Thus, the mariner may be confronted at any time unreported hazards. It is important, therefore, that all Pilot rules other applicable rules and regulations be strictly adhered to.

Six bridges cross the Mississippi River between Head of the P and Baton Rouge, with the following clerances:

Mile (AHP)	*Bridge*	*Horizontal Clearance* (ft.)	*Vertical Clearance* (ft.)
94.0	Hale Boggs	1,400	170.0
95.7	Greater New Orleans	1,400	170.0
106.1	Huey P. Long	725	153.0
121.7	Luling & Destrehan	1,200	154.9
167.4	Sunshine	750	168.0
229.3	Baton Rouge I-10	500	172.5

Note: The vertical distance is measured at zero elevation of th at the nearest gauge on the river. For example: the Rouge I-10 bridge shows a clearance of 172.5 ft. at z the gauge. When the gauge shows 10 ft., the cleara 172.5 ft. – 10 ft. = 162.5 ft.

Ferries transport passengers and cars across the river at Point Hache, Belle Chase, Chalmette, New Orleans, Gretna, Dest Reserve, Lutcher, Donaldsonville, White Castle and Plaquemine

When fog is predicted for the lower Mississippi River and/o outbound vessels above New Orleans should anchor around N above. Vessels below New Orleans should anchor well above Pi unless the weather can be expected to remain clear up to the en of the pass.

Draft/Speed Relationship: It is important to take account of the e "squat" when navigating within the crossings of the Mississipp For your guidance, the increase of draft due to "squat ef approximately 1 ft. for each 5 knots of speed.

River Crossings: The 9 crossings are critical areas, therefo desirable to obtain either from the Pilot or local Agent the mos information on locations where soundings indicate water depth l the project depth 40 ft. or 45 ft. You should discuss with the Pi the intended track within a crossing should be in order to remai the deepest water. In order to further reduce the risk of bottom t a reduction in speed is considered necessary in these circums Reduction of speed should be discussed with the Pilot to ens the effect of "squat" is compensated for while in a crossing. S important to ensure the desired ship response to rudder mo while in a crossing, speed reduction has to be carried out before a crossing.

The manoeuvres required at the crossings are rather unique cases the channel is not parallel to the river current, and the therefore, utilise the set of the current to negotiate the crossin has to be sufficient to compensate for the effect of the current the same time maintaining a balance with increased draft due to Full sea speed is to be avoided.

When entering or leaving a crossing, the Pilot may manoeu to the bank and on occasions take advantage of bank reject the manoeuvre.

Experienced helmsmen are required during the entire riv between New Orleans and Baton Rouge.

River Traffic: Surging caused by passing channel traffic is a common problem. To avoid damage to Chicksan/hose connections and the parting of wires or lines, special attention should at all times be given to the condition and tautness of moorings. It is recommended that one or several qualified crew members be assigned exclusively to the tending of mooring lines and winches.

PILOTAGE: Advise Agents ETA at sea buoy 48 hours in advance. Agent will arrange for Pilot. Pilot boat 46 ft. long, red hull, white cabin, flying blue and white Pilot flag. Pilot boards at sea buoy, requires Pilot ladder 6 ft. above water level, and in compliance with Chapter V, Regulation 17 of the International Convention for the Safety of Life at Sea, 1974. Pilot boats can be contacted by VHF, Channel 9 or 16 when 30 to 40 miles off. Bar Pilot is exchanged for River Pilot at Pilottown, Head of Passes.

Following Advice Received from Crescent River Port Pilots' Association:

Cable: Crespilots, New Orleans.

Vessels bound to any destination on the Mississippi River and Mississippi River Gulf Outlet (MRGO) are requested to supply the following information via Coastal Radio Telegraph addressed to Crespilots, New Orleans:

(1) ETA – 24 hours before expected arrival at Pilot Station (Sea Buoys), and any change of ETA in excess of 6 hours.

(2) Indicate if vessel is arriving Mississippi River or Mississippi River Gulf Outlet.

(3) Deepest fresh water draft and speed of vessel.

(4) Please contact Pilot Station at entrances via VHF Radio Phone on Channel 16 (156.80 MHz), Channel 9 (156.45 MHz), or, Channel 13 (156.65 MHz) at least 2 hours prior to arrival for boarding instructions. (This is normally done by the Bar Pilot).

Your co-operation will greatly assist in expediting the dispatching of Pilots and avoid costly delays to your vessels.

Report: S.W. Pass Pilot uses VHF Channel 9.

ANCHORAGES: Safe anchorage within 2 miles of South Pass or S.W. Pass entrance. Vessels may anchor at the Point below New Orleans. depending on ship size, weather, etc., tug assistance may be required.

MISSISSIPPI RIVER DESIGNATED PERMANENT ANCHORAGES:

Pilottown Anchorage: An area extending from Mile 1.5 to Mile 6.7 AHP along the right descending bank and having a width of 1,600 ft. at its upper and lower limits.

Boothville Anchorage: An area extending from Mile 12.2 to Mile 18.5 AHP along the right descending bank and having a width of 1,000 ft. at its upper and lower limits.

Ostrica Anchorage: An area extending from Mile 23.5 to Mile 24.4 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits.

Port Sulphur Anchorage: An area extending from Mile 37.5 to Mile 39.7 AHP along the left descending bank and having a width of 800 ft. at its upper and lower limits.

Magnolia Anchorage: An area extending from Mile 45.5 to Mile 46.9 AHP on the right descending bank, having a width of 1,100 ft. measured from the Low Water Reference Plane from Mile 45.5 to 46.3, and 600 ft. measured from 500 ft. riverward of the Low Water Reference Plane from Mile 46.3 to 46.9.

Davant Anchorage: An area extending from Mile 53.5 to Mile 54.5 AHP along the left descending bank and having a width of 800 ft. at its upper and lower limits.

Alliance Anchorage: An area extending from Mile 63.6 to Mile 65.8 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits.

Wills Point Anchorage: An area extending from Mile 66.5 to Mile 67.6 AHP along the left descending bank and having a width of 800 ft. at its upper and lower limits.

Cedar Grove Anchorage: An area extending from Mile 69.9 to Mile 70.6 AHP on the right descending bank, 700 ft. wide with a Western limit 400 ft. from the Low Water Reference Plane on the right descending bank.

Belle Chase Anchorage: An area extending from Mile 73.1 to Mile 75.2 AHP along the right descending bank and having a width of 1,000 ft. at its upper and lower limits.

Lower 12 Mile Point Anchorage: An area extending from Mile 78.5 to Mile 80.8 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits.

Lower 9 Mile Point Anchorage: An area extending from Mile 82.7 to Mile 85.0 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits.

New Orleans General Anchorage: An area extending from Mile 89.3 to Mile 90.5 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits. (See Appendix, paragraph 8).

Quarantine Anchorage: An area extending from Mile 90.9 to Mile 91.6 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits (See Appendix, paragraphs 6, 8 and 9).

Kenner Band Anchorage: An area extending from Mile 115.1 to Mile 115.6 AHP along the right descending bank and having a width of 700 ft. at its upper and lower limits.

Ama Anchorage: An area extending from Mile 115.7 to Mile 117.2 AHP along the left descending bank and having a width of 700 ft. at its upper and lower limits.

Bonnet Carre Anchorage: An area extending from Mile 127.3 to Mile 128.8 AHP along the left descending bank and having a width of 600 ft. at its upper and lower limits. (See Appendix, paragraph 10).

La Place Anchorage: An area extending from Mile 134.7 to Mile 135 AHP along the left descending bank and having a width of 600 ft. at its upper and lower limits.

Reserve Anchorage: An area extending from Mile 137.0 to Mile 137.5 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits.

Lower Grandview Reach Anchorage: An area extending from Mile 146.5 to Mile 147.1 AHP along the left descending bank and having a width of 700 ft. at its upper and lower limits.

Upper Grandview Reach Anchorage: An area extending from Mile 147.7 to Mile 148.8 AHP along the left descending bank and having a width of 700 ft. at its upper and lower limits.

Lower Sunshine Anchorage: An area extending from Mile 165.0 to Mile 165.9 AHP along the left descending bank and having a width of 800 ft. at its upper and lower limits.

Upper Sunshine Anchorage: An area extending from Mile 166.3 to Mile 167.0 AHP along the left descending bank and having a width of 800 ft. at its upper and lower limits.

Baton Rouge General Anchorage: An area extending from Mile 225.8 to Mile 227.3 AHP along the right descending bank and having a width of 1,400 ft. at its upper and lower limits. Less than 27 ft. draft.

Lower Baton Rouge Anchorage: An area extending from Mile 228.5 to Mile 229.0 AHP along the left descending bank and having a width of 700 ft. at its upper and lower limits. Light draft.

Middle Baton Rouge Anchorage: An area extending from Mile 229.6 to Mile 229.8 AHP along the left descending bank and having a width of 700 ft. at its upper and lower limits. Light draft.

Upper Baton Rouge Anchorage: An area extending from Mile 230.6 to Mile 231.0 AHP along the left descending bank and having a width of 1,075 ft. at its upper limit and 1,200 ft. at its lower limit. Light draft.

Note 1: Loaded vessels are not allowed to use Middle and Upper Baton Rouge Anchorages.

Note 2: An explosives anchorage, approximately 1,000 ft. wide, is located on the West side of the river 1.4 miles upstream of Oak Point Light (63.0 miles AHP) and cannot be used by any vessel without previous approval from the Commander, Eighth Coast Guard District.

All anchorages have mud bottoms and are protected by the Mississippi River banks on each side. Vessel's position should be monitored continuously for dragging while anchored. No specific distances are required between anchored vessels. Caution is advised if required to anchor off Baton Rouge Docks, due to proximity of submerged pipeline crossing just South of docks.

The Coast Guard advises that during high water conditions, Mariners should give anchored vessels a particularly wide berth. Fast river currents may cause anchored vessels to swing in wide arcs. Under these conditions, it is important that the Mariner beware of anchor chains.

APPENDIX:

Regulations Concerning Designated Anchorages have been extracted from 33 CFR 110.195.

(1) Anchoring is prohibited outside of established anchorages except in cases of emergency. In an emergency, if it becomes necessary to anchor a vessel outside an established anchorage, the vessel shall be anchored so that it does not interfere with or endanger any facility or other vessel. The Master or person-in-charge of the vessel shall notify the Captain of the Port of the location of the emergency anchoring by the most expeditious means and shall move the vessel as soon as the emergency is over.

(2) In an emergency, if it becomes necessary to anchor a vessel in Southwest Pass, the vessel shall be positioned as close to the left descending bank as possible.

(3) No vessel may be anchored unless it maintains a bridge watch, guard and answer VHF Channel 16, maintains an accurate position plot and can take appropriate action to ensure the safety of the vessel, structure, and other vessels.

(4) When anchoring individually or in fleets, vessels shall be anchored with sufficient anchors or secured with sufficient lines, to ensure their remaining in place and withstanding the action of winds, currents and the suction of passing vessels.

(5) No vessels may be anchored over revetted banks of the river or within any cable or pipeline area. The locations of revetted areas and cable and pipeline areas may be obtained from the District Engineer, Corps of Engineers, New Orleans.

(6) The intentions to transfer any cargo while in an anchorage shall be reported to the Captain of the Port, giving particulars as to name of ships involved, quantity and type of cargo, and expected duration of the operation. The Captain of the Port shall be notified upon completion of operations. Cargo transfer operations are not permitted in the New Orleans General or Quarantine Anchorages. Bunkering and similar operations related to ship's stores are exempt from reporting requirements.

Note: Activities conducted within a designated anchorage (e.g. cargo transfer, tank cleaning, stack blowing, etc.), may be restricted by other Federal, State or local Regulations. Owners, or persons in charge of any vessel should consider all safety and/or environmental regulations prior to engaging in any activity within designated anchorges.

(7) Nothing in this section relieves the owner or person-in-charge of any vessel from the penalties for obstructing or interfering with navigation or navigational aids or for failing to comply with the navigation laws for lights, day shapes, or fog signals and any other applicable laws and regulations.

(8) Vessels carrying cargoes of particular hazard as defined in 33 CFR 126.10 or cargoes of petroleum products in bulk may not be anchored in the New Orleans General Anchorage or Quarantine Anchorage without permission from the Captain of the Port.

(9) Except when required by the United States Public Health Service for quarantine inspection, the Quarantine Anchorage may be used as a general anchorage.

(10) When the Bonnet Carre Spillway is open, no vessel may be anchored in the Bonnet Carre Anchorage.

RESTRICTIONS: Draft governed by Southwest Pass, project depth 45 ft. Entrance day and night. New Orleans is 115 miles upriver.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available, and join vessel off berth if required. One tug normally used for berthing/unberthing at New Orleans.

BERTHING: *Public Grain Elevator:* No. 2 Berth, 670 ft. long, 40 ft. depth; No. 3 Berth, 650 ft. long, 40 ft. depth; No. 4 Berth, 635 ft. long, 40 ft. depth.

Loading Rates 20,000 bushels per hour per belt, in Berths No. 2 and 3; up to 40,000 bushels per hour per belt, in Berth No. 4. Each berth has 2 loading belts.

Southern Scrap Material Co.: Berth 550 ft. long, 32 ft. depth. Loading 200 t.p.h. with cranes.

Kaiser: Chalmette Wharf: Aluminium discharge facilities, max. draft 38 ft.

Westwego: Continental Grain Elevator: 2 Berths, 600 ft. long and 500 ft. long, 40 ft. depth; loading 2 booms upstream, 3 "Buhler" arms and 1 boom downstream. Loading rate 2,000 t.p.h. – 3,000 t.p.h.

Louisiana Dock: 28 ft. alongside, bulk oil products loaded 200 t.p.h.

Pacific Molasses Co.: Berth 35 ft. alongside.

Ama: Shipmaster's Report: February 1985 (Corrected to 1991 conditions).

Berth: ADM – Growmark.

Location: Lat. 29° 56.4' N.,Long. 90° 18.5' W. On the S.W. bank of the Mississippi about 122 miles from the Southwest Pass (New Orleans Customs Zone).

Health/Agriculture: See "U.S.A. – General" before first Port.

Tugs: Tugs normally used.

Berth: Length of berthing face about 550 ft.

Port side to, head up. Head, stern, breast lines to dolphins. Springs to wharf or dolphins according to size (Moorings: 4 head lines, 2 breast lines, 2 forward backsprings, 2 after backsprings, 2 breast lines and 3 stern lines). Strong current along berth. River traffic passes close by. Substantial moorings required, with regular adjustment. Poop gangways generally do not reach wharf. A contractor's gangway normally on wharf but is charged for delivery, collection in addition to rental. Access road very narrow, no vehicles allowed on wharf. Road deliveries must be collected manually from levee 300 yards away. Otherwise delivery by boat from Fairview Wharf. All provisions, laundry, etc., from New Orleans. Public telephones on wharf.

Loading: Loading rate about 1,500 t.p.h. – 2,000 t.p.h. Using 4 "Buhler" arms simultaneously. Sometimes there is a delay in back weighing cargo for preparation of documents.

Fresh Water: Available from wharf via 2 in. line, at a low rate.

Fuel: By barge at anchorage only.

Density: 1000.

General: Now only one Customs Zone for entry and departure. Three copies of following documents required – Crew Manifest, Stores List, Crew List, and one Visaed Crew List.

It is a common practice for ships to anchor below New Orleans for clearance by Customs, N.C.B. and U.S.D.A. before going on towards a bulk or grain loading terminal. Bunkers are generally taken during this period as the grain elevators normally refuse permission to do this alongside.

Also see "South Louisiana".

CONTAINER HANDLING FACILITIES: Handled at most docks. Full container facilities at France Road Berth No. 1 with 830 ft. leased to Sea-Land. Napoleon Avenue Wharf 1,520 ft. Nashville/Henry Clay Wharf 2,820 ft.

France Road Berth No. 4, wharf 700 ft. France Road Berth No. 5, wharf 900 ft. Berth No. 6, 800 ft. Berth No. 4 leased to Navieras de Puerto Rico and Berths No. 5 and 6 leased to New Orleans Marine Contractors, Inc.

France Road Berth No. 6, with Ro/Ro pier.

BRIDGES: 6 bridges. 3 bridges cross river at New Orleans, 1 at Baton Rouge, 1 at Destrehan and 1 at Donaldsonville. Sufficient clearance at all times.

STEVEDORES: Working hours 0800 – 1200 and 1300 – 1700, Monday to Friday.

MEDICAL: All facilities available.

TANKERS:

Chalmette: Humble Oil Terminal: Tanker berth 30 ft. depth; Tenneco Oil Terminal: Tanker berth 35 ft. depth.

Amesville: Texaco Tanker Loading Berth, 34 ft. alongside. 2×8 in. hoses loading up to 12,000 bbls.p.h. No ballast facilities.

Avondale: American Liberty Tank Terminals Berth, 60 ft. alongside. 4×6 in. hoses loading up to 18,000 bbls.p.h. No ballast facilities. International Tank Terminals Berth, 45 ft. alongside. 12 in. hoses loading 150 t.p.h.

Gretna: Publicker Chemical Corp.: Berth 30 ft. alongside. Southern Pacific Company: Berth 600 ft. long, 35 ft. depth; dry cargo discharging only. Industrial Molasses Corp: Berth 27 ft. depth; 2×10 in. pipelines, loading 200 t.p.h.

Marrero: Hess Terminal Corp: Tanker berth 38 ft. depth; 6×12 in. hoses loading 500 t.p.h. Texaco: Tanker berth 35 ft. depth; 6×16 in. lines loading 250 t.p.h. No ballast facilities.

St. Rose: Cities Service: Tanker berth 35 ft. depth; International Tank Terminals: Berth 35 ft. depth; no fresh water available.

Operator's Report:

Pilottown: General: The Texaco Terminal is located on the East side of the river, 1.7 miles AHP and is a crude oil terminal consisting of a single berth. The dock, mooring dolphins and walkway are constucted of steel and concrete. The dock itself is a 'T' head dock 60 ft. in length; the total cluster of mooring dolphins, however, spans 1,000 ft.

Water at the berth is brackish with an approximate tidal range of 1 ft.

The berth is isolated and far from any commercial centre or district. Launch service to Venice, a small fishing village 8 miles upriver from Pilottown, may be available on request.

Cargo Handled and Shore Installations: Crude oil is loaded to vessels from an 820,000 bbls. capacity storage tank through a 22 in. shoreline leading into 3×8 in. hoses; maximum loading rate is 24,000 bbls.p.h. The hoses are supported by a steel boom at the top of the hose handling structure on the dock.

The berth is equipped with an emergency shutdown system lo on the dock; the vessel is provided with a similar piece of equipme emergency use.

Docking: The River Pilot berths the vessel. No tugs are requir docking or undocking; docking is strictly starboard side to.

Vessels should approach the dock stemming the current, dro the port (offshore) anchor when off the dock. The anchor is then to help manoeuvre the vessel alongside the dock. When undockin anchor is hove up as the vessel manoeuvres away from the doc

Mooring bollards on the main dock structure are rated at 100 mooring hooks on the dolphins are rated at 60 tons or more.

Gangway: The ship's gangway must be used and should be pr illuminated and rigged.

Bunkers and Fresh Water: No bunkers or fresh water are availa the dock.

Ballast/Slop Facilities: No ballast or slop facilities are availab Pilottown; vessels arriving with dirty ballast should plan for this.

Venice: General: Getty No. 1 Dock is a crude oil loading dock lo on the West bank of the river approximately 11.8 miles AHP.

The 3 arms provided for loading cargo have a designed maximu to manifold distance of 12.5 ft. Vessels with a manifold inset greate 12.5 ft. must use a 10 ft. long spool, provided by the dock, to co the loading arms.

Cargo Handled and Shore Installations: Crude, the only cargo han is loaded through 3×12 in. Chicksan loading arms fitted with manifold connections. Maximum loading rate is 40,000 bbls.p.h. terminal requires that a minimum rate of 10,000 bbls.p.h. be maint throughout the loading.

Emergency shutdown systems are located in the dock office a the approach to the dock. The vessel is provided with a po emergency stop.

Docking: Port side to docking is required and is normally perfo by the River Pilot. No tugs are required for docking or undockin vessel's starboard anchor is usually used to control the ve movement during these manoeuvres. Approach should always be with the vessel stemming the current.

Gangway: The ship's gangway must be used and should be pr rigged and illuminated.

Connecting Hoses: Chicksan arms are connected to the manifold by ship's personnel.

Communications: A public telephone located at the terminal site the dock, is available for use by ship personnel.

Repairs: Only emergency repairs which do not involve hot wo allowed.

Bunkers and Fresh Water: No fuel or fresh water are available berth.

Ballast/Slop Facilities: A single 64,000 bbls. capacity tank is ava for ballast storage/treatment. The maximum permissible disc pressure is 150 p.s.i.

The terminal specifies that ballast shall not be loaded or disch while handling bulk cargo and requests that vessels arrive w minimum possible amount of ballast under the prevailing weathe conditions.

Empire: General: The Chevron Terminal is a crude oil loading doc is located at Mile 26.7 AHP on the East bank of the river. The consists of a 'T' head hose handling platform, 2 breasting dolphi 5 mooring buoys (3 upsteam of the platform and 2 downstrea dock is connected to shore by a 12 ft. wide pier capable of supp 2-ton loads.

Cargo Handled and Shore Installations: Crude is loaded t 3×12 in. hoses attached to a loading arm assembly on the hose pl The maximum delivery rate is 40,000 bbls.p.h.

An emergency shutdown system is located on the hose ha platform with a portable remote control unit aboard the ship.

Docking: Docking is generally performed by the River Pilot a starboard side to dockings are allowed. No tugs are required fo or undocking as the vessel uses its offshore anchor to ma alongside the dock.

Approaches should be made stemming the river current and t anchor should be dropped when the vessel is above the dock to manoeuvring into position. The anchor is hove up as the vesse the dock.

Repairs: Only emergency repairs which do not involve hot w allowed.

Communications: A public telephone located on the hose platform is available for use by ship's personnel.

Gangway: The vessel's gangway must be used and should be rigged and illuminated.

Bunkers and Fresh Water: No bunkers or fresh water are ava this dock.

Ballast/Slop Facilities: All dirty ballast and slops must be pu the shore ballast tank, (capacity 80,000 bbls.) connected to platform by a 16 in. pipeline. Ballast and cargo operations ca handled simultaneously.

Maximum discharge rate for ballast is 20,000 bbls.p.h. at a m rail pressure of 125 p.s.i.

Bellechase: General: The Gulf/Alliance dock is a multiple prod located on the right descending bank of the river, appro 65.6 miles AHP.

Transfer of cargo is made through a set of 10 in. hoses a a loading arm assembly on the dock. Shore lines vary in size for toluene and benzene to 20 in. for crude oils.

Tank washing while alongside the dock is strictly prohibited

Cargo Handled and Shore Installations: Products common by the dock include xylene, LPG, crude, naphtha, carbon blac benzene, gasolines, jet fuel and heating oil.

Maximum allowable rail pressure for discharging vessels is

An emergency loading stop is located on the dock; another, portable, unit is placed aboard the ship.

Docking: The River Pilot normally handles docking and undocking operations. Docking is port side to only and generally requires the aid of a 1,200 h.p. tug. Small tankers are occasionally allowed to dock without the aid of a tug, using their starboard anchor instead. However, since dock regulations prohibit the use of an anchor while alongside, it is recommended that a tug be used by all vessels calling at the berth.

Approach to the dock should be made stemming the current with a tug on the vessel's starboard bow. The vessel is then manoeuvred into position alongside the dock.

Repairs: Minor repairs, excluding hot work, may be undertaken with written consent from the dock's Chief Operator countersigned by the offsite Shift Supervisor.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Bunkers are not available at Gulf/Alliance. Fresh water, however, is available and can be delivered at a maximum rate of 7 t.p.h.

Ballast/Slop Facilities: All slops and ballast must be discharged ashore. The shore storage tank has a 100,000 bbls. capacity; ships discharge ballast/slops into this tank through an 18 in. line at a maximum rate of 12,000 bbls.p.h.

Meraux: General: Murphy Oil Refinery is located on the North side of the Mississippi River, approximately 75 miles AHP. The tall stacks and cracking towers of the refinery are prominent features of the shoreline.

The berth serves as a primary receiving dock for crude oils which are refined into various petroleum products for transfer by ship and barge to other ports.

Cargoes Handled and Shore Installations: Crude is received at a maximum rate of 20,000 bbls.p.h. or a maximum 125 p.s.i. rail pressure. Refined products (gasolines, jet fuel, etc.) are loaded on to vessels at an average rate of 5,000 bbls.p.h. All cargo transfer is made through 8 in. hoses.

Docking: Docking is normally performed by the River Pilot and is strictly starboard side to. All vessels are required to use a minimum of 1 tug for docking and undocking; more tugs may be used at the Master's discretion. Vessels approach the refinery dock stemming the current with a tug on the port bow. The tug assists vessels manoeuvring into position alongside.

Communications: A public telephone located at the head of the dock is available for use by ship's personnel.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Bunker-C, diesel fuel and fresh water are available upon request.

Ballast/Slop Facilities: No ballast or slop facilities are available at this dock.

Chalmette: General: The Exxon dock is a small dock with 310 ft. of dock face consisting of a concrete deck on steel pilings. Mooring bollards on the dock and mooring dolphins are serviced by air driven capstans for hauling ship's mooring lines.

Cargo Handled and Shore Installations: Marine diesel and Bunker-C are handled at this dock. The dock is equipped with a loading arm assembly to which 3×8 in., hoses are attached for the transfer of cargo. Maximum allowable discharge pressure at the rail is 125 p.s.i.

An emergency loading stop control is located on the dock.

Docking: Docking and undocking are performed by the River Pilot and require the aid of an 800 h.p. tug. Vessels approach the dock stemming the current with a tug on the port bow and are then manoeuvred into position, starboard side to, alongside the dock.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Bunker-C, inter-fuel, diesel fuel and fresh water are available upon request.

Ballast/Slop Facilities: There are no ballast or slop facilities available at the berth.

Harvey: General: The Commercial Solvents Wharf is located on the South side of the river near Harvey Canal; and consists of an 'L' shaped dock with 370 ft. of dock face and 6 mooring dolphins.

Cargo Handled and Shore Installations: Various clean speciality products are handled. The product most frequently handled is methanol. Cargo is transferred through a single 6 in. hose with a 6 in flanged connection at the vessel's manifold. Maximum rail pressure for vessel's discharging is 100 p.s.i., maximum loading rate is 2,500 bbls.p.h.

Docking: Docking is performed by the River Pilot and is strictly port side to. 2 tugs are required for docking operations and a single tug for undocking. The general mooring arrangement calls for 2 head lines, 2 stern lines, 1 breast line forward, 2 breast lines aft, 2 forward spring lines and 2 after spring lines for a total of 11 mooring lines.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: No fuel or fresh water are available at the dock.

Ballast/Slop Facilities: There are no ballast or slop facilities at the terminal.

St. Rose: General: The International Matex Tank Terminal berths are located on the North side of the river, approximately 103 miles AHP. The terminal consists of two individual tanker berths (No. 1 and No. 5) and a barge dock.

No. 1 Dock, upstream of No. 5 Dock, consists of a small 'T' head dock with 5 mooring buoys to accommodate head, stern and breast lines. No. 5 Dock has a longer dock face which can accommodate all but the head and stern lines. Both docks are connected to shore by catwalks.

The velocity of the river current at both berths varies between 1 knot and 4 knots, depending on river conditions.

Cargo Handled and Shore Installations: No. 1 Dock handles mainly the receipt of crude oils and the shipment of Bunker-C, No. 2 fuel and naphtha. The cargoes most frequently handled at No. 5 Dock are No. 6 fuel oil and No. 2 diesel oil.

No. 1 Dock is fitted with a set of 12 in. Chicksan arms. Cargo at No. 5 Dock is transferred through a maximum of 3×8 in. hoses. Maximum discharge pressures are 100 p.s.i. at No. 1 Dock and 90 p.s.i. at No. 5 Dock.

Docking: Docking is performed by the River Pilot and is strictly starboard side to at both berths. All vessels are required to use at least 5 tugs for docking and undocking; 3 tugs are required when the river is above 15 ft. on the St. Rose gauge.

The general mooring arrangement at No. 1 Dock call for 4 head lines, 2 breast and 2 spring lines forward, 2 spring lines aft and 2 stern/breast lines. The lead for stern lines is poor. Wires may be used on all bollards and hooks except those on the loading platform. The terminal prefers polypropylene lines to wires for docking at No. 5 Dock. This dock requires 2 head lines, 2 stern lines, and one breast and one spring line both forward and aft.

Communications: Public telephones located on each dock and at the shoreside end of each catwalk are available for use by ship's personnel.

Gangway: The vessel's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Fuel (Bunker-C, inter-fuel and diesel) and fresh water are available at each dock upon request.

Ballast/Slop Facilities: No ballast or slop facilities are available at either dock.

Marrero – Texaco: General: The Texaco Tanker Berth is located on the South side of the river some 86.5 miles AHP. The berth consists of a 'T' head dock with pontoons and mooring buoys alongside forming a 750 ft. berthing space.

Cargo Handled and Shore Installations: Various products are shipped and received by barge; the only product handled by tanker is bonded heavy fuel oil. This product is received through a single 10 in. hose at a maximum pressure of 100 p.s.i. on the dock.

Docking: Docking is normally performed by the River Pilot and is strictly port side to. Tugs are recommended, but are not compulsory, for docking and undocking operations.

Approach is made stemming the current and parallel to the dock. When no tugs are used for docking, the vessel's starboard anchor must be used to manoeuvre the vessel alongside.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Fresh water is available upon request; fuel, however, cannot be obtained at this berth.

Ballast/Slop Facilities: There are no ballast or slop facilities at the terminal.

Marrero – Hess: General: The Hess Tanker Dock is a concrete structure with steel pilings and 320 ft. of dock face. Mooring dolphins provide a location for head, breast and stern lines.

Current at this dock varies from 2 knots to 4 knots, depending on river conditions.

The dock is located on the South or left descending bank of the river approximately 86 miles AHP.

Cargo Handled and Shore Installations: Crude oils, Bunker-C and heating oil are commonly handled at this berth. All cargo transfer is made through 8 in. or 10 in. Chicksan arms.

Maximum loading rate for crude oil is 25,000 bbls.p.h. and for other products approximately 6,000 bbls.p.h. Maximum rail pressure for discharging vessels is 100 p.s.i.

An emergency loading stop control is located near the dock manifold.

Docking: Docking is strictly port side to and performed by the River Pilot. Vessels under 35,000 d.w.t. are required to use 2 tugs for docking and undocking; vessels greater than 35,000 d.w.t. are required to use 3 tugs. During extremely high river stages all vessels are required to use 4 tugs for docking and undocking operations.

Berth mooring requirements specify that 4 head lines, 4 spring lines forward, 2 after spring lines, 2 after breast lines, and 4 stern lines be used by all vessels (a total of 16 mooring lines.)

Gangway: The ship's gangway, properly rigged and illuminated, must be used.

Bunkers and Fresh Water: Bunker-C, diesel oil, inter-fuel and fresh water are all available upon request.

Ballast/Slop Facilities: No ballast or slop facilities are available at the terminal.

DENSITY: Fresh water (1000).

FRESH WATER: Available ex-wharf.

FUEL: Only available by barge. Oil companies can supply Bunker "C" ex-terminals at Amesville and Marrero. Chemoil can also supply fuel.

CONSULS:

Argentina	523-2823	Liberia	524-1526
Belgium	522-3591	Luxemborg	861-3743
Brazil	588-9187	Mexico	522-3596
Chile	523-4368	Monaco (Honorary)	522-5700
Colombia	525-5580	Netherlands	586-0666
Costa Rica	468-3948	Norway (Honorary)	522-3526
Denmark	586-8300	Peru (Honorary)	525-2706
Dominican Republic	522-1843	Philippines	
Ecuador	523-3229	(Honorary)	525-5225
El Salvador	522-4266	Portugal (Honorary)	486-6101
Finland	523-6451	Spain	525-4951
France	897-6381	Sri Lanka	891-7489
and	522-9767	Sweden (Honorary)	827-8600
Germany	569-4289	Thailand	566-0888
Greece	523-1167	United Kingdom	
or	524-6462	(Honorary)	586-1979
Honduras	522-3118	Venezuela	522-3284
India (Honorary)	582-8106	and	524-6700
Japan	529-2101	Yugoslavia	288-6202
Korea (Honorary)	586-8300		

REPAIRS: 7 berths available.

GANGWAY/DECK WATCHMEN: Recommended if any crew detained by Immigration.

CUSTOMS ALLOWANCES: At the discretion of Customs Officers. Normal allowance is 200 cigarettes or 2 lb. tobacco and 1 litre wine or spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.

AIRPORT: New Orleans International Airport, served by most airlines.

TIME: Central Standard Time GMT minus 6 hrs. Daylight Saving Time from first Sunday in April till last Sunday in October.

HOLIDAYS: New Year's Day (1st January); Clarence Henry's Birthday (7th January); Martin L. King's Birthday (third Monday in January); Mardi Gras; Washington's Birthday (third Monday in February); Good Friday; Memorial Day (last Monday in May); Independence Day (4th July); Labour Day (first Monday in September; Veteran's Day (11th November); Thanksgiving (fourth Thursday in November); Christmas Day (25th December). No work on New Year's Day, Mardi Gras, Labour Day and Christmas Day. Mail, baggage and perishable cargo excepted.

Holidays are observed on following Monday, if designated day is a Sunday.

POLICE: Harbour Police Department has jurisdiction over harbour area. Tel: 528-3371 or 3372.

BANKS:

Alerion Bank, WTC Building, New Orleans. Tel: 504-569-0482.

First National Bank of Commerce, 210 Baronne Street, New Orleans, LA 70112. Tel: 504-561-1371.

Hibernia National Bank of New Orleans, 313 Carondelet Street, New Orleans, LA 70161. Tel: 504-586-5551.

Whitney National Bank of New Orleans, 228 St. Charles Avenue, New Orleans, LA 70130. Tel: 504-586-7272.

SHORE LEAVE: Allowed for any crew member not detained by Immigration.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany).

The following companies may be able to provide these facilities.

Browning-Ferris Industries, Metairie, LA. Tel: (504) 837-8950.

Health Management Inc., Reserve, LA. Tel: (504) 536-8650.

Reliable Disposal Co., New Orleans, LA. Tel: (504) 835-1696.

WASTE OIL DISPOSAL: The following companies have indicated to the Captain of the Port New Orleans that they are interested in contracting their services. We have received applications from facilities identifying some of these companies as their contractors. Each contractor is subject to the applicable regulations for the transfer of oil (33 CFR 154-156).

Browning-Ferris Industries (BFI), Chemical Services, Inc. Calcasieu, P.O.Box 5416, Lake Charles, LA 70601. Tel: (318) 527-6857.

Cecos International Chemical Services, P.O.Box 669, Livingston, LA 70754. Tel: (504) 686-7252.

Peterson Maritime Services, Inc., 14101 Old Gentilly Road, New Orleans, LA 70129. Tel: (504) 254-3600.

Port Allen Marine Services, P.O.Box 108, Port Allen, LA 70767. Tel: (504) 749-3181.

Rollins Environmental Services, P.O.Box 73877, Baton Rouge, LA 70807. Tel: (504) 778-1234.

Sea Horse Marine of Louisiana, P.O.Box 422, Belle Chasse, LA 70037. Tel: (504) 393-1330.

Oil Mop Inc. Tel: (504) 394-6110.

Plaquemine Towing Corp., Rt. 2, Box 691, Sunshine, LA 70780. Tel: (504) 643-5432, 642-5376.

T.T. Barge Service Inc., P.O.Box 932, Metairie, LA 70004. Tel: (504) 737-9918.

International Petroleum Corp. of Louisiana, 14890 Intracoastal Drive, New Orleans, LA 70129. Tel: (504) 254-9030.

Thompson Environmental Management, P.O.Box 52141, New Orleans, LA 70152-2141. Tel: (504) 393-7661.

Roussel Industrial Services, 527 West 10th Street, P.O.Box 421, Reserve, LA 70084.

SEAMAN'S CLUBS: Baptist Seamen's Service, 4623 Laine Avenue, New Orleans, LA 70126. Tel: (504) 241-7545. Home: (504) 283-1890. Contact: Rev. John P.Vandercook, Executive Director. Services: Recreation, sightseeing, worship, shopping, reading material.

Episcopal Church Missions to Seamen, 4219 Constance Street, New Orleans, LA 70115. Tel: (504) 891-6677. Contact: Fr. Robert Dodwell, Honorary Port Chaplain.

German Seamen's Mission, 6612 Canal Blvd., New Orleans, LA 70124. Tel: (504) 482-0465. Contact: Rev. Heinz R. Neumann, Chaplain. Services: Shipboard services on request, recreational facilities, shopping, sightseeing, swimming pool, German newspapers.

Norwegian Seamen's Church, 1772 Prytania St., New Orleans, LA 70130. Tel: (504) 525-3602 or 525-5570. Fax: (504) 529-3423. Contact: Rev.Ingrid Frivold. Services: Sunday and various evening services, shopping, Scandinavian newspapers, swimming pool, recreational facility.

Presbyterian Port Ministry, 4219 Constance Street, New Orleans, LA 70115. Tel: (504) 891-6677. Contact: Chaplain Steven C.Paradise.

Stella Maris Maritime Center, 4219 Constance Street, New Orleans, LA 70115. Tel: (504) 891-6677. Contact: Deacon Robert M.Balderas Sr., Director and Port Chaplain. Services: Library, athletic, recreational and chapel facilities, snacks. Shipboard services on request. Port representative, American Merchant Marine Library Association.

CURRENCY: U.S.Dollar (U.S.$).

DEVELOPMENTS: Jourdan Road Terminal Complex comprising of a two berth facility with 290,000 sq.ft. of open space, 144,000 sq.ft. transit shed, complete with crane rails and marginal track, plus 440,000 sq.ft. marshalling area. Marshalling area adjoining the terminal complex consisting of 10 acres with an additional 34 acres of preload area to be developed as required.

Lower Mississippi River dredged to 45 ft.

A Capital Improvements Program includes construction of the Nashville Avenue Terminal, which will be a multi-purpose te handling a variety of cargoes. The Nashville B Wharf will stretch 3,1 and connect the existing Nashville Avenue Wharf with the Na Avenue Wharf, resulting in a continuous wharf 2.03 miles in leng

SHIPMASTER'S REPORT: 1979.

South West Passage:

Pilotage: Pilots prefer accommodation ladder together with pilot but will sometimes use pilot hoists, on larger vessels.

Restrictions: For 100,000 d.w.t. vessel max. draft for S.W. pa is 35 ft., (fresh water) to sail out at any time.

SHIPMASTER'S REPORT: 1979.

Mississippi Lightening Area:

Port Limits: Centred at Lat. 28° 00' N., Long. 89° 30' W. and 15 nautical miles radius.

Documents: Officials take photostat copies of Bill of Lading and receipt for cargo, and take one copy of Notice of Readiness.

Pilotage: They are equipped with Loran "C".

Anchorages: Very deep. Vessel drifted 7 nautical miles N.N 11 hours (February) with wind N.E. – 3. Checked with satellite navi

Health: No formalities.

Radio: Initial contact on W/T via "WLO" Mobile then by 12427.5 kHz A3J. When close enough Channel 16 VHF; then Ch 11 for all operations. If vessel fitted with bridge wing VHF extensio best to give all engine room orders over Channel 11 so that ligh vessel can also hear.

Berthing: As per OCIMF/ICS SSTG (P). Require 2 headlines and 1 line from STBL after putting aboard their lines which are all polyprop except springs which are wires with nylon tails. Steamed at 3.5 knots. They throw across heaving lines and carry all nece equipment. Do not require derrick, they have gangway and 4 'Yoko fenders.

Tankers: STBL can load at up to 10,000 t.p.h. They prefer to use 2 manifolds with reducers down to 16 in.

Identification Cards: Required.

SHIPMASTER'S REPORT: December 1990.

Restrictions: Though project depth is listed at 40 ft., currently drafts are available in the lower reaches of the river. Some loaded vessels have sailed with 45 ft. – 47 ft., and current information be obtained from Agents (topping-off may be required).

Fresh Water: Supply from shore is refused at certain berths as not potable. A number of fresh water barges are available alo river. Typical charges are $ 140 per hour away from berth $ 3.50/4.00 per ton. Pumping rates can range from 30 t.p.h. – 9 Minimum charge is for 200 tons of water.

SHIPMASTER'S REPORT: October 1991.

Pilotage: Pilot boards from a fast cutter off the S.W. Buoy, 1.5 South of the S.W. Pass Lighthouse. Prior to arrival call "Bar Pil VHF Channel 9 (Channel 67 mentioned in ALRS is only used for B to-Bridge Communications).

Bar Pilot Station is situated on the West bank of the S.W. Pass 1.0 miles North of the S.W. Pass Lighthouse. There are approx 60 Bar Pilots, of which 25 may be on station at any one time.

Vessels change Pilots at Pilottown, which is 21 nautical miles the S.W. Pass.

Crescent River Pilots take vessels from Pilottown to Algiers, o Orleans, and about 94 nautical miles above S.W. Pass.

With a nominal sea speed of 13 knots, passage to Pilottown half knot current is 2 hours and a further 6 hours up to New O There are about 80 Crescent River Pilots of which half are on sta any one time.

Bar Pilots will attempt to board a vessel in any weather, but go is required.

Baton Rouge Pilots take vessels above New Orleans and b Algiers.

Entrance: The Racon on S.W. Pass Lighthouse is very conspicu oil rig to the West of the safety fairway entrance channel is also eq with a Racon.

A strong Westerly setting current and strong Westerly winds a encountered near the S.W. Buoy, so great care has to be take in the vicinity of towing vessels when entering and leaving S.W due to their lack of manoeuvrability.

River: A depth of 40 ft. is maintained up to Baton Rouge. In O 1991 48 ft. fresh water was allowed to Baton Rouge.

The river current is slack between September and December a at approximately 0.5 knots. During the Spring months the curre run as high as 7 knots. During this time, passage for low powered can take a long time and it is potentially dangerous due to th strings of barges which have little directional control.

Anchoring: Anchorage is possible off the S.W. Buoy but this considered a good anchorage due to poor holding ground and in the vicinity.

There are numerous river anchorages which are safe when the is running at a low rate, but when the river is running at a vessels should be on full stand-by at all times.

Tugs: There are many powerful tugs available, they generally wa in the anchorages. When the river is running at a high rate the are called upon continuously.

Airport: New Orleans International Airport is just West of the c

Charts: B.A. Chart No. 3382 and U.S. Chart No. 11370.

It should be noted that no B.A. Charts are published for between New Orleans and Baton Rouge. U.S. Chart No. 113 this area. The U.S. Army Corps of Engineers "Plans of the M River" are published annually in book form and are very usefu berth positions, limits of deep channels and other useful infor published on charts.

Berthing:

International Matex Terminal (IMTT), Avondale:

Location: The berth is located on the South Bank of the river at Mile Post 108.2 (113 miles above S.W. Pass Lighthouse) and 3 miles above Huey P. Long Bridge, just upstream from Avondale Shipyard.

Facility: The facility has a tank farm dealing exclusively with vegetable oils. The intake is by rail and road tanker trucks.

Berth: The berth is a typical Mississippi River berth and was originally built for handling of barge traffic but was strengthened at a later date for handling ocean-going vessels. The berth can accept vessels up to 30,000 d.w.t., depth alongside is 50 ft.

The berth consists of 2 pile dolphins 150 m. apart with an old decked over barge moored between the dolphins forming a flat front. The barge is set back 2.0 m. from the dolphin line.

We berthed with the bow resting on the upstream end of the barge and the stern alongside the downstream dolphin (the stern is not allowed to touch the end of the dolphin). There are fenders on the dolphins and large truck tyres on the upstream end of the barge, there are no fenders on the downstream end of the barge.

Moorings consisted of 3 headlines/sternlines and 2 springs at each end. The headlines and sternlines are sent to the shore and secured to hooks. The forward springs are sent to the barge and the after springs are sent to the aft dolphin. When the river is running at a high rate (up to 7 knots) additional moorings are required.

One tug is used for berthing and there is also a mooring boat but it is unreliable.

Fresh water was not available at the time we called as the line was broken. Storing is not possible at the berth.

No shore gangway available and we could not use a short brow gangway, so pilot ladder was used for surveyor and the offshore gangway and a hired launch was used for boarding of officials.

Cargo: 1×6 in. flexi-hose connection from tanks to the vessel. We loaded peanut oil at a rate of 150 t.p.h. A careful preloading survey is carried out when loading vegetable oils. Flexi-hoses are used for all the different grades and occasionally the ship's hoses are used as the shore hoses are of insufficient length when the vessel is in a ballasted condition.

Chevron at Oak Point:

Location: The berth is one mile below Belle Chase and 91 miles above S.W. Pass Lighthouse, on the West bank of the river.

Berth: The berth is a well constructed steel pile structure with about 0 m. of flat faced side, with breasting dolphins at either end and mooring dolphins to the North and South of the breasting dolphins. All dolphins are connected by a catwalk.

The jetty has recently been rebuilt after nearly being destroyed by a passing tanker whose steering failed. One tug used for berthing.

The berth is generally used by barges but ocean-going vessels up to 0,000 d.w.t. can berth at the facility.

Storing trucks are allowed alongside if they are diesel driven. Fresh water available at a rate of 20 t.p.h., ship's hoses used. A shore gangway is provided. A public telephone is available on the shore.

Cargo: Polymers are imported and only lube oil additives are exported. There are dedicated Chicksans with 6 in. connections.

The ship has to shift when changing grades, unless the ship's cargo lines can be changed over. Flexi-hoses are not allowed.

We loaded grade "858C" from a tank about 1 mile away and rate was very slow, 26 tonnes/hr. Other grades were loaded at a rate of 00 tonnes/hr. – 150 tonnes/hr. Heavy "pigging" required on completion of grades, be careful if tank is full.

SHIPMASTER'S REPORT: July 1996.

Vessel entering Mississippi River to load grain:

Information required by ship's Agent from Master prior to arrival:

1. Any stowaways aboard?
2. Last port and date/time of sailing.
3. Last 3 ports outside U.S.A. and dates of sailing.
4. Last 2 cargoes.
5.* If cargo holds fumigated in last 30 days and if so, name of fumigant used.
6. Total estimated lift and holdwise tonnes stowage, including which holds full and slack, basis loading cargo as described above.
7. If you have U.S. forms aboard and prepare 3 sets of Stores, Effects, Crew Lists and 2 sets NCB Stability Calculations basis 100% main hold capacity with untrimmed ends applied.
8.* If vessel will have all holds clean, dry, load to ready as per NCB/USDA grain standards, being free of rust/paint scale, previous cargo, water and infestation.
9.* Airdraft of hatch coamings at Holds No. 1 and 2, basis having all centre holds free of ballast.
0. Will vessel receive bunker delivery at this port?
1. Will vessel receive lube delivery at this port?
2. If all electronic/navigational equipment per U.S.C.G. requirements are fully operational and if in compliance with U.S.C.G. rules.
13. Do you have SOPEP aboard?
14. Total number of crew and nationality (breakdown).
15. Airdraft of mast from waterline, basis having all centre holds free of ballast.
6. Name of P&I Club and name of local representative.

* Special questions for vessels loading grain.

Pilot: Compulsory. Vessel must contact Pilot when 30 – 40 minutes from entrance. Call sign "South West Pass Pilot Station". Call Pilot again when 3 – 4 miles from South West Sea Buoy (distance according to instructions of pilot station). This time advise pilot station which side the ladder is on (usually from lee side). Pilot comes on board abeam of South West Sea Buoy. This Pilot is a Sea Pilot and takes the vessel to Pilottown, about 2 hours at full speed. If vessel has full speed of about 12 knots, Pilot asks for no speed reduction during changing Pilot and coming on board.

Abeam of Pilottown, River Pilot comes on board. This Pilot takes the ship to the berth or Quarantine Anchorage, according to information received from ship's Agent.

Anchorage: Very many different anchorages on river, but only ships in Quarantine Anchorage visited by Port Authorities and Surveyor's Commission. If vessel will be loading grain, party consists of 2 or 3 members.

Vessel usually drops 3 shackles of chain on deck, but if vessel stays a long time, recommend dropping 2 anchors.

Authorities: Party consists of 5/6 officials with ship's Agent. Immigration officer checks all passports and cabins of every member of crew. If vessel has called at another U.S. port previously, all passes are checked. They are only valid for 29 days.

Master has to complete forms for passes indicating: Family name, first name, home address, date and place of birth and nationality.

If Master does not ask for pass for any crew member, he must advise reason.

If crew member without pass goes ashore, a fine of U.S.$ 3,000 is imposed.

Crew List required 15 days prior to arrival at first port for Agent to obtain visas.

DISTANCE TABLE No. 1: (Supplied by New Orleans/Baton Rouge Steamship Pilots' Association).

Location	*Nautical Miles*
South Pass – to Above Head of Pass	13.9
South West Pass – to Above Head of Pass	20.0
Pilot Town	0
Point Anchorage – N.O.	78.8
Avondale – Int. Tank	94.2
Ama Elevator & Anchorage	102.2
St. Rose – Int. Tank	103.1
Destrehan – Bunge – St. Charles	104.3
Good Hope – G.A.T.X.	109.8
Norco – Shell	110.2
Union Carbide – Taft	111.1
Bonne Carre Anchorage	111.2
Hooker, Becker – Taft	112.0
La Place – Anchorage	117.0
Reserve – Anchorage	119.1
Godcheaux Sugar – Reserve	120.0
Bayside Elevator – Reserve	120.6
Cargill Elevator – Reserve	121.1
Marathon – Ecole	121.8
Kaiser – Gramercy	126.1
Colonial – Gramercy	127.0
Grandview Anchorage	127.7
Peavy Elevator – Pauline	130.5
Pauline Mooring	130.7
Capline – St. James	138.0
Freeport – Convent	139.4
Burnside Anchorage	144.5
Agrico – Burnside	145.1
Texaco – Burnside	145.9
Ormet – Terminal Burnside	147.5
Getco – Burnside	149.5
Triad – Donaldsonville	150.7
Central Farmers – Donaldsonville	150.9
Mile – 175 – Mooring	151.3
Mile – 180 – Mooring	156.4
Shell – Geismar	159.4
Wyondotte – Geismar	159.8
Allied – Geismar	162.3
Cos-Mar – Marbon Geismar	163.3
Stauffer Chem – St. Gabriel	173.6
Gulf States Util. St. Gabriel	175.2
Nordex	177.1
Hercules – Plaquemine	178.0
Georgia Pacific – Plaquemine	178.5
Dow – Plaquemine	182.4
Dow – Missouri-Bend	192.7
General Anchorage B.R.	196.6
Cargill Elevator – B.R.	198.9
General Cargo – 1 B.R.	199.1
Apex (Gen-Cargo 2) B.R.	199.4
Exxon – Baton Rouge	201.8
Solvey – Baton Rouge	202.5
Kaiser – Baton Rouge	203.1

DISTANCE TABLE No. 2: (Supplied by Port of New Orleans)

Distance Table Mississippi River

Gulf to Upper Boundary of the Port of New Orleans

PLAQUEMINES PORT, HARBOUR AND TERMINAL DISTRICT

BHP = Below Head of Pass

(R) West Bank Terminal/Wharf	*Mile Number*	*(L) East Bank Terminal/Wharf*
Shell Oil Company (South Pass) BHP	11.4	
California Co. (Southwest Pass) BHP	4.8	
	7.2	Shell Oil Co. (Southwest Pass) BHP
	8.6	Shell Oil Co. (Southwest Pass) BHP
	8.8	Gulf Oil Co. (Southwest Pass) BHP
	8.9	California Co. (Southwest Pass) BHP
California Co. (Southwest Pass) BHP	8.9	
	9.0	California Co. (Southwest Pass) BHP

(R) West Bank Terminal/Wharf	*Mile Number*	*(L) East Bank Terminal/Wharf*
Shell Oil Co. BHP	16.1	
	2.3	Texas Pipe Line Co.
U.S. Engineers	10.6	
Texaco Inc.	10.9	
Tidewater Oil Co.	11.6	
Getty Oil Co.	11.9	
	16.5	California Co.
Chevron Oil Co.	16.8	
Texaco Co.	18.6	
Gulf Refining Co.	24.6	
Exxon Co.	25.1	
	25.7	Gulf Refining Co.
	26.6	Cal-Ky Pipe Line Co.
	35.1	Richardson and Bass
John W. Mecom	38.8	
Freeport Sulphur Co.	39.0	
	40.4	Exxon Co.
Exxon Co.	41.2	
Jefferson Lake Sulphur	49.0	
Rock Island Oil	49.3	S. W. Richardson
	51.7	Texas Pipe Line Co.
Gulf Refining Co.	54.3	
	55.3	Electro Coal Transfer Corp.
International Marine Terminals	57.0	
Mississippi River Grain Elevator	61.5	
Gulf Oil Co.	62.0	
Gulf Oil Co.	63.0	
Chevron Chemical Co.	72.3	
Jayred Oil & Gas Co.	72.8	
Ayers Materials Co.	73.0	
Red Star Yeast & Products Co.	76.0	
	76.3	Amax Nickel Refining Co.
	76.6	Freeport Nickel Co.

BOARD OF COMMISSIONER PORT OF NEW ORLEANS DISTANCES FROM HEAD OF PASSES

(Add 20 miles via S.W. Pass for distance to Gulf of Mexico)

(R) West Bank Terminal/Wharf	*Mile Number*	*(L) East Bank Terminal/Wharf*
	86.9	Murphy Oil Co.
	87.8	Mobil Oil Corp.
	88.2	Tenneco Oil Co.
	88.5	Exxon Co.
	88.6	Tenneco Oil Co.
	89.3	Kaiser Aluminium
	91.6	St. Maurice St. Wharf
	91.7	Alabo St. Wharf
	91.9	Charbonnet St. Wharf
Avondale Shipyards	92.0	Andry St. Wharf
Avondale Shipyards	92.6	Industrial Canal Entrance
U.S. Navy	92.7	New Orleans Army Terminal
U.S. Navy	92.9	Poland St. Wharf
U.S. Navy	92.9	Pauline St. Wharf
U.S. Navy	93.0	
U.S. Navy	93.1	
U.S. Navy	93.2	
	93.3	Piety St. Wharf
	93.4	Louisa St. Wharf
	93.7	Press St. Wharf
Crescent Towing Co.	93.8	Mandeville St. Wharf
Bermuda St. Wharf	93.9	Esplanade Ave. Wharf
	94.0	Gov. Nicholls St. Wharf
	94.3	Toulouse St. Wharf
	94.6	Bienville St. Wharf
Algiers Iron Works	94.8	Canal St. Wharf
	95.0	Poydras St. Wharf
Eastern Associated Terminal	95.3	Julia St. Wharf
	95.4	Erato St. Wharf
	95.6	Thalia St. Wharf
Perry St. Wharf	95.9	Robin St. Wharf
	96.1	Orange St. Wharf
	96.3	Market St. Wharf
	96.5	Celeste St. Wharf
Williams Mollasses Co.	96.6	
	96.8	St. Andrew St. Wharf
Gulf Oil Co.	97.2	First St. Wharf
	97.3	Third St. Wharf
	97.4	Washington Ave. Wharf
	97.6	Seventh St. Wharf
Witco Chemical Co.	97.7	
Publicker Chemical Co.	97.8	Harmony St. Wharf
Sonneborn Chemical Co.	98.0	
Swift & Co.	98.2	Louisiana Ave. Wharf "F"
Delta Commodities	98.4	Louisiana Ave. Wharf "E"
	98.5	Louisiana Ave. Wharf "D"
Penick & Ford Ltd.	98.6	Louisiana Ave. Wharf "C"
Commercial Solvents	98.8	Louisiana Ave. Wharves "A – B"
Texaco Inc.	99.0	Milan St. Wharf
Hess Terminal Corp.	99.1	Napoleon Ave. Wharf "C"
	99.2	Napoleon Ave. Wharf "B"
Clark Oil Corp.	99.7	Napoleon Ave. Wharf "A"
	99.9	Public Grain Elevator
Johns-Manville Corp.	100.3	Public Grain Elevator
Valley Lines Fleeting	100.4	Public Grain Elevator
Lykes Seebee Fleeting	100.4	Nashville Ave. Wharf
Celotex Corp.	100.5	Henry Clay Ave. Wharf
Pacific Molasses Co.	100.9	
U.S. Industrial Chemicals	101.0	
Publicker Chemical Co.	101.0	
Gulf States Asphalt Co.	101.3	
National Gypsum Co.	101.5	
Publicker Chemical Co.	102.0	
	102.1	U.S. Industrial Chemica
Ayers Materials Co.	102.2	
Atlantic Richfield	102.3	
Continental Grain	103.5	
	103.7	International Lubricant
	103.8	American Creosote Wor
	104.0	Bertucci Bros. Construc
Koch-Ellis Marine Contractors	105.0	
	106.0	W. P. Villere Co.
Exxon Co.	108.2	
American Liberty Tank Terminal	108.2	
Permain Corp.	108.2	
American Cyanamid Co.	114.4	Exxon Co.
	115.0	Humble Pipe Line Co.

AUTHORITY: Board of Commissioners, Port of New Orleans, P. 60046, New Orleans, Louisiana 70160, U.S.A. *Tel:* (504) 522 *FAX:* (504) 524-4156. *Contact:* J. Ron Brinson, President/C.E.O Reynolds, Port Marketing & Sales. Kenneth Parker, Marine Term

NEW YORK, New York and New Jersey: 40.43 N. 74.00 W. **(See**

DOCUMENTS:

3 copies Cargo Manifest (Form 1302), the original showing al on board, and 2 copies showing only cargo for this port.
3 copies Crew Manifest (Curio List).
3 copies Stores List.
3 copies Passenger List (Form I – 418).
3 copies Crew List (Form I – 418).

Customs Boarding Officer will also examine Ship's Register an Line Certificate.

In addition the following documents will be required for forma to be made within 48 hours of arrival from abroad:

Health Pratique.
Master's Oath (Form 1300).
All Foreign Clearances.
U.S. Certificates of payment of Tonnage Tax (Customs Form
Certified Crew List.
Vessel's certificates may be inspected by a Coast Guard B Officer during the vessel's Port call. Some of the certifica may be required by the Coast Guard Boarding Officer inclu
Certificate of Financial Responsibility (Mandatory).
National Cargo Bureau Certificate (Optional).
Load Line Certificate (Mandatory).
Oil Record Book (Mandatory).
International Oil Pollution Prevention Certificate (IOPP Mand
SOLAS Safety Equipment Certificate (Mandatory).
SOLAS Safety Construction Certificate (Mandatory).
Radiotelephone Certificate (Optional).
Radiotelegraphy Certificate (Mandatory).
Vessel's Deck Log (Mandatory).

Note: The vessel's navigational charts are also subject to Coa inspection. Mariners should have onboard and corrected up to largest scale (greatest detail) charts for the intended route through the port. Certain foreign charts have been approved Contact Captain of the Port, New York for details.

Shipmaster's Report: March 1987 (Updated 1996).

3 copies of all necessary documents (CF-1300, CF-1301, CF-1303, CF-1304, CF-5129 and I-418). All are given to Ag distributes them to Immigration, Customs, etc.

For all U.S. ports, the name of vessel's operator must be on Form 1300 as that shown on the U.S.C.G. Certificate of Responsibility (Water Pollution).

For tankers, the cargo figures shown on Form 1302 shou gallons and barrels.

APPROACHES: Ambrose Channel, 2,000 ft. wide, is the entrance from the Sea to the Lower Bay and onward to The between Staten Island and Brooklyn, which is 15 miles from Tower. The project depth of this channel is 45 ft. MLW proceeding up Sandy Hook Channel are limited by a project 35 ft. MLW and an 800 ft. wide channel.

Vessels arriving at the Port of New York normally utilise Anchorages No. 23 and No. 24 which are North of the Verraza and adjacent to the Stapleton Quarantine Station or Anchora off Bay Ridge. However, at times it may be necessary to direc tonnage to the Gravesend Anchorage, No. 25, South of the Bridge. Occasionally, due to congested conditions at the above vessels may be directed to anchor at the newly established adjacent and N.W. of Ambrose Tower. Vessels instructed anchorage off Ambrose Tower must pick up a Pilot for prope of an anchorage location.

For limits of anchorages generally used in the Port of Ne "Plan". Use of Charts 12349 and 12334 is strongly recomm

Specific operating and safety procedures have been agreed upon with the Pilot's Association, as follows:

1. Flood Tide Procedure:

Vessels with an LOA in excess of 800 ft. or a draft of more than 40 ft. (salt water) will not be brought in from sea to the General Anchorages off Stapleton, Staten Island (Southern part of No. 23 and entire area of No. 24) on the flood tide. This will avoid the need to turn around in order to anchor at a location which may be congested with traffic and ships at anchor.

2. Transit Restrictions:

Ambrose Channel: Guideline for starting in from Ambrose Tower during normal weather conditions.

Vessels with Drafts of 46 ft. 06 in.:

Thirty minutes after high water Sandy Hook.

Vessel with Drafts of 46 ft:

Thirty minutes to one hour after high water Sandy Hook.

Vessel with Drafts of 45 ft. 06 in.:

From thirty mintues after high water Sandy Hook to one hour and thirty minutes after high water Sandy Hook.

Vessels with Drafts of 44 ft. 06 in.:

From thirty minutes after high water Sandy Hook to two hours and thirty minutes after high water Sandy Hook.

Vessels with Drafts of 43 ft. 06 in.:

From thirty minutes after high water Sandy Hook to three hours and thirty minutes after high water Sandy Hook.

Vessels with Drafts of 42 ft. 06 in.:

From thirty minutes after high water Sandy Hook to five hours after high water Sandy Hook.

Vessels with Drafts over 40 ft. 00 in.:

From 30 minutes after high water Sandy Hook to 5 hours after high water Sandy Hook. All vessels in the above categories should pass through the Narrows before low water slack at the Narrows.

The procedures outlined above are guidelines only. Weather conditions, tides, currents and ship capabilities should, of course, be taken into consideration.

3. Anchoring Procedures:

The Pilot Association has notified the Pilots to stay aboard all arriving ships at anchorage until the following procedures are carried out:

(a) The anchor chain is to be brought up and ship is to be stationary.
(b) The Pilot will point out landmarks so proper bearings may be obtained and plotted on the charts.
(c) Pilots will inform the Master of conditions that he may encounter at the anchorage.
(d) The Master will be briefed on currents and time of tide change.
(e) All Pilots must record the ship's bearings on the back of their Pilot Orders.

In order to assist the attending Pilot, the Master should inform him on boarding of any special characteristics of his vessel, such as port manoeuvring speeds, turning circle, compass error and exact draft.

4. Anchor Watch:

Due to usually congested anchorages, strong tidal current, occasional fresh winds and traffic, all Masters are cautioned to maintain a continuous bridge anchor watch by a deck officer with engine on standby. Anchor bearings should be taken frequently and plotted to ensure proper anchor holding. During change of tides, the anchor windlass should be in readiness with a deck officer standing by.

If an anchorage becomes dangerously congested after a ship has been anchored, the ship's Master may request Agent to (a) send a Pilot to relocate vessel to a safer anchorage, or (b) send a tug to assist vessel in turning during a change in tide, or to stand by during fresh wind conditions.

PILOTAGE: Compulsory for foreign flag ships, and U.S. ships bound to and from foreign ports.

24 hours notice of ETA required. N.Y. N.J. Sandy Hook Pilot boat should be contacted on VHF Channel 16, call "Ambrose Pilot", pilot vessel also on Channels 13, 8 and 73 or ship-to-ship Channel 2638 or 2738. Vessels requiring Pilot should hoist signal letter "G" in daytime. In foggy weather the letter "X" should be sounded on whistle.

Pilot boat is generally found about 1.5 miles West of Ambrose Light Tower. In bad weather Pilot tries to stay windward of normal Pilot Station.

In poor visibility an inbound ship should make Ambrose Tower and then proceed at slow speed to the Ambrose Channel Sea Buoy while blowing the letter "X" on her whistle. If no Pilot is obtained by the time she is in the vicinity of the sea buoy she should then anchor about 0.5 mile to 1 mile North of the line from Ambrose Tower to thesea buoy and await Pilot.

ANCHORAGES: For ships entering from Sandy Hook there are anchorages in Lower New York Bay, Gravesend Bay, Raritan Bay, and Arthur Kill off Perth Amboy. In the Upper Bay, anchorages available off Bay Ridge for 30 days and off Stapleton for 48 hours. For vessels entering via Long Island Sound there are anchorages in the Western end of the Sound and in the East River.

Vessels must notify the Captain of the Port when it anchors, of the vessel's name, length and draft and its position in the anchorage.

Regulations for anchorages may be found in the 33 Code of Federal Regulations, Part 110.155.

Vessels entering New York Harbour are required to have 2 working anchors, by U.S.C.G. regulations.

Also see "Approaches".

RESTRICTIONS: Ambrose Channel, 10 miles long, maintained to a width of 2,000 ft. and a depth of 45 ft. MLW. The Northern approach to the harbour is through Long Island Sound into the East River. Main channels in the port are maintained to a depth of 45 ft. MLW.

MAX. SIZE: Restricted only by berth depth and location.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

VHF: All vessels over 100 tons gross are required to keep continuous watch on VHF Channel 13 when in areas where U.S. Inland Water Regulations apply.

V.T.S. became operational in December 1990. Channels to be used are 16, 13, 11, 12 and 14. (Channel 14 for vessels calling).

TUGS: Over 50 private towing and transportation companies registered in the port.

McAllister Brothers. Tel: (212) 269-3200.
Moran Towing. Tel: (203) 625-7800.
Turecamo Towing. Tel: (718) 442-7400.

BERTHING:

Brooklyn: 8 berths at South Brooklyn Marine Terminal, including 2 container berths; 4 berths at 23rd Street Pier; 7 berths at Red Hook Marine Terminal.

Hudson River: Passenger Ship Terminal on Manhattan Shore between 48th and 52nd Streets provides 6 ship berths.

Hoboken Port Authority Marine Terminal: 2 piers, 4 general cargo berths.

Jersey City: 2 berth container facility at Port Jersey (Global Terminal) with 5 gantry cranes.

Newark, N.J.: Port Newark (22 general cargo, 5 specialised, and 4 container berths). Depth range alongside 30 ft. – 34 ft. Berths No. 10 and 12 handle coal with 3 floating cranes, rate 10,000 tonnes per day.

Elizabeth, N.J.: Elizabeth Port Authority Marine Terminal, 22 full container berths, channel depth 35 ft.

Department of Ports and Trade: The Department of Ports, International Trade and Commerce (PITC) of the City of New York is responsible for maintaining, leasing, and developing City-owned waterfront property. One of the principal maritime agencies in the nation's busiest port, the Department is actively involved in harbour affairs. As part of its commitment to the economic vitality of the Port, the Department plays a leading role in pressing for streamlined dredging operations, improved transportation connections, expansion of marine terminals, and the development of international trade and investment opportunities.

Pier 36 Terminal – Manhattan:

Operator: Vacant.

Situated on 10 acres off the East River, Pier 36 is the sole marine terminal in Manhattan capable of handling breakbulk, Ro/Ro and containerised cargo. In 1986, 82,000 long-tons were handled. The facility offers 1,300 ft. of berthing space with a dockside depth of 32 ft. and 175,000 sq.ft. of covered transit shed space. Its location offers direct access to the lucrative Manhattan market, as well as convenient access to major truck routes in the Metropolitan area.

Pier 42 Terminal – Manhattan:

Operator: Vacant.

Shipping Lines: —

More recently used for handling imported bananas, pineapples and coconuts, Pier 42 is located on the East side of Lower Manhattan. 4 specialised gantry cranes and a highly mechanised operation enable this terminal to move 150,000 boxes of fruit per day. The facility handled 200,000 long-tons of fruit over the course of calendar year 1986. The terminal contains over 120,000 sq.ft. of warehouse space including an air-conditioned storage area. Water depth at dockside is 32 ft. 48 truck loading bays ensure that goods move quickly from dockside to the road.

CONTAINER FACILITIES:

Bay Avenue Terminal:

Location: South side of Elizabeth Channel (Berths 68, 70, 72, 74 and 76).

Owner or Lessee: The Port Authority of NY and NJ.

Terminal Operator: –

Address and Telephone: 2170 North Fleet Street, Elizabeth, NJ 07201. Tel: (201) 289-3000 or (800) 526-6802.

Total Area of Terminal: 94 acres.

Length of Ship Berths: 2,825 ft.

Depth: 35 ft. MLW.

Container Cranes: 3×30 tons (Paceco), 1×40 tons (Star).

Equipment: 5 Clark straddle carriers (31.5 tons.) 15 Ottawa hustlers (25-ton capacity). 13 Ottawa hustlers (35-ton capacity). 1 Ottawa hustler (125-ton capacity). 1 P & H truck crane with 70 ft. boom (90-ton capacity). 2 Hyster cranes (5-ton capcity). 41 Hyster trucks (capacities ranging from 2.5 tons to 23 tons). 1 Kalmar truck (25-ton capacity). 212 reefer plug slots.

Stuffing and Stripping Facilities: 62,680 sq.ft. 88 truck bays. Served by rail siding.

Ro/Ro Accommodation: 2 ramps×60 tons.

Rail Service: Conrail.

Global Marine Terminal/Jersey City:

Location: West shore of Upper New York Bay at the Jersey City-Bayonne boundary (part of the Port Jersey industrial complex).

Owner or Lessee: Global Terminal and Container Services, Inc.

Terminal Operator: Global Terminal and Container Services, Inc.

Address and Telephone: P.O.Box 273, Jersey City, NJ 07303. Tel: (201) 451-5200 or (212) 344-7020.

Total Area of Terminal: 100 acres.

Length of Ship Berth: 1,800 ft.

Depth: 40 ft. MLW.

Container Cranes: 3 Star×40 tons. 1 Krupp×40 tons.

Toploader: 1 Taylor×30 tons.

Sideloader: 1 Taylor×8 tons.

Mobile Yard Gantry Cranes: 3 Drott×30 tons. 2 Krupp×40 tons EP.

Forklift Trucks: 1×26 tons, 1×30 tons, 2×15 tons.

Reefer Plug Slots: 86.

Stuffing and Stripping Facilities: 125,000 sq.ft. 150 truck bays. Served by rail siding.

Rail Service: Conrail and Port Jersey R.R.

Chassis Vertical Stacking: 18 racks with a total capacity of 324 chassis stored vertically.

Howland Hook Terminal/Staten Island:
Location: Staten Island on the Arthur Kill just North of Goethals Bridge.
Owner or Lessee: The Port Authority of NY & NJ.
Terminal Operator: Howland Hook Terminal Inc.
Address and Telephone: 300 Western Avenue, Staten Island, NY 10303. Tel: (718) 816-7748.
Total Area of Terminal: 187 acres.
Length of Ship Berth: 2,500 ft. Depth: 25 ft. – 30 ft.
Container Cranes: 4 IHI×40 tons, 1 Peiner×50 tons with rotating spreader, 2 Paceco×40 tons.
Forklift Trucks: 19×13.5 tons to 30 tons.
Toploaders: 1×45 tons.
Reefer Plug Slots: 36.
Stuffing and Stripping Facilities: 208,000 sq.ft., 150 truck bays, 22,000 sq.ft. refrigerated warehouse plus MID defrost and inspection facility, 21,000 sq.ft. Special cargo warehouse.
Rail Service: Delaware Otsego Corp. (SIRC).

Maher Terminal/Fleet Street, Elizabeth:
Location: South side of Elizabeth Channel (Berths 52-68).
Owner or Lessee: The Port Authority of NY and NJ.
Terminal Operator: Maher Terminals, Inc.
Address and Telephone: 202 North Fleet Street, Elizabeth, NJ 07201. Tel: (201) 527-8200 or (212) 962-6322.
Total Area of Terminal: 200 acres.
Length of Ship Berth: 4,875 ft. Depth: 35 ft. MLW.
Container Cranes: 2 Star×30 tons, 5 Paceco × 50 tons.
Equipment: 20 straddle carriers, 30 yard hustlers, 14 forklifts × 15 tons, 15 forklifts × 4 tons, 30 forklifts × 2.5 tons. 200 reefer plug slots.
Stuffing and Stripping Facilities: 155,000 sq.ft. 120 truck bays. Served by rail siding.
Rail Service: Conrail.

Maher Terminal/Tripoli Street, Elizabeth:
Location: Newark Bay (Berths 78, 80, 82, 84 and 86).
Owner or Lessee: The Port Authority of NY and NJ.
Terminal Operator: Maher Terminals, Inc.
Address and Telephone: 4010 Izmir Street, Elizabeth, NJ 07201. Tel: (201) 527-8400.
Total Area of Terminal: 243 acres.
Length of Ship Berth: 3,150 ft. Depth: 38 ft. MLW.
Container Cranes: 3 Paceco×40 tons (low profile), 1 Canron×40 tons, 3 Morris×30 tons.
Equipment: 80 yard hustlers, 12 stackers (15 ton capacity), 7 toploaders × 40 tons, 40 forklifts × 2.5 tons, 60 forklifts × 4 tons, 4 transtainers, 200 reefer plug slots.
Stuffing and Stripping Facilities: 371,000 sq.ft., 238 truck bays. Served by rail siding.
Rail Service: Conrail.

Maersk Line Terminal/Port Newark:
Location: North side of Elizabeth Channel (Berth 51).
Owner or Lessee: The Port Authority of NY and NJ.
Terminal Operator: Maersk Container Service Co., Inc.
Address and Telephone: 231 Tyler Street, Port Newark, NJ 07114. Tel: (201) 465-1000.
Total Area of Terminal: 64 acres.
Length of Ship Berth: 764 ft. Depth: 37 ft. MLW.
Container Cranes: 1×50 ton (Paceco), 2×40 ton (Paceco) and 1×40 ton (Star).
Equipment: 1 toploader × 50 tons, 1 toploader × 35 tons, 1 toploader × 13 tons, 1 stacker × 15 tons, 70 hilos × 5 tons to 7 tons. 192 reefer plug slots.
Stuffing and Stripping Facilities: 175,000 sq.ft., 154 truck bays. Served by rail siding.
Rail Service: Conrail.

Red Hook Container Terminal/Brooklyn:
Location: Brooklyn Waterfront, near entrance to Brooklyn-Battery Tunnel.
Owner or Lessee: The Port Authority of NY and NJ.
Terminal Operator: Universal Maritime Service Corp.
Address and Telephone: Building 115, foot of Hamilton Avenue, Red Hook, Brooklyn, NY 11231. Tel: (212) 875-0777.
Total Area of Terminal: 79 acres.
Length of Ship Berth: 3,030 ft. Depth: 35 ft. – 40 ft. MLW.
Container Cranes: 3 Paceco×40 tons. 1 Star × 40/70 tons.
Equipment: 11 top handlers, 2 forklifts×26 tons, 5 forklifts×15 tons, 33 yard hustlers, 16 flatbed trailer, 125 hilos×3 tons. 150 reefer slot plugs.
Stuffing and Stripping Facilities: Break-bulk consolidation shed, 345,000 sq.ft., 80 truck bays.
Ro/Ro Accommodation: 660 ft. berth.
Rail Service: New York Dock Railway.

Sea-Land Terminal/Elizabeth:
Location: Newark Bay (Berths 88, 90, 92, 94, 96 and 98).
Owner or Lessee: The Port Authority of NY and NJ.
Terminal Operator: Sea-Land Service, Inc.
Address and Telephone: P.O.Box 1050, Elizabeth, NJ 07207. Tel: (201) 558-6000.
Total Area of Terminal: 230 acres.
Length of Ship Berth: 4,519 ft. Depth: 40 ft. MLW.
Container Cranes: 6 Paceco×30 tons and 1 Mitsubishi × 40 tons.
Equipment: 3 top loaders×30 ton capacity, 45 forklifts×2.5 tons to 25 ton capacity, 60 yard hustlers, 1×40 ton transtainer.
Stuffing and Stripping Facilities: 306,000 sq.ft., 328 truck bays. Served by rail siding. 468 reefer plug slots.
Rail Service: Conrail.

South Brooklyn Marine Terminal/Brooklyn:
Location: Brooklyn shore of Upper New York Bay.
Owner or Lessee: The City of New York.
Terminal Operator: Continental Terminals, Inc.
Address and Telephone: Foot of 39th Street, Brooklyn, NY Tel: (718) 499-6300.
Length of Ship Berths: 1,535 ft. container berth plus general berths of 4,600 ft. Depth: 32 ft. MLW.
Container Cranes: 1 Star×50 tons, 1 Kone×50 tons
Equipment: 9 Valmet straddle carriers, 6 Clark straddle ca 10 Ro-Ro yard Tractors, 8 stackers, 65 forklift trucks (varying cap
Stuffing and Stripping Facilities: 600,000 sq.ft., 4 separate LTL 446,000 sq.ft. CFS and general cargo sheds.
Roll-On/Roll-Off Accommodations: 2
Rail Service: New York Cross Harbour Railroad Terminal Corp.

Universal Terminal/Port Newark:
Location: North side of Elizabeth Channel (Berths 53, 55, 57 and
Owner or Lessee: The Port Authority of NY and NJ.
Terminal Operator: Universal Maritime Service Corp.
Address and Telephone: 221 Starboard St., Port Newark, NJ 0 Tel: (201) 589-6200.
Total Area of Terminal: 89 acres.
Length of Ship Berth: 3,058 ft. Depth: 35 ft. MLW.
Container Cranes: 3 Paceco×40 tons.
Equipment: 11 top handlers, (42 ton capacity), 2 forklifts (26 5 forklifts (15 tons), 33 yard hustlers, 16 flatbed trailers, 25 hilos (3 248 reefer plug slots.
Stuffing and Stripping Facilities: Break-bulk shed 250,000 sq.ft. S by rail sidings.
Rail Service: Conrail.
Also see "Berthing".

CRANES: Mobile floating cranes with capacity up to 500 tons ava

STEVEDORES: 13 stevedoring firms are active in the port, ma whom are also terminal operators. Normal working hours 0 1700 hrs. Bulk Cargo work usually continues through 24 hours.

TANKERS: There is a history of repeated breakouts in the New area due to sudden wind gusts of up to 60 knots, particularly asso with squalls. Moorings should, therefore, be kept tight and winch b tightened up after moorings have been adjusted.
Brooklyn: Paragon Oil Terminal, 2 berths, depth 37 ft.; Patchog Terminal, 2 berths, depth 29 ft. and 35 ft.; Whale Oil Terminal, 1 depth 36 ft.
Hudson River: Tappan Oil Co., 1 berth, 35 ft. depth.
Bayonne, New Jersey: Public Oil Terminal, 3 berths, 32 ft. depth; H Oil Terminal, Constable Hook, up to 38 ft. depth; Belcher Oil Co., 3 berths up to 38 ft. depth; Texas Oil Co., 4 tanker berths, up to depth; Texaco, 4 berths up to 32 ft. depth. Constable Terminal: 1 for handling caustic soda, chemicals, vegetable oil and mo 27 tanks (9 million gallons). Max. draft 31 ft. MLW.
Kill Van Kull: Lehigh Tanker Terminal, chemicals, 35 ft. depth; H Oil Co., 3 tanker berths, up to 38 ft. depth; Texas Oil Co., 4 tanker up to 32 ft. depth; Ross Oil Co., 1 berth up to 32 ft. depth.
Newark, New Jersey: 4 berths, 31 ft. and 32 ft. depth.
Elizabeth New Jersey: Chevron Oil Company, 1 tanker 26 ft. depth; Crown Central, 1 tanker berth, 30 ft. depth.
Arthur Kill: **Perth Amboy,** Chevron Oil Co. (tanker berth, 26 ft. Hess Oil Co. (tanker berth 30 ft. depth); Cities Service (tanker 34 ft. depth); **Stolt-Nielsen,** (tanker berth max. draft 38 ft.); Se Royal Petroleum Co. (tanker berth, 32 ft. depth); Public Serv (tanker berth, 35 ft. depth); Shell Oil Co. (tanker berth, 35 ft. dept **Socony,** Mobil Oil Co. (2 tanker berths, 27 ft. and 30 ft. **Carteret,** American Oil Co. (tanker berth M, 25 ft. depth); American (2 tanker berths, 25 ft. and 35 ft. depth). **Linden,** Cities (tanker berth, 32 ft. depth); Humble Oil Co. (tanker berth, 35 ft. Sinclair Oil Co. (tanker berth 31 ft. depth). **Gulfport,** Gulf Oil Co. berth, 32 ft. depth).

Lightering Operations: Most crude and black oil tankers occasional clean oil tanker entering the Port of New York lightered before proceeding to their assigned discharge berths. vessels are assigned an anchorage either off Stapleton, Bay R Gravesend Bay. (See "Anchorages" and "Approaches").

Lighters used in the New York area range from 1,000 – 12,0 capacity.

The U.S. Coast Guard has established regulations for oil operations in U.S. waters as a means to avoid oil pollution regulations are enforced. The principal items covered by regulations are as follows:

1. Designation of person(s) in charge.
2. Qualifications of person(s) in charge.
3. Oil transfer procedures.
4. Emergency shutdown.
5. Records.
6. Requirements for oil transfer.
7. Connections, drip pans.
8. Declaration of Inspection.
9. Supervision by person in charge.

In most instances, an oil Company employed Oil Pollution P Inspector will board vessel at anchorage to assist with requirements. In any case, the lighter officer must contact ve joint inspection and completion of a Declaration of Inspection transfer can be started.

Exxon Bayonne Terminal: The Exxon Bayonne Terminal at Bayonne, New Jersey, is located on the Northside of Kill Van Kull, 1.6 miles East of the Bayonne Bridge.

The terminals structure is a 700 ft. long concrete pier having a hose gantry and shore gangway. 2 teflon faced fenders breast the vessel out into the dredged basin.

Lube Dock – Pier 1: Docking/Mooring: Usually all vessel dock portside to at Bayonne with 2 tugs assisting. Vessels should arrive off the berth at slack water, turn, and head into the slip. Care should be taken not to have too much headway or to set down on the corner of the pier which is not fendered. Vessels should be taken completely into the slip before landing on the fenders. Fenders are teflon faced and will not slow the forward motion of the vessel. Once in position, 2 tugs will hold the ship while lines are run out. If the vessel extends past the end of the pier, then extra lines should be used aft as a precaution for the tidal current and passing traffic. Vessels having a bow thruster can undock with 1 tug, at the discretion of the Master. (See "Plan").

Hoses/Pumping: All shore connections are 6 in. A maximum pressure of 125 p.s.i. is enforced. There are no slop facilities ashore.

Bunkers/Water: Bunkers are not available at this facility. Bunkering can be arranged at anchor. For bunker requirements, the vessel's Agent should be contacted prior to taking arrival at Ambrose. Fresh water is not available at the dock.

Weather: There is a history of repeated breakouts in the New York area due to sudden wind shifts accompanied by strong and gusty winds. Vessels alongside the dock must insure that mooring lines are taut and properly set. Vessels are strongly advised to maintain a VHF weather watch and to shut down operations if conditions warrant. The terminal closes the berth during sustained Westerly winds of 50 m.p.h. or during sustained winds over 73 m.p.h. from any direction. During these conditions, vessel must shut down and disconnect; a tug may be required to stand by.

Fuels and Specialty Dock – Pier 6: The Fuels and Specialty docks are located on the North side of Kill Van Kull, just off the Constable Hook Range. The terminal structure is a steel and concrete pier connected to a concrete capped turning dolphin and fender system on the offshore end.

Docking/Mooring: Prior to berthing the intended docking manoeuvres should be reviewed with the Pilot. Information on the velocity and direction of the current as well as water height should be obtained from the Pilot. Tidal data is recorded from stations at the Battery, New York and Bergen Pt., New Jersey every 6 minutes. Readings can be obtained through VHF Channel 9 KEH 567.

Generally, vessel is assisted by 2 tugs. One of the 2 tugs will make fast near the bow. The second tug stands by on the inboard berthing side forward without making fast. As the vessel approaches the berth the inboard tug moves aft along the ship's side. This tug then shifts to the outboard quarter of the vessel in order to assist in berthing the ship against the dock fenders.

If installed, bow thruster should be ready for immediate use.

Ships should arrive off the berth at slack water. Care should be taken approaching the berth with minimum headway. Vessel should be taken completely into the slip before landing on the dock fenders.

Occasionally, unexpected cross currents are experienced while approaching the berth. Immediate corrective action may be required to maintain the ship within the dredged area in the vicinity of the berth.

Vessels approaching Pier 6 for docking on the North berth will appear to be making an approach towards the South berth. When the vessel's bow is close to the dolphin a the end of Pier 6, the ship is moved laterally North and ahead a sufficient distance to clear the fender line of the North berth. This manoeuvre is necessary due to the shoal area North of the dredged basin. Once in position 2 tugs will hold the ship while lines are run out. If the vessel extends past the end of the pier, then extra lines should be used aft as a precaution for the tidal current and passing traffic. Vessels having a bow thruster can undock with 1 tug at the discretion of the Master. (See "Plan")

Hoses/Pumping: Presentation flange sizes are grade dependent and can be obtained from Agent prior to arrival. A maximum hose pressure of 125 p.s.i. is enforced. There are no slop facilities ashore.

Bunkers/Water: Bunker C is available at this facility. Other bunkers can be arranged at anchor. For bunker requirements, the vessel's Agent should be contacted prior to taking arrival at Ambrose. Fresh water is available in limited quantities at a rate of about 20 t.p.h.

Exxon Bayway Terminal: The Exxon Bayway Terminal, consisting of 2 marginal type berths, is owned and operated by Exxon Company, U.S.A.

It is situated on the West bank of the Arthur Kill just below the Goethals Bridge.

Proceeding from Anchorage to Bayway: The Pilot/Mooring Master and tugs join the vessel at the anchorage. One of the tugs will assist in holding the stern of the ship up against the tide if a turn is required in the anchorage. Departure from anchorage is timed so that the vessel will arrive off Bayway at HW slack.

Before leaving the anchorage, the Pilot will broadcast a message by VHF advising other ships and New York VTS of the position of the vessel and the route it will follow. Normally 2 tugs attend the vessel while proceeding from the anchorage through the Kill Van Kull and Arthur Kill (between Staten Island and New Jersey) to the berth.

Three bridges are passed:

Bayonne Bridge: Vertical clearance of 140 ft. over channel at MHW.

Lift Bridge: Vertical clearance of 135 ft. over channel at MHW.

Goethals Bridge: Vertical clearance of 137 ft. over channel at MHW.

Because of the heavy traffic situation in the Port of New York and the close proximity of berthed vessels, ships should proceed at a moderate speed during the entire passage to Bayway. Also, ship personnel should stand-by the anchors.

On entering the Kill Van Kull the tide will be setting Northwestward and attention is to be paid to stay well clear of the bank extending Southward from Robbins Reef.

As a rule, the Pilot will be aware in advance of seagoing vessels proceeding Eastward through the Kill Van Kull. Normally the vessel will not enter the Kill until such outbound vessels have cleared the entrance.

Extreme caution is to be exercised when approaching and passing Bergen Point (about 3 miles Westward of the entrance to the Kill Van Kull) where 3 channels converge. In this are the view is obstructed by the Bayonne Bridge and by oil storage tanks located on Bergen Point.

The Pilot will communicate (VHF Channel 13) with the Pilots on the other vessels approaching this point and make arrangements for the vessel to pass this area without encountering other seagoing ships. Traffic information is also obtained from the operators of the railroad drawbrige across Newark Bay.

At times, cargo ships with destination Port Elizabeth wait off Bergen Point for the drawbridge to open. Normally, the Pilot is aware of this situation well in advance and the speed is adjusted to ensure that such ships are not passed off Bergen Point.

Berthing: The dock is a substantial concrete marginal-type with bollards located on land and on the dock. Most breast lines are run to hooks located on the dock which are secured to the shore bollards by wires. Spring lines are generally passed to the dock first. Large vessels dock and undock with the assistance of 2 tugs.

Large ships are berthed starboard side to (See "Plan") heading Southward; LPG ships docking at Berth No. 2 may berth portside to. (See "Report" dated August 1984).

The dredged basin at Berth No. 1 requires that the vessel be stopped off the berth and breasted into position. During docking, when vessels are in position, tugs hold the vessel alongside until all mooring lines are passed.

Passing traffic could cause the ship to break away from the Berth if mooring lines are not maintained tight and if the ship is not kept snug alongside at all times.

The following minimum moorings are required at the Bayway Pier:

Forward	*Aft*
2 head lines	2 stern lines
2 breast lines	2 breast lines
2 spring lines	2 spring lines

Depending on circumstances, additional moorings may be run out.

Departure:

1. Ships under 660 ft. LOA and mast height up to 130 ft. are turned off the berth and proceed to sea along the route which was followed when entering. The same precautions have to be taken when approaching the area off Bergen Point outward.

2. Ships over 660 ft. LOA are not turned off the berth because of limited manoeuvring space. They proceed to sea via the Southern part of Arthur Kill and Raritan Bay. A tug will accompany the ship until it has cleared Tufts Point (about 4 miles South of Bayway). The depths in the channel Southward of Bayway limit the departure draft to 33 ft.

The bridge across the channel near the Southeastern tip of Staten Island has a clearance of 143 ft. over the channel at MHW. Rounding Tremley Point (about 2 miles South of Bayway) requires particular attention. The view in this area is obstructed, therefore, before reaching this point the Pilot should ensure that there is no traffic approaching from the South which could hamper safe passage. Off Tufts Point, a 70° course alteration to starboard has to be made. The manoeuvring space is limited, and if required, the attending tug will assist in making the turn.

Tidal Information: Off Bayway the HW levels vary between 2.5 ft. and 5.0 ft. above MLW. Extreme LW has been reported as low as 4.0 ft. below MLW level. Current velocities of up to 2.0 knots are experienced.

Loading Connections: Berth No. 1 has 3×10 in. Chicksan Arms for receipt of crude oil.

Berth No. 2 has 3×10 in. Chicksan Arms for LPG receipt.

Both berths can also handle many refined black and clean products with various hose sizes up to 10 in.

Bunkers and Fresh Water: No bunkers are available through the pier connections at Bayway. All grades of bunkers may be supplied by barge, either at anchorage or while alongside the pier, providing arrangements are made in advance.

Fresh water is available in unlimited quantities, at approximately 20 t.p.h. to 25 t.p.h.

Stores, Provisions, Lubricants: All kinds of stores and provisions can be made available and delivered by truck or lighter, if advance request of at least 24 hours is received. During normal working days, stores and provisions may be supplied on very short notice.

Weather: There is a history of repeated breakouts in the New York area due to a sudden wind shifts accompanied by strong gusty winds. Vessels alongside the dock must ensure that mooring lines are taut and properly tended at all times and that winch brakes are properly set. During wind shifts and frontal passages, vessels have been blown off the dock with vessel and dock damage as well as pollution resulting. Vessels are strongly advised to maintain a VHF weather watch and to shut down operations if weather conditions warrant. Dock personnel will also advise vessels to shut down operations if an electrical storm is in the vicinity or if winds exceed 30 m.p.h. At 35 m.p.h. to 40 m.p.h., hoses and/or arms may be disconnected.

Belcher Bayonne Terminal: The Belcher Terminal in Bayonne, New Jersey is located 1.1 miles East of the Bayonne Bridge on the North bank of Kill Van Kull. The dock's facilities consist of 2 concrete mooring islands protecting a 600 ft. long wooden pier on which all pipelines and the hose gantry are supported.

Transit from Anchorage to Terminal: The Pilot/Mooring Master will board and heave anchor approximately 1.5 hours to HW (Battery). Then proceed into Kill Van Kull. 2 tugs will assist the vessel in docking. (See also Bayway Terminal).

Docking and Mooring: All vessels dock starboard-side-to with the assistance of 2 tugs. Vessels approach the terminal at time of HW slack with minimal headway. Due to the shape of the dredged basin all vessels are normally spotted off the berth and then moved broadside into position alongside the breasting islands. Tugs hold vessel in position while a small line boat runs head and stern lines to pile clusters. Note that the head line cluster is placed well inshore resulting in long (460 ft.) head lines leads. Head and stern lines cannot be wire due to the inadequacy of the small line boat. See "Plan".

Due to heavy passing vessel traffic, all mariners are advise to run extra lines to ensure that the vessel will remain safely in berth at all times.

The minimum suggested mooring arrangement is as follows:

4 head lines
3 forward springs
3 after springs
4 stern lines

Due to the poor mooring line leads from the bow, extra care should be given to the tending of all lines during the discharge. *There have been reports of vessels being pulled from the berth by passing traffic; exceptional care must be taken to properly tend mooring lines at all times.*

Hoses and Pumping: Cargo manifolds should be prepared prior to docking. The proper size and number of reducers should be in place and the blanks removed. Prior to berthing, ask the vessel's Agent what number and size of reducers are required. This will vary depending on the particular cargo being delivered. All shore hoses are equipped with 8 in. American standard flanges. Maximum working pressure allowed at the manifold is 125 p.s.i.

Bunkers and Water: Some grades of fuel oil are available from the dock in emergency situations, but most vessels bunker by barge. Fresh water is available in unlimited quantities at approximately 20 t.p.h.

Weather: There is a history of repeated breakouts in the New York area due to sudden wind shifts accompanied by strong and gusty winds. Vessels alongside the dock must ensure that mooring lines are taut and properly tended at all times and that winch brakes are properly set. Vessels are strongly advised to maintain a VHF weather watch and to shut down operations if weather conditions warrant.

Shipmaster's Report: 1976.

Greater New York Terminal, Astoria, Long Island:

Location of Berth: Lat. 40° 47' N., Long. 73° 53.7' W.

Distance from Entrance to Berth: 28 miles.

Max. Size at Berth: LOA, 900 ft. Draft, Pilot stated 34 ft.

Restrictions: Vessel should be ballasted sufficiently to pass under Brooklyn Bridge, clearance 127 ft.

Vessels may berth and unberth day and night but only at certain stages of the tide.

Anchorage: At Stapleton as designated by USCG.

Terminal Information: Starboard side manifold to barge at Stapleton Anchorage, use 6 in. hoses. Port side manifold used at the berth, ship's hoses not required. The connection is 12 in. running into 18 in. Nearest shore tank 1,000 ft. from berth. Line fitted with steam jacket but not efficient. Max. pressure allowed 125 p.s.i. Shore gantry used at berth. Derrick used at anchorage for discharging into barge. Product handled: Fuel Oil (Heating Oil). No slop tanks available.

General: Pilotage compulsory. Ambrose Pilot requires 24 hours' notice of arrival. Radio station handling traffic is Chatham. Most services are available at the berth, however it is advisable to take stores and send laundry from Stapleton Anchorage as there is no means of delivery at the berth other than carrying by hand. Stapleton Launch Service, tel. 981-8333/8384. Fresh water may have to be taken by barge in very severe weather as shore lines become frozen.

Approaching: From a Line from Rockaway Inlet to Ambrose thence Highlands Light, vessel must remain on VHF Channel 13 for ship-to-ship communication. When Pilot on board he maintains this Channel and ship can use own VHF other Channels. Marine operator on VHF 26 (call). For the passage of East River (remember Brooklyn Bridge Clearance 127 ft.) one tug each bow alongside. After Hell's Gate and passing Port Morris to port, vessel cants to starboard to pass between North and South Brothers to starboard and Rikers Island to port through 500 ft. wide buoyed channel (some unlit) South to berth (inwards). It is preferable to come through Hell's Gate at HW or LW slack, thus avoiding cross currents between Brothers at other times.

Report: August 1984.

Exxon LPG Berth at Bayway:

United States Coastguard requires all vessels with cargo on board (other than heel) to both enter and depart via Southern Channel, regardless of length. If vessel discharges completely (only heel remaining), then vessel is considered non-dangerous by U.S.C.G., and may depart via North Channel (without turning). (If completely discharged, other gas carrier restrictions – daylight only, 2 mile visibility, etc. – also do not apply.)

There are obstructions to South of Exxon berth which limits distance between manifold and bow or stern to 330 ft. (May be stretched to 335 ft. by Exxon on case by case basis.)

Other limitations given by Exxon for berth:

Draft: 31 ft.
Beam: 100 ft. (may be stretched)
Manifold Position: 13 ft. to 68 ft. above water line, 6 ft. to 15 ft. from deck edge.

Therefore any vessel which sails with part cargo must be turned for departure to comply with U.S.C.G. although it is physically possible to turn vessels up to 725 ft. – 730 ft. LOA off Exxon Berth provided there is no vessel berthed opposite Exxon at Gulfport (it has been done). Exxon is afraid that vessel might damage sea water intake structure for refinery while turning, and therefore says vessels longer than 660 ft. (may be stretched to 680 ft.), cannot be turned.

Other possibilities for turning are:

Continue North about 1 mile to Elizabethport Container Terminal where channel is wider.

Back ship anywhere between a few ship lengths to 0.5 miles South of Exxon, and then turn. We were advised by East Coast Pilots that it is possible to turn ship up to 730 ft. LOA at that location, with draft limit 25 ft. forward, 30 ft. aft. However, others advise that although oil tankers customarily turn at that location, it involves touching bottom (mud) at bow, and is therefore inadvisable for gas tankers.

FRESH WATER: Available at most piers in the port district at a no rate. Water barge available to serve vessels at anchor in emergen this is expensive.

FUEL: All grades of fuel readily available. Except for tankers load discharging, bunkers are normally delivered by barge. It ma economical to shift vessel to refuelling berth.

CONSULS:

Argentina	Guatemala	Nicaragua
Bangladesh	Guyana	Nigeria
Belgium	Honduras	Pakistan
Bolivia	Hungary	Poland
Bulgaria	Iceland	Romania
Cameroons	Indonesia	Sierra Leon
Canada	Iran	Somalia
Chile	Liberia	South Afric
Costa Rica	Luxemburg	Suriname
Czech Rep.	Madagascar	Switzerland
Denmark	Malaysia	Thailand
Ecuador	Malta	Turkey
Finland	Morocco	United King
France	Myanmar (Burma)	Venezuela
Germany	Netherlands	Yugoslavia
Greece	New Zealand	

REPAIRS: All facilities available for any size vessels.

DRY DOCKS: 4 docks with lifting capacities up to 25,000 (Bethlehem) and 1 dry dock capable of handling vessels of up to 1,1 LOA, 140 ft. beam and 120,000 d.w.t.

GANGWAY/DECK WATCHMEN: Available and recommended crew detained by Immigration.

CUSTOMS ALLOWANCES: 200 cigarettes or 2 lb. tobacco, 1 wine/spirits per man.

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight S Time, GMT minus 4 hours from first Sunday in April till last Sund October.

AIRPORT: Kennedy International Airport, Newark International A La Guardia Airport.

HOLIDAYS: New Year's Day (January 1st); Martin Luther King Birthday (January 15th); Lincoln's Birthday (February Washington's Birthday (February 22nd); Gleason's Birthday (17th); Good Friday; Memorial Day (May 30th); Independence Day 4th); Labour Day (first Monday in September); Columbus Day (O 12th); Armistice Day (November 11th); Thanksgiving (fourth Th in November); Christmas Day (December 25th). No work on New Day, Independence Day, Labour Day and Christmas Day.

SHORE LEAVE: Allowed except for crew members detain Immigration.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I- be made up for each crew member on arrival.

SEAMAN'S CLUBS: Seaman's Church Institute, 118 Export Port Newark, NJ 07114. Tel: 1-201-589-5828. Fax: 1-201-817-8

AUTHORITIES: Port Authority of New York and New Jersey, One Trade Center, New York, N.Y. 10048. *Tel:* (212) 435-7000, 622-6600. *Telex:* ITT 424747 Panynj; WUI 620518 Panynj 6205 TWX 710-581-5057 Pa Nynj Nyk. *FAX:* (212) 435-6030. *Contact* C. Borrone, Director – Port Commercial Department.

Captain of the Port, U.S. Coast Guard, Building 108, Governor's N.Y. 10004. *Tel:* (212) 668-7933, 24 hours (212) 668 *Telex:* 127594 Amver Nyk. *FAX:* (212) 668-7931. *Radio* Channel 16.

Department of Ports and Trade, Battery Maritime Building, New N.Y. 10004. *Tel:* (212) 806-6841. *Contact:* Anthony M. Ric Commissioner. Julian Stein, Director of Port Promotion.

NIKISKI (including Kenai), Alaska: 60.41 N. 151.2
(See

Located on West side of Kenai Peninsula between Ho Anchorage. Pan and brash ice in Inlet from November to Marc freezes solid. Open all year.

Nikiski is approximately 12 miles from the city of Kenai an group of 3 berths, privately owned by Unocal Chemical (manufacturer of liquid ammonia and urea which is exported by and bulk vessels), Phillips Petroleum Co. (manfacturers of liqu gas which is exported by Marathon tankers to Japan) and Kena Dock (which operates the dock for Tesoro Alaska Petroleum exports residual fuel oil and diesel products on various tanke

DOCUMENTS: See "Anchorage, Alaska".

APPROACHES: Via Cook Inlet.

PILOTAGE: Pilot pick-up point 1 mile South of Lands End Lt. (151° 25' W.). Also see "Homer" Pilotage.

Vessels are docked by pilots using tide and current for as Transit time from Pilot Station in Homer, Alaska to Nikiski is 6-

ANCHORAGES: Good anchorage.

MAX. SIZE: Harbour depth in excess 40 ft. Max. size 80,0 Tides diurnal range 28 ft. Also "Berthing".

HEALTH: See "Health: All Ports" before first U.S.A. port (Al

AGRICULTURE: See "Agriculture" before first U.S.A. port (A

CUSTOMS: Quarantine, local. Immigration and Custo Anchorage, Alaska.

RADIO/VHF: Operations Guide – Nikiski Marine Terminal Complex:

Company	*Band VHF/ AM/SSB*	*Radio Frequency kHz/MHz*	*Call Sign*	*Remarks*
Unocal Chemicals Division (Tel: 776-8121)	VHF Ch 7A	156.35	KM 7571	Working
	VHF Ch 10	156.5	KM 7571	Working
	VHF Ch 13		KM 7571	Listen only
	VHF Ch 16	156.8	WAB 930	Continuous
Kenai LNG Corp. (Phillips) (Tel: 776-8166)	VHF Ch 7A	156.35	KL 5833	
	VHF Ch 10	156.5	KLT 88	Continuous
	VHF Ch 16	156.8	KLT 88	Continuous
Kenai Pipe Line Co. (Tel: 776-8711)	AM	2182	KBH 52	Continuous
		2512		Working
	SSB	4125 kHz	WSY 22	Continuous
		6218.6 kHz	WSY 22	Working
		8294.2 kHz	WSY 22	Working
		12,435.4 kHz	WSY 22	Working
	VHF Ch 7A	156.35	KX 8177	Working
	VHF Ch 10	156.5	WSY 22	Continuous
	VHF Ch 16	156.8	WSY 22	Continuous
Crowley Maritime Rig Tenders Dock (Tel: 776-8880)	VHF Ch 7A	156.35	KTD 75	Working
	VHF Ch 10	156.5	KTD 75	Continuous
	VHF Ch 16	156.8	KTD 75	Working
Tesoro Alaskan Refinery (Tel: 776-8191)	–	–	–	–
Chevron USA Inc. (Tel: 776-8161)	–	–	–	–
Southwest Alaska Pilots Assoc. (Tel: 235-8783 Homer)	VHF Ch 10	156.5	WAB 917	Continuous
	VHF Ch 16	156.8	WAB 917	Continuous
	SSB	8284.4 kHz	WAB 917	0800-1200 M – F (AK)
		4136.3 kHz		1300-1700 M – F (AK)
		2182.0 kHz	WAB 917	
		2382.0 kHz	WAB 917	
		2512.0 kHz	WAB 917	
		2670.0 kHz	WAB 917	On Request
		6210.4 kHz	WAB 917	
		8281.2 kHz	WAB 917	
U.S.C.G. Capt of the Port (Tel: 271-5137 Anchorage)	–	–	–	–
Marine Operators: 1. Nikishka Marine Dial 100 and ask for Marine Operator.	VHF Ch 26		WSX 87	Continuous
2. Diamond Ridge Dial 100 and ask for Marine Operator.	VHF Ch 27		WAB 903	Continuous

Note: Individual pilots have other VHF frequencies on their portable units.

BERTHING:

1. Port Nikiski Dock: 3 sided, 550 ft. long, 200 ft. on each side, 1,000 ft. wide, 12 feet at MLLW. 400 ft. by 75 ft. covered storage.

2. Three finger piers for tankers and bulk carriers. All exceed 40 ft. depth at MLLW.

All 3 berths are dolphin berths ideal for rapid bulk loading.

Main products:

(a) Unocal Chemicals and Minerals Dock: Bulk urea and ammonia liquid. Vessels docking at Unocal require between 14 – 24 lines, depending on length and beam of vessel and season. Loading of urea is done through fixed spout, loading rate approximately 800 short tons per hr. Vessel must shift alongside from hold to hold. This is only done during slack tide which is about every 6 hours and lasts for about 1 hour.

Also see "Tankers" and "Shipmaster's Reports".

(b) Phillips Petroleum Dock: Petroleum products and liquid natural gas. See "Tankers".

(c) Kenai Pipeline Dock: Refined and crude petroleum products.

Vessels at Kenai Pipeline Dock must maintain 5 ft. under keel clearance at all times. Vessels require 8 wires in their mooring arrangement and must have 12 lines as a minimum and 18 – 20 lines in Winter.

TUGS: Not available.

STEVEDORES: Two gangs.

MEDICAL: Health Centre, 3 doctors, 3 dentists.

TANKERS: *Kenai LNG Marine Terminal:* The Kenai LNG Plant and Marine Terminal are located on the East side of Alaska's Cook Inlet (Lat. 60° 40' 43" N., Long. 151° 23' 38" W.). The facilities are jointly owned by Marathon Oil Company and Phillips Petroleum Company.

Operator: Phillips Petroleum Co. (See "Authority").

No. of Berths: One.

Max. Size: LOA 261 m., max. draft 10.1 m., max. beam 40 m.

Max. Berthing Displacement: 40,500 tonnes.

LNG Tank Capacity: 3 × 37,775 cu.m.

Depth Alongside at Zero Tide: 12.80 m.

Normal Side to when Berthing: Port.

Loading/Discharge Arms (from seaward):

Arm No.	*Use*	*Diameter*
1	Liquid	30.5 cm.
2	Vapour	30.5 cm.
3	Liquid	30.5 cm.
4	Fuel/Diesel	20.3 cm.

Clearances required on vessel to fit Loading/Discharging Arm:

Flanging distance from ship's side to flange face:	Max. 4.0 m.	Min. 2.1 m.
Allowable spacing between manifold centres:	Max. 3.5 m.	Min. 1.8 m.
Centre Line of Manifold above Water Line:	Max. 21.7 m.	Min. 15.4 m.

Working Range at Ship's Rail:

Height above Datum: Max. 26.8 m. Min. 9.4 m.

Fore and aft slew allowance: 4.6 m.

Ship/Shore Communications, Ship/Shore Links, etc.: Telephone connections to the plant control room and outside phone line are available. Mooring line tensions are available to vessels fitted with proper equipment. ESD system is pneumatic.

Minimum Mooring Requirements:

Moorings	Head Lines	For'd Breasts	For'd Springs	Aft Springs	Aft Breasts	Stern Lines
Numbers of Lines	3	2	2	2	3	3

Allowable Speed of Approach for Berthing: 17.3 cm./sec.

Ship's Pipeline Condition on Berthing: Warm.

Manifold Liquid Line Filters Fitted: None.

Type of Filter: N/A.

Bulk Loading/Discharging Rate Permitted: 5,000 cu.m./hr.

Min. Liquid Flow Rate available: 3,500 cu.m./hr.

Max. allowable Volume of Return Gas: 21,700 cu.m./hr.

Temperature of Return Gas: −100°C.

Max. allowable Cargo Pressure on Arrival: 0.25 Bar(g) A.

Fuel/Fresh Water/Stores:

Availability of Supplies	*YES/NO*	*Line Size* (m.)	*Normal Quantity available* (cu.m.)	*Delivery Rate* (cu.m./hr.)
Liquid Nitrogen	NO			
Drinking Water	YES			
Fuel Oil	YES	0.203	1,250	318
Diesel Oil	YES	0.203	636	318
Dirty Ballast or Slop Facilities	NO			

Tugs: Not available.

Tidal and Current Information: Semi-diurnal.

Range of tides: Highest Astronomical Tide (HAT): 7.9 m.
Lowest Astronomical Tide (LAT): −1.8 m.

Pilotage:

Harbour Pilot boarding position: Lat. 59° 35' 05" N., Long. 151° 26' 05" W. (Homer Pilot Station).

Distance – Sea Pilot to Berth: 83 miles.

Pilot Boarding Arrangements: By Boat.

VHF Communication Channels: 16 and 10.

Number of Pilots boarded: 1 normal, 2 if Training Pilot.

Traffic Surveillance/Monitoring Service available: No.

Charts: DMA 16645, 16661 and 16662.

Berthing/Unberthing: 24 hours.

Unocal Wharf: The Unocal Wharf is situated on the East side of Cook Inlet. The exact position of the Wharf is Lat. 60° 39' 30" N., Long. 151° 23' W.

There is one berth on the Inlet side approximately 1,135 ft. long from outer dolphin to outer dolphin. Water depth is 40 ft. at MLLW.

Tides and Currents: The maximum tidal range is approximately 33 ft., and the minimum range is 12 ft. Maximum tidal current is flood: 5.8 (m.p.h.) Northerly and Ebb 4.8 (m.p.h.) Southerly. Average tidal current is flood: 3.8 (m.p.h.) Northerly and Ebb 2.6 (m.p.h.) Southerly.

Winds: Winds of varying strength may come from any quarter. The prevailing wind however is from S.S.W. in the Summer, and N.N.E. in the Winter. Visibility in this area of Cook Inlet is generally excellent with occasional fog lasting until noon.

The local weather is seasonal with temperatures ranging from −40°F to 85°F. The U.S. Coast Guard radio stations make scheduled broadcasts, preceded by a preliminary call on 500 kHz and 2182 kHz at times.

Hours of Operation: There are ample anchorage and manoeuvring areas within Cook Inlet. The Terminal is available 24 hours a day, 7 days a week.

Time Belt: Local time (Yukon Standard Time – minus 9 hours on Greenwich time or Zone plus 9).

During the months of April through October, this may be modified by use of Daylight Savings Time to minus 8 hours GMT or Zone plus 8. All communications should be in local time.

Telephones: The Terminal telephone is operational 24 hours a day (907-776-8121, ext. 3833). There is a pay-phone for public use (907-776-9973).

MARINE VESSEL STANDARD FOR UNOCAL CHEMICALS DIVISION KENAI WHARF:

General: It is the intent of Unocal Chemicals Division to operate the Kenai Wharf in a safe and workable manner, and to comply with all pertinent OSHA Regulations. Unocal Chemicals Division will work within the Operations Guide prepared by the Nikiski Marine Safety Committee and the "International Rules of the Road" (Colregs 72), as well as the regulations and directives of the U.S.C.G.

The carriers and the ship's Agent must be notified that Unocal Chemicals is not capable of providing maintenance at the Kenai Wharf. All mechanical work must be done elsewhere and corrected before giving Unocal Chemicals Division Notice of Readiness.

Carriers should be notified that water and provisions will not (officially) be available at the Kenai Wharf.

The ship's Agent must be readily available while the ship is berthed at the Unocal Chemicals Division Wharf.

A. Communications: Before arriving within 10 miles of the Nikiski Terminal Complex, the incoming ship or barge and tug will establish its intention, and determine the intentions of vessels in the area by bridge-to-bridge communications.

While at berth, a means of two-way voice communication will be maintained at all times between ship and/or barge and tug and the wharf. When a vessel is at it's dock, Unocal Chemicals Division will maintain a watch on VHF Channels 7A or 10 intended for ship-to-wharf communication. Channel 7A will also be used to communicate emergency messages to other terminals.

B. Equipment:
1. If a tug becomes immobilised, a substitute equivalent tug is to be provided as soon as possible. Emergency tug repairs shall not be done at the Kenai Dock, unless first authorised by Unocal Chemicals Division.
2. Vessels and barges must be equipped with adequate winches, lines and personnel to handle them. This means a minimum of 2 forward and 2 aft winterised double drum winches or equivalent.
3. All vessels should be prepared to put out and properly tension the minimum number of good lines shown below. Soft lines should be 7.5 in. minimum circumference, and wire lines should be 1 in. minimum diameter. Lines should be a minimum of 400 ft. length.

Lines required for ship length:

	Less than 500 ft.	500 – 550 ft.	550 ft. and over
Summer Rules	14	18	20
Winter Rules	18	22	24

Barges: 8 × 1 in. wire lines and 2 × 7.5 in. soft lines.

C. Ship Configuration:
1. Ships exceeding 650 ft. in length or 35,000 d.w.t. tons should be considered only under special circumstances, and their use must be specifically approved by the Manager of Manufacturing.
2. Ships smaller than 650 ft. in length or less than 35,000 d.w.t. tons, which meet all other conditions specified herein, can be chartered without prior plant approval during periods of Summer conditions only.
3. Under Summer condition, ships 650 ft. or less must have a minimum distance of 70 ft. from the bow to the back edge of the most forward hold to be loaded, and also from the stern to the front edge of the furthest aft hold to be loaded. Ships larger than 650 ft. will need more than 70 ft. clearance.
4. Ships smaller than 600 ft., which meet all other conditions specified herein, can be chartered without prior plant approval during any season.
5. When Winter Rules are in effect, ships larger than 600 ft. length should have more than 70 ft. distance. All such ships must still be approved by the Kenai Plant prior to chartering.
6. No hatch should have dimensions smaller than 30 ft. long and 28 ft. wide, and shall not be more than 24 ft. from edge of ship to edge of hatch.
7. Superstructure must not overhang the hull.
8. "Tweendeckers" are undesirable and should be avoided. Also "Tumble home" ship sides must be avoided, as they could cause damage to fender systems.

D. Approach and Departure:
1. All movement within the Nikiski Terminal Complex priority area is governed by existing "International Rules of the Road" (Colregs 72).
2. All vessels and barges should arrive at the Wharf in trim, which allows for a proper light ship survey. All ballast tanks should be either completely full or empty, and any trim corrections are to fit into the correction for trim table envelopes.
3. The current should be carefully considered, so that the vessel or barge and tug are in good control, and have adequate clearance when passing nearby terminals.
4. The Wharf Supervisor or Shift Supervisor may refuse permission to dock, depending on wind and water conditions at the dock.
5. It is recommended that ships dock with the port side to the Wharf.
6. An anchor may be used to assist with approach, but once moored, the anchor should be weighed.
7. Departure shall be timed so as to utilise the tide for maximum safety. Reasonable effort should be made to depart into the current.

E. Personnel:
1. The agreement with the vessel or barge line must specify that the ship or tug retain enough crew on board at all times to safely cast-off and leave the dock. The agreement must also specify constant line tending. If lines are not tended to the satisfaction of the Wharf Supervisor, loading may be suspended.
2. It must also specify that the ship or tug must maintain the necessary watch in the engine room and bridge to permit immediate manoeuvring response.
3. During adverse wind, tidal or ice conditions (as determined by Unocal Chemicals Division), personnel and equipment must be kept ready for departure.

F. Cast-Off:
1. The vessel, barge and tug must be seaworthy and prepared to cast-off at any time during loading.
2. During seasons when ice, wind or tidal conditions would put the ship, barge, tug or wharf in jeopardy, they may be asked to cast-off.
3. A South/West wind aggravates any adverse conditions at the Unocal Chemicals Division Wharf. Therefore, at any time the wind velocity increases to 15 m.p.h. from that quarter, loading operations may be suspended, and vessel or barge and tug made ready for cast-off.
4. If the winds increase in velocity, or are forecast to increase, the vessel or barge and tug may be asked to cast-off.
5. The casting-off procedure shall at all times be at the direction of the Officer-in-charge of the vessel or tug.
6. Approximately 30 minutes prior to its departure, the ship shall announce its intentions on VHF Channels 7A and 16, so that other vessels and terminals in the area are alerted.

G. Winter Rules:
The starting and ending dates for Winter Rules will be establ
by the Nikiski Marine Terminal Safety Committee. During this pe
the following special rules shall apply:
1. The ship's and tug's engines, particularly cooling and
systems, should be winterised for operation in an ice filled
and −40°F air temperatures. Winches, ballast systems
auxiliary equipment must also be adequate for good oper
under these conditions.
2. Fresh water ballast must be pumped prior to arrival at the K
Dock (Lower temperatures in the Cook Inlet create the da
of freezing parts of the ballast system).
3. Tugs using sea water cooling are normally not suitable d
clogging of sea water inlet with ice.
4. Berth so as to stem the worst ice conditions to be expe
Since the ice is heavier on the flood, this means the vessel
dock with the port side to the Wharf.
5. Where applicable, manipulate ballast and cargo to keep
suction and propeller below the ice. Keep trim to a minimu
order to prevent ice from sliding beneath the vessel.
6. Unless directed otherwise by the Wharf Supervisor or
Supervisor, loading will be discontinued at no later than 2 h
into the flood tide. For urea ships, the boom will be raised
ammonia ships, the product line will be disconnected, an
barges, the power line will be disconnected.
7. Steam propulsion ships should take special precautions t
    - (a) Provide an emergency supply of water or steam to
condensers, so that any slush ice taken in can be ma
or flushed away immediately.
    - (b) Insure that fuel does not freeze, and that temperatu
sufficient to provide immediate flow of fuel to all burne
the event of an emergency. This precaution include
fuel supply for the emergency generators.
8. Vessels with internal combustion engines used as
propulsion units shall maintain such in immediate readines
use, and shall take these special precautions:
    - (a) Starting air is to be peaked in all tanks.
    - (b) Cooling water shall be heated and ready for circulat
the main engines.
    - (c) Lubricating oil for the main engine is to be in readines
service.
    - (d) Fuel system on the main engine should be purged
ready for instant use.
9. Ships must maintain the necessary watch in the engine
and bridge.

Report: February 1985.

Vessel to load ammonia at Kenai in position 60° 33' N., 151° 16
Regulations:

1. Vessel must have on board 20-24 mooring lines, each a mini
of 400 ft. in length, depending on weather on arrival.

2. Fresh water cannot be obtained or loaded at the wharf. Prov
to be obtained through ship chandler.

3. No preventative engine maintenance can be allowed at the
and vessel's engines must be maintained in such a way as to p
immediate manoeuvring power at all times while vessel is alongsi
berth.

4. Sufficient vessel personnel must remain on board during lo
to handle any emergency situation and adequate deck watch mu
maintained on a 24 hour basis.

5. For proper light ship survey vessel must arrive suitably tri
and sufficiently submerged both fore and aft.

6. Ballast tanks must be either full or empty and all cargo holds
be totally devoid of any ballast.

7. Please also ensure vessel has all certificates in order, includ
Pollution Certificate (Certificate of Financial Responsibility).

General: Please obtain Master's acknowledgment and confirma
all above. Advise Master that Pilot Station is located Lat. 59° 3
Long. 151° 24.5' W. Master should cable ETA Homer Pilot Sta
Agent.

Master to monitor ITT KFS (San Francisco) while in transit. If sh
telex on board, please provide number.

Rental mooring lines available at U.S.$300 each plus lo
unloading costs of U.S.$1800. Advise how many lines onboa
Agent will request funds based on how many rental lines necess

Berth Operator sometimes makes exceptions to restrictions on
by case basis.

IFO fuel is virtually unobtainable in Alaska. While there is one s
at Kenai (and none elsewhere in Alaska), they have a long stand
firm 5,000 bbl. minimum requirement with no exceptions.

Vessel will vacate berth during purging and will either purge at
off berth or at Homer.

Load rate 400 tonnes/p.h., except during purging, when rat
slower.

Confirm vessel has Letter of Compliance issued by Coast Gu
that vessel has been licensed to carry propane/ammonia simulta

REPAIRS: Repairs of a minor nature can be carried out in Hom

Small machine shop also available in Homer.

FRESH WATER: Available by barge from Homer at a cost of U.S
per ton (minimum supply 150 tons). For supply contact Cook Inle
(Tel: 235-8086).

FUEL: Only available if minimum 5,000 bbls. ordered from Tes

TELEPHONES: Saling Ship Services can arrange a cellular tel
for Master when acting as the vessel's Agent.

TRANSPORTATION: Highway to Anchorage and Homer. Air t
available.

SERVICES: Saling Ship Services (See "Agent") can supp
stores (fresh provisions, rice, flour, dry goods and soft drinks
bonded stores). Saling can also arrange liferaft inspection.

GARBAGE DISPOSAL: Drums are placed on board, and
plastic bags should be placed in the drums.

GENERAL: Port is open all year. Winters vary, some being mild and some being severe. The port has had ice in years past from November till March.

Currents are between 4.0 knots and 6.5 knots.

Kenai is a town of 5,000 people with several banks, supermarkets, a mall, dental and medical offices. The Central Peninsula Hospital is located in Soldotna, a small neighbouring town 12 miles away. Kenai also has several motels, a theatre, book store and post office. Excellent fishing during June, July and August. Fresh salmon available during this time.

OPERATIONS GUIDE – NIKISKI MARINE TERMINAL COMPLEX:
This guide (not producted in full) establishes voluntary procedures that are designed to optimise the safety of marine operations directly related to all marine terminals existing in the Nikiski area.

Berthing Priority:

(A) Priority of berthing at a specific wharf will be established by the Terminal Operator. This sequence will be established and conveyed to subject vessels well before they approach the Terminal area, e.g. before passing Anchor Point or before departing Drift River or Anchorage.

(B) Priority for ships proceeding to different wharves will be established by mutual agreement between the Masters and Pilots of ships proceeding to the Terminal Area. This agreement will be reached by the time either of the vessels is within 10 miles of the Terminal.

(C) Upon mutual consent, the Marine Terminal Operators may impose an operational priority to override the sequence established in (B) above. In this case, onshore plant operations would be dictating a sequence change that is necessary to prevent curtailment of operations. Instructions regarding changes will be conveyed to vessels concerned prior to their approach to Anchor Point or departure from other Cook Inlet berths.

Approaches and Departing Marine Terminals:

(A) All movements inside the priority area is governed by existing USCG Colregs 72.

(B) Before arriving within 10 miles of the Terminal Complex, the incoming vessel will establish its intentions, and determine the intentions of other vessels in the area by bridge-to-bridge communications.

(C) An anchor may be used to assist with approach, but once moored, the anchor should be weighed.

(D) Summer Rules shall apply during the ice-free periods. Each marine terminal will establish its own procedures that protect the safety of the vessel and other marine terminals.

(E) Upon mutual consent, the Committee will establish a date after which all vessels entering Cook Inlet shall be prepared to comply with "Winter Rules". This date shall be selected in advance of actual enforcement of the rules to give ship's Agents and Owners adequate time to prepare for these special conditions.

(F) "Winter Rules" will be declared in force when there is free ice floating in the Inlet, in sufficient amount to cause hazard to shipping under any circumstances of weather and tide. They will remain in force for the duration of the Winter, and will be cancelled upon a mutually agreed date. The starting date for this enforcement will be established by mutual agreement of the Committee, and all ship's Agents and Owners will be notified.

The special rules that will apply under "Winter Rules" are as follows:

1. Berth so as to stem the worst ice condition to be expected. Since the ice flow is heavier on the flood, this generally means the vessel should approach the Wharf port side to.
2. Where applicable, manipulate ballast and cargo to keep sea suction and propeller below the ice, and keep trim to a minimum to prevent ice from sliding beneath the vessel.
3. No vessel will be permitted to proceed to berth that is not equipped with sufficient mooring lines of good quality to provide a safe tie-up. In heavy ice conditions, it may be necessary to double or triple the normal mooring line requirements. It is the responsibility of each Terminal Operator to confirm this requirement in advance with shipping companies intending to use their facility. However, the Terminal Operators are responsible to advise on ice conditions only, and are not responsible for providing or causing to be provided adequate lines aboard ships.

(G) Each Terminal is equipped with VHF Channel 7A. The intent is that this channel be used for all communication with the individual terminals during arrival and departure manoeuvers.

(H) Each terminal is also equipped with VHF Channel 10. The intent is that this channel be used for communications involving ship-to-shore loading/discharge operations.

At Berth:

(A) Ships, tugs and marine terminals will maintain a means of two-way voice communication between the person in charge of the transfer operation on the vessel/tug, barge and the Marine Terminal Operator.

(B) Under "Winter Rules", the ships must maintain the necessary watch in engine room and bridge to permit immediate manoeuvring response and anchors will be ready for immediate use.

(C) Under "Winter Rules", the Terminal will be prepared for immediate suspension of cargo operations and to cast-off mooring lines. Under circumstances such as restricted visibility due to darkness or fog conditions, it may be necessary to proceed to a standby condition with cargo operations suspended and cargo systems disconnected in readiness for cast-off orders. The casting-off shall at all times be at the direction of the Officer-in-charge of the vessel.

(D) Under "Winter Rules", steam propulsion ships should take these special precautions:

1. Maintain sufficient ballast or cargo aboard, so that sea suctions and propeller are below the level of any ice.
2. Provide an emergency supply of water or steam to the condensers, so that any slush-ice taken in can be melted or flushed away immediately.
3. Establish precautions to insure that fuel does not freeze, and that temperature is sufficient to provide immediate flow of fuel to all burners in the event of an emergency. This precaution includes the fuel supply for the emergency generators.
4. Keep steam flowing through steam drive equipment on deck.

(E) Under "Winter Rules", vessels/tugs with internal combustion engines used as main propulsion units shall maintain such in immediate readiness for use:

1. Starting air to be peaked in all tanks.
2. Cooling water shall be heated and ready for circulation in main engine.
3. Lubrication oil for the main engine to be in readiness for service.
4. Fuel system on main engine to be purged and ready for instant use.

(F) Except in an emergency, repairs that immobilise the ship shall not be undertaken while moored to the dock. When emergency repairs are needed, they will first be authorised by the Manager of the shore facility and the Captain of the Port, U.S.C.G.

(G) While a ship is at its wharf, each terminal will maintain a portable VHF unit equipped with Channel 7A at the wharf. This will be used to communicate emergency messages to other terminals as regards ship movements.

Departure:

(A) Departure shall be timed so as to utilise the tide for maximum safety. Reasonable effort shall always be made to depart into the current.

(B) When moored port side to and leaving during the ebb tide (or conversely when moored starboard side to and leaving during the flood tide), the current should be carefully considered, so that the vessel is in good control, and has adequate clearance when passing the berth immediately to the South (or North).

(C) Approximately 30 minutes prior to its departure, and again at time of departure, the ship shall announce its intentions on VHF Channel 16, so that other ships and terminals in the area are alerted.

(D) Approximately 30 minutes prior to ship's departure, the Terminal Representative will announce to other terminals the ship's intentions. This announcement to be made on VHF Channel 7A.

(E) Care shall be taken in establishing estimated departure time (ETD). This is important, as these times will be used by incoming or passing vessels in determining their best course to minimise hazard in their approach to the Terminal area.

SHIPMASTER'S REPORT: July 1985 (Updated 1992).
Unocal Chemicals and Minerals Dock: (Formerly Collier Pier):
In addition to the comments on the "Plan", which see; the following notes are to be considered as a advice to those entering the Port of Nikiski:

Mooring without tugs. There is a 24 hour mooring service.

No mooring during slack tide.

Currents from up to 1.5 knots to 6.0 knots experienced.

Whilst mooring present bow first as near as possible to the pier at an angle of about 25° to the pier.

Firstly pass 2 spring lines and 2 head lines forward, engines running ahead for riding off the current.

It is most important during the entire mooring operation to hold both forward springs and both head lines tight.

Send out 2 breast lines forward; tighten; put both head lines on the bitts making sure not to allow any slack.

Send out 2 spring lines and two stern lines aft and tighten.

Send out 2 breast lines aft as soon as both stern lines are on the bitts and heave the stern along. Keep both aft springs tight at all times.

Note: Ships loading urea have to shift alongside when changing to another hatch, as the conveyor belt is a single point loading type.

Whilst shifting along the pier be aware of strong currents, or ice in Winter season getting caught between pier and ship's bow.

SHIPMASTER'S REPORT: October 1987 (Updated 1992).
Unocal Chemicals and Minerals Dock: This dock is the Southernmost dolphin berth and extends into the sea for approximately 800 m. It has a fixed loader for Urea. Ammonia gas is also loaded at this berth.
Anchorage: No anchoring allowed off Nikiski or Kenai. If the vessel has to vacate the berth for a priority vessel/barge, the vessel is taken back to Homer, a distance fo 84 nautical miles.
Berthing: Well handled by Pilots, making use of the tidal streams. No tugs available. The tidal stream runs at up to 6 knots and the range of the tides are up to 28 ft. For this reason a vessel is moored with a total of 14-24 ropes, depending on size of vessel and weather conditions. Extra ropes can be hired and put on board at Homer Pilot Station.

Shifting alongside: This is only possible shortly before the changing of the tide. At all times have engines ready. Shifting up to 50 m. (2 holds) is not too difficult. We shifted from Hold No. 1 to No. 5 (100 m.) which took us about 3 hours. This is a much bigger operation than mooring as all ropes have to be shifted and there are only 4 men available ashore to assist. Also, by the time we finished there was already a strong flood tide running. When shifting over such a distance, I advise vessels to make use of a pilot.
Ice/Winds: According to pilots, some ice in Winter which makes berthing even more difficult. Strong southern winds may cause swell alongside.
Bunkers: Apparently fuel is available at another dolphin berth when unoccupied, but probably expensive.
Provisions: Ship chandlery service is available (Saling Ship Services). No vehicular access to the vessel. Provisions transported on small car which runs through narrow 1 km. tunnel to the gate. This is also used by the crew.
Loading: Loading rate approximately 500 – 700 tonnes/hr. The figures of a draft survey are taken for the final cargo loaded.

SHIPMASTER'S REPORT: February 1993 (Updated 1994).
Cook Inlet: Homer/Kenai (Nikiski).
Charts: NOAA 16640, 16645 and 16660.

General: Homer, at the entrance to Katchemak Bay, where it joins Cook Inlet, is the entrance point for ports in Cook Inlet, including Anchorage.

Homer is the pilotage point for the Inlet and affords a good anchorage and essential services. Three tanker/urea berths are situated on the East Bank of the Inlet at Nikiski, about 8 miles above the town of Kenai, which is some 80 miles above Homer.

Cook Inlet is navigable all year round by normal trading merchant vessels, but during Winter "slush", first year ice builds up above Cape Ninilchik (60° N.), when extra precautions should be taken. There is no icebreaker assistance in the Inlet.

Pilots: Main Pilot Station in Cook Inlet is at Homer where a despatcher is on duty 24 hours, although Pilots are generally not on standby here as they operate from home. Two pilot cutters are stationed at Homer, "Mary Dele" and "Katmie". The former is a red hulled craft on the lines of a fishing smack with ice strengthened hull and is used during the Winter months. During period April through to December, the "Katmie" is used, constructed of aluminium and faster than "Mary Dele".

Channels 16 and 10 are monitored by the despatcher throughout 24 hours. Normally 24 hours is required to arrange a Pilot, although sometimes a Pilot can be obtained within 6 hours. Pilots normally fly into Homer from Anchorage. All Pilots were found to be very competent and helpful.

One Pilot is used for the passage and berthing at Homer up to Nikiski or Anchorage.

Pilot boards off Coal Point.

Pilotage is compulsory for anchoring inside Katchemak Bay at Homer.

Transit time Homer to Nikiski and vice versa is about 6 hours, depending on Winter ice which can extend time to 8 hours.

Anchorage: If waiting for a berth in Cook Inlet, the recognised anchorage is in Katchemak Bay under pilotage, about 2 miles East of Coal Bay in 30 fathoms.

Fairly well sheltered, except in N.E. winds, which come whistling down Kamchatka Bay. Holding ground is good.

Vessels generally do not anchor in the Upper Cook Inlet, unless in emergency.

Tugs: At Homer, one tug of 800 h.p. available. Generally no tugs are available at Nikiski. At anchorage, there are reported to be two tugs of moderate power, but of little use in ice conditions.

Currents: Strong in the Upper Cook Inlet. At Nikiski, tidal current of up to 5.8 knots on the flood.

Berths: Nikiski: Three berths for tankers and urea ships. All are at jetties in the Inlet. The most Northern is about 1.5 miles South of East Foreland and is owned by Kenai Pipeline Co. (supplies mainly to Chevron), and is suitable for tankers of up to 120,000 d.w.t.

Just South is the LNG dock owned by Phillips and used for LNG exports to Japan.

About 2.5 miles South of East Foreland is Unocal Dock, owned by Unocal (Union Oil Co. of California), for the export of liquid ammonia and urea, and import of caustic soda and sulphuric acid for plant use. Actual size is considered by the Terminal as a "one off" before charter accepted.

Unocal's comment:
Quote:

1. Ships exceeding 650 ft. in length or 35,000 deadweight long tons should be considered only under special circumstances and their use must be specifically approved by the Manager of Manufacturing.
2. Ships smaller than 650 ft. in length or less than 35,000 deadweight long tons, which meet all other conditions specified herein, can be chartered without prior plant approval during periods of Summer conditions only.

Unquote.

Berthing is port side alongside at all berths against the flood tide.

For Unocal Jetty, a portable shore gangway is provided, tended by Terminal personnel, generally pulled onshore at the height of the flood and at very low water.

Berthing: Always on the flood tide. Berthing window is 30 minutes into flood tide to 2 hours into flood in Winter and 3 hours in Summer. Departure is as soon as the flood commences until 4 hours into the flood.

Starboard anchor is let go on approaching the berth, and generally 2 shackles are used.

Tides: Flood is always the strongest, and can run at 6 knots in Springs with a range of 25 ft.

Density at Nikiski is brackish. Water changes density around Ninilchik (60° N.).

The water temperature at Nikiski was found to be about 10° colder than at Homer (February).

Ice: During Winter, slush and first year ice builds up to maximum during February and March. Generally it does not come South of a line from Cape Douglas to Cape Ninilchik, except in Homer Harbour. With the prevailing N.E. wind, the ice tends to concentrate on the Western shore of the Inlet.

Alongside Unocal Dock (Nikiski), the flood tide brought the heaviest concentrations, blocking sea suctions for up to 5 hours. As soon as the ebb commenced, the ice tended to clear and suctions became clear. In general, the ice is of no physical danger (apart from blocking suctions) to normal merchant vessels. It will slow the vessel down during transit of Cook Inlet, and put extra pressure on moorings of vessels moored at the 3 docks at Nikiski.

Pilots report that vessels have had their engines at full ahead at the height of the flood with a lot of ice, to relieve pressure on the moorings. We went to slow ahead for 4 hours on the flood tide.

Sometimes in February and March, when ice has formed from N.E. winds, then wind changes to S.W., which raises the temperature and brings heavy snow, which lays on top of the ice. The wind then again changes to N.E., which drastically lowers the temperature, freezing the snow and slush ice in the Inlet. In these conditions, the ice bec very hard and thick and navigation can become a hazard.

At Homer in Katchemak Bay, ice forms in Coal Bay in Winter. T no hazard to vessels calling for a Pilot or going to anchor, bu nuisance to the pilot cutter and any service craft getting in and the harbour.

Pilot boarding delays can occur.

Ice Precautions: Normal merchant vessels berthing at Nikis Anchorage during January through March are required to have, U.S.C.G. and Jetty Regulations, the following:

1. Main engine power available at all times.
2. Continuous officer manning of deck and engine room.
3. Extra moorings – Unocal require 22 lines out (each end 4×4
   Extra lines can be hired at Homer and returned when outb Hire cost is large and lines are difficult to handle, best for ves be equipped with its own lines.
4. Suctions must be kept continuously clear, or vessels must internal cooling water recirculation provided for generators and engine.

From experience and talking to other vessels, also found the follo precautions advisable:

5. Ballast should be completely salt and should be kept m continuously, pumping in and out.
6. Adequate steam heating for bunker tanks and fuel systems.
7. Adequate heating for fresh water systems and tanks.
8. Cargo compressors to run continuously or heating lamps p alongside.
9. Steering gear to be continuously run or heating lamps plac space.
10. Winches to be run continuously.
11. Tank level gauges that contain an oil bath to be drained.
12. Radar scanners to turn continuously.
13. Accommodation to be well heated (not only for personnel), t prevent fresh water systems freezing up.
14. Complete thermal protection clothing for personnel, no "Parkas" which are totally inadequate. (Editor's Note: Winter clo (hats, gloves, heavy overalls and insulated boots) can be sup by Agent at 4-5 days notice).

Weather: During the Winter months and especially January th March, extreme sub-zero temperatures can be encountered as v moves up Cook Inlet. We encountered −20°C with a biting N'ly but −40°C is not uncommon. In general −10°C is normal in W along with the N.E. wind which gives a low chill factor.

The approaches to Cook Inlet bring Northerly winds of up to 60 or more with freezing spray.

At Homer, we found the temperature to be some 10°C warme in Upper Cook Inlet.

Mooring: Vessel approaches Unocal and other Cook Inlet berths starboard anchor as a "dredge" against the flood tide. Spring lines first, then breasts, then head lines, all onto quick release hooks.

Pilot puts vessel alongside dock before lines are passed o heaving line.

The normal time for Winter mooring is a minimum of 4 hours and 1 hour to let go.

Mooring can be undertaken on a 24 hour basis, but if the vess any defects, U.S.C.G. will only allow daytime movements.

Loading: Nikiski: Ammonia loading is through 2 pumps, each cap around 270 tonnes p.h.

In actual fact, we found with one pump maximum rate was 300 tonnes p.h. and with 2 pumps around 450 tonnes p.h.

Terminal has difficulty controlling rate outside one or two pum

Terminal undertakes all connection and disconnection (12 in. Ch with hydraulic clamps).

In Winter ice conditions on flood tide, Chicksan is often discon for around 4 to 5 hours.

Communication is by VHF Channel 10. Terminal will loan porta

Urea ships have to shift backwards and forwards along jetty loading boom is fixed. Very tiresome and prolonged in Winter.

Terminal very cooperative and helpful.

All controls are from cabin on jetty. Normal shift ashore on some 5 men who handle all moorings, maintenance, gangway,

Sulphuric acid and caustic soda is discharged through separ Chicksans next to the NH_3 Chicksan.

Fresh Water: Carriers should be notified that water and provis be available at the Kenai Wharf.

At Homer, water is piped to City Dock, but not to Deep Wat (Harbour Master said pipe to be layed on in 1994).

At Homer, water is obtainable by barge by giving 36 hours n Winter, less in Summer. Cost is U.S.$ 15.0 per long ton, and minimum quantity is 150 tons, but can be negotiated down to 5

Stores: Provisions are obtainable both at Homer and Kenai f local supermarket. Both stores open 24 hours. The superma deliver alongside or to launch landing. At Unocal, access to th by small personnel/stores trucks operated by Wharf Terminal pe who will deliver alongside vessel. General merchandise available at both locations (Agent very helpful and will assist).

Repairs: No repairs allowed to main engine at Kenai/Nikiski. R be undertaken at anchor at Homer.

There are small machine shops at both Homer and Kenai, an motor rewinding possible at Kenai.

Fuel: MDO/Gas oil available by tank truck from local storage (an efficient operation). We took 180 tonnes in 6 hours from small trucks whilst alongside Ocean Dock.

Airport: Both Homer and Kenai have local airports with flig 2 hours to Anchorage, from where regular flights to Seattle Int can be obtained.

Since the "Opening up of Russia", very few trans-polar fl through Anchorage on their way to Europe and Far East.

General: Seattle is the gateway to Alaska from the U.S.A. for all spares, service not immediately obtainable in Anchorage.

Very scenic and tremendous fishing.

At Homer anchorage, the pilot boat can be hired as a shore leave boat for U.S.$ 170.0 per round trip.

Telephone: Public telephone in jetty control cabin at Unocal (Nikiski).

At Homer, telephone at City Dock and 2 telephones about 500 m. from base of Ocean Dock.

Extra telephones are connected at Homer in Summer.

Notice: To all Vessels Transiting Upper Cook Inlet, Alaska. Captain of the Port Order 16-92: "Special Vessel De-icing Procedures for Upper Cook Inlet".

Since 1st December 1992, 2 laden and one ballasted tank ship have suffered full or partial loss of power, due to power plant cooling system icing and subsequent power plant failure, while transiting Upper Cook Inlet.

These incidents appear to be caused by "slush" ice inducted into the vessel's intakes.

Action:

Effective immediately and until this order is rescinded, all vessels requiring a State of Alaska or federally licensed Pilot to Transit Cook Inlet, shall comply with the following requirements, as a minimum, while transiting Upper Cook Inlet, Alaska:

(1) Engine cooling water shall be supplied via "low sea suction", if available.

(2) A closed internal system of engine cooling water circulation, or a means of applying sufficient heat to the engine cooling water intake, to prevent ice from clogging the intake, shall be used.

If the vessel's physical dimensions permit:

(3) Maintain a minimum forward draft of 1.8 m. or 6 ft., and a minimum after draft of 1.8 m. or 6 ft. above the propeller blades.

For the purpose of this order, "Upper Cook Inlet" is defined as the waters of Cook Inlet North of Lat. 60° 20' N.

Signed: M.R.Miller, Captain, U.S. Coast Guard, Captain of the Port, Western Alaska.

AUTHORITY: *Operators:* Unocal Chemicals and Minerals Division, P.O.Box 575, Kenai, Alaska 99611. *Tel:* (907) 776-8121. *FAX:* (907) 776-5579. *Contact:* E.L. Burcham, Supervisor – Shipping. Lewis L. Rich, Operations Superintendent.

Phillips Petroleum Co., Drawer 66, Kenai, Alaska 99611. *Tel:* (907) 776-8166. *FAX:* (907) 766-6040. *Contact:* L. Porter, Supervisor – Vessel Operations.

Kenai Pipeline Company, P.O.Box 5555, Kenai, Alaska 99611. *Tel:* (907) 776-5555, 776-8711. *Contact:* O.E. Jackson, Operations Supervisor.

NORTHPORT, New York: 40.57 N. 73.20 W. **(See Plan)**

LOCATION: The Northport offshore oil discharge facility is operated by the Long Island Lighting Company. It is located in Lat. 40° 57' 15.4" N., Long. 73° 20' 29.6" W., approximately 10,000 ft. offshore from the power station, and approximately 2.6 miles East of Eatons Neck Point.

APPROACHES: *Approaches to Pilot Station and Transit to Northport:* On approaching Block Island from the South, Block Island's high Southern shore provides a good radar target. Also, bearings can be taken from the RDF station at Southeast Light.

It is advisable to remain at least 1 mile to the East of Block Island due to the numerous shoals close in shore.

There are several dangers to be wary of when making the passage from the Pilot Station to Northport.

Block Island North Reef Buoy "1B1" marks a dangerous shoal and should be passed well clear.

The Race is a narrow channel into Long Island Sound. Strong East to West currents occur during maximum ebb or flood and knowledge of position should be maintained in view of the possibility of unusual set. Valiant Rock may be passed on either side.

Caution should be exercised during the Summer months when transiting through Block Island and Long Island Sound in view of the heavy small boat traffic, especially in the area in proximity to The Race.

Dense fog is prevalent during the Summer months.

Good water is found in Long Island Sound from The Race to Northport as long as the mid-channel buoys "P1" and "CF" are passed close by and care is taken so as not to pass North of "Twenty-Eight Foot Shoal" Buoy. "Stratford Shoal" should be passed to the South.

In the event that adverse weather restricts berthing, vessels should anchor, if necessary, North and East of the facility to avoid electric cables on the bottom. The submarine cables lie West of the facility and are shown on Chart No. 12363.

PILOTAGE: Pilotage is arranged by the vessel's Agent. A Pilot will be required to standby aboard vessel throughout transfer.

Vessels approaching from Block Island embark Pilot about 2.5 miles South of Point Judith.

U.S. flag vessels under enrolment approaching from Block Island embark Pilot 1.4 miles East of Old Harbour – Block Island.

The pilot boat 'Rhode Island Pilot' or 'Northeast Pilot' should be called via VHF Channel 16 approximately 1 hour prior to arrival at the Pilot Station.

ANCHORAGES: All vessels are advised that 7 submarine electric cables lie West of the facility, as shown on USC & GS Chart No. 1213. To avoid any possibility of damage to these cables, vessels should anchor (if necessary) North and East of the facility.

RESTRICTIONS: Berthing of vessels shall be limited to 1.5 hours prior to and 30 minutes following high slack water, and shall be prohibited when winds exceed 20 knots.

MAX. SIZE: The maximum size vessel for which the Long Island Lighting Company can presently provide a safe berth, is a ship with a loaded displacement tonnage not to exceed 70,000 long tons and meeting all of the additional parameters as follows:

Hull Design:	Welded construction only.
Cargo Holds:	Compartmented.
Max. Length overall:	825 ft.
Max. Draft:	40 ft. at H.W.
Max. Beam:	144 ft.
Rail to Manifold:	15 ft. maximum.
Loaded Freeboard:	10 ft. minimum.
Light Freeboard:	40 ft. maximum.
Number of Mooring Lines:	20 independent lines.
Bow to Manifold:	50% of LOA.

RADIO: *ETA:* Vessels are required to send ETA message 72, 48 and 24 hours in advance of arrival at Block Island Pilot Station. These messages are to be sent to Agent in New York. Advise arrival draft (salt water) in initial message.

VHF: Pilots can be contacted on VHF Channels 16, 13 and 18A.

TUGS: A minimum of 2 tugs are required for mooring and a minimum of 1 tug for unmooring. Terminal requires 1 tug in attendance while vessel is alongside. A launch is provided by terminal to run vessel's lines to the mooring buoys. Launch will stand-by throughout operations.

BERTHING: *Precautionary Weather Information:* There is a history of repeated breakouts in the New York area due to sudden wind shifts accompanied by strong and gusty winds. Vessels alongside the platform must insure that mooring lines are taut and properly tended at all times and that winch brakes are properly set. Vessels are strongly advised to maintain a VHF weather watch and to shut down operations if weather conditions warrant.

The terminal requires suspension of transfer operations and clearing of the berth whenever sustained winds of 45 m.p.h. or greater are anticipated. Southerly winds (off the platform) of 30 m.p.h. may require similar action. The terminal is equipped with an anemometer. Similarly, heavy swells may require the suspension of transfer operations.

Berth Facilities: The berth consists of 3 concrete platforms and 6 mooring buoys. The 2 outer platforms provide a breasting face of 310 ft. The centre platform is fitted with 2×12 in. Chicksan arms for fuel oil unloading, and is 19 ft. above Mean Low Water.

A quick flashing white light is located 26 ft. above the extreme outboard end of each breasting platform.

Each mooring buoy is fitted with a quick release hook.

Berthing Operation: Vessels approach Sea Berth stemming current and/or wind.

Berthing port side to is recommended, weather permitting.

Moorings: It is imperative that the vessel remains in position alongside the berth. LILCO considers the minimum safe mooring for this berth to be as follows:

1. Two lines to buoy "A" (synthetic or steel).
2. Two lines to buoy "B" (synthetic or steel).
3. Two lines to buoy "C" (steel preferred, synthetic acceptable).
4. Two lines to buoy "D" (steel preferred, synthetic acceptable).
5. Two lines to buoy "E" (synthetic or steel).
6. Two lines to buoy "F" (synthetic or steel).
7. Two bow springs to one breasting platform bollard (steel preferred, synthetic acceptable).
8. Two stern springs to the other breasting platform bollard (steel preferred, synthetic acceptable).
9. Two lines from well deck to East breasting platform bollard (synthetic).
10. Two lines from well deck to West breasting platform bollard (synthetic).

Note: There shall be no mixing of wire and synthetic lines on any one buoy.

A boat will be provided by LILCO to handle the vessel's lines to the mooring buoys. Personnel will be provided to handle the vessel's lines to the breasting platform bollards.

Warping winches must be adequate to handle mooring lines under heavy strain. Stoppers must be readily available to stop off mooring lines for transfer from winch to bitts without loss of tension. Mooring lines secured on surge or tension winches are prohibited; any line on a winch must be set tight using the brake only.

CARGO OPERATIONS: The Chicksan arms are designed to permit fore and aft drift and some lateral movement. However, vessel should maintain position at all times. Failure to observe this will result in suspension of operations and disconnection of unloading arms. Ship's crew connect and disconnect arms.

Ships equipped with inert gas systems shall have such systems in operation prior to berthing, throughout the transfer and until the ship is released from the facility and underway.

A responsible member of the ship's crew, *capable of speaking and understanding the English language,* must be available on the vessel's deck to take any remedial action necessary to maintain safe and efficient cargo transfer.

FRESH WATER/FUEL/STORES: Bunkers and fresh water are not available ex-berth. Stores cannot be loaded from dock.

Transfer of bunkers from barge is not permitted while alongside.

MEDICAL: There is a hospital in Huntington, New York, Tel. No. 516-351-2000. Medical attention must be arranged by the vessel's Agent. The nearest United States Public Health Service Marine Hospital facilities are in New York City, which is approximately 45 miles West of Northport.

GENERAL: *Fire Fighting Facilities:* The terminal has very limited fire fighting equipment. 4×100 lb. CO_2 extinguishers are provided; no fixed fire fighting gear is available. The standby tug is fitted with a low capacity fire pump hose.

Fire wires should be hung, one forward and one aft, on the offshore side for easy reach by a tug in case of fire.

The tanker should have all fire fighting equipment aboard in readiness to combat any fire that may arise.

Pollution: All U.S. harbours have stringent pollution regulations forbidding the discharge of oil into harbour waters or the emission of heavy smoke. Long Island Sound is a particularly sensitive area and all anti-pollution regulations are rigidly enforced. In the event of an emergency or pollution, the Agent should be contacted immediately.

Launch Service: LILCO does not provide launch service for ferrying of ship's personnel or stores. Vessels must make their own arrangements for such service. The LILCO standby boat is for the exclusive use of LILCO personnel, and will not be used for launch service. The LILCO standby boat will be used for initial boarding upon arrival.

Customs and Immigration: Northport is a Port of Entry whenever a vessel docks without first calling at another United States port. Entry and clearance must be arranged by the vessel's Agent. The appropriate authorities in New York City must be advised well in advance of the vessel's arrival; 24 hours advance notification is recommended as a minimum.

AUTHORITY: Long Island Lighting Co., Northport Power Station, Waterside Avenue, Northport, N.Y. 11768. *Tel:* (516) 262-2200. *FAX:* (516) 262-2282. *Contact:* Brian T. McCabe, Chief Engineer.

OAKLAND, California: 37.50 N. 122.18 W. (See Plan)

See "San Francisco" *for Documents, Pilotage, etc.*

RESTRICTIONS: Minimum depth in harbour 38 ft. Tidal range 5.6 ft.
HEALTH: See "Health: all Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: 4,200 h.p. – 9,000 h.p.

American Navigation Co., Inc. – to 4,000 h.p. Tel: (510) 957-9005.
Bay Delta & Towing. Tel: (510) 441-4677.
Crowley Maritime – to 9,000 h.p. Tel: (415) 546-2600.
Oscar Niemeth Towing, Inc. – to 4,300 h.p. Tel: (510) 893-0231.
Tweed Towing, Inc. – to 4,200 h.p. Tel: (510) 233-4213.
San Francisco Bar Pilots Association. Tel: (415) 393-0457.

BERTHING:

Outer Harbour:

Bay Bridge Terminal: Berths No. 8, 9 and 10 (General cargoes, steel, autos, containers). For information call Port of Oakland.

3 Berths:
Berth 8: Length 304 m.
Berth 9: Length 366 m.
Berth 10: Length 256 m.
Deck Height: 4.3 m.
Depth: 10.7 m.
Facilities: Accepts Ro/Ro barges, combination ships.
Services: Water, lights, fencing, taxi, telephone.

Multi-purpose cargo terminal designed to handle general cargoes, steel, autos and containers.

Temporarily inoperative due to 1989 earthquake damage.

Sea-Land Terminal: Berths No. 20, 21 and 22. (Containers; preferential assignment to Sea Land).

Operator: Sea Land Services, Inc., 1425 Maritime Street, Oakland, CA.94607. Tel: (510) 271-1000. Fax: (510) 271-1277. Terminal Manager: Karen Vaughn.

3 Berths: Total length 699.2 m.
Deck Height: 4.3 m.
Depth: 12.2. m.
Cranes: 4×30 ton container gantry cranes.
Storage System: Chassis.
Reefer Capacity: 250 outlets × 480V.
Total TEU Storage Capacity: Over 3,900.
Total Terminal Area: 26.5 hectares.
Services: Water, lights, fencing, taxi, telephone.

Yusen Terminal: Berth No. 23. (Containers; preferential assignment to NYK/NOL).

Operator: Yusen Terminals, Inc., 1195 Maritime Street, Oakland, CA. 94607. Tel: (510) 763-1080. Fax: (510) 763-5728. Terminal Manager: Edward Stellin.

1 Berth: Total length 274 m.
Deck Height: 4.3 m.
Depth: 12.2 m.
Cranes: 2×40 ton container gantry cranes.
Storage System: Port-packer, transtainer, chassis.
Reefer Capacity: 98 outlets (56×480V; 42×240V and 96 portable 240V).
Total TEU Storage Capacity: Over 3,200.
Total Terminal Area: 16.2 hectares.
Rail Spur for direct Transfer.
Services: Water, light, fencing, taxi, telephone.

Maersk Terminal: Berth No. 24. (Containers; preferential assignment to Maersk Line).

Operator: Maersk Pacific Ltd., 909 Ferry Street, Oakland, CA. 94607. Tel: (510) 835-7500. Fax: (510) 763-3545. Terminal Manager: Michael Bourgault.

1 Berth: Length 319 m.
Deck Height: 4.3 m.
Depth: 12.2 m.
Cranes: 3×50 ton container cranes.
Storage System: Chassis.
Reefer Capacity: 157 outlets × 480V.
Total TEU Storage Capacity: Over 2,700.
Total Terminal Area: 15.3 hectares.
Rail Spur for direct Transfer.
Services: Water, lights, fencing, taxi, telephone.

TransBay Container Terminal: Berths No. 25 and 26. (Conta preferential assignment to K-Line).

Operator: TransBay Container Co., 707 Ferry Street, Oak CA.94607. Tel: (510) 839-8228. Fax: (510) 444-6219. Ter Manager: Robert Bergman.

2 Berths: Total length 412.4 m.
Deck Height: 4.3 m.
Depth: 10.7 m.
Cranes: 2×40 ton container gantry cranes.
Storage System: Transtainer, chassis.
Reefer Capacity: 120 outlets × 240V. (capability for an 50 outlets).
Total TEU Storage Capacity: Over 2,400.
Total Terminal Area: 11.3 hectares.
Services: Water, lights, fencing, taxi, telephone.

7th Street Complex:

TraPac Terminal: Berth 30. (Container; preferential assignment to M OSK).

Operator: TransPacific Container Corp., 2800 Seventh Street, Ber Oakland, CA 94607. Tel: (510) 286-8600. Terminal Manager: Mi Porte.

Berth: Length 333 m.
Deck Height: 4.3 m.
Depth: 12.2 m.
Cranes: 2×50 ton container cranes.
Storage System: Chassis.
Reefer Capacity: 569 outlets × 480V.
Total TEU Storage Capacity: 2,500.
Total Terminal Area: 13.8 hectares.
Services: Water, lights, fencing, taxi, telephone.

Matson Terminal: Berths No. 32, 33 and 34. (Containers/break preferential assignment to Matson).

Operator: Matson Terminals, Inc., 3050 7th Street, Oakland, CA.94 Tel: (510) 271-9756. Fax: (510) 465-2803. Terminal Manager Dreyfus.

2 Container Berths: Total length 468 m.
1 Ro/Ro berth: 219 m. with concrete dolphins.
Deck Height: 4.3 m.
Depth: 10.7 m.
Cranes: 1×28 ton, 1×30 ton and 1×40 ton gantry container cra
Storage System: Straddle carrier, chassis.
Reefer Capacity: 460 outlets × 240V.
Total TEU Storage Capacity: Over 5,500.
Total Terminal Area: 26.5 hectares.
Services: Water, lights, fencing, taxi, telephone.

Marine Container Terminal: Berths No. 35, 37 and 38. (Container; user facility).

Operator: Marine Terminals Corp., 520 Third Street, Oakland, CA.9 Tel: (510) 891-0990. Fax: (510) 763-9086. Terminal Manager: Adam.

3 Berths: Total length 921 m.
Deck Height: 4.3 m.
Depth: 12.2 m.
Cranes: 3×50 ton and 1×40 ton container gantry cranes.
Storage System: Port-packer, transtainer, chassis.
Reefer Capacity: 192 (portable) × 480V.
Total TEU Storage Capacity: Over 3,700.
Total Terminal Area: 19.6 hectares.
Services: Water, lights, fencing, taxi, telephone.

Berth 40: General cargo, contact Port of Oakland.
1 berth: 188 m. in length.
Deck Height: 4.3 m.
Depth: 10.7 m.
Restricted capability due to earthquake 1989.

Middle Harbour:

American President Lines: Berths No. 60, 61, 62 and 63. (Con preferential assignment to APL).

Operator: Eagle Marine Stevedoring, 1395 Middle Harbour Oakland, CA. 94607. Tel: (510) 272-2010. Fax: (510) 272-7941. Te Manager: Robert Fairbanks.

4 Berths: Total length 836 m.
Deck Height: 4.3 m.
Depth: 11.6 m.
Cranes: 4×40 ton and 2×45 ton container gantry cranes.
Storage System: Chassis.
Reefer Capacity: 344 outlets, 151×240V, 193×480V.
Total TEU Storage Capacity: Over 4,500.
Total Terminal Area: 30.5 hectares.
Services: Water, lights, fencing, taxi, telephone.

Inner Harbour:

Howard Terminal: Berths No. 67, 68 and 69. (Containers; pu facility).

Operator: Stevedoring Services of America, 1 Market Street, CA.94607. Tel: (510) 271-1815. Fax: (510) 451-4779. Terminal M Scott Thomas.

3 Berths: Berths No. 67 and 68: Length 500.5 m., plus 21.3 m.
Berth No. 69: Length 173 m.
Deck Height: 4.3 m.
Depth: 12.2. m.
Cranes: 2×40 ton and 1×50 ton container gantry cranes.
Storage System: Port-packer, transtainer, chassis.
Reefer Capacity: 144 outlets×480V.
Total TEU Storage Capacity: Over 3,000.
Total Terminal Area: 19.8 hectares.
Services: Water, lights, fencing, taxi, telephone.

Ninth Avenue Terminal: Berths No. 82, 83 and 84. (General cargo, steel, lumber; public user facility).
Operator: Marine Terminals Corp., 520 Third Street, Oakland, CA.94607. *Tel:* (510) 891-0990. Fax: (510) 763-9086. Terminal Manager: Ed Hewlett.
3 Berths: Berths No. 83 and 84: Total length 348 m.
Berth No. 82: Length 282 m.
Deck Height: 4.3 m.
Depth: 10.7 m.
Cranes: 4×100 ton mobile cranes.
Storage System: As required.
Reefer Capacity: As required.
Total TEU Storage Capacity: Limited.
Total Terminal Area: 8.02 hectares.
Services: Water, lights, taxi, telephone.

Schnitzer Steel Products: Private Berth. (Scrap metals).
1 Berth: 240 ft. at each of 2 pier faces.
Deck Height: 14 ft.
Depth: 33 ft.
Services: Water, light, taxi.

CRANES: Heavy lift cranes available:
Bigge Crane & Rigging – to 250 tons (mobile). Tel: (510) 638-8100.
Sheedy Drayage – to 225 tons (mobile). Tel: (510) 638-8100.
Dutra Construction – to 400 tons (floating). Tel: (510) 523-5925.
STEVEDORES:
Metropolitan California Stevedore Company. Tel: (213) 816-6500.
Levin-Richmond Terminal. Tel: (510) 232-4422.
Marine Terminals Corporation. Tel: (510) 986-6576.
Matson Terminals. Tel: (510) 271-9333.
Pasha Group. Tel: (510) 465-5668.
San Francisco Stevedoring Co. Tel: (415) 986-9545.
Stevedoring Services of America. Tel: (510) 641-8980.
FRESH WATER: Available.
FUEL: Available at dock or by barge.
Chemoil. Tel: (415) 956-3834.
Chevron. Tel: (415) 944-6287.
GP Resources. Tel: (415) 673-2928.
Shell. Tel: (800) 231-6990.
Texaco. Tel: (818) 505-2608.
REPAIRS: Major repairs and overhauls possible.
DRY DOCKS: Graving dock for up to 28,000 tons at Richmond.
AIRPORT: Oakland International Airport.
GENERAL: *Stores:* Deck, engine, stewards and in-bond stores available.
Port Users: APL, Australia-New Zealand Container Line, Blue Star Line, Canadian Transport Co., Chilean Line, Cho Yang, Columbus Line, COSCO, D'Amico Lines, DSR/Senator Lines, Evergreen Lines, Grancolombiana, Hanjin Shipping Co., Hapag-Lloyd, Hyundai, IMTL, Italian Line, 'K' Line, Maersk Lines, Matson Navigation, Mitsui OSK, Nedlloyd, NOL, NYK, OOCL, P&O Lines, PM&O, Pan Ocean Bulk, Polynesia Line, Sea Land Service, Star Shipping, Toko Line, Toyofuji, Yang Ming Line.
Heavy Lift Cranes:
Bigge Crane & Rigging. Tel: (415) 638-8100. Cranes up to 250 tons (mobile).
Sheedy Drayage. Tel: (415) 638-8100. Cranes up to 225 tons (mobile).
Dutra Construction. Tel: (415) 523-5925. Cranes up to 400 tons (floating).
Tugs:
American Navigation Company Inc. Tel: (415) 957-9005. Tugs up to 4,000 h.p.
Bay Delta & Towing. Tel: (415) 441-4677.
Crowley Maritime. Tel: (415) 546-2600. Tugs up to 9,000 h.p.
Bayside Dredging. Tel: (415) 893-0231. Tugs up to 4,300 h.p.
Tweed Towing Inc. Tel: (415) 233-4213. Tugs up to 4,200 h.p.
GARBAGE DISPOSAL: Alongside drop-box service available for any garbage-debris only. Contact Terminal Operator to arrange service, 48 hours advance notice required.
WASTE OIL DISPOSAL: Normally not available. Limited tank truck service available in emergency situations. Contact Terminal Operator.
SEAMAN'S CLUBS: International Seamen's Club, 7th Street, Oakland.
DEVELOPMENTS: In the calendar 1995, the port of Oakland handled 1,527,500 TEU's, which is a 2.5% increase over 1994.

The Port of Oakland's 42 ft. dredging project began in April 1995 and is scheduled for completion in October 1996. The port is now exploring options to expedite the process of deepening the channels to 48 ft. MLLW.

The port has acquired 130 acres of Naval Supply Centre property and will sign a 50-year term lease for another 295 acres in early 1996. This property is currently being used for transportation related industry. Future plans for the area include the development of the Joint Intermodal Terminal and new marine terminals.

Additionally, the port plans to acquire and control the harbour roadway system, to study the optimal use of the Oakland Army Base which is scheduled for closure in 1998, and to improve existing facilities.

AUTHORITY: Port of Oakland., 530 Water Street (P.O. Box 2064), Oakland, California 94604-2064, U.S.A. *Tel:* (510) 272-1100. *FAX:* (510) 839-6899. *Contact:* Raymond A. Boyle, General Manager – Maritime.

OGDENSBURG, New York: 44.42 N. 75.30 W. (See Plan)

Refer to "St. Lawrence Seaway" for important general information.
PILOTAGE: Seaway Pilot boards at Cape Vincent or Snell Lock and acts as docking Pilot.
ANCHORAGES: Anchorage area West of city at open roadstead area.
RESTRICTIONS: No tide. No restrictions other than Pilots' discretion as to wind and visibility.
MAX. SIZE: Largest vessel to enter 730 ft. long. Draft 27 ft.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
RADIO: Western Union to OCN Corp. VHF Seaway Channel via Maria Radio Cardinal.
TUGS: No tugs necessary.
BERTHING: By prior notice only. Port Authority Terminal, length 1,200 ft., depth 27 ft. One Grain Elevator capacity 500,000 bushels.
CRANES: Available, up to 82 tons capacity.
BRIDGES: Ogdensburg/Prescott International Bridge – 126 ft. clearance MWD.
STEVEDORES: Order by 1800 hrs. day preceding arrival. Advise any change of ETA.
MEDICAL: Excellent medical service and availability of doctors. No vaccination necessary.
DENSITY: Fresh water.
FRESH WATER: Available by pipeline at Port Authority Terminal.
FUEL: One day's notice, all grades. Diesel, Bunker "C", Kerosene.
REPAIRS: Limited dockside repairs available.
GANGWAY/DECK WATCHMEN: Normally not used.
OPENING/CLOSING HATCHES: By stevedores.
CUSTOMS ALLOWANCES: Tobacco, wine/spirits, normal Customs allowance U.S. Ports.
CARGO GEAR: 25 ton mobile crane, fork trucks to 13 tons capacity. Ship's gear to be in good working order.
REPATRIATION: Can be arranged.
AIRPORT: (0.5 mile from city). Chautaugua Airline – 3 flights daily to Syracuse, New York, etc.
TIME: Eastern Standard Time GMT minus 5 hours. Daylight Saving time in Summer GMT minus 4 hours from first Sunday in April till last Sunday in October.
HOLIDAYS: New Year; Washington and Lincoln's Birthdays; Memorial Day; 4th July. Labour Day, Veteran's Day.
POLICE/AMBULANCE/FIRE: Police, Tel: 393-1551; Ambulance, Tel: 393-1221; Fire, Tel: 393-1010.
TELEPHONES: Available at Pierside (315) 393-7580.
SHORE LEAVE: Crew members allowed ashore.
IDENTIFICATION CARDS: Needed as per Immigration Department requirements.
AUTHORITY: Ogdensburg Bridge and Port Authority, Bridge Plaza, Ogdensburg, New York 13669. *Tel:* (315) 393-4080. *FAX:* (315) 393-7068. *Cables:* Ogdenport. *Contact:* Salvatore L. Pisani, Port Director.

OLYMPIA, Washington: 47.00 N. 122.53 W. (See Plan)

PORT LIMITS: Vessel is to be considered an "Arrived Ship" at the Port of Olympia, Washington, when anchor is dropped in Budd Inlet or when the vessel is all fast at the dockside.
DOCUMENTS: See "Tacoma".
PILOTAGE: The vessel picks up Puget Sound Pilot at the Port Angeles Pilot Station located at the entrance to Puget Sound on the Straits of Juan de Fuca, and it is normal for the vessel's Agent to provide the Pilot Station with a 48-hour, 24-hour, 12-hour and 8-hour ETA. The Pilot Station monitors VHF Channel 13.
ANCHORAGE: Safe anchorage is located North of Olympia Shoal in 30 ft. to 45 ft. of water. Bottom is sandy and area is a sheltered inlet.
RESTRICTIONS: Channel depth 30 ft. MLW with a high tidal range of 14.4 ft. Also restricted turning basin of 800 ft. Vessels max. size would be governed by the turning basin of 800 ft. and draft of 30 ft. at MLW.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: "KPH" San Francisco or Mackay Radio, Everett "KLB".
VHF: The port monitors Channel 24.
TUGS: 2 Crowley Maritime tugs are berthed at the port. They use ship's lines to assist the vessel in turning at the turning basin and to moor.
BERTHING:
Berth No. 1 is a concrete dock with depth of 40 ft. MLW.
Berth No. 2 is a concrete dock with 40 ft. depth MLW.
Berth No. 3, is a concrete dock with 40 ft. depth MLW.
BULK CARGO FACILITIES: Presently discharged with ship's gear. Primary back-up cargo yard of approximately 30 acres handling coke, coal, pig iron, lumber, steel, foodstuff and palletised cargoes.
SPECIALISED CARGO HANDLING FACILITIES: Olympia has approximately 100 acres of open cargo yard; 33 acres are paved, however, it can be adapted for Ro-Ro traffic and is presently engaged in handling bulk cargoes such as coal, coke, etc.
Warehousing: Olympia has a 76,000 sq.ft. warehouse between Berths Nos. 1 and 2. The site has a 150 ft. apron from the face of the pier and is served by rail. In addition, there is another 40,000 sq.ft. of off-dock warehousing available for cargo storage. There is a rail ramp available.
BRIDGES: None pertinent to this area.
STEVEDORES: 3 stevedoring companies available in the Olympia area. Unlimited manpower available to load/discharge cargoes.

MEDICAL: Medical and hospital facilities are available without prior notification for emergencies; otherwise all medical and dental requirements can be taken care of by appointment.
TANKERS: No shore facilities for loading or unloading of tankers.
DENSITY: Salinity is on an average 29 parts per thousand.
FRESH WATER: Delivered to vessel by shoreside hose.
FUEL: Most grades available by barge from Seattle for fueling at dockside.
FIRE PRECAUTIONS: Standard for U.S. ports.
CONSULS: Most located at Seattle 60 miles to the North.
REPAIRS: All types of repairs possible.
DRY DOCKS: None at Olympia. Nearest 60 miles to North at Seattle.
SURVEYORS: Lloyd's, A.B.S., N.V. available out of Seattle area.
GANGWAY/DECK WATCHMEN: Not required at Olympia under most circumstances unless crew members detained.
CUSTOMS ALLOWANCES: Sufficient quantities of tobacco, wine and spirits are permitted out of bond for each crew member sufficient to cover length of stay anticipated at the time of arrival. Actual quantities are at the discretion of the boarding customs officer.
CARGO GEAR: Generally vessels are loaded and/or discharged using ship's gear.
REPATRIATION: Facilities exist for repatriation of crew members.
AIRPORT: Local airport service by commuter airlines only. Major international airport (Seattle-Tacoma) located 40 miles to the North.
TIME: GMT minus 8 hours. Daylight saving time in effect during Summer months, from first Sunday in April to last Sunday in October.
HOLIDAYS: Work is available on all holidays on an overtime basis on all days except Christmas, December 25th; January 1st, New Year's Day; July 4th and 5th; 4th Thursday in November (Thanksgiving).
POLICE/AMBULANCE/FIRE: Telephone dispatch for emergency services, the numbers 911 dialled on any public telephone.
TELEPHONES: Public telephones are located within 100 ft. of any berth, and cellular telephones are available for onboard vessel use.
SERVICES: Tank-cleaning, tank-washings, compass adjusting, etc., are all available from the Seattle area, located 60 miles to the North, and most services provide travelling repairs.
SHORE LEAVE: Crew are allowed shore leave by U.S. Immigration, depending on individual case.
IDENTIFICATION CARDS: Not issued by the Port of Olympia, and Seaman's Book is generally sufficient to allow Immigration to determine whether shore leave should be granted.
GARBAGE DISPOSAL: Service available from Seattle Disposal Co., 54 South Dawson Street, Seattle. Tel: (360) 763-2800.
WASTE OIL DISPOSAL: No service available.
SEAMAN'S CLUBS: None.
REGULATIONS: Similar to all North American ports; no special rules or regulations applied to vessels by the Port of Olympia. Rules are set forth in Tariff No. 8.
DELAYS: Only delays that should be encountered at the Port of Olympia would be in the event of berth congestion.
GENERAL: Rail Service: The Port of Olympia is served directly by the Burlington Northern and Union Pacific railroads.

Highway Access: The Port of Olympia is 0.7 miles from Interstate Highway 5, the major North-South highway on the West coast. Access to and from the Port is unobstructed.
AUTHORITY: Port of Olympia, 915 Washington Street N.E., Olympia, Washington 98501. *Tel:* (360) 586-6150. *FAX:* (360) 586-4653. *Contact:* Bill McGregor, Director of Operations.

ORANGE, Texas: 30.06 N. 93.44 W. (See Plan)

DOCUMENTS: Crew Lists, Passenger List and Customs Documents.
PILOTAGE: Radio to Agent, 12 hours and Pilots 2.5 hours in advance of ETA. Pilots contacted by VHF Channels 12 and 13. Pilots board at Sabine Pass, Sea Buoy position 29° 36' N., 93° 48' W. or upon request board at 29° 25' N., 93° 40' W. Pilot boats FM (VHF) Channel 65 – 156.275 MHz.
ANCHORAGE: Off Sabine Bar – 40 ft.
RESTRICTIONS: Sabine River Channel: Project depth 30 ft.; bottom width 200 ft., including slip at port; marked and lighted for 24-hour navigation. Turning basin, 1,000 ft.×3,000 ft.
MAX. SIZE: Length – no limit, breadth – no limit, draft – 30 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: RCA – Global Communications.
TUGS: Join vessel in port turning basin. Tug's line used, no charge.
BERTHING: 2,308 ft. mooring space to accommodate 4 deep-sea vessels; all concrete docks; additional berthing space in slip for laying-up 4 vessels. Lay-berth facilities also available.
STEVEDORES: 5 stevedore companies – handled through Agent.
MEDICAL: Local facilities – complete.
TANKERS: Limited to 30 ft. draft.
DENSITY: Brackish.
FRESH WATER: Ample fresh water, through 2.5 in. connection, rate of delivery about 500 gallons per minute.
FUEL: All grades available; 8 hours advance notice required.
FIRE PRECAUTIONS: No welding or burning without U.S. Coast Guard welding permit; also special authority required for ships loading explosives.
CONSULS: None available locally.
REPAIRS: Facilities available.
DRY DOCKS: Texas Drydock:
388 ft.×142 ft. 10,000 tons, 10 ft. 6 in. draft over blocks.
SURVEYORS: National Cargo Bureau, Inc., 550 Fannin, Petro Building, Suite 821, Beaumont, Telex: 77701.

American Bureau of Shipping, 398 Pearl Street, Goodhue Bu Suite 806, Beaumont, Telex: 77701.
REPATRIATION: Can be arranged through area Immigration.
AIRPORT: Local, no scheduled airlines. Mid-County Airport scheduled airline service – 30 miles.
HOLIDAYS: New Year's Day; Martin Luther King's Birthday; Independence Day; Good Friday; Memorial Day; Emancipation Independence Day; Labour Day; Veterans' Day; Thanksgiving Christmas Day; Any holiday which falls on Saturday or Sunday recognised on the following Monday. No work performed on Labou or Christmas Day.
POLICE/AMBULANCE/FIRE: Police Tel: 883-5654; Ambulance 883-6414; Fire Tel: 886-7431.
EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard tel: 983 8230.
TELEPHONE: Can be connected on board.
BANKS:

Orangebank, Orange, P.O.Drawer 969, Orange, Texas 77630.
STORING: See "Prelims".

1. Yes.
2. Yes.
3. Yes.

GARBAGE DISPOSAL: Garbage disposal restricted.

Contact: Browning Ferris Industries, 100 Ginger (P.O.Box 1056), Nederland, Texas 77627. Tel: 1-800-256-5598.
WASTE OIL DISPOSAL: Carotex Inc., 110 Yacht Club (P.O.Box 3901), Port Arthur, Texas 77642. Tel: (409) 962-0251.
SEAMAN'S CLUBS: None.
GENERAL: No strong tidal currents at the berths, excellent sheltered tropical storms.
DEVELOPMENTS: Additional 190 acre tract on Sabine River fort development.
AUTHORITY: Orange County Navigation and Port District, P.O.Box Orange, Texas 77630-0516. *Tel:* (409) 883-4363. *Telex:* 77 *FAX:* (409) 883-5607. *Contact:* Roger P. Richard, Port Dir Bob McLaughlin, Operations Manager.

OSTRICA, Louisiana: 29.22 N. 89.32 W.

Terminal has ceased operating and has been mothballed. facilties are now part of Chevron U.S.A. Inc. Shore facilit Empire, See "New Orleans".

OSWEGO, New York: 43.28 N. 76.30 W. (See

LOCATION: Oswego Harbour is located on the South shore of Ontario about 15 miles from its East end at the outlet to the Os River. It is the first major port on the Great Lakes off the seaway also the Great Lakes entrance to the Great Lakes – Hudson Waterway which connects with the Hudson River at Troy. 27 ft. on East side.
PILOTAGE: No requirements.
RESTRICTIONS: Average navigation season – April 1st to Dec 15th.

Approaches: Through entrance between the Arrowhead Breakwa heads and detached breakwater.

Entrance is 750 ft. wide with a depth of 25 ft. at LW datum.
Controlling depth of water 25 ft. at datum.
No vessel length and beam limitations.
Approach open 24 hours a day.
Navigation lights available

Harbour: Controlling depth – front of each terminal open for publ 21 ft. on West side. 28 ft. on East side.

Turning Basin – 115 acres.
Accessible 24 hours per day.
No vessel length and beam limitations.

HEALTH/AGRICULTURE: See "Health" and "Agriculture" bef U.S.A. port (Albany).
TUGS: Towage facilities available on request.
BERTHING: The general cargo facilities are operated by the Oswego Authority. The West Side Facility is a finger pier 1,000 providing 4 berths and has 21 ft. of water alongside at LW 28,000 sq. ft. of covered storage is available with limited open s The East Side Facility is a marginal wharf 1,900 ft. long, p 3 berths and has 27 ft. of water alongside at LW datum. 134,0 of covered storage is available with unlimited open storage.

Oswego exports general cargo. It imports grain, cement, wo fertiliser, petroleum and general cargo.

New Marginal Wharf: Length of berth 1,750 ft. Depth 25 ft. at LW
BRIDGES: None.
CRANES: Mobile heavy lift equipment available.
BULK HANDLING FACILITIES: One 1,000,000 bushel elevator equipped with 3 loading spouts, 2 Marine legs and 2
FRESH WATER: Available at all general cargo docks.
FUEL: Seaway Terminal of Metropolitan Petroleum Corporatio – Capacity 327,000 barrels of No. 2 and No. 6 oil. Coal bi available by truck delivery.

CONSULS: None.
REPAIRS: Above waterline repairs available.
AUTHORITY: Port of Oswego Authority, P.O.Box 387, Foot of East First Street, Oswego, NY 13126. *Tel:* (315) 343-4503. *FAX:* (315) 343-5498. *Contact:* Thomas McAuslan, Executive Director. James G. Cloonan, Manager of Operations.

PALM BEACH, Florida: 26.46 N. 80.03 W. (See Plan)

LOCATION: Port is located on a salt water sound known as Lake Worth and lies 1.3 miles from the 37 ft. contour of the Atlantic Ocean to which it is connected by an artificial cut at the North end of Lake Worth known as Lake Worth Inlet. The Inlet is located within the boundaries of the City of Riviera Beach, Florida.

PORT LIMITS: Sea Buoy at channel entrance. Dockage charges commence when vessel is made fast to wharf, and are on a 24 hour basis or fraction thereof.

DOCUMENTS: Basic Customs Documents for Entry:

2 copies Master's Oath, Form CF-1300.
2 copies General Declaration, Form CF-1301.
2 copies Arrival Crew Lists, Form I-418.
2 copies Passenger List, Form I-418.
2 copies Stores Lists, Form CF-1303.
2 copies Crew's Effects Declaration, Form CF-1304.
1 copy Clearance from Last Foreign Port (if available).
1 copy Manifest of *All* Foreign Cargo onboard.
1 copy Manifest of Cargo for Discharge.
1 copy Dangerous Cargo Manifest.
1 copy Form CF-3171 for formal entrance at Customs House.
Valid original vessel documents.

All vessels shall, upon arrival, report to Port Director all cargo to be discharged. Such report shall be in form of copies of Ship's Manifest, or certified statements, and shall show number of units, commodity, weight, destination, consignee, and all other information which Port of Palm Beach deems necessary for compilation of commercial statistics, for reserving of necessary warehouse or wharf space, or other purposes. (Also see "Jacksonville").

PILOTAGE: Compulsory. Provided by Pilots' Association of the Port of Palm Beach, 200 13th Street E, Riviera Beach, Florida, 33404. Tel: (407) 845-2628. Telex: 529327.

Pilot's communicate with vessel on VHF Channel 16; if no answer contact Marine Operator to call Pilots on land line. Tel: (305) 845-2628.

Notice of ETA and request for Pilot must be made to the Pilots at least 24 hours in advance.

CHANNEL: Entrance to the harbour is by a dog-leg channel running due West through the jetties and then turning South-westerly to the terminals. The channel is 400 ft. wide, narrowing to 300 ft. in width as it continues across the lake another 3,000 ft., leading into a trapezoidal turning basin, 1,400 ft. by 1,310 ft. adjacent to the port terminals on the West shore, with an extension of 672 ft. at 25 ft. depth to the New North Wharf and Loading Ramps. Present depth of entrance channel is 33 ft. at MLW.

ANCHORAGES: Anchorage is designated by the Bar Pilots, which in most instances is at sea. Port has two federally designated anchorages, one South of the entrance channel and one North of the entrance channel.

MAX. SIZE: Vessels up to 620 ft. in length with draft of 33 ft. have used facilities.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Port has no communication equipment. U.S. Coast Guard Station, Peanut Island, Riviera Beach, Florida, can be reached on 2182 kHz – 2678 kHz or VHF Channel 16 (156.8 MHz). Pilots VHF Channel 16.

TUGS: Available to assist berthing. Service is provided by the Port Towing Corporation, P.O.Box 30369, Palm Beach Gardens, Florida 33410-0369. Office Tel: 622-6422 and 622-8688, nights and holidays 844-4244 and 622-7548.

Tugs normally join vessel at jetty entrance. Tug's lines normally used.

BERTHING: 2 slips and 4 marginal wharves with 6 Ro/Ro ramps including a 29 acre dedicated container yard.

Berth		*Length* (ft.)	*Depth* (ft.)
No. 1	South Marginal	210	25
No. 2	East Half, South Side of Slip 2	310	35
No. 3	West Half, South Side of Slip 2	310	35
No. 4	West End of Slip 2	220	25
No. 5	West Half, North Side of Slip 2	320	35
No. 6	East Half, North Side of Slip 2	320	35
No. 7	Middle Marginal	215	33
No. 8	East Half, South Side of Slip 1	350	33
No. 9	West Half, South Side of Slip 1	350	33
No. 10	South Ramp, West End of Slip 1	70	33
No. 11	Middle Ramp, West End of Slip 1	70	33
No. 12	North Ramp, West End of Slip 1	70	33
No. 13	West Half, North Side of Slip 1	350	33
No. 14	East Half, North Side of Slip 1	350	33
No. 15	South Section, North Marginal	204	27
No. 16	Mid-Section, North Marginal	203	27
No. 17	North Section, North Marginal	203	27
No. 18	East Section, South Side	150	25
No. 19	West Section, South Side	150	25
No. 20	South Ramp	67	25
No. 21	Middle Ramp	67	25
No. 22	North Ramp	67	25
No. 23	North Side Container Wharf	80	25
No. 24	South Half Container Wharf	225	25
No. 25	North Half Container Wharf	225	25

Supplementing the berths are 295,000 sq.ft. of transit shed storage space. Open storage areas consist of approximately 55 acres. 33 acres dedicated to container handling.

All vessels, their Owners or Agents, desiring a berth at wharves, shall, as far in advance of date of docking as possible, make application to port specifying date of docking, sailing, nature and quantity of cargo to be handled, and name of the vessel.

SPECIALISED CARGO HANDLING FACILITIES: Ramps for Roll-on/Roll-off cargo and wharfside accommodation for equipment to handle containerised cargo only.

Dry Bulk Storage: 55,000 short tons (Cement); 20,000 short tons (Sugar).

Liquid Bulk Storage: 12,500,000 gallons (Molasses).

Freezer/Chill Facility: U.S. Dept. of Agriculture and U.S. Customs approved facility. 17,600 sq.ft. off pier site with rail siding. 5 minute trucking time to port docks.

Also see "Developments".

CRANES: See "Cargo Gear".

STEVEDORES: The recognised working hours of port are from 0800 until 1200 hrs. and from 1300 until 1700 hrs., Monday through Friday, holidays excepted. During the recognised working hours services will be charged for on a straight time basis.

When vessels are loading or discharging cargo the port may furnish checker-foremen to supervise release of cargo being loaded and/or check cargo being discharged. The charge for each man furnished will be based on labour-furnished rates for foremen, with the Port reserving right to furnish as many men as they deem necessary to protect their interests. Charges for this service will be rendered against the vessels, their Owners, or Agents.

MEDICAL: Full hospital facilities available without prior notice. Dentists available during normal work hours.

TANKERS: The port receives tankers each month in the 15,000 to 18,000 gross ton range. Petroleum tankers are handled in Slip 2, Berths 2/3 or 5/6. All petroleum tankers are boomed during pumping operations. Slop facilities at port by mobile tank trucks of private companies.

Report: Port Approaches – Cautionary: All approaches to the Sea Buoy must be made from the East to avoid shoal waters near the coast to the North and South of the Entrance Channel. The Gulf Stream current running to the North may be felt a short distance East of the Sea Buoy. A counter current usually sets to the South in the vicinity of the Sea Buoy. However, this may vary depending on weather conditions. Southbound vessels, avoiding the Gulf Stream, are encountered in close vicinity of the Sea Buoy.

Care must be taken to carefully identify navigation lights to avoid mistaken identity with strong lights along coast.

Vessels may anchor S.E. of the Sea Buoy in approximately 75 ft. – 100 ft. of water.

Entering and Berthing: Vessel should have full manoeuvring power available and competent helmsman at the wheel. Vessels leaving the Gulf Stream usually set sharply to the South and care must be exercised to keep vessel in channel. Ranges and buoys are used to identify channel limits. The turning basin is situated adjacent to Slip No. 2 where tankers berth. Tidal currents in Lake Worth Inlet set North on flood tide and South on ebb tide. Berthing of deep draft bulk carriers has been limited to High Water Slack period, due to the limitation of tug horsepower. If a current is against the tide, an anchor is usually dropped and dragged into the berth. Due to the limited depths of water and the possibility of holing the ship's bottom if the anchor is run over, the use of anchor should be limited to emergency use.

The slip is 700 ft. in length with a width of 225 ft. Pier bollards are situated 50 ft. apart. The last soundings survey indicated depths of 35 ft. or more throughout area of slip with exception of extreme inside section where depths decreased to 32 ft.

FRESH WATER: Fresh water delivered to vessels at wharves or docks by pipeline. Hoses can be supplied by port per tariff charges. Fittings on pipeline are 2.5 in. Minimum charge of U.S.$50.00. Water $0.90 per ton of 240 gallons.

FUEL: Private firms (9) with trucks or barges available by prior arrangement through vessel's Agent.

FIRE PRECAUTIONS: Smoking is strictly prohibited in transit sheds, warehouses, or on apron of wharves and on vessels, handling dangerous, hazardous, or inflammable cargo. Smoking is also prohibited in any areas where gasoline or like materials are being handled or serviced to equipment.

Explosives and hazardous or highly inflammable commodities or materials may be handled over, or received on, the wharves or other facilities of Port of Palm Beach by special arrangements with and at the option of the Port Director, and the receiving, handling, or storage of such commodities shall be subject to Federal and State laws, rules and regulations.

In all cases where explosives and hazardous or highly inflammable commodities or materials are to be handled, prior consent by the U.S. Coast Guard must be received and a copy of the consent filed with the Port Director. Responsibility for safeguarding of life and property will be the duty of the shipper. Proof of sufficient liability insurance must be presented to Port Director prior to arrival of such materials.

DRY DOCK/REPAIRS: No major facilities at port. Mobile repair companies available. No berths dedicated for repair work.

SURVEYORS: Marine surveyors representing Lloyd's, A.B.S., N.V., operate at the port or nearby ports.

C. L. Marine Inc., 825 Oleander Street, Boca Raton, FL 33432. Tel: (407) 391-8932.

Douglas G. Lamb & Associates, P.O.Box 11367, Fort Lauderdale, FL 33339. Tel: (305) 564-3045. Telex: 159052 (ASST. CTR.)

Continental Marine Consultants, Inc., P.O.Box 14915, North Palm Beach, FL 33408. Tel: (407) 844-6111.

Donald J. Mahoney & Co. Inc., Marine Surveyors & Adjusters, The Tamiami Mall, 8776 S.W. 8th Street, Miami, Florida 33174. Tel: (305) 553-7066. Telex: 52-2268.

GANGWAY/DECK WATCHMEN: No requirement for watchmen required except for special vessel conditions or security reasons as determined by Port Director.

HATCHES: Normally opened and closed by ship's crew.

CUSTOMS ALLOWANCES: United States Customs Regulations.

REPATRIATION: Facilities exist for changes of crews and repatriation of seamen. Scheduled aircraft service Palm Beach area daily with additional flights from two nearby airports. Airports are 5 miles, 35 miles and 70 miles from port.

POLICE/AMBULANCE/FIRE: Police Tel: 845-4123 or 911; Fire Department Tel: 845-4111; Sheriff Tel: 833-7471; Ambulance Tel: 844-6577; Hospital Tel: 844-6300.

CARGO GEAR: Crane capacity can accommodate single lifts up to 300 tons. Also available are 2×150 ton cranes, 3×200 ton crane, 1×65 ton crane and 1×40 ton crane also 1×23 ton fork lift. 7×40 ton straddle carriers, 7×40 ton fork lifts, 3×25 ton fork lifts, 1×20 ton fork lift, 33 tractors in terminal (10×40 tons and 23×35 tons). Load/discharge operations can be performed by ship's gear or shore gear.

HOLIDAYS: New Year's Day; Washington's Birthday; Columbus Day; Decoration (Memorial) Day; Independence Day; Labour Day; Veteran's (Armistice) Day; Thanksgiving Day; Christmas Day. When any one of these falls on Sunday, the following Monday is observed as a holiday. When any one of these falls on Saturday, the preceding Friday is observed.

BANKS: *Banks with Foreign Departments:*

Barnett Bank, 2001 Broadway, Riviera Beach, FL 33404. Tel: (407) 845-3400.

Florida National Bank, 411 South County Road, Palm Beach, FL 33480. Tel: (407) 655-3900.

First Union, N.A., 1710 S. Andrews Avenue, Fort Lauderdale, FL 33316. Tel: (305) 467-5322.

Sun Trust/South Florida, Inc., International Department, 25 S. Andrews Avenue, Fort Lauderdale, FL 33301. Tel: (407) 832-4121.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany).

Drums or skips available through private industry licensed by government. Ship's agent to notify U.S.Department of Agriculture local agent for coordination of transfer operations. Local DOA agent, Tel: (407) 844-9935. Contact Port Maintenance Superintendent, Tel: (407) 844-6330, for current charges.

WASTE OIL DISPOSAL: Service provided by duly licensed private contractor. Tanker trucks utilised for collection and removal. Ship's agent to make arrangements with private licensed contractor and Port Authority Dockmaster.

SEAMAN'S CLUBS: None.

CURRENCY: U.S.Dollar (U.S.$).

GENERAL: Marine terminal 1.3 miles from the open sea, served by U.S. Highway 1 and is directly connected by port-owned belt-line railroad to the Florida Coast Railway.

Broad aprons (80 ft.) with ship-side rail, and warehouses backed by open storage areas. The slips and wharves are located on a salt water sound, fully protected from the sea by barrier islands; departures from the slips average only 15 minutes through inlet to open sea.

DEVELOPMENTS: New 6 acre container marshalling area has been recently added. Raw sugar storage facility at Slip 2 capacity 20,000 tons, loading rate 600 t.p.h. Acquisition of additional land for port expansion underway. Port Administration Building completed offering Government Services and office space for Maritime companies located at the port. A foreign trade zone and a Cruise Terminal and enclosed Passenger Jetway are available.

AUTHORITY: Port of Palm Beach, P.O.Box 9935, Riviera Beach, Florida 33419. *Tel:* (407) 842-4201. *FAX:* (407) 842-4240. *Contact:* Benson B. Murphy, Executive Port Director. Martin A. Mets, Deputy Port Director. Henry E. McKay, Assistant to Port Director. Jack Smith, Dock Master. Sam Logan, Manager of Security.

PANAMA CITY, Florida: 30.10 N. 85.40 W. (See Plan)

DOCUMENTS:

3 Passenger Lists.
3 Crew Lists.
3 Curio Lists.
3 Stores Lists.
Register.
Load Line Certificate.
Tonnage Tax Certificate.
Certificate of Financial Responsibility (Oil Pollution).

PILOTAGE: Compulsory. Pilots board at sea-buoy. Guard Channel 16 VHF. Safe anchorage at sea-buoy if waiting for Pilot.

PC Port Pilots Inc.: Pilot boat, grey and white hull with black lettering. Tel: (904) 785-2209.

PC Pilots Inc.: Pilot boat, red and white hull. Tel: (904) 769-0058.

ANCHORAGES: Several safe anchorages inside bay with 32 ft. or more depth.

RESTRICTIONS: Maximum safe draft over bar is 32 ft. No other restrictions except in case of bad weather.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Preferably WLO Radio, Mobile, Alabama, U.S.A. Also good service from RCA. Vessel should radio ETA and cash requirements.

TUGS: 2 tugs available. Tug is used only to assist in berthing. Always uses ship's lines.

BERTHING: Any time, except for unusual weather. Good safe Berths are about 1 hour from Pilot station.

Deepwater Terminal in St. Andrew's Bay:

1. 2,590 ft. of deepwater berthing:
   (a) 5 berths.
   (b) Mean depth of water 32 ft.
   (c) Concrete apron 60 ft.
   (d) Construction – steel sheet piling.
2. 6 Transit sheds totalling 280,000 sq.ft.
3. Bulk Warehouse (28,800 sq.ft.). Storage Silos (6,500 ton cap with scale weight in and out.
4. Covered loading/unloading rail service to each warehouse.
5. Truck dock serving each warehouse.
6. Marginal track capability.
7. Heavy lift capability by prior arrangement.
8. 24 hour security service.
9. Paved open storage – 300,000 sq.ft.
10. Ro/Ro capabilities.
11. Container facilities.
12. Barge/Container feeder service.

Barge Terminal in St. Andrew's Bay and Gulf Intracoastal Waterw

1. 600 ft. of shallow draft:
   (a) Mean depth of water 12 ft.
   (b) Concrete apron.
   (c) Construction – steel sheet piling.
2. Transit shed totalling 30,000 sq.ft.
3. Bulk transfer capability.
4. Service for:
   (a) Covered rail loading and unloading.
   (b) Truck loading and unloading.
5. Paved open storage – 90,000 sq.ft.
6. Heavy lift capability by special arrangement.

Port Equipment:

1. 8 lift trucks, 5,000 lb. capacity.
2. 9 paper roll clamp machines, 7,000 lb. lift capacity.
3. 1 trackmobile switcher.
4. 1 diesel switch engine.
5. Rail tracks owned by Panama City Port Authority, capab accommodating approximately 80 rail cars.
6. Sweepers.
   (a) Tennant.
   (b) Tractor with brush and front end loader.
7. Gantry crane.

STEVEDORES: 7 companies. Must have ETA by 1500 hrs. loca in order commence loading 0800 hrs. next day. Normal wor 0800 – 1200 hrs., then from 1300 – 1700 hrs., Monday through F

MEDICAL: Medical and hospital service available.

TANKERS: No slop discharge facilities, oil waste by barge.

DENSITY: Salt water. 1.5 ft. tide range.

FRESH WATER: Available all berths but ships must supply hose

FUEL: Limited amount of diesel oil available. No heavy fuel. Local can make available through truck transfer or barge. Midstream Supply located at Port.

CONSULS: None.

REPAIRS: Limited deck and engine repairs can be effected.

GANGWAY/DECK WATCHMEN: Only if required by ship's Own Master.

OPENING/CLOSING HATCHES: Only MacGregor hatches ma opened by the crew.

CUSTOMS ALLOWANCES: Tobacco, 1 carton 200 cigarettes. Spirits, reasonable quantity – 1 or 2 bottles.

CARGO GEAR: Must show safety inspection if requested.

REPATRIATION: Available.

AIRPORT: Approximately 4 miles from port. Served by 2 schedu lines (Delta and U.S.Air).

TIME: Central Standard Time (GMT minus 6 hours).
Central Daylight time in Summer (GMT −5 hours).

HOLIDAYS: *No work holidays:* New Year's Day; Easter; 4th July; Day; Christmas Day.

Working holidays: Lincoln's Birthday (February 12); Washington's Birthday (Third Monday in February); Memorial Da Monday in May); Veterans' Day (Fourth Monday in October); Fall Day, Thanksgiving Day (Fourth Thursday in November).

POLICE/AMBULANCE/FIRE: Dial 911.

TELEPHONES: Placed aboard only by very special arrangeme normally available.

SERVICES: Most repairs to radio, radar and other such equ Advance notice required.

SHORE LEAVE: Any time – any berth.

IDENTIFICATION CARDS: All crew must have U.S. Imm Landing Permit.

DELAYS: Normally, delays infrequent and for short durations.

AUTHORITY: Panama City Port Authority and Foreign Trade Z P.O.Box 15095, 5321 West Highway 98, Panama City, FL *Tel:* (904) 763-8471. *FAX:* (904) 769-5673. *Contact:* H.R. Eth Port Director. T.L. Berry, Assistant Port Director.

PASADENA, Texas: 29.43 N. 95.13 W.
Refer to "Houston" for all general information.

HEALTH: See "Health: All Ports" before first U.S.A. port (Alb

AGRICULTURE: See "Agriculture" before first U.S.A. port (A

PASCAGOULA, Mississippi: 30.21 N. 88.34 W.

(See Plan)

PORT LIMITS: Subject to Charter-Party Terms, an "arrived ship", subject to jurisdiction of the Port Authority, occurs when a ship arrives at Horn Island Sea Buoy.
DOCUMENTS: See "New Orleans".
PILOTAGE: Compulsory. Pascagoula Bar Pilots' Association ((601) – 762 – 1151). Pilot boat to be contacted on VHF Channel 16, pilot boat has black hull with white house, International light and sound signals to be made by vessel requiring a Pilot. Pilot to be taken aboard vessel in vicinity of Horn Island sea buoy. Usual safety measures are required, with respect to boarding. Vessels may anchor in this area while awaiting Pilot, there is a 35 ft. to 50 ft. depth with good holding bottom.
ANCHORAGES: Only anchorages permitted are in vicinity of Horn Island Sea Buoy or seaward.
RESTRICTIONS: Under normal conditions there are no entry restrictions as to time or state of tide.

From Horn Island Sea Buoy to Horn Island Pass the channel is 450 ft. wide by 40 ft. deep; from Horn Island Pass to Pascagoula River Turning Basin the channel is 350 ft. wide and 38 ft. deep; the Pascagoula River Turning Basin is 950 ft. wide and 38 ft. deep.

Channel into Bayou Casotte (East Harbour) from Junction Buoy to mouth of Bayou Casotte Harbour is 225 ft. by 38 ft. deep to South Turning Basin 1,150 ft. wide by 38 ft. deep; thence at inner harbour channel is 300 ft. wide and 38 ft. deep into the Bayou Casotte Turning Basin; the Bayou Casotte Turning Basin is 940 ft. wide and 38 ft. deep. All dimensions listed are project dimensions; depths refer to MLLW datum.

No vessel or tow shall enter Bayou Casotte Channel outbound after a seagoing vessel or tow has passed Buoy 30 inbound, and; no vessel or tow shall enter Bayou Casotte Channel inbound after a seagoing vessel or tow has passed Buoy 11 outbound. Vessels or tows which are at a dock should remain at the dock until the inbound seagoing vessel or tow has passed, or until it has reached its berth, whichever occurs first.
MAX. SIZE: Pascagoula River: Length of vessel is restricted to approx. 00 ft. by turning basin, no breadth restriction, draft 38 ft. at MLW. Normal tidal range 1.6 ft.

Bayou Casotte: Vessels with length over 785 ft., max. breadth 125 ft. and draft 38 ft. are taken on a case-by-case basis.
RADAR/VHF: Radar and VHF radio on pilot boat, Channel 16.

Every vessel shall, when entering the Horn Island Pass Channel, and the Bayou Casotte Channel, or when getting underway from a berth, or when approaching the Pascagoula Channel while transiting the Intracoastal Waterway:

(a) Maintain a radio watch on VHF – FM Channels 13 and 16 in accordance with Vessel Bridge to Bridge Telephone Regulations of January 1st, 1973.

(b) Check on other traffic operating in the area by transmitting on Channel 16:

"SECURITY, SECURITY,
SECURITY(Vessel Calling)
THIS IS ....
ENTERING..
CHANNEL PROCEEDING FROM
..................TO ....
CHECKING FOR TRAFFIC, STANDINGBY
ON CHANNELS 13 and 16, ...
(Vessel Calling)
....OUT"

If other traffic replies, utilise Channel 13 for exchange of information relative to safe navigation.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Use of Pascagoula Marine Radio (KLU-775) is advisable for ETA cables to Agent. Stands by on VHF Channel 16 and operates on Channel 27 throughout 24 hours.
TUGS: Tugs will join vessels in harbour or off docks. No escort required. Tugs lines normally are used.
BERTHING: Private and public berths are available, by prior arrangement, in both the Pascagoula River Harbour (West Harbour) and the Bayou Casotte Harbour (East Harbour).

West Harbour – Public: Bulk facility, 900 ft. berth at 780 ft. wharf and 38 ft. deep.

Terminal 'A' with transit shed, 500 ft. wharf and 38 ft. deep.
Terminal 'B' with transit shed, 544 ft. wharf and 38 ft. deep.
Terminal 'C' with bulk cold storage, 718 ft. wharf and 38 ft. deep.
Terminal 'D' with 732 ft. by 187 ft. open wharf by 38 ft. deep, with transit shed.
South Clusters, 1 ship berth approximately 600 ft. by 24 ft. deep.

West Harbour – Private – Ingalls Shipbuilding: Note. These berths are normally occupied with ships being fitted out and are not normally available.

West Bank Shipyard, 4,219 ft. bulkhead, 5 berths by 38 ft. deep.
East Bank Shipyard, one 750 ft. pier with berthing both sides, 38 ft. deep.
Ham Industries, rig repair facility; 1,100 ft. wharf by 38 ft. deep.

East Harbour – Public:
Terminal 'E' with transit shed, 517 ft. wharf by 38 ft. deep;
Terminal 'F' with transit shed, 737 ft. wharf by 38 ft. deep;
Terminal 'G' with transit shed, 516 ft. wharf by 38 ft. deep;
Terminal 'G' Extension 695 ft. by 64 ft. open wharf by 15 ft. deep.
Terminal 'H' with transit shed, 556 ft. wharf by 38 ft. deep.

East Harbour – Private:
Chevron U.S.A. Inc., Wharf No. 1, 5 berths by 38 ft. deep;
Chevron U.S.A. Inc., Wharf No. 2, 1 berth by 38 ft. deep; (crude and coke dock).
Chevron U.S.A. Inc., Wharf No. 3, 1 berth by 38 ft.;
Mississippi Phosphate Company, 2 loading docks each 475 ft. by 38 ft. depth;
Trinity Marine – Pascagoula, slip 900 ft. by 20 ft. deep.

SPECIALISED CARGO HANDLING: Chevron U.S.A. Inc., Wharf No. 1 has facilities for handling acid, caustic, ammonia, and LPG, in addition to petroleum products. Chevron U.S.A. Inc., No. 2 has facilities for handling coke and crude. Chevron U.S.A. Inc., No. 3 has facilities for handling crude.

Gulf Coast Cold Storage Inc.:

Freezer Area: 1.5 million cu.ft. of −10°F. storage; plus 425,000 cu.ft. of −5°F storage at Terminal A warehouse.

Cooler Area: 500,000 cu.ft. of +40°F. storage.

Blast Freezers: 4×−50°F. Capacity 24,000 lbs. per day.

Location: Approx. 3 miles South of I – 10 of the West Bank area of the port. Adjacent to dock on a 38 ft. channel.
CRANES: The Port has a heavy lift capability of 400 tons by an arrangement with Ingalls West Bank Facility. Truck cranes with capacity up to 110 tons also available in the port area.
BRIDGES: None affecting 38 ft. channels.

Two bridges across the Pascagoula River above the turning basin, not passed through between channel and harbour.
STEVEDORES: 12 hours notice requested to arrange stevedore gangs.

Check with individual stevedoring companies for arrangements, straight time, and overtime computations.
MEDICAL: Agents to be advised if immediate medical attention is required. Free Pratique granted except in case of communicable diseases aboard, inoculations required by Public Health Service, etc. Doctors and hospital services readily available.
TANKERS: Chevron U.S.A. Inc. owns and operates 3 wharves on East side of Bayou Cosotte harbour. Facilities have 6 in., 8 in. and 12 in. lines with adaptors, discharge tanks with a capacity of 60,000 tons, 3 tanker berths with a 38 ft. draft. Wharf No. 2 for receiving crude oil from large tankers. Wharf designed and built for 50 ft. draft, but presently limited to 38 ft. draft on account of channel and seaward. Wharf No. 2 also handles coke ships.

Shipmaster's Report: June 1980.
Vessel: 32,000 g.r.t., loading ammonia at Chevron Refinery.
Approaches: Charts BA. 3981 and 3380.
Pilotage: There is no berthing at night for vessels of this size (32,000 g.r.t.) due to having to turn in the turning area above the berth. Vessels may sail at night but careful consideration should be given to weather conditions before agreeing to do so.

Contacted Pilot Office on VHF Channel 16, thereafter working on Channel 13.

Pilot boards from a fast, black hulled launch off "HIP" buoy, ladder on lee side about 1 m. above water.

> *CAUTION:* The outer channel is well marked with conspicuous buoys but the configuration of the channel is liable to change. The approach may be swept with strong conflicting cross currents and, since the widest section is only 350 ft., very careful attention must be paid to steering.

Once inside Petit Bois Island the channel narrows to 225 ft. in places; the Pilots do have an unofficial 'one way traffic scheme' in progress but this is not always adhered to by tows and fishing vessels.

Proceeding inwards, the vessel is turned at the very head of the harbour with the assistance of 2 tugs; vessel is turned to starboard and the head tug then shifts from the port bow to the starboard bow for berthing. Berthing is always port side alongside.

There is not a great deal of room in the turning basin, although the Pilots say that vessels over 800 ft. are turned there regularly.

On sailing, with a deep draft (32 ft. maximum) special care must be paid to steering within the channel. With a width of just over 200 ft. there is no room for error. I would advise that the watchkeeping officer be in attendance on the helmsman throughout the passage.

Time from Pilot aboard to 1st line ashore is about 2 hours.
Berth: Chevron Refinery: Least depth sounded 12.2 m. Very good, with a substantial Chicksan area and fairly good mooring arrangements.

Once made fast and loading a very careful watch must be kept on the moorings since large tankers pass up and down the harbour to the tanker berth close ahead; the shore personnel will not hesitate to stop loading if they think the moorings will allow the vessel to surge.

No motor access to the gate some 200 m. distant.

Telephone on the quay.
Loading: No difficulties were experienced. The facility is very keen on pollution and will watch the discharge of ballast very closely.

The refinery do require ballast to be discharged ashore but that is out of the question. A disclaimer will be presented for the ship to sign.

Since the upreach of the Chicksan is not sufficient, the low extension or flexible hoses will have to be rigged prior to arrival. Shore connection is 8 in. 150 ASA and was done on this occasion by ship's personnel.

No vapour return line.

There is a recirculating system and there was no need to blow through lines on completion.

Product was cold at this call but 'warm' product has been experienced here in the past. Overall load rate was 343 t.p.h. which the shore personnel were extremely happy with. Hourly rates frequently over 500 t.p.h.

Shore Surveyor attended and all figures were based on ship's gauges.

Personnel generally helpful.
General: Fresh water available on the quay but reported as *not potable.*

Bunkers available.

Stores have to be manhandled along the jetty but there are small trolleys available.
Gangway: Best left turned in until in position thence no problem, being clear of obstructions.

No objection made to ship's crew "touching up" ship's side from quay.

Also see "Specialised Cargo Handling".
DENSITY: Density varies with the state of tide and wind, from fresh to salt water.
FRESH WATER: Potable water is available at most berths. Water at public terminals can be delivered at flow rate of 50 g.p.m.
FUEL: Vessels are bunkered at berth in the harbour by truck or barge. All grades of fuel are available.

FIRE PRECAUTIONS: Usual safety precautions required. Verify unusual procedures for approval of U.S. Coast Guard.
CONSULS: Many countries have consuls within a 100 mile radius of Pascagoula. (Mobile and New Orleans).
REPAIRS: Most deck and engine repairs could be arranged within port facilities.
DRY DOCKS: Ingalls Shipbuilding Corporation, has 1 launch pontoon (dry dock) with 38,000 ton capacity.

Flechas Shipyard has one 600 ton dry dock.

There are several marineways in vicinity, capacities 50 – 100 tons.
SURVEYORS: Licensed Marine Surveyors are available in Port.
GANGWAY/DECK WATCHMEN: Port guards are furnished for the general cargo terminals at the port's expense. At least 1 person must be on duty aboard vessel.
HATCHES: Opening/closing hatches by the crew is at the discretion of the ship.
CUSTOMS ALLOWANCES: Each crew member is allowed either 300 cigarettes or 50 cigars or 3 lbs. of tobacco. In addition, each member is allowed 1 quart of alcoholic spirits as regulated by provisions of the Mississippi Alcoholic Beverage Commission Rules.
CARGO GEAR: No requirements for cargo gear other than it be certified by a recognised International organisation.
REPATRIATION: The City of Pascagoula is served by regularly scheduled transportation. Vessel's Agent to arrange clearance with Customs and Immigration officials.
AIRPORT: An airport is available approx. 35 miles from the city and is served by regularly scheduled airlines.
TIME: The Port of Pascagoula is on Central Standard Time, GMT minus 6 hours; clocks are moved ahead 1 hour during Summer months. (First Sunday in April to last Sunday in October).
HOLIDAYS: New Year's Day (January 1st); King's Birthday (3rd Monday in January); Washington's Birthday (3rd Monday in February); Mardi Gras (41 days before Easter – Tuesday); *Easter Sunday/Easter Monday (1st Sunday after 1st full moon after March 21st); King's Memorial Day (April 4th); Memorial Day (Last Monday in May); *Independence Day (July 4th); *Labour Day (1st Monday in September); Veterans' Day (November 11th); Thanksgiving Day (Last Thursday in November); *Christmas Eve (December 24th); *Christmas Day (December 25th); *New Year's Eve (December 31st).

(*Non-working). Non-working holidays are observed from midnight of the holiday through to 0700 hrs. of the following day with the exception of Christmas Eve and New Year's Eve when the non-working portion of the holiday commences at noon.

Should any of the above holidays except Easter, Christmas Eve, and New Year's Eve fall on a Sunday the following Monday will be observed.

Saturday shall not be considered as a layday in determining time ships are in berth in this harbour.
POLICE/FIRE/AMBULANCE: Telephone numbers for emergency services are: Fire 762-1133; Police 762-2211; Ambulance 762-4949 or 762-4848. Universal emergency No. 911.
TELEPHONES: Through special arrangements with steamship agents.
SERVICES: Facilities are available for compass adjusting. Tank cleaning and receipt of tank washings can be arranged by contract services available in the area.
SHORE LEAVE: Allowed for any crew member not detained by Immigration Office.
IDENTIFICATION CARDS: Standard Immigration Form I-95 to be made up for each crew member on arrival. Not necessary for crewmen already holding Form I-95 issued for the same vessel.
GARBAGE DISPOSAL: Garbage collection available upon request. Arrangements should be made through ship's Agent. Service provided by BFI. (Tel: (601) 769-7850), and Waste Management. (Tel: (601) 832-3144).
WASTE OIL DISPOSAL: Service provided by Waste Oil Collectors. (Tel: (601) 497-4585). Arrangements should be made through ship's Agent.
SEAMAN'S CLUBS: Seamans Center operated by Jackson County Baptist's Association, 3709 Hospital Road, Pascagoula. Tel: (601) 769-7101. Services: Telephones, postage, stationery, games, transportation to shopping area.
DELAYS: Berths at Public Terminals and the South Clusters are assigned by the Harbour Master of the Port of Pascagoula. Berths at private docks are assigned by the respective owners. No exceptions to this are allowed. Berth at grain elevator is assigned by The Harbour Master of the Port of Pascagoula. No delays are encountered by following this procedure, emergencies excepted.
GENERAL: Some difficulty encountered by unscheduled tows who use harbour for shelter in inclement weather. Pilot Association aware of current situations. Ample barge storage is available in Barge Fleeting Area operated by Colle Towing Company who may be contacted on VHF Channel 16 (KKV-933). Tel. (601) 762-5700.

AUTHORITY: Port of Pascagoula, 3033 Pascagoula Street, P.O. Box 70, Pascagoula, Mississippi 39567-0070. *Tel:* (601) 762-4041. *Telex:* 161858 PRT PASC. *FAX:* (601) 762-7476. *Contact:* Melody Bradley, Port Director. Paul J. Gavin, Harbour Master. Allen E. Moeller, Manager – Operations and Sales.

PENSACOLA, Florida: 30.25 N. 87.13 W. (See Plan)

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
CRANES: Mobile cranes up to 100 tons.
BERTHING:

Berth No.	Length (ft.)	Depth at MLW* (ft.)	Use
No. 1	640	35	General Cargo
No. 2	400	35	General Cargo
No. 3	425	35	General Cargo
No. 5	425	35	General Cargo
No. 6	580	35	General Cargo

*While the Port of Pensacola has 35 ft. depth at MLW in berth Corps of Engineers project draft of 33 ft. is the controlling draft Port.
Transit Sheds:

Warehouse	
No. 1	72,000 sq.ft.
No. 3	42,300 sq.ft.
No. 4	45,000 sq.ft.
No. 5	72,000 sq.ft.
No. 6	90,000 sq.ft.
No. 7	15,000 sq.ft.
No. 8	83,000 sq.ft.
No. 9	40,000 sq.ft.
Total	459,300 sq.ft.

EQUIPMENT: Leased Equipment: 18×6,000 lb. fork lift 8×9,000 lb. fork lift trucks, 2×15,000 lb. fork lift trucks, 1 front end 2 motorised driven sweeper, 1 motorised driven scrubber, 1 paper and stevedoring equipment: Fork lift trucks have individual heig 10, 14, 15, 16 and 17 ft. Attachments permit conversion for ha paper rolls and bales. 1×63,000 lb. lift truck.
TANKERS: *Private:* Coastal Fuels Marketing, Mitch Sartin, Ma Mid Gulf Area, Port of Pensacola, P.O.Box 12626. Pensacola, FL3 Tel: 904-432-2471. Facilities: Industrial, Marine Fuels. 6 bulk oil of 662,000 barrels capacity connecting by pipeline to Berths 1, 2 5 positions for loading and unloading. 5 bunkering stations and a loading facility.
Report: Port Approaches – Cautionary Advice: Vessels can ap the Sea Buoy with little or no difficulty. Deep loaded vessels sho enter past Buoy No. 1 without a Pilot. Currents in the Gulf of M are varied, but will usually set in direction of the wind; some approaching 4 to 5 knots during severe storms. When entering h full manoeuvring power and a good helmsman are essential current in the Entrance Channel can reach 5 knots. Currents ins harbour are approximately 1 knot and set fair with channel. Vessels anchor outside of Buoy No. 1 and off the centre of channel line no Pilot is available to take them to the Inner Anchorage. Light permitted at the Inner Anchorage. Harbour bottom consists of so There is very little harbour traffic.

Entering and Berthing: This harbour is serviced by one organisation who knows all anticipated movements within the ha so no unexpected traffic should be encountered and all passing at desirable positions. Vessels can enter and berth at any stage Pilots will use West Channel for ships docking at Berth No. 3 pier face. When docking at Berth No. 3, the Pilot approaches the dredging the vessel's anchor and passes her lines. When tu available in the harbour, Pilots will employ them.
FRESH WATER: Available.
AIRPORT: Pensacola Regional Airport is served by both domes international air carriers in addition to intrastate airline service.
GARBAGE DISPOSAL: Service available. Dumpsters up to 40 on board or alongside. Collection on demand. Contact: B.F.I. o 433-7425, or Environmental Waste on (904) 478-0633. Rates on r
WASTE OIL DISPOSAL: Collection available for liquid or contam solids. Capacity into trucks up to 10,000 gallons. Available at a berth. Charges available on request. Contact: Industrial Waste (904) 479-1788, or Pensacola Pollution Control on (904) 479-8
SEAMAN'S CLUBS: None.
AUTHORITY: Port of Pensacola, Marine Operations Depa P.O.Box 889, Pensacola, Florida 32594. *Tel:* (904) 43 *Telex:* 702435. *FAX:* (904) 435-1611. *Contact:* David A. Schal Director.

PETERSBURG, Alaska: 56.49 N. 132.57 W.

Located on Mitkof Island, Northern end of Wrangell Narrows. year.
DOCUMENTS: See "Anchorage, Alaska".
PILOTAGE: (From sea via Dixon Entrance up Clarence Strait Island.) Under pilotage from Guard Island.
ANCHORAGE: Good anchorage in Scow Bay, mud bottom.
MAX. SIZE: Harbour depth 24 ft. MLLW. Tides: Diurnal rang Also see "Berthing".
HEALTH: See "Health: All Ports" before first U.S.A. port (Alb
AGRICULTURE: See "Agriculture" before first U.S.A. port (Al
TUGS: 1×320 h.p.
BERTHING: Pacific American Fisheries Inc.: 75 ft. long, 65 Vessels should dock at slack water. Strong current.
STEVEDORES: 1 gang.
MEDICAL: 21 bed hospital.
FRESH WATER: State approved water available.
FUEL: Diesel and gasoline available.
REPAIRS: Marine ways to 35 tons.
CUSTOMS: Immigration, Guard Island. Quarantine and Custo
TRANSPORTATION: Scheduled and charter airlines and fer
AUTHORITY: City of Petersburg, P.O.Box 1047, Petersbu 99833. *Tel:* (907) 772-4688. *FAX:* (907) 772-3759. *Co* Stromdahl, Harbour Master.

PHILADELPHIA, Pennsylvania: 39.57 N. 75.10 W.

(See Plan)

DOCUMENTS:

3 Crew Lists, Form I-418 (suggest 6 be made).
3 Passenger Lists, Form I-418 (suggest 6 be made).
3 Customs Stores Lists (suggest 6 be made).
3 Curio Lists (own ship Form) (suggest 6 be made).
3 Narcotics Lists (own ship Form) (suggest 6 be made).
Manifest (Ship Cargo List). If Philadelphia first port of call, require 1 copy for Customs and 1 copy to be used as "traveller" surrendered last port of call. If Philadelphia not first port of call, 2 copies required, all cargo to be discharged at Philadelphia.

For Immigration Service:
Visaed Crew List.
Valid Passport or Seaman's Book for each person on board.
Crewman's Landing Card (Form I-95) for each crew member.

PILOTAGE: Pilotage is provided by members of the Pilots' Association for the Bay and River Delaware who maintain a shore station and operations tower at Cape Henlopen. The Pilot Station is in operation on a 24 hour basis and guards VHF Channels 16 and 14. Telegraphic address is: Delpilots, 214 S. Eleventh Street, Philadelphia, Pa. 19107. Telex: 510-1002653. Arrangements for Pilot may be made by the local Agent although an ETA and draft either by cable or VHF radio will be greatly appreciated and will facilitate prompt boarding on arrival. The Pilot boarding area is inside a line between Entrance Buoys No. 5 and 6, or approximately 2 to 2.5 miles S.E. of Harbour of Refuge Lighthouse. Pilots may board further off-shore upon special request.

ANCHORAGES: Large and deep draft vessels awaiting berth are encouraged to avail themselves of the deep water anchorage adjacent to the Breakwater near the Pilot Station. There are 16 anchorage areas available along the Delaware River for moderate size vessels of lesser draft.

Shipmaster's Report: Good holding ground at Big Stone Anchorage. There is a launch service from Big Stone Anchorage to the shore, call VHF Channels 9 and 14.

RESTRICTIONS: There are no restrictions imposed upon entry except those dictated by vessel draft. Throughout most of its length, the Delaware River is dredged to 40 ft. at MLW. In addition there is a mean tidal range of about 5.7 ft. Vessels of 40 ft. fresh water draft can safely transit the river on a rising tide.

MAX. SIZE: Deep-draft oil carriers are lightered in a special anchorage approximately 10 miles N.W. of the Pilot Station. Vessels are restricted to a max. draft of 55 ft. by Federal Law.

Chesapeake/Delaware Canal: See "Wilmington" – Delaware.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

VHF: A port radio service operated by The Ports of Philadelphia Maritime Exchange on a 24 hour basis is also available to all vessels while transiting the Delaware River. VHF Channels 16 and 14 guarded for purposes of this service.

Ship reporting service in operation.

TUGS: Tugs normally join vessels adjacent to berth. Tug's lines are used.

BERTHING:

Terminal	*Length* (ft.)	*Depth* (ft.)	*Use*
Packer Avenue	3,800	35-40	Containers, Steel Products, Refrig., Fruit, Heavy Lifts.
Piers 122/124	2,000	40	Coal, Coke, Iron Ore, Pellets, Fertiliser. Pier 124 inactive.
Gloucester City	5,500	30-40	Containers, Steel Products, Forest Products, Refrig., Heavy Lifts.
Pier 96	1,380	30	Automobiles.
Pier 82/84	2,849	30	Fruit, Breakbulk, Project Cargoes.
Piers 78/80	3,892	35	Newsprint, Wood Pulp, Forest Products, 2 Ro/Ro Ramps.
Piers 38/40	1,100	35	Newsprint, Wood Pulp, Forest Products.
Petty's Island	1,000	35	Trailers (dry and reefer), Ro/Ro, Containers, Steel Products.
Beckett Street	2,300	30-40	Containers, Scrap Metal, Steel Products, Plywood, Lumber, Salt, Breakbulk.
Broadway	4,000	30-40	Bananas, Pineapples, Coal, Petrocoke, Minerals, Breakbulk.
Tioga (Container)	1,450	40	Containers, Breakbulk, Automobiles, Ro/Ro.
Tioga (Fruit)	1,753	40	Refrig. and Fresh Fruit, Containers, Paper, Cocoa Beans, Autos, palletised and Project Cargoes.
Northern Shipping	3,300	34	Breakbulk, Containers, Bulk, Project and General Cargoes.
Chester	1,100	35	Containers, Steel, Metals, Hardboard, Lumber, Glass, Woodpulp, Paper Products.
Fairless	2,500	40	Steel Products, Iron Ore.

CONTAINER HANDLING FACILITIES: *Tioga Marine Terminal:* Handles containerised and Roll-on/Roll-off cargoes. The terminal is equipped with 2×45 ton container cranes. Length of the marginal wharf is 3,300 ft., upper slip berth 725 ft. and lower slip berth 625 ft.

Packer Avenue Marine Terminal: Handles containerised and Roll-on/Roll-off cargoes. The terminal is equipped with 5×45 ton container cranes, one has a heavy lift capacity of up to 375 tons. The marginal wharf is 3,800 ft. in length and the Roll-on/Roll-off slip berth is 825 ft. in length. 80 Reefer outlets.

Holt Marine Terminal: 2×35 ton container cranes. Ro-Ro facilities available.

Gloucester City Marine Terminal: Located on the New Jersey side of the Delaware River, in Gloucester City. Terminal area 150 acres. 6 berths with total length 5,500 ft. (4 berths – depth 40 ft.; 1 berth – depth 35 ft. and 1 berth – depth 30 ft.). 320 reefer outlets. 2×45 tons container cranes, 1×300 tons P&H truck crane, 1×180 tons Vicon truck crane. 4×92,000 lb. Toploaders, 5×30,000 lb. Toploaders, 230×3,000 lb. – 35,000 lb. forklifts and 30 yard hustlers.

BULK HANDLING FACILITIES:

Berth No.	*Location*	*Operator*	*Berth Length* (m.)	*Berth Depth* (m.)	*Loading Rate* (tonnes/p.h.)
Pier No. 124 (inactive)	Greenwich	Conrail	310	12.19	5,000 (coal)
Pier No. 122 South (2 berths)	Greenwich	Conrail	260	12.19	3,000 (ore)
Pier E	Port Richmond	Conrail	260	12.19	
Camden-Beckett Bulk Terminal (4 berths)	Camden	South Jersey Port Corp.	200	11.50	

STEVEDORES: Ship's Agents make arrangements for stevedore gangs. Agents should be kept advised of any change in ETA.

MEDICAL: Advance notice of requirements desirable to the extent possible. Hospital facilities are available.

TANKERS: All terminals are equipped with reducers. There are slop (residue) facilities at most terminals. Some main terminals listed below:

Fort Mifflin	Atlantic Refining and Marketing Co.	40 ft. depth
Point Breeze	Atlantic Refining and Marketing Co.	32 ft. depth
	Ballast Wharf	32 ft. depth
Hog Island	Chevron U.S.A. Oil Terminal	40 ft. depth
Paulsboro	Mobil Oil Terminal	30 ft. and 40 ft. depth
	B.P. Oil Terminal	36 ft. depth
Marcus Hook	B.P. Oil Corp.	35 ft. depth
	Sun Oil Co.	40 ft. depth
Westville (Eagle Point)	Coastal Eagle Point Oil Co.	40 ft. depth
Girard Point	Chevron U.S.A.	33 ft. depth
Delair	Amerada Hess Corp.	31 ft. depth
Delaware City	Texaco Inc.	37 ft. depth

In addition to the above, the following are available for tankers and chemical carriers:

GATX (NJ) – 3 berths.
GATX (Pa.) – 1 berth.
Citgo (NJ) – 3 berths asphalt).
TCI (Pa.) – 1 berth.

Atlantic Refining and Marketing Co. – Fort Mifflin: Entering and Docking: There is a 5-knot tidal current that may cause extra care in tending lines while moored. Passing river traffic also requires constant attention to mooring lines. "A" and "B" Berths are 800 ft. in length and total mooring leads to each berth being 15. Maximum bow/manifold at "A" Berth is 375 ft.; head lines are 4 breast line leads. "A" Berth also requires 4 forward springs, 2 stern lines, 2 stern/breast lines and 4 after spring lines. "B" Berth requires 2 head lines, 2 forward breast lines, 4 forward spring lines, 2 stern lines, 2 after breast lines, 4 after spring lines. A gangway is not provided by the terminal.

Berthing: If the vessel is under 50,000 d.w.t., 2 tugs (1,000 h.p. – 2,000 h.p.) are required. Vessels in excess of 50,000 d.w.t. and equipped with a bow thruster may utilise 2 tugs. However, if the vessel is in excess of 50,000 d.w.t. and has no bow thruster, then 3 tugs should be used for docking. During normal conditions for vessels of any tonnage 1 tug (1,000 h.p. – 1,500 h.p.) should be employed for undocking. The vessel is normally turned off the dock prior to docking for starboard side mooring. Normal mooring is done approximately 1.5 hours prior to HW. A Pilot is required during docking and undocking. All hoses are 10 in. with bolted flanges. Cargoes handled are: crudes, gasolines, heating oil and kerosene. Maximum working pressure is 100 lbs. The terminal has no facilities for handling ballast or slops.

British Petroleum – Marcus Hook:

Pilotage and Docking: The services of a Pilot and Docking Master is both compulsory and recommended. When docking vessels of tonnages up to 30,000 d.w.t., 1 tug (1,700 s.h.p.) is required. Tonnages less than 50,000 d.w.t. require 2 tugs and vessels with a tonnage greater than 50,000 d.w.t. require 3 tugs when docking. For undocking vessels of any tonnage, 1 tug is required.

Hose Connection: Crude oil is discharged through 2×10 in. and 1×8 in. arm. All cargo connections are made with hydraulic quick coupler loading arms. Maximum loading and discharge pressure is 100 lbs. Fuel oils and heating oil are discharged through 10 in. and 8 in. arms to the vessel. The terminal has storage facilities for up to 92,000 bbls. of ballast and does not handle slops.

Facilities and equipment available at the terminal for cargo control include check valves on the dock leading to the shore pipeline system. An emergency control to stop loading is located at the dock manifold.

Bunkers: Fuel oil and diesel oil are available from an 8 in. line with a maximum delivery rate of 2,500 bbls.p.h Quantities delivered are as required. Fresh water is piped at a maximum rate of 20 t.p.h. through a 3 in. line, there are no restrictions on amount delivered.

British Petroleum – Paulsboro:

General: The BP refinery at Paulsboro is located 1.5 miles Eastward of Bramell Point (87 miles from the Sea Buoy). The terminal has 2 offshore wharves which provide 1,053 ft. of berthing space. Depths of 38 ft. are reported alongside, and deck heights are 11 ft. and 12 ft. There is a 3.5 million-barrel storage capacity. The terminal is used for receipt and shipment of petroleum products and bunkering vessels. The berths are parallel to the channel and each have 4 steel dolphins.

Vessels up to 675 ft. in length and a maximum of 38,000 d.w.t. can be accommodated at the Terminal Dock. Max. draft (fwd) is 37 ft. at the dock. Docking of vessels is done 2 hours prior to HW. Vessels up to 26 ft. can dock or undock at any stage of the flood tide. Vessels in excess of 26 ft. must wait for HW to dock or undock. Passing river traffic will cause some surge to take place. Proper tension should be maintained on all mooring leads. A gangway is not provided by the terminal.

Pilotage and Tugs: The services of a Pilot and Docking Master is both compulsory and recommended. Vessels tonnages in excess of 1,000 g.r.t. required tug assistance from 1 or 2 tugs depending on prevailing winds. For undocking vessels of any tonnage 1 tug is required. Due to shoaling adjacent to the berth, be advised that undocking vessels should be lined up on the Billingsport Range prior to the exchange of the Docking Master and Pilot.

Hose Connection: Clean products, No. 4 fuel oil and No. 6 fuel oil are handled at this terminal through 8 in. hoses. These hoses are connected with bolted flanges, there are 2 connections for each product. All products are pumped with a maximum pressure of 100 lbs. The terminal has no facilities for handling ballast or slops.

Bunkers: Fuel oil and diesel oil are available in desired quantities. Maximum delivery rate is 2,000 bbls.p.h. through 8 in. lines. Fresh water is not available.

Dupont – Gibbstown:

General: Deepwater Point, located 0.6 miles above the New Jersey end of the Delaware Memorial Bridge and 59 miles from the Sea Buoy, is the site of the Dupont Chemical Company plant. The 550 ft. wharf (Lat. 39° 41' 37" N., Long. 75° 30' 40" W.) at the plant can provide 600 ft. of berthing space with dolphins. Depths of 33 ft. are reported alongside; dock height is 10.5 ft. Liquid sulphur, acids, and chemicals are handled at the wharf.

Pilotage and Docking: Vessels up to 630 ft. in length, beam 90 ft. and 28,000 d.w.t. can be accommodated at the dock. Max. draft allowed is 32 ft. The dock has a limited strength. Shoaling in the berth places a limit on vessel draft. For drafts of 32 ft. docking is done 2 hours prior to HW. Undocking can be done at any stage of the tide. Passing river traffic will cause the vessel to surge in it's berth. Proper tension should be maintained on all mooring leads. A gangway is not provided by the terminal.

The services of a Pilot and Docking Master is compulsory and recommended. Recommended mooring is with the bow downriver. The vessel is turned off the dock with tug assistance. For docking, 2 tugs (approximately 2,000 h.p.) are required. When undocking 1 tug (approximately 2,000 h.p.) is sufficient. The dock runs parallel to the river channel. All vessels are moored port side to. No mooring cables can be employed. All leads must be manilla or polypropylene lines.

Hose Connection: Fuel oil is discharged through 2×10 in. lines. These lines are connected by a flange. Maximum pumping pressure is 100 lbs. Numerous cargo lines are located on the dock for handling barge shipments of petro-chemicals and acid. Assigned vessels are cautioned to keep mooring lines clear of cargo lines. Safety check-lists are employed at this facility. Personnel at the facility are familiar with and follow safety practices. The terminal has no facilities for ballast or slops.

Fresh Water: Fresh water is only available at the dock. Fresh water is piped at 20 t.p.h. and supplied in an emergency only.

Chevron Oil – Hog Island (Berths No. 3 and 4):

General: The Hog Island Wharf is located 90 miles from the Sea Buoy on the Mifflin Range section of the Delaware River at Lat. 39° 51' 46" N., Long. 75° 14' 15" W. The terminal is a deepwater berth providing 2,754 ft. of berthing space with dolphins. Depths of 37 ft. are reported alongside the dock and deck height is 16 ft. The terminal is used for receiving crude oil and shipping refined petroleum products. There is a 5.5 million-barrel storage capacity at the terminal.

Entering and Docking: Vessels up to 1,000 ft. in length, 135 ft. beam and 110,000 d.w.t. can be accommodated at both berths. Maximum fresh water departure draft allowed is 37 ft. Vessels over 35,000 d.w.t. have a maximum fresh water departure draft of 36.5 ft. For vessels making arrival to the Hog Island Berths that have pre-arrival displacements over 35,000 d.w.t. a lightering service is available in the vicinity of Big Stone Beach. Chevron provides Yokohama Fenders for the lightering operations. Vessels over 35,000 d.w.t. should have a minimum arrival draft of 36.5 ft. (salt) prior to transit up the Delaware River. A gangway is not provided by the terminal.

Pilot and Tugs: The services of a Pilot and Docking Master is compulsory and recommended. Vessels should arrive off the berth 2 hours prior to HW. All vessels are turned prior to docking for starboard-side berthing with the heading down-river. 2 tugs are required if the tug is between 1,000 h.p. and 2,000 h.p. 3 tugs are required for vessels exceeding 35,000 d..w.t. For undocking 1 tug is required for all tonnages. No gangway is provided by the terminal. Passing river traffic will cause berthed vessels to surge. All mooring lines and/or wires should be tended at all times. Additional spring lines are recommended for vessels in excess of 35,000 d.w.t.

Hose Connection: Crude oil is discharged through 4 loading arms at both berths. The hoses are 12 in. and are connected with a bolted flange. Max. discharge pressure is 100 lbs. All lines on shore are common crude lines. The terminal has no facilities for ballast or slops.

Fresh Water/Fuel: Fresh water when required by the vessel can be provided by the terminal. Max. delivery rate is 50 t.p.h. through a pipeline. Fuel oil can be delivered by barge only.

Citgo Petroleum:

General: The Citgo Fuel Pier is located at the S.W. limits of M Anchorage, 81 miles from the Sea Buoy. The entrance of Mantua C is adjacent to the Western end of the Fuel Pier dolphin located a end of the pier. The terminal is used for the discharge of crude oil, heating oil, jet fuel and petrochemicals.

Vessels up to 800 ft. in length, 125 ft. beam and 80,000 d.w.t. c accommodated at the berth. Maximum fresh water draft allowed pier is 37.5 ft. Shoaling at the berth may place further limitations allowed fresh water draft.

Pilotage and Tugs: The services of a Pilot and Docking Mas compulsory and recommended. Following transit of the Dela Riveron a rising tide, vessels should arrive off the dock 2 hours p HW. Vessels are turned around in the Anchorage Area North terminal with 2 tugs assisting. After completion of the turn the ves then breasted, port side, into the berth. The berth is almost para the channel. 2 tugs are used for docking vessels of all sizes. 1 used for undocking all vessels. Approximate tug horse-power req is 2,000 h.p. All vessels are moored port-side to. The te recommends that manila or polypropylene mooring lines be used location. Passing river traffic will cause surging of the vessels berth. To minimise this surging, the terminal recommends doub fore and aft spring lines. All mooring lines should be tended cons

Hose Connection: Cargo handled at this terminal includes heating oil, fuel oil and jet fuel. Jet fuel is handled through an 8 in All other cargoes are handled through 10 in. lines. Connections of are made with flanges. Maximum pumping pressure is 90 lbs completion of cargo discharge the terminal displaces the cargo hose with nitrogen. The terminal connects and disconnects all and has no facilities for ballast or slops.

Bunkers and Freshwater: No fuel or freshwater is available at the The terminal will not permit fueling of vessels at this berth.

Mobil Oil – Paulsboro: (Also see "Shipmaster's Report November 1992).

General: The Mobil Oil Terminal is located at Bramell Point West end of the Paulsboro waterfront which is approximately 80 from the Sea Buoy. Facilities include a 2,453 ft. marginal wharf pro 2,254 ft. of berthing space. Depths of 39 ft. have been reported alon and deck height is 12.5 ft. There is a 6.2 million-barrel storage ca The terminal is used for the receipt and shipment of petroleum pro and bunkering vessels.

Vessels up to 900 ft. in length, unlimited beam and 80,000 d.w be accommodated at the terminal berths. Drafts to 38 ft. (fresh- have also been accommodated at these berths. Shoaling at the may place further limitations on the allowed fresh-water draft.

Pilots and Docking: The services of a Pilot and Docking Ma compulsory and recommended. Vessels should arrive off the 2 hours before HW and are turned prior to docking for a por mooring. After completion of the turn the vessel is breasted in berth. Additional spring lines are recommended to prevent s caused by passing river traffic. To insure a proper lead on the lines, the terminal recommends the spring lines be crossed. The te does not provide a gangway.

Tugs: Tug requirements for docking vessels include: 1 tug for up to 30,000 d.w.t., 2 tugs for vessels over 30,000 d.w.t. For und vessels tug requirements include 1 tug for vessels up to 50,000 and 2 tugs for vessels in excess of 50,000 d.w.t.

Hose Connection: Crude is discharged at No. 1 Berth. 4 loadin with 10 in. hoses using bolted flanges are connected to the ship discharge pressure is 125 lbs. Clean lubes are handled at No. 2 through 3 loading arms when loading and 4 loading arms discharging. 8 in. hoses with bolted flanges are connected to th Max. line pressure is 100 lbs. Lube oils are handled at No. 3 B the same manner as No. 2 Berth. The terminal has limited facil handling ballast through a 6 in. line. There are no common pipel cargo in the terminal. Safety check lists and practices are follo terminal personnel.

Bunkers and Fresh Water: All quantities of fuel oil, diesel oil an water are pumped to the vessel as required.

Sun Oil – Marcus Hook: (Also see "Shipmaster's Report September 1984).

General: Located at Mile 69 North, Marcus Hook is an im petroleum centre where large quantities of crude oil are recei refined petroleum products are shipped. Vessels can be bunkere rate of 1,500 and 5,000 bbls.p.h. Sunoco Wharf No. 3 (Lat. 39° 48' Long. 75° 25' 10" W.), and Sunoco Wharf No. 2 (250 yar Northeastward of Wharf No. 3) are both owned and operated Oil Company.

Wharf No. 2A can accommodate vessels up to 750 ft. in lengt beam, max. 50,000 d.w.t. and max. fresh water draft 35 ft. Whar can accommodate vessels up to 810 ft. in length, 125 ft. bea 76,000 d.w.t. and max. fresh water draft of 35 ft. Wharf No. accommodate vessels up to 1,000 ft., 125 ft. beam and dra Shoaling at the berth may place further limitations on allowed fre drafts.

Pilots and Docking: The services of a Pilot and Docking compulsory and recommended. Vessels should arrive off 2 hours prior to HW. Vessels are turned above the facilities docking. Undocking is done at any stage of the water hei completion of turn the vessel is then breasted into the be starboard side mooring. Passing river traffic will cause moore to surge unless proper tension is maintained on mooring le times.

Tugs: Tug requirements for docking vessels include 2 tugs 1,500 h.p. and 2,000 h.p. For vessels undocking 1 tug is su

Hose Connection: Crude and fuel oil are discharged at Ber and 3A. Both berths have 4 loading arms, 12 in. hoses, pumping pressure of 125 lbs. All connections are made wi flange. Clean products are handled at all 3 berths through 8 in hoses. Maximum pumping pressure is 125 lbs. Petro-che discharged at Berth No. 3A through a 10 in. line with a max. pumping pressure of 125 lbs. All connections for clean products and petrochemicals are made with bolted flanges.

Bunkers and Fresh Water: Fuel oil and water is available at all berths. Fuel oil is delivered at 2,000 bbls.p.h. through an 8 in. line. Fresh water is piped at a rate of 45 t.p.h. Quantities available are enough to satisfy individual vessel requirements.

Tank Cleaning Inc. – Harkness Point, Schuylkill River:

General: The Schuylkill River is approximately 85 miles from the Sea Buoy on the Northside of the Delaware River. The junction is marked with a flashing red 4 sec. light mounted on a stone pile on the right side of the junction and Buoy "C1" on the lest side of the junction. A fogsignal is located on the West side of the river junction. A lighted range (bearing 021.5°T) marks the entrance. Vessels proceeding to Harkness Point will pass under the Girard Point Bridge and Penrose Avenue Bridge, 0.6 miles and 1.3 miles, respectively, above the river mouth. Both bridges have fixed spans with clearances of 135 ft.

Pilotage and Docking: The terminal berth can accommodate vessels up to 630 ft. in length, 90 ft. beam, max. 28,000 d.w.t. and max. fresh water draft of 33 ft. There is a bow-to-manifold restriction and no proper breast line leads therefore the present mooring arrangement considered to be unsafe. Vessels should arrive at the Schuylkill River at HW slack for docking. Undocking can take place at any stage of the tide. A parallel approach is made when docking. A Pilot and Docking Master are compulsory and recommended. 2 tugs are assigned to all vessels when docking. For all vessels undocking 3 tugs must be employed. Undocking vessels have to be backed down the Schuylkill River to the junction with the Delaware River before turning can be accomplished.

Hose Connection: Fuel oil, heating oil, bunker and gasoline are all offloaded at this terminal. Bunkers are also loaded onto vessels at the berth. 4×10 in. lines are used for fuel oil and heating oil. All cargo lines are connected with a bolted flange. Max. pumping pressure on all lines is 100 lbs. 1×6 in. line is used for bunkers and 1×8 in. line is used for gasoline. The terminal has no facilities for ballast or slops. The dock manifold only permits the discharge of one grade at a time, this could affect the trim of the vessel.

Fresh Water/Fuel: Fuel oil and water is available at the berth. Fuel oil is delivered through a 6 in. line at 2,000 bbls.p.h. as per vessel requirements. Fresh water is piped at 40 t.p.h. maximum delivery rate.

Coastal Eagle Point Oil Co. – Westville Nos. 2 and 3:

General: The Terminal is located 90 miles from the Sea Buoy at Lat. 39° 52' 43" N., Long. 75° 09' 30" W., East of Eagle Point. The facility has an offshore wharf which provides 1,380 ft. of berthing space. Depths of 40 ft. are reported alongside and deck heights are 6 ft. and 16 ft. There are water and elecrical shore power connections. Vessels can be bunkered at the rate of 1,500 bbls.p.h.

The terminal can accommodate vessels up to 910 ft. in length, unlimited beam, max. 85,000 d.w.t. with a max. fresh water draft of 38 ft. The controlling depth at the berth is 40 ft.

Piiotage and Docking: A Pilot and Docking Master are compulsory and recommended. Vessels dock at HW or first stage of ebb. Undocking takes place at any stage of the tide. For docking 2 tugs are recommended. For undocking the Master may decide to use 1 or 2 tugs, depending on the weather and tidal conditions. Vessels are turned prior to docking for a port side mooring. No gangway is provided by the terminal. A normal mooring arrangement is used. Distance between shore manifolds is 878 ft. The terminal requires 100 ft. clearance between vessel when Berths No. 2 and 3 are occupied simultaneously.

Hose Connection: Berth No. 2 handles off-loading of crude, No. 4 and No. 6 fuel oil through 12 in. and 8 in. hoses. All connections at both berths are bolted flanges. Max. pumping pressure at both berths is 100 lbs. for all cargoes except chemicals which are pumped at 95 lbs.

Berth No. 3 handles No. 4 and No. 6 fuel oil through 6 in., 8 in. and 12 in. hoses. The terminal can handle up to 10,000 tons of ballast providing the separator is operational. Slops can also be sent ashore. The shore ballast line is segregated. Fuel Oil and crudes are handled through a common line.

Fresh Water/Fuel: Available.

Dirty Ballast Facilities:

Marcus Hook (Sun): Line 8 in. Max. quantity acceptable 1,800 tons. Rate 250 t.p.h. Clean ballast may be pumped overboard.

Marcus Hook (B.P.): Line 8 in. Max. quantity acceptable 2,000 tons. Rate 250 t.p.h. Clean ballast may be pumped overboard.

Paulsboro (Mobil): Line 6 in. Max. quantity acceptable 2,000 tons. Rate 150 t.p.h. Clean ballast may be pumped overboard.

Paulsboro (B.P.): Line 10 in. Max. quantity acceptable 4,000 tons. Rate 800 t.p.h. Clean ballast may be pumped overboard.

Point Breeze (Atlantic): Line 6 in. Max. quantity acceptable, no limit. Rate 300 t.p.h. Clean ballast may be pumped overboard.

Eagle Point (Coastal): Line 10 in. Max. quantity acceptable, no limit. Rate 1,000 t.p.h. Clean ballast may be pumped overboard.

Girard Point (Chevron): Line 8 in. Max. quantity acceptable, no limit. Rate 500 t.p.h. Clean ballast may be pumped overboard.

General: Lighterage of deep drafted tankers effected at anchorage inside the Capes and before entering the main Ship Channel, i.e. at Big Stone Reach Anchorage, etc.

The holding ground in the upper river anchorages, such as Reedy Point, Marcus Hook, Mantua Creek, etc. is reported to be poor, whilst considerable siltation is also reported in these areas. Masters are therefore advised to take suitable precautions when having to use these anchorages.

Loading Fresh Water: This is effected at Mantua Creek Anchorage only.

Shipmaster's Reports:

September 1984.

Sun Oil Jetty (3C) at Marcus Hook.

Vessel: 140,000 d.w.t. LOA 270 m.

This is the only berth at Marcus Hook suitable for tankers of this size. Usually berth starboard side alongside, arriving off berth about 2 hours before HW. 1 tug each end, tugs' lines and usually made fast on main deck. 2 back springs first then 2 to 3 breasts and 2 to 3 head/stern lines. With this size of vessel it is better to have forward back springs from forecastle and use main deck moorings as head lines. Aft normally have back springs and stern lines from poop and breast lines from main deck.

Shore gangway and with an accommodation ladder about 20 m. abaft after manifold it is best to remove platform and land shore gangway there.

If bunkering then usual to pull off berth and anchor in Marcus Hook Anchorage.

Berthing Pilot boards off and normally uses accommodation ladder.

November 1992.

Mobil Oil No. 1 Jetty at Paulsboro.

Vessels normally berth port side to at the beginning of the flood tide.

Normal mooring is 3-2-2, and all lines sent by shore messenger. Springs and breasts are sent first, and finally head/stern lines by boat.

Fresh water available by barge only.

Bunkers available from jetty to Mobil vessels only.

Shore gangway available.

Transport to and from main gate by security van.

No crane available for taking stores.

Report: September 1993.

The following was sent by an Agent to an Owner/Operator:

Port of Philadelphia Bulletin:

1. The United States Coast Guard Captain of the port in Philadelphia has issued a directive that eliminates the grace period for vessels arriving in Philadelphia with an expired Tank Vessel Examination (TVE) or Letter of Compliance (LOC). Vessels will not be allowed to commence cargo operations until they complete their TVE. Those vessels arriving at Big Stone Anchorage with an expired TVE may incur costly delays, as the U.S.C.G. will only normally conduct a TVE during daylight hours.
2. Past U.S.C.G. practices would allow a vessel to lighter at Big Stone Anchorage, and then complete the TVE when berthed. This will no longer be allowed.
3. To prevent delays we advise that all vessels have a valid TVE upon arrival at Big Stone.
4. At the September 9th meeting of the Mariners' Advisory Committee, it was resolved that vessels of Panamax size and greater would not be allowed up river on an ebb tide, if their draft exceeded 35 ft. 6 in.
5. Also note that as of 0001 hrs. on September 10th, Marcus Hook Anchorage will be closed due to dredging. Only one vessel at a time will be allowed access to the Anchorage. 24 hours advance notice must be given to the U.S.C.G. Vessels are allowed to anchor for a period of up to 12 hours. If the Anchorage is not available, vessels will have to bunker at Mantua Creek or Wilmington with a stand-by tug. Dredging is expected to continue until November 10th 1993.
6. In order to reduce possible vessel delays, we request to be advised immediately of any vessel that will arrive with an expired TVE. We will coordinate with the Terminals and pilots on arrival times to reduce waiting for flood tides for those vessels mentioned above.

LNG/LPG: COAST GUARD REGULATIONS:

REQUIREMENTS FOR THE TRANSPORT AND TRANSFER OF LNG/LPG:

The following requirements are issued in the interest of port safety to supplement existing local, State, and Federal Regulations.

A. GENERAL REQUIREMENTS.

1. *Pre-arrival Conference:* Prior to a vessel's initial port call, or when such a vessel has not been to the port within six months, and is laden with LNG or LPG enroute to a facility under the jurisdiction of the Captain of the Port, Philadelphia zone, as defined in 33 CFR 3.15-25, a pre-arrival conference shall be held with all personnel concerned in the delivery and operation of the facility. The purpose of this conference is to disseminate and explain Captain of the Port requirements, local regulations, and establish emergency procedures for that vessel during the initial and subsequent port calls. The conference will include representatives of the Coast Guard, the vessel's Agent and charterer or operator, terminal owner/operator, and local authorities including the fire department.

2. *Notification:* The Captain of the Port must be notified:

(a) At least 72 hours in advance of a vessel's arrival at the Delaware Breakwater with confirmation 12 hours in advance, and certification upon arrival.

(b) Of the vessel's ETA at Delaware Memorial Bridge.

(c) Of the intended length of port call and estimated time of departure.

(d) Of any changes in the intinerary.

B. VESSEL DOCUMENTS: Prior to proceeding past the Delaware Breakwater at Cape Henlopen, the Master of the vessel shall ensure the following documents are valid and can be produced on demand:

1. A Certificate of Financial Responsibility issued by the Federal Maritime Commission.

2. If U.S. Flag, a Certificate of Inspection endorsed for the product(s) carried.

3. If foreign flag, a Letter of Compliance (LOC) for the carriage of the product(s) carried.

a. Vessels not holding a valid LOC shall be boarded by a joint COTP/OCMI inspection party at the Breakwater Anchorage prior to proceeding upriver. The vessel shall be examined in accordance with 46 CFR, part 154. If the examination is satisfactory, the vessel will be permitted to proceed upriver to the facility. Compliance with Part C of this chapter will be strictly observed.

C. TRANSIT RESTRICTIONS FOR VESSELS LADEN WITH LNG/LPG CARGO:

1. *Vessel Movement:* Vessel movement will be conducted only with prior approval of the Captain of the Port.

2. *Propulsion and Machinery Status Report:* No vessel may proceed past the Delaware Breakwater unless the Master sends a message to

the Captain of the Port within 12 hours before arrival stating that "To the best of my knowledge and belief there are no known casualties to this vessel or its machinery and all cargo handling and gas detection equipment is in proper operating condition". Should any condition be present that precludes the sending of this message, the vessel shall be boarded by the Coast Guard at the Breakwater Anchorage so that a determination can be made as to the vessel's seaworthiness and repairs necessary prior to transiting the river.

3. *Transits:* LNG/LPG laden vessels may only transit the Delaware Bay/River daytime during hours if the visibility is two miles or greater. After discharging, a vessel empty of LNG/LPG cargo may depart at any time.

4. *Intra-Harbour Movement:* An LNG/LPG carrier should submit 2 hours' advance notice of intra harbour movement to the Captain of the Port, earlier notice is desired if practicable.

5. *Radio Guards:* Continuous radio guard must be maintained on Channel 13 (156.65 MHz) and Channel 16 (156.8 MHz) during transit.

6. *Tug Escort:* No LNG/LPG laden vessels shall transit the Delaware River above Delaware Memorial Bridge without at least one commercial tug escorting.

7. *Coast Guard Escort:* Unless specifically authorised by the Captain of the Port, no vessel may transit the Delaware River above Delaware Memorial Bridge without a Coast Guard escort vessel.

8. *Meeting and Overtaking:* While transiting the river, the vessel will not overtake river traffic; nor will river traffic be allowed to overtake the vessel. The vessel shall be navigated so as not to meet other vessels at bends in the river channel. During meeting situations, neither vessel shall proceed in such a manner that they will meet at a relative speed greater than 20 knots.

9. *Emergency Situations:* In the event of an emergency situation, the Captain of the Port must be promptly notified of the vessel's position, draft, nature of emergency, time required to restore normal operations and future intentions. The vessel's Master or Agent shall have the authority to immediately enlist commercial assistance in an emergency situation or when the COTP deems that commercial assistance is required to prevent an emergency.

D. ANCHORAGE RESTRICTIONS AND REGULATIONS:

1. Transfer of product at anchorage is not permitted except in the event of an emergency such as to warrant, in the opinion of the Captain of the Port, specific authorisation.

2. A live bridge watch shall be maintained by a qualified watch officer. A round of bearings and/or ranges fixing the vessel's position shall be taken hourly followed by a report on the hour to COTP Philadelphia on Channel 16 FM reporting anchor holding and operations normal or any significant change in position or deviation from the norm. In addition to these requirements, during periods of sustained winds in excess of 25 knots, but less than 40 knots, the vessel must maintain the capacity of having engines on line within 30 minutes; if sustained winds are 40 knots or over, the main propulsion plant must be on line.

3. A continuous radio guard shall be maintained on Channel 16 FM while at anchor.

4. Vessels anchored in Mantua and Marcus Hook Anchorages may be required by the Captain of the Port to have tug assistance during the change of tide.

E. VESSEL TRANSFER OPERATIONS: (The Master shall be responsible for compliance with this section): Prior to the commencement of transfer operations, a Coast Guard boarding party will examine the vessel. Cargo transfer shall commence only after satisfactory completion of the inspection and issuance of Coast Guard Form 4260, Permit to Handle Dangerous Cargo.

1. The following is a partial list of items inspected by the Coast Guard boarding party:
(a) Relief valve records and data.
(b) Gas detection system/alarms operation and records.
(c) Remote shutdown operation.
(d) Firefighting equipment.
(e) Boiler burn off system (if installed).
(f) Condition of piping, flanges, expansion joints, relief valves, cargo valves, and gauges.
(g) Intrinsically safe equipment.
(h) Automatic controls.

2. In addition to the above, the inspection party will ensure the following requirements are complied with:

(a) Person-in-Charge: The Master shall ensure a licensed officer or qualified supervisor is aboard the vessel throughout the entire cargo discharge/loading operation.

(b) Other Vessel Activities: Only such activities as bunkering, loading of stores, repairs i.e., normal ship maintenance and support activities as approved by the Captain of the Port at the pre-arrival conference, will be permitted – under such conditions as stipulated – while vessels are transferring LNG/LPG. No cutting, burning, welding or other hot work is allowed on the vessel without specific approval from the COTP.

(c) Smoking Areas: Smoking areas shall be designated by the Master and posted at the gangway.

(d) Bonding: The Terminal Manager shall ensure the vessel is electrically bonded to the shore ground prior to commencing transfer operations. The connection shall be maintained until transfer operations are secured. An approved connection shall be used for securing, i.e., alligator clamps are not acceptable. "C" clamps would meet minimum requirements, bolted connections are recommended. The Master shall not commence hookup until this action is taken.

(e) Mooring Requirements: The vessel shall, when possible, moor bow to seaward, and be prepared to get underway on short notice. It may be required to have a live tug standing by during operations. A wire rope towing hawser shall be made ready forward, amidships, and aft with the bight at water's edge.

(f) Operations During Storms: Cargo transfer operations shall cease if an electric storm occurs and at any time lightning is observed or thunder heard; cargo transfer connections may be maintained.

(g) Language Requirements: Ship's supervisory personnel d involved in supervision of cargo transfer operations must be able to speak and understand the English Language.

(h) Transfer Connections: Each flange in the overall transfer ope will be secured with all bolts and properly gasketed, or with a Guard approved quick disconnect device.

(i) Venting: Venting of boil off vapours is prohibited. LNG vessels demonstrate the ability to contain or consume boil off vapours minimum of 21 days.

(j) Fire System: The Master shall ensure the vessel's fire main is to the waterfront facility fire fighting system so that the vesse maintain a firefighting capability, even if its fire pumps are inope The bonding hose shall never be charged unless in use during a

(k) Personnel Aboard: A minimum number of personnel to be re aboard the vessel shall be established during the pre-arrival confe or dockside inspection.

(l) Barge Personnel: In operations involving barges. a tanke possessing an appropriate certificate for the product being handled be present during cargo operations.

F. FACILITY OPERATIONS: (The Terminal Manager shal responsible for compliance with this section).

A pre-arrival conference shall be held in accordance with Para that the following regulations may be explained and disseminated to the initial operation of a facility. Drawings indicating cargo routing the dock to all storage tanks shall be provided to Coast G representatives. A current list of qualified cryogenic supervisors sh maintained with copies provided to the COTP. The following regula shall be complied with during all transfer operations.

1. *Facility Security:* All facility/terminal security zone areas are posted and restricted to personnel authorised by the terminal man Adequate physical security shall be provided, including a guard for allow on authorised personnel, i.e., those persons who have and need for presence on the facility, during operations.

2. *Equipment Inspections:* Immediately prior to handling carg shore piping which is to be used in the operation shall be inspect proper operation of automatic controls, gas detection, instrumentation. If any of the system contains air, it shall be purged to handling the product by an inert gas, in special circumstance using low pressure LNG/LPG vapour. Care shall be taken in purg minimise the volume of flammable mixtures present at an Following the purging, piping shall be so cooled as to prevent exce thermal stress.

3. *Supervisor and Personnel:* A designated cryogenics supe shall be in attendance at the waterfront facility in the proximity during all cargo operations. During all periods of cargo transfe terminal shall have one man on board the vessel and one man tank car or storage tank loading stations who shall be a communicate with each other at all times with intrinsically equipment.

4. *Language Requirements:* All shore supervisory personnel d involved in supervision of cargo operations must be able to readi speak and understand the English language.

5. *Smoking:* No smoking shall be permitted except in desig areas determined by the facility operator, subject to the approva COTP.

6. *Hot Work:* Hot Work will not be permitted without prior auth the COTP.

7. *Notification:* The COTP shall be notified one hour in adva the commencement and termination of the cargo transfer opera the waterfront facility.

8. *Fire Equipment:* The Terminal Manager will ensure currently and inspected fire hoses are laid out and connected to hydrants car and storage tank loading areas unless otherwise provide approved, permanently installed facilities. The international connection shall be connected in accordance with Para E, Transfer Operations. Hydrants shall be tested for satisfactory flo to connecting hoses. In addition to portable equipment, the mooring area or waterfront facility area shall have any combina semi-portable dry chemical extinguishers totalling 600 pounds main water source and spray equipment must be available as will be the Terminal Manager's responsibility to have his fire m and fire equipment present at the connecting and disconnecting of the operation.

9. *Lighting:* Adequate shoreside lighting in conformance w National Electric Code shall be provided.

10. *Hoses:* Each hose used to handle cargo shall have been d for handling such products and shall be tested at 1 – 1.5 t maximum allowable working pressure or 250 psi, whichever is prior to commencing the transfer operation.

11. *Vessel Protection:* Vessels moored to existing facili marginally to a channel, or when otherwise deemed necessar COTP, must be afforded protection through the use of barges or Any such protection shall have specific approval of the COTP.

12. *Inspection of Reception Facilities:* All tank cars, tank barges and storage tanks shall be inspected prior to loading their last test shall be verified. Operability of overpressure p devices shall be verified by a person designated by the manager.

13. *Remote Shutdowns:* Remote cargo shutdowns shall be satisfactory by a person designated by the terminal manager.

14. *Transfer Completion:* Upon completion of all cargo trans product line from pier head to tank car and/or storage loading in the type of operations where this applies, shall be unloaded in containers and not vented into the atmosphere. Where the op the LNG/LPG terminal is such that the product will be c continuously, it need not be unloaded – thus there will be no the start of each cargo transfer operation while bringing the pi to operating temperature, and a resultant reduction in cycling o stresses. However, the unloading arms shall be drained, using

purge and left in a nitrogen atmosphere with the shipboard end of the unloading arm blanked off until ready for the next transfer operation.

15. *Bonding:* The terminal manager shall ensure the vessel is electrically bonded to the shore ground prior to commencing transfer operations. The connection shall be maintained until transfer operations are secured. An approved connection shall be used for securing, i.e., alligator clamps are not acceptable. "C" clamps would meet minimum requirements, bolted connections are recommended.

DENSITY: Philadelphia ports are fresh-water ports.

FRESH WATER: Fresh water normally not available directly at berth. Fresh water available by tank truck or through fire department. Water by barge available.

River Associates, Inc. of Philadelphia, Tel: (215) 922 – 6027, provides wash water in Philadelphia and Delaware Bay with two barges, 220 tonnes and 1,000 tonnes capacity.

FUEL: Bunker C and diesel fuel available at most oil terminals. Vessel's Agent should confirm berthing space at least 24 hours in advance.

CONSULS: The following countries are represented in Philadelphia:

Austria
Belgium
Chile
Costa Rica
Denmark
Dominican Republic
El Salvador
Finland
France
Germany
Great Britain
Guatemala
Haiti
Honduras
Iceland
Israel
Italy
Japan
Korea
Lesotho
Mexico
Netherlands
Norway
Panama
Portugal
Spain
Sweden
Switzerland
Venezuela

REPAIRS: All types of ship repairs can be effected.

DRY DOCK: Floating dock with capacity 70,000 tons.

SURVEYORS: American Bureau of Shipping. Tel: (609) 354-6366.
Caleb Brett. Tel: (215) 521-1725.
National Cargo Bureau. Tel: (215) 925-3546.
E. W. Saybolt. Tel: (215) 583-4460.
Bureau Veritas. Tel: (215) 543-5884.
China Corp. Register of Shipping. Tel: (215) 543-5884.
Panama Bureau of Shipping. Tel: (215) 543-5774.
SGS Controls Services, Inc. Tel: (609) 467-1702.

GANGWAY/DECK WATCHMEN: These services are left to the discretion of the Master. It is often recommended by ship's P & I Club that watchmen be engaged when seamen are detained by U.S. Immigration. Ship is subject to fines by U.S. Government if any detained seaman deserts vessel.

OPENING/CLOSING HATCHES: Normally by stevedores.

CERTIFICATES: Ship's Register and Load Line Certificate are mandatory. If vessel is carrying passengers from the U.S. they will require a U.S. Coast Guard Certificate. This can easily be obtained in about 1 or 2 days subject to meeting the requirement for life-saving equipment.

CUSTOMS ALLOWANCES: No set rule. Reasonable amount allowed for personal use.

CARGO GEAR: For exceptionally heavy lifts, Pennsylvania Shipbuilding Co. has a floating derrick with 800 tons lifting capacity.

AIRPORT: Philadelphia International Airport is located approximately miles from central harbour area.

TIME: Standard Time GMT minus 5 hours. Daylight Saving Time (GMT minus 4 hours) from first Sunday in April till last Sunday in October.

HOLIDAYS: New Year's Day (1st January); Martin Luther King, Jr's. Birthday (15th January); Lincoln's Birthday (12th February); Washington's Birthday (22nd February); Thomas Gleason Birthday (17th March); Richard L. Askew Birthday (6th April); Good Friday; Memorial Day (Decoration Day); Flag Day (14th June); Independence Day (4th July); Labour Day (1st Monday in September); Columbus Day (12th October); November Election Day (1st Tuesday in November); Armistice or Veteran's Day (11th November); Thanksgiving Day; Christmas Eve; Christmas Day; and any other national holiday as may be provided by executive authority.

POLICE/FIRE/AMBULANCE: Fire Tel: LO 3-6700; Police Tel: 231-3131; Port Disaster Tel: 609-WO 3-6420 or WA 5-8780.

SHIP SUPPLY SERVICE:
Fleet Helicopter Service. Tel: 282-4100.
Keystone Helicopter Corp. Tel: 644-4430.
Seaboard Air Charter, Inc. Tel: 563-1564, (302) 856-6545.
Delaware Bay Ship Chandlers. Tel: (302) 422-8088.
Delaware Ship Supply Co. Inc. Tel: HO.3 – 1700.
Delaware Bay Launch Service Inc. Tel: (302) 422-8088.
Delaware River Harbour Service. Tel: 365-9777.
Hueber Launch Service. Tel: (215) 872-3544, (215) 425-3155.

GARBAGE DISPOSAL: Service available through Agent.

WASTE OIL DISPOSAL: Service available through Agent.

SEAMAN'S CLUBS: Seaman's Church Institute, 249 Arch Street. Apostleship of the Sea, 2319 South Third Street. All services available.

CURRENCY: Masters should indicate requirements to Agent, who will advise exchange rates.

AUTHORITY: Philadelphia Regional Port Authority, 210 West Washington Square, Philadelphia, Pennsylvania 19106, U.S.A. Tel: (215) 928-9100. *FAX:* (215) 928-1488. *Contact:* John P. La Rue, Executive Director. Joseph P. Menta, Jr., Assistant Director of Communications.

Delaware River Port Authority, Bridge Plaza, Camden, New Jersey 08101. *Tel:* (215) 925-8780. *FAX:* (609) 541-6379. *Contact:* Eugene J. McCaffrey, Sr., Executive Director. Tel: (609) 963-6420, Ext. 2363.

South Jersey Port Corporation, 2500 Broadway, Camden, New Jersey 08104. *Tel:* (609) 541-8500. *FAX:* (609) 757-4903. *Contact:* Joseph A. Balzano, Executive Director.

PINEY POINT, Maryland: 38.08 N. 76.32 W. (See Plan)

ST Services Terminal on East bank of Potomac River, 82 miles from sea.

DOCUMENTS/PILOTAGE: Refer to "Baltimore".

ANCHORAGE: Unlimited, available in Chesapeake Bay.

RESTRICTIONS: Berthing 24 hours a day with max. draft of 35 ft. 6 in.

MAX. SIZE: LOA 850 ft., beam 120 ft. and draft 35 ft. 6 in.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: WMH Baltimore Radio. VHF Channel 26.

TUGS: 2 tugs available for berthing, join vessel off berth. Tugs despatched from Baltimore. 2 tugs required docking and 1 sailing.

BERTHING: 1 tanker berth only operated by ST Services. Long lines required for first ashore.

FRESH WATER: Available at berth.

FUEL: Not available.

AIRPORT: Washington National (80 miles) or Baltimore-Washington (100 miles).

TIME: GMT minus 6 hours. Summertime from April to October.

SHORE LEAVE: Allowed.

GENERAL: Nearest city with full services is Washington, 65 miles distance and Baltimore 110 miles.

AUTHORITY: Maryland Ports Administration, The World Trade Centre Baltimore, Baltimore, Maryland 21202. *Tel:* (301) 659-4550.
Operator: ST Services, P.O. Box 418, Route 249, Piney Point, Maryland 20674.

PLAQUEMINE, Louisiana: 30.20 N. 91.14 W. (See Plan)

(A) DOW CHEMICAL – DOCK NO. 1
(B) DOW CHEMICAL – DOCK NO. 2

(A) DOW CHEMICAL – DOCK NO. 1

LOCATION: Dow Chemical, Louisiana Dock (Dock 1) is located on the West bank of the Mississippi River 25 miles S.E. of Baton Rouge at Plaquemine, Louisiana, at Mile Mark 209.9, above Head of Passes on the right descending bank in approximate position Lat. 30° 19' N., Long. 91° 14' W.

NOTICE OF READINESS: Notice of Readiness must be tendered either at the Dow facility, at Burnside Anchorage (which is customary anchorage for the Port of Baton Rouge at Mile 165.5), or at the nearest available anchorage to Dow. Tendering Notice of Readiness at any other site will not be received or accepted. Agent must be immediately informed at the time of tendering.

RESTRICTIONS: No time restrictions on berthing. No bunkering or lightering. Vessels must berth with bow facing up-river. All connections must be on port side.

MAX. SIZE: Dock accepts vessels up to 825 ft. in length and 130 ft. in breadth. Draft guaranteed to 39 ft. when Baton Rouge River stage is 10 ft. or greater. When river stage is below 10 ft., restrictions may apply.

HEALTH: See "Health: All Ports" before U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Ship must arrange for docking tugs. E.N.Bisso (Tel: (504) 861-3551 or (504) 861-0321) or an approved substitute may be used.

Docking Tugs: 1 tug required if ship length is less than 450 ft.
2 tugs required if ship length is 450 ft. or greater.

Hold-in Tugs (arranged for by the facility): Hold-in tugs required when load arm or hose is connected to ship.

1 tug required when river stage is above 25 ft. or below 10 ft. and ship length is between 600 ft. and 700 ft.

2 tugs required when river stage is above 25 ft. or below 10 ft. and ship length exceeds 700 ft.

Additional hold-in tugs will be invoiced to ship's account.

BERTHING: One chemical berth available with length 893 ft. All loading done by Dow equipment located on shore. All discharging performed by ship's equipment. See "Max. Size" for draft information. Cargoes handled are: Butanol, Ethylene Dichloride, Propylene Oxide, Propylene Glycol, Diethylene Glycol, Chloroform, Caustic Soda, Carbon Tetrachloride, Methylene Chloride, Monoethylene Glycol, along with the following Dowanols products: PM, EB, MEA, DEA, TEA.

Moorings: Minimum mooring requirements are as follows:

Head Lines:	Either 4 soft or 3 soft / 1 wire or 3 wire if no soft available.
Spring Lines:	Either 2 soft or 1 soft / 1 wire or 3 soft when no breast lines (position these on mooring points that allow them to be as long as possible).
Breast Lines:	2 soft or 1 soft / 1 wire (on both bow and stern when possible).
Stern Lines:	4 soft or 3 soft / 1 wire or 3 wire if no soft available.

Under no circumstances should mooring lines be slack. Ship must supply its own gangway.

CRANES: 3 (7,500 lb. capacity) cranes available for handling hoses and fittings, all run by Dow personnel.

CARGO HANDLING: All cargoes mentioned under "Berthing" are transferred through hoses that are 6 in. 150 lb. rated, except for Caustic Soda which is capable of transferring simultaneously through 6 in. 150 lb. and 8 in. 150 lb.

BRIDGES: Sufficient clearance for all stages of river at all times; 3 bridges at New Orleans, 1 at Donaldsonville and 1 at Luling-Destrehan.

TANKERS: See "Cargo Handling" for loading hose specifications. Ship should fit any reducing pieces before arrival. If ship is unable to fit pieces, contact Ship Planner in advance, so dock will be ready with pieces upon arrival. Shore steam is available. No ship-to-ship transfer facilities. Slop discharge facilities available.
DENSITY: No tide. Fresh water at all times.
FRESH WATER: Available at U.S.$3.00/metric ton. Ship must supply hose.
FUEL: Bunkering not permitted.
FIRE PRECAUTIONS: Ship must have a cable hung over the starboard side and attached to a fixture enabling a tug to pull ship away from dock. Equipment is available to combat oil spills; namely 1,000 ft. of oil boom. Approximately 35 fire extinguishers (dry chemical, Foray, CO_2) and 8 monitor guns, all strategically located on dock. In addition, a fire hydrant and hose system that can be connected to fire trucks.
CONSULS: Norwegian at Baton Rouge, all others at New Orleans, 60 miles distant.
REPAIRS: Prior approval needed.
DRY DOCKS: None.
SURVEYORS: Cargo inspector: SGS Control Services, Inc., 6624 Langley Drive, Baton Rouge, LA 70809. Tel: 504-752-1462. Fax: 504-753-6930. Telex: 4979968.
WATCHMEN: Supplied by dock at no cost, 24 hours a day.
CUSTOMS ALLOWANCES: Tobacco: Each crew member allowed 1 carton of cigarettes. Master allowed reasonable quantity. Wine and/or spirit: Each crew member allowed 1 bottle each of wine and spirit. Master allowed reasonable quantity.
REPATRIATION: Crew changes are permitted. Control room must be notified of any pedestrian traffic on dock.
AIRPORT: Ryan Airport in Baton Rouge, 25 miles distant. Serviced by all major airlines.
TIME: Local time is Central Standard Time – GMT minus 6 hours. April through October, local time is Central Standard Daylight Savings Time – GMT minus 5 hours.
POLICE/AMBULANCE/FIRE: State Police (Hazardous Materials Unit): Tel: 504-925-6595.
West Baton Rouge Sheriff: Tel: 504-343-9234.
Iberville Parish Sheriff: Tel: 504-687-5100.
Fire: Tel: 911.
Ambulance: Tel: 1+267-1111.
EMERGENCY CO-ORDINATION CENTRE: Coast Guard Headquarters. Tel: 1-800-424-8802.
SERVICES: Slop facilities available at dock.
Garbage disposal available at dock, although prior notification is needed.
Nigrogen supply facilities available at U.S.$0.50/100 standard cu.ft.
BANKS: Bank of West Baton Rouge. Tel: 687-6111.
Citizens Bank & Trust. Tel: 687-3576.
STORING: Truck service only. Trucks must be parked on levee and dollies used on dock. Cranes equipped with baskets can be used to transfer goods from dock to ship (See "Cranes").
SHORE LEAVE: Shore leave is permitted. Those going ashore must be fully clothed (shirts, long pants, shoes) and proceed directly from gangway to control room or levee. In addition to being fully clothed, those not proceeding to the levee or control room must be wearing appropriate safety gear.
IDENTIFICATION CARDS: None required at dock.
GENERAL: The following information, given through Agent, will be needed before docking: Vessel's name, ETA, ship length, ship breadth, arrival and departure draft, arrival and departure deadweight tons, product name and appropriate quantity (in metric tons), liquid header connections (size, lb., rating), vent connections (size, lb., rating), amount inhibitor, refrigeration (semi or fully), number and sizes of mooring lines (cable and rope; head, bow spring), safety relief valve setting (bars), maximum receiving or pumping rates, involved tank numbers, last contained materials, second to last contained materials, and third to last contained materials, whether tanks are empty and have been cleaned; if cleaned, the method in which they were cleaned.
OPERATOR: The Dow Chemical Company, P.O.Box 150, Plaquemine, Louisiana 70765-0150, U.S.A. *Tel:* (504) 353-6166. *FAX:* (504) 353-1985. *Contact:* Dow Chemical Dock (Dock 1) (KUF 628 on VHF Channel 16). Fax: 504-353-2496. Tel: 504-353-8647 or 504-353-8646 (Dock), 504-353-6186 (Ship Planner).

(B) DOW CHEMICAL – DOCK NO. 2

LOCATION: Dow Chemical, Louisiana Division Hydrocarbon Dock (Dock 2) is located on the West bank of the Mississippi River, 15 miles S.E. of Baton Rouge at Plaquemine, Louisiana, at Mile Mark 221.8, above Head of Passes on the right descending bank in approximate position Lat. 30° 21' N., Long. 91° 14' W.
NOTICE OF READINESS: Notice of Readiness must be tendered either at the Dow facility, at Burnside Anchorage (which is customary anchorage for the Port of Baton Rouge at Mile 165.5), or at the nearest available anchorage to Dow. Tendering Notice of Readiness at any other site will not be received or accepted. Agent must be immediately informed at the time of tendering.
RESTRICTIONS: No time restrictions on berthing. No bunkering or lightering. Vessels must berth with bow facing up-river. All connections must be on port side.
MAX. SIZE: Dock accepts vessels up to 825 ft. in length and 130 ft. in breadth. Draft guaranteed to 39 ft. when Baton Rouge River stage is 10 ft. or greater. When river stage is below 10 ft., restrictions may apply.
HEALTH: See "Health: All Ports" before U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Ship must arrange for docking tugs. E.N.Bisso (Tel: (504) 3551 or (504) 861-0321) or an approved substitute may be used.
Docking Tugs: 1 tug required if ship length is less than 450 ft.
2 tugs required if ship length is 450 ft. or greater.
Hold-in Tugs (arranged for by the facility): Hold-in tugs required load arm or hose is connected to ship.
1 tug required when river stage is above 25 ft. or below 10 ft. and length is between 600 ft. and 700 ft.
2 tugs required when river stage is above 25 ft. or below 10 ft ship length exceeds 700 ft.
Additional hold-in tugs will be invoiced to ship's account.
BERTHING: One hydrocarbon berth available with length 998 loading done by Dow equipment located on shore. All discha performed by ship's equipment. See "Max. Size" for draft informa Cargoes handled are: Benzene Toluene Zylene (BTX), Naphtha, Pentanes, Vynyl Chloride Monomer (VCM).
Moorings: Minimum mooring requirements are as follows:

Head Lines:	Either 4 soft or 3 soft / 1 wire or 3 wire if no available.
Spring Lines:	Either 2 soft or 1 soft / 1 wire or 3 soft whe breast lines (position these on mooring points allow them to be as long as possible).
Breast Lines:	2 soft or 1 soft / 1 wire (on both bow and stern possible).
Stern Lines:	4 soft or 3 soft / 1 wire or 3 wire if no soft avail

Under no circumstances should mooring lines be slack. One gangway provided at dock. This gangway is located along dock ac roadway and can only be utilised from this point.
CRANES: 3 (7,500 lb. capacity) cranes available for handling hoses fittings, all run by Dow personnel.
CARGO HANDLING: There are 5 loading arms at the berth.

Arm No.	*Connection*	*Size* (in.)	*Rating* (lb.)	*Product*
1	Liquid	8	300	BTX
	Vapour	6	150	
2	Liquid	12	150	BTX Naphtha
3	Liquid	12	300	Naphtha
	Vapour	6	150	
4	Liquid	12	300	LPG
	Vapour	6	300	Pentane
6	Liquid	12	150	VCM
	Vapour	4	300	

Loading Arms No. 4 and 6 have PERC (Pressure emergency re coupling). These arms are also used for purging.
BRIDGES: Sufficient clearance for all stages of river at all 3 bridges at New Orleans, 1 at Donaldsonville and 1 at Luling-Destr
TANKERS: See "Cargo Handling" for loading hose specifications should fit any reducing pieces before arrival. If ship is unable to fit p contact Ship Planner in advance, so dock will be ready with pieces arrival. No shore steam is available. No ship-to-ship transfer fac Slop discharge facilities available.
DENSITY: No tide. Fresh water at all times.
FRESH WATER: Available at U.S.$3.00/metric ton. Ship supply hose.
FUEL: Bunkering not permitted.
FIRE PRECAUTIONS: Ship must have a cable hung over the star side and attached to a fixture enabling a tug to pull ship away from Equipment is available to combat oil spills; namely 1,000 ft. of oil b Approximately 35 fire extinguishers (dry chemical, Foray, CO 12 monitor guns (foam and water with remote control side-t swivel), all strategically located on dock. In addition, a fire hydran hose system that can be connected to fire trucks.
CONSULS: Norwegian at Baton Rouge, all others at New Or 60 miles distant.
REPAIRS: Prior approval needed.
DRY DOCKS: None.
SURVEYORS: Cargo Inspector: SGS Control Services, 6624 Langley Drive, Baton Rouge, LA 70809. Tel: 504-752 Fax: 504-753-6930. Telex: 4979968.
WATCHMEN: Supplied by dock at no cost, 24 hours a day.
CUSTOMS ALLOWANCES: Tobacco: Each crew member al 1 carton of cigarettes. Master allowed reasonable quantity. Wine spirit: Each crew member allowed 1 bottle each of wine and spirit. allowed reasonable quantity.
REPATRIATION: Crew changes are permitted. Control room m notified of any pedestrian traffic on dock.
AIRPORT: Ryan Airport in Baton Rouge, 20 miles distant. Serv all major airlines.
TIME: Local time is Central Standard Time – GMT minus 6 hou through October, local time is Central Standard Daylight Saving – GMT minus 5 hours.
POLICE/AMBULANCE/FIRE: State Police (Hazardous Materia Tel: 504-925-6595.
West Baton Rouge Sheriff: Tel: 504-343-9234.
Fire: Tel: 911.
Ambulance: Tel: 1+267-1111.
EMERGENCY CO-ORDINATION CENTRE: Coast Headquarters. Tel: 1-800-424-8802.
TELEPHONES: Pay telephones located on dock.
SERVICES: Slop facilities available at dock.
Garbage disposal available at dock, although prior notific needed.
Nigrogen supply facilities available at U.S.$0.50/100 standa
BANKS: Bank of West Baton Rouge. Tel: 687-6111.
Citizens Bank & Trust. Tel: 687-3576.
STORING: Truck service only. Trucks must be parked on le dollies used on dock. Cranes equipped with baskets can be transfer goods from dock to ship (See "Cranes").

SHORE LEAVE: Shore leave is permitted. Those going ashore must be fully clothed (shirts, long pants, shoes) and proceed directly from gangway to control room or levee. In addition to being fully clothed, those not proceeding to the levee or control room must be wearing appropriate safety gear.
IDENTIFICATION CARDS: None required at dock.
GENERAL: The following information, given through Agent, will be needed before docking: Vessel's name, ETA, ship length, ship breadth, arrival and departure draft, arrival and departure deadweight tons, product name and appropriate quantity (in metric tons), liquid header connections (size, lb., rating), vent connections (size, lb., rating), amount inhibitor, refrigeration (semi or fully), number and sizes of mooring lines (cable and rope; head, bow spring), safety relief valve setting (bars), maximum receiving or pumping rates, involved tank numbers, last contained materials, second to last contained materials, and third to last contained materials, whether tanks are empty and have been cleaned; if cleaned, the method in which they were cleaned.
OPERATOR: The Dow Chemical Company, P.O.Box 150, Plaquemine, Louisiana 70765-0150, U.S.A. *Tel:* (504) 353-6166. *FAX:* (504) 353-1985. *Contact:* Dow Petroleum Dock (Dock 2) (KXS 381 on VHF Channel 16). Fax: 504-353-2496. Tel: 504-353-8625 or 504-353-8626 (Dock), 504-353-6186 (Ship Planner).

PLAQUEMINES, Louisiana: 29.40 N. 89.55 W.

ANCHORAGES: See "New Orleans".
RESTRICTIONS: Main channel depth 55 ft.
TUGS: Available.
BERTHING:

Amax Metals Recovery, Inc. (Formerly Amax Nickel, Inc.): Route 1, Box 160, Braithwaite, LA 70040. Tel: (504) 682-2341.
Depth Alongside: 35 ft. Barge dock: 15 ft.
2 Berths: Length 250 ft. – 700 ft. One ship (dry dock). One barge (wet dock).
Cranes: 1×35 ft. (American) breakbulk crane.
Railroad: Norfolk Southern.

B.P. Oil, Inc.: P.O.Box 395, Belle Chasse, LA 70037. Tel: (504) 656-7711.
Depth Alongside: 40 ft.
2 Berths: Length 280 ft. – 1,205 ft. One tanker, one LPG.
Railroad: Missouri Pacific (1 Spur).

International Marine Terminal: Route 1, Box 649, Port Sulphur, LA 70083. Tel: (504) 656-7341.
Location: Mile 57 AHP.
Depth Alongside: 45 ft.
3 Berths: Length 1,044 ft. – 1,200 ft.: (2) one ship; one gulf barge.
Max. LOA 290 m. Max. draft 12.2 m. Max. beam 48 m. Length of travel of loader 244 m. One loading spout. Max. loading rate for coal 9,000 tonnes per hour.
Cargo Handled: Coal.

Electro-Coal Transfer Corporation: Perez Landing, Davant, LA 70046. Tel: (504) 333-4244, (504) 524-4181.
Location: 55 miles AHP, opposite Myrtle Grove.
Depth Alongside: 55 ft. – 80 ft.
3 Berths: 3,000 ft. of continuous docks.
Cranes: 4 travelling clam shell cranes; 1 stationary ship loader (rate 4,840 tonnes/hr.) with 48 ft. air draft at 0 river stage; 1 travelling ship loader (rate 6,000 tonnes/hr.) with 56 ft. air draft at 0 river stage; 2 continuous river barge unloaders; 4 portable cranes, utilised for offshore topping-off services.

M.F.P. (Formerly Ferruzzi Inc.):
Location: On West bank, 61.5 miles AHP.
Cargo Handled: Grain.
1 Berth: Total length 790 ft.
Depth Alongside: 50 ft.
Facilities: Storage of 6.1 million bushels.

Chevron – Oak Point:
Cargo Handled: Crude and petroleum products.
1 Berth: Total length 250 ft.
Water Depth: 40 ft.
Facilities: Product handled over wharf: Organic chemical compounds used in the blending of lubricating oils for transportation and industrial related equipment. Have loading/unloading facilities: Can handle tank cars, tank trucks, also container trucks, drums. Actual product storage estimated roughly on wharf tanks 8 – 10 million gallons. 44 ft. × 110 ft. structure with 5×8 in. marine loading arms. Accommodates barges from 180 ft. – 250 ft. long. Can handle 5 separate materials at one time.

TANKERS: See "Berthing".
AUTHORITY: Plaquemines Port, Harbour and Terminal District, Edna Lafrance Building, 124 Edna Lafrance Road, Braithwaite, LA 70040-9715, U.S.A. *Tel:* (504) 682-0081, (504) 392-6690, Ext. 2610. *FAX:* (504) 682-0649. *Contact:* Luke A. Petrovich, Chief Executive Officer. Robert L. Thomas, Director of Operations. Urban L. Treuil, Jr., Chief Parish/Port Safety Engineer.

PORT ADAMS, Texas: 29.45 N. 95.11 W.

Refer to "Houston" for all general information.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

PORT ANGELES, Washington: 48.08 N. 123.25 W. **(See Plan)**

DOCUMENTS, etc.: Refer to "Tacoma".
APPROACHES: Depth at entrance 100 ft. – 160 ft. No bar.
PILOTAGE: Compulsory for all vessels except those in coasting trade. Pilot station at Ediz Hook serves all vessels bound for Puget Sound ports. Pilot boards off Port Angeles.
ANCHORAGE: In harbour, depth at least 42 ft. MLLW.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Available from Foss Launch and Tug Co.
BERTHING: 3 pier berths and 2 dolphin berths, depth up to 45 ft. MLLW. Forklifts with capacity to 10 tons.
STEVEDORES: 8 local gangs, additional gangs may be imported if required.
MEDICAL: All medical facilities available. Local hospital.
DENSITY: Salt water.
FRESH WATER: Available at all wharves.
FUEL: Barge delivery only.
REPAIRS: Minor repairs only.
GANGWAY/DECK WATCHMEN: Required only if detainees aboard.
CUSTOMS ALLOWANCES: No definite quantities specified; reasonable allowance at discretion of Custom's Inspector.
AIRPORT: William R. Fairchild International Airport 3.5 miles from the harbour.
HOLIDAYS: See "Tacoma".
GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany). Service available through local agent. City provides dumpsters alongside. Contact Solid Waste. Tel: (206) 457-0411.
WASTE OIL DISPOSAL: Disposal available via Seattle or Tacoma environmental transporters. Contact Port of Angeles, Marine Terminal. Tel: (206) 457-1909. Fax: (206) 452-1129.
SEAMAN'S CLUBS: Limited services available through church groups. Contact Port Authority.
CURRENCY: U.S.Dollar (U.S.$).
AUTHORITY: Port of Port Angeles, P.O.Box 1350, 338 W. 1st Street, Port Angeles, Washington 98362. *Tel:* (206) 457-8527, 457-1909. *FAX:* (206) 452-3959, 452-1129. *Contact:* Chris Anderson, Executive Director. David H. Hagiwara, Director of Marketing. David Callentine, Marine Terminal Supervisor.

PORT ARTHUR, Texas: 29.52 N. 93.56 W. **(See Plan)**

DOCUMENTS:
Entrance Direct from a Foreign Port:
Master's Oath on entry on vessel in Foreign trade, Customs Form 1300 (2 copies).
General Declaration, Customs Form 1301 (2 copies).
Ship's Stores Declaration, Customs Form 1303 (2 copies).
Crew Effects Declaration, Customs Form 1304 (2 copies).
Clearance from Last Port.
Inward Foreign Manifest, Customs Form 1302 (2 copies)
Passenger/Crew List. Form I-418 (3 copies).
In event import cargo is onboard, an additional copy of each of the above Forms is required for travelling Manifest. A copy of the Manifest for each port is also required.
Entrance from Domestic Port:
Clearance from Last Port.
Crew Effect Declaration, Customs Form 1304 (2 copies).
Stores List, Customs Form 1303 (2 copies).
Crew List, Customs Form I-418 (2 copies).
Master's Oath, Customs Form 1300 (2 copies).
General Declaration, Customs Form 1301 (2 copies).
PILOTAGE: Come up in vicinity of the Sea Buoy. 24 hours notice of ETA should be given and revised if ship is delayed 1 hour or more. Telegraphic address is "Sabine Pilots, Port Arthur, Texas". Pilot station keeps 24 hour continuous watch on VHF Channel 12 – 156.6 MHz and on 2738 kHz. Pilot boat is motor vessel with black hull, white housing flying Pilot insignia by day and Pilot light by night. Location of pilot boat is in general vicinity of Sabine Pass Sea Buoy. Pilot ladder only on lee side of vessel.

Pilot will, upon request and at extra cost, board incoming vessels at buoy marked "SB" in position Lat. 29° 25' N., Long. 93° 40' W.

Gulf of Mexico Pilots

American Master Mariners licensed by the United States Coast Guard. They are experienced in handling vessels of all types and sizes, and have many years of experience in navigating the Gulf of Mexico.

Gulf of Mexico Pilots cover the entire Gulf and the Florida Straits. They are on call to board vessels wherever requested within the service area, on 48 hours advance notice.

Request for service may be directed to:
Gulf of Mexico Pilots, 3741 Memorial Blvd., Port Arthur, Texas 77640. Cables: Gompilots. Tel: (409) 982-2961.

The Gulf of Mexico Pilot will provide assistance and advise in heavily congested areas. He will utilise up-dated local knowledge of conditions peculiar to navigation in the Gulf of Mexico. He will assist with VHF radio communications, expedite arrivals and departures between the Gulf Ports resulting in savings of time and fuel, while easing the human-fatigue factor caused by the demanding duties of Shipmasters operating in unfamiliar environment and the continuously changing conditions therein.

RESTRICTIONS: The Port Arthur Ship Channel is in operation 24 hours per day. The only restrictions that might hamper vessel traffic would be the draft of the vessel (Port will be able to handle vessels taking up to 40 ft. of water) or extremely bad weather conditions such as fog or high winds. Also, vessels of the 85,000 ton or more class can only be moved during daylight hours.

MAX. SIZE: Port Arthur Ship Channel will be authorised to 40 ft. in depth and will vary from 400 to 800 ft. in width. Turning basin, which is located at Mile 19 (only about 0.5 miles upstream from existing port facility) is 900 ft. in width. Bulk carriers going to grain elevator at Port Arthur or to one of the oil refineries would only be restricted by draft which would vary from 30 ft. to 40 ft. depending on load/discharge berth the vessel is en route to. See "Berthing".

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: For a vessel in the Gulf of Mexico, and en route to Port Arthur, the best way to route an ETA message is to radio "Port Arthur Radio" (Radio Marine Corporation of America) whose call sign is WPA. Port Arthur Radio will then either send the message through Western Union via its telefax machine or via telex if the receiver of the message has a telex machine. There are also radio stations located in Galveston, Texas (Mackay Radio, call sign KLC) and in Mobile, Alabama (call sign WLO).

VHF: Pilot office on Channel 20. Pilot boat on Channels 12, 13, 16 and 65A.

TUGS: The exact position that the tug meets the vessel varies with each vessel but usually they meet just below Texaco Island. In some cases they meet as far up as Great Lakes Carbon Co. Berth (usually when vessel is in ballast and going to Gulf Oil Docks). Whether or not the tug uses the vessel's lines or its own lines depends entirely on the circumstances involved but the tugs usually use the ships lines. Port Arthur is served by 2 towing companies, (1) Moran Towing of Texas and (2) Sabine Transportation Company, Inc.

BERTHING: The first procedure for obtaining a berth at Port Arthur is to submit a Berth Request Form. The Berth Request will contain the following information and will be submitted, in duplicate, to P.O. Box 1428, Port Arthur, Texas: Date of request; type and name of vessel; loading ports; registry or flag; where vessel is to arrive from; ETA; where vessel is to sail for; estimated date of departure; what inbound cargo, if any, consists of; what outbound cargo, if any, consists of; date you expect to begin receiving outbound cargo. The Form must be signed by the Agent or Owner of the vessel. (Berth Request Form will be made available by the Port.) Upon receipt of a Berth Request from the Agent or Owner, the Port will then, upon determining availability of berth, return one copy of the initial Berth Request to the Owner or Agent as an assignment of berth. Berths are assigned on a first come first served basis at all times. All changes in vessel's ETA must be given to the Terminal Office immediately. All mooring and unmooring will be done by the Port. Procedure may differ at the various private terminals which are not under the jurisdiction of the Port Arthur Navigation District.

Also see "Developments".

BULK HANDLING FACILITIES: *Pabtex Terminal Company:* Bulk Marine Terminal in the Port's deepwater industrial park is located at Mile 26, handles dry bulk commodities from rail cars to storage to vessels at rates up to 3,000 t.p.h. and has space available for shipper storage tanks on pads, with open storage for 300,000 tons. The terminal also includes a 750 ft. wharf and is located directly on the Sabine-Neches Waterway which presently offers an authorised channel depth of 40 ft. All terminals described above are served by subject waterway and limitations of depth will vary at the face of dock at individual terminals. Pabtex maintains 40 ft. depth at the face of their facility.

Great Lakes Carbon Co.: Length of berth 300 m. Max. LOA 210 m. Max. draft 10.5 m. 2 loaders with total loading capacity 500 tonnes p.h. Petroleum, coke and coal handled.

CRANES: 1×75 ton diesel electrical crane services Berths No. 1 – 3.

BRIDGES: There are no bridges that would require a vessel to arrive at any certain time at Port Arthur, however, the first bridge approached involves a vertical clearance of 136 ft. MHW.

STEVEDORES: Advance order for longshore gangs varies as to contract held by ILA (International Longshoremen's Association). In Port Arthur, gangs have to be ordered as follows: Order by 1800 hrs. for the next morning (either 0700 or 0800 hrs.); order by 0800 hrs. for 1000 hrs; order by 1100 hrs. for 1300 hrs.; order by 1600 hrs. for 1900 hrs. Must order by 1800 hrs. day before for any starting time Sunday or Holiday.

MEDICAL: It is not usually required that the Agent be given advanced notice of required medical attention but in some instances it is helpful in arranging transportation to a hospital and in obtaining a bed in the event the hospitals are near full. Port Arthur is served by 2 hospitals; (1) St. Mary's Hospital and (2) Park Place Hospital, both of which are very well staffed and have adequate facilities for almost any emergency. Also, advance notice is helpful when vessel is scheduled to dock late in evening or during night, as doctors are not in their offices and have to be located.

Particular inoculations required by the Public Health Department vary as to the vessel's last foreign port of call. Any crew members who have not had the required inoculations can usually be given these inoculations on board either by the Public Health Officer or a Physician. This is usually arranged by the Agent or Owner.

TANKERS: There are 3 major oil companies: Chevron Oil Corpo Star Enterprise Inc.; and Fina Oil and Chemical Company. Chevr Corporation and Star Enterprise Inc. are 2 of the largest oil refine the country. The diameter of load/discharge lines range anywhere 4 in. to 12 in. depending on the grade of the petroleum product loaded. As far as slop discharge facilities are concerned there are ba tanks at all major oil companies. Chevron Oil has 3,400 linear ft. of accommodation and Star Enterprise has 5,299 linear ft. of accommodation together enough to accommodate 11 supertanke barges. Fina Oil and Chemical Co., being the smaller of the companies, has berth accommodation for 3 vessels.

Report: Chevron Oil Terminal is located on the East side of the T Bayou Turning Basin 30 miles from the Sea Buoy. The controlling of the channel and turning basin is 40 ft. The maximum size ve normally received at this terminal is 50,000 d.w.t. The water abo terminal is salt. Docking and undocking occurs day and night. Ves are cautioned of shoaling in the basin.

Vessels are normally turned upon arrival so as to head out. Wire are not permitted unless fitted with fibre rope pennants of at 3 fathoms in length. Fire wires must be rigged fore and aft.

Two tugs are normally used when docking unless vessel is 34,000 d.w.t. when 3 would be used. When undocking, 2 tugs are for vessels over 30,000 d.w.t., under 30,000 only one tug is used.

Amdel Pipe-line is located at the former ARCO Docks on the Ne River Channel 42 miles from the Sea Buoy and includes Berths and B. Controlling depths for the channel, manoeuvring area/tu basin, and berth is 40 ft. The water at the berth is fresh to bra Attention to moorings by deck watch is required when passing ve approach due to the close proximity of the berths to the channel.

Berth No. 1 is the largest and will accommodate vesse approximately 50,000 d.w.t. Berth "A" normally accommodates ves of 28,000 d.w.t. Berth "B" is normally used for crude oil and barge Loaded vessels normally moor starboard side to with standard mo lines fore and aft. 2 tugs are used for both docking and undo Incoming vessels are met by tugs 1 mile below the berth. Vesse turned just above Berth "B". Fire wires must be out fore an For undocking 2 tugs are normally used.

DENSITY: Varies from fresh water (1000) to pure salt water depending on amount of rainfall and tide variations. According to obtained from the National Cargo Bureau, average density is 50 water or (1012.5).

FRESH WATER: The Port has 4 ships service outlets for fresh each of which is served by a 4 in. water line. Watering barge available in the area for facilities which are not equipped to watering services.

FUEL: Almost any grade of fuel or marine diesel is available. In instances there are fuel lines running directly to docks, but bunkering barge is available. An advance notice is usually requi bunkering barge depending on number of vessels awaiting bunke

FIRE PRECAUTIONS: The Port has, in each of 4 equally sp indentations along the front of its transit shed, a fire hose outlet an 8 in. water line and there are numerous fire hose boxes throu the transit shed. In addition to this a 24 hour guard service is cons on the watch and is in direct communication with the Port Arthu Department which is only seconds away. Authorised on-dock sm areas are clearly defined for proper safety controls.

CONSULS: The nearest Consul-Generals are in Houston, approximately 90 miles from Port Arthur.

REPAIRS: All types of deck and engine repairs can be accomp Main ship repairers are: Vessel Repair, Inc., Gulf Cop Manufacturing Corp., Sabine Propeller Company and Coastal Service, all of which are located in Port Arthur.

DRY DOCKS: 2 dry docks, largest being Texas Drydock Inc.'s ne service rig/vessel facility located 8 miles up-river from the Sabine Anchorage. The dry dock at this Texas Drydock Inc. repair yard enough to lift any mobile offshore unit working the Gulf today handle any jackup, whether mat-supported or independent-leg semi-submersibles, submersibles or drill ships. This sectional ste offers lift capacity of 56,000 long tons, 30 ft. of water over the and it can be configured to provide a clear docking area of 362×310 ft. or 825×122 ft., depending on the size and shape incoming vessel. The dock is outfitted with machine, pipe and shops, and has the crane capacity to give it full repair service ca For especially heavy lifts, Texas Drydock Inc.'s 400-ton capacity barge is available.

The smaller dry dock is Vessel Repair, Inc., which occupies 6 with 3,200 linear ft. of frontage on Port Arthur Ship Channel. Th also designs, constructs and repairs barges, tugs and other ve has fully equipped shops, 2 marine railways with haul-out capa 1,000 and 1,500 tons and 1 floating dry dock of 3,000 ton capa

SURVEYORS: American Bureau of Shipping, Goodhue B Beaumont, Texas.

National Cargo Bureau, 821 Petroleum Bldg., Beaumont 77701. Tel: (713) 839-4581.

Sabine Surveyors. Inc., 9509 Highway 69, Port Arthur, Texas Tel: (409) 724-6969.

Soutex Surveyors, Inc., 3727 Doctors Drive, Port Arthur, Texas Tel: (713) 983-2004.

Triangle Marine, Inc., 8700 Ninth Avenue, Port Arthur, Texas Tel: (713) 722-1922.

Underhill Adjustment Agency, 1335 Proctor Street, Port Arthu 77640. Tel: (713) 985-9329.

World Marine Associates, Inc., 580 Fannin, Suite 718, Be Texas 77701. Tel: (713) 838-9980.

GANGWAY/DECK WATCHMEN: Under normal conditions a wa is not necessary on most vessels. Under certain conditions s communicable disease or a malafide crewman, a watchman w feasible but the decision is left up to Master or owner of the There is a $1,000 fine if a malafide crewman disembarks from the

OPENING/CLOSING HATCHES: Paragraph 2, Rule No. 1 of the Deep Sea Longshore and Cotton Agreement for Texas ports and Port of Lake Charles, Louisiana, states as follows: "When vessel is in loading or unloading berth, loading and laying of dunnage and the opening and closing of hatches, when in connection with the handling of general cargo and/or cotton, is longshore work and will not be done by ship's crew." This agreement, however expired in 1978.

CUSTOMS ALLOWANCES: Tobacco: Each crewman is allowed to keep 300 cigarettes out of bond while in port. Wine and/or Spirits; Each crewman is allowed to keep 1 quart of spirits out of bond while in port.

CARGO GEAR: A current certified Gear Certificate is required to be on board at all times and is to be kept up to date.

REPATRIATION: There are facilities for effecting crew changes and repatriation.

AIRPORT: Port Arthur is served by Mid-Jefferson County Airport which is located approximately 10 miles North of Port Arthur on Highway 69. The Mid-Jefferson County Airport is served by various airlines.

TIME: Central Standard Time (GMT minus 6 hours) during Winter. From first Sunday in April till last Sunday in October Central Daylight Time clocks are moved ahead 1 hour).

HOLIDAYS: Longshore Holidays are: Veterans Day (Nov. 11th), Thanksgiving Day (Fourth Thursday in Nov.), Christmas Day (Dec. 25th), New Year's Day (Jan. 1st), Martin Luther King's Birthday (Jan. 15th), Washington's Birthday (Third Monday in Feb.), Texas Independence Day (March 2nd), Good Friday, Memorial Day (Last Monday in May), June 19th, July 4th, Labour Day (First Monday in September).

At Lake Charles, LA., Mardi Gras Day to be substituted for Texas Independence Day. No work shall be performed on Labour Day or Christmas Day, except in case of fire or where property is in danger.

When holidays fall on Sunday, the following Monday to be recognised as the holiday. No work to be performed between 1600 hrs. and 1900 hrs. on election days. When Christmas falls on Sunday, Monday will be an overtime day and gangs will work as ordered.

POLICE/AMBULANCE/FIRE: Police Department Tel: 983-8600; Fire Department Tel: 983-8700; Ambulance Service Tel: 985-5504 or 983-5666.

EMERGENCY CO-ORDINATION CENTRE: Coast Guard Captain of the Port, 2875 75th St., Highway 69, Port Arthur, Texas 77640. Tel: (409) 724-4343.

TELEPHONES: Facilities for placing a telephone on a vessel by request. There is a coin-operated telephone on the dock for anyone's use.

SERVICES: Tank cleaning done in port must be done by longshore labour. All major oil companies have facilities for removing tank washings.

BANKS: First Interstate Bank, 441 Austin Avenue, Port Arthur, Texas 77640. Tel: (409) 985-8851.

First Bank & Trust, 4000 Twin City Highway, Groves, Texas 77619. Tel: (713) 963-1141.

Bank One Port Arthur, 8200 Highway 69, Port Arthur, Texas 77642. Tel: (409) 727-0123.

First National Bank of Port Neches, 1025 Port Neches Avenue, Port Neches, Texas 77651. Tel: (409) 722-4365.

Mid County Bank & Trust, 800 Magnolia, Port Neches, Texas 77651. Tel: (409) 727-2361.

Nederland State Bank, 1308 Boston, Nederland, Texas 77627. Tel: (409) 727-3161.

Bank One, 3723 Gulfway Drive, Port Arthur, Texas 77640. Tel: (409) 982-5741.

STORING: See "Prelims".

1. Vessels are generally stored by truck in the area but barge storing does occur on rare occasions.
2. There are no specific regulations covering barge storing while vessel is working other than what the individual terminal may deem proper.
3. Trucks normally deliver at shipside at the Ports' facilities but this will vary from terminal to terminal.
4. Fork lift trucks are never used on the jetty to handle stores.
5. None other than Bonded Warehouse products.
6. Can but are seldom used. Generally handled by ship's crew or other less costly labour that is available in the area.

SHORE LEAVE: The question of whether shore leave is allowed is entirely up to the ship's Master. The only requirements being; each crewman on shore leave must have a landing permit issued by the Immigration Department and no malafide crewman may be granted shore leave. Port Arthur has no restrictions pertaining to shore leave.

IDENTIFICATION CARDS: American crewman do not need any identification card. Foreign crewman need only the landing permit from Immigration Department in order to go ashore.

GARBAGE DISPOSAL: Arrangements should be made through local steamship agent. Service provided by Browning Ferris Inc. (BFI), Highway 69, Nederland, TX 77627. Tel: (409) 724-2371.

WASTE OIL DISPOSAL: Arrangements should be made through local steamship agent. Service provided by Carotex Inc., P.O.Box 3901, Port Arthur, TX. 77643. Tel: (409) 962-0251.

SEAMAN'S CLUBS: Port Arthur International Seaman Center Inc., 101 W Lakeshore Drive, Port Arthur, TX. 77640. Tel: (409) 982-4504.

DELAYS: Delays in berthing usually arise from vessels ETA being delayed and thereby causing a berth conflict. The port is on a first come, first serve basis.

GENERAL: On vessels arriving directly from a foreign port there are 3 Government Agency Representatives that must board. Already mentioned and explained are Customs and Immigration. The remaining one, Animal and Plant Inspection Services. The Meat Quarantine representative boards the vessel to seal up all meat with the exception of what will be needed while in port. In the event a vessel is detained in port for some reason and more meat is needed the Meat Quarantine Rep. must return to the vessel and personally break the seal and then re-seal the remaining meats. This representative boards all vessels entering the port whether from foreign or coastwise.

The Plant Quarantine Rep. boards all vessels entering from a foreign port to check all fresh fruits and vegetables for any foreign insects such as the Khapra Beetle.

NOTICE:

Notice from U.S. Coast Guard (Dated May, 1983).

Liquified Gas Vessels.

This is to clarify U.S. Coast Guard policy regarding liquified gas vessels operating in the Calcasieu Waterway that seems to be causing some confusion. Synopsis of each is as follows:

(1) The Captain of the Port (COTP), Port Arthur, Texas, needs to be informed of the arrivals and departures of all liquified gas vessels, whether loaded or in ballast, a minimum of 4 hours advance notice is required to ensure that a Notice to Mariners is broadcast. The vessel is reminded to have a Calcasieu River Pilot's confirmation of movements prior to notifying the COTP at (409) 724-4330.

(2) The COTP has determined that it is an unsafe practice to bunker a loaded or partially loaded liquified gas vessel at anchor from a barge alongside. If you have a loaded vessel arriving that needs bunkering, make your arrangements so that the vessel is offloaded prior to bunkering. If an empty vessel arrives, make arrangements to have the vessel bunkered prior to loading.

If there are any questions concerning these guidelines, please contact Port Arthur (Tel: (409) 724-4337 or 724-4339) or Lake Charles, La (Tel: (318) 433-3765).

Signed: Captain, U.S. Coast Guard, Capt. of the Port, Port Arthur, Texas.

DEVELOPMENTS: Located only 19 miles from sea, the new Public Ocean Terminal of the Port is located on the Sabine-Neches Waterway, presently 40 ft. deep with a minimum bottom width of 400 ft. The initial facility encompasses 360,000 sq.ft. including 1 transit shed 180 ft. × 1,080 ft. or 194,400 sq.ft. Rail trackage totals 120 car-spots at dockside with a 150-car storage yard behind the wharves. The facility includes a Gantry Crane (handling dry bulk, magnet, container and heavy lift cargoes) which straddles 2 of the 3 marginal tracks, travelling the entire 1,200 ft. length of dock. Crane will lift 75 tons a distance of 75 ft. off the face of docks, with all areas brilliantly lighted for 24 hour cargo operations. In addition to the 25 acre facilities described above, the District owns a total of 73 acres or 1 mile of frontage for future development. The master plan calls for a total of 4 Transit Sheds, additional open-dock wharves and Roll-on/Roll-off facilities.

AUTHORITY: Port of Port Arthur Navigation District of Jefferson County, Texas, 900 Fourth Street, P.O. Box 1428, Port Arthur, Texas 77641. *Tel:* (409) 983-2011. *FAX:* (409) 985-9312. *Contact:* Ben Goldstein, Port Director.

PORT CANAVERAL, Florida: 28.25 N. 80.35 W.

(See Plan)

DOCUMENTS: Vessels arriving in the Customs Territory of the United States, Bureau of Customs Documentary Requirements:

1. The vessel's Register, International Load Line Certificate, Tonnage Tax Certificates, Clearance from last Foreign Port, and Certificate of Financial Responsibility (Oil Pollution).

2. Additional Documents required:

(a) Original Manifest (lists) of:
All Cargo on Board – Customs Form 1302.
All Passengers on Board.
Stores List.
Crew Purchase List.
Crew List.
Narcotic List.

(b) All items listed in Nos. 1 and 2 *(a)* must be presented to the boarding Customs Inspector and later at the Customhouse for entry. In addition a Customs Form 1300 (Master's Oath) and Customs Form 1301 (General Declaration) must be presented at the Custom House.

(c) Duplicate Manifest (lists) of:
1. All Cargo for discharge at this port.
2. All Passengers for discharge at this port.
3. Stores List.
4. Crew Purchase List.
5. Crew List.
6. Narcotic List.
7. CF3171 – Permit to Lade or Unlade (this will usually be furnished by the vessel's Agent prior to the arrival of the vessel).

(d) If vessel is proceeding coastwise from Port Canaveral with residue foreign cargo on board, prepare a Traveling Manifest which is a true copy of everything listed in the Original Manifest (2*(a)*). This must be presented to the boarding Customs Inspector and later at the Customhouse.

3. Other Documentary requirements: The Immigration Officer will require the original certificate Crew List on Form I-418. The same for passengers. He will also require the presentation of all passports and documents of seamen and passengers as to their immigration status for entry into the United States. A supply of Seaman's Landing Permit Form No. I-95A and passenger Permit No. I-94 should be maintained and they should be typed and ready for landing.

The Immigration Officer will want to inspect the entire crew. The Customs and Agriculture Officers will want to inspect the food storage areas and the quarters of the crew. The Agriculture Officer will also require a stores list. The Customs Officer will place a seal on the Bonded Stores Locker.

PILOTAGE: Pilotage is compulsory for all foreign vessels and for United States vessels under register in the foreign trade. Pilotage is optional for United States coastwise vessels who have on board a Pilot licensed by the Federal Government. Vessel applies for Pilot through Agent or Port Authority. May also call Pilot Office direct, Tel: (407) 783-4645. Pilot will board at Buoys 3 and 4 (Lat. 28° 22.6' N., Long. 80° 31.7' W.). Pilot boat is 37 ft. long with black hull, white house and buff deck, has "Pilot" painted on sides. Standard day/night pilot signals are displayed. Pilot boat stations itself 1 mile S.E. of Buoys 3 and 4, 0.5 hours before ETA of vessel. Vessels may anchor anywhere in area. Pilot boat is equipped with VHF Channels 12 (156.60 MHz) and 16 (156.80 MHz), but no continuous radio watch is maintained. Advance notice of at least 24 hours should be given.

ANCHORAGES: Within the harbour itself, none.

The port's location is given as Lat. 28° 24' 46" N., Long. 80° 30' 49" W. Vessels arriving from off-shore may find a safe anchorage in the general vicinity of one mile South to S.W. of Approach Channel Buoy No. 3. A vessel shall ensure that its position will not impede the safe progress of other vessels transmitting to/from the approach channel.

RESTRICTIONS: Docking and undocking carried on day and night. Draft restrictions – if draft exceeds 36 ft. 6 in. vessel must await rising tide to enter port.

MAX. SIZE: Length and draft at Tanker Berth No. 1 and No. 2, 650 ft., with 39 ft. draft. Cargo dock, length unlimited – 39 ft. draft.

HEALTH: See "Health: All Ports" before first U.S.A. ports (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO/VHF: Pilot boat is equipped with VHF Channels 12 (156.60 MHz) and 16 (156.80 MHz) but no continuous radio watch is maintained. Advance notice of at least 24 hours should be given. Best to route ETA cables through Western Union Telegraph. Port Canaveral is equipped with VHF Port Operations frequency 156.6

ETA Advice: Estimated time of arrival is required by the Harbour Master's office 24 hours prior to arriving at the pilot boarding station. Details to include ETA/ETD, vessel flag/Registry, GRT/LOA/draft.

TUGS: There are 2×1,800 h.p. tugs and 1 × 2,400 h.p. at Port Canaveral; most ships use the tugs for docking and undocking, but it is not mandatory. Tugs normally join vessel inside jetties and tugs lines are used.

BERTHING: All vessels unless prevented by conditions will be turned around upon entering turning basin and will be berthed headed seaward. No berthing permitted without Port Pilot aboard.

Northside:

Piers 1, 2, 3 and 4, all 39 ft. draft, general cargo, water available. Piers 3 and 4 with combined continuous length of 1,200 ft. – 39 ft. draft. Potable water and electricity available.

Southside:

Marginal Wharf with total length of 1,620 ft. at 39 ft. draft, 250 ft. at 24 ft. draft, general cargo, bunkers, water available.

Ro/Ro Ramp No. 1: 30 ft. width, elev. + 3 ft. MLW.

Tanker Berth No. 1: Dolphin type, 39 ft. draft, petroleum products, cement, bunkers, water available.

Tanker/Cargo Berth No. 2: Length 400 ft., 39 ft. draft, petroleum products, water available.

Cruise Terminals No. 2, 3 and 4: 35 ft. draft, 2,060 ft. combined length.

Cruise Terminal 5: 35 ft. draft, 525 ft. berth.

Cruise Terminal 8: 35 ft. draft, 725 ft. berth.

Cruise Terminal 10: 35 ft. draft, 725 ft. berth.

Also see "Tankers".

STEVEDORES: Important that vessel gives accurate ETA at least 24 hours in advance to enable Agent to order gangs.

MEDICAL: Advance notice for Agents not required, but if available is appreciated. There are good hospital facilities available and an emergency walk-in clinic at the Port. A contract physician's office of the U.S. Public Health Service is at Cocoa Beach, just South of the port.

TANKERS: Tanker Berths No. 1 and 2 available at present for discharge operations, with 35 ft. draft limit. No oil to be pumped overboard. Heavy fines imposed for oil pollution, however slight. The ship or ship's Agent will immediately report any spillage of oil on the wharf or on the water and the extent of the spill to the Port Manager and the Harbour Master. If spillage is considerable all cargo operations must stop and vessel prepare to undock.

FRESH WATER: All wharves have facilities for supplying fresh water, delivered by 4 in. water line.

FUEL: The general cargo wharf and Tanker Berth No. 1 have facilities for supplying fuel. 24 hours' notice requested. Fuelling by truck available at other berths.

FIRE: Ships discovering fire on board or close by on shore will sound repeated long whistle blast signals and use every other available means to report the fire.

Gasoline Tankers: All deck scuppers must be plugged before starting to discharge cargo. Supply of sand or sawdust must be on hand near the discharge headers. Static cable must be connected to wharf. Minimum 100 lb. pressure must be on water main and fire hose connected. Discharging must be stopped during severe lightning. Deck Officers must keep close check on hose connections for gasket leaks. Emergency Ship Movement Policy of Port Canaveral must be observed.

CONSULS: None.

REPAIRS: Available in the port.

SURVEYORS: Surveyors are available on request.

GANGWAY/DECK WATCHMEN: Not usually employed, this service left to discretion of Master.

OPENING/CLOSING HATCHES: Usually done by stevedores.

CERTIFICATES:

Ship's Register.
Load Line Certificate.
Tonnage Tax Certificate.
Derat Certificate or Derat Exemption Certificate.

CUSTOMS ALLOWANCES: 300 cigarettes per crew member, and/or spirits: 1 quart per crew member.

REPATRIATION: All facilities available for effecting crew change arranging any necessary repatriations.

AIRPORT: Two airports available, serviced by regular airlines, Or International Airport, Orlando, Florida, approximately 54 miles fro Port; Melbourne Regional Airport at Melbourne, Florida, approxi 30 miles from Port. Also Space Coast Executive Airport approxi 25 miles from the Port, but this airport has only limited service.

TIME: GMT minus 5 hours normal, GMT minus 4 hours Daylight S Time.

HOLIDAYS: Numerous holidays do not effect operation of port, operates 24 hours a day, 7 days a week.

POLICE/AMBULANCE/FIRE: Police/Fire, Tel. 783 – 7800; Ambu Tel. 452 – 1444.

EMERGENCY CO-ORDINATION CENTRE: United States Coast Station, Port Canaveral. Tel: (407) 853-7601.

TELEPHONES: Arrangements are not available for placing on bo

BANKS: Barnett Bank, 430 Brevard Avenue, Cocoa, Florida.

Numerous other banks are available in this area.

STORING: See "Prelims".

1. Vessels stored by truck only.
2. N/A.
3. Yes.
4. No.
5. Usual.
6. Yes, if required.

SHIP SUPPLY SERVICE: No ship supply services operate at the

In times of emergency, launch or tug service could be arra through the Port Authority, and helicopter evacuation provided th the United States Coast Guard.

SHORE LEAVE: Crew allowed ashore.

IDENTIFICATION CARDS: Required.

REGULATIONS: All radio frequency radiations from ships in Canaveral must be scheduled to prevent any possible interfere missile tests conducted on the Cape Canaveral Missile Test Anne only exception is standard ship/shore HF harbour control freque Vessels desiring to radiate will request permission from the Port Ma and/or Harbour Master.

GENERAL: All vessels, civilian and military, will provide wire ropes the bow and stern with eyes that can be reached by tugs o alongside. Pilots will make sure wires are in proper position leaving vessel. All vessels will undock and proceed to outer anch when so ordered by Port Manager and/or Harbour Master in the of: *(a)* a severe oil spillage; *(b)* fire is discovered on board a vesse with petroleum, explosives or a quantity of dangerous *(c)* vessel is in jeopardy due to conditions on shore. Eme movement of ships will be made with an able sea watch without a for return of other ships personnel.

DEVELOPMENTS: Western Basin Expansion started in mid completion 2008. 7 additional ship berths, including container, cargo, bulk cargo, shipyard and cruise terminals. Estimated U.S.$400 million.

Inlet channel to be widened from 300 ft. to 400 ft. and entrance to be deepened.

AUTHORITY: Canaveral Port Authority, P.O.Box 267, Cape Can Florida 32920. *Tel:* (407) 783-7831. *Telex:* 981573 Ptcan *FAX:* (407) 784-6223. *Contact:* Charles M. Rowland, Executive Di Joseph Lapolla, Deputy Executive Director. Louis J. Perez, Dire Marketing and Trade Development. Dwight Fender, Direc Operations.

PORT EVERGLADES (including Fort Lauderdale), Florida: 26.05 N. 80.05 W. (See

LOCATION: Port Everglades is on the Southeastern coast of the Peninsula, within the three cities of Hollywood, Fort Lauderda Dania, as well as unincorporated Broward County. The seaport is approximately 23 miles North of Miami, 48 miles South of Wes Beach, and 312 miles South of Jacksonville.

Sea Buoy: The Port Everglades Sea Buoy is loca Lat. 26° 05' 31" N., Long. 80° 04' 46" W.

DOCUMENTS:

3 copies Travelling Cargo Manifest (Form 1302), the originals all cargo on board, and 2 copies showing only cargo for th
2 copies Crew Manifest (Curio List).
2 copies Stores List.
2 copies Passenger List (Form I-418).
2 copies Crew List (Form I-418).

Customs Boarding Officer will also examine Ship's Register a Line Certificate. In addition, the following documents will be req formal entry to be made within 48 hours of arrival from ab 24 hours from arrival from a United States port:

Health Pratique.
Master's Oath (Form 1300).
All foreign clearances.
All other ship's documents (Water Pollution Certificates, etc U.S. Certificates of payment of tonnage tax (Customs Form Certified Crew List.
American vessels only – All foreign repairs (Customs Form

PILOTAGE: Pilot boards at Port Everglades Sea Buoy, lo Lat. 26° 05' 30" N., Long. 80° 04' 45" W. Pilot available 24 hou

ANCHORAGE: A Sea Anchorage is designated outside the harbour and North of the Entrance Channel, where ships may anchor without damaging existing underwater cables or the local reef system. Water depth is 60 ft. – 90 ft. The rectangular anchorage is 1,000 ft. wide and 1.5 miles long, inside the following designated area:

N.E.	Lat. 26° 07' 46" N.,	Long. 80° 04' 51" E.
N.W.	Lat. 26° 07' 46" N.,	Long. 80° 05' 01" E.
S.E.	Lat. 26° 06' 20" N.,	Long. 80° 05' 01" E.
S.W.	Lat. 26° 06' 20" N.,	Long. 80° 05' 10" E.

There is a Government Restricted Area immediately offshore, South of the Entrance Channel.

Offshore Loading: Sea Anchorage limited to above coordinates. Water depth 60 ft. – 90 ft. No lighters based at Port.

RESTRICTIONS: Entrance to Port Everglades is by a straight channel running in a due Westerly direction for a distance of 1.7 miles from the 50 ft. contour of the ocean to the turning basin. The channel is 500 ft. wide at its seaward end, narrowing to 450 ft. wide from the jetty entrance to the Turning Basin. The water depth is 44 ft. including the Turning Basin. All depths are at Mean Low Water.

BASIN: *Main Turning Basin:* The Main Turning Basin is 1,200 ft. East and West and 2,450 ft. North and South with a depth of 44 ft. The North extension of turning basin is 620 ft. wide East and West on the North limits and 900 ft. wide East and West on the South limits and 1,150 ft. North and South, with a depth of 31 ft. The South extension of the Main Turning Basin is 1,300 ft. wide East and West by 1,300 ft. North and South, with a depth of 38 ft.

Southport Turning Basin: 900 ft. East and West by 800 ft. North and South, with a depth of 44 ft.

Tide: Mean tidal range at the harbour entrance is 2.5 ft. with a Spring tide of 3.0 ft. Tide range in the slips is from 0.2 ft. – 0.3 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO/VHF: The following radio channels are available to communicate with facilities at Port Everglades:

Ship calling and safety: Channel 16.
Harbour Master: Channels 16, 14, 7A and 18A.
Operations: Channels 14, 7A and 18A.
Port Everglades Bar Pilot: Channels 12, 16, 13, 14, 18A, 19A.
Port Everglades Towing Co.: Channels 16, 13, 77, 14 and 18A.

TUGS: 5 tugs available to assist berthing with up to 4,200 h.p. Available 24 hours a day.

Port Everglades Towing Inc., P.O.Box 13038, Port Everglades, FL.33316. Tel: (954) 523-2200. Fax: (954) 527-1744.

BERTHING: Port Everglades' 48 berths currently available for ocean-going vessels are of varying lengths and depths and are divided among the port's 3 areas of operation – Southport, Midport and Northport. Ten of the berths are located in 3 slips, with the others along marginal wharves and T-heads. Bulkheads are sheet steel piling with concrete caps and rubber high-impact absorption fendering. Total berthing space measures 25,072 lineal feet.

The Southport area is used for cargo operations, with a focus on containerised and Ro-Ro services. Midport furnishes cruise berthing, cargo facilities, military vessel berthing and smaller lay-in spaces. Northport primarily handles cruise operations and liquid bulk unloading, with some cargo operations.

Berth	*Length*		*Depth**		*Use*
	(ft.)	(m.)	(ft.)	(m.)	
Southport:					
33C	400	122	44	13.5	Ro-Ro
33B	400	122	44	13.5	Ro-Ro
33A	800	244	44	13.5	Container, Ro-Ro
32 – 31	2,000	610	44	13.5	Container, Lo-Lo
30	900	274	44	13.5	Bulk, container
Midport:					
29	800	244	40	12.2	Cargo, container
28F	400	122	27	8.2	Cargo, container
28E	275	84	27	8.2	Lay-in
28D	350	107	27	8.2	Lay-in
28C	350	107	27	8.2	Lay-in
28B	275	84	27	8.2	Lay-in
28A	480	146	27	8.2	Tugs
27 – 26	1,337	407	40	12.2	Cruise, cargo, navy
25 – 24	1,369	417	40	12.2	Cruise, navy, lay-in
23	240	73	38	11.6	Miscellaneous
22 – 21	1,325	450	38	11.6	Cruise, cargo, navy
20 – 19	1,300	396	38	11.6	Cruise, navy, Ro-Ro
18 – 17– 16	1,648	502	38	11.6	Cruise, cargo
15 – 14	1,226	374	38	11.6	Bulk cement, cargo
Northport:					
13 – 12	1,226	374	38	11.6	Tanker
13A – 12A	300	91	38	11.6	Miscellaneous
11	500	152	38	11.6	Barge
10 – 9	1,200	366	38	11.6	Tanker
9A – 8A	300	91	38	11.6	Miscellaneous
8 – 7	1,200	366	38	11.6	Tanker
6	380	116	38	11.6	Container, cargo, lay-in
5	900	274	43	13.1	Tanker, cargo, Ro-Ro
5A – 4A	290	88	43	13.1	Cruise, cargo, Ro-Ro
4	900	274	43	13.1	Cruise, cargo, Ro-Ro, navy
3 – 2 – 1	1,601	488	31	9.4	Cruise, cargo, Ro-Ro, navy
1B	220	67	23	7.0	Cruise, lay-in
1A	180	55	12	3.7	Lay-in

* Depths are approximate and should not be relied upon for navigational purposes.

Cruise Terminals: There are a total of 10 modern air-conditioned passenger terminals, 9 of which are equipped with elevators, escalators and loading bridges. Cruise facilities are at Terminals No. 1, 2 and 4 at the North end of the Port, and 18, 19, 21, 22/24, 25 and 26 at Midport.

Footage dedicated to Cruise Operations:

	Terminal Area (sq.ft.)	*Baggage Area* (sq.ft.)
Terminal 1	4,672	24,780
Terminal 2	19,172	25,000
Terminal 4	12,134	25,350
Terminal 18	29,200	29,000
Terminal 19	16,577	30,970
Terminal 21	12,772	11,775
Terminal 22	7,317	14,389
Terminal 24	9,441	12,332
Terminal 25	13,448	18,733
Terminal 26	13,168	20,400

Foreign Trade Zone Warehouses: There are 5 warehouses in the Foreign Trade Zone (FTZ) with a total of 401,000 sq.ft. of space.

FTZ "A"	110,000 sq.ft.
FTZ "A Annex"	110,000 sq.ft.
FTZ "B"	30,000 sq.ft.
FTZ "E"	45,000 sq.ft.
FTZ "F"	106,000 sq.ft.

Transit Warehouses: There are 9 transit sheds containing a total of 536,900 sq.ft. of in-transit storage space.

Warehouse area (sq.ft.):

No. 1	41,200
No. 2	30,600
No. 4	56,640
No. 6	15,826
No. 16	89,598
No. 18	35,000
No. 19	45,000
No. 26	73,600
No. 29	54,000

Open Storage: Approximately 266 acres, paralleling the length of the harbour, and located next to cargo berths. All berths have vehicular access, and Berth No. 4 has rail service. Most dry and general cargo berths are designed for dual requirements of open and coverage storage, eliminating the necessity of shifting vessels after partial unloading. Open storage areas are enclosed and secured with chain link fencing.

Typical commodities consigned to open storage are lumber, containers, construction steel and steel products, automobiles, heavy duty equipment, scrap metal and other bulk commodities.

Open Yard Area Facilities:

Location	*Acres*	*Use*
Northport – West of Building 4	4	Containers
Northport – West of Berth 4A	4	Containers
Northport – Pier 2	1	Containers/Steel
Midport – Container Yards	44	Containers
Midport – Mini Basin	15	Containers
Midport – Berth 29	18	Bulk/Lumber/Steel
Southport Terminal	155	Containers/Trailers
Southport (Phase V-1997)	20	Containers/Trailers
Southport – Scrapyard	5	Scrap Metal
FTZ	4	Vacant
FTZ	8	Warehouse Expansion

Foreign Trade Zone: Broward County Board of County Commissioners is the Grantee and Operator of Foreign Trade Zone No. 25 located within the Port. Use of the facilities is outlined in Foreign Trade Zone No. 25 Tariff No. 1, which may be obtained from Foreign Trade Zone staff.

Reefer Outlets: There are currently 400 reefer outlets located at Port Everglades, primarily 3 phase 480V, 60 cycle, 100 amps.

Refrigerated Warehousing: A one million cubic foot reefer plant with 6 temperature adjustable chambers (Port Everglades Cold Storage) is located less than 200 ft. from the Container Terminal (Berths No. 16 – 18).

Roll-On/Roll-Off Facilities: There are 8 Ro/Ro ramps built into the sea walls. One ramp is located at Berth No. 1, two ramps are located at the West end of Berths No. 4 and 5, and two additional ramps are located at the corner of Berths No. 18 and 19. Three ramps are located in Southport at Berths No. 33A, 33B and 33C.

Ramp	*Width* (ft.)	*Depth* (ft.)
Berth 1	70	31
Berth 4	145	43
Berth 5A	145	43
Berth 18	43	38
Berth 19	84	38
Berth 33A	140	44
Berth 33B	120	44
Berth 33C	120	44

CRANES: With the exception of rail-mounted container gantry cranes, all cargo handling equipment is owned and operated by stevedoring and agency firms. Companies provide modern handling equipment, mobile cranes of 100, 65, 30 and 20 tons. Attachments include clamshell buckets, electric magnets and automated ship-unloaders. No floating cranes or derricks are based at the Port.

BULK CARGO FACILITIES: Port Everglades is highly diversified in the type of cargoes it handles. Storage facilities are available for petroleum, scrap metal, bulk cement, etc.

Cement: Berths No. 14 and 15 are the Port's designated berths for handling bulk cement. There are currently 34 bulk cement silos, 14 owned by Rinker Cement and 20 owned by Continental Cement Company of South Florida, Inc. The Rinker facility has a total holding capacity of 65,000 short tons and handles both white and grey cement with bagging for white cement. Product is distributed by Rinker Transport Company and others, to destinations throughout Southeast Florida.

Rinker has a privately owned Kovako ship unloader sitting on approximately 700 ft. of dockside rail, and providing the capacity to unload up to 400 metric tons of bulk cement per hour. Continental Cement's 20 silos have a total bulk grey cement capacity of 48,600 tons. Continental has a privately owned Siwertell ship unloader, located adjacent to its dockside silos sitting on 400 ft. of rail, with the capacity of discharging cement at a rate of 800 metric tons per hour. Bagging services are available at Continental, which also distributes its product throughout Southeast Florida.

Lumber: The designated lumber yard is located at Berth No. 29. There is currently one primary lumber company with Port Everglades operations. Gulf Atlantic Lumber Sales ships Western red cedar and Western hem fir from British Columbia mills with distribution throughout the State of Florida.

Petroleum: There are 264 various sized petroleum storage tanks located in the Port Everglades jurisdiction, with a total capacity of approximately ten million barrels. The majority of tanks are privately owned. Also see "Tankers".

Scrap Metal: Five acres are dedicated to scrap metal storage and processing. The primary company providing these services is SIDCO Enterprises, Inc./Sunshine Metal Processing, Inc.

Steel: Construction steel and other steel products are normally stored at Berth No. 29. Indoor storage of steel coils is available.

Waste Paper/Newsprint: Indoor storage is made available for these commodities in dockside transit warehouses.

CONTAINER HANDLING FACILITIES:

Berths: Container operations are currently centered around Midport Berths No. 16, 17 and 18 with 2 gantry cranes, lighted and secured, also at Berth No. 6, 28F, 29 and Southport Berths No. 30 and 33A with 3 low profile Post-Panamax gantry cranes (A fourth crane will be delivered to Southport mid-1997).

Handling Equipment: A full range of container handling equipment is available, including container top handlers, yard mules, high capacity forklifts, chassis and flatbed trailers.

Terminals: Storage areas total 59 acres in the Midport and Northport area, accommodating both wheeled and grounded configurations. All container terminals are adjacent to the Berths to facilitate container transfer and loading. Trailer operations are already in effect at the developing 155 acre Southport Container Complex through Crowley Caribbean Transport's 55 acres container/trailer facility. Gantry crane operations available at Southport.

Cranes: Port Everglades currently has 3 container cranes available for service. All are rail-mounted, diesel electric single trolley, through-leg load handling, gantry type container cranes.

Midport: Kone Oy Gantry Crane:
Operator: Port Everglades Authority.
Operating features:

Rated capacity (below spreader)	30 long tons
Rated capacity (below cargo hook)	37 long tons
Hoist speed at rated capacity	160 ft./min.
Lower speed at rated capacity	160 ft./min.
Hoist acceleration at rated capacity	2 sec. (approx.)
Hoist speed with empty spreader	380 ft./min.
Trolley travel	500 ft./min.
Gantry travel	150 ft./min.
Boom travel (up or down)	5 min.

Principle Dimensions:

Rail gauge	50 ft.
Frame leg clearance	50 ft.
Overall portal clearance	44 ft.
Total lift, top of rail to underside of spreader	81 ft.
Total lift minimum	131 ft.
Outreach, centreline waterside rail – centreline spreader	130 ft.
Backreach, centreline landslide rail to centreline of spreader	40 ft.
Width of crane with bumpers extended	95 ft.
Boom stowed crane height	240 ft.

Paceco Gantry Crane:
Operator: Port Everglades Authority.
Operating features:

Rated capacity (below spreader)	50 long tons
Rated capacity (below cargo hook)	58 long tons
Hoist speed at rated capacity	150 ft./min.
Lower speed at rated capacity	190 ft./min.
Hoist acceleration at rated capacity	2 sec. (approx.)
Hoist speed with empty spreader	360 ft./min.
Trolley travel	500 ft./min.
Gantry travel	150 ft./min.
Boom travel (up or down)	5 min.

Principle Dimensions:

Rail gauge	50 ft.
Frame leg clearance	60 ft.
Overall portal clearance	51 ft.
Total lift, top of rail to underside of spreader	100 ft.
Total lift minimum	150 ft.
Outreach, centreline waterside rail centreline spreader	135 ft.
Backreach, centreline landslide rail to centreline of spreader	75 ft.
Width of crane with bumpers extended	95 ft.
Boom stowed crane height	270 ft.

Southport: 3 cranes operational (Fourth crane will be delivered 1997). Samsung, post-Panamax, low-profile, shuttle boom.
Operator: Port Everglades Authority.
Operating features:

Rated capacity (below spreader)	40 long tons
Rated capacity (under cargo hook)	57 long tons
Hoist speed loaded	180 ft./min.
Hoist unloaded	380 ft./min.
Lowering loaded	180 ft./min.
Lowering unloaded	380 ft./min.
Trolley travel	600 ft./min.
Boom shuttle time	2.5 minutes in out
Gantry travel	150 ft./min.

Principle Dimensions:

Dock rail gauge	100 ft.
Clear height under spreader over rail	106.25 ft.
Overall portal clearance	50 ft.
Total lift minimum	155 ft.
Maximum gantry width (bumpers extended)	86.5 ft.
Workable outreach	145.5 ft.
Minimum workable backreach at post-Panamax working position	45 ft.
Maximum boom width	30 ft.
Overall height limit above rail	151.25 ft.

Spreaders:
(1) Bromma Twin 20 ft., rated 40 long ton.
(1) Bromma Telescopic, 20 ft. – 40 ft., rated 40 long ton.
(6) Bromma Telescopic, 20 ft. – 45 ft., rated 40 long ton.

STEVEDORES: These services are provided by licensed steved firms. Arranged by Agent.

TANKERS:

Berth 4: Length 900 ft., depth 43 ft.
Operators: Coastal Fuels Marketing Inc.; Exxon Co., U.S.A.; Mar Oil Co.

Berth 5: Length 900 ft., depth 43 ft.
Operators: Coastal Fuels Marketing Inc.; Exxon Co., U.S.A.; Am Hess Corp.; Marathon Oil Co.; Shell Oil Co.; Trumbull Asphalt.

Berth 6: Length 400 ft., depth 38 ft.
Operators: Coastal Fuels Marketing Inc.

Berths 7 and 8: Length 1,200 ft., depth 38 ft.
Operators: Amoco Oil Co.; Coastal Fuels Marketing Inc.; Citgo Exxon Co., U.S.A.; Porto Fina Oil Co.; BP Oil Co.; Amerada Hess Marathon Oil Co.; Mobil Oil Corp.; Shell Oil Co.; Chevron, U Texaco, U.S.A.; Louis Dreyfus Energy Corp.

Berths 9 and 10: Length 1,200 ft., depth 38 ft.
Berth 9 Operators: Coastal Fuels Marketing Inc.; Citgo Petr Corp.; Porto Fina Oil Co.; BP Oil Co.; Mobil Oil Corp.; Chevron, U Texaco, U.S.A.; Louis Dreyfus Energy Corp.
Berth 10 Operator: Florida Power & Light.

Berth 11: Length 500 ft., depth 38 ft.
Operators: Coastal Fuels Marketing Inc.; Warren Petroleum Co

Berths 12 and 13: Length 1,225 ft., depth 38 ft.
Operators: Coastal Fuels Marketing Inc.; Citgo Petroleum Corp. Fina Oil Co.; BP Oil Co.; Mobil Oil Corp.; Chevron, U.S.A.; Te U.S.A.; Louis Dreyfus Energy Corp.

Berths 14 and 15: Length 1,225 ft., depth 38 ft.
Operators: Coastal Fuels Marketing Inc.; Florida Power & Ligh

Size of Pipelines:
Amoco: 3×12 in.
Coastal Fuels Marketing Inc.:
- Berth No. 1: 6 in. and 8 in. bunker and diesel.
- Berth No. 2: 6 in. and 8 in. bunker and diesel.
- Berth No. 3: 6 in. and 8 in. bunker and diesel.
- Berth No. 4: 10 in. and 8 in. bunker and diesel.
- Berth No. 5: 12 in. bunker; 24 in. gas; 12 in. gas; 12 in. Jet- 12 in. diesel; 10 in. bunker; 6 in. diesel; 24 in. crude.
- Berth No. 6: 10 in. bunker and 6 in. diesel.
- Berth No. 7: 12 in. Jet-A; 12 in. diesel; 10 in. gas; 26 in. gas 12 in. gas; 10 in. bunker; 6 in. diesel; 12 in. J.P. 4; 12 in.
- Berth No. 8: 12 in. Jet-A; 10 in. bunker; 10 in. gas; 10 in. as 8 in. RC70.
- Berth No. 9: 10 in. bunker; 8 in. diesel; 6 in. diesel.
- Berth No. 10: 10 in. bunker.
- Berth No. 11: 8 in. bunker.
- Berth No. 12: 8 in. bunker; 6 in. diesel.

Coastal Fuels Marketing Inc. has 6 in. and 8 in. bunker and lines on all berths except 23, 26 and 27.
Chevron: 1×24 in.; 2×12 in.; 2×8 in.
Cities Service Oil Company: 3×12 in.; 1×14 in.
Exxon Oil Company: 3×12 in.; 1×8 in.
BP Oil Company (Berths No. 9 to 13): 6×6 in.; 1×8 in.; 2×1 1×12 in.; 1×14 in.; 2×16 in.
Marathon Oil Company: 2×12 in.; 2×8 in.
Mobil Oil Company: 2×12 in.
Florida Power & Light: 1×12 in.; 1×10 in.
Shell Oil Company: 3×12 in.; 1×8 in.
Texaco, Inc.: 1×14 in.; 2×12 in.; 1×10 in.
Trumbull Asphalt Company: 1×12 in.
Louis Dreyfus Corp.: 2×12 in.; 2×8 in.
Warren Petroleum Company: Propane.

FRESH WATER: Available by pipeline at all berths.

FUEL: Berths No. 1 – 27 are accessible to pipeline hose con for bunker fuels. All berths are accessible by tank truck and b

CUSTOMS ALLOWANCE: At the discretion of Customs officers allowance is 200 cigarettes or 2 lb. tobacco and 1 litre wine per crewman for personal use. Additional allowances may be considered necessary, due to length of vessel's stay in port.

HOLIDAYS: New Year's Day (January 1st); Martin Luther King's Birthday (January 15th); President's Day (3rd Monday in February); Washington's Birthday (February 22nd); Good Friday; Memorial Day (May 30th); Independence Day (July 4th); Labour Day (1st Monday in September); Veteran's Day (November 11th); Thanksgiving Day; Christmas Day (December 25th).

When any of the above holidays fall on a Sunday, they will be observed on the Monday following. Work on these holidays is by special arrangement only.

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight saving time, GMT minus 4 hours, from first Sunday in April to last Sunday in October.

BANKS:

Abbott Foreign Exchange, 255 E.Flagler, Miami. Tel: (954) 374-2336.

Bank Atlantic, 1750 E.Sunrise Blvd., Fort Lauderdale. Tel: (954) 760-5000.

Barnett Bank (45 branches), Fort Lauderdale/Miami. Tel: (954) 765-1764.

917 SE 17th Street Causeway, Fort Lauderdale. Tel: (954) 765-1645.

C & S National Bank, One Financial Plaza, Fort Lauderdale. Tel: (954) 765-2376/2734/2739.

County National Bank of S.Florida, 1401 E.Broward Blvd., Fort Lauderdale. Tel: (954) 651-7110.

Safrabank II, NA., 1600 SE 17th Street Causeway, Fort Lauderdale. Tel: (954) 467-8772.

Southeast Bank, NA., Everglades Banking Center, 1710 S.Andrews Avenue, Fort Lauderdale. Tel: (954) 467-5310.

Sun Bank/South Florida, NA., 501 E.Las Olas Blvd., Fort Lauderdale. Tel: (954) 465-7500.

Thomas Cook Foreign Exchange, 3526 N.Ocean Blvd., Fort Lauderdale. Tel: (954) 566-2666.

TELEPHONES: Public telephone are available at all cruise terminals and most berths.

IDENTIFICATION CARDS: Standard U.S. Immigration Form I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95 if issued for the same vessel.

GARBAGE DISPOSAL: Dumpsters for domestic garbage only are available with 3 cu. yard capacity and 30 cu. yard capacity.

WASTE OIL DISPOSAL: *Oily Mixture Discharge:* The Port has facilities to receive oily mixtures from ships, and holds a U.S. Coast Guard Certificate of Adequacy as a reception facility. Oily mixtures may not be discharged, except to Port-approved facilities which are assigned when the vessel docks. Oily mixtures include bilge slops, oily wastes, oil residues, sludge, oily ballast water and washings from oil tanks.

Vessel Oily Waste Removal (Franchises):

Cliff Berry Inc., 851 Eller Drive, Port Everglades, FL 33316. Mail: P.O. Box 13079, Fort Lauderdale, FL 33316. Cliff Berry, President. Tel: (954) 763-3390. Fax: (954) 763-8375. Office hours: 0800 hrs. – 1700 hrs. Mondays to Fridays. 24 hour service (Emergency spill response; environment services).

Magnum Tank Service Inc., Environmental Division, 1280 N.E. 48th Street, Pompano Beach, FL 33064. Tel: (954) 785-2320. Fax: (954) 783-6913. Office hours: 0800 hrs. – 1700 hrs. Mondays to Fridays. 24 hour emergency response service.

SEAMAN'S CLUBS:

Seamen's Church Institute of Florida, Inc., Seafarers' House, 1800 S.E. 32nd Street, Port Everglades, FL 33316. Mail: P.O. Box 13034, Fort Lauderdale, FL 33316. Rev. David Mesenbring. Centre Tel: (954) 467-7330. Tel: (305) 324-6819 (24 hours). Fax: (954) 766-2699. Internet: CasaMarino@aol.com. Office hours: 0900 hrs. – 2200 hrs., Tuesdays, Thursdays, Saturdays and Sundays; 0900 hrs. – 1400 hrs. Sundays, Mondays and Wednesdays (including holidays). (Seafarers' communication services and special assistance).

Stella Maris Seamen's Centre, Archdiocese of Miami, 2550 Eisenhower Boulevard, 611 Amman Building, Suite 7, Port Everglades, FL 33316. Mail: 9401 Biscayne Boulevard, Miami Shores, FL 33138. Rev. Armando Perez, Port Chaplain. Tel: (954) 527-0471. Priest on Call: (954) 583-8725. Office hours: 1000 hrs. – 1900 hrs. Tuesdays, Thursdays and Saturdays; 0800 hrs. – 1900 hrs. Saturdays; 0900 hrs. – 1400 hrs. Sundays (Seafarers' religious ministry, other assistance).

SERVICES: *Post Office:* United States Post Office, Contract Station No. 261, Port Everglades (Seafarers' House), 1800 S.E. 32nd Street, Port Everglades, FL 33316. Tel: (954) 467-7330. Business hours: 0830 hrs. – 1700 hrs. Mondays to Fridays (closed 1200 hrs. – 1230 hrs.); 0830 hrs. – 1200 hrs. Saturdays.

United States Postal Service, Southside Station, 2801 S. Federal Highway, Fort Lauderdale, FL 33316-9998. Hal Paldrman, Manager. Tel: (954) 761-1194. Fax: (954) 764-8704. Business hours: 0730 hrs. – 1800 hrs. Mondays to Fridays; 0830 hrs. – 1400 hrs. Saturdays.

Vessel Sanitary Waste Water Removal (Franchise):

Southern Waste Services Inc., 1619 Moylan Road, Panama City Beach, FL 32407. Jim Weber, President. Tel: (800) 628-7560, (904) 234-8429. Internet: swsefr@aol.com. Office hours: 0800 hrs. – 1800 hrs. Mondays to Fridays.

Government Services:

United States Coast Guard, Marine Safety Office, Claude Pepper Federal Building, 51 S.W. 1st Avenue, Fifth Floor, Miami, FL 33130-1608. Captain David Miller, Commanding Officer. Tel: (305) 536-5692. Fax: (305) 530-7005. Office hours: 0730 hrs. – 1600 hrs. Mondays to Fridays.

United States Coast Guard, Station Fort Lauderdale, (John U. Lloyd State Recreation Area), 7000 N. Ocean Drive, Dania, FL 33004. Lt. Jim Fitton, Commanding Officer. Tel: (954) 927-1611 (24 hours). Fax: ((954) 927-2270. Office hours: 0700 hrs. – 1430 hrs. Mondays to Fridays.

United States Customs Service, Port Everglades, Spangler Boulevard, Port Everglades, FL 33316. Mail: P.O.Box 13123, Fort Lauderdale, FL 33316. Vincent P. Priore, Port Director. Tel: (954) 356-7241. Fax: (954) 356-7422. Office hours: 0800 hrs. – 1700 hrs. Mondays to Fridays (closed 1200 hrs. – 1300 hrs.); 0800 hrs. – 1200 hrs. Saturdays.

United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine, 1800 Eller Drive, Suite 220, Port Everglades, FL 33316. Mail: P.O.Box 13033, Fort Lauderdale, FL 33316. Ralph Cooley, Officer in Charge. Tel: (954) 356-7251. Fax: (954) 763-3929. Office hours: 0800 hrs. – 1630 hrs. Mondays to Fridays.

United States Immigration and Naturalisation Service, 7880 Biscayne Boulevard, Room 100, Miami, FL 33138. Tel: (305) 536-5741. Office hours: 0730 hrs. – 1515 hrs. Mondays to Fridays. Port Office (Ship Agents only): P.O.Box 13054, Port Everglades, FL 33316. Simon Nader, Port Director. Tel: (954) 356-7298. Fax: (954) 356-7948. Office hours: 0800 hrs. – 1600 hrs. Mondays to Fridays.

Restaurants:

Burt & Jacks Restaurant: Located at Berth 23. Formal American dining in a Mediterranean villa with water on three sides. Prime steaks and jumbo Maine lobster are the specialities for this award winning restaurant. Owners are Mr.Jack Jackson and Mr.Burt Reynolds. Entertainment nightly. Jackets required for dining. Tel: (954) 522-5225.

Snack Bars: Snack bars are in operation at each cruise terminal when a cruise ship is embarking or disembarking passengers at that terminal.

AUTHORITY: Port Everglades Department of Broward County, 1850 Eller Drive, Fort Lauderdale, Florida 33316, U.S.A. *Tel:* (954) 523-3404. *Telex:* 240042. *FAX:* (954) 525-1910. *Contact:* James J. O'Brien, Port Director. Dave Miller, Director of Corporate Communications. Alan Kehrer, Director of Passenger and Development. Carlos Buquevas, Director of Cargo Marketing.

PORT HURON, Michigan: 42.59 N. 82.26 W.

Refer to St. Lawrence Seaway for important general information.

PILOTAGE: Compulsory, by Seaway Pilots.

ANCHORAGES: Near head of St. Clair River at Sarnia. Vessels should anchor as close to shore as safely possible to keep channel clear for passing vessels.

RESTRICTIONS: Navigation season from mid-March to end-December approx. Dock channel depth – 25 ft. Vessel's size restricted by Seaway locks.

MAX. SIZE: 730 ft. length; 26 ft. draft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Master must give at least 24 hours notice to Commander 9th Coast Guard District, Cleveland, Ohio, of the vessel's ETA at Snell Lock. Also, at least 24 hours notice of ETA at first U.S. discharge port is required. Port can be contacted through Marine Operator, Sarnia.

TUGS: Available. Not compulsory, but sometimes necessary in bad weather.

BERTHING: Port Terminal Co. Dock: 700 ft. long 26 ft. – 31 ft. depth.

MEDICAL: All facilities available.

DENSITY: Fresh water.

FRESH WATER: Obtainable by pipeline at all docks.

FUEL: All grades available by pipeline at all docks.

REPAIRS: Machine shops available for limited deck and machinery repairs.

AUTHORITY: *Managers:* Port Huron Seaway Terminal Co., 2336 Military Street, Port Huron, Michigan 48060. *Contact:* W.R. Neal, President.

PORT JEFFERSON, New York: 40.59 N. 73.06 W.

(See Plan)

OPERATOR'S REPORT: 1981

PILOTAGE: Harbour Pilot/Docking Master will board outside of the sea buoy. If at anchor, Docking Master will board at the anchorage.

APPROACHES: *Port Approaches – Cautionary Advice:* (via New York) Charts: 12339, 12366, 12367, 12363, 12362, 12354.

Vessels leaving New York bound for Port Jefferson transit New York's East River and Long Island Sound.

Sandy Hook Pilots handle the ship in the East River and Hell's Gate, and the Long Island Sound Pilots handle the ship in the Sound. The change of Pilots is made off City Island. The pilot boat can be raised on Channel 13. All shoals and rocks are well marked and the shore line provides an excellent radar target for position checking.

During Summer months, thick fogs present a hazard on this route. Long Island Sound is also a major yachting centre so extreme care must be exercised while transitting this area.

There are several dangers to be wary of when making the passage from New York to Port Jefferson; in order of approach they are:

1. East River and Hell's Gate are areas of strong tidal currents averaging 4.6 knots during ebb tide which set in a Southwesterly direction. Vessels drawing up to 35 ft. may transit Hell's Gate only at Slack High Water. Sluggish handling vessels should arrange for tug assistance through the East River and Hell's Gate.
2. 26-ft. buoy "32A"; usually passed well clear to the South.
3. Cable and Anchor Reef; usually passed to the South.

Port Approaches – Cautionary Advice: (From Block Island) Charts: 13205, 13215, 13209, 12354, 12362.

On approaching Block Island from a Southerly direction, a good radar picture is obtained of the Island's South coast. The RDF station at S.E. Light is also useful.

It is advisable to remain at least 1 mile to the East of Block Island because of the numerous shoals close in shore.

Non-U.S. flag vessels and U.S. flag vessels under registry approaching from Block Island embark Pilot about 2.5 miles South of Point Judith.

U.S. flag vessels under enrolment approaching from Block Island embark Pilot 1.4 miles East of Old Harbour – Block Island.

There are several dangers to be wary of when making the passage to Port Jefferson; in order of approach they are:

Block Island North Reef Buoy "1B1" marks a dangerous shoal and should be passed well clear.

The Race is a narrow channel into Long Island Sound. Strong East to West currents occur during maximum ebb or flood and knowledge of position should be maintained in view of possibility of unusual set. Valiant Rock may be passed on either side. The Race is an extremely popular area for sport fishermen and the area is usually congested with small craft.

Extreme caution should be exercised during the Summer months when transiting through Block Island and Long Island Sound as there is heavy traffic of pleasure craft.

Thick fog is prevalent during Summer months.

Good water is found in Long Island Sound from The Race to Port Jefferson as long as the mid-channel Buoys "P1" and "CF" are passed close to, and care is taken so as not to pass North of "28-ft. shoal" buoy.

Vessels headed for Port Jefferson will pass South of "Stratford Shoal" light. Radar is the best navigational aid in this area, also, there are several RDF stations that can be used.

ANCHORAGE: Anchorage is available North of "Mount Misery" shoal in depth of 80 ft. to 100 ft. Barges are available for lightering from New York. Winter weather conditions with strong winds sometimes hold up lightering operations 2 to 3 days. Vessels with stern anchors can sometimes minimise this delay by making a lee for the barge.

RADIO: Send ETA to Agent 72 hours, 48 hours and 24 hours prior to arrival at Block Island Pilot Station. Advise max. draft (salt water) in the initial message.

VHF: Pilot: Channel 13, 16 and 18A. Tugs: Channel 19A "KFT 234" 18A. Traffic Control: Channel 13. USCG: Channel 16. Terminal: Channel 13.

TUGS: 3 tugs available from New Haven, 2 single screw diesels of 1,800 s.h.p. and 1,600 s.h.p. and a twin screw boat of 1,800 s.h.p.

TANKERS: Tosco Pipeline Company: Traffic at times may be heavy near the harbour entrance and in the inner harbour. Sand and oil tows, coastal tankers, and the Bridgeport/Port Jefferson ferry may be encountered. Arrangement should be made with the Pilot ensuring that other traffic is not hampering the safe entrance and channel transit.

Vessels start in one hour prior to HW. The entrance between the jetties is made by lining up with the ranges at the head of the harbour. Consideration should be given to a possible cross set. Once inside the jetties, speed is reduced, and the vessel is stopped off the dock. The vessel is then breasted into position starboard side to with the assistance of 1 or 2 tugs. The terminal is located approximately 1.8 miles from the breakwaters on the starboard side of the channel.

Vessels in a light condition, when departing with the assistance of 1 or 2 tugs, are backed and turned off the LILCO dock with the forward draft not exceeding 14 ft.

Shore Facilities: 2×8 in. hoses.
2×16 in. shoreline (3.5 miles long).
Shore booster pumps.

FRESH WATER/FUEL: Bunkers are not readily available; in an emergency, bunkers could be arranged by Ecklof Marine, Bayway, N.J. and delivered by barge from New York. Fresh water is available ex berth.

GARBAGE DISPOSAL: Drums available alongside. Service provided by Miller Environmental Group at 24 hours notice.

WASTE OIL DISPOSAL: Contact Mr.Czujko at Tosco (Tel: (516) 941-4040) 24 hours in advance. Tanker trucks available with 2 in. hose.

SEAMAN'S CLUBS: At New York, which is 40 miles away.

GENERAL: *Gangway:* Ship's gangway is required.

Tides and Depth of Water: The depth of water in the channel determines the safe draft for entering. Agent and Pilot should be consulted as to safe draft. Strong Westerly winds will cause the water level to be lower than usual, and strong Easterly winds will increase the water level. Average range of tide is 6.6 ft.

Oil Pollution: This area is very sensitive to oil pollution, so extreme care should be exercised. In case of an oil spill, consult with Pollution Control Officer and notify U.S. Coast Guard, Terminal Representative and Agent. Visible smoke from ship's stack is also a very critical area of pollution in this port. Spill booms are deployed.

Security: The terminal is fenced and guarded. Maintaining a gangway watch is recommended.

Ballast/Slop Facilities: There are no dirty ballast or slop facilities in Port Jefferson.

Firefighting Facilities: The terminal is equipped with 2 fire pumps which service 2 fire monitors on the dock. The fire line has the capability to deliver foam. There is a 3,150 lb. wheeled dry chemical extinguisher and various hand extinguishers to cover the hose tower area.

Fire wires should be hung, one forward and one aft, on the offshore side with eyes which can easily be reached by tugs in case of fire. The tanker should have all fire fighting equipment aboard in readiness to combat any fire that may arise.

AUTHORITY: Tosco Pipeline Company, 19 Belle Mead Road, East Setauket, New York 11733, U.S.A. *Contact:* Zenon Czujko, Manager.

PORT LAVACA/POINT COMFORT, Texas:

28.40 N. 96.35 W. **(See**

DOCUMENTS:
2 Cargo Manifests.
2 Stores Lists, Form CF1303.
2 Crew's Effects Declaration, Form CF1304.
1 Clearance from Last Port.
Vessel's Register, tonnage, tax receipts, etc.
2 copies Crew List.
2 copies Passenger List.

PILOTAGE: Ship's Agents notify Matagorda Bay Pilots as to ve
ETA. Pilot boat can be contacted on VHF Channel 16, then swi
Channel 26 to continue conversation. Pilot boards at Buoy 1-A at po
Lat. 28° 23' N., Long. 96° 17' W.

ANCHORAGES: Marked on chart of Matagorda Bay and approa

RESTRICTIONS: Vessels may enter any time day or night. Ent
channel depth 38 ft. Bay Channel depth 36 ft.

MAX. SIZE: Public Dock – max. length approximately 1,0
Draft controlled by channel depth of 36 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany

AGRICULTURE: See "Agriculture" before first U.S.A. port (Alban

RADIO: Galveston Radio (ITT Mackay Marine) and Port Lavaca M
operator can be contacted on VHF Channel 16, then switch to Ch
26 for continued conversation.

TUGS: One tug available, joining vessel shortly before arriving at
A second tug is normally available on request.

BERTHING: Vessels berth at Public Docks.

STEVEDORES: Boyd-Campbell & Co. and Dix Shipping Compa
Corpus Christi, Texas. At Alcoa's Dock all plant labour is used.

MEDICAL: No advance notice required. Several clinics and 1 ho
available in Port Lavaca.

DENSITY: Average density is 1010/1012.

FRESH WATER: Fresh water available alongside berths.

FUEL: Fuel is available from VAL-CAP located in Port Lavaca. C
delivered by barge or truck.

CONSULS: Only Norwegian Vice-Consul Tel: 512-987-2311.

REPAIRS: Only minor repairs possible. No dry docks.

OPENING/CLOSING HATCHES: At Public Dock this is don
stevedores. At Alcoa Dock this is done by ship's crew.

CERTIFICATES: Load Line, Foreign Clearance, Safety Equip
Financial Responsibility (oil pollution), Tonnage Tax Receipts,
required.

REPATRIATION: Arrangements are possible but preferably sho
accomplished in larger ports.

AIRPORT: Nearest airport 30 miles at Victoria, Texas, serv
Continental Express only, Corpus Christi Airport about 90 miles; Ho
Airport about 150 miles.

TIME: Central Standard Time during Winter (GMT minus 6 h
Beginning first Sunday in April until last Sunday in October, Da
Saving Time (clocks are moved ahead 1 hour).

HOLIDAYS: All holidays observed by contract with ILA. See "Ho

POLICE/AMBULANCE/FIRE: Police Department, Fire Departme
Ambulance Service, Tel: 911.

TELEPHONES: Telephones are available ashore only. Telephone
on Public Dock.

IDENTIFICATION CARDS: Immigration Crew Landing Perm
required for each man.

GARBAGE DISPOSAL: Dumpster available on pier for non-
waste. No charge for use of dumpster. APHIS waste minimum
is $ 550.00. Garbage services arranged through Port Authority.

WASTE OIL DISPOSAL: Waste oil disposal available through
vacuum truck. Arranged through Port Authority.

SEAMAN'S CLUBS: None.

DEVELOPMENTS: Plans for lengthening dock and another ware
are now being considered.

SHIPMASTER'S REPORT: July 1991.

Radio: Unable to contact any public correspondence radio sta
VHF. The tug relays any arrival message to pilot, etc.

Bauxite: The Aluminum company imports several million tons of
year using both sides of its finger pier. This is said to be 875
with 39 ft. depth alongside. It is equipped with 2 grab cranes at
conveyor belt, said to be capable of handling 1,750 long tons/hr
from 2 ships may be discharged at the same time onto the sing
Charter Party: This has been amended to read discharge to "m
clean only", the implication is that if the ship's crew do not dig ou
from the corrugations, ladders, ledges, brackets and sloping sid
ship will be ordered off the berth with several hundred tons of
remaining. At least one regular caller with wet grade bauxite e
a 15 man cleaning gang for the passage to the next port. The
brings its own high pressure water pump and its own bilge pu
the operation.

General: Fresh water was obtained from a single outlet at the ou
of the pier, well placed for the after peak. Local provisions
obtained, such as for port use. Technical stores ordered by own
delivered from Corpus Christi at a charge of U.S.$85.00. A
messages, copying, doctor, etc., were handled by Owner's
attending from Galveston. Ship's crew access by locked turns
no visitors allowed. Nearest shopping centre is surprisingly la
charge is U.S.$12 each way. Walking is prohibited and too unco
because of the heat and mosquitos.

AUTHORITY: The Port of Port Lavaca/Point Comfort, The
County Navigation District, P.O.Box 397, Point Comfort, Texa
Tel: (512) 987-2813. *FAX:* (512) 987-2189. *Contact:* Rob
Borssum, Port Director.

Private Dock owned by Aluminium Company of America with
being Alcoa Steamship Company Inc., Point Comfort.

PORT NECHES, Texas: 30.00 N. 93.57 W.

DOCUMENTS, PILOTAGE, RADIO, etc.: Refer to "Port Arthur".

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Meet vessel in Neches River before arriving at berth. Normally 2 tugs used for docking, 1 for undocking.

BERTHING: Texaco Chemical Co. (Jefferson Dock) Chemical Co.: Distance from sea 30 miles, depth at berth November to March 32 ft., and from March to November 35 ft. Max. LOA 800 ft.

Texaco Terminal: Distance from sea 34 miles, depth at berth 38 ft. Max. LOA 810 ft.

MEDICAL: All facilities available.

DENSITY: Fresh water.

FRESH WATER: Available by barge.

FUEL: Bunker C not available ex-wharf at Texaco Terminal, only by barge from Port Arthur or Beaumont.

CONSULS: Nearest at Houston.

REPAIRS, DRY DOCKS: See "Port Arthur".

GANGWAY/DECK WATCHMEN: Not required unless crewmen detained by Immigration.

CUSTOMS ALLOWANCES: 300 cigarettes and 1 quart wine or spirits for each man.

AIRPORT: 15 minutes from docks. Several flights a day 0600 hrs. – 2200 hrs. to Houston International Airport.

IDENTIFICATION CARDS: Foreign crew only require Immigration Landing Permit.

AUTHORITY: *Operators:* Texaco Chemical Company, P.O.Box 27712, Houston, Texas 77227-7712, U.S.A. *Contact:* W.C.Kent, Manager – Distribution Operations.

PORT ROYAL, South Carolina: 32.23 N. 80.42 W.

(See Plan)

PORT LIMITS: Sea buoy at channel entrance. Dockage charges commence when vessel moors and end upon unmooring and applies for each 24 hour period or fractional part thereof.

DOCUMENTS: Valid original vessel documents plus basic Customs documents for entry in triplicate:

Master's Oath, CF 1300.
General Declaration, CF 1301.
Manifest of Cargo on Board, CF 1302.
Ship's Stores Declaration, CF 1303.
Crew Effects Declaration, CF 1304.
Crew List/Passenger List, I-418.

PILOTAGE: Compulsory. Pilotage provided by Port Royal Branch Pilots Association, 1191 Brotherhood Way, Beaufort, SC 29902. Tel: (803) 522-0805.

ANCHORAGES: No designated anchorages. However, vessels may anchor in Port Royal Sound or vicinity of Sea Buoy (2PR) as long as navigation is not restricted. Average depth 12.0 m.

MAX. SIZE: Max. LOA 182.9 m. (600 ft.). Max. draft 8.23 m. (27 ft.) salt water.

HEALTH: See "Health:All Ports" before first U.S.A. port (Albany).

RADIO: Port has no radio communication equipment. U.S. Coast Guard Station, Tybee Island, Georgia, can be reached on VHF Channel 16.

VHF: See "Radio".

TUGS: Compulsory. Contact the Terminal Manager (See "Authority").

BERTHING: The facility has a single marginal concrete berth 12.0 m. (40 ft.) wide and 172.2 m. (565 ft.) long. Usable berthing space is 182.9 m. (600 ft.), depth alongside is 8.53 m. (28 ft.) at MLW.

CRANES: Mobile cranes up to 90 ton capacity are available by prior arrangement.

BULK CARGO FACILITIES: Facility has handled gypsum, sand, pig iron, fertiliser and crushed granite. Approximately 10 acres open storage available.

SPECIALISED CARGO HANDLING FACILITIES: Berth suitable for Ro-Ro operations on vessels having quarter turn ramps. Liquid bulk storage 11,000 tonnes (Kaolin slurry).

BRIDGES: None.

STEVEDORES: Union and non-union gangs available. Hours of operation flexible. Normal hours of operation for port personnel 0800 hrs. – 1200 hrs. and 1300 hrs. – 1700 hrs., Monday to Friday.

MEDICAL: Full hospital facilities available without prior notice. Dentists available by appointment during normal working hours.

TANKERS: Tankers routinely call at the port to load clay slurry in bulk in approximate 7,000 tonne lots.

Also see "Shipmaster's Report".

DENSITY: 1025 (salt water).

FRESH WATER: Available on berth via 2 in. line at U.S.$ 2.75 per 2,000 gallons.

FUEL: Private firm with trucks or barges available by prior arrangement with ship's Agent.

FIRE PRECAUTIONS: Smoking is prohibited in transit sheds, warehouse and on the apron of the wharf.

CONSULS: Charleston: Chile Tel: (803) 792-2489, 884-6224. Denmark Tel: (803) 577-4000. Norway Tel: (803) 577-5782.

Spartanburg: Germany Tel: (803) 582-5133. Switzerland Tel: (803) 585-3922.

REPAIRS: No major facilities available at port. Mobile repair companies available in area.

DRY DOCKS: None.

SURVEYORS: Marine surveyors, representing Lloyd's, ABS, NV, operate within 75 miles of the port.

GANGWAY/DECK WATCHMEN: No requirement for watchmen, except for special security conditions as may be determined by the Port Director.

OPENING/CLOSING HATCHES: Normally by ship's crew.

CUSTOMS ALLOWANCES: U.S. Customs regulations applicable.

CARGO GEAR: Mobile crane (90 tons), lift trucks to 15,000 lb., flatbeds (40 ft.) and yard truck available at port. Other gear available by prior arrangement.

REPATRIATION: Through Charleston, 90 minutes away.

AIRPORTS: Beaufort County, 9.6 km. (6 miles). Savannah, 45 minutes and Charleston, 90 minutes.

TIME: GMT minus 5 hours.

HOLIDAYS: New Year's Day (January 1st); Martin Luther King's Birthday (Third Monday in January); Washington's Birthday (Third Monday in February); Memorial Day (Last Monday in May); Independence Day (July 4th); Labour Day (First Monday in September); Columbus Day (Second Monday in October); Thanksgiving (Fourth Thursday in November); Friday after Thanksgiving; Christmas Day (December 25th).

POLICE/AMBULANCE/FIRE: Police, Tel: Emergency 911. Non-Emergency after 1700 hrs. weekends and holidays (803) 524-2777. Fire Department, Tel: Emergency 911. Business (803) 525-7055. Ambulance, Tel: Emergency 911.

EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard. Tel: Emergency (912) 652-4353.

TELEPHONES: Not available for onboard use through Ports Authority. Check with ship's Agent.

SERVICES: Most common services can be arranged by ship's Agent, given prior notice.

BANKS: Wachovia, 1011 Bay Street, Beaufort, SC 29902. Tel: (803) 522-2200. Fax: (803) 522-2224.

SHIP SUPPLY SERVICE: Ship chandler arranged through ship's Agent.

SHORE LEAVE: When cleared by Customs/Immigration/Agriculture, at discretion of Master.

IDENTIFICATION CARDS: Normally not required.

GARBAGE DISPOSAL: See "Agriculture" before first U.S. port.

WASTE OIL DISPOSAL: Service provided by duly licensed private contractor. Arranged by ship's Agent.

SEAMAN'S CLUBS: Baptist Seaman's Service within walking distance of port. Tel: (803) 525-0884.

CURRENCY: U.S. Dollars.

SHIPMASTER'S REPORT: August 1996.

Charts: B.A. 2801 and B.A. 2805.

Approach: Approach to buoyed channel should be made on a course of 360° if arriving from Savannah Pilot Station to avoid 2 wrecks in position Lat. 32° 03.8' N., Long. 80° 36.1' W. Northern wreck is reported to have shifted 0.3 miles N.E.

Lay a course to Lat. 31° 03.5' N., Long. 80° 34.9' W., then a course 360° to pass Fairway Buoy to port.

Buoyed channel is conspicuous on radar.

Channel starts 9.5 miles N.E. of Savannah Light Tower.

Coastline is flat with no identifying marks.

Pilot: Pilot boards either off Charleston or at Savannah Fairway Buoy using port's pilot boat, arranged through Agent. Pilot leaves by same method. Port Royal pilot boat discontinued due to low traffic density. 24 hour availability for berthing and unberthing is dependant on tide.

Presently, pilot resides at Port Royal (Tel: (803) 522-0805), but in near future, he will retire and Charleston Pilots will be used. Pilotage compulsory North of Sea Buoy.

Channel: It is 18.5 miles from Sea Buoy to State Dock and about 1.5 hours steaming.

Channel is well buoyed, and maintained by U.S. Army Corps of Engineers. Channel dredged in 1994/95, but is prone to shoaling, especially in lower reaches near Buoys No. 6 and 7. This area again shoaling at S.W. tip of Saint Michael's shoal. Beware of squat in this area.

Controlling depth 27 ft. MLW. Channel width 500 ft. from Fairway Buoy to Bay Point and then 300 ft. in upper reaches.

Least depth on this visit was 23 ft. MLW at Beacon 43 (Port Royal Reach).

Anchorages: At Sea Buoy (but vessel then proceeds to Savannah Pilot Station for Pilot), Savannah Light Tower, or Port Royal Sound outside channel – under pilotage.

Tug: Local tug stationed at State Dock, it is old and of moderate power, tug's line used. Tug used inwards only if swinging prior to berthing.

Berthing: Vessels of maximum length 600 ft. and 28 ft. S.W. draft (dependent on tide) have berthed at State Dock. Pilot will dock such vessels with prior consent, through Agent.

Normally port side to for berthing.

Dock reported to have 30 ft. MLW. General cargo wharf with shed. Wooden fendering was good.

Turning Basin immediately off berth with 21 ft. MLW (reported) and 680 ft. turning circle.

Tidal range maximum 7.5 ft. Moorings conventional with stern lines (if port side to) to bollard on creek bank.

Ship's accommodation ladder easily landed.

Berth owned by South Carolina Ports Authority.

Density: 1017 at H.W. and L.W. Pilot reports a lot of density layering with S.W. over F.W. at Springs.

Cargo: Main product handled is the export of Kaolin Clay slurry, various blends depending on customer requirements being shipped. Trade in other products is being marketed. Scrap metal, timber and metal ingots are also handled.

About 2 ships per month call at the port.

Kaolin slurry is transported by rail in tank cars from mines some 300 miles away in Georgia. Rail freight access is good.

Slurry is stored in 2×5,000 tonne tanks just behind the berth. Temperature of product is ambient. Approx. SG 1.780.

Slurry is pumped onboard through 2×6 in. lines into quay gantry then 2×6 in. rubber hoses to ship's manifolds (Camlock couplings). Loaded rate about 650 tonnes/hr.

Tanks inspected prior to loading by National Cargo Bureau.

Facilities: Fresh water through dockside meter, ship's hoses used.

Fuel by truck.

Town of Beaufort, 2 miles to North, has most local facilities, including medical and dental.

Telephone about 100 m. outside nearby dock gate.

Nearest main airport is Savannah, about 40 miles to South.

Chandler from Savannah.

Agent from Savannah or Charleston.

Local repair works fairly comprehensive. Owned by ex-British merchant navy officer (Tel: (803) 525-0818).

Documents: If first port:
- 6 copies Crew List.
- 2 copies Stores List.
- 2 copies Crew Effects List.
- 3 copies Cargo Manifest (If cargo onboard).
- Crew Passes.
- 2 copies Inward Declaration.

If second port:
- 3 copies Crew List.
- 2 copies Stores List.
- 2 copies Crew Effects List.

For Clay slurry, Bill of Lading made out onboard from ship survey figures.

AUTHORITY: South Carolina State Ports Authority – Port of Port Royal, P.O.Box 557, Port Royal, SC 29935, U.S.A. (Street address: 601 Paris Avenue, Port Royal). *Tel:* (803) 524-9311. *FAX:* (803) 524-5397. *Contact:* A.J. Pesavento, Terminal Manager.

PORT ST. JOE, Florida: 29.49 N. 85.19 W.

DOCUMENTS:

All documentation must be on United States forms.

At least: 3 Passenger Lists.
- 3 Crew Lists (1 for visa Crew List).
- 3 Curio Lists.
- 3 Stores Lists.
- 2 Complete Manifests.
- Clearance from Last Port.

PILOTAGE: Apply for Pilot through ship's Agent – address is "Port St. Joe, Pilots" and advance ETA 18 hours. "VHF – Channel 16". Pilot boat station is at Sea Buoy, Port St. Joe only and location of anchorage for vessel awaiting a Pilot is 1 mile West of Sea Buoy.
ANCHORAGES: Local harbour charts indicate safe anchorage.
MAX. SIZE: Draft 32 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Call sign WLO, Mobile, Alabama.
TUGS: None presently available.
STEVEDORES: ETA must be received by 1800 hrs. in order to have gangs at 0800 hrs. following day.
MEDICAL: No notice required. Hospital facilities available. Inoculations required same as public health U.S. Government requirements.
TANKERS: Discharge lines 8 in. No residue discharge allowed. 2 tanker berths 32 ft. draft.
DENSITY: Salt water – heavy concentration.
FRESH WATER: Available in unlimited quantities by hose connection from dock to ship, 1.5 in. to 2.5 in. size at 60 p.s.i.
CONSULS: None.
REPAIRS: None.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Only when requested by ship.
OPENING/CLOSING HATCHES: Work can be performed by either stevedores or crew.
CUSTOMS ALLOWANCES: 1 carton of cigarettes per week per crew member permitted. Further allowances would depend on circumstances. Wine and/or Spirits 1 bottle per crew member as allocated by Customs.
CARGO GEAR: Must be in compliance with "U.S. Government Longshoremen Safety Codes".
REPATRIATION: Can be accomplished by Agent and Immigration but should be accomplished in larger ports if possible.
AIRPORT: Served by regular airlines. 6 combined flights a day. Distance 40 miles.
TIME: Standard Time GMT minus 5 hours. GMT minus 4 hours Daylight Saving Time from first Sunday in April to last Sunday in October.
HOLIDAYS: *No Work Holidays:* No work performed New Year's Day, Fourth of July, Labour Day, Christmas Day, or December 24th & December 26th, and Easter Sunday, except handling of mail, baggage and perishables (except bananas) or unless a ship is in distress, such as fire or leaking bottom, or, other causes that would damage cargo or vessel. In event work done on New Year's Day, Fourth of July, Labour Day, Christmas Day, December 24th & December 26th, or Easter Sunday, rate of pay for such ship work shall be double the normal time rate. Should above holidays fall on Sunday, double time will be paid. Following Monday will be paid at time and one-half.
Working Holidays: Armistice Day, Thanksgiving Day and Memorial Day are to be paid for at overtime rate – one and one-half times straight-time rate. Should any of above holidays, except Sunday fall on Sunday, the following Monday will be observed.
POLICE/AMBULANCE/FIRE: Police Tel: 229-8265; 227-4526; Ambulance Tel: 227-1115 (Comforter), 277-1818 (St. Clair), 229-8111; Fire Tel: 227-1115.
TELEPHONES: Available for placing aboard.
SHORE LEAVE: Shore leave allowed when cleared by Immigratio
REGULATIONS: Normal working hours of longshoremen from 08 2230 hrs. only, 7 days a week.
DELAYS: Only when due to port congestion.
GENERAL: In sending ETA when ship is going to arrive over week (Saturday and Sunday), an ETA notice should arrive prior to 170 Friday.
AUTHORITY: Port St. Joe Port Authority, P.O.Box 280, Port St. Florida 32456. *Tel:* (904) 227-1111. *Contact:* Amelia Tapper.

PORT SAN LUIS, California: 35.10 N. 120.45 W.

(See P

APPROACHES: The approach channel, directly off the end o Harbour District's Pier is an entrance channel, which is unlit and iden by large green or red buoys.

The tanker channel runs North/South to Pier No. 2 (Union Oil small vessels using Pier No. 3 (Harford) run a course of approx. S N.W.
ANCHORAGE: The best anchorage in the Harbour is on the starb side, coming from the sea, being the area between Pier No. 3 and second, Union Oil Terminal Pier. Anchorage be outside of the exis mooring area and the holding ground is primarily sandy bottom.
MAX. SIZE: Tankers up to 750 ft. length and 26 ft. draft.

48,000 d.w.t. tankers may not use Pier No. 3 (Harford). Ve wishing to use Pier No. 3 must give prior notice in writing, e commercial fishing vessels.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany)
AGRICULTURE: See "Agriculture" before first U.S.A. port (Alban
RADIO: Vessels should contact Union Oil Company through Ma Operator. "Walkie-talkie" sets used for communication with term VHF station KTD 411, Channels 10 and 16.
VHF: Harbour Office, call sign "KYZ 664", on VHF Channe throughout 24 hours, working Channels 10 and 12.
TANKERS: Tanker berths only at Union Oil Company Pier. Vesse off pier at Berth No. 4. Depth alongside 32 ft. MLW.

1×12 in. and 1×16 in. load/discharge lines. No ballast disc allowed.
DENSITY: Salt water, 1025.
MEDICAL: Services available.
FRESH WATER: Available.
FUEL: The Harbour District maintains and operates a diesel fuel fa capacity 12,000 gallons. The facility is at the end of the District's 1, pier. Limited use restricted to small vessels (Commercial "Dyed" (fuel only) up to 300 d.w.t. Gasoline also available.
CONSULS: Nearest consuls situated at Los Angeles and San Fran
REPAIRS: There is a work dock facility available, equipped with p and water.
AIRPORT: County Airport, San Luis Obispo, situated 12 miles d 6 flights daily to Los Angeles and to San Francisco.
HOLIDAYS: Christmas and New Year; Martin Luther King President's Day; Memorial Day; Independence Day; Labour Veteran's Day; Thanksgiving Day and following day.
GARBAGE DISPOSAL: See "Agriculture" before first U.S.A (Albany).

No garbage services for large craft other than local garbage dum by special order.
WASTE OIL DISPOSAL: 50 galls. collection drums on one pier
SEAMAN'S CLUBS: None.
WEATHER: The mean tidal range in San Luis Obispo Bay is 3.6 Spring range is 5.3 ft. and the maximum range is approximately The highest observed tide was 7.5 ft. above MLLW mark in Ja 1948. The lowest tide of −2.3 ft. MLLW mark occured on Janua 1951. Tidal level above the MHHW or MLLW will occur approxim 20% of the time during severe storms. The existing breakwate partial protection from waves approaching from the Western par San Luis Bay. The bay is exposed to open sea from the So Southwest. Northwesterly winds are predominant, except dur Winter months, October through April, when these storms from the generate waves that approach from the S.W. to S.E. The magn the surge is usually less than 0.5 ft. However, 1 ft. waves are com

The prevailing wind is from the N.W. and averages 5 to 15 kno during a Southerly storm, can go up to 60 knots.

The climate and weather are typically mild and favourable. Th season, including the storm season, is generally from Novemb to April 15th. Occasionally, brisk winds or fog make it temporarily to navigate within the Port. Rain and heavy winds are not experienced at other times of the year. Normally, the temperatu the low 50's to the high 70's.
GENERAL: Port San Luis is an official Port of Entry with U.S. C The Port Director is on duty Monday to Friday from 0800 hrs. to 16

There is a boat yard with a 60 ton mobile hoist.
AUTHORITY: Port San Luis Harbour District, Pier No. 3, P.O.B Avila Beach, California 93424. *Tel:* (805) 595-5400. *Fax:* (805) 5 *Contact:* J.K. Elder, Harbour Manager. John D'Ornellas, Op Manager.

PORT SULPHUR, Louisiana: 29.28 N. 89.41 W. (See Plan)

DOCUMENTS, etc: Refer to "New Orleans".
PILOTAGE: A vessel coming into port from sea can arrange to pick up a Bar Pilot (Associated Branch Pilots) by furnishing ETA to the ship's Agents, radio contact by VHF Channel 9 and AM Channels 2738 and 2182. Bar Pilot is exchanged for river Pilot at Head of Passes, Pilot Town, Louisiana. River Pilot (Crescent River Port Pilot's Association) can be arranged through ship's Agent in New Orleans and radio contact as above. Vessel awaiting Pilot for departure may remain at dock until Pilot arrives. Advance notice of 3 hours is required for departing Pilots. This can be arranged by the ship's Master with the shipping foreman.
ANCHORAGES: Anchorage is available on East bank of river opposite to Freeport Sulphur Company Dock. Depth of water at anchorage is 40 ft., the controlling depth in the river.
RESTRICTIONS: No restrictions for entry because of time of day, nor conditions of tide or draft except the controlling depth of Mississippi River to Port Sulphur (35 ft. – 40 ft. as published in reports by U.S. Army Corps of Engineers).
MAX. SIZE: Max. permissible length – 750 ft., breadth not limited, draft equal to controlling depth of river.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Tropical Radio WNU New Orleans.
TUGS: Tugs not normally required. Shore crews usually handle ship's lines. Tug may join the vessel opposite the dock. Charges for handling ship's lines.
STEVEDORES: Not normally required. When requested, stevedoring services can be obtained from Port of New Orleans; contact ship's Agents for particulars.
MEDICAL: Advance notice for personnel requiring medical service is required through ship's Agents. Hospital facilities are available.
TANKERS: 1 tanker berth, permitted draft equal to or greater than controlling depth of Mississippi River. Diameter of loading/discharge lines are 12 in. and 16 in. respectively.
DENSITY: Density in port not affected by tide. Fresh water.
FRESH WATER: Not available.
FUEL: Fuel may be loaded by barge with vessel at anchor. Fuel transfer is not permitted at dock.
FIRE PRECAUTIONS: No welding repair permitted at dockside. Fuel transfer is not permitted. No other specific precautions observed except for "no smoking" precautions, etc.
CONSULS: Consuls offices are located in New Orleans, Louisiana.
REPAIRS: Engine and deck repairs are possible when the dock is not otherwise occupied.
CERTIFICATES: Certificate of condition of cargo handling gear required when use of gear is necessary.
GANGWAY/DECK WATCHMEN: Services of watchmen desirable but not required. Port does not furnish this service.
AIRPORT: New Orleans International Airport, served by most major airlines. 55 miles from Port Sulphur.
TIME: Local time is Central Standard Time (GMT minus 6 hours), except from April/October, Daylight Saving Time is in effect.
HOLIDAYS: Vessels are loaded on all holidays.
POLICE/AMBULANCE/FIRE: Police Tel: 564-2525; Ambulance Tel: 564-2525; Fire Tel: 564-3231.
TELEPHONES: Pay telephones are available.
SHORE LEAVE: Crew members are allowed ashore.
IDENTIFICATION CARDS: Immigration Form I-95.
DELAYS: Loading will not commence until all holds are clean of scale and other foreign matter.
AUTHORITY: Freeport Sulphur Company, P.O.Box 1025, Port Sulphur, Louisiana 70083. *Tel:*(504) 564-3981. *Contact:* A.W. Dow, Operations Manager.

PORT WENTWORTH, Georgia: 32.09 N. 81.08 W.

PILOTAGE: Compulsory. Pilot boards at Savannah Sea Buoy. 48, 24 and 12 hours notice required through Agent.
RESTRICTIONS: Vessels can enter and leave port during hours of darkness and at any stage of the tide, however, depth of water at River Bends controls draft.
MAX. SIZE: See "Berthing".
VHF: Pilot on Channels 16, 14 and 13.
TUGS: Tugs from Savannah assist with berthing and unberthing.
BERTHING: *Continental Can & Paper Co.:* Port Wentworth is the most inland berth up the Savannah River and is 29 miles from the entrance. Max. size of vessel so far to berth was LOA 628 ft. Pilots would accept vessels of 700 ft. LOA but would be unable to swing with this length. The berth is dredged to approximately 40 ft. for a length of 700 ft. Least depth of water in channel from sea to berth 28 ft.

Mean tidal range at berth 8 ft. to 9 ft. Nature of bottom – mud.

Vessel is able to dock at any stage of the tide, however, vessels undock on the flood to swing off berth. (Approximately one hour's flood tide required). The berth is a timber faced concrete wharf of length 240 ft. *Facilities:* There are no bulk handling facilities or quay cranes. Three mobile cranes used. There are no Ro-Ro facilities or floating cranes available. Fork lifts are available for handling reels of linerboard. There are no facilities for handling containers as berth is only used by Paper Mill.
STEVEDORES: Savannah labour used (Experts on loading paper reels).
MEDICAL: Doctor and hospital available.
DENSITY: 1001.
FRESH WATER: Not available.
FUEL: Bunker fuel oil available by barge. Diesel oil and lubricating oils also available.
SERVICES: (Available locally or from Savannah). Fresh provisions, repairs, dry dock, airport, surveyors and laundry service.
GARBAGE DISPOSAL: Service available on request at a charge.
WASTE OIL DISPOSAL: Service available on request at a charge.
SEAMAN'S CLUBS: None.
AUTHORITY: Stone Savannah River Pulp and Paper, Inc., P.O.Box 548, Savannah, Georgia 31402. *Tel:* (912) 964-1271. *FAX:* (921) 966-4342. *Contact:* J.R.Knight, Traffic Manager.

PORTLAND, Maine: 43.39 N. 70.14 W. (See Plan)

DOCUMENTS:
1 Crew List.
1 Passenger List.
2 Stores Lists.
2 Foreign Purchases Lists.
2 Inward Foreign Manifests uniform cargo.
Original Bill of Lading.
1 Form 1300 Master's Oath on entry of vessel.
2 Form 1374 Outward Foreign Manifest.

PILOTAGE: Ship's Agents usually notify Pilot approximately 48 hours in advance of arrival then changes are made at 24 and 12 hours. Pilot boat usually called on Channel 16 and then switched to Channel 11 to continue conversation. Pilot goes aboard ship in vicinity of the large navigation buoy using ladder on lee side. When weather bad, suggest vessel anchors approximately 1 mile North of the large navigation buoy (LNB).

Portland Pilots Inc. Tel: (207) 774-5623. Fax: (207) 774-5683.
Docking Pilots: McDuffie Pilots Inc. Tel: 781-3954.

ANCHORAGES:
Anchorage A (General): Beginning at Eastern corner of Grand Trunk Railway Company Pier No. 3 (Pier removed); thence approximately 90°, 1,700 yd. to Brooklyn Ledge Buoy 16; thence 330°, 350 yd.; thence 25°, 780 yd.; thence 303°, 750 yd.; thence 254°, 560 yd.; thence 186°, 750 yd.; and thence to the point of beginning.
Anchorage B (General and Quarantine): Beginning at Brooklyn Ledge Buoy 16, thence 58° to Little Diamond Island thence along the S.W. shore to the pier on the Southern end of Little Diamond Island; thence 143°, 1,200 yd.; thence 270.25° to House Island Light; thence along the Western shore of House Island to Fort Scammel Point Light; and thence 329°, 1,620 yd. to the point of beginning. Anchorage B is intended for general purposes, but especially for use by oil tankers and other deep-draft ships entering the harbour at night and intending to proceed to the dock allotted at daylight the following morning, or as soon as practicable. This area also is to be used for quarantine anchorage. Any vessel anchored in this area shall be ready to move on short notice.
Anchorage C: Bounded on the N.W. by House Island; on the North by a line running 90° from House Island Light to Peaks Island; on the East by the Western shore of Peaks Island, by a line running 198° from the Westernmost point on Peaks Island to Cushing Island, and by the shore of Cushing Island to its Westernmost point; and on the Southwest by a line running from the Westernmost point on Cushing Island to Fort Scammel Point Light. Anchorage C is intended for use only by small vessels and for temporary anchorage.
Anchorage D: Southerly and Westerly of a line beginning at Lighthouse Channel Buoy 1; thence 35° to Anchorage Buoy E; and thence 145° to the mainland. Anchorage D is for use only by small yachts and pleasure craft, and small, light draft coastwise freighters.
RESTRICTIONS: No entry restrictions at night. Deep draft vessels brought in on high water only.

Max. beam through bridge – 93 ft.
Max. draft through bridge – 35 ft.

MAX. SIZE: Size of vessel restricted to 45 ft. draft in harbour area. No outside installations at port at present.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Tugs in Portland Harbour use Channel 7. Vessels arriving at Portland go through radio station in Chatham, Mass., RCA installations, or call station WOU via radio-telephone. VHF Harbour Control at Portland.
VHF: Voluntary reporting system in effect on Channel 13.

Channel 16, Calling & Distress Frequency, monitored 24 hours day;
Channel 22A, Main Coast Guard Frequency;
Channel 11, Portland Pilots;
Channels 7A and 78, Portland Tugboat and Ship Docking;
Channel 13, Ship to Ship.

TUGS: Tugs join vessel at Spring Point in Portland Harbour. Tugs use own lines at no additional charge. Docking Pilots not supplied by Company but are available.
BERTHING: Tidal conditions govern arrivals and departures. Depth alongside up to 35 ft.
Merrill Marine Terminal: Located in the upper Fore River. 600 ft. × 134 ft. concrete marginal wharf with 4 dolphins and provides 900 ft. berth with 35 ft. MLW and a 450 ft. Ro/Ro berth with 25 ft. MLW. 2 cranes. Liquid storage, covered storage. This Berth handles a variety of cargoes, including woodpulp, steel, fertiliser, long logs, tapioca.

This is the only general cargo facility within the Port. Located on the upper Fore River approximately one mile above the lift bridge and adjacent to the fixed highway (U.S. Route 1) and railroad bridges. Vessels normally navigate the Fore River on a rising or high tide and, depending on vessel's manoeuvring equipment (bow thrusters, etc.), either one or two tugs may be required for berthing. Vessels may dock either port or starboard side to. There is no minimum number of mooring lines required. Each berthing is handled on a case by case basis. Fresh water is available at the berth. Vessels may undock at any time and again may require the assistance of one or two tugs, depending on manoeuvring capabilities.

International Terminal: A passenger, container and Ro/Ro facility with limited cargo capability. Located immediately East of the lift bridge. Tug boats required for berthing. Wharf is a marginal wooden structure with 730 ft. of face, the Easterly 290 ft. being new concrete construction, and 35 ft. depth at MLW. Fresh water is available at the berth. Vessels may undock at any time and will require assistance of tugs.

The terminal accommodates an international ferry and Hapag Lloyd's container service.

Maine State Pier Transient Berth:

Length:	270 ft.
Utilities:	Water, sewer, reefer hook-ups, floodlighted dock.
Location:	Pier face far West end of Bath Iron Works facility.
Draft:	25 ft.
General:	Layover berth for small passenger or other vessels. Immediately adjacent to downtown area, vehicle access limited. Prior reservation required via City of Portland Waterfront Office, Tel: 207-773-1613 during working hours (0800 – 1600).

BRIDGES: No undocking on ebb tide through bridge.

STEVEDORES: 4 hours notice on ordering gangs.

MEDICAL: No advance notice required by Agent. 2 hospitals, Maine Medical Center and Mercy Hospital, who take bed patients.

TANKERS: Tankers arriving at Portland Pipe-line, Pier 2, make preparations for 2×10 in. and 12 in. hoses.

Berth	*Depth Alongside*
Clean Harbours of Maine	18 ft. MLW
B.P. Oil Terminal	34 ft. MLW
Getty Terminal	34 ft. MLW
Gulf Oil Terminal	28 ft. MLW (at bow)
Koch Terminal	34 ft. MLW
Mobil Terminal	35 ft. MLW
Northeast Petroleum Terminal	35 ft. MLW
Portland Pipe-line Pier No. 1	35 ft. MLW
Portland Pipe-line Pier No. 2	48 ft. MLW
Star Enterprise Terminal	38 ft. MLW

Shore Storage: Due to shore storage difficulties the Portland Pipe-line Authorities have requested vessels leaving Venezuelan ports for discharge at Portland to provide the following information in order to avoid ship delays at this terminal:

(a) Vessel's expected time of arrival at Portland.
(b) Quantity and grade of cargo loaded.
(c) In case of split cargoes, intended order of discharge.

The above mentioned information should be radioed to Portland Agent for forwarding to Portland Pipe-line Authorities immediately on sailing from the final Venezuelan loading port.

Report: *General/Anchorages:* Deeply laden vessels will enter Portland through the Witch Rock Channel, passing between Buoys "1" and "2", which mark Witch Rock. Lightly loaded vessels will enter through Willard Rock Channel. All vessels will pass between Portland Head and Cushing Island. The swell usually subsides near Spring Point, allowing the tugs to come alongside. Vessels bound for certain Terminals (N.E. Petroleum, Getty, B.P., Koch, Mobil and Star Enterprises) must pass through the South Portland bascule lift bridge which has a horizontal clearance of 98 ft. 2 tugs assist vessels through the lift bridge; one on the starboard bow with good backing line, the other on the starboard quarter. The bridge will not open between the hours of 0700 to 0900 and 1600 to 1800, Monday through Friday. The bridgetender can be contacted on VHF Channel 13; a minimum of 1 hour's notice prior to arrival at the bridge is desired.

Vessels proceeding to Hussey Sound to lighter will be taken by the Sea Pilot through West Cod Ledge and will enter the sound via the channel between Peaks Island and Long Island. Extreme care should be exercised while passing Soldier Ledge, a rock ledge with 40 ft. of water at MLW marked by lighted buoy "6".

N. E. Petroleum Terminal: The vessel continues approximately 1 mile above the lift bridge where it is turned to port and worked ahead into the berth. Vessels dock starboard side to with a minimum of 12 mooring lines. The terminal prefers synthetic mooring lines. The first lines positioned on the dock are the forward spring lines which are passed as the vessel moves ahead slowly. The pier is a typical wooden finger pier with 2 woodfaced steel pile breasting dolphins. Breast lines are led across the dock to wood pile clusters. Vessels dock at Slack High Water and generally can undock at any time with the assistance of 2 tugs. Upon undocking, the vessel must back into the channel and turn before heading out to sea.

Gulf/Cumberland Farms Terminal: The Terminal is located in South Portland about 1 mile outside the lift bridge. The berth consists of 2 steel breasting dolphins 40 ft. in diameter which are fendered with wood. The hose rig and manifolds are located midway between the 2 dolphins. Vessels approach the finger pier and are breasted alongside by 2 tugs. Care should be taken not to work the vessel along the pier face. Vessels dock port side to with a minimum of 10 mooring lines. The 2 stern lines lead to 2 mooring buoys. Vessels start in 3 hours prior to HW in order to arrive at the dock at HW. Vessels undock with either 1 or 2 tugs. Mooring lines should be carefully tended as strong Northeasterly winds may cause a vessel to move off the breasting surfaces.

Getty, B. P. and Koch: This Terminal is located at the extreme Western end of the Fore River, approximately 1.5 miles beyond the lift bridge and adjacent to a fixed highway and railroad bridge. Vessels transit the Fore River on a rising tide in order to dock at Slack High Water. The vessel approaches the dock slowly, in line with the pier and slightly off of the face to prevent rubbing on the wood fendering. The vessel should be stopped dead in the water and then gently breasted alongside. All vessels dock port side to with a minimum of 11 lines. Stern lines are run to a mooring buoy. Vessels undock with the assistance of 2 tugs.

Mobil Terminal: This Terminal is a marginal-type berth located on the South bank of the Fore River approximately 1.25 miles above the lift bridge. The dock has 2 breasting cells 160 ft. apart. The cells are concrete capped supported by cylindrical steel pipes. The hose gantry platform is located midway between the breasting cells and is set back 3 ft. from the outer face of the cells. The breasting cells are equipped with hard rubber fixed fendering. The mooring points for head, stern, and breast lines are smaller concrete caps supported by steel pipes. A wood walkway runs the length of the dock connecting the the concrete caps. 2 tugs breast the vessel alongside for a port side to docking. 12 mooring lines are considered the minimum acceptable. Vessels dock at HW. On departure, the vessel is worked astern and then turned off the dock with the assistance of 2 tugs.

Portland Pipe-line Terminal: Portland Pipe-line Corporation operates 2 separate finger piers in South Portland. The Terminal is the Eastern terminus of a pipeline which carries oil to Montreal, Quebec.

Pier No. 1 is the older of the 2 piers. There is a tanker berth on both the East and the West sides of the pier. Vessels dock bow in, starboard side to on the East side and port side to on the West side. On approaching the pier at Slack High Water, vessels are turned to port with the assistance of 2 tugs and are worked into the berth. Forward spring lines are positioned first. 12 mooring lines are recommended. Vessels undock with the assistance of 2 tugs at any stage of the tide. Max. size: 30,000 d.w.t. and 32 ft. draft at MLW.

Pier No. 2 consists of a 975 ft. extension to an older 1,000 ft. finger pier. There is a tanker berth on both the North and the South sides of the pier. Vessels dock bow in, starboard side to on the South side and port side to on the North side. Vessels drawing less than 42 ft. dock at Slack Water. Vessels dock at Slack Water due to the fact that the tide sets across the pier at about 1 knot. Vessels under 80,000 d.w.t. dock with the assistance of 2 tugs; vessels up to 110,000 d.w.t. may require additional tugs. Vessels make a normal approach to the finger pier, are turned to port, and worked slowly into the berth. Forward spring lines are positioned first. 12 mooring lines are considered the minimum acceptable. Vessels undock at any stage of the tide with the assistance of 2 tugs. Max. size: 124,000 d.w.t. and 45 ft. draft at MLW.

Vessels bound for Portland Pipe-line Terminal are usually brought to the inner anchorages, Diamond Island Roads, one tide before their scheduled berthing in order to dock at Slack Water.

Star Enterprise Terminal: The Terminal is located on the South side of the Fore River directly inside the lift bridge. Vessels dock with the assistance of either 2 or 3 tugs. The vessel must transit the bridge as slowly as possible for it must stop immediately after the bridge. It is then slowly turned slightly to starboard and breasted alongside the pier by the tugs for a port side to docking at Slack High Water. Vessels undock at any time with the assistance of 2 tugs and are turned before proceeding through the bridge outbound. 10 mooring lines are considered the minimum acceptable.

DENSITY: Average density 1024.

FRESH WATER: Available by tug for boilers only at rate of tug hire. Drinking water available at piers.

FUEL: No. 6 diesel oil and blended intermediate fuel oils. Delivery is via barge only and 24 hours notice required.

FIRE PRECAUTIONS: None – except at certain oil piers where information given to Shipmaster upon arrival at pier. Ample fire protection, salt water lines, sprinkler system on pier, local fire department.

CONSULS: Honorary Consuls for France and Sweden.

REPAIRS: Repair facilities for all types of machinery available.

DRY DOCKS: 3 basins divided into 7 berths which can handle a vessel up to 455 ft. long and 62 ft. wide (not currently activated). Also 3 other smaller marine slipways.

80,000 ton lift floating dock. Depth over keel blocks 14 m. Length 257 m. Clear width 40.7 m.

New Bath Ironworks: New dry dock in operation.

Specifications:	Clear Width:	134 ft.
	Draft:	46 ft. over 4 ft. keel blocks
	Max. Size:	LOA 1,000 ft. Beam 130 ft.
	Max. Lift:	90,000 long tons
	Dock Length:	747 ft. without outriggers 797 ft. with one outrigger.

SURVEYORS: National Cargo Bureau, Tel: 781-4467. Caleb Brett U.S.A. Inc., Tel: (207) 799-5569. E.W.Saybolt, Tel: (207) 799-1142.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Ship's crew open hatches.

CERTIFICATES: Load Line Certificate, Certificate of Foreign Clearance, Ship's Safety Certificate, U.S. Tonnage Tax Certificate of previous trip if available, Radio Operator's Licence.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes per man. Wine and/or Spirits, 1 bottle per person.

CARGO GEAR: Additional gear may be required for dry cargo. Vessel or agent should contact stevedores regarding same as soon as possible prior to vessel's arrival.

REPATRIATION: Arrangements must be made with Agent in advance by telegram.

AIRPORT: Portland Municipal Airport 3.5 to 4 miles distant.

HOLIDAYS: Accepted holidays: New Year's Day; Memorial Day; Independence Day; Labour Day; Thanksgiving Day and Christmas Day. Stevedoring available on any of these days by prior arrangement.

POLICE/AMBULANCE/FIRE: Switchboard 775 – 6361. Emergencies 911.

TELEPHONE: Arrangements can be made to have phone put on ship, but most docks have pay phones.

IDENTIFICATION CARDS: Form I-95 must be filled-out on arriving unless seaman has had a prior one made out for a previous arrival on same ship.

GARBAGE DISPOSAL: Several local companies available. Contact Department of Agriculture. Tel: (207) 780-3237.

WASTE OIL DISPOSAL: Several local companies available.

SEAMAN'S CLUBS: New England Seaman's Mission Inc., Boston Tel: (617) 569-6719.

GENERAL: Discussions underway with Coast Guard and other officials to install fixed lighthouse stations to replace lightships at entrance.
DEVELOPMENTS: Plans under way for redevelopment of waterfront. Plans call for deepening Fore River from 35 ft. to 45 ft.
AUTHORITY: Port of Portland, Waterfront Division, Two Portland Fish Pier, Suite 307, Portland, Maine 04101. *Tel:* (207) 773-1613. *Contact:* Thomas F. Valleau, Director. Captain Steve Richmond, Waterfront Manager.

State of Maine, Department of Transportation, State House Station No. 16, Child Street, Augusta, Maine 04333. *Tel:* (207) 287-2841. FAX: (207) 287-2896. *Contact:* R.D. Elder, Port Development Director.

PORTLAND, Oregon: 45.30 N. 122.40 W. (See Plan)

LOCATION: Portland is located 96 miles up-river from Astoria.
DOCUMENTS:

3 Cargo Manifests.
3 Stores Lists.
3 Crew Curio Lists.
3 Crew Lists.
1 Clearance from Last Port.
1 Tonnage Tax Certificate.
1 Copy of Vessel's Register.
1 Itinerary of Vessel, port by port.

PILOTAGE: Compulsory. ETA Bar Pilot Astoria at least 12 hours before arrival giving deepest draft. Bar pilotage covers from sea to the Port of Astoria, river pilotage covers from Astoria to Portland. They change from launch while steaming in channel off Astoria Buoy No. 37.

Warning: Due to heavy swells on bar during stormy Winter conditions, crossings may be temporarily suspended, therefore Masters should attempt earliest VHF radio contact on Channel 16 with Pilots or Coast Guard Station "Cape Disappointment" for latest bar conditions.

During Summer months Masters should use extreme caution in poor visibility as many small fishing craft will be encountered near mouth of Columbia River.

Also see "General – Pilotage" before first U.S.A. port (Albany).
ANCHORAGES: Vessels may anchor to await berths at various locations on the Columbia River. Usual spots are at Tongue Point Astoria, Longview and at Vancouver, Washington.
RESTRICTIONS: All vessels Masters or their Agents to obtain Coast Guard Clearance at least 24 hours before arrival. Captain of Port may impose movement restrictions if any hazardous cargo. Under 36 ft. draft no movement restrictions, 36 ft. and over up to maximum permissible draft of 39 ft. on Pilot's recommendations. Bar Pilots will take vessels up to 45 ft. draft out on HW.

No size restrictions length and beam, however, Corps of Engineers maintain only 600 ft. wide channel, therefore, deep laden vessels over 600 ft. in length to use extreme caution when turning.
MAX. SIZE: No restrictions length and breadth. Depth at Columbia River Bar 55 ft. River channel to Portland/Vancouver maintained at 40 ft. by 600 ft. Seasonal tidal effect up to 3 ft. at Portland.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

Master to radio with ETA state of crew health noting any sickness. Agent will report sickness to Seattle Quarantine Station for clearance instructions.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Route ETA cables through KLBITT Seattle, Washington.

Marine Exchange of the Columbia River District (Merchants Exchange): 24 hour marine reporting. Call sign "KDO 759". Call on Channel 16 VHF. Working (Astoria – Longview and 50 miles out to sea) on Channel 9 and (Longview – Portland) on Channel 11 and 18A.

Marine Exchange (Tel: 503 – 228 – 4361) pass messages to vessels from Agents and vice-versa. Coverage is good in river and 50 miles to seaward.
TUGS: Tugs normally join vessel at designated berth. Tugs' lines used at no charge.
BERTHING: The port operates 4 public ocean cargo terminals (Terminals 2, 4 and 5 are located on the Willamette River and Terminal 6 on the Columbia River) containing 19 deepwater berths, including 7 container berths with 8 high-speed container cranes. A new Post-Panamax crane is due to be operational late 1995. Present depths alongside berths is 40 ft. min. at MLLW.

There are general cargo berths and berths for commodities which require special handling. Port facilities include 21 transit sheds, and 8 warehouses with 2.2 million sq.ft. of sprinkler protected storage area.
SPECIALISED CARGO HANDLING FACILITIES: As well as the 8 container cranes, there are 2 Whirley cranes, 8×45 ton gantry cranes and a 175 ton mobile crane, largest of its kind on the Pacific Coast.

At Terminal 2 is a 2,535 ft. container/general cargo pier with a 40 ton, a 50 ton, a 36 ton revolving crane and an 85 ton straight line crane and 2×65 ton gantry cranes. Terminal 2 contains a Roll-on/Roll-off berth and a 400 ft. barge dock. Pier has a 27 acre open storage yard with rail and truck service. 4 straddle carriers, capable of stacking 20 ft. containers 3 high, or 40 ft. 2 high, serve the yard. Pierside warehouses and container freight station 300,000 sq.ft.

At Terminal 4 there is an 8.1 million bushel capacity grain elevator (Cargill), with box car tipper, truck dumper and barge unloading facility. There is a Dravo bulk unloader with digging capacity of 900 t.p.h. and a bulk outloader with a loading capacity of 1,500 t.p.h. Tanks are available for special cargoes such as petroleum, molassses, tallow and ore concentrates. Also available is a 120 acre open storage area and floating dock for import of automobiles (Toyota). Three general cargo berths, totalling 2,400 ft., equipped with 1×35.5 ton straight line container handling crane and 1×36 ton revolving crane. 48 acre open yard storage and 200,000 sq.ft. covered storage available.

The Terminal 5 elevator is the most modern grain outloading facility in the lower Columbia River and is operated under sub-lease by Columbia Grain Inc.

The elevator has a storage capacity of 4 million bushels and is the fastest on the river, with an outloading capability of 2,100 tonnes/p.h. The facility can receive grain by rail, truck and barge. The barge leg operates at 1,000 t.p.h., trucks are unloaded at 200 t.p.h. and railcars can be unloaded at 1,250 t.p.h.

Terminal 6 has a container pier, length 2,850 ft., with 3×50 ton and 2×40 ton straight line cranes and a 200,000 sq.ft. container freight station, 72 acres of open storage and 2 on-dock rail facilities capable of handling 60 double stack rail cars. Switching is by Burlington Northern R.R. with direct access by Union Pacific R.R. Also a 150 acre open storage area and 2 floating docks for import of automobiles (Honda and Hyundai).

Bunge Corp: Depth alongside 40 ft. Storage Capacity: 8,000,000 bushels. Receiving Capacity: Ex-barge 500 t.p.h.; ex–rail 750 t.p.h. and ex-truck 750 t.p.h. Loading Capacity: 1,800 t.p.h. (1 belt and 5 spouts).
Louis Dreyfus: Depth alongside 42 ft. Storage Capacity: 1,500,000 bushels. Receiving Capacity: Ex-barge 600 t.p.h.; Ex-rail 350 t.p.h. Loading Capacity: 1,200 t.p.h. (2 belts and 6 spouts).
BRIDGES: No arrival times designated if coming from sea and in excess of 750 tons gross. Departures regulated, with bridge closures during peak traffic flow (0700 to 0900 hrs. and 1615 to 1815 hrs.) unless permission granted by Harbour Master.
STEVEDORES: Allocation for gangs Monday to Saturday must be confirmed at 1100 hrs. to longshore hiring hall. Allocation for gangs Sunday and Monday made at 1100 hrs. Saturday for both day and night gangs. Same procedure applies to allocation of night gangs, but night gangs may be cancelled by 1400 hrs. in afternoon if night gangs are to work.
MEDICAL: Any type medical treatment provided and hospital facilities available.
TANKERS:

Berth	Max. Size Vessel Length	Draft
Shell Oil Company	575 ft.	32 ft.
Standard Oil	660 ft. – 700 ft.	35 ft.
Texaco Inc.	650 ft.	30 ft.
Phillips Petroleum Co.	No maximum	30 ft.
Time Oil Co.	600 ft.	38 ft.
Mobil Oil Corp.	550 ft.	31 ft.
Richfield	600 ft.	30 ft.
Union Oil Co.	550 ft.	30 ft.

DENSITY: Fresh water at all times.
FRESH WATER: Available at most berths delivered through pier-side connections.
FUEL: Viscosity grades of B and lower. No advance notice required. Barging essential. Also see "Notice" No. 2.
FIRE PRECAUTIONS: Fire precautions respecting tankers administered by U.S. Coast Guard, which enforces shipboard regulations under the Code of Federal Regulations, Part 46, Sub-Part D, Sections 20 to 40; the Police Harbour Patrol, which controls port movements, boards vessels to warn Master regarding harbour regulations, including spilling of oil, etc.; Fire Marshal exercises jurisdiction regarding fire regulations at shoreside facilities serving tankers.

All vessels to have towing cables rigged fore and aft on the offshore side. Cables to be made fast with the eye 1 m. above the water.
CONSULS: The following countries are represented in Portland:

Barbados
Belgium
Cyprus
Denmark
Finland
France
Germany
Great Britain
Ivory Coast
Japan
Korea
Malaysia
Mexico
Netherlands
Norway
Sweden

REPAIRS: All types of deck and engine repairs possible.
DRY DOCKS: 3 floating docks, largest 982 ft.×185 ft. clear width, with lift capacity of 81,000 long tons.
GANGWAY/DECK WATCHMEN: Option of vessel Owner/Agent and available through private firms.
OPENING/CLOSING HATCHES: While ship at dock, opening and closing is work of longshoremen. Ship may open or close own hatches while underway.
CERTIFICATES: Registered Tonnage Certificates. Certificate of Financial Responsibility (all details must agree with vessel's register).
CARGO GEAR: Valid cargo gear certificate required, acceptable to U.S. Bureau of Labor Standards.
REPATRIATION: Arrangements possible for crew changes or other repatriation.
AIRPORT: Airport 10 miles distant, served by 14 regularly scheduled passenger airlines with direct service and/or connections domestically and world wide. 17 cargo carriers also serve the area.
TIME: GMT minus eight hours. Daylight Saving Time becomes effective annually on the first Sunday in April through the last Saturday in October.
HOLIDAYS: *New Year's Day; Martin Luther King's Birthday (January 15th); President's Day (February 21st); Memorial Day (May 30th); *Independence Day (July 4th); Harry Bridges Birthday (July 27th); *Labour Day (first Monday in September); Columbus Day (October 8th); Veterans' Day (November 11th); Thanksgiving Day, *Christmas Day (December 25th), State-wide Election Days. Other legal holidays may be proclaimed by state or national authority. When holiday falls on Sunday, the following Monday is observed as holiday. Longshore work performed on any of above listed days is overtime, which is one and a half time rate. Days marked (*) are stop-work days, i.e. no ships will be worked. This also applies to July 5th, which observed locally on unilateral basis.

POLICE/AMBULANCE/FIRE: Police Tel: 911; Fire Tel: 911; Ambulance: provided by several private firms, but can be obtained through police or fire number.

TELEPHONES: Available by order from terminal superintendents at $5.00 connection charge.

SERVICES: All services available such as compass adjusting, major or minor repairs either with work barges or at ship repair berths; lay berths available; charts available from private companies; all chandlery supplies available.

SHORE LEAVE: Crew members permitted ashore except where vessel has made first arrival from Communist-controlled port.

IDENTIFICATION CARDS: Immigration Dept. requires Form No. I-95A and No. 31 (Repatriation). Changes can be effected at any U.S. Immigration Office.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany).

Service available using private contractors.

Contact:
Disposal Group. Tel: (206) 892-9594.
Foss Environmental. Tel: (503) 283-1150.
Northwest Field Services. Tel: (503) 241-3827.
Reidel Environmental Services. Tel: (503) 286-4656.
Spencer Environmental. Tel: (503) 655-0896.
Western Compliance Service. Tel: (503) 682-2341.

WASTE OIL DISPOSAL: Portland Ship Repair Yard. Tel: (503) 240-3041. Fax: (503) 240-3080. Storage tank capacity 250,000 barrels.

Service also available using private contractors. Contact: Foss, Northwest Field Services, Reidel, Spencer or Western (See "Garbage Disposal" above).

SEAMAN'S CLUBS: None.

CURRENCY: U.S.Dollar (U.S.$).

NOTICE No. 1:

Customs of the Port: July 1993.

The Customs of the Port with respect to bulk grain and other bulk commodities handled through export grain elevators in the Columbia River District is published by the Merchants Exchange as a convenience to the trade and to facilitate commerce.

These Customs set forth the normal and customary trade practices of vessels loading in the Columbia River District, considered as one port with grain berths from Astoria, Oregon, to Portland, Oregon, including Longview, Kalama, and Vancouver, Washington.

These Customs do not, and are not intended to, supersede the basic contractual relationships between the parties (vessel, charterer, shipper, etc.). Instead, where these contractual arrangements do not cover specific local conditions, these Customs are intended to be made available for the information of and application by the parties.

SECTION 1:

Subject to the exceptions enumerated below, vessels are assigned to a berth(s) in the order in which they file with the elevator(s) as ready to load. A vessel is considered ready when it has obtained Certificate of Readiness issued by the National Cargo Bureau, Inc., and an official Certificate of Stowage Examination from the U.S. Department of Agriculture, Federal Grain Inspection Service, Inspection Division, stating the vessel is completely fit in all compartments in which it is intended to receive cargo.

Exceptions:

(a) In assigning berth to vessels at any elevator, Liners are given preference over other vessels except that any tramp vessel, whose allowed loading laytime has expired, assumes the status of a liner vessel for purposes of berth assignment (Under these Customs, the term "Liner" is a vessel sailing under an advertised Pacific Coast schedule and operated by a line maintaining regular sailings from any Pacific Coast port to named ports, and on which the total quantity of all grain to be loaded does not exceed one-half of the total deadweight tonnage of the vessel). A vessel which arrives and presents Notice of Readiness to load in accordance with these Customs, but which cannot attain "Liner" status because the allowed loading laytime is not defined in the contract between the parties, will not lose its berthing priority to a tramp vessel with later Notice of Readiness, that has gone on demurrage.

(b) An elevator may alter the turn of the vessels whenever confronted with the urgent necessity of receiving or loading any particular grade of grain, or to facilitate conditions at the elevator. When requested, elevator operator will supply written confirmation of such loading alteration as provided under these Customs and/or applicable tariff to Owner's or Charterer's representative.

SECTION 2:

(a) Normal working days are Monday through Saturday from 0800 hrs. to 1700 hrs. Exceptions are Sundays and holidays as defined in the Pacific Coast Longshore Contract Document.

(b) Overtime – is all work over 8 hours in one day, and work between 1700 hrs. and 0800 hrs., Monday through Friday, and all work on Saturdays, Sundays and holidays as defined in the Pacific Coast Longshore Contract Document.

(c) A waiting vessel – where the same holiday is observed on different days in adjoining states, a waiting vessel not knowing where it could work will observe (for laytime purposes) the holiday in the state that it first works.

SECTION 3:

If a vessel refuses to work during a normal working day, or beyond a normal working day when so required in writing by the elevator in accordance with its published tariff, it loses its turn and vacates the berth in favour of the next vessel that is willing to work overtime. The vessel so losing its turn shall be entitled to berth as soon as the berth is next available thereafter. If any vessel refuses to vacate its berth when ordered to do so under the above circumstances, the elevator may effect the removal of such vessel at the vessel's risk and expense.

SECTION 4:

The Board of Directors of the Merchants Exchange will, on an annual basis, select a mediator for the purpose of mediation or interpretation of the Customs of the Port set forth herein.

Requests for mediation or interpretation of these Customs shall be submitted in writing, stating the parties involved and outlining the facts in brief detail to the Executive Director of the Merchants Exchange. The Executive Director of the Merchants Exchange and the mediator will select the time and place for the mediation. Failure of the parties named in the mediation to respond or acknowledge the request for mediation will require the mediator to furnish his interpretation on the facts as presented by the requesting party.

Mediation fees payable to the Merchants Exchange shall be $50, plus any extraordinary charges in connection therewith, to be paid by the party requesting the mediation or interpretation.

Any requests for revisions of these Customs, to reflect new or different custom trade practices, must be submitted in writing to the Chairman of the Customs of the Port Committee with a copy to the Executive Director of the Merchants Exchange.

NOTICE No.2: Issued by the Harbour Master in August, 1980.

SUBJECT: Discontinuing Ship Repairs at Grain and Oil Docks, and Refuelling at Grain Docks.

We feel after considerable deliberation that ship repair at Oil and Grain Docks is an unnecessary hazard and should be discontinued at once.

The practice of refuelling ships at Grain Docks also would be considered taking an unnecessary risk, and as such, will be stopped.

After surveying numerous longshoremen and Grain Operators who reaffirmed this position, we are hereby notifying the concerned contractors that this will be our policy from now on.

AUTHORITY: Port of Portland, P.O.Box 3529, 700 Northeast Multnomah Street, Portland, Oregon 97208. *Tel:* (503) 231-5000. *Telex:* 910-464-5105. *FAX:* (503) 231-5332. *Cables:* Portofport. *Contact:* Mike Thorne, Executive Director.

PORTSMOUTH, New Hampshire: 43.03 N. 70.45 W.

(See Plan)

PILOTAGE: Pilot boards at entrance.

TUGS: The Port of Portsmouth is serviced by 3 regular tugs, one of 1,200 h.p. and two of 1,600 h.p. operated by the Portsmouth Navigation Division of the Central Wharf Towboat Company, Inc. Tel: 1-603-436 1209 (radio frequency 1316). Additional tugs are available in the area if needed.

The rates for moving vessels from the anchorage (1 mile South of Sea Buoy KR2) to berths in the harbour vary according to distance, conditions and tonnage of vessels. Tonnage referred to is s.d.w.t. or Coastwise, whichever greater.

BRIDGES: *Bridge Clearances:*
Memorial Bridge (lift): Horizontal 260 ft., vertical 150 ft.
ME.-N.H Bridge (lift): Horizontal 200 ft., vertical 135 ft.
1-95 Highway Bridge (fixed): Horizontal 440 ft., vertical 135 ft.
General Sullivan Bridge (fixed): Horizontal 100 ft., vertical 46 ft.
New Castle Highway Bridge (Bascule): Horizontal 29 ft., vertical 12 ft.

BERTHING:

w Hampshire State Port Authority:

Operator:	J. T. Clark & Son of N.H. Inc. Tel: (603) 436-8500. Fax: (603) 436-2780.
Location:	3 miles from Outer Anchorage (Buoy KR2).
Depth at Dock:	35 ft. (MLW).
Max. LOA:	700 ft.
Type of Pier:	Length 600 ft. Concrete and steel pile with precast concrete deck.
Products Handled:	General cargo, bulk and containerised.
Dry Storage:	50,000 sq.ft. in two sheds.
Dockside Services:	Potable water, power, telephone, stores and marine bunkers. Modern forklift trucks, bucket loaders, tractors and heavy lift cranes are permanently stationed at the facility to prevent any delays in servicing all types of vessels. The cranes range in size from 35 tons to 225 ton mobile crane. Additional mobile cranes of 165 ton capacity are readily available. A certified weighing system is located in the centre of the freight marshalling area for easy access to trucks and containers entering or leaving the terminal.
Developments:	Expansion of facilities is planned and will include a 700 ft. pier with 35 ft. at MLW and a 400 ft. pier with 25 ft. MLW for containers and project cargoes.

Storage Tank Development Corp., Fuel Storage Corp. and Sea-3, Inc.

Operator:	Fuel Storage Corp. and Sea-3, Inc.
Address:	78 Patterson Lane, Newington, NH 03801. Tel: (603) 431-6000.
Office:	889 Elm Street, P.O.Box 1032, Manchester, NH 03105-1032. Tel: (603) 622-7133.
Sea-3 Terminal:	103 Old Dover Road, Newington, NH 03801. Tel: (603) 431-5990.
Office:	144 Washington Street, Portsmouth, NH 03801. Tel: (603) 436-6225.
Type of Pier:	Steel piled cells offshore 125 ft.
Depth Alongside:	38 ft. (MLW).
Normal Ship Side to Dock:	Port.

Line Handling Boat required: Motorised shore bollards.
Access to Vessel (for stores and repairs): Trucks to shoreside, cart or hand to shipyard.
Product Handled: No. 2 oil, asphalt, MMA, propane, kerosene, low sulphur diesel.
Size and Number of Pipelines: 4 in. – 16 in.
Bbls. per hour Discharge Capacity: 12,420 bbls.p.hr.
Maximum Vessel Dimensions: 44,000 d.w.t.
Storage Capacity: 400,000 bbls.
Other Dock Users: Coastal Oil, U.S. Government, Trimont International, Cyro.

Also see "Shipmaster's Report".

Public Service Co. of N.H. Dock:
Operator: Mobil Oil Corp.
Address: Gosling Road, Newington, N.H. 03801.
Depth Alongside: 32.6 ft. (MLW).
Normal Ship Side to Dock: Port.
Access to Vessels (for stores and repairs): Limited.
Products Handled: Petroleum and liquid bulk.
Size and Number of Pipelines: Various.
Discharge Capability: 6,000 bbls.p.hr. (varies on product and tank size).
Average Distance to Storage Tanks: 0.75 miles.

Simplex Wire & Cable:
Operator: Simplex Wire & Cable.
Address: 2073 Woodbury Avenue, Newington, NH 03801.
Tel: 436-6100. Fax: (603) 427-0701.
Type of Pier: T-Shape (permanent).
Depth Alongside: 36 ft. (MLW).
Normal Ship Side to Dock: Port (bow upstream).
Line Handling Boat required: Yes.
Access to Vessel (for stores and repairs): Yes.
Product Handled: Ocean cables.

Public Service of N.H. – Schiller and Newington Stations:
Operator: C. H. Sprague & Son.
Location: 1.5 miles above the Interstate Bridge.
Distance Seabuoy to Dock: 7.1 miles.
Controlling Depth in Approaches: 35 ft.
Controlling Depth at Dock – MLW: 37 ft., ledge bottom.
Rise and Fall of Tide: 8 ft.
Products Handled: No. 4 and No. 6 fuel oil, coal, dry bulk.
Docking and Undocking Conditions: Docking is restricted to a high water operation – Pilot starting ship in from anchorage area at high water only.
Undocking: Low water slack at the dock or 1 hour before high water slack at the dock.
Length of Dock and Construction: 700 ft. with dolphins. Concrete pile, concrete decked T-head wharf with a 100×20 ft. approach.
Tugs and Line Handlers: 2 or 3 tugs used to dock and undock. Terminal personnel used as linesmen.
Bunkers: Available through 6 in. line at 2,000 bbls./hr.
Water: Supplied through 2.5 in. line.

Sprague Portsmouth Terminal:
Sprague's Portsmouth Terminal consists of approximately 8.55 acres of industrial-zoned land abutting Public Service of New Hampshire's (PSNH) Schiller Generating Station. The Terminal has 342,000 bbls. of liquid storage capacity.
Other Facilities and Services: Siwertell dry bulk material unloading system rated at 1,000 tons/hr. Vessels of up to 700 ft. length and 36 ft. draft can be accommodated.

Sprague Energy – Newington Terminal:
Operator: Sprague Energy
Address Terminal: 126 River Road,
Newington, N.H. 03801.
Tel: (603) 431-5131. Fax: (603) 431-2675.
Office: One Parade Mall,
Portsmouth, N.H. 03801. Tel: (603) 431-1000.
Type of Pier: Steel piled cells (2) and cement mooring dolphins (3). Offshore 300 ft.
Depth Alongside: 35 ft. (MLW).
Normal Ship Side to Dock: Port.
Line Handling: Motorised capstans on all dolphins. Lines handled by Sprague personnel.
Lines: 6-18 depending on size of vessel.
Access to Vessel (for stores and repairs): 5 ton vehicle or less to ship side. 5 ton vehicle or more, cart or hand to ship side.
Size and Number of Pipelines: 1×16 in., 1×14 in., 3×10 in., 1×8 in., 1×6 in.
Discharge Rate: 7,000-20,000 bbls./hr. (varies on product and tank size).
Max. Vessel Size: 736 ft. overall length.
Storage Capacity: 1,200,000 bbls.
Dockside: Potable water, pay telephone, marine bunkers (light oil only).
Other Facilities and Services: Sprague operates a dry bulk material handling conveyor system capable of handling self-unloading vessels. Receipt rate approximately 2,500 tons/hr.
Products Handled: Petroleum: No. 2 fuel oil, diesel fuel, kerosene.
Dry Bulk: Cement, gypsum, salt, aggregate.
Chemicals: Caustic soda, tallow, calcium chloride, asphalt.

National Gypsum Company:
Operator: National Gypsum Company.
Address: Michael Succi Drive, Portsmouth, NH 03801.
Tel: (603) 436-4840.
Mailing: P.O.Box 270, Portsmouth, NH 03802-0270.
Type of Pier: 2 circular marine cells, 40 ft. dia. at shore side.
Depth Alongside: 40 ft. (MLW).
Normal Ship Side to Dock: Port.
Line Handling Boat required: Motorised shore bollards.
Access to Vessel (for stores and repairs): Trucks to shoreside.
Product Handled: Gypsum ore through a conveyor system designed for self-unloading ships.
Other Dock Users: Northeast Petroleum Corp.

Granite State Minerals:
Operator: Granite State Minerals.
Address: 227 Market Street, Portsmouth, NH 03801.
Tel: (603) 436-8505.
Location: 3 miles from Outer Anchorage Buoy (2KR).
Type of Pier: Steel pile with wood deck.
Depth at Dock: 36 ft.
Max. LOA: 735 ft.
Normal Ship Side to Dock: Port.
Products Handled: Dry bulk products.
Discharge Capability: Two shoreside mobile cranes.
Storage Area: 4 acres.
Dockside Services: Water, bunkers, no shoreside electricity.
General: Granite State Minerals offers throughput of products such as cement, stone, gypsum, lumber and other dry bulk products and arranges transportation from point of origin to point of destination for most materials.

TANKERS: Also see "Berthing".

Report: Cautionary Advice – Port Approaches: Vessels approaching Portsmouth should pass South of Isles of Shoals, and, if waiting for the Pilot, anchor inside of Gunboat Shoals Buoy No. 1. Vessels should not anchor during periods of heavy swell. It is not prudent to enter port in fog, snow or when swell is running West of Whaleback Reef. Numerous small craft frequent this area during Summer months.

Tugs: 4 tugs are available at this port. Pilot acts as Docking Master and his advice should be heeded concerning number of tugs and number and placement of mooring lines.

General: Portsmouth Harbour is at the mouth of the Piscataqua River and is the approach to all marine terminals located on the river. The terminals are located above the City of Portsmouth. Vessels transiting up-river must pass beneath either 2 or 3 bridges, depending on the terminal. The first bridge is the Memorial Highway Bridge which is a lift bridge with a vertical clearance of 150 ft. in the raised position. The second bridge is the Route No. 1 Bypass and Railroad Bridge (Noble Island Bridge) which is also a lift bridge and has a vertical clearance of 135 ft. in the raised position. The third bridge is the Route 95 Bridge which is a fixed structure with 135 ft. of vertical clearance. The 2 lift bridges monitor VHF Channel 13. The minimum horizontal clearance on the bridges is 200 ft.

The Agent must notify the U.S. Coast Guard 24 hours prior to the vessel entering the harbour. The vessel must notify the U.S. Coast Guard on VHF Channel 16 upon entering the harbour. The Pilot will get a vessel under way approximately 1 hour before the tide changes in order to make a Slack Water passage. Tugs will come alongside after the vessel has rounded Fort Point.

Sea 3 Terminal: LPG vessels scheduled to discharge at this terminal must pass through all 3 bridges. The terminal is located 2.9 miles above the Memorial Highway Bridge on the South bank of the river. An exact ETA is important for LPG vessels due to the nature of the vessel's cargo and necessary notification of state, local, and federal agencies (USCG). LPG vessels must meet the following Port Regulations:

(a) Vessels move within the harbour only during daylight hours (loaded or light).

(b) Vessels move within the harbour only during periods of good visibility. If the visibility falls to less than 2 miles, vessels at sea must not enter port without the permission of the USCG Captain of the Port. If a vessel is under way within the harbour and the visibility deteriorates to less than 2 miles, the vessel must notify the Captain of the Port and then proceed to the berth or anchor as directed.

(c) Vessels must continuously monitor VHF Channel 13 while under way in the harbour. Constant communications must be maintained with the attending tugs and the USCG escort craft.

(d) Vessels transiting in-bound may do so only during periods of Slack Water. This could be either High or Low Slack Water, depending on the vessel's draft. On departure from the berth, vessels leave either at LW or 1 hour before Slack High Water (daylight only).

(e) Vessels transit the harbour with at least 4 tugs in attendance.

(f) LPG vessels should not enter the port unless the terminal is able to immediately receive cargo.

(g) On a LPG vessel's first call to the port, a USCG inspection team will board the vessel at anchorage. All LPG vessels, whether awaiting inspection or harbour transit, must anchor 1 mile South of the Sea Buoy "KR2". After the initial inspection, a vessel on future calls to Portsmouth need only send the following message to the Captain of the Port, South Portland, Maine:

"To the best of my knowledge and belief, there are no known casualties to this vessel or its machinery which might affect its seaworthiness. I further state that all cryogenic handling and detection equipment is in proper operating condition."

This will permit vessel to proceed to the dock for pre-transfer inspection. Failure to send the message will require the vessel to be inspected at anchor.

(h) Vessels must be prepared to get under way on short notice in case of an emergency. One "live" tug must stand-by during all cargo operations.

LPG vessels transit Portsmouth Harbour and the Piscataqua River escorted by a USCG vessel with 4 tugs in attendance. The marginal-type dock consists of 3 concrete cells connected by catwalks. The 4 tugs breast the vessel alongside for a port side to docking. The bow is worked in first while head and forward breast lines are positioned and secured to the bitts. The stern is then worked alongside and the remaining lines positioned. This allows for the required tension on the long mooring leads forward. 20 mooring lines are considered the minimum acceptable as the ebb current forces the vessel off the dock and the bow has a tendency to yaw with the current. All moorings lines must be carefully tended. Light vessels undock with 3 tugs; vessels departing with part cargo must use 4 tugs to undock.

Also see "Shipmaster's Report".

New England Tank Industries – Newington: Located approximately 10 miles rom the Sea Buoy in the Piscataqua River. Vessels generally dock and undock with the assistance of 3 tugs. Vessels are breasted alongside by the tugs for a port side to docking. 12 mooring lines are considered to be the minimum as current can reach 8 knots especially during Spring freshets. Vessels dock and undock day or night. Vessels are turned off the dock or in the turning basin upon undocking after discharging.

Northeast Petroleum – National Gypsum: Located on the West bank of the Piscataqua River below and adjacent to the Route 95 Fixed Bridge. The berth is approximately 5 miles from the Sea Buoy and is above the City of Portsmouth. The marginal-type dock consists of 2 breasting cells set on 163 ft. centres. The hose gantry is mounted on a third cell which is set back 4 ft. from the face of the breasting cells.

Both breasting cells are fitted with hard rubber fixed fenders. A gypsum unloading conveyor gantry is located at the South end of the pier but the structure does not interfere with tanker operations. The mooring line lead to the shore mooring point is approximately 115 ft. Vessels dock day or night with the assistance of 2 tugs. The tugs breast the vessel alongside for a port side to docking. 17 mooring lines are considered to be the minimum acceptable. Vessels undock with the assistance of 2 tugs and are turned below the berth. Due to the strong river currents and the close proximity to the navigational channel, lines must be tended closely.

C. H. Sprague & Son – Company Shiller Station: Located on the South side of the Piscataqua River about 7.1 miles above the Route 95 Fixed Bridge. The dock consists of a concrete pile, concrete decked 'T'-head wharf and dolphins. The overall length of the dock with the dolphins is 700 ft. Pilots start vessels in from the anchorage area at a suitable time in order to dock during Slack High Water. Vessels dock and undock with the assistance of either 2 or 3 tugs. Vessels dock port side to using approximately 14 mooring lines due to the extreme currents experienced during maximum stages of ebb and flood. After completion of discharge, vessels are turned in the turning basin or off the dock. Vessels undock either at Slack Low Water or 1 hour before Slack High Water. As with other terminals, mooring lines must be closely tended at all times due to the strong river currents.

Tides and Depth of Water: Tidal currents are very strong in the Piscataqua River, averaging between 3 – 5 knots. Spring freshets increase this current. Eddies form around most of the berths making slack tide berthing mandatory. Tidal range is 8.1 ft.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Facilities available.

BANKS: First National Bank of Boston. Tel: (617) 434-3770.
First National Bank of Portsmouth. Tel: (603) 436-7700.
Maine National Bank. Tel: (207) 439-0451.
State Street Bank. Tel: (617) 786-3839.

GENERAL:

VESSEL ARRIVALS AND DEPARTURES

Marine Section, Federal Building, Room 103, Portsmouth. Tel: (603) 436-7620, ext. 737.

District Office (Portland, ME): Tel: (207) 780-3328.

COMMERCIAL VESSELS, ARRIVALS & ENTRY

Report of Arrival: These vessels must report arrival to a U.S. Customs Officer within 24 hours (19 U.S.C. 1433):

A. Vessels arriving at any port or place in the U.S. from any foreign port or place (refers to domestic and foreign vessels);

B. Domestic vessels arriving at any port or place in the U.S. from another U.S. location with bonded merchandise or foreign merchandise for which entry has not been made. Failure to report results in penalties.

Entrance: Within 48 hours of arrival from a foreign port, the Master is required to make entry of his vessel, even though the vessel may be at anchor awaiting berth. Foreign flag vessels arriving in ballast from another U.S. port must also make entry within 48 hours of arrival. When vessels which have residue foreign cargo and/or passengers on board arrive from another U.S. port, entry should be made within 24 hours.

Vessels arriving from a foreign port must have made either Preliminary or Formal entry prior to transacting any type of business or permitting anyone on board other than Customs, Immigration, Agriculture, Public Health, and Agent's personnel. Vessels arriving from another U.S. port to discharge cargo must make Preliminary or Formal entry prior to discharging cargo.

Foreign non-commercial vessels are also required to make entry. In Portsmouth this will be done on board at the time of boarding by Customs. The Officer will provide necessary forms and assistance. Non-commercial vessels may contact the New Castle Coast Guard Station for assistance in obtaining a Customs Officer.

WARNING REGARDING SEA STORES

(U.S. Dept. of Agriculture, Animal & Plant Health Inspection Service)

You are hereby warned that WHILE YOUR VESSEL IS IN THE TERRITORIAL WATERS OF THE U.S., regulations of the Department of Agriculture **prohibit** the unloading for any purpose of:

1. Fresh, chilled or frozen meats;
2. Undrawn poultry carcasses;
3. Plants or plant products, including fruits or vegetables;
4. Garbage, consisting or contaminated with scraps, parts or other waste of meats, plants, fruits, and vegetables.

DEVELOPMENTS: The Port Authority has developed a comprehensive plan for maximum utilisation of existing space on a phased basis. An integral part of that plan is another docking facility, 1,000 ft. long with a depth of 35 ft. alongside at MLW. This new docking facility will provide additional berthing space for new users as well as prevent costly delays due to terminal congestion. The Port Authority is also planning to develop approximately 10 acres of new land from a tidal basin adjacent to the present facility. This area will be used for open as well as enclosed throughput storage.

Also see "Berthing".

SHIPMASTER'S REPORT: February 1983.

Sea-3 Terminal:

The vessel arrived off Portsmouth N.H. on the 2nd February, at the entrance to which port the Pilot boards, to take vessels up river to Newington. At the arrival time a S.E. gale was in force, so the passage was ended at 2400 hrs. and the vessel stood some 20 miles off the coast waiting for the weather to abate, as I considered it unwise to proceed to the waiting area to anchor; as the holding ground is not good, and in S.E'ly winds there is no shelter. The vessel cruised around at reduced speed until the following day.

At 1450 hrs. on the 3rd February, with the weather, and sea conditions much improved, the vessel anchored 1 mile South of Kitts Rock No. 2 Buoy (KR2). Two U.S. Coast Guard officers boarded from a local harbour tug after some difficulty in coming alongside, due to the ground swell that was still running. The Officers carried out an inspection of all cargo handling equipment, and shut down systems. The Coast Guard officers then granted permission for the vessel to enter the Port of Newington, and disembarked at 1715 hrs.

As there is a port regulation that no LPG carrier can move during the hours of darkness, and that large vessels can only dock, and undock during slack water periods, it was necessary to wait until the following morning before docking.

At 1020 hrs. on the 4th February the Pilot boarded. At 1040 hrs. anchor aweigh, and the vessel proceeded up river. At the mouth of the river there is a shallow patch with only 35 ft. over it at low water. This left only 5 ft. clearance under the keel, and the vessel had to proceed very slowly over it. Four tugs were made fast, 2 for'd and 2 aft, and a U.S. Coast Guard cutter escorted the vessel up-river. The river is narrow, with some very sharp bends. There are 3 bridges, with the port limitations governed by the Noble Island Bridge. The vertical clearance on this bridge is 135 ft., and the horizontal distance is 200 ft. Maximum draft loaded, and on high water is 36 ft. On approaching this bridge it was necessary to let go the 2 for'd tugs, and allow them to pass through the bridge first, making them fast again when the vessel has passed through.

The vessel docked at Sea 3 Terminal, at 1315 hrs. 4th February. The berth constructed from 3 cement and steel dolphins, joined together by a steel platform. It stands about 150 ft. out in the river, and is connected to the shore by a narrow footbridge. The mooring arrangements for a vessel of this size are poor. There is not sufficient leads on the head lines or stern lines due to the way the mooring bollards are placed on the shore, and all the weight is taken on the spring lines. Recommended mooring arrangements as supplied by the Port Authority (See "Plan"). On the full run of the tide the water runs at up to 4 knots alongside, and because of this there is a port regulation that a tug must stand-by at all times while the vessel is alongside. The cost of this tug, on this call was U.S.$300 per hour, which can add a considerable amount to the overall cost of calling at Newington.

Before loading commenced, a liquid and vapour return line were connected. At 1530 hrs. on the 4th February loading commenced. The vapour return line proved very important as it appeared there was a large percentage of impurities in the product received judging by the performance of the vessel's reliquification plant. It was necessary to return a considerable amount of vapour to the shore tank during loading operations. I issued a Letter of Protest, to the Terminal Manager protesting the quality of the product.

On docking, the vessel was again boarded by the U.S. Coast Guard, and further inspections were carried out. The Coast Guard personnel remained on board throughout the loading operation; sometimes as many as 6 Officers, but never less than 3 at any one time. It was explained to me by their Commanding Officer that some of the personnel had no experience of LPG vessels, and were on board to learn. In this respect the ship's Officers gave all assistance possible in showing them around. The loading rate was slow, only reaching an average of 400 tonnes/p.h. on full rate, and the shore installations could not supply the product any faster. Loading was completed at 0730 hrs. on Monday, 7th February when the cargo loaded was estimated as follows:

Ship's figure: 23,965.127 tonnes
Surveyor's figure: 23,901.602 tonnes
Shore figure: 23,828.614 tonnes (taken from shore tank gauge reading)

The draft on completion was 33 ft. 00 in. for'd., 34 ft. 08 in. aft.

Owing to port regulations the vessel had to remain alongside until the next daylight high water which was at 0800 hrs. on the 8th February. The vapour return line remained connected during this time, as regulations prohibit releasing uncondensables to the atmosphere, and in view of the impurities in the product it was found necessary to use this vapour return line.

At 0745 hrs. on the 8th February while the vessel was preparing to sail, a Coast Guard Officer boarded and informed me that the visibility in the river was less than 2 miles, and the U.S. Coast Guard would not grant permisson for the vessel to sail. Heavy snow had fallen throughout the previous day, but had cleared during the night, and the visibility at the vessel was over 2 miles. Evidently further down river it was still snowing, and visibility was restricted. The vessel had to remain alongside until the next daylight high water which was 0900 hrs. on the 9th February.

At 0715 hrs on the 9th February while preparing the vesel to sail, the vapour return line was disconnected, and a further survey of the product on board carried out. The result was as follows:

Loss of product as found by ship: 50.283 tonnes
Loss of product as found by Surveyor: 52.568 tonnes

At 0855 hrs. on the 9th February the vessel sailed for the Panama Canal. She was assisted by 5 tugs, as both the Pilot and the U.S. Coast Guard insisted on an additional tug being employed for the down-river passage as the vessel was deep loaded. There was no difficulty in leaving the berth. All stern lines were let go, and the vessel's stern allowed to swing out into the river, while still made fast for'd, with all weight coming on the for'd spring lines. When the vessel was at right angles to the dock all lines were let go, and the tugs pushed her around until she was heading down river. The river passage went without incident, and the Pilot disembarked at 1037 hrs. when approaching Kitts Rock No. 2 (KR2) buoy. The passage commenced at 1100 hrs on the 9th February, 1983.

AUTHORITY: New Hampshire State Port Authority, Port of Portsmouth, 555 Market Street, Box 506, Portsmouth, New Hampshire 03801. *Tel:* (603) 436-8500. *FAX:* (603) 436-2780. *Contact:* Ernest Connor, Port Director. Captain Thomas Orfe, Harbour Master: Tel: (603) 436-8500. Geno J. Marconi, Operations Manager.

PROVIDENCE, Rhode Island: 41.48 N. 71.23 W.

(See Plan)

PILOTAGE: Compulsory. Pilot boards 1 mile South of Brenton Reef Light Tower (position: Lat. 41° 25' N., Long. 71° 23' W.). Send ETA to Agent 24 hours prior to arrival. Pilots (call sign "Rhode Island Pilots") on Channels 16, 12 and 18A.

ANCHORAGES: There is no port anchorage for dry cargo vessels. It was reported that tankers can discharge into barges off Newport.

RESTRICTIONS: Vessels can enter and leave at any stage of the tide, day or night.

MAX. SIZE: Pilot advised max. draft is 38 ft., however, Agent recommends 38 ft. with 2 ft. keel clearance.

RADIO: Station WCC.

VHF: Port Authority on Channels 16 and 18A. Agent on 16, 18A, 13 and 9. Also see "Pilotage".

TUGS: 9 tugs available, 1,600 h.p. – 3,200 h.p. Vessels may dock and undock without tugs, however, they are required for turning in the harbour.

Providence Steamboat Company serving Ports of Providence, Narragansett Bay, Fall River and New England Electric at Brayton Point. 4 tugs – 24 hour dispatching service. 2×3,000 h.p. tugs.

BERTHING: *Municipal Pier No. 6:* The berth is the first port hand berth when entering Providence. Distance from entrance to berth 25 miles. Length and beam no limit. Max. draft 38 ft. Least depth of water in channel from sea to berth reported to be 40 ft. Mean tidal range at berth 4.5 ft. Also see "General".

Cargo Handling Facilities: Mobile cranes only available for handling bulk steel and scrap cargoes. 6 mobile cranes, capacity 100 tons to 250 tons. No Ro/Ro facilities. No floating cranes. There are facilities for handling 20 ft. and 40 ft. containers, also sufficient storage space. There is also adequate storage space for breakbulk and palletised cargoes.

MEDICAL: Doctor and hospital available.

TANKERS: LPG/LNG carriers – see "Shipmaster's Report" dated February 1985.

Report: *American Chemical-Wilkes Barre:* General: The Wilkes Barre Terminal of the American Chemical Company is located 26 miles from the Sea Buoy on the Providence River. This facility was formerly operated by Exxon Company, U.S.A. It is now operated by Union Oil Company of California and Getty Oil Co., Inc. The wharf has a 75 ft. face, 300 ft. with dolphins; 30 ft. depth alongside. Deck height of 9 ft.

The berth can accommodate vessels up to 600 ft. in length, 85 ft. beam, maximum 25,000 d.w.t., and maximum drafts to 27 ft. Docking is accomplished at HW or rising tide only. Undocking can take place at any state of the tide.

Pilotage and Docking: The services of a Pilot and Docking Master are recommended. The width in the existing berthing area and required approach manoeuvres make utilisation of the Docking Master mandatory. 2 tugs are required when docking vessels of any tonnage. A minimum of 1 tug (1,800 h.p.) is required when undocking. During strong Southerly winds 2 tugs shoud be employed for undocking.

Mooring: Normal mooring leads are adequate for this berth. However, strong Southerly winds are cause for concern. There is a poor lead for the after spring and breast lines. During times of excessive Southerly winds, all lines should be tended and checked frequently. The terminal does not provide a gangway.

Only No. 2 heating oil is discharged at this terminal. Discharge is accomplished through 2×8 in. hoses using ASA flange connections. Pumping pressure is 125 p.s.i. The terminal has no facilities for receiving ballast or slops.

Amoco – Providence, Kettle Pt.: General: The Amoco Wharf is on the East side of Providence River 26 miles from the Sea Buoy. This wharf is used for the receipt and shipment of petroleum products. The berth is aligned North and South with a total of 6 wooden breasting dolphins. The wharf has a 500 ft. face (600 ft. with dolphins). Hose rig and hoist are located on a "T" head 90 ft. long, 30 ft. wide at the centre of the pier.

Entering and Docking: 2 mooring dolphins located approximately 90 ft. inside the main pier and used for fore and aft breast lines, head lines are run to a mooring dolphin, and stern lines to bollards located on shore.

Vessels can dock either port or starboard side to but a starboard side berthing is preferred. Deep draft vessels dock on Slack High Water only, day or night, and can unberth at any stage of the tide any time.

Depth of water alongside the berth is 35 ft. MLW. Average tide at Providence is 4 ft. 6 in.

A Docking Master is recommended. Docking should not be attempted without local knowledge. 2 tugs are used for docking under normal conditions. One tug is used for normal undocking. Both tugs and Docking Master meet the vessel 0.5 miles below Kettle Point and assist vessels to the berth.

Gasoline, heating oil, diesel, and No. 5 fuel are all discharged through 8 in. hoses. All connections are made with ASA flanges. Maximum pumping pressure for all cargo lines is 90 p.s.i.

Gulf – Gulf Oil Pier: General: The berth projects Westerly into the river for a distance of 800 ft., and is 50 ft. wide, wooden piling, open faced construction, and wooden decked, terminating in a "T" head 90 ft. long and 30 ft. wide which is aligned North and South.

There are a total of 6 wooden piling breasting dolphins, 3 on each side of the "T" head for a total face of 280 ft. The hose rig, hoist, and discharge heads are located at the centre of the "T" head.

Entering and Docking: Vessels can berth heading either North or South, but a starboard side-to or up-river berthing is preferred. Bow, stern, and breast lines are run to mooring buoys.

Vessels can dock day or night, any stage of the tide, depending on draft. The depth of water alongside the berth is 35 ft. MLW.

In this area local features are such that current movement in particular is subject to considerable distortion.

This berth can accommodate vessels up to 675 ft. in length, maximum 100 ft. beam and maximum draft to 31.5 ft. at MLW. Docking should not be attempted without a Docking Master. 2 tugs are employed for docking and undocking all vessels. Tugs and Docking Master meet the vessel in the vicinity of Kettle Point and assist the vessel to the berth generally with the starboard side alongside the berth. Head lines and stern lines are run out to mooring buoys. Forward and back spring lines are run out to the "T" head. The terminal does not provide a gangway.

Mobil – South Terminal: General: The Mobil Oil Corporation Terminal is located 25 miles from the Sea Buoy on the Eastern side of the Providence River. This facility is used for the receipt and shipment of petroleum products and bunkering vessels.

Maximum size of vessels that can be accommodated at this facility include lengths up to 750 ft., beams to 125 ft., 50,000 d.w.t. maximum, and drafts to 39.5 ft. The water at this berth is brackish. Distance from bow to manifold is limited to 390 ft. Docking is done at HW only day or night.

Entering and Docking: The services of a Docking Pilot is both compulsory and recommended. 2 tugs are used for docking and one tug for undocking. Tugs and Docking Master meet incoming vessels in the vicinity of Sabin Point and assist vessels to the berth for a starboard side docking. If a port side landing is required, vessels proceed about 1 mile beyond the berth to Fox Point Reach and turn around. Normal mooring leads are used at this berth. No gangway is provided by the terminal.

C. H. Sprague: General: The C. H. Sprague and Son Terminal is located 26 miles from the Sea Buoy at the Allens Avenue Terminal.

The main pier projects Easterly into the river and is 526 ft. long and 37 ft. wide, wooden piling, open faced construction. A turning dolphin, concrete crown, wooden fendered, and connected by a walkway extending out from the main pier an additional 75 ft. and fitted with 2 bollards, making for a total face of 601 ft. The berth also has 3 unloading towers serving a belt conveyor system.

The South side of the pier is not used and has a depth of 12 ft. to 14 ft. alongside. The North side has a depth of 35 ft. LW, but commences to shoal up 35 ft. from the inner bulkhead.

Vessels up to 650 ft. in length, maximum beams of 100 ft., and drafts at MLW of 35 ft. can be accommodated at this terminal. Maximum deadweight of vessels at this terminal is 38,000 d.w.t. The water at this terminal is brackish.

Ships having a large flared bow should exercise caution as the loading towers extend over the pier, and in light condition the ship has to be given a 3° list before undocking.

Maximum limit bow to manifold is 380 ft. There are 4×8 in. hoses and 2 lines, 1×18 in. for No. 6 fuel and 1×12 in. line for heating oil. Vessels scheduled to call at this terminal should have hose derrick ready for lifting the hose as there are no facilities on the berth for this operation.

Deep draft vessels dock day or night, HW only, and undock anytime, any state of the tide.

Entering and Docking: A Docking Pilot is not compulsory but is recommended. Docking should not be attempted without local knowledge. 3 tugs are used for docking all vessels and 2 tugs are used for undocking all vessels. Tugs and Docking Master meet incoming vessels in the vicinity of Kettle Point and manoeuvre vessels to the berth. Normal mooring leads are used at this berth.

Normal docking is done port side to. The terminal does not provide a gangway.

Texaco/Curran: General: The Texaco/Curran Terminal is located 26 miles from the Sea Buoy at the Allen's Avenue Terminal.

The berth projects Easterly into the river for a distance of approximately 100 ft. and is 70 ft. wide, wooden piling, open faced construction, concrete decked for the first 800 ft. and the remainder of the dock is wooden decked.

The South side has a total of 3 wooden pilings, concrete crowned 20 ft.×20 ft. breasting dolphins, wooden fendered for a total face of 500 ft. Usable length of the berth on the South side is 650 ft. for fully loaded vessels and 700 ft. for partially loaded vessels and a controlling depth of 32 ft. MLW.

The hose rig hoist and discharge headers on the South side are located on a 60 ft.×25 ft. concrete platform 35 ft. from the extreme Eastern end of the pier, and is used by Texaco.

The North side of the dock has a turning dolphin at the extreme Eastern end of the pier, open faced wooden piling construction with a 12 in.×12 in. chafing string piece.

The North side has a usable length of 650 ft. for fully loaded vessels and 700 ft. partially loaded. A controlling depth of 32 ft. MLW. The hose rig and discharge headers are located 320 ft. from the extreme Eastern end of the pier and is used by Curran & Burton.

Vessels up to 700 ft. in length, beams of any width, drafts to 32 ft. at MLW, and 35,000 d.w.t. maximum can be accommodated at this berth. Vessels normally dock at HW, day or night, and undock at any stage of the tide. Water at this berth is brackish.

Entering and Docking: The services of Docking Master are not compulsory but are recommended. Docking should not be attempted without local knowledge. Docking Master and tugs meet the vessel about 0.5 miles below the berth and proceed to off the berth where the vessel is turned 90° and manoeuvred into the berth for a starboard side landing. 2 tugs are used for all vessels and 1 tug is used for all undockings under normal conditions. Normal mooring leads are used at this berth.

Cargoes handled at this terminal include heating oil, kerosene, gasoline, jet fuel, diesel fuel, and avgas. Sizes of cargo lines are 6 in., 8 in. and 10 in. All connections are ASA bolted connections. Maximum pumping pressure on all lines is 100 lbs.

DENSITY: 1016.

FRESH WATER: Available, rate 15 t.p.h. – 30 t.p.h.

FUEL: Bunker fuel oil available if vessel has contract. Diesel oil not available. Lubricating oils available.

REPAIRS: Minor repairs possible, machine shop available.

AIRPORT: At Green Airport, Providence, R.I.

SURVEYORS: At Rhode Island.

GENERAL: *Quay:* Granite slab construction with a wooden pile facing. A large number of the piles are missing but there are still sufficient to land on. Surface of quay looks very rough and covered in sand and earth but it is metalled under this and will take heavy mobile crawler cranes.

Ship Chandler: Satisfactory, prices reasonable.

Laundry: Satisfactory and prices reasonable. Laundry collected Saturday 1430 hrs. and returned Sunday morning.

SHIPMASTER'S REPORT: September 1982 (Updated 1990).

Documents: The same as for other U.S. ports.

Pilotage: (Serving all ports in the Narragansett Bay area).

Pilot boards near Brenton Reef Light structure. There is a 24 hour service. Cable address for Pilots is "Rispilot Providence". Pilot launch as well as their shore establishment have VHF and operate on Channels 16 and 10.

Anchorages: There are a number en-route to Providence. Our vessel anchored off Jamestown for 3 days in a well sheltered place and good holding. Max. draft allowed I was informed is about 36 ft.

Berths: There are a number of isolated tanker berths in and around Providence, details of which are found in the Sailing Directions.

A total of 6 berths comprise the Municipal Docks. There are 2 cargo storage sheds, one of recent construction. There are 2 Alliance container gantry cranes.

Fresh Water: Fresh water is laid on to the quay.

Stevedores: Normal cargo working is from 0800 hrs. – 1700 hrs. (Monday to Friday), overtime can be worked until 1900 hrs. and also weekends.

Cargo-Imports: Mainly automobiles from Japan, containers from feeder vessels, steel, lumber and general cargo from Europe by regular liner trade.

Cargo-Exports: Scrap steel, logs, timber and latterly waste paper.

Our vessel loaded a full cargo of wastepaper (cardboard) of almost 12,000 tons. Stowage factor was 135 cu.ft./tonne. 1,400 tons were stowed on deck suitably lashed and covered. The whole cargo was loaded in 27 working days using ship's cranes. Sizes of paper bales varied immensely with weights ranging from 500 kg. to 800 kg.

Bunkers: Not available.

Repairs: Main repair facilities are at Providence.

General: It was found difficult to bring the vessel alongside the quay at Berth No. 3 during the whole stay in port. This was due to strong water outlets on the quay face from the adjacent sewage works.

Vessel should be amply moored to compensate for strong off-shore winds which are quite common even in Summer.

SHIPMASTER'S REPORT: February 1985.

Port Limits: Entrance to Narraganset Bay, Brenton Tower.

Documents: Standard for U.S.A. Customs & Immigration. Coastwise documents are sufficient if coming from a U.S. port, no others are asked for.

Pilotage: Rhode Island Pilots, arranged via Agents, require 8 hours' notice. Board off Brenton Tower, listen VHF 16.

Anchorage: Can be obtained 1.5 miles S.E. of Brenton Tower but bottom is rock hard and holding will be doubtful in bad weather. There are allocated anchorages within Narragansett Bay.

Restrictions: Vessels can enter/leave at any time except for LNG/LPG Tankers. These must transit in/out in daylight only, whether they have cargo onboard or just cooldown 'heel' remaining. LPG Tankers are provided with a Coast Guard escort vessel, which creates a Safety Zone 2 miles ahead and 1 mile astern, keeping all other traffic clear.

Max. Size: 35 ft. draft was quoted; this vessel went in at 30 ft. comfortably.

Health: Standard U.S.A. requirements.

Radio: WCC Chatham.

VHF: All Channels used as necessary, no special allocation. "Securite" messages for LPG Tanker transit are broadcast on Channels 13 and 16.

Radar: No radar surveillance or Vessel Traffic Scheme (VTS) Control.

Tugs: Join off berth, using their own lines.

Berthing: LPG (Propane) is discharged at Municipal Wharf No. 5, with empty oil drums providing a safety area around the shore manifold, as this is a Public Wharf with free access.

Moorings were adequate, 2 headlines, 1 breast line, 2 springs forward and similar aft, the berth being a continuous quay with rubber tyre fenders.

Bridges: One vertical bridge, clearance 194 ft.

Medical: All facilities available.

Tankers: LPG discharged at No. 5. Municipal wharf at a bulk rate of 750 tonnes per hour, through a 10 in. Chicksan. This Chicksan is a mobile one connected temporarily into an underground line, and jacked up off its wheels; thus it is rather fragile and demands precise positioning during berthing, and careful control of the list during the discharge as it is at its maximum reach when a 60,000 cu.m. vessel is in ballast.

Density: Salt.

Fire Precautions: LPG Tanker, only those imposed by the ship.

Surveyors: Saybolt attended this LPG vessel on behalf of receivers.

Gangway/Deck Watchmen: None. Ship's accommodation ladder was used to the wharf.

Customs Allowances: Usual U.S.A. allowances but no check of bond made on this visit.

Repatriation: Local Airport with services to Philadelphia for International flights, or by bus – approximately 1 hour ($7.00) to Boston International.

Airport: See above.

Time: GMT minus 5 hours. Eastern Daylight Saving Time GMT minus 4 hours in the Summer.

Emergency: U.S.C.G. "Castle Hill" on Channel 16 VHF, working 22A or 12.

Telephone: At Municipal Wharf No. 5 there is a public telephone booth within 250 ft. of the foot of the gangway, against the wall of a warehouse.

Storing: No known restrictions.

Shore Leave: Bus route into town (2 miles) about 100 yards from Wharf No. 5.

Identification Cards: Standard U.S.A. Immigration requirements.

Regulations: All LNG/LPG Tankers have to anchor off Brenton Tower for U.S.C.G. inspection (2 – 3 hours), even those with valid letters of compliance and if no LOC then the inspection could take about 6 – 7 hours. During the discharge of LPG, 2 U.S.C.G. personnel are permanently stationed by the shore manifold, and do occasional spot checks onboard.

Delays: See above.

SHIPMASTER'S REPORT: October 1991.

Pilotage/Anchorage/Channel/Tugs: See "Fall River" – "Shipmaster's Report – dated 1991".

Berth: Vessel berthed at Municipal Wharf No. 5 to discharge latex.

Vessels can berth either side alongside and generally avoid berthing at night time (1700 hrs. – 0600 hrs.) due to the very high cost of the linesmen. Daytime charge is U.S.$1,000.00 and nighttime charge is U.S.$2,000.00.

The depth alongside is approximately 40 ft. and the tidal range about 4 ft. The fenders and bollards are in good condition and the vessel secures with 2 headlines, 2 breastlines and 2 springs forward and 2 springs, 2 breastlines and 2 sternlines aft.

The quay is a flat open quay with the latex manifold sunk into the quay. The tanks with a total capacity of 300,000 U.S. gallons (10,500 tonnes) are above ground.

Shore pumps and lines are used for discharge of cargo and the ship's crew are required to tend the lines.

A brow gangway is required due to the high quay face.

The berth is good for storing as trucks are allowed alongside the vessel.

LPG is also discharged at this berth using portable Chicksans and then to adjacent tank.

Density: The density at L.W. was 1019.

Fresh Water: Fresh water is available and the quality is excellent. Hoses are provided by the Port Authority and the rate of loading was about 100 tonnes/hr. Cost of water is U.S.$0.75 per tonne plus a standard labour charge of U.S.$130.00.

Fuel: IFO and MDO available at Providence by tanker truck of 31 tonnes capacity. No barge delivery service at the port.

Supplies: Fresh produce is available and of good quality and reasonable price.

Airport: T.H. Green Airport is about 10 miles South of Providence and operates services to New York and Boston.

AUTHORITY: Port of Providence, Marine Terminal Building, Municipal Wharf, Providence, Rhode Island 02905. *Tel:* (401) 781-47

Contact: John D'Artuono, Port Director.

RED DOG (Kivalina), Alaska: 67.33 N. 164.12 W.

(See Plan)

LOCATION: Situated in Lat. 67° 34' 42" N., Long. 164° 03' 30" W.; Northeast of The Bering Strait near a small town, Kivalina, Alaska. This port is capable of exporting some three quarters of a million tons of zinc and lead concentrates annually for shipment during the Summer season.

DOCUMENTS: See "General".

PILOTAGE: A compulsory pilotage area has been established for vessels calling and leaving from the Red Dog Anchorage. The Pilot Station is located approximately 14 miles, bearing 238° (T), from the barge loading dock. Vessels bound for Red Dog should amend their ETA to Pilot Station as necessary and keep North Pacific Maritime, Ketchikan, Alaska, Cable "Sousteve Ketchikan", Telex: 099-55295, Fax: 907-225-8254, well posted of any change.

The Pilot will normally board via a tug from Red Dog. A combination pilot ladder must be properly rigged 2.0 m. from sea level and, in case of arrival during hours of darkness, adequate lighting must be provided. If, because of adverse weather (or for any other reason) the Pilot is prevented from boarding the vessel at the scheduled time, Masters are to obtain permission and instructions from Red Dog Port Control prior to entering the pilotage area and proceed to the assigned anchorage position.

ANCHORAGE: An anchorage, nominally 2.5 by 2.5 miles, has been allocated to the loading of vessels; the Easternmost side of it lies about 3.4 miles from the barge loading pier, and anchorage may be reached from the open sea via a surveyed approach 10 miles long and 1 mile wide with its main axis bearing 058.75°/238.75° (T).

Water depth at the anchorage varies from 55 ft. inshore to 72 ft. offshore (17 m. to 22 m.), and likewise the surveyed approach changes depth progressively with a slight gradient.

There is a steady current at the anchorage that runs parallel to the shore in a Northwesterly direction, and vessels will tend to lie head into this predominant feature.

Although the anchorage can accommodate more vessels, usually no more than 2 vessels will be anchored at any one time, leaving ample room for final manoeuvering, safely mooring and lying at anchor. The seabed in this area is flat, comprising of silty sand with a firm muddy strata lying just below, and has proved excellent holding ground. Vessels can safely withstand winds of up to 45 knots.

The sea swell, when not coming from the 3rd and 4th quadrant, is short and lacks effective energy, and pitching, if any, is minimal.

An anchor chain length of no less than 8 shackles should provide ample holding with the second anchor kept ready to be lowered to the bottom to reduce yawing, should squally conditions develop.

With vessels loading at a maximum draft of 45 ft. or 13.72 m., it is intended that the underkeel clearance will be no less than 10 ft. at all times. However, in line with the customary safety precautions to be taken when loading in an open roadstead, Masters are requested to frequently check their vessel's position visually and by reference to radar, water depth and draft, making regular entries in the log book. Taking into account the visual position fixing aids presently available, the occurrence of lateral drift or dragging can best be detected through observing a permanent radar watch, keeping the secondary radar unit on constant stand-by. We also recommend that engines be kept on permanent short notice stand-by, and the vessel be ready to weigh anchor and shift to a position further offshore, should weather conditions deteriorate sufficiently to warrant it.

Also see "Berthing".

NAVIGATION: *Navigational Charts and Red Dog Port Site Plan:* Navigation and approach to the Red Dog Anchorage are covered by NOAA Chart No. 16005. However, with a scale 1:700,000, it was decided to supplement this with a larger scale chart entitled "Red Dog Port Site" for the final approach and anchoring. This chart has a scale of 1:24,000, and covers the surveyed approach, the anchorage and the barge loading pier. A copy of this chart will be placed on board at the earliest opportunity. The Salvage Association were commissioned by Cominco to ensure that the equipment, used by the vessel engaged to carry out the survey, was of the approved type and in good working order.

Navigational Aids: The coastal profile being low, flat, relatively featureless and with visibility sometimes below 3 miles, radar identification of conspicuous targets is of considerable importance to any approaching vessel.

The following is a list of targets most easily identifiable when approaching Red Dog Pilot Station:

(i) The De Long Mountains, together with Mulgrave Hills profile will provide first good radar targets to those vessels fitted with sensitive long range equipment.

(ii) Concentrate Storage Shed, about 1,300 ft. long and 120 ft. high. This structure lies in a direction N.W./S.E., and is about 0.75 miles inland from the shoreline. The entire structure is painted white with a distinctive left blue corner and a red horizontal stripe on the roof.

(iii) Immediately S.E. of the Storage Shed, 4 oil storage tanks, 150 ft. high, painted white, can be identified.

NOTE: A container storage area has been established in front of the oil storage tanks. Radar reproduction will consequently appear as a straight horizontal line instead of the expected 4 distinct traces.

(iv) Concentrate surge bin (Lat. 67° 34' 42" N., Long. 164° 03' 09" W.), 112 ft. above sea level, located about 2,000 ft. inshore from the barge cellular loading pier, a "Sea Beacon 2" Racon is installed on top of this structure, operating on both X-Band (3 cm.) and S-Band (10 cm.). The Racon is transmitting the Morse code letter "K" which should be picked up at over 25 nautical miles on X-Band and at over 20 nautical miles on S-Band (recent experience shows that it has been received at a 45 mile range).

The Racon transmits on each band at separate time intervals to allow the picture on a ship's radar planned position indicator (PPI) to clear. The ON intervals for each band is 20 seconds each (i.e. the Racon transmits on X-Band 4 seconds, then on S-Band for 20 seconds, then shuts down for 20 seconds). To the mariner, a 20 second ON time would appear as 4 to 5 clear traces of the Morse code letter "K" on the PPI, before the Racon switches to a different transmit frequency. The letter "K" display size is proportional to the range scale.

Characteristics: Light – Flash (1) white every 8 sec. 15 miles Racon – Morse code letter "K" (dash dot dash) displayed 20 secs. on X-Band, 20 secs. on S-Band, 20 secs. idle.

(v) Barge loading finger pier: This structure is situated on the shore line and lies on the continuation of the surveyed approach centre line. The barge loading boom installed on this pier provides an excellent radar target, and because of the relative location of the other two targets mentioned above, may be the first echo to appear on the 48 mile range. The pier is permanently illuminated by flood lights and a quick flashing, high intensity light, is positioned above the loading control tower.

NOTE: In order not to obliterate the finger pier trace on the P.P.I., the Racon "K" trace will appear on shore on the ship's heading.

APPROACHES: *Approaches Red Dog Port:* After making good The Bering Strait, the navigational aids enroute to the port become scarce. However, for a vessel fitted with LORAN C, SATNAV, or OMEGA and the benefit of a positive departure point from Little Diomede, making good a course well clear of the shoals off Shishimaref is a relatively simple navigational challenge. Masters are, however, cautioned against the possibility of encountering ice in the early part of July, and the consequences of course adjustments on their ship's position.

Prince of Wales and Shishmaref Shoals: The closest approach to either of these shoals occurs passing through The Bering Strait when, out of necessity, the vessel's course brings it within 10 to 12 nautical miles of the Prince of Wales Shoal.

Passing within 10 to 12 nautical miles of the Prince of Wales Shoal does not constitute hazardous navigation when one takes into account:

(i) The abundance of reliable and easily identified radar targets.

(ii) The reliability of Satnav and Loran C in this area.

(iii) The existence of lights on Cape Prince of Wales and Big Diomede.

(iv) The absence of paucity of traffic.

Safely rounding the Northernmost extremity of Cape Prince of Wales Shoal has not presented any problems, due to the excellent radar targets afforded by Cape Dehzneva and Diomede, which provide the mariner with reliable reference points for his course alteration.

From the Bering Strait to the Red Dog Lighterage Area (and vice versa), vessels follow a Northerly course until reaching Lat. 66° 30' N., and passing some 30 nautical miles to the North of the shallow waters off Shishmaref Island. With a reliable departure point as a starting reference, a Northerly current set, the ability to obtain frequent accurate fixes using Satnav and/or Loran C and echo soundings to warn of shoaling, it is difficult to conceive how Shishmaref Shoal could pose a hazard to navigation to vessels following this track. From the approximate position Lat. 66° 30' N., Long. 168° 30' W., the direct landfall course to the Red Dog Pilot Station lies approximately 6 miles North of the compulsory pilotage waters boundary. Unless dictated by ship's safety considerations, Masters are reminded not to enter pilotage waters, unless a licensed pilot is on board (See "Plans").

As an additional guide, the Radio Beacon at Cape Dezhneva (when operative) can be used as a stern bearing until the Racon or the port radar targets are picked up. It should also be remembered that operations are carried out predominantly during Summer months, and long daylight will largely prevail.

The following summarises navigational notes made by the Master of the tug "Justine Foss", whilst on passage from the Bering Strait to Red Dog Port Site in September 1989:

(i) *Loran C:* Reception poor from South of Cape Prince of Wales. Best combination was slaves 29 and 47.

(ii) *Radar:* Good through The Bering Strait, Diomedes and Cape Dezhneva, providing satisfactory targets up to 10 miles North of Cape Prince of Wales. 20 miles North of Diomedes, coverage poor until making final approach. Mountain Peaks on the Russian side making cross bearings with Diomedes useful for clearing shoals. On the final course towards Red Dog, the mountain tops behind the port provided echoes at 40 miles and the storage shed at 18 miles *(Please note well, this passage was made before the aids to navigation were installed at the port, and with the inclusion of the Racon Beacon and the installation of the loader, more precise position fixing is available).*

(iii) *Radio Beacon:* Cape Dezhneva has a beacon. Not used, as tug not equipped with R.D.F.

(iv) *Satnav:* Seemed the most reliable means of fixing after The Bering Strait.

(v) *Current:* Very little set in The Bering Strait, as current runs Northerly. No set was experienced during transit from Strait to Port Site.

Shipboard Navigation Equipment Performance: Vessels that have so far navigated The Bering Strait and the Chukchi Sea, and loaded at the Red Dog Anchorage, have reported the following performance:

(i) Gyro Compass: Accurate and reliable.

(ii) Radar: Accurate and reliable with many readily distinguishable targets showing at ranges of 33 to 60 n.m. (nautical miles). Of particular note were:

Fairway Rock: 33 to 35 n.m.
Diomede Islands: 48 to 49 n.m. (38 n.m. when astern).
Cape Prince of Wales: 51 n.m. (38 n.m. when astern).
Cape Dezhneva: 30 to 58 n.m. (60 n.m. when astern).
Red Dog Port Site: 47 to 50 n.m.
Red Dog Racon: 21 to 48 n.m.
Cape Krusenstern (Igichuck Hills): 46 n.m.
Cape Krusenstern: 34 n.m.

(iii) Satellite Navigator: Accurate and reliable with frequent (hourly) fixes readily obtainable.

(iv) Omega: Less accurate with errors between 2 and 8 nautical miles. The error was found to increase with latitude.

(v) Loran C: Accurate and reliable, until about Lat. 67° N.

RESTRICTIONS/MAX. SIZE: The lead and zinc and concentrate shipments from Red Dog Anchorage will be carried by bulk carriers, basically grouped in two size categories:

(a) Panamax vessels up to 70,000 d.w.t. – These vessels will load to a draft of up to 45 ft. S.W. or their Summer marks, whichever is the lesser.

(b) Handysize vessels up to 35,000 d.w.t. – These vessels will load to a draft determined by the available draft at the port of discharge or their Summer marks, whichever is the lesser.

RADIO: *Notices of Arrival:* The following parties must be notified of vessel's ETA and arrival amended as necessary:

(i) Upon departure last port, then daily thereafter.

Cominco Metals, Toronto, att. F. Rizzi. Cable address: "Comtor-Toronto". Telex: 06-22912. Fax: (416) 869-1964 or 869-8553.

Navios Pacific Representative, Red Dog Port. Fax: (907) 645-2183. Tel: (907) 645-2109, or via North Pacific Maritime, Ketchikan, Alaska.

North Pacific Maritime, Ketchikan, Alaska. Telex: 099-55295. Cables: Sousteve, Ketchikan. Fax: (907) 225-8254.

Navios Pacific Co., Stamford, CT. Telex: RCA 238853 Navios, or MCI 6819519 Navios. Fax: (203) 961-0845/0847. Cables: Navcargo Stamford Connecticut (Routine), Navcarush Stamford Connecticut (Emergency).

In addition to the above, you are to notify all parties immediately of any delays of more than 4 hours since last ETA notice.

(ii) Contractually, it is required that a Stowage Plan, together with a loading sequence should be included with the 7 days ETA notice. However, we urge Masters to provide this information earlier if possible.

(iii) In addition to the above messages, Red Dog Port Site may be contacted when within reach, by VHF Channels 12 – 16. Any last minute change in the Stowage Plan should be notified through the above channels. Upon entering the Chukchi Sea, vessels can also contact Red Dog Site on SSB frequencies 2096.5 and 4125.0 kHz.

Notice of Readiness: To be tendered by Telex or Radio to Cominco Red Dog Operations Centre, with copies to Cominco Toronto and Navios, immediately upon anchoring or, if conditions prevent the vessel from navigating to the anchorage, N.O.R. to be tendered from the *closest safe position.*

TUGS: Two tugs will be employed in this operation: "Sandra Foss" and "Stacy Foss". Both are 3,000 h.p., and equipped with Kort Nozzles, weather fax and communication facilities. A third smaller tug, "Iver Foss", is also available on site, and is mainly used to assist barge operations, hold loading vessel's sterns up wind in case of running swells exceeding 4 ft. or cross swells and embarking/disembarking pilots.

BERTHING/LOADING: *At the Anchorage:* The ocean vessel should anchor as close to the barge loading pier as is safely possible, but not closer than 3 miles offshore. By doing so, the barges' shuttling time will be kept to a minimum.

Loading will commence as soon as hold inspection is satisfactorily completed and the barges are made fast alongside. The vessel's crew should be ready to attend and assist the barges in making fast. An ample supply of heaving lines and good messengers (30 m.) should be prepared and ready on both sides on the main deck. Also, some special gear (wire slings, shackles, etc.) may be passed from the barges onto the ship's deck. They will be used in accordance with special instructions, either from shore or the barge operators.

In order that the barge operator can readily identify the hatch in which the loading boom is to be positioned, a conspicuous object should be placed at the ship's rail adjacent to the desired hatch.

Similarly, during the periods of darkness, Masters are requested to rig cargo lights at the ship's rail and the beams to be directed downwards at the water. It is suggested that three be placed evenly spaced on each side of the vessel, plus one at the stern. This will provide the tug skippers' with assistance, when the barges make their approach to come alongside.

A crew member must be on deck at all times, being ready to open or close the hatches as required, particularly during periods of threatening weather. Holds not actually in use for loading should be kept closed.

Cargo spillage on the deck or the hatch covers should be swept up promptly, and deposited in the appropriate cargo hold to avoid airborne dust pollution.

Communication with the barges is performed via VHF, and a particular working channel will be indicated at the appropriate time (The following working channels have been allocated: Barge Loader Channel 7. Barge "Kivalina" assisted by tug "Barbara Foss" Channel 6. Barge "Noatak" assisted by tug "Stacey Foss" Channel 18). Vessels not in possession of portable VHF sets will be handed one on arrival together with one spare battery and a charger. The Navios representative at portsite will monitor both loading channels and canbe reached on Channel 12. These sets must be returned upon completion of loading. Communication between vessel and barges must be continuous and uninterrupted. The Master is responsible for ensuring that the entire operation is properly supervised.

Loading is performed 24 hours a day, 7 days a week; so an adequate watch schedule must be implemented on board the vessel.

The stowage of the cargo, as always, is the responsibility of the ocean vessel. Its distribution should be carefully supervised. There are no bulldozers available, therefore directing the loading spout to attain an acceptable shaped pile within the hold, is of great importance.

MASTERS PLEASE NOTE WELL:

To facilitate the loading of the end holds, the barges may have to be moored in an unconventional way, i.e. bow to stern. In some instances, where the anchor chain impedes the approach and operation of the barge, the ocean vessel may have to re-moor using the other anchor.

Access to the vessel is limited to official personnel. There is to be *no crew shore leave permitted.* No accommodation ladder is required, but a good safe pilot ladder should be rigged on both sides of the vessel and lowered upon request.

As previously stated, cargo distribution must be planned in a manner which minimises barge shifting, but when shifting becomes necessary, the vessel's crew must be prepared to assist as required.

Red Dog Anchorage does not offer provisions, mail service, bunkering, potable water, stevedoring or other facilities. Medical assistance is confined to emergencies only.

Fishing is prohibited, and the use, distribution and sale of alcoholic beverages is strictly banned during the ship's stay at the anchorage.

The Shuttle Barges: Two 286 ft. × 76 ft. × 18 ft. (87.2 m. × 23.2 m. × 5.50 m.) barges, especially fitted for the transport in bulk of zinc and lead concentrates, are employed to shuttle the cargo to the anchorage (See "Plans").

An extendable boom, 120 ft. (36.5 m.) long and 38 ft. (11.6 m.) high from deck level, is positioned at the centre line.

Particular attention must be paid to the boom movement in relation to the vessel's structure, especially hatch coamings, in order to avoid damage to both the barge and the vessel. Good coordination and constant communication in clear English language are consequently essential. The cargo is transferred at an approximate rate of up to about 1,200 tonnes per hour.

The barge cargo gear has a fixed rubber spout fitted for dust control purposes only, and because the outreach of the boom will comfortably extend to the opposite hatch coaming, ore can be stowed to a pile profile acceptable within tank top stresses, and always in compliance with the provisions of IMO. It remains the responsibility of the Master or his delegated Officers to ensure the cargo is stowed correctly.

In order to take full advantage of the barge's increased stability in its fully loaded condition, and consequently eliminate the danger of contact between the loading boom and the ship's structure, it is recommended that the transfer be performed in the following sequence:

1. Loading should commence in the four corners of the hatch square in suitable pile sizes.
2. Fill in between the piles underneath the coamings.
3. Finally pour into the main body of the hatch square.

There are no bulldozers or other cargo trimming equipment available. Similarly, no discharging or lightering equipment is available at Red Dog, and Masters are warned that it is impossible to correct errors in the cargo distribution once loaded.

The mooring equipment on the barges consists of four remote controlled winches, each fitted with a 1.125 in. wire rope and a "Berger Fairlead". Two are positioned forward on each side; the after winches are, however, positioned inboard, and their fairleads are situated close to the barge's centre line. The barges are also fitted with a train of four "Seaguard" fenders, which can be positioned on either side.

The mooring concept contemplates that barges will moor using their gear only, however in case of threatening weather, or should a particular necessity arise, vessels are requested to assist, and it is recommended that two good polypropylene lines fore and aft, and the fore/aft spring lines on maindeck be made ready for this purpose.

To assist with final trimming, each barge is equipped with belt scales, but draft checks must be regularly implemented throughout loading. Particularly, it is required that a draft survey be performed halfway through the loading, and another prior to the commencement of loading from the last barge. Results are to be passed ashore for comparison and confirmation of the last barge cargo quantity. Whilst the mid-loading draft survey is carried out in order to determine the ship/shore difference, the survey performed prior to the completion of the last barge loading will identify the exact quantity which is needed to put the vessel at her assigned draft and trim with no cargo remaining on the barge.

If possible, this survey should be carried out during the idle time between the last two barges, as time lost in barge loading, due to this particular survey, does not count as laytime.

Prior to completion of each barge discharge, a Mate's Receipt will be signed by the Chief Officer or the Officer responsible for the cargo. Any notation regarding the nature, status and quantity remaining on the barge, should be made on this document.

When loading is completed, the vessel will be requested to produce a ship's figure as early as possible, and the result of the draft survey passed ashore by VHF, as the vessel will be sailing soon after the last barge is clear from the ship's side under the Early Departure Procedure.

Cargo: Three grades are loaded at Red Dog, namely:

(a) Zinc concentrates stowing approximately 15 cu.ft. per metric ton and 130 lb./cu.ft. having an angle of repose of 35°/45°.

(b) Lead concentrates stowing about 12 cu.ft. per metric ton and 180 lb./cu.ft. having an angle of repose of about 35°/45°.

(c) Middlings (or ISF) which is a mixture of two two ores. Stow factor and angle of repose is consequently a prorated average of (a) and (b). Please note that shippers, Cominco, will deliver cargo quantities *measured in short tons.*

The total cargo will be one or a combination of any of the above three grades. Natural segregation between grades is required, and under no circumstances can different grades be stowed in the same hold.

Great care should be exercised to properly identify each barge, its cargo grade and the appropriate receiving hold before permitting cargo transfer to take place.

When dry, these grades are dusty, and given the breezy nature of the anchorage area, every precaution must be exercised to prevent airborne pollution. Hatches not involved in actual loading must be kept closed. In case of consistent heavy rain, loading is to be suspended and hatches closed after due consultation with the Navios on-site representative.

Cargo spillages on deck, however small, *should not* be swept overboard. With deck scuppers properly cemented and plugged, overflowed quantities should be returned to relevant holds either by hand or mechanical means (i.e. available on board). On completion of loading each hold, dust accumulated on cargo hatches, to be thoroughly swept back into the hold prior to closing. Should a major spillage occur, cargo must be stopped immediately, and Kivalina Port Control informed, and the resulting quantity to be returned to the hold immediately. Cargo flow to be resumed only after normal conditions are restored.

Zinc and lead concentrates must be handled in accordance with the Code of Safe Practice for Solid Bulk Cargoes as recommended by IMO (also see "Safety").

Moisture Content: The moisture content will always be within IMO limits and certified by shippers or their designated surveyors. Documentation stating the Moisture Content and Transportation Moisture Limit will be furnished by the shippers.

Stowage Plan: Upon receiving instructions to proceed to Red Dog, a Stowage Plan must be prepared, inclusive of a hold by hold loading sequence, bearing in mind the following:

1. Cargo wil be brought to the anchorage by two self unloading barges. Each barge will nominally lift about 6,000 short tons of cargo. Cargo distribution and loading sequences should be planned to ensure as many entire barges as possible are discharged into single holds, thereby restricting shifting alongside to a minimum. Quantities needed for final trimming must be of the same grade.
2. Experience gained over past years suggest that:
   (i) Vessels loading for Vancouver discharge are encouraged to adopt an "all holds" distribution which ensured a lower cargo profile in the holds, thereby facilitating future cleaning.
   (ii) Vessels proceeding via the Panama Canal are advised to confine the stowage to the least number of holds possible.
3. Concurrent with the development of a Stowage Plan, ballast discharge sequence should also be worked out very carefully, so that the vessel retains, at all times, a waterline to top of hatch cover airdraft not exceeding 47 ft. In practice and if feasible, it is suggested that ballast discharge commences upon completion of transfer of the first two barges, *but Masters must ensure that the vessel's rate of deballasting should not exceed that which is necessary to comply with the 47 ft. restriction.*

Ballast:

1. A heavy ballast condition on arrival is recommended and all ballast water must be clean; any dirty ballast should be changed well before arrival.
2. Vessels should maintain an even-keel trim during the first loading phase, and only take on a stern trim sufficient to strip ballast tanks after a safe airdraft reserve has been achieved.
3. The maximum recommended draft at the anchorage is 45 ft. S.W. However, in most cases, other restrictions will apply: Either the vessel's Summer marks, the draft at the discharge port, or in the case of vessels sailing to Europe, the Panama Canal draft.
4. Overboard discharge of ballast, especially topside tanks, to be programmed in such a way that barges are not in the path of overflowing water, thereby avoiding the possiblity of wetting and damaging cargo.

Hold Cleanliness: Whilst enroute from the last discharge port, the holds should be cleaned by sweeping and washing by high powered water jet. When previous cargo residues and any loose rust or paint have been carefully removed, a fresh water rinse should be made. Any puddles in the tank tops should be swept into the bilges to ensure that cargo spaces are reasonably dry. Particular attention should be given to removing cargo residues, *especially coal*, which is a serious contaminant to ore concentrates.

Hold Inspections: A representative of Cominco will carry out an inspection for cleanliness. Usually, he will board with the Pilot and carry out his inspection (swell conditions permitting) enroute to the anchorage.

Bills of Lading: The Bill of Lading shall be prepared in metric tons in accordance with the draft survey as ascertained by the authorised surveyor appointed by Cominco Alaska. Should the appointed surveyor be unavailable, the ship's figure, as determined on completion of loading, shall be used as the official quantity to be entered in the Bill of Lading. A letter of authorisation, from the Master to Fednav Montreal to sign original Bills of Lading on his behalf, shall be prepared prior to commencement of loading.

MEDICAL: Assistance only available in an emergency.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: *Official Formalities:* As the ocean vessel loads outside the U.S. Territorial Waters (i.e. outside the three mile limit), the vessel is not deemed by U.S. Customs to have entered into the United States. There is, therefore, no requirement to Enter In or Clear Out the vessel with Customs.

However, this three mile limit criterion is no longer regarded by the Immigration and Naturalisation Service (I.N.S.) as the limit of their jurisdiction. Instead they consider a vessel within the twelve mile limit to have entered U.S. Territorial Waters, and that they have the right to board. Accordingly, the Master must prepare all the usual documentation, including a visaed Crew List, to satisfy the requirements by the U.S. I.N.S. Whenever possible, the Crew List should be visaed by the American Consulate at the last port of call prior to departure for Kivalina. The local Agent should also be instructed to courier the Crew List to North Pacific Maritime, Ketchikan. Should this not be feasible, North Pacific Maritime, Ketchikan, should be notified with the first ETA message.

On Site Representation: Navios Pacific is represented at Red Dog by one of their senior operations staff. He will be on hand to provide up-to-date information and assistance as needed.

WEATHER: *Sea Surface Current:* From the Bering Strait, the current tends to move in a Northeasterly direction veering North when N.W. of Kotzebue. Its strength is variable, but it may reach over 3 knots, off Red Dog and Kivalina.

NOTE: Current may become variable and sometimes assume a Southerly set in the aftermath of Northerly or Northwesterly strong winds.

Ice Conditions and Reporting: A summary of the typical ice conditions, to be expected during the loading season, may be found in the Climatological Survey.

The U.S. Navy – NOAA Joint Ice Centre and Ice Forecasting Centre, Ottawa, produce frequent ice reports and forecasts for the Western Arctic. This information is available by fax and transmission times and frequencies are listed in the official List of Radio Aids to Navigation (Pub. 117 DMAH 1989). The following Radio Stations also can be used: Point Race (weather only), Kodiak (weather and ice conditions) Kotzebue AM radio 1040/1050 kHz. broadcasts marine weather bulletins that have been found useful to navigation. In addition, Guam, Pearl Harbour and Japanese Stations are all in the broadcast range and cover the area North of the Bering Strait.

SAFETY: In addition to "Code of Safe Practice for Solid Bulk Cargoes", published by IMO, Masters should be aware that zinc/lead concentrates are potentially dusty in nature, and loading in a open roadstead will require care to be exercised by both, deck personnel attending cargo operations, and those in spaces immediately adjacent to the main deck.

Besides the discomfort of working in potentially dusty surroundings, it should be borne in mind that, when in the proximity of holds being loaded, no eating, drinking or smoking should be permitted, in order to prevent involuntary ingestion of these harmful substances.

When loading these cargoes, it is recommended that:

Shut off external ventilation to the accommodation area; internal recirculation system only to be used.

A no smoking, eating or drinking rule should be enforced on the weather deck and any other areas exposed to dust from the cargo.

Galley doors to be kept closed and no through passage from outside to be allowed.

One accommodation space with direct access from the main deck should be designated as a changing room. Working clothes, boots and other protective gear to be stored there prior to entering the accommodation spaces. Wearing deck working gear inside the accommodation should be prohibited.

No duty mess service will be available for deck personnel on duty.

Floor, alleyways and corridors are to be adequately protected from dirt and dust.

VHF sets used on deck to be covered with plastic bags and changed regularly.

Deck personnel on watch at hatches to stand always on the windward side.

Hard hat, goggles, face masks, gloves and boots to be available to and worn by all those working on deck.

All other precautions and hygiene rules applicable to dusty cargoes to be followed (use of protective ointments on exposed skin surfaces, showering when going off duty, thorough laundering of working clothes separately from other clothing, etc.).

As strict water pollution regulations are enforced at Kivalina, no garbage, whether treated or not, may be disposed of overside.

No hot work to be performed on deck or inside accommodation or the engine room while loading cargo.

SHIPMASTER'S REPORT: August 1991.

This is an anchorage port and the position of anchoring varies in accordance with the ice edge.

At any one time a maximum of 2 vessels can be handled.

Approaches: The approach to the anchorage is simple, from the Bering Strait keep Fairway Rock abeam (bearing 270°) and at a distance of 6 miles. Steer due North for 53 miles until reaching the position Lat. 60° 30' N., Long. 168° 30' W. On arrival at this position alter course to 058°(T) for a distance of 108 miles, which will bring the vessel to the Pilot Station which is located at Lat. 67° 27' N., Long. 164° 35' W.

Anchorage: The designated anchorage is between the following co-ordinates:

Lat. 67° 30.3' N.	Long. 164° 15.6' W.
Lat. 67° 32.5' N.	Long. 164° 19.2' W.
Lat. 67° 33.9' N.	Long. 164° 13.4' W.
Lat. 67° 31.6' N.	Long. 164° 09.8' W.

The anchorage is about 10 nautical miles from the Pilot Station in the direction 058°(T).

Anchoring is in the open sea, so vessels should have sufficient chain out at all times. We used 7 shackles and the holding ground was good. The maximum wind experienced during our visit was about 30 knots.

Restrictions: The port is open from the beginning of July until the middle of October each year (in 1991 the last vessel left on October 8th). The closing date is governed by the ice. The port started operating in the Summer of 1990.

Loading: The cargo loaded is zinc and lead concentrates and at present the maximum size vessel that can be loaded is "Panamax" size and the maximum allowable airdraft is 45 ft.

There are 2 self-unloaders of 6,000 tonnes capacity which bring the cargo to the anchorage from the shore loading facilities. The rate of loading with one shiploader is about 1,500 tonnes/hr.

At times, 2 self-unloaders can be tied-up alongside the vessel, one on either side. The self-unloading vessels are secured alongside with 2 headlines and 2 sternlines.

In order to minimise the vessel's rope handling work, all headlines and sternlines are placed on automatic self-tensioning winches and are controlled from the self-unloaders. The self-unloaders which do not have their own propulsion are berthed alongside with the assistance of 3 tugs.

Medical: Medical facilities are very restricted. In case of serious illness crew members are flown to Anchorage by a small jet.

Fresh Water: Not available.

Fuel: Not available.

Consuls: None locally.

Repairs: No facilities available.

Repatriation: Crew changes are only possible in cases of emergency.

General: Stores: Not available.

Operator: Cominco Alaska.

SHIPMASTER'S REPORT: July 1996.

The following is a navigational report covering the passage from entering the Bering Sea on 7th July 1996 to finally anchoring off Red Dog Port (Kivalina) on 10th July 1996.

Navigation to Red Dog Port: The vessel entered the Bering Sea via the passage between the Komandorskiye Ostrova Islands and Attu Island, being the last in the chain of the Aleutian Islands. Just shortly after that, we crossed the International Warranty Limit, Lat. 54° 30.0' N., leaving behind the Kuro Shio and Aleutian currents. The vessel was too far East to be affected by the strong Southbound Kamchatka current, further indicated by the drop in sea temperature from 15° to 8°C.

Usually in July once this far North, the weather is predominantly controlled by a high pressure system situated to the North over the Arctic Ocean. This leaves the typical North Pacific low pressure systems to pass to the South. One of the main reasons for the busy great circle route from the West coast of North America to Japan, etc., passing through the Aleutian Islands. But like most things to do with the weather, it occasionally disagrees with the experts. A very intense low pressure system developed to the S.W. of us. This promptly followed us into the Bering Sea until right above our position, then decided to head in its more familiar direction of East, leaving in its wake Force 8 to 10 winds and a most uncomfortable beam swell. 48 hours later, things tended to settle and with its passing visibility was much improved.

The vessel passed some 120 nautical miles to the West of St. Matthew Island. The affect of a seasonal N.E.'ly current became apparant as we approached the channel between St. Lawrence Island and Chukotskiy Poluostrov (Siberia) and remained with us for the rest of the passage. We detected by radar Mys. Chukotskiy 63.9 nautical miles and West Cape 51.7 nautical miles very clearly. Since the passage of the low pressure system, humidity was much reduced, thus further reducing the effect of attenuation on the radars. The G.P.S. position was constantly compared with the radar and generally was within 2 to 4 cables.

The passage from St. Lawrence Island to the Bering Strait was conducted with head winds of between Force 7 and 8, but with the current, an estimate of 1 knots – 1.5 knots, it seemed to have little effect on our speed. The Charterers' had requested us to slow down as well. This particular stretch of Russian coast line is well appointed with Radio Beacons. Once one had established the intricacies of the Russian morse code, they were easily identifiable.

Approaching the Bering Strait again, the radars did us proud, Cape Prince of Wales was detected at 58.4 nautical miles and Fairway Rock at 29.7 nautical miles. Visibility throughout remained excellent, the current and wind remaining about the same. By now, the ambient air temperature had a maximum of 8°C and a minimum of 3°C. The sea water temperature remained at around 6°C – 8°C.

On entering the Arctic Ocean, or the Chukchi Sea to be precise, proceeding to our alteration waypoint, the wind force diminished to Force 4, sea and air temperature began to rise dramatically, both reaching 15°C by the time we anchored. On entering the Arctic Ocean, one would expect at least the sea temperature to fall.

On our final course, visibility was excellent. The coast line has nothing whatsoever to ascertain decent radar fixes. The position fixing was mainly by G.P.S. At around 37 nautical miles, the first signs of radar returning energy began to emerge. Using the G.P.S. and a reciprocal range and bearing, we established that this was probably the Concentrate Storage Shed. At a range of 24 nautical miles, we could see this building with the naked eye. By now the vessel was experiencing a strong Northerly/N.W.'ly set, and at times I applied up to 10° of set to maintain an accurate approach to the pilot station. At the same range, the 2nd Officer had plotted the two ships that lay at anchor, one was to sail as we approached. By plotting the anchored vessel, the current was calculated to be between 2 knots – 3 knots. The Loading Dock had also become clear on radar as well as visually. Unfortunately, the racon beacon was inoperative. I discussed this with the Pilot on his boarding, and during the approach to the anchorage the racon was not activated.

The Alaska Marine Pilot in fact did not board our vessel until we were halfway down the approach channel. He boards by tug and requires a boarding speed of 6 knots. On board we found no information regarding tides, so I took this up with the Pilot. The height of tide if any, he claims, is no higher than 30 cm. Whilst vessels are loading at this port, and Alaska Marine Pilot remains here for a tour of duty of 3 weeks, the ship will predominantely lie to the strong N.W.'ly current, unless the wind builds up. Generally our vessel lay between 140° – 180°T. Where we eventually anchored, the depth is 15.0 m., draft at the transducer 5.0 m., based on our loaded draft of 11.1 m., there will still be an under-keel clearance of over the mentioned 10 ft. in the manual provided.

The method of communication to Red Dog Port Site is somewhat contentious. The "Red Dog Port Operation and General Information for Masters", Para 5.16(iii), requested contact via SSB radio telephone frequencies 2,096.5 kHz and 4,125.0 kHz. This was to no avail. We also tried additional frequencies, 8,297.0 kHz and 3,261.0 kHz, as per our voyage instructions, but with no luck, and all this was after the port told me over the Satcom telephone to call them that way. On the other hand, VHF contact was established at 30 nautical miles on U.S. Channel 7A. The barges and tugs operate on Channels 8 and 18. Take note this port and the tugs, barges, etc., do not listen on Channel 16.

Red Dog Port Site Operations: As this port can only handle vessels at anchor, working this port are 2 barges, "Kivalina" designed with her control tower starboard side. This is to work facing forward on our port side and vice versa on our starboard side. On the other hand the "Noatak". Both barges are very well fendered. In addition, there are 3 tugs working the port and barges. The "Stacey Foss", "Sandra Foss", each 2,250 b.h.p., and "Ivor Foss", some 2,400 b.h.p.

There was already a vessel working at the anchorage and the port only works one vessel at any time. Therefore we remained idle for a day and a half. The anchorage is approximately 2.5 nautical miles × 2.5 nautical miles, and at any one time only 2 vessels allowed to anchor. As the vessel is more than 3 nautical miles offshore, there is no requirement for Customs Clearance. Immigration on the other hand claim up to 12 nautical miles offshore territorial waters and therefore require a Visaed Crew List. Even so no U.S. Officials attend the vessel.

The barges mooring lines are made fast by the ship's crew, 2 head lines, 2 stern lines, all 4 lines are wires with nylon tails and rigged for quick release in case of weather or an emergency. A further polypropylene spring line is used. On average, it took 50 minutes to make fast, and 20 minutes to let go. During docking and sailing, 2 tugs are always in attendance. One tows the barge alongside, the other keeps the barge in position until fast.

The barges require an airdraft of 14.3 m. (47 ft.). A handy size vessel is no problem, but Panamax size vessels have to be a little more careful. The extendable boom swings over the working hold. The Barge Master controls and guides the boom with the assistance of a video camera mounted at the end. As the weather conditions during our stay were very favourable, the boom could almost touch the coaming, but at the end of the season, that's another matter. The boom shoot is not fitted with any form of mechanical triming device.

The density of the sea water here can vary from 1019 to 1025.

The season here is very short, commencing at the beginning of July and closing mid-October. These dates tend to vary, depending on the ice conditions prior to July and after mid-October. No vessels trade here outside of that operating window. The port presently exports some 750,000 tonnes of zinc and lead concentrate, but is expected to rise to 1 million tonnes by 1998. Only handy size and Panamax size bulk carriers are loaded. During a season, around 15 to 20 ships will be loaded here.

Rescue and Distress: No rescue and distress services available.

Supplies: There are no supplies available at this port. Storage tanks of fuel and water are for the tugs, barges and port services.

Services: There are no services available. In a medical emergency, the person can be transported to the Red Dog Mine for attention. If serious medical attention required, there is an airstrip and arrangements would have to be made to fly an aircarft in.

Communications: A single 52 mile long asphalt road joins the mine to the port. There is an airfield at the mine capable of landing medium size jet aircraft. Chartered aircraft arrives Mondays. Port radio communications on SSB 2,096.5 kHz, 4,125.0 kHz. and VHF Channels 7A (U.S.) and 12. Tugs and barges work VHF Channels 8 and 18.

Port Authority: The port is private, operated by Cominco Alaska. The address is Red Dog Port Site, Kivalina, Alaska. Tel: (907) 645-8117/8118. Fax: (907) 563-5204.

AUTHORITY: Masters should be aware that the parties involved in operations are:

(i) *Cominco Alaska* are the Operators of the Red Dog Terminal, and are the Shippers of the cargo loaded onto their vessels.

(ii) *Foss Maritime* of Seattle are the Operators of the self-discharging barges and tugs, and are contracted to Cominco, Alaska, to provide shuttling and transhipment of the cargo.

(iii) *Navios Pacific* are the providers of the ocean transportation and contracted to Cominco, Alaska.

Navios Corporation, Stamford Harbour Park, 333 Ludlow Street,
Stamford, Connecticut 06902-6913, U.S.A. Tel: (203) 961-0800.
Fax: (203) 961-0845. Telex: 238853. (Also see "Radio").

REDWOOD CITY, California: 37.32 N. 122.12 W.

(See Plan)

DOCUMENTS, PILOTAGE and all general information refer to "San Francisco".

RESTRICTIONS: Though a natural deep water channel extends down the bay to Redwood City there is controlled depth channel 500 ft. wide and 30 ft. deep across San Bruno Shoal. The entrance channel to the port is 2 miles long and 30 ft. deep (all depths are at MLLW) and 300 ft. to 350 ft. wide. There are 2 large turning basins at either end of the port harbour channel. See also San Francisco.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

BERTHING:

Port of Redwood City:

Berth	*Length* (ft.)	*Depth* (ft.)	*Remarks*
No. 1	500	36	General cargo and bulk cement through pneumatic pipelines.
No. 2	355	36	
No. 3	450	36	General cargo, heavy lifts and scrap metal.
No. 4 (New Berth)	450	36	General cargo USGS facility.
No. 5	500	36	Designed to accommodate large tankers, general cargo and heavy lift cargoes.
Private Facilities:			
Bell Marine	649	12	Barge unloading dock. Used for storage (not in use).
Lone Star Industries	496	18	Barge dock for loading cement. Not in use.
Lone Star Industries	20	16	Oil berth. Not in use.
Leslie Salt Co.	200	33	Elevator berth used for loading crude bulk salt.

BRIDGES: The San Mateo Hayward Highway Bridge with a vertical clearance of 141 ft. and horizontal of 500 ft. crosses the ship channel

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany). Garbage disposal is available. Dumpsters from 4 to 15 cu.yd. can be ordered and placed alongside. The company to order dumpsters from is BFI. Tel: (415) 591-2025.
WASTE OIL DISPOSAL: Collection service is available at Wharf 5 from Gibson/Pilot JV. Tel: (800) 582-3935 or (805) 327-0413. Fee schedule on application.
SEAMAN'S CLUBS: None.
CURRENCY: U.S.Dollar (U.S.$).
DEVELOPMENTS: See "Plan".
AUTHORITY: Port of Redwood City, 675 Seaport Boulevard, Redwood City, California 94063-2794. *Tel:* (415) 306-4150. *FAX:* (415) 369-7636. *Contact:* Michael Giari, Executive Director.

RICHMOND, California: 37.56 N. 122.25 W. **(See Plan)**

(A) CHEVRON, U.S.A.
(B) OTHER TERMINALS AT RICHMOND.

(A) CHEVRON, U.S.A.

LOCATION: Richmond Long Wharf is situated on N.E. side of San Francisco Bay, a protected harbour. The refinery and storage tanks are near the wharves.

The exact position of the Long Wharf is Lat. 37° 55' 20" N., Long. 122° 24' 35" W. Wharf heading is 324° – 144°.
DOCUMENTS: *Quarantine and Pratique:* To clear vessel for entry, the Custom House requires the following papers for Foreign Flag Vessels:

1. Vessel Registry.
2. U.S. Tonnage Tax Receipts.
3. Water Pollution Certificate (CIOPP).
4. Load Line Certificate.
5. Safety Equipment Certificate.
6. International Tonnage Certificate.
7. Clearance from Last Port.
8. Customs Forms (CF):
   1300 – Master's Oath (3 copies).
   1301 – General Declaration (3 copies).
   1303 – Stores List (3 copies).
   1304 – Crew's Effects Declaration (3 copies).
   I-418 – Crew List (3 copies).
   1302 – Cargo Manifest (3 copies).
   On CF1300, "Master's Oath", be sure to note docking time and arrival deep draft papers for Customs clearance.
9. Departing Crew Members, if signing-off a foreign vessel, must fill out a CF-5021 "Crew Member Declaration".
   CF I-418 – Crew List (4) Note CF5129 numbers to be shown in Column 5.
   CF5129 – Crew Member Declaration (one for each officer/crew member).
   CF226 – Foreign Repair Oath/Entry (4) and Supporting Invoices.

Inspectors from various government agencies may require additional information. This additional information may include but not be limited to the following:

1. Certificate of Documentation.
2. Water Pollution Certificate.
3. Load Line Certificate.
4. Safety Equipment Certificate.
5. U.S. Tonnage Tax Receipts.
6. A Certified Crew List from last U.S. port (with Seaman's Action Certificates to account for all crew changes).

Documents required for Customs clearance of U.S. Flag Vessel to Foreign Port:
CF1300 – Master's Oath (2 copies).
CF1301 – General Declaration (2 copies).

State of California Department of Fish and Game Office of Oil Spill Prevention and Response requires documents 1 – 6 as listed above (the Boarding Inspector may require additional information).

Vessel's cargo decks shall be clean with no oil on the deck, or water build-up. They shall be free of dirty rags, rubbish, debris, and loose tools. Excessive hydrocarbon build-up in pump room bilges shall not be permitted.
PILOTAGE: Pilotage in and out of San Francisco is compulsory for all foreign registry and U.S. vessels under enrolment not having a federally licensed Pilot on board.

Pilots board near the San Francisco approach lighted horn buoy "SF". Pilot boat "San Francisco" call sign "WYZ-8288". Pilot boat "California" call sign "WYK-4689". Pilot boats monitor VHF Channels 10, 13, 16 and 18A.

Pilots can be contacted through the pilot boats "San Francisco" or "California". Pilot office monitors VHF Channel 10 (156.5 KHz) and can be contacted by telephone No. (415) 393-0457.
MAX. SIZE: The main ship channel into San Francisco has a project depth of 50 ft. However, the 35 ft. depth of the Southampton Shoal channel restricts the size of ships to wharves.
LIGHTENING: When a lightening operation is necessary the terminal management will direct the ship to Anchorage No. 9. The ship to be lightened will install fenders before the lighter ties alongside. The terminal will provide the fenders. The lightening Supervisor and ship's officer will hold a meeting to discuss the cargo transfer. During transfer, follow the same precautions and safety regulations that apply to cargo transfer at the wharf. The transfer rate will be regulated by the lightening vessel. The lightening Supervisor will observe all the lightening operations. The terminal will provide oil spill recovery equipment during lightening.
HEALTH: See "Health: All Ports" before first U.S.A port (Albany). *Quarantine and Pratique:* Vessels are not required to pass a quarantine inspection. It is necessary that vessels notify their Agents at least 2 days in advance of arrival in San Francisco Bay if sickness or disease is on board. The Agent shall notify Public Health for further action if necessary.

All vessels arriving from foreign ports will require clearance by the following U.S. Government Agencies: Customs House, Immigration Service, Department of Agriculture.

The vessel's Agent should make arrangements for the inspectors to board dockside or at anchorage.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

The Terminal is U.S.C.G. Certified for removal of non-hazardous plastic waste from vessels.
RADIO/VHF: The official language of the terminal is English. Therefore, vessel must have personnel on duty at all times who can communicate in English with the wharf personnel. If at any time proper communication is compromised, the transfer of oil will be stopped per Code of Federal Regulations.
General:

San Francisco has an established advisory traffic service. The Vessel Traffic Centre, radio call "San Francisco VTS" monitors VHF-FM Channels 13 and 16, and uses Channels 13, 12, 18A and 22A.
Note: The VTS is currently considering replacing Channel 13 VHF with Channel 14 VHF as its main working frequency. Channel 12 VHF is the working frequency for the Offshore Vessel Movement Reporting System (OVMRS).

Federal Communication Regulations require that at any time VHF radio is in operation, Channel 16 must be monitored (156.8 MHz distress and calling frequency).

The U.S. Coast Guard requires all vessels anchored in San Francisco Bay to maintain a radio listening watch on VHF-FM Channel 13 (156.65 MHz) when the wind is 25 knots or greater. Any ship not equipped with Channel 13 shall maintain the listening watch on Channel 16 (156.8 MHz). This radio watch must be maintained by a person who can speak English.

The 2-3 MHz radio telephone call letters for the San Francisco Bay area are KLH.

Richmond Long Wharf (radio call "WRS 943 Richmond Long Wharf") is equipped with VHF radio, manned 24 hours, on Channel 10 (156.5 MHz).

Chevron Shipping office hours are 0800 hrs. – 1645 hrs., 7 days a week. If vessel needs to contact Chevron Shipping while in San Francisco Bay, call them on the following 2 channels during regular office hours.

1. KCE-372 "Chevron Shipping".
2. Channel 10 (156.5 MHz).

While vessel is at anchor in San Francisco Bay, it should maintain normal listening watches on VHF Channel 10.
ETA Requirements:

The Master of a vessel bound for the San Francisco Bay is required to provide Chevron Shipping (via Fax to Chevron Richmond Long Wharf, Tel: (510) 242-3159) with the following information as soon as possible before arrival, *but not later than* 2 days for tank vessels, and not later than 12 hours for barges prior to arrival at Richmond Long Wharf.

The following 25 items must be provided in the Pre-Arrival Report:

1. (a) Name of vessel/barge (full name).
   (b) Flag of Registry.
2. (a) Last port of call prior to arrival at San Francisco Bay.
   (b) Previous cargo.
3. When vessel was last at Chevron Richmond Long Wharf.
4. (a) Specific ETA 72, 48 and 24 hours prior to arrival.
   (b) Identify whether based on San Francisco Pilot Station or alongside the Richmond Long Wharf.
5. (a) Is the vessel/barge calling at other terminals in the San Francisco Bay area?
   (b) Please identify terminal and any timing constraints associated with Richmond Long Wharf or these other terminals.
6. Cargo trade and quantities to load and/or discharge at Chevron Richmond.
7. Draft on arrival (in feet/inches).
8. Maximum draft and trim expected during transfer operation.
9. Quantity and nature of slops, dirty ballast to be transferred at Richmond Long Wharf and any contamination thereof by chemical additives. (Note: The Chevron Richmond Refinery operations require that any slop discharge at the Long Wharf be avoided or, if this is not possible, minimised to the fullest extent).
10. Any repairs that could delay commencement of cargo transfer.
11. Any special pre-load or discharge procedures (i.e. flush prior to load) or delays (i.e. vessel U.S. Coast Guard inspections).
12. Any specific load/discharge sequence required.
13. Distance from vessel/barge bow to the centre of the cargo manifold area.
14. Manifold details, including size and type (steel, cast iron, annealed iron) of cargo and bunker connections. (Note: The use of cast iron connections are not allowed at the Chevron Richmond Long Wharf).
15. (a) Does the vessel require bunkers?
    (b) If so, type and quantity in net barrels and equivalent metric tons.
16. Does the vessel require potable water?
17. (a) Is the vessel/barge equipped with a Vapour Recovery system?
    (b) If so, type and size of connections.
    (c) Is system certified by the U.S. Coast Guard?
    (d) Where is the connection located with regard to the cargo manifold? Note: Maximum system pressure on arrival at Chevron Richmond not to exceed 15 psia.
18. (a) If vessel is discharging, will there be a need to ballast into cargo tanks which last contained crude, motor gasoline, aviation gasoline or any other Class A cargo?
    (b) If so, how much ballast and how many hours to ballast.

19. Are there any anticipated special operations which the vessel/barge must perform at the Chevron Richmond Long Wharf (i.e. crude oil washing, tank cleaning, personnel to/from the vessel, load lube oils, load stores, etc.)?
20. Is the tug "Chevron Richmond" needed to assist in docking and/or undocking?
21. Any defect of hull, machinery, piping, valves, or other equipment which may affect the safe manoeuvrability of the tank vessel or barge; or constitute a hazard to public health and safety and/or the environment.
22. Any other information pertinent to mooring and cargo transfer operations.
23. Does the vessel/barge have a valid "California State Certificate of Financial Responsibility" on board? (Note: Vessels/barges which do not have this Certificate may not call at the Chevron Richmond Long Wharf).
24. Has the vessel met Oil Spill Prevention and Response and Oil Pollution Act 1990? (i.e. Does the vessel have a written Oil Spill Response Plan with a list of qualified contractors?). If not, vessel is not allowed at the Long Wharf.
25. All tank vessels are required to have a cellular phone on board while berthing at Richmond Long Wharf as an alternate communication system. What is your cellular phone number?

NOTE: Chevron will not be responsible for delays associated with non-compliance of these regulations.

Wharf Communication: The Richmond Wharves are equipped with a positive and dedicated ship-to-terminal radio communication system. On arrival, you will be provided with one radio (walkie-talkie). It must be with the English speaking person on duty at all times; the radio will be tested at regular intervals. You will be instructed in the proper use of this radio during the Cargo Pre-Transfer Conference. If the radio is not returned, we will levy a charge of $3,500 each.

TUGS: 1×4,000 h.p. and 1×1,800 h.p.

BERTHING: Berthing of a deep draft tanker should be timed to allow the ship to remain alongside at her arrival draft through the next low water.

If cargo transfer is delayed and it's determined that the allowable berth draft limit (BADL) will be exceeded, the vessel shall be ordered to make preparations to sail 6 hours before BADL will be reached, making all tug and pilot arrangements (costs will be determined based on the responsibility for the berth delay).

Vessels shall be required to depart the berth based on safe tidal and current conditions, but always before manoeuvering area draft limit (MADL) is reached.

The Wharf Controller and Agent will set berth assignment prior to vessel's arrival. If a berth is not available at the time of arrival, the Agent will instruct vessel to proceed to anchor (as directed by the Captain of the Port) and maintain radio contact with Richmond Long Wharf by VHF Channel 10. At least 3 hours before vessel's assigned docking time, contact Richmond Long Wharf to confirm docking time. At that time, the Wharf will advise the inbound vessel of expected vessel traffic at the Long Wharf. The Wharf will also advise the inbound vessel of any changes once the vessel has made initial contact. Inbound vessels will typically have priority over departing vessels. If an outbound vessel is restricted to a particular sailing time, due to draft and tide, and if the inbound vessel can safely lose time outside the Bay or safely proceed to anchor, the Wharf will request that the outbound vessel has priority. If there is a decision to be made regarding holding a vessel alongside, it will be made by the Onshift Wharfmaster. At one hour before vessel's assigned docking time, recontact Richmond Long Wharf to establish with the terminal what channel the Pilot will be using to moor vessel. The terminal has available the following VHF Channels: 65A, 13, 77, 5, 7A and 18A. While mooring or unmooring, the terminal's internal safety procedures require that vessel-to-terminal communications be established before vessel is 150 ft. from wharf, and then maintained throughout the event. Vessels are cautioned to check with SF Bay VTS on other vessel movements in the area that are not controllable by the Richmond Long Wharf, for instance, vessels proceeding out of Richmond Inner Harbour which may also intend to use Southampton Shoal Channel.

To avoid dangerous meeting and passing situations in the manoeuvring area and Southampton Shoal Channel, departing vessels must be clear of channel before the next arriving vessel can enter the channel, and vice versa.

Berths are assigned according to:

Time of arrival.
Product(s) to be transferred.
Size of ship.
Loaded draft.
Tide and weather conditions.
Availability of dock crews.

No fees are charged for berthing at Chevron piers for normal cargo transfer. However, wharfage fees are charged for ships which cause undue delay or expense. You will be notified when this occurs.

Recommended Docking Practices: The guidelines here must be strictly adhered to. Prior Terminal Management approval is required for any exceptions. For more information about positioning the vessel, see "Plan Section".

The terminal require the use of adequately powered tugboats when docking at the wharves. Chevron Shipping Company has two tugs that can be hired, provided arrangements are made prior to vessel's arrival.

(a) In order to ensure maximum safety while berthing and unberthing ships at Long Wharf, the following minimum tug assistance is required:

Vessel Size	*Mooring* (No. of Tugs)	*Unmooring* (No. of Tugs)
Up to 50,000 d.w.t.	1 large and 1 medium	1 large and 1 medium
50,001 to 80,000 d.w.t.	2 large and 1 medium	2 large
80,001 to 180,000 d.w.t.	3 large	2 large and 1 medium
Over 180,000 d.w.t.	4 large	3 large

Medium tug is 1,750 h.p. to 3,999 h.p.
Large tug is 4,000 h.p. or greater.
A 1,000 h.p. bow thruster is equivalent of a medium tug.

(b) Vessels should always stem the tide when docking.

(c) Steep-angle approaches should be avoided.

(d) In view of the strong tidal currents at the wharf, make sure vessel is moored securely. Check on the number of lines and their strength and condition. Pay special attention to the fore and aft leads.

(e) Mooring lines shall be kept taut at all times during transfer operations, and those lines not on mooring winches must be made fast on the mooring bitts. *Under no circumstances will mooring lines be made fast to winch drums (gipsy heads).*

(f) An all wire mooring arrangement is the safest and most desirable. A minimum amount of mooring lines leading in the same direction will not be mixed (See "Plan"). This is an unsafe practice and creates a false sense of security owing to the difference in elasticity. The only exception would be when additional lines are utilised above the minimum requirements.

For barges less than 100,000 barrels, an all synthetic mooring arrangement can be used, subject to the approval of Terminal Management.

The required minimum number of mooring lines are:

Barges less than 250 ft. in length = 6 mooring lines.
Barges greater than 250 ft. in length = 8 mooring lines.
Ships less than 80,000 d.w.t. = 9 wire mooring lines or 11 synthetic mooring lines.
Ships greater than 80,000 d.w.t. = 10 wire mooring lines or 12 synthetic mooring lines.

These are the minimum requirements. Under severe weather or tidal conditions, additional mooring lines are recommended.

(g) Winch brakes must be on, mooring lines in good condition, and mooring lines of adequate size are required as set forth by regulatory agencies. This will insure that the vessel will remain within the envelope of the arms and/or hoses, and will not break away due to sudden changes in wind or sea conditions or from surging caused by passing vessels.

Vessels should employ mooring lines that provide 75% of the rated breaking strength (i.e. lines must be in good condition). The eye of each mooring line should be led to a quick-release mooring hook. This allows the vessel to depart quickly in an emergency. Permission should be obtained from Terminal representative if a mooring line is to be led to a bollard. The number of lines led to a bollard should be restricted to an absolute minimum. Lines to bollards must all be released first when unmooring. Wires will not be led to bollards.

(h) Be advised, vessels departing from Richmond Long Wharf with drafts of 38 ft. or over will generally not be taken from the berth under strong ebb tide conditions. Vessels are advised to consult with the Pilot's Association on their particular situation.

Hose Handling and Mooring Lines: Wharf crews are on duty continuously to handle oil hoses/arms and mooring lines. *However, they will not handle mooring lines and hoses on board vessels; this is the vessel's responsibility.* There must be a Wharf Observer aboard the vessel when connecting or disconnecting Chicksans or hoses.

Anchors: Anchors are not to be used after vessel is secured.

Gangway: Rig your gangway properly and safely with handrails and adequate illumination. If vessel does not have a gangway, the pier has some available in limited sizes. However, the Company cannot be liable for the manner in which the ship's crew rigs the gangway. Berths No. 1 and No. 4 have permanently installed gangways.

Ship Movement: Make sure your deck watch stays continually alert for vessel movement off-spot. Vessel should be kept against the fender at all times. If the vessel moves off the fender or 7 ft. in either direction along the wharf, stop all cargo transfer operations immediately and disconnect the hoses or arms. Do not resume operations until the situation is corrected. The Terminal requires a tug to move the vessel and hold it off the fenders while moving the vessel parallel to the wharf.

Oil Wharves: There is one pier that accommodates oil transfers. It is commonly referred to as Richmond Long Wharf.

Long Wharf: Richmond Long Wharf, a "T"-head pier, has an overall length of 3,396 ft. It consists of concrete and wooden piles and a concrete superstructure connected to the shore, 4,200 ft. away by a piled causeway. The fender-to-fender width is 132.5 ft.

Berths 1, 2 and 3 deck level is 15.5 ft. above MLLW. Berth No. 4 deck level is 25 ft. above MLLW.

There are 4 deep water berths on the West side. Berth No. 1 is 950 ft. long with a project depth of 50 ft. at MLLW. Berth No. 2 is 650 ft. long with a project depth of 40 ft. at MLLW. Berth No. 3 is 700 ft. long with a project depth of 40 ft. at MLLW. Berth No. 4 is 1,100 ft. long with a project depth of 50 ft. at MLLW. They are numbered 1 through 4 from South to North. The fender-to-fender width of the Wharf is 132.5 ft.

There are two inner Berths (No. 9 and No. 11). They are used primarily for barge loading or discharging. Project water depth is 20 ft. at MLLW. NOTE: Specific barge size and towboat restrictions may pertain to barges arriving and departing the barge berths. Consult the Wharf Controller for specifics.

Silting is a continuous problem at all berths. Consult the Wharf Controller or the Wharfmaster for updated drafts.

HOSES: *Cargo Hoses:*

(a) Before transfer, inspect cargo loading hoses or arms to see that they are in good condition, *fully bolted*, and properly connected. All hoses must be marked showing the service for which the hose is designated, date of last hydrotest, and a maximum allowable working pressure of at least 275 psi.

(b) The hoses must be supported at not more than 12 ft. intervals with a bridle or mat to minimise kinks or chafing. They must not be bent to a radius less than 12 times their diameter. Do not use single slings when taking aboard or supporting during transfer.

(c) The hose or arm-to-riser connections must have drip pans of adequate size installed under them.

(d) When cargo transfer has concluded, each hose/arm is to be drained via the drain valve and flanged *before* being removed from the vessel.

The Terminal Head Operator or his/her delegate is to be aboard vessel to oversee the connecting and disconnecting of the loading arms and also to alert crew members when passing the arms.

Vapour Hoses: Vapour hoses as required for Vapour Recovery operation will be provided by the Terminal. Vapour hoses will be distinctly marked with painted red/yellow/red bands and will be labelled. Their flange will have a unique bolt hole configuration to prevent cross connection to a cargo system. The flange sizes are 10 in. at Berths No. 2 and 3, and 8 in. and Berths No. 4 and 9.

Vapour hoses will require a purge with nitrogen before and after loading operations. This purge will be done by Terminal Operators.

LOADING/UNLOADING: Berth No. 2 is fitted with 4 in., 6 in, and 8 in. hoses for cargo transfer. Berth No. 1 has two 12 in. and two 16 in. Chicksan loading arms. Berths No. 3 has two 8 in. and four 12 in. Chicksan arms. Berth No. 4 has two 12 in. and three 16 in. Chicksan arms. Do not reduce Chicksan loading arm flange size by more than 4 in. unless approved by Terminal Management. Berths No. 9 and 11 are fitted with 4 in., 6 in. and 8 in. loading risers for cargo transfer.

NOTE: All terminal flange facings are carbon steel ANSI 150 lbs. rating.

No cast iron is allowed outside of (and including) the first valve on the vessel's cargo or bunker system.

Berth vessels so that manifolds are positioned within the horizontal and vertical limits of the hoses or Chicksan arms as directed by Terminal Person-in-Charge (TPIC) spotting vessel.

Cargo Transfer:

(a) Pre-Transfer Declaration of Inspection – Before cargo transfer begins, the TPIC will board vessel. The TPIC will discuss with Master and officers the safe transfer of cargo. He will also review the Declaration of Inspection with Master and sign it with Master when all items are understood and agreed upon.

(b) Inspection During Cargo Transfer – A Terminal representative will also visit the ship during cargo transfer. With the approval of Deck Watch, he will check to ensure that safe working practices are being observed by both ship and wharf.

(c) Minimum Cargo-Handling Crew – When transferring cargo or ballast, the officer-in-charge of cargo transfer must have at least two assistants: one to maintain watch on the open-deck cargo transfer manifolds; the other to assist in handling valves, tank gauging, or shutdowns of transfer pumps in case of emergency. Other crew members may be needed depending on the size and complexity of ship transfer system. These requirements will be developed at the pre-cargo-transfer conference. When loading ship's bunkers and lubes, the Master and Chief Engineer will assure the terminal that this transfer will be handled in a similar manner.

(d) Both vessel and Terminal representatives shall conduct a regular inspection of the dock area and the water area around the ship prior to and during the transfer operations.

(e) Vessel shall not deposit any form of hazardous waste on the Wharf.

Loading Rates: Several products can be loaded at each berth. Loading rates depend on a multitude of situations. These will be discussed at the pre-cargo-transfer conference.

Unloading Rates: Unloading rates also depend on many things – vessel's pumps, the size and availability of terminal lines and tanks, refinery operations, etc. The pre-cargo-transfer conference will develop the estimated unloading and deballasting rates and procedures.

To expedite cargo transfer, it may be necessary to use booster pumps. To eliminate hazards to this equipment, notify the Berth Operator 15 minutes ahead of time whenever you are going to: Stop or change any cargo transfer rate, strip any tanks, switch tanks, begin or stop Crude Oil Wash (COW).

Maximum Temperature and Pressure Limits: The terminal cargo-handling system is designed to comply with the 150 lbs. ANSI flange rating. For example: 275 psig at 100°F, 240 psig at 200°F, etc. Special restrictions apply for aromatic and other hazardous stocks. These will be explained during the pre-cargo-transfer conference.

Tank Gauges: To ensure proper handling of each cargo, the terminal requires vessels to be gauged every *two* hours and matched with shore-tank gauges. Transfer operations will shut down immediately if:

- the transfer rate is over 1,000 b.p.h. and there is a discrepancy in the tank's gauges that amounts to more than 20% of that transfer rate.

  OR
- the transfer rate is under 1,000 b.p.h. and there is a discrepancy in the tank's gauges that amounts to more than 30% of that transfer rate.

For example:

Vessel arrived with 120,000 bbls. of crude. First 2 hour gauge at 1010 hrs. Estimated rate 7,000 b.p.h.

	Ship	Shore	Difference
1000 hrs.	14,241	13,996	245
1200 hrs.	28,435	25,643	2,792

As the estimated transfer rate is 7,000 bbls./hr., the allowable difference would be 1,400 bbls. The 245 bbls. difference at 1000 hrs. is OK and transfer should continue. The 1200 hrs. gauge of 2,792 bbls. difference is out of tolerance and the transfer should be discontinued until discrepancy can be resolved.

NOTE: For those equipped with IGS, obtain the 2 hour gauge from the automatic gauging system. Do not breach IGS.

Allow approximately 2 hours for shore and vessel cargo reconciliation after transfer is complete.

BALLAST: No dirty ballast will be discharged overboard while vessels are moored at Richmond Long Wharf.

If vessel has a clean dedicated ballast system and Terminal Management approves and a segregated ballast form is filled out, vessel may be able to discharge clean ballast to local waters.

Tank Flushes: Product for use in flushing vessel's tanks is available on request, but must be arranged for at least 48 hours in advance through Chevron Supply and Distribution or Chevon International Oil Company. The flush material will be provided for a $250 handling fee plus a reprocessing fee for each barrel which will vary depending on the exact flush stock requested. The exact reprocessing fee can be obtained by contacting Supply and Distribution.

POLLUTION:

NOTICE TO SHIPS
WHILE IN SAN FRANCISCO BAY WATERS
TO SHERMAN ISLAND

EXCESSIVE SMOKE

Section 3110 of Regulations 2 of the Bay Area Air Pollution Control District prohibits the emission of smoke as dark or darker than Ringlemann 1 for more than 3 minutes in one hour.

BOILER TUBE BLOWING

Boiler tubes must not be blown in a manner that results in soot being deposited on shore in such quantities as to create a nuisance. Blowing of tubes anywhere within San Francisco, San Pablo, and Suisun Bays, or in the San Joaquin River within Contra Costa County, must be kept to a minimum. Every reasonable effort must be made to reduce the number of occasions of such in-port soot blowing.

California Health and Safety Code, Section 24360, provides that a person shall not discharge from any source whatsoever such quantities of air contaminant or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.

Persons responsible for violations of District Law and regulations are subject to a penalty of up to $25,000 for each day's violation. This may be assessed against any person responsible including the officers of the ship, the Owners, the Operators, and may be secured by a lien against the ship itself. These persons may also be subject to abatement orders and contempt of court.

GOOD NEIGHBOUR NOISE POLICY

When ships or barges are suspected of being too noisy during the course of their operations, the following procedure should be followed:

1. The Wharfmaster shall initiate action when any noisy vessel arrives at Richmond Long Wharf for discharge. The Wharfmaster will requst the CFRE (Chevron Environmental Field Representative) to go to the Point Richmond "hill area" and report on any noise observation.
2. If the noise is excessive in the judgement of the Wharfmaster and CFRE, it may be necessary to make adjustments to the rate, number of pumps, etc., in order to moderate noise to a satisfactory level. In Chevron's efforts to maintain an effective "Good Neighbour Policy", if a vessel is found to be creating a noise nuisance, it may be ultimately necessary to secure cargo operations until daylight hours.

While docking and undocking, no excessive noise should be created.

OIL INSPECTIONS: To control product quality, the terminal has several requirements for sampling and gauging the oil as it is being transferred. These requirements will be explained during pre-cargo transfer conferences. Outside inspection service is provided by the following independent companies:

Caleb Brett U.S.A. Inc., 4108 Lakeside Drive, Richmond, California 94806. Tel: (510) 222-0877. Fax: (510) 222-0930. Telex: 184231.

S.G.S. Inspection, 435 Valley View, El Sobrante, California 94803. Tel: (510) 236-3007. Domestic TWX (910) 382-6013. Fax: (510) 223-0956.

Herguth Petroleum Lab., 101 Corporate Place, P.O.Box "B", Vallejo, California 94590. Tel: (707) 554-4611. Fax: (707) 554-0109. Telex: 317596.

E.W. Saybolt Company Inc., 124 Parker Avenue, Rodeo, P.O.Box 704, California 94572. Tel. (510) 799-2843. Fax: (510) 799-2851. Telex: 229171.

Columbia Inspection Inc., 1214 "B" Pomena Street, Crockett, California 94525. Tel: (510) 671-4814. Fax: (510) 671-4814.

Inspectorate, 3773 Pacheco Blvd., Martinez, California 94553. Fax: (510) 372-3384. Telex: 402472.

MEDICAL: No facilities at wharves. Richmond Refinery has a direct line to the regional ambulance. Emergency medical technicians (EMTs) will respond to provide basic life support, first aid and escort the ambulance to the Wharf.

Non-emergency medical services must be arranged through the Agent.

Brookside Hospital. Tel: (510) 235-7000.
Regional Ambulance Service (ground). Tel: (510) 234-3242.
Air Ambulance International Inc. Tel: (800) 982-5806.
California Aviation Service Inc. Tel: (415) 584-9045.

FRESH WATER: Potable water can be provided to vessels at the Long Wharf. Arrangements to load potable water must be made prior to arrival by contacting the Wharf Coordinator. The Wharf Coordinator will advise the vessel's Agent of current hook-up fees and rates. Loading rates and forms will be fully explained at the Pre-Transfer Conference. The Wharf will make all connections dockside, and will control all valves associated with the water transfer.

FUEL: Many grades of bunkers, diesel and lubricating oils are available in bulk or drum quantities. Agents should order them from (1) Chevron U.S.A., Supply and Distribution (call (415) 944-6200), or (2) Chevron International (call (415) 944-6292), at least 48 hours before vessel arrives, to avoid delaying the vessel.

To take on bunkers and diesel, vessels must be able to connect to terminal's 4 in., 6 in. and 8 in. hoses in Berth No. 2, connect to 8 in. Chicksan in Berth No. 3, to 12 in. Chicksans in Berths No. 1 and 4 without a reduction of more than 6 in. Bunker barges are not allowed to bunker vessels while at Chevron's wharf.

PROVISIONS: Provisions and stores are available through ship's Agent. However, they will be loaded only when the loading does not interfere with cargo or ballast transfer. No hydrocarbons, paints, detergents or other polluting materials will be allowed to go aboard the vessel by means of slings or cargo nets. Such stores must be hand carried on board. The vessel may use its own gear for handling other types of stores. However, forklifts, cranes and trucks are not available for this operation. Stores will not be handled by wharf personnel, and will not be allowed on the wharf until the vessel arrives.

REPAIRS: There are some major repair facilities located in the San Francisco Bay Area. The Agent can probably make arrangements for use of their services.

Repairs at the terminal are not permitted unless it is absolutely necessary in order to move the vessel. Any repair work that would necessitate hot work must have approval from Refinery Management and U.S.C.G. No repairs will be allowed that would delay cargo transfer or lengthen the transfer time.

REPATRIATION: Facilities exist for repatriating of crew by sea or air. Make the arrangements through ship's Agent, and notify the terminal management.

TIME: Local time: Pacific Standard Time GMT is minus 8 hours.

(Note: From the first Sunday in April to the last Sunday in October, this is modified by use of Daylight Time which is GMT minus 7 hours).

All communications should refer to local time.

TELEPHONES: Blue Courtesy telephones are spaced adequately along the dock. These telephones can be used to call this partial list of commonly used numbers within the Refinery:

Wharf Control Room (PAD) (24 hrs. coverage)	242-4494
Wharf Master	242-4388
Wharf Coordinator	242-4387
Head Operator	242-2190
Terminal Superintendent	242-2314
Wharf Bus	6-6880

There are 3 public telephones on the Long Wharf for outside calls, 2 between Berths No. 1 and 2, and one at the lower level of the Wharf Office Building.

STORING: See "Prelims".

1. Vessels cannot be stored by barge while at docks; however, they can be stored by small trucks.
2. Storing by truck requires the truck to be cleared by operations and towed into location. No paint or hydrocarbon may be lifted by net over local waters. This is described in the "Provisions".
3. Trucks can come alongside vessel (within 50 ft. of vessel).
4. There are no forklifts available at the terminal and the rental of one requires the rental of a "spark approved" forklift. Arrangements must be made with the Wharf Master.
5. All customs rules and regulations are enforced.
6. Local riggers can be employed to help get stores aboard vessel, but the vessel must make arrangements with ships Agents, and all storing of vessels must be approved by Wharf Master.

Also see "Provisions".

SHORE LEAVE: In order to permit vessel's crew to exit and enter the Refinery, 2 copies of the vessel's Crew List with anticipated changes must be given to the Terminal Person-in-Charge (TPIC) during the Pre-Transfer Conference.

Walking on the causeway is not permitted. Bicycle riding is not allowed on the causeway. Chevron Shipping Company provides bus service from the wharf to shore and from there, ship's personnel can connect with local taxi or bus service nearby (For transit system information outside the Refinery call (510) 232-5665).

To call for the Long Wharf bus, dial 6-6880, and talk to the bus driver, using the courtesy telephones that are adequately spaced along the face of the Wharf identified by a blue sign.

No animals or pets are allowed on wharf or wharf bus.

No smoking in the bus, on the wharf, or the approach to the wharf.

No ship's commercial passengers are ever allowed to board or leave a ship at the wharf.

The Blood Alcohol Concentration (BAC) cut-off level for all employees, contractors, and visitors who require access to the Refinery is 0.04%. This is recognised as the level at which impairment of judgment and coordination appear and is the level established under Federal Law by the U.S. Coast Guard. Therefore, crew members returning from shore leave must comply with the law and Refinery policy, and *will be denied* entry through Refinery gates if they are 0.04% BAC or above. It is Chevron's policy that any person attempting access to the Richmond Refinery, including all marine personnel/seafarers returning to their vessel, who appear in any way to be under the influence of alcohol will be detained at the gate. The specifics of Refinery alcohol policy will be discussed during the Pre-Transfer Conference.

GARBAGE DISPOSAL: Please follow the United States Department of Agriculture (USDA) and Animal and Plant Health Inspection (APHIS) requirements to dispose of plastic waste (See Marpol Annex-V). The Terminal is U.S.C.G. certified for the removal of non-hazardous plastic waste from vessels.

GENERAL:

Transportation of Alcoholic Beverages: The Refinery regulations state that no alcoholic beverages are allowed in the Refinery.

The Refinery recognises that under certain conditions it is necessary for alcoholic beverages to be transported for certain vessels and their crews. For these specific cases, the following permit system should be used.

Parties requesting to make deliveries of alcoholic beverages to the Wharf should be requested to do so at the Main Gate. At that time, they will be issued a permit to transport the beverages.

Please also refer to Chevron's policy on Blood Alcohol Concentration (BAC) (See "Shore Leave").

Tides and Currents: The maximum tidal range is approximately 9 ft. and the mean range is 4.2 ft.

Tidal currents in the wharf area can be very strong. They generally run in a North'ly and South'ly direction.

Winds: Winds of varying strength may come from any quarter. The normal wind, however, is from the N.W. in Summer, and S.W. in Winter.

Visibility: The visibility in this area of San Francisco Bay is generally fair to excellent, with occasional late evening fog in the Summer lasting until noon the following day. In the Winter, morning or tule fogs frequently occur. The Winter fogs are generally more dense than those of Summer.

Weather: The local weather is usually moderate, with average temperatures ranging between 40°F and 85°F.

The (NOAA) National Weather Service VHF-FM Radio Station, KBH-49, provides mariners with continuous FM broadcasts of weather observations on 162.55 MHz.

Navigation: Master is required to notify the U.S. Coast Guard Captain of the Port at least 24 hours before arriving in the Bay. Master will satisfy this requirement automatically if he reports in accordance with the U.S. Coast Guard's voluntary Automated Merchant Vessel Report (AMVER) System.

On entering the Bay, follow the traffic-separation scheme shown on National Ocean Survey Chart 18649.

Charts and Publications: The following official charts and publications are recommended for use when entering San Francisco Bay:

National Ocean Service Charts:

No. 18640 – San Francisco to Point Arena.
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U.S. Coast Pilot No. 7 – Pacific Coast – California, Oregon, Washington and Hawaii, published by the National Ocean Service.

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Light Lists, Volume VI, Pacific Coast and Pacific Islands, published by U.S. Coast Guard.

Radio Navigational Aid, Pacific and Indian Oceans (Publication No. 117), published by U.S. Hydrographic Office.

SAFETY REGULATIONS:

I. PRINCIPLES:

When a ship is berthed at our wharf, we expect its Master to give top priority at all times to safety and efficiency; and to follow all safety regulations generally followed in the marine transport industry, as well as those included here.

All cargo handling operations on the ship are the Master's responsibility. To assist in ship-to-wharf communications, we will provide you with a radio pack set (walkie-talkie), which will enable the person in charge of cargo transfer to communicate with the Berth Operator and Chevron Shipping Office.

The pack set is certified intrinsically safe for use in a hazardous location.

If a vessel disregards any of the following safety regulations, Terminal personnel are authorised to stop cargo transfer operations, and request the vessel to leave its berth. The vessel also has the right to shut down transfer operations if it is felt unsafe to proceed, provided adequate notification is given prior to shutdown.

II. EMERGENCY FACILITIES:

It is the ship's responsibility to keep its firefighting systems in readiness at all times. Likewise the Terminal will keep its firefighting and oil spill containment equipment in readiness at all times. An international fire connection is kept ready at each berth at the wharf.

III. SIGNALS FOR EMERGENCY:

The fire signal at the Terminal is one long blast of the docking whistle, followed by short blasts, indicating berth number where fire has occurred. The oil spill signal is two long blasts followed by the berth in which the spill has occurred (you will be notified if the Terminal requests you to shut down on an oil spill). For any other emergency, such as a man overboard, breaking of lines, etc., sound a series of short blasts on your ship's whistle.

Richmond Refinery has a direct line to the "Regional Ambulance". If an ambulance is required, notify the Berth Operator. Wharf personnel will notify Plant Protection, who will call the "Regional Ambulance" and respond with EMT's (Emergency Medical Technicians) and provide escort for the ambulance and basic life support until the ambulance arrives.

If an emergency occurs on the wharf, your ship will be notified by the Berth Operator and by the terminal whistle. You will be notified if the Terminal wants you to clear the berth. In the event of extreme emergency that necessitates evacuation, Wharf personnel will advise vessel crews of assembly areas and evacuation procedures.

In an emergency situation, stop all cargo transfers immediately and secure valves. In case of fire on the wharf, shut down transfer and prepare to depart.

IV. OVERFLOW AND SPILLAGE:

An oil spillage of any kind is considered an extreme emergency. If one occurs, notify the Berth Operator, sound the emergency alarm, and *immediately* stop all cargo transfer operations. Do not resume them until the oil is removed from the surface of the water and from the deck of the vessel; and until any damage is repaired and no further danger exists.

All reasonable clean-up and damage costs will be at the ship owner's expense.

If you observe oil from an unknown source, you must shut down, unless you are positive it is not from your ship. In either case, you must notify the Berth Operator immediately.

The Terminal is required by law to notify promptly, the U.S.C.G. Tel: (510) 437-3073, and various other County, State and Federal offices, of any spills, and permit their representatives to investigate the circumstances.

Oil spill clean-up material will be supplied at cost, upon request.

INIMUM NUMBER OF SHIP'S CREW:

See that your crew is large enough to connect hoses and arms safely and to conduct cargo operations safely. The vessel will be maintained in trim, and the engine in a condition that it could leave the pier on short notice (30 minutes or less). The crew aboard will be maintained at sufficient size to disconnect cargo connections, unmoor, and get the vessel away from the dock.

GENERAL:

A. Following regulations must be observed at all times while berthed at Long Wharf:

1. Boiler-tube Blowing — Do not blow boiler tubes and take every precaution to prevent sparks from escaping from the funnel. If vessel safety is at stake, stop transfer operations and move the ship to anchorage before blowing the tubes. In case vessel has boiler trouble, notify the Terminal, who in turn will notify the Air Quality District Control.
2. Cargo Tank Tops:
   - (a) Before berthing, all tank tops, ullage plugs, and gauge tapes and sample wells must be closed and dogged down.
   - (b) Cargo and bunker tank tops must be kept closed. This also applies to permanent ballast tanks.
3. Cargo Connections, Unused – blank unused cargo and bunker connections. A proper-sized bolt in *every hole* is the minimum requirement.
4. Engines – Keep the engines ready and the vessel trimmed so it can leave the piers under short notice. If the vessel becomes unable to get underway 2 tugs of adequate size will be standing by at all times.
5. Fire Fighting – Keep fire and emergency equipment in readiness. At least 2 uncoiled fire hoses are required at the vessel's manifold area, one forward and one aft. Provide (U.S.C.G. approved) five portable Class BC extinguishers with capacity of not less than 20 pounds, two located forward and two aft or the manifold, one located at the gangway or the accommodation ladder. All fire extinguishers shall be approved by the appropriate authority of the vessel's flag country.
6. Gas Venting:
   - (a) Ullage Holes – Keep all ullage or gauge tapes completely closed (not secured) except for intermittent periods needed to ullage or gauge ship's tanks.
   - (b) Flame Screens – When open, all ullage ports must be protected by clean, well-fitted flame arrestors of wire-gauge screens: these must be of an approved type and have no defects.
   - (c) Vessels equipped with IGS: All breaches of IGS, for any reasons, require the approval of the Superintendent or his assistant.
7. Gas Freeing and Tank Cleaning – Do not gas-free or clean any tanks at berth without prior approval of Terminal Management.
8. Gangways – Tend the gangway and keep it safely rigged, secured and lighted.
9. Mooring Lines – Tend mooring lines to keep them taut and keep the vessel in position. See that tension winches are on manual brake. During ebb tide and East winds, when the ship has a tendency to drift away from the pier, tend the mooring lines with special care.
10. Hatches, watertight doors and portholes – Shall remain closed throughout the vessel while at the wharf.
11. Repairs – While at berth, do not perform any repair work, hot work, or maintenance work without prior approval from the Terminal Management. Hot work will require *written* approval by Terminal Management and U.S.C.G.
12. Radio – At all times in port, keep the radio transmitter and aerials switched off and grounded. Portable radios (walkie-talkies) that are certified intrinsically safe may be used.
13. Sea Suctions and Bilge Valves – See that all ship's sea and overboard discharge valves connected to the cargo system are tightly closed, lashed and sealed in accordance with U.S. Coast Guard Regulation 33 CFR 155. All engine room bilge overboard valves shall be tightly closed, lashed and sealed.

    The seals are *not* to be broken while berthed except in the presence of the Wharf Head Operator or in case of emergency.
14. Sewage Discharge – Not allowed.
15. Smoking – Allow smoking on board only in places which the Master has personally approved. There is to be NO SMOKING ON THE WHARF OR WEATHER DECK OF THE VESSEL AT ANY TIME.
16. Stern Discharge Line – Keep the stern discharge line, if any, blanked at all times. All holes to be bolted.
17. Towing Wires – Keep the towing wires (fire wires) for emergency use, lowered to 2.0 m. from the water's surface on the offshore bow and stern, where they can be reached by tugs in case of emergency.
18. When fast in the berth, ship's propeller will not be turned, except by use of jacking gear.

B. Cargo Transfer – Observe the following additional regulations DURING CARGO TRANSFER:

1. Air Intakes and Air Conditioning Units – Close any central air-conditioning or fresh-air intakes which might take in gas. Close all intakes within a combined total of 100 ft. vertically and horizontally of cargo tank openings and venting points. External window-type air-conditioning units that face the cargo transfer area must be kept disconnected.
2. Communication – Ship/Shore – Station a responsible member of the crew on the loading deck by the transfer connections to maintain communications or remain in visual contact with the Berth Operator. The ship shall advise the Operator when changes in rates are required, using radio pack sets or voice contact.
3. Passageway hatches to open weather decks be kept secured except for momentary passage.
4. Electric Lights and Cables – Use only vapour-proof electric lights of an approved type, on the open deck. Disconnect portable electrical equipment on the open deck unless certified for use in hazardous areas.
5. Galley Fires – Light no galley fires unless you can first assure the terminal that they present no hazard to the cargo transfer.
6. Hand Torches (Flashlights) – See that hand torches used during cargo transfer are of an approved type, certified as safe in hazardous locations.
7. Hoses:
   - (a) Before transfer, inspect cargo-loading hoses or arms to see that they are in good condition, *fully bolted,* and properly connected. All hoses must be marked, showing the service for which the hose is designated, date of last hydrotest, and a maximum allowable working pressure of at least 275 p.s.i.
   - (b) The hoses must be supported at not more than 12 ft. intervals with a bridle or mat to minimise kinks or chafing. They must not be bent to a radius less than 12 times their diameter. Do not use single slings when taking aboard or supporting during transfer.
   - (c) The hose or arm-to-riser connections must have drip pans of adequate size installed under them.
   - (d) When cargo transfer has concluded, each hose/arm is to be drained via the drain valve and blank-flanged *before* being removed from the vessel. The Terminal Head Operator is to be aboard the vessel to oversee the connecting and disconnecting of the loading arms and, also, to alert crew members when passing the arms.
8. Scuppers – All deck scuppers must be plugged and cemented oil tight or sealed with a Coast Guard approved device. Do not remove the plugs until ship has departed, except when necessary to drain off rain water. In such cases, supervise the draining closely and replace the plugs immediately. Install splash boards (on dock side) over scuppers. Cement is to be supplied by the ship.
9. Special Stock Hazards:
   - (a) Static-Ignition Hazards – Some kinds of stock require special precautions because of the static charge they accumulate. Their handling will also be fully discussed during pre-cargo transfer inspection. No overall loading is permitted.
   - (b) Hydrogen-Sulfide Hazards – Some kinds of crude may contain dissolved hydrogen-sulfide or mercaptans in concentrations which would cause the gases vented during tanker ballasting to be hazardous or odorous. Do not ballast or load into cargo tanks that might contain H_2S or mercaptan vapours, unless the tanks have been passed for loading by the Wharfmaster. The vessel must proceed to sea for clean-up prior to loadback if the Wharfmaster deems the tanks unsuitable for loadback.
   - (c) Aromatic-Stock Hazards – Special precautions are required for toxic cargoes such as aromatics. It is recommended that Masters review the instructions by Owners/Charterers about toxic chemical hazards.
10. Valve Shut-off – Many new tankers have motor-operated valves, operated from a central location. Never operate these valves to close off against full oil-delivery rates unless the valve closure action takes at least 90 secs. Closure times less than 90 secs. may result in surge and hammer of sufficient force to rupture the loading arm/hoses.
11. Ventilators – Keep ventilators suitably trimmed with regard to tank vents and prevailing wind conditions to prevent entry of flammable vapours.

VII. VAPOUR RECOVERY:

As of July 1, 1991, in order to comply with Regulation 8, Rule 44-301 of the BAAQMD, Vapour Recovery operations are required when loading Organic Liquids into vessel tanks. Vapour Recovery will also then be required when loading any product (or ballast water) into vessel's tanks which previously last contained Organic Liquids (and therefore contain vapours from Organic Liquids). Definition of "Organic Liquids" (per BAAQMD Rule 8-44-204) is as follows – all gasoline, gasoline blending stocks, aviation gas and aviation fuel (JP-4 type) and crude oil).

BAAQMD also requires (Rules 8-44-303 and 304) that all vessels associated with the loading of Organic Liquids requiring Vapour Recovery maintain their equipment (all hatches, pressure relief valves, connections, gauging ports and vents) leak free and gas tight. In order to comply with this Rule, certification that vessels meet these requirements will be required during the loading event (leak detection monitoring per E.P.A. reference Method 21). Failure to satisfy compliance requirements during loading will require that the vessel's owner or operator file an "Emergency Variance" with the BAAQMD. Certification must be given to the Terminal (CUSA) before departure of vessel, and certifying process must be done during loading, before 20% completion of cargo loading.

FUEL: Many grades of bunkers, diesel and lubricating oils are available in bulk or drum quantities. Agents should order them from (1) Chevron U.S.A., Supply and Distribution (call (415) 944-6200), or (2) Chevron International (call (415) 944-6292), at least 48 hours before vessel arrives, to avoid delaying the vessel.

To take on bunkers and diesel, vessels must be able to connect to terminal's 4 in., 6 in. and 8 in. hoses in Berth No. 2, connect to 8 in. Chicksan in Berth No. 3, to 12 in. Chicksans in Berths No. 1 and 4 without a reduction of more than 6 in. Bunker barges are not allowed to bunker vessels while at Chevron's wharf.

PROVISIONS: Provisions and stores are available through ship's Agent. However, they will be loaded only when the loading does not interfere with cargo or ballast transfer. No hydrocarbons, paints, detergents or other polluting materials will be allowed to go aboard the vessel by means of slings or cargo nets. Such stores must be hand carried on board. The vessel may use its own gear for handling other types of stores. However, forklifts, cranes and trucks are not available for this operation. Stores will not be handled by wharf personnel, and will not be allowed on the wharf until the vessel arrives.

REPAIRS: There are some major repair facilities located in the San Francisco Bay Area. The Agent can probably make arrangements for use of their services.

Repairs at the terminal are not permitted unless it is absolutely necessary in order to move the vessel. Any repair work that would necessitate hot work must have approval from Refinery Management and U.S.C.G. No repairs will be allowed that would delay cargo transfer or lengthen the transfer time.

REPATRIATION: Facilities exist for repatriating of crew by sea or air. Make the arrangements through ship's Agent, and notify the terminal management.

TIME: Local time: Pacific Standard Time GMT is minus 8 hours.

(Note: From the first Sunday in April to the last Sunday in October, this is modified by use of Daylight Time which is GMT minus 7 hours).

All communications should refer to local time.

TELEPHONES: Blue Courtesy telephones are spaced adequately along the dock. These telephones can be used to call this partial list of commonly used numbers within the Refinery:

Wharf Control Room (PAD) (24 hrs. coverage)	242-4494
Wharf Master	242-4388
Wharf Coordinator	242-4387
Head Operator	242-2190
Terminal Superintendent	242-2314
Wharf Bus	6-6880

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   - (b) Flame Screens – When open, all ullage ports must be protected by clean, well-fitted flame arrestors of wire-gauge screens: these must be of an approved type and have no defects.
   - (c) Vessels equipped with IGS: All breaches of IGS, for any reasons, require the approval of the Superintendent or his assistant.
7. Gas Freeing and Tank Cleaning – Do not gas-free or clean any tanks at berth without prior approval of Terminal Management.
8. Gangways – Tend the gangway and keep it safely rigged, secured and lighted.
9. Mooring Lines – Tend mooring lines to keep them taut and keep the vessel in position. See that tension winches are on manual brake. During ebb tide and East winds, when the ship has a tendency to drift away from the pier, tend the mooring lines with special care.
10. Hatches, watertight doors and portholes – Shall remain closed throughout the vessel while at the wharf.
11. Repairs – While at berth, do not perform any repair work, hot work, or maintenance work without prior approval from the Terminal Management. Hot work will require *written* approval by Terminal Management and U.S.C.G.
12. Radio – At all times in port, keep the radio transmitter and aerials switched off and grounded. Portable radios (walkie-talkies) that are certified intrinsically safe may be used.
13. Sea Suctions and Bilge Valves – See that all ship's sea and overboard discharge valves connected to the cargo system are tightly closed, lashed and sealed in accordance with U.S. Coast Guard Regulation 33 CFR 155. All engine room bilge overboard valves shall be tightly closed, lashed and sealed.

    The seals are *not* to be broken while berthed except in the presence of the Wharf Head Operator or in case of emergency.
14. Sewage Discharge – Not allowed.
15. Smoking – Allow smoking on board only in places which the Master has personally approved. There is to be NO SMOKING ON THE WHARF OR WEATHER DECK OF THE VESSEL AT ANY TIME.
16. Stern Discharge Line – Keep the stern discharge line, if any, blanked at all times. All holes to be bolted.
17. Towing Wires – Keep the towing wires (fire wires) for emergency use, lowered to 2.0 m. from the water's surface on the offshore bow and stern, where they can be reached by tugs in case of emergency.
18. When fast in the berth, ship's propeller will not be turned, except by use of jacking gear.

B. Cargo Transfer – Observe the following additional regulations DURING CARGO TRANSFER:

1. Air Intakes and Air Conditioning Units – Close any central air-conditioning or fresh-air intakes which might take in gas. Close all intakes within a combined total of 100 ft. vertically and horizontally of cargo tank openings and venting points. External window-type air-conditioning units that face the cargo transfer area must be kept disconnected.
2. Communication – Ship/Shore – Station a responsible member of the crew on the loading deck by the transfer connections to maintain communications or remain in visual contact with the Berth Operator. The ship shall advise the Operator when changes in rates are required, using radio pack sets or voice contact.
3. Passageway hatches to open weather decks be kept secured except for momentary passage.
4. Electric Lights and Cables – Use only vapour-proof electric lights of an approved type, on the open deck. Disconnect portable electrical equipment on the open deck unless certified for use in hazardous areas.
5. Galley Fires – Light no galley fires unless you can first assure the terminal that they present no hazard to the cargo transfer.
6. Hand Torches (Flashlights) – See that hand torches used during cargo transfer are of an approved type, certified as safe in hazardous locations.
7. Hoses:
   - (a) Before transfer, inspect cargo-loading hoses or arms to see that they are in good condition, *fully bolted,* and properly connected. All hoses must be marked, showing the service for which the hose is designated, date of last hydrotest, and a maximum allowable working pressure of at least 275 p.s.i.
   - (b) The hoses must be supported at not more than 12 ft. intervals with a bridle or mat to minimise kinks or chafing. They must not be bent to a radius less than 12 times their diameter. Do not use single slings when taking aboard or supporting during transfer.
   - (c) The hose or arm-to-riser connections must have drip pans of adequate size installed under them.
   - (d) When cargo transfer has concluded, each hose/arm is to be drained via the drain valve and blank-flanged *before* being removed from the vessel. The Terminal Head Operator is to be aboard the vessel to oversee the connecting and disconnecting of the loading arms and, also, to alert crew members when passing the arms.
8. Scuppers – All deck scuppers must be plugged and cemented oil tight or sealed with a Coast Guard approved device. Do not remove the plugs until ship has departed, except when necessary to drain off rain water. In such cases, supervise the draining closely and replace the plugs immediately. Install splash boards (on dock side) over scuppers. Cement is to be supplied by the ship.
9. Special Stock Hazards:
   - (a) Static-Ignition Hazards – Some kinds of stock require special precautions because of the static charge they accumulate. Their handling will also be fully discussed during pre-cargo transfer inspection. No overall loading is permitted.
   - (b) Hydrogen-Sulfide Hazards – Some kinds of crude may contain dissolved hydrogen-sulfide or mercaptans in concentrations which would cause the gases vented during tanker ballasting to be hazardous or odorous. Do not ballast or load into cargo tanks that might contain H_2S or mercaptan vapours, unless the tanks have been passed for loading by the Wharfmaster. The vessel must proceed to sea for clean-up prior to loadback if the Wharfmaster deems the tanks unsuitable for loadback.
   - (c) Aromatic-Stock Hazards – Special precautions are required for toxic cargoes such as aromatics. It is recommended that Masters review the instructions by Owners/Charterers about toxic chemical hazards.
10. Valve Shut-off – Many new tankers have motor-operated valves, operated from a central location. Never operate these valves to close off against full oil-delivery rates unless the valve closure action takes at least 90 secs. Closure times less than 90 secs. may result in surge and hammer of sufficient force to rupture the loading arm/hoses.
11. Ventilators – Keep ventilators suitably trimmed with regard to tank vents and prevailing wind conditions to prevent entry of flammable vapours.

VII. VAPOUR RECOVERY:

As of July 1, 1991, in order to comply with Regulation 8, Rule 44-301 of the BAAQMD, Vapour Recovery operations are required when loading Organic Liquids into vessel tanks. Vapour Recovery will also then be required when loading any product (or ballast water) into vessel's tanks which previously last contained Organic Liquids (and therefore contain vapours from Organic Liquids). Definition of "Organic Liquids" (per BAAQMD Rule 8-44-204) is as follows – all gasoline, gasoline blending stocks, aviation gas and aviation fuel (JP-4 type) and crude oil).

BAAQMD also requires (Rules 8-44-303 and 304) that all vessels associated with the loading of Organic Liquids requiring Vapour Recovery maintain their equipment (all hatches, pressure relief valves, connections, gauging ports and vents) leak free and gas tight. In order to comply with this Rule, certification that vessels meet these requirements will be required during the loading event (leak detection monitoring per E.P.A. reference Method 21). Failure to satisfy compliance requirements during loading will require that the vessel's owner or operator file an "Emergency Variance" with the BAAQMD. Certification must be given to the Terminal (CUSA) before departure of vessel, and certifying process must be done during loading, before 20% completion of cargo loading.

Facilities will consist of a vapour connecting header through vacuum pumps located on the wharf, and a thermal oxidiser located off-site of the wharf. Vapour Recovery operational details will be discussed during the Pre-Transfer Conference.

In addition, the Terminal has certain regulations designed to eliminate obnoxious odours. Your vessel may, therefore, be required to follow special procedures before tank cleaning, loading, or ballasting. If in spite of precautions, your vessel does cause such odours, your loading or unloading operations may be stopped.

VIII. INERT GAS SYSTEM (IGS):

Terminal Guidelines for Vessel Inert Gas System (IGS):

1. The following guidelines supplement Richmond's Terminal Manual.
2. Ship's Agents are requested to inform their principals and/or ship's Masters of the content of these guidelines, particularly of the pre-arrival information requested of the Master. A copy of the guidelines shall also be provided to the Master on arrival.
3. Nothing contained in these guidelines relieves the Master of his responsibilities. The Terminal takes no responsibility for the safe condition and/or operation of the vessel, for which the Master remains fully responsible.
4. *Communications:*

   4.1 The Master shall inform the Terminal, as soon as possible, of any event or situation which may be the cause of concern for the safe and/or efficient operation of the vessel at the Terminal (e.g. equipment malfunction or breakdown, hull leakage, grounding, collision, structural damage, inadequacy of officers and/or crew regarding certification, experience of manning level, etc.). Such notification is in addition to, and does not relieve the Master of his obligation, to notify Government and/or Harbour Authorities, if so required by existing laws or regulations.

   4.2 As part of the pre-arrival information supplied by the Master at the request of the Terminal, the Master will confirm the following conditions are met by the vessel's IGS. The vessel will *not be berthed* unless it complies with all conditions listed below:

   (a) The IGS is fully operational and can deliver inert gas with an oxygen content below 5%.
   (b) The cargo control room, IGS analyser and alarm are operational. The Terminal will require vessel to retain a marine chemist to confirm readings, if these are found inoperable.
   (c) Each tank will be maintained positively pressured and below 8% oxygen during all port time.
   (d) All tank openings will be closed and gas tight, and all tanks have closed gauging systems.
   (e) IGS will *not* be breached, and tanks will not be opened for inspection, unless mutually agreed to by both the Master and Terminal Managers.

5. *Inert Gas System Guidelines:*

   5.1 All vessels, which are equipped with IGS, shall keep the IGS operational at all times during berthing, while at berth, and during unberthing, and all cargo and slop tanks shall be kept in an inerted condition. IGS may be breached on individual tanks for inspection or measurement only by mutual agreement of the Master and Terminal Manager.

   As part of the Pre-Transfer Conference and Declaration of Inspection, the Master shall provide the Terminal with a signed declaration that the IGS is operational, that the cargo and slop tanks are inerted, and that the IGS will be kept in operation, as necessary, to maintain all cargo and slop tanks inerted.

   5.2 The Master shall permit the Terminal Representative to check:

   (a) The vessel oxygen analyser readings to monitor that the oxygen content of the inert gas being delivered by the IGS contains less than 5% oxygen.
   (b) The vessel oxygen analyser readings to monitor that the oxygen content is maintained below 8% in the cargo and slop tanks.
   (c) The IGS pressure readings to monitor that the cargo and slop tanks are maintained positively pressured.

   5.3 *Inert Gas System Failure:*

   5.3.1 In the event that the IGS is or becomes inoperative, and is unable to maintain a positive pressure and/or the oxygen content at or below 8% by volume in the cargo and slop tanks, the following action shall be taken:

   (a) If the vessel arrives with an inoperative IGS or the IGS becomes inoperative before berthing, the vessel shall not be berthed until the IGS is repaired, and the Master warrants in writing that the cargo and slop tanks have been checked and found to be inerted.
   (b) If the IGS becomes inoperative after the vessel has berthed, then the Master shall not start or shall immediately stop all cargo/ballast operations, and take immediate action to prevent any air being drawn into the cargo and slop tanks. Cargo/ballast operations shall not commence or resume until the IGS has been repaired, and the Master warrants in writing that the cargo and slop tanks have been checked and found to be inerted. The vessel shall not leave the berth until the IGS has been repaired, if the Terminal so requires.
   (c) Vessels Loading Organic Liquid:
   In case a vessel declares that their IGS becomes inoperable, and cannot be repaired in a time frame acceptable to Terminal Management, the vessel will have to go to anchor to make repairs. When repairs are completed, and IGS is operational, the vessel should contact the Richmond Long Wharf to reschedule a berthing plan.

   5.3.3 During any necessary re-inerting of a tank following a breakdown and repair of the inert gas system, or during the initial inerting of a non-gas free tank, no dipping, ullaging, sampling or other equipment should be inserted, until it has been established that the tank is in an inert condition. If it is necessary to introduce a gas sampling system into the tank for this purpose, there shall be a wait of 30 minutes after stopping the injection of inert gas before insertion of the sampling system. Metallic components of the sampling system shall be securely earthed.

   5.3.4 The attention of the Master is directed to the requirement of Regulation 11(c) of Chapter 1 of the 1978 SOLAS Protocol, to advise the Authorities in the event of the IGS having become inoperative. The Master shall confirm to the Terminal that such requirement has been fulfilled.

   5.3.5 All damages and expenses, and all time lost by the vessel, because of the vessel IGS being or becoming inoperative or the tanks not being inerted as required, will be for vessel's account.

AUTHORITY: Chevron, U.S.A., P.O.Box 1272, Richmond, CA 94802-0627, U.S.A. *Tel:* (510) 242-4630. *FAX:* (510) 242-3264. *Cables:* Chevronship Sanfrancisco and Chevronship Richmond. *Contact:* Fred Modugno. P.E. Jacobson, Wharf Terminal Superintendent.

(B) OTHER TERMINALS AT RICHMOND

BERTHING: *Levin-Richmond Bulk Commodity Wharf:*

Owners: Levin-Richmond Terminal Co.

Operated by: Levin-Richmond Terminal Co.

Use: Receipt and shipment of various dry-bulk commodities and scrap metal.

Water Depth: 35 ft. – 36 ft.

Mechanical handling facilities: On wharf; 4×50 ton electric, travelling full portal gantry cranes, each with 100 ft. boom and 2×45 ton electric travelling full portal gantry cranes, each with 118 ft. boom.

Dimensions: Length of face 600 ft.

Remarks: 50,000 sq.ft. warehouse. Railroad on premises.

Santa Fe Sugar Dock:

Owned and operated by: Atchison, Topeka and Santa Fe Railway Co.

Use: Presently not in operation, but the railroad should be contacted for further use.

Dimensions: Length of face 545 ft., lower end 51 ft.; depth alongside at MLLW 24 ft.

Richmond Terminal No. 3:

Owners: City of Richmond.

Operated by: Stevedoring Services of America.

Use: Receipt and shipment of containerised and breakbulk cargoes in all trades.

Dimensions: Length of face 1,009 ft.; depth alongside at MLLW 35 ft.

Mechanical handling facilities: Two rail-mounted dock cranes and two bridge cranes. Semi-automated operation.

Remarks: Area of container terminal – 16 acres plus a 80,000 sq.ft. enclosed warehouse.

Richmond Terminal No. 4 Wharf:

Owners: City of Richmond.

Operated by: Paktank Corp.

Use: Bulk Liquids.

Dimensions: Length of face 1,047 ft.; South side 175 ft.; North side 100 ft.; depth alongside at MLLW 32 ft. – 50 ft.

Richmond Terminal No. 5:

Owner: City of Richmond.

Use: Available for tug, barge and vessel lay-ups.

Dimensions: Two finger piers, each 550 ft. long; Pier No. 1, East side – depth 13 ft. and West side – depth 30 ft. and is leased to Marine Spill Response Corp. Pier No. 2 East side – depth 16 ft. and West side – depth 12 ft., and is leased to Marin Tug & Barge Co. (Pier No. 2 only).

Pt. Potrero Marine Terminal – Terminal No. 7:

Owner: City of Richmond.

Operated by: Pasha Maritime Services.

Use: Import service and delivery of foreign automobiles.

Dimensions: Length of face 1,615 ft.; depth alongside at MLLW 35 ft. usable berthing space with dolphin 900 ft.

Mechanical handling facilities: Mobile handling equipment available.

Richmond Terminal No. 6:

Owner: City of Richmond.

Operated by: Various Lessees.

Use: Five shipyard basins available for lay-berthing, fleet mooring, lay-up and project consideration.

Dimensions: No. 1, 4 and 5: 575 ft.×100 ft., 84 ft. gate. – Depth 15 ft. MLLW.

No. 2: 748 ft.×100 ft., 84 ft. gate. – Depth 26 ft. MLLW.

No. 3: 587 ft.×100 ft., 84 ft. gate. – Depth 26 ft. MLLW.

TANKERS: *Atlantic Richfield Tanker Dock:*

Owned and operated by: Atlantic Richfield Co.

Use: Receipt and occasional shipment of petroleum products bunkering vessels.

Dimensions: Length of face approx. 250 ft.; lower and upper sides 40 ft. each; depth alongside at MLLW 35 ft.

Atlantic Richfield Barge Dock:

Owned and operated by: Atlantic Richfield Co.

Use: Receipt and shipment of petroleum products by barge; bunkering vessels.

Dimensions: Length of face 150 ft.; depth alongside at MLLW 34 ft.

Richmond Terminal No. 1 Wharf:
Owners: City of Richmond.
Operated by: Presently unused.
Use: Receipt and shipment of petroleum products, chemicals and petrochemicals.
Dimensions: Length of face 557 ft.; depth alongside at MLLW 35 ft.

Richmond Terminal No. 2 Liquid Cargo Wharf:
Owners: City of Richmond.
Operated by: California Oils Co.
Use: Receipt and shipment of vegetable oils, chemicals and petrochemicals.
Dimensions: Berthing length 720 ft.; depth alongside at MLLW 35 ft.

Texaco Wharf:
Owners: Texaco Inc.
Operated by: Texaco Inc.
Use: Receipt and shipment of petroleum products.
Number of Berths: One.
Water Depth: 35 ft.
Dimensions: Length of face 600 ft.

Time Oil Company Wharf:
Owned and operated by: Time Oil Co.
Use: Receipt and shipment of petroleum products.
Number of Berths: One.
Water Depth: 35 ft.
Special Remarks: 3×10 in. pipelines extend to 25 steel storage tanks in rear; total capacity of 618,000 barrels.

Unocal Tanker Dock:
Owned and operated by: Union Oil Co. of California (also services Unitank).
Use: Receipt and occasional shipment of petroleum products; bunkering vessels.
Dimensions: Length of face 225 ft.; lower end 45 ft.; upper end 45 ft.; depth alongside at MLLW 35 ft.
Mechanical Handling Facilities: Hose handling at wharf is by ship's gear and small tractor crane.

Unocal Barge Dock:
Owned and operated by: Union Oil Company of California.
Use: Shipment and occasional receipt of petroleum products; bunkering vessels.
Dimensions: Length of face 150 ft. (approx.); lower end 45 ft.; depth alongside at MLLW 35 ft.
Mechanical Handling Facilities: Hose handling at wharf is by ship's gear and small tractor crane.
Remarks: Wharf and Tanker Docks are spaced about 230 ft. apart; together they provide 1 large tanker berth.

SURVEYORS: Surveyors are available from various San Francisco Bay Area companies and organisations.
EMERGENCY CO-ORDINATION CENTRE: The Emergency Co-ordination Center for the Port of Richmond is the U.S. Coast Guard, San Francisco, California. CA. Tel: (415) 556-2103.
BANKS:
Bank of America, Richmond Main Office, 261 Harbour Way South, Richmond, California. Tel: (510) 841-4443. Telex: TWX (San Francisco) 910 372 7720.
Central Bank, Civic Center Office, 2705 Macdonald Avenue, Richmond, California. Tel: (510) 233-5710. Telex: TWX (Oakland) TLX 17-1329.
Crocker National Bank, 3900 Macdonald Avenue, Richmond, California. Tel: (510) 235-6458.
The Mechanics Bank, Civic Center Office, 22nd and Macdonald Avenue, Richmond, California. Tel: (510) 222-0340. Telex: TWX 910 382 8167.
Wells Fargo Bank, 1221 Macdonald Avenue, Richmond, California, Tel: (510) 232-3435. Telex: TLX 34-0284 (San Francisco-International).
STORING: See "Prelims".
1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. Normal U.S. Customs Regulations apply.
6. Yes.

AUTHORITY: Port of Richmond, 1411 Harbour Way South, P.O. Box 4046, Richmond, California 94804. *Tel:* (510) 215-4600. *FAX:* (510) 233-3105. *Contact:* Michael R. Powers, Port Director.

RICHMOND, Virginia: 37.32 N. 77.25 W. (See Plan)

LOCATION: On the James River, 90 miles from Chesapeake Bay.
DOCUMENTS: See "Hampton Roads".
PILOTAGE: Entrance through Hampton Roads. Virginia Pilots Assn. original contact same as for Norfolk, Virginia. Pilots will arrange for change of Pilots to proceed up the James River.
ANCHORAGE: Hampton Roads Anchorage, also river anchorage approximately 40 miles up river, shown as "Upper Brandon" on charts.
RESTRICTIONS: Vessels up to 255 ft. LOA may transit at night from Hopewell to Port of Richmond.
James River Dimensions:
Hampton Roads to Hopewell – 300 ft. wide, 25 ft. depth.
Hopewell to Port of Richmond – 200 ft. wide, 25 ft. depth.
Standard operations for vessels destined to Richmond: Earliest departure from Newport News 5.5 hours prior to sunrise; latest departure from Newport News 7 hours before sunset.
From Richmond to sea: Earliest departure from Richmond 30 minutes before sunrise; latest departure from Richmond 2.5 hours before sunset.
MAX. SIZE: Maximum length (daytime): Container ships 559 ft. LOA and breakbulk ships 564 ft. LOA. Maximum draft 22 ft. Depth of channel 25 ft. MLW. Tide range: 3 ft. 5 in.
HEALTH: See "Health: All ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: See "Hampton Roads".
TUGS: Not needed for berthing unless vessel is to be turned around. Tug available from Blaha Towing, Inc. on reasonable notice.
BERTHING: Vessels berth alongside wharf 1,584 ft. long. Depth 25 ft. at MLW.
Turning Basin: 600 ft. at widest point, 1,600 ft. length.
CRANES: M-250 Manitowoc; 4600 Manitowoc; 4100 W Manitowoc; 350 tons capacity.
BRIDGES: 3 bridges across the James River between Hampton Roads and the Port of Richmond. No specific time or notice required. Air draft 145 ft.
STEVEDORES: Meehan Overseas Terminal Ltd., 5000 Deepwater Terminal Road, Richmond, Virginia 23234. Tel: (804) 275-9248. Fax: (804) 275-7461.
MEDICAL: Vessels cleared by U.S. Health Officials at Hampton Roads before proceeding up river.
DENSITY: 1000.
FRESH WATER: Available at pier.
FUEL: Bunkers available from Ocean Shipping Services, Inc., 9900 Saybrook Court, Richmond, Virginia 23236. Tel: (804) 320-5022.
CONSULS: No consuls in Richmond, handled through Hampton Roads or Washington, D.C. if needed.
REPAIRS: Only minor repairs, no shipyards.
GANGWAY/DECK WATCHMEN: None required, unless crew detained by U.S. Immigration.
OPENING/CLOSING HATCHES: On bulk vessels, usually opened and closed by ship's crew, also steel hatches handled by ship's crew, sometimes determined by terms of Charter.
CERTIFICATES:
Ship's Register.
Load Line Certificate.
Safety Certificate.
Tonnage tax receipts.
Certificate of nationality.
Passenger Certificate.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes (1 carton for 2/3 days) if further allowance is needed Customs Officer will return on request of Master. Wine and Spirit, 1 bottle per officer, Customs Officer will return on request of Master.
REPATRIATION: Handled through Norfolk, Virginia.
AIRPORT: Approximately 10 miles from port, regular airline service.
TIME: Eastern Standard Time, GMT minus 5 hours. Daylight saving time from first Sunday in April to last Sunday in October.
HOLIDAYS: January 1st, January 15th (Martin Luther King Day), Good Friday, May 30th, July 4th, Labour Day (1st Monday in September), Thanksgiving Day, Christmas Day.
POLICE/AMBULANCE/FIRE: Police Tel: (804) 780-5100. Ambulance Tel: (804) 355-9300. Fire Tel: (804) 780-6640. Emergency telephone number for all services is 911.
TELEPHONES: No arrangements for placing aboard vessels.
SHORE LEAVE: Allowed. Proper papers should be available.
IDENTIFICATION CARDS: Immigration landing permit required.
GARBAGE DISPOSAL: A collection service using dumpsters is available through Meehan Overseas Terminal Ltd., for terminal operator, Tel: (804) 275-9248 and Fax: (804) 275-7461. Drums or skips are not provided on board or alongside vessels for this service.
WASTE OIL DISPOSAL: A collection service is available through the Port of Richmond, Tel: (804) 743-7678 and Fax: (804) 271-1524. There are no shore tanks, barges, tanker trucks or special berths for this service.
SEAMAN'S CLUBS: Rev. G.C. Harbuck, Jr., of the Catalytic Language Missionary provides services for seafarers. The address of the Catalytic Language Missionary is 1913 Grove Avenue, Richmond, Virginia 23220; Tel: (804) 355-0225, (804) 743-1502.
Meehan Overseas Terminal Ltd. (the terminal operator) provides international telephone service for seafarers in their Shipping and Receiving Office on port.
CURRENCY: The name of the local currency is the U.S.Dollar. No currency exchange facilities are available in the port. Foreign currency may be exchanged at the Crestar Bank, 919 E. Main Street, Richmond, Virginia 23219. Tel: (804) 782-5689.
DEVELOPMENTS: The Port of Richmond has completed an $8.8 million Master Development Plan, which includes a 318 ft. wharf extension, major site improvements to maximise container handling, storage and gate operations, construction of a new maintenance building, stormwater detention pond, rehabilitation of the vehicle storage building and paving of over 13 acres of container storage area. The project was completed late 1995.
AUTHORITY: Port of Richmond, 5000 Deepwater Terminal Road, Richmond, Virginia 23234. *Tel:* (804) 743-7678. *FAX:* (804) 271-1524. *Contact:* Martin J. Moynihan, Executive Director.
Terminal Operator: Meehan Overseas Terminal Ltd., 5000 Deepwater Terminal Road, Richmond, Virginia 23234. *Tel:* (804) 275-9248. *FAX:* (804) 275-7461. *Contact:* Chandoris L.G. Smith, Vice President.

RIVERHEAD, Long Is., New York: 41.00 N. 72.39 W. (See Plan)

LOCATION: The fixed Offshore Tanker Berth is situated 1.2 miles offshore from the North shore of Long Island in Long Island Sound, 4 miles 257° True from the beacon on Mattituck Inlet Breakwater and 12.7 miles 178.5° True from Falkner Island Lighthouse. The geographical position of the centre point of the Operating Platform is in Lat. 41° 00' 01" N., Long. 72° 38' 50" W. The platform has 4 navigation lights situated on each corner of the structure flashing every second. A similar navigation light is also situated on each of the East and West mooring dolphins.

DOCUMENTS: See "New York".

Terminal will provide "Declaration of Inspection" Form which must be completed before cargo transfer begins.

PILOTAGE: Pilotage must be arranged by the vessel or vessel's Agent. Vessels arriving from sea with a draft of 40 ft. or less will pick up the pilot 3 miles S.S.E. of Point Judith Buoy No. 2 (normally found at Lat. 41° 19.3' N., Long. 71° 28.5' W.).

Deeper draft vessels will be instructed by the pilot station to board the Pilot further seaward. Vessels proceeding to Riverhead from the New York Harbour will normally board the Pilot at anchor at N.Y. Anchorage or at a berth in New York.

Tosco Corporation (Tosco) has been advised by Pilots rendering services to vessels coming to the Riverhead Terminal, that the recommended route to the Riverhead Terminal is from the sea East of Block Island or S.S.E. of Point Judith Buoy No. 2 through Block Island Sound between Point Judith and the North of Block Island and through The Race into Long Island Sound, clearing Horton Point and outlying shoals on the approach to the Riverhead Terminal Platform area.

It is further recommended that any vessel 100,000 d.w.t. or more employ 2 Pilots, one to conn the vessel and an Assistant Pilot to assist in the navigation of the vessel. The number of Pilots to be employed, the route(s) and the navigation of vessels calling at the Riverhead Terminal are the sole responsibility of the vessel.

The Pilot is required to remain aboard the vessel (for Tosco's account) on stand-by while the vessel is moored at the offshore platform.

The Pilot Associations serving the Riverhead area are:

Interport Pilots Associates, Inc.,
Post Office Box 312,
Atlantic Highlands.
New Jersey 07716.
Tel: 201-291-1310.
Cables: Port Pilots – Atlantic Highlands, New Jersey.

Northeast Marine Pilots, Inc.,
243 Spring Street,
Newport,
Rhode Island 02840.
Tel: 401-847-9050 (weekdays), 401-331-4824 (nights, weekends and holidays)
Cables: RIS Pilots Providence.

Sandy Hook Pilots
201 Edgewater Street,
Staten Island,
New York 10305.
Tel: 718-448-3900.

ANCHORAGES: Vessels awaiting berth will normally anchor North of the Offshore Platform. Vessels drawing more than 50 ft. may wish to anchor in deeper water Northwest of the platform. Pilots are familiar with the best anchoring areas. Holding ground is good, and a scope of 90 fathoms (6 shackles) of chain is considered adequate.

RESTRICTIONS: Generally, vessels are moored on any stage of the tide and at night when weather conditions permit.

MAX. SIZE: The maximum size vessel which can be received in the North Berth is 225,000 d.w.t., 1,150 ft. LOA and 62 ft. draft.

The maximum vessel size which can be received in the South Berth is 42,000 d.w.t., 600 ft. LOA and 42 ft. draft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

COMMUNICATIONS: Telephone at Riverhead, station to station: Dial (516) 284-2000. Cable Address "Tosco Corporation Riverhead New York". Radio I.T.T. Amagansett. TWX No. 96-1415, TWX No. 510-224-6443 or 510-226-7837.

Use of the vessel's main radio equipment while at the platform is expressly prohibited. If a tanker's main radio telegraph must be tested following repairs, arrangements must be made to stop the transfer of cargo during the tests.

Wireless messages are most expeditiously received if transmitted via "RCA Chatham".

VHF: Communications with the Terminal may be conducted by VHF Channels No. 16 and 19A; with the platform on Channels No. 16 and 19A; and the utility boat on Channels No. 13, 16, 19A, 12, 6 and 22. Channel No. 16 is monitored by all stations when manned. A private frequency radio is provided to the Person-in-Charge of the vessel during oil transfer operations.

VHF Marine Operators use VHF Channels: Riverhead (N.Y.) Marine Operator 28; New London and New Bedford Marine Operators 26; Bridgeport Marine Operator 24; to place land calls.

TUGS: Tug assistance for docking is required, and will be arranged by the vessel's Agent. Normally, 2 or 3 tugs will be used for docking and one tug for undocking. The use of additional tugs for undocking is subject to the discretion of the Pilot and Master. Tugs are usually arranged through Spentonbush Red Star Co., based in New Haven, Connecticut (because of the shorter running time from that port).

Tugs normally based in New Haven are:

Newport (1,800 s.h.p., 20 ton B.P.) .... Single Screw
New Haven (1,800 s.h.p. 17 ton B.P.) .... Twin Screw

Call Spentonbush Red Star Co. on (212) 536-3800.

Tugs must be ordered at least 24 hours in advance of the scheduled docking time.

Red Star has additional horsepower available, if given adequate notice, including: Stanford (3,000 s.h.p., 32 L.T. B.P.), Crusader (4,000 s.h.p., 47 L.T. B.P.).

Other tugs are available from New York Harbour, or from the Providence Steamboat Co., Providence, Rhode Island, on (401) 331-1930, which has 3,000 h.p. tugs available, or Reinauer Towing (718) 816-8167 or Gateway Towing (203) 467-1997.

BERTHING: Vessels calling at the Offshore Platform or pier are moored at any time. The tidal current periods are substantially the same as the Race. Strong winds from the North and Northwest are experienced during the Winter and Spring. Tidal currents during maximum ebb and flood may reach 3 knots. Both docking and undocking operations may be delayed due to adverse weather conditions.

The mean range of the tide is 5.4 ft.

A terminal working crew will board arriving vessels from a 60 ft. utility boat on approach to the mooring platform. This crew will provide assistance and information to the vessel's Master and the line handling crews. The crew carries private-frequency radios for communication with the platform in positioning and mooring the ship.

The designated Person-in-Charge for Tosco Corporation will receive and sign the Notice of Readiness and complete all paperwork necessary for the transfer of cargo. Two representatives of the terminal will board each tanker as it approaches the platform. They will provide radio communications with the platform and terminal, and advice and assistance while mooring the ship.

North Berth: Vessels berthed during flood tide will moor starboard side to and during the ebb tide current will moor port side to. Forward and stern spring lines are secured to breasting dolphins and bow and stern lines are made fast to mooring dolphins located to the East and to the West of the platform structure. Terminal Foreman boards vessel to provide communications and assistance during mooring operation.

South Berth: Vessels berthed during flood tide current will moor port side to and during the ebb tide current will moor starboard side to. Forward and stern spring lines are secured to the breasting dolphins in the South Berth. Bow and stern lines are made fast to the mooring dolphins located to the East and West of the platform structure. Breast lines are secured to the North breasting dolphins.

Two mooring buoys are situated South of the mooring facility which were formerly used for mooring vessels in the North Berth. Mooring buoys will be used at the discretion of the Docking Master (Pilot) and/or Tosco's Marine Supervisor.

Masters will note that platform is situated in an open roadstead and that all mooring equipment must be in proper working order and in good condition. If, in the opinion of the Pilot (Docking Master) or Tosco's Marine Supervisor, the vessel's mooring equipment is inadequate, the vessel will not be permitted to remain in the berth.

Vessels must be equipped with 12 manila or better mooring lines of not less than 8 in. circumference and not less than 90 fathoms length.

Vessels having wire moorings secured on warping winches with brake are acceptable. Warping winches must be adequate to handle mooring lines under heavy strain. Efficient stopper lines must be readily available to transfer mooring lines from winch to bitts without loss of tension. The Docking Master (Pilot) will assist the Master in the berthing of the vessel and supervise the mooring and unmooring operations.

No gangways are used at this terminal. Crew must use ship's ladder for launch service. Crew are forbidden to go on to the Platform, except on ship's business.

BERTHING FACILITIES: *North Berth:* The distance between the North Breasting Dolphins is 294 ft., centre to centre. The depth of water in the North Berth is 64 ft. at low tide. Spring lines from forward and aft are secured on to quick-release hooks situated on the North corners of each of the North Breasting Dolphins. Vessels moor heading either East or West and can normally be moored at any stage of the tide. Mooring dolphins located East and West approximately 350 ft. from the centre of the platform provide the mooring points for bow and stern lines from the vessel. The mooring dolphins have 4 quick-release hooks each for the North Berth, and 2 quick-release hooks each for the South Berth. These mooring hooks are provided with hydraulic releasing mechanisms which can be operated remotely from the mooring platform during vessel departure. Two mooring buoys are situated South of the mooring dolphins to provide securing points for extra bow and stern lines from very large vessels or in cases where anticipated severe weather conditions indicate the need for additional lines.

South Berth: The distance between the South Berth Breasting Dolphins is 160 ft., centre to centre. Spring lines from forward and aft are secured to bollards situated on the South Breasting Dolphins. Bow and stern lines are secured to the mooring dolphins described for the North Berth, breast lines to the South bollards or the mooring hooks on the lower decks of the North Breasting Dolphins. Depth of water 45 ft. at MLW

Operating Platform: The Operating Platform is 100 ft. long by 45 ft. wide.

The East Building contains 2 diesel powered 100 KW. generators, either of which will supply sufficient power to drive the deepwell Fire Pump rated at 750 g.p.m. at 120 p.s.i. The other generator will supply power to the hydraulic system for the operation of the loading/unloading (L/U) arms, the electric mooring capstans and air compressor, as well as illumination of the structure, including floodlighting and other electrical devices. A diesel powered 15 KW. alternator is available for normal power requirements such as charging emergency lighting system batteries, navigation aid batteries and normal illumination.

The West building contains quarters for personnel, office space for recordkeeping, radio and telephone communication equipment, and emergency and other control equipment. The quarters and control room are situated in the North half of the building and South half of the building is available for storage of emergency equipment, i.e. sorbent boom, life jackets, etc.

There are 4 hydraulically operated L/U arms, 2×12 in. and 2×16 in. situated at the North end of the Operating Platform. At the South end of the platform 2×12 in. L/U arms are situated to accommodate the South Berth. Connections can be made to 8 in., 10 in., 12 in., 14 in. and 16 in. 150 p.s.i. A.N.S.I. manifold flanges. Connections cannot be made direct to valve flanges (spool pieces must be provided). Adjacent connections cannot be made to flanges less than 6 ft. apart. The L/U arms are connected to the platform manifold which is designed to handle all products to or from either berth and is connected to the 2×24 in. submarine pipelines leading to the shore facility.

Approximately 1,200 ft. of 26 in. oil containment boom and 2,000 ft. of 36 in. containment boom is stored on lower level of Northeast and Northwest Breasting Dolphins. reasting Dolphins. The boom is stored in a manner so that it may be safely and effectively deployed in the event of an accidental discharge of petrolem into Long Island Sound.

Terminal Transfer Piping: Vessels discharging cargo at the offshore platform should understand that they are discharging to an oil storage terminal approximately 1.5 miles distant from the dock and at an elevation of 150 ft. above sea level. The pipeline is 24 in. in diameter. The static head pressure generated by this pipeline arrangement is about 56 p.s.i.

Booster Pump Operation: Booster pumps are available to assist with the discharge of vessel's cargo. However, the Person-in-Charge of the vessel must realise that it is necessary for the ship to generate sufficient discharge pressure (minimum of 75 p.s.i.) and volume (minimum of 7,000 bbls./hr.), at the booster pump inlet, to start moving the product in the pipeline and to permit the booster pump to be engaged. Each booster pump will normally move 10,000 barrels per hour. The normal start-up procedure when discharging at Tosco Corporation docks is as follows:

(a) following agreement to begin transfer, the shore opens the platform manifold valves;
(b) the vessel will start its cargo pumps and increase pump speed until a discharge pressure of about 60 p.s.i. is obtained at the top of the pump room;
(c) the ship opens its manifold valves;
(d) ship pump's speed is increased until a discharge pressure of 100 p.s.i. is obtained;
(e) the pumpman on the ship is stationed at the pump controls and the shore is requested to start the booster pumps;
(f) as the booster pumps are started, ship personnel adjust their pumps as necessary to prevent engaging the overspeed trip;
(g) the ship adds pumps and increases pump speed as necessary to maintain desired discharge pressure.

Rapid fluctuations in the discharge pressure of the ship will cause the booster pumps to trip-out. To avoid this, speed adjustments to the ship's pumps should be made gradually. Booster pumps are set to trip-out at a low pressure of 75 p.s.i. and, therefore, can provide no assistance to the ship for stripping cargo ashore.

After all cargo tanks have drained and the pumps have lost suction, the discharge of cargo will be declared finished. With the agreement between the Ship's Officer and the Platform Operator, the oil transfer valves on the Operating Platform will be closed. All product remaining in the unloading arms will be drained back into the vessel. If the vessel's pipeline system does not allow the complete draining of the unloading arm, then arrangments must be made to drain the arm into a container or via a drain hose into a cargo tank. *No product will be permitted to drain out on to the open deck of the vessel.* After the arms have been completely drained, they may be disconnected and the ends blanked off to prevent any drippage of oil.

The discharge pressure at the rail shall be a minimum of 100 p.s.i. (maximum 125 p.s.i.) or the vessel's pumping rate shall be a minimum of 10,000 bbls./hr.

LOADING/DISCHARGING:

Discharging: Tankers are expected to achieve an unassisted discharge rate of 10,000 barrels per hour. Ships discharging at less than 10,000 barrels per hour will be subject to charges for the extra platform time used.

High Pour Petroleum: High pour petroleum must be discharged at 4,500 barrels per hour or more. If the discharge rate falls below 4,500 barrels per hour for more than 2 consecutive hours, the vessel will be instructed to stop discharge of cargo and leave the platform. If the submarine line must be displaced from shore to vessel due to low discharge rate, ship will be responsible for all expenses due to this procedure. Laytime will stop and wharfage will commence.

No. 6 oils, or other viscous products shall be heated, before discharge, to at least 120°F (49°C), or at least 30°F (17°C) above the pour point of the product, whichever temperature is higher. (For example: Oil with a pour point of 75°F must be heated to 120°F or higher. Oil with a pour point of 100°F must be heated to 130°F or higher).

A "viscous" oil is one which has a Saybolt Furol Reading greater than 25 seconds at 122° F. (This requirement is dependent, to a degree, on the pour point, discharge temperature, viscosity, and average discharge rate. The terminal reserves the right to order any vessel to stop discharging at any time terminal operations require.)

Loading: Tankers can be loaded at rates up to 30,000 barrels per hour at the request of the vessel and with the agreement of the terminal.

BALLAST: No ballast disposal facilities. Long Island Sound is inland water and United States Anti-Pollution Regulations rigidly enforced. No bilge water, oil-contaminated water, garbage or any waste matter which may pollute sea water is to be discharged overboard while vessel within Long Island Sound and approaches.

Ballast suction valves must be sealed with a numbered seal on arrival. Terminal personnel will inspect seals before and after cargo transfer.

MEDICAL: A full-service hospital is available in Riverhead for treatment of medical emergencies. This is Central Suffolk Hospital located at the traffic circle/intersection of Roanoke Avenue (Route 73) and Route 58, Riverhead, about 4 miles from the Tosco Terminal.

Emergency transportation to this hospital can be obtained by dialling 911 and indicating to the dispatcher the location of the medical emergency, for instance: "on the ship at the Tosco Corporation's Riverhead Terminal on Sound Shore Road".

DENSITY: Flood tide density 1025. Ebb tide density 1020.

STORES/FRESH WATER: No fresh water facilities. Stores should be ordered through the ship's Agent. For delivery of stores at anchor, or alongside the platform, Miller Launch. Tel: (516) 473-0132.

FUEL: Bunkers *may* be available by special arrangement *if* pipelines are in black-oil service.

Ship's bunkers should be ordered through the Agent, from the regular supplier for delivery, by barge, at anchor. Bunkering of ships is not permitted while alongside Tosco Corporation Docks. Eckloff Marine (212) 442-1112 and Standard Marine Services, Inc. (212) 888-1818 will perform bunkering services.

CONSULS: All Consuls offices located in New York City.

REPAIRS: No repair facilities are available. Vessel must remain in sailing readiness at all times while moored at the platform facilities.

DRY DOCKS: At New York Harbour.

SURVEYORS: *Inspection Companies:*

Caleb Brett – New Jersey. Tel: (201) 925-8282.
Independent Petro. Insp. Tel: (201) 925-4960.
S.G.S. Control Services. Tel: (201) 541-7200.
Saybolt. Tel: (201) 245-3100.

Surveyors:

American Bureau of Shipping, 65 Broadway, NY, NY 10006. Tel: (212) 440-0300.
Bureau Veritas, 17 Battery Pl. N., NY, NY 10004. Tel: (212) 442-2317.
Det Norske Veritas, 616 Palisade Avenue, Englewood Cliffs, NJ. Tel: (212) 868-6595.
Lloyd's Register of Shipping, 17 Battery Pl., NY, NY 10004. Tel: (212) 425-8050.
Panama Bureau of Shipping, 104 E. 40 St., NY, NY 10016. Tel: (212) 867-4760.

QUARANTINE, CUSTOMS AND IMMIGRATION: New York City is the quarantine, customs, immigration and agricultural quarantine port of entry for Tosco. Officials are stationed in New York City. Arrangements for inspections of vessels arriving from foreign ports must be made by ship's Agent in advance, not less than 24 hours before arrival on Monday through Friday, and 48 hours on Saturday or Sunday. Vessels arriving from foreign ports are reminded to provide 24 hours' pre-arrival notice to the U.S. Coast Guard, Captain of the Port, New Haven, Connecticut.

Officials will board vessels in the anchorage prior to arrival, within the vicinity of the offshore platform.

Customs Officers: Customs officers will board all vessels arriving from a foreign port, or U.S. flag vessels arriving with foreign cargo. The Customs Officer must be the first person aboard the ship (with the exception of the Pilot). He will require the close assistance of the ship's cargo officer and the public inspector, for the prompt completion of his duties. Agents are requested to order U.S. Customs Inspectors for a time *2 hours before* the vessel's ETA at the terminal.

For questions concerning Customs business, the Regional Office should be contacted on (212) 466-4407 during business hours, otherwise the Communications Office on (212) 466-5472 should be contacted.

Immigration: An Immigration Officer will normally board vessels arriving from foreign ports. Until clearance is obtained from the Immigration Officer, no crew members may leave the ship.

For questions concerning Immigration matters, contact the District Office on (212) 264-5886.

Coast Guard Inspections: Coast Guard Officers may board tankers or barges at any time for the purpose of making inspections necessary to enforce the laws of the United States.

The Riverhead Terminal is within the jurisdiction of the Captain of the Port, New Haven, Connecticut, on (203) 773-2464.

A Regional Office is maintained at 1190 Old Town Road, Coram, NY.11726. Tel: (516) 732-0326.

CUSTOMS ALLOWANCES: Tobacco, wine and/or spirit allowance: Same as permitted in New York Harbour.

REPATRIATION: Crew members departing vessels from the Tosco Terminal may obtain transportation to domestic or foreign destinations (i.e. to an from either of the major international airports: J.F. Kennedy International Airport or LaGuardia Airport), by one of several methods.

The Riverhead Station of the Long Island Rail Road is located 10 minutes from the terminal by taxi and has services for both railway and bus.

Another method is limousine service (see telephone directory).

AIRPORT: New York Airports, 80 miles distant. Islip Mac Arthur Airport, 35 miles distant.

POLICE/AMBULANCE/FIRE: Terminal attends Police/Ambulance and Fire services.

State Police Tel: 727-2727, Police Tel: 911 (Emergencies only). Fire Tel: 0 (to report fire, otherwise 727-2750). Ambulance Tel: 911 or 298-4016.

EMERGENCY CO-ORDINATION CENTRE: United States Coast Guard at New Haven, Connecticut. Tel: (203) 773-2464; and the United States Coast Guard National Response Centre. Tel: (800) 424-8802 (toll free number).

BANKS: European American Bank, located at 209 West Main Street, Riverhead, New York, NY 11901. Tel: (516) 727-7082.

STORING: Bunkers must be taken at anchor. Stores can be loaded during transfer.

Trucks cannot proceed alongside the berth, but by launch only.
Fork lift trucks cannot be used to handle stores.
Customs Regulations regarding storing are not known by this terminal.
Local Riggers can be employed to assist with storing.

TELEPHONES: A coin telephone is located in the platform office. Tel: (516) 727-9549.

SHIP SUPPLY SERVICE: *Launch Service:* Launch service must be arranged for by the vessel's Agent, and can be obtained from: J. & H. Launch Service, Port Jefferson, New York. Tel: (516) 331-5336.

The launches operate on VHF Channels 8 or 13.

Riverhead: Launch service must be provided for the transportation to and from the offshore platform of boarding officials, ship's personnel, repair personnel and ship's stores. The launch service must be maintained for the duration of the vessel's stay at Riverhead.

The terminal's workboat will assist in the mooring of the vessel and the connection of L/U arms, and shall at all times render the general servicing of the platform operation. It must remain at or near the platform during petroleum transfer operations in the event of any emergency.

In the event of an oil spill, J & H Launch Service will assist in the deployment of the spill containment boom. Their launch crew and Tosco's marine personnel have been trained to implement the appropriate response to a spill in accordance with Tosco's Facility Response Plan.

SHORE LEAVE: Shore leave permissible by arrangement with local launch service.

IDENTIFICATION CARDS: Issued by Immigration Officer.

GARBAGE DISPOSAL: *Ship Generated Garbage Reception Facilities:* United States laws prohibit the dumping of any garbage, trash, refuse or debris overboard while within U.S. navigable waters. Procedures for the reception and disposal of garbage received from vessels at Tosco Corporation's Riverhead and Port Jefferson facilities are in compliance with 33 CFR Parts 151, 158 Annex V of MARPOL, the International Convention for the Prevention of Pollution from Ships, and the Animal and Plant Health Inspection Service (APHIS) Regulations 7 CFR 330.400 and 9 CFR 94.5.

General Procedures: Both foreign and domestic vessels are received at Tosco's Terminals. Tosco's policy is to take the most conservative approach to the disposal of garbage received from vessels. Tosco will assume no liability associated with these wastes. A vessel desiring to tender any garbage must give the Terminal at least 24 hours notice, and state the volume and approximate weight of the refuse. No chemicals or flammable materials will be accepted for disposal.

1. All garbage and any medical or infectious wastes generated from foreign vessels, or any vessel arriving from a foreign port, will be incinerated in accordance with APHIS approved procedures.
2. Segregated of regulated wastes (i.e. medical or infectious wastes or plastics) from general domestic ship generated garbage shall be the sole responsibility and obligation of the vessel.

Foreign Vessels: (Including U.S. vessels holding foreign stores).

Packaging: Any vessel requesting garbage disposal will be provided with 4 mil polyethylene bags and fibre drums with securable rings from Miller Environmental Group (MEG). All garbage shall be double bagged and the exterior bag will be tagged indicating vessel's name and date. Bags will then be placed in sealable drums which are pre-labelled with EPA-DOT required insignia.

Handling: Subject to the approval of the U.S. Customs Inspector, MEG launch personnel will receive and inspect each drum generated from the ship. If the drum is properly sealed, the ship's name and date will then be written on the outside of each drum with weather-proof marker. The number of drums, total weight, ship's name, date and location will be completed on the Bill of Lading, with one copy presented to the ship's officer and the remaining two copies intact for tracking with the drums.

Transportation: Properly packaged drums will be placed in secure storage in Tosco's Terminal. MEG will contact Medi-Waste Ltd., 44 Field Street, West Babylon, New York (Tel: 516-249-3131), for pick-up and transportation to their incinerator. *Incineration will take place within 4 days of receipt of the garbage.* The final Bill of Lading and all invoicing for this service will be for the account of the vessel and will be forwarded to the ship's Agent by MPC for payment.

WASTE OIL DISPOSAL: *Oily Waste Reception Facilities:* In accordance with requirements of the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) and with United States Coast Guard Regulations 33 CFR Part 158, Tosco Corporation will provide oily waste reception facilities at its Riverhead and Port Jefferson Terminals. Both Terminals have received Letters of Adequacy from the U.S. Coast Guard, COTP, New Haven.

The established capacity for oily waste reception at each facility is ten metric tons (3,360 gallons) per day. The oily waste is limited to sludge from on-board fuel, lubricating oil processing equipment and oily bilge water. Vessels visiting the Riverhead offshore platform will be required to transfer the oily waste to a licensed waste hauler at anchorage. This service will be provided at Riverhead between April 30th to October 1st only, weather permitting. Ballast water *will not* be received in Tosco's Riverhead or Port Jefferson facilities.

Vessels requesting the disposal of oily waste at Tosco's Terminals must request this service 24 hours in advance. The U.S. Environmental Protection Agency (EPA) and the N.Y.S. Department of Environmental Conservation require that any transfer of oily waste be carried on transport trucks approved and licensed by the state. A Hazardous Waste Manifest must accompany the transport truck, and must identify the generator of the waste to be disposed. The generator's U.S. EPA identification number, name and registry of the vessel *must* be stated. It is essential that you register with the U.S. EPA and obtain a generator's identificication number, if you wish to dispose of oily waste at Tosco's facilities.

Payment for the cost of transportation and disposal of the oily waste shall be borne by the vessel's owner or its Agent. For ten metric tons of oily waste, the cost may range from $ 3,000 to more than $ 25,000. The cost will depend upon the method of disposal of the waste as determined at the waste disposal site by laboratory analysis and any indication of toxic content.

Before acceptance by the waste hauler of any oily waste, Tosco will require satisfactory proof of ability to pay and assurance of payment up to, but not limited to, $ 25,000. Tosco will also require indemnification against any liability arising from the transfer, transportation and/or final disposition of the oily waste.

SEAMAN'S CLUBS: Seamen's Church Institute, 241 Water Street, New York, New York 10038.

WEATHER AND TIDE: Strong winds from North and N.W. experienced during Winter and Spring. Tide during maximum ebb and flood often reaches 3.5 knots to 4 knots velocity.

AUTHORITY: Tosco Corporation, 212 Sound Shore Road, Riverhead, NY 11901, U.S.A. *Tel:* (516) 284-2000. *Telex:* 96-1415. *Cables:* Tosco Corporation Riverhead Terminal. *FAX:* (516) 284-2053. *Contact:* D. Gianfalla, Terminal Manager. A. Golz, Marine Supervisor. D. Gianfalla, Operations Co-Ordinator.

ROCHESTER, New York: 43.17 N. 77.36 W. **(See Plan**

Refer to "St. Lawrence Seaway" for important general information. See "General" below.

PILOTAGE: Not necessary.

ANCHORAGE: No anchorage available within harbour limits.

RESTRICTIONS: Permit for non-emergency docking must be obtaine 2 weeks in advance by mail or telephone request.

MAX. SIZE: Channel depth 20 ft. (LW). All depths in channel or alongsid wharves should be checked carefully against the latest recorde elevated or lake level. This may vary from month to month. Entranc width 300 ft., turning basin depth 20 ft., 600 ft. in width.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Rochester Coast Guard Station.

TUGS: Not available.

BERTHING: Entrance piers are parallel to each other, and about 450 ft apart. The West Pier is 3,036 ft. long and the East Pier 2,699 ft. long Fog horn and beacon on West Pier, East pierhead lighted. Radio beacon Port Authority Terminal located on West bank of Genesee River at end of Lake Pier. Has a quay wall of about 1,400 ft. in length. Depth of wate alongside quay wall uncertain, estimated at between 10 ft. and 16 ft Charlotte Docks located about 2 miles upstream from mouth of river o West bank.

CRANES: Not available, except through private arrangements.

BRIDGES: New York Central Railroad swing bridge near mouth of the river and upstream from Port Authority Terminal. Traffic lift bridge abou 0.25 mile upstream from railroad bridge.

STEVEDORES: Vessel to make own arrangements.

DENSITY: Fresh water.

FRESH WATER: Available at Port Authority Dock only.

FUEL: Vessel to make own arrangements.

CONSULS: None.

REPAIRS: Minor only.

REPATRIATION: Can be arranged.

AIRPORT: Approximately 10 miles from port.

POLICE/AMBULANCE/FIRE: Police, Ambulance and Fire Tel: 911.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Required.

GARBAGE DISPOSAL: By special arrangement only. Contact Wast Management of New York. Tel: (716) 254-3500.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

GENERAL: Rochester, New York, no longer operates a commercial por The facilities are available only for tour and cruise boats to take on an discharge passengers, and by commercial vessels in the case of a extreme emergency.

It should be stressed that emergency docking is completely the Master's responsibility. The City of Rochester and the Department o Recreation and Community Services assume no liability for any vess docking under emergency conditions at the former Port of Rochester.

AUTHORITY: City of Rochester, Department of Parks, Recreation an Human Services, Office of the Commissioner, City Hall, Room 222-B 30 Church Street, Rochester, New York 14614-1277, U.S.A. *Tel:* (716 428-6755. *FAX:* (716) 428-6021. *Contact:* Port Director.

ROCKLAND, Maine: 44.06 N. 69.07 W. **(See Plan**

PORT LIMITS: A line from Rockland Breakwater Light, South to Batter Point.

LOCATION: Western Penobscot Bay in Gulf of Maine, about 45 mile N.E. of Portland.

Charts: DMA No. 13302, 13305 and 13307.

DOCUMENTS:

Certificate of Registry.
Certificate of Financial Responsibility (CFR).
Subchapter "O" Endorsement.
Vessel Response Plan.
Load Line Certificate.
SOLAS Construction, Equipment, Radio Tel/Tel, Manning.
International Oil Pollution Prevention (IOPP).
MARPOL Compliance.
Crew List.
Dangerous Cargo Manifest.
Crew Competency Certificates/Licenses.
Corrected Charts for Area.
Publications U.S. Coast Pilot, Light Lists, Tide Tables, Tidal Curre Tables.

PILOTAGE: Pilot requires 48 hours and 24 hours notice of arri Western Boarding Area: Monhegan Island Buoy "14 M" in posi Lat. 43° 45.3' N., Long. 69° 22.5' W.

Pen-Bay Pilots, P.O. Box 709, Searsport, Maine 04974. Tel: 207-54 6469, 207-338-1640. Cables: PENBAY via Chatham Radio. VH Channel 16.

ANCHORAGES: Depth in harbour anchorage 40 ft., bottom clay.

MAX. SIZE: LOA 700 ft. Max. draft 15 ft. in dredged channels.

HEALTH: Report all cases of diarrhoea and vomiting prior to arriva

RADIO: Chatham Radio "WCC", 500 kHz. U.S. Coast Guard, 2,182 k Agent to advise ETA as soon as practical. All U.S. Government agenc require minimum 24 hours notice of arrival from Agent. Also s "General" – "Controlled Flag Vessels" before first port.

VHF: Marine Operator: (Coastal Communications, Camden Ra Channels 16, 24 and 26.

Harbour Master: Channels 16, 9 and 11.
Restricted Channels: U.S.C.G. 83-A, 22-A. Ferries 19.
Pilots: Channel 16.

TUGS: Supplied by Maine Port towboats. Tel: (207) 338-3000. Fax: (207) 338-5212.
BERTHING: Public landing – depth 15 ft.
Private facilities:
Prock Marine and Schooner Wharf on Ulmer Point: Depth 13 ft.
Dragon Cement on Atlantic Point: Depth 14 ft.
Ferry Terminal: Depth 12 ft.
SPECIALISED CARGO HANDLING FACILITIES: 30 log barges are received annually from offshore islands.
125,000 – 150,000 tons of bulk cement exported annually.
Seafood products exported.
STEVEDORES: *Working Hours:* 24 hours, 7 days a week.
Contact: International Terminal Operating Company. Tel: 207-548-2241. Fax: 207-548-6359.
MEDICAL: Pen-Bay Medical Centre. Ring (207) 596-8000 for all emergencies.
TANKERS: No facilities.
DENSITY: 1025.
FRESH WATER: Available.
FUEL: Available from Coastal Petroleum (Tel: (207) 596-6737. Fax: (207) 594-2643).
CONSULS: None.
REPAIRS: Welding, electronics, divers. Contact: Rockland Marine (Tel: (207) 594-7860) or Steele and Marshall (Tel: (207) 594-7655).
SURVEYORS: Lloyd's Agent and Liberian Register.
REPATRIATION: Repatriation possible if proper Immigration status.
AIRPORT: Knox County Regional Airport.
TIME: GMT minus 5 hours. GMT minus 4 hours in Summer.
HOLIDAYS: Major U.S. holidays observed.
POLICE/AMBULANCE/FIRE: Dial 911.
BANKS: Fleet Bank and Key Bank.
GARBAGE DISPOSAL: No facilities.
SEAMAN'S CLUBS: None.
DEVELOPMENTS: Passenger/cruise vessels up to 150 ft. can be handled at present, but there is a proposal for a 900 ft. pier. Dredging to 18 ft. proposed (1996/97).
AUTHORITY: Rockland Harbour Master, P.O.Box 546, Rockland, Maine 04841, U.S.A. *Tel:* (207) 594-0312. *FAX:* (207) 594-9481. *Contact:* Ken Rich, Harbour Master.

AGENT: Rockland Agencies, P.O.Box 462, Rockland, Maine 04841. Tel: 207-596-7743. Fax: 207-596-0442. Telex: MCI 6502009834.

SACRAMENTO, California: 38.32 N. 121.30 W. (See Plan)

DOCUMENTS: See "San Francisco".
PILOTAGE: Pilots board vessel in San Francisco Bay. (Also see "San Francisco").
RESTRICTIONS: *Ship Channel:* Distance Fort Point to Sacramento, 79 nautical miles (146 km.). Bottom width in river reach 300 ft. (91.4 m.). Bottom width in channel reach 200 ft. (61.0 m.). Min. depth at MLLW 30 ft. (9.1 m.).
Harbour: Area 60 acres (24.3 hectare). Min. depth at MLLW 30 ft. (9.1 m.). Tidal variation 5 ft. (1.5 m.) average.
MAX. SIZE: 800 ft. LOA and 106 ft. beam, 30 ft. deep at MLLW.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: KBA 386, 156.9 MHz (24 hours).
TUGS: Join vessel at Light 76 (turning basin).
BERTHING: Anchor – ships will have at least 1 anchor ready to let go in case of emergency, when docking or undocking. Anchor will be raised immediately upon ship being made fast to wharf.

Insurance lines are required on off-shore side, fore and aft, immediately after ship is made fast to wharf.

A cargo net shall be securely placed under gangways. Save-all nets shall be rigged abreast of holds at which general cargo is being handled.

Rat guards, at least 3 ft. in diameter, shall be placed on all mooring lines immediately after docking, and shall be maintained in place until ship's departure.

Pier 1:
Owned and operated by: Port of Sacramento.
Use: Bulk-loading rice facility.
Construction: Concrete with timber fender piles, length 600 ft. (182.9 m.).
Water depth: 32 ft. (9.8 m).
Storage capacity: 22,000 tons; 8 silos at 2,200 tons each; 6 silos at 470 tons each; 6 silos at 270 tons each.
Mechanical handling facilities: 3 loading spouts dockside, conveyor system to storage facility.
Loading rate: 600 t.p.h.

Wharf 2:
Owned and operated by: Port of Sacramento.
Use: General cargo.
Construction: Concrete with timber fender piles; apron width 60 ft. (18.3 m.); length 600 ft. (182.9).
Water depth: 30 ft. (9.1 m.).
Transit sheds: One, 86,400 sq. ft.

Pier 5:
Owned by: Port of Sacramento.
Operated by: Cargill of California, Inc., as a public utility.
Use: Bulk-grain facility.
Construction: Concrete and steel silos; concrete with timber fender piles; length 600 ft. (182.9 m.).
Water depth: 32 ft. (9.8 m.).
Storage capacity; 1,250,000 bushels (30,000 tons); 17 concrete silos; total capacity 500,000 bushels; 6 steel silos; total capacity 750,000 bushels. Two dry bulk storage domes of 9,000 tons storage each.
Mechanical handling facilities: Bulk ship loader (600 t.p.h.), conveyor belt system connects bulk storage/rail/truck.

Wharf 6:
Owned and operated by: Port of Sacramento.
Use: General cargo and containers.
Construction: Concrete with timber fender piles; length 600 ft. (182.9 m.); apron 60 ft. (18.3 m.).
Water depth: 30 ft. (9.1 m.).
Remarks: 6 acres of open wharf; 70,000 sq. ft. off dock warehouse.

Wharves 7-8:
Owned and operated by : Port of Sacramento.
Use: Bulk material facility and general cargo.
Construction: Concrete with timber fender piles; apron 60 ft. (18.3 m.), length 600 ft. (182.9 m.).
Water depth: 30 ft. (9.1 m.).
Storage capacity: Covered 200,000 tons, open 750,000 tons.
Mechanical handling facilities: Conveyor-belt system from truck to storage, from ship to storage; from storage to ship, or from storage to truck.
Loading rate: 600 t.p.h.
Transit shed: 86,400 sq. ft. Bagging facilities for bulk cargoes.

STEVEDORES: Same as San Francisco. Port stevedores for bulk cargo.
MEDICAL: All normal medical facilities available.
DENSITY: Full fresh.
FRESH WATER: Available at all berths.
FUEL: All grades available with 24 hours notice. Delivered by barge.
CONSULS: Nearest at San Francisco.
REPAIRS: Limited repair facilities available.
GANGWAY/DECK WATCHMEN: Each ship shall have a security detail in readiness on board at all times it is in port. The security detail shall perform tasks of an emergency nature and shall have information concerning cargoes aboard in case of need for fire fighting purposes.
OPENING/CLOSING HATCHES: Opening/closing hatches is stevedore work while docked in port.
REPATRIATION: Can be arranged through local Agent.
AIRPORT: 16 miles from port and served by regular airlines.
TIME: GMT minus 8 hours.
HOLIDAYS: Only days not worked are 4th and 5th July, Labour Day, Christmas Eve and Day, New Year's Eve and Day.
POLICE/AMBULANCE/FIRE: Tel: 371-8000. Extensions 200.
TELEPHONES: Telephones are available.
SHORE LEAVE: Crew members allowed ashore subject to Immigration clearance.
GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany). Service available. Charges are man-hour rates to supply and remove double plastic bag lined 4.5 cu.ft. boxes for incineration plus per box incineration cost of $30 plus 25%. 24 hour notice must be given for garbage service. Contact Tel: (916) 371-8000, ext.280. Collection scheduled as needed.
WASTE OIL DISPOSAL: By truck with 24 hours notice.
SEAMAN'S CLUBS: None.
CURRENCY: U.S.Dollar (U.S.$).
IDENTIFICATION CARDS: A pass signed by the Master or his designated officer will be required for crew members, passengers and their personal property to leave the port's fenced area. Property may be subject to physical inspection before leaving the fenced area.
REGULATIONS: Ships will not blow boiler tubes while in port. Bilge water or oil will not be discharged into harbour. Accidents will be reported immediately to the Terminal Superintendent. Splash boards will be placed over disposal vent-pipe openings on inboard side of vessel.

Garbage – United States and California State laws make it unlawful to dispose of ship's garbage except in approved ways. Garbage retained on board must be kept in tightly closed containers.

Smoking – Smoking prohibited in and around cargo compartments, and on open decks except that it may be permitted in marked areas under sheltered portion of weather decks on offshore side. Smoking prohibited on wharfs and piers except in marked areas. Smoking prohibited on or near ship while it is bunkering.

Welding/Burning – Welding or burning will not be done until written approval is obtained from the Terminal Superintendent.

Fire Signal – Upon detection of a fire, regardless of location or size, the alarm of fire will be sounded. The alarm shall be sounded by telephone and/or whistle or siren blasts. 5 each, 5 second blasts repeated as necessary.
DEVELOPMENTS: Deep water channel dredging project to minimum 35 ft. by 2000.
AUTHORITY: Port of Sacramento, P.O. Box 980070, West Sacramento, California 95798-0070. *Tel:* (916) 371-8000. *FAX:* (916) 372-4802. *Contact:* John Sulpizio, Port Director.

SALEM, Massachusetts: 42.31 N. 70.53 W. (See Plan)

SHIPMASTER'S REPORT: August 1986.

DOCUMENTS: See "Boston".
PILOTAGE: Cape Ann Pilots Association (serves Gloucester and Salem). Pilot on VHF Channels 16 and 12. Pilot boards about 1 mile South of Eastern Light Buoy No. 2.
ANCHORAGES: About 2 miles S.W. of Eastern Point.
RESTRICTIONS: Salem Channel 150 ft. in width only, therefore large vessels berth or unberth in daylight hours only.
MAX. SIZE: Length 700 ft. (approx.). Breadth 110 ft. (approx.) and draft 34 ft. (salt water).
TUGS: Available from Boston.
BERTHING: New England Power Company (NEPCO) operates Salem Terminal Wharf to supply Salem Harbour Station with coal and fuel oil.

No cranes available, coal is discharged from "self-unloading vessels" only.

TANKERS: 2 arms (Chicksan-type), 12 in. diameter. Discharging rate: 7,000 bbls. each. Length of wharf (incl. dolphin) 250 m. (approx.) dredged to 34 ft. at LW.
DENSITY: 1022 – 1025.
AIRPORT: See "Boston", about 45 minutes. Cost U.S.$50 by van.
TELEPHONES: Not placed on board, however communication with Agents via VHF possible.
GENERAL: Port is served by 1 or 2 colliers a week, and about 3 tankers a month.

NEPCO Representative acts as Loading Master. Linesman are provided from the power station.

REPORT: From Tanker Operator:
Port Approaches: The RDF stations at Cape Cod, Boston Buoy 'B' and Eastern Point are useful navigation aids. The rocky shore lines provides a good target for position fixing by radar. Fathometer readings should not be relied on for position fixing purposes, since bottom contours are erratic. Fishing boat traffic in Massachusetts Bay is heavy especially near Gloucester. It should be noted that the small fishing vessels in this area sometimes display working and running lights that could be mistaken for reguar range lights. During the Summer months, the yacht traffic is considerable. Most yachts reportedly show up poorly on the radar screen.
Channel Transit and Berthing: Loaded tank vessels enter with a rising tide. The Pilot and Agent should be consulted with regard to the actual water depths available in the channel during the intended period of transit.

The transit from the pilot boarding area to the terminal is about 10 miles. Salem Sound is entered via the Salem Channel between Bakers Island and Little Misery Island, leading Westwards for 3 miles thence Southwestward through a dreged section to the turning basin off the berth. The channel is well marked with buoys and range lights.

Shallow vessels and tows crossing the channel may be met. During Summer months, Salem Sound is crowded with pleasure craft. Coast Guard patrol boats must sometimes be utlised to clear a path.

The tugs usually join the ship before entering the inner dredged channel Buoy No. 16. The ship is berth port side to, which requires a starboard turn of approximately 130° before landing.

During normal weather conditions, 10 mooring lines are considered to be the minimum acceptable.
Weather: Gales occur year round. The severest storms occur during the Winter months. Rain or snow associated with these storms, at times, reduce visibility to zero for extended periods. During the Winter months, freezing spray may be experienced.

Fog presents a problem year round, being heaviest during late Spring and early Summer. It is not advisable to enter or leave in thick weather.

REPORT: August 1994.

The offshore mooring dolphin has incurred extensive damage, and use for stern lines should be discontinued.

Stern lines will be run to a bollard ashore, approximately 100 yards (300 ft.) from stern of vessel, acting more as an after breast line (See "Plan").

Vessel will also be breasted off by 2×10 ft. diamater Yokohama fenders whilst repairs to the dock are being conducted.

AUTHORITY: *Operator:* Northeast Petroleum, 72 Cherry Hill Drive, (P.O.Box 1090), Beverly, MA 01915-0790, U.S.A. *Tel:* (508) 524-1552. *Telex:* 949409. *Contact:* Bruce Young, Port Captain.

SAN DIEGO, California: 32.41 N. 117.07 W. (See Plan)

PORT LIMITS: The seaward boundaries of the Port of San Diego at which a vessel is considered to be an "arrived vessel" is that time when the vessel is boarded by a Port Pilot at Sea Buoy No. 1 (Buoy SD) and (subject to charter party terms) lay time commences when Notification of Readiness is tendered at berth.
DOCUMENTS:
Crew Lists.
Passenger Lists.
Customs Documents.
Manifests.
Stores Lists.
Crew Curio Declaration List.

If the vessel arrives from foreign direct, 3 copies each of the above documents are required.

If the vessel movements are between U.S. ports, 2 copies each of the above documents are required.

Health Documents. Arrival from Foreign Direct, 1 copy only. All crew members should be in possession of valid vaccination certificates.

Manifests. Arrival from Foreign Direct, 1 copy of Travellers Manifest which remains with vessel, and 3 copies each of U.S. Customs Inward Foreign Manifest. Bills of Lading, ship's papers carried aboard vessel varies with steamship companies.
PILOTAGE: Compulsory. The San Diego Pilots do not maintain Pilots on station. Service is rendered according to ETA received from vessel. If any vessel's arrival or departure is delayed over 1 hour, an additional charge will be made. Telegraphic address of Pilot Station – radio ETA to "Pilots", San Diego. Advance notice of ETA required – 24 hours prior to arrival of vessel with amendments 2 hours prior to arrival. Pilot boat is 63 ft. in length, painted white. The exact area where Pilot boards the vessel is No. 1 sea buoy. Pilot on VHF Channels 16 and 12 (Tel: (619) 233-7814).
ANCHORAGE: 3 miles S.E. of Point Loma Light.
MAX. SIZE: Length, breadth – no restrictions. Max. draft alongside fac of terminal, 35 ft. MLLW.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
VHF: The Port of San Diego Harbour Police maintains a listening watch on Channels 12 and 16. Channel 11 is available after initial call-up on Channel 16.
TUGS: Tugs normally join vessel approximately 1 mile before berth. 5 available ranging from 200 h.p. – 2,400 h.p. There is no charge for the use of tug's lines.
RADIO: All radio messages go through the Los Angeles station for relay.
BERTHING:

Name/Operator		*Berth* No.	*Berthing Space* (m.)	*Depths Alongside at MLLW* (m.)
Port of San Diego	(West face)	3	122	10.6
B Street Pier	(North side)	1, 2	305	10.6
	(South side)	4, 5	305	10.6
Port of San Diego	(West face)	3	40	10.6
Broadway Pier	(North side)	1, 2	305	10.6
	(South side)	4, 5	305	10.6
Port of San Diego (1) Tenth Avenue Marine Terminal Berths 1 and 2		1, 2	341	9.1/10.6
Port of San Diego (1) Tenth Avenue Marine Terminal Berths 3, 4, 4A, 5 and 6		3, 4, 4A, 5, 6	786	10.6
Port of San Diego (1) (2) Tenth Avenue Marine Terminal Berths 7 and 8		7, 8	198	10.6/6.4
Port of San Diego National City Marine Terminal North Wharf		1, 2	427	6.1/10.6
Port of San Diego National City Marine Terminal West Wahrf (3)		3, 4	305	10.6
Port of San Diego (4) National City Marine Terminal South Wharf		10, 11	457	10.6

(1) Equipped with pipelines for bunkering vessels handling cargo at beths.
(2) Also used for shipment of bulk commodities.
(3) Also used for receipt of automobiles.
(4) Also used for receipt of lumber.

CONTAINER FACILITY: A high-speed, all-electric container crane capable of handling 20 ft. and 40 ft. units, or single hook lifts of 40 long tons at National City Marine Terminal. Depth 35 ft. MLLW.
SPECIALISED CARGO HANDLING FACILITIES: High-speed bulk loading facilities exist with 800 ft. of 35 ft. MLLW deep water berthing space and bulk storage, plus a bulk loader boom that travels 500 ft. laterally and can be extended or raised enough to load nearly any size or type of ship. The bulk loader is capable of loading 1,800 t.p.h.

A state-of-the-art cold storage facility, located on dock, provides 10,000 sq.m. of cold storage capability, and 10,000 sq.m. of receiving handling, and fumigation area; capable of handling fresh or frozen fruits vegetables and other products at varying temperatures and humidities.
Specialised Berthing:

Pier	*Berthing Space* (m.)	*Depths alongside at MLLW* (m.)
Embarcadero	472	5.5
Tunaboat Pier No. 1	171	5.5
Tunaboat Pier No. 2	171	5.5
Standard Oil Co. Pier	155	5.5
G Street Pier (Tuna vessels) West Side	278	8.5

STEVEDORES: Advance notice of 24 hours desired in order to arrange gangs.
MEDICAL: Agents should receive notification of medical attention required 24 hours prior to ETA of vessel. Complete hospital facilities available.
TANKERS: Diameter of load/discharge line 6 in. to 8 in. Slop (residue discharge facilities available upon request. 2 tanker berths – max. dr 35 ft. MLLW. There are also 2 tanker berths at National City Ma Terminal with 12 in. discharge lines.
DENSITY: Salt water in bay.
FRESH WATER: Fresh water available, delivery via pipeline.
FUEL: Diesel and bunker fuel available.
CONSULS:

Chile
Costa Rica
Denmark
Dominican Rep.
Ecuador
El Salvador
Finland
France
Germany
Honduras
Italy
Mexico
Netherlands
Norway
Panama
Peru
Sweden

REPAIRS: All types of deck and engine repairs are available.
DRY DOCKS: Largest dry dock 1,000 ft. length, 140 ft. wi accommodates up to 30,000 displacement tons. Six additional dry doc from 3,500 to 28,000 displacement tons capacity.
SURVEYORS: A full complement of cargo inspectors and surveyors available locally.
GANGWAY/DECK WATCHMEN: Available if considered necessar
OPENING/CLOSING HATCHES: Carried out by stevedores.

CERTIFICATES: Registered Load Line Certificate, Certificate of Inspection, Safety Certificate.

CUSTOMS ALLOWANCES: Tobacco: Per each crew member U.S. Customs allowed 2 cartons of cigarettes and 1 box of cigars. Wine and/or Spirits: Quantity allowed per each crew member – 1 quart.

CARGO GEAR: Up-to-date certification of all cargo gear required in order to comply with Pacific Coast Marine Safety Code.

AIRPORT: Distance from marine terminal approximately 5 miles. Airport is serviced by major airlines.

TIME: Local time GMT minus 8 hours. Daylight Saving Time becomes effective the first Sunday in April and continues to the last Sunday in October.

HOLIDAYS: Recognised holidays are: New Year's Day; Lincoln's Birthday; Washington's Birthday; Memorial Day, Independence Day, Labour Day, Columbus Day, Veteran's Day, Thanksgiving Day, Statewide Election Day, Christmas Day, or any other legal holiday that may be proclaimed by State or National Authority; when a holiday falls on a Sunday, the following Monday shall be observed as a holiday.

POLICE/AMBULANCE/FIRE: Non-Emergency Police Telephone Number is 236-6566. All other emergencies (including paramedic) Tel: 911.

EMERGENCY CO-ORDINATION CENTRE: Local maritime emergency co-ordination is handled by the U.S. Coast Guard, San Diego Region, 2710 North Harbor Drive, San Diego, CA 92101. Tel: (619) 557-5860.

TELEPHONES: Arrangements exist for placing telephones on board. No charge for hooking up.

SERVICES: Tank-cleaning equipment. Facilities for tank washings. Compass and radar adjustments, etc.

BANKS: Full banking services for both domestic and international transactions are available locally.

STORING: Storing and provisioning may be accomplished at dockside or via barge by prior arrangement. Trucks and forklifts may be used alongside and riggers are available by arrangement with the representative Agent. U.S. Customs Agents will board on arrival and seal all bonded items. Otherwise, normal procedures concerning controlled items will be observed by the vendor.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: U.S. Immigration requires completion of Form I-95, U.S. Coast Guard requires landing permits.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany).

Domestic garbage (Non-APHIS Controlled): Numerous companies available through local agent. Volume, charges, and collection times vary.

International (APHIS/MARPOL V Controlled): Pacific Treatment Environmental Services, 1452 N.Johnson Avenue, El Cajon, CA 92020. Tel: (619) 441-1818. Volume, charges, and collection variable as required or scheduled.

WASTE OIL DISPOSAL: Available through agent. For MARPOL I controlled substances: Pacific Treatment Environmental Services, 1452 N.Johnson Avenue, El Cajon, CA 92020. Tel: (619) 441-1818. Volume, charges and collection variable as required or scheduled.

SEAMAN'S CLUBS: None.

CURRENCY: U.S.Dollar (U.S.$).

AUTHORITY: Port of San Diego, P.O. Box 488, 3165 Pacific Highway, San Diego, California 92112. *Tel:* (619) 686-6340. *Telex:* 695-456. *Cables:* Sun Harbor San Diego. *FAX:* (619) 234-3965. *Contact:* Lawrence M. Killeen, Executive Director. Stanley R. Westover, Director, Marine Operations.

SAN FRANCISCO, California: 37.48 N. 122.25 W. (See Plan)

DOCUMENTS:

General Declaration (arrival) on Customs Form 1301.

Cargo Manifest (Customs Form 1302). One original copy indicating all the cargo on board, used for making formal entry. One copy listing all cargo on board, to be used by the Customs Inspector. One copy indicating cargo for this port only.

2 copies of Crew's Effects Declaration on Customs Form 1304.

2 copies of Ship's Stores Declaration on Customs Form 1303.

2 copies Passenger List (Form I-418).

2 copies Crew List (Form I-418).

1 copy "Oil Pollution Certificate", issued in Washington D.C.

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours of arrival from abroad, or 24 hours of arrival from a U.S. port:

(a) Health Pratique.
(b) Master's Oath (Customs Form 1300).
(c) U.S. Certificates of Payment of Tonnage Tax (Customs Form 1002).
(d) Certified Crew List (U.S. vessels only).

Radio *Officer's Report:* April 1991.

Crew List: Get the Crew List (Form I-418) visaed at the last port before the USA. Be sure to insert in column 4, date, city and country of birth column 5 and place of issue and the authority issuing passport.

Arrival USA: Prepare for every crew member a Crewman's Landing Permit (Form I-95A). If they still have one it is only valid if they are still on the same ship.

Immigration: Hand over all Crew Landing Permits (Form I-95A) and passports. Every crew member must present himself to the Immigration Officer. Immigration will issue a form to be retained on board.

Customs broker:

2 copies Master's Oath (Form 1300).
2 copies Crew Lists (Form I-418).
2 copies Crew Effects Declaration (Form 1304).
2 copies Ship's Stores (Form 1303).
2 copies General Declaration (Form 1301).

Agriculture: Will board the ship and probabaly seal meat and vegetable storerooms. Agriculture will issue a Form 288, which must be presented at next U.S. Port. The seal may not be broken.

Customs: Customs will not board the ship.

Departure: A "Traveller" will be issued.

PILOTAGE: Pilotage in and around Golden Gate Region is performed by the San Francisco Bar Pilots who provide service from sea to all ports within the regions, including the Ports of Sacramento and Stockton.

The San Francisco Bar Pilots' Association, maintains a sea station 12 miles outside the Golden Gate, in the vicinity of the large navigation buoy for vessels arriving and leaving the area.

On station around-the-clock. Pilot boats are equipped with VHF radiotelephone, and maintain continuous watch for ship traffic and operate co-operatively with the Marine Exchange Communication Centre and lookout station. The Bar Pilots also carry portable VHF radios.

Some 8,500 ships are piloted annually into and out of the port complex, through the Golden Gate and the 2,000 ft. wide, 55 ft. deep main ship channel across the sand bar about 9 miles outside the Gate.

Considerable Summer fog is experienced on the pilot grounds. In Winter months radiation or tule fogs frequently occur. The tidal prism of hundreds of square miles of inland waters cause unusually swift and changing currents in the area. Pilotage for San Francisco Bar and entrance is compulsory and available 24 hours a day. The pilot boat is at a station 3 miles outside Main ship Bar Channel about 14 miles from San Francisco, VHF Channels 18A and 10 for radio contact. Vessels with a draft of 42 ft. or more are requested to arrive at the Pilot Station for the inward passage about one hour before high water at the Golden Gate Bridge.

ANCHORAGES: Several anchorages available in San Francisco Bay for any type of vessel up to 50 ft. draft.

The well-protected bay affords excellent shelter and anchorage in all weather. The Captain of the Port (Coast Guard) will assign an anchorage to a vessel upon request. In San Francisco and San Pablo Bays, there are a large number of anchorages available for naval, quarantine, general and explosives.

The specific anchorages available include:

1. *General Anchorage*

(a) No. 5 – found just South of the Richmond-San Rafael Bridge, has no limitations.

(b) No. 9 – found in the South Bay, also has no limitations.

2. *Temporary Anchorage*

(a) No. 7 – found off Treasure Island, has a 12 hour limit. A ship cannot lighter nor bunker at this mooring.

No. 8 – same as No. 7 but has a 6 hour limit.

3. *Explosive Anchorage*

No. 12 – is normally not activated.

No. 13 – found off Larkspur, this mooring is activated only as the need arises.

No. 14 – found in the South Bay, this mooring is always activated.

4. *Naval Anchorage*

No. 10 and No. 21 are the most frequently utilised.

RESTRICTIONS: The San Francisco Bay region is the first on the West Coast to have sea lanes established by the Coast Guard for greater safety in its ocean approaches. Use of the lanes is not mandatory, but is strongly recommended to reduce chance of ship collisions in congested approach and departure areas. The lanes are not intended to supercede or alter applicable rules of the road.

The lanes begin within 6 miles of the San Francisco Lightship, with each lane inbound and outbound separated by a buffer zone. The headings are: North lane outbound, 305°; North lane inbound 120°, main line outbound, 247°; main line inbound, 058.5°; Southern lane outbound, 169°; Southern lane inbound 343°.

The size of the bay and the narrowness of the Golden Gate cause tricky and sometimes difficult tidal and current conditions. The flood current sets into all parts of the bay and causes swirls as far East as Alcatraz and Angel Islands. At the San Francisco-Oakland Bay Bridgethere are large current eddies near the foundation piers which may require care to maintain proper course.

The Bar Channel is dredged to 55 ft. MLLW by the U.S. Army Corps of Engineers. Entrance channels to the various ports are dredged to 35 ft., with the exceptions of Sacramento, Stockton and Redwood City, which are 30 ft. Stockton, however, is approved for a 6 ft. deepening, and study of similar deepening for Redwood City is being completed.

MAX. SIZE: The max. permissible draft for tankers at the oil installation is 35 ft., for regular freighters and passenger ships at the San Francisco piers is 40 ft. No restrictions on length or beam. The best time to dock with max. draft is at a rising tide.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Radio station via RCA – Radio Corporation of America – Station KPH ITT – World Communications – Station KFS.

Safe and efficient navigation for all bay vessel traffic is maintained through a Ship Location and Reporting Service operated by the Marine Exchange. U.S. Coast Guard Vessel Traffic Service on Yerba Buena Island and at Port Bonita maintains 24 hour radar surveillance of all traffic from Golden Gate on the West (with 32 mile capacity beyond) to Oakland on the East, Dumbarton Bridge on the South and Port San Pablo on the North. Vessel Movement Reporting System (VMRS) extends beyond Port San Pablo all the way to the Ports of Stockton and Sacramento. Coast Guard urgently requests that all vessels as specified below, moving anywhere within the VMRS (including all area under radar surveillance), tune to Channel 13 (156.65 MHz., VHF FM): All ships of 300 gross tons and over, passenger ferries for hire over 100 gross tons, and tugs with tows of barges or dredging rigs of over 26 ft. length.

Coast Guard Regulations: Foreign tankers should give 72 hours' advance notice of arrival to ensure that U.S.C.G. has enough time to check the vessel's records for compliance or outstanding violations and to arrange for any onboard inspections required. Failure to provide 72 hours' notice may delay the commencement of cargo transfer while awaiting the required U.S.C.G. inspections. Letter of Compliance inspections must still be arranged through Washington D.C. The statutory notification remains at 24 hours. This notice applies only to the San Francisco Bay area. Any vessel required to have an inert gas system must have its tanks inerted at all times unless they are gas free.

VHF: VTS in operation. Call sign "San Francisco Vessel Traffic Centre", operates on Channels 16, 13, 12 and 18A.

TUGS: Tugs available and normally join the vessel when approaching their pier. Tug's lines are always used, with no extra charge.

BERTHING: No restriction on berthing other than draft limitation and preferable at slack water.

Pier	*No. of Berths*	*Length (ft.)*	*Depth (ft.)*	*Remarks*
9	2	154 Face	35	Tugs/Pilot Station.
		800 North		
		800 South		
15-17	3	490 F	35	Cotton Warehouse
		800 N		
		800 S		
19	2	160 F	35	Foreign Trade Zone No. 3
		800 N		
		800 S		
23	2	160 F	35	Foreign Trade Zone No. 3
		800 N		
		800 S		
26	2	200 F	25	Tug and barge mooring
		620 N		
		635 S		
27 and 29	3	206 F	35	Newsprint Terminal
		750 N		
		1,340 S		
28	2	150 F	35	Fishing.
		541 N		
		675 S		
30 and 32	3	622 F	35	Lay-by Berth
		845 N	35	
		932 S	35	
35	2	200 F	38	Passenger Lines
		802 N		
		1,053 S		
36	2	588 N	35	Warehouse
		713 S		
38 and 40	2	905 S	35	Lay-by berth
		888 N		
45 A-C	2	1,314 S	35	Ceremonial pier
46 B	2	1,035 F	35	Tug and barge mooring
48 A	2	216 F	35	Warehouse, vessel mooring, general cargo
		610 N	35	
48 B	2	155 F	35	Warehouse, vessel mooring, general cargo
		636 S		
50 A-C	2	1,480 N	35	General cargo
50 B-D	2	1,682 S	35	Ship repair
	2	1,000 F	35	Ship repair
54	2	700 S	35	Tug and barge mooring
		700 N		
70	2	723 F	38	Lay-by berth and petroleum transfer
		1,100 F		
80	5	5,041	40	Container and general cargo
90	2	900	40	Grain terminal
92	1	702 F	35	Bulk animal and et vegetable oils
		166		
94 and 96	3	2,400	40	Container and general cargo

Alameda: (See Plan). (Not part of the Port of San Francisco). Alameda, an island and city across the Inner Harbour channel from Oakland, is the home of Encinal Terminals, the largest privately owned and operated steamship terminal in the United States. There are 6 berths for vessels at Encinal.

Berths 1, 2, 3 and 4: Used for general cargo and bulk liquids. Total berthing length 2,125 ft. Depth 31 ft. to 33 ft.

Berth 5: Used for general cargo. Length 750 ft. Depth 35 ft. Berth equipped with Paceco crane.

Berth 6: Used for receipt and shipment of bulk liquids. Depth 30 ft. Facility has tank storage of 12 million gallons.

Operator: Encinal Terminals, 1521 Buena Vista Avenue, P.O.Box 2453, Alameda, CA. 94501. Tel: (415) 523-8800. Telex: TWX (910) 366-7174.

CONTAINER/BULK HANDLING FACILITIES:

San Francisco Container Terminal - (SFCT) South: (formerly Pier 94/96).
Container Ship Terminal.
Cargo Way.
Steamship Lines: Central American Container Line, Chilean Line, Grancolombiana Line, Evergreen Line, Navicana Line, Transportacion Maritima Mexicana, Zim Container Service.
Assigned to: Stevedoring Services of America.
Dimensions: Total terminal area is 76 acres. Outer apron is 2,456 ft.
Number of berths: Three at 40 ft. MLLW alongside and a design load of 800 p.s.f.
Special Facilities: The ondock Intermodal Container Transfer Facility accommodates up to 20 rail cars on a single switch. Port packers used for yard operations. Elevated control tower with radio and PA communications systems. A maintenance and repair building of 24,000 sq. ft. is sprinklered and has a 5-ton capacity overhead bridge crane. Other buildings include an administration building (14,000 sq. ft.) and gate house/terminal office building (2,475 sq. ft.). 135×240 volt and 32×480 volt reefer outlets.
Lift equipment: 2×30 ton Paceco cranes, and 2×30 ton Starporter cranes, rail mounted. The spreaders can be expanded in order to afford easy accommodation of both 20 ft. and 40 ft. containers. Each crane has a 50 ft. gauge with an outreach of 115 ft., backreach of 30 ft. and an 88 ft. clear hoist above HW (to be upgraded to 103.5 ft. clear hoist above HW). The Paceco can load and off-load containers thwartships. There is also 1×25 ton P&H mobile crane.
Connections: Trucks via Cargo Way; Southern Pacific Railroad tracks. San Francisco Belt RR.

San Francisco Container Terminal - (SFCT) North:
(formerly Pier 80)
Combination Terminal - Container/Ro-Ro/Unitised Break Bulk.
Foot of Army and Marin Streets.
Construction: Concrete pilings, concrete deck.
Steamship Lines: Blue Star Line, Ciamar, ELMA, Maruba, Mitsui OSK Line, National Shipping Corporation of Philippines, Nedlloyd Lines, Norsul, South Pacific Interline, South Seas Steamship.
Assigned to: Metropolitan California Stevedore Company.
Dimension: Total terminal area is 68.5 acres. The face measures 1,296 ft. North measures 1,138 ft. and South measures 2,657 ft.
Berths: Four at 40 ft. MLLW alongside.
Special facilities: 2 steel-framed transit sheds totaling 396,000 sq. ft., 273×220 volt and 36×480 volt reefer outlets and Container Freight Station accommodations. The van yard is fully lighted and completely fenced for security.
Lift equipment: 1×30 ton and 3×40 ton Paceco Cranes, and 1×30 ton Starporter Crane, rail mounted. All cranes can accommodate 20 ft. and 40 ft. containers. Each crane has a 34 ft. gauge and an 88 ft. clear hoist above high water. (2 New Paceco cranes have a clear hoist of 95 ft. above HW). Cranes can load and off-load containers thwartship.
Connections: Via Army Street or Marin Street; SP Railroad tracks.

Pier 70-72: Automobile Terminal.
Foot of 23rd Street.
Construction: Timber pile, timber deck.
Dimensions: The total terminal area is 24.5 acres. The face measures 723 ft.
Berths: Two at 40 ft. MLLW alongside.
Special facilities: 22 acres of open storage for car-loading, unloading and processing.
Connections: Via Third Street, East on 20th Street.

Pier 50: Combination Terminal.
Container/Ro-Ro/Unitised Breakbulk.
Foot of Mission Rock Street.
Construction: Concrete piles, concrete deck.
Steamship Lines: Various.
Dimensions: Total terminal area is 20.8 acres. The face measures 1,000 ft. North measures 1,480 ft. and South measures 1,100 ft. and 582 ft.
Berths: Four at 35 ft. MLLW alongside.
Special facilities: This pier offers 8 acres of open storage, 4 transit sheds totaling 274,000 sq. ft. and reefer outlets.
Connections: Via Mission Rock Street; Santa Fe Railroad tracks.

Pier 27 – 29: Newsprint/General Cargo/Containers.
Foot of Lombard Street.
Assigned to: Marine Terminals Corp.
Construction: Concrete piles, concrete deck.
Steamship lines: B.C. Forest Products, Papua New Guinea Line, Sig Bergesen, Star Bulk Shipping, Atlantic Cargo Services and Scann Scot.
Dimension: The face measures 206 ft., North measures 750 ft. and South measures 1,340 ft.
Berths: Three at 35 ft. MLLW alongside.
Special facilities: Piers 27-29 are integrated piers connected by a 117,000-sq. ft. bulkhead and 2.5 acres of open storage space. It also offers 601,700 sq. ft of transit shed space.
Connections: Via Embarcadero; Belt Railroad tracks.

Pier 92: Bulk Liquids Terminal
Cargo Way.
Assigned to: Baker Commodities (Bulk Liquids) and California Stevedo and Ballast (Fishmeal).
Construction: Concrete piles and deck, timber apron.
Dimensions: The face measures 702 ft. and 166 ft. This facility also has a transit shed measuring 57,270 sq. ft.
Special Facilities: 10 acres of open storage space for automobile automobile detailing and repair centre, bulk oil processing and storag equipment, and heated and cooled pipelines connecting pier with th storage tanks.
Berths: One with 38 ft. MLLW alongside.
Connections: Via Cargo Way from Third Street; Southern Pac Railroad/S.F. Belt

STEVEDORES: Stevedores orders must be placed 1000 hrs. for nig gangs and day gangs. 2×8 hour shifts 7 days a week. Sunday an Sunday night gangs must also be ordered on Saturday 1000 hrs.

MEDICAL: Medical, and all hospital facilities available. No advan notice required.

TANKERS: All major oil companies have their own oil discharging p which are outside the jurisdiction of the Port Authority. Reducing p are available. The max. drafts are 35 ft. Tankers arriving with a gr draft are partly discharged in the bay before docking.

Davis Point: Union Oil Co. Oleum Refinery Wharf, depth up to 3 MLW.

Martinez: Shell Oil Co. Wharf, depth alongside 30 ft. – 42 ft. MLW.
Phillips Petroleum Co. Amorco Wharf, 2 berths, depth 30 ft. – 42 ft. MLW.
Phillips Petroleum Co. Avon Wharf, depth alongside 35 ft. MLW.
Unich Oil Co. depth alongside 35 ft.
Ozol: Oil Wharf, depth alongside 39 ft. MLW.
Hercules; Sequoia Ref. Corp. Terminals, depth 35 ft. MLW.

DENSITY: Average density in the bay is 1016.

FRESH WATER: Available at all piers, rate 25 t.p.h. – 50 t.p.h.

FUEL: Fuel available by barge or at the oil companies own pier. Special blends require some advance notice.

FIRE PRECAUTIONS: Any special instructions are given to the Master upon docking.

CONSULS: All Maritime countries represented at San Francisco.

REPAIRS: The major yards in the Golden Gate region have fully equipped machine-shop facilities capable of handling virtually any job; welding, heavy plate construction, turning, boring, facing, grinding, milling and rolling.

The larger yards also have facilities for pipe, sheet metal, electrical, carpentry, painting, rigging, machining and boiler work.

Southwest Marine, Westwinds, Service Engineering, SFW Corp., Todd and Triple "A" Repair are all located in San Francisco and provide berth space for all types of ship repairs at plant and at any location in the San Francisco Bay area.

DRY DOCKS: San Francisco Shipyard has 3 floating dry docks, 1 with 22,000 tons capacity and 654 ft. long, 1 of 11,400 tons capacity and 542 ft. long, and 1 of 6,500 tons capacity and 450 ft. long. With a recently completed pier, its tie-up and outfitting space totals 4,271 ft.

Continental Maritime - New floating dock, carrying capacity 22,000 tons, LOA 664 ft., length over blocks 579 ft. clear draft over blocks 34.5 ft., clear width for docking 138 ft. Dock will accept vessels up to 70,000 d.w.t.

Williamette Iron and Steel Company's yard in Richmond has 5 concrete graving docks. 4 of these docks can each accommodate a vessel 600 ft. long with 83 ft. beam, and 1 dock can handle a vessel 750 ft. × 83 ft.

Tonnage capacity is limited only by the above dimensions. Williamette's facilities include 1,500 ft. of concrete outfitting pier for in-the-water repairs. The graving docks are served by 4 gantry cranes of 60 ton capacity and 2 of 45 ton capacity, and the outfitting pier by 3×45 ton cranes. Williamette has fully equipped shops for repair and conversion work, and mobile units for out-of-yard work at all Bay piers.

Hunters Point Naval Shipyard: (Triple A Machine Shop) Under lease from the U.S. Navy, graving docks and repair facilities available to all types of ships. Triple A operates 3 graving docks: (No. 4) 200 ft. beam×1,100 ft. length and 50 ft. depth; (No. 3) 150 ft.×1,000 ft. and 39 ft. depth; (No. 2) 100 ft.×800 ft. and 27 ft. depth, 17 repair berths can serve ships of any length. 12 gantry cranes of 50 ton capacity serve graving docks and repair berths. 50 ft. depth channel from Golden Gate to Hunters Point; unique to West side of San Francisco Bay.

GANGWAY/DECK WATCHMEN: Not required but this service available at Master's request.

OPENING/CLOSING HATCHES: Normally done by stevedores. But crew may open and close before arrival at the dock or after departure.

CUSTOMS ALLOWANCES: Each crew member may land free of duty and/or taxes articles acquired abroad not exceeding $10 in value, plus 50 cigars or 300 cigarettes or 3 lb. of smoking tobacco, and not over 1 quart of alcoholic beverages.

REPATRIATION: All facilities for crew changes by sea, air or land.

AIRPORT: Distance about 10 miles South of San Francisco and is served by most domestic and international passenger airlines plus 20 international air cargo carriers..

TIME: GMT minus 8 hours. Summertime from first Sunday in April till last Sunday in October – GMT minus 7 hours.

HOLIDAYS: New Year's Day; Lincoln's Birthday (February 12th); Washington's Birthday (February 22nd); Good Friday (afternoon); Memorial Day (May 30th); Independence Day (July 4th); Labour Day (1st Monday in September); Admission Day (Calif. only Sept. 9th); Columbus Day (October 12th); Veteran's Day (November 11th); Election Day (1st Tuesday after the first Monday in November); Thanksgiving Day (last Thursday in November); Christmas Day.

When any of the holidays fall on Sunday, the holiday will be observed on Monday.

On a holiday the longshoremen are working at the overtime rate (time and a half) except on the following days when no work will be performed:

1. New Year's Day;
2. Bloody Thursday (July 5th, memory of 3 longshoremen killed during the 1936 strike);
3. Labour Day;
4. Thanksgiving Day;
5. Christmas Day.

POLICE/FIRE/AMBULANCE: Dial 911 or Police Tel: 533-0123; Fire Tel: 861-8020; Ambulance Tel: 695-6600.

TELEPHONES: On some piers telephone connections to ships are available, no extra cost for this service.

SHORE LEAVE: Crew members are allowed to go ashore after passing U.S. Immigration at first U.S. Port.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany).

This service can be arranged using skips or pick-up trucks alongside. Collection by appointment. Contact Golden Gate Disposal Co. Tel: (415) 621-3840.

WASTE OIL DISPOSAL: Pick-up by tanker truck or barge at most berths. 24 hour service. H & H Ship Service Co. Tel: (415) 543-4835.

SEAMAN'S CLUBS: Apostleship of the Sea, 399 Fremont Street, San Francisco, CA 94105. Tel: (415) 421-7845.

Den Norske Fjomannskirke (Norwegian), 2454 Hyde Street, San Francisco, CA 94109. Tel: (415) 775-6566.

Golden Gate Christian Reformed Church (Chinese), 378 18th Avenue, San Francisco, CA 94121. Tel: (415) 751-2242.

Scandinavian Seaman's Mission, 2128 15th Street, San Francisco, CA 94114. Tel: (415) 861-8499.

CURRENCY: U.S.Dollar (U.S.$).

GENERAL: Vessels arrival has to be reported to the U.S. Coast Guard 24 hours prior arrival by Agent.

DEVELOPMENTS: The channel over the bar has been deepened to 55 ft. A new channel will be cut 600 ft. wide and 45 ft. deep (at low water), through the upper bay and the channel through San Pablo and Suisun Bays will be deepened to 45 ft. Manoeuvring areas near Richmond and the refinery terminals will be widened. The Stockton Deep Water Channel will be deepened to 35 ft. and the channel alignment improved.

Improvements to Pier 35 – Passenger Terminal: Improvements to the passenger boarding and unloading facilities at Pier 35, including a new Customs area have been completed.

Pier 35 is the major steamship passenger facility in the Bay Area and the point of disembarkation for tens of thousands of cruise passengers who look forward to San Francisco as a port of call or destination.

The area involved contains a 200,000 sq. ft. passenger processing facility on the first floor with a 10,000 sq. ft. visitor waiting area on the second floor.

Expansion of Rail Capabilities to Pier 94-96: New track construction, as well as reconstruction of existing track, from the Terminal to Southern Pacific's mainline track has been designed to allow unit train access onto the Container Terminal.

The Container Terminal is composed of Piers 94-96. This 65 acre three-berth facility is serviced by 4 rail-mounted cranes and represents a $45 million capital investment. An additional 75 acres of expansion area lies adjacent to the Pier.

Direct rail access to this terminal will position San Francisco as a competitive intermodal port offering direct land-bridge and mini-bridge services through Port facilities. By being able to move containers directly from ship to rail, carriers will have the advantages of reduced costs, better control of containers and less damage.

San Francisco will be the first port in California with this capability.

AUTHORITY: Port of San Francisco, Ferry Building, San Francisco, California 94111. *Tel:* (415) 274-0400. *Telex:* 275940 PSF UR. *FAX:* (415) 274-0528. *Cables:* Sfportcomm. *Contact:* Dennis P. Bouey, Executive Director. Roger Peters, Director - Cargo Services. Charles Mitchell, Chief Wharfinger.

SAVANNAH, Georgia: 32.02 N. 81.07 W. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Stores Lists.
3 Curio Lists.
3 Manifests.
3 Passenger Lists.

These documents required in order to enter vessel at U.S. Customs.

Direct Foreign Arrival – Quarantine Pratique issued by Public Health Service representative; Cargo on Customs Form 1302, in duplicate with Abstract Manifest of Savannah only cargo; Crew List on Form I – 418, in triplicate; Passenger List on Form I – 418, or other acceptable form, in triplicate; Crew Curio List, in triplicate, with Crew Declaration on Customs Form 1304, or Crew List on Form I–418, in triplicate, with numbers of attached Forms 5129 endorsed thereon for American vessels, List of Sea Stores and Ship's Stores Customs Form 1303, in triplicate; for American vessels, Repair Declaration on Customs Form 226; for American vessels, Certified Crew List; Clearance from Last Foreign Port, if one issued.

Coastwise arrival with Residue Foreign Cargo or Passengers – Form 1301, "Permit to Proceed", in duplicate; Travelling Manifest; Abstract Manifest, in duplicate, of cargo to be discharged in Savannah; Stores List, in duplicate; Crew List, in duplicate; Crew Purchase List, in duplicate, and any Crew Declarations on Customs form 5123 for Savannah for American vessels; Passenger List, in duplicate.

PILOTAGE: Savannah Pilots' Association, 550 E. York, Savannah, Georgia, 31401 (telegraphic); Pilot required all vessels; ETA 24 hours advance notice, change ETA 8 hours; VHF Channel 16 (monitored at all times), 18, 12, 13 – Radio telephone 2182 and 2738 kHz. Pilot boards vessel 1 mile outside Fairway Buoy.

SHIP CHANNEL: Project depth and widths are as follows: Sea buoy to jetties 40 ft. depth×600 ft. width; New Channel Range through Upper Flats Range 38 ft. depth×500 ft. width; The Bight Channel 38 ft. depth×600 ft. width; Fort Jackson Range to Wreck Channel 38 ft. depth×500 ft. width; City Front Channel to Kings Island Channel 38 ft. depth×400 ft. width; Whitehall Channel 35 ft. depth×400 ft. width.

ANCHORAGES: Outside Fairway Buoy, North and N.E. of Fairway Buoy; no anchorages in river.

RESTRICTIONS: 31 ft. at any time; over 31 ft. on incoming tide, no restrictions day or night.

MAX. SIZE: Abbreviation OT: Ocean Terminal. Vessels berthing at OT 14 – 15 – 16 – 17 (slip 1). Vessels 550 ft. to 600 ft. on slack water; vessels less than 550 ft. any time to Berths 14 and 17; vessels docking or undocking at OT 15 – 16, with vessels in OT Berths 14 and 17, can be docked or undocked during slack water.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Vessels route ETA cables to Agents, etc., via Radio Lantana.

TUGS: Tugs join vessels at city front for berths above city; for berths below city, tugs usually meet vessels in vicinity of Fort Jackson or well below berth. Tugs' lines used at all times.

BERTHING: The Georgia Ports Authority operates 12 general cargo berths, 2 tanker berths, 5 container berths and 1 dry bulk cargo berth.

CRANES: *Ocean Terminal:* One 175 short ton gantry crane, one 100 short ton gantry crane, two 50 short ton gantry cranes, one 30 short ton gantry crane, one 100 ton mobile crane, one 30 ton mobile crane. *Garden City Terminal:* Two 35 short ton gantry cranes, one 100 ton mobile crane, one 30 ton mobile crane. Garden City Terminal (container port) – 9×45 short ton container cranes, 9×45 short ton rubber tyred bridge cranes. Other cranes, floating and mobile, are available from various private contractors.

BULK CARGO FACILITIES: Located at the Georgia Ports Authority's Garden City Terminal are 1 dry bulk cargo berth (loading). This facility is suited for the handling of various ores, grains, peanuts, meals and fertiliser materials. The storage at this facility consists of silos for the storage of grain and grain type products as well as flat floor storage for these various other materials.

Colonial Terminals: Kaoline/mineral bulk terminal. Handling rate 800 t.p.h. 12×109 cu.ft. Silos for kaoline. Minerals stored in 8×73,000 cu.ft. storage bays.

SPECIALISED CARGO HANDLING FACILITIES: Located at Container Port, on the up-river end of Berth 60, is a stern Ro-Ro ramp which is situated as to allow a vessel to utilise the Ro-Ro ramp and container cranes at the same time. Accommodating side and quarter ramps also available. At the Garden City Terminal there is a modern cold storage facility. The refrigerated space consists of 3 rooms of approximately 68,000 sq. ft.

BRIDGES: *Eugene Talmadge Memorial Bridge:* 135 ft. vertical clearance for 400 ft. at MHW. Distance between fender uprights – 600 ft.

Also see "Developments".

MEDICAL: Agent should be advised as far in advance as practicable for required medical attention. U.S. Public Health Clinic in Savannah, also other extensive medical facilities. Standard information required as to inoculations, vaccinations, etc.

TANKERS: Standard requirements on diameters of load/discharge lines. No facilities for slop (residue) discharge facilities except American Oil Company. A.P.I. of local types of oil is 36 gravity marine diesel fuel. 8 tanker berths in port, max. drafts range from 32 ft. – 38 ft.

DENSITY: Average density of water at 20° Centigrade in channels of Savannah Harbour are:

	High Water	Low Water
Savannah River Entrance		
Surface	1.0196	1.0090
Bottom	1.0196	1.0181
Port Area		
Surface	1.0022	0.99915
Bottom	1.0120	1.0075

FRESH WATER: Available at all terminals.

FUEL: Marine gas oil (No. 2 Fuel). Marine diesel oil (No. 4 Fuel Oil). All Intermediate grades from Intermediate 30 (=30 centistokes at 50°C) to Intermediate 420 (=420 centistokes at 50°C) Bunker fuel oil (No. 6 Fuel). Advance notice of 24 hours required.

FIRE PRECAUTIONS: No special fire precautions. All tanker berths have water and fire extinguishers on dock. Fire fighting equipment on dock. Fire fighting equipment on tugs.

CONSULS:

Savannah: Brazil (912) 234-2266. Dominican Republic (912) 234-2266. France (912) 236-2491. Germany (912) 236-8165. Italy (912) 232-5581. Sweden (912) 238-2301.

Atlanta: Consulate of Austria (404) 252-7920. Consulate General of Belgium (404) 659-2150. Consulate of Bolivia (404) 320-9312. Consulate of Brazil (404) 659-0660. Consulate General of Canada (404) 577-6810. Consulate of Chile (404) 266-1650. Consulate of Colombia (404) 320-9665. Consulate of Costa Rica (404) 455-1007. Royal Danish Consulate (404) 522-8811. Consulate General of Ecuador (404) 475-4751. Consulate of El Salvador (404) 252-8425. Consulate of Finland (404) 446-1400. Consulate of France (404) 525-1100. Consulate General of Germany (404) 659-4760. British Consulate General (404) 524-5856. Consulate of Greece (404) 261-3313. Consulate of Guatemala (404) 255-7019. Consulate of Haiti (404) 455-3434. Consulate of Iceland (404) 321-0777. Consulate General of Israel (404) 875-7851. Consulate of Italy (404) 875-6177. Consulate General of Japan (404) 892-2700. Consulate General of Korea (404) 522-1611. Consulate of Luxembourg (404) 952-1157. Consulate of Mexico (404) 688-3258. Consulate of The Netherlands (404) 525-4513. Consulate of Nigeria (404) 577-4800. Consulate General of Panama (404) 521-0221. Consulate of Sweden (404) 223-0374. Consulate of Switzerland (404) 872-7874. Consulate of Turkey (404) 451-8100.

REPAIRS: All types of deck and engine repairs possible at Sayler Marine. Deck repairs from Diamond Manufacturing Company.

Radar/VHF Repairs: Coastal Electronic Maintenance has qualified radar and RDF, also VHF men available. They can be contacted through ship's Agents or through the Pilots or Atlantic Towing if vessels should require service on arrival.

DRY DOCKS: Sayler Marine Dry Dock 540 ft.×72 ft.×21 ft.

SURVEYORS:

Savannah: Atlantic Marine Surveying, Inc. (912) 354-9938. Coleman Kenney & Silas, Inc. (912) 352-7420. International Adjusters Southern Ltd. (912) 352-7420. International Maritime Services, Inc. (912) 964-8970. Maritime Bureau Incorporated (912) 238-3400. National Cargo Bureau, Inc. (912) 236-1527. SGS Control Services, Inc. (912) 355-4429. L.O. Smith, Inc. (912) 233-9876. Southeastern Marine Surveying Co. (912) 233-4157. J.W. Tarver Jr. (912) 233-6661. Charles T. Theus, Inc. (912) 233-3588.

Atlanta: East Coast Maritime Services, Inc. (404) 252-3990. INA Loss Control Services (404) 292-2363. Marine Associates, Inc. (404) 448-2593.

GANGWAY/DECK WATCHMEN: Garden City and Ocean Terminals of Georgia Ports Authority, East Coast Terminal Company and Georgia Kaolin International require that a watchman, or someone in authority, will be aboard any vessel tied to their facilities at all times.

CERTIFICATES: See "Documents". Current Registry Papers, Load Line Certificates, Certificates of Inspection, etc., are required.

CUSTOMS ALLOWANCES: Tobacco, a crew member may take ashore 50 cigars, 300 cigarettes, or 2 kilos of smoking tobacco, or a proportionate amount of each. An appropriate amount of tobacco products may be held out of bond for use of passengers and crew members while aboard ship when in port. Wine and/or Spirit, a crew member may take ashore one litre of alcoholic beverages for his own use. Container should be opened, that is the seal should be broken. An appropriate amount of wine and/or spirits may be held out of bond for consumption by passengers and crew while aboard ship when in port.

CARGO GEAR: Certified in accordance with U.S. Department of Labor Regulations. Supplied by stevedores.

REPATRIATION: Responsibility of Owner's Agents. Can be arranged to all points.

AIRPORT: Savannah International Airport regularly served by Delta Airlines, Inc. with 7 scheduled flights daily; Eastern Airlines with 5 flights daily; Piedmont Air with 4 flights daily.

TIME: Savannah maintains Romeo or Eastern Standard Time, GMT minus 5 hours, from 0200 hrs. the last Sunday in October, to 0200 hrs. the first Sunday in April. Quebec or Eastern Daylight Saving Time, GMT minus 4 hours maintained from April to October.

HOLIDAYS: New Year's Day (January 1st); Martin Luther King's Birthday (January 15th); Lincoln's Birthday (February 12th); George Washington's Birthday (third Monday in February); Teddy Gleason's Birthday (March 17th); Memorial Day (Last Monday in May); Independence Day (July 4th); Labour Day (First Monday in September); Columbus Day (second Monday in October); Armistice Day (November 11th); Thanksgiving Day (Fourth Thursday in November); Christmas Eve (December 24th); Christmas Day (December 25th); New Years Eve (December 31st); Good Friday; one National Election Day annually.

No work will be performed on New Year's Day, Independence Day, Labour Day, and Christmas Day.

POLICE/AMBULANCE/FIRE: Police: (Emergency only) Tel: 911; Police, City: Tel: 232-4141 and 233-9321. County Police: Tel: 352-7780; Ambulance: Chatham County Emergency Medical Service: Medstar, Tel: 355-7515; Fire: (Emergency only) Tel: 911; City: Tel: 232-5121.

TELEPHONES: G.P.A., Garden City and G.P.A., Ocean Terminals telephones on board can be provided through local Agents. S.C.L. Terminal – not available to ship (phones on dock).

BANKS:

Savannah:

Bank South, P.O.Box 9208, 31412. Tel: (912) 236-5521.

Carver State Bank, P.O.Box 2769, 31402. Tel: (912) 233-9971.

Citizens & Southern National Bank, P.O.Box 9586, 31412. Tel: (912 944-3000.

First Bank of Savannah, P.O.Box 8759, 31412. Tel: (912) 944-6000.

Georgia Federal, P.O.Box 9209, 31412. Tel: (912) 236-8212.

Great Southern Federal, P.O.Box 8206, 31412. Tel: (912) 944-6200.

Savannah Bank & Trust Company, P.O.Box 9947, 31412. Tel: (912 234-3441.

Southern Bank & Trust Company, P.O.Box 9747, 31412. Tel: (912 235-4400.

Trust Company Bank, P.O.Box 8668, 31402. Tel: (912) 944-1000.

Atlanta:

Citicorp (U.S.A.), Inc. 211 Perimeter Ctr. Pkwy, Suite 800, 30346 Tel: (404) 391-8500. Telex: 804832.

Citizens & Southern National Bank, 35 Broad Street, N.W., 30303 Tel: (404) 581)-2121. Telex: 542346.

First National Bank of Atlanta, 2 Peachtree Street, N.W., 30383 Tel: (404) 588-5000. Telex: 542309.

Bank of America, P.O.Box 56567, 30343. Tel: (404) 656-1000 Telex: 804345.

Bank of the South, P.O. Box 4387, 30302. Tel: (404) 529-4111 TWX: 810-751-3120.

Chase Bank International, 5775-F Peachtree Dunwoody Road, 30342 Tel: (404) 255-7717. Telex: 549541.

Manufacturers Hanover International, Banking Corp., 230 Peachtree St. NW, Suite 1800, 30303. Tel: (404) 223-5400. Telex: 804697.

National Bank of Georgia, 34 Peachtree Street, N.W., 30301. Tel: (404 586-8000. Telex: 542318.

Trust Company Bank, P.O. Box 4418, 30302. Tel: (404) 588-7711 Telex: 542491.

Foreign Bank Representative Offices in Atlanta:

Algemene Bank Nederland, N.V., Atlanta Agency, One Ravinia Dr Suite 1200, 30346 Tel: (404) 396-0066. Telex: ITT 4611012.

Banca Nazionale Del Lavoro, Atlanta Representative Offic Peachtree Center Gaslight Tower, Suite 2000, 235 Peachtree Stre N.E., 30303. Tel: (404) 581-0143. Telex: 542194.

Banco Do Brasil, 230 Peachtree Street, N.W., Suite 800. 303 Tel: (404) 577-4050. Telex: 804299.

Bank of Nova Scotia, 2 Peachtree Street, N.W., Suite 909. 303 Tel: (404) 581-0807. Telex: 542319.

Bank of Tokyo, Ltd., 235 Peachtree Street, N.E., Suite 1001. 303 Tel: (404) 577-2960. Telex: 542462.

Barclays Bank, 1800 First Atlanta Tower, 30383. Tel: (404) 588-04 Telex: 542575.

Bayerische Verrinsbank, 230 Peachtree St., NW, Suite 600, 30 Tel: (404) 522-2636. Telex: 804688.

Canadian Imperial Bank of Commerce, 2 Peachtree Street, 1400 F Atlanta Tower, 30383. Tel: (404) 577-1628. Telex: 542413.

Commerzbank, 2 Peachtree Street, N.W., Suite 1010. 30 Tel: (404) 524-0665. Telex: ITT 4611085.

Credit Suisse Bank, 1601 First Atianta Tower, 2 Peachtree St. N 30383. Tel: (404) 577-6100.

Credit Lyonnais, 235 Peachtree St. NE, Suite 2210, 30303. Tel: (404) 524-3700. Telex: 804567.

Industrial Bank of Japan, 235 Peachtree Street, N.E. Atlanta Gaslight Tower, Suite 1500, 30303. Tel: (404) 524-8770. Telex: 543711.

Kredietbank N.V., First Atlanta Tower, Suite 2936, 2 Peachtree Street, N.W., 30383. Tel: (404) 688-3470.Telex: 804376.

Lloyd's Bank International, 235 Peachtree Street, N.E., Suite 1400. 30303. Tel: (404) 524-6544. Telex: 804270.

Swiss Bank Corporation, 235 Peachtree Street, N.E., Suite 1700. 30303. Tel: (404) 522-1600. Telex: 542356.

Toronto Dominion Bank, 133 Peachtree Street, N.E., Suite 3900. 30303. Tel: (404) 522-9360. Telex: 542434.

STORING: See "Prelims".

1. Yes
2. Yes
3. Yes
4. Yes
5. Usual U.S. Customs Regulations
6. Yes

SHORE LEAVE: Crew members are allowed ashore provided they are not detainees.

IDENTIFICATION CARDS: Identification required by crew members coming ashore. U.S. Immigration & Naturalisation Service issues landing permit, I-94, to any passenger; and I-95, to any crew member of a foreign vessel who is not considered a security risk. This form must be in man's possession any time he is ashore.

DELAYS: With reasonable advanced notice of ETA no delay anticipated in berthing, loading, discharging or bunkering.

DEVELOPMENTS: Container Berth No. 6 under construction.

New bridge constructed close seaward of Talmadge Bridge with clearance of 186 ft. at H.W.

Channel to be dredged to 42 ft. (from 38 ft.).

Channel has been widened from 400 ft. to 500 ft.

SHIPMASTER'S REPORT: August 1980.

Pilotage: Because of difficulties with the port crane and large storing programme we elected to berth starboard side alongside this call.

The Pilot will only undertake this on the flood (since vessel is invariably deep, berthing will only be done on the flood in any case) but because of a delay we were off the berth very nearly at slack water. The Pilot carried out the manoeuvre in the most reassuringly competent manner and I would not hesistate to do the same again if necesary; only with a Pilot prepared to carry out the manoeuvre.

Vessel is swung downriver off the container berth, about 4 cables below the berth.

When landed on starboard side to, it is just possible to plumb the berth with the crane by making the connection to the after crossover.

Discharge: Straightforward; some slight initial delay. Capable of receiving cargo at over 1,000 t.p.h. Our rate 810 t.p.h. overall.

Connection 12 in. 150 ASA. No VRL.

Density 1000 this call.

Storage capacity about 50,000 cu.m. Storage plant only for filling road and rail tankers.

U.S.C.G.: Deck inspection before commencing. Vessel was congratulated on her 'very high standard of equipment and personnel'. Monitoring detail on board throughout. Scuppers unplugged, please.

They are aware of the draft problem at LW and boarded immediately on berthing.

General: Lloyd's Surveyor easily available.

Bunkered lube oils whilst discharging with U.S.C.G. approval.

Can touch up ship's side from quay.

Movements allowed at night, dependent on draft/tide.

Chandler: Southern Marine: Poor service this time despite our cables. This is in contrast to excellent service last time. These services are entirely at the mercy of ship representative.

SHIPMASTER'S REPORT: October 1980 (Updated 1984).

Approach: From East: The coast between Sandy Point to Isle of Palms near Charleston shows up at 40 miles and South of Hunting Island near Port Royal Sound at 35 miles, on radar. Port Royal Channel gives a good radar echo at 15 miles. Soundings give little indication of position until fairly close inshore. Savannah light was observed at 28 miles.

D/F stations at Tybee and Charleston are useful if nothing else is available.

Anchorage: Pilots advise anchoring to N.E. of Savannah Light Beacon. Good holding ground without obstructing arriving and departing traffic.

Arrival Procedure: ETA through Agents.

For deep draft ships proceeding to Ammonia Berth No. 61 about 5 miles above town, Pilot will board between 3 hours to 1.5 hours before HW.

Under 31 ft. can berth/sail any state of tide day or night. Berthing day or night.

Can berth either side to, the generally accepted side to is port side. However, if taking stores try for starboard side as the crane plumbs better, plus the Chicksan arm is in the way of trucks.

For starboard side to, arrive well in time for earliest Pilot boarding time.

The problem is the berth has a reported 36 ft. at LW (actually by lead line we found (Oct. '80) a minimum of 33 ft. 9 in. reduced to datum along the dock face). Therefore before LW you have to pump out about 2,000 tonnes, any delay can be important.

Pilots: Board from large cutter between Savannah Light and Whistle Buoy.

Give plenty of notice as cutter might be lying up-river at Pilot Station. Based at Cockspur Island in the ship channel. Call "Savannah Pilots".

Pilot ladder must be 8 ft. above water. Side dependent on wind.

Berthing Pilot joins from tug using own ladder at Kings Island.

On departure from berth, Pilot requires 1.5 hours notice.

VHF: "Alpha" Channels used frequently.

U.S.C.G. uses 22A, Pilots use 18A, tugs use 19A. Otherwise use 16, 12 and 13.

Channel: The maximum draft of vessels has been 39 ft. with a 6 ft. tide. Normal maximum 37 ft. This can only take place on the flood so as to be on the berth at slack water.

Channel is narrow, less than Houston Ship Canal. Constant dredging is required. From Whistle Buoy to berth is about 3 hours.

Vessel is swung in Argyll Turning Basin off the container quay. 24 hour navigation is undertaken.

From soundings from Savannah Light Beacon to Berth No. 61 proceeding inwards 3 hours before Savannah HW (2.5 m.) a minimum of 1.6 m. under keel was found with draft 11.15 m.

Berth: Depth: See "Plan". Minimum depth reduced to datum found to be 33 ft. 9 in. along jetty face.

Berth No. 61: Owned by G.P.A. and leased to Occidental.

Concrete jetty on piles with centre section connected by roadway to shore, and mooring dolphins either end connected to jetty by catwalk. Length of centre section 266 m. Good fendering.

The upriver dolphin is not used due to damage. Can turn gangway out before arrival.

Pilot with the aid of powerful tugs swings vessel in very competent manner at Argyll Turning Basin.

Density: 1001 to 1002.

Moorings: Basic 3, 2, 2, each end. Forward headlines (3) go to Ro-Ro dock and breastlines to dolphin with springs to main jetty. Due to damage the upriver dolphin cannot be used so all stern and breast lines go to Grain Berth No. 62.

Springs out first, last in. Mooring boat used. Port Authority mooring gang require 4 hours notice.

Tugs: Atlantic Towing Company and Crescent Towing and Salvage Company of Savannah, Inc. based along town water front. Several large and powerful tugs. Two used, one each end, American style, tie up with own lines alongside. One and a half hours notice required.

U.S.C.G.: Very co-operative. Although Agent will try to get them to board in river for pre-inspecton, they board at dock. Carry out Check List and inspection before cargo allowed to be worked. Takes about 30 minutes.

One U.S.C.G. rating on board at all times (8 hour shifts). Strict on pollution.

The U.S.C.G. do not seem to mind which way round the ship is berthed. Scuppers to be plugged.

Discharge: Into mobile Chicksan (as berth only leased). After manifold if starboard side too. Maximum rate about 1,200 t.p.h. but generally nearer 900 t.p.h. to 1,000 t.p.h. Connection 12 in. 150 ASA. No vapour return line. Shore tank capacity 45,000 tonnes, which fills rail and road tankers. Takes about 45 minutes to connect/disconnect. Shore labour assist. Shore personnel always in attendance. Manager very helpful.

In light ship condition we had 18 m. air draft which did not create any difficulties.

General: Lloyd's Surveyor easily obtainable from Jacksonville. Fresh water from jetty, require 6 hours notice, especially at weekends.

Lube oils whilst discharging with U.S.C.G. permission. Stores lorry able to get close alongside ship.

Ship's crane (if starboard side to) will just plumb after end of jetty.

Liferaft service (Beaufort) at Southern Ship Supply – 24 hour service.

Shoreline infested with rats, snakes and big spiders.

Chandler: Southern Ship Service, good fresh produce.

Town: About 5 miles away. Can telephone for taxi – free of charge local calls, from hut at grain berth about 100 yards from gangway.

Airport 6 miles South of town centre with regular flights to Atlanta International, etc.

SHIPMASTER'S REPORT: August 1990.

Charts: B.A.Charts No. 2807 and 2865.

Approaches: New exploration towers around 80° 10' W., about 45 miles offshore give a guide.

Coastline low, first indications on radar at 30 miles.

Savannah Light good, but Racon not operating (Pilots report that it rarely does).

About 30 miles East of the Gulf Stream axis, a Southerly set of about 1 knot was found.

Pilots: Pilot boards from large fast blue hulled cutter named 'Georgia' or smaller cutter called 'Savannah' at Fairway Buoy. Pilot will advise height of ladder, dependent on cutter.

Pilot Station at Cockspur Island inside breakwater at Lat. 32° 02.05' N., Long. 80° 54.20' W. Just West of the Pilot Station is a U.S.C.G. base.

Usual East Coast U.S.A. practice, tug master actually berths and unberths vessels.

Pilotage to Ammonia Berth (No.61) at Garden City is about 2.5 hours.

VHF: Pilots generally use Channel 14.

Anchorage: North of Savannah Light Tower, exposed.

Entry: For gas carriers no night transit inward or outward, unless totally gas-free, between 1600 hrs. (last pilot boarding time) and 0700 hrs. (first pilot boarding time).

U.S.C.G. do not escort vessel, unlike some other U.S. ports.

Channel: The range light at Fort Scriven is conspicuous. Pilots report 33 ft. maximum draft any state of tide, or 39 ft. H.W. to Berth No.61, above this berth to Port Wentworth 20 ft. at L.W. Maximum length 1,000 ft.

Actually found 36 ft. (reduced to M.L.W.S.) as minimum depth to Berth No.61. Least depth about 1 mile seaward of Talmadge Bridge.

New Bridge nearly completed, just seaward of Talmadge Bridge. Completion due early 1991. Vertical clearance MHW – 185 ft. When commissioned, the old bridge will be removed.

Tugs: 9 tugs up to 4,000 i.h.p. available from Atlantic Towing (now under new name) and Crescent. Two tugs and tug's lines generally used. Tugs join just upriver of bridge.

Berth: Ammonia Berth is Berth No.61 at Garden City, just above container quays. Berth is able to take up to 75,000 cu.m. gas carriers, but restricted due to river draft.

Always port side too, head upriver. Vessel swings in adjacent turning basin on departure.

Concrete dock with reasonable fendering. Mooring dolphin either end of dock connected by catwalk.

Mooring leads good (2, 2, 2), if bollards on adjoining docks used. No mooring boat, using wires as head or stern lines takes a long time.

Cargo: Mobile Chicksan which plugs into quay (12 in. 150 ASA coupling). It can take a long time to disconnect, if Chicksan diesel power plant fails to operate, which it is prone to.

Discharge to 45,000 tonne tank behind Soya Bean Silo. Actual pumping distance is about 0.5 miles.

Sometimes VRL from shore used (out of commission this visit).

Fast pumping at around 850 t.p.h. at maximum B.P. of 6.8 kg. (100 p.s.i.), back pressure generally less.

Only NH3 handled, terminal likes product cold - no warmer than −32°C.

Surveyors (Saybolt) prompt and read draft when vessel berths.

Terminal representative onboard throughout discharge, in Cargo Control Room with UHF set.

U.S.C.G. very attentive and always board vessels on arrival.

Pipework checked for soft patches – leaks, if any found, vessel will nearly always be refused permission to discharge.

Facilities: Fresh water available on jetty. Good pressure, no charge.

Stores trucks allowed alongside forward up to Chicksan position.

Bunkers by barge during discharge.

Public telephones near Soya Bean Silo office, or Agent leaves his mobile on board.

Local airport very near at hand with frequent flights to Atlanta International.

Chandler – We obtained some bonded stores from Southern Marine Supplies. Prices high compared with Tampa, and range limited.

SHIPMASTER'S REPORT: August 1996.

Charts: B.A. 2801 and B.A. 2807.

Approach: Flat and featureless. From the N.E., the Port Royal buoyed channel is radar conspicuous.

The light on Savannah Tower is not conspicuous. Racon can be detected at about 12 miles.

Anchored vessels N.E. of Fairway Buoy are a good indication of approach.

Anchorage: N.E. of Fairway Buoy in approx. position Lat. 31° 59' N., Long. 80° 42' E., open and exposed. Holding poor.

Pilot: Available 24 hours. Pilot station on Cockspur Island just seaward of U.S.C.G. Station Tybee (Lat. 32° 02' N., Long. 80° 53.9' W.). Pilot boards at Fairway Buoy.

Two launches – "Savannah" and "Georgia". "Georgia", the largest, is fast and powerful. For ships with low freeboard, Pilot steps onboard from launch boarding gantry. Launch can operate in all conditions. To board and disembark, vessel to have speed of 6 knots to 8 knots. Vessels berthed to order Pilot 2 hours in advance for leaving.

VHF: Pilot station as ALRS, principally Channel 14.

Channel: Controlling drafts refer to fresh water. 37 ft. any tidal state. 42 ft. on HW.

Port can take all Panamax container ships.

Fog can cause delays. Vessels already underway in channel continue on radar, otherwise if at berth or seaward of Fairway Buoy, wait for fog to clear.

Distance to city docks – 24 miles (about 3 hours).

Vessels can generally berth any side to, dependent on load/discharge requirements.

Four Turning Basins – Fig, Marsh, Kings and Argyle Islands.

For Colonial Docks, the Marsh Island Turning Basin is used if necessary.

Vessels up to 120 m. LOA with thruster can usually turn short round in river.

Tugs: Two companies (Atlantic and Coastal) have numerous powerful tugs, based near city waterfront. Tugs' lines used. Dependent on size and thrusters, vessels normally take at least one tug. Tugs join vessels at Talmadge Bridge.

Weather: Hurricane season officially 1st June to 30th November.

If hurricane is approaching, the U.S.C.G. Captain of the Port will require vessels to leave port, if able to do so.

The area is low lying and does not provide a safe haven.

Berth: Discharge of Sulphuric Acid at Colonial Dock No. 3 (Lat. 32° 06.10' N., Long. 81° 06.9' W.). Berth also used for discharge of other chemicals and fuel oil.

The berth is a common user terminal as part of Kaolin Clay complex. Vessels should be securely moored due to passing traffic.

The ebb is strongest at a maximum of 5 knots.

We found a density of 999 at H.W. and L.W. Tidal range up to 8 ft.

Reported to have 26 ft. M.L.W. alongside.

The berth is a tanker 'T' type of substantial concrete construction with large outlying mooring dolphins connected by catwalks.

Moorings: Depends on ship size. If port side to – 2,2,2. Stern lines to shore bollard. Good mooring gang.

Cargo: Sulphuric Acid discharged through 1×6 in. rubber hose with flange connections. Hose strung from hose gantry. Discharge rate about 500 tonnes/hr. into 2×12,000 tonne tanks near berth.

Sample surveys prior to discharge. No discharge until samples passed.

Facilities: Fresh water available ex-berth, connection near hose gantry. It has good pressure.

Telephone at next berth upriver.

Stores have to be hand-trucked along mooring catwalk to dolphin, about 100 m. Vessel cannot handle stores amidships whilst working cargo.

Chandler – used Southern Marine – good.

Savannah Airport about 15 minutes from ship.

Fuel by barge. Minimum HFO quantity is 100 tonnes. All fuel grades available.

All facilities, including repairs.

Authorities: Liable to U.S.C.G. visit.

Customs require crew members signing-off to present themselves at Customs House with baggage, they will not clear on vessel.

The following documents are required if first port:

6 copies Crew List.
2 copies Stores List.
2 copies Crew Effects List.
2 copies Declarations.
3 copies Cargo Manifest.
Crew Shore Passes.

AUTHORITY: Georgia Ports Authority and East Coast Terminal, Savannah Port Authority.

The Savannah Port Authority does not operate terminals; however, is engaged in port and industrial development for the City of Savannah and Chatham County, Georgia. Harbour Regulations, pier and bulkhead lines, etc., come under the jurisdiction of this organisation.

Georgia Ports Authority, P.O.Box 2406, Savannah, Georgia 31402. *Tel:* (912) 964-3811. *Telex:* 804782 and TWX 810-784-5634. *Cables:* Gaports. *FAX:* (912) 966-3615. *Contact:* George E. Nichols, Executive Director.

SEARSPORT, Maine: 44.28 N. 68.56 W. (See Plan)

LOCATION: The Port of Searsport is located on Penobscot Bay, approximately 112 road miles East of Portland, and 20 miles from Bangor.

DOCUMENTS:

Clearance from Last Port.
2 copies of Form 1300 (Master's Oath).
2 copies of Form 1301 (General Declaration).
3 copies of Form 1302 (Inward Foreign Cargo Manifest).
NOTE: Form 1302 will only be accepted.
2 copies of Form 1303 (Ship's Stores Declaration)
(Including Narcotic Medicines).
Form 1374 Outward Foreign Manifest.
2 copies of Form 1304 (Crew Effects Declaration).
2 copies of I-418 (Crew List).

Also available: Vessel Register, Safety Equipment Certificate, Load Line Certificate, Certificate of Financial Responsibility, (Oil Pollution), and U.S. Tonnage Tax Receipts.

PILOTAGE: Ship's agent notifies Pilot approximately 48 hours in advance of arrival, correcting at 24 hours. Pilot's boat called on Channel 16.

Vessels from South and West, Pilot boards at Monhegan Island (Buoy 14M). Vessels from East, Pilot boards at Matinicus (Buoy 2WB). The Pilot Station is located on Matinicus Rock Island. Pilot boards at Wooden Ball Light Bell Buoy "2WB." Lat. 43° 49' N., Long. 68° 50' W.

The pilot boat is a fishing boat with a white hull showing the international signals.

Pilot signal: 3 long and 2 short on ship's whistle.

Radio contact: VHF Channel 16 (156.8 MHz).

36 and 24 hours ETA requested, cable "Penbay – Belfast/Maine", via Chatham Radio.

ANCHORAGES: No restrictions on anchoring.

RESTRICTIONS: No restrictions at night. Deep draft vessels brought in only on high water. Draft in concurrence with docks, 32 ft. low water. 10 ft. rise in tide – approach to Searsport 35 ft. – Bay 60 ft. limit.

MAX. SIZE: Size of vessel restricted to 38 ft. draft in harbour area. No outside installations at the port yet.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Tugs in Searsport Harbour use Channels 16 and 13. Vessels arriving Searsport go through radio station at Chatham, Mass., RCA installation, SSB station or a VHF public correspondence station.

TUGS: Maineport Towboats Inc., Marshall Wharf, Belfast, Maine 04915. Tel. (207) 338-3000. 24-hour service. Requested that orders for tugboat service be given during normal business hours, 24 hours in advance.

Tugs: "Verona", 1,800 h.p.
"Mack Point", 1,800 h.p.
"Cape Rosier", 1,800 h.p.

Radio: Ship to ship, VHF Channels 16-13-10.

Sea Pilots dock ship with tug's assistance.

BERTHING: Draft conditions govern arrival and departures.

Bangor and Aroostock Pier: Length 800 ft., width 100 ft. Depth alongside (East side) 34 ft., (West side) 30 ft.

This pier handles a wide variety of cargoes including petroleum, forest and agricultural products, such as newsprint, tapioca, long logs dimension lumber, potatoes, etc.

Cargoes can be off-loaded or loaded directly from or to railroad ca or trucks. There are 4 warehouses on the facility available for import export cargoes.

C. H. Sprague Dock: Length 614 ft., depth alongside East side 33.6

This facility has and can handle many bulk cargoes, including sa coal, gypsum, potash, bauxite, liquid chemicals, and Bunker petroleum. There are 3 towers for discharge of bulk cargoes.

Turning basin off docks, depth 34.5 ft. and 1,200 ft. width.

STEVEDORES:

Weekdays:

Order gangs by 1700 hrs. for following day 0800 start.
Order gangs by 0900 hrs. for same day 1300 start.
Order gangs by 1300 hrs. for same day 1800 start.

Weekends:

Order gangs by Saturday 1200 hrs. for a Sunday 0800 start.
Order gangs by Saturday 1200 hrs. for a Monday 0800 start.

MEDICAL: No advance notice required by Agent. 1 hospital, W County, which takes bed patients.

TANKERS: 2 berths at Searsport – 2 for No. 6 oil and 1 for light oil and gas. 2×8 in. hoses. 34 ft. LW.

DENSITY: Average density 1024.

FRESH WATER: Available by tug for boilers only at rate of tug hire at anchorage. Drinking water available at piers.

FUEL: No. 6 oil at C. H. Sprague Dock. Light oils delivered by tank truck at dock.

FIRE PRECAUTIONS: At certain oil piers information given to Shipmaster upon arrival at pier. Ample fire protection, salt-water lines, sprinkler system on pier, local fire department.

CONSULS:

French: Dr. Paul O. Proudian, 776 Main Street, Westbrook, Maine.

Finnish; Frank W. Bjorklund, 163 Main Street, Norway, Maine.

Italian: Dr. Domenica A. Santoro, 43 Deering Street, Portland, Maine.

Norwegian: Allan Kjos-Hansen, 30 Mayer Road, Portland, Maine, Vice-Consul.

Panamanian: Mary Navarro de Carrillo, Lafayette Town House, Portland, Maine.

Swedish: Martin Johnson, Vice Consul, 443 Congress St., Portland, Maine.

REPAIRS: All types of machinery repairs.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Ship's crew may open hatch after longshoremen boarded ship.

CERTIFICATES:

Load Line Certificate.
Certificate of Foreign Clearance.
Ship's Safety Certificate.
U.S. tonnage Tax Certificate of previous trip if have them.
Radio Operator Licence.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes per man. Wine and/or Spirit allowance 1 bottle per person.

CARGO GEAR: No additional cargo gear necessary.

REPATRIATION: Arrangements must be made with Agent in advance by telegram.

AIRPORT: Bangor International Airport, 30 miles, Delta, United Airlines.

HOLIDAYS: New Year's Day; Washington's Birthday; Patriot's Day; Memorial Day; Independence Day; Labour Day; Thanksgiving Day; Christmas Day and Veteran's Day. Possible to get gangs to work all days except on Labor Day and Christmas.

POLICE/AMBULANCE/FIRE: Police Tel: 548-6372; Ambulance Tel: 548-2900; Fire Tel: 548-2900.

TELEPHONE: Arrangements can be made to have phone put on ship, but most docks have pay phones.

IDENTIFICATION CARDS: Form I-95 must be filled out on arriving unless seamen has had a prior one made out for a previous arrival on same ship (on plastic card).

DEVELOPMENTS: Directly across from the Port of Searsport lies Sears Island. A major new cargo facility and industrial park will be constructed. Emphasis will be directed toward potential user groups, equipment assembly and manufacturing, plus a full spectrum of forest products storage and shipment.

This development will feature modern container-handling facilities and breakbulk handling capability.

AUTHORITY: State of Maine, Department of Transportation, Division of Ports & Marine Transportation, State House Station No. 16, Child Street, Augusta, Maine 04333. *Tel:* (207) 287-2841. *FAX:* (207) 287-2896. *Contact:* R.D. Elder, Port Development Director.

Town of Searsport, Maine, P.O.Box 499, Searsport, Maine 04974. *Contact:* Wayne Hamilton, Harbour Master. Tel: 548-2985.

SEATTLE, Washington: 47.36 N. 122.20 W. **(See Plan)**

PORT LIMITS: Port of Seattle limits are co-extensive with the boundaries of King County in which Seattle is situated. A vessel has "arrived" when it has tied-up to a berth.

DOCUMENTS (on arrival from foreign):

Clearance from Last Foreign Port.
2 Crew Lists on Form. I-418.
2 Passenger Lists on Form I-418 (if applicable).
Passenger Declarations if applicable.
2 Stores Lists.
2 Crew Purchase (curio) Lists.
2 Manifests of Cargo for discharge on CF1302.

If first arrival port on an inward voyage, must also have 2 sets of Manifests of complete cargo on 1302, one for Customs at this port and the other for use as a "Travelling Manifest" to go forward to other discharge ports.

(A) – For U.S. Public Health Quarantine Boarding Officer: "Quarantine Declaration" on Form PHS.43. (Only required if boarding on arrival is necessary) see "Health" before first U.S.A. port.

(B) – For U.S. Dept. of Agriculture Boarding Officer: "Shipmaster's Declaration and Warning Notice" on Form AIQ.43.

(C) – For U.S. Immigration Boarding Officer:
Crew List on Form I-418 visaed by U.S. Consul abroad.
Passenger List on Form I-418.
Attachment to Passenger List on Form I-92.
Form I-94 for each passenger.
Form I-95 or ID Card (Form 184) for each crewman. (These are reusable for multiple entries, but for seamen on first trip to United States a new Form. I-95 must be ready for presentation on arrival).

(D) – For U.S. Customs Boarding Officer and Agent or Broker:
3 copies Crew List (Form I-418).
3 copies Cargo Manifest on Form 1302.*
3 copies Stores List – Form 1303.*
3 copies Crew Purchases or Curio List (Form 1304).*
3 Passenger Lists on Form I-418.
For U.S. Ships – Declaration re foreign repairs on Form 3415.
For U.S. Ships – Certified Crew List from last U.S. port before going foreign.

*At subsequent U.S. ports of call 2 copies required of extracts Cargo Manifests of cargo for the port concerned, and 2 copies of Lists of Stores and Curios remaining on board.

PILOTAGE: Compulsory for all vessels except those on coasting trade. Pilots may be obtained from Port Angeles Pilots' Association, Seattle, at short notice. Inward, Pilot boards vessel at Pilot Station off Port Angeles.

Port Angeles Pilots: Pilotage service furnished to any port or place on Puget Sound and its adjacent inland waters.

Pilot stations are located on Ediz Hook, Port Angeles and Seattle Washington.

Vessels desiring a Pilot should proceed to a position 0.25 miles East of Ediz Hook, where Pilot will board the vessel. If a Northwest wind, sea, or swell exists, vessels are requested to proceed to a position inside and South of Ediz Hook to obtain a lee and facilitate boarding.

In clear weather, vessels should indicate their desire for a Pilot by hoisting the International Code Flag "G" and by blowing the whistle signal of 1 long, 1 short and 1 long blast.

In fog or thick weather, the blowing of this whistle signal will attract the attention of the Pilot Station and repetition of this signal will assist the pilot boat to locate the vessel.

The Pilot Station is located 1,200 yards, 277° from Ediz Hook Light. At night, the station will show from a mast, 3 vertical lights, the highest and lowest being red and the middle one green, to indicate that the pilot boat is en route to the ship. The Pilot Station is equipped with radar to locate and track vessels. The pilot boats, 'Juan de Fuca' and 'Puget Sound' are equipped with radar.

Communications: Vessels may ensure prompt service by advising their ETA, Port Angeles, 24 hours in advance, via radio to station KLB, addressed to Port Angeles Pilots, Seattle, Washington. A vessel may also advise the Pilot Station, Port Angeles, Washington, addressed to "Pilots Port Angeles" of their ETA, and amended ETA, when subsequent conditions make it necessary. The message is transmitted immediately from KLB to Port Angeles via telephone. The Pilot Station, Port Angeles, monitors VHF Channels 14 and 16 continuously and transmits on Channel 13.

At the time of passing Cape Flattery, inbound vessels are requested to re-affirm their ETA by calling the Pilot Station directly, using VHF calling Channel 16 and transmitting on Channel 13.

Channel 14 is for Vessel Traffic System only.

Pilot Ladder Requirements:

1. Please contact pilot boat via voice radio (Channel 13) approximately 30 minutes prior to arrival for desired lee.

2. The ladder must be kept clean and used solely for embarking and disembarking Pilots.

3. Rigging of the ladder, along with embarking and disembarking Pilot, must be under supervision of a licensed officer.

4. The ladder must be made in 1 length and not consist of 2 lengths shackled or lashed together, and should be equipped with spreaders about 10 ft. apart to comply with SOLAS Regulation 17, Chapter 5.

5. The pilot boats have their own lights to illuminate the pilot ladder, but a standby light should be ready for an emergency.

6. The area of the deck where the Pilot boards and leaves must be well lighted and the area must be clear of all obstacles to ensure a safe passage for the Pilot.

7. *No tag lines, pull-up ropes, or trailing lines may be attached to the lower ends of the ladder.*

8. Ladders must be rigged well clear of discharge and water outlets and at a place near midship which affords the best lee for the Pilot. At no time should the ladder be rigged near the stern of the vessel.

9. Means must be provided to allow the Pilot to pass safely onto the ship's deck. Where portable stanchions and bulwark steps are used for this, the portable stanchions must be rigidly attached to the ship's structure and not the steps. The bulwark steps must also be securely fastened.

10. The ladder must be in good condition. The treads must remain horizontal when used and the upper surface must have a rough nonskid quality.

11. Manropes approximately 3 in. manila in circumference, a heaving line and a ring buoy with a self-igniting light must be provided.

12. If your vessel is to take a load of logs, make sure the Agent makes arrangements to have a cat-walk to provide safe passage to and from the ladder.

Accommodation Ladders for Embarking or Disembarking of Pilots:

1. All vessels where the distance from sea level to the point of access of the ship exceeds 9 m. (30 ft.) at any time, should carry on each side an accommodation ladder. The ladder is to be so sited that when in use the lower end of the ladder shall rest firmly against the ship's side under all conditions of roll and heel, clear of all discharges, and within the parallel length of the ship.

2. A conventional pilot ladder should be rigged just abaft the lower platform of the accommodation ladder. The pilot ladder should be secured firmly to the lower platform to allow access between the pilot ladder and accommodation ladder. The pilot ladder should extend at least 2 m. (6 ft.) above the lower platform of the accommodation ladder. Manropes to be provided and rigged alongside the pilot ladder.

ANCHORAGES: Extensive anchorage in Eliott Bay, depths of 90 ft.

RESTRICTIONS: Overhead power cables at Burlington Northern Railroad Bridge with a vertical clearance of 155 ft.

MAX. SIZE: Controlled by depth at berth.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Available, 2nd tug normally used.
BERTHING: Over 46 berths for ocean-going vessels. Depths alongside, 10.6 m. – 21 m. MLLW.

Terminal No.	*Total Length* (m.)	*Depth* (m.)	*Remarks*
2	244	12.0	Leased to North Star Forwarding – barge berths.
5	537	13.5	3 container berths.
	166	—	Undeveloped berth (one).
18	1,844	12.0 – 15.0	Container, breakbulk, bulk, Ro-Ro, non-petroleum products. 352 reefer plugs.
25	482	15.0	2 container berths. 120 reefer plugs.
28/30	823	12.0	Container and breakbulk.
			2 container berths and 2 general cargo berths.
37	270	15.2	1 container berth. 186 reefer plugs.
42	290	15.2	1 container berth
46	336	15.2	1 container berth. 217 reefer plugs.
48	585	10.6	
66	436	8.5 – 10.6	3 berths. Passenger ship terminal.
86	130	21.0	Export grain terminal operated by Cargill, Inc.
91	3,058	10.66	General cargo, auto import, fruit, frozen meats and seafood. Oil tank farm handles bunker fuel and waste oil products. Chill space 53,802 cu.m. Liquid storage 213,000 barrels.
105	338	12.0	Barge facility.
115	366	12.0	Steel imports, fish and crab processing, general cargo.
	122	4.25	Barge berth.

CRANES: *Terminal 5:* 5×50 ton container cranes.
Terminal 18: 6×45 ton container cranes and 1×50 ton revolving crane.
Terminal 25: 3×45 ton and 1×33 ton container cranes.
Terminal 30: 1×50 ton gantry, 3×50 ton container cranes.
Terminals 37, 42 and 46: 6×45 ton container cranes.
Terminal 115: 1×50 ton gantry crane.
STEVEDORES: 40 local gangs available. Gang requirements must be made known to the contracting stevedore prior to 1100 hrs. on day before vessel plans to dock. Order before 1030 hrs. on Saturday for Saturday afternoon, Sunday, and Monday.
SPECIALISED HANDLING FACILITIES: Terminals 18 and 20 combined and now designated as Terminal 18. Pipe-lines are available to carry molasses, tallow or other non-petroleum liquid cargo, and has a tank farm for storage.

Terminal 105 – 2 berth, barge operation – Crowley Maritime.
Terminal 115 – 2 berths, capacity, import steel.
Terminal 115 – Jore Corporation Barges, has specialised finger piers, to handle container-to-barge operations.

Terminals 5, 18, 25, 30, 37, 42 and 46 – Container Terminals, equipped with large container cranes and yards to handle van shipments. Depth alongside, Terminals 18 and 25 – 50 ft. Terminals 5, 30, 37 and 46 – 40 ft.

Pier 86 – fully automated, deep water, Grain Terminal. 1 berth, length 600 ft. (Max. LOA 1,400 ft. using dolphins). Depth of water 70 ft. at MLLW. Grain Terminal: capacity 4.2 million bushels, loading rate 3,000 t.p.h. via twin conveyor belts.

DENSITY: Salt water in Outer Port. Fresh water inside Canal Locks.
FRESH WATER: Available at all wharves.
FUEL: Available.
Bunker Fuel Suppliers:

British Petroleum/North America Trading.	Tel: 775-0444.
McCall Oil Co.	Tel: (800) 547-1400.
Mobil Oil Corp.	Tel: 623-5340.
Pacific Northern Oil Corp.	Tel: 382-9777.
Shell Oil Co., Harbor Island Plant.	Tel: 453-3051.
Ship-Shore Inc.	Tel: 783-9343.
Texaco, Inc., U.S.A.	Tel: 623-6101.

CONSULS: (And Trade Commissioners).

Australia
Austria
Belgium
Bolivia
Canada
Chile
China
Colombia
Costa Rica
Denmark
Ecuador
Finland
France
Germany
Guatemala
Honduras
Hong Kong
Iceland
Italy
India
Indonesia
Japan
Korea
Luxembourg
Malaysia
Mexico
Netherlands
New Zealand
Norway
Panama
Paraguay
Peru
Philippines
Russia
Singapore
South Africa
Sweden
Switzerland
Taiwan
Thailand
United Kingdom

REPAIRS: All types of repairs possible.
DRY DOCKS: 10 dry docks for vessels up to 20,000 tons.
SURVEYORS:
Inspecting and Testing:

American Bureau of Shipping; ABS Worldwide Technical Services.	Tel: 762-6200.
Columbia Inspection, Inc.	Tel: 522-7490.
Container Chassis Inspection Service.	Tel: 282-9742.
Global Marine Surveyors, Ltd.	Tel: (Snohomish) 568-7447, 334-6413.
Industrial Testing, Inc.	Tel: 932-7991.
Laucks Testing Laboratories, Inc.	Tel: 767-5060.
Northwest Centre Industries.	Tel: 285-9140.
Northwest Laboritories of Seattle, Inc.	Tel: 622-0680.
Pacific Testing Laboratory.	Tel: 282-0666.
Pittsburgh Testing Laboratory.	Tel: 762-4664.
Rosenau, Otto, & Associates.	Tel: 725-4600.

Marine Surveyors:

American Bureau of Shipping.	Tel: 762-6200.
Billstein, Herbert H. & Associates, Ltd.	Tel: 624-2958.
Blair, N. T. & Associates.	Tel: 467-4161.
China Corporation Register of Shipping, see Coffer.	
Coffer, Ian T., & Associates, Inc.	Tel: 232-2288.
GAB Business Services, Inc.	Tel: 282-8055.
Global Marine Surveyors, Ltd.	Tel: (Snohomish) 568-7447, 334-641
Gow, Alexander, Inc.	Tel: 285-0520.
Huycke, Capt. Harold D.	Tel: 774-1444.
Intermodal Transportation Services, Inc.	Tel: 575-8255.
Kambarn, M. L. "Maury".	Tel: 542-8164, 542-7915.
Koegel, Glen A., and Associates, Inc.	Tel: 743-6003.
Lloyd's Register of Shipping.	Tel: 623-8118.
London Salvage, (see The Salvage Association).	
Maritime Survey Associates, Inc.	Tel: 932-9004.
National Cargo Bureau, Inc.	Tel: 682-2165.
Newton, D. D., & Associates, Inc.	Tel: 285-4205.
Northern Marine Surveys.	Tel: 822-6815.
Registro Italiano Navale, (see Coffer, Ian T., & Associates).	
Stream, M. A., Associates, Inc.	Tel: 282-1311.
The Salvage Association.	Tel: 623-7587.
Toplis & Harding, Inc.	Tel: 624-3971.
United States Salvage Association, Inc.	Tel: 747-5398.
World Shipping Pacific, Ltd.	Tel: 842-6616.

GANGWAY/DECK WATCHMEN: Watchmen required if detainees aboard.
OPENING/CLOSING HATCHES: Normally carried out by stevedores while in port.
CERTIFICATES: Certificate of Registry, Certificates for any previous U.S. tonnage tax payments within the past year, International Load Line Certificate, Safety Radio Certificate, Derat Certificate, Cargo Gear Inspection Certificate, Certificate of Inspection (for U.S. vessels).
CUSTOMS ALLOWANCES: No definite quantities prescribed reasonable allowance at discretion of Customs Inspector.
REPATRIATION: All facilities exist.
AIRPORT: Sea-Tac (Seattle-Tacoma) International Airport.
TIME: Pacific Standard Time, GMT minus 8 hours; Pacific Daylight-saving Time, from early April to end October, is GMT minus 7 hours.
HOLIDAYS: January 1st, New Year's Day (no work); January 15th, Martin Luther King Day, normal working day; February 12th, Lincoln's Birthday (work); Third Monday in February, Washington's Birthday (work); Last Monday in May, Memorial Day (no work); July 4th, Independence Day (no work); July 28th, Harry Bridges Birthday, normal working day; First Monday in September, Labour Day (no work); Second Monday in October, Columbus Day (work); November 11th, Veteran's Day (work); First Tuesday in November, Statewide Election Day (work); Fourth Thursday in November, Thanksgiving Day (no work); December 24th, Christmas Eve, paid holiday, work until 1500 hrs.; December 25th, Christmas Day (no work); December 31st, New Year's Eve, paid holiday, work until 1500 hrs. In addition July 5th, known as "Bloody Thursday", while not a holiday, is a no work day for longshoremen.
POLICE/AMBULANCE/FIRE: Dial 911. Port police, Tel: 728-3340/334
BANKS: *Banks with International Departments:*

Algemene Bank Nederland N.V.	Tel: 587-2330.
Bank of California, N.A.	Tel: 587-6100.
Bank of Tokyo, Ltd.	Tel: 382-6000.
Barclay's Bank International, Ltd.	Tel: 624-4757.
Canadian Imperial Bank of Commerce.	Tel: 223-7951.
Citibank International.	Tel: 382-6200.
Continental Bank International.	Tel: 625-9179.
First Interstate Bank.	Tel: 292-3712.
Fuji Bank, Ltd. (representative office).	Tel: 624-4757.
Hokkaido Takushoku Bank, Ltd.	Tel: 624-0920.
Hong Kong & Shanghai Banking Corp.	Tel: 622-8490.
International Banking Corporation.	Tel: 621-8660.
Korea Exchange Bank.	Tel: 622-7821.
Mitsui Bank, Ltd.	Tel: 622-0330.
National Bank of Alaska	
Old National Bank.	Tel: 447-7373. Ext. 317.
People's National Bank of Washington.	Tel: 344-4626.
Puget Sound National Bank.	Tel: 622-5210.
Rainer National Bank, International Division.	Tel: 621-5409.
Seattle-First National Bank.	Tel: 583-6143.
Seattle Trust & Savings Bank.	Tel: 223-2000.
Security Pacific International Bank.	Tel: 587-0900.
Standard Chartered Bank, plc.	Tel: 622-4830.
Sumitomo Bank, Ltd.	Tel: 625-1010.
Taiyo Kobe Bank, Ltd.	Tel: 682-2312.

SHIP SUPPLY SERVICE: Helicopter pick-up of sick crew mem provided by the United States Coast Guard. All other services prov by privately operated businesses.
SHORE LEAVE: Allowed, except for crewmen detained by Immigra
IDENTIFICATION CARDS: Required.
GARBAGE DISPOSAL/WASTE OIL DISPOSAL: *Vessel Oily Wast Garbage Disposal:* Vessels which find it necessary to discharge waste or garbage at the Port of Seattle shall contact the terminal oper for the name of oily waste or garbage haulers and/or reception facil in the area which provide equipment to receive, haul and dispose of waste or garbage. The vessel shall arrange directly with the oily wa or garbage hauler and/or reception facility for such services equipment. Payment of charges for the services and equipment prov by the oily waste or garbage hauler and/or reception facility will be m directly to the oily waste or garbage hauler and/or reception facil the vessel, its agent, owner, charterer or any other party respons such payment of charges by the vessel.

The oily waste or garbage hauler and/or reception facility is not an agent or employee of the Port of Seattle nor any terminal operator, nor shall the Port of Seattle or any terminal operator be liable for any act, omission or negligence of any such oily waste or garbage hauler and/or reception facility. Rates and charges assessed vessels by the Port of Seattle or any terminal operator for use of its facilities or services do not include this service nor insurance coverage for any potential liability of any oily waste or garbage hauler and/or reception facility permitted by the Port of Seattle or any terminal operator. The discharge by a vessel of oily waste or garbage at any terminal at the Port of Seattle shall only be in accordance with the terms of this tariff item and applicable Federal, State and Local laws and regulations.

SEAMAN'S CLUBS: Seattle Seaman's Center, 4104 W. Marginal WA S.W., Seattle. Tel: 938-3450. Services include international telephone, ecumenical services, basketball, soccer (in city), table tennis, pool, billards, T.V., library, vans for transport, supply of stamps, will liaise with social and health services.

AUTHORITY: Port of Seattle, P.O. Box 1209, Seattle, Washington 98111; 2201 Alaskan Way, Seattle, WA 98121. *Tel:* (206) 728-3000. *Telex:* 703433 Port Sea. *FAX:* (206) 728-3252. *Contact:* Zeger van Asch van Wijek, Executive Director. Jan Hendrickson, Director – Marine Administrative Services.

SEWARD, Alaska: 60.06 N. 149.27 W. **(See Plan)**

DOCUMENTS:

3 copies Cargo Manifest (Form 1302) the original showing all cargo on board, and 2 copies showing only cargo for this port.
2 copies Crew Manifest (Curio List).
2 copies Stores List.
2 copies Passenger List (Form I-418).
2 copies Crew List (Form I-418).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port:

Health Pratique.
Master's Oath (Form 1300).
All Foreign clearances.
U.S. Certificates of payment to tonnage tax (Customs Form 1002).
Certified Crew List.

PILOTAGE: Pilots provided by Southwest Alaska Pilots Association (See"Homer').

Pilot boards 1.1 miles × 152° from Caines Head Lt. (Lat. 59° 58' N., Long. 149° 22' W.).

MAX. SIZE: Harbour depth 35 ft. MLLW.

ANCHORAGE: Suitable anchorage in 30 fathoms depth; available for deep draft vessels at the head of the Bay, South of marked buoy.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

RADIO: KWA 346 (AM) Alaska Railroad Dock, frequency monitored 2182 kHz. KWA 364 (SSB) Alaska Railroad Dock frequency monitored 4-6-8-12 Megs.

TUGS: Tug service available. Anderson Tug & Barge (907) 224-5506.

BERTHING: *Alaska Railroad Corp.:* 24 hour berthing. Berthing permit required. Advance notice of 48 hours requested.

200 ft. by 735 ft. steel and concrete finger pier.

East Side — 450 ft. long with 35 ft. depth of water (10 ft. out from dock face).

West Side — 600 ft. long with 35 ft. depth of water.

South End — 200 ft. long with 35 ft. depth of water.

(East and West Berths serviced by railroad spurs).

Ro/Ro capability provided through a triple deck, articulating ramp along West Berth.

CRANES: East and West Dock Face – 2 gantry cranes. Maximum capacity – 45 short tons, maximum radius – 105 ft. Forklifts ranging up to 35 ton capacity.

Operator: The Alaska Railroad Corp., P.O.Box 95, Seward, Alaska 99664. Tel: (907) 224-5550.

BULK HANDLING FACILITIES: *Terminal Specifications:*

Unit Train Unloading	3,000 tonnes*/p.h.
Stacking	
Rail-mounted stacker/reclaimer	1
Stacking capacity per hour	3,000 tonnes
Reclaiming capacity per hour	1,000 tonnes
Shiploading	
Fixed position slewing shiploader	1
Loading capacity per hour	1,000 tonnes
Ship berth	1
Maximum d.w.t.	120,000
Maximum draft (MLLW)	58 ft.
Additional Data	
Seward Coal Terminal Area	33.91 acres
Total conveyor length	6,590 ft.
Stockpile capacity	120,000 tonnes
Annual throughput capacity	3,000,000 tonnes

*1 tonne is equivalent to approximately 2,204 lbs.

Operator: Suneel Alaska Corporation, P.O.Box 1789, Seward, Alaska 99664. Tel: (907) 224-3120. Telex: 25353 Suneel Swrd.

City Dock Facilities: City Dock: Located inside Small Boat Harbour. Up to 100 ft. vessels. Depth 15 ft. MLLW.

Fourth Avenue Dock: Up to 300 ft. vessels. Depth 35 ft. at MLLW. Power available. Mobile cranes to 100 tons.

Seward Marine Industrial Centre: Basin is 660 ft. × 1,200 ft. with depth of 21 ft. at MLLW.

Syncrolift shiplift 300 ft. × 80 ft. with 3,600 ton lift capacity.

Adjacent 100 acre industrial site.

Light cargo dock 300 ft. long with 21 ft. at MLLW.

STEVEDORES: Northern Stevedoring and Handling Corporation supply labour force.

MEDICAL: Fully staffed 30 bed hospital. All medical facilities available.

DENSITY: 1024.8 at Mean High Water.

FRESH WATER: Available at East and West berths. 4 in. water line; 67 lb. pressure.

FUEL: Marine Gas Oil available from pipeline at South & West Berth. Marine Diesel Oil available from same pipeline during Summer months only (Maritime Oil, Vancouver, B.C.).

REPAIRS: Radio, radar, welding, machining and light engine repairs can be effected.

DRY DOCKS: Syncrolift available. See "Berthing".

OPENING/CLOSING HATCHES: Handled by crew, if done before berthing ship. By stevedores if tied to dock.

AIRPORT: 1 mile. 1 flight daily to Anchorage.

TIME: Alaska Standard Time.

HOLIDAYS: All holidays are time and one half. Cargo can be worked on all except Christmas, New Year's and Labour Day.

POLICE/FIRE/AMBULANCE: Tel: 911.

IDENTIFICATION CARDS: U.S.C.G. Port Security Card or Seaman's Card required.

AUTHORITY: City of Seward, P.O.Box 167, Seward, Alaska 99664. *Tel:* (907) 224-2231. *FAX:* (907) 224-3248. *Contact:* Foster Singleton, Harbour Master.

SITKA, Alaska: 57.03 N. 135.20 W. **(See Plan)**

Located on the Western side of Sitka Sound, Baranof Island. Open all year.

DOCUMENTS: See "Anchorage, Alaska".

APPROACHES: 3 natural channels: Western, Middle and Eastern.

PILOTAGE: Pilot pick-up point – close vicinity of Eckholm Light.

ANCHORAGE: Jamestown Bay.

MAX. SIZE: Harbour depth 22 ft. MLLW. Tides: diurnal range – 9.9 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

CUSTOMS: Quarantine, Immigration and Customs, local.

TUGS: 7 tugs 300 h.p. to 1,200 h.p.

BERTHING: 3 wharves.

1. Conway Dock: Berthing length 160 ft., depth 30 ft. MLLW. No cranes, 3 lift-trucks; 10,000 sq. ft. covered shed space; fresh water.
2. Japonski Dock: Government dock for limited commercial use only.
3. Alaska Lumber & Pulp Co.: (Private) Berthing length 700 ft., depth 35 ft. LW. Walking cranes only. Not less than 12 lift-trucks, 30,000 sq. ft. covered shed space; fresh water. (Located at Silver Bay, Sawmill Cove, 4 miles South of Sitka). 30,000 sq. ft. open storage.

STEVEDORES: 3 gangs.

MEDICAL: Sitka Community Hospital and S.E.A.R.H.C. Hospital on Japonski Island.

DRY DOCKS: 1×400 ton floating dock at Jamestown Bay, approximately 3 miles East of Central Sitka.

REPAIRS: Light repairs only.

FRESH WATER: Available.

FUEL: Not available.

TRANSPORTATION: Air and ferry.

GARBAGE DISPOSAL: 350 gallon dumpsters provided alongside. Charge is U.S.$ 35.00 per dumpster.

WASTE OIL DISPOSAL: A 2,000 gallon tank truck is available for collection service. Contact Sitka Sound oil contractor. Tel: 747-6662.

SEAMAN'S CLUBS: None.

AUTHORITY: City and Borough of Sitka, 304 Lake Street, Sitka, Alaska 99835. *Tel:* (907) 747-3439, 747-3294, 747-3245. *FAX:* (907) 747-7403. *Contact:* Brian G. Bergman, Harbour Master.

SKAGWAY, Alaska: 59.27 N. 135.18 W. **(See Plan)**

Located at the Northern end of Lynn Canal, 14 miles North of Haines.

DOCUMENTS: See "Anchorage, Alaska".

APPROACHES: Via Lynn Canal.

PILOTAGE: Pick-up point located in vicinity of Point Retreat.

MAX. SIZE: Harbour depth 30 ft. running out to 300 ft. Tides diurnal range 16.7 ft. Also see "Berthing".

ANCHORAGE: In Lutak Inlet, 14 miles South of Skagway.

HEALTH: See "Health: All ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

CUSTOMS: Quarantine, Customs and Immigration available in Skagway.

TUGS: 2 tugs available at Skagway.

BERTHING: 1. White Pass and Yukon Railroad Dock: Containerised cargo to Vancouver and Whitehorse is the principal use, also used for tankers and cruise ships. 1,240 ft. long, 100 ft. wide; depth at face varies from 20 ft. to 43 ft. No covered storage. Open storage 80,000 sq.ft. 1 fork-lift is available. Containers presently loaded and unloaded with ship's gear. 2 straddle cranes for containers on dock. Deck for 400 lbs. per sq. ft. loading.

2. Skagway Terminal Co.: Ore loading facility. 1,000 ft. berth, fender dolphins, and walkway. 42.5 ft. deep at face. Used for bulk cargo ships and cruise ships. Vehicle ramp available. Adjacent to the berth is a warehouse of 108,000 sq.ft. Also available are 50 acres for open storage. Loading equipment consists of 1 fixed loading spout with a capacity of 1,500 t.p.h.

3. Skagway Terminal Co.: Cruise vessel dock. 960 ft. berth, fender dolphins and walkway (built 1990).

4. State: City joint use ferry pier – barge off-loading facility. Upland storage of 120,000 sq.ft.

5. City of Skagway: Small boat harbour, approx. 100 stalls. Fuel available. Water available in temperate seasons.

STEVEDORES: 3 gangs.
MEDICAL: Medical clinic and one nurse.
REPAIRS: None.
SURVEYORS: Not available locally.
WATER: Available in temperate seasons only.
FUEL: Available at Chevron Dock and small boat harbour.
AIRPORT: One mile from harbour. Scheduled and charter flights available daily. 3,400 ft. paved runway.
POLICE/AMBULANCE/FIRE: Emergency 911. Police Tel: 983-2301 Ambulance Tel: 983-2300. Tel: Fire 983-2300 or 911.
EMERGENCY CO-ORDINATON CENTRE: Skagway Fire Hall, Tel: 983-2300 or 911.
TELEPHONE: Pay phone at top of small boat harbour ramp.
BANKS: National Bank of Alaska, Skagway.
STORING: See "Prelims".
Storing at White Pass Railroad Dock:

1. By truck.
2. No barge storing.
3. Trucks can proceed alongside, except south 400 ft. of dock.
4. Fork lift trucks can be used.
5. Customs perform supervision of loading/unloading of all bonded stores. Customs/Immigration Tel: 983-2325
6. Local riggers are available.

GENERAL: Highways: Klondike Highway open all year round.
AUTHORITY: City of Skagway, P.O.Box 415, Skagway, Alaska 99840. *Tel:* (907) 983-2297. *FAX:* (907) 983-2151. *Contact:* Port Manager or Harbour Master.

SMITHS BLUFF, Texas: 30.00 N. 93.59 W. (See Plan)

DOCUMENTS, PILOTAGE, RADIO, etc.: Refer to "Port Arthur".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Meet vessel in Neches River before arriving at berth. Normally 2 tugs required berthing/unberthing.
BERTHING:

Sun Co.: Distance from sea 47.6 miles, depth at berth 40 ft.

Sun Marine Terminals:
Operators: Sun Marine Terminals, P.O. Box 758, Nederland, Telex: 77-9469. Tel: 409-727-2301.
Type of terminal: Handling crude oil and lub.
Density: Fresh water.
Controlling Depth: From channel to berth – 39 ft. – 40 ft. Actual depth alongside – 40 ft.
Vertical clearance at HW: 136 ft.
Max. length of berth facility: 150 ft.
Max. length of vessel to be moored safely: 900 ft.
Hoses: 4×12 in. (Crude). 6×6 in. (Lub).
Usual Discharge Pumping Capacity: 50,000 bbls.p.h. (Crude). 2,000 bbls.p.h. (Lub).
Usual Discharge Pumping Capacity: 50,000 bbls.p.h.
Ballast Facilities: Deballasting facilities available with prior notification.
Fresh Water: Available on 24 hour basis.
Fuel: Available ex-wharf.
Tugs: Per Pilot's requirements.
Anchorage: Max. draft 39 ft. (2 anchorages).
Report: Sun Marine Terminals is located on the Neches River 47.6 miles from the Sea Buoy. The terminal is owned, operated and used by Sun Company. The controlling depth of the channel and turning basin is 40 ft. The density of the water at this terminal is 1000. The maximum size vessel normally received at this terminal is approximately 76,000 d.w.t. at Berth No. 1 and 130,000 d.w.t. at Berths No. 2, 3, 4 and 5. Vessels are docked and undocked day or night. Vessels are cautioned to keep mooring lines tight and be on alert for passing traffic.

2 tugs are normally used while docking and 1 while undocking. Sabine Towing requests a 3 hour advance notice when ordering tugs.

Vessels are berthed head upstream port side to with a usual arrangement of mooring lines including 3 forward springs and 3 aft springs. Head and stern lines run by launch. Pilots require one-way traffic and daylight navigation for all vessels in excess of 85,000 d.w.tonnes (83,700 LT). 2 lay-berths are provided across the channel. These consist of trenches dredged into the entrances of an unused ox-bow in the river. There are mooring points but most vessels lie to an anchor in the trench.

Sun Marine Terminals provides a gangway.

Fuel and fresh water are available at the terminals.

The terminal is fenced and guarded.

Pollution Control: 4,500 ft. of spill boom launch.

Fire: There are foam nozzles and monitors on the dock.

MEDICAL: All facilities available.
DENSITY: Fresh water.
FRESH WATER: Available ex-wharf.
FUEL: Available ex-wharf.
CONSULS: Nearest at Houston.
REPAIRS/DRY DOCKS: See "Port Arthur".
GANGWAY/DECK WATCHMEN: Not required unless crewmen detained by Immigration.
CUSTOMS ALLOWANCES: 300 cigarettes and 1 quart wine or spirits for each man.
IDENTIFICATION CARDS: Foreign crew only require Immigration Landing Permit.
AUTHORITY: *Operator:* Sun Marine Terminals, P.O.Box 758, Nederland, Texas 77627. *Tel:* (409) 727-2301. *Telex:* 77-9469 Sun NDLN.

SOUTH LOUISIANA, Louisiana: 30.06 N. 90.29 W. (See Plan)

LOCATION: The Port of South Louisiana's jurisdiction includes the parishes of St.Charles, St.John the Baptist and St.James, and extends from River Mile 114.9 A.H.P. to River Mile 168.5 A.H.P.

IMTT is located at River Mile 118 A.H.P. (above Head of Passes) on the East bank of the Mississippi River, and is in the port's jurisdiction.

The Chevron facility at Oak Point is in the jurisdiction of the Port of Plaquemines, and is located at River Mile 70 A.H.P. on the West bank of the Mississippi River.

PORT LIMITS: *Port Boundaries:* River Mile 114.9 to 168.5 A.H.P. on the Lower Mississippi River.
ANCHORAGES: See "New Orleans".
RESTRICTIONS: Minimum water depth in main channel is 45 ft.
BERTHING: Please also see Index, as some ports/terminals may also be included in entries at other ports.
General Cargo Terminal:
Globalplex International: P.O.Drawer 559, Reserve, LA.70084. Tel: (504 536-8300. Fax: (504) 536-8304.

Location: River Mile 138 A.H.P., between New Orleans and Baton Rouge.

Depth alongside: 50 ft.

Maximum crane outreach (from ship fenders):	61 ft.
Height of crane (above low water):	94.34 ft.
Bottom of bucket (at low water): (High water 22 ft.)	79.04 ft.
Transfer capabilities:	Ship to barge or storage. Barge to ship or storage. Storage to ship, barge, rail or truck
Conveyor System:	42 in. (45°).
From dock to storage:	Heavy duty nylon rubber belt with trave speed of 431 ft. per minute.
Barge loader:	60 in. (45°) nylon rubber belt with trave speed of 431 ft. per minute.
Barge fleeting:	140 barge fleeting area.
Harbour boats:	1,200 h.p., 800 h.p., 2 × 2,600 h.p.
Floating cranes:	Barge mounted crawler, 80 ton 100 ft. boom Barge mounted 200 ton, Lima with 12 yard bucket.
Rail spar:	24,000 ft. of rail and one yard locomotive.
Weighing scales:	Rail (300,000 lb. capacity). Truck (100,000 lb. capacity). Front end loader scale mounted on IH 80 Hough.
Auxiliary equipment:	International Hough 80 (4 yd. bucket). 3 × 916 cat front end loaders. 931 D-4D cat dozer. Dump trucks. Bobcat 980. Payloaders.

Use: Shipment, receipt and storage of general and dry bulk cargo.

Description: 200 acre intermodal terminal; wharf 454 ft. long; 43 wide; mooring dolphins 754 ft. centre to centre; upstream buoy 1,000 centre to centre; 2×18,000 lb. Peco gantry cranes, capacity 340 tons per hour per crane; 1×80 ton barge-mounted crawler crane; 1×200 t barge-mounted Lima crane; conveyor system; 300,000 sq.ft. of covered storage facilities, storage racks, pallet conveyor, climate control, r docks, truck docks, stacking and reclaiming capabilities; 3 concrete sil water purification plant; waste water treatment plant.

Rail Facilities: Rail spur; served by Illinois Central and Kansas Ci Southern Railroads.

Truck Facilities: Site is within 7 miles of Interstates 10 and 55, 2 mi from U.S. 61, 25 miles from New Orleans International Airport.

Dry Bulk Terminals: *Port Terminal No. 1:* ADM, Reserve Grain Eleva P.O.Box AC, Reserve, LA 70084. Tel: (504) 536-1151. Telex: 784 Fax: (504) 536-1152.

River Mile: 139.2 A.H.P.
Depth alongside: 50 ft.
1 Berth: 858 ft.
Railroad: Illinois Central.

Port Terminal No. 2: MFP St. Elmo Terminal, P.O.Drawer 69, Paulina, LA 70763. Tel: (504) 869-4405. Fax: (504) 869-4517.
River Mile: 150.5 A.H.P.
Depth alongside: 45 ft.
1 Berth: 984 ft. dolphin to dolphin.
Railroad: Illinois Central.
See "Shipmaster's Report" dated December 1979.

Port Terminal No. 3: ADM, Destrehan Grain Elevator, P.O.Box 267, Destrehan, LA 70047. Tel: (504) 764-7586. Telex: (TWX) 810-955-5503. Fax: (504) 764-7586 (Ext.28).
River Mile: 120.6 A.H.P.
Depth alongside: 40 ft.
Loading Rate: Max. 75,000 bushels per hour with 2 belts.
Storage: 168,000 tonnes.
1 Berth: 800 ft.
Railroad: Illinois Central.
Also see "Shipmaster's Report" dated March 1991.

Port Terminal No. 6: Cargill Inc. K-2, P.O.Box 150, Convent, LA 70723. Tel: (504) 562-7313, 388-9455, 443-3059. Fax: (504) 388-9455.
River Mile: 158.9 A.H.P.
Depth alongside: 58 ft.
1 Berth: 1,200 ft.

Port Terminal No. 7: Hall-Buck Marine Gramercy Bulk Terminal, P.O.Box 35, Burnside, LA 70738. Tel: (504) 675-5387.
River Mile: 144.9 A.H.P.
Depth alongside: 15 ft.
1 Berth: 850 ft. (barge dock).
1990 total tonnage: 769,118 short tons.
Railroad: Illinois Central.

ADM/Growmark: P.O.Box 97, Ama, LA 70031. Tel: (504) 431-8245. Telex: 510-601-8979.
River Mile: 117 A.H.P.
Depth alongside: 50 ft.
1 Berth: 585 ft.
Railroads: Southern Pacific, Union Pacific.
Also see "New Orleans" – "Berthing".

Agrico Chemical Co. – Taft: P.O.Box 330, Hahnville, LA 70057. Tel: (504) 783-6872.
River Mile: 128.5 A.H.P.
Depth alongside: 50 ft.
1 Berth: 550 ft.
Railroad: Union Pacific.

Agrico Chemical Co.: Uncle Sam, LA 70792. Tel: (504) 562-3501, New Orleans 464-9961, Baton Rouge 387-4952, Gonzales 644-2886. Telex: (TWX) 810-950-6630. Fax: (504) 562-3501.
River Mile: 160.3 A.H.P.
Depth alongside: 40 ft.
1 Ship Dock: 625 ft.
2 Barge Docks: 300 ft. each.
Railroad: Illinois Central.

Agrico Chemical Company: P.O.Box 71, Donaldsonville, LA 70342. Tel: (504) 473-4271.
River Mile: 167 A.H.P.
Ship Dock: Depth alongside: 40 ft.
1 Berth: 480 ft.
Barge Dock: Depth alongside: 10 ft.
1 Berth: 400 ft.
Railroad: Union Pacific.

Bayou Steel Corporation: P.O.Box 5000, La Place, LA 70069-1156. Tel: (504) 652-4900. Telex: 78-4958.
River Mile: 132.25 A.H.P.
Depth alongside: 40 ft.
1 Berth: 300 ft. with dolphins.
Railroad: Illinois Central.

Bunge Corporation: P.O.Box 156, Destrehan, LA 70047. Tel: (504) 466-5300. Telex: 58-7386 Bunge Dstr. Fax: (504) 764-8701.
River Mile: 120 A.H.P.
Depth alongside: 45 ft.
1 Berth: 470 ft.
Loading Rate: Max. 70,000 bushels per hour with 2 belts.
Storage: 115,000 tons.
Railroad: Illinois Central.
Also see "Shipmaster's Report" dated March 1991.

Cargill Terre Haute Grain Elevator: P.O.Drawer AR, Reserve, LA 70084. Tel: (504) 536-4111. Fax: (504) 536-6222.
River Mile: 139.4 A.H.P.
Depth alongside: 48 ft.
2 Berths: 1 × 735 ft.; 1 × 892 ft.
Railroads: Illinois Central, Kansas City Southern.

Colonial Sugars Inc.: P.O.Box 336, Gramercy, LA 70052. Tel: (504) 869-5521. Telex: (TWX) 810-950-6565 Colsuggacy. Fax: (504) 689-8706.
River Mile: 147 A.H.P.
Depth alongside: 42 ft.
2 Berths: Raw Berth 363 ft.
Railroads: Illinois Central, Kansas City Southern.

Delta Bulk Terminal: P.O.Box 85, Convent, LA 70723. Tel: (504) 562-7617. Telex: 586402. Fax: (504) 524-2625.
River Mile: 158.9 A.H.P.
Depth alongside: 45 ft.
1 Berth: 1,500 ft. (midstream).

Dravo Basic Materials Co. Inc.: P.O.Box 105, Convent, LA 70723. Tel: (504) 562-7465.
River Mile: 164.4 A.H.P.
Depth alongside: 44 ft.

Kaiser Aluminium: P.O.Box 337, Gramercy, LA 70052. Tel: (504) 869-2117. Fax: (504) 869-2117.
River Mile: 145.3 A.H.P.
Depth alongside: 60 ft.
3 Berths: 1 × 150 ft. with dolphins;
1 × 875 ft. with dolphins;
1 × 118 ft. with platforms.
Railroads: Illinois Central, Kansas City Southern.

Missouri Portland Cement Co.: Rt. 1, Box 154, Convent, LA 70723. Tel: (504) 562-7471.
River Mile: 167.9 A.H.P.
Depth alongside: 30 ft.
1 Berth: 500 ft.

St.James Stevedores: P.O.Box 40, Burnside, LA 70738. Tel: (504) 562-3919. Fax: (504) 562-3515.
River Mile: 166.0 A.H.P.
Depth alongside: In excess of 100 ft.
2 Berths: 1,800 ft. (midstream).

Weber Marine Inc.: P.O.Box 40, Burnside, LA 70738. Tel: (504) 562-3547. Telex: (TWX) 810-950-6632.
River Mile: 167 A.H.P.; midstream operation.
Railroad: Illinois Central.

Zen-Noh Grain Corporation: P.O.Box 207, Convent, LA 70723. Tel: (504) 522-9770. Fax: (504) 522-9770.
River Mile: 163.7 A.H.P.
Depth alongside: 50 ft.
1 Berth: 1,189 ft.
Railroad: Illinois Central.

Liquid Bulk Terminals:
Port Terminal No. 4: Occidental Chemical Corporation, Rt. 1, Box 28, Convent, LA 70723. Tel: (504) 562-7402.
River Mile: 161.4 A.H.P.
Depth alongside: 40 ft.
1 Berth: 740 ft.
Railroad: Illinois Central.

Port Terminal No. 5: Occidental Chemical Corporation, P.O.Box 74, Hahnville, LA 70057. Tel: (504) 783-6661. Telex: (TWX) 810-950-5851. Fax: (504) 783-2621.
River Mile: 128.8 A.H.P.
Depth alongside: 50 ft.
1 Berth: 410 ft. with dolphins.
Railroad: Union Pacific.

Capline Terminal: P.O.Box 63, St.James, LA 70086. Tel: (504) 588-7834. Fax: (504) 588-4831.
River Mile: 159.9 A.H.P.
Depth alongside: 40 ft.
4 Berths: Berths 1 and 2: 1,100 ft.
Berth 3: Floating barge.
Berth 4: 800 ft.

Cargill Inc. Bulk Liquid: P.O.Drawer AR, Reserve, LA 70084. Tel: (504) 467-7715. Fax: (504) 536-4111.
River Mile: 139.7 A.H.P.
Railroad: Illinois Central.

Chevron Chemical Company: P.O.Box 78, St.James, LA 70086. Tel: (504) 473-7996.
Rive Mile: 166.5 A.H.P.
1 Berth: 200 ft. (barge loading/unloading).

E.I.Dupont Barge Dock: P.O.Box 2000, La Place, LA 70069-1150. Tel: (504) 536-1141. Telex: (TWX) 810-950-6582. Fax: (504) 536-5147.
River Mile: 135.7 A.H.P.
Depth alongside: 40 ft.
2 Berths: 1 × 150 ft.; 1 × 170 ft.

Ergon – St.James Inc.: P.O.Box 126, St.James, LA 70086. Tel: (504) 265-3035.
River Mile: 160.7 A.H.P.
Depth alongside: 46 ft.
2 Berths: 1 × 825 ft. (Tanker); 1 × 400 ft. (Barge).

G.A.T.X. Terminals Corp.: P.O.Box 157, Norco, LA 70079. Tel: (504) 443-2511. Telex: 810-950-6576. Fax: 713-552-1456.
River Mile: 125.5 A.H.P.
Depth alongside: 45 ft. – 50 ft.
4 Berths: 100 ft. – 180 ft.
2×12 in. arms or 8 in. hoses. Loading rate 20,00 bbl./hr. No ballast facilities.
Railroad: Illinois Centeral.

International Matex Tank Terminals: P.O.Box 159, St.Rose, LA 70087. Tel: (504) 468-3997. Telex: 671-6496. Fax: (504) 469-8699.
River Mile: 118 A.H.P.
Depth alongside: 45 ft.
11 Berths: Length of berths up to 900 ft.
Railroad: Illinois Central.

Koch Gathering Systems Inc.: P.O.Box 135, St.James, LA 70086. Tel: (504) 265-2115. Fax: (504) 265-2115.
River Mile: 159.8 A.H.P.
Depth alongside: 35 ft.
3 Berths: 1 × 760 ft. (Tanker);
1 × 760 ft. (Tankers and Barges);
1 × 320 ft. (Barges only).

L P & L – Waterford: P.O.Box 50, Killona, LA 70066. Tel: (504) 467-8211.
River Mile: 129.6 A.H.P.
Depth alongside: Berth 1: 38 ft., R.M. 128.6.
Berth 2: 53 ft., R.M. 129.6.
Railroad: Union Pacific.

L P & L – Little Gypsy: Rt. 1, Box 1000, Montz, LA 70068. Tel: (504) 464-3800.
River Mile: 129.5 A.H.P.
Depth alongside: 30 ft.
Railroad: Illinois Central.

Marathon Oil Company: P.O.Box AC, Garyville, LA 70051. Tel: (504) 535-2241.
River Mile: 140 A.H.P.
Depth alongside: 45 ft.
5 Berths: Approximately 1,000 ft. each.
Railroads: Illinois Central, Kansas City Southern.
Also see "Tankers".

Monsanto Company: P.O.Box 174, Luling, LA 70070. Tel: (504) 785-8211. Telex: 62690920. Fax: (504) 785-3325.
River Mile: 120 A.H.P.
Depth alongside: 25 ft. – 30 ft.
1 Berth: 312 ft. with dolphins (ammonia dock).
1 Berth: 430 ft. with dolphins (oil dock).
1 Berth: 460 ft. with dolphins (DAP dock).
Railroads: Southern Pacific, Union Pacific.

Petroleum Fuel & Terminal Co.: P.O.Box T, Garyville, LA 70051. Tel: (504) 535-6256.
River Mile: 144.6 A.H.P.
Depth alongside: 50 ft.
3 Berths: Berth 1 and 2: 50 ft. × 300 ft. (barge loading).
Berth 3: 940 ft. (barge/ship).

Shell Oil Company: P.O.Box 10, Norco, LA 70079. Tel: (504) 465-7111.
River Mile: 126 A.H.P.
Depth alongside: 45 ft. – 90 ft.
3 Berths: Berth 1: 750 ft.
Berth 2: 900 ft.
Berth 1A: 750 ft.

2 tanker berths (80,000 d.w.t., 900 ft. LOA downstream, 55,000 d.w.t., 750 ft. LOA upstream) 16 in. and 8 in. loading arms for transfer, transfer rate variable, ballast line 12 in., capacity 20,000 bbls.

Berthing always starboard side to. Requires 2 tugs to assist in berthing. Forward and aft mooring lines handled simultaneously.

Railroads: Illinois Central, Kansas City Southern.

Report: General: The berth at Norco is approximately 126 miles AHP and consists of a single dock constructed of steel pilings and a concrete deck. A continuous fender system of wood-faced steel piles provides continuity between the dock and mooring dolphins.

All cargo is handled through 6×12 in. loading arms with 8 in. reducers. The arms are arranged so as to permit washing of the arms into a slop tank ashore; thus, grade changes may be made without removing the arms.

Cargo Handled and Shore Installations: Various products are handled through a common shoreline including crude, clean products, jet fuel, kerosene and heating oil.

The maximum allowable rail pressure for discharging vessels is 150 p.s.i.

An emergency shutdown system to stop loading is located in the dock office and at the levee in the guard office.

Docking: Docking is normally performed by the River Pilot and is strictly starboard side to. 1×800 h.p. tug is required for both docking and undocking operations.

Vessels should approach the dock with a tug on the port bow, stemming the current, at a maximum angle to the dock of 10° and at a velocity no greater than 5 ft./sec.

Communications: A public telephone located at the head of the dock is available for use by ship personnel.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Bunkers are not available.

Fresh water is available at Norco.

Ballast/Slop Facilities: Ballast and slop facilities are available. The shore storage/treatment tank has a 150,000 bbls. capacity and is connected to the dock manifold by a 14 in. shore line.

Report: February 1995.
Dock No. 1: Max. size – 110,000 tons displacement or 45 ft. draft.

Vessels of 100,000 d.w.t. use 3 tugs for berthing and unberthing. If for any reason an outwardbound vessel has to anchor, 1 tug assists for turning in river.

Fog may delay vessel in Winter.

Pilots will take vessels in and out with 48 ft. draft, but vessel will have no U.K.C. in S.W. Pass.

Star Enterprise (Texaco): P.O.Box 37, Convent, LA 70723. Tel: (504) 562-7681. Fax: (504) 562-7681, ext. 200.
River Mile: 168.1 A.H.P.
Depth alongside: 40 ft.
2 Berths: 1 × 810 ft.; 1 × 900 ft.
Railroad: Illinois Central.

TransAmerican Refining Company: 257 Prospect Avenue, Good Hope, LA 70079. Tel: (504) 764-8611.
River Mile: 125 A.H.P.
Depth alongside: 25 ft.
2 Berths: 1 × 423 ft.; 1 × 480 ft.
Railroads: Illinois Central, Kansas City Southern.

Union Carbide Corporation: P.O.Box 50, Hahnville, LA 70057. Tel: (504 468-4624, 468-4627, 468-4676. Telex: 887739. Fax: (504) 468-4406.
River Mile: 127.3 A.H.P.
Depth alongside: 30 ft.
1 Berth: 725 ft.
Railroad: Union Pacific.

U.S. Department of Energy Strategic Petroleum Reserve: P.O.Box 157, St.James, LA 70086. Tel: (504) 265-3073. Telex: (TWX) 810-951-5393 Fax: (504) 265-3073, ext. 281.
River Mile: 158.7 A.H.P.
Depth alongside: 57 ft.
2 Berths: 940 ft. each.

TANKERS: See "Liquid Bulk Terminals" above.
Report: *Garyville:* The Marathon Dock is located on the right ascendin bank of the Mississippi River, Mile 140. It consists of 5 separate berths (each 1,000 ft.) fitted with quick connecting hydraulic Chicksan arms fo cargo transfer and quick release hooks on all mooring points. Dept alongside 45 ft.

Each dock is equipped with an emergency stop at the Chicksan arm assembly.

Cargo Handled and Shore Installations: Both docks handle asphal No. 6 fuel oil, unleaded gasoline and No. 2 diesel oil. Each dock ca effect the transfer of No. 6 fuel oil through 2×16 in. arms, No. 2 diese oil through 2×16 in. and/or 3×12 in. arms, unleaded gasoline throug 2×12 in. arms and asphalt through a 1×16 in. arm. All cargo i transferred to or from storage tanks 1 mile away through 16 in. to 24 in shore lines.

Docking: The River Pilot normally docks vessels at these berths docking is strictly starboard side to. Vessels of 600 ft. LOA or greate are required to use 2 tugs for assistance in docking and undocking smaller vessels may use a single tug.

Approach to the docks is made with the vessel stemming the curren at slow speed. Tugs assist in positioning the vessel alongside.

The Marathon Terminal requires that vessels use 2 head wires o synthetic head lines, 3 forward spring lines (wire or synthetic), 2 sprin lines aft (wire or synthetic) and 2 stern wires or 3 stern ropes. All moorin points are equipped with quick release hooks.

Communications: Public telephones are available for use by ship's personnel.

Gangway: The vessel's gangway must be used and should be proper rigged and illuminated.

Bunkers and Fresh Water: Bunker C and diesel fuel are available o request; however, no bunker barges are allowed alongside a vesse docked at either berth.

Ballast/Slop Facilities: Ballast and slops can be received by the docks in limited quantities.

SHIPMASTER'S REPORT: February 1979.
Restrictions: Not allowed to take bunkers, lub oils or stores from doc while alongside. Large tankers often require 2 tugs pushing all the tim to keep them alongside, especially when river is in flood. This at GAT No. 4.
VHF: Standby on Channel 13 during pilotage and when anchore Agents normally place walkie-talkie aboard for their dire communication.
Berthing: Always starboard side to. Forward will have 2 back springs t jetty, 4 headropes, 2 breasts to buoys, lashings not required, same a Only one boat used and secures the bow first.
Telephones: Not available at GATX No. 4 but there is one on next je upriver.

SHIPMASTER'S REPORT: December 1979 (Updated 1992).
Port: Paulina.
Location: 3 miles up river from Gramercy at St. Elmo Point. River Mi 120.6 A.H.P.
Anchorage: A waiting anchorage is situated 2 miles down river from th elevator at Grand View Reach.
Tugs: Available from Gramercy.
Berth: Peavey Grain Elevator. Depth of water alongside is 45 ft. Loadi rate with one spout is 1,000 t.p.h.

The berth is a concrete pier on steel girders with 4 weak fende Spring lines are run to the pier, and head and stern lines to dolphins
Fresh Water: Available from pier, rate 6 t.p.h. (approx.)
Fuel: Not available from quay.
Services: Provisions available from New Orleans, will be delivered b launch from Gramercy as pier can only be reached on foot over a catw 700 ft. long including stairs.

SHIPMASTER'S REPORT: March 1991.
Location: Destrehan is an area on the right ascending bank of th Mississippi River about 120 miles above Head of Pass.
St. Charles Elevator: Close above Bunge Elevator. Berth has 7 spo with loading rate 1,000 t.p.h. A 720 ft. vessel is secured with 3 headli to a buoy, 3 breastlines and 2 backsprings to the wharf, 3 backspri 2 breast ropes which led forward and 2 sternlines to the wharf. A forw facing gangway can reach the wharf, but the ship is fendered off ab 3 ft. Minimum airdraft under the spouts may be 42 ft. at highest r stage, increasing as the level falls. Stores can be taken from the wh only at the forward hatch. Fresh water from the wharf by 1.5 in. hos 2 t.p.h. – 3 t.p.h. Taxi fare to nearest city is U.S.$25.00 each way. Ve loaded corn gluten pellets with spout trimming only. This cargo doe run freely and large voids were left, the ship had a 1.5° list on comple away from wharf. There is a small convenience store with telepho
Bunge Elevator: The elevator is equipped with 7 spouts, pos 2,000 t.p.h. Berth is said to be capable of berthing 1,000 ft. s Headlines go to buoys.

A.D.M. Buoy Systems: Located between the St. Charles Elevator and the Highway Bridge. There are 2 systems of buoy moorings. These are served by floating elevator "Gemini" which has a rate of 500 t.p.h., with one Buhler arm. Vessel dropped port anchor outside port head buoy, then starboard anchor inside starboard head buoy. 4 or 6 headlines are run to the 3 head buoys according to season. 2 sternlines are run to each buoy aft. The lines to the same buoy must be hove up together, which may require preparation on board. Vessel waited nearly 2 days for corn gluten to settle, and topped up all 7 hatches in 5 hours.

The elevators at AMA, Bunge and St. Charles and the 2 buoy systems are operated by A.D.M.

AUTHORITY: Port of South Louisiana, 171 Belle Terre Blvd., P.O.Box 909, La Place, LA 70069-0909. *Tel:* (504) 652-9278, 568-6269. *FAX:* (504) 652-9518. *Contact:* R.J. Clements, Port Director. Glenda B. Jeansonne, Assistant Port Director. Mitch Smith, Port Operations Director.

SOUTHPORT, North Carolina: 33.56 N. 77.59 W. **(See Plan)**

SHIPMASTER'S REPORT: August 1996.

DOCUMENTS: If first U.S. port, officials board at pier. Usual U.S. forms required.

PILOTAGE: Pilot boards from fast cutter with black hull and white upperworks. The pilot station is at Southport.

The boarding area is in the vicinity of the Sea Buoy. Pilot for Southport boards 1 hour before H.W./L.W. (Berthing on slack tide). If employing a tug, which is generally the case, Docking Pilot boards about 10 minutes away from berth.

APPROACHES: *Chart:* B.A. Chart No. 3688.

Approach: Frying Pan Shoals Light Tower is conspicuous.

Racon (C) on Sea Buoy (CF41) picked-up at 12 miles.

Coastline low and featureless.

Channel: It is 10 miles from Sea Buoy to "ADM" Pier at Southport, about 1 hour steaming.

Maximum draft 38 ft. on H.W. to Cape Fear Terminal Wilmington, 34 ft. anytime. Channel width 500 ft.

Dredging is in progress to increase channel to 40 ft. maximum draft.

Presently, dredging at Buoy No. 5, where granite rock is being encountered, putting the channel deepening project at least 12 months behind schedule.

ANCHORAGES: To the West of the Fairway Buoy (Sea Buoy). An area centered on Lat. 33° 47' N., Long. 78° 07' W. has been found to be foul with old wires (2 miles S.W. of Sea Buoy). We anchored in position Lat. 33° 48' N., Long. 78° 08' W., and found the area clear but exposed.

Do not anchor to S.E. of Sea Buoy, as it is an old spoil ground.

MAX. SIZE: 50,000 d.w.t.

VHF: Cape Fear Pilots monitor Channels 16 and 12, range is low.

TUGS: Tugs come from Wilmington. Number depends on ship's size, but always at least one tug. Tug's lines used. Tug and Docking Pilot come alongside about 10 minutes before berthing.

BERTHING: Southport Chemical Pier known as "ADM" is in position Lat. 33° 56.1' N., Long. 77° 59.2' W., near Southport Ferry Terminal. The berth is a 1,400 ft. trestle with tanker "T" berth.

Vessels berth on edge of Cape Fear/Wilmington shipping channel, so there is ship movement and very strong ebb tide, up to 8 knots, so moorings have to be carefully planned and tended.

Vessels only berth on slack water.

The flat face mooring length (including connecting dolphins) is 230 ft. plus outlying mooring dolphins each end giving 1,050 ft. mooring length.

Vessels berth port side to only.

The fenders consist of 3×3 m. Yokohama type fenders chained to central pier and connecting mooring dolphins.

Reported depth alongside is 34 ft. at MLW.

Moorings: The mooring boat comes from Wilmington and stays at ADM Pier whilst vessel alongside. Mooring gang is good. Moorings planned with Docking Pilot before coming alongside.

Generally, a minimum of 3-2-2, each end.

Since the pier was built, an extra mooring dolphin has been constructed on the upstream side as a breasting mooring.

When letting-go on the flood tide, care is required that the after moorings are not caught in the propeller/rudder. The mooring boat should hold on to the lines until inboard.

Tankers: The pier handles sulphuric acid, caustic soda, molasses and fuel oil for adjacent plant.

1×11,400 tonne sulphuric acid tank.

1×6 in. rubber hose to 8 in. pipeline on trestle.

Hose handled from gantry.

Ship's crew make connection.

SGS Surveyor available.

Rates up to 600 tonnes/hr. can be handled.

Care is necessary if vessel should drift off pier on strong ebb.

DENSITY: 1007 (L.W.) to 1013 (H.W.).

FRESH WATER: Available. Normally no charge. Ship's hose required for connection near hose gantry.

FUEL: No fuel barge alongside due to current and proximity of river traffic. For bunkering, vessel would have to shift to Southport or Wilmington Anchorage.

TELEPHONES: Telephone in Pier Control Cabin, can be used through terminal switchboard for outside line (phone card necessary).

GENERAL: *Storing:* Only light stores allowed down pier.

Gangway: Difficult to land gangway onto mooring dolphin.

STOCKTON, California: 37.57 N. 121.19 W. **(See Plan)**

DOCUMENTS: See "San Francisco".

PILOTAGE: Pilots commissioned by Stockton Port District. Pilots obtained by contacting San Francisco Bar Pilots Association, Pier 7, Buckhead (P.O. Box 26409, S.F., California 94126). Tel: (415) 362-5436.

ANCHORAGE: Emergency anchorage only permitted in Turning Basin, 37 ft. depth.

RESTRICTIONS: Restrictions only in effect if water at flood stage. See "San Francisco".

MAX. SIZE: Draft restrictions of 35 ft. at low tide, 37 ft. at high tide (fresh water). (Also see "Developments").

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Ship to shore Radio (KBP 376 – Marine Channel 18A) enables constant contact with Pilots who therefore aware of any problem that may develop up or down river. Arrangements also may be made for readiness of ordered gangs within 15 minutes of ship's arrival.

TUGS: 2×1,000 h.p. and 1×1,200 h.p. tugs available. Tugs join vessel 0.5 miles up river from Main Channel; generally, ship's lines used, however, tug lines may also be utilised.

Tug Company: Brusco Tug and Barge Co. Tel: (209) 462-5534, 464-3400.

BERTHING: *Port Stockton Bulk Material Wharf, Berths 12-13:*

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Shipment of dry-bulk commodities, both systems handle the following: coal, petroleum coke, clay, copper concentrates, fertiliser, soda ash, sulphur, and other dry bulk commodities; receipt of liquid fertiliser.

Dimensions: Length of face 850 ft.; lower side 13.5 ft., upper side 13.5 ft.; depth alongside at MLLW 40 ft.; usable berthing space 880 ft.

Mechanical handling facilities: Two bulk handling systems.

(A) Max. vessel loading rate 1,000 short tons/p.h. Equipped with shiploader, belt conveyor, 360 degree spout trimmer, bottom drop car dump (Max. 7.5 cars per hr.) and truck unloader hopper (Max. 30 trucks per hr.) (B) Max. vessel loading rate 4,000 short tons/p.h. Conveyor system equipped with a 54 in. belt, rotary car dump, loop railroad for unit train.

Port Stockton Wharf, Berths 10-11:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Container-handling dock; receipt of molasses, bulk dry cargo, container cargo and general cargo. Delivery of scrap steel, container cargo and general cargo.

Dimensions: Length of face 810.5 ft., lower side 102 ft.; depth alongside at MLLW 35 ft.; usable berthing space 810.5 ft.

Remarks: Face of wharf is in line and continuous with face of Berth 9 providing a total of 1,455.5 ft, of berthing. This dock has 5.5 acres of open marshalling area. 2×30 tonne multi-purpose bridge cranes for handling dry bulk, general cargo, containers. 700 ft. of crane rail. Construction of loop line R.R. track completed.

Port Stockton General cargo Wharf, Berth 9:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Receipt and shipment of general cargo and receipt of bulk cargo.

Dimensions: Length of face 645 ft., upper side 75 ft.; depth alongside at MLLW: Face 37-34 ft., upper side 35 ft.; usable berthing space: Face 645 ft. upper side 110 ft. with dolphin; width of apron: Face 41.25 ft.

Mechanical handling facilities: Forklift trucks and other types of cargo-handling equipment, owned by the Port District and by stevedoring companies, are available as needed.

Port Stockton Wharf No. 8:

Owned by: Stockton Port District.

Operated by : Stockton Port District.

Use: Receipt and shipment of general cargo; Liquid sugar facility and receipt of molasses. Anhydrous Ammonia also unloaded at this dock through refrigerated pipelines.

Dimensions: Length of 396 ft.×88 ft.; depth alongside MLLW 37-36 ft.; usable berthing space 484 ft. with trestle.

Port Stockton Wharf No. 7:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Receipt and shipment of general cargo.

Dimensions: Length 516 ft. depth alongside MLLW 37-36 ft.; usable berthing space 516 ft.; width of apron 31 ft. with trestle.

Port Stockton Wharf No. 6:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Receipt and shipment of general cargo.

Dimensions: Length 418 ft.; depth alongside MLLW 37-36 ft.; usable berthing space 329 ft.; width of apron 31 ft.

Port Stockton Wharf No. 5:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Receipt and shipment of general cargo.

Dimensions: Length of face 428 ft.; depth alongside MLLW 35 ft.; usable berthing space 429 ft.; width of apron 31 ft.

Port Stockton Grain Wharf No. 4:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Receipt and shipment of general cargo, receipt of bulk cargoes.

Dimensions: Length of face 461 ft.; depth alongside MLLW 35 ft.; usable space 462 ft.; width of apron 31 ft.

Port Stockton Wharf No. 3:
Owned by: Stockton Port District.
Operated by: Stockton Port District.
Use: Receipt and shipment of general cargo and receipt of bulk cargoes.
Dimensions: Length of face 461 ft.; depth alongside MLLW 35 ft.; usable berthing space 461 ft.; width of apron 81 ft.

Dock has 30 ton bridge crane capable of handling general and bulk cargoes, as well as containers.

Port Stockton Open Wharf No. 2:
Owned by: Stockton Port District.
Operated by: Stockton Port District.
Use: Receipt and shipment of general cargo; shipment of logs, and handling of heavy-lift cargo. Also receipt of bulk cargo.
Dimensions: Length of face 506 ft.; depth alongside MLLW 32-36 ft.; usable berthing space 550 ft.; width of apron: open.
Remarks: Wharf has 39,000 sq. ft. of open storage area and 7 cone shaped buildings for handling inbound bulk fertiliser, with direct belt conveyor from dock to cone buildings, with a capacity of 70,000 short tons to the rear of the dock area. At the Industrial Park approx. 60 acres of open storage area are located South of W. Washington Street; this area can be used for storing or staging import and export cargoes. An additional 45 acres of open storage are located North of W. Washington Street. There is a total of other warehousing with a capacity of 2.7 million sq. ft. of covered storage area comprised of 33 separate units.

Cargo may be transferred from off dock acreage via truck or rail.

This dock also has two Whirley type gantry cranes with a 30 short tons capacity each at 36 ft. offshore reach. Equipped to handle bulk dry materials, containers, heavy lifts, etc.

Continental Elevators Grain Elevator Main Wharf No. 1:
Owned by: Continental Elevators Inc.
Operated by: Continental Grain Co.
Use: Shipment of grain by vessels and by ocean going and inland waterway barges; receipt of grain by self-unloading barges.
Dimensions: Length of face 564 ft., West side 20 ft., East side 20 ft.; depth alongside at MLLW 35-37 ft.; usable berthing space 780 ft.; width of apron, open end 20 ft.
Mechanical Handling Facilities: 2 towers on wharf, each with 13 in. diameter, telescopic, mechanically operated, grain-loading spout; loading rate, 900 short t.p.h. (29,877 bu.) at East tower; 800 short t.p.h. (26,557 bu.) at West tower; combined rate, 900 short tons.
Remarks: Grain gallery connecting towers on wharf has a 30 in., electric-belt conveyor; and gallery extending from East tower to grain elevator has 2×30 in. belt conveyors. Grain elevator capacity 6,000,000 bushels.

BRIDGES: Fixed-span high-level toll bridge across Carquinez Strait, with minimum clearance of 134 ft. above MHHW. Southern Pacific Railroad lift span bridge crosses Suisun Bay 6.5 miles upstream from Carquinez Bridge, with minimum clearance above MHHW of 70 ft. when closed and 135 ft. when open. Horizontal clearance on lift span 291 ft. A third bridge, 22 miles above Southern Pacific bridge, is near Antioch. It has a fixed span bridge with minimum clearance above MHW 135 ft.

STEVEDORES: *General Cargo* – For gang start at 0800 hrs., orders must be placed at 1600 hrs. of previous day; night gangs must be ordered by 1100 hrs. These times pertain to week-day gangs. For week-end gangs, 1100 hrs. Saturday for Saturday night, Sunday morning, Sunday night and Monday morning. Day shifts from 0800 to 1700 hrs. Night shifts 1700 to 0300 hrs. Arrangements can be made for a special third shift from 0300 to 0800 hrs. Rates quoted on request.

Bulk Ore and Grain Cargoes – Orders for gangs must be placed at same time as for general cargo. This operation on 24 hour basis; day shift, 0800 to 1600 hrs., night shift 1600 hrs. to midnight, swing shift, midnight to 0800 hrs. Stop work meeting first Tuesday of each month.

Also see "Radio".

MEDICAL: Arrangements with San Joaquin Medical Society for physicians, surgeons and dentists. 5 hospitals within radius of 6 miles from port. Ambulance service readily available. Telephone number for this service is 948-1334.

FRESH WATER: Available through pipelines.

FUEL: All grades of fuel available with 1 day's advance notice.

CONSULS: See "San Francisco".

REPAIRS: Minor types of repairs carried out.

DRY DOCKS: Nearest dry docks, San Francisco.

GANGWAY/DECK WATCHMEN: Services of watchmen not necessary. Available if requested.

OPENING/CLOSING HATCHES: Hatches may be opened prior arrival and closed after ship sailed from port; any opening or closing of hatches at dockside must be performed by stevedores.

CERTIFICATES: See "San Francisco".

CUSTOMS ALLOWANCES: See "San Francisco".

CARGO GEAR: Safety regulations require strict adherence to max. loading or unloading weight capacity of ship's gear.

REPATRIATION: No facilities in Stockton for effecting crew changes and arranging any necessary repatriations. Special arrangements may be made through Customs.

AIRPORT: Stockton Metropolitan Airport located approx. 6 miles from port. Serviced by Frontier, Air West and PSA.

TIME: Pacific Standard Time, GMT minus 8 hours; Pacific Daylight Time goes into effect on first Sunday of April until last Sunday in October, when clocks are advanced 1 hour.

HOLIDAYS: New Year's Day; Martin Luther King's Birthday; Lincoln's Birthday; Washington's Birthday; Memorial Day; Independence Day; Harry Bridge's Birthday; Labour Day; Admission Day; Columbus Day; Veteran's Day; Thanksgiving Day; Christmas Eve Day; Christmas Day and New Year's Eve Day are all holidays. In addition to above, General Election Day, both State and National, as well as any day proclaimed by Governor of California or President of United States shall be observed as holiday. Work can be arranged for all holidays except New Year's Day, Labour Day, Thanksgiving Day and Christmas Day.

POLICE/AMBULANCE/FIRE: Security Force on duty 24 hours a day and can be reached by dialling extension 222 for any emergency that might arise.

ELECTRIC CURRENT: At wharves where current available for ship's use, it is 110 volt, single phase, 60 cycle for lighting and 440 volt, 3 phase, 60 cycle for power.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Available.

WASTE OIL DISPOSAL: Available.

SEAMAN'S CLUBS: None.

REGULATIONS: Port of Stockton requests notice of ship's intent to come into port at least 7 days prior to arrival; vessels, who have made prior arrangements, will have precedence over vessels who sail into port without previous notice.

GENERAL: *Railroad Service:* Two transcontinental railroads serve the Port – Santa Fe and Union Pacific with reciprocal switching privileges. *Truck Scales:* Public truck scale available, operated by the Port.

AUTHORITY: Port of Stockton, 2201 West Washington Street, Stockton, California 95202. Postal address: P.O.Box 2089, Stockton, California 92501-2089. *Tel:* (209) 946-0246. Toll free outside State of California (800) 344-3213 or 344-3214. *FAX:* (209) 465-7244. *Contact:* Alexander Krygsman, Port Director. Mark Tollini, Manager – Port Operations. Patricia Huff, General Manager – Trade and Property Development.

TACOMA, Washington: 47.14 N. 122.28 W. (See Plan)

DOCUMENTS (on arrival from foreign port):
Ship's document.
Clearance from Last Foreign Port.
2 Crew Lists on Form I-418
2 Passenger Lists on Form I-418 (if applicable)
Passenger Declarations if applicable.
2 Stores Lists.
2 Crew Purchase (curio) Lists.
2 Manifests of Cargo for Discharge on C.F. 1302.

If first arrival port on an inward voyage, must also have 2 sets of Manifests of complete cargo on C.F. 1302, one for Customs at this port and other for use as a "Travelling Manifest" to go forward to other discharge ports.

A – For U.S. Public Health Quarantine Boarding Officer: "Quarantine Declaration" on Form PHS.43.
B – For U.S. Department of Agriculture Boarding Officer: "Shipmaster's Declaration and Warning Notice" on Form A1Q.43.
C – For U.S. Immigration Boarding Officer:
Crew List of Form I-418 visaed by U.S. Consul abroad.
Passenger List on Form I-418.
Attachment to Passenger List on Form I-92.
Form I-94 for each passenger.
Form I-95 of ID Card (Form 184) for each crewmen. (These are re-usable for multiple entries, but for seamen on first trip to United States a new Form. I-95 must be ready for presentation on arrival.)
D – For U.S. Customs Boarding Officer and Agent or Broker:
3 copies Crew List (Form I-418).
3 copies Cargo Manifest on Form 1302.
3 copies Stores List – Form 1303.
3 copies Crew Purchases or Curio List – Form 1304.
3 Passenger Lists on Form I-418.
For U.S. Ships – Declaration re foreign repairs on Form 3415.
For U.S. Ships – Certified Crew List for last U.S. port before going foreign.

* At subsequent U.S. ports of call 2 copies required of extracts Cargo Manifests of cargo for the port concerned, and 2 copies of lists of stores and curios remaining on board.

PILOTAGE: Compulsory for all vessels except those under coasting trade on West coast of the United States, including Alaska and British Columbia. Pilots board off Port Angeles Pilot Station.

ANCHORAGE: The depths as a rule are too great for convenient anchorage, but vessels occasionally anchor under the Northern shore about 1 mile Eastward of Brown's Point. Vessels may anchor in about 18.29 m., 450 yards N.N.W. of the outer end of Puyallup Waterway West Jetty.

City Regulations permit anchorage in any part of the bay outside harbour lines so as not to interfere with vessels arriving or departing from their docks.

MAX. SIZE: Length over 305 m. (centre to centre dimensions of mooring dolphins), draft subject to berth depth.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

VHF: Pilots on Channels 13 and 14.

TUGS: Available, join vessel in Commencement Bay, approx. half wa between Brown's Point and the designated Dock. Tug's lines are us and there is a charge for tug's lines.

BERTHING: 32 deep water berths. Water depths: 9.15 m. to 21.34 below MLLW.

General Cargo: 161,000 sq.m. warehouse space, 91 hectares of op storage paved, lighted, fenced, serving all piers.

Logs are handled at the Port's Blair Terminal, where special shipme of heavy equipment are also handled. Total terminal area is 12 ac with 2 berths totalling 1,200 ft. (366 m.), depth 45 ft. and 32 acres backup storage space.

Pierce County Terminal at 147 acres, is used for special cargoes a auto imports. It has 2 berths totalling 1,420 ft. (433 m.) and depth u 45 ft. 1×54 tonne crane available.

BULK HANDLING FACILITIES: 550 m. pier with 12 m. to 15 m. water depth. Bulk unloading crane with 750 to 1,500 t.p.h. capacity; 150,000 tons capacity alumina storage structure with load-out facility.

Bulk Grain Elevator: Continental Grain: 3 million bushel capacity: loading rate: 2,400 t.p.h.; 137 m. dock with dolphins to 244 m.; 21.34 m. water depth.

CONTAINER HANDLING FACILITIES: *Terminal 3 (Maersk):* A 40-acre container terminal with berthing capacity of 950 ft. (290 m.) and water depth of 45 ft. (13.7 m.) at MLLW. The terminal can accommodate the largest container ships, and is located directly adjacent to the Port's North Intermodal Rail Yard. It serves both rail service and over-the-road carriers by use of chassis space. Available container cranes include 2 post-Panamax cranes rated at 66 short tons and 2 container cranes rated at 55 short tons. Other facilities include 3 on-site truck scales, 260 reefer hook-ups and a 7 lane truck gatehouse.

Terminal 4 (Evergreen): A 33-acre container terminal with 2 berths totalling 1,900 ft. (579 m.) and water depth of 45 ft. (13.7 m.) at MLLW. Located directly adjacent to the Port's North Intermodal Rail Yard. Serves both rail service and over-the-road carriers by use of chassis space. Available container cranes include 2 post-Panamax cranes rated at 66 short tons, 2 container cranes rated at 55 short tons and 2 container cranes rated at 50 short tons. Other facilities include 300 reefer hook-ups and a 7 lane truck gatehouse.

Terminal 7: A 79-acre terminal for containers and general cargo. 4 berths, totalling 2,700 ft. (818 m.). Water depth 45 ft. – 50 ft. (13.7 m. – 15.2 m.). 2 warehouses: One transit warehouse with 96,000 sq.ft. (8,918 sq.m.) and one container freight station with 102,400 sq.ft. (9,512 sq.m.). 4 container cranes (50 and 55 short tons capacity) and 1 Whirley crane (40 short tons). 1 Peiner multi-purpose bulk unloading crane (40 short tons capacity). 36 reefer hook-ups, 1 truck scale, 11 truck stations and 7 rail car doors in the warehouses. Direct shipside rail access.

Terminal 7-D (Husky): A 33-acre container terminal with 1 berth totalling 900 ft. (274 m.) and water depth of 50 ft. (15.2 m.). 3 container cranes (55 and 50 short tons capacity). 4 transtainers and 186 reefer hook-ups. Adjacent to Terminal 2, 7 warehouses and direct access to the Port's North Intermodal Rail Yard. Direct rail access to shipside. Berth operated by Cooper T. Smith Stevedoring and International Transportation Service, Inc.

Sea-Land Terminal: A 140-acre container terminal with 2 berths totalling 1,600 ft. (484 m.) and water depth of 45 ft. (13.7 m.). 5 container cranes, 407 reefer hook-ups and 66 hustler tractors. Facilities include operations control tower, administration offices, maintenance shop, container freight station and additional covered storage.

BRIDGES: The 11th Street Bridge: All ships are required to notify for opening 2 hours in advance. The Puyallup River Bridge on 11th Street has been deactivated. The Blair (to be removed by late June 1997) and Hylebos Bridges have no restrictions. Closed periods apply to the 11th Street Bridge and the hours are as follows: 0645 – 0745 hrs., 1530 – 1730 hrs.

STEVEDORES: Jones-Washington Stevedore Company, Eagle Marine Services Ltd., Maersk Stevedore Co., Marine Terminals Corp., Husky Stevedore Co. and Stevedoring Services of America (SS of A).

Gang requirements must be made known to contracting stevedore prior to 1100 hrs. on day before the vessel plans to dock. (1030 hrs. on Saturdays for gangs on Saturday p.m., Sunday and Monday.)

Stowage of cargo for discharge or load determines the gang size requirements. Sufficient information for intelligent gang orders is a necessity – i.e. advance cargo plans, unusual size and/or weight, etc.

TANKERS: Loading/discharge lines 8 in. and 10 in. 150 ASA flanged connections. Slop discharge facilities not available. Fresh water available. Coast Guard Regulations strictly enforced.

DENSITY: The average density in the port is 1016.8 at 15°C.

FRESH WATER: Available. Delivers to vessel through portable meter hose.

FUEL: Available. Advance notice required.

Grade	*Viscosity at 122°SSF*
Bunker "C"	165 – 175
PS – 400	112 – 116
Bunker Special	50 – 60
PS – 300	32 – 35

FIRE PRECAUTIONS: Very strict precautions in force.

REPAIRS: The largest repair yard in Tacoma can haul out vessels up to 1,000 tons for all kinds of repairs, including electronics, welding, painting and machining; shafts up to 30 ft. in length are machined here. Another plant does shipbuilding exclusively, but will perform topside repairs if needed. Wreckage and salvage facilities are available. Larger vessels go to Seattle for dry-docking. Minor repairs and services for small craft are available at marinas on the City Waterway and the N.E. shore of Commencement Bay.

GANGWAY/DECK WATCHMEN: Watchmen required if detainees are aboard.

OPENING/CLOSING HATCHES: Normally carried out by stevedores. In practice, however, the crew can perform this task while in transit.

CERTIFICATES:

- Certificate of Registry.
- Certificates for any previous U.S. tonnage tax payments within the past year.
- International Load Line Certificate.
- Safety Radio Certificate.
- Derat Certificate.
- Cargo Gear Inspection Certificate.
- Certificate of Inspection (U.S. vessels).

CUSTOMS ALLOWANCES: Tobacco and Wine/Spirit: No definite quantities prescribed; reasonable allowance at discretion of Customs Inspector.

TIME: Local time reference is GMT minus 8 hours. In Summertime it is GMT minus 7, or Pacific Daylight Saving Time, starting the first week-end in April and finishing the last week-end in October.

HOLIDAYS: New Year's Day (January 1st) no work; Lincoln's Birthday (February 12th); Washington's Birthday (February 22nd); Memorial Day (May 30th); Independence Day (July 4th) no work; Bloody Thursday (July 5th); no work; Labour Day (September 1st) no work; Columbus Day (Friday after Thanksgiving); Veterans' Day (November 11th); Thanksgiving Day (November 27th) no work; Christmas Day (December 25th) no work.

AIRPORT: Seattle – Tacoma International Airport is 16 miles North from Port and Tacoma Industrial Airport 8 miles West.

POLICE/AMBULANCE/FIRE: Emergency tel. numbers:
Police 593-4911; Fire MA 7-0151; Ambulance 473-1611.

TELEPHONES: Pay telephones available at Piers 4 and 7, Blair Terminal, Pierce County Terminal, Grain Docks 23 and 24. There is no charge for this service.

SHIP SUPPLY SERVICE: Contact: Foss Launch and Tug, 225 East F Street, Tacoma, WA. 98421. Tel: (206) 272-0362.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Required.

GARBAGE DISPOSAL: Service undertaken by City of Tacoma. Tel: 206-591-5544.

WASTE OIL DISPOSAL:
Chemical Processors. Tel: 206-243-6776.
Clean Care. Tel: 206-627-3925.
Northwest Enviro Service. Tel: 206-622-1090.

SEAMAN'S CLUBS: Tacoma Seamen's Centre, 1225 E. Alexander Avenue, 98421. Tel: 206-272-0716.

AUTHORITY: Port of Tacoma, P.O.Box 1837, Tacoma, Washington 98401-1837. *Tel:* (206) 383-5841 or Seattle (206) 838-0142. *FAX:* (206) 572-3436. *Contact:* John H. Bush, Senior Director – Operations.

TAMPA, Florida: 27.57 N. 82.28 W. (See Plan)

DOCUMENTS:

Passports and Seamen's Books.
Vaccination Certificate for each Seaman.
Certified Crew List: Must be on American Form and certified by American Consular office at foreign country from which departed.
Crew List.
Ship's Register.
Load Line Certificate.
Certificate of Financial Responsibility (Oil Pollution Certificate).
U.S. Customs requires Inward Foreign Manifest (original and 3 copies). This must describe cargo which is to be discharged this port and/or any other port in vessel's itinerary. It must show:
  Vessel's name and flag.
  Master's name.
  Last foreign port of departure.
  Net registered tons of vessel.
  When and where vessel built.
  Consigned to Agent.
  Bill of Lading Number.
  Marks and numbers (on cargo).
  Complete description of merchandise.
  Weight in kilos or pounds.
  Port of loading.
  Port of discharge.
Stores Lists (original and 3 copies).
Crew Curio List (original and 3 copies).
Narcotics List (original and 3 copies).
*Dangerous Cargo List (original and 3 copies). This should be filled out even if nothing dangerous aboard.

Health officials will board vessel first. Bills of Lading not needed for Customs purposes.

PILOTAGE: Compulsory for all foreign vessels and U.S. vessels under register in the foreign trade. Pilotage is optional for U.S. coastwise vessels drawing over 7 ft. that have on board a Pilot licensed by the Federal government. Pilots board vessels day or night. Vessels entering by Egmont Channel are boarded between the Tampa Bay Lighted Whistle Buoy "T" (Lat. 27° 35.3' N., Long. 83° 00.7' W.) and Egmont Channel Lighted Bell Buoy No. 2 (Lat. 27° 35.4' N., Long. 82° 59.0' W.). Vessels entering by S.W. Channel are usually boarded between S.W. Channel Buoy No. 2 and Lighted Bell Buoy No. 3, or if desired, at the lighted bell buoy off the entrance to the channel.

Tampa Bay Pilots serve Tampa Bay. Tampa Bay Pilots have 3 launches, "Desoto", "Egmont" and "Manatee", each with a black hull and white deckhouse with the word "Pilot" on either side. Pilot Association monitors VHF-FM Channels 10 (156.50 MHz), 12 (156.60 MHz), and 16 (156.80 MHz) continuously; call-sign, Tampa Bay Pilots. Pilot Association's boats are equipped with VHF-FM Channels 10, 12 and 16 and use Channel 10, 12 and 11 as working frequency. All pilot boats fly the International Code flag "H". For boarding, Pilots request that vessels maintain a speed of 6 knots or less and have the pilot ladder rigged 8 ft. above the water. Vessels are requested to give a 24-hour and a 3-hour advance notice of their time of arrival. Length, beam and max. draft of the vessel should be provided with the first notification. Vessels are normally not moved in dense fog, and during strong North/South winds vessels are boarded inside Egmont Key. In December 1995, the deepest draft entering Tampa Bay anytime was 39 ft. Pilots can be obtained by radiotelegraph (cable address: "Tampilot") by telephone (813-248 3732) through the Tampa Marine Operator, or through ships' Agents.

Pilots for St. Petersburg and Port Manatee can be obtained through the Tampa Bay Pilots.

Tampa Bay Pilots – Recommended Navigational Guidelines for Vessels in Tampa Bay (Dated December 1995).

Port Manatee	Vessels with a draft of 25 ft. or less – Anytime. 25 ft. to 27 ft. – less than 1 knot current. Over 27 ft.– Slack water. Maximum of 34 ft. plus tide level. Turning Basin – Less than 700 ft. LOA – 35 ft. plus tide level; 700 ft. – 765 ft., 32 ft. plus tide level with 3 tugs. Weak and variable tides (0.2 knot or less) will be considered slack water
Big Bend	Vessels with draft of 33 ft. 06 in. or less – Anytime. Maximum draft of 35 ft. 06 in. Turning Basin – Vessels with LOA greater than 650 ft. must have draft less than 27 ft. plus tide. No passing at Agrico IMC West end.
East Tampa	Vessels with draft of 31 ft. 04 in. plus tide level – Anytime. Vessel with LOA of 675 ft. may dock at Cargill provided that no other vessels are in the turnaround area and restrictions for LOA over 650 ft. are met.
Ports of Tampa (including Port Sutton, East Bay and Tampa)	Vessels with draft of 33 ft. 06 in. plus tide level – Anytime. Certain berths may have other draft limitations (both deeper and shallower). Please consult Marine Advisory Council Safety Guidelines or contact Pilot Office for specific requirements. Sparkman Channel requires one-way Bay traffic and vessels with draft restriction of 34 ft. 06 in. plus tide level to a maximum of 35 ft. 06 in.
G – Cut	Vessel draft restriction of 33 ft. plus tide level to a maximum of 35 ft.
Port Tampa	Vessels with draft less than 25 ft. (outbound) – Anytime. Less than 25 ft. (inbound) less than 1.0 knot (tank ships less than 0.5 knot ebb). 25 ft. or greater slack water. Inbound Class "A" tug required. Vessel size restricted to 750 ft. LOA. Sailing headout slack water is considered 0.5 knot or less. Vessels will be passed only upon agreement of Pilot and Master.
Weedon Island (Florida Power)	Vessels with draft of 28 ft. 06 in. (at manifold) plus tide level. Lesser drafts required 200 ft. or more West of the manifold. Vessels with draft over 28 ft. 06 in., less than 1.0 knots current. Maximum LOA is 675 ft.
Rattlesnake Bayou	Vessels with draft of 12 ft. or less – Anytime. Vessels to Misener Marine with draft of 14 ft. plus tide level – Anytime.
Bayboro Harbor	Vessels with draft of 19 ft. 06 in. plus tide level – Anytime.
Gadsden Anchorage	Vessels of greater than 675 ft. LOA or 27 ft. draft may not anchor in Gadsden.
Tampa Bay	Vessels with draft of 39 ft. plus tide level – Anytime to a maximum allowable draft of 41 ft. Vessels with draft of 39 ft. or more must be started in at least 4 hours before appropriate tide level window; must be sailed prior to high tide if subsequent tide change is less than draft over 39 ft.

Recommendations are subject to change. Greater restrictions may be defined by the Captain of the Port and/or the Safety Guidelines Committee.

ANCHORAGES: Vessels with good ground tackle can anchor anywhere outside Egmont Bar in depths of 35 ft. to 50 ft. Inside anchorages Southward of Mullet Key in depths of 30 ft. to 35 ft.; and S.W. of Gadsden Point in depths of 29 ft. to 36 ft.

Explosives and quarantine anchorages East of Mullet Key and South of Interbay Peninsula.

(1) Explosives Anchorage, East of Mullet Key. A rectangular area in Tampa Bay, approximately 4,459 yd. long and 1,418 yd. wide, beginning at Lat. 27° 38' 30" N., Long. 82° 39' 09" W., and extending N.E. to Lat. 27° 39' 48" N., Long. 82° 37' 15" W.; thence S.E. to Lat. 27° 39' 17" N., Long. 82° 36' 46" W.; thence S.E. to Lat. 27° 37' 52" N., Long. 82° 38' 38" W.; thence N.W. to point of beginning. Anchorage is used by vessels awaiting loading or unloading at Port Tampa where duration of anchorage will exceed 72 hours.

(2) Temporary Explosives Anchorage, South of Interbay Peninsula. Beginning at a point bearing 107°, 1,750 yd. from Cut F Range Front Light; thence to a point bearing 125°, 2,050 yd., from Cut F Range Front Light; thence to a point bearing 180°, 1,725 yd., from Cut F Range Front Light; thence to a point bearing 222°, 2,180 yd., from Cut F Range Front Light; thence to a point bearing 251°, 1,540 yd., from Cut F Range Front Light; and thence to the point of beginning. Anchorage is used for vessels engaged in loading explosives when duration of the anchorage is less than 72 hours.

(3) Temporary explosives anchorage off Port Tampa. A circular area with a radius of 200 yd. with the point at Lat. 27° 50' 22" N., Long. 82° 34' 15" W.

(4) Quarantine anchorage. S.E. of the temporary explosives anchorage, beginning at a point bearing 097° true, 4,370 yd., from Cut F Range Front Light; thence to a point bearing 113° 30', 5,370 yd., from Cut F Range Front Light; thence to a point bearing 161° 30', 3,770 yd., from Cut F Range Front Light; thence to a point bearing 163° 30', 2,070 yd., from Cut F Range Front Light; thence to the point of beginning.

RESTRICTIONS: Draft recommendation is 33 ft. 6 in. No tid restrictions with exception of loaded vessels into Port Tampa.

43 ft. harbour deepening project is completed.

Existing Channels:

Name of Channel	*Width* (ft.)	*Length* (naut. miles)	*Restrictions* (ft.)
Egmont Channel	700	3.9	40
Mullet Key Channel	600	2.9	40
Tampa Bay Channel Cuts A-F	500	13.6	41
Gadsden Point Cut	500	3.1	41
Hillsborough Bay Cut A & C	500	6.6	41
Hillsborough Bay Cut D	400	1.0	39
Seddon Channel	300	1.1	23
Garrison Channel	275	0.4	35
Ybor Channel	400	0.9	35
Sparkman Channel	400	1.2	35
East Bay Channel and Turning Basin	2,700	1.5	34/41
Port Tampa Channel	400	7.3	34
Port Sutton Channel	280	1.0	39
Alafia River Channel	200	3.4	32

MAX. SIZE: Max. draft 41 ft. Vessels with draft of 39 ft. or more mus be started in at least 4 hours before appropriate tide level window; mus be sailed prior to high tide if subsequent tide change is less than dra over 39 ft. No limit on length and breadth.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

VESSEL TRAFFIC ADVISORY SYSTEM: The Tampa Port Authority provides a voluntary navigational aid to vessels transiting the bay. The VTAS can be reached by calling WHX362 on VHF Channel 12.

TUGS: Positions are:

Main port area – right past Beacon No. 35
Port Sutton & East Bay – Beacon No. 29
Port Tampa – Cut "K"
East Tampa – Beacon No. 16

Tug's lines only.

BERTHING: See "Tables" on pages 2527 - 2528.

Container Facilities: Containers are handled at several general carg terminals, but no specialised container facilities are currently in place.

Heavy lift capability exists to 300 tons with prior approval of the Tamp Port Authority. Electrical service for 52 refrigerated containers availabl

Also see "Tankers", "General Cargo Facilities", "Specialised Genera Cargo Facilities" and "Dry Bulk Facilities".

Also see "Developments".

BRIDGES: The Sunshine Skyway Bridge spans lower Tampa Ba Navigational clearance of 800 ft. Airdraft 175 ft. (MHW).

STEVEDORES: Stevedoring gangs must be ordered approximatel 24 hours in advance (before 1700 hrs. on day before needed).

MEDICAL: Advance notice for medical attention not required, but i preferable.

TANKERS:

Company	*Pipelines*	*Berthing space*	*Depth*
U.S. Government	(2) 8"	550 ft.	32 ft.
Amoco Oil Co.	(1) 12" (2) 10"	865 ft.	31 ft.
Citgo Petroleum	(2) 10" (5) 8"	700 ft. with dolphins	34 ft.
Freeport Sulphur (Port Sutton)	(1) 14" (liq.Sulphur)	700 ft.	34 ft.
Mariani	(2) 8" (Asphalt)	410 ft.	24 ft.
Farmland Hydro	(1) 10" (Ammonia)	500 ft.	33 ft.
Chevron U.S.A.	(3) 12" (5) 8" (6) 6"	750 ft.	33 ft.
BP Oil Co.	(2) 14" (2) 10" (1) 8" (2) 6" (2) 8"	750 ft.	32 ft.
Shell Oil Co.	(1) 12" (1) 10" (4) 8"	750 ft.	32 ft.
Marathon Asphalt	(1) 10"	230 ft.	20 ft.
Marathon Oil Co.	(5) 8"	700 ft.	33 ft.
Murphy Oil Co.	(1) 12" (1) 8" (1) 6"	Berth 226 880 ft.	40 ft.
Petroleum Packers	(1) 6"	Berth 227 880 ft.	40 ft.
Louis Dreyfus Energy Corp.	(5) 10"	880 ft.	40 ft.
Freeport Sulphur (Hookers Point)	(2) 10" (1) 4" (Liquid Sulphur)	650 ft.	34 ft.
GATX	(3) 10" (1) 12"	880 ft.	40 ft.
	(2) 6" (Phosphoric Acid)	600 ft.	33 ft.
	(1) 6" (Caustic Soda)	600 ft.	33 ft.
	(2) 6" (Jet Fuel).	600 ft.	33 ft.
Hess Petroleum	(2) 12"	600 ft.	28 ft.
Tampa Electric Co.	(2) 10"	570 ft.	34 ft.
SATCO	(1) 16" (Liquid Sulphur)	700 ft.	40 ft.
Pasco Terminals Inc.	(1) 10" (Liquid Sulphur)	650 ft.	29 ft.
Cargill (East Tampa)	(1) 12" (Sulphur Acid) (1) 10" (Phosphoric acid)	675 ft.	33 ft.
Warren Petroleum Co.	(1) 4" (Propane) (1) 6"	325 ft.	11 ft.
CFI	(1) 16" (Anhydrous Ammonia)	880 ft.	40 ft.
*Martin Gas Sales Inc.	(1) 12" (1) 14"	715 ft.	33 ft.
IMC-Agrico (Big Bend)	(1) 12" (Phosphoric Acid)	1,500 ft.	34 ft.
IMC-Agrico (Port Sutton)	(1) 6" (Anhydrous Ammonia)	800 ft.	34 ft.
Hydro Agri Terminal	(1) 8" (Liq.Nitogen)	1,000 ft.	32 ft.

* Also see "Shipmaster's Report" dated September 1996.

Note that part of above terminals use same piers. Most terminals ha residue discharge facilities.

FRESH WATER: Available all over port and delivered through sh hoses and meters. Rates of delivery various.

FUEL: All grades and types available, including all types of blended and Bunker "C". 24 hour notice required. All types of lube-oil avail with delivery in bulk or drums – 24 hours' notice is required. Major companies (i.e. Shell, Amoco Oil, Texaco, Gulf, Chevron, Centra etc.) represented in Tampa. Delivery ex-pipeline, barge or truck.

GENERAL CARGO FACILITIES:

Operator	Location	Length	Depth	Remarks and Equipment
Tampa Bay International Terminal Inc. Thompson Shipping (Port Authority Berths No. 201, 202)	Verger Boulevard	900 ft. & 600 ft.	34 ft. 33 ft.	Mobile cranes to 300 tons available. 86,000 and 45,000 sq.ft. warehouses. Forklifts: 22×10-22.5 tons. Cruise ship passenger terminal and parking. 52 reefer plugs. Over 24 acres of paved backland adjacent to berths.
Tampa Bay International Terminals Inc. (Port Authority Berths 208, 209)	Verger Boulevard	1,500 ft.	33 ft. & 32 ft.	Mobile cranes to 300 tons available. 25,000 sq.ft. warehouse. Forklifts: 22×10-22.5 tons. 15 acres of paved backland adjacent to berths.
Harborside Refrigerated Services (Port Authority Berths No. 210, 211)	Verger Boulevard	1,200 ft.	35 ft. & 38 ft.	Dockside cold storage facility (198,000 sq.ft.). Mobile cranes to 300 tons available. Forklifts: 22×10-22.5 tons.
Tampa Bay International Terminals Inc. (Port Authority Berths No. 251, 252	Foot of Grant St.	1,200 ft. Marginal Wharf	33 ft. & 30 ft.	Forklifts: 22×10-22.5 tons. Conveyor system.

SPECIALISED GENERAL CARGO FACILITIES:

Operator	Location	Length	Depth	Remarks and Equipment
Commercial Metals Co. (Port Authority Berth 1)	Port Sutton	530 ft. Marginal Wharf	30 ft.	Scrap metal loading facility. 4 diesel cranes: 3×80 ft. boom, 1×70 ft. boom, each equipped with electric magnets.
Tampa Export, Winner Metals of Florida, David J.Joseph Co. (Port Authority Berth 219)	Maritime Boulevard Verger Boulevard Maritime Boulevard	400 ft.	40 ft.	Scrap metal loading facility. 3 floating barge cranes available.
Tampa Port Authority (Port Authority Berth 232)	Lehman St.	245 ft.	22 ft.	Cattle loading facility and holding pen.
Tampa Port Authority Terminal No. 2 and 1 (Port Authority Berths 272, 273)	Channelside Dr.	1,232 ft.	30 ft. & 33 ft.	Cruise ship passenger terminals and parking.
Tampa Port Authority Terminal No. 6 (Port Authority Berths 267, 268)	McKay St.	1,200 ft.	31 ft.	Cruise ship and ferry passenger terminal and parking.
Harborside Marine & Tankerman Services (Port Authority Berth 205)	Barker Rd.	580 ft.	34 ft.	Orange juice concentrate in bulk.

DENSITY: Density is affected by local rains due to Hillsborough River. Seasonal variances too great to allow advance prediction.

FIRE PRECAUTIONS: No specific precautions other than usual.

CONSULS: The following countries are represented in Tampa:

Colombia	Honduras	Norway
Denmark	Italy	Panama
Finland	Mexico	Sweden
Germany		

REPAIRS: All types are possible.

DRY DOCKS: Graving dock: 900 ft. long × 150 ft. wide, 21 ft. from MLW to top of keel blocks; 525 ft. long on bottom × 80 ft. wide, and depth over keel blocks 16-18 ft. at MHW.

Dry dock: 200 ft. long × 65 ft. wide. There are 2 other dry docks besides those listed above.

GANGWAY/DECK WATCHMEN: Watchmen not necessary, but available when required.

OPENING/CLOSING HATCHES: Longshoremen open and close hatches.

CERTIFICATES:

Documentation Papers.
Load Line Certificate.
Certificate of Safety at Sea (when carrying passengers).
Certificate of Safety Equipment.

CUSTOMS ALLOWANCES: Tobacco, 2 packs of cigarettes per day per man; wine and/or Spirit, no set amount. Each boarding officer has different views (i.e. German and Scandinavian vessels allowed 2 bottles of beer per day per man). Allowances made within reasonable bounds at Master's discretion subject to boarding officer's approval.

CARGO GEAR: No local special safety requirements. Longshoremen and U.S. Department of Labor requirements are uniform over the U.S.

REPATRIATION: No foreign crew pools in Tampa (located in New Orleans, San Francisco and New York), but crew changes can be made when Master radios requirements to Agent who arranges with local Consul or through crew pool in nearest city named above for applicable country (if no Consul is available in Tampa). American crew pools for all unions in Tampa.

Repatriation available via Tampa International Airport and is handled by Consul or Master.

AIRPORT: Tampa International Airport served by regular airlines and located approximately 15 miles from main port area; 5 miles from Port Tampa and 16 miles from East Tampa.

TIME: Tampa normally on Eastern Standard Time (GMT minus 5 hours) with Daylight Saving Time in effect from first Sunday in April till last Sunday in October.

HOLIDAYS: New Year's Day, January 1st; Martin Luther King's Birthday, 3rd Monday in January; George Washington's Birthday, 3rd Monday in February; Good Friday; Memorial Day, Last Monday in May; Independence Day, July 4th; Labour Day, 1st Monday in September; Armistice Day, November 11th; Thanksgiving Day, 4th Thursday in November; Christmas Eve, December 24th; Christmas Day, December 25th; New Year's Eve, December 31st.

When any of above holidays fall on Sunday, they will be observed on Monday following. Work on these holidays is by special arrangement only.

POLICE/AMBULANCE/FIRE: Dial 911.

TELEPHONES: Installation of telephone aboard can be arranged by agent.

SERVICES: Compass adjustments available; radio direction finder; radar repairs; tank cleaning.

SHIP SUPPLY SERVICE: Captain Riley F. Bryan, Sea Taxi, P.O.Box 46618, Pass-A-Grille, Florida. Tel: (813) 381-3999.

Suncoast Helicopters, 4111 W. Columbus Drive, Tampa, Florida 33607. Tel: (813) 872-6625.

A. P. St. Philip, Inc., 1305 Shoreline Drive, Tampa, Florida 33605. Tel: (813) 248-1123.

SHORE LEAVE: Immigration Authorities grant Clearance after examination of Passport or bona fide seaman's papers.

IDENTIFICATION CARDS: Passports required.

GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany). Garbage disposal is available through the ship's agent. Charges are usually based on tonnage.

Disposall, Inc., 3702 East 7th Avenue, Tampa, FL 33605. Tel: (813) 247-2446.

International Ship Supply, Inc., 2923 North B Street, Tampa, FL 33609. Tel: (813) 651-9840.

UETA, 223 S. 12th Avenue, Tampa, FL 33605. Tel: (813) 223-9155.

Browning-Ferris Ind., 11500 43rd Street North, Pinellas Park, FL 34622-4925. Tel: (813) 572-6800.

WASTE OIL DISPOSAL: Service is available using various local contractors. Ship's agent will usually arrange this on being informed of ship's requirements.

SEAMAN'S CLUBS: No Seaman's club. However, Rev. Ray Mungo runs the Seamen's Ministry and takes care of many of the seamen's needs. He handles international telephone calls, bank runs, trips to Disney World, Busch Gardens and other amusement parks, books, clothing, etc. He also provides church services. His details are:

Reverend Ray Mungo, 1516 Port Avenue, Tampa, FL 33605. Tel: (813) 247-5237.

CURRENCY: U.S.Dollar (U.S.$).

DELAYS: Delay can be expected in loading phosphate rock (1 or 2 days), and same delay applicable for berthing at elevators. Some delay possible in general cargo loading or unloading.

DEVELOPMENTS: Main harbour channel is 43 ft. Berth 201/202 Terminal is a multip-purpose general cargo complex with 156,000 sq.ft. of warehouse space and 1,500 lineal ft. of berthing space, with 10 acres of paved area for lumber, steel, containers, etc. This complex includes 52 reefer plugs. Berth 205 is a specially designed terminal to receive inbound bulk concentrate. The new 900 ft. Berth 208 is backed-up by 20 acres of paved area. An 80,000 sq.ft. warehouse is under construction at the site, scheduled for completion in November 1996. Berth 208 has on dock rail. Just South of Berth 208 is the 200,000 sq.ft. Harborside facility, the largest dockside cold storage terminal in the U.S. The port owns and operates 2 mobile P and H cranes, with 140 ton and 300 ton capacity. The Southern end of the main port peninsula is being expanded. By the end of the century, the port will have an additional 66 acres of deepwater property for further expansion.

In 1995, the Tampa Port Authority constructed two additional cruise terminals downtown, bringing Tampa's cruise terminal total to four.

DRY BULK FACILITIES:

Operator	*Location*	*Depth*	*Max. L.O.A.*	*Max. Beam*	*Height of Vessel Waterline to bulwark*	*Chute Travel*	*Loading Rate (N)=Net (L)=Long t.p.h.*
IMC-Agrico Chemical Co.	Big Bend	34 ft.	1,500 ft.	120 ft.	47 ft.	1,500 ft.	3,000 (N)
CF Industries Inc. (Port Authority Berth No. 204)	Holland Terminal	34 ft.	600 ft.	85 ft.	47 ft.	Stationary	1,100 (N)
Eastern Associated Terminals Co.	22nd St. Causeway Boulevard	38 ft.	850 ft.*	120 ft.	50 ft.	400 ft.	3,500 (N)
Rockport	22nd St. Causeway Boulevard	41 ft.	1,460 ft.*	120 ft.	53 ft.	1,450 ft.	3,000 (N)
Cargill Fertiliser	Highway 41 South	33 ft.	600 ft.*	80 ft.	51 ft.	335 ft.	400–900 (L)
IMC-Agrico Terminal Co.	Port Sutton	34 ft.	700 ft.*	104 ft.	43 ft.	378 ft.	1,800 (L)

*Can load longer vessels by shifting during operation.

Shipmaster's Report: (Updated 1996) Bulk phosphates are loaded in Port Sutton (one berth) and in the East Bay (two berths: Rockport owned b CSX and Eastern Associated Terminal).

Loading rates: about 1,800 t.p.h. at Port Sutton;
about 3,000 t.p.h. at the two berths in East Bay area.

Trimming: The loading elevators are not equipped with trimming devices. Most cargoes can be trimmed by bulldozers. The bulldozer weigh 5 long tons, and is placed on board with ship's gear. The IMC elevators at Port Sutton and the SCL elevator (Rockport) use shore gear to plac the bulldozer on board. A minimum of 8 ft. to 7.5 ft. headroom under the coaming is required for bulldozer trimming.

DRY BULK FACILITIES: (continued)

Operator	*Location*	*Depth*	*Berthing Space*	*Handling Equipment*	*Area*	*Storage*	*Product Handled*
Cargill Inc. (Port Authority Berth No. 256)	North 19th St.	33 ft.	756 ft.	Marine leg for unloading 30,000 bushels/p.h., and spout loader-rate of 600 tons.	Capacity of elevator is 1,000,000 bushels; 8,000 ton bulk warehouse; 4,800 ton bulk warehouse.		Grain and dry bulk products.
Lafarge Corp.	Hookers Point	33 ft.	860 ft.	Belt material handling system capable of receiving 4,000 short t.p.h. of cement or 1,500 short t.p.h. of gypsum, 3 electric travelling bridge cranes equipped with 2.5 and 3 cu.yd. grab buckets.	800×100 gypsum storage shed; 215,000 barrel holding tanks for fuel storage (for plant consumption) 220,000 ton capacity open storage.		Gypsum rock, cement.
Vulcan/ICA Distribution Co.	Pendola Point Rd.	43 ft.	1,000 ft.	Conveyor system.			Limestone.
Holnam Inc.	Port Sutton	15 ft.	550 ft.	2×8 in. pipelines to storage. 4×12 in. pipelines to storage.	8 silos with 190,000 barrel capacity. 3 bins with 5,840 ton capacity.		Cement.
Tampa Bulk Services	Port Tampa	33 ft.	730 ft.	Belt elevator from storage to loading spout. Rate of discharge 500 t.p.h. Direct transfer from rail cars to vessels at 200 net t.p.h.	Silo capacity of 10,000 net tons.		Citrus pellets and other dry bulk products.
National Gypsum Co.	Port Tampa	34 ft.	750 ft.	Receiving hopper and conveyor–unloading rate of 2,000 net t.p.h.	Open area approx. 10 acres.		Gypsum rock.
Pakhoed Florida, Inc.	Pendola Pt., Road	32 ft.	700 ft.	Dock crane with 80 ft. boom with unloading rate of 400 t.p.h. Loading tower with rate of 1,200 t.p.h.	Building 125 ft.×700 ft. with storage capacity of 50,000 tons. 4 silos with 8,000 ton capacity.		Potash, phosphat products.
Tampa Electric Co.	Big Bend	30 ft.	788 ft.	200 ft. high travelling tower-conveyors system with unloading rate of 4,000 t.p.h.	24 acres.		Coal.
Tampa Electric Co.	Port Sutton	33 ft.	700 ft.	2 electric travelling unloading towers equipped with straight-line boom, and receiving hopper-combined unloading capacity of 1,600 t.p.h.	Exact size unknown.		Coal.
Southdown, Inc.	Pendola Pt. Road	43 ft.	1,000 ft.	Pipelines.	Silos.		Cement.
Martin Marietta Aggregates	Hookers Point	40 ft.	700 ft.	Conveyor. 2 radical stackers.			Cement, building construction aggregates and materials.

SHIPMASTER'S REPORT: July 1990 (Updated 1992).

Charts: B.A. Charts No. 3847 and 3848.

Approach: Low lying coastline. Radar picks up 'Sarasota' to South of Tampa Bay at 30 miles.

Anchorage: The Fairway Anchorage is North of Buoy No.1 (45 ft.). Various anchorages inside Tampa Bay with depths up to 30 ft. U.S.C.G. only allow vessels to remain a maximum of 48 hours.

Pilot: Boards at Fairway Buoy from fast black hulled cutter. Pilot Station at 'Egmont Key' South of main ship channel. Call Pilot Station on VHF Channels 16 and 12.

One Pilot takes vessel to berth and docks ship.

Outwards Pilot disembarks at Buoy No.14.

Pilot requires 2 hours notice inwards and outwards.

Channel: The maximum channel draft at present is 39 ft. L.W., even though some berths and channels have well over 40 ft. Patches still require maintenance dredging to 40 ft.

Gas Tankers (Foreign flag) of any size, daylight transit only in loaded condition. Complete passage must be in daylight, but if in ballast 24 hour berthing allowed. Gas tankers allowed to shift berth in loaded condition throughout 24 hours, but only if in Port Sutton Channel.

Oil and chemical carriers over 106 ft. LOA transit daylight only in loaded condition.

Sunshine Skyway Bridge near bay entrance consists of new bridge with vertical clearance of 175 ft. above MHW.

Tugs: 8 tugs in operation, up to 6,000 i.h.p., including 2 'Tractor' tugs.

Generally tie up "American Style" alongside with tug's lines, except 'Tractor' tugs which are on short line.

Tugs generally immediately available in emergency, otherwise require 2 hours notice.

Cancellation without payment, as long as tug has not left its berth.

Two tugs used when loaded, and one tug when in ballast.

Berth: Gas (Ammonia) carriers can discharge at 3 berths, IMC and Seminole in Port Sutton Cut and Royster off 'Cut D'.

IMC: North side of Port Sutton Channel (27°54.25' N., 82° 22.80' W.). Jetty set out from Port Sutton Channel. Fendering dolphins each end of jetty.

Berth can take up to 70,000 cu.m. gas tankers. Limiting factor is dra Presently maximum is 35 ft. plus tide. Fendering good, moori arrangement good, 3, 2, 2 each end, starboard side alongside, head o Ship's gangway used. Two public telephones near at hand at dock offi

Fresh water at good pressure. Connection at Chicksan, for which the is a charge.

Seminole: North side of Port Sutton Channel near entra (27° 54.25' N., 82° 25.50' W.). Facility formerly owned by Grace, but s in 1988.

Jetty set out from Port Sutton Channel. Outlying fender dolphins ea end.

Berth can also be used for caustic soda and scrap metal. The Caus Soda Jetty to the East of the Ammonia Jetty has no fendering, so ta care when berthing.

Scrap metal ships often use same berth to load from facility to E of Ammonia Jetty. Check with Agent that dock bottom is clear of sc before berthing. Apart from above, fendering fair. Berth can take u 70,000 cu.m. gas carriers with limiting draft of 35 ft. plus tide.

Vessels berth starboard side alongside, head out. Shore gang used. Nearest public telephone is at IMC to East. Master is permi to use Seminole office telephone in working hours. Fresh water at g pressure. Connection at Chicksan, no charge.

Royster: Vessels can berth either side of finger pier at Hooker's Po opposite Peter O.Knight Airport.

About 50,000 cu.m. gas carriers maximum size. Also used for o oil products and chemicals. Position: 27° 55.15' N., 82° 26.60' W., N side No. 227, port side too, South side No. 226, starboard side Ship's gangway used at both berths. One public telephone near b of jetty. Fresh water near Chicksan, charged.

Lay-By Berth No. 31, Pendola Point: If awaiting discharge berth, a b attached to a cement silo can be used at South Entrance to Port S Channel at Pendola Point (27° 54.2' N., 82° 26.0' W.) with 38 ft. plu alongside. Jetty with outlying mooring dolphins. Mooring leads a not good. Port side alongside, head out. Ship's gangway used. No f water, no telephone. Berth very isolated.

Discharge: IMC: Terminal requires product to be at −32.2°C. or colder. Tank pressures 49.2 mb. although not rigidly enforced.

Average discharge rate is 760 t.p.h., with approximately 6.5 kg./sq.cm. at ship's manifold, equates to 4 pumps.

One 20,000 cu.m. tank for NH3.

Chicksan 10 in. 150 ASA.

Necessary to cease discharge for passing traffic.

Surveyors: Saybolt and Thornton. Saybolt Surveyor may read draft before boarding. Thornton Surveyor uses different Density Tables from ship.

Seminole: Permitted pressure approximately 7.5 kg./sq.cm. at manifold, average discharge rate 535 t.p.h. using 3 pumps.

Necessary to cease discharge for passing traffic.

Chicksan 6 in. 150 ASA.

1×20,000 cu.m. and 1×12,000 cu.m. storage tank immediately adjacent.

Surveyor (Saybolt) reads draft before boarding. Arm drained to shore on completion.

Royster: Average discharge rate 980 t.p.h., equates to 6 pumps.

12 in. 150 ASA Chicksan which can swing either side of pier.

Stores: We used Florida Ship Supply who were helpful, and prices reasonable. Can use midship derrick at all berths, and aft derricks at Royster.

Repairs: Tampa International Ship Repair for repairs. Tampa Electric Motor Co. 'TEMCO' for electric motors repairs.

General: Tampa/St.Petersburg International Airport about 30 minutes from Port Sutton, to N.W. of city centre.

Plenty of shopping malls plus entertainment, such as Busch Gardens and Disney World, near at hand.

SHIPMASTER'S REPORT: October 1991.

Pilotage: Tampa Tri-County Pilots have discontinued service.

For pilot call Tampa Bay Pilots on VHF Channels 10 and 12. The pilot boards and disembarks between Buoys No. 9 and 10 (original entrance to the channel before being extended in 1984). This pilot also berths and unberths the vessel.

There is no longer any restriction on gas carriers, they may now berth and unberth throughout 24 hours.

If the weather is poor (strong Northerly winds), the pilot may embark and disembark near Buoy No. 20, but this depends on the vessel and the Master.

Channel: The Egmont Channel has a projected depth of 50 ft., but is liable to constant shoaling. The distance from the Fairway Buoy to Port Sutton is 41 miles. The maximum permitted draft in October 1991 to Tampa was 40 ft. 06 in. on a rising tide, but this was only to certain berths.

When there is a strong Northerly wind, a heavy swell can form over the Egmont Channel, thereby causing deep draft vessels to bottom.

Anchorage: See B.A. Chart No. 3847. There is no shelter in this anchorage.

Bridges: The old Sunshine Bridge (shown on B.A. Chart No. 3847 as the operating bridge) to the West of the new bridge is finally being demolished and contractors machinery and plant are working on the old spans. The piers for the bridge will be removed to a depth of 42 ft. adjacent to the shipping channel and below small craft draft outside the shipping channel.

Tugs: For vessels proceeding to Port Sutton Channel and berths further North, the tugs join at Beacons No. 25/26.

Tugs are supplied by St. Phillip Towing Co., who operate numerous old tugs and a new tractor type called the "Kingsman Eagle". If the "Kingsman Eagle" is used the charges are double that of the older tugs.

Normally 2 tugs and tug's lines are used.

Berthing: Chemical parcel tankers berth at Boliden Chemical Co. on the South side of Port Sutton Channel (27° 52.2' N., 82° 24.8' W.), where the depth reported by the pilots is 31 ft. The berth is a typical tanker 'T' jetty with Chicksan arms and hoses. The berth can accept parcel tankers up to 40,000 d.w.t. The berth is made of a 20 m. 'T' head with breasting dolphins at each end. Vessels generally berth head in, starboard side to. Ship's brow gangway required.

There is a berth at the Western end of Port Sutton Cut at Pendola Point (27° 54.2' N., 82° 26.0' W.) which has been dredged to 45 ft. and is used for topping-off bulk carriers loading phosphate.

Cargo: Sulphuric acid discharge: There are 2×6 in. shore hoses for discharge of sulphuric acid to the nearby shore tanks. Sulphuric acid can be accepted at up to 1,000 tonnes/hr.

A shore radio is provided and co-operation with the shore is good.

Ship's air line is required on completion to blow the manifold and line ashore. It is best to have connection ready for ship's own manifold.

Caustic and asphalt also handled at this berth.

Loading Master has a Cellnet telephone which the Master can use for local calls.

Density: 1017.

Fresh Water: Fresh water is available from a stand pipe on the jetty (no meter) at about 20 tonnes/hr. Ship's hoses are used and the rate is lower during the night.

Supplies: There are numerous ship chandlers in the port. We found Florida Ship Supply (Telex No. 52422) very good on our numerous visits to the port. For bonded stores we used Bonnani (Telex No. 6732315).

Storing: Trucks can back-up to within 15 m. of the ship's side.

Telephones: There are 2 telephones on the jetty at the end of Port Sutton Dock which is about 0.25 miles from the berth. The agent will also rent a portable Cellnet telephone to the vessel.

SHIPMASTER'S REPORT: September 1996.

Charts: B.A. Charts No. 3847 and 3848.

Approaches: Racon on sea buoy conspicuous at 12 miles.

Coast line generally flat.

Coastal high rise buildings to North of channel visible around 14 miles (radar targets over 24 miles).

Pilots: As per ALRS Vol. 6, H3270.

Pilots work on Channel 12 with good range (50 miles).

Pilot station on Egmont Key (24 hour service).

Pilot generally boards at Buoys No. 7/8 from large fast black hulled cutter with conspicuous red deck.

Pilot departs at Buoys No. 9/10, depending on ship's size, draft and weather.

In severe weather, Pilot will request vessel to come inside.

Anchorage: As per B.A. Chart No. 3847, North of Fairway Channel. Poor holding and exposed.

Channel: Lights on outer Buoys No. 1/2 not conspicuous (very dim). Distance to Port Manatee Channel 23 miles, to St. Petersburg Channel 31 miles and to Tampa/Port Sutton 41 miles (about 3 hours transit to Port Sutton).

Main channel to Tampa takes 40 ft. draft (SW).

Channel outer width 600 ft., narrowing to 400 ft. near Tampa.

Vessels using Port Sutton Channel swing in Turning Basin off Pendola Point and either back in or out with tug assistance, depending on berth and vessel preference.

Tugs: Numerous and powerful tractor tugs available. Tug's lines used. We used one small tug.

Berth: Martin Gas Terminal (No. 24): Previously known as Bolieden. Berth is located on the South side of Port Sutton Channel. It is a typical 'Tanker T' jetty set out from shoreline by 60 ft. with effective fender length of 215 ft.

The central section is 35 ft. with outlying mooring/fender dolphins, giving over 215 ft. of berthing length. Dolphins are connected to shore by a catwalk.

The central section has a hose gantry, control cabin and F.W. pipe. Ships of less than 350 ft. LOA would find it difficult to land on the fenders, taking into account the bow/stern curve. Pilots say 32 ft. alongside MLW. Generally, starboard side to.

Density: 1011 at all tidal states.

Cargo: Terminal handles acids, caustics, asphalt and fuel oils. Hoses are 6 in. and 8 in. from hose gantry. Ship's crane/derrick required. Tank farm immediately adjacent.

Sulphuric acid handled by 2×6 in. hoses. Rate as fast as vessel can pump (up to 100 p.s.i., about 700 tonnes/hr.).

Good cooperation from Terminal, and helpful.

Facilities: Fresh water from hose jetty at 15 tonnes/hr. Ship's hoses used. Ship's wharf ladder can be landed on Western mooring dolphin.

Stores can be delivered within 60 ft. of ship's side and then hand-trucked along Western mooring dolphin catwalk.

Bunkers by barge or off jetty.

All usual facilities of a large city, including medical facilities and repairs. Note: Fresh water only obtainable from berths, there is no fresh water barge available in Tampa.

Stores: A number of chandlers available.

For Korean produce we used Kim Brothers. Telex: 02559102503910. They gave prompt service, good produce, but expensive.

For general and Western produce, we used Florida Ship Supply. Tel: 813-248-1175. Fax: 813-247-5798. Good service. They also provide bonded stores.

Unitor have a small depot. Most items, except gases, have to be freighted in from either Nola or Miami.

Authorities: No difficulties. Usual entry forms required. Health/Agriculture Inspector boards on arrival and checks all produce. Any non-Florida fruit is sealed.

AUTHORITY: Tampa Port Authority, George B. Howell Maritime Centre, 811 Wynkoop Road, (P.O.Box 2192), Tampa, Florida 33601. *Tel:* (813) 272-0555. *FAX:* (813) 272-0570. *Contact:* Robert N. Steiner, Port Director. Steven L. Fidler, Operations Director.

TEXAS CITY, Texas: 29.22 N. 94.53 W. (See Plan)

DOCUMENTS, PILOTAGE, etc., refer to "Galveston".

RESTRICTIONS: Controlling depth in entrance channel 40 ft. Otherwise restricted by depth available at berth. Vessels enter day and night.

Industrial canal deepened from 34 ft. to 40 ft., in 1981.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available if required.

BERTHING:

Dock No.	*User*	*Depth at MLW* (ft.)
1	Sterling Tanker Dock (private)	38
11,12	Arco Tanker Docks (private)	40
14	Barge Dock (T.C.T.)	20
14A	Barge Lay-by Berth (T.C.T.)	–
15	Chemical Dock (T.C.T.)	36
16	Tanker Dock – Multi-user (T.C.T.)	40
18,20A,20B	Tanker Docks (T.C.T.)	36
19A,19B	Tanker Dock	36
22	Barge Dock (T.C.T.)	16
33,34	Amoco Barge Dock (private)	12
32,37,38	Amoco Tanker Docks (private)	36
40,41	Tanker Dock (Import Crude Oil) (T.C.T.)	40
44,45	AIMCOR Dry Bulk (private) – Barge	40
50	Tanker Dock (Amoco Chem.)	40
66,67	Union Carbide Tanker Docks (private) Dock 66	36
51,52	Barge – Dock 67	40

Report: *AMOCO:*

General: The Amoco Terminal at Texas City consists of Berths No. 31, 33 and 34 barge dock, 32, 37, 38, 40 and 41 (Berths No. 40 and 41 also used by T.C.T. and Marathon). Distance from the sea buoy to these berths is 15 miles.

Mooring and Berth: Pilot services for the Texas City port are provided by the Galveston Pilot Association.

Products handled at Berths No. 31 and 32 include gasoline, distillate, anhydrous ammonia, crude and also ballast and slops. Anyhdrous ammonia is handled through 1 stainless steel arm, 6 in. flanged connection and maximum pumping pressure of 35 p.s.i. All other products are handled through 8 in. lines with flanged connections. Maximum pumping pressure on all products is 100 p.s.i.

Berths No. 40 and 41 handle the discharge of crude only. Both berths have 2 loading arms. All lines are 12 in. and are quick disconnect-type connections. Maximum pumping pressure is 150 p.s.i. There are no facilities for handling ballast or slops at these berths.

A minimum of 2 tugs are required for docking and undocking. However, the Master of the vessel and the Docking Master may determine actual tug requirements for their vessel based on vessel manoeuvrability and weather conditions.

The normal mooring arrangement at Berths No. 31 and 32 is starboard side to. Port side mooring is done after turning the vessel in the turning basin. 2 head lines, 2 forward breast lines, 2 spring lines, 2 stern lines, 2 aft breast lines and 2 aft spring lines are sufficient for mooring most vessels. Line handlers are supplied by Texas City Boatman Co. and Amato Linehandlers. This terminal does not furnish a gangway to vessels.

ARCO:

General: The ARCO facility is located toward the North end and on the West side of the Texas City Turning Basin. Berths No. 11 and 12 are the 2 berths at this terminal. The area around these berths is dredged to 40 ft.

The ship dock is a concrete and steel finger pier permitting vessels to moor on either side. 2 vessels are the maximum that may be discharged at one time. There is no provision to load vessels at the facility and no facilites for dry cargo handling.

Mooring and Berth: Water depth is the factor that limits the size of fully loaded vessels that call at the facility. Lightered or partially loaded vessels of greater size can be accommodated. Distance from the bow of a vessel to the centre of its manifold cannot exceed 468 ft. and from the centre of its manifold to the stern of the vessel cannot exceed 500 ft. Vessels will be docked bow in unless prior arrangement has been made with facility operators to permit bow out mooring. Should the vessel be moored bow out, the bow/manifold restrictions become 500 ft. and the stern/manifold distance 468 ft.

The pilotage of vessels to Texas City is performed by the Galveston/Texas City Pilots. This terminal does not make arrangements for Pilots.

9 mooring structures are installed at each berth and several lines can be secured on each. A boat is required to reach some structures. The ship's Agent will be responsible for arranging mooring and unmooring line handlers. The handlers will be under the orders of the Ship's Officer regarding the handling of each individual line and location of the shore end. The facility has Regulations concerning the minimum number of lines and the type of lines used.

They are:

Vessels less than 525 ft. LOA:
- 2 head lines
- 2 forward breast lines
- 2 forward spring lines
- 2 aft spring lines
- 2 aft breast lines
- 2 stern lines

Mixed moorings not encouraged or allowed.

Vessels greater than 525 ft. LOA:
- 3 head lines
- 3 forward breast lines
- 3 forward spring lines
- 3 aft spring lines
- 3 aft breast lines
- 3 stern lines

Vessel's mooring lines must be kept taut and secure at all times. If the vessel moves more than 4 ft. away from the dock or 4 ft. in either direction along the dock, all cargo transfer operations must be stopped immediately, and the proper manifold valves must be closed. Operations must not resume until the condition has been corrected.

Facility will provide gangway. Vessel's crew must attach gangway to the vessel and furnish/install safety net under gangway. If it is necessary to use vessel's gangway, facility's crew will help position gangway onto dock platform.

Aluminium gangways with rotating platforms and feathering treads are provided. The shipboard end is designed to attach to the vessel's gunwhale or over the ship's rail.

Crude is the only cargo handled at this berth. All lines are 16 in. and have hydraulic connections. Maximum pumping pressure is at 175 p.s.i. There are no facilities for ballast or slops at this terminal.

Municipal Docks No. 16, 18 and 20:

General: Municipal Docks No. 16, 18 and 20 are located adjacent to the Texas City Harbour turning basin.

Dock No. 16 has a 140 ft. face, 283 ft. with dolphins; 40 ft. depth alongside, deck height of 14 ft. This dock is used for receipt of crude oil and shipment of petroleum products, chemicals and petrochemicals.

Dock No. 18 has an 88 ft. face, 320 ft. with dolphins; 34 ft. depth alongside, deck height of 14 ft. This dock is used for receipt of crude oil. Dock No. 20 has a 98 ft. face, 284 ft. with dolphins; 32 ft. depth alongside, deck height of 14 ft. This dock is used for receipt of crude oil and shipment of petroleum products.

Mooring and Berth: Tug requirements are determined according to vessel size, Master's requirements and recommendations of the Docking Master doing the docking.

The normal berthing manoeuvre into Dock No. 16 consists of a tu of 140° to port from the Texas City Turning Basin. The berth is on th starboard hand of the basin about 1,500 ft. from the turning basi entrance. Vessels tie up either port or starboard side to manila o polypropylene lines are normally used, but wire is permissib No gangway is provided at this berth.

Vessels destined to Berth No. 18, enter the turning basin from th Texas City Channel. Berth No. 18 is at a right angle to the turning bas approximately 2,000 ft. from the entrance to the turning basin. Vess normally turn in the turning basin in order to back into the berth. Norm side to dock is the port side. Berth No. 18 is the first berth on the Nor side of the municipal dock basin. No gangway is available at this doc

Vessels destined to Berth No. 20 enter the turning basin from th Texas City Channel. Berth No. 20 is also at a right angle to the turnin basin approximately 2,500 ft. from the entrance to the turning basi Vessels turn bow first into this dock area from the turning basin for port side docking. Manila or polypropylene lines are used. This is th poorest of the 3 docks. Adequacy of mooring facilities is margina physical condition of the dock is poor, but acceptable. Dock equipme is fair, but acceptable. No gangway is provided at this berth.

Products handled by Berth No. 16 are all handled through 8 in. line with flanged connections at pumping pressures between 20 p.s.i. an 125 p.s.i. Ballast and slops are handled through 8 in. lines with maximum pumping pressure of 100 p.s.i.

At Berth No. 18 crude oil is discharged through 2×8 in. lines wi flanged connections. Maximum pumping pressure is 125 p.s.i. Faciliti for ballast and slops are available.

Products handled by Berth No. 20 are all handled through 8 in. line with flanged connections at pumping pressures between 30 p.s.i. an 125 p.s.i. Ballast and slops are handled through 8 in. lines with maximum pumping pressure of 100 p.s.i.

MEDICAL: All medical assistance available.
DENSITY: Brackish.
FRESH WATER: Available at all wharves except Union Carbide.
FUEL: Bunker "C" available to tankers loading/discharging. All grad available by barge from Houston.
CONSULS: See "Houston".
GANGWAY/DECK WATCHMEN: Required only if crewmen detaine by Immigration.
CUSTOMS ALLOWANCES: Each man 300 cigarettes or 100 cigars o 1 lb. tobacco. 1 qt. wine/spirits.
TIME: Central Standard Time GMT minus 6 hours. Daylight saving tim effective from April to October.
SHORE LEAVE: No restrictions unless detained by Immigration.
GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. po (Albany).

A garbage collection service is available through Browning-Fer Industries. Tel: 1-800-637-7339.

WASTE OIL DISPOSAL: Collection of waste oil is available throu Malone Company, Texas City. Tel: (409) 945-3301 or 938-1791. Th company is licensed by the State to receive and transport hazardo material for disposal.
SEAMAN'S CLUBS: At Galveston and Houston.

SHIPMASTER'S REPORT: February, 1979.
Restrictions: Vessels on maximum draft must be clear of Texas Ci Channel before dark. There is no sailing or berthing during darkness t maximum draft vessels.

For large vessels it is necessary to ballast during discharge otherwi shore connections become too high.

VHF: Channel 13 from sea and Channel 14 for berthing.
Tugs: Usually 4-6 tugs for vessels on maximum draft.
Tankers: Large tankers dock at Docks 40 & 41 usually starboard si to. On either dock it is not easy loading stores from the doc 2×12 in. connections.
Customs Allowance: All souvenirs to be collected (items intended a presents) and sealed.
Repatriation: As with all U.S. ports must make out Form I-408 application to pay off or discharge alien crewman.
Airport: At Houston.
Telephone: Pay telephone at bottom of gangway.
General: Will require ship's gangway abaft of manifold if bottom gangway is more than 115.5 ft. (35.20 m.) abaft after manifold wi freeboard of 23 ft. or more.

AUTHORITY: Texas City Terminal Railway Co., P.O.Box 591, Tex City, Texas 77592-0591, U.S.A. *Tel:* General Office (409) 945-44 Harbour Master (409) 945-5011. *FAX:* (409) 948-9160, 945-84 *Contact:* H. Ritter, President and General Manager. J. Gilder, Harb Master.

TOLEDO, Ohio: 41.42 N. 83.28 W. (See Pla

Refer to "St. Lawrence Seaway" for important general informatio
PILOTAGE: By Seaway Pilots.
RESTRICTIONS: Navigation season from mid-March to end-Decem approx. The port is connected to Lake Erie by an entrance cha depth 27 ft. Vessel's size restricted by Seaway locks.
MAX. SIZE: 730 ft. length; 26 ft. draft. Height restriction of 104 ft. ab water-line which applies to grain berths only.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Alban
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany)
RADIO: Master must give at least 24 hours' notice to Command Coast Guard District, Cleveland, Ohio, of the vessel's ETA at Snell Also, at least 24 hours' notice of ETA at first U.S. discharge po required. Toledo Port can be contacted through Lorain, Ohio or Colborne, Ontario.

TUGS: Available. Not compulsory, but sometimes necessary in bad weather.

The Great Lakes Towing Company, 1800 Terminal Tower, 50 Public Square, Cleveland, Ohio 44113-2274. Tel: (800) 321-3663 and (216) 621-4854. Fax: (216) 621-7616.

BERTHING:
CSX Coal Dock: 2,000 ft. long, 26 ft. depth alongside.
Torco Dock: 1,200 ft. long, 26 ft. depth alongside.
Heidtman Steel Corporation: 23 ft. depth alongside.
Countrymark Cooperative, Inc. Terminals: 27 ft. depth alongside.
Cargill, Inc. Elevator: 27 ft. depth alongside.
Port Authority Facility: 4,100 ft. long, 27 ft. depth alongside.
Anderson Elevator: 27 ft. depth alongside.

CRANES: Located at Port Authority Facility No. 1 – electric gantry cranes 72.5 and 110 tons. Four 25-ton gantry cranes.

CARGO HANDLING FACILITIES: 2 grain elevators at Toledo load vessels at 50,000 b.p.h. There are 3 coal-loading machines, each of which can dump 1×100-ton car per minute, also 1 machine which dumps 2 cars simultaneously, for a max. of 6,000 t.p.h.

Iron pellets are received at new Torco Dock from self-unloading lake vessels. Storage Capacity 800,000 tons.

Liquids handled include petroleum products, industrial molasses, trichlorethylene and perchlorethylene.

BRIDGES:

Bridges crossing Maumee River:

Miles above Mouth	Draw Openings – Clear Width(1) Right (ft.)	Centre (ft.)	Left (ft.)	Clear Height above LWD (ft.)
Toledo Terminal Railroad (Swing – Railroad)				
1.3	145	—	143	22.2(2)
Norfolk and Southern Railway (Swing – Railroad)				
2.1	136	—	145	20.1(2)
Craig Memorial Bridge (Bascule(3) – Highway)				
3.6	—	200	—	48.0(4)
Martin Luther King Jr. Bridge (Bascule(3) – Highway)				
4.6	—	200	—	31.3(5)
Anthony Wayne (Fixed(6) – Highway)				
5.2	—	747	—	104.0
Conrail Bridge (Swing – Railroad)				
6.0	115	—	115	17.3(2)
M.V. DiSalle (Fixed – Highway)				
7.0(7)	110	—	110	45.0

(1) Right and left sides proceeding upstream.
(2) Closed position.
(3) Double leaf.
(4) Clearance in centre in closed position, reducing to 39.5 ft. at sides of span.
(5) Clearance in centre in closed position, reducing to 17 ft. at sides of span.
(6) High-level.
(7) Upstream limit of deep-draft navigation.

STEVEDORES: Provided by Toledo World Industries, Inc.

MEDICAL: All facilities available.

TANKERS:
Sun Oil: 22 ft. depth alongside.
Great American Lakes Pipeline Co.: 22 ft. depth alongside.
BP Oil Company: 23 ft. depth alongside.

DENSITY: Fresh water.

FRESH WATER: Obtainable by pipeline at all general cargo docks.

FUEL: All grades available at oil piers, and by harbour fuel barge.

REPAIRS: Major repair facilities available.

H.Hansen Industries, 2824 N. Summit Street, Toledo, Ohio 43611. Tel: (419) 729-1621. Fax: (419) 729-0715.

The Toledo Shiprepair Co., 2245 Front Street, Toledo, Ohio 43605. Tel: (419) 698-8081. Fax: (419) 693-9066.

DRY DOCKS: No. 1: 510 ft.×72 ft. 6 in.; No. 2: 800 ft.×78 ft.

SURVEYORS: American Bureau of Shipping and Salvage Association.

Surveyors: Capt. Ray Fulshaw, Marine Surveyor & Consultant, 5821 Greenridge Lane, Toledo, OH 43615. Tel: (419) 865-5137.

Captain Ted Polgar, Marine Surveyor & Consultant and National Cargo Bureau Representative, 2745 Pine Knoll Drive, Toledo, Ohio 43617. Tel: (419) 841-3600. Fax: (419) 841-3600.

Grain Inspection: Federal Grain Inspection Service, 234 Summit Street, Toledo, Ohio 43604. Tel: (419) 259-6276. Fax: (419) 259-7464.

BANKS:

Fifth Third Bank of Northwest Ohio, 606 Madison, Toledo, OH 43604. Tel: 259-6898. Fax: 259-6939.

National City Bank, P.O.Box 1688, Toledo, Ohio 43603. Tel: 259-6567. Fax: 259-6666.

Society National Bank, Three Sea Gate, Toledo, OH 43699. Tel: 259-8490. Fax: 259-8484.

Mid-American National Bank & Trust Co., 519 Madison Avenue, Toledo, OH 43606. Tel: 249-3353. Fax: 249-3358.

STORING: See "Prelims".
1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. No special restrictions.
6. Yes.

DEVELOPMENTS: Major construction projects by the three riverfront grain operators has increased grain handling capacity from 10.2 million bushels to over 22 million bushels. A new 6 million gallon facility for storage of liquid fertiliser is planned and an additional ship loading dock is under construction.

AUTHORITY: Toledo – Lucas County Port Authority, One Maritime Plaza, Toledo, Ohio 43604-1866. *Tel:* (419) 243-8251. *FAX:* (419) 243-1835. *Cables:* Portol. *Contact:* J.M. Loftus, Seaport Director.

UNALASKA (Dutch Harbor), Alaska:
53.54 N. 166.30 W. **(See Plan)**

DOCUMENTS:

Customs:
Master's Oath (1300).
General Declaration (1301).
Cargo Declaration (1302).
Ship's Stores Declaration (1301).
Crew Effects Declaration (1303).
Clearance from Last Port.

Immigration:
Immigration Documentation (I-418).
Crew/Passenger List.
Landing Permit (I-95).
Visaed Crew List for Shore Leave (Supplied by Immigration).
Passport and (or) Seamens' Book.

PILOTAGE: Compulsory. To avoid a delay in obtaining a Pilot, the Owner, Master or Agent of a ship bound for Unalaska/Dutch Harbor must make prior arrangements at least 12 hours before entering port. The following information must be included:
1. Name/Call Sign of vessel.
2. Nationality.
3. Length, draft and g.r.t.

Pilot Boarding Station:
Lat. 53' 55' 00" N., Long. 166° 29' 00" W. 1 mile (1.61 km.) East of Ulakta Head. Pilots, tugboats, Harbour Master and shipping Agents standby on VHF Channel 16 (156.8 MHz).

Berthing:
(a) Pilot – Compulsory. Shifting of and EDT requires 1 hour advance notification.
(b) Berths arranged by Agent in advance.
(c) 1 small tug available annually. Circumstances may arise when other tugs are available for ship assistance.
(d) Lineman – Arranged through ship's Agent.
(e) Boatmen – Arranged through ship's Agent.

ANCHORAGE:

Outer Anchorage: Lat. 53° 54' 00" N. to Lat. 53° 55' 00" N. at Long. 166° 27' 00" W., Rocky, Depth 12 fathoms.

Inner Anchorages: Domestic and other vessels which have cleared customs.
1. Dutch Harbor: Lat. 53° 54' 00" N., Long. 166° 31' 20" W., mud, depth 18 fathoms.
2. Iliuliuk Bay: Lat. 53° 52' 40" N., Long. 166° 31' 10" W., mud, depth 14 fathoms.
3. Captain's Bay: Lat. 53° 52' 00" N., Long. 166° 33' 33" W., mud, depth 15 fathoms.
4. Nateekin Bay: Lat. 53° 53' 00" N., Long. 166° 37' 00" W., mud, depth 17 fathoms.
5. Broad Bay:
   (a) Lat. 53° 55' 05" N., Long. 166° 36' 30" W.
   (b) Lat. 53° 56' 05" N., Long. 166° 36' 30" W.

Must check with the U.S. Coast Guard and the Alaska Department of Fish and Game prior to anchoring or placing an oil rig at these locations. More locations may be forthcoming.

Note: When anchoring in Dutch Harbor, no vessel may anchor in the glide path to the airport.

MAX. SIZE: No restrictions except draft at various facilities and through the East Channel 24 ft., Rocky Bottom at MLLW.

RADIO:
(a) Department of Public Safety, Harbour Master, Pilots, Tugs, Shipping Agents and National Marine Fisheries Observer Transfer Station standby on Marine VHF Channel 16. 4125 A kHz.
(b) Alaska Department of Fish and Game and the Alaska Department of Fish and Wildlife, (State Troopers) standby on Marine VHF Channels 6 and 16. 4125 A kHz.
(c) Marine Operator calls vessels on Marine VHF Channel 16 and receives all radio traffic on VHF Channel 28.
(d) All other traffic stands by on Marine VHF Channel 9.

TUGS: Padilla Tug Co. and Dunlap Towing.

Boatmen:
Victory Services – VHF Channel 78.
Ballyhoo Services – VHF Channel 16.

BERTHING:

Berth No.	*Wharf Length* (ft.)	*Depth at MLLW* (ft.)	*Remarks*
1	1144	30	City Dock and Petro Marine tank farm – Warehouse available.
2	300	40	APL – 208, 3 ph., 60 cycle power. 100,000 lb. gantry crane.
3	360	50	Delta Western Fuel Pier.
4	160	30	Trident Seafoods Inc.
5	234	36	Petro Marine.
6	250	26	Petro Marine.
7	1000	26	Delta Western.
8	35	22	MarCenCo.
9	35	22	Icicle Seafoods Inc.
10	995	35	Split Dock Facility (City)
11	505	24	Alyeska Fisheries North Dock.
12	300	36	Alyeska Fisheries West Dock.
13	460	30	East Point Seafoods.
14	250	30	Aleutian Processors barge.
15	250	36	Greatland Seafoods.
16	250	30	Unisea Inc.
17	250	30	Unisea Inc (barge Vita).
18	90	30	Unisea Inc (Galaxy Dock).
19	40	30	Unisea Inc (Viceroy Dock).

Berth No.	*Wharf Length (ft.)*	*Depth at MLLW (ft.)*	*Remarks*
20	800	18 (var.)	City Small Boat Harbor, Fishing/ Pleasure.
21	78	20	Walashek Industries (Repair, 300 ton haulout).
22	160	31	Underwater Construction.
23	300	35	Crowley Maritime.
24	420	20	Offshore Systems Inc.

CRANES: 100,000 lb. container lift at American President Lines. Mobile cranes at the other facilities up to 150 tons at request through Shipping Agent. The City Dock also has a container crane.
FRESH WATER: Fresh water is available at most berths. Order through Agent or Dock Operator. The City Dock has 5 outlets.
FUEL: Available at Delta Western Fuel Pier No. 3; Petro Marine Piers No. 1 and 6 and Crowley Maritime No. 23. The City Dock has 8 outlets for fuel.
REPAIRS/SERVICES: Most deck, hull, engine, radar, RT, gyro, hydraulic, refrigeration and almost all types of marine electronic and electric repairs. Divers available for underwater surveys and repairs.
DRY DOCKS: Walashek Industries 300 ton haulout facility.
SURVEYORS:

1. Kodiak Marine Surveyors, P.O.Box 356, Kodiak, Alaska 99615. Tel: (907) 486-5616.
2. Rocky Point Enterprises, Inc., P.O.Box 1047, Homer, Alaska 99603. Tel: (907) 235-8967.
3. Alaska Marine Surveyors, SRA-2 Box 9312, Eagle River, Alaska 99577. Tel: (907) 694-3055.
4. Capt. Wolslenholm, P.O.Box 3313, Anchorage, Alaska 99510. Tel: (907) 277-5109.

GANGWAY/DECK WATCHMEN: Usually ship's crew. Ship's gangway used.
OPENING/CLOSING HATCHES: Stevedores or ship's crew whichever to ship's advantage.
REPATRIATION: Crew changes and repatriation can be carried out with little difficulty.
AIRPORT: No more than 4.5 miles from any facilities and adjacent to City Dock. Daily flights to Anchorage with domestic and international connections. Peninsular Airways, Reeve Aleutian, Alaska Airlines and Aleutian Aire Ltd. Air charter service state wide.
TIME: GMT minus 9 hours in Winter, and GMT minus 8 hours in Summer. First Sunday in April clocks advanced 1 hour. Last Sunday in October clocks retarded 1 hour.
HOLIDAYS: New Year's Day, Lincoln's Birthday, Washington's Birthday (3rd Monday in February), Seward's Day (last Monday in March), Memorial Day (last Monday in May), Independence Day, Labor Day, Alaska Day (18th day in October), Veteran's Day (November 11th), Thanksgiving Day and Christmas Day and every Sunday and every day designated by public proclamation by the President of the United States or the Governor of the state as a legal holiday.

Port Department on duty 24 hours every day.
POLICE/FIRE/AMBULANCE: Tel: (907) 581-1233; Emergency Tel: 911; VHF Channel 16, 24 hours a day.
EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard. Dial 0 – Ask operator for Zenith 5555 or 2182 kHz.
GENERAL: Fishing vessel's wide lights and searchlights must be turned out prior to vessel entering port.
AUTHORITY: International Port of Dutch Harbour, City of Unalaska, P.O.Box 610, Unalaska, Alaska 99685. *Tel:* (907) 581-1254. *FAX:* (907) 581-2519. *Contact:* James Severns, Port Director. Haraldur Gudjonsson, Harbour Master.

VALDEZ, Alaska: 61.07 N. 146.21 W. (See Plan)

Also see "Valdez Marine Terminal".

Located at head of Valdez Arm in Prince William Sound.
DOCUMENTS: See "Anchorage, Alaska".
APPROACHES: Via Prince William Sound to the Valdez Pilot Station.
PILOTAGE: Pilotage provided by Southwest Alaska Pilots Association. Pilot boards approximately 3.6 miles × 246° from Blight Reef Buoy (Lat. 60° 49' N., Long. 147° 01' W.).
MAX. SIZE: Harbour depth over 300 ft. Tides: diurnal range 12 ft. Also see "Berthing" and also see "Valdez Marine Terminal".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
ANCHORAGE: Excellent, close by dock. Bay is too deep.
CUSTOMS: Quarantine, local. Immigration and Customs from Anchorage.
TUGS: Limited availability.
BERTHING: Valdez City Dock: 26 ft. MLLW. 600 ft. long by 60 ft. wide. Stevedore provides equipment which includes fork-lifts and 2×100 ton mobile cranes and 1×150 ton mobile crane.
Floating Quay: Length 700 ft., width 100 ft. Mobile cranes available. Facilities for Lo/Lo and Ro/Ro.
STEVEDORES: 3 gangs.
MEDICAL: 15-bed hospital, 3 doctors and 1 dentist available.
TANKERS: *Tesoro Petroleum, Petroleum Dock:* Length 200 ft., width 40 ft., depth 36 ft. at MLLW.

Also see "Valdez Marine Terminal".
FRESH WATER: Available.
FUEL: Available.
REPAIRS: Minor repairs only.
TRANSPORTATION: Air; highway to Fairbanks and Anchorage.
GARBAGE DISPOSAL: Service is available, truck or dumpste provided. Charges: Non-regulated $ 125.00 per truck load. Regulate $ 14.00 per pound (50 pound minimum). Contact Port Director. Tel: 90 835-4313.
WASTE OIL DISPOSAL: Available by contractor. For arrangeme contact Port Director (see above).
AUTHORITY: City of Valdez, P.O.Box 307, Valdez, Alaska 9968 *Tel:* 907-835-4313, 835-4981. *FAX:* 907-835-4479. *Contact:* Thoma W. McAlister, Port Director. Tim Lopez, Harbour Master.

VALDEZ MARINE TERMINAL, Alaska: 61.05 N. 146.24 W. (See Pla

OPERATORS: Alyeska Pipeline Service Company.

The terminal does not provide any tug, launch or pilotage assistan for the berthing or unberthing of tankers calling at the terminal. Thes services, as well as any other tanker services, must be arrange separately by tanker owners.
LOCATION: The Trans-Alaska Pipeline Valdez Marine Terminal i situated on the Southern shore of Port Valdez.

Port Valdez is a natural deep-water fjord located at the N.E. part o Prince William Sound which provides access from the Gulf of Alaska Port Valdez is about 12 miles long and 2.5 miles wide, is surrounde by steeply rising mountains, and remains ice free throughout the yea The approach to Port Valdez is by way of Valdez Arm, a deep-wate channel with a minimum width of approximately 3,000 ft.

The overland approach to the site, which is close to the mouth of th Lowe river, is by road about 6 miles long connecting the terminal wi the Richardson Highway. The town of Valdez is 14 miles from th terminal by this route. The distance by boat across to Port Valdez i approx. 2.5 miles.

The terminal operates 24 hours per day, 7 days per week, througho the year.

The administrative offices will normally be open between 0800 an 1630 hrs., Monday through Friday. The office telephone number is (907 835-6620.
DOCUMENTS:

Certificate of Financial Responsibility.
SOLAS Safety Equipment.
SOLAS Safety Construction, or for U.S. documented vessels: U.S Coast Guard Certificate of Inspection.
SOLAS Radiotelegraphy Certificate.
Crew Lists.
Derat Certificate.
Clearance from Last Port.
Oil Record Book.
Prince William Sound Spill Prevention and Response Plan.
Ballast Water Survey Form (BWSF) to be completed on arrival.

PILOTAGE: The Pilot boards off Blight Reef (See "Valdez" Arrangements to be made by vessel's Agent.
ARRIVAL ADVICE: Masters of vessels bound for the terminal mu advise the terminal as follows:
Last Port ETA: Tankers en route to the terminal, upon departure fr their last port of call prior to Valdez, will send a telegram or telex t Alyeska Pipeline Service Company, Valdez, Alaska, Telex No. 002 62806129, 0023-62890691, 0023-62880291 (Answerback: Alyes Valz), advising the estimated Alaskan local time and date of arrival.
72-hour ETA: Not less than 72 hours, unless transit time is less th 72 hours, prior to arrival at Cape Hinchinbrook, tankers will send a tel or telegram to Alyeska Pipeline Service Company providing the termi with the following information:

a. ETA at Cape Hinchinbrook.
b. Quantity of ballast to be pumped ashore and grade of last cargo.
c. Quantity of oil to be loaded.
d. Distance from the bow to cargo manifolds.
e. Size, number and type of cargo connections.

} At first call to Terminal. Not necessary on subsequent voyages.

f. Amount of provisions and stores to be loaded.

Final ETA: Tankers will send a final ETA, 24 hours in advance of th arrival. This 24 hour ETA shall be as accurate as possible and tank will notify the terminal whenever the arrival time changes by more th 3 hours.
Notice of Arrival: After entering the Coast Guard's Prince William So Vessel Traffic Service, vessels ready to commence loading deballasting should give immediate notice to the terminal. This noti extremely important as it can affect berthing priority.
Coastguard Notification: Terminal will advise USCG at Valdez of all ET received.
AMVER Participation: The Notice of Arrival requirement to be give the U.S. Coast Guard Captain of the Port in Valdez, Alaska, can be if vessels participate in the Automated Mutual-assistance Vessel Re System (AMVER). Participation in AMVER will also make the Co Guard's Prince William Sound Vessel Traffic Service aware of tankers that will be entering the service.
Initial Radio Contact: Ship-to-shore radio telephone calls can be to the terminal, (907)-835-2261, 24 hours a day by normal comm Channels.

RADIO: All times are GMT – following information produced as a "guide" and subject to change.

Weather Broadcasts:

Weather Service Offices:

Announcement: 2182 kHz.

Broadcast:	2382 kHz	AM/SSB
Alternate:	2512 kHz	AM/SSB

Station		Times (GMT)
Annette	(KGD 58)	0400, 0600, 0800, 1500, 2100.
Juneau	(KC 197)	0325, 0525, 0925, 1225, 1525, 2125.
Yakutat	(KGD 91)	0200, 0300, 0500, 1400, 1700, 1800, 2000.

Coast Guard Stations

Announcement:	2182 kHz
Broadcast:	2670 Kodiak also on 6521.8 kHz (SSB) upper side band

Station		Times (GMT)
Biorka	(NMJ 18)	0100, 0800, 1300, 2000.
Ketchikan	(NMJ)	0115, 0815, 1315, 2015.
Ocean Cape	(NMJ 19)	0145, 0845, 1345, 2045.
Kodiak	(NOJ)	0200, 0445, 0900, 1415, 1645, 2100.

Radiotelegraph (CW) Broadcasts of marine weather forecasts Coast Guard Stations.

		Frequency	Times (GMT)
Ketchikan	(NMJ)	416	0530 hrs., 1730 hrs.
Kodiak	(NOJ)	470	0630 hrs., 1930 hrs.

Broadcast Notice to Mariners: Broadcast Notice to Mariners are disseminated on the following schedules:

Safety Broadcast:

(1) RADSTA Ketchikan (NMJ). (a) Code (CW) — Last 15 seconds of 1st Silent Period after receipt, next on operator schedule and repeat text only on next scheduled broadcast unless message cancelled. Additional broadcasts as directed, preliminary call on 500 kHz, broadcast on 416 kHz.

COMMSTA Kodiak (NOJ). Voice (AM) — Upon receipt, repeat text only on next scheduled broadcast. Additional broadcasts made as directed with preliminary call on 2182 kHz, broadcast on 2670 kHz.

(3) RADSTA Adak (NOX). Code (CW) — Last 15 seconds of 1st Silent Period after receipt, next on operator schedule and repeat text only on next schedule broadcast unless message cancelled. Additional broadcasts as directed, preliminary call on 500 kHz, broadcast on 450 kHz.

(4) RCA — Alascom Ketchikan (WGG 58). Voice (AM) — On 2400 kHz upon receipt and as directed in broadcast instructions.

(5) RCA — Alascom Ketchikan (WGG 56). Voice (AM) — On 2400 kHz upon receipt and as directed in broadcast instructions.

Note: Watch hours (GMT) for single operator ships:

West Coast	Central Pacific
0001 – 0200 hrs.	0001 – 0200 hrs.
0400 – 0600 hrs.	0400 – 0600 hrs.
1600 – 1800 hrs.	0800 – 1000 hrs.
2000 – 2200 hrs.	2000 – 2200 hrs.

Scheduled Broadcasts: (Routine Precedence)

(1) RADSTA Ketchikan (NMJ)
  (a) Code (CW) – 416 kHz – 0530Z and 1730Z
  (b) Voice (AM) – 2670 kHz – 0630Z and 1800Z
(2) COMMSTA Kodiak (NOJ).
  (a) Code (CW) – 2670 kHz – 0630Z and 1930Z
  (b) Voice (AM) – 2670 kHz – 0445Z and 1645Z
(3) RADSTA Adak (NOX). Code (CW) – 450 kHz – 0430Z and 2130Z
(4) RCA – Alascom Juneau (WGG 58). Voice (AM) – 2400 kHz — 0830 hrs., 1300 hrs. and 1830 hrs. (local time).
(5) RCA – Alascom Ketchikan (WGG 56). Voice (AM) – 2400 kHz — 0830 hrs., 1300 hrs. and 1830 hrs. (local time).

VHF: The Alyeska Pipeline Service Company operates a VHF – FM base station in Valdez, Alaska under the call sign "WAB – 952". This base station is maintained for the purpose of transacting company business with either inbound or outbound vessels and is open 24 hours a day. (Transmit/receive range of this station is limited to Port Valdez.) The official language for all communications shall be English.

Channel	Frequency	Use	At
10	156.500 MHz	Intership and Ship to Coast Guard	A – B – C
16	156.800 MHz	Distress – Safety and Calling	A – B – C
	A –	Contingency Management Centre	
	B –	Oil Contingency Warehouse	
	C –	Operational Control Centre	

VHF – FM marine radio system utilised by the terminal is compatible with the Prince William Sound Vessel Traffic Service which is operated by the U.S. Coast Guard in Valdez, Alaska. The USCG Vessel Traffic Service will have VHF – FM radio-telephone coverage extending beyond Cape Hinchinbrook and including Prince William Sound, Valdez Arm, and Port Valdez. The tugs available at the terminal will also be equipped with VHF – FM transceivers.

TUGS: 2×7,000 h.p. and 1×9,000 h.p. twin-screw tugs and 2×300 h.p., single-screw mooring launches are on standby at the terminal to provide oil spill containment, cleanup and contingency services and fire fighting services as required by the terminal. The tugs are equipped with telescoping fire monitors and will be capable of providing 3,500 g.p.m. of foam or fire water at 150 p.s.i.g. at an elevation 70 ft. above the tug's waterline. The tugs are equipped with VHF-FM radio-telephone communication equipment. Should tankers desire to contact the tugs, the tugs may be reached by calling on Channel 16 (156.80 MHz).

The tugs and mooring launches are available to provide berthing and unberthing services to tankers calling at the terminal.

BERTHING: Also see "Table" on page 2537.

Berth Priority: Berth priority and berthing order will be determined by the Terminal Marine Manager, who will use the general guideline of assigning tankers and berths in the order by which tankers enter the Prince William Sound Vessel Traffic Service and are in all respects ready to discharge ballast or load.

Procedures: Tugs will be dispatched by the Marine Shift Supervisor to meet inbound tankers and to assist in berthing at the nominated berth. The Master shall remain solely responsible, on behalf of his owners, for the safety and the proper navigation of his vessel. Manoeuvring power must be available on the main engines during berthing operations. The positioning of the tanker's loading manifold in relation to the metal loading arms has to be carried out to a proper alignment, as required by the berth operator.

Maximum Allowable Berthing Velocities: The following table gives the designed maximum allowable berthing velocities for Berths No. 1, 3, 4, and 5. The velocities are given in inches per second for the various size tankers in the 40% ballast condition:

	Berth No. 1	Berths No. 3, 4 and 5
85,000 d.w.t.	9 in./sec.	12 in./sec.
120,000 d.w.t.	8 in./sec.	11 in./sec.
265,000 d.w.t.	—	7 in./sec.

Note: (a) 1 knot=20.2 in./sec.
(b) Velocities are given for a line normal (perpendicular) to the axis of the dock or the berthing dolphins.

Mooring Hooks and Mooring Capstans: Each berthing dolphin and each mooring dolphin will be equipped with a mooring capstan and either 2 or 3 quick-release mooring hooks. Berthing dolphins will have double quick-release hooks, and the mooring dolphins will have triple hooks.

The recommended mooring line arrangement diagrams included in the "Plans" show the location of these double and triple hooks. Since Berth No. 1 has no berthing dolphins, the 4 double quick-release hooks are located on the loading dock.

These mooring hooks are designed to service 1 mooring line per hook. Thus, no more than 3 lines should be led to any mooring dolphin nor should more than 2 lines be led to any berthing dolphin. These mooring hooks may be released locally.

Each mooring capstan will be mounted on, and form an integral part of, the associated double or triple quick-release mooring hook. This will provide a mooring capstan to assist in securing mooring lines at every berthing dolphin, mooring dolphin, and on the floating berth loading dock.

These mooring capstans are designed to give a minimum running pull of 2,000 kg. (4400 lb.) at a rate of 30 m. (98.4 ft.) per minute. The capstan will be positioned at a height sufficient to prevent mooring lines and messengers from becoming snarled on the quick-release hooks.

Mooring launches will be used to assist the tanker in running mooring lines to the mooring dolphins at each berth.

The terminal will provide suitable messengers for heaving in mooring lines from the launches.

Mooring Lines: Mooring arrangements shall be satisfactory to the Marine Superintendent. All critical moorings shall be of similar size and elasticity. Ropes of different material from those used to moor the ship may be used for positioning the vessel but shall not count as part of the final moorings. It is required that in ships of 90,000 d.w.t. and greater all final moorings shall be wire rope. Nylon tails may be used if fitted to all moorings. Ships should be outfitted with sufficient moorings of similar material for normal moorings. Ropes of different material may be used in emergency.

Moorings While Alongside Berth: Tankers must at all times remain adequately secured alongside the berth. Moorings must be kept at an even tension, avoiding a slack line or varying tensioning situation. Should such a situation arise and not be immediately rectified by the ship's crew after communication with the deck officer, the berth operator will suspend any transfer operation. All vessels fitted with tension winches should apply brakes once the tanker is moored and shall not leave winches in the self-tensioning position.

Emergency Towing Wires: While at a loading berth, tankers will provide emergency towing wires positioned at both the offshore bow and stern. The wires shall be in good condition, have an eye in each end, and be of adequate strength to move the vessel off the dock. The outboard eye shall be maintained at water level, and slack aboard ship shall be secured with small pieces of fibre line.

Mooring Line Arrangement Diagrams: (See "Plans"). The recommended mooring line arrangement diagrams are provided in the "Plans" as guidelines to acquaint the tanker Master with the general mooring line arrangement for the loading berths at the terminal. These arrangements are indicative of the minimum suggested number of lines and do not preclude the Master from using additional lines.

TANKER REQUIREMENTS: *General:* Certain requirements of governmental agencies are in effect at the terminal in order to minimise the chances for a pollution incident. These requirements apply to all tankers calling at the terminal.

Operations at the terminal are primarily aimed toward the safe loading of tankers and the prevention of collisions and groundings of vessels that call at the terminal. These aims will be met by insisting upon and utilising conventionally constructed tank vessels manned by skilled crews, use of positive vessel traffic control within Prince William Sound and Port Valdez, and use of all traffic advisory and communications services in West Coast ports. The purpose of the following requirements for tankers calling at the terminal is to materially enhance tanker loading and discharge operations and to increase the safety of navigation so that the danger of pollution from oil spills is substantially reduced.

Safe Navigation: Tankers will observe the rules and directions issued by the U.S. Coast Guard as operator of the Prince William Sound Vessel Traffic Service. These rules and directions will pertain to communications check points, ETAs, traffic lane separation, anchorages, one-way traffic, speed, etc.

In addition to the normal instruments used in celestial navigation and piloting (sextant, pelorus, etc.), the following electronic devices must be aboard and in good working order:

a. Fathometer/Depth Sounder.
b. Loran C Receiver.
c. Two Independent Radar Systems. (10 cm. and 3 cm.).
d. Radio Direction Finder.

All vessels must have a qualified Pilot aboard for the transit of Prince William Sound and Port Valdez.

Communications: Tankers calling at the terminal will be required to have the following communications equipment aboard and in good operating condition:

a. VHF – FM radio-telephone with sufficient Channels and speakers to comply with the Prince William Sound Vessel Traffic Service operating rules and the Bridge-to-Bridge Radiotelephone Act.
b. Radiotelegraph.
c. Portable UHF transceiver will be supplied by the terminal.
d. Single sideband radio.

The portable UHF transceiver shall have at least five Channels which are tuned to the berth frequencies listed.

Additional Equipment: Tankers calling at the terminal will be required to have the following additional equipment:

a. Tankers must carry standard 6 in. hose sufficient to make at least 50 ft. in length for emergency lightering purposes.
b. Accommodation ladders and Jacob's ladders must be of sufficient integrity and free from ice and snow to permit safe embarking and disembarking by the Pilot.
c. Mooring lines must be of sufficient size, strength, and quantity to permit safe mooring of the vessel.
d. Manifold reducers, connectors, and extensions must be made of steel. Cast iron reducers will not be permitted.
e. Tankers which call at the terminal will be required to retain all solid waste refuse aboard the vessel, or use a suitable sewage treatment plant before discharge.
f. All ullage caps will remain closed during loading except during gauging or sampling.
g. Prince William Sound emergency towing cable package.

Operational Requirements: The following procedural and operational requirements are listed in order to make tanker Owners and Masters aware of some additional safety and anti-pollution measures in effect at the terminal. These requirements will be restated in the sections pertaining to the pre-loading inspection and cargo loading.

a. No repairs to radars shall be made while a vessel is moored to the loading berth unless authorised by the Terminal Marine Supervisor.
b. The tanker's main CW wireless set must be de-energized and switched off while alongside the loading berth.
c. Tank tops shall remain closed during loading operations. Petroleum vapours shall be vented through mast risers or stand pipes at an appropriate height above the main deck.
d. Ship's crew will assist with connecting and disconnecting loading arms to and from the vessel's cargo transfer manifold. Assurance that the arms are secured properly without damage shall be observed during pre-loading inspection. However, as a convenience the shore crew will aid the ship's crew in connecting loading arms to the ship's manifold as the shore crew will be more familiar with the shoreside facility connection.
e. All sea valves connected to the cargo piping system shall be sealed in the closed position prior to loading oil.
f. Prior to commencement of loading operations, a joint inspection of the vessel and a pre-transfer conference will be held by the Terminal Marine Supervisor and the tanker officer in charge.
g. No repairs that would result in immobilisation of the vessel shall be carried out while alongside of the loading berths unless the Terminal Marine Supervisor specifically authorises such work.

PRE-LOADING INSPECTION: *Pre-transfer conference and joint safety inspection:* Prior to the discharging of ballast from cargo tanks or loading of oil, a pre-transfer conference and a joint safety inspection will be conducted by the Terminal Marine Supervisor and a responsible deck officer aboard the tanker who will be in charge of bulk liquid transfers aboard the tanker.

The purpose of the pre-transfer conference and the joint safety inspection is to insure that both the terminal and the tanker are suitable and ready for safe loading and handling of oil.

The Check List is designed to meet the following requirements:

a. Section 4.4 of the International Oil Tanker and Terminal Safety Guide which relates to the agreed procedures and safety checks prior to the commencement of cargo loading.
b. Title 46, U.S. Code of Federal Regulations, Section 35.35-30 relating to a Declaration of Inspection for Tank Vessels.
c. Title 33, U.S. Code of Federal Regulations, Section 156.150, relating to a Declaration of Inspection prior to the transfer of bulk liquid cargo from a shore facility to a large vessel.

The Check List is to be taken aboard the tanker by the Terminal Marine Supervisor and shall be used during the pre-transfer conference and the joint safety inspection of the tank vessel to insure compliance with applicable regulations and safety standards. Columns are provided on the Check List for the Terminal Marine Supervisor and the tanker person-in-charge to initial, indicating that the requirements have been met. The original of the check list shall remain aboard the tanker, and a copy shall be returned to the Terminal Marine Supervisor for subsequent delivery to the berth operator.

Terminal personnel are authorised to suspend oil transfer operations if any of the safety rules listed or on the check list are not observed, or if any other danger is believed to exist.

The Master of the tanker or his representative has the right to shut down loading operations in the event he feels shore operations are unsafe.

During the pre-transfer conference, the Terminal Marine Supervisor shall provide the responsible ship's officer with a printed sheet detailing description and location of the fire-fighting system and the other emergency systems at the terminal in general and at the berth to which the tanker is moored in particular. The Terminal Marine Supervisor sha also advise the vessel if any unusual or dangerous weather condition are forecast or expected.

As the shifts on the berth change, the relieving Terminal Marin Supervisor and berth operator shall assure themselves that all condition pertinent to their responsibilities are as previously agreed to, and sha sign the copy of the Declaration of Inspection. The relieving office aboard the tanker shall assure himself that the original conditions sti exist and shall sign the original of the Declaration of Inspection aboar the tanker. These relieving personnel will then become the person-i charge of the transfer operation for the terminal and the tanke respectively.

BALLAST: *Ballast Quantities:* The terminal is to be informed of th approximate quantities of segregated clean and dirty ballast in th Master's pre-arrival message. This message should also state whe the ballast was shipped and the grade of last cargo.

Ballast Reception Facilities: The terminal facilities will include thre 430,000-barrel ballast reception tanks. Discharge of dirty ballast will b by way of the four 12 in. loading arms (Chicksans) on Berth No. 1 an the four 16 in. loading arms on Berths No. 3, 4 and 5. These loadin arms connect to 20 in. lines at the berths and lead into a 42 in. lin connecting each berth to the ballast reception tanks. Although the sho lines are insulated, they are not heat traced and there are no booste pumps to assist in the discharge of dirty ballast.

No. 5 Berth is situated approx. 1.25 miles from the reception tank and has a possible head of 150 ft. Max. pressure 40 p.s.i. (approx.).

In the event of any stripping problems, it is recommended that tank containing unpumpable ballast be stripped internally to the slop tank an that the Load-on-top procedures be adopted.

Segregated Ballast: Only segregated ballast will be permitted to b discharged overboard. Segregated ballast is defined as ballast wate that is introduced into a tank which is completely separated from th cargo oil and the oil fuel system and which is permanently allocated t the carriage of ballast. The deck log book must record all times of balla discharge and when pumps are started or stopped. This log must als indicate whether or not the segregated ballast is being dropped in th initial stages to sea level. A close watch must be maintained on th overside discharge, with a deck floodlight or portable explosion-proo light being trained on the discharge during hours of darkness. If ther are any indications of discolouration or sheen, discharge must b suspended and an investigation must be carried out. If there is any dou as to the quality of the segregated ballast, all discharge will be mad into the shore reception facilities.

Dirty Ballast: All ballast contained in any compartment or tank used f the carriage of oil will be classed as dirty no matter how clean the balla may appear to be. No ballast carried in cargo tanks may be discharge at sea or in port.

After the connection of the loading arms has been completed and th suitable valves between the arms and the ballast reception have bee opened, permission to commence discharge will be given to th responsible tanker officer by the berth operator who will have receive approval from the Operations Control Centre (OCC).

Contact between the tanker and the terminal will be by means of th UHF radio that will be placed on board by the Supervisor. As during a transfer operations, there will be a continuous watch near the ship' manifold. In the event of an emergency on the berth, pressing of th emergency alarm will activate the valve closing mechanism.

On hearing this signal, the Crew member at the manifold must sto the ship's ballast pumps to avoid damage by pumping against a close valve system ashore. (See "Emergency Procedures"). On commencin discharge of dirty ballast and at frequent intervals during the discharg a watch will be kept on the area around the sea valves even though th sea valves have been inspected during the initial safety checks and a seal has been placed on them by the inspecting Terminal Mari Supervisor. Any indications of any oily sheen will necessitate a shutdow of the discharge pumps and an investigation to be carried out befo any further ballast can be discharged. Thirty minutes before completi of discharge, the responsible tanker officer will inform the berth operat who will in turn advise the OCC and the duty Terminal Marine Supervis

On completion of the discharge and after pumps have been stoppe the loading arm(s) used for dirty ballast discharge must be drained ba into the slop tank. On vessels with an inert gas system, gauging will b taken by way of the deck purge pipes to determine that tanks are emp It is not intended that vessels will depressure cargo tanks for visu inspections, nor should tank lids be opened on any compartment tha not gas free.

All safety regulations applicable during the loading of oil will also ap during the discharge of ballast.

Governmental Ballast Discharge Requirements:

State of Alaska: The State of Alaska requires that the Master of a ves scheduled to take on any petroleum product or cargo, complete and si the State of Alaska Department of Environmental Conservation Ba Water Discharge Certificate Affidavit. To support this affidavit, the Mas must be prepared to produce both deck and engine room log books a a legible copy of that portion of the Oil Record Book relevant to the s passage from last discharge port to the terminal.

Federal Requirements: Prior to loading oil on any vessel, the ter is required by the United States Department of the Interior to obtain fr the Master of the vessel a legible copy of that part of the Oil Rec Book that pertains to the voyage of the vessel to the terminal from t vessel's last oil discharge port. This legible copy shall be certified u oath by the Master as being true and correct. If the vessel is not requ to maintain an Oil Record Book or similar records, the Master of t vessel is required to provide the terminal with an affidavit, duly sw to and signed, stating any and all facts bearing upon any discharg oil or oily water from the vessel during its voyage to the terminal f its last oil discharge port.

Should the Master be unable to comply with the preceding require or if it appears from the Oil Record Book or other documentation th vessel has discharged oil or oily water during its voyage to the ter the terminal is required to promptly notify the Department of the Interior's representative, the Authorised Officer. Tankers discharging ballast water or other oily mixtures may be subject to penalties.

OIL CHARACTERISTICS: The predominent oil to be available at the terminal is currently North Slope Crude Oil. The following preliminary characteristics of North Slope Crude Oil are given to acquaint the Master and the cargo officers of tankers that will call at the terminal with the general properties of the cargo they will load.

Specific Gravity: 0.8933 at 60°F.
API Gravity: 27.0° API.
Pour Point: + 15°F.
Viscosity: 73.5 SSU at 100°F., 169 SSU at 60°F.
Reid Vapour Pressure: 4.0-4.5 lbs.
Sulphur Content: 0.94 per cent by weight.
Waxing: 85-117°F. (begins to precipitate). 50-55°F. (bulk of wax begins to come out of solution).
Mercaptan Sulphur: approx. 14 parts per million.
Loading temperature: approx. 100°F.
Dissolved H_2S: less than 0.2 parts per million.

LOADING FACILITIES: *General:* All loading operations will be accomplished in accordance with the joint inspection pre-transfer conference. Loading operations cannot commence until the vessel has complied with all State of Alaska and Federal Requirements and all required documentation has been provided.

Crew Responsibilities: Ship's crews will be responsible for assisting with handling the loading arms on board the tanker, furnishing and making the adaptor connections, removing blind flanges, and guiding the loading arms (Chicksans) to the appropriate manifold connections. However, as a convenience, the shore crew will aid the ship's crew in connecting loading arms to the ship's manifold as the shore crew will be more familiar with the shoreside facility connection. The Chicksan loading arms and couplings are hydraulically controlled by the berth operator who will be in constant voice communication with the individual responsible for the connection by means of the UHF portable radio that will be supplied to all vessels by the Supervisor.

If required, the terminal will supply 10 in. – 16 in. reducers at Berth No. 1 and 12 in. – 16 in. at Berths No. 3, 4 and 5.

Check List Requirements: After the Terminal Marine Supervisor is satisfied that all the safety requirements have been complied with, permission will be given to commence loading. All operations in connection with starting of loading, switching of tanks, and topping off will be the responsibility of the responsible ship's officers.

Before the maximum pressure or loading rates agreed to at the pre-transfer conference are reached, slow loading will be started and the responsible ship's officer will ensure that the cargo is flowing to designated tanks, thus ensuring that all block valves separating lines are open. On completion of this check and after advising the berth operator, the pressure/rate will be increased to the maximum previously agreed by the Master, or the officer in charge.

A responsible member of the crew will remain near the manifold within sight of the berth operator. This is in addition to the officer on cargo watch who, at frequent intervals, will check the state of loading with the berth operator by means of the UHF radio. This officer will also advise the berth operator when changes in the loading rate are required.

The rate of flow into the tanker can be observed on the large digital readout situated by the berth operator's control position.

Loading Suspension: Terminal: Terminal personnel will suspend loading operations if any safety rules are not followed, or if terminal personnel supervising loading operations believe any other danger exists, providing adequate notice is given to the responsible ship's officer.

Tanker: The Master is required to shut down loading if he feels that shore operations are unsafe, provided adequate advance notice is given to berth personnel.

Emergency Shutdown: In the event of an emergency (See "Emergency Procedures") the following types of shutdown could occur:

(1) "Danger" shutdown.
  (a) All berth block valves close.
  (b) Metering upstream block valves close.
  (c) Berth control valves close – one for each loading arm (in 5, 5.5, 6.0, and 6.5 seconds, respectively, to prevent surge to line).
(2) Fire shutdown
  (a) The preceding valve closures plus fire alarm and start fire pumps.
(3) Emergency shutdown, one per arm, closes control valve only.
(4) Low vapour pressure on any crude tank – initiates (1) preceding.

Pushbuttons for (1) preceding are located in berth area plus one on berth operator's alarm panel.

Pushbuttons for (2) 1 on roadway; 1 on roadway at land; 1 in Power Distribution Cabinet (PDC); 1 in Berth Operator Control (BOC) alarm panel; 1 in loading arm area.

Pushbutton for (3) 1 local at each valve.

Topping-Off: Near the end of loading when topping off, the responsible ship's officer will request the gradual reduction of loading rate for topping–off operations. This reduction will be achieved by the berth operator slowly closing the berth loading valves. The berth operator will progressively reduce the opening of the berth control valves and will take loading arms out of service, until the point when all berth control valves and block valves are finally closed, when advised by the ship's officer "Shut Down" or "Finished Loading". The loading arms will then be drained into a ship's tank.

Disconnecting: On being satisfied that loading arms and ship's manifold are empty, the order will be given from the responsible ship's officer to the berth operator to uncouple the quick release couplings.

During the period of disconnecting, the USCG Vessel Traffic Control Centre at Valdez will have been advised. Tugs will be on standby, and providing that there are no other ship movements that would interfere with sailing, the "Early Departure System" will be carried out. The actual Bill of Lading figures will be sent to the master by W/T or Telex after departure.

COMPLETION/DEPARTURE PROCEDURE: *Topping-Off:* As the tanker begins the topping-off stage, the responsible ship's officer shall notify the berth operator who will in turn keep the OCC informed as the cargo loading rate is reduced. When the ship's officer estimates approximately one hour remains in the loading process, he shall notify the berth operator.

Tug Assistance: After being notified by the tanker that one hour remains in the loading sequence, the berth operator shall notify the OCC and the Terminal Marine Supervisor. The OCC shall continue to monitor the topping off process and the Terminal Marine Supervisor shall place the vessel's pre-arranged tugs on standby. The tugs shall be alongside the vessel after all loading arms have been disconnected and before any mooring lines are let go.

U.S. Coast Guard Vessel Traffic Service: The departure of tankers from the terminal shall be in accordance with the published standard operating procedures for the Prince William Sound Vessel Traffic Service. The Coast Guard Operations Centre located in Valdez shall be the directing authority for the operation of the vessel traffic service. The Terminal Marine Supervisor will notify the USCG-VTS one hour prior to the completion of loading and again when loading is complete. When the Terminal Marine Supervisor notifies the USCG-VTS that loading is complete, he will verify the tanker's status to enter the Vessel Traffic Service and will check on any inbound vessel traffic.

SAFETY: After the tanker is secured, the Terminal Marine Supervisor will board the tanker to contact the Master or his representative to:

- provide information on terminal safety regulations.
- agree on designated smoking areas
- advise ship's personnel on "Work Permit" and "Hot Work Permit" procedures.
- present ship/shore Safety Check List.
- present printed sheet describing terminal emergency procedures and fire fighting capabilities.

The following are **some** of the safety requirements.

Warning Signs, Lights, and Signals – Upon arrival at the terminal, a tanker shall display the following notice at the gangway:

WARNING
NO OPEN LIGHTS
NO SMOKING
NO VISITORS

During transfer of oil, and when in the non-gas free condition a red signal (flag by day and electric lantern at night) shall be displayed so that it is visible from all sides.

Blowing tubes – Funnel uptakes and boiler tubes will not be blown while a tanker is berthed at the terminal.

Use of Tools – No chipping or other operation likely to produce sparks will be allowed in any designated hazardous area. The Terminal Marine Supervisor and the responsible ship's officer shall both be satisfied that there is no such activity on the vessel or on the facility.

Flashlights, Hand Torches, Lanterns – Only self-contained battery powered flashlights, hand torches, lamps and lanterns, approved by USCG will be permitted to be used aboard the vessel or on the berths.

Main Engine – While berthed at the terminal, the tanker's main engines, steering machinery, and other essential manoeuvring equipment shall be maintained on standby status to permit the tanker to move from the berth on short notice.

Communications Equipment – A tanker's main transmitter shall be turned off and the main transmitting aerials shall be grounded whenever a tanker is alongside a loading berth at the terminal.

VHF-FM radiotelephone equipment, both portable and fixed, may be used as long as the equipment is permanently installed or intrinsically safe, conforms to FCC marine requirements, USCG requirements, and operates with a power and output of 1 watt or less.

The preceding requirements do not mean that essential servicing of ship's radio equipment cannot take place while alongside a berth. However, suitable arrangements for insuring safety during this work shall be made between the tanker and the terminal, including the securing of an appropriate work permit.

Operating and servicing of radar equipment aboard a tanker berthed at the terminal shall be agreed to by the Terminal Marine Superintendent or Marine Supervisor and shall be the subject of an appropriate work permit. *Vessels Alongside* – Unauthorised craft shall be prohibited from securing to a berth at which a tanker is moored.

No craft shall come alongside a tanker while the tanker is handling crude oil or deballasting without the permission of the Terminal Marine Superintendent who shall instruct personnel aboard the craft that smoking, naked light, and galley fire regulations must be observed.

Designated Smoking Areas: Smoking shall be strictly prohibited within an area enclosing all tanker berths and loading docks and on board any tanker while at a berth, except.

(a) in buildings or other shore locations specifically approved for smoking and with such approval notices posted.
(b) on board a tanker in places specified by the Master, and agreed to by the Terminal Marine Supervisor.

Places designated for smoking shall not be outside of any of the accommodation areas. Special precautions shall be taken during conditions that may suggest danger; in particular, conditions of no wind or any indication of unusually high gas concentrations.

The Master is responsible for insuring that all on board are informed of the selected places for smoking and for posting suitable notices.

Only safety matches are permitted in approved smoking areas. The use of lighters is prohibited.

Galley Fires and Cooking Appliances – Galley burners are to be adjusted to insure efficient combustion and to prevent galley stack fires and sparks from incandescent soot. Flues are to be cleaned at regular intervals. When bottled gas equipment is used, the gas shall contain an additive which will give it a distinctive odour. Sufficient fire extinguishers shall always be provided near the galley. Oily rags and fat shall not be allowed to accumulate, and the exhaust fan ventilators shall be kept clean.

While a tanker is at a berth, the use of galley stoves and other cooking appliances with non-immersed elements such as electric hot-plates and toasters shall be permitted provided that the Terminal Marine Supervisor agrees that no hazard exists and that such use is in the galley, in the pantry, or in designated smoking areas.

Work Permits – If repairs are to be carried out on a tanker alongside a berth at the terminal, the responsible ship's officer must discuss and obtain agreement from the Terminal Marine Supervisor on the details of the work to be done. Certain types of repairs will be the subject of written work permits which shall be completed by the responsible ship's officer and authorised by the Terminal Marine Supervisor at the time of the pre-loading inspection Check List. These types of repairs include but are not limited to:

(a) Repairs to main engine, steering machinery, or other manoeuvring equipment which might immobilise the tanker.
(b) Repairs to tanker's radiotelephone or communications equipment.
(c) Repairs to radar equipment.
(d) Repairs to galley equipment and cooking appliances.

Hot Work Permits – Any hot work done at the terminal, either on the berth or aboard a tanker moored to a berth must be approved by the U.S. Coast Guard Captain of the Port, Western Alaska. This approval will be in the form of a signed Hot Work Permit, issued by the U.S. Coastguard.

EMERGENCY PROCEDURES: Fire: The signal for a fire aboard a tanker moored at the terminal shall be 5 prolonged blasts of the ship's whistle or siren supplemented by a continuous sounding of the ship's general alarm. In the event of a fire within the terminal, the tanker shall be notified by the berth operator and, in addition, the terminal fire alarm will also be sounded.

The initial action required of tankers in the event of a fire within the terminal is to prepare for a shutdown of all loading and ballast water discharge arms. This shutdown will be initiated by the terminal and not by the tanker. In case a shutdown does occur, loading and ballast discharge will not be commenced again until the all clear notification has been received from the Terminal Marine Supervisor.

In the event of a fire aboard the tanker or on the loading berth, the initial actions will consist of shutting down all transfer operations. The standby tug, followed by the other tugs, will be dispatched by the OCC to the appropriate berth and the fire water pump shall be started. If necessary, the tanker will be towed off the berth by tugs, using the emergency tow wires. Each berth is equipped with an independent fire water system which includes a 2,000-gallon-per-minute pump and a liquid foam system. Each berth is also equipped with the following fire-fighting equipment:

(a) 2 fixed foam monitors.
(b) 2 fixed firewater monitors.
(c) 5 fire hydrants.
(d) 3 hose reels.
(e) 1 shore to ship firewater connection including 75 ft. of 2.5 in. hose.

Each berth also has the capability to be interconnected with the tugs or with fire trucks to provide increased fire-fighting capacity. The foam system is designed for coverage of fire on the berths only and is not normally interconnected for use by shipboard firefighters in the event of a fire.

Note: Regardless of any assistance the terminal may render, vessels at the berth are expected to put their own emergency procedures into effect whenever required.

Man Overboard: In the event of a man overboard from a tanker moored at the berth, rescue efforts will be implemented immediately, and the Berth Operator shall be advised by UHF radio. The Terminal Marine Supervisor shall also be notified by the Berth Operator. The standby tug and mooring boat shall be advised by the Berth Operator and shall get underway immediately to attempt the rescue.

Life rings will be in position around the loading berth and also on the berthing and mooring dolphins. In case of a man overboard, the medical authorities will also be alerted by the Berth Operator.

Oil Spills: The notification requirements for an oil spill are delineated by Federal Law. The Federal Water Pollution Control Act (FWPCA) requires persons in charge of vessels (among others) to notify the appropriate federal agency whenever an oil spill enters navigable waters or the adjoining shoreline. The appropriate agency designated to receive these reports is the U.S. Coast Guard which can be contacted on Channel 16, VHF-FM.

Notification of an oil spill shall be passed by the tanker to the berth operator who in turn shall inform the Terminal Marine Supervisor.

The terminal will call other agencies that are required to be notified.

The terminal will provide any available containment and cleanup assistance for any oil spill at the terminal. The terminal will activate its oil spill response procedures upon notification of an oil spill and shall utilise all available personnel, equipment, and resources to limit and minimise pollution.

CHARTS/PUBLICATIONS: The following official charts and publications are recommended for study when planning a voyage to Valdez, Alaska and the Terminal:

(a) National Ocean Survey Charts:

Chart Number		*Title*
Old System	*New System*	
8500	531	Gulf of Alaska – Strait of Juan de Fuca to Kodiak Island
8502	16013	Cape St. Elias to Shumagain Islands
8551	16700	Prince William Sound
8520	16709	Prince William Sound – Eastern Entrance
8519	16708	Prince William Sound – Port Fidalgo & Valdez Arm, Valdez.

(b) Nautical Chart Catalogue No. 3 – Alaska
(c) United States Coast Pilot No. 9, Cape Spencer to Beaufort Sea (1964) with current supplement.
(d) Tides Tables, West Coast, North and South America (current year).
(e) Tidal Current Tables, Pacific Coast of North America and As (current year).
(f) United States Coast Guard Light List, Vol. III, Pacific Coast an Pacific Islands (current year).
(g) Weekly Notice to Mariners published by Defense Mapping Agenc Hydrographic Center (DMAHC).
(h) Local Notice to Mariners issued by Commander, Seventeen Coast Guard District, Juneau, Alaska.
(i) Radio Navigational Aids, Pacific and Indian Oceans (Publicatio No. 117B), published by U.S. Hydrographic Office.

WEATHER: *Wind:* The mountains which surround Port Valdez tend t constrain the flow of air to either an Easterly or Westerly direction. A Valdez Narrows, the predominant directions are Northerly and Souther

Jackson Point experiences stronger winds than Valdez Airpor however, light winds (less than 13 m.p.h.) occur about 85 per cent o the time. The prevailing wind directions are S.W. from May throug September and N.E. from October through April. The N.E. Winter wind reach gale force but usually do not prevail for long periods. The site i well protected from Southwesterly winds but is fully exposed to th Northeasterlies and to winds coming off Mineral Creek, directly North o the facility, approx. 2.5 miles away across Port Valdez.

The occurrence of winds with speed greater than 19 m.p.h. from an direction is less than 7 per cent throughout the year.

A wind chill factor chart is presented for use in conducting operation during Winter seasons. As indicated, combinations of low temperature and high winds combine to provide extremely low equivalen temperatures. Outdoor operations under these conditions should b closely supervised to insure that personnel and crewmen do not suffe from exposure or frostbite.

Precipitation: Precipitation is abundant during all seasons with th majority falling during the months July through November. Valdez ha an average annual precipitation of 62.37 in. with a mean total of 244.5 i of snow per year. Greatest snowfall in a 24-hour period was 43 in. i February 1928. Precipitation of an amount in excess of 0.01 in. occur an average of 170 days per year. Estimate 1 in. rain = 12-15 in. sno

Temperature: The mean monthly annual temperature is 35.7°F. wi recorded extremes of +87°F. (June 1953) and −28°F. (February 1947 The month of January is the coldest with a mean daily minimum of 11°F and a mean daily maximum of 26°F. The month of July is the warmes with a mean daily minimum and maximum of 45.2°F. and 60.1°F. respectively.

Visibility: Snow or snow with fog are the major causes of reduced visibil during Winter months. At the Valdez Airport, visibilities of 1 mile or les occur 3.7 per cent of the time, annually. Visibilities greater than 5 mile occur 85 per cent of the time.

Tides: The tide at Port Valdez has a diurnal range of 12 ft. and a mea range of 9.7 ft.

Waves: The port is surrounded by mountains and is well protected fro the open sea and the wave action within the port is limited to win generated waves which are constrained by the fetch available. Th maximum calculated wave height is 9.4 ft. from the East with a perio of 4.3 seconds. Waves in the order of 6 ft. could occur from the N.W quarter. An important exception to this is a Tsunami or seismical generated wave which can be far in excess of the heights quoted abov Investigations in 1968 showed mean wave heights 3 ft. to 6 ft. in Winte (independent occurence 0.7 per cent of time) and 2 ft. to 3 ft. in Summe (0.1 per cent of time). Berths at the terminal are designed to withstan waves of 12 ft. with a vessel alongside and 20 ft. when vacant.

Ice: Valdez is an ice-free port as far as tanker operation is concerne Light ice forms along the banks and in the small boat harbour at Valde but this has not interfered with small-boat operations.

Currents: It appears that surface currents measured during calm wi conditions in Port Valdez often oscillate with the tide, moving genera in and out of the port with maximum speeds of 0.5 knot. The Easte (flooding) surface current during a falling tide may or may not pers throughout the year. Although Volume 9 of the U.S. Coast Pilot f Alaskan waters describes the current in Port Valdez as "too weak a variable to be predicted", measurements of surface current spee typically show maximums of 0.5 to 1.0 knot.

It is requested that inbound tankers keep the OCC advised of weath conditions in the Gulf of Alaska, Prince William Sound, Valdez Arm, a Valdez Narrows in order that accurate information may be passed t outbound tankers.

VISITORS: Access to the terminal is limited to terminal person authorised governmental personnel and authorised visitors with va reasons for entry onto the terminal site.

Visitors to the Valdez Marine Terminal are requested to ma arrangements through the Administrative Office in advance of their arr at the Terminal. Authorised visitors shall be met at the main gate, wh provides the only land access to the Terminal and is located at the E end of the Terminal site, and shall be escorted through the Term area. All persons passing through the main gate shall sign in and with the guard. Any visitor who arrives at the main gate outside nor working hours of the Administrative Office and who has not made p arrangements shall be turned away and requested to contact t Administrative Office during normal working hours.

The guard at the main gate shall ask any visitor desiring to mee tanker crewman to wait at the gate until the vessel is called arrangements have been made to meet the visitor.

Small boats and other vessel traffic will not be permitted to doc the terminal site without the approval of the Terminal Marine Superv Only taxicabs with valid passes will be permitted to enter the Ter site, and any private or commercial vehicles that are permitted in t terminal area will be subject to inspection on entering and depart

SHORE LEAVE: If tanker personnel return to the Valdez Ma Terminal site in such a condition that they might require assistan insure their safe return to the ship, they shall remain at the main g until the guard grants them admittance. Should an escort be requ it will be provided by vessel personnel.

All tanker personnel transiting the Terminal area will be required to carry their United States Merchant Mariner's Document (USMMD) and company identification of tanker owner for identification. These documents shall be presented to the guard at the main gate whenever tanker personnel enter or leave the Terminal site. Should a crewman present himself without these documents, he will be detained and the Master will be called to resolve the matter.

TIME: Alaska Standard Time (150th West meridian) for a zone description of +9(ZD 9). Local time is modified from the first Sunday in April to the last Sunday in October by the use of Daylight Saving Time for a zone description of +8 (ZD 8) for Alaska Daylight Saving Time. This time is 1 hour behind that in Seattle and California and 4 hours behind New York.

To avoid confusion, all communications regarding sailing times, sailing dates, arrival times, arrival dates, etc. are to be quoted in Alaska Local Time.

FRESH WATER: Only in cases of extreme emergency can potable water be supplied and in a very limited quantity.

FUEL: Not available.

POLLUTION: U.S. Federal Pollution Prevention Regulations and Federal Water Pollution Control Act to be strictly observed.

TELEPHONES: Pay telephones will be located in the vicinity of each loading berth for the use of ship's personnel.

Telephones will not be placed aboard tankships calling at the terminal.

AGENCY: Alyeska Pipeline Service Company will not act as Agent for tankers calling at the Valdez Marine Terminal. Any requirements for such services as ship chandler, etc. must be obtained through the Owner's appointed ship's Agent. For security, the Valdez Marine Terminal must be notified of the appointed Agent.

AUTHORITY: Alyeska Pipeline Service Company, Valdez Marine Terminal, P.O.Box 300, Valdez, Alaska 99686. *Tel:* (907) 835-6620. *Telex:* 0023-62880291. *FAX:* (907) 835-6078. *Contact:* Captain T.F. Plummer, Marine Operations Manager/Port Captain.

BERTHING FACILITIES: The major ship loading facilities include four independent loading berths, numbered 1, 3, 4 and 5. Berth No. 1 is a floating berth whereas Berths No. 3, 4 and 5 are fixed structures.

	Berth No. 1 See Note 1	*Berth No. 3* See Notes 1 and 2	*Berth No. 4* See Notes 1 and 2	*Berth No. 5* See Notes 1 and 2
Vessel Size (Design) d.w.t.	16,000 – 125,000	16,000 – 250,000	16,000 – 265,000	16,000 – 265,000
Type of Berth	Floating dock	Fixed loading platform	Fixed loading platform	Fixed loading platform
Deck Level of Berth above MLLW	32 ft. 8 in.	36 ft. 7 in.	36 ft. 7 in.	36 ft. 7 in.
Depth Alongside at MLLW (ft.)	125	85	85	80
Loading Arms (Number × Size)	4 × 12 in.	4 × 16 in.	4 × 16 in.	4 × 16 in.
Max. Rate Per Loading Arm (bbls.p.h.)	20,000	27,500	27,500	27,500
Max. Design Flow Rate (per berth) (bbls.p.h.)	80,000	110,000	110,000	110,000
Loading Arm Spacing on Operating Dock (ft.)	11	11	11	11
Maximum Ship Manifold Pressure	Pressure alarm points will be set, based upon information given by ship's officers.	See Berth No. 1	See Berth No. 1	See Berth No. 1
Emergency Shutdown	Can be initiated by berth operator or by OCC shut-down complete within 6.5 seconds after initiation.	See Berth No. 1	See Berth No. 1	See Berth No. 1
Access to Ship	42 ft. aluminium gangway	49 ft. 6 in. aluminium gangway	Telescopic Gantry	Telescopic Gantry
No. of Mooring Dolphins	4	4	6	6
No. of Berthing Dolphins	0	4	4	4
Mooring Hooks (One line per hook)	One triple hook per mooring dolphin Four double hooks on the operating dock	One triple hook per mooring dolphin One double hook per berthing dolphin	One triple hook per mooring dolphin One double hook per berthing dolphin	One triple hook per mooring dolphin One double hook per berthing dolphin
Potable Water	None	None	None	None
Bunker Facilities	None	None	None	None
Public Telephone	Available ashore in vicinity of berth	See Berth No. 1	See Berth No. 1	See Berth No. 1
Minimum Ship Manifold Spacing 1	—	—	—	—
2	—	6 ft. 9 in.	6 ft. 9 in.	6 ft. 9 in.
3	—	6 ft. 9 in.	6 ft. 9 in.	6 ft. 9 in.
4	—	6 ft. 9 in.	6 ft. 9 in.	6 ft. 9 in.
Quick Disconnect Coupling (QDC) Size (in.)	12	16	16	16
Manifold Size Range Acceptable to QDC (in.)	10 to 16	12 to 16	12 to 16	12 to 16

Note: (1) Although all berths are designed to handle vessels in the 16,000 d.w.t. size, loading arm size requires ship's manifolds to be a minimum of 10 in. in diameter. Normally, vessels less than 45,000 d.w.t. will be handled at Berth No. 1.

(2) Because of mooring dolphin limitations, vessels of more than 180,000 d.w.t. would be acceptable only if their deck machinery and mooring leads allowed an efficient bow and stern mooring line pattern. In addition to this requirement, distance from bow to manifold and prevailing weather conditions would have to be considered before berthing of such vessels would be authorised.

VANCOUVER, Washington: 45.36 N. 122.40 W.

(See Plan)

DOCUMENTS: 3 copies of each of the following:
Cargo Manifest.
Stores List.
Crew Cargo List.
Crew List.
One copy of following:
Clearance from last Port.
Tonnage Tax Certificate.
Copy of Vessel register and itinerary of vessel port by port.

PILOTAGE: See "General-Pilotage" before first U.S.A. port (Albany).

ANCHORAGES: Only designated anchorages on U.S. Coast and Geodetic Charts are at Tongue Point (Astoria), Oreg. 2 in number and designated on Chart 6151 Columbia River, Pacific Ocean to Harrington Point, as 1 Lower Tongue Point and 2 Upper Tongue Point. Additional locations on Columbia and Willamette Rivers where safe anchorages can be made upon advice of Columbia River Pilots. Anchorage in Vancouver harbour by permission of Harbour Master.

RESTRICTIONS: No restrictions on night entry. State of tide and draft restrictions not applicable to vessels drawing less than 40 ft.

MAX. SIZE: No restrictions length and breadth. Depth at Columbia River entry 48 ft. River channel to Vancouver maintained at 45 ft. by 600 ft. Seasonal tidal effect up to 3 ft. at Vancouver.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).

RADIO: Route ETA cables through KBLITT Seattle, Wash.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Normally join vessel at designated berth. Tug lines used at no charge.

BULK HANDLING FACILITIES: The grain terminal, owned by the Port and operated by the United Grain Corporation, has about 1,000 ft. (305 m.) of dock available. The 7 vessel spouts load 1 vessel at a time at a combined loading rate of 40,000 bushels per hour. The grain terminal can off-load at 18,000 bushels per hour, and they have a storage capacity for 5,000,000 bushels.

Dry bulk facility with 50,000 ton capacity covered storage. Bottom dump pit and top unload for gondola railcars. Mineral concentrations such as copper concentrate, quartz silica and zinc concentrate. Covered conveyor to special dry bulk dock.

EQUIPMENT: The Port of Vancouver has 3 Whirley cranes, 1 of which is rated at 65 short tons at 60 ft. (18 m.) and 15 short tons at 130 ft. (40 m.) the other 2 Whirley cranes have a capacity of 34 short tons at 60 ft. (18 m.) and 10 short tons at 130 ft. (40 m.). These 3 travelling gantry or Whirley cranes operate on parallel tracks on the face of the dock in conjunction with the double direct transfer tracks.

Bulk materials make up a sizeable portion of the Port's traffic, and consequently, large crane buckets are available for handling these cargoes. In addition, the Port has a special crane bucket for the successful handling of zirconium – a very fine sand material considered a "problem" commodity for efficient and waste-free handling.

The Port maintains a full complement of support equipment. They have 42 lift trucks with 2 – 3.5 ton capacities, 9 lift trucks with 7.5 – 15 ton capacities, 1 lift truck with a 26 ton capacity, along with various straddle-carriers, conveyors, front-end loaders, jitneys – and a range of special attachments and gear for all their equipment (such as prong-lifts for steel coils, grabs and squeezers for paper rolls, push-pull slip sheets for bag goods, cartons and boxes) to handle any special situations or problem with which they might be confronted.

BERTHING: No special requirements for berthing and no special arrival times required except under particular circumstances.

13 berths. Total length 9,206 ft., depth 40 ft. Ro/Ro facilities available with depth 15 ft.

Terminal/Berth No.	*Length* (ft.)	*Depth at MLW* (ft.)	*Cranes* (No.)	(tons)	
Terminal 2:					
Berth No. 1	560	40	1 1	60 50	
Berth No. 2	740	40			
Berth No. 3	460	40			
Berth No. 4	285	15			Ro-Ro
Berth No. 5	400 + dolphins	40			Oil dock
Berth No. 7	800	40			Dry bulk
Terminal 3:					
Berths No. 8 & 9	1,250	40	1	80	
Terminal 4:					
Berth No. 10	1,040	40			Floating auto dock
Berths No. 13 & 14	1,360 + dolphins	40			
Grain Elevator	715 + dolphins 965 (barge)	40			

STEVEDORES: Allocation for gangs Mondays through Saturday must be confirmed at 1100 hrs. to the longshore hiring hall. Allocation for gangs Sunday and Monday are made at 1100 hrs. Saturday for both day and night gangs. Same procedure applies to allocation of night gangs, but night gangs may be cancelled by 1400 hrs. afternoon of night gangs are to work.

Marine Terminal Corporation manages Berths No. 8 and 9.

MEDICAL: Any type of medical treatment can be provided and hospital facilities available.

TANKERS: 1 berth. 3 × 6 in. pipelines to 33 tanks. Storage capacity 682,800 bbls.

DENSITY: Fresh water at all times.

FRESH WATER: Available at all berths delivered through pier-side connections.

FUEL: Viscosity grades of B and lower. No advance notice required. Barging essential.

FIRE PRECAUTIONS: Port fire precautions respecting tankers are administered by U.S. Coast Guard, which enforces shipboard regulations under Code of Federal Regulations, Part 46, Sub-part D, Sections 20 to 40; Police Harbour Patrol, which controls port movements, boards vessels to warn Master regarding harbour regulations, including spilling of oil, etc.; and Fire Marshal, who exercises jurisdiction regarding fire regulations at shoreside facilities serving tankers.

CONSULS:

Austria
Belgium
Costa Rica
Denmark
Dominican Republic
El Salvador
Finland
France
Germany
Great Britain
Iceland
Italy
Japan
Lebanon
Mexico
Netherlands
Norway
Panama
Peru
Sweden
Venezuela

REPAIRS: All types of deck and engine repairs possible.

DRY DOCKS: See "Portland, Oregon".

GANGWAY/DECK WATCHMEN: Services at option of vessel Owner/Agent and available through private firms.

OPENING/CLOSING HATCHES: While ship is at dock, opening and closing hatches is work of longshoremen. Ship may open or close own hatches while under way.

CERTIFICATES: Registered tonnage certificate.

CUSTOMS ALLOWANCES: Tobacco, reasonable quantity. Wine and/or Spirit, reasonable quantity.

CARGO GEAR: Valid cargo gear certificate required, acceptable to U.S. Bureau of Labor Standards.

REPATRIATION: Any arrangements possible for crew changes or other repatriation.

AIRPORT: Airport 10 miles from town, served by 7 regularly scheduled airlines with direct service and/or connections domestically and worldwide.

TIME: GMT minus 8 hours. Daylight saving time becomes effective annually on first Sunday in April through last Saturday in October.

HOLIDAYS: Following holidays are recognised: *New Year's Day; Lincoln's Birthday (Feb. 12th); Washington's Birthday (Feb. 22nd); Memorial Day (May 30th); *Independence Day (July 4th); *Labour Day (1st Monday in September); Columbus Day (Oct. 12th); Veteran's Day (Nov. 11th); Thanksgiving Day; *Christmas Day (Dec. 25th); Statewide Election Days. Other legal holidays may be proclaimed by State or national authority. When holiday falls on Sunday, following Monday observed as holiday. Longshore work performed on any of above-listed days is at overtime, which is one-and-a-half time rate. Days marked(*) are stop-work days, viz., no ships will be worked. This also applies to July 5th, which observed locally on unilateral basis.

POLICE/AMBULANCE/FIRE: Police Tel: 693-2555; Fire Tel: 693-1441; Ambulance provided by several private firms, but can be obtained through police or fire number.

SERVICES: All services available such as compass adjusting, major minor repairs either with work barges or at ship repair berths; lay bert available; charts available from private companies; all chandlery supplie available.

SHORE LEAVE: Crew members permitted ashore except where vess has made first arrival from Communist-controlled port.

IDENTIFICATION CARDS: Immigration Dept. requires Forms No. 5 and No. 31 (Repatriation). Changes can be effected at any U. Consulate and are honoured here.

GARBAGE/WASTE OIL DISPOSAL: See "Agriculture" before fi U.S.A. port (Albany).

Vessels requiring discharge of oily waste or garbage at the Port Vancouver shall inquire of the Port's Operations Department for th names of oily waste or garbage contractors. The vessel shall arrang directly with such oily waste or garbage hauler(s) for such services an equipment. Payment of charges for these services and equipme provided by such oily waste or garbage hauler shall be made directly t the oily waste or garbage hauler by the vessel, it's agent, owne charterer, or any other party responsible for such payment of charge by the vessel.

The oily waste or garbage haulers are independent contractors an are not agents or employees of the Port of Vancouver, and as such th Port of Vancouver shall not be liable for any act, omission, or negligenc of any such oily waste or garbage hauler. Rates and charges assesse against vessels by the Port of Vancouver for use of its facilities o services do not include this service or insurance coverage for an potential liability of any oily waste or garbage hauler permitted by th Port of Vancouver. The discharge by a vessel of oily waste or garbag at the Port of Vancouver shall be allowed only in accordance with th terms of this item and applicable Federal, State and Local regulation

List of Haulers for Marpol V Compliance:

Company	*Types of Waste Hauled*
(Vancouver, WA only) BFI Medical Waste Systems – Jeff Daub, P.O.Box 478, Woodinville, WA 98072. Tel: (800) 637-7939 Dispatch, (360) 485-7100. Fax: (360) 486-4287.	Medical Waste.
(Vancouver, WA and Portland, OR) Disposal Group – Tom McMullen, P.O.Box 4698, Vancouver, WA 98662-0698. Tel: (360) 892-9594. Mobile (360) 921-5091. Fax: (206) 892-8471.	Contaminated Garbage Medical Waste.
(Vancouver, WA and Portland, OR) Foss Environmental – Perry Stayton, 5420 N. Lagoon, Portland, OR 97217. Tel: (503) 283-1150. Fax: (503) 289-6568.	Hazardous Waste. Oily Waste.
(Vancouver, WA and Portland, OR) Northwest Field Services – Scott Gilfillan, 5315 N.W. St. Helens Road, Portland, OR 97210. Tel: (503) 241-3827. Fax: (503) 241-8259.	Hazardous Waste. Medical Waste. Oily Waste.
(Vancouver, WA and Portland, OR) Reidel Environmental Services, P.O.Box 5007, Portland, OR 97208. Tel: (503) 286-4656. Fax: (503) 283-9703.	Hazardous Waste. Oily Waste.
(Vancouver, WA and Portland, OR) Spencer Environmental – Bob Lavadure, 914 S. Molalla, Oregon City, OR 97045. Tel: (503) 655-0896. Fax: (503) 657-3395.	Hazardous Waste. Oily Waste.
(Portland, OR only) Stericycle – Rick Shea, 21220 87th Avenue S.E., Suite 300, Woodinville, WA 98072. Tel: (800) 755-3291 Dispatch, (360) 668-7530. Fax: (360) 668-6834.	Medical Waste.
(Vancouver, WA and Portland, OR) Western Compliance Services – Tom Riddle, 11330 S.W. Clay Street, Sherwood, OR 97140. Tel: (503) 682-2341. Fax: (503) 682-5853.	Hazardous Waste. Oily Waste.

SEAMAN'S CLUBS: Fort Vancouver Seamen's Center, 1335 Gatew Avenue, P.O.Box 1102, Vancouver, Washington 98666. Tel: (360) 69 9300.

AUTHORITY: Port of Vancouver – U.S.A., P.O.Box 1180, 3103 Lo River Road, Vancouver, Washington 98666. *Tel:* (360) 693-3611 or (5 289-8824. *FAX:* (503) 285-6091. *Contact:* Byron H. Hanke, Execu Director. Walt Morey, Director of Terminal Services.

WHITTIER, Alaska: 60.47 N. 148.40 W.

SHIPMASTER'S REPORT: October 1980. (Updated 1988)

GENERAL: Whittier is a small port in position Lat. 60° 47 Long. 148° 40' W. The population in October 1984 was 250. There 2 hotels, 3 grocery stores, a school and a post office. The port constructed between 1941 to 1943. It was developed as a main su depot for the storage of oil for the Anchorage area and also a transhipment port for produce from other areas in the United St There is regular barge traffic from Seattle and other West coast p with ammunition, food, merchandise and motor cars. All these are ca aboard flat top railway wagons which can be loaded or discharg any state of the tide. The port is operated by the Alaska Railroad sy and there is no shore gear of any kind. Whittier is surrounded by high mountains and there is no road or footpath in or out. There

very short landing strip suitable for small aircraft but the normal communication is by rail which goes under the mountains in two long tunnels. The journey takes about 1.5 hours and the timetable is frequent in the Summer when a lot of people visit Whittier for boating and fishing or to get the ferry to Valdez. During Winter however the service is about four times a week, weather permitting.
APPROACHES: *Recommended Route to Whittier Pilot:* British Charts BA. 3363 and 3364.

When Smith Island bears 256°×8 miles, vessels should leave the traffic zone and steer 277° passing 1.5 miles South of Naked Island and 1.2 miles North of Point Eleanor. Then alter course to 281° passing 1 mile South of Mears Point. After passing Mears Point, steer 350° through Ferry Passage and alter to 280° off Point Culrose Light to the Pilot Station. It is not locally recommended to pass North of Perry Island through the Dutch Group.
PILOTAGE: Pilotage is operated by the Southwest Alaska Pilots' Association who have an office in Valdez, telephone number (907) 835 – 2134. They also have an office in Homer, telephone (907) 235 – 8783. Both stations maintain a continuous watch on Channels 10 and 16.

In theory, Pilots embark at Hinchinbrook Entrance. This has not been the practice however, for the last year or so, due to the long sea passage for the small pilot boat and the severe weather sometimes encountered in this area. Pilots normally embark at Blight Reef near Glacier Island. The pilot boat is stationed at Rocky Point some 10 miles away. The normal pilot boat is "Bering" which is a 63 ft. long trawler, capable of 10 knots, with a blue hull and white house. A newer boat is also in attendance. This is a 43 ft. glass fibre boat called "Bernhof" capable of 20 knots. She has a white hull.

No vessel may enter Prince William Sound through the Hinchinbrook Entrance without permission from the Coast Guard at the Valdez Traffic Control Centre on Channel 13 or 16. Large vessels may only transit Prince William Sound in daylight hours.

If permission is obtained, vessels may proceed direct to the Pilot Station at Whittier, 1 mile South of Point Pigot. See "Approaches".
ANCHORAGE: Anchorage off Whittier may be obtained in 12 fathoms at Pigot Bay (Lat. 60° 50.4' N., Long. 148° 22.0' E.).
BERTHS/FACILITIES: The 2 railway berths are only for barges carrying flat top railway cars on which all cargo is carried. The Delong Pier is used for oil tankers. The length of the wharf is 140 m. and the maximum length of ship is about 170 m. The minimum depth alongside is 48 ft. at the West end and 80 ft. at the East end.

Tankers normally berth port side alongside. In October 1980 there was one tug "Avenger" in attendance being 2,000 h.p. A shore gangway is supplied. All manifold connections are 6 in. The ship must supply all reducers. 2 lines are used for kerosene. Jet fuel, Mogas and diesel are imported. The distance to the shore tanks is 1.5 miles. All products are pumped from the storage area to Anchorage. Bunkers are not available for large ships. Provisions and supplies can be purchased in Anchorage and shipped down by rail. There is a small clinic with a physician's assistant. The nearest doctor or dentist is in Anchorage. In an emergency there is an ambulance which can run on the road or rails.
GENERAL:
Weather: The winds are very strong and variable. It is very wet in Summer and has an extremely high snowfall in the Winter months. The port is completely ice free the whole year round.
Formalities: All the usual American forms apply. Customs, Immigration and Coast Guard all come from Anchorage as there are no officials at Whittier.
Joining/Leaving: Crew may sign on and off at all times. During Winter Whittier is often cut off by snow.
Accommodation: Pilot and Agent stayed aboard throughout our 36 hour stay which proved very convenient for clearance and paperwork.
Agent: North Star Terminal & Stevedoring Company, Anchorage, Alaska 95510. Cable: "Norstevco Anchorage". Telex: 26471.
AUTHORITY: Whittier Harbour Commission, P.O.Box 608, Whittier, Alaska 99693. *Tel:* (907) 472-2201. *FAX:* (907) 472-2404. *Contact:* Port Director/Harbour Master.

WILMINGTON, Delaware: 39.45 N. 75.30 W. (See Plan)

DOCUMENTS: Handled through local Agents.
PILOTAGE: Compulsory.

Delaware Bay and River Pilots Association. Tel: 1-215-922-7164.
Christina River Pilots. Tel: 1-302-652-1666.
Also see "Philadelphia".
ANCHORAGE: At Cherry Island.
RESTRICTIONS: The Delaware River has a channel depth of 12.0 m. to Fairless. Christina River, on which the Port of Wilmington is located, has a channel depth of 11.5 m.
MAX. SIZE: Length unlimited, breadth unlimited, draft 38 ft. MLW tide range 5.5 ft.
Chesapeake/Delaware Canal: Max. LOA 760 ft. Max. draft 35 ft. (FW) (Max. draft 27 ft. in report dated January 1990). Height of mast 133 ft. Max. beam 170 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: U.S. Coast Guard, Gloucester, N.J.
TUGS: Towage available from Wilmington Tug and Launch Co. Tel: (302) 652-1666.
VHF: Channels 16 and 14.
BERTHING: 4,600 ft. marginal wharf (8 berths) with depth 38 ft. 20 – 100 ton crane capacity. 400 – 600 t.p.h. bulk unloader. Covered bulk storage of 472,000 sq.ft. Dockside freezer capacity of 1,050,000 cu.ft. at present.

Two multi-purpose bulk/container cranes available, capacity 40 tons, outreach 115 ft.

Roll-on/Roll-off cargoes handled.
MEDICAL: Hospital and medical facilities available in the city of Wilmington (7 km.).
TANKERS: One berth of 1,000 ft. length with depth 35 ft.
DENSITY: Fresh water port. Normal 12 hour tides.
FRESH WATER: Hose connection from dock.
FUEL: All grades available from B.P. or Chevron.
CONSULS: All Consuls are located in Philadelphia, Pa.
REPAIRS: Possible.
DRY DOCKS: Major repairs and dry dock facilities – Penn Ship Yard, Chester, Pa. Tel: (215) 499-2000.
GANGWAY/DECK WATCHMEN: Required.
OPENING/CLOSING HATCHES: Optional.
REPATRIATION: Facilities are available and arranged by Agent.
AIRPORT: Philadelphia International Airport (20 km.), Wilmington Airport (8 km.), regular service.
TIME: U.S. Eastern Standard (GMT minus 5 hours) and Daylight Time, from first Sunday in April till last Sunday in October.
POLICE/AMBULANCE/FIRE: Police, Ambulance, Fire, Tel: 302-654-5151.
TELEPHONES: Dock-side pay phones.
SERVICES: All services available.
SHORE LEAVE: Allowed unless restricted by Immigration.
IDENTIFICATION CARDS: See "New York".
DEVELOPMENTS: Additional land has been acquired and one new berth along the marginal wharf has been completed.
AUTHORITY: Port of Wilmington, Delaware, Diamond State Port Corporation, P.O.Box 1191, Wilmington, Delaware 19899. *Tel:* (302) 571-4600. *Telex:* TWX 510-666-2181. *FAX:* (302) 571-4646. *Contact:* R. McBride, Executive Director. John B. O'Donnell, Director of Trade Development. John H. Doherty, Director of Planning.

WILMINGTON, North Carolina: 34.14 N. 77.57 W. (See Plan)

PORT LIMITS: A ship is considered an "arrived vessel" upon arrival at Buoy 2CF.
DOCUMENTS:

3 copies Cargo Manifest (Forms 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
3 copies Crew Manifest (Curio List) (Customs Form 1304).
3 copies Stores List (Customs Form 1303).
3 copies Passenger List (Form I-418).
3 copies Crew List (Form. I-418).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port:

Master's Oath (Customs Form 1300).
All foreign clearances.
U.S. Certificates of payment of tonnage tax (Customs Form 1002).
Certified Crew List.
Oil Pollution Certificate.
General Declaration (Customs Form 1301).
Load Line Certificate.
Safety Equipment Certificate.

APPROACHES: The port terminal at Wilmington is located on the East bank of Cape Fear River, approximately 26 miles from the sea buoy at the mouth of the river. Wilmington is 150 miles S.W. of Cape Hatteras and 26 miles North of Cape Fear.
PILOTAGE: Pilots board vessels at Buoy "2CF" off the mouth of the Cape Fear River. Masters should notify local Agents by radio of their ETA at Buoy "2CF" in order that the Pilots may be on station in advance of arrival. Additionally, Masters may communicate with Pilots by radio telephone on 2738 frequency and by VHF Channel 18A. Pilots remain on board until harbour limits of Wilmington, where docking Masters normally board vessels for purposes of docking.
ANCHORAGE: Vessels awaiting Pilots normally anchor in area off Buoy "2CF". There is no safe anchorage in the port of Wilmington for large vessels to be accommodated. Small vessels can be accommodated for brief periods in anchorage basin, although it is necessary to swing with the tide in order to avoid blocking channel.
RESTRICTIONS: The approach channel and basins adjacent to the port are maintained at a depth of 38 ft. MLW.
MAX. SIZE: No limits on length, breadth, and draft limit is present channel project depth of 38 ft. Master should communicate with local Agent regarding stage of tide for passage of vessels drawing 34 ft. or above.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: 3 towing companies operate at Wilmington.
BERTHING: A continuous marginal wharf, 6,768 ft. long. Docking at any hour, day and night.

SPECIALISED CARGO HANDLING FACILITIES: State Port Terminal: Fully equipped to serve cellular type container ships, for bulk handling; equipped with 6 yard rehandler buckets, receiving hoppers, and paved open storage areas, 1×45 ton gantry crane, 1×115 ton gantry crane, 3×40 ton and 2×50 ton container cranes and 1×225 ton gantry crane; 1 berth with tank farm for handling liquid chemicals (See "Shipmaster's Report"). 129×480 volt electrical outlets for refrigerated containers (70 additional outlets planned).

Almont Shipping Company: 3 berths, open and covered bulk storage, 2×25 ton cranes and 1×85 ton derrick. No facilities for LPG carriers.
TANKERS: 10 tanker berths with drafts from 30 ft. to 40 ft. MLW. Night berthing at all berths. Fresh water available.
FRESH WATER: Available from shore connections at rates up to 50 t.p.h.
FUEL: Bunker "C" and diesel fuels available locally.
FIRE PRECAUTIONS: Normal precautions observed.
REPAIRS: Minor ship repairs available.
DRY DOCKS: 1×1,000 ton lift floating dry dock.
AIRPORT: New Hanover Country Airport, 7 miles from N.C. State Port Terminal. Served by U.S. Air and American Eagle.
TIME: Eastern Standard Time, GMT minus 5 hours. Daylight Saving Time from first Sunday in April till last Sunday in October.
IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.
GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. port (Albany).

The Port of Wilmington is a USDA-approved handler of international garbage, whereby drums are provided to the vessel for collection of garbage and subsequent incineration.
WASTE OIL DISPOSAL: The Port of Wilmington has a MARPOL-approved contractor on retainer available to handle this service for the account of the vessel. Direct contact should be made to High Rise Services. Tel: (919) 371-2325.
SEAMAN'S CLUBS: International Seamen's Service, P.O.Box 486, Wilmington, N.C. 28402. Tel: (919) 762-3792. Facilities include chapel and chaplain, bibles, telephone service, books, table tennis, bicycles and free refreshments.

SHIPMASTER'S REPORT: August 1996.
Berth: Chemeserv.
Charts: B.A. 3688 and NOAA 11537.
Approach Channel: The berth is 29 miles from Cape Fear Sea Buoy on East Bank of Cape Fear River, 1 mile below head of Ocean Navigation. We passed through 3 bridges and passed Wilmington City Front. Transit time about 3 hours, depending on tide.

B.A. Chart 3688 terminates 1 mile below berth. NOAA Chart 11537 shows berth, and terminates at the Grace Berth (the Head of Ocean Navigation, 1 mile above Chemeserv).

Present maximum channel draft 31 ft. (FW) MLW. State funds for deepening to 40 ft. have been sanctioned.

Maximum ship length 690 ft., breadth 85 ft.

Turning Basin of maximum ship length 584 ft., about 1 mile North of Chemeserv.

Ships over Turning Basin length (584 ft.) have to be backed in or out through 2 bridges and turned just above 'North Carolina' Battleship monument.

Vessels up to 400 ft. LOA can turn off Chemeserv Berth.
Pilot/Tugs/Anchorage: Basically same as Southport (See "Southport").

Maximum size vessels require 3 tugs for backing into or out of berth.
Berth: About 2 miles above City front.

A typical U.S. tanker 'T' jetty of wooden pile construction, set about 100 ft. offshore.

The berth has mooring dolphins each side of jetty, plus on the upstream side a mooring buoy, on downstream side is a shore mooring post.

Vessels can berth either side to, but starboard side to preferred by Pilots.

Docking is fairly critical for time scale. Docking on falling tide, undock on rising tide.

Dock reported to have same depth as channel (31 ft. (FW) MLW).

River water absolutely filthy, wherever next deballasting, ballast water should be changed twice, even then it is still off colour.

Moorings (if starboard side to) 2 head lines to buoy, 2 springs fore and aft to dolphins and 2 stern lines to shore post (see "Plan").
Density: 995 (LW) to 997 (HW).
Cargo: The Terminal handles sulphuric acid, caustic soda, asphalt, molasses and methanol, plus its derivatives.

6 in. rubber hoses connected onto 8 in. lines to tank farm.

Shore hydraulic crane, hoses slung from gantry.

Pumping rates generally the maximum the ship can pump.

SGS Surveyor available.

Loading Foreman in cabin on jetty, has telephone which can be used to telephone Agent.

Tank farm adjacent to jetty, generally low back pressure.

As with all U.S. liquid installations, 100 p.s.i. is maximum pressure.
Facilities: Bunkers by barge alongside allowed whilst working cargo.

Public payphone at Terminal Office, about 2 minutes from jetty.

Fresh water available, by meter, ship's hoses used.

Stores to end of jetty, about 100 ft. from ship. Terminal has 2 hand trucks.

Shore gangway (bridle type) available from 'T' jetty. We were unable to land normal accommodation ladder.

Terminal personnel helpful.

Nearest shopping mall by taxi (U.S.$6.0). Loading Foreman will arrange taxi.
AUTHORITY: North Carolina State Port Authority, 2202 Burnett Boulevard, P.O.Box 9002, Wilmington, North Carolina 28402. *Tel:* (910) 763-1621. *FAX:* (910) 763-6440, 343-1042. *Contact:* Erik Stromberg, Executive Director.

WRANGELL, Alaska: 56.28 N. 132.22 W. (See Plan

Located on Wrangell Island. Open all year.
DOCUMENTS: See "Anchorage, Alaska".
PILOTAGE: (From sea via Dixon Entrance up Clarence Strait to Guar Island.) Under pilotage from Guard Island.
ANCHORAGE: Good anchorage N.E. of Woronofski Island i 22 fathoms of water.
MAX. SIZE: Harbour depth 32 ft. MLLW. Tides: mean range 13.7 f diurnal range 16.1 ft. Also see "Berthing".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany).
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
CUSTOMS: Immigration, Guard Island or local Customs Offic Quarantine and Customs, local.
TUGS: 9 tugs up to 1,800 h.p. available with sufficient notice.
BERTHING: 4 wharves.

1. Wrangell Lumber Co. Dock: Berthing length 320 ft., 150 ft. wide depth South end 32 ft. North end 40 ft. LW. Height of pier from zero tid 23.5 ft. Crane – 1 mobile, 8 ton, 6 lift-trucks. No shed space. 3 acre open storage.
2. Alaska Wood Products: Berthing length 300 ft., 50 ft. wide Depth at LW 32 ft. Height of pier from zero tide 23 ft. No shed spac
3. Port of Wrangell Wharf: 35 ft. depth at both ends. Fresh wat available. Lift trucks on rental from local private firms. Dock face 400 f with additional mooring dolphins for a total overall length of 700 ft.
4. Barge: Transfer bridge facilities, 17 ft. wide, capable of up t 70 tons (140,000 lbs.).

STEVEDORES: 4 gangs available.
MEDICAL: Small but new hospital.
WATER: Available.
FUEL: Small quantities available.
REPAIRS: None.
TRANSPORTATION: Air and ferry.
GARBAGE DISPOSAL: See "Agriculture" before first U.S.A. por (Albany).

Service available. Contact Public Works Office for collection. Tel: (907 874-3904, or the Port Office, Tel: (907) 814-3736.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: Usual local facilities.
AUTHORITY: City of Wrangell, P.O.Box 531, Wrangell, Alaska 9992 *Tel:* (907) 874-3736 or 874-2381. *FAX:* (907) 874-3952. *Contact:* Dav Mork, Harbour Master.

YORKTOWN, Virginia: 37.14 N. 76.30 W. (See Pla

OPERATOR'S REPORT:

GENERAL: The Amoco Oil Terminal at Yorktown, Virginia is locat about 3 miles below the York River bridge on the South side of the riv approximately 38 miles from the Chesapeake Bay Sea Buoy "CB". Co ordinates of the terminal are Lat. 37° 13' 37" N., Long. 75° 26' 23" A 3,000 ft. finger pier ending with a marginal pier, reaches the deepwat channel in the river. Tankers supply the refinery with crude an intermediate feedstocks which are refined into gasolines, fuel o liquefied petroleum gas, coke, and liquid sulphur which is distributed b barges and tankers.
APPROACHES: *Cautionary Advice:* RDF stations at Chesapeake Lig and Cape Henry provide coverage for position fixing and numero buoys mark the fairways, channels and obstructions. While proceedi to the Pilot Station one should be aware of the heavy traffic in this ar and the ship should stay within the prescribed traffic lane. Care consideration should be given to the current, which has a velocity of to 3.0 knots and higher and which tends to set a vessel out of the chann
PILOTAGE: Pilots board 1.5 miles N.E. of Cape Henry Light. Vess should use traffic lanes as outlined on Chart No. 12221 wh approaching the pilot area.

U.S. flag should call the Chesapeake Federal pilot boat approxima 1 hour before arrival to arrange Pilot embarkation. Non-U.S. flag vess should call the Virginia State pilot boat 1 hour before arrival.
ANCHORAGES: *Anchorage and Lightering:* Vessels requiring lighter proceed to Hampton Roads where all lightering operations a conducted. This channel is well marked and presents no difficulties. Up completion of lightering, the vessel must return to Cape Henry bef proceeding to the berth. The bottom of Hampton Roads consists of s mud and provides good holding ground.
RADIO: ETA messages should be sent to Agent 72, 48 and 24 ho before arrival. Any change in ETA should also be transmitted, as t pilot vessel is not continually on station. Advise draft (brackish wat first message.
VHF:

Pilots	Channels 6, 11, 13, 16, 1
Tugs	Channels 9, 10, 12, 13, 1
U.S.C.G.	Channel 16
Marine Operators – Norfolk	Channels 16, 22, 27

BERTHING: The Docking Master boards the vessel from a tug 1 – 2 miles East of the Amoco Dock. 2 tugs are generally used for docking; vessels over 28,000 d.w.t. may require 3 tugs at the Docking Master's discretion. The vessel makes a normal marginal approach to Dock No. 1 with the tugs breasting the vessel alongside and holding it there until secured. Vessels generally dock port side to at Berth No. 1. Berth No. 2 is of new construction and is located 1,122 ft. to the West of Berth No. 1. When docking at Berth No. 2, vessels approach Dock No. 1 on a Southwesterly heading to initially avoid a shoal area located N.N.W. of Berth No. 2. When the vessel is within 550 ft. of Berth No. 2, the approach is made parallel to the dock face until the vessel is off the dock when it is breasted into position port side to by the tugs. Extra caution must be exercised when approaching Dock No. 2 when there is a ship at Dock No. 1. At Dock No. 2, difficulties will be experienced in placing vessel's gangway due to the extremely limited dock space amidships.

No. 2 Tanker Dock is equipped with 2×12 in. Chicksan arms for crude or No. 6 Oil discharge. Weather conditions are carefully monitored by terminal personnel, and vessels are shut down when conditions warrant such action.

FRESH WATER: Available.

FUEL: No fuel available at No. 2 Tanker Dock.

GARBAGE DISPOSAL: A dumpster is provided at the end of the dock.

WASTE OIL DISPOSAL: No service available.

SEAMAN'S CLUBS: None.

OPERATOR: Amoco Oil Company, Yorktown Refinery, P.O.Box 578, Yorktown, Virginia 23690-0578. *Tel:* (804) 898-9700. *FAX:* (804) 898-9636.

NOTES

Please also advise Shipping Guides Ltd.

Uruguay

GENERAL:

REGULATIONS: Increased fines became effective in June 1973 in respect of infringements of the Uruguayan Marine Code. There are approximately 119 Articles to the Marine Code, and Owners and Masters of vessels proceeding to Uruguayan ports are recommended to obtain a copy of the Code (which lists port regulations and amounts of fines for infringements, maximum fine being 760 U.R.) prior to arrival. We understand that copies of the Code, entitled "Reglamento Preventivo y Represivo de Infracciones Maritimas, Fluviales y Portuarias", may be obtained from Centro Navegacion Transatlantica, Colon 1486 p. 3, Montevideo.

Freely translated, we give below some extracts of Port Regulations as specifically applicable to Montevideo, but also to all Uruguayan ports in general:

Articles 1 to 8 cover respectively the reasons for setting up this preventive set of regulations; the definition of what a vessel is in terms of the legislation; the establishment and amount of fines (they may be tripled in the event of repeated offences); the fact that very small vessels may only have imposed 10 per cent of the full fine; the jurisdiction for the regulations covering the whole of the Uruguayan coast and river frontage; the stipulation whereby the General Marine Prefecture must send to the Master of the vessel a statement of the offence immediately it is observed and this in triplicate and to the local Agent for the vessel.

The actual information which the form must contain is delineated. Notification of offences can be made after a vessel has sailed, this being to the local ship's Agent by phone and confirmed within 24 hours in writing. All Masters must give written consent to their local Agent, and the Agent must accept this in writing, empowering the Agent to act in the Master's name in all cases of fine payment. The Authorities may delay the sailing of a vessel if they see fit in connection with any offence. Finally, Article 8 deals with the right to appeal to the General Marine Prefecture against any fine imposed, this having to be done within 10 days dating from day following personal notification of the offence.

Articles 9 to 119 cover the specific offences subject to fine and indicate individually the full fine imposable in local pesos.

An abridged summary of each of the articles is as follows: No anchoring within 900 m. of the illuminated buoy in the port access channel.

Vessels carrying hazardous cargo must hoist flags according to the International Code of Signals.

Vessels with anyone on board with contagious diseases must hoist appropriate flag (letters "QL").

Flag "Q" must be hoisted and maintained in position until Health Authority has given Free Pratique.

All vessels anchoring in the roads, bay or ante-port must take due precautions not to harm or cause damage to other vessels; the fine will be imposed notwithstanding claims for damages from third parties.

Agents of vessels which may wish to anchor in the Roads must obtain prior permission from the Marine Authority, specifying vessel's measurements and the reason. If authorised, the anchorage to be used will be notified.

No anchoring at the docks unless justified, and anchors must be raised immediately the reason for dropping them has gone. There must be no delay on the part of vessels in complying with the Marine Authorities instructions to change berth or anchorage.

No tying up to other vessels without Marine Authority permission; no attachment to berths which have not been allocated and no changing of berth without authorisation.

No anchoring in places not authorised by the Marine Authority, the maximum fine being applied should this have caused damage to third parties.

No small craft to be tied up obstructing gangway or quays. Where this is necessary for embarking crew members, passengers, provisions, etc., the small craft must be removed immediately the operation has been completed.

Small craft must not be tied up to buoys or beacons. Vessels must not tie up at buoys or beacons.

Maximum speed of vessels in docks is 4 knots.

Navigation in channels of access to ports is governed as follows:

Maximum speed 8 knots.

Vessels must always keep to starboard.

Vessels must not overtake each other, but where this is necessary they must conform to the International Colregs.

No anchorage in channels.

No fishing in channels.

Vessels navigating in channels must keep a distance of 1,000 m. from each other.

Vessels must not cross in front of each other in the fore-ports.

All vessels entering or leaving the ante-port or docks, changing berths or anchorages must be assisted by a Pilot and tug, unless specifically given exception to this rule by the Marine Authority.

No vessel must enter port with damage to hull, machinery or rudder unless prior inspected by the Technical Commission of the Mercantile Marine Directorate.

Any vessel springing a leak whilst navigating in the access channel, and which the bilge pumps cannot overcome, must go aground as quickly as possible outside the channel so as to leave the channel open.

In case of fire on board whilst navigating in the access channel, Masters must observe usual procedure and give signals accordingly.

The strict use of semaphore signals within port must be observed.

When vessels enter the docks or remain in them, Masters, owners or Agents must request permission from the Marine Traffic Office, and report to the Office of Pilotage, and proceed in whatever form they may instruct. On leaving the same procedure must be followed.

Masters and owners of vessels must see that their vessels do n obstruct or cause harm to port works, beacons, buoys, or semaphor and once tied up they must not slacken ropes without permission of th Marine Authority except under conditions covered by items 1, 2 and of Article 64 of the Port of Montevideo Marine Regulations.

No vessel to have badly stowed cargo, excess weight, or evidence lists due to bad trimming of cargo.

Only those lines necessary for tying up to be used. When 2 or mo vessels tie up alongside to load or discharge they are all obligated t ensure that the handling of their respective cargoes does not prejudic the working of the others.

Vessels must take proper precautions when loading or dischargin raw material, i.e. sand, bones, ash, coal, etc., by placing suitable plan of wood close together to prevent any such material falling into the wate

No vessel to enter docks with the gangway already rigged.

During unloading operations, no goods to be thrown on to the qua This must be done manually or mechanically.

During discharge operations, cargo must be so positioned on the qua as to leave adequate passage for vehicular traffic, i.e. Police, Fi Brigade, Health Authorities, Customs and Port Officials.

Planks of wood — when planks are used for any operation, they mu not be placed in contact with mooring bitts or cables. When work cease all pieces of wood, ladders, small trucks, etc, must be removed fro quay, and those belonging to the ship must be taken on board, this s as not to obstruct the public path along the quay.

When cleaning or washing ships tied up at quays, no rubbish, wate or cleaning material must be allowed to fall on the quay.

A very serious offence is the throwing into the water of any rubbis sewage or other material susceptible to polluting the water.

Very serious offences are the lightening of ships carrying petrol, crud oil, or the like, likewise the washing-out of tanks, except in authorise zones. The fine is based on the area spoiled by the wrongful discharg

All ships should have local Agents, otherwise in the case of offence the Master is held responsible and vessels may be detained.

Vessels are responsible to ensure that no damage is made to qua installations by the cargo they load or discharge, and must always lea berths in a tidy and clean state.

Vessels' auxiliary small craft, launches and the like must not han over the side of the vessel in port, except during operations of launchin and reshipping on board, where such operations are conducted at point indicated by the Marine Authority. Such small craft may only be use for the purpose and at the times authorised by the Marine Authority.

Usual regulations concerning carriage of passengers in vessels an heavy fines are imposable for the carriage of passengers or cre members not listed.

Vessels exceeding their navigation limits shown in their Certificate o Navigability are subject to fine.

All vessels must be cleared to sail by the Marine Authority.

Vessels must use their proper name and this must be painted on letters of minimum of 15 centimetres height and 8 centimetres wid Letters must be white on black or black on light colour.

Masters, Owners and Agents must report any crew offence o irregularity on board to the Marine Authority.

Vessels in port must hoist the Uruguayan flag.

N.B. It is recommended that Masters correctly establish the prescribe times for raising and lowering the Uruguayan flag, in order to avoid fine

Vessels must have their gangway equipped with handrails, and th gangway must be clearly lit at night.

All lines to shore must have rat-guards fitted.

When there are hazardous goods on board or when such goods a being worked, the vessel must hoist the International Code Signal lett "B", and at night show a red light on the bow masthead, must alwa have engines in a state of readiness in case of danger, keep two-thir of the crew on board, keep watchmen and firemen available (the numb of whom will be determined by the number of holds containing th hazardous material), must only work with incandescent lights, and kee a Port Pilot on board if the Marine Authority so directs.

Vessels moored at quays must not move propellers, except under th direction of the Marine Authority.

Vessels must not moor in the port access channel. There must be n improper use of the International Code Signal. Signal flags must not b interspersed with flags of nationality.

If a vessel wishes to dress flags over all, or fly a flag at halfmast d to a bereavement on board, the Marine Authority's permission must b first obtained.

The use of whistles, sirens or any other audible signal within the a of the roads, bay, ante-port or docks, for any reason other than justif for navigation is prohibited.

Any vessel anchored, tied up to other vessels or to the shore or qua must show a white light from sunset to sunrise which can be seen a distance of 500 m.

In the access channel to Montevideo, no more than 4 vessels m navigate at one time — 2 entering, 2 leaving.

Maximum speed in the Montevideo ante-port is 6 knots. There m be no anchoring in the Free Zone, reserved for the manoeuvrin vessels entering and leaving.

At Montevideo there must be no anchoring along the route lea from the Free Zone to Channel "A", between the quay and the pi the same letter. Also on the route leading from Pier "A" along a lin 100 m. to the North of the end of the West Jetty.

No anchoring in any area less than 200 m. from Pier "A" in a s circular coverage, taking as middle point a position half way betw Quay "A" and Pier "A".

All vessels must keep to the right or to the middle when there ar other vessels in the vicinity.

International Regulations for the Prevention of Collisions apply, plus the following:

Vessels navigating along the routes established in the anteport or which have to pass directly through the passage between Jetties "A" and "B", must keep to the right when another vessel is coming in the opposite direction.

Vessels which have to cross the North, the South route or directly between Jetties "A" and "B", must ensure that they pass any other vessel at a distance not less than 50 m.

Any vessel navigating under her own power must give way to a vessel under tow by a tug.

Vessels with tugs following routes which cross one another, thereby creating a collision risk, the one passing to the starboard of the other is the vessel which must take the precautionary measures to avoid collision. If, however, the risk persists, the vessel passing to port of the other must also take measures to increase the distance between the two vessels.

No vessels to pass in pairs or in opposite direction between Jetties "A" and "B"; the semaphore signals transmitted by Quay "A" must be observed. If the signal is "vessel entering from the ante-port to the docks", the vessel in the docks, ready to sail, must wait until the incoming vessel has entered.

If the signal is "vessel leaving the docks for the ante-port" the vessel in the foreport, moving towards Jetty "A" to enter the docks, must wait in the free zone, stop engines, keeping to the right, and drop anchor if necessary, until the outgoing vessel is outside and well clear of Jetty "A".

The same regulation applies to vessels leaving the River Dock. In this case, the vessel leaving Jetty "A" has priority, coming from Docks I and II the first will wait for the second before starting engines.

All vessels navigating in the same direction in the ante-port must keep a distance of not less than 300 m. from each other stern to bow. They must not pass each other or navigate in pairs.

In the event of offences being incurred whilst an Uruguayan Pilot is on board, at the request of the local ship's Agent, the Marine Authority will determine whether the Pilot is responsible for the offence having occurred, and take measures accordingly.

Vessels which load beyond the appropriate load line will be subject to a fine of 1,000,000 pesos.

DOCUMENTS:

Consular Documents: The Consulate in a foreign port from which merchandise is to be shipped to a Uruguayan port must be presented with the following documents:

(a) Cargo Manifest, original and 3 copies.
(b) Crew List, original and 1 copy.
(c) Passenger List (or no-passenger declaration), original and 1 copy.
(d) Bills of Lading, original and 3 copies.
(e) Commercial Invoice, original and 3 copies.
(f) In the event that the vessel is cleared in-ballast, an in-ballast declaration, original and 1 copy.

One copy of each document is filed at the Consulate, and the following are returned, duly visaed:

1 original Manifest, 1 copy of each Bill of Lading, and 1 copy of the Commercial Invoice, in an envelope addressed to the Customs Administrator of the port of destination.

1 copy of the Manifest, and 1 copy of the Bills of Lading, in an envelope addressed to the National Ports Administration.

1 copy of the Manifest, the original and 2 copies of the Bills of Lading, the original Commercial Invoice, the original Crew List, and the original Passenger List (or no-passenger declaration).

Prior to Arrival:

Notification of Arrival – by Ships' Agents.

(a) Container vessels (minimum load 30 FCL and minimum discharge 30 FCL stipulated) and passenger vessels have berthing priority. Agents must notify the arrival of the vessel 10 days in advance to the National Port Administration (ANP) and confirm ETA 2 days ahead of arrival.
(b) For arrival in Uruguayan ports of all other vessels, agents must notify the ANP 48 hours in advance.

All notifications must be made on special forms from the ANP on request for a berth, presenting original and 6 copies, accompanied by a complete set of cargo manifests in Spanish.

For container vessels, Agents must present lists with details of a complete nature covering the containers to be unloaded in Montevideo (prefix, number, contents, gross weight and tare), whether to be discharged to store or to quay, and final destination in the case of transit.

Request for Port Services:

As has been said in the previous section, the berthing request must be presented to the ANP and acts as advice of arrival.

Each morning at 1000 hrs. the ANP designates berthing crews for vessels for the next 24 hours. In the event of there being no berthing staff available, the ANP appoints a place for waiting berthing in turn in accordance with the order of arrival at the port of Montevideo.

On Arrival:

Type of Document	*Number and distribution of documents*						
Basic forms	*Prefectura*	*Customs*	*Im'gration*	*Police*	*Health*	*Agency*	*Total*
1. General Declaration	1	–	–	–	–	1	2
2. Cargo Manifest	1	1(a)	–	–	–	1	3
3. Crew List	3(a)	–	1	1	1	1(a)	7
4. Passenger List	1(a)	–	1	1	1	1(a)	5
5. Ship's Store List	–	2	–	–	–	1	3
6. Crew Effects Declaration	–	2	–	–	–	1	3
7. Maritime Declaration of Health	–	–	–	–	–	1	1
8. Mail List	–	–	–	–	–	1(b)	1
Complete Transit Manifest	1	1	–	–	–	1	3
9. Consular Manifest(c)	–	3(a)	–	–	–	1(a)	4
10. Bills of Lading(c)	–	3(a)	–	–	–	3(a)	6
11. In-ballast Declaration(c)	–	1(a)	–	–	–	1(a)	2
12. Commercial Invoice(c)	–	3(a)	–	–	–	1(a)	4
13. No-Passenger List	1(a)	–	1	1	1	1(a)	5
14. In-Transit Passenger List	1	–	1	1	1	1	5
15. Declaration of Bonded Stores	–	2	–	–	–	–	2
16. List of Dangerous Goods	1	–	–	–	–	1	2
17. Vaccination List	–	–	–	–	1	1	2

(a) Visaed by the Uruguayan Consulate.
(b) For the Postal Service.
(c) The Consulate returns 1 envelope to the Customs Administrator, another to the National Ports Administration (with a copy of Manifests and Bills of Lading), and a third to the agency, with the required visaed documents.

Other Requirements:

The agency must provide a cargo book (tally book) for each port to the National Ports Administration.

Prior to Departure:

24 hours prior to sailing, the vessel must notify the Maritime Prefecture and Migration. Representatives of these agencies must receive a crew list and check any changes. If the vessel carries passengers, the Inspector of the National Migration Administration must prepare a record of a sailing inspection, similar to that required upon the vessel's arrival.

The Maritime Prefecture authorises the clearance of the vessel.

PILOTAGE: Also see "Control". Pilotage is compulsory in all river and port zones, except for vessels coming from the East to ports between La Paloma and Montevideo Roads, or entering Montevideo Roads for no commercial reason. All coastal vessels either Uruguayan or foreign are also exempt.

Pilotage Zones:

1. RIVER PLATE – Comprises zone between imaginary lines in the East from Punta del Este (Uruguay) and Punta Rasa, on Cape San Antonio (Argentina) and on the West between Colonia and San Isidro (Argentina).
2. RIVER URUGUAY – From 56.5 km. of Farallon Channel to Uruguayan ports on the River Uruguay.
3. PORTS – Pilotage zones, comprises limits of each port including its Roads.
4. SBM at Jose Ignacio.

In the River Plate, Pilots presently board to the South of the wreck of the *Calpean Star,* approximately 4.5 km. South and lying 70 m. West of the dredged access channel.

Several of the pairs of buoys are missing, and only the Mid Channel Buoy indicating the entrance to the Access Channel, 5 miles South from the port, and the 2 pairs nearest to the breakwaters are operating.

When taking tankers, the port Pilot usually goes out to the 5-mile mark.

There is no more than 30 ft. in the Access Channel at the moment; dredging is being carried on, but there are only 2 dredgers operating between the channel and the port of Montevideo itself.

The current is across the channel, running at about 1 knot, and changes direction more with the wind than the tide.

Vessels awaiting Pilot should anchor on the West of the channel and South of the *Calpean Star;* there is 24 ft. up to 500 m. West of the channel. The zone to the East of the Access Channel has submarine cables and must therefore be avoided.

Pilots are ordered through the Agent, and have an up to date communications system installed in their office on the 11th floor of Custom Building.

Permanent watch is kept on Channel 16 VHF, and operator speaks English. It is possible to call "Practicos Montevideo" and ask to be connected by phone to the vessel's Agent's office for last minute instructions, etc.

Channel	Frequency	Channel	Frequency
9	156.45	11	156.55
16	156.80		

The port is closed when wind force exceeds 43 knots or, at night 37 knots, or if visibility is less than 1 km., but otherwise vessels can enter or sail at any time.

There is also a Telex machine with 24 hour watch, over which messages can be transmitted to Agents out of office hours, over a weekend, for example. Call sign is DGT 843 Pilot CX. This is particularly useful for vessels sailing late from Buenos Aires, and the Office will pass on the message to the corresponding Agency by phone.

All Pilots carry a "walkie-talkie" and can communicate either with their office, the Port Authority or the Semaphore Station, using Channel 9 for the Port Offices and 11 for the Pilot's Office, 16 being kept for use with vessels.

Ordering of River Pilots for Sailings from Uruguayan River Ports: Although Masters can apply directly for Pilots such applications must be made by telegram addressed to the Practico Mayor Montevideo, it is preferable for them to keep their Montevideo Agent fully informed and leave the latter to order the Pilot.

The opportunity of ordering Pilots at any hour having been discontinued makes it more essential than ever that Montevideo Agents are kept accurately informed regarding expected readiness to sail. Failure to do so will result in unnecessary demurrage being paid to Pilots or delay to the ship concerned.

Pilots for Vessels Proceeding from Sea to a Uruguayan Port on the River Uruguay: A Uruguayan Pilot must be employed to conduct ships from sea to a Uruguayan Port on the River Uruguay.

Vessels must call at Montevideo Roads to embark Pilot and pay the cost of tug to take out Pilot. They can also, alternatively, take an Argentine Pilot at Recalada who will take the vessel to Intersection, where in either case an Argentine River Pilot will board to take the vessel to the Roads of port of destination, where a Uruguayan Port Pilot will come aboard, this being a simpler procedure and all handled by Agents in Buenos Aires (one radio advice).

Vessels from an Argentine Port bound for Uruguayan River Port: Such vessels are normally taken to immediately off port of destination by an Argentine Pilot, but they must be berthed by a Uruguayan Pilot who has to be sent from Montevideo, thus Montevideo Agents must be kept promptly informed of vessel's position to enable them to order a Pilot to berth ship without delay.

Vessels leaving Uruguayan Port for Argentine Ports on the River Parana: Uruguayan River Pilot supplied from Montevideo must be employed for unberthing, and this Pilot takes vessel to the Bravo Channel off Nueva Palmira, where the Argentine River Parana Pilot, who is normally already aboard, takes over.

The Uruguayan Pilot is paid in accordance with tariff to Nueva Palmira plus an unberthing fee and travelling expenses.

HEALTH: In order to be able to enter port and berth without delay, the Authorities accept a radio, cable or telex request, couched in the following terms (messages must be sent in Spanish).

Vessels Arriving from Elsewhere:

Capitan .... solicita libre platica
(here the name of the vessel)
informando proceder de Buenos Aires, siendo su escala anterior......
(here a port in another previous country which could be Santos,Valparaiso, Capetown, etc.)
ondicion sanitaria buena .... Capitan
(here the name of the Master)

Vessels Arriving from Buenos Aires:

Capitan .... solicita libres platica
(here the name of the vessel)
informando proceder de..
(here a port of origin, say London – Liverpool – San Francisco – Rijeka – Kotka – Tokyo – Oslo, etc.)
siendo su ultimo puerto ....
(here say Santos – Valparaiso – Capetown, etc.)
condicion sanitaria buena .... Capitan
(here the name of the Master)

There have been cases of delay in delivery of radio messages, even though passed on by phone, but the original message must accompany Agent's request for Free Pratique, hence it is advisable to use cable or telex services if possible. Messages must be sent at least 24 hours ahead, and changes in ETA advised.

Although it is possible to take Pratique in Uruguayan River ports, there is frequently delay there, and since vessels must enter Montevideo to pick up the river port Pilot also, it is advisable in these cases to ask for Pratique at Montevideo as above, and the order from Sanitary Authorities granting Free Pratique will be handed to the Pilot to take on board with him.

In no case, however, does the granting of Pratique by radio modify the inspection in port, where the usual commission must be the first to go on board.

Illness On Board: Any private doctor attending a patient on board must immediately inform the Sanitary Inspector should the disease be contagious.

No patient can be landed without the consent of the doctor of the Health Department with the exception of accident cases that require immediate medical attention, and even in those cases the Health Department Doctor must be informed in order to issue a Sanitary Pass for the Hospital where the man was taken to.

If a Master does not report the existence of illness on board he is liable to fines which are double if patients land without the consent of the Sanitary Authorities.

RADIO:

Notice to Mariners:

Official Uruguayan Notices to Mariners are transmitted in Spanish only preceded by the signal TTT, the number of the Notice, letter R, then contents and are repeated for 15 days. Should there be no Notices to transmit, the wording "no hay avisos para navegantes" will be radioed.

Punta Carreta CWF 2768.5 kHz. A3 0.4 kW. at 0003, 1403 and 1903 hrs. (after the weather forecast).

Cerrito CWA on 4346, 8602,12750, 17208.8 kHz. A1 1.5 kW., also on 421.5 kHz. A1 and A2 5 kW. at 0000, 1400 and 1900 hrs. (after the weather forecast).

Montevideo CX 16850 kHz. A3 10 kW. at 1302 hrs. and 1602 hrs. on working days, at 1700 hrs. on Sundays.

Montevideo	CX 6	659 kHz	A3 2.5 kW.
	CX 26	1050	A3 all transmit Notices to Mariners at 1600 hrs.
	CX 38	1290	A3 5 kW.
	CXA 4	6125	A3 10 kW.
	CXA 6	9620	A3 20 kW.
	CXA10	11900	A3 20 kW.

Weather Forecast: A weather forecast is transmitted in Spanish to cover 3 zones. (See "Plans").

Reference AAA 830 is the Coastal area from Lat. 30° S., Long. 50° W. out to Lat. 30° S., Long. 46° W. and down to Lat. 33° 30' S., Long. 53° W. and Lat. 35° S., Long. 49° W.

AAA 860, River Plate zone from Lat. 33° 30' S., Long. 57° W. to Lat. 35° S., Long. 49° W. and down to Lat. 35° 30' S., Long. 57° W. to Lat. 39° S., Long. 53° W.

AAA 870 Coast of Argentina from Lat. 35° 30' S., Long. 57° W. to Lat. 39° S., Long. 53° W. and down to Lat. 41° S., Long. 62° W.

Details of all 3 zones are transmitted as follows, valid for 24 hours

CWA on 421.5 kHz. A1 5 kW. at 0001, 1400 and 1900 hrs.

CWF on 2768.5 kHz. A3 0.4 kW. at 0005, 1405 and 1905 hrs. and A1 over 4346 kHz, 8602 kHz, 12750 kHz and 17208 kHz.

Time Signals: Are transmitted from 2 stations in Montevideo at 1500 an 2000 hrs. The hour is indicated by 6 dots preceded by a 10 second das and a 5 second silence. The last dot indicates the hour.

CX 6 on 650 kHz. A3 25 kW.
CXA 6 9620 kHz. A3 20 kW.

Standard time is GMT minus 3 hours.

Direction Finding: There are 2 radio beacons specially for maritim navigation. Both operating on circular sweep from the lighthouses a Cape Polonio and Isla de Lobos.

Cape Polonio: Lat. 34° 24' 00" S., Long. 53° 47' 45" W. frequenc 295 kHz. A2 range 380 miles, and 500 kHz. A1 A2.

The signal is "P" repeated 3 times in 10 seconds followed b 18 dashes in 30 seconds, repeat "P" 3 times and 10 seconds silenc total period 1 minute. This is repeated 4 times after 5 minutes silenc total 10 minutes.

In good weather transmission must be requested from CWM 21 o 500 kHz. A1 A2. In fog, there is continuous transmission from the hou

Isla de Lobos: Lat. 35° 01' 33" S., Long. 54° 53' 17" W. frequenc 300 kHz. A2 range 380 miles. The signal "L" is repeated 3 times i 10 seconds, followed by 18 dashes in 30 seconds, repeat "L" 3 times silence 10 seconds. Total period 1 minute, repeated 4 times, the 5 minutes silence total period 10 minutes.

In good weather this transmission must be requested from CWM 2 on 500 kHz. A1 and A2.

In fog transmission is continuous from 05 minutes in each hour.

There are also the following airbeacons which can be used.

		S.	W.	kHz	
Colonia	COL	34° 27' 33"	57° 45' 49"	203	A2 0.075 kW. cont.
Montevideo	CAR	34° 46' 15"	56° 01' 28"	380	A2 0.05 kW. cont.
	CRO	34° 48' 55"	56° 01' 45"	305	A2 0.05 kW. cont.
	CRR	34° 49' 50"	56° 00' 15"	280	A2 0.05 kW. cont.
Gral. Artigas	GA	34° 45' 00"	55° 58' 00"	260	A2 0.05 kW. cont.
Punta del Este	CB	34° 55' 00"	54° 55' 00"	325	A2 occasional only.

GENERAL INFORMATION: *River Uruguay*

Rises in Brazil, and later separates Argentina and Uruguay. Its rig bank is generally low, wooded and swampy, the left bank high and hill Preparatory work has commenced on a large hydro-electric dam to b built at 332 km., above Concordia, which will take some years but wi contribute to a regularisation of the river, which at present rises and fal twice every year, with the varying rainfall seasons in its basin, so tha approximately half the year the water is low, usually from January t April and again in August. However, the wind also affects the depth o the water as in the River Plate, so that any seasonal forecast i impossible. A safe year round draft to Concepcion del Uruguay can b taken at 20 ft. 6 in., though vessels from time to time load to 22 ft. 6 i

The Ministry of Marine publishes fortnightly a bulletin with a information on depths of water in the channels, as well as of change in buoys, lights, etc.

Two new bridges communicating with Argentina now span th Uruguay River at Fray Bentos and Paysandu. The bridge at Fray Bent has a clearance of 36 m. over zero, and a main span of 220 m.

CARGO: Movement of Cargo

Once stevedores have come aboard, no cargo, either for the port o in transit, may be handled by the crew, as otherwise the vessel will b called on for high extra wages to stevedores. This also affects the lashin of transit cargo on deck.

Stevedores will not work in the rain, except when loading meat, earnin double wages while doing so. They can also be persuaded to hand baggage or mail.

When handling dusty cargo in general, or which gives off ammonia nicotine, or organic emanations, masks must be provided for stevedore use.

Overcarried Cargo

Cargo for Montevideo is often overcarried to Buenos Aires with th consequent delays in delivery and expenses for the vessel. Holds shou be carefully inspected as soon as discharge is said to have been finishe to avoid possible overcarrying.

Clean Receipt

Agents will advise if they wish to receive any cargo for which a clea receipt cannot clearly be given, otherwise the cargo should be rejecte Mate's receipts cannot be claused to cover any damage from ra wetting or other causes which might be sustained after the carg received on ship's tackle.

Bulk cargoes falling or drifting into water or on dock

When handling bulk cargoes vessels must place between the vess and the dock side a wooden scaffolding, with lateral boards, or str canvas to collect all material which is liable to fall into the water or to the Dock during handling. There is a heavy fine for non-complia

This should be remembered when writing charter parties, especi under FIO conditions, as this should be for account of shippers receivers.

Delivery of cargo from vessels

The cargo is discharged direct to Fiscal Warehouses, to lorries, ligh or wagons. When the cargo is delivered to Fiscal Warehouses, rec for this is given to the vessel's Agents by the Custom House offici charge of the Warehouse. If discharged to lighters the lighterman obt receipt from the Custom House official once the cargo is receive warehouse. When the cargo is delivered direct to Consignees' lo the receipt is given by special Custom House officials called "Ca Receivers".

The goods are delivered by the Custom House officials to Consignees against the presentation of the "transferencia" (tra ticket) signed by the Agents of the vessel. The Agents sig "transferencia", extended on stamped paper, against the Original B Lading, which must be legalised by the Uruguayan Consul at the of loading.

The steamship Agents must keep a special register of all "transferencias", and are responsible to the Authorities for keeping this register. Agents must retain Original Bill of Lading for cargo discharged, as it must be shown to the Customs Authorities immediately if demanded.

When the Consignees have not received the original documents and they wish to take delivery of the goods from the Custom House they must present a Bank guarantee, drawn up in accordance with the form approved by the Shipagents Association.

Cargo manifested to this country in transit to other countries without documents for Uruguay may not be re-shipped to other countries without government permission.

Marks on goods imported to Uruguay

By a Decree dated 30th January 1939, the Uruguayan Government decided that:

"Packages entering Bonded Warehouse, excepting those containing provisions or beverages, and excepting also 'Barraca' articles, shall be marked with the gross weight, the nett weight and corresponding measurement, in a clear and legible manner. These marks may be either 'fire-branded or printed'.

"The 9th August 1939, the Customs Authorities requested that marks and numbers of cases entering Montevideo warehouses should be placed on the extreme ends".

The Customs Authorities have also made known that it is necessary for the packages entering the warehouse to show their weight and measurement in the decimal-metric system.

The inspection of potato cargoes can be effected on board the carrying vessel, and if found in good sanitary condition, can be discharged direct to shore.

Opening and Closing of Hatches

This can be carried out by either crew or stevedores, and hatches must be kept closed when not in use.

Shipments of Meat

These are controlled by the Ministry of Agriculture, whose inspectors check ships' holds before shipment can commence. Holds must be clean and disinfected and temperature controlled to minus 1° to a maximum of plus 1° Celsius for chilled meat, or minus 10° for frozen meat.

Chilled is to be hung on hooks adjustable for height and space and stow of frozen must give a uniform distribution of weight. Alternatively, special cuts are packed and shipped in cartons.

Containers

Use of containers is very limited, since these must be opened up and emptied on the dock alongside, or even on board the vessel. The container itself is considered as part of the vessel's gear, and must be re-shipped without delay.

On rare occasions the Armed Forces have had containers moved out to their barracks.

Consular Dues

All ships arriving at Montevideo must pay Consular dues, with the following exceptions:

Ships that due to a change en route, or by special call of their Agents in Uruguay, during passage, arrive at Montevideo with the sole purpose of receiving orders, as long as no commercial operations are effected.

Ships arriving in distress and which leave port without effecting operations.

Ships arriving for the sole purpose of landing or embarking Pilot.

The Ministry of Foreign Affairs consider bunkering as an operation, therefore ships calling at Montevideo for bunkers must pay Consular dues.

Consular value of the Uruguayan Peso – For the payment of fees abroad, the Executive Power will fix periodically the respective values of the peso, in accordance with exchange fluctuations.

Hours of Attendance at the Uruguayan Consulates – The Office hours of the Consulates will be those fixed by the Government in agreement with the Consuls in each country, endeavouring in each case to have the same working hours as those of the Custom House and other Public Offices of each City. Outside these hours, overtime is charged.

Consular dues on Bills of Lading – When vessels load cargo for Uruguay at ports where there is no Uruguayan Consulate, these dues are collected when the vessel arrives at Montevideo or at any other Uruguayan port. The Agent then recovers these charges from the Consignees.

CREW:

Deserters – Masters and/or Agents must report any deserters when the vessel sails. The Maritime Authorities give intervention to the Police Department, and if the men are located, the Agents must hand them over to the respective Consuls. However, the Agents continue to be responsible before the Authorities for the ultimate repatriation of the men, which must be done at first opportunity.

Vessels are subject to a fine per man. The Agents have also to pay repatriation expenses, in cases where the respective Consuls will not do so.

They must also deposit a guarantee which can be used for repatriation expenses in case the deserter stays in the country for more than 15 days.

Time limit for getting crew members left behind out of the country – According to law, Agents must arrange that such crew members leave the country within 15 days. This period of grace commences as from the date of vessel's departure in respect of deserters and for those disembarked for medical treatment as from date on which they are medically certified as fit for travel.

Upkeep of men left in hospital or temporarily disembarked and traced deserters – The Agents are responsible for the maintenance of men disembarked for medical treatment, or temporarily with a special Immigration permit, and for deserters, until they leave the Country.

Stowaways – Masters of vessels having stowaways on board must report them to the Authorities, stating their name and port of embarkation. The stowaways must be kept on board. If they escape and are found after the vessel sails, Agents will be responsible for their repatriation and upkeep charges until they leave the Country. As with deserters, vessels with stowaways on board are liable to a fine per man if this regulation is not complied with.

Agents must also deposit a guarantee per man, amount to be used for repatriating the stowaway or for conveyance to the port of embarkation.

Landing members of crew – Paying off crew for other than medical assistance is not permitted, but exceptions are granted in special cases. An application must be presented by the Agents to the Immigration Department, and if the permit is granted, a formal declaration is signed by the Master of the vessel, the Agents, the Immigration Inspector and the person wishing to disembark, setting forth length of time he is going to remain in the Country and conditions of departure. The personal documents of the person allowed to land, remain in charge of the Immigration Board.

If any member of the crew is landed for medical treatment or paid off without the corresponding permit, the vessel will be fined.

Gangways and Rat-Guards

A gangway must be placed and ready after a vessel comes alongside the quay, but this must not be presented before coming in to the quay. Authorities will only come aboard by the gangways.

Gangways must also have a lifebuoy with suitable line attached and handy, and a safety net must be placed under the gangway, otherwise shore labour will not board vessels, with consequent delay.

The gangway must also be brightly illuminated at night; an oil lamp is not sufficient.

As soon as vessel is securely moored, regulation size (not less than 80 cm.) rat-guards must be placed on all ropes, wires, fenders, lines and hoses.

Heavy fines are imposed for non-compliance with any of these or other regulations.

Overside Discharges

All overside discharges from latrines, bathrooms, gallery, scuppers, engine room, etc. must be screened or covered when vessel is alongside the quay, as vessels will be fined if the discharge falls on the dock or gangway.

Adjustment of Compasses

Vessels proceeding through Magellan Straits – The disposition issued by the Chilean Shipping Authorities on 13th April 1953, states:

"When a foreign ship arrives at the Magellan Straits and applies for a Pilot, official or private, for navigating the Channels, the Pilot must first check the compass for deviations of more than 5°, and if such deviation has been determined more than 6 months ago, especially in a place with great difference of latitude or different hemisphere, compensation of compass is obligatory when not in true order, and a written declaration to this effect will be made in the pilotage agreement. The Authorities will also send an officer to verify that the compass is in satisfactory condition before entering the Straits".

To avoid probable delays, ships heading for the Straits can make the necessary compensation in the Port of Montevideo or in the ante port whilst waiting for orders for departure. This port is most convenient for this class of compensation because at the present moment there is no magnetic variation and also because it is a quiet harbour with sufficient depth for turning. A compass adjuster may be obtained at any time.

200 Mile Limit and Fishing

Uruguay has declared sovereignty over 200 miles off shore, reserving all fishing and undersea exploitation rights. A number of foreign flag vessels fishing without permits have been seized and heavily fined, their catch and gear being confiscated.

Permits are obtainable, but in no case for vessels over 500 tons gross, to operate within 60 miles from shore, while all activity in territorial waters (200 miles) is forbidden in the months of May and June.

Garbage

Garbage is collected every morning by truck. There is a strict prohibition of dumping anything into the port, and oil tanks must not be cleaned within 30 miles of the coast, and on a falling tide.

Old dunnage should not be dumped or sold, without permission from the Authorities, through Agents.

Ships' Boats

Use of ship's boats is forbidden within the port, unless they are being lowered, with prior permission, for maintenance or exercises.

Fenders

All vessels must have at least 2 large fenders, to keep them 5 ft. or more off the quay. If the vessel has no fenders, or due to deck cargo cannot use them Agents should be warned in advance to rent the necessary equipment and have it ready on arrival.

Dropping Anchor when Berthing

If an anchor is dropped when approaching a dock to berth, to control the vessel as she moves in, it is essential that the anchor should be hove in again once the ship is moored. Port regulations require this and any damage to other craft, real or imaginary, through fouling anchor or chain, would cause considerable trouble.

SYSTEM OF CONTROL CENTRES AND MARITIME INFORMATION (COASTAL STATIONS FP-FT-FW, VHF-FM):

Legal Basis

(a) System of Control and Information of Movement of the Port of Montevideo and its zone of influence made operative on 9/4/75. (Maritime Regulation No. 1).

(b) Control Centre and Information of the Maritime Movement of the Port of Colonia and its zone of influence made operative on 23/9/76. (Maritime Regulation No. 3).

(c) Control Centre and Information of the Maritime Movement of the Port of Nueva Palmira and its zone of influence made operative on 1/10/76. (Maritime Regulation No. 4).

(d) Control Centre and Information of the Maritime Movement of the Port of Punta del Este and its zone of influence made operative on 2/1/77. (Maritime Regulation No. 5).

(e) Control Centre and Information of the Maritime Movement of the Western Coast and its zone of influence made operative on 27/4/78. (Maritime Regulation No. 11).

(f) Control Centre and Information of the Maritime Movement of the Port of La Paloma and its zone of influence made operative on 1/11/78. (Maritime Regulation No. 12).

Note: In all the creations of the Control Centres, due account was taken of Programmes 1.09 and 3.08 corresponding to Law 14.106 and Sub-Programmes: "Maritime Police" and "Direction of Mercantile Marine".

(g) Control and surveillance of fishing vessels in the various fishing areas within the waters in the jurisdiction of the P.N.N. – Sources: Laws Nos. 14.145, 14.521 and 14.106 of the P.N.N. – Programme 1.09. (Maritime Regulation No. 2).

(h) Equipment which fishing vessels under the Uruguayan flag must possess when they operate in the common fishing zone between the Eastern Republic of Uruguay and in the Uruguayan fishing areas proper.

Sources: Maritime Regulation No. 2 of the 23/7/76. Decree of Co-ordination of Punta del Este of 27/1/76 (P.N.N. – P.N.A.). (Maritime Regulation No. 6).

(i) Equipment which vessels and/or craft in the coasting trade, pleasure craft, passenger vessels and working boats must carry where they operate in the Ports of the Republic and Navigate in the River Uruguay. (The zone between International Bridges and the Salto Grande).

Sources: Appendix 18 MAR 2 of the Radio communications regulation of the UIT and the Agreement arising from the meeting between Uruguay and Argentina (Buenos Aires 9/76) in respect of the use of VHF and FM channels and Maritime Regulations No. 1 to 6 of the P.N.N. – (Maritime Regulation No. 7).

(j) Law covering the control of pollution: Sources: Law No. 13.833 of the 29/12/69 and in particular articles 2 and 12 of the said Law. Chapter IX Pollution – (Articles 47 to 52) of the Treaty of the River Plate and its Maritime Frontage and Regulation of 28/10/74 of the Prefecture of the Port of Montevideo (Maritime Regulation No. 8).

(k) Zones for lightening ships and complement of cargo: Sources: Resolutions No. 2 and 4 of the Administrative Commission of the River Plate of dates 30/9/77 and 26/10/77 as laid down in Article 28 of the Treaty of the River Plate and its River Frontage and established transitorily in the Article 88 of the said treaty (Maritime Regulation No. 9).

(l) "LASH" – Type Operations: Sources: Resolution No. 1/2/78 of the Administrative Commission of the River Plate, Chapter IV. Articles 24 and 27 (Port Facilities, lightening operations and complements of cargo) of the Treaty of the River Plate and its maritime frontage (Maritime Regulation No. 10.).

(m) Agreement on the International Regulation for preventing unauthorised boarding.

(n) The Treaty of the River Plate and its Maritime Frontage.

(o) The Statutes of the River Uruguay.

(p) The International Agreement for the Safety of Human Life at Sea – 1974.

(q) Regulation of Radio-communications of the International Union of Telecommunications (UIT) and nomenclatures.

Particulars of the System

1. AIMS OF THE SYSTEM OF CONTROL CENTRES

(a) To effect positive sovereignty over the Area of the System:
  1. Territorial Sea
  2. River Plate
  3. River Uruguay
  4. Merin Lagoon

(b) To offer support to the National Mercantile Navigation and of third parties, complying with the objectives as propounded by the International Maritime Organisation (IMO) and by the International Telecommunications Union (UIT).

(c) To serve as a chain of Control Towers, effecting control and information of Movement of vessels and Port Operations.

(d) To co-ordinate with Public and Private Institutions who operate within the Ports of the Republic, to facilitate and activate port operations, avoiding delays and inconvenience.

2. GENERAL FUNCTIONS

The General functions of the Centre are:

(a) To maintain real and efficient control of the movement of vessels, in the area of application of the system in order:
  1. To prevent collisions between vessels.
  2. To alert the systems of Search and Rescue and/or Salvage in the event of vessels requiring assistance.
  3. To facilitate BYR operations.

(b) To maintain real and orderly control of the operations in the ports to:
  1. To prevent groundings and collisions with obstacles in port works:
  2. To have prepared emergency plans for cases of disasters and maritime accidents within the Ports and International Bridges (River Uruguay).

(c) To maintain up-to-date information concerning the state of the weather, lighting and all other matters contributing to the safety of navigation and operations in the area.

(d) To maintain up-to-date information for Maritime Agencies and/or Owners, providing such information to facilitate and activate port operations to be effected by vessels, obviating delays and inconvenience at all times.

(e) To serve Public and/or Private Institutions who operate in th Ports, collecting, classifying, analysing, evaluating an disseminating all the necessary information for the better fulfilme of port service.

(f) To comply with all other functions which are specified by th Mandate and to co-operate with Public Authorities an organisations in all matters relating to its functions.

3. CONTROL AND INFORMATION FROM THE CENTRES

The system belongs to the National Navy and is controlled by th National Navy Prefecture. It is directed from the Montevideo Contro Centre.

(a) Control of Movement of Vessels – Control of vessels navigatin within the Vessel Movement Areas.

(b) Control of Port Operations – Control of vessels manoeuvrin within the ports of the Republic, including roads and acces channels.

(c) Control of International Bridges – Control of vessels navigatin in the International Bridges Zone – Gral. Jose Artigas Bridge a Paysandu, and Gral. San Martin Bridge at Fray Bentos.

(d) Vessel Movement Service – Maritime Mobile Safety Servic between coastal stations and vessels or between vessels, wher the messages refer solely to vessel movement.

(e) Port Operation Service – Maritime Mobile Service in a port or i its district, between coastal stations and vessels, where th messages refer solely to vessel operations, movement and safet and, in the event of emergency, to safeguarding persons.

4. ZONES OF CONTROL AND INFORMATION OF THE CONTRO CENTRE SYSTEM

(a) Port of Montevideo (Deep Sea – Coasting – Fishing).
  1. "Alpha" – Control and information of vessel movement.
  2. "Bravo" – Control and information of port operations.

(b) Port of Buceo (Pleasure Craft).
  1. "Oscar" – Control and information of port operations.

(c) Port of Santiago Vazquez (Pleasure Craft – Coasting).
  1. "Papa" – Control and information of port operations.

(d) Port of La Paloma (Fishing Centre).
  1. "Kilo" – Control and information of movement of vessels.
  2. "Lima" – Control and information of port operations.

(e) Port of Punta del Este (Fishing – Pleasure Craft).
  1. "Golf" – Control and information of vessel movement.
  2. "Hotel" – Control and information of port operations.

(f) Port of Piriapolis.
  1. "Tango" – Control and information of port operations.

(g) Port of Colonia (Passage port to Buenos Aires).
  1. "Charlie" – Control and information of vessel movement.
  2. "Delta" – Control and information of port operations.

(h) Port of Sauce (Coasting).
  1. "Uniform" – Control and information of vessel movement an of port operations.

(i) Port of Nueva Palmira (Deep Sea).
  1. "Echo" – Control and information of movement of vessels.
  2. "Foxtrot" – Control and information of port operations.

(j) Port of Carmelo (Pleasure Craft – Coasting).
  1. "Quebec" – Control and information of port operations.

(k) Port of Fray Bentos (Overseas – Navigation – Internatio Bridges).
  1. "India" – Control and information of the movement of vesse
  2. "Juliet" – Control and information of port operations.

(l) Puerto Paysandu (Overseas – Navigation – Internatio Bridges).
  1. "Mike" – Control and information of the movement of vesse
  2. "November" – Control and information of port operations.

(m) Puerto Salto (Coasting – Pleasure Craft – Passages).
  1. "Romeo" – Control and information of the movement o vessels.
  2. "Sierra" – Control and information of port operations.

5. COMMUNICATIONS

All Centres maintain permanent listening on Channel 16 (VHF – F

(a) *Language:* The language used in communication is Spanish. Vessels who have difficulty in communicating in Spanish ma do so in English, and if there are problems in hearing prope they may use the groups of the International Code Signals, Tabl of Spelling equivalents and Numbers, or "Q" Code.

(b) *Channels – Frequencies and Usages:* There will be those a defined by Appendix 18 Mar 2, of the Radiocommunicatio Regulations of the International Telecommunications Uni published by the General Secretary of the UIT in Geneva 19 and the points agreed in the Uruguay – Argentina Meeting, carr out in the City of Buenos Aires 9/76, use of the VHF Chann (Band 156 – 174 MHz.).

Channel	*Frequencies*	*Usage*
6	156.300 MHz.	Bridge to Bridge.
8	156.400 MHz.	Port Operations.
9	156.450 MHz.	Port Operations.
11	156.550 MHz.	Transmission from the Centres in fulfilme of objectives.
13	156.650 MHz.	Transmission from the Centres in fulfilme of objectives.
15	156.750 MHz.	Meteorological Bulletins and Warnings t Navigators.
16	156.800 MHz.	Calling up and Security.
18	156.900 MHz. Reception	Jose Ignacio Oil Terminal.
	161.500 MHz. Transmission	Jose Ignacio Oil Terminal.

Should problems arise with VHF equipment on vessels (the rang same, out of service, etc.) communications should be effected o or on HF with the Safety Coastal Stations of the P.N.N.

The services and frequencies of the Coastal Stations are described in the tables at the end of "Uruguay General" Section.

Vessels who, for some reason or other cannot effect communications by radiotelephone (VHF, HF, MF), should do so by radiotelegraphy through the intermediary of the Coastal Station (open to public correspondence) Cerrito Radio CWA.

Radiotelegrams should be sent in time to the telegraphic address Comopre.

(c) *Listening Out by Vessels:*

1. *All vessels* in Uruguayan judicial waters must maintain permanent listening watch on Channel 16 (VHF – FM) except when they are moored in port. If there are problems on VHF they should listen out on 2182 or 4125 kHz.
2. When a vessel cannot, due to any fault of whatever nature, maintain listening watch on Channel 16, she should pass to Channel 11 or 13, but advise the Control Centre first.
3. In the various zones, the vessels must use as a working channel to communicate with the Zone Centre, the frequency which the Control Centre will indicate to them on Channel 16.
4. In all the ports of the Republic, vessels and/or craft in the coasting trade, pleasure craft (Categories A and B), passenger craft and traffic units (tugs, dredgers, launches, lighters, etc.) must be equipped with a VHF – FM transmitter and receiver for local communications with Port Controls, Appendix 18 Mar 2 of the Radiocommunications Regulations of the International Telecommunications Union.
5. *All vessels or craft* navigating or carrying out operations within 25 miles or more of the coast, must be equipped with a BLU transmitter and receiver (with corresponding frequencies) of 150 watts effective power and A3A and A3J type transmission.

(d) *Services and Frequencies of the FP, FC and FW Dependent on the P.N.N.*

Coastal Station (FC), Station for Port Operation (FP), Station for Service of Vessel Movement (FT), Station which is both for Port Operations and for Service of Vessel Movement (FW).

(e) If in fulfilment of the regulations set out by this System, vessels on calling up the Control Centre cannot obtain a reply, they should immediately make the communication in question to the Director of the System (telegraphic address: Comopre) by radiotelegraphy or radiotelephony via Cerrito Radio (CWA) or Punta Carretas Radio (CWF) respectively.

Communications to Centres:

1. From Vessels in the Zone.
   (a) Position on entering and leaving each Zone of Vessel Movement (Flag, Name, International Call Sign, Where From, Where Bound, Latitude, Longitude, Course, Speed and Maximum Draft).
   (b) ETA at next port.
   (c) Problems with characteristic aspects during navigation.
   (d) If anchoring or raising anchor at any point in the Control Zone of Vessel Movement, it is necessary to ask for authorisation when this is done within Port Operation Zones, and also whenever any manoeuvre is intended to be carried out, and this authorisation expiring within twenty (20) minutes from its request.
   (e) Any damage suffered by the vessel.
   (f) Assistance given to damaged vessels or those in difficulty.
   (g) Any indications of dangerous obstacles to navigation which are not duly indicated by buoys and lights.
   (h) Any serious reduction in visibility.

2. Pilotage:
   (a) Whatever is specified in the General Pilotage Regulations.
   (b) Time of embarkation and/or of disembarkation.
   (c) Request of Master concerning change, mooring, etc.
   (d) Difficulties in pilotage.

3. Concerning the Owner or Agent:
   (a) Monthly list of expected vessels.
   (b) Confirmation of arrival of vessels 24 hours in advance.
   (c) News concerning vessels being delayed or arriving early.
   (d) Information if the vessels are carrying hazardous cargo (explosives or inflammables) 24 hours in advance of arrival, including any such cargo in transit, mentioning:
      (i) The amount and location of such cargo.
      (ii) The correct technical name of the substance (the designation used for transportation purposes), the UNO number (if this is given), classification in the IMDG Code (if this is given), the flash point (if applicable) and quantity.
      (iii) The presence or otherwise on board of a Certificate which is valid showing the ability of the vessel in respect of the cargo which it is carrying (only for hazardous substances carried in bulk);
      (iv) The stowage of hazardous cargo on board, indicating those which have to be unloaded and those which have to remain on board;
      (v) The condition in which the hazardous cargo is and any defect which is known in respect of packages or drums, together with the system of containing and handling of the cargo, of the equipment and instruments used (when hazardous bulk cargo is involved), which may engender excessive risk.
      (vi) Any known defect which may effect considerably the safety of navigation.

(f) *Communications from the Centres:*

1. To vessels (navigating towards Uruguayan Ports).
   (a) The quay at which they will berth.
   (b) The Pilot who will assist the vessel.
   (c) Any information from the Maritime Agent with regard to future operation.
2. To the Pilot:
   (a) Tugs and cable launches who will assist him.
   (b) Defences on the sea wall.
   (c) Bitts which the vessel will use.
3. To the Owner or Agent:
   (a) Position of their vessel.
   (b) ETA.
   (c) Conditions of cargo.
   (d) Time at which the Pilot will go on board.
   (e) Time of berthing.
4. To the Centre Director of the System (Control Centre and Information of the Maritime Movement of the Port of Montevideo) immediately any information is obtained with regard to:
   (a) A BYR incident or any difficulty which is presented to a vessel.
   (b) A deep sea or coasting vessel (data concerning Naval Messages in accordance with the Abbreviated Code).
   (c) A fishing vessel, with the Naval Message data being as follows:
      - Where from, Flag, Name, International Call Sign, Month, Day and Hour of sailing, Position (for Customs Clearance), Month, Day and Hour of Position, Activity (fishing or bound for Port).
      - Arrival, Flag, Name, International Call Sign, Month, Day and Hour of Arrival, Port of Arrival.
      - Fishing or within the Zone, or the Port, Flag, Name, International Call Sign, Position, Month, Day and Hour of Position ETA (if it is within the Zone or the Port).

(5) To the adjacent Control Centre:

When a deep sea or coasting vessel sails from a port controlled by the Control Centre, or when this vessel effects a passage to the Vessel Movement Zone controlled by that Centre, this must be informed to the adjacent Control Centre (according to the course of the vessel) stating ETA and the Zone of Vessel Movement of this adjacent Centre.

Note: The Control Centres will effect communications by Naval Message. These Naval Messages must be sent immediately after receipt from vessels or when such information comes to hand from other sources.

(Naval Messages in this context will have Priority Precedence).

(6) Command of to the Naval Control of Maritime Traffic in Uruguay (Contramu). Immediately on receipt all information specified in item (f) – Number (4).

(g) *Communications from Coastal Stations (Vessel Movements – FT, MF-HF)*

1. To the Centre Director of the System (Control Centre and Information of the Maritime Movement of the Port of Montevideo). Immediately on receipt all information specified in Item (f) Number (4).
2. To the Control Centre with responsibility over the zone to which a message refers.

The same as those quoted in the preceding Number 1.

6. FISHING VESSELS:

(a) All fishing vessels clearing entry or departure from any national port towards the different Fishing Areas must communicate to the Maritime Authority the following:

1. On Sailing:
   a. Flag (FL)
   b. Name of Ship (SHP).
   c. International Call Sign (IND).
   d. Port of Departure (DEP)
   e. Month, day and hour of departure (TOD).
   f. Destination (Indicate Fishing Zone and Position) (DST).
   g. Month, day and hour estimated at arriving at the Fishing Zone (ETA Z/P).
2. On Arrival:
   a. Flag (FL).
   b. Name of Ship (SHP).
   c. International Call Sign (IND).
   d. Port of Arrival (PORT).
   e. Month, day and hour of arrival (ARR).

(b) All fishing vessels *navigating* must communicate every 6 hours with the Safety Coastal Station of the National Naval Prefecture of the Eastern Republic of Uruguay which is nearest to them (or to which they are listening) giving the following information:

1. International Call Sign (IND).
2. Position in Latitude and Longitude (POS).
3. Month, day and hour of the position (DHPOS).
4. Port of Destination (DET).
5. Activity: (Fishing – Coming to Port – Going to Zone) (ACT).

(c) *Normal Fishing Zones:*

1. High Seas Zone (Altamar): Zone which is outside the judical waters and within the Common Fishing Area.
2. Common Fishing Area (ZOCOPES): Art. 73 of the River Plate and Territorial Sea Treaty.
3. The Zone of the River Plate (RIPLATA).
4. The coastal Zone of the Atlantic Ocean (COSATLAN): Zone included between our coast on the Atlantic Ocean and a Line 12 miles out.
5. Zone of the River Uruguay (RIURU).
6. Zone of the Merin Lagoon (LAMERIN).

(d) Uruguayan Fishing Vessels which are *navigating* in the Common Fishing Area (Uruguay – Argentine) within the Sector of Argentine Jurisdiction are obliged to communicate its position to the Argentine Maritime Authority. Communications will be made on frequency 3860.6 kHz. to the Coastal Safety Station of the Prefecture of the Mar del Plata.

(e) *Note:* Information to be communicated: All the communications as specified in (b).
All fishing vessels must *listen out permanently* on Channel 16 (VHF – FM), except when they are moored in port. If they are at a distance from the coast which prevents a safe communication on VHF, listening must be effected on 2721.5 kHz. Those effecting operations 25 miles or more from the coast, must be equipped with a BLU transmitter and receiver (with the corresponding frequencies) with 150 watts effective power and type of transmission A3A and A3J, and also fishing vessels must be equipped with a receiver on 2721.5 kHz.

(f) Vessels, after prior request to the Control Centre covering them, may pass to Channel 6 or 8, and keep on those *only for the necessary time* for Fishing Manoeuvres, after which they must return to Channel 16, and advise the Centre accordingly.

7. HYDROCARBONS: It is prohibited to pour hydrocarbons or residual matter arising from the washing of tanks, clearing of bilges and ballast in general or any other action capable of having contaminary effects in waters within the territorial sea of Uruguay with the exception of the zone which is:
   - (a) Outside the limits of the River Plate.
   - (b) Outside 100 miles of the Uruguayan Territorial Waters, i.e. 100 miles out from the Atlantic Ocean coast.
   - (c) Outside the Prohibition area for contaminatory action (Article 78 of the River Plate Treaty).

8. ZONES OF OPERATION FOR LIGHTENING AND COMPLEMENT OF CARGO:
The zones of operation for lightening and complement of cargo are as follows:
Zone "A": Between the Parallels of Lat. South 35° 04' and 35° 08' and between the Meridians of Long. West 56° 00' and 56° 02'.
Zone "B": Between the Parallels of Lat. South 35° 30' and 35° 33' and between the Meridians of Long. West 56° 30' and 56° 38'.
Zone "C": Between the Parallels of Lat. South 35° 35' and 36° 06' and between the Meridians of Long. West 56° 30' and 56° 38'.
Zone "D": Between the Parallels of Lat. South 35° 04' and 35° 06' and between the Meridians of Long. West 56° 11' and 56° 16'.

9. OPERATIONS OF LOADING AND UNLOADING "LASH" TYPE VESSELS:
The operation of loading and unloading "LASH" type vessels for the national territory, on the one hand may be effected apart from within the lightening and complement of cargo areas in ports, also in the corresponding roads.

10. TRANSFER OF VESSELS:
The transfer of vessels between roads and lightening areas and for complement of cargo purposes, will be effected under pilotage and tug control using the Port Services from which the barges in question have come.

CONTROL CENTRES:

Control Centre and Information of Maritime Movement of the Port of Colonia.

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS.

(a) The Centre is controlled from the Prefecture of the Port of Colonia, within the free zone of the Port, located in the main building of the free Port zone of Colonia (Latitude 34° 28' 28" S., Longitude 57° 57' 38" W.).

(b) The call sign of the Control Centre is CWC 23, and for calling up purposes it is possible to use CONTROL COLONIA PREFECTURE.

(c) The Control Centre of the Port of Colonia is located in the Prefecture of the Port of Colonia.
The Prefecture of the Port of Colonia is a dependency of the National Naval Prefecture (2nd Circumscription).
Telephone No. of the Control Centre – 688.
Address – Boulevard Espana 2054 (Department of Colonia).

AREAS OF CONTROL.

(a) The Control Centre and Information of Maritime Movement, covers:
1. Zone "CHARLIE". The area of the River Plate marked by the Meridians which pass through Martin Chico Point (Longitude: 58° 12' 30" W.) and Punta Rosario (Longitude: 57° 21' W.) and the middle line equidistant from both coasts (Law 14.145/74 – "Treaty covering the Limits of the River Plate"), with the exception of the area of water included between the imaginary line which joins San Carlos Point; Lopez West Island; Farallon Island; the Green Buoy of Vienna, Parallel 34° 30' S., the Meridian which passes through Riachuelo Point Longitude: 57° 43' 18" W., and the coast ("DELTA" AREA).
2. "DELTA" area. Area of the River Plate, limited by the imaginary line which joins San Carlos Point; Lopez West Island, Farallon Island; the Green Buoy of Vienna, Parallel 34° 30' S., the Meridian which passes through Riachuelo Point Longitude: 57° 43' 18" W., and the coast.

(b) The Control Centre and Information of Maritime Movement of the Port of Sauce covers:
1. "UNIFORM" zone. The area of the River Plate included between Meridians 57° 25' 48" W. and 57° 33' W., the coast and the parallel Latitude: 34° 29' 18" S.

COMMUNICATIONS TO THE CENTRE.

(a) From vessels.
1. In zone "CHARLIE". The Control Centre must be inform when the following points have been passed:
Punta Rosario
Puerto Sauce
Roca Barriles
Puerto Colonia
Km. 56.5 (Farallon Island)
Km. 71.3 (San Pedro Bar)
Km. 101 (Martin Chico Point)
In both Zones of Control the communications as designated following tables, must be effected.

(b) From the Director of Hydrographic Studies of the MTOP.
1. The place assigned for berthing or mooring.
2. Guard and order tugs (when these exist).

Control Centre and Information of the Maritime Movement of the Port of Fray Bentos

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS.

(a) The Centre is controlled from the Prefecture of the Port of Fra Bentos (Latitude: 30° 06' 50" S., Longitude 58° 18' 27" W.).

(b) The International Call Sign of the Control Centre and Informatio of the Maritime Movement of the Port of Fray Bentos is CWC 25 When calling up it is possible to use CONTROL FRAY BENTOS PREFECTURA.

(c) The Control Centre of the Port of Fray Bentos is located in the Prefecture of Fray Bentos (5th Circumscription P.N.N.).
Telephone No. of the Control Centre is 321.
Address: Luis A. de Herrera 1249 on the corner with 25 de Agost Fray Bentos Department of Rio Negro.

CONTROL AREAS.

(a) The Control Centre Information of the Maritime Movement of the Port of Fray Bentos covers:
1. Zone "INDIA" The area of the River Uruguay marked by the parallel 33° 30' S. (Punta Amarilla Km. 46) and the parallel 32 50' S. (Roman Island) navigable areas of the Rio Negro and San Salvador and the middle line equidistant from both coasts with the exception of the Port of Fray Bentos and the area of water marked by the port and maritime constructions (zone "JULIET").
2. Zone "JULIET". The port of Fray Bentos and the areas of water marked by the port and maritime constructions.

COMMUNICATIONS TO THE CENTRE.

(a) From vessels:
1. In zone "INDIA". The Control Centre must be notified during navigation when the following crossings are made:
Km. 46 (Punta Amarilla)
Km. 61 (Riacho Yaguari)
Km. 83 (Paso Barrizal)
Puerto Fray Bentos
International Bridge "General San Martin"
Km. 122 (Nuevo Berlin)
Km. 140 (Roman Island)
In both Areas of Control the designated frequencies are show in following tables.

THE BRIDGE ZONE

All vessels of 100 tons or more gross registered tonnage mus comply with the following instructions:

(a) Navigation day and night in both directions will be made under the bridges by the marked channel, in the central arch, betwee piles 10 and 11 in the Bridge "Libertador General San Martin".

(b) It is prohibited to cross or overtake between Km. 100 and Km. 102.5 and for this purpose the following passage priorities are established:
1. Those navigating downstream over those navigatin upstream.
2. Convoys with a tug either pulling or pushing have priority ove all vessels which include those that are navigatin downstream.

(c) The vessel or convoy which has to give way will wait outside th limits indicated in point (b). Between those limits it is prohibite to anchor for any cause, even though the channel is left free.

(d) Between the limits indicated in point (b), speed must be reduc to the minimum compatible with good steering and manoeuvrin

(e) In the zones included between the limits indicated in point (b) is prohibited to effect any form of dredging operation across th whole width of the river.

Control Centre and Information of the Maritime Movement of th Port of La Paloma

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS.

(a) The Centre is controlled from the Prefecture of the Port of La Paloma (Position: Latitude 34° 39' 30" S. and Longitude 54° 28" W.).

(b) The International Call Sign of the Control Centre and Informati of the Maritime Movement of the Port of La Paloma is CWC For calling up purposes "CONTROL LA PALO PREFECTURA" may be used.

(c) The Control Centre La Paloma is located in the Prefecture of Port of La Paloma (8th Circumscription P.N.N.)
Telephone No. of the Control Centre – 16.
Address – Avenida del Navio (Puerto de La Paloma) – Roc

CONTROL ZONES.

(a) The Control Centre and Information of the Maritime Movement of the Port of La Paloma comprises:

(1) Zone "KILO". Zone of the Atlantic Ocean (Territorial Sea) situated between the meridians 50° 50' and 54° 15' W., limited by the straight line 128° of the Chuy Lighthouse (lateral maritime limit with the Federal Republic of Brazil – Law 14.163) and to the South by the lateral maritime Argentine–Uruguay limit (Law 14.145/974). – "Treaty of Limits of the River Plate". Art. 70), with exception of the Port of La Paloma, between the coast and an imaginary line which goes between the end of the breakwater towards the Eastern point of the Costa Azul (Zone "LIMA"). Zone "LIMA".

(2) Zone "LIMA". Port of La Paloma, zone situated between the coasts and an imaginary line which goes from the end of the breakwater to the Eastern point of Costa Azul.

COMMUNICATIONS TO THE CENTRE.

(a) From vessels to:

(1) In Zone "KILO" – The Control Centre must be informed during navigation when the following points are crossed:

The Lighthouse Chuy
The Lighthouse Cabo Polonio
The Lighthouse Santa Maria

(2) In Zone "LIMA"
During navigation in the Access Channel and within the Port when the Port jetty small light is passed.

Also, in both control zones the communications shown in the following tables must be effected.

(b) From the Hydrographic MTOP Directorate:

(1) Place assigned for berthing or mooring.
(2) Guard or order tugs (when they exist).

Control Centre and Information of the Maritime Movement of the Port of Montevideo.

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS

(a) The Centre is controlled from the National Naval Prefecture, located on the Floors 11, 12 and 13 of the General Command Tower of the Navy (Customs Building Lat. 34° 54' 03" S., Long. 56° 12' 44" W.).

(b) The International Call Sign of the Control Centre and Information of the Maritime Movement of the Port of Montevideo is CWC 39. In calling up it is possible to use "CONTROL MONTEVIDEO PREFECTURA".

(c) The Call Sign of the Control Centre of the Port of Buceo is "CONTROL BUCE PREFECTURA".

(d) The Call Sign of the Control Centre of the Port of Santiago Vazquez is CWC 38.
In calling up it is possible to use "CONTROL SANTIAGO VAZQUEZ PREFECTURA".

(e) The Control Centre of the Port of Montevideo is located in the building of the Navy General Command.
Telegraphic Address – "Comopre" (Control Montevideo Prefectura).
Telephones – 95.51.01 – 95.24.77 – 95.62.53.
Telex UY 929
Address – Rambla 25 de Agosto de 1825.

ZONES OF CONTROL.

(a) The Control Centre and Information of the Maritime Movement of the port of Montevideo covers:

(1) Zone "ALFA". Zone of the River Plate situated between the Uruguyan coast and the meridians 55° 30' and 57° 21' W., and to the South to the limit of the River Plate with the Argentine Republic (Law 14.145/74 "Treaty of Limits of the River Plate").
With the exception of the areas of water included:
(a) Between the meridians which pass through Punta Sayago and Punta Brava, the coast and the parallel of Latitude 35° 01' S. (Zone "BRAVO").
(b) Between the meridians 56° 00' and 56° 09' W. and the parallel 34° 57' S. (Zone "OSCAR").
(c) Between the meridians 56° 20' and 56° 40' W. and the parallel 34° 56' S. and the coast (Zone "PAPA").

(2) Zone "BRAVO". Zone of the River Plate included between the meridians which pass through Punta Sayago and Punta Brava, the coast and the parallel of Latitude 35° 01' S., including the Access Channel to the Port of Montevideo, Foreport, Docks, Channel or Inflammable Cargo Docks (ANCAP).

(b) The Control Centre and Information of the Port of Buceo includes:
(1) Zone "OSCAR". Zone included between the meridians 56° 00' and 56° 09' W. and the parallel 34° 57' S.

(c) The Control Centre and Information of the Maritime Movement of the Port of Santiago Vazquez includes:
(1) Zone "PAPA". Zone included between the meridians 56° 20' and 56° 40' W. and the parallel 34° 56' S. and the coast. It includes the Port, Anchorages and all areas of water.

COMMUNICATIONS FROM THE CENTRE

(a) To the National Administration of Ports (A.N.P.).
(1) Time of arrival of each vessel (ahead of time or delayed).
(2) Movement of tugs.
(3) Information from Masters of vessels on his cargo or changes in his berth.

(b) To the Argentine Naval Prefecture:
(1) ETA of vessels which are going to Argentine Ports or to Coastal Ports.

COMMUNICATIONS TO THE CENTRE.

(a) From the National Ports Administration (A.N.P.)
(1) Designation of berths prior to 1700 hrs. on the previous day.
(2) Tugs and launches for guard and order purposes.
(3) Departures for Deep Sea and Coasting vessels.

(b) From the vessels:
(1) In Zone "ALFA". The Control Centre must be informed during navigation when the following points are passed:
(a) To the West of the Access Channel to the Port of Montevideo.
1. By Middle Channel:
The *Graf Spee*
The Panela Lighthouse
The Uruguayan Banco Ortiz Buoy
The Argentinian Banco Ortiz Buoy
2. By North Channel:
The *Graf Spee*
The Panela Lighthouse
The Jesus Maria Buoy
The Arazati Point
The Puerto Rosario.
(b) To the East of the Access Channel to the Port of Montevideo.
Punta Brava
Isla de Flores
(2) In Zone "BRAVO".
During navigation in the Access Channel:
The Eje Buoy
The Jetty

In both areas of control the communications as designated on the following tables should be effected.

Control Centre and Information of the Maritime Movement of the Port of Nueva Palmira.

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS.

(a) The Control Centre is controlled from the Sub-Prefecture of Nueva Palmira (Position Lat. 33° 52.7' S., Long. 58° 25.3' W.).

(b) The International Call Sign of the Control Centre and Information of the Maritime Movement of the Port of Nueva Palmira is CWC 31 and when calling up it is permitted to use "CONTROL NUEVA PALMIRA PREFECTURA".

(c) The Control Centre of the Port of Nueva Palmira is located in the Sub-Prefecture of Nueva Palmira.
The Sub-Prefecture of Nueva Palmira is a dependency of the Prefecture of Colonia (2nd Circumscription P.N.N.).
Telephone No. of the Control Centre – 139.
Address – Port Area – Nueva Palmira – Department of Colonia.

AREAS OF CONTROL

(a) The Control Centre and Information of the Maritime Movement of the Port of Nueva Palmira cover:

(1) Zone "ECHO". Zone of the River Plate and the River Uruguay is marked by the meridian 58° 12.5' W., (Punta Martin Chico Km. 101) and the parallel 33° 30' S., (Punta Amarillo Km. 46) and the middle line equidistant from both coasts with the exception of the Port of Nueva Palmira and the area of water limited by the port constructions (zone "FOX-TROT").

(2) Zone "FOX-TROT". The Port of Nueva Palmira and the areas of water limited by the port constructions (official quay, the Bed of the Company Navigen and the Higueritas Dock).

COMMUNICATIONS TO THE CENTRE:

(a) From Vessels:
(1) In zone "ECHO", the Control Centre must be informed during navigation of the following crossings:
Km. 101 (Punta Martin Chico),
Km. 121 (Sola Island).
Puerto Nueva Palmira.
Km. 22 (Punta Arenal Grande).
Km. 46 (Punta Amarilla).

In both Areas of Control, the communications as shown in following tables must be effected.

Control Centre and Information of the Maritime Movement of the Port of Paysandu.

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS:

(a) The Centre is controlled from the Prefecture of the Port of Paysandu, located in the main Customs building (32° 18' 06" S., 58° 05' 08" W.).

(b) The International Call Sign of the Control Centre and Information of the Maritime Movement of the Port of Paysandu is CWC 32, and when calling up it is possible to use "CONTROL PAYSANDU PREFECTURA".

(c) The Control Centre and Information of the Maritime Movement of the Port of Paysandu is a dependency of the Prefecture of the Port of Paysandu (6th Circumscription P.N.N.).
Telephone No. of the Control Centre – 3099.
Address – Presidente Viera and Avenida Brasil – Paysandu (City).

CONTROL AREAS:

(a) The Control Centre and Information of the Maritime Movement of the Port of Paysandu covers:

(1) Zone "MIKE". The area of the river Uruguay marked by the parallel 32° 50' S. (Roman Island) and parallel 31° 53' S. (the mouth of the Malo Stream Km. 257 approximately) and the middle line equidistant from both sides with the exception of the zone included between the parallel 32° 20' S. (the mouth of the Stream "Sacra") and the parallel 32° 14' S. and the mouth of the Stream "San Francisco". (Zone "NOVEMBER").

(2) Zone "NOVEMBER". The area of the River Uruguay limited by the parallel 32° 20' S. which passes through the mouth of the Stream "Sacra" up to parallel 32° 14' S. which passes through the mouth of the Stream "San Francisco".

COMMUNICATIONS AT THE CENTRE:

(a) From vessels:

(1) In zone "MIKE" – The Control Centre must be notified during navigation when the following crossings are made:
Km. 140 (Roman Island)
Km. 160 (San Javier)
Km. 183 (Concepcion del Uruguay)
Punta "N" Almiron Island
Puerto Paysandu
International Bridge "General Artigas"
Punta Piedras
Arroyo Malo

In both Areas of Control the communications are shown in the following tables.

THE BRIDGE ZONE.

All vessels of 100 tons or more gross registered weight must comply with the following instructions:

(a) Navigation both by day and night in both directions will be made under the bridges by the marked channel, in the central arch, between piles 11 and 12 in the bridge "General Artigas".

(b) It is prohibited to cross or overtake between Km. 208 and 211. For this purpose the following passage priorities are established:
(1) Those navigating downstream over those navigating upstream.
(2) Convoys with a tug either pulling or pushing have priority over all vessels which include those that are navigating downstream.

(c) The vessel or convoy which has to give way will wait outside the limits indicated in point (b). Between those limits it is prohibited to anchor for any cause, even though the channel is left free.

(d) Between the limits indicated in point (b) – speed must be reduced to the minimum compatible with good steering and manoeuvring.

(e) In the zones included between the limits indicated in point (b) – it is prohibited to effect any form of dredging operation across the whole width of the river.

Control Centre and Information of the Maritime Movement of the Port of Punta del Este and Piriapolis.

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS:

(a) The Centre is controlled from the Prefecture of the Port of Punta del Este (Lat. 34° 57' 48" S., Long. 54° 57' 06" W.).

(b) The International Call Sign of the Control Centre and Information of the Maritime Movement of the Port of Punta del Este is CWC 34.
For calling up purposes it is possible to use "CONTROL PUNTA DEL ESTE PREFECTURA".

(c) The Call Sign of the Control Centre of the Port of Piriapolis is CWC 33.
For calling up purposes it is possible to use "CONTROL PIRIAPOLIS PREFECTURA".

(d) The Control Centre of the Punta del Este is located in the Prefectura of the Port of Maldonado (3rd Circumscription P.N.N.)
Telephone No. of the Control Centre – 4.18.84.
Address – Calle 8 and 13 (Department of Maldonado).

(e) The Control Centre of the Port of Piriapolis is located in Sub-Prefecture of the Port of Piriapolis (3rd Circumscription P.N.N.)
The Sub-Prefecture of Piriapolis is controlled by the Prefecture of Maldonado.
Telephone No. – 18.
Address – Avenida Piria and Calle Maipu (Piriapolis).

ZONES OF CONTROL

(a) The Control Centre and Information of the Maritime Movement of the Port of Punta del Este covers:

(1) Zone "GOLF". Zone of the River Plate, Atlantic Ocean (Territorial Sea) situated between the meridians 55° 30' and 54° 15' Longitude West, the imaginary line which joins the Punta del Este with Punta Ballena and in the South by the continuation of the limit of the River Plate with the Argentine Republic and the Territorial Sea (Law 14.185/974 "Treaty of the Limits of the River Plate"), with the exception of the extent of water included between meridians which pass through Punta Iman (55° 16' 08" W.) and Punta Raza (55° 14' 00" W.) and the meridian of 34° 56' 30" S. (Zone "TANGO") - Piriapolis.

(2) Zone "HOTEL". The Bay of Maldonado and the Port of Punta del Este.
(a) The Bay of Maldonado: Zone situated between the coast and the imaginary line which joins Punta del Este with Punta Ballena, includes also "Boca Grande" and "Boca Chica".
(b) The Port of Punta del Este: Zone situated between the coast and an imaginary line which goes from the end of the jetty to a point which limits to the North of the Mansa Beach. It includes all the mooring areas.

(b) The Control Centre and Information of Maritime Movement of the Port of Piriapolis comprises:

(1) Zone "TANGO". Zone of the River Plate included between the parallels which pass through Punta Iman (55° 16' 08" W.) and Punta Raza (55° 14' 00" W.) and the meridian 34° 56' 30" S.

COMMUNICATIONS TO THE CENTRE

(a) From Vessels

(1) In zone "GOLF". The Control Centre must be informed during navigation when the following points are passed:
The Isla de Lobos (Wolf Island)
The Punta del Este Lighthouse.

(2) In zone "HOTEL". During navigation in the Access Channel and within the Port:
When the Bajo del Monarco Buoy is passed, and
When the Isla de Gorriti Small Lighthouse is passed.
Also within both Control areas the communications indicated in the following tables must be effected.

(b) From the Hydrographic Directorate of MTOP.
(1) The place assigned for berthing or mooring.
(2) Guard and order tugs (when they are present).

COASTAL STATION NOMENCLATURE

(See key at end of tables)

Name of Station	*Symbol*	*Identity of Station*	*Transmission Frequencies*	*Transmission Receiving Frequencies*	*Type of Transmission*	*Power in Kw.*	*Kind of Service*	*Hrs. of Service GMT*	*Rates*	*Co-ordinates of Transmitting Aerial*	*Observations*
Atlantida Radio	FT	CWC 43	156.45 C.9 156.55 C.11 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO a) b)/ d) e) f)/ m)	HX	—	34° 46' 48" S. 55° 45' 26" W.	TF 2604 Telediscad 0372
Carmelo Radio	FP	CWC 22	156.45 C.9 156.55 C.11 11) 156.65 C.13 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO a) b)/ d) e) f)	HX	—	34° 00' 33" S. 59° 17' 42" W.	TF 315
Colonia Radio	FC	CWC 23	2182 2040.5 2638 2721.5 2) 3) 4) 4125 4143.6 9) 5680 5) 6218.6 9) 6221.6 9)	2182 1)	A3J A3J A3A A3H	0.15 0.15	CO CR a) b) c) d) e) f) h) i)	H24	—	34° 28' 12" S. 57° 51' 05" W.	TF 0522 2020 2037 2109 Telediscad 0522
	FW	Control Colonia Prefectura CWC 23	156.45 C.9 12) 156.55 C.11 11) 4) 156.65 C.13 10) 4) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO CR a)/ b) c) d) e) f) h) i) n) o)	H24	—	34° 28' 28" S. 57° 50' 38" W.	TF 2680 Radar Telediscad 0522

Name of Station	Symbol	Identity of Station	Transmission Frequencies	Transmission Receiving Frequencies	Type of Transmission	Power in Kw.	Kind of Service	Hrs. of Service GMT	Rates	Co-ordinates of Transmitting Aerial	Observations
Fray Bentos Radio	FC	CWC 25	2182 2040.5 2638 2721.5 4125 4143.6 5680 6218.6 6221.6		A3J	0.15	CO CR e)/ f) d)	HX	—	33° 06' 50" S. 58° 18' 27" W.	TF 321 Teledisced 05352
	FW	Control Fray Bentos Prefectura CWC 25	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO CR a) b) d) e) f) h) i) n) o)	H24	—	33° 06' 50" S. 58° 18' 27" W.	TF 321 Teledisced 05352
La Floresta Radio	FT	CWC 29	156.45 C.9 156.55 C.11 156.65 C.13 10) 156.75 C.15 156.80 C.16	C.16 1)	F3	0.025	CO e) f) m)	HX	—	34° 45' 30" S. 55° 40' 32" W.	TF 209
La Paloma Radio	FC	CWC 30	2182	2182 1)	A3	1	CO CR a) b) c) d) e) f) h) i) m) n)	H24	—	34° 39' 30" S. 54° 08' 28" W.	TF 16
			2040.5 2638 2721.5 2) 3) 4) 6) 7) 3023 5) 3860.6 8) 4125 4419.4 4143.6 2) 3) 9) 5680 5) 6518.8 13) 6521.9 13) 6218.6 2) 3) 9) 6221.6 9) 8780.9 13) 8291.1 9) 8294.2 9) 13128.7 13) 13162.8 13) 12429.2 9) 12432.3 9) 17294.9 13) 17260.8 13) 16587.1 9) 16590.2 9) 22636.3 13) 22658 13) 22124 9) 22127.1 9)	2721.5 1) 3860.6 1) 4125 1) C.421 1) C.606 1) C.821 1) C.1221 1) C.1621 1) C.2221 1)	A3J A3A A3H	1					
	FW	Control La Paloma Prefectura CWC 30	156.45 C.9 13) 156.55 C.11 11) 4) 156.65 C.13 6) 10) 4) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.1	CO CR a) b) c) d) e) f) h) i) m) n) o)	H24	—	34° 39' 30" S. 54° 08' 28" W.	TF 16
Montevideo Trouville Radio	FC	CWC 39	2182	2182 1)	A3	1	CO CR a) b) c) d) e) f) h) i) m)	H24	—	PTA. TIGRE 34° 52' 00" S. 56° 18' 40" W.	TF 70 35 05 TF 70 32 59 TF 70 08 45
			2040.5 7) 4) 2638 2721.5 2) 3) 4) 6) 7)	2721.5 1)	A3J A3A A3H	1					
			3023 5) 3860.6 8) 4125 4419.4 13) 4143.6 2) 3) 9) 5680 5) 6518.8 6521.9 13) 6218.6 2) 3) 9) 6221.6 9) 8780.9 13) 8291.1 9) 8294.2 9) 13162.8 13) 13128.7 13) 12429.2 9) 12432.3 9) 17294.9 13) 17260.8 13) 16587.1 9) 22658 13) 22636.3 13) 22124 9) 22127.1 9)	3860.6 1) 4125 1) C. 421 1) C. 606 1) C. 821 1) C. 1221 1) C. 1621 1) C. 2221 1)	A3J A3A A3H	1		H24	—	—	—
Montevideo Centro de Control Radio	FW	Control Montevideo Prefectura	156.45 C.9 12) 156.55 C.11 11) 4)	C. 9 1) C. 11 1)	F3	0.1	CO CR a) b) c) d) e) f) g) h) i) m) n) o) p) q)	H24	—	34° 54' 18" S. 56° 12' 44" W.	TF 95 51 01 95 62 53 95 24 77 TLX UY 929 Comopre Radar
			156.65 C.13 6) 10)	C. 13 1)	F3	0.1					
			156.75 C.15 2) 3)	C. 13 1)	F3	0.1					
			156.80 C.16	C. 16 1)	F3	0.1					

Name of Station	Symbol	Identity of Station	Transmission Frequencies	Transmission Receiving Frequencies	Type of Transmission	Power in Kw.	Kind of Service	Hrs. of Service GMT	Rates	Co-ordinates of Transmitting Aerial	Observations
Nueva Palmira Radio	FC	CWC 31	2182 2040.5 2638 2721.5 4125 4143.6 5680 6218.6 6221.6		A3J	0.15	CO CR e) f) d)	HX	—		TF 139
	FW	Control Palmira Prefect. CWC 31	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO CR a) b) c) d) e) f)	H24	—	33° 52' 42" S. 58° 25' 12" W.	TF 139
Paysandu Radio	FC	CWC 32	2182 2040.5 2638 2721.5 4125 4143.6 5680 6218.6 6221.6		A3J	0.15	CO CR e) f) d)	HX	—	32° 18' 06" S. 58° 05' 08" W.	TF 3099 Telediscad 0722
Paysandu Radio	FW	Control Paysandu Prefect. CWC 32	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO CR a) b) c) d) e) f) i) n) o)	H24	—	32° 18' 06" S. 58° 05' 08" W.	TF 3099 Telediscad 0722
Piriapolis Radio	FP	Control Piriapolis Prefect. CWC 33	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO CR a) b) c) d) e) f) h) i) m) o)	H24	—	34° 52' 50" S. 55° 16' 10" W.	TF 518 - 236
Puente Fray Bentos (Gral. San Martin) Radio	FT	CWC 42	156.45 C.9 156.55 C.11 156.65 C.13 10) 156.75 C.15 156.80 C.16	C.16 1)	F3	0.025	CO e) f) i)	HX	—	33° 06' 27" S. 58° 14' 46" W.	
Puente Paysandu (Gral. Artigas) Radio	FT	CWC 41	156.45 C.9 156.55 C.11 156.65 C.13 10) 156.75 C.15 156.80 C.16	C.16 1)	F3	0.025	CO e) f) i)	HX	—	32° 17' 00" S. 58° 07' 00" W.	
Puerto Sauce Radio	FC	CWC 27	2182 2040.5 2638 2721.5 4125 4143.6 5680 6218.6 6221.6		A3J	0.15	CO CR e) f) d)	HX	—	34° 26' 20" S. 57° 26' 21" W.	TF 33
	FW	CWC 27	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO CR a) b) d) e) f) h) i) n) o)	H24	—	34° 26' 20" S. 57° 26' 21" W.	TF 33
Puerto Buceo Radio	FP		156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 156.80 C.16	C.16 1)	F3	0.025	CO d) e) f) i)	HX	—	34° 54' 37" S. 56° 07' 00" W.	TF 78 32
Punta del Este Radio	FC	CWC 34	2182	2182 1)	A31	0.2	CO CR a) b) c) d) e) f) h) m)	H24	—	34° 57' 48" S. 54° 57' 06" W.	TF 41884- 41967 Telediscad 042
			2040.5 2721.5 2) 3) 4) 6) 7) 3860.6 8) 4125 4143.6 9) 6218.6 9) 6221.6 9)		A3J A3A A3H	0.15					
	FW	Control Punta del Este Perfectura	156.45 C.9 12) 156.55 C.11 11)		F3	0.025	CO CR a) b) c) d) e) f)	H24	—	34° 57' 48" S. 54° 57' 06" W.	TF 41884- 41967 Telediscad 042
			156.65 C.13 10)	C.13 1	F3	0.1	h) i) m) n)				
			156.75 C.15 2) 3)		F3	0.025					
			156.80 C.16	C.16 1)	F3	0.1	o)				
Rio Branco Radio	FC	CWC 36	2182	2182 1)	A3	0.2	CO a) b) d)	HX	—	32° 34' 25" S. 53° 22' 20" W.	TF 86
			2638 2721.5 2) 3) 6) 7)		A3J	0.2	e) f) i) m)				
	FW	CWC 36	156.45 C.9 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO a) b) d) e) f) i) m) n)	H24	—	32° 34' 25" S. 53° 22' 20" W.	TF 86

Name of Station	Symbol	Identity of Station	Transmission Frequencies	Transmission Receiving Frequencies	Type of Transmission	Power in Kw.	Kind of Service	Hrs. of Service GMT	Rates	Co-ordinates of Transmitting Aerial	Observations
Salto Grande Radio	FT	CWC 40	156.45 C.9 156.55 C.11 156.65 C.13 10) 156.75 C.15 156.80 C.16	C.16 1)	F3	0.025	CO e) f) i)	HX	—	31° 17' 00" S. 57° 56' 00" W.	
Salto Radio	FC	CWC 37	2182 2040.5 2638 2721.5 4125 4143.6 5680 6218.6 6221.6		A3J	0.15	CO CR e) f) d)	HX	—	31° 23' 00" S. 57° 59' 00" W.	TF 5275 Teledisced 0732
	FW	CWC 37	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO a) b) d) e) f) i) n) o)	HX	—	31° 23' 00" S. 57° 59' 00" W.	TF. 5275 Teledisced 0732
Santiago Vazquez Radio	FP	CWC 38	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 6) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO a) b) d) e) f) i) m) o)	H24	—	34° 47' 24" S. 56° 21' 05" W.	TF 32 00 8

KEY TO LITERAL AND NUMERICAL REFERENCES USED IN THE COASTAL STATION NOMENCLATURE

(a) To transmit meteorological bulletins in accordance with the requirements of List VI of RR of the UIT. Special services which are offered by the FC, FP, FT and FW of the P.N.N.

(b) To transmit Notices to Mariners in accordance with requirements of List VI of the RR of the UIT. Special services which are offered by the FC, FP, FT and FW of the P.N.N.

(c) To transmit medical advice on request of navigators.

(d) To transmit urgent messages to Mariners immediately on receipt and to repeat them 3 minutes past every hour and at the normal times of transmission of messages to navigators.

(e) To participate in operations of Search and Salvage.

(f) To alert the Centre's Co-ordinator of Search and Salvage.

(g) To direct the system of Control Centres and Information of Maritime Movement and Port Operations. (FP, FT and FW).

(h) Receive meteorological observations (SHIP) made on the high seas by Masters of vessels.

(i) To effect special transmissions relating to hydrographic and mareographic Information.

(m) To receive reports from fishing vessels (National, Argentine and third nations who are authorised to operate within the area) and to remit them to the Director of the Control Centre System (CONDI) obligatorily in accordance with Maritime Legislation No. 6 P.N.N.

(n) To effect control and facilitate information within the area, receiving reports from vessels navigating within it (obligatory for vessels in accordace with IMP Uruguay).

(o) Effect control and facilitate the supply of information from the port.

(p) Receive by telex or radio requests for pilotage service.

(q) Radiogoniometric Service on VHF (RG).

1. Call up and listening service on a permanent basis and for announcing in advance the intention to transmit.
2. Frequency used for the transmission of meteorological bulletins and Notices to Mariners in accordance with requirements of List VI of the RR of the UIT. Special services offered by FC, FP, FT and FW of the P.N.N. with prior announcement on frequency 156.800 MHz (Channel 16).
3. Frequency used for the transmission of meteorological bulletins and Notices to Mariners in accordance with requirements of List VI of the RR of the UIT. Special services offered by the FC, FP, FT and FW of the P.N.N. with prior announcement on frequency 2182 kHz (Simplex) and 4419.4 kHz (Duplex C.421).
4. Frequency used for the transmission of radiomedical advice on request.
5. Frequency used for operations of Search and Salvage.
6. Frequency used for reports from national fishing vessels.
7. Frequency for Coastal working purposes.
8. Frequency used in common with the Argentine Republic (Naval Prefecture) for the control of fishing vessels of both nations.
9. Provisional working frequency.
10. Working frequency for control and zonal information (Vessel Movement Service).
11. Working frequency for control and Port information (Port Operation Service).
12. Port operation frequency (tugs, traffic launches, tugs and control centres).
13. Duplex frequency Band from 4 to 23 MHz of the Mobile Maritime Service Section 17 REV. RR of the UIT.

CO – Station open exclusively to official correspondence.
CR – Station open to restricted public correspondence.
H24 – Continuous service, day and night.
HX – Intermittent service, day and night or station which has no fixed operating timetable.

SPECIAL SERVICES

Nomenclature of Radiodetermination Stations and Stations which offer Special Services with the P.N.N.

Name of the Station	Symbol	Identity of the Station	Transmission frequencies (kHz – MHz)	Type of Transmission	(GMT) Hours of Transmission	Service (See key on next page)
Atlantida Radio	FT	CWC 43	156.75 M	F3	0533 – 1303 – 1933	1, 3, 4, 6, 7
Carmelo Radio	FP	CWC 22	156.75 M	F3	0303 – 1503 – 2133	1, 3, 4, 6, 7
Colonia Radio	FC	CWC 23	2721.5	A3J	0330 – 1330 – 2100	1, 2, 3, 4, 5, 6, 7
	FW	Control Colonia Prefectura	156.75 M	F3		
Fray Bentos Radio	FW	Control Fray Bentos Prefectura CWC 25	156.75 M	F3	0933 – 1703 – 2333	1, 2, 3, 4, 6, 7
La Paloma Radio	FC	CWC 30	2721.5 4143.6 6218.6	A3J	0303 – 1533 – 2303	1, 2, 3, 4, 5, 6, 7
	FW	Control La Paloma Prefectura	156.75 M	F3		
Montevideo Trouville Radio	FC	CWC 39	2721.5 4143.6 6218.6	A3J	0103 – 1133 – 1903	1, 2, 3, 4, 5, 7
Montevideo Centro de Control	FW	Control/ Montevideo Prefectura CWC 39	156.75 M	F3	0103 – 1133 – 1903	1, 2, 3, 4, 6, 7, 8
Nueva Palmira Radio	FW	Control Palmira Prefec. CWC 31	156.75 M	F3	0903 – 1533 – 2303	1, 2, 3, 4, 6, 7
Paysandu Radio	FW	Control Paysandu Prefec. CWC 32	156.75 M	F3	0103 – 1103 – 1733	1, 2, 3, 4, 6, 7
Piriapolis Radio	FP	Control Piriapolis Prefectura CWC 33	156.75 M	F3	0703 – 1333 – 2103	1, 2, 3, 4, 6, 7
Puerto Sauce Radio	FW	CWC 27	156.75 M	F3	0133 – 1303 – 1933	1, 2, 3, 4, 6, 7
Punta del Este Radio	FC	CWC 34	2721.5	A3J	0133 – 1503 – 2133	1, 2, 3, 4, 5, 6, 7, 8
	FW	Control Pta. del Este Pref.	156.75 M	F3		
Rio Branco Radio	FC	CWC 36	2721.5	A3J	0933 – 1703 – 2333	1, 2, 3, 4, 5, 6, 7
			156.75 M	F3		
Salto Radio	FW	CWC 37	156.75 M	F3	0133 – 1133 – 1903	1, 2, 3, 4, 6, 7

Key:
Key to numerical references used in the nomenclature of radiodetermination stations and stations which offer special services.
METEOROLOGICAL BULLETIN
(Forecast of weather within the 4 Maritime Areas)

1. SYNOPIS: Inform in clear Spanish text for the 4 Maritime Areas No. 1, 2, 3 and 4 stating:
   (a) General
      1. Name of Station
      2. Validity
      3. Significant Phenomena
      4. Weather Notices
      5. Synoptic Situation
   (b) By Area
      1. General Conditions (Phenomena or general character of the current weather)
      2. Winds (direction and speed)
      3. Sky
      4. Horizontal visibility
      5. Air temperature
      6. Strength of the sea
      7. Wave height
   (c) Reading of radio messages for Coastal Traffic and Radio Messages for local purposes (Notices to Mariners) per area.
2. Messages concerning water height.
3. Offer on request of a vessel, a weather forecast, height of water and local radio messages (Messages to Mariners).
4. The station transmits at any time meteorological safety messages preceded by the Safety signal (SECURITE) and repeat them after periods of silence and during normal transmission periods.
5. Meteorological bulletins, radio notices for coastal traffic (Notices to Mariners) and local Radio notices (Notices to Mariners), announcing the fact previously on frequency 2182 kHz, 4125 kHz Simplex and 4419.4 kHz (C.421) Duplex.
6. Meteorological bulletins, radio messages for coastal traffic (Notices to Mariners) and local Radio messages (Notices to Mariners) announcing the fact previously on Channel 16 (156.800 MHz).
7. For services being offered, listening and working frequencies see Nomenclature of Coastal Stations.
8. Radiogoniometric station on VHF.
   (Station of Radiodetermination which uses the receipt of radioelectric waves to determine the direction of a station or of an object).

COLONIA: 34.28 S. 57.51 W. (See Plan)

LOCATION: Lat. 34° 28' 28" S., Long. 57° 50' 38" W.

On the River Plate 92 miles from Montevideo and 27 miles in a straight line E.N.E. of the City of Buenos Aires.

DOCUMENTS: Vessels entering the port must provide the following: Machinery, Hull, Safety, Freeboard and Derat Certificates, Stores List, Crew List, List of Passengers or Negative, Cargo Manifest, Declaration of Transport of Inflammables or Explosives, or where not carried a certificate to that effect.

PILOTAGE: No port or river Pilot is required for coasting vessels.

ANCHORAGES: In the Roads with a depth of 10 ft.

In the foreport with a depth of 8 ft., for shallow draft vessels.

RESTRICTIONS: The port will be closed for all vessels when the wind intensity is 70 knots or more. Also all operations are prohibited in the port shelter area.

The port will be closed for vessels of all kinds when the visibility is 500 m. or less due to fog, squalls, etc. Under these conditions vessels are prohibited to carry out any kind of operation within the shelter area.

HEALTH: Inspection is by a Health Doctor, and is carried out jointly with Immigration, Police, Customs, and Naval Prefecture officials.

RADIO: VHF equipment. Operates permanently on Channel 16.

VHF: All communications are carried out by VHF, the call sign being CWC 23 and that for working Control Colonia Prefecture. Channels used are 6, 8, 9, 11, 12, 14, 15, 16, 25, 26, 68, 69.

The Control Centre listens out permanently on Channel 16, whose frequency is 156.800 MHz.

RADAR: Range 16 miles. Does not give service to vessels.

TUGS: There is no tug service.

BERTHING: Union Quay: Running East to West with a length of 178 m., equipped at its two ends with ramps for landing and shipment of cars and lorries.

Coastal Quay: Running North to South, with a length of 111 m.

Ultramar Quay: Running North to South, with a length of 142 m.

These quays are provided with water hydrants and electricity supply points, the Coastal Quay also having a fuel point for operation of tankers.

Warehouses: For general cargo, the National Port Administration has warehouses within the port area.

CRANES: On the Overseas Quay there are two mobile cranes on rails, with 3 tons and 5 tons capacity.

STEVEDORES: There is no permanent service of stevedores, and such requirements must be applied for in advance by the ships' agents at Nueva Palmira.

MEDICAL: 300 m. from the port is the local hospital with a First Aid room and ambulances.

TANKERS: Operate at the Coasting Quay with a watchman and a fireman on board.

FRESH WATER: Supplied by the National Port Administration.

FUEL: Supplied by road tankers.

FIRE PRECAUTIONS: There is a fire fighting pump with a pressure 8 kg./sq.cm.

CONSULS: Argentina and Italy.

REPAIRS: Not possible.

GANGWAY/DECK WATCHMEN: There is a watchmen servic administered by the Prefecture of Colonia.

CUSTOMS ALLOWANCES: Tourists from neighbouring countries ma bring in: 5 kilos of food, 1 carton of cigarettes, 1 litre of alcoholic drin

No products derived from meat can be brought into the country (co meats, sausages, etc.), nor any plants or seeds.

REPATRIATION: Only to Buenos Aires.

AIRPORT: Located on Highway 1 linking Colonia with Montevideo, 7 km from Colonia.

TIME: Local time is GMT minus 3 hours.

HOLIDAYS: 1st and 6th January, Carnival, Touriso, 19th April, 1st Ma 18th May, 19th June, 18th July, 25th August, 12th Octobe 2nd November, 25th December.

POLICE/AMBULANCE/FIRE: Police Tel: 2962; Hospital Tel: 2994; Fir Brigade Tel: 2577; Prefecture 2020.

TELEPHONES: No arrangements for connecting the telephones o board vessels, but there are telephone boxes for communications withi and outside the country.

SERVICES: Bureau de Change via a branch of the Banco Republic There is a bus service with international service, working in conjunctio with arriving and departing vessels, connecting Colonia with the rest o the country.

Post Office: 200 m. from the port.

Mooring Gangs: Provided at the request of the ships' Agents by th National Port Administration.

AUTHORITY: See "Montevideo".

FRAY BENTOS: 33.06 S. 58.18 W. (See Plan

LOCATION: Km. 95 River Uruguay. On the right bank of the Rive Uruguay from seaward 213 miles by river from Montevideo or 145 mile from Buenos Aires.

PORT LIMITS: A vessel is considered to have arrived when she leave the channel and goes to the berth.

DOCUMENTS: Same requirements as for the port of Montevideo.

PILOTAGE: Obligatory, except where bilateral national agreements exis concerning navigation of the River Uruguay, and the Pilot must be take on board in Montevideo.

ANCHORAGE: Between the channel and the port.

RESTRICTIONS: When the port is closed due to bad weather, also th draft depends upon the depths of water in the "El Marques" and "Punt Caballo" passages.

MAX. SIZE: Controlled only by the draft of the vessel and the length o the berth. Max. draft 26 ft. (FW), water depends upon the river condition

HEALTH: Same requirements as for Montevideo.

RADIO: The call sign is CWC 25 "Control Fray Bentos Prefectura".

VHF: Port works on the following frequencies:

(a) Channel 16: frequency 156.800 MHz; Usage: Calling-up an safety.
(b) Channel 9: frequency 156.450 MHz; Usage: Port operations.
(c) Channel 11: frequency 156.550 MHz; Usage: Central Contr broadcasts on safety.
(d) Channel 13: Frequency: 156.650 MHz; Usage: Central Contr broadcasts on safety.
(e) Channel 15: frequency: 156.750 MHz; Usage: Meteorolog bulletins and Notices to Mariners.
(f) Channel 17: Usage: P.N.N.: Maritime Safety.
(g) Channel 68: Usage: P.N.N.: Maritime Safety.

Furthermore, on entering the area between Km. 6 and Km. 165 of th River Uruguay, the vessel must communicate to the Fray Bent Prefecture Control:

(a) flag.
(b) name.
(c) destination.
(d) position.
(e) course and speed.
(f) max. draft.

And on leaving this area:

(a) accident or fire occurred on board the vessel.
(b) whether vessel has given assistance to another vessel whic damaged or in difficulties.
(c) whether she has sighted any dangerous object to navigation an which is not marked.
(d) any serious reduction in visibility.

RADAR: None.

TUGS: None.

BERTHING: There are two types, quays for deep-sea vessels and coasters, both being of cement and wood.

Type	Deep-sea	Coasting
Length	125 m.	250 m.
Direction	East – West	N.W. – S.E.
Average depth	7 m. – 8 m.	5 m. – 6 m.
Signalling lights	Green light – West side Red light – East side	
Fresh water	2 connections	3 connections
Electricity	1 point A.C., 3-phase 220 V. South side quay in shed 3 points 220 V. D.C. (cranes)	3 points 220 V. D (cranes)

Also there is the Anglo Quay with a maximum depth of 26 ft., nor used for meat.

CRANES: There are in the port 3 cranes of 3 tons each and 1 of 5 tons which can move about the port. It is possible to use ship's derricks and shore cranes at the same time.
BULK HANDLING FACILITIES: There is a silo with a conveyor belt, having a storage capacity currently of 14,500 tons, and the conveyor has a loading or discharge rate of 100 t.p.h. See "Developments".
SPECIALISED CARGO HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: Can be requested in advance or when the vessel arrives in port. The work is controlled by the following time table: order 0630 hrs., commence work 0700 hrs.; order 1230 hrs., commence work 1300 hrs.; order 1830 hrs., commence work 1900 hrs.
MEDICAL: Doctors and hospital facilities available.
DENSITY: 1000.
FRESH WATER: On the Deep Sea Berth there are 2 connections and on the Coasting Quay there are 3 connections controlled by the ANP. Cost of U.S. $1.20 per 1,000 litres.
FUEL: Not available.
FIRE PRECAUTIONS: Fire Brigade present.
CONSULS: Argentina, others at Montevideo.
REPAIRS: Only minor repairs can be carried out.
DRY DOCKS: None.
SURVEYORS: None.
GANGWAY/DECK WATCHMEN: Same as for the port of Montevideo.
HATCHES: If steel, handled by vessel's crew. If wooden, handled by stevedores.
REPATRIATION: See "Montevideo".
AIRPORT: None, only Montevideo.
TIME: See "Montevideo".
HOLIDAYS: The following dates will be used as national holidays of a traditional character:

1st January; 6th January; Monday and Tuesday of Carnival Week; the 6th week following Carnival, which will be called Tourism Week; 1st May; 2nd November; 25th December.

The following dates will be celebrated as national holidays as they are linked with patriotic exaltation and commemoration.

19th April; 18th May; 19th June; 18th July; 25th August; 12th October. With regard to the holidays of 1st May, 19th April, 18th May, and 12th October, these will follow the undermentioned plan:

(a) If they occur on Saturday, Sunday or Monday, they will be observed on those dates.
(b) If they occur on Tuesday or Wednesday they will be transferred to the immediately preceding Monday.
(c) If they fall on Thursday or Friday, they will be transferred to the Monday immediately following.

POLICE/AMBULANCE/FIRE: National Prefecture: Tel: 321. Police: Tel: 201. Fire Brigade: Tel. 35. Hospital: Tel: 533.
TELEPHONES: Not possible.
SERVICES: None.
SHORE LEAVE: See "Montevideo".
IDENTIFICATION: Seaman's Book sufficient.
DELAYS: Normally there is no delay.
DEVELOPMENTS: Increase in the storage capacity of the silos of the Ministry of Agriculture and Fisheries by 5,500 tons, and increase of the capacity of the conveyor belt to 400 t.p.h.
AUTHORITY: National Port Administration, Herrera and 25 de Mayo, Fray Bentos, Uruguay.
Also see "Montevideo".

JOSE IGNACIO: 34.54 S. 54.43 W.

SBM: Position Lat. 34° 53' 43" S., Long. 54° 42' 45" W.
PILOTAGE: Compulsory. Pilot boards at the Fairway Buoy in position Lat. 34° 57' 14" S., Long. 54° 40' 06" W.
RADIO/VHF: Call sign "Control Punta del Este", Continuous watch on VHF Channel 16. Intership working on Channel 6.
GENERAL: ANCAP have installed a Single Buoy Mooring, 3,600 m. from the shore in 16.8 m. (55 ft.) depth of water. Vessels of 150,000 d.w.t. can be handled and the average rate of discharge of crude oil is 5,000 cu.m./hr.

The shore terminal receives, stores and pumps the crude to the refinery at Montevideo.

A River Pilot must be ordered from Montevideo for securing to the buoy, and he remains aboard until the vessel sails.

Five days before arrival, Agents must request Free Pratique from the Health Authorities in Montevideo, and the Customs, Prefecture and Immigration Officials, from Punta del Este.
AUTHORITY: Prefectura del Puerto de Maldonado, Calle 8 y 13, Punta del Este (Maldonado), Uruguay. *Tel:* 41884, 41967. *Contact:* Port Captain.

MONTEVIDEO: 34.55 S. 56.13 W. (See Plan)

Also see "General" at beginning of Uruguay section.
DOCUMENTS:
Health:
Maritime Declaration of Health.
1 List of Passengers Disembarking.
1 List of Crew Members.
1 Derat Certificate.
1 List of Crew International Vaccinations.
Immigration:
1 copy of Crew List.
2 Lists of Passengers Disembarking.
2 copies of List of Passengers in Transit.
Police:
2 copies of List of Passengers Disembarking.
1 copy of Crew List.
2 Lists of Passengers in Transit.
Prefecture:
2 Lists of Passengers in Transit.
1 Visaed copy of List of Passengers with Port of Origin.
2 Non-visaed copies of List of Passengers.
1 Passenger List – or Negative – from all ports visited.
1 Non-visaed Crew List.
1 Cargo Manifest for Montevideo.
1 Manifest for Cargo in Transit.
1 List of Inflammable Cargo or Hazardous Goods – visaed or straight.
1 List of Vessel's Data.
Customs:
1 Visaed Manifest
1 copy of Ballast loaded at each port.
1 Negative discharge statement for each port.
If there is no Consul in previous ports, the last port where there was one.
2 Stores Lists.
2 Lists of Cigarettes and Whisky.
2 Lists of Personal Effects.
3 Lists of Bunkers on Arrival.
1 copy of Passenger List for those disembarking, or negative, and their baggage in the same list (drawn up and signed by the passengers themselves).
Agents:
2 Lists of Passengers Disembarking.
2 Lists of Passengers in Transit.
2 Crew Lists.
2 Stores Lists.
2 Manifests, including Inflammable Cargo.
2 Cargo Plans.
NOTE: The manifest must have a special section with all effects in transit or otherwise, for the free zones of Colonia and Nueva Palmira.

Crew Lists, amended Crew Lists and Inflammable Cargo Lists must be visaed at ports of sailing or loading.
ANTEPORT: The Anteport is to the North of the entrance, between the breakwaters, and has a depth of 33 ft. – 36 ft. Sufficient room for 10 vessels, depending on size.
PORT: The port is formed by the North side of the Montevideo Peninsula and the "Dique de Cintura", a breakwater running parallel to the coast, about 870 m. distant.

It consists of 3 basins, 2 of which are for ocean-going vessels and 1 for river traffic.

Basins 1 and 2 have a depth of 33 ft., and the basin for river traffic 15 ft.
APPROACHES: The Roads of Montevideo consist of the Outer Roads situated to the South of the bay and Inner Roads situated outside the Western breakwater.

Both anchorages are very exposed and vessels are recommended to enter the anteport.

The entrance channel has 36 ft.; the channel to Ancap's wharf (La Teja) 30 ft. 6 in. Basins 1 and 2 have a depth of 31 ft., and the River Traffic Basin, 15 ft. These depths depend on dredging being maintained, but even so vessels often "drag" when on the higher marks; the bottom is fine soft silt.
PILOTAGE:

1. The Pilot must be requested via the Agent 24 hours in advance, giving ETA in the roads by W/T (Cerrito Radio – CWA on frequency of 500 kHz). It is not possible to elect a Pilot for the area of the port of Montevideo, except where the vessel exceeds 10,000 tons.
2. On entering into the system of the Control Centres, communication must be made with them, giving the information laid out in the "Basic Rules of the System of Control and Information of Maritime Movements". See "Control" in General Section before first Uruguay port.
3. By VHF on the Channels stipulated in "Basic Rules of the System of Control and Information of Maritime Movements".
4. Channel 11 must be used to communicate with the pilot vessel. The vessel is a powered craft painted reddish orange, with white deckhouse with the inscription "Practicos". During daylight hours, it flies the pilot flag, HOTEL (white and red), and at night it is necessary to have white and red lights indicating "I have a Pilot on board". Where a vessel does not have VHF, light signals must be used to communicate with the pilots' launch.
Should this launch be out of service, Pilots are transported by tugs of A.N.P. and/or BEYLA.
5. The Pilot will await the vessel near the Axis Buoy located at Lat. 35° 00' S., Long. 56° 14' W.
6. In the event of bad weather the vessel must anchor near the Axis Buoy.
7. To take the Pilot on board, the gangway must be positioned on the side which gives most advantage *vis-a-vis* wind and sea.

ANCHORAGE: Vessels may anchor near the Axis Buoy with a draft of 30 ft. at zero tide. The sheltered anchorage is located in the foreport inside the shelter of the breakwaters. To gain access to it, the Pilot must be on board and the permitted draft will be that specified previously.

RESTRICTIONS:

1. The port is closed when winds are up to 60 km.p.h. However, up to 80 km.p.h. the Prefecture may authorise manoeuvres. The port is also closed when there is fog, channel obstruction or any other problem which may make manoeuvring difficult.
2. Vessels will not be handled when there is serious damage to engines, hull or rudder.

MAX. SIZE:

1. The largest vessels operating in the port, are of the LASH type, with dimensions approx. as follows:
Overall length 272.22 m.; Beam 30.48 m.; Draft 28 ft.
2. Tankers which berth at the inflammable dock A.N.C.A.P.:
Overall length: 241.50 m.; Beam 32.33 m.; Draft 28 ft.

With regard to the dimensions of the vessel, the state of the tide and time will be considered, the Pilot will advise the Master of the best measures to adopt.

Report: March 1982.

Max. draft to reach Montevideo safely is 31 ft.

Also see "Shipmaster's Report" dated May 1996.

HEALTH: The procedure is as follows:

1. Request the Owner or Agent to obtain Free Pratique which will be done via Cerrito Radio Station – call sign CWA.

In the event of there being any suspected illness or fever on board, the vessel must anchor in the roads to await instructions, at the same time communicating this to her Agent/Owner.

RADIO: Cerrito Radio Station CWA operating on 500 kHz, 421.5 kHz, 4346 kHz, 6434.5 kHz, 8602 kHz, 12750 kHz, 17208.8 kHz and 22563 kHz.

Timetable for broadcasting information to Mariners:

	Frequency	*Times*
Cerrito	4,346 kHz	1100 hrs.
CWA	8,602 kHz	1600 hrs.
	12,750 kHz	2100 hrs.
	16,871 kHz	
Sodre (CX 6)	650 kHz	0900 hrs.
Coastal Station		
Punta Carreta	2,768 kHz	1103 hrs.
CWD		1603 hrs.
		2103 hrs.

RADAR: Port Radar Control available. Additional coastal radar stations to be installed.

VHF: The Control Centre has a range of 60 miles on VHF. It also effects communications by "Phone-Patch" between the vessel and Agent or Owner; this, from their office or private address.

All the operations of the Centre of Control and Information of Marine Movement of the Port of Montevideo are set out in the booklet "Basic Rules of the System of Control and Information of Maritime Movements".

On entering waters of port jurisdiction, communication must be made with La Paloma Control, then Punta del Este Control and the Centre of Maritime Control of the National Naval Prefecture.

TUGS: 8 tugs owned by Port Authority, 1×4,000 h.p., 1×1,1950 h.p., 1×1,680 h.p., 1×1,100 h.p. and 4×500–700 h.p. Beyla S.A. (Private) operate 5 tugs of 250 h.p.–750 h.p. Tugs come alongside in the foreport. Lines are to be supplied by the vessel, and this is not optional. In the event that the vessel has no tug cable, this will be supplied by the tug at a cost of approx. U.S. $500 (as per tariff TM/6).

BERTHING: The berth will be allocated by A.N.P. and is to be requested by the Agent. Vessels may berth or unberth at any time of the day or night, except when the port is closed or due to lack of available berths. Generally, there are fenders placed along the berths. In the event that the vessel requires this service, it must be requested in advance via the Agent.

When berthing or unberthing, the gangway must not be in position due to the proximity of the cranes.

Anteport: 7 anchorage berths in 28 ft. depth. However in practice there is rarely room for more than 5 vessels to anchor. Basin No. 1: 7 berths, 28 ft. to 33 ft. depth alongside. Basin No. 2: 4 berths, 28 ft. to 33 ft. depth alongside. La Teja: Ancap Basin with berths for 2 tankers 30 ft. depth in basin and entrance channel.

Berths are allotted by the Port Authorities in the order of arrival of the vessels and according to their category, as follows:

1. Mail vessels.
2. Regular Line vessels carrying immigrants.
3. Cargo vessels.
4. Sailing vessels.

The Authorities allocate the deposit at which vessel must discharge or load.

Port Authorities give preference at Deposit No. 10 to ships operating with refrigerated cargo from this Deposit; and at Deposit No. 11 (Florida Wharf) to tankers discharging to the pipeline situated there. Conditional that they vacate the berth within 2 hours' notice, to permit berthing a preference vessel, other ships may operate at either berth.

Muelle de Escala: On the pier head, formed by the Southern side of the River Traffic Basin, and running Westwards, a quay has been built, known as "Muelle de Escala", 288 m. long, originally constructed for berthing passenger liners and war vessels, but now used as a container terminal.

The berth is very exposed to wind and swell, and Masters are recommended to take every precaution to ensure their vessels are strongly moored and a lookout kept for changes of weather which, locally, are very sudden.

The depth of water alongside depends on dredging, but generally is over 33 ft.

1×40 tonne container gantry crane installed in 1986.

River Traffic Basin: This basin is situated on the Western side of Pier "A". It is 400 m. long and has a passenger landing station on one side. The opposite side of the basin is used by the Navy.

2 warehouses, called Warehouse "A" and Warehouse "B", have bee built on the East side of this basin and are serviced by 3 electric crane

These berths can only be used by light-drafted vessels, as depth water is around 16 ft.

Basin No. 1: This basin is situated between piers "A" and "B". entrance between the "Dique de Cintura" and the pier head "A" is abo 150 m. wide. It encircles a total mooring space of 1,093 linear metre and 7 vessels can comfortably berth along the quay walls.

Pier "A" is 382 m. long on the West side; 306 m. on the East sid and 50 m. wide at the Northern pier-head.

On this pier 2 brick and concrete warehouses, Nos. 1 and 2, hav been constructed, consisting of a ground floor, 3 storeys and a basemen

On the City side of Basin 1, length 493 m., there are 3 bric warehouses, numbered 3, 4 and 5, consisting of a ground floor between 17,800 cu.m. and 19,600 cu.m. capacity.

On the Western side of Pier "B" facing Basin No. 1, there are 2 bric and concrete warehouses, Nos. 6 and 7, with a ground floor and 1 store having a capacity of 30,174 and 33,140 cu. m. respectively.

In Basin No. 1, Berths No. 1, 2, 3, 4 and 5 are generally used for th discharge and/or loading of liners running to timetable.

Depths alongside vary, as it depends upon dredging.

Basin No. 2: This basin is situated between Pier "B" and the foot Florida Street. The entrance to this basin is also about 150 m. wide. has a total mooring space of 722 m. and it can accommodate 4 vessel

Pier "B" is 294 m. long on the Western side, 328 m. long on th Eastern side, 148 m. at the Northern pier-head and 13 m. wide on th bend at the Western corner of the pier-head.

At the Northern end of pier-head "B", livestock is embarked. This ber is also used for general cargo operations in times of congestio Moorings must be strong and carefully watched as the berth is ver exposed to wash of passing vessels.

There are 2 warehouses on this pier, numbered 8 and 9, facing Bas No. 2, built of brick and concrete, with a ground floor and 1 storey an with a capacity of 33,320 cu.m. each. Warehouse 11 has 3 cold storag rooms with a total capacity of 26,000 cu.m. for storage of frozen mea chicken and fish products at −30°C.

Depths of water alongside vary, depending upon intensity of dredgin but are generally 28 ft. to 30 ft.

Coasting Quay Wall: From Florida Street to Mole F, which is the end the Port, and over a distance of 1,900 m., there is a quay used f coastal craft, and on part of which a fish-receiving and industrialis plant is being opened; depth in this zone is 15 ft.

A floating dock is also anchored in the N.E. part of this section.

Basin For Inflammables "La Teja". (Also see "Tankers".)

On the North side of the Bay, the National Administration of Alcoho Cement and Fuels, known as A.N.C.A.P., has a basin with concre walls for the discharge of tankers arriving with oil to their consignme This basin is known as the "Darsena de Inflamables", and has 1 ber for tankers on the North side in 30 ft. 6 in. and for liquid gas discha on the Southern side, max. draft 22 ft., while on the West or land si there is a berth for coastal vessels. Width of the basin here is 147 m which is the same as the entrance, while the South berth is 248.75 long. On the North berth the jetty protrudes 34 m., and is 96 m. lon

Vessels berth bows to shore, and on leaving turn immediately outsi the basin, if draft is less than 22 ft., otherwise they must reverse ba down the narrow access channel.

The North berth has separate lines for Crude, 10 in. and 12 maximum pressure 105 lbs. Fuel oil, 8 in. and 10 in. with a pump rate of 300 t.p.h. at temperatures between 40°C and 70°C. Diesel/G Oil/ Kerosene 6 in. connections and pumping rate of 300 t.p.h. Naph 8 in. Lube oils 6 in. lines, 150 t.p.h. and a line for Alcohol 6 in. There no line for Gas. There are 3×5 ton electric cranes and 1×12 ton die crane. Coal and Cement are also discharged at this berth, the coal Decauville cars and the Cement to trucks, handling 750 tons per 8 ho day, with 5 gangs.

At the South berth the oil lines are identical, and there is also a 6 connection for loading or discharging Super Gas, at 200 t.p.h. There a no cranes at this berth.

The Western berth has the same installations except for Super G and Alcohol.

There are 3 in. water lines at each berth, and use of 2 tugs is essen for berthing or unberthing. At the North berth, vessels fully loaded o lie up to 15 m. out from the quay, owing to accumulation of mud, a will gradually close in as the vessel lightens. Access gangways a placed by the Port.

Railway Connections: Basins 1 and 2, River Traffic Basin and a Deposits "A" and "B" have railway lines on all sides, belonging to Port Administration, which are connected with the main lines of Uruguayan State Railways.

The Port Administration has 2 electric locomotives used exclusi in the port.

Cranes: The Port Administration has 2 heavy-lift floating cranes 80 tons and 200 tons capacity, a mobile crane of 20,000 kilos, a 46 movable electric cranes of 5,000 kilos each; 5 movable electric cra of 1,500 kilos each; 1 fixed electric crane of 4,000 kilos; 33 of aforementioned 5,000 kilos cranes, are placed alongside the quay w for vessel's operations.

There are also 24 electric trolleys of 1,500 kilos, and one of 1,000 k There is a fixed crane for 200 tons on Muelle Escala.

Fiscal Lorries: The Port Administration has purchased special lorries 12 auto cranes for receiving cargo, as the railway wagons availab not sufficient to carry all the cargo that is at present being handl this port.

Loading Operations: Loading is effected from carts, lorries a wagons and the cargo is hoisted on board with the cranes. Ca also loaded from lighters.

Grain Loading: There are 2 mobile grain vacuvators, each of whic load bulk grain at around 60 t.p.h, also 10 smaller machines th each load around 20 t.p.h.

Fumigation: Montevideo is the only port in Uruguay at which vessels can fumigate, using the cyanide method. The tariff is per cubic metre fumigated over a basic charge which varies according to n.r.t. There are surcharges for overtime.

Disinfection of Mail Bags: To avoid delay through disinfection mail bags can be fumigated on board in a 10% formalin solution and kept in a closed space for 4 hours before vessel gets into port. The closed space will be opened in the presence of a Health Officer who will verify the use of formalin. When in doubt, fumigation will be carried out again and exposed for 2 hours.

Height of Quay above Water: Tide being very small, the height of quay above water only varies from 8 ft. – 10 ft. at LW to 10 ft. – 12 ft. at HW. Wind influence is felt even in the bay, as a South wind will raise water as much as 5 ft., or a Northerly wind reduce it 2 ft. or 3 ft.

PORT EQUIPMENT: *Shore Cranes:*

Berth No.	*No. of Cranes*	*Capacity tons*	*Type*
Muelle de Escala	1	40	Portainer
A – West	3	5	Demag
A – East (1/2)	7	5	Skoda
3–4–5	9	6	Duro Felguera
B – West (6/7)	2	40	Takraf
	4	12.5	Takraf
B – (Front)	4	5	Demag
B – East (8/9)	9	5	Demag
11 – 12	5	6	Duro Felguera
	1	200	Floating

Mobile Cranes/Forklifts:

Type	*Capacity tons*	*No.*	*Type*
Forklift	2	56	Komatsu
Forklift	1	27	Komatsu
Forklift	3	10	Komatsu
Forklift	12	2	Komatsu
Forklift	2	16	Toyota
Forklift	1	10	Toyota
Forklift	4.5	2	Clark
Forklift	28	5	Kalmar (with spreader)
Forklift	12	3	Kalmar
Container Crane	60	4	Bellotti
Mobile Cranes	40	2	Poclain
Mobile Cranes	20	2	Poclain
Mobile Cranes	30	1	Bucyrus
Mobile Cranes	1.5/6	13	
Container Trucks	50	12	

STEVEDORES: Working hours: 1st shift, 0700 to 1300 hrs.; 2nd shift, 1300 to 1900 hrs.; 3rd shift, 1900 to 0100 hrs.; 4th shift, 0100 to 0700 hrs.

Normal capacity per gang per hour: *(a)* Rice – about 80/90 tons per gang/hour. *(b)* Meat – about 60/100 tons per gang/hour.

Overtime is compulsory if port is congested.

Lavatory Conveniences for Shore Labour: Each vessel must furnish conveniences for all shore labour employed on board. Work has been stopped until such conveniences are installed. It is advisable, therefore, for vessels calling at Montevideo to be equipped with 2 spare lavatories, 1 for tally clerks and 1 for stevedores, etc.

MEDICAL: Any urgent case must be advised in advance. In normal cases, the Health Service Doctor in the port will visit. For this purpose there are Clinics and Hospitals with optional assistance. Vaccination Certificates are issued by the Port Health Service. There are also private health and medical services which give on-board treatment.

TANKERS: Dirty ballast can be discharged depending on whether or not there is a berth at La Teja, Inflammable Materials Dock. A.N.C.A.P. have the necessary reducers for any type of operation.

Diameter of pipes: Crude – 12 in.
Fuel oil – 8 in.
Dirty ballast – 8 in.

Berth depths: North Quay – 29.6 ft.
South Quay – 22 ft.
West Quay – 14 ft.

DENSITY: This varies according to wind and tide (1006 – 1002). The degree of salinity (max. 10 gm. per litre) is broadcast daily in the weather reports by radio, and varies from fresh to brackish to sea water. Steady South winds give the highest degree of salinity.

FRESH WATER: Fresh water is supplied by the Port Authorities at all quay berths. Request must be made through the Agents, vessels supplying their own hoses where possible. It is important that the water meter should be read together with the Port official both at connecting and disconnecting to verify the exact quantity. Loading rate 20 cu.m./hr. Water also available by barge (capacity 170 tons) loading rate 18 t.p.h. – 20 t.p.h.

FUEL: This can be taken on board whilst anchored in the foreport via two barges, one of 595 tons delivering at a rate of 250 – 350 cu.m./hr., the other of 310 tons at the rate of 200 to 250 cu.m./hr.

Also available from the Uruguayan tanker "Valiente" (capacity 1,337 cu.m. of fuel, rate of 700 cu.m./hr.) or 196 tons of water at the rate of 70 cu.m./hr. This service can be effected outside the port.

A.N.C.A.P. Information: All grades subject to confirmation, the request being made via the Agent 15 days in advance.

CONSULS:

	Address	*Telephone No.*
Argentina	Rio Branco 1412	900897
Austria	Sarandi 693	914000
Belgium	L. Patria 2880	701265/70
Bolivia	Rio Branco 1320	912394
Brazil	18 de Julio 984	911145/46
Chile	Canelones 1165	910696
Colombia	Soriano 791	902606
Czech Rep.	L.B. Cavia 2996	787808
Denmark	Rio Branco 1389	915238
Ecuador	21 de Setiembre 2816	700727
Egypt	A. D. Costa 3469	799904
El Salvador	Piedras 434	900852
Finland	Solis 1533	914386
France	Uruguay 853	912791
Germany	La Cumparsita	900841/904958
Greece	Misiones 1481	912148
Guatemala	Fco. Soca 1379	782104
Honduras	Misiones	900894
Hungary	P. de Pena 2469	786173
Iceland	J. Benito Blanco 715	702565
Israel	Bvar. Artigas	404164/66
Italy	J. Benito Lamas 2859	785316
Japan	Rincon 487	913936
Korea	Avda Brazil 2385	787679
Lebanon	Fco. Solano Antuna 1882	701834
Mexico	Juncal 1305	916890
Netherlands	Leyenda Patria 2880	701631
Norway	Colon 1580	987121
Panama	J. Benito Blanco 715	703620
Paraguay	Rio Negro 1370	984775
Peru	Juan Gomez 1492	984743
Portugal	P. de Pena 2486	781915
South Africa	Rincon 487	986956
Spain	Libertad 2750	780048
Sweden	Avda. Brasil 3079	780088
Taiwan	Fco. Soca 1128	790577/790312
United Kingdom	Cerrito 420	912501
U.S.A.	H. A. Santos 808	409126/409051
Venezuela	Avda. Artigas 1253	493005
Yugoslavia	Avda. Espana 2697	788129

REPAIRS: All kinds of repairs can be effected, either afloat or in drydock.

DRY DOCKS:

Nacional	Length between perpendiculars	141.30 m.
	Width	28.50 m.
	Height	10.46 m.
	Depth of water	14.11 ft. at zero
Tsakos (Floating)	Lifting power	12,000 tons
	Length	165.99 m.
	Width	28.50 m.
	Height	4.41 m.
	Max. height of stocks	23.16 m.
A.N.P. (Floating)	Length	60.00 m.
	Width	13.72 m.
	Height of water at the stocks	4.75 m.
Maua	Length	79.25 m.
	Length on stocks	74.42 m.
	Depth of water	12 ft.
	Width of pontoon	15.25 m.
	Capacity of operation	2,000 tons

GANGWAY/DECK WATCHMEN: Shore watchmen are compulsory. Arranged by Agents. 1 required on deck and 1 for each gangway. Vessels carrying dangerous cargo must also employ a guard of the Prefectura.

Vessels calling for supplies only, for orders, in distress or to land sick crew members or to enter dry dock, need not employ Watchmen. Repairs afloat require a watchman, if they do not carry out commercial operations.

Shifts are of 8 hours, commencing at 0700 hrs. Vessels under repair, and those at ANCAP moles may fix 12-hour shifts, paying a shift and a half.

If special watchmen are required for goods or working equipment, application must also be made to the Union.

If watchmen are needed in the holds, same applies.

Regulations also require a watchmen in the holds wherever the ship has a crew member, cadet or officer permanently on watch to prevent pilferage. However, where ship's personnel are in the hold to watch the stowage of the cargo, no extra watchman is required. Masters should therefore, advise Agents if they intend to place crew members permanently in the holds during discharge, so that Agents can advise the Association before they make their claims.

Care must also be taken on arrival, since the watchman is on duty from 0700 hrs. on, whereas it may be necessary to place the gangway safety net, etc., before that time, so that Pilot may disembark.

Only those involved in this operation should go ashore. The Receiving Commission may ask for the gangway to be opened before 0700 hrs., which is in order, but no one else should use the gangway to avoid claims from the Union.

Vessels lying in the anteport must provide launches for the transport of watchmen employed.

REPATRIATION: There are facilities for exchanging crews.

AIRPORT: Located 30 minutes away by car. There are various regular services to all parts of the world.

TIME: GMT minus 3 hours. (However changes are possible).

HOLIDAYS: 1st January (New Year); 6th January (Epiphany); 3 days in February (Carnival); 7 days in March or April (Tourist Week); 1st May (Labour Day); 18th May (Battle of the Stones); 19th June (Artigas' Birthday); 18th July (Swearing of the Constitution); 25th August (Declaration of Independence); 12th October (Day of the Race); 2nd November (All Souls'); 25th December (Christmas Day).

On these days, work will always proceed when the Agent or Owner requires it or also if the Port Authority requires it, should there be a number of vessels anchored in the Roads awaiting a berth.

POLICE/AMBULANCE/FIRE: Port Police (Immigration): 95.21.51; Fire Brigade: 91.51.51 to 56 – extensions 139/337. Ambulance: 91.51.51 – extensions 272/382.

Prefecture of the Port of Montevideo: 95.21.27 – 95.21.77, 95.54.05, 95.52.01, 95.22.27, 95.24.27 ext. 07, 91.51.51 ext. 199, 91.93.03, 91.53.71 ext. 199.

TELEPHONES: There are services on all quays. Telephones can be requested by the Agent from the Port Authority.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: The prefecture issues identity cards. Crew not allowed ashore without card.

DEVELOPMENTS: A container park and fish quay have been built alongside the Eastern Quay and in the Mantaras Zone respectively.

A battery of silos will be constructed at C.M.B. (between Warehouses 7 and 8) which will facilitate the loading and unloading of grain.

SHIPMASTER'S REPORT: July 1983 (Updated 1990).

Documents: As per "Guide to Port Entry".

Pilotage: Compulsory. Pilot boards at Sea Buoy. 24 hours' notice required.

Anchorages: As per B.A. Chart 2001.

Restrictions: Max. draft 28 ft. Possible to depart/enter 24 hours a day.

Max. Size: Largest vessels using the port are LASH vessels, length 272 m., beam 30 m. – 40 m., max. draft 28 ft.

Health: Inform Agents of vessel's state of health and request Free Pratique.

Radio: Cerrito Radio Station.

VHF: Vessels must abide by Uruguay Regulations as per Radio Signals Volume 6, Part 2 otherwise will be subject to very heavy fines.

As soon as vessel is inside Territorial Waters, i.e., S.W. of a line bearing 128° from Chui Lt. and West of 50° 50' W., they must report to the appropriate station on VHF.

Pilots and Port operate on Channel 16.

Tugs: Available.

Berthing: Vessel berthed at Darsena/Muella A. Least depth in channel from sea to berth was 30 ft., distance between sea and berth being 6 miles. Mean tidal range at berth is 2 ft. Nature of bottom at berth – mud.

Cranes: Sufficient quay cranes of 4 tons capacity available. One floating crane of 200 tons capacity available.

Equipment and storage available for breakbulk/palletised cargoes.

Stevedores: Stevedores were very helpful.

Medical: Doctor and hospital available.

Density: 1002.

Fresh Water: Available.

Fuel: Bunker fuel and diesel oil available.

Repairs: Can be undertaken.

Dry Docks: Available.

Surveyors: Lloyds' Surveyor based at the port.

Airport: Available.

General: Fresh provisions, meats, groceries and laundry services available.

SHIPMASTER'S REPORT: May 1996.

There is much information available on this port elsewhere, but I would like to deal here with the available depth in the vicinity of pilot boarding area, port channel and alongside, especially when a vessel attains 7.5 m. fresh water draft on arrival and or on departure.

We had sailed from Diamante, drawing fresh water draft 6.84 m. forward and 6.98 m. aft. It is important to note that Parana Pilots disembark at Zona Comun off La Plata. By earlier arrangement, the Montevideo Agents arrange a Pilot to board at Zona Comun (and relieves the Parana River Pilots) and he pilots the vessel up to the Montevideo Pilot Station, situated at approximately Lat. 35° 0.5' S., Long. 56° 14.5' W. The Harbour Pilot takes over from this position.

As our maximum draft was 6.98 m., and we were to load around 10,000 tonnes of bagged rice from Montevideo, our departure Montevideo draft was likely to be 10.0 m. (fresh water). By referring to the B.A. Chart No. 1749 and No. 2001, one would find that charted depth in the vicinity of forementioned pilot station position is 7.7 m. Also it may be seen that 10.0 m. charted depth contour extends upto about 9 miles E. × S. of pilot position and thereafter charted depth progressively increases beyond 10.0 m. It may be borne in mind that the buoyed channel as shown on Chart No. 2001, which extends from Km.9.35 Buoy (in the vicinity of the forementioned pilot position) upto Km.42.4 Buoy, is an abandoned channel. This channel was reported closed as per Notice to Mariners in 1990 and again in 1995. Most of the buoys of this channel are missing or out of position, as such it is absolutely unsafe to venture any passage through this.

The channel which is almost North of the Fairway Buoy in position Lat. 34° 59.85' S, Long. 56° 13.45' W., has maintained charted depth of 10.0 m. and leads to port through the breakwater. We berthed starboard side to Berth No. 1 of Darsena-I. The Agent advised that depth of water alongside in the region of ship's bow was about 9.0 m., but about 10.0 m. elsewhere (which found not correct as per ship's soundings).

It may be note that it is customary that any Master would like to have at least 1.0 m. under-keel clearance, but at times it would be impossible to have so much safety margin. But asking for at least 30 cm. under-keel clearance (above the charted Datum) is quite prudent, if the nature of the bottom permits, but even this minimum clearance of 30 cm. is a luxury for Montevideo port when your expected draft is likely to be 9.75 m.

It is very important to study the Charter Party which may incorporate N.A.A.B.S.A. Clause (not always afloat but safely aground) or "always afloat" or both. As per NAABSA Clause, which is generally applicable for Montevideo Channel and also for the Parana River, vessel may sometimes smell or touch bottom or run aground without sustaining significant damage due to nature of mud in the bottom, which is said to be about 1.0 m. or so. Abovementioned NAABSA Clause applies in the channel and river, but not alongside the berth. It is necessary to emphasise that, if vessel is likely to attain critical draft as mentioned above, it is better to seek necessary advice from the Owners/Charterers/Agent.

Alongside the berth, we sounded around the vessel and found minimum 10.3 m. depth on the sea side, while on the jetty side it was 10.0 m. forward, 9.0 m. midships and 8.6 m. near starboard quarter (density 1002).

Astronomical factor does very little to influence the rise and fall of tide in this region, which in fact is affected by the direction and force of the prevailing wind. As per tide tables, one would notice that there is a very nominal tidal range. But if the wind is from South with good force a lasting for a few days, the level of water in Montevideo and Parana Riv may increase as much as 2.0 m. or so. If there is persisting Norther wind, water runs out of the rivers, basins and estuaries, causing negative surge. Due to all above constraints, it is very difficult accurately predict the available depth.

Since it was my first call to Montevideo to load bagged rice upto abo 10.0 m. draft, I had knocked on all the doors to get a ruling on th confirmed maximum sailing draft, and the best I obtained was 9.75 m This draft was confirmed by the Agent and was duly verified and stampe by the Harbour Master's Office. I am also enclosing a guideline from th Senior Pilot of Montevideo port (See "Notice" below).

In order to limit our sailing draft to 9.75 m., we shut out 500 tons o cargo. We were touching the bottom (starboard side) while we we alongside during our loading. We chose our sailing time at top of th high water which, as per port tidal gauge recorded about 80 cm. abo the charted Datum. The passage through the channel until about 9 mile East of the Fairway Buoy was made at a regulated speed to preve any squatting. The Pilot accompanied us upto about 4 miles East of th Fairway Buoy. We did not at any time "smell" the bottom, touch or squa Also we did not notice any sluggish or erratic steering. We alwa remained close to, but South, of the "reported closed 1995 channel" a maintained a very good lookout for any drifting buoys.

Notice:

Guidance to the Deep Draft Ships Approaching
Montevideo Roads

(1) The buoyed channel from Km.31.5 to Fairway Buoy mark the natur deep waters of the river, although for many years it has not bee maintained, but track is commendable.

At night-time or poor visibility periods, care must be taken due t unlit, shifted or missing buoys, in this case navigation can b undertaken South of it. Report your transit to avoid crossin situations.

(2) There are no entry restrictions, but over 32 ft. it is advisable t Shipmasters to make contact in advance with Montevideo Po Control by VHF Channel 11 or 13, regarding height of the tide. I less than 0.50 m. above Zero, wait in proximity of Alpha Zone t rise.

Heights between 0.80 m. to 1.00 m. are normal.

(3) If awaiting a Pilot, anchor 1.5 miles E.S.E. from Fairway Buoy.

Maximum draft allowed by tide is 33 ft. (FW). Density of dock wat varies from 1000 to 1012, but mostly average 1005.

(4) Reduced speed and touching of the bottom will be expected i shallow waters, but little danger due to nature of bottom.

(5) Obviously all this information is subject to the Shipmaster's skill a does not reduce their liabilities.

I will be pleased to give further information or amendments throu local Agent.

Signed: Captain . . . . . ., Pilot Advisor.

AUTHORITY: Administracion Nacional de Puertos, Rambla 25 d Agosto de 1825 No. 160, Montevideo, Uruguay. *Tel:* 96-07-34, 95-0 58. *Telex:* Naveanp Uy 22351. *FAX:* 95-85-35. *Contact:* Ing. Eucli Cotignola, General Manager.

NUEVA PALMIRA: 33.53 S. 58.25 W. (See Pla

LOCATION: Situated on East bank of Uruguay River, 155 miles abo Montevideo. Km. 0 on River Uruguay.

DOCUMENTS: The following documents are required for Port clearan

Cargo or Ballast Manifest.
Negative Passenger List or List of Passengers, visaed by the Cons
Crew List.
Stores List.
List of Personal Effects.
Register.
Maritime Declaration of Health.

PILOTAGE: The information required from vessels navigating within t area of the Port Control are:

Time of entry and leaving the area.
International call sign.
Name of vessel.
Flag.
Estimated course.
Latitude.
Longitude.
Port of destination.
Estimated time at port of destination or other point of call.

The area appointed for effecting change of Pilots is the Port Ro The Pilots arrive at the vessel in a launch 10.6 m. overall length, w cabin, painted orange, owned by the Uruguay Pilots' Corporation.

ANCHORAGE: The area designated for anchoring is located within t roads, depth being between 30 ft. and 45 ft.

RESTRICTIONS: There are no restrictions for berthing in the port, ex those imposed by weather conditions (winds, etc.). Vessels berth wi the aid of tugs.

MAX. SIZE: *Old Port:* Max. draft 23 ft.

New Port: Max. draft 26 ft. 6 in.

Also see "Berthing".

HEALTH: The Health Authorities will require a Crew List and Ma Declaration of Health. In the event of disease being detected on bo the Health Official will proceed to inform the Aid Centre who will arr for a doctor to attend on board, with the vessel placed in quaran the patient will be transferred to hospital, depending upon the ill discovered. To date, no such occurrence has arisen in the port.

RADIO: VHF equipment with permanent listening out on Channel 16.
RADAR: There is no radar equipment.
VHF: All communications are effected by means of VHF equipment. The call sign is CWC 31 – "Control Palmira Prefecture", and the following Channels are used: 6, 8, 9, 11, 12, 13, 14, 16, 25, 26, 68 and 69. The station operates permanently on Channel 16, the frequency being 156.800 MHz.
TUGS: The service of a tug is not necessary for berthing vessels.
BERTHING: The port has the Official Quay and the quay owned by Navios.
Official Quay: Length 240 m., length of the head 80 m., width in the centre 40 m.
Navios Corporation Transfer Station: Navios Corporation is a private company that owns and operates a Transfer Station located in Nueva Palmira Free Zone.
Facilities: Unloading, storage and loading of materials in bulk, like ore and grains. For these services, it has 2 docks (one for barges and the other for vessels and barges), cranes, conveyor systems, warehouses and stockpile.
Unloading: It is possible to unload vessels up to 28 m. breadth and 16.5 m. depth by crane and clamshell in the exterior dock. The unloading rate is 300 tons/hr. for wheat, and it varies with the stowage factor of different commodities.

For unloading barges, Navios has 2 docks (exterior and interior). The exterior one, with Marion crane, can unload grains at 300 tons/hr. and ore at 400 tons/hr. The interior one (1991 investment), with Liebherr crane, admits simultaneous work with 2 barges on both sides of the dock (this avoids losing barge shifting time). Cleaning of barges and vessel's holds is performed by the Navios payloader.
Storage: Stockpile for ore with a capacity of 50,000 metric tons.

Three warehouses divided into 11 silos for grains (total capacity: 75,000 metric tons).

Goods' identity (classified by customer) is maintained to preserve quality and quantity.
Loading: Vessels must be ocean bulk carriers up to Panamax size (225 m. length, 32 m. breadth, 18 m. depth), and appropriate for being loaded by conveyor with flexible spout that is provided by Navios. Trimming and spout position will be carried out by Navios personnel. No manual trimming is performed. The vessel must shift from stern to bow by her own means and at her own expense. Loading rate from silo to vessel (grains) is 400 t.p.h. and 700 t.p.h. from stockpile to vessel (for ore).
Mooring Conditions: With Uruguayan "Rio Uruguay" Pilots and without tugs (bow towards North position).

Navios dock draft: 28 ft. below Chart Datum (the water level is almost always 2 ft. above zero). Vessels can arrive from Martin Garcia Bar (max. 21 ft.).

Sailing draft: 28 ft. across Parana River and Mitre Channel.
Transhipments: It is possible to load vessels directly from barges from both docks for grains and also for ore.
Conveyor System: It permits combined operations, including vessels, barges, trucks, stockpile and silos, in all imaginated combinations.

It is possible to work simultaneously by loading a ship from silo or barges, and unloading from the other dock to silo or stockpile avoiding the river transportation's delay.
Labour Rules: Navios does not use stevedores as it uses its own personnel. If customers require, it is able to work 24 hours a day, including Sundays and labour holidays.
Supplies: Navios supplies fresh water free of charge.
Operator: Corporacion Navios Sucursal Uruguaya, Zona Franca de Nueva Palmira, Nueva Palmira, Uruguay. Tel: (598-544) 6183, 6491. Fax: (584-544) 6492.

Montevideo Office: Juan Carlos Gomez 1445, Esc. 701 Esquina 25 de Mayo. Tel: (598-2) 956509, 964273, 963310. Fax: (598-2) 962874. Telex: 22041 Navigen Uy.
CRANES: The Official Quay is equipped with 3 cranes of the National Port Administration. They are mobile cranes on rails. Two are for 3,000 kg., and the third is for 5,000 kg.
STEVEDORES: As soon as the vessel communicates the ETA at the port, the Agent will make all necessary arrangements for stevedoring services to commence work as soon as the vessel has obtained Free Pratique. These services will be made available dependent upon the tasks required to be fulfilled.
MEDICAL: The local Public Health Aid Centre is entrusted with furnishing any medical aid which may be necessary on board.
BULK HANDLING FACILITIES: There are no tanks, but there are warehouses for storing grain and general cargo. These warehouses belong to the National Port Administration and to the Free Zone, and are located within the port area.
FRESH WATER: Fresh water is supplied by the National Port Administration.
FUEL: There is a fuel storage depot within the port area, and should it be necessary to supply bunkers to a vessel, application has to be made to ANCAP who will supply via tanker trucks.
FIRE PRECAUTIONS: Fire Station and fire engine available.
CONSULS: There are none at local level. In the town of Carmelo, 21 km. from Nueva Palmira, there is the Consulate of the Argentinian Republic.
REPAIRS: Minor repairs possible.
SURVEYORS: None available.
GANGWAY/DECK WATCHMEN: The service of watchmen is not necessary, unless the vessel is carrying flammable cargo.
HATCHES: Opening and closing of hatches is normally carried out by stevedores. MacGregor hatches opened/closed by crew.
CUSTOMS ALLOWANCE: Each crew member is permitted to carry out of the bonded ship's store, 5 kg. tobacco, 2 cartons of cigarettes and 2 bottles of wine.
CARGO GEAR: Normally, loading and discharge are effected by means of land-based equipment.
REPATRIATION: There are facilities for changing crews, and to effect any repatriation necessary. In both cases, the arrangements are carried out with the participation of the Immigration Authorities and the Maritime Agency concerned.
AIRPORT: There is the airport of Zagarzazu located between Nueva Palmira and Carmelo, approximately 15 km. from this town. Local airport for small airplanes (Suarez Noya) is 8 km. from city.
TIME: Local time is GMT minus 2 hours.
HOLIDAYS: 1st January, 19th April, 1st May, 19th June, 18th July, 25th August, 12th October, 8th December, 25th December. Holidays do not interrupt operations on vessels.
POLICE/AMBULANCE/FIRE: Police: Tel. 544-6042, Ambulance: Tel. 544-6082. No fire brigade.
TELEPHONES: It is not possible to have telephones installed on board vessels.
SERVICES: There are stevedoring services, Maritime Agents and Customs Clearance Agents.
SHORE LEAVE: Once Free Pratique is granted, there are no prohibitions for crew members going ashore.
DEVELOPMENTS: The lengthening of the head of the Official Quay by 200 m. to the North is planned. Grain Silo with capacity of 25,000 tons to be built.
AUTHORITY: El Sub-Prefectura de Nueva Palmira, Nueva Palmira, Uruguay. *Tel:* 544-6139. *FAX:* 544-6194.

Also see "Montevideo".

AGENT: Antonio Vico y Cia., Gral. Artigas 1171, 70101 Nueva Palmira, Uruguay. Tel: (0544) 6037, 6765. Fax: (0544) 6426. Telex: 29015.

PAYSANDU: 32.18 S. 58.06 W. (See Plan)

LOCATION: Situated on the East bank of Uruguay River, 380 km. above Montevideo. Km. 204 on River Uruguay.
DOCUMENTS/PILOTAGE/HEALTH/RADIO: See "General" at beginning of Uruguay section.
RESTRICTIONS: River navigation controlled by depth in the passes at Almiron, Vera and Urquiza. Since river conditions vary from season to season, Agents should be consulted beforehand regarding available draft at any particular time.
ANCHORAGE: Off Montevideo.
MAX. SIZE: Up to 15 ft. draft fresh water, depending on river conditions.
TUGS: Available.
BERTHING: Grain Elevator Berth: 20 ft. depth alongside at zero tide. Coastal Berth: Length 300 m. Depth 11 ft. at zero tide.

ANCAP Pier: 1 berth for tankers, 30 ft. depth at zero tide.

There is 1×5 ton crane on the grain quay and 3×3 ton cranes on the coastal berth. Loading on the ANCAP berth is by lorry.
STEVEDORES: Working hours: 0800 – 1200 and 1430 – 1800 hrs. Saturdays: 0800 – 1230 hrs.
MEDICAL: All assistance available.
FRESH WATER: Available at all berths.
FUEL: By negotiating through the intermediary of the Customs Clearance Agent the required quantity is delivered.
REPAIRS: Minor repairs can be effected.
CONSULS: Local representation for Argentina, Brazil, Italy and Paraguay. All other Consuls at Montevideo.
GENERAL: Refer to "Montevideo" for all general information.

Republic of Vanuatu

PORT VILA: 17.45 S. 168.18 E. (See Plan)

PORT LIMITS: A line drawn between Pango Point and Devil's Point.
DOCUMENTS:
Last Port Clearance.
2 Crew Lists.
2 Passenger Lists.
2 Cargo Manifests.
2 Stores Lists.
Log Book, Derat and usual Ship's Certificates to be available for inspection.
PILOTAGE: Compulsory for all vessels over 60 m. in length. Pilot boards 2 miles West of the Fairway Buoy, on the leading lights. Pilot launch displays the Pilot (H) flag by day and white over red light at night when engaged on piloting.

24 hours' notice of ETA to be given.

Telegrams/Telex for Pilot should be addressed to Harbour Master, Vila, or advise through Agents. ETA messages for night arrivals, weekends and public holidays must arrive during office hours, Monday to Friday. VHF watch is kept on Channel 16 during working hours. Contact normally made 2 hours before arrival at Pilot Station.
ANCHORAGES: When a vessel has to await a berth or tide, the Master may anchor in the main bay North of the leading lights (1,200 m. from lower lead) and well clear of vessels leaving Pontoon Bay; or as directed by the Harbour Master.
RESTRICTIONS: No restrictions except that no services will be provided after 2300 hrs. and before 0500 hrs., unless in emergency or by prior arrangements.
MAX. SIZE: Governed by berth size and max. LOA 250 m.
HEALTH: Pratique messages should be addressed to Harbour Master. If vessel not healthy, medical advice should be requested through Agents.

Pratique messages will not normally be responded to if the vessel is healthy.
RADIO: Messages or communications possible via Port Vila Coastal Radio. Call sign YJM.
VHF: Port and radio station keep watch on Channel 16 during working hours.
RADAR: No radar services.
TUGS: One tug available for berthing/unberthing. 780 h.p., 14 tons bollard pull.
BERTHING:
Main Government Wharf: Steel pile and concrete decking construction; with bollards 30 m. from each end of the wharf. Length of wharf 212 m, width 9 m. and depth 10.7 m. alongside. Loading/discharging by ship's gear.

Transit storage 2,000 sq.m.; open storage 1,000 sq.m. Can take Ro/Ro traffic.
Arammadi Wharf: Privately owned. Length 55 m., depth 8.2 m. alongside. Vessels of 150 m. length can berth safely. Ample open storage, but no closed storage.
Town Wharves: 2 small wharves on town waterfront, depth 2.5 m. alongside. Also see "Tankers".
CRANES: None available.
STEVEDORES: *Working Hours:* Monday to Friday: 0700 – 1100, 1300 – 1700, 1800 – 2300. Saturday: 0700 – 1500. Sundays and Public Holidays: No cargo work. Gangs to be ordered previous day by Agent.
MEDICAL: Government hospital with full facilities. Private doctors and dentists available. Arrangements may be made in advance with Agent by telex or on arrival.
TANKERS: Tankers anchor using a "Mediterranean Moor" with 2 lines to the shore. Due to bar at entrance to bay, entry is made at HW only with controlling draft of 7 ft. plus height of tide. Max. size 1,500 d.w.t.

There is an overhead power cable between Iririki Island and the mainland with a vertical clearance of 19 m.
DENSITY: 1025.
FRESH WATER: Available at main wharf at a filling rate of about 38 t.p.h. At the Star Wharf fresh water available at a filling rate of about 2 t.p.h. Water is good quality and potable.
FUEL: Fuel can be supplied by Shell, Mobil and B.P. by road tanker.
CONSULS: Australia, China, France, New Zealand, Papua New Guinea, Sweden and U.K. are represented.

The E.E.C. and E.S.C.A.P. also have resident representatives.
REPAIRS: Small repairs can be undertaken.
DRY DOCKS: None.
SURVEYORS: Classification Societies' Surveyors can be brought from Fiji and New Caledonia at short notice.
GANGWAY/DECK WATCHMEN: Not available or necessary.
OPENING/CLOSING HATCHES: Hatches are normally opened and closed by ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes or 100 cigarillos or 50 cigars or 250 grammes tobacco. 2 litres of wine and 1.5 litres of spirits.
CARGO GEAR: Ship's gear used for loading/discharging. 11 forklifts from 2 – 20 tons, 1×22 ton flat-bed truck, 1 flat-bed truck with 19 ton crane, 1×8 ton tipper truck, 1 prime mover, 1×20 ton semi-trailer, 1×10 ton tilt trailer, 3×3 ton trucks and 1×20 ton container top lift frame (20 ft. containers) available.
REPATRIATION: Arranged by Agent.
AIRPORT: Bauerfield International Airport in Vila about 5 km. from port. Daily services to Noumea. Regular services to Fiji, Auckland, Sydney, Brisbane, Honiara, Papua New Guinea and Naura.
TIME: GMT plus 11 hours.
POLICE/AMBULANCE/FIRE: Police, Tel: 22222; Ambulance, Tel: 22100; Fire, Tel: 22333.
TELEPHONES: Available on board at Main Government Wharf through Agent.

There is a public telephone on the main wharf.
SERVICES: Diver available. Tinned, frozen meat and vegetab available, also bonded stores.
BANKS: Available.
SHIP SUPPLY SERVICE: Tug "Roimata" and pilot boat "Tekoni II" ca be used in an emergency for transport of personnel/essential store There are various charter boat operators who can be mobilised throug the Department for Emergency Operations.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Collection service available if requeste through ship's agent.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: Usual local facilities.
CURRENCY: Vatu.
REGULATIONS: No special regulations.
DELAYS: Only when more than one ship in port.
GENERAL: *Charts:* B.A. 1493 and 1494 cover this port.
DEVELOPMENTS: The privately owned 50 m. wharf to be extended b 40 m. and strengthened for container handling. No date yet fixed f commencement of construction.
AUTHORITY: Ports and Marine Department, Private Bag 046, Port Vil Vanuatu, S.W. Pacific. *Tel:* (678) 22339, 22476. *FAX:* (678) 2247 *Contact:* Captain Leith Nosak, Principal Marine Officer/Pil Tel: 23646 (home). Paul Peter Lenis, Harbour Master. Tel: 2438 (home).

SANTO: 15.31 S. 167.11 E.

The Port of Santo is sometimes referred to by the name of the old tow 'Luganville', but nowadays the port and the town are usually calle 'Santo'.
PORT LIMITS: The Port of Santo includes that area of the Segon Channel bounded in the East by a line running due North from Blac Rock Point on Aore Island (from the 'Black Rock' on B.A. Chart 1736 This is known as Pointe Chapuis on French charts. It is bounded in th West by a line running due East from the Renee River on the island o Espiritu Santo.
DOCUMENTS:
Last Port Clearance.
2 Cargo Manifests.
1 Crew Declaration.
2 Animals Lists (Nil if none aboard).
2 Prohibited and Restricted Goods (Arms and Ammunition).
2 Lists of Ship's Stores (Cigarettes, Tobacco, Alcohol, etc.).
6 Crew Lists.
All the above can be provided on ship's paper.
The following is a Vanuatu form which can be filled in on arrival:
Ship's Report and Arrival Declaration (Vessel's Details).
PILOTAGE: Telegrams for the Pilot should be addressed 'Harbou Master Santo' or advice passed through Agents. ETA messages f night-time and week-ends must arrive during office hours Monday t Friday.

Ships calling at Port Vila first, may pass ETA Santo through th Harbour Master at Vila.

VHF watch is kept during office hours on Channel 16 and for 2 hou prior to all advised arrivals. Pilot boat also watches Channel 16.

The pilot boat is a 12 m. boat with white hull and superstructu She has 'Pilot' in black letters on the cabin and exhibits a pilot ja She carries a red flashing light with her pilot lights at night.

The Pilot Station is 1 mile East of Black Rock Point at the Easte entrance to the Segond Channel. By day and in good visibility the Pi may board or disembark at the South-Western end of the Segon Channel South of Georges Philippar Pass, though this is not normal a should be by prior arrangement.

Pilot ladder should be rigged in accordance with the S.O.L.A convention.
ANCHORAGES: Vessels may anchor anywhere in the Segond Chan except in the 'Prohibited Anchorage' close off the Main Wharf (whic shown as 'Dock No. 3' on B.A. Chart 1736). There is a patch wi least depth of 14 fathoms 1 mile S.S.W. of the main wharf whic recommended for anchoring, especially for smaller vessels seek shelter from the S.E. trades. A strong tidal current, normally up to 3 kno runs in the channel and vessels should give plenty of scope.
RESTRICTIONS: There are no restrictions on entry. However, stevedores do not work from 2300 hrs. to 0700 hrs., vessels due to ar between these times are *recommended* to slow down, save fuel a arrive at the Pilot Station at 0530 hrs. or 0600 hrs. to berth in dayli
MAX. SIZE: Governed by berth size only.
HEALTH: Pratique messages should be addressed to Harbour Mas with ETA message. If vessel is *not* healthy, Harbour Master will ad action to take. Pratique messages will not normally be responded t vessel is healthy. Vessels arriving from Port Vila do not require Prati
RADIO: Message should be sent via Port Vila radio, call sign YJM
VHF: A port watch is kept on Channel 16 during office hours Mon to Friday and from 2 hours prior to advised ETAs. Call 'Harbour Mas Santo'. The pilot vessel also watches Channel 16 VHF when on pilo duty.
RADAR: No radar service.
TUGS: None, but one may be obtained in emergency from Port V
BERTHING: Salt water Berth 140 m. long with a depth of 10.5 m LWS, and this is the maximum draft. Vessels can, and usual overhang the ends of the wharf with lines on dolphins or bollards o shore. Dolphins are situated 22.5 m. East and 35 m. West of the W

Also see "General".

CRANES: None.
BULK CARGO FACILITIES: Stevedores are currently interested in experimenting with bulk loading of copra (rather than from bags) and various methods are used to suit different ships. All methods, however, require lifting by ship's gear. There is interest in the construction of a small coconut oil mill, storage tanks for which are already constructed.
BRIDGES: None.
STEVEDORES: Stevedores work 0700 hrs. to 1100 hrs., 1300 hrs. to 1700 hrs. and 1800 hrs. to 2200 hrs. Advice given at least the previous day by Agents should be sufficient. Stevedores do not work on Sundays, or if avoidable on public holidays.
MEDICAL: Medical attention can be arranged after arrival and there is a hospital in Santo. However, medical treatment that is not of an emergency nature should be sought elsewhere.
TANKERS: Tankers berth at the main cargo wharf. The discharge line is 8 in. and the rate of discharge is 150 tonnes per hour.
DENSITY: 1025.
FRESH WATER: Vessels can take up to 500 tonnes if 2 working days' notice are given. Otherwise the maximum amount may be as little as 50 tonnes. Water is good though a little hard.
FUEL: Small quantities can be arranged by truck. Large quantities can be delivered by the 8 in. tanker discharge line, but must be by prior arrangement with Shell or Mobil. Santo is not normally a bunkering port.
FIRE PRECAUTIONS: All normal precautions only.
CONSULS: None.
REPAIRS: No shore facilities suitable for larger vessels.
DRY DOCKS: None. Slipway for vessels up to 50 m. length.
SURVEYORS: None.
GANGWAY/DECK WATCHMEN: Not considered necessary.
HATCHES: Hatches are opened and closed by either crew or stevedores. Recommended that crew carry out this operation on copra loading ships.
CUSTOMS ALLOWANCES: (Per crew member) 200 cigarettes or 100 cigarillos or 50 cigars or 250 grammes tobacco. 2 litres of wine and 1.5 litres spirits.
CARGO GEAR: Ship's gear only. Ashore: 5 forklifts (from 2.5 to 22 tonnes), 2×3 tonnes flat trucks, 1×6 tonnes dump truck, 8 tractors, 100×2 tonnes trailers and 1×22 tonnes container carrier are available. No lighters available.
REPATRIATION: Possible from Santo Airport via Port Vila.
AIRPORT: Santo International Airport is about 6 km. from town.
TIME: GMT plus 11 hours.
HOLIDAYS: Holidays vary from year to year. It is recommended to seek advice of local Agents. It is not normally possible to work cargo on public holidays or Sundays.
POLICE/AMBULANCE/FIRE: Police tel: 222; Fire tel: 316; Health Officer tel: 419.

Police station is close to the wharf. There is no ambulance service. The fire service consists of 1 fire tender operated by Public Works Department. The Harbour Master has some hoses and a small foam generating machine stationed on the wharf.
TELEPHONES: There is a public telephone in the Post Office near the wharf.
SERVICES: None.
STORAGE: General cargo sheds of 6,000 cu.m.; 9,000 cu.m. of copra storage. Container yard for 200 TEUs. There is a minimum of 1,600 cu.m. of open storage.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
GARBAGE DISPOSAL: Not available.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: No club. Some local facilities.
CURRENCY: Vatu. U.S.$ 1.00 = 100 Vatu (approx.).
DELAYS: Only for stevedores non-working times or when there is more than 1 ship present in the port.
REGULATIONS: No special regulations.
GENERAL: Tidal stream in the Segond Channel can reach as much as 4 knots, the Westerly flood stream being predominant and the East going ebb stream occasionally absent. The flood stream can set in a North-Westerly direction at the main wharf, thus setting a vessel down onto the wharf and making an apparently simple berthing manoeuvre a little difficult. It is recommended that when S.E. trades are blowing, and a vessel has to berth port side to in order to stem the tide, the starboard anchor should be laid off whilst berthing with about 5 or 6 shackles leading 2 points for'd of the beam. This is to heave the bow away from the wharf on departure.
AUTHORITY: Department of Ports and Marine, Box 148, Santo, Vanuatu. *Tel:* 739 (office); 454 (home). *Contact:* Captain M. Toa, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Venezuela

GENERAL:

BERTHING PRIORITY: The Venezuelan Ministry of Communications has decreed, through the Directorate General for Transport and the Port Captaincies, the following new docking priority system:

1. Vessels owned by the C.A. Venezolana de Navegacion or chartered by that company.
2. Venezuelan vessels belonging to private companies.
3. Vessels of other countries.

Previously, vessels chartered by the C.A. Venezolana de Navegacion did not get priority treatment and it is understood that, with these new priorities, the number of vessels with docking privileges has been tripled, thus resulting in greater delays for vessels operated by foreign companies.

DOCUMENTS: *Prior to Arrival:*

Arrival Notice: The Agent must submit 24 hours in advance of the vessel's arrival, a letter-notification indicating date and time of arrival, name and nationality, name of Master, length, gross and net registered tonnage of cargo for the port, origin, destination, shipper and agency, in 16 copies, with the following distribution:

Captain of the Port, Customs (2), The National Institute of Ports-INP (3), Armed Forces of Cooperation, National Guard, Police Intelligence Service Bureau-DISIP, National Bureau of Identification and Alien-Immigration, Interpol, Ministry of Health and Social Welfare-Public Health Unit, Ministry of Agriculture and Livestock-Animal and Plant Health, Post Office and Chamber of Commerce.

Information on Cargo and Passengers for the Port: The agency must receive by airmail, sufficiently in advance, the following documents to be submitted to the authorities at least 24 hours before the vessel's arrival:

Documents	*Captain of Port*	*Customs*	*INP*	*Agency*	*Total*
Cargo Manifests(a)	–	1	3	3	7
Correction Letter to Manifest	–	1	–	1	2
Bills of Lading	–	–	2	1	3
Stowage Plan(b)	–	–	1	2	3
Cargo List	–	–	10	–	10
Container List	–	–	12	–	12
Dangerous Cargo List	2	–	1	1	4
Passenger List	–	–	–	1	1
Mail List	–	–	1	–	1

(a) As of January 29, 1979, the Cargo Manifest may be submitted on LAFTA/OAS Form 2, instead of on the Venezuelan Freight List (Sobordo).

(b) The Venezuelan Shipping Association is negotiating to have the stowage plan submitted to the National Institute of Ports on the vessel's arrival, instead of 24 hours in advance.

Request for Port Services: 24 hours before the vessel's arrival, the agency must submit to the Captain of the Port the request for pilotage, towage and berthing.

At the same time, it must request permission to disembark and embark passengers and cargo and unload merchandise, on a form addressed to the Customs Administrator, with copies to the INP and the National Guard.

Additional Requests: The agency must draw up and submit to the National Institute of Ports, 24 hours before the vessel's arrival, 12 copies of the cargo index, a document corresponding to tally books.

On Arrival:

Type of Document	*Number and distribution of documents*						
Basic forms	*Captain of Port*	*Customs*	*INP*	*National Guard*	*Public Health*	*Others*	*Total*
General Declaration	1	1	1	1	1	2(a)	7
Cargo Manifest	1	3	–	–	–	–	4
Crew List	2	2	–	2	–	5(b)	11
Passenger List	1	2	3	2	–	5(b)	13
Ship's Stores List(c)	–	–	–	–	–	–	–
Crew Effects Declaration(c)	–	–	–	–	–	–	–
Maritime Health Declaration	–	–	–	–	1	–	1
Mail List	–	–	–	–	–	1(d)	1

(a) DISIP and Identification.
(b) DISIP, Bureau of Military Intelligence, Interpol, Identification and Tourism.
(c) Eliminated by the new Organic Law of Customs, March 5, 1979.
(d) Postal Service.

Additional Documents							
Clearance from last port	1	–	–	–	–	–	1
List of in-transit passengers	1	2	3	2	–	5(e)	13
Freighted Bills of Lading	1	1	–	–	–	–	2
Return Cargo Manifest(f)	–	3	–	–	–	–	3
Cargo Indices	–	2	–	–	–	–	2
Baggage Declarations(g)	–	–	–	–	–	–	–
Vaccination List	–	–	–	–	1	–	1
Narcotics List	–	2	2	1	–	–	5
Firearms List	–	2	2	1	–	–	5

(e) DISIP, Bureau of Military Intelligence, Interpol, Identification and Tourism.
(f) When a vessel returns to the country goods missing in unloading other vessels, it shall submit, in addition to the cargo manifest a return cargo manifest containing the data required for the manifest and the name of the vessels on which the goods were originally manifested (Organic Law of Customs).
(g) Eliminated by the Organic Law of Customs.

Prior to Departure:

Clearance Documents: At least 6 hours in advance, the request t the clearance permit must be submitted to the Captain of the Port.

Request for Pilotage: Also 6 hours in advance, or more, the reque for pilotage must be submitted to the Captain of the Port.

SHIPMASTER'S REPORT: July 1982.

WARNING – CAUTION

You may wish to caution all seafarers who may in the future trade t Caripito, and the other similar jungle areas. The problem in this are used to be mosquitoes, but although they are still around, the proble that we have recently experienced is a moth locally known a 'Palometas'. One doctor referred to it as an insect 'Hylesia Canitia'.

My information is limited, due to language difficulties, but the proble is very real, and I cannot caution the unaware strongly enough to tak precautions. The vessel has traded to Caripito frequently over the pa two years, and this would appear to be the first experience as I can fin nothing about these moths in writing and our first warning was give when an Agent saw some of these moths onboard. This type of mot appears suddenly from the jungle with no regular cycle, and like othe moths is attracted at night by lights, be they from vessels, homes o berth installations. They are about *one inch* in length, their bodies abo pencil thickness and filled with eggs. They flutter in vast numbers aroun the lights, and it would appear that the dust, pollen, hair or whatev comes off them, falls onto the ship's structure or persons nearby. The do not bite and therefore I assume the dust, breathed in or landing o the skin causes a red pimply rash which gradually spreads over th whole body. It affects everyone differently, some crew were covered a very heavy bumpy red rash within a few hours of exposure, othe only in small patches on the arms which spread over the body takin several days, but in all cases causing extreme discomfort due to th itching and constant desire to scratch. At first it was only crew who we on deck that were affected, but as I assume the dust was brought in the accommodation by clothing, fans and the moths which got past th doors, the engine and catering crew were similarly affected.

Over two thirds of the crew were treated locally within 24 hours, wi injections, tablets, lotions & creams but this only brought temporary relie Rashes picked up 10 days ago with the first incident are now clean up, but fresh rash areas appeared when we visited the Caripito ar 3 days ago. We are on a weekly schedule, and one would hope we w build up a resistance to this problem. The local people also suffer fro this rash, but the ones I met only had a very light rash on arms, ne and body. They cannot say how long the moths will be present, vari reports of two weeks to months. However, we are now adopting th following anti-moth measures:

1. Put the air conditioning on recirculation, ensure all openings a closed.

2. At night when underway, blackout the vessel as much as possib During the San Juan River passage to Caripito, navigation lights o situation if possible.

3. When you anchor in San Juan River to wait for the tide or be at Caripito, blackout the vessel and allow no one outside if possible night, anchoring or picking up by torchlight. Having anchor lights o night is debatable, the local dredger does not.

4. Wash the vessel down completely at daybreak, and sweep all de moths off the deck.

5. For night mooring/deck operations, have as few lights on as saf possible, all exposed crew should cover themselves complet particularly around the neck area.

6. After clearing the Maturin Bar (river entrance) wash down the wh ship. The dust off the moths is still active days after leaving the ar Wash all filters of air conditioning units.

Knowing about this problem could have reduced exposure to wha an extremely unpleasant experience, and I have urged the lo installation to include a warning in their Port Information Guide.

UPDATE: 1996
MOTHS STILL IN VICINITY

Treatment: Seafarers, who become exposed to this terrible irritating ra can obtain some relief if they have a swimming pool onboard, spending as much time as possible in the pool to get the dust out of pores of the skin. If no swimmimg pool, stand under the fire main hydr

AMUAY BAY: 11.46 N. 70.15 W. (See Pla

OPERATOR: Lagoven, S.A.

ESSENTIAL REQUIREMENTS:

1. Incoming vessels must send ETA at least 3 days before arriv Amuay Bay. During hours of darkness all vessels must ide themselves on arrival either by radio-telephone or Aldis, prefe the former.
2. If a ship originally cleared for another port (including some o Venezuelan port) is diverted at sea to Amuay Bay, co information must be radioed prior to arrival to avoid heavy fine or delays. See "Radio".
3. No dirty ballast may be pumped overside in port or in Venez coastal waters. Ballast disposal facilities are available at Am Terminal.
4. The use of Venezuelan Government Pilots is compulsory for do and for movements inside the bay.
5. The Venezuelan flag should be displayed at the mast-head d daylight hours by ships anchored and berthed in Venezuelan wa
6. In addition to other clearance documents, 2 copies of an ite list of articles in the ship's chest must be presented to Autho on arrival.
7. Emergency fire signal is 5 long blasts on ship's whistle or s No other signal is to be given in the case of emergency.
8. Ratguards must be in place on all mooring lines.

LOCATION: The port of Amuay Bay is located on the Gulf of Venezuela, on the West Coast of the Paraguana Peninsula, Venezuela. The sea buoy marking the entrance to the bay is located in Lat. 11° 44' 25" N., Long. 70° 14' 50" W.

DOCUMENTS: Inward Clearance is effected on board immediately after docking by Government Port Officials and a representative of the Marine Department. It is necessary that the following documents be ready on arrival:

Clearance from Last Port.
Ballast Certificate from Last Port.
Crew Lists (5 copies).
Passenger Lists (5 copies).
Baggage List (3 copies).
Lists of Personnel Effects (3 copies).
Stores Lists (3 copies).
Lists of Slop Chest (3 copies).
Sailing Permit (Zarpe).

Vessels arriving with cargo to discharge, will also require:

Manifest (Sobordo) (1 original and 2 copies from each loading port).
Bills of Lading, 1 original and 5 copies from each loading port.
Tally Books (6 from each loading port).
Commercial Invoices (3 from each loading port).

Although vessels proceed directly to Amuay Bay, clearance documents should be prepared showing the port as Las Piedras, Paraguana (Amuay Bay). Failure to observe this requirement may result in penalties up to a maximum of Bs.2,000.

Admeasurement Certificate: All ships calling at a Venezuelan port for the first time must be measured for tonnage by the Captain of the Port. It is the usual practice to take ashore the ship's Panama Canal or Suez Canal Certificate, or any other certificate with which Venezuela is in agreement, which is used as a basis for recalculating tonnage under the Venezuelan Regulations, and is returned before sailing. The Venezuelan Admeasurement Certificate, when later issued, is forwarded to the owners. A fee is charged for this certificate, which is payable only on the ship's first call. Vessels registered in the following countries are excluded from the above regulations: Denmark, France, Germany, Ireland, Netherlands, Norway, Portugal, Sweden, United Kingdom and U.S.A.

Vessels that were originally cleared for another foreign port, or another Venezuelan port, and were subsequently diverted at sea, should radio the following information to "Lagomar-Judibana" prior to arrival:

Vessel's name
Master's name
Vessel's flag
Number of crew
Estimated time of arrival.
Last port of call
Port for which originally cleared
Grade and quantity of cargo to be lifted.

This information is required in order to make in advance special arrangements for Inward Clearance, to avoid payment of fine.

Outward Clearance and cargo documents are delivered on board by the Marine Dispatcher. However, in order to obtain the sailing permit, a special form, delivered on board on arrival, must be completed, not later than 2 hours before sailing time. This form gives cargo and freeboard information by the Captain of the Port.

In the event the berth is required by another vessel, a vessel having completed loading may be required to vacate the berth promptly and proceed to anchorage to await cargo documents.

PILOTAGE: Pilots are employees of the Venezuelan Government and pilotage is compulsory for vessels entering or leaving the harbour. The Marine Department will arrange for Pilots to board all vessels as necessary.

The Pilot acts in an advisory capacity; the Master retains responsibility for the ship at all times. In the event it becomes necessary to disregard the Pilot's instructions in order to ensure the safety of the ship, the Master must forward through the Marine Department a full written report of the circumstances, for delivery to the Captain of the Port.

ANCHORAGES: For vessels awaiting berth, there is a good anchorage about 1 mile N.W. of the sea buoy in 8 to 12 fathoms with a sand and mud bottom. Ship Masters are requested not to anchor at a distance greater than 3 miles from the sea buoy.

RESTRICTED AREA: A restricted fishing area has been established by the Venezuelan Government which is prohibited for mechanically propelled vessels drawing more than 5 ft. This zone lies within the area off the Paraguana Peninsula from Punta Macolla, Lat. 12° 5' 32" N., Long. 70° 12' 55" W., to Punta Estanques (Los Taques), Lat. 11° 48' 45" N., Long. 70° 16' 45" W., and a line connecting the positions below indicated: Lat. 12° 07' 40" N., Long. 70° 14' 25" W.; Lat. 12° 03' 15" N. Long. 70° 19' 23" W.; Lat. 11° 49' 25" N., Long. 70° 21' 50" W.

MAX. SIZE: Length 1,000 ft.; draft 43 ft. Also see "Berthing".

HEALTH: *Sanitary Inspections:* A close control of veneral diseases has been put into effect by the Government Sanitary Office.

Immediately after docking a Sanitary Inspector will board the vessel and all Crew members will be checked before going ashore.

Those persons found with infection must be sent to the Government Anti-venereal Clinic for proper medical attention and return to vessel before sailing. 20 Bolivares per ship.

Shore passes will be granted to all healthy persons.

Masters are required to co-operate in this campaign.

RADIO: The cable and telegraphic address for the Lagoven S.A. at Amuay is "Lagomar Judibana". Radio messages to and from ships at sea are routed through "Shipward 2 New York" for retransmittal through Aircon system to Judibana (Amuay Bay).

Radio Notice of Arrival should be sent 72 hours prior to arrival at Amuay. The message should include the following:

(1) Vessel's name.
(2) Flag.
(3) Last port.
(4) Next port.
(5) Crew List to include name/nationality/Passport number/time onboard/home address.

Ship-to-shore telephone: Radio-telephone listening watches are maintained on a 24-hour basis in the Marine Office on the following frequencies: 2182 kHz.; 156.8 MHz.

International telephone: International telephone calls are routed through Caracas, Venezuela. Telephone number is Punto Fijo area 069-51557 (It is usually difficult if not impossible to complete a call.). Telex: 54193 Lagoven.

Also see "Documents".

TUGS: Tug assistance is considered essential and is afforded all vessels entering, leaving or shifting in the harbour by 2 × 1,600 h.p. tugs. Disposition and manoeuvres of tug-boat are directed by the Pilot, who uses a "walkie-talkie" to convey orders to the tugs.

BERTHING: 4 finger piers provide 8 berths, numbered 1 to 8, from South to North.

Berth	1	2	3	4	5	6	7	8
Max. Arrival d.w.t. (m.t.)	70	92	24	44	16	30	16	30
Max. departure d.w.t. (m.t.)	112	112	48	48	38	38	94	94
Max. Draft (S.W.)	43'	43'	*37.6'	*37.6'	*37.6'	*37.6'	*37.6'	43'
Max. Length Ship	1000'	1000'	650'	700'	700'	700'	856'	856'
Max. Beam	Unl.	Unl.	Unl.	†	†	†	†	Unl.
Bow to manifold distance	495'	495'	300'	320'	330'	330'	340'	340'

Ballast line, fresh water and all grades bunkers at all berths.

*The max. draft will be increased to 40 ft.

†Max. beam permissible varies dependent upon the beam of vessel berthed on other side of the slip.

The use of an anchor when docking is permitted at all berths. It is considered prudent to have the outboard anchor hove-out prior to entering the harbour in order to facilitate speedy release if necessary while docking. The Pilot will advise whether the ship is to be berthed port or starboard side to the dock.

Products handled:

Berths No. 1 & 2: F.O., heating, heavy distillates, TJ-102, topped crudes, all crudes.

Berths No. 3 & 4: Lubes, F.O., LCT asphalts (penetration).

Berths No. 5 & 6: Naphtha, jet fuel, crudes, F.O., heating, MC/RC asphalts, kerosene, TJ-102, topped crudes, LCT (pref.).

Berths No. 7 & 8: Naphtha, kerosene, heating, F.O., jet fuel, MC/RC asphalts, all crudes except TJ-102.

LOADING: Loading rates particulary for low-flash products loaded during the hours of darkness or when topping-off cargo tanks, will be reduced by the terminal to meet existing conditions.

All loading and discharging will be stopped during the passage of an electric storm, and ullage covers must be closed and dogged down. During periods of calm, loading of gasoline or other similar low-flash products may be loaded at reduced rates or loading stopped if the heavy vapours are not being dispersed quickly enough to prevent hazards from accumulated gas pockets. Ship's officers are cautioned to be on their guard during such conditions.

Loading rates will be reduced when topping-off, if requested by the ship's officer.

Some of the fuel cargoes are loaded from fuel reservoirs through certified positive displacement meters, and shipping documents are prepared on the metered figures. All reconstituted crudes are line blended with conditions recording of component rates and quantities. Actual loading rates of both this crude and metered fuel cargoes are available at any time upon request of the standby.

Instructions as to grade or grades of cargo, and the approximate loading rate anticipated, will be given to the Master on completion of Inward Clearance. Supplementary information including number and size of lines and hoses will be furnished to the Chief Officer before loading commences.

If vessel's loading orders from owners or charterers do not agree with the terminal's orders, either as to grades or quantity, the marine representative should be advised immediately. The terminal is authorised to load 10% more or less than the quantity nominated; if the cargo to be lifted will be more or less than this 10% limitation it is necessary to cable New York for confirmation.

A terminal employee is stationed at each pier during the entire time the ship is discharging ballast, bunkering, or loading cargo. Fifteen minutes "stand-by" notice should be given to this man prior to completion of ballast, bunkers, or cargo.

Vessels loading Liquid and Flaked Sulphur: *For vessels loading Liquid Sulphur, the following applies:*

Location: Pier 2, Berth 3 at Amuay Bay.

Draft – 40 ft., length overall – 700 ft., beam – no limitation.

Loading will be at the rate of 400 long tons per hour through a 6 in. line and rubber hose.

Maximum cargo size – 25,000 long tons.

Normal loading temperature is 275°F. (Minimum – 265°F. Maximum – 295°F.). Density at normal loading temperature is 112 pounds per cu. ft. Viscosity at same temperature is 8.5 centipoises.

Safety precautions/provisions: Molten sulphur classified as "Grade E Liquid" by U.S. Coast Guard. No naked light, open flames or sparks should be permitted near any tank openings. Molten sulphur is combustible but is handled at temperatures below its flash point (325° – 370° F) and ignition temperatures (476-502° F).

For vessels loading Flaked Sulphur, the following applies: Physical characteristics of the loading facilities:

(a) Location: Lat. 11° 44' N., Long. 70° 14' W. Anchorage approximately 2,000 ft. South Punta Adaro with a depth of 33 ft. 400 yards offshore and dropping off to 50 ft. 1,000 yards offshore. In the rare event that the wind is Westerly vessel would anchor further offshore.

(b) No draft, length or beam limitation. (Vessels loading up to 24 ft. draft may be anchored inside the bay).

(c) Loaded barges whose overall dimensions are 200 ft. × 42 ft. × 17 ft. will be brought alongside with the aid of tugs and removed when required, barges will be equipped with fenders. The hoppers are 160 ft. × 37 ft. × 14 ft. Loading from barges to ship will be done using ship's gear and clam shells of 1.25 ton capacity. Clam shells will be furnished by Lagoven free of charge. Personnel (stevedores) to carry out the loading operation will be supplied by Lagoven or the ship's crew can be used if this is set forth in the charter party. Loading rate 1,000 long tons per day.

(d) The anchorage is sheltered in the lee of the Adaro Peninsula. Wave heights vary between 1 ft. and 2 ft.

(e) Normal Maximum parcel size – 10,000 tons loaded at a rate of 1,000 tons per day, however, an additional 2,500 tons can be supplied at a loading rate of 500 tons per day.

(f) Flaked Sulphur when stored in large quantities varies in density from 55 to 90 pounds per cu.ft. Average density is anticipated to be 70 lbs./cu.ft. Individual flakes are of irregular shape and are less than 0.5 sq.in. in area and less than 0.0625 in. thick. This size data is not a specification nor guarantee and is provided only to indicate the order of magnitude dimensions.

General:

Fee of Bs. 200 will be charged for trips between the Terminal and the anchorage by launch or tug for delivering personnel.

Method of cargo quantity determination: Barge drafts are marked to the nearest inch and capacity tables prepared by Charles Martin. The draft prior to commencement of and upon completion of discharging are noted. The amount transferred is obtained by consulting the tables. The quantity arrived at by totalling the amounts from the barges used is compared to the ships figures and reconciliation reasoned.

BALLAST: Vessels should arrive with sufficient ballast to permit safe handling. The Pilots require a draft of minimum 8 ft. forward, 18 ft. aft, on a T-2 or similar size tanker, 11 ft. forward and 20 ft. aft on a 26,000 d.w.t. or larger vessel. Ballast should be carried in a minimum number of tanks, and all other tanks stripped, so as to minimise deballasting time.

A relatively small amount of salt water remaining in ship's tanks or lines can contaminate crude and cause operating problems for the refiners. It is important therefore to strip tanks and lines as dry as possible.

Vessels provided with completely segregated ballast system are permitted to discharge ballast and load cargo simultaneously.

Absolutely oil-free ballast may be discharged overside. All dirty ballast must be pumped ashore. A 30 in. ballast line, 2×60,000 and 1×120,000 barrel slop tanks and separator system are available.

A considerable number of vessels are now participating in the programme to eliminate pollution of the seas. Under this programme, vessels may arrive carrying quantities of oil/water emulsion. If it is desired to follow the "load-on-top" procedure in such instances, it is requested that the Marine Representative be informed on arrival.

MEDICAL: Medical treatment and hospitalisation, if required, is provided at a hospital located in the Lagoven concession, operated by the Society of Catholic Medical Missionaries. Several dentists are located in the area.

Italian Crew members covered by Casa Maritime insurance receive medical attention from the appointed medical representative in Punto Fijo.

Authorisation forms for medical and dental treatment are provided, which require Master's signature. Transportation is available at the Marine Office. Please note that if the patient does not speak Spanish or English, an interpreter should accompany him.

DENSITY: The usual density of sea water at the berth is 1025, temperature ranges from 78°F. to 85°F.

FRESH WATER: Fresh water can be supplied if necessary; however, supplies are limited to essential requirements. All fresh water is piped from distant sources. Loading rate is about 10 t.p.h.

FUEL: Ship's requirements specifying grade and quantity desired are to be given to the Marine Representative boarding the vessel on arrival. All grades of bunker fuel, intermediate fuels and Diesels are available except Esso diesel. Bunker delivery rates average 2,500/3,500 barrels per hour. Bunkers are loaded through meters which automatically register quantities on bunker receipts.

It is the responsibility of ship's engineer to give "standby" notice to the terminal employee and advise him when to shut down.

CONSULS: Brazil, Great Britain, Italy, the Netherlands, and Norway have consular representatives in the area.

CUSTOMS: Venezuelan laws are strict in regard to contraband and Masters are requested to instruct their crews not to take cigarettes or other articles ashore. Cigarettes in carton lots, cigars, tobacco, souvenirs, gifts (particularly items of women's apparel) should be collected prior to arrival in port, listed with the items in the slop chest and placed in the custody of the Master for deposit in the slop chest or closet which will then be sealed for the duration of the vessel's stay in port.

Firearms on board any merchant vessel calling at Venezuelan ports must not exceed one per officer, nor can the ammunition exceed 18 cartridges per officer. All firearms and ammunition must be noted on the Stores List. Officers must not carry firearms while the ship is in Venezuelan waters and these side-arms and ammunition should be collected and held in the Master's safe custody. Crew members should be warned against taking knives or other weapons ashore.

While the vessel is in port, Venezuelan National Guard Officials are assigned on board to ensure compliance with Customs regulations. The law requires that meals be supplied to these officials during regular meal hours. Masters are requested to give them the privilege of eating in the officers' mess-room, to avoid difficulties.

TIME: GMT minus 4 hours.

SHORE LEAVE: Also see "Health". Shore passes will be granted to all healthy persons. A representative of the Captain of the Port boards on arrival and issues the required number of passes. Shore passes are to be collected prior to sailing and given to the Pilot undocking the vessel. Vessels are not permitted to sail until all Crew members are on boar unless hospitalised or prior arrangements made for disembarkin A letter to this effect is required from the Master.

REGULATIONS: (i) *Pollution:* The laws of Venezuela are very strict regard to the pollution of harbour and coastal waters by oil, and hea fines are imposed for violations. No dirty ballast, oil or bilge slops a to be pumped or allowed to escape overboard. All overboard dischar valves from cargo tanks and bilges are to be secured before loading o discharging commences. Loading is to be conducted with the greate care and vigilance in order that errors or delays in handling cargo valve may not result in overflows. All deck scuppers should be plugged befo loading to avoid harbour contamination should an overflow occur. Th Authorities require that a written report be submitted by the ship involve in the event of an oil spill.

(ii) *Gangways:* All vessels using the port of Amuay must provide a safe gangway. The use of rung ladders, pilot ladders, etc., is contra to Port Regulations, and Port Authorities will not board except by mea of a safe gangway or accommodation ladder.

(iii) *Passengers:* Passengers will not be permitted to disembark unles in possession of the required visa and documents. To facilitate clearanc if passengers are carried, the Master should include advice to this effe in his radio ETA.

(iv) *Visitors:* All visitors to ships are prohibited except those compa employees, petroleum inspectors, etc., whose duties require the presence aboard.

(v) *Rats:* Rat guards required at all times.

GENERAL: *(a) Weather Conditions:* There is little rainfall at Amuay Ba annual precipitation averages 12 in. The so-called rainy season usual coincides with the Caribbean hurricane season, from August t November, although Amuay lies South of the usual hurricane trac During these months calms are often experienced and winds from a Westerly direction may be expected. Normal winds are steady from th N.E., average Force 4, Beaufort Scale, with a max. of Force Temperatures average about 85°F., with little variation from day to nig or season to season.

(b) Tides: The normal range of the tide is about 12 in.; however, a 28 in. range has been observed during spring tides.

(c) Lubricating oil: Supplies of Essomarine lubricating oils a available. Requirements should be given in vessel's radio notice o arrival.

(d) Bonded Stores: Cigarettes or other stores in bond are n obtainable in Amuay Bay.

(e) Cash Advances: The local currency is the Venezuelan Bolivar an cash advances are made only in this currency. It is requested that an requirement for cash advances be included in the vessel's ETA rad to permit delivery on board on arrival.

(f) Charts: No supplies of charts or sailing directions are available a Amuay Bay.

(g) Laundry: A 6 hour laundry service is available throughout ea working day. Such service should be requested in the vessel's ET message.

(h) Mail: Itemised lists are required for ship's mail, to be signed b the Master. Unless other instructions are given, ship's mail received aft sailing, or for vessels on which no advice has been received, will b held for 30 days and then returned to Owners or Operators at shi expense.

(i) Inspection – Petroleum Products: Chas. Martin & Co. and E. Saybolt, petroleum inspectors, are available if specified. Telepho numbers, Chas. Martin 44665, 44650 and 44211; Saybolt 44639, 446 and 44227.

(j) Norwegian Government Seamen Service: A field representative the above service is stationed at Amuay providing Norwegian a Swedish film exchange and other usual services. His telephone num is 51459.

(k) Personnel – Seamen Left Ashore: In the case of seamen left asho for hospitalisation, repatriation or other reason, all documents a personal effects are to be delivered to the Marine Office before sai A letter is required from the Master advising the maximum advances be made to the seamen, if any, and instructions concerning repatriation. All expenses incurred by seamen left ashore, including co of repatriation, are for ship's account.

It is important that Masters bear in mind that the Venezuelan law at all times hold the vessel, her Master, Agent or owner, responsible any seamen left behind in Venezuela.

(l) Provisions and Stores: Provisions and stores in limited quan are available, the prices and quality of some items, such as fresh fish, shrimps, vegetables, etc. are competitive; dry stores considerably higher than in most ports. The Port Steward will ass filling requisitions.

(m) Radar and Radio: Radar and radio repairs can be effect Amuay. A service repair man is available, but spare parts are lim

(n) Repairs: Shore facilities are available only for emergency re of a minor nature. The nearest dry docks are those at Puerto Ca and Curacao, N.A. Several contractors in the area provide labou hull painting and for tank cleaning. Contracts for these services are m by the ship's Master directly with the contractor.

(o) Surveyors: There are no appointed surveyors to American Bu of Shipping or Lloyd's in the area. However, with sufficient adv notice, arrangements can be made to have their nearest represen come to Amuay to attend surveys.

(p) Walport Film Exchange: Subscribers to the Walport Servic exchange films at the Marine Office.

(q) Plimsoll Marks: The Captain of the port requires that the Pl Marks of all vessels using the port be clearly visible. Vessels w checked on completion of loading, and if the Plimsoll Marks a readily legible, permission to sail may be withheld.

(r) Landmarks: Three conspicuous radio towers, 350 ft., p alternate red and white bands, with red flashing aircraft warning are located in the refinery area, 1 mile East of the docks.

ATTENDANCE: Representatives of the Marine Department board vessels immediately on arrival, and it is particularly requested that Masters indicate at that time all ship's requirements. The Marine Office Building is located at the Pierhead Trestle and personnel are available for assistance at all hours. Telephones are located on all docks and the Marine Shift Supervisor can be called on telephone No. 444475 or 444465.

CARIPITO: 10.09 N. 63.02 W. (See Plan)

WARNING

See "General – Shipmaster's Report, July 1982" (Updated 1996).

OPERATOR: Lagoven, S.A.

LOCATION: Caripito is located on the West bank of the San Juan River in Lat. 10° 09' 25" N., Long. 63° 02' 01" W.

Also see "General" before first port.

ESSENTIAL REQUIREMENTS:

1. Incoming vessels must send to Caripito their ETA Guiria at least 3 days in advance followed by confirmation 48 and 24 hours before arrival.
2. If a ship originally cleared for another port (including some other Venezuelan port) is diverted at sea to Caripito, certain information must be radioed to Caripito prior to arrival to avoid a heavy fine and/or delays. See "Radio".
3. No dirty ballast may be pumped overside in port or in Venezuelan coastal waters. Limited ballast facilities are available at Caripito Terminal.
4. Vessels calling at Caripito must obtain Government Pilots at Guiria.
5. The Venezuelan flag must be displayed during daylight hours while vessel is within port limits.
6. The emergency fire signal in Caripito dock area is 6 short blasts and 1 long blasts on ship's whistle or siren. No other signal is to be given in the case of emergency.

DOCUMENTS: (Also see "Radio").

1. *Clearance (inward and outward).* Inward Clearance is effected at Caripito. The Sanitary Inspector boards vessel at anchor or at berth depending on tidal conditions and/or the availability of a berth. The Customs and other Government officials usually board at the berth. However, should there be a delay awaiting berth or tide, the entry will be granted while vessel is at anchor, in which case accommodation ladder must be rigged.

It is necessary that the following documents be ready on arrival:

Ballast List (1 original).
Passenger List (5 copies).
Baggage List (5 copies).
Crew List (7 copies).
Sailing Permit from Last Port (1 original).
Stores List (5 copies).
List of Personal Effects (3 copies).
List of Contents of Slop Chest (3 copies).
List of Passengers in Transit (5 copies).

Cargo documents. These are normally placed on board prior to departure, but in some cases when it is imperative to leave because of the tide, they are delivered at Marieta Pt. while vessel is at anchor awaiting tide to cross the Maturin Bar.

APPROACHES: The traffic in San Juan River is restricted to one-way from Marieta Point to Caripito. Therefore, instructions are issued at Guiria to incoming vessels relative to what action to take on arrival at Marieta Point. Outbound traffic is controlled so as not to conflict with these instructions.

1. Guiria: The town of Guiria is located on South coast of Paria Peninsula on N.W. shore of Gulf of Paria. When approaching from East a signal tower will be observed on a bluff slightly to North of town.
2. Maturin Bar: Buoy E-1, marks the entrance to Maturin Bar Channel and is located in position Lat. 10° 18' 57" N., Long. 62° 28' 16" W. (approx.) and displays a flashing white light every 5 secs.
3. Channel: Maturin Bar Channel is 14 miles in length and 400 ft. in width. The tidal range over the bar varies from 4.6 ft. to 5.7 ft. with currents up 3 knots. The average salinity of water is 1.009; however, this may vary considerably between wet and dry seasons and spring and neap tides dredging of channel to 32 ft. (MLWS) has recently been concluded. Maximum draft permitted by Venezuelan regulations is 34 ft. in fresh water. There is a restriction of 6 in. less for all motor tankers. On leaving Maturin Bar Channel the San Juan River narrows from approximately 1.25 miles in width to about 0.7 miles with slight variations in width up to Marieta Point where it narrows to about 1,200 ft. and varies between 800 ft. and 2,000 ft. up to Caripito. Marieta Point marks intersection of Cano Frances and the San Juan River. It is also at this point that course of San Juan River changes approximately 100° to starboard and it is the beginning of one-way traffic. Frequently, incoming vessels are requested to anchor below this point to await outbound traffic. There are 32 lights marking strategic points in San Juan River between Maturin Bar and Caripito Terminal. These light towers are painted aluminium and are easily visible during daylight hours.

PILOTAGE: Pilots are employees of Venezuelan Government and act in an advisory capacity. The Master retains responsibility for ship at all times. In the event it becomes necessary to disregard the Pilot's instructions in order to ensure the safety of the ship, the Master must forward through the Marine Department a full written report of the circumstances, for delivery to the Captain of the Port.

Pilots are compulsory and are embarked and disembarked at port of Guiria through a sub-Agent. Vessels should proceed to the Guiria Sea Buoy (position Lat. 10° 33' 25" N., Long. 62° 15' 05" W., displaying a flashing white light every 5 secs.), and await instructions. If arriving during the hours of darkness, certain instructions are usually transmitted by light signals from the signal tower. Voice radio communications can be established at any time with Guiria or Lagoven Caripito on frequencies 2182 kHz, 2638 kHz and 2738 kHz. The launch which embarks the Pilot will also deliver instructions to the Master relative to the movements of his vessel en route to Caripito, port regulations, facilities, etc. The regular pilotage fees cover the area from the entrance to Maturin channel to and from Caripito. The Pilot is to be provided with sleeping quarters and food, equal to that provided for the officers aboard ship. (A representative from Port Services will assist as interpreter, whenever necessary.)

Note: Complaints or observations concerning the Pilot's handling of vessel should be noted on back of pilotage ticket.

TIDES: The normal range of tide in the dock area is about 12 ft. with currents up to 3 knots during the flood and 4 knots during the ebb in rainy season (May-December). The normal current is 2.5 knots during the flood and 3 knots during the ebb.

ANCHORAGE: For vessels awaiting berth, there is an anchorage about 1,000 m. up-stream from the Caripito Terminal. Vessels awaiting clear channel may at times be requested to anchor at Punta Marieta. Vessels awaiting high tide anchor at Punta Marieta or off Punta Gorda.

MAX. SIZE: Vessels up to 660 ft., 61,000 d.w.t. and max. draft *33 ft. (FW) at Berth No. 2 and LOA 775 ft., 61,000 d.w.t. and max. draft *33 ft. (FW) at Berth No. 3 when vessels are loaded. No restriction on vessel's beam at the berths.

*Safe draft per tide tables.

RADIO: The cable and telegraphic address for Lagoven at Caripito is "Lagomar – Caripito". Messages to and from ships at sea are routed through the Government Radio Station at Maiquetia (La Guaira), call letters "YVG". This station operates on a 24-hour continuous watch, on the following frequencies:

Listening Frequencies: Low frequency, 500 kHz; high frequency, 4178, 6267, 8356, 12534, 16712, 22225 kHz. Transmitting Frequencies: Low frequency, 500, 472, 464, 417 kHz; high frequency, 4322, 4352, 6505.5, 6519.5, 8722, 8730, 12817.5, 17141.6 kHz. Radio Notice of Arrival should be sent 72 hours prior to arrival at Guiria and corrected if weather or other conditions delay the vessel.

Radio telephone listening watches are maintained on a 24-hour basis at Guiria and at Caripito on 2182 kHz. The following frequencies are available for communications after contact: 2638 kHz and 2738 kHz.

All vessels en route to Caripito may also communicate with Amuay or La Salina Marine offices and request that message dealing with corrected ETAs, Pilots and other business be relayed to the Caripito Marine Office.

Vessels that were originally cleared for another foreign port, or another Venezuelan port, and were subsequently diverted at sea, should radio the following information to Lagomar Caripito prior to arrival:

Vessel's name
Master's name
Vessel's flag
Number of crew
Estimated time of arrival
at Caripito

Last port of call
Port for which originally
cleared
Grade and quantity of cargo
to be lifted

This information is required in order to make in advance special arrangements for Inward Clearance, to avoid payment of a fine. It is necessary in such a case that the following documents be ready on arrival:

Crew List (original and 6 copies).
List of Personal Effects (original and 2 copies).
List of Contents of Slop Chest (3 copies).
Stores List (original and 1 copy).

Also required are the original and 2 copies of the radiogram instructing Master to proceed to Caripito. Outward Clearance documents are placed on board the vessel prior to departure from the Caripito terminal.

Masters should bear in mind that while vessels are within Venezuelan territorial waters, Government Authorities do not permit the use of ship's radio equipment. Cables and radiograms should be handed to the company representative for transmittal via shore radio communication system. Caripito has also radio telephone communication with North and South America and Europe. For further information contact Port Services Section in the terminal building, telephone 2335/2336.

BALLAST: Ballast is not required when mooring. Any ballast carried should be in a minimum number of tanks, and all other tanks stripped, so as to minimise deballasting time.

A relatively small amount of salt water remaining in ship's tanks or lines can contaminate crude and cause operating problems for the refiners. It is important therefore to strip tanks and lines as dry as possible.

Vessels provided with completely segregated ballast system are permitted to discharge ballast and load cargo simultaneously. All ballast clean or dirty must be pumped ashore. Contaminated residues may be pumped ashore, where facilities are available for receiving up to a maximum of 20,000 barrels.

A considerable number of vessels are now participating in the programme to eliminate pollution of the seas. Under this programme, vessels may arrive carrying quantities of oil/water emulsion. If it is desired to follow the "load-on-top" procedure in such instances, it is requested that the Marine Representative be informed on arrival.

BERTHING: The Marine Office Building is located on the West bank of the San Juan River upstream from the berths. Representatives of the Marine Department board vessel immediately upon arrival and it is particularly requested that Masters indicate at that time all ship's requirements. Personnel are available for assistance at all hours.

Lagoven maintains a deep water terminal, consisting of 2 ocean tanker berths, Nos. 2 and 3. These are T-type piers with breasting dolphins located approximately 10 ft. off the face of each pier.

All terminal facilities are under the control of Lagoven, S.A. The port is open for navigation during day and night. All ocean tankers are moored at Berths No. 2 and 3 on the flood tide only. Vessels may sail from Berth No. 3 at any stage of the tide. Sailings from Berth No. 2 are restricted to flood tide only when Berth No. 3 is occupied.

A vessel entering or leaving port must be assisted by the same Government Pilot taken aboard at Guiria. A Custom guard will board at the same time and remain with the vessel. A Lagoven Representative will deliver to the Master his loading and docking instructions together with any other information pertinent to the vessel's call. He will also sign the Notice of Readiness if requested. The vessel will proceed to anchor to await flood tide to dock, to await berth, or will swing to the flood tide in the turning basin and proceed directly to the berth depending on circumstances.

LOADING: Loading rates, particularly for low-flash products loaded during the hours of darkness or when topping off cargo tanks, will be reduced by terminal to meet existing conditions.

All loading and discharging will be stopped during passage of an electric storm, and ullage covers must be closed and dogged down. During periods of calms, loading of gasoline or other similar low-flash products may be loaded at reduced rates or loading stopped if the heavy vapours are not being dispersed quickly enough to prevent hazard from accumulated gas pockets. Ship's officers are cautioned to be on their guard during such conditions.

Loading rates will be reduced when topping off, if requested by the ship's officer.

Instructions as to grade or grades of cargo, and the approximate loading rate anticipated, will be given to the Master. Supplementary information including number and size of lines and hoses will be furnished to the Chief Officer before loading commences.

If vessel's loading orders from Owners or charterers do not agree with terminal's orders, either as to grades or quantity, the marine representative should be advised immediately. The terminal is authorised to load 10% more or less than the quantity nominated; if the cargo to be lifted will be more or less than 10% limitation consultation is necessary.

A terminal employee is stationed at each pier during the entire time the ship is discharging ballast, bunkering, or loading cargo. Fifteen minutes "standby" notice should be given to this man prior to completion of ballast, bunkers, or cargo.

MEDICAL: Medical treatment and hospitalisation, if required, is provided at a hospital located in the concession. Several dentists are located in the town of Caripito. Authorisation forms for medical and dental treatment are provided, which require Master's signature. Transportation is available at the Marine Office. Please note that if the patient does not speak Spanish or English, an interpreter should accompany him.

FRESH WATER: Fresh water is available in any quantity. Delivery is made through 2.5 in. national standard fire hose thread hydrants. Ship's personnel must provide hoses and connect up.

FUEL: IFO-180, IFO-380, Marine Diesel and Gas Oil are available. It is the responsibility of ship's engineer to give "stand-by" notice to the terminal employee and advise him when to shut down.

CONSULS: There are no consular representatives in the area. Vessels bound for U.S.A. or British Caribbean ports will be provided with a letter stating this fact.

REPAIRS: Only minor repairs of an emergency nature can be made. There are no electronic repair services available in the area.

CERTIFICATES: All ships calling at a Venezuelan port for the first time must be measured for tonnage by Captain of the Port. It is the usual practice to take ashore the ship's Panama Canal or Suez Canal Certificate, which is used as a basis for recalculating tonnage under the Venezuelan regulations, and is returned before sailing. The Venezuelan Admeasurement Certificate, when later issued is forwarded to the Owners. A fee is charged for this certificate, which is payable only on ship's first call. Vessels registered in following countries are excluded from above regulations: Denmark, France, Germany, Ireland, Netherlands, Norway, Portugal, Sweden, United Kingdom and U.S.A.

CUSTOMS: While the vessel is in port, Venezuelan National Guard officials are assigned on board to ensure compliance with Customs regulations. The law requires that meals be supplied to these officals during regular meal hours. Masters are requested to give them the privilege of eating in the officers' messroom, to avoid difficulties.

Venezuelan laws are strict in regard to contraband and Masters are requested to instruct their crews not to take cigarettes or other articles ashore. Cigarettes in carton lots, cigars, tobacco, souvenirs, gifts (particularly items of women's apparel) should be collected prior to arrival in port, listed with the items in the slop chest and placed in the custody of the Master for deposit in the slop chest or closet which will then be sealed for the duration of the vessel's stay in port.

Firearms on board any merchant vessel calling at Venezuelan ports must not exceed 1 per officer, nor can ammunition exceed 18 cartridges per officer. All firearms and ammunition must be noted on the Stores List. Officers must not carry firearms while ship is in Venezuelan waters and these side-arms and ammunition should be collected and held in the Master's safe custody. Crew members should be warned against taking knives or other weapons ashore.

SHORE LEAVE: Shore leave is permitted and a representative of the Captain of the Port boards on arrival and issues the required number of passes. Shore passes are to be collected prior to sailing, and given to the Lagoven Despatcher undocking the vessel. Vessels are not permitted to sail until all crew members are on board, unless hospitalised or prior arrangements made for disembarking.

TIME: Local time is GMT minus 4 hours.

GENERAL:

Gangways: Gangways at Berths No. 2 and 3 are provided by the terminal.

Plimsoll Marks: The Captain of the Port requires that the Plimsoll Marks of all vessels using the port be clearly visible. Vessels will be checked on completion of loading, and if the Plimsoll Marks are not readily legible, permission to sail may be withheld.

Surveyors: There are no appointed surveyors to the American Bureau of Shipping or Lloyd's in the area. With 48 hours' notice, non-exclusive surveyors can be obtained from Caracas, or at times from Puerto La Cruz, or qualified Masters or chief engineers may be available for appointment as surveyors when required.

Bonded Stores: Cigarettes or other stores in bond are not obtainable at Caripito.

Cash Advances: The local currency is the Venezuelan Bolivar and cas advances are made only in this currency. It is requested that an requirement for cash advances be included in the vessel's radio ETA to permit delivery on board on arrival. Cash returns can be accepte only during the normal working day – 0700 to 1600 hrs. Sundays an holidays excluded.

Provisions and Stores: Provisions and stores in extremely limite varieties and quantities are available at prices considerably higher tha in most other ports.

Charts: No supplies of charts or sailing directions are available a Caripito.

Personnel – Seamen Left Ashore: In the case of seamen left ashore fo hospitalisation, repatriation or other reason all documents and persona effects are to be delivered to the Marine Office before sailing. A lette is required from the Master advising the maximum advances to be mad to the seaman, if any, and instructions concerning his repatriation. A expenses incurred by seamen left ashore, including cost of repatriatio are for ship's account. It is important that Masters bear in mind that th Venezuelan law will at all times hold the vessel, her Master, Agent o owner, responsible for any seamen left behind in Venezuela.

Laundry; Laundry service is available.

Lubricating Oil: Supplies of marine lubricating oils are available fro Puerto La Cruz. Quantities required should be included in the ETA cabl

Mail: Any pending ship's mail will be delivered on board by the marin dispatcher on arrival at Caripito. At the same time he will receive an ship's mail to be dispatched. The marine dispatcher will accept persona mail only if it carries the proper amount of Venezuelan postage, or Master authorises postage by signing 7 copies of the Company Po Transmittal form. Masters interested in knowing the individual postag amounts to be paid by each crew member, should provide a list, i duplicate, of the senders, and number of letters sent by each on identified by a number written on each letter. Copy of this will be returne aboard vessel when leaving this port outward bound. If not ready o time, it will be air-mailed to the vessel's next port of call.

Inspection – Petroleum Products and Crude Oil: Inspecciones C.A AIVEPET, C.A., Caleb-Brett, C.A. and SGS (Redwood), C.A. petroleu inspectors are available from Puerto La Cruz if specified.

Visitors: All visitors to ships are prohibited except those compan employees, petroleum inspectors, etc., whose duties require the presence aboard.

Passengers: Passengers will not be permitted to disembark unless i possession of the required visa and documents. To facilitate clearanc if passengers are carried, the Master should include advice to this effe in his radio ETA.

Pollution of Harbour and Coastal Waters: The laws of Venezuela ar strict in regard to pollution of harbour and coastal waters by oil, an heavy fines are imposed for violations. No dirty ballast, oil or bilge slop are to be pumped or allowed to escape overboard. All overboa discharge valves from cargo tanks and bilges are to be secured befo loading or discharging commences. Loading is to be conducted wi greatest care and vigilance in order that errors or delays in handli cargo valves may not result in overflows. All deck scuppers should b plugged before loading to avoid harbour contamination should a overflow occur. The authorities require that a written report be submitte by the ship involved in the event of an oil spill. Incidents of this natu should be reported immediately, either by VHF or telephone, to the Po Services Section.

SHIPMASTER'S REPORT: September 1992.

Rio San Juan: Chart No. 1330.

The beacons are considerably different from those shown on the cha Their positions can only be regarded as approximate as they were tak "on the run" by radar. However, they do give a reasonably accurate id of the courses, and the number, position and characteristics of t beacons.

The land appears to have extended seaward. Lights of beacons (wh lit) are as per IALA B and leading lights are white. The entrance is qu confusing if made in the dark for the first time, with the chart as it wa The lights in the Bar Channel are irregular and in the river quite unrelia altogether.

There are no leading lights on the 031° course. One beacon is us for two courses.

The Pilot Station is at Guiria.

Crossing the bar inward will be on the ebb tide and a draft of 17 forward and 23 ft. aft is asked for, 17 ft. to turn the vessel more ea and 23 ft. for crossing the bar at "full" speed. Normally it is necess to reduce speed a little when passing Beacons No. 3, 5 and 6, wh the least depths are located.

Caripito: Only one operational berth (No. 3). Two dolphins at the So end of No. 2 have suffered subsidence. There are new Chicksan ar on the berth itself. No. 3 has 3×10 in. hoses and a shore gangwa

There are no tugs, vessel is turned about 0.75 miles above the ba about 2 hours before high water, by placing the bow on the bank. T Turning Basin is extending slowly into the jungle.

Vessel moors starboard side alongside with moorings 3-3-2. A bre rope aft is used for springing-off when leaving. As there is a rise fall of around 18 ft. at Springs, connections should be ready, to exp loading time, and since there is a variable depth of water alongside not more than 33 ft. at low water. It is sometimes necessary to s loading at low water, and sail at high water. Vessels should sail as to high water as practical, as there is little water down river fro berth. Until clearing Beacon No. 28, virtually no water showed on echo sounder and vessel touched bottom at Beacon No. 31.

Dredging is in progress in Caripito.

Two grades of crude oil are available, Pilon API 13.3 and F API 26-28.

Pilon is used for making asphalt.

VHF Channel 12 used between Caripito and Guiria.

Slop facilities and fresh water available.

On the outward voyage, vessels anchor to await high water at the position marked on the chart.

Vessels nearly always touch bottom when loaded to 33 ft. when passing the bar channel, but the bottom in the river is reputed to be soft.

The night-time river transit can be very difficult due to the very few lights, especially in the rainy season. Vessels occasionally fail to make the turns, especially at Dos Aguas, and on occasions enter the jungle.

There are no chandlers or Agents. The Agents must travel from Puerto La Cruz or Puerto Ordaz.

Repatriation possible from Maturin or Barcelona (via Caracas).

AUTHORITY: Petroleos de Venezuela, S.A., Apartado 169, Caracas 1010-A, Venezuela. *Tel:* 708-4111. *Telex:* 21890, 23489, 24477 PDVSA VE. *Contact:* Lermit Rosell, Marine Corporative Manager.

EL GUAMACHE: 10.52 N. 64.04 W. (See Plan)

SHIPMASTER'S REPORT: October 1978.

LOCATION: The Port of El Guamache is a developing port, located about 1,000 ft. Northward of Pta. Mangle on the Isla De Margarita (See B.A. Chart 230).

DOCUMENTS:

Clearance from Last Port.
Sealed envelope for Customs.
Visaed B/L and Sobordos.
Despatch from last Venezuelan port, if any.
6 Crew Lists.
Vaccination Certificates of Crew.
4 Stores Lists (Deck, Engine, Provisions, Bonded store).
4 Personal Effects Lists.
4 Arms and Ammunition Lists.
4 Passengers Lists.
4 Mail Lists.

PILOTAGE: Pilotage is compulsory. Pilot boards on arrival or at anchorage. Vessels arriving at the anchorage must keep engines on stand-by and wait for shifting or berthing instructions.

Note: As at other Venezuelan ports, vessels must fly the Venezuelan flag at masthead and lower gangway for boarding party – Agents, Customs Officers, Quarantine Officers, Immigration Officers, Pilot and representative of Port Captain, etc.

ANCHORAGE: On the Western side of the Pta. Mangle in Bahia Guamache, depth 8–11 fathoms.

RADIO: As a new developing port, no radio service at Margarita Island, all ETA wireless messages must be sent via ITT or YVG – 72, 48, and 24 hours prior to arrival

The port office is equipped with radio telephone installation, operating 0600-2000 hours, transmitting on VHF frequencies 156.8 MHz (Channel 16.) Vessels calling in Spanish language will be answered promptly; if calling in English will be answered by English speaking person when on duty.

TUGS: Not available.

BERTHING: Length 126 m. with 3 dolphins installed at each end with catwalk to dolphins. Depths of water, 36 ft. at LW and 42 ft. at HW.

STEVEDORES: Arranged by Agents, normal working hours 0700 – 2100, cargo discharged into warehouse.

MEDICAL: Available at Polamar City about 31 km. from the berth.

DENSITY: 1025

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: No repair facility available.

GANGWAY/DECK WATCHMAN: Necessary, normally engaged by Customs or Police.

OPENING/CLOSING HATCHES: Normally by crew.

AIRPORT: Distance about 15 km. from port. Connections to other cities.

TIME: Local time is GMT minus 4 hours.

HOLIDAYS: As other Venezuela ports.

PROVISIONS: Fresh and dry provisions supplied through ship chandlers from Polamar City and delivered on board.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of wine or spirit.

TELEPHONE: No telephone connection to vessel at present but provided inside warehouse and port office.

SHORE LEAVE: Shore leave permitted. Passes issued by representative of the "Direccion de Marina Mercante" on arrival. Shore passes to be collected prior to sailing and given to Agent.

DEVELOPMENTS: El Guamache has a development programme to construct new wharves Northward from present pier to accommodate 6 ocean-going vessels and expected to complete within 3 years.

All port facilities will be available. Margarita Island is the only free port in Venezuela. Tourism from the mainland and overseas is increasing day by day as Margarita Island has very good weather and beaches.

EL PALITO: 10.29 N. 68.07 W. (See Plan)

OPERATORS: Corpoven S.A.

LOCATION: The terminal facilities operated by Corpoven S.A. at the port of Puerto Cabello (Punta Chavez), are situated on the Venezuelan coast, 7 miles West of Puerto Cabello. The terminal has a 2,707 ft. pier, part causeway and part trestle, extending out from Punta Chavez along a shallow reef then angling into water 45 ft. deep. Two tankers can tie up simultaneously at the berths.

Position: Lat. 10° 29' 5" N., Long. 68° 07' 13" W.

Jetty: Length 825 m., depth 48 ft.

Charts: B.A. Chart No. 1628 or Charts No. 24453 and 5752.

ESSENTIAL REQUIREMENTS:

1. Incoming vessels must send ETA 72 hours before arrival at El Palito Terminal and another 24 hours before arrival by telex and communicate by VHF Channel 16, at least 4 hours before arrival advise and/or confirm any change of ETA.
2. If a vessel originally cleared for another port (including some other Venezuelan port) is diverted at sea to El Palito, certain information must be received prior to arrival, to avoid heavy fine and/or delays.
3. No dirty ballast may be pumped overside in port. Limited dirty ballast disposal facilities are available at El Palito Terminal.
4. The use of Venezuelan Government Pilots is compulsory for docking and undocking.
5. The Venezuelan flag should be displayed at the mast-head during daylight hours by vessels anchored and berthed in Venezuelan waters.
6. In addition to other clearance documents, 2 copies of an itemised list of articles in the ship's slop chest must be presented to the authorities on arrival.
7. The emergency fire signal is 5 long blasts on the vessel's whistle or siren. No other signal is to be given in case of emergency.
8. The radar equipment must be turned off during cargo operations, and radio transmitter aerials must be earthed. Any information should be given to the Agent's representative for transmittal via shore facilities.
9. Loading will not be started until all deck scuppers are properly sealed.
10. Towing wire must be correctly positioned as soon as the vessel is alongside berth.

DOCUMENTS:

Clearance Inward and Outward:

(a) Inward Clearance is effected on board immediately after docking by Government's Port Officials and a representative of Marine Terminal and ship's agency. It is necessary that the following documents be ready on arrival:

1.	Ship's Register.	
2.	Derat Certificate.	
3.	Clearance from last Port.	1 original
4.	Ballast Manifest from Last Port.	1 copy
5.	Crew List.	6 copies
6.	List of Passengers in Transit, if any.	6 copies
7.	Passenger and Baggage List.	6 copies
8.	List of Personal Effects.	6 copies
9.	Stores List (see (c) below).	6 copies
10.	List of Slop Chest.	6 copies
11.	Sailing Permit (issued by Maritime Authority of last Port).	
12.	All Crew Vaccination Cards, Identification Cards or Passports.	

(b) Vessels arriving with cargo to discharge will also require Bills of Lading and Tally Books.

(c) Stores List prepared should indicate separately all deck, engine and cabin stores. The Stores List may be prepared on board prior to arrival.

Clearance Documents Outbound: Outbound Clearance and cargo documents are delivered on board by the Terminal representative.

In the event the berth is required by another vessel, a vessel having completed loading may be required to vacate the berth promptly and proceed to anchorage to await cargo documents.

APPROACHES: The terminal pier is marked by the following lights: One occulting red light at the top of No. 1 (N.W.) fire fighting monitor tower, 80 ft. above sea level. Lat. 10° 29' 51" N., Long. 68° 07' 13" W., and one green light, flashing every 3 seconds at the top of No. 2 (S.E.) fire fighting monitor tower, 80 ft. above sea level, located 275 ft. S.E. of No. 1 fire fighting monitor tower. A group of 5 crude storage tanks, painted white, visible 20 miles on a clear day, are located 1.25 miles 200° from the head of the pier.

Three large chimneys from a power plant located about 3 miles West of the Terminal, are very conspicuous in the area. They are painted with broad red and white bands.

When approaching, Refinery installations are clearly visible. On clear nights, tanks, Refinery lights and flares provide best landmarks.

White flashing lights are installed at the top of Refinery chimneys and towers for air traffic warning purposes, for the local airport in Puerto Cabello.

Masters approaching the coast should keep a sharp lookout for fishing boats, nets and small crafts.

PILOTAGE: Pilotage is a compulsory government service and is available 24 hours. Pilots from Puerto Cabello meet vessels off the terminal.

The Pilot may decline to moor the vessel if it is not equipped with satisfactory mooring equipment, lines, gear, anchors, etc., or if it is not sufficiently ballasted. It is the responsibility of the Master to notify the Pilot of any special conditions or peculiarities, such as defective navigation equipment, mooring lines, tackle, gear or lack of necessary equipment, which might impose hazards in connection with the handling, mooring, discharging or loading of vessels.

At the berths, vessels must be moored to the entire satisfaction of the Pilot and the Terminal's Loading Master.

The Pilot acts in an advisory capacity. The Master retains responsibility for the vessel at all times. In the event it becomes necessary to disregard the Pilot's advice in order to ensure the safety of the vessel, the Master must forward, through the terminal, a full written report of the circumstances, in triplicate, for delivery to the Port Captain.

The Venezuelan pilotage law stipulates that Pilots and their apprentices must be provided with same accommodation as given to the ship's Officers.

ANCHORAGE: Notice of Readiness can be tendered at anchorage. The suggested anchorage for El Palito Terminal is located 0.5 to 1 mile North or West of the seaward end of the pier for Berth No. 1. The area to the East of the pier is recommended as anchorage for Berth No. 2.

Shipmaster's Report: August 1992.

I was instructed to anchor 1.5 miles from jetty.

RESTRICTIONS: None. Vessels enter day or night and at any state of tide.

MAX. SIZE: The loading facilities consist of 2 berths.

Terminal restrictions and safe drafts are as follows:

Maximum Displacement (Arrival/Departure)	65,000 tonnes
Maximum LOA – Pier No. 1	228.6 m. (750 ft.)
Maximum LOA – Pier No. 2	210 m. (688 ft.)
Minimum LOA	110 m. (360 ft.)
Max. Beam	No limitation
Max. Draft – Pier No. 1 (Arrival/Departure)	12.2 m. (40 ft.)
Max. Draft – Pier No. 2 (Arrival)	11.0 m. (36 ft.)
(Departure)*	11.6 m. (38 ft.)

* Departure Deadweight 50,000 tonnes (approx.).

Minimum Freeboard (Arrival/Departure)	3.0 m.**

** Max. Load – The vessel's manifold must be amidships.

Arrival Draft: Vessels should arrive with minimum drafts as follows:

Length	*Draft forward*	*Draft aft*
110 m. – 146 m. (360 ft. – 480 ft.)	2.7 m. (9 ft.)	5.2 m. (17 ft.)
146 m. – 213 m. (481 ft. – 700 ft.)	3.7 m. (12 ft.)	6.1 m. (20 ft.)
214 m. – 244 m. (701 ft. – 800 ft.)	4.2 m. (14 ft.)	7.0 m. (23 ft.)

HEALTH: No Radio Pratique. Health Officers board vessel at berth.

RADIO: Puerto Cabello, Venezuela, Coastal Station call sign YVL, makes radio contact with all vessels "CQ" on 8722 kHz at the following hours: 1130, 1330, 1530, 1830, 2130, 0030, 0200 GMT. Also "CQ" on 17141 kHz at 1630 GMT and "CQ" on 4322 kHz at 0430 and 0630 GMT.

Arrival Message: Incoming vessel must send ETA 72 hours and 24 hours before arrival at El Palito Terminal by telex and establish contact with the Terminal on VHF Channel 16 at least 4 hours before arrival, confirming or advising any change of ETA.

The original ETA messages should include the following:

(a) Name of vessel and Master.
(b) Vessel's flag and Summer deadweight.
(c) Number of crew and passengers.
(d) Last Port from which originally cleared.
(e) Dirty ballast and deballasting time.
(f) Slops quantity, if any.
(g) Sickness on board.
(h) Any additional information that in Master's opinion is necessary.

If a vessel, cleared for another port (including some other Venezuelan port), is diverted at sea to El Palito, telex advising the amended orders must be sent at least 48 hours before arrival, to avoid heavy fine and/or delays.

Communications: El Palito Terminal can be contacted by the following ways:

Radio: VHF Channels 16 and 6, and SSB 6218.1 kHz.
Telex: CPV 28013.
Fax: 042-604381.
Telephone: 042-604249, 042-604250.

VHF: Master should call El Palito Marine Terminal, 3 hours before arrival, on Channels 16 and 6.

TUGS: Tugs from Puerto Cabello assist at the Terminal. Two tugs are used for berthing and unberthing. The tugs are equipped with water monitors and foamite.

BERTHING: The use of both anchors is required for docking at both berths. It is considered prudent to have both anchors hove-out prior to entering the harbour in order to facilitate speedy release while mooring. The Pilot will advise whether the vessel is to be moored port or starboard side to the dock.

In the event the berth is required by another vessel, a vessel having completed loading may be required to vacate the berth promptly and proceed to anchorage to await cargo documents.

East Berth: Approach at very dead slow speed along a line parallel to a line formed by the East and the West berth at a distance from it equal to the distance of the North buoy. Drop the starboard anchor at the point of intersection of the ship's fore with a line formed by the two East shore range markers. Continue along same path at very dead slow speed until reaching with the ship's fore the East berth. Drop the port anchor. Allow the ship to drift into position alongside berth. This will be done by tying mooring lines as required by Pilot and with the help of the ship's engines and tugs under Pilot's instructions.

West Berth: Approach at very dead slow speed along a line parallel to a line formed by the East and West berths and at a distance from it equal to the distance of the North buoy. Drop the port anchor at the point of intersection of the ship's fore with a line formed by the two West shore range markers. Continue along same path at very dead slow speed until reaching with the ship's fore the West berth. Drop the starboard anchor. Allow the ship to drift into position alongside berth. This will be done by tying mooring lines as required by the Pilot and with the help of the ship's engines and tugs under Pilot's instructions.

General: Chicksan loading arms with 12 in. connections, 2 for Fuel oil, 1 for diesel products, 1 for leaded and 1 for unleaded gasolines. All dirty ballast to be pumped ashore through the fuel oil loading arms.

Mooring Lines to be used: Vessels of any deadweight must secure with at least:

Forward: (a) 2 breast lines
(b) 2 springs
Aft: (a) 2 breast lines
(b) 2 springs
(c) 1 seabuoy line

All ropes must be fibre, polypropylene or wire of 1.25 in. minimum diameter each connected by a 2.5 in. shackle.

BALLAST: Due to the exposed location of the oil piers, vessels are required to be ballasted with minimum ballast necessary for safe berthing manoeuvres at El Palito.

The ballast quantity should be carried in a minimum number of tank in order to minimise deballasting time whilst alongside.

Vessels equipped with a special separate and clean ballast syste or segregated ballast can discharge their ballast into the sea, after fi being inspected and passed by Terminal representative. According regulations (Marpol 73/78), a maximum of 15 ppm is permitted.

Dirty ballast must be pumped ashore. El Palito facilities can handle maximum of 20,000 bbls. through a 20 in. line and 2×12 in. Chicksa arms to the shore tanks.

Also see "Max. Size" – "Arrival Draft".

LOADING:

Cargo Information: On completion of Inward Clearance, informatio regarding the number of Chicksans, loading rate, temperature and A from cargo will be given to the Master and Chief Officer. A 15 minu stand-by is required prior to finishing any grade. During ballast discharg supplementary information will be given to the Chief Officer.

Draining Chicksans: Chicksans are drained by gravity on all produc (except iso-butano, Tel, benzene, methanol, ortho-xilene). Ship personnel must cooperate with Terminal personnel in this operation ensure complete draining of Chicksans into ship's tanks.

Scuppers: Loading will not be started until all deck scuppers are prope sealed to the satisfaction of the Terminal.

Simultaneous Deballasting and Loading: Vessel's equipped wi separated and completely segregated ballast tanks, lines and pump which are never used for oil may be permitted to discharge ballast an load simultaneously, providing approval has been obtained from th Terminal.

Chicksans: There are 6 Chicksans on each berth. Loading ar connections are 12 in., except for iso-butane, benzene and ortho-xilen which are 8 in. and Tel, which is 4 in.

The products benzene, methanol ortho-xilene and Tel can be load only on Berth No. 2.

Approximate Gravities and Temperatures of Products to be delivered received by El Palito Marine Terminal:

Product	*API Specific Gravity*	*Temperature (approx.)*
Iso Butane	0.564	−11.5°C
Alquilate	70.8	86°F
Fuel Oil	11.5	140°F
Diesel Oil	32.0	90°F
Crude	28.0	90°F
Gasoil	36.5	90°F
Premium Gas	64.0	86°F
F.C.C.	58.0	105°F
U/L Gasoline	63.0	84°F
V.G.O.	23.5	117°F
Jet Fuel	45.5	95°F
Natural Gas	82.0	80°F
Benzene	0.8833	83°F
Ortho-xilene	0.8828	85°F

Average Rates of Products to be delivered or received by El Palito Mar Terminal:

Product	*Loading Rates* bbls./hr.
Alquilate	7,500
Fuel Oil	16,000
Diesel Oil	8,000
Crude	25,000
Premium Gas	7,500
F.C.C.	7,500
U/L Gasoline	12,000
V.G.O.	12,000
Jet Fuel	7,500
Natural Gas	7,500
Benzene/Ortho-xilene	1,800
Iso-Butane	5,000
Methanol	2,500

MEDICAL: Medical and dental treatment and hospitalisation, if requi are available in Puerto Cabello. Authorisation for any medical and dental treatment must be made by the Master through the Agent.

DENSITY: 1025.

FRESH WATER: Not available.

FUEL: Bunkers are available only for vessels loading or discharg cargo.

Bunker supply should be arranged between owners and Corpove Head Office prior to vessel's arrival. A telex must be received El Palito Terminal indicating quantity and gravity of the bunkers be received.

CUSTOMS: El Palito is a port of entry. The Custom house is locate Puerto Cabello. While the vessel is in port, Venezuelan National Gu officials are assigned at the refinery's gate to ensure compliance Customs regulations. The law requires that meals be supplied to th officials during regular meal hours.

Venezuelan laws are strict in regard to contraband and Masters requested to instruct their crews not to take cigarettes or other art ashore.

Cigarettes in cartons, cigars, tobacco, etc., should be listed deposit in the slop chest, which will be sealed.

CONSULS: French, Norwegian, Danish, Italian and Panama Consu are represented in Puerto Cabello. There is no American Consul is necessary for Masters of Panamanian flag vessels to visi Panamanian Consulate at Puerto Cabello to present documents receive dispatch as required by law. Regular office hours are from to 1200 hrs. and from 1400 to 1700 hrs. Mondays through Fridays dispatch issued outside of regular office hours is billed at double Agent will arrange transportation to Puerto Cabello upon request.

REPAIRS: No engine repairs may be made while the ship is in Any operations which may produce sparks are prohibited in the proximity of loading operations.

DRY DOCKS: The nearest dry docks are located at Puerto Ca 8 miles East from El Palito, and Curacao.

GANGWAY/DECK WATCHMEN: Compulsory day and night. A sufficient number of crew members should be on board at all times for manoeuvring the vessel or for emergency situations.
HOLIDAYS: *National Holidays:* By order of the local Port Authorities, it is requested that all ships in port be fully dressed on the following holidays: January 1st (New Year's Day); April 19th (Declaration of Independence); June 21st (Merchant Marine Day); July 5th (Independence Day); July 24th (Birth date of General Simon Bolivar); October 12th (Columbus Day); December 25th (Christmas Day).
REPATRIATION: The documents and personal effects of seamen left ashore for hospitalisation, repatriation or other reason, must be delivered to the Terminal Office before sailing. A letter from the Master is required advising the maximum amount of advances to the seaman and any other instructions concerning his repatriation. All expenses incurred by the seaman, including the cost of repatriation, are for the vessel's account. Venezuelan law at all times holds the Master, Agent or Owner responsible for any seaman left behind in Venezuela.
AIRPORT: Distant about 4 miles.
TIME: Local time is GMT minus 4 hours.
SHORE LEAVE: Shore leave is permitted and a representative of the Captain of the Port boards on arrival and issues the required number of passes.

Vessels are not permitted to sail until all crew members are on board, or special permission has been obtained to sail without a crew member.
GARBAGE/WASTE OIL DISPOSAL: No facilities available (Contact Agent).
SEAMAN'S CLUBS: None.
CURRENCY: Bolivar. No local currency restrictions.
REGULATIONS:
Engines: No engine repairs will be made while the ship is in dock. Engines are to be kept at standby at all times while the ship is in port.
Rat-guards: Vessels must use rat-guards on all mooring lines.
Visitors: All visitors to vessels are prohibited, without written permission in each case by the Port Captain or Terminal Office.

Petroleum inspectors, dispatchers, and terminal employees may board ship in performance of their duties.
Pollution: The laws of Venezuela are very strict in regard to the pollution of harbour and coastal waters by oil, and heavy fines are imposed for violations. No dirty ballast or oil is to be pumped or allowed to escape over the side. No engine-room or pump-room bilges may be pumped overboard. All pump-room sea suctions and overboard discharge valves must be secured prior to loading or discharging cargo. Loading must be conducted with the utmost care and vigilance so that errors or delays may not result in spills. All deck scuppers must be plugged tight before loading so that in the event of a spill pollution of the harbour may not result.
Garbage: No garbage is to be thrown over the side while the vessel is in port.
Passengers: Passengers will not be permitted to disembark unless in possession of the required visa and documents. To facilitate clearance, if passengers are carried, the Master should include this information in his ETA.
Firearms: Firearms on board any merchant vessel calling at Venezuelan ports must not exceed one per officer. All firearms and ammunition must be noted on the Stores List. Officers must not carry firearms while the vessel is in Venezuelan waters and these side-arms and ammunition should be collected and held in the Master's safe custody.
Alcoholic Drinks: We would kindly request Masters to advise their crew members that the introduction of alcoholic drinks through the company's gates is strictly prohibited.

If anyone found with alcoholic drinks within the company's area, it will be confiscated without payment of indemnities. Drunkards are not allowed to board any vessel, unless accompanied by an authorised ship's officer.
Bar Service: Please be advised that we have received instructions from the Custom Authorities, that all vessels maintaining a "Bar Service" on board for the use of officers, crew, passengers and visitors, must keep this "Bar" closed during the vessel's stay in port.
Photographing: Photography within the boundary fence of this Terminal is prohibited. Taking cameras inside refinery's installation is likewise prohibited.
Fishing and Painting: Fishing and painting of ship's side from the piers is strictly forbidden while tied up at El Palito.
WEATHER: Winds are normally from the N.E. with an average Beaufort Scale Force of 2-3. Average temperature about 85°F.

The months of January to March have the roughest sea and swell, and vessels may not be able to dock due to the weather.
TIDE: The normal range of the tide is 1 ft.
GENERAL:
Bonded Stores: No cigarettes or bonded stores are available at El Palito.
Cash Advances: Cash advances are available in Venezuelan Bolivares only and should be included in the vessel's radio ETA, to permit delivery on board on arrival.
Charts: No charts or sailing directions are available at El Palito.
U.S.S. Club: There is no U.S.S. Club available at El Palito or film exchange service.
Inspection of Petroleum Products: Outside inspectors of petroleum products are available in the area. However, inspectors shall be nominated by shippers/suppliers/owners prior to vessel's arrival, and notice shall be given to El Palito Terminal, in order to permit access to nominated inspectors.
Laundry: Laundry facilities are available at Puerto Cabello, and should be requested through the Agent.
Lubricating Oil: Certain types of Corpoven lube oils only are available. Requirements should be sent by radio with ETA to Agent.
Mail: Mail service posted from El Palito arranged by Agent.
Provisions: Provisions are available at El Palito.
Radio and Radar: Repairs possible through Agent.
Gangways: Gangways are provided by El Palito Terminal.

AGENCY: Corpoven S.A. does not, as Operator of the Terminal, act as Agent for any vessel or for firms or agencies engaged in coastwise or international transportation operations. All services in connection with the arrival, loading, or departure of vessels are performed as a representative and for the account of the shipper in the case of cargoes loaded, and as the consignee, in cases where cargo is received.

SHIPMASTER'S REPORT: July 1988.

Two tugs are used for berthing, one astern on tug's line and the other to illuminate the forward buoy and push as required.

The aft buoy line is the first line sent away and is used to check the vessel's swing into the berth.

There is a constant swell running, and positioning vessel in the berth is very long and drawn out as the loading arms are restricted in vertical and horizontal movement.

The swell causes the ship to move out of position, all moorings need to be adjusted simultaneously and with the small numbers onboard this was very difficult.

Leaving the berth was fairly straightforward, with one tug on aft main deck to pull vessel off while recovering anchors.

Chart B.A. 1966 leaves a lot to be desired for approaching a port. El Palito Terminal can be identified by 3 towers, each with a high intensity light near the top and a flare. There is a mass of background lights and the navigational lights are completely obscured. Coming from the North, these lights are visible at 20 miles and with the flare make the pattern, light, flare, light, light from port to starboard. The berth is situated right below these lights.

The radar picture shows 2 similarly shaped jetties, so the lights are a good guide to the correct berth.

AUTHORITY: Corpoven, S.A., – Refineria El Palito, P.O.Box 102, Puerto Cabello 2023A, Edo Carabobo, Venezuela. *Tel:* (042) 604249, 604250. *Telex:* 28013. *FAX:* (042) 604381. *Cables:* Corpoven-El Palito. *Contact:* Jose A. Mallo G, Marine Terminal Supervisor.

Captain of the Port, Puerto Cabello (Pilot Station).

GUANTA: 10.15 N. 64.35 W. (See Plan)

SHIPMASTER'S REPORT: 1978.

LOCATION: Lat. 10° 15' N., Long. 64° 35.5' W. About 5 miles East of Puerto La Cruz.
DOCUMENTS:

6 Crew Lists.
6 Passenger Lists (or negative).
6 Ship's Stores Lists.
6 Crew Personal Effects Lists (well detailed).
1 Declaration of Health.
Clearance from Last Port.
Cargo Manifests.
Full set of Manifests and B/Ls.

Entry Formalities: Normally carried out after docking unless there are no berths available; then vessel can be cleared at anchorage in Bahia Pozuelos, during daytime. At night only in case of emergency.

Accommodation ladder must be rigged.

Hours of entry: From 0700 – 1100 hrs. and from 1300 – 1700 hrs. Overtime outside these hours.
APPROACHES/PILOTAGE: A vessel bound for Guanta has to enter Bahia Pozuelos as she must first call at Puerto La Cruz to embark a Pilot. The anchorage area for waiting berth turn is also in Bahia Pozuelos. This anchorage is in depths of 48 ft. to 80 ft. and is well protected from swell by surrounding islands. No size limitation.

Bahia Pozuelos is the anchorage and Pilot embarking area for 3 ports: Puerto La Cruz, Guanta and Pertigalete.

The use of Government Pilot is compulsory for all vessels docking or undocking. ETA: 48 and 24 hours in advance via the vessel's Agent.

Pilot boarding hours: From 0530 – 1700 hrs. every day. Vessel cannot dock after sunset. Sailing may be arranged at any time.
HEALTH: All vessels boarded by Port Doctor. No automatic Pratique.
RADIO: Curacao Radio PJC. No local station.
VHF: All Agencies maintain radio watch on Channel 16 during office hours. Tugs and launches also equipped with VHF (call: "Ramrey").
TUGS: 3 tugs available: 1×1,700 h.p. and 2×1,200 h.p. All privately owned. Sometimes vessels bound for Guanta or Pertigalete have to wait for 2 or 3 hours as these private tugs have contracts with oil companies in Puerto La Cruz and are available only when no tanker is docking or undocking. Tug's lines used. Normally tugs join the vessel inside Guanta Bay.
BERTHING/MAX. SIZE: One concrete pier on piles, 763 ft. in length where vessels normally dock starboard side to. The apron is 20 ft. wide in centre, 42 ft. at ends.

One modern concrete pier on piles, 1,056 ft. in length where vessels normally dock port side to. The apron is 115 ft. wide in centre and 85 ft. at ends. The piers are well fendered with rubber hoses and used tyres.

Height of piers above HW: 10 ft. Mean tidal range: 1 ft. 6 in. Max. draft alongside small pier: 23 ft. 08 in. Minimum draft alongside long pier: 26 ft. 08 in. Depths varies from a minimum of 27 ft. to a max. of 34 ft. at the Western end of the long pier.
CARGO HANDLING FACILITIES: All cargo normally discharged by vessel's own gear, directly on to truck or trolleys. The piers are not connected to the railroad. No floating crane.

The following mobile cranes are available in the port area: 1 crane max. 120 tons; 1 crane max. 30 tons, with telescopic extension boom, max. 60 ft.; 2 small cranes max. 6 tons with a boom length of 30 ft.

Forklifts: 15 forklifts capacity 3.5 tons; weight 5.2 tons with fixed counterweight. To use these forklifts on board, the hoisting gear should lift over 6 tons.

2 forklifts capacity 5 tons, weight 12 tons; 1 forklift capacity 20 tons, weight 25 tons, specially for containers.

Flatbed trolleys: 30 trolleys capacity 8 tons; 1 trolley capacity 70 tons.

No lighters available.

All discharging gear normally supplied by Agency. For heavy lifts, it is recommended to have special slings on board.

BULK CARGO FACILITIES: On the Eastern side of the Guanta Bay, there is a berth for loading coal by means of a fixed chute. Depth alongside 30 ft.

Grain Cargo: Receivers supply suction machines. There are 2 machines available, capacity 1,000 tons per machine during 24 hours. Grain vessels work round the clock.

Liquid Cargo: Sometimes tallow and liquefied gas are handled. Discharged by vessel's pump into tank trucks. Hoses normally supplied by vessel.

CONTAINER HANDLING FACILITIES: No container berth. No crane. 1 forklift capacity 20 tons. There is a small container stacking area.

STEVEDORES: Normal working hours: 0700 – 1100 hrs. 1300 – 1700 hrs. (Monday to Friday); 0700 – 1100 hrs. (Saturdays).

Overtime: Monday to Friday, 1800 – 2300 hrs. (night shift); Saturday, 1300 – 1700 hrs.

Normally port does not work after 1700 hrs. on Saturdays or Sundays.

Ordering of gangs: For 0700 hrs. requested previous day before 1500 hrs. For 0900 hrs. requested same day at 0700 hrs.

Overtime rates: 50% for the night shift (Monday to Friday); 100% for Saturday afternoon shift.

The gangs consist of 12 longshoremen and 12 stevedores, including 2 winchmen, 1 signalman and 1 checker.

Capable supervision only available from Agency.

Rigging or cleaning gangs are available.

MEDICAL: Private hospitals at Puerto La Cruz. Private doctors generally do not visit ships. If medical attention is required on board, the Port Doctor will attend patient, unless he authorises another doctor to make the visit.

In case of emergency, when the vessel is anchored in Bahia Pozuelos, a launch can be arranged to pick up the sick crew member.

DENSITY: Salt water all the year round.

FRESH WATER: Available at 5 Bolivares per ton at the main pier only. Hoses supplied by ship. Rate: about 5 t.p.h.

Presently there is no water available at Berth No. 3 (Western end of pier).

FUEL: No Bunker "C".

Diesel: Delivered by trucks; arrangement must be made at least 24 hours in advance.

Gas Oil: Delivered by trucks under previous arrangement.

CONSULS: See "Puerto La Cruz".

REPAIRS: Only minor engine or electric motors can be repaired.

DRY DOCK: Not available.

SURVEYORS: None.

GANGWAY/DECK WATCHMEN: Not available. No shore gangway available.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 open bottle spirits.

REPATRIATION: Can be arranged. No special requirements.

AIRPORT: At Barcelona, about 15 miles by road. 3 flights daily to Caracas.

TIME: 4 hours slow of GMT, all the year round.

HOLIDAYS: New Year's Day, Holy Thursday, Good Friday, Holy Saturday, April 19th, May 1st, June 24th, July 5th, July 24th, October 12th, November 24th, Christmas. No labour available on these days.

TELEPHONES: No facilities at Guanta. Private calls can be made from the central office at Puerto La Cruz (5 miles) during the following hours: 0700–2100. Long distance calls dispatched quicker from the Hotel Melia at Puerto La Cruz.

SHORE LEAVE: From a ship anchored in Bahia Pozuelos: Allowed if the vessel has been cleared and if every crew member has shore pass. One private launch available but very expensive.

From Guanta berths: Allowed with shore passes.

IDENTIFICATION CARDS: Passes for shore leave are issued by officials of the Port Captain's Office, when boarding the vessel for clearance. These passes should be filled out on board. They are valid for the duration of the vessel's stay in port only and have to be returned before sailing.

In order to comply with Immigration Regulations, crew should be carefully checked before departure and any missing seaman reported to the Agent. The same applies to passengers in transit.

GARBAGE DISPOSAL: No facilities.

DELAYS: Presently, Guanta is somewhat congested and the waiting time varies from a few days to 15 days, especially during the rainy season.

GENERAL: Venezuelan regulations strictly prohibit the pumping overboard of dirty ballast or throwing garbage or dunnage in territorial waters. Heavy fines are imposed for pollution of waters and sometimes fishermen are quick to report any infringement.

Berthing Turn: On the basis "first come, first served" but Venezuelan vessels have some priority.

Supplies and Laundry: Several private firms based at Pto. La Cruz. Nearly all kinds of fresh provisions are available.

Laundry service available; may be completed in 8 to 10 hours.

General: Guanta is a natural harbour surrounded by mountains which protect the bay completely in bad weather. The port has never been closed for bad weather.

Venezuelan Flag: Upon arrival at Pozuelos Bay ship should display the flag from the foremast at all times. When anchored or docked, the flag should be displayed only between sunrise and sunset.

Warehouses and Cargo Sheds: No transit cargo shed. No refrigerated storage available.

There are 5 warehouses with a total floor space of 75,000 sq.ft.

Open Space: A total of 5.7 acres, mostly covered with asphalt or concrete.

Weather: The rainy season starts in mid-May and ends in Novemb December. During the rainy season it is usually calm in the early ho of the day followed before mid-day by light Westerly or variable breez In the afternoon the breezes change to North-Easterly at about 12 kn until midnight. During the dry season the cycle is similar but the No Easterly wind may reach 25 knots. This can prevent all communicatio between anchored vessels and the shore.

AUTHORITY: "INP" Instituto Nacional de Puertos.

SHIPMASTER'S REPORT: 1975.

LOCATION: Lat. 10° 14.7' N., Long. 64° 35.5' W.

Guanta is located in the Bay of Guanta. It is a well protected p against currents and winds.

The port is entered between 2 well lighted islets.

DOCUMENTS:

Maritime Declaration of Health (together with inoculation list of cre
10 Passenger – (or non-passenger) Lists.
10 Transit passenger – (or non-transit passenger) Lists.
10 Crew Lists.
4 Personal Effects Lists. (new clothes, etc., to be mentioned).
4 Ship's Stores Manifests.
Clearance from Last Port.

PILOTAGE: Government pilotage is compulsory. Pilot is embarked a disembarked near the Sea Buoy of Puerto La Cruz, in position: L 10° 15.5' N., Long. 64° 41' W.

ANCHORAGE: On the Pto. La Cruz Roads.

RESTRICTIONS: Entering: In daylight hours only: 0600 – 1800 hrs.

Sailing: Day and night.

TUGS: One powerful tug available, compulsory to use when ship's leng more than 90 m.

BERTHING: New Pier: Length 322 m. Old Pier: Length 233 m.

Water Depth: According to Pilots information: Old Pier: 29 New Pier: 34 ft.

STEVEDORES: *Working Times:* Monday to Friday: 0700 – 1100 hr 1300 – 1700 hrs., 1800 – 2300 hrs. Saturday: 0700 – 1100 hrs., 13 – 1700 hrs. Sunday: No work is done.

Gangs have to be ordered by 1500 hrs. the day before required.

FRESH WATER: Ships can replenish their fresh water tanks witho charge (Included in port charges). Own hoses to be used.

OPENING/CLOSING HATCHES: Opening/Closing hatches, sett derricks: Special Rigger gangs take care of this. It is absolutely forbidd for ship's crew to touch these kind of jobs.

GENERAL: *Waste Water:* Special care should be taken to prevent was water, from sanitary or engine-room systems fouling the jetty. Hea fines are made in case this happens and a special shore gang might ordered to clean same.

Customs: 2 Customs Officers have to be provided with food.

OPERATORS: Servicio Portuario de Guanta.

GUARANAO: 11.40 N. 70.13 W. (See Pla

SHIPMASTER'S REPORT: January 1983.

LOCATION: The port of Guaranao is located on the Gulf of Venezu on S.W. coast of the Peninsula de Paraguana, Venezuela. It lies betw Amuay Bay to the North and Punta Cardon to the South.

DOCUMENTS: Inward Clearance is effected on board immediately a docking by Government Port Officials and a representative of the Ma Department.

The following documents must be ready on arrival:

Clearance from Last Port.
Crew Lists (7 copies).
Passenger Lists if any (5 visaed copies).
Baggage Lists if any (3 visaed copies).
List of Personal Effects (4 copies).
Stores Lists (2 copies).
Sailing Permit (Zarpe).

APPROACHES: Masters when approaching the coast should kee sharp lookout for fishing boats, nets, small craft or sunken wrecks. F Punta Zarobon the coast, which is bordered by cliffs from 85 ft. to 6 (25.9 m. to 19.8 m.) high, trends about 2 miles SSW to Punta Gor

PILOTAGE: Compulsory. Vessels have to wait for Pilot about 0.5 m offshore at anchorage. Ship's can make contact with Pilot Statio VHF on Channels 16 and 68.

Maracaibo Pilots board and leave in position marked on chart.

Also see Punta Cardon (Pilotage – Shipmaster's Report dated Jan 1989).

ANCHORAGE: Generally ships must anchor about 0.5 miles offs to wait for Pilot. Good anchorage is obtained in depths of 28 ft. (8.5 muddy bottom and depths of less than 18 ft. (5.5 m.) extend up to a 0.25 miles offshore in this bay, and depths of less than 36 ft. (1 extend about 7 cables NNW from Punta Zarobon (Guaranao).

RADIO: Arrival notices and radio messages to and from ships a are usually transmitted through Curacao (PJC) and routed thr Agent's head offices at Caracas, Venezuela. The port radio con Las Piedras Paranagua.

TUGS: One tug is available to assist with berthing/unberthing.

BERTHING: A pier extends about 3 cables Westward from sho Salinas, Guaranao, and the Southern half of this pier is for Ro-Ro ve stern to. A floating pier about 1 cable distance South of and para the former, extends Westward from shore about 810 ft. (247 m.) a 164 ft. (50 m.) wide.

CARGO HANDLING FACILITIES: There are fork lift trucks of all s 6 mobile cranes at the floating pier, and some towing vehicles.

MEDICAL: Services available.

FRESH WATER: Not available.

FUEL: Available if advance notice is given. Fuel/diesel oil and lubricating oil can be obtained from either Amuay Bay or Punta Cardon.

FIRE PRECAUTIONS: This port is used for discharging general cargo, especially waste paper and timber. Waste paper is considered as dangerous cargo, therefore Masters are called to pay attention to their fire-fighting equipment and to have it ready during discharging waste paper.

WATCHMEN: Not available.

SHORE LEAVE: Permitted, but shore passes must be carried and passes returned before the vessel sails.

GENERAL: *Stores:* Provisions, deck and engine stores available but not bonded stores.

Garbage Disposal: No facilities.

SHIPMASTER'S REPORT: December 1990.

Tanker of length 135 m. berthed port side alongside.

Vessel arrived with clean ballast with the intention of discharging ballast to sea. Port authorities advised that this was not permitted even though the ballast was clean. The shippers arranged and received the ballast by shore trucks of 44 cu.m. capacity each. Deballasting (780 cu.m.) into the trucks took 26 hours and involved 19 trips by the trucks.

Cargo was delivered to the pier by trucks and was pumped on board by 2 small portable pumps through 2×4 in. diameter hoses. Loading was eventually reduced to one pump due to the viscosity of the cargo.

Final cargo figure was 6,000 tons short of the 10,000 tons that the vessel had expected to load and the 4,000 tons that was loaded took 120 hours.

AUTHORITY: Las Piedras-Guaranao Port Captaincy, P.O. Box No. 2, Codigo Postal 4102-A, Punto Fijo, Edo. Falcon, Venezuela. *Tel:* (069) 402008. *Telex:* 54119. *Cables:* Capipuerto Las Piedras. *Contact:* Captain David Jimenez Quintero, Harbour Master.

JOSE TERMINAL: 10.06 N. 64.51 W. (See Plan)

FLAG: Venezuelan flag must be displayed from the foremast when entering Pozuelos Bay and when manoeuvring or docking, regardless of the hour; however, while at anchor or while moored at berth, it needs to be displayed only between sunrise and sunset.

LOCATION: The Terminal of Jose is located West of Pozuelos Bay at: Lat. 10° 06' 19" N., Long. 64° 51' 10" W. on the N.E. coast of Venezuela. The usual hurricane path is several hundred miles to the North.

The lighthouse marking the entrance to Pozuelos Bay is located at: Lat. 10° 18' 18" N., Long. 64° 41' 07" W. Visibility is 20 miles.

DOCUMENTS: Arrival Clearance is effected on board vessel shortly after docking by Government Officials and a representative of the Company. The following documents are required and should be prepared prior to arrival.

Ship's Register.
Ballast Manifest (1 copy).
Crew List (6 copies).
Passenger and Baggage List, if any (5 copies).
List of Passengers in Transit, if any (5 copies).
List of Personal Effects (4 copies).
*Stores List (5 copies).
List of Slop Chests (4 copies).
Sailing Permit issued by Marine Authority at last port of call.

*Store List should indicate separately all deck, engine and cabin stores.

APPROACHES: Puerto Jose is approached through a channel 150 m. wide, with a minimum depth of 13.6 m. There is a turning area 460 m. in diameter.

PILOTAGE: The use of Government pilots is compulsory for all vessels docking or undocking. This service will be arranged at all times. If it becomes mandatory for the Master of the vessel to disregard Pilot's order in order to ensure safety of the ship, a written report in Spanish shall be submitted promptly by the Master of the ship to the Government Port Captain.

RESTRICTIONS: No restrictions are made on arrival/sailing time.

MAX. SIZE: The loading facilities consist of one Berth.

The docking characteristics are as follows:

Max. Deadweight	42,000 tons
Max. Ship Capacity	75,000 cu.m.
Min. Ship Capacity	11,000 cu.m.
Max. Draft	39 ft.
Max. LOA	800 ft.
Max. Lightship weight	22,000 tons

SPM: See "Shipmaster's Report" dated September 1994.

HEALTH: In theory the Government Port Doctor is to board each incoming vessel and board only outgoing vessels which carry passengers. In practice, however, the doctor boards at his discretion.

RADIO: Masters are requested to advise Corpoven Puerto La Cruz by radio 72 hours in advance of estimated arrival giving vessel's name, date and hour of arrival, bunkers, name of Master, port of departure, draft (arrival), Venezuelan gross tonnage, flag of ship and dates that ships' certificates expire. Vessels may contact the terminal of Puerto La Cruz by radio-telephone on 2182 kHz, SSB and VHF Channel 16. There is standby attention 24 hours a day. The terminal also has the frequencies 2080, 2120, 2638, 2738 and VHF Channels 6, 12, 13, 16, 17, 73 and 74.

Ship-to-shore radios are installed on the oil dock and on both tugs.

TUGS: There are 2 tugs at the port for mooring or unmooring and use is compulsory for all vessels. The tugs available are radio equipped and are 3,000 h.p. or more. Generally the Government Pilot will not begin manoeuvers until he is assured that the tugs are on stand-by.

BERTHING: *Arrival at Dock:* While alongside the berth the following rules must be observed:

(a) Master must ensure that mooring lines are properly tended, and that sufficient personnel are onboard at all times to handle lines. Loading will be temporarily suspended upon infringement of this regulation.

(b) Masters are requested to remove the blank flanges from their vessel's loading manifold before docking, so as to expedite the connecting of the shore loading arms by company personel. Vessels are requested to have their derrick and gangway ready for use.

NOTE: Vessels normally dock with starboard side to dock, unless advised otherwise.

(c) While docked, the discharge of sea water, hot water or steam on dockside of ship is prohibited. Hot water or steam may activate the automatic sprinkler system as well as damage piping located under the dock surface.

(d) Rat-guards must be placed on all ropes connected with the shore.

(e) Heavy exhaust smoke from vessel's funnel is not permitted. Any infringement of this rule will result in Government fine and/or removal of ship from dock.

(f) Meals must be provided in officer's messroom for Venezuelan National Guard personnel who may be assigned to the vessel during her stay in port.

(g) Masters are requested to display on top of mast a red flag in daytime and red light at night indicating that ship is handling dangerous cargo.

(h) Unregulated crafts should not be allowed to come alongside ship moored at Terminal without the permission of the Terminal Operator. It will be the responsibility of the ship's Master to ensure that this regulation is obeyed.

LOADING: *Products Handled:* Natural gas, propane, isobutane, normal butane and pentane.

Loading rates:

Propane	12,000 gallons p.m.
Butane	6,000 gallons p.m.
Gas/Pentane	4,150 gallons p.m.

Only one commodity handled at one time.

After the vessel has been cleared, the Company Dock Supervisor on watch will give the Master of the vessel written instructions with respect to the cargo.

During loading operations, company employees are on watch to administer to the needs of each vessel.

Upon termination of loading cargo, cargo lines are displaced at controlled rates prior to disconnecting.

Shortly after completion of loading, company personnel and an independent inspector, together with a vessel's officer, will take ship's ullages and later, deliver cargo and sailing papers to the Master of the vessel.

Ships must vacate berth upon completion of loading and await papers at anchorage in Pozuelos Bay.

For information regarding completion of loading, the dock supervisor can be contacted by telephone from telephone booth at berth.

MEDICAL: All requests for medical or dental treatment must be accompanied by a written request from the Master to the vessel's Agent.

BALLAST: There are no facilities for deballasting.

FRESH WATER: Not available locally.

Fresh chlorinated water is available in limited quantities at an average rate of approximately 2 tons per hour at the Puerto La Cruz Terminal.

FUEL: Bunkers are not available at this Terminal.

Bunker "C" and Heavy Diesel Fuel and a complete range of intermediate fuels are available in reasonable quantities at Puerto La Cruz Terminal, subject to safety and operational restrictions. Delivery rates to the ships are approximately as follows:

Bunker "C"	200 t.p.h.
Heavy Diesel	150 t.p.h.
Intermediate Fuels	100 t.p.h.

Meters are installed in all bunker systems and are calibrated in net barrels; except diesel meters which indicate gross barrels.

The dock valves on the bunker lines on the docks of Puerto La Cruz Terminal will only be opened and closed upon advice from the ship's personnel.

Lubricants and gasoil are available through the vessel's Agent.

CONSULS: The following foreign countries have consular offices in the vicinity of Puerto La Cruz:

Belgium
Brazil
Colombia
Denmark
France
Great Britain
Italy
Netherlands
Norway
Spain
Sweden

Vessel's Agent should be appraised of vessel's consular requirements promptly upon docking.

SURVEYORS: 1. Saybolt, Caleb-Brett, Aivepet and others are available at Puerto La Cruz.

2. Lloyd's Register, American Bureau, Bureau Veritas, P & I available at Puerto La Cruz or from Caracas via the ship's agent.

CUSTOMS: Crew members should be warned against taking knives or other lethal weapons ashore, as this is strictly prohibited. All firearms and ammunition must be noted on Stores List. They cannot exceed 1 per officer and 18 cartridges per gun. No arms may be carried while ship is in Venezuelan waters or tied up at dock. Contraband of any description will be confiscated. Each man is allowed 1 package of cigarettes on his person and this package must be opened. No liquor is to be taken ashore. It is prohibited to carry liquor from shore to ship without authorisation from Master of vessel. It is further strictly prohibited to consume liquor in dock area.

It is normally forbidden to take photographic cameras ashore. However, upon written request to the National Guard contingent on the oil dock, special permission may be obtained. This is subject to 2 limitations: (1) that the camera is returned to the ship; (2) that no photographs are taken of the petroleum installations.

REPATRIATION: Seamen discharged from hospital for transfer to another port, seamen arriving from another port or those being repatriated are handled by the vessel's Agent, who must comply with all Venezuelan Regulations.

In the case of seamen left ashore for any reason, Masters are requested to furnish a letter accepting responsibility for all expenses incurred, advances if any, and instructions for repatriation. Venezuelan regulations, at all times hold the vessel responsible for a seaman during his stay in the country. Close contact is maintained by radio with ship owners regarding disposition of their seamen.

TIME: GMT minus 4 hours all year round.

EMERGENCY CO-ORDINATION CENTRE: Seccion de Seguridad, Busqueda y Salvamento Maritimo. Telex: 31154. Tel: (02) 513395, 512156.

TELEPHONES: There is a telephone booth on dock. The supervisor on duty may be contacted at any time.

IDENTITY CARDS: Passes for shore leave are issued by the officials of the "Capitania de Puerto", who board with the Customs Authorities upon the vessel's arrival at dock. These passes are valid for the duration of the vessel's stay in port and must be returned before sailing to the guard assigned to the vessel.

In order to comply with Immigration Regulations, crews should be carefully checked before sailing, and any missing seamen reported to the vessel's Agent.

Crew members left behind when the vessel sails will be held in custody until deported at the vessel's expense.

REGULATIONS: *Excessive Smoke:* It is absolutely prohibited to exhaust heavy smoke through a ship's funnel while tied up at the Company's dock. It is also prohibited to blow boiler tubes. Failure to comply with this regulation will result in any or all of the following actions:

1. The loading operation will be immediately shut down.
2. Vessel will be subject to fine.
3. Vessel may be removed from dock.
4. Ship's Agent will be advised of infractions of this regulation.
5. Fines, time lost, and other related expenses will be charged against the vessel.

Pollution: Venezuelan laws are very strict on this subject and local authorities quickly enforce existing statutes. For this reason each Master is handed a circular that emphasises the necessity of complying with federal and local laws and customs.

The spilling or discharge of dirty ballast, crude oil or petroleum products into coastal waters is defined as pollution, as is also the throwing overboard of garbage, trash or other unwanted objects while the vessel is at anchor or dockside. Prior to the start of loading operations all discharge valves, bilges and scuppers must be closed and strict vigilance exercised during deballasting and loading operations.

When a spill does occur, the Master, Government officials and a company representative evaluate the quantity and submit a report to the Government Petroleum Inspector. This report becomes the basis for a federal fine that is practically incontestable. An additional expense occurs when local authorities require assistance in cleaning beaches and shorelines after a major spill and can pinpoint the responsible vessel or source.

TONNAGE CERTIFICATE: Due to reciprocal agreements between Venezuela and the following countries, ships flying the flag of any of the below-named countries are exempted from Arqueo compliance and payment of fees: Denmark, Great Britain, France, Germany, Netherlands, Norway, Portugal, Sweden, United States.

Ships bearing the flag of any other nation shall require a Venezuelan Arqueo Certificate. The cost of measuring is contingent on the size and tonnage of vessel. The certificate is usually issued after the ship sails from port. It is then sent to the marine department of the Owners of the vessel by airmail.

GENERAL: *Dockmaster's Office:* Loading and marine personnel offices of Corpoven S.A. are located at the entrance of the dock. Any matter concerning loading and/or bunkering, is handled through this office, which is open 24 hours every day.

The Documentation Section is located at the Puerto La Cruz Terminal.

On the dock there is a telephone booth and the supervisor on duty can be contacted at any time.

Cash: The local currency is the "Bolivar". Foreign exchange may be secured from local banks. Local banks are open Monday to Friday 0830 – 1130 hrs. from 1400 – 1630 hrs. except holidays.

Ship's Requirements: All ship requirements such as chandlery supplies, mail, cash advances, medical attention, dental care, consular services, repair work, laundry service, bonded stores, transportation, etc., should be obtained through the vessel's Agent.

No charts or sailing books are available in the Terminal. These should be forwarded by airmail to the vessel's Agent for delivery to the ship.

Movement of Passengers: Inasmuch as the Company's Terminal is not a public port, only bona fide crew members and Corpoven employees are permitted to join or leave ship in Jose.

AGENCY: All incoming ships to lift cargoes at this Terminal must have a local Agent to render all services required for a prompt and efficient tanker turnaround and to cancel all ships disbursements during the port stay.

Corpoven as operator of the Terminal charges a fixed fee for General Services such as:

Complete documentation service.

Preparation of disbursement accounts for the Agent of Vessel.

Dispatch of vessel.

Control over marine units which service vessel.

Assistance and supervision in docking of vessel. Supervision over connecting of loading system and related cargo facilities.

Offices of Corpoven loading and marine personnel are located on the first floor of the building between Berths No. 1 and 2. Any matter concerning loading, bunkering, is handled through this office, which is open 24 hours of every day. On the ground floor of this same building is the Documentation Section.

SHIPMASTER'S REPORT: September 1994.

Charts: B.A. Charts No. 1480, 230, 1498. U.S. NOAA Chart No. 244

Approaches: From North, East or West, the approach is easily identifia with the many islands, principal of which is Isla Margarita to the N.E. Puerto La Cruz.

Approaching Bahia de Pozuelos, the Racon on Cayo Borracho a light on Morro Pelatos (LL 6480) are not operating.

The light Morro de Robledal (LL 6500) Isla Margarita is not operati

Using Canal de Margarita from and to the East to reduce the distan to Puerto La Cruz is not advised for large tonnage due to numero fishing craft/ferries and Corpoven Oil Jetty adjacent to the strait. Smal vessels under about 10,000 d.w.t. can safely navigate the passage, a we have done on a number of occasions.

Anchorage: For Puerto La Cruz and Puerto Jose in Bahia Pozuelos

Anchorage area is marked on B.A. Chart No. 1498, the Southern li 2.5 miles North of the city. A number of ships were observed to anchored South and East of the charted limits.

Light buoys off Punta Puinare (Lat. 10° 17.4' N., Long. 64° 40.7' W and off Punta Baregan (Lat. 10° 14.8' N., Long. 64° 39.1' W.) are both position and operating.

The bay is well sheltered and holding ground good with mud/sa bottom.

On our visit, another 4 vessels were anchored over the whole bay

Pilot: For Puerto La Cruz, Pilot officially boards in position marked o B.A. Chart No.1498 in the anchorage area, but it was seen that tanke proceeding to Guaraguao Oil Terminal embarked their Pilot near the lig buoy off Punta Baregan. Oil Terminal pilotage is throughout 24 hours

For Puerto Jose, Pilot again officially boards at the above positio but this depends if a Pilot is disembarking off an outbound vessel fro Jose Terminal. In this case, the Pilot will board at Jose Fairway Bu He generally disembarks at Jose Buoy and returns to Puerto La Cr by launch.

Pilots for both Puerto La Cruz and Jose Terminal come from the Pi Station near the Ferry Terminal in Puerto La Cruz. Two black hull white upperworks fast launches with boarding platforms are used.

Pilotage for Jose Terminal is 24 hours. Although Pilot berthing (75,000 cu.m.) at Jose advised that maximum sized vessels at Jo would be berthed in daylight only and with wind speed not ov 15 m./sec. (Force 7).

With maximum draft and size, berthing Pilot at Jose seem competent and reasonable English spoken.

Accommodation gangway/ladder arrangement required for ballast vessel when boarding/disembarking.

VHF/Telex: All pilotage arrangements through the Agent. In fact t boarding arrangements at Jose came through the Agent with little di contact with the Pilot.

Pilot station to monitor Channel 16, and works on Channel 12.

Corpoven Control Telex No. 031-81147 as listed in ALRS operational.

Agemar Agency monitors VHF Channel 16 throughout and works Channels 11 and 13 generally.

Cosmos Shipchandler monitors VHF Channel 16 from 0730 hrs 1900 hrs. and works on Channel 8.

Jose Terminal – Approach Channel: There does not seem to be Venezuelan chart available of the Jose Terminal and approaches. T best chart is U.S. NOAA Chart No. 24430. The depths from Ba Pozuelos to and from Jose are accurate.

New SPM Buoy in position Lat. 10° 09.0' N., Long. 64° 50.2' W. w outlying mooring marker boys, painted yellow, radiating N.E./S.E./S N.W., 0.75 miles each side of SPM. Pilot reports buoys will be ligh On our visit, lights not observed.

Vessel will always approach Jose from the N.E., that is from Ba de Pozuelos, across Bahia de Barcelona (after formalities). Fairway Bu is in position Lat. 10° 06.3' N., Long. 64° 50.6' W. and is best approach on a course of 228°, thereby leaving the SPM and outer mooring bu to starboard.

Fairway/channel buoyage is IALA "B" with good lights.

Depths: We found minimum channel depths, when reduced to C.D. (0 of 14.3 m. by echo sounder. This is also valid for the Western Tur Basin off Berth No. 8. Alongside Berth No. 8, we found a minimum 13.8 m. when reduced to C.D. (0.2), by hand lead line. Pilots say Be No. 9 (East/Methanol) has been dredged to same depth as Berth No

Tugs: One tug of 1,500 h.p. on stand-by 24 hours whilst ve alongside. Tug moors on Western side of pier (See "Plan").

For mooring medium sized vessels, this tug and one of 3,000 h.p. fr the Corpoven Terminal in Puerto La Cruz used. For mooring maxi sized vessels, 3 tugs used, 1×1,500 h.p. pushing and 2×3,000 h.p. tugs' lines fore and aft.

Two tugs with tugs' lines used for unberthing.

Berthing: Maximum draft quoted is 39 ft. and maximum size 75,000 c

This vessel, with draft 38 ft. 08 in., 75,000 cu.m., 226 m. length 34 m. breadth, had no difficulty in swinging in the Turning Basin berthing head-out on Berth No. 8. Always berth head-out on both be

Terminal very well fendered. Plenty of mooring hooks.

Moorings 2-2-2 each end, first lines run by pilot boat. Aft stern for maximum sized vessels more like breast lines.

Gangway: Shore hydraulic gangway from tower on both berths. Wi freeboard of 11.5 m. shore gangway stayed onboard throughout

Berth: One berth either side of platform (length 270 m.) lying 024° directly connected to pipe/roadway trestle pier of 1,440 m. long 002°/182° to shoreline. Total length 1,700 m. (approx.).

Berth No. 8 is on Western side and handles LPG/Pentane.

Berth No. 9 is on Eastern side for Methanol/MTBE.

As per "Plan", LPG arms are 2×10 in. 300 ASA connections vapour 2×8 in. 300 ASA. Configuration V-L-L-V. Pentane has 1 300 ASA connection. Methanol 2×8 in. 300 ASA.

Discharge rate for LPG averaged 800 tonnes/hr. Due to power fa ashore and shore tank pressures, there were 2×2 hour stopp Generally only small amounts of LPG are imported and larger am exported (both Propane/Butane) from the adjacent refinery onboard experience, the LPG loading rate is about 10,000 bbls./hr. Cooldown on berth allowed. Vapour return charge.

Ship in contact with Loading Master by walkie-talkie provided by Terminal. English and level of understanding varied a great deal. Surveyor had a good level of English.

Preliminary survey conducted at anchor off Puerto La Cruz, together with sampling, but believe this was due to the unusual nature of our shipment.

Terminal: Three separate shore facilities – East to West. "Orimulsion" storage facility with undersea line to SPM, then LPG storage/refinery at base of pier, and Methanol/MTBE storage and refinery. The LPG facility has a storage capacity of about 520,000 bbls., refrigerated plus pressure storage.

The pier is owned and managed by the state corporation Corpoven, which markets the product from and to other state companies Pequiven/Lagoven.

SPM: A new SPM Buoy, 1.8 miles N.N.E. of the Fairway Buoy, has been positioned to load tankers of 150,000 d.w.t. for the export of "Orimulsion", a crude oil emulsion used in power stations.

The SPM is due to load its first tanker in October 1994.

The emulsion (API of 8) is piped some 300 km. from the Orinoco basin near Puerto Ordaz.

Depth around the SPM is a minimum of 12 fathoms.

Stores: No storing can take place at the Terminal. Stores can only be loaded at Puerto La Cruz Anchorage. Launch charge for storing is U.S.$35.00 per hour, normally a minimum of 2 hours.

Numerous chandlers available, the two principal ones are Cosmos (Telex: 81281 Cosma Vc. Fax: 081-674448. Tel: 081-686276), run by a Korean couple and a British lady. Prompt service and good quality provisions. The other chandler of note is Mermaid (Telex: 81396 Memai Vc).

Bunkering: No bunkers available at Jose Terminal. No barges allowed alongside. Bunkers can only be taken at Puerto La Cruz Anchorage. All grades available by barge. Pumping rates HFO (380 cst.) 140 tonnes/hr., gas oil 45 tonnes/hr. Figures accurate. High water content in HFO 380 cst.

Fresh Water: No fresh water at Jose Terminal, although small bore line to control rooms was observed.

Fresh water can be obtained at Puerto La Cruz Anchorage at U.S.$15.00 per tonne from a tug. Good notice required through Agent.

Repatriation: From Barcelona Airport, about 10 miles to East of Jose Terminal. Frequent flights to Caracas International Airport. Daily flights by American Airlines to Miami.

Telephone: Not available on jetty. A card phone is available at base of pier (but no card selling point). Nearest international telephone is Barcelona Airport or Puerto La Cruz with numerous card points, or can obtain home country direct.

Formalities: Vessel cleared at anchor off Puerto La Cruz, generally during daytime hours only, unless immediately berthing. Customs Officer also boards at Jose Terminal as in different Customs district.

Initial boarding party of 5 Customs/Immigration/Coast Guard. Agent handles all formalities. Ships/IMO forms accepted.

6 copies Manifest.
8 copies Crew List.
3 copies Crew Effects List.
3 copies Stores/Bond List.
2 copies Ports of Call List.
2 copies Ship's Particulars.

1 copy Health Declaration.
1 copy Vaccination List.
1 copy Arms/Ammunition List (Nil).
1 copy Passenger List (Nil).
1 copy Ship's Register.
1 copy All Ships Certificates.

Official Shore Passes required, and they do not have to be returned. Bond sealed. Beer not sealed.

General: Watch for females boarding at Puerto La Cruz Anchorage. Persons using Jose Jetty, all require passes.

Rate Bolivar to U.S.Dollar: 170 B. = U.S.1.00 (1st September 1994).

Taxi fares from Jose Terminal to Puerto La Cruz vary. Officially authorised taxis allowed to use jetty, charge U.S.$30.00 to City. Loading Master will arrange. From City to Jose (if they understand where you want to go to) is U.S.$10.00 – 20.00.

U.S. Dollars accepted ashore, but smaller shops/bars only accept Bolivars. Money changers available along seafront.

Not allowed to walk down jetty from Turning Basin to main gate, must arrange terminal transport.

OPERATOR: Corpoven S.A. *FAX:* (081) 603099.

LA GUAIRA: 10.36 N. 66.56 W. (See Plan)

PORT LIMITS: Between the points 10° 37' 40" N., 66° 48' 30" W. and 10° 37' 40" N., 67° 07' 07" W. and the coast line.

DOCUMENTS:

Sealed envelopes for Customs.
Visaed B/L and Sobordos not in envelopes.
Despatch from last Venezuelan port, if any, or
Zarpe from last foreign port, if arriving directly from abroad.
Fumigation Certificate.
Bill of Health.
Vaccination Certificates of Crew.
4 Stores Lists (with arms and narcotics).
4 Lists of Personal Effects.
6 Crew Lists.
12 Lists of Passengers for La Guaira, or negative Passenger List.
8 Lists of Passengers in Transit.
2 Lists of Luggage (only for passenger luggage).
1 Master's Declaration.
1 List of Stowaways, if any.
8 Cargo Lists.

PILOTAGE: Compulsory and vessels have to wait for Pilot in the pilotage zone N.W. of the entrance. Ships can make contact with the Pilot Station by VHF Channel 16 or 12.

MAX. SIZE:

Berth No.	*Length* (m.)	*Depth* (m.)	*Remarks*
01-E	176	10.95	Roll-on/Roll-off
01-D	176	10.95	General Cargo
01-C	176	9.55	12 ton electrical cranes
01-B	176	8.55	12 ton electrical cranes
01-A	176	8.80	12 ton electrical cranes
01	155	9.15	12 ton electrical cranes
02	155	9.75	12 ton electrical cranes
03	160	9.45	Grain Berth
04	136	5.50	General Cargo
05	161	8.50	General Cargo
06	161	8.80	General Cargo
07	136	8.50	General Cargo
08	136	8.50	General Cargo
09	133	5.50	General Cargo
10	168	8.50	6 ton electrical cranes
11	144	8.80	6 ton electrical cranes
12	144	8.50	6 ton electrical cranes
13	144	9.45	6 ton electrical cranes
14	144	8.80	6 ton electrical cranes
15	168	8.80	6 ton electrical cranes
16	160	8.20	Passenger Berth
17	160	9.15	Passenger Berth
18	171	9.75	Passenger Berth
19	171	9.75	Passenger Berth
19-A	72	4.55	Passenger Berth
20	150	3.00	Fishing Berth
21	290	6.10	Warship Berth

ANCHORAGES: Generally ships must anchor in the N.E. area of the entrance, the depth varies from 8 to 20 fathoms. The bottom is sand and occasionally rocks.

RESTRICTIONS: There are no restrictions imposed upon entry.

HEALTH: Ships from Venezuelan ports obtain Free Pratique. Ships from abroad must send a cable to Health Authorities requesting Free Pratique, or advising illness.

RADIO: In order to enable Agents arrange for quick entry and berthing, Masters should give their ETA message at following intervals, via Curacao Radio (ITT): 72, 48 and 24 hours prior to arrival, indicating in the 48-hour message, the quantity of parcels (or tonnage if bulk cargo) per hatch. This is imperative for applying for the necessary personnel of the Instituto Nacional des Puertos (I.N.P.). Also, draft, passengers, requirements for bunkers, fresh water, provisions, repairs, medical assistance, etc. This telegram the Master to sign with his full name.

VHF: Communication with the Port Authorities and the Pilot Station are possible by VHF. Ship must make contact on Channel 16 and change after to some Channel between 1 and 70, Channel 12 is normally used for this manoeuvre.

TUGS: The use of tugboats within the port is compulsory, both for entering and leaving port, as well as for manoeuvres in the port area. Ships longer than 139 m. must be assisted by 2 tugboats.

Ship's lines are used in the manoeuvre. The Port of La Guaira has 2 tugboats of 1,800 h.p. each. Normally they join the vessel at the entrance of the port.

BERTHING: Normally a minimum of 24 ocean-going vessels can berth at one time. Berths No. 01-E, 01-D, 01-C, 01-B, 01-A, 01, 02 and 03 are along the Breakwater Pier East-West, parallel to the coast. At Piers No. 01-C, 01-B, 01-A, there are 12 electrical cranes of 12 tons. At Pier No. 03 ships discharge grain directly to a silo by 2 grain towers, average daily rate 2,000 tons. Silo capacity 12,000 tons.

Within the port is a finger pier, parallel to the Breakwater Pier, with 2 Customs warehouses alongside, with berths North and South, 2 each. The main pier is parallel to the coastline, East-West, with Berths No. 10, 11, 12, 13, 14 and 15,, along which piers there is ample Customs warehouse space, including outdoor space on the roofs as well as ample uncovered storage area. There are 15 × 6 ton electrical cranes at this pier.

The Passenger Terminal is on a finger pier, in direction North-East with its land end in the corner of Berth No. 15. There are 2 berths each side, namely Nos. 16 and 17 in the inner basin and Nos. 18 and 19 in the outer basin.

Passenger vessels have priority for berthing and they have to leave port within 24 hours.

BULK CARGO FACILITIES: Bulk carriers only discharge, at Piers 01-D, 01-C and 03. There are no facilities for cargo.

SPECIALISED CARGO HANDLING FACILITIES: The only berth specially equipped for Roll-on/Roll-off traffic is Pier 01-E, but Piers No. 04, 09 and 16 are also used for this kind of cargo.

There is no fixed equipment for handling containers but the Instituto Nacional des Puertos has some mechanical equipment for handling containers.

This port does not have any other facilities for specialised cargo handling.

BRIDGES: There are no bridges.

STEVEDORES: Supplied exclusively by Instituto Nacional des Puertos at costs per weight of cargo in accordance with governmental decrees.

The Port Agent applies for the necessary number of gangs per ship. Each gang consists of 11 stevedoremen (estiba) and 11 longshoremen (caleta).

Switching of gangs from one hatch to another is not permitted.

There are no longshoremen costs for cargo handled during straight time, but only for that handled during overtime.

(a) *Straight time*

Monday – Friday	0700 – 1100 hrs.
	1230 – 1630 hrs.
Saturday	0700 – 1200 hrs.

(b) *Overtime*
Monday – Friday 1800 – 2300 hrs.

(c) *Saturday afternoon* work is not permitted, but if a vessel could terminate operation and sail within a maximum of 3 additional working hours, a special permit would be granted by Customs and Port Authorities. In such a case, the additional working hours are considered as overtime.

(d) *Work on Sunday* is not permitted except for passenger vessels (officially those carrying 69 passengers, but exceptionally vessels with fewer passengers might occasionally obtain same consideration by authorities).

EQUIPMENT:

(a) *Electric Shore Cranes:* Berths 01-C to 01-A have 12 electrical cranes on rails of 12 tons capacity each. Berths 10 to 15 have 15 on rails of 6 tons capacity each. The Instituto Nacional des Puertos allow 2 × 12 tons cranes to lift pieces up to 20 tons or 9 tons weight. At Pier 10 the arms of the cranes reach the roofing of the warehouses.

Use of shore cranes is not compulsory, unless the Technical Board of the Instituto Nacional des Puertos rules to use them. Other piers have no shore cranes.

(b) *Diesel-Driven Rolling Cranes:* There are a considerable number of these cranes which can lift heavy pieces of about 17 tons.

(c) *Floating Cranes:* Not available.

(d) Special lumber carriers of about 20 tons capacity.

(e) Tow trucks, fork-lifts, trucks and trailers up to 10 tons capacity.

LOADING/DISCHARGING: Cargo is discharged on the pier, when free it is taken away by fork-lifts and/or other mechanical equipment supplied by Instituto Nacional des Puertos. The use of such equipment is included in the handling fee for weight.

There are 2 grain towers on Berth No. 3 leading via conveyor belts to storage silos of 12,000 tons capacity. Average daily discharge rate 2,000 tons approximately.

At Berths No. 10 to 15 discharge to the roof of the warehouse or on the pier is possible.

MEDICAL: There are several hospitals in the town and all the medical attention necessary. Should medical assistance be needed on board, contact the Agent.

DENSITY: The average density of water in the port is 1025.

FRESH WATER: Available through pipeline on the pier, day or night, by water trucks of up to 10 tons capacity in day time only.

CONSULS: The following countries have consuls in La Guaira; Belgium, Germany, Mexico, Norway, Panama and Sweden. The following countries have Vice-consulates; Denmark, Italy, Portugal and Spain.

REPAIRS: All kinds of deck and engine repairs are possible.

DRY DOCKS: There are no dry docks in this port. (The nearest is at Puerto Cabello).

SURVEYORS: All Classification Societies and P&I Clubs are represented in the port.

GANGWAY/DECK WATCHMEN: The watchmen service is not necessary. It is recommended to use a seaman as watchman.

OPENING/CLOSING HATCHES: Not performed by the Instituto Nacional de Puertos but by either the ship's crew, or the assistance labour of the Agent.

REPATRIATION: There are all kinds of facilities for making crew changes and arranging any necessary repatriation.

AIRPORT: The distance to the International Airport at Maiquetia is 10 km., this is served by different regular airlines.

TIME: GMT minus 4 hours. No change.

HOLIDAYS: January 1st, (New Year); February 18th/19th, (Carnival); April 3rd/4th (Easter); April 19th, (Independence Day); May 1st, (Labour Day); June 24th, (Carabobo Battle); July 5th, (Independence Day Declaration); July 24th, (Simon Bolivar's Birthday); September 4th, (Public Funcionary Day); October 12th, (America Discovery); December 25th, (Christmas).

POLICE/AMBULANCE/FIRE: *Police:* 26148, 26347 and 27098. *Ambulance:* 22165. *Fire:* 22165 and 22587.

TELEPHONES: It is not possible to place telephones on board, however calls can be made in the "CANTV" office.

SERVICES: There are no special services available. Radar repairs possible.

SHORE LEAVE: Crew members can go ashore with shore passes issued by the Port Authorities.

IDENTIFICATION: Shore passes are sufficient to go ashore.

REGULATIONS: *Dangerous Goods:*

1. Dangerous goods should be discharged directly to trucks.
2. When goods are grain or powder in bags, these should not exceed 50 kg.
3. Cargo with damaged packing will not be discharged and it should be repacked on board.
4. Cargo should be duly identified and with their dangerous goods labels.
5. Cleaning of the piers after loading or unloading should be done by the importer or exporter, otherwise they should cover the expenses if the INP has to do this cleaning.

OFFICIALS: Once the vessel is anchored at La Guaira, Representatives of Customs, Port Captain, National Guard, Health Service, Immigration and Agency board the vessel.

DEVELOPMENTS: Increase in draft to 35 ft. expected.

AUTHORITY: Harbour Master, Capitania de Puerto, Terminal de Pasajeros de La Guaira.

MARACAIBO LAKE (See Pla

Including, Section A – BAJO GRANDE
Section B – LA ESTACADA
Section C – LA SALINA
Section D – MARACAIBO
Section E – EL TABLAZO
PUERTO MIRANDA
Section F – PUNTA DE PALMAS
Section G – SAN LORENZO
LA CEIBA

GENERAL: The following "Depth Bulletin", dated June 1978, w received from a Shipmaster in February 1979.

REPUBLIC OF VENEZUELA
NATIONAL INSTITUTE OF CANALIZATIONS
ZULIA ZONE

Depth Bulletin No. BP – 6-78 Dated: 13-06-78

The following data represents the latest information reported and re to the date shown for each section of the channel. Depths are express in metres and are related to the same level of the local Navigation Cha 1001, 1002, 1003 and 1004 of the M.M.M. Mean Monthly Lowest Lo Water.

The controlling depths refer to the centre area of the channel demark by parallel lines on either side at a distance of 60 m. in the outer chann and 45 m. in the rest of the channel. The Puerto Miranda Channel is 30 m. The theoretical position of the buoys in the aforemention navigation charts are located at a distance of 30 m. from the edge the channel.

Main Channel

Channel	*From*	*To*	*Date*	*Depth* (m.)	*Remarks*
Outer Section	B – 1	B – 28	19-05-78	12.8	
Inner Section	B – 28	T – 56	10-05-78	12.8	
SOUTH PROLONGATION	T – 56	B – 59	28-04-78	12.8	Entrance to Puerto Miranda (B – 59)
	B – 59	B – 66	26-04-78	12.8	Entrance to La Estacada (B – 66)
	B – 66	B – 76	10-03-78	12.8	Entrance to the Port of Maracaibo
	B – 76	B – 86	24-05-78	13.1	Entrance to Bajo Grande (B – 86)
	B – 86	B – 96	07-02-78	13.1	Entrance to La Ensenada
	B – 96	Parallel 10° 22' N	14-02-78	12.8	Entrance to La Salina Chann (B – 97 and 10° 22' N)
	Parallel 10° 22' N	M – 1	14-02-78	13.1	Entrance to Lake Main Chann (M – 1 and M – 1)
Puerto Miranda Channel		AP – 2	11-05-78	11.6	

Signed.............................
The Port Captain

Signed.............................
The Director N.I. of C
Zulia Zone

(N.B. Certain information common to all Vessels entering Maraca Lake is given below. For specific details of ports/terminals within t Lake, see relative Section as indicated above).

FLAG: Local authorities require that the Venezuelan ensign be flow vessel's masthead, from the time of entering the outer channel until c of the outer channel outbound.

DOCUMENTS: *(a) Inward Clearance for Scheduled Vessels:* Vess arriving in ballast or with cargo in transit require following docume

1 copy Sailing Permit from Last Port.
2 copies Ballast Certificate.
4 copies Passenger Lists.
4 copies Baggage Lists.
4 copies List of Passengers in Transit.
4 copies List of Slop Chest.
4 copies List of Personal Effects.
4 copies Stores Lists.
5 copies Crew Lists.

Vessels arriving with cargo should have, in addition to the forego

4 copies Sobordos (Venezuelan Inward Manifests).
6 copies Bills of Lading.
2 copies Inward Manifests.

(b) Inward Clearance for Diverted Vessels: Vessels divert Maracaibo Lake Ports to load cargo, should submit all docu indicated above, except consular mail, which they will not have.

Vessels diverted at sea to Maracaibo Lake Ports which do not a Venezuelan clearance on board, must advise loading port via ra arrival, the name of vessel, Master's name, vessel's flag, Venez net tonnage (if available, if not, the registered net tonnage), last p call, destination port for which originally cleared, ETA San Carlos station and grade and quantity of cargo to be lifted. This inform required in order that Inward Clearance may be arranged government officials in ample time prior to vessel's arrival. Also 3 c of the Diversion Telegram received by vessel and signed by M together with copies of those documents listed under *(a)* shou presented to the Port Authorities upon arrival at Maracaibo. absence of this information, or of presentation of each of documents to the Port Authorities the vessel will be subject to Please note, that the documents covered under *(a)* have to be pres upon arrival, regardless, if the vessel is not arriving with Co Clearance or arriving after being diverted at sea.

(c) In Maracaibo 2 Clearances from Custom's authorities are needed: One for proceeding from Maracaibo to loading berth, and another after loading for proceeding from Maracaibo to destination. For this reason Custom Dispatch charges may be incurred twice.

(d) American Crew List. All non-American vessels loading for a U.S.A. port should have the American Crew List ready on arrival in Maracaibo to be visaed by the American Consulate in Maracaibo and placed aboard ship before departure. The crew list should be prepared on Immigration and Naturalization Service Form No. I. – 418 (Crew List Manifest) and should contain 2 sections:

Section 1 should list those crew members who are American or who possess individual visa documentation to the United States.

Section 2 should list, in the alphabetical order of their last names, those alien crew men who lack United States visa documentation and therefore require inclusion in the visa of the Crew List.

Only one name may be placed on each line of the Crew List. Two names should not be placed in the space of one line, nor should a full line between two names be left vacant. All copies of the Crew List presented must be legible. Occasionally the names of the crew men included on the carbon copies of some crew lists presented at the consulate are blurred beyond recognition.

The information requested under columns 1, 2 and 3 should be filled in completely. Column 1 should always contain the complete first name and middle initial of the crew man. Column 2 should show the nationality of each crew member and the number of his travel Document. Column 3 should always include the name of the port where the crew man was shipped, not simply the country.

At the time of vessel's first application for a Crew List, the Crew List must be presented in four copies: Original and 1 copy should contain only information requested under Columns 1, 2 and 3. 2 copies must include following information of those crew men to be included on Crew List Visa. Column 4 should list date, city and country of each crew man's birth. Column 5 should show place of issuance of Seaman's Travel Document and name of Government which issued travel document. (It is not necessary to list date of issuance of travel document).

Below is a sample line correctly entered on the Master Crew List.

(1)	(2)	(3)	(4)	(5)
Bello, Tomas E.	Z.23455 Venezuelan	Maracaibo Venezuela	December 8, 33 Caracas, Venez.	Cabimas, Venez

Upon subsequent Crew List applications by same vessel within same year, the Crew List need be presented in duplicate only, and the information in Columns 4 and 5 need be provided only concerning any new crew members who require visa documentation. When twelve months have elapsed since presentation of Original Crew List, a Crew List should again be prepared in 4 copies and should contain all the information required in columns 1 – 5. Such a Master Crew List is required after each 12 months' period.

APPROACHES: Also see "General" above. The channels leading to the Lake of Maracaibo are called the Outer Channel, the Inner Channel and the Lake Channel. The controlling depths of the Outer Channel, Inner Channel and the channel Southward to Buoys M1 and M2 are normally 45 ft. At certain times the controlling depth may be less. At such times suitable notices are published advising mariners of these temporary reductions of controlling depth.

Outer Channel. The Outer Channel starts at the E.M. Buoy in position 11° 13' 47" North and 71° 33' 31" West. The light characteristics of E.M. Buoy are: flashing white every 5 seconds, visibility approximately 5 miles. The distance from E.M. Buoy to the Southern end of the Outer Channel, marked by Buoys B – 27 and B – 28, is approximately 15.75 miles. The channel is 1,000 ft. wide and has a normal controlling depth of 42 ft. minimum monthly observed lowest water (MMOLW) with tidal range varying about 2 ft. 3 in. This depth is maintained by periodical dredging. Tankers are required to have a keel clearance of at least 2 ft. and dry-cargo vessels a keel clearance of at least 3 ft. Vessels navigating the channel at the maximum allowable draft are confined from 2 hours before to 2 hours after high water. There are no turns in the channel and the course is 189°.

There is a breakwater 0.5 mile East of, and parallel to, the Outer Channel and extending 1.6 miles Northward from the North side of Zapara Island. The end of this breakwater is marked with a skeleton steel tower with a light 27 ft. above sea-level. Light characteristics – flashing white light every 8 seconds; visibility about 3 miles.

On Zapara Island there is a skeleton iron tower with a height of 136 ft. above sea-level.

Cross currents are sometimes encountered near Zapara, San Carlos and Pescadero Islands, especially at low water when the cross currents are strong. Overtaking at these points should be avoided.

There is one anchorage zone in the Outer Channel which is a trapezoid on the port side when navigating inbound near the Buoys B – 14, B – 15, B – 16 and B – 18. All buoys in the Outer Channel are equipped with radar reflectors.

Caution: Masters are warned to keep adequate speed in the Outer Channel even when embarking the Pilot as strong cross currents are encountered near San Carlos and Zapara Island. Pilot boats are fast and fitted with a flying bridge.

Inner Channel. The Inner Channel continues on the same course as the Outer Channel for about 10 miles, whereafter the direction changes to 150°. Entire length of the Inner Channel is about 12 miles.

The beginning of the Inner Dredged Channel is marked by Buoys B – 29 and B – 30. Channel is marked by beacons, and terminates at beacons T – 55 and T – 56. The channel is 800 ft. wide and the normal controlling depth is 43 ft. MMOLW with tidal range varying from 1.5 ft. to 2.5 ft.

The channel from beacons T – 56 to Maracaibo Harbour is a dredged channel, the end of which is marked by Buoys No. B – 73 and B – 74.

About 0.2 mile South of Buoys B – 29 and B – 30, there are located 2 towers – 1 on each side of the channel, and about 1 mile further South are 2 more towers. These 4 towers are marked E – 31 and E – 32 (North) and E – 33 and E – 34 (South). Towers No. E – 31 and E – 32 are of single steel pipe construction on a concrete pile base. Towers No. E – 33 and E – 34 are of skeleton steel construction (former oil-well derricks) each mounted on 4 concrete piles. The characteristics of these towers are:

Tower No.	*Height above LWS (ft.)*	*Light*
E – 31	43	Green – Fl.
E – 32	43	Red – Fl.
E – 33	123	Green – Fl.
E – 34	128	Red – Fl.

Vessels are not allowed to overtake each other in the Inner Channel between Buoys B – 29 and B – 30 and Light Beacons T – 25 and T – 26. Vessels may overtake each other in the Inner Channel between Light Beacons T – 39 and T – 40 after having exchanged prescribed signals with the vessels to be passed. This manoeuvre is, of course, allowed only if conditions are favourable and no vessel navigating in the opposite direction is in sight.

Lake Channel. The channel starting at Light Beacons T – 39 and T – 40 and leading to Maracaibo Roads is called the Lake Channel. This is a natural channel 3,000 ft. wide and 11 miles long.

The Main Channel through Maracaibo Lake is approximately 83 miles long, not less than 244 m. wide and with a greater depth than the outer channels.

The access channels to the various ports and terminals branch off from the main channel as described under Section for each port.

CHANNEL NAVIGATION:

(a) Inbound vessels leave to starboard side the buoys and beacons marked with even numbers and to port side the buoys and beacons marked with odd numbers.

(b) Outbound vessels shall leave to port side the buoys and beacons marked with even numbers and to starboard side the buoys and beacons marked with odd numbers.

(c) Vessels should pass as close as possible to the channel's edge on starboard side. Loaded vessels have preference.

(d) Approaching vessels are to reduce speed in order to minimise the suction force of the displacing waters.

(e) Vessels must maintain a distance of 5 ship's lengths by day and 8 ship's lengths by night from other vessels navigating in the same direction.

(f) No vessel should start to manoeuvre to overtake another vessel before having received clearly the affirmative signal from the ship to be passed.

(g) A grounded vessel is not allowed to start any manoeuvre when another vessel is passing.

(h) Dredgers are frequently at work in the channels and caution should be exercised in passing them. Signals used by the dredgers are as follows:

Daytime

Black cylinder hoisted on side of yardarm: You can overtake me on the side on which the cylinder is shown.

Two black balls over the bridge: The channel is blocked.

Night

Green light on side of yardarm (a white light on mast-head helps to show on which side the green light is placed): You can overtake me on the side on which the green light is shown.

2 red lights over the bridge: The channel is blocked.

The tidal range is 4 ft. at neaps.

(i) Maximum speed for vessels navigating in lake channels has been limited to 10 knots. Masters should exercise the utmost care in complying with this regulation as heavy fines may be imposed to offending vessels.

PILOTAGE: (N.B. Maracaibo Pilotage Regulations require that inbound tankers, in ballast, while crossing the Bar, shall not have greater than 8 ft. difference between fore and aft draft. The Government Pilot will not take the vessel if this requirement is not met, unless he is satisfied that the actual draft of the vessel will permit safe navigation through the Outer and Inner Channels).

Every Master of a vessel navigating in Lake Maracaibo who desires to enter the main ship channel in Pilotage Zones No. 1 or No. 2 must first ensure that said Channel is free of traffic.

The limits of the Main Ship Channel in Pilotage Zone No. 1 are from Buoys B1/B2 located at the entrance to the Outer Bar Channel and Buoys B73/B74, of the city of Maracaibo. Pilotage Zone No. 2 begins approximately 1 mile below Maracaibo and extends Southward to Lightfloats M36/M37. All other channels are considered as access channels to their respective port zones and subject to special local rules. Every vessel navigating to or from any port in Lake Maracaibo must follow the prescribed routes through the main and access channels leading to or from such ports, (unless special permission has been granted to do otherwise).

(a) Pilots are employees of the Venezuelan Government and act in an advisory capacity; the Master retains responsibility for the ship at all times. In the event it becomes necessary to disregard the Pilot's instructions in order to ensure the safety of the ship, the Master must prepare a full written report of the circumstances, for delivery to the Captain of the port.

(b) Inbound vessels have the option at present to embark government Pilot at the following areas:

(i) In the channel off San Carlos Pilot Station between Buoys B – 24 and B – 26.

(ii) Anchorage area approximately 5.5 miles N.E. of Pilot station, San Carlos Island. Position 11° 04' 22" N., 71° 33' 48" W. East of Buoy B – 17. This area is demarcated with green light buoy equipment with radar reflector.

(iii) At the E.M. Buoy.

(iv) At Punta Cardon. See "Note", "Agent's Notice" and "Shipmasters' Reports" – August 1979, July 1981, August 1981 and June 1991.

(c) The Port Captaincy of Maracaibo is unable to guarantee embarking or disembarking Pilots at the E.M. Buoy or at anchorage area position. For this reason Masters should communicate with San Carlos Pilot Station for necessary instructions as to where to pick up Pilot, who usually embarks between Buoys B – 24 and B – 26. The communication

system between San Carlos Pilot Station and vessels will be by Morse lamp and radio-telephone. The stand-by frequency at San Carlos is 2182 kHz. Other existing frequencies are 2120 kHz and 2080 kHz; 156.6 and 156.8 MHz. Each pilot launch has a radio-telephone with 2182 kHz. frequency. The launch that leaves San Carlos Pilot Station with Pilot for ship, takes approximately 20 to 30 minutes to cover distance, and distance between buoys and San Carlos is approximately 6 miles or 10 km.

(d) Pilot Permit to navigate the Outer Channel without aid of a Government Pilot will be granted to those Masters who desire to obtain same. In order to fill the application required, a blank sealed paper and 3 copies should be signed by Master on arrival. Copy of this solicitude duly endorsed by Port Captain of Maracaibo, will serve the Master as temporary permit until the official one has been received. Masters in possession of permits to cross the Outer Channel without a Pilot, have the option to enter channel either at the E.M. Buoy or between any other buoy, taking into consideration the heavy traffic of the channel. Government pilotage through the Inner Channel is compulsory at all times.

(e) Outbound vessels will receive Pilot in Maracaibo, who will Pilot vessel up to San Carlos area approximately between Towers E – 31 and E – 33, where he will disembark. The Port Captain of Maracaibo has instructed that all Masters should always in ample time identify themselves with the San Carlos Pilot Station by radio-telephone regardless of time of day. While inbound – between Buoys B – 17 and B – 19 and sailing outbound – between Markers T – 42 and T – 40. These instructions are obligatory and are required in order for the Pilot service to be aware, at any moment, of any emergencies which may arise, and also to avoid, especially during the night, the launch departing with an official Pilot aboard believing that the ship in sight needs his services, in which case, even though the launch or Pilot services are not rendered, the same will be charged to the company owning the ship, or its representative.

Note: A Master approaching the port for the first time must pick up a Pilot in Punta Cardon before entering Maracaibo Lake Channel. In the case of contravention the vessel will be intercepted by San Carlos Pilot Station and returned to Punta Cardon with a resulting loss of at least 1 day and the Master may also run the risk of a possible fine.

Furthermore, the Master should cable ETA via Curacao Radio 72, 48 and 24 hours before arrival in order to allow sufficient time for Agents at Maracaibo to send a Pilot to Punta Cardon.

Agent's Notice: September 1987.

Subject: Pilot Service from/to Punta Cardon.

Harbour Master's Office has issued new regulations mentioned below.

1. Pilot service from Punta Cardon is only compulsory when Masters are crossing the channel of Lake Maracaibo for the first time. If this is not the case, the pilot should be then embarked at San Carlos.
2. Upon your request this pilot service can be arranged by the agency.
3. On departure, pilot service to Punta Cardon is not required.
4. If official pilot is unable to disembark at San Carlos due to difficulties on board or by Force Majeure, or if you decide to change the instructions given to the agency with regard to Pilot to disembark in San Carlos, a letter addressed to the Harbour Master stating your reasons should be handed to the Pilot before he disembarks in Cardon.

TONNAGE: Venezuelan Port Authorities base part of their pilotage charges on the size of the vessel, i.e.:

(a) On Registered Net Tonnage. Venezuela will accept the tonnage of ships registered in countries with which they have a reciprocal tonnage agreement. As of this date, such countries are:

Denmark
France
Germany
Great Britain
Ireland
Netherlands
Norway
Portugal
Sweden
U.S.A.

(b) On Venezuelan Nett Tonnage. Ships not registered in countries listed above, when calling at Venezuelan ports for the first time, must be measured for Venezuelan tonnage by the Captain of the Port. It is the usual practice to take ashore the ship's Panama Canal or Suez Canal Certificate, which is used as a basis for recalculating tonnage under the Venezuelan regulations, and return it before sailing. The Venezuelan admeasurement certificate, when later issued, is forwarded to the Owners. A fee is charged for this certificate, which is payable only on the ship's first call.

(c) In practice, the procedure for stating the tonnage of all ships entering the Lake of Maracaibo is as follows: The inward Pilot boarding the ship presents Master a form on which among others the Master should fill in the tonnage of ship. Pilotage charges are based on this tonnage given by the Master. Master's attention is drawn to the fact that the Venezuelan nett tonnage is usually higher than the International nett tonnage. Care should be taken if an old Venezuelan Nett Tonnage Certificate is on board, because the country in which the ship is registered might later have signed the reciprocal tonnage agreement with Venezuela. If the pilotage charges are made on basis of a higher tonnage than the one that should be applied, it is later very difficult, if not impossible, to get a refund.

CUSTOMS: *(a) Customs Watch.* While vessel is in port, Venezuelan National Guard Officials are assigned on board to ensure compliance with customs regulations. The Law requires meals be supplied to these officials during regular meal hours. Masters are requested to give them the privilege of eating in officers' messroom, to avoid difficulties.

(b) Firearms and Ammunition. Firearms must not exceed one per officer nor may the ammunition exceed 18 cartridges per officer. All firearms and ammunition must be carefully declared on Stores List and should be collected and held in Master's safe custody while vessel is in Venezuelan waters.

(c) Contraband. Strict compliance with the Customs law of the country is enforced by the authorities, and Masters are strongly advised to caution crew members against attempting to smuggle cigarettes. 1 open package per person is allowed to be carried ashore, but greater quantity will result in fine and imprisonment of the offender as well as lost ship's time. Due to very strict enforcement of the Customs regulations, it is recommended that no goods be carried which are not shown on Sto List. Any new articles (clothes, shoes, etc.) should be included in Sto List and marked as personal belongings. If during a check-up Customs, articles considered as contraband are found, this will not o mean confiscation of these articles, but also hours or days of lost ship time, while the case is handled at court.

CONSULS: The following nations maintain consular representative Maracaibo:

Belgium
Chile
Colombia
Costa Rica
Denmark
Ecuador
El Salvador
France
Germany
Great Britain
Guatemala
Italy
Netherlands
Nicaragua
Norway
Panama
Peru
Portugal
Spain
Sweden
Switzerland
United States of America

TIME: Local time is GMT minus 4 hours.

VISITORS: All visitors to ships are prohibited except those compa employees, petroleum inspectors, etc., whose duties require the presence aboard.

POLLUTION: The Laws of Venezuela are very strict in regard to t pollution of harbour and coastal waters by oil, and heavy fines a imposed for violations. No dirty ballast, oil or bilge slops are to be pumpe or allowed to escape overboard. All overboard discharge valves fro cargo tanks and bilges are to be secured before loading or discharg commences. Loading is to be conducted with greatest care and vigilan in order that errors or delays in handling cargo valves may not result overflows. All deck scuppers should be plugged before loading to avo harbour contamination should an overflow occur. The Authorities requ a written report to be submitted by the ship involved in the event of a oil spill.

PASSENGERS: Passengers will not be permitted to disembark unle in possession of the required visa and documents. To facilitate cleara if passengers are carried, the Master should include advice to this effe in his radio ETA.

SEAMAN LEFT BEHIND: Sailing may be withheld until all cre members are aboard with exception of those ashore for justified reason It is important that Masters bear in mind that the Venezuelan Law w at all times hold the vessel's Master, Agent, or Owner responsible f any seamen left behind in Venezuela.

SHIPMASTER'S REPORT: August 1979.

MARACAIBO/EL TABLAZO AND APPROACHES

Approaches: If making for the "EM" Buoy direct, positions can be a vague due to the low lying coast.

A distance off the coast can be obtained before the "EM" Buoy b no real firm position.

Often there is a strong N.E. wind.

Pilot: In the 'Pilot Book', etc., mention is made of picking up the Pilot Punta Cardon.

From the Pilots and Agent I have a clearer idea of the official viewpo and requirements.

There is NO compulsion to take a Pilot before San Carlos.

If you are unsure of the area and the visibility is poor from all sour and in my personal viewpoint it is advisable to take a Pilot at Pu Cardon, giving ETA 12 hours in advance.

If vessel is to pick Pilot up at San Carlos send cable 24 ho beforehand through Curacao "PJC" to 'Piloto San Carlos' request permission to use Canal Exterior, ETA at "EM" Buoy and at San Car Reconfirm 12 hours before "EM" Buoy and by VHF an hour before arr on Channel 12.

The difficulty lies in language, although there is meant to be a tra control system in Canal Exterior it is only in Spanish and the Co-ordina speaks little English. Little information is required or given if you speak English.

The Punta Cardon Pilot costs about U.S.$150 extra plus trans charges and entails extra distance of 70 miles from the West a 15 miles from the East.

The San Carlos Pilot boards from a fast launch at "B28" Buoy a usually leaves just before the buoy. He will use hoist, in spite of offi regulations which require gangway ladder arrangement, and leaves port side outward (boards on starboard side inward). This is nea always the case with situation of Pilot Station and wind, but may chan

Communications: Venezuelan station La Guaria (YVG – ALRS 62 Most vessels use Curacao "PJC", very good. Agents reply thro "PJC". Telex very good.

VHF: Call 'Piloto San Carlos' on Channel 16 (working Channel 12). A at Maracaibo on Channel 16 (works Channel 14, only during o hours). Agent at La Salina on Channel 16 (works Channel 14, 24 h service but very distorted at El Tablazo).

Canal Exterior: Leads from "EM" Buoy to San Carlos Pilot Sta A speed of 10 to 12 knots essential to keep vessel in channel on acc of strong N.E. winds and currents across channel. Takes about 1 h 10 minutes from "EM" Buoy to San Carlos.

The least advertised depth at LW is 12.8 m. but shoals quickly at s of channel. We found 11.0 m. LW to West side of channel at " Buoy.

Buoys "B14", "16" and "18" had shifted about 200 m. to West (Au 1979). On the outer section of channel between "B4" to "B8" Buo Westerly set right across channel very apparent and near Mai Breakwater. At "B22" Buoy an Easterly set experienced. Wind 4 – 5, tide 1 hour before and 1 hour after HW Malecon both case

The "E 34" pylon light off Pta. Diablo is very conspicuous. A dredger 'Wado' works this section with North end Canal Interior. A suction dredger, pulls to side of channel to let vessel pass. Only Sp and German spoken. The old 'Zulia' dredger has stopped wo Another dredger is being completed for the Government.

Canal Interior: About 1.5 hours pilotage to Puerto Miranda, speed a manoeuvring. This channel is generally deeper than Canal Exterio advertised depth of 12.8 m. seems reliable. Pilot told me they ha get both channel Interior and Exterior deepened to 15 m. LW in the future.

Pile Light Beacons "T46" and "T40" have been replaced by b

Pratique: Given on berth.

Notice of Readiness: Can be tendered on arrival at berth. It is finally brought down with Bill of Lading on completion. This is normal practice. As we were cooling down it was received at completion of cooldown. Normally on berthing with lines connected.

EL TABLAZO:

Pilot: A Docking Pilot boards just before berthing and unberthing of vessel.

Tugs: 2 tugs of 1,800 h.p. Secure in "American" style using their lines.

Situation: For all intents and purposes part of Puerto Miranda but operated by different company.

Located just S.E. of Puerto Miranda berths. El Tablazo consists of 3 piers. Bulk, liquid and a small soda pier.

Anchorage: At El Tablazo – off berth, just East of main Maracaibo channel. Good holding – 3 shackles.

Pier: The bulk pier handles bulk and bagged urea fertiliser through 4 shiploaders fed from a conveyor. Three on the South side and 1 on the North side. Two of the loaders on the South side handle bagged urea down corkscrew chutes.

The liquid pier is to the South of bulk pier – berth both sides and handles ammonia, butane, propane, propylene.

Two Chicksans each side. The inshore being of 10 in. both sides and seaward being of 8 in. but fed by 10 in. line. Couplings are 300 ASA but 150 ASA spool pieces generally fitted.

Vapour lines are flexible stainless braided with rubber covering – ship's derrick required, 300 ASA coupling with 150 ASA spool piece. All berths – head IN. On the South side the outer edge of the dredged channel is marked by buoys.

All berths have good rubber fenders. Liquid pier outer end has two full faced mooring dolphins connected to main pier by catwalk. The least depth at all berths at LW is 6 fathoms, except small soda berth which has 2 fathoms at LW.

Moorings: 2-3-1 each end. Ship put alongside pier before moorings out. Plenty of mooring gangs. Very particular on position to within 0.5 m. Gangway no problem.

Fresh Water: At 15 t.p.h. from pipe at manifold amidships. There is a pumped supply at 70 t.p.h. used for loading small tankers to take to outports where supply is limited.

Operations: Language problems. There is one Loading Master who speaks good English. Surveyor on arrival and departure. Very co-operative. Venting allowed up riser.

Vapour return line goes to flare at ship's expense and can only be used if 100% product.

Max. rate ammonia 500 t.p.h., but initially can get plenty of stops. S.G. given at 15°C. The control of the rate is not very fine. You can get down to 20 t.p.h. but increase very broad. Usual notice for completion.

Dock Density: 1003.

Documentation: Carried out at berth inward, sometimes vessel taken off berth outward to local anchorage and clearance given there. Sometimes in the past Inward Clearance done at Maracaibo, NOT NOW.

There is much written in publications and passed around about visaed Crew Lists and deviation cables. I have tried, in talking to the Agent and to the Authorities to clarify the situation.

Visaed Crew Lists are NOT required now. But there is still a requirement that because the ship has no visaed Crew List she must have deviated on passage.

Basically what is required is that the ship should be cleared on sailing for Venezuela to say, Trinidad, for orders or Curacao not Maracaibo, then on passage receive a message deviating her to Maracaibo. If she does not have Deviation Message a fine could be imposed but the Agent says all ships have required cable so do not know of fine being imposed.

Required:

7 Crew Lists.
3 Stores Lists. Victualling only, can include bond.
3 Slop Lists. Could probably combine with above.
2 Ballast Lists. To give amount and cleanliness.
1 Vaccination List.
3 Crew Manifests.
1 Health Declaration.

I cabled in a Pratique message as a matter of practice.

Shore Passes: Given by Agent for each crew member, no photos needed. Not required to be handed back on departure. Valid 3 days. After completion there seems to be a normal documentation delay to obtain clearance of up to 12 hours.

Shore Leave: The Agent will lay on a launch, but not really necessary as at El Tablazo liquid berth vessel is near the boat pier and fast launches run frequently to Maracaibo (takes 15 minutes). Arrange through Loading Master.

Can change sterling or dollars in local hotels, rate 4.3 Bolivars to the U.S. dollar.

Films: Change Walport films at Puerto Miranda. Agent will send launch. Crew member has to go with films to change.

Agent: Only Agent on departure – no officials. Bill of Lading given by Terminal before Agent arrives.

SHIPMASTER'S REPORT: July, 1981.

Experienced following when entered Maracaibo Lake, mid-July, 1981.

Arrived EM Buoy and obtained permission from San Carlos Pilot Station via VHF to enter outer channel and pick up Pilot at Buoy No. 26. During the piloting the Pilot asked asked me whether I had previously entered outer channel, which I confirmed with the remark *many years ago.*

After berthed my Agent informed me that a new regulation required Ship Masters to pick up Pilot at Punta Cardon inward bound, unless the Master with said vessel had actually entered Maracaibo Lake *within the past 6 months,* for which he was automatically permitted to enter outer channel and pick up Pilot at Buoy No. 26.

Fines might be enforced upon Masters neglecting this new regulation.

SHIPMASTER'S REPORT: August, 1981.

If the Master of a vessel enters the channel for the first time, or even if *more than six months* since the last visit, he must embark the Pilot close to Punta Cardon. The distance between Punta Cardon and "EM" Buoy is approximately 80 miles.

If less *than six months* since the last visit, Master is authorised to pick up the Pilot when passing Buoy No. 26.

In the first case 24 hours prior notice should be given to the Pilot, and when approaching Punta Cardon vessel should call "Marina Cardon" on VHF Channel 16.

SHIPMASTER'S REPORT: June 1991.

Pilotage: At present, all foreign flag vessels bound for ports in the Maracaibo Lake have to pick up Pilot off Salina Guaranao in position Lat. 11° 40' N., Long. 70° 15.5' W. Call Guaranao Pilots on VHF Channel 16.

Upon departure, pilot service up to Salina Guaranao is compulsory.

The above pilot service is necessary every time a vessel is bound for Maracaibo Lake, and not just for the first visit.

Section A

BAJO GRANDE: 10.29 N. 71.38 W. (See Plan)

(1) OPERATOR: Maraven, S.A. Oil Terminal.

(2) OPERATOR: Maraven, S.A. Natural gas liquids processing facilities.

(N.B. For important details of Documentation, Pilotage, etc., see "Maracaibo Lake").

(1) **OPERATORS:** Maraven, S.A.

LOCATION:

Maracaibo: On the North-Western shore of the Lake Maracaibo: Position: Lat. 10° 40' N., Long. 71° 38' W.

Maracaibo is the capital of the State of Zulia and seat of all Government and Consular Offices, as well as the port of entry for all vessels loading at terminals in the Lake of Maracaibo. Upon arrival at Maracaibo, a representative of the appointed Agency will go on board to assist vessel.

Bajo Grande: Loading Pier: Position: 10° 30' 50" N., 71° 36' 8" W., about 8 miles (12.8 km.) South of Maracaibo on the Western shore of the Lake and about 9,000 ft. (2,743 m.) offshore with its centre line North-South. Three vessels can berth simultaneously. Two outside at Berth No. 1 and Berth No. 3, and one inside at Berth No. 2, to load different cargoes. Except for the Boscan Crude, two vessels can load at same time.

DOCUMENTS: The following documents should be presented by the Master:

Clearance from Sailing Port with the following attached:
Stores List.
Crew List.
Slop Chest Inventory.
Ballast Certificate.

Special ballast report made up by Master.

The Maracaibo Port Captaincy, requires that the Masters of all vessels entering this jurisdiction, deliver to the Maracaibo Port Captain's representative, during his visit to ships in the Port of Maracaibo, a report which must answer the following questions concerning ballast:

(1) Port or place where ballast was taken.
(2) Quantity taken.
(3) Type of ballast and condition of same.
(4) Where deballasting operation was or is to be carried out.
(5) Approximate deballasting time.
(6) Any other pertinent information that may be required.

Crew List.	6 copies
Stores List.	6 copies
Slop Chest Inventory (Deck, engine and cabin stores listed separately).	6 copies
List of Personal effects.	6 copies
Derat Exemption Certificate.	Original
Venezuelan Net Tonnage Certificate.	Original
American Crew List.	4 or 2 carbon copies

(If required: See under "American Crew List").

Boarding Party: The boarding party usually consists of the following persons:

One Quarantine Official.
Two Customs Officials.
One Sanitation Department Official.
One Port Captain's Representative.
One Foreign Service Department Official.
One Vessel's Agent.

American Crew List: All non-American vessels loading for U.S.A. port should have the American Crew List ready on arrival in Maracaibo to be visaed by the American Consulate in Maracaibo and placed aboard ship before departure. The Crew List should be prepared on Immigration and Naturalization Service Form No. 1–418 (Crew List Manifest) and should contain two sections:

Section 1 – Should list those crew members who are American or who possess individual visa documentation to the United States.

Section 2 – Should list, in the alphabetical order of their last names, those alien crewmen who lack United States visa documentation and therefore require inclusion in the visa of the Crew List.

Only one name may be placed on each line of the Crew List. Two names should not be placed in the space of one line, nor should a full line between two names be left vacant. All copies of the Crew List presented must be legible (Occasionally the names of the crewmen included on the carbon copies of some Crew Lists presented at the consulate are blurred beyond recognition).

The information requested under column 1, 2 and 3 should be filled in completely.

Column 1 – Should always contain the complete first name and middle initial of the crewman.

Column 2 – Should show the nationality of each crew member and the number of his travel document.

Column 3 – Should always include the name of the port where the crewman was shipped, not simply the country.

At the time of the vessel's first application for a Crew List, the Crew List must be presented in 4 copies:

Original and 1 copy – Should contain only the information requested under Columns 1, 2, and 3.

Two Copies – Must include the following information of those crewmen to be included on the Crew List visa.

Column 4 – Should list the date, city and country of each crew member's birth.

Column 5 – Should show the place of issuance of the Seaman's Travel Document and the name of the Government which issued the Travel Document. (It is not necessary to list the date of issuance of the travel document).

Cargo Documents:

1. *Master's copy of Bill of Lading* – The Bill of Lading form used is the usual Warshipoilvoy form. Masters wishing to use another form should furnish 20 blanks on arrival in Bajo Grande. Master is requested to sign 3 negotiable Bills of Lading (Originals).
2. *One copy of the Certificate of Quantity and Quality (Q. & Q.).*
3. *One copy of the Ullage Report.*
4. *Time Sheet.*
5. *Certificate of Origin.*
6. *Cargo Manifest.*

Outward Clearance:

Following documents are delivered on board by the local Agent before sailing:

1. *Customs Clearance* – Duplicate of "Conocimiento de Embarque" and Duplicate of "Manifiesto de Carga". (Both stamped and signed by Customs) or any other document specifically requested by the consignee or nominating source.
2. *Communication* – A letter from Maracaibo Customs Authorities to Authorities in port of destination.
3. *Zarpe* – Permission to sail signed by Maracaibo Port Captain. This is brought on board in Bajo Grande by the outbound Pilot.

Customs Guard: The Customs Guard will request Master to countersign his time on board the vessel. This is counted from the time the first hose was connected until all hoses were disconnected, regardless of whether the vessel was receiving cargo or not.

Accommodation Ladder: Vessels must provide an accommodation ladder. The use of rung ladders, pilot ladders, etc., is contrary to Port Regulations. Port authorities will board only by means of an *accommodation* ladder. it is recommended to rig this in advance in order to avoid unnecessary delays.

In order to guarantee the security and safeguard the lives of the officers that board the vessel inbound in Maracaibo, it is imperative that Masters strictly comply with the following precautionary measures:

(1) Each of the components and functional parts that holds together or supports the gangway ladder must be maintained in excellent condition.
Therefore, wire ropes, guide blocks and bolts etc., found to be defective or in bad condition must be immediately replaced.

(2) For maximum security, each time that your vessel arrives in this jurisdiction, the above mentioned mechanisms should be thoroughly checked and tested by the personnel aboard vessel before the gangway ladder is used by the boarding party.

APPROACHES:

Channels leading to Lake Maracaibo: The channels leading to the Lake Maracaibo are called the Outer Channel, the Inner Channel and the Lake Channel.

Outer Channel: The Outer Channel starts at the E.M. Buoy position: Lat. 11° 13' 47" N., Long. 71° 33' 31" W. and ends at the Zapara Island, a distance of about 14 miles. (About 22 km.).

The light characteristics of E.M. Buoy are: flashing white every 5 seconds, visibility approximately 5 miles.

There are no turns in the channel and the course is 189°. The channel is 100 ft. wide and has a normal controlling depth of 44 ft. LWS with tidal range varying about 2 ft. 3 in. Cross currents are sometimes encountered near Zapara, San Carlos and Pescadero Islands, especially at LW when the cross currents are strong. Overtaking at these points is forbidden. There is one anchorage zone in the Outer Channel which is a trapezoid on the port side when navigating inbound near the Buoys B – 14, B – 15, B – 16 and B – 18. All buoys in the Outer Channel are equipped with radar reflectors.

The Southern end of the Outer Channel is marked by Buoys B – 27 and B – 28.

Inner Channel: The beginning of the Inner Channel is marked by Buoys B – 29 and B – 30. The Inner Channel continues on the same course as the Outer Channel for about 10 miles, whereafter the direction changes to 150°, The entire length of the Inner Channel is about 12 miles. Beacons T – 55 and T – 56 mark its Southern end. The normal controlling depth is 44 ft. LWS. The channel is 800 ft. wide. Vessels are not allowed to overtake each other in the Inner Channel between Buoys B – 29 and B – 30 and light beacons T – 25 and T – 26.

Vessels may overtake each other in the Inner Channel between light beacons T – 39 and T – 40 after having exchanged prescribed signals with the vessels to be passed. This manoeuvre is, of course, allowed only if conditions are favourable and no vessel navigating in the opposite direction is in sight. From Beacon T – 56 to Maracaibo harbour the channel is 800 ft. wide, depth 44 ft., its end is marked by Buoys B – 73 and B – 74.

Navigation through Channels:

Inbound vessels leave to starboard side the buoys and beac marked with even numbers and to port side the buoys and beac marked with odd numbers.

Outbound vessels shall leave to port side the buoys and beac marked with even numbers and to starboard side the buoys and beac marked with odd numbers.

Vessels should pass as close as possible to the channel's edge starboard side. Loaded vessels have preference.

Approaching vessels are to reduce speed in order to minimise suction force of the displacing waters.

Vessels must maintain a distance of 1 nautical mile (1,852 m.) by d or night from other vessels navigating in the same direction.

No vessel should start to manoeuvre to overtake another vessel bef having received clearly the affirmative signal from the ship to be pass

A grounded vessel is not allowed to start any manoeuvre when anot vessel is passing. Dredgers are frequently at work in the channels a caution should be exercised in passing them. Signals used by t dredgers are as follows:

Daytime: Black cylinder hoisted on side of yardarm:

You may overtake me on the side on which the cylinder is show

Two black balls over the bridge:

The channel is blocked.

Night:

Green light on side of yardarm (A white light on mast head helps show on which side the green light is placed).

You can overtake me on the side on which the green light is show

Two red lights over the bridge:

The channel is blocked.

The tidal range is 4 ft. at neaps. Observed squat in the channels about 1 ft.

Maracaibo Lake Channel Guard Service Corps have had evidence vessels travelling out of the navigation channel in the vicinity Buoys B – 3, B – 5 and B – 7; this risky procedure is considered ve dangerous to the safety of the channel buoys and its installations.

Masters of all ships are reminded that all vessels inbound or outbou *must* pass the EM Buoy on the port side. This operation will be register and controlled by their electronic devices installed at San Carlos Pi Station.

Violators of this regulation, in addition to being economica responsible for damages to the buoys and related accessories, will prosecuted in accordance with Article 118, Section I of the Venezuel Law of Navigation.

In view of the above, and keeping in mind the protection of the interes of your owners, we ask that you comply at all times with this regulat emanated from the Port Captaincy.

PILOTAGE: Compulsory. Vessels proceeding direct to the Bajo Gran Terminal must enter outer channel and embark Pilot between Buoys and 27. After vessel arrives in vicinity of channel entrance, Master m contact *San Carlos Pilot Station* by radio telephone on Channel requesting Pilot at Buoys 25 – 27. The launch that leaves San Car Pilot Station with Pilot for ship, takes approximately 20 to 30 minutes cover distance, and distance, between Buoys and San Carlos approximately 6 miles (10 km.).

Master must advise Maraven, S.A. and Agent ETA Buoys 25 – 72, 48 and 24 hours prior to arrival there.

Masters of Vessels entering Lake Maracaibo for the first time m cable their Local Agent notifying this fact, in order that the Agent m comply with the Port Regulations. This security measure make necessary for the ship to pick up a Pilot at Punta Cardon.

The Master should notify Agent or contact Maraven, Punta Cardon radio on Channel 12. As no Pilots are available at Punta Cardon, Local Agent for the vessel requires 48 hours' notice in advance facilitate making arrangements to fly a Pilot to Cardon and then h Maraven place the Pilot on board the ship.

The co-ordinates of Punta Cardon are approximately Lat. 11° 36' Long. 70° 15' W. Maraven will charge approximately Bolivares 1100 for this service. In addition, the ship will have to pay air fare, h expenses, and a higher Pilotage fee for this service. However, i Master of a ship has previously entered the channel as an officer ship, he is not required to pick up a Pilot at Punta Cardon.

Masters are reminded that Pilots are authorised to leave Jurisdiction, only when they are disembarked in Venezuelan ports. this understanding, when special circumstances arise in which the cannot be disembarked at San Carlos and the ship is unable to the nearest Venezuelan port to disembark the Pilot, in this case the of "Las Piedras", it is required that the Agent as well as the Mas the vessel, forward to the Port Captaincy at the earliest opportu detailed report giving the reasons that compelled the Master to take Pilot abroad.

Pilots act in an advisory capacity only, and therefore the Mas the vessel retains full responsibility at all times. In the event it bec necessary to disregard the Pilot's instruction in order to ensure the s of the ship, Master must forward to Local Agent a full written repo the circumstances for delivery of same to port authorities.

The Venezuelan Pilotage Law stipulates that Pilots must be pro with the same lodging as is given an officer. In case no extra o cabin is available, suggest the hospital be used by the Pilot. Also should be seated at the officers' mess for his meals.

In case of accident to Pilot while performing his duty on boar the responsibility of the Master to furnish the Pilot with a full w report on the accident before the Pilot leaves the vessel. The Pilo be able to present such a report in case of a legal claim.

Note: According to new Port Regulations for vessels proceeding Bajo Grande Terminal, the Official Pilot (Conduct Pilot) will bo conduct the vessel to Bajo Grande and disembark; vessel will the up the other Official Pilot (Docking Pilot) for berthing manoeuvre

As a result of accidents that caused the loss of lives, the Maracaibo Port Captaincy issued a Regulation with the view of safeguarding human life at sea and other navigable waters; Official Pilots that must embark on or disembark from undocked ships, must use an automatic-inflated type life vest. This procedure is also compulsory for all persons from private or public entities that are required to go aboard vessels that are anchored, stopped or navigating in the waters of Lake Maracaibo. Likewise, at the side of the boarding ladder where the Pilot boards or disembarks, a hoist or boatswain's chair shall be placed there, and within it a life line and a gas light ready to be used in case it becomes necessary. The Port Captaincy will see to it that this Regulation is strictly complied with.

Docking Pilot: The Government's Pilot will assist in docking operations. It should be borne in mind that Pilot acts as adviser only. The Master retains full responsibility at all times. Any damage incurred to vessel or loading platform which may be deemed to have been caused by the Mooring Pilot's fault or negligence, may be held against the ship.

Undocking: Government's Pilot will assist in undocking. Two tugs will be used as for docking and undocking.

Pilot Ladder: All vessels with a freeboard over 9.0 m. must supply a combination of pilot ladder and gangway (SOLAS 74, Rule 17).

ANCHORAGE: The Pilot will not manoeuvre the ship into anchorage, but will indicate the proper location to anchor. Care should be taken because of small boat traffic.

MAX. SIZE: The following restrictions in size and draft upon loading exists for vessels docking at Bajo Grande:

	Maximum Loading Draft	*Maximum Vessel Size (tonnes)*	*Max. displacement upon Berthing (tonnes)*
Outside Berth (No. 1)	39 ft. 06 in.	*55,000 d.w.t.	42,000
Inside Berth (No. 2)	32 ft. 00 in.	36,000 d.w.t.	20,000
Berth (No. 3)	39 ft. 06 in.	85,000 d.w.t.	105,000

* Vessels up to 61,000 tonnes d.w.t. will be accepted as long as they do not exceed other characteristics.

Also see "Berthing".

RADIO: *Information to be cabled to Local Agents 3 days prior to arrival:*

1. *Flag:* If the vessel has loaded in Bajo Grande before or is listed in the Tanker Register published by H. Clarkson & Company Ltd., London, the nationality of the vessel need not be cabled.

2. *Sailing port and at which other port vessel will call in this area:* For clearing the vessel in and out of Maracaibo, local ship Agents must know beforehand from where the ship comes and which other port it will call in this area. Therefore, it is of importance to inform Agents whether the vessel will load part cargo or bunker, at which terminal, and whether inbound or outbound.

3. *Port for which vessel is cleared:* In case the vessel was diverted *en route* and consequently is not cleared for Maracaibo or one of the terminals in the Lake of Maracaibo, the Local Agents must obtain from authorities special permit for the vessel to enter the Lake of Maracaibo.

4. *Ballast Certificate:* If the vessel arrives in ballast a "Ballast Certificate" is mandatory. A fine against the vessel will issued by the Port Authorities if vessel does not have this certificate.

5. *Estimated Time of Arrival:* Cable ETA San Carlos Pilot Station Buoys 25 – 27 (See "Pilotage") or, if the vessel is taking part cargo or bunkering inbound, cable ETA, bunker or first loading port. Please use local time if possible (4 hours behind GMT).

6. *Tonnage:* If the vessel has not loaded at Bajo Grande before, also cable the Gross and Net Tonnages. To determine whether the International or the Venezuelan tonnage should be mentioned, see General – "Tonnage Applicable".

7. *Master's Full Name:* Please sign your first message with Master's name and surname, which is also needed to clear the vessel in Maracaibo.

8. *Changed ETA:* An additional cable should be sent about 48 hours and 24 hours prior to arrival at Pilot Station Buoys 25 – 27 stating ETA.

Proper use of Radio Frequencies: We have received several circulars from the Maracaibo Port Captaincy, requesting Terminal Operators to caution all Masters of vessels calling at Bajo Grande Terminal on the improper use of the International Distress Frequency of (2182 kHz) for personal conversations. This procedure is contrary to the security of vessels.

A letter containing such caution will be delivered to the Master of each vessel loading at Bajo Grande by the Agent, requesting that the Master sign a copy signifying his acknowledgement of said letter of notice.

The International Distress Frequency was established specifically and exclusively for emergency calls such as shipwreck, fire and accidents. It is also used by ships and shore stations to make first contact (VHF Channel 16) but immediately after contact is made, the operator should switch to one of the 52 Channels available.

9. *Compulsory use of Single Side Band Radio:* A circular letter from the Venezuelan Ministry of Communications, states that no licence will be granted for the installation of radiotelephone stations of modulated amplitude (A3). The installation and use of Single Side Band radiotelephone equipment is obligatory.

In consequence, the Ministry has requested that the terminal inform all users of Double Side Band (A3) radiotelephone equipment in order that they proceed immediately to install in their ships, launches and all other marine vessels Single Side Band equipment with the same frequencies that are presently in authorised use, which is VHF Channel 16.

The listening and Safety Station YXW – 3 installed at the Venezuelan Nautical School is equipped to answer any calls on the International Distress Frequency with their transmitter of 1 kW.

As a result of the foregoing, a letter containing the above information has been prepared by the Terminal which will be delivered to the Masters of all vessels calling at the Bajo Grande loading terminal. The Masters of all vessels are required to sign a copy of this letter in acknowledgement of receipt.

TUGS: The Venezuelan Government has ruled mandatory the use of 2 tugs for docking and undocking. Vessels over 60,000 d.w.t. will use 3 tugs for docking and undocking.

NOTICE OF READINESS: Masters are free to tender their ships as being ready to load at any place and time which, in their opinion, conforms with the terms of the charter party. Terminal personnel authorised to countersign the Notice of Readiness have been instructed to indicate the time vessel was all fast. This does not imperil in any way the rights of the shipowner in his negotiations with the charterer and it limits the Terminal's liability to the consignee.

BERTHING:

Berth No.	*Dock Length (ft.)*	*Vessel Nominal Length (ft.)*	*Max.Draft Arrival (ft.)*	*Minimum Depth (ft.)*
1	929	751	35.0	40.0
2	929	751	32.0	35.5
3	898	853	39.5	40.0*

* In April 1993, the Pilot advised a Master that the depth was 45 ft., but echo sounder reading indicated 42 ft. – 43 ft.

CARGO OPERATIONS:

Loading Arm System:

Berth No.	*Loading Arm No.*	*Diameter in.*	*Boscan Crude and Products*	*Connection*
1 and 2	1 Black	8	Asphalt Cement (PAS), Boscan Crude, High and Low Viscosity Residuals, Bunker "C", Vacuum Gas Oil, Distillated Oils.	Flange 8 in. 150 ASA
	2 Black	8	Boscan Crude, High and Low Viscosity Residuals, Bunker "C", Cutback Asphalt, Ballast.	Flange 8 in. 150 ASA
	3 Black	8	Boscan Crude, High and Low Viscosity Residuals, Bunker "C", Cutback Asphalt, Ballast.	Flange 8 in. 150 ASA
	1 White	8	Leaded Gasoline, Catalytic Gasoline.	Flange 8 in. 150 ASA
	2 White	8	Gasoline Leaded, Light and Heavy Naphtha.	Flange 8 in. 150 ASA
	3 White	8	Light Gas Oil, Industrial Gas Oil, Jet A-1.	Flange 8 in. 150 ASA
	Bunker	6	Bunker "C", Intermediate Bunker Fuel (IBF), Marine Gas Oil (MGO), Diesel.	Flange 6 in. 150 ASA
3	1+2	10	Boscan Crude, High and Low Viscosity Residuals, Bunker "C", Cutback Asphalt, Ballast.	Flange 10 in. 150 ASA
	Bunker	6	Bunker "C", Intermediate Bunker Fuel (IBF), Marine Gas Oil (MGO), Diesel.	Flange 6 in. 150 ASA

Inert Gas System: The use of an inert gas system will be compulsory for all vessels fitted with the system, whilst operating at the Terminal.

Deballasting Facilities: A Circular letter from the Venezuelan Ministry of Communications, Maracaibo's Port Captaincy, states that as of October 1976, no ballast (either clean or dirty) can be discharged into Lake Maracaibo waters. Therefore, all ballast must be pumped ashore to the petroleum terminal on which vessel is to take cargo. Heavy fines are assessed for vessels violating this law and therefore we strongly recommend Masters to be particularly careful in this regard.

Shore deballasting facilities are available at Bajo Grande and are subject to no special regulations and procedures as yet. Tanker ballast water is pumped through 2×8 in. hose connections into 1×24 in. line of about 9,000 ft. in length to a 90,000 bbls. receiving basin situated on shore at a maximum rate of 2,000 tonnes/hr.

The deballasting basin is limited to receiving *only* petroleum hydrocarbons and petroleum hydrocarbons derivates. Emulsifiers, caustics, acids and chemical slops are absolutely unacceptable. Contamination of Lake Maracaibo waters with oily or chemical materials of any nature is strictly prohibited by Venezuelan Laws. The terminal is required to report to the Authorities any such contamination by vessels docked at Bajo Grande. HEAVY FINES ARE THEN ASSESSED AGAINST THE SHIPS. Vessel's cooperation is requested to prevent contamination from tank overflows, bilge oil, line leaks or from any other source.

Tank Cleaning and Drying: Precautions as are common for any heavy oil should be taken to ensure that no ballast is left in any tank. If the cargo is contaminated with water, the water will not separate from the oil. The salt content of the oil will be raised approximately 10 lbs. per 1,000 bbls. for every 0.10% contamination by sea water. All cargo compartments must be stripped extremely dry.

Cargo pipeline should be drained and or purged of water. On standard T – 2 type vessels, this can be done by draining the fore and aft main cargo lines, both suction and discharge sides, into the pump room bilges followed by opening of main suction valves on each individual compartment, thereby releasing water retained in dead and transverse lines. After this procedure is completed, each compartment should be restripped with stripping pumps and lines, followed by draining the stripping line to pump room bilges. On other ships equipped with looped systems it is possible to blow the system with air and drain water into the bilges. In other situations, fresh water might be used to flush cargo piping systems of salt water and in turn strip salt water and fresh water as outlined for T – 2 vessels. All deck scuppers should be securely plugged and all precautions should be taken to avoid pollution of lake.

Inspection of Tanks: Before loading can commence, tanks and loading system must be inspected and passed. This is usually done by the Terminal's own Cargo Inspector but, if consignee so requests, third party inspection can be arranged.

Inspection Companies available in Maracaibo are the following:

E. W. Saybolt & Co., S.A.
Redwood Petroleum and Petrochemical Division
Analistas e Inspectores Venezolanos de Petroleo C.A.
Inspecciones, S.A.
Caleb Brett Venezuela, C.A.

Line Displacement: When a vessel is loading crude and products, it is usually necessary to displace lines once or twice during loading. Masters will be advised of necessary line displacements before loading starts and are required to take note because NOTICE HAS TO BE GIVEN BY VESSEL when pumping should be stopped and tanks changed. Once shore tanks have been changed, it will not be possible to change the quantity of the product already in the ship, as shore lines will then contain a product different from the one already loaded. *Ship's gauges and/or draft should be carefully checked when calculating required quantities.*

Spillage: In case spillage occurs, the Terminal Port Supervisor must be advised immediately, as any spillage must be reported to the Authorities without delay.

There has been considerable discussion in Venezuela concerning oil spillages resulting in contamination of Lake Maracaibo. Considerable pressure is being exerted by Government agencies to eliminate all spillage, and the Terminal is making every effort to avoid contamination of Lake Maracaibo.

While vessel is at Bajo Grande take special precautions to avoid dirty ballast, bilge water or any other contaminant entering the Lake.

If a spill should occur and Terminal representative, the Government's representative of the National Guard observes that the waters of the Lake are being contaminated by any substance from the vessel the Terminal will request that vessel suspends deballasting, loading or discharging operations immediately and all consequences that might arise from this operation such as short loading, the unmooring of your vessel, fines, damages to fishermen, clean up costs, etc., *will be strictly, for vessel's account.*

We strongly recommend to Masters to emphasise to the officers on deck to endeavour to avoid spillages and to make certain that the scupper plugs are installed prior to commencement of loading operations in order to withhold on deck any spillage that might occur.

After Loading: All Butterworth plates, tanks tops and ullage plugs should be inspected to ensure against entry of water. Inspection of ullage plugs should follow on completion of temperature readings because of the necessity of taking temperatures en route. Sea suction valves should be secured by positive means until all cargo has been discharged. This may be accomplished by numbered seals, chains and padlocks. The method of securing should be noted on the inspection documents. Regardless of which method is used, appropriate log entries should be made indicating the date, time and method used and under whose supervision, both vessel officer and/or Cargo Inspector, such method was applied.

About 2 hours is required for the preparation of the cargo documents which are normally delivered on board before sailing.

Temperature of Boscan Crude and Boscan Products at Sea: On short voyages, as for instance to the U.S.A., it has proved most practical to maintain the loading temperature. On longer voyages, as for instance to Europe, the temperature may be dropped to 130°F., which does no harm as long as sufficient time is given to bring the temperature up again to that required for discharging. Masters should, however, not expect a temperature rise of more than 5°F. per day, especially if the sea temperature is low. The heat transfer properties of Boscan Crude are very poor as are those of the heavy products made from this crude. Many ships have been delayed in the discharge port due to too low cargo temperature. A temperature of 160°F. is suggested for discharging Boscan Crude, Topped Boscan and Cutback Asphalts.

Discharge Cargo: Boscan Crude has a flash point of 110°F. – 160°F. and a maximum viscosity of 1400 SSF at 140°F. The viscosity at other temperatures follows the pattern of other petroleum products. Boscan Crude has been successfully handled in ships fitted with both reciprocating and centrifugal type pumps with forward and after pumprooms respectively. It is generally found that this crude can best be handled at a temperature which brings its viscosity to about 600 SSF – 160°F. Vessels with forward pumproom should control stern trim so that it does not exceed about 4 ft. while stripping the after tanks. Also a 5° list is very helpful when stripping. Once the cargo gets below heating coils, tanks must be pumped empty as fast as possible. At times it has been found helpful to gather tanks strippings into a single tank for discharge ashore, as it is very difficult to strip against heavy back pressures. Watch reciprocating pumps for vapour lock. Because of high viscosity, proper care should be taken that no oil is left in vessel discharge lines at low temperature.

Tank Cleaning After Discharge Cargo: Many Masters have expressed concern over tank cleaning after discharge. Assuming that the ship proceeds to sea for this operation and has sufficient time for proper execution, vessel may be cleaned quite thoroughly using the Butterworth system. However, it is of vital importance that the system be used at maximum pressure and temperature (not below 160 p.s.i. and 170°F respectively). At these conditions and with 2 machines, it has been found that about 4 hours are required for each tank. It is of importance to keep the tanks well stripped during the Butterworthing. Some prefer to steam out the tanks before Butterworthing. If this course is adopted care should be taken that the steaming does not last more that 1 hour as the heat will drive off the light ends of the oil and leave a rubbery residue that is very difficult to remove.

It has been found helpful to keep the machines in LOW position for about 1 hour and the HIGH – MIDDLE and LOW in order, in the usual manner.

Boscan Crude and Products/Light Products:

Loading Product	*API Gravity*	*Temperature °F*	*Loading Lines used*	*Unloadin Rate (bbl./hr*
Boscan Crude	10.0 – 11.0	165	2×18 in.	15,000*
Cutback Asphalt	11.0 – 15.0	170	2×18 in.	15,000
Asphalt Cement (Pas)	5.0 – 6.0	300	1×14 in.	5,000
High and Low Visc. Residue	10.0 – 19.0	160	2×18 in.	16,000
Bunker "C"	10.0 – 16.0	160	2×18 in.	16,000
Gasoline	61.0 – 67.0	85	2×12 in.	6,200
Ind. Gas Oil	29.0 – 31.0	95	1×12 in.	6,200**
Light Gas Oil	32.0 – 38.0	95	1×12 in.	6,200
Light Naphtha (LSR)	70.0 – 73.0	85	2×12 in.	6,200
Heavy Naphtha (HSR)	52.0 – 55.0	85	2×12 in.	6,200
Jet A-1	45.0 – 51.9	85	1×12 in.	6,200

* Loading Rate.
** Loading and unloading rate.

DENSITY: 0.977 – 1003.

FRESH WATER: Delivery of boiler and potable water is made by barg *minimum quantity 100 tons.* The barge holds about 160 tons and t pumping rate is about 25 t.p.h. Requirements should be cabled advance to the Agent of the vessel in Maracaibo.

FUEL:

Advance Notice of Requirement: Should a vessel arriving at Bajo Grand require any bunkers, Owner or Operator must place their nominati with Maraven, S.A. via Telex No. 23535 Mara Vc as much in advanc of the delivery date as possible. Telex should indicate name of vesse ETA at Bajo Grande and quantity and quality of Marine Fuels require A cash deposit in U.S. Dollars covering the nomination must be mad prior to the delivery date into the following account:

Chase Manhattan Bank,
Chase Manhattan Plaza,
34th Floor,
New York, N.Y.
Current Account No. 001-1-992773.

Owner or Operator must also request Chase Manhattan Bank confirm via Telex to Maraven, S.A. that such deposit has been made order to cover the cost of bunkers to be delivered to vessel arriving Bajo Grande at the current ETA. Only after this Telex has been receiv will delivery actually proceed.

Bunker Facilities: Bunkers are available from pipeline at Bajo Gran Terminal for vessels loading and unloading cargo at Berths No. 1, and 3. Bunkering rate is about 2,500 bbls.p.h. for Bunker "C intermediate bunker fuels and marine gas oil.

Marine Fuels and Lubricants Available: Bunker fuel (sometimes cal Bunker "C"), intermediate bunker fuels and marine gas oil.

Lubricants are generally available in the Maracaibo area. Should y require any, we recommend that vessel's local Agent be contacted.

Lighterage: Bunker fuel, intermediate bunker fuels, marine diesel a gas oil are also available for ships in the Maracaibo area. 72 hou advance notice is required for barge deliveries of all products.

CONSULS:

Following countries have consular representation in Maracaibo: Argentina, Austria, Belgium, Bolivia, Colombia, Costa Rica, Denma Dominican Rep., Ecuador, El Salvador, France, Germany, Great Brita Guatemala, Italy, Mexico, Netherlands, Nicaragua, Norway, Panam Peru, Puerto Rico, Spain, Sweden, U.S.A.

REPAIRS: No major repair facilities are available in Maracaibo but sm repairs can be undertaken by local machine and electric shops. Sh labour can be furnished if required. Technicians are available for mi radio repairs. Nearest dry docks are at Curacao for vessels up to 30,0 d.w.t. and at Puerto Cabello, Venezuela for vessels up to 18,000 d.

CUSTOMS: *Contraband:* Strict compliance with the Customs Law of t Country is enforced by the Authorities and Masters are strongly advis to caution crew members against attempting to smuggle cigarettes open package per person is allowed to be carried ashore, but a grea quantity will result in fine and imprisonment of the offender as wel lost ship's time. Due to the very strict enforcement of the Custo Regulations, it is recommended that no goods be carried which are shown on the Stores List. Any new articles (clothes, shoes, etc.) sho be included in the store list and marked as personal belongings. If du a checkup by Customs, articles considered as contraband are fou this will not only mean confiscation of these articles, but also hours days of lost ship's time, while the case is handled at court.

SURVEYORS: American Bureau of Shipping and Lloyd's Register h Agents in Maracaibo. Their services may be procured by cab requests to the local Agent at Maracaibo.

HOLIDAYS: The Terminal office will be closed on the following d New Year's Day (January 1st); Easter Thursday/Friday (March/A Declaration of Independence (April 19th); Labour Day (May 1st); B of Carabobo (June 24th); Independence Day (July 5th); Birthda Simon Bolivar (July 24th); Columbus Day (October 12th); Chiquinq Day (November 18th); Christmas Day (December 25th); All Satur All Sundays.

SHORE LEAVE: Shore Leave is permitted at the discretion of the Authorities; required number of shore passes will be brought on b on arrival in Maracaibo and have to be returned to the Customs G again before the vessel leaves Bajo Grande.

GENERAL:

Tonnage Applicable on Fees: On ships registered in countries w have a reciprocal tonnage agreement with Venezuela, the gross ton registered in such countries will be applied for calculating pilotage Such countries are:

Denmark, France, Germany, Ireland, Netherlands, Norway, Por Sweden, United Kingdom, U.S.A..

On ships registered in countries not listed above, such ships c at Venezuelan ports for the first time must be measured for Venez tonnage by the Port Captain. It is usual practice to take ashore the Panama Canal or Suez Canal International Gross Registered To

Certificate, which is used as a basis for recalculating tonnage under the Venezuelan regulations, and return it before sailing. The Venezuelan Admeasurement Certificate, when later issued, is forwarded to the Owners. A fee is charged for this certificate, which is payable only on the ship's first call.

Firearms and Ammunition: Firearms must not exceed 1 per Officer nor may the ammunition exceed 18 cartridges per Officer. All firearms and ammunition must be carefully declared on the Store List and should be collected and held in Master's safe custody while vessel is in Venezuelan waters.

Guards: Customs Guards are stationed on the platform at Bajo Grande. They must be provided with sleeping quarters on the ship and seated in the Officers' mess for their meals. Non-compliance may cause cargo stoppage and fines. Masters are reminded that these guards are representatives of the Venezuelan Government and any uncourteous action on the part of the crew or passenger will be regarded as a slight against the Country itself.

Gangways: The ship is to supply a safe gangway, which allows easy access to the vessel. The Terminal has a gangway which may be used on request with the understanding that any damage to the gangway or ship or shore personnel through its use may be held against the ship.

Safety: Vessel must be in readiness to move at all times. The attention of Masters of turbine steamers are called to this regulation.

Ship's fire fighting equipment must be ready for instant use while vessel is alongside. Shore personnel will render assistance in an emergency but, since no fireboats are stationed in the immediate area, vessels should be prepared to combat fire without outside assistance. It is necessary to obtain Terminal's approval for repairs of propelling machinery.

Normal safety precautions apply. Smoking is not allowed on the pier. No hotwork is permitted on vessels alongside without *written* permission from the Port Supervisor. *Swimming alongside pier is dangerous and absolutely prohibited.*

Launch Service: The launch is primarily for the use of the port staff.

Taxi: Taxi service will be generally available upon request to vessel's Agent.

Visitors: According to Port Regulations concerning access to ships and loading terminals and in the interest of industrial safety, only persons directly concerned with loading operations will be permitted to board vessel or visit the loading platform at Bajo Grande.

Plimsoll Marks: The Port Captaincy requires that Plimsoll Marks be readily visible. If they are not clearly legible, permission to sail may be withheld and a fine imposed. This is applicable to inbound and outbound vessels.

We therefore, request your full compliance with this Regulation from the Maracaibo Port Captaincy.

Marine Stores/Charts: Marine stores are available in limited supply. Marine charts are not available.

Compass Adjusters: There are no compass adjusters in Maracaibo.

Seamen Left Behind: Sailing may be withheld until all crew members are aboard with exception of those ashore for justified reasons. It is important that Masters bear in mind that the Venezuelan Law will at all times hold the vessel's Master, Agent, or Owner responsible for any seamen left behind in Venezuela.

Crew in Transit: In case a crew member is left ashore for a justified cause, such as hospitalisation, repatriation, etc., his documents and personal effects are to be delivered to the vessel's Agent before sailing. A letter is required from the Master with detailed instructions as to maximum cash advance, etc. All expenses incurred by such members are for vessel's account.

Port Supervisor: Masters or their representatives are invited to call at the Port Supervisor's Office on shore in Bajo Grande or over the telephone on the pier, for any further help, information or complaints.

Terminal: Cable Address: Maraven, S.A., Maracaibo.

NOTICE: Issued by Maraven, S.A., Bajo Grande Refinery, Maracaibo.

PROCEDURE FOR BERTHING AND UNBERTHING MANOEUVRES

To the Masters of all the tanker ships arriving at Maraven's Refinery, Bajo Grande Marine Oil Loading Terminal, Lake Maracaibo, Venezuela.

Instructions concerning approaching and manoeuvres for berthing/unberthing at this Terminal.

With a view to prevent any possibility that your ship may cause damage to our installations, we shall highly appreciate it if Masters pay attention and respect to the following procedures:

1. Entrance Bajo Grande Refinery Terminal (Lat. 10° 30' 50" N., Long. 07° 36' 08" W.) is between the Main Navigation Channel Marker Buoys B86 – B88 and leaving between the Buoys BG2, BG1 and B86.

2. On ship's arrival at the Terminal Entrance Buoys, the Official Pilot, a Marine Officer, acting as a Liaison Officer of Maraven, will board the ship in order to assist her Master and the Official Pilot in all matters concerning inter-communications and co-ordination with the Terminal and on basis of his technical and local knowledge and experience give advice relative with the vessel's safe berthing/unberthing and safe mooring/unmooring to/from the pier.

3. For best manoeuvrability, ships arriving on ballast or partially laden, must arrive with a draft forward which should not be less than given in the following table and a trim by the stern of about 0.75% of ship's length on ships of 400 ft. length or more.

Length	*Draft Forward*	*Trim by Stern*
400 ft.	10 ft.	3 ft. 00 in.
500 ft.	12 ft.	3 ft. 09 in.
600 ft.	14 ft.	4 ft. 06 in.
700 ft. ideal	16 ft. (nor less than 14 ft.)	5 ft. 03 in.
750 ft. ideal	17 ft. (nor less than 14 ft.)	5 ft. 08 in.

The ship's total displacement in any case should not exceed 42,000 tons for ships mooring at Berth No. 1 and 20,000 tons for ships berthing at Berth No. 2.

4. For more information please consult the instructions and information for the port which will be issued to you opportunely on your arrival for first time to this Terminal, please comply with them, and see that they are complied with.

5. *Mooring Lines:* Prior to arrival at the Terminal, the vessel shall have all the necessary mooring lines ready for use together with a sufficient number of heaving lines and the equipment and the personnel required for mooring. All the lines used for securing the ship to the berth should be of the same material, construction and of approved characteristics.

5A. *Recommended Mooring Lines:*

Forward	Aft
3 head lines	3 stern lines
2 breast lines	2 breast lines
2 springs	2 springs

5B. *Winches:* The use of tension winches is not allowed.

6. *Tugboats:* Minimum 2 twin-screw tugboats of adequate horsepower for the size of ships ordinarily berthing at this Terminal will assist the vessel in the berthing/unberthing manoeuvres. If the Master so request or in the case of the size of vessel and wind and/or current conditions so require, the Terminal may order the use of 3 tugboats for the manoeuvres. The tugboats, on arrival, will come alongside the ship before entering in the Terminal.

The first communication with the tugs is via VHF Channel 16 as first contact and then changed as per instructions.

7. *Berthing:* At Bajo Grande ships berth bow to North.

On approaching the berth, approaching bow to or at any angle with the berth is to be avoided.

No. 1 Berth (Outer Berth): The ship will be put in a position parallel and abeam to the berth at a minimum distance of about 50 m. or more, depending upon the prevailing conditions of wind and current.

Once in this position and with the ship motionless or almost motionless, the Liaison Officer will assist you and the Official Pilot in the manoeuvres to nurse the ship alongside sideways with the tugs which, generally, will be alongside the ship's side opposite to the side the ship will berth, already made fast and ready to push.

When the manoeuvre is carried out for berthing to No. 1 or Outer Berth, the starboard anchor will be in cockabill position ready for use in case needs arise and in such case the aft tugs or both immediately ordered to pull on reverse.

It will be avoided to haul the mooring ropes secured to the North platform bollards in order to pull the vessel forward. If need arises the ship's engines may be used to move the ship.

8. *Unberthing:* The use of spring lines must be avoided in order to veer the ship on the mooring platform for clearing the vessel's bow or stern while unberthing. These spring lines will be only used in case of extreme emergency.

After all the mooring lines have been cast off, the ship will be towed sideways away from the berth to a distance where she can safely proceed under own power.

The Official Pilot for manoeuvres and Liaison Officer will disembark when the ship is safely free away and offering no risk to the dock.

Maraven will not permit berthing or unberthing without a Maraven Liaison Officer being onboard.

Note: According to new Port Regulations for unberthing, 2 Official Pilots will board; for unberthing manoeuvres and to conduct the vessel to the Outer Channel, respectively. The undocking Pilot disembarks at Bajo Grande.

9. *Berth No. 2* (Inner Berth): The same procedure hereinbefore described for berthing at Berth No. 1 will be followed for berthing at Berth No. 2. The ship will be put first parallel to the berth and then the vessel nursed alongside with the tugs. For unberthing, manoeuvres will be the reverse. During berthing and unberthing manoeuvres, ship's engine(s) will be used only when it becomes necessary.

At this berth anchors must not be used because of submarine pipelines laid there. In this berth the distance from it must not be more than 50 m.

10. *Emergency Towing-Off Wire:* Whilst berthed alongside the platform, emergency towing-off wire-ropes should be rigged both on the offshore bow and quarter of the ship, with their loops kept near the waterline at all times where the tugs can easily and quickly pick them up.

The wire-ropes should be in good condition and of suitable strength for the ship's size. The wires should be properly led outboard through the nearest fairleads leaving sufficient wire-rope coiled on deck and free to go when the tug hauls and of adequate length to tow her safely off the Terminal.

The overboard length of rope should be adjusted as the drafts decrease or increase.

11. *Mooring Lines Whilst at Berth:* Mooring lines should be periodically inspected and attended to ensure that they are kept taut in order to minimise and movement of the ship along or away from the berth.

In the case of ships equipped with automatic tension winches, the brakes of the winches should be applied and the mooring lines handled on manual operation when required to take up slack or pull them taut.

12. *Safety Practices:* While the ship is lying at the Terminal the Master will ensure that all the safe practices in loading or discharging oil products and related operations are complied with on his ship and also ensure the maximum co-operation between the vessel's crew and the Terminal personnel in their mutual interests of safe and efficient operations.

AUTHORITY: Maraven, S.A. – Bajo Grande Refinery, P.O.Box 93, Maracaibo, Venezuela 4033A. *Tel:* (061) 202673. *Telex:* 61254, 61161. *Contact:* Captain N. Arceo, Terminal Supervisor.

Head Office: Maraven S.A., Apartado 829, Codigo Postal 1010A, Caracas, Venezuela. *Tel:* 908-2111. *Telex:* 23535, 23536.

(2) OPERATORS: Maraven, S.A.

LOCATION: S.W. of channel Buoys B – 87 and B – 88.

The installations for processing natural gas liquids at Bajo Grande processes liquids for Maraven, S.A., and they are known as Product Owners. The Plant is situated in Bajo Grande, approximately 10 miles to the South of the Port of Maracaibo, on the West bank of Maracaibo Lake.

FLAG: The local authorities require the Venezuelan flag to be hoisted to the top of the vessel's mast from the time it enters the outer channel on arrival, until it leaves the outer channel on departure.

DOCUMENTS: *Customs Clearance for Programmed Vessels:*

Vessels which arrive in ballast or with cargo in transit, require the following documents (with additional file copies if these are required):

(A) Clearance from the last port
2 copies – 1 visaed Ballast Certificate
4 copies – 2 visaed Passenger List
4 copies – 2 visaed Lists of Equipment
4 copies – 2 visaed List of Passengers in Transit
4 copies – 2 visaed List of Mess Equipment and Spares
4 copies List of Personal Effects
4 copies – 2 visaed List of Stores
5 copies Crew Lists.

Vessels which arrive with cargo must have, apart from the foregoing:

(B) 4 copies – 2 visaed Venezuelan Entry Manifests
6 copies – 2 visaed Bill of Lading
2 copies visaed Entrance Manifests.

In the absence of a Venezuelan Consul at the last port, the Customs clearance documents must be signed by the Consul of a friendly nation, one of the Port Authorities, Notary Public, the Chamber of Commerce, or by two recognised signatories.

Clearance Through Customs of Diverted Vessels:

Vessels diverted on the high seas to Maracaibo to load at Bajo Grande must present all the documents indicated in (A) above, except the consular correspondence, which they will not have.

Vessels diverted on the high seas to Maracaibo (Bajo Grande) which do not have a Venezuelan Customs Clearance on board, must advise their Agents by radio prior to their arrival, the name of the vessel, the name of the Master, nationality of the vessel, net Venezuelan tonnage (if available, if not, the net registered tonnage), last port of discharge, port to which it was originally sailing and the ETA at the Pilot station at San Carlos. This information is required to obtain the Entry Permit prior to the arrival of the vessel. Three copies of the diversion telegram received by the vessel, signed by the Master, together with those documents detailed above, must be presented to the Port Authorities on arrival at Maracaibo. Non-presentation to the Port Authorities of the documents or the information mentioned will occasion a fine to the vessel.

Inspection by Customs: All vessels arriving from foreign ports destined for the dock at Bajo Grande must anchor in the Port of Maracaibo for Customs inspection by the Port Authorities before proceeding to Bajo Grande. The vessel's gangway must be in position prior to arrival at Maracaibo.

A member of the National Guard of Venezuela will come on board every vessel at Bajo Grande to observe the activities in connection with the operations of loading and unloading. This official is authorised as representative of Customs and is known as the "Vigilante de Aduana". He must be fed and lodged at the same standard as ship's officers.

Loading Documentation: The loading and Customs papers will be delivered to the Master by the Agent of the ship on his arrival at the Port of Maracaibo, on his voyage outwards.

PILOTAGE: Vessels entering currently have the option of taking on the official Pilot at:

(a) The channel in front of the Pilot Station at San Carlos, between the Buoys B – 24 and B – 26.

(b) In front of Amuay Bay or Punta Cardon. However, to arrange this service, Agents must be advised at least 48 hours in advance of this requirement.

The Pilot who boards the vessel in front of San Carlos will take it to Maracaibo, where he will disembark.

Due to weather conditions, the Port Captaincy of Maracaibo cannot guarantee the embarkation or disembarkation of the Pilots at the "EM" Buoy. For this reason, Masters must communicate with the Pilot Station of San Carlos to receive necessary instructions as to where the Pilot will be embarked, the latter usually coming on board between Buoys B – 24 and B – 26. The system of communication between the Pilot Station of San Carlos and the vessels will be via radio-telephone. The San Carlos frequencies are: 2182 kHz. and 156.8 MHz. (VHF Channel 16). Other frequencies are: 2122 and 2080 kHz. and 156.6 MHz.

Pilotage to navigate through the inner and outer channels is compulsory at all times. The maximum speed of navigation in the dredged channels is 10 knots.

Vessels leaving will take the Lake Pilot on board at Bajo Grande and on reaching the Port of Maracaibo the Pilot will be changed for another to take the vessel through the channel. The Channel Pilot will pilot the vessel up to the San Carlos Bank, generally between Towers E – 31 and E – 33, where he will disembark. The Port Captain of Maracaibo has issued instructions to all ships' Agents so that they may inform the Master and/or Owners of the vessels that all vessels must identify themselves with the Pilot Station of San Carlos by radio-telephone, regardless of the time of day, when they are entering between Buoys B – 17 and B – 19 and when they are leaving between Buoys T – 42 and T – 40.

Every time a launch with an official Pilot on board leaves to attend to a vessel in sight, the costs will be charged to the company which owns the vessel or to its representative, even when service has not been given.

A government Pilot will assist each vessel from Maracaibo to Bajo Grande and on the outbound trip to Maracaibo. The government Pilot will also assist in the berthing and unberthing operations. The ship's Agent will inform the Master of each vessel, as well as the government Pilot, the schedule for berthing the vessel.

The Plant Mooring Supervisor will board each vessel prior to approaching the dock. Mooring Supervisor will assist in the mooring and unmooring operations. It should be understood that the Mooring Supervisor acts only in an advisory capacity to the Master. The vessel's Master retains full responsibility at all times. The Plant assumes no responsibility in connection with any acts or advice given by the Mooring Supervisor.

APPROACHES: The buoy which marks the entrance to th channel (Buoy "EM") is situated in approximately position 11° 13 71° 33' 31" W. The characteristics of the light of the "EM" Bu white flash every ten seconds, visibility approximately 5 mil distance between the "EM" Buoy to the Southern extremity of t channel, marked by the Buoys B – 27 and B – 28, is appro 15.75 miles. The channel is 1,000 ft. wide and normally has a 42 ft. minimum at low tide observed at the time of neap tides wi amplitude varying 2 ft. 3 in.

There is a breakwater 0.5 miles to the East of and parallel to t channel which extends 1.6 miles to the North from the Northern the Island of Zupara. The end of this breakwater is marked by frame tower with a light 25 ft. above sea level. Characteristics of are: white flash every 8 seconds, visibility about 3 miles.

Commencement of the inner dredged channel is marked by th B – 29 and B – 30. The length of this channel, which is marked b is approximately 12 miles, and ends at Buoys T – 55 and T – channel is 800 ft. wide and the normal checked depth is 43 ft. ne with a tidal amplitude varying between 1.5 ft. to 2.5 ft.

The channel from the Buoys T – 56 as far as the Port of Ma is a dredged channel, whose end is marked by Buoys B – 73 and It is some 800 ft. wide and has a depth of at least 43 ft. The is about 11 miles and the tidal amplitude range is insignificant.

RESTRICTIONS: Bridge clearance at MHHW 146 ft.

MAX. SIZE: The maximum permissible fresh water draft at the 36 ft. and the maximum overall length vessel the dock will a 700 ft. Vessels with a berthing displacement up to 20,000 long be accepted, providing the approach velocity can be controlled per second or less.

Vessels with an overall length greater than 700 ft. or with a fres draft of more than 26 ft. or a displacement greater than 20,000 lo will not be accepted for loading at Bajo Grande, unless the obtained the prior authorisation of Maraven, S.A. If the vesse equipped to moor, load and unmoor in a safe manner, the ve not be loaded. In such cases, there will be no responsibility on of Maraven, S.A.

RADIO: Maraven, S.A. Export Department also has radio-tele with the following frequencies: 2080, 2120, 2182 (stand-by), 26 2738 kHz and 156.8 (stand-by) and 156.6 MHz. operated in acc with the following schedule:

Monday – Friday:	From 0730 until 1130
	From 1300 until 1700
Saturday, Sunday and Holidays:	From 0730 until 1030 appr

Any tanker or vessel bound for Bajo Grande shall cable Mara least 5 days in advance of its scheduled arrival time in Maracaibo notice of its estimated time of arrival, loading capacity, amount a of product to be lifted and condition of ship's tanks.

At least 48 hours in advance of arrival at the San Carlos Pilot the vessel's estimated time of arrival, nationality, Venezue tonnage (if available, otherwise its registered tonnage), quantity a of cargo required, condition of ship's tanks, name of Agent, la Master's name and all requirements of the vessel while in port be cabled to "Maraven, Maracaibo" and to the ship's Agent. As th office in Maracaibo is not able to communicate directly with ve sea, messages to "Maraven, Maracaibo" and to Agent should be via PJC Curacao, and should be prefixed "Via AAC" (All America and Radio Inc.). Failure to give such proper notices shall abs Plant from any claim for delays or demurrage.

TUGS: 2 × 1,600 h.p. tugs used for mooring and unmooring ope

BERTHING: The dock proper may be identified by the overwater trestle that connects the dock with shore.

The dock is located approximately Lat. 10° 30' N., Long. 71° which is 2 miles off shore from the Bajo Grande Natural Gas Processing Plant and S.W. of channel Buoys B – 87 and B – 88 Maracaibo channel. The dock is single sided and consists of 4 br pilings, 4 mooring dolphins and a loading platform.

The dock is equipped with a compressor and auxiliary equip assist the ship in compressing and re-condensing the ship's va No liability will be assumed by the Plant Operator for unavailab the Dock's vapour compressor. The dock is also equipped with system to dispose of contaminated vapours.

A tie-up crew will handle all mooring lines before and after lo

The Plant tie-up crew will assist the ship's crew in positioni connecting the cargo loading arms and in removing same on com of loading. The dock loading arms are equipped with 10 in. ASA RF flanges. It shall be the responsibility of the ship to furnish fittings to mate with the dock's 10 in. ASA 300 lb. FR flanges.

Mooring Procedure: Any vessels calling at Bajo Grande mu equipped with mooring hawsers of sufficient length and strength a line to each of the 2 bow and 2 stern mooring dolphins and sh such equipment while at the dock. Vessels equipped with winches and cables shall utilise these in addition to the mooring ha or alone if the vessel has sufficient cables to meet the mi requirements of running a cable to each of the bow and each stern mooring dolphins. For added security of those vessels not eq with tension and/or cables, 1 steel cable will be furnished for a bo another for a stern mooring dolphin by the Plant. It should be reco by all parties that while the use of these cables is strongly recomme the Plant accepts no responsibilities for loss or damage to any or to any facility or to any person that may result from the failure equipment.

For the convenience and safety of all personnel board disembarking while at Bajo Grande it is recommended that the accommodation ladder be rigged on the port side, this being normally laying against the dock. The ladder should be suspend the Mooring Master boards and during docking operations to avo fouled.

BALLAST: There are installations for unloading dirty ballast. Vessels which arrive at Bajo Grande with dirty ballast must advise 48 hours in advance with regard to any emulsifiers, detergents or chemicals which may be present in the ballast and which are going to be unloaded. If these emulsifiers, detergents and chemicals are not acceptable, Maraven will advise the ship and the latter must arrive at Bajo Grande with clean ballast.

The ballast will be unloaded at a rate of approximately 5,000 bbls.p.h., nevertheless in the case of unexpected damage or malfunction of the system at Bajo Grande, Maraven will give instructions to the Master of the vessel so that he may arrive with clean ballast and Maraven will not be responsible for the delays which may be suffered by vessels in cleaning their tanks prior to arrival.

It is strictly prohibited to discharge into the lake any liquid or solid waste resulting from tank cleaning. Therefore it is recommended that the Master gives instructions to all personnel so that they avoid any possible leak or contamination in the lake.

In the event that the representative of the Plant or the National Guard observe that dirty ballast is being discharged into the lake, or even residues or other contaminatory organisms whilst clean ballast is being unloaded, such operations will immediately be suspended and the consequences will be strictly for the account of the ship.

LOADING: *Notice of Readiness:* On arrival at Bajo Grande and after inspection by the Customs Authorities, and having obtained any other official approval required before loading, the Master of the vessel will notify Maraven in writing that the vessel is ready to load. This notification must include a report of the conditions of the tanks of the vessel, specifying in detail the temperature, pressure, last loading, list of vessel and trim, possibility of contaminatory organisms and any other conditions which may affect the loading.

The Master of the vessel may request any equipment and/or service which he considers necessary for the safe and efficient loading of his vessel and Maraven will make every effort to fulfil this request.

It will be the responsibility of the vessel to provide its own connections to join up with the RF 10 in. 300 ASA flanges of the dock.

It will be the responsibility of the ship's Master to ensure that prior to commencement of loading, the atmosphere inside the tanks, which are to receive products are within the safety limits stipulated. Nevertheless, Maraven reserves the right to inspect at any time, to verify the fulfilment of these safety precautions and to refuse to load any vessel which in the opinion of Maraven does not fulfil the safety requirements stipulated.

LPG refrigerated vessels will not be considered ready to load at Bajo Grande unless all the LPG tanks contain LPG vapours and are sufficiently cooled to permit shipment of the nominated products.

Vessels which receive completely refrigerated products must be capable of receiving at their boiling point from 0.5 to 2.5 p.s.i.g. Such vessels must have a refrigeration system capable of liquefying all the vapours resulting from the shipment at the rate specified and including those vapours which form as a result of the heat gained by the vessels' tanks.

Loading Procedure: The positioning and connection of the loading arm must be effected to the satisfaction of the personnel in charge of the vessel. After approval of the personnel in charge of the vessel, the loading valves may be opened to check that the connections do not have leaks and loading may commence.

The maximum loading rate is 8,000 bbls.p.h. (750 – 775 tonnes p.h for completely refrigerated products and petrol) and a minimum loading rate of 250 bbls.p.h. (23 tonnes p.h.).

The pumps are designed to supply a minimum flow of 250 bbls.p.h. at a pressure of 225 p.s.i.g. and, since the installations at the Bajo Grande Dock do not have facilities for controlling the pressure of LPG which is being loaded, they are not responsible for any damage or delay which may occur due to the request for reduction in flow and pressure of LPG in order to cool or purge the vessel's tanks.

There are no installations for generation of inert gases. LPG vessels which require cooling, purging or any other assistance in Bajo Grande can be accepted after prior request in writing from the Master of the vessel; however, these services will be charged to the vessel. The responsibility for helping to effect purging and/or cooling is charged at 733 Bolivares per hour, during the time that such operation of purging or cooling causes the vessel to exceed the permitted period of stay.

The quantity of products used in such purging or cooling will be for the account of the vessel.

In the event that the dock vapour compressor is operated at the request of the vessel's Master for a purpose other than for purging or cooling, this will be charged at the rate of 500 Bolivares per hour to the ship.

All loading and unloading operations must be suspended whilst there is bad weather and the tank covers of the vessel must be closed and secured. During periods of calm, petrol or other products with a low flash point can be loaded at reduced rates or the loading operation can be interrupted if the heavy vapours are not being dispersed with sufficient speed to avoid dangers of gas accumulation. Officers on the vessel must be alerted so that they may be on watch whilst such conditions apply.

Under normal operational conditions it may be necessary to displace the loading line. This will require the person in charge of the vessel advising the representative of the Plant when the loading is nearing completion in order to complete an equal quantity to the capacity of the loading line.

Permitted Period of Stay: (a) The permitted period of stay, as is defined hereunder, shall commence to be counted from 6 hours after arrival of the vessel at Bajo Grande. The permitted period of stay will be terminated when the final mooring cable has been withdrawn from the quay.

For the purpose of these instructions, the Notice of Readiness, may be delivered after the vessel has tied up at the dock; nevertheless, the arrival at Bajo Grande shall be defined as the time when the vessel passes between Buoys B – 87 and B – 88, which mark the Maracaibo navigational channel and are situated approximately 1,000 m. in front of the Bajo Grande Dock.

(b) In the event that a vessel arrives at a different time to that confirmed in the shipping programme, and unless Maraven has approved a different arrival time, vessel must await mooring of other programmed vessels before arriving and which vessels may have arrived at that time and the permitted period of stay will commence when the loading operation commences, or 6 hours after receiving Notice of Readiness, whichever is the later. It is agreed that a vessel shall be included in the loading programme if it arrives at Bajo Grande between the hours of 12.01 hrs. on the accepted date and 0600 hrs. of the following day.

(c) Except for the provisions in (b) above, all vessels arriving at Bajo Grande will have the right to moor in the order in which they appear in the shipping programme. Maraven at their discretion may change the order of shipment when it may be necessary for reasons of safety or for the purpose of obviating a closure of the Plant or reduction in production.

(d) The waiting time permitted shall be 24 hours, plus one (1) hour for each 6,000 bbls. of product loaded in excess of 114,000 bbls. This waiting time shall be that permitted to load the complete cargo or part of the cargo of the vessel, it being understood that any time spent in deballasting operations will not be taken as waiting time. If the loading operations are delayed or interrupted by *force majeure,* which shall include the closure of the shipping terminal due to bad weather, the time thus lost will not be counted as permitted waiting time.

(e) The loading operations shall be considered as terminated when the loading hoses are disconnected. Every vessel will leave the quay as quickly as may be practically possible after having completed shipment of the cargo and the personnel of the vessel and those on land have arrived at an agreement as to the quantity of products shipped.

(f) In the event that a vessel is moored at the quay for 6 consecutive hours after Maraven has notified the Master of the ship that the installations are ready to deliver the product, if the vessel on completion of this time is not in a position to receive products, then at the discretion of Maraven the vessel may be withdrawn from the quay, to prevent the products burning or a reduction in production.

A vessel may be withdrawn from the quay at any time for reasons of safety.

Verification and Measurement: Determining factors to arrive at the official figures of a shipment:

(A) Petrol and Butane:

(1) Correction factors of the individual meters less than 1%. In this event the terminal shall always use the figures of the meters as official (and not take into account the absolute difference in barrels) taking always the precaution of carrying out a comparison between the figures of the ship and those of the land.

(2) Factor of correction in any of the meters greater than 1%. In this event the vessel's figures will be used, comparing them in all aspects with the figure of the meters without applying the correction factor and with the land tanks.

In those cases in which the vessel's figures are used, it is appropriate to suggest that they check their figures.

(3) In the event of the measuring system not operating, and the vessel cannot give its own figures, as a last recourse the figures of the shore tanks will be used.

(B) Propane:

(1) The vessel's figures will be taken proceeding in exactly the same way as in point (2) of sub-section (a) above.

(2) In the event that the vessel cannot supply figures, the figures of the shore tanks will be used.

All volumes will be adjusted to the volume equivalent to 60°F in accordance with the applicable sections of Standard API 2534 and the corresponding tables of the Measurement Tables of Oil ASTM (latest edition) or other methods or standards selected by Maraven.

If the product delivered is LPG, the content of the ship's tanks will include the quantity of the product in the form of vapour.

All volumes will be calculated in U.S. liquid barrels at 60°F and the adjustments at this temperature will be made in accordance with the Oil Measurement Tables ASTM – 1P, American Edition 1952 (or the ruling tables which may replace these).

In the event of the products being loaded in a vessel whose tanks, pipes and equipment are empty when loading commences, the gross volume of products which may remain in the pipes and equipment on completion of shipment and at the time of final measurement, shall be calculated on the basis of the volumetric capacity of those pipes and equipment, adding the calculated volume loaded in the vessel's tanks and including in the total volume delivered to and received by the vessel at that time. In the event that the procedure described is used to determine the volume of products delivered and if during the time of this delivery vapours from the vessel's tanks be vented then the quantity of vapours vented shall be determined as shall also be the liquid volume equivalent to these vapours in normal conditions and this will be added to the quantity determined in (a) and (b) above.

Permissible Composition of the Atmosphere of the Tank for Purging: Maximum percentage per volume of air or oxygen permissible for the safe shipment of the product when the vessel's tanks are purged with CO_2 or N_2:

	%Air		*%Oxygen*	
Product	(CO_2)	(N_2)	(CO_2)	(N_2)*
LPG	50	40	8	7
Petrol	50	40	8	7

*The percentages of nitrogen do not include the nitrogen of the air in the mixtures.

Example: If a vessel is going to load LPG and it is going to be purged with N_2, it must add sufficient N_2 to ensure that the mixture does not contain more than 40% by volume of air. The other 60% will be N_2.

Ref. Principles & Practices of Purging, 1954. American Gas Assoc. – Chapter 2, page 28.

FRESH WATER: Available at Maracaibo Harbour.

FUEL: Heavy and medium marine diesel, intermediate fuel, and bunker "C" fuel oil are available in the area. Lubricating oils in limited quantities are also available from local contractors. All bunker, lubricating oils, water and other requirements should be cabled to the ship's Agent. For reasons of safety, no bunkers may be taken on the vessel while berthed at Bajo Grande.

MEDICAL: Complete medical services are available in Maracaibo.

CONSULS: The following nations have Consular representation in Maracaibo:

Belgium
Chile
Colombia
Costa Rica
Denmark
Ecuador
El Salvador
France
Germany
Great Britain
Guatemala
Italy
Netherlands
Norway
Panama
Peru
Spain
Sweden
Switzerland
U.S.A.

REPAIRS: Maracaibo: No major repair facilities are available, minor repair jobs can be taken care of through local machine and electrical shops. Shore labour can be furnished if required. Radio, radar and gyro compass technicians are available upon request.

Bajo Grande: No repair facilities are available, but when required, personnel from shops in Maracaibo will travel to Bajo Grande to effect repairs.

SHORE LEAVE: Launch service for official business purposes and emergencies is readily available in Maracaibo. Launch service for shore leave can be arranged through contact marine service and will be the responsibility of ship's personnel. Arrangements for shore leave transportation can be made through the ship's Agent. No shore leave facilities are available at Bajo Grande.

CLASSIFICATION SOCIETIES: American Bureau of Shipping and Lloyd's Register of Shipping, U.S. Salvage Association, Salvage Association of London, Det Norske Veritas, Bureau Veritas, Registro Italiano Navale, and Germanischer Lloyd have Agents in Maracaibo. Surveyors are available by appointment from any of these Agents.

CURRENCY: The Venezuelan unit of currency is the Bolivar (Bs) and is the only currency recognised as legal tender within the country. Masters desiring a cash advance should make the request to their Agent when advising ETA.

MAIL: Outgoing mail for ship's account may be given to the Agent's representative who boards the vessel on arrival at Maracaibo inbound. Personal mail will be accepted only if carrying the correct amount of Venezuelan postage, or if postage is authorised by the Master for the vessel's account.

GENERAL: *Maracaibo Port Captaincy:* Directive which must be observed by vessels entering and leaving Maracaibo Lake:

OBJECTIVES:

To increase the safety of Human Life at Sea, to take all necessary measures to avoid marine accidents in general and to ensure that vessels are navigated with safety in the navigable channels and waters of Maracaibo Lake.

1. All radio-telephone communications between the Control Offices of Maritime Transit under the control of the Port Captaincy of Maracaibo and vessels, shall be made, for the first contact, via Channel 16 (156.8 MHz) and immediately it shall be agreed that for the transmission of required information they will change to Channels 12 or 14. Also this procedure will be adopted in communication from ship to ship.

2. Any vessel which navigates in the vicinity of the Buoy "EM" of the outer channel being 10 miles from the latter shall call the Pilot Station at San Carlos, requesting permission to enter the zone and will supply the following information:

(a) Name and type of the vessel.
(b) Nationality.
(c) Draft.
(d) Last port of call
(e) ETA at the "EM" and "B – 26" Buoys.

3. The Port Captaincy will authorise by radio, via the Pilot Station of San Carlos, to Masters of vessels who have reported to that station request to cross the outer channel, or part of it, with the assistance of the Official Pilot, in accordance with the sequence of arrival.

4. Every 5 miles, the Master of the vessel will call up San Carlos, indicating any information which he may have and giving his position within the channel, by reference to the buoys which are on his starboard side.

5. When communication in item 1 has occurred, San Carlos will inform the vessel as follows:

(a) The location of any dredger (mobile or stationary) which is operating in the outer channel, buoys whose lights are out, changes in buoys' positions or where buoys have disappeared, vessels which have sunk, etc.

(b) If there are vessels leaving the port, to give the position of these by reference to the odd numbered buoys.

6. Vessels shall establish radio-telephone communications with the dredger when they are 5 miles from it. In this communication, they will indicate the place they estimate that the vessel will meet the dredger and any other information which they consider necessary for the safety of navigation of both.

7. San Carlos will keep vessels informed of all the circumstances mentioned above, especially the time and place that each of them estimate to pass close to any dredger which is operating in the outer channel, and in order that they do not meet the dredger simultaneously.

8. Masters of vessels will inform the Pilot Station at San Carlos of any other information which the latter may request.

9. Masters of vessels will keep a watch on Channel 16, on the order of the Official Pilot, until their arrival at port of destination in Maracaibo Lake and on leaving until the Pilot has left the vessel.

10. Pilots, when they are bringing a vessel into the port, at the level of the parallel of Palmas del Norte Point (Buoys T – 55 and T – 56), will call up the Port Captaincy and transmit the following information:

(a) Name of vessel
(b) Time
(c) Port where operations will be effected
(d) Name of Pilot calling.

11. When the vessel continues to navigate to the South of Gene Rafael Urdaneta Bridge, the Pilot will inform the Control Offic Maritime Transit in Maracaibo, the time at which the vessel will p Buoy "B – 79".

12. The average speed of the vessel in the navigable channels wil ten (10) knots, Masters being authorised as are also Official Pilots alter this, when the safety of navigation may require it.

13. San Carlos will check by radio-telephone the transit of vess from the Entrance Buoy "EM" to the level of the parallel which pass in front of Palmas del Norte Point (Buoys T – 55 and T – 56 and v versa).

14. Loaded vessels navigating outwards, and being in the ou channel, will have priority over vessels coming in to the same chann provided that these do not meet with those coming out in the crit zone, included between Buoys B – 21 and B – 22 and E – 33 a E – 34. For this purpose, the San Carlos Pilot Station will inform enter vessels the situation of leaving vessels so that they may take necess measures to avoid meeting those vessels coming out in the refer zone.

15. The Port Captaincy will check via the office of Control of Mari Transit, the Navigation of vessels, from the parallel passing Palmas Norte Point (Buoys T – 55 and T – 56), as far as the terminals and po to the South of General Rafael Urdaneta Bridge and vice versa.

16. Every Official Pilot navigating outwards when passing Buoy B – 72, will call up San Carlos by radio-telephone and will sup the following information:

(a) The time that he is passing Buoy B – 72.
(b) The time that he is arriving at San Carlos.

17. When the dredger receives any call from a vessel it will g information as follows:

(a) Location where it is at that time.
(b) Direction of dredging (South North or North South).
(c) The side on which the vessel must pass.
(d) Time necessary to make the manoeuvre indicating on which s of the channel dredging will continue after the manoeuvre.

18. The Pilot Station at San Carlos will be attentive to communications made and will take note of them, in the event that t intervention may be required by dredgers or by vessels.

19. Any vessel sailing from any port in the No. 2 Pilotage Area Maracaibo, will inform the Port Captain as follows:

(a) Type and name of vessel.
(b) Where from and time of leaving the port.
(c) Speed and port of destination.
(d) Estimated time of passing Buoy B – 72.

Signed – Port Captain.

AUTHORITY: Maraven, S.A. – Bajo Grande Refinery, P.O.Box Maracaibo, Venezuela 4033A. *Tel:* (061) 202673. *Telex:* 61254, 611 *Contact:* Captain N. Arceo, Terminal Supervisor.

Head Office: Maraven S.A., Apartado 829, Codigo Postal 101 Caracas, Venezuela. *Tel:* 908-2111. *Telex:* 23535, 23536.

Section B

LA ESTACADA: 10.42 N. 71.32 W.

TERMINAL NOT IN USE. BUOYS HAVE BEEN REMOVE

Section C

LA SALINA (Lacustre): 10.22 N. 71.28 W. **(See Pl**

(N.B. For important details of Documentation, Pilotage, etc., "Maracaibo Lake").

OPERATORS: All terminal facilities are under the contro Lagoven, S.A.

APPROACH: Entrance and leaving this terminal is made between B B – 97 and B – 98.

LOCATION: La Salina located on Eastern shore of Lake Maracai Lat. 10° 22' 18" N., Long. 71° 27' 49" W. about 60 miles from Entrance Buoy "EM".

DOCUMENTS: These are generally placed on board prior to depar Vessels whose Master accepts the early departure procedure ma with documents in blank. Figures are then radioed for inclusion in t documents. Outward Clearance documents are placed on boar vessel prior to departure.

PILOTAGE: In the event that no contact can be made with San C Pilotage Station, or if there is a language problem, contact shou made with Vensport, at La Salina by voice radio on VHF Chann (156.8 MHz).

The Docking Master boards by tug or launch at the waiting anch or in the outer part of the navigation channel leading to the termi

ANCHORAGE: The waiting anchorage off La Salina is lo immediately Eastward of Buoys B – 97, AS – 1 and AS – 3 (Old nu M – 1, M – 1a and S – 1); it has a depth of between 40 ft. and and fair to poor holding ground in soft mud.

RESTRICTIONS: None. The port is open for navigation during th and night, allowing ships to enter and sail at any hour.

MAX. SIZE: Up to 112,000 d.w.t., LOA 900 ft. and max. draf (brackish water) at Berths No. 6N, 6S, 7N and 7S. Max. distanc to manifold 450 ft.

Pier No. 3 (West Side) LOA 690 ft., draft 26 ft. and 36,000 d
Pier No. 3 (East side) LOA 575 ft., draft 26 ft. Max. 18,000 d

No restrictions on vessel's beam at any of the berths.

The access channel to La Salina has a least depth of 41 ft.

Special Note: Maximum draft for loading vessels at La Salina Lacustre Terminal is actually restricted to 39 ft. Vessels loading at this maximum draft of 39 ft. must cross the outer bar channel at HW.

RADIO: The cable and telegraphic address for the Lagoven, at La Salina is "Lagoven La Salina". Radio messages to and from ships at sea are routed through the Government radio station at Maiquetia (La Guaira) call letters YVG. This station operates on a 24 hour continuous watch on 500 kHz and 2182 kHz.

Listening frequencies: long wave: 500 kHz; medium wave 2182 kHz; short wave Channels 5 and 6.

Working frequencies: long wave 417 kHz and 464 kHz; medium wave 2120 kHz; short wave 4222 kHz, 6351.5 kHz, 8461 kHz and 17141.5 kHz.

Answering frequencies: long wave 500 kHz.; medium wave 2182 kHz.

Hours of watch:

4222, 6531.5 kHz	0100 – 1300 hrs. GMT
8461, 17141.5 kHz	1300 – 0100 hrs. GMT

Cables for vessels may also be routed via Curacao Radio, call sign PJC.

Radio notice of arrival should be sent 72 hours prior to arrival at La Salina and corrected if weather or other conditions delay the vessel.

Vensport La Salina handle all communications between vessels and Lagoven Terminal control tower. VHF radio-telephone Channel 16 (156.8 MHz) may be used for initial contact. Channels 6, 10, 13 and 14 are also available on a 24 hour basis.

All vessels en route to La Salina may also communicate with Lagoven Amuay or Caripito Marine Offices and request that messages dealing with corrected ETAs, Pilots and other business be relayed to Vensport La Salina.

VHF: Transmit on VHF when passing Aruba or Amuay Bay updated ETA messages to either Lago Marine or Amuay Marine for relay to La Salina. Contact Vensport La Salina on VHF when within reach (normally after passing General Urdaneta Bridge) for latest berthing instructions.

TUGS: Lagoven S.A. maintains one 3,000 h.p. diesel tug and one 1,300 h.p. diesel tug. Tug-boat assistance is considered essential and is afforded to all vessels entering, leaving or shifting in the harbour.

Additional tugs can, in an emergency, be ordered from Maracaibo. The tugs are usually employed in the alongside mode and are made fast using their own ropes (2.5 in. diameter nylon).

BERTHING: At La Salina, Lagoven maintains a deep-water terminal (Lacustre) consisting of an island where are located 2 finger piers, each 1,100 ft. in length and 500 ft. between piers, providing 4 berths to accommodate tankers up to 112,000 d.w.t. Berths are numbered 6N, 6S, 7N and 7S, from North to South. At these berths various products can be loaded simultaneously namely – 6N and 6S – Crude, Naphtha and Butane; 7N and 7S – Crude; Pier No. 3 (West side), Propane and Butane; Pier No. 3 (East side), same as West side but not concurrently with West side. In addition there is an offshore platform (Pier No. 3) where liquefied petroleum gases (Butane and Propane) can be loaded.

Instructions concerning berthing are given by Vensport La Salina by means of radio-telephone.

The use of an anchor when docking is permitted at all berths. It is considered prudent to have the outboard anchor hove-out prior to entering the harbour in order to facilitate speedy release if necessary while docking. The Pilot will advise whether the ship is to be berthed port or starboard side to the dock.

The tugs are made fast on the seaward side, one forward and one aft. Vessels berth under normal circumstances always with head in, which is a relatively simple manoeuvre. Vessels are berthed starboard side alongside Berths 6 North and 7 North; portside alongside at Berths 6 South and 7 South.

When the vessel's bow is between two and three ships' lengths from the head of the pier, the engines are stopped or reversed. The vessel then slowly enters the berth parallel to and about 40 ft. from the continuous fender face. When the vessel's bow is just past the berth's manifold area, the forward spring line is sent in by heaving line. The vessel is then positioned by using its ropes and is pushed alongside by tugs. The current sets mostly in a general Northwesterly direction with a velocity between 0 and 2 knots. This should be taken into account, particularly when berthing at the South facing berths where the vessel may be set onto the pier.

Moorings: Mooring bollards spaced with 80 ft. intervals are located on both sides of the pier, and provide the basis for a potentially excellent mooring configuration consisting of:

3 Head lines
3 Stern lines
2 Breast lines
1 Forward, Spring line and
1 Aft Spring line.

BALLAST: Vessel should arrive at La Salina with sufficient ballast to permit safe handling. Government Pilot requirements in this connection under normal weather conditions are interpreted as drawing approximately 8 ft. forward, 18 ft. aft, on a T – 2 or similar type tanker, and 11 ft. forward, 20 ft. aft on a 26,000 d.w.t., on larger type vessels the minimum draft required is 14 ft. forward and 22 ft. aft.

Ballast should be carried in a minimum number of tanks, and all other tanks stripped, so as to minimise deballasting time.

It has been established that one of the major causes of contamination of crude oil is the relatively small amount of salt water remaining in the ship's tanks, pumps, and ballast lines after ballast discharge. This very small amount of salt, nevertheless, frequently results in costly damage and downtime to refining equipment, besides presenting many other processing problems.

It is therefore requested that the full co-operation of the Master and Officers of ships loading for Aruba, be given to ensure that all ballast tanks and lines are flushed with lake water and stripped as dry as possible.

Vessels equipped with a separate and completely segregated system of ballast tanks, lines and pumps, will be permitted to discharge ballast and load cargo simultaneously, providing approval of both the pier foreman and Petroleum Inspector is secured.

A Pier Supervisor who is in direct communication with the loading pumphouse is stationed at each pier during the entire time the vessel is discharging ballast or cargo or receiving cargo.

All dirty ballast must be discharged ashore. The terminal has a 100,000 bbl. reservoir connected to two high capacity separator units. Max. ballast discharge is 40,000 bbls./hr. with max. 130 p.s.i. at rail. One or two hard arms (12 in.) are usually connected for ballast discharge.

If it is desired to follow the "load-on-top" procedure it is requested that the marine representative be informed on arrival.

POLLUTION: There are no shore facilities to recover an oil spill. The Venezuelan authorities take a very serious view of oil pollution and heavy fines are imposed for violations of the strict pollution rules. A government representative is stationed at the terminal. It is therefore important that all precautionary measures be taken and spills avoided. In case of a spill, the port services section should be informed immediately by VHF or telephone, which is located on the pier. The use of dispersants or detergents on the water is not permitted.

LOADING: Instructions as to grade or grades of cargo, and the approximate loading rate anticipated, will be given to the Master on arrival. Supplementary information including number and size of lines and Chicksan arms will be furnished to the Chief Officer before loading commences. Loading rates will be reduced as required when topping off. If vessel's loading orders from owners or charterers do not agree with the terminal's orders, either as to grades or quantity, the marine representative should be advised immediately. The terminal is authorised to load 10% more or less than the quantity nominated.

A terminal employee is stationed at each pier during the entire time the ship is discharging ballast, bunkering, or loading cargo. Fifteen minutes "standby" notice should be given to this man prior to completion of ballast, bunkers, or cargo.

Shut-down controls for all crude oil pumps are available at each loading berth at ship's rail of loading vessels for use in case of emergency only.

LOADING RATES: Loading operations at La Salina Terminal are normally carried out at relatively high pumping rates; up to an average of 40,000 bbls.p.h. Ship's officer will be advised by the pier supervisor at what rate the cargo will be loaded. LPG is loaded up to an average max. rate of 7,500 bbls.p.h. at Platform No. 3.

During periods of calm, loading of gasoline or other similar low flash products may be at lower rates or loading stopped if the heavy vapours are not being dispersed quickly enough to prevent hazards from accumulated gas pockets. Ships' officers are cautioned to be on their guard during such conditions.

Loading rates will be reduced when topping off, if requested by the ship's officer.

Cargo Handling: The terminal is mainly a crude exporting facility, but also LPG, bunkers, condensate and gasoline are handled.

The cargo transfer facilities are:

Berth 6 North and South:
3 × 12 in. Chicksan arms for crude loading.
1 × 8 in. Chicksan arm for bunkers (located aft of manifold).

Berth 7 North:
4 × 12 in. Chicksan arms for crude loading.
1 × 8 in. Chicksan arm for bunkers (located aft of manifold).

Berth 7 South:
4 × 12 in. Chicksan arms for crude loading.
3 × 12 in. Chicksan arms for pressurised gas loading (located forward of crude loading manifold)
1 × 8 in. Chicksan arm for bunker (located aft of manifold).

Gasoline, condensate and pressurised butane are handled at Berth 6 at both sides of the manifold.

All connections are standard 150 ASA bolt hole flanges.

The emergency cargo stop button is located in the operators' shelter on both piers.

Crude loading rates up to 50,000 bbls./hr. can be provided.

The loading and discharging of all crude petroleum and its products will be stopped during the passage of an electric storm and ullage covers must be closed and dogged down.

Cautionary Advice: Whenever non-matching flange sizes necessitate the use of reducers (spool pieces), Masters should insist that the reducer or hard arm be adequately supported by a proper jack, and should refuse to let cargo transfer operations commence before a satisfactory vessel manifold and hard arm connection has been provided.

MEDICAL: Complete medical, dental and hospitalisation facilities are available at La Salina. Medical treatment is provided at a private clinic.

Authorisation forms for medical treatment are provided which require the Master's signature. Transportation will be supplied by Vensport La Salina.

If the patient does not speak Spanish or English, an interpreter should accompany him.

DENSITY: Average density at the berth is 1002 but varies dependent upon amount of rainfall. The temperature ranges from 82°F. to 86°F.

FRESH WATER: A limited supply of fresh and boiler water is available at La Salina Lacustre Terminal. Delivery is made through 2.5 in. National Standard Fire Hose Thread hydrants. Ship's personnel must provide hoses and connect up.

FUEL: Bunker C fuel oil, marine diesel and intermediate fuels are available at La Salina Terminal Lacustre. Delivery is made alongside Piers 6 or 7 by 8 in. diameter Chicksan hose, located about midships.

Loading Rates: Bunker "C" and intermediate – 3,000 bbls.p.h. Diesel – 2,000 bbls.p.h.

It is the responsibility of the ship's engineer to give "stand-by" notice to the terminal employee and advise him when to shut down.

Supplies of lubricating oils in drums are available. Delivery will be effected while loading and requirements should be incorporated in the radio ETA.

FIRE PRECAUTIONS: The recognised fire alarm signal is 4 long blasts with ship's or tug's whistle. An 8 in. fire water main line runs alongside and other requirements should be cabled to the ship's Agent. For reasons of safety, no bunkers may be taken on the vessel while berthed at Bajo Grande.

MEDICAL: Complete medical services are available in Maracaibo.

CONSULS: The following nations have Consular representation in Maracaibo:

Belgium
Chile
Colombia
Costa Rica
Denmark
Ecuador
El Salvador
France
Germany
Great Britain
Guatemala
Italy
Netherlands
Norway
Panama
Peru
Spain
Sweden
Switzerland
U.S.A.

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2. Any vessel which navigates in the vicinity of the Buoy "EM" of the outer channel being 10 miles from the latter shall call the Pilot Station at San Carlos, requesting permission to enter the zone and will supply the following information:

(a) Name and type of the vessel.
(b) Nationality.
(c) Draft.
(d) Last port of call
(e) ETA at the "EM" and "B – 26" Buoys.

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4. Every 5 miles, the Master of the vessel will call up San Carlos, indicating any information which he may have and giving his position within the channel, by reference to the buoys which are on his starboard side.

5. When communication in item 1 has occurred, San Carlos will inform the vessel as follows:

(a) The location of any dredger (mobile or stationary) which is operating in the outer channel, buoys whose lights are out, changes in buoys' positions or where buoys have disappeared, vessels which have sunk, etc.

(b) If there are vessels leaving the port, to give the position of these by reference to the odd numbered buoys.

6. Vessels shall establish radio-telephone communications with the dredger when they are 5 miles from it. In this communication, they will indicate the place they estimate that the vessel will meet the dredger and any other information which they consider necessary for the safety of navigation of both.

7. San Carlos will keep vessels informed of all the circumstances mentioned above, especially the time and place that each of them estimate to pass close to any dredger which is operating in the outer channel, and in order that they do not meet the dredger simultaneously.

8. Masters of vessels will inform the Pilot Station at San Carlos of any other information which the latter may request.

9. Masters of vessels will keep a watch on Channel 16, on the order of the Official Pilot, until their arrival at port of destination in Maracaibo Lake and on leaving until the Pilot has left the vessel.

10. Pilots, when they are bringing a vessel into the port, at the level of the parallel of Palmas del Norte Point (Buoys T – 55 and T – 56), will call up the Port Captaincy and transmit the following information:

(a) Name of vessel
(b) Time
(c) Port where operations will be effected
(d) Name of Pilot calling.

11. When the vessel continues to navigate to the South of Gene Rafael Urdaneta Bridge, the Pilot will inform the Control Offic Maritime Transit in Maracaibo, the time at which the vessel will p Buoy "B – 79".

12. The average speed of vessel in the navigable channels wil ten (10) knots, Masters being authorised as are also Official Pilots alter this, when the safety of navigation may require it.

13. San Carlos will check by radio-telephone the transit of vess from the Entrance Buoy "EM" to the level of the parallel which pass in front of Palmas del Norte Point (Buoys T – 55 and T – 56 and v versa).

14. Loaded vessels navigating outwards, and being in the ou channel, will have priority over vessels coming in to the same chan provided that these do not meet with those coming out in the crit zone, included between Buoys B – 21 and B – 22 and E – 33 a E – 34. For this purpose, the San Carlos Pilot Station will inform enter vessels the situation of leaving vessels so that they may take necess measures to avoid meeting those vessels coming out in the refer zone.

15. The Port Captaincy will check via the office of Control of Marit Transit, the Navigation of vessels, from the parallel passing Palmas Norte Point (Buoys T – 55 and T – 56), as far as the terminals and p to the South of General Rafael Urdaneta Bridge and vice versa.

16. Every Official Pilot navigating outwards when passing Buoy B – 72, will call up San Carlos by radio-telephone and will sup the following information:

(a) The time that he is passing Buoy B – 72.
(b) The time that he is arriving at San Carlos.

17. When the dredger receives any call from a vessel it will g information as follows:

(a) Location where it is at that time.
(b) Direction of dredging (South North or North South).
(c) The side on which the vessel must pass.
(d) Time necessary to make the manoeuvre indicating on which s of the channel dredging will continue after the manoeuvre.

18. The Pilot Station at San Carlos will be attentive to communications made and will take note of them, in the event that t intervention may be required by dredgers or by vessels.

19. Any vessel sailing from any port in the No. 2 Pilotage Area Maracaibo, will inform the Port Captain as follows:

(a) Type and name of vessel.
(b) Where from and time of leaving the port.
(c) Speed and port of destination.
(d) Estimated time of passing Buoy B – 72.

Signed – Port Captain.

AUTHORITY: Maraven, S.A. – Bajo Grande Refinery, P.O.Box Maracaibo, Venezuela 4033A. *Tel:* (061) 202673. *Telex:* 61254, 61 *Contact:* Captain N. Arceo, Terminal Supervisor.

Head Office: Maraven S.A., Apartado 829, Codigo Postal 101 Caracas, Venezuela. *Tel:* 908-2111. *Telex:* 23535, 23536.

Section B

LA ESTACADA: 10.42 N. 71.32 W.

TERMINAL NOT IN USE. BUOYS HAVE BEEN REMOVE

Section C

LA SALINA (Lacustre): 10.22 N. 71.28 W. **(See Pl**

(N.B. For important details of Documentation, Pilotage, etc., "Maracaibo Lake").

OPERATORS: All terminal facilities are under the contro Lagoven, S.A.

APPROACH: Entrance and leaving this terminal is made between B B – 97 and B – 98.

LOCATION: La Salina located on Eastern shore of Lake Maracaib Lat. 10° 22' 18" N., Long. 71° 27' 49" W. about 60 miles from Entrance Buoy "EM".

DOCUMENTS: These are generally placed on board prior to depar Vessels whose Master accepts the early departure procedure ma with documents in blank. Figures are then radioed for inclusion in documents. Outward Clearance documents are placed on boar vessel prior to departure.

PILOTAGE: In the event that no contact can be made with San C Pilotage Station, or if there is a language problem, contact shou made with Vensport, at La Salina by voice radio on VHF Chan (156.8 MHz).

The Docking Master boards by tug or launch at the waiting anch or in the outer part of the navigation channel leading to the term

ANCHORAGE: The waiting anchorage off La Salina is lo immediately Eastward of Buoys B – 97, AS – 1 and AS – 3 (Old nu M – 1, M – 1a and S – 1); it has a depth of between 40 ft. and and fair to poor holding ground in soft mud.

RESTRICTIONS: None. The port is open for navigation during th and night, allowing ships to enter and sail at any hour.

MAX. SIZE: Up to 112,000 d.w.t., LOA 900 ft. and max. draf (brackish water) at Berths No. 6N, 6S, 7N and 7S. Max. distan to manifold 450 ft.

Pier No. 3 (West Side) LOA 690 ft., draft 26 ft. and 36,000 d
Pier No. 3 (East side) LOA 575 ft., draft 26 ft. Max. 18,000 d
No restrictions on vessel's beam at any of the berths.
The access channel to La Salina has a least depth of 41 ft.

Special Note: Maximum draft for loading vessels at La Salina Lacustre Terminal is actually restricted to 39 ft. Vessels loading at this maximum draft of 39 ft. must cross the outer bar channel at HW.

RADIO: The cable and telegraphic address for the Lagoven, at La Salina is "Lagoven La Salina". Radio messages to and from ships at sea are routed through the Government radio station at Maiquetia (La Guaira) call letters YVG. This station operates on a 24 hour continuous watch on 500 kHz and 2182 kHz.

Listening frequencies: long wave: 500 kHz; medium wave 2182 kHz; short wave Channels 5 and 6.

Working frequencies: long wave 417 kHz and 464 kHz; medium wave 2120 kHz; short wave 4222 kHz, 6351.5 kHz, 8461 kHz and 17141.5 kHz.

Answering frequencies: long wave 500 kHz.; medium wave 2182 kHz.

Hours of watch:

4222, 6531.5 kHz	0100 – 1300 hrs. GMT
8461, 17141.5 kHz	1300 – 0100 hrs. GMT

Cables for vessels may also be routed via Curacao Radio, call sign PJC.

Radio notice of arrival should be sent 72 hours prior to arrival at La Salina and corrected if weather or other conditions delay the vessel.

Vensport La Salina handle all communications between vessels and Lagoven Terminal control tower. VHF radio-telephone Channel 16 (156.8 MHz) may be used for initial contact. Channels 6, 10, 13 and 14 are also available on a 24 hour basis.

All vessels en route to La Salina may also communicate with Lagoven Amuay or Caripito Marine Offices and request that messages dealing with corrected ETAs, Pilots and other business be relayed to Vensport La Salina.

VHF: Transmit on VHF when passing Aruba or Amuay Bay updated ETA messages to either Lago Marine or Amuay Marine for relay to La Salina. Contact Vensport La Salina on VHF when within reach (normally after passing General Urdaneta Bridge) for latest berthing instructions.

TUGS: Lagoven S.A. maintains one 3,000 h.p. diesel tug and one 1,300 h.p. diesel tug. Tug-boat assistance is considered essential and is afforded to all vessels entering, leaving or shifting in the harbour.

Additional tugs can, in an emergency, be ordered from Maracaibo. The tugs are usually employed in the alongside mode and are made fast using their own ropes (2.5 in. diameter nylon).

BERTHING: At La Salina, Lagoven maintains a deep-water terminal (Lacustre) consisting of an island where are located 2 finger piers, each 1,100 ft. in length and 500 ft. between piers, providing 4 berths to accommodate tankers up to 112,000 d.w.t. Berths are numbered 6N, 6S, 7N and 7S, from North to South. At these berths various products can be loaded simultaneously namely – 6N and 6S – Crude, Naphtha and Butane; 7N and 7S – Crude; Pier No. 3 (West side), Propane and Butane; Pier No. 3 (East side), same as West side but not concurrently with West side. In addition there is an offshore platform (Pier No. 3) where liquefied petroleum gases (Butane and Propane) can be loaded.

Instructions concerning berthing are given by Vensport La Salina by means of radio-telephone.

The use of an anchor when docking is permitted at all berths. It is considered prudent to have the outboard anchor hove-out prior to entering the harbour in order to facilitate speedy release if necessary while docking. The Pilot will advise whether the ship is to be berthed port or starboard side to the dock.

The tugs are made fast on the seaward side, one forward and one aft. Vessels berth under normal circumstances always with head in, which is a relatively simple manoeuvre. Vessels are berthed starboard side alongside Berths 6 North and 7 North; portside alongside at Berths 6 South and 7 South.

When the vessel's bow is between two and three ships' lengths from the head of the pier, the engines are stopped or reversed. The vessel then slowly enters the berth parallel to and about 40 ft. from the continuous fender face. When the vessel's bow is just past the berth's manifold area, the forward spring line is sent in by heaving line. The vessel is then positioned by using its ropes and is pushed alongside by tugs. The current sets mostly in a general Northwesterly direction with a velocity between 0 and 2 knots. This should be taken into account, particularly when berthing at the South facing berths where the vessel may be set onto the pier.

Moorings: Mooring bollards spaced with 80 ft. intervals are located on both sides of the pier, and provide the basis for a potentially excellent mooring configuration consisting of:

3 Head lines
3 Stern lines
2 Breast lines
1 Forward, Spring line and
1 Aft Spring line.

BALLAST: Vessel should arrive at La Salina with sufficient ballast to permit safe handling. Government Pilot requirements in this connection under normal weather conditions are interpreted as drawing approximately 8 ft. forward, 18 ft. aft, on a T – 2 or similar type tanker, and 11 ft. forward, 20 ft. aft on a 26,000 d.w.t., on larger type vessels the minimum draft required is 14 ft. forward and 22 ft. aft.

Ballast should be carried in a minimum number of tanks, and all other tanks stripped, so as to minimise deballasting time.

It has been established that one of the major causes of contamination of crude oil is the relatively small amount of salt water remaining in the ship's tanks, pumps, and ballast lines after ballast discharge. This very small amount of salt, nevertheless, frequently results in costly damage and downtime to refining equipment, besides presenting many other processing problems.

It is therefore requested that the full co-operation of the Master and Officers of ships loading for Aruba, be given to ensure that all ballast tanks and lines are flushed with lake water and stripped as dry as possible.

Vessels equipped with a separate and completely segregated system of ballast tanks, lines and pumps, will be permitted to discharge ballast and load cargo simultaneously, providing approval of both the pier foreman and Petroleum Inspector is secured.

A Pier Supervisor who is in direct communication with the loading pumphouse is stationed at each pier during the entire time the vessel is discharging ballast or cargo or receiving cargo.

All dirty ballast must be discharged ashore. The terminal has a 100,000 bbl. reservoir connected to two high capacity separator units. Max. ballast discharge is 40,000 bbls./hr. with max. 130 p.s.i. at rail. One or two hard arms (12 in.) are usually connected for ballast discharge.

If it is desired to follow the "load-on-top" procedure it is requested that the marine representative be informed on arrival.

POLLUTION: There are no shore facilities to recover an oil spill. The Venezuelan authorities take a very serious view of oil pollution and heavy fines are imposed for violations of the strict pollution rules. A government representative is stationed at the terminal. It is therefore important that all precautionary measures be taken and spills avoided. In case of a spill, the port services section should be informed immediately by VHF or telephone, which is located on the pier. The use of dispersants or detergents on the water is not permitted.

LOADING: Instructions as to grade or grades of cargo, and the approximate loading rate anticipated, will be given to the Master on arrival. Supplementary information including number and size of lines and Chicksan arms will be furnished to the Chief Officer before loading commences. Loading rates will be reduced as required when topping off. If vessel's loading orders from owners or charterers do not agree with the terminal's orders, either as to grades or quantity, the marine representative should be advised immediately. The terminal is authorised to load 10% more or less than the quantity nominated.

A terminal employee is stationed at each pier during the entire time the ship is discharging ballast, bunkering, or loading cargo. Fifteen minutes "standby" notice should be given to this man prior to completion of ballast, bunkers, or cargo.

Shut-down controls for all crude oil pumps are available at each loading berth at ship's rail of loading vessels for use in case of emergency only.

LOADING RATES: Loading operations at La Salina Terminal are normally carried out at relatively high pumping rates; up to an average of 40,000 bbls.p.h. Ship's officer will be advised by the pier supervisor at what rate the cargo will be loaded. LPG is loaded up to an average max. rate of 7,500 bbls.p.h. at Platform No. 3.

During periods of calm, loading of gasoline or other similar low flash products may be at lower rates or loading stopped if the heavy vapours are not being dispersed quickly enough to prevent hazards from accumulated gas pockets. Ships' officers are cautioned to be on their guard during such conditions.

Loading rates will be reduced when topping off, if requested by the ship's officer.

Cargo Handling: The terminal is mainly a crude exporting facility, but also LPG, bunkers, condensate and gasoline are handled.

The cargo transfer facilities are:

Berth 6 North and South:
3 × 12 in. Chicksan arms for crude loading.
1 × 8 in. Chicksan arm for bunkers (located aft of manifold).

Berth 7 North:
4 × 12 in. Chicksan arms for crude loading.
1 × 8 in. Chicksan arm for bunkers (located aft of manifold).

Berth 7 South:
4 × 12 in. Chicksan arms for crude loading.
3 × 12 in. Chicksan arms for pressurised gas loading (located forward of crude loading manifold)
1 × 8 in. Chicksan arm for bunker (located aft of manifold).

Gasoline, condensate and pressurised butane are handled at Berth 6 at both sides of the manifold.

All connections are standard 150 ASA bolt hole flanges.

The emergency cargo stop button is located in the operators' shelter on both piers.

Crude loading rates up to 50,000 bbls./hr. can be provided.

The loading and discharging of all crude petroleum and its products will be stopped during the passage of an electric storm and ullage covers must be closed and dogged down.

Cautionary Advice: Whenever non-matching flange sizes necessitate the use of reducers (spool pieces), Masters should insist that the reducer or hard arm be adequately supported by a proper jack, and should refuse to let cargo transfer operations commence before a satisfactory vessel manifold and hard arm connection has been provided.

MEDICAL: Complete medical, dental and hospitalisation facilities are available at La Salina. Medical treatment is provided at a private clinic.

Authorisation forms for medical treatment are provided which require the Master's signature. Transportation will be supplied by Vensport La Salina.

If the patient does not speak Spanish or English, an interpreter should accompany him.

DENSITY: Average density at the berth is 1002 but varies dependent upon amount of rainfall. The temperature ranges from 82°F. to 86°F.

FRESH WATER: A limited supply of fresh and boiler water is available at La Salina Lacustre Terminal. Delivery is made through 2.5 in. National Standard Fire Hose Thread hydrants. Ship's personnel must provide hoses and connect up.

FUEL: Bunker C fuel oil, marine diesel and intermediate fuels are available at La Salina Terminal Lacustre. Delivery is made alongside Piers 6 or 7 by 8 in. diameter Chicksan hose, located about midships.

Loading Rates: Bunker "C" and intermediate – 3,000 bbls.p.h. Diesel – 2,000 bbls.p.h.

It is the responsibility of the ship's engineer to give "stand-by" notice to the terminal employee and advise him when to shut down.

Supplies of lubricating oils in drums are available. Delivery will be effected while loading and requirements should be incorporated in the radio ETA.

FIRE PRECAUTIONS: The recognised fire alarm signal is 4 long blasts with ship's or tug's whistle. An 8 in. fire water main line runs alongside all 4 berths with numerous double 2.5 in. outlets for connection to ship's hoses. Four elevated water/foam monitors are located on each pier providing relatively good fire fighting protection for the main deck area.

The 2 tugs are also equipped with elevated fire water/foam monitors, though on board foam storage capacity is relatively limited.

CONSULS: The following countries have consular representatives in the area:

Belgium
Chile
Colombia
Costa Rica
Denmark
Dominican Rep.
Ecuador
El Salvador
France
Germany
Great Britain
Guatemala
Italy
Netherlands
Nicaragua
Norway
Panama
Peru
Spain
Sweden
Switzerland
U.S.A.

REPAIRS: Vensport's Port Staff will assist with emergency repairs as may be required in each case depending upon availability of competent personnel and equipment. The company's shop facilities while not equipped for extensive ship repairs, may be made available to fabricate or repair items that are urgently required.

The nearest dry docks are those at Puerto Cabello and Curacao, N.A. Several contractors in the area provide labour for hull painting and for tank cleaning. Contracts for these services are made by the ship's Master directly with the contractor.

Radio technicians are available for minor repairs. With sufficient advance notice a radar specialist can be arranged to board the ship at La Salina.

TIME: GMT minus 4 hours.

SHORE LEAVE: Shore leave is permitted and a representative of the Captain of the Port boards on arrival and issues the required number of passes. Shore passes are to be collected prior to sailing, and given to Pilot undocking the vessel. Vessels are not permitted to sail until all crew members are on board, unless hospitalised or prior arrangements made for disembarking. No launch service for liberty parties is available while vessel is anchored off La Salina awaiting berth.

GENERAL: Representatives of Vensport La Salina board vessels immediately on arrival, and it is particularly requested that Masters indicate at that time all ships' requirements. The office building is located at the Pier Head Trestle and personnel are available for assistance at all hours.

(a) Bonded Stores. Cigarettes or other stores in bond are not obtainable in La Salina.

(b) Cash Advances. Cash advances are made in local currency, the Venezuelan Bolivare. Cash requirements should be included in the radio ETA.

(c) Charts. On first arrival of each tanker, the Agency Dispatcher will furnish a set of local charts if required. No supplies of U.S. Hydrographic or British Admiralty charts, or sailing directions, are available.

(d) Classification Societies. American Bureau and Lloyd's Register have non-exclusive Agents in Maracaibo, and qualified Masters and Chief Engineers are available for appointment as Surveyors when required.

(e) Gangways. All vessels using the Port of La Salina must provide a safe gangway. The use of rung ladders, pilot ladders, etc., is contrary to Port Regulations and Port Authorities will not board except by means of a safe gangway or accommodation ladder.

(f) Plimsoll Marks. The Captain of the Port requires that the Plimsoll Marks of all vessels using the port be clearly visible. Vessels may be checked on completion of loading, and if the Plimsoll Marks are not readily legible, permission to sail may be withheld.

(g) Port Services. On arrival at La Salina Terminal, a company representative boards vessels, so it is particularly requested that Masters make known to him all ship's requirements. Master should bear in mind that while vessels are within Venezuelan territorial waters, Government Authorities do not permit the use of ship's radio equipment. Cables and radiograms should be handed to the company representative for transmittal via shore radio communication system. La Salina also has radio telephone communication with North and South America and Europe. For further information contact Vensport in the terminal building, Tel. 88491 and 88492.

(h) Rat-guards. By order of the Port Authorities, vessels are required to use ratguards on all mooring lines.

(i) Personnel – Seamen left ashore: In the case of seamen left ashore for hospitalisation, repatriation or other reason, documents and personal effects are to be delivered to the Vensport Office in La Salina before sailing. A letter is required from the Master advising maximum advances to be made to seamen if any, and instructions concerning repatriation. All expenses incurred by seamen left ashore, including cost of repatriation, are for ship's account.

It is important that Masters bear in mind that the Venezuelan law will at all times hold the vessel, her Master, Agent or Owner, responsible for any seamen left behind in Venezuela.

(j) Provisions and stores. Fresh and dry provisions are supplied by various Ship Chandlers in Maracaibo and Cabimas (La Salina). Master should deliver his signed requisition to the Vensport Office representative who boards on arrival. Provisions would then be delivered to the vessel while loading. The prices and quality of some items, such as fresh fruit, fish, shrimps, vegetables, etc., are competitive; dry stores are considerably higher than in most ports. The Fleet Steward will assist in filling requisitions. It is important that the Master sign the Ship Chandlers invoice as authorisation for the Marine Department to make settlement.

(k) Mail. Any pending ship's mail will be delivered on board by the Vensport Dispatcher on arrival at La Salina. At same time he will receive ship's mail to be dispatched. The Vensport Dispatcher will accept personal mail only if it carries the proper amount of Venezuelan postage, or if Master authorises the postage by signing 7 copies of the Company Postal Transmittal form. Masters interested in knowing the individual postage amounts to be paid by each crew member, should provide a list, in duplicate, of the senders, and number of letters sent by each one identified by a number written on each letter.

Copy of this list will be returned aboard the vessel when leaving port outward bound. If not ready on time, it will be airmailed to the vesse next port of call.

(l) Inspection of Petroleum Products and Crude Oil. Chas. Marti Company and E. W. Saybolt petroleum inspectors are availabl specified.

(m) Laundry. Laundry service is available between 0700 hrs. a 1700 hrs. on week-days. No guarantee can be given on time of delive

AGENT'S NOTICE: December 1987.

TO ALL MASTERS CALLING AT LA SALINA

We would like to draw your attention to the following:

(a) Terminal of La Salina is an artificial island. For safety reaso during your vessel's call, a permanent (24 hours) taxi service been arranged to take you and your crew from island to main g and vice-versa.
(b) This taxi service MUST NOT be paid for by you or your crew.
(c) No idling or walking around the island and/or terminal is allow
(d) It is impossible to go through La Salina's main gate without Harbour Office Shore Pass duly filled in with name, nationa vessel's name, passport number and date.
(e) Your agent's call name at branch office of La Salina is "Agem La Salina", standing-by 24 hours on VHF Channel 16, telepho numbers 45665 and 43089, direct line of Lagoven 3235. Agenc call name at main office also standing-by 24 hours on V Channels 12, 14 and 16 is "Agemar Maracaibo".
(f) Whenever calling "Agemar La Salina" and no reply is obtain please contact "Agemar Maracaibo" and leave your message.
(g) If an emergency arises concerning bunkers or cargo, you m contact Lagoven's employee-in-charge of the pier at the sm house beside the vessel or call by the telephone of the pier to t Loading Master, Tel. No. 3587, 3304 or 3258.
(h) Launch operator's call name is "Servicios Portuarios" on V Channel 16 (24 hours), Tel: 3491 and 3492. In case you need contact Lagoven, there is always an employee on the pier wi telephone. Bunkers or water facilities are available at this pier.
(i) Water and bunkers are available at Piers No. 7 and No. 6. Wa is taken through vessel's hose while bunkers by shore's Chicks or rubber hose.
(j) Two hours before loading operation finishes, a radio call sho be made to "Agemar La Salina", so that arrangements for p tugboats and other sailing procedures can be made. (*)
(k) In case of oil spillage, an immediate call should be made "Agemar La Salina" or "Agemar Maracaibo", giving the name your P & I Club. We will contact the area representative a request their assistance.
(l) It is recommended that a crew member stands-by on VHF, o hour after vessel finishes loading.
(m) Maximum sailing draft is 39 ft. 00 in. even keel – NOT ONE IN MORE.
(n) Crew Disembarking – In order to obtain 25% discount on air tick and to cover IATA Regulations, Master must issue a le addressed to Agemar requesting the tickets and mentioning na destination, passport number, nationality, age. If any exc luggage (only 40 kgs. allowed per person), Master has to autho same and inform agents. Our agent at Maiquetia Airport will t charge of this expense on behalf of Owners. Weighing of bagg should be done onboard and letter must be done on vessel's offi paper, signed by Master and with the vessel's stamp on it. C members disembarking have to keep their Shore Passes. *All c shore passes must be returned to the Agent and he must informed whether all crew members are on board.*
(o) Medical Attendance – Call immediately "Agemar La Salina" a send the person that is sick to the hospital, by the taxi, also Lagoven's Control Tower. Taxi has a visible identification that s "Linea Zulia". Taxi driver will not only take the crew membe the hospital but will also pick up Agemar's agent and service o as well.
(p) No external painting of vessel (hull) is allowed while berthe anchored. It is forbidden to deballast from cargo tanks (clea dirty) into the lake. Heavy fines will be imposed on those complying with these regulations. Smoking is not allowed o piers.

(*) Please call by VHF Channel 16 to "Agemar La Salina", toda 1800 hours local time, informing the estimated time of completio loading.

Section D

MARACAIBO: 10.42 N. 71.39 W.

On the N.W. shore of the Lake Maracaibo.

Maracaibo is the capital of the State of Zulia and seat of all Govern and Consular Offices, as well as the port of entry for all vessels lo at one of the Terminals in the Lake of Maracaibo.

(N.B. For information details of Documentation, Pilotage etc. "Maracaibo Lake").

Also see "Shipmaster's Report" before Bajo Grande.

ANCHORAGE: The Pilot will not con the ship into the anchorag will indicate the proper location to anchor. Care should be taken be of small boats and ferry traffic.

ACCOMMODATION LADDER: Vessels must provide accommodation ladder. The use of trunk ladders, pilot ladders, e contrary to port regulations. Port Authorities will board only by m of an accommodation ladder. It is recommended to rig this in a to avoid unnecessary delays.

BOARDING PARTY: The boarding party usually consists of the following persons: One Quarantine Official, Two Customs Officials, One Port Captain's Representative, Two representatives (Agent and Mooring Master).

RADIO: "Radio Marina" transmits information of interest to navigation every day from Monday to Friday from 1000 hrs. to 1015 hrs. and from 1600 hrs. to 1615 hrs. on frequency of 4,420.7 kHz in the 60 m. band, output 1 kW. All bunker, lubricating oils, water and other requirements should be included in the cable giving ETA of the vessel.

TUGS: Service not compulsory, assistance is rendered if required by the Harbour Master.

BERTHING: The manoeuvring area within Maracaibo harbour has a depth of 26 ft.

		Length	*Depth alongside*
Wharf No.	1	106 m.	15 ft.
" "	2	106 m.	15 ft.
" "	3	159 m.	15 ft.
" "	4	159 m.	22 ft.
" "	5	135 m.	25 ft.
" "	6	135 m.	26 ft.
" "	7	135 m.	26 ft.
" "	8	135 m.	26 ft.
" "	9	120 m.	25 ft.
" "	10	120 m.	22 ft.
" "	11	120 m.	22 ft.
National Brewery Wharf		125 m.	19 ft.
Regional " "		120 m.	21 ft.
New Pier (2 berths)		—	30 ft. – 33 ft.

STEVEDORES: Normal working hours 0700 – 1100; 1300 – 1700 and 1800 – 2300 hrs.

MEDICAL: Complete medical services are available.

FRESH WATER: All wharves supplied with fresh water by 2 in. hoses. Rate 15/20 t.p.h. Fresh water also available from local contractors with barges.

FUEL: Heavy and medium marine diesel, intermediate fuel, and bunker "C" fuel oil are available at Maracaibo from local contractors with barges. Supplied only by barge at the wharves or anchorage. Lubricating oils are also available.

CONSULS:

	Telephone		Telephone
Belgium	3235	Italy	—
Colombia	72232	Mexico	6781
Costa Rica	6511	Netherlands	4621
Denmark	6531	Nicaragua	76703
Dominican Rep.	6511	Norway	78911
Ecuador	74055	Panama	78110
El Salvador	74241	Peru	4545
France	5297	Portugal	80870
Germany	76061	Spain	71118
Great Britain	6169	Sweden	6511
Guatemala	71193	United States	2123

REPAIRS: No major repairs facilities are available; however, repair work can be done through local machine and electrical shops, and shore labour can be furnished if required. Radio and radar technicians are also available.

AIRPORT: International Airport "Granode Oro" situated N.W. of Maracaibo City served by many national and international airlines. A second airport with cargo and passenger services is situated at Santa Barbara del Zulia, on the banks of the Escalante River.

HOLIDAYS: All Sundays; 1st January; Good Thursday and Friday; 19th April; 1st May; 24th June; 5th July; 24th July; 12th October; 24th October; 18th November; 17th December; 25th December.

POLICE/FIRE/AMBULANCE: Police tel. 3821; Fire tel. 6585; Ambulance tel. 2209.

TELEPHONES: There is no service for connecting telephones on board vessels. Public telephones are situated in the warehouses adjacent to all wharves.

PROVISIONS: Fresh and dry provisions are available through ship chandlers in Maracaibo for delivery at Maracaibo Harbour or at the terminal.

SHORE LEAVE: Launch service in the Maracaibo harbour is readily available for official ship business. For personnel shore leave, depends on launch availabilities on arrival.

SHIPMASTER'S REPORT: 1976

Communication: Considerable difficulty was experienced raising La Guaira Radio Station (YVG) for transmitting the necessary ETAs. Our messages were transmitted via Portishead (GKR). Agents, however, advised that messages are normally transmitted through Curacao (PJC).

Pilotage: Masters making their first visit to the port are to embark the Pilot at Punta Cardon (Paraguana Peninsula). Ample notice must be given to the Agents as the Pilot has to be flown there from Maracaibo. Masters making their first visit to Maracaibo must also disembark the Pilot at Punta Cardon on departure. Masters may thereafter proceed directly to San Carlos Pilot Station.

Communications can be made through the Harbour Master's Office Punta Cardon.

Delays experienced off Punta Cardon did not occur on this particular occasion. Pilot boards and normally rests in the pilot's cabin until 30 minutes from the "EM" Buoy.

Berthing: 2 tugs are compulsory for vessels berthing/unberthing when the vessel's length exceeds 476 ft. All other vessels 1 tug compulsory.

Stevedoring:

Normal working hours (Monday – Friday)	0700 to 1100 hrs.
	1300 to 1700 hrs.
	1800 to 2300 hrs. (Overtime)
(Saturday)	0700 to 1200 hrs.
(Sundays & Public Holidays)	*No work.*

Vessels must be fully rigged and hatches open and ready in all respects to load or discharge at least 15 minutes before stevedores arrive. If necessary shore labour is available to assist.

SHIPMASTER'S REPORT: 1975.

Arrival Messages: Cable Agent – Maracaibo via La Guaira Radio on departure Cristobal with ETA Punta Cardon, draft, cargo stowage, gangs required and requirements. (For subsequent calls vessel will be permitted to proceed to San Carlos Pilot Station to embark Pilot).

24 hours prior to arrival repeat ETA Punta Cardon, to be sent as described above.

2 hours before arrival at Pilot Station – Punta Cardon call on VHF Channel 12 to update time of arrival.

Pilotage: Pilot boards at Punta Cardon about 1 mile off the tanker berths from a launch with a "roof landing", therefore the pilot ladder must be about 6 ft. from the water. This Pilot travels from Maracaibo to meet the vessel at Punta Cardon and takes the vessel all the way to Maracaibo. Punta Cardon to "EM" Fairway Buoy – 78 miles. "EM" Buoy to Maracaibo – 35 miles.

Once the vessel has made a call at Maracaibo the Master is then exempt and may take his vessel direct to the "EM" Buoy and negotiate the buoyed channel for 12 miles to San Carlos Pilot Station. The channel is straight, wide and the buoys are well lit and marked. A Westerly set is said to prevail across this channel from the "EM" Buoy to San Carlos Pilot Station but it was not evident on our passage in or out. However, a strong ebb tide was noticed running out to sea off San Carlos Pilot Station. The channel from the "EM" Buoy to Maracaibo is dredged to 41 ft. but off the berths at Maracaibo the maximum draft is 26 ft. There had been a lot of unseasonal rain prior to our call and we noted that the density of the dock water was 1001.

Documents:

1 Health Declaration.
8 Stores Lists.
8 Crew Lists.
6 Passenger Lists (If no passengers these papers have to be entered as "Nil" passengers).
8 Crew Declaration Lists.
2 Venezuelan Manifests (Sent from N.Z.).
2 Sets Bills of Lading (Sent from N.Z.).
12 Sets Tally Books (Sent from N.Z.).

Stevedores: "Servicios Portuarios de Maracaibo".

They have 24 gangs in the port and mechanical equipment to support 16 gangs. Normal working hours are 0700 – 1130 and 1300 – 1630 hrs. Overtime 1800 – 2230 hrs. Saturday 0700 – 1200 hrs. No work on Sunday.

The labour works well but is not accustomed to working refrigerated ships and when the gangs work into the wings the Agent had to supply the men with warm clothing and hot coffee. Their discharge rate for cartons of frozen cream was 18 t.p.h. In hindsight I would suggest that it would be advisable to stow frozen cream for Maracaibo in a hatch square if possible to obviate the need for the labour to go into the wings as the complaint about the "cold" does not arise until this happens. They had 14 open trucks laid on to take the cartons of cream direct to the butter works and they had an unbroken flow so the "hook" was not held up on this account.

Berthing: There are berths for 6 ocean going ships and they say they can berth these ships up to 26 ft. Tugs are available and because of berthing starboard side to we used 2 tugs. The berths are concrete with rubber fenders and there is plenty of working space for the mechanical vehicles. The Pilots speak a little English but sufficient to make themselves understood and are capable. Fresh water is available alongside but I understand if bunkers are required they have to be brought by barge and there is a minimum charge of $1,000 irrespective of the amount of fuel required. They have a repair facility which is in the hands of a local engineering company. Fresh vegetables are available and can be recommended, supplied by the only providore. He maintains a listening watch on Channel 16 VHF and has a liaison with Agents for any messages sent prior to arrival at the berth. His station is called Automercado Venezia.

Section E

EL TABLAZO: 10.45 N. 71.32 W. (See Plan)

(N.B. for important details of Documentation, Pilotage, etc., see "Maracaibo Lake".)

Also see "Shipmaster's Report" before Bajo Grande.

LOCATION: S.E. part of Puerto Miranda. Entrance by Buoys 63 and 64. Distance from San Carlos Pilot Station 16.5 miles.

MAX. SIZE:

	Depth alongside MMOLW ft. in.	*Depth approach channel* ft. in.	*Max. recom-mended Draft* ft. in.	*Max. d.w.t.*	*Max. LOA* ft.	*Limiting Factor*
Solids Dock:						
North Berth (Urea in bulk)	28 00	29 00	28 00	50,000	656	Draft
South Berth (Urea in bags)	29 06	30 00	29 06	50,000	820	Draft
South Berth (General Cargo)			20 00	50,000	656	Draft

	Depth alongside MMOLW ft. in.	Depth approach channel ft. in.	Max. recommended Draft ft. in.	Max. d.w.t.	Max. LOA ft.	Limiting Factor
Liquids Dock:						
North Berth	30 00	30 00		50,000	787	Draft
South Berth	27 09	29 06		50,000	787	Draft
Salt Dock:	20 06	21 00	20 06	3,000	270	d.w.t.
Heavy Cargo Dock:	14 00	12 00	14 00	No limit	196	Draft

Remarks: Ships willing to wait for tide may add height of tide to maximum recommended draft.

BERTHING:

	Length of Berth ft.	Width of Pier ft.	Height of Pier above MMOLW ft.	Mooring Lines Bow	Mooring Lines Stern	Products Handled
Solids Dock:						
North Berth (Urea in bulk)	735	34	11.5	2 head 1 breast 1 spring	2 stern 1 breast 1 spring	8, 14, 18
South Berth (Urea in bags)	974	34	11.5			7, 14, 18
South Berth (General Cargo)	738	34	11.5			14, 18
Liquids Dock:						
North Berth	856	14.7	11.8	2 head 2 breast 1 spring	2 stern 2 breast 1 spring	6, 5, 12, 17
South Berth	856	14.7	11.8			6, 5, 12, 17
Salt Dock:	364	43	10.5	2 head 1 breast 1 spring	2 stern 1 breast 1 spring	11, 12
Heavy Cargo Dock:	196.8	295	—	—		18

Products Handled: 1. Ethylene; 2. Propylene; 3. Propane; 4. Butane; 5. Nat. Gasoline; 6. Anhydrous Ammonia; 7. Urea in Bags; 8. Urea in Bulk; 9. Chlorine; 10. Caustic Soda; 11. Salt; 12. Styrene Monomer; 13. Monovinyl Chloride; 14. Potable Water; 15. Inert Gas; 16. Ballast Water; 17. Methanol; 18. General Cargo.

Products to be handled:

Natural Gasoline at	687	t.p.h.	
Estirene	160	,,	
Methanol	687	,,	
Isobutane	687	,,	
Ammonia	525	,,	temp. −33.3°C
Propylene	40	,,	40°/6°C
Butane	160	,,	7.8°C
Monovinyl Chloride	420	,,	37.8°C
Ethylene	80	,,	−104°/−70°C

Cargo Equipment:

North Berth:	One urea in bulk loader Cargo capacity 650/700 t.p.h.
South Berth:	Three urea in sacks conveyors. Cargo capacity 2,400 sacks of 50 kg. each per hour.

DENSITY: 997 – 1003.

FRESH WATER: Available, 8 t.p.h., but expensive.

OPERATOR: Petroquimica de Venezuela, S.A., (Pequiven) – El Tablazo, Apartado 159, Manejo de Productos, Maracaibo, Estado Zulia, Venezuela. *Tel:* 311-388. *Telex:* 23206. *Contact:* Captain Antonio Parcero.

PUERTO MIRANDA: 10.46 N. 71.34 W. (See Plan)

(N.B. For important details of documentation, Pilotage, etc., see "Maracaibo Lake").

LOCATION: Situated at Eastern shore of entrance to Lake of Maracaibo, in position Lat. 10° 46' N., Long. 71° 34' W.

OPERATOR: Maraven, S.A.

DOCUMENTS: On arrival the Master must present to the Port Authorities the following documents:

1 copy Clearance (Note: If the vessel was diverted, Master has to present a telegram in which vessel received instructions to proceed to Puerto Miranda).
8 copies Crew List.
3 copies Stores List.
1 copy Vaccination List.
3 copies Personal Effects Lists.

Vessel sailing for U.S. ports requested to have American Crew List ready on arrival so it can be forwarded to U.S. Consulate without delay.

PILOTAGE: Compulsory. On arrival Puerto Miranda under Government Channel Pilot's assistance, the vessel will be boarded by Government Berthing Master, who will assist Master in docking and undocking.

For Channel Pilot see "Maracaibo Lake".

ANCHORAGES: North anchorage area is situated at Northern par the exit channel and is marked by the Buoys No. B57B, AP1, AP2 a AP4. Maximum depth 10.0 m.

South anchorage area is situated at Southern part of the exit chan and is marked by Buoys No. B59, AP3, AP5 and B63. Maximum de 10.36 m.

RESTRICTIONS: There are restrictions for docking and undocking wh strong currents are running.

MAX. SIZE: Length 910 ft., breadth 147 ft., draft 39.5 ft.

HEALTH: On arrival, when Pratique is requested, all vessels should international flag signal "Q", or show a yellow light during hours darkness. Customs will grant Free Pratique only when they are on boa

RADIO: All information such as ETA, ballast, etc. may be sent throu Curacao Radio. Telex No. 1143-6472.

Puerto Miranda can be contacted by Telex No. 61115.

VHF: Channels 16 and 12. Vessels are requested to call Puerto Miran about 3 hours before arrival at the port. Calls made in Spanish langua will be answered promptly, as there is always a Spanish-speaking cl on duty. Calls in English will be answered by the Supervisor on du except when he is occupied, in which case the call should be repeat later. As an alternative, the Master could ask Government Pilot to rep in Spanish his arrival to Puerto Miranda.

TUGS: 2 motor tugs of 4,200 h.p. assist all vessels in docking a undocking. Tugs always used as required by pilots.

BERTHING:

Jetties/Berths	Depth M.M.O.L.W. (ft.)	Maximum Permissible Draft (ft.)	Maximum Permissible Length (ft.)	Maximum Permissible Displacemen (tons)
Jetty No. 2				
1 (North Outer)	42	39.5	910	90,000
2 (South Outer)	42	39.5	910	90,000
3 (North Inner)	35	34	†575	62,000
4 (South Inner)	28	27	‡575	62,000
Jetty No. 3				
5 Inshore (North Seaward)	42	39.5	910	90,000
6 Inshore (South Seaward)	42	39.5	910	90,000

Remarks: Alongside UKC for ships up to 700 ft. LOA = 1 ft.
Alongside UKC for ships over 700 ft. LOA = 2 ft.

(†) LOA in Berth No. 3: This can be increased up to 620 ft. whene vessel on Berth No. 1 has LOA up to 555 ft.

(‡) LOA in Berth No. 4: This can be increased up to 610 f Berth No. 2 or 5 are empty when vessel arrives, then Berth No. 2 h to be temporarily restricted to vessels up to 665 ft. LOA

The alongside drafts are subject to reduction owing to depth in in and outer channels.

Vessels drawing over 37 ft. 06 in. will proceed according to mo sailing draft table issued by Maraven, S.A.

MEDICAL: Written request for medical attendance, as well as a sh pass, is always required. Master must inform by telex how many c members will be sent to Maracaibo through the Agent. Ample hosp facilities available at Maracaibo.

TANKERS: Discharge lines 12 in.

Tank cleaning and dirty ballast facilities up to a maximum of 25% vessel's deadweight.

Discharge of waxy slops and sewage water is forbidden.

Maximum receiving rate for ballast discharge 1,000 t.p.h.

Maximum loading rate 6,000 t.p.h.

Winds are mainly from the N.E. quadrant.

Vessels of any deadweight must secure with at least:

Forward: 4 headlines; 4 breasting fibre ropes and 1 spring in Be No. 1 and 2.

Aft: 2 stern lines; 4 breasting fibre ropes and 1 spring in Berths N and 2.

In Berths No. 3, 4, 5 and 6. Forward: 2 head lines; 4 breasting and 1 spring.

A suitable gangway will be provided by the shore installation. W it is out of order vessel's gangway has to be used.

The terminal assist in the event of any vessel spillage; but the Ma is obligated to make his own arrangements to control the spillage.

BALLAST: *Agent's Notice:* September 1987.

For your guidance please note Maraven's tariff stipulates an addi charge of U.S.$515.00 per hour for extra berth occupation coverin delays attributable to the vessel (tank cleaning, repairs, etc.).

It is important that vessel arrives with tanks in suitable condi load as per charter party.

If tanks are not accepted by Inspector, the Terminal will ch additional berth occupancy as per above, and if vessel procee anchorage for further cleaning, Terminal fee (tugs and launch for ru lines) will be charged again in full for second docking.

The volume of ballast accepted without extra charge to the ves up to 25% of her Summer deadweight.

For vessels over 115,000 S.D.W.T., volume in excess of 28,75 ballast also applies.

DENSITY: Density of water at berths 997-1003.

Density of water in outer channel 1015-1025.

FRESH WATER: Available at all jetties at a loading rate of be 20 t.p.h. to 30 t.p.h., depending on number of vessels being sup any one time. Approximate cost is U.S.$4.0 per ton.

FUEL: Available ex-wharf: Bunker "C", thin fuels from 200 to seconds Redwood, and marine diesel. Delivery rate 400 t.p 80 t.p.h. respectively.

Gas oil, fuel oil and thin fuels may be supplied by barge ex-Mara delivered at anchor at a maximum rate of 110 t.p.h. and 140 t.p

Notice in advance is requested for delivery.

FIRE PRECAUTIONS: Any hot work is forbidden whilst alongs Pier. Terminal approval is compulsory for any special requirem

CONSULS: On all Italian vessels, the Consul comes on board on Other Consulates are at Maracaibo: Colombia, Netherlands, P

Peru, Spain, Great Britain, Guatemala, Switzerland, U.S.A., Chile and Portugal.

REPAIRS: There are small workshops in the area. Contact Agent on arrival.

SURVEYORS:

(1) Cargo Inspectors:

Saybolt. Telex 61120 Maracaibo. Tel: 76975.

Caleb Brett. Telex 23333 Caracas. Tel: (02) 325875.

Inspecciones C.A. Telex 62292 Maracaibo. Tel: 78642.

AIVEPET. Telex 21050 Caracas. Tel: (02) 9860422.

Chas. Martin. Telex 62451 Maracaibo. Tel: 78651.

S.G.S. Telex 23324 Caracas. Tel: (02) 338569.

(2) Surveyors:

Lloyd's Register, American Bureau, Bureau Veritas and Norske Veritas.

CUSTOMS ALLOWANCES: One opened packet of cigarettes allowed to be taken from vessel by each crew member when going ashore. When a crew member signs off, he must present his personal effects to the Customs.

REPATRIATION: Crew changes and repatriation possible. All the arrangements are made by the Agent.

AIRPORT: An International Airport is situated in Maracaibo City. It is served by National and International Airlines. All arrangements through the Agent.

TIME: GMT minus 4 hours.

HOLIDAYS: Do not affect port operations, port works throughout 24 hours, 7 days a week.

POLICE/AMBULANCE/FIRE: All contact must be made in Spanish language. The supervisor will assist in making contact.

Telephones: Police 169. Fire 166. National Guard 168.

EMERGENCY CO-ORDINATION CENTRE: Port Captaincy at Maracaibo, Tel: 9-0-223279 or VHF Channel 16.

TELEPHONES: Whilst alongside, a telephone is placed on board for operational purposes, emergency and internal communication with Maraven telephones. There is no charge.

SERVICES: Radar repairs, R/T repairs, gyro-compass adjusting and all types of electronic repairs.

BANKS: The nearest bank is located at Los Puertos de Altagracia or at Maracaibo City.

STORING: Vessel can be stored by barge or truck; but it is strictly prohibited by barge during loading or discharging, likewise it is prohibited for truck to proceed alongside the ship during loading or discharging.

SHIP SUPPLY SERVICES: Available in Maracaibo. Contact to be made through the Agent.

SHORE LEAVE: Not granted until shore passes are stamped and signed by Authorities. Passport and shore pass required by all crew members going ashore. Passes must be shown to guards at gangway and gates. Crew members must be properly dressed before proceeding ashore. Master must collect all passes and return them to Agent before vessel's departure.

DELAYS: Delays can be expected during deballasting if the levels in the pits are high.

GENERAL: *(a) Tides:* In view of the changing depth in the channels which allow navigation to vessels up to about 70,000 d.w.t. fully laden at high water, permanent predictions of sailing draft tables have been prepared by Maraven S.A., and they will send these on board ships of over 47,000 d.w.t.

(b) Currents: The tidal current (Lunar tide) at this port can at times be very strong and subject to changes. Usually the outgoing tide runs for 7 to 8 hours against 4 to 5 hours for incoming tide. Direction approx. at right angles to jetty.

(c) Movement of Passengers: Embarkation or disembarkation of passengers through this port is not allowed by Venezuelan Law, as this Terminal is only authorised by the Treasury Ministry (Ministerio de Hacienda) exclusively for exporting crude oil.

(d) Failure to Rejoin Vessel: If any member of crew is not aboard at sailing time, Authorities will not clear vessel although permission may be given to proceed to anchorage if the berth is required. If sailing permission is granted, Master is required to sign letter accepting all costs in connection with this matter being for Owner's account.

(e) Launch Service: Masters who have to go on business to Maracaibo can make use of public service launches. Please contact your Agent.

(f) Guards: Custom Guards (Guardia Nacional) will be posted on all vessels and Masters are reminded that these guards must be accommodated and treated in the same manner as ships' officers. Non-compliance entails not only a fine but will result in delays in clearance and cargo operations.

(g) Visitors: Only persons on business allowed on piers. Visitors, as guest of Master, allowed to board vessels provided a written and signed request presented by Master to Port Services Department. Further particulars covering procedure for obtaining permits for visitors can be obtained from Port Services Office.

(h) Charts – Nautical Publications: On arrival of each tanker the Agency Representative will furnish a set of lake charts if required. No supplies of U.S. Hydrographic or British Admiralty charts or Sailing Directions, Nautical Almanac, etc., are available at this port.

(i) Films Exchange: Films may be exchanged at Maracaibo.

(j) Fire Alarm: Each Thursday morning at 1100 hrs. there will be a test of fire alarms including sirens at the wharves.

(k) Cash Advances: Local currency is Venezuelan Bolivar and cash advances are made only in this currency. It is requested that any requirement for cash advances be included in vessel's radio ETA, to permit delivery on board on arrival.

REGULATIONS: Following regulations should be strictly observed by the vessel's crew whilst alongside or at anchor. Non-compliance with these instructions entails not only a fine but delays in cargo operations.

1. Use of rafts for painting the ship's sides is strictly prohibited.
2. Lifeboats should not be lowered without the special permission of the Government Port Captaincy.
3. Swimming in the harbour is strictly prohibited.
4. Waste water, sanitary or other must not be discharged on jetty.
5. It is strictly prohibited to paint ship's name or others on jetties. When this occurs the vessel will be charged for the cleaning.
6. Painting in ships alongside is strictly prohibited.
7. Before start of cargo operations it is compulsory to execute all requirements established in the Check List.
8. It is necessary to keep a close and constant watch on moorings and to adjust when necessary. When adjusting, call for assistance of tugs before slackening off any mooring lines, if the current is setting the vessel off the pier.

SHIPMASTER'S REPORT: December 1992.

Gangway: It is advisable to ask Agent if gangway available, as some are not in working order.

Moorings: Normal tie-up is 2-5-2. Springs are sent first, followed by breasts by shore messenger and finally head and stern lines.

AUTHORITY: Maraven, S.A. Apartado 829, Codigo Postal 1010A, Caracas, Venezuela. *Tel:* 908.2111. *Telex:* 23535, 23536. *Cables:* Maraven Caracas.

Section F

PUNTA DE PALMAS: 10.24 N. 71.34 W. (See Plan)

(N.B. For important details of Documentation, Pilotage, etc., see "Maracaibo Lake".)

OPERATORS: Maraven, S.A.

FLAG: The Authorities require the Venezuelan flag to be flown from the mast head from the time the vessel enters the outer channel to come into the port until it leaves again by the same channel.

LOCATION: The terminal is located at Punta de Palmas del Sur, approximately 13 miles South of the Port of Maracaibo on the West shore of Lake Maracaibo. The terminal proper may be identified by a 300 ft. radio tower, having 2 small red lights 200 ft. from the base, and 1 large red light on top of tower. The top light flashes every 2 seconds.

PILOTAGE: Vessels which arrive have the option of taking on the Official Pilot at the following places:

(a) In the outer channel of the Lake of Maracaibo, between Buoys B-24 and B-26.

(b) In the anchorage area, located approximately 5.5 miles to the N.E. of the Island of San Carlos and to the East of the Buoy B-17. This area is identified by a green light buoy, equipped with a radar reflector (position: Lat. 11° 04' 22" N., Long. 71° 33' 48" W.).

(c) On the "EM" Buoy (i.e. Entrance to Maracaibo), there is also a radar reflector (position: Lat. 11° 13' 47" N., Long. 71° 33' 31" W.).

The Official Pilot who comes on board at San Carlos will take the vessel to Maracaibo. At times, due to bad weather, the Maracaibo Port Captaincy cannot guarantee the embarkation or disembarkation of Pilots at the "EM" Buoy or in the anchorage at Lat. 11° 04' 22" N., Long. 71° 33' 48" W. For this reason, Masters must contact the pilots station at San Carlos so that they may give him appropriate instructions as to the place of boarding or disembarkation of the Official Pilot, who, generally speaking embarks between Buoys B-24 and B-26.

The system of communications which vessels use with the pilots station of San Carlos will be the morse lamp, radio-telephone or radio.

The frequencies on which San Carlos listens out are: Radio 2182 kHz. Radio-telephone 156.6 MHz. It also operates with frequencies 2080, 2120, 2638, 2738 kHz R/T and 156.8 MHz VHF.

Vessels sailing from Punta de Palmas will take on the Official Pilot at the mooring where they are located after having terminated their loading operations. This Pilot must be requested one hour and forty-five minutes before the estimated time of being ready to sail. Vessels which embark their Official Pilot at Punta de Palmas to sail to Maracaibo will change their Pilot again on arriving at that port. The Pilot who embarks will guide the vessel to the proximities of the Island of San Carlos, between the towers E-31 and E-33, where he will disembark onto a pilot launch. The Port Captaincy of Maracaibo has given instructions to shipping Agents for the purpose of informing Masters and Owners of vessels that every Master must identify himself in advance to the Pilot Station at San Carlos at any time of the day, when they are arriving at Buoys B-17 and B-19, and when they are sailing at T-42 and T-40. These instructions are of an obligatory nature in order to keep the Pilots' service informed at all times of any emergency that may arise. Also to avoid an Official Pilot going out unnecessarily from his base, especially during the night in the belief that the vessel which is in sight requires his services; in this case both the service of the launch and that of the Pilotage not given will be charged to the ship's Agent or Representative.

Lake Pilotage: An Official Government Pilot will assist every ship in crossing from Maracaibo to Punta de Palmas and in its exit voyage from Punta de Palmas to Maracaibo. This Pilot will also assist in the operations of mooring and unmooring. The Agent will inform the Master and the Official Pilot of the time determined for berthing the vessel when it arrives at Maracaibo. Vessels which load in Punta de Palmas must request a Pilot for their exit journey at least 1 hour 45 minutes in advance of the time at which they consider the vessel will sail.

CARGO DOCUMENTS: Vessel's clearance and cargo papers will be delivered to the Master on arrival in Maracaibo Harbour outbound. Maraven will accept no responsibility for delay in clearing a vessel due to unavailability of personnel from offices of the Port Authorities.

APPROACHES: The buoy which indicates the entrance to the outer channel ("EM" Buoy) is located in the geographical position: Lat. 11° 13' 47" N., Long. 71° 33' 31" W. The light of the "EM" Buoy has the following characteristics: white light, with 1 flash every 10 seconds, visibility approximately 5 miles. The distance between the "EM" Buoy and the inner extremity (South) of the inner channel, marked with Buoys B-27 and B-28 is approximately 15.75 miles. The outer channel has a width of 300 m. between the limit on both sides. The navigable portion for loaded vessels is 240 m. wide. The average depth which has been checked at low tide is 13.72 m. (45 ft.) and the tidal amplitude is up to a maximum of 1.49 m. (4.9 ft.). There is a breakwater located a half a mile to the East and parallel to the external channel which extends for 2,574 m. (1.6 miles) to the North from the Northern coast of the Island of Zapara. In its outer extremity there is installed the lighthouse of the steel lattice type construction, with a height of 7.62 m. (25 ft.). The characteristics of its light are: white, with 1 flash every 8 seconds, visibility approximately 5,556 m. (3 miles).

The commencement of the internal dredged channel is marked by Buoys B-29 and B-30. The extension of this channel is 19.31 km. (12 miles) approximately and ends at Towers T-55 and T-56. The channel is 244 m. (800 ft.) wide and its normal checked depth is 13.72 m. (45 ft.) at average low tide, with a tidal amplitude which varies between 0.49 m. and 0.89 m. (1.5 ft. and 3 ft.), at Tower T-66, and from 0.82 m. to 1.46 m. (4.5 ft.) at Buoy B-29.

The channel from Tower T-56 as far as the Port of Maracaibo is dredged and its termination is marked by Buoys B-73 and B-74. It is 244 m. (800 ft.) wide and has a depth of 13.72 m. (45 ft.). Its distance is 17 km. (11 miles).

The depth in all the channels may vary in accordance with the sedimentation to which they are subjected and the formation of sand banks. The Port Captaincy at Maracaibo issues Notices to Mariners keeping them informed as to changes in depths in the channels. Navigators are advised to keep themselves up-to-date with these notices of variations of depth when they calculate their exit draft of their respective vessels.

MAX. SIZE:

Berth	*Max. LOA*	*Max. Draft*	*Max. d.w.t.*
No. 1	835 ft.	38 ft.	80,000 tons
No. 2	835 ft.	37 ft. 6 in.	80,000 tons
No. 3	890 ft.	42 ft.	100,000 tons

Also see "Berthing".

RADIO: *Time of Arrival (ETA):* When a vessel leaves its previous port destined for the Terminal of Punta de Palmas, it must inform both its Agent and Maraven S.A. in Maracaibo as to its best estimate of the date and time of arrival in Maracaibo. Then at least 24 hours prior to arrival at the San Carlos pilots' station, it must send another message to confirm the time of arrival at Maracaibo. The nationality of the vessel, name, nett Venezuelan tonnage (if it does not have this, its registered tonnage), last port, name of Master, permanent ballast or cargo in tanks or both, and any other information which is pertinent must be included in this message. The cable address of Maraven S.A. is as follows: Maraven, Maracaibo, Telex 61126. By virtue of the circumstances that the Cable Office in Maracaibo is not equipped to communicate with vessels on the high seas directly, messages sent to Maraven S.A. and to the Agent of the vessel must be transmitted through "PJC" (Curacao), with the prefix "Via ACC" (All American Cables and Radio, Inc.).

We wish to emphasise that by virtue of the fact that our undertaking rents a part of its equipment which it uses for mooring vessels in accordance with the last message of arrival of the vessel, this message must be compiled with the greatest accuracy possible. Any alteration in the time and date of arrival affecting the vessel before or after the time indicated in its message, will be for the account of the vessel as will be the cost of rental of the equipment used.

Maraven S.A. is in no way obligated to carry out the mooring of any vessel, except at the estimated time of its arrival at Punta de Palmas, although exception is made where the vessel may have been delayed in Maracaibo by virture of reasons beyond the control of the Master.

TUGS: Tug service consisting of 2 tugs of not less than 1,600 h.p. each is provided by the terminal operator for all vessels. Both tugs will assist all vessels in mooring and unmooring operations. Should it be deemed necessary by the terminal operator to require a tug in addition to the 2 terminal tugs for mooring or unmooring vessels exceeding 750 ft. in length, charges for this additional service will be for the account of vessel.

Vessels which exceed 835 ft. overall length, and destined for Berth No. 3, require the assistance of at least an additional tug. This additional tug will remain at the convenience of the Terminal for the time that the vessel remains at the berth.

In all cases where there are adverse weather conditions, without taking into account the size of the vessel, the Operator of the Terminal, at his convenience, may request the services of an additional tug to protect the installations of the Terminal and the ship, which will be for the account of the vessel.

The Terminal Department will make the necessary arrangements through the intermediary of the ship's Agent, for contracting additional tugs. These services will be charged to the ship's Agent by the tug operator who is contracted.

MOORING: *Berth No. 1:* Located approximately 8.85 km. (5.5 miles) from the Terminal and 2 km. (1.25 miles) to the West of Buoys D-95 and D-96 in the Maracaibo Channel. Distance between the bow and stern buoys is 364.90 m. (1,200 ft.).

This berth is equipped, apart from the mooring buoys, with a transversal mooring pile on its Eastern side, submerged, with chain and cable the same as those of the Buoys. This does not interfere with the operations of mooring and unmooring.

Berth No. 2: Located approximately 8.85 km. (5.5 miles) from the Terminal and 2 km. (1.25 miles) to the East of the Buoys D-95 and D-96 and to the N.E. of Berth No. 1. Distance between the bow and stern Buoys is 350.50 m. (1,150 ft.).

This berth is equipped, apart from the mooring buoys with a transversal submerged mooring pile equal to that of Berth No. 1.

Berth No. 3: Located approximately 9.65 km. (6 miles) from the Terminal, 1.2 km. (0.75 mile) to the West of the Buoys D-95 and D-96 and approximately 914 m. (3,000 ft.) to the East of Berth No. 2. Distance between the bow and stern buoys is 365.76 m. (1,200 ft.).

This berth is equipped similarly to Berths No. 1 & 2 with a transversal submerged pile on the Western side of the berth.

Conditions applicable to all berths: (a) Vessels which have a total overall length of 239.26 m. (785 ft.) or more must be equipped with 2 tension capstans at the bow and on the after deck, with sufficient cable to reach the stern and bow buoys respectively.

(b) Every vessel loading at any of the berths must take i consideration that due to Government regulations, the vessel must ha a minimum clearance of 0.984 m. (3 ft.) below the keel at any point dur its transit through the Maracaibo Channel, without taking into acco the limitations of the channel assigned to the 3 berths by the Term Operator. In view of this regulation and the constant variations of t depths of the channel, Masters must be guided by the most recent "De Bulletins" which are issued by the National Channel Institute, and by t tide tables when they are planning their transit time through the chann and the maximum draft to which they may load their vessel.

Mooring procedures and rules applicable to mooring points: Every vess carrying out mooring operations at any of the 3 berths must arrive w a minimum draft of 3.65 m. (12 ft.) forward and respect the follow procedure and rules for berthing:

(a) Anchor: Vessels approaching the berths from the East, in the mo convenient manner and safely as possible they must drop their starboa anchor in its location once the vessel has been berthed, the chain fac East, with a length of not less than 137.16 m. (450 ft.).

(b) Mooring cables: One of the following alternatives for moor cables at each side of the vessel must be fulfilled:

1. Two cables of synthetic fibre (Nylon or Polypropylene) with 9 circumference and 1 steel cable which has a minimum diameter 1.25 in.
2. One cable of synthetic fibre (Nylon or Polypropylene) with 9 circumference and 2 steel cables also supplied by the vessel a which have a minimum diameter of 1.25 in.
3. One cable of synthetic fibre with a 9 in. circumference and safety cable of 1.5 in. diameter which will be supplied by the Termin

(c) Countertension cables: A countertension cable will be attached the stern or fore deck. Vessels which have a length exceeding 800 must use countertension cables on both sides of the de simultaneously.

(d) Transversal cable: The transversal cable which will be supplied the Terminal will be attached to the after deck on the starboard si Vessels mooring at Berth No. 3 must also attach an additional transver cable to the after deck on the port side.

(e) All cables which are attached to vessels must have 6 turns arou the bitts, and these must be secured so as to prevent them fr unwinding.

(f) The pressure capstans must be secured in the braked positi once all other cables for mooring the vessel have been secured. The mooring cables must be maintained tight as the vessel goes down the water whilst it is being loaded.

(g) Vessels must be supplied with sufficient cables as spares wh can be used as the Terminal may require. All cables must be maintain in good condition and are subject to acceptance by the representat of the Terminal. Vessels must maintain sufficient personnel on de during the whole time that the vessel is at the berth to attend to t cables for mooring purposes whenever this may be required by t Terminal.

It is understood by both parties that, when the Terminal may requ safety cables to be used, and where such are required, Maraven S accepts no responsibility for damages or losses occasioned to a vessel, installation or person due to the use or failure of this equipme

The vessel's gangway must be in position so that the moor supervisor or other personnel from the Terminal can come on board t vessel when it arrives at Punta de Palmas.

This gangway must be suspended whilst manoeuvres are be carried out, this for the purpose of obviating any damage to it occasion by tugs or launches.

Berthing Supervisor: The Berthing Supervisor of Maraven S.A. will co on board every vessel prior to its entrance to the berth to establish ra contact between the vessel, the Marine equipment and the Office at t Terminal.

Mooring gangs and equipment: The mooring equipment will be hand by the launches employed in the manoeuvres. The tug service wi available 24 hours of the day through the intermediary of the Term Port.

The mooring gangs will assist the vessel personnel in the operat of hoisting, connecting and disconnecting the 2×12 in. diameter load hoses. The approximate weight of the loading hoses is 4 tons.

The launches used for the manoeuvres will place on board equip to facilitate the work of connecting the hoses. This equipment will b the disposal of the vessel's personnel when required as are also launches to transport personnel.

Responsibility: The Master may request any equipment or service w he may consider necessary for a safe and efficient operation of his ve and the Terminal Operator will do everything within his power to this requirement. Therefore all owners and operators of vessels arr at Punta de Palmas will accept the responsibility of the safety inhe in the manoeuvring of their vessels and their movements to and f the Terminal. Maraven S.A. will accept no responsibility for losse damages occasioned to the ship, its installations and others unless s loss and damage be occasioned due to the faults in the instal belonging to the Terminal or operated by the Terminal with the exce of the security equipment.

Operational check list: At the time when the vessel is moored an hoses are connected, prior to the commencement of the operatio loading, the representative of Maraven S.A. on board will deliver t Master an operational Check List. The Master is require whomsoever he may appoint to carry out this work together with Ter representative, to check very carefully that all the safety regulations been fulfilled.

Berthing Supervisor: The Berthing Supervisor will have charts and which will be at the disposal of the Master and his advice if he s require it. The representative will also be available to inspect the ve tanks and to act as liaison between the Master of the vessel a Agent or with the Terminal of Punta de Palmas, to transm information relative to the ship. This supervisor must receive lodgi treatment at the same level as the ship's officers.

Unmooring procedure: When the loading operations are completed, the launches will proceed to remove all mooring cables from the buoys under the supervision of the official entrusted with the vessel or the Official Pilot, assisted by the Berthing Supervisor of Maraven S.A.

Documentation: The departure and loading documents will be delivered to the Master by his Agent or his representative, when he passes through the Port of Maracaibo.

BALLAST: *Deballasting:* It is understood that it is not permitted to discharge ballast in the lake, even though this may come from tanks used solely for ballast. Ballast will be discharged with the pumps of the vessel to the deballasting system which exists at the Terminal. As soon as the loading hoses are connected, the personnel of the Terminal will align the system with its respective valves. Once these operations are completed the Berthing Supervisor on board will inform the Master that he may commence deballasting and in turn will keep him informed as to the pressures which will be used in the operation. Once the deballasting operation has been completed, the personnel of the Terminal will align the system again and its valves so that the vessel can receive cargo through the same hoses which are used for unloading ballast and simultaneously the personnel of the vessel will align their systems on board to receive cargo. The personnel of the vessel responsible for receiving the cargo will inform the Representative of Maraven S.A.(Berthing Supervisor) when the vessel is in a condition to receive and he in turn will inform the personnel of the Terminal that they may commence pumping.

LOADING: *Oil leakage:* In order to obviate contamination of Maracaibo Lake and possible legal actions, we recommend strongly that Masters of vessels emphasise to their deck officers in order to obviate leakage that they make sure that all necessary measures have been taken on board to this end prior to commencing the loading operations. The purpose of this is to maintain on deck any leak or wastage which may occur in the vessel.

Guarantee of responsibility: In the event of an oil leakage or any other contamination or any other damages to installations caused by a vessel, the operator of the Terminal, prior to the vessel sailing, will require the Agent to deposit bond in favour of Maraven S.A. to cover the fine or other charges which may be incurred in collecting, cleaning, repairing the installations of the Terminal and also to cover any claims from third parties.

Loading procedure and pumping rates: The position of the loading hoses, supports and connections must be to the satisfaction of the personnel on board. The valves of the hoses for loading purposes will be opened in order to test the connections, detect leaks and then ultimately to commence operations.

The responsibility and custody of the cargo passes to the personnel of the ship from the moment when the cargo arrives at the connection which is the property of the ship.

The minimum loading rate at Berths No. 1 and 2 is 4,000 b.p.h. The average pumping rate, under normal conditions is 13,000 b.p.h. Sudden stoppages in loading will not be permitted during loading except in cases of emergency.

Personnel on board, responsible for the loading operations, must notify the Terminal representative, not less than 30 minutes in advance of the completion of loading. This will enable the representative to instruct the operator to reduce the rate of pumping or to continue loading by gravity as he sees fit.

For reasons of security, loading may be suspended and the hoses disconnected from the vessel's manifold when weather conditions are not favourable or at any time that the Terminal considers it convenient to do so due to *force majeure* or other reasons.

Displacement of the line: Sometimes it will be necessary to displace the submarine line in combination with the loading operation. To carry out this operation it is required that the personnel responsible for receiving the cargo notify sufficiently in advance the Berthing Supervisor when the amount of cargo lacking is equal to the capacity of the line.

The capacity of the line is a fixed quantity. Therefore it must not be considered with shortcomings or excesses.

Therefore when it is necessary to effect a displacement, the loading must be calculated carefully by the vessel personnel responsible for this operation.

It is understood that any error or negligence on the part of the vessel personnel in calculating the initiation point of the displacement of the line, will require a land pump to correct the displacement. Due to the submerged manifold it will be necessary to employ a diver to operate the valves and this operation may result in a fairly costly procedure and involve a lot of time. All costs involved in fulfilling this operation, together with the time lost will be for the account of the vessel.

Increase in pumping rates: At the request of the Master and subject to the approval of Maraven S.A., it is possible to suppy a pumping rate of 17,000 b.p.h. up to a maximum of 30,000 b.p.h., provided the operations of the Terminal permit this to be done.

MEDICAL: *Maracaibo:* Complete services are available.

Punta de Palmas: Emergency cases only will be transferred to Maracaibo for treatment, at the request of the official in charge of the vessel.

FRESH WATER: Available from local contractors with barges. Pumping will be affected during daylight hours and with prior permission of the Terminal.

FUEL: Heavy and medium marine diesel, intermediate fuel, and bunker "C" fuel oil available. Lubricating oils also available. Pumping will be affected during daylight hours and with prior permission of the Terminal.

STORES: Fresh and dry provisions procurable through ship chandlers in Maracaibo for delivery at the Terminal.

CONSULS: See "Maracaibo".

REPAIRS: *Maracaibo:* There are no facilities available for carrying out major repairs. Nevertheless, repair work may be carried out through local workshops and labour can be supplied if this is required. Technicians in radio, radar, gyro compass repairs are also available.

Punta de Palmas: No type of repair will be effected here, which may prevent the unmooring of the vessel without the authority of the Marine Supervisor. Neither may boiler tubes be "blown" whilst the vessel is moored.

SHORE LEAVE: Launch service for business purposes and emergencies is readily available. Launch service for shore leave can be arranged through contract marine service and will be responsibility of ship's personnel. Arrangements for shore leave transportation can be made through Loading Master on board.

CUSTOMS: All vessels entering from foreign ports and bound for Punta de Palmas Terminal are required to anchor in Maracaibo Harbour for formal customs clearance and visit of government port authorities prior to proceeding to destination.

The vessel's accommodation ladder should be rigged prior to the vessel's arrival at Maracaibo. A member of the National Guard will board each vessel at Punta de Palmas to observe all activities connected with loading or unloading operations. This official is authorised as the customs representative, and is referred to as Customs Watch. Food and accommodation similar to officers should be made available to him by vessel.

GENERAL:

Transportation: Transportation will be supplied by launch between vessel and Punta de Palmas to the following persons, without exception:

1. Master of the vessel or the Chief Engineer, to attend to matters relating to the ship.
2. Sick personnel who require emergency medical attention.
3. Official Pilot.
4. Members of the National Guard and other Government Officials whose services relate to the tanker.
5. Doctors, when these may be required by Master, in the event of emergency only.
6. Inspectors of the oil industry.

Consular representatives, ship's suppliers, engineers, naval experts, representatives of the oil companies, suppliers of fuel and water and any other person who requires to come on board tankers when they are in Punta de Palmas must make their own arrangements for transportation to and from the ship through the intermediary of the ship's Agent. Also Agents must make their own arrangements for their own transportation.

Personnel of the ship with licence to disembark: The transportation of personnel with licence, when this is required by the Master, must be arranged through the intermediary of the Agent. Also passengers must embark and disembark at the Port of Maracaibo.

Personnel with licence are not permitted to go ashore at the Terminal of Punta de Palmas.

Classification Societies: American Bureau of Shipping, Lloyd's Register of Shipping, Salvage Association of London, Det Norske Veritas, Bureau Veritas, Registro Italiano Navale and Germanischer Lloyd have Agents in Maracaibo or in Caracas. There are experts available through the intermediary of the Agents mentioned above.

Monetary System: The monetary system of Venezuela is the Bolivar (Bs.), and is the only money legally recognised in the country. A Master who requires a cash advance must request same from his Agent when he notifies his ETA. Payment of all invoices for Terminal charges must be made in Bolivares at the Office of Maraven S.A. in Maracaibo, unless other instructions are given.

Mail: Mail for the vessel can be delivered to the representative of the Agent who comes on board the vessel at the time of its arrival or sailing from Maracaibo.

AUTHORITY: Maraven S.A.

Capitania de Puerto, La Ciega – Maracaibo, Venezuela. *Tel:* 226488.

Section G

SAN LORENZO: 09.47 N. 71.05 W.

OPERATOR: Maraven, S.A.

LOCATION: S.E. side of Lake Maracaibo.

APPROACHES: Vessels have to arrive at Maracaibo Roads through a dredged channel with controlling depths of 45 ft. in outer bar, inner channel and Punta Palmas area. In vicinity of terminal the controlling depth is 36 ft.

PILOTAGE: It is compulsory from San Carlos to Maracaibo. Pilot normally boards vessel at Buoy B–26 (Position Lat. 11° 01' N. Long. 71° 35' W.). It is also compulsory for all vessels which have to load at any terminal located South of the bridge Rafael General Urdaneta. This bridge has a horizontal clearance of 656 ft. and a vertical one of 148 ft. at 45 ft. MMOLW level. Pilots have to embark and disembark at Maracaibo.

When Masters have no Pilot exemption Certificate for crossing outer bar, permission has to be requested by VHF or 2182 kHz prior to arrival, which is being granted on request.

ANCHORAGES: Masters may use the following:

(a) Near E.M. Buoy, (not recommended because of the distance from San Carlos. The pilot launch never reaches this point).

(b) At Maracaibo Roads.

(c) At terminal approaches, in accordance with depths available in the area, and ship's draft.

LIGHTENING POSITION: In the Southern lake Area, arrangements have to be made in advance. Also at Maracaibo.

HEALTH: Quarantine officials board vessels at Maracaibo Roads. Pratique cannot be granted by radio.

RADIO: San Carlos Pilot Station on VHF Channels 12 and 16. Emergency call 2182 kHz. Terminal has VHF Channel 12.

TUGS: Compulsory. When vessel is over 25,000 d.w.t. a second tug is required, which is available in the area, 1,200 h.p. each. There is also a launch to assist the vessel during manoeuvring.

BERTHING: Continuous wharf 2,340 ft. in length with dolphins. This terminal is only for handling crude and its products. Maximum berthing displacement: 20,000 tons.

	Berth No. 1	*Berth No. 2*	*Berth No. 4*
Max. LOA	560 ft. 00 in.	665 ft. 00 in.	
Max. Depth	24 ft. 06 in.	35 ft. 06 in.	Out of Service
Max. Draft	23 ft. 06 in.	34 ft. 06 in.	
Loading Rate	1,450 t.p.h.	2,000 t.p.h.	

These depths are referred to the minimum monthly observed lowest water level (MMOLW).

DENSITY: At berths 998 and at outer bar between 1020 and 1025.

FRESH WATER: Available ex-barge at Maracaibo Roads.

FUEL: Any grade. In case vessels require grade not available at berth it may be supplied ex-barge at Maracaibo, which has mixing equipment able to supply the grade involved. Rate 20 – 140 t.p.h.

MOORING-UNMOORING: Carried out by Official Pilots. Mooring is Head-out to facilitate departure.

DEBALLASTING: Installations have ballast pit with capacity 650 cu.m. Max. discharge rate 600 t.p.h.

TANK CLEANING FACILITIES: Carried out by outside contractor.

REPAIRS: Minor repairs only, including electronics.

LA CEIBA: 09.28 N. 71.04 W.

SHIPMASTER'S REPORT: 1979.

BERTHING: There is a cement loading installation about 2 cables South of the 160 m. long pier at La Ceiba suitable for vessels up to 120 m. in length.

The approach channel is dredged to 9 m.

END OF MARACAIBO SECTION.

MORON: 10.32 N. 68.11 W.

This Terminal finished operations in 1981. All installations have been dismantled.

Vessels loading/discharging operations are now performed at El Palito Marine Terminal operated by Corpoven, S.A.

ORINOCO RIVER

Including Section A – MATANZAS
Section B – PALUA
Section C – PUERTO ORDAZ
(CVG Ferrominera Orinoco)
Section D – PUNTA CUCHILLO
(Lagoven S.A.)
Section E – VENALUM TERMINAL

IMPORTANT: VHF compulsory. Vessels without at least a VHF radio aboard will not be attended to by the Pilots at the Barima Pilot Station and so will not be allowed to enter the Orinoco River.

GENERAL:

1. As early as possible, advise Puerto Ordaz Radio Station, (Radio Marina) call letters YVM, giving ETA at Buoy 0.1 of South (dredged) Channel.
   Shipmaster's Report: October 1982 (Updated 1988).
   Contact with YVM was made 48 hours before arrival Buoy 0.1; accordingly, 72 hours ETA sent via Curacao Radio.
2. 24 hours prior to arrival, send another ETA to YVM.
3. Upon arrival, adhere to following procedure:
   (a) Request permission to enter from "Barima Pilot", via Channel 16. *Do not enter* until granted permission; while awaiting, lay to or anchor at least 1 mile outside of Buoy 0.1.
   (b) All vessels must also communicate with the Point Barima Pilot Station, call sign "Barima Pilot" 2182 kHz HF or 43.18 VHF to be informed of traffic.
4. While navigating waterway, inbound or outbound, report position to YVM hourly on the hour.
5. No Pilot required nor available for navigation along channel at the Boca Grande of the Orinoco River.
6. The International Rules for Preventing Collisions at Sea apply outside of Buoy 27.
7. Anchoring in channel is forbidden.
8. Throughout Orinoco waterway, the down-bound loaded vessel is the privileged vessel.
9. It is compulsory to fly Venezuelan ensign inside of Buoy 0.1.
10. Vessels can only carry clean ballast within Orinoco Waterway.
11. Pilotage compulsory within Pilotage Zones No. 1 and No. 2 of Orinoco. Pilots board at outer boundary of said pilotage zone upstreamward vicinities of Buoy 27 up to Mile 128.1. Zone No. 2 from Mile 128.1 up to Matanzas.
12. Regulations for the Pilotage Zone No. 1 of the Orinoco apply ins of Buoy 27.

APPROACHES: (Also see "Radio" – paragraphs *(b)* and *(c)*).

1. *The Waterway*

A Radio Direction Finder (non-operational October 1982), located Lat. 08° 03' 45" N., Long. 60° 28' 28" W., transmits following sig continuously: YV – AYV. The transmitter has an output of 500 watts w a range of about 200 miles and operates on a frequency of 305 k While navigating the waterway, ships should favour the shore on th starboard side to the extent possible, giving preference of manoeu to loaded vessels in all cases. Ships navigating upstreamward (inbou upon approaching narrow channels should await the passing and g way to downbound vessels. It follows, therefore, that downbound load vessels are the privileged vessels.

2. *The Boca Grande (Barima Bar) Channel*

There is 1 navigable channel across the Boca Grande (Barima Ba Vessels navigating the dredged channel are privileged, regardless of direction in which they travel.

The Dredged Channel

The channel is a 400 ft. wide dredged channel. Depths there accommodate the maximum draft authorised by the Port Captain. T approach from the sea is marked by a battery-operated electric flash black buoy, identified with the number 0.1. This buoy is located in 4 of water at Lat. 08° 55' 52" N., Long. 60° 11' 17" W. Its characteris are: colour of light, white; flash, 0.5 seconds; eclipse, 11.5 secon height above water, 25 ft.; visibility, 11 miles. From Seabuoy 0.1, t channel develops along 4 different courses over a total distance 27.7 Miles to Buoy 27. The course reduces by about 7° True at each 3 turning points, located at Miles 9, 15 and 21 respectively. The in course of 234° 18' True continues to Mile 9 where it changes to 227° True. Upon reaching Mile 15, the course again changes to 219° 51' T to Mile 21. At Mile 21, the course changes to 212° 45' True to Buoy at Mile 27.7. The centreline of the channel on all courses is visu marked by range structures fitted with green flashing, direction beamed lights. The West (right ascending) side limit of the chan through Mile 21 is also visually marked by range structures fitted w amber flashing, directionally beamed lights; the alignment given by side ranges develops 200 ft. to the West and parallel to the centre of the channel. Battery operated electric flashing navigation aids located along both sides of the channel. All navigation aids along East (left ascending) side of the channel are located 325 ft. f centreline or 125 ft. outside of the channel lateral limit. White flash navigation aids are located at 1 mile intervals through Mile 25.1; all a along this side are black buoys, except Beacons 8.1, 9.1, 14.1, 1 20.1, 21.1, 22.1, 23.1, 24.1, 25.1, 27.1 and 27.7 (Buoy 27). All naviga aids along the West (right ascending) side of the channel are loca 200 ft. from centreline or on the exact lateral limit of the channel. F flashing buoys painted red are located at 1 mile intervals from Mile to Mile 11.6. From Mile 11.6 to Mile 27.7, there are only 2 aids; buoys 13.6 and 26.0.

3. *The River Channel*

From Mile 27.7, the navigable channel develops upstream. The r channel is generally deep and wide, except for the following 12 reac which require periodic dredging: Miles 27.7 to 36.5; Miles 37.3 to 3 Miles 53.1 to 54.2; Miles 99.0 to 106.5; Miles 109.1 to 111.0; Miles 1 to 131.9; Miles 136.6 to 139.0; Miles 141.2 to 145.8; Miles 146. 149.4; Miles 167.6 to 170.8; Miles 178.4 to 182.4; Miles 183.5 to 18 Dredged channels are normally 300 ft. in width, but occasionally ca restricted to a minimum of 250 ft. The depth maintained therein accommodate the maximum draft authorised by the Port Captain Notice to Mariners, the Port Captain has instructed all Masters and P to reduce speed and to proceed with caution while navigating aforesaid reaches, especially during the low water season.

4. *River Stages*

In response to the cycle of wet and dry seasons, the flow of the Ori River follows a relatively regular pattern of rise and fall each year. river normally begins rising in late March or early April and continu rise until it peaks at crest in late August. In September, the river be a fairly steady recession until the extreme low-water stage is reac generally in March. The amplitude of stage variation above the low plane of reference (0.0 ft.) at Palua (Mile 181.7) averages about with min. variations of 31 ft. and max. variations of 39 ft. The effec the flood rise decrease progressively below Palua and practically in the upstreamward vicinities of the Boca Grande.

5. *Tides and Currents*

(a) The indicated mean tidal range is 5.4 ft. Tidal influence i experienced above Mile 60 during high river stages. At low stages, a tidal effect can be observed throughout the wat although it progressively diminishes, moving upstream However, the tidal effect is still significant at Puerto Ordaz, Mi where a max. semi-diurnal change of 1.7 ft. has been recor

(b) The strength of river currents is generally commensurate wi the strongest currents occurring at high river stages. The v of currents at any one time generally decreases m downstreamward. However, in certain locations, this pat affected by particular characteristics of river width and sha well as by bottom gradient. Max. velocities of about 6 knots been recorded.

6. *Navigation Aids*

(a) The navigation aids installed along the waterway consist of beacon and ranges. All aids are lighted. Identification is p by means of numbers representing the approximate mileage aid, to the nearest one-tenth of a mile. The last digit of nu identifying green lighted aids is odd, while the last digit of nu

identifying red lighted aids is even. Green lighted aids mark the left ascending limit of the navigable channel, while red lighted aids mark the right ascending limit. Aids are placed as to be intervisible, to the extent that — when abreast of any one aid — the preceding and following ones can be sighted. Consecutive aids always carry different light characteristics. Buoys are normally placed on the exact lateral limit of the channel (except for black buoys along the South Channel at the Boca Grande); beacons, instead, are located at variable distances outside of the channel.

(b) During the execution of dredging along any of the reaches which require periodic maintenance, buoys are generally moved 100 ft. outside the channel lateral limits. This information is made available to ships by YVM.

(c) The Ministerio de Comunicaciones, Direccion de Transporte Aguatico, publishes semi-annually a complete list of navigation aids. Monthly lists of changes are also published so that the complete current list can be maintained up to date.

(d) Upon encountering damaged, inoperative, or misplaced navigation aids, vessels should immediately notify YVM.

(e) Vessels are forbidden to make fast to any navigation aid.

7. Dredging Aids

Range structures, generally located close to shore or over the bank, are normally used to mark the lateral alignments of the channel along the reaches which require periodic dredging. These ranges are generally fitted with amber flashing, directionally beamed lights. The lights are extinguished except during execution of dredging. Dredging ranges *are not* to be used for navigation.

8. Navigation Charts

Navigation charts of the Orinoco Waterway should be aboard vessels for use by the Master. These charts are sold by the Instituto Nacional de Canalizaciones and are also available for purchase from the CVG Ferrominero Orinoco. If requested, CVG Ferrominero Orinoco will, if possible, arrange to make the charts and latest revisions available through the Pilot who boards at Punta Barima, provided such request is received by radio (YVM) at least 48 hours in advance of the Pilot's boarding. A set of navigation charts, corrected to latest revisions, is maintained in the office of the Traffic and Ships' Agency of CVG Ferrominero Orinoco in Puerto Ordaz. Masters may use this facility to keep their charts up to date.

Report: 1986.

Deficient Navigational Aids:

The deep draft New Barima (South) dredged channel is officially a 400 ft. wide dredged channel, but in reality it is considerably less in portions. Many of the red buoys showing a flashing red light which should be placed 200 ft. from the centre of the channel or exactly on the lateral limit, are either missing, out of position or unlit. The light on the black buoy which marks the entrance of the channel is inoperative. Several of the gauge structures fitted with green, flashing, directionally beamed lights, are inoperative. This makes it hazardous for a deep draft vessel to navigate the narrow and shallow channel during the hours of darkness. During the rainy period the authorised drafts declared by the Port Captain are in excess of the depths in certain portions of the channel.

We have been informed that about 20 vessels grounded in this area during the first 6 weeks of this year (1986).

DOCUMENTS: (Clearance, documentation and other requirements).

1. Consignment of Inbound Vessels

The official documents of all vessels proceeding to Puerto Ordaz and Palua should show the following consignment: to: CVG Ferrominera Orinoco, Ciudad Guayama.

2. Customs Requirements

Vessels bound for Venezuela in ballast, without passengers, from foreign ports outside the West Indies or Guianas, require the following documentation:

The vessel must have a Clearance Certificate (Certificade de Zarpe) or sailing authorisation issued by the Customs Authorities of the port of departure, representing the government of the country the vessel is departing from. No consular certification need be placed upon this document.

Spare Parts List (Lista de Repuestos). It must contain a note of all the spare parts and objects for the service of the vessel, including fuel. To be signed by the Master and to be current as of the day of entering the Venezuelan port.

List of Effects for use of Captain and Crewmen (Lista de efectos personales de la dotacion). To be signed by the Master and to be current as of the day of entering the Venezuelan port. The Customs are very strict and will confiscate any article that appears new.

3. Health, Immigration, and Police Requirements

Vessels bound for Venezuela in ballast, without passengers, from foreign ports outside the West Indies or Guianas, require following documentation.

(a) Current individual International Vaccination Certificates for each member of the crew.

(b) Derat Exemption Certificate.

(c) Crew Lists (original and seven copies).

(d) Panama or Suez Canal or any comparable type measurement certificate.

Contraband: The Venezuelan law is very strict on this subject. It cannot be emphasised too strongly that all new articles, clothing, cigarettes, liquor, etc., must be declared and sealed-up upon arrival.

Meals for Pilots and Government Officials. It is requested these men be granted the privilege of eating in the officers' dining salon.

N.B. Masters of vessels calling at Trinidad for bunkers before proceeding to Venezuela must also have the documents stamped by the Venezuelan Consulate at Port of Spain.

PILOTAGE: In order to expedite the movement of shipping in the waterways, Masters are requested to establish contact with YVM station as soon as possible, giving ETA Seabuoy 0.1. At the same time a radio-telegraph message must be sent to Agents giving ETA Barima and cargo required. When vessels is 24 hours from Pilot Station, send another ETA via YVM.

After reporting the ETA in advance of arrival, try to contact directly, by VHF, "Barima Pilot" when the ship approaches Seabuoy 0.1 off the bar entrance (about 2 hours before arrival at the Pilot Station). (It is possible to contact Pilots 100 miles before arrival Seabuoy 0.1.)

After taking the Pilots aboard, report to Radio Marina (YVM) and continue giving the ship's position according to the mile, up-river, at exactly every hour on the hour, and receive from Radio Marina the pertinent information concerning the traffic in the river waterway. If no communication can be established by voice radio aboard, comply by radio-telegraph by way of the YVM station. See "Ship's Officer's Reports" in 1st Section – "General" and "Shipmaster's Report", June 1991.

Ship's Officer's Report: July, 1980.

Hourly position reports are made on W/T to YVM when the Pilot is aboard (He writes the telegrams in Spanish).

Pilots are the employees of the Venezuelan Government and act in an advisory capacity. The Master retains responsibility for the ship at all times.

(1) Pilotage is not required and Pilots are not available for navigation outside the pilotage zone. Masters will take charge of inbound and outbound navigation on the South Channel outside Buoy 27 at the Boca Grande, without Pilot's assistance.

(2) Pilotage is mandatory within the Pilotage Zones No. 1 and No. 2 of the Orinoco. Inbound vessels will embark the government River Pilot in the upstreamward vicinities of Buoy 27. It is important that vessels pass Buoy 27 and be in sight of the Pilot Station at Barima in order to avoid any delay, as Pilots may not proceed until vessel is sighted. The government River Pilot will pilot the vessel while navigating the waterway; a special government Docking Pilot will generally take the vessel into and out of the Puerto Ordaz harbour.

Signals

(1) All signals used outside of the Pilotage Zone No. 1 (that is to say, seaward of Buoy 27 – Mile 27.7) shall conform to the International Rules for Prevention of Collisions at Sea.

(2) Within the Pilotage Zones (that is to say, inside of Buoy 27 – Mile 27.7) the signals used shall be in accordance with the "Regulations for the Pilotage Zones No.1 and No. 2 of the Orinoco". It should be noted that these signals are peculiar to the Orinoco Waterway, and are not necessarily in conformance with the International Rules.

(3) Within the Pilotage Zone, special signals are used for passing dredgers at work along the waterway.

Speed

The Captain of the Port has the authority to impose speed restrictions. By means of "Notices to Mariners", the Port Captain has ordered that all vessels reduce speed while navigating by the following locations: San Felix Dock, Mile 179.8; El Toro, Miles 95.4 to 96.6. It is recommended that speed be also reduced while navigating by the Palua Dock (Mile 181.8), Barrancas (Mile 143.2), and Curiapo (Mile 60.4). At the inception of the low water season each year (generally in early January), the Port Captain has in the past issued a "Notice to Mariners" instructing all vessels to reduce speed and proceed with caution while navigating the following river reaches: (1) Miles 184 to 178, (2) Miles 171 to 167, (3) Miles 150 to 141, (4) Miles 140 to 137, (5) Miles 133 to 131, (6) Miles 112 to 109, (7) Miles 106 to 98, (8) Miles 55 to 53, (9) Miles 39 to 36.

ANCHORAGES:

(1) No ships are permitted to anchor in the South Channel at the Boca Grande. Vessels are to anchor at least 1 mile outside of Buoy EO or Buoy 0.1.

(2) Within the Pilotage Zones, no vessel is allowed to anchor in narrow channels, nor close to a turn.

(3) Between Buoy 27 — Mile 27.7 and Mile 137, vessels which need anchoring may do so by coming as close as possible to shore on the ship's starboard side.

(4) Between Mile 137 and Mile 184, the Pilotage Regulations provide for 3 permanent anchorages and 1 seasonal anchorage, as follows: Area No. 5 (permanent); Miles 139.3 to 140.4. Area No. 6 (permanent): Miles 150.1 to 151.7. Area No. 7 (permanent): Miles 178.0 to 179.0. Area No. 8 (seasonal): at the junction of the Caroni and the Orinoco. It should be observed that Area No. 7, as determined in the Pilotage Regulations, partially encroaches on the narrow (dredged) channel and on shore. Vessels are to anchor in the naturally deep and wide part of the area.

(5) The low-water anchorage (for 1 ship only) previously established by the Port Captain between Miles 182 and 183 is no longer in use. This area is currently used as the turning basin for vessels exiting the Palua Channel, upon sailing from the new Palua dock at Mile 181.8.

(6) If due to emergency a ship is required to anchor in places other than the designated areas, it should do so in such a way as not to obstruct the channel and by taking the necessary precautions to avoid swinging around.

(7) Upon anchoring vessels should notify YVM.

MAX. SIZE:

(1) *Max. permissible draft.* The Port Captain of Ciudad Guayama can establish the permissible draft for the Orinoco waterway to a maximum of about 44 ft.

(2) *Controlling Depths and Authorised Draft*

The draft authorised by the Port Captain for the Orinoco Waterway is made public by means of a "Daily Bulletin of Depths and Draft" (Boletin Diario de Profundidades y Calado). Each daily bulletin issued by the Port Captain carries the following information, in Spanish and English:

(a) Controlling (minimum) depth between Miles 194 and 0, and corresponding location.

(b) Authorised draft, in feet and decimals of feet.

The controlling depths given for locations comprised between Miles 184 and 42 are actual depths, and reflect depth conditions as of the date of the bulletin. The controlling depth given for locations comprised between Miles 42 and 0 is referred to MLWS and does not include the height of tide at high water.

The authorised draft may be predicted either on the controlling depth existent between Miles 184 and 42 or between Miles 42 and 0, dependent upon whichever is the least.

When the controlling depth between Miles 184 and 42 is the significant factor, the permitted draft authorised is at least 2 ft. less than the controlling depth in this sector.

When the controlling depth between Miles 42 and 0 is the significant factor, the permitted draft authorised is generally less than the mean low water springs controlling depth but occasionally can be equal to the mean low springs controlling depth.

Whenever the MLWS controlling depth existing between Miles 42 and 0 does not provide sufficient clearance under the keel of the vessel at low water, the Master is expected to navigate by the site where the controlling depth is located only at times when the height of tide will assure a safe passage.

(3) *Variations in authorised draft:*

(a) The authorised draft is generally increased or decreased by multiples of 6 inches.

(b) Throughout the year the authorised draft is susceptible to variations, according to the conditions of the depth and width existing in the channel at any one time. On the basis of average river stages it is estimated that the authorised draft should be about 33 ft. in the dry season from December to May.

During the rainy season, from June to November, the max. permissible draft may be as high as 44 ft.

HEALTH: Radio Pratique may be obtained by sending a message, after picking up Pilot, to the Port Health Officer, advising that there is no sickness on board, name of last port, ETA, number of crew and nationality of vessel and name and nationality of Master (This does not apply at Palua).

RADIO:

(a) Communications: Communications are generally handled through the radio-telegraph station at Puerto Ordaz, call letter YVM. This station is operated on a 24 hour basis. The operating frequencies are: 440 kHz; 472 kHz; 4322 kHz; 6505.5 kHz. The GMT — CQ times and frequencies are: 0900 hrs., 4322 kHz; 1200 hrs. 6505.5 kHz; 1430 hrs. 8722 kHz; 2000 hrs. 8722 kHz; 0030 hrs. 8722 kHz; 0300 hrs. 4322 kHz.

There is no charge for messages from ship to shore or from shore to ship handled directly through YVM. A VHF frequency modulated radio system provides voice communications along the Orinoco Waterway. Master sets for the system are installed in the Puerto Ordaz Radio-telegraph Station (voice call: "Master Radio"); Marine Radio handles shipping matters exclusively, The system consists of a high-band VHF frequency modulated voice radio network. To ensure a more efficient and satisfactory coverage, this system operates on dual frequencies alternating according to location, so that ships can either transmit on 161.700 MHz receiving on 159.000 MHz, or transmit on 161.150 MHz receiving on 159.850 MHz. For best results, ships should select frequencies according to the following: From sea to Mile 50: transmit on 161.700 MHz, receiving on 159.000 MHz; From Mile 50 to Mile 112: transmit on 161.150 MHz, receiving on 159.850 MHz; From Mile 112 to Mile 159: transmit on 161.700 MHz, receiving on 159.000 MHz; From Mile 159 to Mile 184: transmit on 161.150 MHz, receiving on 159.850 MHz.

Pilot station at Barima Bar, Palua and Matanzas are equipped with this system. For the Puerto Ordaz area, ships will transmit to Marine Radio on a frequency of 43.02 MHz and to others on a frequency of 43.18 MHz, receiving in both cases on a frequency of 43.18 MHz.

Ship's Officer's Report: July, 1980.

The VHF Channels listed are not available on standard marine sets. All VHF work is done on Channel 16 (Pilot to Pilot), and reporting on W/T to Radio Marina.

(b) Control of Navigation:

(i) Navigation on the Barima Channel at Boca Grande is free. However, vessels are requested to notify the Port Captain, Ciudad Guayama, via "Barima Pilots" on Channel 16, upon arrival at Buoy EO, giving ETA at Buoy 27, Mile 27.7.

(ii) Simultaneous navigation in opposite directions by 2 or more vessels is not permitted on the South (dredged) channel at the Boca Grande. The restriction is placed on inbound traffic, to the extent that any vessel wishing to enter the South channel requires prior authorisation from the Port Captaincy of Ciudad Guayama. The request for permission to enter the South channel is to be addressed to the Port Captain, Ciudad Guayama, via "Barima Pilots" on Channel 16. and is to be transmitted before the vessel reaches Buoy 0.1. Upon receipt of the request, the Port Captain will notify the vessel via "Barima Pilots" on Channel 16, whether permission is or is not granted, indicating, in the latter case, the approximate waiting time. Until permitted to enter, vessels are to anchor at least 1 mile outside of Buoy 0.1. Once that authorisation has been granted, vessels are to enter the South channel at the earliest opportunity.

(iii) While navigating the Orinoco Waterway inbound or outbound vessels are to report their position to YVM hourly on the hour. Seaward of Punta Barima, to "Barima Pilots".

(c) Accident, Stranding, etc.

(i) Should a collision, stranding or other accident occur in the waterway, or should it be found necessary to take control of the vessel away from the Pilot for any reason, the Venezuelan law requires that a written report be made to the Captain of the Port by the Master of the vessel involved within 24 hours. The report is to be addressed to the Captain of the Port and may be handed to the Pilot or the ship's Agent for delivery. The Master need not appear in person before the Captain of the Port unless specifically ordered to do so.

(ii) Slight groundings or touching of banks and bottom may simply be noted on the reverse side of the receipt for pilotage signed by the Master.

(iii) In case of collision, stranding, slight grounding, touching of banks and bottom, or other accidents, vessels should immediately notify YVM.

SHIPMASTER'S REPORT: January 1989.

Vessel proceeding to Matanzas.

Apparently the entrance to the River Orinoco at Boca Grande h been upgraded.

All the buoys now have solar energy cells as well as photo-cells activate them at dusk.

The North entrance no longer exists, only the South Dredged Chan is used. A Racon had been installed on Mile 0.1 (Sea Buoy). Curr entrance information is given by Puerto Ordaz Radio Station (YVM), w which vessels should make contact as soon as possible. As usual, pi board the vessel between Miles 27-28. It is advisable to reduce spe beforehand, to be able to embark the pilot before Mile 28, as pilot b is not fast and there is a considerable bend at Mile 28. Also it is advisa to familiarise yourself with the buoys and ranges up to Mile 30 wh entering, as the down-bound pilot usually disembarks between Mile 31 and there are 3 short distance bends before Mile 28. On our passa as many as 4 buoys were out of position, one buoy was unlit at the range, and Sea Buoy (0.1) Racon was inoperative.

SHIPMASTER'S REPORT: June 1991.

Boca Grande Bar:

(a) Pilotage has become compulsory through Boca Grande Bar starting from Buoy No. 0.1) for the ships having LOA more than 200 since March 1991. Therefore, Orinoco River traffic is applicable throu the Boca Grande Bar as well.

(b) Pilots board at Fairway Buoy (Orinoco No. 0) by means of helicopter.

(c) The Bar has recently been dredged to sufficient depth. There w 10 ft. – 15 ft. keel clearance experienced up to Buoy No. 1 (disregarding moving mud), and became shallower up to Buoy No.

Section A

MATANZAS: 08.17 N. 62.52 W. (See Pla

N.B. See "Orinoco River" for all important entry requirements.

LOCATION: At Mile 195 from sea on Orinoco River.

ANCHORAGES: Between Miles No. 195 and 197, Orinoco River.

MAX. SIZE: Length 600 ft., breadth 74 ft., distance between rail a hatch coaming 23 ft., max. draft 41 ft. in rainy season May to Novemb and 28 ft. in dry season.

Note: A vessel with LOA 738 ft. has berthed at Matanzas.

RADIO: See "Orinoco River". Cables address of Matanzas termi operators is "Sidor Matanzas – Telex 86366" and cables may be rou through Caracas, Curacao or Trinidad Radio.

TUGS: Every vessel over 2,000 registered tons is required to use a when berthing. Tug is 1,600 h.p.

BERTHING: Reinforced concrete structure consisting of 3 diffe sections running in a straight line, bearing 065°.

From West to East, 3 sections should be pointed out:

The first section, some 320 m. long, is used mainly for unloading cargoes. Depth 10 m. below MSL.

The second section, 400 m. long, is for handling steel produ Depth 11 m. below MSL.

The third part, some 280 m. long, is for general cargo. Depth 1 below MSL.

The level of the river fluctuates from 0.6 m. over MSL at low water in the dry season (February – March) to 14 m. over MSL at river water in the rainy season (July – August).

The river bed drops sharply from the edge of the pier to the naviga channel where the depth reaches 30 m. below MSL.

Berth No. 1: Runs from bollard No. 1 to No. 7, length 155.30
Berth No. 2: Runs from bollard No. 7 to No. 14, length 176.38
Berth No. 3: Runs from bollard No. 14 to No. 24, length 204.2
Berth No. 4: Runs from bollard No. 24 to No. 33, length 182.7
Berth No. 5: Runs from bollard No. 33 to No. 39, length 160.4
Berth No. 6: Runs from bollard No. 39 to No. 44, length 158.8

In addition there is another berth, length 149 m., South of No. 6, 24 ft. of water under MSL, that runs from bollard No. 38 to No. 44

The reinforced concrete platform is 25 m. wide at the first section 20 m. at the second and third sections. The surface of the pier is 15 over MSL.

CRANES: Berths No. 1 and No. 2 are served by 2 "Ceretti Tan bulk unloaders of 22 tonnes capacity, able to handle clamshe 4.5 cu.m., for iron ore, lime stone and other heavy bulk, 10 c clamshells for coke and other light bulk and orange peeler and ma for unloading scrap iron.

The reach of these cranes is 10 m. from the pier edge. The wo field is from bollard No. 2 to bollard No. 13.

Berths No. 3 and No. 4 are served by 6 "CMI" gantry/trolley c fitted with 2 hoists of 15 tonnes each, with a total capacity of 30 t with the 2 hoists in tandem. The working field is from bollards N to No. 31.

Berths No. 5 and No. 6 are served by 3 "Ansaldo" gantry/trolley c of 16 tonnes capacity. The working area is from bollards No. 35 to N

At bollard No. 34 there is a stationary rotary derrick of 400 t capacity and a reach of 18 m.

In addition, there are 3 "Grove" auxiliary moving cranes, telescopic type, with a rated capacity of 80 tonnes able to work part of the pier.

WAREHOUSES: From bollard No. 14 to bollard No. 29, running the South edge of the pier, there are 10 adjoining wareho 30×100 m. each, 3 of them open at either end and the four in the roofed. All of them are provided with 1 gantry crane of 25 tonne

STEVEDORES: Operations are round the clock, 7 days a week.

MEDICAL: Private hospital and several doctors available.

FRESH WATER: Available at rate of 12 t.p.h.

FUEL: Available ex-barge.

REPAIRS: Local workshops undertake minor repairs.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle spirits allowed per crew member for personal consumption.

AIRPORT: Matanzas is served by Puerto Ordaz Airport with several daily flights from Caracas.

POLICE/AMBULANCE/FIRE: The entire length of the pier is fitted with fire hydrants and at the steel mill, about 6 km. away, there is a well equipped fire brigade with firetrucks, ambulances and rescue vehicles.

A first aid centre is located close to the fire station.

TELEPHONES: No telephones or telex services are available at Matanzas for the use of vessel's personnel. Local telephones only available at the pier and dock supervisor's office. Recommend vessels use their VHF to communicate with their Agents while at anchorage and when alongside.

IDENTIFICATION CARDS: Provided by authorities, and necessary if crew going ashore.

REGULATIONS:

Pollution: Venezuelan law and Sidor's port regulations are very strict on air and river water pollution, the following restrictions being in force:

1. No smoke to be ejected from vessels' funnels while moored at Sidor's pier.
2. No waste, refuse or garbage to be dumped in the river while in the river channel, at Matanzas roads or laying alongside the pier.
3. All waste, refuse or garbage kept on deck, to be sprayed with anti-vermin and kept covered.
4. No salt water ballast, bilge water, oils, refuse water from galleys and lavatories, etc., to be pumped into the river.

In addition to whatever penalty the vessel shall incur under Venezuelan law, Sidor reserves its right to place the offending vessel "off hire" until she has complied with the regulations.

Safety: Under Sidor's security norms, every person which, for whatsoever the reason or business, has to transit or stand on the pier's platform is bound to use a hard hat. People doing any kind of work on the pier have also to use safety shoes.

GENERAL: Sidor's pier will discharge and/or load cargoes for other industries of the area provided a berth is available and no Sidor vessels are waiting. Permission for such operations must be requested prior to vessel's arrival.

Sidor require Agents to provide stowage plan and cargo documents prior to vessel's arrival otherwise Notice of Readiness will not be accepted.

SHIPMASTER'S REPORT: January 1990.

Approach: The approach is through Boca Grande South Channel from Buoy 0.1 without a pilot, to the Barima Pilot Station which is up-stream of Buoy No. 27.0.

Prior to arrival call "Amacuro Pilot" on VHF Channel 16 when within range, up to 100 nautical miles.

Vessels only enter the channel after having been granted permission by the Pilot Station.

The Racon on the Fairway Buoy is inoperative.

B.A. Chart No. 3322, addition 1971, last correction 1170 of 1988 is not up-to-date.

The numbers on the buoys indicate the distance in miles from the entrance of Matanzas (Mile 194.5).

The pilot who boards the vessel at Buoy No. 27.0, takes the vessel to Matanzas where he hands over to the harbour pilot.

Also see "Shipmaster's Report" below.

Loading: Gangs are available throughout 24 hours.

The working hours are 0730 – 1100, 1200 – 1500, 1500 – 1800, 1830 – 2230 and 2300 – 0630 hrs.

We worked with 2 gangs and the rate was 300 tons – 500 tons per shift/gang. We loaded bundles of re-bars which weighed about 1.8 tons each. The tally is carried out ashore and vessel has to ask for copies of the tally sheets.

Garbage: Garbage has to be stored on board in bags and can be removed by lorry via the Shipchandler.

Stores: Stores are available but it is advisable to get quotations. There are department stores and shopping centres in the vicinity.

Transport: Taxis are available to take personnel to the town, but only licensed taxis are permitted to enter the plant.

SHIPMASTER'S REPORT: July 1993.

Buoyage: The red buoys, when proceeding inwards, are and must be left on starboard side.

The red buoys are numbered 1.0, 2.0, etc. up to 27.0, where the pilots of Punta Barima board the vessel when going to the Orinoco ports, and the pilots leave ships at Buoy 32 when coming from Orinoco ports to sea.

OPERATOR: C.V.G. Siderurgica del Orinoco C.A., Codigo Postal 8016, Matanzas, Ciudad Guayana, Estado Bolivar, Venezuela. *Tel:* 991111 and 991118. *Telex:* 86366 and 86229 (Sidor). *Cables:* Sidor Matanzas.
Contact: Superintendent, Port Services.

Section B

PALUA: 08.21 N. 62.41 W.

N.B. See "Orinoco River" for all important entry requirements. Specific details, relevant to Palua only, are as follows:

SUPPLIER: The ore supplier is CVG Ferrominera Orinoco C.A., cable address "Ferrominera". Their Palua office is fitted with VHF radio-telephone on 161.150/159.850 MHz and 2182 kHz (call).

CLEARANCE: Agent will secure the Clearance dispatch.

Note: The Palua dock and facilities are the private property of CVG Ferrominera Orinoco C.A. All Company regulations must be obeyed by vessels and vessels' personnel.

The Bill of Lading will be prepared by CVG Ferrominera Orinoco C.A., also the Commercial Invoice on the Consular Invoice form 138. The Inward Foreign Manifest, U.S. Customs form 7527–B, should be prepared by Master after sailing from Palua.

MAX. SIZE: Max. d.w.t. 100,000 tons. Max. LOA 274.32 m. Max. beam 33.53 m.

HEALTH: The vessel will be boarded by the Public Health Doctor after docking at Palua; unless instructions to the contrary.

In the event that the Authorities have to board the vessel anchored out in the stream, an accommodation ladder should be rigged, preferably on the starboard side, to keep the port side clear for docking. Venezuelan authorities and workmen will not use Pilot ladders.

RADIO: Should a vessel receive radio advice at sea to proceed to Palua, and the clearance is to another port, it is requested to send following information to "Ferrominera" at earliest convenience. i.e. Master's full name and nationality, vessel's nationality, port and number of register, net and gross tonnage, type of vessel M/V or S/S, vessel's overall length and width, last port of call, original port of destination. This is necessary in order to comply with the Venezuelan Custom Law.

BALLAST: To provide the best manoeuvring trim on docking, it will be at the discretion of the Master to properly ballast the vessel. But in order to lose no time on loading operations, as well as to prevent short loading, the ballast should be pumped out as soon as possible, using utmost caution not to pump oil or sludge overboard in the port area.

APPROACH AND DOCKING: After passing the village of San Felix, and before reaching the turn off from the main channel, 2 tugs and a Docking Pilot will meet the vessel and will assist in the docking manoeuvre. Although the Master will always be responsible for the vessel's movements either in the case of docking or undocking, the Docking Pilot will actually pilot the vessel to, and dock the ship at Palua.

At Mile 180.5 the ship should leave the main channel, turning to the left to follow the new dredged entrance channel of approach which is marked by 2 flashing buoys: white on the port and red on the starboard side. Diamond-shape range marks of 6 ft. side, painted white with black diagonal cross, indicate the centre line of the approach channel. The front range, fastened on the ore loading pier, shows flashing green light, and the rear range, set on a tower shows flashing green light, and the rear range, set on a tower approximately 2,000 ft. away, has fixed green light.

The docking shall be port side to in all events; and please stow all hatch boards, or pontoons, or steel battens, etc., on the starboard side of the hatch as this will keep the gear cleaner and lessen the work of the ore handling gang.

Vessel's accommodation ladder is used. Nothing should overhang the port side of the vessel on docking.

If the loading berth is not available the arriving vessel would be instructed to anchor at an anchorage just below the entrance to Palua approach channel at Mile 178.

LOADING DOCK: The ore loading port is located at Mile 181.5 of the Orinoco waterway, along the left bank going up-river. The steel dock here is aligned up and down stream in the general direction of the current. It is 907 ft. long between its pointed heads, with 791 ft. of boarding side along, the deck fixed at about 6 ft. over the maximum rise of the river in the flood season. It has a strong fender system of steel structure covered with timber overhanging the side, down to near the lower river stage; and is fitted with 14 bollards plus 2 more, one on each head, for proper docking and securing the vessel.

Once the vessel is moored alongside the new ore loading dock, there shall be no further shifting necessary to load, as the loading tower moves along the dock on rails to facilitate the loading through the various hatches.

LOADING: The ore handling and loading equipment for Palua has a max. capacity to load 3,000 metric tons of ore per hour (average 2,500 metric tonnes per hour), for the time being. With this capacity, the vessel's mooring lines should be tended during the operation.

The boom of the loading tower is so designed as to allow free movement in any direction, fore and aft. The gantry and boom travel along the dock for a distance of 518 ft., and can place the ore at a distance horizontally out from the dock fenderline of 23 ft. minimum and 62 ft. maximum at the highest water stage, and from minimum 29 ft. to maximum 67 ft. horizontally out at the lowest stage (Ship's Master reports outreach is 55 ft.).

Care must be taken during the course of loading to avoid piling the ore too high in the holds, as this necessitates hand trimming before the hatch covers can be properly secured, and incurs unnecessary trouble.

UNDOCKING: The Master, assisted by a Docking Pilot, if required, will handle the vessel on leaving the dock, going upstream from the dock not less than 0.75 miles distance to the turning basin in the same heading as when the ship moored alongside. Two tugs will go alongside the ship prior to undocking and will assist the vessel until it is headed downstream in the main Orinoco Channel. The amber lights at the heads of the dock form a range to mark the shoreside boundary of the local dredged channel. A red light high up on the loading gantry will come in the same range as the 2 amber lights. In the turning basin a tug-boat will assist the vessel swinging downstream.

When the ship is in the main channel, properly headed downstream, the Docking Pilot will leave on the tug, and the River Pilots (2 of them) will assume the navigational direction. Report to Radio Marina by voice radio and give ETA at Mile 27.

Report again to Radio Marina giving position every hour, and try to contact Barima Pilot Station sometime before arrival at Mile 31, where the Pilots will disembark.

If voice radio communication is not possible, comply by radio-telegraph by way of the YVM station.

GAS-FREE CERTIFICATE: Vessels reporting to Palua to load ore should have the holds and cargo compartments swept clean and ready to receive cargo. Also, any combination ore/tanker vessel tendering to load iron ore at Palua shall present, along with the Notice of Readiness, a Gas-free Certificate if said vessel has in the past been employed in the carriage of petroleum products. Such certificate shall be dated subsequent to the discharge of the vessel's last petroleum cargo. But they are advised that around Palua in Venezuela there is no chemist available for granting such a Gas-Free Certificate. It may be secured before arriving at Venezuela by calling at Trinidad, reporting to cable address: Harriman, Port of Spain.

In case of necessity, or for convenience, it could be arranged for the chemist to travel to Venezuela to meet the ship in Palua, advising Harriman (Port of Spain) at least 3 days before arrival at Palua.

If the vessel is equipped with a gas-indicating meter (explosimeter), CVG Ferrominera Orinoco C.A. will accept the Master's certification in writing that the vessel is gas-free. However, they reserve the right to check the vessel with their own equipment prior to acceptance.

MEDICAL: There is a medical dispensary at Palua, and a hospital of the Company at El Pao, where seamen may be admitted when requiring hospitalisation in emergency cases.

CONSULS: See "Puerto Ordaz".

REPAIRS: Minor emergency repairs of mechanical, electrical and electronic types may be carried out in the shops by the personnel of the Iron Mines Company of Venezuela. The American Bureau of Shipping has a surveyor at Puerto Ordaz, near Palua.

FLOOD SEASON: The port experiences a yearly flood season from the middle of June to the middle of November, to a max. of about 38 ft. at the last days of August, above the lowest stage (during the first days of April) in the dry season that occurs from the middle of November to the middle of June.

TIDE: The wind in the locality blows generally upstream, and on exceptional occasions during the dry or low-river season, when the current is weak, does overcome the current and cause the anchored ships to tend with stern upstream.

FRESH WATER: Drinking water is available at the dockside in limited quantity of about 100 tons every 24 hours. Small amounts of fresh provisions may be obtained in the locality.

FUEL: All grades of bunker fuel are available at Palua, delivered by barge.

DENSITY: 995.

REGULATIONS: The Venezuelan law is very strict on the subject of contraband. It cannot be stressed strongly enough that all *new* articles, clothing, cigarettes, liquor, etc., must be declared and sealed up on arrival.

Concerning passes, the regulation states that "members of the crew who are not officers of the vessel, in order to go ashore and return aboard, have to be supplied with an identification card to be issued by the Purser of the vessel or his substitute, which card will contain the name of the vessel, the name of the crew member and the date of issue. This card will have to be signed by the person issuing same and has to be authorised by the respective officer of the Port Captain's office for the district".

Section C

PUERTO ORDAZ: 08.21 N. 62.43 W.

OPERATORS: CVG Ferrominera Orinoco.

LOCATION: The operations of the CVG Ferrominera Orinoco are centred in the State of Bolivar in Eastern Venezuela and iron ore is loaded into ocean-going vessels at Puerto Ordaz (08° 21' N., 62° 43' W.), at the junction of the Caroni and Orinoco Rivers, approximately 184 nautical miles from the open sea.

GAS-FREE CERTIFICATE: Any combination ore-tanker vessel tendering to load iron ore at Puerto Ordaz shall present, along with the Notice of Readiness, a Gas-Free Certificate if said vessel has in the past been employed in the transportation of petroleum products. Such certificate shall be dated subsequent to the discharge of the vessel's last petroleum cargo. Gas-Free Certificates can be obtained through an approved surveyor in Puerto Ordaz.

APPROACHES: See "Punta Cuchillo".

MAX. SIZE: Max. d.w.t. 115,000 tons. Max. LOA 289.56 m. Max. beam 39.01 m.

HEALTH: Vessels could be boarded by the Public Health Doctor in the stream off Puerto Ordaz. He will not come up a Pilot ladder and will insist on an accommodation ladder which should be rigged and ready when he approaches. In order not to delay docking, this accommodation ladder should be rigged on the port side during low river stage, and starboard side during high river stage. If vessel moves directly to berth, Health Doctor will board vessel at dock.

RADIO: Should a vessel receive radio advice at sea to proceed to Puerto Ordaz, and the clearance is to another port, the Master must radio station YVM Puerto Ordaz, and advise the name of the vessel, flag, port of embarkation, original port of destination, Master's name and number of members in the ship's crew. This is necessary in order to comply with article 17 of the Venezuelan Customs Law.

TUGS: All vessels touching at Puerto Ordaz will be assisted by a tug in docking and undocking manoeuvres. Line-handlers are available on the dock to secure mooring lines on vessel's arrival, and to release them on vessel's departure.

BERTHING:

1. **The Harbour:** The Puerto Ordaz Harbour extends from Mile 183.5 to Mile 184.1 of the waterway. The harbour consists of a natural basin formed by the mouth of the Caroni as it flows into the Orinoco. The width of the turning area within the basin varies from a min. of about 1,60 at low water to a max. of about 2,000 ft. at high water. The lighted bu marking the navigable limits on either side of the harbour are move different positions according to river stages in order to achieve utilisation of navigable waters. The bottom of the harbour is gener rock, with scattered layers of sand overburden deposited as sedim by the river. This sand is regularly removed by dredging in orde maintain depths which will accommodate the maximum draft authori by the Port Captain. The bottom configuration across the harb consists of a rocky shelf extending about 900 ft. from the face of t dock. Beyond this shelf the bottom slopes steeply into a deep gor then rises to form a sandy beach along the opposite shore. The veloc of river currents at this site varies according to stage levels. A slo current is generally experienced over the rocky shelf adjacent to t dock, with velocities averaging about 1.5 knots at flood stages and ab 0.5 knots or less at reduced river stages. The velocity of the current o and along the deep gorge averages about 3.5 knots at flood stages a 1.5 knots or less at reduced river stages. During extreme low water, t basin is subject to tidal influence and the velocity of currents is minim although there is no reversal of flow. The direction of the current is ain slightly toward the face of the dock at its S.E. end but deflects aw from the pier about 500 ft. downstreamward. Access to the harbou by way of a naturally deep and wide fairway which is the continuat of the gorge as it enters the Orinoco River.

2. **The Dock:** The Puerto Ordaz Dock is located along the ri ascending side of the harbour and extends outward from shore o S.E. by East alignment. The all-steel fixed-height dock is 1,885 ft. lo its elevation is 41 ft. above low water plane (0.0 ft. stage). This doc fitted with a strong fender system and with a sufficient number accessible bollards for proper docking and securing.

3. **Arrival:**

(a) Notice of Readiness: When completely ready to receive ca vessels will submit "Notice of Readiness" to CVG Ferrominera Orino Vessels will normally be loaded in the order in which Notices Readiness are accepted by CVG Ferrominera Orinoco. The Compa will advise when the vessel may proceed alongside the dock.

(b) Docking: Special Docking Pilots are provided for the docking a undocking of vessels at Puerto Ordaz. These Pilots are qualified R Pilots, thoroughly familiar with local conditions. All vessels will d starboard side to. During the low water stage, which is from the mid of November to the middle of June, no gangway should be rigged a nothing should overhang the starboard side of the vessel. When the r is sufficiently high which is from the middle of June to the midd November vessels are requested to have starboard gangway accommodation ladder rigged and ready to lower immediately a docking in order to expedite the commencement of loading. Venezue authorities and workmen will not use Pilot ladders. Vessels reportin Puerto Ordaz to load ore should have holds and cargo compartme broom clean and ready to receive cargo. Considerable time will be gai if this requirement is met prior to reporting.

(c) Hatches: On arrival at Puerto Ordaz all hatch boards or ponto beams, tarpaulins, steel battens, wedges, etc., should be stowed on port side of the hatch. This will keep the hatch gear cleaner and les the work of the ore handling clean-up gang.

(d) Ballast: In order to lose no time with the loading operations, as as preventing short-lifting, all ballast should be pumped out before ar at the dock. Use utmost caution not to pump oil or sludge overboar the port area. CVG Ferrominera Orinoco Ships' Agency Represent will contact vessel on arrival and will assist in every way possible.

4. **Departure:** All vessels which have completed loading at Pu Ordaz and have received the latest river information from the port offi and are ready for their river transit in every respect, will proceed outw via the Orinoco Waterway, disembarking the Pilot at Mile 27. Once Pilot has disembarked, vessels shall proceed over the South (dred Channel to Mile 0, and exit the waterway.

MEDICAL: There is a hospital at Puerto Ordaz which will admit sea requiring hospitalisation.

TANKERS: See "Punta Cuchillo".

FRESH WATER: Drinking water is available alongside the dock.

FUEL: Bunker "C" and diesel oil is available.

CONSULS: An Italian consulate Agent at Puerto Ordaz, nearest co for other countries at Cuidad Bolivar or Caracas.

REPAIRS: Minor emergency repairs may be carried out in the sho CVG Ferrominera Orinoco.

TIME: The legal time of Venezuela, which is 4 hours behind GMT, be used in Pilotage Zones No. 1 and No. 2 of the Orinoco River.

SHORE LEAVE: Permitted, but it is mandatory that all crew mem should report back to their respective ships before sailing time.

GENERAL: 1. *Ore Loading Equipment:* The ore handling and lo equipment installed on the pier has a speed ratio of 6,000 metric of ore loaded per hour. Due to this great loading capacity the ves mooring lines must be tended at all times.

2. *Handling Facilities:* A movable 110 ton, rail mounted stiff-leg d is installed on the dock for the handling of general cargo.

3. *Provisions:* Small amounts of fresh provisions are available.

4. *Surveyor:* The American Bureau of Shipping has a non-exc surveyor in Puerto Ordaz. Lloyd's has an Agency in Ciudad Boliva a branch office in Puerto Ordaz, and will appoint surveyors upon re

SHIPMASTER'S REPORT: October 1986.

Terminal: Interalumina Terminal.

Location: Lat. 08° 18.7' N., Long. 62° 49.0' W.

Local Time: GMT minus 4 hours.

Approaches: Vessel can anchor 3 miles North of Sea (Lat. 08° 56' N., Long. 60° 10.4' W.). Contact Punta Barima Pi Amacuro Pilots on VHF Channel 16. After obtaining permission, must proceed to inbound buoyed channel without Pilot for 27 mi to Buoy No. 27.1. Channel of sufficient depth, variable width be very narrow at times. One way transit only. Current sets are va

Pilotage: River Pilot boards at Buoy No. 27.1 and continues till 2 miles before berth. There are various buoyed channels enroute with dredging in progress. Several bends in the river, requiring close watch on steering at all times. For outbound pilotage, River Pilot and Berthing Pilot board at berth with River Pilot disembarking at Buoy No. 32.1.

Berthing: Berthing Pilot boards 2 miles before berth. Length of berth over 300 m. One tug available. Multi-purpose berth for alumina loading by chute and bauxite discharge by grabs. Sufficient depth alongside.

Loading: Cargo worked throughout 24 hours. Loading by conveyor-fed telescopic chute, capacity about 1,000 t.p.h. Chute reaches all holds.

Density: About 995 alongside berth.

Fresh Water: Available at berth, good for washing water but unsuitable for drinking.

Bunkers: HFO and DO can be supplied by barge.

Provisions: Fresh provisions and bonded stores can be supplied by Puerto Ordaz Ship Chandlers.

Shore Leave: No restrictions. Shore passes required. Puerto Ordaz City is 30 minutes by car.

Radio: For messages addressed to local Agents in Puerto Ordaz, it is better using some nearby foreign coast stations. YVG (Maracaibo Radio) provides unreliable service on HF. YVM (Puerto Ordaz Radio) does not accept public correspondence and controls all inward bound and outward bound transitting traffic only. Necessary that vessel gives time of passing Entrance Buoy and ETA at Buoy No. 27.1. Vessel is also required to give hourly position at the beginning of each hour until arriving at berth or anchorage and at the same time will obtain information concerning the changes of channel buoy positions and the transitting traffic for the vessels in the channel from the station.

For outward bound vessel, vessel to keep the same watch until passing Entrance Buoy.

The following are the paired frequencies for communicating with YVM (Puerto Ordaz Traffic Control): 468/472; 4192/4322; 6320/6372; 8386/8453 kHz.

SHIPMASTER'S REPORT: September 1988.

The following information is to be read in conjunction with the 1987/88 Edition of the "Guide".

1. The information that advises Masters to pump out all ballast before berthing should be amended.

At the end of September (1988) the river level was 2 ft. less than the highest predicted range. The actual depth at Puerto Ordaz Mineral Quay was measured at 53 ft. and the permitted air draft was 46 ft.

Ship's Masters may adjust their ballast condition through computing the relationship between their draft/air draft and actual depth at the jetty, which is subject to seasonal river level.

In addition to our regular ballast we took 1,100 cu.m. of ballast in the cargo holds in order to reduce our airdraft to the requested 46 ft., whereas we could have pumped out all ballast before going alongside.

2. The officially declared depth is 44 ft. and the permissible draft at Boca Grande Bar in late September was 42 ft.

3. The depth through the Boca Grande Bar Channel and its extension up to the 40 mile Buoy may not conform to the declared depth, and despite the pilot's statement, the part of the Channel on the Bar between Buoys No. 30-20 is the shallowest part of the passage and ships speed is reduced to half speed, instead of the section between Buoys 13.1 – 15.1.

4. The actual position of the Fairway Buoy is Lat. 08° 55.55' N., Long. 60° 11' W. and on our visit the buoy was unlit.

5. Many of the channel marking buoys (especially the red buoys) are unlit or have very weak flashing lights.

6. The rate of the river flow averages 3 knots – 4 knots.

7. It is suggested that deep draft vessels, outward bound, adjust their ETA at Buoy No. 44 in order that the vessel may be at Buoy No. 13.6 at daylight, taking into account that the vessel's speed will be reduced to half speed whilst navigating through the Boca Grande Channel from Mile 30 to Mile 13, due to the effect of the flood tide and mud under the keel.

The following figures may be of guidance to other vessels:

Declared depth: 44 ft.
Permitted draft: 42 ft.
Vessel's draft: 39 ft.
Vessel's sea speed: 12.5 knots
Passed Buoy 44: 1400 hrs.
Dropped Pilot at Buoy 32: 1530 hrs.
Arrived Buoy 13.6: 1820 hrs.
Vessel's average speed over the Bar between Buoy 30 – Buoy 13.6: 6 knots
High water time at Buoy 13.6: 1730 hrs.
Height of water at H.W. time: 2.0 m.
Date: 27th September 1988.

8. It is suggested that whilst navigating through the Boca Grande Channel, fuel oil is used in order to reach a high speed as quick as possible.

9. Nett ore loading rate experienced was 3,500 tonnes p.h.

10. The boarding officers were very co-operative and polite and were at all times courteous to the ship's officers and the Master.

The only documents requested were 8 copies Crew List, 3 copies Crew Personal Effects List and 3 copies of the Stores List (indicating fuel, narcotics, arms and ammunition, bonded stores and usual ship's stores).

AGENCY: Mailing Address for Puerto Ordaz: CVG Ferrominera Orinoco C.A., Agencia de Barques, Puerto Ordaz. Telex: 86472 Fmopu.

CVG Ferrominera Orinoco acts as ship's Agent for all vessels consigned to load iron ore at Puerto Ordaz. This function is performed by the Superintendent, Traffic & Ship's Agency and his staff, whose offices are located adjacent to the loading dock at Puerto Ordaz.

AUTHORITY: Capitania de Puerto de Ciudad Guayama. *Tel:* (86) 229268. *Contact:* Captain Lino Garcia Ibarra, Port Captain.

Section D

PUNTA CUCHILLO, (Puerto Ordaz Terminal): 08.20 N. 62.47 W. (See Plan)

N.B. See "Orinoco River" for all important entry requirements. Specific details relevant to Punta Cuchillo only are as follows:

OPERATORS: Lagoven S.A.

LOCATION: The terminal and dock is located near Mile Post 192 on the South side of the river.

PILOTAGE: Government Pilot will pilot vessel to Puerto Ordaz. In some cases this same Pilot will act as Mooring Pilot and dock vessel at the terminal. If River Pilot does not also act as Docking Pilot, the River Pilot will disembark at Mile 178 during LW, and Mile 183, in HW, and a Docking Pilot will embark and take the vessel to mooring.

Pilots are obtained at Buoy 27 of the old channel, which is the same as Buoy 27.7 of the new channel and is located 5 miles West of the old lighthouse at Punta Barima at Lat. 08° 36' 00" N., Long. 60° 30' 40" W. It is important that vessels pass this buoy and be in sight of the Pilot Station (1 mile E.S.E. of Punta Barima Lighthouse), as Pilots will not proceed to the vessel until it has been sighted.

APPROACHES: *Shipowners Report:* 1982.

Cautionary Advice: Due to several wrecks located in the approaches 6 miles North and 13 miles N.W. of the Fairway Buoy, extreme caution is necessary when approaching.

The coastline is difficult to pick up on radar and the Fairway Buoy is detected within a distance of only 3.5 miles. Contrary to the chart, it is currently not fitted with a racon. The buoy is not 25 ft. high as described in pilot books. It is, in fact, a small black buoy with a lattice construction with the radar reflector missing. In clear weather the channel buoys can be visually sighted and detected on radar at about 5 miles.

From the Sea Buoy 0.1 to position Mile 9, a strong N.W. set is experienced and an average of 5° set to channel course can be expected. After position Mile 9 set decreases and becomes variable in direction until arriving at Pilot Station Mile 27 position.

From August until the end of the year the river current can attain a rate of 5 knots, making it necessary for an outbound vessel to reduce speed when approaching river bends in order to ensure bends can be safely negotiated. Due to the strong currents of the Orinoco River, recent experience indicates that, if a vessel goes aground, the Master when attempting to lighter the vessel should drop an anchor prior to discharging ballast.

All stretches of the river have range markers which mark the centre of the channel. While manoeuvring in the river, the vessel tends to steady up when rudder is put midship without any counter rudder. This does not affect the manoeuvrability of the vessel but Master and Pilot should be aware of this so as not to take rudder off too fast when turning.

Buoys are NOT on the edge of the channel from the Sea Buoy to Mile 27.0. White buoys are 125 ft., Red buoys are 75 ft. outside the edge of the channel. Buoys are located at the point where the channel starts to slant downward to the deeper water. The main dredged channel is 400 ft. wide. The ranges are on the centre of the channel.

Masters must refer to the sailing directions for additional information.

MAX. SIZE:

Gauge Reading	*Maximum Draft*	*Tide Required at Bar*
12 ft. – 14 ft.	33 ft.	None
14 ft. – 17 ft.	34 ft.	None
17 ft. – 20 ft.	35 ft.	None
20 ft. – 23 ft.	36 ft.	None
23 ft. – 26 ft.	37 ft.	None
26 ft. – 29 ft.	38 ft.	None
29 ft. – 32 ft.	39 ft.	None
32 ft. – 35 ft.	40 ft.	None
35 ft. – 38 ft.	41 ft.	half of high tide
38 ft. – 41 ft.	43 ft.	half of high tide

HEALTH: Vessel will be boarded by the Public Health Doctor in the stream off San Felix or Puerto Ordaz or occasionally at the Terminal. If he boards before docking, an accommodation ladder should be rigged and ready when he approaches, as he will not come up a pilot ladder.

RADIO: Vessels diverted at sea to Punta Cuchillo which do not have a Venezuelan Clearance on board, must advise Lagoven by radio as soon as they receive their orders to change destination. The following information must be given: Master's name, vessels flag, net tonnage, last port of call, port to which originally cleared and ETA. This information is required in order that inward clearance may be arranged with government officials in ample time prior to vessel's arrival. In absence of this information, vessel will be subject to a fine.

TUGS: The use of tugs is necessary in docking and undocking manoeuvres of boats at this Marine Terminal. Alcoa has a 2,100 h.p. tug available for this service. A tie-up launch will be provided to assist in the mooring of the vessel, and will handle all the mooring lines before and after loading.

BERTHING: The dock at the terminal consists of a docking platform, 2 breasting dolphins and 2 mooring dolphins. The docking platform is connected to shore by a 10 ft. causeway capable of carrying a light truck.

At mean low river stage, water depth at the face of breasting structures is 40 ft. The bank rises sharply from face of dolphins toward shore. The 40 ft. depth contour extends parallel to shore for a considerable distance upstream and down stream from the dock, allowing a flat approach angle.

Current is negligible during low river stage and is approximately 6 knots at midstream at high river stage. Current runs generally parallel to the face of the dock at the dock site.

Top of dock elevation is 45 ft. above low water stage. Buffering system extends from a point below low water stage to a point immediately below top of dock. Nothing should overhang the shoreward side of the vessel when docking during the lower stages of the river. The buffering system is designed to accommodate forces exerted by a vessel of 47,000 tons displacement, approaching the dock with a velocity component perpendicular to the dockface, of 0.5 ft. per second.

Bollards for vessel's lines are provided at the mooring dolphins and at the breasting structures. Mooring dolphins will safely withstand 200,000 lb. of mooring line tension.

The facilities include a 24 in. diameter submarine pipeline which crosses the river a short distance down-stream of the dock. The crossing is marked by triangular-shaped signs on both banks of the river. Masters are cautioned against use of vessel anchors in this area.

The terminal pumps are capable of loading oil aboard ship at the rate of approximately 14,000 bbls.p.h.

INWARD CLEARANCE FOR DIVERTED VESSELS: Vessels diverted to Puerto Ordaz to load cargo should submit all documents, except consular mail, which they will not have. In lieu of this, they should submit 4 copies of the cable to divert, leaving enough space for the translation in Spanish. Vessels diverted at sea to Puerto Ordaz (Lagoven Terminal) which do not have a Venezuelan clearance on board must advise Lagoven at Puerto Ordaz, by radio as soon as they receive their orders to change destination. The following information must be given: Master's name, vessel's flag, net tonnage, last port of call, port to which originally cleared and ETA. This information is required in order that inward clearance may be arranged with government officials in ample time prior to vessel's arrival. In absence of this information, vessels will be subject to a fine.

MEDICAL: Medical assistance can usually be arranged, particularly in the case of an emergency.

SAFETY: The following is a condensation of the safety precautions that should be observed when the vessel is alongside the dock:

(i) All passageway doors leading to the cargo deck areas are to be kept closed during cargo-loading operations.

(ii) Ship's firefighting equipment must be kept ready at all times while berthed at Lagoven dock.

(iii) Smoking or carrying lighted or unlighted pipes, cigars or cigarettes on the weather decks of the vessel, or on the dock, is strictly prohibited under all circumstances. Masters are requested to instruct their crew not to throw lighted cigars or cigarettes over the side or out of the portholes.

(iv) An efficient watch must be maintained on deck and in the engine-room on the vessel, and a sufficient number of men must be on board at all times to move the vessel any time, in case such is required.

(v) If the galley is located near oil-handling operations of any nature, the skylight lids should be kept down and secured to prevent the galley being sprayed with oil in the event of a burst hose.

(vi) Ventilators in the vicinity should be turned away from the scene of operation.

LOADING: Monagas Crude is the only cargo available at the Puerto Ordaz Terminal. This crude has an API gravity of 11.9° to 12.5° F. (6.490 – 6.517 U.S. barrels per long ton). This cargo must be heated to approximately 140° F. in order to attain normal discharge rates.

Loading is accomplished through 3×10 in. hoses provided with 10 in., 150 lb. ASA flanges. Hoisting gear is provided for handling the hoses. A dock crew will connect the cargo hoses and disconnect them on completion of loading. Some adapters and other tools are available on dock. The oil will be loaded at an elevated temperature.

Precautions, as are common for any heavy oil, should be taken to ensure that no ballast water is left in any tank to be filled with this oil. If the cargo is contaminated with water, the water will not separate from the oil. The salt content of the oil will be raised approximately 10 lb. per 1,000 barrels for every 0.10% contamination by sea water.

All cargo compartments must be stripped dry. Cargo pipelines should be drained and/or purged of water.

There is no provision at the Puerto Ordaz Terminal for disposal of dirty ballast or tank washings. Tankers bound for Puerto Ordaz for loading must dispose of all dirty ballast and tank washings before entering the Orinoco River.

Prior to proceeding to sea, all Butterworth plates, cargo tank hatch covers and ullage plugs should be inspected to ensure against entry of salt water.

FRESH WATER: Fresh water is available ex-barge; cable advice of 24 hours is required. Dry provisions may be obtained in very limited quantities.

FUEL: Bunker fuels are available at all hours from Astilleros Orinoco C.A., who operate a floating storage and blending facility in the Orinoco River. Bunker fuels may be received at Lagoven dry dock while loading crude. Full cargoes can be made available.

REPAIRS: No major repair facilities are available. However, small repairs can be taken care of through local machine and electrical shops, and shore labour can be obtained if required.

TIME: GMT minus 4 hours.

SHIPMASTER'S REPORT: June 1987.

Location: The Terminal at Punta Cuchillo (Puerto Ordaz Terminal) lies some 192 miles up the Orinoco River.

Approaches: The buoyed channel was picked up at a distance of 15 miles, and we made contact with Barima Pilot 2 hours prior to arrival. Pilot Station instructed us to anchor 1 mile East of Buoy "0.1". No vessel may enter Boca Grande Channel without permission from the Pilot or local Radio Station "YVM". We anchored for a few hours and then proceeded up the dredged channel to Buoy 27.1 to the Pilot Station. The Pilot boarded from a fast launch using the pilot ladder on the starboard side. We continued up the river at 90 r.p.m. making an average speed of 10 knots. The Pilot was competent, but spoke little English. The vessel finally anchored off San Felix, 179 miles up river at 2324 hrs.

BA. Chart No. 3322 is not really adequate, so we obtained the local river charts through the Agent. In the lower reaches the leading lights are poor in daylight, being hard to pick out. The Boca Grande dredged channel is said to be 400 ft. wide, with red buoys with red lights marking the starboard side of the channel inwards and black buoys with green lights marking the port side. At times of dredging, buoys are displa some 100 ft. outwards from the channel.

Communications: Throughout the river passage, the Radio Officer i contact with "YVM" on the hour, giving the ship's position; they in re give positions of other ship movements, and navigational informa with regards to shifting of buoys and where the dredger is working

Berthing: We remained at anchor for 10 days, after which we picked anchor in the afternoon and sailed the last 14 miles to the berth. It i modern construction, fendered with wooden sheaving, with dolphins the head and stern lines, which were long leads. Two tugs were u for mooring, tug ropes, close alongside "American style". The after was of conventional type, whilst the forward was a powerful flat bot pusher type boat. The tugs kept the vessel in position whilst moor were run.

The headlines were taken first, followed by the stern lines, run b mooring boat, 3 lines at a time, springs by heaving line. Ending up 3 lines and 2 springs each end. Ship's gangway used.

Cargo Operations: The independent surveyor spoke good Engl Vessel loaded Morichal Crude (described as Asphalt) but not wh know as asphalt, being much thinner. API 12.5, loading tempera 132°F. To be kept at loading temperature. Flashpoint 192°F.

A loading rate of 2,467 t.p.h. was achieved using 2 × 10 in. ho Shore stop at end of loading.

On completion of cargo operations 3 hours should be allowed paperwork. The cargo documentation is brought on board by the Ag who signed for the Notes of Protest on behalf of the suppliers (Lago SA).

Officials: The vessel was boarded at San Felix anchorage by the Ag and 5 officials, and everything proceeded smoothly.

The following documents were required:

5 copies Crew List
3 copies Crew Personal Effects List
3 copies Bond List
Clearance from Last Port

The Ship's Certificates were inspected.

Departure: The Docking Pilot took the ship off the berth, using the sa 2 tugs. Pilot departed once the ship was swung. We carried 3 river pi two were there for the journey only, although they all did a spell on bridge. The vessel anchored at Buoy 44.3A for 5 hours, awaiting The pilots left at Buoy 32.5. At 90 r.p.m. we made 8.5 knots until were clear of the channel.

The maximum sailing draft allowed on this occasion was given 38 ft. 6 in. (F.W.) which, to say the least, was optimistic.

AGENCY: Lagoven handles all papers and documentation connec with the ship's business. Lagoven will also help the ship's Maste providing required land transportation, limited provisions, or any o assistance that may be required for the operation of the ship's nor business. Alcoa will also assure that the ship's requirements are m regard to Sanitary Inspection, Customs Inspection and Guardia Nacio

Section E

VENALUM TERMINAL: 08.18 N. 62.50 W.

SHIPMASTER'S REPORT: February, 1981.

LOCATION: Mile 194 on Orinoco River. See "Matanzas – San F in "Plan Section".

ENTRY: See "General, etc." under Orinoco River.

TUGS: Are summoned by Pilot when required.

BERTHING: Modern quay built on piles parallel to the bank with ac by two piers, one at either end of the general cargo quay, allow one way system to be operated.

Length of general cargo quay – 215 m.
Length of bulk cargo quay – 85 m.
Depth alongside at lowest state of river – 12 m.

Fenders: The Pier's fenders keep the vessel 5.0 m. away from Fenders move up and down as water level changes.

CARGO FACILITIES:

Cranes: Venalum has 2 cranes of 35 tons capacity each, for loa discharging aluminium, general cargo, containers and bulk cargo

Two electro-hydraulic clamshells with 12 cu.m. capacity each discharging bulk cargo through 4 hoppers of 20 cu.m. capacity each used for loading bulk into trucks at a rate of 110 tonnes/hr. (2 clams

When the Orinoco River water level permits, ship's crane is us loading/discharging operations.

Elevator: Forklift with max. capacity 6 tonnes.

The Electro-Magnets: The equipment is connected to crane, a discharge rate is 20 t.p.h. each.

Pneumatic Cranes: This system used for alumina and petroleum only.

STEVEDORES: Working hours – 24 hours a day, 7 days a wee

AUTHORITY: CVG Industrias Venezolanas de Alirninio C.A. Industrial Matanzas, Apartado 312, Ciudad Guayana, Edo Venezuela. *Tel:* 086-9400911, 705318, 705317. *Telex:* 086- *FAX:* 086-940063. *Contact:* Captain Pedro Cabrera, Traffic Ma

Industrias Venezolanas de Aluminio C.A., Av. La Estancia, Torre Las Mercedes, Piso 09, Urbanizacion Chuao (Apartado Caracas 1060, Venezuela. *Tel:* (02) 918022. *Telex:* 23444. FA 918244. *Contact:* Luis Suarez, Terminal Operator.

END OF ORINOCO RIVER SECTION

PERTIGALETE: 10.15 N. 64.34 W. (See Plan)

LOCATION: Situated in a sheltered bay about 2 miles East of the port of Guanta, or about 4 miles from the pilotage zone situated in the North.

PILOTAGE: The pilotage zone in Pozuelos Bay is the same as for Guanta, i.e. an area situated between the islands of Borracha and Chimana, in the Bay of Pozuelos (formerly called Bergantin Bay).

From the pilotage zone for the port of Guanta/Puerto La Cruz, the private pier Pertigalete is to be approached by sailing between the Isla de Plata and the island of Cachicamo. Pilotage is compulsory in and out and is performed by well-trained government Pilots. The navigation is considered very safe.

MAX. SIZE: The depth of water for ocean-going vessels alongside the Pier is 20 ft. (shore side) to 40 ft. (sea side).

TUGS: Available from Inward Clearance port at Guanta/Puerto la Cruz.

BERTHING: The private pier in Pertigalete for berthing ocean-going vessels is up to 150 m. (492 ft.) long. The apron is ample and allows easy manoeuvre of trucks with cement. On the same pier the cement factory is regularly receiving raw material and machinery, but the berthing is along the West side of the pier for coastal trade, so does not interfere with operations for ocean-going vessels. There are chutes, conveyor belts from the nearby silos. No cranes available.

STEVEDORES: Loading operations are performed exclusively by the personnel of the cement factory. All costs, including overtime, are for account of the cement factory.

Under normal conditions on Saturday afternoon there is no work, but almost without exception the cement factory works overtime on Saturdays if by doing so the vessel can be despatched that day. On holidays, if circumstances call for urgent operation, the cement factory has the option to work overtime.

TANKERS: Berth at private wharf at Pamatacualito, operated by Baroid de Venezuela SA. Length of berth 113.60 m., depth alongside 10 m.

LOADING: The cement factory is able to deliver to the pier 600 tonnes per hour (cement in bulk).

GARBAGE DISPOSAL: No collection service available.

WASTE OIL DISPOSAL: No collection service available.

SEAMAN'S CLUBS: No seaman's club at this port.

CURRENCY: Venezuelan Bolivar.

OPERATOR: Private pier of C.A. Vencemos Pertigalete is under the jurisdiction of Customs and Harbour Master of Guanta/Puerto La Cruz, Eastern Venezuela. All charter business and general administration is covered by Caracas Headquarters of Venezolana de Cementos S.A.C.A.

Local address: C.A. Vencemos Pertigalete, Apartado 4141, Puerto La Cruz. *Tel:* 95421, Al 30. *FAX:* 95420. *Telex:* 81154.

AUTHORITY: Capitania de Puerto La Cruz, Paseo Colon, Sector Los Cocos, Puerto La Cruz, Venezuela. *Tel:* (5881) 677452, 677932. *Telex:* 81386. *Contact:* Captain Humberto Marcano, Harbour Master.

AGENT: Servicios Navieros Tisa (Sernatica), P.O.Box 4356, Puerto La Cruz, Venezuela. Tel: (5881) 683998, 683481, 683666, 684083. Telex: 81390. Fax: (5881) 683422.

PUERTO CABELLO (inc. Borburata): 10.29 N. 68.01 W. (See Plan)

DOCUMENTS:

Last Port Clearance.
6 Crew Lists.
6 Passenger Lists.
3 Stores Lists.
3 Narcotics Drugs Lists.
2 Lists of Personal Effects.
1 Vaccination List.
Derat Certificate.

PILOTAGE: Pilotage is compulsory, but vessels must first anchor in roads 1 mile North of Punta Brava to await entry formalities and berthing orders.

MAX. SIZE: Bulk Cargo Pier: Up to 32 ft. draft.
Inner Port: Up to 28 ft. draft.
Also see "Tankers".

TUGS: The use of tug-boats within the port is compulsory both for entering and leaving port, as well as for manoeuvres in the port basin, for foreign flag ships over 300 tons.

BERTHING: The port entrance is 100 m. wide in direction West to East. Berth No. 1 and half of Berth No. 2 are along the same entrance channel, where ships are berthed only as an exception or when the port is rather congested. The total length of the North (main) Pier for the berthing of ocean-going vessels is 1,025 m., room enough for 6 to 8 vessels. For administrative reasons the pier is divided into 8 berths of about 128 m. each. Between Berths No. 2 and 3, the pier turns Southwards. Along the pier there are warehouses which under normal circumstances provide sufficient indoor space.

Along the East Pier, of 350 m. length, there are no warehouses. This pier gives berthing facilities to 3 or 4 middle-sized vessels.

Along the South Pier, of 500 m. length, there are 2 warehouses. This pier is exclusively used for coastwise shipping, fishery and small craft in general.

The dredged channel along the East Pier is only 80 m. wide. This is the only channel which connects the main basin of the port with the South basin of the port, the latter served through the South Pier.

Ro-Ro facilities available.

BULK HANDLING FACILITIES: 400 m. long new pier, designed exclusively for the handling of bulk cargoes.

This bulk cargo pier has an apron of about 25 m. and allows ships with a draft of 10 m. at any time.

Ships moored along this new pier are not able to take water there, but have to be shifted to the general cargo piers in the port of Puerto Cabello.

There is no telephone installation on the new pier.

Tug-boat service and assistance of Pilots is compulsory to negotiate the distance to and from the bulk cargo pier.

General cargo is not allowed to be handled at this pier. There are no cargo handling facilities whatsoever and no kind of rolling equipment either. All the vessels, unless they have up-to-date discharging equipment of their own, have to provide derricks of minimum 5 tons capacity to support the SKT discharging equipment of receivers. The cargo is discharged in bulk cargo trucks, fully closed and with only rather narrow manholes for the SKT arm.

The new grain terminal has been opened. The wharf is 400 m. long and allows 2 vessels to berth. Max. depth 30 ft. Average discharge rate 1,500 tons per day.

TANKERS: *Borburata:* The Maraven Terminal lies about 2 miles East of the port entrance.

Berth No.	*Max. length*	*Max. beam*	*Max. draft*
1	400 ft.	—	20 ft.
2	575 ft.	72 ft.	31 ft.

No. 1 Berth is used for bunkering only.

No. 2 Berth is used for the discharge of refined products and bulk chemicals. It is fitted with 4×8 in. Chicksans and a range of hoses from 4 in. to 8 in.

A Pilot is compulsory, and boards at Puerto Cabello. If the vessel is cleared outwards at Borburata, the Pilot may return to the Pilot Station by road.

Berthing and unberthing in daylight only.

Also see "Shipmaster's Reports" and "Report".

Lagoven Terminal: The buoy mooring is used for the discharge of petroleum products. Max. length 198 m. Max. beam 28 m. Max. draft 34 ft., will be increased to 38 ft. Max. Tonnage 40,000 d.w.t. Vessels berth using 5 shackles on the port anchor, and 6 stern lines to 3 mooring buoys.

Terminal Marino Holanda: Consists of 3 buoys situated in a depth of 45 ft. near Guaguaza Lighthouse. Used for loading/discharge of Chemicals.

STEVEDORES: *Straight Time:* Monday to Friday: 0700 – 1100 hrs. and 1300 – 1700 hrs.

Overtime: Monday to Friday: 1800 – 2300 hrs. Normally overtime beyond 2300 hours is not permitted.

Relief Gangs: Obtainable, if there are not too many ships working in the port at a time, from 1100 – 1300 hrs. and 1700 – 1800 hrs.

Work on Sunday: Not permitted except for passenger vessels, and considered as such are those carrying more than 60 passengers, and with a medical doctor on board.

Saturday Afternoon Work: Not permitted. But if a vessel can terminate operation and sail with a maximum of 3 additional hours' work, a special permit can be obtained from Customs and Port Authorities. In such case, the additional working hours are considered straight time work.

FRESH WATER: Available by tanker trucks only.

The drinking water in Puerto Cabello is tropical treated, well-filtered and wholesome.

Every vessel of over 600 nett tons calling at Puerto Cabello, and other ports in Venezuela, should arrange to take water only at Puerto Cabello in order to avoid double water dues.

REPAIRS: The adjacent Naval Yard, the entrance to which is within the main port, opposite the North Pier, is equipped for minor repairs both on engine and hull. For emergency purposes, the dry dock could be used. Its capacity is for ships up to 30,000 to 35,000 tons. All repairs on the hull are effected by a special crew transferred from the Naval Yard.

At the dry dock there is 1 crane of 15 tons capacity. Within the Naval Yard there are 2 slipways for ships of 125 ft. length and 210 ft. length max. respectively.

Venezuelan Navy ships always have priority.

WATCHMEN: A very careful watch must be maintained in and around the accommodation as ships' safes and cabins have been broken into.

OPENING/CLOSING HATCHES: Is not performed by the National Port Services, but instead either the ship's crew or hired assistance labour must be used. Recommended that ship's crew open and close hatches.

REGULATIONS: Port regulations referring to contamination of the port waters will be strictly applied and fines for contravention will be imposed.

No maintenance to bridgehouse, hull or deck should be carried out whilst in port unless special permit issued by the Port Captain has been obtained.

SHIPMASTER'S REPORT: November 1984 (See "Plans").

Vessel: LOA 170 m., beam 26 m.

Berth: Maraven Berth at Borburata.

Pilot: Pilot boards off Puerto Cabello during daylight hours only.

Max. Draft: 32 ft.

Tugs: When berthing, 2 tugs are made fast on the Main Deck fore and aft.

When unberthing 2 tugs are used, 1 tug tows aft and the other stands by forward.

Charts: B.A. 1523 and 1966.

SHIPMASTER'S REPORT: October 1985.

Depth within the port received from Agent:

Entrance to the Harbour	31 ft. 6 in.
Pier No. 1	31 ft. 6 in.
Pier No. 2	31 ft. 6 in.
Pier No. 3	31 ft. 6 in.
Pier No. 4	27 ft. 0 in.
Pier No. 5	27 ft. 0 in.
Pier No. 6	31 ft. 0 in.
Pier No. 7	33 ft. 0 in.
Pier No. 8	32 ft. 0 in.
Pier No. 9	32 ft. 0 in.
Pier No. 10	27 ft. 0 in.

Pier No. 11	27 ft. 0 in.
Pier No. 12	27 ft. 0 in.
Pier No. 13 (for Ro-Ro vessels)	24 ft. 0 in.
Pier No. 14	24 ft. 0 in.
Docks At Area 6 (Grain Piers)	
Pier Nos. 25, 25 and 27	30 ft. 0 in.
Pier No. 28	32 ft. 0 in.
Pier No. 29	30 ft. 0 in.
Pier No. 30	29 ft. 0 in.
Pier No. 31	31 ft. 6 in.
Pier No. 32	32 ft. 0 in.
Docks at Area 7 (Floating Docks)	
Pier No. 37	27 ft. 0 in.
Pier Nos. 38 and 39	30 ft. 0 in.
Pier Nos. 40, 41 and 42	32 ft. 0 in.

SHIPMASTER'S REPORT: February 1989.

Documents:

1 copy Health Declaration.
2 copies Drugs List.
3 copies Stores List.
2 copies Crew Declaration.
5 copies Crew List.

The port officials are generally relaxed and easy going, ship's standard papers are accepted.

A Ministry of Transport and Communications Inspector will board, probably after clearance has been given, and will fill in a long questionnaire about the vessel and equipment and also inspect all the certificates. An Inspection Certificate is issued and is required by the Port Captain before the Clearance Outward can be issued, however, the Agent had never heard of this before.

Pilotage: The Pilot boards at the anchorage from a large launch. Pilots leave just in the entrance channel.

Approaches: Charts: B.A. Charts No. 1966 and 1523, USDA Chart No. 24450.

Buoys were found to be as charted with lights working.

In February 1989 dredging was being carried out in the entrance with cranes on a barge moored to the North shore of the channel and blocking about half the width. Two buoys (Fl. Red) are moored approximately mid-channel, marking the work, with vessels passing to the South. The channel is still adequate.

Communications: Contact with pilots and Port Captain's office can be made on VHF Channel 16.

Shortly after anchoring, a launch came alongside with an Arrival Information Form to be completed.

When calling on VHF, a number of stations will answer, most of them are ship chandlers but do not identify themselves as such.

We were advised that the vessel should anchor in Anchorage 'C' and when we asked who was calling they said that it was the Pilot station calling, it was in fact a ship chandler.

Agents can be contacted on VHF Channel 16 and usually use Channel 11 for working, during office hours only.

Tugs: The Pilot advised that tugs are compulsory, one tug used for vessels under 125 m. in length and 2 tugs for vessels over 125 m. LOA.

The tugs join the vessel just inside the harbour entrance and if making fast use their own lines.

Berths: Berths No. 13 to 21 have not yet been completed and work does not appear to be continuing at the present.

Berths No. 31 and 32 are served by a fixed grain elevator supplying a grain silo on on the dockside.

Berths No. 25 to 30 are used for discharge of grain by portable elevators and also for containers.

The area of the dock from Berths No. 25 to 32 is known as El Granel.

Dockside cranes are not provided at any of the berths but a quantity of mobile cranes of various capacities are available.

There are good fenders on all the completed berths.

Cargo Working: On the bulk berths working hours are:

Weekdays: 0700 – 1200, 1230 – 1800, 1830 – 2300.
Saturdays: 0700 – 1200.
Sundays and holidays: No work.

Overtime is possible on Saturday afternoons to finish, also at other times if all parties agree.

Grain is discharged with a two stage chain conveyor elevator, each stage requiring a crane for support, i.e. 2 cranes at each hatch working.

Two elevators were used throughout, requiring 3 ship's cranes and one shore crane.

Shore crane hire rates are variable, depending on the shift, but were quoted as approximately 4,000 Bolivars per 3 shift day, exchange rate is 37 Bolivars to U.S.$1.00.

Discharge rate is quoted as 1,500 tonnes per elevator but this is entirely dependent on the availability of trucks to take the cargo away.

The distance the trucks have to go is also important, as some of our cargo was reported to have a destination 10 hours away, with a result that each truck could only make one round trip in a day. Each truck carries approximately 40 tonnes.

It was unfortunate that the vessel arrived just before Carnival, as heavy transport is not allowed on the roads during this time and other holidays, in an effort to reduce accidents, due to the many drivers on the roads.

Delays during discharge were due to shortage of transport with some short delays for rain and breakdowns.

Elevator hours available	161.3 hours.
Elevator hours used	74.17 hours.
Gross rate for 8,000 tonnes	49.6 t.p.h.
Net rate for 8,000 tonnes	107.9 t.p.h.

The nett rate gives 1,618.5 tonnes per day for each elevator.

Of the 74.17 elevator hours used, 2 elevators were working simultaneously for 14.7 hours. If discharging had been carried out with only one elevator it would have required at least another day alongside to complete.

Priority for trucks is given to completing vessels.

First four days of discharge 11 shifts (48.45 elevator hours) were u average of 4.4 hours per shift.

Last two days of discharge 5 shifts (25.72 hours) were used, aver of 5.14 hours per shift.

Medical: The Agent must be pre-advised of any medical atten required. The office car will pick-up crew for the doctors at 0800 and 1330 hrs. at the gangway. A note is required from the vessel by driver.

Fresh Water: Fresh water is delivered alongside by tank trucks, e carrying about 20 tonnes, order well in advance as delivery is slow. T trucks provide the necessary hoses.

Repairs: The Port Authority only allow chipping and scraping along on the bridge front, funnel and decks, provided that no chippings overside.

Hull painting is forbidden.

Permits are required for Plimsoll and draft mark painting, the pe are arranged through the Agent.

Engine repairs and check-ups require permits from the Port Autho prior to work starting, permits are often refused.

All repair work requires the advance permission of the Port Capt

Repatriation: Prepaid tickets are a condition as airline agents can guarantee Seamen's Rebate and will give preference to full paid tick

Shore Leave: Shore passes are issued and stamped by Immigration Port Captain, the blank passes are brought on board by the Agent the visit and have to be completed before the Officials stamp and s them.

Oil Spillage: The spillage of oil and garbage into the dock is prohibi and this also covers overflowing of ballast tanks, washing dust from docks and washing down.

Ship Chandlers: About ten ship chandlers will present themselves soon as the clearance visit is completed, with widely varying prices

We found Perdomo Shipchandlers to be professional, with reasona prices and also provided a good service.

Captain's Car Service: The Agent will send the office car at 0900 and 1500 hrs. for transport to the office for communications with Owners if required, or at any time if requested by VHF.

Flags: The Venezuelan flag must be hoisted every morning at 0600 and lowered at 1800 hrs. every evening whilst alongside.

Lifeboats: Vessels are not allowed to lower liferafts or boats for pain or maintenance work without a permit, whether alongside or at anc

Ratguards: Ratguards must be in position on all ropes in order to a fines.

REPORT: A tanker terminal has been established inside the port Berth No. 32. The terminal belongs to the "Instituto Nacional de Puert and is referred to as "Terminal Santana". The terminal handles vegeta oils through 3×6 in. connections and flexible hoses. There are 4 sh tanks about 80 m. away. Ships discharge into either shore tanks lorries. Max. draft 9.50 m.

SHIPMASTER'S REPORT: August 1996.

Authorities: Documents required by Venezuelan Authorities:
Upon arrival during the clearance:

5 copies Crew List.
5 copies List of Provisions.
5 copies Crew's Personnel Effects Declaration.
1 copy Maritime Declaration of Health.
1 copy Vaccination List.
2 copies Dangerous Cargo List.
3 copies Stowage Plan.
1 copy Ports of Call last 6 months.
Clearance from Last Port.
Mate's Receipts.
Ship's Certificate.

Information required by Authorities:

(a) Total capacity of sludge tank quantity onboard upon arrival.
(b) Total capacity of septic tank and cubic meters onboard treatment.
(c) Cargo in transit, metric tons and bales.
(d) Capacity of fresh water, how much onboard and last port w made water.
(e) Last provisions port.

Vessels are not allowed and/or permitted to undertake follo without authorisation from Harbour Master.

(a) Paint outside the vessel.
(b) Chip outside the vessel.
(c) Wash inside the holds.
(d) Wash deck without covering scuppers.
(e) Any kind of maintenance and/or repairs.
(f) Receive visits onboard which do not relate to ship's operation

Anchorages: See B.A. Chart No. 1628.

Pilotage: Pilot station calls vessel when 20 minutes – 30 minutes port, and advises time of Pilot coming onboard or if vessel has t or anchor. Call sign "Puerto Cabello Pilot". Pilot launch is painted with white superstructure and flies "H" flag. The boat may also other vessels waiting.

Stevedores: Work Monday to Friday, and Saturday until 1200 hrs may work up to 1800 hrs. Sunday is a holiday.

Opening/Closing Hatches: Ship's crew.

Garbage/Waste Oil Disposal: Available at a charge after vessel re a certificate.

Fresh Water: By truck. Cost U.S.$ 4.0 – 4.5 per tonne.

Shore Leave: Day before arrival, Master to send Crew List to Ag make out shore passes. These are stamped by Immigration inspection on arrival.

Passes are to be returned before departure.

Crew members should not go ashore alone at night.

Communications: Whilst at anchor, vessel may use VHF Chan When alongside, crew can make calls to any country by contact "man" with cellular telephone.

Currency: Venezuelan Bolivar. U.S.$1.00 = 440 – 470 VB.

Watchmen: A very careful watch must be maintained during darkness, and on completion of work, gangway should be raised. During working hours, watchman checks workmen boarding.

During hours of darkness, 2 policemen in patrol car check area every 30 minutes.

Regulations: Port Authorities and representatives of Harbour Master visit vessel every day to check documents. They also check for pollution and any infringements of the port regulations.

Fuel: Diesel oil delivery by truck with capacity 20 tonnes.

PUERTO DE HIERRO: 10.38 N. 62.05 W.

DOCUMENTS:

Last Port Clearance.
6 Crew Lists.
6 Passenger Lists.
6 Stores Lists.
6 Narcotic Drugs Lists.
2 Health Declarations (forms provided and filled by doctor on arrival).
Derat Certificate.

PILOTAGE: Pilot boards at Sea Buoy, Lat. 10° 37' N., Long. 62° 06' W. If no pilot boat meets vessel on arrival, ship must anchor to wait orders. Send 7 day, 48 and 24 hour ETAs to cable address "Transterm Guiria". Vessels should anchor in the vicinity of Sea Buoy. No radio-telephone available.

ANCHORAGE: Vicinity of Sea Buoy. Good holding ground.

RESTRICTIONS: Vessels may have to wait at anchorage until slack water for docking when tide/current is strong.

MAX. SIZE: Dock, East berth: 30 ft. at LW; 33 ft. at HW; 690 ft. length, 90 ft. beam.

Dock, West berth: 19 ft. at LW; 32 ft. at HW; 600 ft. length, 60 ft. beam. Also see "Berthing".

HEALTH: Doctor boards at berth and grants Pratique. Any suspected disease or fever to be reported at that time. Vessels arriving from a Venezuelan port do not require Pratique.

RADIO: La Guaira, Venezuela.

TUGS: None available.

BERTHING: Berthing at times limited to slack water period depending on strength of tides. Pilot will advise.

Bauxite Terminal: Max. draft 37 ft. Depth alongside 40 ft. Max. 40,000 d.w.t. Loading rate 3,000 t.p.h.

STEVEDORES: Bulk cargoes: Discharging rate 700 – 800 t.p.h., loading rate 800 – 1,000 t.p.h. No facilities available for handling general cargo.

MEDICAL: No notice required. Venezuelan Navy Hospital with limited medical assistance.

TANKERS: No facilities.

DENSITY: LW – 1020. HW – 1023.

FRESH WATER: Available in limited quantities at berth. Rate of delivery 30 t.p.h.

FUEL: In an emergency. Diesel fuel medium, specific gravity at 60°F 0.85, API gravity at 60°F 35, viscosity SSU at 100°F 37, viscosity engler at 20°C 1.40.

REPAIRS: None. Small company workshop.

CONSULS: None.

CUSTOMS ALLOWANCES: Two cartons of 200 cigarettes each or equivalent in tobacco. Two 0.75 litre bottles.

AIRPORT: Nearest airport (1 hour voyage on launch) is Guiria with 2 weekly flights to Caracas and the same number to Port of Spain, Trinidad. Next nearest (1 hour launch plus 2 hours car) is Carupano with 4 daily flights to Caracas.

TIME: GMT minus 4 hours all year round.

HOLIDAYS: Cargo worked 24 hours a day, 365 days a year.

IDENTIFICATION CARDS: Issued locally by Navy on arrival.

DEVELOPMENTS: Possibility of increasing draft to 42 ft. at loading berth, and to 30 ft. at discharging berth.

GENERAL: The whole of Puerto de Hierro is a Venezuelan Navy Supply Base. The dock and cargo installations are operated by Puerto de Hierro, S.A., a subsidiary of Caribbean Steamship Company, S.A. Only bulk cargoes transhipped by Caribbean Steamship are handled.

AUTHORITY: Puerto de Hierro, S.A.

PUERTO LA CRUZ, (Guaraguao Terminal): 10.13 N. 64.38 W.

(See Plan)

FLAG: The Venezuelan flag must be displayed from the foremast when entering Pozuelos Bay and when manoeuvring or docking, regardless of the hour. However, while at anchor or while moored at berth, it need be displayed only between sunrise and sunset.

LOCATION: Puerto La Cruz located on Pozuelos Bay on the N.E. coast of Venezuela. Its harbour is well protected by numerous islands against sea currents. The hurricane path is several hundred miles to the North and has never affected the flow of navigation in the Puerto La Cruz area.

The lighthouse marking the entrance to Pozuelos Bay is located: Lat. 10° 18' 18" N., Long. 64° 41' 7" W. Visibility is 20 miles.

DOCUMENTS: Arrival Clearance is effected on board vessel shortly after docking by Government Officials and a representative of the Company.

The following documents are required and should be prepared prior to arrival:

Ship's Register.
Dispatch issued by Venezuelan Consul at last port of call (1 copy).
Ballast Manifest (1 copy).
Crew List (6 copies).
Passenger and Baggage List, if any (5 copies).
List of Passengers in Transit, if any (5 copies).
List of Personal Effects (4 copies).
Stores List* (5 copies).
Medicine and Drugs List (4 copies).
Sailing Permit issued by Marine Authority at last port of call (Original).

*Stores List should indicate separately all deck, engine and cabin stores.

PILOTAGE: The use of Government Pilots is compulsory for all vessels docking and undocking. This service will be arranged at all times. The Pilot manages the docking manoeuvre, acting as Master's adviser. However, if the Master considers that Pilot instructions risk ship's safety, the Master has the right to disregard Pilot instructions. In this case, the Master must present immediately a report written in Spanish, to the Harbour Master and copy to Corpoven, indicating in detail all circumstances which induced him to disregard advice.

If an accident happens during the manoeuvre which affects the Terminal installations, the Master must present to the Terminal Dock Supervisor, a written report in Spanish, indicating all circumstances. Copy of this report will be delivered to the Harbour Master's Office in order to establish responsibility.

The Dock Supervisor, through the ship's Agent, makes all arrangements in order to have the Pilot onboard in time, in order to dock or undock the vessel.

ANCHORAGE: *Arrival at Pozuelos Bay:* Upon arrival at Pozuelos Bay, the ship should be conned to within the shaded area shown on Piloting Zone Plan (See "Plan"). This is the anchorage zone. As soon as the berth becomes available, a Pilot will be dispatched from shore by launch. No restrictions are made on arrival/sailing time.

RESTRICTIONS: No restrictions on arrival or sailing time.

MAX. SIZE: See "Berthing".

HEALTH: In theory the Government Port Doctor is to board each incoming vessel and board only outgoing vessels which carry passengers. In practice, however, the doctor boards at his discretion.

Ships cleared between the hours of 1700 – 0800. Mondays through Fridays and all day Saturday, Sundays and holidays are charged by Immigration Service for the issuance of shore leave passes. There is no charge for this service from 0800 – 1700 hrs. Mondays through Fridays. Transportation and immigration clearance fees on movement of seamen are billed at cost.

RADIO: *Arrival Messages:* Masters are requested to advise Corpoven Puerto La Cruz by radio 72 hours in advance of estimated arrival giving vessel's name, date and hour of arrival, ballast quantity and composition, last cargo, arrival height from water line to manifold, bunkers, name of Master, port of departure, draft (arrival), Registered Summer Deadweight and flag of ship; and 48 hours and 24 hours before arrival the estimated time of arrival (ETA).

Vessels may contact the Puerto La Cruz Terminal by radio-telephone on 2182 kHz SSB or by VHF Channel 16, calling "Corpoven, Puerto La Cruz", where there is stand-by attention 24 hours a day.

Ship-to-shore radios are installed on the oil dock and on both tugs. A 350-watt AM transmitter-receiver is monitored 24 hours a day.

TUGS: The use of 2 tugs is compulsory for all vessels over 145 m. LOA. The Company has available 3 tugs (2×3,000 h.p. and 1×1,600 h.p.).

BERTHING: This Terminal has 7 berths. Berths are numbered from 1 to 6, West to East and recently general cargo berth, located at the West of the Terminal installation, was converted as Jetty No. 7. To the East of this berth, the tugs and launches are moored. Service provided by jetty and other characteristics are indicated below.

Limitation/Restriction	*No.1*	*No 2*	*No.3*	*No.4*	*No.5*	*No.6*	*No.7*
LOA (ft.)	(1) 600 (2) 750	(1) 600 (2) 750	(1) 600 (2) 700	950	950	800	984
Beam (ft.)	100	100	120	161	161	120	148
Waterline to Manifold (ft.)	54	52	52	58	58	58	62
Max. Safe Draft (ft.)	38	38	38	55	55	40	51
Max. d.w.t. (1,000 tonnes) (3)	50	50	45	120	120	58	120
Max. Displacement (1,000 tonnes)	60	60	60	155	155	76	155

Notes:

1. LOA limitation if other ships are on neighbouring jetties No. 1, 2 and 3.
2. Max. LOA if neighbouring jetties are free.
3. Deadweight is referential. If ship's size is bigger than recommended d.w.t., ship must strictly comply with all of the other restrictions.
4. Jetty No. 7 is in its first stage operation. Restrictions are temporary.

Arrival at Dock: When the vessel arrives at the Piloting Zone and has the Pilot on board and berthing order, ship must steer towards the entrance channel indicated by Light Buoy No. 2, at the proximity of the entrance of the channel, the tugs go alongside the ship and pick-up the tow ropes to enter the channel, limit is signalled by shore bearing lights (direction 108°). Vessels normally dock with starboard side to dock, unless advised otherwise.

An anchor is made ready on the port side. Since the Terminal is located in a bay sheltered by various islands, the sea conditions do not require manoeuvring with the anchor. The departure manoeuvre to enter the exit channel for ships docked at Berths No. 1, 2, 3 and 7 will be made without difficulty once the vessel is undocked and moving ahead. Ships leaving Berth No. 7 must pass and round Isla El Burro Eastside.

Vessels docked at Berths No. 4, 5 and 6 must turn in order to enter the exit channel.

If a berth is occupied by a vessel which has finished loading and the berth is required, the Master may be requested to undock and await loading documents at the anchorage.

Mooring at Dock: While alongside berth, the following rules must be observed:

(*a*) Masters must ensure that mooring lines are properly tended during the discharge of ballast and loading of cargo, and that sufficient personnel are on board at all times to handle same. Discharging or loading will be temporarily suspended upon infringement of this regulation.

(b) Masters are requested to remove the blank flanges from their vessel's loading manifold before docking, so as to expedite the connecting of the shore hoses/cargo arms by company personnel. Vessels using Berths No. 4, 5 and 6 are also requested to have their derrick and gangway ready for use.
Note: Vessels normally dock with starboard side to dock, unless otherwise advised.

(c) While docked, discharge of sea water, hot water or steam on dockside of ship is prohibited. Hot water or steam may activate the automatic sprinkler system as well as damage piping located under the dock surface.

(d) Rat-guards must be placed on all ropes connected with the shore.

(e) Heavy exhaust smoke from vessel's funnel is not permitted. Any infringement of this rule will result in Government fine and/or removal of ship from dock.

(f) Meals must be provided in officers' mess-room for Venezuelan National Guard personnel who may be assigned to the vessel during stay in port.

LOADING: Ships must be operated by qualified crew, certified in tanker's operations.

After the vessel has been cleared, the Company Dock Supervisor on watch will give the Master of the vessel written instructions as to grade or grades of cargo, loading rates, information on size of hoses and lines, and other information pertinent to the loading of the vessel.

Before starting cargo operations, Master must prepare a loading plan, indicating operations sequence of cargo tanks, deballasting with stability's calculations, that includes strengths, moments and draft.

During loading operations, company employees are on watch to administer to the needs of each vessel.

Upon termination of loading cargo of crude or fuel oil, hoses/arms are normally displaced with air at controlled rates prior to disconnecting. If the ship's officers request that the alternate procedure of draining hoses/arms be effected, shore personnel will be happy to comply, provided the following steps are observed by ship's officers:

1. Advice be received prior to termination of loading cargo.
2. Ship's receptacles be situated to receive oil drained on board. It should be noted that heavy fines are imposed for spills or overflows which contaminate the bay.

Shortly after completion of loading, company personnel together with ship's officer will take ship's ullages and, later, deliver cargo and sailing papers to the Master of the vessel.

Ships must vacate berth upon completion of loading and await papers at anchorage if the berth is needed for another vessel. For information regarding cargo operations, the Loading Master can be contacted by VHF Channels 10 and 16.

Cargoes Handled:

	No. 1	*No. 2*	*No. 3*	*No. 4*	*No. 5*	*No. 6*	*No. 7*
Crude Oil	×	×	×	×	×	×	×
Refined Products	×	×	×	*	×	×	**
Bunker C Fuel	×	×	×	×	×	×	**
Bunker Diesel	×	×	×	×	×	×	**
Intermediate Fuel	×	×	×	×	×	×	**
Fresh Water	×	×	×	×	×	×	**

* Heavy Fuel Oil only.
** No extra service is provided in its first operational stage.

BALLAST: Vessels should arrive with enough ballast to permit safe handling, according to MARPOL Reg. 13:
For example:

1. Quantity of ballast to get a draft and trim, shear force and bending moment at safe parameter, propeller 100% immersed.
2. Only segregated ballast is permitted to be pumped direct to sea.
3. All ballast from cargo tanks must be received ashore.

Maximum allowable discharge pressure to shore installations is 90 p.s.i. for Berths No. 1, 2, 3, 4, 5 and 7, and 60 p.s.i. for Berth No. 6.

Maximum quantity of ballast permitted at Berths No. 1, 2, 3, 4, and 5 is 2,000 tonnes and 6,000 tonnes in Berth No. 6. Berth No. 7 cannot receive ballast at present.

All ships with ballast to pump ashore must advise in their 72 hour ETA, quantity of ballast (metric tons) and ballast composition.

Ballast reception ashore cannot be authorised if:

1. Compound of noxious substances or any other that could result in smell disagreeable to the community.
2. Residue oils, naphtha, or any other product that could form an explosive atmosphere in the lagoon.
3. Previous cargo needs to be heated and their point of flow is greater than 80°. This will be verified by the laboratory.
4. In case last cargo was crude oil with high sulphur (H_2S) content, and ballast composition mixture has part of this crude oil.

Venezuelan regulations strictly prohibit the pumping overboard of ballast in territorial waters. All ballast must be pumped ashore, except that from vessels equipped with Segregated Ballast Systems (SBT), after Terminal approval. Heavy fines are demanded for pollution of waters. The local fishermen are quick to report any transgression.

MEDICAL: All requests for medical or dental treatment must be accompanied by a written request from the Master to the vessel's Agent.

FRESH WATER: Fresh chlorinated water is available in limited quantities at an average rate of approximately 2 t.p.h.

FUEL: The terminal is not a general bunker station. Only ships loading petroleum or its products may take bunkers.

Bunker "C", heavy diesel fuel and complete range of intermediate fuels are available in reasonable quantities. Delivery rates to the ships are approximately as follows: Bunker "C", 200 t.p.h.; heavy diesel, 150 t.p.h.; intermediate fuels, 100 t.p.h.

Bunkers are delivered concurrent with loading/unloading operations and should be taken as soon as clearance is granted.

Meters are installed on all bunker systems and are calibrated in nett barrels; except diesel meters which indicate gross barrels.

The dock valves on the bunker lines will only be opened and clo upon advice from the ship's personnel.

Lubricants and gasoil are available through the vessel's Agent.

Ships which cannot take simultaneously bunkers with cargo supplied by bunkering vessel in Pozuelos Bay. This service is offered to vessels destined to Jose Terminal and other Puerto la C ports.

CONSULS: The following foreign countries have consular offices in vicinity of Puerto La Cruz:

Belgium
Brazil
Colombia
Denmark
France
Great Britain
Italy
Netherlands
Norway
Spain
Sweden

Vessel's Agent should be appraised of vessel's consular requireme promptly upon docking.

REPAIRS: Request for repair work by local contractors must accompanied by a written request from the Master of the vessel.

SURVEYORS: 1. Saybolt, Inspecciones and AIVEPET cargo inspec available at the Terminal Office.

2. Lloyd's Register, American Bureau, Bureau Veritas, P & I availa locally or from Caracas via the ship's agent.

CUSTOMS: Crew members should be warned against taking knive other lethal weapons ashore, as this is strictly prohibited. All firea and ammunition must be noted on Stores List. They cannot exceed 1 officer and 18 cartridges per gun.

No weapons may be carried while ship is in Venezuelan waters tied up at dock. Contraband of any description will be confiscated. E man is allowed 1 package of cigarettes on his person and this pack must be opened. No liquor is to be taken ashore. It is prohibited to ca liquor from shore to ship without authorisation from Master of vesse is further strictly prohibited to consume liquor in dock area.

It is normally forbidden to take photographic cameras ash However, upon request to the National Guard contingent on the oil do special permission may be obtained. This is subject to 2 limitations that the camera is returned to the ship; (2) that no photographs are ta of the petroleum installations.

TELEPHONES: There is a telephone booth on each dock. supervisor on duty may be contacted by calling number 308 or 90

REPATRIATION: Seamen discharged from hospital for transfer another port, seamen arriving from another port or those be repatriated are handled by the vessel's Agent, who must comply wit Venezuelan Regulations.

In the case of seamen left ashore for any reason, Masters requested to furnish a letter accepting responsibility for all expen incurred, advances if any, and instructions for repatriation. Venezu regulations, at all times hold the vessel responsible for a seaman du his stay in the country. Close contact is maintained by radio with owners regarding disposition of their seamen.

Movements of Passengers: In as much as the Company's Termin not a public port, only bona fide crew members and Corpoven employees are permitted to join or leave the ship in Puerto La Cru

TIME: GMT minus 4 hours all year round.

EMERGENCY CO-ORDINATION CENTRE: Seccion de Segur Busqueda y Salvamento Maritimo. Telex: 31154. Tel: (02) 513 512156.

BANKS: Banco Royal Venezolano. Tel: (081) 691921.

Cash: The local currency is the Bolivar.

Foreign currency may be exchanged at local banks. Local banks open Monday to Friday from 0830 – 1130 hrs. and 1400 – 1630 hrs., except holidays.

STORING: See "Prelims".

1. Vessel can be stored by truck.
2. No need for barge storing while ship is alongside.
3. Trucks can proceed to the berth gate only. Distance from ga ships berth 200 ft.
4. Fork lift trucks cannot be permitted inside the berth while the is either deballasting or loading.
   No fork lift trucks whatsoever permitted alongside LPG ships.
5. No Customs regulations in force regarding storing.
6. Local riggers can be employed to assist with storing through local Agent.

IDENTITY CARDS: Passes for shore leave are issued by Ha Master's Office, who board with the Customs authorities upo vessel's arrival at dock. These passes are valid for the duration vessel's stay in port and must be returned before sailing.

In order to comply with Immigration Regulations, crew shou carefully checked before sailing, and any missing seamen repo the vessel's Agent.

Crew members left behind when the vessel sails will be held in cu until deported at the vessel's or Agent's expense.

GARBAGE DISPOSAL: Garbage collection service available. Co Marine Garbage Recolector C.A., Ave. Constitucion No. 92, Pue Cruz. Tel: (081) 664243. Garbage collection is by request only, $ 3 per service (including supply of waste bags and cleaning of ga storage area). Daytime service only.

WASTE OIL DISPOSAL: Waste oil disposal service available at No. 1, 2, 3, 4 and 5. Discharge and disposal is limited to 15,000 per vessel. Arrangement for this service is by prior agreement. agent 72 hours before arrival. There is no charge for this servic

SEAMAN'S CLUB: No seaman's club available. Taxis to be orde Agent. No telephone service on jetty.

CURRENCY: Bolivar. No currency restrictions. Also see "Banks

REGULATIONS:

Excessive Smoke: It is absolutely prohibited to exhaust heavy through a ship's funnel while tied up at the Company's docks. prohibited to blow boiler tubes. Failure to comply with this regula result in any or all of the following actions:

1. Vessel's discharge of ballast or loading of crude or products immediately shut down.
2. Vessel will be subject to fine.

3. Vessel may be removed from dock.
4. Ship's Agent will be advised of infractions of this regulation.
5. Fines, time lost, and other related expenses will be charged against the vessel.

Pollution of Waters in the Bay Area: Venezuelan laws are very strict on this subject and local authorities quickly enforce existing statutes. For this reason each Master is handed a circular that emphasises the necessity of complying with federal and local laws.

The spilling or discharge of dirty ballast, crude oil or petroleum products into coastal waters is defined as pollution, as is also the throwing overboard of garbage, trash or other unwanted objects while the vessel is in Venezuelan waters, sailing, anchored or docking.

Prior to the start of loading operations all discharge valves, bilges and scuppers must be closed and strict vigilance exercised during deballasting and loading operations.

When a spill does occur, the Master, Government officials and a company representative evaluate the quantity and submit a report to the Government Petroleum Inspector. This report becomes the basis for a federal fine that is practically incontestable. An additional expense occurs when local authorities require assistance in cleaning beaches and shorelines after a spill and can pinpoint the responsible vessel or source.

Fines for spills caused by any vessel will be the responsibility of the vessel through their Agent.

All expenses incurred in the clean-up of the affected areas will be invoiced to the vessel's P&I Club in this port. Master must get a warrantee from his local P&I Agent in the amount requested by Terminal in order to cover estimated clean-up expenses.

TONNAGE CERTIFICATE: Due to reciprocal agreements between Venezuela and the following countries, ships flying the flag of any of the below-named countries are exempted from Arqueo compliance and payment of fees: Denmark, Great Britain, France, Germany, Netherlands, Norway, Portugal, Sweden, United States.

Ships bearing the flag of any other nation shall require a Venezuelan Arqueo Certificate. The cost of measuring is contingent on the size and tonnage of vessel. The certificate is usually issued after the ship sails from port. It is then sent to the marine department of the Owners of the vessel by airmail.

GENERAL:

No charts or sailing directions are available in the terminal. Same should be forwarded by airmail to the vessel's Agent for delivery to the ship.

All ship requirements such as chandlery supplies, mail, cash advances, medical, dental, consular requirements, repair work, laundry service, bonded stores, transportation etc. should be obtained through the vessel's Agent.

Local authorities strictly forbid the throwing overboard of garbage, trash or any objects while anchored or docked, and they also forbid the exchange of articles between crew members and the occupants of adjacent small craft.

Corpoven S.A. as Owner and Operator of the Puerto La Cruz Terminal renders those services necessary to effect a prompt and efficient vessel turnaround. These services are reflected in the cargo papers and the expense statements, which are transmitted only to the vessel's Agent. It is with the Agent that the Company's business is transacted. This Terminal cannot deal with Shipowners, Charterers or Purchaser of cargoes. All shipping business must be agreed through Chartering and Supply Department at Corpoven Caracas.

Payment of all bills for services rendered by this Terminal must be made by means of a bank cheque issued in favour of Corpoven S.A. and delivered to the Banking Operation Section located at Corpoven Main Building, Modulo-C Nivel Plaza, Office No. 51, Puerto La Cruz, at least 24 hours before arrival of the tanker at the Bay. If that day corresponds to a holiday or a non-business day, the delivery of said cheque must be made within 24 hours of the next working day.

Charts: U.S. Hydrographic Charts No. 24434 and 24435, and B.A. Charts No. 4402 and 1498, indicate navigational water to Puerto La Cruz and approaches to Bergantin Bay, where the oil loading docks are located.

Dock Master's Office: The offices of Corpoven's dock personnel are located in a building near the docks. Any matter concerning loading/discharge and/or bunkering is handled through this office, which is open 24 hours a day. On each dock there is a telephone booth and the Supervisor on duty may be contacted by dialing number 73308 or 73960 (Company's internal telephone system).

Handling of Vessels Flying Foreign Flags engaged on Coastal Trade between Venezuelan Ports: Shipper must obtain a licence for coastal trip between Venezuelan port from Ministry of Transportation and Communications in Caracas. Failure to do so will result in local Port Captain's Office and Customs Office not being advised and vessels assessed this cost when exemption is applicable, such as Harbour Master's and Customs' Clearance Fees.

SHIPMASTER'S REPORT: February 1979.

Documents:

3 copies of List of Passengers or "nil" passengers.

3 copies of a letter by Master stating that vessel was diverted after sailing from previous port and explaining why clearance destination is wrong.

3 copies of cable ordering diversion.

Anchorages: Good holding ground in N.W. part of anchorage area, thick mud.

Restrictions: Maximum height of manifold about 18.95 m., so necessary for vessels of 140,000 d.w.t. to load some cargo before completion of ballast.

Max. Size: If draft less than 30 ft. on arrival vessel can approach berth direct from West, and use 2 tugs. If more than 30 ft. draft then vessel must use channel to the North of berth and use 3 or 4 tugs. This for vessels of 140,000 d.w.t.

VHF: Tankers call "Corpoven" on Channel 16, then change to Channel 12 or 13. Also call Agents on Channel 16.

Berthing: Back springs to bollards on jetty. Breasts and heads and stern lines to hooks on dolphins. These hooks are secured to bollards by wire of circumference 19 cm. or diameter 6 cm.

Consuls: No U.S. Consul available and Agents will give Master letter to this effect for U.S. Immigration.

General: Ballast, if clean, may be pumped overside. If dirty, advise Corpoven prior to arrival of quantities to be pumped ashore. They will also accept slops if not sour crude or smelling too badly.

Notice to Shipmasters:

We wish to advise the Masters of all vessels calling at this port that it is strictly prohibited to take photographs.

It is likewise contrary to regulations to carry ashore a camera. Same is liable to be confiscated by the Government Authorities.

Signed: S. A. Corpoven.

SHIPMASTER'S REPORT: January 1989.

Berth: Berth No. 4, starboard side alongside.

Vessel: 89,000 d.w.t.

Gangways: Shore gangways at Berths No. 1 – 5.

Tugs: 2 tugs used, port bow and starboard main deck aft. Tugs lines used.

Mooring: 2 head/stern lines, 2 breast lines and 2 springs at each end. Head lines sent first, then breast lines and finally springs. From aft, springs first, then breast lines and finally stern lines.

The pilot boat takes all the forward lines. After springs sent away by heaving line if possible, otherwise all after moorings by pilot boat on completion of forward moorings.

AGENCY:

All incoming ships to lift cargoes at this Terminal must have a local Agent to render all services required for a prompt and efficient tanker turnaround and to cancel all ships disbursements during the port stay.

AUTHORITY: Capitania de Puerto, Guanta, Puerto La Cruz. *Tel:* 081-660534, 081-660367. *Telex:* Capipuerto 81386. *Contact:* Captain A. Hernandez, Port Captain.

Operator: Corpoven S.A., Apartado 4064, Puerto La Cruz, Venezuela. *Tel:* (081) 604709, 6022211. *Telex:* 81147. *FAX:* (081) 603099. *Contact:* Jorge Sparza, Terminal Supervisor.

PUERTO SUCRE (Cumana): 10.28 N. 64.12 W.

(See Plan)

SHIPMASTER'S REPORT: August 1980.

DOCUMENTS: As for Guanta. Entry formalities, normally after berthing but if at anchor will board about 0900 hrs.

APPROACHES: Approaching Puerto Sucre at night, the lights of the city are visible for many miles, but the light indicated at the end of the pier is non-existent, also the water tower marked on the chart with red lights is non-existent.

Two vessels were alongside when this vessel approached so the pier was clearly visible with the lights of the ships, otherwise there are no lights on the pier.

The pier indicated on the chart just North of the main pier is no longer there although at low water parts of the supports are still visible. Further North there are 3 piers, approximately half cable long, used by fishing boats. They start approximately 1 cable North and 1 cable between each, also there are car ferry terminals before the mouth of the river South of Pta. Carenero. This river mouth is undergoing extensive work which is apparently to be a fishing harbour.

A tall white building is situated in approximate position Lat. 10° 27.8' N., Long. 64° 11.1' W., it has a fixed red light and an occulting red light at night. A silo is situated in approximate position Lat. 10° 26.7' N., Long. 64° 11.25' W., this has 3 red lights in a horizontal line at night. There is an air light on the control tower at the airport, alternating white and green every 5 seconds, but this is only lit when an aircraft is due.

PILOTAGE: Pilotage is compulsory for berthing and unberthing. Pilot will anchor vessel if required.

ANCHORAGE: Anchorage is limited in pilotage area "A". This vessel anchored 3 cables off the shore line and 3 cables off the pier in 30 fathoms of water, vessels also anchor 2.5 to 3 miles S.W. of pier in 25 fathoms, however Pilots prefer vessels to use nearer anchorage.

VHF: Pilots occasionally on Channel 16, but very little English spoken. The ship's chandler has a VHF set and can be very helpful as he speaks very good English.

BERTHING: Vessels use both sides of the pier and Ro/Ro vessels tie up stern to the head of the pier. Soundings were taken around the pier (See "Plan").

CARGO HANDLING FACILITIES: There are numerous fork lift trucks of all sizes, 4 mobile cranes and some small towing vehicles. This vessel had a cargo of bagged fertiliser which was discharged onto lorries and there was no shortage of these, even when working 2 ships with 10 gangs no delays were caused due to lack of transport. Ship's gear is used at all times but the mobile cranes can be hired if required.

MEDICAL: Services available.

FRESH WATER: Available using ship's hoses.

FUEL: Diesel oil is available but difficult to obtain as it has to be brought from Puerto la Cruz by road tankers.

WATCHMEN: Not available, one member of National Guard on board, requires a cabin if one available. This vessel had no spare accommodation but the guard must still be fed.

SHORE LEAVE: Permitted, but shore passes must be carried and passes returned when vessel leaves.

GENERAL: *Provisions and Laundry:* Available.

Garbage Disposal: No facilities.

sufficient personnel are on board at all times to handle same. Discharging or loading will be temporarily suspended upon infringement of this regulation.

(b) Masters are requested to remove the blank flanges from their vessel's loading manifold before docking, so as to expedite the connecting of the shore hoses/cargo arms by company personnel. Vessels using Berths No. 4, 5 and 6 are also requested to have their derrick and gangway ready for use.

Note: Vessels normally dock with starboard side to dock, unless otherwise advised.

(c) While docked, discharge of sea water, hot water or steam on dockside of ship is prohibited. Hot water or steam may activate the automatic sprinkler system as well as damage piping located under the dock surface.

(d) Rat-guards must be placed on all ropes connected with the shore.

(e) Heavy exhaust smoke from vessel's funnel is not permitted. Any infringement of this rule will result in Government fine and/or removal of ship from dock.

(f) Meals must be provided in officers' mess-room for Venezuelan National Guard personnel who may be assigned to the vessel during stay in port.

LOADING: Ships must be operated by qualified crew, certified in tanker's operations.

After the vessel has been cleared, the Company Dock Supervisor on watch will give the Master of the vessel written instructions as to grade or grades of cargo, loading rates, information on size of hoses and lines, and other information pertinent to the loading of the vessel.

Before starting cargo operations, Master must prepare a loading plan, indicating operations sequence of cargo tanks, deballasting with stability's calculations, that includes strengths, moments and draft.

During loading operations, company employees are on watch to administer to the needs of each vessel.

Upon termination of loading cargo of crude or fuel oil, hoses/arms are normally displaced with air at controlled rates prior to disconnecting. If the ship's officers request that the alternate procedure of draining hoses/arms be effected, shore personnel will be happy to comply, provided the following steps are observed by ship's officers:

1. Advice be received prior to termination of loading cargo.
2. Ship's receptacles be situated to receive oil drained on board. It should be noted that heavy fines are imposed for spills or overflows which contaminate the bay.

Shortly after completion of loading, company personnel together with ship's officer will take ship's ullages and, later, deliver cargo and sailing papers to the Master of the vessel.

Ships must vacate berth upon completion of loading and await papers at anchorage if the berth is needed for another vessel. For information regarding cargo operations, the Loading Master can be contacted by VHF Channels 10 and 16.

Cargoes Handled:

	No. 1	*No. 2*	*No. 3*	*No. 4*	*No. 5*	*No. 6*	*No. 7*
Crude Oil	×	×	×	×	×	×	×
Refined Products	×	×	×	*	×	×	**
Bunker C Fuel	×	×	×	×	×	×	**
Bunker Diesel	×	×	×	×	×	×	**
Intermediate Fuel	×	×	×	×	×	×	**
Fresh Water	×	×	×	×	×	×	**

* Heavy Fuel Oil only.

** No extra service is provided in its first operational stage.

BALLAST: Vessels should arrive with enough ballast to permit safe handling, according to MARPOL Reg. 13:

For example:

1. Quantity of ballast to get a draft and trim, shear force and bending moment at safe parameter, propeller 100% immersed.
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Corpoven S.A. as Owner and Operator of the Puerto La Cruz Terminal renders those services necessary to effect a prompt and efficient vessel turnaround. These services are reflected in the cargo papers and the expense statements, which are transmitted only to the vessel's Agent. It is with the Agent that the Company's business is transacted. This Terminal cannot deal with Shipowners, Charterers or Purchaser of cargoes. All shipping business must be agreed through Chartering and Supply Department at Corpoven Caracas.

Payment of all bills for services rendered by this Terminal must be made by means of a bank cheque issued in favour of Corpoven S.A. and delivered to the Banking Operation Section located at Corpoven Main Building, Modulo-C Nivel Plaza, Office No. 51, Puerto La Cruz, at least 24 hours before arrival of the tanker at the Bay. If that day corresponds to a holiday or a non-business day, the delivery of said cheque must be made within 24 hours of the next working day.

Charts: U.S. Hydrographic Charts No. 24434 and 24435, and B.A. Charts No. 4402 and 1498, indicate navigational water to Puerto La Cruz and approaches to Bergantin Bay, where the oil loading docks are located.

Dock Master's Office: The offices of Corpoven's dock personnel are located in a building near the docks. Any matter concerning loading/discharge and/or bunkering is handled through this office, which is open 24 hours a day. On each dock there is a telephone booth and the Supervisor on duty may be contacted by dialing number 73308 or 73960 (Company's internal telephone system).

Handling of Vessels Flying Foreign Flags engaged on Coastal Trade between Venezuelan Ports: Shipper must obtain a licence for coastal trip between Venezuelan port from Ministry of Transportation and Communications in Caracas. Failure to do so will result in local Port Captain's Office and Customs Office not being advised and vessels assessed this cost when exemption is applicable, such as Harbour Master's and Customs' Clearance Fees.

SHIPMASTER'S REPORT: February 1979.

Documents:

3 copies of List of Passengers or "nil" passengers.

3 copies of a letter by Master stating that vessel was diverted after sailing from previous port and explaining why clearance destination is wrong.

3 copies of cable ordering diversion.

Anchorages: Good holding ground in N.W. part of anchorage area, thick mud.

Restrictions: Maximum height of manifold about 18.95 m., so necessary for vessels of 140,000 d.w.t. to load some cargo before completion of ballast.

Max. Size: If draft less than 30 ft. on arrival vessel can approach berth direct from West, and use 2 tugs. If more than 30 ft. draft then vessel must use channel to the North of berth and use 3 or 4 tugs. This for vessels of 140,000 d.w.t.

VHF: Tankers call "Corpoven" on Channel 16, then change to Channel 12 or 13. Also call Agents on Channel 16.

Berthing: Back springs to bollards on jetty. Breasts and heads and stern lines to hooks on dolphins. These hooks are secured to bollards by wire of circumference 19 cm. or diameter 6 cm.

Consuls: No U.S. Consul available and Agents will give Master letter to this effect for U.S. Immigration.

General: Ballast, if clean, may be pumped overside. If dirty, advise Corpoven prior to arrival of quantities to be pumped ashore. They will also accept slops if not sour crude or smelling too badly.

Notice to Shipmasters:

We wish to advise the Masters of all vessels calling at this port that it is strictly prohibited to take photographs.

It is likewise contrary to regulations to carry ashore a camera. Same is liable to be confiscated by the Government Authorities.

Signed: S. A. Corpoven.

SHIPMASTER'S REPORT: January 1989.

Berth: Berth No. 4, starboard side alongside.

Vessel: 89,000 d.w.t.

Gangways: Shore gangways at Berths No. 1 – 5.

Tugs: 2 tugs used, port bow and starboard main deck aft. Tugs lines used.

Mooring: 2 head/stern lines, 2 breast lines and 2 springs at each end. Head lines sent first, then breast lines and finally springs. From aft, springs first, then breast lines and finally stern lines.

The pilot boat takes all the forward lines. After springs sent away by heaving line if possible, otherwise all after moorings by pilot boat on completion of forward moorings.

AGENCY:

All incoming ships to lift cargoes at this Terminal must have a local Agent to render all services required for a prompt and efficient tanker turnaround and to cancel all ships disbursements during the port stay.

AUTHORITY: Capitania de Puerto, Guanta, Puerto La Cruz. *Tel:* 081-660534, 081-660367. *Telex:* Capipuerto 81386. *Contact:* Captain A. Hernandez, Port Captain.

Operator: Corpoven S.A., Apartado 4064, Puerto La Cruz, Venezuela. *Tel:* (081) 604709, 6022211. *Telex:* 81147. *FAX:* (081) 603099. *Contact:* Jorge Sparza, Terminal Supervisor.

PUERTO SUCRE (Cumana): 10.28 N. 64.12 W.

(See Plan)

SHIPMASTER'S REPORT: August 1980.

DOCUMENTS: As for Guanta. Entry formalities, normally after berthing but if at anchor will board about 0900 hrs.

APPROACHES: Approaching Puerto Sucre at night, the lights of the city are visible for many miles, but the light indicated at the end of the pier is non-existent, also the water tower marked on the chart with red lights is non-existent.

Two vessels were alongside when this vessel approached so the pier was clearly visible with the lights of the ships, otherwise there are no lights on the pier.

The pier indicated on the chart just North of the main pier is no longer there although at low water parts of the supports are still visible. Further North there are 3 piers, approximately half cable long, used by fishing boats. They start approximately 1 cable North and 1 cable between each, also there are car ferry terminals before the mouth of the river South of Pta. Carenero. This river mouth is undergoing extensive work which is apparently to be a fishing harbour.

A tall white building is situated in approximate position Lat. 10° 27.8' N., Long. 64° 11.1' W., it has a fixed red light and an occulting red light at night. A silo is situated in approximate position Lat. 10° 26.7' N., Long. 64° 11.25' W., this has 3 red lights in a horizontal line at night. There is an air light on the control tower at the airport, alternating white and green every 5 seconds, but this is only lit when an aircraft is due.

PILOTAGE: Pilotage is compulsory for berthing and unberthing. Pilot will anchor vessel if required.

ANCHORAGE: Anchorage is limited in pilotage area "A". This vessel anchored 3 cables off the shore line and 3 cables off the pier in 30 fathoms of water, vessels also anchor 2.5 to 3 miles S.W. of pier in 25 fathoms, however Pilots prefer vessels to use nearer anchorage.

VHF: Pilots occasionally on Channel 16, but very little English spoken. The ship's chandler has a VHF set and can be very helpful as he speaks very good English.

BERTHING: Vessels use both sides of the pier and Ro/Ro vessels tie up stern to the head of the pier. Soundings were taken around the pier (See "Plan").

CARGO HANDLING FACILITIES: There are numerous fork lift trucks of all sizes, 4 mobile cranes and some small towing vehicles. This vessel had a cargo of bagged fertiliser which was discharged onto lorries and there was no shortage of these, even when working 2 ships with 10 gangs no delays were caused due to lack of transport. Ship's gear is used at all times but the mobile cranes can be hired if required.

MEDICAL: Services available.

FRESH WATER: Available using ship's hoses.

FUEL: Diesel oil is available but difficult to obtain as it has to be brought from Puerto la Cruz by road tankers.

WATCHMEN: Not available, one member of National Guard on board, requires a cabin if one available. This vessel had no spare accommodation but the guard must still be fed.

SHORE LEAVE: Permitted, but shore passes must be carried and passes returned when vessel leaves.

GENERAL: *Provisions and Laundry:* Available.

Garbage Disposal: No facilities.

SHIPMASTER'S REPORT: April 1996.

The following are my observations during a recent visit on a handy sized bulk carrier laden with wheat.

Charts: B.A. 230 and B.A. 1629.

Vessel arrived around 2230 hrs. LT.

We received no replies to our repeated calls on VHF to Port Authorities/ Pilots/Agents.

The approaches were infested with small fishing craft, most of which were unlit. As we received no information regarding berthing, we anchored around 2300 hrs. with main pier bearing 064° × 3.5 nautical miles, which was about 1.1 nautical miles off the nearest land, in depth of 40 m. The holding ground was good.

On the next day we received no replies to our repeated calls on VHF and telephone to Port/Pilots/Agent.

At 0630 hrs. the following day, an unmarked boat came alongside and a Pilot boarded the vessel. He spoke very little English, but we understood that the vessel has to berth immediately.

No tugs available in this port.

The Pilot was proficient and we went starboard side alongside the main pier.

Discharge of wheat was by portable SKT equipment directly into trucks, and the discharge rate was about 1,200 tonnes/day.

Fresh provisions, meat, fish and poultry available.

Shore pass required for ship's personnel to go ashore.

All anti-pilferage precautions need to be taken on board.

PUNTA CARDON: 11.38 N. 70.14 W. (See Plan)

PORT LIMITS: The area enclosed by the parallels of Lat. 11° 38' 00" N. and Lat. 11° 36' 38" N. and the meridian of Long. 70° 14' 25" W.

FLAG: It is compulsory to display the Venezuelan flag at the foremast starboard yardarm during daylight hours for ships anchored or berthed in Venezuelan waters. The ship's Services will provide a Venezuelan flag at any time for ship's account.

LOCATION: The port of Punta Cardon is located on the Gulf of Venezuela, on S.W. coast of Paraguana Peninsula, Venezuela. Punta Cardon is an open sea port with practically no swell, due to the Easterly winds prevailing almost all year from the shore side.

ESSENTIAL REQUIREMENTS:

1. Incoming vessels must send ETA at least 3 days before arrival at Punta Cardon.

2. If a ship, originally cleared for another port (including any other Venezuelan port) is diverted at sea to Punta Cardon, certain information must be radioed prior to arrival in order to avoid heavy fine(s) and/or delays.

3. No dirty ballast may be pumped overside in port in Venezuelan coastal waters. Ballast disposal facilities are available at Punta Cardon Terminal.

4. The use of Venezuelan Government Pilots is compulsory for berthing and unberthing.

5. In addition to other clearance documents, 5 copies of an itemised list of articles in the ship's slop chest must be presented to the authorities on arrival.

6. The emergency fire signal is 5 long blasts on the ship's whistle or siren. No other signal is to be given in cases of emergency.

7. Rat-guards must be placed on all mooring lines.

DOCUMENTS: Clearance (inward Pratique). Inward Clearance is effected on board by Government Port and Customs Officials and a representative of the Oil Movements Department immediately after berthing. The following documents must be ready on arrival:

(1) In ballast:

(a) Clearance from Last Port (1 copy).

(b) Ballast Manifest from Last Port (1 copy).

(c) Crew List (7 copies).

(d) Steward's Stores List (all foodstuff, liquors, tobacco, etc.), to be declared on a separate and independent sheet (5 copies, see note (2)).

(e) Deck and Engine Stores and Spare Parts List (paints, varnishes, chains, ropes, etc.), to be declared on a separate and independent sheet (5 copies, see note (2)).

(f) Medicine Chest Lists (including narcotics accurately itemised) (5 copies).

(g) Slop Chest Lists (5 copies).

(h) Personal Effects Lists (4 copies).

(i) Sailing Permit (issued by Maritime Authority at Last Port of call) (1 copy).

(j) Passenger and Baggage Lists (if any) (2 copies).

(k) List of Passengers in transit (if any) (4 copies).

(2) Both the Steward's Stores List, the Deck and Engine Stores and Spare Parts List may be prepared on board prior to the vessel's arrival. The Steward's Stores List must be comprehensive and accurate, especially with regard to cigarettes and liquor. All new clothing, gifts, souvenirs, etc. are to be clearly marked. All personal effects of the crew are to be collected and placed in the Bonded Stores Locker, ready for sealing by the Customs Authorities on arrival.

Although vessels proceed directly to Punta Cardon, clearance documents should be made out showing the port as "Las Piedras, Paraguana (Punta Cardon)". Failure to comply with this requirement may result in fines up to a max. of U.S. $600.00.

(3) Clearance documents out-bound: Outward Clearance and cargo documents are delivered on board by the Ship's Services Representative.

In the event that the berth is required by another vessel, a ves having completed loading may be required to vacate the berth prom and proceed to anchorage to await cargo documents and clearanc

APPROACHES: Restricted Fishing Area. Masters when approach coast should keep a particularly sharp lookout for fishing boats, nets a small craft.

Mechanically propelled vessels drawing more than 5 ft. are prohib from navigating in the restricted fishing area that extends off Paragua Peninsular from Punta Macolla, Lat. 12° 05' 32" N., Long. 70° 12' 55" to Punta Estanques (Los Taques), Lat. 11° 48' 45" N., Lo 70° 16' 45" W., and a line connecting the position indicated below:

(a) Lat. 11° 37' 12" N., Long. 70° 14' 25" W.

(b) Lat. 11° 37' 30" N., Long. 70° 19' 23" W.

(c) Lat. 11° 37' 36" N., Long. 70° 21' 50" W.

Leading Lines:

	Position			*Height*
Jetty	*Latitude* N.	*Longitude* W.	*Colour*	*in Metres (LWS)*
I	11° 37' 19.2"	70° 13' 54.6"	Green	4.70
	11° 37' 23.1"	70° 13' 47.6"	Green	14.20
II	11° 37' 32.0"	70° 14' 02.0"	Red	4.83
	11° 37' 35.9"	70° 13' 55.1"	Red	14.30
III	11° 37' 08.1"	70° 13' 53.5"	White	3.06
	11° 37' 09.1"	70° 13' 50.6"	White	14.94
IV	11° 37' 41.9"	70° 14' 12.0"	Blue	5.10
	11° 37' 42.4"	70° 14' 09.4"	Blue	21.54
V	11° 30' 49.64"	70° 14' 33.12"		

Navigation Aids: When approaching the Punta Cardon Terminal, t flares will be seen.

The North Flare is located at:

Lat. 11° 30' 49.64" N., Long. 70° 14' 33.12" W.

The South Flare is located at:

Lat. 11° 37' 26.00" N., Long. 70° 13' 20.00" W.

A light is located on the outer radio tower.

Position: Lat. 11° 38' 03" N., Long. 70° 13' 56.2" W.

Characteristics: Fl. White and Red, ev. 10 sec. Height 205 ft. (62.5 21 miles (U).

Sectors: Red 340° – 009°, White 009° – 202°, Eclipsed 189° - 34 (All bearings are true from seaward).

2 large chimneys are very conspicuous in the Refinery Area. The No chimney is situated Lat. 11° 37' 54.6" N., Long. 70° 13' 10.8" W. Hei above MLWS 399.6 ft. (121.8 m). The South chimney is situa Lat. 11° 37' 52.9" N., Long. 70° 13' 09.8" W. Height above MLWS 396. (120.8 m.). For daylight distinguishing marks, both are painted with bro red and white bands and at night both have a string of all round fi red lights at the top and the same at the middle height.

PILOTAGE: Pilots are employees of Venezuelan Government a pilotage is compulsory for vessels entering or leaving harbour. The Sh Services Office will arrange for this service at any time. If it becon necessary for Master of the vessel to disregard Pilot's orders in or to ensure safety to the ship, the Master must promptly submit a wri report to the Harbour Master on the matter, via the Ship's Servi Representative, stating reason for this action.

Pilots sustaining injuries: It is compulsory to submit a full repor cases where a Pilot is injured while performing duties on board vess

Agent's Notice to Masters: Dated July 1986.

Subject: Pilot Service from/to Punta Cardon

Harbour Master's Office has issued new regulations. Here below mentioned regulations:

1. Pilot service from Punta Cardon is only compulsory when Mas are crossing the channel of Lake Maracaibo for the first time. If th not the case, the Pilot should be then embarked at San Carlos.

2. Upon your request this Pilot service can be arranged by the Age

3. On departure, Pilot service to Punta Cardon is not required.

4. If Official Pilot is unable to disembark at San Carlos du difficulties on board or by *force majeure,* or if you decide to chang instructions given to the Agency with regard to Pilot disembarking Carlos, a letter addressed to the Harbour Master stating your reas should be handed to the Pilot before he disembarks in Cardon.

Master's Note: With regard to the above, on reflection the conte the letter from Agent may not be too clear to those not familiar wi area. At risk of stating the obvious, what this Notice is saying is pilotage inwards from the "EM" Buoy, to the San Carlos Pilot Stat only necessary on the Master's first visit to a Lake Maracaibo Thereafter he may navigate the Outer Channel without a Pilot. The C Channel Pilot is taken at Punta Cardon on the inward passage disembarked there on the outward passage, should a Pilot b required.

Shipmaster's Report: January 1989.

Punta Cardon is no longer a Pilot Station. The new station is Gua Pilot Station. The embarkation/disembarkation zone is located bet the following 4 points:

A.	Lat. 11° 40.0' N.	Long. 70° 15.5' W.
B.	Lat. 11° 41.5' N.	Long. 70° 15.5' W.
C.	Lat. 11° 41.5' N.	Long. 70° 16.5' W.
D.	Lat. 11° 41.0' N.	Long. 70° 16.5' W.

ANCHORAGE: The anchorage at Cardon roads within a radi 2 miles from end of jetties has depths varying from 54 ft. to 100 ft. and a bottom consisting of mud with some patches of small stones and shells. There are no known obstructions from West to N.W. Piers and there is ample water for a clear approach when comin West and N.W., but the anchorage is limited on the South by a sa projecting 1 mile S.W. off Punta Cardon Cape. A beacon is loca this Sandspit in position: Lat. 11° 36' 03.4" N., Long. 70° 14' 15 Fl.R. ev. 1 sec. 17 ft. 5 miles (U).

MAX. SIZE:

	Jetty/Berth		*Depth LWS* (ft. in.)	*Draft* (ft. in.)	*Length* (ft.)	*Displac.* (tons)
No. 1	North Outer	(3)	42 00	39 06	710	55,000
	South Outer	(4)	42 06	40 00	710	55,000
	South Inner	(2)	32 06	31 00	575	25,000
No. 2	North Outer	(3)	43 00	40 06	710	55,000
	South Outer	(4)	41 06	39 00	710	55,000
	North Inner	(1)	21 00	19 06	424	25,000
	South Inner	(2)	23 00	21 06	424	25,000
No. 3	North Outer	(3)	47 00	44 06	900	70,000
	South Outer	(4)	48 00	45 06	900	62,000
No. 4	North Outer	(3)	47 06	45 00	900	54,000
	South Outer	(4)	47 06	45 00	900	54,000
No. 5		(1)	45 00	41 08	787	60,000

RADIO/VHF: Arrival messages (ETA's) must be sent by all vessels bound for or diverted to Cardon, through telex to the Terminal or vessel's Agent, 72 hours, 48 hours and 24 hours prior to arrival.

(a) Name of vessel
(b) Flag
(c) ETA
(d) Last Port.
(e) Master's name
(f) Number of crew and passengers
(g) Port for which the vessel is cleared
(h) Quantity of clean ballast on board
(i) All requirements

This information is of the utmost importance to the Harbour Authorities in facilitating the entry of vessels in general, and in case of diversion.

VHF Radio Telephony: The radio and communication centre is located in the Oil Movements Office.

There is an R/T set operating 24 hours a day on the following frequencies, and manned by English speaking operators:

156.6 MHz FM VHF (Channel 12) Range limit 25 miles
156.8 MHz FM VHF (Channel 16) ,, ,, 25 ,,

Call sign: "Marine Cardon".

Shipmaster's Report: 1993.

VHF Channels 16 and 12 used. It is important to call and listen on Channel 12.

TUGS: 2 tugs of 2,700 h.p. are available, and their assistance is compulsory for berthing. Number, disposition and manoeuvres of tugboats are directed by the Pilot. The following tug signals in practice in this port are listed below for Master's guidance:

Short blasts are used to give orders to the tug situated ahead.
Long blasts are used to give orders to the tug situated aft.
1 blast means *push* tug engine, ahead (if it is stopped); *stop* tug engine, stop (if it is moving).
2 blasts, *pull* tug engine, astern.
1 long, 1 short, 1 long and 1 short whistle, "Calling tugs".
1 long and 2 short whistles, "Tugs Dismissed".

BERTHING: Without exception ships always moor head-in on all berths. It is considered prudent to have the outboard anchor hove out prior to approaching piers to facilitate speedy release while docking if necessary. Vessels are to be moored to satisfaction of the Port Services Superintendent or his deputy; mooring lines must be tended regularly and kept hove taut to prevent surging and possible damage to ships, docks or hoses. When adjusting mooring lines, the assistance of harbour tugs should be requested before slackening off any mooring line.

BALLAST: It is suggested that vessels nominated to load at this installation arrive with the minimum of ballast on board, necessary for the safe handling of the vessel under normal conditions. In this connection experience has shown that, under normal weather conditions, vessels can be safely berthed and unberthed with a quantity of ballast of approximately 25% of their respective Summer deadweights. Dirty ballast can be received ashore. Maximum discharge pressure to shore installation is 150 p.s.i. in the 20 in. ballast line of Jetty No. 2; Jetties No. 1 and 4 have a 24 in. ballast line, and Jetty No. 3 has a 16 in. line. Masters are requested to endeavour to arrive at this port with 20% SDW ballast.

Parafinic slops or ballast will not be accepted.

Extra-occupancy tariff will be charged for delays in ballast time. For more information contact our vessel's Agent.

MEDICAL: Facilities are available for medical and dental treatment, vaccination and hospitalisation in a private clinic.

Emergency cases will be attended to at all times.

Masters requiring medical or dental service or vaccination for their crew members should call vessel's Agent and they will make the necessary arrangements with the clinic and arrange for transportation to pick up the crew members on the pier and to take them to the clinic and back. Any crew member who is sent ashore for medical or dental treatment, and who does not speak English or Spanish, must be accompanied by a crew member who speaks one of these languages.

Doctors do not attend patients on board. In serious cases where the patient is unable to walk an ambulance will be provided to take him to the hospital.

FRESH WATER: Fresh water is available at all berths. Loading rate is 30 t.p.h.

FUEL: Available if advance notice given. Funds at to be remitted to Chase Manhattan Bank, One Chase Manhattan Plaza, New York, 24 hours in advance to Maraven S.A. (Account No. 001-1-992773).

REPAIRS: Shore facilities are available for emergency repairs of a minor nature. The nearest dry docks are located at Puerto Cabello and Curacao, N.A. Request for repairs should be mentioned in the ship's ETA message.

CUSTOMS: Venezuelan National Guards are stationed at the piers to ensure that vessels in port comply with regulations.

1. *Smuggling.* Strict compliance with the Customs laws of the country is enforced by the Authorities and Masters are strongly advised to caution crew members against attempting to smuggle ashore cigarettes in carton lots, cigars, tobacco, souvenirs, gifts (particularly items of women's apparel) or other articles. A maximum of twenty cigarettes per person for personal use is allowed to be carried but a greater quantity will result in the imprisonment of the offender with possible heavy fines and delay to the vessel.

2. *Bar.* On Customs Authorities instructions vessels maintaining a "Bar Service" on board for the use of officers, crew, passengers and visitors, must keep the bar closed during the vessel's stay in port.

3. *Firearms.* Firearms on board any merchant vessel calling at Venezuelan ports must not exceed one per officer, nor can the ammunition exceed 18 cartridges per officer. All firearms and ammunition must be declared on Stores List. Officers must not carry firearms while ship is in Venezuelan waters. Said arms should be collected together with the ammunition and held in the Master's safe custody. Crew members should be warned against taking knives or other weapons ashore as these will be confiscated and the bearer fined.

CERTIFICATES: All ships arriving in Venezuelan ports for the first time must be measured by the Maritime Authorities for issuance of a Venezuelan Tonnage Certificate, known as "Certificado de Arqueo". This document gives the measurements and weight of the vessel in accordance with existing laws. The cost of measuring and issuing of the Certificate is contingent on size and tonnage of vessel.

It is usual practice to take ashore the ship's "General Arrangement" and "Capacity" plans, which are used as a basis for calculations. These plans and the Venezuelan Tonnage Certificate are later forwarded to ship's Owners.

Vessels registered in following countries are exempt from above regulations, due to existing reciprocal agreement with Venezuela: Denmark, France, Germany, Great Britain, Ireland, Netherlands, Norway, Portugal, Sweden, U.S.A.

The Venezuelan Tonnage Certificate is used in calculating Venezuelan Government Port charges, such as Port Captain Habilitation for entry and despatch of vessels and Pilotage Dues, for all vessels except those registered in the countries mentioned above, in which case the Lloyd's Registered Tonnage is used.

TIME: Local time is GMT minus 4 hours.

HOLIDAYS: By order of the local Port Authorities it is requested that all ships in port be fully dressed on the following national holidays: January 1st, April 19th, July 5th, July 24th, October 12th, December 25th.

TELEPHONES: Loading Supervisor (for cargo and bunkers) a 24 hour service on telephone 72206, 72133 or by VHF Channels 12/16, call sign "Marine Cardon".

SHORE LEAVE: Shore leave is permitted and Harbour Master's representative who boards vessel on arrival issues the required number of shore passes. These passes must be shown when proceeding ashore to the Government and Company Guards at the gangway and refinery gates. They are to be collected by Master prior to sailing and handed to Pilot unberthing the vessel. Masters are reminded that in accordance with the instructions of local police, crew members be properly dressed before leaving the vessel, i.e. long trousers and shirts.

Masters are requested to have shore leave expire at least 2 hours before expected departure. Men then found missing should be reported to the vessel's Agent, who will endeavour to locate them. An officer must accompany shore personnel in order to identify the missing crew member.

Vessels are not permitted to sail until all crew members are on board, unless said crew members are hospitalised or previously signed off by the Master through the Ship's Services representative. If any crew member is missing at sailing time and cannot be found, his passport and other personal documents must be handed to the vessel's Agent, as well as written instructions as to his repatriation, when found. All costs and expenses of a crew member so left behind will be for ship's account.

GENERAL:

Animals: The importation and transit of all birds belonging to the genus parrot or parakeet is prohibited. For other birds a valid health certificate is required. For so-called "small animals" e.g. dogs, cats, monkeys, rabbits, etc. a valid health certificate and a valid rabies vaccination certificate are required.

Bonded Stores: Stores in bond are not obtainable in Punta Cardon. The nearest port with bonded stores facilities is Curacao.

Board of Trade Gangway: A safe gangway must be provided by the vessel and should be rigged as soon as possible after mooring to allow the Port Authorities to board, and should not be taken in until Pilot has boarded to unmoor vessel. The use of rung ladders, pilot ladders, etc. is contrary to Port Regulations and Port Authorities will not board except by means of a safe gangway or accommodation ladder.

Damage during Manoeuvres: When a vessel or the pier sustains damage during manoeuvres with an official Pilot on board, it is the responsibility of the Master to submit to the Ship's Services representatives, immediately after the accident, a report in quintuplicate, for presentation to the Harbour Master. Such reports should give full details of the accident and of all engine movements as ordered by the Pilot, as well as a sketch in triplicate of the ship's manoeuvring position at the time. These will be translated by the Agents into Spanish and forwarded to the Harbour Master.

Cash Advance to Masters: Cash advances to Masters are made only in Venezuelan currency, which is the Bolivar. Cash requirements should be included in the vessel's ETA message. Foreign currencies are accepted in the United Seamen's Service Club.

Rat-guards: By order of the Port Authorities rat-guards must be fitted to all mooring lines. Non compliance entails a fine of 200 Bolivares for each unguarded line.

Kerosene, Motor Gasoline, Gas-Oil, Solvents: Supplies for ship's purposes are available in drums. The return of empty drums ashore is prohibited by Customs regulations. Therefore the cost of each drum will be billed to the vessel in the Port Disbursement Account.

Lubricants, Oils and Greases: Supplies of products are available. Vessels arriving at Punta Cardon on Saturday or Sunday or on a holiday should give ample notice of their requirements by cable in order that the necessary labour arrangements for delivery can be made. This procedure also applies to the delivery of white oils mentioned under 7 above, when required outside working days.

Laundry Service: Laundry service is available throughout each working day. Such service should be requested in the vessel's ETA message.

Wireless Transmitters in Port: It is strictly prohibited to use vessel's wireless transmitters in the Port of Cardon. Non-compliance with this regulation may result in a fine being imposed on the vessel by the authorities.

Mail: On vessels' arrival, blank Mail List Forms will be handed to the Master to be completed in sextuplicate and duly signed by him, when sending ship's and crew mail ashore for posting. Ship's mail received after ship has sailed, or for vessels on which no advice has been received, will be held for 15 days and then returned by airmail to the owners or operators or senders, at ship's expense unless specific instructions have been received beforehand.

Marine Surveyors: Both the Lloyd's Agents at Maracaibo and Norske Veritas at Caracas have a representative in Punta Cardon who acts on their behalf when a surveyor is requested. However, in the case of continuous or classification surveys, advance notice of 4 days should be given in order to arrange for an appointed surveyor to come from Caracas. There is also a representative of the American Bureau of Shipping in this area (Caracas).

Navigation Charts: Navigation charts are not available at this port.

Passengers: Movement of passengers over Cardon Piers is subject to restriction under terms of agreement with the government. Passengers will not be permitted to disembark unless in possession of the required Venezuelan visa and travel documents. If passengers are carried, Master should so advise in his radio ETA so that arrangements can be made for Immigration Authorities to visit vessel on arrival and thus facilitate clearance.

Petroleum Inspection: Several petroleum inspectors are available in this area. Contact can be made through the vessel's Agents.

Personnel – Seamen Left Ashore: In the case of seamen left ashore for hospitalisation, repatriation, desertion or other reasons, all documents and personal effects are to be handed to the Oil Movement Department's representative before sailing. A letter is required from the Master advising the maximum advances, if any, to be made to the seamen, and instructions concerning his repatriation. All expenses incurred by seamen left ashore, including cost of repatriation, are for ship's account. It is important that Masters bear in mind that the Venezuelan law will at all times hold the vessel, her Master, or Owner responsible for any seamen left behind in Venezuela.

Photographing: The taking of photographs within the boundary fence of the Cardon Refinery is prohibited. Taking cameras ashore is likewise prohibited.

Provision and Stores: Provisions and stores are available. Requisitions should be conducted through the ship's Agent, when he calls on board with the authorities on arrival. Ships' chandlers are not permitted to visit ships, unless specifically instructed to do so by the Agents.

Radar and Radio Repairs: Repair and maintenance services for radar, radio, gyro compass, radio direction finder, echo sounder, etc. are available. The repair man should be contacted through the ship's Agent.

Safety of Personnel: It will be appreciated that persons intoxicated by alcoholic drinks can create risks of accidents; therefore we ask the Master's co-operation to ensure that these persons do not enter the refinery gates and/or board their vessel unless accompanied by sober members of their crew. In this connection we will advise the Master or one of his officers, so that measures can be taken to ensure the safety of the forementioned person(s) e.g. by sending one or more of the crew to the gate to accompany him (or them) to the ship.

Visitors: Visits to ships are prohibited except from those company employees, petroleum inspectors, etc., whose duties require their presence on board.

Staff and Crew Changes: No staff and/or crew should be engaged or discharged without consulting ship's Agent. In case of discharge, identification documents must be handed to the Ship's Services representative or the Norwegian Consular Officer in the case of Norwegian vessels.

Tank Cleaning and Mopping: Several contractors in the area provide labour for tank cleaning and mopping. Masters in need of this service should submit their requirements to the Ship's Services Office, who will contact and request a contractor to go on board to discuss details and estimate costs of work to be effected. It must be pointed out that the Master of the vessel is solely responsible for the proper fitness of the ship's tanks for loading his next cargo, and will therefore be held liable for any contamination of the cargo after loading, due to inadequate tank cleaning. Therefore it is up to him to decide the degree of tank cleaning necessary. He may, of course, seek advice from the installation representative in this respect, whenever there is any doubt.

Turnaround: To promote the economical operation of their vessel, Masters are requested to co-operate with installation representatives in minimising their in-port time. Any delays which are considered unnecessary or extensive should be reported to the loading Supervisor (tel. 2133) so that corrective measures can be taken.

Garbage: Garbage is collected twice daily (early morning and mid-afternoon).

REPORT: February 1991.

The following telex was sent to a Master by the Agent.

Quote:

Latest Instructions Received from Coast Guard and Port Captaincy with Reference to National Security Enforcement:

(AAA) Arrival and departure transit of vessel to the terminal of Punta Cardon.

(AA1) All vessels should arrive at following position:
Lat. 12° 10' N.
Long. 70° 40' W.

(AA2) Then, they have to proceed to the following posi (course 180°):
Lat. 11° 46' N.
Long. 70° 40' W.

(AA3) In order to arrive at terminal of Punta Cardon it compulsory to pass through Coast Guard control zone the following area:

(A)	11° 40' 15" N. 70° 22' 30" W.	(C)	11° 37' 00" N. 70° 26' 00" W.
(B)	11° 40' 15" N. 70° 26' 00" W.	(D)	11° 37' 00" N. 70° 22' 30" W.

(AA4) After passing through Coast Guard control you may ahead to the anchorage zone which is as follows:
Parallels 11° 40' 00" N. and 11° 38' 00" N.
Meridians 70° 17' 00" W. and 70° 15' 30" W.

(BBB) Arrival and departure information should be transmitted by ra on VHF Channel 16 to Coast Guard or Guaranao Pilot Stat (Port Captaincy of Las Piedras):

(BB1) Once you arrive at the position referred to in (AA1) abo you should start calling the Coast Guard (if you do receive any answer then call Guaranao Pilot Station).

(BB2) Following information should be passed to them:
Agency name.
Vessel's name.
ETA/Port.
Last Port.
Call Sign.
Kind of vessel.

Please note that all this information should be provided us (agent) to the port authorities 48 hours prior to vessel's arrival. Once you arrive at Point (AA1) abo same information must be reported to authorities, then you may be authorised to transit from Point (AA3) to (A above.

If there is something different in the information, yo vessel may be requested to anchor in the zone mention in Point (AA3) above and wait until Coast Guard boar your vessel and checks all the information again.

Please note that even when all information is com your vessel may be requested to anchor for routine che

(BB3) Upon departure you should contact Coast Guard/P Captaincy and inform them about your departure a transit through zone indicated in Point (AA3)/(AA2)/(A

If all the above procedure is not followed by you, your vessel will requested to anchor for about 48 hours in area referred to as Point (A

We highly appreciate your co-operation in order to avoid unnecessary delay for your vessel.

Unquote.

AUTHORITY: Las Piedras – Guaranao Port Captaincy, P.O.Box. No Codigo Postal 4102-A, Punta Fijo, Edo. Falcon, Venezu *Tel:* (069) 402008. *Telex:* 54119. *Cables:* Capipuerto Las Pied *Contact:* Captain David Jimenez Quintero, Harbour Master. *Operator:* Maraven, S.A., Apartado 829, Codigo Postal 1010A, Carac Venezuela. *Tel:* 908 2111. *Telex:* 23535, 23536. *Cables:* Mara Caracas.

NOTES

Please also advise Shipping Guides Ltd.

Socialist Republic of Vietnam

GENERAL:
The following ports are open for international trade:

1. Ba Ngoi
2. Cam Pha
3. Can Tho
4. Da Nang
5. Hai Phong
6. Hon Gay
7. Nam Can
8. Nghe Tinh
9. Nha Trang
10. Quy Nhon
11. Saigon
12. Thanh Hao
13. Thuan An
14. Vungtau

The following small ports are also open to international trade:

1. Dong Nai
2. Dong Thap
3. Ky Ha
4. My Tho
5. My Thoi
6. Sa Ky
7. Van Phong (Honkhoi)
8. Vinh Thai

DOCUMENTS: (All ports).
Arrival Procedure:
(a) Arrival documents to be filled in or signed:
Clearance from Last Port.
2 copies Declaration of Arrival.
8 copies Crew Lists.
8 copies Passenger Lists.
2 copies Health Declaration.
Crew Personal Effects (individual declaration).
Passengers Personal Effects (individual declaration).
5 copies Dangerous Cargo Declaration.
5 copies Cargo Manifest.
5 copies Cargo Plan.
8 copies List of Articles Forbidden to be Used in Port.
Zoological Quarantine Declaration.
Ship's Stores Manifest.
Phyto Sanitary and Fumigation Certificates.
Veterinary Certificate.
Phyto Quarantine Certificate.
Application for Crew Members and Passengers Shore Passes (to be returned before Ship's Departure).
(b) Arrival documents to be submitted to Port Authority:
Ship Safety Construction Certificate.
Ship Nationality Certificate.
International Load Line Certificate.
International Tonnage Certificate.
Safety Radio Telephony Certificate.
Safety Equipment Certificate.
International Certificate of Vaccination for Passengers and Crew.
Ship's Derat (or Exemption) Certificate.
Seamans Passports or Seaman's Books of Crew and Passports of Passengers.
Transit Cargo Manifest.
Zoological and Botanical Transit Cargo Manifest.
Certificates of Competency of Officers and Engineers (for all Officers onboard).
Certificates of Proficiency in Manoeuvring Lifeboats.
Foreign Currency Declaration and Invoices.
International Oil Pollution Prevention Certificate.
Departure Procedure:
2 copies Declaration of Departure.
3 copies Health Declaration.
6 copies Outward Cargo Manifest.
6 copies Crew Lists and Passenger Lists (if changes).
6 copies Personal Effects Declaration.

PILOTAGE: Pilotage is compulsory for all vessels entering or leaving Vietnamese Ports, as well as when mooring, unmooring and shifting berths in harbour.

Request for Pilots at every port by international signal code for sea pilots and on VHF Channel 16.

RADIO: All communications for ship movements through radiotelephones of Harbour Offices on VHF Channel 16.

Agents, receivers, etc. can be called through Coastal Radio Stations.

Notice of Arrival: ETA message to be given 48 hours prior to ship's arrival, including particulars of vessel and cargo on board. 4 hours prior to arrival send correct time of arrival.

HEALTH: Usual international health regulations are to be observed. Any vessel, which is suspect, should inform Harbour Office and Medical Office.

Medical assistance, if required, is available, including vaccinations and inoculations, as well as dispensary and hospital treatment in all ports.

International code quarantine signals to be shown on arrival at port limits. No person, except Pilot and Port Authorities, may board or leave the ship until Free Pratique is given after port health inspection.

TIME: Local time in Vietnam is GMT plus 7 hours.

HOLIDAYS: New Year's Day (last day of December, 1st and 2nd January); Day of International Worker's Solidarity (1st May); National Day (2nd and 3rd September).

GENERAL: Commercial vessels may call at all ports officially declared open, if permission from Vietnam Maritime Department obtained at least 7 days in advance of arrival. The arrival should be re-confirmed at least 24 hours before entering territorial waters.

Emergency calls are allowed, but the Maritime Administration should be notified immediately.

Vessels only allowed to leave the Pilot Station when all formalities, such as Free Pratique, Customs, Clearance, etc., have been performed.

Crew members and officers are not allowed to have contact with other than Pilot and Port Authorities during arrival and sailing formalities.

SEARCH AND RESCUE: See "Authority".

There are Search and Rescue Centres at every port (Harbour Office).

AUTHORITY: Vietnam National Maritime Bureau, 7A Lang Ha Street, Hanoi, Vietnam. *Tel:* (84-4) 8561370, 8561372. *FAX:* (84-4) 8560040, 856729. *Contact:* Nguyen Viet Anh, Director – Legislation and Certification Department.

BA NGOI: 11.48 N. 109.12 E.

AGENT'S REPORT: April 1994.

PILOTAGE: Compulsory.
Pilot Station Co-ordinates: Lat. 11° 48' N., Long. 109° 12.5' E.
Distance from Pilot Station to Port: 9 miles.
RESTRICTIONS: Draft 6.50 m.
TUGS: 1×400 h.p.
BERTHING: Quay length 81 m.
Mooring Buoys: 3.
Average Handling Rate: 1,800 tonnes/day.
CRANES: 2×5 tons and 1×15 tons mobile cranes.

CAN THO: 10.03 N. 105.42 E.

DOCUMENTS: See "General" before first port.
PILOTAGE: Pilotage is compulsory for all vessels that enter or leave the Port of Can Tho.

Pilot boards at correct time of arrival at "Zero Buoy" in position Lat. 09° 28' 57" N., Long. 106° 30' 23" E. During bad weather, Harbour Master will advise, by VHF, the position where Pilot may board in safety.
RESTRICTIONS: Pilot boards during daytime only.
ANCHORAGE: In "Zero Buoy" area with max. depth 12.00 m.
MAX. SIZE: LOA – No restriction. Draft 7.0 m.
HEALTH: See "General" before first port.
RADIO/VHF: Communications available on VHF Channel 16 and ICOM IC-M700 on 8,743.7 kHz. with Vietnam Ocean Shipping Agency, Can Tho Branch (VOSA CANTHO) and Port of Can Tho Authority, stand-by daily, including Sundays and holidays, 0700 hrs. – 1100 hrs. and 1300 hrs. – 1700 hrs.
TUGS: 1×135 h.p. and 1×1,400 h.p.
BERTHING: Two quays with total length 140 m., depth 9.0 m.
STEVEDORES: 4 shifts: 0700 hrs. – 1100 hrs., 1300 hrs. – 1700 hrs., 1900 hrs. – 2300 hrs. and 0100 hrs. – 0600 hrs.
CRANES: 3 shore cranes of 10 tons, 15 tons and 20 tons capacity.
FRESH WATER: Available at berth.
FIRE PRECAUTIONS: Port fire service and City fire service available.
REPAIRS: Deck and engine repairs of medium size possible at Navy factories.
POLICE/AMBULANCE/FIRE: Via Port Authority or Vosa Can Tho.
SERVICES: Shipchandler services available via Vosa Can Tho.

AGENT'S REPORT: April 1994.

Location:	Lat. 10° 03' N., Long. 105° 42' E.
Pilot Station Co-ordinates:	Lat. 09° 28' 57" N., Long. 106° 30' 23" E.
Distance from Pilot Station (Dinh An):	70 miles.
Pilotage:	Compulsory, daytime only.
Restrictions:	Draft 7.00 m.
Tugs:	1×1,400 h.p.
Cranes:	1×5 tons, 1×10 tons and 1×15 tons.
Berth:	Length 141 m. Depth 9.00 m.
Buoys:	1 pair.
Storage:	Warehouse: 3,240 sq.m. Open: 4,500 sq.m.
Container Handling Facilities:	1 crane (45 tons) truck for shifting container.
Barges (for lighterage):	3
Average Handling Rate:	Bagged cargo 500 – 800 tons/day.

AUTHORITY: Port of Can Tho Authority, 14/11 Le Hong Phong Street, Binh Thuy, Can Tho City, Can Tho Province, Vietnam. *Tel:* (84) 01-71-41254. *FAX:* (84) 01-71-41049. *Contact:* Le Minh Khang, Harbour Master.

CUA LO: 18.50 N. 105.45 E.

AGENT'S REPORT: April 1994.

PILOTAGE: Compulsory and daytime only.
Pilot Station Position: Lat. 18° 47' N., Long. 105° 47' E.
Distance from Pilot Station to Port: 6 miles.
RESTRICTIONS: LOA 100 m., draft 4.5 m.
TUGS: 1×300 h.p. and 1×500 h.p.
BERTHING:

Quay No.	*Length* (m.)	*Depth* (m.)	*Type of Cargo*
1	160	6.00	All types.
2	160	4.00	

Sheds/Warehouses: 2×5,970 sq.m.
Open Storage: 40,000 sq.m.
Barges (for lighterage): 5×70-700 tonnes.
CRANES: 5×5 ton mobile cranes.

DAI HUNG: 08.28 N. 108.41 E.

LOCATION: The CALM Buoy location is Lat. 08° 28' 32.77" N., Long. 108° 41' 22.92" E.

This location, and that of the FPU, is situated within a Marine Exclusion Zone. This Marine Exclusion Zone, which encompasses the Dai Hung Oil Field and Facilities, was declared to protect the Facilities from collision risk from passing traffic in the offshore sealane. Vessels should remain alert to avoid passing sealane traffic outside the Marine Exclusion Zone. Drilling rigs, installation vessels and associated support craft may be working in the Marine Exclusion Zone.

One possible STS site is a circle of 20 nautical mile radius, centred on Lat. 08° 52' N., Long. 103° 18' E.

This location is in Vietnamese waters of over 30 m. depth S.S.W. of Hon Tho Chau Island. Other sites may be identified and details will be provided by BHPP as necessary.

RADIO: *Communications with Terminal:*

(a) FSO:
Radio watch maintained 24 hours.
HF call sign: 3EXW5.
Inmarsat M number for telephone: 872 or 873; 650 390 110.
Inmarsat M number for fax: 872 or 873: 650 390 111.
Inmarsat C number for telex: Mobile Earth Station ID: 1332455.
VHF Channels available.

(b) FPU:
Radio watch maintained 24 hours.
HF call sign: C6BP.
Inmarsat M number for telephone: 872 or 873: 650 391 210
and 650 391 110.
Inmarsat M number for fax: 872 or 873: 650 391 211
and 650 391 111.
Inmarsat C number for telex: Mobile Earth Station ID: 450300318.
VHF Channels available.

Vessels' communication with the Terminal shall be made to the FSO, in the first instance, unless difficulties are encountered or when the FSO is not present at the Dai Hung Field, in which case the FPU shall be contacted.

LOADING: *FPU:* The FPU is a converted Aker H3 semi-submersible drilling rig, fitted with well fluid processing and water injection facilities. It is connected to the subsea wellheads by subsea flowlines and umbilical hoses. Stabilised crude oil is not stored on the FPU, but pumped via subsea flowline to the CALM Buoy. *The FPU is permanently anchored in approximately 110 m. of water, using an 8 point mooring system,* and it cannot readily be moved from the site. The process equipment includes a fiscal metering system, and up to approximately 6,360 cu.m./day (40,000 barrels per day) may be pumped to the CALM Buoy.

CALM Buoy: The CALM Buoy is situated 2 km. S.E. of the FPU and is moored on an 8 point anchor system. It is equipped with a soft mooring system and 150 mm. floating hose extended from the CALM Buoy turntable for berthing of an FSO, or a directly moored vessel acting as a tanker of convenience. No crude oil is stored on the CALM Buoy.

FSO: When utilised, the FSO (Ex-"Hikari Orient" – 232,678 d.w.t.) is soft moored to the CALM Buoy and loads stabilised crude oil via the 150 mm. floating hose. It has approximately 238,000 cu.m. (1.5 million barrels) total crude oil storage capacity. *Liftings performed with the FSO on the CALM Buoy mooring utilise a tandem mooring configuration rated at 200 tons SWL.* The FSO may also perform STS (lightering) at a location in waters remote from the site. Tandem offtakes utilise a 16 in. floating hose, and discharge rate is approximately 5,500 cu.m./hr. (35,000 bbls./hr.). Allowing for start-up and slow-down periods, 95,400 cu.m. (approximately 600,000 barrels) will require over 20 hours pumping.

Dai Hung Crude Oil: The characteristics of this crude oil varies between wells and between zones in wells. Specific details of the crude oil to be lifted will be provided at the time of contracting the vessel.

The crude oil shall require to be heated during transportation.

Floating Hose Contents: It is normal procedure for the floating hose to be flushed with sea water to the vessel prior to disconnection at the end of the lifting operation. Consequently, upon commencement of lifting operations, a hose volume of water may be transferred to the vessel also. This volume should be approximately 35 cu.m. for tandem moored liftings.

Terminal Management: The Field Superintendent on the FPU has overall field responsibility for the safe and efficient operation of the Facilities and vessels working or visiting infield.

The Mooring Master (Based on the FSO or on the FPU if the FSO is not present) is responsible to the Field Superintendent for the safe and efficient operation of the Terminal and for all crude lifting activities involving a vessel.

Dirty Ballast, Slops and Refuse: Dirty ballast, slops or refuse cannot be accepted at the Terminal, and under no circumstances can they be discharged to the sea, except within compliance with Vietnamese Laws and MARPOL.

MEDICAL: Medical and dental services are not available at the Facilities. In emergencies, medical evacuation to Vung Tau can be arranged, which may take 4 hours or more. The FPU crew includes a qualified medic.

FRESH WATER: Not available.

FUEL: Not available.

SURVEYORS: The following independent inspector has offices in Vietnam:

SGS Supervise Vietnam Limited, Redwood Services Division, 115 Tran Quoc Thao Street, District 3, Ho Chi Minh City. Tel: 84-8-294284 and 231253. Fax: 84-8-230616. Telex: 812798 SGSHCM VT.

REPAIRS: Repairs to critical shipboard systems and hot work are not permitted whilst a vessel is moored at the Terminal. Under no circumstances are the main engines to be disabled for any period of time while the vessel is so moored.

TIME: GMT plus 7 hours.

SHORE LEAVE: Shore leave is not possible from vessels visiting the Terminal.

GENERAL:

Charts: International Chart Series Pacific Ocean – South China S Int. 508 and B.A. Chart No. 2660 (China Sea, Southern part, Weste Sheet), both cover the general area, the site of the Facilities and t Hon Tho Chau STS area.

Environmental Conditions:

(a) Wind: Dominant wind directions are defined by the North Easte Winter (November to March) and South Westerly Summer (Apri October) Asiatic Monsoons.

Typhoons generally are of only moderate intensity with avera occurrence of 8 per year. The 100 year wind speed is estimated 97 knots.

The Winter months are subject to prevalent strong wind commencing sharply in October. This period is also subject monsoonal surges which may be associated with winds up 50 knots. This is likely to affect mooring and offtake operations.

Relatively calm periods occur during the inter-monsoo transitions, approximately April and September.

(b) Waves: Wave response follows the wind pattern, with Winter wa height generally remaining above 1.5 m. – 2.0 m. significant, a reaching to greater than 5.0 m. significant during monsoonal surge when heavy swell patterns dominate.

(c) Current/Tide: The main current trends with the monsoonal wi direction, at up to 5 knots on the surface. The tidal range is +1.0 to −1.4 m., and may act as a current modifier, particularly dur the inter-monsoonal transitions.

(d) Precipitation: The norm is 1,200 mm. – 1,400 mm. annually, mai falling during Summer. Cloud and storm activity may affect helicop operations during this period, severely reducing visibility.

(e) Water Temperature: The minimum surface water temperature 24°C and maximum 34°C.

(f) Air Temperature: The minimum air temperature is 21°C a maximum 38°C.

(g) Seabed Conditions: The bottom is gently undulating from 110 m. 120 m. and generally sandy.

Firefighting: The Facilities only have firefighting equipment required their own purposes. Only limited aid may be given to vessels in the eve of fire, utilising the field vessel if available.

Pollution Control: The Facilities hold a small quantity of dispersant pollution control, which can be dispensed from the field vessel or, subje to call-out delay, from an aircraft, should this be necessary. A sm quantity of equipment to contain and recover oil from the water shall held on the Facilities.

Visitors: Access to the Facilities is by a helicopter flight from Vung Ta to the Facilities. Because of the limited capacity of scheduled flights, difficulties in arranging extra flights and the severe accommodat constraints onboard the Facilities, the attendance of visitors is n normally possible. 24 hours notice, together with passport details required to obtain an offshore travel pass from Vung Tau.

Persons required to visit for offtake purposes will be contacted by a have arrangements made for their travel by the Lifting Supervisor Ho Chi Minh City.

Other persons intending to visit should seek permission from the BH Production Manager at least 4 days before scheduled arrival of vessel. Earlier advice would be appreciated.

Supplies and Services: The remote, deep-sea location of the Termi severely limits the provision of services. Vessels should carry suppl adequate for a return journey.

Stores: Stores are not available to vessels visiting the Terminal.

Fishing: Due to the presence of subsea facilities that are serviced divers and Remotely Operated Vehicles, no fishing is permitted wi the Marine Exclusion Zone.

Shipping Agents: The following shipping agents have offices in Vietna

Petroleum Technical Services Co., 95B Le Loi Street, Vung Ta Tel: 84-64-52048. Fax: 84-64-59858.

Vietnam Ocean Shipping Agency, 4 Quang Trung, Vung Tau. Tel: 64-52800/1. Fax: 84-64-52276.

DANANG: (Tourane): 16.04 N. 108.13 E. **(See Pl**

DOCUMENTS: To be inspected:

Derat Certificate (or Exemption).
Certificate of Registry or Nationality.
Load Line Certificate.
Tonnage Certificate.
Certificate of Pollution Prevention, and other Safety Certificates
Permit for Ship's Radio Operation.
International Vaccination Certificates (for crew/passengers).
Transit Cargo Manifest.
Crew's Passports and Passengers' Passports.
Certificates of Competency for Master, Chief Engineer, Chief R Officer, Officers and Engineers.
Civil Responsibility Insurance Certificate (for ships carrying petro or dangerous cargo).
Foreign Currency Declaration or Crew Luggage Books.
Certificates of Proficiency in Manoeuvring Lifeboats.

Required for Entry:

1 copy Fumigation or Disinfection Certificate for Cargo.
1 copy Port Clearance from Last Port.
2 copies Declaration of Arrival (Form supplied).
2 copies Declaration of Health (Form supplied).
1 copy Individual Luggage Declaration (Form supplied).
5 copies Cargo Plan and Cargo Manifest (Form supplied).
5 copies Dangerous Cargo Manifest (Form supplied).

5 copies Declaration for all Equipment and Instruments/Tools used during Ship's stay in port (Form supplied).
5 copies Stores List – Deck, Engine and Provisions (Form supplied).
5 copies Crew List (Form supplied).
5 copies Passenger List (Form supplied).
1 copy Declaration of Provisions (Form supplied).
1 copy Zoological/Phyto Quarantine Certificate (Form supplied).
1 copy Application for Crew and Passengers Shore Passes (Form supplied).
Required for Departure:
1 copy Individual Luggage Declaration (Form supplied).
2 copies Declaration of Departure (Form supplied).
3 copies Cargo Manifest (Form supplied).
1 copy Declaration of Health (Form supplied).
5 copies Crew List and Passenger List (Form supplied).
Also see "General" before first port.

PILOTAGE: Compulsory for all vessels that enter or leave port. Pilot Station at "Zero Buoy" (Lat. 16° 10' N., Long. 108° 11' E.), depths at Pilot Station 14.0 m. Pilot requires 8 hours notice.

Pilot boards from a tug during daytime only. Ships arriving at night should anchor in a position close to the Pilot Station.

ANCHORAGE: Pilot station and 45 anchorages in Danang Bay with depths from 10.0 m. – 16.0 m.

RESTRICTIONS: No restrictions in the Danang Bay and anchorage.

MAX. SIZE: Permissible LOA 190 m. Beam 26 m. and max. draft 11 m.

HEALTH: See "General" before first port.

RADIO: Danang Radio, call sign XVT, works 24 hours everyday.

Contact by VHF Channel 16. It is possible to contact anywhere through Danang Radio.

Name: Danang Radio Coast Station.
1. SW: 8 MHz. Call Sign: "XVT".
Transmit Frequency: 8,570 kHz.
Receiving Frequency: 8,368/8,369 kHz.
Working Time: From 0700 hrs. – 2200 hrs. (local time).
Call Time: The first half of every hour (Call "TRAFICLIST").
2. MW: Transmit and Receiving Frequency: 500 kHz.
Call Time: From the 35th minute of every hour.
3. R/T – H/F: Listens and answers on frequency 12,290 kHz.
Working Time: From 0700 hrs. – 2100 hrs. (local time).
4. VHF: Channel 16. 24 hours/day.
5. R/T – M/F: Frequency 2,182 kHz for emergency (24 hours/day).

VHF: Contact with Port Authority and VOSA Danang on VHF Channel 16. Port Authority listen 24 hours. VOSA Danang and Pilot listen during daytime only.

RADAR: Not available.

TUGS: 3 tugs available. 1×1,140 h.p., 1×800 h.p. and 1×480 h.p.

BERTHING: There are 3 areas:
Tien Sa area: 2 quays with 4 berths (one with length 182 m.), depth 10.5 m.
X50 Berth (Navy): 250 m. long with depth 6.0 m.
Song Han area:
1 main berth 530 m. long with depths 4.0 m. – 6.0 m.
1 berth (Song Han 7) 138 m. long with depth 6.0 m.
1 berth (Song Han 8) 82 m. long with depth 6.0 m.
1 berth (Song Han 9) 60 m. long with depth 6.0 m.
3 berths (called 234) (A) 220 m. long with depth 6.0 m.
(B) 230 m. long with depth 6.0 m.
(C) 190 m. long with depth 6.0 m.
1 berth (Nai Hien) 10 m. long with depth 5.0 m. – 5.5 m.
Ky Ha area: 1 berth 349 m. long with depth 6.0 m.

CRANES: One truck crane of max. 80 tons capacity and 8 cranes of 5-16 tons capacity.

BULK CARGO FACILITIES: No specialised facilities available. Cargoes handled include coal, maize and fertiliser in bulk.

SPECIALISED CARGO HANDLING FACILITIES: There are specialised facilities for handling 20-40 ft. containers. Storage space available for palletised cargoes. Ro-Ro ramp available.

STEVEDORES: Ordered by Agent, work continuous throughout 24 hours, except for meal breaks.

BRIDGES: None.

MEDICAL: 6 hours notice required for medical assistance. There are hospitals in town.

TANKERS: Two submarine hoses of 8 in., all kinds of white spirits discharged through both lines. Maximum back pressure 8 kg. Average discharging rate 200 tons per hour per line.

FRESH WATER: Available by barges, arrange with Agent.

FUEL: Fuel oil, diesel oil and lubricating oil available, arrange with Agent.

CONSULS: Laos.

REPAIRS: Can be undertaken on request to Agent.

DRY DOCKS: Two dry docks for vessels up to 7,000 d.w.t.

SURVEYORS: Cargo Surveyors: Vina Control, 105 Le Duan Street, Danang.

Ship Surveyors: Vires Danang, Branch No. 4, 4 Nguyen Thi Minh Khai Street, Danang.

HATCHES: Opening/closing is normally carried out by crew or stevedores.

REPATRIATION: Possible.

AIRPORT: There is an airport about 5 km. from the city with local flights only:

Danang to Ho Chi Minh City and Danang to Ha Noi:	Many flights every day.
Danang to Vinh:	Mon., Wed., Sat. (Departs at 1520 hrs.)
Danang to Pleiku:	Mon., Tue., Wed., Fri., Sat. (Departs at 1505 hrs.)
Danang to Buon Me Thuot:	Mon., Wed., Sun. (Departs at 1415 hrs.)
Danang to Nha Trang:	Tue., Thu., Sun. (Departs at 1215 hrs.)
Danang to Qui Nhon:	Mon., Thu., Sat. (Departs at 1300 hrs.)
Danang to Hai Phong:	Mon., Wed., Sat. (Departs at 1100 hrs.)

TIME: GMT plus 7 hours.

HOLIDAYS: 1st January; Lunar New Year (4 days); Liberation Day (30th April); International Labour Day (1st May); National Day (2nd September).

POLICE/AMBULANCE/FIRE: Contact Danang Radio (VHF Channel 16) to request telephone No. 113 (Police), 115 (Ambulance) or 114 (Fire); or contact VOSA Danang or Port Authority (VHF Channel 16).

EMERGENCY CO-ORDINATION: S.A.R. Centre of Danang Port based at Harbour Office. Contact with S.A.R. Centre on VHF Channel 16.

SERVICES: Available. Contact VOSA Danang or Ship's Agent.

BANKS: Vietcom Bank, Danang Branch, 104 Le Loi Street, Danang City. Tel: 84.51.823503.

Vietnam Export-Import Bank, Danang Branch, 92D Hoang Dieu Street, Danang. Tel: 84.51.826673, 84.51.826675, 84.51.826676. Telex: 84.51.5730 DN-EIB VT. Fax: 84.51.826674.

Vietnam Maritime Commercial Stock Bank, Danang Branch, 14 Tran Phu Street, Danang City. Tel: 84.51.825804, 825822, 824049. Telex: 311260 MSB VT. Fax: 84.31.845125.

SHORE LEAVE: Permitted via ship's Agent.

IDENTIFICATION CARDS: Shore passes issued.

GARBAGE DISPOSAL: Service is compulsory at least everyday for passenger ships and every 2 days for other ships. Ships must provide drums or bags.

Charges U.S.$ 30 per time (on berth), U.S.$ 60 per time (at buoys or anchorage) for other ships. U.S.$1.00/person per time for passenger ships (including passengers, crews, officers). At least U.S.$100 per time (if passengers, crew, officers on board are less than 100 persons).

If ships having destructors on board, will be reduced 30% of above charges.

WASTE OIL DISPOSAL: Available. Contact ship's Agent or VOSA Danang.

SEAMAN'S CLUBS: One Seamen's Club in the port. Facilities include shops, restaurants, international telephone, church services, football, dances, mini-bus collection and postage service. Arrange through ship's agent VOSA.

CURRENCY: Vietnamese Dong (d). U.S.$ 1.00 = 11,009 d (April 1996).

REGULATIONS: It is strictly forbidden to throw any garbage, waste oil, etc., into the bay or the river. Garbage collected by barge.

DELAYS: In the months from February to August: Good weather with S.E./S.W. winds.

In the months from September to January: Bad weather usually with N.E. wind (Monsoon), and it is often impossible to berth for discharging or loading at Tien Sa Berths, or the tanker berth at My Khe.

GENERAL: Officials boarding on arrival with Pilots: Two armed policemen who remain aboard during ship's stay at anchorage and berth. Officials boarding for clearing:
2 Port Authority Officers (Immigration Officers).
2 Security Officers.
2 Customs Officers.
2 Quarantine Officers.
Ship's Agent.

SHIPMASTER'S REPORT: 1976 (Updated 1996).

Documents: On arrival usually dealt with immediately by the Immigration Service, Police Service, Customs Service, Agency and Health Service. Ship's Documents: Classification Certificate, Tonnage Certificate, Minimum Safe Manning Certificate, I.O.P.P. Certificate, Construction Certificate, Certificate of Registry, Radio Certificate, Load Line Certificate, Safety Equipment Certificate, Port Clearance from last port. Cargo Documents: Bill of Lading (8 copies), Cargo Manifest (8 copies), Stowage Plan (5 copies), In Transit Cargo Manifest (if any). Immigration: Crew List (7 copies), Stores List (2 copies), Crew's Effect Declaration (2 copies), Passports of the crew.

Health: Vaccination List (2 copies), Provisions List (2 copies), International Vaccination Certificates.

All documents to be ready on arrival. Cameras and binoculars to be collected and placed in a locker, to be sealed. Bonded stores sealed.

Pilotage: Pilot station at a position Lat. 16° 10' N., Long. 108° 11' E. Pilot boards from a tugboat and moves the ship to a position about 1 mile West of Phare de l'observatoire. Pilot boarding during daytime only. Ships arriving at night should anchor in a position close to the Pilot Station. Pilot will board the ship at 0600 hrs. ETA should be given 48 hours and 24 hours prior to arrival at the Pilot Station.

Restrictions: There are no restrictions for entering the bay.

Health: A 24 hours cable should be sent to the Agent, stating that all crew are fit and healthy. If any sickness on board cable 48 hours in advance.

Radio:

Call sign	Frequency	Working hours GMT
XVT	500 kHz	0001 – 1200 hrs.
XVT 2	417.5 kHz	0001 – 1200 hrs.
XVT 2	8,570 kHz	0130 – 0145 hrs. 0830 – 0845 hrs. 1200 – 1315 hrs.

Radar: There is no radar post.

Tugs: There are 3 tugboats available, 1×1,200 h.p., 2×800 h.p. each. Tug's lines are used if necessary.

Berthing: There is one finger pier of 250 m. and another under construction. The latter to be ready towards the end of 1976. A tanker berth is situated in position Lat. 16° 04' N., Long. 108° 15' E., called My Khe. Tankers proceed to this position, after clearance, with Pilot rounding by the peninsula. (See "Plan"). At the cargo pier all discharging is done by ship's gear.

Cranes: There is 1 heavy lift floating crane of 100 tons capacity. 3 mobile truck cranes upto 25 tons capacity, one mobile truck crane of 80 tons capacity and 8 cranes of 5-16 tons capacity.

Bulk Handling Facilities: Bulk cargoes are sometimes handled at the port (i.e. maize) but there are no special facilities.
Bridges: No bridges.
Stevedores: Ordered by the Agent. No ETA necessary. Working hours 0001 – 0400 hrs., 0800 – 2400 hrs. Approx. discharging rate general cargo 400 tons/gang.
Medical: Six hours' notice required for medical assistance. There is a hospital in town. Inoculations required for cholera and yellow fever.
Tankers: Two submarine hoses of 8 in., all kinds of white spirits discharged through both lines. Maximum back pressure 8 kg. at ship's manifold. Average discharging rate 200 t.p.h. per line.
Density: Cargo pier brackish depending on the season. At the tanker berth salt.
Fresh Water: Available by barge, rate of delivery 50 t.p.h.
Repairs: Repairs taking longer than 2 hours are not permitted unless permission is granted by the Port Master. Small repair facilities can be carried out ashore. There are no drydocks at this port.
Deck Watchmen: Cargo ships alongside the pier are provided with a gangway watch. Tankers discharging at My Khe will have two security guards on board during the stay in port.
Hatches: Old type hatches opened and closed by shore labour. Special patent hatches by crew.
Customs Allowances: The bonded stores are not sealed. There are no restrictions for quantity of spirits, cigarettes, beer, etc. It is strictly prohibited to supply any bonded stores to shore personnel.
Cargo Gear: There is 1 floating heavy lift crane of 100 tons.
Repatriation: Crew changes are arranged through ship's Agents and permitted by the Border Security at Danang Port.
Airport: There is an airport about 5 km. from the town. Air services to Ho Chi Minh City and Haiphong, local flights only, twice a week.
Time: GMT plus 7 hours (no Summertime) is kept along the whole coast.
Police/Ambulance/Fire: Via ship's Agent.
Services: There are laundry facilities (2 days ashore) with a 24 hour service. Shipchandler available at all times. Good fresh vegetables and fruits, depending on the season. Also good sea food.
Shore Leave: Permitted via local Agent with 6 hours' notice. Persons with invalid Passport are not allowed to go ashore.
Regulations: It is strictly prohibited to throw any garbage into the bay, heavy fines. Garbage collected by boat.
Delays: Remittance has to be granted by Owners or Charterers before sailing. Without a sufficient remittance the vessel does not receive a clearance.

Alongside the pier berthing and unberthing only between sunrise and 1400 hrs. due to strong winds in the afternoon. At any other time when strong winds are experienced berthing and unberthing not allowed. The fore mentioned also for the tanker berth at My Khe, here berthing is normally carried out during the morning hours, when there are weak winds. During a strong monsoon it is sometimes necessary to stop discharging operations and unberth the ship.
General: Ships calling for the first time at Danang port should give their ETA and call sign, nationality, all other necessary particulars so that the ship can be identified by the Navy. Ships, chartered by the Vietnamese Government should state this also and whether time or voyage charter. Ships carrying general cargo should also give all particulars about the stowage of the cargo, whether any deck cargo, heavy lifts etc.
Agents: VOSA Danang, Vietranstimex, Vitranschart, PTSC, Transimex Saigon, Danang Shipchanco, Vietrans, HaLong Fishcom, Polaris Co.Ltd., Vietranscimex, Vietfracht, Vosco, Container, Falcon.

SHIPMASTERS' REPORT: September 1980 (Updated 1996).
Documents: See "General".
Pilotage: Compulsory. Pilot boards in position Lat. 16° 10' N., Long. 108° 11' E. Notice required 24 hours. Daylight only for berthing except in cases of emergency.
Anchorage: In the Bay of Tourane; depth up to 19.0 m.
Restrictions: No restrictions in the bay and anchorage, depth of water up to 19.0 m.
Radio: Danang Radio.
VHF: Pilot on Channel 16.
Tugs: Two tugs available; 1 of 1,200 h.p., the other being used for barge work only.
Berthing: Location Lat. 16° 07.1' N., Long. 108° 12.6' E. Two piers available. Distance from sea to berth 4 miles. Max. size permissible: LOA 230 m., beam 26 m. and deepest draft 11 m. Least depth of water in channel from sea to berth 13.0 m. Mean tidal range at berth 0.9 m. Nature of bottom at berth – mud and sand. Average density 1016.

Cargo Handling Facilities: No bulk handling facilities or quay cranes available. There is a quarter ramp for Ro/Ro vessels and a 50 ton floating crane. Security is good as armed police are on duty throughout the vessel's stay. There is adequate storage space for break bulk and palletised cargoes. Stevedore gangs are available as required and work throughout 24 hours except for meal breaks.
Services: The following are available: Fresh water; fresh provisions; minor repairs facilities; airport with internal flights only; laundry services; bunker fuel oil; diesel oil; lubricating oil; doctor and hospital; groceries and meats.
General:
Officials Boarding on Arrival with Pilots:

Two armed police who remain aboard during vessel's stay at anchor and berth.
Officials Boarding when Vessel Anchored:

- Agent and assistant.
- 2 Customs Officers.
- 2 Port Authority Officers (Immigration).
- 2 Quarantine Officers.
- 2 Security Officers.

Documentation:

- 8 Crew Lists.
- 2 Stores Lists – Deck, Engine and Provisions.
- 2 Crew Customs Declaration Lists.
- 2 Currency Lists for foreign money in Crew's possession.
- 2 Bonded Stores Lists.
- Health Declaration.
- 2 Crew Vaccination Lists.
- All Vaccination Certificates.
- 4 copies of Bills of Lading.
- 7 copies of Cargo Manifest.
- 2 copies of Cargo Manifest – Cargo in Transit.
- 1 Form (Supplied) for Ship's Sextants, Binoculars, Cameras, etc.
- 1 Form (Supplied) for Arrival Details and Times.
- All Discharge Books (Passports of Officers' wives collected for sa keeping ashore).

Restrictions:

- Main and Emergency Transmitters sealed.
- Stornos (Walkie Talkies) sealed.
- Cameras sealed.
- Bond sealed.
- Inspection of all cabins on arrival.

General:

Vessel on 4 hours' notice at all times for sailing or shifting bert Although bond sealed release of spirits available at any time fro Customs.

Very strict on cigarettes with issue of only 200 per week per perso Shore passes issued to all personnel. Shore leave very restricted b bus service available to Seaman's Club nightly from 1800 – 2130 hr accompanied by a guard.

Maximum of 60 cigarettes per person for shore leave.

Seaman's Club takes Pound Sterling, Hong Kong Dollars, U.S.Dollar Australian Dollars, French Francs, Japanese Yen, Thai Bhat, etc.

One sight seeing tour was to have been arranged this call but cancelle due to adverse weather conditions. (Limited number of cameras wou have been available on this occasion).

Remittances from Owners take at least 1 month before any cash made available.

One typoon warning received this call when vessel had to vacate ber and proceed to anchorage.

One emergency vacation of berth at 0300 hrs. this call when hea swell built up alongside pier.

On departure full inspection of cabins and personnel, discharge boo (passports of Officers' wives returned). Shore passes collected. No ma received this call due 1 month delivery time. No restriction on bond coastal passage Danang to Haiphong.

AGENT'S REPORT: April 1996.

Location:	Lat. 16° 07' N., Long. 108° 13' E.
Pilot Station Co-ordinates:	Lat. 16° 10' N., Long. 108° 11' E.
Distance fro Pilot Station to	
Tien Sa:	6 miles.
Song Han (Quay 1,2,3):	9 miles.
Song Han (Quay 7,8)'	10 miles.
Nai Hien:	12 miles.
My Khe Buoy:	24 miles.
Lien Chieu Buoy:	6 miles.
Pilotage:	Compulsory, day and night at Tien Sa.
Restrictions:	Draft: 10.5 m. at Tien Sa. 6.0 m. in Canal. LOA: 200 m. and 230 m. (Ro-Ro).
Tugs:	1×1,140 h.p., 1×800 h.p. and 1×480 h.p.
Mooring Buoys:	My Khe Area: 4 buoys, depth 12.5 Lien Chieu Area: 2 buoys, depth 8.2 m. (both for tankers). Song Han: 3 buoys, depth 6.0 m.
Sheds/Warehouses:	Tien Sa: 15,800 sq.m. Song Han: 11,000 sq.m.
Open Storage:	Tien Sa: 150,000 sq.m. Song Han: 10,000 sq.m.
Container Handling Facilities:	One berth and one terminal at Tien Sa.

AUTHORITY: Danang Port Authority, 1 Bach Dang Street, Dana Vietnam. *Tel:* 84.51.826203. *FAX:* 84.51.820372. *Contact:* Nguyen Thai, Port Director.

HAIPHONG: 20.52 N. 106.41 E. (See Pl

PORT LIMITS: *Haiphong Sea Port Waters Limits:*
Seawards: It is limited by a straight line connecting the Points fro to A2, A3, A4, A5 (See "Plan").
Landwards: It is limited by the highest tide level from the Points A1 A5 along the Bachdang River to Pharung Shipyard and from Bachdang River estuary along Dinhvu Canal and the Cam Riv 200 m. upstream from Vatcach port (crossing Anson Hamlet, An Village, Anhai District). In addition, there are 4 positions in Hongay and 5 positions in Trabau area (former name is Halong). In Hongay HG1, HG2, HG3 and HG4 (Area D), Latitude and Longitude sa given (See "Plan"). In Trabau Area: TB1, TB2, TB3, TB4 and TB5 are bound by the following co-ordinates (Area D) (See "Plan"):

	Latitude N.	Longitude E.
TB1	20° 51' 36"	107° 07' 06"
TB2	20° 51' 42"	107° 06' 36"
TB3	20° 51' 48"	107° 06' 12"
TB4	20° 49' 12"	107° 05' 18"
TB5	20° 49' 18"	107° 06' 12"

Seaward boundaries: Limited within 2 areas as below:

The pilot boarding/disembarking area is limited by semi-circle Southward, having a radius of 1 nautical mile and the central point at co-ordinates Lat. 20° 40' 00" N., Long. 106° 51' 00" E.

The near-by "zero" is quarantine area, and is limited by a semi-circle Southward, having a radius of 2 nautical miles and the central point at co-ordinates Lat. 20° 40' 00" N., Long. 106° 51' 00" E.

DOCUMENTS: See "General" before first port.

PILOTAGE: Pilotage is compulsory for all vessels that enter and leave ports. Pilot boat arrives at the areas which are bounded by the above (See "Port Limits") at the correct arrival time, or as instructed by the Port Authority of Haiphong. Pilot boats are painted buff with a red stripe and a yellow star. Contact Pilot Station on VHF Channels 9 and 16.

ANCHORAGE: To Pilot's advice and permission of Port Authority of Haiphong.

There are 4 anchorage areas:

Ninhtiep Anchorage Area with max. draft 7.00 m. There are 2 positions (NT1 and NT2).

Bachdang Anchorage Area with max. draft 6.0 m. and length 130 m. There are 7 positions (BD3, BD4, BD5, BD6, BD7, BD8, BD9).

Trabau Anchorage Area with max. draft 12.0 m. There are 5 positions (TB1, TB2, TB3, TB4 and TB5).

Hongay Anchorage Area with max. draft less than 9.4 m. There are 4 positions (HG1, HG2, HG3 and HG4).

RESTRICTIONS: Max. draft to enter the berths of Haiphong Port and Ninhtiep and Bachdang Anchorage areas is 25 ft. Ships with draft over 25 ft. have to operate lighterage at anchorage areas.

MAX. SIZE: At berths, LOA 200 m. Breadth 26 m. Draft 7.0 m.

Berth for Oil Tankers: LOA 70 m., breadth 10 m. and draft 5.0 m.

HEALTH: See "General" before first port.

RADIO: Haiphong Radio handles vessel traffic. Call sign XVG, frequency 500 kHz and 8364 kHz.

VHF: Port Authority on Channel 16, working Channels 6 and 10.

TUGS: Tugs available of 500 h.p., 600 h.p. and 3,200 h.p. Tugs are used for escort, rescue, salvage and towage.

BERTHING: Port central area has 12 berths available.

Berth No. 1: Containers.

Berth No. 2: Grain, ore, coal.

Berths No. 3, 4, 5, 6, 8, 9, 10: General cargo.

Berths No. 7: Containers.

Berth No. 11: General cargo and refrigerated cargo.

Berths No. 4, 5: Passenger ships.

Doanxa Area: 2 berths for Ro/Ro or container ships.

Chua Ve Area: 2 berths for general cargo ships.

Thuongly Area: 1 berth for tankers.

Cuacam Area: 3 berths for general cargo ships.

Thuysan Area: 2 berths for fishing vessels and general cargo ships.

Vatcach Area: 3 berths for general cargo ships of less than 1,200 d.w.t.

CRANES: Port Central Area, Doanxa Area and Vatcach Area have shore cranes with capacities of 5 tons, 6 tons, 7 tons, 10 tons and 25 tons.

The Port Central Area, Doanxa Area and Chuave Area have floating cranes of 60 tons up to 200 tons available.

BRIDGES: None.

STEVEDORES: Ordered by Agent (Vosa Haiphong) or other ships' Agents in Haiphong.

Stevedores work 24 hours continuously in 4 shifts.

Loading or discharging rates are those stipulated by charter party or by the agreement between cargo owners and the stevedoring companies.

Particular advice: See "General" – "Radio" – "Notice of Arrival".

MEDICAL: Doctors and hospital facilities available in Haiphong through Agents.

TANKERS: One tanker berth, max. draft 19 ft., depending on the tide. Two tanker anchorage positions in Haiphong Anchorage Area with max. draft over 30 ft. (TB4 and TB5) (See "Plan").

DENSITY: Low tide 1000, at berths.

FRESH WATER: Available at berths and at anchorage.

FUEL: Diesel oil and fuel oil can be supplied through Vosa Haiphong or other Agents.

FIRE PRECAUTIONS: Safety Regulations for tankers and other ships with dangerous cargo.

REPAIRS: Any deck and engines repairs can be performed on request.

DRY DOCKS: Pha Rung Ship Repair Yard nearby. Dry dock available for ships with max. length 150 m. and 10,000 d.w.t.

Asia Star Shipyards. Tel: (84-31) 875-210/228. Fax: (84-31) 205 (Canada-Vietnam Cooperation). 20,000 tonne dry dock (156 m. × 24 m.) draft 4.35 m. (LW), 7.0 m. (HW). Repair berths, 1×15 tonne and 1×10 tonne crane.

SURVEYORS: Cargo surveyors: Vinacontrol, branch in Haiphong City. Ship surveyors: Vietnam Register of Shipping (VIRES), Branch No. 10 at Haiphong City.

GANGWAY/DECK WATCHMAN: Compulsory for the ship's security and safety.

OPENING/CLOSING HATCHES: By the ship's crew, or by stevedores if requested.

CUSTOMS ALLOWANCES: No restrictions for spirits, cigarettes and beer for crews use, but strictly prohibited for commercial purposes.

CARGO GEAR: Cargo handled by ship's cranes or by shore cranes. If shore cranes are used, there must be a request in advance.

REPATRIATION: To Agent's advice.

AIRPORT: Catbi Airport for local services only. Noi Bai International Airport situated about 130 km. from Haiphong Port.

TIME: GMT plus 7 hours.

HOLIDAYS: National Day (2nd and 3rd September); International Labour Day (1st May); New Year (1st January); Tet Holidays (last day of December and 1st and 2nd January of Lunar Calendar).

POLICE/AMBULANCE/FIRE: Contact Port Authority or Vosa on VHF Channel 16.

EMERGENCY CO-ORDINATION: S.A.R. Centre of Haiphong based at Harbour Office, contact can be made on VHF Channel 16 or Tel: 42637, 42682.

TELEPHONES: No connections on board vessels. All operational ports are linked by telephone network.

SERVICES: Tank cleaning equipment, facilities for discharge of tank washings and all kinds of oil residues, oily rags, food wastes, garbage and hazardous substances are available at the port. Compass adjusting, radio and radar repairs, extensions of Ship's Certificates are available at port.

BANKS: State Bank of Vietnam in Haiphong Maritime Bank, 25 Dien Bien Phu Street, Haiphong.

SHORE LEAVE: Crew members are allowed ashore.

DEVELOPMENTS: *1st Phase:* Construction of graving dock (150 m.×25 m.×6.3 m.) and 200 m. length berth with depth 6.5 m.

2nd Phase: Construction of dry dock (180 m.×30 m.×7 m.) and small piers length 100 m. and 150 m.

SHIPMASTER'S REPORT: October 1980.

Documents: See "Shipmaster's Report" for Danang dated September, 1980.

Pilotage: Compulsory. Pilot boards in position Lat. 20° 41' N., Long. 106° 58' E. 24 hours' notice required.

Anchorage: The inner anchorage is between the outer bar and the channel cut, depth at LW 8 m.

Restrictions: It is not advisable to enter or leave during hours of darkness as there are only a limited number of lights and buoys.

Max. Size: Max. LOA 200 m., beam 26 m., draft 7.5 m. Lightening facilities are available at Baie d'Halong for vessels with draft of up to 10 m.

Health: Quarantine Authority require 24 hours' notice of arrival.

Radio: Haiphong Radio handles vessel's traffic.

Tugs: Available. 1×600 h.p., 1×500 h.p.

VHF: The Agency (Vietnam Ocean Shipping Agency – VOSA) on Channels 6 and 16. They will forward messages to the Pilot.

Berthing: Berth situated in position Lat. 20° 52' N., Long. 106° 43' E. The berth was built in 1976 and is down river from the town berths. In all there are 12 berths available. Our berth was 18 miles from the entrance. Max. size acceptable at the berth, LOA 200 m., beam 26 m. and deepest draft 7.4 m.

Cargo Facilities: No bulk handling facilities; no cranes at this berth but some were sighted at the town berths; no Ro-Ro facilities visible. There is a floating crane with a capacity of 60 tons (approx.). Security is good as armed guards stay aboard the vessel throughout. No container facilities of any kind sighted. Labour works around the clock in 3 shifts.

Barges: Wood and steel barges available, some have engines.

Consuls: None, nearest are in Hanoi.

Services: The following are available: Fresh water; fresh provisions (depending on time of year); minor repair facilities; airport; laundry service; diesel oil; lubricating oil; doctor and hospital; small amounts of groceries and meats.

General: Any vessel intending to remain at the port for a long period of time should have onboard sufficient stores and fresh water prior to arrival, as if vessel at anchor, stores and fresh water can take up to one week to arrive.

SHIPMASTER'S REPORT: November 1981.

Pilot Station: The Pilot boards the vessel at the anchorage which is about 2 to 3 miles S.S.E. from Zero Buoy. Pilot boat is a metal boat about 20 m. length. The funnel is painted buff with a red stripe and a yellow star.

Restrictions: There are 2 mud banks up river. One after the buoyed channel and one after the ship-canal about 1.5 miles before the berths. River draft depends on the tide which varies from 6.4 m. to 7.2 m. at HW. Haiphong port draft about 6.9 m.

Pilotage: The channel from Zero Buoy to Haiphong has buoys but no lights visible and the buoys are often out of position. The channel is very narrow having only a few centimetres' bottom clearance. Pilots are good.

Anchorage: For deeper draft than 6.9 m., ships are lightened at Halong Anchorage. Pilots, Security Officers and Customs Officer board at Zero Buoy and the vessel proceeds to the anchorage via Passe Henriette. Depths are 18 m. to 21 m. and good holding ground. The place is sheltered from all winds except North.

Documents: 1 more copy of Crew List and Money Declaration necessary than stated in "Shipmaster's Report", September 1980 for Danang.

Also see "General".

Security Police: At Halong Anchorage 2 security policemen remain on board, requesting accommodation and food.

Agency: During the vessel's lightening, Agent's clerk remains continuously on board requesting accommodation and food. Any communication with the Agency at Haiphong is done by telegram. Ship's transmitter is unsealed by Security Officer, message sent, and then resealed. Whilst alongside, Agent visits every day and they are quite efficient.

Stevedores: At Halong Anchorage, a barge with quarters for the stevedores comes alongside the vessel. Chief Stevedore is always available speaking efficient English. Discharging performed by vessel's derricks with shore grabs. Rate about 1,500 metric tons per day. At Haiphong berth discharging performed by shore cranes with a rate of about 1,800 – 2,000 metric tons per day. Haiphong Port has a berth accommodating ten large ships. There are about 25 shore cranes from 10 to 15 tons capacity and we have seen 1 floating crane of about 200 tons.

Ship Chandler: Fresh provisions are poor quality and only small quantities available. Low prices. Also ship chandler takes care of sick crew members for hospital and doctors.

Shore Leave: From Halong Anchorage crew are not allowed to go ashore. At Haiphong berth shore leave allowed from 0700 – 2300 hrs. All foreign currency, rings, watches, must be declared at the gate.

Repatriation: Agent assures Master that repatriation is very easy, however the need of formalities and permissions will take a long time.

Health: Quarantine doctor will revaccinate any crew member with expired certificate.

Communications: VOSA Agency has VHF Channel 16 and it is possible to contact them from Zero Buoy. Communication with Owners is very slow and the cable needs 2 to 3 days to reach the destination. Crew mail requires more than 40 days to reach the vessel.
Density: Halong anchorage 1020. Haiphong port 1000.
General: A lot of people visit the vessel claiming that they are Harbour Officers, Chief Stevedores, Receivers, Surveyors, Stevedores, Customs Officers, Security Officers.
IMPORTANT: Stevedore's barge which is alongside the vessel at Halong Anchorage is full of rats, which come on board via ladders and other ropes, with result that the vessel becomes infested with rats.

Ships must have on board, from their previous port of call, sufficient quantity of rat poison to kill them after sailing from Vietnam.

AGENT'S REPORT: April 1994.

Location:	Lat. 20° 52' N., Long. 106° 41' E.
Pilot Station Co-ordinates:	Lat. 20° 42' 01" N., Long. 106° 57' 08" E.
Distance from Pilot Station:	20 miles.
Pilotage:	Compulsory, day and night.
Restrictions:	Draft: 7.5 m. (channel) LOA: 170 m.
Tugs:	From 600 h.p. – 3,200 h.p.
Cranes:	5-15 tons shore cranes. 10-50 tons (max. 80 tons) floating crane.

Berths:

Quay	Length (m.)	Depth (m.)	Type of Cargo
1,2,3	390	8.0	Bulk cargo
4,5,6	490	8.0	General cargo
7	165	8.0	Containers, general cargo
8,9,10	489	8.0	General cargo, grain
11	156	8.0	Frozen cargo
Chua Ve	200	6.0	General cargo
Doan Xa	300	8.0	Containers, timber
Vat Cach	250	4.0	General cargo, lighter
Lighterage	6 vessels	12.0	Bulk, bagged cargo, passengers

Shed/Warehouses:	74,300 sq.m.
Open Storage:	53,000 sq.m.
Container Handling Facilities:	Available.
Barges (for lighterage):	Available.

Cargo Handling Rates: (10,000 g.r.t. vessel)

At Berth:	Bulk cargo:	1,500 ton/day min.	3,500 ton/day max.
	Bagged cargo:	800 ton/day min.	2,000 ton/day max.
	General cargo:	450 ton/day min.	600 ton/day max.
	Equipment:	500 ton/day min.	700 ton/day max.
	Container 20:	100 TEU	200 TEU
	Frozen cargo:	250 ton/day min.	350 ton/day max.
	Timber:	600 ton/day min.	800 ton/day max.
At Anchorage:	Bagged cargo:	1,000 ton/day min.	1,500 ton/day max.
	Bulk cargo:	1,500 ton/day min.	3,000 ton/day max.

AUTHORITY: Port Authority of Haiphong, No. 1 Minhkhai Street. *Tel:* 842637, 842682.

HO CHI MINH CITY (Saigon Port): 10.50 N. 106.45 E. (See Plan)

LOCATION: 46 nautical miles from Vung Tau
DOCUMENTS:
7 copies Crew Declaration.
7 copies Passenger Declaration.
1 copy Stores Declaration.
2 copies Arms & Ammunition Declaration.
1 copy Tobacco/spirits/personal effects.
8 copies Inward Cargo Declaration.
3 copies Health Documents.

Vessel status and safety equipment will be checked.

These documents are to be completed and presented with copies of manifest and ship's documents at the time of report.
PILOTAGE: Compulsory.

Request pilot by telephone: Saigon Pilot Tel: 290152; Vung Tau Pilot Tel: 2235. Notice of ETA required at least 24 hours in advance. Pilot on VHF Channel 16.

Exact Pilot Boat location: Lat. 10° 20' N., Long. 107° 03' E.

The anchorage position for vessels awaiting pilot: Lat. 10° 18' N., Long. 107° 03' E. to Lat. 10° 21' N., Long. 107° 02' E.

Pilotage service is available from sunrise to sunset. Ladders required for pilot boarding.
ANCHORAGE: From Lat. 10° 20.4' N. Long. 107° 03.2' E. to Lat. 10° 21.9' N., Long. 107° 02.25' E. off Vung Tau, Can Gio estuary. Depth 12.0 m. Good holding ground. Nature of bottom mud and sand. Good shelter in N.E. monsoon.
RESTRICTIONS: Daytime entry only (0600 hrs. – 1500 hrs.). Overhead power lines cross river with 36 m. clearance. East Bend limits vessel length to 230 m.
MAX. SIZE: Length 230 m.; Beam 36 m.; Draft 9.5 m. at high water (semi-diurnal tidal regime: MHHWL +3.6 m., MWL +2.30 m.). Some vessels of 30,000 d.w.t. and 11.0 m. draft have been accepted.
HEALTH: Usual International Health Regulations have to be observed.
RADIO: Saigon Radio (XVS) 500 kHz and VHF Channel 16.
TUGS: Towage undertaken by Saigon Port Marine Enterprise. 13 tugs from 600 h.p. – 2,400 h.p.

BERTHING:

Quay	*Length* (m.)	*Depth* (m.)	*Type of Cargo*
MM1	138	8.3	Passenger, General cargo
MM2	125	6.0	General and bagged cargo
MM3	163	6.0	General and bagged cargo
MM4	66	7.0	General and bagged cargo
K0	85	7.0	General and bagged cargo
K1	120	8.0	General and bagged cargo
K2	145	7.0	General and bagged cargo
K3	95	6.0	General and bagged cargo
K4	94	6.5	General and bagged cargo
K5	110	5.5	General and bagged cargo
K6	116	7.0	General and bagged cargo
K7	128	8.0	General and containers
K8	117	8.7	General and containers
K9	100	9.0	Dry bulk cargo
K10	139	10.3	General and containers
K12	156	10.8	Ro-Ro and containers
K12 A	132	9.0	Ro-Ro and containers
K12 B	55	10.5	Dry bulk cargo

There are also 11 pairs of mooring buoys along the opposite side the river which can handle deeper draft vessels by barge or ligh
Lighters/barges: 30, from 150 tons – 1,200 tons available.
Sheds/Warehouses: 34 (78,620 sq.m.).
Open Storage: 56,300 sq.m.
CRANES: Floating: 35 tons and 100 tons. Mobile: 5-10 tons and 150-2 tons.
BULK HANDLING FACILITIES: Dry bulk (cement, fertilizer and whea handled by cranes, grabs, bulldozers and trimmers.
CONTAINER HANDLING FACILITIES: Feeder vessels only handled Berth K12.

2 shore cranes available.

Forklift trucks in container yard from 2 tons to 30 tons capacity.

Tractors and trailers available.

Container Yard: About 5 Ha. Max. stacking height: 3, using fork trucks.
BRIDGES: Inland road transport to/from the port: Tan Thuan Brid 12 tons and Khanh Hoi Bridge 25 tons nominal allowable truck load.
STEVEDORES: Provided by the port, 24 hour service (3 × 8 hour shift Ship's gear operators, watchmen, opening/closing hatches operat available.
MEDICAL: Hospital, dentist, doctor and chemist available.
TANKERS: *Nha Be Petroleum Terminal:* 3 berths with 7.0 m., 12.0 and 18.0 m. depth alongside respectively.

Load/discharge rate: 300 t.p.h. – 1,000 t.p.h.; Lines of 6 in., 8 in. a 10 in. diameter for handling Fuel oil, Mogas, Diesel oil, Kerosene a Lub oil.

Vegetable Oil Terminal also available.

Also see "Shipmaster's Report" dated September 1993.
DENSITY: 1005.
FRESH WATER: Supply from hydrants on quays or by barges.
FUEL: Diesel oil and fuel oil by barge or truck.
REPAIRS: Facilities only available for barges (slipway) and vehic (workshops) at locations within the port area.
SURVEYORS: Cargo surveyors: Vinacontrol.

Ship's surveyors: Vires, Branch No. 6, 22 Nguyen Hue Sreet, Ho Minh City.
CUSTOMS: Port of Entry: Vung Tau-Saigon; branch office situated Saigon Port.
HOLIDAYS: New Year's Days (Lunar: 3 days, Solar: 1 day), May (1.5 days), National Day (2 days: September 2nd and 3rd).
POLICE/AMBULANCE/FIRE: Telephone 13, 15 and 14 respectively service required from Ho Chi Minh City or call 294971, 725526 225762 respectively for Saigon Port service.
AIRPORT: Tan Son Nhut International Airport 10 km. from the port
TIME: GMT plus 7 hours.
EMERGENCY CO-ORDINATION: S.A.R. Centre of Saigon Port is ba at Harbour Office. Contact with S.A.R. Centre can be made on Channels 16 or 6.
GARBAGE DISPOSAL: Service available. Drums provided along and collected every three days. Charges U.S.$ 20/collection at wh U.S.$ 40/collection at buoy. Contact Saigon Port General Ser Enterprise. Tel: 721744, 224161. Telex: 812772 SGPORT VT. Fax 8-224168.
WASTE OIL DISPOSAL: Service available by barge or tanker Truck capacity 10 cu.m., barge capacity 100 cu.m. Charges: Tru U.S.$ 50/truck, barges up to 50 cu.m. U.S.$ 300, over 50 c U.S.$ 6/cu.m. Contact Saigon Port General Service Enterp Tel: 721744, 224161. Telex: 812772 SGPORT VT. Fax: 84-8-224
SEAMAN'S CLUBS: Seamans Club 1 & 2, mini-shop and Duty Shop. 24 hour service.
CURRENCY: Vietnamese Dong (d).
SERVICES: Telex, telephone, transport and souvenir shop.

Hotels and tourist services to International standards available short distance of about 1 km.
CLIMATE: Dry season November to April, rainy season May to Oc (average rainfall: 160 mm. – highest in July: 330 mm.), tempe 28° C, humidity: 81%, Wind: N.E. monsoon from October to Ap S.W. monsoon from May to September.
STATISTICS:

	1987	1988	1989	1990
Vessel Calls:	907	961	1,049	982
Throughput (kTons):	2,497	3,075	4,048	4,347

(Throughput of Saigon Port in 1989 amounts to about 85% throughput of all ports in Ho Chi Minh City area).

Average handling rates (tons/10,000 d.w.t. vessel per day).

Commodities:	
General cargo	551
Steel, machinery and equipment	951
Rice and agricultural products	1,640
Bulk cement and fertilizer	1,260
Cement and fertilizer in bags	1,475
Containers (TEU/8 hour shift)	70

DEVELOPMENTS: Channel dredging to 9.5 m. and alongside dredging; New container berths and new container handling facilities; Navigational aids and lighting for night navigation; Rehabilitation of existing facilities, and other improvements.

SHIPMASTER'S REPORT: January 1989 (Updated 1990).

Approaching from South, Mui Vung Tau (ex-Cap St. Jacques) observed on radar from about 15 miles with all details.

Anchorage extends from Lat. 10° 19' N., Northward to Buoy No. 2. If anchoring South of Lat. 10° 19' N., vessel will be requested to come closer in order to be boarded and cleared by Authorities.

Anchorage well protected during N.E. monsoon, no swell.

Pilot boarding ground at position Lat. 10° 20.4' N., Long. 107° 03.2' E. However, vessels are requested to enter and anchor at Vung Tau without the pilot. Pilot Station can be contacted on VHF Channels 16 and 6.

Watch on VHF Channel 16 should be maintained from 1000 hrs. – 1200 hrs. and 1400 hrs. – 1600 hrs. (local time), usually notice is given when vessel is to leave Vung Tau for proceeding up the river.

Buoy No. 1 is in position Lat. 10° 18.7' N., Long. 107° 03.8' E.

Buoy No. 2 is in position Lat. 10° 22.4' N., Long. 107° 02.7' E.

Buoy No. 3 is in position Lat. 10° 19.5' N., Long. 107° 04.1' E., but is liable to drift.

Buoy No. 7 is in position Lat. 10° 20.25' N., Long. 107° 03.8' E.

Buoy No. 8, formerly in position Lat. 10° 21.55' N., Long. 107° 02.05' E., no longer exists.

No other buoys observed in this area.

All existing buoys are unlit.

Buoy No. 2 is the Northern limit of the area where pilot not required.

Lighthouses on shore reliable and working.

Distances and bearings, taken by radar, reliable.

There are numerous fishing traps, extending from, or in the vicinity of the shore, but not obstructing navigation.

Previous information concerning the maximum size and draft is still valid.

From Vung Tau Anchorage to Saigon Port, most of the river is without any marks. Inbound or outbound ships transit the river during the day time only.

Authorities from Vung Tau board the vessel on anchoring, but only North of Lat. 10° 19' N.

There are about 5 – 6 officials, representing Immigration, Customs, Port Authorities and Port Health. In addition ship's agent and 2 port police officers board (and stay onboard for security reasons). Vessels bound for Saigon (Ho Chi Minh City), if waiting at anchorage, are also cleared by Authorities and one set of documents remains on board to be handed to Authorities in Saigon by ship's agent.

Whilst at anchor and alongside in port, crew must keep sharp lookout and keep watch duties as Port Rules require.

In addition to the numerous forms given on arrival by Authorities to be filled in, following documents are required:

Clearance from Last Port.
7 copies Crew List.
1 copy Crew Personal Effects Declaration.
1 copy Ship's Stores Declaration.
1 copy Arms and Ammunition Declaration.
1 copy Medical Narcotics Declaration.
1 copy Crew Vaccination List (if expired, crew will be revaccinated).
1 copy Foreign Currency Declaration (crew and vessel's).
6 copies Cargo Manifest.
6 copies Cargo Plan.

All ship's certificates checked by Port Authorities.

Crew Passports/Seaman's Books usually taken ashore to obtain shore passes in Saigon.

Radio room sealed, if necessary to operate, permission must be obtained from Police Officer on board.

Fresh water available by barge (250 tons) at Vung Tau on advance notice of 24 hours, and by barge (250 tons), or by pier hose connection at Saigon Port.

Fresh fruit, vegetables and any kind of food can be obtained, prices low and negotiable, medium quality.

The cargo fumigation can be performed at Saigon Port.

The ship's derating can be performed at Saigon Port.

SHIPMASTER'S REPORT: June 1993.

Vessel: 17,500 g.r.t. LOA 176 m. Arrival draft 5.40 m. Departure draft 9.60 m. Cargo: 23,750 tonnes of bagged rice.

Charts: B.A. Charts No. 1261 and 1016.

Vessel approached in ballast from South and picked-up Mui Vang Tau at 18 miles.

Anchorage extends from Lat. 10° 19' N. Northwards to Buoy No. 2. For the Port Authority to come on board, vessel is requested to come closer and North of 10° 19' N.

S.W. Monsoon had just begun, but there was no swell, although there was a fresh S.W. wind.

Pilot boarding ground at position Lat. 10° 20' N., Long. 107° 03' E. (approx.). However, vessels usually anchor well North for Port Authorities and Pilot to board. Police station keeps watch on Channels 16 and 6.

Watch is to be maintained on VHF Channel 16 all the time for the Port or the Agent to contact vessel.

Information to proceed up the river is usually given by Port and/or Agent in advance.

Buoy No. 1 is in position Lat. 10° 18.7' N., Long. 107° 03.8' E.

Buoy No. 2 is in position Lat. 10° 22.4' N., Long. 107° 02.7' E.

Buoy No. 3 is in position Lat. 10° 19.5' N., Long. 107° 04.1' E.

Buoy No. 7 is in position Lat. 10° 20.25' N., Long. 107° 03.8' E.

Buoy No. 8 was not in position.

No other buoys observed in this area.

All existing buoys were lit.

Lighthouses on the shore are reliable and working.

Distances and bearings by radar are reliable.

Visual bearings reliable.

There are numerous fishing traps extending from and in the vicinity of the shore, but do not obstruct navigation.

From Vung Tau Anchorage to Ho Chi Minh Port, most of the river is without any marks. Inbound and outbound ships transit the river during the daytime only.

Maximum outward draft permitted is 9.6 m. fresh water.

Authorities from Vung Tau board the vessel on anchorage only, North of 10° 19' N.

There are about 6 – 8 Officials representing Immigration, Customs, Port Authorities and Port Health. In addition, ship's Agent and 2 Port Police Officers board (Police stay onboard for security reasons). Vessels bound for Ho Chi Minh City are cleared by Authorities and one set of documents remains onboard to be handed over to Authorities in Saigon by ship's Agent.

While at anchor and alongside in port, crew must keep a sharp vigil and watch as Port Rules require. Anything loose (sounding rods, sounding pipe caps, heaving lines, etc.) is stolen.

In addition to numerous forms given by Authorities to be filled in, the following documents are required:

Last Port Clearance.
7 copies Crew List.
1 copy Crew Personal Effects Declaration.
1 copy Ship's Stores Declaration.
1 copy Arms and Ammunition Declaration.
1 copy Medical Narcotics Declaration.
6 copies Cargo Manifest.
6 copies Cargo Plans.

All ship's Certificates are checked by Port Authorities.

Crew Passports/Seaman's Books are taken ashore to obtain shore passes.

Shore leave is permitted from 0700 hrs. – 2300 hrs. If a crew member is late back, a heavy fine is imposed.

Radio room is sealed. If it is necessary to operate radio, permission must be obtained from the Police Officers onboard.

Fresh water is available by barge (250 tons) at Vung Tau on advance notice of 24 hours or by pier hose connection at berth.

Fresh fruit, vegetables and any kind of food is available. Prices negotiable, but of medium quality.

Diesel oil and lub oils available.

Repairs of any kind available.

Due to cheap labour, chipping and painting can be done in a very short time at a very cheap cost.

Stevedores are very efficient, fast and very cooperative. Usually load to entire satisfaction.

Cargo fumigation is performed at the port.

Derating can be performed.

SHIPMASTER'S REPORT: September 1993.

Nha Be: *Chart:* B.A. Chart No. 1016 and 1261.

General: The name "Saigon" is still widely used. Indeed, the pilot boat at Vung Tau has "Saigon Pilot" prominently displayed. It seems the individual areas are known by their present names – Nha Be / Ho Chi Minh City, whilst the general maritime district is known as Saigon.

Authorities give little trouble, and restrictions on cameras or bridge electronic equipment were not found.

Reasonable English is widely spoken, but not by pilots.

Approaches: Vung Tau (old Cape St.Jacques) is prominent and can be seen from Nha Be, some 27 miles over the flat land.

The statue of "Christ" at the Southern end of the Cape and the new racon of the lighthouse are both conspicuous.

Numerous fishing boats are encountered, and as the vessel neared Mui Vung Tau, the craft became a major hazard. We arrived near dusk with the mass of boats putting to sea. Fortunately, they tended to alter around the ship. The deep water was followed to 1 mile South of Mui Vung Tau, and then course was altered to pass South of Buoy No. 1.

Communications: VHF Channel 16 used by pilots at Vung Tau, Channel 9 used by VOSA Agent at Vung Tau, and Channel 14 used by pilots during river transit.

As we neared Vung Tau, the Agent called vessel on Channel 9 for arrival information, English was passable.

The telex numbers of VOSA (State Agent) in Ho Chi Minh City are 811257/811258.

Anchorage: The numbers on B.A. Chart No. 1016 at Vung Tau are no longer used or relevant.

The Authorities like vessels to anchor as near as possible to the new Buoy No. 3. We anchored in position Lat. 10° 20' N., Long. 107° 03.48' E., which seemed suitable to all concerned (in the middle of fishing pots). We anchored with 5 shackles and holding seemed good. A heavy swell from the West was found, vessel mainly lying North/South.

Authorities: Boarding Agent together with 8 Customs/Immigration/Police Officers boarded vessel by white launch soon after arrival at Vung Tau Anchorage, and cleared vessel.

No particular problems (See "Documents"). We had all forms already prepared in line with "Guide to Port Entry". Two Police Officers remain onboard until departure of outward pilot, so accommodation is required.

Shore passes are made out for shore leave, and are to be handed in on departure to Police Guard. There is a curfew ashore between 2300 hrs. and 0500 hrs. Boats moored and came from Harbour in Baie Des Cocotiers (10° 20.4' N., 107° 04.5' E.), all have white hull and superstructures. Authorities at Vung Tau require pilot ladder, not gangway.

Pilots: Operate in river Song Saigon between 0500 hrs. and 1900 hrs. (daylight). Passage inwards or outwards must be completed within this period, which means last transit North/South must commence no later than 1530 hrs., depending on vessel's speed. Ships of deep draft leave Vung Tau about 2 hours after low water at Vung Tau.

Transit to and from Nha Be takes 3 hours. We managed a speed of 13 knots on 7.5 m. draft, the engine being unable to take more load.

Pilots report 13 knots is about the average speed of transit. Pilots board off Baie Des Cocotiers from launch with white hulled superstructure with "Saigon Pilot" displayed.

Generally 2 pilots (Senior/Junior), but little English spoken apart from basic commands. The pilots seem very competent.

Pilot boat at Nha Be is a small fast launch.

River/Transit: Song Saigon is the only channel used to Saigon.

Normally maximum draft is 7.0 m. plus tide, which means about 10.0 m. maximum draft.

Maximum length of vessels is about 200 m., with 50 m. breadth. Normally about 30,000 d.w.t. is the largest vessel to Nha Be and Ho Chi Minh City.

The river has a 200 m. navigable width at its minimum. There is a right angled bend at Pointe de L'Est.

Few navigational marks are displayed, although what there are seem to be in good condition.

Ships pass throughout the river length. Shoreline is mainly mangrove swamp with "paddy fields" at the Northern end. Vessels awaiting berthing or daylight South transit are anchored off Pointe Phami (10° 40.8' N., 106° 46.4' E.), holding ground found to be good, we used 5 shackles.

Maximum air draft of 45.0 m. is enforced for Ho Chi Minh City due to power cables. This restriction does not apply at Nha Be.

The Cua Soirap Channel is no longer used for commercial traffic.

The depths as charted on B.A. Chart No. 1016 for Song Saigon were found to be mainly accurate with perhaps 0.5 m. to 1.0 m. greater depth. No uncharted shoals were seen on the echo sounder.

Berthing: The main petroleum berth at Nha Be is the old Shell Terminal, now called Jetty No. 4 in position Lat. 10° 41.55' N. Long. 106° 45.34' E. (corrected WGS 84). It is a typical tanker "T" jetty of concrete construction, and is in reasonable condition with good fendering. Depth alongside at C.D. was found to be 10.0 m.

Tankers up to 30,000 d.w.t. use the terminal.

Vessels are swung off the berth to head South on berthing (starboard side alongside).

Tugs: We observed 3 tugs of low power. Two tugs were used for berthing, mainly pushing. On departure, the largest tug took ship's bow line and pulled vessel off berth.

Mooring: 2 line boats used. Basically 1,2,2, each end (See "Plan"). Mooring very competently undertaken by river pilot with tugs pushing.

Berth/Discharge: An effective mooring length of 80 m. is provided by 2 mooring dolphins connected to the central jetty section by catwalks.

Pipelines come from the nearby tank farms, down the two pipe jetties to a central hose area.

All hose lifting by ship's gear with assistance of a large gang of terminal labour, 8 in. hoses used.

Two grades of product handled at same time. We discharged 3 grades of lubricating oil at an average rate of 350 t.p.h.

Grades of products handled are petrol, diesel, lubs, furnace oil and pressure LPG.

About 4 hours should be allowed for survey and sampling.

International companies are used with local partners, in particular S.G.S. and B.P. have local partnerships.

Ship's brow gangway used.

Agent: State organisation VOSA. A few telex queries before arrival were answered by satellite through Perth.

Fresh Water: Fresh water is not piped to berth, but can be obtained by barge from Ho Chi Minh City, if plenty of advance notice is given.

Chandler: State Chandler boards on arrival at berth. Fresh produce is very inexpensive, and there is a plentiful supply of good quality. We received a range of vegetables, fruit and fish, and all were good. Delivery is by launch. U.S. dollars are accepted.

Shore Leave: Granted between 0500 hrs. to 2300 hrs. with shore pass. Chandler will arrange transport to and from Ho Chi Minh City.

Gratuities: We handed out 28 cartons of cigarettes and 12 bottles of wine (no spirits on board) to Agent, Pilots, Police, Customs and Immigration at Vung Tau and Nha Be.

Documents: On arrival at Vung Tau:

Ship's papers and Crew's Seamen's Books sighted.
8 copies Crew List.
2 copies Maritime Declaration.
3 copies Vaccination List.
1 copy List of Ports of Call.
2 copies Personal Currency List.
2 copies Ship's Currency in Master's Safe.
2 copies Personal Declaration.
3 copies Stores/Bond/Canteen List.
1 copy Dangerous Cargo List.
1 copy Arms and Ammunition List (or "Negative").
1 copy Passenger List (or "Negative").
2 copies Medical Drugs (in Master's Safe).
8 copies Cargo Manifest.
1 copy Cargo Plan.

At Nha Be:

Shore passes are issued to each crew member and must be returned to Police Guard on departure.

Ship's Papers and Crew's Seamen's Books sighted.

2 copies Crew List.

Visitors/Boarders: No females or persons unconnected with the ship's business allowed on board and none seen.

Boarding Agent at Vung Tau warned me against boarders and thieves at the anchorage. We took all usual precautions (double watches, locks on all outside doors) and were not bothered.

At Nha Be a few bum boats with local tourist gifts and fruit tried sell goods, but no attempt was made to board the vessel.

AGENT'S REPORT: April 1994.

Saigon:

Location:	Lat. 10° 50' N., Long. 106° 45' E.
Pilot Station Co-ordinates:	Lat. 10° 20' N., Long. 107° 02' 30" E.
Distance from Pilot Station:	48 miles.
Pilotage:	Compulsory, daytime only.
Restrictions:	Draft: 9.5 m. LOA: 230 m. Beam: 36 m.
Tugs:	12 (600 h.p. – 2,400 h.p.).
Cranes:	3×10 ton and 15-20 ton shore crane 8×5 ton mobile cranes. 1×35 ton and 1×100 ton floating cranes.

Berths:

Quay	Length (m.)	Depth (m.)	Type of Cargo
MM1	138	8.5	General cargo, passengers
MM2	125	8.0	General cargo, reefer cargo
MM3	163	8.5	General and bagged cargo
M3KO	65	6.5	General and bagged cargo
K0	85	8.0	General and bagged cargo
K1	120	8.5	General and bagged cargo
K2	145	7.5	General and bagged cargo
K3	75	7.5	General and bagged cargo
K4	94	8.5	General and bagged cargo
K5	110	8.5	General and bagged cargo
K6	116	8.5	General and bagged cargo
K7	128	8.5	General and bagged cargo
K8	117	8.5	General and bagged cargo
K9	100	8.5	Dry bulk cargo
K10	139	9.5	Dry bulk cargo
K12	154	13.5	Ro-Ro, containers
K12B	55	13.7	Dry bulk cargo

Mooring Buoys:	13 pairs.
Sheds/Warehouses:	32 (75,167 sq.m.).
Open Storage:	91,700 sq.m.
Container Handling Facilities:	At K12 for feeder vessels only.
Ship's Gear on Wharf side, Rate:	234 TEU/vessel/day.
Forklifts:	In container yard from 2 – 30 ton capacity.
Tractors/Trailers:	Available in container yard.
Barges (for lighterage):	30 (150 – 1,200 tons).
Average Handling Rate:	
General Cargo	550 ton/day.
Machinery and Equipment	950 ton/day.
Steel, Iron	1,043 ton/day.
Rice in bags	1,640 ton/day.
Fertiliser in bags	1,475 ton/day.
Cement in bags	1,118 ton/day.
Bulk Fertiliser	1,260 ton/day.
Containers	234 TEU/day.

Ben Nghe:

Distance from Pilot Station:	48 miles.

Berths:

Quay	Length (m.)	Depth (m.)	Type of Cargo
K14	96	9.5	General Cargo
K15	265	9.5	General cargo, containers
K15B	175	11.0	Containers (under construction)

Mooring Buoys:	7 pairs.
Cranes:	1×110 ton, 1×45 ton, 1×30 ton, 1×25 ton, 2×20 ton and 3×15 ton shore cranes.
Forklift:	35 tons.
Warehouses:	6×1,500 sq.m. 3×700 sq.m. Container Yard: 51,000 sq.m.
Container Handling Facilities:	12 TEU/gang/hour.
Forklifts:	2×42 ton, 1×11 ton, 5×5 ton, 3×2.5 ton and 2×2 ton.
Average Handling Rates:	
General Cargo	128 ton/gang/day.
Cargo in bags	400 Ton/gang/day.
Containers	12 TEU/gang/day.

AUTHORITY: Saigon Harbour Master, 3 Nguyen Tat Thanh S District 4, Ho Chi Minh City, Vietnam. *Tel:* 291825, 291 *Telex:* 812772 Sgport VT. *FAX:* 84-8-224168. *Contact:* Truong Van Harbour Master.

HON CHONG: 10.04 N. 104.31 E.

AGENT'S REPORT: April 1994.

LOCATION: Lat. 10° 03' 30" N., Long. 104° 31' 19" E.
PILOTAGE: Compulsory and daytime only.
Distance from Pilot Station to Port: 9 miles.
RESTRICTIONS: Draft 5.7 m.
AGENT: VOSA Can Tho.

LE MON: 19.48 N. 105.57 E.

AGENT'S REPORT: April 1994.

PILOTAGE: Compulsory.
Pilot Station Co-ordinates: Lat. 19° 48' 06" N., Long. 105° 57' 08" E.
Distance from Pilot Station to Berth: 10 miles.
RESTRICTIONS: Channel depth: 8.0 m. (max.); 0.8 m. (min.).
Draft: 3.8 m. (the highest tide).
TUGS: 1×300 h.p.
BERTHING:

Quay No.	*Length* (m.)	*Depth* (m.)	*Type of Cargo*
1	100	7.0	General, grain
2	100	7.0	General, grain
3	85	7.5	General, grain
4		7.5	General, grain

Warehouses: 4,500 sq.m.
Average Handling Rates: 1,000 tonnes/day.
CRANES: 3×12 ton and 3×6 ton shore cranes.

MY THOI: 10.20 N. 105.29 E.

AGENT'S REPORT: April 1994.

PILOTAGE: Compulsory and daytime only.
Pilot Stations:
At Vung Tau: Lat. 10° 20' 07" N., Long. 107° 03' 00" E.
At Dinh An: Lat. 09° 29' 09" N., Long. 106° 30' 04" E.
Distance from Pilot Station to Berth: 90 miles (Dinh An).
150 miles (Vung Tau).
RESTRICTIONS: Draft: 7.0 m.
TUGS: None.
BERTHING: Length 76 m. Depth 4.5 m.
Buoys: 3 pairs.
Warehouse: 3,222 sq.m.
Open Storage: 4,000 sq.m.
Container Handling Facilities: None.
Average Handling Rate: 500 tons/day (bagged cargo).
CRANES: 2×13 tons and 2×45 tons.

NAM CAN: 08.47 N. 104.59 E.

AGENT'S REPORT: April 1994.

PILOTAGE: Compulsory and daytime only.
Pilot Station: Lat. 08° 47' 08" N., Long. 105° 07' 08" E.
Distance from Pilot Station to Port: 25 miles.
RESTRICTIONS: Draft 5.0 m.
TUGS: None.
BERTHING:
Quay Length: 65 m. Depth 13.0 m.
Storage: 1 warehouse for 500 tons of frozen cargo and 1,000 tons of dry cargo.
Average Handling Rate: 300 tons/day (bagged cargo).
CRANES: 1×25 tons.

NGHE TINH (Ben Thuy): 18.39 N. 105.42 E.

PORT LIMITS: The seaward boundaries of Nghe Tinh Port are the Lat. 18° 50' N. in the North, the Lat. 18° 45' N. in the South and the Long. 105° 49' E. in the East.

The seaward boundaries of Nghe Tinh Port (including Ben Thuy) Gua Lo, Xuan Hai areas, in the North, East and South limited by sections from the positions 18° 50' 01" N., 105° 42' 09" E.; 18° 50' 01" N., 105° 47' 00" E.; 18° 48' 00" N., 105° 48' 00" E.; 18° 45' 04" N., 105° 46' 08" E.

DOCUMENTS: See "General" before first port.
PILOTAGE: Compulsory for entering and leaving. Pilot Station at "Zero Buoy" (Lat. 18° 48' N., Long. 105° 48' E.) for Nghe Tinh and Xuan Hai areas, depth 14.0 m., and for Gua Lo area (Lat. 18° 48' 30" N., Long. 105° 45' 12" E.), depth 10.0 m. Pilot available day and night.
ANCHORAGE: Anchorage Area: "Zero Buoy", and discharge area at position Lat. 18° 49' N., Long. 108° 45' E. (N.W. of Hon Ngu Island), depth 11.0 m.
RESTRICTIONS: Maximum draft to enter 5.0 m. Vessels exceeding 5.0 m. draft discharge cargo into self-propelled barges at discharge area (See "Anchorage"). Pilot boat may only arrive at "Zero Buoy" in conditions of weather with wind not exceeding Force 5. Pilot boards during daylight only.
MAX. SIZE: At berth, LOA 125 m., max. draft 5.0 m.
HEALTH: See "General" before first port.
RADIO: There is no radio contact with Nghe Tinh Port. Notice of Arrival messages sent via Haiphong Radio XVG or Danang Radio XVT.
VHF: Nghe Tinh Harbour Master on Channel 16 from 0800 – 1400 hrs. and 1600 – 2000 hrs. local time.
TUGS: 2 tugs, 305 h.p. each available.
BERTHING: 3 small berths in Ben Thuy area for ships with draft 4.0 m. Two berths in Cua Lo area for ships with draft 5.0 m. One berth in Xuan Hai area for ships with draft 5.0 m.
CRANES: There are 5 mobile truck cranes, capacity 3 – 60 tons.
BRIDGES: None.
STEVEDORES: Stevedores work 2 shifts. 0800 hrs. – 1800 hrs. and 1800 hrs. – 0600 hrs. with one meal interval between 1130 hrs. – 1230 hrs.
One gang average for day (24 hours).
Grain and Bulk Cargo: 300 tons.
General Cargo: 150 – 200 tons.
DENSITY: 1,000 at low tide.
MEDICAL: Doctors and hospital facilities available through Agent – Vosa at Nghe Tinh Port.
FRESH WATER/FUEL: Fresh water and fuel oils are available at Nghe Tinh.
AIRPORT: International Airport at Noi Bai, about 340 km. from the port. Vinh National Airport, 7 km. from Cua Lo port.
REPAIRS: Can be performed on request.
SURVEYORS: Cargo Surveyors: Vina Control have branch office in Nghe Tinh.
Ship Surveyors: Vires have branch office in Nghe Tinh.
EMERGENCY CO-ORDINATION: S.A.R. Centre of Nghe Tinh Port based at Harbour Office, call on VHF Channel 16.

SHIPMASTER'S REPORT: July 1982.
Location: 10 miles upstream from the entrance of the Song Ca River. Vessels exceeding 4.5 m. draft discharge cargo at anchor off the entrance to the river into self-propelled barges which transport the cargo to Nghe Tinh.
Pilot/Anchorage: Vessels anchor in position: Lat. 18° 47' N., Long. 105° 47' E. 1.5 miles S.E. of Hon Niem Island in 14 m., soft grey mud and sand. Pilot and officials board at this position. After Clearance granted, vessel shifts to discharge anchorage in position Lat. 18° 49' N., Long. 105° 45' E., 1 mile N.W. of Hon Niem Island in 10 m. This anchorage was approached by rounding Hon Niem Island to the Eastward, not less than 0.5 miles off, there is a dangerous rock awash at LW in position Lat. 18° 50.7' N., Long. 105° 46' E. It is prudent to approach the port in daylight due to the large amount of unlit fishing craft in the vicinity.
Documents/Officials:
Officials boarding with Pilot on arrival:
3 Security Officers.
2 Customs Officers.
2 Immigration Officers.
2 Quarantine Inspectors.
1 Agricultural Inspector.
1 Agent.
1 Harbour Master.
To be accommodated and victualled during stay of vessel in port:
3 Security Officers.
2 Customs Officers.
1 Agent.
Agent is the only person who speaks/understands a limited amount of English.
Documents required:
6 Crew Lists.
2 Stores Lists (deck, engine and cabin).
2 Stores Lists (provisions).
1 Health Declaration.
2 Crew Customs Declaration Lists.
2 Currency Lists (foreign monies in crew's possession).
2 Bonded Stores Lists.
4 copies Cargo Manifests.
4 copies of Bills of Lading.
2 Cargo Stowage Plans.
3 Forms (supplied) for Sextants, Binoculars, Cameras, etc.
3 Forms (supplied) for Arrival details and times.
1 Form (supplied) Report concerning where water taken during the voyage, drinking and ballast in tons and tank being used at present for drinking water.
Certificates of Registry, Radio, Load Line, Safety Equipment and Derat sighted, also Clearance from last port.

All Passports/Seamen's Identity Cards collected and taken ashore, require to see each crew member and compare with Passport photo. Discharge Books were not required. All Vaccination Certificates sighted and returned. Inspection of all crew cabins and each crew member's foreign money counted at the same time.
Restrictions: Main switch for Radio Transmitter/Receiver sealed.

All Cameras sealed. Bond and beer lockers sealed. (Release of bonded stores available at any time from Customs Officers on board).
General: There is no Radio or VHF contact with Nghe Tinh. ETA/Health messages, etc, via Haiphong Radio XVG to VOSA Haiphong.

No fresh water or oil fuels are available at the anchorages off Nghe Tinh.

Limited quantities of fruit and vegetables are available when in season. There are no facilities for sending or receiving mail.

Draft survey is carried out at commencement and completion of cargo, 3 surveyors attend from Hanoi, a journey of approximately 10 hours by road.

Bulk cargoes are discharged by ship's gear using shore grabs (which are in poor condition) each grab capacity approximately 1.5 tons (bulk wheat) also burlap savealls, sewn on to cargo nets are used.

Cargo loaded into self propelled barges, each carrying 40/50 tons bulk grain, approximately 20 barges are available when none are under repair, which is quite frequent, journey to discharge wharf takes 3 hours, 6 hours to discharge and 3 hours to return to the ship.

Stevedores work two shifts 0600 – 1800 hrs. and 1800 – 0600 hrs. with one meal interval between 1130 – 1230 hrs.

1 gang's average discharge per day (24 hours) 250/350 tons.

AGENT'S REPORT: April 1994.

Location (Ben Thuy):	Lat. 18° 39' N., Long. 105° 42' E. (105° 45' E.).
Pilot Station Co-ordinates:	Lat. 18° 47' N., Long. 105° 47' E.
Distance from Pilot Station:	12 miles.
Pilotage:	Compulsory and daytime only.
Restrictions:	Draft: 4.5 m. LOA: 100 m.
Tugs:	1×300 h.p. and 1×500 h.p.
Berths:	

Quay No.	Length (m.)	Depth (m.)	Type of Cargo
1	50	7.0	All types of cargo
2	30	7.0	

Open Storage:	Available.
Barges (for lighterage):	5 (70 – 700 tons).
Cranes:	5×6 tons mobile cranes.

AUTHORITY: Nghe Tinh Port, Truong Thi Street, Vinh City, Nghe An Province, Vietnam. *Tel:* 84-38-847141, 847144, 847145. *FAX:* 84-38-847142. *Contact:* Nguyen Danh Tuat, Port Director.

NHA TRANG: 12.12 N. 109.13 E.

DOCUMENTS: See "General" before first port.
PILOTAGE: Compulsory for all vessels entering and leaving port.
Pilot boards at one of 2 stations.
Southern Pilot Station: Lat. 12° 10' 10" N., Long. 109° 15' 30" E.
Northern Pilot Station: Lat. 12° 14' 50" N., Long. 109° 14' 50" E. on correct arrival time.
ANCHORAGE: To Pilot's advice.
Anchorage area for ships carrying dangerous cargo in North, West of Hon Mot Island, max. depth 20 m. Other cargo ships anchor within 0.5 miles of port pier, max. depth 15 m.
RESTRICTIONS: Pilots board during daylight only.
HEALTH: See "General" before first port.
RADIO: Nha Trang Radio, call sign XVN.
VHF: Harbour Master on VHF Channel 16.
TUGS: 3 tugs available, 600 h.p., 400 h.p. and 300 h.p. Use ship's lines.
BERTHING: 1 quay with length 100 m. available, also new construction of 172 m. length. Max. size ship at berth LOA 150 m., depth of water 7.2 m.
CRANES: 5 shore cranes available. One crane with max. capacity 15 tons. There are no floating cranes.
BRIDGES: None.
STEVEDORES: Stevedores work 3 shifts: 0000 hrs. – 0800 hrs., 0800 hrs. – 1600 hrs. and 1600 hrs. – 0000 hrs.
Load and discharge rates:
At berth: General cargo: 500 tons per day.
Bulk cargo: 600 tons per day.
Lightering: General cargo: 240 tons per day.
Bulk cargo: 500 tons per day.
TANKERS: Submarine pipeline with max. pumping pressure of 100 p.s.i. (5 kg.) (300 m. distance from shore).
DENSITY: 1020.
FRESH WATER: Available at berths or by barge.
FUEL: Supplied by ship chandler, available from self-propelled barge with max. capacity 50 tons.
FIRE PRECAUTIONS: Safety Regulations for tankers and other dangerous cargoes apply.
REPAIRS: Contact Vosa Nha Trang.
SURVEYORS: Cargo surveyors: Vinacontrol, branch at Nha Trang City.
Ship Surveyors: Vires, Branch No. 5, Nha Trang Port.
AIRPORT: Nha Trang Airport serves Ho Chi Minh City and Hanoi.
International Services available at Tan Son Nhat Airport (Ho Chi Minh City) or at Noi Bai Airport (Hanoi City).
TIME: GMT plus 7 hours.
HOLIDAYS: There are no special holidays.
POLICE/AMBULANCE/FIRE: Police post is in inner port. Fire service Tel: 18 or 22135. Ambulance service Tel: 17. Vessels can also contact emergency services through Harbour Office or Vosa on VHF Channel 16.
EMERGENCY CO-ORDINATION: S.A.R. Centre of Nha Trang Port based at Harbour Office. Contact with S.A.R. Centre can be made on VHF Channel 16.
SERVICES: Contact Agent.
SHORE LEAVE: No restrictions.

AGENT'S REPORT: April 1994.

Location:	Lat. 12° 12' 02" N., Long. 109° 12' 08" E.
Pilot Station Co-ordinates:	Lat. 12° 14' 50" N., Long. 109° 13' 40" E. (North) Lat. 12° 10' 10" N., Long. 109° 15' 30" E. (South)
Distance from Pilot Station:	5 miles.
Pilotage:	Compulsory.
Restrictions:	Draft: 8.0 m. LOA: 172 m.
Tugs:	2×400 h.p. and 1×600 h.p.
Berth:	Quay No. 1: Length 172 m. Depth 8.0 m. General cargo.
Mooring Buoys:	4
Sheds/Warehouses:	4,880 sq.m.
Open Storage:	38,160 sq.m.
Container Handling Facilities:	Available.
Barges:	None.
Cranes:	3×5 ton, 2×10 ton and 2×16 ton mobile cranes.

AUTHORITY: Nha Trang Harbour Master. *Tel:* 22586.

QUANG NINH AREA:

CAMPHA: 21° 01' 30" N., 107° 22' 12" E.
HON GAY: 20° 57' 18" N., 107° 03' 45" E.

(A) CAMPHA PORT

PORT LIMITS: Pilot station at channel entrance (Honcam Island).
DOCUMENTS:
Certificate of Registry or Certificate of Nationality.
Tonnage Certificate.
Load Line Certificate.
Safety Certificates.
Oil Pollution Prevention Certificate.
Certificate of Civil Liability for Pollution (For oil tanker or dangero cargo carrier).
Certificates of Competency of Master, Chief Engineer and Office Engineers and Radio Operator and of lifeboat man.
Certificates of Training issued under STCW.78.
Last Port Clearance.
Declaration of Arrival.
Crew List.
Crew's Passports.
Seaman's Books.
Passenger List and their Passports.
International Vaccination Certificates for Crew and Passengers.
Derat or Derat Exemption Certificate.
Maritime Declaration of Health.
Bonded Stores List.
Provisions Stores List.
Cargo Plan.
Cargo Manifest.
Manifest of Dangerous Cargo.
Manifest of Transit Cargo.
List of Articles forbidden to be used in port.
Declaration of Personal Effects.
Declaration of freight, Charter Party and/or Contract of Carria and/or Fixture Note and/or other documentation concering freight (freight tax collection as regards to vessel carrying cargo from a Vietna port to other port).
PILOTAGE: Compulsory. Pilot provided by Pilotage Company of Zo No. 3, No. 33 Le Thanh Tong Street, Halong City, Quangninh Provinc SRV. Tel: 84.33.825386. Fax: 84.33.826655.
Pilot station at Lat. 20° 43.4' N., Long. 107° 10.3' E. No draft restrict from pilot station.
Pilot Station for bad weather at Lat. 20° 49' N., Long. 107° 08.1' E
Request for Pilot must be made to the Pilots at least 8 hours advance.
ANCHORAGES: For vessels over 25,000 d.w.t. transferring carg from barges:

Hon Net Area:	1.	Lat. 20° 55.3' N., Long. 107° 16.5' E.
	2.	Lat. 20° 55' N., Long. 107° 16.3' E.
	3.	Lat. 20° 54.6' N., Long. 107° 16.1' E.

Good holding ground.
For vessels up to 25,000 d.w.t. transferring cargoes from barges:

Hon Conong Area (Abeille):	1.	Lat. 20° 58' 40" N., Long. 107° 21' 21" E.
	2.	Lat. 20° 58' 20" N., Long. 107° 20' 40" E.
	3.	Lat. 20° 57' 50" N., Long. 107° 20' 00" E.
	4.	Lat. 20° 58' 40" N., Long. 107° 20' 40" E.
	5.	Lat. 20° 58' 10" N., Long. 107° 19' 55" E.

Good holding ground.
RESTRICTIONS: The main channel to reach Campha Harbou marked by 14 buoys and 3 leading lights in line, dredged to 6.6 m low tide, width 110 m.
MAX. SIZE: Vessels up to 50,000 d.w.t. with draft 9.5 m.
HEALTH: Quarantine station is the same as pilot station. Pratiqu automatic for vessel after calling at another Vietnamese port.
RADIO: Haiphong Radio, call sign "XVG", transmitting on 450 k continuous watch on 500 kHz and 2,182 kHz.
Hongai Radio, call sign "XVQ", watch on 8,173 kHz (000 1000 UTC).
VHF: Port Control, ship's Agents, Pilot and Hongay Radio Channel 16.
RADAR: Port radar service or Vessel Traffic Management Service (V not available.
TUGS: 1×3,200 h.p.
BERTHING: Coal loading only. One berth with length 300 m. depth 9.0 m., max. height restriction above platform 20 m.
CRANES: Shore cranes: 2×7.3 tons. Loading Rate: 250 t.p.h.
BULK CARGO FACILITIES: 2×1,000 t.p.h. conveyors.
STEVEDORES:
Quangninh Port: Tel: 84.33.826516. Fax: 84.33.826118.
Quangninh Transport and Stevedoring Co.: Tel: 84.33.825750.
Campha Transport and Material and Stevedoring Tel: 84.33.862381. Fax: 84.33.862908.
MEDICAL: Hospital and dental facilities are available. Inoculations vaccinations can be carried out. Vaccination/Fever Certificates available.
DENSITY: Between 1009 and 1017, according to tidal stream.
FRESH WATER: Available. Supplied from barge by Quan Shipchandler.
FUEL: Fuel oil and diesel oil can be supplied by barges.
FIRE PRECAUTIONS: Ship-to-ship cargo oil transhipment not al
CONSULS: None.
REPAIRS: Can be performed on request.
DRY DOCKS: Available at Pharung Shipyard for 10,000 d.w Halong Shipyard for 5,000 d.w.t.

SURVEYORS: Arranged by Agent.
Cargo Surveyor: Vinacontrol, Quangninh Branch.
Ship's Surveyor: Vires, Branch No. 15.
GANGWAY/DECK WATCHMEN: Compulsory. Carried out by Campha Port Border Guard Station.
OPENING/CLOSING HATCHES: By crew.
CUSTOMS ALLOWANCES: Cigarettes: 400 cigarettes per person.
Alcoholic drink: Over 22°: 1.5 litres. Under 22°: 2.0 litres per person.
REPATRIATION: Available through Agent.
AIRPORT: Scheduled services by Vietnam Airline and Pacific Airline are daily from 2 airports:
Noibai Airport, about 230 km. from port.
Catbi Airport, about 100 km. from port.
TIME: GMT plus 7 hours.
HOLIDAYS: New Year's Day (1st January); Lunar New Year Festival "Tet", 4 days (The last day and the first 3 days of the lunar year); Victory Day (30th April); International Labour Day (1st May); National Day (2nd September).
POLICE/AMBULANCE/FIRE: Police Tel: 113; Ambulance Tel: 115; Fire Department Tel: 114.
SERVICES: Supply of charts, safety equipment, compass adjusting, radio and radar repairs, extention of certificates available through ship's Agent or Shipchandler.
BANKS:
Trade Bank. Tel: 84.33.865021. Fax: 84.33.863101.
Development-Investment Bank. Tel: 84.33.862267.
STORING: The port is for exporting coal only. Open storage of 22,600 sq.m. Warehousing storage in port not available.
SHORE LEAVE: Crew allowed to go ashore.
EMERGENCY CO-ORDINATION CENTRE: Contact Harbour Office on VHF Channel 16.
GARBAGE DISPOSAL: Available. Tel: 84.33.846478.
Charges: At anchor: U.S.$60.0/one time. At berth: U.S.$30.0/one time.
Times: For cargo ship: One visit every 2 days. For passenger ship: One visit a day.
SEAMAN'S CLUBS: Available.
CURRENCY: Vietnam Dong. U.S.$1.00 = 11,000 VND (July 1996).
AUTHORITY: Port Authority of Quangninh, Campha Branch, Cuaong Precinct, Campha Town, Quangninh Province, Socialist Republic of Vietnam. *Tel:* 84.33.865041. *FAX:* 84.33.865142.

(B) HON GAY PORT

PORT LIMITS: Pilot station at channel entrance (Honcam Island).
DOCUMENT: See Part (A).
PILOTAGE: Compulsory. Pilot provided by Pilotage Company of Zone No. 3, No. 33 Le Thanh Tong Street, Halong City, Quangninh Province. Tel: 84.33.825386. Fax: 84.33.826655.
Pilot station at Lat. 20° 43.4' N., Long. 107° 10.3' E. No draft restriction from pilot station.
Pilot Station for bad weather at Lat. 20° 49' N., Long. 107° 08.1' E.
Request for Pilot must be made to the Pilots at least 8 hours in advance.
ANCHORAGES:
For LASH:
Anchorage No. 1: Lat. 20° 49' N., Long. 107° 07.1' E.
For cargo ships of over 2,000 d.w.t. at transhipment:
Anchorage No. 2: Lat. 20° 56.2' N., Long. 107° 04' E.
Anchorage No. 3: Lat. 20° 56.3' N., Long. 107° 03.9' E.
Anchorage No. 4: Lat. 20° 56.5' N., Long. 107° 03.9' E.
Anchorage No. 5: Lat. 20° 56.6' N., Long. 107° 03.8' E.
Anchorage No. 6: Lat. 20° 56.8' N., Long. 107° 03.8' E.
Anchorage No. 7: Lat. 20° 57' N., Long. 107° 03.7' E.
For ships or tankers with dangerous cargoes:
Anchorage No. 8: Lat. 20° 52' 15" N., Long. 107° 05' 00" E.
Anchorage No. 9: Lat. 20° 52' 15" N., Long. 107° 04' 30" E.
For tankers waiting for berth:
Anchorage No. 10: Lat. 20° 51.6' N., Long. 107° 07.1' E.
Anchorage No. 11: Lat. 20° 51.4' N., Long. 107° 07.3' E.
For passenger vessels anchoring:
Anchorage No. 12: Lat. 21° 56' 02" N., Long. 107° 03' 42" E.
Further positions subject to consideration of Port Control Department. Sheltered places from bad weather advised by Port Control.
RESTRICTIONS: The main channel to reach Hongai is marked by 7 pairs of buoys and is dredged to 8.1 m. at low tide, width 80 m. at the bottom and width 110 m. on the surface of channel. Distance from pilot station to Inner Harbour is about 18 miles.
High voltage lines at the entrance to Tanker Buoys and to Cailan Port, clearance is 43.0 m. CD.
MAX. SIZE: *Coal Berth:* One pier of length 120 m. for ship with draft up to 8.5 m. and less than 12,500 d.w.t.
Oil Tanker Buoys (B12 Port): For tanker of 20,000 d.w.t., depth 11.2 m.
General Cargo Berth (Cailan Port): Length 166 m., draft 8.6 m. for ship of 10,000 d.w.t.
HEALTH: Quarantine station is the same as pilot station. Pratique is automatic for vessel after calling at another Vietnamese port.
RADIO: See Part (A).
VHF: Channel 16.
RADAR: Port radar service and Vessel Traffic Management Service (VTS) not available.
TUGS: 1×1,800 h.p., 1×1,200 h.p. and 1×305 h.p.
BERTHING: See "Max. Size".
CARGO HANDLING FACILITIES: *Hongay Coal Berth:* 2×7.2 ton shore cranes, working rate 250 t.p.h.
Cailan Port (For General Cargo): 1×40 tons, 4×14 tons mobile cranes. 1×3 ton forklift and others of 6.5 tons.
Storage: Warehousing at Cailan Port: 29,000 sq.m.
Open storage (coal): 6,600 sq.m.

STEVEDORES:
Quangninh Port: Tel: 84.33.826516. Fax: 84.33.826118.
Quangninh Transport and Stevedoring Co.: Tel: 84.33.825750.
Campha Transport and Material and Stevedoring Co.: Tel: 84.33.862381. Fax: 84.33.862908.
MEDICAL: Hospital and dental facilities are available. Inoculations and vaccinations can be carried out. Vaccination/Fever Certificates are available.
TANKERS: 6 hoses of 219 cm. Pressure 12 kg./sq.cm. Pumping rate 12,000 cu.m./day. Storage 70,000 cu.m.
Also see "Max. Size".
DENSITY: 1009 – 1017, according to tidal stream.
FRESH WATER: Available.
FUEL: Fuel oil and diesel oil can be supplied by barge.
FIRE PRECAUTIONS: Ship-to-ship oil transhipment not allowed.
CONSULS: None.
REPAIRS: Can be performed on request.
DRY DOCKS: Available at Pharung Shipyard for 10,000 d.w.t. and Halong Shipyard for 5,000 d.w.t.
SURVEYORS: See Part (A).
GANGWAY/DECK WATCHMEN: Compulsory. Carried out by Campha Port Border Guard Station.
OPENING/CLOSING HATCHES: By crew.
CUSTOMS ALLOWANCES: See Part (A).
REPATRIATION: Available through Agent.
AIRPORT: Scheduled services by Vietnam Airline and Pacific Airline daily from 2 airports:
Noibai Airport, about 190 km. from port.
Catbi Airport, about 70 km. from port.
TIME: GMT plus 7 hours.
HOLIDAYS: Same as other ports in Vietnam.
POLICE/AMBULANCE/FIRE: Police Tel: 113; Ambulance Tel: 115; Fire Department Tel: 114.
SERVICES: Many services available through ship's Agent or Shipchandler.
BANKS:
Baichay Trade Bank. Tel: 84.33.846560.
Quangninh Trade Bank. Tel: 84.33.825713.
Investment Bank. Tel: 84.33.825502. Fax: 84.33.828426.
Quangninh Maritime Bank. Tel: 84.33.826174. Fax: 84.33.826176.
Foreign Trade Bank. Tel: 84.33.825737. Fax: 84.33.827206.
State Bank. Tel: 84.33.825597. Fax: 84.33.827609.
SHORE LEAVE: Crew allowed ashore.
EMERGENCY CO-ORDINATION CENTRE: Contact Harbour Office on VHF Channel 16.
GARBAGE DISPOSAL: Available (See Part (A)).
SEAMAN'S CLUBS: Available.
CURRENCY: Vietnam Dong. U.S.$1.00 = 11,000 VND (July 1996).

SHIP'S OFFICER'S REPORT: July 1986.
Pilotage: Compulsory. Pilot will board at Pilot Station between 0600 hrs. and 1800 hrs. (daylight hours). Pilot will bring vessel to either Quarantine Anchorage or Inner Harbour, via Vung Ha Long Buoyed Channel, for Customs and Immigration clearance.
Pilot Station: Lat. 20° 44.2' N., Long. 107° 10.5' E.
Anchorages:
Quarantine Anchorage: Lat. 20° 52.2' N., Long. 107° 06.2' E.
Inner Harbour Anchorage: 0.8 miles S.S.W. off Hon Gay.
Restrictions: 1. Transit from Pilot Station to Quarantine Anchorage in daylight hours only.
2. Vung Ha Long Buoyed Channel dredged to 7.0 m. Draft restriction according to tides. Approximate max. draft 10.0 m.
3. Height restriction through Cua Lu to tanker berth 39.0 m. (air draft) at Chart Datum.
Radio/VHF: Hon Gay Pilot and Vosa Hon Gay (Agent) on VHF Channel 16.
Tankers: Tanker berth in position Lat. 20° 58.0' N., Long. 107° 03.7' E. Vessel tied up to buoys and discharged via flexible hose of 6 in. Vessel can expect delays. Average discharge rate 180 t.p.h.
Density: Between 1009 and 1017, according to tidal stream.
Agent: Vosa is sole government Agent. Agent acts as interpreter.

SHIPMASTER'S REPORT: September 1988.
Hon Gay: Radio contact direct through Haiphong (XVG) is possible for sending cables, but working hours are unreliable.

Not a single cable was acknowledged by Vosa Agent at Hon Gay. However queries were received from Vosa Haiphong via Haiphong Radio.

VHF contact after arrival was also difficult, due to frequent electricity shutdown in Hon Gay.

No draft restriction from Pilot Station (Lat. 20° 44.12' N., Long. 107° 10.3' E.) to Lightering Anchorage (Lat. 20°50.3' N., Long. 107° 07.7' E.).

The main channel to reach Hon Gay is marked by 10 unlit buoys and dredged up to 6.3 m. at low water. When crossing the channel with 9.0 m. draft and 3.3 m. of high tide, the echo sounder indicated a clearance of 2.0 m.

All movements in the channel during daytime.

The Sea Berth is just after passing the electricity high tension overhead cables. Air draft required to pass under the high tension cables with high tide of 3.3 m. was 33 m.

Mooring and unmooring during daylight hours and during slack water. One tug available for mooring and unmooring.

Sea Berth consists of 5 buoys (3 forward and 2 aft). The hoses are rigged on the port side, we were given 2×6 in. hoses for discharging Gas Oil. The rate of discharging was 200 tonnes per line per hour. Shore capacity is around 15,000 tonnes.

Shore start/stop of cargo operations is by flag signals during daytime and by light signals during night time. During rain and blackout at night time, the signal arrangement is inadequate and unreliable.

During the stay at Sea Berth, lightering is allowed.

At all times, 3 policemen reside onboard. Accommodation and meals are to be supplied.

Fresh water is available.

Shipchandler service is minimal. Most essentials out of stock or out of season.

SHIPMASTER'S REPORT: February 1993.

Hon Gay: Vessel: 26,200 d.w.t. Draft 9.5 m. fore and aft. LOA 170 m. Airdraft 33 m. Vessel discharged a cargo of gas oil.

Vessel made contact by VHF Channel 16 one hour prior to arrival.

Two pilots boarded in position Lat. 20° 44.2' N., Long. 107° 10.2' E. The pilots spoke good English and very experienced.

The main channel to Hon Gay is marked by 5 pairs of numbered light buoys (System "A"). The channel depth was 6.6 m. at low water and 9.9 m. at high water. There is a strong current running across the channel. The channel bottom is mud (no rocks). The vessel's speed in the channel was 5-6 knots.

As the high tension cables were situated before the discharge berth, we anchored in the inner roads to await low water. Clearance at low water is 36 m. and at high water 32 m.

On berthing, we dropped port anchor to 1.5 shackles in water. Six ropes were sent to three mooring buoys forward and four ropes were sent to two mooring buoys aft, by mooring boat.

The cargo of gas oil was discharged to the account of "Petrolimex".

Maximum rate of discharge was 350 cu.m./hr. During discharge, two representatives of the consignees stayed on board and they were in VHF contact with the terminal.

Fresh water is available by barge.

Two small tugs assist with unmooring by swinging the ship to starboard towards the entrance.

AGENT'S REPORT: April 1994.

Location:	Lat. 20° 57' N., Long. 107° 10' E.
Pilot Station Co-ordinates:	Lat. 20° 43' 04" N., Long. 107° 10' 03" E. (L'Orange Island)
Distance from Pilot Station:	18 miles.
Pilotage:	Compulsory, day and night.
Restrictions:	Draft: 6.6 m. (channel) 8.2 m. (berth) LOA: 170 m. Air draft: 33 m.
Tugs:	1×350 h.p., 1×600 h.p. and 1×1,000 h.p.
Berth:	Quay No. 1: Length 120 m. Depth 8.2 m. Cargo: Bulk, coal.
Mooring Buoys:	5 (for tankers) with depth 9.5 m.
Open Storage:	42,000 sq.m.
Barges (for lighterage):	50×200 tons.
Cranes:	2×5 ton shore cranes.

AUTHORITY: Port Authority of Quangninh, 10 Le Thanh Tong Street, Halong City, Quangninh Province, Socialist Republic of Vietnam. *Tel:* 84.33.823070, 84.33.823071. *FAX:* 84.33.826137. *Contact:* Nguyen Viet Dung, Vice Director.

QUY NHON: 13.46 N. 109.14 E.

DOCUMENTS: See "General" before first port. Additional copies of documents may be required.

PILOTAGE: Compulsory. Pilot boards on correct arrival time at "Zero Buoy" (Lat. 13° 44' 19" N., Long. 109° 15' 16" E.). During bad weather Harbour Master will advise by VHF the anchorage position where Pilot may board in safety.

RESTRICTIONS: Pilot boards during daylight only.

ANCHORAGE: In "Zero Buoy" area with max. depth 10.00 m. If draft exceeds 9.00 m. vessels anchor in the Southern port limits.

MAX. SIZE: LOA 180 m. Draft 7.5 m.

HEALTH: See "General" before first port.

RADIO: Contact Quy Nhon Radio, call sign XVH.

VHF: Harbour Master on watch: 0630 – 1100 hrs. and 1330 – 1700 hrs. on Channel 16.

TUGS: 1×800 h.p. and 1×980 h.p.

BERTHING: Two quays with length 350 m., depth 7.5 m. (low tide) available.

CRANES: 5 shore cranes with capacities 15 tons, 12 tons, 10 tons and 2 shore cranes of 8 tons and 40 tons available.

BRIDGES: None.

STEVEDORES: Stevedores work 3 shifts: 0600 hrs. – 1400 hrs., 1400 hrs. – 2200 hrs. and 2200 hrs. – 0600 hrs.

TANKERS: One floating pier for tankers with max. draft 9.0 m. Pipes and hoses of diameter 200 mm. and 159 mm. (6 in.).

DENSITY: 1020.

FRESH WATER: Available at berth.

FUEL: Lube oil and diesel oil available. Fuel oil presently available.

FIRE PRECAUTIONS: Tanker regulations apply and fire service available on wharf.

REPAIRS: Machine shop in port. Minor repairs possible.

DRY DOCKS: 500 tons capacity for small ship construction.

SURVEYORS: Cargo surveyors: Vinacontrol, branch office at 228 Tran Hung Dao Street, Quy Nhon City.

Ship surveyors: Vires, branch at Quy Nhon Port.

AIRPORT: Pha Chat Airport 35 km. from port. Local flights or International flights from Tan Son Nhat Airport of Ho Chi Minh City Noi Bai Airport of Hanoi City.

POLICE/AMBULANCE/FIRE: Contact via Harbour Office or Vo Quy Nhon on VHF Channel 16.

EMERGENCY CO-ORDINATION: S.A.R. Centre of Quy Nhon P based at Harbour Office. Contact S.A.R. Centre on VHF Channel 16

AGENT'S REPORT: April 1994.

Location:	Lat. 13° 44' N., Long. 109° 03' E.
Pilot Station Co-ordinates:	Lat. 13° 44' 03" N., Long. 109° 16' 03" E.
Distance from Pilot Station:	5 miles.
Pilotage:	Compulsory and daytime only.
Restrictions:	
Channel (Width 300 m.)	Depth: 9.5 m. Length 5 miles.
Pier	Depth: 7.0 m. Length 340 m.
Tugs:	1×980 h.p. and 1×600 h.p.
Berth:	Quay No. 1: Length 340 m. Depth: 7.0 m. General cargo.
Sheds/Warehouses:	7,000 sq.m.
Open Storage:	150,000 sq.m.
Container Yard:	100,000 sq.m.
Barges (for lighterage):	2×600 tons.
Cranes:	6 (5 – 40 tons). No floating cranes available.

AUTHORITY: Quy Nhon Harbour Office. *Tel:* 2221.

VAN PHONG BAY: 12.31 N. 109.23 E. (See Pla

LOCATION: Van Phong Bay is ideally located to serve the entire reg with the following advantages being immediately obvious:

Centrally located to main trading ports in the region, and requir minimal diversion from main trading routes between Singapore and ports to the North East, relevant distances from the Bay as follows:

Singapore	770 miles
Hong Kong	675 miles
Manila	675 miles
Bangkok	820 miles
Kaoshiung	875 miles

Although the service is initially to serve vessels and cargoes destin or originating from ports outside Vietnam, below are the distances fr domestic Vietnamese ports:

Hanoi	560 miles
Ho Chi Minh (Vungtau)	210 miles

DOCUMENTS: On arrival, the vessel will be boarded by the nomina Agents, Mooring Master, Port Authorities (Health, Immigration, Custo Pilots, Environmental Department and Police) and Inspection Compa personnel, if applicable (Total 12 person).

Following documentation will be required:

1 copy Last Port Clearance.
2 copies Crew Manifest (Personal).
2 copies Cargo Manifest (Arrival).
2 copies Cargo Manifest (Departure).
7 copies Crew List (Arrival).
4 copies Crew List (Departure).
4 copies Arrival Declaration (Format provided by Agent on arriva
4 copies Departure Declaration (Format provided by Agent on arri
2 copies Vessel Provisions Declaration (Format provided by Agen arrival).
1 copy Health Declaration (Arrival) (Format provided by Agen arrival).
1 copy Health Declaration (Departure) (Format provided by Agen arrival).
Vessel Stores Declaration (Format provided by Agent on Arriv covers all items in Stores – Deck/Engine (Bunkers, etc.)/Bon Provisions).
Declaration Radio Equipment/Arms/Cameras, etc.

Following vessel documents will require to be sighted by Authoriti

Nationality Certificate.
Classification Certificates.
International Load Line Certificate.
International Tonnage Certificate.
Safety Equipment Certificate.
Safety Construction Certificate.
Safety Radio Certificate.
International Oil Pollution Prevention Certificate.
Oil Pollution Insurance Certificates.
Oil Record Books (Engine/Deck).
Derat Certificate.
Minimum Safe Manning Certificate.
Professional Certificates, all Officers and Crew.
Passports/Seaman's Cards and Health Certificates of all st board.

Any of the above Certificates which are removed by Agent w subject to issuance of receipt. Documentation is returned prior to ve departure.

PILOTAGE: The pilot station is at a position just outside the en to the Bay, the following position being nominated:

Lat. 12° 30.45' N., Long. 109° 23.15' E.

Use of the Vietnamese Pilotage Services is compulsory for all v using the Bay. However, for the vessels using the STS faciliti following regime will be followed:

Mother Vessels (and Daughter Vessels where no ready berth is available alongside the Mother Vessel) will be piloted into the nominated anchorage by the Vietnamese Pilots.

In the event that a berth alongside the Mother Vessel is available immediately, then Daughter Vessels will be met at the pilot station by the Van Phong Bay Petrotech Mooring Master, who will also be accompanied by the attending tug with fenders and hoses.

The Daughter Vessel, once all entry formalities have been completed and the equipment has been deployed, will be piloted alongside by the Mooring Master, who will also be advised by the Vietnamese Pilot Service where appropriate on navigational matters within the Bay itself.

The Vietnamese Pilotage Service is operated out of Nha Trang port, some 25 miles South of the Bay. However for each operation, Pilots will be based at Hon Khoi port.

Vessels approaching the Bay should call "Hon Khoi Pilots" on VHF Channel 16 when within range, to obtain latest information.

Normally vessels will only be berthed alongside during daylight hours, unberthing operations at any time.

All berthing and unberthing operations will be in strict compliance with the latest edition of the Oil Companies International Marine Forum publication, Ship-to-Ship Transfer Guide (Petroleum).

Mooring Master will remain on board the Daughter Vessel throughout any operation.

ANCHORAGES: Three anchorages have been nominated within the Bay for the Ship-to-Ship operations, with one further anchorage being nominated just at the entrance to the Bay for larger vessels.

These anchorages are as follows:

Position A:	2.5 miles diameter circle centred upon Lat. 12° 34.00' N., Long. 109° 19.20' E. Minimum depth in this area is 21.5 m.
Position B:	2.5 miles diameter circle centred upon Lat. 12° 31.20' N., Long. 109° 18.00' E. Minimum depth in this area is 21.8 m.
Position C:	2.5 miles diameter circle centred upon Lat. 12° 32.50' N., Long. 109° 21.80' E. Minimum depth in this area is 22.5 m.
Position D:	2.5 miles diameter circle centred upon Lat. 12° 30.80' N., Long. 109° 25.60' E. Minimum depth in this area is 34.5 m.

RESTRICTIONS: Berthing in daylight only, unberthing at any time.

RADIO/VHF: Initial communications will be through Petrotech Office in Singapore (See "Operator"). When vessel is within 48 hours of arrival, then all communications will be to the following:

Van Phong Bay Petrotech.
Copy to MACS (Agents), Ho Chi Minh City.
Copy to VIFRASAL, Ho Chi Minh City.
} See "VHF"

ETA advice is to be passed to above parties at 48 hours, 24 hours, 12 hours and 6 hours prior to arrival. Vessels to contact Hon Khoi Pilots on VHF Channel 16 when within 2 hours of arrival.

All vessels to provide following information via telex/fax 48 hours prior to arrival to Van Phong Bay Petrotech:

1. Name / Port of Registry / Flag.
2. Deadweight / NRT / GRT.
3. Total number on Crew List.
4. Confirmation of Anti-Polluton Insurance Cover (TOVALOP or equivalent).
5. Arrival / Departure drafts.
6. Parallel Body Length (Arrival and Departure).
7. Freeboard (Arrival and Departure).
8. Vessel can accept our transfer hoses, which are either 10 in. or 8 in.
9. Cargo Description (Crude, etc.).
10. Total Cargo on board.
11. Total Cargo amount due to Transfer.
12. Nationality of Senior Officers.
13. Confirmation that all Trading Certificates are valid.

We confirm that the Vietnamese Authorities have no restriction upon flag and nationality of vessels using service, subject to being fully "classed" at time of call.

Pre-Fixture Information – Check List 1:

Mooring Master . . . . .
Vessel Name . . . . .
Operator . . . . .
Charterer . . . . .

Operator's Comments
Confirmation

1. Is centre of cargo manifold arrangement 3.0 m. or less either forward or aft of mid length position?
2. Is centre of cargo manifold at least 0.9 m. above deck, or working platform if fitted?
3. Is the height of the centre of cargo manifold no greater than 2.1 m. above the deck?
4. What is the horizontal spacing between manifold connections, measured centre to centre?
5. Is the ship fitted with a hose support rail at the ship's side, constructed of curved plate or piping, having a diameter of not less than 200 mm.?
6. If a hose support rail is fitted, is this at least 700 mm. below centre of cargo manifold?
7. Is the ship able to present 2×400 mm. manifold connections?
8. Is ship equipped with sufficient enclosed type fairleads on both sides to receive head lines, stern lines and backsprings from the other ship?
9. If the answer to Q8 is 'Yes', are the fairleads, which will receive the other ship's backsprings positioned not more than 35 m. aft of the midships position?
10. Are there bitts of sufficient strength and suitably located inboard of enclosed fairleads to receive eyes of mooring ropes?
11. Are both sides clear of any overhanging projections?

For Operator:
Position:
Signature

VHF: Communication Systems: Vietnamese Regulations normally require that your vessel's radio station be shut-down during the vessel's stay. However, Petrotech shall arrange for your communication system to be available for essential communications whenever you so advise Petrotech staff.

For safety reasons, it should be noted that the OCIMF only permit outside communications via satellite communication systems, traditional type radio stations should therefore by shut-down and isolated during any cargo transfer operations.

Use of portable UHF/VHF radio sets is permitted for cargo operations and for inter-ship communications.

Contacts: The mobile telephone system is not yet operational in the Bay, and therefore communications with shore facilities are limited to VHF to the Agent's office in Hon Khoi, radio calls via the local radio station and satellite communication systems.

The local Harbour Master's office in Hon Khoi may receive via VHF, however some difficulties have been experienced in the past with the message strength when they reply to vessels in the Bay.

Both the Agent's and the Harbour Master's offices in Hon Khoi are connected into the Vietnamese telephone systems from where calls can be made to any destination.

Agent: Agent for the Bay is exclusively MACS who maintain offices in Hon Khoi, Nha Trang and Ho Chi Minh City.

Hon Khoi:	Contact via VHF.
Nha Trang:	Tel/Fax: (84) 58 81133.
Ho Chi Minh City:	Tel: (84) 8 243215. Fax: (84) 8 244107. Telex: 811220 MACS VT.

Anti Pollution: This is provided by VIFRASAL, who own the tug which is attending the operation, local coverage therefore via the tug, direct contact to VIFRASAL head office in Ho Chi Minh City.

Initial Contact:	Contact tug by VHF.
Ho Chi Minh City:	Tel: (84) 8 231421/425. Fax: (84) 8 231430. Telex: 811281 VSAL VT.
24 Hours: (Mr. Bruno Forestier)	Mobile (84) 9 081934. Residence (84) 8 291079.

Petrotech: The attending Mooring Master will be on board one of the vessels involved at all times, other contact numbers as follows:

Ho Chi Minh City:	Via VIFRASAL.
24 Hours:	Mobile (84) 9 091331.
Singapore:	Tel: (65) 568 2390. Fax: (65) 568 2531. Telex: 51297 PTECH RS.
24 Hours:	Residence (65) 872 5651. Residence (65) 466 1826.

TUGS: 1×2,360 h.p. tug.

BERTHING: *STS Service:* The service has been arranged in such a manner as to minimise any problems for the clients, with the basic outline being as follows:

All commercial, financial and logistical dealings will be via the Van Phong Bay Petrotech offices in Singapore. No direct negotiations or arrangements are required to be instigated by any client with any Vietnamese party.

The following matters are covered by Van Phong Bay Petrotech within the terms of business:

(a) Arrangement of Mooring Master, fenders, hoses and associated equipment required for the actual STS operation;

(b) Arrangement of attending tug complete with firefighting and anti-pollution equipment throughout the operation;

(c) Appointment, attendance and payment of Agency Services (only one agency company is licensed to operate in Van Phong Bay for the STS operations);

Agency Services include the following:
- Attendance and payment for Pilotage Services;
- Inwards and Outwards Port Clearance;
- Attendance Port Authority, Customs, Port Health, Immigration, Police, etc.;
- Payment of all Port Dues;

(d) Appointment, attendance of and payment to Independent Inspection company, this company can, within certain parameters (mainly availability of companies within Vietnam) be selected by the client. Inspection service is limited to quantity aspects only and is compulsory. In the event that client does not select, then SGS of Vietnam will be appointed.

Ship-to-Ship Transfer Operation Criteria: The operation will be carried out in strict compliance with the guidelines laid down in the current edition of the OCIMF publication "Ship-to-Ship Transfer Guide", current edition published January 1988.

An essential part of this criteria is the completion of the check lists contained within the publication (See Check List 1 above in "Radio" – the others are not reproduced).

Petrotech attending staff will require your cooperation in completing their copies of these check lists and you or your nominated staff signatures at each stage of the operation.

Petrotech Equipment/Ship's Personnel: Petrotech shall be supplying sufficient equipment which will consist of all or some of the following:

(a) Sufficient number of 6.5 m. × 3.3 m. Yokohama type floating fenders which will be moored alongside either your vessel or the other participating vessel prior to the berthing operation.

These fenders are equipped with sufficient length 32 mm. wire rope moorings to reach your deck – if appropriate, your staff assistance will be required for positioning and securing these fenders alongside prior to the operation, and demobilisation of the equipment on completion.

A member of Petrotech staff will be in attendance to advise on these operations.

(b) Sufficient number of either 8 in. or 10 in. diameter flexible hoses, complete with blank flanges, nuts, bolts and gaskets.

These will be supplied in either 20 ft., 30 ft. or 40 ft. lengths, dependent upon the situation, and your staff assistance will be required in lifting these from the deck of the attending tug, securing of these individual lengths into sufficient length 'strings' for your operation and connection to your vessel manifold.

Your staff assistance will also be required on completion with the derigging and return of this equipment to the attending tug.

Petrotech Personnel: During the stay of your vessel at the facility, Petrotech will necessarily require some limited accommodation and service facilities from your vessel.

Our Mooring/Safety Master will remain on board the Daughter Vessel throughout the operation.

One assistant may also be attending on board throughout the operation, whilst he will require accommodation he is not limited as to which vessel this would be on.

Port Authority and Inspection Personnel: So far as we are advised, accommodation may be required throughout the operation for 6 staff, namely 2 police representatives, 2 Customs representatives and 2 Independent Inspection personnel.

These personnel would almost certainly require to be based upon the Mother Vessel, with one of each transferring to the Daughter Vessel when an operation is being carried out.

BALLAST: Owners of vessels calling Van Phong Bay are advised that any sea water ballast which is due for discharge into the Bay during the operation will be checked for cleanliness, and samples will be taken. In cases where vessels have ballasted at river berths, then this ballast MUST HAVE been replaced by ballast taken a minimum of 12 miles from any coastline prior to arrival of the vessel in Van Phong Bay.

MEDICAL: Some medical facilities are available in Nha Trang which is accessed via road from Hon Khoi Port in the Bay (approximately 1 hour), with more comprehensive facilities available in Ho Chi Minh City, which is approximately 12 hours by road or one hour's travel time by air.

Should you require medical facilities during your vessel's stay, please contact Petrotech for assistance.

FRESH WATER/FUEL: Not available in the Bay, but some limited supplies *may* be available if vessel calls off Nha Trang.

AIRPORT: There is a domestic airport at Nha Trang with daily connections to Hanoi and Ho Chi Minh City, from where most international destinations can be accessed.

REPATRIATION: Repatriation of crew members, whilst being possible, is difficult due to the visa requirements and, unless absolutely essential, is not recommended at the present time.

SHORE LEAVE: Not permitted at present.

POLLUTION: *Anti-Pollution Measures:* Petrotech attending safety vessel has the following anti-pollution equipment on board which is immediately available for any pollution incident:

Dispersant which is approved by the Vietnamese Authorities in the Bay;
Spray booms for distribution of dispersant;
Floating barrier ofsufficient length to reach from the sterns of both vessels;
Oil skimmer for removing oil from surface of water.

In addition to the above, further supplies of dispersant are stored at Hon Khoi, which can be made available in the Bay within a very short time frame.

Sufficient dispersant is available in the Bay to enable Petrotech resources to immediately operate anti-pollution activities for 12 hours.

If required, Petrotech have also arranged ready access to further resources from Vung Tau, within 12 hours by road, alternatively these resources can be airfreighted into Nha Trang.

If necessary, further resources based out of Singapore can be called upon.

Notwithstanding the above, obviously a key part of any anti-pollution measures would be that played by your vessel, and to this end Petrotech request that you ensure that the full range of any anti-pollution equipment which you may have onboard be available at immediate notice.

Please note however that your staff should be advised not to commence spraying with any dispersant which you may have on board until Petrotech attending staff so request.

Please also refer to the contingency plans which are attached to this document for further guidance (not reproduced).

In the event of your staff observing any pollution incident, then regardless of the source, all cargo operations must cease immediately and preparations be made for disconnection.

GENERAL: *Organisations involved in STS Service:*

1. Van Phong Bay Petrotech Pte.Ltd.: A sister company of 'Petrotech Marine Consultants Pte.Ltd.', which has been incorporated in Singapore to handle all operational matters regarding Van Phong Bay.

2. Petrotech Marine Consultants Pte. Ltd. (See "Operator"): Incorporated in Singapore in 1990 specialising in tankers and their operational problems and requirements.

The Managing Director has considerable practical and busin experience in Ship-to-Ship transfers of petroleum cargoes, hav carried out operations worldwide on numerous occasions.

Since incorporation in Singapore, numerous Ship-to-Ship operati have been carried out both in the Singapore straits, off Hong Kong a off Taiwan for various clients by the company.

Petrotech also have in house another extremely experienced S Mooring Master.

Either one of these personnel will attend as Mooring Master for operations in Van Phong Bay.

3. MACS Ho Chi Minh City: A department of the Vietnam Natio Maritime Bureau, who are responsible to the Vietnamese Governm for all Marine matters in Vietnam.

MACS are also licensed ship Agents and have offices in Ho Chi M City and Nha Trang carrying out this service.

4. VIFRASAL: A joint venture organisation providing tugs, salvage a anti-pollution services in Vietnam.

Head office in Ho Chi Minh City with one tug being dedicated to V Phong Bay operations.

Costs: The costs for utilising the service are 'split' into two headin namely:

STS Service Costs: This cost element is that usually attributable to cargo interests and covers the following aspects of the operation:

Provision of all STS equipment and associated personnel, specifica
Fendering and running gear;
Transfer hoses, gaskets and associated equipment;
Mooring/Safety Master;
Attending tug for berthing, unberthing and stand-by duties, compl with firefighting capability and anti-pollution equipment;
Back up anti-pollution equipment stored in Hon Khoi;
Independent Inspection company attendance.

This element of the cost is dependent upon the number of Daugh Vessels which are associated with any one Mother Vessel, and as 1st January 1996, the following prices are applicable:

No. of Daughter Vessels	1	2	3	4
Free Time allowed (hrs.) *	36	60	108	132
Cost (U.S.$)	29,000	38,500	57,500	67,00

* Free Time is allowed to clients under above pricing structure for equipment and personnel to be physically available on site from the that the Mother Vessel advises her arrival (based ETA sent 12 ho prior to arrival).

Demurrage costs for above equipment and personnel would charged after expiry of Free Time at rate of U.S.$ 9,500 for every 24 h period or part thereof in excess of the Free Time allowed.

Payment as per the above pricing structure would be required in *prior vessel being permitted into the Bay.* Demurrage payments excess time would be due within 3 days of completion of operation in the case where demurrage payments due exceed 72 hours, t payment will be due immediately on expiry of each 72 hour perio excess of the allowed Free Time – in this event vessel will not be clea outwards until payment of last due demurrage amounts confirmed.

Port Disbursements: This cost element is that usually attributable to vessel Owners and covers the following aspects:

Provision of Agency services, including Inwards/Outwa Clearance;
All Port Dues;
All Pilotage Dues;
Provision of launch service for transporting personnel from sh to ship on arrival and from ship to shore on departure (two launc provided per vessel).

Special rates have been negotiated with the Vietnamese Author for any vessel utilising the STS service in the Bay and, as 1st January 1996, stand at U.S.$ 6,500 per vessel lumpsum.

Payment for port disbursements must be made *in full prior* to the ve receiving inwards clearance into the Bay.

Van Phong Bay Petrotech will be appointed by Owners as Protec Agents, and they in turn will appoint MACS Ho Chi Minh City as s agents.

Thus all payments must be made to Van Phong Bay in Singap who will then be responsible for ensuring that all disbursements received by the Vietnamese parties.

Due to the present limited banking facilities in Vietnam, which result in considerable delays being incurred in receipt of funds b Vietnamese parties concerned, Petrotech have arranged and ag with those Vietnamese parties that confirmation from Petrotech funds have been received in Singapore is sufficient for them to pro the vessel inwards/outwards.

Security: During your vessel's stay in the Bay, a representative o local Border Police will remain on the vessel.

Notwithstanding the above, you and your staff are advised at all t to ensure that any valuables are secured, and that any spaces which are unoccupied are also secured.

Your staff should also be advised that any unauthorised vessels approach the operation should be reported immediately to both Petr staff and the Police representative.

Any means of access to the vessel (i.e. gangways/ladders) shou rigged in such a fashion that, when not in use, they are well abo waterline.

Charts: The following charts are applicable for this area:

B.A. Chart No. 3883 – 1:200,000.
Vietnamese Chart No. IA-200-09 – 1:200,000.
Vietnamese Chart No. IA-100-17 – 1:100,000.

All Vietnamese charts are produced based upon Projection Ellipsoid Everest 1960, and as such there exists a variation be positions referred to by any Vietnamese Authority and those refe on British Admiralty or USA chart systems.

The variation noted is only with respect to Longitude, Latitude re being unaffected.

Positions reported by Vietnamese Authorities, when transferre or U.S. charts should be 'moved' *0.55 miles East* (West if trans from B.A./U.S. to Vietnamese charts systems).

All positions reported by ourselves refer to the B.A./U.S. syst

Notice to Mariners: The Vietnam Maritime Safety Agency, who carried out an hydrographic survey of one of the nominated anchorages in the Bay, have advised that a wreck with a depth of water of over 24 m. at lowest low water level was found in position (B.A./U.S. systems):

Lat. 12° 31' 56" N., Long. 109° 24' 05" E.

The depth of water in the anchorage is reported as being a minimum of 22.2 m. at the level of lowest low water, with a minimum depth of 26.0 m. in a channel connecting the pilot station and the anchorage area.

Stores: Some limited provisions *may* be available from Nha Trang – please contact Petrotech for assistance.

OPERATOR: Van Phong Bay Petrotech (Private) Ltd., 2 Jurong East Street 21, No. 04-12 IMM Building, Singapore 609601. *Tel:* (65) 568 2389/90/91. *Telex:* 51297 PTECH. *FAX:* (65) 568 2531. *Contact:* Captain Nigel Snowden, Managing Director.

VUNG TAU (Cat Lo): 10.21 N. 107.04 E.

DOCUMENTS: See "General" before first port.

PILOTAGE: Pilotage is compulsory for all vessels that enter or leave the Port of Vung Tau.

General Pilot Station for Saigon/Vung Tau Ports and Mekong River is at "Zero Buoy" in position Lat. 10° 20' 40" N., Long. 107° 03' 00" E.

ANCHORAGE: In Vung Tau Bay, with anchorage well protected during N.E. monsoon, no swell at waiting area.

(1) All vessels waiting to enter Saigon Port must fly signal flag No. 1 at top of foremast.
(2) All vessels waiting to transit Mekong River must fly signal flag No. 2 at top of foremast.
(3) All vessels waiting to enter Saigon Port may be inspected by Vung Tau Harbour Master (if requested by Master).

HEALTH: See "General" before first port.

RADIO: Contact Saigon Radio, call sign XUS.

VHF: Contact with Pilot Station, Harbour Master and Vosa Vung Tau on Channel 16.

TUGS: Available from 1,000 h.p. – 7,000 h.p.

BERTHING: Vung Tau Port consists of three ports:

1. No wharf. Port for export of the crude oil. Pilot Station at position Lat. 9° 11' N., Long. 107° 35' E., for tankers with LOA 250 m., breadth 40 m., draft 15.0 m. and 80,000 d.w.t.
2. Petroleum and gas service port in position Lat. 10° 23' 36" N., Long. 107° 05' 58" E. There are 9 quays. Quay No. 6 for ships with LOA 160 m., breadth 28 m., max. draft 9.0 m. and 12,000 d.w.t. Other berths for ships less than LOA 120 m., draft 6.0 m. and 6,000 d.w.t.
3. Cat Lo Port in position Lat. 10° 24' 48" N., Long. 107° 08' 00" E. Length of quay 250 m. For ships with LOA 135 m., breadth 20 m. and 6,000 d.w.t.

CRANES: There are 3 shore cranes of 10 tons, 3 floating cranes of 300 tons and 400 tons and mobile truck cranes.

MEDICAL: Doctors and hospital facilities available through Vosa Vung Tau or Vosa Saigon.

TANKERS: See "Berthing" and "Shipmaster's Report".

FRESH WATER: Can be supplied by pier hose connection for berthed ships (Cat Lo Port) and by barge, generally subject to advance notice of 24 hours.

FUEL: Diesel oil and fuel oil can be supplied at Vung Tau Port.

REPAIRS: Any small deck and engine repairs can be performed on request.

SURVEYORS: Cargo Surveyors: Vinacontrol, branch at Vung Tau City.

Ship's Surveyors: Vires, branch at Vung Tau Port.

AIRPORT: International service via Tan Son Nhat Airport at Ho Chi Minh City.

SERVICES: Shipchandler available at all times.

POLICE/AMBULANCE/FIRE: Contact through Harbour Office and Vosa Vung Tau on VHF Channel 16.

EMERGENCY CO-ORDINATION: S.A.R. Centre of Vung Tau Port based at Harbour Office. Contact S.A.R. Centre on VHF Channels 16/6.

SHIPMASTER'S REPORT: June 1992.

Berth: Offshore storage tanker "Chi Linh".

Position: 09° 49.9' N., 107° 59.9' E.

Documents: See "General" before first port.

A boarding party of Pilot, Customs, Immigration, cargo supplier and cargo surveyor, 9 persons in total, come on board before berthing. Five of them stay onboard during the loading operation and require accommodation.

Pilotage: Pilotage is compulsory. Communications before arrival with the Pilot, who is also the Master of the "Chi Linh", is via VHF Channel 16 and working Channel 6. The Pilot boards the vessel from a supply boat/tug.

Approaches: B.A. Charts No. 3986 and 3987.

Coming from the North East on course 246°, the Iles of Catwick were passed to the South. 10 miles South of Poulo Sepata, course was altered to 270°, keeping the patch of 7 fathoms and the "Submarine Vulcanoes" area well clear.

Poulo Sepata was radar conspicuous at approximately 22 miles distance.

In a position bearing Poulo Sepata 059° and distance 20 miles, course was altered to 315°.

Petit Catwick and Grande Catwick are also both radar conspicuous.

In a position bearing Grande Catwick 082° and distance 23 miles, course was altered to 270°. Grande Catwick was still visible on the radar.

The first flares of Vung Tau Oil Field were visible at a distance of approximately 20 miles during daylight. Soon thereafter the first rigs could be seen on the radar.

At a distance of approximately 15 miles, the storage tanker "Chi Linh" could be distinguished clearly.

In position 10° 00' N., 108° 17' E., course was altered to 242° to an anchor position 3 miles West of the storage tanker.

Anchorage: 3 miles West of the storage tanker. There are numerous oil rigs in the vicinity and construction is still underway.

Restrictions: No night berthing. Vessels unmoor day and night, weather permitting.

Max. Size: 110,000 d.w.t.

Health: See "General" before first port.

Agency: Vosa Vung Tau. Telex: 641054 VOSAVU VT.

VHF: See "Pilotage".

Tugs: A supply boat/tug makes fast to the stern of the tanker during the approach to the berth. For this, 2 soft ropes are required, led through the same centre lead. The eyes of the ropes should be tied together with a messenger line onto which a heaving line should be fastened. The tug's towing rope is then shackled to the eyes of the ship's ropes, which are fastened on the bollards when sufficient slack (about 75 m.) has been paid out.

During the stay on the berth, the tug maintains a light pull on the vessel to keep her off the stern of the "Chi Linh".

Berth: The storage tanker "Chi Linh" is permanently moored to an SPM, by means of a special construction between ship's bow and SPM turntable.

Berthing: Berthing is done in a manner similar to mooring to an SPM. The mooring arrangement is as per OCIMF Standards.

The Pilot remains on the bridge until the tanker is at a distance of approximately 0.5 miles from the berth. During the final approach, he is on the foc'sle, directing the vessel by ship's walkie-talkie.

On the foc'sle, one messenger line has to be prepared for picking up the mooring arrangement. The rope is put on a winch drum, led through a bow stopper and a centre lead.

When the distance between the approaching vessel and the stern of the "Chi Linh" is approximately 60 m., the latter shoots a heaving line over the foc'sle of the tanker, by means of a pneumatic gun. Attached to this is a messenger line which, once on board, can then be fastened to the messenger line on the tanker.

The mooring arrangement can now be pulled in and the chafe chain secured on the bow stopper (vessels not equipped with a bow stopper can be moored by means of a wire/shackle arrangement, secured on the bitts, as per OCIMF).

Only 1 nylon grommet rope is used for this tandem berthing.

Loading: A 16 in. floating hose string, with a total length of 262 m., runs from the port side of the stern of the "Chi Linh" to the tanker's port manifold. The tanker rail hose has a 12 in. reducer fitted.

Cargo particulars (approximate):

Name: Bach Ho Crude.
API: 39.9 (density 15°C: 0.8252).
Pour point: 32°C.
Loading temperature: 39°C.
Heating requirements: Between 38°C and 43°C.
Max. loading rate: 2,600 cu.m./hr.

Due to the high pour point of the crude, the "Chi Linh" has to carry out a line flush on completion of each loading. As a consequence of this, a water plug of approximately 75 cu.m. is received at the start of loading. This should preferably be loaded into one cargo tank.

At the end of loading, the line contents will be displaced by means of a water plug. Preferably the same tank as above should be used for this, as well as for dropping the lines. Loading lines should be thoroughly dropped/drained in view of the high pour point.

During stay in the berth, the starboard side accommodation ladder should be ready.

AGENT'S REPORT: April 1994.

Cat Lo:

Location:	Lat. 10° 20' N., Long. 107° 03' E.
Pilot Station Co-ordinates:	Lat. 10° 20' 40" N., Long. 107° 03' E.
Distance from Pilot Station:	11 miles.
Pilotage:	Compulsory.
Restrictions:	Draft: 6.2 m. LOA: 150 m.
Tugs:	2×1,000 h.p.
Berth:	Quay No. 1: Length 250 m. Depth 6.0 m. – 9.0 m. General cargo, machinery, timber, agricultural products
Mooring Buoys:	At Vung Tau Bay.
Sheds/Warehouses:	25,000 sq.m.
Open Storage:	100,000 sq.m.
Cranes:	1×10 tons and 1×45 tons.

Vung Tau Petroleum Terminal:

Location:	Lat. 10° 20' N., Long. 107° 03' E.
Pilot Station Co-ordinates:	Lat. 10° 20' 40" N., Long. 107° 02' E.
Distance from Pilot Station:	8 miles.
Pilotage:	Compulsory.
Restrictions:	Draft: 8.0 m. LOA: 150 m.

Berths:

Quay: No.	Length (m.)	Depth (m.)	Type of Cargo
1 (upstream)	120	7.0	General, machinery
2 (downstream)	150	8.0	Drilling equipment and chemicals.

Mooring Buoys:	At Vung Tau Bay.
Sheds/Warehouses:	1,300 sq.m.
Open Storage:	26,000 sq.m.
Cranes:	1×10 tons and 1×75 tons. Floating crane with 600 tons lifting capacity available.

AUTHORITY: Vung Tau Harbour Office, No.2 Quang Trung Street, Vung Tau. *Tel:* 2270 – 2272.

Virgin Islands

FREDERIKSTED, St. Croix: 17.43 N. 64.53 W.

DOCUMENTS: All forms are standard U.S. Government Forms:
Passenger List (I-418) – 3 copies.
Crew List (I-418) – 3 copies.
Clearance from Last Port.
Inward Customs Manifest (1302) – 4 copies.
Ship's Stores Declaration – Customs Form 1303 – 2 copies.
Crew Effects Declaration – Customs Form 1304 – 1 copy.
(Also see separate headings – "Health" – "Customs" – "Immigration").

PILOTAGE: Services available day or night. Payment for Pilot services is mandatory whether Master uses Pilot or not. (Vessels commissioned by the U.S. or foreign government, yachts and vessels under 100 gross tons are exempt from pilotage fees, except when the services of a Pilot are requested).

ANCHORAGE: Open roadstead on the lee (West) side of St. Croix, providing a good anchorage with no significant tide.

HEALTH: See "Health Regulations" before first U.S.A. Port (Albany).

Garbage should be disposed of beyond the 3-mile limit. On passing the 3-mile limit all garbage disposal units which open to the sea should be closed. All garbage should then be placed in covered cans and retained on board until the ship is again beyond the 3-mile limit.

RADIO: (a) Vessels may communicate with Island via:

Mackay Radio, Amagansett, New York	Call Letters WSL
Chatham Radio, Massachusetts	Call Letters WCC
Lantana Radio, Florida	Call Letters WOE
Barbados Radio, Barbados	Call Letters VPO
Destrellan Radio, Guadeloupe	Call Letters FFO
Fort de France Radio, Martinique	Call Letters FFP

All stations maintaining 24-hour service. These radio stations then relay the messages by cablegram to Frederiksted via either ITT World Communications Inc., Cable and Wireless or Western Union International.

(b) Master of every vessel arriving Frederiksted is required to give at least 24 hours advance notice of arrival to Captain of the Port, U.S. Coast Guard – San Juan, Puerto Rico, by wireless on 500 kHz or by radio telephone 2182 kHz. Call Letters for U.S. Coast Guard, San Juan, Puerto Rico – NMR.

(c) Masters are requested to advise Agent their expected time of arrival as far in advance as is possible, vessels arriving from ports other than U.S. or Caribbean Islands should give at least 7 days' notice, and vessels arriving from U.S. ports should give at least 4 days' notice. In addition, a message should be sent verifying arrival at least 48 hours in advance, with delays reported as necessary. Arrival messages should include information regarding repairs, stores, number of crew and passengers on board. If cash is required, a minimum of 7 days' (prior to date of arrival) notice is mandatory.

(d) While vessels are in Frederiksted the Authorities do not permit the use of the ship's radio transmitters.

(e) Vessels equipped with VHF equipment should commence radio watch on Channel 16 when vessel is 100 miles from St. Croix. Contact with Agents and shore facilities can be made direct or via Virgin Islands Marine Operator – Station WAH – Call Letters WAH.

(f) Masters of vessels arriving at Frederiksted Pier are required to contact V.I. Port Authority through their Agent or by Fax No. (809) 778 1033, 24 hours in advance of arrival.

VHF: Port Authority on Channel 16.

TUGS: None readily available – tugs can be arranged with 48 hours advance notice.

BERTHING: A government-owned pier with a 1,400 ft. long approachway, bridging Maritime Zone to a pier-head 240 ft. long by 60 ft. wide. Vessels 600 ft. and over with a max. forward draft of 25 ft. have been accommodated.

FRESH WATER: Available at dock, arranged by Agent.

SHORE GANGWAYS: Available.

LAUNCHES/TENDERS: Not available.

CUSTOMS: Customs Officers will board at anchorage or wharf berths, and will require an accommodation ladder.

Vessels required to enter and clear through Customs House:
Vessels loading or unloading cargo;
Vessels embarking or disembarking passengers;
Vessels remaining in port over 24 hours;
Vessels requesting permission for their passengers to go ashore during the stay of the vessel in port.

Vessels in above categories must present following documents:
Clearance from Last Port;
3 copies of Crew List (Form I-418) or substantially similar form – see note*
3 copies Passenger List (Form I-418) or substantially similar form – see note*
4 copies Inward Foreign Manifest covering all cargo for discharge at St. Croix, V.I., showing weights or measurements (of basis of how cargo is freighted) on all items (Customs Form 1302).
2 copies Stores List (Engine-Deck-Commissary-Narcotics).
1 copy Crew Effects Declaration (Custom's Form 1304).

* List of passengers and crew shall be on Customs and Immigration Form I-418 or on a substantially similar form, except that where no steerage passengers are aboard upon arrival, the listing of the passengers may be in the form of a vessel "Souvenir List" or similar list, in which the names of the passengers are listed alphabetically by class.

Sealing of Stores: Upon arrival of a vessel from a foreign port, or a vessel engaged in foreign trade from a domestic port, sea stores and ship's stores not required for immediate use of consumption on board while vessel is in port and articles acquired abroad by officers and members of crew, for which no permit to land has been issued, shall be placed under seal, unless Customs Officer is of the opinion that circumstances do not require such action. Customs Inspectors in cha of vessel, from time to time, may issue stores from under seal consumption on board by passengers and crew.

Passengers disembarking must present personal baggage declara if from foreign.

IMMIGRATION: Recommended that Masters who are unfamiliar w U.S. Immigration Procedure should seek clarification from Agents as in advance as is possible.

If a vessel arrives direct from a United States mainland port or fr Puerto Rico no Immigration inspection will be performed. If a ves arrives direct from a foreign port the vessel shall undergo Immigra inspection.

Vessels arriving without a visaed Crew List, may be able to obtai waiver from Officer in Charge of U.S. Immigration & Naturalisa Service, by making application on Form I-193. A fee of $10.00 is requi to obtain a waiver.

In order to expedite the clearing of the vessel, it is suggested t prior to arrival all passengers subject to inspection should be assemb where the inspection is to be performed.

Stowaways must be reported in ETA Message and listed or Passenger Manifest (Form I-418) and on Form I-94, and must reported to the U.S. Immigration Officer as soon as he boards.

All non-resident alien crew members, whether shore leave is requi or not, are required to have in their possession valid Passpo Seamen's Book or Identification Card (with photo) and Form I- (Crewman's Landing Permit) or Form I-184 (Alien Crewman's Per and Identification Card) on arrival. All resident alien crew members a required to have in their possession Alien Registration Receipt C (Form I-151) on arrival.

AIRPORT: Distant 8.5 miles.

TIME: GMT minus 4 hours. Atlantic Standard Time.

HOLIDAYS: The following are legal holidays: Sundays; January (New Year's Day); The third Monday in February (President's Da March 31st (Transfer Day); Holy Thursday; Good Friday; Easter Mond Whit Monday; Last Monday in May (Memorial Day); June 22nd (Orga Act Day); July 4th (Independence Day); July 3rd (Emancipation Da Last Monday in July (Supplication Day); The first Monday in Septem (Labour Day); The second Monday in October (Columbus Day); T fourth Monday in October (Veterans' Day); The fourth Thursday November (Thanksgiving Day); December 25th (Christmas Da December 26th (Christmas Second Day), and such other days as President or the Government may by proclamation declare as holida The port remains open on holidays.

REGULATIONS: The U.S. Coast Guard strictly enforces the Harb Pollution Act of 1924, prohibiting discharge of refuse and oil in naviga waters of the U.S. Virgin Islands. Local Port Regulations are simila those applying in U.S. Mainland Ports.

AUTHORITY: Virgin Islands Port Authority, Marine Division, P.O. 1134, Christiansted, St. Croix, Virgin Islands, U.S.A. 00820. *Tel:* (8 778-3131 (St. Croix). *FAX:* (809) 778-1033. *Contact:* Larry Finch, Ma Manager.

LIMETREE BAY, St. Croix: 17.41 N. 64.44 W.

(See Pl

LOCATION: The facilities of Hess Oil Virgin Islands Corp. (HOVIC located in Limetree Bay on the South coast of the island of St. C U.S. Virgin Islands. St. Croix is 32 miles South of St. Thomas St. John Islands and 50 miles S.E. of the island of Puerto Rico. It is largest of the U.S. Virgin Islands being 19 miles long and avera 3.5 miles in width.

The Limetree Bay sea buoy is located approximately 9.3 miles of Sandy Point and Southwest Cape, St. Croix, on the South coa the island. The harbour is located between Krause Lagoon Canegarden Bay.

On approaching the Pilot Station, Mariners are advised to stay t South of the 100 fathom curve to avoid fish traps and shoal areas w have not been completely surveyed.

A vessel is considered to be "Arrived" when it is on the Pilot Sta that is South of the Channel Entrance (See "Pilotage").

Charts: Virgin Islands (including Saint Croix) – U.S.C. & G.S. C No. 905, U.S. Naval Oceanographic Office Chart No. 25246. St. – British Admiralty Chart No. 485. Frederiksted Roads – U.S.C. & Chart No. 937 and U.S. Naval Oceanographic Chart No. 25251.

DOCUMENTS: All ships arriving from a foreign port will be boarde Customs, Immigration and U.S. Public Health Service Officers. *personnel are not allowed ashore until permission is granted from officers.*

The following documents are required for entry and clearance a to be presented to the respective officers on boarding:

Customs:
2 copies Crew List (Form I-418).
2 copies Passenger List (Form I-418).
1 copy Ship's Stores Declaration (Form 1303).
1 copy Crew Effects Declaration (Form 1304).
Inward Foreign Manifest (if discharging).
Original and 3 copies Form 7527-B.
Ship's Register.
Clearance from last port.
Derat Certificate.

For vessels not using the HOVIC Marine Agency, the fol additional documents are required:
1 copy for entry and 1 copy for clearance Master's Oath on Vessel in Foreign Trade (Form 1300).
1 copy for entry and 2 copies for clearance General Declaratio 1301).

All other forms should be provided by the vessel's Agent.

Immigration:
Original Crew List (Form I-418) (Certified if available).
1 copy Passenger List (Form I-418).
Each crewman must have either valid D-1 (Form I-95) or new Form I-95 for presentation with Passport/Seaman's Book to Inspection Officer.

United States Immigration laws apply in the U.S. Virgin Islands. Passports and Visas are required for non-U.S. citizens.

Normally Customs entry must be complete before cargo operations can begin.

Customs clearance is accomplished by the vessel's Agent.

Cargo documents are placed onboard by the Refinery Terminal Department.

Note: The Customs Service of the U.S. Virgin Islands is under the jurisdiction of the United States Treasury Department. However, Virgin Islands Customs laws differ considerably from those of the Continental United States.

Limetree Bay is in the Christiansted Customs District.

APPROACHES: Channel Entrance Buoys No. 1 and No. 2 are located in 80 ft. of water on the Easterly and Westerly sides of the Limetree Bay channel entrance.

Entrance Buoy No. 1 is positioned at:
Lat. 17° 40' 37.4" N., Long. 64° 44' 18.2" W.

Buoy No. 1 is painted green and equipped with a quick flashing green light and a visibility of 5 miles.

Buoy No. 2 is painted red and equipped with a quick flashing red light and a visibility of 3 miles.

All aids to navigation in the approach channel and harbour are privately maintained by HOVIC.

Channel/Berths: The channel is 500 ft. in width and 60 ft. in depth at Mean Low Water (MLW). This depth extends into the VLCC Berths No.3 and No. 4. Docks No. 5 and No. 6 have 50 ft. at their face. Docks No. 1, No. 2, No. 7, No. 8 and No. 9 have 45 ft. at the face of MLW. Dry Cargo Berth has a draft restriction of 34 ft. without fenders and 38 ft. 06 in. with fenders. The turning basin opens up Eastward from the channel line and is approximately 1,200 ft. long and 1,000 ft. wide. The West Turning Basin is 1,500 ft. × 1,200 ft. A breakwater extends out from the head of the East Basin to the coral reef which forms the Southern harbour limit.

Anchors: Vessels shall have their anchor windlasses manned and their anchors ready to let go upon entering the channel into Limetree Bay.

PILOTAGE: Service is available 24 hours a day. All vessels entering Limetree Bay must comply with the Navigation Safety Regulations per 33 CFR, Part 164 and an entry denoting this should be made in the vessel's logbook. A HOVIC Pilot is mandatory for all vessels entering, shifting, or leaving the facilities at Limetree Bay. Pilots will assist the Master in the docking and undocking of the vessel; however, the Master of each vessel retains *full* responsibility for the vessel at all times.

Vessels must remain at the Pilot Station 2.5 miles South of the Channel Entrance until boarded by a HOVIC Pilot. The Pilot will be placed aboard by a company tug.

The HOVIC marine and terminal office is equipped with a VHF radiotelephone having the following channels:

Initial Contact – Channel 11
Working – Channels 9, 10 and 11

Ships must call the HOVIC marine office on VHF at least 3 hours before arrival at the Pilot Station and advise of any change in their ETA.

Pilot Ladders: The following regulations apply to Pilot Ladders:

If these regulations are not complied with, HOVIC Pilots may refuse to embark or disembark thus delaying the vessel.

The Officer responsible for the embarkation and disembarkation of the Pilot is to be a Deck Officer.

The pilot ladder is to be properly secured and adequately lit at night.

The Pilot should be able to pass safely and conveniently from the head of the ladder onto the ship's deck. Where portable stanchions and bulwark ladders are used for this purpose, the portable stanchions must be rigidly secured to the ship's structure to prevent being unshipped and supported at not less than two points to prevent lateral movement. The bulwark ladder should also be independently attached and firmly secured. The stanchions should be of reasonable height and adequately capped to allow a firm grip.

The ladder is to be in good condition and its treads are to remain horizontal. The treads are to have a rough upper surface.

The length of the ladder should not exceed 30 ft. Whenever the distance from sea level to a point of access on the ship is more than 30 ft., access from the pilot ladder to the ship must be by means of an accommodation ladder or other equally safe and convenient means.

The ladder is to be rigged so that each step rests firmly against the ship's side. Spreaders are to be provided not more than 10 ft. apart to prevent the ladder twisting.

A manrope or a safety line is to be secured at the vessel's rail and lowered over the side adjacent to and for the full length of the pilot ladder. A lifebuoy with self-igniting light is to be readily available.

The ladder is to be rigged well clear of any overboard discharges and at a place where the best lee can be provided to the boat carrying the Pilot.

Whenever a mechanical pilot hoist is used, a standard pilot ladder shall be at hand, ready for immediate lowering in the event of a hoist malfunction.

ANCHORAGE: There is no safe anchorage off the entrance to Limetree Bay. Vessels having to wait due to berth availability or weather should proceed to sea towards the South and West of the Island and heave to 15 or 20 miles offshore, maintaining VHF contact with HOVIC Marine by guarding Channel 11 for berthing instructions.

In bad weather it is possible to proceed to Fredericksted on the West end of the island and anchor in 30 ft. to 60 ft. of water. Vessels shall have their anchors ready to let go upon entering the channel into Limetree Bay.

RESTRICTIONS: Navigation is permitted 24 hours a day, except for vessels over 100,000 d.w.t. Vessels over 100,000 d.w.t. are handled on a daylight basis inbound only. The Port Captain will check and report on each vessel's draft before a Pilot is dispatched.

Ballast Drafts: Ballast draft restrictions are as follows:

Vessel d.w.t.	*Forward* (ft.)	*Aft* (ft.)
Under 30,000	10	16
30,000 – 50,000	12	18
50,000 – 70,000	15	21
70,000 – 100,000	18	24
San Clemente Class	21	27
100,000 – 150,000	28	32
150,000 – 200,000	32	36
Over 200,000	40	40

These guidelines will be adjusted as weather and vessel handling characteristics dictate. Advice concerning any variance will be provided to the vessel by the Pilot in ample time to prevent any unnecessary delays to the vessel's ballasting.

MAX. SIZE: The docking facilities listed are subject to change, depending on weather conditions, depth of water and length of vessels at the adjoining berths. All vessels are normally turned prior to docking.

Roll-On/Roll-Off Dock – East Basin:
Length: 318 ft.
Draft: 17 ft.

Dry Cargo Dock – East Basin – Tankers:
Length: 650 ft. – Depending on size of vessel at Dock No.1 and distance from bow to centre manifold.
Draft: 38 ft. 06 in. with fenders.
34 ft. 00 in. without fenders.
D.w.t.: 45,000 tons.

Dry Cargo Dock – East Basin – Sulphur Ships:
Length: 585 ft. LOA
Beam: 65 ft. with Yokohama Fenders.
Draft: 38 ft. 06 in. with Yokohama Fenders.
Beam: 75 ft. without Yokohama Fenders.
Draft: 34 ft. 00 in. without Yokohama Fenders.
D.w.t.: 45,000 tons Max. – Must be adhered to.
Freeboard: 40 ft. Max. – Must be adhered to.

NOTE: If the restriction on the beam is not adhered to, hand trimming will be required. This is an extra cost.

Vessels over 585 ft. LOA, up to 685 ft. LOA may use this berth. The above restriction on beam and draft to be adhered to.

It will be necessary to undock, and turn a vessel of over 585 ft. up to 685 ft. at least once during the loading. This will involve extra port charges (one pilot and 2 tugs will be required).

All other restrictions pertaining to beam, draft, deadweight and freeboard must be strictly adhered to.

Dock No. 1 – East Basin:
D.w.t.: 80,000 tons maximum.
LOA: 900 ft. maximum.
Beam: Unlimited.
Draft: 42.5 ft. maximum.
Bow-Centre Manifold: 450 ft.

Dock No. 2 – East Basin:
D.w.t.: 80,000 tons maximum.
LOA: 900 ft. maximum.
Beam: Unlimited.
Draft: 42.5 ft. maximum.
Bow-Centre Manifold: 450 ft.

Dock No. 3 – East Basin:
D.w.t.: 300,000 tons maximum.
LOA: 1,200 ft. maximum.
Beam: 200 ft. maximum.
Draft: 55 ft. maximum.
Bow-Centre Manifold: 600 ft. maximum.

Dock No. 4 – West Basin:
D.w.t.: 300,000 tons maximum.
LOA: 1,200 ft. maximum.
Beam: Unlimited.
Draft: 55 ft. maximum.
Bow-Centre Manifold: 600 ft.

Dock No. 5 – West Basin:
D.w.t.: 100,000 tons maximum.
LOA: 900 ft. maximum.
Beam: Unlimited.
Draft: 47.5 ft. maximum.
Bow-Centre Manifold: 450 ft.

Dock No. 6 – West Basin:
D.w.t.: 100,000 tons maximum.
LOA: 900 ft. maximum.
Beam: Unlimited.
Draft: 47.5 ft. maximum.
Bow-Centre Manifold: 450 ft.

Dock No. 7 – West Basin:
D.w.t.: 25,000 tons maximum.
LOA: 500 ft.
Beam: Unlimited.
Draft: 35 ft. maximum.
Bow-Centre Manifold: Length of vessels using this berth shall be guided by the length of the vessel at Berth No.6, also on the distance from bow to centre of the manifold.

Dock No. 8 – West Basin:

D.w.t.:	100,000 tons maximum.
LOA:	900 ft. maximum.
Beam:	Unlimited.
Draft:	42.5 ft. maximum.
Bow-Centre Manifold:	450 ft.

Dock No. 9 – West Basin:

D.w.t.:	100,000 tons maximum.
LOA:	900 ft. maximum.
Beam:	Unlimited.
Draft:	42.5 ft. maximum.
Bow-Centre Manifold:	450 ft.

HEALTH: United States quarantine laws are enforced by the U.S. Public Health Service.

Pratique is required only if vessel is coming from a plague infected area or if there is illness of a suspicious nature or there is a death (from any cause) onboard. The Master is obligated to report to the HOVIC marine office any of the above circumstances well in advance of the vessel's arrival at the Pilot Station in order that the Public Health Officials may be notified – failing this the vessel may be delayed.

All trash and refuse kept in drums on deck must be in closed plastic trash bags and the drums must have securely attached lids. No plastic bags laid upon the deck nor open containers on and/or below decks will be acceptable. No garbage collection or disposal service is allowed or available. No trash or refuse will be allowed to be deposited in the harbour. Failure to comply with any of the aforementioned items results in immediate and large fines.

RADIO/VHF: Masters must advise HOVMAR St. Croix and their agents by radio or telex 72 hours, 48 hours and 24 hours in advance of their ETA, giving the vessel's name, date and hour of arrival (Local time) and the name of their last port of call, otherwise delays may result in berthing the vessel. A vessel will be considered as "Arrived" when it reaches the Pilot Station 2.5 miles South of the Sea Buoy.

A vessel's "Notice of Readiness" will not be accepted until the vessel has initially reached this point and notified HOVIC by VHF.

VHF Radio Frequencies:

1. Calling only	– 11
2. Harbour Operations	– 9-10-11
3. Pilotage	– 11
4. Agency	– 10 or 11
5. Standby-call	– 2182 kHz.

Harbour tugs and the HOVIC Marine Dispatchers monitor the VHF frequencies 24 hours a day.

S.S.B. Channel Frequencies:

SSB communication available with prior scheduling.

RADAR: No Port Radar Service or Vessel Traffic Management System exists in the port.

TUGS: Tug assistance in the channel, docking and undocking is mandatory and is provided by 3×3,000 S.H.P. twin screw diesel tugs and 2×7,200 S.H.P. twin screw diesel tugs which are stationed in the port to provide this service. Additional tugs are available when required for handling VLCC's. All HOVIC tugs are equipped with firepumps, monitors and foam towers to assist in firefighting.

Line Handling: A line handling vessel and personnel are provided for mooring.

MOORING: A HOVIC Pilot will direct the mooring of the vessel to ensure that it is properly secured before cargo handling operations start. This does not relieve the Master of his responsibility to ensure that the vessel is safely moored and that the lines are kept properly tended at all times.

Ship's Moorings and Mooring Winches: Ships shall at all times remain adequately secured alongside the berth by the use of ropes or wires which are in good condition and properly sized for the service they are in.

Mooring lines of the same size and type should always be used for all leads in the same service.

The use of constant tension mooring winches in the automatic mode is not permitted. Vessels with constant tension mooring winches must have their brakes set manually.

BERTHING:

Port Alucroix: Situated to the West of the HOVIC Terminal. The port is entered via the Krause Lagoon Channel with a controlling depth of 35 ft. at Mean Low Water and a width of 300 ft. At the head of the Lagoon is the Martin Marietta Alumina Terminal which is currently idle. Pilot boards approximately 2.5 miles South of the Krause Lagoon Channel Entrance Buoys.

Container Port: Situated close to the West of the HOVIC Terminal. The port is entered via the Krause Lagoon Channel (300 ft. wide and 35 ft. depth) and the Container Port Cross Channel (400 ft. wide and 35 ft. depth). Length of the pier is 1,200 ft. with 35 ft. depth. 1 × 30 ton Paceco container crane is available with a telescopic spreader to handle 20 ft., 35 ft. and 40 ft. containers.

A berth at the head of the pier can handle Ro/Ro cargoes.

TANKERS: *HOVIC Terminal (Hess):* A shore gangway is provided. For berth limitations due to size see "Maximum Size". All berths are for the handling of petroleum products with the exception of Dry Cargo Berth which has in addition the capability of loading sulphur pellets in bulk. There are no other facilities for handling any other cargoes beside petroleum at the HOVIC Terminal. No shore steam/power is available. Lightering: *VLCC Lightering is no longer conducted off Frederiksted, St. Croix. Lightering is done at the island of St. Lucia. If arrangement is made to lighter at St. Croix, the procedures listed are to be adhered to.*

BALLAST: United States laws prohibit the pumping overboard of dirty ballast while a vessel is within U.S. coastal waters. All ballast must be pumped to facilities available ashore. However, if a vessel is especially equipped with clean segregated systems which are reserved for ballast use only, it is permissible to pump the segregated ballast overboard at the dock after the ballast tanks have been inspected and approved by a Marine Department representative.

In pumping dirty ballast ashore, the ballast is received through a 36 shore line at a maximum discharge pressure to the shore installatio 100 p.s.i. Ballast is pumped into a ballast facility about 1 mile North the dock.

Due to the limited facilities and the possibility of more than one ves deballasting at a time, it is requested that vessel arrive with a minim amount of ballast, consistent with Pilot's ballast draft restrictions, a include the amount to be discharged on their ETA advices to their Agen

The U.S. Oil Pollution Act of 1924 applies to the Pollution of Coas Waters. Violators are subject to fines and possible imprisonment.

INERT GAS SYSTEM: Ships equipped with a properly working In Gas System are to keep all cargo tanks inerted when alongside w exception of those tanks that are gas-free.

Vessels equipped with an Inert Gas System may be required de-pressurise the cargo tanks to allow for ullage measurements to made. HOVIC Terminal and U.S. Coast Guard Rules and Regulatio concerning Inert Gas Systems must be complied with at all times.

NOTICE OF READINESS: Notice of Readiness to load or discharge a warranty that the vessel is in all respects ready to load or dischar and that all of the ship's equipment, including, but not limited to, tan pumps, valves and pipelines, are ready and fit to load or dischar petroleum or petrochemical products.

HOVIC reserves the right to refuse acceptance of such Notice Readiness unless the vessel is in all respects ready to load or dischar

A vessel will not be deemed ready to load or discharge and pump will not commence until the Senior Deck Officer shall have executed a delivered to HOVIC a "Declaration of Inspection Prior to Bulk Car Transfer" as required by U.S. Coast Guard Regulations.

HOSES: *Connecting and Disconnecting Hoses:* A crew will be provid by the terminal to connect and disconnect cargo hoses, bunker hos and Chicksan arms on the ship.

Vessels should have blank flanges removed from the cargo line reducers installed and drip pans or other fixed containment in place arrival at the dock. The HOVIC Dispatcher will advise the vessel arrival the size and number of hoses to be connected. Manifolds not use must be blanked off.

1. Oil transfer hoses and loading arms must be long enough to al the vessel to move to the limits of its moorings without placing strain on the hose/loading arm or oil transfer piping system.
2. Each hose must be supported to prevent kinking or other dama to the hose and strain on its coupling.
3. The oil transfer system must be properly aligned.
4. Each part of the oil transfer system not necessary for the trans operation must be securely blanked off.
5. The end of each hose and loading arm that is not connected the transfer of oil must be blanked off using closure devices.

LOADING: The Petroleum docks are serviced by the following sh lines: 1×42 in. crude line, 1×36 in. crude line, 1×36 in. No. 6 oil l 1×36 in. ballast line, 1×30 in. VGO (Catfeed) line, 1×24 in. No. 6 line, 1×24 in. VGO (Catfeed) line, 2×20 in. gasoline lines, 1×20 in. Kerosene line, 1×16 in. gasoline line, 1×12 in. line for each of following: Paraxylene, Xylenes, Benzene and Toluene, 1×8 in. Caus Soda line and bunker lines of 1×18 in., 1×12 in. and 1×8 in. All h connections are 10 in. diameter, there are 4×16 in. loading/discha arms at Berths No. 3 and No. 4 for crude oil, 2×16 in. arms for N oil/crude at Berth No. 6, and 2×16 in. arms for VGO (Catfeed)/Crud Berths No. 8 and No. 9. Chemical grades are handled via 1×10 in. h with Caustic Soda handled by 1×6 in. and balance grades via 2×10 hoses. Facilities are available to handle dirty slops/tank washings.

BRIDGES: There are no bridges that affect harbour movements.

MEDICAL: Emergency medical attention is available from the Pu Hospital at any hour of the day or night. The ship's agency representa should be contacted by the Master with any requests for crew med attention. For each man needing medical or dental attention, a f should be completed in duplicate and signed by the Master, or in absence, by the Chief Officer. The form should provide the date, pati name, rating and the name of the vessel.

For routine medical treatment, a doctor will board vessel on a d basis. Dental treatment is available ashore on weekdays.

All crew members requiring medical attention should be availab treatment upon ship's arrival.

Inoculations and vaccinations are available.

DENSITY: 1025.

FIRE PRECAUTIONS: Standard fire precautions for tanker safety ap including but not limited to: Smoking is prohibited on the weather d of tank vessels, on docks, and in the general dock vicinity. All doors portholes from the quarters facing outside must be kept closed w transferring cargo at the dock. No portable cables connected t electrical source shall be used while transferring cargo or ballast. W illumination is needed, approved explosion-proof lights are to be u Boiler cleaning, tank cleaning, gas freeing, welding, burning or hot is not allowed at the dock. Tank mopping is permitted on an indi basis. Vessel's main engines should not be out of service whi vessel is in port. It is not permitted to shut down both main boile a steam vessel or pull the cylinder heads from the main engine motor vessel. In the event a stack or engine exhaust emits live s the transfer of cargo must be stopped. The main radio transmitter to be used while transferring cargo or ballast. The transfer of carg ballast must be stopped during electrical storms, or when ligh appears in close vicinity. A fire towing wire should be led out fo and aft on the offshore side of the vessel and lowered to the w edge, made fast to the deck and tended to maintain them at the w edge. In the event of fire on the vessel, dock or waterfront are transfer of cargo will be suspended and the vessel made rea immediate departure if the danger is imminent. Furthermore, sho emergency or accident occur, vessel and terminal personnel mu immediate action in order to protect life and property. Contact the H Port Captain on VHF Channel 11 and the terminal dockwatch to them of the nature of the emergency.

FRESH WATER: The Island of St. Croix is dependent almost entirely on rainfall for its supply of fresh water. There are wells but most of them are rather saline in nature. As a result, fresh water is scarce and expensive. In conjunction with its refinery operation, HOVIC operates desalination plants and limited quantities of fresh water are available providing at least 72 hours' notice of these requirements is given prior to the ship's arrival. All fresh water is metered aboard ship.

FUEL: Bunkers are available by prior arrangement. Advice concerning the quantities and type required should be given in the vessel's arrival message (ETA) sent in 72 hours prior to arrival.

CONSULS: Denmark and Netherlands.

REPAIRS: In general no repair work is authorised, except for emergencies while the vessel is at the dock. Nearest major repair facilities are at San Juan, Puerto Rico.

DRY DOCKS: No dry docks are available in the port.

SURVEYORS: Cargo Inspectors are available at Limetree Bay as follows: SGS Inspectorate, Chas. Martin and Caleb Brett. E. W. Saybolt available on premises.

Representatives of the American Bureau of Shipping, Lloyd's Register and other maritime classification societies are available from San Juan, Puerto Rico on 24 hours' notice. The ship's Agent will assist Masters in soliciting their services.

GANGWAY/DECK WATCHMEN: Vessel to provide personnel at manifold and gangway.

Gangway: Vessels must be prepared to provide their own gangways. Some of the docks have gangways that may be used at the discretion of the dock foreman. Where HOVIC provides the gangway, a safety net will be rigged. When the vessel's gangway is used, we strongly urge the use of a vessel supplied safety net under the gangway.

CUSTOMS ALLOWANCES: Crew members are permitted to hold out of bond 1,500 cigarettes and 1 litre of alcohol per crew member.

REPATRIATION: Facilities exist for effecting crew changes and arranging repatriation by air.

AIRPORT: HOVIC Terminal at Limetree Bay is located 15 minutes via highway from the airport. Daily flights direct to Miami, Fla., New York, N.Y., Newark, N.J. and numerous flights to San Juan, Puerto Rico with worldwide connections are available.

TIME: The U.S. Virgin Islands use Atlantic Standard Time (A.S.T.) which is Greenwich Mean Time minus 4 hours all year round.

HOLIDAYS: The refinery and terminal operates 24 hours per day all year round.

POLICE/AMBULANCE/FIRE: The refinery and terminal have their own ambulance and fire department. Contact the HOVIC Port Captain on VHF Channel 11. Local police may be contacted via the Agent.

TELEPHONES: No arrangements are available for placing telephones aboard ship.

SERVICES: Following services are available: Radio/Radar repair, Ship Chandler, Liferaft Service/repacking, ship classification societies surveyors (from San Juan, P.R.), and charts, publications or Notice to Mariners in very limited supply.

BANKS:

The Bank of Nova Scotia, Christiansted (809-773-1013).
Banco Popular, Christiansted (809-773-0077).
Chase Manhattan Bank, Christiansted (809-773-1200).
First Pennsylvania Bank NA, Christiansted (809-773-0440).

STORING: Vessels can only be stored by truck delivery to the pier. Trucks may approach the vessel no closer than 150 ft., where goods are pushed/pulled alongside using vendor's wheeled carts. A shore crane is capable of lifting light weights to the vessel from the apron. Forklifts are not allowed on the dock. Local riggers are available for assistance provided a minimum of 24 hours' notice is given to the Agent.

SHORE LEAVE: Under normal circumstances, no restrictions are imposed by the Immigration authorities on shore liberty. Masters are requested to have all crew members on board at least one (1) hour prior to departure time to avoid delay "awaiting crew members".

If crew members of foreign vessels are to be given shore leave, Form I-95 must be prepared for each member of the crew. These forms are available from the ship's agent.

Transportation: Crew members desiring shore leave are not permitted to walk through the refinery. Taxi cabs are available when required for transportation through the refinery and to Christiansted and Frederiksted at the crew member's expense.

IDENTIFICATION CARDS: Agency representative will supply Master with Refinery Gate Passes.

GARBAGE DISPOSAL: Service available. Contact any of the following for details:

Dept. of Planning and Natural Resources. Tel: 772-0565.
Brown and Ferris Industries. Tel: 809-788-7171.
Safety Clean Enviro Systems. Tel: 854-1090.

Hess Oil Virgin Islands Corp. Facility: Facilities available for handling of plastics and garbage/refuse provided material is non-hazardous. Medical waste and hazardous waste are not acceptable. U.S.A. Regulations 33 CFR 158.115, 40 CFR 261.3 & 261 Sub-part D apply. All ship waste is subject to inspection and control of the U.S. Dept. of Agriculture & U.S. Coast Guard. Vessels should apply for service through their agent 36 hours prior to arrival, indicating type and amount of material for disposal ashore. Charge is U.S.$ 21.00 per 4 cu.ft. bag. Special bags are supplied through the agent.

WASTE OIL DISPOSAL: Service available. Contact any of the following for details:

Dept. of Planning and Natural Resources. Tel: 772-0565.
Brown and Ferris Industries. Tel: 809-788-7171.
Safety Clean Enviro Systems. Tel: 854-1090.

Hess Oil Virgin Islands Corp. Facility: Dirty ballast/slops are discharged to shore through a 36 in. shore line at a maximum discharge pressure to the shore installation of 120 p.s.i.

SEAMAN'S CLUBS: None. Usual local facilities.

Hess Oil Virgin Islands Corp. Facility: Hess Oil Virgin Islands Corp. jetty is within 10 minutes of large shopping centre which can be reached by taxi or walking from the refinery main gate.

CURRENCY: U.S.Dollar.

TIDES AND CURRENTS: The tides are small and diurnal, the mean range being about 0.5 ft. and the diurnal range less than 1 ft. Normally there is a drift of 0.5 knot to 1 knot moving along the South shore of the island in a Westerly direction.

H.O. Sailing Directions and U.S. Coast Pilots No. 5 can provide additional details.

REGULATIONS: Vessel will be held responsible for the cost of labour and material required to clean up any oil spill caused by the vessel in Limetree Bay. Slick booms are available to isolate spills and contingency plans are in force for oil spills. The U.S. Coast Guard will be notified of any oil spills, no matter how minor, also vessel's cargo transfer operations will be suspended pending U.S. Coast Guard investigation.

AIR POLLUTION: Blowing or cleaning of boiler tubes while a vessel is alongside the dock or within the harbour limits is strictly prohibited.

It is unlawful to permit the emission of smoke darker than No.2 on the Ringelmann scale. Violation of this law in Limetree Bay may result in fines to the vessel. Terminal personnel record violations and report the same to Air Pollution Authorities. Masters are advised that continued violation can result in the vessel being placed offhire. The vessel will be sailed and not re-docked until the problem is fully resolved.

In the event a stack or engine exhaust emits live sparks, the transfer of cargo must be stopped. If the condition is not corrected immediately, the vessel will be removed from the harbour.

SWIMMING: Swimming in the Harbour is not permitted.

COMMUNICATIONS:

Communication with U.S. Navy at Fredericksted: Arriving at or departing from Limetree Bay, all vessels passing the Western end of St. Croix are to monitor VHF Channel 16 for radio traffic from the U.S. Navy Weapons Tracking Station at Fredericksted. Vessels may be requested to alter course to avoid interrupting naval activities that are being conducted with aircraft, ships and submarines.

GENERAL:

Photography: Cameras are not allowed within the confines of the Refinery. Picture taking is strictly prohibited.

Emergency Towing Wires: Immediately on docking, emergency towing wires of sufficient length to reach the water's edge, with 8 ft. eyes on the outboard ends, must be paid out from the offshore bow and quarter. The inboard end of the wire must be made fast to the vessel's bitts. Wire shall be in good condition, of adequate strength and adjusted as necessary throughout loading/discharge operations to keep the eyes at or above the waterline at all times.

Liquors: The transportation of alcoholic beverages inside HOVIC's property is strictly prohibited; consequently, no liquor or beer may be removed from vessels. The only exception to the foregoing is the delivery of bonded stores ordered by the Master for the vessel.

Visitors: No visitors are permitted in the dock area. Only persons on official ship's business are permitted on the piers.

Laundry: Facilities are available to handle ship's laundry.

Mail: Official and personal mail will be delivered on board by the ship's Agent upon vessel's entry.

Mail received for vessels while in port will be delivered on board prior to sailing. Outgoing mail is accepted from Master, provided it is accompanied by a mail transmittal slip to support disbursements.

Supplies and Repairs: Limited supplies of provisions and marine hardware are available on the island. There are no facilities for major repairs closer than San Juan, Puerto Rico. Machine shops in Christiansted and Fredericksted can assist in making minor repairs.

Overloading: Masters are advised that International Laws pertaining to overloading are strictly enforced and they should be guided accordingly.

Vessels shall not arrive or sail overloaded. All expenses incurred in discharging or lightering overloaded cargo will be for the vessel's account. Vessels departing to zones requiring lighter draft may sail with the draft permitted in that zone plus an allowance for fuel and water consumption to the zone limit.

Weather Conditions: The loading and discharging of all crude and petroleum products will be stopped during severe electrical storms.

Loading of gasoline or other similar low flash products will be stopped during periods of calm when the heavy vapours cannot be dispersed quickly enough to prevent hazards from accumulated gas pockets. Ship's Officers are cautioned to be on their guard during such conditions.

In the event of abnormal weather conditions in the area, such as a hurricane, vessels will be notified that additional moorings are required. If the situation so demands, Masters may be told to suspend all operations and proceed to sea until normal weather conditions again return.

Demurrage: Vessels are required to vacate the berth promptly upon completion of cargo handling operations (loading or discharging operations, as the case may be). Permission to lay alongside at any time the vessel is not engaged in cargo handling operations must be granted in writing by the HOVIC Marine Manager.

If any vessel fails to vacate its berth upon completion of cargo handling operations and expiration of free laytime for dock usage as outlined below, the vessel will be held responsible for penalties and demurrage as follows:

(1) To pay dock demurrage at the rate of U.S.$1,000 per hour or a pro-rata share thereof for a fraction of an hour.

(2) To hold HOVIC harmless for any demurrage and consequential damages incurred as a result of any other vessels suffering berthing delays or for any other events resulting from its failure to properly vacate the berth.

The following rules shall govern the determination of demurrage:

(1) 1 hour of free laytime will be allowed after completion of cargo loading operations. This free time will start at the time cargo hoses are disconnected from the ship's manifold on completion of loading or discharging of cargo.

Vessels awaiting cargo papers and/or Customs Clearance must vacate the berth within 1 hour of such completion and move outside to await their papers.

(2) 4 hours free Laytime will be allowed for ballasting after discharge operations are completed.
(3) Ballasting times for VLCC's will be handled on an individual basis for each ship.
(4) Delays caused by the terminal are excepted.

DEVELOPMENTS: Currently there are no planned revisions to the harbour.

AGENCY: Vessels calling at HOVIC's terminal should address all business messages to their Agent. Ship owners and operators may wish to have their vessels represented by HOVIC Marine Agency. The Agency offers a complete and efficient service.

Arrival: The ship's agent is to be advised as to the vessels ETA 72 hours, 48 hours and 24 hours prior to the vessel's arrival. They are to keep the terminal advised at all times.

SHIPMASTER'S REPORT: April 1996.

Vessel arrived in ballast and loaded sulphur in bulk.

Pilotage: On approaching the port, call "Pilot boat" on VHF Channel 11. The Pilot usually boards on bearing 154° × 2.2-2.5 miles from entrance to Limetree Bay Canal from a port tug.

Ships waiting for a Pilot drift and watch VHF Channels 16 and 11.

Documents:
3 copies Crew List (only U.S. blank forms).
3 copies Ship's Stores Declaration.
1 copy Ports of Call during last 6 months.
1 copy Drugs List (if any, medicine).
1 copy Fire Plan.

If vessel visits one time, U.S. crew and ship are checked by U.S. Coast Guard. They watch crew fire and boat drills and check all ship's documents.

Shifting: All shifting near berth is with Pilot and 2 tugs.

Communications: When in berth, vessel must watch VHF Channel 11.

Terminal supplies vessel with Motorola walkie-talkie whilst in berth for contacting Terminal Operator. Call sign "Sulphur Loader".

Agency: Call "HOVIC" on VHF Channel 11, working Channel 10.

Surveyor: Surveyor was on board and watched the loading at all times.

AUTHORITY: Hess Oil Virgin Islands Corporation (HOVIC), P.O.Box 127, Kingshill, St. Croix, U.S. Virgin Islands 00850. *Tel:* 809-778-4000, 778-4494. *Telex:* 3473013. *Contact:* Steven Williams, Port Captain. John H. Frederick, Marine Manager.

Virgin Islands Port Authority, P.O.Box 1707, St. Thomas, Virgin Islands, U.S.A. 00801. *Tel:* (809) 774-2250 (St. Thomas), (809) 778-1180 (St. Croix).

ROAD HARBOUR & PORT PURCELL, Tortola, British Virgin Islands: 18.25 N. 64.37 W. (See Plan)

PORT LIMITS: All the area of water North of an imaginary line drawn from Burt Point to Hog Point (see B.A. Chart 2020).

DOCUMENTS:
Clearance from last port.
Declaration of Health Certificate.
4 Crew Lists.
2 Crew Store Lists.
2 Ship's Stores Lists.
2 Passenger Lists.

PILOTAGE: Only compulsory for vessels of 200 g.r.t. and over, unless a vessel is in possession of a valid Exemption Certificate issued by the Ports Manager. Pilot boards at Port limits after receiving advice from Agents preferably 12 hours prior to arrival. Link calls made through Tortola Radio, Channel 27 in daytime and Channel 16 at night.

Vessels arriving ahead of ETA sound "G" on whistle if unable to advise Agent.

No inward pilotage at night, unless emergency, night Pilotage outwards by special arrangement.

ANCHORAGES: Between Buck Island and Beef Island or immediately South of Port limits, approximately 12 fathoms.

RESTRICTIONS: Anchorage within Port limits prohibited unless authorised by Ports Manager. Max. draft alongside Port Purcell 21 ft.

HEALTH: Customs issue Pratique for vessels with clear bill of health, otherwise request doctor to board on arrival alongside or at anchor.

RADIO: Call sign "Port Purcell" – can be reached by VHF Channel 16. Cable and Wireless maintain a Public Coast Station on Tortola, call sign "Tortola Radio", with an approximate range of 50 miles and provides linked telephone calls between ships and any shore based telephone subscriber. From 0700 hrs. – 1900 hrs. watch is kept on Channel 16, at night for emergencies only.

For distances in excess of 50 miles any other convenient shore station, (eg. Barbados, St. Thomas) that will accept messages for onward cabling or telephoning to Tortola.

TUGS: None available.

BERTHING: Port Purcell quay is 800 ft. long, max. draft 21 ft. at any state of tide, salt water. Ships discharge with own gear.

CRANES: Port Purcell has 1 mobile shore crane, max. lift 8 tons. Prior advice required for use.

MEDICAL: Hospital facilities available, no routine inoculations, etc., required unless specially notified.

DENSITY: Entirely salt water within port limits.

FRESH WATER: Available in limited quantities at Port Purcell, approx. delivery 20 t.p.h. and costs U.S.$14.00 per 1,000 gallons.

FUEL: Diesel only for small vessels delivered by road tanker to Port Purcell, 2 hours' notice.

REPAIRS: Minor repairs only.

SURVEYORS: Available.

HATCHES: Opened and closed by crew.

CUSTOMS ALLOWANCES: No sealing of tobacco, wine or spirits.

AIRPORT: Beef Island, 7 miles, regular local flights to St. Thoma Puerto Rico, Antigua which connect with several main lines to Europ and the Americas.

TIME: GMT minus 4 hours.

HOLIDAYS: Port Purcell closed Christmas Day, Good Friday an 1st Monday in August.

POLICE/AMBULANCE/FIRE: Dial 999 (emergency). Police statio 43422.

TELEPHONES: Telephones available for use on board ship.

SHORE LEAVE: No restrictions for crews.

IDENTIFICATION CARDS: None required.

DELAYS: None should be expected. Cargo working is geared to ship arrival, irrespective of time and 24 hours continuous working if require

AUTHORITY: Ports Manager and Harbour Master, Road Town, Tortol Virgin Islands.

ST. THOMAS: 18.20 N. 64.56 W. (See Plan

St. Thomas is situated on South side of Island of St. Thomas. It i 1,434 miles from port of New York. Northern side of Island borders o Atlantic Ocean, and Southern side on Caribbean Sea. The Harbour i one of the best in the West Indies, being almost landlocked.

DOCUMENTS:

Quarantine, Customs and Immigration – See "Frederiksted".

Agent:
1 copy Crew List (Form I-418).
1 copy Passenger List (Form I-418).

PILOTAGE: Compulsory and available day and night. Pilot Boat ha letter "P" on deck house and flies International Code flag "P". Pilots w meet vessels 1 to 3 miles outside harbour, boarding via Jacob's ladde

ANCHORAGE: Outer Harbour Anchorage located beginning at Scorpi Rock Lighted Buoy No. 1 (Lat. 18° 19' 25.6" N., Long. 64° 55' 08" W thence 180° 1,580 yards; thence 263°, 2,490 yards; thence due Nor 1,255 yards; thence due East to the Southerly tip of Sprat Point, Wat Island; thence to Cowell Point, Hassel Island, and thence to point beginning. This anchorage is considered good and is about 8 fathom with sand bottom.

RADIO: (a) The St. Thomas Marine Operator will guard the followi throughout 24 hours: Channel 26, 16 VHF, 2009 – 2506 and 2182 k AM, and the upper side band (2010.4 – 2507.4 kHz) of the sa frequency. The Harbour Master's Office maintain a 24 hour watch VHF Channel 16 (working on Channel 12).

(b) Master of every vessel arriving at St. Thomas is required to g at least 24 hours advance notice of arrival to Captain of the Port U Coast Guard – San Juan, Puerto Rico by wireless on 500 kHz or radio telephone 2182 kHz.

(c) Masters are requested to advise Agents their ETA, at least 36 hou in advance. Arrival messages should include cash requirements (lo currency U.S. Dollar) and advice regarding repairs, stores, etc. T information is particularly necessary in the cases of vessel arriving weekends or holidays. For cruise vessels the arrival messages sho also include the number of passengers and crew on board.

(d) While vessels are in St. Thomas Harbour, the Authorities do n permit the use of the ship's radio transmitters.

(e) U.S. Coast Guards: This organisation maintains a small Mar Safety Detachment in St. Thomas to observe, service and effect repa to navigation aids in vicinity of St. Thomas. An 82 ft. Coast Guard Pa Boat "Point Whitehorn" (82364) is attached to the station for prim purpose of search and rescue work. Maintains watch on V Channel 16.

Radio telephone marine information broadcasts, including Notices Mariners, will be made on 2670 kHz, after first making a prelimin announcement on 2182 kHz. Radio telephone urgent and safety broa casts or Marine Information will continue to be made on 2182 kHz

TUGS: Normally not considered necessary for docking, however t are available for docking and undocking ships.

BERTHING: Wharf of the West Indian Company Limited, locate Eastern shore of harbour basin. Wharf is bulkhead type, 2,234 ft. with 600 ft. extension, running N.E./S.W., and is well protecte seaward. Mooring bitts are spaced at intervals of 50 ft. There is a out" in the wharf 950 ft. from N.E. corner, which is 22 ft. wide approximately 3.5 ft. above low water. This ramp is slanting from 8 to 3.5 ft. over a distance of 20 ft. Safe depth alongside from 27 ft. N.E. end to 30 ft. on S.W. end. Bulwark is 8.3 ft. above mean Average difference between high and low tide is 11 in.

Dockage dues are payable to the West Indian Company Limite per tariff.

In the Crown Bay area (access via East or West Gregerie Chan the V.I. Port Authority maintains facilities which include a pier exte 800 ft. from shore with 500 ft. of berthing space on South side and 2 on North side, where ships up to 25,000 g.r.t. can moor. Cont depth presently 38 ft. This pier is used for berthing tourist and vessels only. A curved bulkhead at top of Crown Bay, approxi 900 ft. long, is used for Ro/Ro, container and break bulk c Controlling depth 15 ft. 24-hour arrival notice is required.

Phase II-A of the development at Crown Bay will include a 650 ft. for cargo vessels.

CARGO HANDLING: Containers are handled at the West Indian Company and the Crown Bay area (V.I. Port Authority), but no special gantry cranes are available. Ro/Ro cargo handled at these facilities as well. No liquid chemicals facilities exist here but there is a small privately-owned LPG plant limited to 20 ft. draft and 250 ft. length. Shell uses this facility for gasoline and light diesel. The "T"-pier in Crown Bay is used for the V.I. Water and Power Authority for movement of fuel and water, and Texaco has its own pipeline on the same pier for their products.

STEVEDORES: Discharging and/or loading arranged by the West Indian Company Limited for account and risk of vessels.

Rates of discharging and/or loading dependent on vessel's equipment and stowage. However, following may be considered average:

General Cargo 6 weight tons per gang hour.
Bagged Goods 8/10 weight tons per gang hour.
Lumber 10/12 weight tons per gang hour.

Each stevedore gang normally consists of 12 stevedores (10 on board and 2 ashore), 2 winchmen, 1 signalman, 1 foreman.

MEDICAL: Local hospital is the Knud-Hansen Memorial Hospital, which is equipped with facilities for operations, etc.

FUEL: Bunkers are not available except for small craft.

FRESH WATER: Mostly rain water which when available is supplied by the West Indian Company Limited. This supply is limited and is on an emergency basis only. Water may also be requested from the Government of the Virgin Islands in cases of emergency only. Delivery effected by pipe alongside wharf. Water can be delivered by barge.

HEALTH, CUSTOMS, IMMIGRATION: Refer to Frederiksted.

CONSULS: Following countries have consular representatives in St. Thomas:

Belgium
Denmark
Dominican Republic
El Salvador
France
Haiti
Netherlands
Norway
Panama
Sweden
United Kingdom

AIRPORT: Distance 2 miles. Connections with International flights from Puerto Rico and direct flights from New York, Dallas/Fort Worth and Miami.

TIME: Official St. Thomas time is Atlantic Standard Time, which is 4 hours behind GMT.

HOLIDAYS: The following are legal holidays in St. Thomas: Sundays; January 1st (New Year's Day); January 15th (Martin Luther King); January 30th (Roosevelt's Birthday); February 12th (Lincoln's Birthday); The third Monday in February (Washington's Birthday); March 31st (Transfer Day); Holy Thursday; Good Friday; Easter Monday; Whit Monday; The last Monday in May (Memorial Day); June 22nd (Organic Act Day); July 4th (Independence Day); July 25th (Supplication Day); The first Monday in September (Labour Day); The second Monday in October (Columbus Day); The fourth Monday in October (Veterans' Day); November 1st (Liberty Day); The fourth Thursday in November (Thanksgiving Day); December 25th (Christmas Day); December 26th (Christmas Second Day), and such other days as the President of the Government may by proclamation declare as holidays.

Whenever any holiday falls upon Sunday, the Monday following is a legal holiday.

POLICE/AMBULANCE/FIRE: Police 915; Ambulance 774-1212; Fire 921. Port Authority 774-2250, 774-2333.

REGULATIONS: The U.S. Coast Guard strictly enforces the Harbour Pollution Act of 1924, prohibiting discharge of refuse and oil in navigable waters of the U.S. Virgin Islands.

Local Port Regulations are similar to those applying in U.S. Mainland Ports.

WEATHER: The weather is usually mild with little wind. Squalls when they occur, usually come from the N.E.

GENERAL: *Gangway:* One aluminium gangway available which is 34 ft. long and 2 ft. 6 in. wide – made with skidding prevention strips only and therefore not recommended for use as a passenger gangway. There is a similar gangway that is owned and used on V.I. Port Authority facilities. Since these are the only gangways; they are made available to vessels on first-come-first-served basis.

Stores: St. Thomas should not be depended upon for large quantities of provisions or deck and engine stores, as practically all commodities are imported making prices higher than United States mainland ports and Puerto Rico. No regular Ship's Chandlers established in St. Thomas, V.I.

Storage Facilities: The West Indian Company Limited undertakes ordinary storage for a limited period of time in 8 transit warehouses, all 14 ft. high with a total floor area of 80,000 sq. ft., plus an additional 9,600 sq. ft. roof covered area. There is also a large uncovered area available for outside storage. Only limited cold storage facilities are available on The West Indian Company's Dock.

Ice: Small quantities may be obtained.

Laundry: Modern laundry service is available.

AUTHORITY: Virgin Islands Port Authority, Office of the Marine Manager, P.O.Box 2216, St. Thomas, Virgin Islands, U.S.A. 00803. *Tel:* (809) 774-2250, 774-2333. *FAX:* (809) 774-0025. *Contact:* Marine Manager.

NOTES

Please also advise Shipping Guides Ltd.

Western Samoa

APIA: 13.50 S. 171.45 W. (See Plan)

PORT LIMITS: The Customs Act defines the port of Apia as follows: The limits of the said port of Apia shall be a circle of 2 miles radius from the Custom House now existing in Apia and the said port shall include all land, river, and sea included within that circle. The Shipping Act defines the limits of the port in similar terms using the Export Wharf as the centre of the 2 mile radius circle. Both of these features are shown on Chart 2211.

DOCUMENTS:
1 Clearance from previous port of call.
3 Crew Lists.
3 Passenger Lists.
2 Health Documents.
1 Manifest.
Bills of Lading.
Ship's Papers (stores and poisons).
List of Dangerous Goods.

PILOTAGE: 72 hours ETA is required, confirm 24 hours before arrival. Pilotage is compulsory for merchant vessels. Pilot boards 1.5 miles outside harbour on line of leading beacons. Pilot boards from harbour tug.

By night, in addition to usual navigation lights, Pilot boat carries standard identification, i.e. a red light on foremast with all-round visibility. Exemption from pilotage may be granted to Masters of vessels trading regularly to Apia, but pilotage dues are still payable.

ANCHORAGES: In 20 fathoms outside a line drawn between the 2 reefs and preferably on line of leading beacons. Bottom is coral.

RESTRICTIONS: No night-time or tide restrictions. Turning basin dredged to 36 ft. in 1972, extending to 1,200 ft. from each end of the wharf. Arrivals preferred during daylight hours.

MAX. SIZE: Shore bollards to take stern and bow lines for vessels up to 800 ft. in length. Max. draft 35 ft.

Buoy mooring for tankers up to 32,000 d.w.t. consists of 3 buoys with black and red vertical stripes, 1 ahead and 2 astern. Vessel also uses starboard anchor.

HEALTH: Doctor boards vessel on arrival alongside.

RADIO: ETAs should be sent 72 hours before arrival, and confirmed 24 hours before. Signals to incoming ships by radio or radio-telephone from Apia Radio Station 5WA. For radio, ships should call on 500 kHz and operate on 483 kHz. For radio-telephone, ships should call on 2182 and operate on 2162 or other available frequency as may be arranged once contact has been established. Call sign "Apia Radio" repeated.

Apia Radio maintains continuous service, and the Harbour Master can be called on Channel 16 during normal working hours. The tug and pilot launch also operate on Channel 16 .

TUGS: 2 tugs available, *Pualele,* 425 b.h.p. (7 ton pull) and *Tafola,* 2×800 s.h.p. (20.95 tons pull).

BERTHING: Export Wharf – reinforced concrete wharf 604 ft. in length on the East side of inner harbour. Max. depth alongside 36 ft. All loading and discharging is carried out with ship's gear. No wharf cranes available. This wharf and all surrounding areas enclosed by fence is Customs area and all vessels trading to or from places outside Western Samoa must depart from or arrive at this wharf.

New wharf 604 ft. long, vessels up to 800 ft. may be berthed.

There is 250 ft. of berthing alongside the inner face of the Southern arm of the wharf for small ships in deep water.

There are no special Ro/Ro facilities.

Shore equipment: 1×30 ton forklift, 4×25 ton forklifts, 1×20 ton mobile crane and 16×2.5 ton – 7 ton forklifts.

STEVEDORES: Arranged by ship's Agents.

MEDICAL: Advance notice to Agents preferable. Doctors and good general hospital where seamen may be admitted.

There are private medical and private dental clinics of high standard.

TANKERS: Shell, Mobil, and B.P. operating in Samoa, and have own discharging facilities. Tanker terminal situated on West Reef. Discharge line is 6 in. diameter. Launch service may be provided between ship and shore at a small charge.

DENSITY: 1025 – but may alter considerably during rainy season.

TIDES: Mean high water intervals 6 hours 27 minutes, Spring range 3.8 ft., mean range 2.6 ft. Tidal stream normally slight, but after heavy rain outflow from rivers and streams can cause it to become quite strong.

The current across the harbour entrance about 600 m. off the reef can be variable, but is predominantly Westerly and velocities up to 4 knots have been reported but this is not normal.

FRESH WATER: Available at wharf from shore installation.

FUEL: Only light diesel fuel available.

FIRE PRECAUTIONS: Fire services available on wharf, station is 0.5 miles distant.

CONSULS: The New Zealand High Commissioner represents all British subjects; French Consul, Australian High Commissioner, Embassy of the Chinese People's Republic, South Korean Consul, German Consul, United States of America Consul.

REPAIRS: Minor repairs only.

SURVEYORS: None.

GANGWAY/DECK WATCHMEN: Recommended and available.

OPENING/CLOSING HATCHES: Opened and closed by stevedores.

CUSTOMS ALLOWANCES: No enforcements.

AIRPORT: Faleolo International Airport is situated West from the port, about 34 km., and Fagalii International Airport for light aircraft, situated East of the Port of Apia, is about 5 minutes away.

TIME: GMT minus 11 hours. No alteration to clocks.

HOLIDAYS: No cargo on Sundays from midnight Saturday until 2100 hrs. Sunday. The recognised holidays are Christmas, New Year, Boxing Day, Good Friday, Easter Monday, Monday after Whit Sunday, Anzac Day and Independence holidays from 1st June to 3rd June.

TELEPHONES: Police and public telephones near wharf and provisio are available for telephone connection to tourist vessels berthed at th wharf.

POLICE/AMBULANCE/FIRE: Hospital 21.212; Police 22.222; Fire 99 emergency or 20.404.

EMERGENCY CO-ORDINATION CENTRE: U.S Coast Guar Pago Pago, American Samoa, 80 miles East of Western Samoa.

BANKS: Bank of Western Samoa, P.O.Box 189, Apia, Western Samo Tel: 22 422. Telex: 258.

Pacific Commercial Bank (Affiliate Bank of New South Wales an Hawaii), P.O.Box 192, Apia, Western Samoa. Tel: 22 781. Telex: PC 231.

STORING: See "Prelims".
1. Truck only.
2. N/A.
3. Yes.
4. Yes.
5. No regulations.
6. Yes.

SHIP SUPPLY SERVICE: The Marine & Shipping Division of the Minist of Transport provides tug-boat services which are available for ship-t shore transport of personnel and/or essential ship stores, sick cre members, etc., on application to the Secretary, Ministry of Transport

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not needed.

GARBAGE DISPOSAL: No regular service currently available. Conta Department of Agriculture Quarantine Service (Tel: Apia 20924 Garbage disposal is only permitted from ships from Australia, Fiji an New Zealand.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

CURRENCY: Western Samoa Tala (WS$). Local currency can not b exported.

GENERAL: *Supplies:* Provisions available. Deck and engine roo supplies can be obtained in limited quantities.

Divers: No divers other than scuba divers are available, and skin dive may be recruited for up to 50 ft. diving.

Oil Pollution: The pumping of bilges, etc., within harbour limits is n permitted and *heavy penalties will be imposed for any breach.*

Garbage Disposal: The dumping of refuse of any kind within harbo limits is strictly prohibited. Properly covered receptacles will be ma available and rubbish disposal vans will clear them as necessa A small charge will be made for this service.

Charts: B.A. 1730 – Samoa or Navigation Islands.
B.A. 1339 – Plans in Samoa.
B.A. 2211 – Apia Harbour.

AUTHORITY: Ministry of Transport, Marine and Shipping Divisio P.O.Box 1607, Apia, Western Samoa. *Tel:* (685) 23 700, 23 701 a 23 702. *VHF:* Channel 16. *Telex:* 221 Malo Sx. *FAX:* (685) 219 *Cables:* Mot Sam Govt. *Contact:* The Secretary, Ministry of Transpo N. Vaaelua, Assistant Secretary Marine and Shipping, and Act Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Republic of Yemen

GENERAL:

CIRCULAR: Extract from the Circular dated 21st June, 1975 from the Hodeidah Port General Corporation.

Information and General Condition:

1. *Payment of Tolls and Dues:*

All charges imposed herein are payable in cash, in advance except in the circumstances in which the General Manager of the Hodeidah Port General Corporation exceptionally agrees otherwise.

2. *Definition to Certain Terms:*

(a) "Vessels" shall deem to refer in the Regulations to every floating craft made to sail on water by its or without its own means, whether or not fit for navigation.

(b) "Working Day": Commences at 0600 hrs. and ends at 1800 hrs. Night: Commences 1800 hrs. ends 0600 hrs. following day. Weekend: Commences Thursday 1200 hrs. and ends Saturday 0600 hrs.

3. *Public Holidays:*

The following occasions are observed as Public Holidays, which commence from 1200 hrs. on the preceding day and end at 0600 hrs. following the holiday:–

1. Weekly Holiday: Friday.
2. Al-Hijra (Moslem New Year): *1st Muharram.
3. Maulid-El-Nabi (Prophet's Birthday): *12th Rabia Awal.
4. Al-Meiraj (Prophet's Ascension Night): *27th Rajab.
5. Al-Shaabania: *15th Shaaban.
6. Idd-El-Fitr (4 days): *1st to 4th Shawal.
7. Idd-El-Adha (5 days): *9th to 13th Dulhijja.
8. Revolution Anniversary: 26th September.
9. 13th June (National Holiday).
10. Labour Day (1st May).
11. Revolution Day (14th October).

*N.B.: For Hijra Calendar dates, the corresponding Georgian Calendar dates will be those proclaimed by the Government of the Yemen.

CIRCULAR: To Owners/Masters.

We quote below text of a Circular dated 21st January, 1979, issued by the General Corporation for Ports and Marine Affairs, Hodeidah, for your information and necessary compliance:

"No vessel, having no workable derricks or winches of her own, shall be received or accepted.

Agents shall be responsible for said obligations and without any liability to the Port General Corporation, in all Yemen Ports.

Due to non-availability of discharging means of floating cranes at anchorage and non-guarantee of available shore cranes, advisable you ensure that all ships calling under your Agency should be fully equipped as required."

PILOTAGE: Pilotage is compulsory on all vessels irrespective of their size, on entry and departure.

NOTICE: The following notice was handed to a Master on arrival at Hodeidah.

Re: *Formalities, Restriction, Breaches & Penalties at Yemeni Ports:*

We are very pleased to welcome you and the vessel under your command at Hodeidah/Raskateeb/Saleef/Mokha, and request you to note and comply with the following formalities/restrictions to avoid payment of penalty.

1. Call Pilot only when you are fully ready in all respects. If Pilot is called to take the vessel out, and the vessel fails to depart after boarding of the Pilot, the vessel will bear all the consequential expenses of (a) Pilot waiting time, (b) Launches assistance charges, (c) unmooring charges, including any other expenses.
2. Fine of Y.Rials 500 to 2,000 is imposed, if Yemen flag is not hoisted on the highest mast.
3. Fine of Y.Rials 500 is imposed, for arrival at Port without prior notice, notifying actual time of arrival of the vessel.
4. Fine of Y.Rials 10,000 to 20,000 is imposed for attempting entry to berthing quay, without prior permission from the Management and without Pilot on board. Same penalty imposed for attempting departure without permission and Pilot, from the quays or inner basins.
5. Fine of Y.Rials 500 to 1,000 is imposed for draining water onto the quays. Vessel also to bear responsibility for losses caused therefrom.
6. Fine of Y.Rials 1,000 is imposed for throwing garbage, cargo remains, food remains, oil, etc. into inner harbour or onto quay.
7. Fine equivalent to 100% of the loss in income to the Corporation is imposed, in the event the vessel submits inaccurate statements on ships particulars and drafts.
8. Fine of Y.Rials 5,000 is imposed, if the vessel leaves anchorage after registration without clearance from the Corporation.
9. Fine of Y.Rials 500 is imposed, if Rat Guards are not provided to avoid rats escaping to the quays.
10. Fine of Y.Rials 2,000 is imposed, if vessel uses her own boats within Port limits without prior permission.
11. Fine of Y.Rials 2 is imposed per hour per metre of LOA of the vessel, for delay in completion of discharging during the duration set out by the Corporation.
12. Fine of Y.Rials 1,000 is imposed on whoever obstructs Corporation's staff/employees in carrying out their duties or insults them.
13. A shore crane will be compulsorily deployed at 100% surcharge to a vessel over 100 m. LOA.
14. Corporation reserves the right of removing any vessel from the quays for any reason in the general public interest.
15. Photography of the Port area is prohibited.

(Notes from Tariff – 1/82 published by Ports & Marine Affairs General Corporation).

Please note that the Port Limits (for Hodeidah) are 14° 55' 34" N., 53° 37' E.

"Pilotage Point" for entrance and departure is Buoy No. 2.

We trust that you will find the above information very helpful to promote cordial relations with all officials and relevant authorities, and at the same time contribute towards reducing expenses of our mutual Principals.

PLEASE NOTE: All the foregoing information was in effect prior to the unification of the country and may have been superceded in recent times.

ADEN, (including Little Aden): 12.48 N. 44.54 E.

DOCUMENTS:

5 Crew Lists for Ship's Agent, Police and Immigration.
5 Passenger Lists for Ship's Agent, Police and Immigration.
2 Lists of Bonded Stores.
1 Health Form to be shown to Pilot on boarding and handed to Ship's Agent.
Manifests, Bills of Lading if landing cargo only.
Ship's Register to be sighted by Pilot.
Arrival Declaration to be filled in by Ship's Agent after arrival.
Dangerous Material Declaration to be handed to Pilot on boarding.

PILOTAGE: Compulsory for all vessels proceeding to and from Inner Harbour and Oil Harbour at Little Aden which exceed 200 g.r.t. To call Pilot fly International Code Flag "G" or red/white/red lights at night. Call "Harbour Control" on VHF Channel 16, or R/T 2182 kHz. 48 hours' notice of ETA with draft to Harbour Office.

Pilot boat will meet ship at the Fairway Buoy in all weathers. Pilot boat is 50 ft. launch painted red, flying Pilot flag by day or white/red lights at night. Pilot will board on lee side of ship by pilot ladder only. Vessels waiting Pilot can anchor anywhere in Outer Harbour except in a Prohibited Area of 2,000 ft. around the Fairway Buoy. All Pilots are Yemenies with foreign-going Master's certificates.

ANCHORAGES: Ample anchorage area available with in Outer Harbour depths from 18 ft. to 54 ft.

(a) Anywhere North of Fairway Buoy clear of Main and Little Aden Channels and clear of Prohibited Area mentioned above.

(b) Deep water anchorage anywhere to S.W. of Fairway Buoy clear of Little Aden Channel and Prohibited Area mentioned above.

MAX. SIZE:

Aden:

(a) Max. length 900 ft., breadth no restriction, depth 38 ft. at datum for vessels taking bunkers from A.B.C. (Aden Bunkering Co.).

(b) Vessels taking bunkers from Y.K.T.C. (Yemen-Kuwait Terminal Co.), max. length restricted to tankers of 750 ft., breadth no restriction, depth 39 ft. at datum.

(c) Larger vessels can be considered on application to the Port Officer. Longest vessel to enter 940 ft.

Little Aden Refinery:

Max. length 760 ft., breadth no restriction, depth 40 ft. at datum and max. deadweight 65,000 tons.

A new jetty 45 m. in length has been constructed on the North side of the oil harbour by Agip Oil Company for use by oil rig supply tugs. Vessels up to 90 m. LOA and 6.1 m. draft can berth on the jetty.

Note: In both harbours vessels manoeuvring require 2 ft. water under keel, and vessels of draft 37 ft. and above require 4 ft. water under keel.

Ballast Draft for Tankers: All tankers when manoeuvring within the port shall be ballasted properly to a mean ballast draft which shall not be less than half the Summer draft and the trim by the stern not exceeding 6 ft. These figures are the minimum for normal conditions and may be increased when conditions necessitate at the discretion of the Pilot.

HEALTH: Vessels requiring Pratique fly International Code Signals or 3 red lights at night. This signal to be exhibited until Pratique has been granted by the Pilot or Port Health Officer.

Control of quarantinable and infectious diseases is direct responsibility of Port Health Officer. All passengers from infected local areas except children under age of one year are required to have valid international certificate of vaccination or revaccination against yellow fever and cholera.

RADIO: All ships landing passengers are boarded by Assistant Port Health Officer unless Radio Pratique has been given. Pratique may be obtained by radio to Port Health Authorities no earlier than 12 hours and no later than 4 hours before arrival, in accordance with international procedure. All landing passengers medically inspected and vaccination certificates checked on board before Free Pratique granted. Ships having infectious diseases on board are also boarded; after examining the case and taking any necessary precautions the Assistant Port Health Officer grants Restricted Pratique. Ships also inspected for issuing Derat Exemption Certificates. Deratting carried out when necessary and Derat Certificate issued.

Yemen Telecommunications Company: Mercury House, Ras Boradi (Tel. 22223/5).

Wireless telegraphy:

	GMT	*kHz*
Medium wave		
Working frequency		476
24 hour watch on international calling and distress frequency		500
High frequency	0500 – 0700	
	1100 – 1200	
	1630 – 1800	
	1830 – 1930	8710
	2130 – 2200	
	0900 – 1100	
	1300 – 1500	13060.5
	0700 – 0800	17175.2

	GMT	*kHz*
Radio telephone (including spoken telegrams) Working frequencies		2595 & 3628
24 hour watch on international calling and distress frequency		2182
Radio telephone circuits set up on request at times shown	0400 – 0500 1000 – 1100 1600 – 1700	8805.6 & 4409.4

VHF: 24-hour watch on VHF Channel 16 (working Channel 13) and duplex working on Channel 26.

TUGS: Tugs for both harbours normally join just outside Breakwater. Ships' ropes always used in Aden Harbour, tugs' wires in Little Aden.

6 tugs available in Aden Harbour, maximum 2,000 h.p. In Oil Harbour at Little Aden 2 Voith Schneider tugs of 3,200 h.p. each are available.

BERTHING: (Also see "Tankers" and "Developments"). 24-hour service at all berths.

Berth		*Type*	*Normal maximum length of ship* (ft.)	*Datum depth* (ft.)
1 (a)		2 buoys	350	30
1 (b)		2 buoys	350	30
1 In		Anchors & buoy	275	30
2 Out		Anchors & buoy	550	38
2 In		2 buoys	600	38
3 In		Anchors & buoy	700	38
4 Out	A	Anchor & 3 buoys (oil)	650	36
4 In	B	Anchor & 3 buoys (oil)	750	40
5 Out	R	Anchor & 3 buoys (oil)	630	37
7 Out	S	Anchor & 3 buoys (oil)	630	38
8 Out	E	Anchor & 3 buoys (oil)	580	36
8 In	F	Anchor & 3 buoys (oil)	600	36
9 Out		Anchors & buoy	900	41
9 In		Anchors & buoy	550	36
10 Out	U	Anchor & 3 buoys (oil)	600	36
10 In	V	Anchor & 3 buoys (oil)	600	36
11 Out	G	Anchor & 3 buoys (oil)	600	30
11 In	H	Anchor & 3 buoys (oil)	530	28
13 Out		Anchors & buoy	550	28
13 In		Anchors & buoy	450	30
14 Out		Anchors & buoy	350	18
14 In		Anchors & buoy	350	18
15 Out		Anchors & buoy	350	18
15 In		Anchors & buoy	350	18
Dolphin Berths				
6 Out	C	Dolphin & breast buoys (oil)	900	39
6 In		Dolphin & breast buoys (oil)	800	38
7 In	T	Dolphin & breast buoys (oil)	750	39

The capital letters in column two denote alternative designation of mooring buoys/dolphins.

New Quay: New quay with length 750 m. and depth 11.0 m. for vessels up to 36,000 d.w.t. Two berths for container vessels and 2 berths for general cargo vessels. The quay will be equipped with 1×40 ton container crane and 6×6 ton semi-portal cranes.

Ro-Ro Terminal: Length 150 m., depth 7.6 m.

Home Trade Quay (H.T.Q.): 800 ft. long with depth of 6.7 m. Max. size of ships that can berth there are restricted to 122 m. LOA and max. draft 5.5 m.

Free zone. Initial Stage 525,420 sq.ft. open space and 162,000 sq.ft. covered space. Import and export industrial facilities. No restrictions, no taxes. Transhipment storage free for unlimited period.

STEVEDORES: ETA advice to Agent at least 48 hours before arrival.

MEDICAL: Advance notice for medical attention not normally required except for serious cases requiring doctor's attendance on board, or ambulance cases. Vaccination certificate required for landing. Hospital facilities available.

TANKERS: Tankers carrying dangerous petroleum (flash point below 73° F) and those not gas free or carrying more than 3 tons of category one cargo (explosives) cannot enter Aden Harbour during hours of darkness. They can enter Little Aden day or night. Slop (residue) discharge facilities available at Little Aden. 4 tanker berths for discharge/loading at Little Aden with max. datum depth of 40 ft.

Berthing at Oil Harbour: Functions of Oil Harbour Little Aden to receive crude oil in bulk for oil refinery and to export refined petroleum products. Vessels carrying cargo for refinery, other than oil, discharge at Inner Harbour.

Oil harbour has finger jetty and 2 T-head jetties which provide berths for 4 tankers. Tankers of up to 65,000 tons Summer deadweight with 55,000 tons of cargo can be accommodated.

Berth	*Type*	*Normal maximum length of ship* (ft.)	*Datum depth* (ft.)
1	Dolphin & mooring dolphins	750	40
2	Dolphin & mooring dolphins	750	40
3	Dolphin & mooring dolphins	750	40
4	Dolphin & mooring dolphins	See "below"	

Berth No. 4: Max. size 110,000 d.w.t. Max. LOA 264 m. Width of channel 220 m., depth 14.75 m. Depth alongside 15.85 m. Daylight berthing on flood tide. Daylight unberthing on suitable tides.

BALLAST: Notice: Port Authority require vessels arriving or sailiing in ballast to have mean draft 50% of Summer draft and maximum trim of 6 ft. by stern. However, should the vessel have segregated ballast tanks then ballast condition must comply with regulation 13 of International Convention for Prevention of Pollution 1973, Protocol 1978. Total deballasting time allowed being 6 hours only. Vessels should have maximum possible ballast clean and capable of being pumped overboard. Dirty ballast and slops can be received ashore at maximum rate of 500 t.p.h.

Signed: Marine Superintendent.
Aden Refinery Company.

DENSITY: Salt water at all times.

FUEL:

(a) A.B.C. (4 berths).
Marine fuel 2500 sec., 1000 sec., 600 sec., 200 sec.
Diesel oil and gas oil.

(b) Yemen-Kuwait Terminal Co.
Marine fuel – all grades below 3,500 sec.
Diesel oil and gas oil.
All supplies done on a Nomination basis through the Company Head Offices, with the vessel giving at least 48 hours' notice Aden.

FRESH WATER: Ample available, delivered by barge in Aden at abo 50 t.p.h. Ordinary water in Little Aden supplied by pipeline at abo 40 t.p.h. and condensate at about 2 t.p.h.

FIRE PRECAUTIONS: As per the Refinery regulations (Internatio Standard). Tug wires to be rigged and check list to be furnished.

CONSULS:

Algeria
Belgium
Bulgaria
China (P.R.C.)
Cuba
Czech Rep.
Denmark
Ethiopia
France
Greece
India
Iran
Iraq
Italy
Japan
Korea (P.D.R.)
Kuwait
Libya
Netherlands
Norway
Oman
Pakistan
Portugal
Russia
Saudi Arabia
Somalia
Spain
Sweden
Syria
U.A.E.
U.K.
Vietnam
Yugoslavia

REPAIRS: Workshops are equipped to carry out: Boiler repairs; Plat and sheet metal work; Galvanising work/moulding work; Welding a blacksmith's work; Main and auxiliary machinery repairs; Carpentry a joinery work; Electrical and plumbing work; Refrigeration repai painting, cleaning and chipping. Repairs afloat to vessels up 80,000 tons are undertaken; repairs to the largest vessels carried mostly in Outer Harbour.

Radio engineering section with fully qualified personnel giving roun the-clock service of repairs and maintenance to radar and rad equipment.

During repairs, maintenance and painting – no rubbish to be thro overboard, precautions to prevent pollution to be taken. No paint overside to be carried out without written permission from Port Author Chipping and/or scrapping overside strictly not permitted.

DRY DOCK: 1 sideways slipway taking 1,500 tons and floating do lifting capacity 4,500 tons. Length 137 m., breadth 31 m. Max. d 6.0 m.

GANGWAY/DECK WATCHMEN: It is recommended watchmen a employed; they can be supplied by Ship's Agent. Safety net to be rigg

OPENING/CLOSING HATCHES: Normally carried out by stevedor derrick-topping by ship's crew. Vessels not to move in harbour w beams off.

CUSTOMS ALLOWANCES: Tobacco/Wine, Spirit allowance. restriction at the moment. Bonded stores not allowed to be suppl more than 1 hour before ship sails.

REPATRIATION: Arranged through Ship's Agent and Immigration.

AIRPORT: About 5 miles from port. Flights to U.K. via Beirut (Mid East Airlines), Air France, Kuwait Airways, Air India, Ethiopian Airlin Saudi Air and Alyemda also call.

TIME: GMT plus 3 hours. No alteration of clocks.

HOLIDAYS: Most holidays are religious which have movable dat National holidays are 14th October and 30th November. Cargo w usually carried out during all holidays. Friday is a public weekend holi

POLICE/AMBULANCE/FIRE: Ambulance at Crater 53232; Harb Police 22851; Port Health 22626/7; Fire 22222.

TELEPHONES: No connection to ships but link calls can be made VHF through Yemen Communications using Channel 16 to call working on Channel 26. Some Agents have private VHF Channels.

SHIP SUPPLY SERVICE: There are no firms specialised in this fiel Yemen. However, the Yemen Ports Authority has a large fleet of and launches at Aden, and will, in 1985, have 2 Voith Schneider propel tugs, 1 fast pilot launch and 2 mooring launches at the newly constru port of Mukalla-Khalf. These craft are available at all times for render assistance to sick persons on board ships in the vicinity of the ports are also available for crew changes, mail and spare parts delivery.

As to helicopter services, the Yemen Army and Air Force make helicopters available for rescue at sea whenever possible.

SHORE LEAVE: *Regulations:* In accordance with Art. 8 of Immigration Rule No. 28 of the year 1969, all crew members co ashore will be excused from obtaining visa provided they surrender Passports to the Immigration Officer-in-Charge. These Passports w given back to the holders before they return to their particular ves Any crew member unable to comply with these instructions will n permitted to visit the town.

Ships' crew are not allowed to stay ashore after 0000 hrs.

IDENTIFICATION CARDS: Shore pass to be carried at all times ashore.

REGULATIONS: Vessels must fly the National flag of Yeme foremast. No movement of "dangerous petroleum" at night. Ve must vacate oil berths on completion of bunkering. Main engines not be immobilised in an oil berth. Sufficient crew must remain ab vessel at all times to move her.

Ships carrying dangerous cargoes calling at Yemen Ports must the Port Authority concerned not less than 48 hours prior arriva Class 1 dangerous cargo to discharge at Outer Harbour Ancho IMO Class 1 in transit vessel will manoeuvre during day time on

Immobilisation of main engines should not be executed at any before obtaining written permission from Port Authority, through Agent. Same procedure applies for overside hull painting. Applica be through ship's Agent in duplicate. Main engine immobilisatio berths and Home Trade Quay not allowed.

GENERAL: Outer harbour contains ample anchorage area for vessels requiring datum depths up to 54 ft. Inner harbour approached by 2.7 mile dog-leg channel, dredged to 38 ft., from Fairway Buoy in Outer Harbour where Pilots board. Inner harbour protected by breakwater at Steamer Point and by rubble mound. It provides 24 buoy or anchor-and-buoy berths, including 13 with oil bunkering facilities. Majority of these berths have a datum depth of 30 ft. or 38 ft., with max. length of ship ranging from 275 ft. to 750 ft. In addition 3 dolphin berths, with bunkering facilities, of 39 ft. datum depth and normally accommodating ships of 750 ft. – 900 ft. max. length; vessels of greater length can be accommodated with the approval of the Port Officer. Quays and wharves cater for shallower-draft vessels and lighters.

Oil harbour, serving refinery at Little Aden, reached by 38 ft. channel from Fairway Buoy, provides facilities for tankers of up to 750 ft. All berths and anchorages are under the jurisdiction of the Port Officer.

In order to facilitate berthing arrangements for ships calling at Aden, Masters are requested to furnish the Port Authority with the necessary information, such as, LOA, max. draft, g.r.t., type of ship, object of call, dangerous cargoes on board and IMO Classes, ETA and any other information Master thinks may be useful.

DEVELOPMENTS: Newly constructed alongside berths of 900 m. (excluding HTQ) are ready for berthing modern vessels:

2 Container berths (11 m. depth).
2 General cargo berths (11 m. depth).
1 Ro/Ro berth (7.6 m. depth).
1 Home trade quay (800 ft. long with 6.7 m. depth).

Procurement of new cargo – handling equipment:

1 Container gantry crane of 40 tons under spreader and 50 tons with hook.
2 Container handling forklifts of 45 tons each.
4 Forklifts of 2.5 tons (diesel and electric).
6 Tractor units and 20 roll trailers and communications equipment.
3 Container forklift trucks of 35 tons under spreader.
12 Container forklift trucks of 12.5 tons.
5 Forklift trucks of 2.5 tons.
6 Terminal tractors.
12 Terminal chassis (semi-trailers).

Other terminal equipment plus workshop equipment and tools.

SHIPMASTER'S REPORT: 1976

Documents:

Pilot: Sights Ship's Register to check tonnages.
Customs: 2 Crew Lists; 1 Bond List.
Immigration: 2 Crew Lists.
Doctor: 1 Health Form; 1 Vaccination List.

Note: Crew List should have consecutive numbers as well as Agreement numbers.

Agents: 2 Crew Lists; Arrival information sheet; Statement of Owners full address also Cable address; 2 Arrival Declaration for Yemen Ports Authority; 2 Aden Port Log; 1 Charges sheet for Mail; 1 Sailing information sheet; 1 Currency refund sheet.

Agent brings these Forms on board and will assist with filling in the information.

Communications: It was found impossible to make Radio Contact with Aden prior to 5 days before arrival. Best time seems to be after Aden sends its Traffic List. VHF contact was made at 12 miles as the hills around Aden appear to blanket signals when further away. Channels 16, 13, 8 or 6.

Approach: This is straightforward. The B.A. Charts appear to be well up-to-date. The Fairway Buoy is easily seen at 8 miles. Pilot boards here. Pilot ladder required. Authorities will not allow the accommodation ladder to be used.

Mooring: There was a trainee Pilot with both the inward and outward Pilot.

Ship was swung using starboard anchor and 1 tug aft. Berthed at No. 4 Berth. Forward: 3 ropes to buoy on inside plus starboard anchor 5 shackles. Aft: 1 rope from port quarter and 1 from starboard quarter taken to outside buoy, then 2 ropes, 1 from each quarter taken to inside buoy. Ship then hove to be centred between the 2 after mooring buoys. When ship in position oil pipeline, on floats is towed alongside.

Visit: Agent boarded with Doctor. At first Doctor was insisting all had to have Cholera vaccinations but is not really necessary. Immigration and Customs boarded. All pleasant and helpful. Bond was sealed.

Port Facilities: 2 fairly powerful tugs. Numerous mooring boats, 1 floating crane seen but as to lift capacity this was not ascertained. Port is run by The Yemen Ports Corporation. Like the Agency it is State owned.

Watchmen: Agents automatically provide 2 watchmen. Seemed to be alert.

Regulations: Masters are requested to assist the Port Authority by not allowing Bumboatmen or fishermen to board without written permission. The Port Authority advises Masters to be most careful if they do issue written permission. There were no bumboats about and no one seeked permission to come aboard to do business.

One half hour prior to sailing the Pilot signal red-white-red in a vertical line or "G" to be hoisted also call Port Control on VHF 16.

Use of ship's whistles or sirens is very controlled.

Bunkering: Ship's crane used to hoist pipeline aboard. The bunkering operation went smoothly and the Oil people seemed co-operative.

Walport Film Exchange: Agents were cabled but it is necessary for an Officer to go with the Agent to make the exchange.

Mail: Mail posted in London on 22nd March or 23rd March was stamped as having arrived Aden 28th or 29th March.

General: It would seem that the Port Authority, State, etc., are very keen to build up a thriving Port. It would also seem that they endeavour to give a good efficient service. I gather there is a special duty free shop ashore for the purchase of souvenirs, goods, etc.

SHIPMASTER'S REPORT: March 1985.

Documents: See "Fuel".

Pilotage: Harbour Control was called on VHF Channel 16 two hours before arrival and again 4 miles off the Fairway Buoy. Information given from the Harbour Control regarding Pilot and berthing gave the impression of a well organised port. Night signal for a ship requiring Pilot is following: vertical lights, red-white-red.

Radio: From one week before arrival, radio messages were sent via Aden Radio (7OA) to Aden and Ethiopia. Radio Officer told me that Aden Radio proved to be easy and efficient to work with.

Fuel: Bunkering commenced immediately on arrival even before ship cleared by the Authorities. Authorities came on board just before departure to collect Crew Lists and Stores Lists. Crew's cabins were not searched and stores not sealed.

2 men from the Agents were on board to handle ship's matters.

Repatriation: 7 crew members were repatriated to Denmark, and 7 new crew members joined. Tickets for those to be repatriated were brought from Denmark with the joining crew. Crew change went smoothly.

Notices: Yemen Ports Authority – Port of Aden:

Masters are requested to assist the Port Authorities in controlling bumboat traffic as follows:

Bumboatmen and fishermen selling fish *may not* board ships without the written permission of the Master. Disregard of this rule renders the men liable to police action *after* the ship has left when evidence cannot be obtained from the ship. Masters can greatly assist the Authorities if they will ensure that they give written approval to bumboatmen and fishermen whom they have allowed to board the ship.

Port Officer, Aden.

To: All Masters of Vessels in Aden Port – From National Shipping Agency.

The undermentioned information is for your kind attention and guidance:

Immobilisation of Ship's Engines:

Please note that it is an offence to immobilise ship's engines WITHOUT written permission being obtained from the Yemen Ports Authority. To avoid heavy penalty, Masters are advised to forward their requests to us in duplicate, as ship's Agents, and should NOT immobilise ship's engines unless they are in possession of the written permission of the Yemen Ports Authority for the period approved.

Garbage Collections:

Appended below are extracts from Circular No. G/3/128 dated 25th January, 1984, of the Port Officer and Director of Marine Affairs, Yemen Ports Authority, Aden:

(a) Collection and removal of garbage from vessels is entrusted to persons authorised and licensed by the Yemen Ports Authority, Aden, and who work on a rota system.
(b) It is compulsory for a vessel staying in the harbour for a period exceeding 24 hours to avail itself of this service and fees will be collected per day **whether garbage has been collected or NOT.**
(c) Similarly it is compulsory for garbage collectors to call on vessels allocated to them daily unless other arrangements have been agreed with the Master of a ship. Any garbage collector who does not call on vessel allocated to him daily without prior agreement of the Master will not receive his fee that day if reported.

Note: Masters requiring special service for collection of extra garbage, i.e., refuse/wastes, etc., emanating from the cargo holds/engine room, etc., must put their written request in duplicate to us, as Agents, to arrange for the garbage collector to call on their vessel. The Master should also notify us in writing the charges agreed upon for the extra garbage with the Collector. This does not apply to Russian vessels who are required to comply with the procedures below.

For Masters of Russian Ships: Before applying for the collection of extra garbage, please first submit your written request in *4 copies* through the Agent for *approval* of the Resident Representative for Russian ships. Please *do NOT* employ collection of the extra garbage before receiving this approval.

Scraping, Chipping and Painting in the Port:

Please note that as per instructions from Yemen Ports Authority, scraping, chipping and/or painting are *NOT ALLOWED* during vessel's stay in the port, unless prior permission is obtained from the Port Officer through us, as Agents. Any requests for the above must be forwarded to us in duplicate.

Shore Leave – Immigration Regulations:

All shore leave expires at 2300 hrs. and, therefore, all Masters, Ship's Officers, crew and passengers should be on board by this time. Overnight stay ashore is *not permitted.* Infringement of the above will be subjected to penalty and also delay to the ship.

Cash Advance to Master in Yemeni Dinars:

Cash advances required by Masters for payment to their crew in order to enable the crew to avail themselves of purchases from *Tax Free Shop,* require the following procedures to be complied with:

(a) Masters are required to render their requisitions in duplicate to the Agents during working hours together with 2 copies of Crew List.
(b) Either the Master or Chief Officer or Purser in person should have the requisition attested, stamped and signed by the Customs Officer before handing them to National Shipping Co. (the Agents).
(c) Together with the cash to Master the Agents will issue Purchase Certificates on Tax Free Shop.
(d) After completion of the purchases and 24 hours before vessel is due to sail, the Master should obtain *Purchase Clearance Certificate* from Tax Free Shop and hand it over to the Agents. This is most essential as against these Certificates only and after reconciling with the actual cash advanced, the Agents can accept the balance cash refund from Master.

Under the Exchange Control Regulations, it is an offence *not* to return the *UNUSED* Yemeni Dinars prior to sailing. Masters of vessels who received Cash Advance in Yemeni Dinars are advised to return *ALL* Yemeni Dinars remaining in their possession, to our representative who boards to clear the vessel, and ensure to obtain from him *on the spot* an official receipt of the National Shipping Company for the amount refunded, prior to departure of the vessel.

Victualling Allowance:

Free meals to Stevedores' Personnel/Watchmen.

Free meals are normally given by vessels by mutual arrangements between Masters and the Stevedores, to save time of the following persons who otherwise would have to go ashore for their meals:

One Tally Clerk per hatch working.
One Foreman.
One Cargo Supervisor.

It is left entirely to your discretion to supply free meals to the above mentioned personnel and the watchman or not. Kindly, therefore, note that we do *NOT* countersign or vouch expenditures.

Contacts on VHF: Masters of vessels can contact Agents on VHF (Channel 16) at any time during the *DAY* or *NIGHT* for any inquiries or services required. The Harbour Control also can be contacted on the same Channel.

Authorities: All in all the Port Organisation, Pilots, tugs and the Authorities gave us a good impression of the port.

SHIPMASTER'S REPORT: October 1994.

Vessel called at Aden for bunkers and fresh water.

Documents:

Agent:
3 copies Crew List.
Customs:
1 copy Crew List.
2 copies Customs Declaration.
1 copy Crew Declaration.
Immigration:
2 copies Crew List.
Police:
2 copies Crew List.

Arrival Declaration filled in by Agent after arrival. Departure Declaration was also signed for Agent to fill in later for Departure Clearance. No Ship's Certificates were requested by the Agent or the Port Authorities. Immigration officers check passports. Shore leave allowed with Passports/Seaman's Book. Agent and Port Authorities very co-operative and arrival formalities were quick and smoothly carried out.

Agent returned on board prior to vessel's departure to give Port Clearance papers and instructions to call Aden Port Control by VHF Channel 16 for Pilot when vessel is ready to sail.

Pilotage/VHF: When 25 miles from Aden and approaching from the West, Aden Port Control was contacted on VHF Channel 16.

Following information was requested:

Ship's name.
Flag.
G.r.t.
Type of vessel.
Draft.
Last Port.
Next Port.
Agent in Aden.

We were then instructed to call again when vessel was 4 miles off the Fairway Buoy. We reported again when vessel was 4 miles off the Fairway Buoy, and were then informed by Port Control that no arrangements made by our Agent for Pilot to bring the vessel into port. We were then instructed to anchor vessel 2.5 miles S.W. of the Fairway Buoy and to report again when vessel was anchored.

After reporting anchoring time and position back to Port Control, we were then instructed to call our Agent on VHF Channel 16. Agent was then contacted on Channel 16 with working Channel 11. We were then informed by our Agent that as no confirmation from the bank of funds from the Owners received by them yet, vessel will not be allowed into the port and we were to keep VHF watch on Channel 16 for their call again when confirmation was received. Two other vessels were also outside the anchorage who had arrived 2 days before us and were similarly waiting for confirmation of funds from their Owners to the Agents.

Next morning, our Agent called again on VHF to advise that funds had been received by them and vessel could now proceed into port for bunkers and fresh water. Thereafter Aden Port Control called up for vessel to heave-up anchor and proceed to the Fairway Buoy, where the Pilot will board. Pilot boards near the Fairway Buoy with lee side pilot ladder.

For departure, call Aden Port Control for Pilot. Vessel has to inform them that Port Clearance papers are on board and no barges alongside the vessel. Pilot checks the Port Clearance papers after boarding. We were instructed to exhibit the pilot lights (red – white – red) vertically on the masts. As our vessel did not have the lights required, we informed Port Control about it and they were kind enough to disregard the lights. Pilot and mooring gang arrived together 45 minutes later by boat. Pilot disembarks after clearing harbour entrance breakwater and at No. 4 Buoys. We were informed by the Pilot that some of the buoys are unlit, but can be picked-up clearly on the radar. No. 2 and No. 3 starboard green lights were not lit. Similarly No. 1 port red light was not lit. The Fairway Buoy could not be seen to be lit also.

Mooring: Vessel berthed starboard side alongside dolphin berth with bunkering facilities, but which were not used during bunkering. One tug and 2 mooring boats meet the vessel near the berth, but the tug was not used. Port anchor was let-go while coming alongside with 1.5 shackles out. 3 mooring ropes were used forward and aft, 2 ropes as springs, 2 ropes as stern lines to the dolphin berth, and remaining 2 ropes also as stern lines to buoys forward and aft of the dolphin berth. Pilot disembarks to the mooring boat after vessel is all fast alongside.

During departure, one tug is made fast at the stern with ship's line. All lines were cast-off and the port anchor heaved-up with the tug aft pulling the stern of the vessel, away from the berth. When the port anchor was aweigh, engines were used with astern movements to swing the vessel round to starboard to face the entrance harbour breakwater. T was then cast-off from the stern.

Fuel: The gas oil bunker barge came alongside the vessel on the p side soon after vessel was made fast. Bunkering was commen immediately on arrival, even before ship was cleared by the P Authorities. Minimum amount of gas oil to be supplied was 35 to Bunkering went smoothly.

Fresh Water: The fresh water barge also came alongside and made t forward of the bunker barge. After completion of bunkering and t bunker barge had cast-off, the fresh water barge moved aft to take place and commenced to supply fresh water to the vessel. Capacit the fresh water barge was approximately 200 tons. Supply was ma using normal canvas hose, and there were 3 supply outlets to supply different tanks on board our vessel simultaneously. We were inform by the Agent that there are 3 fresh water barges in Aden port, but o one is available to suppply fresh water to the vessels in port, as t other 2 barges were undergoing repairs at the time. Cost of fresh wa is U.S.$ 4.00/ton.

Notices and Circulars: Also see "Shipmaster's Report" dated Ma 1985 – "Notices". These notices are still in effect.

AUTHORITY: Yemen Ports Authority, P.O. Box 1316, Tawahi, Ad Yemen. *Tel:* 22666. *Telex:* 2278 Mawany Ad. *Cables:* Mawa
Contact: Mohamed Ahmed Ali, Director General.

ASH SHIHR TERMINAL: 14.41 N. 49.31 E. (See Pla

LOCATION: The Ash Shihr Petroleum Export Terminal, operated Canadian Occidental Petroleum Yemen, is located on the South coastline of the Republic of Yemen, approximately 230 nautical mi East of Aden.

The Terminal area is delineated by a circle 3 miles in radius from t SPM.

ACCEPTANCE: *Terminal Terms of Acceptance:* The Mooring Mas will give the Master of the vessel a Terminal Rules and Regulati booklet and duplicate copies of documents entitled "Ash Shihr Petrole Export Terminal Conditions of Use", "Ship/Shore Safety Check List" a "Safety Requirements". These documents specify the conditions of and safety requirements which must be satisfied.

The Master must personally sign the "Conditions of Use" docum before the Terminal Operator will accept the vessel.

NAVIGATION: The location of certain navigational and mooring facil is given by the following coordinates:

(i) SPM Position: Lat. 14° 40' 35" N., Long. 49° 31' 16" E.
Navigation Light – white "U", visible 3 miles.

(ii) Navigation Buoys: Permanent navigation lights are exhibited on 2 navigation buoys marking the 27.4 m. (90 ft.) water depth sea contour – Fl. Y. 5 sec. with radar reflectors.
Positions of the buoys are given hereunder:

East Buoy:	Lat. 14° 41' 15" N.,	Long. 49° 31' 10" E.
West Buoy:	Lat. 14° 40' 55" N.,	Long. 49° 30' 31" E.

(iii) Service Tug Mooring Buoys:
Mooring Buoy "A" – Lat. 14° 41' 08" N., Long. 49° 29' 30" E.
Mooring Buoy "B" – Lat. 14° 40' 50" N., Long. 49° 29' 30" E.

Masters of vessels are advised that no Anchorage Are warranted as being suitable by the Terminal Operator.

Seabed soil characteristics within the Terminal area are Dolo Limestone, and is not suitable for anchoring vessels.

Masters of vessels must not attempt to anchor within the Term area.

All attempts to anchor their vessel is at their own risk, and m be well clear of the Terminal and its facilities.

The Terminal Operator will have no liability whatsoever for claims, charges, damages or losses of any nature or kind inc by or in any way relating to anchoring of vessels.

Navigational Chart: The location of the Terminal is indicated on following navigational chart:

British Admiralty Chart No. 3784, titled – Ra's Al Kalb to Ra's Ma

Approach to Terminal: Approach to the Terminal is direct from the sea.

DOCUMENTS: Upon arrival at the Terminal, the following docum will be required by the Republic of Yemen Government Authorities vessel will be boarded by the ship's agent who will collec documents):

3 copies Crew List.
2 copies Personal Effects Declaration.
2 copies Bonded Stores List.
1 copy Last Port Clearance (original).
1 copy Maritime Declaration of Health.
2 copies Cargo Manifest.
2 copies Vaccination List.

Documentation required by the Terminal Operator is as follows:

Signed "Conditions of Use" letter (by Master).
Signed Ship/Shore Safety Check List.
Signed Safety Requirements.
Signed Non-Intrinsically Safe Equipment.
Signed Notice of Readiness Notification.
Signed Agreement for Agent to sign documents (EDP).
Signed Foc'sle Watchkeeper.
Copy of a current TOVALOP Certificate.
Copy of a current CLC Certificate.

TOVALOP: Each vessel which is to load at the Terminal m currently enrolled as a member of the Tanker Owners Vo Agreement Concerning The Liability For Oil Pollution (TOVALOP must provide a valid TOVALOP Certificate to the Terminal Oper the Terminal before being accepted to load.

Pollution Insurance: Each vessel which is to load at the Terminal must have Protection and Indemnity Insurance in force and effect that provides the standard $500,000,000 pollution coverage and the available $200,000,000 excess pollution coverage, and must provide documentary evidence to the Terminal Operator at the Terminal before being accepted to load.

Shipping Documents: The Terminal Operator prepares all cargo related documentation, including: Bills of Lading, Quality & Quantity Report, Cargo Manifest, Certificate of Origin, Tanker Time and Loading Report, Ship's Ullage Report, and Receipt for Documents and Samples. The Terminal utilises an "Early Departure Procedure" (EDP).

Bills of Lading are based on shore metered quantities and will be dated according to the time of completion of loading. No amendment to any Bill of Lading is permitted.

Letters of Protest: Any Letters of Protest must be signed by the Master and dated and endorsed with the ship's stamp. The Mooring Master has the authority to receive all letters, without prejudice.

PILOTAGE: *Compulsory Pilotage:* A Mooring Master and his assistant provided by the Terminal Operator will board an arriving vessel approximately 2 miles seawards of the SPM.

Use of the Mooring Master is compulsory.

A combination of accommodation ladder/pilot ladder should be rigged on the leeward side, 1.0 m. above sea level.

Mooring Master: A Mooring Master will remain on board the vessel to coordinate the loading operation throughout the vessel's stay. The Master of the vessel must provide the Mooring Master, his assistant, the Cargo Inspector and possibly an Oil Ministry representative with full messing and accommodation, equivalent to that enjoyed by the vessel's officers.

ANCHORAGE: No suitable anchorage (See "Navigation").

RESTRICTIONS: See "Berthing" – "Terminal Operations".

MAX. SIZE: The Terminal is capable of accepting vessels of the following deadweight tonnages:

Maximum – 400,000 tonnes d.w.t. (with loading restricted to 260,000 tonnes d.w.t.).
Minimum – 80,000 tonnes d.w.t.

RADIO: *Pre-Arrival Information:* Masters are advised that there is no provision for vessels to discharge ballast to the shore facility. No oil contaminated ballast from cargo or permanent ballast tanks is permitted to be discharged into the sea. Vessels arriving with clean ballast in cargo tanks will be required to retain on board at least the last meter in each ballasted tank.

Masters are advised that the Terminal utilises a compulsory "Early Departure Procedure" which will be fully explained on arrival.

The Terminal Operator must be provided with answers to the following questionnaire, 3 days prior to the vessel's arrival at the Terminal:

AAA ETA.
BBB Cargo requirements in barrels at 60° F.
CCC Maximum and minimum loading rates.
DDD Quantity and type of ballast on board to be discharged at this Terminal.
EEE Can vessel load and deballast simultaneously while maintaining a minimum two valve separation?
FFF Deballasting time prior to commencement of loading.
GGG Number and size of cargo manifolds. Do they comply with OCIMF "Recommendations for Oil Tanker Manifolds and Associated Equipment" 4th Edition 1991.
HHH Availability of two reducers to adapt port side manifold to suit 16 in. 150 ANSI loading hoses.
JJJ Whether Inert Gas System is operative and percentage oxygen level in cargo tanks, prior to arrival at Terminal.
KKK Is vessel equipped with one or two bow chain stoppers capable of accepting a 76 mm. chain.
LLL Does foc'sle mooring arrangement comply with OCIMF "Recommendations for Equipment Employed in the Mooring of Ships at Single Point Moorings" 3rd Edition 1993.
MMM SWL of cranes or derricks.
NNN Last port and destination.
OOO Name of Pollution Insurers.
PPP Summer Deadweight Tonnage.
QQQ Arrival Displacement. Sailing Displacement.
RRR Arrival draft. Sailing draft.
SSS Nationality of officers and crew.
TTT Master's name.
UUU Other.

Your attention is drawn to the serious view of pollution taken by the Terminal Operator. Fines may be imposed by Government Authorities to which will be added the cost of any clean-up operations. You are responsible to ensure that crew members cause no pollution during the vessel's stay at the Terminal. Principal pollution causes include leaking sea and overboard discharge valves and cargo or bunker overflows. Prior to arrival, sea discharge valves must be flushed and deck scuppers must be plugged.

VHF: *Information to Masters – Communications Procedure:*

1. The primary means of communications between the tanker and the Terminal control room during loading is VHF Channel 9.
2. The call sign of the Terminal control room is "Operations Control".
3. The secondary means of communications is by private UHF radio (Channel 1), which is in use by Terminal personnel. A handheld radio which operates on this private channel will be made available to the tanker duty officer during loading.
4. An emergency stop of loading by the tanker will be activated by the words "Operations Control, Emergency Stop" and repeated until acknowledged by the Terminal control room.
5. Regular communications checks between tanker and Terminal control room must be made during loading. It is procedure that tanker and Terminal duty personnel will exchange cargo figures frequently, usually at hourly intervals, and this practice will also serve as a communications check.
6. The Mooring Master has a marine VHF radio with him at all times. He can be contacted by the tanker duty officer on Channel 9, if required.

TUGS: A tug is available at the Terminal. The Operator will require that the tug be in attendance throughout operations. A ship's rope must be provided at the stern of the vessel for the tug to connect to, after berthing is completed.

BERTHING: Terminal's Facilities:

SPM Buoy: The 12 m. diameter Single Point Mooring buoy is moored in approximately 45 m. water depth. A small boat harbour is provided for the use of Terminal support craft only.

Loading Hoses: Each 20 in. loading hose string tapers to a 16 in. diameter tanker over-rail hose, to which is secured a shut-off valve, Camlock coupling, hand-off chain and pick-up rope.

Lifting Equipment: Vessel's hose lifting equipment shall be Safe Working Load certified and rigged to handle at least 12 tonnes.

Mooring Systems: The mooring system is comprised of two endless grommet 17 in. circumference mooring ropes each with a single U3 grade 76 mm. chafing chain.

Mooring: *Provision of Mooring Equipment:* Vessels must be equipped with mooring equipment in accordance with the OCIMF "Recommendations for Equipment Employed in the Mooring of Ships at Single Point Moorings", 3rd Edition 1993.

Panama Lead Size: Panama leads and chain stoppers must accept 76 mm. diameter chains.

Messenger Lines: The vessel must supply at the bow, 2 floating messenger lines of 25 mm. minimum diameter and minimum 50 m. long.

Terminal Operations: *Hours of Operation:* The Terminal operates 24 hours a day, prevailing weather conditions permitting. During the S.W. Monsoon season, berthing may be restricted to daylight only.

Berthing at night will be at the discretion of the Terminal, and dependant upon the location of the vessel's ballast.

Berthing on Arrival: Government officials may board the vessel with the Mooring Master and his assistant. The vessel's Agent will usually board with the Mooring Master.

Communications: Pre-arrival information is required by fax directly to the Terminal (See "Radio").

Arriving vessels can contact "Ash Shihr Terminal" on VHF Channel 16. Working channel is Channel 9 (See "VHF").

Notice of Readiness: Shipmasters may tender Notice of Readiness on arrival by contacting Ash Shihr Terminal, if the vessel is ready in all respects to load.

Acceptance of the Notice of Readiness: Notice of Readiness will be accepted by the Terminal Operator, subject to the following conditions:

(a) The Terminal is open.
(b) That the Estimated Time of Arrival (ETA) has been advised to the Terminal, 72 hours, 48 hours, 24 hours and 12 hours prior to arrival, and Masters have advised the Terminal of any change of ETA in excess of 3 hours.
(c) That the vessel complies with the Terminal Rules and Regulations. *The level of oxygen in the inerted tanks will be checked by the Mooring Master prior to proceeding to the berth.*

LOADING: *Safe Loading:* Safe operations, and continuing compliance with the Terminal Rules and Regulations on board the vessel throughout the vessel's stay at the Terminal, is the Master's responsibility.

Suspension and Stopping of Loading – See "Combination Carriers (OBO)": The Master may suspend loading at any time. A minimum of 15 minutes notice is required prior to change of loading rate or suspension or completion. Emergency stops excepted.

The Mooring Master and the vessel's Master must liaise as to the amount of cargo that will be received on board the vessel after the shore pumps have stopped. The Terminal Operator will not be responsible for any overloading that may occur. There is no capability to pump excess cargo back to the Terminal storage tanks.

Ship and shore quantities will be verified at regular intervals throughout the loading, usually hourly.

Closure of Vessel's Valves: The vessel's loading system valves must never be closed against the Terminal's loading pumps. After completion of loading, the Terminal Operator will notify the vessel through the Mooring Master, when it is safe to close the manifold valves.

Loading Rates:

The minimum loading rate is 15,000 bbls./hr.
The maximum loading rate is 60,000 bbls./hr.

Loading at the SPM: *Manifold Connections:* 2×16 in. 150 ANSI rated loading manifolds must be prepared on the port side. The manifold must comply fully with the OCIMF "Recommendations for Oil Tanker Manifolds and Associated Equipment" 4th Edition 1991.

Special Requirements for Vessels at the Terminal: The vessel's firemain must be pressurised at all times with 2 hoses with foam delivery nozzles connected to foam hydrants available for emergency use. Records must be at hand to show that the foam system is in good working order and functions correctly.

Two hand-held dry chemical extinguishers must be available close alongside the loading manifolds.

Combination Carriers (OBO): Particular care should be taken when loading or discharging liquid cargo from combination carriers and when handling ballast on such ships to ensure that the total free surface effect of cargo and ballast is kept within safe limits, otherwise a sudden, and possibly violent, change of list could occur.

In compliance with Government requirements, all combination carriers are supplied with stability data and loading and unloading instructions. These instructions should be carefully studied and followed. Generally, these instructions will specify a maximum number of cargo holds or tanks which may be slack at any one time. Sometimes it may be necessary to adjust the quantity of cargo to be loaded in order to avoid slack tanks. Where double bottom tanks extend across the whole width of the vessel, the free surface effect of water in these tanks will be as great as that of full width cargo holds and account must be taken of this fact.

Before arriving at the Terminal, a plan must be prepared for the anticipated loading sequence, bearing in mind the free surface effect and distribution of cargo, fuel and ballast at all stages of the operation. This plan must be discussed with the Mooring Master prior to the commencement of loading or deballasting.

If a loss of stability becomes evident during loading, all cargo and deballasting operations must cease and a plan prepared for restoring positive stability. This plan must be discussed with the Mooring Master prior to implementation.

Double Hull Operations: Single hull tankers usually have such a high metacentric height in all conditions of loading and ballasting that they can be considered as being inherently stable. Whilst tanker personnel have always had to take account of longitudinal bending moments and vertical shear forces, the actual stability of the ship has seldom been a prime concern. However, the introduction of double hulls into tanker design is likely to change that situation.

The main problem likely to be encountered is the effect on the transverse metacentric height of liquid free surface in the cargo and double bottom tanks.

Depending upon the design, type and number of these tanks, the free surface effect could result in the transverse metacentric height being significantly reduced. The situation will be most severe in the case of wide cargo tanks with no centreline bulkhead, and the so called "U" ballast tanks which have no centreline bulkhead.

The most critical stages of any operation will be whilst emptying the double bottom ballast tanks during loading of cargo. If sufficient cargo tanks and double bottom tanks are slack simultaneously, the overall free surface effect could well be sufficient to reduce the transverse metacentric height to a point at which the transverse stability of the ship may be threatened. This could result in the ship suddenly developing a severe list. Large free surface area is especially likely to threaten stability at greater soundings (innages) with associated high vertical centre of gravity.

It is imperative that the tanker and Terminal personnel involved in cargo and ballast operations are aware of this potential problem, and that all cargo and ballast operations are conducted strictly in accordance with the ship's loading manual.

Where they are fitted, interlock devices to prevent too many cargo and ballast tanks from being operated simultaneously, thereby causing an excessive free surface effect, should always be maintained in full operational order, and should never be over-ridden.

Ships which operate with limited metacentric height should be equipped with a loading computer which calculates metacentric height.

EARLY DEPARTURE PROCEDURE: *Information to Masters:* The Early Departure Procedure as adopted at Ash Shihr Petroleum Export Terminal is explained below:

1. Masters should be aware that the Early Departure Procedure is compulsory at the Terminal as all Companies lifting cargo have been informed. In any case, on arrival Masters are requested to sign a letter which is an agreement in principle to the procedure.
2. On completion of loading, cargo hoses will be disconnected and the vessel unmoored from the SPM.
3. Concurrent with (2) above, vessel's tank ullages, water dips, etc., will be taken. Usually this practice is completed prior to unmooring operations.
4. The vessel will be manoeuvred to a safe position which is to seaward of the SPM and then stopped to await shore cargo figures.
5. Shore cargo figures will be passed to the vessel from the Terminal by VHF radio. *These figures represent the Bill of Lading figures.* The ship's cargo figures will be passed to the Terminal by radio by the Mooring Master. If there is no dispute over the difference between ship and shore cargo figures, then the vessel is free to sail. In case of a dispute, the respective cargo figures will be recalculated and compared once before the vessel is released. If the Master chooses to issue a Letter of Protest, this will be received by the Mooring Master.
6. *No cargo documents will be placed on board the vessel, either in completed or blank form.*
7. All cargo documents which require Master's signature will be signed by the vessel's Agent after the documents have been prepared by the Terminal, which will be after the vessel's departure. Authorisation to sign cargo documents is a matter between the Master and the vessel's Agent.
8. Copies of the signed Bill of Lading and Q & Q Certificate will be sent by fax to the vessel. If the vessel does not have a fax, the Master can nominate a fax number to which they can be sent.
9. Master's copies of cargo documents are forwarded to the discharge port by courier.
10. An outward clearance certificate for the vessel is issued by the vessel's Agent when he attends the vessel.

BALLAST: *Discharge of Ballast:* The discharge of dirty or contaminated ballast is strictly forbidden. *The Operator will have no liability whatsoever for any deadfreight incurred due to retention of ballast or any other residues. No ballast reception facilities exist at the Terminal.*

Clean Ballast: Clean Segregated Ballast (SBT) may be discharged to the sea at any time. The Mooring Master will check that vessels with Cargo Tanks dedicated to Ballast (CBT) comply fully with MARPOL Regulations and that complete segregation exists between the ballast and cargo systems before approving deballasting.

Ballast in Cargo Tanks: Vessels which arrive with Ballast in the Cargo Tanks will only be permitted to discharge ballast during daylight hours. In addition, the last one (1) meter of ballast in each tank must be retained onboard. Discharge of the ballast must be monitored to comply with MARPOL regulatory limits of 15 ppm.

Simultaneous Deballasting and Loading: Discharge of CBT or Cargo Tank Ballast concurrently with loading will only be permitted if the ballast is segregated by a minimum of two valve segregation. In addition, the draft and trim must be maintained in a condition whereby emergency evacuation of the berth can be achieved. The Terminal Operator accepts no responsibility for the mixing of crude oil and water onboard the vessel.

MEDICAL: Medical and dental services are not available at the Terminal, except in an emergency.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: The nearest consuls are in Sana'a.

REPAIRS: No facilities available.

AIRPORT: The nearest airport is at Riyan, approximately 10 km. W of the Terminal.

REPATRIATION: Crew changes cannot be carried out at the Term No member of the ship's crew or passengers is permitted to land, exc in an emergency.

GENERAL: *Lifeboats:* Except for an emergency abandonment of vessel, no vessel shall lower its lifeboats to the sea.

Waste and Garbage: Disposal of waste, sewage waters or garbag the sea is forbidden. No facilities exist to receive waste material, garb or sewage waters at the Terminal.

Vessels alongside the Loading Vessel: Only vessels authorised by Terminal Operator are allowed alongside, while deballasting and loa operations are in progress.

Standards of Operations: Loading operations are conducted accordance with the following standards and recommendations:

- (a) Oil Companies International Marine Forum (OCIMF), Internatio Chamber of Shipping (ICS), International Safety Guide for Tankers and Terminals (ISGOTT) 4th Edition 1996.
- (b) Special emphasis on the OCIMF "Recommendations for Tan Manifolds and Associated Equipment" 4th Edition 1991, and OCIMF "Recommendations for Equipment Employed in Mooring of Ships at Single Point Moorings" 3rd Edition 1993.
- (c) International Agreement for the Prevention of Pollution of 1973 its Protocol of 1978 (MARPOL 73/78) as amended 1992.
- (d) Ash Shihr Petroleum Export Terminal Rules and Regulat (Latest Revision).

Draft upon Arrival: Vessels must arrive at the Terminal with suffic ballast/cargo on board, to ensure safe manoeuvring of the vessel be trimmed no more than 4.0 m. by the stern and with propel submerged. Vessels will not be berthed with excessive trim or insuffic ballast.

Handling of the Equipment Supplied by the Terminal: Equipment supp by the Terminal will be taken on board from a line handling boat, us the vessel's lifting equipment. The vessel's crew must be availab receive equipment and connect the loading hoses. A "tag line" mus provided on the cargo hook.

State of Readiness: The vessel's main engines and essential machin must be ready at all times in order to allow immediate vacation of berth.

Mooring Master Authority: The Mooring Master can instruct any ve to leave a berth.

Vessel's Officers and Crew: A ship's officer with an adequate comm of English and sufficient qualified crew must always be available a times for operational requirements and emergencies.

Deployment of Emergency Towing Wires: All vessels must de emergency towing wires forward and aft on the starboard side.

Ship's Agents: Ship's Agents must be registered with the approp Government Authority.

Disembarkment: The embarkation and/or disembarkation of c members and passengers as well as foodstuffs, provisions, fuels different types of commodities using the Terminal facilities is st forbidden.

Any of the aforementioned services will be supplied by the Sh Agent with his own resources and through his own means, either be or after loading operations.

Only in cases of approved emergency, or for humanitarian reas or for special circumstances as approved by the Terminal Operator on whatever terms and conditions the Terminal Operator may imp can the vessel personnel embark or disembark at the Terminal. In th cases, the Terminal Operator can provide transportation for the embarkation or disembarkation.

Provisions: The vessel cannot take on stores or provisions at Terminal.

Mail and Correspondence: Official communications and crew mai be handled by the Ship's Agent.

Foc'sle Watchkeeper: While the vessel is moored at the facility, i requirement that the position of the vessel in relation to the SPM i is continuously monitored by vessel personnel.

Please ensure that a competent watchkeeper is continuously po on the foc'sle throughout the entire period that your vessel is moo

The watchkeeper must receive clear instructions that he shall in the Officer-on-watch *by radio* when the vessel moves into a po closer than usual to the SPM buoy.

SHIPMASTER'S REPORT: December 1993.

Location of SBM: Lat. 14° 40.6' N., Long. 49° 31.3' E.

Pilot: Pilot boarded 2 miles South of SBM.

Anchorage: None. Vessels must drift when awaiting berth.

VHF: Terminal works on Channel 9.

ETA: Sent by FAX/Inmarsat to 871-1473113 or 871-1473150, 10 72 hours, 48 hours, 24 hours and 12 hours prior to arrival.

Arrival Information: The Terminal requires the following inform 3 days prior to arrival:

- (A) ETA, arrival and sailing drafts.
- (B) Cargo requirement in bbls./tonnes.
- (C) Slops, location, grade, API, previous cargo.
- (D) Quantity and location of ballast in cargo tanks.
- (E) Last port and destination.
- (F) Whether IGS is operative and percentage of oxygen level in
- (G) Name of pollution insurers.
- (H) Gross, Net and Summer d.w.t.
- (J) Max. loading rate.
- (K) Deballasting time.
- (L) Number and size of cargo manifold.
- (M) Availability of reducers to adapt manifold to 16 in. 150 ANSI (two are required).
- (N) Can vessel load and deballast simultaneously while main minimum two valve separation.

(O) Is vessel equipped with a patent AKD stopper or similar, capable of accepting a 76 mm. end link.

(P) SWL of derricks.

(Q) Nationality of Officers and crew.

Documents:

5 copies Crew List.
1 copy Vaccination List.
1 copy Customs Declaration.
2 copies Bond Stores List.
1 copy Last Port Clearance.
3 copies Arrival Information (Form).
3 copies Sailing Information (Form).
1 copy Master's Authorisation Letter for EDP.

Agent: Natship Aden (Telex 2216/2217).

Cargo: Masila Crude Oil. API 31.0 – 31.9. Temperature 98°F.

Loading: Max. rate 60,000 bbls./hr.

Hoses: 2×16 in. on port side.

Officials: Customs and Immigration do not visit.

Local Agent boards with Clearance and EDP forms.

Duty Pilot and an assistant, together with a surveyor, stay onboard all the time.

Moorings: 2×18 in. nylon ropes, bow stoppers required.

SHIPMASTER'S REPORT: April 1994.

B.A. Chart No. 3784 is barely sufficient to approach the port, but insufficient to approach the SPM.

B.A. Chart No. 10 shows only a plan of the port of Ash Shihr, a small port 6 nautical miles N.E. of the SPM.

VHF communication was established at a distance of 35 nautical miles to the S.E. of the Terminal, at greater distances, atmospheric disturbances made contacts impossible. Channel 9 is the working channel for loading operations and is manned 24 hours a day.

National Shipping Agency, Aden, was reached via their telex numbers (806) 2216 YD and (806) 2217 YD, but at no time were answers obtained in spite of repeated requests to give details about the Terminal and berthing prospects, and confirmation of telex receptions. The only time communications with the agency were established was when the Radio Officer listened to Aden Radio traffic list, where a message asked for calling the agency's telex machine, only a standard message was received giving the same questionnaire and information contained in the "Guide".

The Mukalla branch of Natship, in charge of Ash Shihr Terminal, was as ill-informed by the head office as the vessel itself, and was of no help to the vessel. The Agent boarded together with the Pilots, filled out some papers for the authorities who are said to never board a vessel, and left with an authorisation to sign cargo papers on Master's behalf. He actually requires all the papers mentioned in the "Guide".

There are 3 European Pilots, contracted to Ash Shihr Terminal, of whom two bring the vessel to the SPM. After commencement of loading, one of the Pilots leaves while the other stays onboard as Loadmaster.

While Pilots were very competent, though cautious, on approaching and mooring, the local crews seemed to need a lot more training and experience.

Current on this occasion was setting N.E. at 1 knot, while drifting over night at a distance of more than 7 nautical miles from the coast, whereas when approaching the SPM and while alongside, the current was 2 knots, keeping the vessel's heading at a constant 245°.

Wind was varying and never more than Force 3.

Although berthing/unberthing will take place day and night, in view of the handling crews' lack of experience, Terminal seems to prefer daylight berthing during strong currents and when there is no time pressure. An average of 6 ships a month are handled at the Terminal, which opened in July 1993.

Masila Crude of API = 31.00 and temperature = 102°F (39°C) is loaded on port side through 2×16 in. floating hoses, at maximum rate of 60,000 bbls./hr., the maximum rate normally reached being only 57,000 bbls./hr.

Hose connecting/disconnecting very fast with the assistance of an experienced local Mooring Master.

Saybolt's cargo inspector was very professional.

Cargo figures were calculated by Terminal very quickly.

EDP described in the Terminal Information Book was not followed by the Terminal, viz. documents were not placed on board. Instead they were to be faxed to vessel, which never happened.

AUTHORITY: *Operator:* Canadian Occidental Petroleum Yemen, P.O.Box 52137, Mukalla, Hadhramout, Republic of Yemen. *Tel:* 1-403-234-6099 + 0 (Terminal switchboard), (873) 1473112 (Inmarsat), 967-79-59008/59009 (Cellular). *FAX:* 1-403-234-6456, (873) 1473113 (Inmarsat). *Contact:* Mike Keiller, Terminal Manager.

Ash Shihr Petroleum Export Terminal: *Tel:* (967-79) 21509 or 21525 or (967-2) 241175. *Telex:* (871) 1473113 (Inmarsat – East Atlantic). *FAX:* (871) 1473150 or 1473113.

HODEIDAH: 14.48 N. 42.55 E. **(See Plan)**

Also see "General" before first port.

FLAG: It is essential that from the time they enter Yemen territorial waters all vessels fly the Yemen flag and this should be flown continuously until they leave these waters on sailing. Failure to observe this courtesy may result in a heavy penalty. The design of the flag is red, white and black horizontal stripes of equal size with green star in centre of white stripe.

DOCUMENTS: On arrival 16 copies of Manifests of cargo for discharge are required and each must be endorsed with the word *Correct* by the *Customs Authorities* at the Port of Loading. It is imperative that at least 2 of the 16 copies of Manifests on board the ship should be freighted copies, otherwise 2 additional copies, showing freight details should be airmailed to Hodeidah separately to arrive in advance of the vessel. The Master should also be in possession of 1 copy of each Bill of Lading and certificate to show vessel is not blacklisted.

PILOTAGE: Pilotage is compulsory and as the entrance of the Channel giving access to the Port cannot be observed from the port area itself it is essential that accurate ETAs be given to the Agent in order to avoid delays waiting for a Pilot.

Vessels will be piloted down a dredged channel of about 8 miles in length. The channel, which is buoyed with black starboard and red port buoys, is 7.5 m. deep and 100 m. wide.

Pilot boarding position: Lat. 14° 56' N., Long. 42° 54' E.

ANCHORAGE: Masters are also recommended to ensure that on arrival they anchor off the entrance to the new port to await the Pilot and do not anchor off the old port opposite the town some 5 miles to the South and which is still shown as being the Port of Hodeidah on some charts. Vessels anchoring in the wrong area may suffer some delay before they can be contacted and asked to proceed to the correct area. Masters should be advised to anchor at the outer anchorage in the following position: Lat. 14° 55' N., Long. 42° 54' E. Also see "Shipmaster's Report – May 1982".

RESTRICTIONS: The approach channel is dredged to 9.5 m.

MAX. SIZE: Max. draft 31 ft. (September 1990). Also see "Shipmaster's Report", dated May 1982.

Shipmaster's Report: January 1985.

Entrance channel is buoyed differently to that shown on B.A. Chart (See "Plan"). Pilot suggests that max. draft at LW is approximately 8.0 m., especially if there is a swell at the entrance.

Report: We quote below text of a circular telex received from Ports and Marine Affairs Corporation, Hodeidah:

"The General Corporation of Yemen Ports hereby advise all Masters, Owners, Charterers and Agents that as of September 14th, 1990 all vessels with a draft of more than 31 ft. (9.45 m.) should not attempt to enter the dredged channel to the port of Hodeidah.

Vessels arriving during darkness should anchor to the West of the Fairway Buoy and await instructions.

Vessels arriving during daylight may have to anchor for a short period of time, but it is the intention of G.C.Y.P. to put a pilot onboard each ship at the first daylight high water and bring such vessels to the inner anchorage.

Under no circumstances should vessels attempt to enter the port without a pilot, except with the express permission of the Harbour Master".

HEALTH: All members of the crew must be vaccinated against yellow fever and cholera, otherwise permission will not be given to disembark.

RADIO: Masters should also ensure that a radio watch is kept to receive calls from the Port Authorities. The Hodeidah Radio Station is operative between 0600 and 1800 hrs. daily, the call sign is: 4WD or 4WD3 (short).

TUGS: 6 tugs, 375 h.p. – 1,800 h.p. Pilot launch 250 h.p. also available to assist.

BERTHING: The quay is 540 m. in length with 4 berths, the first 70 m. long, depth 6 m., the second, third and fourth are of 150 m. length and 8.5 m. depth. *Officially, ships berthing are restricted in length to 180 m.*

The quay is of concrete construction and is well founded, vessels being secured to bollards in the normal manner. Use of rat-guards is recommended. The quay is equipped with 7 electric cranes having a max. capacity of 5 tons and one crane having a max. capacity of 10 tons. Floating crane of 75 tons capacity available.

There is also a dolphin berth for discharging of petroleum products, which is connected by submarine pipes to storage tanks near the port area. The depth alongside is 6 m.

Also see "Report" and "Developments".

STEVEDORES: All labour is provided by Agent's representative including winchmen and tally clerks, but winchmen are provided entirely at ship's risk.

Rates of discharge vary but are quite satisfactory and with bagged cargo the average obtained is 30 tons per hatch per hour. Night work is possible.

Vessels are expected to supply food on board to cargo supervisors, foreman, and tally clerks. It may be left to Master's discretion whether this is supplied, but if not the Agency will have to supply same and the cost will be debited to the vessels.

Working Hours: Normally from 0600 hrs. to 1100 hrs. and again from 1300 hrs. to midnight. Additional work outside these hours, including after midnight can usually be arranged if necessary, although this cannot be guaranteed. Any work after midnight is overtime.

MEDICAL: Hospitals at Hodeidah and Sanaa-Taiz.

FRESH WATER: Available; pumping rate 10 t.p.h.– 15 t.p.h.

FUEL: Small quantities of diesel oil available from Yemen Petroleum.

CONSULS: (and Embassies):

Algeria
China
Egypt
Germany
Ethiopia

France
Italy
Iraq
Korea
Kuwait

Lebanon
Libya
Russia
Saudi Arabia

Syria
United Kingdom
U.S.A.
Yugoslavia

REPAIRS: Light repairs can be carried out.

SURVEYORS: Lloyd's Agency available.

HOLIDAYS: Friday is the weekly day of rest, Sunday being a normal working day. There are also a number of Moslem holidays. Work is usually possible on such days but cannot be guaranteed. Holidays for special occasions are also liable to be declared at short notice. Friday if worked 50% and public holidays 100% surcharge. During the Moslem fast period of Ramadhan lasting about twenty nine days, which again varies from year to year, work is slower.

Also see "General" before first port.

AIRPORT: Flights to Sanaa. Also flights from the new Hodeidah International Airport.

TIME: GMT plus 3 hours.

SHORE LEAVE: Allowed. The Master should prepare a list of persons wishing to go ashore as Agent has to issue I.D. cards.

REGULATIONS: It is strictly forbidden for crew and passengers on board to take photographs while a vessel is in the harbour approaches or secured to the jetty in harbour.

Any vessel which permits oil and/or water to be discharged into the harbour will be liable to a minimum penalty of U.S. $500.

DEVELOPMENTS: A second container berth with length 300 m. and depth 11.0 m. and 1×40 ton container gantry crane has been completed.

Vacuators to be installed for grain handling, giving average daily discharge rate of 5,000 tonnes – 6,000 tonnes.

Also see "Report" below.

REPORT: August 1979 (Updated 1986).

Hodeidah Port is situated 5 km. away from the old town, built in 1961, the population of which is about 200,000. It was built on the Red Sea Coast, S.E. of Khour Ras Alkatheeb, 4 km. away from the town of Hodeidah.

Hodeidah port is built at a location safe from storms and strong winds. The port is under the administration of the Ministry of Public Works, managed by the Hodeidah Port General Corporation. It has a direct connection with the capital city of Yemen, Sana'a, by a modern highway and another connecting Taiz.

The official characteristics of the port are given as an external pool, 10 m. in depth, where ships can anchor. A channel, minimum 45 m. wide, about one km. long and 7.9 m. to 8.3 m. deep, enters into the inner pool. Maximum draft allowed is 25 ft. at HW. Buoy markings and signals for safe entry and departure are available The dimension of the inner pool is irregular, about 500 m.×400 m. Overall depth is 7.6 m. at LLW, except for 100 m. wide strip along the 300 m. berth where the depth is 8.5 m.

The port consists of a quay for loading and discharging and one special jetty for tankers. The total length of the quay is 570 m. forming 4 berths of 120 m., 150 m., 150 m. and 150 m. respectively. The quay can receive vessels up to 180 m. in length with a draft of 25 ft. at HW. The quay is equipped with 4 electric shore cranes of 5 tons maximum lifting capacity each and two mobile cranes each of 30 tons capacity.

Discharging speed for bagged cargo is between 250 tons and 300 tons per hatch per day. For general cargo the discharging speed is about 150 tons per hatch per day.

At present, there are 21,660 sq.m. of cargo storage floor space:

Shed No. 1	45 m.×60 m.	2,700 sq.m.
2	96 m.×60 m.	5,760 sq.m.
3	50 m.×60 m.	3,000 sq.m.
4	50 m.×60 m.	3,000 sq.m.
5	25 m.×60 m.	1,500 sq.m.
6	45 m.×60 m.	2,700 sq.m.
7	50 m.×60 m.	3,000 sq.m.

and several open storage yards for heavy machinery and equipment. There are fuel tanks with a storage capacity of 16,000 cu.m. connected to the oil jetty by means of a pipeline system. A wireless station for communications, from ship to shore and vice versa, is also available.

Future Development: The development of Hodeidah Port includes:

1. Dredging:
   a. Deepening of the approach channel to 9.0 m. below MLW (Mean Low Water) with the provisions of a passing bay and deepening of the port basin to 9.0 m. below MLW. (Completed 1980).
   b. Deepening to a depth of 9.5 m. MLW alongside Berth No. 2 and No. 6 (completed).
   c. An area to the West of Berth No. 1 to a depth of 4.0 m. MLW.

Hodeidah Port has the following:

Berth No. 1, length 110 m., dredged to 8.0 m.
Berth No. 2, length 150 m., dredged to 9.5 m.
Berth No. 3, length 150 m., dredged to 9.5 m.
Berth No. 4, length 166 m., dredged to 10.0 m.
Berth No. 5, length 195 m., dredged to 10.0 m.
Berth No. 6, length 195 m., dredged to 10.0 m.
Oil berth for 15,000 d.w.t tankers dredged to 10 m.

2. Berth No. 6: 195 m. long berth with a 40 m. wide apron. (Completed 1982). Berth No. 6 is designed for container ships of: 22,500 d.w.t., length 204.0 m., breadth 31.0 m., draft 9.2 m., container capacity 1,522 units.

One container crane of 30.5 tons capacity is installed on Berth No. 6 and is able to load and unload between 30/40 containers per hour.

3. Slipway (completed 1981): 500 ton slipway next to the mechanical workshop. Slipway able to handle vessels 32 m. in length, 10 m. wide and 3.2 m. draft.

4. Paved Storage Areas (completed/available 1981): The concrete paving of open storage areas behind the 40 m. wide apron has approximately 80,000 sq. m.

5. Buildings and other services (completed/available 1981): Construction of service buildings include offices of the Port Corporation, Customs, Labour, First-aid with canteens, wash places and toilets.

6. Oil Terminal (completed/available 1981): 2 new breasting dolphins and 2 mooring buoys for handling tankers up to 15,000 d.w.t.

7. Floating Craft (completed/available 1981): A new 75 ton self-propelled floating crane has been provided.

8. Cargo Handling Equipment (completed/available 1981): 4 high level boom cranes, 1 port type mobile crane, 10 forklifts, 10 tonne trailers with tractors, 3 Ro/Ro tractors with goosenecks and Ro/Ro trailers.

9. Grain Silo Complex: The project under construction in Hodeidah port consists of a 20,000 ton Silo and a 14 stall bagging plant which has a bagging capacity of 200 per hour. The whole installation has a through put of 160,000 tons per year.

10. Water Mains (completed 1982): Extended to Berth No. 6 and fire mains will be from sea water and maintained with a 70 m. head by hydraulic accumulator.

Special Uses:

Berth No. 4 – grain unloading (40% berth occupancy).
Berth No. 6 – containers (with 30.5 ton container crane).

Container capacity will exceed 300,000 tons per year but will depe on the capability to empty containers and create an equivalent to t of the shipping.

Cargo must be carried by ships with a draft less than 9.2 m.

Arrival at Hodeidah/Ras Alkatheeb Ports:

Vessels arriving at Hodeidah Roads should anchor in the follow positions inside Buoy No. 2.

Lat. 14° 55' 58" N., Long. 42° 53' 53" E.

Masters should radio or cable Agent the following information at le 24 hours in advance:

(i) Exact ETA.
(ii) Draft – fore and aft.
(iii) Quantity of cargo on board and distribution.
(iv) GRT, NRT and LOA (When vessel is calling for the first time

Through Hodeidah Radio Station, Calling Sign: 4WD 500 kHz.

(Frequency from 0500 hrs. up to 1700 hrs. GMT). 72 and 48 ho prior notice of arrival can also be given through Aden Radio.

Pilotage on entry and departure is compulsory. Normally, no pilota is allowed after 1630 hrs., or before 0600 hrs. Hence vessels arriv in Hodeidah Roads after 1630 hrs. may not be piloted in until 0700 h the following morning. Likewise, vessels which do not sail be 1630 hrs. may not be piloted out until 0600 hrs. the following day.

Supply of fresh water and shipchandlering is available.

Documents:

4 copies of Cargo Manifest.
2 copies of Freight Manifest.
1 copy of Bill of Lading.

(These should be airmailed to Agent after departure of vessel fr port of loading.)

11 copies of Cargo Manifest.
1 copy of Freight Manifest.

(To be handed over to Agent by Master on arrival of vessel.)

Port Formalities:

1. Doctor.
2. Immigration.
3. Customs.

FOLLOWING TO BE STRONGLY OBSERVED BY ALL MASTE CREWS OF VESSELS CALLING AT HODEIDAH:

1. Sale of wines and spirits prohibited.
2. Discharging water onto quay and dismantling ships' engines at be not allowed.

In addition to above, Masters/Crews should be advised to take seri note of all prohibitions stipulated in the Port Tariff, see "General" bet first port – "Fines".

SHIPMASTER'S REPORT: May 1982.

I came in and berthed at No. 6 Berth at 8.5 m. draft and discha via vacuvators direct into lorries and managing a rate of 3,000 t Pilot reckoned 29 ft. maximum can be taken in.

Other points in "Guide" seem accurate, but with the Chart B.A. 3 being too small I cannot see many Masters bringing a large ship the recommended anchorage position. I anchored 3 cables N.N.E the No. 2 Buoy in better water.

PURSER'S REPORT: August 1982.

Requirements:

1 Maritime Declaration of Health. (Any country's (preferably Ara accepted suitably amended).
1 Vaccination List (ship's form).
10 Crew Lists (ship's form).
2 Bonded Stores Lists (ship's form).
1 Crew Effects List (ship's form).

Sundry Customs and Agent's forms were brought aboard on ar These required the usual information regarding draft, fuel, water, tonnages, etc.

Customs and Port Authorities were very particular that cargo tonna were accurate as per Manifest when completing forms.

Customs sealed both bond and beer rooms, but placed no restr on quantities in bars and cabins with the proviso that alcohol wa sold or given to locals. An additional quantity of bonded items allowed to be removed before sailing.

Courtesy Ensign: Supplied in the U.S.A. and not marked to show w was top. It should be flown with the red stripe uppermost.

Mail: The Agent advised that mail both in and out of the country slow and unreliable.

Laundry and Chandlery: Both services available but not used.

Navigation: The Master advises that navigational marks could change due to berth extensions and port improvements. A con crane is at present under construction.

SHIPMASTER'S REPORT: April 1984.

Pilotage: Ships can enter or sail out of harbour at anytime, if Agent strong request. All the buoys in the channel as well as the appro including the Sea Buoy are lit.

Berthing: Observed a ship entering with 30 ft. draft and Pilot con that vessels can enter up to 30 ft. draft.

Stevedores: Bagged cargo discharging rate increased to up to 3 provided that receivers are able to supply sufficient trucks in tim

The stevedores no longer request drinking water from the s they drink bottled water supplied from shore.

SHIPMASTER'S REPORT: April 1990.

1. There is no Fairway Buoy (Fairway Buoy is indicated on B.A. Chart No. 1990).
2. There is no Buoy No. 2 (Port Authorities instructed vessel to anchor inside Buoy No. 2 in Lat. 14° 55' 44" N., Long. 42° 53' 42" E. for registration).
3. Authorities/Agent instructed vessel to anchor by Buoy No. 2, but this was unsafe as the depth is 7.7 m.
4. Due to shallow water in anchorage position (inside Buoy No. 2), 2 vessels collided when one of them was trying to anchor.
5. A vessel anchored in the position indicated and ran aground.
6. Our vessel, which berthed port side to at Berth No. 4, grounded forward with a draft of 32 ft. 5 in.
7. The maximum depth in the anchorage position, which was checked, was 9.8 m., 3 hours after high water.
8. No ship's certificates were requested by the Port Authorities or the Agent on arrival.
9. No written permission given by Port Authorities for painting ship or load line or for boat drill.
10. Two crew members required cholera vaccinations, but these were not done.
11. A vessel was given verbal permission to paint ship's marks, and after painting was fined U.S.$ 3,000.00.
12. The Master of a vessel was jailed for refusing to instruct his crew, to discharge bulk cement from the hold, which were the remains of bags torn by the stevedores.
13. The cook on a vessel was shot by the gangway watchman, for refusing to prepare him food at 2300 hrs.
14. The Port Authority/Agent debited the vessel for one or two shore cranes daily, even though the shore cranes were not working.
15. The evacuator for discharging bulk wheat was damaged by the stevedores, due to bad handling, and the vessel was delayed 32 hours, until a bank guarantee of U.S.$ 200,000.00 was given (actual cost of damage was about U.S.$ 5,000.00).
16. Attention of all Masters and Owners is drawn to the permissable arrival draft which is 32 ft. (salt water). For every inch over 32 ft. the vessel is fined U.S.$ 3,000.00.
17. This vessel was penalised for 5 inches, and had to pay a fine of U.S.$ 18,000.00 without official receipt from the Port Authorities.
18. For further fines and restrictions, please see "General" before first port – "Notice".

CHIEF OFFICER'S REPORT: June 1994.

Approaches: Approaches to Fairway are generally clear without much traffic density and/or fishing crafts. Outer Anchorage for deep draft vessels is not declared by port, but vessels drawing more than 8.0 m. draft normally anchor between 1 mile to 3 miles N.W. of the Fairway. Some vessels are found anchored very far from Fairway as per Master's wish. There is no restriction regarding that by the port. Within 3 miles from Fairway, depths of between 14 m. to 21 m. are available. Strong S.W. winds are experienced in March/April, but the anchor holding ground is good.

VHF: Port Control keeps 24 hour watch on Channel 16, but generally calling vessels do not get reply on VHF during the hours of darkness. The reply on VHF is heard only when Port Control wants to contact the vessel for something. The enquiries regarding berthing instructions are not answered by Port Control, and they advise vessel to contact Agents by telex. All information regarding berthing, etc., is obtainable only through the Agents.

Pilotage: Pilot boards the vessel near Buoy No. 11. Vessels generally do not get much advance notice to proceed to Pilot Station. The requests by vessels to have advance notice to get engines ready are not taken care of. Also it has been frequently noticed that orders to proceed to Pilot Station are very often postponed, many times in some cases. If at short notice the vessel is not able to reach Pilot Station at given time, fine is imposed and/or berthing is cancelled. Masters are warned that Pilots are inexperienced and care must be exercised during their pilotage to avoid problems.

Fresh Water: Fresh water is available in port at U.S.$15.00 per tonne. Ships are advised to avoid receiving fresh water from the port as it is saline and unconsumable by crew. Also, the fresh water is not fit for use in engines. Water rationing should be commenced on arrival anchorage, if long stay is expected.

Fines:

1. Arrival Notice: Notice of Arrival must be given 24 hours prior to vessel's ETA.
   Fine of U.S.$120.00 for non-receipt of cable/notice by Master via Hodeidah Radio Station for vessel's arrival.
2. Flag: Fine of U.S.$200.00 for non-hoisting Yemen National Flag.
3. Permissible Draft: Maximum allowed arrival draft for Channel Entrance and alongside is 32 ft.
   Any over-draft on arrival, a fine of U.S.$3,000.00 per extra inch. International misdeclaration of draft by Master will be fined double.
4. Dumping Rubbish within Quays and Port Areas: Fine of U.S.$250.00 will be imposed. Master/crew of vessel or Agents are compelled to remove rubbish.
5. Spilling dirty liquids or fuels within port limits, vessel and Agents will be responsible in accordance with environment pollution regulations.
6. If Pilot boarded vessel for sailing under request of Master/Agents, and found vessel not ready, fine of U.S.$50.00 per hour will be imposed.
   In case tugs have been ordered by Pilot to attend for assistance, transport charges will be applied.
7. If Pilot proceeded to anchorage for berthing and found not ready, thus cancelling operation, full pilotage will be charged.
8. Vessel not allowed to change positions either at anchorage or alongside without prior permission, which will result in imposing fine according to vessel's size.
9. Any misdeclaration of particulars of vessel or cargo onboard by Master, fine of 100% of port dues/tolls.
10. If vessel sails from anchorage after having registered without clearance, fine of U.S.$1,000.00 will be imposed.
11. Fine of U.S.$120.00 for non-fixing of rat guards.
12. Fine at U.S.$0.50 per meter of LOA per hour to vessel, if it exceeds time allowed for discharge. Port Authorities reserve the right to remove such vessel to anchorage after 48 hours of exceeding allowed time.
13. Distribution of cargo in vessel's holds is essential where minimum 30% of total cargo for discharge in each hold. Any excess of 30% in stowage, fine of U.S.$1.00 per ton will be imposed.
14. Port Authorities reserve the right to apply any fine deemed necessary after approval of Board of Directors, and to increase or decrease the fine shown in this by-law accordingly to the extent of offence.
15. If any crew members' Shore Leave Pass is lost, a fine of U.S.$200.00 per lost Shore Leave Pass will be imposed.
16. If the gangway is opened after 0200 hrs., the Port Customs will impose a fine of U.S.$1,400.00.

Draft Restrictions: The port is very strict about overdraft. Maximum draft allowed alongside is 32 ft. (9.75 m.). There is a fine of U.S.$3,000.00 per inch of extra draft. Vessels drawing exactly 32 ft. draft or a little less are warned that they must insist that the Boarding Pilot checks the draft and get a letter regarding draft signed by him. In the port, it is very common practice to declare vessel's overdraft even if they are not.

This vessel, which is a bulk carrier, carried 28,500 tonnes of wheat from U.S.A. U.S. silo figures showed 28,500 tonnes of cargo. As per ship's calculation, we had 28,560 tonnes of cargo on board. Arrival Hodeidah, draft was 31 ft. 11 in. forward and 32 ft. 00 in. aft with no list. The drafts and densities were frequently checked during long stay at anchorage to avoid problems in port. The only mistake done was that we did not insist on Berthing Pilot checking the draft. The reason was that we had decided to call Lloyd's Register Surveyor alongside to declare our draft and cargo figures. Alongside Berth No. 3/4, things went the way that we could not imagine. After berthing, when we checked the draft, we found vessel tilted to starboard showing much lesser draft on port and about 6 in. more, i.e. 32 ft. 06 in. draft on starboard. This was not at all expected. We checked the sounding by hand lead and came to the conclusion that vessel was touching bottom on port side and was afloat on starboard side, due to which she was tilted to starboard. This was high water time. Later, Port Authorities boarded 3 hours after high water and found 3 in. overdraft on starboard side for which they wanted the vessel to sign. It was refused, and they refused to start the cargo work. Later, at high water, Lloyd's Register Surveyor was called, who also concluded that vessel was touching bottom on port side due to which draft was unreliable. Port was asked to cast off the vessel and check draft a few meters away from the berth, but they never agreed to it and insisted that vessel had to pay U.S.$9,000.00 for 3 in. overdraft. They did not even agree to Lloyd's Register Surveyor's report. After discharge, silo computer figures showed 293 tonnes short loaded cargo which was not possible. Finally, P&I Club came into picture, gave them bank guarantee to get port clearance.

Therefore, all ships are again advised to:

(a) Insist that the Pilot checks draft before boarding and signs a document regarding confirmation of not being overdraft.
(b) Get a draft survey done before commencement of discharge to avoid any disputes about short landing, which is very common.

Customs: Customs are quite strict in Hodeidah. There is no restriction on keeping any amount of alcoholic drinks in your cabins or in ship's bars. The only instruction given is that it should not be sold or offered to locals. In any case, offering drinks to locals cannot be avoided in my opinion, because the cargo work, as well as ship's stay alongside, will not be smooth, if drinks, cigarettes, etc., are not offered to those directly involved in ship's cargo work or other things. Also, there is no restriction on books, publications and movies in other languages and countries, as long as they are kept in cabins and not in common places.

Shore Leave: Shore leave is allowed with Shore Passes. Crew intending to go ashore must get out of the port's main gate before 1800 hrs. After 1800 hrs. you are not allowed to go out. There is no restriction for entering the gate at anytime, but generally taxis are not allowed to proceed beyond the gate and up to the vessel after 2200 hrs.

Shipchandlers: Stores and provisions are available, but their price list is about three times the market rate. Self-shopping for large quantities of provisions/stores, etc., is not allowed.

Facilities in the Town:

1. There are a good number of international telephone booths in the telephone exchange, where cards are available throughout the day and night, except between 1800 hrs. and 1900 hrs. The booths are available for calls throughout 24 hours.
2. There are two good hotels and restaurants, (a) Ambassador and (b) Bristol, where a wide variety of food, as well as alcoholic drinks, are available. Alcoholic drinks are not available and not allowed anywhere else in the town.
3. A large attractive park is open to public and is a good place for children to play. There is also a long beach area which is good for picnics, etc., but has no lighting arrangement along the beach.

Public in general are honest, reliable and well mannered. The population includes Yemeni and a few Indians and Pakistanis.

Other facilities, like video parlours for movies in English, Arabic, Indian and few other languages, are available. Currency is Yemeni Riyal, and official exchange rate is approximately 12 Riyals to U.S.$1.00.

AUTHORITY: Ports and Marine Affairs Corporation, P.O.Box 3183, Hodeidah, Yemen. *Telex:* 5565 Mawani Ye. *Contact:* Captain Ali H. Elhabory, Chairman, Captain Ali H. Sharaf, Director-General, Captain Abdullah A. Rajab, Harbour Master.

AGENT: The Hodeidah Shipping & Transport Co. Ltd., P.O.Box 3337, Hodeidah, Yemen. Tel: 2403/4/5. Cables: "Hodship". Telex: 5510 (Hodeidah) and 2218 (Sana'a). Answerback: "Hodship". Branches at Mocha, Saleef, Taiz and Sana'a.

MOCKA: 13.17 N. 43.10 E.

Also see "General" before first port.

Mocka New Port opened in June 1979, with equipment for loading and unloading.
TUGS: 2 available.
BERTHING: 350 m. of quay for vessels of up to 26 ft. draft (Depth 27 ft). Vessels may berth simultaneously. Cargo is discharged direct onto trucks or onto open area. New sheds are under construction.
CRANES: 1×18 ton mobile crane.
FUEL: Not available.
TIME: GMT plus 3 hrs.

REPORT: August 1979 (Updated 1986).

The project of constructing Mocka Port has been in execution since April 1978. The construction was completed during April 1979 and the port was officially opened to International traffic in June 1979.
Location: Mocka is connected to Hodeidah by a road of 240 km. out of which 45 km. is asphalt surfaced. Mocka is also connected to Taiz, by a road of 110 km.
Jetty: The port consists of a jetty of 150 m. in length and 35 m. wide with a draft of 8.5 m. during low tide. This jetty can accommodate 2 vessels at a time, each of 150 m. length, on both sides and a Ro/Ro vessel at the head. A protecting jetty for breakwaters is also constructed for controlling the force of strong waves. It is 750 m. in length and 15 m. wide with various depths from 5 m. to 3.5 m. This jetty is constructed for the purpose of protecting the main jetty and can receive coasters and lighters of aforesaid drafts.
Anchorage: The dimension of the manoeuvring area, for vessels securing at berth and departing from the main jetty, is 420 m. The length of the channel leading to the manoeuvring area is 2,000 m. with a draft of 28 ft. 5 in. during low tide, whereas the draft during high tide is about 30 ft. Vessels calling at Mocka should anchor at the following position: Lat. 13° 20' 01" N., Long. 43° 13' 02" E.
Storage of Cargo: The reclaimed area for storage of discharged goods consists of 300,000 sq.m. 4 storage sheds (60 m.×50 m.).
Future Developments: There are plans for building other jetties together with protecting jetties in the near future.
Bunkers: Bunkers, at present, are not available at this port. Any vessel calling at this port is required to supply fresh water for drinking purposes to all labourers during stevedoring operations.
Radio: Vessels calling at Mocka are advised to contact Agent through Hodeidah Radio Station, call sign, 4WD, 500 kHz (frequency from 0500 hrs. up to 1700 hrs. GMT), as, at present, this port is not equipped with a wireless station. It is proposed to establish one during 1979.

SHIPMASTER'S REPORT: August 1980.
Vessel: 6,000 d.w.t., 104 m. LOA. Discharged 2,000 tons of RBD palm oil.
Port Limits: None defined, however vessel is in port limits and 'arrived' once anchored within the anchorage marked on B.A. Chart 1955.
Documents: 1 copy Personal Effects Declaration, 1 copy Stores List, 1 copy Inoculations and Vaccinations and at least 10 copies of Cargo Manifests, 3 copies of Crew List.
Anchorages: Vessel anchored safely in a position with the North Fort Barge 103° True −1.74 miles. Vessel's max. draft was 20 ft. and there was 30 ft. of water below the keel at 1 hour before low water. It is inadvisable to proceed further South, especially at night due to the placing of unlit channel marking buoys by the port.
Pilotage: There are presently two berths, one on either side of a finger wharf. The Pilot boards at the anchorage and brings the ship alongside one of these berths. There are 3 Pilots in Hodeidah and 1 in Mocka.
Max. Size and Restrictions: Max. permissible draft is 26 ft. salt water and max. LOA permissible is 500 ft.
Radio: None. The port operates VHF on Channels 16 and 14. There are no fixed hours and the port radio is in operation only when the port wishes to communicate with the vessels.
Radar: None.
Tugs: 2 tugs assist vessels for berthing and unberthing. We were assisted by the 'Markaron' (2,000 h.p.).
Cranes: None. There are mobile cranes available with the prior arrangements of the ship's Agents. Otherwise ship's gear is mainly used.
Stevedores: None in the strictest sense. Labour is recruited by the Agents and made available on board.
Tankers: There is no facility for discharging petroleum cargo.
Density: 1025.
Fresh Water: Not available.
Fuel: Not available.
Fire Precautions: None.
Consuls: None.
Repairs: Not available.
Dry Docks: None.
Surveyors: None.
Watchmen: None.
Customs Allowances: Bonded stores are not sealed. Master is verbally informed not to make any issue from the bonded stores without the Customs permission. All officers and crew who declared their quota were allowed to keep same.
Repatriation: Possible, but local Agent has no knowledge of how to effect it.
Airport: None.
Time: GMT plus 3 hours.
Shore Leave: Allowed. The town is situated about 4 km. from the jetty. There is no entertainment that seamen can find in this town and it is not advisable to be ashore after dusk.
ID Cards: None are issued but ship's personnel going ashore have to carry their Seaman's Book or Passport.
AUTHORITY: Ports and Marine Affairs Corporation, Hodeidah, Yemen.
Contact: Abdelkader Abyadh, Manager of Mocka Port.
AGENT: See "Hodeidah".

MUKALLA (Khalf): 14.31 N. 49.09 E. (See P

SHIPMASTER'S REPORT: August 1984 (Updated 1989).

PORT LIMITS: See "Gulf of Aden Pilot" (No. 64).
DOCUMENTS: See "Aden".
APPROACHES: The lighthouse is visible at 18 miles.
PILOTAGE: Compulsory for all vessels proceeding to and from the of Khalf. Call Pilot on VHF Channel 16. Vessels to display interna signals day and night.
ANCHORAGES: Pilot Book as mentioned above gives suffi information. A good practice during July each year (when S.W. mon is at its strongest) is to drop a second anchor in the morning a heave it home again at about 1900 hrs. To keep second ancho during the whole time of port stay is inadvisable as direction of tu on wind/tide is unpredictable and thus might end up with chains fo
RESTRICTIONS: Entering/leaving:
Anchorage: None.
New Port: Daytime only. During S.W. monsoon only betw 0600 hrs. and 1100 hrs. and max. LOA 75 m.
MAX. SIZE: Ship's normally accommodated at Khalf Port up to 14 drawing max. draft of 8.5 m. Larger ships could be accepted if permis granted in advance by the Port Authority.
HEALTH: As ship arrived from Aden, no formalities whatsoever.
RADIO: All communication before arrival/after departure Aden Mukalla via Aden Radio (70A). This radio station is working satisfac

Once in port (either at anchorage or alongside) it is forbidden t ship's radio and/or telex.

Sending cables/telexes via the Agency is time-consuming.
TUGS: At least 1 tug, and probably 2 when port is open for shipp
BERTHING: 2 alongside berths for up to 10,000 Summer 3 alongside berths for coasters, depth up to 5.0 m.
CRANES: 14 mobile cranes, 3 – 10 tons capacity.
STEVEDORES: Work throughout 24 hours.
MEDICAL: Local hospital available but only a few facilities.
DENSITY: 1026.
FRESH WATER: Will be available in 1989.
FUEL: Will be available in 1989.
REPAIRS: Not available.
CONSULS: None.
SURVEYORS: Available.
FRESH PROVISIONS: Not available.
GANGWAY/DECK WATCHMEN: Not required, no reports of pilfe of cargo and/or ship's stores.
HATCHES: Once open, not necessary to close again except for s Climate: Warm/humid but no rainfall.
CUSTOMS ALLOWANCES: Bonded stores were sealed on arriv specific rules, no search parties of Customs.

On departure: No check of seals.
REPATRIATION: *Crew Change:*

Out-going: Via Mukalla Airport to Aden (6 times a week except Fri then either via Jeddah or Dubai/Kuwait to ultimate destination.

In-coming: Very difficult as visa required and not easy to obtai
Note: Flights Mukalla-Aden and vice-versa may differ from printed tables.
AIRPORT: Located at Rayan, 29 km. East of Mukalla.
BANKS: National Bank of Yemen. Local currency: Dinar.

On presentation of passport-receipt, U.S.$ (and only this curr can be exchanged for Dinars (approximately U.S.$3 for 1 Dinar).

It is very difficult to obtain U.S. dollars in exchange for Dinars.
STORES: Not available.
SHIP SUPPLY SERVICE: See "Aden".
SHORE LEAVE: In Mukalla (as well as in Aden) when passing Cu Gate, Passport is exchanged for receipt by the Immigration Offi duty. When returning from shore leave this receipt is again exch for Passport.
Note: It is difficult to make Officials understand that crew membe or visitors from abroad are not in possession of a receipt, which a crew change extra time consuming (Charterer had to wait 3 before he was allowed to proceed to the ship).
DELAYS: At present congestion may occur during the S.W. Mo period.

In future congestion may occur as infrastructure of the new port much to be desired (Roads to/in/from the port, direct delivery e
GENERAL: *Transit Time Airmail Post:*

Mukalla-Europe: Minimum 2 weeks, maximum 3 weeks.
Europe-Mukalla: Minimum 2 weeks, maximum 3 weeks.
Agency: National Shipping Co., P.O.Box 8039, Mukalla, Cables: "Natship Mukalla" (via Aden Radio).
Importer: National Company for Home Trade, 5th Government Mukalla.

SHIPMASTER'S REPORT: April 1985.

PORT LIMITS: The port limits extend in a 270° direction from Ras for 2.5 miles, thence 000° along Long. 49° 07' E. to the coast.
APPROACHES: Charts B.A. 3784 and 10.

Prominent terrain affords reasonable radar positions. consideration should be given to night-time arrival if without ra to the total absence of navigational aids at both the port and coastlines. The white house at Point Ras Marbat and the 4 tow above the town are charted and conspicuous from seaward.
ANCHORAGE: For vessels over 10,000 d.w.t. all cargo is ha the anchorage which may be closed from May to October d exposure to the S.W. Monsoon. Holding ground is reporte variable. Reasonable anchorage obtained in 27 fathoms in Lat. 14° 30.8' N., Long. 49° 08.3' E. approximately 5 cables of rocky projection on which part of town is built. Requests will to anchor closer to the shore to reduce barge transit time.

PILOTAGE: Pilot boards from launch, off the breakwater.
RESTRICTIONS: Berthing during daylight hours only.
MAX. SIZE: Max. size 10,000 d.w.t. Max. draft 8.5 m.
VHF: Channel 16 for Port Authority, call sign "Mukalla Harbour Master".
Agent can be contacted by calling Mukalla Harbour Office on Channel 16.
TUGS: One Voith Schneider tug of 2,000 h.p. Reportedly to be replaced by 2×1,000 b.h.p. tugs shortly.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)
No. 1	177.25	9.15
No. 2	184.00	9.15
Fisheries	160.00	4.50

Turning Basin: Width 250 m. Depth 10 m.
Harbour Entrance: Approx. width 200 m. Depth 11 m.
Lighters: 4×200 tonnes, 4×60 tonnes and 2×400 tonnes, all plus or minus 10% subject to swell conditions. Lighters are discharged either at Khalf Harbour or at town quay located on West side of town, rocky projection in position Lat. 14° 31.5' N., Long. 49° 08.2' E. Town quay is restricted in size and served by mobile cranes.
Stevedores: Labour is available 6 days a week, Saturday to Thursday inclusive.
Morning shift: 0700 – 1230 hrs. Afternoon Shift: 1300 until lighters are full.
The afternoon shift is unpredictable and subject to lighters being available.
Medical: Local hospital affords basic medical requirements.
Fresh Water: Not available.
Fuel: Not available.
Shore Leave: Restricted by curfew to between 0800 – 1200 hrs. and 1600 – 1900 hrs. All persons going ashore are required to exchange Passport for local pass at Immigration.
GENERAL:
Harbour: Khalf Harbour, recently completed and as yet uncharted (See "Plan") provides 2 commercial jetties and a fisheries jetty.
Swell: Reportedly maximum 20 cm. in S.W. Monsoon.
Provisions: None available with the exception of individual purchases of fruit or poor quality vegetables available from market stalls ashore. Fishing good from ship's rail and crayfish, etc. obtainable from local fishing boats.
Launch: By prior arrangement with Agent only. Special dispensation can be obtained from Harbour Master to utilise ship's lifeboat. Barges can be used if other arrangements do not materialise.
Communications: By cable only. Telephone system is reported to be unreliable.
Port Officials: Immigration and Customs Officials board on arrival. Passports or Seaman's Cards are sighted. Bond Locker and Beer Room sealed but sufficient released for shipboard consumption.
Usual port papers required.
Agency: The National Shipping Co., Mukalla, Yemen. Cables: "Natship, Mukalla". Telex: None, but reported to be planned.
DEVELOPMENTS: The second stage development of Khalf Harbour will include:
Ancillary buildings, administration offices, workshop, transit sheds, surfacing and drainage, water and bunkering facilities will be made available.

AUTHORITY: Yemen Ports Authority. *Contact:* Ahmed M. Basaleem, Port Manager. Captain Salem Awad Saleh, Assistant Harbour Master.

NISHTUN: 15.50 N. 52.12 E. (See Plan)

DOCUMENTS: See "Aden".
PILOTAGE: Compulsory. Manoeuvring during day time only. There is a lighthouse, range 28 miles, flashing 10 sec. in position Lat. 15° 49.0' N., Long. 52° 12' E. Also the breakwater tower has a flashing green light.
ANCHORAGES: Ships waiting for berthing normally anchor 4 – 5 cables S.E. of the breakwater tower and clear of the harbour entrance.
MAX. SIZE: Maximum size of ship that can be accommodated is up to 3,000 d.w.t., 90 m. LOA and 5.0 m. draft. For ships over such size special permission should be obtained from Port Officer and Director of Marine Affairs.
VHF: Vessels approaching Port of Nishtun can communicate with Port Authority by using Channel 16 for calling during official working hours 0700 – 1400 hrs. (local time) .
BERTHING: Length of quay 220 m.
CRANES: 2×3 tons – 17.5 tons mobile cranes.
MEDICAL: Limited facilities available.
FRESH WATER: Available in small quantities.
FUEL: Not available.
AIRPORT: Located at Al-Gaidah, 40 km. to the East of Nishtun.
WEATHER: *Monsoon:* During S.W. Monsoon waves may break over breakwater. Swell is created in basin so extra precautions by ships' Masters regarding mooring and securing the ship against the quay are required and extra ropes or wires are necessary.
AUTHORITY: Yemen Ports Authority (See "Aden").

RAS ALKATHEEB: 14.55 N. 42.53 E.

Also see "General" before first port.

The Port of Ras Alkatheeb is situated 14 km. from the main city of Hodeidah and connected by a gravel road which is in the process of being resurfaced and broadened with two traffic lanes on the same alignment, thus providing a first class road transport link between Hodeidah and Ras Alkatheeb. Also see "Hodeidah".
BERTHING: The port has a berth 270 m. in length and 27 m. wide, pontoon type, with ships berthing on either side. This port can receive vessels with a max. draft of 26 ft. at high tide. Vessels can be secured to barges and coasters with a draft of 14 ft. which can be connected to the shore, thus enabling ships to discharge directly onto waiting trucks. Said pontoon is mainly used for bagged cargo on direct delivery basis.

Presently, this port does not have shore crane facilities and all unloading is done with ship's own gear.
Storage and Delivery: Due to lack of storage facilities at this port, delivery at present, is given directly under the hook.
GENERAL: The port is not a commercial port.

SHIPMASTER'S REPORT: November 1980.
1. Port does not accept Vessel's Registration until vessel is anchored between Buoy No. 1 and No. 2. This as per the Port Radio VHF station.
2. Buoy No. 2 is placed about 6 cables N.N.W. of charted position.
3. Do not attempt entry at night since buoys are unlit and there are many uncharted stranded wrecks visible only during daytime.
4. Tugs available: 4×700 b.h.p. and 3×1,800 b.h.p. Pilotage only during daytime.
5. Vessel berthed at Ras Khatib pontoon. Max. draft 8.0 m., total effective length of pontoon 270 m.
6. Port issues a directive to Agents giving estimated time to discharge. If not completed, port charges at the rate of 4 Rials/per metre/per hour of stay extended.
7. Distance from Ras Khatib berth to town 15 km. Only 10 to 15 shore leave passes given to vessel, regardless of number of crew.
8. No chipping and scraping permitted but painting is allowed.
9. Fresh water inside port is $4/– per ton, at Ras Khatib $20/– per ton by barge.
10. Provisions available but expensive.
11. Repatriation possible but very difficult due to having to obtain permission from Saana.
12. Cargo work is fast, 260 tonnes of cement per gang per day. Normal shift 0730 – 1200 hrs. and 1500 – 2330 hrs.
13. As per "Pilot", there will be dredging carried out soon and also lighted buoys will be placed.
14. Ras Khatib light Fl. 3 sec. of very low power.
15. Yellow fever inoculation not compulsory unless coming from infected area.

RAS ISA MARINE TERMINAL: 15.08 N. 42.36 E. (See Plan)

LOCATION: The geographical location of the Ras Isa Marine Terminal, "FSO Safer", is Lat. 15° 07' N., Long. 42° 36' E.

Ras Isa Terminal is an Offshore Loading Terminal, located in the Yemen at the Southern end of the Red Sea, East of the Zubair Islands, and a little North of the port of Hodeidah. The Terminal consists of the purpose-converted Floating Storage and Offloading (FSO) Vessel "Safer". This vessel is 409,000 metric d.w.t., and continuously receives crude oil production from a pipeline on the seabed via an anchored fixed-turret mooring. The sub-sea pipeline to shore runs 4.8 miles to the N.E. at Ras Isa Peninsula. The Terminal is operated by Yemen Hunt Oil Company (YHOC).
DOCUMENTS: At present only 2 Crew Lists are required.
PILOTAGE: The pilot boarding area for the Ras Isa Marine Terminal is 2 miles Southward of the storage tanker, or boarding will be at anchorage as appropriate.

The Pilot will remain on board throughout the export tanker vessel's stay on the berth; therefore, suitable and adequate accommodation shall be provided for him on board the export vessel.
Arrival at Pilot Station/Anchorage: Means of access to the vessel by the Mooring Master shall be provided in accordance with the requirements of SOLAS, and early advice will be given by Ras Isa Marine Terminal that access should be provided. At night, the access area shall be adequately illuminated to provide for the approach and boarding of the Mooring Master, Agent, Cargo Surveyor and YHOC Representatives. The condition of entry into and use of Ras Isa Marine Terminal, and agreement for the hiring of tugs will be presented to the Master of the export tanker, and shall be signed by him on behalf of himself, the vessel and its Owners prior to departure from the Pilot Station/anchorage and commencement of berthing operations.

Usually the tugs and Berthing Master are automatically arranged through the export tanker's port Agent and YHOC, when export tanker is scheduled to berth.

Notice of Readiness is only signed for receipt by YHOC Representative. In no event shall a Notice of Readiness be valid or binding on the Terminal, unless and until such time as the export vessel, her tanks and equipment are, in fact, in every respect whatsoever, in the proper condition and operation to receive the cargo. Export tankers provided with a suitable landing area can be boarded by helicopter.

ANCHORAGES: Should it be necessary to anchor, then the vessel should proceed to the recommended tanker anchorage area defined by the following coordinates:

Lat. 15° 05′ N.,	Long. 42° 32′ E.
Lat. 15° 03′ N.,	Long. 42° 32′ E.
Lat. 15° 05′ N.,	Long. 42° 36′ E.
Lat. 15° 03′ N.,	Long. 42° 36′ E.

RESTRICTIONS: No restrictions for berthing day or night when port is open.

Strong Winds: When mean speeds exceed 30 knots on the Marine Terminal anemometer, ships will, depending on the wind direction and general weather synopsis, be alerted that cargo/deballasting operations may have to be suspended and hoses disconnected. The Terminal has the responsibility of determining when wind conditions are reaching the limit of the design criteria for continued operations.

MAX. SIZE: Maximum size of 307,000 d.w.t. tonnes is permitted at the "FSO Safer". Partially loaded tankers acceptable. Average water depth is 38.0 m.

HEALTH: At present no Declaration required.

RADIO: *Communications:* On receipt of instructions to proceed to Ras Isa Marine Terminal, then 72 hours, 48 hours and 24 hours prior, advise ETA and other details as listed in the Ras Isa Marine Terminal Regulations and in a standard telex sent by the Terminal to the vessel.

If vessel is scheduled to berth on arrival, be sure to advise the Terminal of any change in ETA to avoid excessive stand-by charges for the tugs.

Hodeidah Port Authority must be advised as mentioned above at Hodeidah Telex: 5565 Mawani, and via Hodeidah Radio (4WD) in addition to any telex contact, as they advise the Yemen Military Authorities, who maintain a radar watch on all vessels entering and leaving Yemen waters.

YHOC Marine, Hodeidah:
Telephone: 967-3-217994.
Telex: 5685 YHOCMA YE.
Fax: 967-3-226153.

YHOC, Sana'a:
Telephone: 967-1-416080, Ext. 2643 or 2218 (via operator).
Telex: 4013 YHOC YE.
Fax: 967-1-416079.

FSO Safer – Ras Isa Marine Terminal:
Telephone: 967-1-416080, Ext. 2380.
Telex: Inmarsat Atlantic 1473102 SAFA X.
Fax: 967-1-416080, Ext. 2264.
VHF: Terminal Channel 74.
Tugs Channel 74.

VHF: *Export Tanker/Terminal Communication:* When the export tanker is at anchorage, communications between the storage tanker and the export tanker will be established on Channel 74.

Anchorage/Mooring Master Boarding Area: When within VHF communication range, Masters of export tankers should ascertain berthing prospects from the Terminal.

TUGS: Two suitable tugs are ready for each lifting, and are for export tanker account.

BERTHING: *Alongside Mooring/Unmooring Arrangements:* Should the export tanker be moored alongside, mooring will be on the starboard side of the "FSO Safer", according to following standard mooring plan: 4 headlines, 2 forward breast lines, 2 forward springs, 2 aft springs, 2 aft breast lines, 4 sternlines. Fendering between the two vessels consists of 5 large fenders.

For mooring/unmooring operations, the service of two tugs will be necessary. Export vessels should provide either synthetic mooring lines or mooring wires with synthetic tails. Synthetic ropes should be stored on drums or wrapping drums. Masters of export tankers are to be advised that the actual requirement of the mooring system may be subject to variation from time to time, depending on the environmental condition.

Tandem Mooring/Unmooring Arrangements: "FSO Safer" is also equipped with a Tandem Mooring System, which will be used if the weather conditions do not allow an alongside mooring, particularly in Winter time. The export tanker has to be equipped with a chain stopper on the bow, and shall be in overall conformity with the OCIMF "Standards for Equipment Employed in the Mooring of Ship's at Single Point Mooring", latest edition. The Terminal mooring hawser and chain arrangement does not allow for mooring with snotters nor with Smit Bracket, only an export tanker equipped with chain stoppers (OCIMF B 3 in. U3 chafing chain). The Terminal is permanently equipped with a floating 20 in. hose with 2×16 in. tails. Before any tandem mooring attempt, there should be a meeting between export tanker and Terminal personnel to establish procedures, responsibilities and supervisory roles. Refer to Ras Isa Marine Terminal Regulations for further information.

LOADING: *Transfer Operations:* The "FSO Safer" is equipped with 4×16 in. transfer hoses with a maximum loading rate of 100,000 bbls./hr. for alongside loading and 55,000 bbls./hr. for Tandem loading, and 1×20 in. transfer hose with 2×16 in. tails for tandem loading. At all times during the transfer operation, a responsible deck officer shall be in charge of operations, either on deck or in the control room. On vessels with a central control room from which all operations are controlled, a deck watch in contact with the control room is required to continuously patrol the cargo deck, and monitor the manifold area of the export vessel. At any time during the transfer operation, the rate can be reduced as requested by the Master or responsible officer of the export tanker. Early Departure Procedures are normally practised at the "FSO Safer".

The official quantity and quality of the crude oil delivered to the export tanker shall be determined by the Terminal, and shall be final and binding on the export tanker and her Owners and Charterers.

Hose Handling: Hose connection/disconnection will be carried out by the export tanker's crew, who at all times will be under the control of responsible deck officers. The export tanker will be required to have ready a derrick with a minimum SWL of 15 tons at the port manifold area for the handling of the Terminal hoses. For further information refer to Ras Isa Terminal Regulations.

Cargo Information: Oil loaded at Ras Isa Terminal is Marib Light with an average API gravity of about 50°. The loading temperatu vary from 85°F in the Winter to 100°F in the Summer months.

Deballasting Operations: "FSO Safer" has no ballast reception no disposal facilities, and therefore, export vessels are required to with clean ballast suitable for pumping directly to the sea. Export ve arriving with ballast unsuitable for pumping to the sea may be rej for loading, or will be required to keep that portion of their b unsuitable for discharge to the sea segregated on board. YHOC w accept any claims from vessels unable to meet such requirement

It is strictly against the law to pollute the waters of Yemen. Any Ma and his vessel's Owners, may be subject to prosecution by Yem such pollution does occur.

Simultaneous Deballasting and Loading of Cargo Tanks: This pra is essential. Vessel has to be ready at all times to manoeuver, an only alternative is to load partial cargo first. Such operation is do the sole risk of the export vessel, its Master and Owners, and the stringent care and attention shall be taken by the export tanker. E tanker will hold the Terminal, its parent companies, subsidiaries affiliates, harmless from any and all claims, demands, dama liabilities, costs, fines, and expenses, of every kind whatsoever, a out of, on account of, or in any way connected with the simultan deballasting and loading of the export tanker.

Inert Gas Systems: All export tankers loading crude oil at the M Terminal must have an effectively working Inert Gas Syste compliance with SOLAS Convention, and the Master shall confirm b berthing that the Inert Gas System is working correctly, i.e. mainta positive pressure on all tanks with the oxygen content of the iner less than 8% by volume. On arrival alongside, export tankers w asked to depressurise tanks sufficiently to allow up to 3 ullage po be open at any one time for the purpose of gauging samp waterfinding, temperature taking, tank inspection, etc., but ullage must be re-secured before cargo or ballast handling is commen Export tankers equipped with Vapour Lock tank dipping/soun devices are not required to depressurise the tanks when gau temperature taking and water finding. During deballasting, the IGS be capable of producing sufficient inert gas at 8% or less oxygen q to prevent air from entering the tanks. If the IGS is not oper deballasting from cargo oil tanks will not be allowed to commen during deballasting, the IGS fails, the deballasting must be stopped the plant is again operational. If this repair is likely to take more 24 hours, the ships' Owners and/or Charterers must be contacted a safe deballasting/loading plan should be agreed by both parties, b operations are resumed. When loading an inerted tank, the inert displaced must be vented through the ship's vent system and not u ports.

Maximum Allowable Pressure: The export tanker must never excee maximum allowable pressure on its cargo piping system, and make the loading rate is fully agreed.

MEDICAL: No doctor, dentist or clinic, however, in emergen Terminal will attempt to assist.

DENSITY: 1027.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: At Sana'a.

REPAIRS: No facilities available.

REPATRIATION: No facilities available.

AIRPORT: Hodeidah and Sana'a.

SHORE LEAVE: Not permitted.

GARBAGE DISPOSAL: Not available.

WASTE OIL DISPOSAL: Not available.

SEAMAN'S CLUBS: None.

GENERAL: *Flags:* The national flag of Yemen shall be perma displayed by vessels at the Ras Isa Marine Terminal.

Alcohol: Masters are advised that sale of alcoholic beverages to Na Citizens is strictly forbidden, and are warned of the s consequences of offering such drinks to Terminal staff who may the vessel.

Agency: The Terminal does not perform any vessel agency fun Vessels calling at Ras Isa Marine Terminal are required to arrang own agency representation from an agency operating in Hodeida

WEATHER: The winds in the area are usually light and genera from Western/Northern quadrants in the Summer, while in the W from October to April, the prevailing winds blow from So quadrants, building up strong swells, which force the Terminal the Tandem Mooring System. The existing currents are very wea

SAFETY: The Ras Isa Marine Terminal Safety Check List is bas the recommendations of the "International Safety Guide for Oil T and Terminal" (ISGOTT).

HELICOPTER: *Helicopter Operations/Precautions:* Helicopter s for embarking/disembarking a Pilot, or any other personnel fro export tanker and any other vessel, is available, but subject to ava of a helicopter. Transfer of personnel by helicopter from ships within the Terminal area may be carried out only in eme (i.e. evacuation of injured crew member), and subject to availab helicopter. The helicopter service will be for account of the export Voice contact with helicopter is possible, because all are provid VHF radio equipment. Ensure the selected landing area on bo vessel is clear. Ensure all operational requirements on deck ar guidelines issued by the International Chamber of Shipping "Guide to Helicopter/Ship Operations".

SECURITY: *General:* The Terminal will take prudent and reas security measures, consistent with security threats and risk in each particular situation.

Security Area: The security area covered is indicated by the area on the chart. Throughout the vessel's stay alongside, a watch shall be maintained. The gangway security watchme ensure (a), unauthorised persons are excluded from the (b), authorised persons are logged on and off the ves (c), if necessary, conduct checks of baggage and packag brought on to or taken off the vessel.

It is important that the Terminal advise the Master as soon as possible of any special circumstances which might necessitate special security precautions. Conversely, the Master of the vessel should also inform the Terminal of the security status procedures on board in accordance with the Vessel Security Guidelines. Export tankers, requiring urgent services (Owners' items), should establish contact with local port Agents, at the port of Hodeidah, for delivery offshore or at the Holding Anchorage, which, if the latter is utilised, should be reported to "Ras Isa Terminal – Safer", via telex or fax for clearance to use this anchorage. Any authorised representative of the Terminal shall have the right to board any vessel within the Terminal area at any time, for the purpose of ensuring that regulations are being observed. As a condition of entry into the Terminal area, the export tanker and any other ship, must agree to vacate the berth promptly on being requested to do so by the Terminal.

SHIPMASTER'S REPORT: May 1988 (Updated 1994).

NOTE: This report was received prior to receiving new operating procedures above.

Ras Isa Terminal is an offshore loading port located in the Yemen at the Southern end of the Red Sea, East of the Zubair Islands and a little North of Hodeidah (See B.A. Chart No. 143).

The Terminal consists of a purpose-converted Floating Storage and Offloading (FSO) vessel, FSO 'Safer'. This vessel is 400,000 tonnes d.w.t. (ex-'Esso Japan'), and permanently moored in position Lat. 15° 07' N., Long. 42° 36' E. The 'Safer' is under the Yemen flag, and permanently connected by pipeline to the production field via a turret-mooring (6 anchors), and submarine line to shore at Ras Isa, 4.4 miles to the N.E. Production Field is some 420 km. inland, in the Marrib area of Yemen, and production is understood to be some 150,000 barrels per day. 'Safer' takes production on a continuous basis and supplies export vessels as required.

Product is Yemen Marib Light Crude; typical API, 39.0 to 41.0, typical temperature at loading, 30°C to 38°C, dependent on local sea temperature. The 'Safer' is on a swivel mooring system and will normally lie head to wind, with some influence from tide. Terminal is operated by a Yemeni/American combine, the Yemen Hunt Oil Corp. (YHOC), and vessel is operated (at time of writing) with Italian, Yemeni and British officers and crew, together with American supervisors and Yemen Government representatives. Product suppliers are Yemen Oil and Mineral Resources Corporation. (YOMINCO).

Communications/ETA: (See Appendix "A").

On receipt of instructions to proceed to Ras Isa, then 72 hours, 48 hours and 24 hours prior, advise ETA and other details as listed. Hodeidah Ports and Marine Affairs Corporation (Hodeidah Port Authority) must be advised via Hodeidah Radio (4WD), in addition to any telex contact, as they advise the Yemen military authorities, who maintain a radar watch on all vessels entering or leaving Yemen waters. Likewise on departure, vessel must advise Hodeidah Port Authority (per format supplied by Pilot) to be marked-up on military radar screen – otherwise vessel may be intercepted; also via 4WD on 500 kHz.

'Safer' Sat. Telex 1473102 Safa-X (IOR); after initial and 72 hour messages, only requires updated ETA. On approach use VHF Channel 74.

On receipt of ship's message, 'Safer' will respond with nomination and request ship's details (See Appendix "B").

YHOC Marine: Telex 4013 or via 4WD to YHOC Marine Sanaa.

Port Authority: Telex 5565 and via 4WD.

YHOC Marine, Port Authority and Agents require message per Appendix "A" to be repeated in each ETA notice.

Approaches and Anchorage: See B.A. Charts No. 143, 548, 542 and Appendix "C" and "Plan".

Approach to Ras Isa Terminal is straightforward and clear of dangers. However, due to lack of soundings and age of survey, it would be prudent to approach from seawards rather than coasting.

From North: Follow usual courses down Red Sea, to position 15° 30' N., 41° 45' E., 4.5 miles S.W. of Jabal at Tair. Thence course 120° T., distance 52 miles gives a clear run to the Holding Anchorage, passing 7 miles N.E. of Quoin and Haycock Islands in the Zubair group. Once into soundings, least depths are 40 m. – 49 m. Clematis Shoal will lie approximately 11 miles to the North of track when some 17 miles N.W. of Terminal.

Rashshah Island, 4 miles North of Terminal, is low and sandy and has a light (3M) Fl. 10s. 8 miles; both island and light are very poor, both visually and as a radar echo and will not be sighted until within 6 miles of terminal, if at all. Terminal ('Safer'), is well lit and a good radar target, and was located at 14 miles. There is a disused SPM to the East of 'Safer', which may have a tug lying close-by, these echoes tend to confuse the actual terminal position.

From South: Leaving Abu Ail Channel, course should be made to position 14° 25' N., 42° 30' E. (avoiding Avocet Rock), before turning North towards Holding Anchorage. Least depths on this approach appear to be 31 m., but survey soundings are old. On approach good fixed positions are necessary, due to Penguin Shoal to West, and S.E. Patches to East, the latter being actually in vicinity of anchorage.

Holding anchorage is established approximately 3.2 miles to S.W. of 'Safer'; vessels may enter and leave from/to sea without pilot, but the total area from shore, out to anchorage is restricted, and vessel must be under pilotage within this area. Depths in anchorage average 38 m. to 44 m., mud/sand bottom, holding-ground good.

Berthing and Operations: See "Plan".

Pilots (2) are British. There are 2 hired tugs (1×40 ton and 1×60 ton bollard-pull), and tugs lines are used. Tugs are not ideal as they are primarily salvage tugs. Berthing daylight only, unberthing any time, dependent on weather conditions; if wind speed above 20 knots terminal is usually closed for berthing. Any size of vessel up to 400,000 tonnes d.w.t. can be accommodated. Depth at terminal is 33 m.

Berthing is vessel's port side to 'Safer' starboard side. Terminal prefer all wire moorings, but accept rope headlines and sternlines. Tails must be removed from wires. Moorings are 4 headlines/wires, 2 breast wires, 2 spring wires, 4 sternlines/wires, 2 aft breast wires, 2 aft spring wires, – usual firewires required. Usually springs first, followed by breasts, followed by head/stern lines. 'Safer' then supplies 2 'shore' wires to fo'cstle, and one 'shore' wire to poop. Messengers are required. Tugs make fast in 'push-pull' position on starboard forward main deck and aft main deck for berthing, and on long lines starboard bow and starboard quarter on sailing. Tugs lines are very heavy.

While alongside, vessel must maintain starboard accommodation ladder in lowered position. Current international safety rules, Check Lists, Regulations and procedures are in use, and practised. IGS must be positive and always less than 8%. Vessel must arrive with clean ballast, and ballast samples are laboratory tested before deballasting allowed. Portable radio is supplied by Terminal for inter-ship communications.

'Safer' will normally supply 2×16 in. hoses, using combination of ship's lifting gear and her own crane. Her max. rate is 70,000 barrels per hour. 'Safer' provides inter-ship gangway and connects/disconnects hoses.

'Safer' has cargo metering equipment, but this is still at proving stage, and vessel will 'ship-stop'.

Documentation usually takes 3 to 4 hours after completion. Pilot and any surveyors will stay aboard vessel loading. Tugs stand-by while operations are in progress.

Ras Isa commenced operations in December 1987 and 'Safer' came on stream in March 1988. There are currently an average of 6 export liftings per month from the terminal. As at present time, there are no port or customs or health formalities; ship's Agent requires 2 copies Crew List, and pilot asks of state of health. It is understood that the usual formalities will be instated in the near future, in which case the usual rules for entry into Muslim Arab countries are expected to apply.

The Yemen flag must be flown. It consists of red-white-black horizontal stripes, flown with red stripe uppermost.

There are no facilities or services available. No bunkers or water or repairs. It is apparently possible in urgent cases to obtain services via ship's Agent from Hodeidah, to the holding anchorage, with terminal permission. This would be very expensive as Hodeidah is some 30 km. away down the coast. Transport to/from 'Safer' is by launch or helicopter, Agent boards vessel on arrival. Pilot issues Port Clearance and takes off any timesheets and arrival/sailing figures for Agent if requested. Terminal will do their best to assist if urgent medical attention required, but in general vessel must be totally self-sufficient in this port.

'Safer' has 5 large Yokohama fenders and sundry smaller fenders and protection is good. Vessel's berthing (ballasted) trim must not exceed 3.0 m., with propeller immersed.

A comprehensive port-information book is issued to each arriving vessel. On boarding, Pilot will require Master to sign an indemnity absolving Pilot/Terminal from almost everything, and also pilotage timesheets, port log and tugs time of hire.

APPENDIX A: See "Note" at beginning of Shipmaster's Report.

Export tankers shall advise their ETA upon departure from its last load or discharge or other port or if at sea as soon as orders received to proceed to Ras Isa and repeat at 72, 48 and 24 hours in advance of arrival via Hodeidah Radio Station to the cable address "YHOC Marine Sanaa Telex No. 4013". Vessels equipped with Inmarsat satellite communications may address their telex(s) to "YHOC Marine" Inmarsat Telex No. 1473102 (IOR) and shall call the terminal on VHF Channel 16 when within range (then VHF Channel 74 for working).

For your information Ports and Marine Affairs Corporation, Hodeidah requires the following information from vessels stemed for Ras Isa Terminal to be sent to them either by telex (5565 Mawani YE) or via Hodeidah Radio (4WD) 72/48/24 hours prior to vessel's arrival:-

AA ETA Ras Isa Terminal.
BB Nationality of ship.
CC Summer deadweight.
DD Length overall.
EE Number of crew and state of health.
FF Cargo required.
GG Arrival draft – fore and aft.
HH Name of Agents.

Master tanker to adhere to these requirements, under copy to Agent to avoid imposition of fines.

APPENDIX B: See "Note" at beginning of Shipmaster's Report.

We hold your nomination for approximate ..... bbls at 60° F. Yemen Alif Crude approximate API 40.5.

Following information needed:

AAA Cargo quantity you able to load.
BBB Last cargo carried and if crude, source of origin.
CCC Quantity and grade of any transit cargo on board.
DDD Quantity of ballast and estimated deballast time.
EEE Quantity and type of slop onboard to lot of segregate on board.
FFF Maximum acceptable loading rate.
GGG Arrival draft (trim not to exceed 10 ft. or 3 m. by stern).
HHH Deepest sailing draft.
III Advised ability to simultaneously load and deballast with double valve segregation throughout.
JJJ Confirm latest edition of I.S.G.T.T. Safety Guide and OCIMF Ship-to-Ship Transfer Guide are onboard.

Repeat your ETA 72, 48 and 24 hours in advance of arrival to:

YHOC Terminal (via Inmarsat Indian Ocean Telex No. 1473102 Safa X).

Port Authority (Telex 5565 Mawani YE).

When within range contact YHOC Marine on VHF Channel 16 working Channel will be 74.

On arrival have your pilot ladder ready on starboard side for Berthing Master boarding and your port boom (SWL rating of minimum 10 tons) rigged for 16 in. hoses handling purposes.

Confirm your inert gas system is in good working condition. Maintaining oxygen content less than 8% by volume in cargo tanks.

Operational/Safety Check List as per OCIMF Ship-to-Ship Transfer Guide will be followed when VHF contact will be established. Please report also full name of Master.

Signed ..../Cargo Custody Transfer Coordinator
Ras Isa Marine Terminal

APPENDIX C: See "Note" at beginning of Shipmaster's Report.

On arrival vessel has to anchor at the holding anchorage. The area designated as the holding anchorage for vessels waiting for loading at Ras Isa Marine Terminal is located to the Southwest of the terminal in following position: (N.B. Vessels may only enter this area from sea, or sail to sea, without Pilot. Any other movement must be under pilotage.)

15° 05' N. 42° 32' E. 15° 03' N. 42° 32' E.
15° 05' N. 42° 36' E. 15° 03' N. 42° 36' E.

The permanent floating storage and offloading terminal (FSO) "Safer" (400,000 d.w.t.) is located approximately 4.8 nautical miles offshore Ras Isa in position:

Latitude 15° 07' North Longitude 42° 36' East
in the Red Sea territorial waters of the Yemen.

SHIPMASTER'S REPORT: June 1989.
NOTE: This report was received prior to receiving new operating procedures above.

General: Ras Isa Marine Terminal is similar to ship-to-ship oil transfer, so no documents (i.e. Stores List, Bonded Store List, etc.) were requested. However 4 copies of the Crew List are required. Repairs, fresh water, crew repatriation and shore leave are not possible.

When vessel arrives at the Pilot boarding station (Anchorage area), the Pilot, Loading Master and Agent come on board by helicopter by launch. The Pilot and Agent remain aboard until ship's departure. Two British Pilots employed and one on duty. Two tugs assisted with berthing and unberthing operations.

Information required prior to arrival: ETA upon departure from last port and repeat 72/48/24 hours in advance of arrival via Hodeidah Radio Station to the cable address "YHOC MARINE SANA TLX4013". Vessels equipped with Inmarsat communications may address their telex "YHOC MARINE Inmarsat No. 873-1104125" and shall call the terminal "SAFER" on VHF Channels 16/74.

The Agent requests the following information to pass to the terminal, this may be sent 3 days in advance.

1. Cargo quantity able to load (we loaded Marib Light crude oil, API 41.1, temperature 96°F.).
2. Origin of last cargo.
3. Quantity of dirty ballast, and deballasting time (if any need to pump to shore, estimate time via × 16 in. hose, maximum 70 p.s.i. discharge pressure, shore tank capacity 50,000 tons).
4. Quality and quantity of slops.
5. Maximum acceptable loading rate (storage tanker able to transfer 20,000 tons per hour).
6. Arrival draft (trim not to exceed 10 ft. or 3 m. by stern).
7. Maximum sailing draft.
8. Advise ability to simultaneously load and deballast with double segregation throughout.
9. Confirm latest editions of ISGOTT (International Safety Guide for Oil Tankers & Terminals) and OCIMF Ship-to-Ship Transfer Guide are onboard.

and additional items as follows:

Distance bow to manifold.

Helicopter landing area (helicopter has two engines and is large, takes about 20 persons).

Rig pilot ladder on starboard and 16 in. hose pick-up derrick on port side (SWL 10 tonnes).

I.G.S. works properly and all tanks including ballast tanks oxygen less than 8 percent by volume.

Mooring wires: Take off rope tail, this is extra ordinary request due to bad weather, the terminal had experienced rope tails breaking.

The Agent is requested to pass the following to the Port Authority:

1. ETA Ras Isa.
2. Vessel nationality.
3. Summer deadweight.
4. LOA.
5. Number of crew and confirm all healthy.
6. Quantity of cargo request for loading.
7. Arrival draft.
8. Name of Agent.

AUTHORITY: Yemen Hunt Oil Company, as Operator, P.O.Box 481, Sanaa, Yemen. *Tel:* Hodeidah 216080. *Telex:* 4013 YHOC YE. *FAX:* 967-2-216079. *Cables:* YHOC Sanaa, Yemen.

Ras Isa Marine Terminal, P.O.Box 3913, Hodeidah, Yemen. *Tel:* 967-3-217994. *Telex:* 5685 Yhocma Ye. *FAX:* 967-3-226153. *Contact:* Ahmed Kulaib, Marine Manager.

SALEEF (Salif): 15.18 N. 42.41 E.

Also see "General" before first port.

Saleef Port is a natural port on the Red Sea, approximately 80 km. North of Hodeidah Port. Two routes, one round the North end of Kamaran Island and the other around the South end provide suitable access to the harbour.

As prevailing winds are generally Southerly or Northerly, vessels are able to approach the berth from downwind. This is important as vessels will probably have to berth without tug asistance. Initially, mooring facilities are designed for 50,000 d.w.t. vessels and consists of a wharf head 20 m. wide, 93 m. long with two dolphins. A 10 m. wide trestle connects the wharf head to the shore. Facilities are designed to absorb the berthing impact of a ship approaching with a velocity component of 15 cm. per second perpendicular to the berth face and for a 50 tons mooring line pull.

Future developments: A French consulting firm has been awarded the contract to submit a report on future developments of this port.

SHIPMASTER'S REPORT: December 1979.
Acknowledgements: Most of the information has been gleaned from local Agency representatives and Capt. A. Saeed, Harbour Master.

Reference has been made to Red Sea Pilot and various BA Charts. Local written information is unavailable for the area concerned.

General: Salif lies some 60 km. North of Hodeidah, it is a natural deepwater harbour sheltered by Kamaran Island.

Since 1976 the port has enjoyed moderate expansion and can now boast a modern jetty capable of berthing ocean going vessels; other pontoon type berths are available, these being linked to the shore by small stone jetties. At present the port can accommodate two vessels of up to 200 m. length with a draft of 12 m.

Salif is geared for the export of bulk salt and the import of grain and some general cargo. In the near future a further pontoon type berth is due to come into operation to be used solely for the import of bulk cement. A bagging plant and silo have been constructed to handle the additional cargo.

This report is mainly directed to the facilities associated with the import of grain, however where possible relevant information has been included which could prove useful to other vessels trading in the area.

Documents:

6 Crew Lists with Passport numbers.
2 Bonded Stores Lists.
2 Personal Manifests.
2 Vaccination Lists.
3 copies Cargo Manifest.
Local inward forms made out on arrival.

Approaches: (BA Charts: 543 and 548). Recommend approaching around the North end of Kamaran Island, as mentioned in Red Sea and Gulf of Aden Pilot, page 390.

The lighthouses stand out well, but at night they are not lit (December 1979). The only difficulty in making Salif, in daylight, is passing to the South of N.W. shoal light, the channel at this point being about one mile wide. At night the lighthouses prove quite good radar targets, and the various islands etc. show up quite well. Once around the top of Kamaran Island course can be set down Kamaran Passage to the anchorage area off Ras el Salif. Charterers frequently advise that passage is possible South of Kamaran Island, however this is not advisable; the leads mentioned on the chart are very difficult to see and there is no room for error.

Anchorage: No specific area designated but anywhere in the vicinity of Salif Jetty. For vessels waiting for the wheat berth it is best to anchor about 0.75 miles West of Ras el Salif. Good holding ground in about 14 fathoms of water. For vessels with poor radar it would be best to anchor outside Kamaran Island until daylight, when passage can be made in safety.

Weather: See "Red Sea Pilot" for information. At Salif the wind usually picks up during the day and this can delay berthing if the strength is above Force 4.

Pilotage: Pilot boards in anchorage area from medium sized launch. Yemenese Pilot with limited English.

Daylight pilotage only.

Berthing: Vessels berth, at the bagging plant pontoon, head to wind. The pontoon consists of a flat topped barge made fast to a small stone jetty; it is well fendered with car tyres. The offshore anchor is used whilst coming alongside and a launch runs various ropes ashore to posts set on the land. Five ropes are required either end and it is necessary to join the first few together as considerable lengths are initially run. The bagging pontoon can only accommodate one vessel at a time. See "Shipmaster's Report – May 1982".

The general cargo and salt exporting jetty lies some distance to the South of the bagging plant. This pier can take one vessel of up to 200 m. in length. Facilities at this berth are an improvement over the pontoon, however for the import of grain type cargoes, it is not so efficient, it being necessary to bag the cargo by hand. Both berths can take vessels with up to 39 ft. draft.

Buoys are at present being laid to the North of the bagging pontoon and these could prove an obstacle for vessels berthing. The moorings are being laid to assist vessels making fast to the new cement pontoon (See "Projects").

Quarantine/Health Regulations: Doctor boards on arrival, either at anchorage or alongside. No health forms as such. Certificates not required unless vessel from infected area when Yellow Fever and Cholera certificates are needed. No derat facilities.

Customs: Usual Islamic laws in force. Bond not sealed and apparently no objection for crew to consume spirits/beer on board. On no account must alcohol be given/sold to local Yemenese.

Immigration: Passports are inspected on arrival. (Harbour Master acts as translator for Immigration Authorities.) Shore leave granted with passes for Salif area only. Special permission has to be given to proceed outside local area, i.e. Hodeidah.

For crew repatriation, passports are taken to Sanaa by Agent for necessary visas to be arranged.

Medical Facilities: One doctor resides in Salif, Yemenese and speaks English. He will attend the ship rather than the patient visiting him. The nearest hospital is in Hodeidah.

Port Operations (Bagging Plant): Foremen and workers are hardworking. The foremen reside in caravans close to the bagging plant whilst most of the stevedores come from Salif.

The method of discharge is to load a number of diesel driven evacuators on deck and by various pipelines, these are connected to a storage hopper situated on the pontoon/barge. The hopper is connected to a small bagging plant and by means of conveyors the sacks are loaded onto road transport.

Discharge rates per 24 hours worked between 1,600 tonnes and 1,850 tonnes. Charter Party rate indicated about 750 tonnes per day. The takeaway rate from the hopper appears to be adequate with plenty of road trucks available. The grain is shipped immediately to different parts of the Yemen.

It is usual to carry sufficient bags to enable the complete discharge of the grain to go unhindered. The bags are baled and discharged onto the pontoon at regular intervals.

Ship's gear is required at each hold to sling the pipes that lead from the evacuators into the hatch. It is also required for discharging the gunnies and for loading the evacuators (1.5 tonnes). The evacuators appear reliable but spillage of diesel results during re-filling etc.

Fresh Water: Available but expensive. Supplied by road tanker at 15 tonnes a time, it is necessary to use ship's pump for pumping the water aboard. Agents require ample notice prior to supplying water.

Fuel: Heavy oil and diesel oil not available unless barged from Hodeidah.

Stores: Not readily available; fresh stores difficult to obtain.

Agency: The main Agency lies some 60 km. away by track, and the ship is attended by a runner who commutes between Hodeidah and Salif. Considerable delays result before ship's business can be completed and it is necessary for everything to be in writing; repatriation, in particular, is difficult for the organiser as well as the traveller.

Communications between Salif and Hodeidah are non-existent, a telephone line exists, but this is out of order. It is however possible to communicate directly through Portishead Radio and sometimes the only way to get messages out.

Local currency and American Dollars are obtainable from the Agents. It is difficult to obtain the money from the Agents and generally it is best to arrive with sufficient cash on board to cover any expenditure.

To arrange repatriation it is necessary to allow at least 6 days. Visas have to be obtained from Sanaa and tickets arranged. If pre-paid tickets have been sent from U.K., then they must arrive in ample time. The airport at Hodeidah has regular connections with Sanaa which in turn is linked into most air routes via Paris. Transportation from the ship to Hodeidah is by Land Rover or similar four wheel drive vehicle.

Port Regulations: Nothing in writing. The Harbour Master is the person to approach if anything required. Apparently Salif is designated a military zone and this is the reason no written information is available.

Gangway: The vessel only lies alongside for a distance of about 80 ft. amidships and consequently a pilot ladder is used instead of a gangway or brow. If this causes any difficulty, ship's lifeboat can be used as a ferry between gangway and shore.

Watchmen: Supplied by local Police/Army. They remain aboard during vessel's stay and keep pilferage to a minimum. They also keep close watch on any alcohol that may be obtained by local Yemenese.

Shore Leave: See "Immigration".

Garbage: No facilities for taking garbage away from the ship; best to dump waste food etc., whilst retaining cardboard boxes, and plastic containers.

Repairs: Possible to immobilise main engines, as once on the berth it is unlikely to shift. No repair facilities ashore.

Time: GMT plus 3 hours (no change).

Flag: Yemen Flag must be flown at all times. Red, white, black horizontal stripes with a black star in the white section.

Consuls: Situated in Hodeidah or Sanaa. Harbour Master available for Noting Protest, etc.

Tugs: None available for berthing though frequently tugs operate in the area towing barges, pontoons, etc.

VHF: Situated in port office but hours of working very flexible. The Harbour Master normally calls any vessel up shortly after anchoring.

Fire/Ambulance: None available.

Projects: A new pontoon berth, similar to the grain berth, is being constructed about 0.25 miles to the North. Silos have been erected close to the shore and are capable of storing 9,000 tonnes of finished cement. A bagging plant has also been constructed next to the silos. It is intended that cement be shipped, in bulk, and with evacuators discharged into the silos.

SHIPMASTER'S REPORT: May 1982.

We were in Saleef recently with 39,127 tonnes wheat – ship 182.08 m. long. The following are changes to information in the Guide.

The barge – pontoon berth with bagging plant no longer exists and apart from cement boats all ships now berth at jetty by Salt terminal.

Minimum water we found there in 18 days' stay was 18.5 m.

Ship's gear must be used and grain is dumped on wharf and bagged in situ, being taken away by lorries. Rate erratic, between 900 t.p.d. and 2,000 t.p.d.

Vessel has to vacate berth for car carriers and salt loaders.

No shore leave permitted.

Bond is now sealed. No restrictions on what is kept out.

NOTES

Please also advise Shipping Guides Ltd.

Yugoslavia

BAR: 42.05 N. 19.03 E. (See Plan)

PORT LIMITS: Seaward limits of the port defines a line drawn between "Voluica" Light and Ratac Point.

DOCUMENTS:

On Arrival:

5 copies Cargo Manifest (for discharge).
Certificates for Hazardous Cargo Transport.
Originals of Vessel's Certificates.
2 copies Health Declaration.
1 copy General Declaration.
5 copies Crew List.
5 copies Passenger List.
5 copies Crew Personal Effects.
3 copies Stores Lists.
1 copy Animal Pets Aboard.
1 copy Certificate of Financial Insurance on Civil Liability for Oil Pollution – only foreign ships carrying more than 2,000 tons of oil.
3 copies List of Hazardous Cargoes loaded on board and Cargo Plan for Hazardous Cargo (1 copy).

On departure:

5 copies Crew List, if any change.
List of Hazardous Cargoes, if loaded and Certificate of Stowage.

PILOTAGE: Advance notice 24 hours through ship's Agent. Pilot boat blue hull, white deck house, with letter "P" on each side. Pilot boards off West Breakwater. Use international signals to call Pilot. Pilot may be contacted on VHF Channel 16, working on Channel 6.

ANCHORAGE: Safe anchorage West and N.W. off West Breakwater. Anchoring not allowed nearer then 0.5 mile off Breakwater.

RESTRICTIONS: Vessels, including tankers, enter/leave port by day and night. Depth entrance 14 m.

No restriction on LOA and beam. Foreign nuclear ships enter only with special permission. Leaving or entering port for foreign tankers not allowed if not having said Certificate.

MAX. SIZE: Fully loaded vessels up to 12.5 m. draft.

RADIO/VHF: Bar Radio, call sign YUW, 500 kHz and 516 kHz. Radio telephony on 2182 kHz on 2 metre band and on Channel 16.

Agents can be contacted through Bar-Radio on VHF.

Port Authority on VHF Channels 16 and 12.

Tugs on VHF Channel 6.

TUGS: 2 tugs with twin 594 kW engine.

BERTHING: Berth assigned at Agent's request or Receiver's/Shipper's, both for liners or tramps, at the daily meeting of the Harbour Board.

3,500 m. of berthing space and able to accommodate up to 20 ocean-going vessels.

CARGO HANDLING FACILITIES: Available for all kinds of general cargo, containers, pallets, Ro/Ro, bulk, fuel oil and chemical cargoes. Regular passenger service to Italy and from May – October to Greece.

Grain silos with 30,000 tons capacity with covered Vacuvator.

STEVEDORES: The Port Enterprise "Luka Bar" is the sole stevedoring company. Work is done Monday to Friday in 2 shifts: First shift 0600 hrs. – 1400 hrs. Second shift 1400 hrs. – 2200 hrs. Third shift can be ordered at daily meeting, paid as overtime. Saturdays, Sundays and holidays may be worked on overtime.

MEDICAL: Medical care available at Medical Centre at Bar.

TANKERS: New oil berth can accommodate tankers up to 80,000 d.w.t., draft limit 12.5 m. Bunkers from local bunker station. Tank cleaning, pumping of slops and gas freeing not permitted in port.

Tankers must be ready to leave port at 30 minutes' notice, at any time and at request of Port Authorities.

DENSITY: Sea water.

FRESH WATER: Available from hydrants on quay. It is also possible to supply fresh water in the roads.

FUEL: Can be obtained from local bunker station or by fuel barge. All grades available.

CONSULS: None.

REPAIRS/DRY DOCKS: Dry Docks at Shipyard "Veljko Vlahovic", Bijela, 36 miles from Port of Bar, capacity of about 130,000 d.w.t. and 35,000 d.w.t., available for all types of deck and engine repairs. Minor damage can be repaired while loading/discharging.

SURVEYORS: Representative of Yugoslav Register of Shipping at Tivat (80 km.).

GANGWAY/DECK WATCHMEN: Available at Master's request.

OPENING/CLOSING HATCHES: Normally performed by crew, or as per Charter Party.

CARGO GEAR: Mobile Shore Cranes: 6×5 – 6 tons, 3×3 tons, 3×8 tons, 2×20 – 30 tons, 3×12 tons for bulk cargoes. Forklifts of 1 ton up to 40 tons capable of handling containers and Vacuvators. 1×40 ton container crane. If not agreed in C/P, loading and discharging is by shore cranes.

CUSTOMS ALLOWANCES: Yugoslav Customs Regulations apply.

REPATRIATION: From Bar by bus, train (International Lines), and ship.

TIME: Central European Time, GMT plus 1 hour. Summer time kept from March to October (date fixed annually).

SERVICES: Compass adjuster at Bijela (100 km.), RDF representative at Bar. Other electronics repairs via Agent.

HOLIDAYS: January 1st and 2nd, May 1st and 2nd, July 4th and 13th, November 29th and 30th. Work can be arranged on Sundays and 2nd day of two-day holiday.

POLICE/AMBULANCE/FIRE: Police Tel. 92; Ambulance Tel. 94; Fire Tel. 93.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Not required.

GARBAGE DISPOSAL: Collection service is performed daily whilst alongside, by special trucks. Charges are from U.S.$ 17.70 to U.S.$ 64.95 per day, depending on tonnage of vessel. Should collection only be required every second day then charges increase by 50%. Contact Tel: 085-12-332 or 085-12-022, Extn. 609.

WASTE OIL DISPOSAL: Anti-pollution service exists, using floating boom, skimmer and other equipment. Collection service is carried out using drums and tanker trucks. In the near future a barge and oily water separator will be in use. This service is carried out by PIOB. Tel: 085-12-332 and 085-12-022, Extn. 609. Telex: 63139. Fax: 12-213.

SEAMAN'S CLUBS: None.

CURRENCY: Yugoslav Dinar (YUD).

AUTHORITY: Lucka Kapetanija Bar, Obala 13, Jula 18, 85000 Bar, Montenegro, Yugoslavia. *Tel:* (085) 11-382. *Telex:* 63188 Luckap. *FAX:* (085) 11384. *Cables:* Lucka Kapetanija Bar.

AGENT: Jadroagent – Bar. Obala 13, Jula 6, P.O.Box 10, 85000 Bar, Montenegro, Yugoslavia. Cables: Jadroagent Bar. Tel: (085) 11-195, 11-194, 11-193. Telex: 63141 Yu Jadrag. Fax: (085) 12751.

KOTOR: 42.27 N. 18.36 E.

PORT LIMITS: Imaginary line between lighthouse at "Prcan" and lighthouse at "Sv.Stasije".

DOCUMENTS:

Cargo Manifest.
Crew List.
Passenger List.
Stores List.
Crew's Effect Declaration.
Dangerous Cargo Manifest.

Valid Vessel's Documents: All documents required by the relevant international conventions for given type of the vessel and given trade.

PILOTAGE: Pilotage is compulsory for vessels above 500 g.r.t. Pilot available 24 hours a day. Notice of ETA 24 hours in advance. Contact through Channel 16, through the vessel's Agent or directly to the Port of Kotor.

ANCHORAGES: West and S.W. of the lighthouse on the quay at Kotor in 14 m. – 17 m. Good holding ground.

RESTRICTIONS: No restrictions regarding the time of vessel's arrival at port and no restrictions related to tide, bridges, etc. Maximum vessel's draft which can be accommodated in port is 13.0 m.

MAX. SIZE: Due to the port configuration, there are no restrictions regarding the length and breadth of the vessel. Max. draft is 13.0 m.

HEALTH: Illness reports to be made on arrival of the vessel in port. Any serious disease, or communicable disease to be reported before arrival, and approval is to be given by Port Authorities before the vessel is berthed.

RADIO: Port has no radio communication equipment.

VHF: Vessels calling at Kotor can contact Kotor Port Authority via Channel 16.

RADAR: No port radar equipment.

TUGS: Port has no tugs of its own, but tugs are available from the shipyard at Bijela in the vicinity of the port on request.

BERTHING: Port consists of 3 wharves, two in Kotor and one in Lipci for tankers. They are divided as follows:

Berth	*Length* (m.)	*Depth* (m.)
No. 1 Riva I	150	12.8
No. 2 Riva II	100	10.0
No. 3 Riva III	250	6.8 – 8.0
No. 4 Rijeka I	80	7.0
No. 5 Rijeka II	70	5.0
No. 6 Lipci	100	7.0

Open storage area at wharf is 4,000 sq.m., and closed storage space is available in Grbalj at distance of 5 km. from Kotor.

CRANES: Port has no cranes, but in special circumstances cranes and other cargo handling equipment could be hired from companies in Kotor.

BULK CARGO FACILITIES: Port is not equipped for handling bulk cargo.

SPECIALISED CARGO HANDLING FACILITIES: Port has no specialised cargo facilities.

BRIDGES: No bridges effect navigation to or in the port.

STEVEDORES: The recognised working hours are from 0700 hrs. until 1500 hrs., Monday to Friday, holidays excepted. Port can organise and provide all services required by port users.

MEDICAL: Full hospital facilities are available.

TANKERS: Tankers are served at special tanker terminal in Lipci. Storage of 12,000 cu.m. available. Arrangement is to be specially made with Jugopetrol Kotor.

DENSITY: 1025 – 1010, depending on the season.

FRESH WATER: There are 10 fresh water connections along the berths for water supply. Water can be taken 24 hours a day. Price varies between U.S.$1.00 – U.S.$2.50, depending on the season.

FUEL: Smaller vessels, having draft up to 5.5 m., can take fuel from the fuel station in the port. Larger vessels are supplied by truck.

FIRE PRECAUTIONS: Usual precautions for flammable cargo at terminal at Lipci. No other specific measures are imposed in the port of Kotor.

CONSULS: None.

REPAIRS: Only minor deck and engine repairs are possible in the port. For all types of repairs, there are 2 ship repair yards in the vicinity of the port. One in Bijela, at distance of 7 nautical miles, and the other in Tivat, at distance of 6 nautical miles.

DRY DOCKS: None.

SURVEYORS: Hellenic Register of Shipping has an office in Kotor. Surveyors from other classification societies are available from shipyard at Bijela and port of Bar, as well as the surveyors of "Jugoinspect" entitled to perform all types of cargo inspections.
GANGWAY/DECK WATCHMEN: Not required, but could be provided on request.
OPENING/CLOSING HATCHES: Normally by crew.
CUSTOMS ALLOWANCES: Regulated by national regulations.
CARGO GEAR: All cargo operations preferable by ship's gear.
REPATRIATION: All facilities are available.
AIRPORT: Nearest airport is at Tivat, at a distance of 5 km. from the port. Regular service to Belgrade throughout the year with connections worldwide. During the season, regular service worldwide.
TIME: GMT plus 1 hour. GMT plus 2 hours from 1st April until last week in October.
HOLIDAYS: New Year's Day; Labour Day; Veteran's Day (4th July); The Day of Montenegro (13th July); Republic Day (29th and 30th November).
POLICE/AMBULANCE/FIRE: Local telephone numbers are: Police 92, Ambulance 94 and Fire Brigade 93.
EMERGENCY CO-ORDINATION CENTRE: In case of any kind of emergency, the nearest Port Authorities should be contacted.
TELEPHONES: Telephone connection could be arranged to the vessel on request.
SERVICES: All services need to be arranged in advance with Port Authorities.
BANKS: Jugobanka – Kotor, Benovo b.b. 85330 Kotor. Tel: +381 82 16250. Fax: +381 82 16368.
STORING: Stores are delivered to the vessel only by trucks which could proceed alongside. Forklift can be used. Full assistance available.
SHIP SUPPLY SERVICES: A number of ship suppliers operate in this region, supplying ships with whatever they need.
SHORE LEAVE: Crew members and passengers are welcomed ashore without any specific procedures.
IDENTIFICATION CARDS: Not needed.
GARBAGE DISPOSAL: Garbage disposal in plastic bags, drums and garbage container is available on daily basis or according to the need of the vessel.
WASTE OIL DISPOSAL: Waste oil disposal is available by trucks, but arrangement is to be made at least 24 hours in advance.
SEAMAN'S CLUBS: None.
CURRENCY: National currency is Dinar. U.S.$ 1.00 = 4.48 Dinars. Exchange rate varies on a daily basis.
REGULATIONS: No unusual or specific regulations are in force in the Port of Kotor.
DELAYS: No delays expected.
GENERAL: Cargo is served in the port of Kotor on irregular basis and according to the circumstances, while the port is designed and tailored for pleasure yachts, passenger and cruising vessels for which there are all types of facilities.
AUTHORITY: Lucka Kapetanija Kotor, 85330 Kotor, Montenegro, Yugoslavia. *Tel:* +381 82 14950. *FAX:* +381 82 13053.

Port of Kotor, Commercial Enterprise, Port of Kotor, Park Slobode 1, 85330 Kotor, Montenegro, Yugoslavia. *Tel:* +381 82 16987. *FAX:* +381 82 14974. *Contact:* Nikola Konjevic, General Manager.

ZELENIKA: 42.27 N. 18.35 E.

DOCUMENTS: See "Bar".
PILOTAGE: Pilot boards at entrance of the Bay of Kotor, near point Punta Ostro. In bad weather Pilot boards at anchorage.
ANCHORAGE: Good ground for anchorage S.W. of Zelenika, about 0.25 miles off port light in about 27 fathoms.
MAX. SIZE: Port of Zelenika damaged by earthquake and temporarily closed, vessels berth at the passenger quay at Herceg-Novi.
HEALTH: Radio Agent requesting Free Pratique, 24 hours before arrival. For vessels over 500 g.r.t. Pratique is given at the anchorage. For small ships and yachts, Pratique is given at Herceg-Novi.
TUGS: None. In cases of necessity can be ordered from shipyard at Bijela.
BERTHING: The berth is assigned through the Agents giving notice 24 or 48 hours in advance. At present there is berthing for small ships only at the passenger port at Herceg-Novi.
STEVEDORES: State stevedoring company.
MEDICAL: Nearest hospital at nearby town of Herceg-Novi.
FRESH WATER: Available from hydrant on the passenger quay at Herceg-Novi.
FUEL: Nearest bunker station is at Bar.
CONSULS: None.
REPAIRS: Any kind of repairs including dry docking at nearby shipyard at Bijela.
DRY DOCKS: Floating dock lifting capacity 10,000 tons, LOA 184 m., length over keel blocks 165.6 m., inside free breadth 25.5 m.

Floating dock lifting capacity 33,000 tons. LOA 252 m., length over keel blocks 235 m., inside free breadth 44 m.

The yard is about 4 miles East of Zelenika. The yard has 1,300 m. of fitting pier.
OPENING/CLOSING HATCHES: If not performed by crew, can be done by stevedores.
CUSTOMS ALLOWANCES: About 40 cigarettes and 0.5 litres wine/spirits per man per day.
CARGO GEAR: Loading, unloading performed with ship's gear.
TIME: Central European Time. GMT plus 1 hour. Summertime kept.
HOLIDAYS: January 1st and 2nd; May 1st and 2nd; July 4th and 13th; November 29th and 30th. Work can be arranged on Sundays and on 2nd day of two-day holidays.
POLICE/AMBULANCE/FIRE: No direct connection, in case of necessity call Agency, Tel. (082) 81-456 Jadroagent or (082) 81-261 Jugoagent.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Shore passes issued by local police.
AUTHORITY: Lucka Ispostava Zelenika.

AGENT: Jadroagent, Medunarodna pomorska i saobracajna agencija, Poslovna jedinica, Bijela. Tel: (082) 81-456. Telegraphic address: Jadroagent Bijela.

NOTES

Please also advise Shipping Guides Ltd.

Zaire Republic

GENERAL:

ETA: It is essential that any change of vessel's ETA should be transmitted sufficiently in advance in order to avoid short shipments of cargo.

Matadi is only a transit port where cargo is not stored in order to avoid congestion.

Imported cargo is immediately re-forwarded to the interior while export cargo is only brought to Matadi a few days before the ETA of the vessel for which it has been booked.

Therefore, in order to make the cargo available at Matadi, shippers need a notice varying according to the cargo concerned, but which cannot be less than 2 weeks as is the case for coffee.

Agents at Matadi and Boma have been instructed to inform Port Authorities latest 4 days before berthing of inward cargo tonnages.

Non compliance with this provision may result in berthing delay.

PILOTAGE: Vessel should cable ETA 24 hours before arrival to the Harbour Master. Cable address: "Maritime Banana" via Banana Radio.

Pilotage compulsory for all vessels over 500 g.r.t. bound for Boma and Matadi.

Ships bound for Matadi and/or Boma must take a Pilot at the Pilot Station at Banana (at the mouth of the Zaire River). Pilot station at Banana can be contacted directly by radio (VHF).

In order to increase the safety and to facilitate the navigation on the river the Regie des Voies Maritimes have decided that in case a vessel is not equipped with a VHF installation the Pilot will bring one on board, for which a charge is made.

The following rules must be observed at the request of the Regie des Voies Maritimes for embarking and dis-embarking of Pilots.

If gangway is rigged astern on the port side it is compulsory to use the pilot ladder.

If gangway rigged amidships on port side it is recommended that the pilot ladder is used in combination with the gangway.

Pilots requesting only the gangway do so at their own risk.

Theoretically sailing from Matadi/Boma is only authorised if vessel can reach Banana by 1800 hrs. at latest since navigation on the Zaire river is normally limited to daylight hours.

With regard to the trim the pilotage services ask Masters to comply with following rules:

Maximum draft 12 ft. aft; 2 ft. forward.

DOCUMENTS: *Ship's Documents required on arrival:*

Clearance from last port.
7 Crew Lists.
3 Lists of Arms and Ammunition.
7 Passenger Lists.
1 List of stowaways.
2 Crew Declarations.
3 Lists of Ports of Call.
2 Stores Lists.
1 International Tonnage Certificate.
1 International Load Line Certificate.
1 Derat Exemption Certificate.
1 Cargo Ship Safety Equipment Certificate.
1 Certificate of Registry.
1 Radiotelegraphy Certificate.
1 Construction Certificate.
1 Certificate Form on Board.
Free Pratique.

Documents required for disembarking passengers and discharging cargo:

A. To be received by mail at least 8 days before ship's arrival:
(1) Cargo:
  3 Freight Manifests
  8 Cargo Manifests
  5 copies of Bills of Lading
  6 copies of Stowage Plans.
(2) Passengers:
  1 Accountancy
  3 Passenger Lists, for passengers for the port/or in transit.
B. To be received by ship's bag at ship's arrival at quay:
(1) Cargo:
  1 Freight Manifest
  4 Cargo Manifests
  3 copies of Bills of Lading.
(2) Passengers:
  1 Freight Manifest
  4 Passenger Lists for passengers for the port and/or in transit.

It is most important that stowage plans be available before vessel's arrival. Vessel's operations are indeed delayed to the next shift if same are only remitted upon arrival.

DRAFTS AND CURRENTS: Drafts on Zaire River are influenced by seasonal water levels and by the state of dredging. They have been varying over the last 5 years from 21 ft. to 26 ft. and are presently (March 1994) as follows:

Inwards: High Water: 21 ft. 00 in.
Outwards: High Water: 22 ft. 00 in.

The authorised drafts are notified regularly by the Port Authorities.

The currents of the river and from berth to berth as well as in Matadi and Boma vary and depend upon the high and low levels of the water sometimes with adverse currents and still waters.

For proceeding to Matadi and according to the season vessels must have a speed of at least 10.5 to 11 knots, especially to pass the "Devil's Cauldron" about 3 miles before Matadi. 12-13 knots or greater sometimes requested for a 10-15 minute period.

HEALTH: Ship's crew must have an International Certificate of Vaccination against yellow fever and cholera.

RADIO: Banana Radio, 9PA.

Telegraphy – medium wave: 0430 – 2030 UTC.
500 kHz.
Working frequency: 489 kHz.
Listening frequency: 480 kHz
512 kHz.
Traffic list each hour + 00 of each hour during service hours.

Telegraphy short waves: 0500 – 2000 UTC.

Traffic list at:
0500/0700/0900/1100/1600/1900: 8445.0 kHz
0600/0800/1200/1400/1700 : 12660.0 kHz
1000/1300/1800 : 22431.0 kHz
1500 : 17184.8 kHz

Reserve frequency for medium wave: 6491.5 kHz

Remarks: This frequency is used for traffic when QRN appears on 489 kHz.

Reserve frequency: 8546 kHz.

Listening on 8, 12 and 16 MHz, Channels 5, 6 and 15. On 22 MHz, Channels 3, 4 and 9.

Each Channel is monitored during 1 minute in a scanning system and this, during 15 minutes following traffic list (same frequency band as traffic list) after 15 minutes, the receiver is blocked on Channel 6 (4 on 22 MHz) until next traffic list.

Telex on Request

Paired frequencies:

Code 34646 (This is not definite since it must be allocated by UIT).

9PA:	8714 kHz	Ship:	8353 kHz
	13078.5 kHz		12498.5 kHz

Telephony: 0430 – 2030 UTC

Listening:	2182 kHz	2182 kHz
	4125 kHz	4125 kHz
	6215.5 kHz	6521.9 kHz
	8257 kHz	8780.9 kHz
	12392 kHz	13162.8 kHz

Telephony Short Wave: 0430 – 2030 UTC.

Traffic list at:

0430/0630	on 6521.9 kHz	– listening 6215.5 kHz.
0530/0830/1030/1530	on 8753 kHz	– listening 8257 kHz.
0730/0930/1430/1930	on 4419.4 kHz	– listening 4825 kHz.
1130/1630	on 13162.8 kHz	– listening 12392 kHz.
1230/1730	on 17294.9 kHz	– listening 16522 kHz.
1330/1830	on 22658 kHz	– listening 22062 kHz.

Telephony VHF: 0430 – 2030 UTC.

Channel 16. Simplex Channels. Duplex Channels.

Remarks:

1. Telephone connections are possible and Agent accepts telegrams in telephony.
2. Other available frequencies for telephony:

Banana Radio/9PA	*Ship*
4357.4 kHz	4063.0 kHz
4382.2 kHz	4087.8 kHz
8777.8 kHz	
8762.3 kHz	8238.4 kHz
13181.4 kHz	12410.6 kHz
17350.7 kHz	16577.8 kHz

3. Radio beacon continuous.

Frequency: 315 kHz. Call Sign: BAN.
Position: Lat. 05° 53' 24" S., Long. 12° 17' 48" E.
Power: 1kW.
Antenna: Omni-directional.
Range: 350 miles (daylight).

BRIDGES: *Bridge on River Zaire:* It is advisable to sound whistle on approaching bridge, to warn small canoes in the fairway.

FUEL: Must be ordered from Petrozaire at least 48 hours before required. Normally supply of gasoil, light and heavy fuel is effected at Banana between Buoys 12 and 14 ex-barges with: minimum quantity – 250 tons; maximum quantity – 800 tons (total barge quantity).

Smaller quantities can also be supplied in Matadi or Ango Ango.

STEVEDORES: The ONATRA (Office National des Transports) – public institution, has the monopoly of the handling, stevedoring and transit operations at the ports of Matadi and Boma.

At each berth the responsible "Pier Master" remains in constant contact with the Chief Officer during the whole operation.

Working shifts are as follows: 1st. shift: 0630 – 1430 hrs.; 2nd shift 1430 – 2230 hrs. overtime; 3rd shift: 2230 – 0630 hrs. overtime.

Work must be ordered the day before vessel's arrival. However, if gangs are available, work can still be ordered the day of vessel's arrival but latest at 0930 hrs. during week days.

In principle no work is done on Sundays, holidays and during the night. If required same has to be ordered by writing 1 working day in advance before 1000 hrs. Port Authorities will then decide according to the situation at that time.

According to the situation of the Port, the Authorities can also order labour 24 hours per day Sundays and holidays included.

At Boma there is no third shift – however on special request, work can eventually be granted until 2400 hrs.

At Matadi work during third shift will only be ordered upon special request from vessel.

For all stevedoring operations the use of shore cranes/dock labourers is compulsory. It is only in particular cases such as handling of containers/"heavy lifts" or prolonged (electrical) breakdowns that Port Operators can authorise use of vessel's equipment.

GENERAL: The following telex was received from an Agent in 1994.

Quote:

"Commercial calls for discharging and/or loading cargo in Zaire are subject to vessel's Owners and/or Operators, having been granted "Approved" status by Zairese freight office "Office Zairois de Gestion du Fret Maritime – OGEFREM", after signing a "Contrat d'Adhesion" and making U.S.$10,000 deposit as security for compliance with Zairese Maritime Rules.

Cargoes loaded abroad for discharge in Zaire are subject to a waiver to be obtained at port of shipment with the local OGEFREM representatives. The waiver is evidenced by "Attestation de Reservation de Cale – A.R.C.", copy of which together with a copy of the Freight Manifest must be remitted by the vessel's Agents to OGEFREM office in the Zairese port of discharge. Vessels carrying cargoes to Zaire without A.R.C. are imposed with a penalty of 20% of the freight which, if not paid immediately, is deducted from the deposit, and the Owners are invited to complete it to reach again U.S.$ 10,000, pending which the Owners "Approved" status is suspended and their vessel's calls are not authorised."

Unquote.

Quay Practices:

The Zaire courtesy flag must be hoisted by foreign ships during daytime.

In view of the proximity of the town, the use of whistles, sirens and similar signals is forbidden, except on special occasions.

Safety nets must be put between ship and quay at each of the working hatches and beneath the gangway.

No rubbish whatsoever may be thrown overboard.

Official Language:

The official language used by the Port Authorities and Administration is French.

Cargo plans:

According to ONATRA's instructions, stowage plans of ships calling at Matadi/Boma must be issued in such a way that they show clearly where all goods loaded for Matadi/Boma in several ports are located. This enables ONATRA to have, at once, a clear view of each vessel and to study, before ship's arrival, the discharging/loading possibilities.

Those stowage plans must reach Agent before ship's arrival.

Vessel's loading/discharging operations will only start during the next shift if stowage plans are remitted upon vessel's arrival. A request can be made to shift the vessel to a more convenient berth depending upon the cargo concerned.

With regard to cargo loaded, ONATRA does not issue stowage plans and Masters should consequently be instructed to draw up stowage plans themselves for transmission to corresponding discharging ports.

It is customary not to moor ships at Matadi/Boma between 2200 hrs. and 0600 hrs. They remain at anchor.

Important Notices:

In connection with manifests for Matadi/Boma cargo:

1. Liner Terms Cargo:

According to the General Rules and Tariffs stowing, unstowing, loading, discharging rates are applied on weight/measurement, whichever is the highest irrespective of the freight unit.

The Port Authority ONATRA instructs therefore that:

(a) The Freighted Manifest remitted to them must show three columns detailing respectively weight and volume and freight unit (freight tons) of each cargo/bill of lading.

(b) At the bottom of each page a summing up of tonnage/weight, tonnage/volume and freight units (freight tons) should be mentioned.

(c) The last page of the manifest shall contain a separate recapitulation of weight tons, volumes and freight units (freight tons) showing thus the respective totals of each item.

Corrections or additionals added by the Agent at Matadi/Boma by hand or with typewriter are not accepted by ONATRA.

ONATRA is fully implementing the regulations and, for vessels whose manifests are incomplete or incorrect, a penalty, which may reach 1,000% of the stevedoring costs (or 10 times) is charged.

2. F.I.O. Cargo:

The same information is to be supplied as for Liner Cargo but, in addition, the manifest and B/L must clearly mention that cargo is carried on free out terms.

BANANA: 06.01 S. 12.25 E.

DOCUMENTS: See "General" before first port.

APPROACHES: In view of the strong current, and in view of the fact that the lights of the navigation buoys on the river do not always work properly, night navigation is practically impossible. Tankers, therefore, arriving at night, or in times of congestion, are recommended to anchor approx. 5 miles West of Moita Seca Light in approx. 10 fathoms, about 12 miles from Stella Buoy.

PILOTAGE: River can be entered direct from sea in deep water. Pilot (not compulsory) will board vessel from 0600 hrs. with Authorities at Pilot Station located one mile South of Banana Point.

The position of the flare of the SOCIR Refinery at Moanda is:

Lat. 5° 57' 51" S.
Long. 12° 25' 07" E.

The flare is visible during day and night and may be a good bearing for vessels approaching river.

Sailing from "Stella Buoy" at 0600 hrs. vessels with a speed of up to 14 knots must pass Bulabemba before 1400 hrs. and vessels with speed in excess of 14 knots by 1500 hrs.

MAX. SIZE: Tankers up to 35 ft. draft may discharge at buoy moorings. Also see "Berthing – Commercial Port".

HEALTH: Quarantine Officer boards at sea buoy. Free Pratique usually granted as soon as Maritime Health Declaration completed. Valid cholera and yellow fever inoculations required for all crew members.

RADIO: *Tankers:* At least 3 days' notice required to Agent (ETA and draft only) and to Harbour Master, "Maritime Banana" (ETA only). It is necessary to transmit these notices via another shore station (e.g. Cape Town Radio, Libreville Radio, etc.), as the Banana Radio Station can only be reached 2 days prior arrival. Close advice on changes in ETA necessary to prevent delays in waiting for Pilot and lighters.

Radio Banana (9PA) – see "General" before first port for details.

BERTHING:

Commercial Port:

The commercial port consists of a landing space of approximately 2,000 sq.m. in front of a warehouse with approximately 2,500 sq.m. storing room.

ONATRA, the Port Authority, has no cranes and the port equipment is extremely limited. Any discharging and/or loading must therefore be done by ships' gear.

With a draft of more than 17 ft. (indicative) cargo operations to be performed at anchor between Buoys No. 12 and No. 14. Barges and gangs are then supplied on request.

With a draft of less than 17 ft. (indicative) vessel can berth at ONATRA wharf inside Banana Bay.

Length of the wharf: 75 m.

DENSITY: Brackish to salt.

FRESH WATER: Not available.

FUEL: Must be ordered 48 hours in advance from Petro-Zaire. Bunkering takes place between Buoys No. 12 and 14. Gasoil, light and heavy fuel oil available. Barge capacity 800 tons, minimum order 250 tons.

MEDICAL: Doctor available for emergency only. No dental or hospital facilities.

TANKERS: Tankers remain at anchor between Buoys No. 12 and 16 on the river, anchorage being agreed upon by the Master and the local suppliers' representative who will have received the advice of the Pilot. Since there is no mooring buoy and in view of the strong currents it is recommended to use both anchors while main engine to remain on standby.

Cargo Operations: Tankers discharge into/load from cargo barges moored alongside either side. These barges (three in total) have a capacity of 1,650 long tons or 2,050 cu.m. and can receive the cargo at a rate up to 400 t.p.h. Under normal conditions the refinery will handle these barges per shift of 12 hours. Cargo operations are effected continuously day and night during Sunday and holidays, in shifts from 0600 – 1800 hrs. and from 1800 – 0600 hrs.

Sailing: Tankers sail without Pilot and may leave any time.

Moanda Terminal: To notify his arrival, Master to call M.V. "Afran Zenith" by radio. Vessel will then proceed to single buoy mooring berth with following particulars:

Depth: 57 ft.
Position: Lat. 5° 57' 50" S.
Long. 12° 08' 19" E.

where loading will take place.

The storage tanker is moored in position:

Lat: 05° 57' 30" S.
Long: 12° 06' 00" E.

No tank-cleaning facilities. Barge available for dirty ballast reception limited to 2,000 cu.m. per trip which occasionally and on special request can be put at disposal by the refinery.

Also see "Shipmaster's Report".

REPAIRS: No facilities.

HOLIDAYS: See "Matadi".

SHORE LEAVE: Shore leave is presently not allowed due to lack of communications; only in urgent cases may a crew member join one of the refinery tugs. There is no entertainment whatsoever ashore.

GENERAL: During stay of tankers at anchorage the discharge and/or loading operations are constantly supervised by representatives of the refinery, who are to be accommodated on board and to be provided with meals.

SHIPMASTER'S REPORT: September 1985.

Location: Moanda Oil Terminal is operated by the Zaire Gulf Oil Company. It is located about 10 miles offshore from Zaire. It consists of a SPM in position Lat. 5° 57' 50" S., Long. 12° 08' 19" E. in about 75 ft. of water. Crude oil is transferred to the export tanker at the SPM from the storage tanker "Afran Zenith" of 95,185 d.w.t.

Wind and Swell: Wind and swell are mostly from a Southwesterly direction with a heavy swell from March to September. The tidal range in the vicinity of the berth is 6.9 ft. The current in the area is a composite of the effect of the general Northwesterly drift and the outflow of the Zaire River. This results in a current of 3 – 4 knots or more in a Northerly at Westerly direction. In view of the foregoing, Masters of vessels calling at the terminal are advised that under no circumstances are engine repairs permitted within terminal limits.

Communications: Vessels bound for Zaire are required to advise their ETA:

(a) Via COMSAT to Master m.v. "Afran Zenith" GZOL 1242403; or
(b) Via telex or radiogram to the main office of the vessel's Agent in Kinshasa who will pass over the information to Zaire Gulf Oil Company (ZAGOC) and to their local office at Moanda.

ETA messages to be sent 72, 48 and 24 hours before arrival at the terminal and should contain the following information:

(a) Name of vessel.
(b) ETA in GMT (Zaire time is GMT plus 1 hour).
(c) Name of Master.
(d) Estimated arrival draft, fore and aft and displacement.
(e) Time for discharging clean ballast, if any.
(f) If vessel proceeding to any port(s) prior to Moanda and if so delays anticipated.

A 24 hour watch is maintained on VHF Channel 16 on "Afran Zenith" and contact is usually possible at a distance of 20 – 30 miles.

Dirty Ballast: No facilities exist for receiving dirty ballast and all tankers must arrive with clean ballast.

Cargo Information: Oil loaded at the Moanda Terminal is Zaire composite crude with an average API of 31.5. The loading temperature will vary from 80°F – 85°F and is fairly steady throughout the year. The loading rate is about 30,000 bbls.p.h.

Approach to Anchorage/Mooring Master Boarding Area: If vessel is required to anchor, the recommended tanker anchorage is within a circle 0.5 miles in diameter and its centre is located in a position 5 miles due West of the SPM. Owing to the presence of oil wells and submarine pipelines vessels should not enter into the area bounded by lines joining the following positions:

(a) Lat. 05° 46.5' S., Long. 12° 12.5 E.
(b) Lat. 05° 49.5' S., Long. 12° 09.0 E.
(c) Lat. 06° 00.0' S., Long. 12° 09.0 E.
(d) Lat. 06° 00.0' S., Long. 12° 18.0 E.
(e) Lat. 05° 53.5' S., Long. 12° 18.0 E.

The ZAGOC Mooring Master Boarding Area is 3 miles due West (Lat. 05° 57.30' S., Long. 12° 06' E.) of the storage tanker "Afran Zenith"or boarding will be at the anchorage as appropriate.

Accommodation: During vessel's stay at the terminal the Mooring Master, Loading Master, Agent, Surveyor and 4 men for the hose gang will stay on board.

Mooring Arrangements: Mooring operations are only undertaken by day under normal weather conditions. Unmooring operations can be undertaken at any time. The following preparations are required on the export tanker:

(a) 4 mooring ropes, minimum length 220 m. and size 9 in., buoyant lines if possible e.g. polypropylene, in good condition.
(b) 2 suitable heaving lines of appropriate length.
(c) 2 mooring lines aft for securing a tug to realign the vessel to the buoy if necessary.

Hose Connections: 1×16 in. hose is connected to the ship's manifold.

Bunkers: Not available.

Fresh Water: Not available.

SHIPMASTER'S REPORT: April 1987.

Vessel discharged at Banana and Ango-Ango.

Approaches: Wide open with very deep water approach. Vessels can anchor at either side of the river mouth in 20 fathoms. Pirates do not appear to be a problem. The very small amount of traffic using the Congo indicates that there will be no problems with regard to crowded anchorage.

Pilotage: River passage is during daylight hours only. The Pilot boards off the Banana Creek Channel, and the lightening anchorage is between Buoys No. 12 and 14, however No. 12 Buoy is missing. A secondary anchorage is between Buoys No. 16 and 18, abeam of Crique Ariel Beacon. Both anchors with about 7 or 8 shackles will be used in either anchorage. The current is always out-flowing, so there is no fear of a fouled hawse on this visit. This vessel tried to anchor in the first anchorage, (vessels normally try the first anchorage, so as to be that much nearer to Banana for the lighters). Vessel started dragging anchors, so we hove up and moved into the second anchorage.

Officials: 14 officials boarded the vessel.

Documents:

8 copies Crew List.
6 copies Passenger and Mail List.
6 copies Stowaway List.
4 copies Cargo Manifest.
4 copies Ullage Report from Last Port.
6 copies Kroo Boy List.
6 copies Arms and Ammunition List.
6 copies Narcotics List.
6 copies List of Ports Visited.

Discharge: Lightering only at Banana.

The amount of lightering depends on the water available in the dredged sections further upstream, (all the cargo lightened has eventually to be taken up to Ango-Ango by the lighters).

On this occasion, we had to off-load into 5 lighters, to come up to 23 ft. draft (max. permissible draft up-river at this time). Only 1 tug was available so this meant 3 trips. No unloading took place between midnight and 0800 hrs. the next morning.

One pump was used, discharging to 1 barge each side simultaneously. The tug takes 2 barges at a time back to banana.

Passage to Banana and Ango-Ango: The passage to Banana takes 6 to 7 hours, and if vessel cannot arrive at Ango-Ango before 1700 hrs., then vessel will anchor at Boma. All passages take place during daylight hours.

The continuous outgoing river current can vary from 3 knots up to 6 – 7 knots, depending on rainy or dry season.

From Banana to Buoy No. 24, there is plenty of water and room to manoeuvre, etc. although it should be emphasised that here are very few aids to navigation which can be relied upon. The buoys throughout the river passage are very doubtful as to their position (they may have been moved as the channel moves, but no Notice to Mariners issued). The strength of the river current must make the mooring of these buoys very difficult, also many of them consist of oil drums fastened together.

There is a narrow channel section (dredged in parts) from Buoy position No. 46 to Buoy No. 78. Part of the new channel veers away from the dotted line on the chart, and goes off to the West of "Archipel des Tortues", up what appears on the chart to be a narrow creek. From here on there is no visual chart indication of where you are going. In the narrow parts there may be 2 buoys (oil drums) to go between, but even so there are quite a few severe turns. so there are quite a few severe turns.

From Buoy No. 86, you are back in soundings and there is plenty of water up to Boma. The Pilot changes at Boma.

We anchored overnight at Boma. The anchorage is opposite Boma town and is in a quiet stretch of water out of the current. Only one anchor is used (4 shackles), and as the current flow is always in the same direction, there is no reverse of heading, so although you are close to the South side of the river, the only problem will be if there is a sudden change of wind during one of the passing tropical downpours.

The passage from Boma to Ango-Ango is all in deep water, and is comparatively wide, although there is the occasional whirlpool, and navigation aids are sparse with a rocky shoreline.

Ango-Ango Berth Approaches: The approach is straightforward, although there are no mooring launches or tugs. The berth itself is in slack water. Normally, the vessel is put slightly ahead and off the berth, and the port anchor is dropped, with 3 shackles. The bow is then manoeuvred into the berth using engines and anchor, then head lines are sent ashore via shore messengers (the headlines may look like breast lines, and the breast lines like half springs), but be sure to get the correct lines as per plan (See "Plan"), they appear to have set messengers for each shore bollard, no springs are allowed on to the pontoon. The after lines are also sent via messengers, so be sure to organise with the Pilot as to which sequence is required, especially the springs being sent from aft, and the breast lines from the main deck.

Documents at Ango-Ango: The same number of documents as required at Banana are again required in Ango-Ango.

Discharge: The discharge is made via 2 sets of 2 × 6 in. lines connected via shore supplied "Y" pieces connected to ship's 8 in. manifolds. Both jet fuel and MOGAS were discharged simultaneously.

The departure is fairly straightforward, heaving off on the anchor, and there is plenty of room to swing vessel round in, especially with the bow being out in the current, and the stern in comparatively slack water.

The passage down river is, of course, much quicker with all the current with you.

AUTHORITY: Office National des Transports, ONATRA.

AGENT: See "Matadi".

BOMA: 05.51 S. 13.03 E.

DOCUMENTS: See "General" before first port.

PILOTAGE: Port is situated on the right bank of river, about 44 miles above Pilot Station at Banana.

Radio "Maritime Banana" 24 hours prior arrival giving ETA at Banana and requesting Pilot. Sailing for Banana from 0600 hrs. till 1600 hrs. Sailing for Matadi from 0500 hrs. till 1600 hrs.

RESTRICTIONS: Depth at bar 30 ft. Permissible draft for navigating river varies between 20 ft. to 27 ft. according to local conditions and should be checked with Port Authority in advance.

HEALTH: Quarantine Officer boards on arrival. All crew members require valid cholera vaccinations and yellow fever inoculation certificates.

TUGS: 2 tugs of 200 and 300 h.p. available to assist berthing.

BERTHING: Total quay length 450 m. with 3 berths alongside. Depth of water at the quay, 8 m. at low water. Maximum current at the berths is 3 knots.

STEVEDORES: See "General" before first port.

Port Equipment:

6 electric cranes on rails, capacity 3 – 6 tons.
2 steam cranes on rails, capacity 7.5 ton at 6 m. (5.0 ton at 10 m.).
5 banana conveyors.
1 electric crane, capacity 6 tons.
8 forklifts.
5 tractors and 40 trailers and carts.
1 Palm kernel elevator.
1 Automatic grab.
2 Hyster carry cranes.
7 barges, capacity 100 tons.
1 pontoon, capacity 75 tons.

FRESH WATER: Available from quays, suitable for drinking.

FUEL: See "General" before first port.

MEDICAL: Doctors and hospital facilities available.

REPAIRS: No facilities.

HOLIDAYS: See "Matadi".

GENERAL:

Exports: Logs and timber, plywood, veneerwood, coffee, cocoa, rubber, bananas, palm kernels, oils, cakes, about 8.8% of the total exports of the Zaire.

Imports: Various. About 2.5% of the total tonnage imported into Zaire.

Current at Quays: The currents of the river vary from berth to berth and depend upon the low and high level of the water with sometimes adverse currents and still waters.

Maximum speed at high level: 3 knots.
Minimum depth at the lowest level: 8 m.

AUTHORITY: Office National des Transport – ONATRA.

MATADI, (including Ango-Ango): 05.49 S. 13.27 E.

(See Plan)

DOCUMENTS: 7 days before arrival of vessel the following must be in the hands of the Agent:

4 Manifests (detailing explosives, general cargo, heavy lifts).
3 Stowage Plans.
6 copies of Bills of Lading.
1 Freighted Manifest.

On arrival:

Maritime Declaration.
Ship's Register.
3 Crew Personal Effects Lists.
2 Stowage Plans.
1 Freighted Manifest.
3 Lists of Ports of Call.
7 Passengers Landed.
7 Passengers in Transit.
5 Crew Lists.
5 Kroo Boys Lists.
2 Provisions Lists.
4 Individual Manifests.

PILOTAGE: Compulsory for vessels over 500 g.r.t. Radio "Maritime Banana" 24 hours prior arrival giving ETA at Banana and requesting Pilot. Pilot boards at Banana Pilot station. Distance from Banana to Matadi about 75 miles. Sailing for Banana from 0600 hrs. – 1300 hrs./1400 hrs., depending on vessel's speed. Deadline for passing Boma 1600 hrs. Sailing for Boma from 0500 hrs. – 1600 hrs.

RESTRICTIONS: Depth at bar 30 ft. Permissible draft for navigating Zaire River varies between 20 ft. and 27 ft. according to local conditions and should be checked with the Port Authority 3 days in advance. Berthing at Ango-Ango up till 1800 hrs. only.

MAX. SIZE: Controlled by draft in river. Max. draft Berth No. 1 is 23 ft. – 24 ft.

HEALTH: Quarantine Officer boards on arrival. All crew members require valid cholera and yellow fever inoculation certificates.

TUGS: "Viva" 1,700 h.p., "Inga" 850 h.p., "Boma" 250 h.p., "Banana" 600 h.p. and "Soyo" 220 h.p.

BERTHING: At Matadi. Total length 1,728 m.

Pier 1 – 149 m.
Pier 2 – 161 m.
Pier 3 – 155 m.
Pier 4 – 158 m.
Pier 5 – 156 m.
Pier 6 – 176 m.
Pier 7 – 188 m.
Pier 8 – 149 m.
Pier 9 – 167 m.
Pier 10 – 143 m.

Piers No. 5, 6 and 7 for full container vessels.
Minimum depth at Piers 8 and 10 is 10 m.
In addition there is a berth length 400 m. for barges.

At Ango-Ango: Length of pier 150 m. Presently used for discharging and loading flammable goods and explosives.

UNLOADING RATE: 800 tons to 1,000 tons of general cargo per day of 3 shifts.

CRANES:

44 Cranes (Electric and hydraulic) on rails	3 – 6 tons	
1 Derrick Fixed	*50 tons	(Pier 4)
1 Bridge Crane	5 tons	
6 Electric Cranes	3 – 6 tons	
2 Electric Cranes	10 tons	
3 Electric Cranes	6 tons	
1 Floating Crane	14 tons	

*Actual capacity 34 tons.

BULK HANDLING FACILITIES: Palm oil is stocked by 4 companies in Matadi, 3 of which have pipelines to a main quay. The palm oil installations of CCP are at Ango-Ango where ships must berth at Sep Zaire pier. Vessels handling Sep Zaire cargoes are given priority at this pier and in case of unavailability of berth, palm oil would be loaded by barge of 260 tons capacity at Matadi.

Palm kernel oil is also loaded at Berths No. 2 – 9 and Palm Oil at Berth Nos. 2 – 8 in Matadi.

P.L.Z. (Plantations Lever au Zaire) capacity	13,450 tons
AMATO-Freres	3,700 tons
MADAIL	2,340 tons
C.C.P.	3,627 tons

Cereals discharged by suction at Berth No. 9. Rate 1,000 t.p.h.

BARGES/EQUIPMENT:

Barges:

2 Pontoons N.T. 41 tons each
8 Pontoons N.T. 75 tons each
1 Lighter N.T. 91 tons
2 Lighters N.T. 99 tons each
1 Tankbarge N.T. 279 tons
19 Lighters N.T. 339 tons each
1 Lighter N.T. 438 tons
11 Lighters N.T. 487 tons each
1 Lighter N.T. 514 tons
1 Lighter N.T. 522 tons
10 Lighters N.T. 557 tons each
2 Landing craft 875 tons each

Equipment:

28 Tractors and 242 trailers and carts
71 Forklifts with a maximum capacity of 2,500 kilos
2 Roller bridges 30 tons
3 Fork conveyors
34 Platforms × 20 ft.
6 Platforms × 40 ft. (Unilock)
1 Pushwagon tractor
Grain Elevators (Midema)

DENSITY: Fresh water.

STEVEDORES: See "General" before first port.

MEDICAL: Doctors and hospital facilities available.

TANKERS: Discharge at Sep Zaire pier at Ango-Ango or Matadi. If lightening necessary before berthing, this can be effected at Ramler Buoy, 17 miles above Banana. No tank-cleaning facilities. No fresh water. Also see "Shipmaster's Report" dated September 1990.

FRESH WATER: Delivery aboard the ship through valves and at each pier. Maximum daily capacity 200 tons. Delivery takes place according to the quantity asked for and usually during night.

Delivery cannot be done at the loading berth of Sep Zaire at Ango Ango.

Suppliers need 48 hours' notice. It is therefore highly recommended that Masters cable their needs well in advance to Agent and/or through Owners.

FUEL: See "General" before first port.

GANGWAY/DECK WATCHMEN: Recommended.

Piracy: Acts of piracy have taken place in the port.

REPAIRS: Small repairs possible at railway workshop.

HOLIDAYS: *Legal Holidays in Zaire (Dates may vary):*

1st January	New Year's Day
4th January	Martyrs of Independence
1st May	Labour Day
20th May	Anniversary of the M.P.R.
24th June	Money Day
30th June	Independence Day
1st August	Parents' Day
14th October	Zaire Youth Day
27th October	Zaire Day
17th November	Army Day
24th November	Anniversary of the New Regime
25th December	Christmas

GENERAL: *Currents at the quays:*

The currents of the river vary from berth to berth and depend upon the high and low levels of the water with sometimes adverse currents and still waters. Difference between high and low level of the river is approximately 5.50 m.

Maximum speed at high level: 6 knots.

Minimum depth at lowest level: Minimum 8 m. at low water and minimum 10 m. at low water at the new Kala Kala quays.

Exports: Logs and timber (plywood, veneerwood), coffee, cocoa, rubber, copal, bananas, manioc, groundnuts, palm kernels, oils, cakes, fibres, cotton and copper.

Port Equipment and Accommodation: Matadi is the only Zaire port handling the despatch of export products originating from the interior and the import of products destined to Zaire (excluding Boma which is of minor importance and only serves the Mayumbe area).

About 90% of the tonnage in – and outward goes through Matadi at the head of the S.N.C.Z. railroad from Matadi to Kinshasa. The latter locality being a handling and concentration centre of the goods directed to or coming from Matadi.

SHIPMASTER'S REPORT: January 1981.

Documents and papers required on arrival Matadi:

7 Crew Lists.
2 Maritime Declarations of Health.
7 Passenger Lists (even if nil).
5 Ports of Call Lists.
4 Arms and Ammunitions Lists (even if nil).
4 Narcotic Lists.
3 Stores Lists.
2 Crew Customs Declarations.
1 Vaccination List (Cholera/Yellow Fever).
4 Animal List. (even if nil).

Following documents have to be shown to the Port Authorities:

Classification Certificate.
Ship's Register.
Derat Certificate.
Certificate of Tonnage Measurement.
Cargo Ship Safety Construction Certificate.
Cargo Ship Safety Radio-telegraphy Certificate.
Cargo Ship Safety Equipment Certificate.
International Load Line Certificate.
The official Log Book of the vessel and the Articles.

The number of crew written in the Crew Lists will be checked with the entries in the Articles.

Shore Leave: Each crew member receives a shore pass without particulars, which has to be returned before departure of the vessel. Fines will be imposed if shore leave pass is lost.

SHIPMASTER'S REPORT: August 1982.

As far as I could ascertain the only point in the Congo River where one can expect currents of 12 knots is in the "Devil's Cauldron" between Matadi and Ango-Ango. The rainy season is Jan./Feb. and the dry season June/July. The average current in the rainy season is 4 knots and in the dry 3 knots.

Tankers and other vessels who clear at Banana generally must go through the same procedure again at Ango-Ango or Matadi. A complete set of papers is expected as though it is the first entry into the country.

SHIPMASTER'S REPORT: September 1990.

Ango-Ango: Vessel discharged refined oil products.

There was no attempted theft whilst in this port. The people are as friendly as one could wish to meet, and having been ashore over the weekend, the "run ashore" could be described as excellent without any risk of violence, to any crew member. The Port Authorities and Officials, though numerous, were efficient and helpful, as were the Agent and the plant personnel. The plant itself was well run and efficient.

On arrival off Zaire, the vessel had to wait 5 days whilst cargo payment was finalised. This problem is, I believe, not uncommon.

Due to entries in the Pilot Book supplement, the vessel stayed offshore, in case of piracy. This is in fact wholly unnecessary, and on confirmation of entry we went into anchor.

I anchored about 2.5 miles West of Moita Seca. It is the end of the dry season at present. I estimated current was running at between 3 knots and 4 knots in the river, but at this anchoring position, there was little or no current. Good holding ground was found here in about 50 ft. of water.

Pilot boarded off Banana Creek at exactly 0600 hrs. There were no formalities conducted here. Vessel berthed at 1500 hrs. Our charts were corrected up-to-date, but the rapid changes of the river meant that the channel, as shown on B.A. Chart No. 634, has altered completely, and is doing so all the time. The channel was well buoyed, Pilots are Belgium trained and of good standard. Pilots change at Boma both inbound or outbound, but, I believe, will do the entire pilotage when a shortage of pilots exists.

The Ango-Ango Terminal is managed by a former Belgium ship's master, who is friendly and very helpful. Having read the entry in the "Guide", he informed me that he can supply all grades of bunkers. The pontoon system at the berth is the same, there is little strength to the current at the berth, though a counter current exists, causing sets off the berth. Berthing was much easier than I anticipated, though the ropes had to be tied together to reach the shore. The boatmen have a winch system to pull the vessel's ropes ashore, two at a time. Vessel made fast with 2 head ropes, springs, and 2 stern lines and springs. There was no problem with the vessel whilst alongside, due to the strong current in the river.

Fresh water was available by meter from the shore, but we were advised that it had to be boiled prior to drinking.

Pilotage is only by daylight. On departure, vessel must leave the berth by 1300 hrs., or wait till daylight the following day.

Fresh stores were abundant, other stores were available, including meat of a good standard. However, a lot of items are expensive. A chandler is available, but if there is time, I would suggest purchase of stores direct from Matadi market.

Discharge of oil products was about 300 tonnes per hour, but lube oil was slow with a high back pressure, and a discharge rate at times of only 80 cu.m./hr. was obtained.

Communications are poor. We had to keep owner's informed by the ship's telex. At no time were we, prior to arrival, able to communicate with Zaire by telephone or telex.

ETA, arrival details, etc. were passed by telegram to Banana Radio on 500 kHz., this station seeming only to be in range 3 days prior to arrival. However, this route seemed to be successful. I am informed that any telephone contact with Europe is impossible. Banana Radio will only pass messages.

Agent's Notice:

1. *Documents required from Master on Arrival:*
   - (A) Clearance of the last Port of Call.
   - (B) 7 copies Crew List.
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     - Derat Exemption Certificate.
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3. *To be filled/signed by Master:*
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   - 1 set of "Arrival Conditions".

AUTHORITY: Office National des Transports – ONATRA, Port of Matadi. *Telex:* 21017 Onatra ZR. *Contact:* Port Director.

AGENT: Agetraf S.Z.A.R.L., Avenue de l'Equateur 87, B.P. 8834, Kinshasa, Zaire. Tel: 12-2166/68. Telex: 21027. Fax: 12-43547.

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anchored about 2.5 miles West of Moita Seca. It is the end of the dry season at present. I estimated current was running at between 3 knots and 4 knots in the river, but at this anchoring position, there was little or no current. Good holding ground was found here in about 50 ft. of water.

Pilot boarded off Banana Creek at exactly 0600 hrs. There were no formalities conducted here. Vessel berthed at 1500 hrs. Our charts were corrected up-to-date, but the rapid changes of the river meant that the channel, as shown on B.A. Chart No. 634, has altered completely, and is doing so all the time. The channel was well buoyed, Pilots are Belgium trained and of good standard. Pilots change at Boma both inbound or outbound, but, I believe, will do the entire pilotage when a shortage of pilots exists.

The Ango-Ango Terminal is managed by a former Belgium ship's master, who is friendly and very helpful. Having read the entry in the "Guide", he informed me that he can supply all grades of bunkers. The pontoon system at the berth is the same, there is little strength to the current at the berth, though a counter current exists, causing sets off the berth. Berthing was much easier than I anticipated, though the ropes had to be tied together to reach the shore. The boatmen have a winch system to pull the vessel's ropes ashore, two at a time. Vessel made fast with 2 head ropes, springs, and 2 stern lines and springs. There was no problem with the vessel whilst alongside, due to the strong current in the river.

Fresh water was available by meter from the shore, but we were advised that it had to be boiled prior to drinking.

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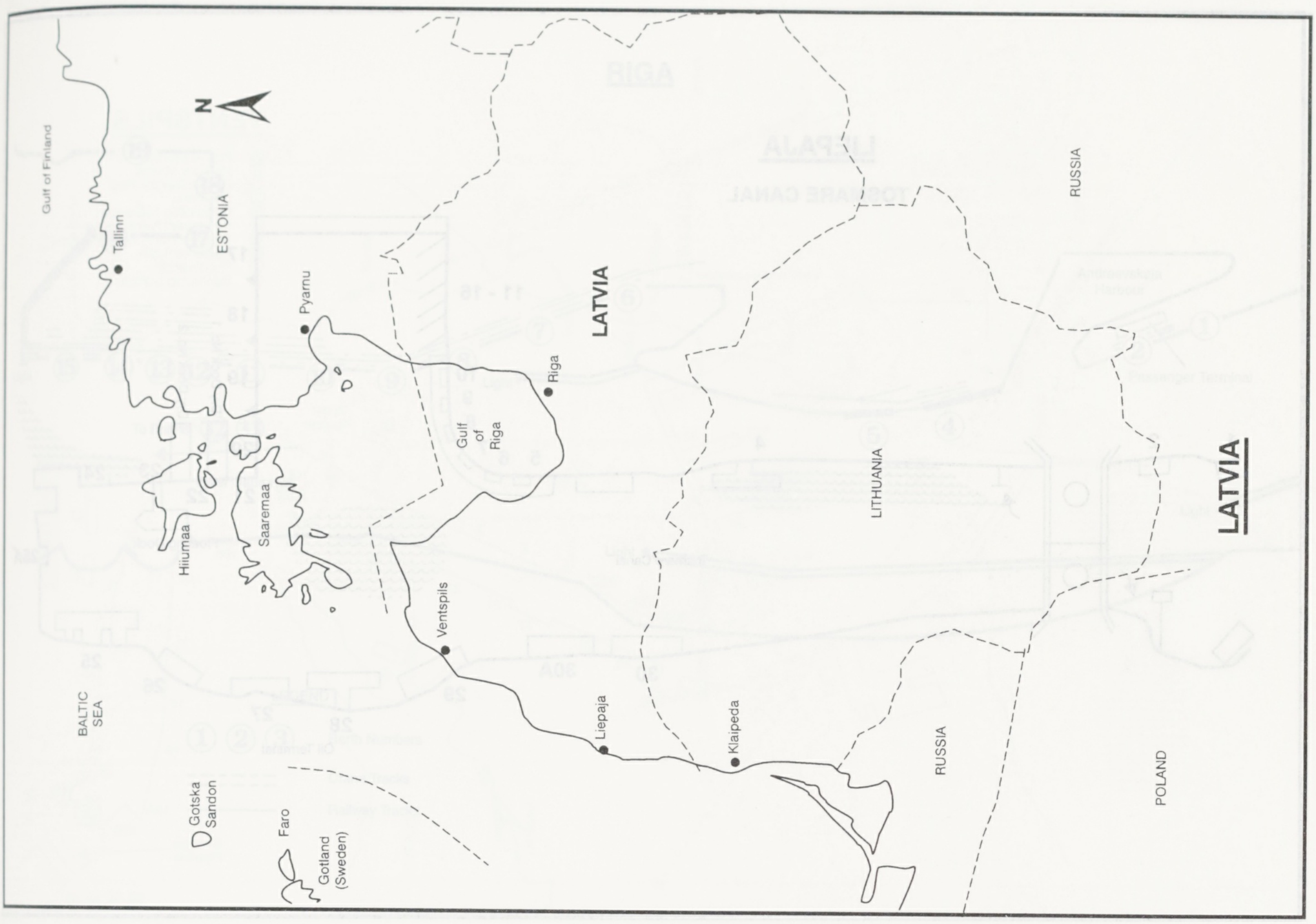
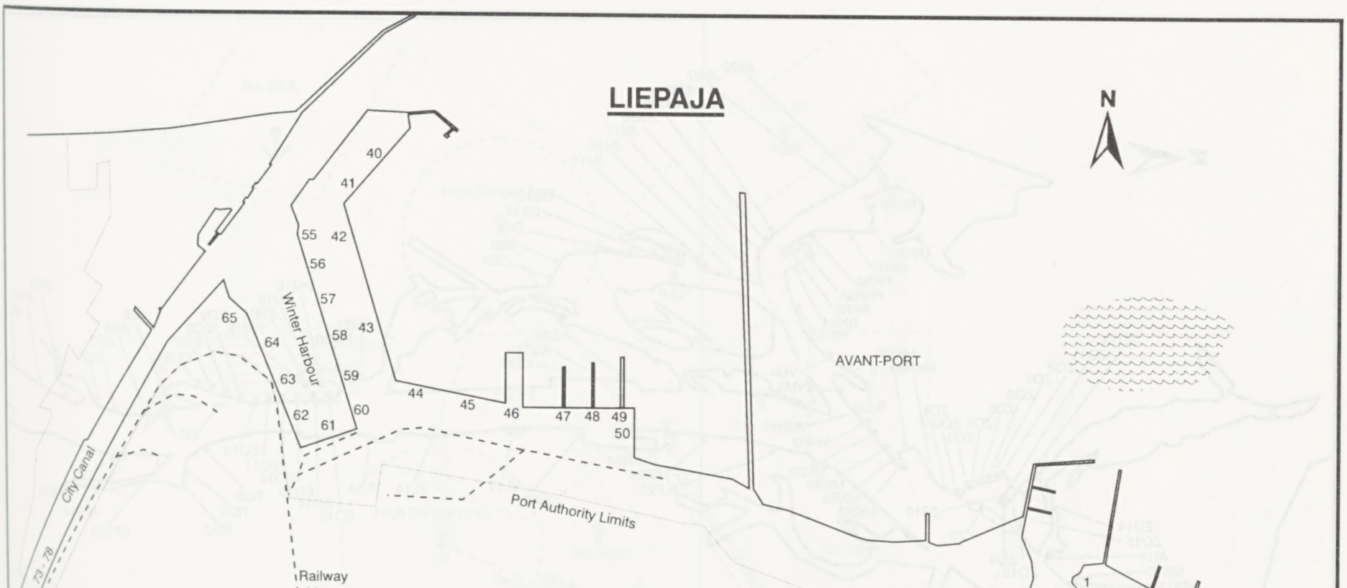
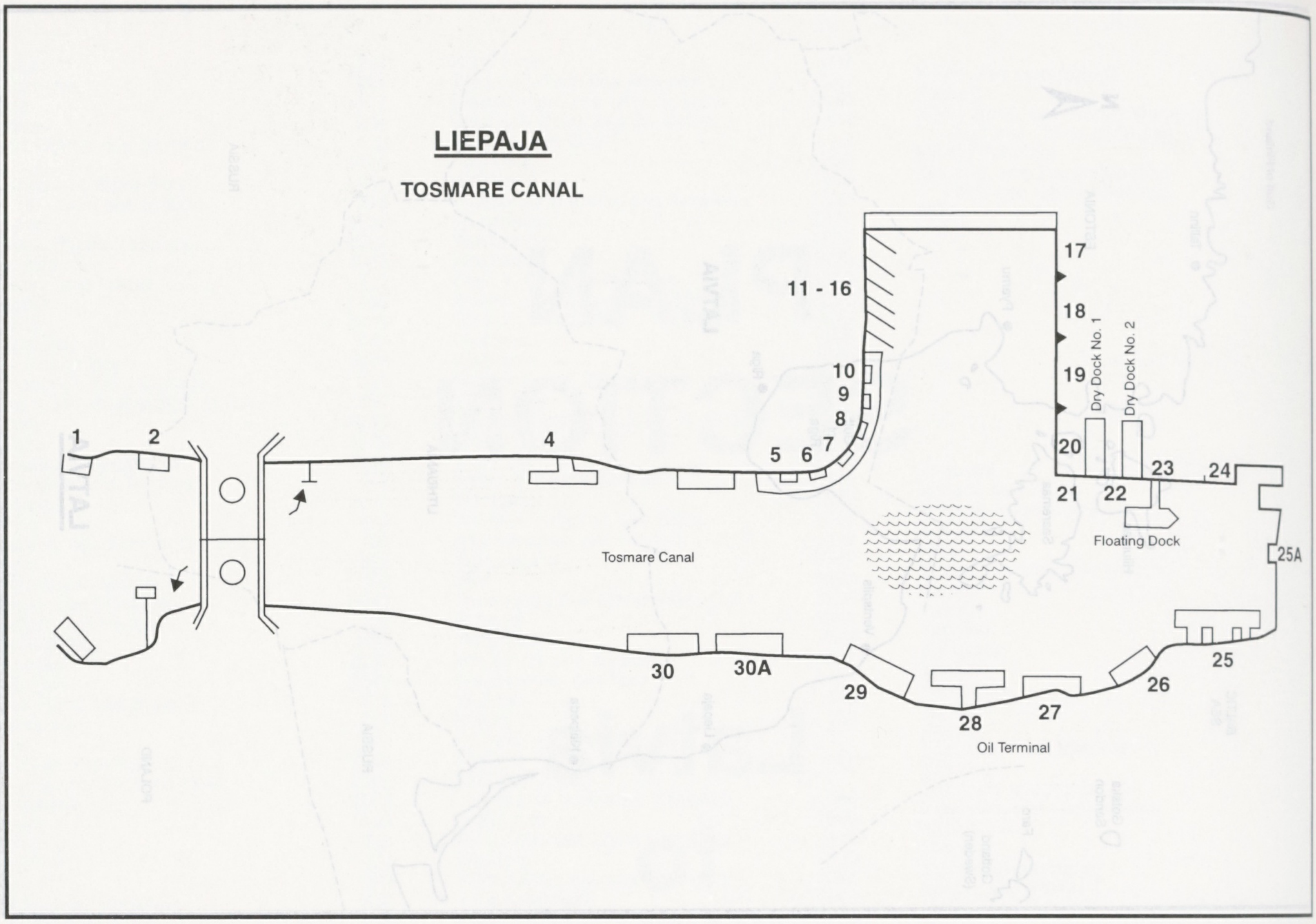
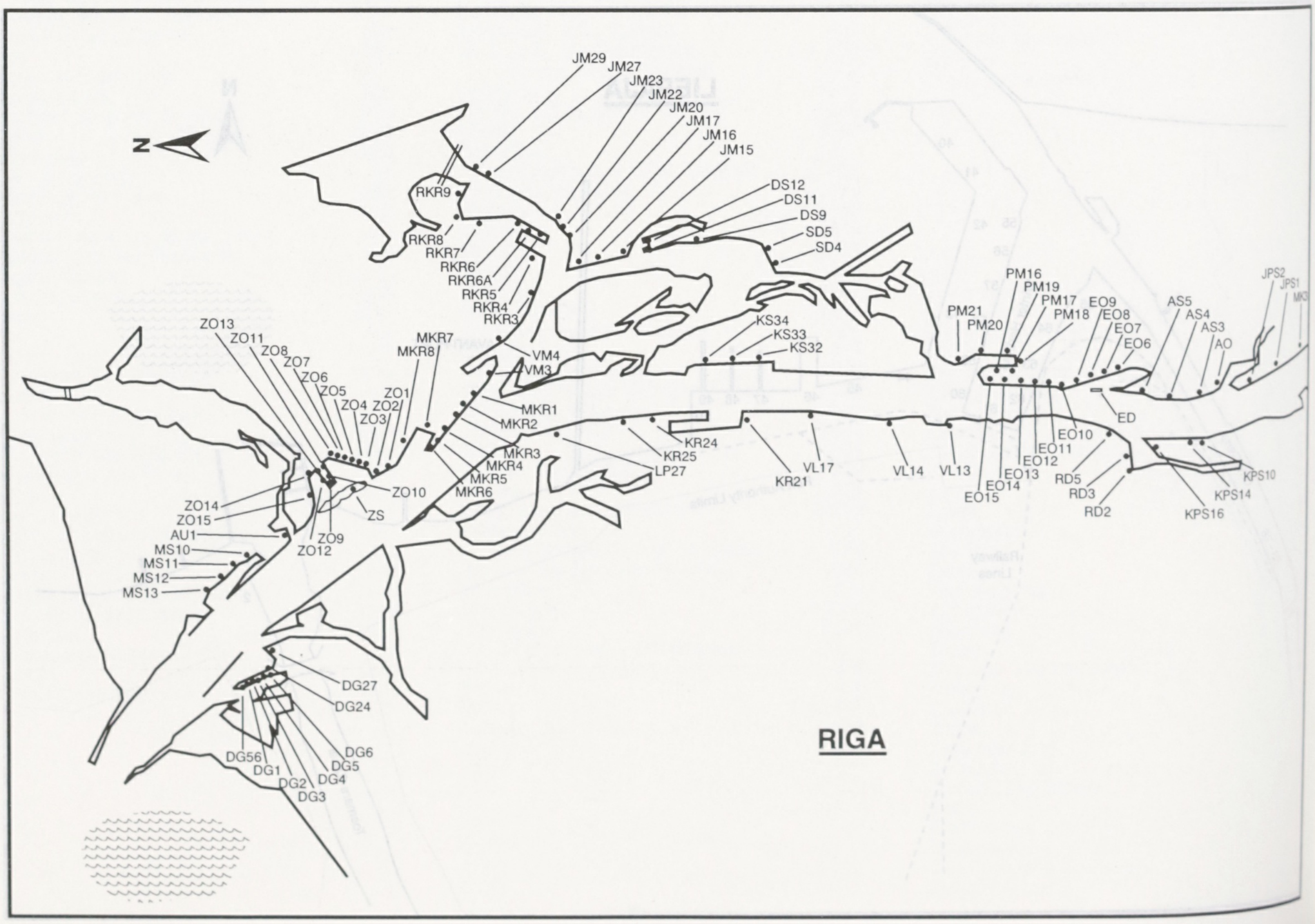
PLAN SECTION

Latvia
to
Zaire

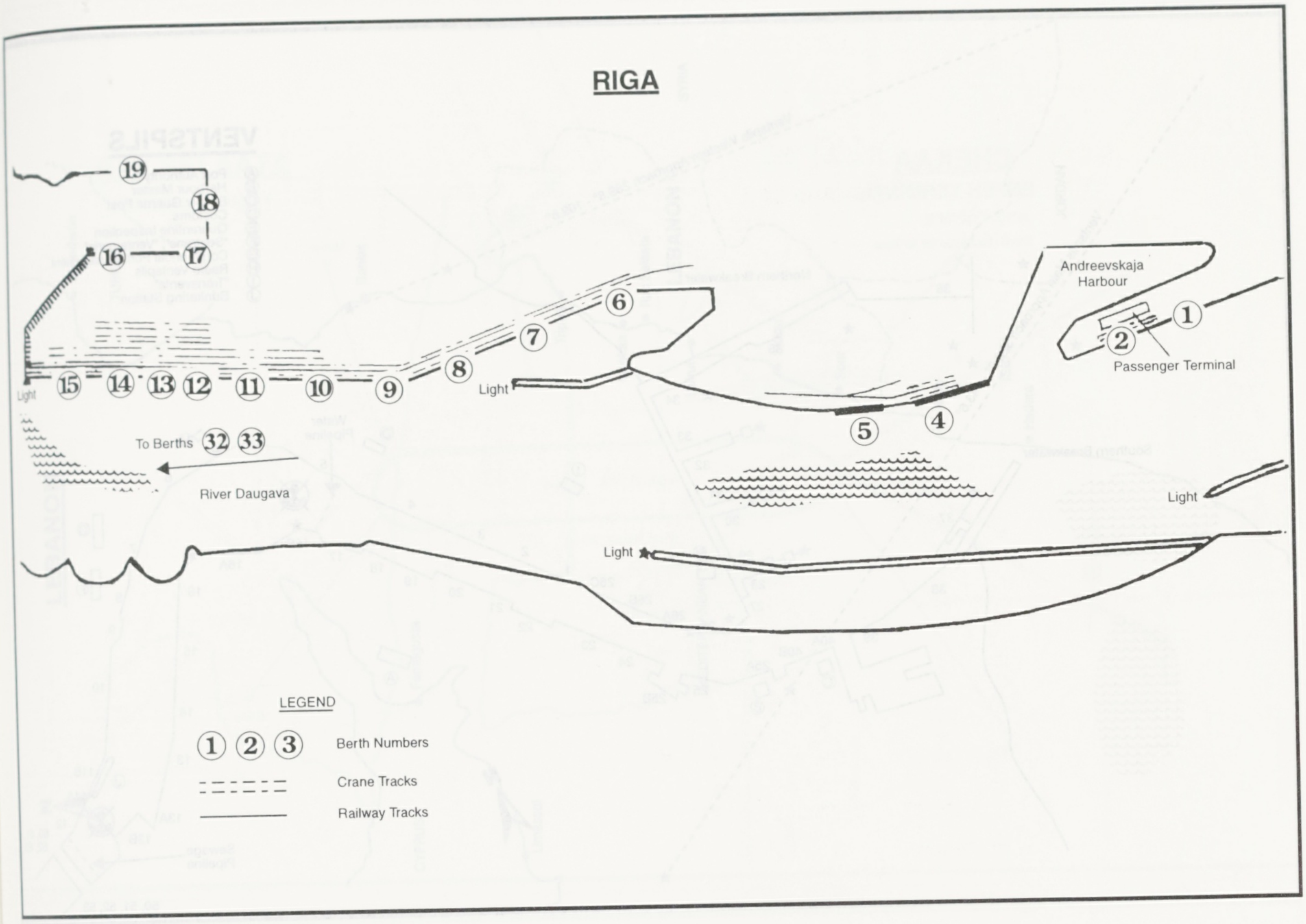

LATVIA
N
Gulf of Finland
Tallinn
ESTONIA
Pyarnu
LATVIA
RUSSIA
Riga
Gulf of Riga
Saaremaa
Hiiumaa
Ventspils
Liepaja
Klaipeda
LITHUANIA
RUSSIA
POLAND
BALTIC SEA
Gotska Sandon
Faro
Gotland (Sweden)

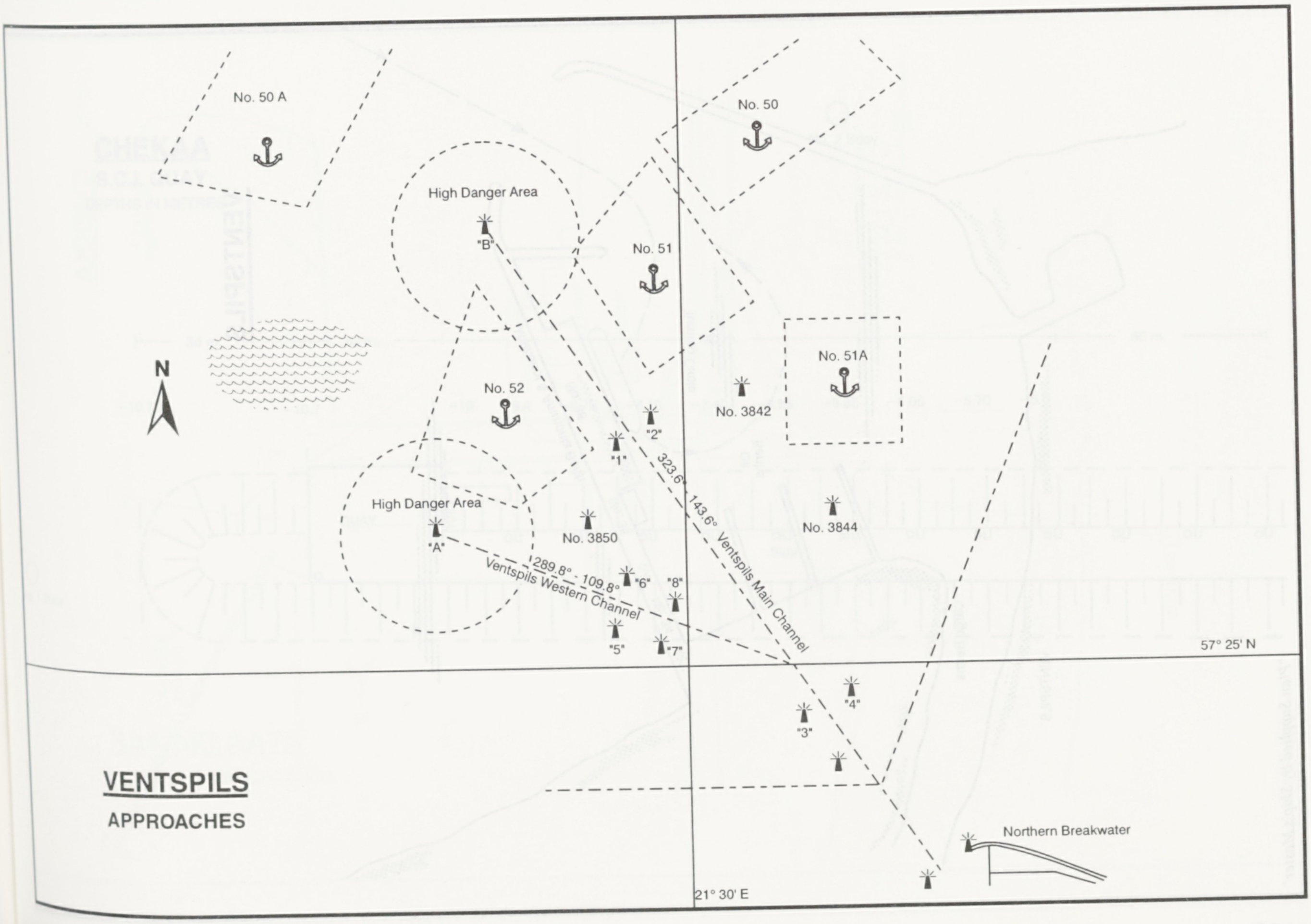

LIEPAJA
N
40
41
55
42
56
57
Winter Harbour
65
58
43
64
59
63
60
62
61
44
45
46
47
48
49
50
AVANT-PORT
Port Authority Limits
City Canal
73 - 78
Railway Lines
1
2
Tosmare Canal

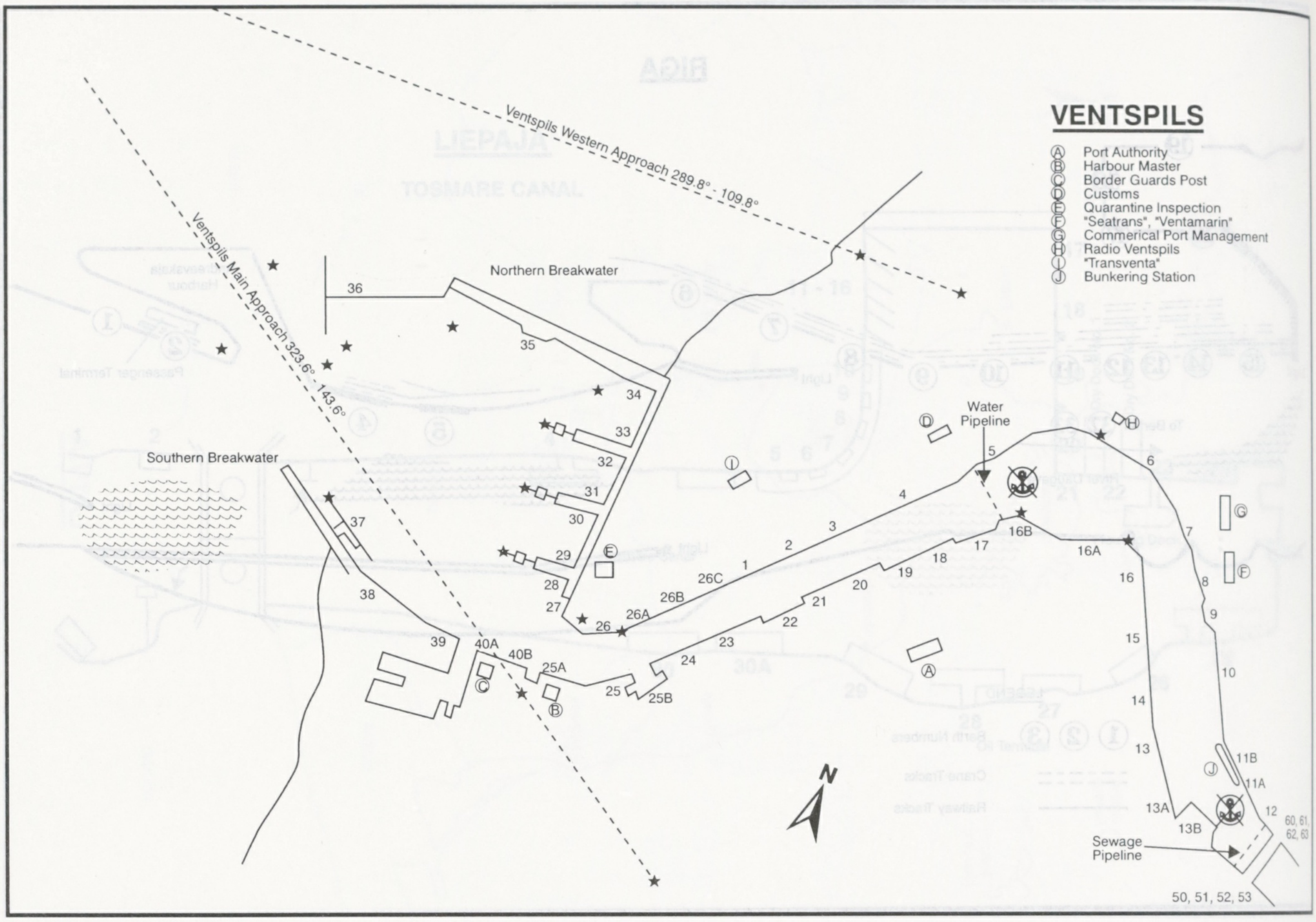

LIEPAJA
TOSMARE CANAL
1
2
4
5
6
7
8
9
10
11 - 16
17
18
19
20
Dry Dock No. 1
Dry Dock No. 2
21
22
23
24
Floating Dock
25A
25
26
27
28
Oil Terminal
29
30
30A
Tosmare Canal

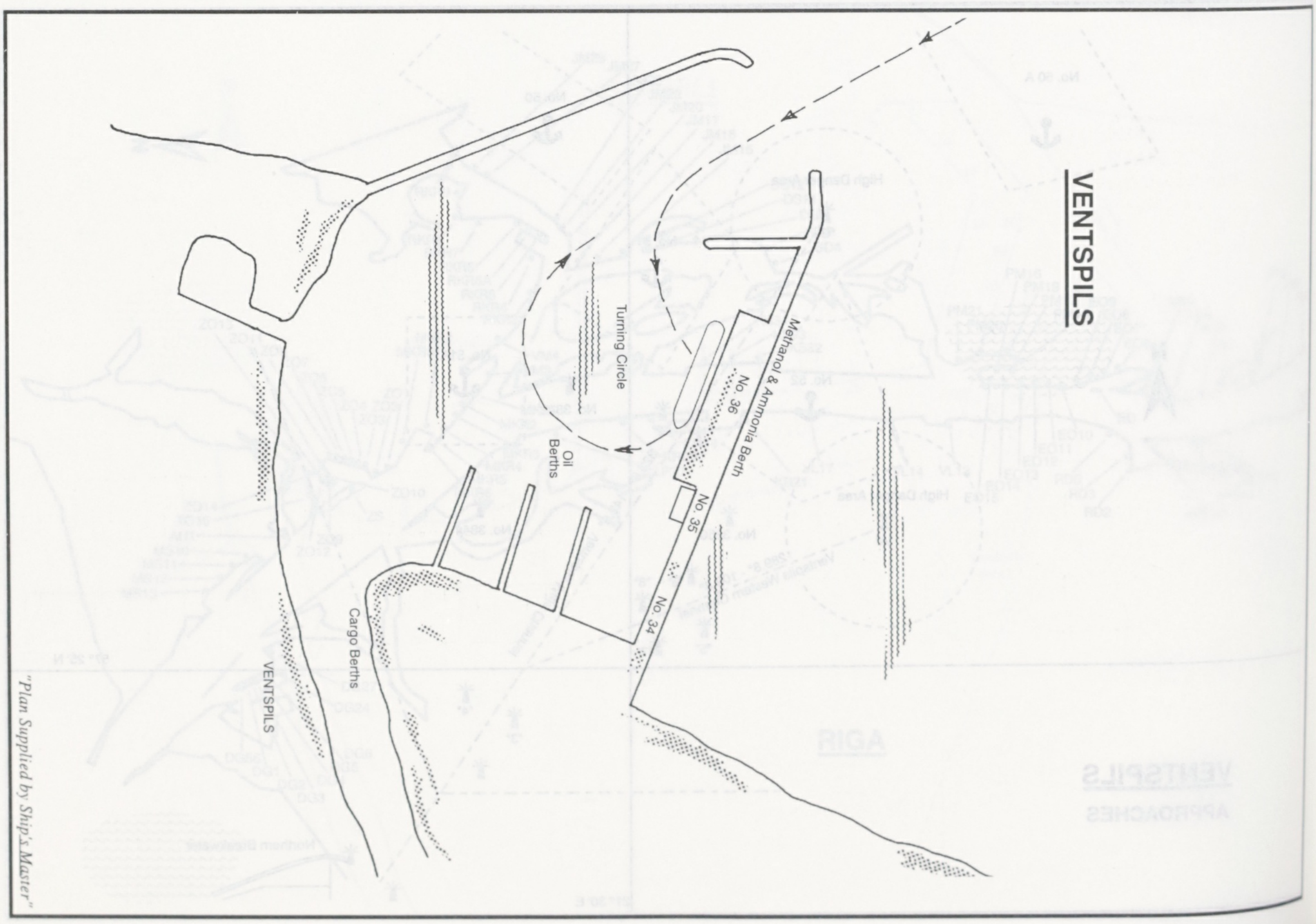

N
JM29
JM27
JM23
JM22
JM20
JM17
JM16
JM15
RKR9
RKR8
RKR7
RKR6
RKR6A
RKR5
RKR4
RKR3
DS12
DS11
DS9
SD5
SD4
KS34
KS33
KS32
MKR7
MKR8
VM4
VM3
MKR1
MKR2
MKR3
MKR4
MKR5
MKR6
KR24
KR25
LP27
KR21
VL17
VL14
VL13
ZO13
ZO11
ZO8
ZO7
ZO6
ZO5
ZO4
ZO2
ZO1
ZO3
ZO10
ZS
ZO14
ZO15
AU1
ZO9
ZO12
MS10
MS11
MS12
MS13
DG27
DG24
DG56
DG1
DG2
DG3
DG4
DG5
DG6
PM21
PM20
PM16
PM19
PM17
PM18
EO9
EO8
EO7
EO6
EO10
EO11
EO12
EO13
EO14
EO15
ED
AS5
AS4
AS3
AO
JPS2
JPS1
MK3
RD5
RD3
RD2
KPS10
KPS14
KPS16

RIGA


RIGA
19
18
16
17
15
14
13
12
11
10
9
8
7
6
Light
Light
Andreevskaja Harbour
1
2
Passenger Terminal
5
4
To Berths 32 33
River Daugava
Light
Light
LEGEND
① ② ③ Berth Numbers
Crane Tracks
Railway Tracks

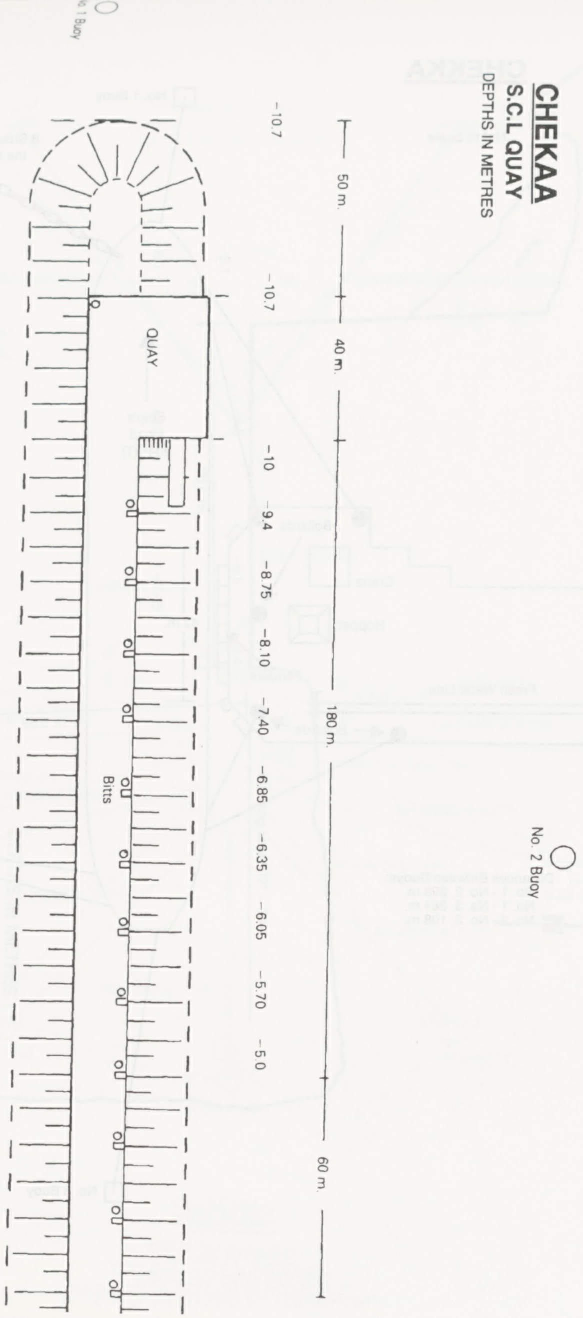

No. 50 A
No. 50
High Danger Area
"B"
No. 51
No. 51A
No. 52
No. 3842
"2"
"1"
323.6°
143.6° Ventspils Main Channel
High Danger Area
"A"
No. 3850
No. 3844
289.8° - 109.8°
Ventspils Western Channel
"6"
"8"
"5"
"7"
57° 25' N
"4"
"3"
N
VENTSPILS
APPROACHES
Northern Breakwater
21° 30' E


VENTSPILS
Ⓐ Port Authority
Ⓑ Harbour Master
Ⓒ Border Guards Post
Ⓓ Customs
Ⓔ Quarantine Inspection
Ⓕ "Seatrans", "Ventamarin"
Ⓖ Commerical Port Management
Ⓗ Radio Ventspils
Ⓘ "Transventa"
Ⓙ Bunkering Station
Ventspils Western Approach 289.8° - 109.8°
Ventspils Main Approach 323.6° - 143.6°
Northern Breakwater
Southern Breakwater
Water Pipeline
Sewage Pipeline
N
36
35
34
33
32
31
30
29
28
27
26
26A
26B
26C
1
2
3
4
5
6
7
8
9
10
11A
11B
12
13
13A
13B
14
15
16
16A
16B
17
18
19
20
21
22
23
24
25
25A
25B
37
38
39
40A
40B
60, 61, 62, 63
50, 51, 52, 53


VENTSPILS
Turning Circle
Oil Berths
Methanol & Ammonia Berth
No. 36
No. 35
No. 34
Cargo Berths
VENTSPILS

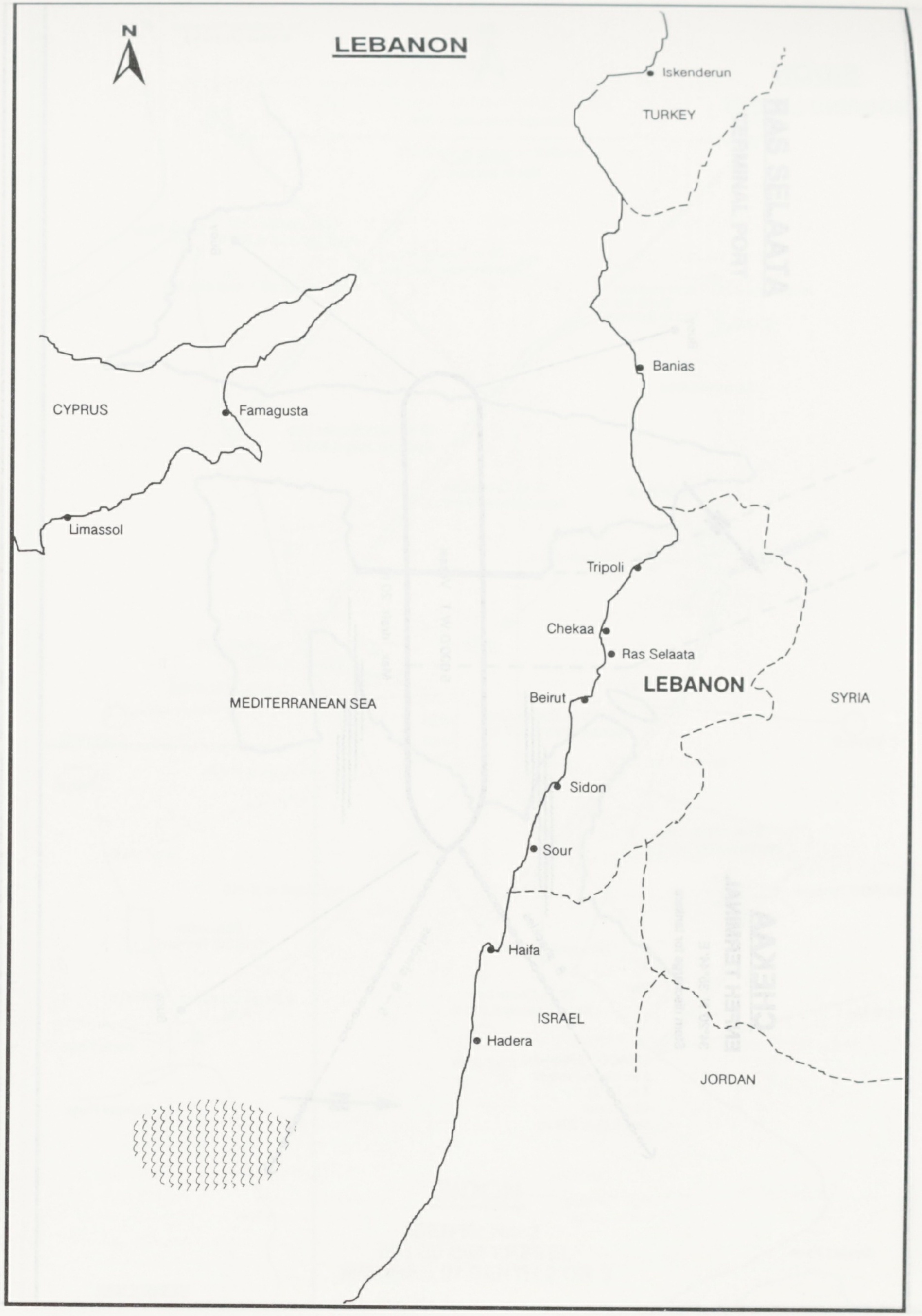
"Plan Supplied by Ship's Master"

CHEKAA
S.C.L QUAY
DEPTHS IN METRES

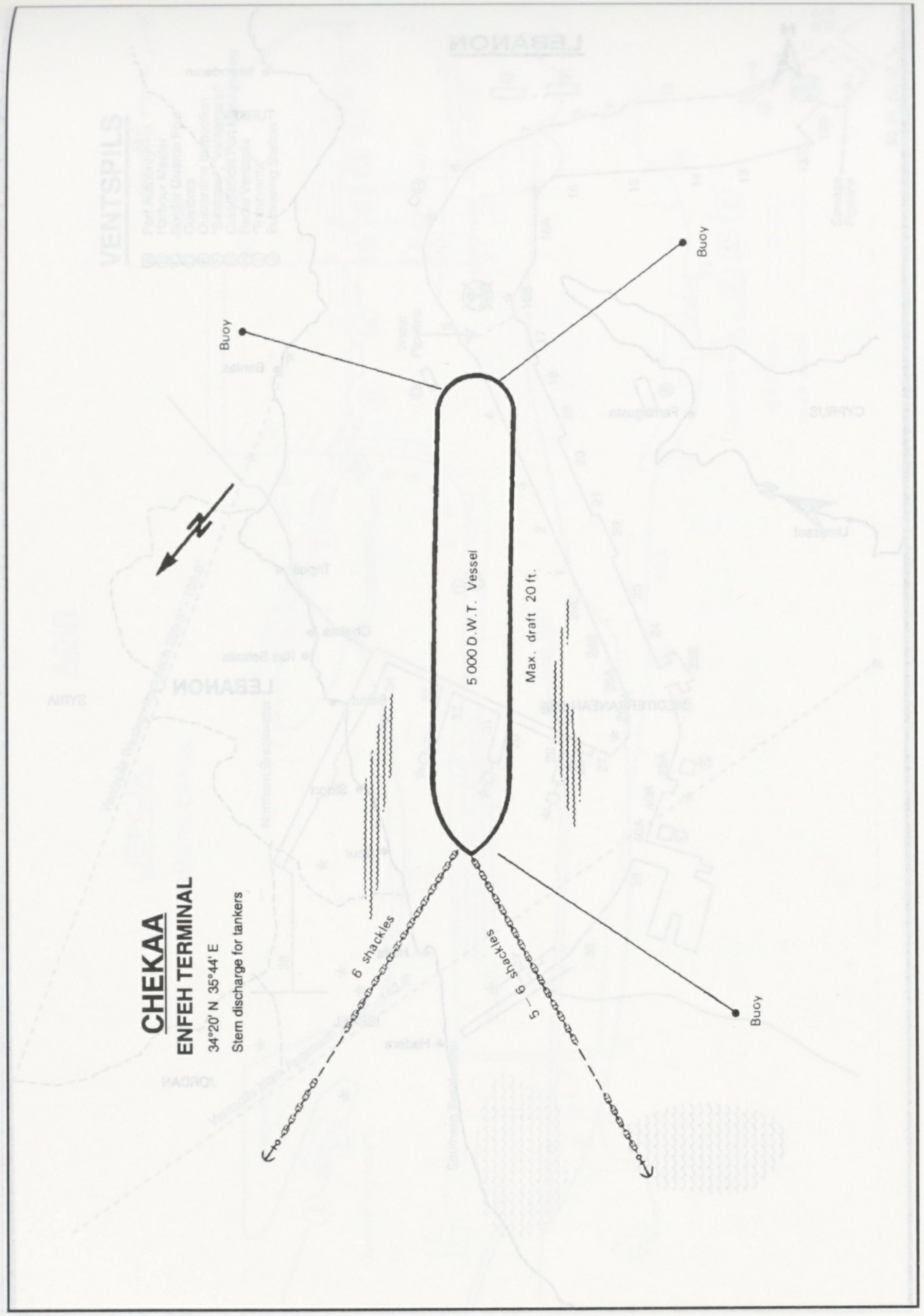


50 m.
40 m.
180 m.
60 m.
-10.7
-10.7
-10
-9.4
-8.75
-8.10
-7.40
-6.85
-6.35
-6.05
-5.70
-5.0
QUAY
Bitts
No. 2 Buoy
No. 1 Buoy

LEBANON



N
Iskenderun
TURKEY
Banias
CYPRUS
Famagusta
Limassol
Tripoli
Chekaa
Ras Selaata
LEBANON
SYRIA
MEDITERRANEAN SEA
Beirut
Sidon
Sour
Haifa
ISRAEL
Hadera
JORDAN



CHEKAA

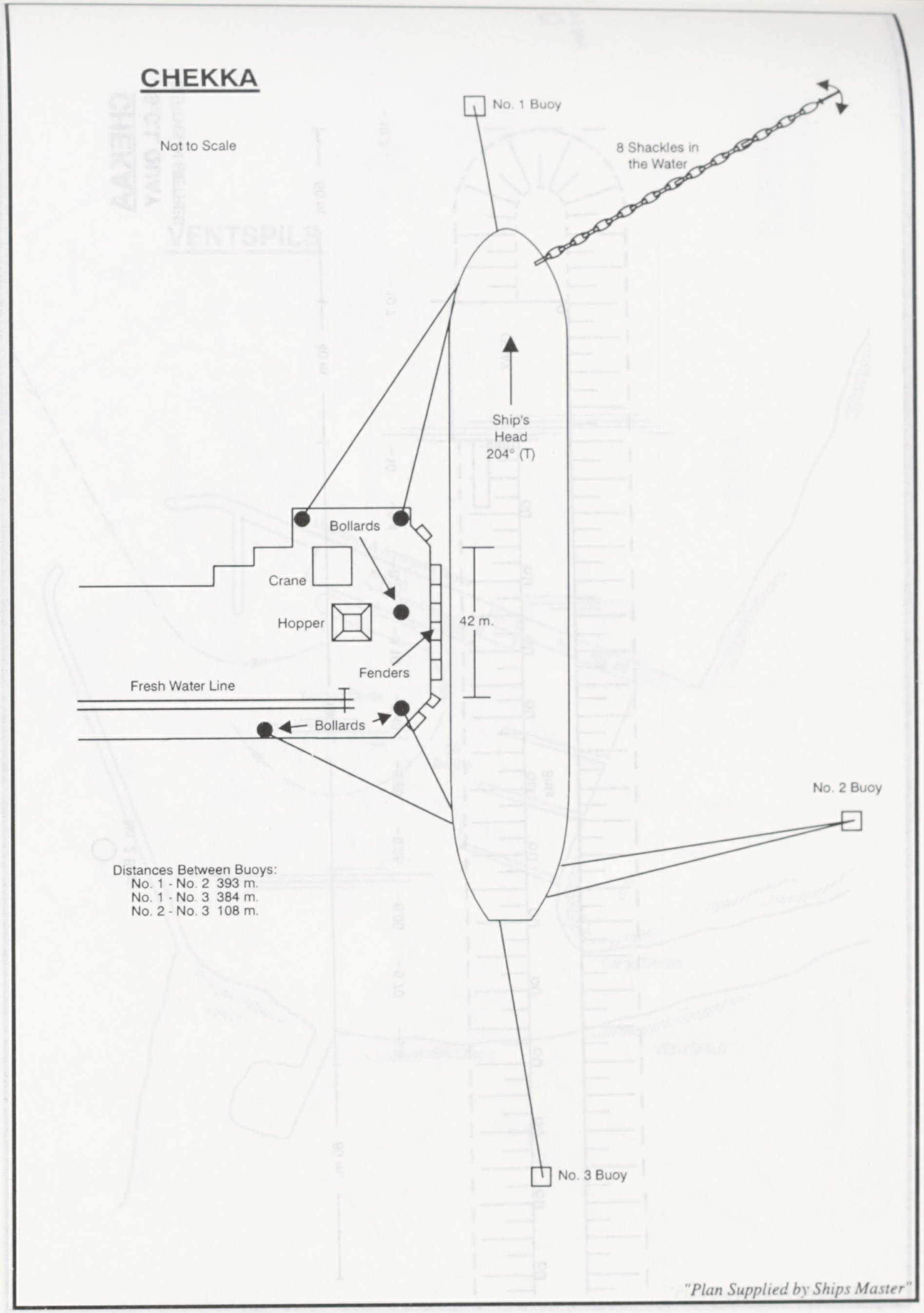
ENFEH TERMINAL

34°20' N 35°44' E

Stem discharge for tankers

Buoy
Buoy
5 000 D.W.T. Vessel
Max. draft 20 ft.
6 shackles
5 – 6 shackles
Buoy

CHEKKA



Not to Scale
No. 1 Buoy
8 Shackles in the Water
Ship's Head 204° (T)
Bollards
Crane
Hopper
42 m.
Fenders
Fresh Water Line
Bollards
No. 2 Buoy
No. 3 Buoy

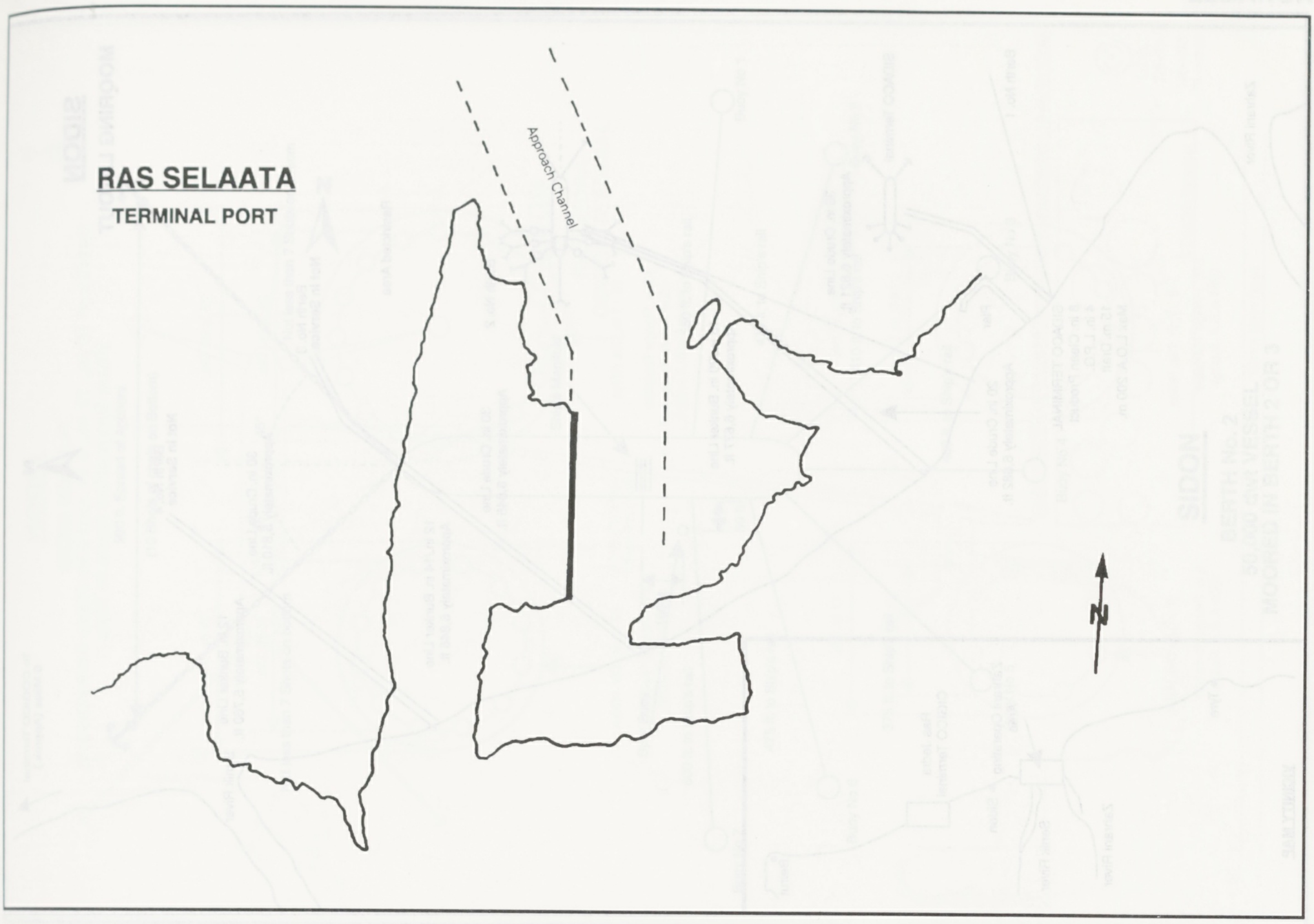
Distances Between Buoys:

No. 1 - No. 2	393 m.
No. 1 - No. 3	384 m.
No. 2 - No. 3	108 m.

"Plan Supplied by Ships Master"

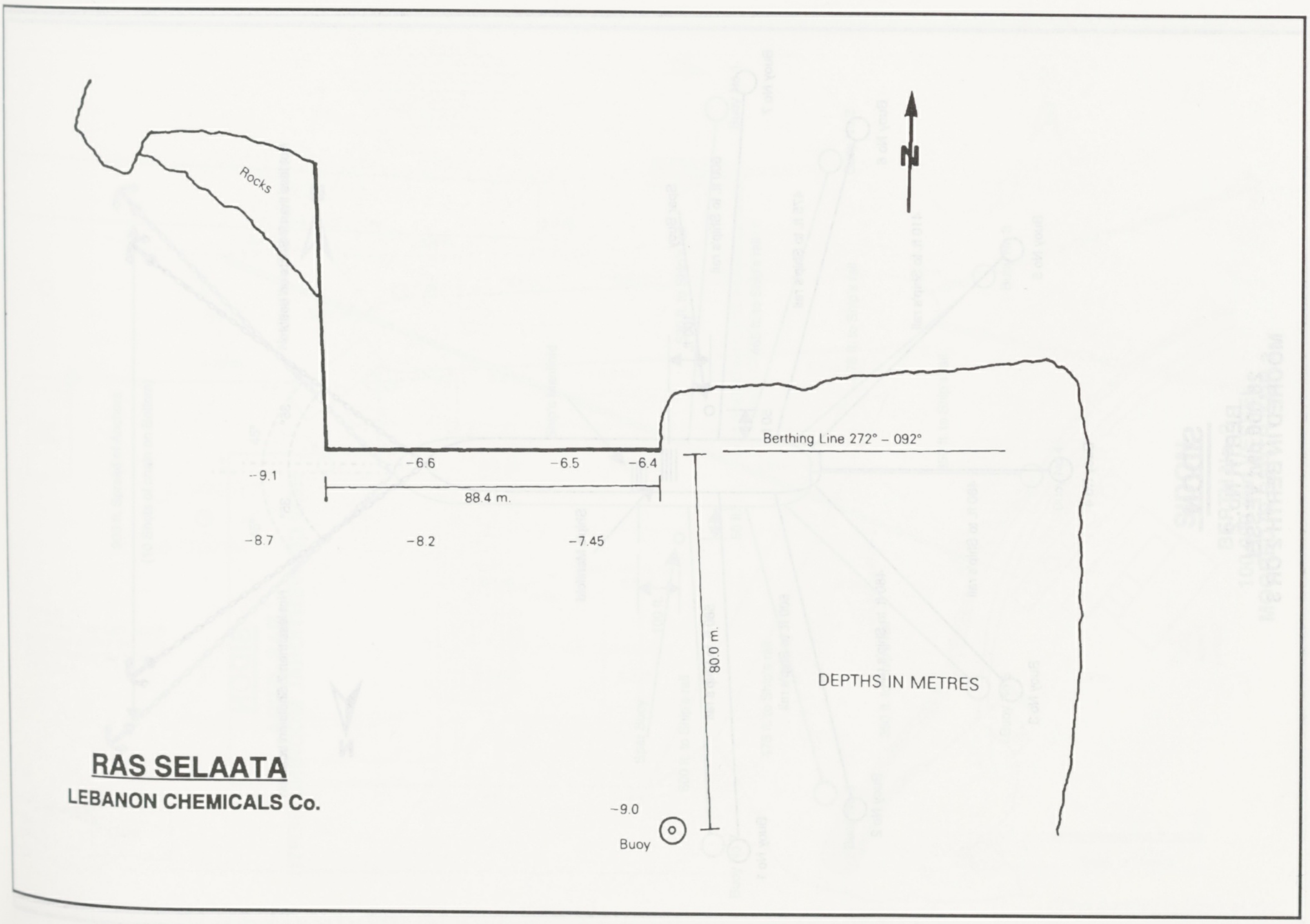
RAS SELAATA

TERMINAL PORT


Approach Channel
N

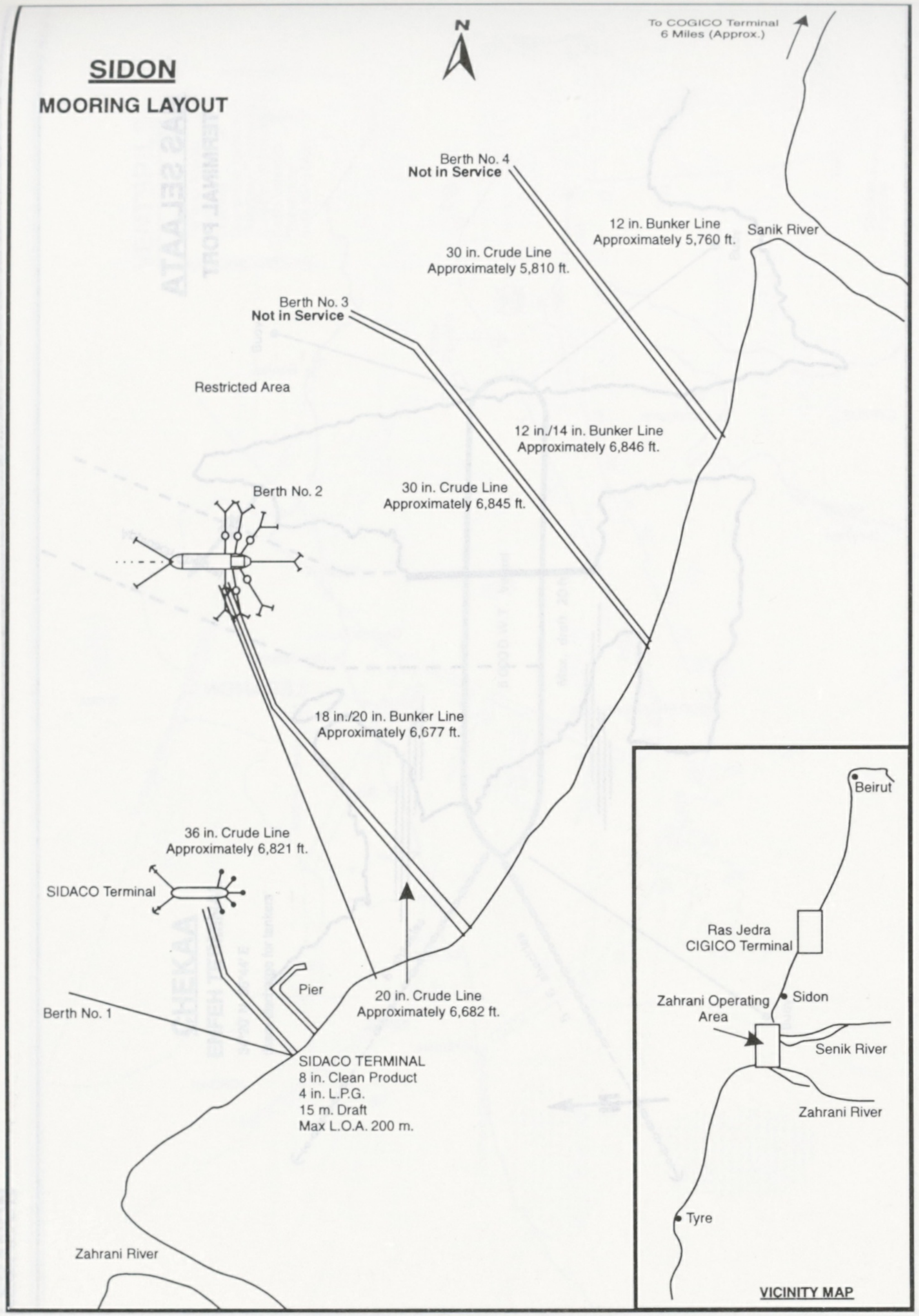
RAS SELAATA

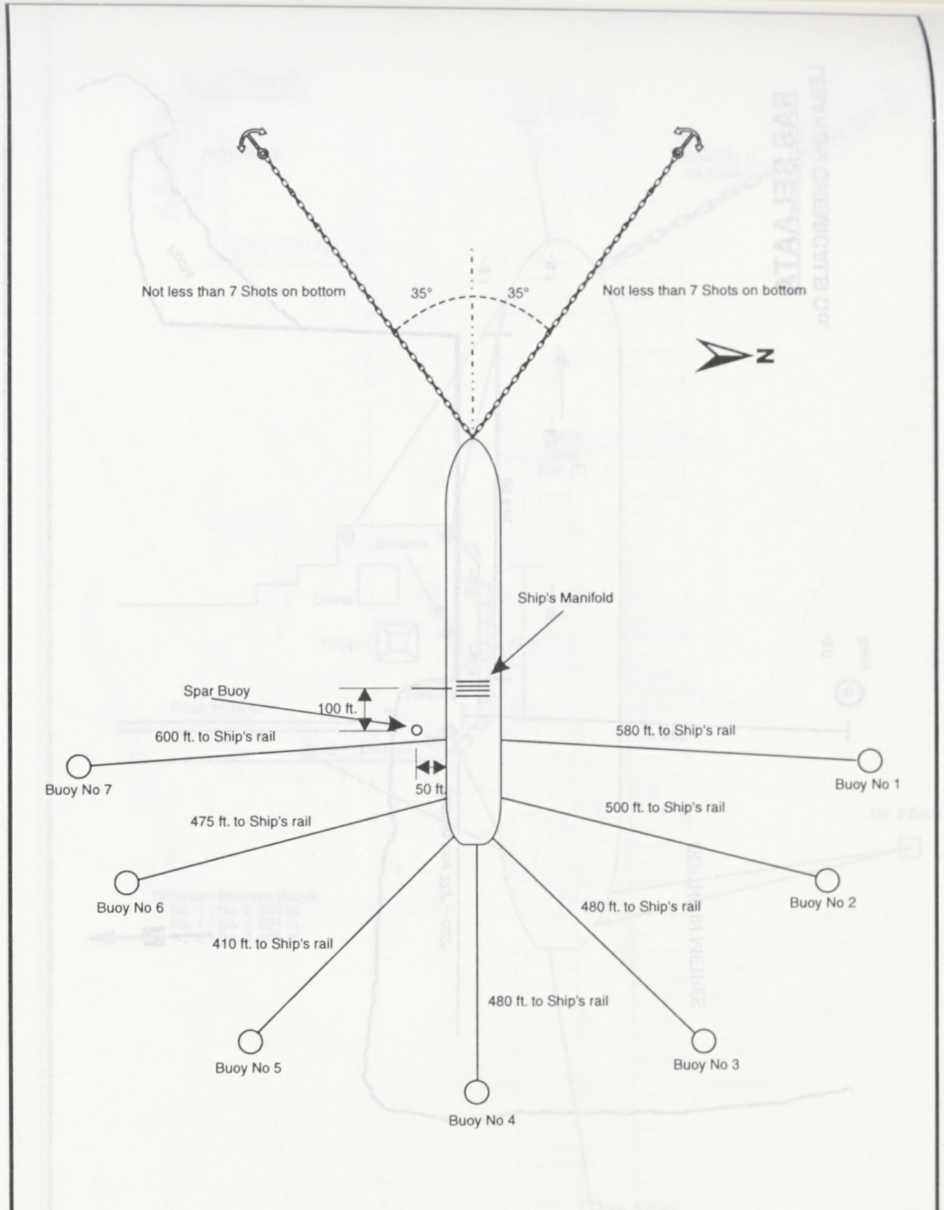
LEBANON CHEMICALS Co.


N
Rocks
Berthing Line 272° – 092°
-6.6
-6.5
-6.4
-9.1
88.4 m.
-8.7
-8.2
-7.45
80.0 m.
DEPTHS IN METRES
-9.0
Buoy

SIDON

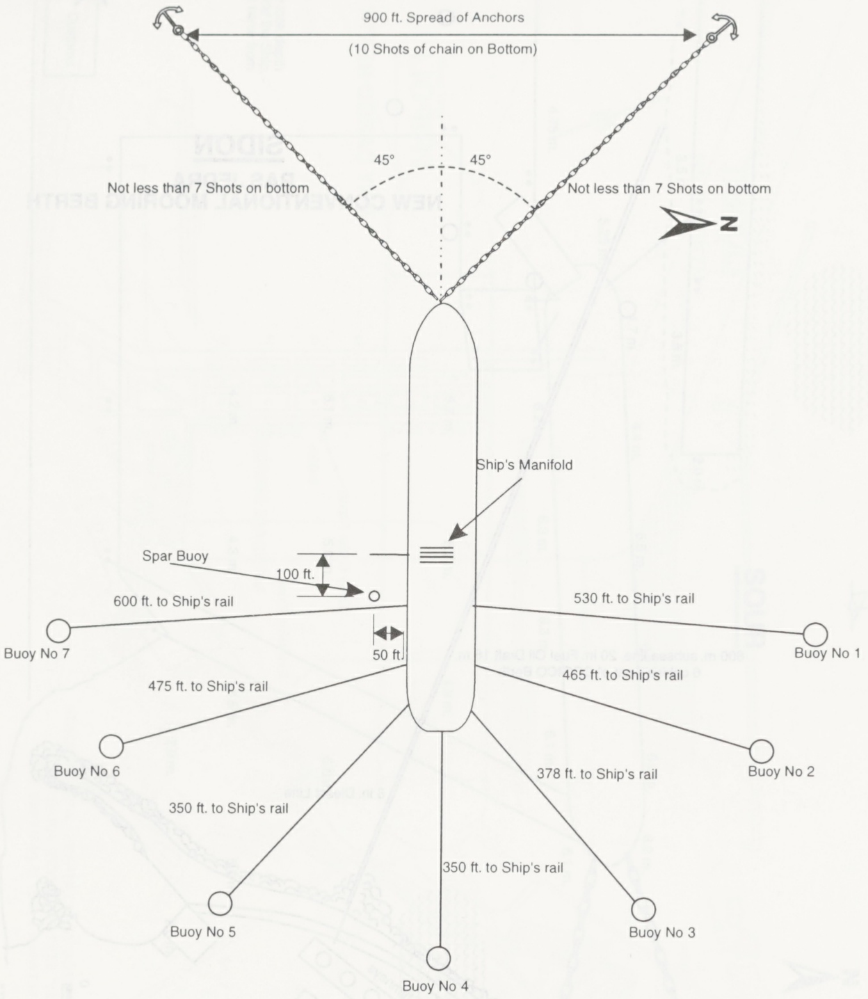
MOORING LAYOUT


N
To COGICO Terminal
6 Miles (Approx.)
Berth No. 4
Not in Service
12 in. Bunker Line
Approximately 5,760 ft.
Sanik River
30 in. Crude Line
Approximately 5,810 ft.
Berth No. 3
Not in Service
Restricted Area
12 in./14 in. Bunker Line
Approximately 6,846 ft.
Berth No. 2
30 in. Crude Line
Approximately 6,845 ft.
18 in./20 in. Bunker Line
Approximately 6,677 ft.
36 in. Crude Line
Approximately 6,821 ft.
SIDACO Terminal
Pier
Berth No. 1
20 in. Crude Line
Approximately 6,682 ft.
SIDACO TERMINAL
8 in. Clean Product
4 in. L.P.G.
15 m. Draft
Max L.O.A. 200 m.
Zahrani River
Beirut
Ras Jedra
CIGICO Terminal
Zahrani Operating
Area
Sidon
Senik River
Zahrani River
Tyre
VICINITY MAP


Not less than 7 Shots on bottom
35°
35°
Not less than 7 Shots on bottom
N
Ship's Manifold
Spar Buoy
100 ft.
600 ft. to Ship's rail
580 ft. to Ship's rail
Buoy No 7
50 ft.
Buoy No 1
475 ft. to Ship's rail
500 ft. to Ship's rail
Buoy No 6
480 ft. to Ship's rail
Buoy No 2
410 ft. to Ship's rail
480 ft. to Ship's rail
Buoy No 5
Buoy No 3
Buoy No 4

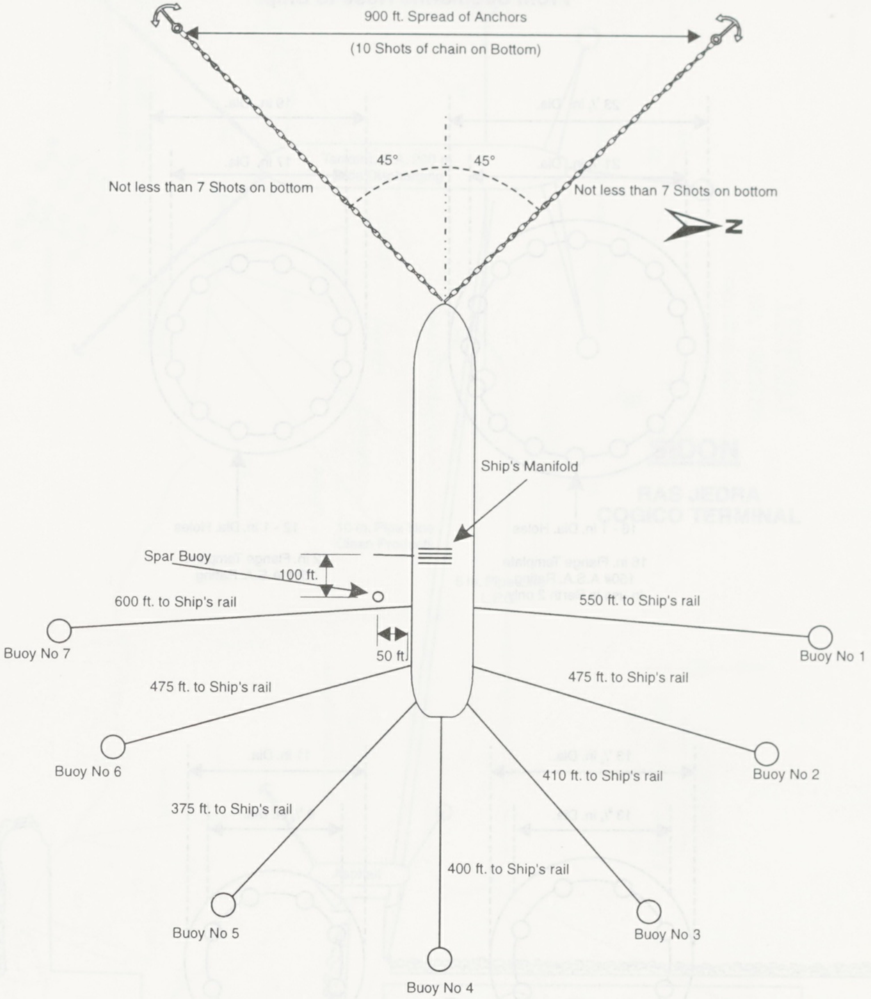
SIDON

BERTH No. 2
28,000 dwt VESSEL
MOORED IN BERTH 2 OR 3


900 ft. Spread of Anchors
(10 Shots of chain on Bottom)
45°
45°
Not less than 7 Shots on bottom
Not less than 7 Shots on bottom
N
Ship's Manifold
Spar Buoy
100 ft.
600 ft. to Ship's rail
530 ft. to Ship's rail
Buoy No 7
50 ft.
Buoy No 1
475 ft. to Ship's rail
465 ft. to Ship's rail
Buoy No 6
Buoy No 2
378 ft. to Ship's rail
350 ft. to Ship's rail
350 ft. to Ship's rail
Buoy No 5
Buoy No 3
Buoy No 4

SIDON

BERTH No. 2
100,000 dwt VESSEL
MOORED IN BERTH 2 OR 3


900 ft. Spread of Anchors
(10 Shots of chain on Bottom)
45°
45°
Not less than 7 Shots on bottom
Not less than 7 Shots on bottom
N
Ship's Manifold
Spar Buoy
100 ft.
600 ft. to Ship's rail
550 ft. to Ship's rail
Buoy No 7
50 ft.
Buoy No 1
475 ft. to Ship's rail
475 ft. to Ship's rail
Buoy No 6
410 ft. to Ship's rail
Buoy No 2
375 ft. to Ship's rail
400 ft. to Ship's rail
Buoy No 5
Buoy No 3
Buoy No 4

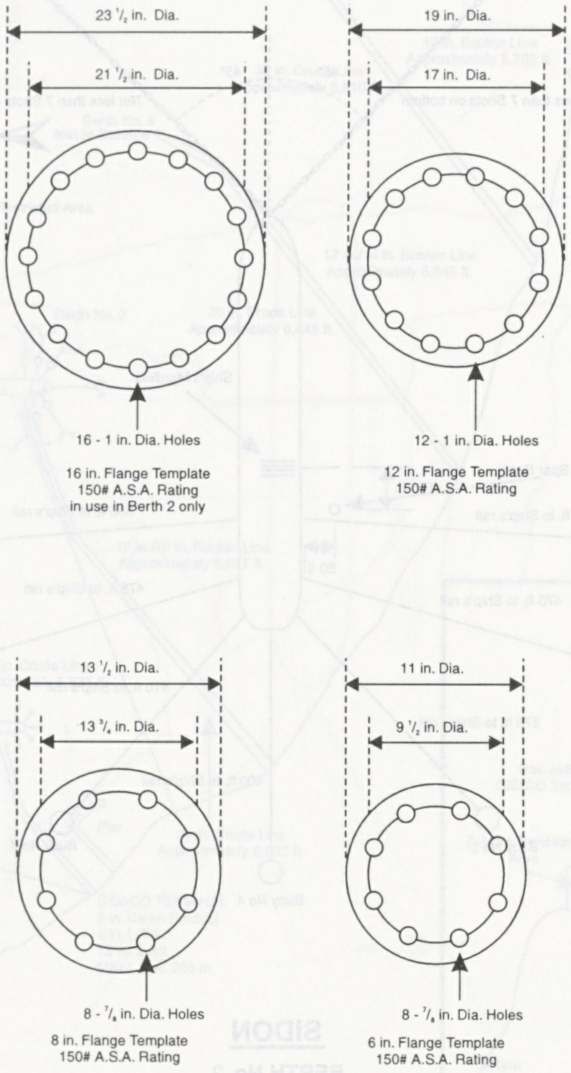
SIDON

BERTH No. 2
50,000 dwt VESSEL
MOORED IN BERTH 2 OR 3

SIDON

FLANGE SIZES

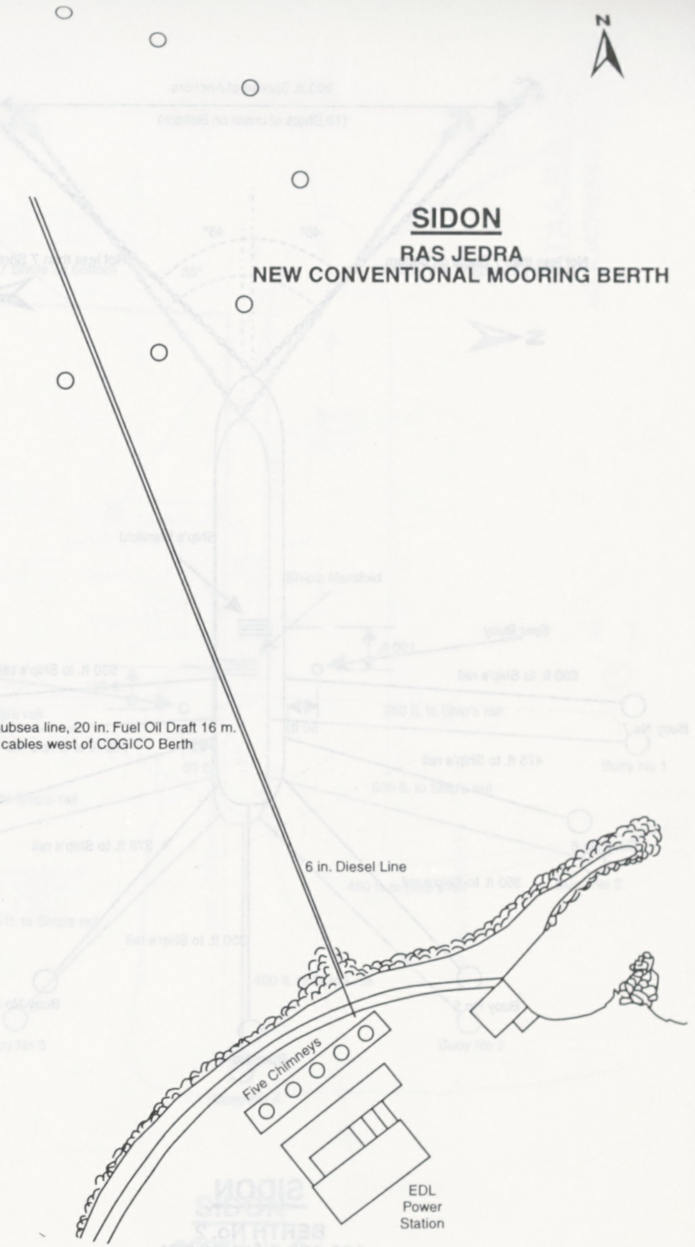
Details of 16 in., 12 in., 8 in. and 6 in. Hose Connections From Submarine Hose to Ship.

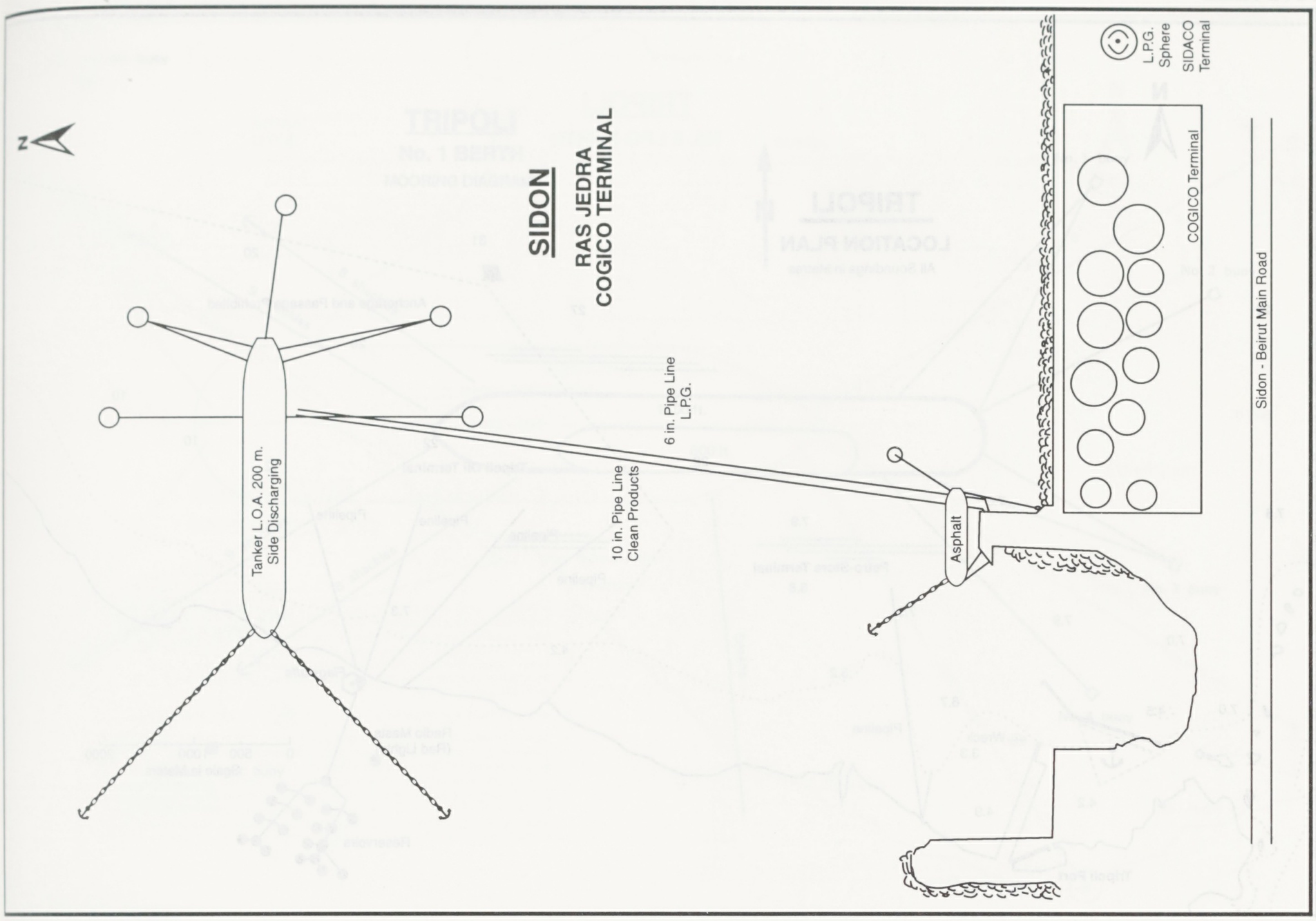

23 $^1/_2$ in. Dia.
21 $^1/_2$ in. Dia.
19 in. Dia.
17 in. Dia.
16 - 1 in. Dia. Holes
16 in. Flange Template
150# A.S.A. Rating
in use in Berth 2 only
12 - 1 in. Dia. Holes
12 in. Flange Template
150# A.S.A. Rating
13 $^1/_2$ in. Dia.
13 $^3/_4$ in. Dia.
11 in. Dia.
9 $^1/_2$ in. Dia.
8 - $^7/_8$ in. Dia. Holes
8 in. Flange Template
150# A.S.A. Rating
8 - $^7/_8$ in. Dia. Holes
6 in. Flange Template
150# A.S.A. Rating

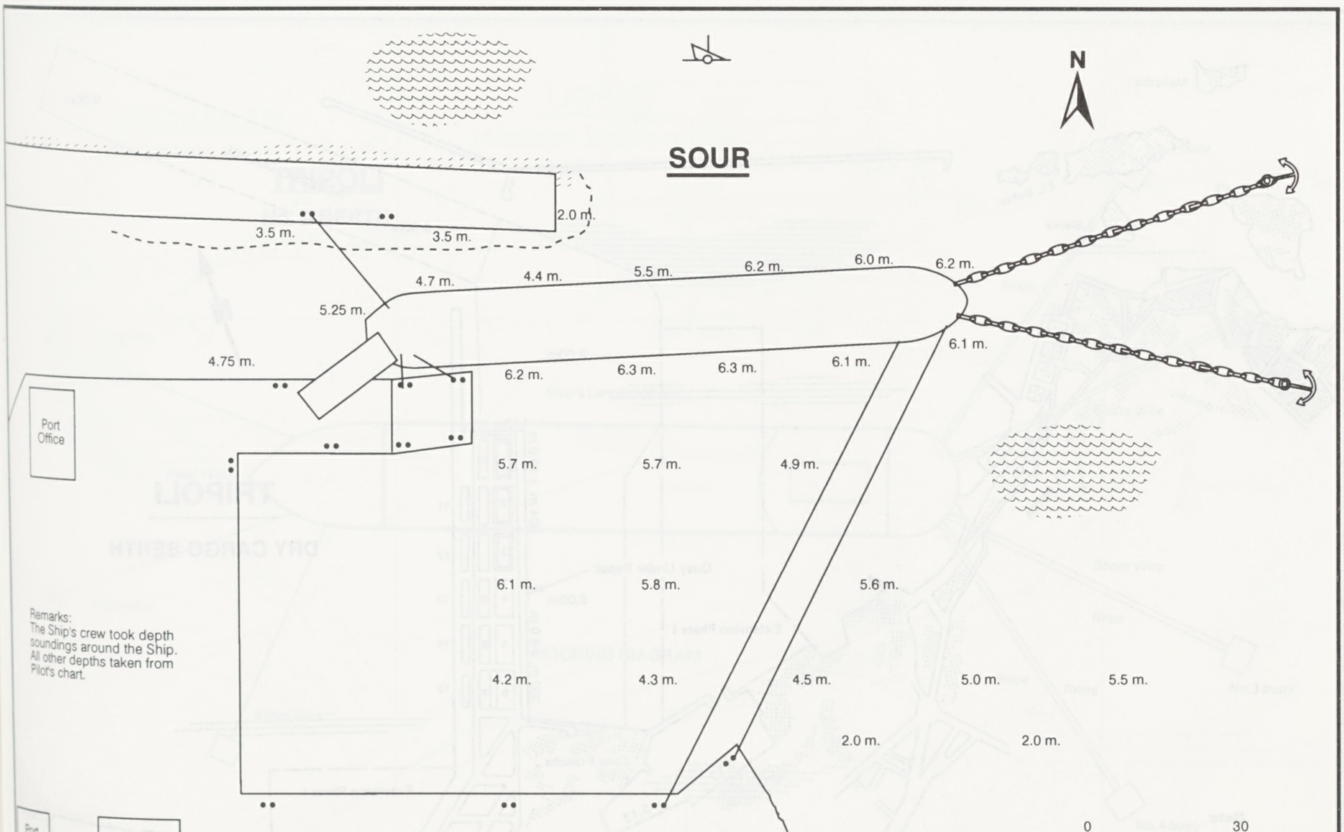
SIDON

RAS JEDRA

NEW CONVENTIONAL MOORING BERTH

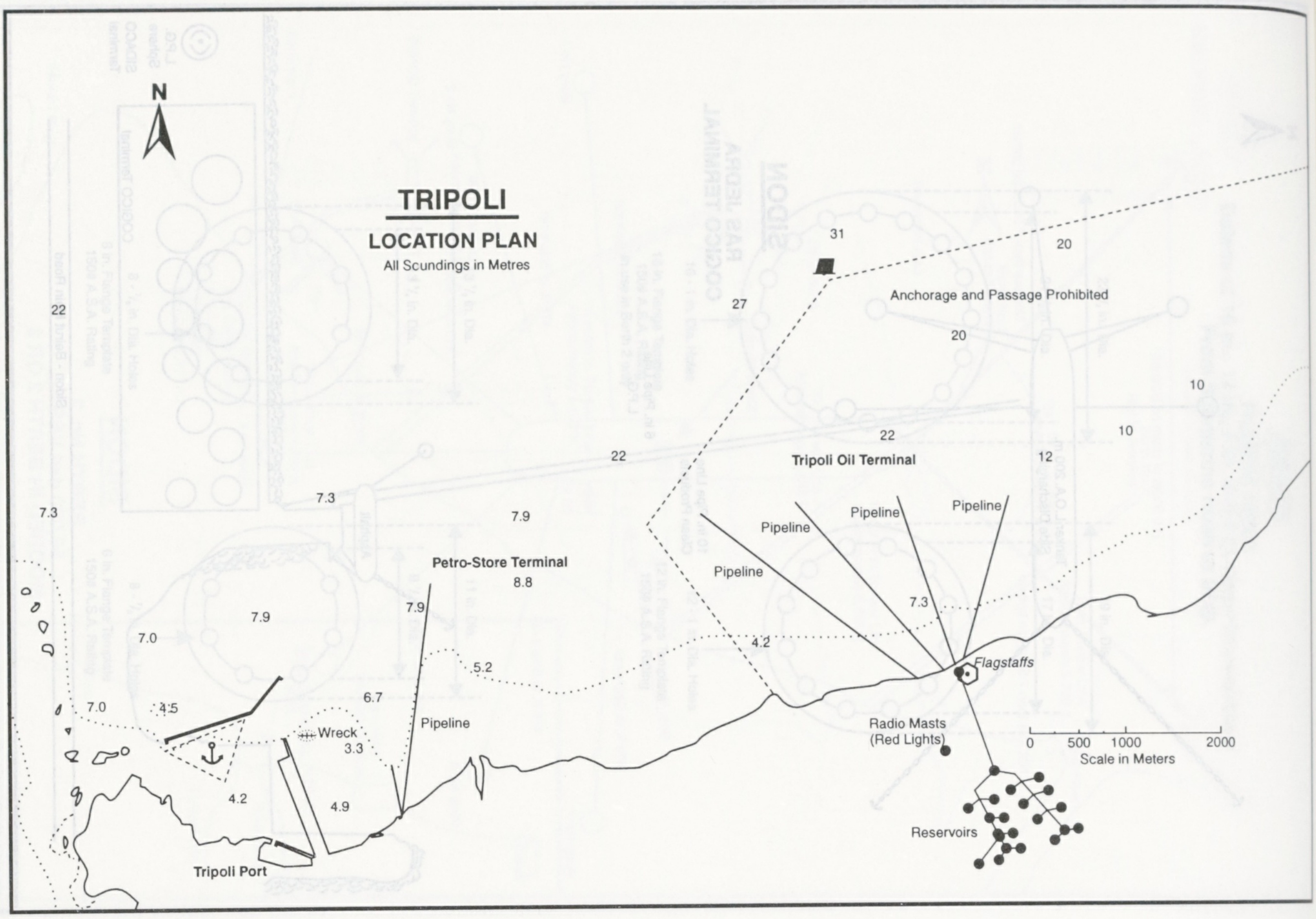

N
600 m. subsea line, 20 in. Fuel Oil Draft 16 m.
6 cables west of COGICO Berth
6 in. Diesel Line
Five Chimneys
EDL
Power
Station

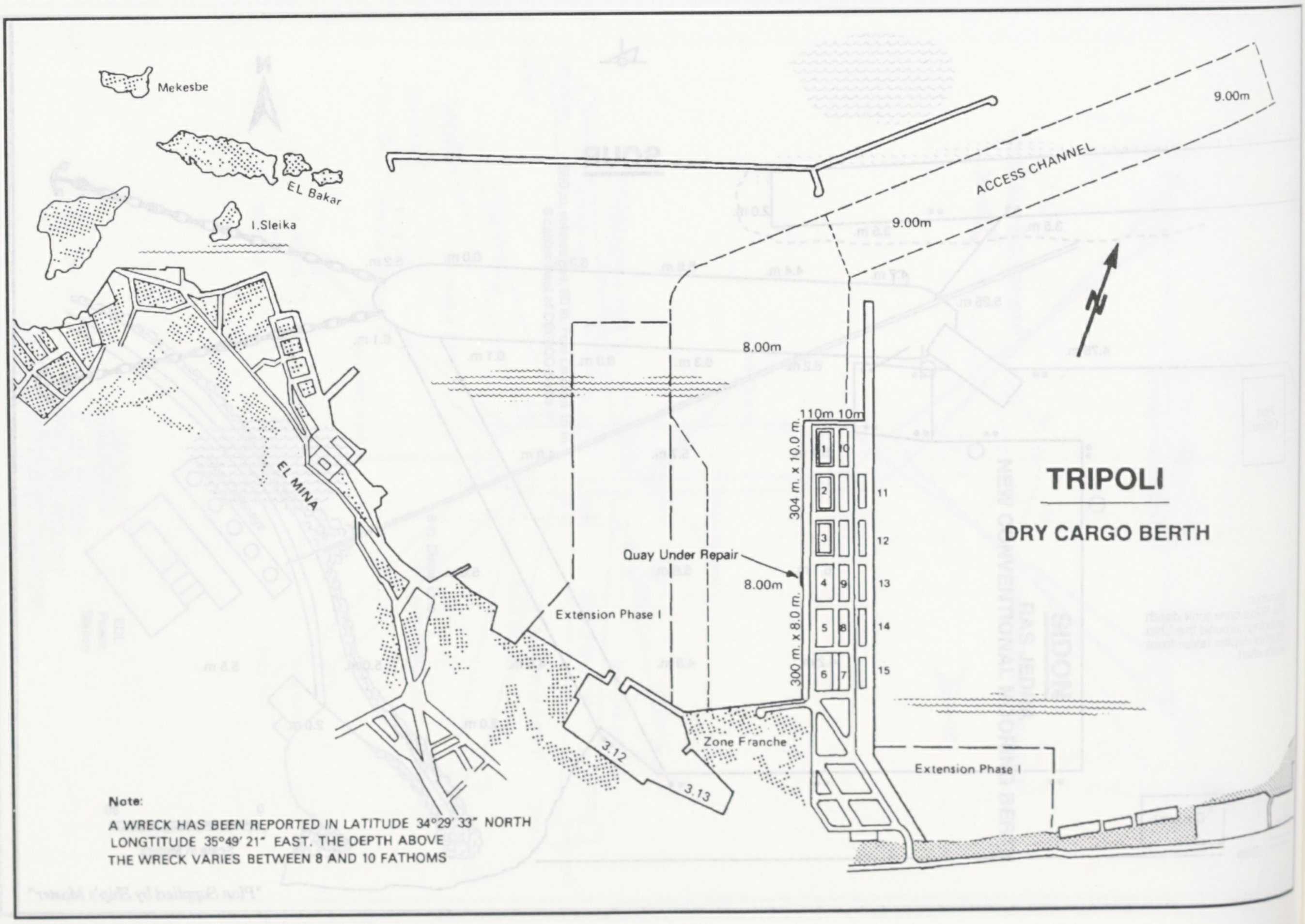

N
SIDON
RAS JEDRA
COGICO TERMINAL
Tanker L.O.A. 200 m.
Side Discharging
10 in. Pipe Line
Clean Products
6 in. Pipe Line
L.P.G.
Asphalt
L.P.G.
Sphere
SIDACO
Terminal
COGICO Terminal
Sidon - Beirut Main Road


N
SOUR
2.0 m.
3.5 m.
3.5 m.
4.7 m.
4.4 m.
5.5 m.
6.2 m.
6.0 m.
6.2 m.
5.25 m.
4.75 m.
6.2 m.
6.3 m.
6.3 m.
6.1 m.
6.1 m.
Port
Office
5.7 m.
5.7 m.
4.9 m.
6.1 m.
5.8 m.
5.6 m.
4.2 m.
4.3 m.
4.5 m.
5.0 m.
5.5 m.
2.0 m.
2.0 m.
Port
Police
Customs
Gate
0
30
Scale in Meters

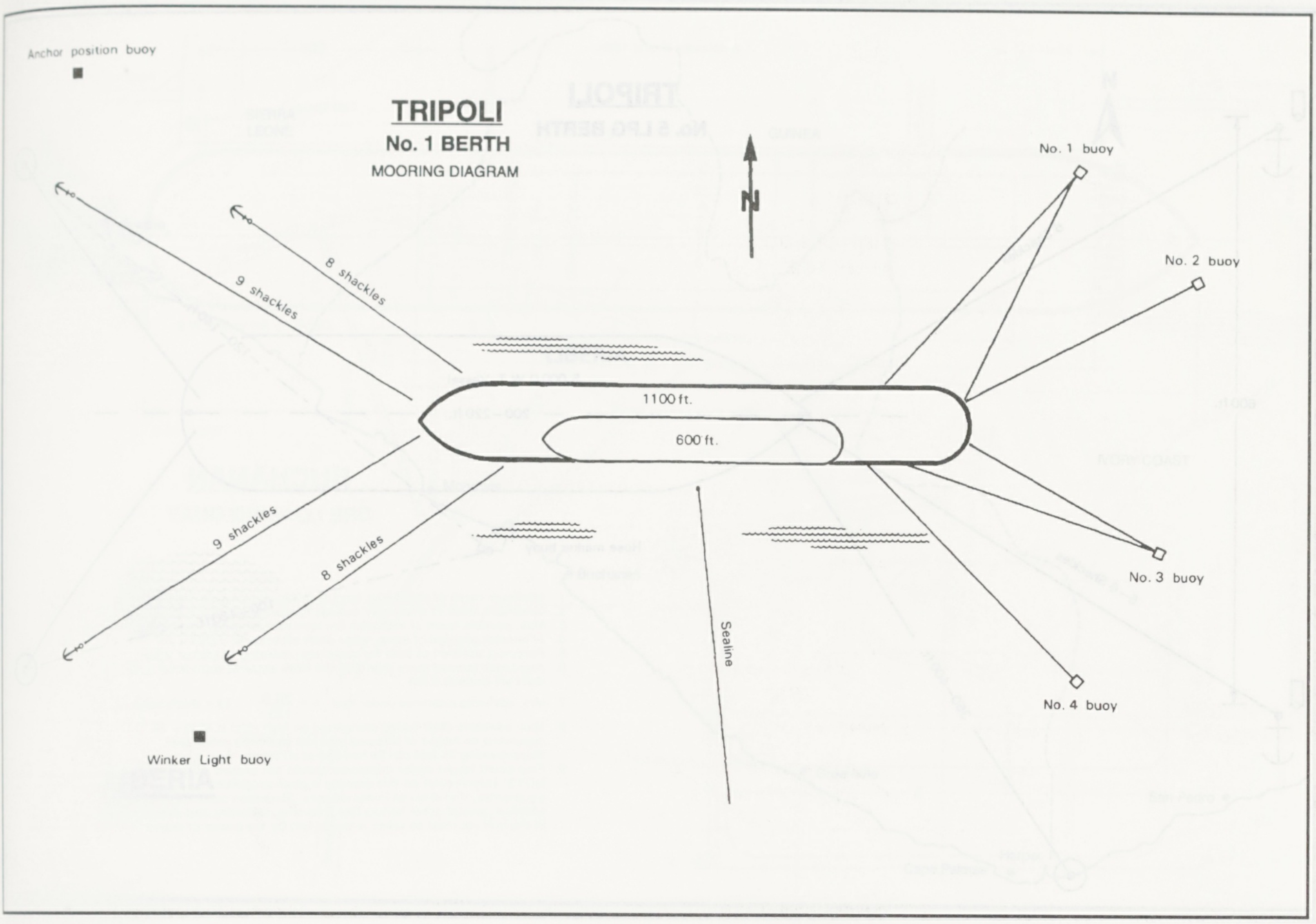
Remarks:
The Ship's crew took depth soundings around the Ship.
All other depths taken from Pilot's chart.

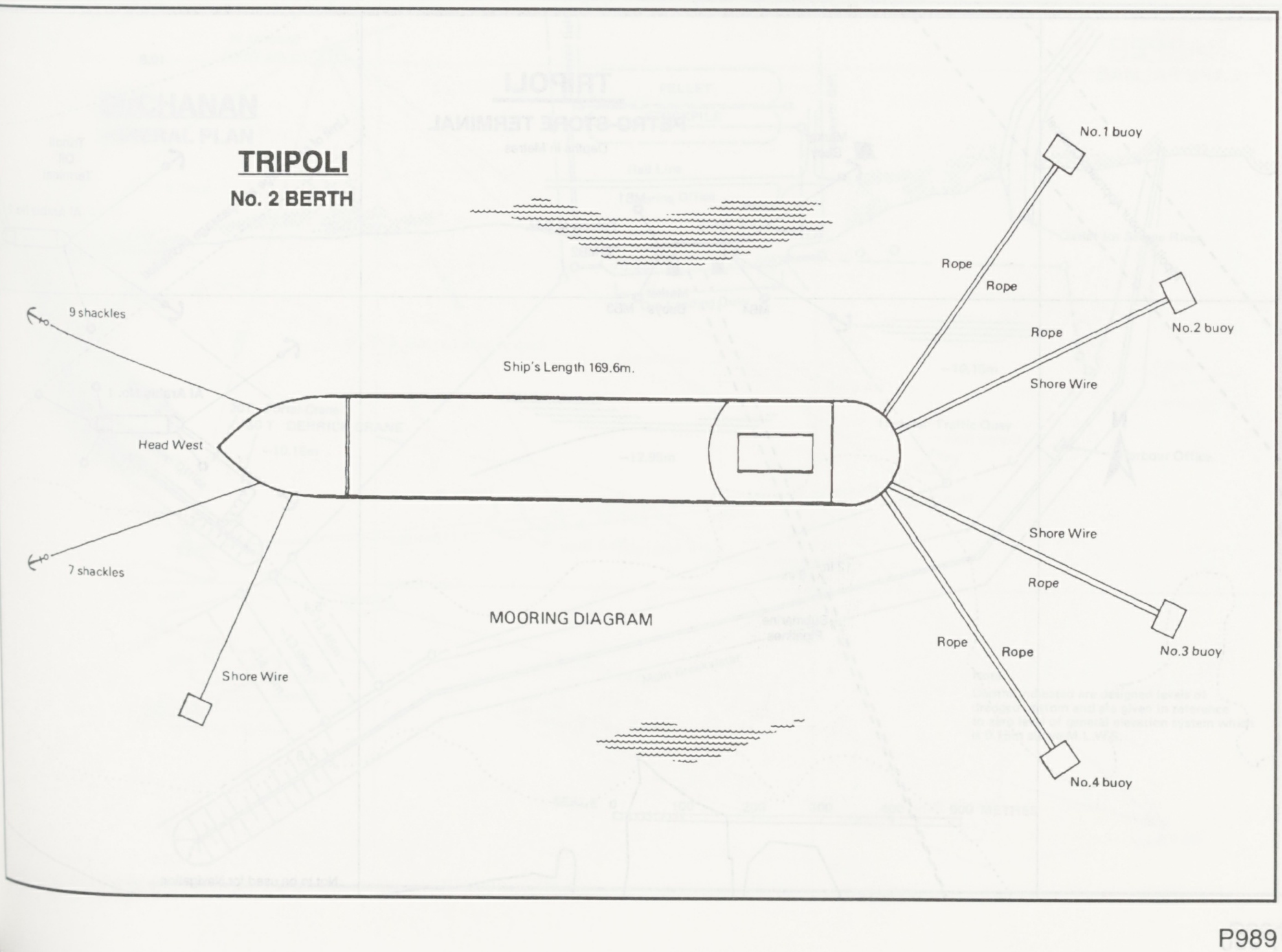
"Plan Supplied by Ship's Master"

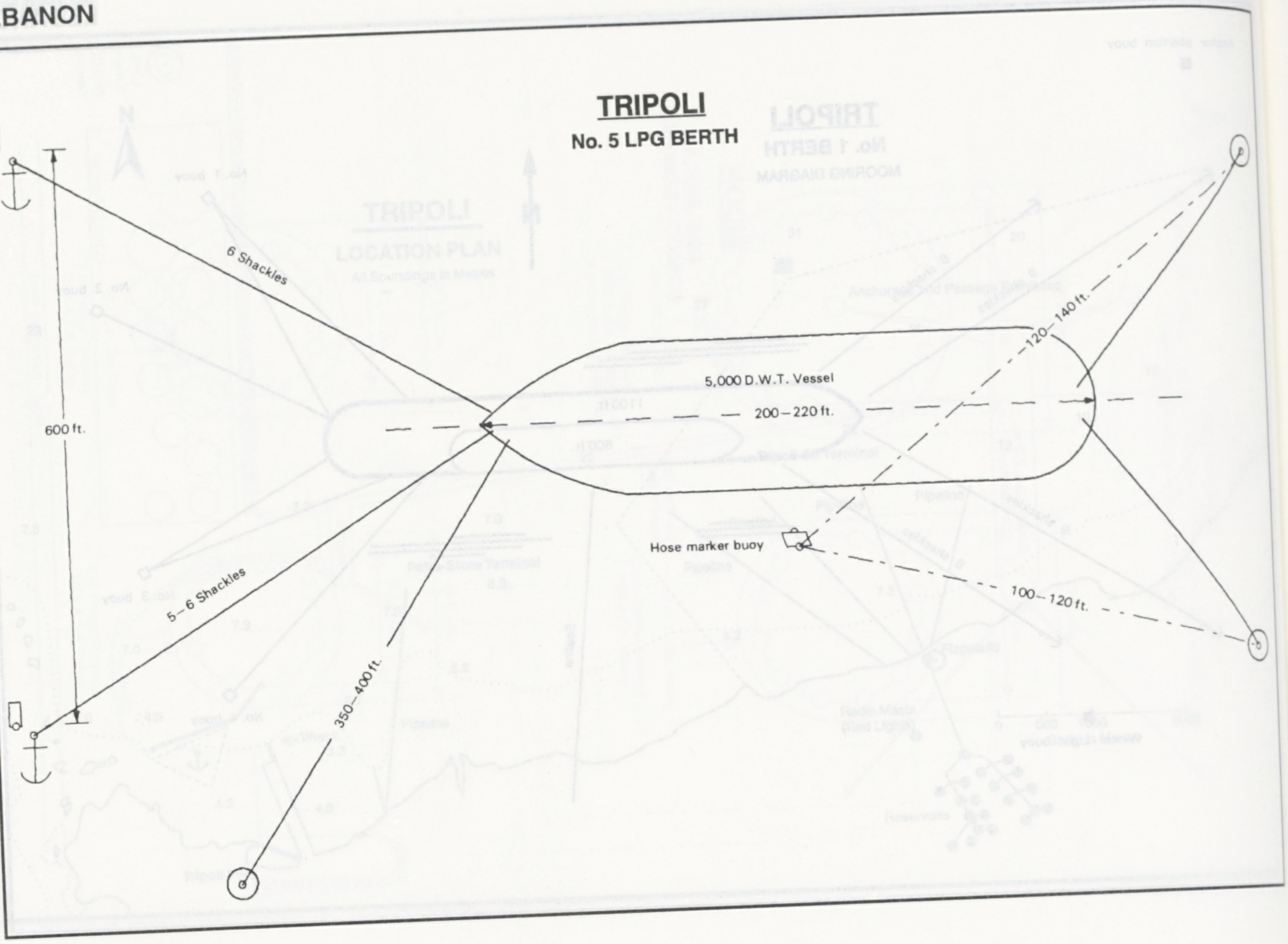

N
TRIPOLI
LOCATION PLAN
All Scundings in Metres
22
7.3
7.3
7.0
7.0
4.5
7.9
4.2
Wreck
3.3
4.9
6.7
Tripoli Port
Pipeline
7.9
5.2
Petro-Store Terminal
8.8
7.9
22
27
31
Anchorage and Passage Prohibited
20
20
22
Tripoli Oil Terminal
Pipeline
Pipeline
Pipeline
Pipeline
7.3
4.2
Flagstaffs
Radio Masts
(Red Lights)
Reservoirs
12
10
10
0 500 1000 2000
Scale in Meters


Mekesbe
EL Bakar
I.Sleika
EL MINA
ACCESS CHANNEL
9.00m
9.00m
8.00m
110m 10m
304 m. x 10.0 m.
300 m. x 8.0 m.
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
Quay Under Repair
8.00m
Extension Phase I
Zone Franche
3.12
3.13
Extension Phase I
TRIPOLI
DRY CARGO BERTH

Note:
A WRECK HAS BEEN REPORTED IN LATITUDE 34°29' 33" NORTH LONGTITUDE 35°49' 21" EAST. THE DEPTH ABOVE THE WRECK VARIES BETWEEN 8 AND 10 FATHOMS


TRIPOLI
No. 1 BERTH
MOORING DIAGRAM
Anchor position buoy
N
8 shackles
9 shackles
9 shackles
8 shackles
1100 ft.
600 ft.
Sealine
No. 1 buoy
No. 2 buoy
No. 3 buoy
No. 4 buoy
Winker Light buoy

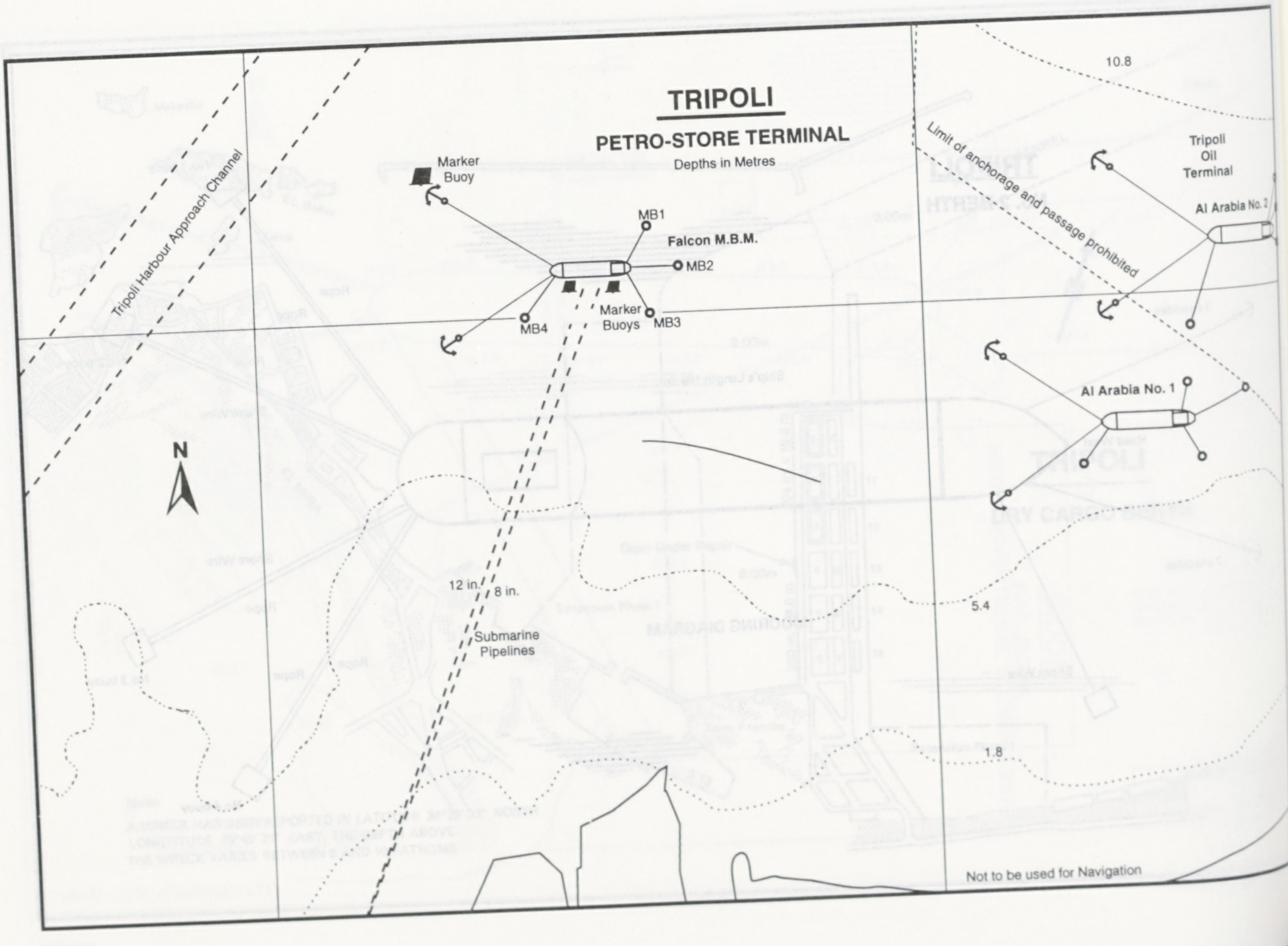

TRIPOLI
No. 2 BERTH
9 shackles
7 shackles
Head West
Ship's Length 169.6m.
Shore Wire
MOORING DIAGRAM
No. 1 buoy
Rope
Rope
Rope
Shore Wire
No.2 buoy
Shore Wire
Rope
No.3 buoy
Rope
Rope
No.4 buoy



TRIPOLI

No. 5 LPG BERTH

6 Shackles
600 ft.
5,000 D.W.T. Vessel
200 – 220 ft.
120 – 140 ft.
Hose marker buoy
100 – 120 ft.
5 – 6 Shackles
350 – 400 ft.



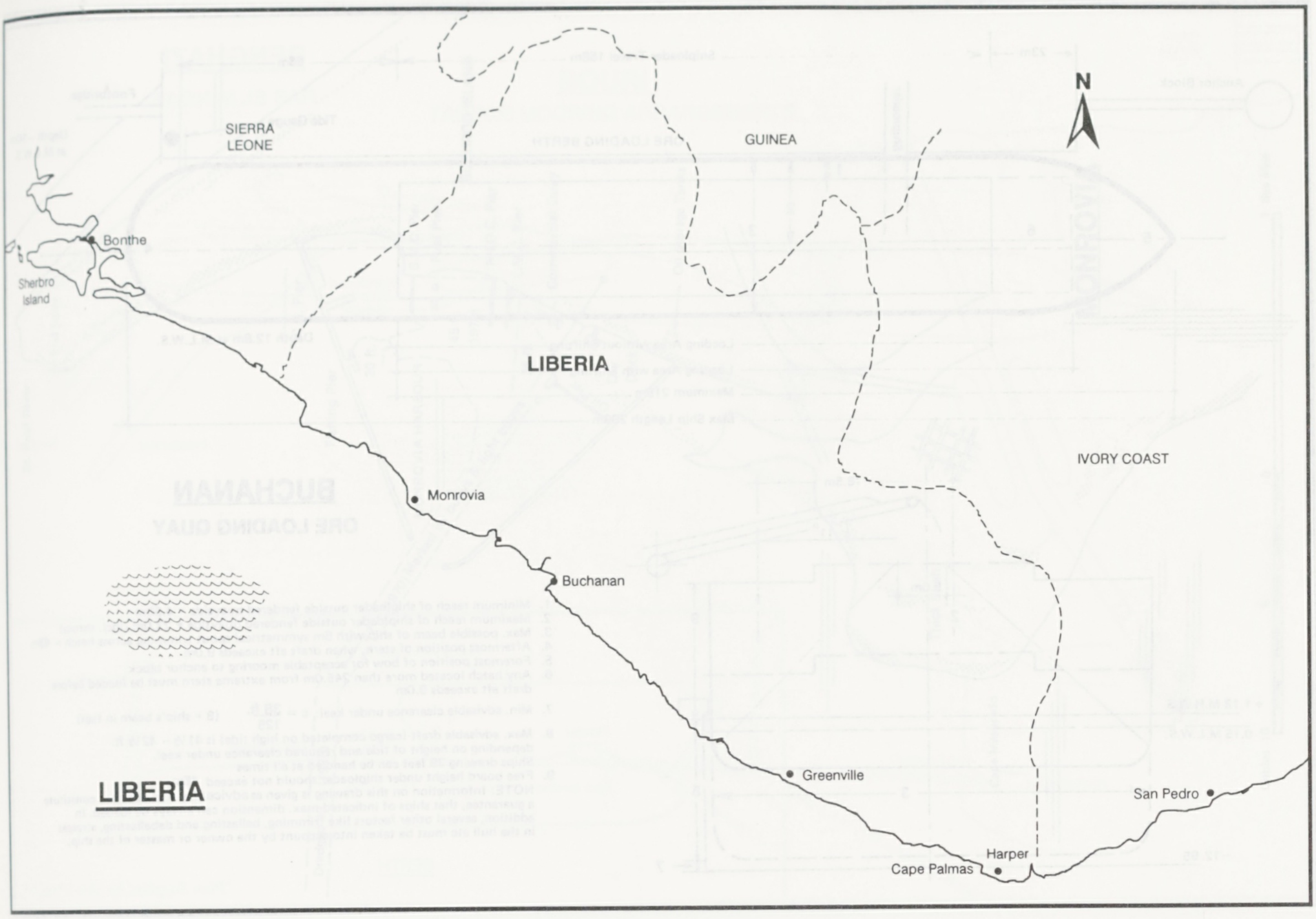
TRIPOLI

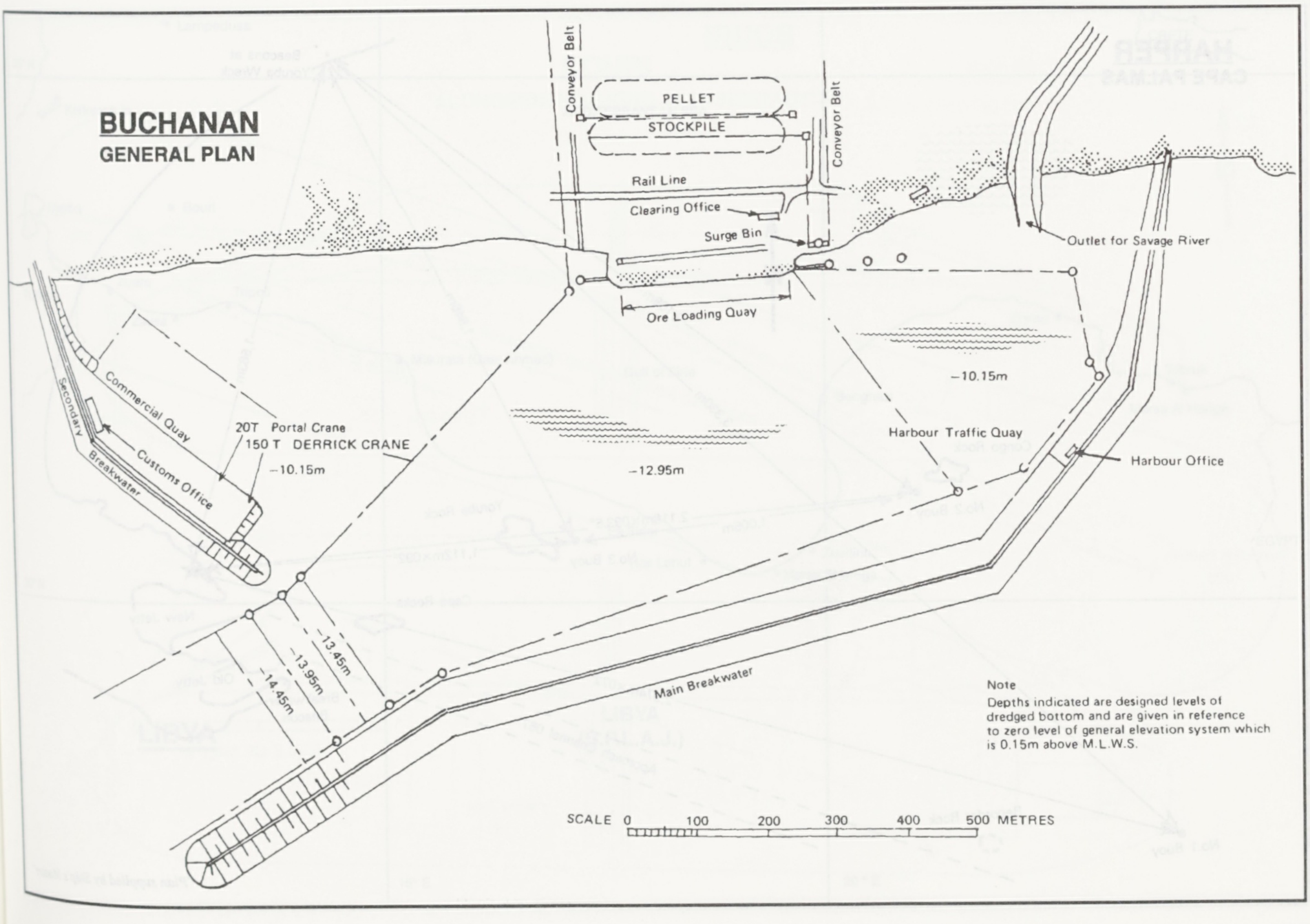
PETRO-STORE TERMINAL

Depths in Metres

Tripoli Harbour Approach Channel
Marker Buoy
MB1
Falcon M.B.M.
MB2
MB4
Marker Buoys
MB3
N
12 in.
8 in.
Submarine Pipelines
10.8
Limit of anchorage and passage prohibited
Tripoli Oil Terminal
Al Arabia No. 2
Al Arabia No. 1
5.4
1.8

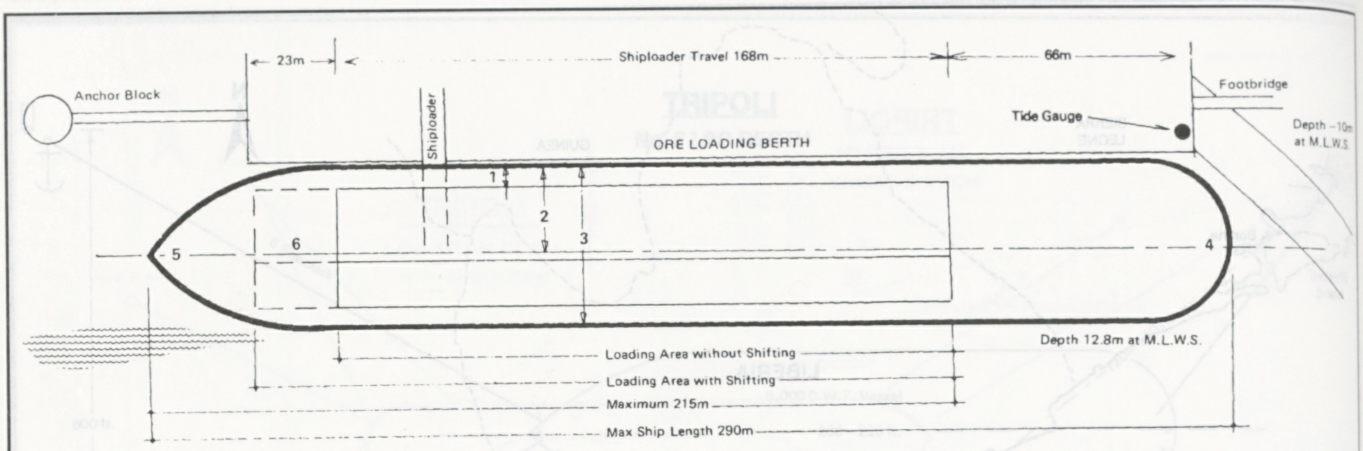
Not to be used for Navigation

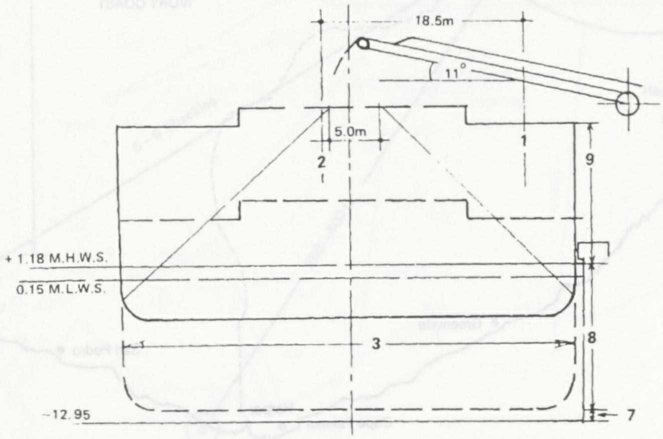

N
SIERRA LEONE
GUINEA
Bonthe
Sherbro Island
LIBERIA
IVORY COAST
Monrovia
Buchanan
Greenville
San Pedro
Harper
Cape Palmas
LIBERIA


BUCHANAN
GENERAL PLAN

Conveyor Belt
PELLET
STOCKPILE
Conveyor Belt
Rail Line
Clearing Office
Surge Bin
Ore Loading Quay
Outlet for Savage River
Commercial Quay
Secondary
Breakwater
Customs Office
20T Portal Crane
150 T DERRICK CRANE
-10.15m
-12.95m
-10.15m
Harbour Traffic Quay
Harbour Office
13.45m
13.95m
14.45m
Main Breakwater
SCALE 0 100 200 300 400 500 METRES

Note
Depths indicated are designed levels of dredged bottom and are given in reference to zero level of general elevation system which is 0.15m above M.L.W.S.


23m
Shiploader Travel 168m
66m
Anchor Block
Shiploader
ORE LOADING BERTH
Tide Gauge
Footbridge
Depth –10m at M.L.W.S.
1
2
3
4
5
6
Depth 12.8m at M.L.W.S.
Loading Area without Shifting
Loading Area with Shifting
Maximum 215m
Max Ship Length 290m

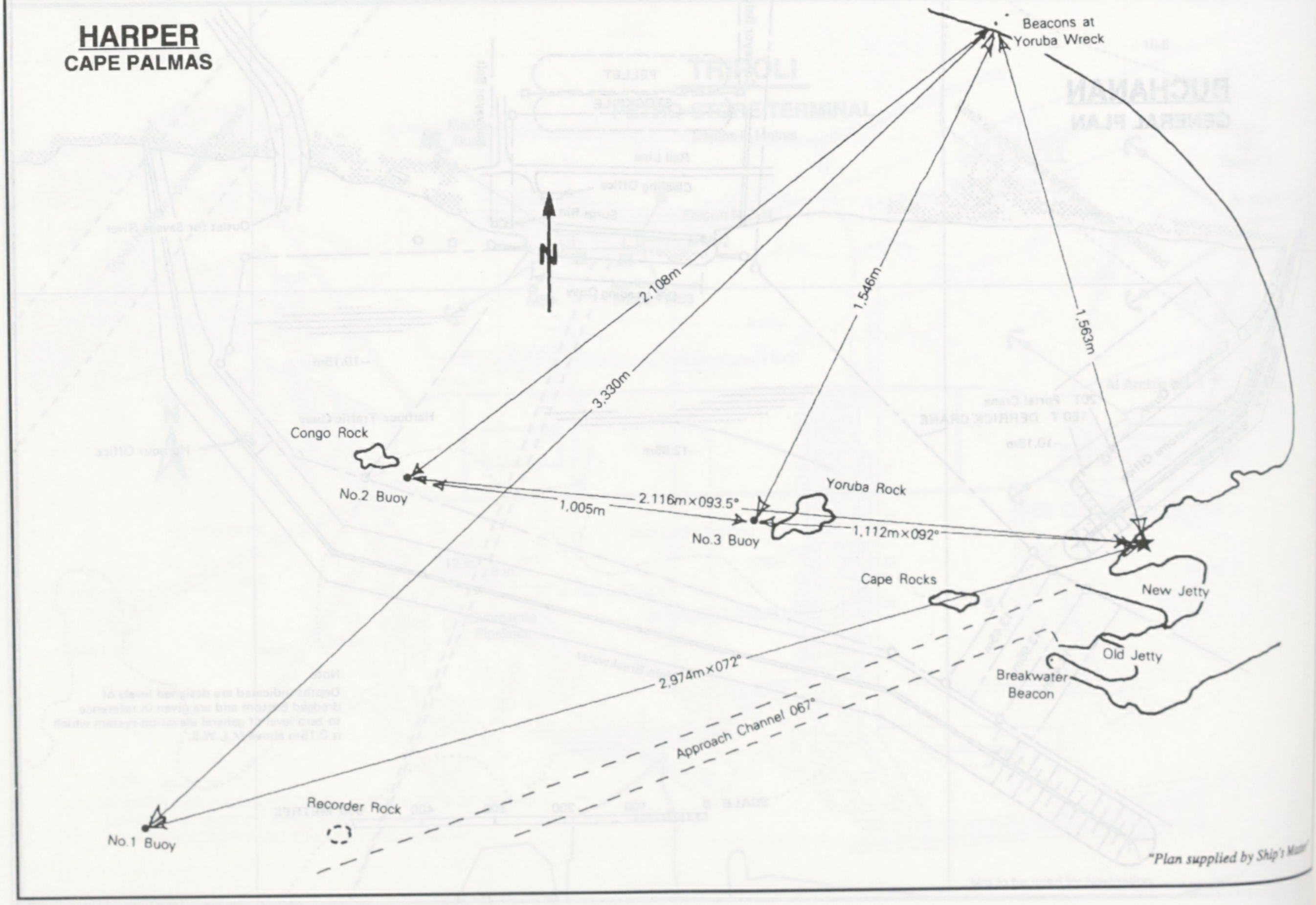

18.5m
11°
5.0m
2
1
9
+ 1.18 M.H.W.S.
0.15 M.L.W.S.
3
8
–12.95
7

BUCHANAN
ORE LOADING QUAY

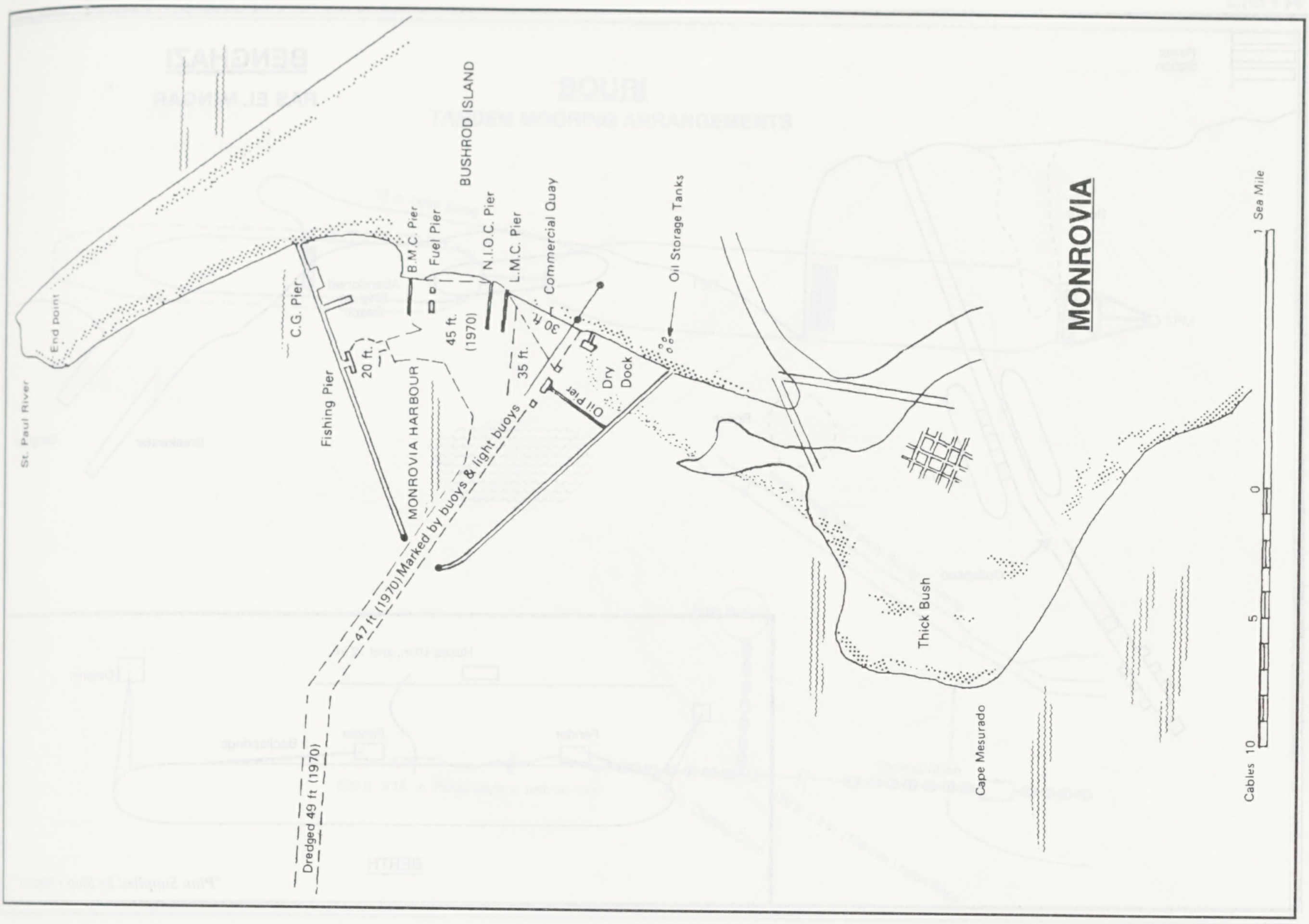
1. Minimum reach of shiploader outside fendered quayside = 4.50m
2. Maximum reach of shiploader outside fendered quayside = 23.0m (incl. throw)
3. Max. possible beam of ship with 5m symmetrical spout trimming across hatch = 43m
4. *Aftermost position of stern, when draft aft exceeds 9.0m*
5. *Foremost position of bow for acceptable mooring to anchor block*
6. Any hatch located *more than* 245.0m *from extreme stern must* be loaded before draft aft exceeds 9.0m
7. Min. advisable clearance under keel: $c = \frac{3B \text{ ft.}}{125}$ (B = ship's beam in feet)
8. Max. advisable draft (*cargo completed on high tide*) is 41½ – 42½ ft. depending on height of tide *and required clearance under* keel. Ships drawing 39 feet can be handled at all times
9. Free board height under shiploader should not exceed 15m

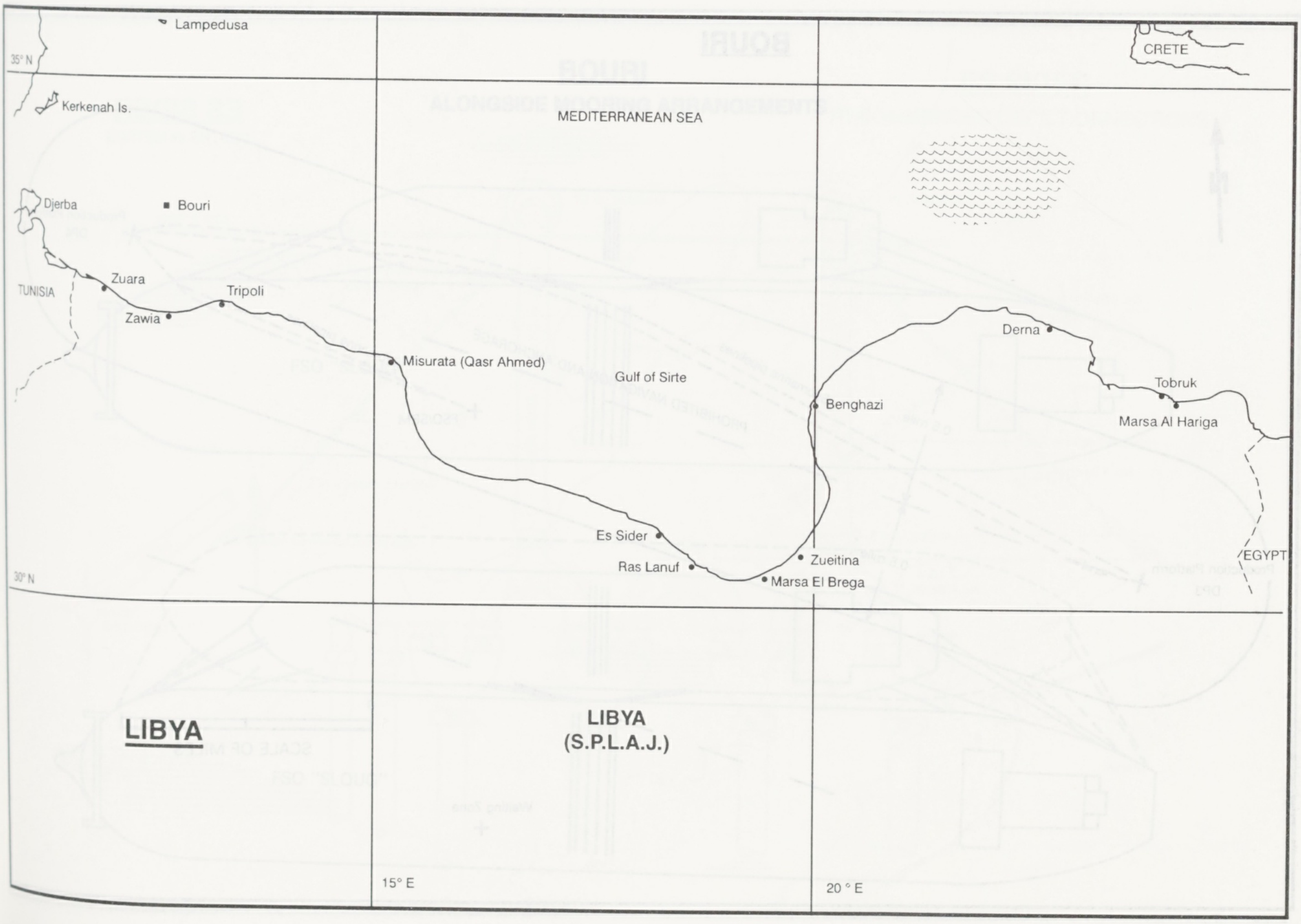
NOTE: Information on this drawing is given as advice only and does not constitute a guarantee, that ships of indicated max. dimension can always be loaded. In addition, several other factors like trimming, ballasting and deballasting, stresses in the hull etc must be taken into account by the owner or master of the ship.

HARPER
CAPE PALMAS


N
Beacons at Yoruba Wreck
2,108m
3,330m
1,546m
1,563m
Congo Rock
No.2 Buoy
1,005m
2,116m×093.5°
Yoruba Rock
No.3 Buoy
1,112m×092°
Cape Rocks
New Jetty
Old Jetty
Breakwater Beacon
2,974m×072°
Approach Channel 067°
Recorder Rock
No.1 Buoy

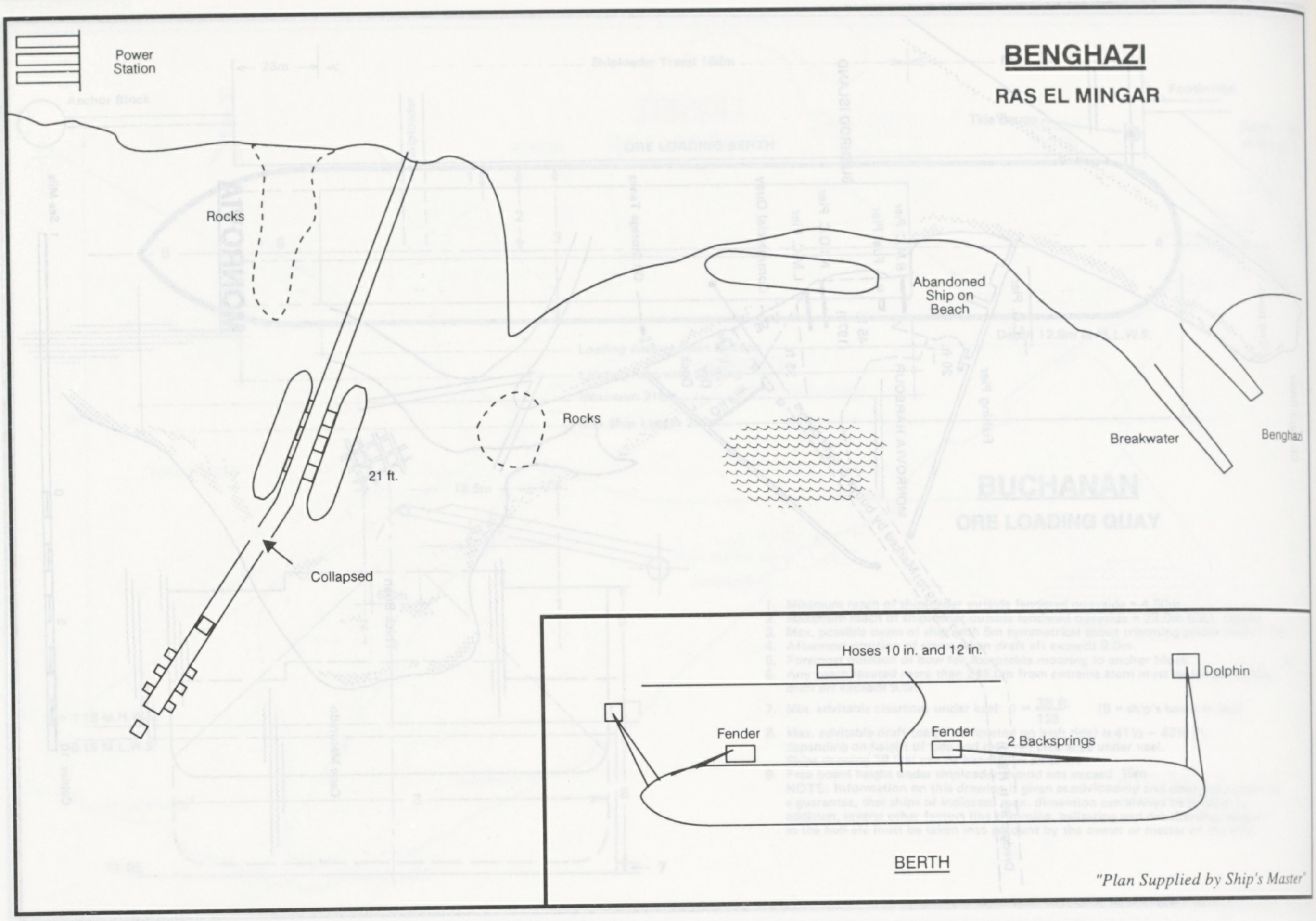
"Plan supplied by Ship's Master"


MONROVIA
1 Sea Mile
0
5
Cables 10
BUSHROD ISLAND
B.M.C. Pier
Fuel Pier
N.I.O.C. Pier
L.M.C. Pier
Commercial Quay
Oil Storage Tanks
C.G. Pier
End point
St. Paul River
Fishing Pier
20 ft.
MONROVIA HARBOUR
45 ft. (1970)
35 ft.
30 ft.
Dry Dock
Oil Pier
Marked by buoys & light buoys
47 ft (1970)
Dredged 49 ft (1970)
Thick Bush
Cape Mesurado


Lampedusa
35° N
Kerkenah Is.
MEDITERRANEAN SEA
CRETE
Djerba
Bouri
TUNISIA
Zuara
Zawia
Tripoli
Misurata (Qasr Ahmed)
Gulf of Sirte
Derna
Benghazi
Tobruk
Marsa Al Hariga
Es Sider
Ras Lanuf
Zueitina
Marsa El Brega
EGYPT
30° N
LIBYA
LIBYA
(S.P.L.A.J.)
15° E
20 ° E

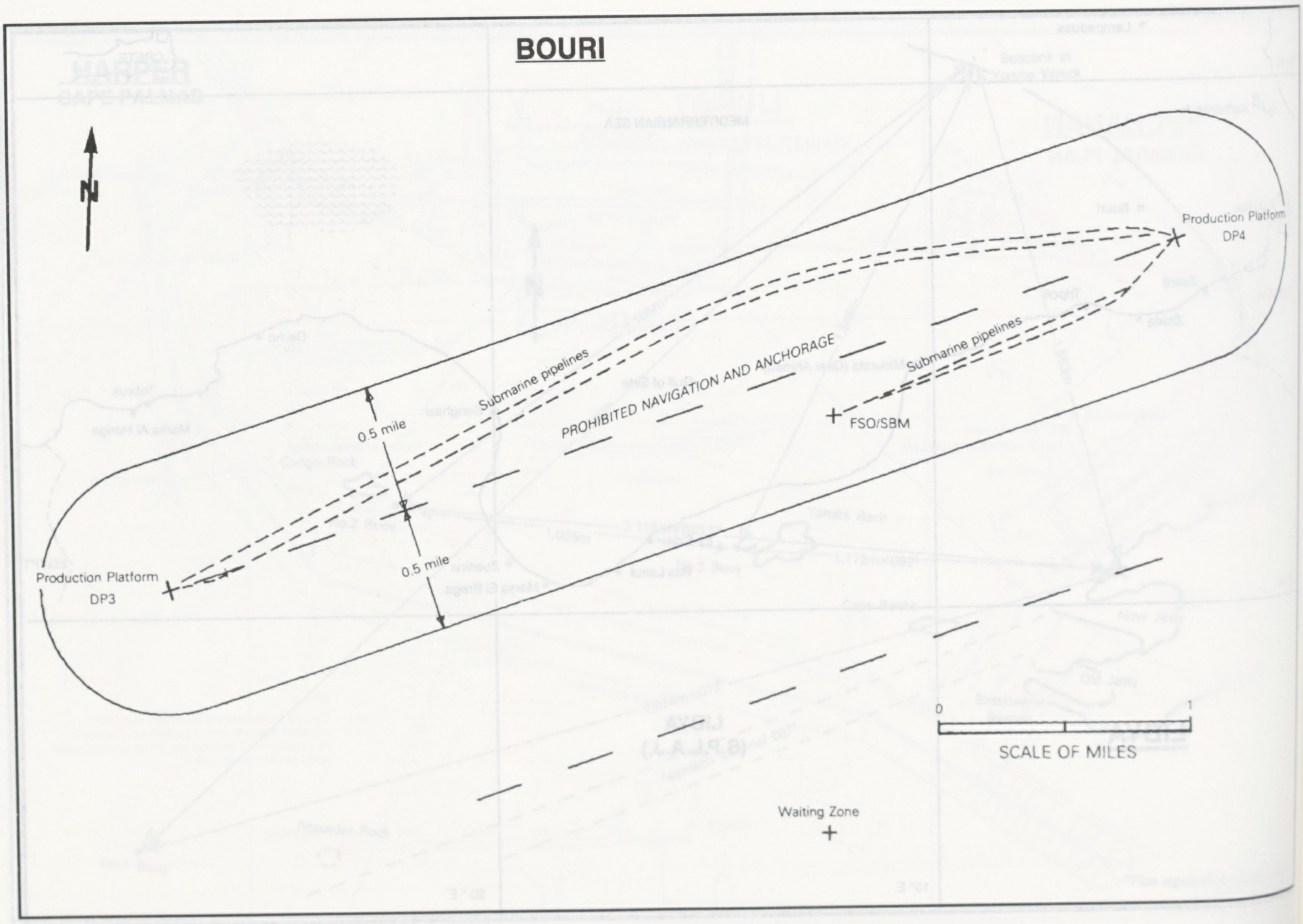
BENGHAZI

RAS EL MINGAR

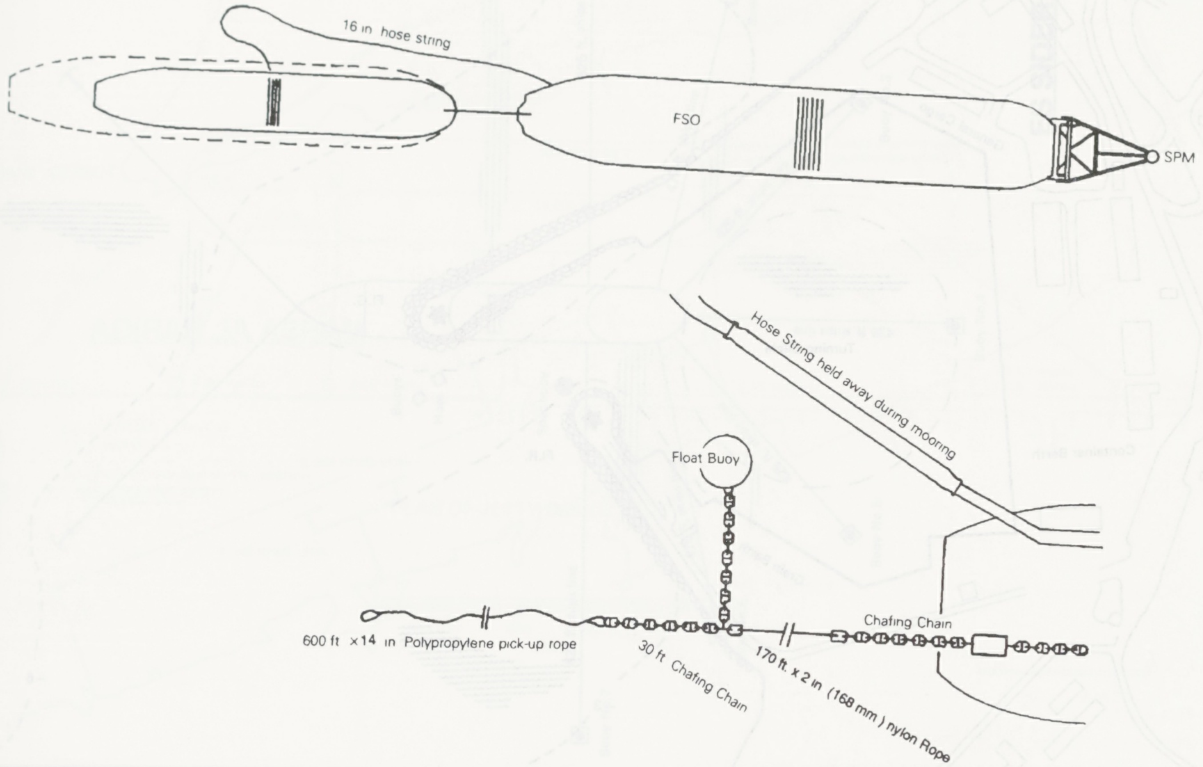

Power Station
Rocks
Abandoned Ship on Beach
Rocks
21 ft.
Collapsed
Breakwater
Benghazi
Hoses 10 in. and 12 in.
Dolphin
Fender
Fender
2 Backsprings
BERTH

"Plan Supplied by Ship's Master"

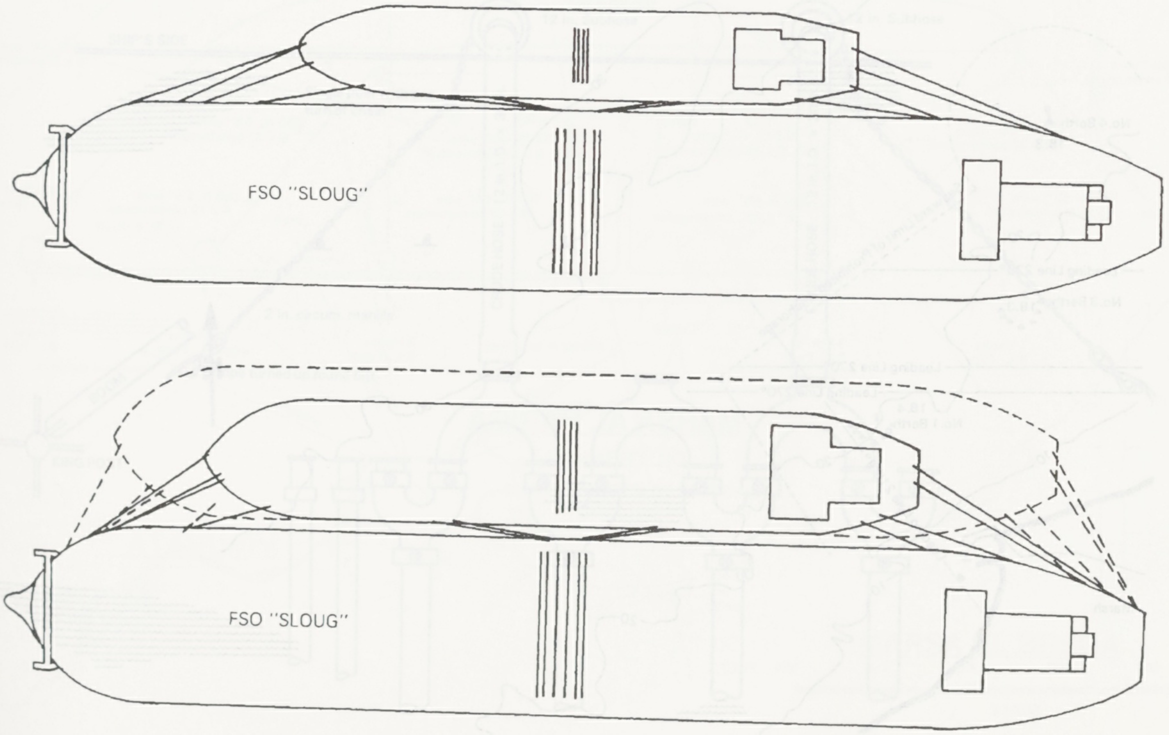
BOURI

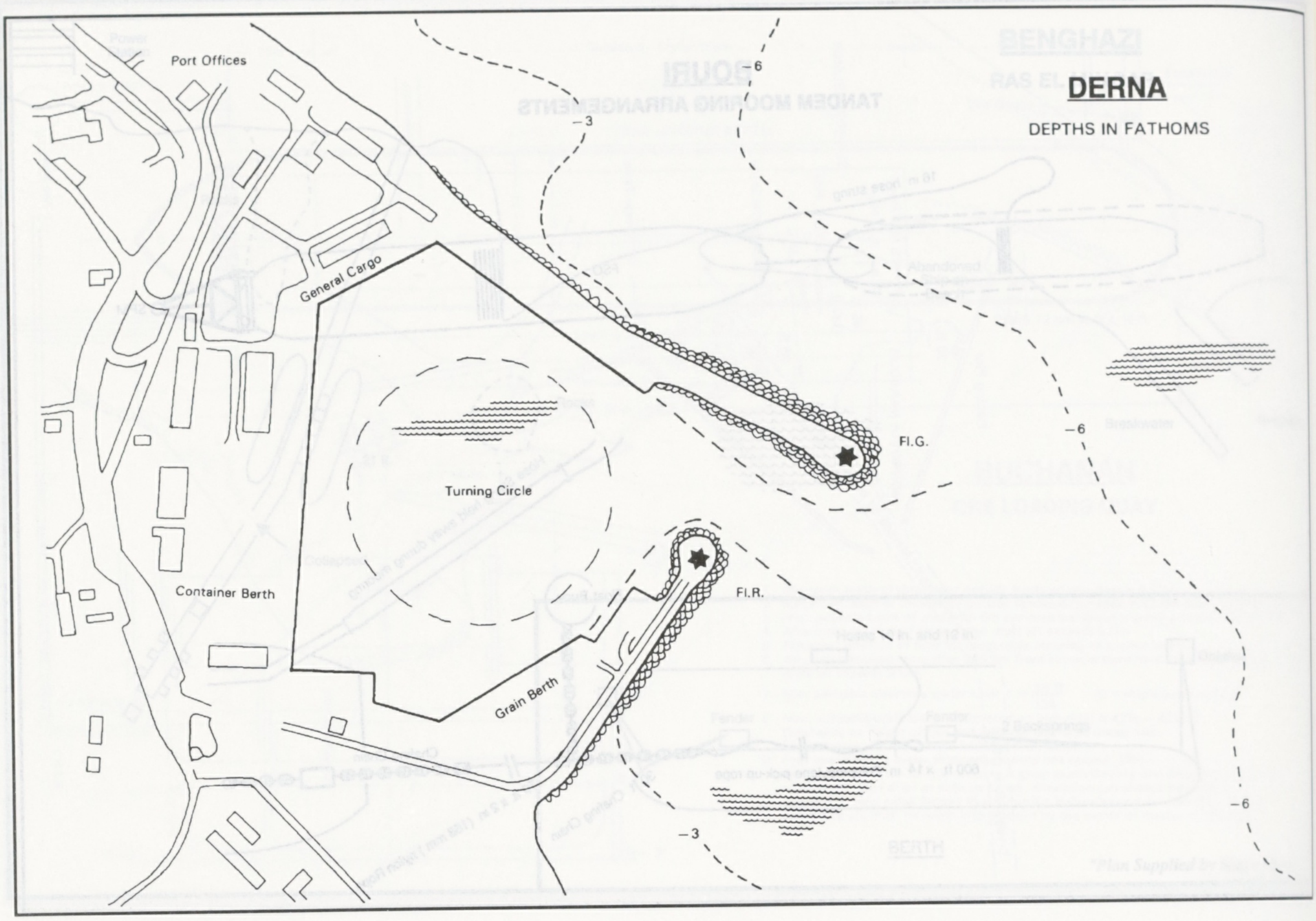

N
Production Platform DP4
Submarine pipelines
PROHIBITED NAVIGATION AND ANCHORAGE
Submarine pipelines
FSO/SBM
0.5 mile
0.5 mile
Production Platform DP3
0
1
SCALE OF MILES
Waiting Zone

BOURI
TANDEM MOORING ARRANGEMENTS


16 in hose string
FSO
SPM
Hose String held away during mooring
Float Buoy
Chafing Chain
600 ft ×14 in Polypropylene pick-up rope
30 ft Chafing Chain
170 ft. x 2 in (168 mm) nylon Rope

BOURI
ALONGSIDE MOORING ARRANGEMENTS

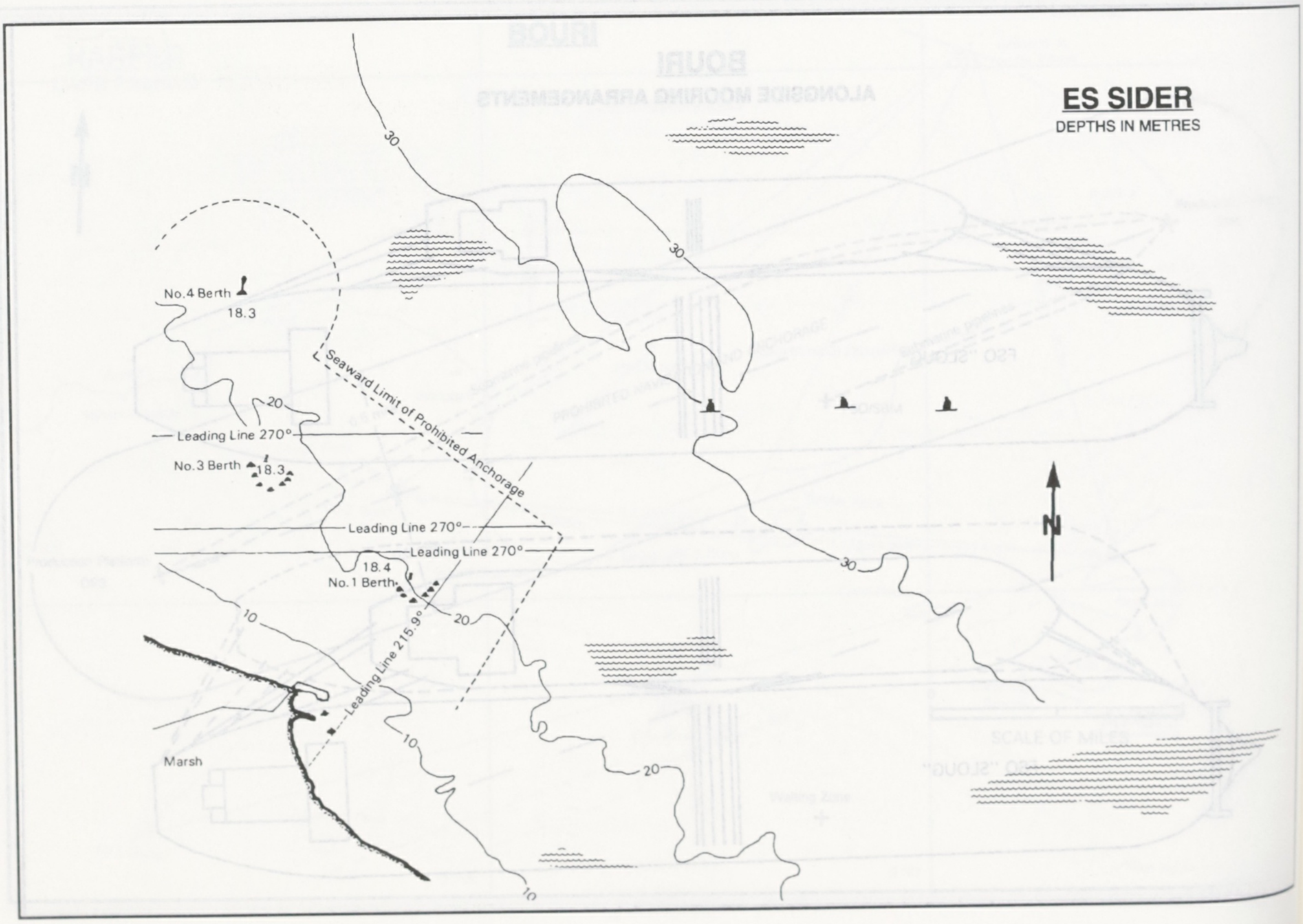

FSO "SLOUG"
FSO "SLOUG"



DERNA

DEPTHS IN FATHOMS

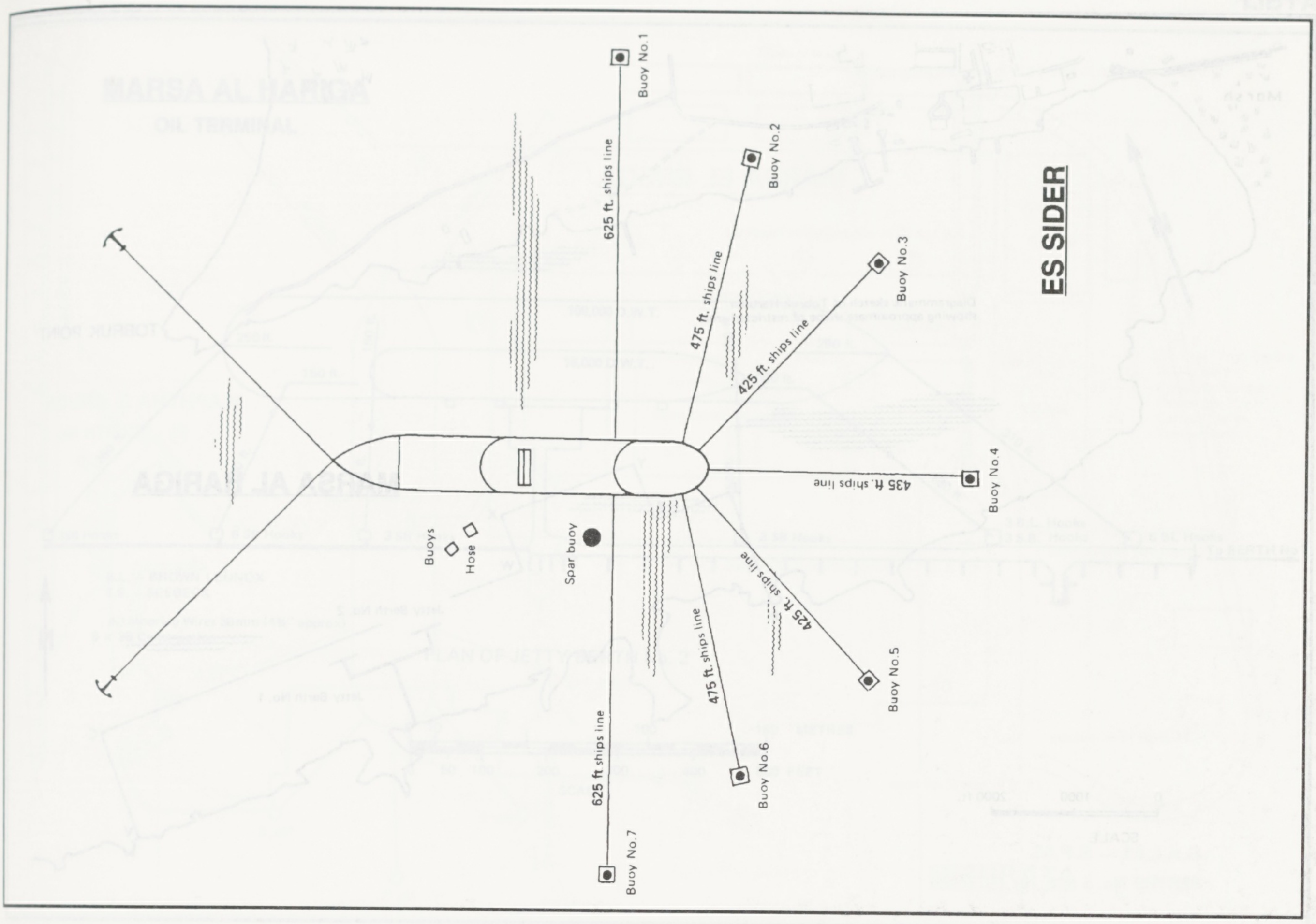
Port Offices
General Cargo
Turning Circle
Container Berth
Grain Berth
Fl.G.
Fl.R.
–3
6
–6
–3
–6



ES SIDER

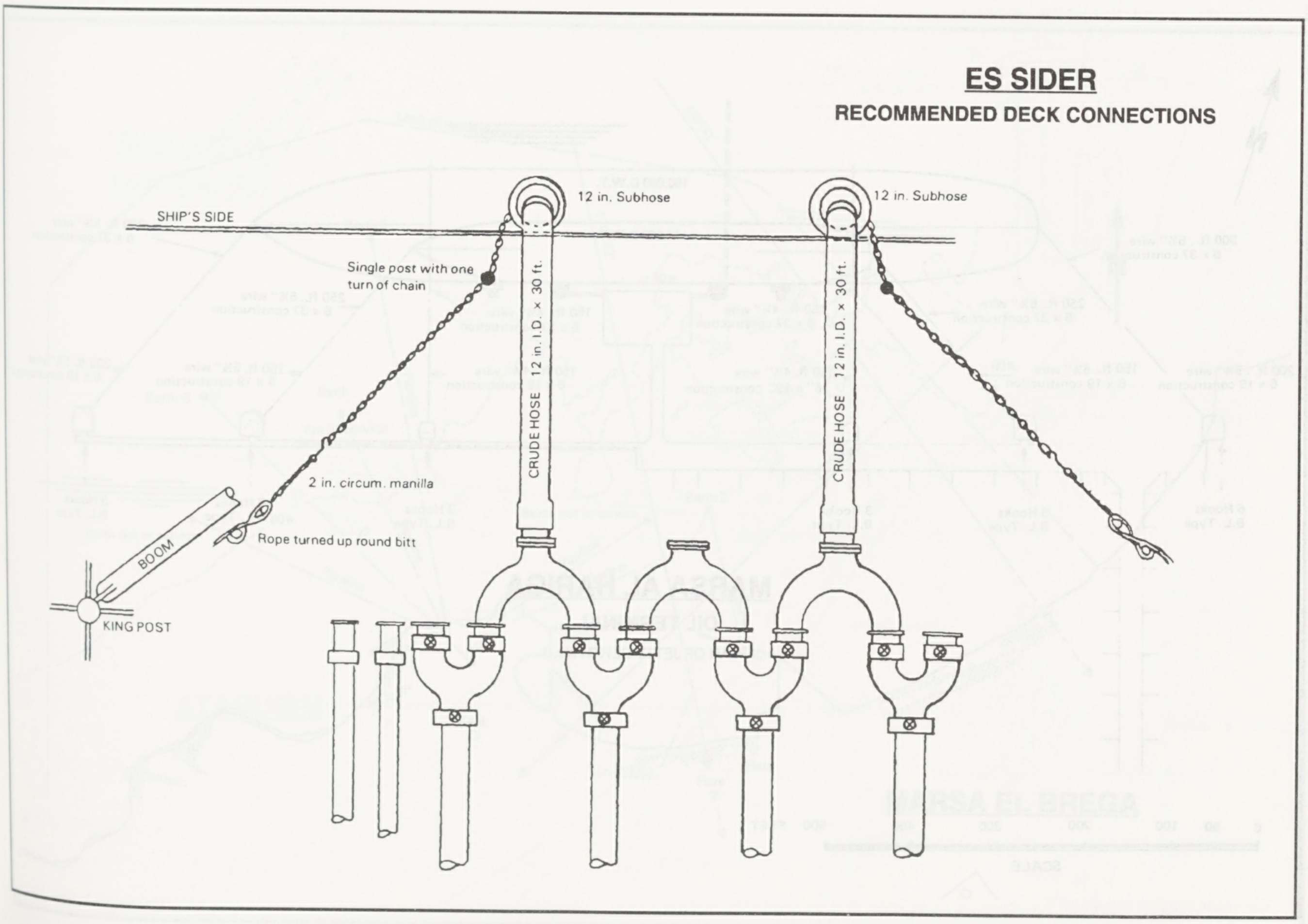
DEPTHS IN METRES

30
30
No.4 Berth
18.3
Seaward Limit of Prohibited Anchorage
20
Leading Line 270°
No.3 Berth
18.3
Leading Line 270°
Leading Line 270°
N
30
18.4
No.1 Berth
20
10
Leading Line 215.9°
Marsh
10
20
10



ES SIDER

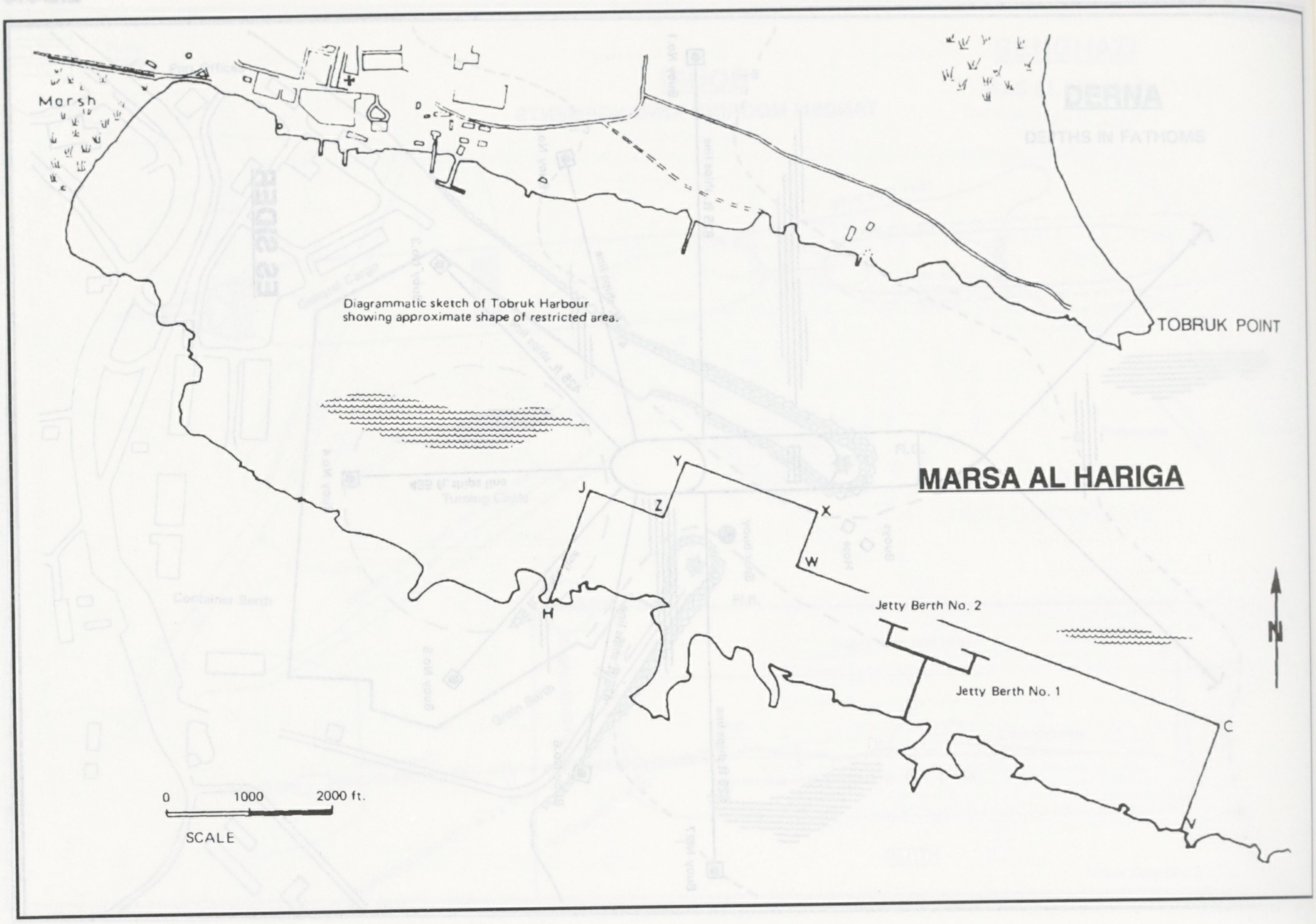
Buoy No.1
625 ft. ships line
Buoy No.2
475 ft. ships line
Buoy No.3
425 ft. ships line
Buoy No.4
435 ft. ships line
Buoys
Hose
Spar buoy
425 ft. ships line
Buoy No.5
475 ft. ships line
Buoy No.6
625 ft. ships line
Buoy No.7

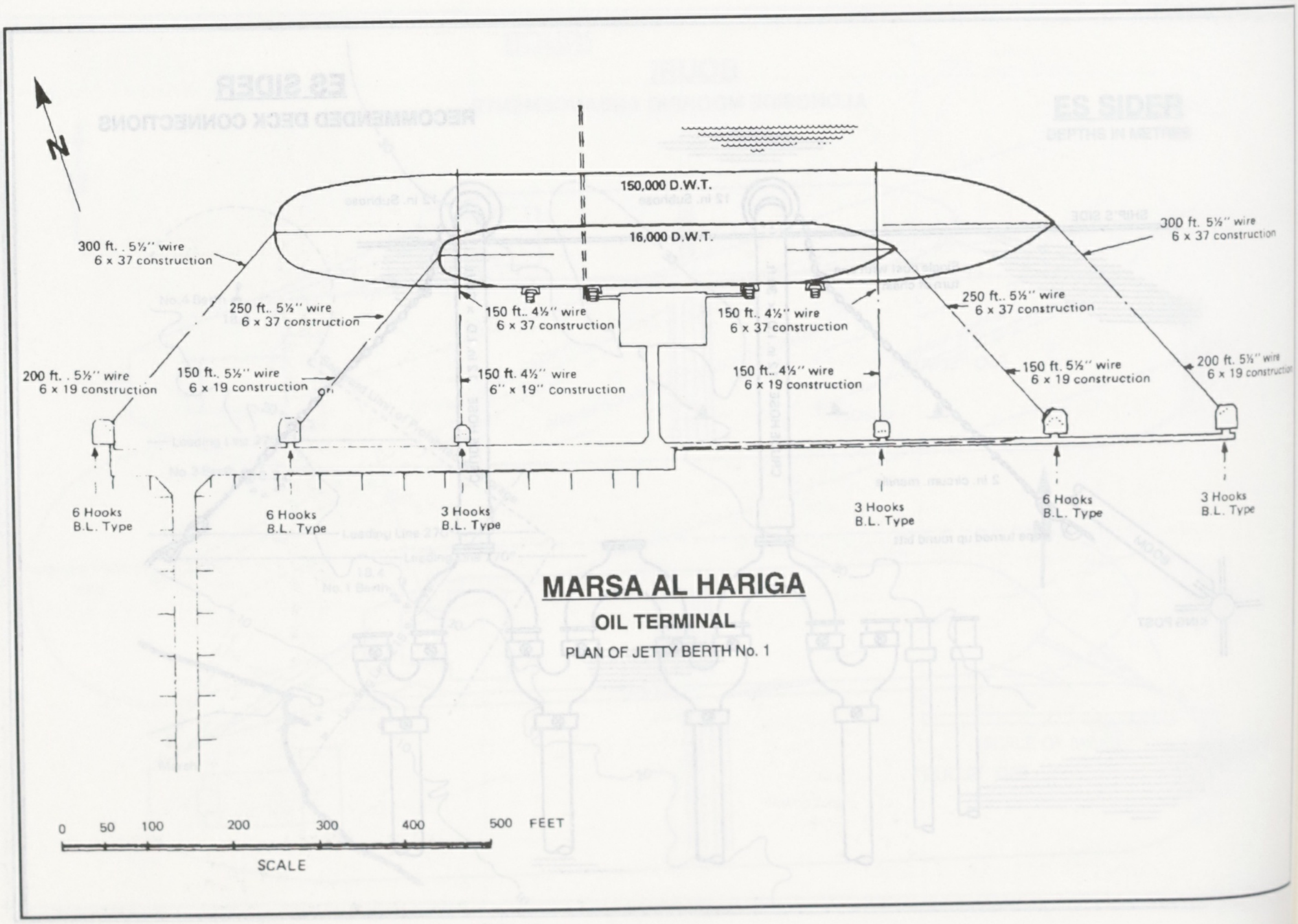


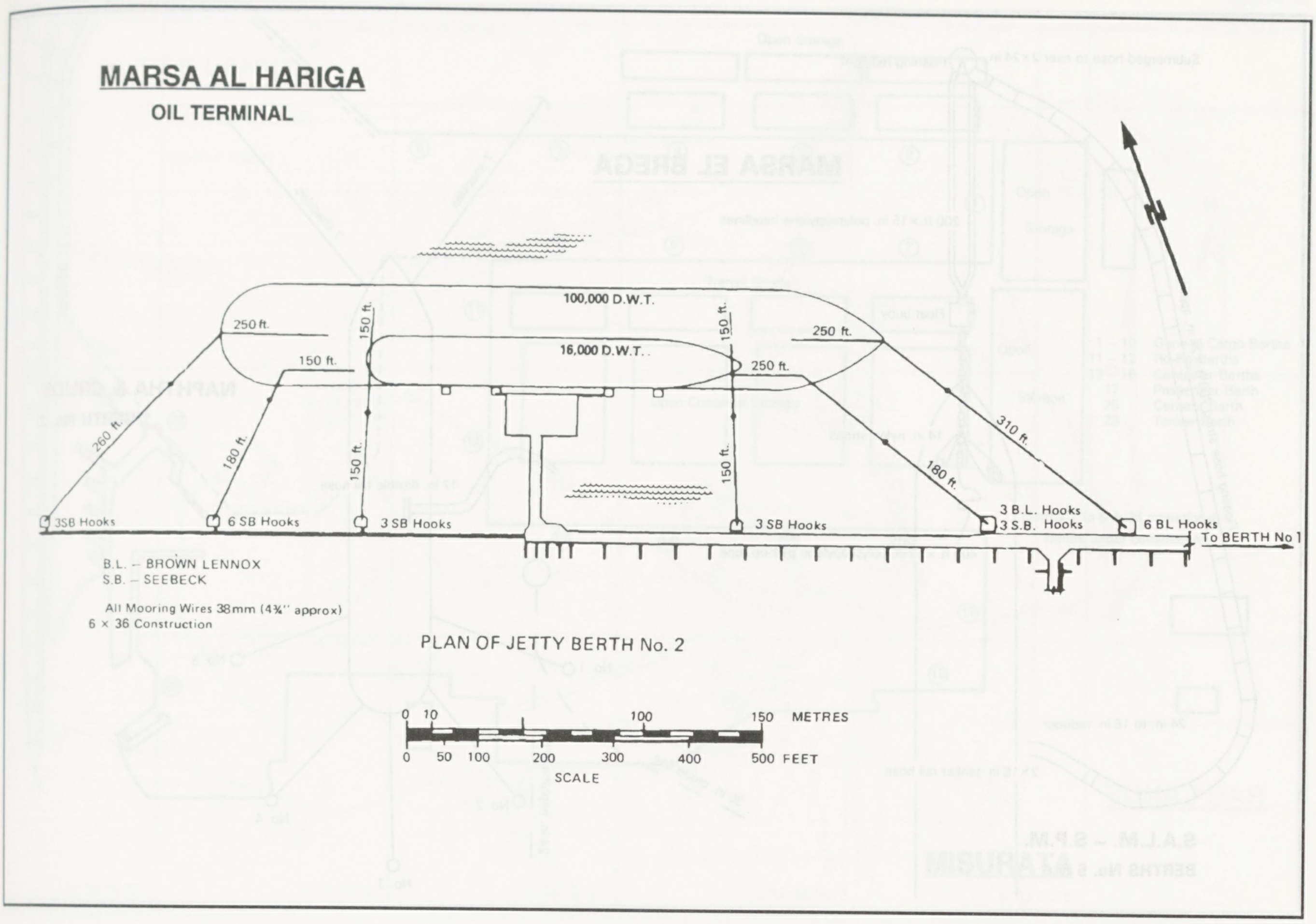
ES SIDER

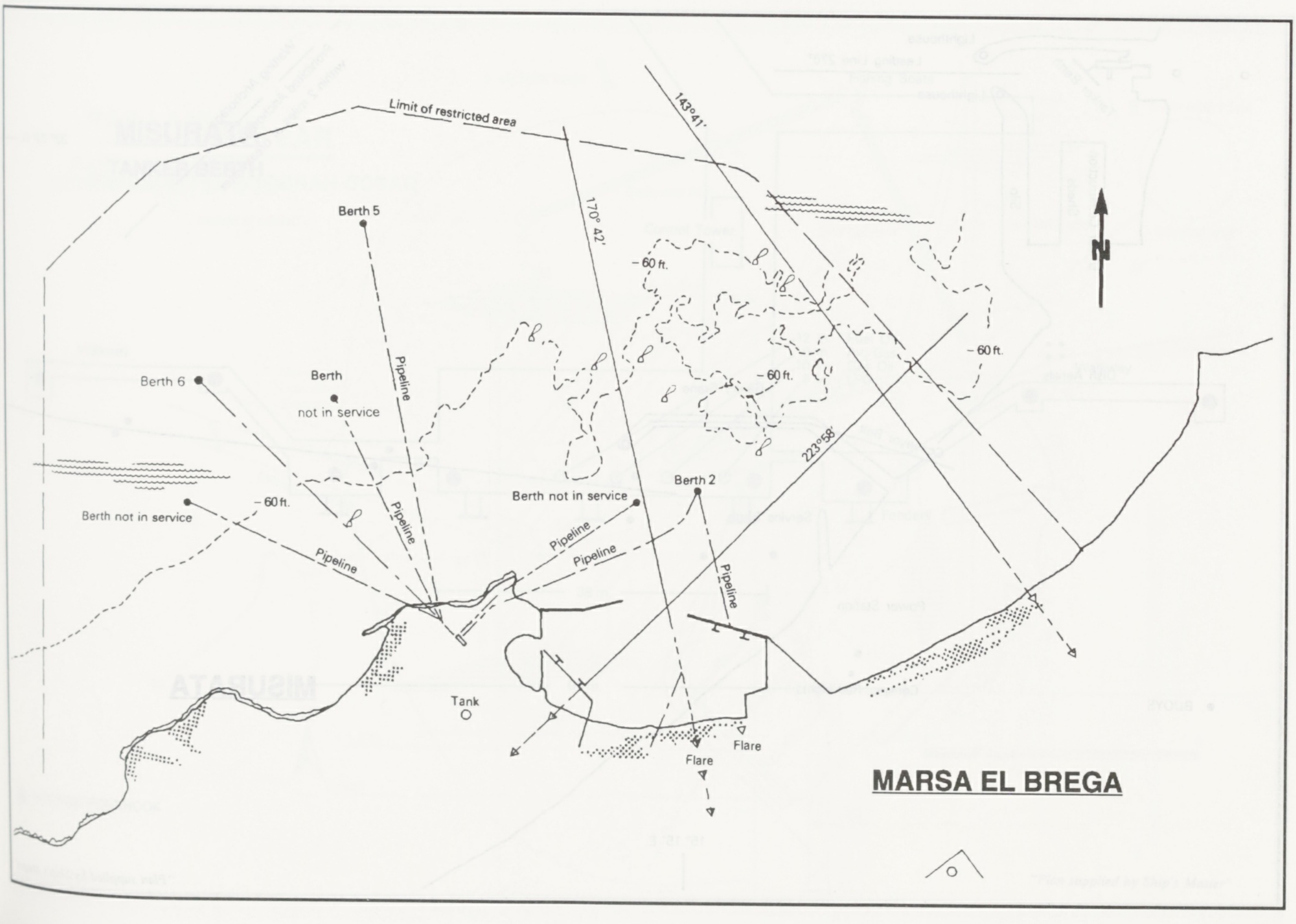
RECOMMENDED DECK CONNECTIONS

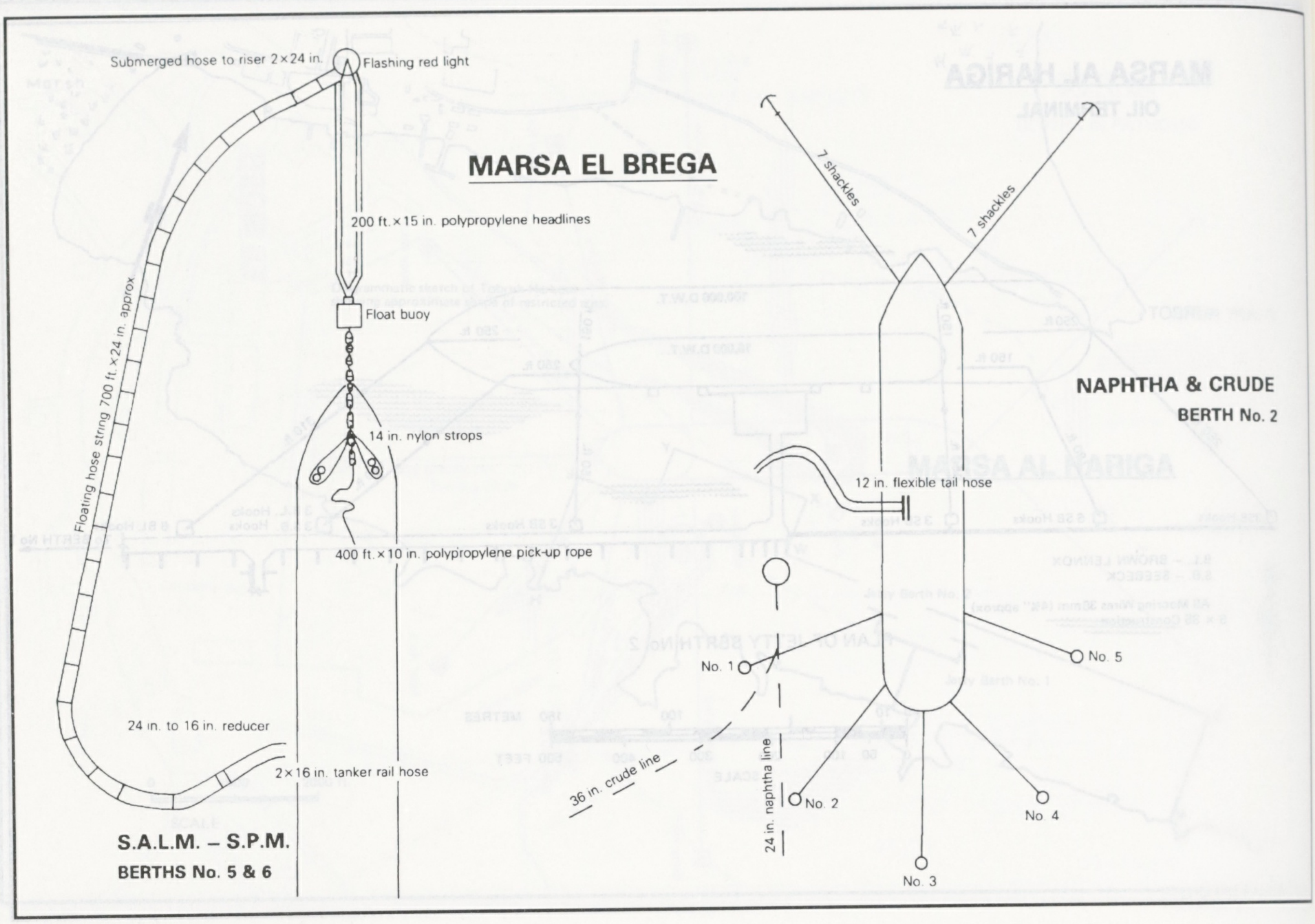
SHIP'S SIDE
12 in. Subhose
12 in. Subhose
Single post with one turn of chain
CRUDE HOSE 12 in. I.D. × 30 ft.
CRUDE HOSE 12 in. I.D. × 30 ft.
2 in. circum. manilla
Rope turned up round bitt
BOOM
KING POST

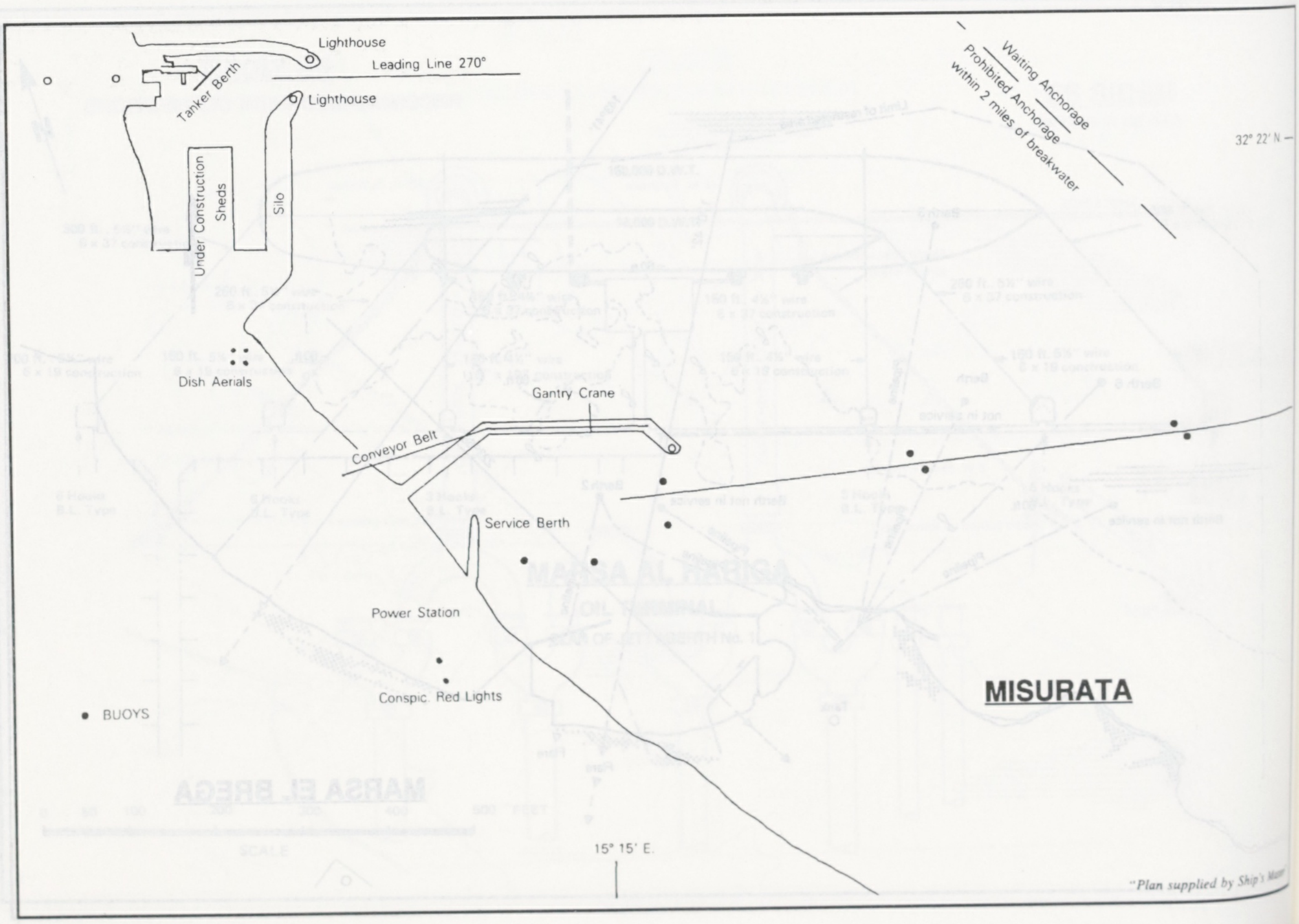

Marsh
Diagrammatic sketch of Tobruk Harbour showing approximate shape of restricted area.
TOBRUK POINT
MARSA AL HARIGA
Y
J
Z
X
W
H
Jetty Berth No. 2
Jetty Berth No. 1
C
V
N
0
1000
2000 ft.
SCALE


N
150,000 D.W.T.
16,000 D.W.T.
300 ft. . 5½" wire
6 x 37 construction
250 ft.. 5½" wire
6 x 37 construction
200 ft. . 5½" wire
6 x 19 construction
150 ft.. 5½" wire
6 x 19 construction
150 ft.. 4½" wire
6 x 37 construction
150 ft. 4½" wire
6" x 19" construction
150 ft.. 4½" wire
6 x 37 construction
150 ft.. 4½" wire
6 x 19 construction
250 ft.. 5½" wire
6 x 37 construction
300 ft. 5½" wire
6 x 37 construction
150 ft. 5½" wire
6 x 19 construction
200 ft. 5½" wire
6 x 19 construction
6 Hooks
B.L. Type
6 Hooks
B.L. Type
3 Hooks
B.L. Type
3 Hooks
B.L. Type
6 Hooks
B.L. Type
3 Hooks
B.L. Type
MARSA AL HARIGA
OIL TERMINAL
PLAN OF JETTY BERTH No. 1
0
50
100
200
300
400
500 FEET
SCALE

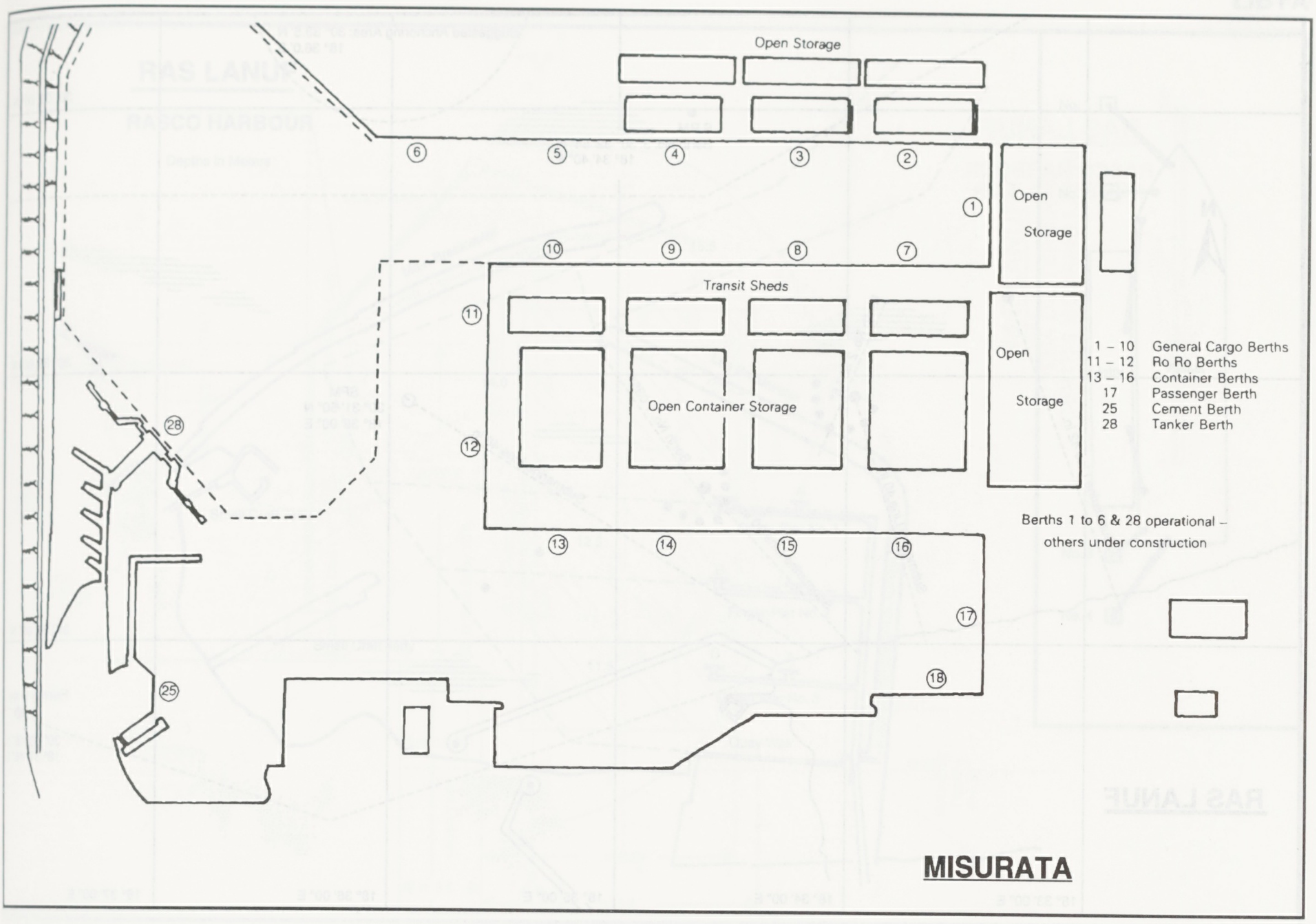

MARSA AL HARIGA
OIL TERMINAL
100,000 D.W.T.
16,000 D.W.T.
250 ft.
150 ft.
150 ft.
150 ft.
250 ft.
250 ft.
260 ft.
180 ft.
150 ft.
150 ft.
310 ft.
180 ft.
3SB Hooks
6 SB Hooks
3 SB Hooks
3 SB Hooks
3 B.L. Hooks
3 S.B. Hooks
6 BL Hooks
To BERTH No 1
B.L. – BROWN LENNOX
S.B. – SEEBECK
All Mooring Wires 38mm (4¾'' approx)
6 × 36 Construction
PLAN OF JETTY BERTH No. 2
0 10 100 150 METRES
0 50 100 200 300 400 500 FEET
SCALE
N

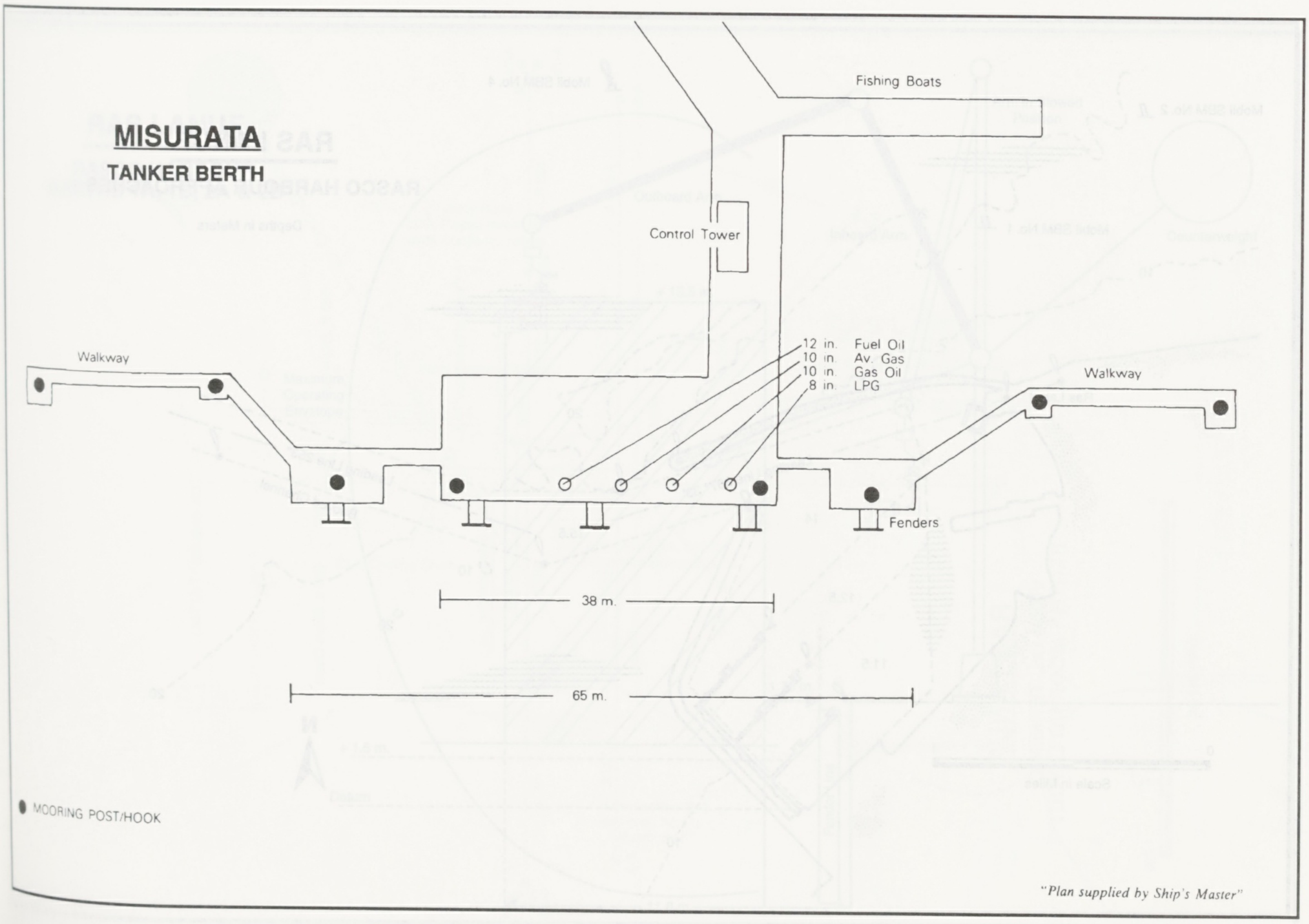

Limit of restricted area
143°41'
170° 42'
223°58'
Berth 5
Berth 6
Berth
not in service
Berth not in service
Berth not in service
Berth 2
Pipeline
Pipeline
Pipeline
Pipeline
Pipeline
Pipeline
– 60 ft.
– 60 ft.
– 60 ft.
– 60 ft.
– 60 ft.
Tank
Flare
Flare
N
MARSA EL BREGA


MARSA EL BREGA
Submerged hose to riser 2×24 in.
Flashing red light
200 ft.×15 in. polypropylene headlines
Float buoy
14 in. nylon strops
400 ft.×10 in. polypropylene pick-up rope
Floating hose string 700 ft.×24 in. approx
24 in. to 16 in. reducer
2×16 in. tanker rail hose
S.A.L.M. – S.P.M.
BERTHS No. 5 & 6
7 shackles
7 shackles
NAPHTHA & CRUDE
BERTH No. 2
12 in. flexible tail hose
No. 1
No. 2
No. 3
No. 4
No. 5
36 in. crude line
24 in. naphtha line

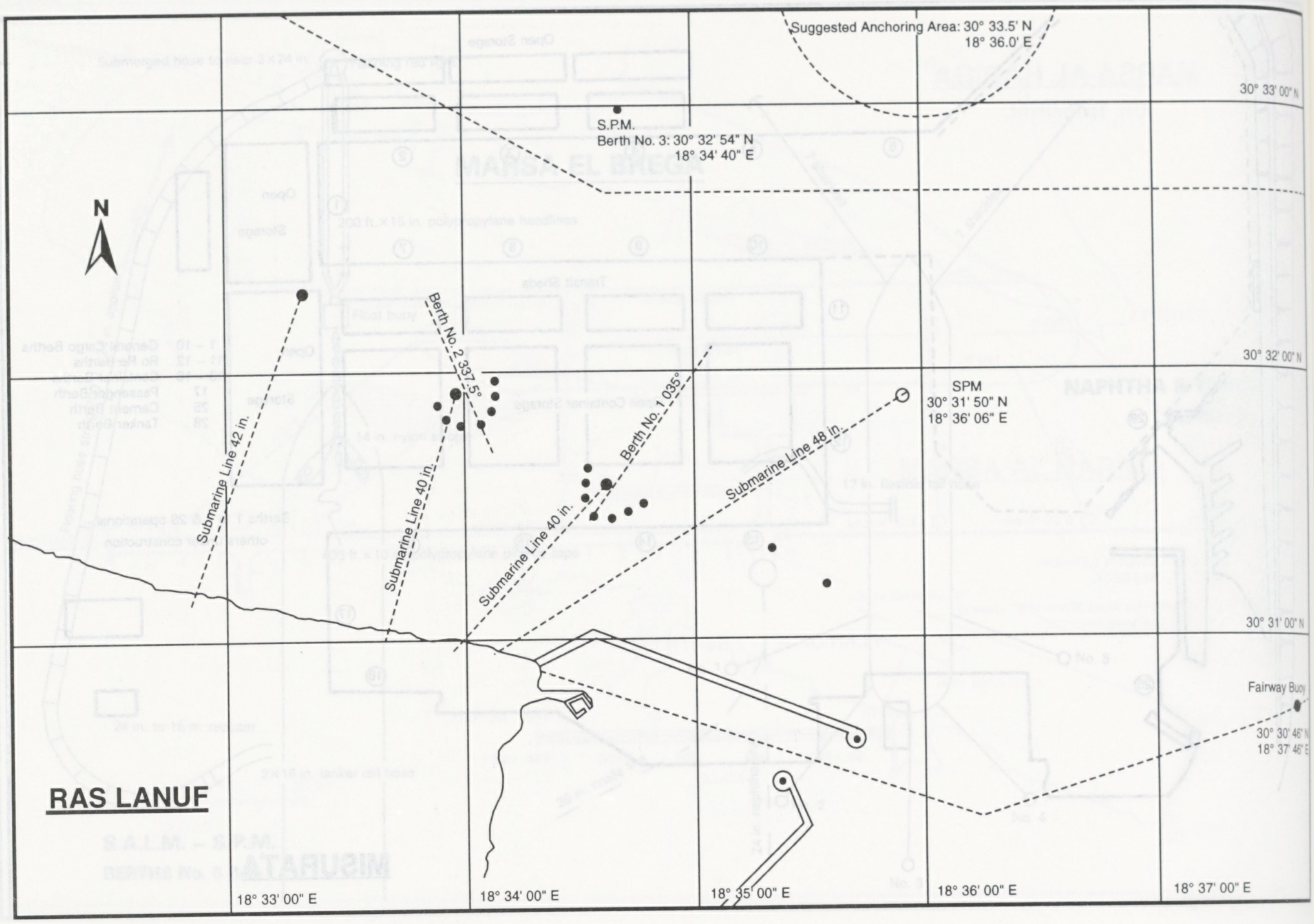

Lighthouse
Leading Line 270°
Tanker Berth
Lighthouse
Under Construction
Sheds
Silo
Waiting Anchorage
Prohibited Anchorage
within 2 miles of breakwater
32° 22′ N
Dish Aerials
Gantry Crane
Conveyor Belt
Service Berth
Power Station
Conspic. Red Lights
● BUOYS
MISURATA
15° 15′ E.

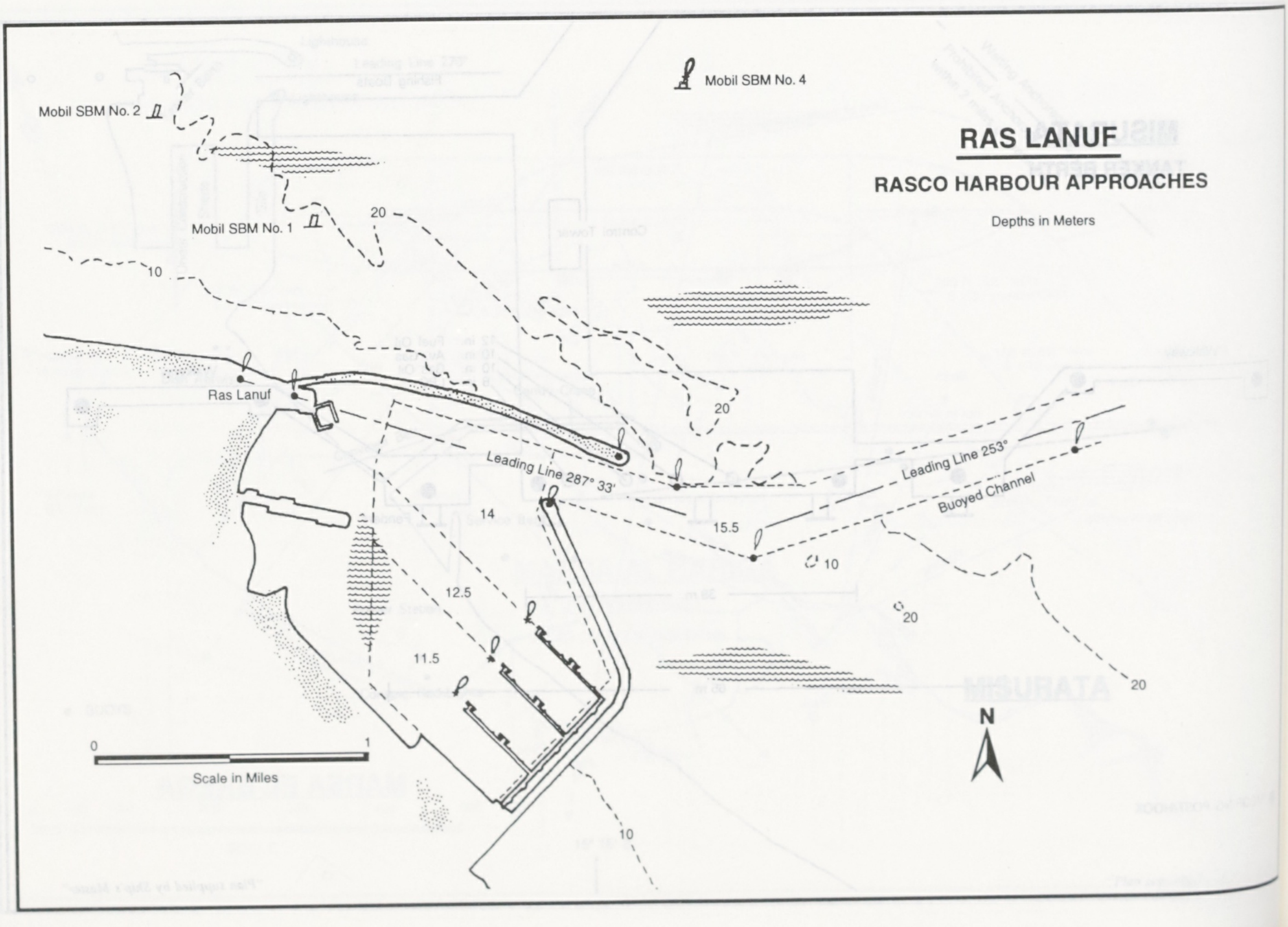
"Plan supplied by Ship's Ma

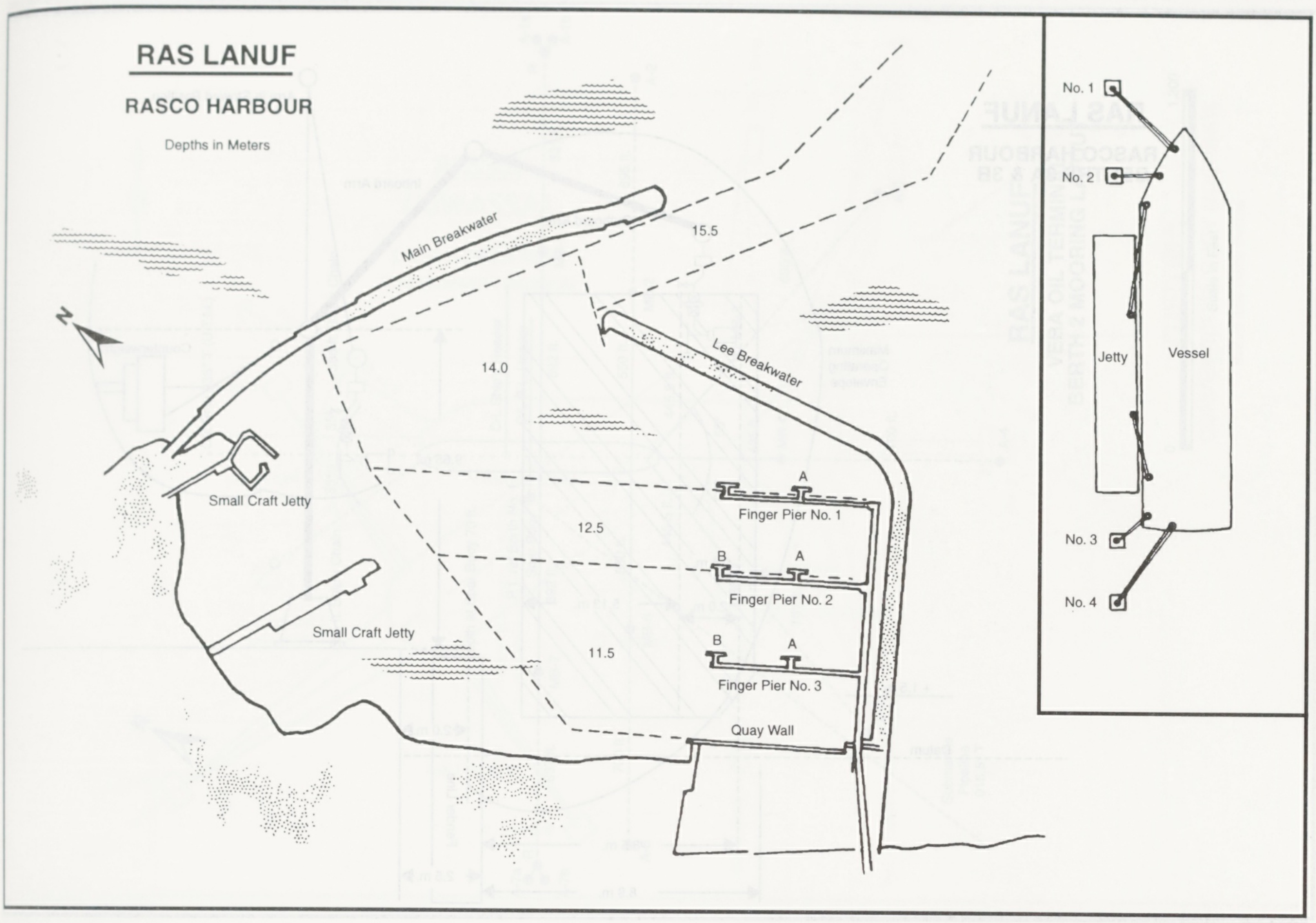

Open Storage
Open Storage
Transit Sheds
Open Container Storage
Open Storage
1 – 10 General Cargo Berths
11 – 12 Ro Ro Berths
13 – 16 Container Berths
17 Passenger Berth
25 Cement Berth
28 Tanker Berth
Berths 1 to 6 & 28 operational – others under construction
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ㉕ ㉘
MISURATA


MISURATA
TANKER BERTH
Fishing Boats
Control Tower
12 in. Fuel Oil
10 in. Av. Gas
10 in. Gas Oil
8 in. LPG
Walkway
Walkway
Fenders
38 m.
65 m.
● MOORING POST/HOOK

"Plan supplied by Ship's Master"


Suggested Anchoring Area: 30° 33.5' N
18° 36.0' E
30° 33' 00" N
S.P.M.
Berth No. 3: 30° 32' 54" N
18° 34' 40" E
N
Berth No. 2 337.5°
30° 32' 00" N
SPM
30° 31' 50" N
18° 36' 06" E
Berth No. 1 035°
Submarine Line 48 in.
Submarine Line 42 in.
Submarine Line 40 in.
Submarine Line 40 in.
30° 31' 00" N
Fairway Buoy
30° 30' 46" N
18° 37' 46" E
RAS LANUF
18° 33' 00" E
18° 34' 00" E
18° 35' 00" E
18° 36' 00" E
18° 37' 00" E


Mobil SBM No. 4
Mobil SBM No. 2
RAS LANUF
RASCO HARBOUR APPROACHES
Depths in Meters
Mobil SBM No. 1
20
10
20
Ras Lanuf
Leading Line 287° 33'
Leading Line 253°
Buoyed Channel
14
15.5
10
12.5
20
11.5
20
0
1
Scale in Miles
N
10

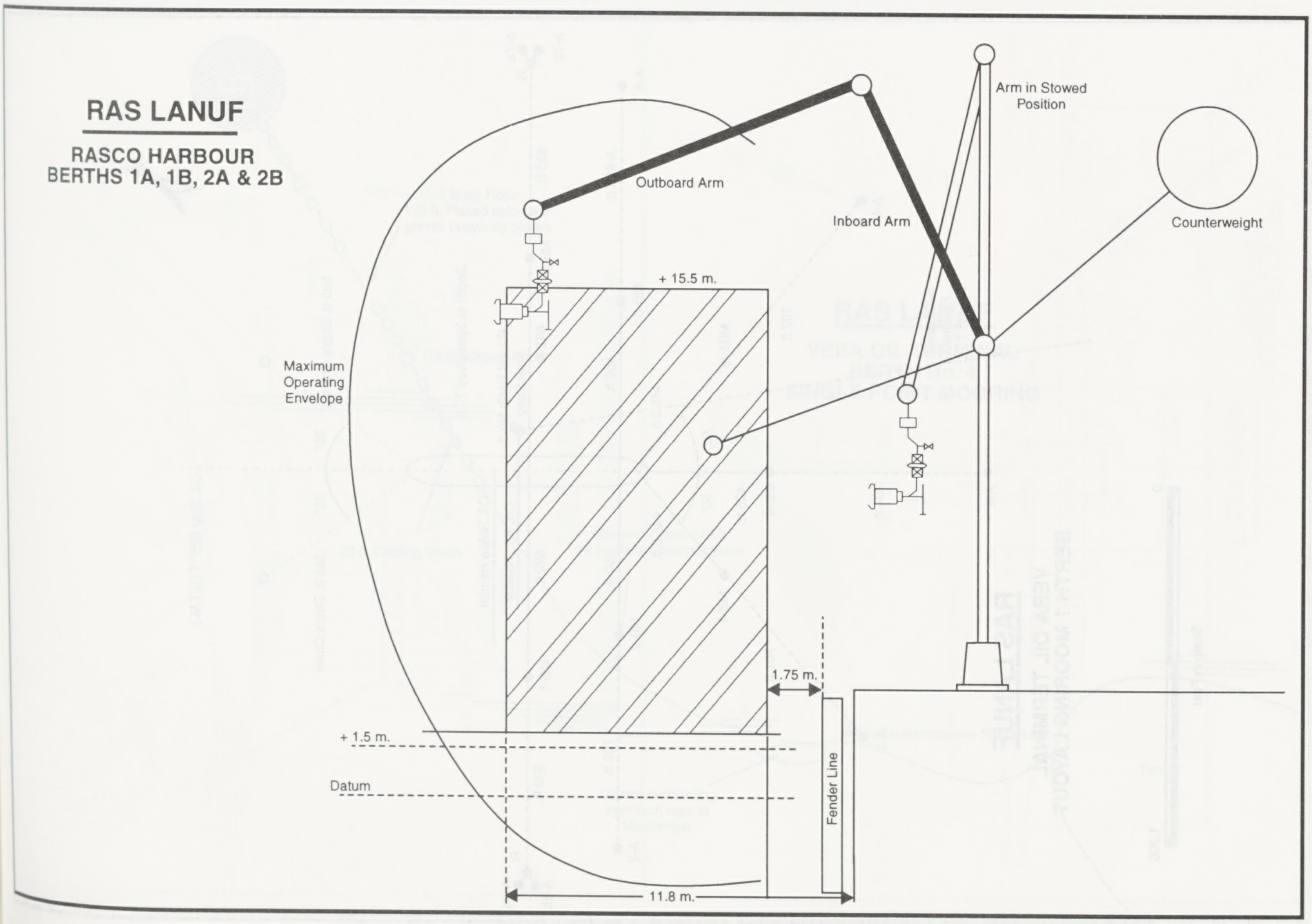


RAS LANUF

RASCO HARBOUR

Depths in Meters

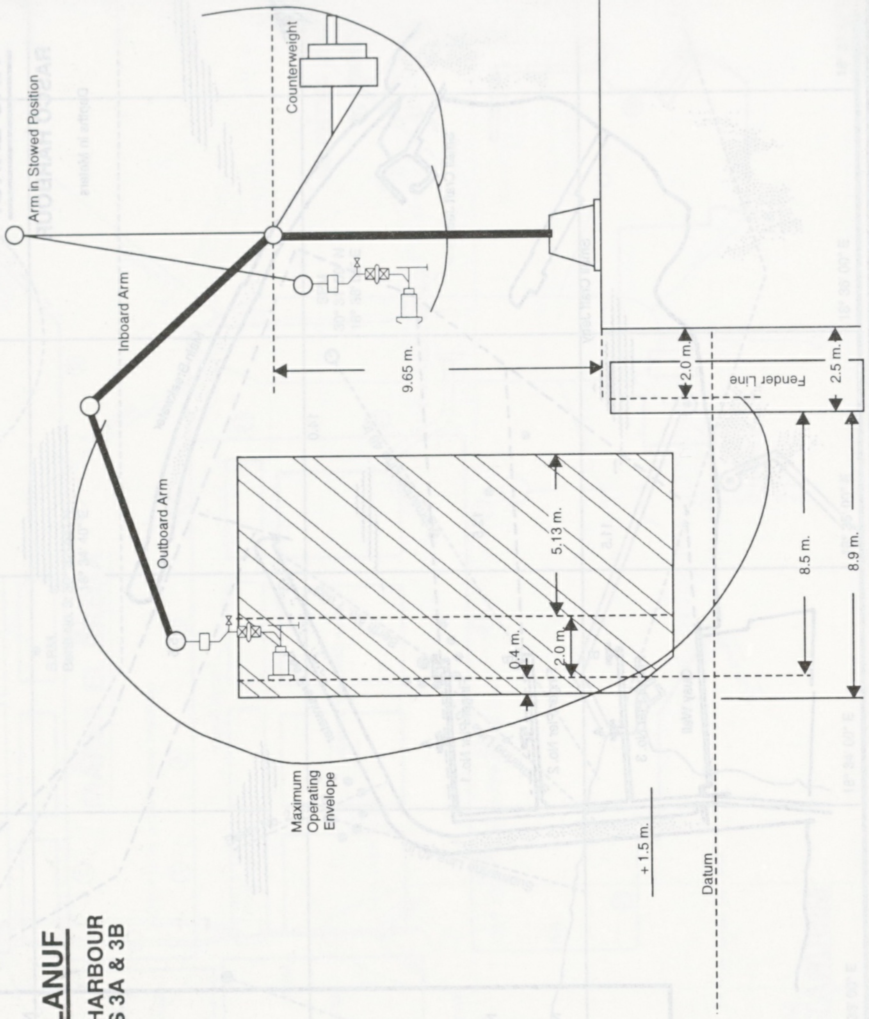
Main Breakwater
Lee Breakwater
15.5
14.0
12.5
11.5
Small Craft Jetty
Small Craft Jetty
A
Finger Pier No. 1
B
A
Finger Pier No. 2
B
A
Finger Pier No. 3
Quay Wall
N
No. 1
No. 2
No. 3
No. 4
Jetty
Vessel



RAS LANUF

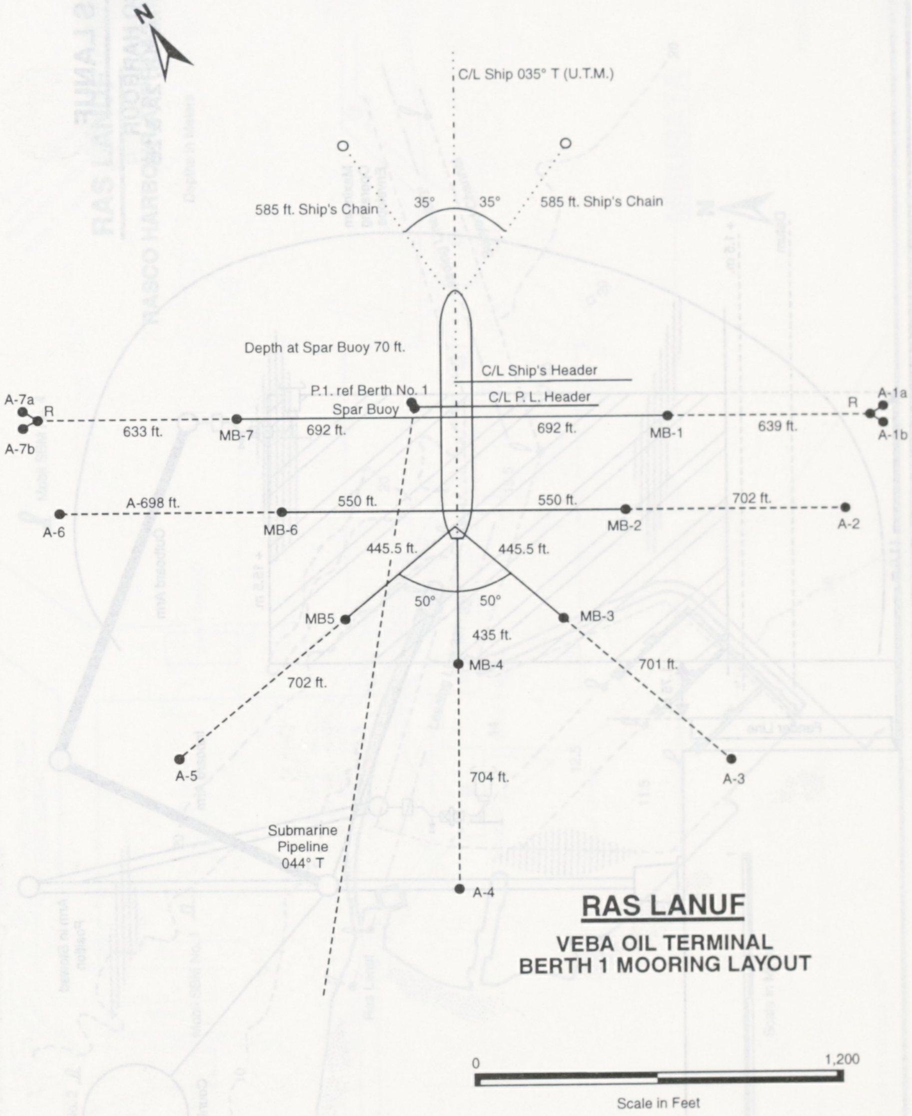
RASCO HARBOUR
BERTHS 1A, 1B, 2A & 2B

Outboard Arm
Inboard Arm
Arm in Stowed Position
Counterweight
Maximum Operating Envelope
+ 15.5 m.
1.75 m.
+ 1.5 m.
Datum
Fender Line
11.8 m.


Arm in Stowed Position
Counterweight
Inboard Arm
Outboard Arm
9.65 m.
2.0 m.
2.5 m.
Fender Line
5.13 m.
8.5 m.
8.9 m.
0.4 m.
2.0 m.
Maximum Operating Envelope
+ 1.5 m.
Datum

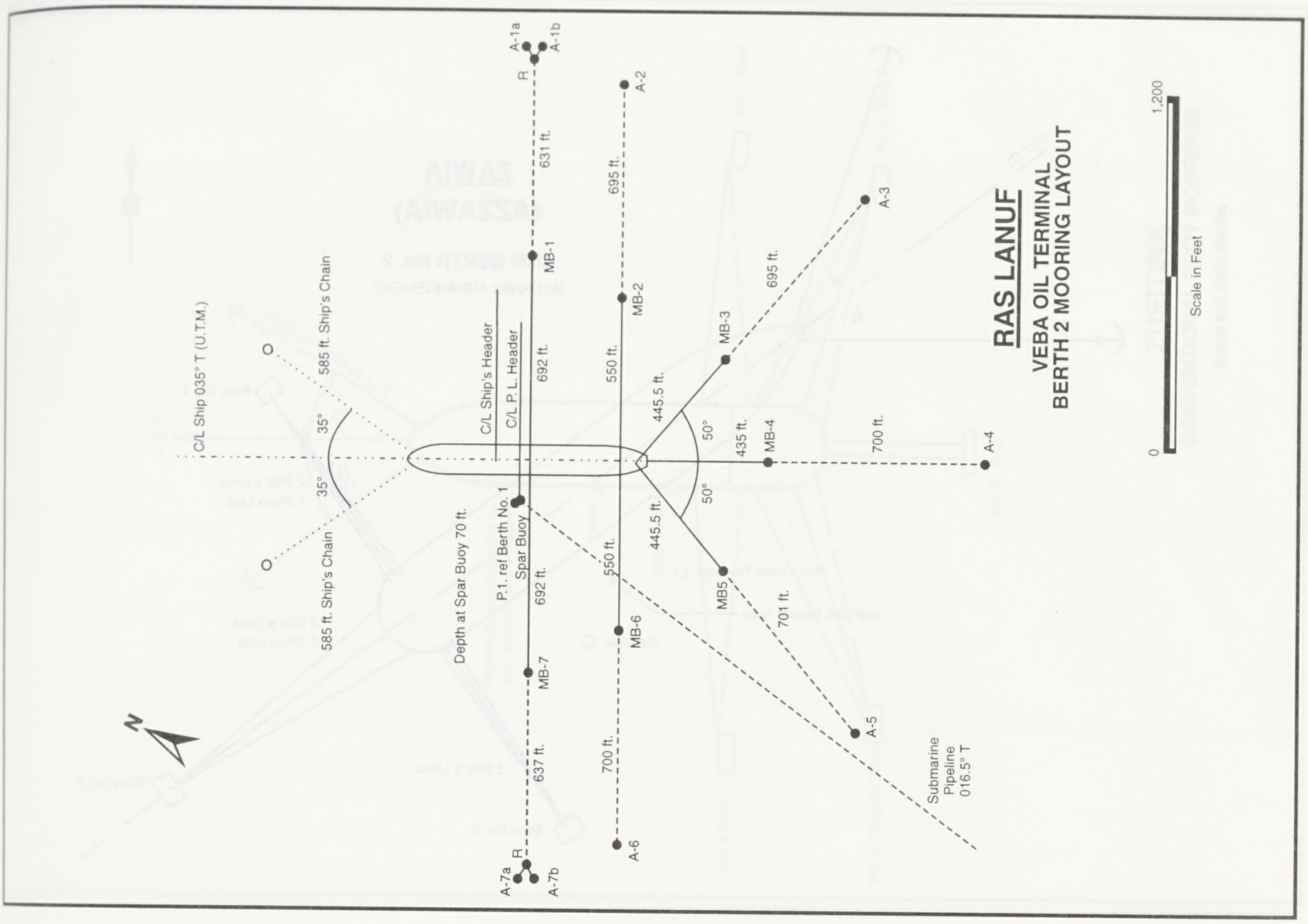
RAS LANUF

RASCO HARBOUR
BERTHS 3A & 3B


N
C/L Ship 035° T (U.T.M.)
585 ft. Ship's Chain
35°
35°
585 ft. Ship's Chain
Depth at Spar Buoy 70 ft.
C/L Ship's Header
P.1. ref Berth No. 1
C/L P. L. Header
Spar Buoy
A-7a
R
A-7b
633 ft.
MB-7
692 ft.
692 ft.
MB-1
639 ft.
R
A-1a
A-1b
A-698 ft.
550 ft.
550 ft.
702 ft.
A-6
MB-6
MB-2
A-2
445.5 ft.
445.5 ft.
50°
50°
MB5
MB-3
435 ft.
MB-4
702 ft.
701 ft.
A-5
704 ft.
A-3
Submarine Pipeline 044° T
A-4
0
1,200
Scale in Feet

RAS LANUF

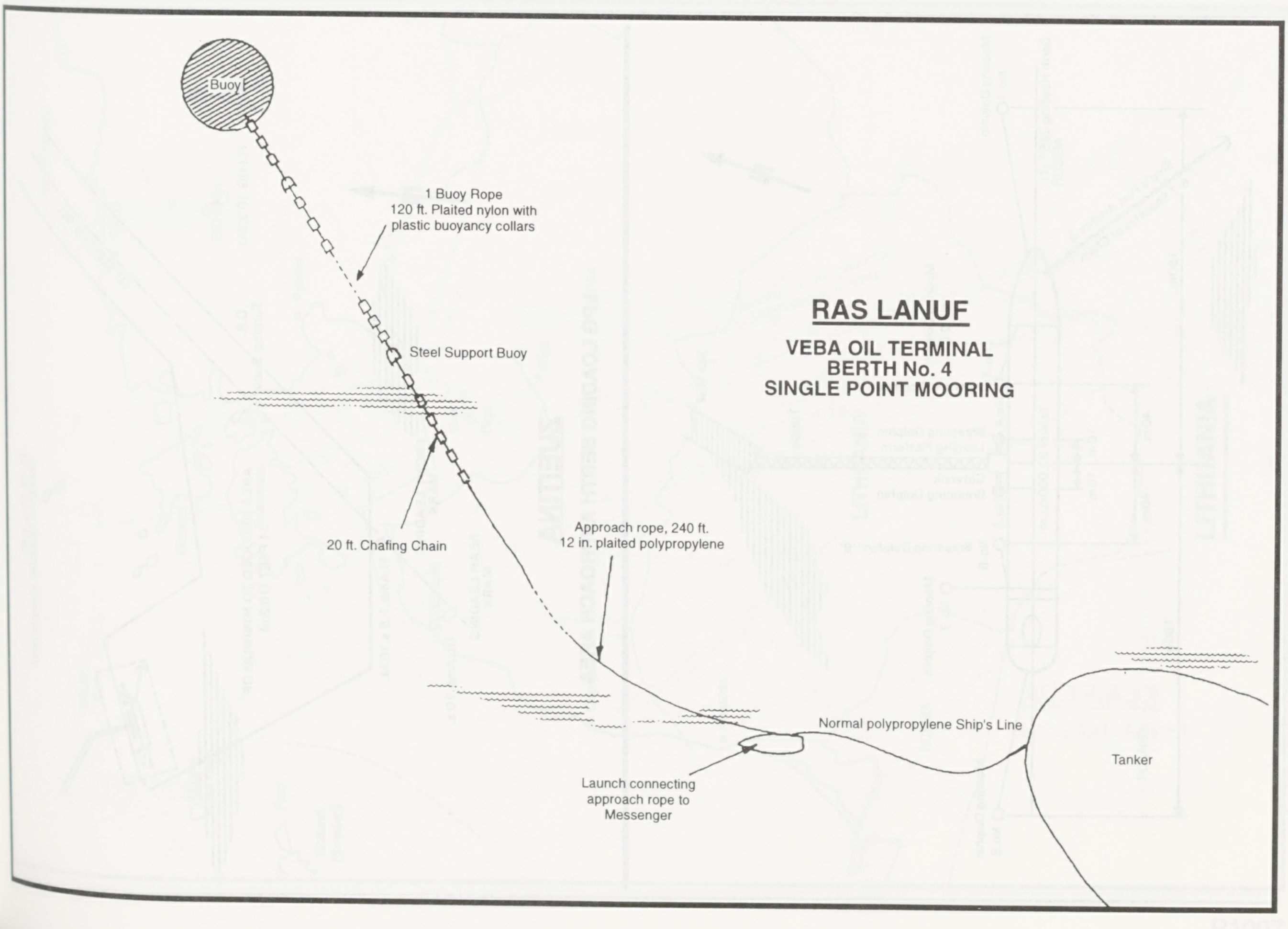
VEBA OIL TERMINAL
BERTH 1 MOORING LAYOUT



RAS LANUF

VEBA OIL TERMINAL
BERTH 2 MOORING LAYOUT

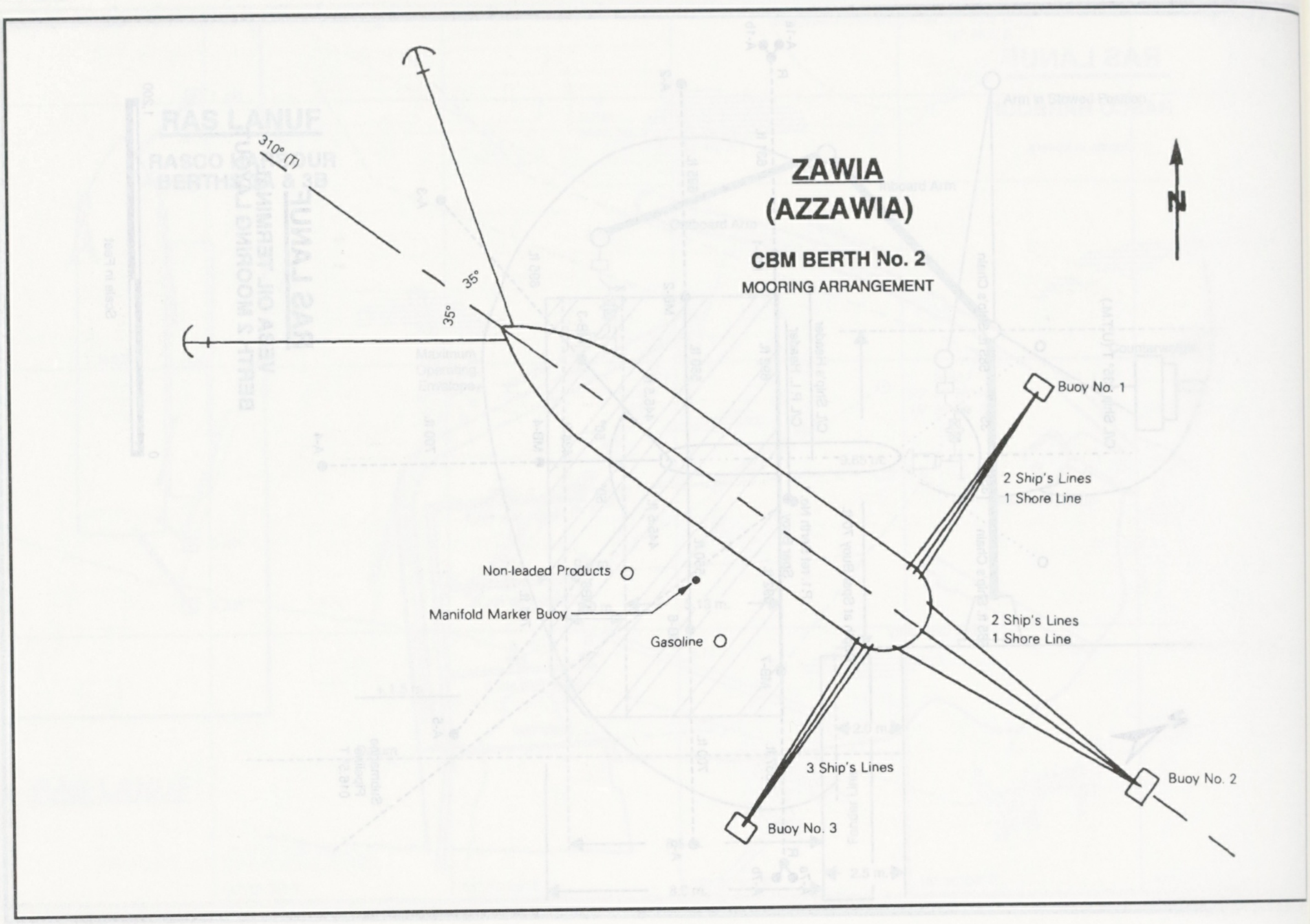
A-1a
A-1b
R
631 ft.
A-2
695 ft.
A-3
695 ft.
MB-1
MB-2
MB-3
C/L Ship 035° T (U.T.M.)
585 ft. Ship's Chain
35°
35°
585 ft. Ship's Chain
C/L Ship's Header
C/L P.L. Header
692 ft.
550 ft.
445.5 ft.
50°
50°
435 ft.
MB-4
700 ft.
A-4
Depth at Spar Buoy 70 ft.
P.1. ref Berth No. 1 Spar Buoy
692 ft.
550 ft.
445.5 ft.
MB5
701 ft.
MB-6
MB-7
A-5
Submarine Pipeline 016.5° T
637 ft.
700 ft.
A-6
R
A-7a
A-7b
N
Scale in Feet
0
1,200



RAS LANUF

VEBA OIL TERMINAL
BERTH No. 4
SINGLE POINT MOORING

Buoy
1 Buoy Rope
120 ft. Plaited nylon with plastic buoyancy collars
Steel Support Buoy
20 ft. Chafing Chain
Approach rope, 240 ft.
12 in. plaited polypropylene
Normal polypropylene Ship's Line
Tanker
Launch connecting approach rope to Messenger

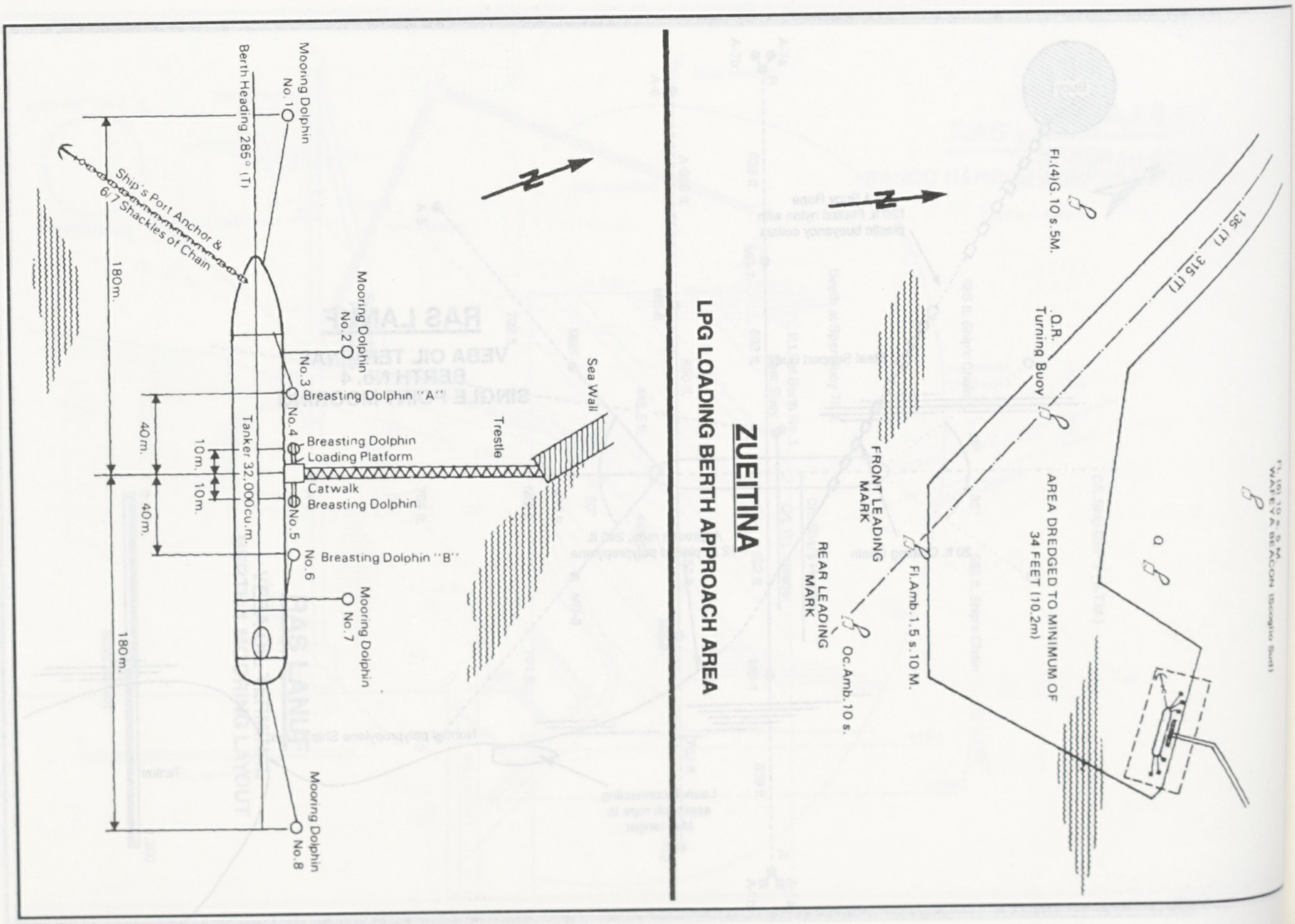


ZAWIA (AZZAWIA)

CBM BERTH No. 2

MOORING ARRANGEMENT

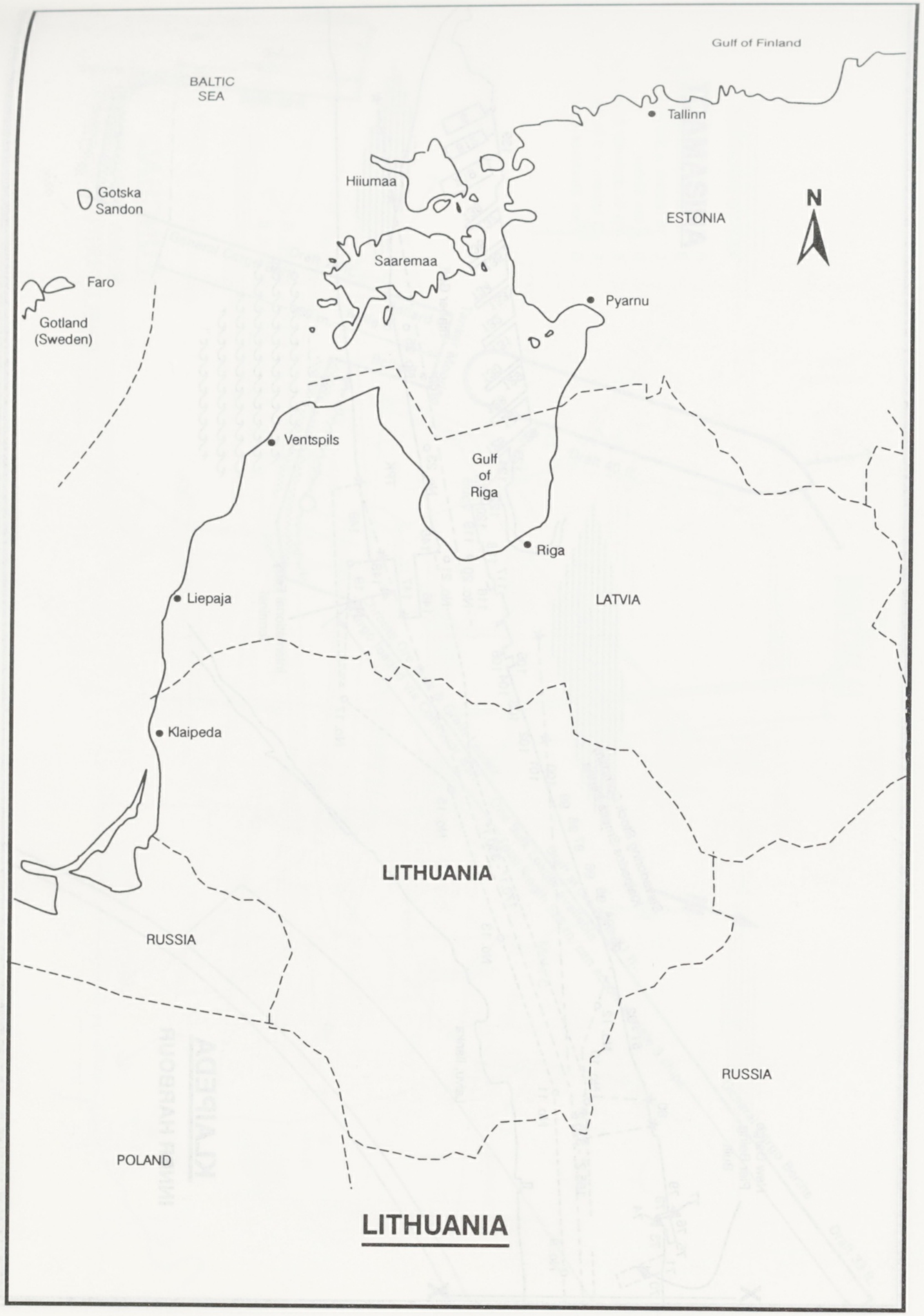
310° (T)
35°
35°
Buoy No. 1
2 Ship's Lines
1 Shore Line
Non-leaded Products
Manifold Marker Buoy
Gasoline
2 Ship's Lines
1 Shore Line
3 Ship's Lines
Buoy No. 2
Buoy No. 3
N



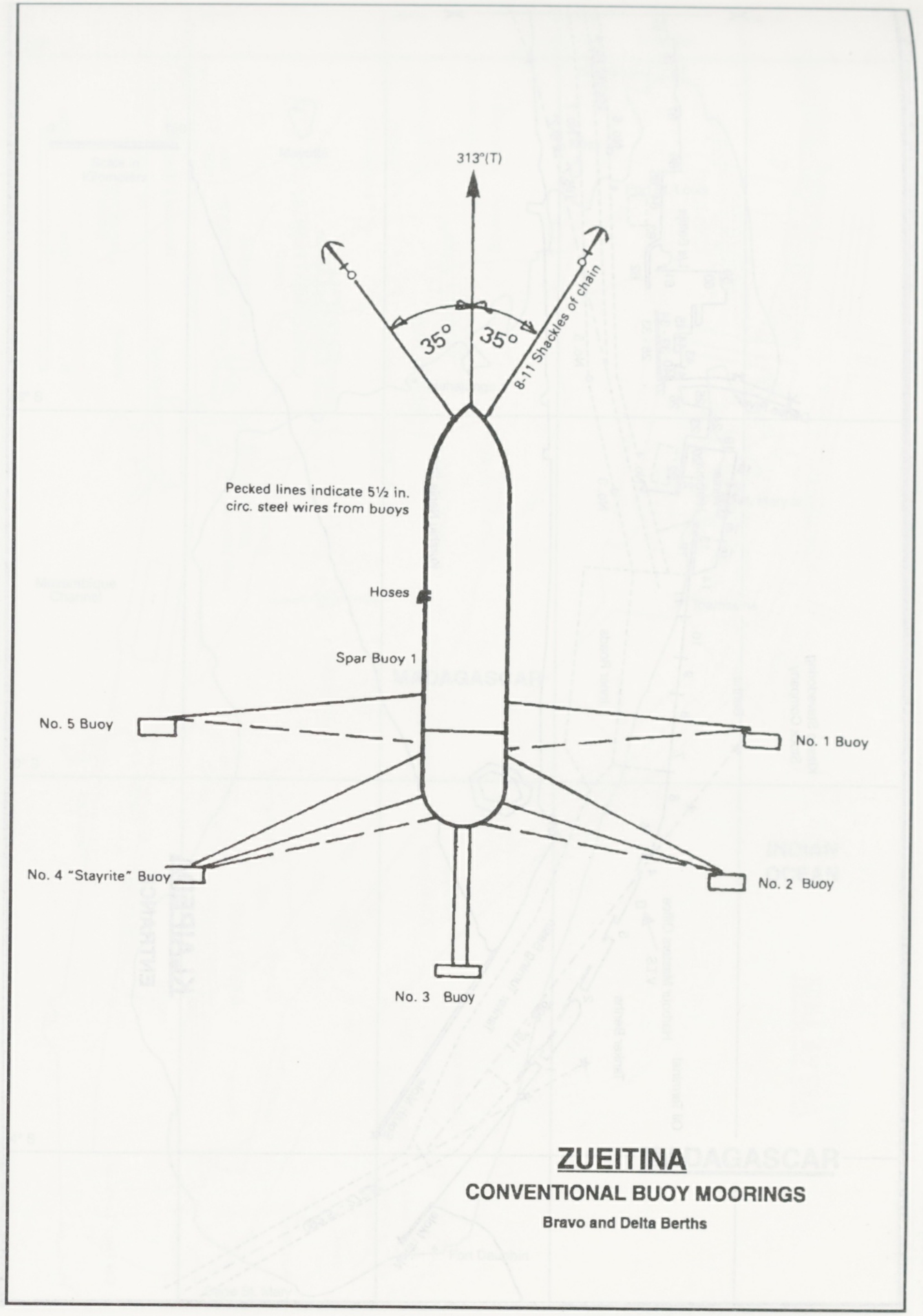
ZUEITINA

LPG LOADING BERTH APPROACH AREA

N
Mooring Dolphin No.1
Berth Heading 285° (T)
Ship's Port Anchor & 6/7 Shackles of Chain
180m.
Mooring Dolphin No.2
No.3 Breasting Dolphin "A"
No.4 Breasting Dolphin
Loading Platform
Catwalk
Breasting Dolphin No.5
No.6 Breasting Dolphin "B"
Mooring Dolphin No.7
Mooring Dolphin No.8
40m.
10m.
10m.
40m.
180m.
Tanker 32,000cu.m.
Sea Wall
Trestle
N
135° (T)
315° (T)
Fl.(4)G. 10 s.5M.
O.R. Turning Buoy
AREA DREDGED TO MINIMUM OF 34 FEET (10.2m)
FRONT LEADING MARK
REAR LEADING MARK
Fl.Amb.1.5 s.10 M.
Oc.Amb.10 s.
Fl.(6) 10 s. 5 M.
WAFEYA BEACON (Scoglio Sud)


Gulf of Finland
BALTIC SEA
Tallinn
Hiiumaa
Gotska Sandon
ESTONIA
N
Saaremaa
Faro
Pyarnu
Gotland (Sweden)
Ventspils
Gulf of Riga
Riga
Liepaja
LATVIA
Klaipeda
LITHUANIA
RUSSIA
RUSSIA
POLAND

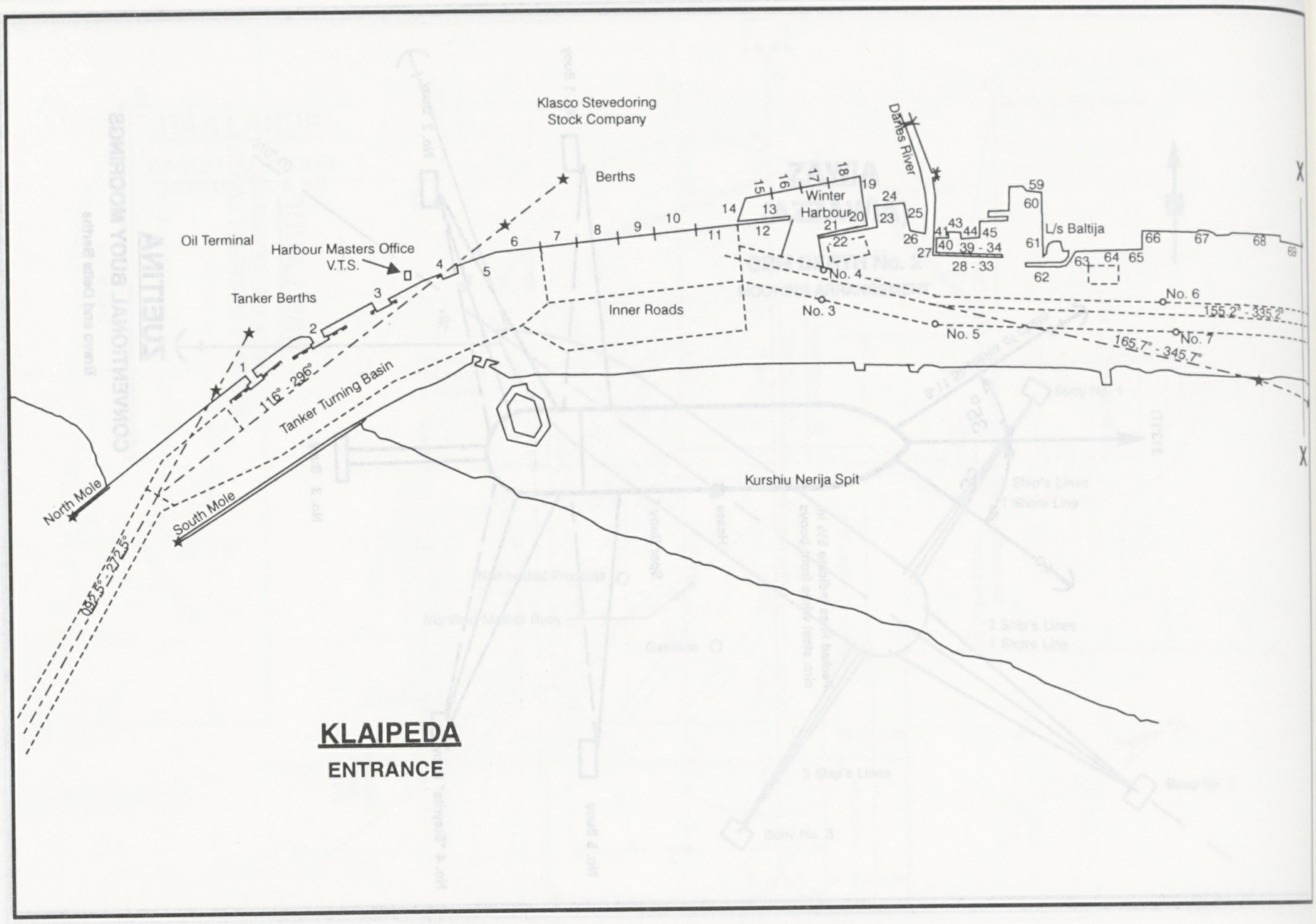
LITHUANIA

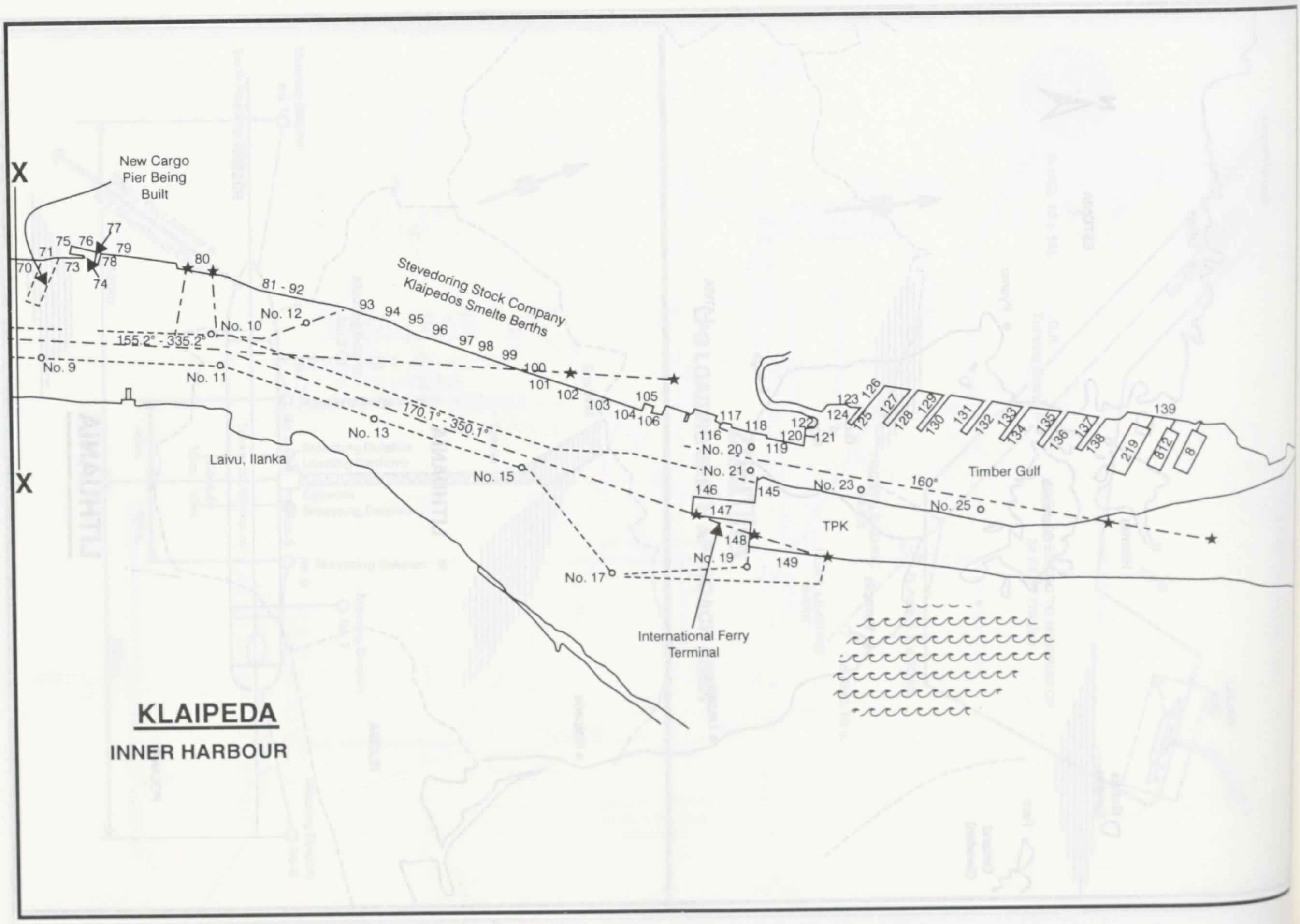

313°(T)
35°
35°
8-11 Shackles of chain
Pecked lines indicate 5½ in. circ. steel wires from buoys
Hoses
Spar Buoy 1
No. 5 Buoy
No. 1 Buoy
No. 4 "Stayrite" Buoy
No. 2 Buoy
No. 3 Buoy

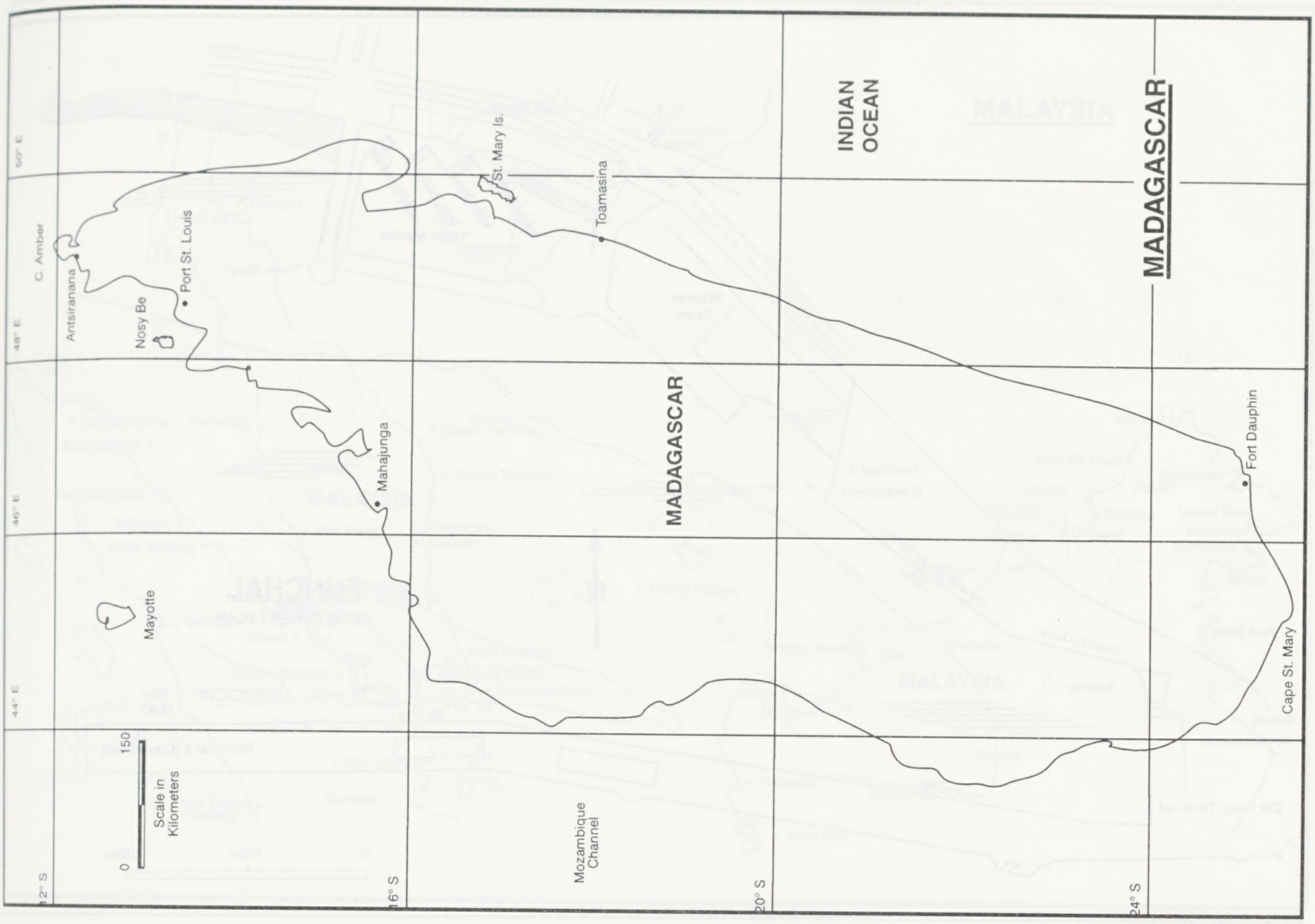
ZUEITINA

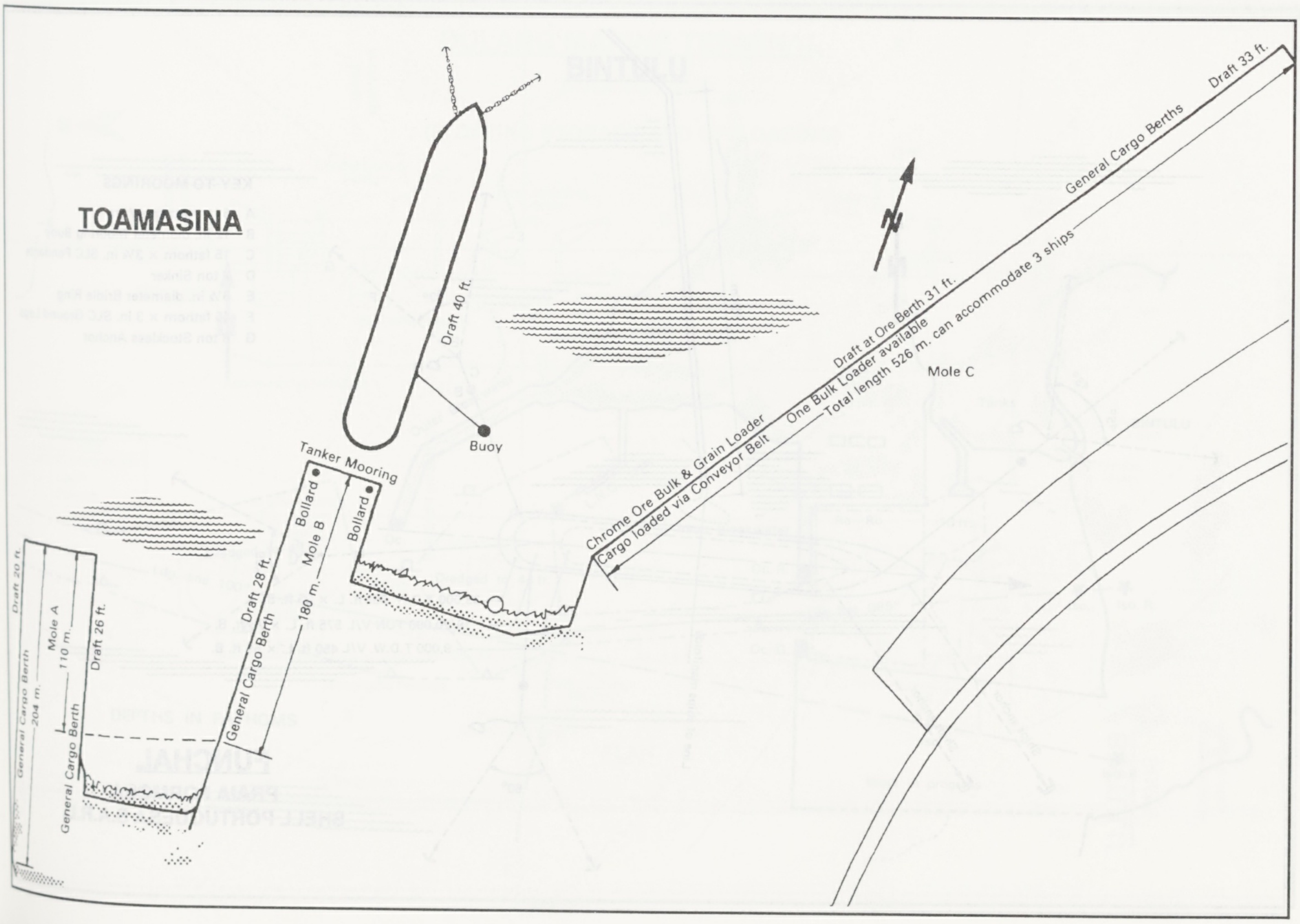
CONVENTIONAL BUOY MOORINGS

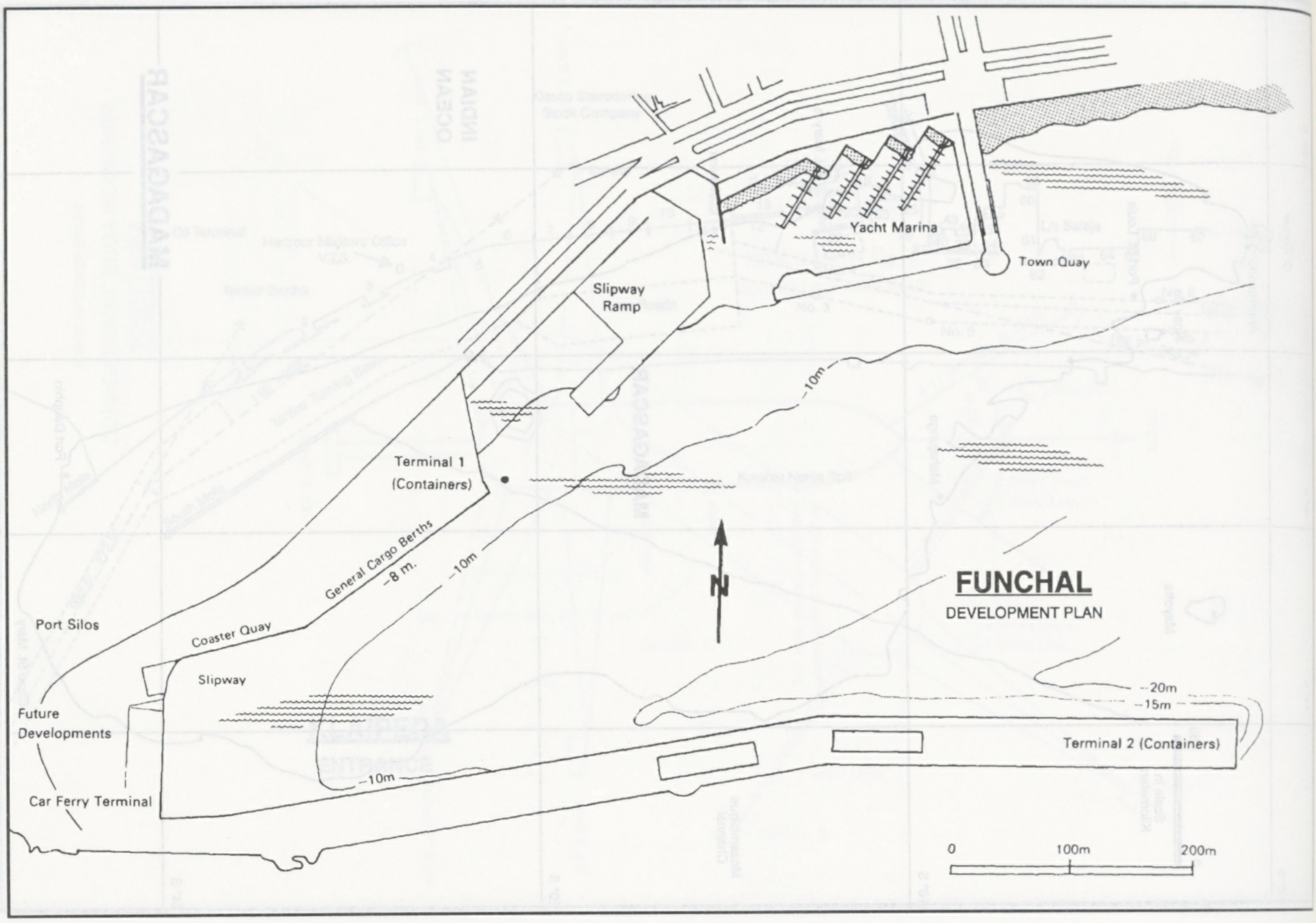
Bravo and Delta Berths

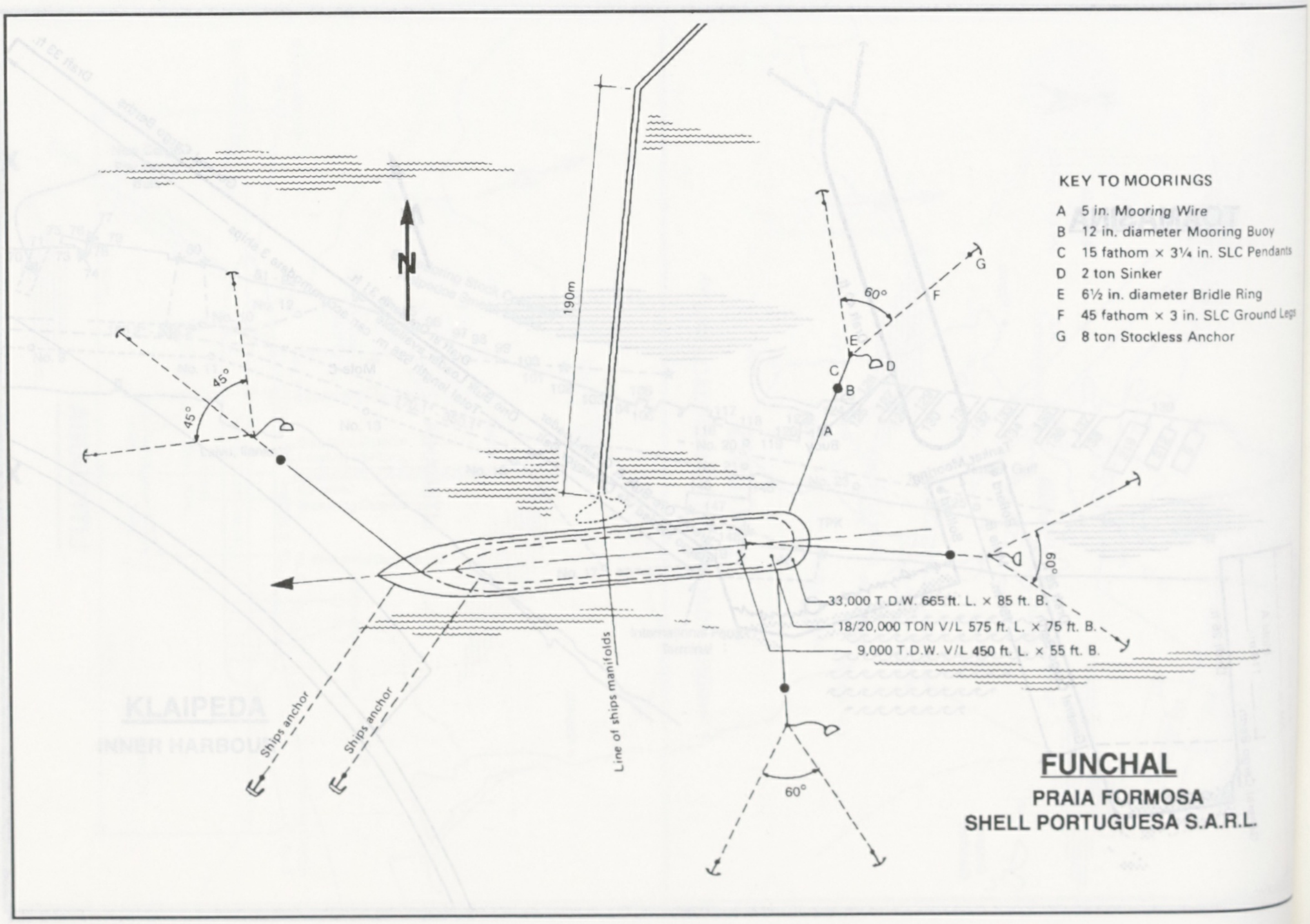

Klasco Stevedoring Stock Company
Berths
Oil Terminal
Harbour Masters Office V.T.S.
Tanker Berths
Tanker Turning Basin
116° - 296°
North Mole
South Mole
Inner Roads
Winter Harbour
Danes River
L/s Baltija
28 - 33
39 - 34
No. 3
No. 4
No. 5
No. 6
No. 7
155.2° - 335.2°
165.7° - 345.7°
Kurshiu Nerija Spit
X
KLAIPEDA
ENTRANCE


X
New Cargo Pier Being Built
81 - 92
Stevedoring Stock Company Klaipedos Smelte Berths
No. 9
No. 10
No. 11
No. 12
No. 13
No. 15
No. 17
No. 19
No. 20
No. 21
No. 23
No. 25
155.2° - 335.2°
170.1° - 350.1°
160°
Laivu, Ilanka
Timber Gulf
TPK
International Ferry Terminal
KLAIPEDA
INNER HARBOUR


MADAGASCAR
12° S
16° S
20° S
24° S
44° E
46° E
48° E
50° E
0
150
Scale in Kilometers
Mayotte
C. Amber
Antsiranana
Nosy Be
Port St. Louis
Mahajunga
St. Mary Is.
Toamasina
Mozambique Channel
MADAGASCAR
INDIAN OCEAN
Fort Dauphin
Cape St. Mary

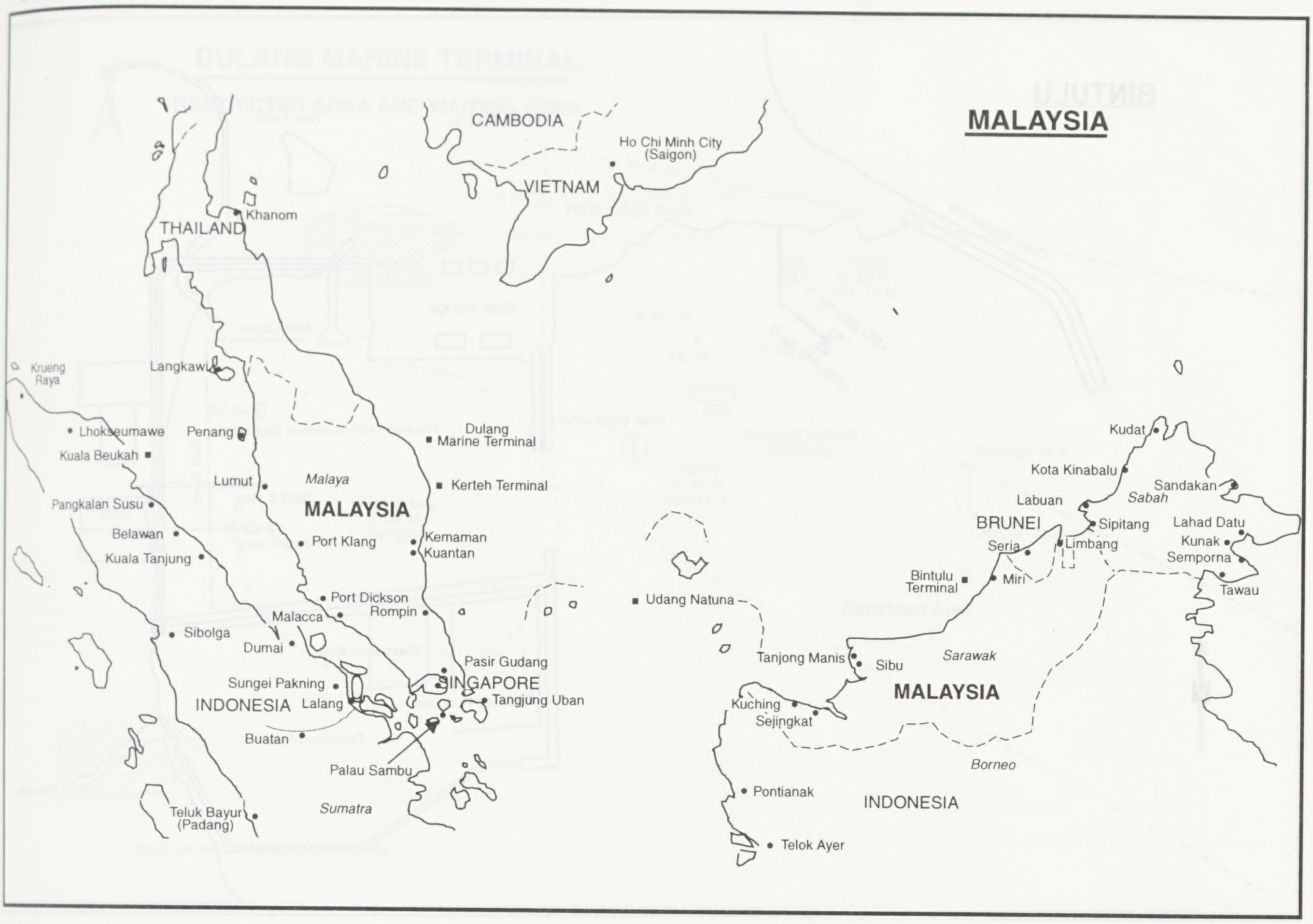

TOAMASINA
General Cargo Berth
Draft 20 ft.
204 m.
Mole A
110 m.
General Cargo Berth
Draft 26 ft.
General Cargo Berth
Draft 28 ft.
Bollard
Mole B
180 m.
Bollard
Tanker Mooring
Draft 40 ft.
Buoy
Chrome Ore Bulk & Grain Loader
Cargo loaded via Conveyor Belt
Draft at Ore Berth 31 ft.
One Bulk Loader available
Total length 526 m. can accommodate 3 ships
Mole C
General Cargo Berths
Draft 33 ft.
N

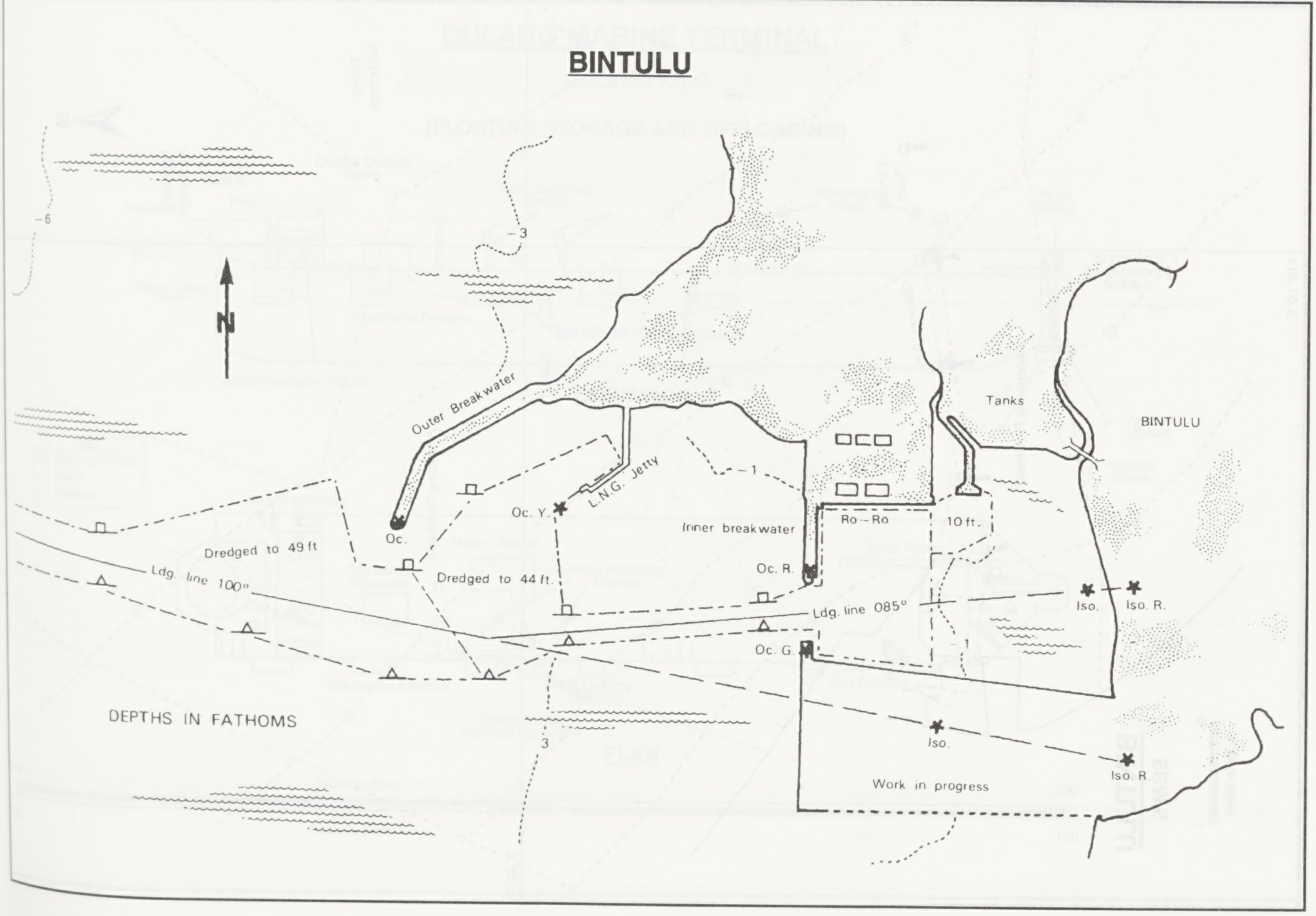

Yacht Marina
Town Quay
Slipway Ramp
Terminal 1 (Containers)
General Cargo Berths -8 m.
-10m
-10m
Port Silos
Coaster Quay
Slipway
Future Developments
Car Ferry Terminal
-10m
N
FUNCHAL
DEVELOPMENT PLAN
-20m
-15m
Terminal 2 (Containers)
0
100m
200m

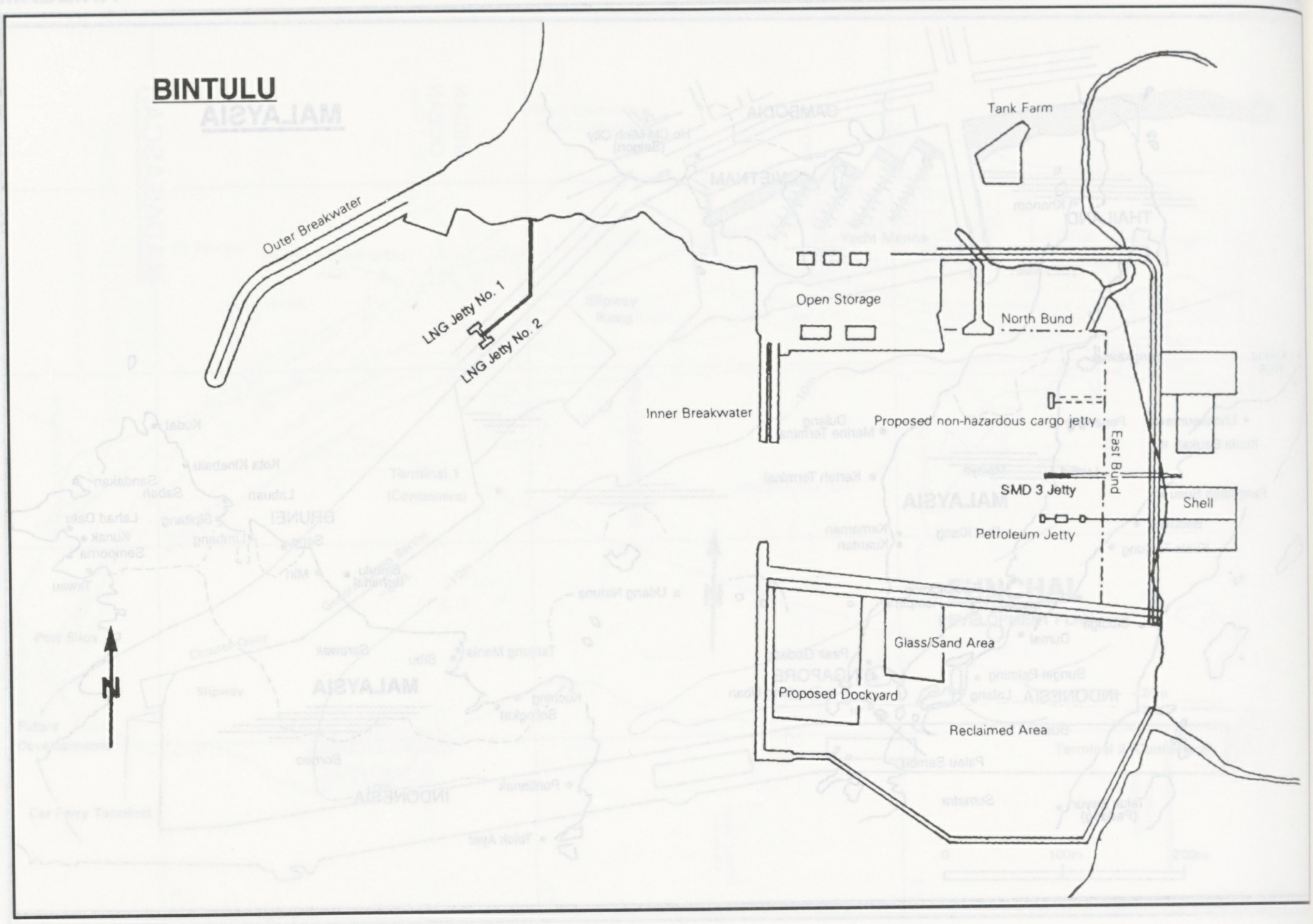

N
190m
45°
45°
60°
A
B
C
D
E
F
G
60°
60°
33,000 T.D.W. 665 ft. L. × 85 ft. B.
18/20,000 TON V/L 575 ft. L. × 75 ft. B.
9,000 T.D.W. V/L 450 ft. L. × 55 ft. B.
Ships anchor
Ships anchor
Line of ships manifolds
FUNCHAL
PRAIA FORMOSA
SHELL PORTUGUESA S.A.R.L.

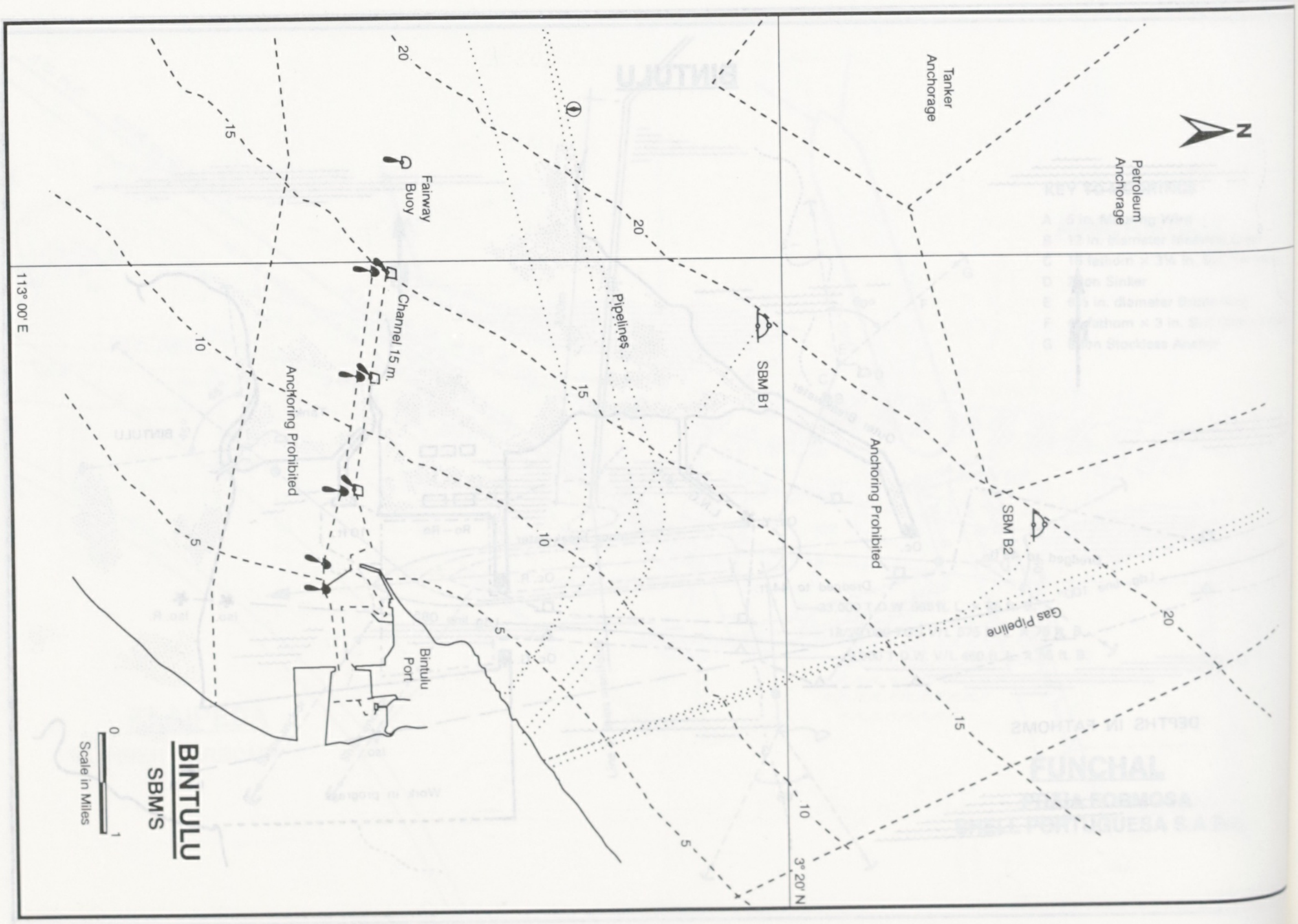
KEY TO MOORINGS

A	5 in. Mooring Wire
B	12 in. diameter Mooring Buoy
C	15 fathom × 3¼ in. SLC Pendants
D	2 ton Sinker
E	6½ in. diameter Bridle Ring
F	45 fathom × 3 in. SLC Ground Legs
G	8 ton Stockless Anchor


MALAYSIA
CAMBODIA
Ho Chi Minh City
(Saigon)
VIETNAM
THAILAND
Khanom
Krueng Raya
Langkawi
Lhokseumawe
Penang
Kuala Beukah
Dulang Marine Terminal
Lumut
Malaya
Kerteh Terminal
Pangkalan Susu
MALAYSIA
Belawan
Port Klang
Kemaman
Kuantan
Kuala Tanjung
Port Dickson
Rompin
Malacca
Sibolga
Dumai
Pasir Gudang
Sungei Pakning
SINGAPORE
INDONESIA
Lalang
Tangjung Uban
Buatan
Palau Sambu
Teluk Bayur
(Padang)
Sumatra
Udang Natuna
Kudat
Kota Kinabalu
Sandakan
Labuan
Sabah
BRUNEI
Sipitang
Lahad Datu
Seria
Limbang
Kunak
Semporna
Bintulu Terminal
Miri
Tawau
Tanjong Manis
Sibu
Sarawak
Kuching
Sejingkat
MALAYSIA
Borneo
Pontianak
INDONESIA
Telok Ayer

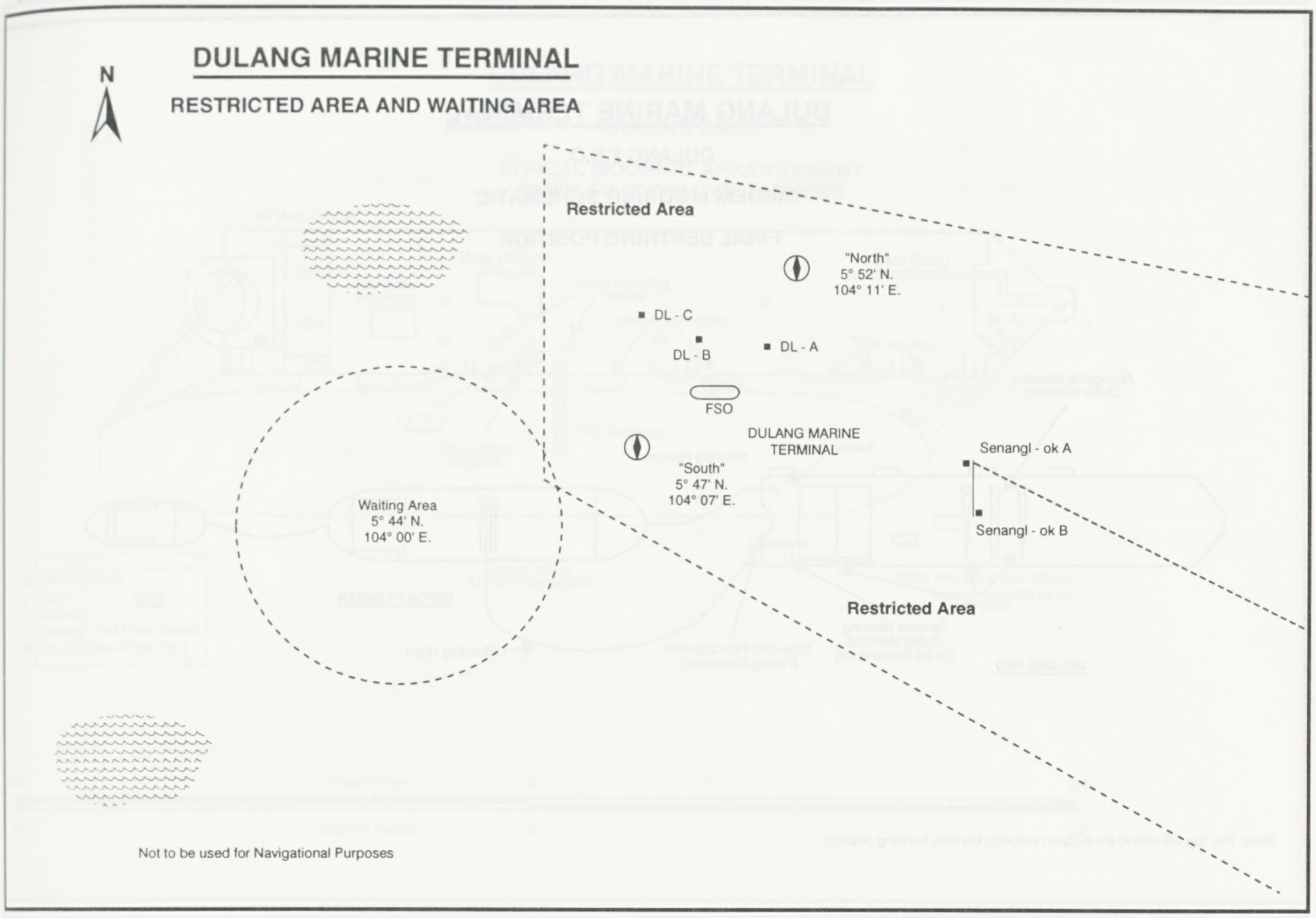

BINTULU
N
-6
-3
Outer Breakwater
L.N.G. Jetty
-1
Tanks
BINTULU
Oc. Y.
Oc.
Dredged to 49 ft
Ldg. line 100°
Dredged to 44 ft.
Inner breakwater
Ro – Ro
10 ft.
Oc. R.
Ldg. line 085°
Iso.
Iso. R.
Oc. G.
1
DEPTHS IN FATHOMS
3
Iso.
Iso. R.
Work in progress


BINTULU
N
Outer Breakwater
LNG Jetty No. 1
LNG Jetty No. 2
Tank Farm
Open Storage
North Bund
Inner Breakwater
Proposed non-hazardous cargo jetty
East Bund
SMD 3 Jetty
Shell
Petroleum Jetty
Glass/Sand Area
Proposed Dockyard
Reclaimed Area


BINTULU
SBM'S
Scale in Miles
0
1
N
Tanker Anchorage
Petroleum Anchorage
Fairway Buoy
Channel 15 m.
Pipelines
SBM B1
SBM B2
Anchoring Prohibited
Anchoring Prohibited
Gas Pipeline
Bintulu Port
113° 00' E
3° 20' N
20
20
20
15
15
15
10
10
10
5
5
5

DULANG MARINE TERMINAL

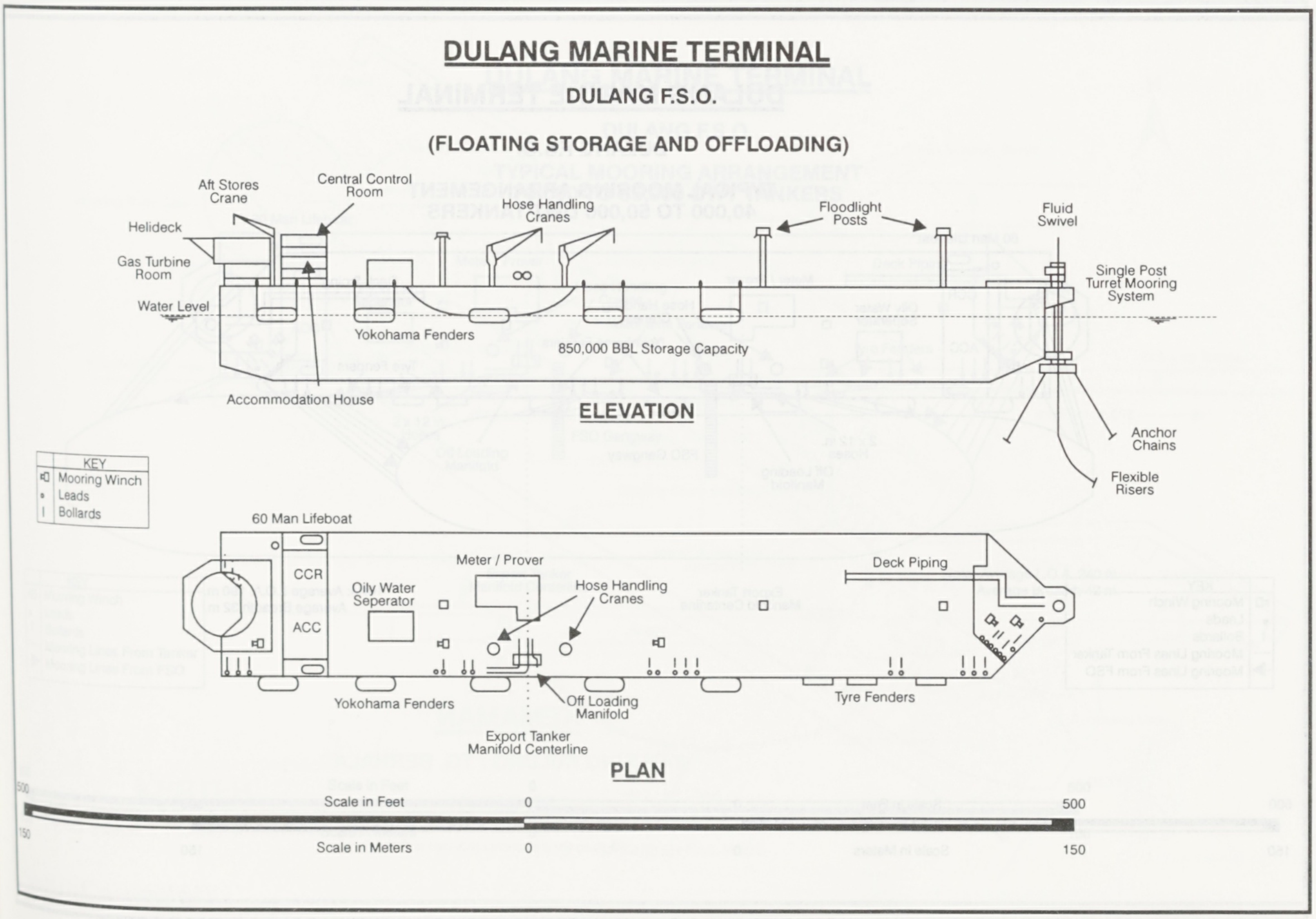
RESTRICTED AREA AND WAITING AREA


N
Restricted Area
"North"
5° 52' N.
104° 11' E.
DL - C
DL - B
DL - A
FSO
DULANG MARINE TERMINAL
"South"
5° 47' N.
104° 07' E.
Senangl - ok A
Senangl - ok B
Waiting Area
5° 44' N.
104° 00' E.
Restricted Area
Not to be used for Navigational Purposes

DULANG MARINE TERMINAL

DULANG F.S.O.

(FLOATING STORAGE AND OFFLOADING)

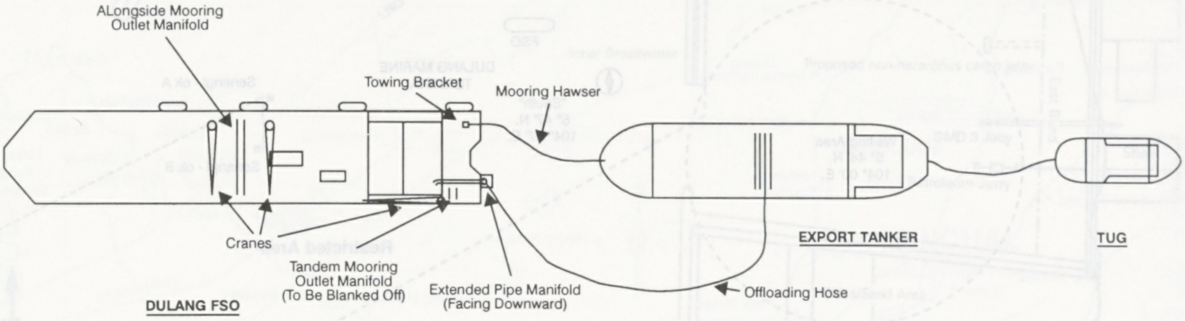

Aft Stores Crane
Central Control Room
Hose Handling Cranes
Floodlight Posts
Fluid Swivel
Helideck
Gas Turbine Room
Single Post Turret Mooring System
Water Level
Yokohama Fenders
850,000 BBL Storage Capacity
Accommodation House
ELEVATION
Anchor Chains
Flexible Risers
KEY
Mooring Winch
Leads
Bollards
60 Man Lifeboat
CCR
ACC
Oily Water Seperator
Meter / Prover
Hose Handling Cranes
Deck Piping
Yokohama Fenders
Off Loading Manifold
Tyre Fenders
Export Tanker Manifold Centerline
PLAN
Scale in Feet
0
500
Scale in Meters
0
150

DULANG MARINE TERMINAL

DULANG F.S.O.

TANDEM MOORING SCHEMATIC

FINAL BERTHING POSITION

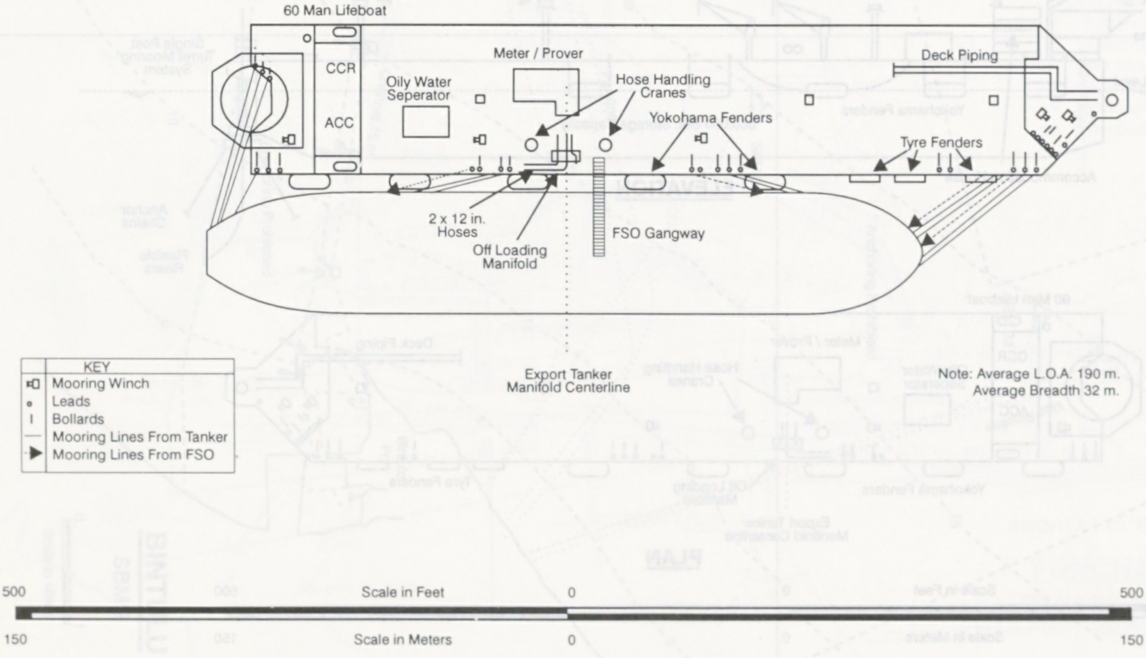

ALongside Mooring Outlet Manifold
Towing Bracket
Mooring Hawser
Cranes
Tandem Mooring Outlet Manifold (To Be Blanked Off)
Extended Pipe Manifold (Facing Downward)
Offloading Hose
EXPORT TANKER
TUG
DULANG FSO

Note: The Tug will relieve the support vessel in the final berthing position

DULANG MARINE TERMINAL

DULANG F.S.O.

TYPICAL MOORING ARRANGEMENT
40,000 TO 50,000 DWT TANKERS

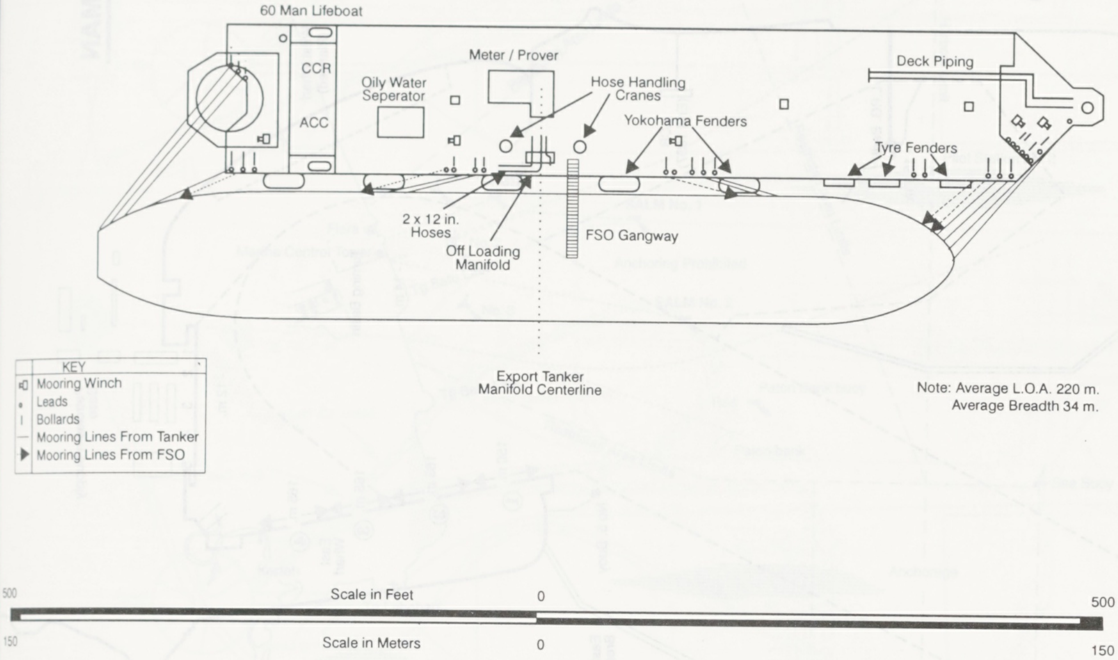

60 Man Lifeboat
CCR
ACC
Oily Water Seperator
Meter / Prover
Hose Handling Cranes
Yokohama Fenders
Deck Piping
Tyre Fenders
2 x 12 in. Hoses
Off Loading Manifold
FSO Gangway
Export Tanker Manifold Centerline
KEY
Mooring Winch
Leads
Bollards
Mooring Lines From Tanker
Mooring Lines From FSO
500
Scale in Feet
0
500
150
Scale in Meters
0
150

Note: Average L.O.A. 190 m.
Average Breadth 32 m.

DULANG MARINE TERMINAL

DULANG F.S.O.

TYPICAL MOORING ARRANGEMENT
50,000 TO 70,000 DWT TANKERS

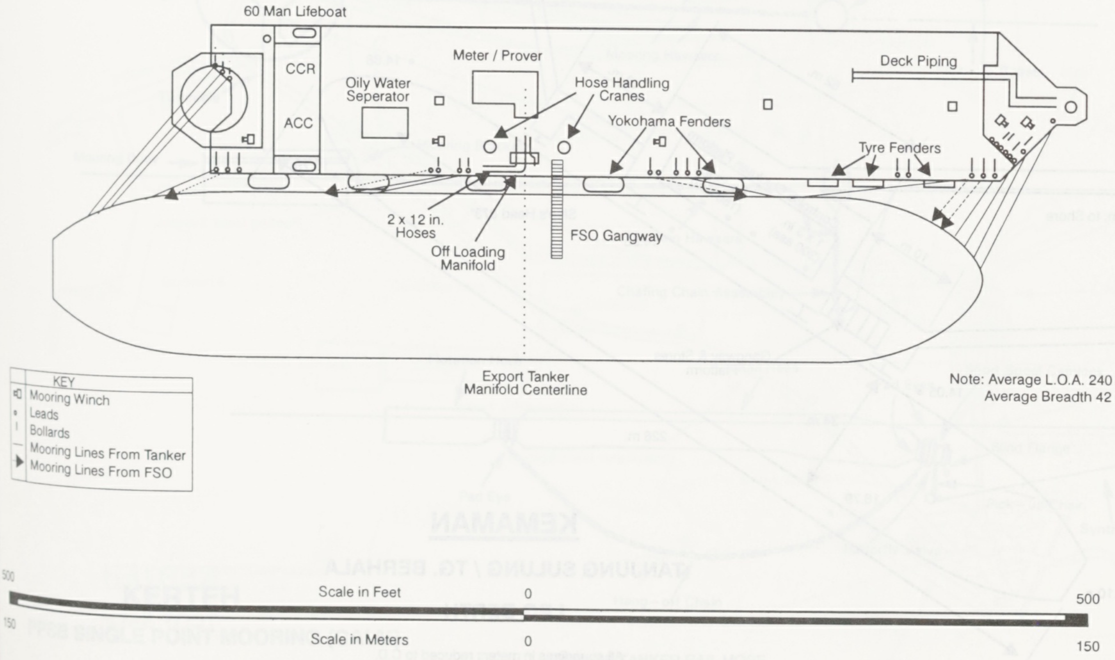

60 Man Lifeboat
CCR
ACC
Oily Water Seperator
Meter / Prover
Hose Handling Cranes
Yokohama Fenders
Deck Piping
Tyre Fenders
2 x 12 in. Hoses
Off Loading Manifold
FSO Gangway
Export Tanker Manifold Centerline
KEY
Mooring Winch
Leads
Bollards
Mooring Lines From Tanker
Mooring Lines From FSO
500
Scale in Feet
0
500
150
Scale in Meters
0
150

Note: Average L.O.A. 220 m.
Average Breadth 34 m.

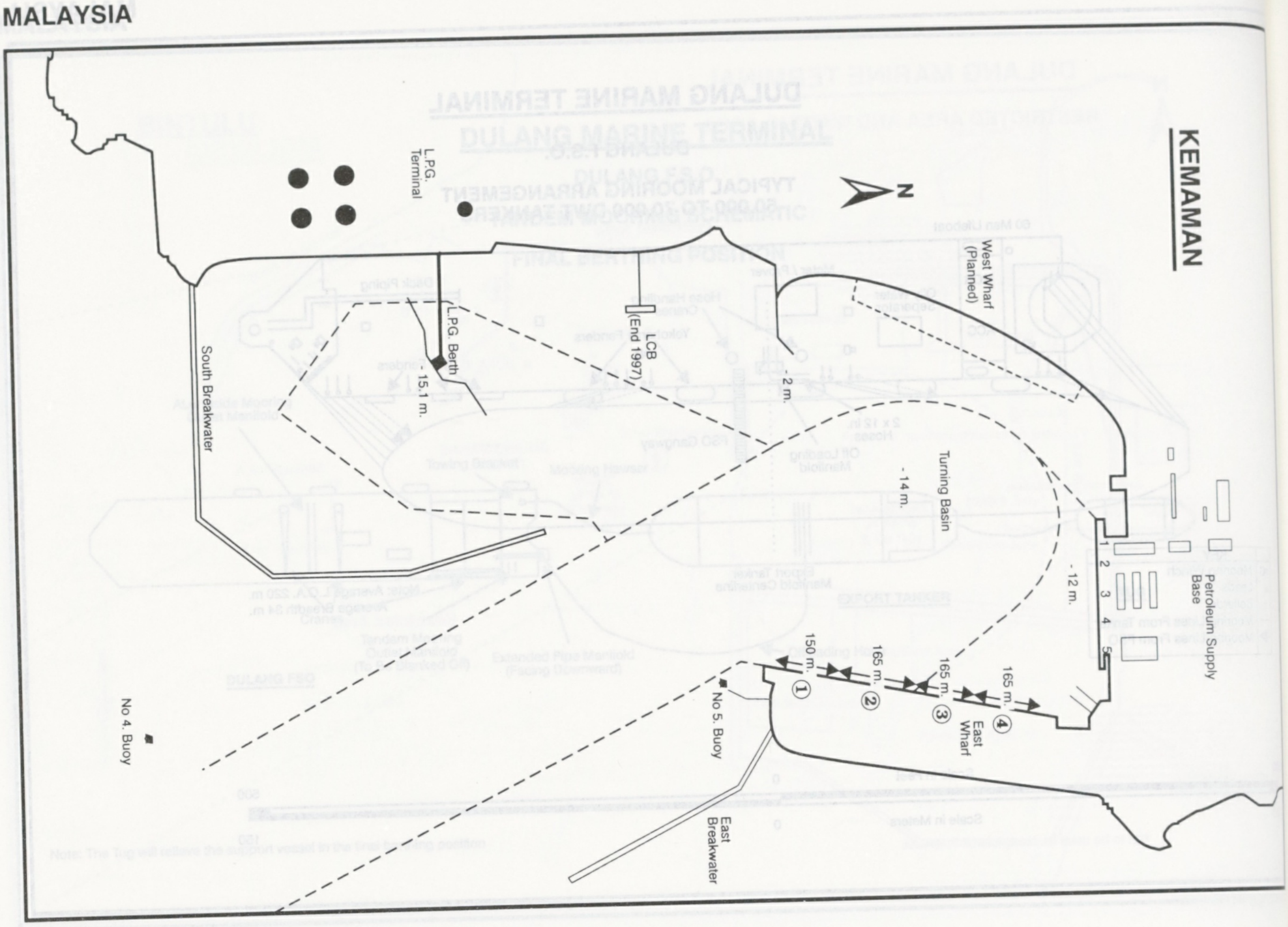
DULANG MARINE TERMINAL

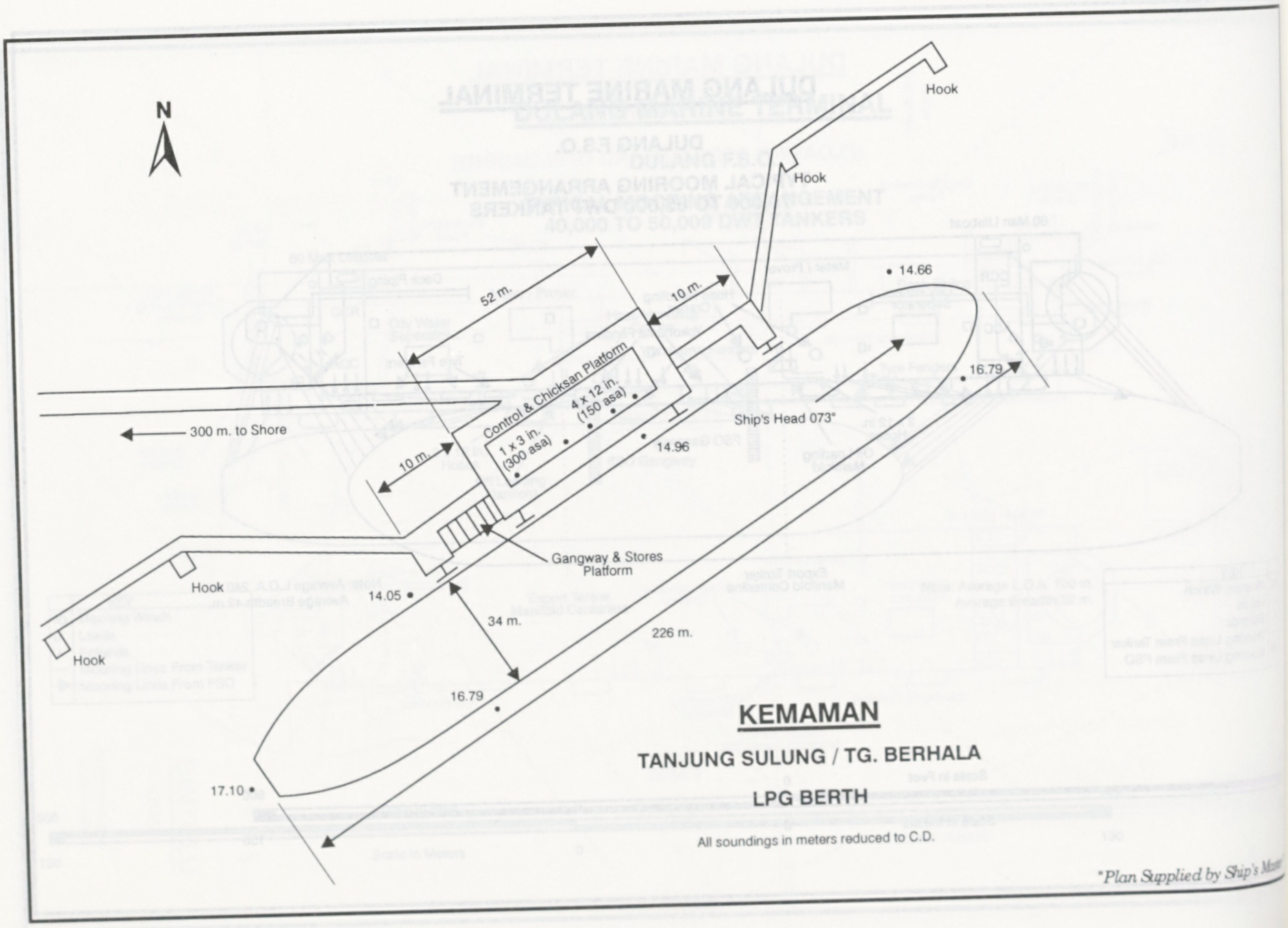
DULANG F.S.O.

TYPICAL MOORING ARRANGEMENT
70,000 TO 85,000 DWT TANKERS


60 Man Lifeboat
CCR
ACC
Oily Water Seperator
Meter / Prover
Hose Handling Cranes
Yokohama Fenders
Deck Piping
Tyre Fenders
2 x 12 in. Hoses
Off Loading Manifold
FSO Gangway
Export Tanker Manifold Centerline
KEY
Mooring Winch
Leads
Bollards
Mooring Lines From Tanker
Mooring Lines From FSO
500
Scale in Feet
0
500
150
Scale in Meters
0
150

Note: Average L.O.A. 240 m.
Average Breadth 42 m.


KEMAMAN
N
L.P.G. Terminal
L.P.G. Berth
15.1 m.
LCB (End 1997)
2 m.
West Wharf (Planned)
South Breakwater
Turning Basin
- 14 m.
- 12 m.
150 m.
165 m.
165 m.
165 m.
①
②
③
④
East Wharf
No 5. Buoy
East Breakwater
No 4. Buoy
Petroleum Supply Base
2
3
4
5


N
Hook
Hook
Hook
Hook
52 m.
10 m.
10 m.
Control & Chicksan Platform
1 x 3 in. (300 asa)
4 x 12 in. (150 asa)
300 m. to Shore
14.66
16.79
14.96
Ship's Head 073°
Gangway & Stores Platform
14.05
34 m.
226 m.
16.79
17.10

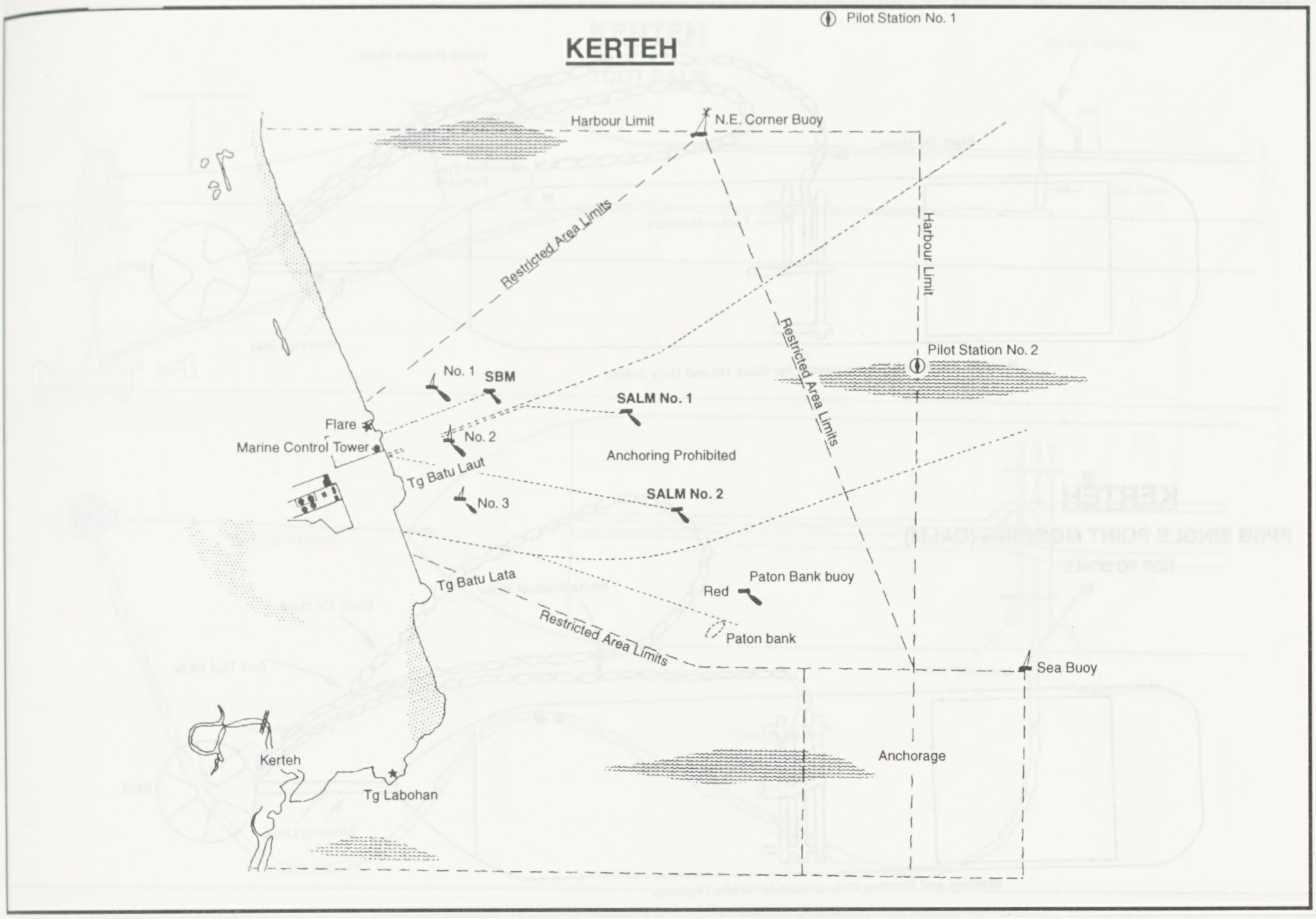
KEMAMAN

TANJUNG SULUNG / TG. BERHALA

LPG BERTH

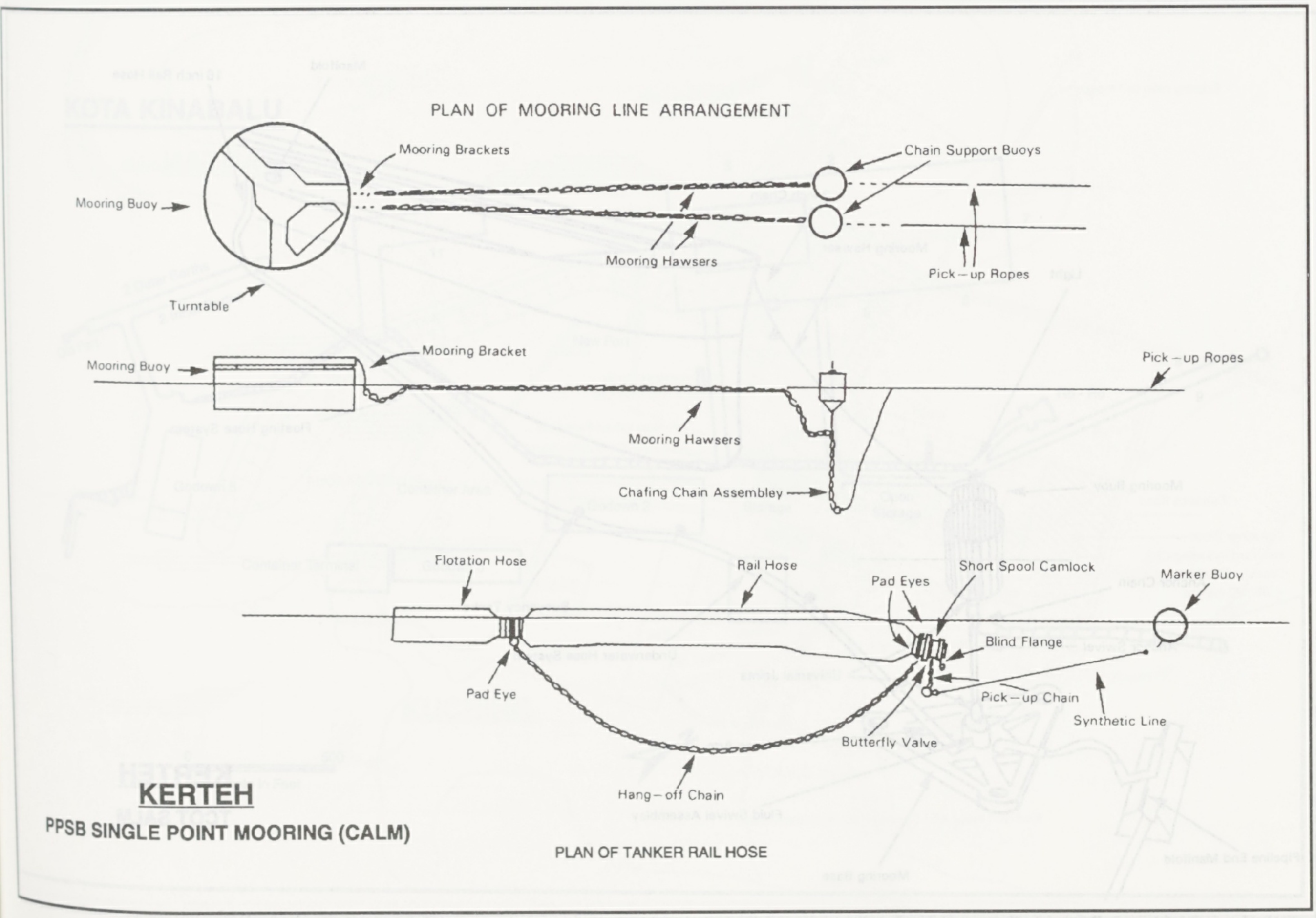
All soundings in meters reduced to C.D.

"Plan Supplied by Ship's Mast



KERTEH

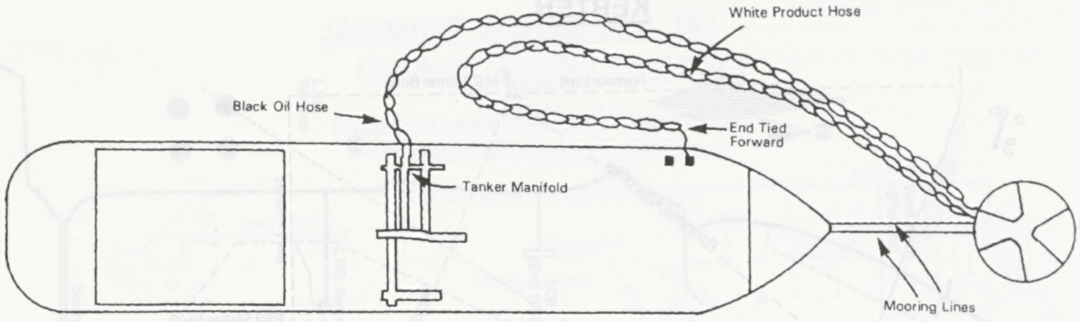
Pilot Station No. 1
Harbour Limit
N.E. Corner Buoy
Restricted Area Limits
Harbour Limit
Restricted Area Limits
Pilot Station No. 2
No. 1
SBM
SALM No. 1
Flare
Marine Control Tower
No. 2
Tg Batu Laut
Anchoring Prohibited
No. 3
SALM No. 2
Paton Bank buoy
Red
Tg Batu Lata
Paton bank
Restricted Area Limits
Sea Buoy
Anchorage
Kerteh
Tg Labohan



KERTEH

PPSB SINGLE POINT MOORING (CALM)

PLAN OF MOORING LINE ARRANGEMENT
Mooring Brackets
Chain Support Buoys
Mooring Buoy
Mooring Hawsers
Pick-up Ropes
Turntable
Mooring Buoy
Mooring Bracket
Pick-up Ropes
Mooring Hawsers
Chafing Chain Assembley
Flotation Hose
Rail Hose
Short Spool Camlock
Marker Buoy
Pad Eyes
Blind Flange
Pad Eye
Pick-up Chain
Synthetic Line
Butterfly Valve
Hang-off Chain
PLAN OF TANKER RAIL HOSE

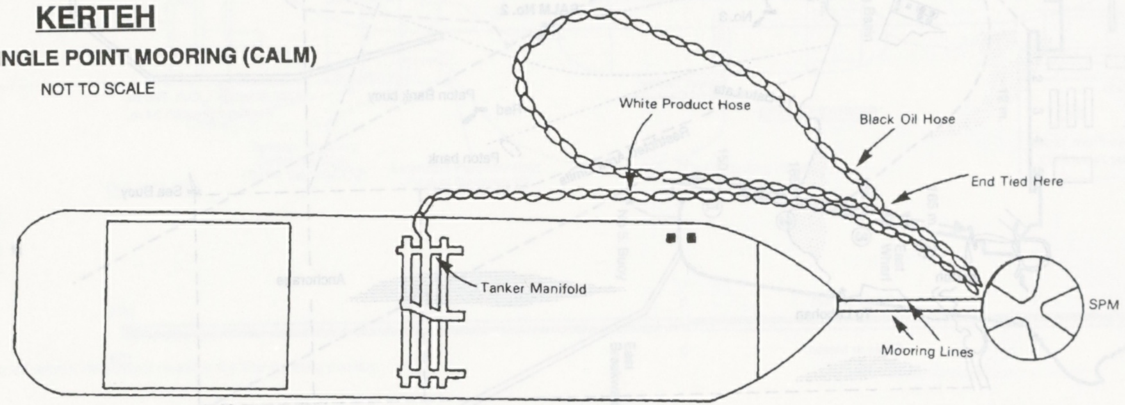

White Product Hose
Black Oil Hose
End Tied Forward
Tanker Manifold
SPM
Mooring Lines

Mooring and Floating Hose Layout for Black Oil and Dirty Ballast

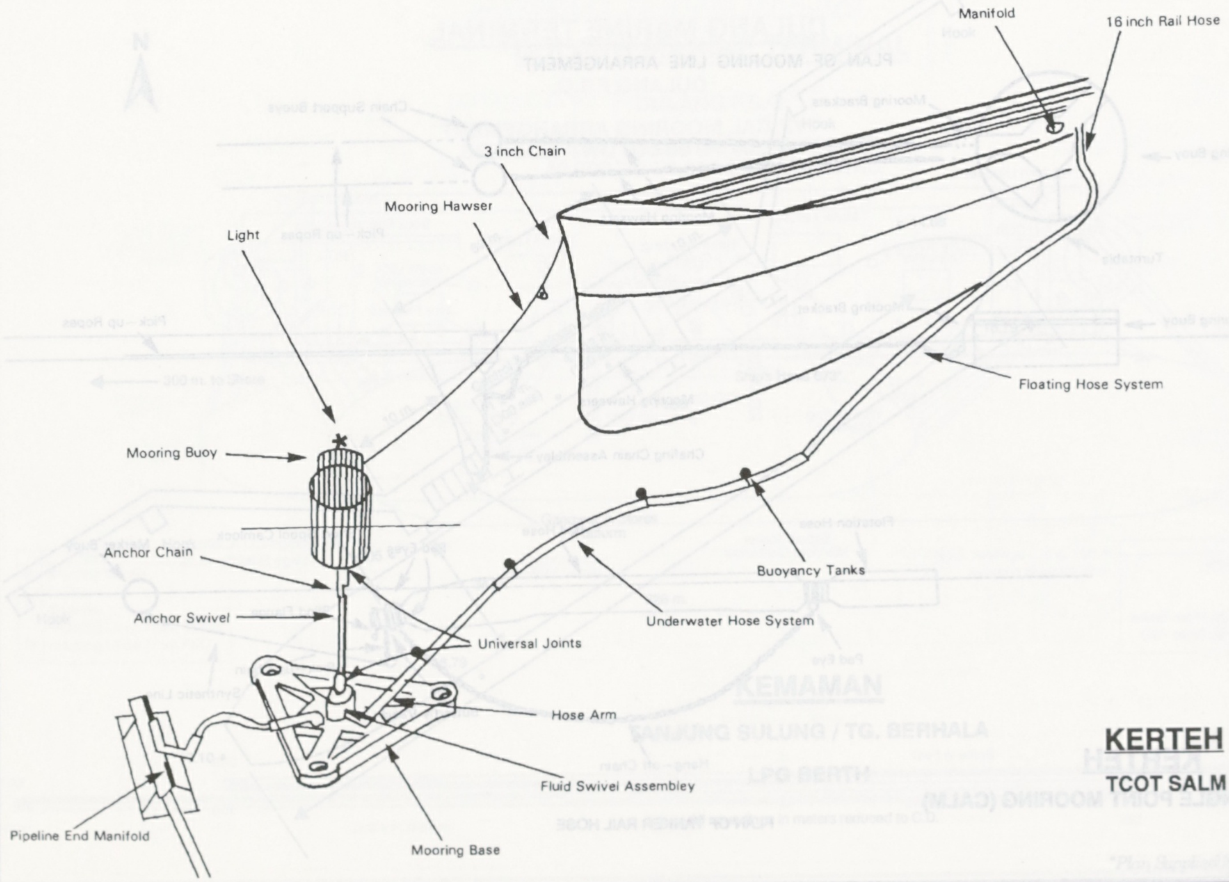
KERTEH

PPSB SINGLE POINT MOORING (CALM)

NOT TO SCALE

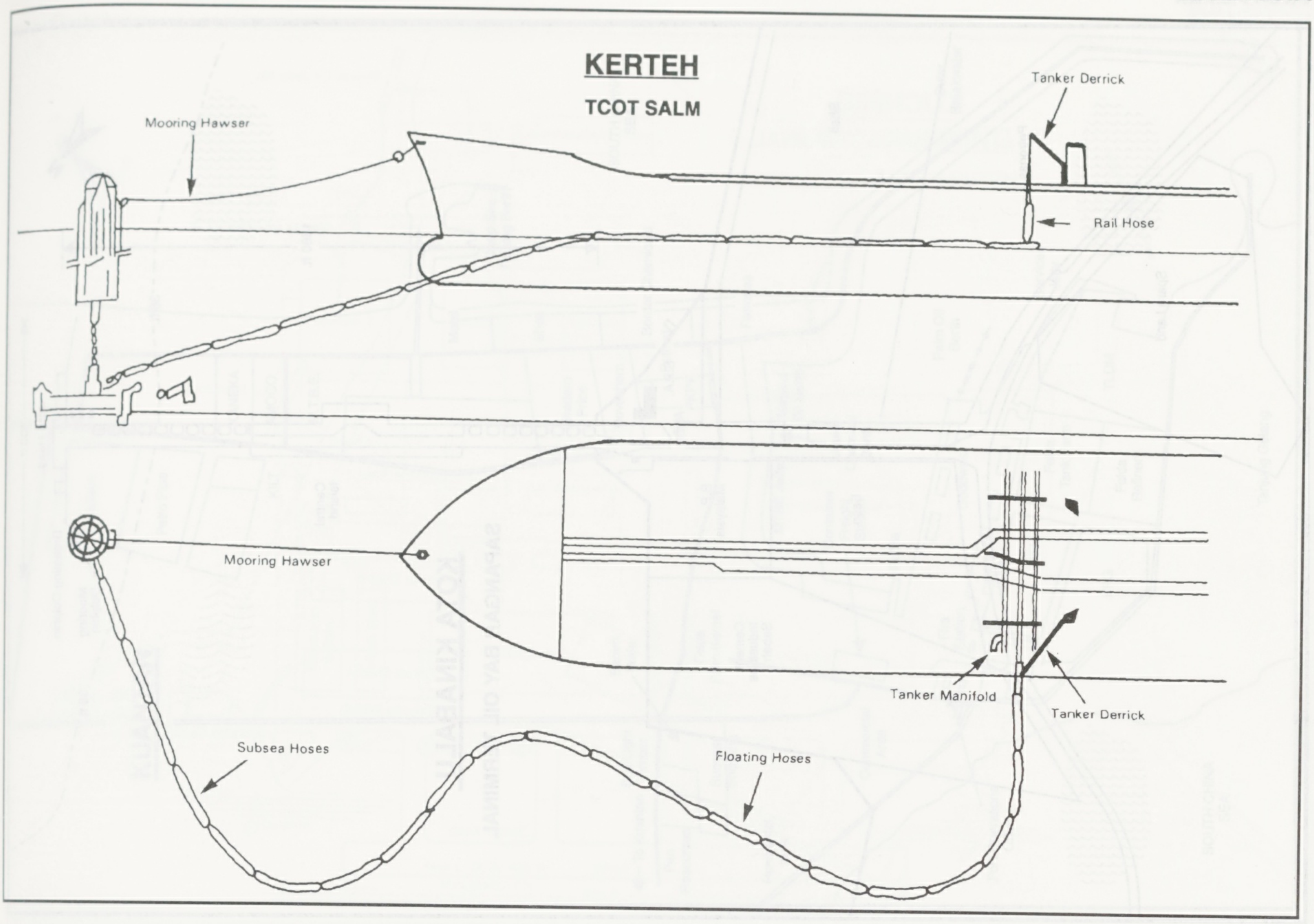

White Product Hose
Black Oil Hose
End Tied Here
Tanker Manifold
SPM
Mooring Lines

Mooring and Floating Hose Layout for White Products


Manifold
16 inch Rail Hose
3 inch Chain
Mooring Hawser
Light
Floating Hose System
Mooring Buoy
Anchor Chain
Buoyancy Tanks
Anchor Swivel
Underwater Hose System
Universal Joints
Hose Arm
Fluid Swivel Assembley
Pipeline End Manifold
Mooring Base

KERTEH

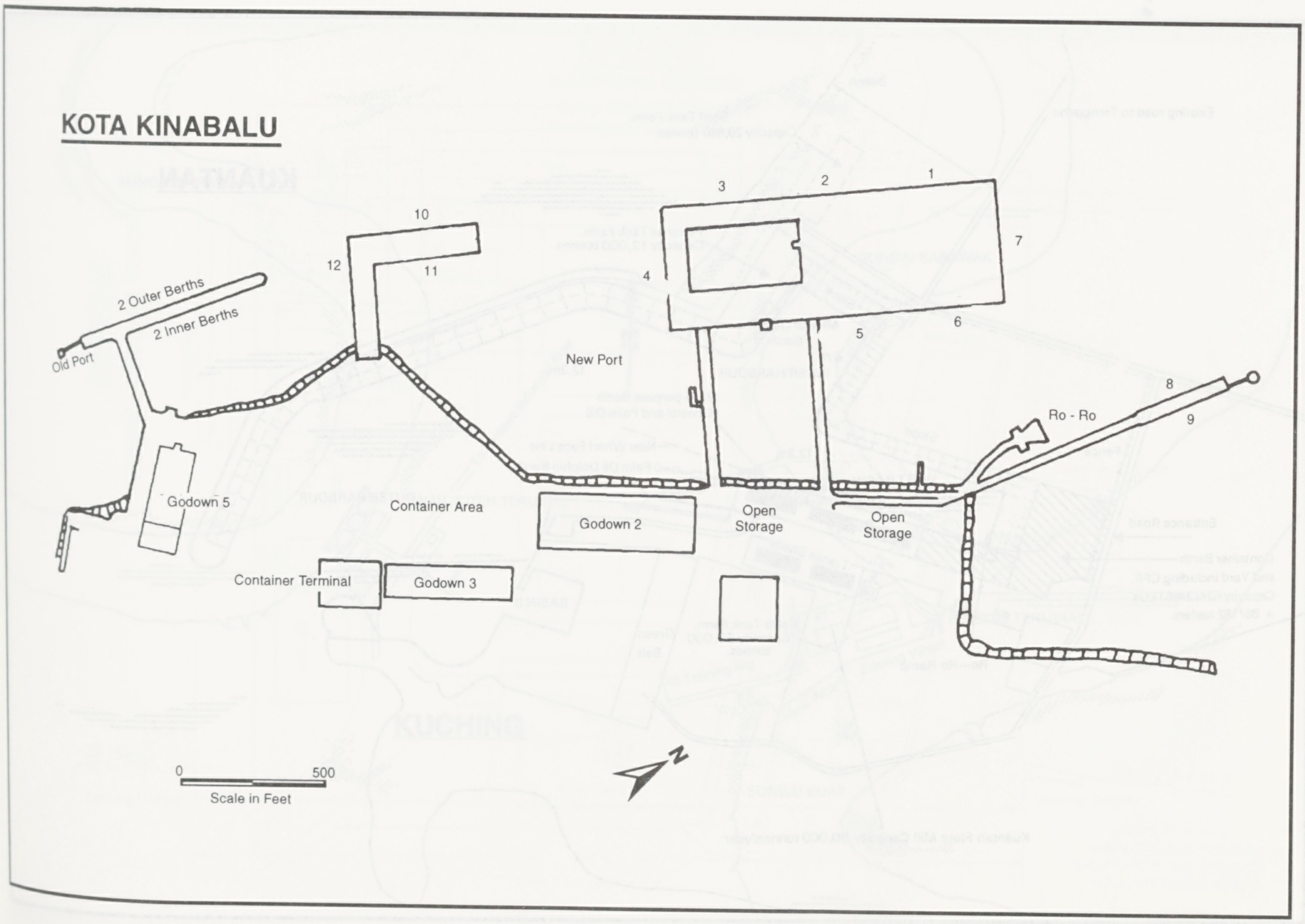
TCOT SALM



KERTEH

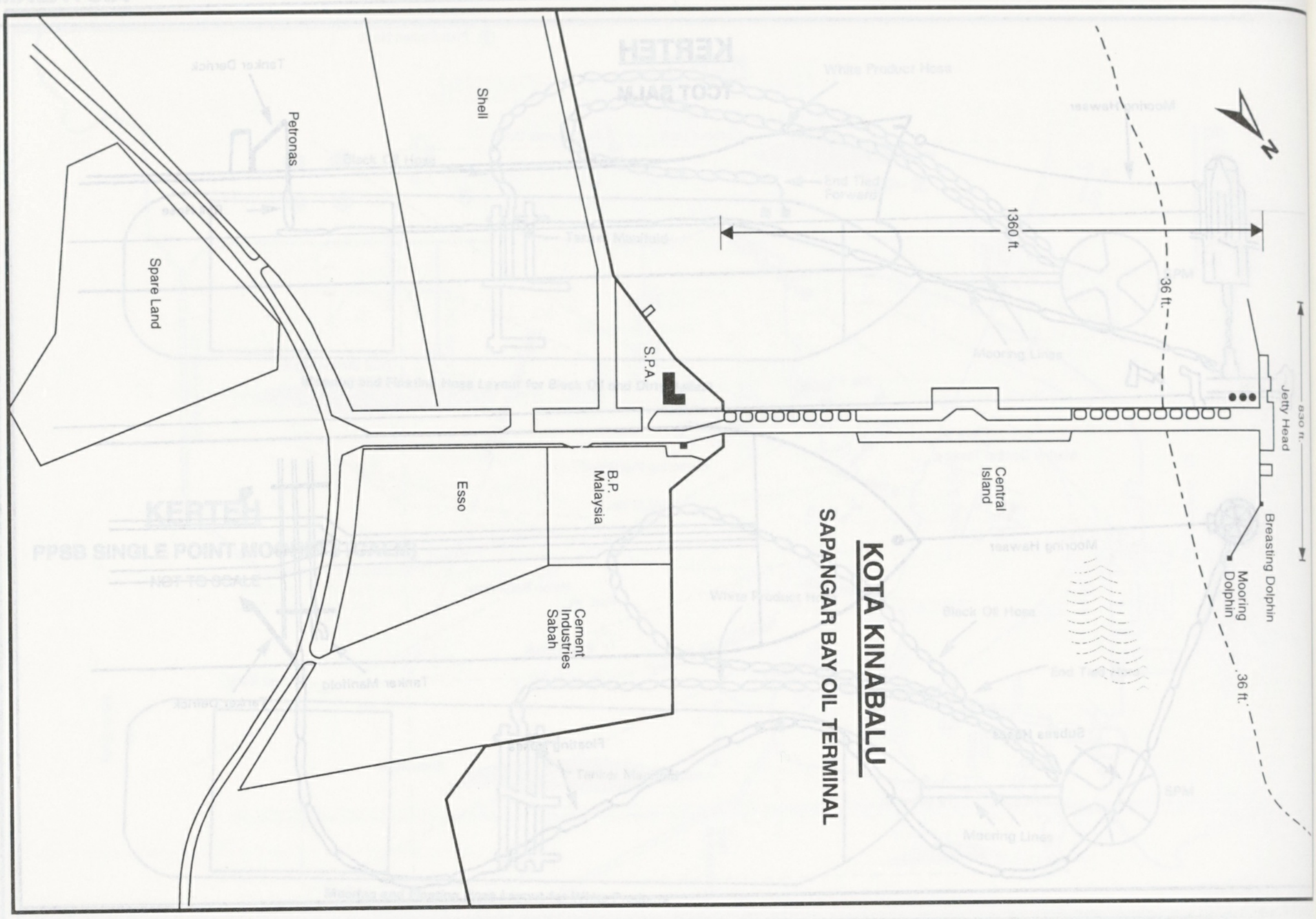
TCOT SALM

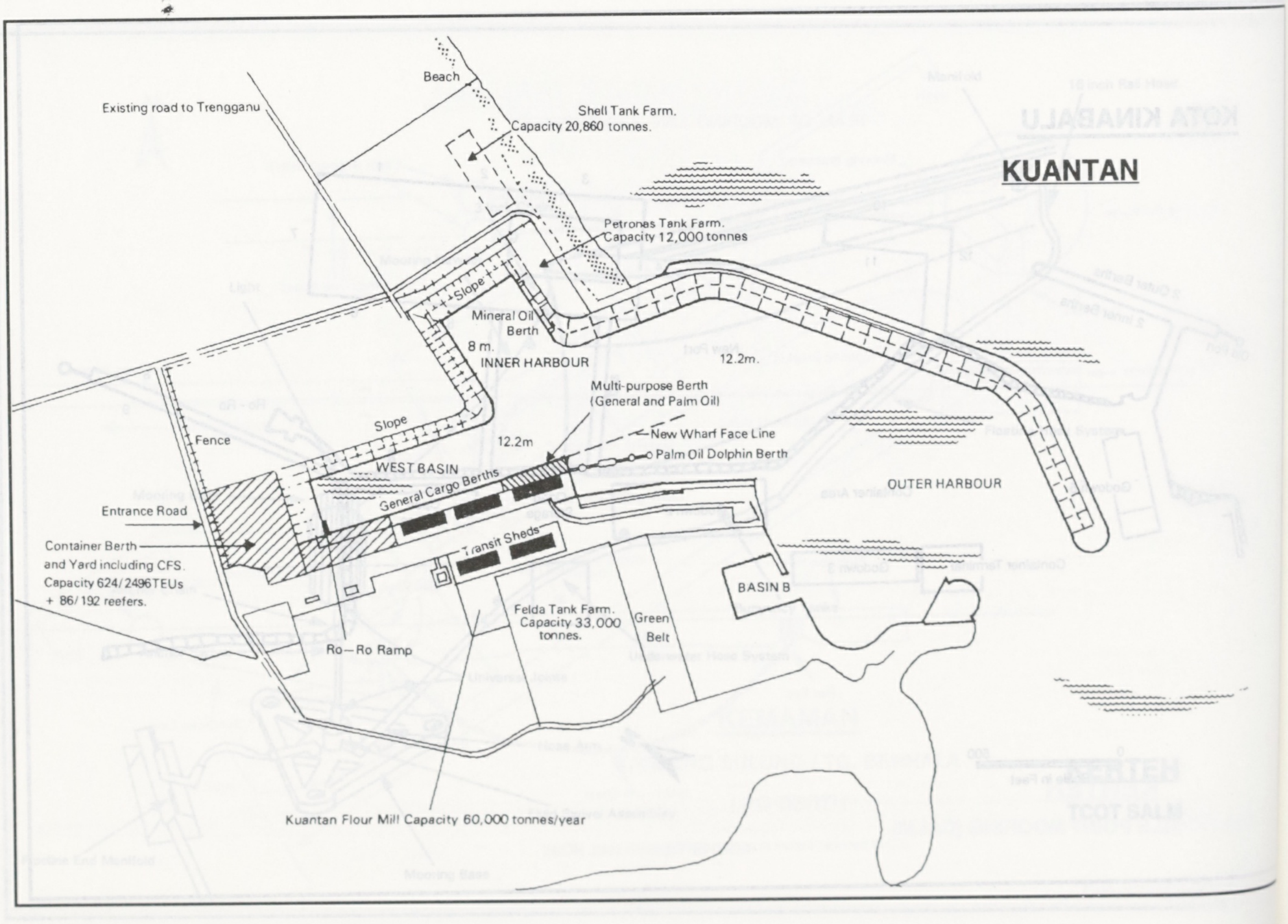
Mooring Hawser
Tanker Derrick
Rail Hose
Mooring Hawser
Tanker Manifold
Tanker Derrick
Subsea Hoses
Floating Hoses

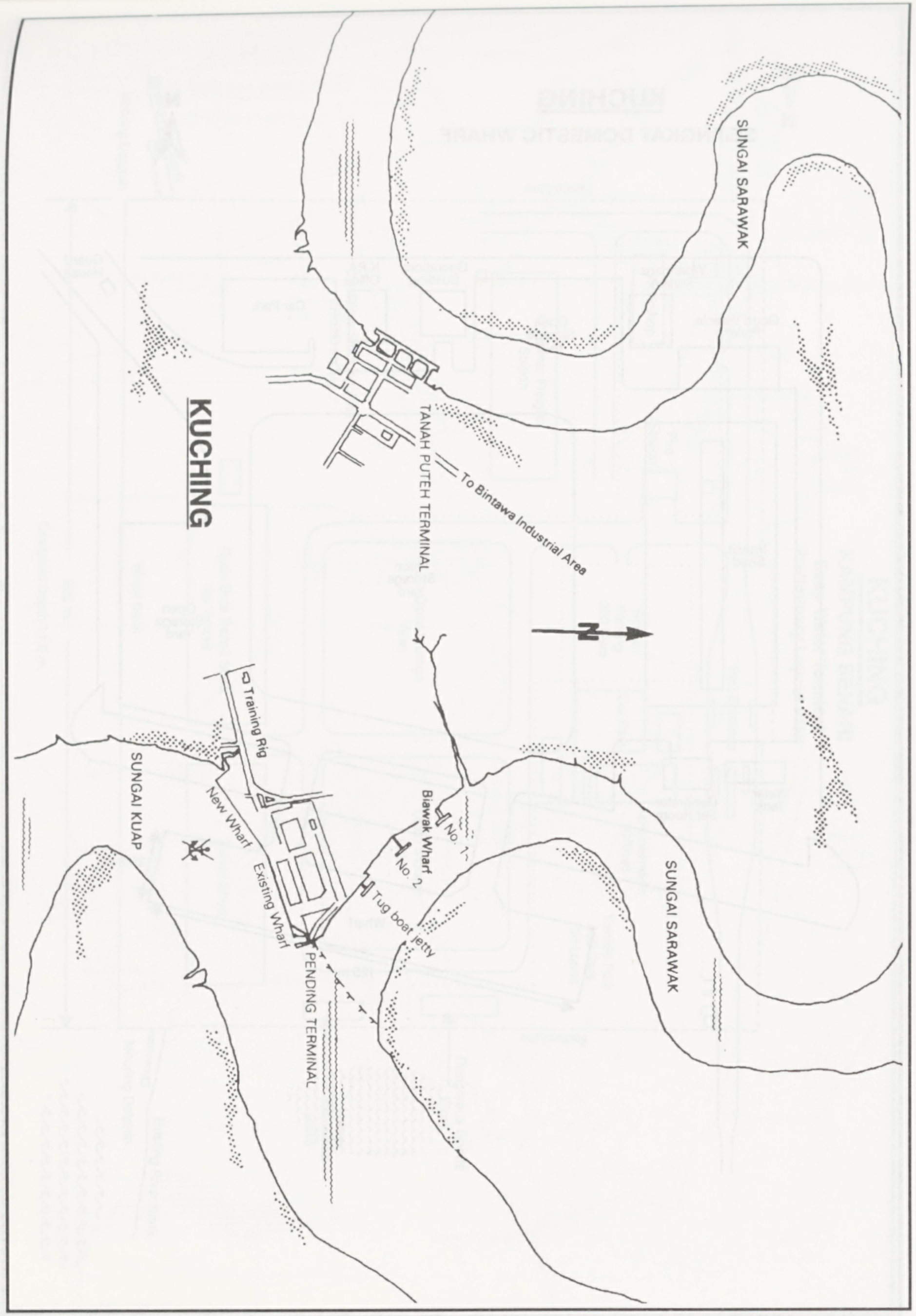


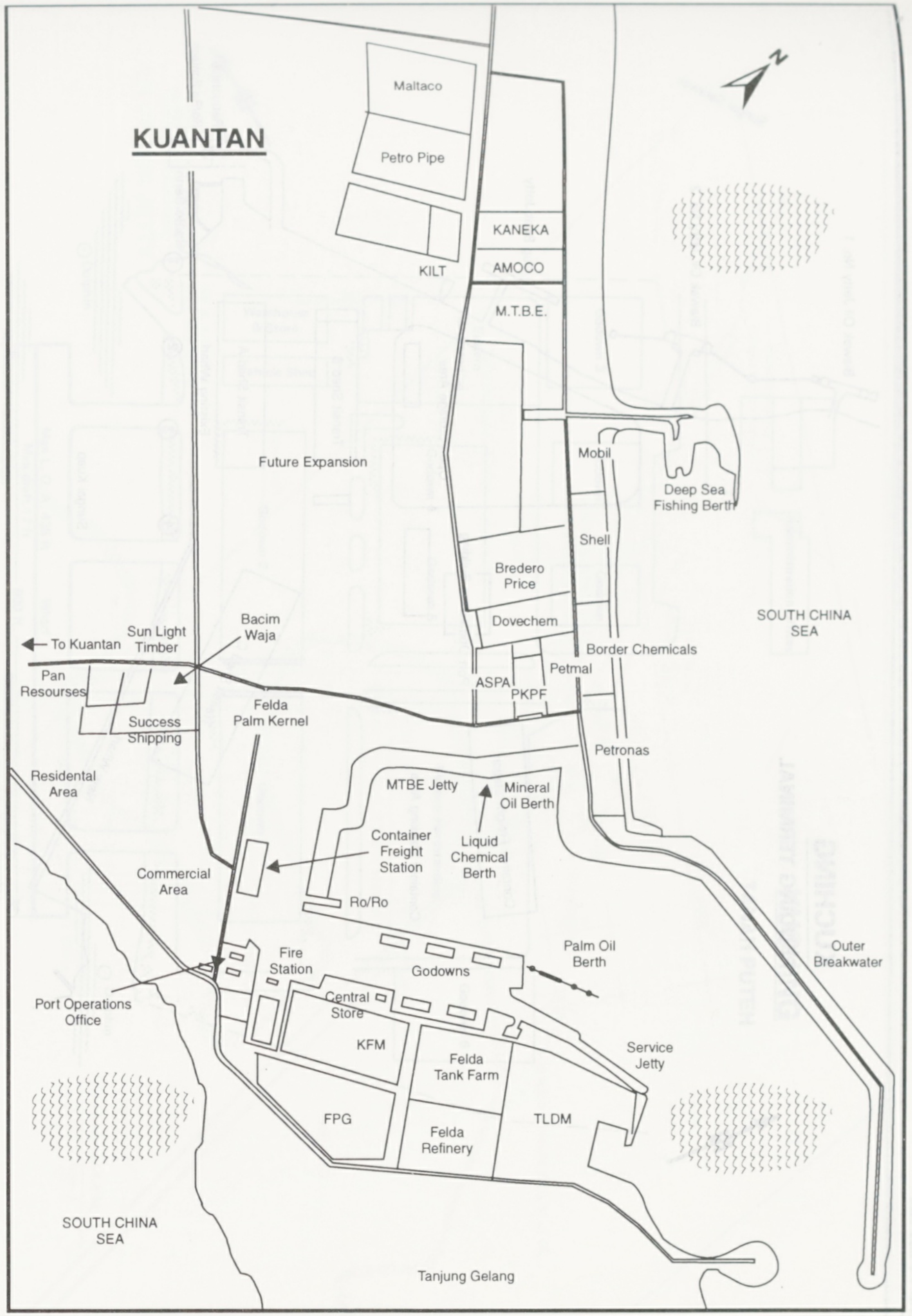
KOTA KINABALU

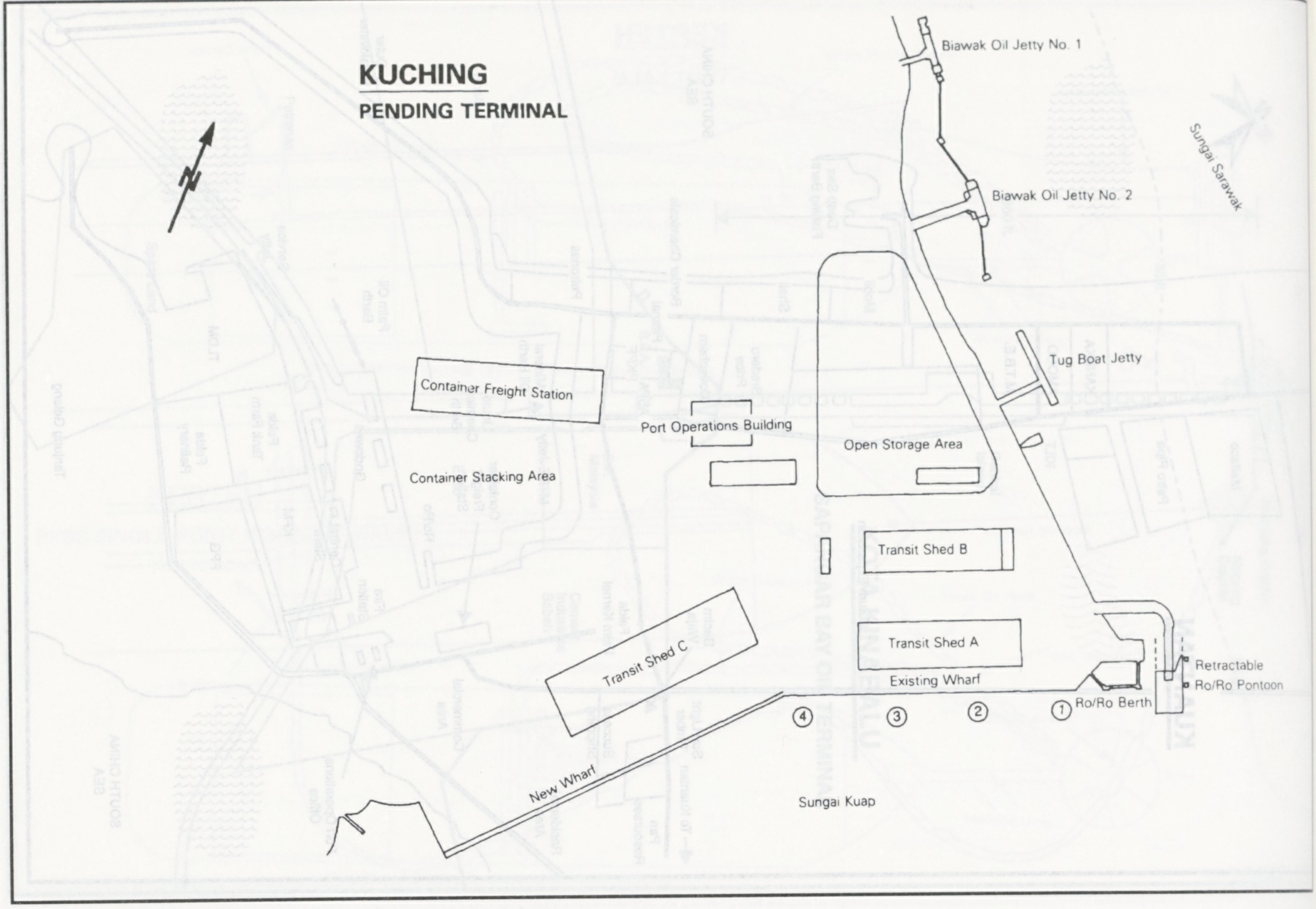
10
12
11
3
2
1
7
4
5
6
2 Outer Berths
2 Inner Berths
Old Port
New Port
8
9
Ro - Ro
Godown 5
Container Area
Godown 2
Open Storage
Open Storage
Container Terminal
Godown 3
0
500
Scale in Feet
N

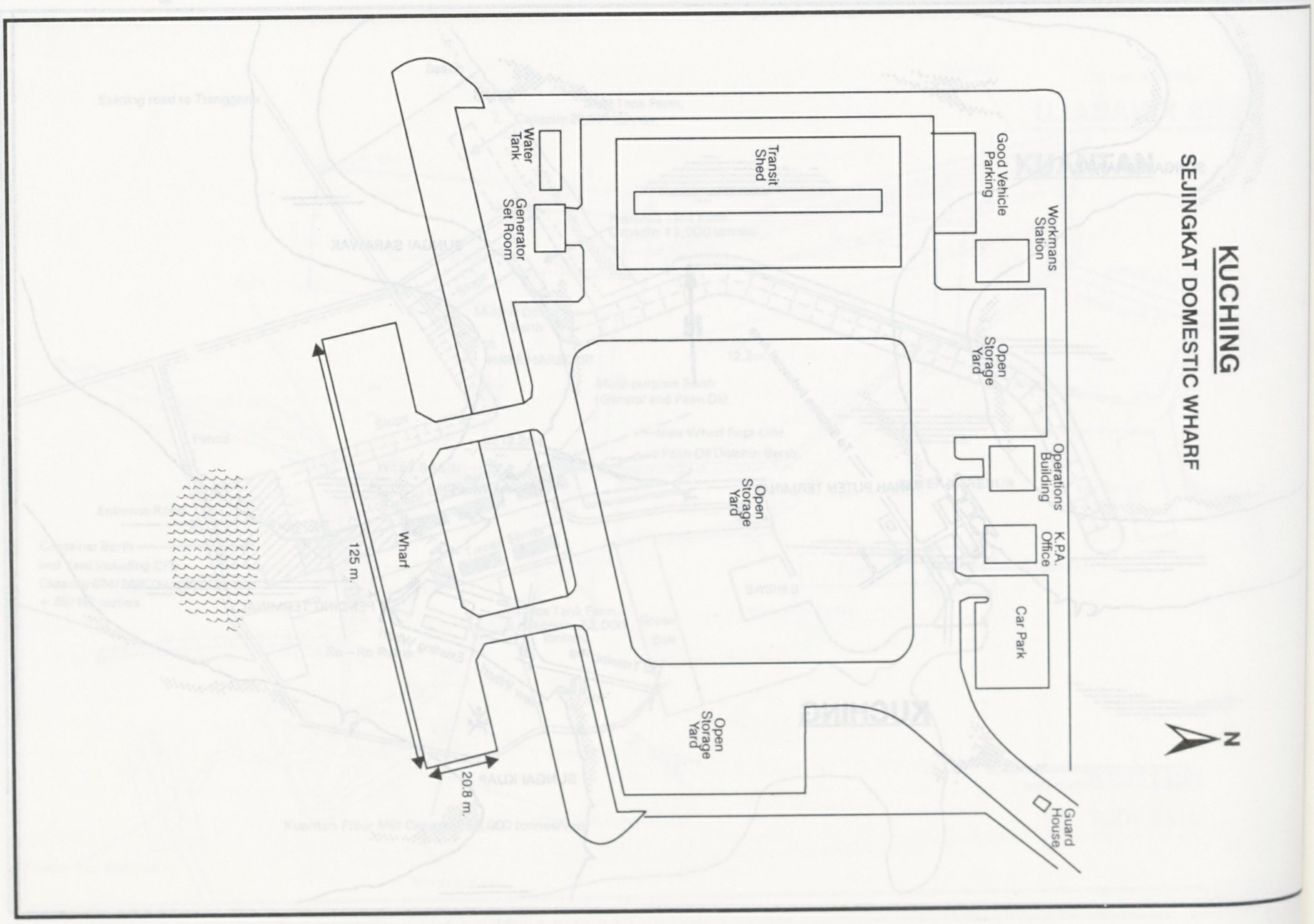

KOTA KINABALU
SAPANGAR BAY OIL TERMINAL
Petronas
Shell
Spare Land
S.P.A.
Esso
B.P. Malaysia
Cement Industries Sabah
Central Island
1360 ft.
36 ft.
36 ft.
830 ft.
Jetty Head
Breasting Dolphin
Mooring Dolphin
N

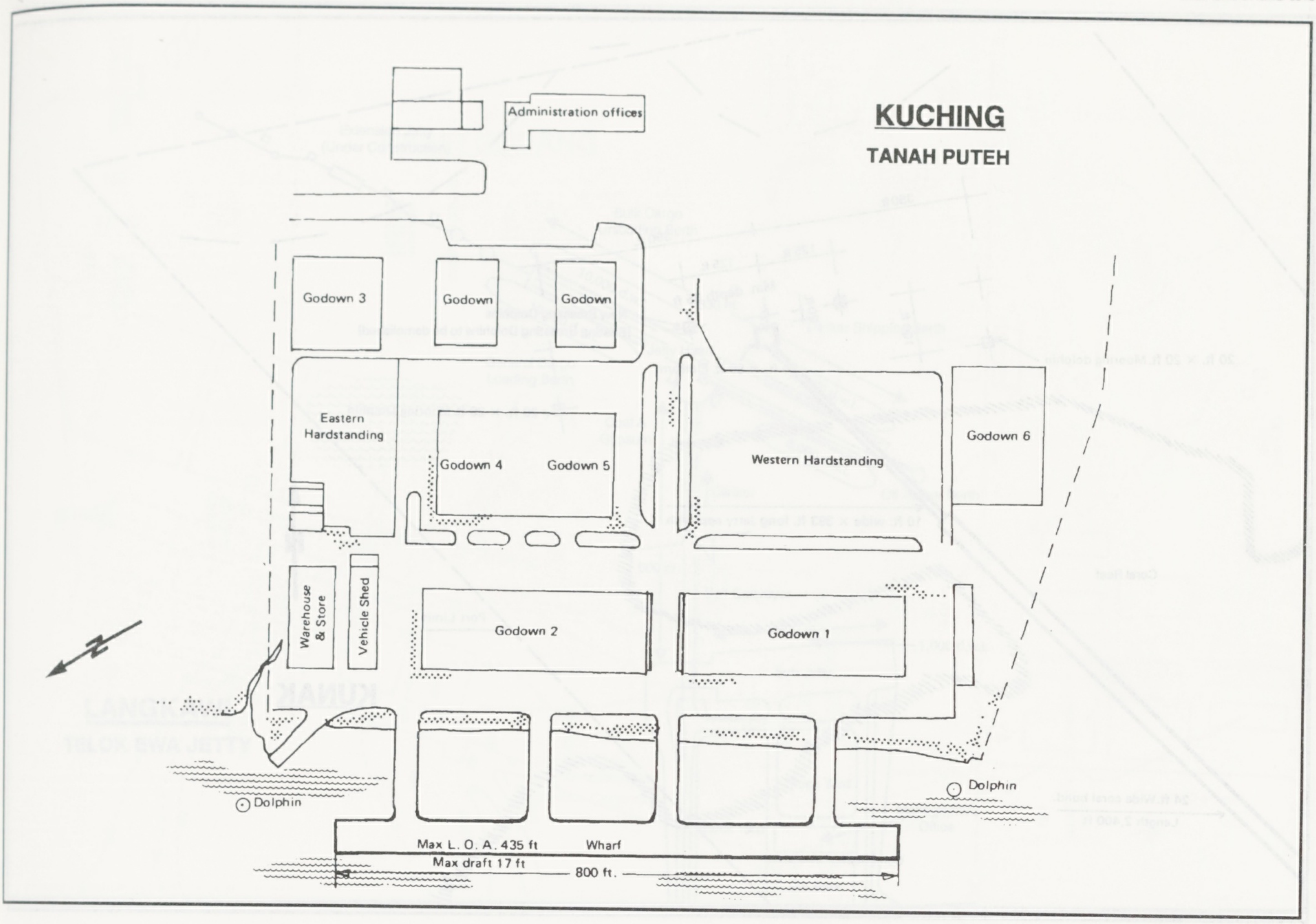

KUANTAN
Beach
Existing road to Trengganu
Shell Tank Farm. Capacity 20,860 tonnes.
Petronas Tank Farm. Capacity 12,000 tonnes
Slope
Mineral Oil Berth
8 m.
INNER HARBOUR
12.2m.
Multi-purpose Berth (General and Palm Oil)
Slope
12.2m
New Wharf Face Line
Palm Oil Dolphin Berth
Fence
WEST BASIN
General Cargo Berths
OUTER HARBOUR
Entrance Road
Container Berth and Yard including CFS. Capacity 624/2496 TEUs + 86/192 reefers.
Transit Sheds
BASIN B
Felda Tank Farm. Capacity 33,000 tonnes.
Green Belt
Ro—Ro Ramp
Kuantan Flour Mill Capacity 60,000 tonnes/year


KUCHING
SUNGAI SARAWAK
TANAH PUTEH TERMINAL
To Bintawa Industrial Area
N
Training Rig
SUNGAI KUAP
New Wharf
Existing Wharf
Biawak Wharf
No. 1
No. 2
Tug boat jetty
PENDING TERMINAL
SUNGAI SARAWAK

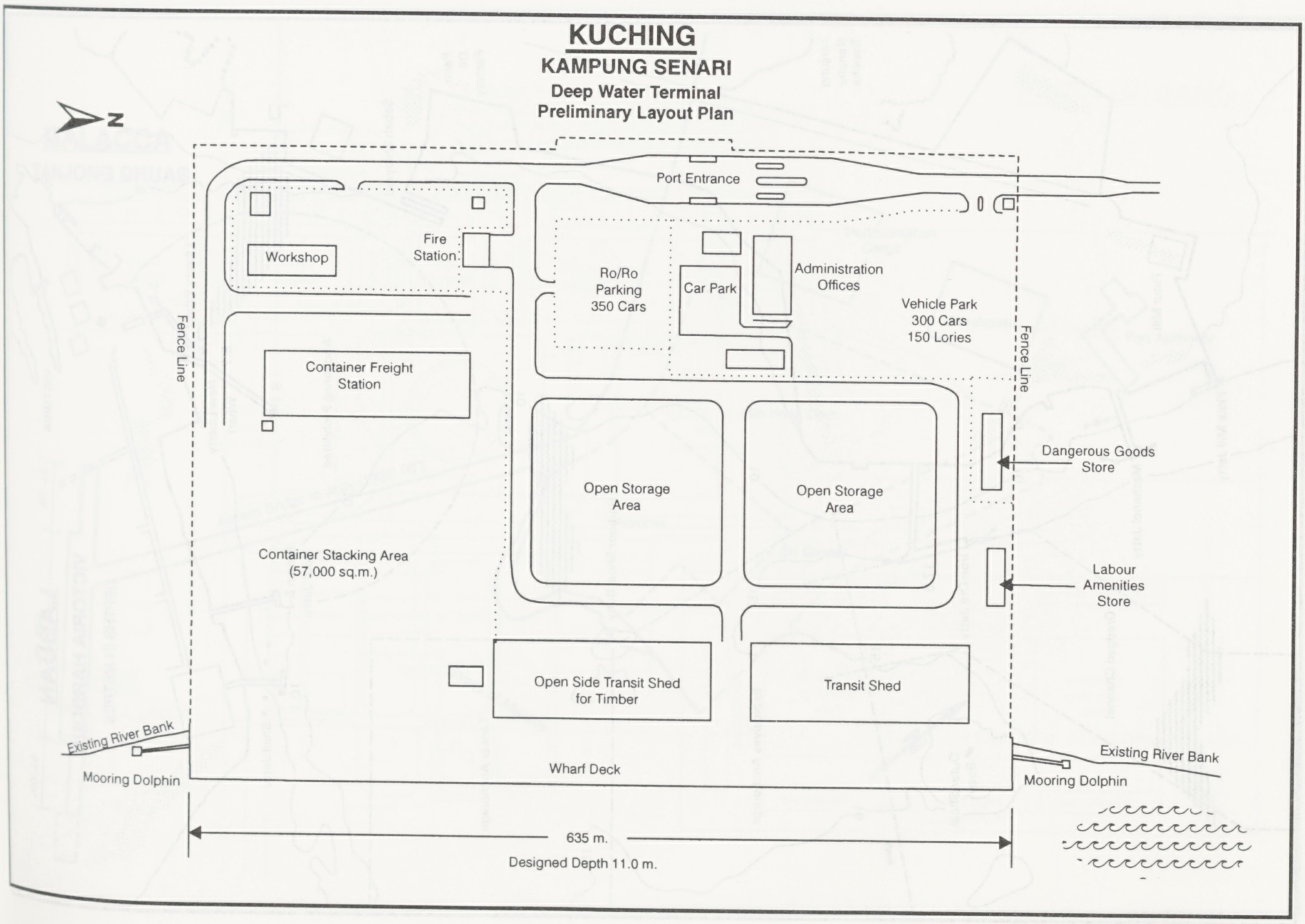

KUANTAN
N
Maltaco
Petro Pipe
KANEKA
AMOCO
KILT
M.T.B.E.
Future Expansion
Mobil
Deep Sea Fishing Berth
Shell
Bredero Price
Dovechem
Border Chemicals
SOUTH CHINA SEA
To Kuantan
Sun Light Timber
Bacim Waja
Pan Resourses
ASPA
PKPF
Petmal
Felda Palm Kernel
Success Shipping
Petronas
Residental Area
MTBE Jetty
Mineral Oil Berth
Container Freight Station
Liquid Chemical Berth
Commercial Area
Ro/Ro
Palm Oil Berth
Outer Breakwater
Fire Station
Godowns
Port Operations Office
Central Store
KFM
Felda Tank Farm
Service Jetty
FPG
Felda Refinery
TLDM
SOUTH CHINA SEA
Tanjung Gelang


KUCHING
PENDING TERMINAL
Biawak Oil Jetty No. 1
Sungai Sarawak
Biawak Oil Jetty No. 2
Tug Boat Jetty
Container Freight Station
Port Operations Building
Open Storage Area
Container Stacking Area
Transit Shed B
Transit Shed A
Transit Shed C
Existing Wharf
Retractable
Ro/Ro Pontoon
Ro/Ro Berth
①
②
③
④
New Wharf
Sungai Kuap

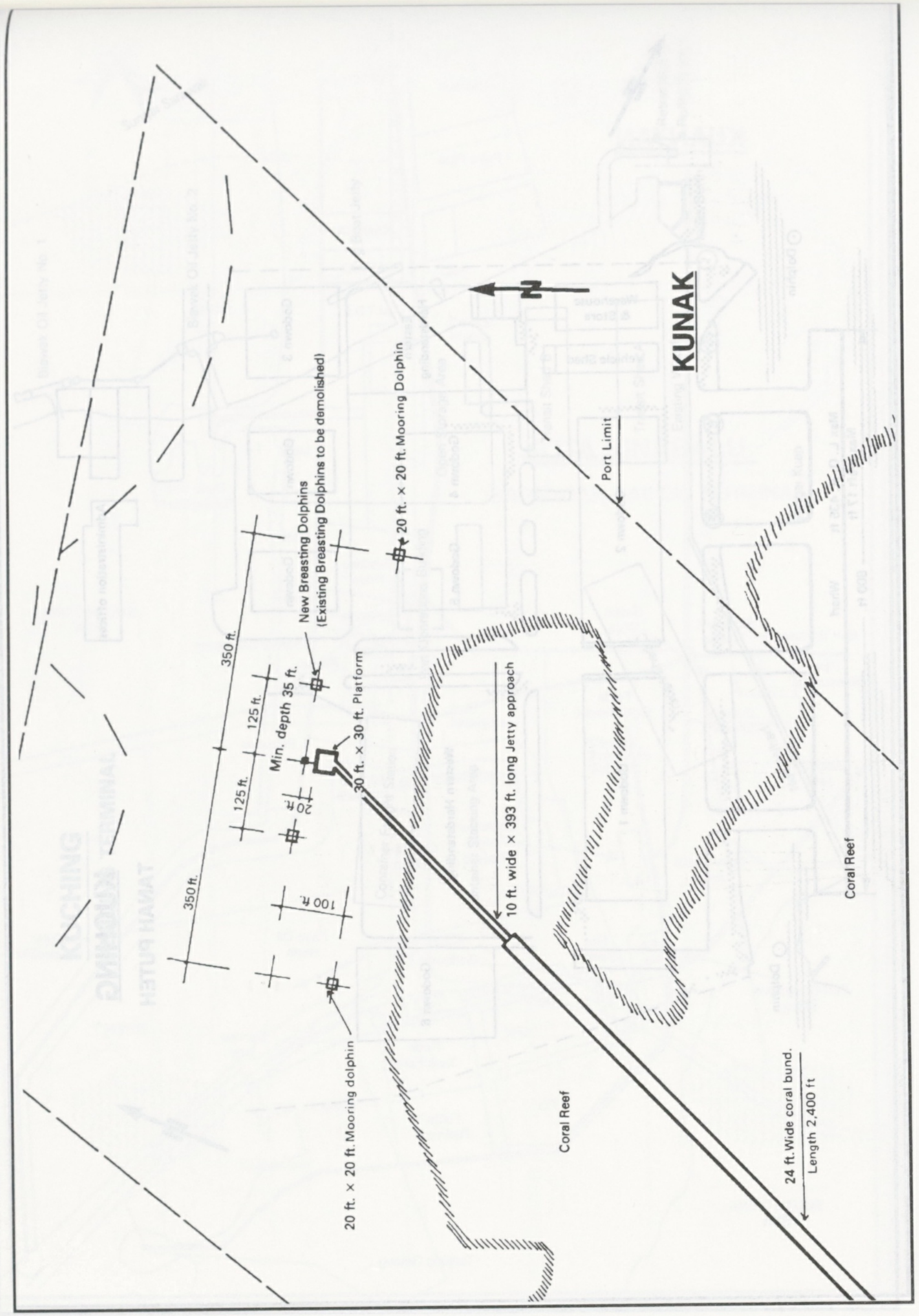

KUCHING
SEJINGKAT DOMESTIC WHARF
Water Tank
Generator Set Room
Transit Shed
Good Vehicle Parking
Workmans Station
Open Storage Yard
Open Storage Yard
Operations Building
K.P.A. Office
Car Park
Open Storage Yard
Wharf
125 m.
20.8 m.
Guard House
N

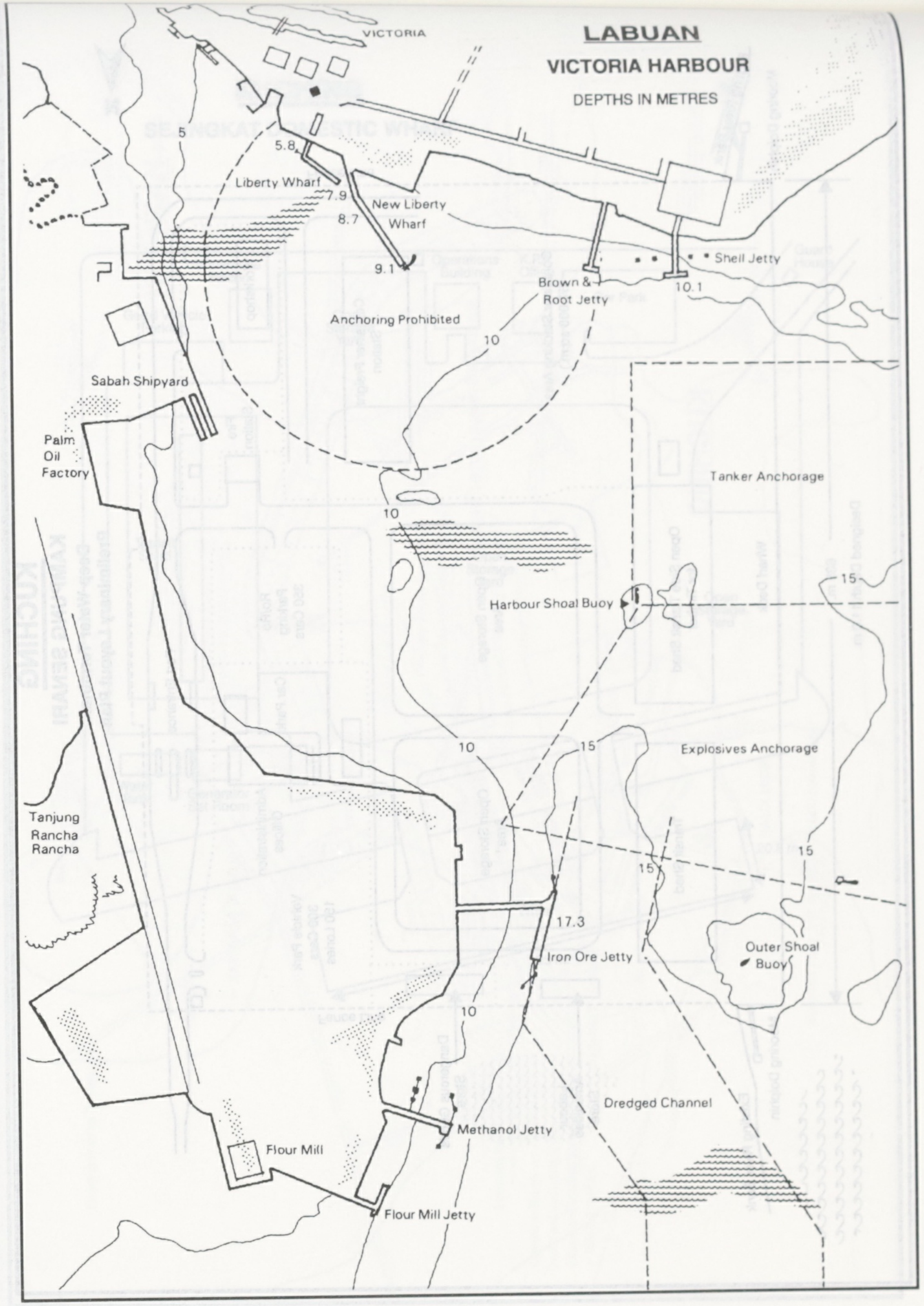


KUCHING
TANAH PUTEH
Administration offices
Godown 3
Godown
Godown
Eastern Hardstanding
Godown 4
Godown 5
Western Hardstanding
Godown 6
Warehouse & Store
Vehicle Shed
Godown 2
Godown 1
N
Dolphin
Dolphin
Max L. O. A. 435 ft
Wharf
Max draft 17 ft
800 ft.



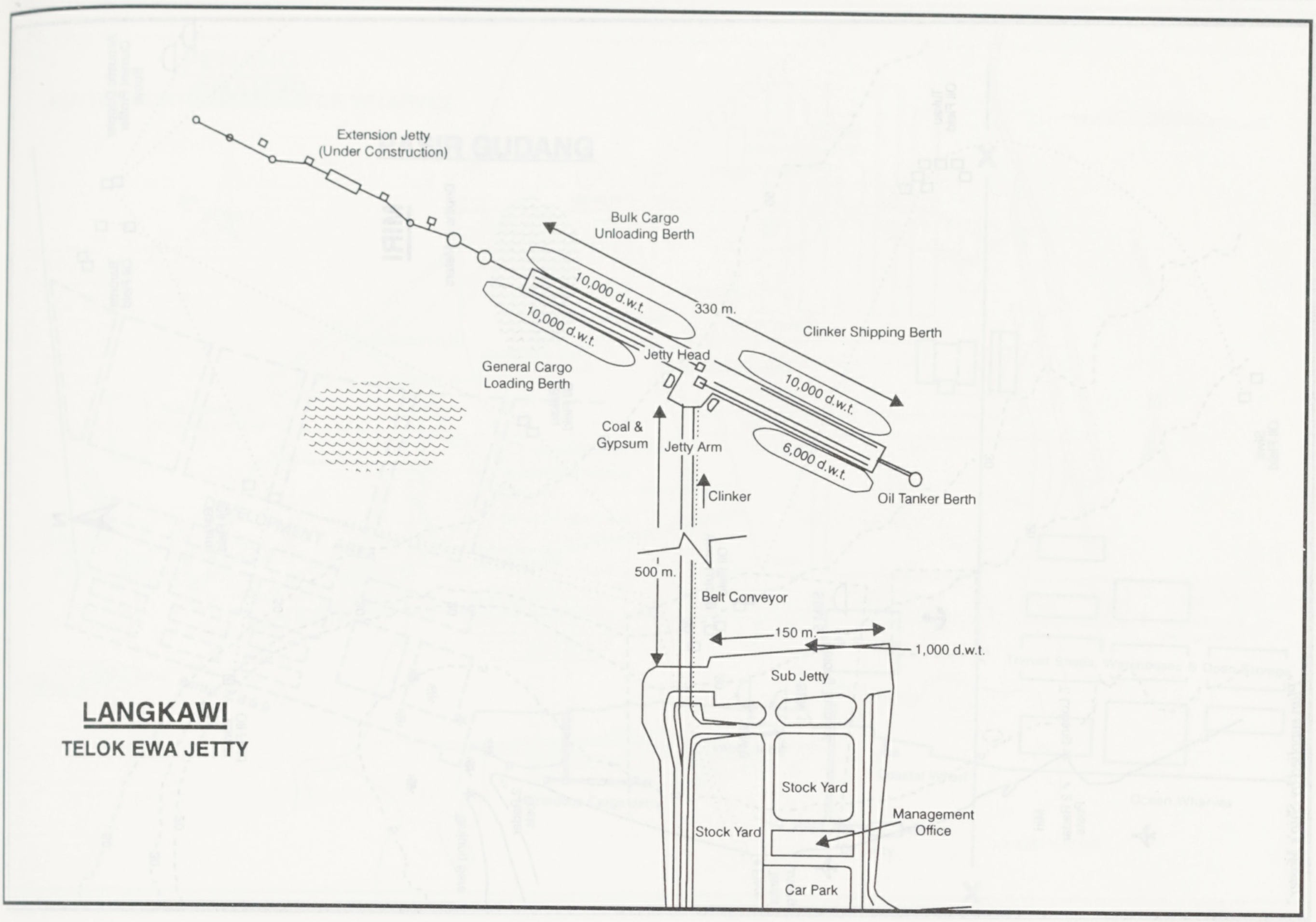
KUCHING
KAMPUNG SENARI
Deep Water Terminal
Preliminary Layout Plan
N
Port Entrance
Workshop
Fire Station
Ro/Ro Parking 350 Cars
Car Park
Administration Offices
Vehicle Park 300 Cars 150 Lories
Fence Line
Fence Line
Container Freight Station
Open Storage Area
Open Storage Area
Dangerous Goods Store
Container Stacking Area (57,000 sq.m.)
Labour Amenities Store
Open Side Transit Shed for Timber
Transit Shed
Existing River Bank
Mooring Dolphin
Wharf Deck
Existing River Bank
Mooring Dolphin
635 m.
Designed Depth 11.0 m.


KUNAK
N
Port Limit
20 ft. × 20 ft. Mooring Dolphin
New Breasting Dolphins
(Existing Breasting Dolphins to be demolished)
350 ft.
125 ft.
125 ft.
Min. depth 35 ft.
30 ft. × 30 ft. Platform
20 ft.
100 ft.
350 ft.
10 ft. wide × 393 ft. long Jetty approach
20 ft. × 20 ft. Mooring dolphin
Coral Reef
Coral Reef
24 ft. Wide coral bund.
Length 2,400 ft


LABUAN
VICTORIA HARBOUR
DEPTHS IN METRES
VICTORIA
5
5.8
Liberty Wharf
7.9
8.7
New Liberty
Wharf
9.1
Brown &
Root Jetty
Shell Jetty
10.1
Anchoring Prohibited
10
Sabah Shipyard
Palm
Oil
Factory
10
Tanker Anchorage
Harbour Shoal Buoy
15
10
15
Explosives Anchorage
Tanjung
Rancha
Rancha
15
15
17.3
Iron Ore Jetty
Outer Shoal
Buoy
10
Dredged Channel
Methanol Jetty
Flour Mill
Flour Mill Jetty

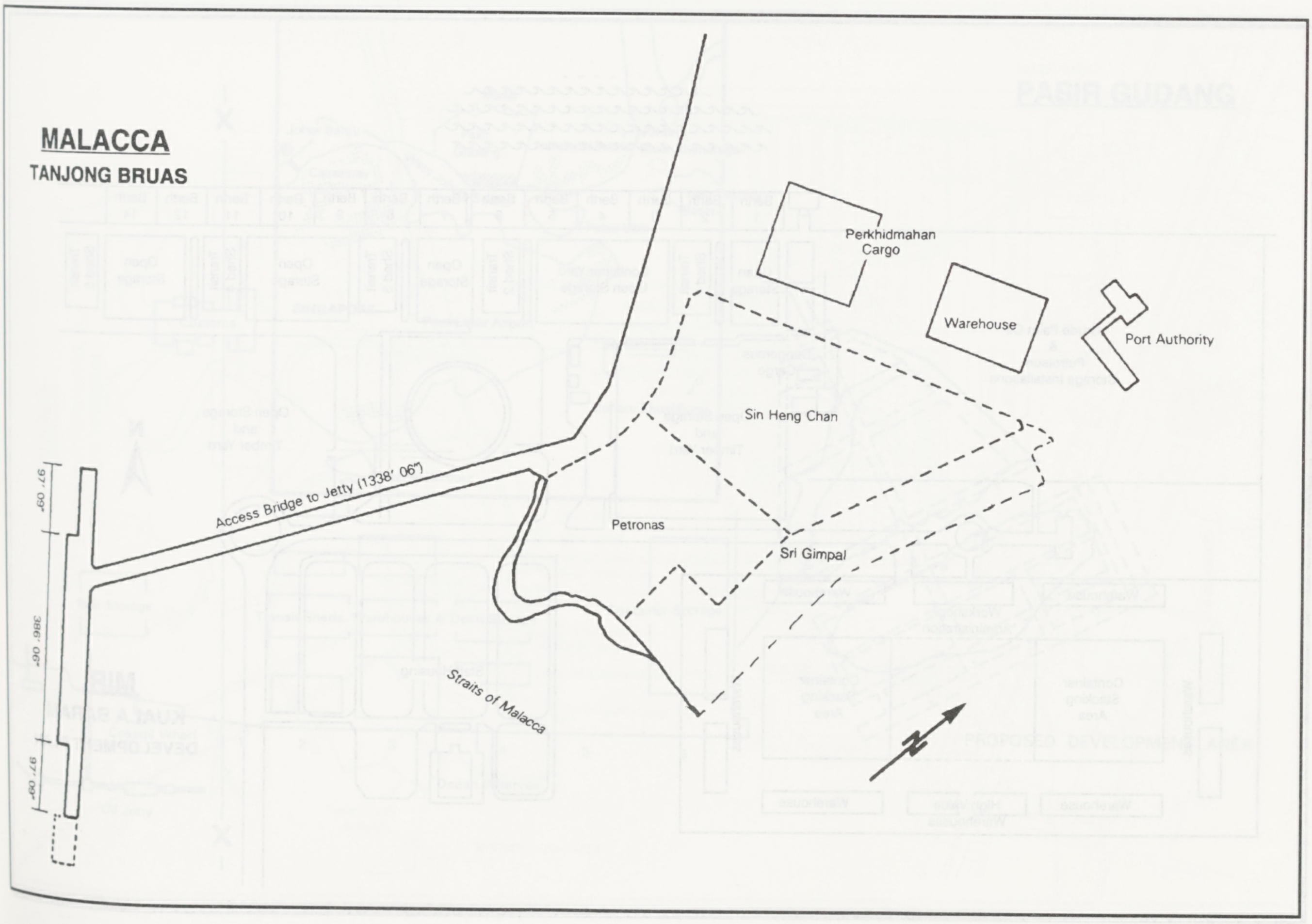
LANGKAWI

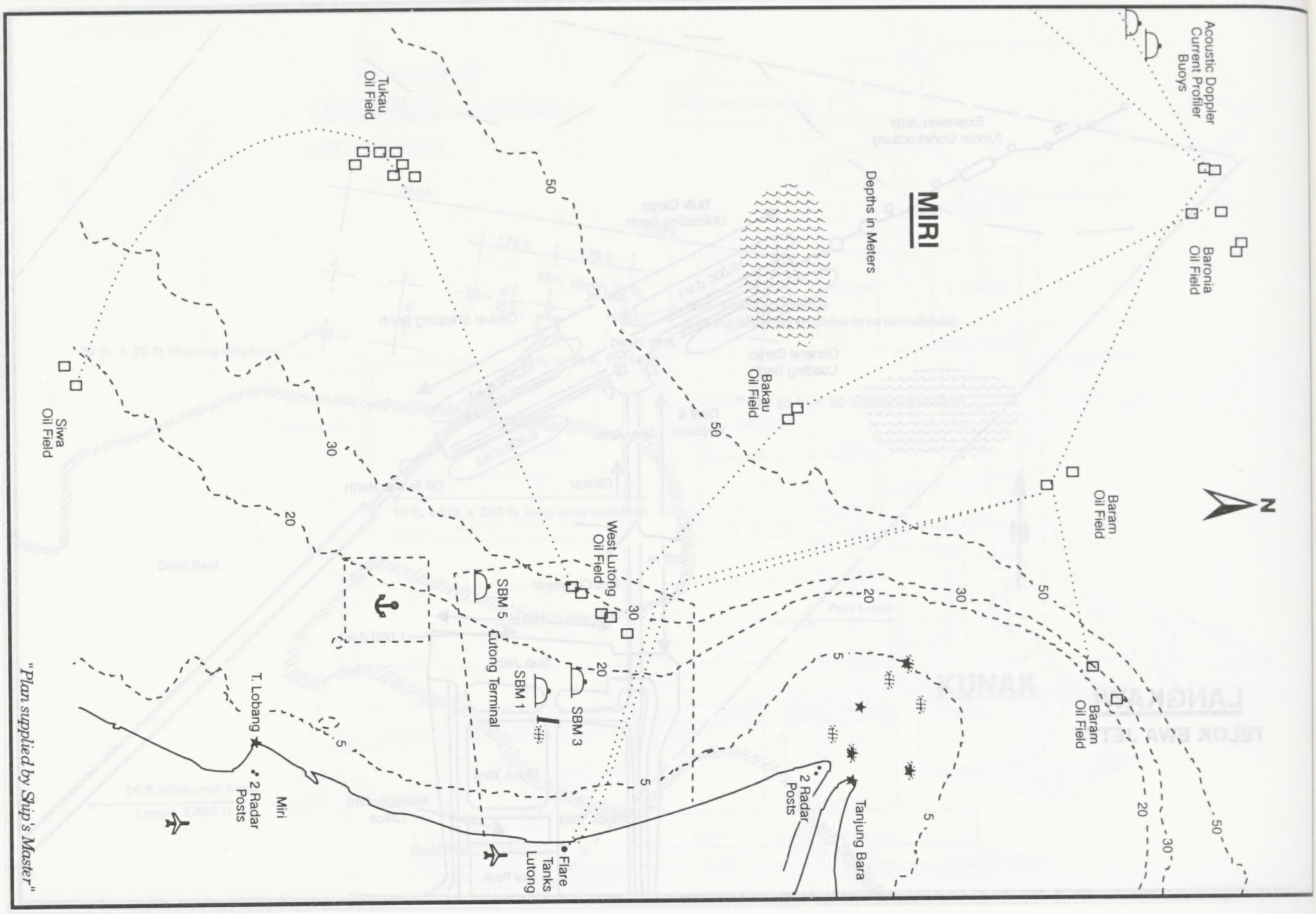
TELOK EWA JETTY


Extension Jetty
(Under Construction)
Bulk Cargo
Unloading Berth
10,000 d.w.t.
10,000 d.w.t.
330 m.
Clinker Shipping Berth
General Cargo
Loading Berth
Jetty Head
10,000 d.w.t.
Coal &
Gypsum
Jetty Arm
6,000 d.w.t.
Clinker
Oil Tanker Berth
500 m.
Belt Conveyor
150 m.
1,000 d.w.t.
Sub Jetty
Stock Yard
Management
Office
Stock Yard
Car Park

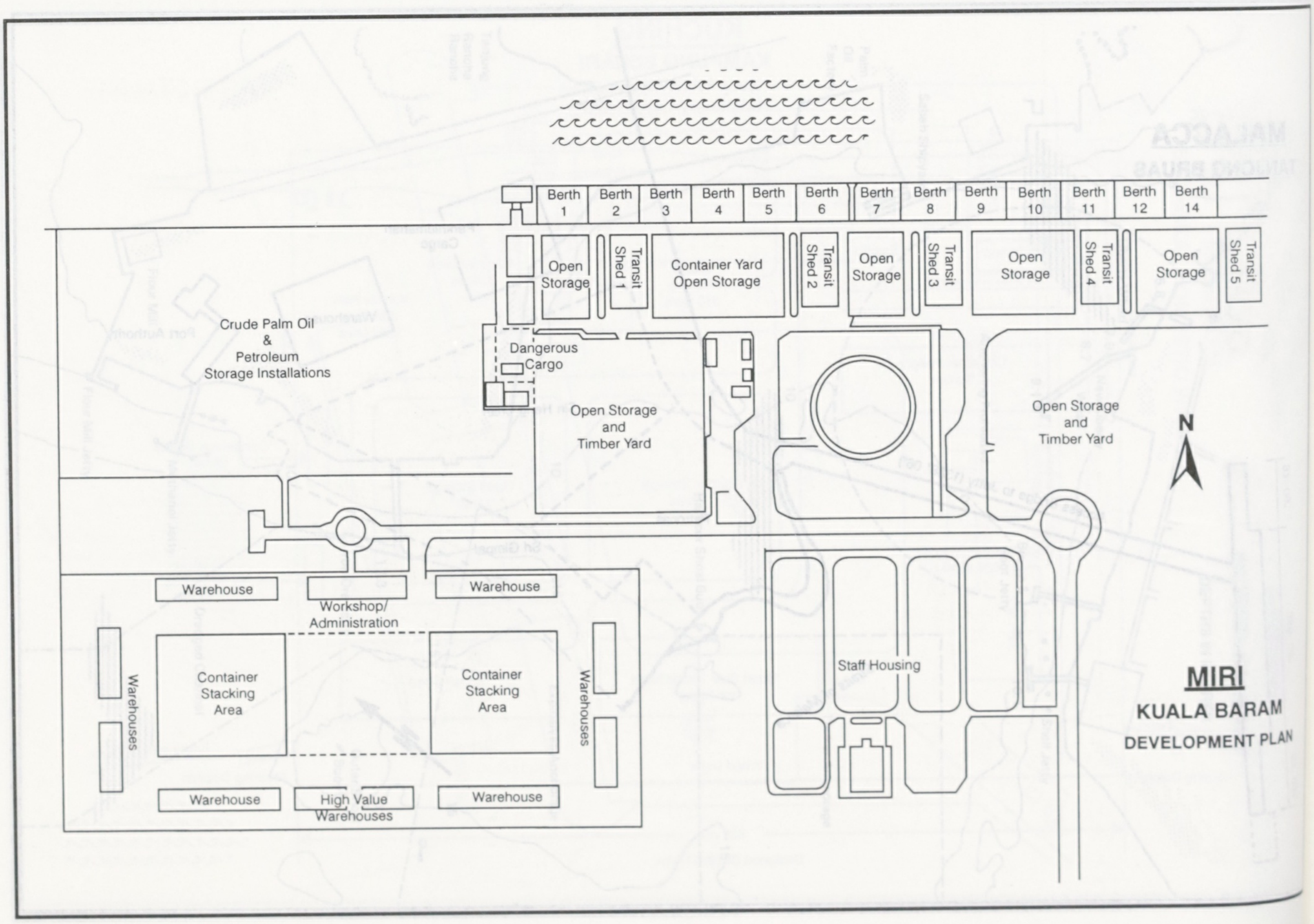
MALACCA

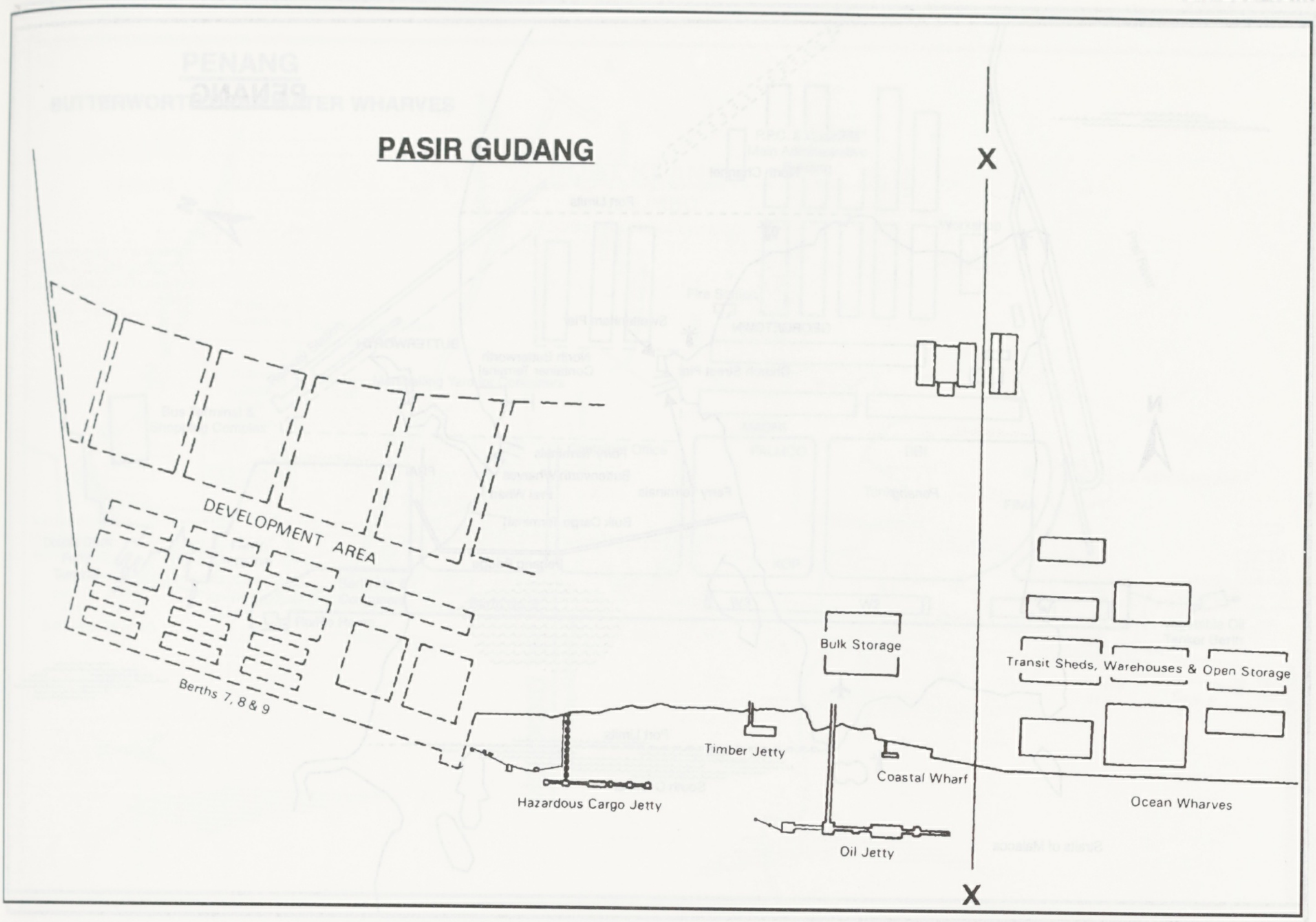
TANJONG BRUAS

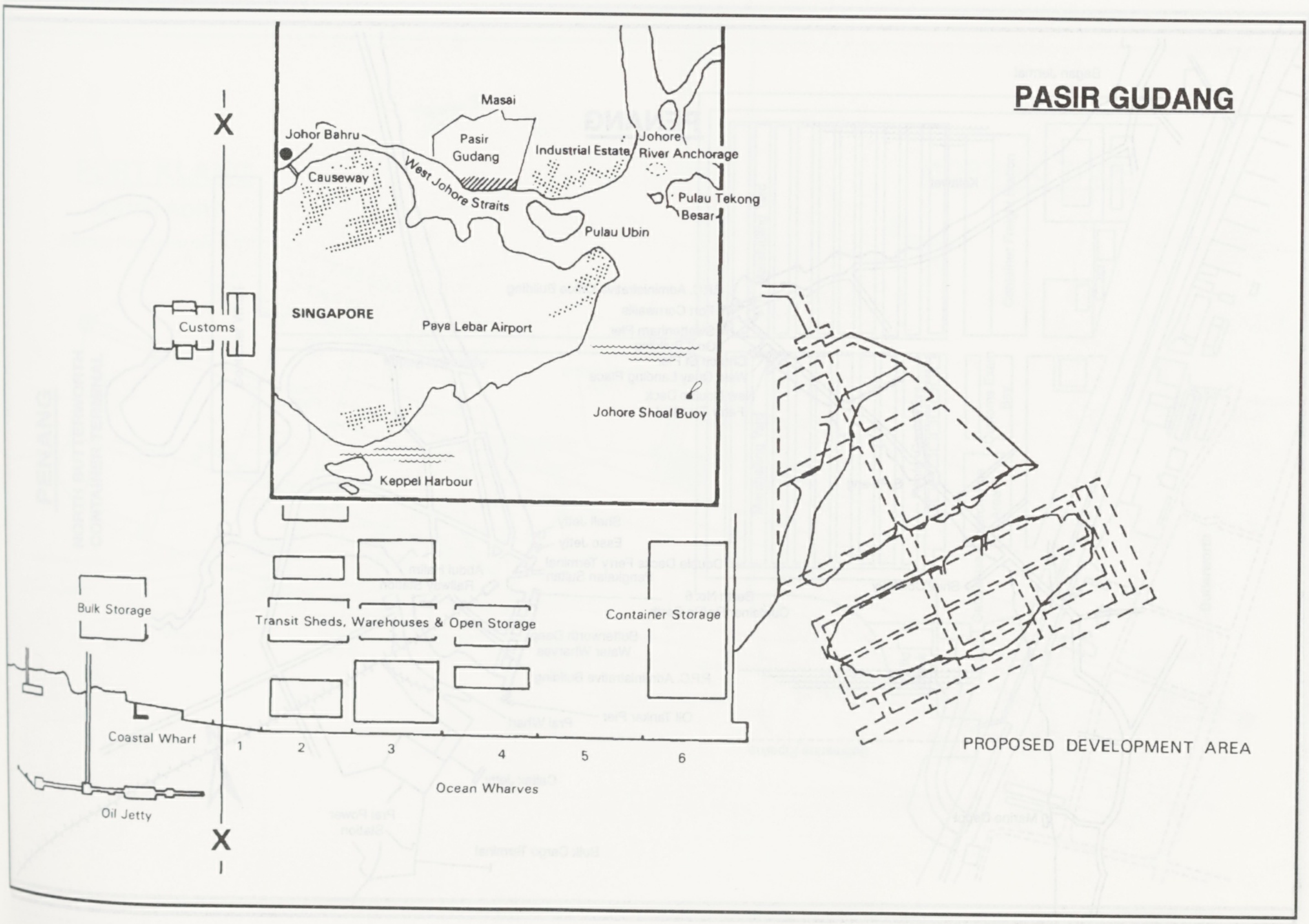

Perkhidmahan
Cargo
Warehouse
Port Authority
Sin Heng Chan
97' 09"
Access Bridge to Jetty (1338' 06")
Petronas
386' 06"
Sri Gimpal
Straits of Malacca
97' 09"
N

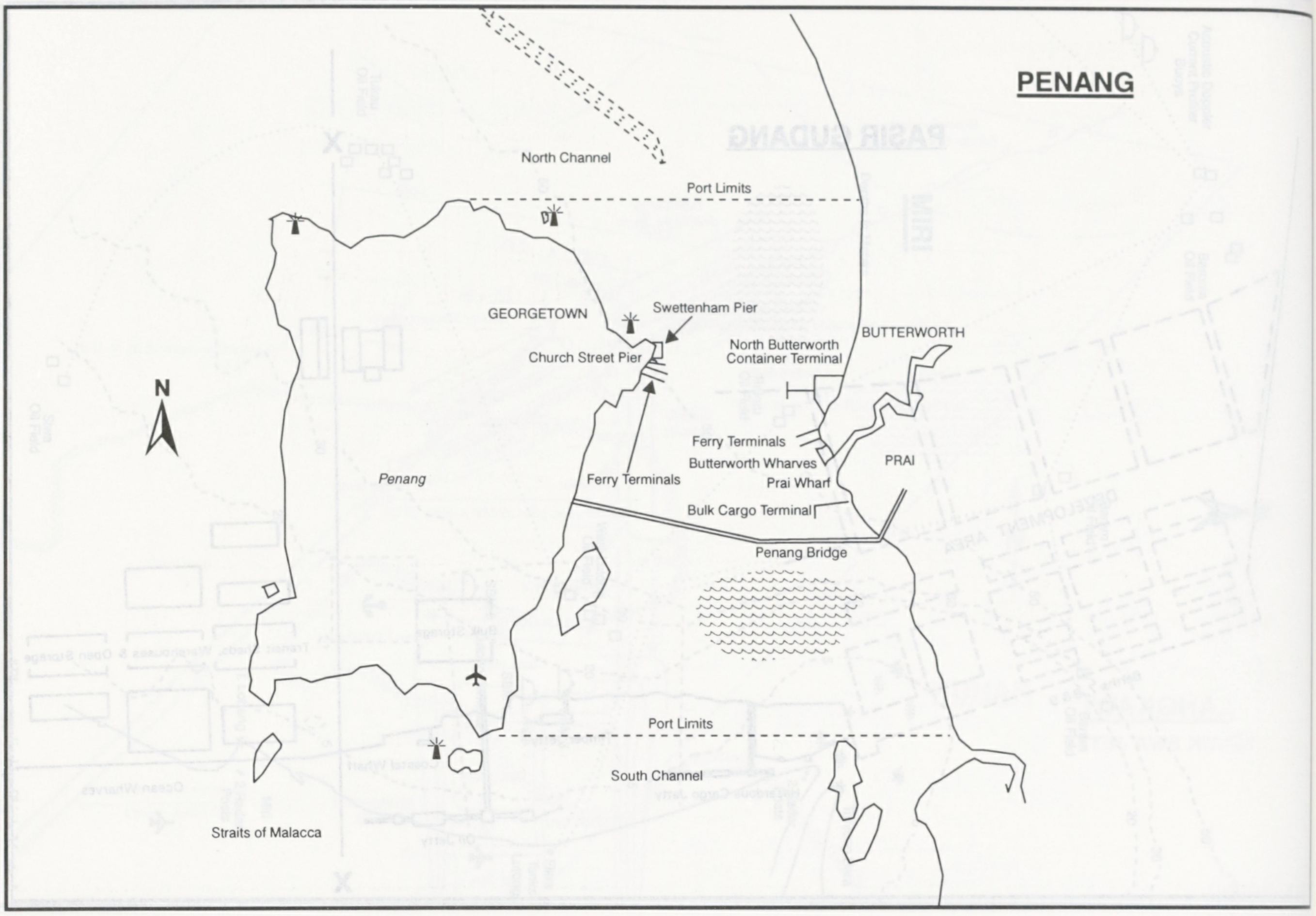

MIRI
Depths in Meters
Acoustic Doppler Current Profiler Buoys
Tukau Oil Field
Baronia Oil Field
Bakau Oil Field
Siwa Oil Field
West Lutong Oil Field
Baram Oil Field
Baram Oil Field
N
SBM 5
Lutong Terminal
SBM 1
SBM 3
T. Lobang
Miri
2 Radar Posts
Flare
Tanks
Lutong
Tanjung Bara
2 Radar Posts
50
50
50
50
30
30
30
30
20
20
20
20
5
5
5
5

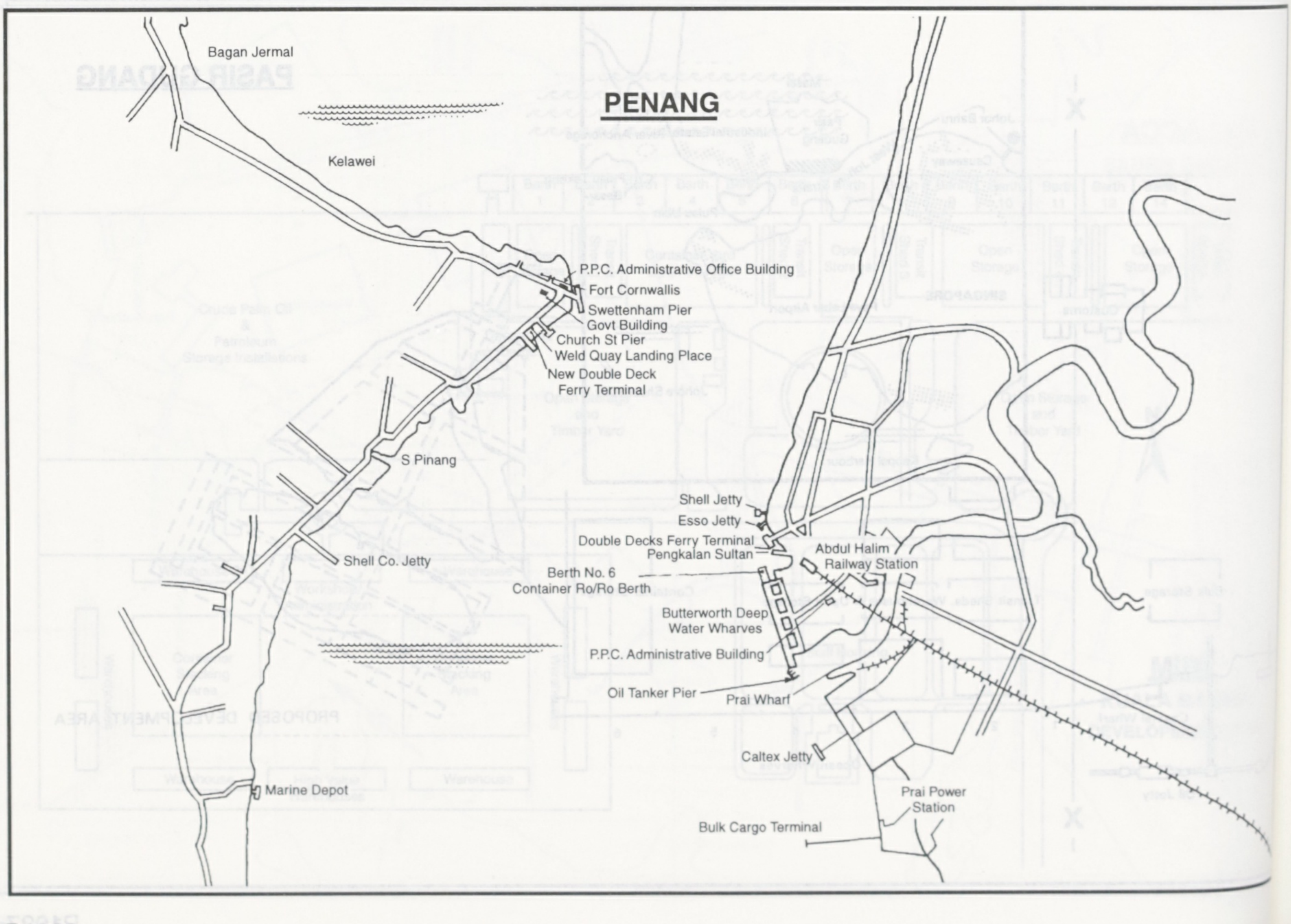
"Plan supplied by Ship's Master"


Berth 1
Berth 2
Berth 3
Berth 4
Berth 5
Berth 6
Berth 7
Berth 8
Berth 9
Berth 10
Berth 11
Berth 12
Berth 14
Open Storage
Transit Shed 1
Container Yard Open Storage
Transit Shed 2
Open Storage
Transit Shed 3
Open Storage
Transit Shed 4
Open Storage
Transit Shed 5
Crude Palm Oil & Petroleum Storage Installations
Dangerous Cargo
Open Storage and Timber Yard
Open Storage and Timber Yard
N
Warehouse
Workshop/ Administration
Warehouse
Warehouses
Container Stacking Area
Container Stacking Area
Warehouses
Warehouse
High Value Warehouses
Warehouse
Staff Housing
MIRI
KUALA BARAM
DEVELOPMENT PLAN


PASIR GUDANG
X
DEVELOPMENT AREA
Berths 7, 8 & 9
Bulk Storage
Transit Sheds, Warehouses & Open Storage
Timber Jetty
Coastal Wharf
Hazardous Cargo Jetty
Ocean Wharves
Oil Jetty
X

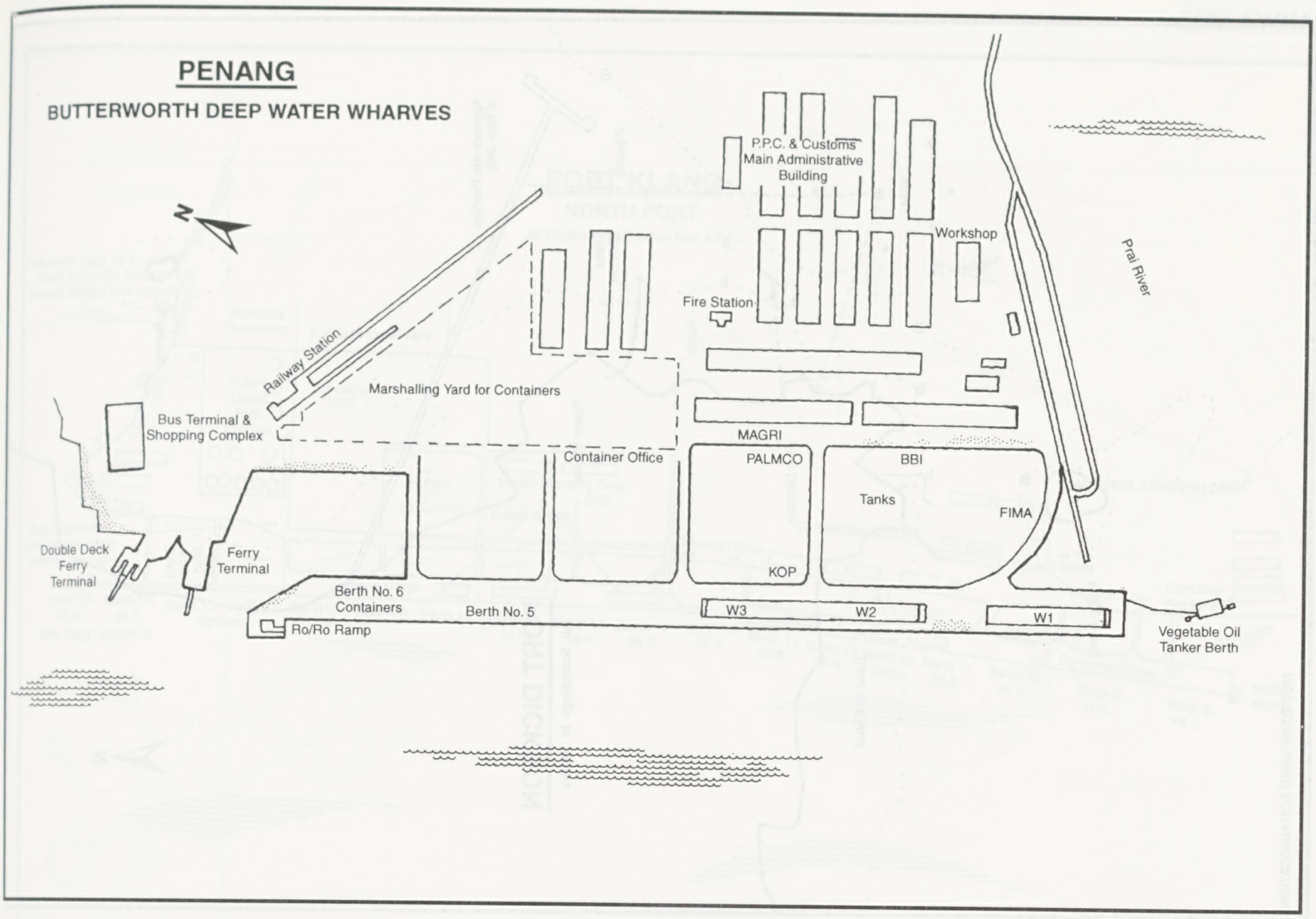

PASIR GUDANG
X
Masai
Johor Bahru
Pasir Gudang
Industrial Estate
Johore River Anchorage
Causeway
West Johore Straits
Pulau Tekong Besar
Pulau Ubin
SINGAPORE
Customs
Paya Lebar Airport
Johore Shoal Buoy
Keppel Harbour
Bulk Storage
Transit Sheds, Warehouses & Open Storage
Container Storage
Coastal Wharf
1
2
3
4
5
6
Ocean Wharves
Oil Jetty
PROPOSED DEVELOPMENT AREA
X


PENANG
North Channel
Port Limits
GEORGETOWN
Swettenham Pier
Church Street Pier
BUTTERWORTH
North Butterworth
Container Terminal
N
Ferry Terminals
Butterworth Wharves
PRAI
Penang
Ferry Terminals
Prai Wharf
Bulk Cargo Terminal
Penang Bridge
Port Limits
South Channel
Straits of Malacca


Bagan Jermal
PENANG
Kelawei
P.P.C. Administrative Office Building
Fort Cornwallis
Swettenham Pier
Govt Building
Church St Pier
Weld Quay Landing Place
New Double Deck
Ferry Terminal
S Pinang
Shell Jetty
Esso Jetty
Double Decks Ferry Terminal
Pengkalan Sultan
Abdul Halim
Railway Station
Shell Co. Jetty
Berth No. 6
Container Ro/Ro Berth
Butterworth Deep
Water Wharves
P.P.C. Administrative Building
Oil Tanker Pier
Prai Wharf
Caltex Jetty
Marine Depot
Prai Power
Station
Bulk Cargo Terminal

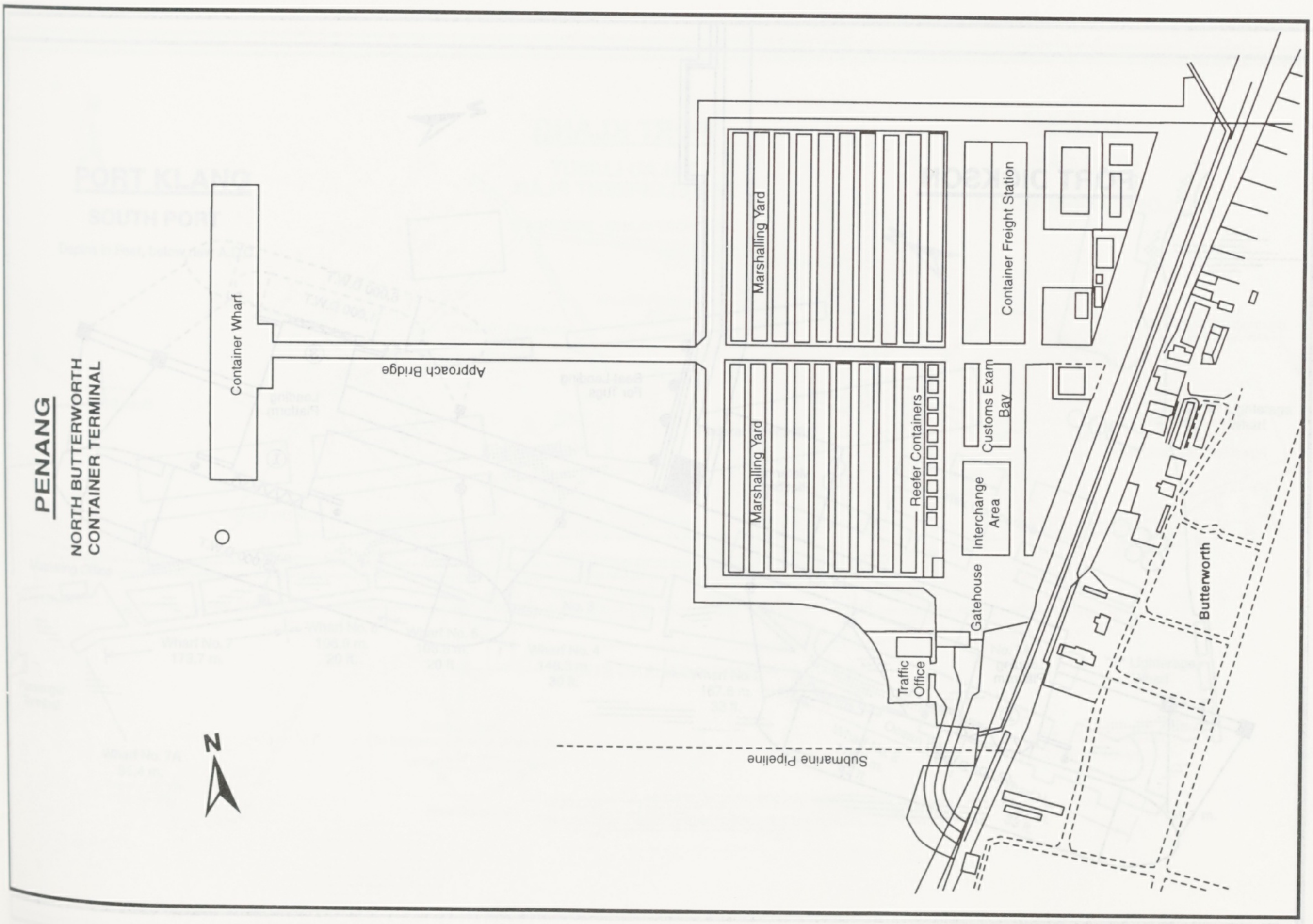
PENANG

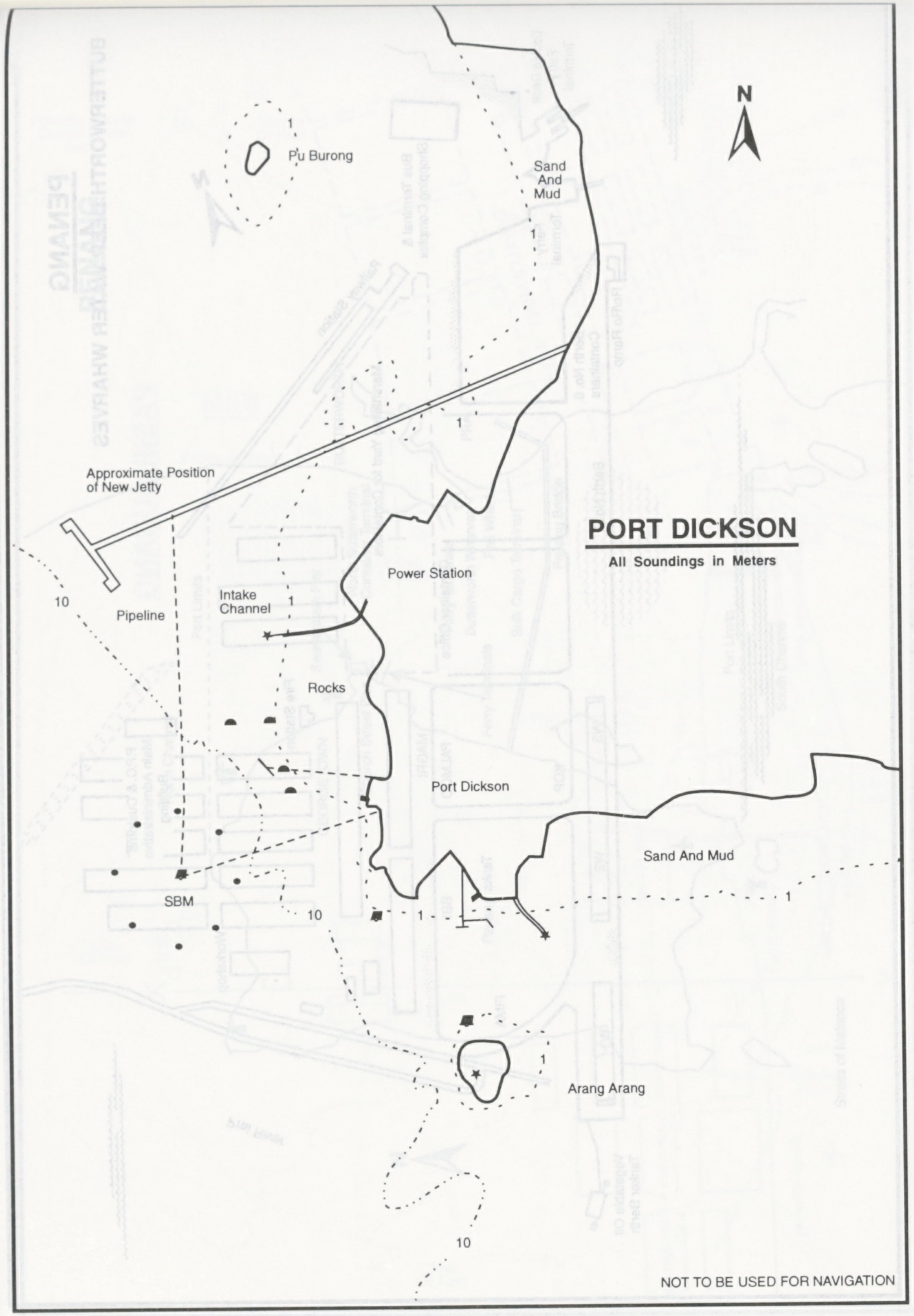
BUTTERWORTH DEEP WATER WHARVES

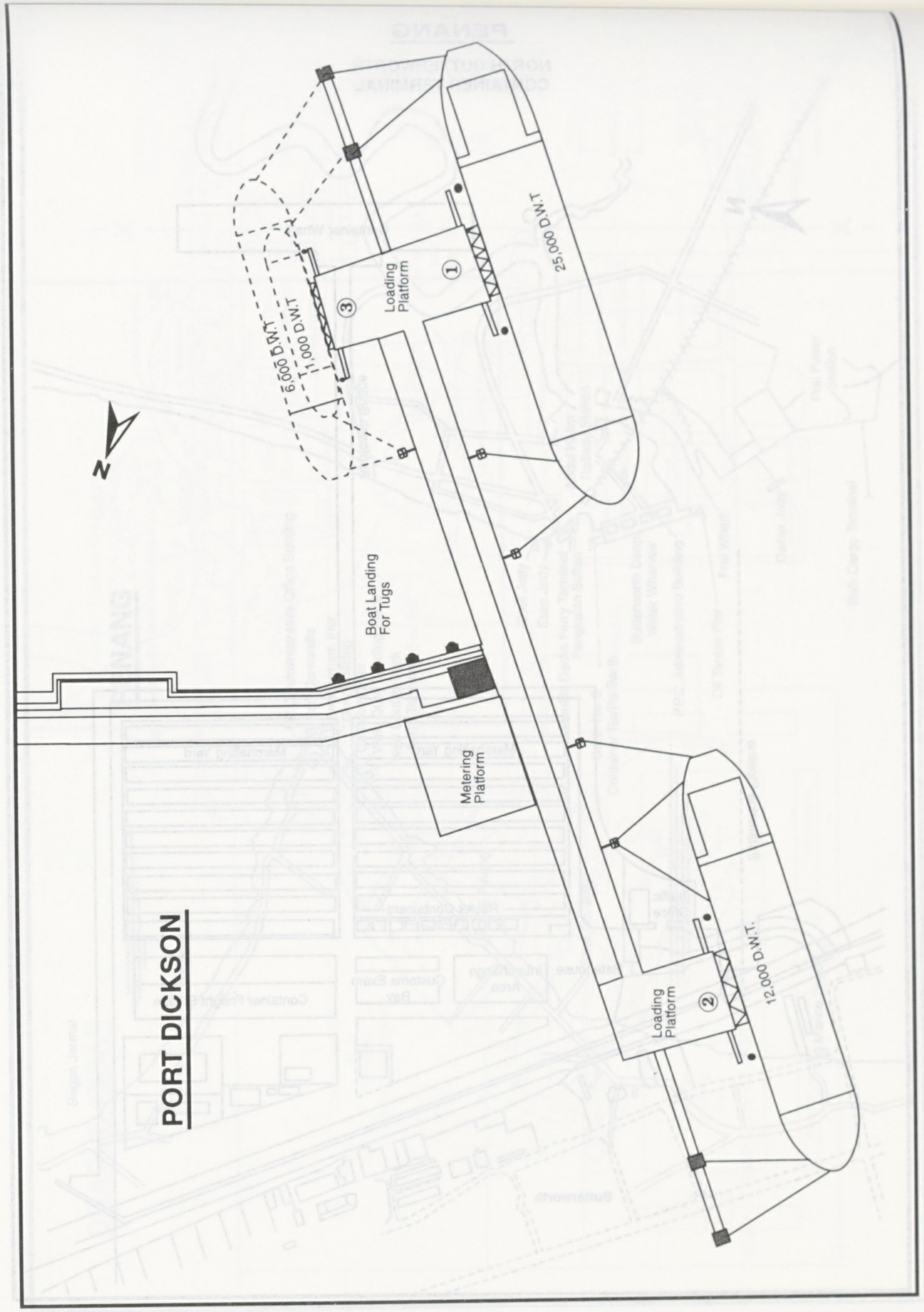

P.P.C. & Customs Main Administrative Building
Workshop
Prai River
Fire Station
Railway Station
Marshalling Yard for Containers
Bus Terminal & Shopping Complex
MAGRI
Container Office
PALMCO
BBI
Tanks
FIMA
Double Deck Ferry Terminal
Ferry Terminal
KOP
Berth No. 6 Containers
W3
W2
W1
Berth No. 5
Ro/Ro Ramp
Vegetable Oil Tanker Berth
N

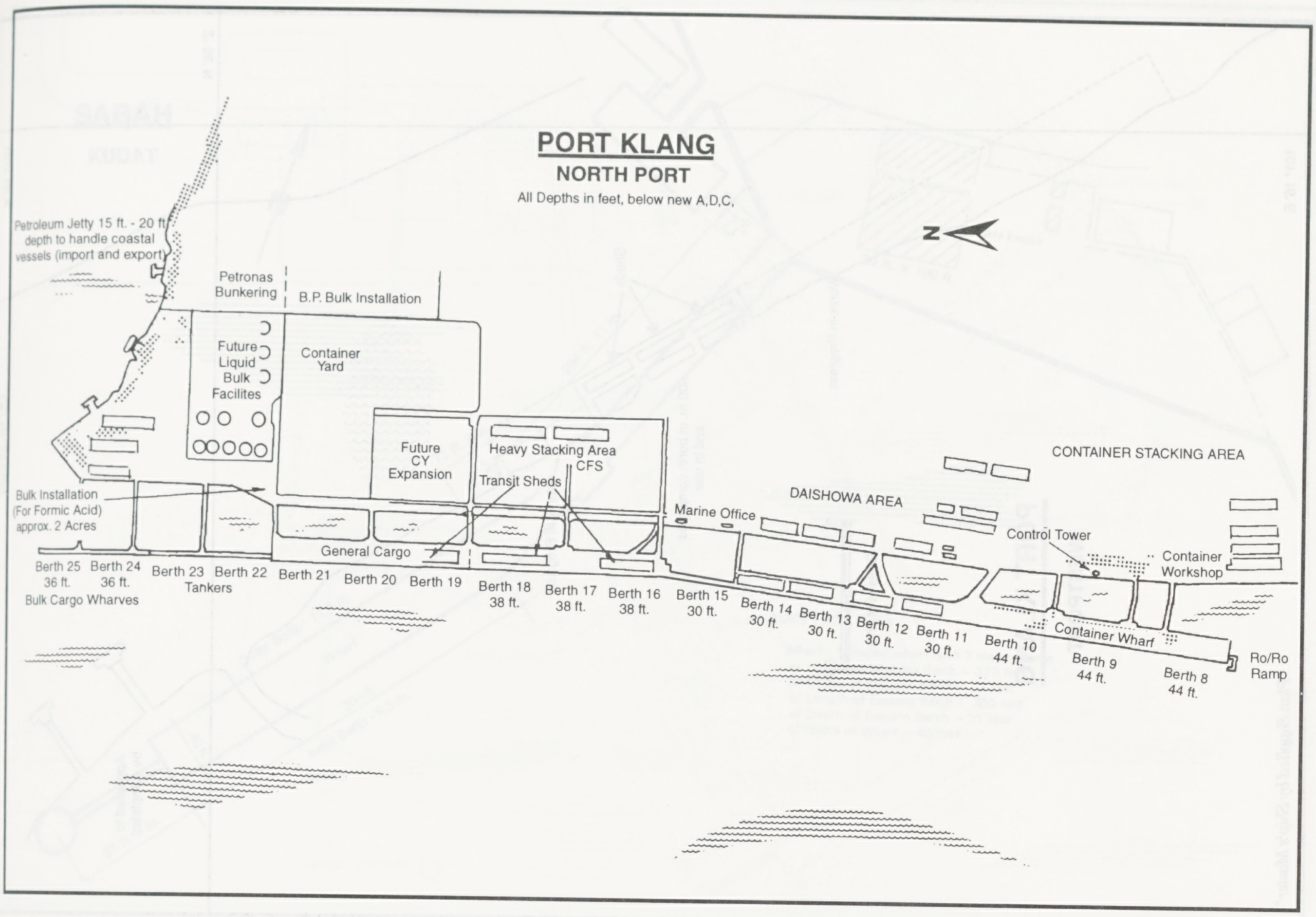
PENANG

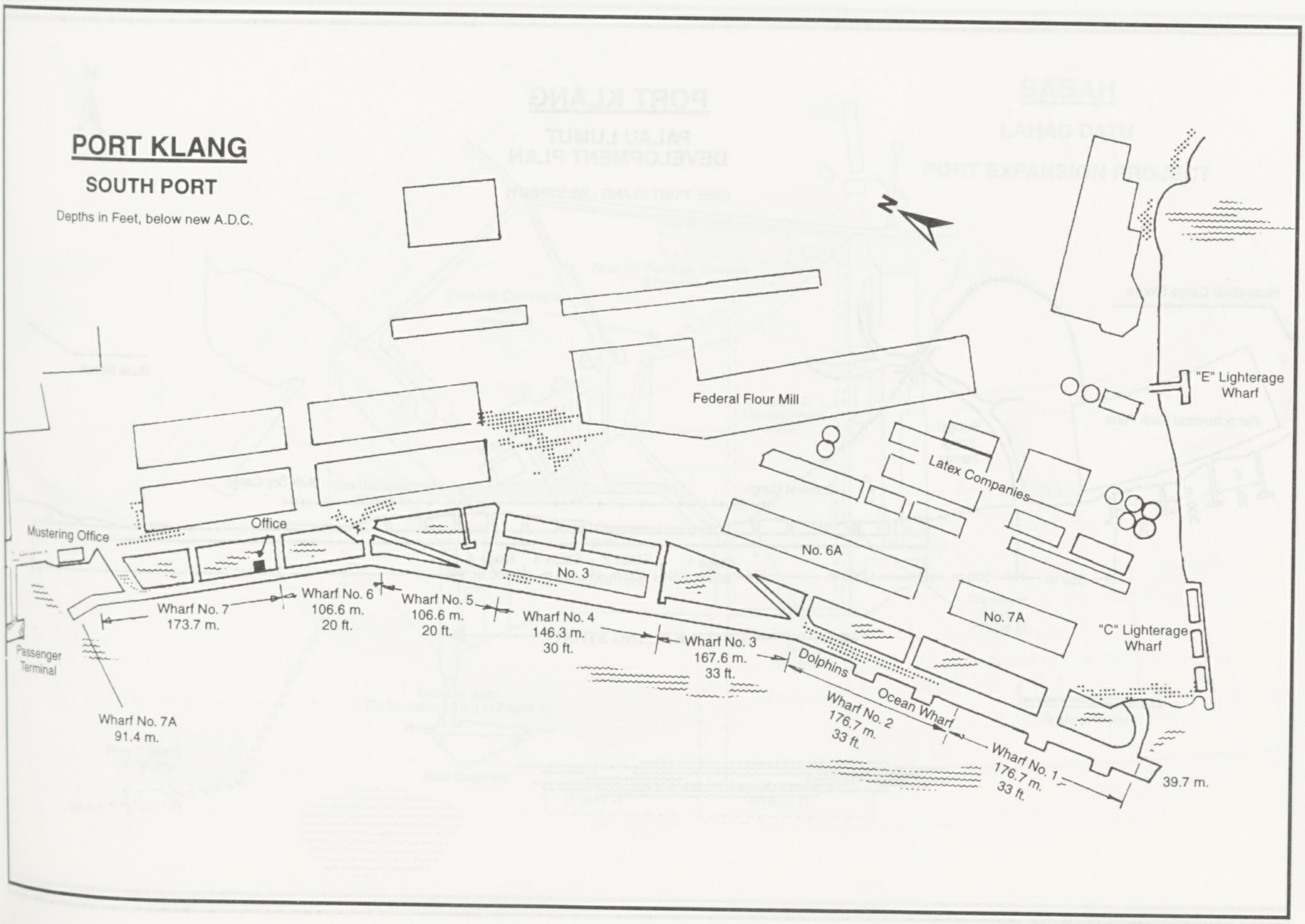
NORTH BUTTERWORTH CONTAINER TERMINAL

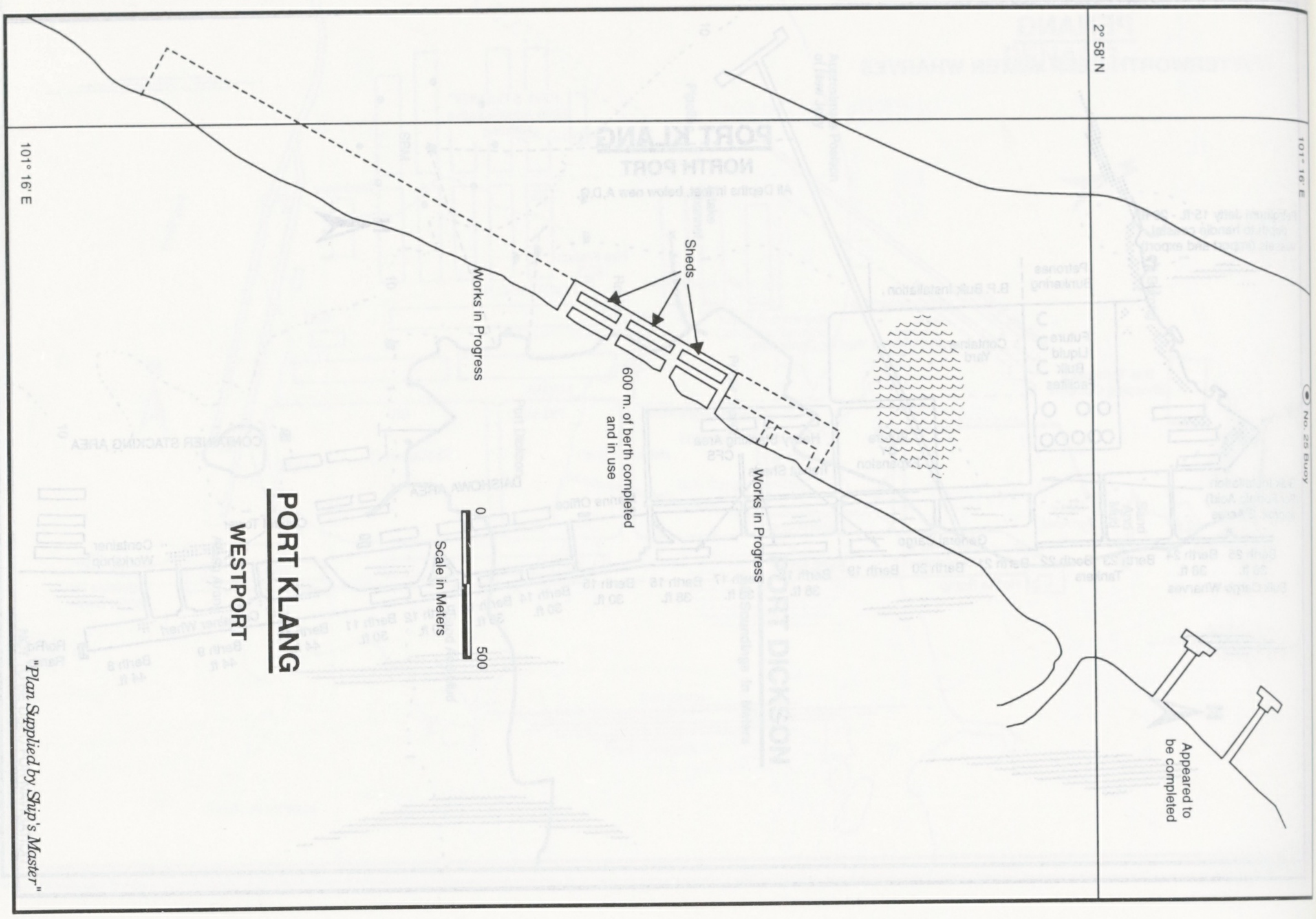

Container Wharf
Approach Bridge
Marshalling Yard
Marshalling Yard
Container Freight Station
Customs Exam Bay
Reefer Containers
Interchange Area
Gatehouse
Traffic Office
Submarine Pipeline
Butterworth
N

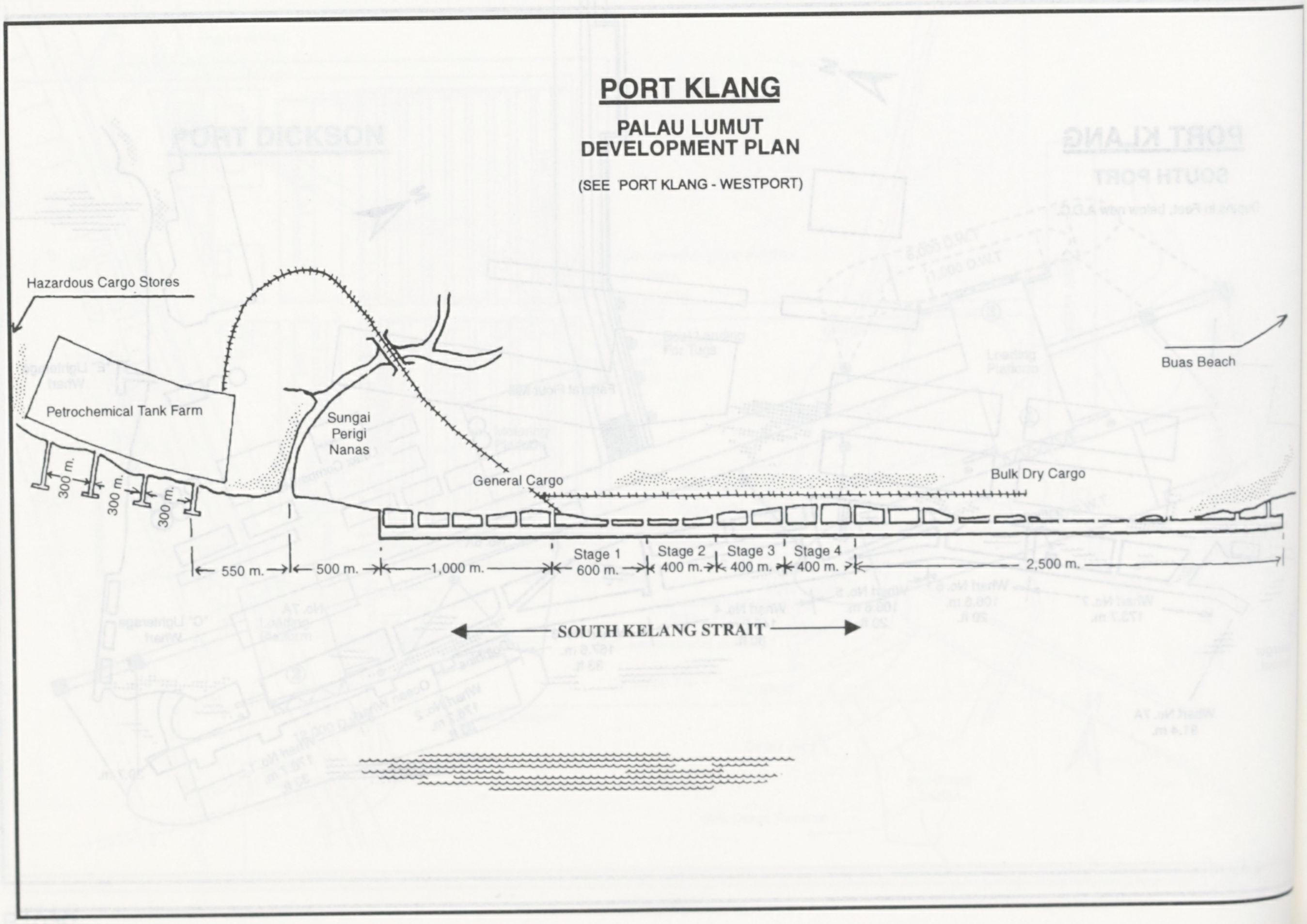

N
PORT DICKSON
All Soundings in Meters
Pu Burong
1
Sand
And
Mud
1
1
Approximate Position
of New Jetty
10
Pipeline
Intake
Channel
1
Power Station
Rocks
Port Dickson
Sand And Mud
SBM
10
1
1
1
Arang Arang
10
NOT TO BE USED FOR NAVIGATION

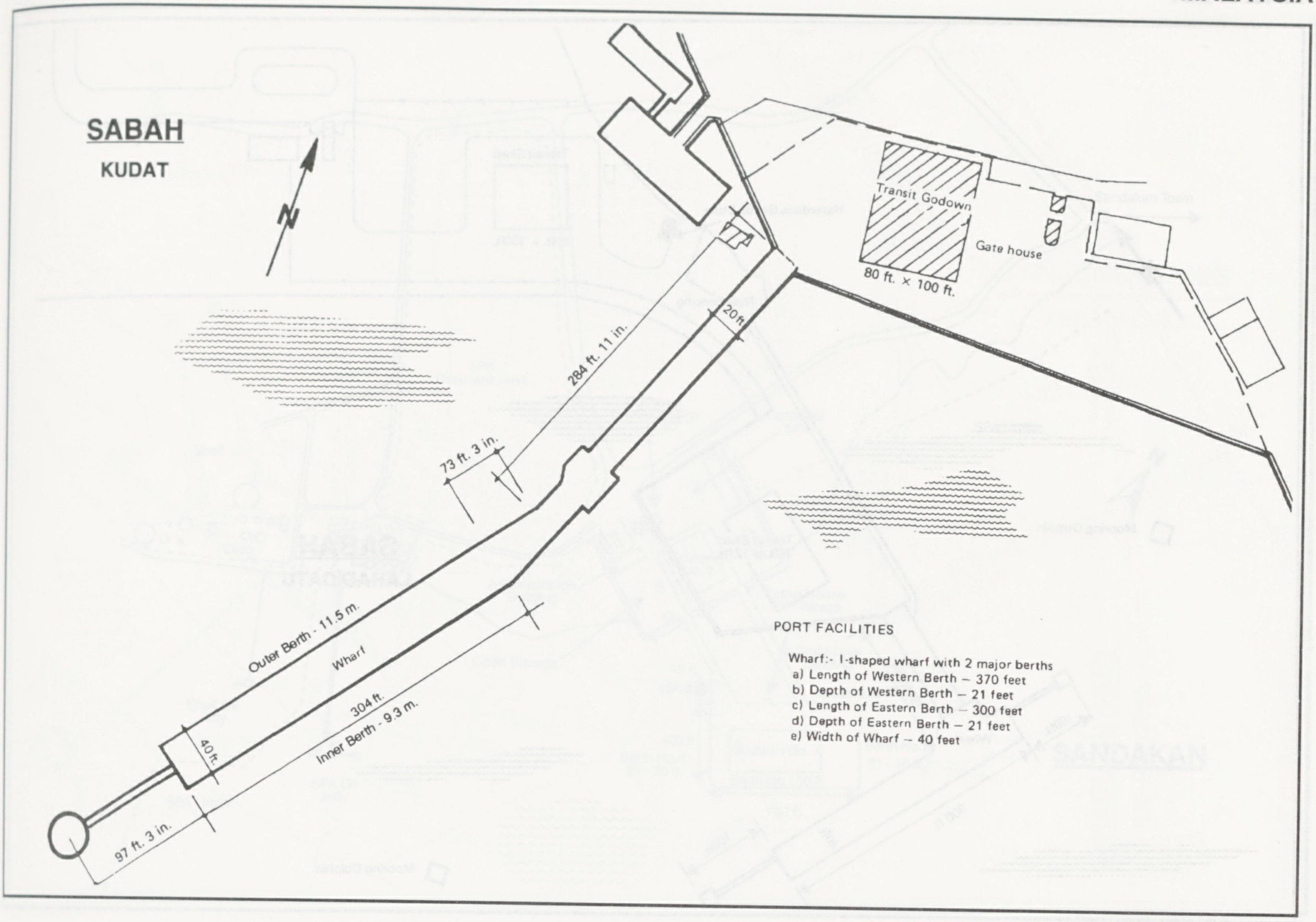

PORT DICKSON
N
25,000 D.W.T
①
Loading
Platform
③
1,000 D.W.T
6,000 D.W.T
Boat Landing
For Tugs
Metering
Platform
Loading
Platform
②
12,000 D.W.T.

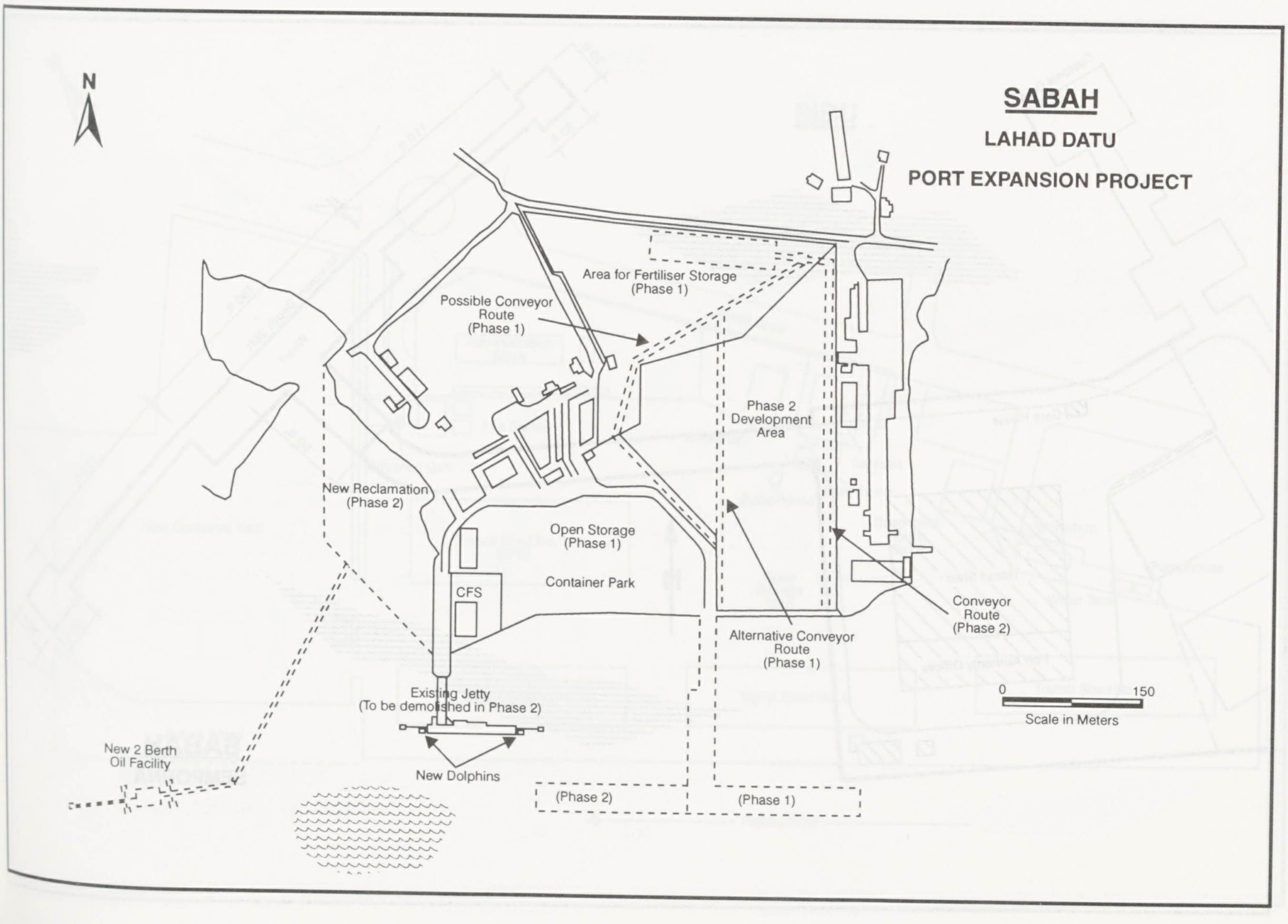

PORT KLANG
NORTH PORT
All Depths in feet, below new A,D,C,
N
Petroleum Jetty 15 ft. - 20 ft depth to handle coastal vessels (import and export)
Petronas Bunkering
B.P. Bulk Installation
Future Liquid Bulk Facilites
Container Yard
Future CY Expansion
Heavy Stacking Area CFS
Transit Sheds
Bulk Installation (For Formic Acid) approx. 2 Acres
General Cargo
Marine Office
DAISHOWA AREA
CONTAINER STACKING AREA
Control Tower
Container Workshop
Container Wharf
Ro/Ro Ramp
Berth 25 36 ft.
Berth 24 36 ft.
Bulk Cargo Wharves
Berth 23
Berth 22
Tankers
Berth 21
Berth 20
Berth 19
Berth 18 38 ft.
Berth 17 38 ft.
Berth 16 38 ft.
Berth 15 30 ft.
Berth 14 30 ft.
Berth 13 30 ft.
Berth 12 30 ft.
Berth 11 30 ft.
Berth 10 44 ft.
Berth 9 44 ft.
Berth 8 44 ft.

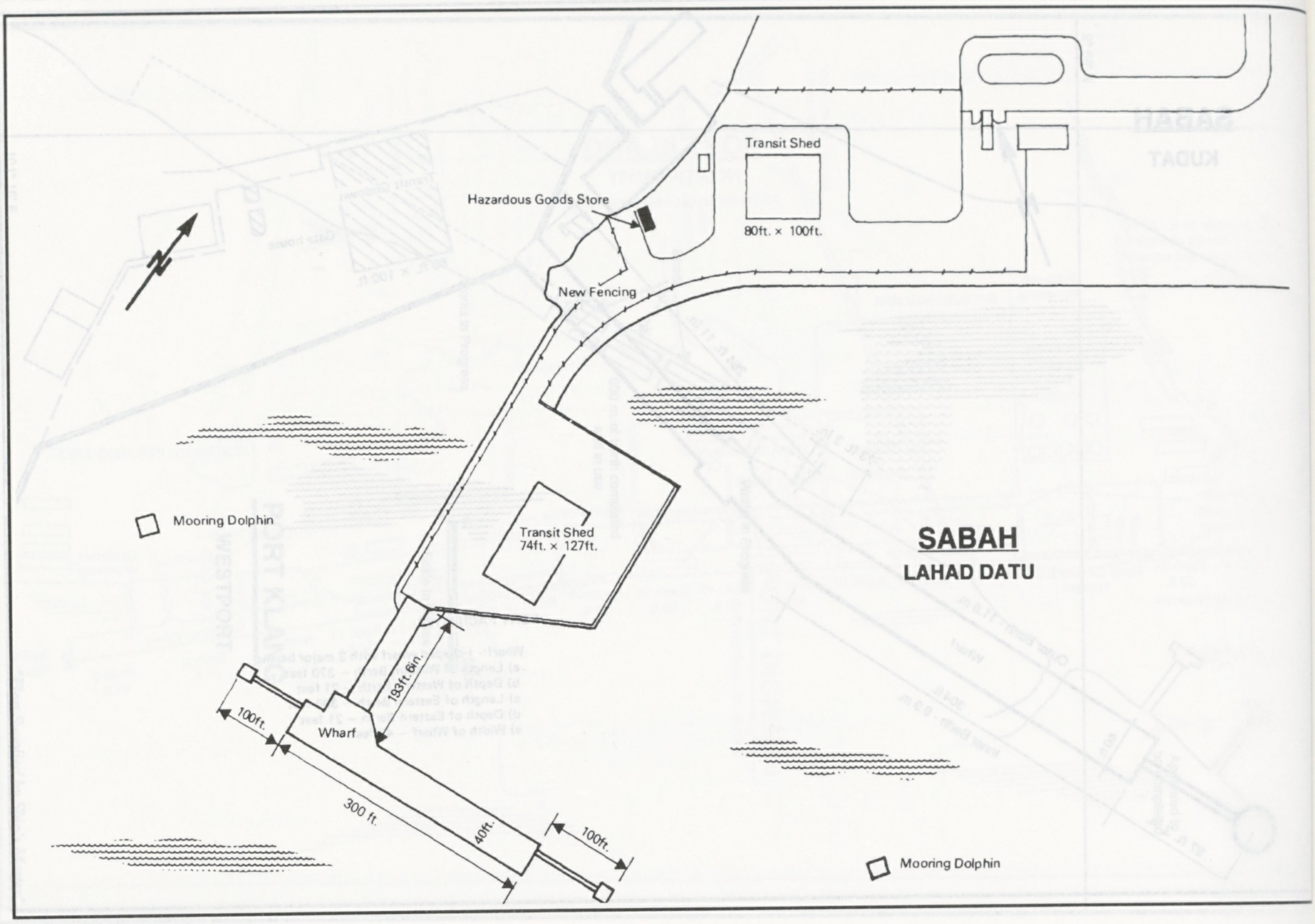

PORT KLANG
SOUTH PORT
Depths in Feet, below new A.D.C.
N
Federal Flour Mill
Latex Companies
"E" Lighterage Wharf
"C" Lighterage Wharf
Office
Mustering Office
Passenger Terminal
No. 3
No. 6A
No. 7A
Wharf No. 7 173.7 m.
Wharf No. 6 106.6 m. 20 ft.
Wharf No. 5 106.6 m. 20 ft.
Wharf No. 4 146.3 m. 30 ft.
Wharf No. 3 167.6 m. 33 ft.
Dolphins
Ocean Wharf
Wharf No. 2 176.7 m. 33 ft.
Wharf No. 1 176.7 m. 33 ft.
39.7 m.
Wharf No. 7A 91.4 m.

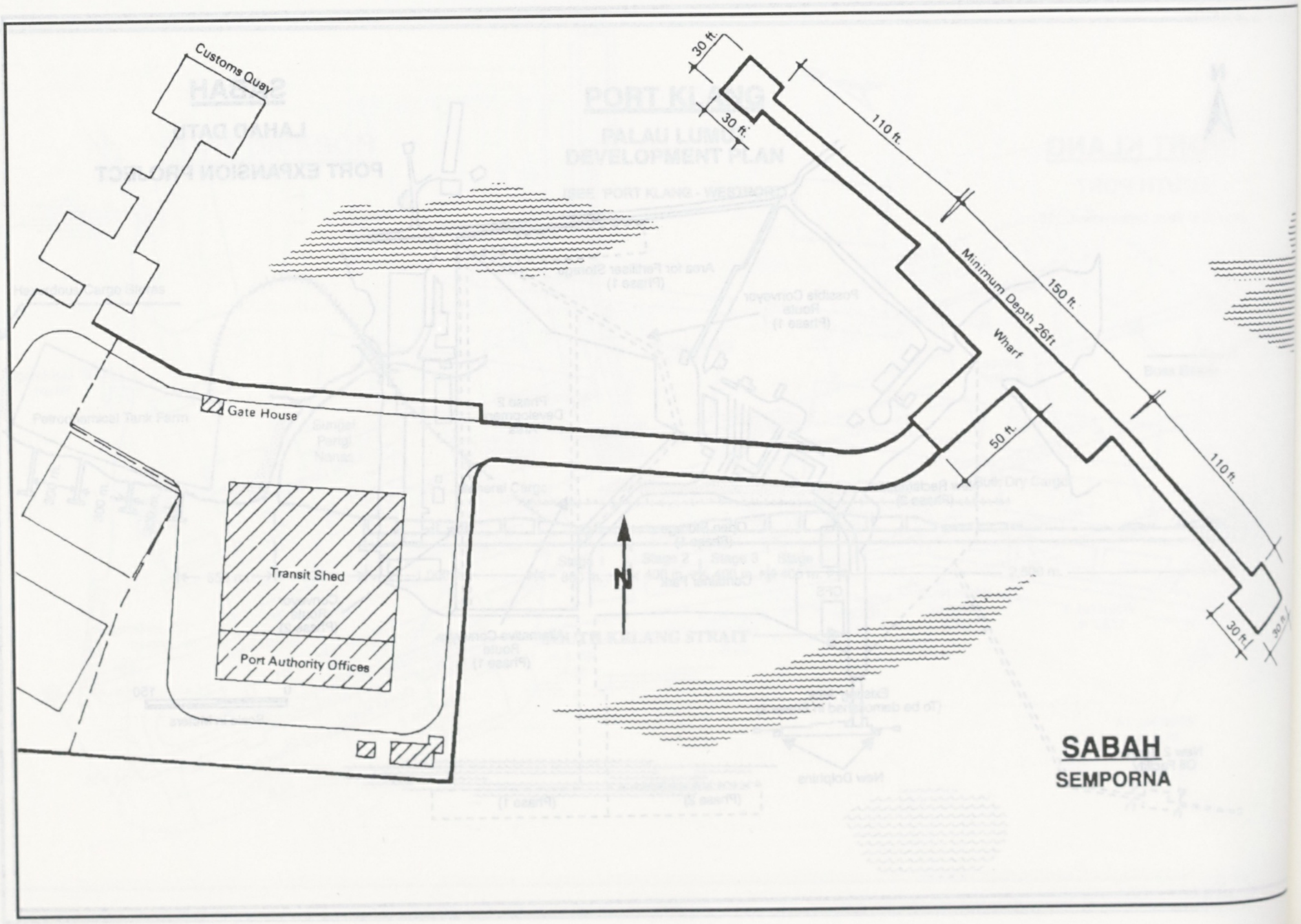

2° 58' N
101° 16' E
101° 16' E
Sheds
Works in Progress
600 m. of berth completed and in use
Works in Progress
0
Scale in Meters
500
PORT KLANG
WESTPORT
"Plan Supplied by Ship's Master"
Appeared to be completed

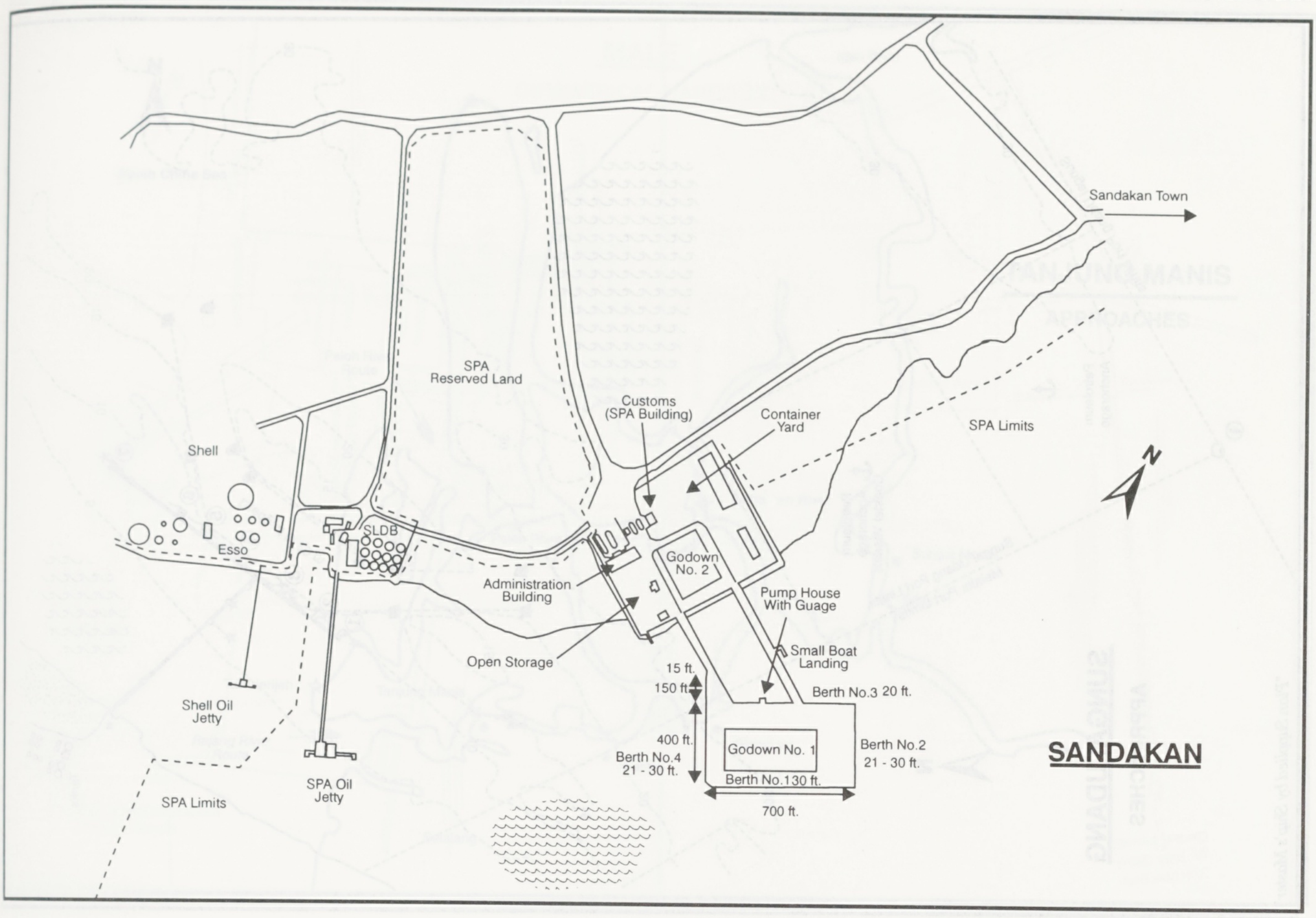

PORT KLANG
PALAU LUMUT
DEVELOPMENT PLAN
(SEE PORT KLANG - WESTPORT)
Hazardous Cargo Stores
Petrochemical Tank Farm
300 m.
300 m.
300 m.
Sungai Perigi Nanas
General Cargo
Bulk Dry Cargo
Buas Beach
550 m.
500 m.
1,000 m.
Stage 1
600 m.
Stage 2
400 m.
Stage 3
400 m.
Stage 4
400 m.
2,500 m.
SOUTH KELANG STRAIT

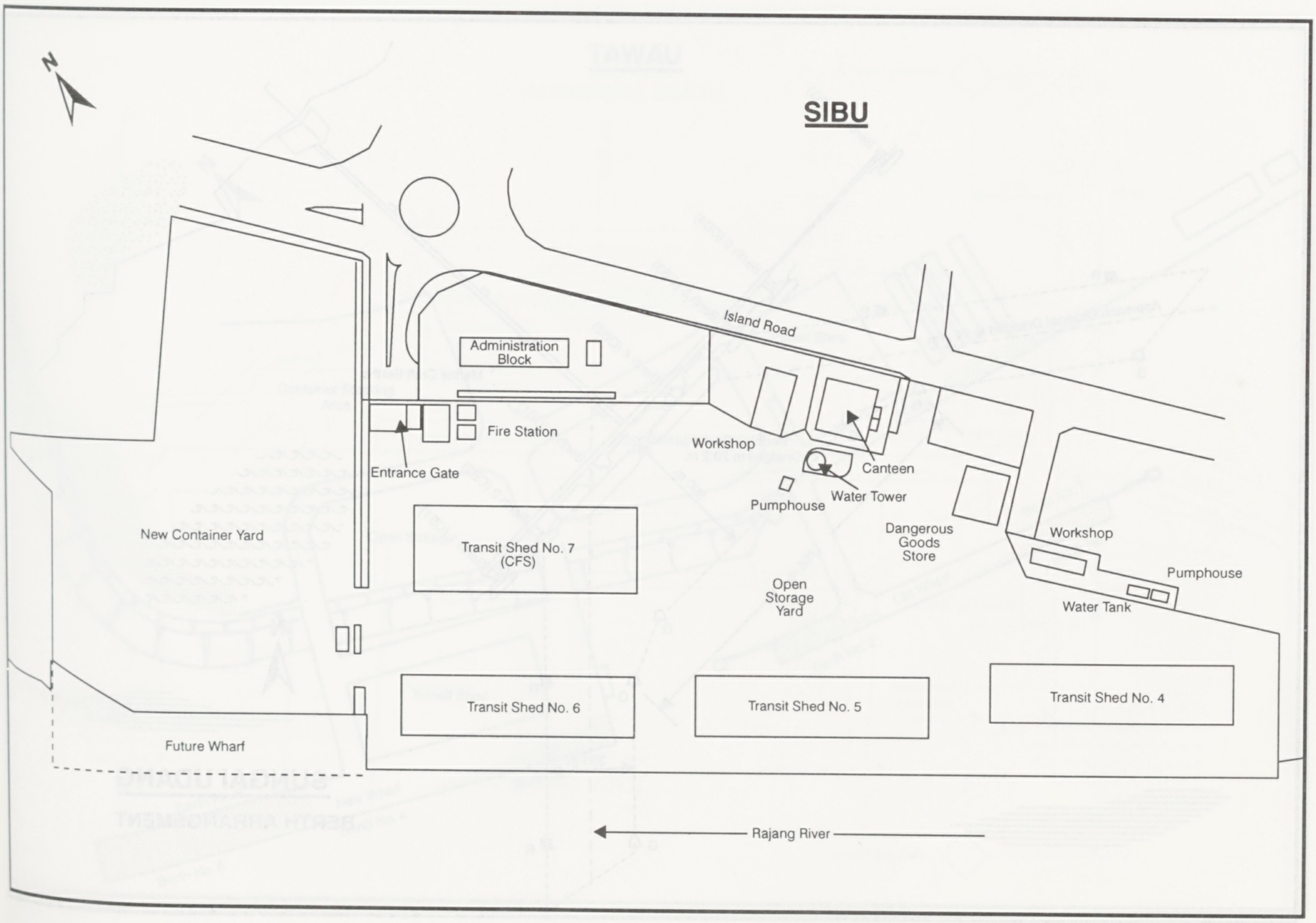

SABAH
KUDAT
N
Transit Godown
80 ft. × 100 ft.
Gate house
20 ft.
284 ft. 11 in.
73 ft. 3 in.
Outer Berth - 11.5 m.
Wharf
304 ft.
Inner Berth - 9.3 m.
40 ft.
97 ft. 3 in.
PORT FACILITIES
Wharf:- I-shaped wharf with 2 major berths
a) Length of Western Berth – 370 feet
b) Depth of Western Berth – 21 feet
c) Length of Eastern Berth – 300 feet
d) Depth of Eastern Berth – 21 feet
e) Width of Wharf – 40 feet

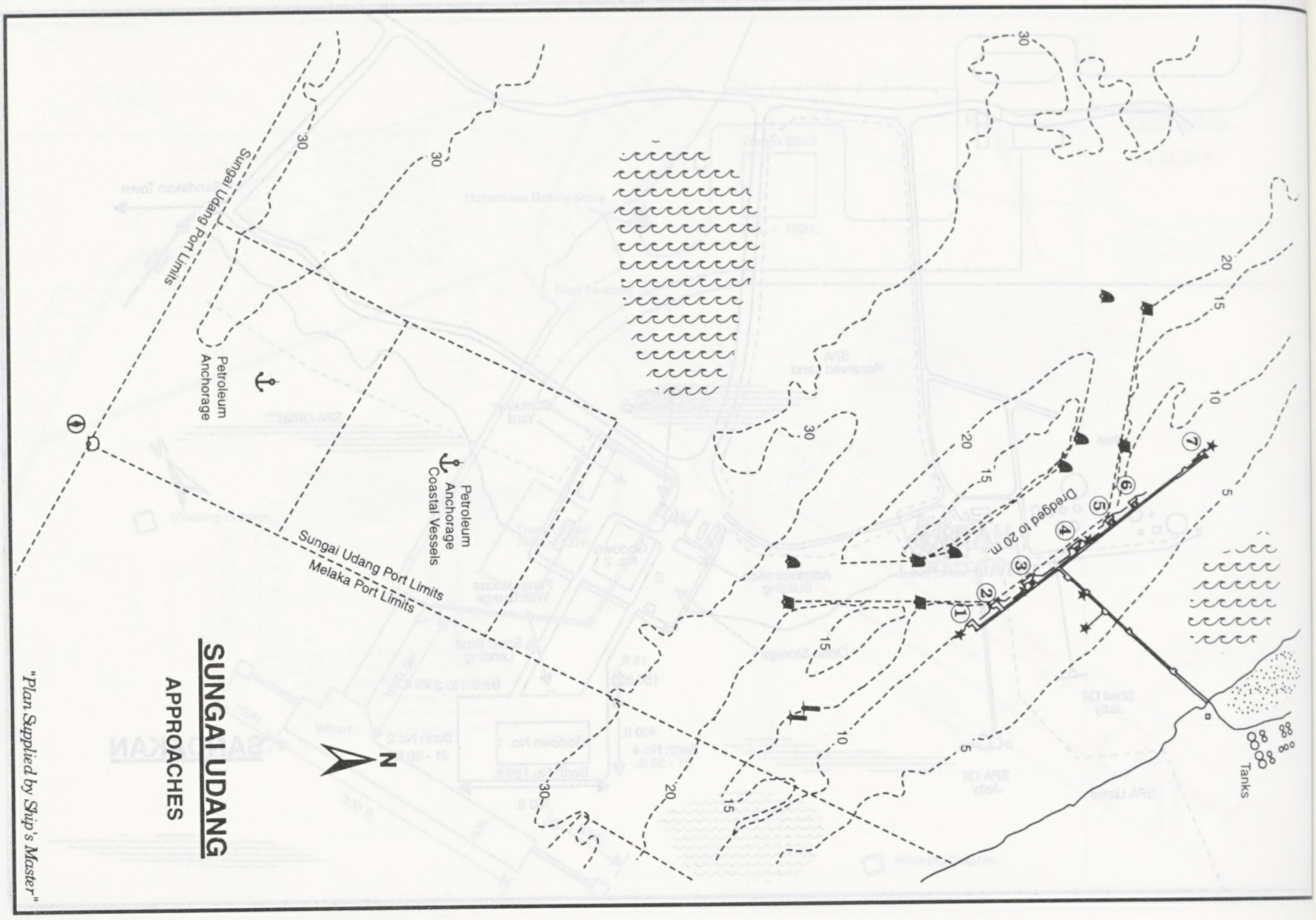

N
SABAH
LAHAD DATU
PORT EXPANSION PROJECT
Area for Fertiliser Storage (Phase 1)
Possible Conveyor Route (Phase 1)
Phase 2 Development Area
New Reclamation (Phase 2)
Open Storage (Phase 1)
Container Park
CFS
Conveyor Route (Phase 2)
Alternative Conveyor Route (Phase 1)
0
150
Scale in Meters
Existing Jetty (To be demolished in Phase 2)
New 2 Berth Oil Facility
New Dolphins
(Phase 2)
(Phase 1)


Transit Shed
80ft. × 100ft.
Hazardous Goods Store
New Fencing
Mooring Dolphin
Transit Shed
74ft. × 127ft.
193ft. 6in.
100ft.
Wharf
300 ft.
40ft.
100ft.
Mooring Dolphin
SABAH
LAHAD DATU


Customs Quay
30 ft.
30 ft.
110 ft.
Minimum Depth 26ft
Wharf
150 ft.
50 ft.
110 ft.
30 ft.
30 ft.
Gate House
Transit Shed
Port Authority Offices
N
SABAH
SEMPORNA


SANDAKAN
Sandakan Town
SPA Reserved Land
Customs (SPA Building)
Container Yard
SPA Limits
N
Shell
SLDB
Esso
Godown No. 2
Administration Building
Pump House With Guage
Open Storage
Small Boat Landing
15 ft.
150 ft.
Berth No.3 20 ft.
Shell Oil Jetty
400 ft.
Godown No. 1
Berth No.2 21 - 30 ft.
Berth No.4 21 - 30 ft.
Berth No.1 30 ft.
SPA Oil Jetty
SPA Limits
700 ft.

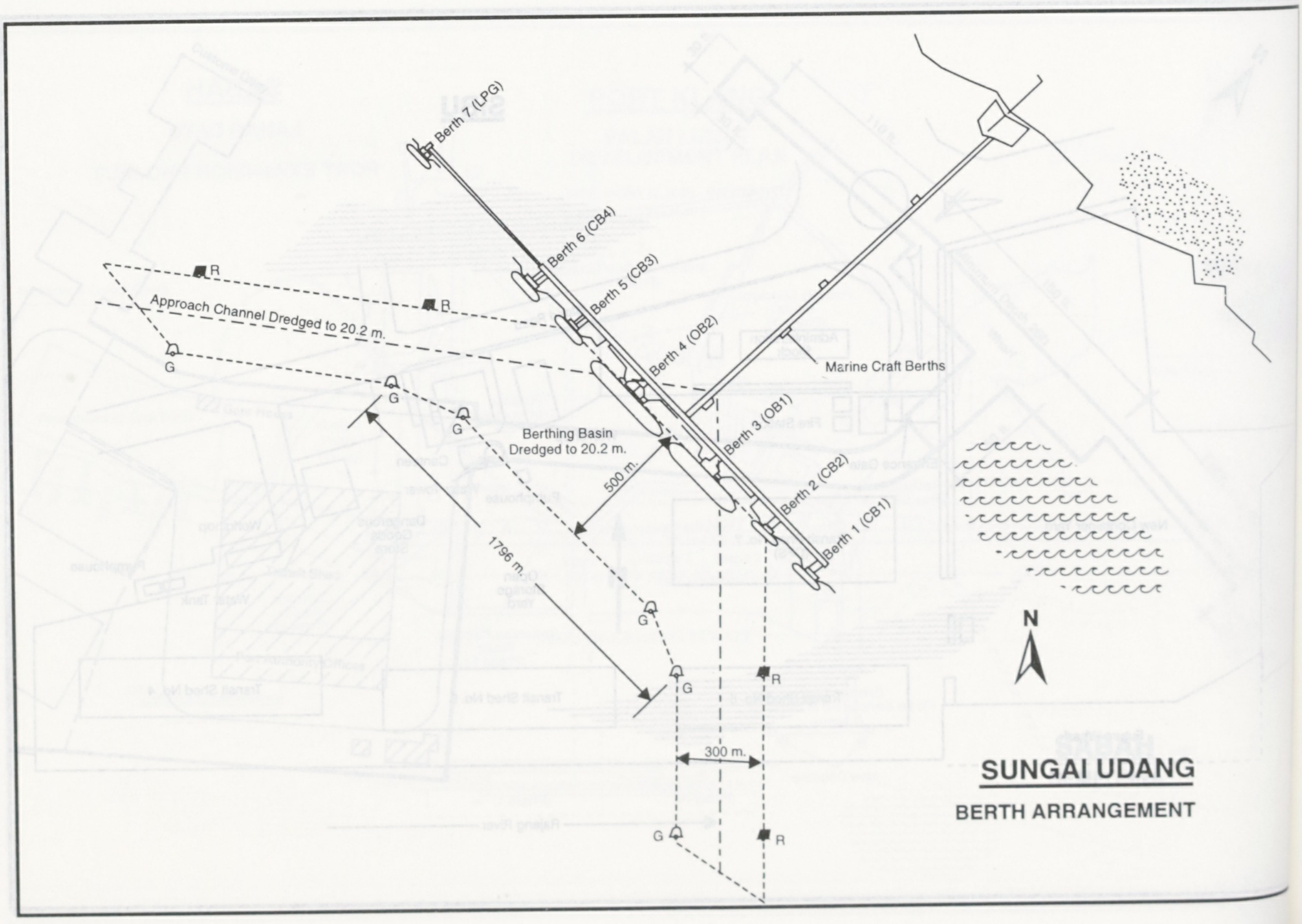

N
SIBU
Island Road
Administration Block
Fire Station
Workshop
Entrance Gate
Canteen
Water Tower
Pumphouse
Dangerous Goods Store
New Container Yard
Transit Shed No. 7 (CFS)
Workshop
Open Storage Yard
Pumphouse
Water Tank
Transit Shed No. 6
Transit Shed No. 5
Transit Shed No. 4
Future Wharf
Rajang River


Sungai Udang Port Limits
Sungai Udang Port Limits
Melaka Port Limits
Petroleum Anchorage
Petroleum Anchorage Coastal Vessels
Dredged to 20 m
Tanks
N
30
30
30
30
30
20
20
15
15
15
10
10
5
5
1
2
3
4
5
6
7

SUNGAI UDANG

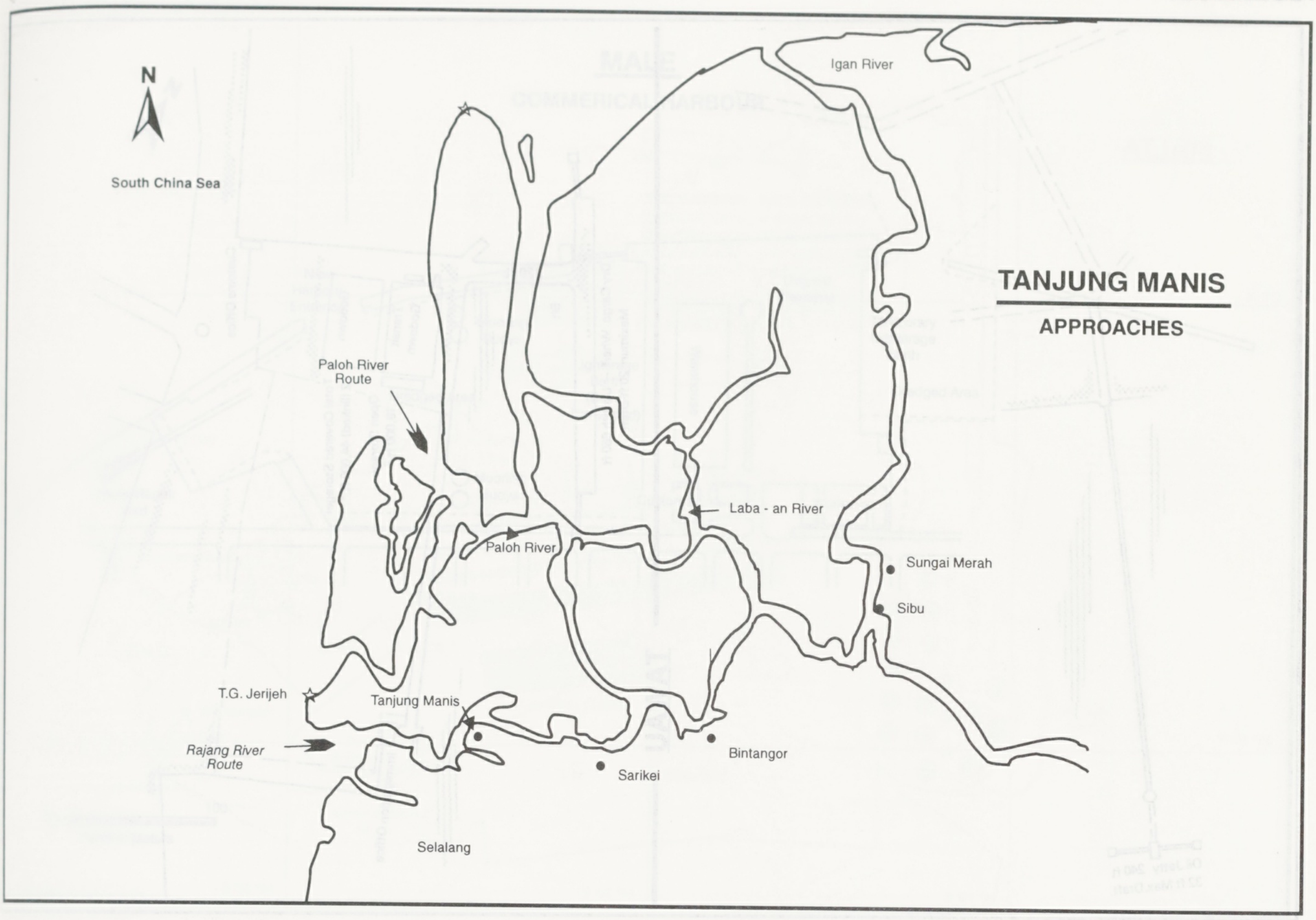
APPROACHES

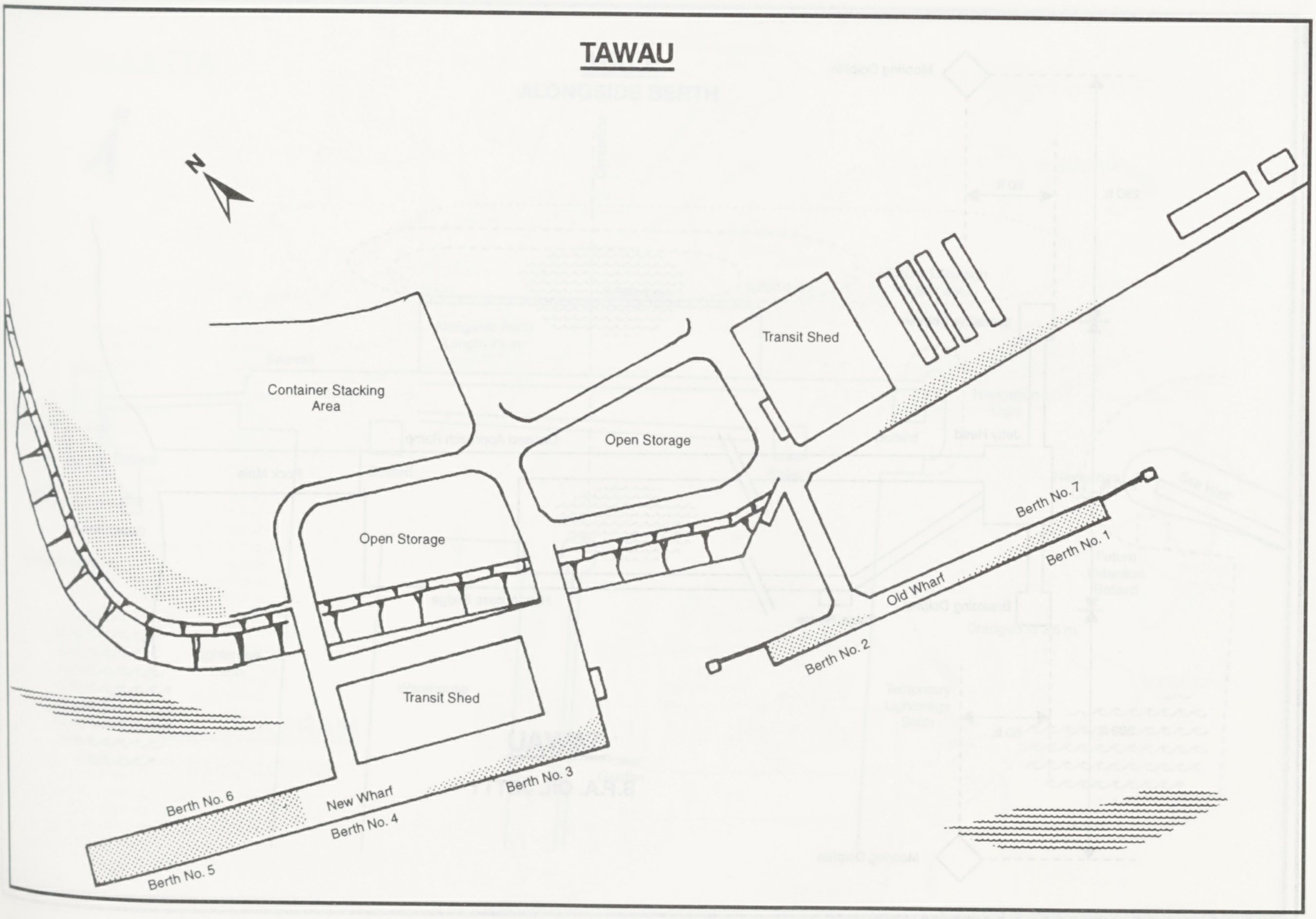
"Plan Supplied by Ship's Master"

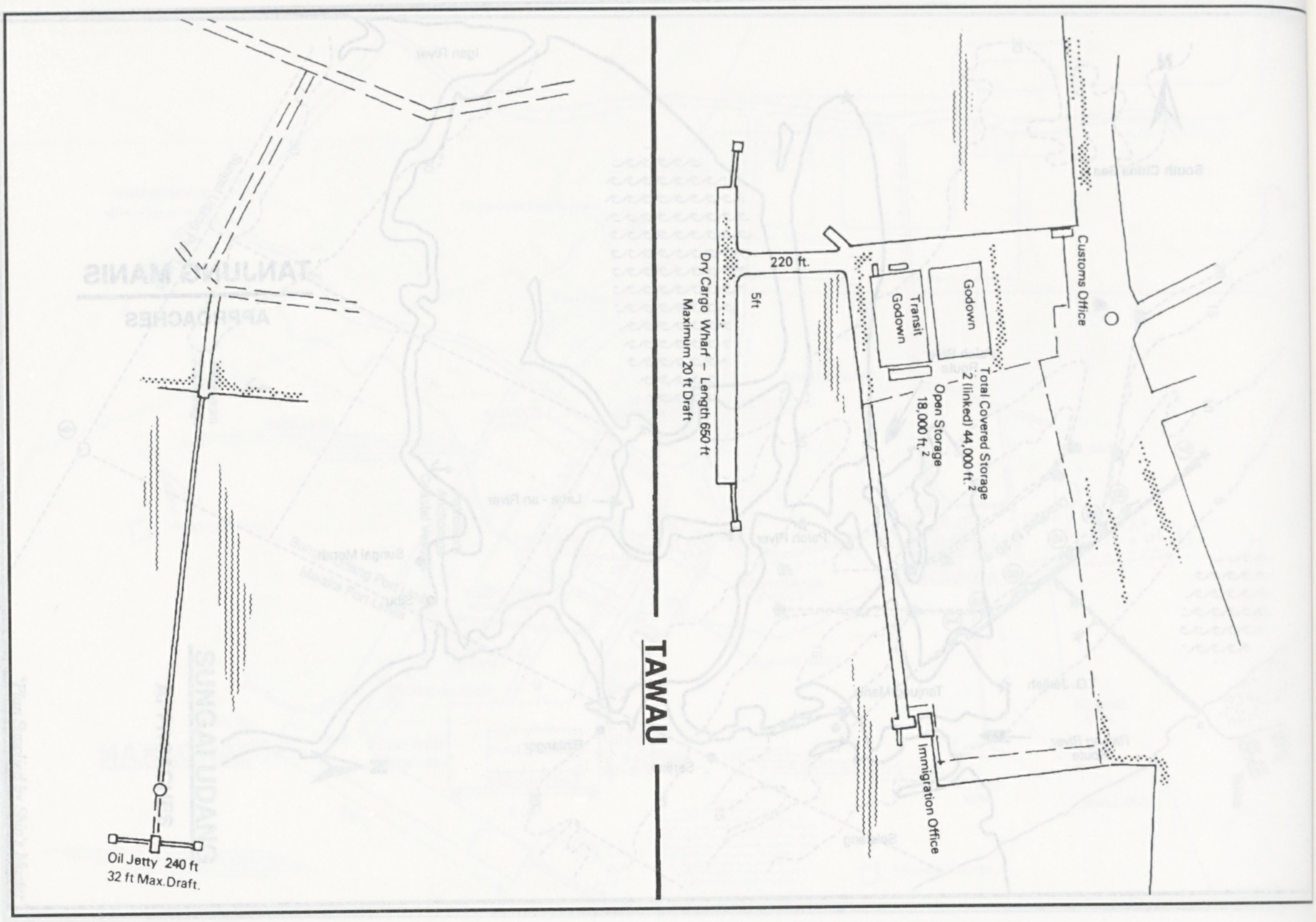

Berth 7 (LPG)
Berth 6 (CB4)
Berth 5 (CB3)
Berth 4 (OB2)
Berth 3 (OB1)
Berth 2 (CB2)
Berth 1 (CB1)
Approach Channel Dredged to 20.2 m.
Berthing Basin Dredged to 20.2 m.
Marine Craft Berths
500 m.
1796 m.
300 m.
R
B
G
G
G
G
G
R
G
R
N

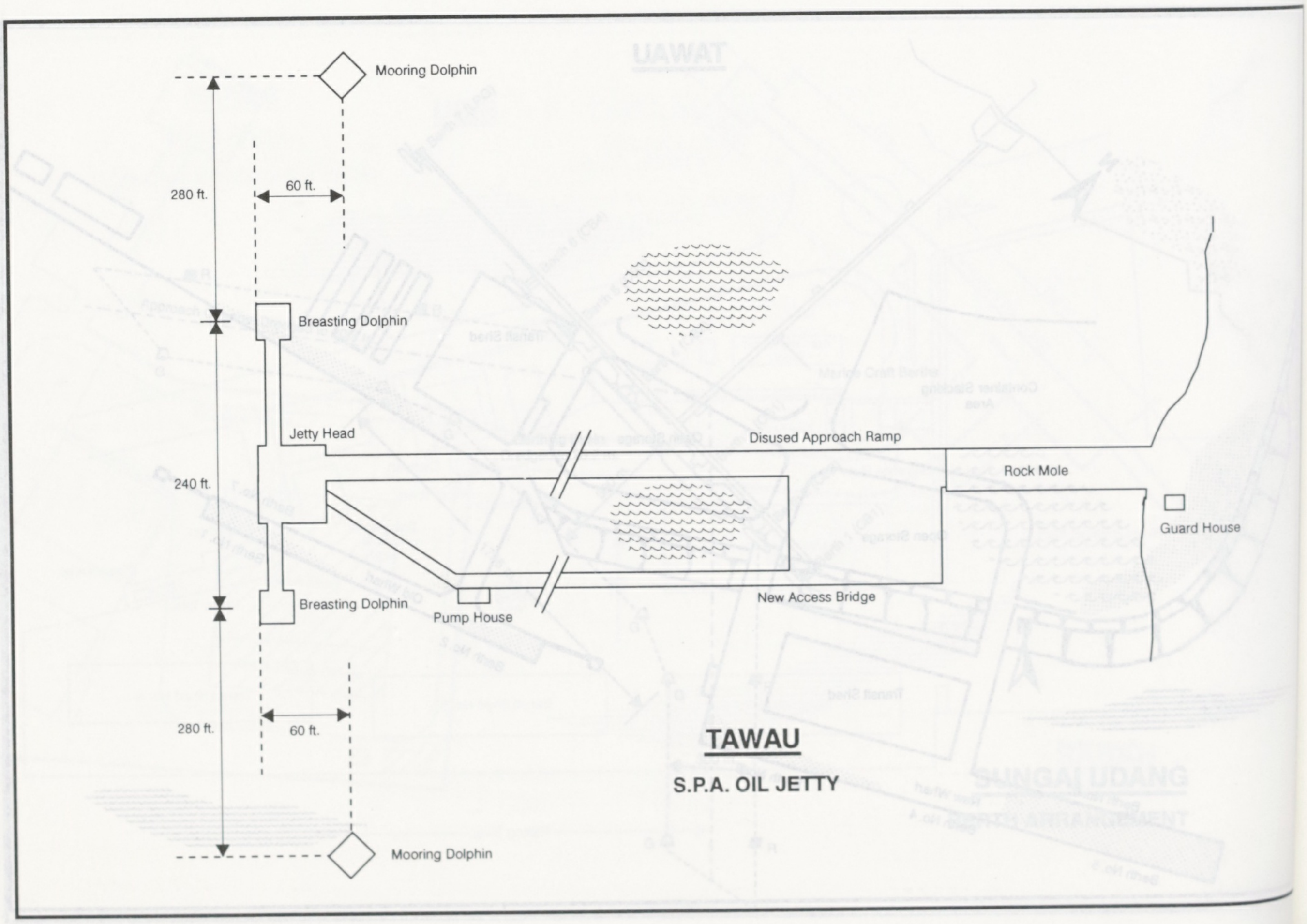
SUNGAI UDANG

BERTH ARRANGEMENT


N
South China Sea
Igan River
TANJUNG MANIS
APPROACHES
Paloh River Route
Laba - an River
Paloh River
Sungai Merah
Sibu
T.G. Jerijeh
Tanjung Manis
Rajang River Route
Bintangor
Sarikei
Selalang

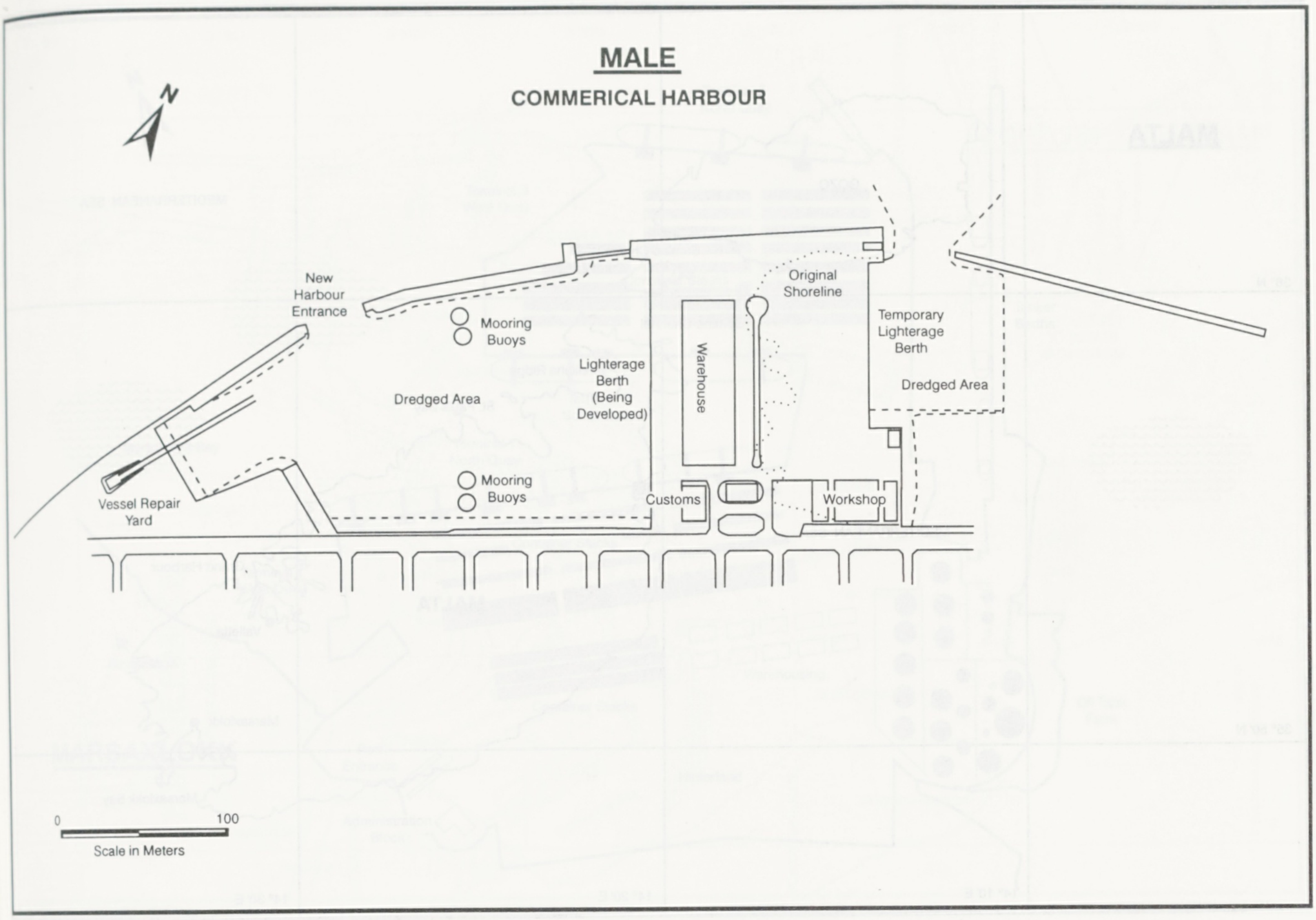

TAWAU
N
Transit Shed
Container Stacking Area
Open Storage
Open Storage
Transit Shed
Berth No. 7
Berth No. 1
Old Wharf
Berth No. 2
Berth No. 3
Berth No. 6
New Wharf
Berth No. 4
Berth No. 5


Oil Jetty 240 ft
32 ft Max.Draft.
TAWAU
Dry Cargo Wharf – Length 650 ft
Maximum 20 ft Draft
220 ft.
5ft
Transit Godown
Godown
Total Covered Storage 2 (linked) 44,000 ft.2
Open Storage 18,000 ft.2
Customs Office
Immigration Office


Mooring Dolphin
280 ft.
60 ft.
Breasting Dolphin
Jetty Head
240 ft.
Disused Approach Ramp
Rock Mole
Guard House
Pump House
New Access Bridge
Breasting Dolphin
280 ft.
60 ft.
Mooring Dolphin

TAWAU

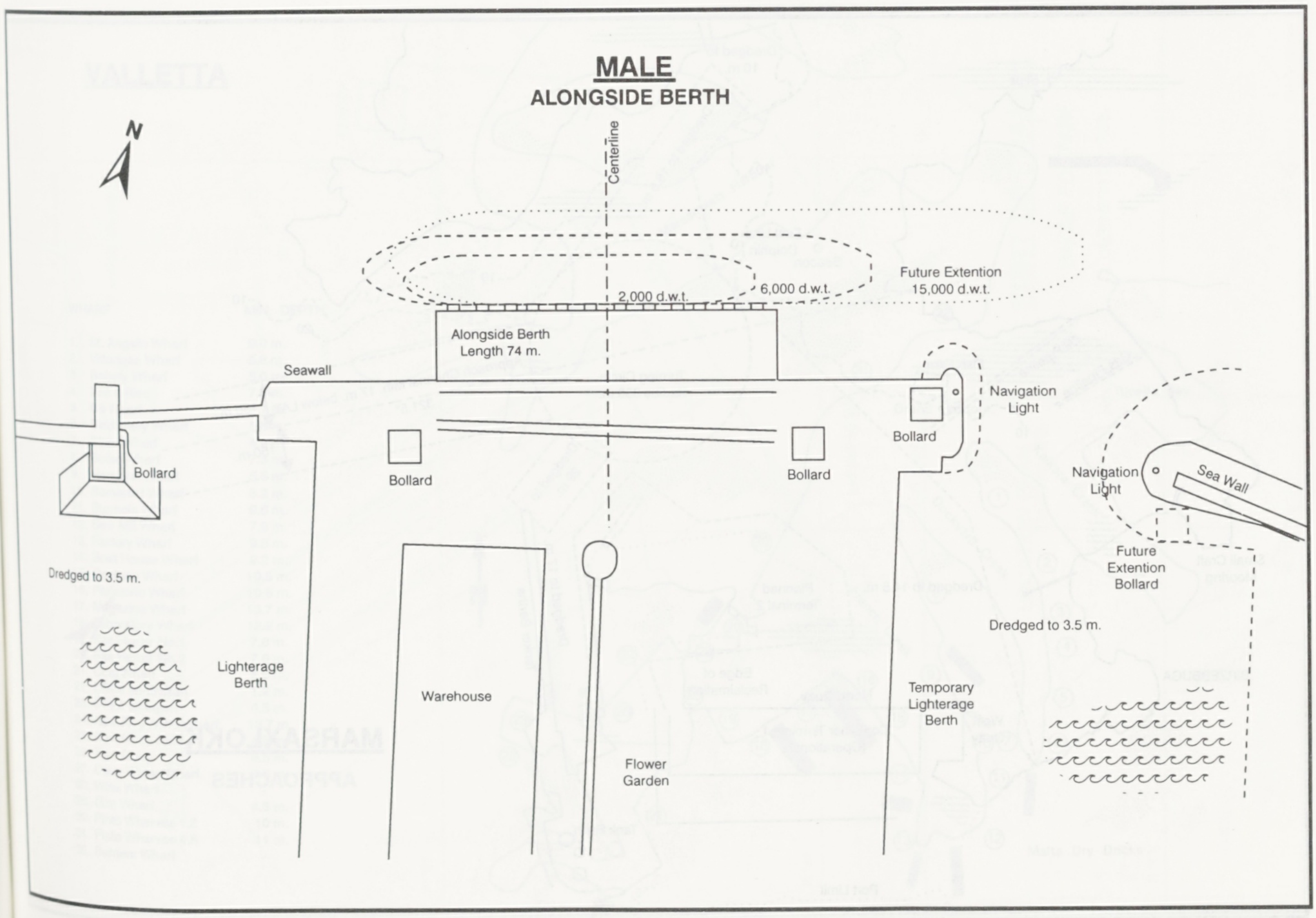
S.P.A. OIL JETTY



MALE

COMMERICAL HARBOUR

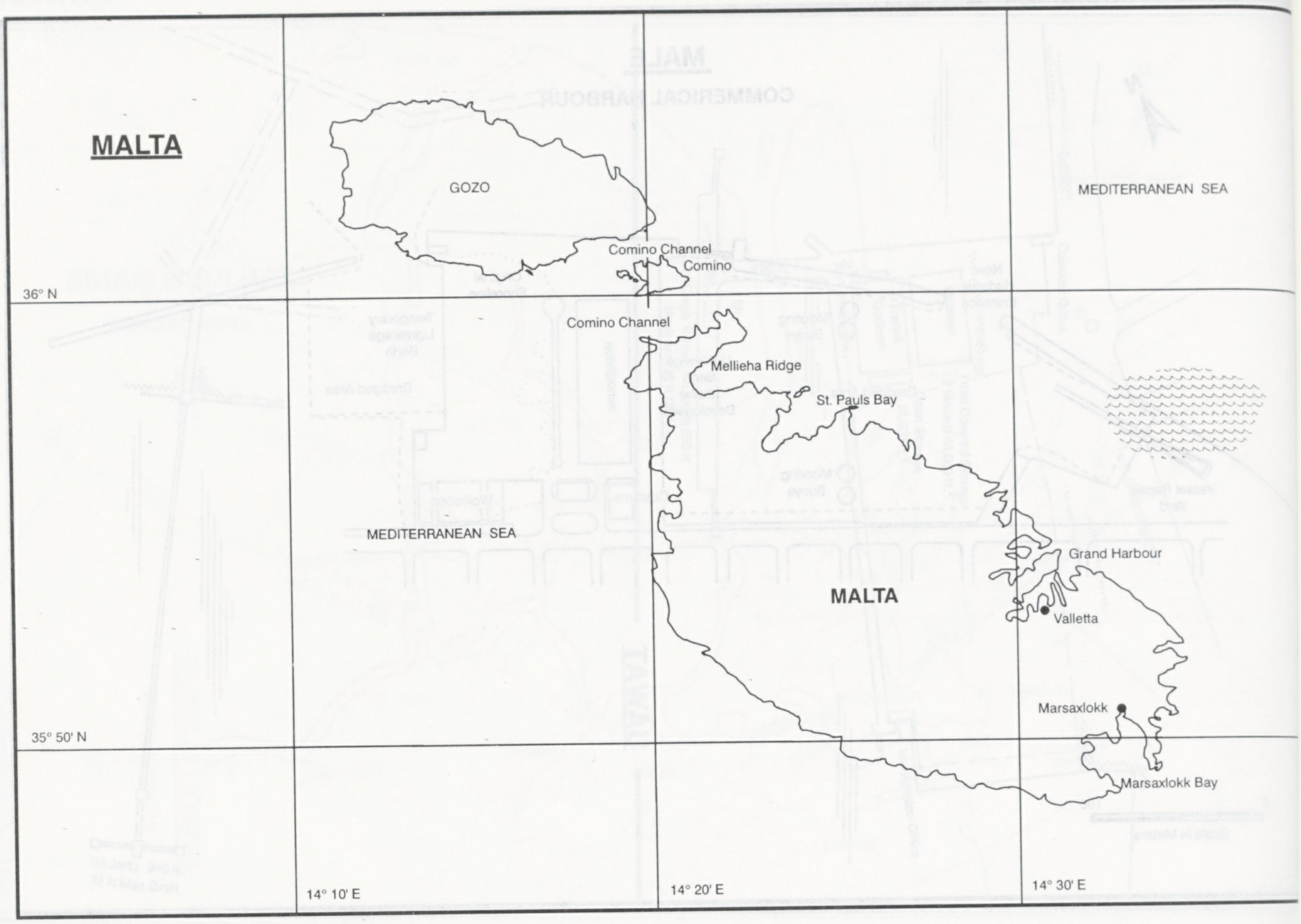
N
New Harbour Entrance
Mooring Buoys
Original Shoreline
Temporary Lighterage Berth
Lighterage Berth (Being Developed)
Warehouse
Dredged Area
Dredged Area
Vessel Repair Yard
Mooring Buoys
Customs
Workshop
0
100
Scale in Meters

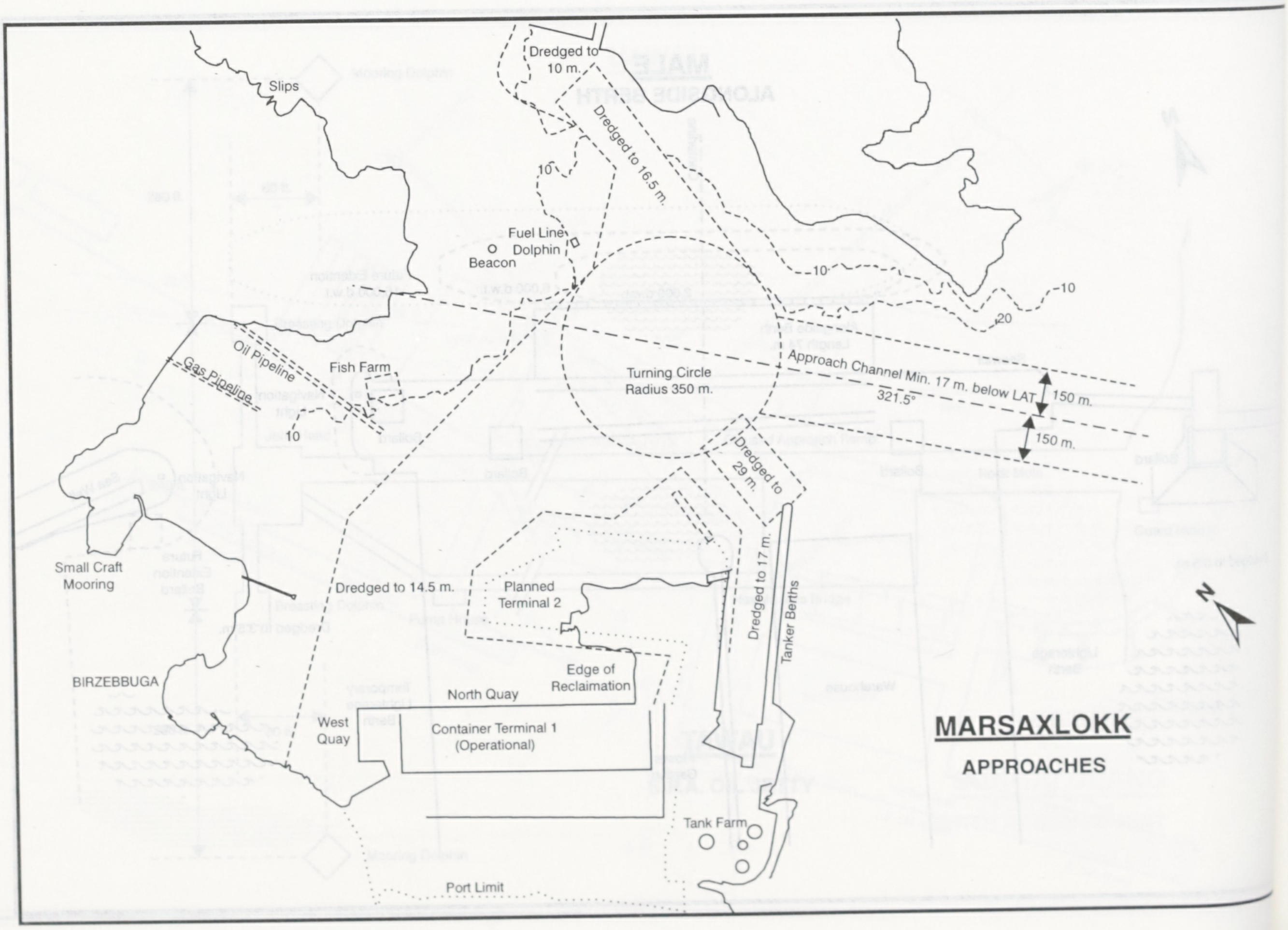


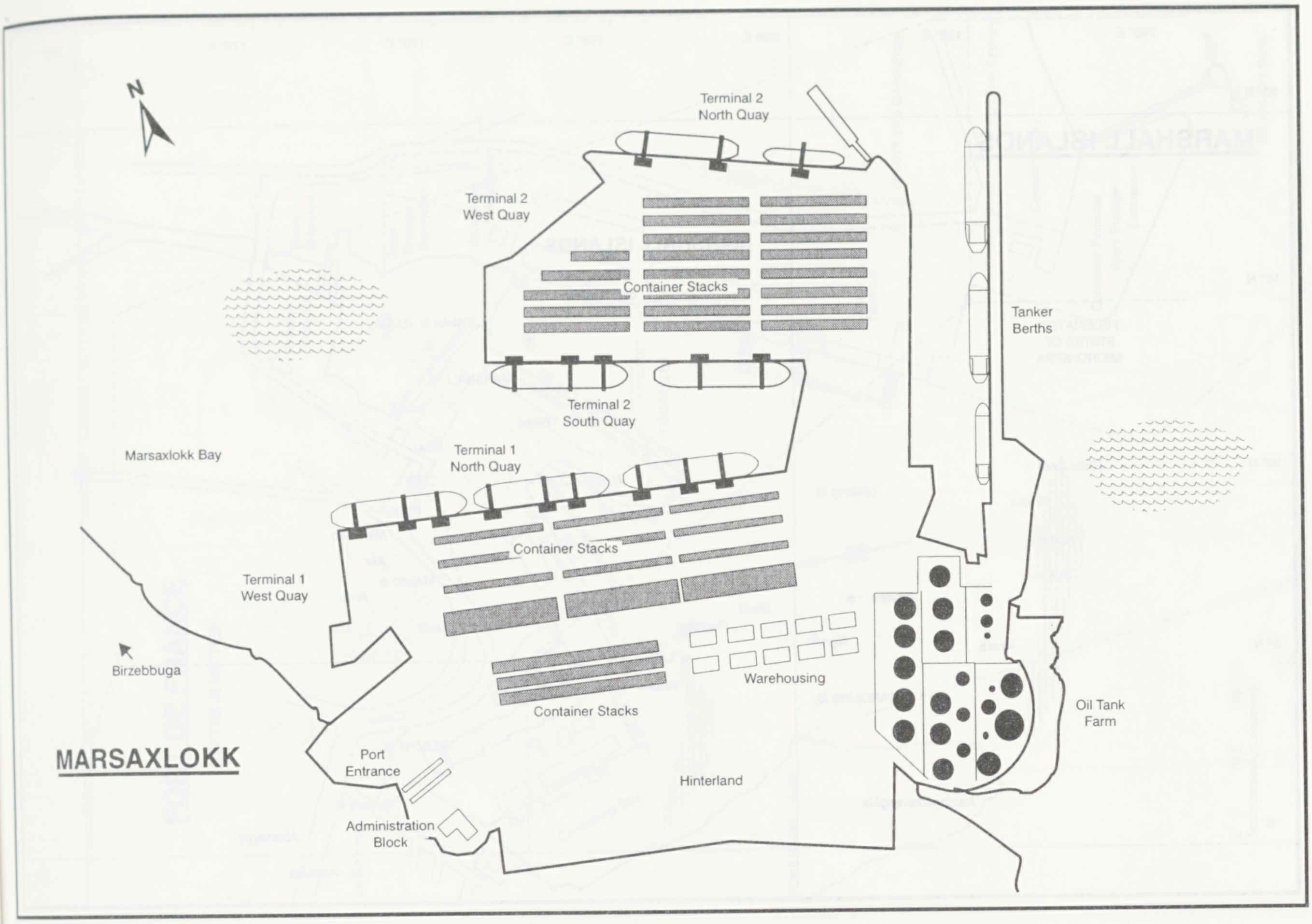
MALE

ALONGSIDE BERTH

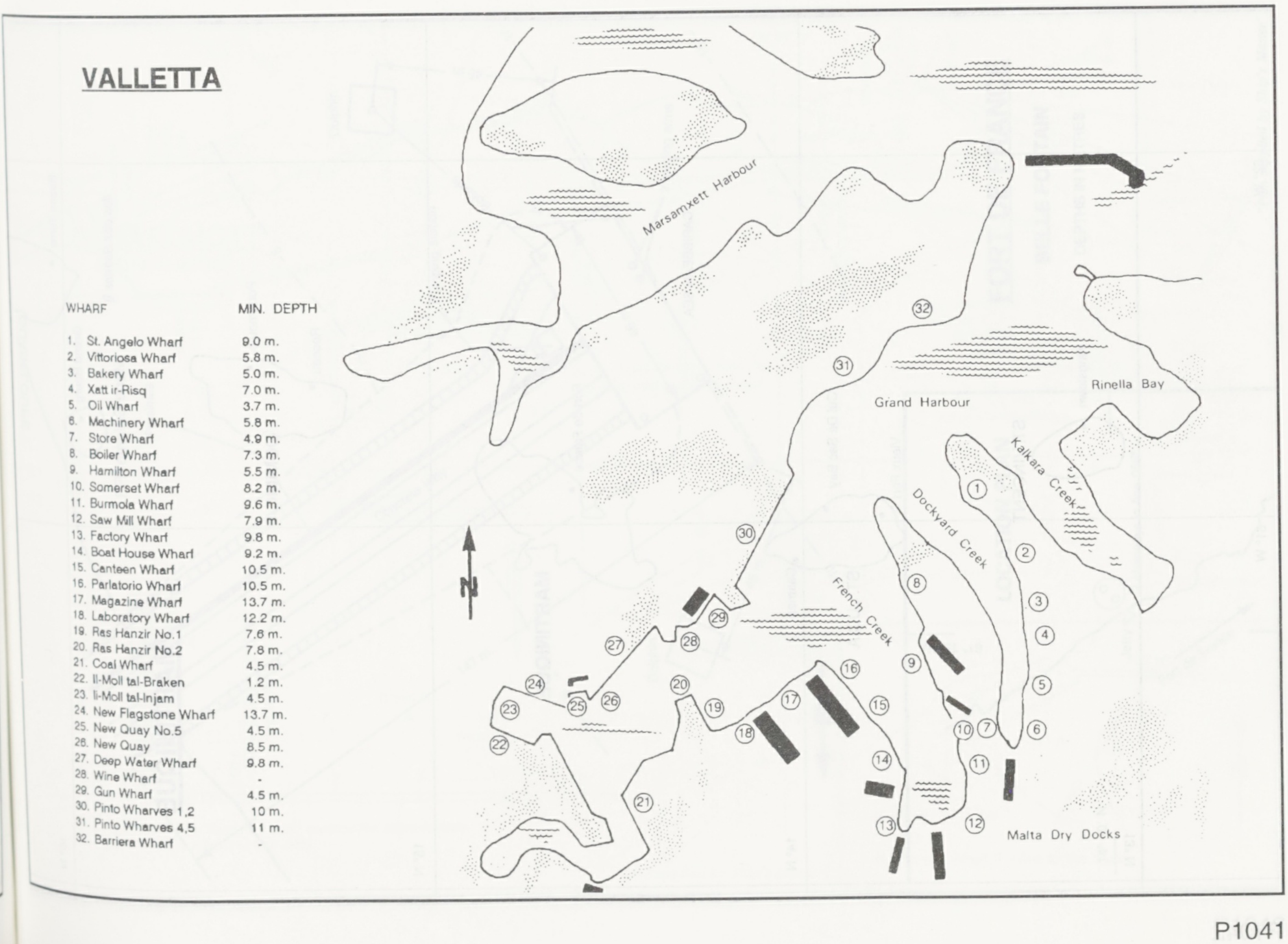
N
Centerline
Future Extention 15,000 d.w.t.
6,000 d.w.t.
2,000 d.w.t.
Alongside Berth Length 74 m.
Seawall
Navigation Light
Bollard
Bollard
Bollard
Bollard
Navigation Light
Sea Wall
Future Extention Bollard
Dredged to 3.5 m.
Dredged to 3.5 m.
Lighterage Berth
Warehouse
Flower Garden
Temporary Lighterage Berth


MALTA
GOZO
MEDITERRANEAN SEA
Comino Channel
Comino
36° N
Comino Channel
Mellieha Ridge
St. Pauls Bay
MEDITERRANEAN SEA
Grand Harbour
MALTA
Valletta
Marsaxlokk
35° 50' N
Marsaxlokk Bay
14° 10' E
14° 20' E
14° 30' E


Slips
Dredged to 10 m.
Dredged to 16.5 m.
10
Fuel Line Dolphin
Beacon
10
10
20
Oil Pipeline
Gas Pipeline
Fish Farm
10
Turning Circle Radius 350 m.
Approach Channel Min. 17 m. below LAT
321.5°
150 m.
150 m.
Dredged to 29 m.
Small Craft Mooring
Dredged to 14.5 m.
Planned Terminal 2
Dredged to 17 m.
Tanker Berths
BIRZEBBUGA
Edge of Reclamation
North Quay
West Quay
Container Terminal 1 (Operational)
MARSAXLOKK
APPROACHES
Tank Farm
Port Limit
N

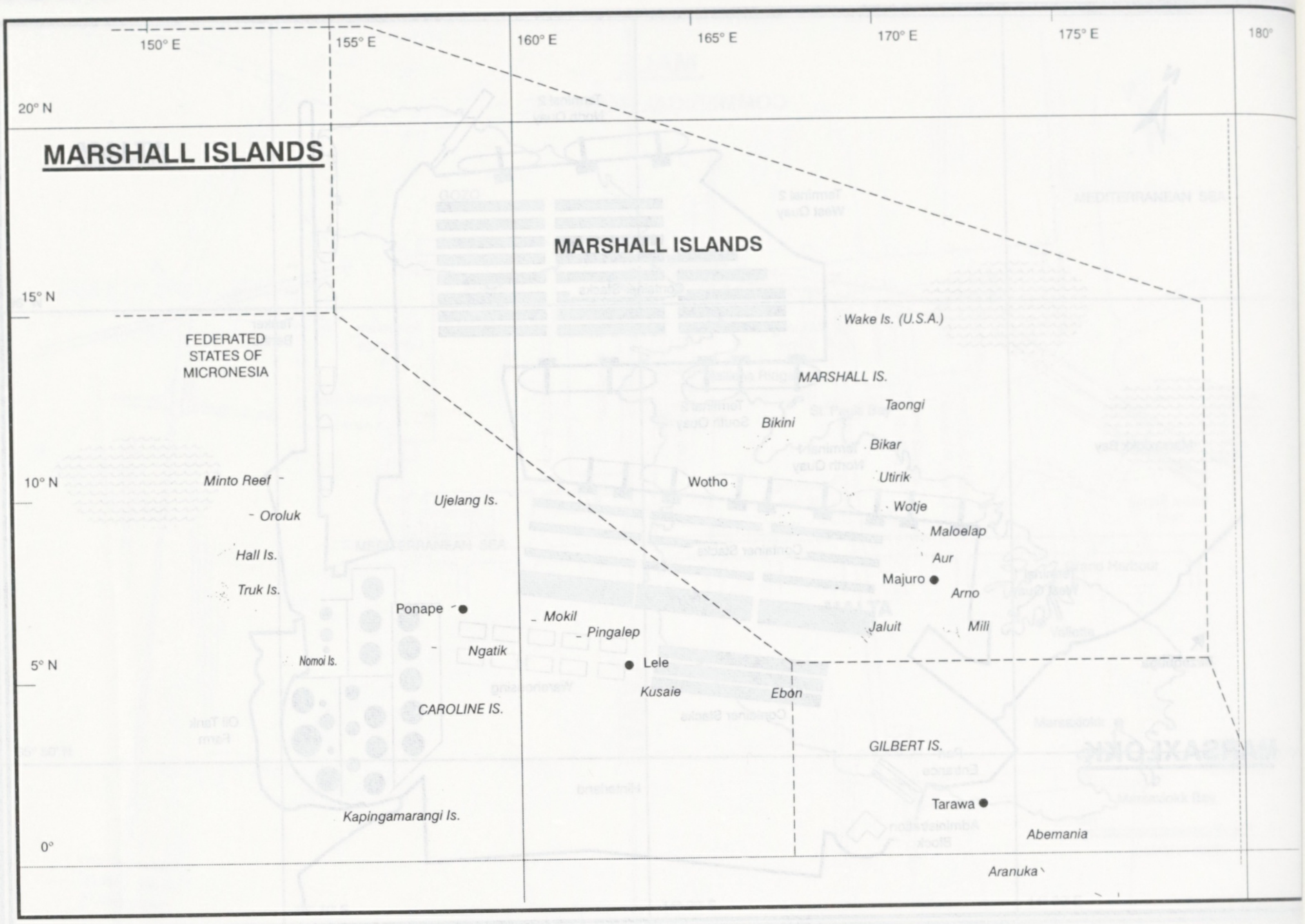

N
Terminal 2
North Quay
Terminal 2
West Quay
Container Stacks
Tanker
Berths
Terminal 2
South Quay
Marsaxlokk Bay
Terminal 1
North Quay
Container Stacks
Terminal 1
West Quay
Birzebbuga
Warehousing
Container Stacks
Oil Tank
Farm
Port
Entrance
Hinterland
Administration
Block

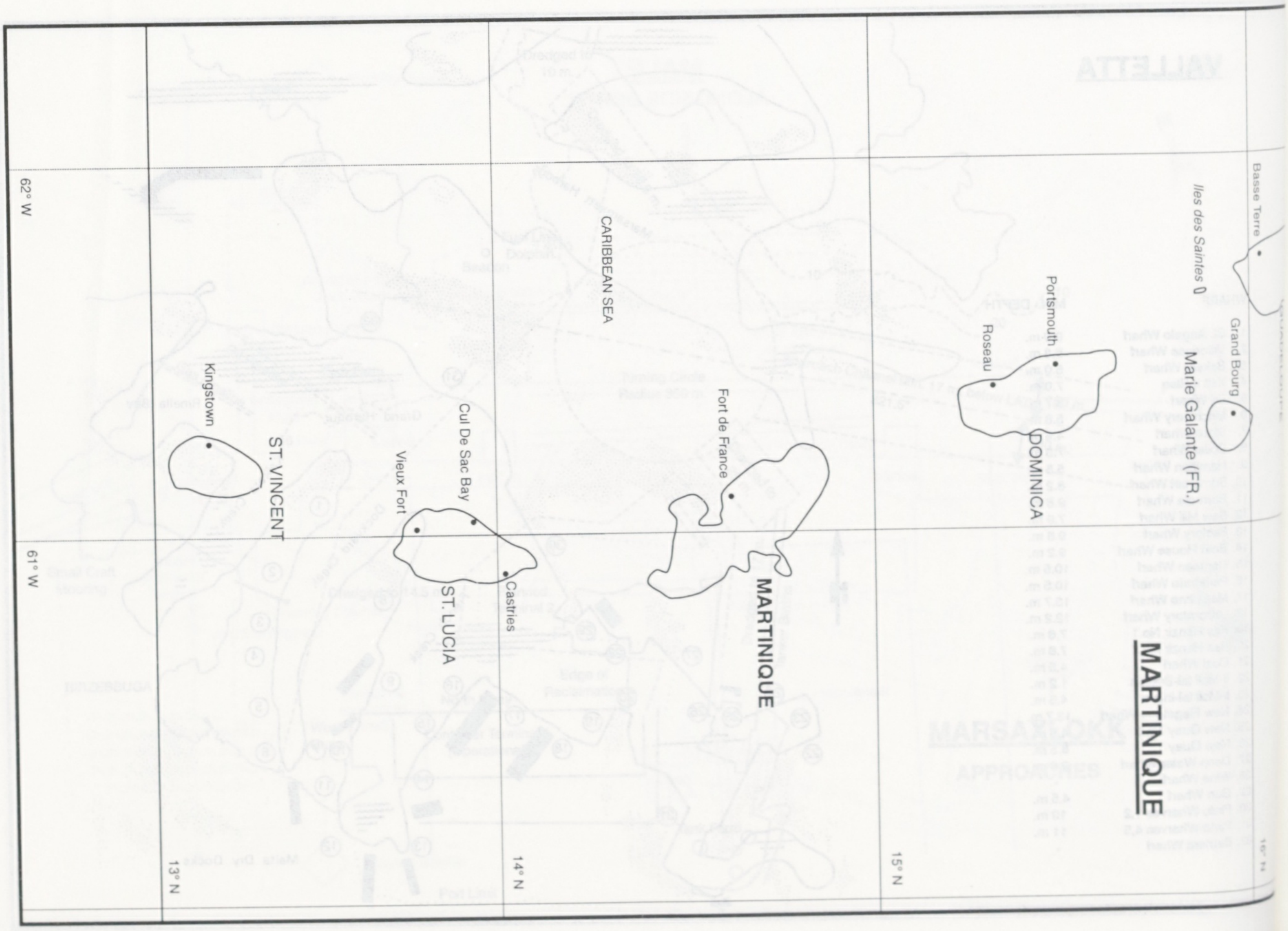
MARSAXLOKK

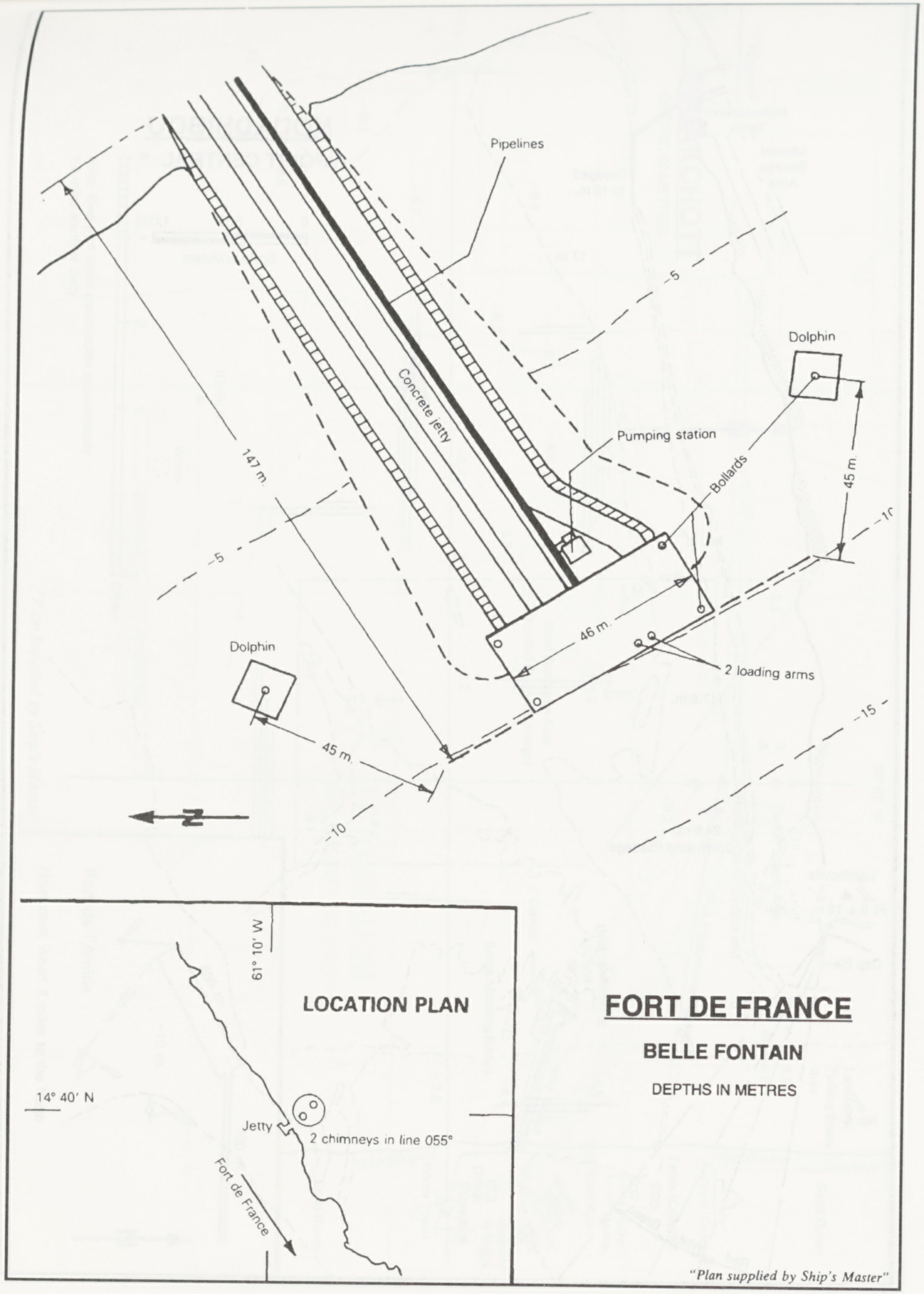

Marsamxett Harbour
Grand Harbour
Rinella Bay
Kalkara Creek
Dockyard Creek
French Creek
Malta Dry Docks
N

VALLETTA

WHARF	MIN. DEPTH
1. St. Angelo Wharf	9.0 m.
2. Vittoriosa Wharf	5.8 m.
3. Bakery Wharf	5.0 m.
4. Xatt ir-Risq	7.0 m.
5. Oil Wharf	3.7 m.
6. Machinery Wharf	5.8 m.
7. Store Wharf	4.9 m.
8. Boiler Wharf	7.3 m.
9. Hamilton Wharf	5.5 m.
10. Somerset Wharf	8.2 m.
11. Burmola Wharf	9.6 m.
12. Saw Mill Wharf	7.9 m.
13. Factory Wharf	9.8 m.
14. Boat House Wharf	9.2 m.
15. Canteen Wharf	10.5 m.
16. Parlatorio Wharf	10.5 m.
17. Magazine Wharf	13.7 m.
18. Laboratory Wharf	12.2 m.
19. Ras Hanzir No.1	7.6 m.
20. Ras Hanzir No.2	7.8 m.
21. Coal Wharf	4.5 m.
22. Il-Moll tal-Braken	1.2 m.
23. Il-Moll tal-Injam	4.5 m.
24. New Flagstone Wharf	13.7 m.
25. New Quay No.5	4.5 m.
26. New Quay	8.5 m.
27. Deep Water Wharf	9.8 m.
28. Wine Wharf	-
29. Gun Wharf	4.5 m.
30. Pinto Wharves 1,2	10 m.
31. Pinto Wharves 4,5	11 m.
32. Barriera Wharf	-


150° E
155° E
160° E
165° E
170° E
175° E
180°
20° N
15° N
10° N
5° N
0°
MARSHALL ISLANDS
MARSHALL ISLANDS
FEDERATED STATES OF MICRONESIA
Wake Is. (U.S.A.)
MARSHALL IS.
Taongi
Bikini
Bikar
Utirik
Wotho
Wotje
Maloelap
Aur
Majuro
Arno
Jaluit
Mili
Ebon
Minto Reef
Oroluk
Hall Is.
Truk Is.
Nomoi Is.
Ujelang Is.
Ponape
Mokil
Pingalep
Ngatik
Lele
Kusaie
CAROLINE IS.
Kapingamarangi Is.
GILBERT IS.
Tarawa
Abemania
Aranuka


62° W
61° W
13° N
14° N
15° N
16° N
Kingstown
ST. VINCENT
Cul De Sac Bay
Vieux Fort
ST. LUCIA
Castries
CARIBBEAN SEA
Fort de France
MARTINIQUE
Roseau
Portsmouth
DOMINICA
Iles des Saintes
Basse Terre
Grand Bourg
Marie Galante (FR.)
MARTINIQUE

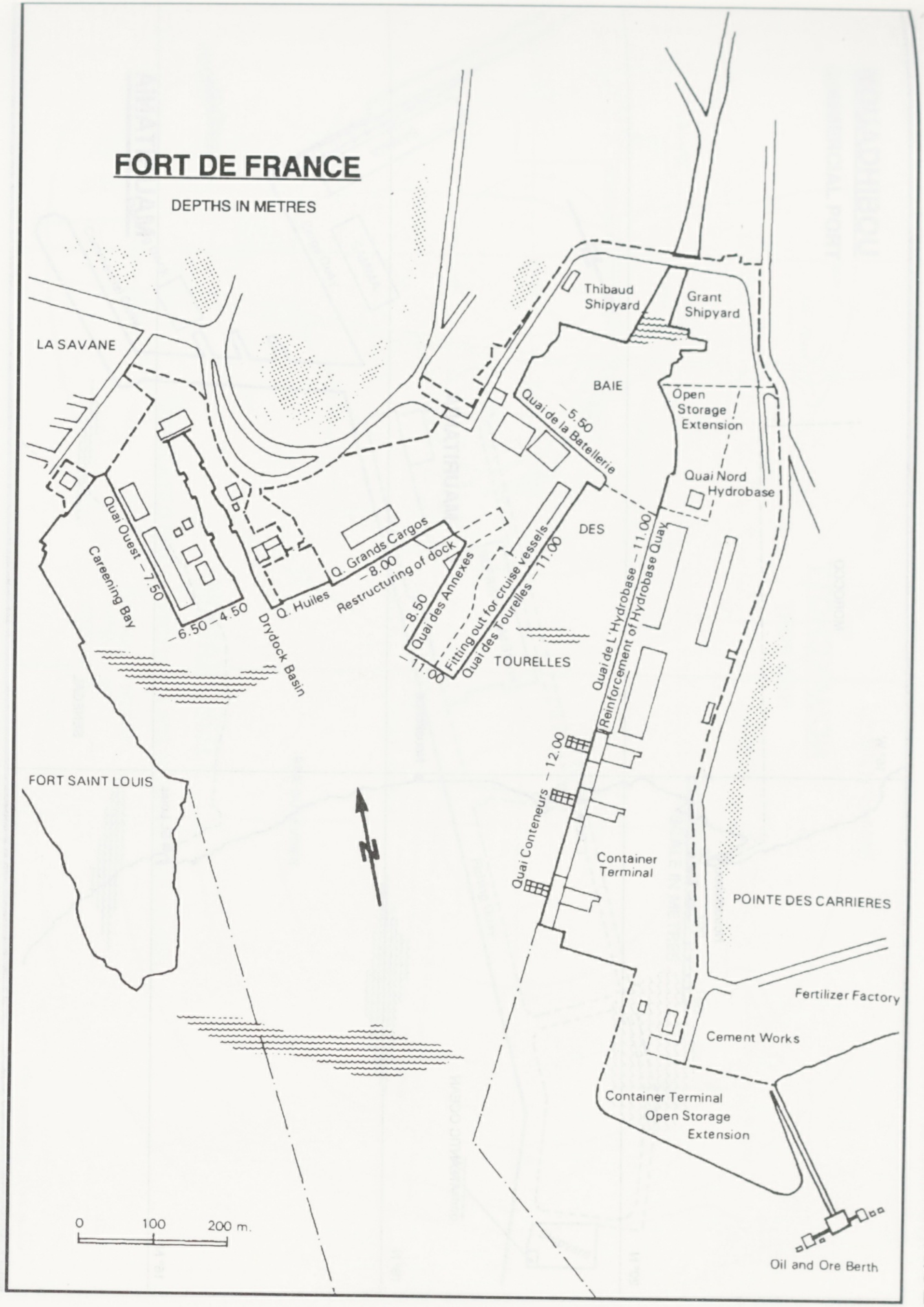

Pipelines
Dolphin
Concrete jetty
Pumping station
Bollards
147 m.
45 m.
46 m.
2 loading arms
Dolphin
45 m.
-5
-5
-10
-10
-15
N
LOCATION PLAN
61° 10' W
14° 40' N
Jetty
2 chimneys in line 055°
Fort de France

FORT DE FRANCE

BELLE FONTAIN

DEPTHS IN METRES

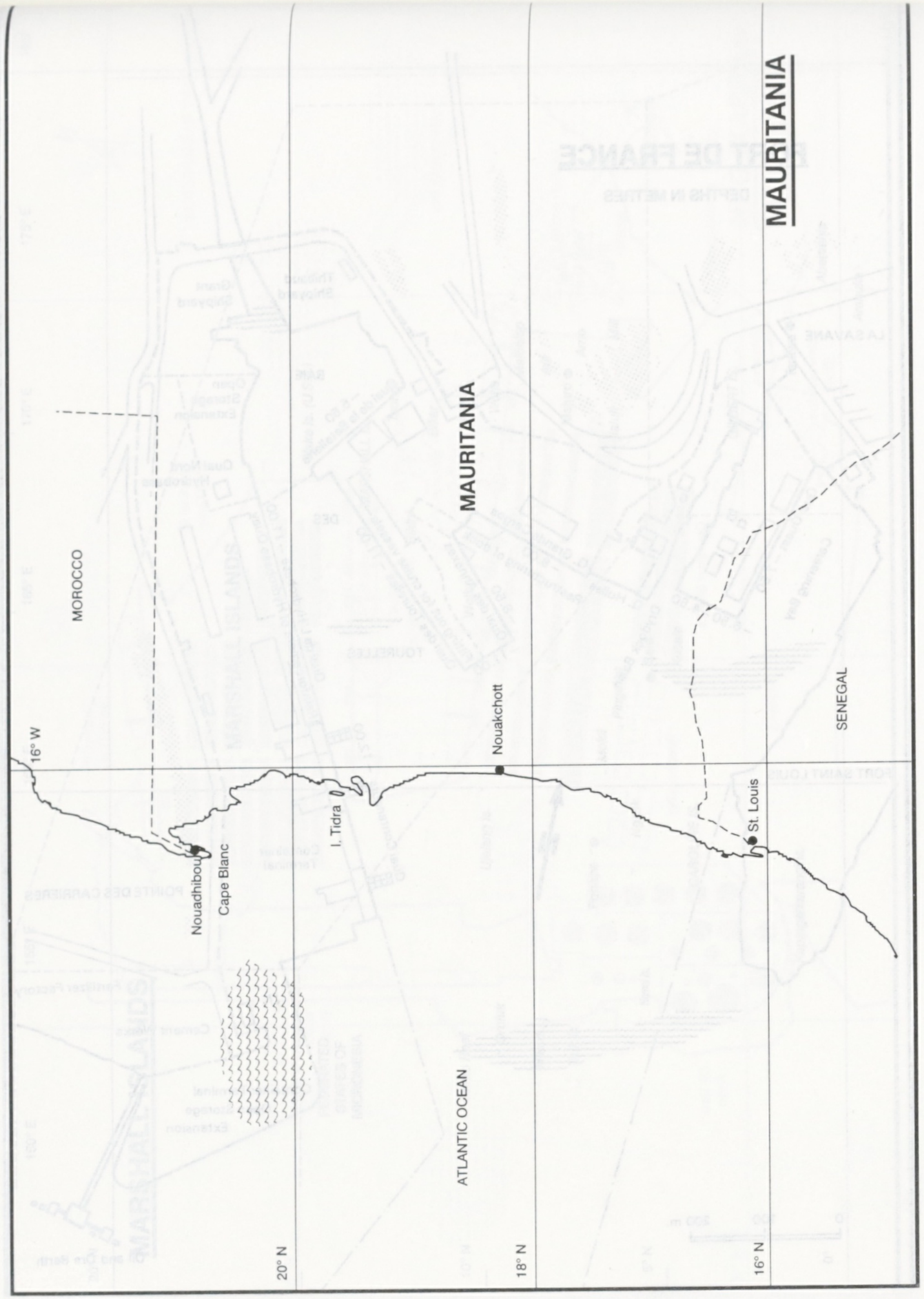
"Plan supplied by Ship's Master"

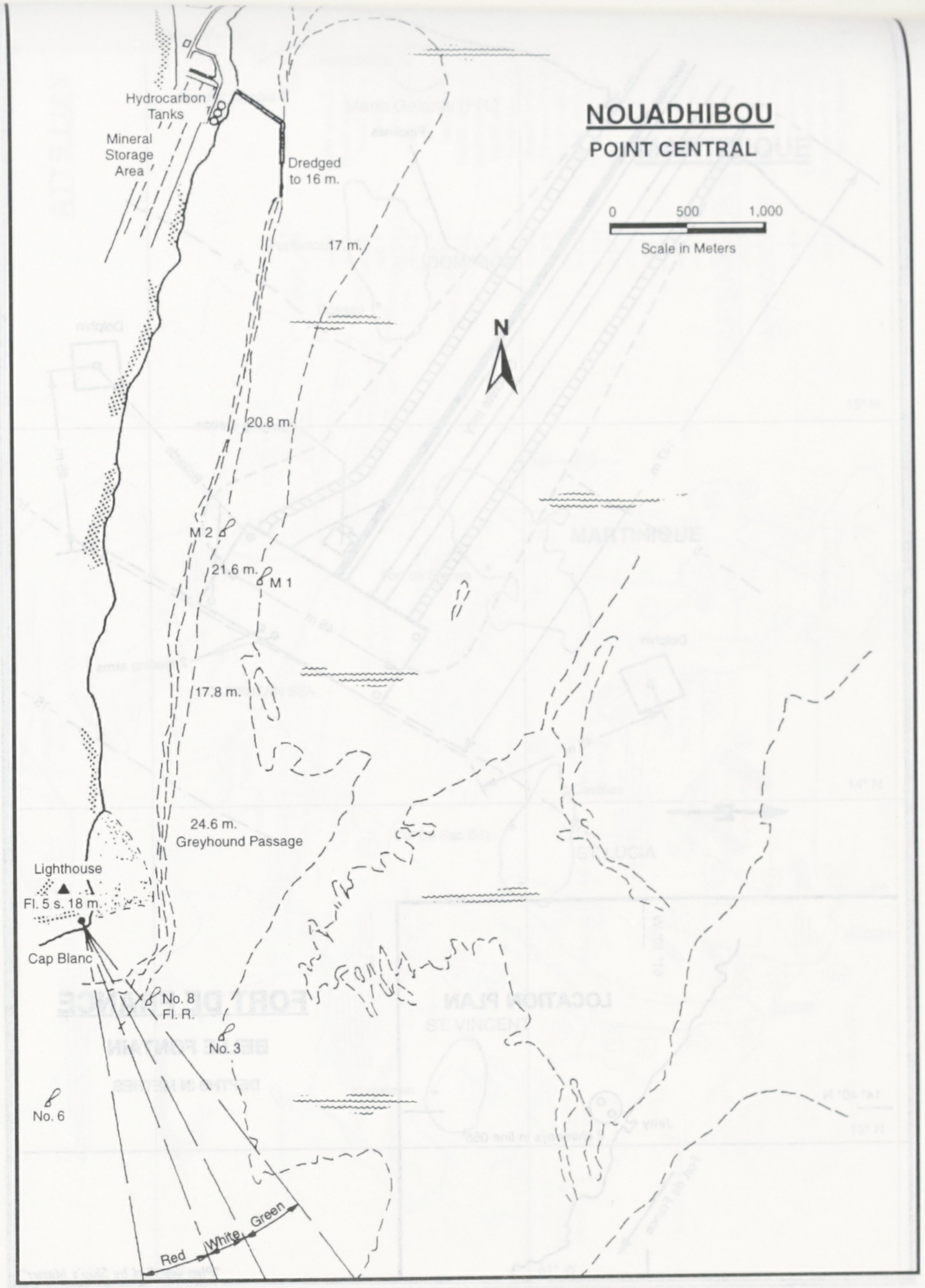


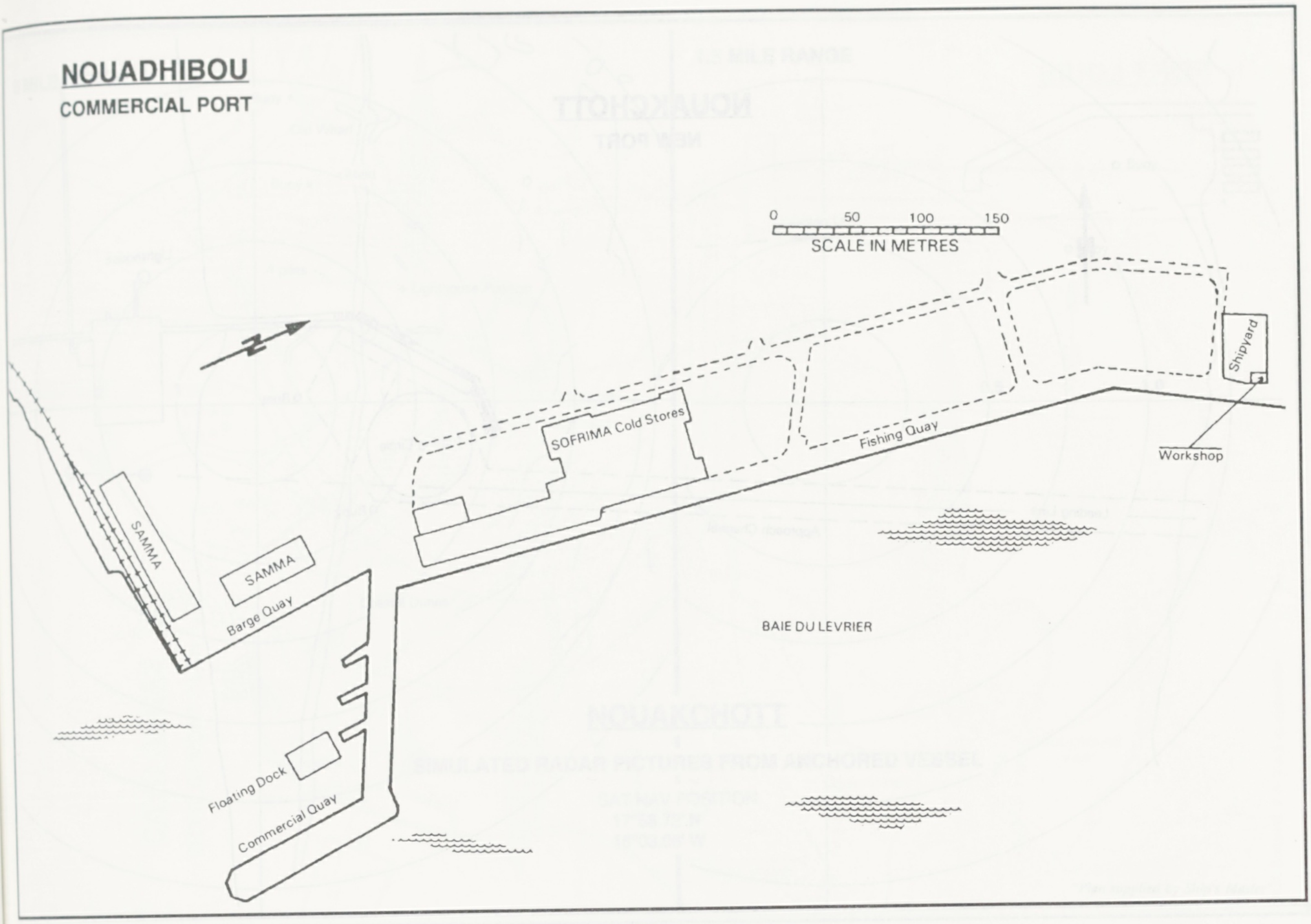
FORT DE FRANCE

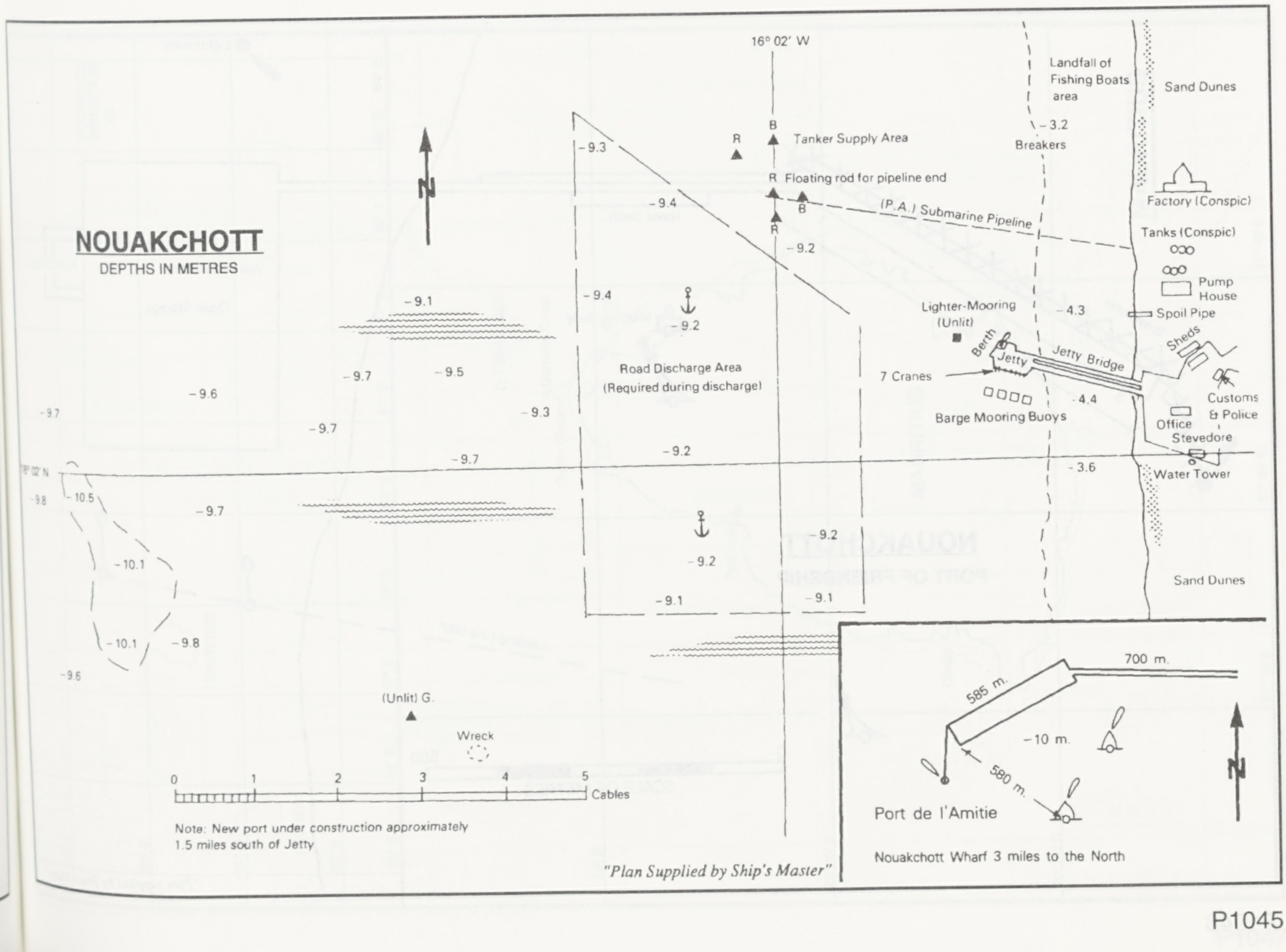
DEPTHS IN METRES

LA SAVANE
Thibaud Shipyard
Grant Shipyard
BAIE
Quai de la Batellerie
5.50
Open Storage Extension
Quai Nord Hydrobase
DES
Quai Ouest – 7.50
Careening Bay
–6.50 –4.50
Drydock Basin
Q. Huiles
Q. Grands Cargos
–8.00
Restructuring of dock
–8.50
Quai des Annexes
Fitting out for cruise vessels
Quai des Tourelles –11.00
–11.00
TOURELLES
Quai de L'Hydrobase – 11.00
Reinforcement of Hydrobase Quay
Quai Conteneurs – 12.00
Container Terminal
FORT SAINT LOUIS
N
POINTE DES CARRIERES
Fertilizer Factory
Cement Works
Container Terminal Open Storage Extension
Oil and Ore Berth
0
100
200 m.


MAURITANIA
MOROCCO
16° W
Nouadhibou
Cape Blanc
I. Tidra
Nouakchott
MAURITANIA
ATLANTIC OCEAN
St. Louis
SENEGAL
20° N
18° N
16° N

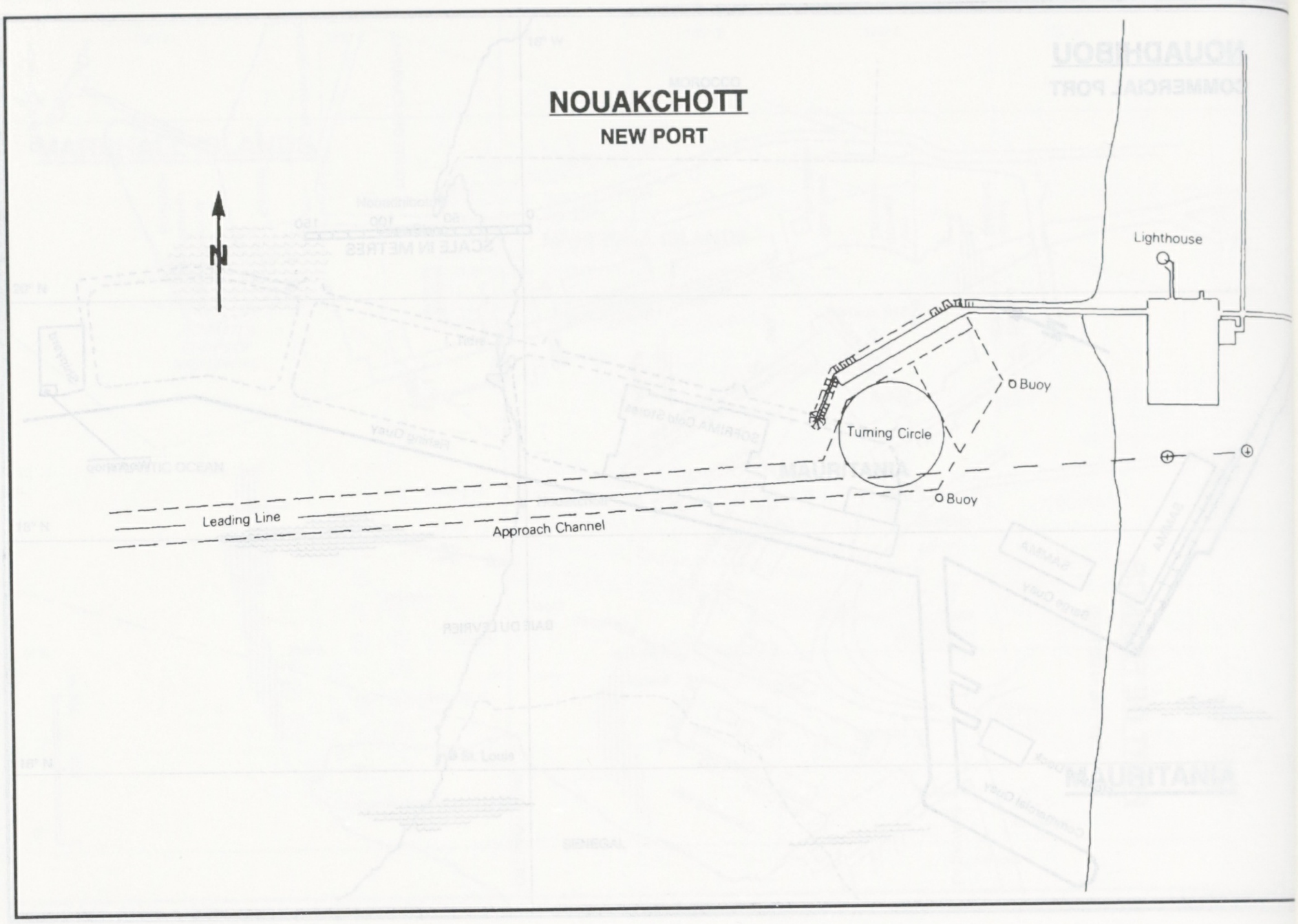

NOUADHIBOU
POINT CENTRAL
0
500
1,000
Scale in Meters
N
Hydrocarbon Tanks
Mineral Storage Area
Dredged to 16 m.
17 m.
20.8 m.
M 2
21.6 m.
M 1
17.8 m.
24.6 m.
Greyhound Passage
Lighthouse
Fl. 5 s. 18 m.
Cap Blanc
No. 8
Fl. R.
No. 3
No. 6
Red
White
Green

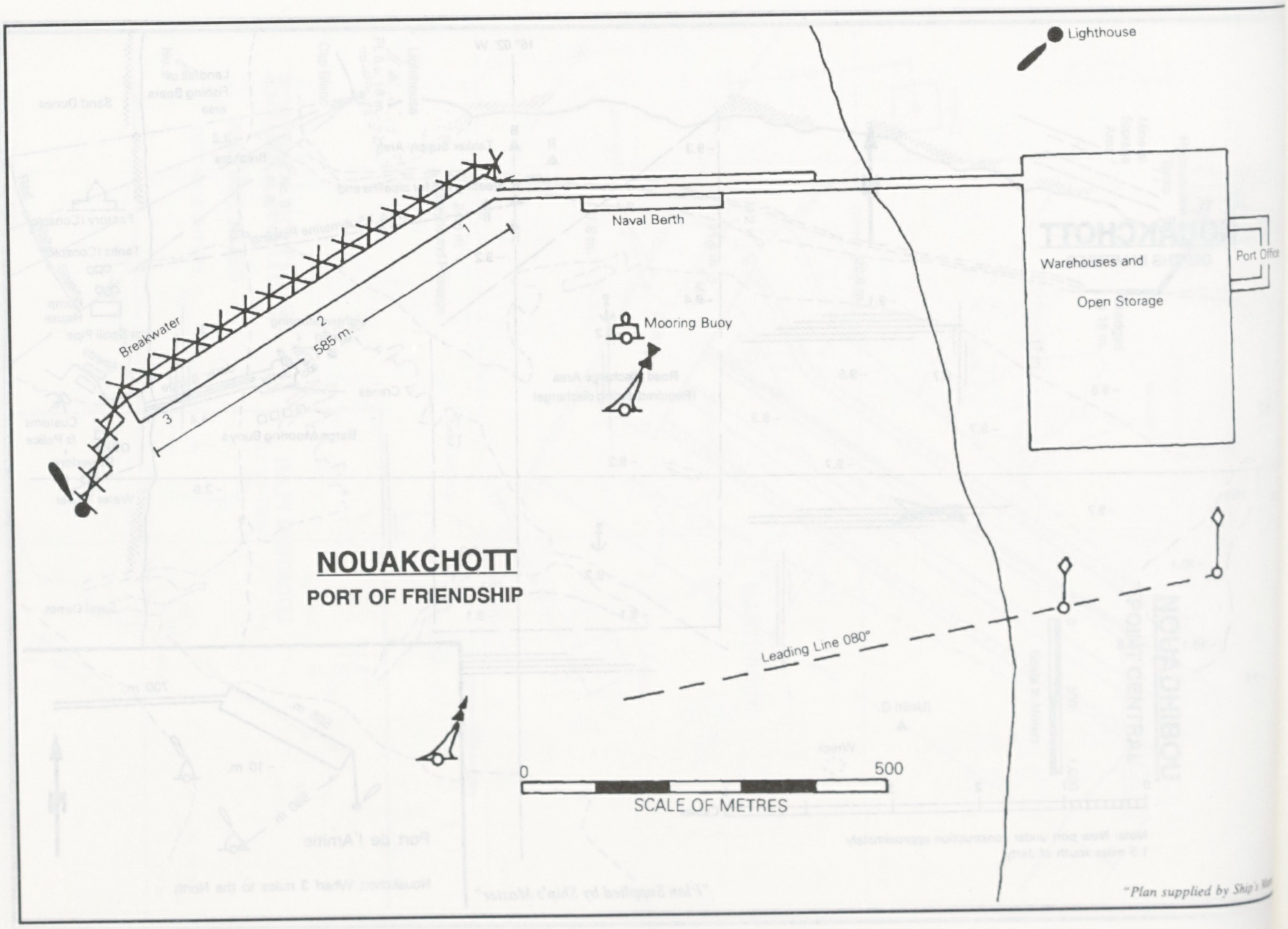

NOUADHIBOU
COMMERCIAL PORT
N
0
50
100
150
SCALE IN METRES
SAMMA
SAMMA
Barge Quay
SOFRIMA Cold Stores
Fishing Quay
Shipyard
Workshop
BAIE DU LEVRIER
Floating Dock
Commercial Quay


NOUAKCHOTT
DEPTHS IN METRES
N
16° 02′ W
18° 02′ N
R
B
Tanker Supply Area
R Floating rod for pipeline end
B
R
(P.A.) Submarine Pipeline
Landfall of Fishing Boats area
Sand Dunes
Breakers
Factory (Conspic)
Tanks (Conspic)
Pump House
Spoil Pipe
Sheds
Lighter-Mooring (Unlit)
Berth
Jetty
Jetty Bridge
7 Cranes
Barge Mooring Buoys
Customs & Police
Office
Stevedore
Water Tower
Sand Dunes
Road Discharge Area (Required during discharge)
-9.3
-9.4
-9.2
-9.4
-9.2
-3.2
-4.3
-4.4
-3.6
-9.1
-9.7
-9.5
-9.6
-9.3
-9.7
-9.7
-9.7
-9.2
-9.7
-9.8
-10.5
-9.7
-10.1
-10.1
-9.8
-9.6
-9.2
-9.2
-9.1
-9.1
(Unlit) G.
Wreck
0
1
2
3
4
5
Cables
700 m.
585 m.
-10 m.
580 m.
N
Port de l'Amitie
Nouakchott Wharf 3 miles to the North

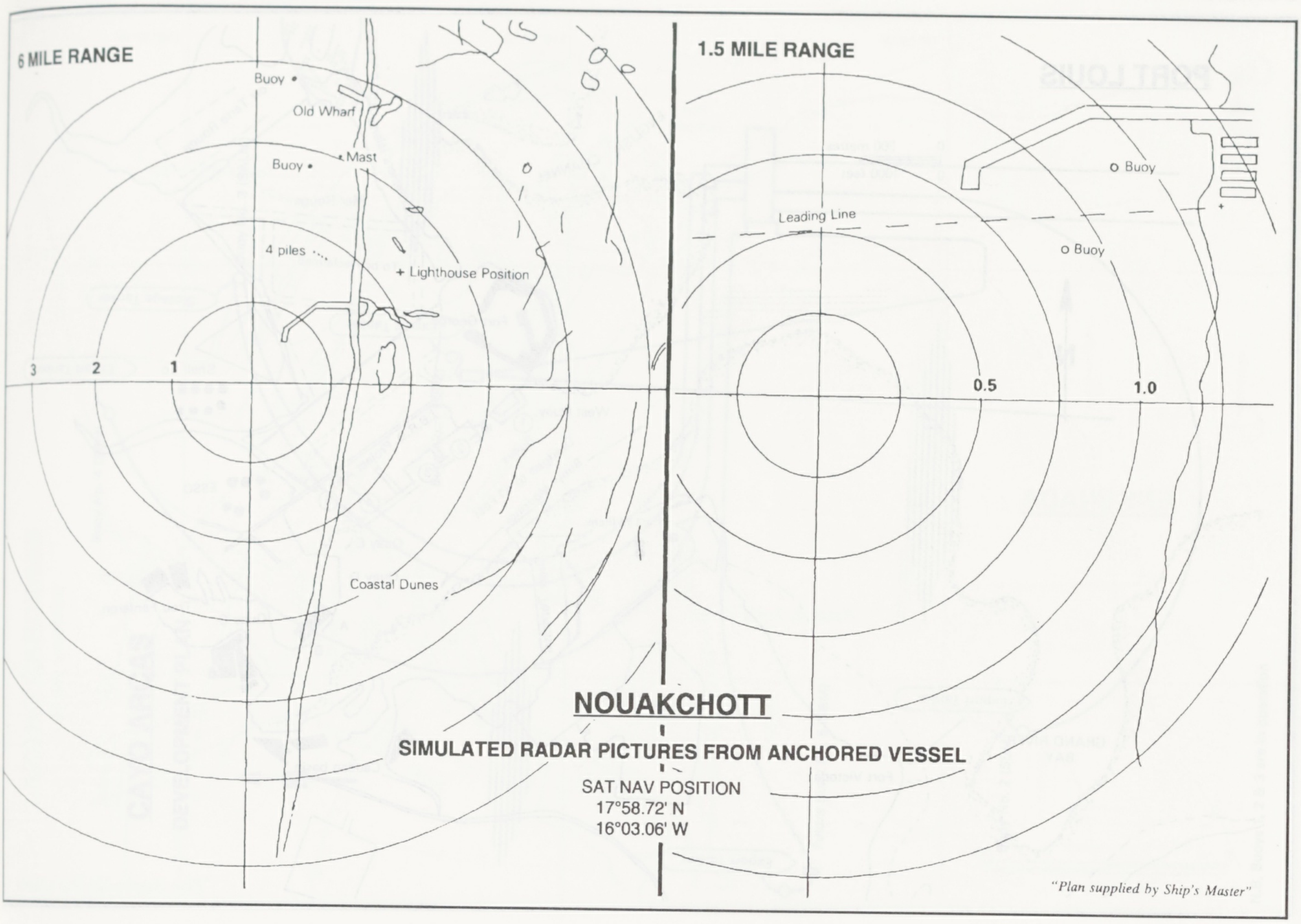
Note: New port under construction approximately 1.5 miles south of Jetty

"Plan Supplied by Ship's Master"


NOUAKCHOTT
NEW PORT
N
Lighthouse
Buoy
Turning Circle
Buoy
Leading Line
Approach Channel


Lighthouse
Naval Berth
Warehouses and
Open Storage
Port Offic
Mooring Buoy
Breakwater
1
2
3
585 m
NOUAKCHOTT
PORT OF FRIENDSHIP
Leading Line 080°
0
500
SCALE OF METRES

"Plan supplied by Ship's

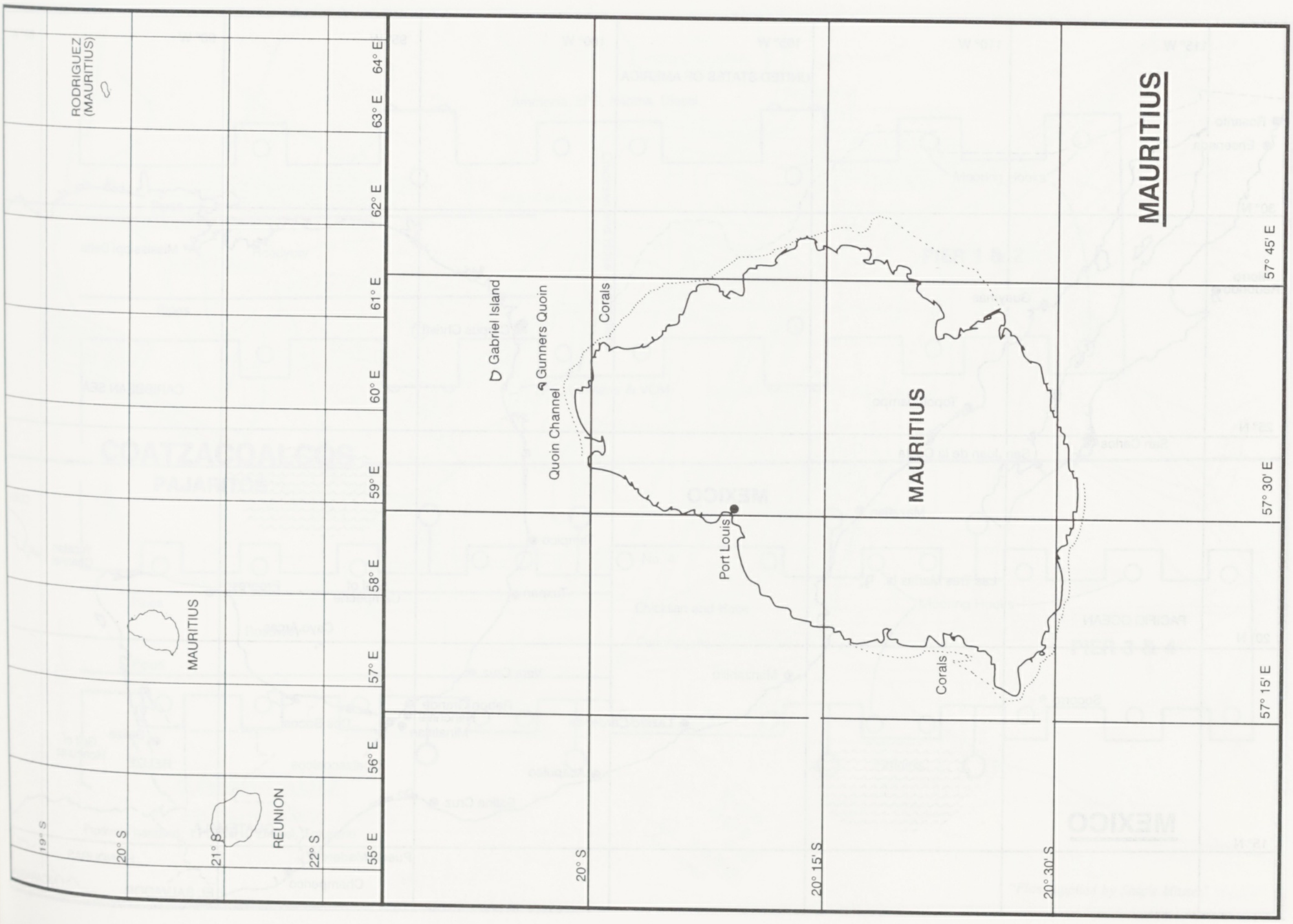

6 MILE RANGE
Buoy
Old Wharf
Buoy
Mast
4 piles
Lighthouse Position
3
2
1
Coastal Dunes
1.5 MILE RANGE
Leading Line
Buoy
Buoy
0.5
1.0

NOUAKCHOTT

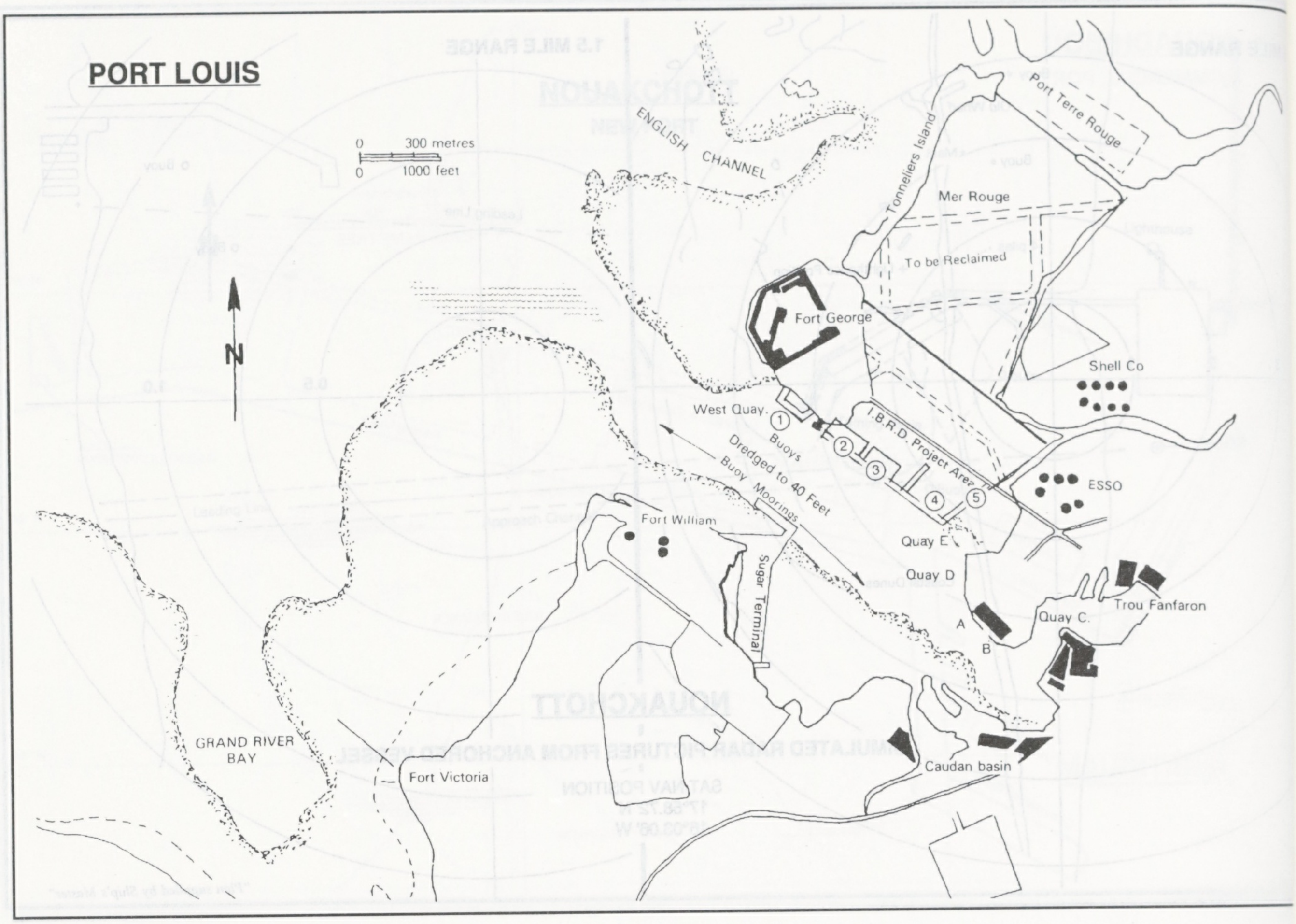
SIMULATED RADAR PICTURES FROM ANCHORED VESSEL

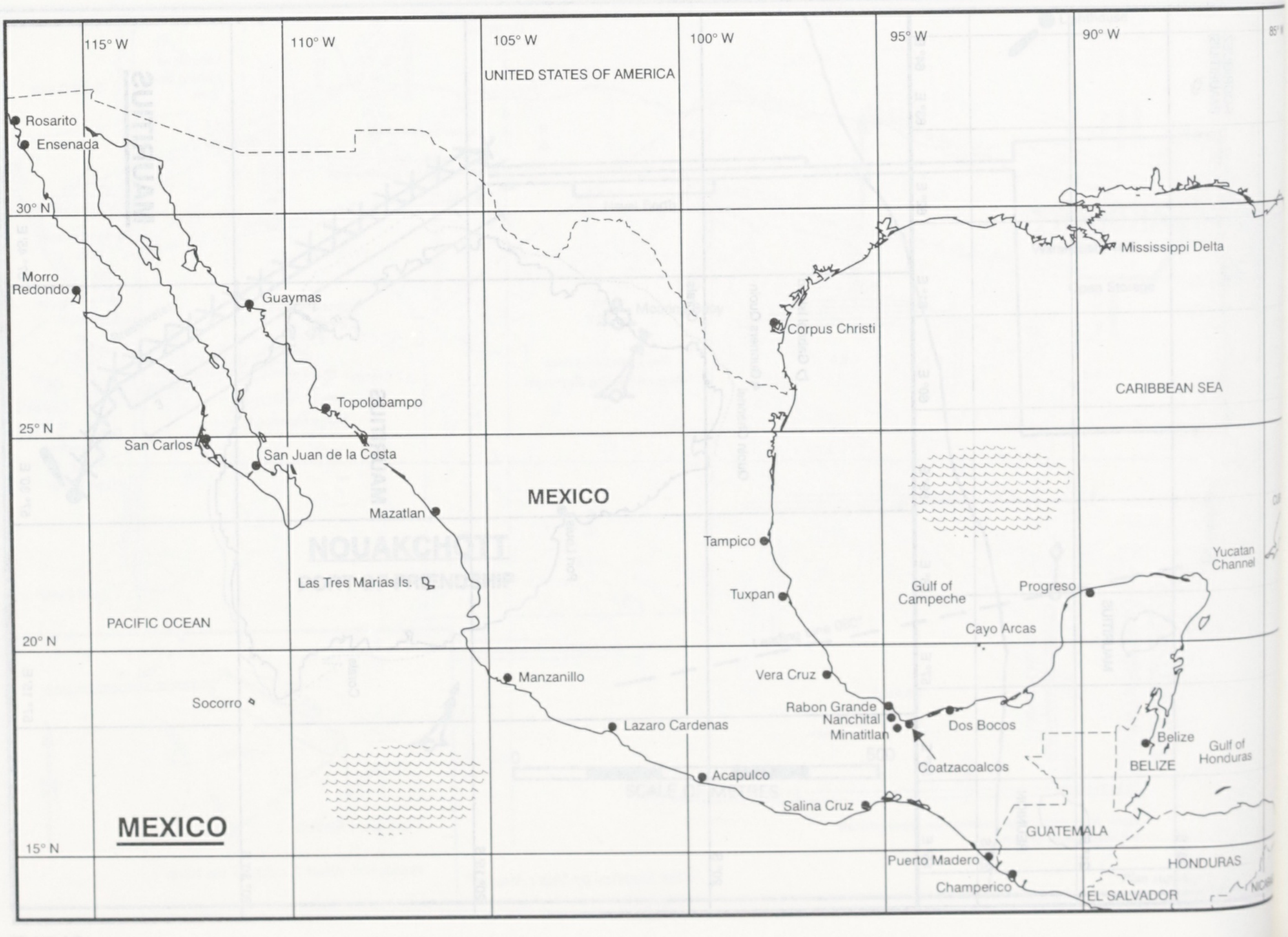
SAT NAV POSITION
17°58.72' N
16°03.06' W

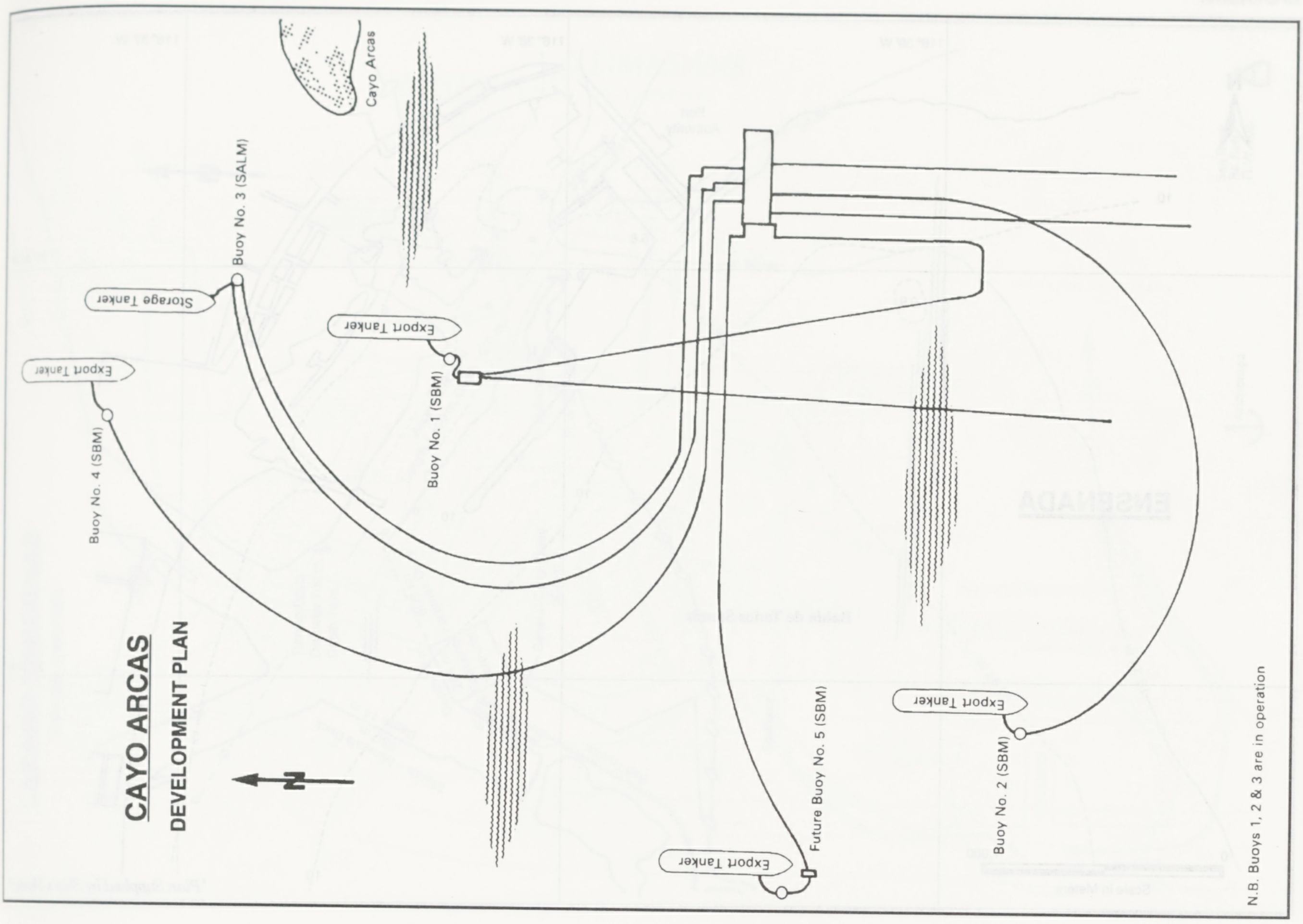
"Plan supplied by Ship's Master"

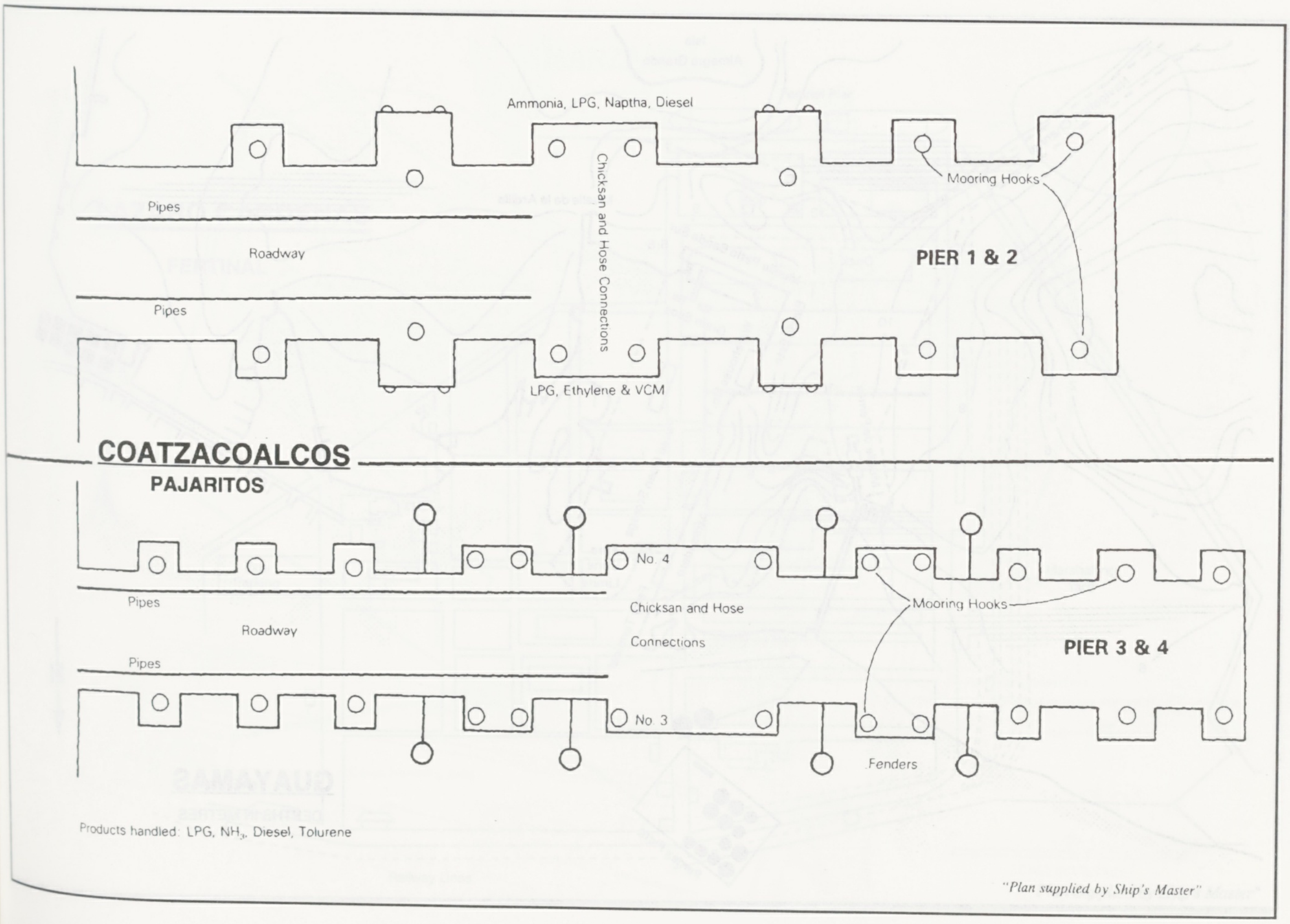

RODRIGUEZ (MAURITIUS)
MAURITIUS
REUNION
19° S
20° S
21° S
22° S
55° E
56° E
57° E
58° E
59° E
60° E
61° E
62° E
63° E
64° E
MAURITIUS
Gabriel Island
Gunners Quoin
Corals
Quoin Channel
Port Louis
Corals
20° S
20° 15' S
20° 30' S
57° 15' E
57° 30' E
57° 45' E

MAURITIUS


PORT LOUIS
0 300 metres
0 1000 feet
N
ENGLISH CHANNEL
Tonneliers Island
Port Terre Rouge
Mer Rouge
To be Reclaimed
Fort George
Shell Co
West Quay
Buoys
I.B.R.D. Project Area
ESSO
Dredged to 40 Feet
Buoy Moorings
Fort William
Sugar Terminal
Quay E
Quay D
A
B
Quay C
Trou Fanfaron
GRAND RIVER BAY
Fort Victoria
Caudan basin
1
2
3
4
5

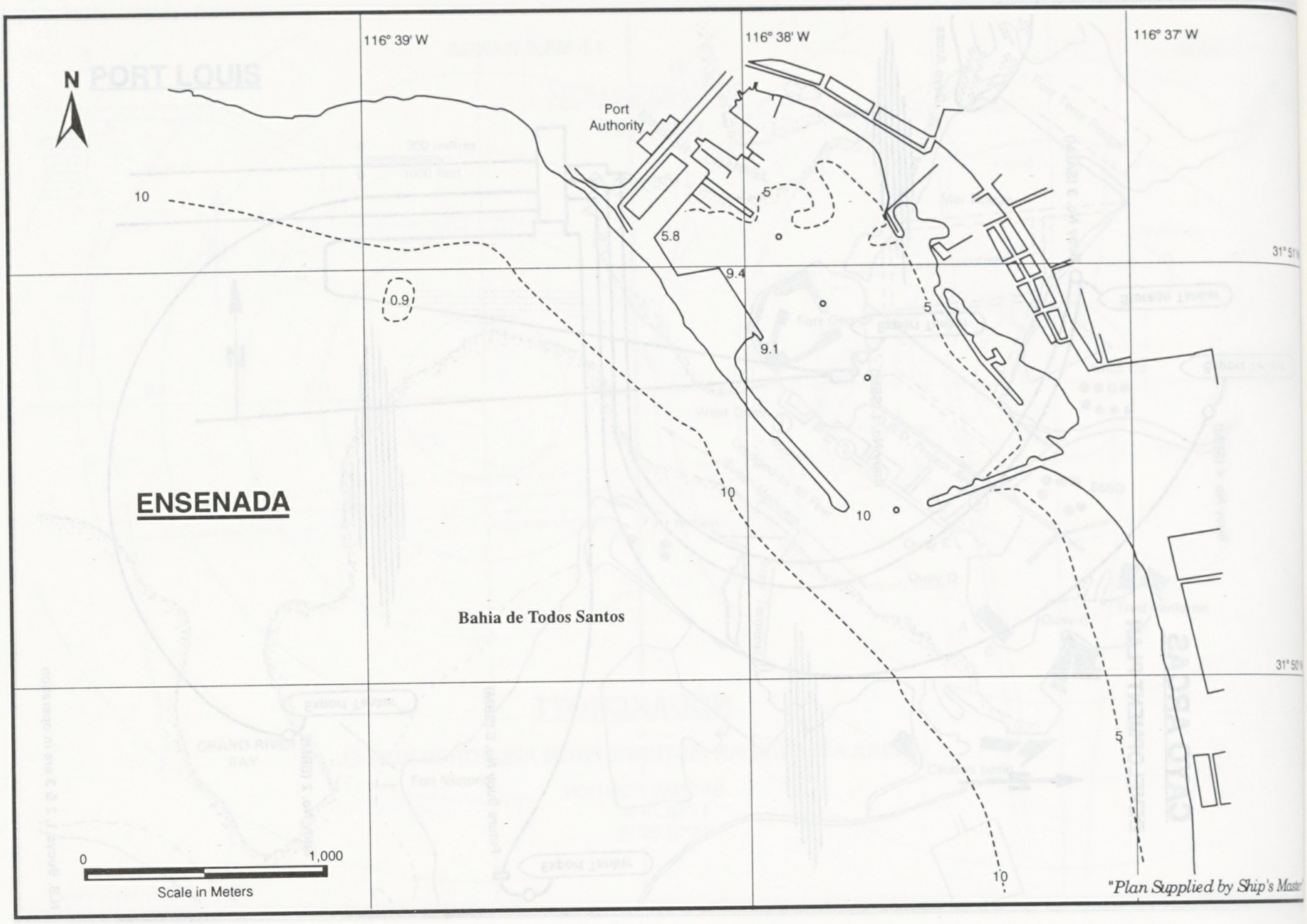

115° W
110° W
105° W
100° W
95° W
90° W
UNITED STATES OF AMERICA
Rosarito
Ensenada
30° N
Morro Redondo
Guaymas
Corpus Christi
Mississippi Delta
CARIBBEAN SEA
Topolobampo
25° N
San Carlos
San Juan de la Costa
MEXICO
Mazatlan
Tampico
Las Tres Marias Is.
Tuxpan
Yucatan Channel
Gulf of Campeche
Progreso
Cayo Arcas
PACIFIC OCEAN
20° N
Manzanillo
Vera Cruz
Socorro
Rabon Grande
Nanchital
Minatitlan
Dos Bocos
Lazaro Cardenas
Coatzacoalcos
Belize
BELIZE
Gulf of Honduras
Acapulco
Salina Cruz
GUATEMALA
MEXICO
15° N
Puerto Madero
HONDURAS
Champerico
EL SALVADOR

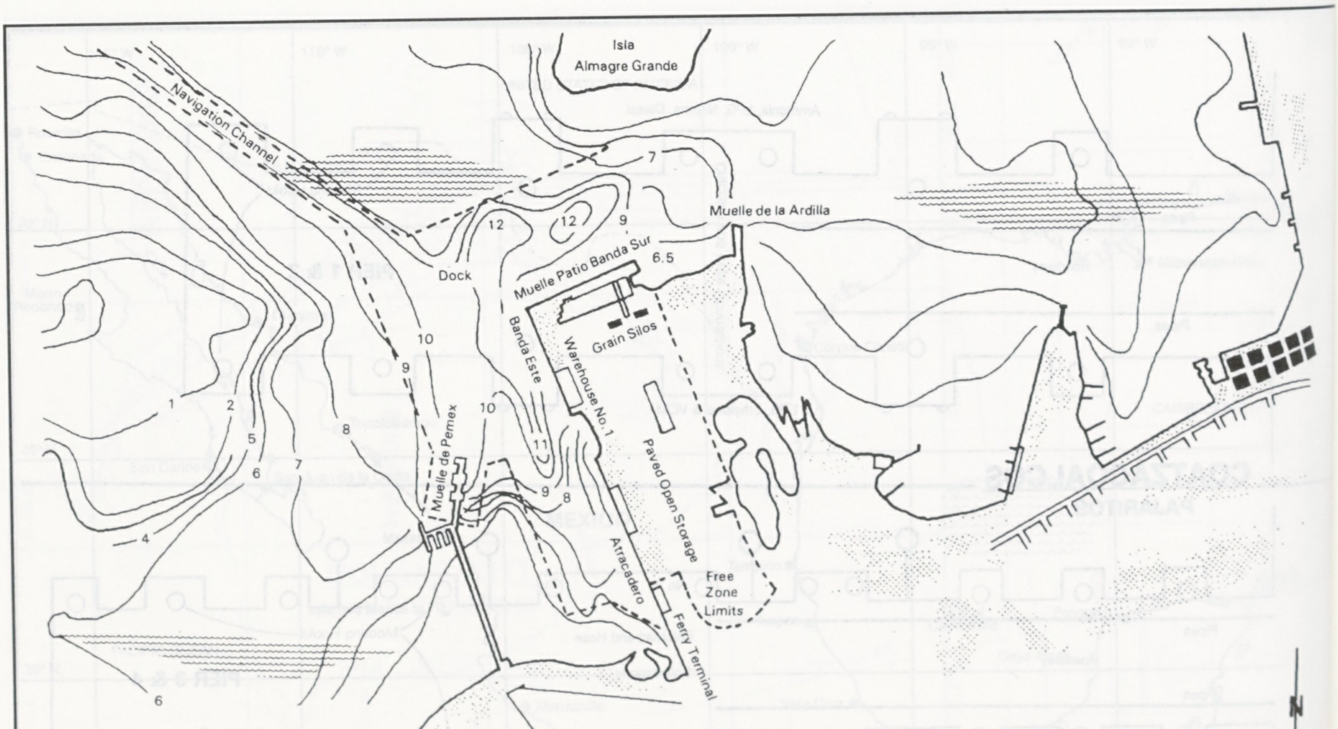

CAYO ARCAS
DEVELOPMENT PLAN
N
Cayo Arcas
Buoy No. 3 (SALM)
Storage Tanker
Export Tanker
Buoy No. 4 (SBM)
Export Tanker
Buoy No. 1 (SBM)
Export Tanker
Future Buoy No. 5 (SBM)
Export Tanker
Buoy No. 2 (SBM)
N.B. Buoys 1, 2 & 3 are in operation

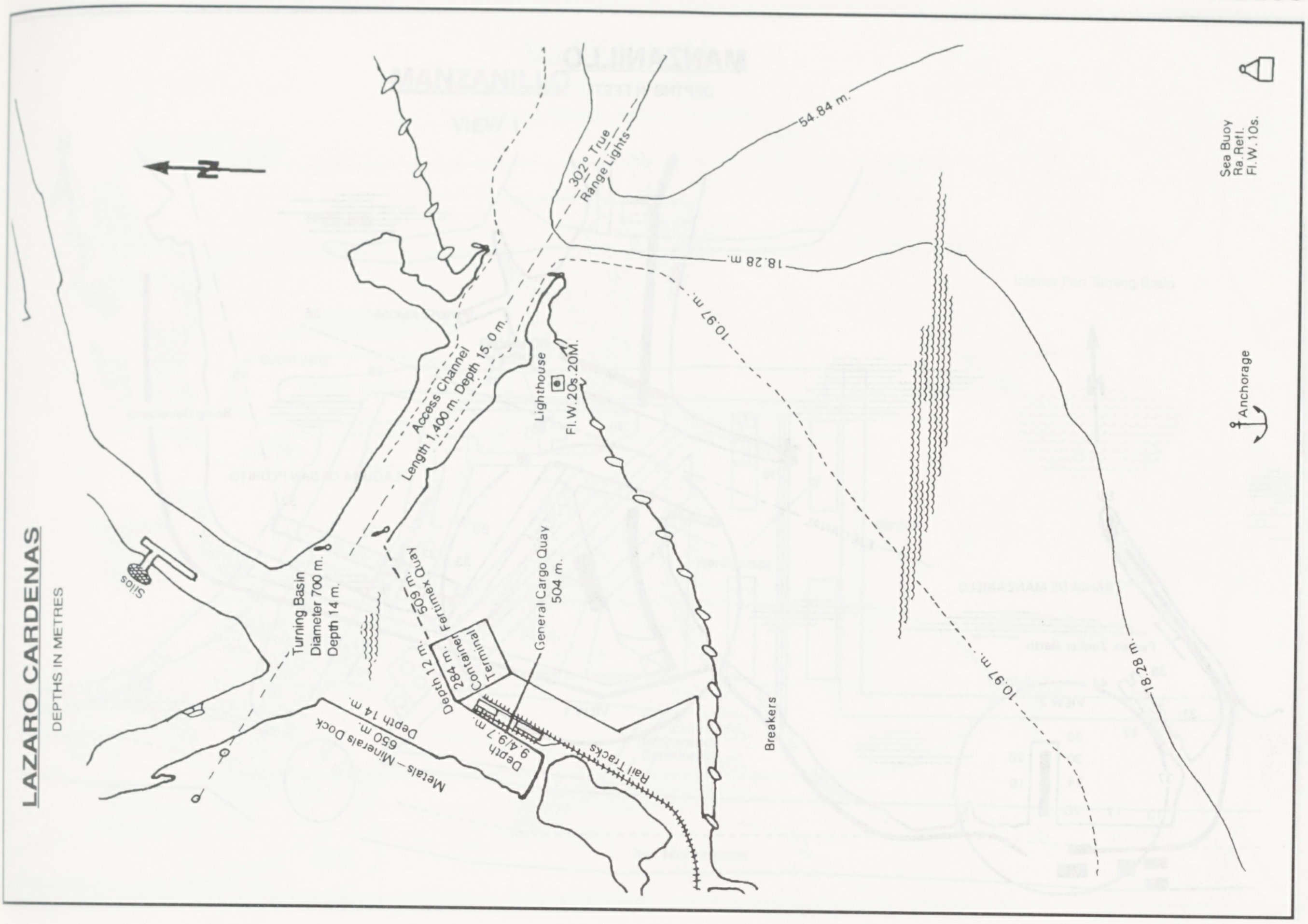

Ammonia, LPG, Naptha, Diesel
Chicksan and Hose Connections
Mooring Hooks
Pipes
Roadway
Pipes
PIER 1 & 2
LPG, Ethylene & VCM
COATZACOALCOS
PAJARITOS
No 4
Pipes
Roadway
Pipes
Chicksan and Hose
Connections
Mooring Hooks
PIER 3 & 4
No 3
Fenders

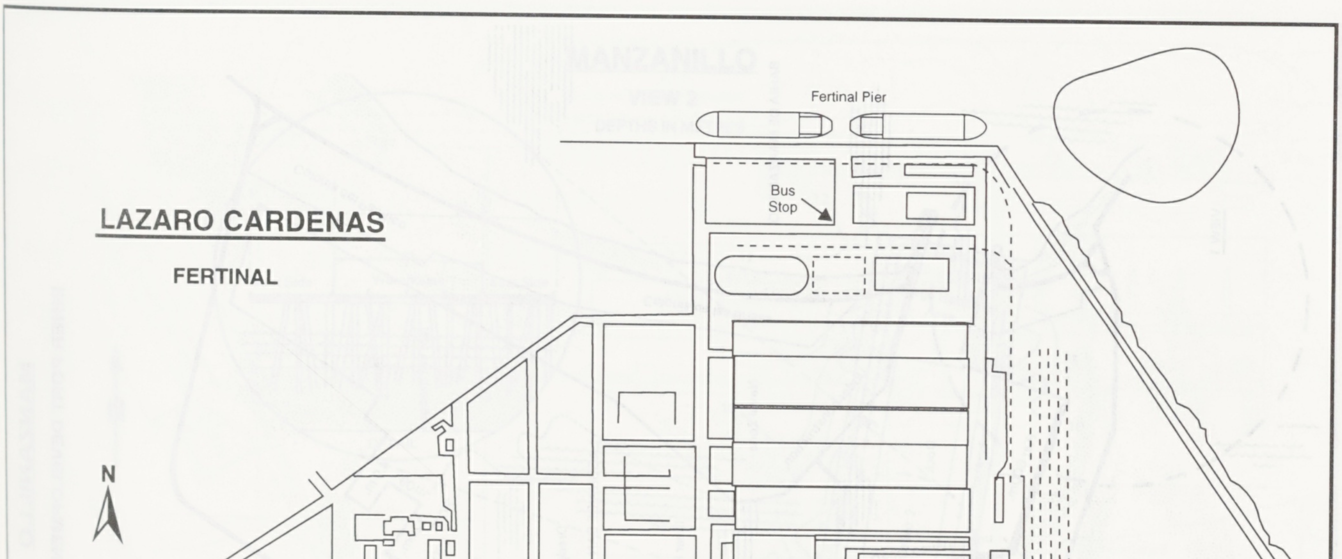
Products handled: LPG, NH_3, Diesel, Tolurene

"Plan supplied by Ship's Master"

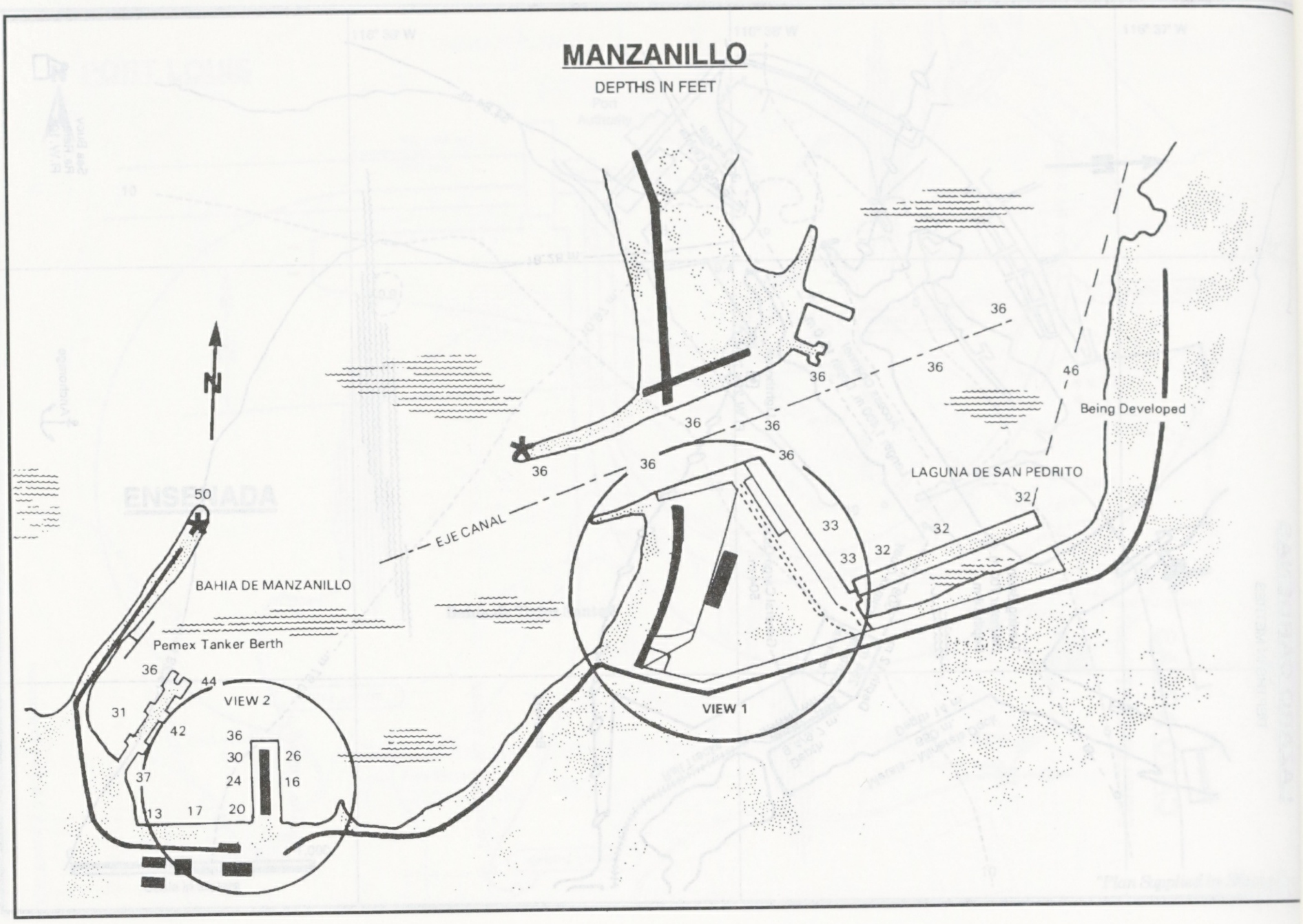

116° 39' W
116° 38' W
116° 37' W
N
Port Authority
10
5
5.8
9.4
0.9
9.1
5
31° 51' N
31° 50' N
10
10
ENSENADA
Bahia de Todos Santos
5
10
0
1,000
Scale in Meters
"Plan Supplied by Ship's Master"


Isla
Almagre Grande
Navigation Channel
7
12
12
9
Muelle de la Ardilla
Muelle Patio Banda Sur
6.5
Dock
Grain Silos
Banda Este
10
9
Warehouse No. 1
10
1
2
5
6
7
8
Muelle de Pemex
11
9
8
Paved Open Storage
4
Atracadero
Free
Zone
Limits
Ferry Terminal
6
N
Pemex Plant
GUAYAMAS
DEPTHS IN METRES


LAZARO CARDENAS
DEPTHS IN METRES
N
Silos
Turning Basin
Diameter 700 m.
Depth 14 m.
Metals – Minerals Dock
650 m.
Depth 14 m.
Depth 12 m.
509 m.
Fertimex Quay
284 m.
Container Terminal
Depth
9.4-9.7 m.
General Cargo Quay
504 m.
Rail Tracks
Access Channel
Length 1,400 m. Depth 15.0 m.
Lighthouse
Fl.W.20s.20M.
302° True
Range Lights
54.84 m.
18.28 m.
10.97 m.
10.97 m.
18.28 m.
Breakers
Anchorage
Sea Buoy
Ra.Refl.
Fl.W.10s.


LAZARO CARDENAS
FERTINAL
Fertinal Pier
Bus Stop
N
Bus Parking
Marshalling Yard
Main Gate
Railway Lines

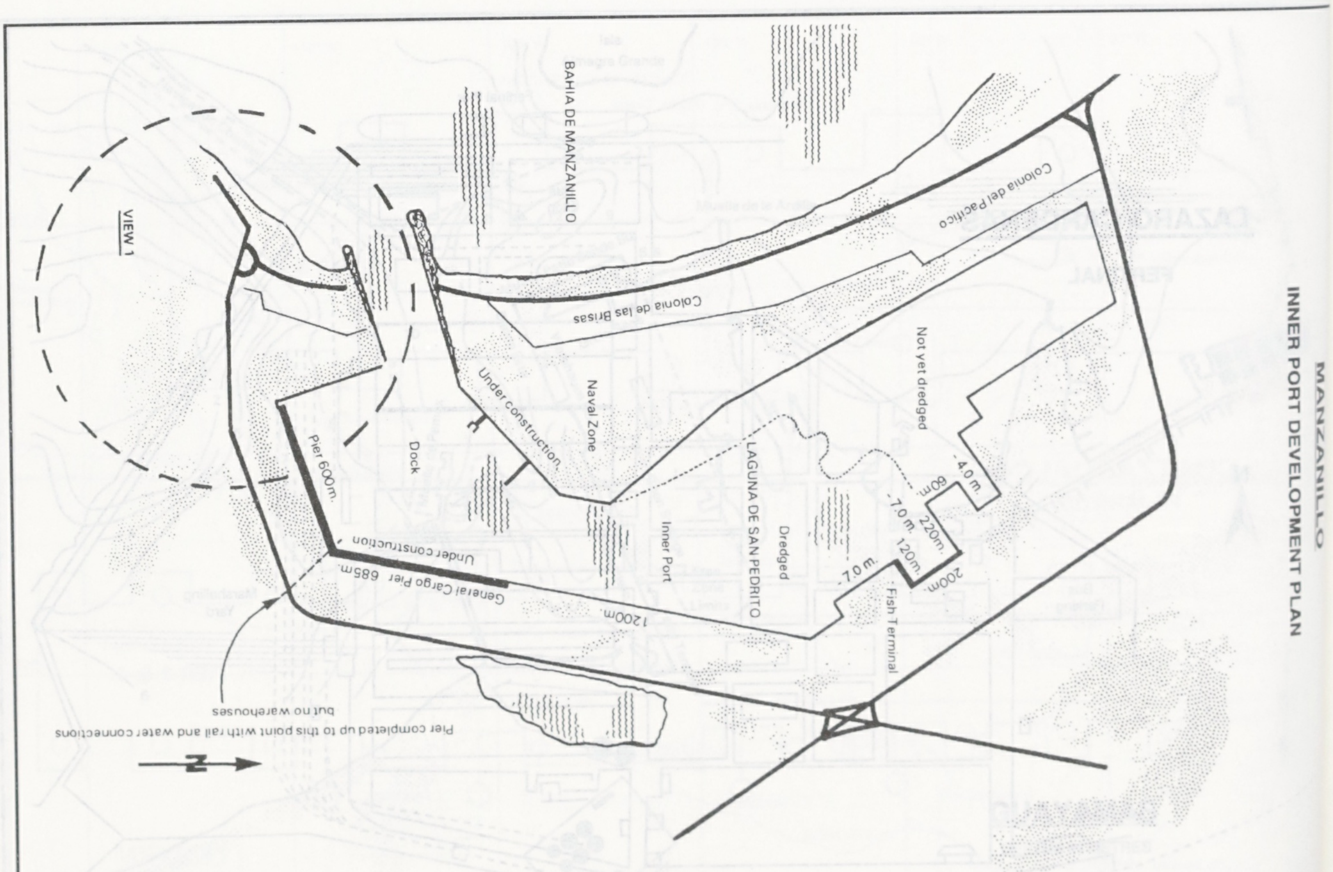
"Plan Supplied by Ship's Master"



MANZANILLO

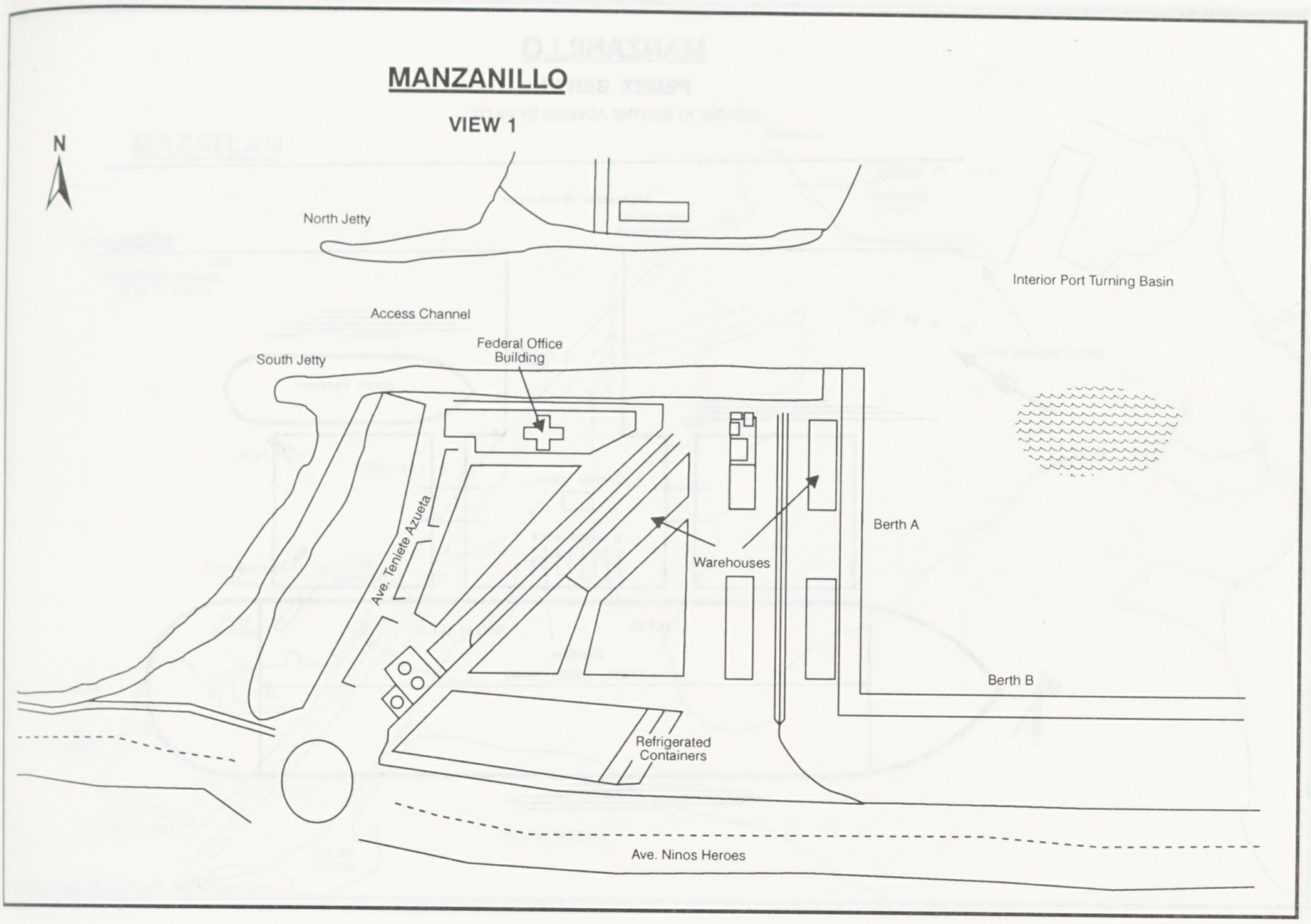
DEPTHS IN FEET

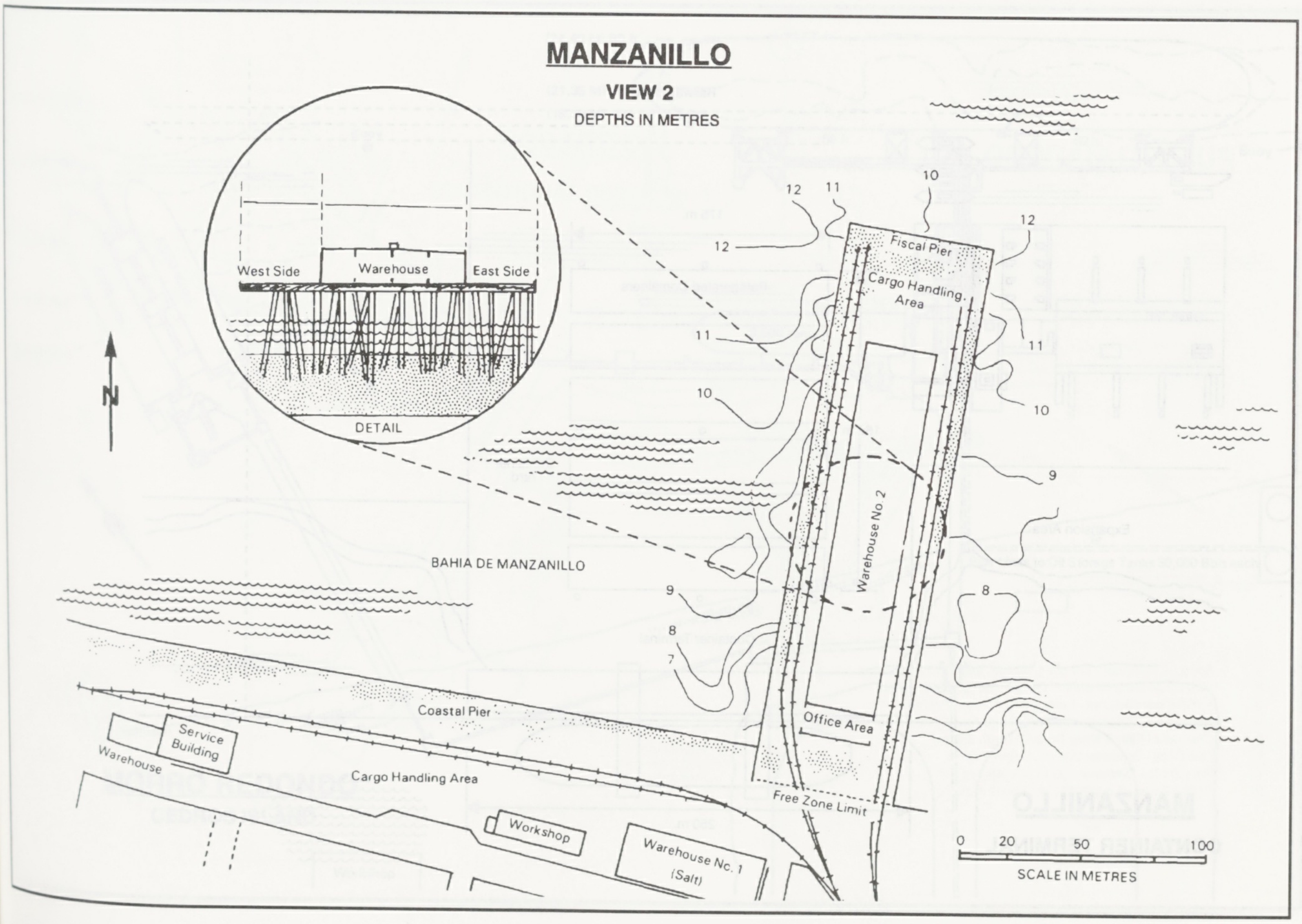
N
36
36
46
Being Developed
36
36
36
36
36
36
36
LAGUNA DE SAN PEDRITO
32
32
33
33
32
EJE CANAL
50
BAHIA DE MANZANILLO
Pemex Tanker Berth
VIEW 1
36
44
VIEW 2
31
42
36
30
26
24
16
37
13
17
20

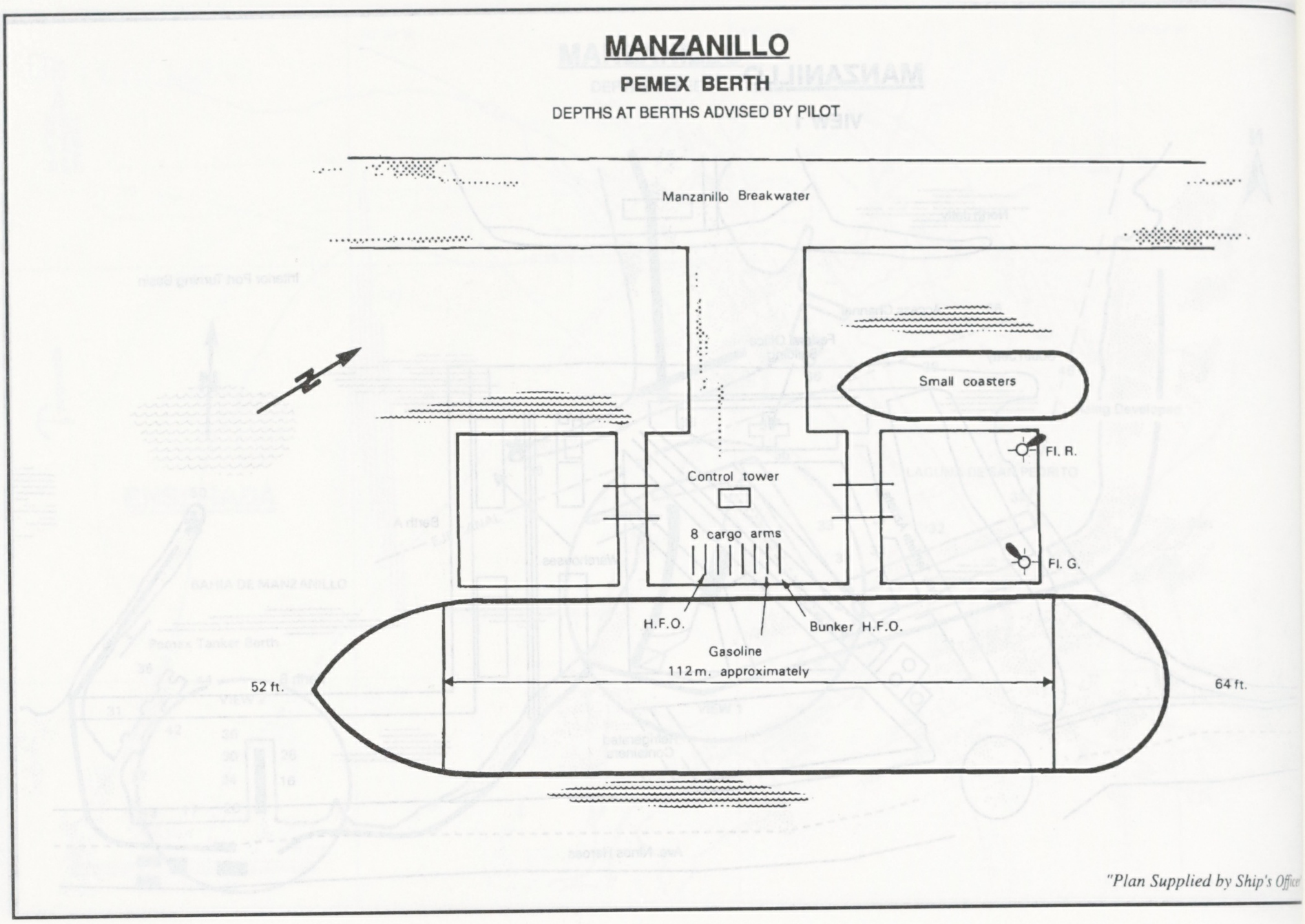


MANZANILLO INNER PORT DEVELOPMENT PLAN

BAHIA DE MANZANILLO
VIEW 1
Colonia del Pacifico
Colonia de las Brisas
Not yet dredged
Under construction
Naval Zone
Dock
Pier 600m.
LAGUNA DE SAN PEDRITO
Dredged
Inner Port
4.0 m.
60 m.
220m.
7.0 m.
120m.
200m.
7.0 m.
Fish Terminal
Under construction
General Cargo Pier 685m.
1200m.
Pier completed up to this point with rail and water connections
but no warehouses
N


MANZANILLO
VIEW 1
N
North Jetty
Interior Port Turning Basin
Access Channel
Federal Office Building
South Jetty
Ave. Teniete Azueta
Warehouses
Berth A
Berth B
Refrigerated Containers
Ave. Ninos Heroes


MANZANILLO
VIEW 2
DEPTHS IN METRES
West Side
Warehouse
East Side
DETAIL
N
12
11
10
12
Fiscal Pier
Cargo Handling Area
12
11
11
10
10
9
Warehouse No 2
BAHIA DE MANZANILLO
9
8
8
7
Coastal Pier
Service Building
Warehouse
Cargo Handling Area
Office Area
Free Zone Limit
Workshop
Warehouse No. 1 (Salt)
0
20
50
100
SCALE IN METRES



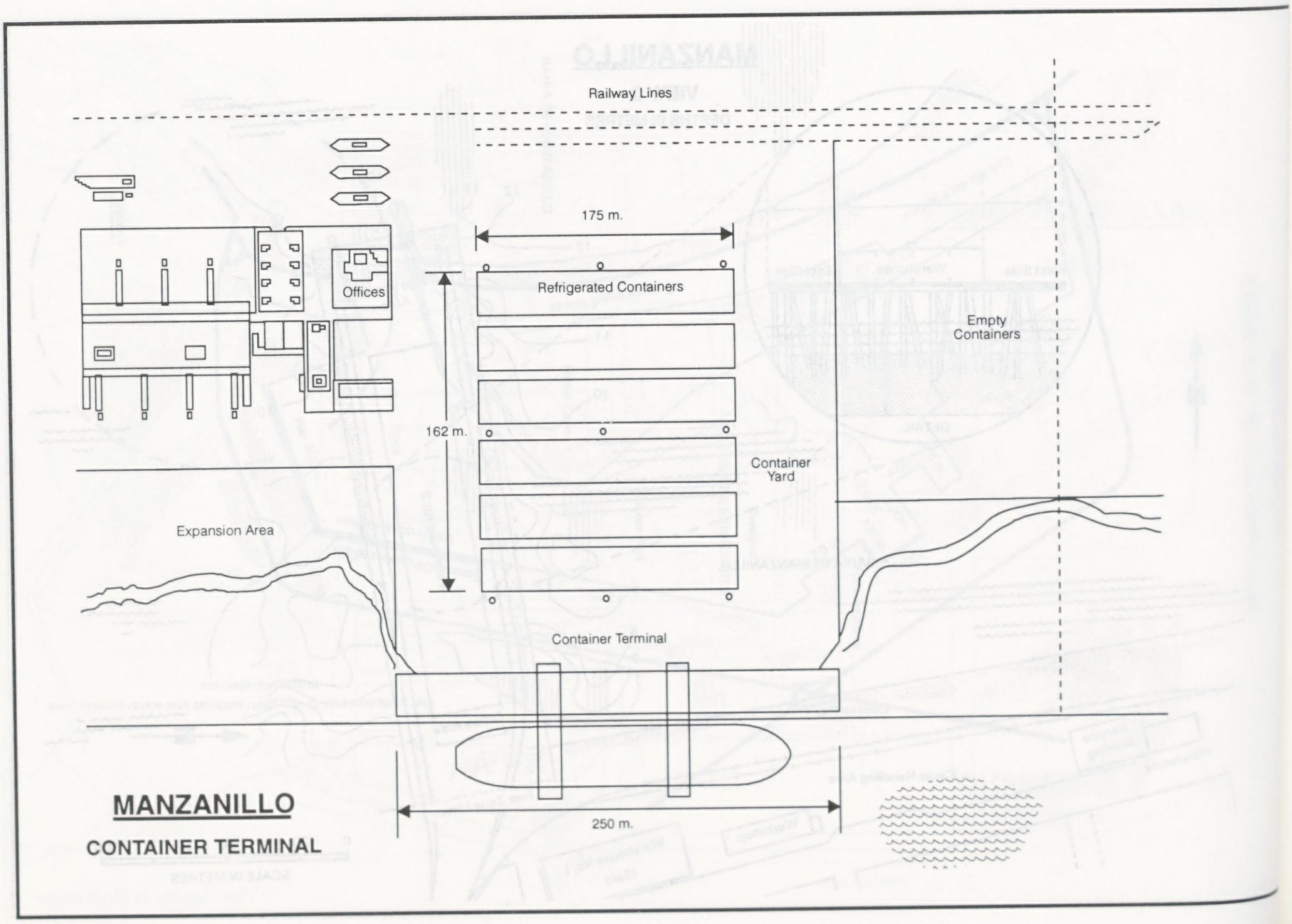
MANZANILLO

PEMEX BERTH

DEPTHS AT BERTHS ADVISED BY PILOT

Manzanillo Breakwater
Small coasters
Fl. R.
Control tower
8 cargo arms
Fl. G.
H.F.O.
Bunker H.F.O.
Gasoline
112 m. approximately
52 ft.
64 ft.

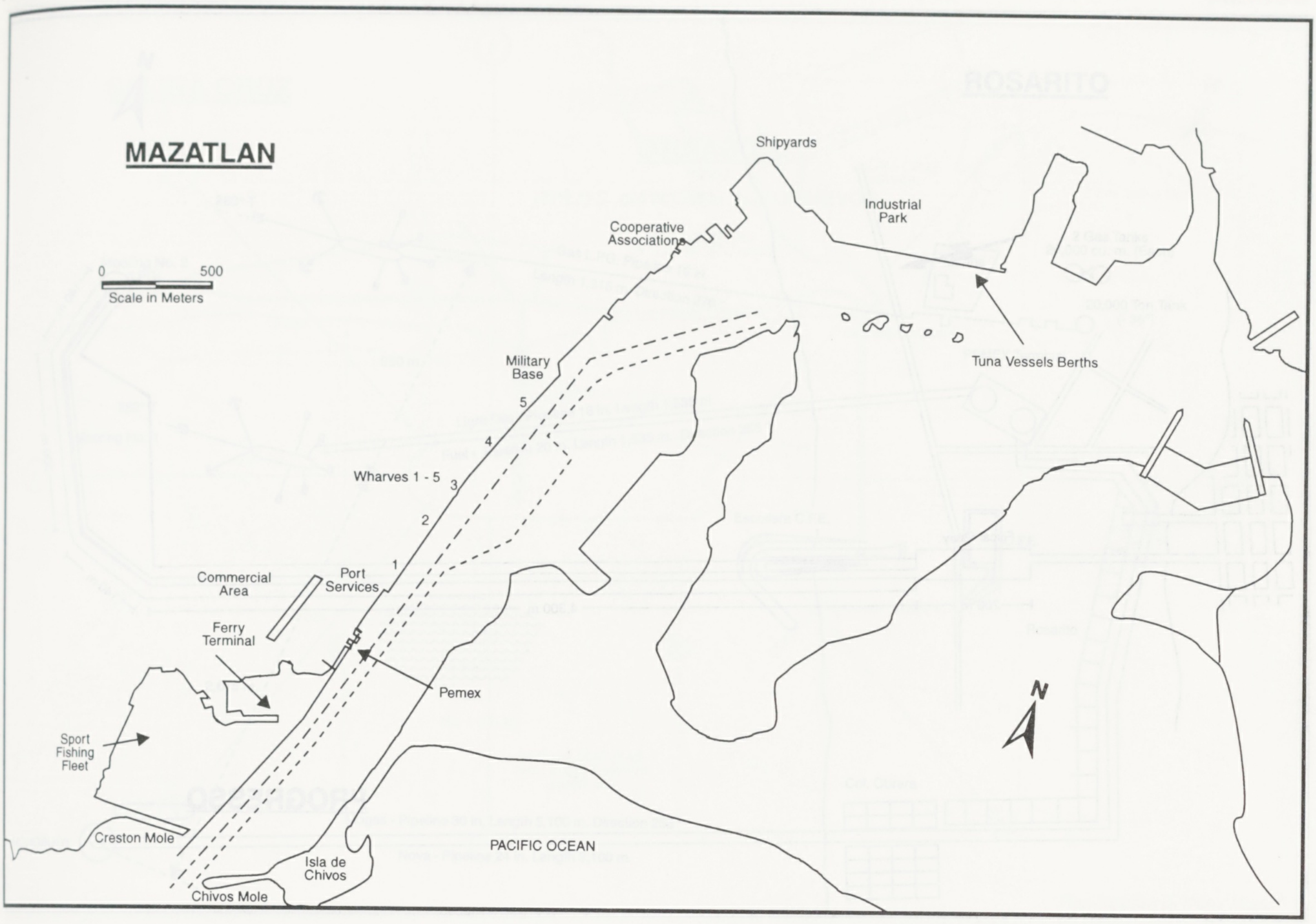
"Plan Supplied by Ship's Offic

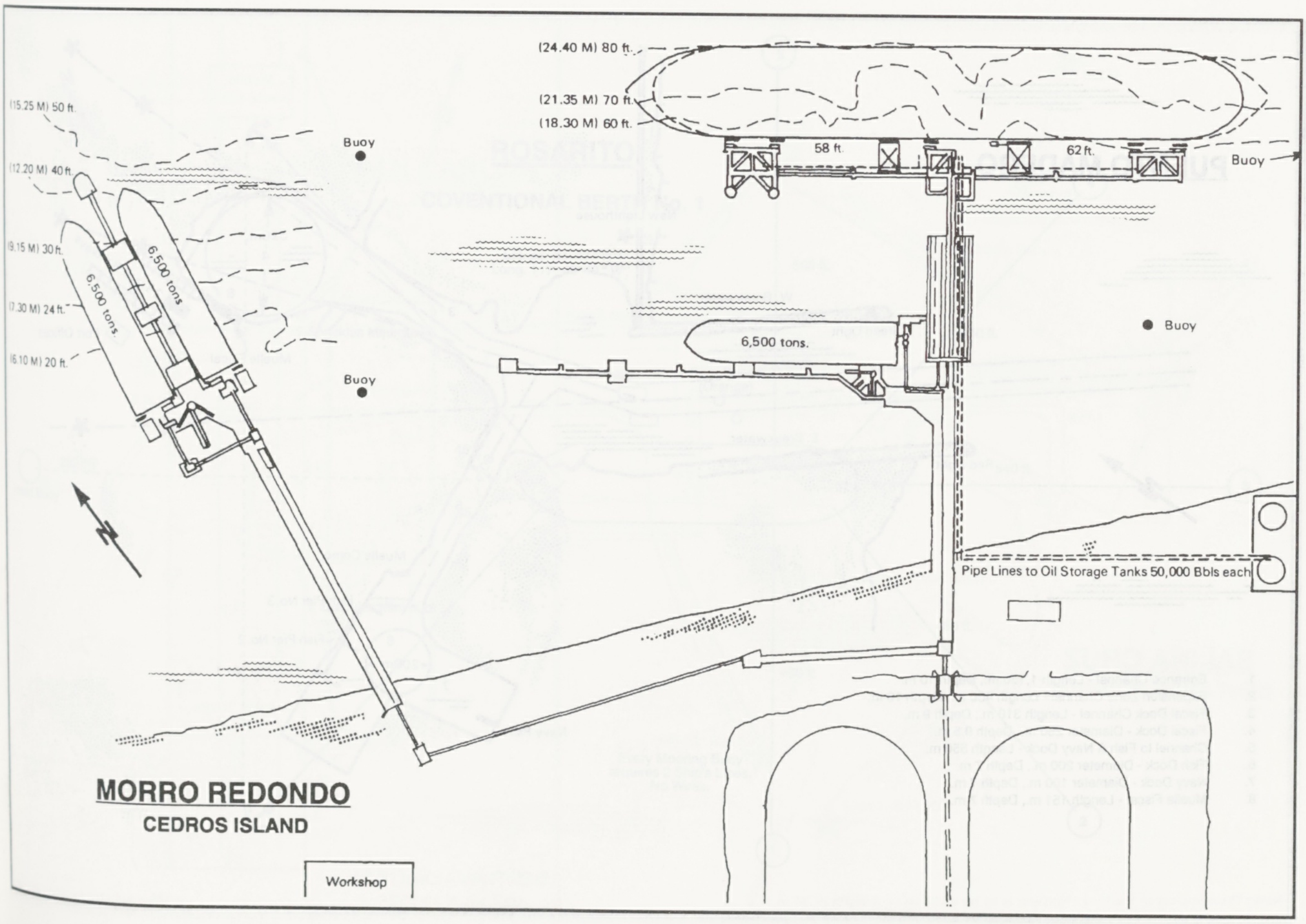


Railway Lines
175 m.
Offices
Refrigerated Containers
Empty
Containers
162 m.
Container
Yard
Expansion Area
Container Terminal
250 m.

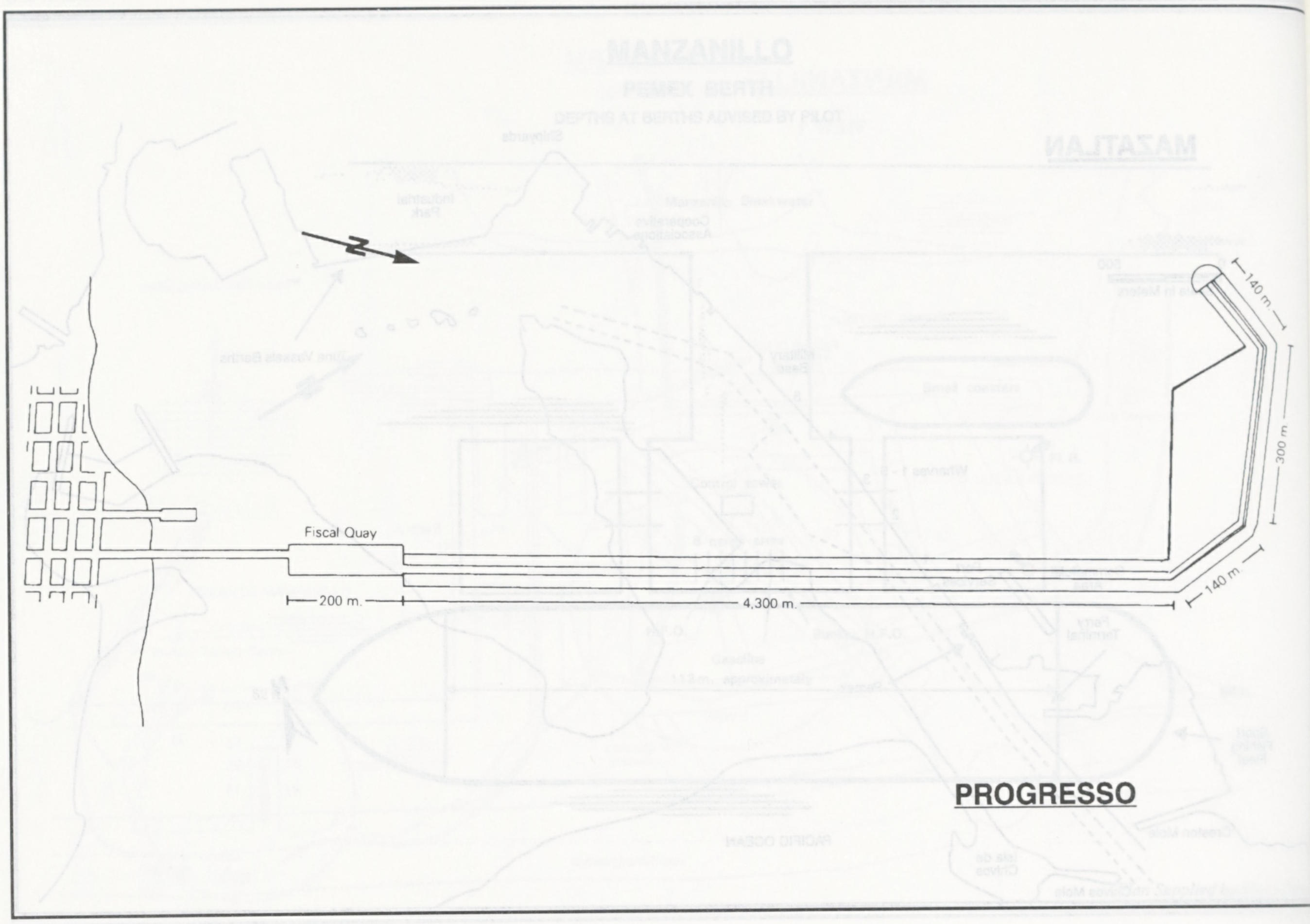
MANZANILLO

CONTAINER TERMINAL

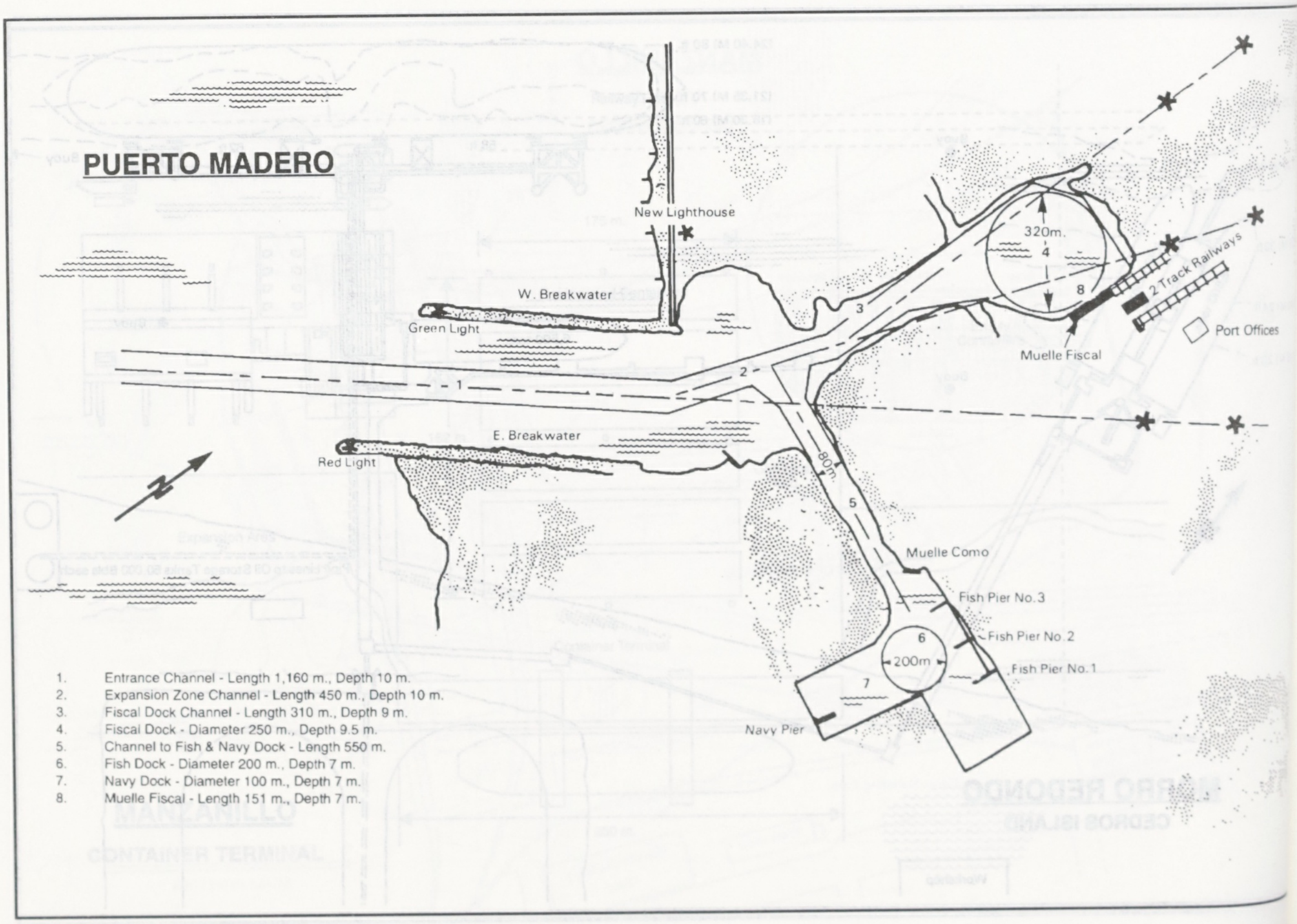

MAZATLAN
0
500
Scale in Meters
Shipyards
Industrial Park
Cooperative Associations
Military Base
5
4
Wharves 1 - 5
3
2
1
Commercial Area
Port Services
Ferry Terminal
Pemex
Sport Fishing Fleet
Tuna Vessels Berths
N
Creston Mole
PACIFIC OCEAN
Isla de Chivos
Chivos Mole


(24.40 M) 80 ft.
(21.35 M) 70 ft.
(18.30 M) 60 ft.
58 ft.
62 ft.
Buoy
(15.25 M) 50 ft.
(12.20 M) 40 ft.
Buoy
(9.15 M) 30 ft.
6,500 tons
6,500 tons
(7.30 M) 24 ft.
(6.10 M) 20 ft.
Buoy
6,500 tons.
Buoy
N
Pipe Lines to Oil Storage Tanks 50,000 Bbls each
MORRO REDONDO
CEDROS ISLAND
Workshop

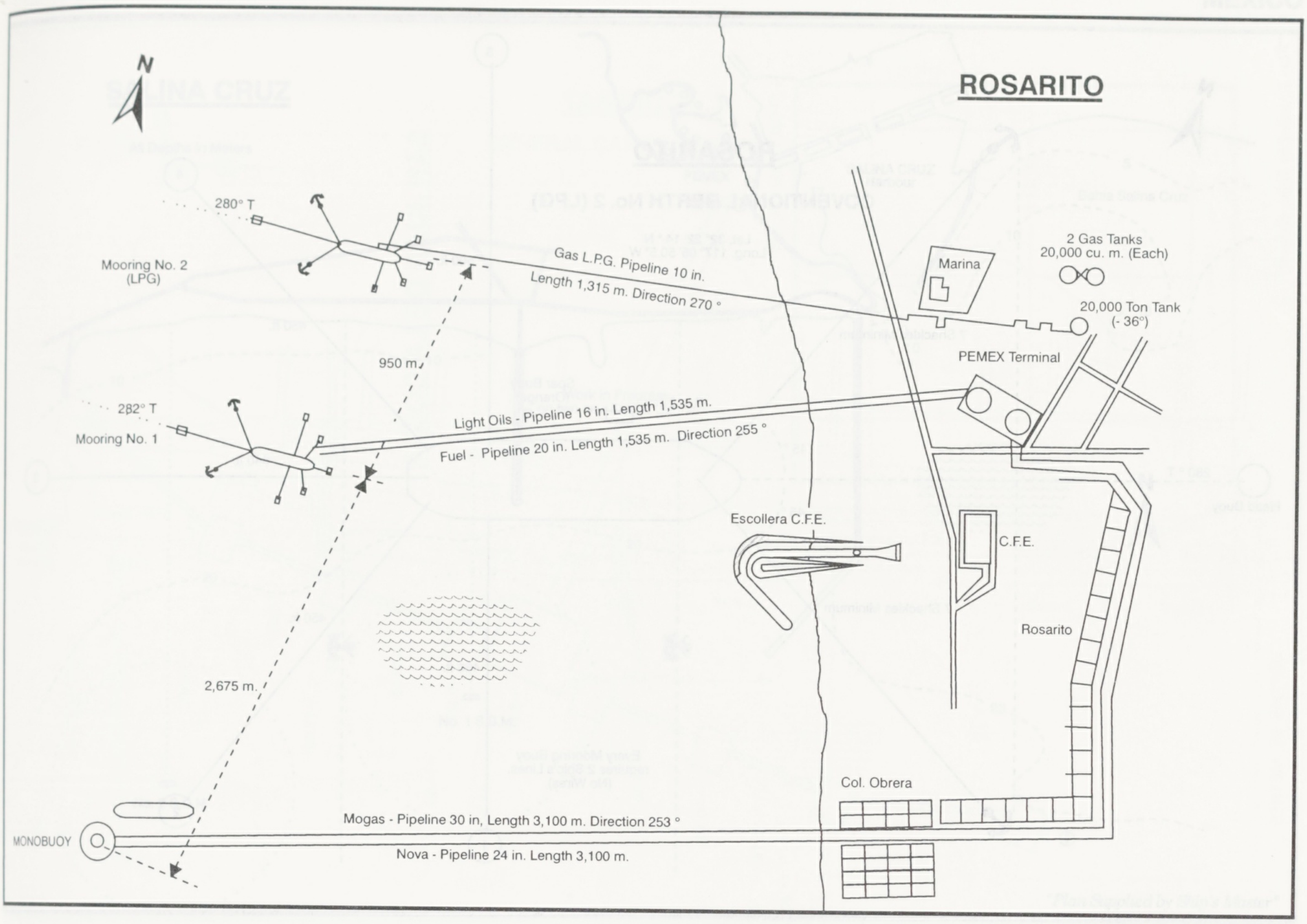
PROGRESSO

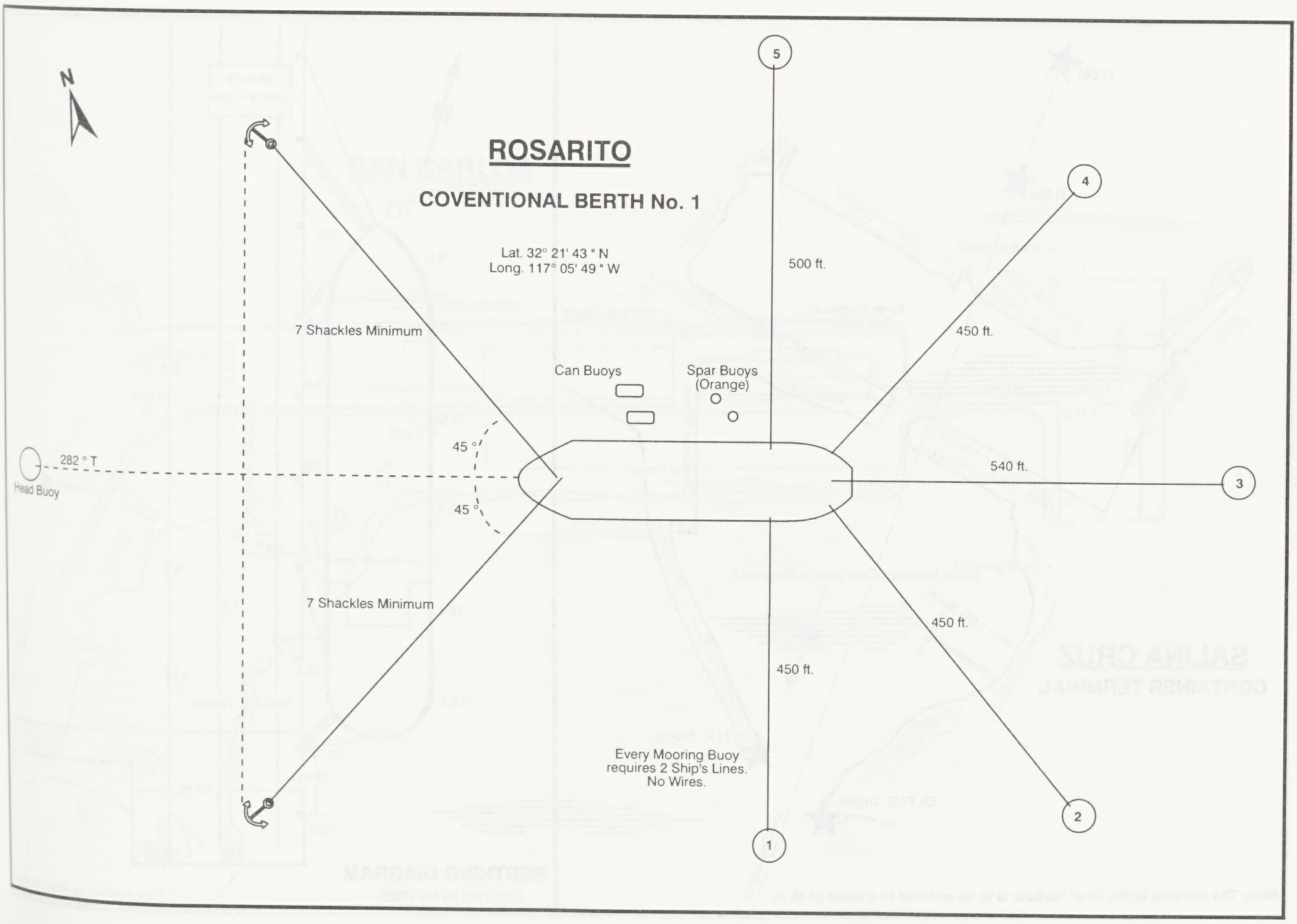

Fiscal Quay
200 m.
4,300 m.
140 m.
300 m.
140 m.

PUERTO MADERO


New Lighthouse
W. Breakwater
Green Light
E. Breakwater
Red Light
1
2
3
4
320m.
8
2 Track Railways
Port Offices
Muelle Fiscal
80m.
5
Muelle Como
Fish Pier No.3
Fish Pier No. 2
6
200m
Fish Pier No.1
7
Navy Pier

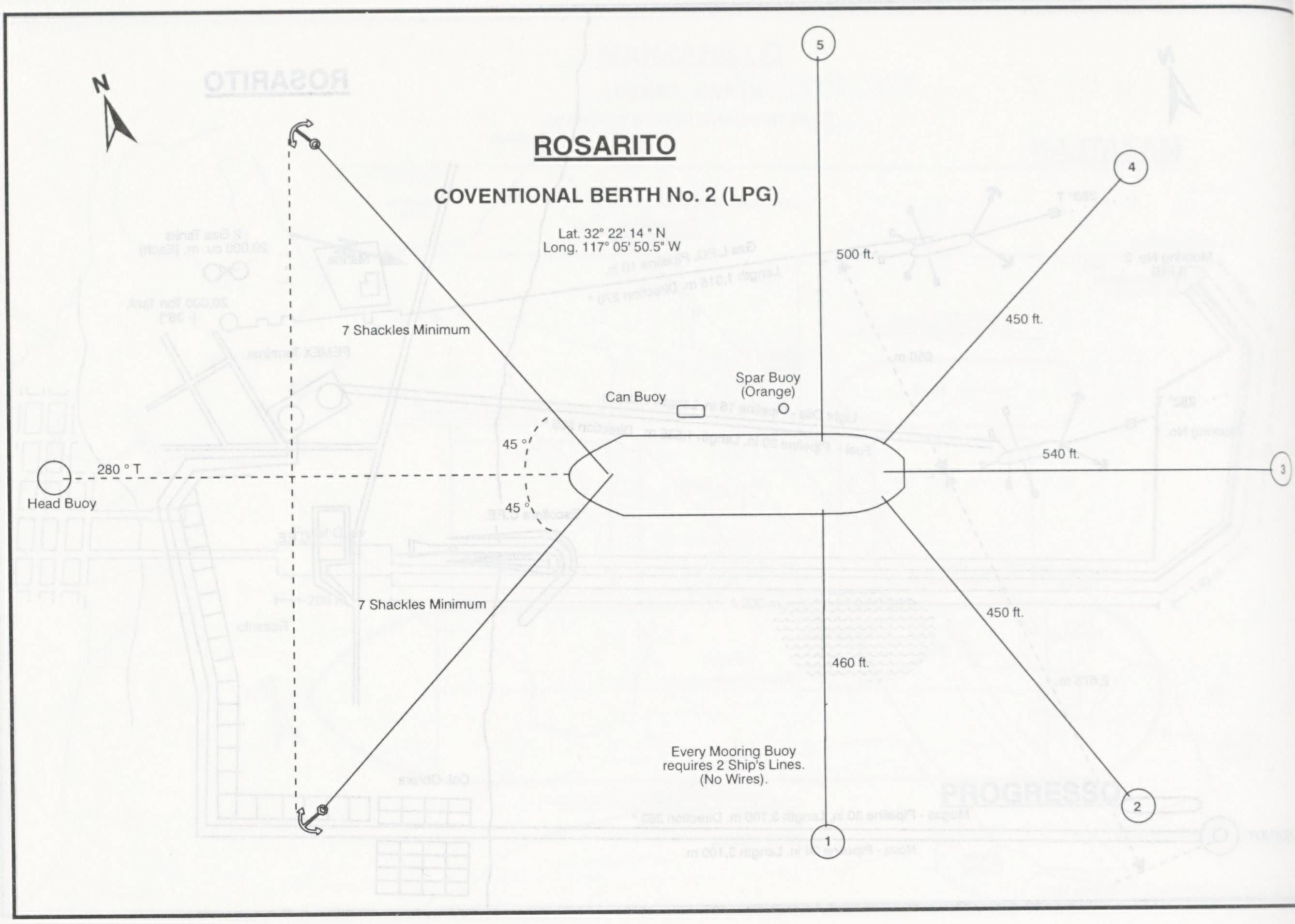
1. Entrance Channel - Length 1,160 m., Depth 10 m.
2. Expansion Zone Channel - Length 450 m., Depth 10 m.
3. Fiscal Dock Channel - Length 310 m., Depth 9 m.
4. Fiscal Dock - Diameter 250 m., Depth 9.5 m.
5. Channel to Fish & Navy Dock - Length 550 m.
6. Fish Dock - Diameter 200 m., Depth 7 m.
7. Navy Dock - Diameter 100 m., Depth 7 m.
8. Muelle Fiscal - Length 151 m., Depth 7 m.


N
ROSARITO
280° T
Mooring No. 2
(LPG)
Gas L.P.G. Pipeline 10 in.
Length 1,315 m. Direction 270 °
2 Gas Tanks
20,000 cu. m. (Each)
Marina
20,000 Ton Tank
(- 36°)
PEMEX Terminal
950 m.
282° T
Mooring No. 1
Light Oils - Pipeline 16 in. Length 1,535 m.
Fuel - Pipeline 20 in. Length 1,535 m. Direction 255 °
Escollera C.F.E.
C.F.E.
Rosarito
2,675 m.
Col. Obrera
MONOBUOY
Mogas - Pipeline 30 in, Length 3,100 m. Direction 253 °
Nova - Pipeline 24 in. Length 3,100 m.


N
ROSARITO
COVENTIONAL BERTH No. 1
Lat. 32° 21' 43 " N
Long. 117° 05' 49 " W
5
500 ft.
4
450 ft.
7 Shackles Minimum
Can Buoys
Spar Buoys
(Orange)
282 ° T
Head Buoy
45 °
45 °
540 ft.
3
7 Shackles Minimum
450 ft.
450 ft.
Every Mooring Buoy
requires 2 Ship's Lines.
No Wires.
2
1

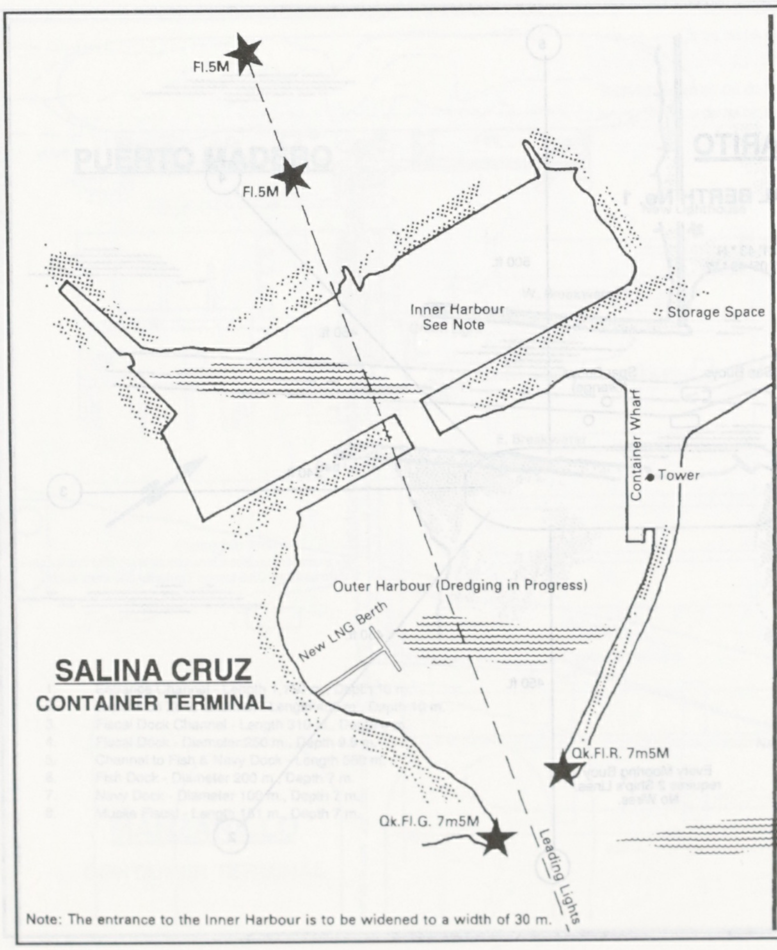
ROSARITO

COVENTIONAL BERTH No. 2 (LPG)


N
Lat. 32° 22' 14 " N
Long. 117° 05' 50.5" W
5
4
3
2
1
500 ft.
450 ft.
540 ft.
450 ft.
460 ft.
7 Shackles Minimum
7 Shackles Minimum
Spar Buoy
(Orange)
Can Buoy
45 °
45 °
280 ° T
Head Buoy
Every Mooring Buoy
requires 2 Ship's Lines.
(No Wires).

SALINA CRUZ

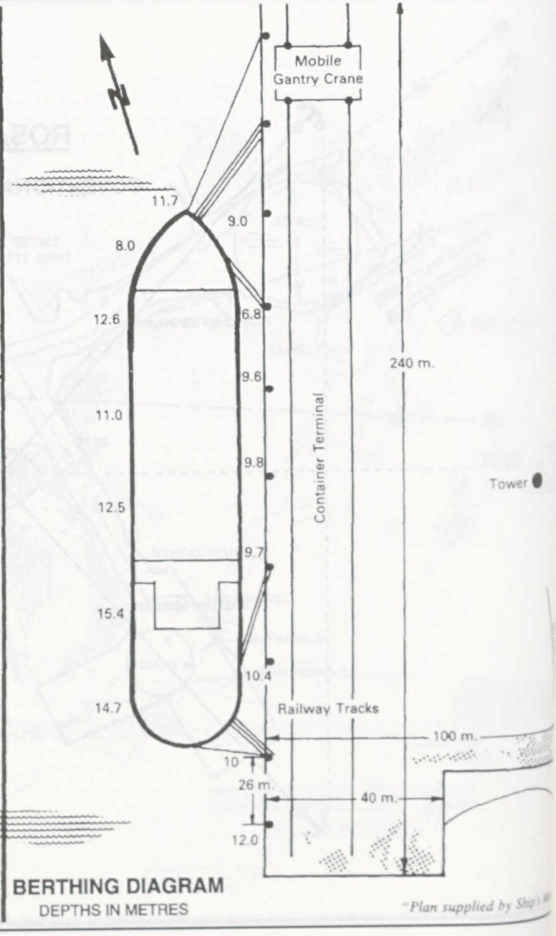
CONTAINER TERMINAL


Fl.5M
Fl.5M
Inner Harbour
See Note
Storage Space
Container Wharf
Tower
Outer Harbour (Dredging in Progress)
New LNG Berth
Qk.Fl.R. 7m5M
Qk.Fl.G. 7m5M
Leading Lights

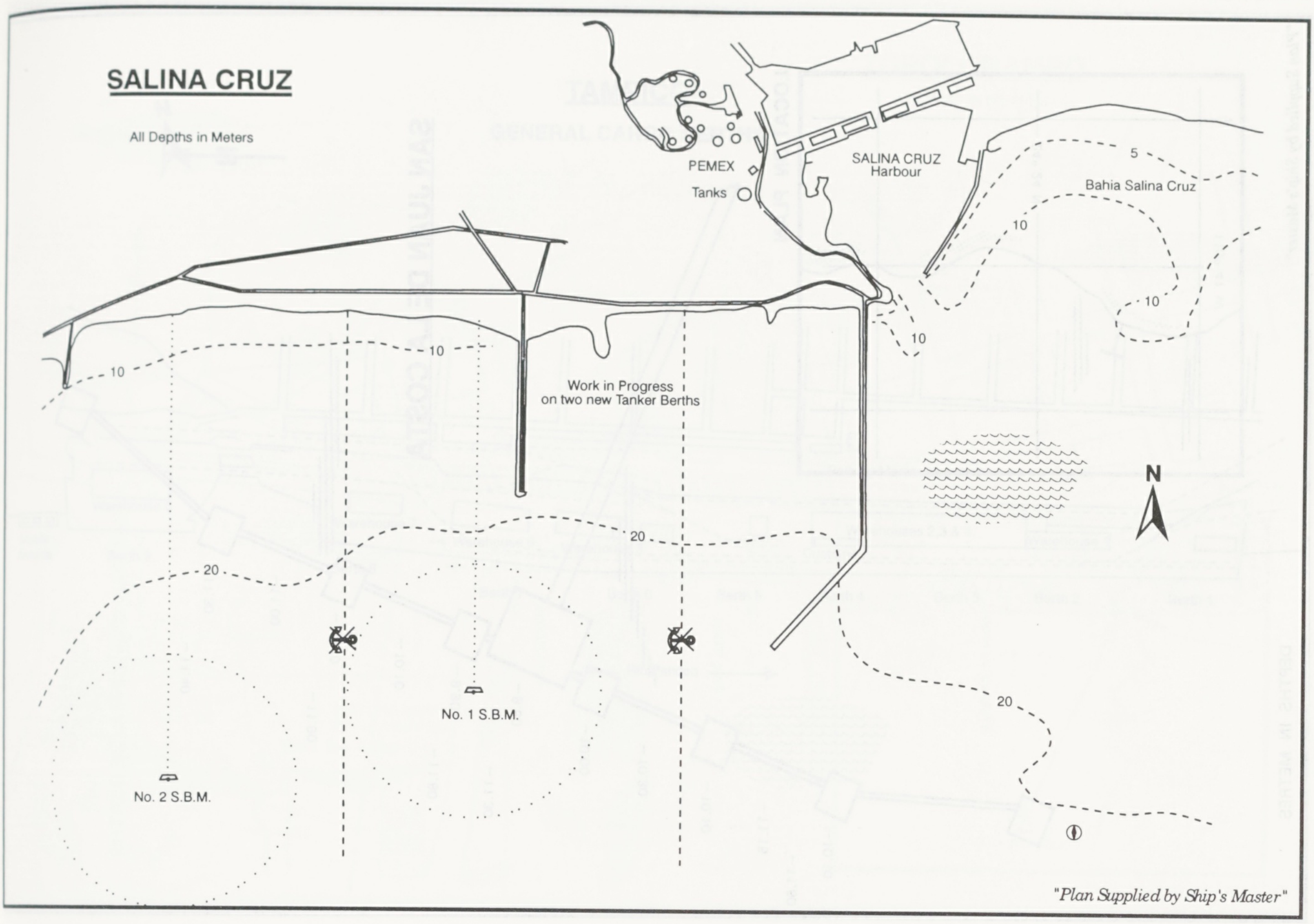
Note: The entrance to the Inner Harbour is to be widened to a width of 30 m.

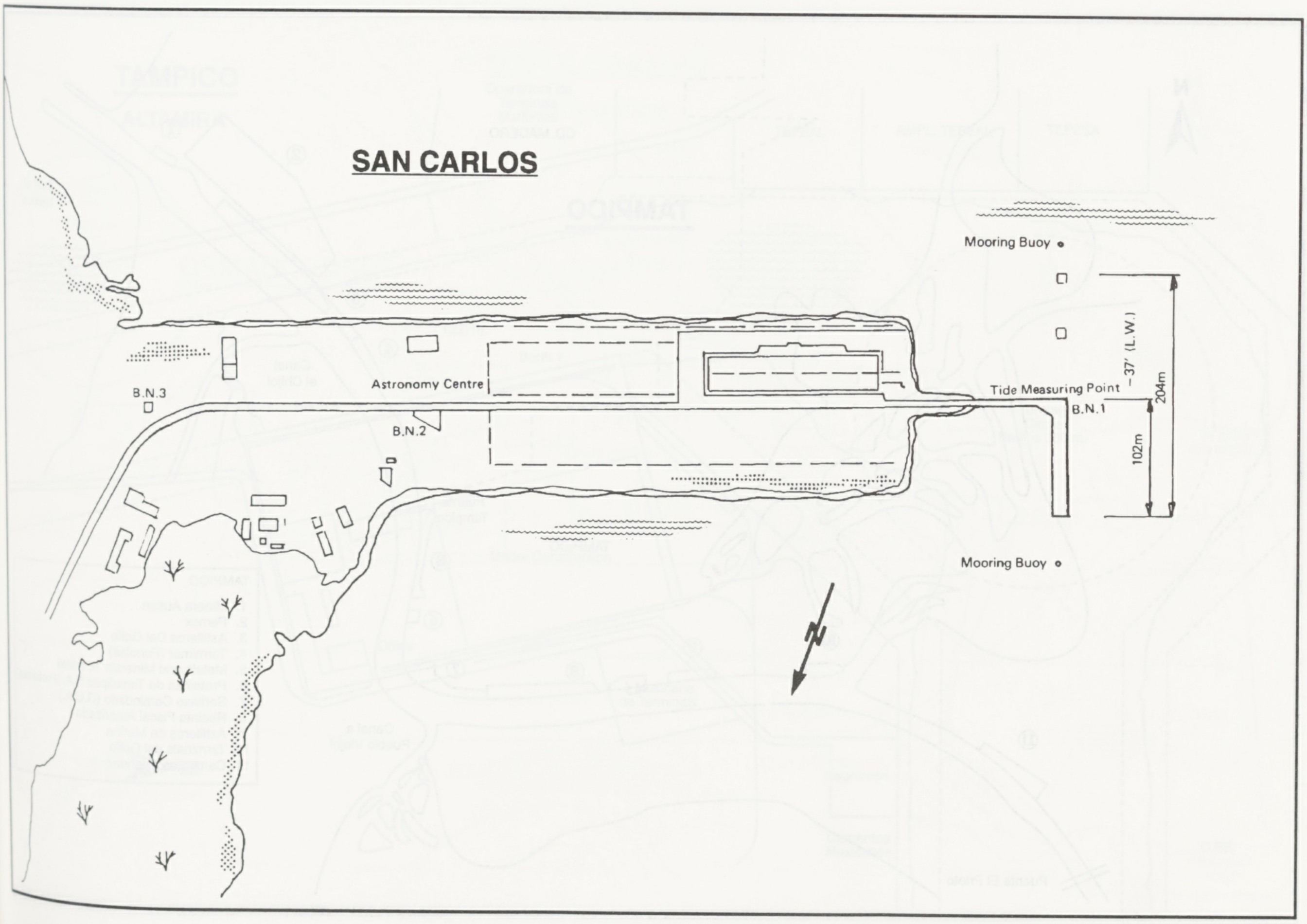
BERTHING DIAGRAM

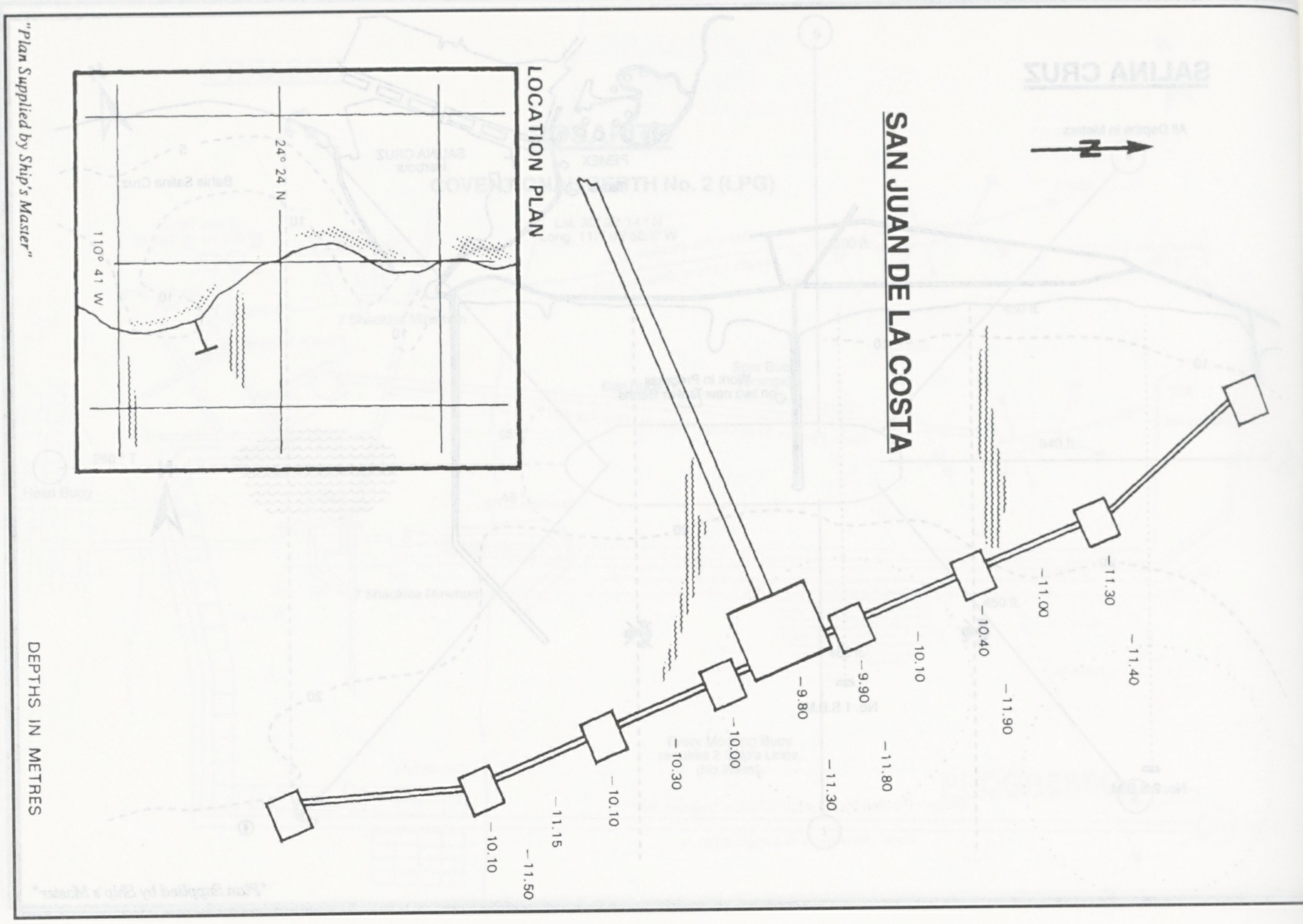
DEPTHS IN METRES

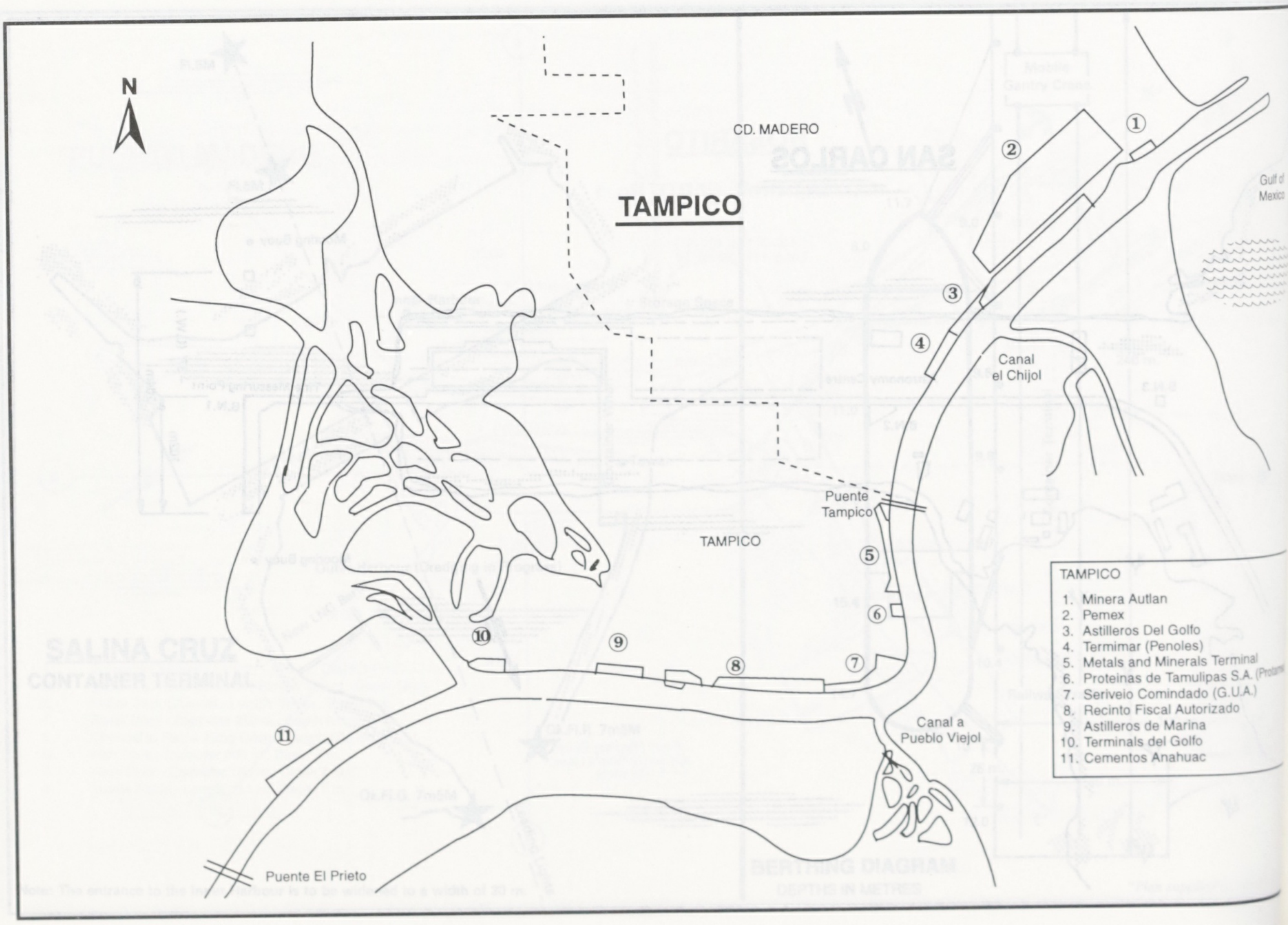

N
Mobile
Gantry Crane
11.7
9.0
8.0
12.6
6.8
9.6
11.0
9.8
12.5
9.7
15.4
10.4
14.7
10
26 m.
12.0
Container Terminal
Railway Tracks
240 m.
100 m.
40 m.
Tower

"Plan supplied by Ship's


SALINA CRUZ
All Depths in Meters
PEMEX
Tanks
SALINA CRUZ
Harbour
Bahia Salina Cruz
5
10
10
10
10
10
10
Work in Progress
on two new Tanker Berths
20
20
20
No. 1 S.B.M.
No. 2 S.B.M.
N
"Plan Supplied by Ship's Master"


SAN CARLOS
Mooring Buoy
Astronomy Centre
B.N.3
B.N.2
Tide Measuring Point
B.N.1
–37' (L.W.)
204m
102m
Mooring Buoy


SAN JUAN DE LA COSTA
LOCATION PLAN
24° 24 N
110° 41 W
"Plan Supplied by Ship's Master"
DEPTHS IN METRES
–11.50
–10.10
–11.15
–10.10
–10.30
–10.00
–9.80
–11.30
–9.90
–11.80
–10.10
–10.40
–11.90
–11.00
–11.30
–11.40

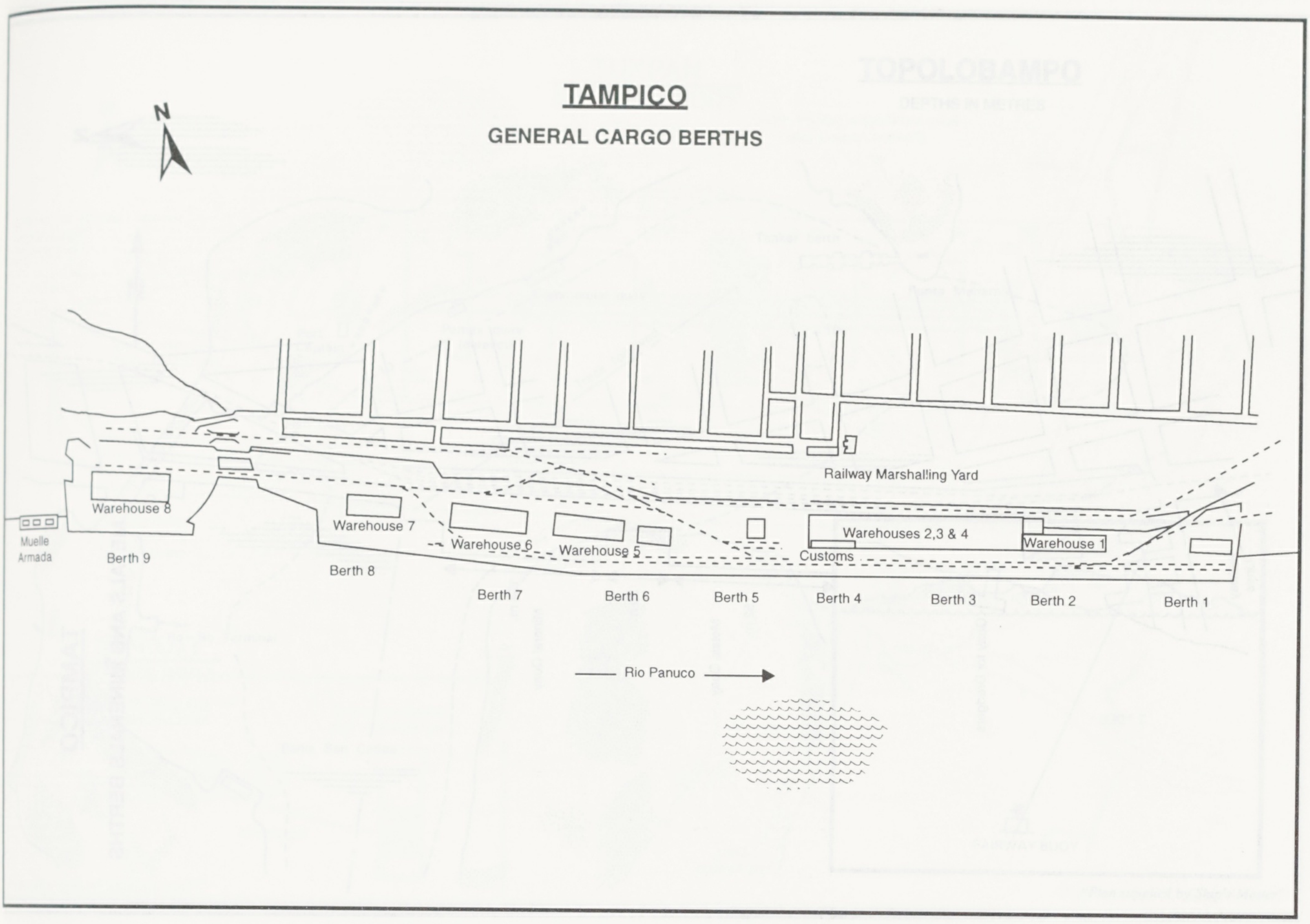

N
TAMPICO
CD. MADERO
TAMPICO
Puente Tampico
Canal el Chijol
Canal a Pueblo Viejol
Puente El Prieto
Gulf of Mexico
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪

TAMPICO

1. Minera Autlan
2. Pemex
3. Astilleros Del Golfo
4. Termimar (Penoles)
5. Metals and Minerals Terminal
6. Proteinas de Tamulipas S.A. (Protam
7. Seriveio Comindado (G.U.A.)
8. Recinto Fiscal Autorizado
9. Astilleros de Marina
10. Terminals del Golfo
11. Cementos Anahuac

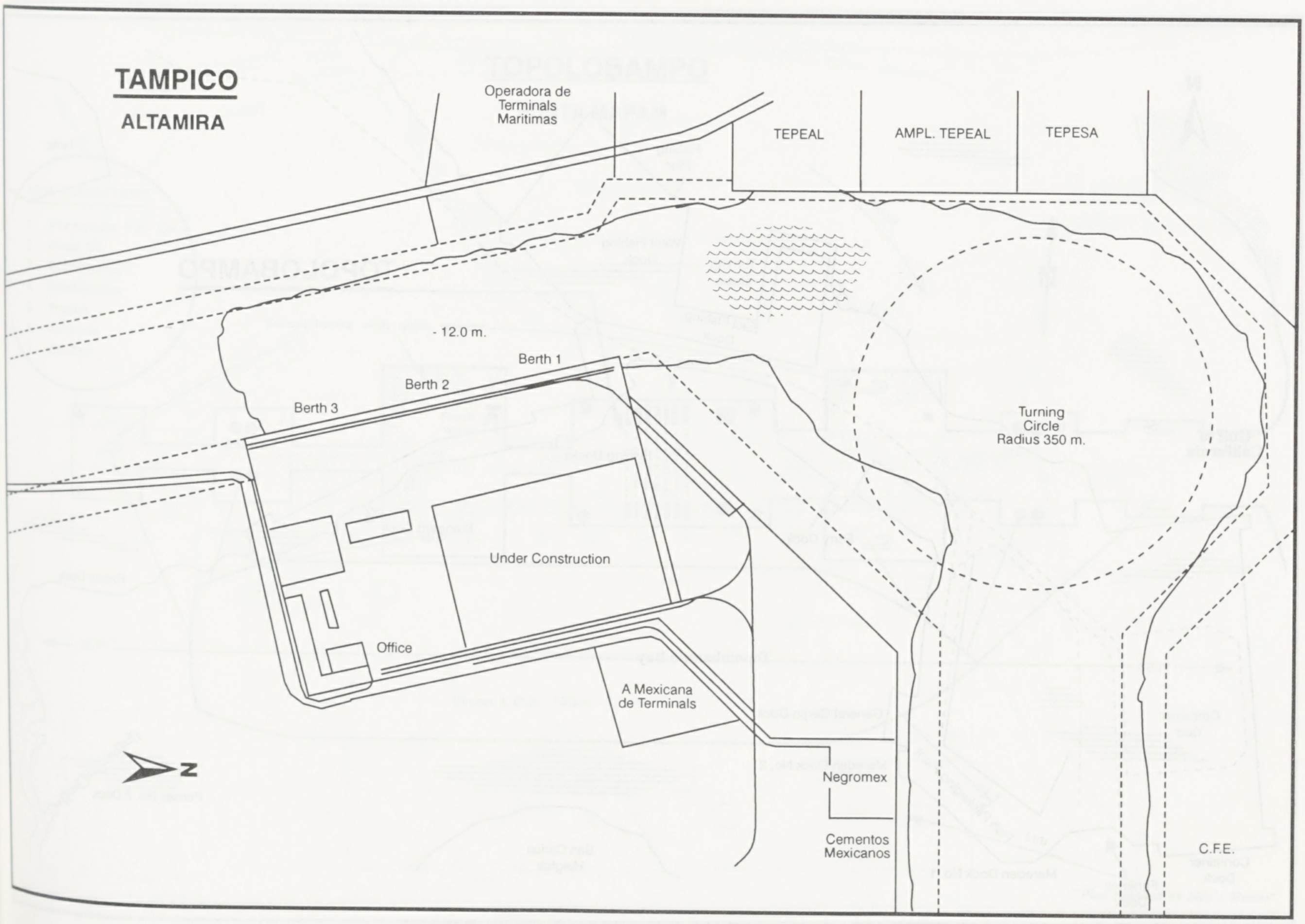
TAMPICO

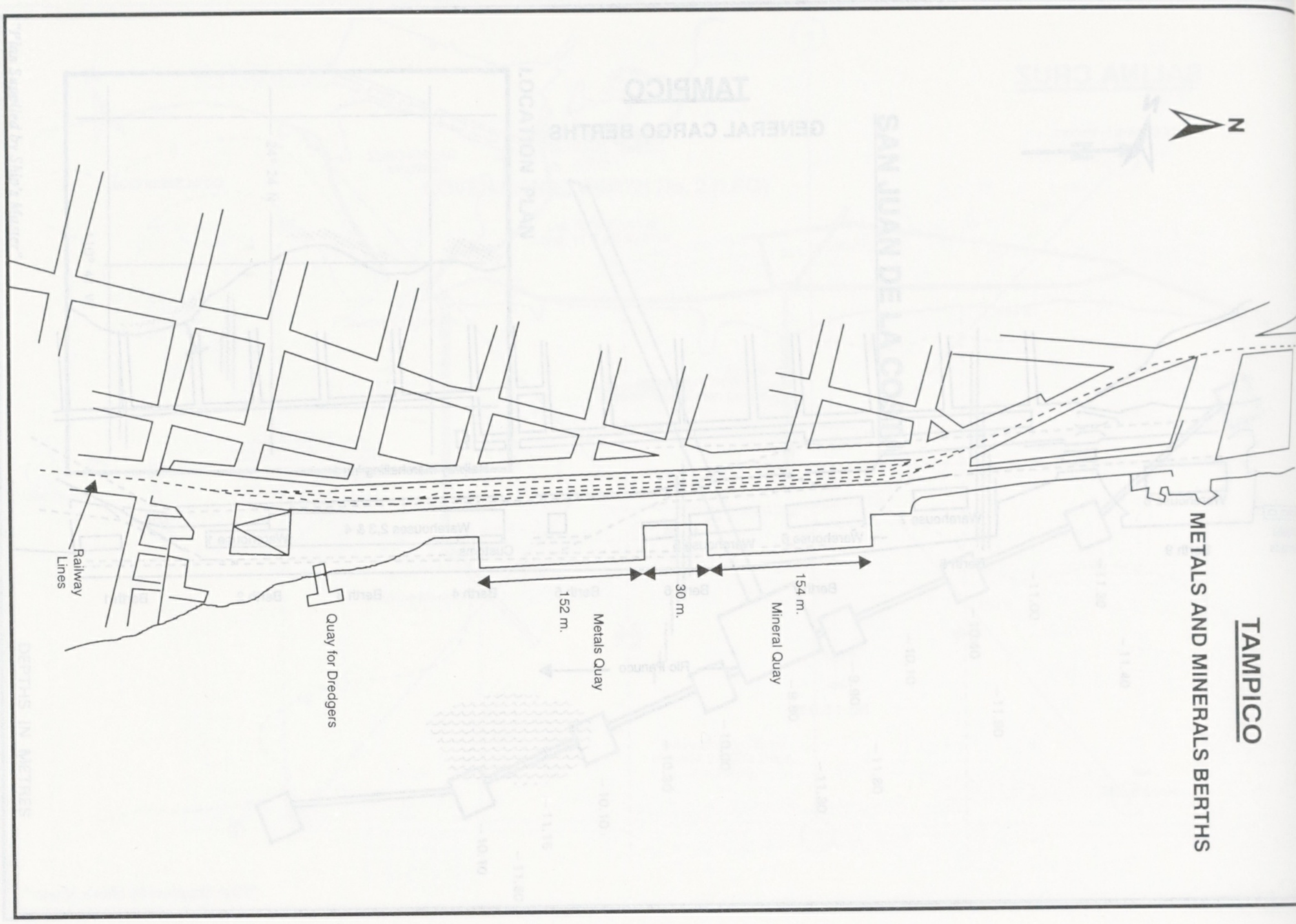
GENERAL CARGO BERTHS

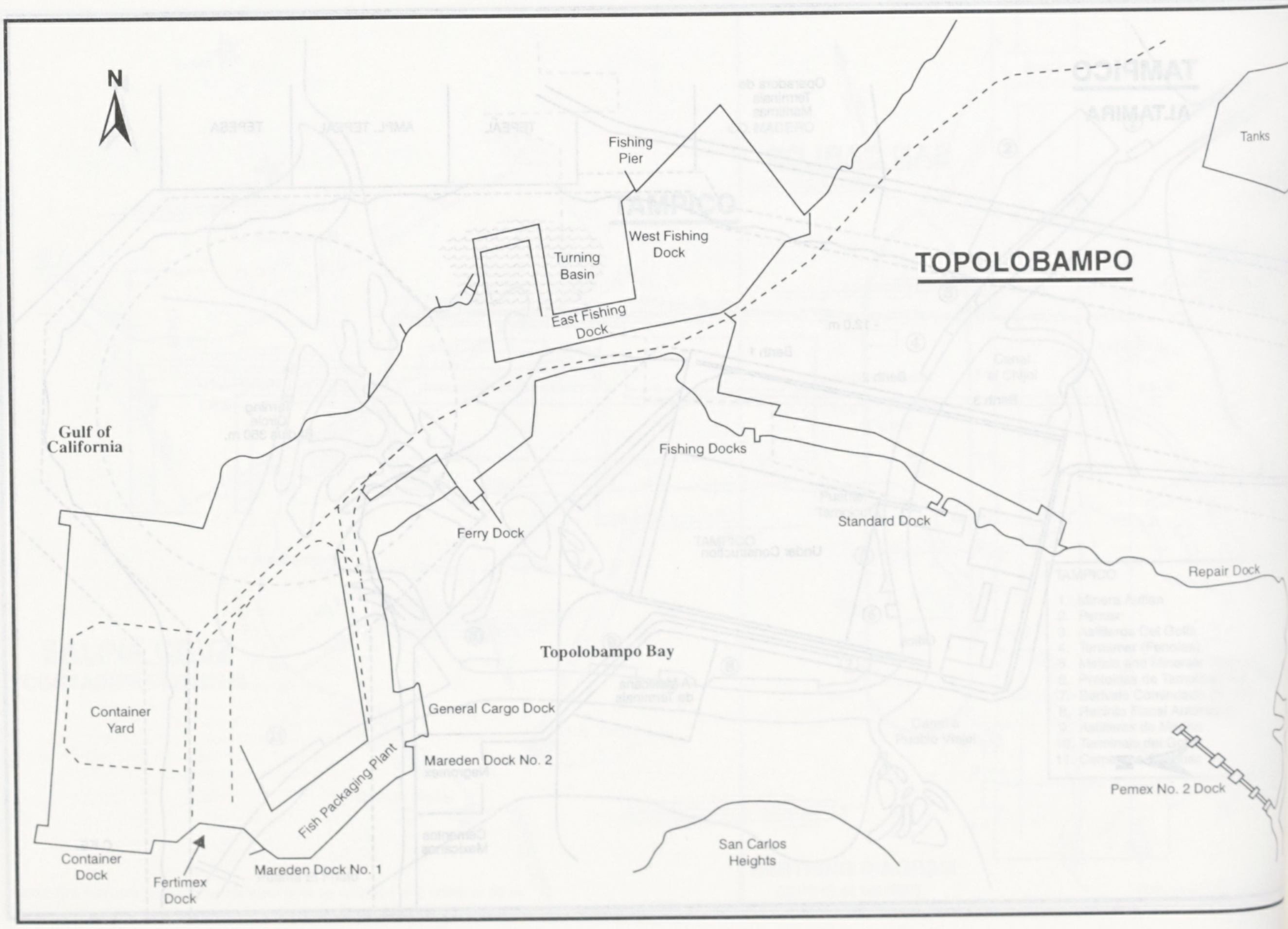

N
Railway Marshalling Yard
Warehouse 8
Muelle Armada
Berth 9
Warehouse 7
Berth 8
Warehouse 6
Warehouse 5
Warehouses 2,3 & 4
Customs
Warehouse 1
Berth 7
Berth 6
Berth 5
Berth 4
Berth 3
Berth 2
Berth 1
Rio Panuco

TAMPICO

ALTAMIRA

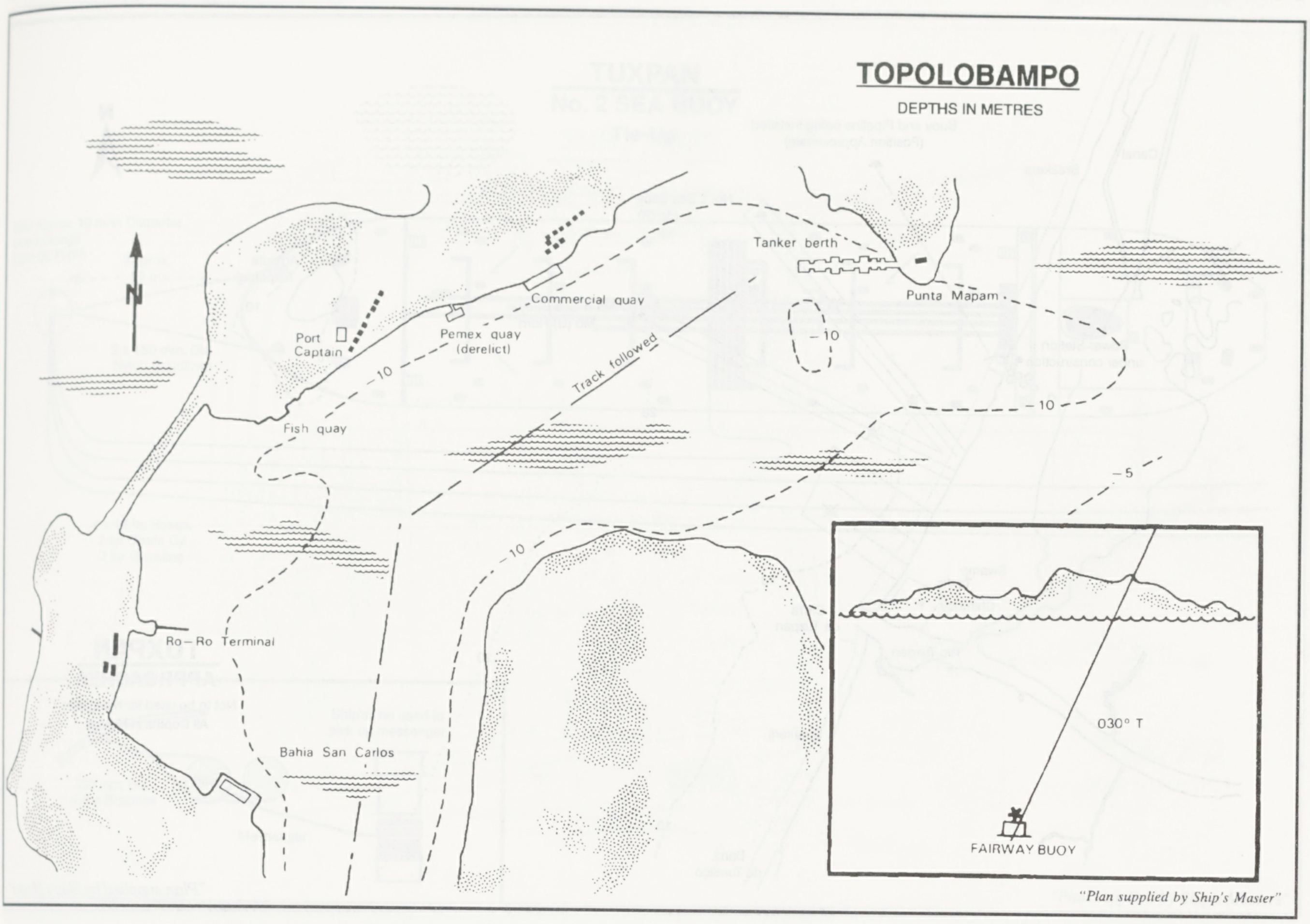

Operadora de Terminals Maritimas
TEPEAL
AMPL. TEPEAL
TEPESA
- 12.0 m.
Berth 1
Berth 2
Berth 3
Turning Circle Radius 350 m.
Under Construction
Office
A Mexicana de Terminals
Negromex
Cementos Mexicanos
C.F.E.
N


TAMPICO
METALS AND MINERALS BERTHS
N
Railway Lines
Quay for Dredgers
152 m.
Metals Quay
30 m.
Mineral Quay
154 m.


TOPOLOBAMPO
N
Tanks
Fishing Pier
West Fishing Dock
Turning Basin
East Fishing Dock
Gulf of California
Fishing Docks
Standard Dock
Ferry Dock
Repair Dock
Topolobampo Bay
Container Yard
General Cargo Dock
Fish Packaging Plant
Mareden Dock No. 2
Pemex No. 2 Dock
Container Dock
Fertimex Dock
Mareden Dock No. 1
San Carlos Heights

TOPOLOBAMPO

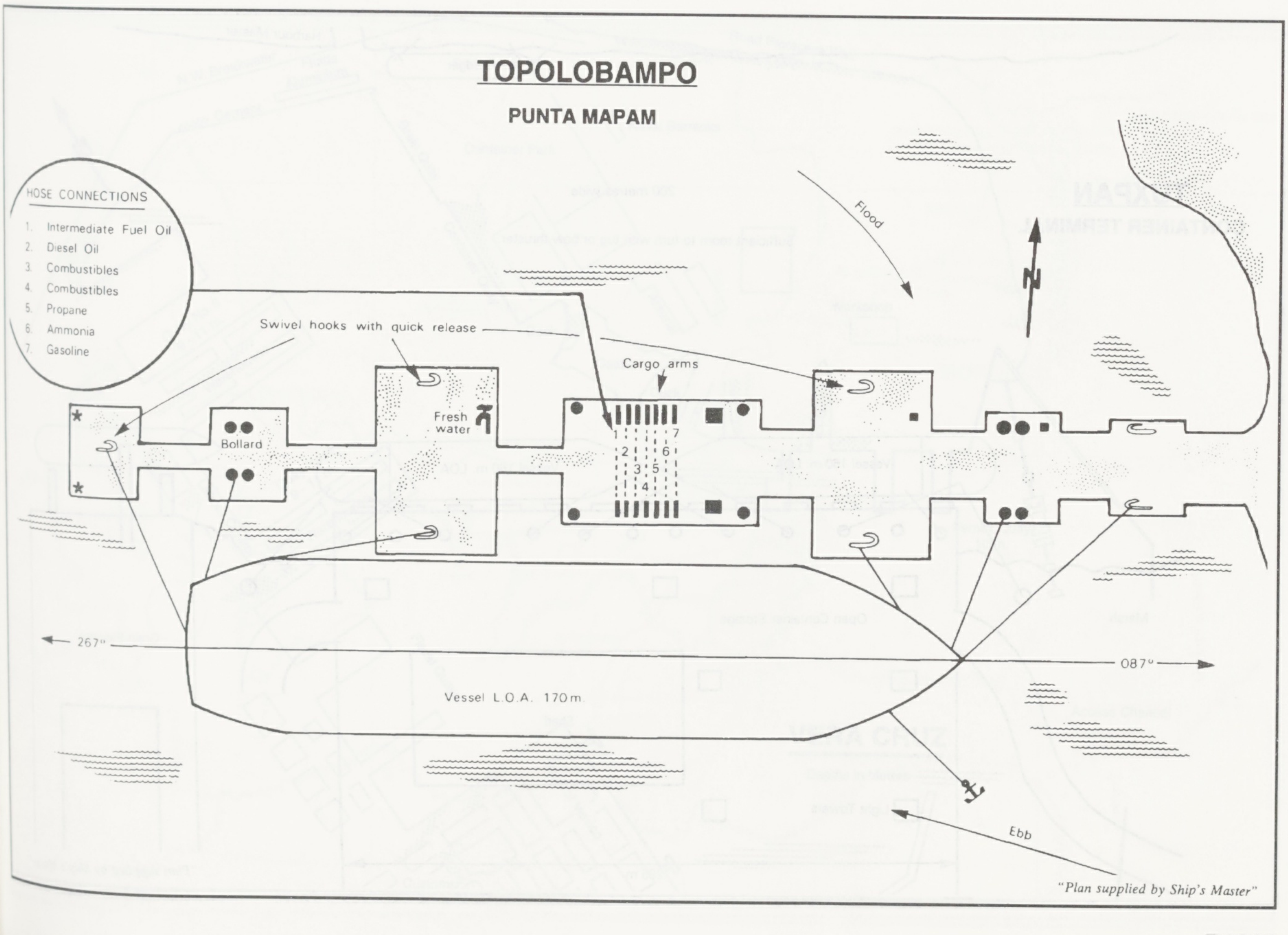
DEPTHS IN METRES


N
Tanker berth
Punta Mapam
Commercial quay
Pemex quay
(derelict)
Port
Captain
-10
Track followed
Fish quay
-10
-5
-10
-10
Ro-Ro Terminal
Bahia San Carlos
030° T
FAIRWAY BUOY

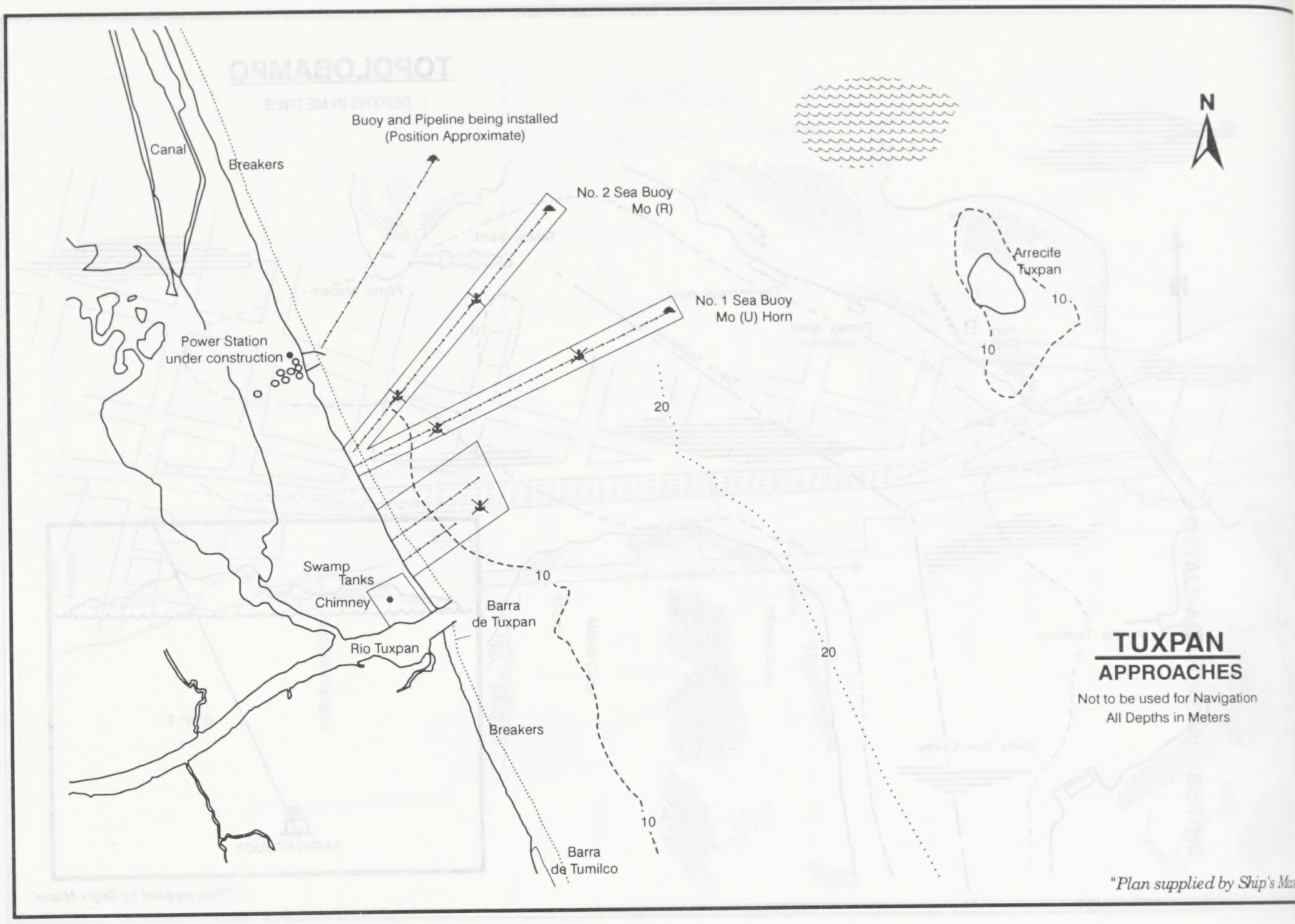
"Plan supplied by Ship's Master"

TOPOLOBAMPO

PUNTA MAPAM


HOSE CONNECTIONS
1. Intermediate Fuel Oil
2. Diesel Oil
3. Combustibles
4. Combustibles
5. Propane
6. Ammonia
7. Gasoline
Swivel hooks with quick release
Cargo arms
Fresh water
Bollard
Flood
N
1
2
3
4
5
6
7
267°
087°
Vessel L.O.A. 170m
Ebb

"Plan supplied by Ship's Master"

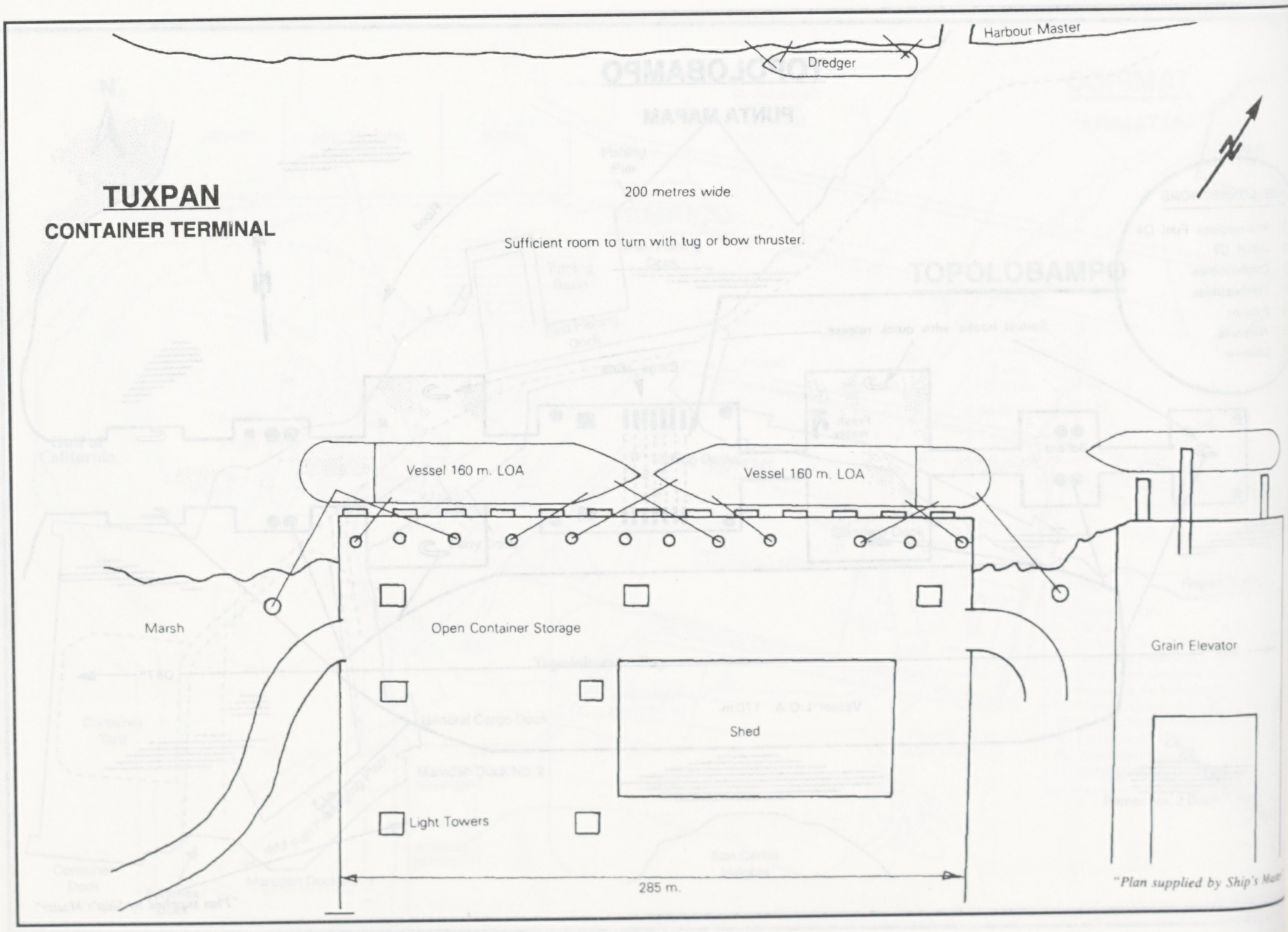

N
Buoy and Pipeline being installed
(Position Approximate)
Canal
Breakers
No. 2 Sea Buoy
Mo (R)
No. 1 Sea Buoy
Mo (U) Horn
Arrecife
Tuxpan
10
10
Power Station
under construction
20
Swamp
Tanks
Chimney
10
Barra
de Tuxpan
Rio Tuxpan
20
Breakers
10
Barra
de Tumilco

TUXPAN

APPROACHES

Not to be used for Navigation
All Depths in Meters

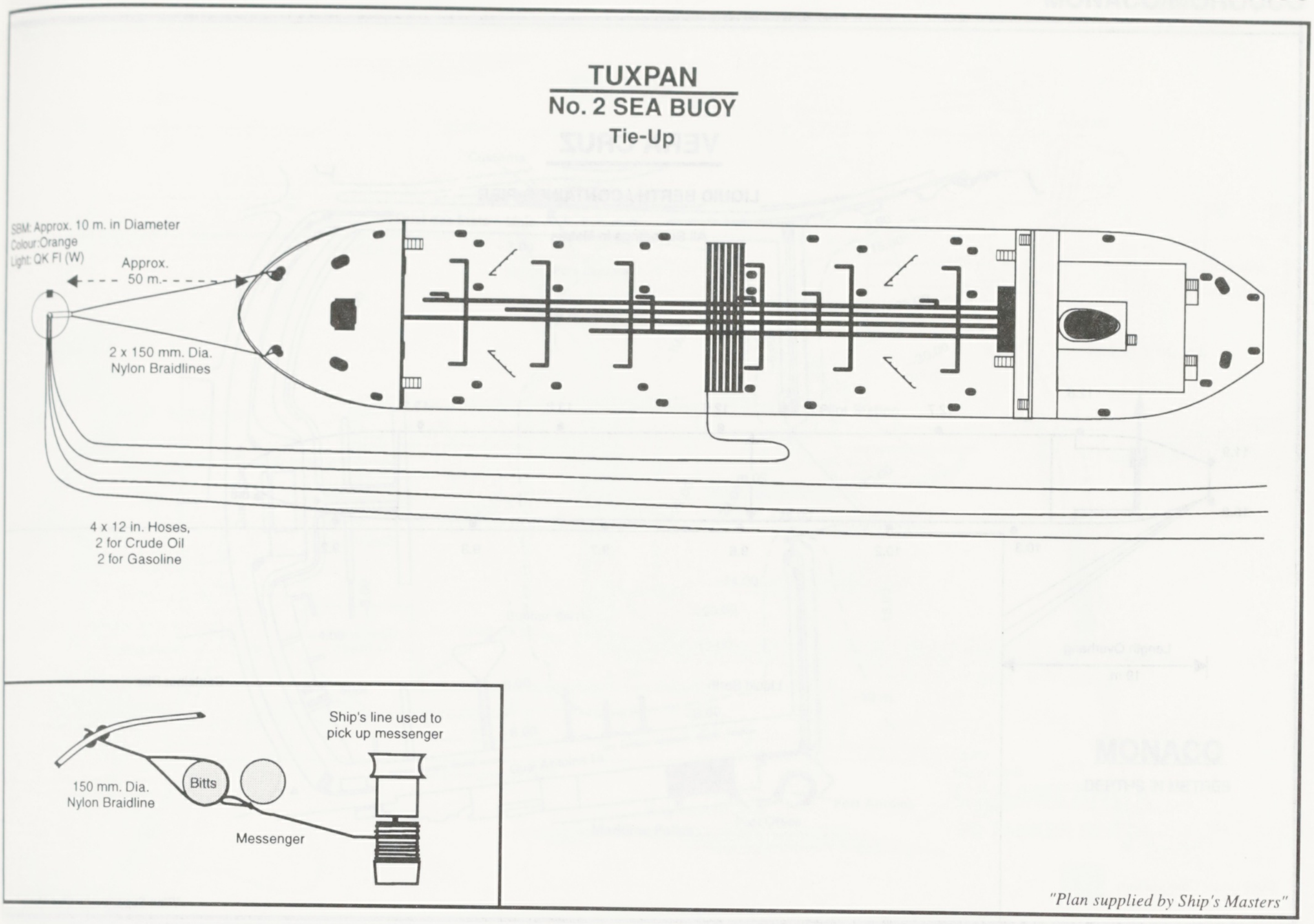
"Plan supplied by Ship's Mas


Harbour Master
Dredger
200 metres wide.
Sufficient room to turn with tug or bow thruster.
Vessel 160 m. LOA
Vessel 160 m. LOA
Marsh
Open Container Storage
Grain Elevator
Shed
Light Towers
285 m.

TUXPAN

CONTAINER TERMINAL

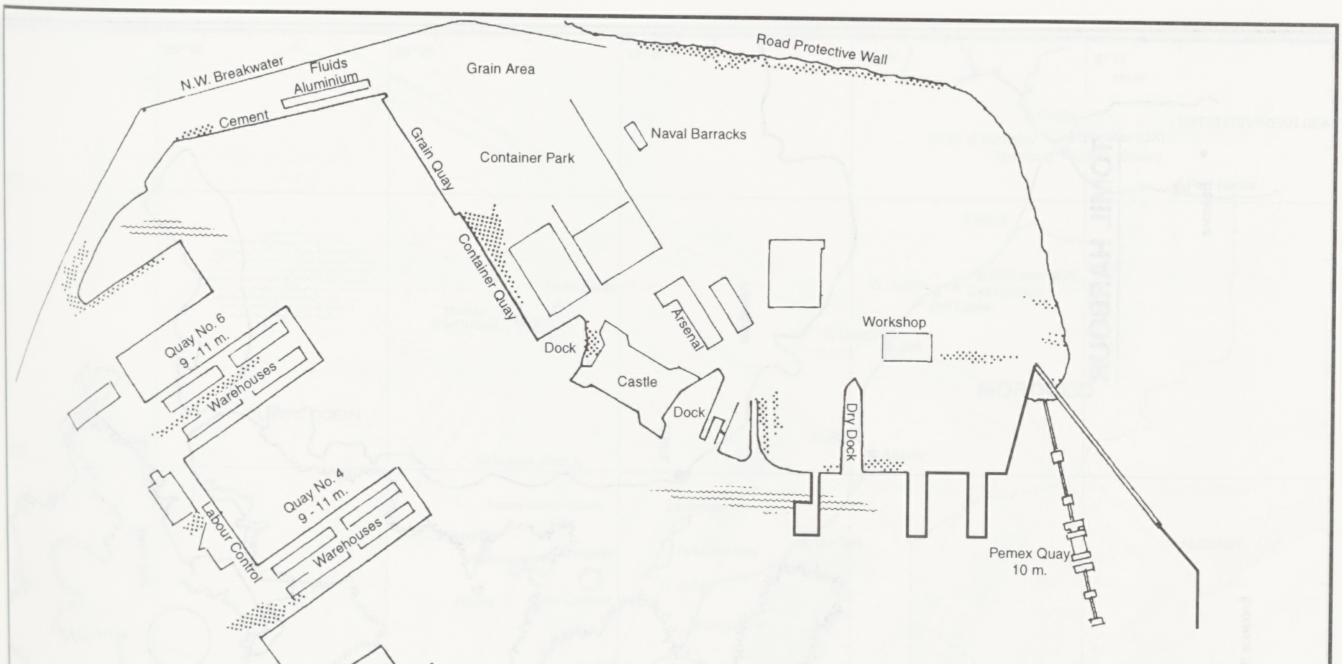
"Plan supplied by Ship's Mas



TUXPAN
No. 2 SEA BUOY
Tie-Up

SBM: Approx. 10 m. in Diameter
Colour:Orange
Light: QK Fl (W)
Approx. 50 m.
2 x 150 mm. Dia. Nylon Braidlines
4 x 12 in. Hoses, 2 for Crude Oil 2 for Gasoline
Ship's line used to pick up messenger
150 mm. Dia. Nylon Braidline
Bitts
Messenger

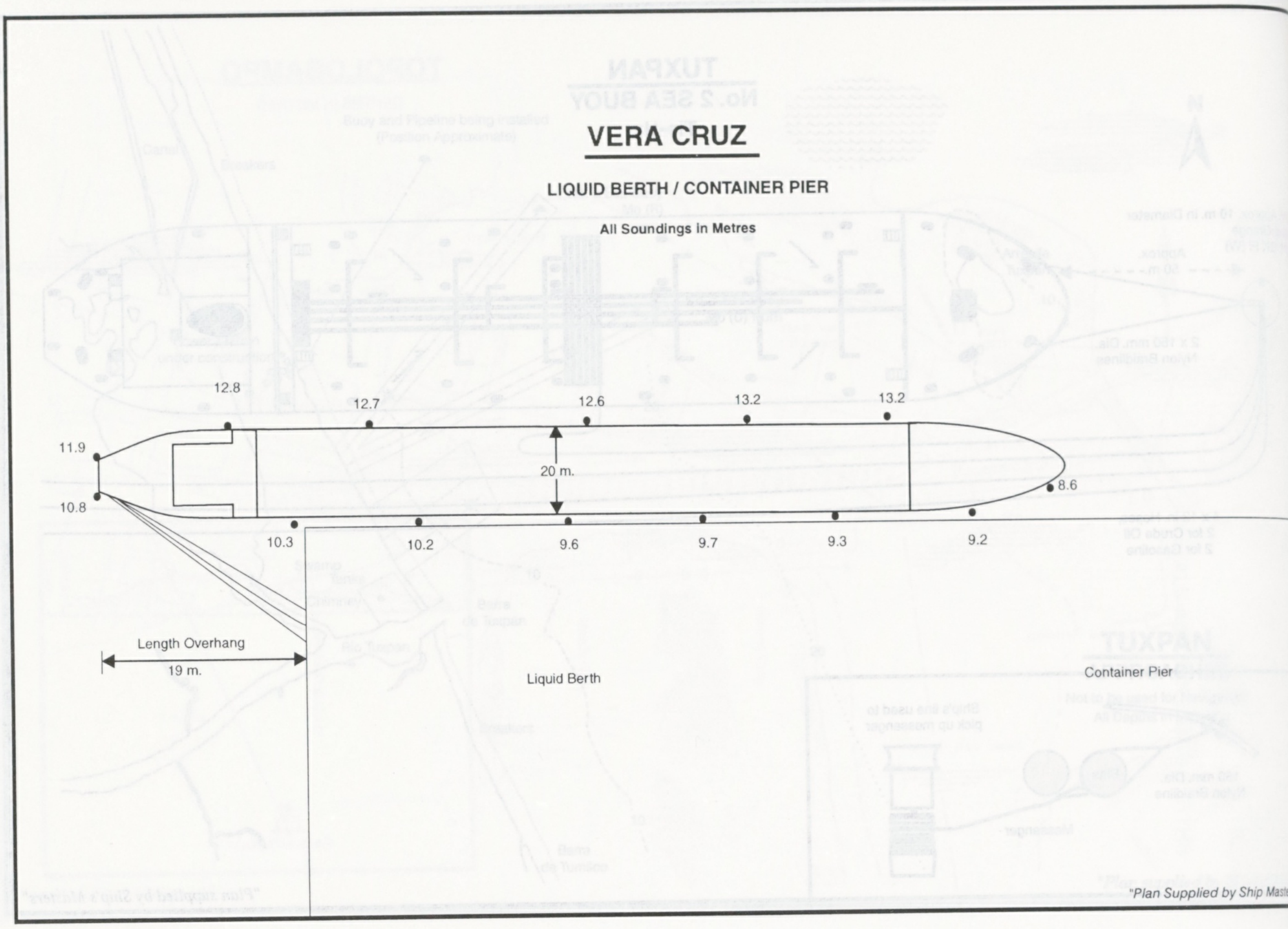
"Plan supplied by Ship's Masters"

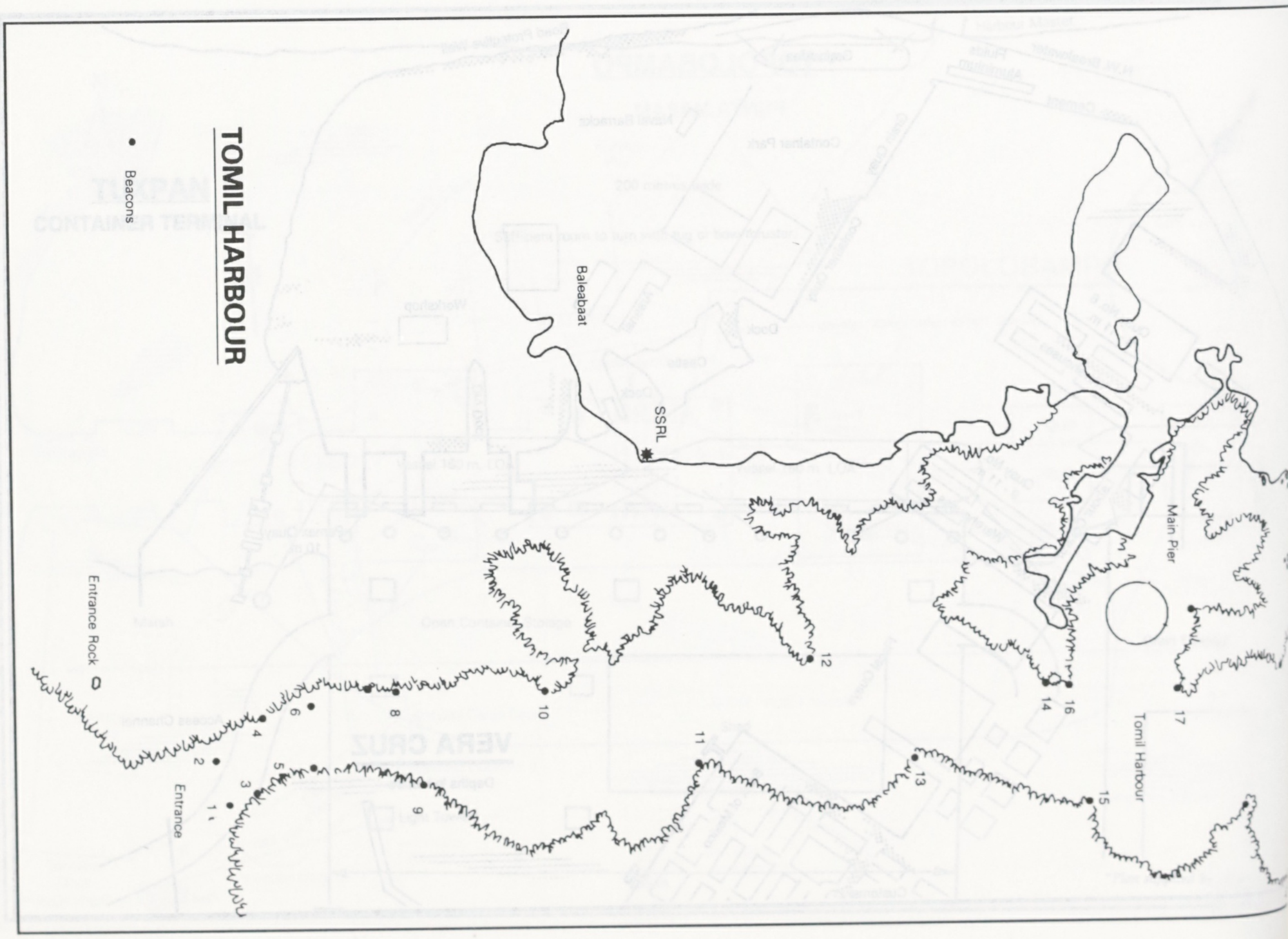


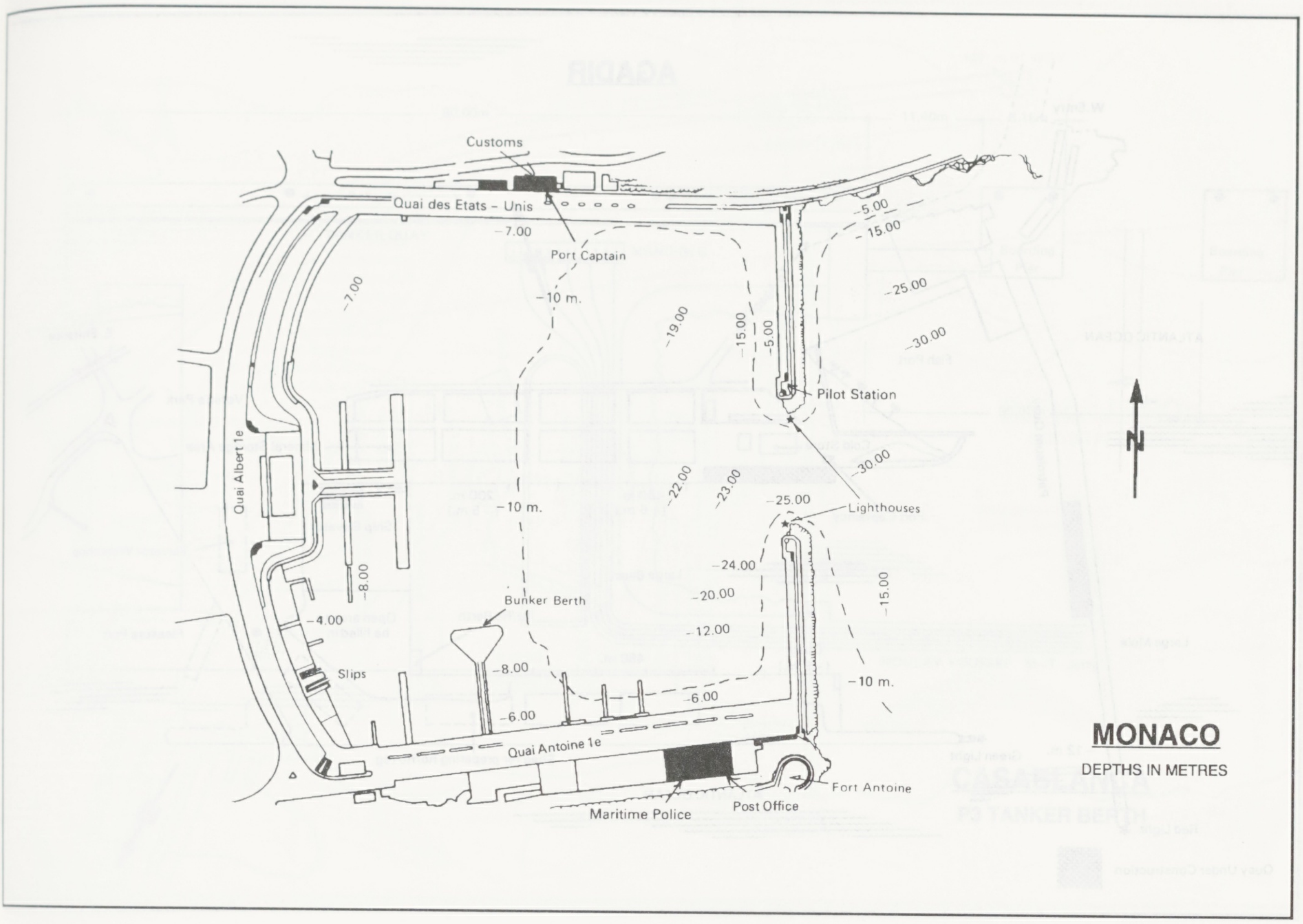
VERA CRUZ

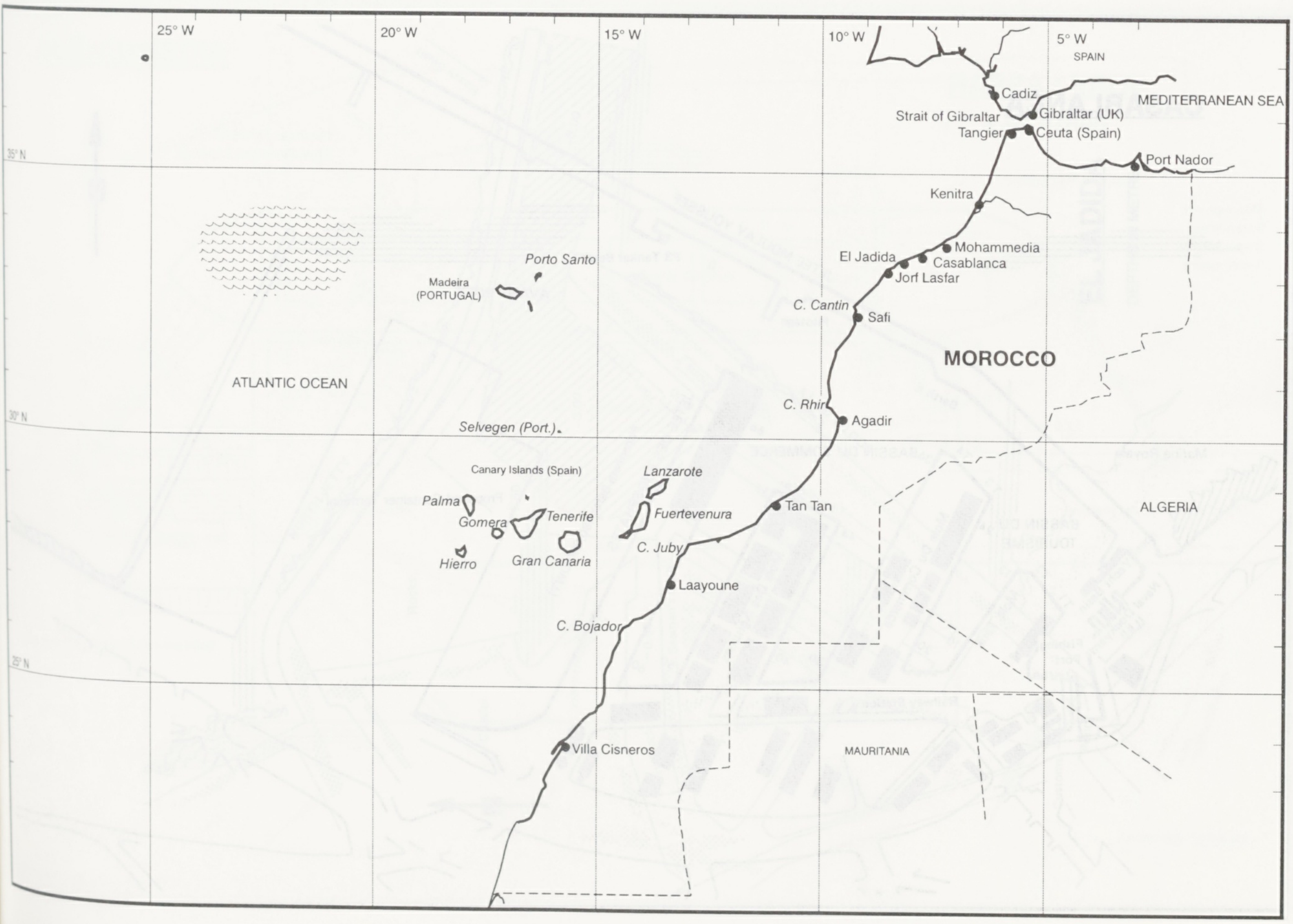
Depths in Meters

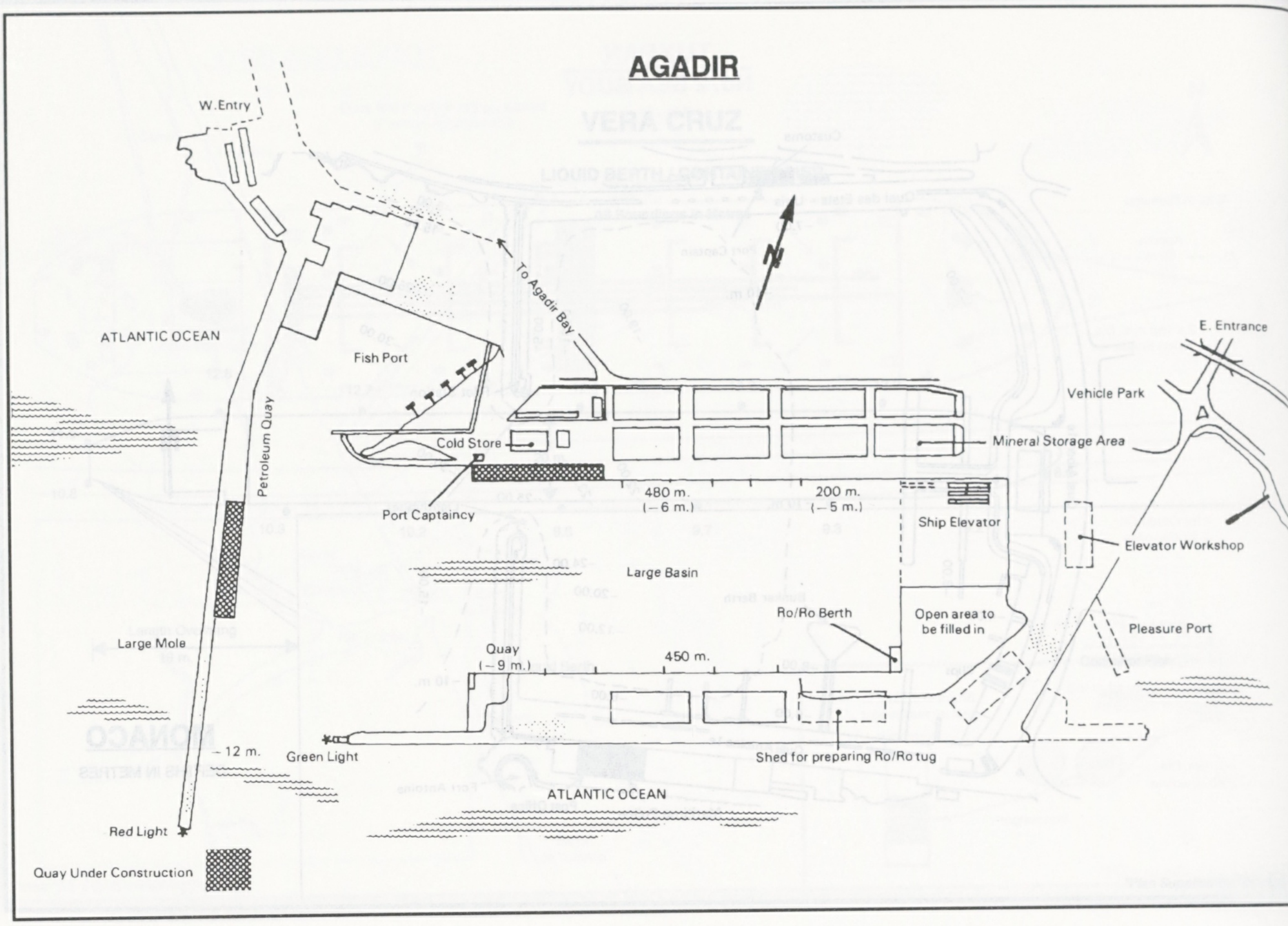
Road Protective Wall
N.W. Breakwater
Fluids
Aluminium
Cement
Grain Area
Grain Quay
Container Park
Naval Barracks
Container Quay
Dock
Castle
Arsenal
Dock
Workshop
Dry Dock
Quay No. 6 9 - 11 m.
Warehouses
Quay No. 4 9 - 11 m.
Warehouses
Labour Control
Pemex Quay 10 m.
Fiscal Quays
Access Channel
Bank of Mexico
Customs

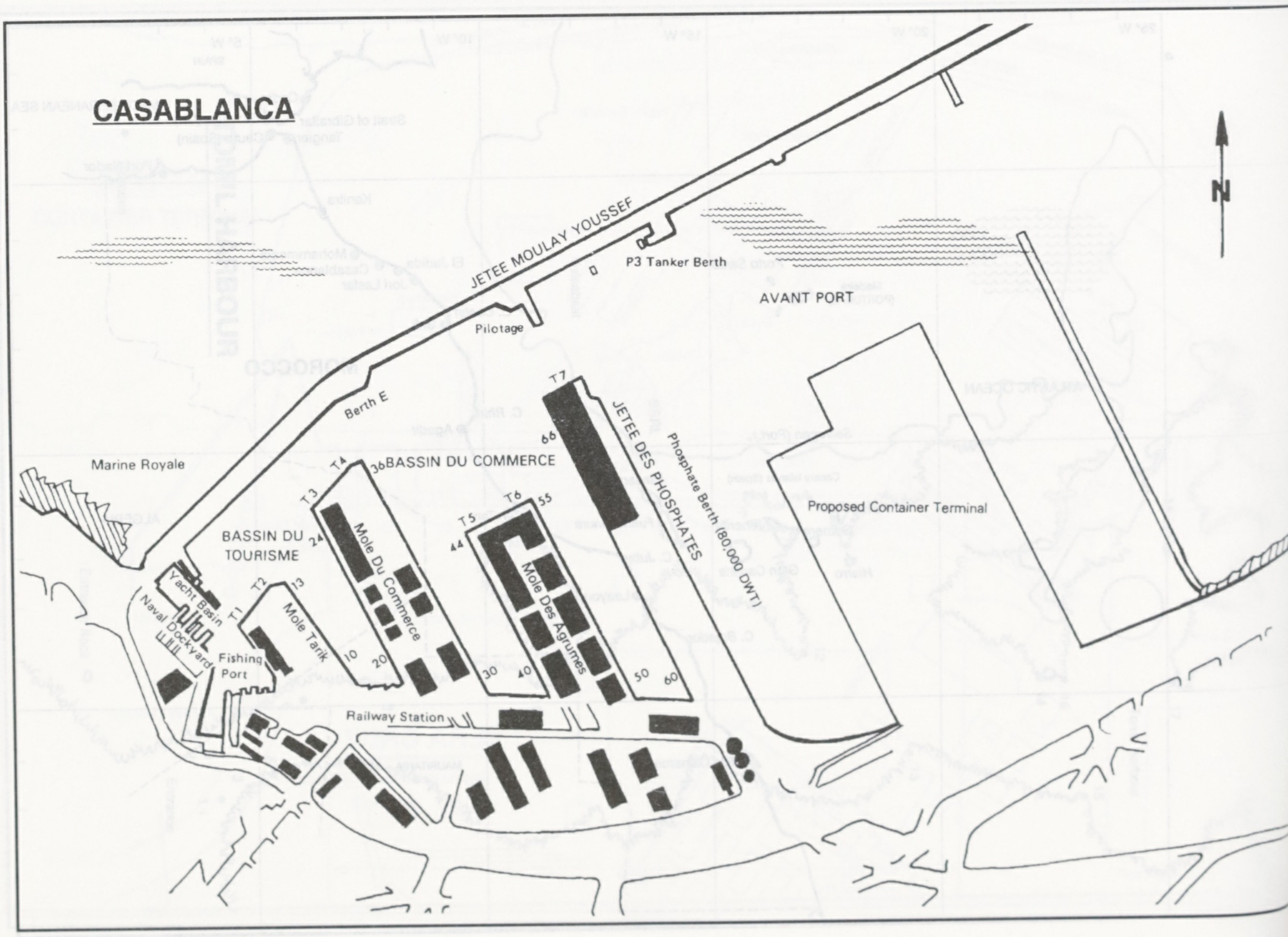

VERA CRUZ
LIQUID BERTH / CONTAINER PIER
All Soundings in Metres
12.8
12.7
12.6
13.2
13.2
11.9
10.8
20 m.
8.6
10.3
10.2
9.6
9.7
9.3
9.2
Length Overhang
19 m.
Liquid Berth
Container Pier
"Plan Supplied by Ship Maste

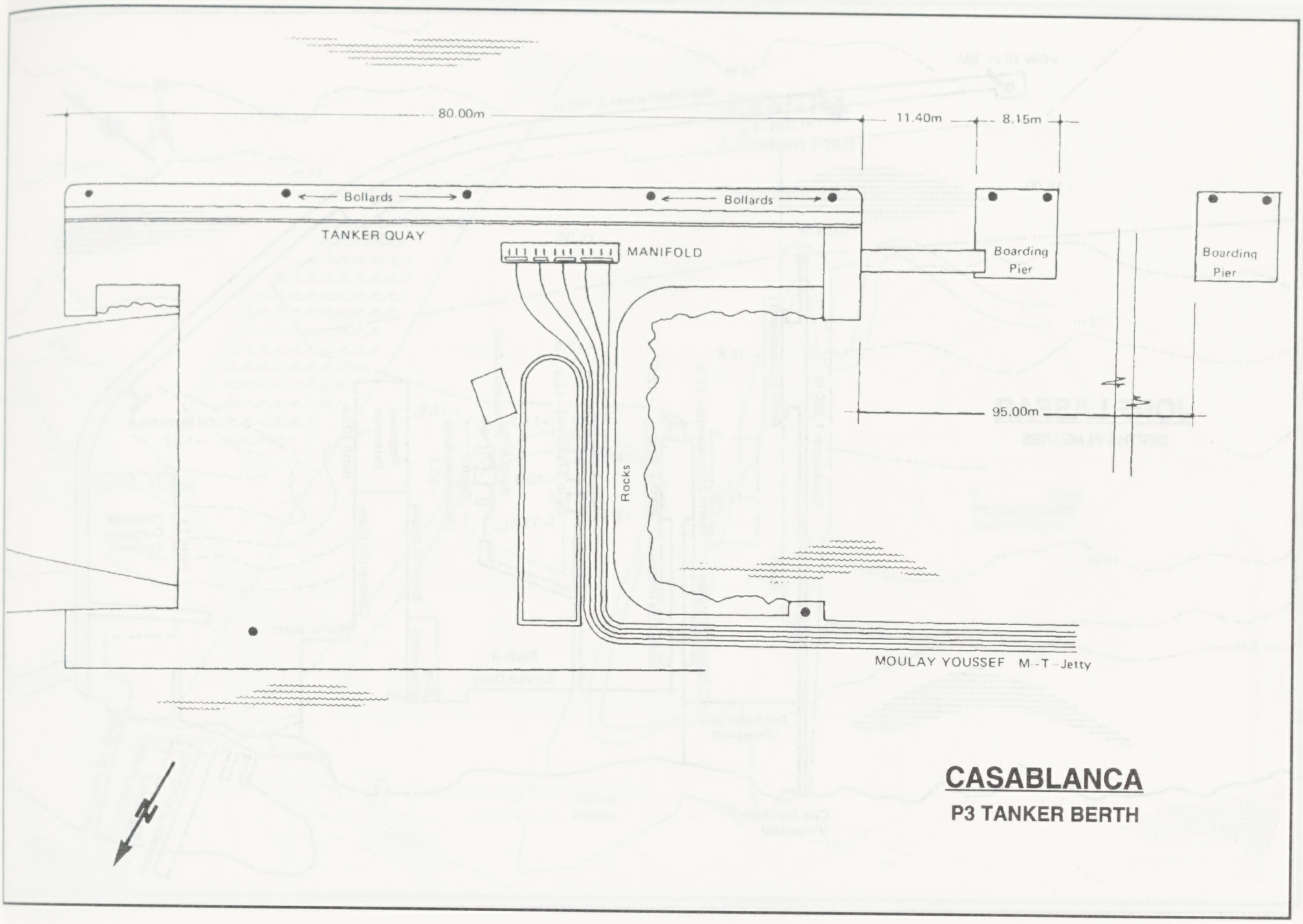

TOMIL HARBOUR
Beacons
Baleabaat
SSRL
Main Pier
Entrance Rock
Entrance
Tomil Harbour
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17


MONACO
DEPTHS IN METRES
Customs
Quai des Etats – Unis
Port Captain
Pilot Station
Lighthouses
Quai Albert 1e
Bunker Berth
Slips
Quai Antoine 1e
Maritime Police
Post Office
Fort Antoine
–7.00
–7.00
–10 m.
–10 m.
–10 m.
–19.00
–15.00
–5.00
–5.00
–15.00
–25.00
–30.00
–30.00
–22.00
–23.00
–25.00
–24.00
–20.00
–12.00
–6.00
–6.00
–8.00
–8.00
–4.00
–15.00
N


25° W
20° W
15° W
10° W
5° W
35° N
30° N
25° N
SPAIN
Cadiz
MEDITERRANEAN SEA
Strait of Gibraltar
Gibraltar (UK)
Tangier
Ceuta (Spain)
Port Nador
Kenitra
Mohammedia
El Jadida
Casablanca
Jorf Lasfar
C. Cantin
Safi
MOROCCO
Porto Santo
Madeira (PORTUGAL)
ATLANTIC OCEAN
C. Rhir
Agadir
Selvegen (Port.)
Canary Islands (Spain)
Lanzarote
Fuerteventura
Palma
Gomera
Tenerife
Hierro
Gran Canaria
C. Juby
Tan Tan
Laayoune
C. Bojador
Villa Cisneros
ALGERIA
MAURITANIA


AGADIR
W. Entry
To Agadir Bay
N
ATLANTIC OCEAN
Fish Port
Petroleum Quay
Cold Store
Port Captaincy
480 m.
(– 6 m.)
200 m.
(– 5 m.)
Mineral Storage Area
Vehicle Park
E. Entrance
A
Ship Elevator
Elevator Workshop
Large Basin
Ro/Ro Berth
Open area to be filled in
Pleasure Port
Large Mole
Quay
(– 9 m.)
450 m.
– 12 m.
Green Light
Shed for preparing Ro/Ro tug
ATLANTIC OCEAN
Red Light
Quay Under Construction

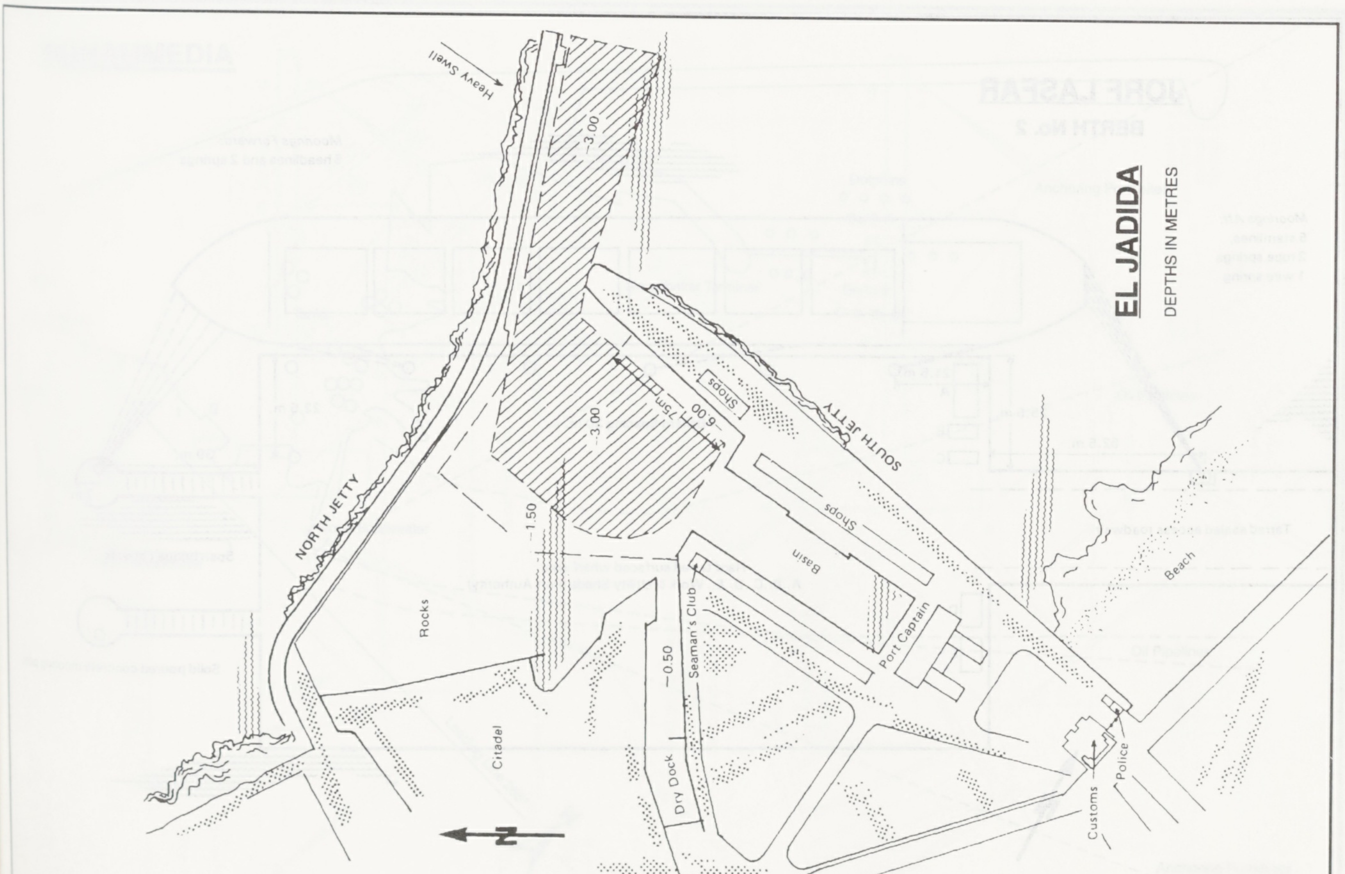

CASABLANCA
N
JETEE MOULAY YOUSSEF
P3 Tanker Berth
D
AVANT PORT
Pilotage
Berth E
Marine Royale
T7
66
JETEE DES PHOSPHATES
Phosphate Berth (80,000 DWT)
T4
36
BASSIN DU COMMERCE
T3
24
Mole Du Commerce
T6
55
T5
44
Mole Des Agrumes
Proposed Container Terminal
BASSIN DU TOURISME
Yacht Basin
Naval Dockyard
T1
T2
13
Mole Tarik
Fishing Port
10
20
30
40
50
60
Railway Station



CASABLANCA

P3 TANKER BERTH

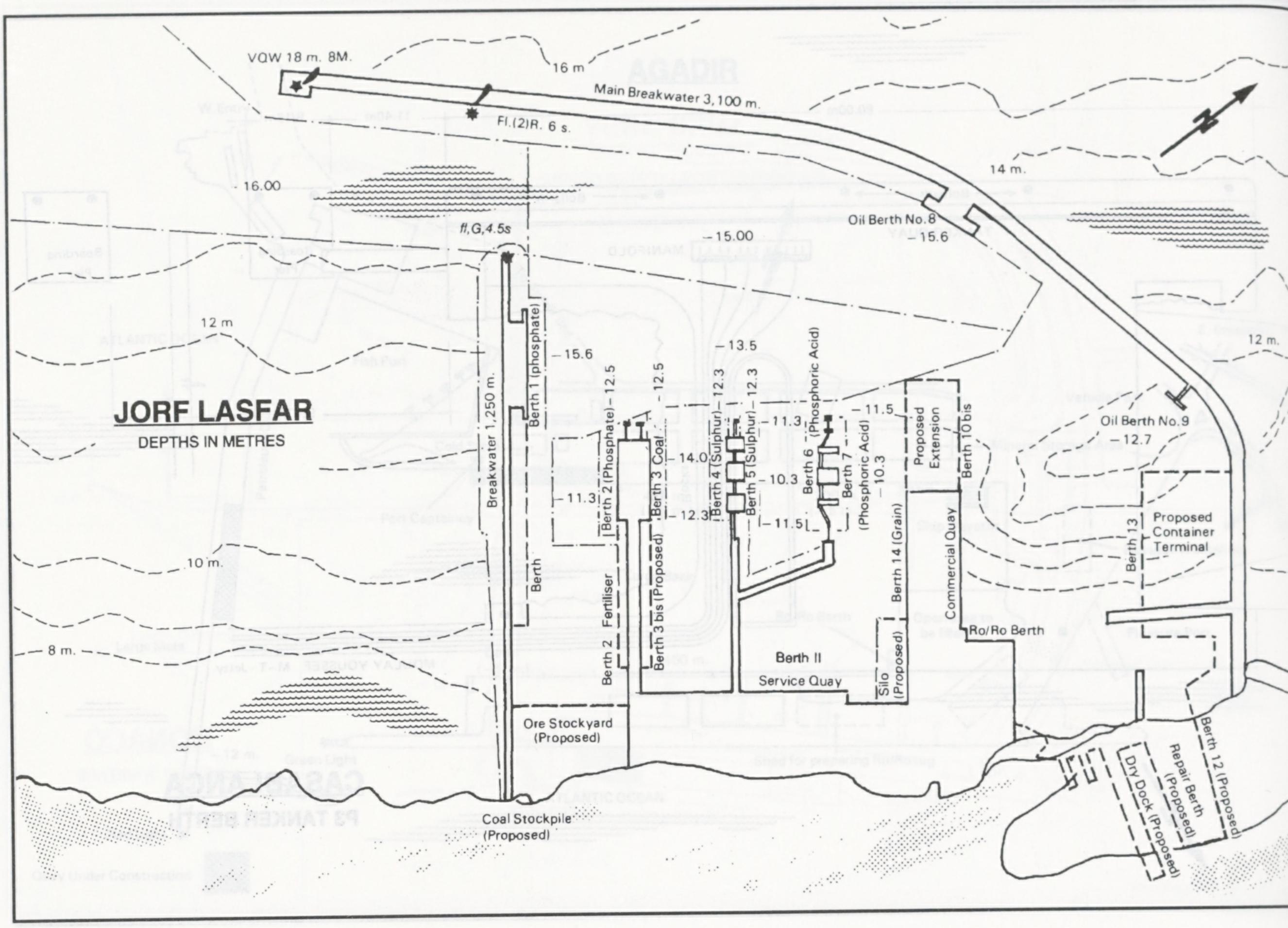
80.00m
11.40m
8.15m
Bollards
Bollards
TANKER QUAY
MANIFOLD
Boarding Pier
Boarding Pier
95.00m
Rocks
MOULAY YOUSSEF M–T–Jetty
N



EL JADIDA

DEPTHS IN METRES

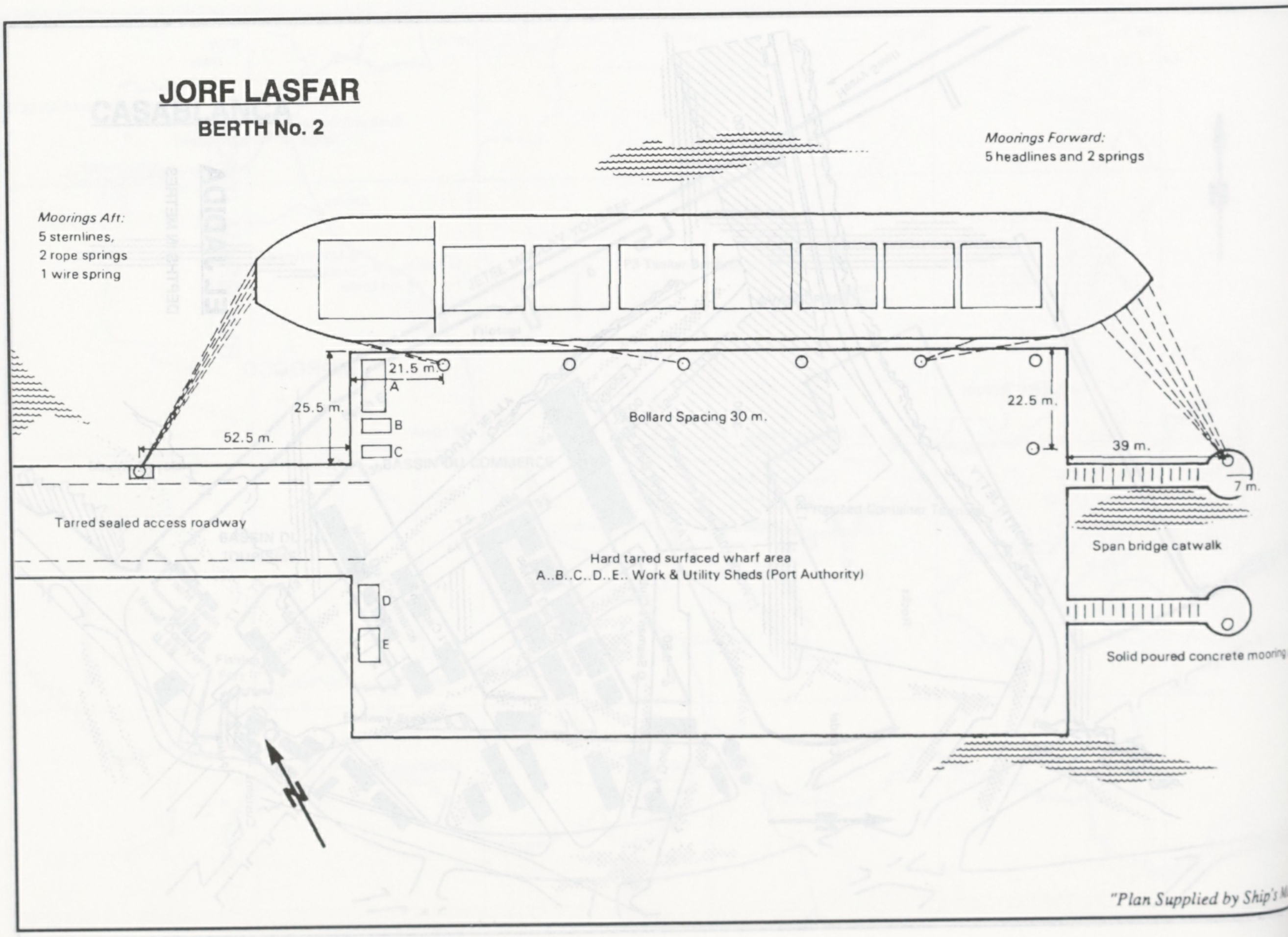
Heavy Swell
–3.00
–3.00
75m
6.00
Shops
SOUTH JETTY
Shops
Basin
NORTH JETTY
–1.50
Rocks
Seaman's Club
–0.50
Port Captain
Citadel
Dry Dock
Beach
Customs
Police
N



JORF LASFAR

DEPTHS IN METRES

VQW 18 m. 8M.
16 m
Main Breakwater 3,100 m.
Fl.(2)R. 6 s.
14 m.
-16.00
Oil Berth No.8
-15.6
fl,G,4.5s
-15.00
12 m
Breakwater 1,250 m.
Berth 1 (phosphate)
-15.6
-13.5
12 m.
Berth 2 (Phosphate) -12.5
Berth 3 Coal -12.5
Berth 4 (Sulphur) -12.3
Berth 5 (Sulphur) -12.3
Berth 6 (Phosphoric Acid)
-11.3
-11.5
Proposed Extension
Berth 10 bis
Oil Berth No.9
-12.7
-14.0
-10.3
Berth 7 (Phosphoric Acid) -10.3
-11.3
-12.3
-11.5
Proposed Container Terminal
Berth 13
10 m.
Berth
Fertiliser
Berth 2
Berth 3 bis (Proposed)
Berth 14 (Grain)
Commercial Quay
Ro/Ro Berth
8 m.
Berth II
Service Quay
Silo (Proposed)
Ore Stockyard (Proposed)
Berth 12 (Proposed)
Repair Berth (Proposed)
Dry Dock (Proposed)
Coal Stockpile (Proposed)

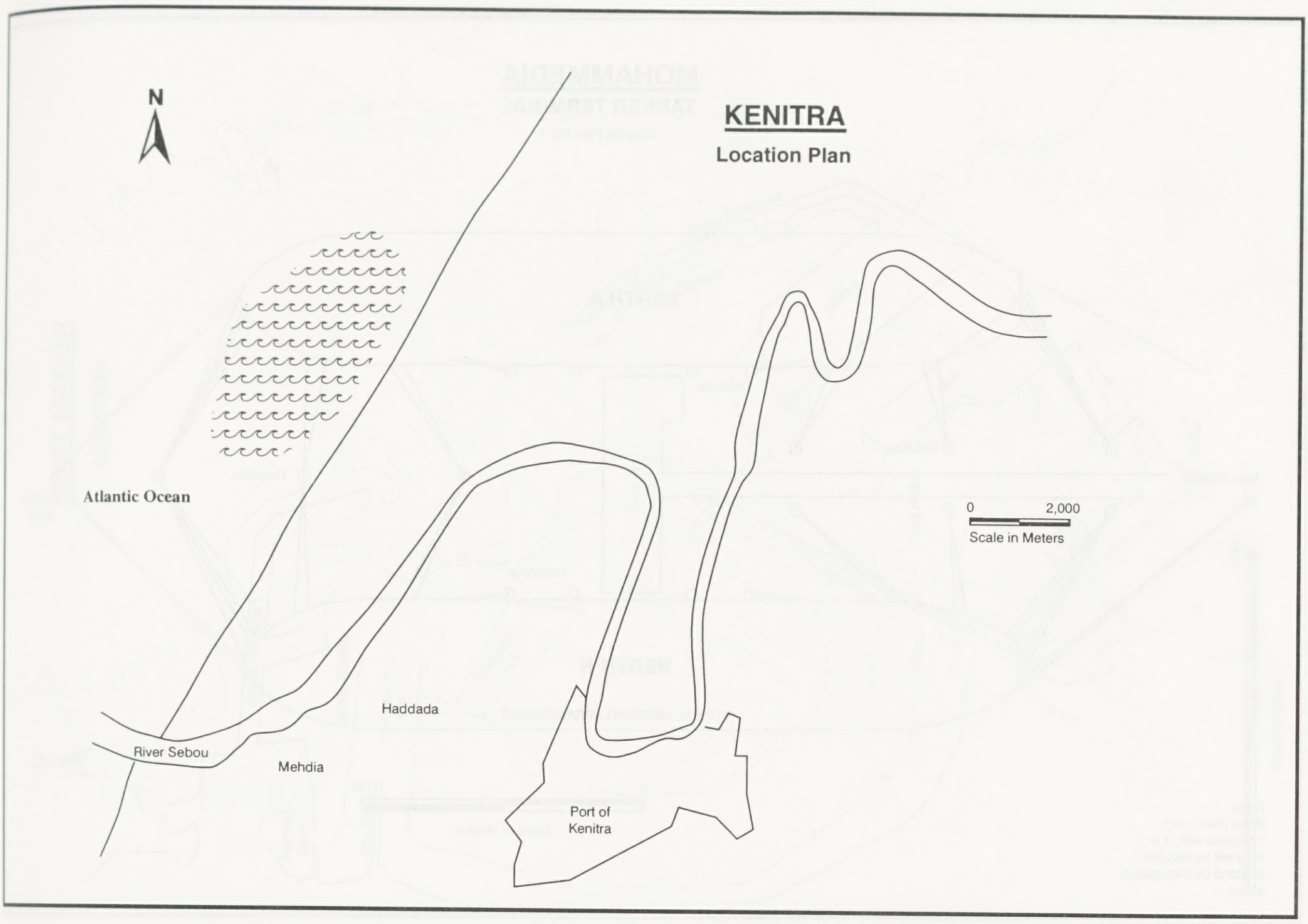


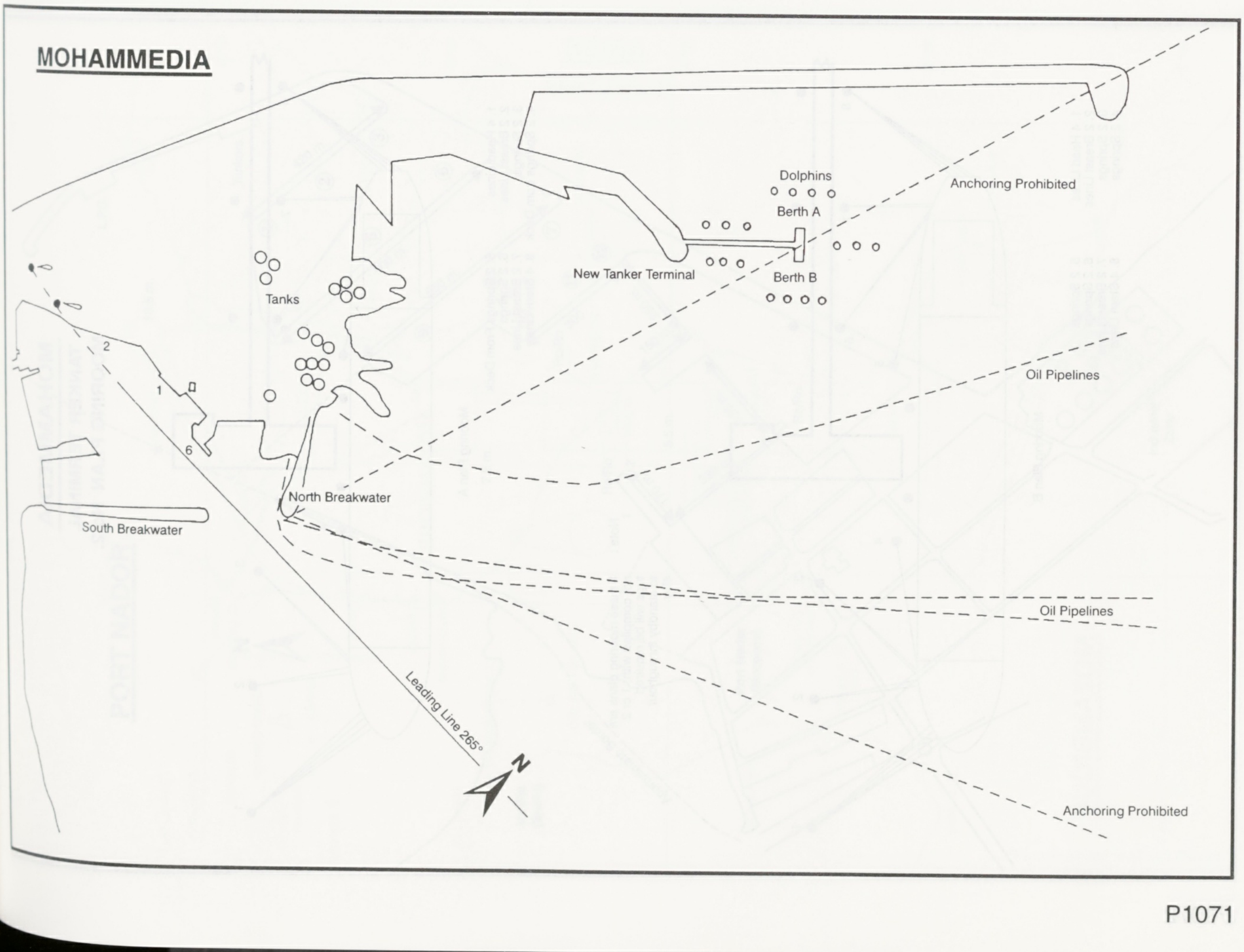
JORF LASFAR

BERTH No. 2

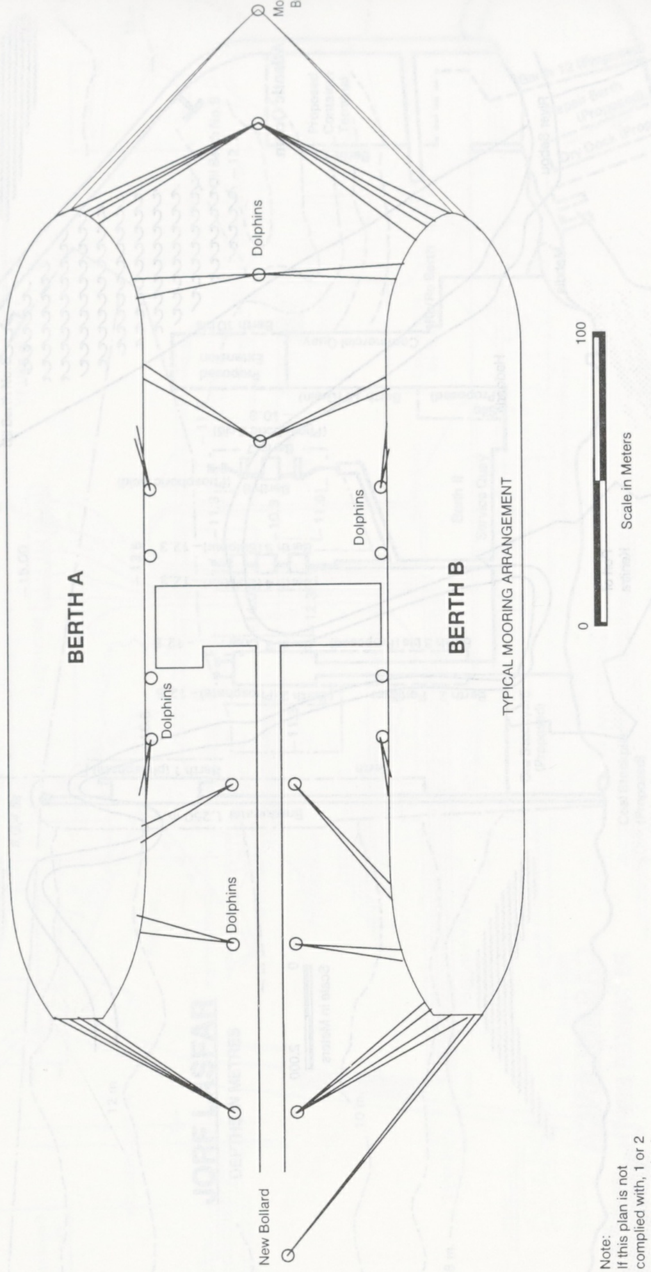
Moorings Forward:
5 headlines and 2 springs
Moorings Aft:
5 sternlines,
2 rope springs
1 wire spring
21.5 m.
A
25.5 m.
B
C
52.5 m.
Bollard Spacing 30 m.
22.5 m.
39 m.
7 m.
Tarred sealed access roadway
Hard tarred surfaced wharf area
A..B..C..D..E.. Work & Utility Sheds (Port Authority)
D
E
Span bridge catwalk
Solid poured concrete mooring

"Plan Supplied by Ship's M


KENITRA
Location Plan
N
Atlantic Ocean
River Sebou
Mehdia
Haddada
Port of Kenitra
0
2,000
Scale in Meters

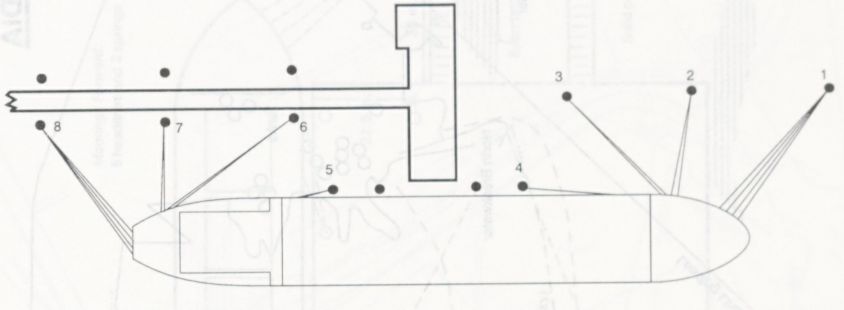

MOHAMMEDIA
Dolphins
Berth A
Berth B
New Tanker Terminal
Anchoring Prohibited
Tanks
2
1
6
Oil Pipelines
North Breakwater
South Breakwater
Oil Pipelines
Leading Line 265°
N
Anchoring Prohibited

MOHAMMEDIA
TANKER TERMINAL
Mooring Plan No. 1


BERTH A
BERTH B
Dolphins
Dolphins
Dolphins
Dolphins
New Bollard
TYPICAL MOORING ARRANGEMENT
0
100
Scale in Meters

Note:
If this plan is not complied with, 1 or 2 tugs will be required to stand-by throughout stay.

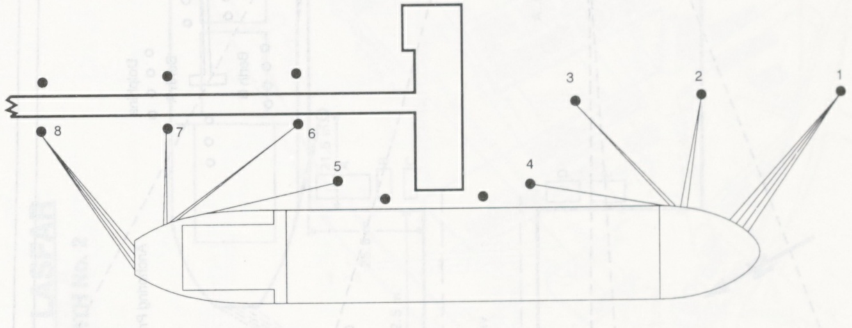
MOHAMMEDIA
TANKER TERMINAL
MOORING PLAN No 2.



Mooring Plan A

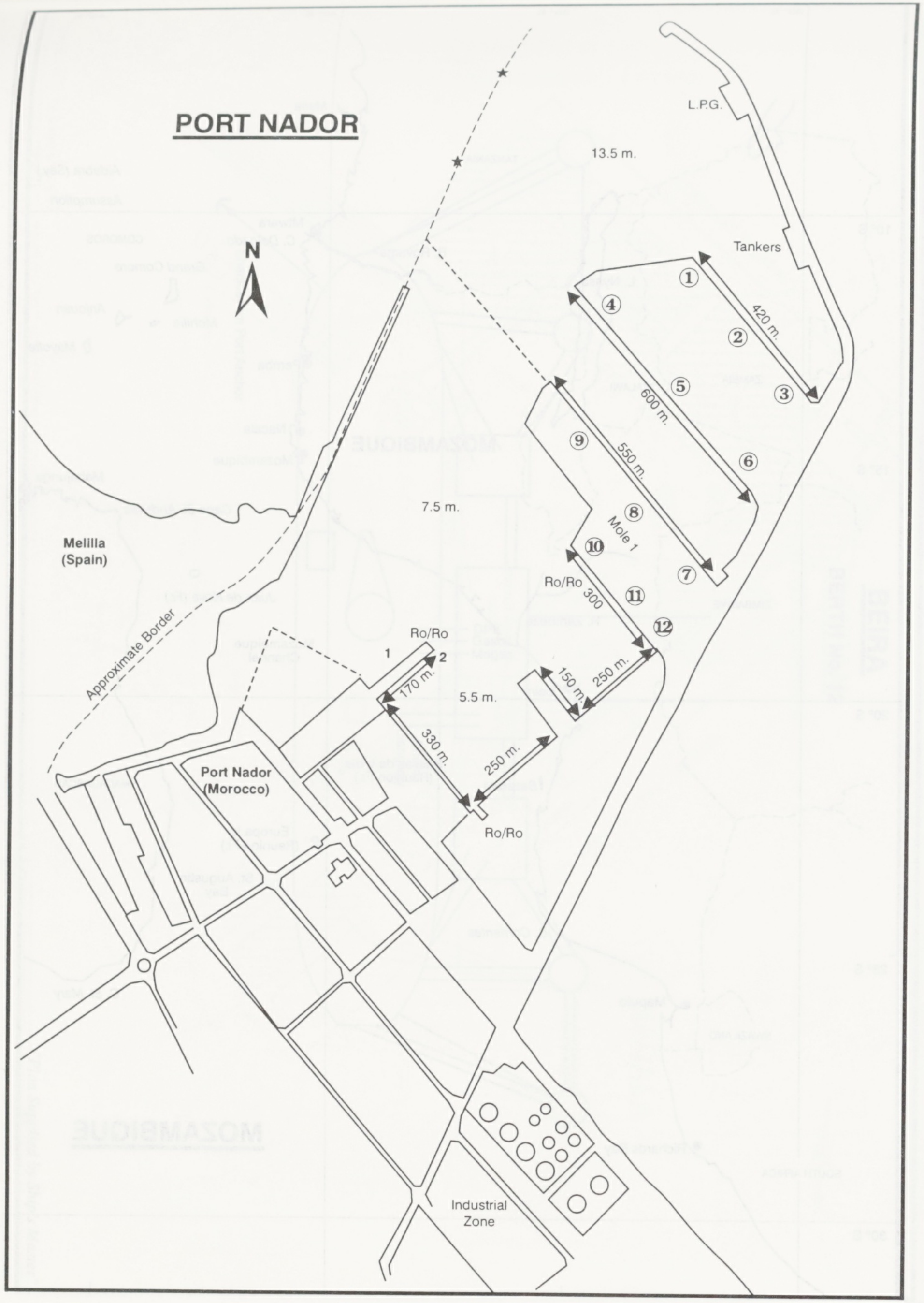
1. 4 Head Lines
2. 2 Breast Lines
3. 2 Springs
4. 2 Springs from Deck
5. 2 Springs From Deck
6. 2 Springs
7. 2 Breast Lines
8. 4 Stern Lines

Note : If these mooring plans are not complied with, 1 or 2 tugs will be required to standby throughout stay.



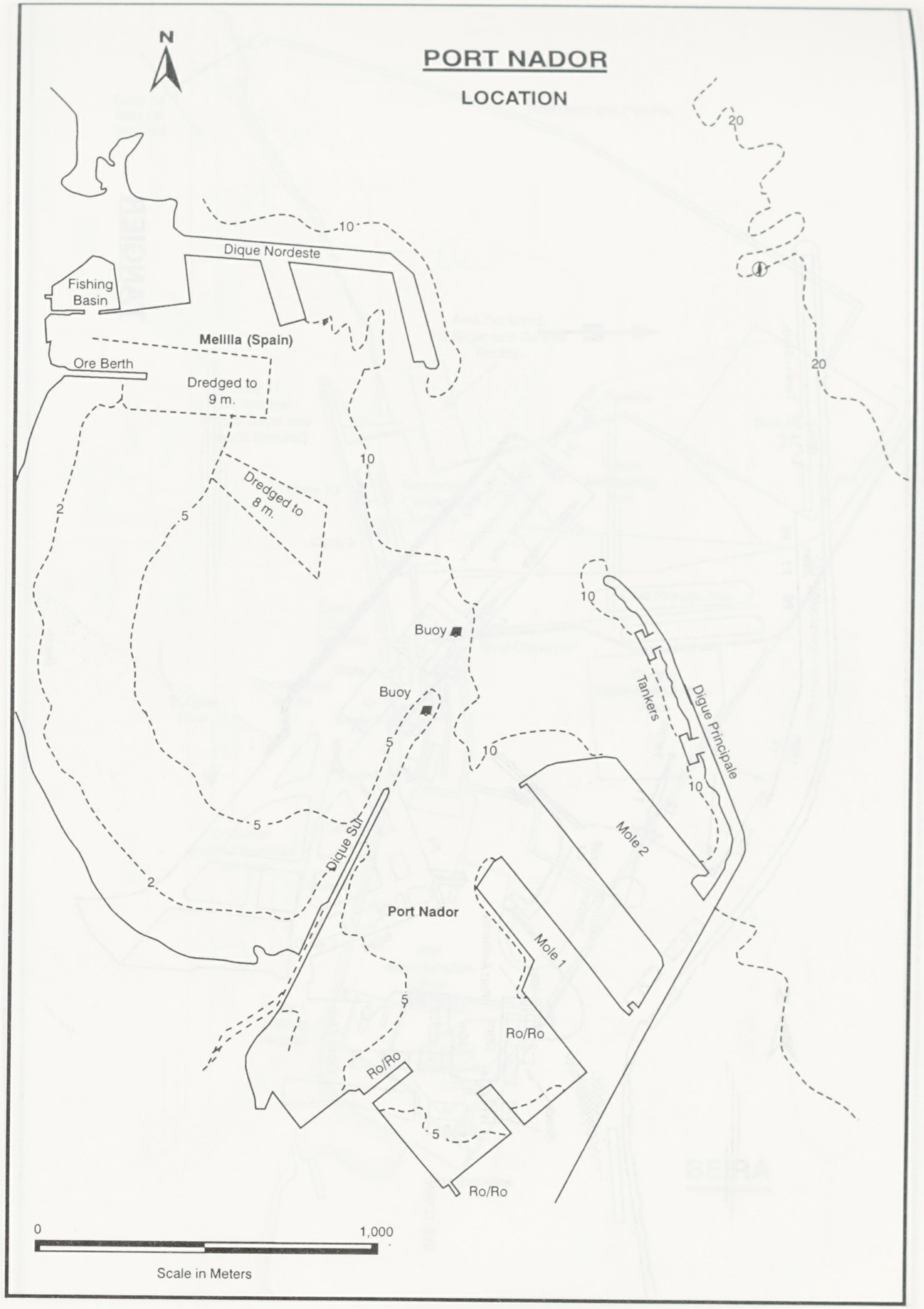
Mooring Plan B

1. 4 Head Lines
2. 2 Breast Lines
3. 2 Springs
4. 2 Springs
5. 2 Springs
6. 2 Springs
7. 2 Breast Lines
8. 4 Stern Lines



PORT NADOR

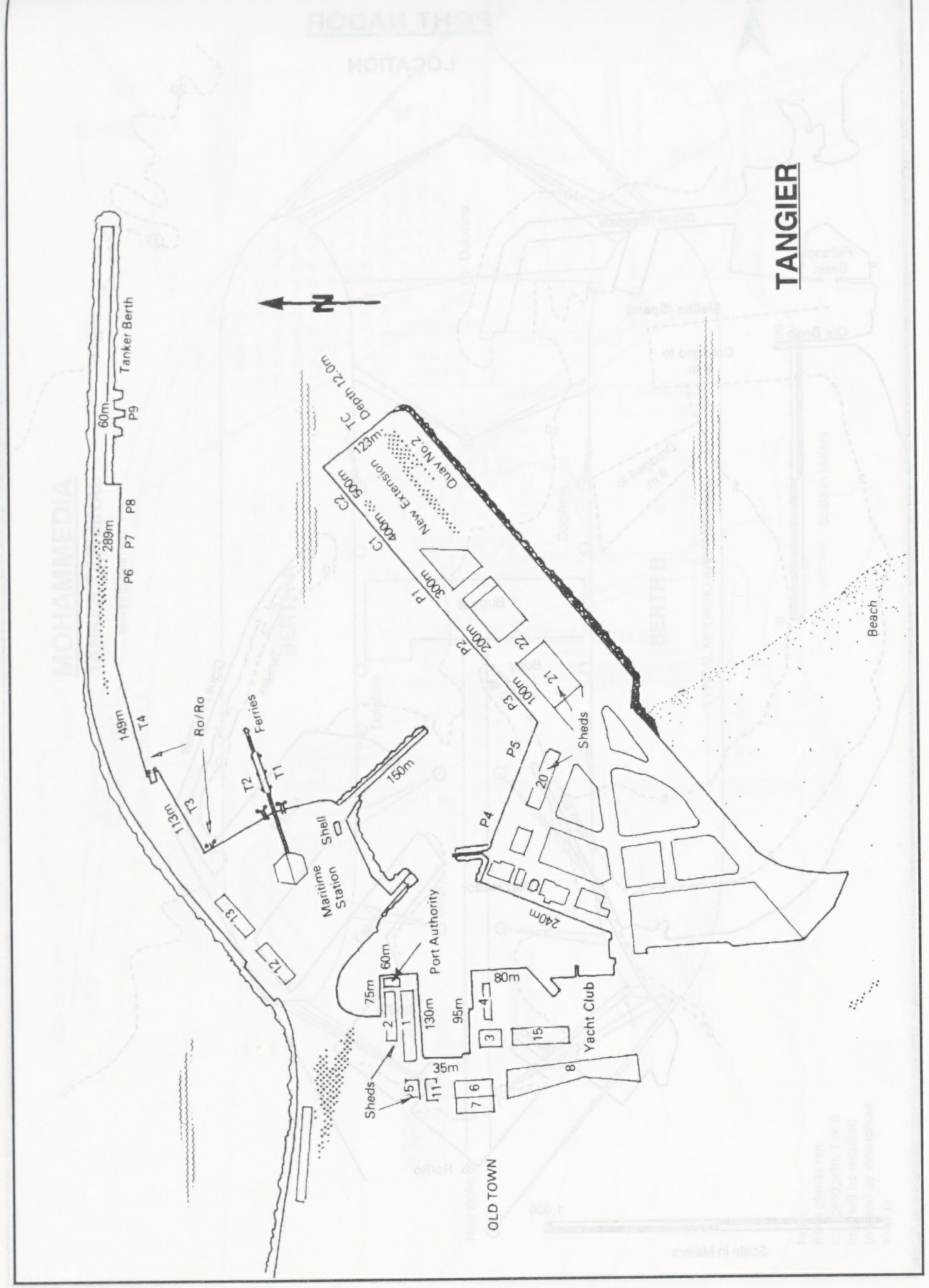
N
L.P.G.
13.5 m.
Tankers
420 m.
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
600 m.
550 m.
Mole 1
7.5 m.
Melilla (Spain)
Ro/Ro
300
Ro/Ro
1
2
170 m.
150 m.
250 m.
5.5 m.
330 m.
250 m.
Approximate Border
Port Nador (Morocco)
Ro/Ro
Industrial Zone

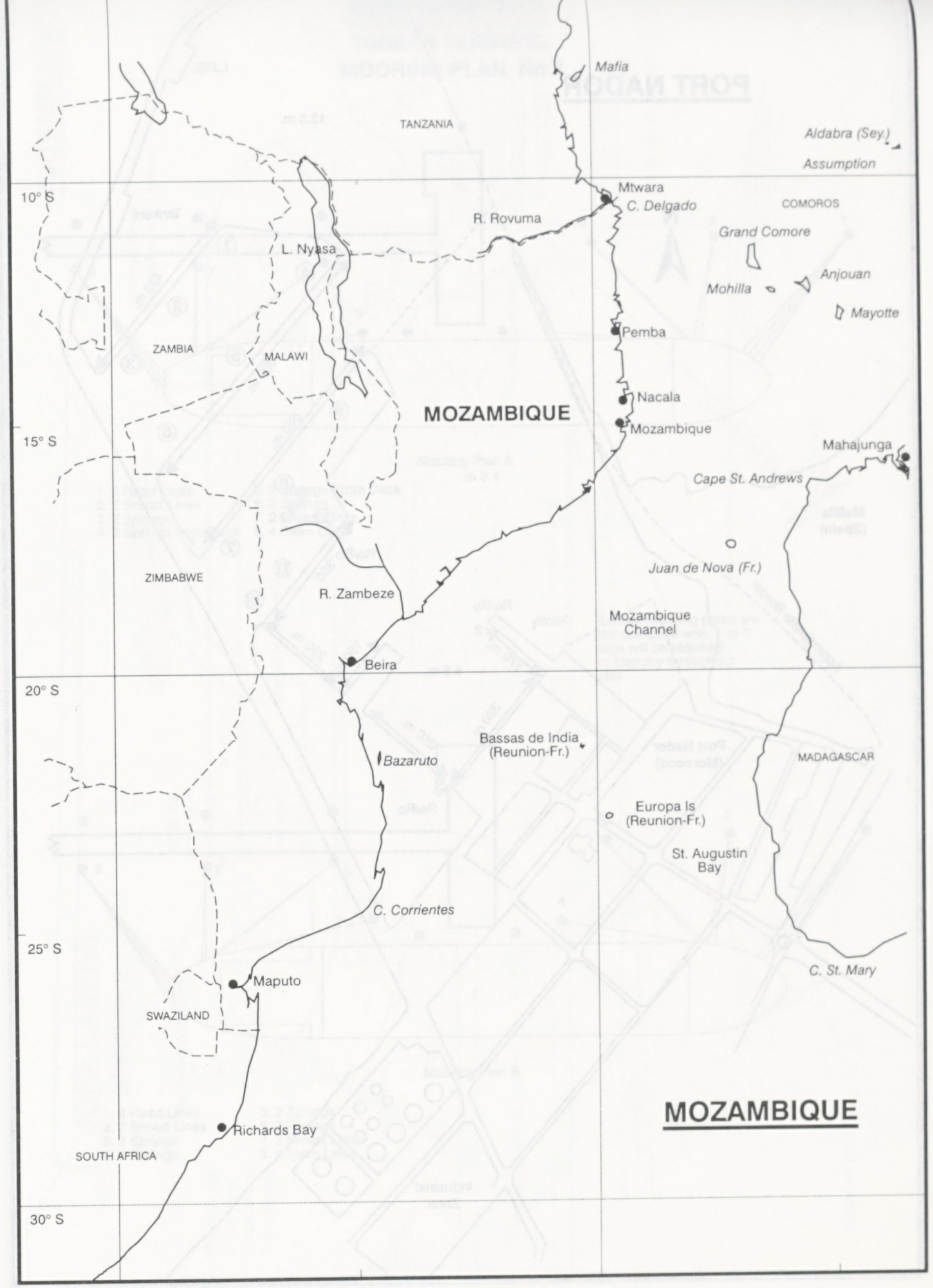


PORT NADOR

LOCATION

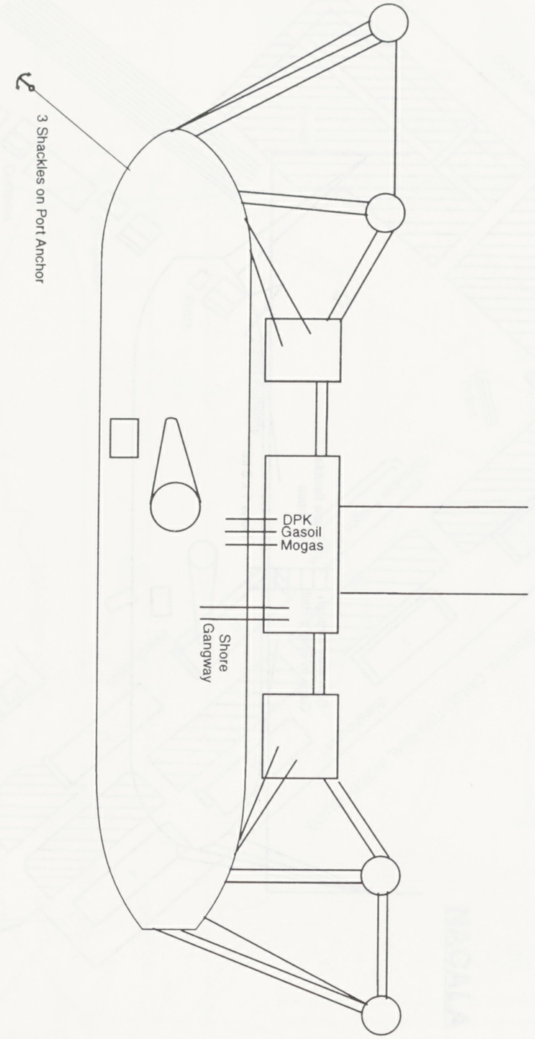
N
20
10
Dique Nordeste
Fishing Basin
Melilla (Spain)
Ore Berth
Dredged to 9 m.
Dredged to 8 m.
10
2
5
10
Buoy
Buoy
Tankers
Dique Principale
10
5
10
5
Dique Sur
2
Port Nador
Mole 2
Mole 1
5
Ro/Ro
Ro/Ro
5
Ro/Ro
0
1,000
Scale in Meters
20


TANGIER
N
Tanker Berth
60m
P9
P8
289m
P7
P6
149m
T4
Ro/Ro
Ferries
T1
T2
113m
T3
150m
Shell
Maritime Station
13
12
Depth 12.0m
T.C.
123m
Quay No 2
New Extension
C2
500m
400m
C1
300m
P1
200m
P2
22
21
100m
P3
Sheds
P5
20
P4
240m
Beach
Port Authority
60m
75m
2
1
130m
95m
80m
4
3
15
Yacht Club
35m
8
Sheds
5
11
7
6
OLD TOWN


MOZAMBIQUE
Mafia
TANZANIA
Aldabra (Sey.)
Assumption
10° S
Mtwara
C. Delgado
COMOROS
R. Rovuma
Grand Comore
L. Nyasa
Anjouan
Mohilla
Mayotte
Pemba
ZAMBIA
MALAWI
Nacala
MOZAMBIQUE
Mozambique
15° S
Mahajunga
Cape St. Andrews
Juan de Nova (Fr.)
ZIMBABWE
R. Zambeze
Mozambique Channel
Beira
20° S
Bassas de India (Reunion-Fr.)
Bazaruto
MADAGASCAR
Europa Is (Reunion-Fr.)
St. Augustin Bay
C. Corrientes
25° S
C. St. Mary
Maputo
SWAZILAND
Richards Bay
SOUTH AFRICA
30° S

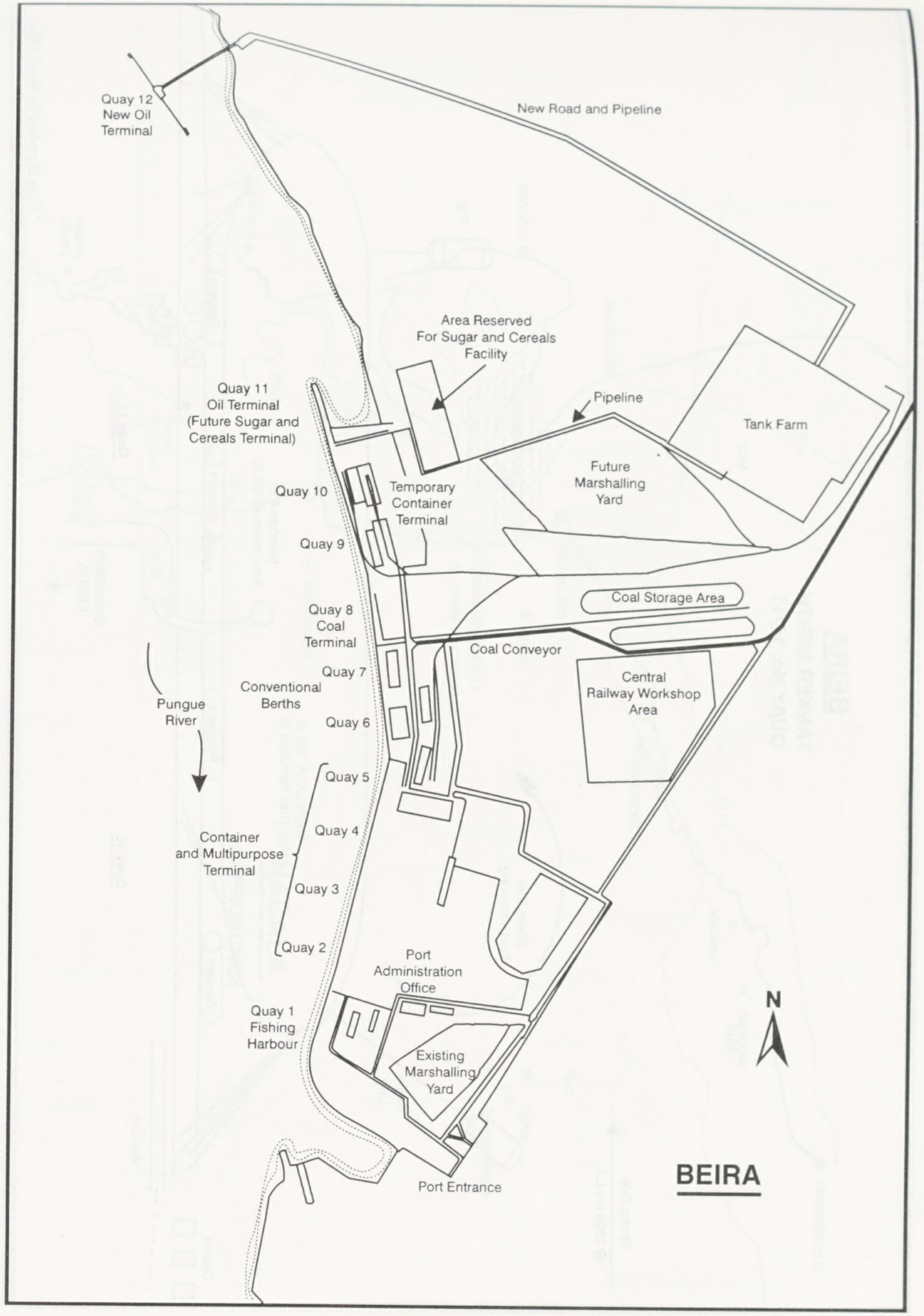
BEIRA

BERTH No. 12


3 Shackles on Port Anchor
DPK
Gasoil
Mogas
Shore Gangway

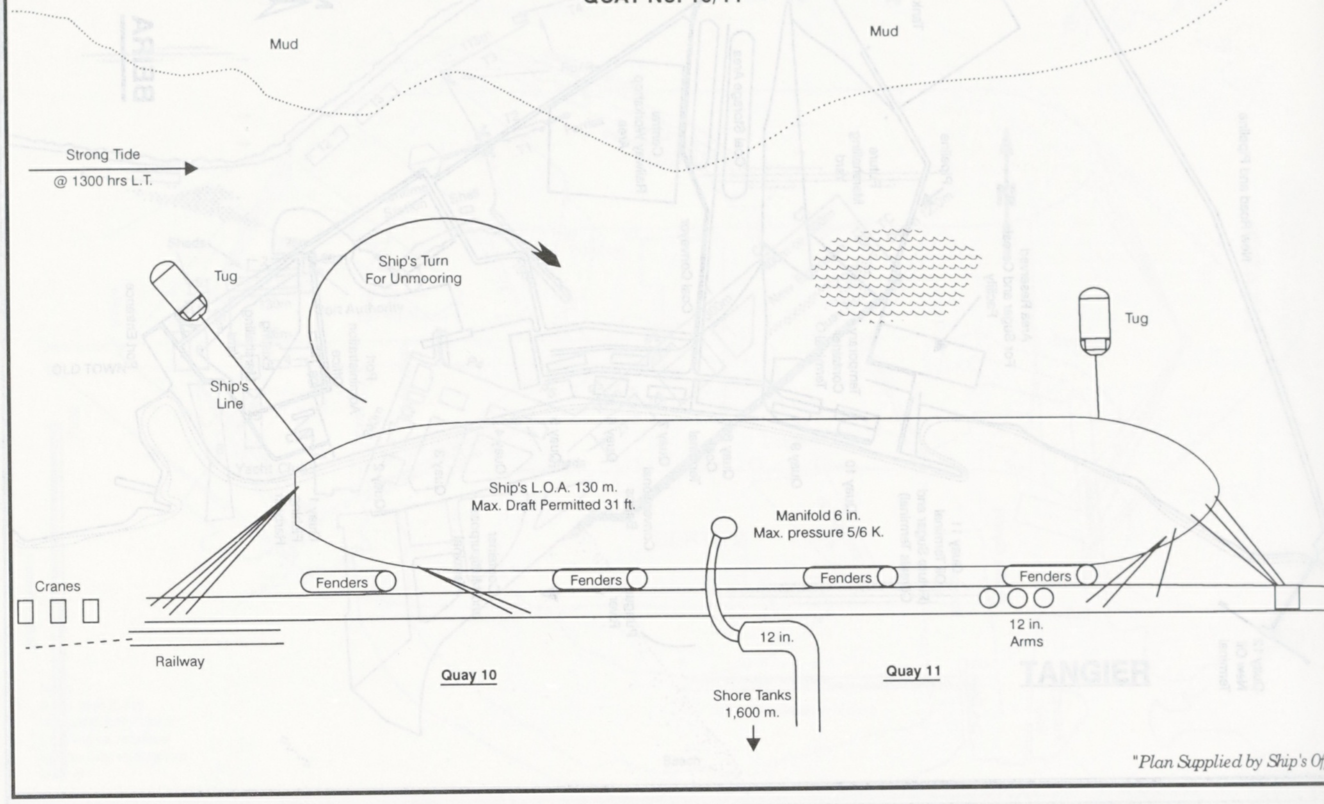
"Plan Supplied by Ship's Master"

BEIRA


Quay 12
New Oil
Terminal
New Road and Pipeline
Area Reserved
For Sugar and Cereals
Facility
Pipeline
Tank Farm
Quay 11
Oil Terminal
(Future Sugar and
Cereals Terminal)
Quay 10
Temporary
Container
Terminal
Future
Marshalling
Yard
Quay 9
Quay 8
Coal
Terminal
Coal Storage Area
Coal Conveyor
Quay 7
Conventional
Berths
Central
Railway Workshop
Area
Pungue
River
Quay 6
Quay 5
Quay 4
Container
and Multipurpose
Terminal
Quay 3
Quay 2
Port
Administration
Office
Quay 1
Fishing
Harbour
Existing
Marshalling
Yard
N
Port Entrance

BEIRA

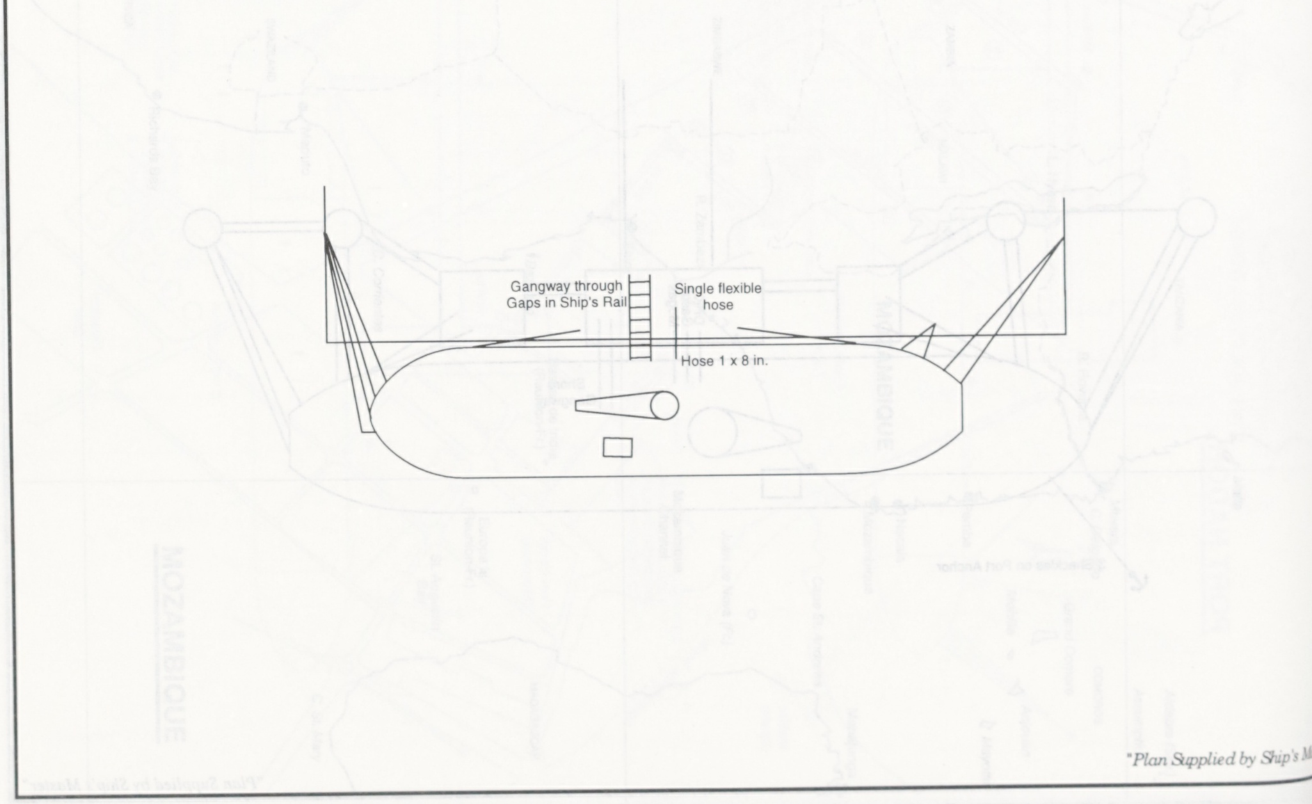
TANKER BERTH
QUAY No. 10/11


Mud
Mud
Strong Tide
@ 1300 hrs L.T.
Ship's Turn
For Unmooring
Tug
Tug
Ship's
Line
Ship's L.O.A. 130 m.
Max. Draft Permitted 31 ft.
Manifold 6 in.
Max. pressure 5/6 K.
Cranes
Fenders
Fenders
Fenders
Fenders
12 in.
Arms
Railway
12 in.
Quay 10
Quay 11
Shore Tanks
1,600 m.

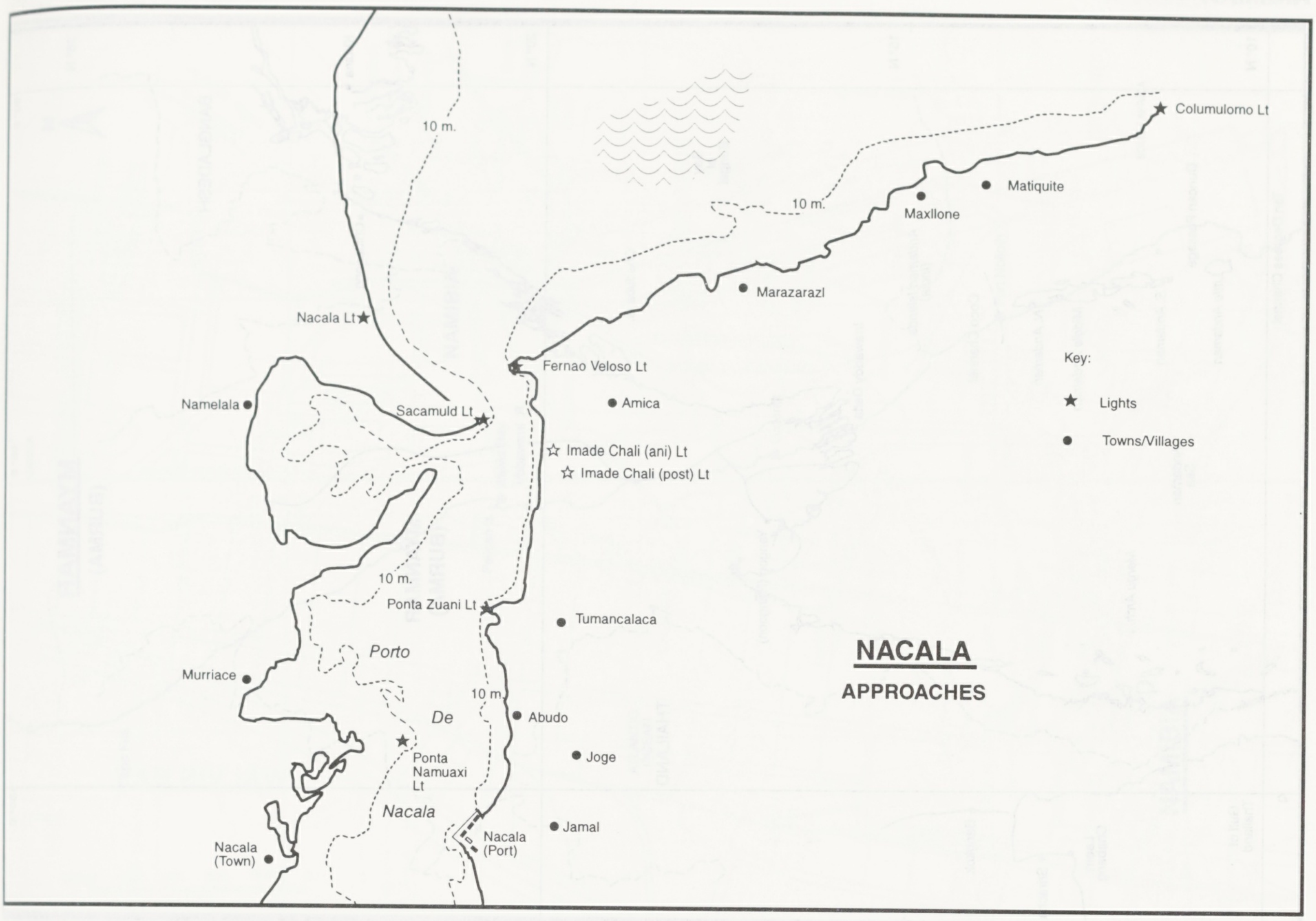
"Plan Supplied by Ship's Of

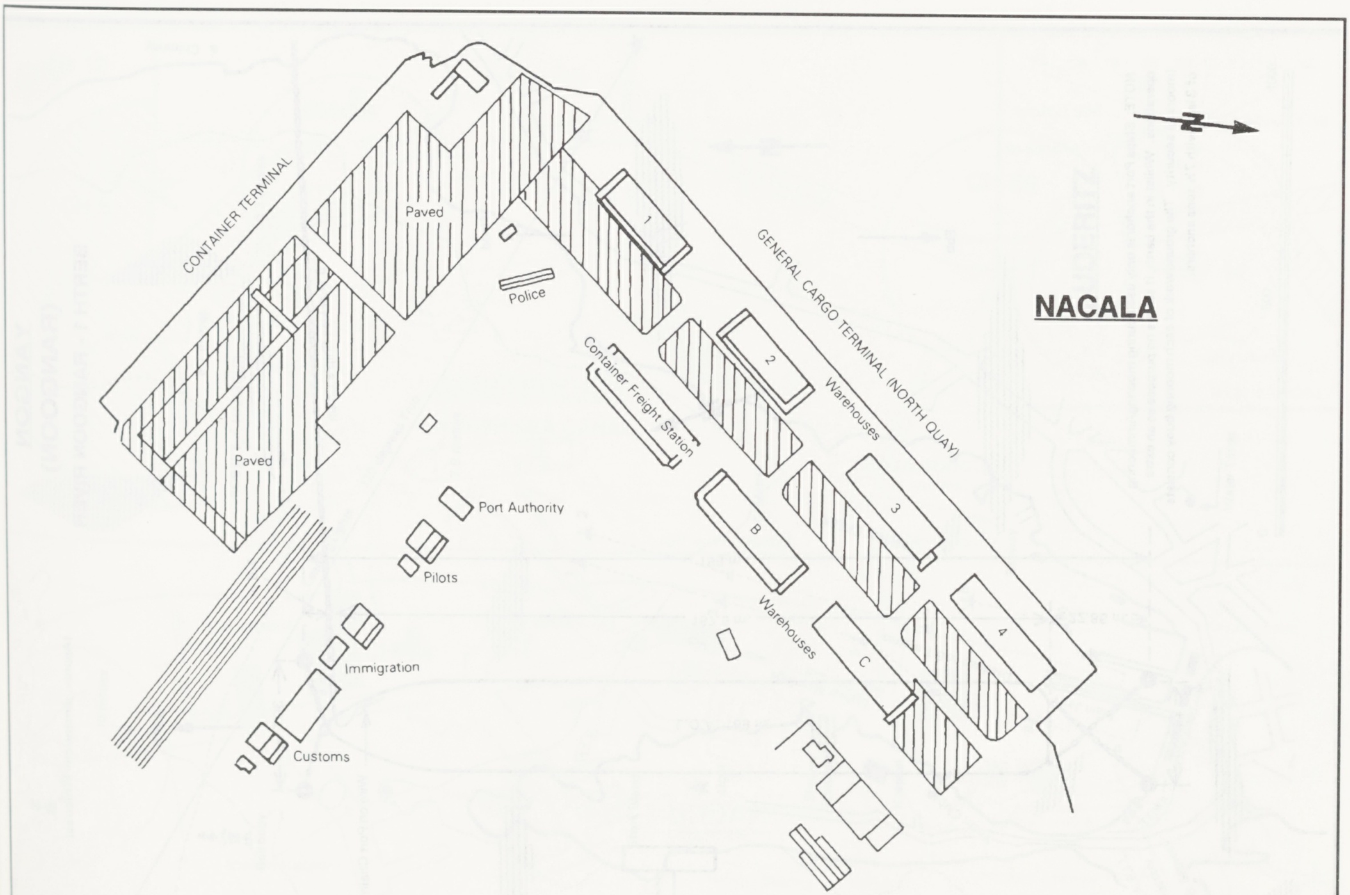
MAPUTO

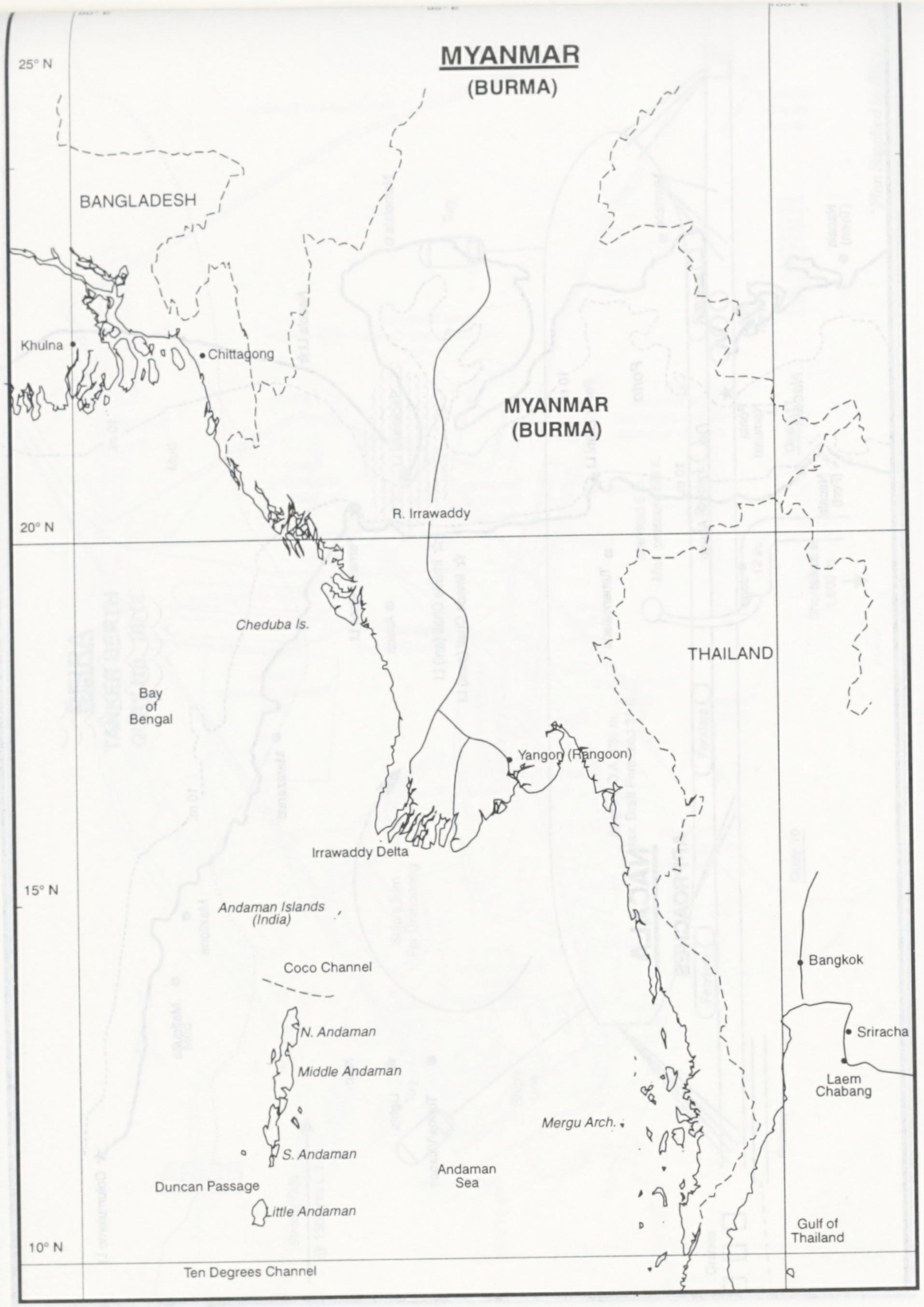
MINERAL BERTH


Gangway through
Gaps in Ship's Rail
Single flexible
hose
Hose 1 x 8 in.

"Plan Supplied by Ship's M

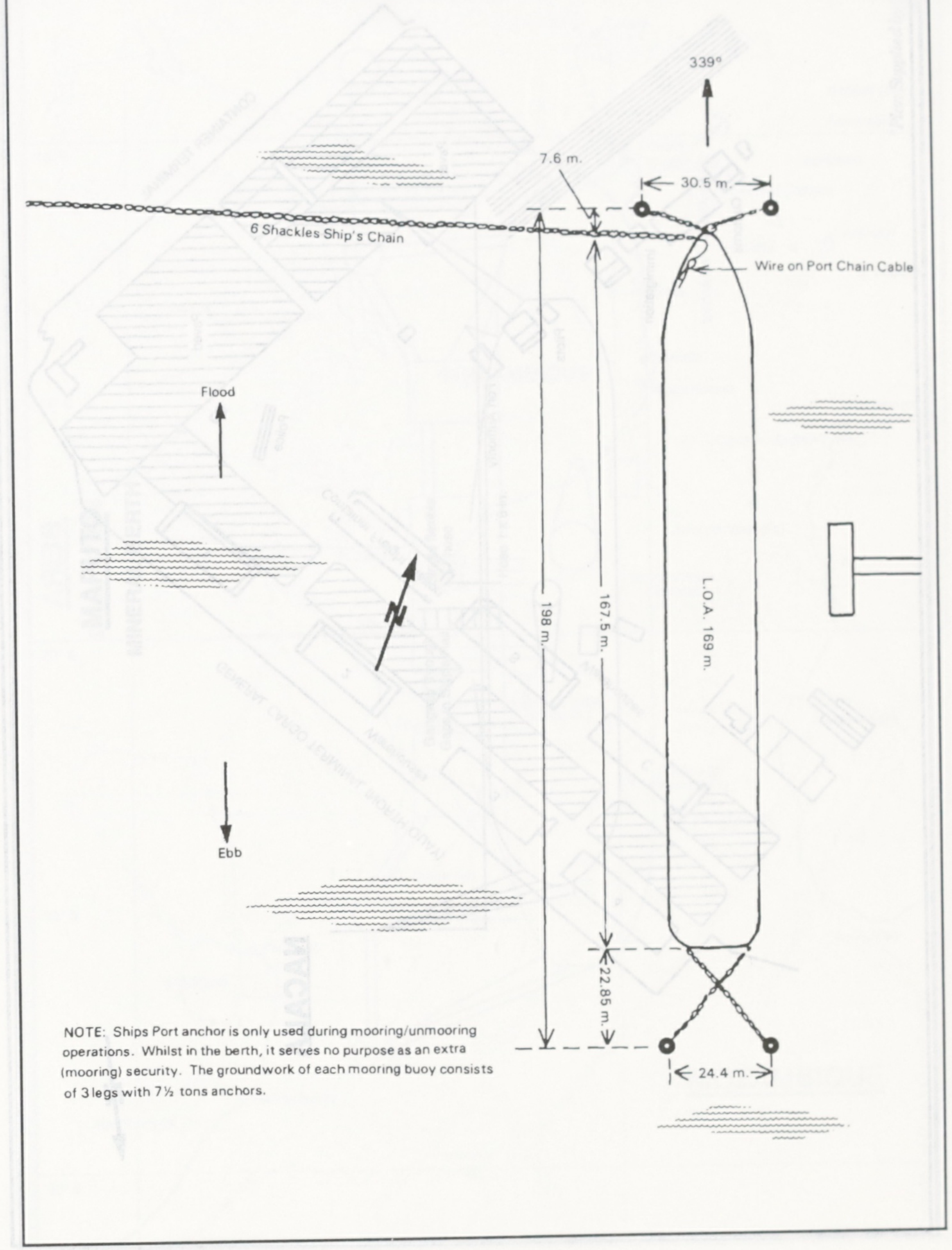

10 m.
★ Columulorno Lt
Matiquite
Maxllone
10 m.
Marazarazl
Nacala Lt
Fernao Veloso Lt
Key:
★ Lights
● Towns/Villages
Namelala
Sacamuld Lt
Amica
☆ Imade Chali (ani) Lt
☆ Imade Chali (post) Lt
10 m.
Ponta Zuani Lt
Tumancalaca
NACALA
APPROACHES
Porto
Murriace
10 m.
De
Abudo
Ponta Namuaxi Lt
Joge
Nacala
Jamal
Nacala (Town)
Nacala (Port)


N
CONTAINER TERMINAL
Paved
1
Police
GENERAL CARGO TERMINAL (NORTH QUAY)
Container Freight Station
2
Warehouses
NACALA
Paved
3
Port Authority
B
Pilots
Warehouses
4
C
Immigration
Customs

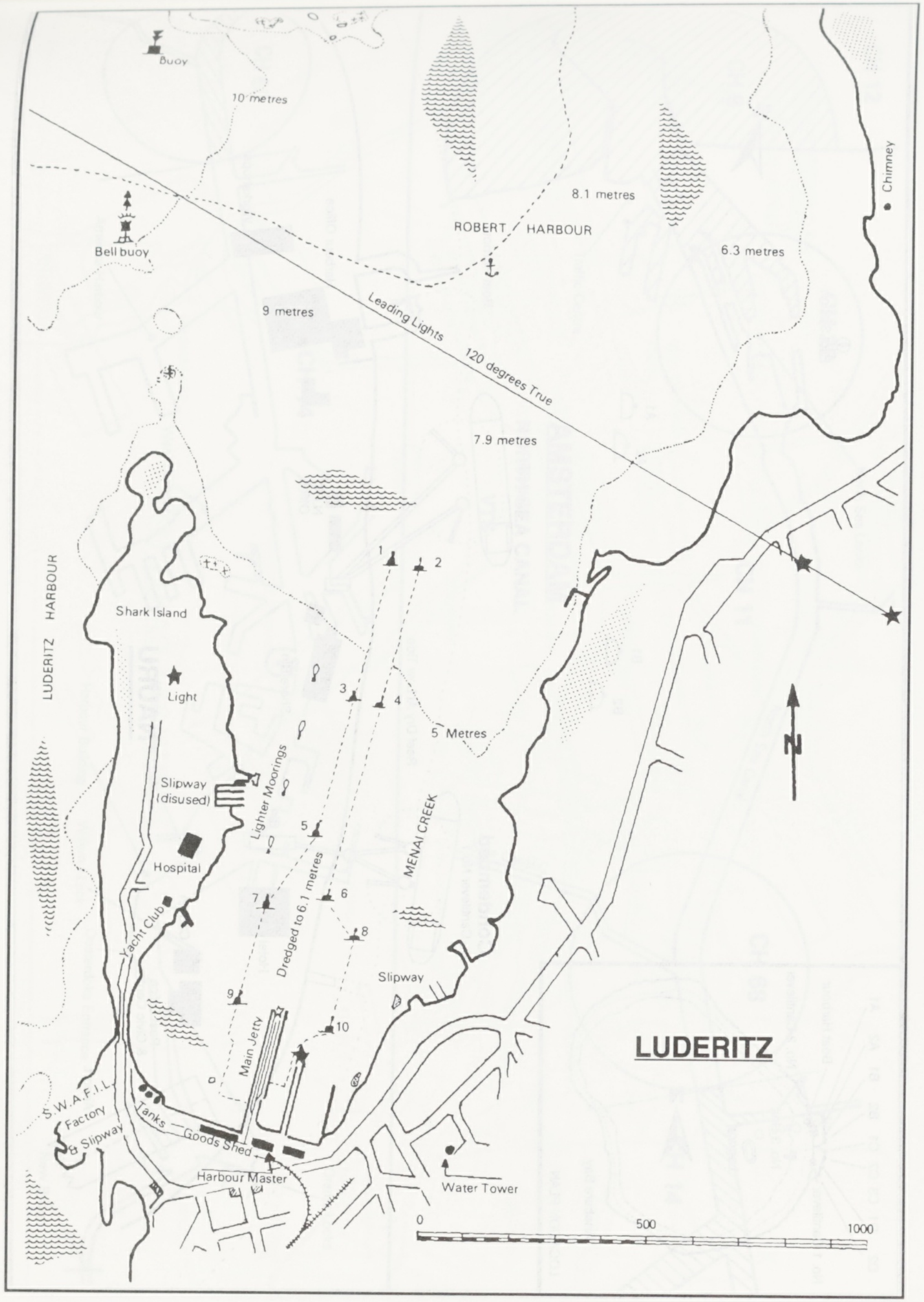

MYANMAR
(BURMA)
25° N
20° N
15° N
10° N
BANGLADESH
Khulna
Chittagong
MYANMAR
(BURMA)
R. Irrawaddy
Cheduba Is.
Bay
of
Bengal
Yangon (Rangoon)
THAILAND
Irrawaddy Delta
Andaman Islands
(India)
Coco Channel
N. Andaman
Middle Andaman
S. Andaman
Duncan Passage
Little Andaman
Andaman
Sea
Mergu Arch.
Bangkok
Sriracha
Laem
Chabang
Gulf of
Thailand
Ten Degrees Channel

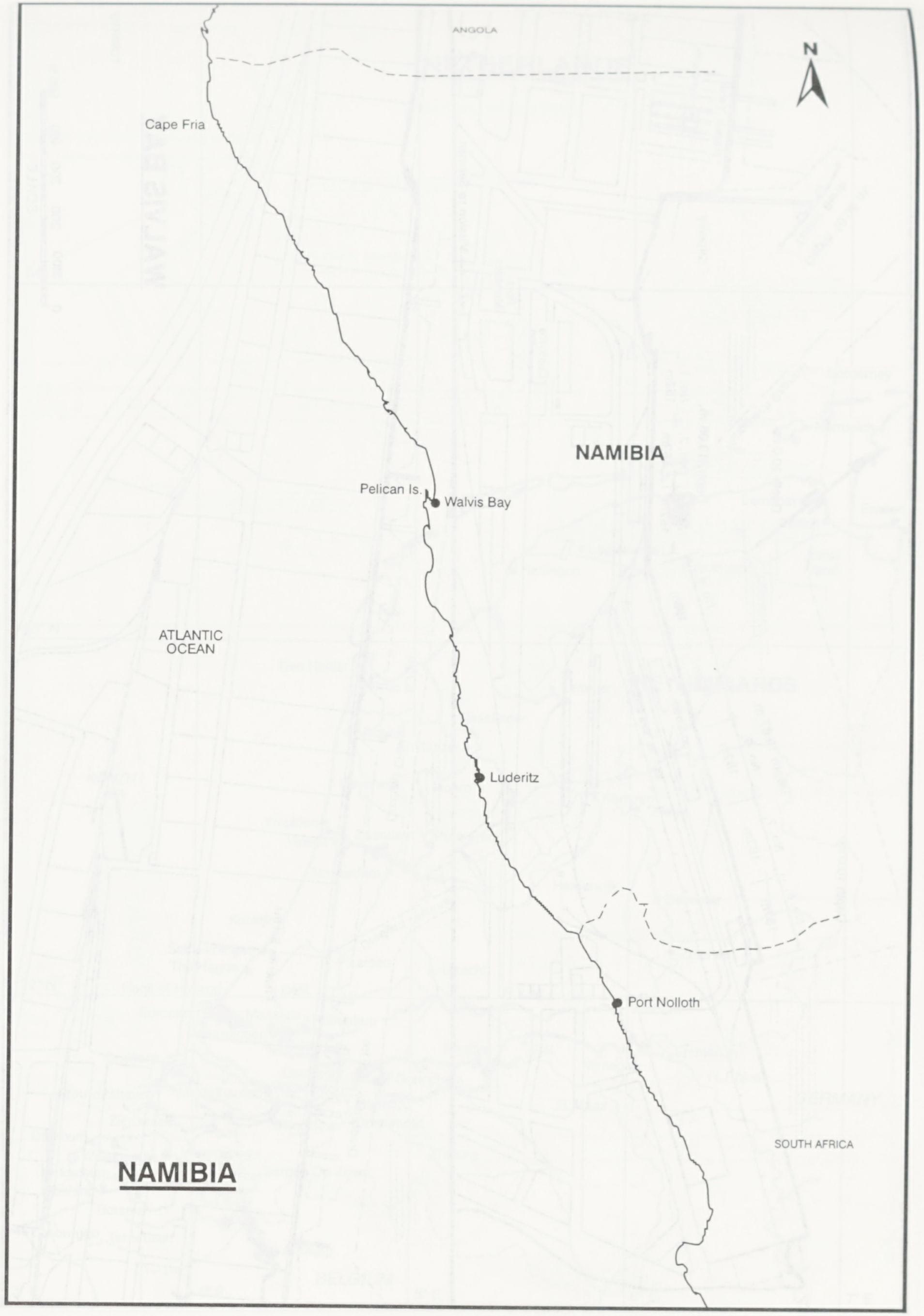
YANGON
(RANGOON)
BERTH 1 - RANGOON RIVER

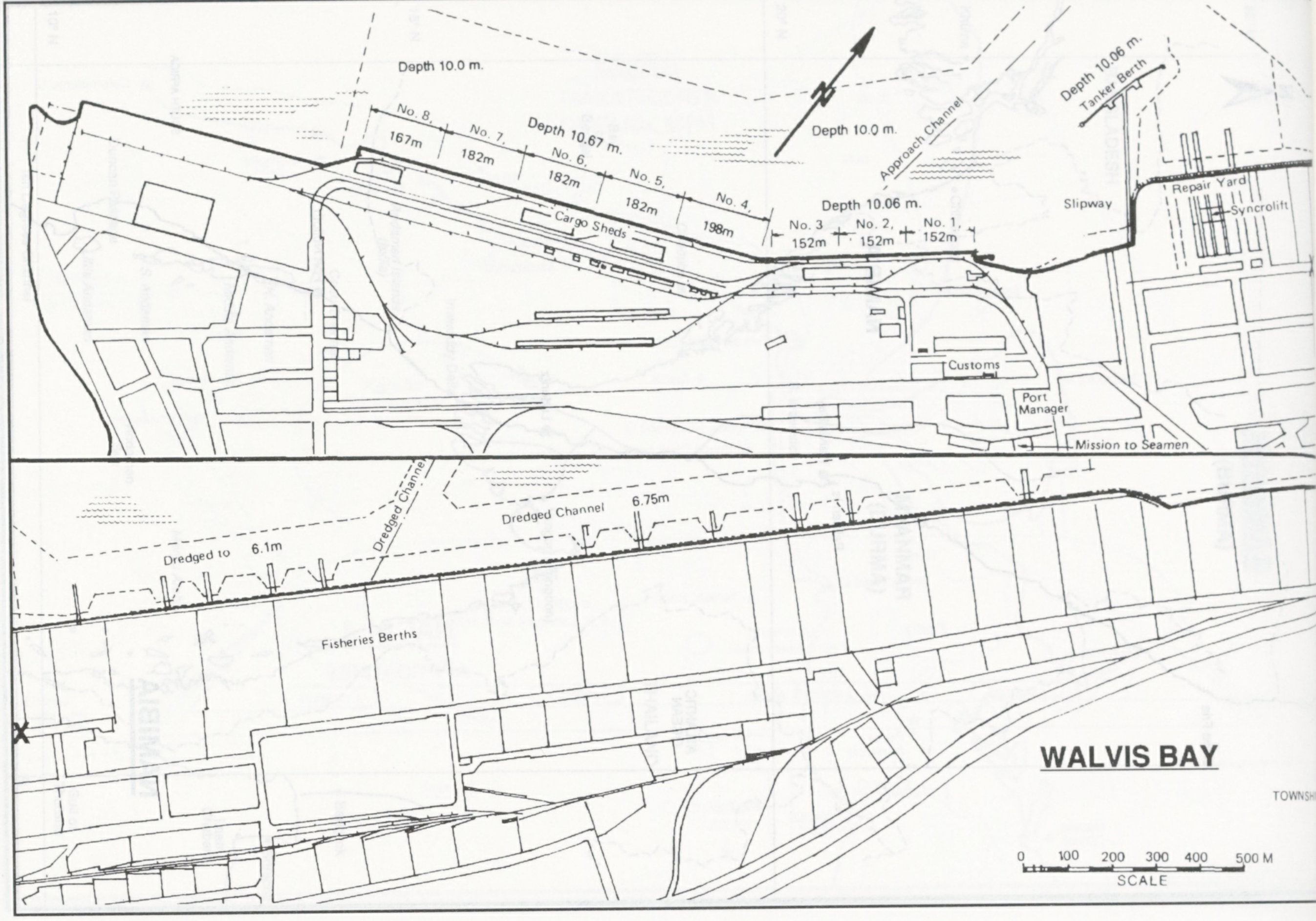
(Approx. dimensions in metres)

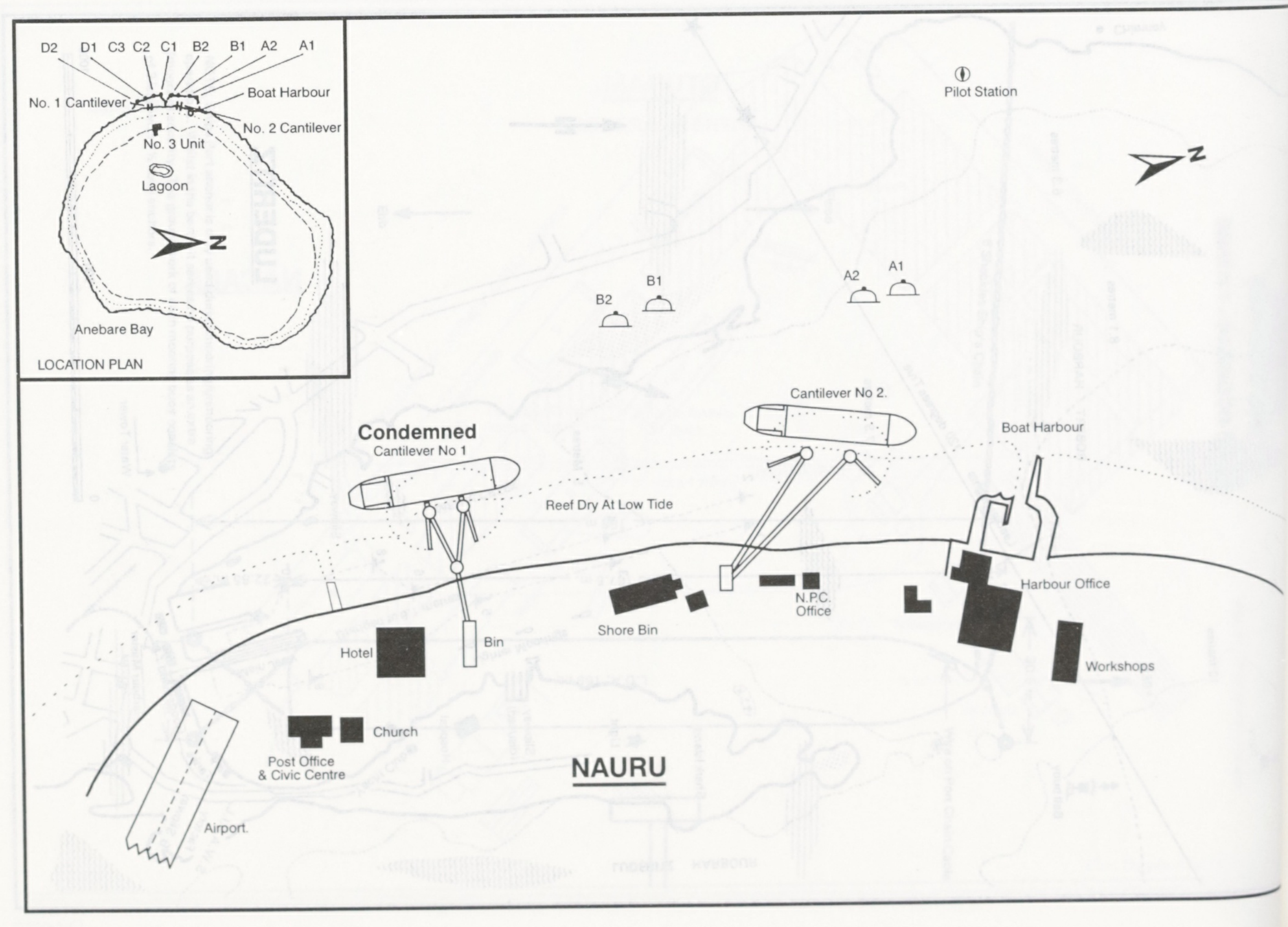

339°
7.6 m.
30.5 m.
6 Shackles Ship's Chain
Wire on Port Chain Cable
Flood
Ebb
198 m.
167.5 m.
L.O.A. 169 m.
22.85 m.
24.4 m.

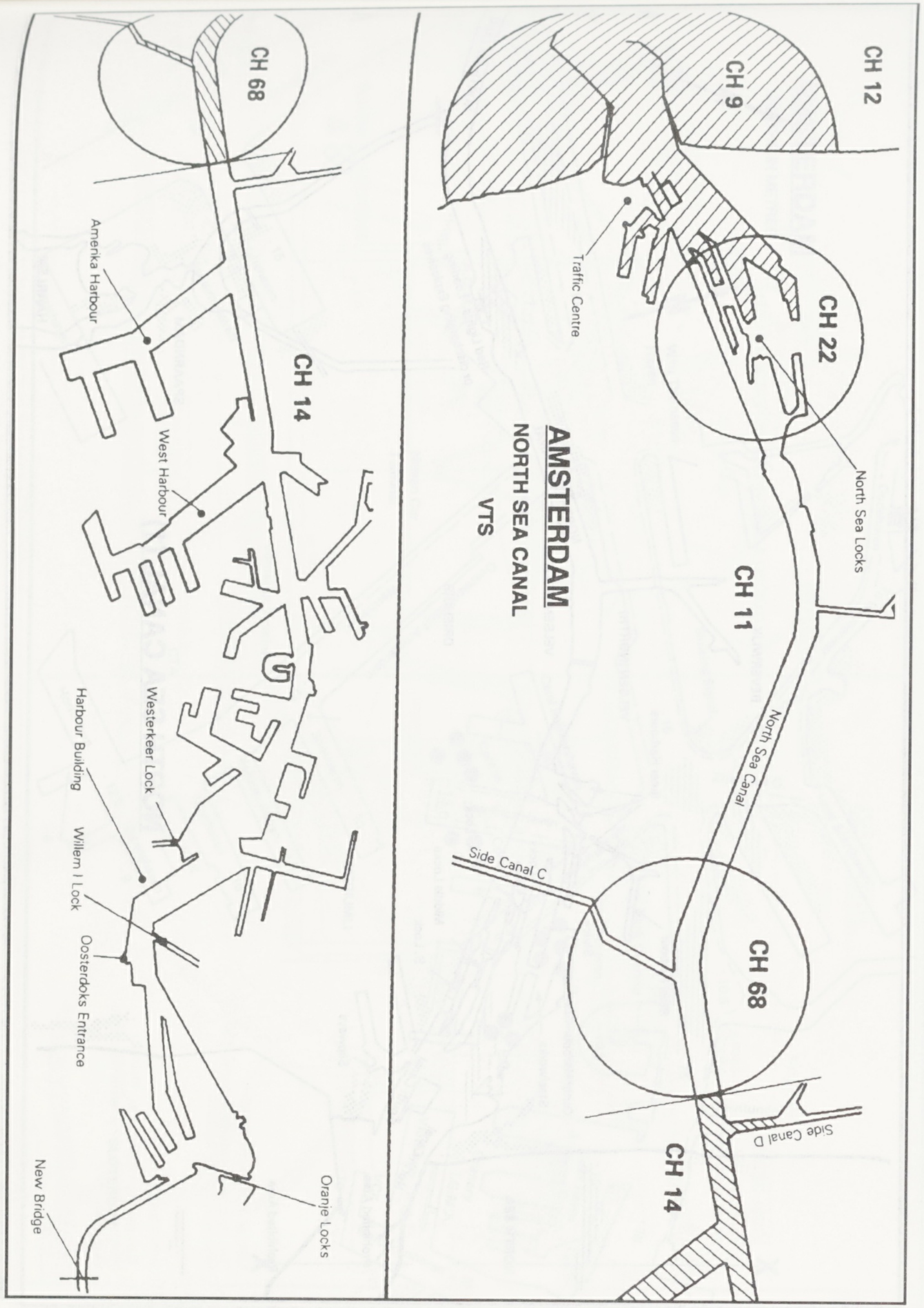
NOTE: Ships Port anchor is only used during mooring/unmooring operations. Whilst in the berth, it serves no purpose as an extra (mooring) security. The groundwork of each mooring buoy consists of 3 legs with 7½ tons anchors.


Buoy
10 metres
Bell buoy
8.1 metres
ROBERT HARBOUR
6.3 metres
Chimney
9 metres
Leading Lights 120 degrees True
7.9 metres
1
2
3
4
5
6
7
8
9
10
LUDERITZ HARBOUR
Shark Island
Light
5 Metres
Lighter Moorings
Slipway (disused)
MENAI CREEK
Hospital
Dredged to 6.1 metres
Yacht Club
Slipway
Main Jetty
S.W.A.F.I.L. Factory & Slipway
Tanks
Goods Shed
Harbour Master
Water Tower
0
500
1000
N
LUDERITZ


ANGOLA
N
Cape Fria
NAMIBIA
Pelican Is.
Walvis Bay
ATLANTIC OCEAN
Luderitz
Port Nolloth
SOUTH AFRICA
NAMIBIA


Depth 10.0 m.
No. 8, 167m
No. 7, 182m
Depth 10.67 m.
No. 6, 182m
No. 5, 182m
No. 4, 198m
Cargo Sheds
Depth 10.0 m.
Approach Channel
Depth 10.06 m.
Tanker Berth
Depth 10.06 m.
No. 3 152m
No. 2, 152m
No. 1, 152m
Slipway
Repair Yard
Syncrolift
Customs
Port Manager
Mission to Seamen
Dredged Channel
Dredged Channel 6.75m
Dredged to 6.1m
Fisheries Berths
WALVIS BAY
TOWNSH
0 100 200 300 400 500 M
SCALE


D2
D1
C3
C2
C1
B2
B1
A2
A1
No. 1 Cantilever
Boat Harbour
No. 2 Cantilever
No. 3 Unit
Lagoon
N
Anebare Bay
LOCATION PLAN
Pilot Station
N
B2
B1
A2
A1
Cantilever No 2.
Boat Harbour
Condemned
Cantilever No 1
Reef Dry At Low Tide
Harbour Office
N.P.C. Office
Shore Bin
Bin
Hotel
Workshops
Church
Post Office & Civic Centre
NAURU
Airport.



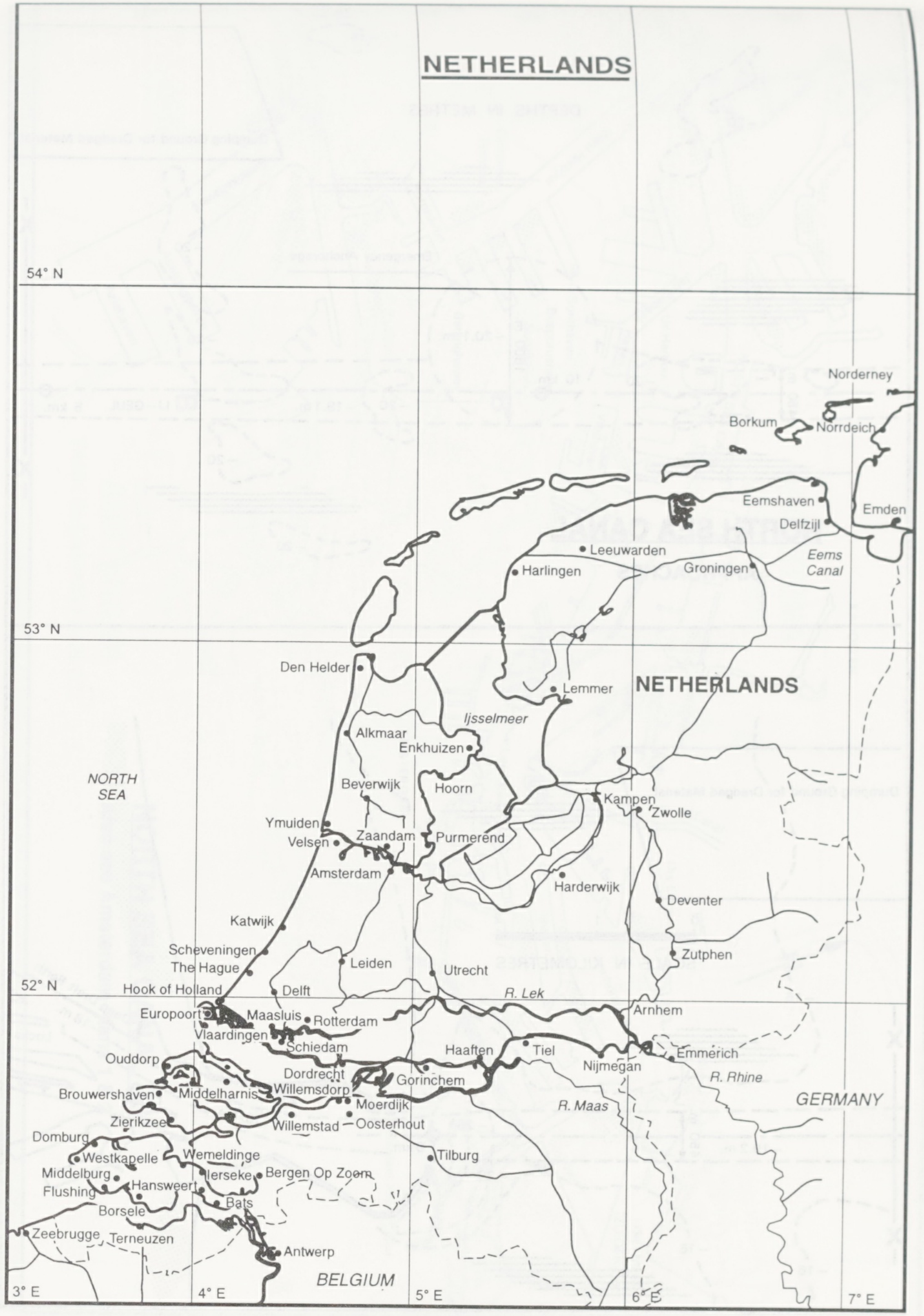
AMSTERDAM

NORTH SEA CANAL

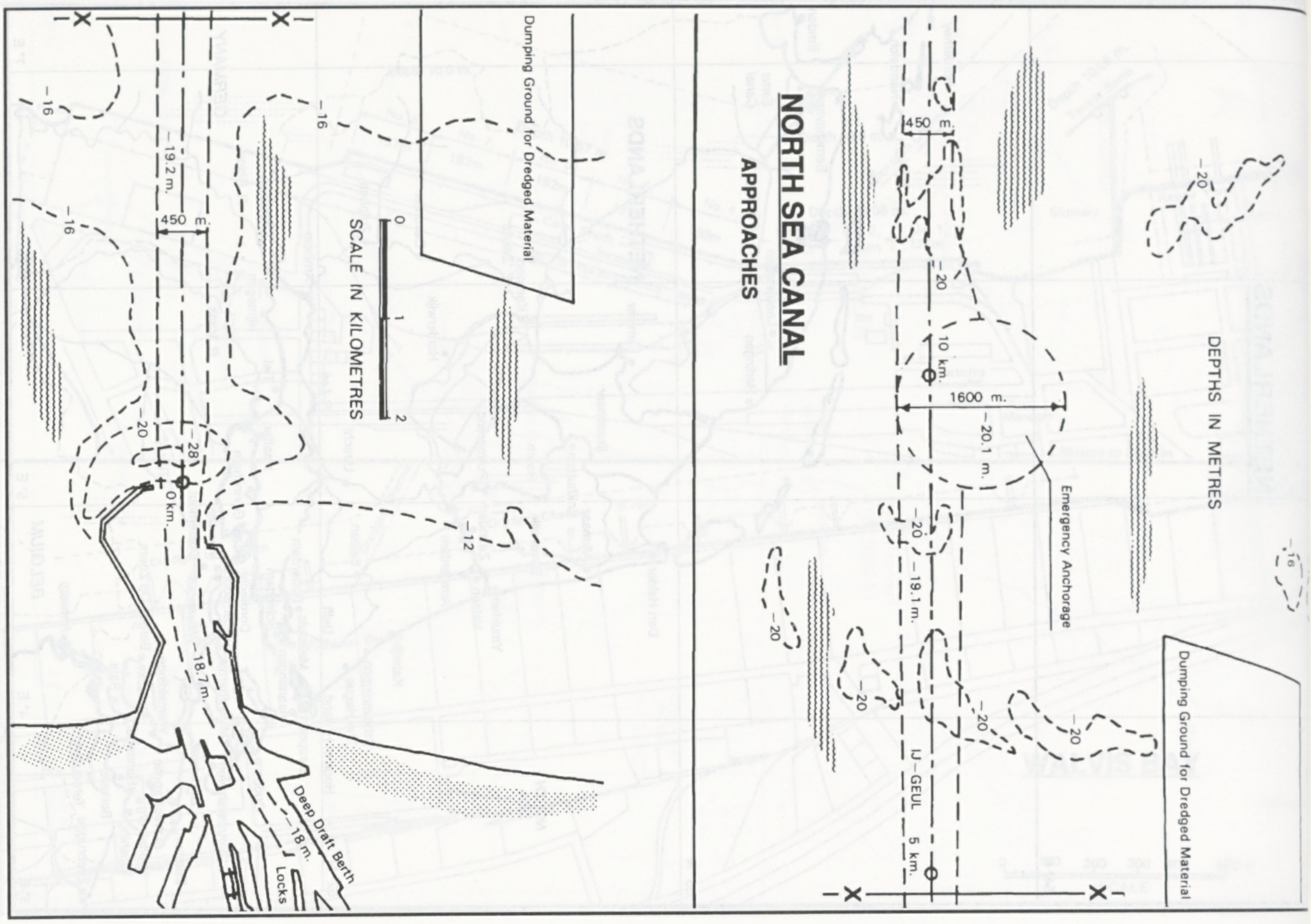
VTS

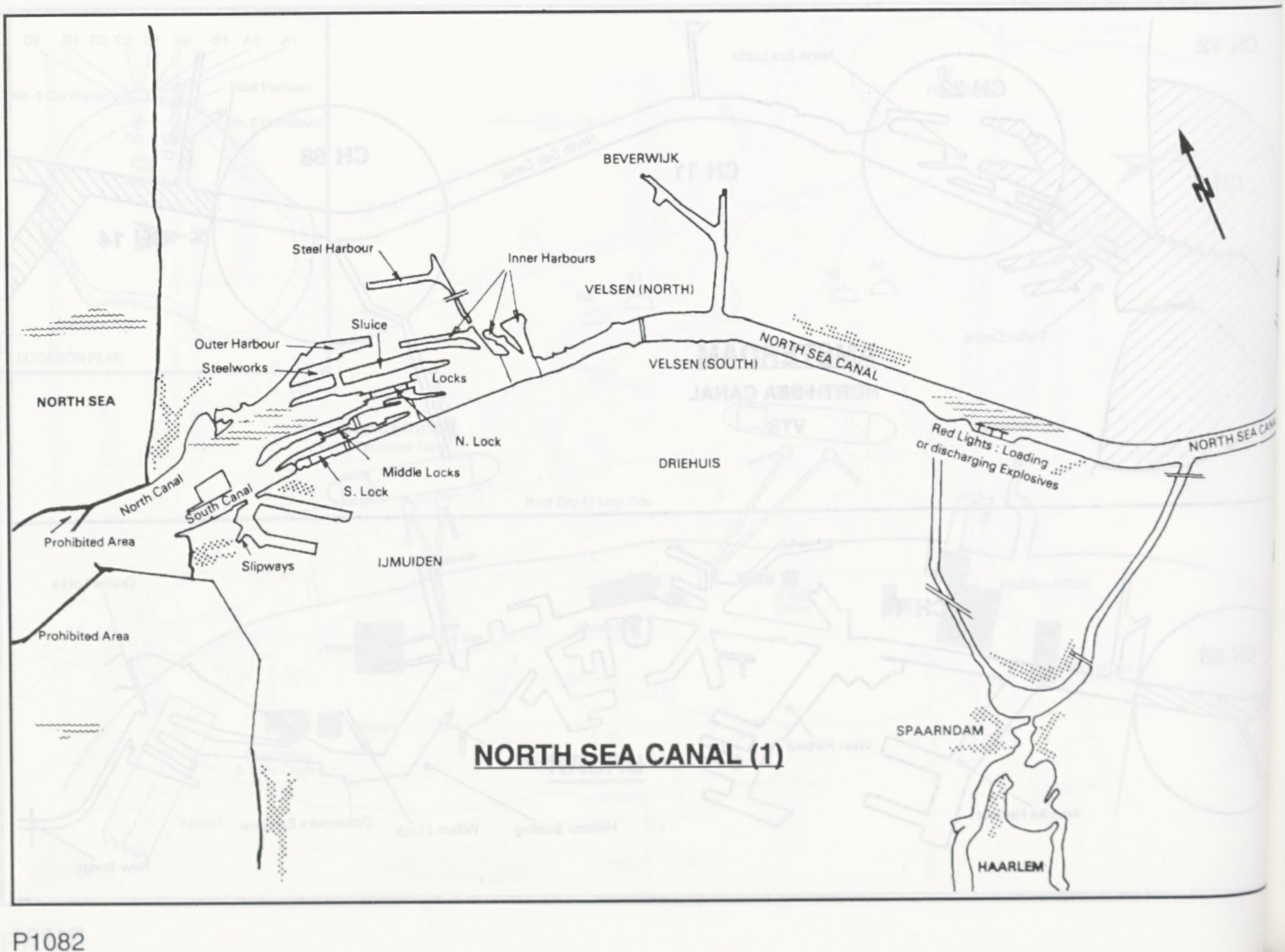
CH 12
CH 9
CH 22
North Sea Locks
Traffic Centre
CH 11
North Sea Canal
Side Canal C
CH 68
Side Canal D
CH 14
CH 68
Amerika Harbour
CH 14
West Harbour
Westerkeer Lock
Harbour Building
Willem I Lock
Oosterdoks Entrance
Oranje Locks
New Bridge

NETHERLANDS

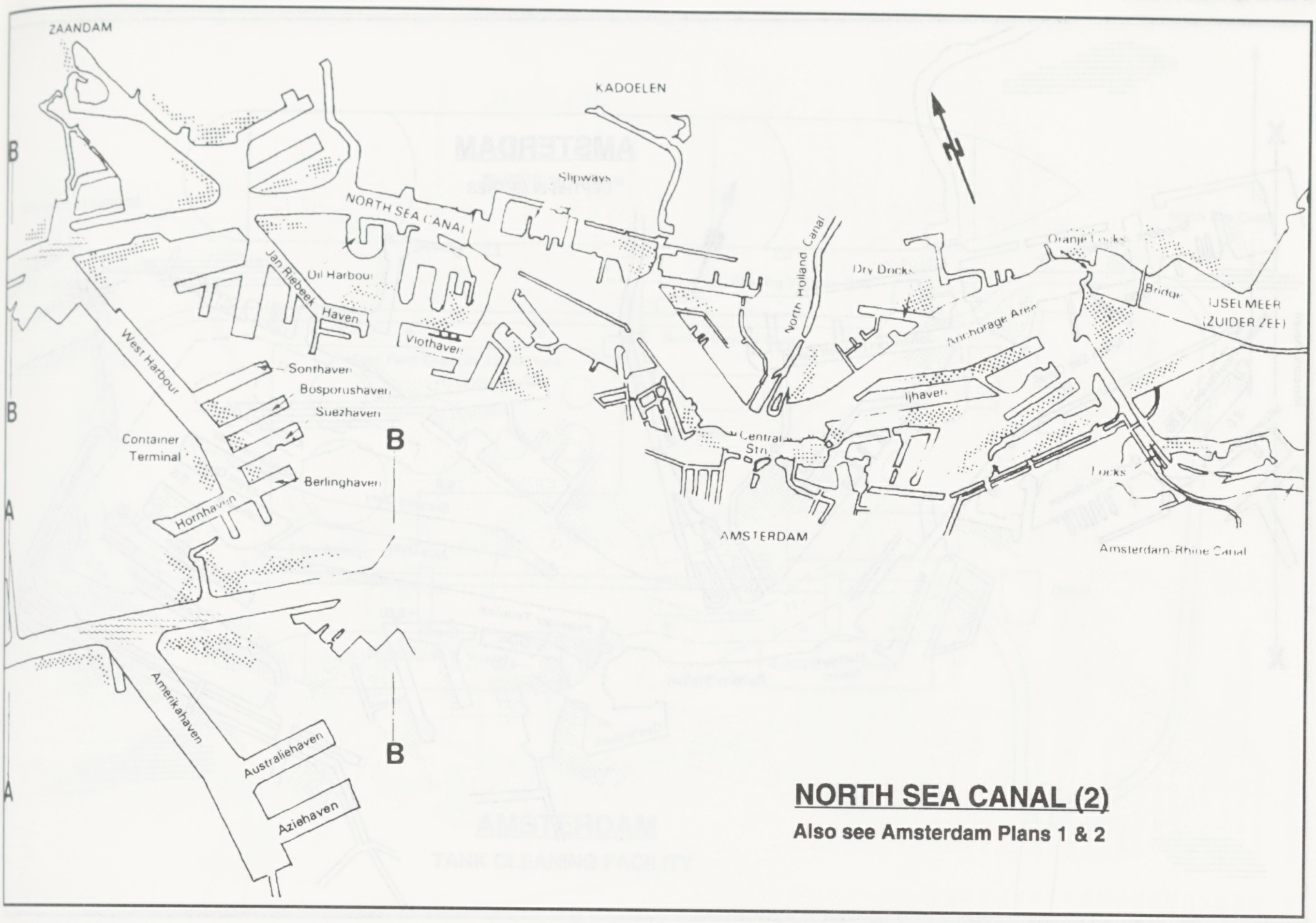


54° N
53° N
52° N
3° E
4° E
5° E
6° E
7° E
Norderney
Borkum
Norrdeich
Eemshaven
Emden
Delfzijl
Eems Canal
Leeuwarden
Harlingen
Groningen
NETHERLANDS
Den Helder
Lemmer
Ijsselmeer
Alkmaar
Enkhuizen
NORTH SEA
Beverwijk
Hoorn
Kampen
Zwolle
Ymuiden
Velsen
Zaandam
Purmerend
Amsterdam
Harderwijk
Deventer
Katwijk
Scheveningen
The Hague
Leiden
Utrecht
Zutphen
Hook of Holland
Delft
R. Lek
Arnhem
Europoort
Maasluis
Rotterdam
Vlaardingen
Schiedam
Haaften
Tiel
Emmerich
Ouddorp
Dordrecht
Nijmegan
R. Rhine
Brouwershaven
Middelharnis
Willemsdorp
Gorinchem
Moerdijk
R. Maas
GERMANY
Zierikzee
Willemstad
Oosterhout
Domburg
Westkapelle
Wemeldinge
Middelburg
Ierseke
Bergen Op Zoom
Tilburg
Flushing
Hansweert
Borsele
Bats
Zeebrugge
Terneuzen
Antwerp
BELGIUM


NORTH SEA CANAL
APPROACHES
DEPTHS IN METRES
SCALE IN KILOMETRES
0
1
2
Dumping Ground for Dredged Material
Dumping Ground for Dredged Material
Emergency Anchorage
450 m.
450 m.
1600 m.
10 km.
5 km.
0 km.
IJ – GEUL
–20.1 m.
–19.1 m.
–19.2 m.
–18.7 m.
–18 m.
–28
–20
–16
–12
Deep Draft Berth
Locks


N
BEVERWIJK
Steel Harbour
Inner Harbours
VELSEN (NORTH)
VELSEN (SOUTH)
Sluice
Outer Harbour
Steelworks
Locks
NORTH SEA
N. Lock
Middle Locks
S. Lock
North Canal
South Canal
Prohibited Area
Prohibited Area
Slipways
IJMUIDEN
DRIEHUIS
NORTH SEA CANAL
NORTH SEA CANAL
Red Lights : Loading or discharging Explosives
SPAARNDAM
HAARLEM

NORTH SEA CANAL (1)

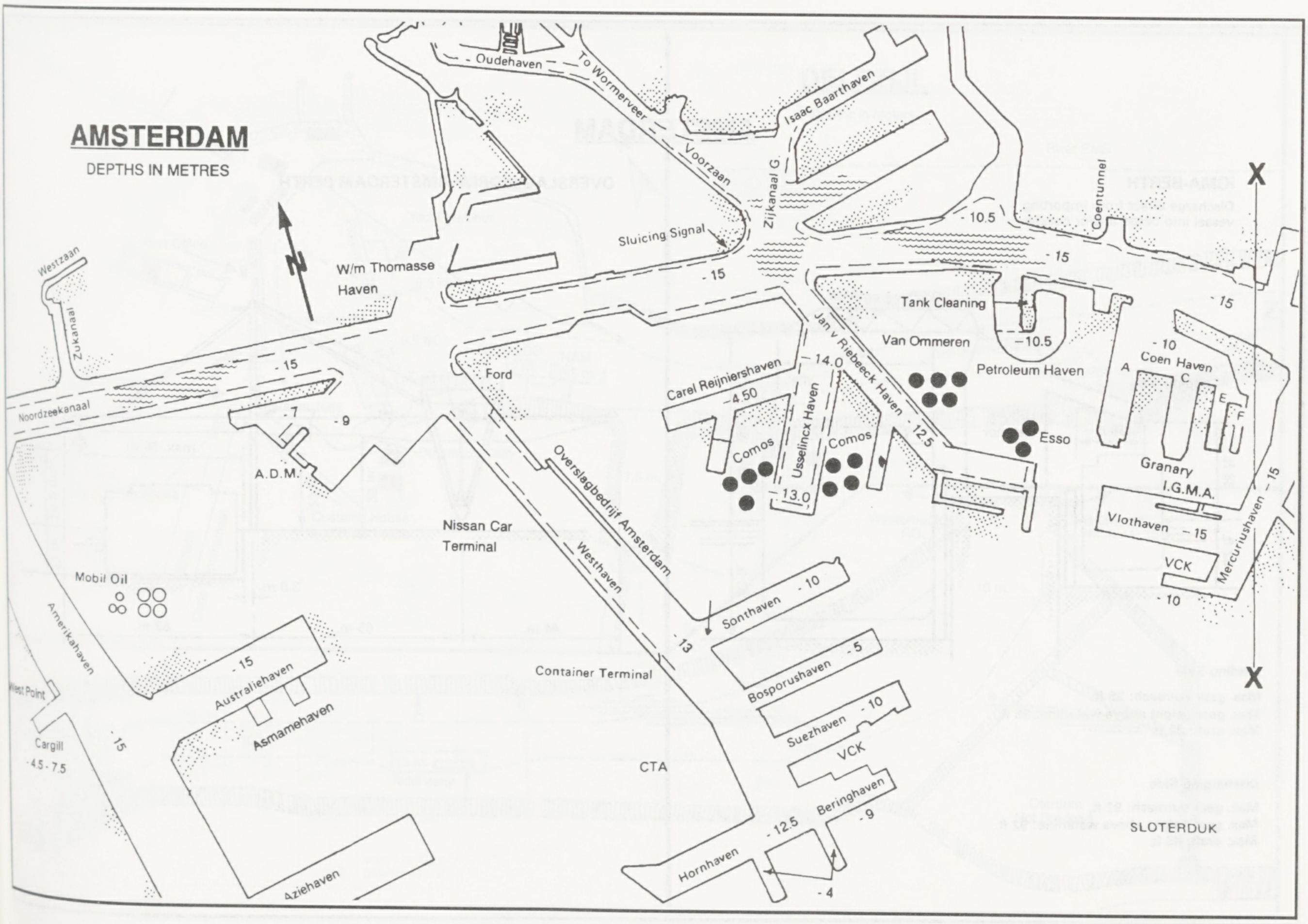

ZAANDAM
KADOELEN
Slipways
NORTH SEA CANAL
Oil Harbour
Jan Riebeek Haven
Vlothaven
Sonthaven
Bosporushaven
Suezhaven
West Harbour
Container Terminal
Hornhaven
Berlinghaven
B
B
B
B
A
A
Amerikahaven
Australiehaven
Aziehaven
North Holland Canal
Dry Docks
Anchorage Area
Ijhaven
Central Stn
AMSTERDAM
Oranje Locks
Bridge
IJSELMEER (ZUIDER ZEE)
Locks
Amsterdam-Rhine Canal
N

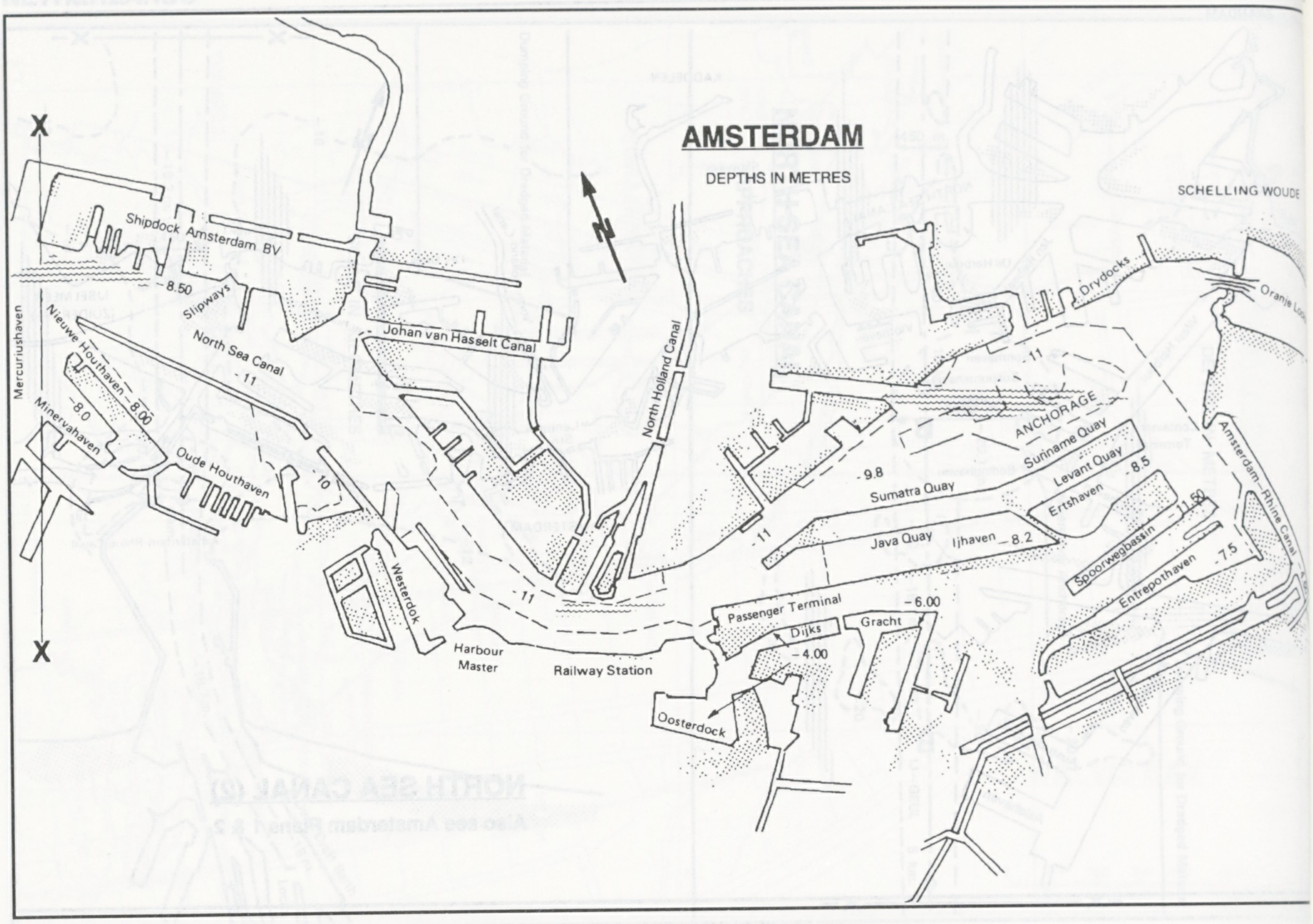
NORTH SEA CANAL (2)

Also see Amsterdam Plans 1 & 2

AMSTERDAM

DEPTHS IN METRES

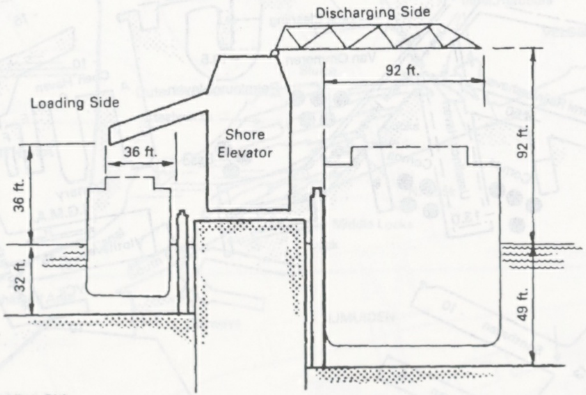

Oudehaven
To Wormerveer
Voorzaan
Isaac Baarthaven
Zijkanaal G
Sluicing Signal
- 15
W/m Thomasse Haven
N
Westzaan
Zijkanaal
Noordzeekanaal
- 15
- 7
- 9
A.D.M.
Ford
Carel Reijniershaven
-4.50
14.0
Usselincx Haven
Comos
Comos
13.0
Jan v Riebeeck Haven
- 12.5
Tank Cleaning
Van Ommeren
-10.5
Petroleum Haven
Esso
- 10.5
Coentunnel
- 15
X
- 15
- 10
Coen Haven
A
C
E
F
Granary
I.G.M.A.
Vlothaven - 15
Mercuriushaven - 15
VCK
- 10
X
Overslagbedrijf Amsterdam
Westhaven
Nissan Car Terminal
Mobil Oil
Amerikahaven
West Point
Cargill
- 4.5 - 7.5
- 15
- 15
Australiehaven
Asmamehaven
Aziehaven
- 13
Container Terminal
CTA
Sonthaven - 10
Bosporushaven - 5
Suezhaven - 10
VCK
Beringhaven
- 9
- 12.5
Hornhaven
- 4
SLOTERDUK


AMSTERDAM
DEPTHS IN METRES
N
X
X
SCHELLING WOUDE
Oranje Lock
Shipdock Amsterdam BV
- 8.50
Slipways
North Sea Canal
- 11
Mercuriushaven
Nieuwe Houthaven
- 8.00
Minervahaven
- 8.0
Oude Houthaven
10
Johan van Hasselt Canal
North Holland Canal
Westerdok
- 11
Harbour Master
Railway Station
Drydocks
11
ANCHORAGE
- 9.8
Sumatra Quay
Surinamе Quay
Levant Quay
- 8.5
Ertshaven
Java Quay
Ijhaven
- 8.2
- 11
Spoorwegbassin
- 11.50
Entrepothaven
- 7.5
Amsterdam–Rhine Canal
Passenger Terminal
- 6.00
Dijks
Gracht
- 4.00
Oosterdock

AMSTERDAM

IGMA-BERTH

Discharge direct from importing vessel into barge and/or coaster


Discharging Side
Loading Side
Shore Elevator
36 ft.
36 ft.
32 ft.
92 ft.
92 ft.
49 ft.

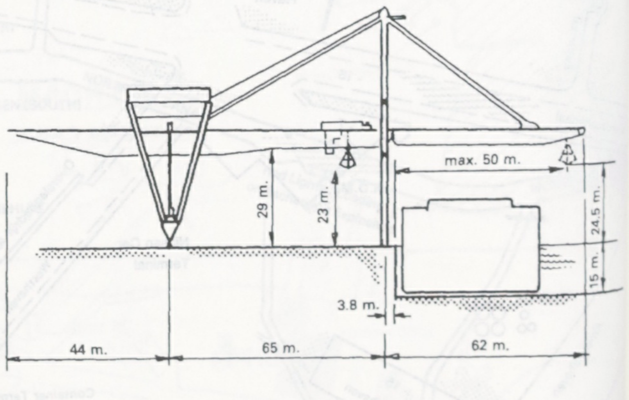
Loading Side

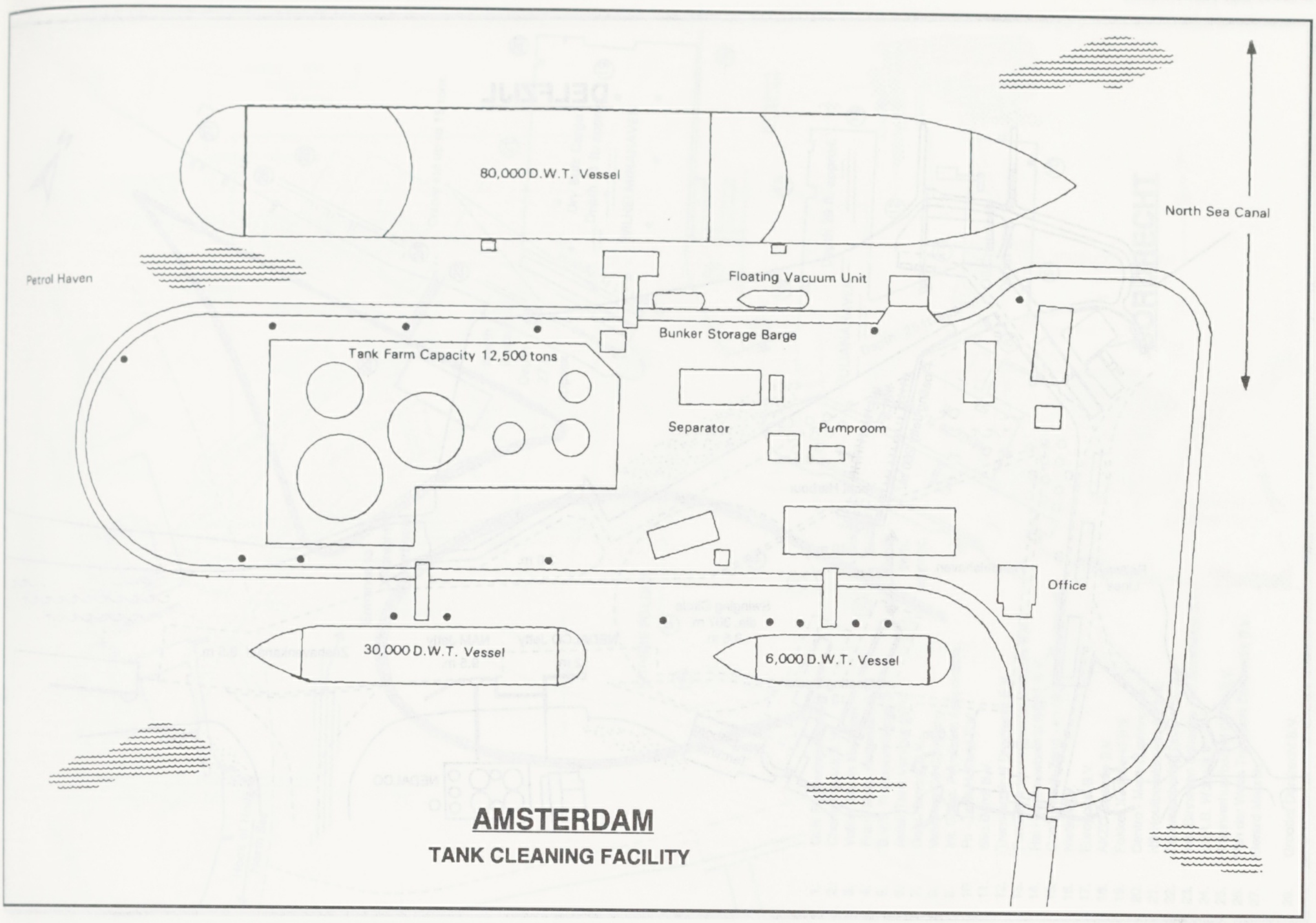
Max. gear outreach: 36 ft.
Max. gear height above waterline: 36 ft.
Max. draft: 32 ft.

Discharging Side

Max. gear outreach: 92 ft.
Max. gear height above waterline: 92 ft.
Max. draft: 49 ft.

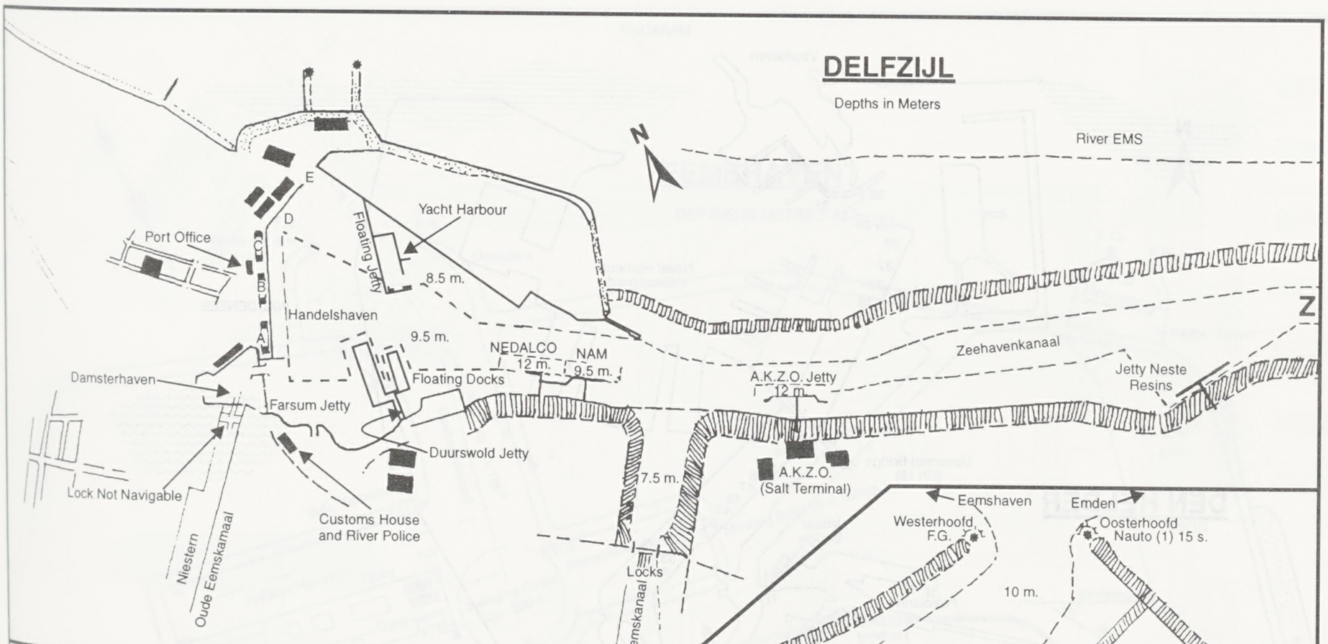
OVERSLAGBEDRIJF AMSTERDAM BERTH


max. 50 m.
29 m.
23 m.
24.5 m.
15 m.
3.8 m.
44 m.
65 m.
62 m.


80,000 D.W.T. Vessel
North Sea Canal
Petrol Haven
Floating Vacuum Unit
Bunker Storage Barge
Tank Farm Capacity 12,500 tons
Separator
Pumproom
Office
30,000 D.W.T. Vessel
6,000 D.W.T. Vessel

AMSTERDAM

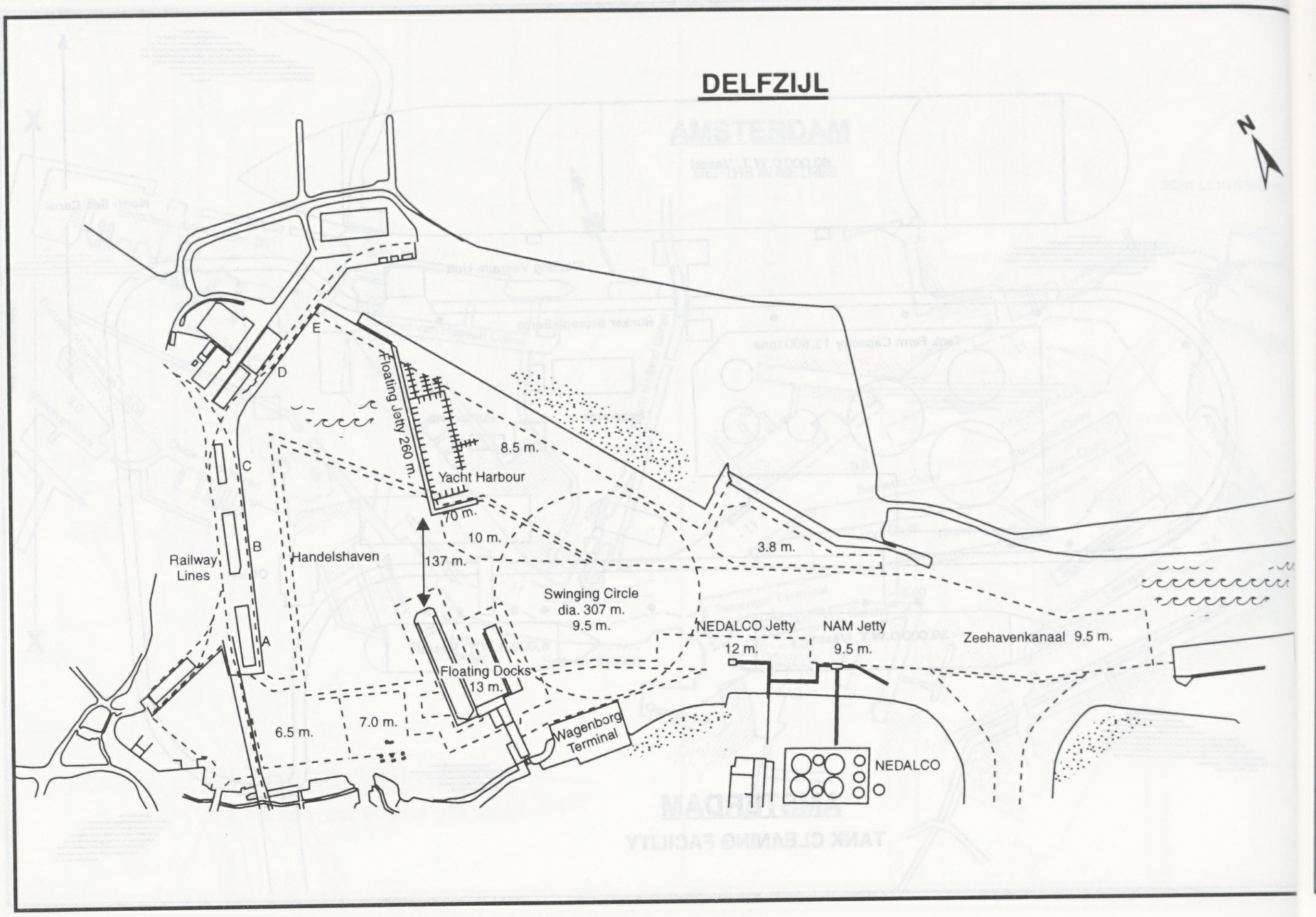
TANK CLEANING FACILITY

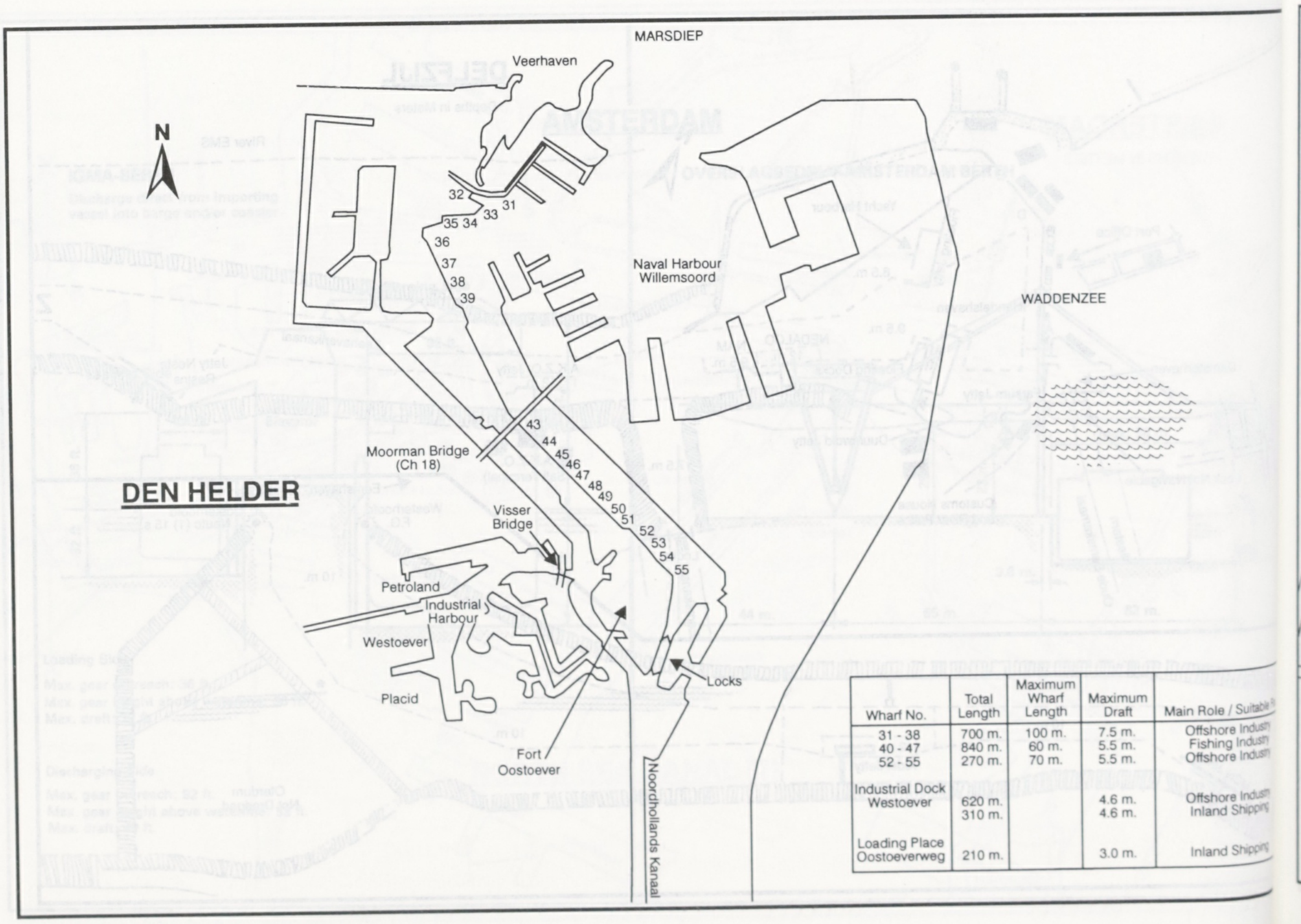


DELFZIJL

Depths in Meters

N
River EMS
Yacht Harbour
Floating Jetty
E
D
C
B
A
Port Office
8.5 m.
Handelshaven
9.5 m.
NEDALCO
12 m.
NAM
9.5 m.
Floating Docks
Damsterhaven
Farsum Jetty
Duurswold Jetty
Lock Not Navigable
Customs House and River Police
Niestern
Oude Eemskanaal
7.5 m.
Locks
Eemskanaal
A.K.Z.O. Jetty
12 m.
A.K.Z.O. (Salt Terminal)
Zeehavenkanaal
Jetty Neste Resins
Z
Eemshaven
Emden
Westerhoofd F.G.
Oosterhoofd Nauto (1) 15 s.
10 m.
10 m.
10 m.
10 m.
12 m.
Aldel Jetty
MCN Jetty
Z
Oterdum Not Dredged

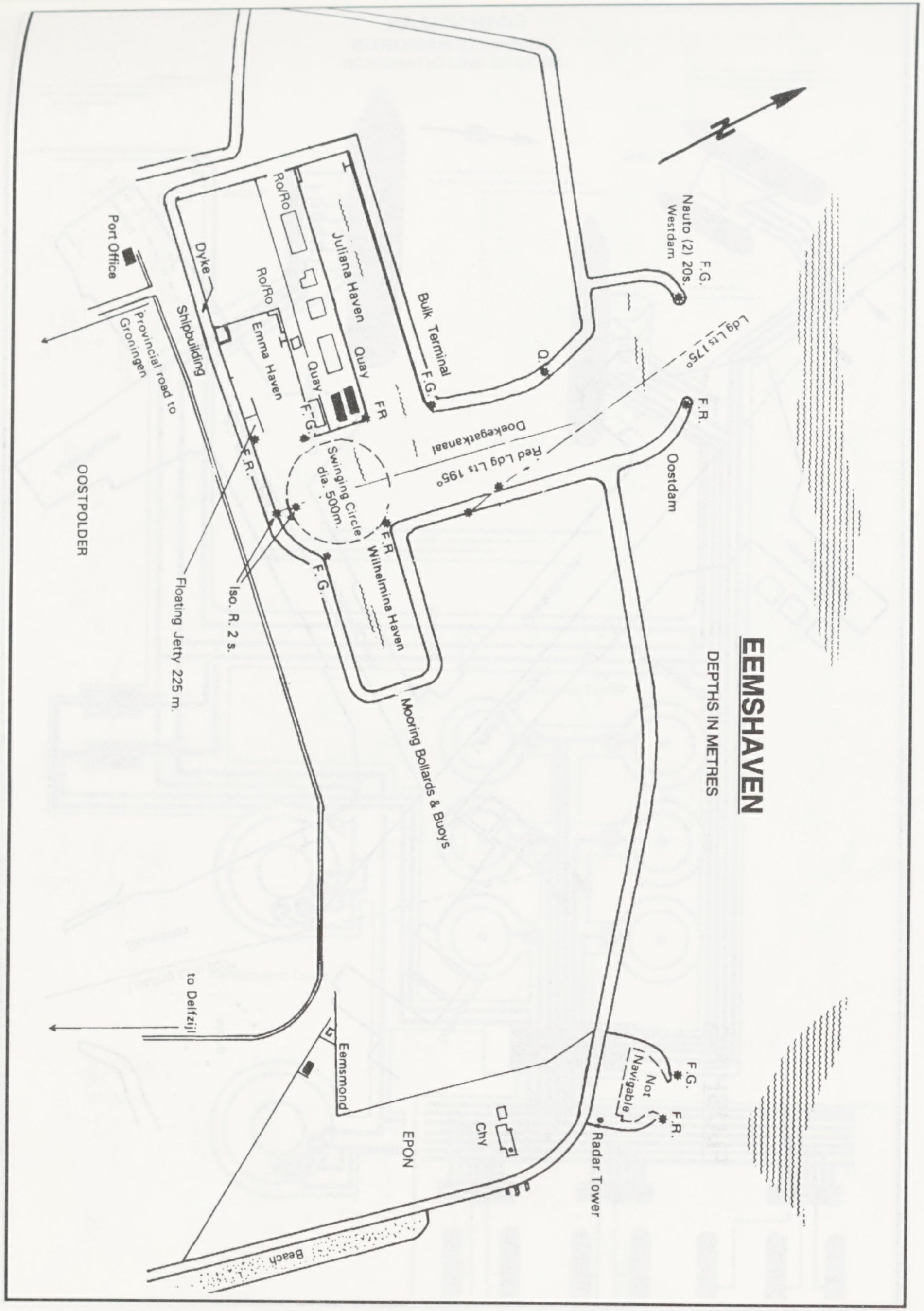

DELFZIJL
N
E
D
C
B
A
Floating Jetty 260 m.
Yacht Harbour
8.5 m.
70 m.
10 m.
137 m.
Railway Lines
Handelshaven
Swinging Circle
dia. 307 m.
9.5 m.
3.8 m.
NEDALCO Jetty
12 m.
NAM Jetty
9.5 m.
Zeehavenkanaal 9.5 m.
Floating Docks
13 m.
6.5 m.
7.0 m.
Wagenborg Terminal
NEDALCO


MARSDIEP
Veerhaven
N
32
31
33
35 34
36
37
38
39
Naval Harbour Willemsoord
WADDENZEE
43
44
45
46
47
48
49
50
51
52
53
54
55
Moorman Bridge (Ch 18)
DEN HELDER
Visser Bridge
Petroland
Industrial Harbour
Westoever
Placid
Fort Oostoever
Locks
Noordhollands Kanaal

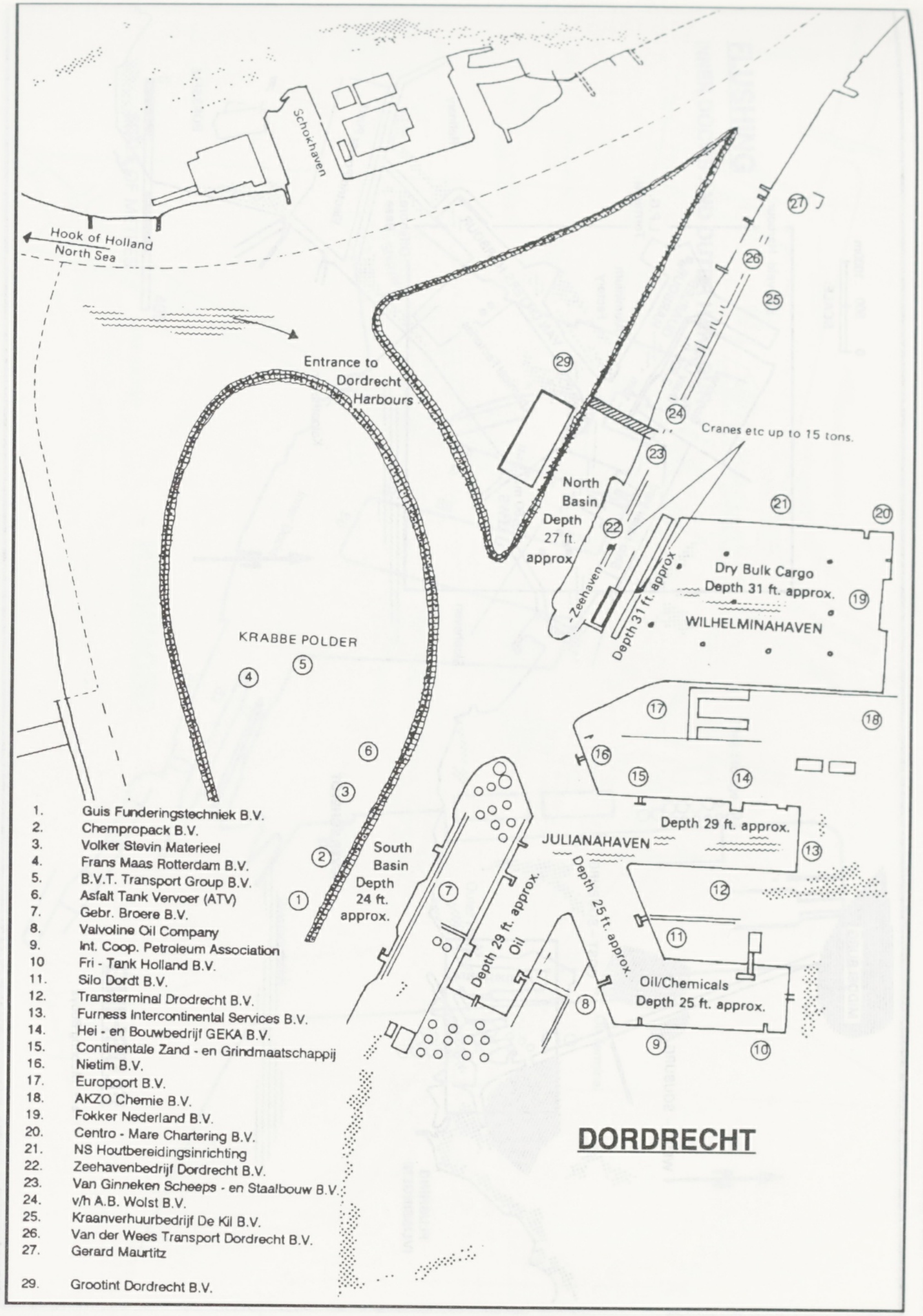
Wharf No.	Total Length	Maximum Wharf Length	Maximum Draft	Main Role / Suitab
31 - 38	700 m.	100 m.	7.5 m.	Offshore Indust
40 - 47	840 m.	60 m.	5.5 m.	Fishing Indust
52 - 55	270 m.	70 m.	5.5 m.	Offshore Indust
Industrial Dock Westoever	620 m.		4.6 m.	Offshore Indust
	310 m.		4.6 m.	Inland Shipping
Loading Place Oostoeverweg	210 m.		3.0 m.	Inland Shipping

EEMSHAVEN

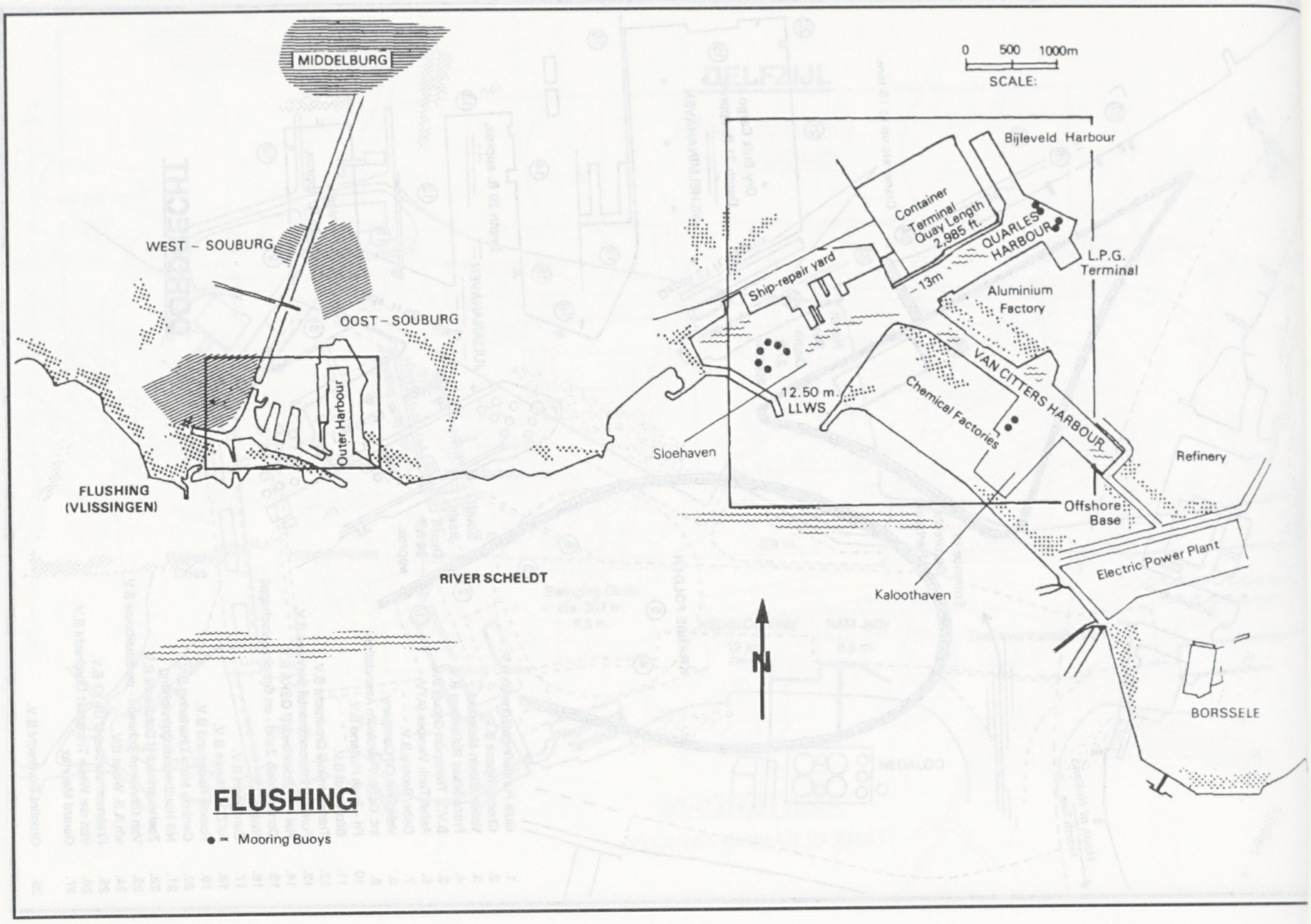
DEPTHS IN METRES

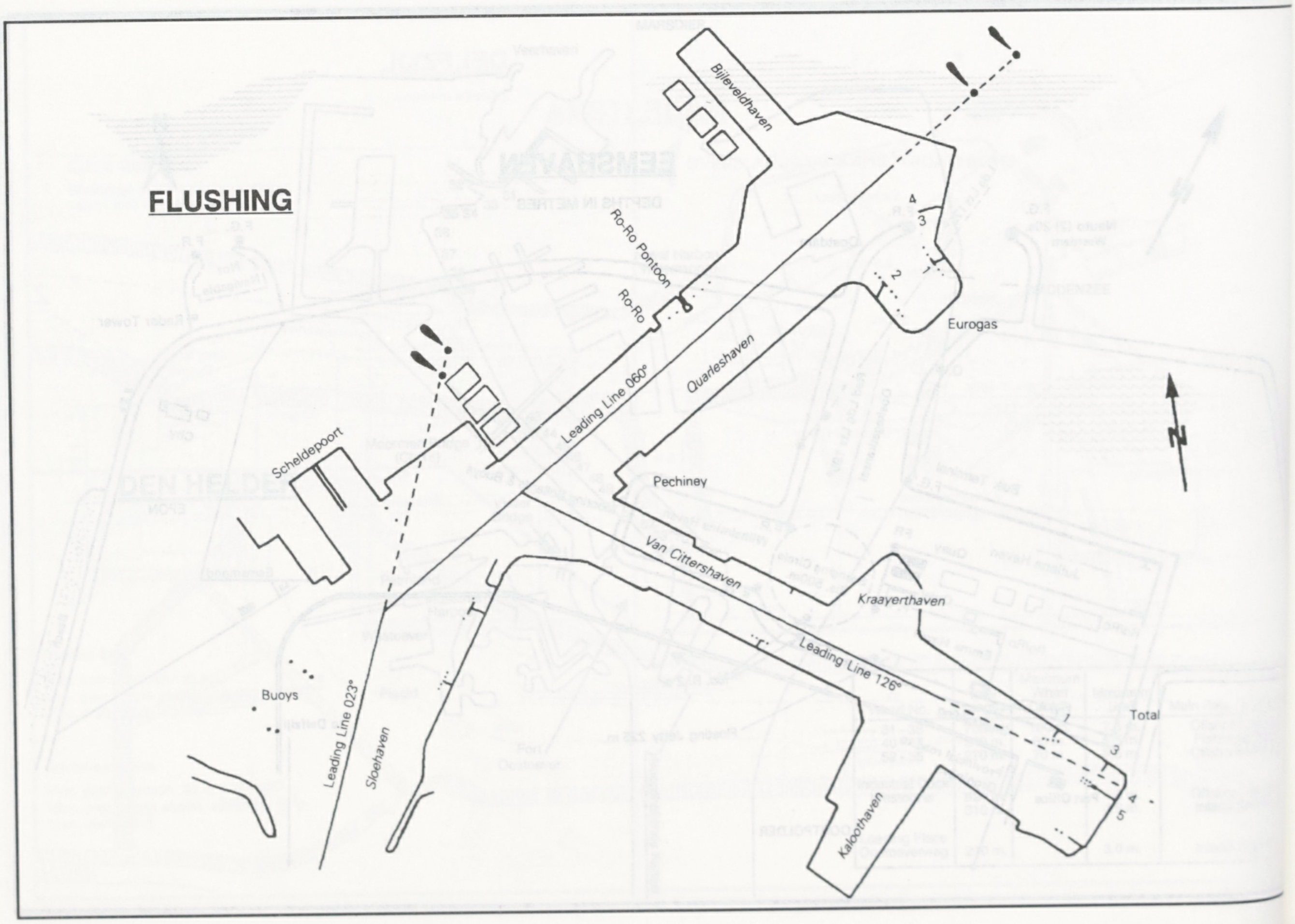

N
Nauto (2) 20s. Westdam
F.G.
Ldg Lts 175°
Q.
Bulk Terminal
F.G.
Juliana Haven
Quay
Ro/Ro
Ro/Ro
Emma Haven
Quay
F.G.
FR
Doekegatkanaal
Red Ldg Lts 195°
F.R.
Oostdam
Swinging Circle dia. 500m.
F.R.
F.R.
F.G.
Wilhelmina Haven
Mooring Bollards & Buoys
Dyke
Port Office
Provincial road to Groningen
Shipbuilding
OOSTPOLDER
Iso. R. 2 s.
Floating Jetty 225 m.
to Delfzijl
Eemsmond
EPON
Chy
Radar Tower
Not Navigable
F.G.
F.R.
Beach

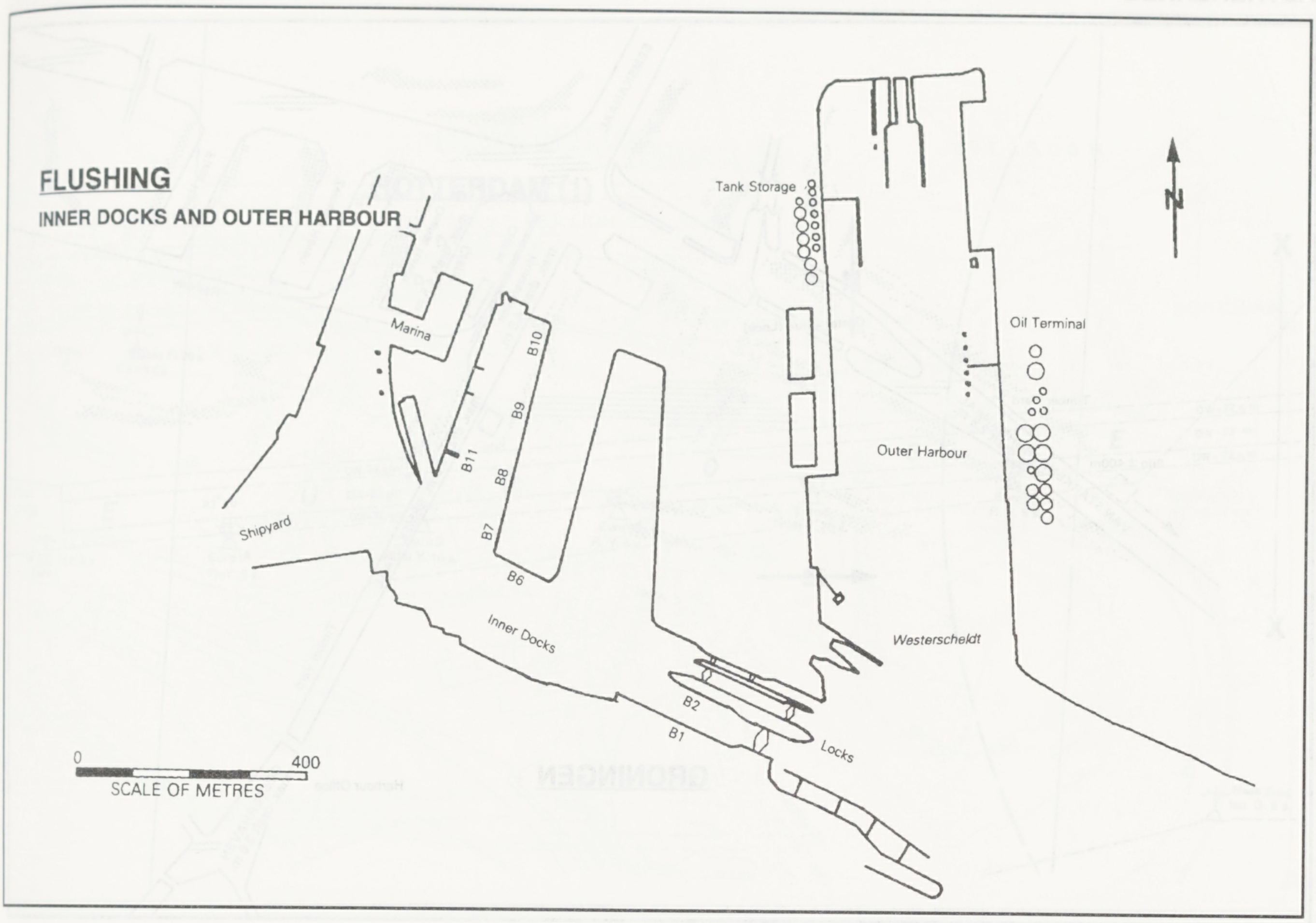
DORDRECHT


Schokhaven
Hook of Holland
North Sea
Entrance to Dordrecht Harbours
KRABBE POLDER
South Basin Depth 24 ft. approx.
North Basin Depth 27 ft. approx.
Cranes etc up to 15 tons.
Zeehaven
Depth 31 ft. approx.
Dry Bulk Cargo Depth 31 ft. approx.
WILHELMINAHAVEN
JULIANAHAVEN
Depth 29 ft. approx.
Depth 29 ft. approx.
Oil
Depth 25 ft. approx.
Oil/Chemicals Depth 25 ft. approx.
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
㉒
㉓
㉔
㉕
㉖
㉗
㉙

1.	Guis Funderingstechniek B.V.
2.	Chempropack B.V.
3.	Volker Stevin Materieel
4.	Frans Maas Rotterdam B.V.
5.	B.V.T. Transport Group B.V.
6.	Asfalt Tank Vervoer (ATV)
7.	Gebr. Broere B.V.
8.	Valvoline Oil Company
9.	Int. Coop. Petroleum Association
10	Fri - Tank Holland B.V.
11.	Silo Dordt B.V.
12.	Transterminal Drodrecht B.V.
13.	Furness Intercontinental Services B.V.
14.	Hei - en Bouwbedrijf GEKA B.V.
15.	Continentale Zand - en Grindmaatschappij
16.	Nietim B.V.
17.	Europoort B.V.
18.	AKZO Chemie B.V.
19.	Fokker Nederland B.V.
20.	Centro - Mare Chartering B.V.
21.	NS Houtbereidingsinrichting
22.	Zeehavenbedrijf Dordrecht B.V.
23.	Van Ginneken Scheeps - en Staalbouw B.V.
24.	v/h A.B. Wolst B.V.
25.	Kraanverhuurbedrijf De Kil B.V.
26.	Van der Wees Transport Dordrecht B.V.
27.	Gerard Maurtitz
29.	Grootint Dordrecht B.V.


MIDDELBURG
0 500 1000m
SCALE:
Bijleveld Harbour
Container Terminal Quay Length 2,985 ft.
QUARLES HARBOUR
L.P.G. Terminal
WEST – SOUBURG
Ship-repair yard
– 13m
Aluminium Factory
OOST – SOUBURG
VAN CITTERS HARBOUR
12.50 m. LLWS
Chemical Factories
Outer Harbour
Sloehaven
Refinery
FLUSHING (VLISSINGEN)
Offshore Base
RIVER SCHELDT
Electric Power Plant
Kaloothaven
N
BORSSELE
FLUSHING
● – Mooring Buoys

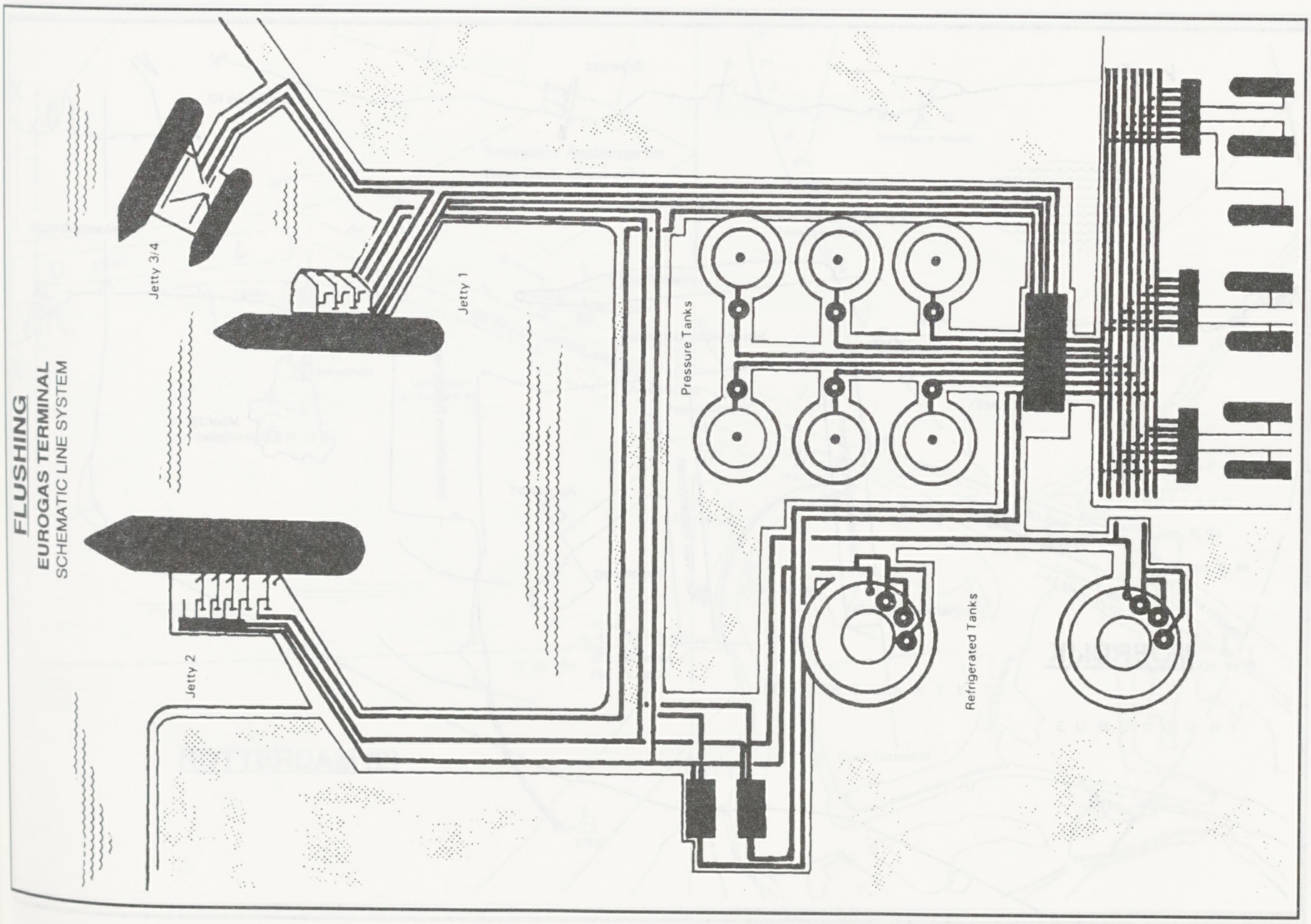

Bijleveldhaven
FLUSHING
4
3
Ro-Ro Pontoon
2
Ro-Ro
Eurogas
Quarleshaven
Leading Line 060°
Scheldepoort
Pechiney
N
Van Cittershaven
Kraayerthaven
Leading Line 126°
Buoys
Total
1
3
Leading Line 023°
Sloehaven
4
5
Kaloothaven



FLUSHING

INNER DOCKS AND OUTER HARBOUR

Tank Storage
N
Oil Terminal
Marina
B10
B9
B11
B8
B7
B6
Shipyard
Outer Harbour
Inner Docks
Westerscheldt
B2
B1
Locks
0
400
SCALE OF METRES

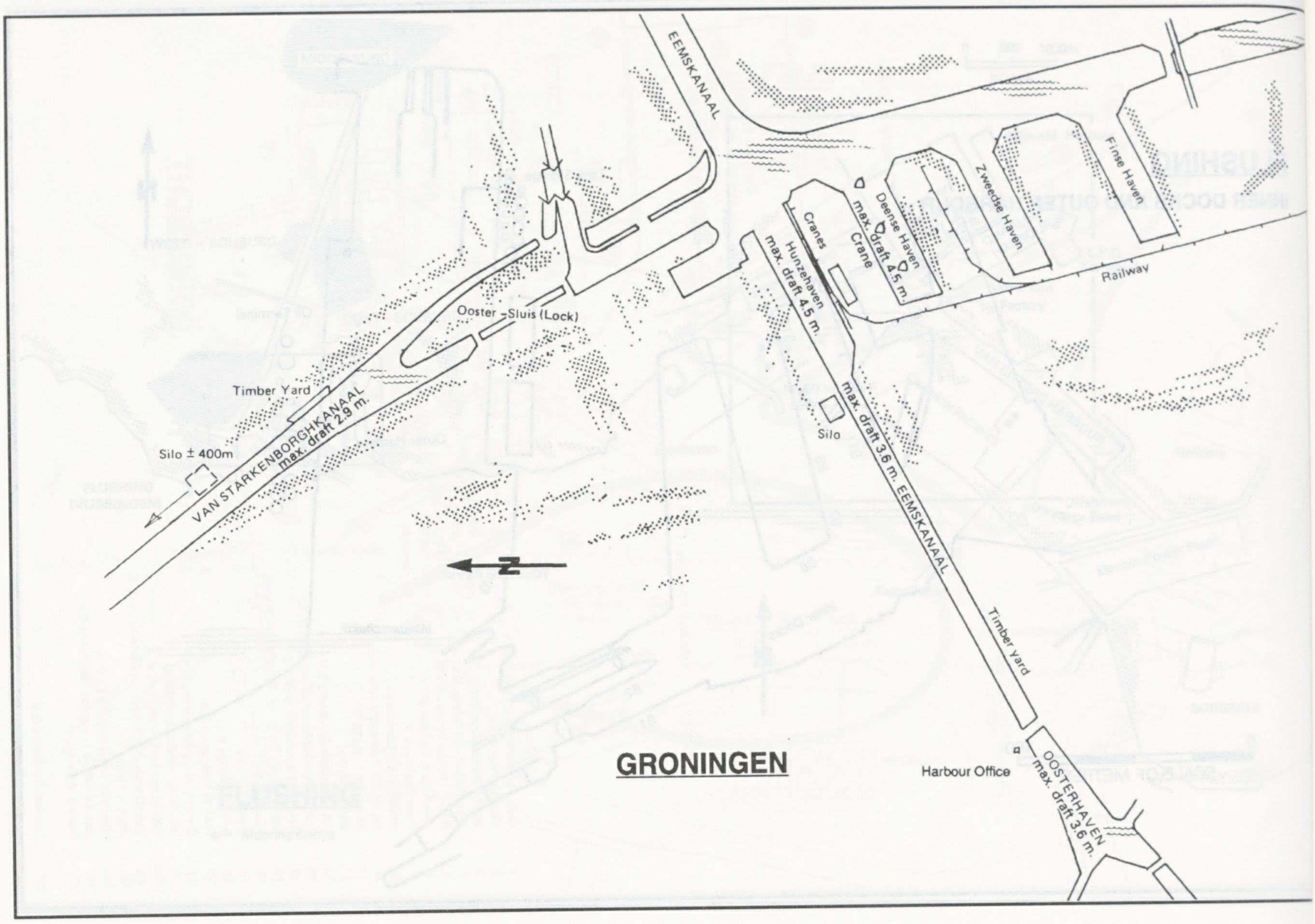


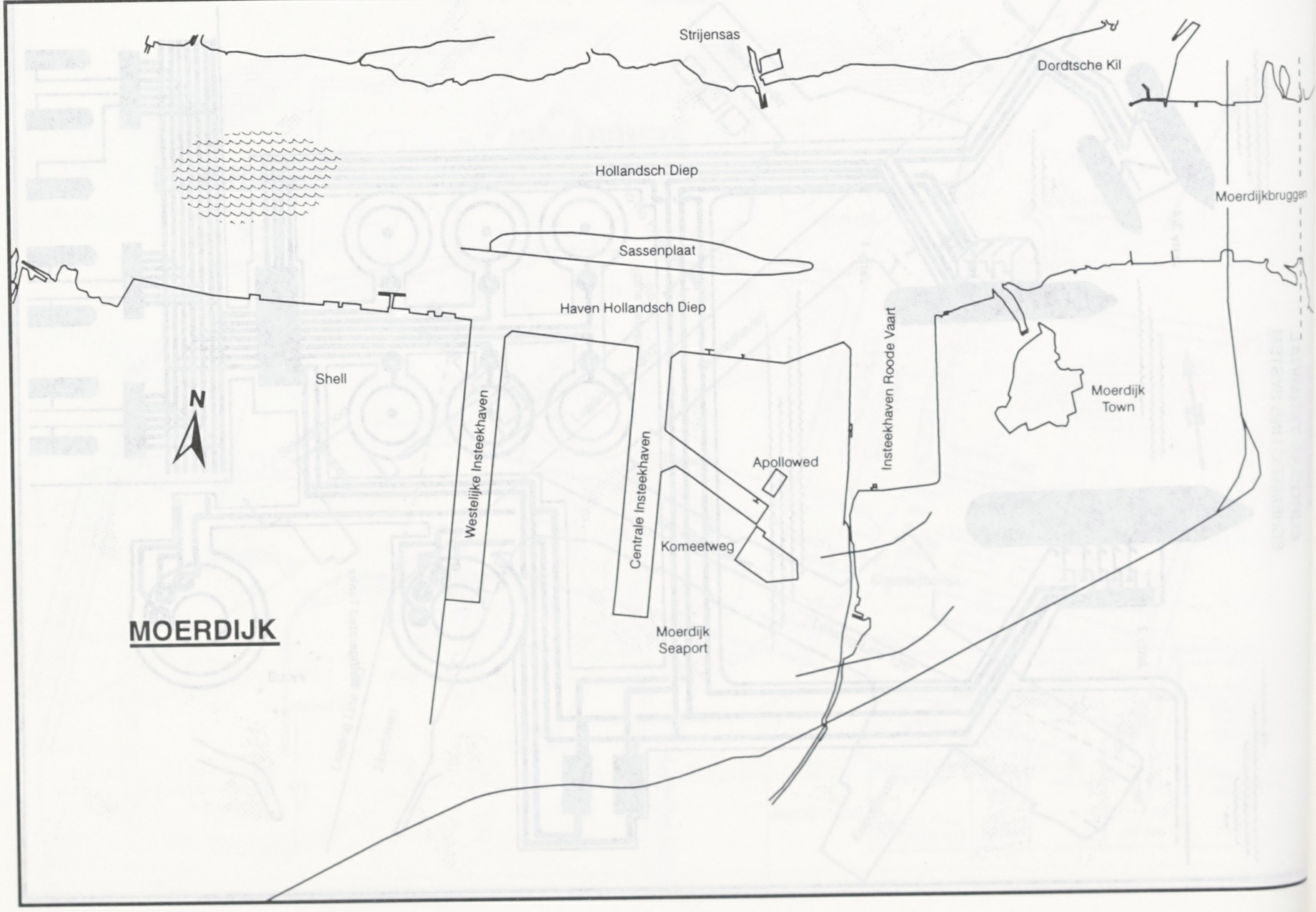
FLUSHING

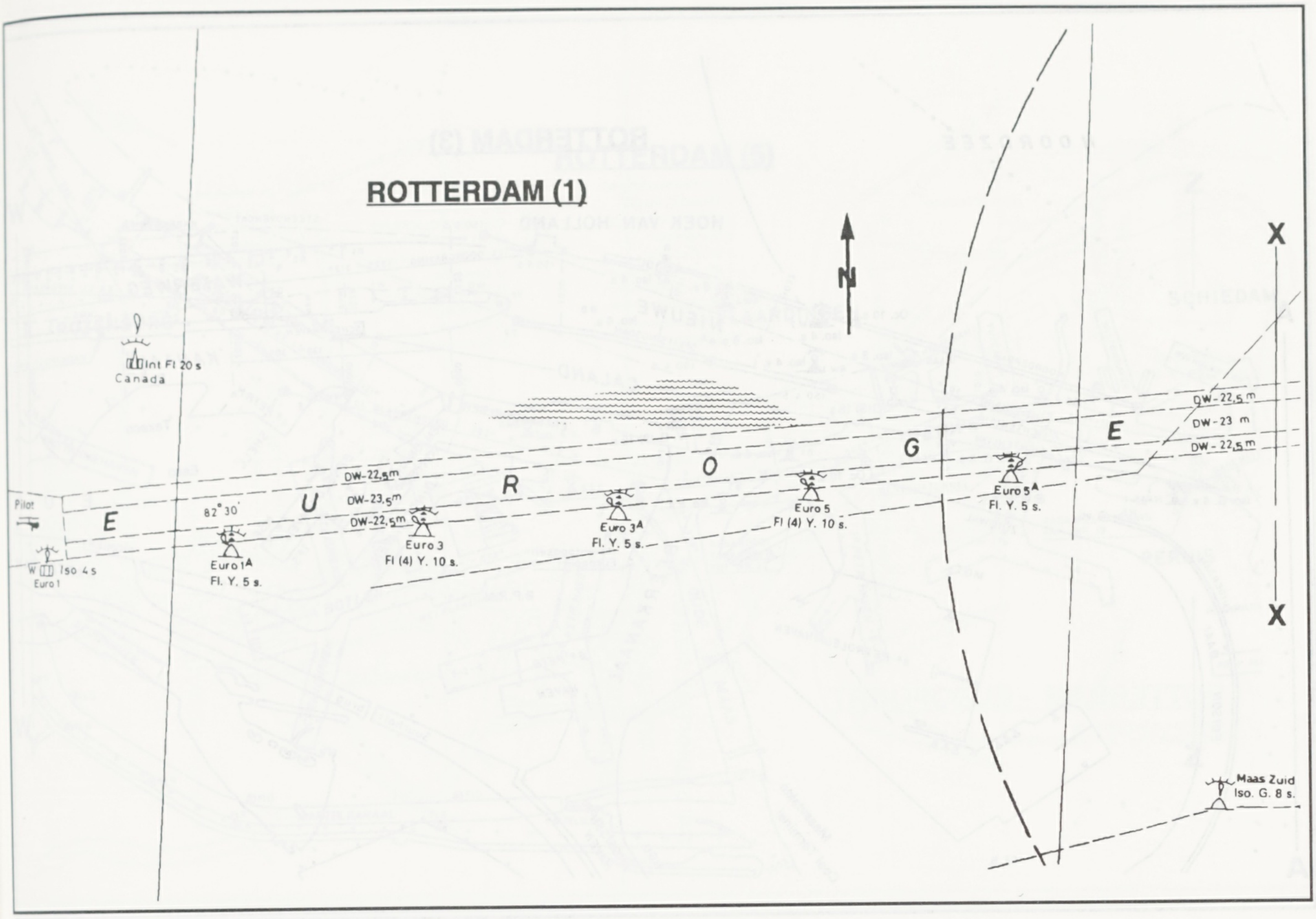
EUROGAS TERMINAL

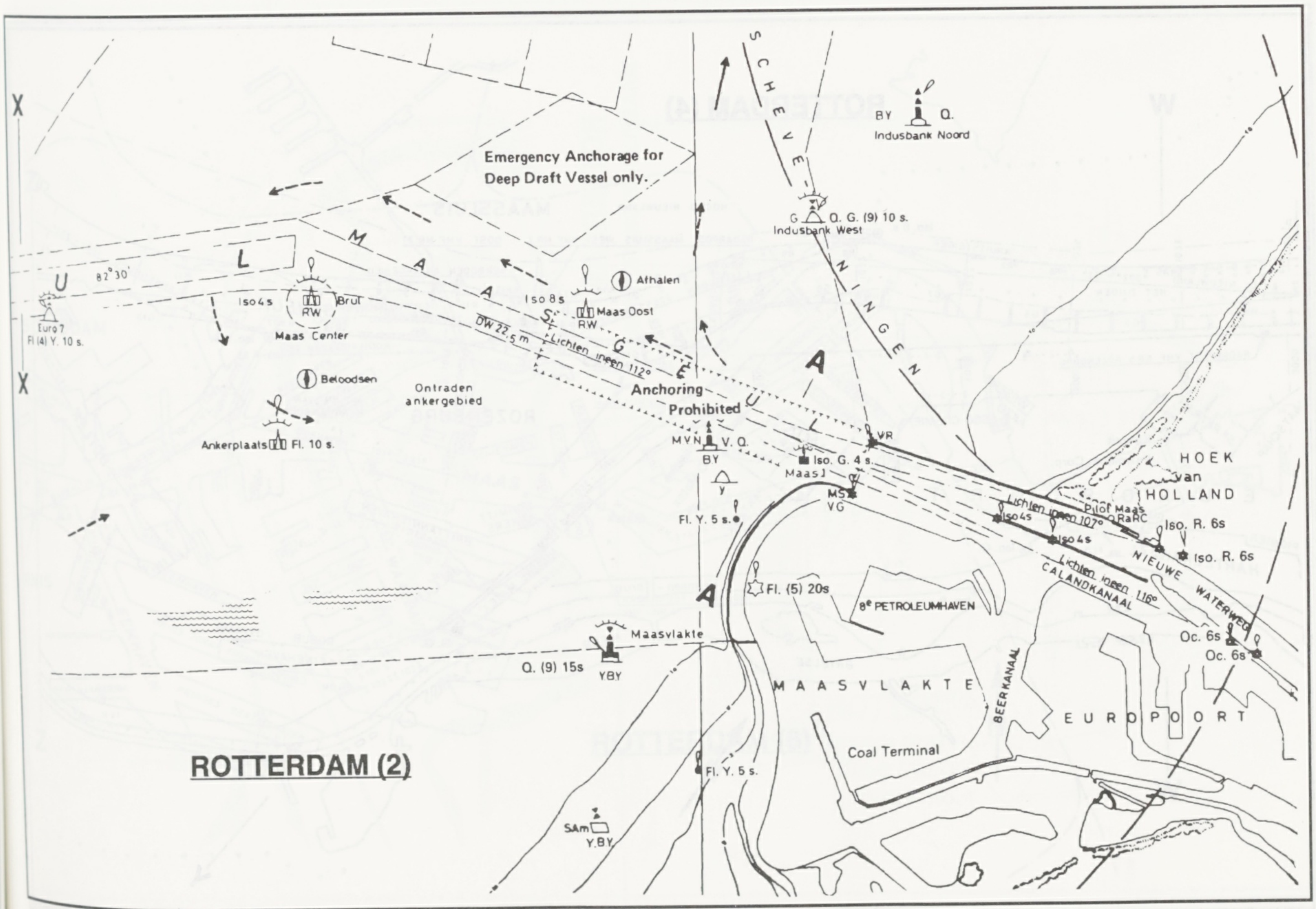
SCHEMATIC LINE SYSTEM

Jetty 3/4
Jetty 1
Pressure Tanks
Jetty 2
Refrigerated Tanks

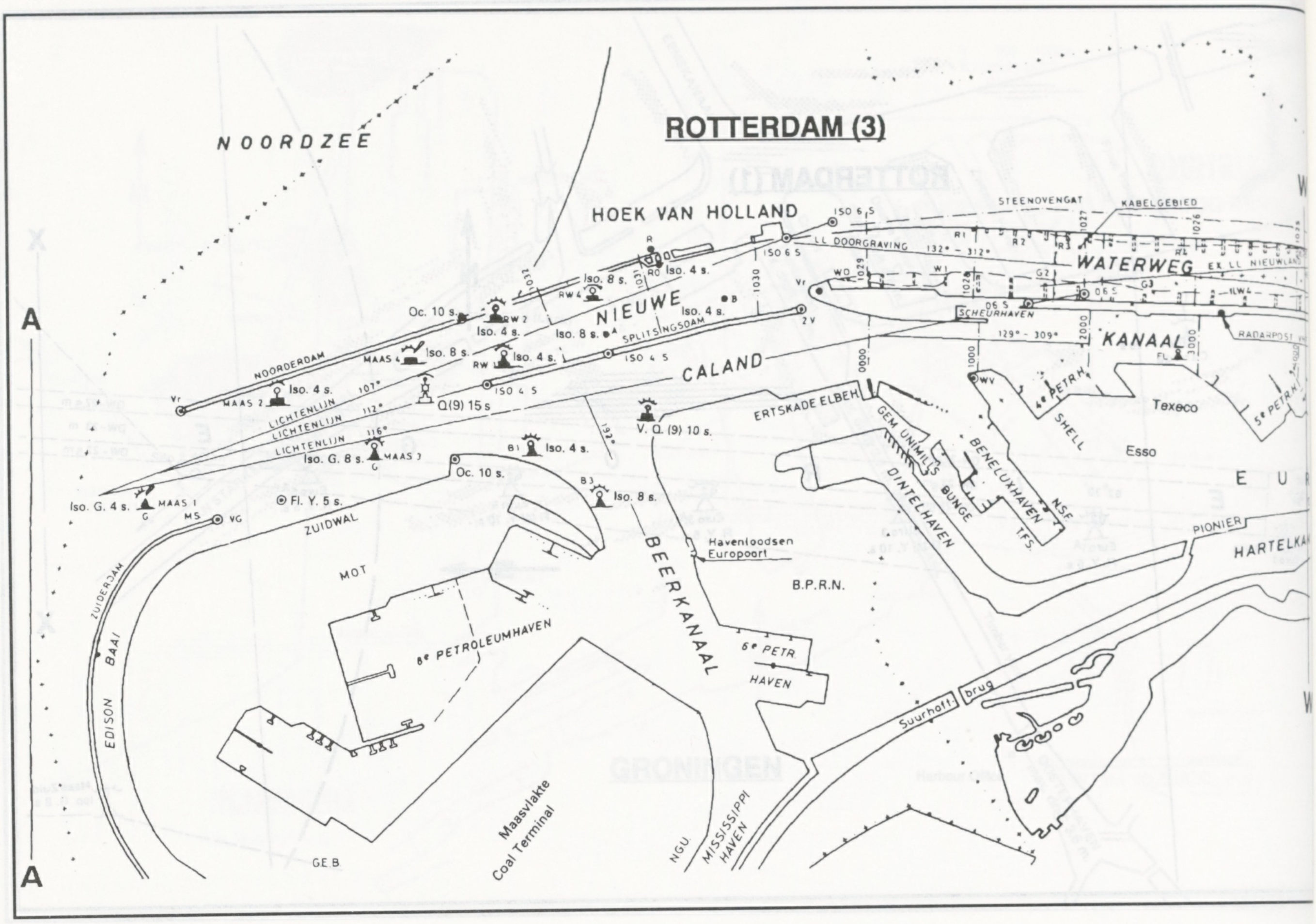

EEMSKANAAL
Deense Haven
max. draft 4.5 m.
Zweedse Haven
Finse Haven
Railway
Cranes
Crane
Hunzehaven
max. draft 4.5 m.
Ooster -Sluis (Lock)
Timber Yard
Silo ± 400m
VAN STARKENBORGHKANAAL
max. draft 2.9 m.
N
Silo
max. draft 3.6 m. EEMSKANAAL
Timber yard
Harbour Office
OOSTERHAVEN
max. draft 3.6 m.
GRONINGEN


Strijensas
Dordtsche Kil
Hollandsch Diep
Moerdijkbruggen
Sassenplaat
Haven Hollandsch Diep
Shell
N
Westelijke Insteekhaven
Centrale Insteekhaven
Insteekhaven Roode Vaart
Apollowed
Komeetweg
Moerdijk Town
Moerdijk Seaport
MOERDIJK

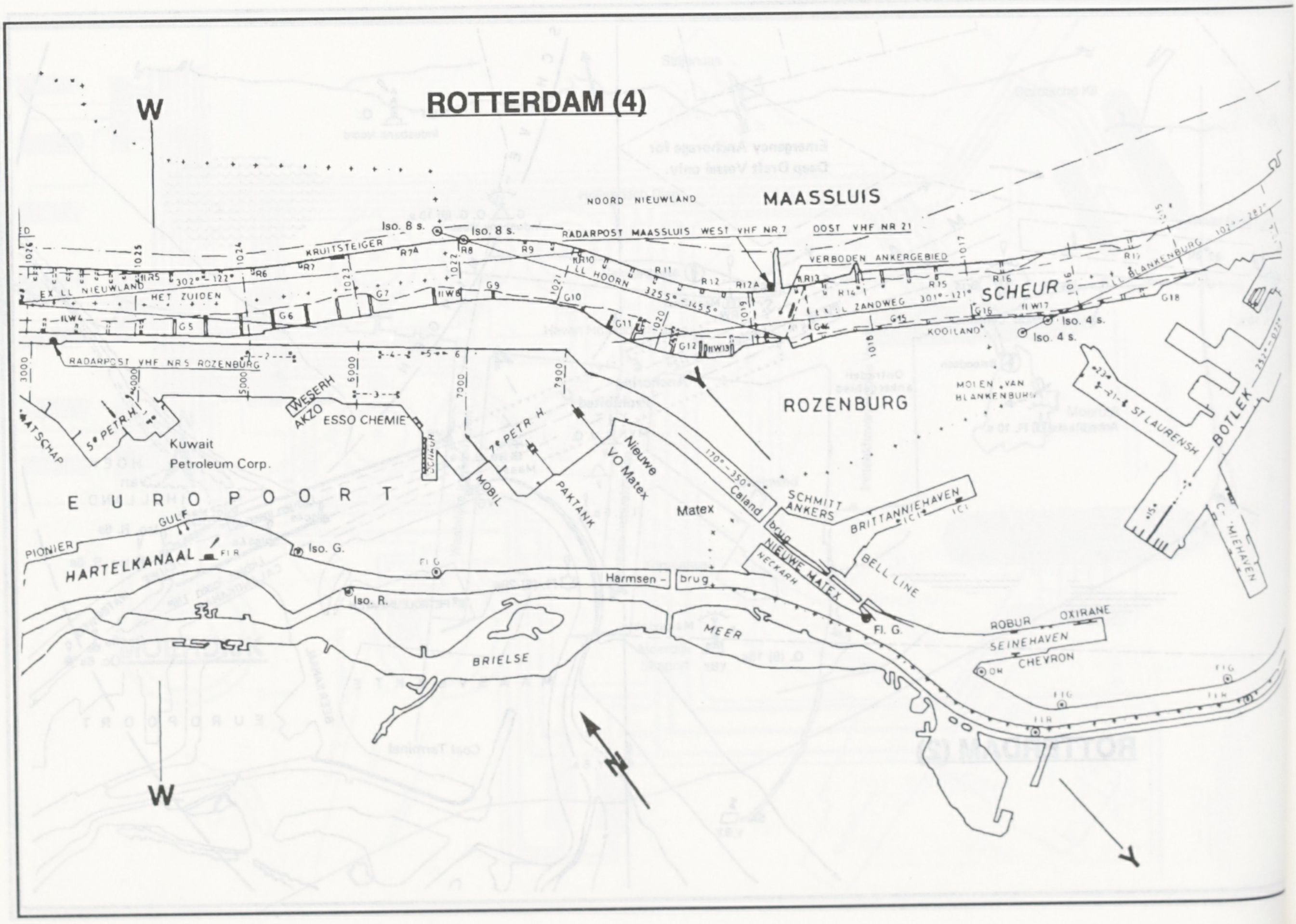

ROTTERDAM (1)
N
X
X
Int Fl 20 s
Canada
Pilot
W Iso 4 s
Euro 1
82° 30'
Euro 1A
Fl. Y. 5 s.
DW-22,5 m
DW-23,5 m
DW-22,5 m
Euro 3
Fl (4) Y. 10 s.
Euro 3A
Fl. Y. 5 s.
Euro 5
Fl (4) Y. 10 s.
Euro 5A
Fl. Y. 5 s.
DW-22,5 m
DW-23 m
DW-22,5 m
E U R O G E
Maas Zuid
Iso. G. 8 s.

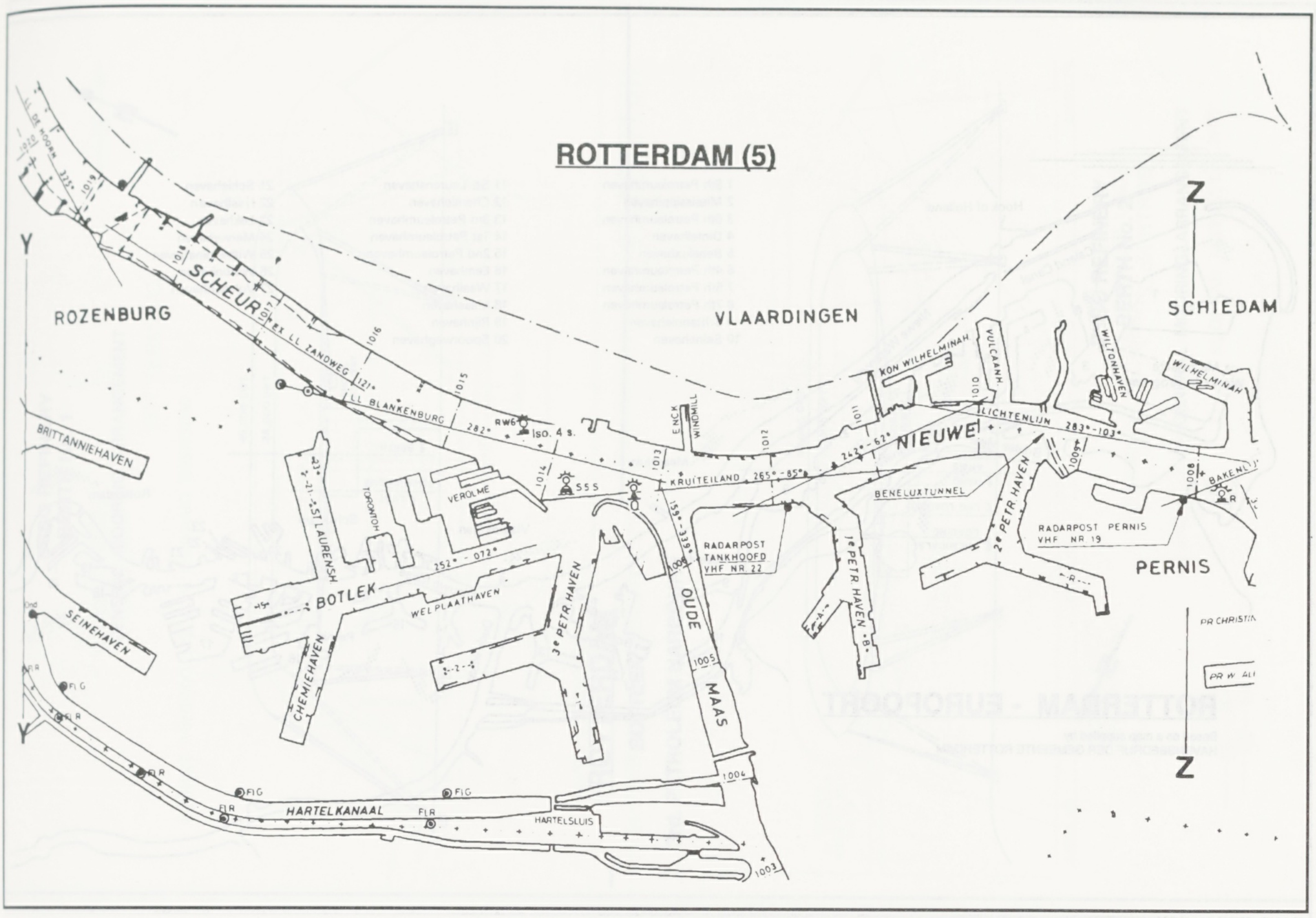

ROTTERDAM (2)
X
X
Emergency Anchorage for
Deep Draft Vessel only.
SCHEVENINGEN
BY Q.
Indusbank Noord
G Q. G. (9) 10 s.
Indusbank West
82° 30'
U L
Euro 7
Fl (4) Y. 10 s.
Iso 4 s
Brul
RW
Maas Center
Iso 8 s
Maas Oost
RW
Afhalen
Beloodsen
MAASGEUL
DW 22,5 m
Lichten ineen 112°
Anchoring Prohibited
Ontraden
ankergebied
Ankerplaats Fl. 10 s.
MVN V. Q.
BY
y
Iso. G. 4 s.
Maas 1
VR
MS
VG
A
Fl. Y. 5 s.
Fl. (5) 20s
8e PETROLEUMHAVEN
Lichten ineen 107°
Iso 4s
Iso 4s
Pilot Maas
RaRC
HOEK
van
HOLLAND
Iso. R. 6s
Iso. R. 6s
NIEUWE WATERWEG
Lichten ineen 116°
CALANDKANAAL
Oc. 6s
Oc. 6s
Maasvlakte
Q. (9) 15s
YBY
MAASVLAKTE
BEERKANAAL
EUROPOORT
Coal Terminal
Fl. Y. 5 s.
SAm
Y.BY

ROTTERDAM (3)


NOORDZEE
HOEK VAN HOLLAND
A
A
NIEUWE
WATERWEG
CALAND
KANAAL
NOORDERDAM
SPLITSINGSDAM
LICHTENLIJN 107°
LICHTENLIJN 112°
LICHTENLIJN 116°
Oc. 10 s.
Iso. 8 s.
Iso. 4 s.
Q(9) 15 s
V. Q. (9) 10 s.
Iso. G. 8 s.
Iso. G. 4 s.
Fl. Y. 5 s.
MAAS 1
MAAS 2
MAAS 3
MAAS 4
RW 2
RW 4
B1
B3
ZUIDWAL
ZUIDERDAM
EDISON BAAI
MOT
8e PETROLEUMHAVEN
Maasvlakte Coal Terminal
GEB
BEERKANAAL
Havenloodsen Europoort
6e PETR. HAVEN
B.P.R.N.
MISSISSIPPI HAVEN
NGU
ERTSKADE ELBEH
GEM UNIMILLS
BUNGE
DINTELHAVEN
BENELUXHAVEN
NSF
TFS
4e PETR. H
5e PETR. H
SHELL
Texeco
Esso
EUR
PIONIER
HARTELKA
Suurhoff brug
STEENOVENGAT
KABELGEBIED
LL DOORGRAVING 132° - 312°
EX LL NIEUWLAND
SCHEURHAVEN
129° - 309°
RADARPOST
ISO 6 S
ISO 4 S
W

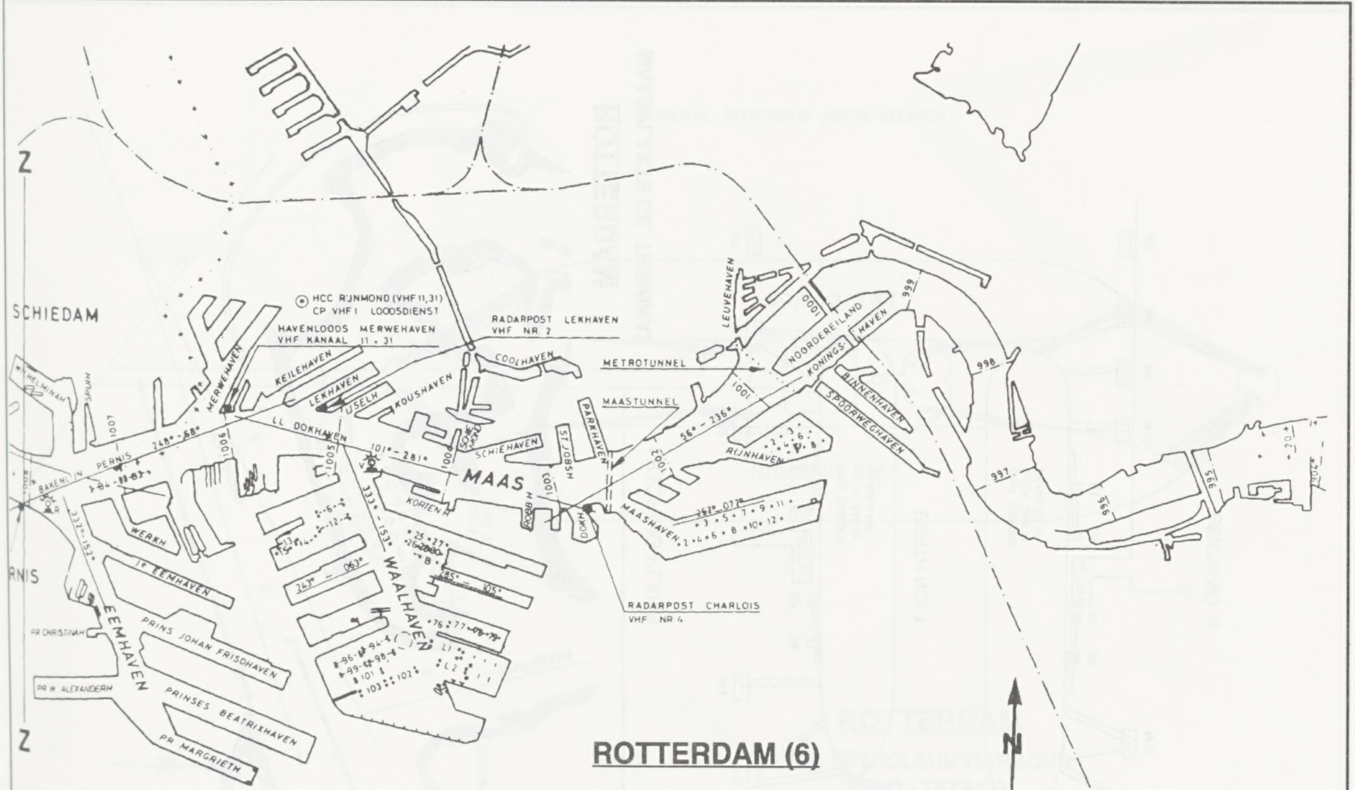
ROTTERDAM (4)


W
W
Y
Y
N
MAASSLUIS
NOORD NIEUWLAND
RADARPOST MAASSLUIS WEST VHF NR 7
OOST VHF NR 21
VERBODEN ANKERGEBIED
KRUITSTEIGER
EX LL NIEUWLAND
HET ZUIDEN
302° - 122°
LL HOORN 325.5° - 145.5°
LL ZANDWEG 301° - 121°
LL BLANKENBURG
SCHEUR
KOOILAND
Iso. 8 s.
Iso. 4 s.
RADARPOST VHF NR 5 ROZENBURG
ROZENBURG
MOLEN VAN BLANKENBURG
WESERH
AKZO
ESSO CHEMIE
7e PETR. H
5e PETR. H
Kuwait Petroleum Corp.
MOBIL
PAKTANK
Nieuwe VO Matex
Matex
170° - 350° Caland
SCHMITT ANKERS
BRITTANNIEHAVEN
BELL LINE
NIEUWE MATEX
NECKARH
ST LAURENSH
BOTLEK
C. MIEHAVEN
ROBUR
OXIRANE
SEINEHAVEN
CHEVRON
EUROPOORT
PIONIER
GULF
HARTELKANAAL
Iso. G.
Iso. R.
Fl. G.
Harmsen - brug
BRIELSE MEER



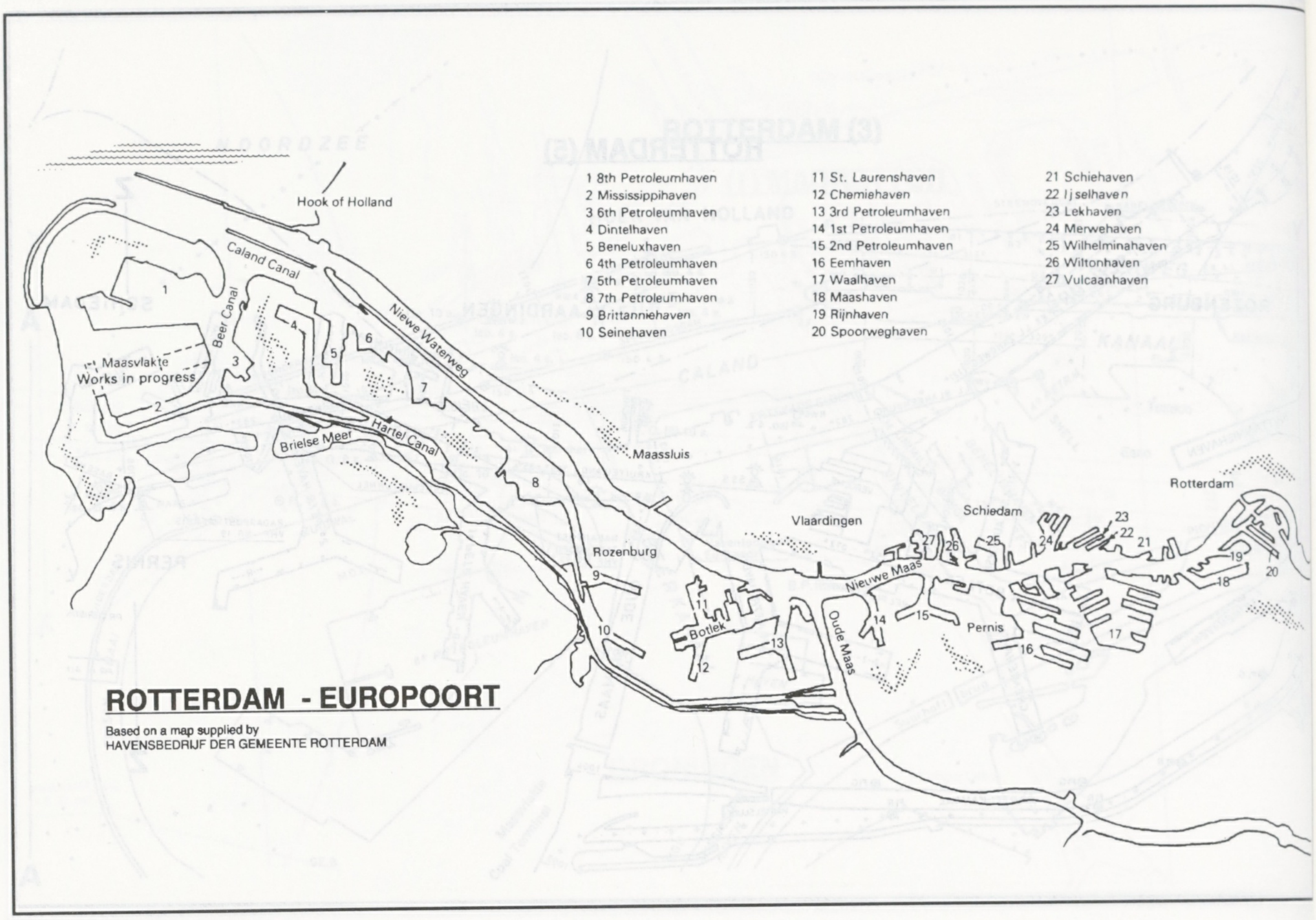
ROTTERDAM (5)

Y
ROZENBURG
SCHEUR
EX LL ZANDWEG 121°
LL BLANKENBURG 282°
RW6
Iso. 4 s.
S S S
VLAARDINGEN
KON WILHELMINAH
VULCAANH
WILTONHAVEN
WILHELMINAH
SCHIEDAM
Z
LICHTENLIJN 283°-103°
NIEUWE
242°-62°
KRUITEILAND 265°-85°
BENELUXTUNNEL
RADARPOST PERNIS
VHF NR 19
PERNIS
BAKENLIJN
RADARPOST
TANKHOOFD
VHF NR 22
BRITTANNIEHAVEN
ST LAURENSH
TORONTOH
VEROLME
BOTLEK
252°-072°
WELPLAATHAVEN
CHEMIEHAVEN
3e PETR HAVEN
2e PETR HAVEN
1e PETR HAVEN
OUDE MAAS
159°-339°
SEINEHAVEN
HARTELKANAAL
HARTELSLUIS
Fl R
Fl G
PR CHRISTINA
PR W AL
1003
1004
1005
1006
1008
1009
1010
1011
1012
1013
1014
1015
1016
1017
1018
1019
ENCK
WINDMILL



ROTTERDAM (6)

Z
SCHIEDAM
HCC RIJNMOND (VHF 11,31)
CP VHF 1 LOODSDIENST
HAVENLOODS MERWEHAVEN
VHF KANAAL 11 - 31
RADARPOST LEKHAVEN
VHF NR 2
MERWEHAVEN
KEILEHAVEN
LEKHAVEN
IJSELH
KOUSHAVEN
COOLHAVEN
METROTUNNEL
MAASTUNNEL
LEUVEHAVEN
NOORDEREILAND
KONINGSHAVEN
BINNENHAVEN
SPOORWEGHAVEN
WILHELMINAH
BAKENLIJN PERNIS
248°-68°
LL DOKHAVEN
101°-281°
MAAS
SCHIEHAVEN
ST JOBSH
PARKHAVEN
56°-236°
RIJNHAVEN
MAASHAVEN
267°-077°
KORTEN H
ROBB H
DOKH
WAALHAVEN
333°-153°
243°-063°
285°-105°
RADARPOST CHARLOIS
VHF NR 4
WERKH
1e EEMHAVEN
EEMHAVEN
PRINS JOHAN FRISOHAVEN
PRINSES BEATRIXHAVEN
PR MARGRIETH
PR CHRISTINAH
PR W ALEXANDERH
PERNIS
332°-152°
N
995
996
997
998
999
1000
1001
1002
1003
1004
1005
1006
1007

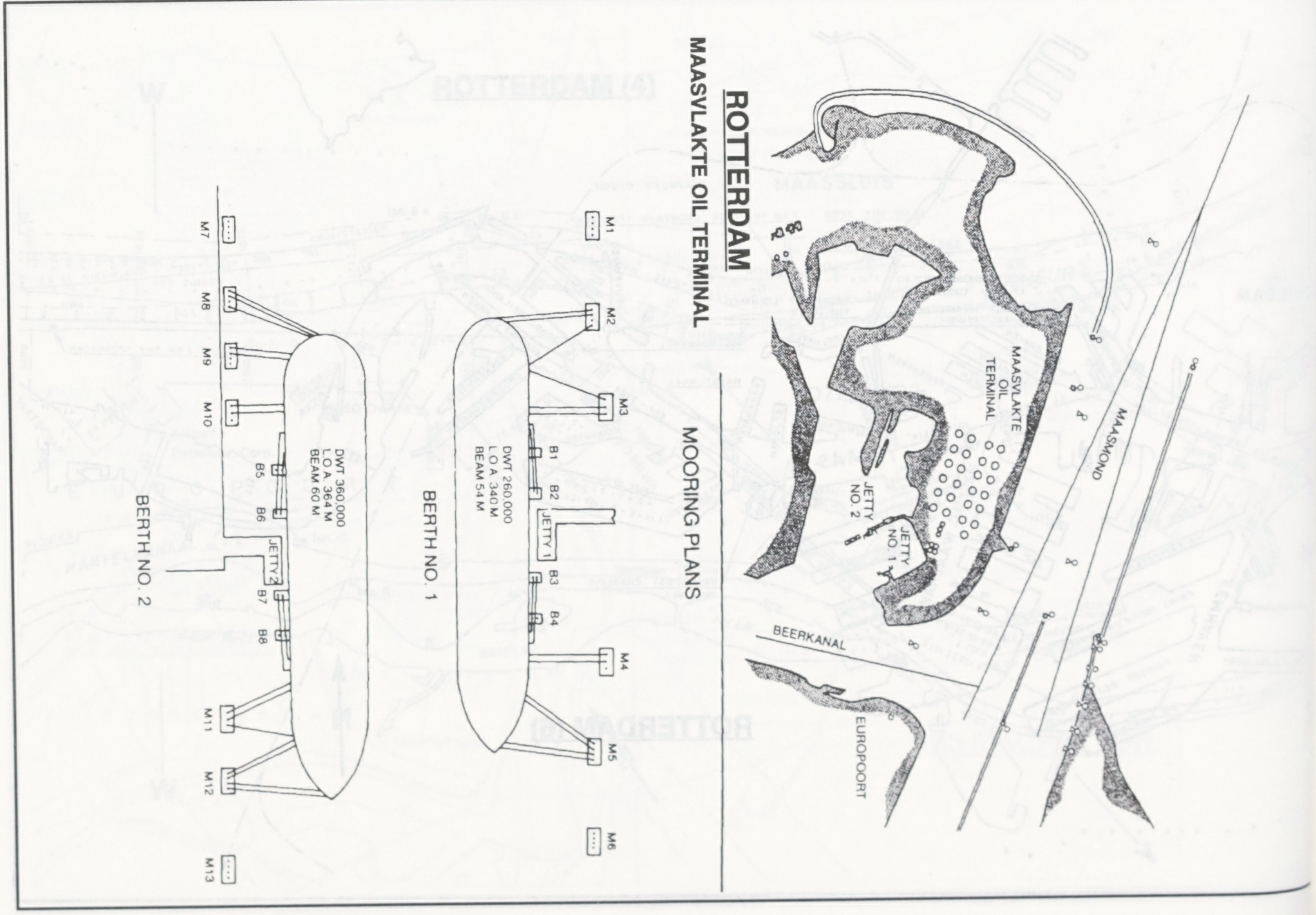

NOORDZEE
Hook of Holland
Caland Canal
Beer Canal
Nieuwe Waterweg
Maasvlakte
Works in progress
Brielse Meer
Hartel Canal
Maassluis
Rozenburg
Vlaardingen
Schiedam
Rotterdam
Botlek
Nieuwe Maas
Oude Maas
Pernis
1 8th Petroleumhaven
2 Mississippihaven
3 6th Petroleumhaven
4 Dintelhaven
5 Beneluxhaven
6 4th Petroleumhaven
7 5th Petroleumhaven
8 7th Petroleumhaven
9 Brittanniehaven
10 Seinehaven
11 St. Laurenshaven
12 Chemiehaven
13 3rd Petroleumhaven
14 1st Petroleumhaven
15 2nd Petroleumhaven
16 Eemhaven
17 Waalhaven
18 Maashaven
19 Rijnhaven
20 Spoorweghaven
21 Schiehaven
22 IJselhaven
23 Lekhaven
24 Merwehaven
25 Wilhelminahaven
26 Wiltonhaven
27 Vulcaanhaven

ROTTERDAM - EUROPOORT

Based on a map supplied by
HAVENSBEDRIJF DER GEMEENTE ROTTERDAM

ROTTERDAM
MAASVLAKTE OIL TERMINAL

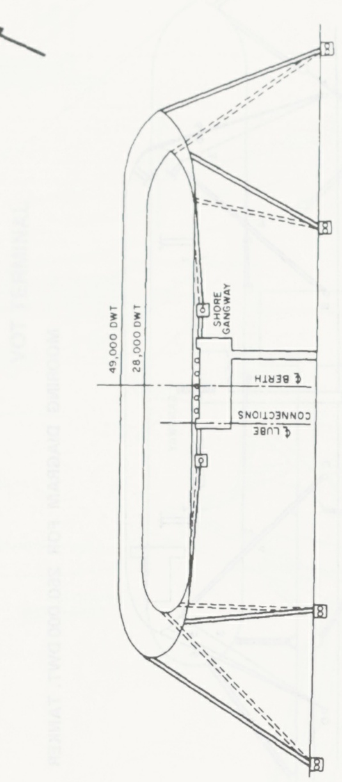
MOORING PLANS


MAASVLAKTE OIL TERMINAL
JETTY NO. 2
JETTY NO. 1
MAASMOND
BEERKANAL
EUROPOORT
BERTH NO. 1
DWT 260,000
L.O.A. 340 M
BEAM 54 M
BERTH NO. 2
DWT 360,000
L.O.A. 364 M
BEAM 60 M
JETTY 1
JETTY 2
M1
M2
M3
M4
M5
M6
M7
M8
M9
M10
M11
M12
M13
B1
B2
B3
B4
B5
B6
B7
B8
N

ROTTERDAM

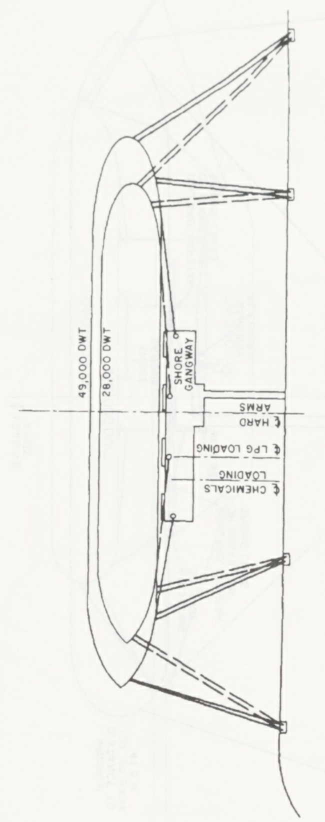
BOTTLEK

3rd. PETROLEUM HARBOUR


49,000 DWT
28,000 DWT
SHORE GANGWAY
℄ BERTH
℄ LUBE CONNECTIONS

ESSO REFINERY
BERTH No. 1

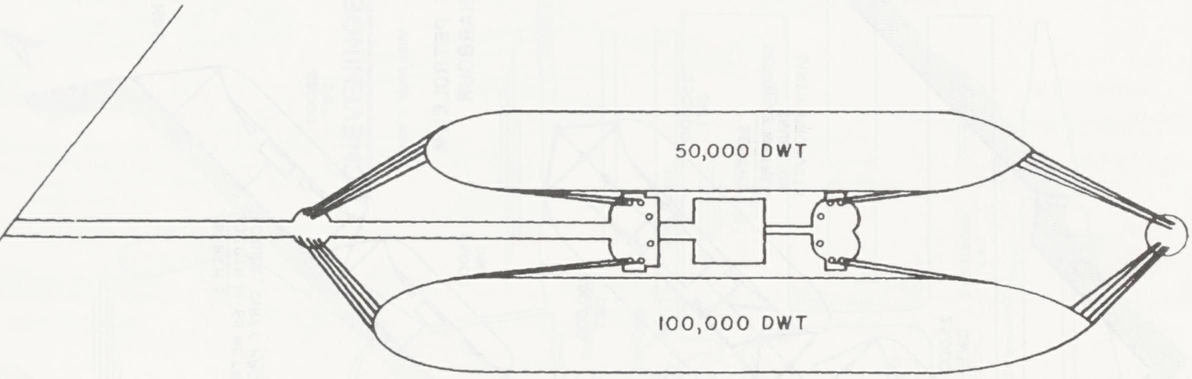
GENERAL MOORING ARRANGEMENT


49,000 DWT
28,000 DWT
SHORE GANGWAY
℄ HARD ARMS
℄ LPG LOADING
℄ CHEMICALS LOADING

ESSO REFINERY
BERTH No. 2

GENERAL MOORING ARRANGEMENT

GENERAL MOORING ARRANGEMENT

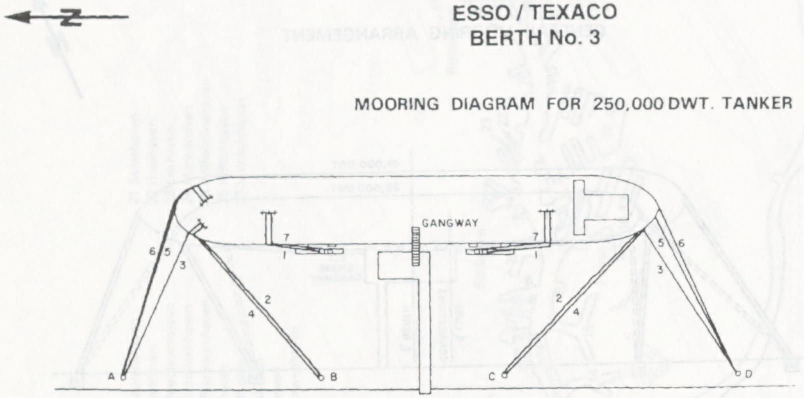

50,000 DWT
100,000 DWT

ROTTERDAM

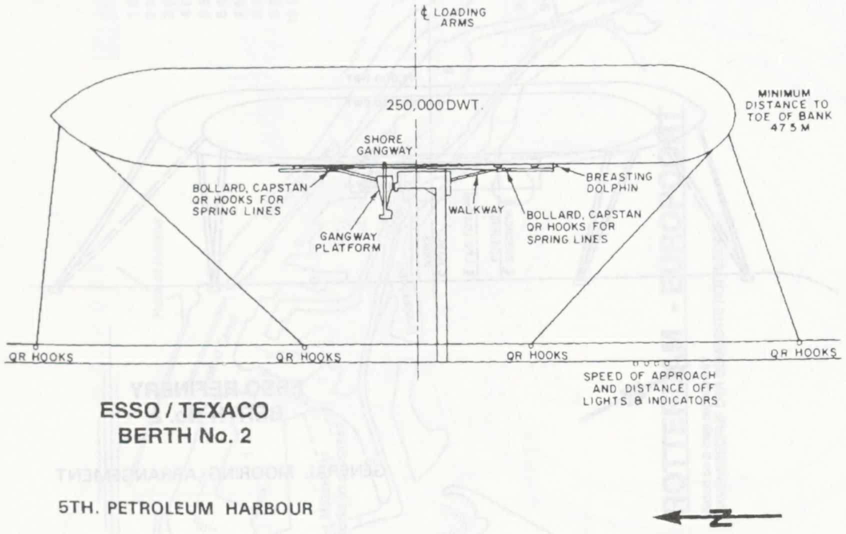
4th. PETROLEUM HARBOUR
ESSO / TEXACO
BERTH No. 1

ESSO / TEXACO
BERTH No. 3

MOORING DIAGRAM FOR 250,000 DWT. TANKER


N
GANGWAY
1
2
3
4
5
6
7
A
B
C
D

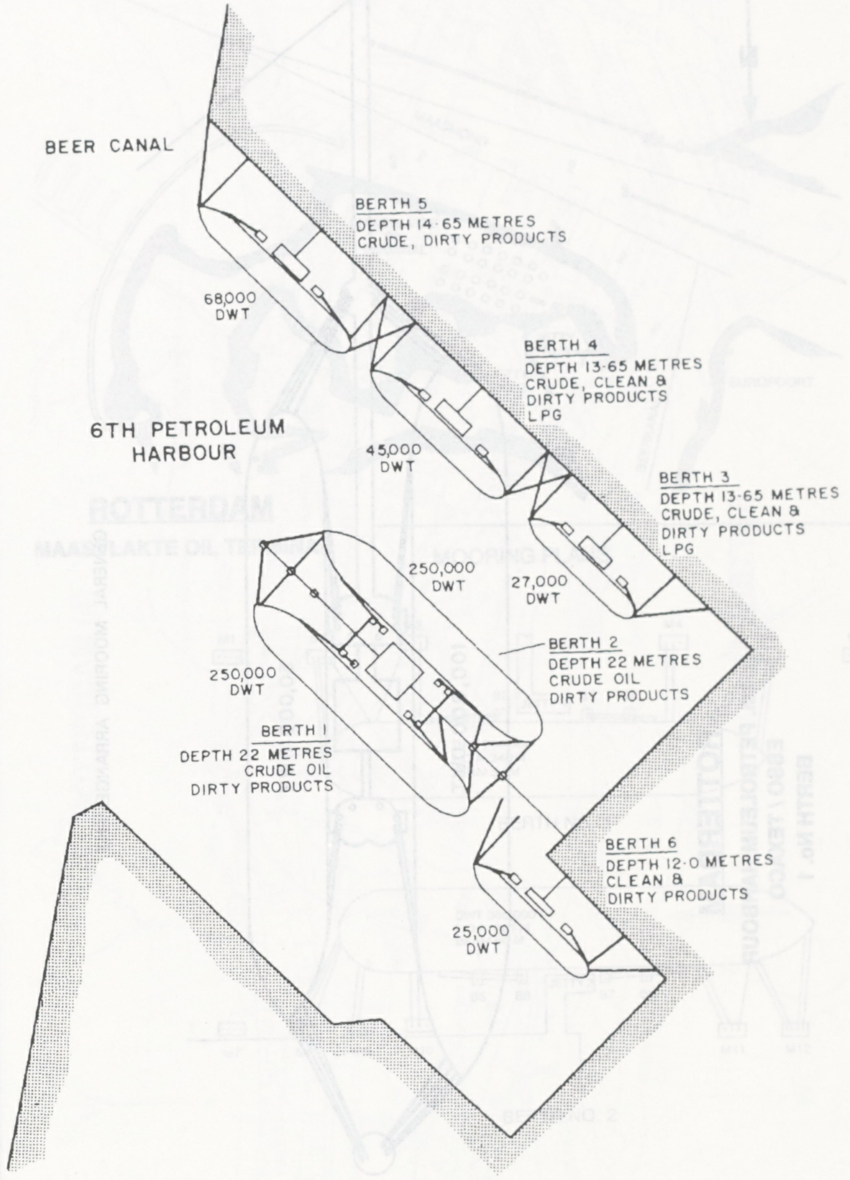
ROTTERDAM

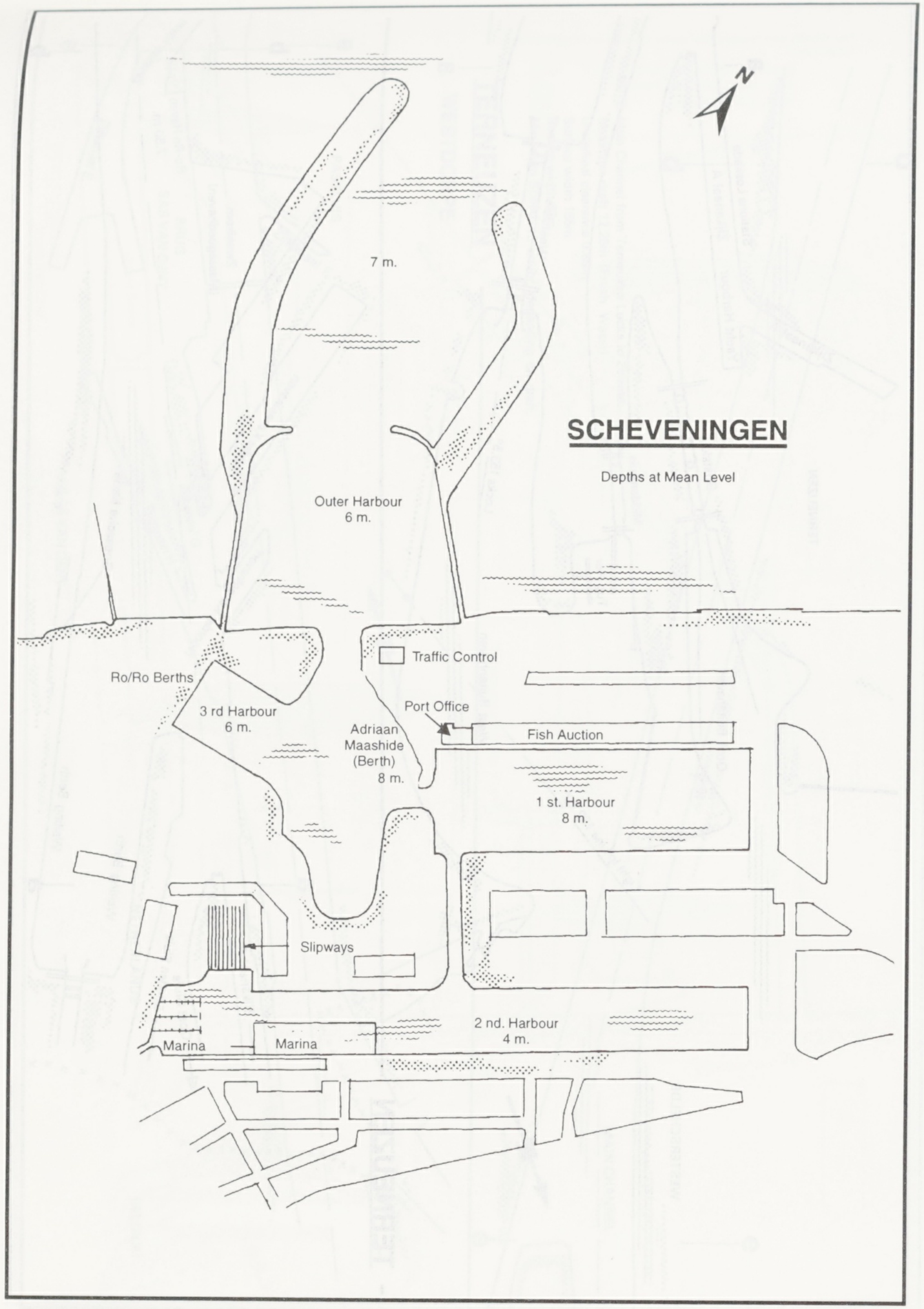

℄ LOADING ARMS
250,000 DWT.
MINIMUM DISTANCE TO TOE OF BANK 47.5 M
SHORE GANGWAY
BOLLARD, CAPSTAN QR HOOKS FOR SPRING LINES
GANGWAY PLATFORM
WALKWAY
BOLLARD, CAPSTAN QR HOOKS FOR SPRING LINES
BREASTING DOLPHIN
QR HOOKS
QR HOOKS
QR HOOKS
QR HOOKS
SPEED OF APPROACH AND DISTANCE OFF LIGHTS & INDICATORS
N

ESSO / TEXACO
BERTH No. 2

5TH. PETROLEUM HARBOUR

ROTTERDAM

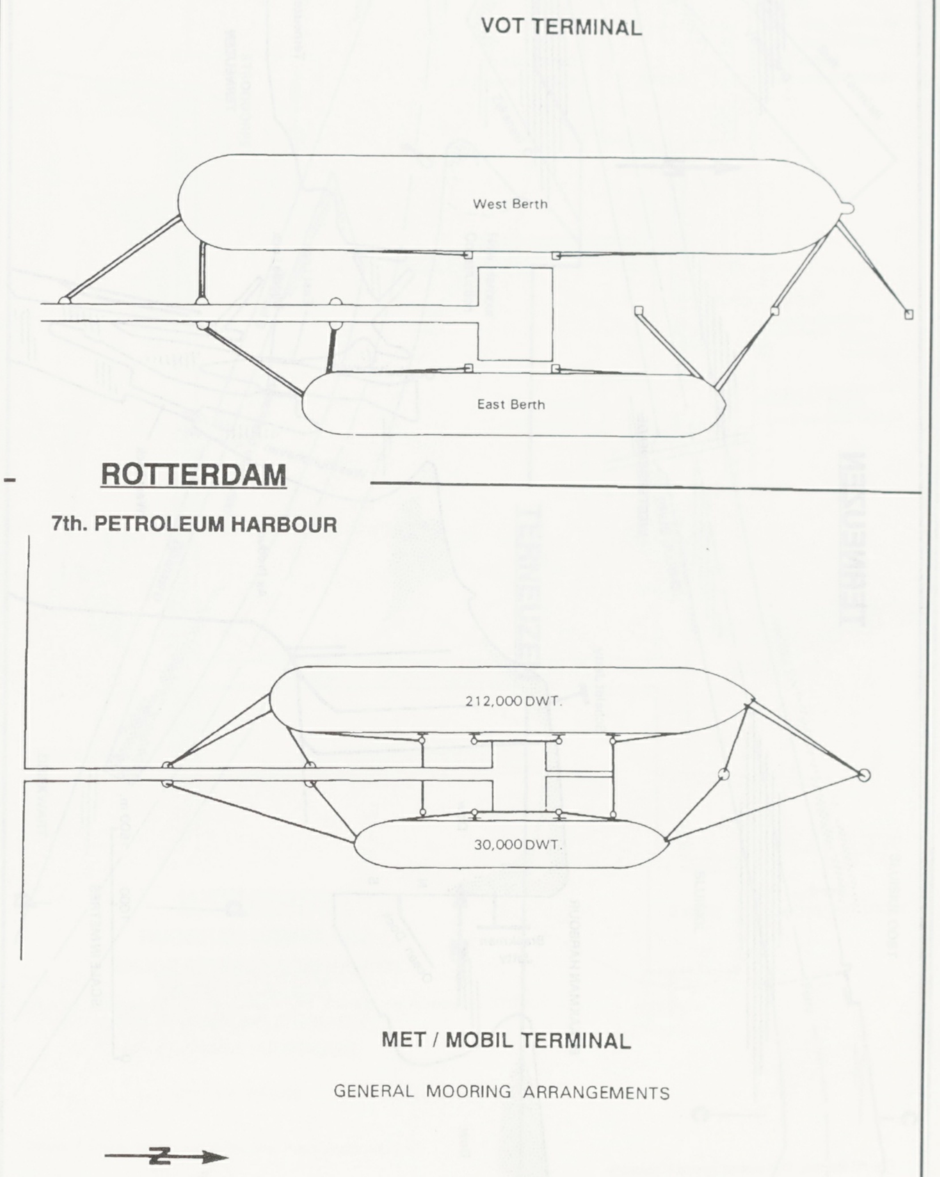

BEER CANAL
6TH PETROLEUM HARBOUR
BERTH 5
DEPTH 14·65 METRES
CRUDE, DIRTY PRODUCTS
68,000 DWT
BERTH 4
DEPTH 13·65 METRES
CRUDE, CLEAN & DIRTY PRODUCTS
LPG
45,000 DWT
BERTH 3
DEPTH 13·65 METRES
CRUDE, CLEAN & DIRTY PRODUCTS
LPG
250,000 DWT
27,000 DWT
BERTH 2
DEPTH 22 METRES
CRUDE OIL
DIRTY PRODUCTS
250,000 DWT
BERTH 1
DEPTH 22 METRES
CRUDE OIL
DIRTY PRODUCTS
BERTH 6
DEPTH 12·0 METRES
CLEAN & DIRTY PRODUCTS
25,000 DWT



SCHEVENINGEN

Depths at Mean Level

N
7 m.
Outer Harbour
6 m.
Traffic Control
Ro/Ro Berths
3 rd Harbour
6 m.
Port Office
Adriaan
Maashide
(Berth)
8 m.
Fish Auction
1 st. Harbour
8 m.
Slipways
2 nd. Harbour
4 m.
Marina
Marina



ROTTERDAM

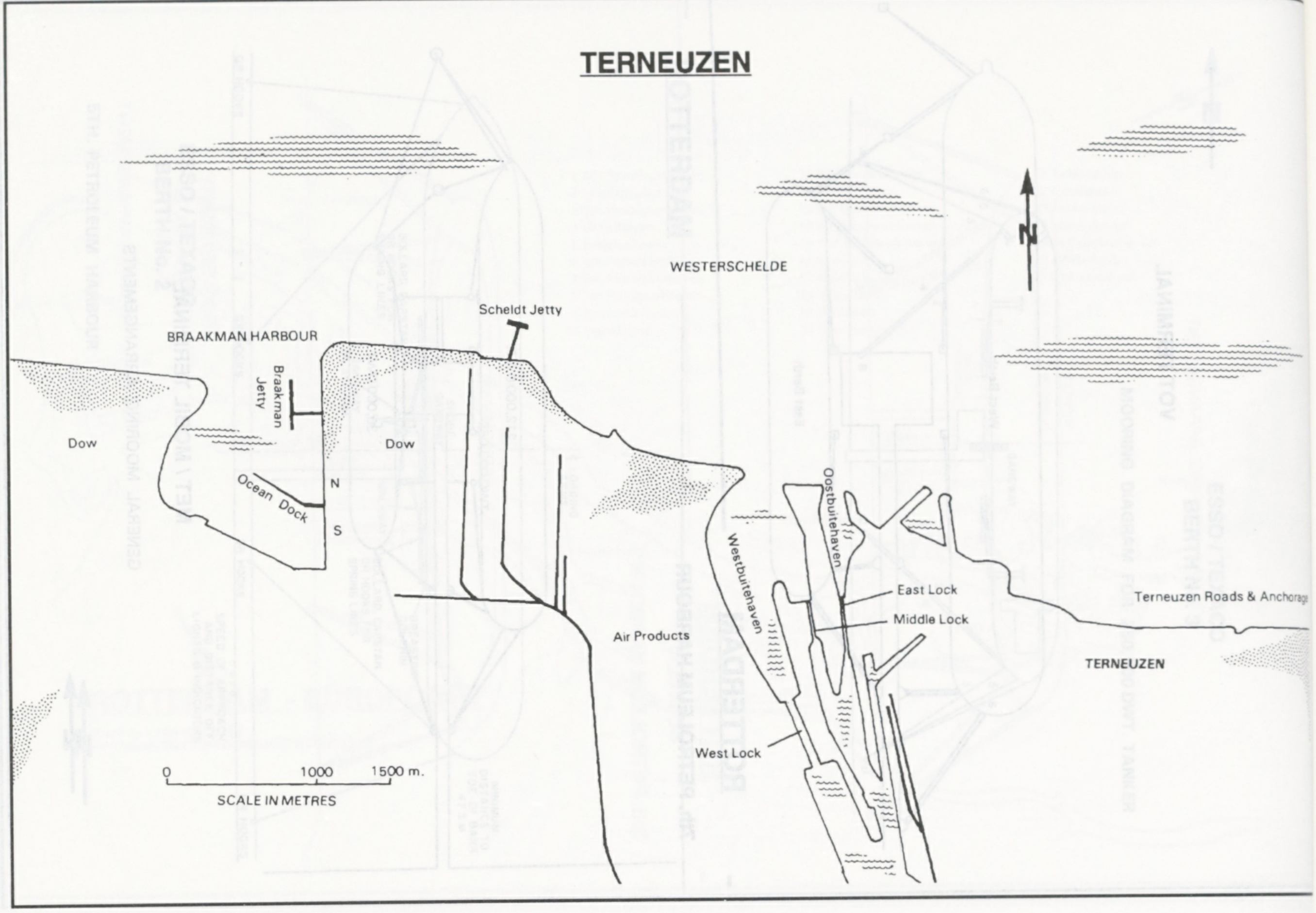
7th. PETROLEUM HARBOUR

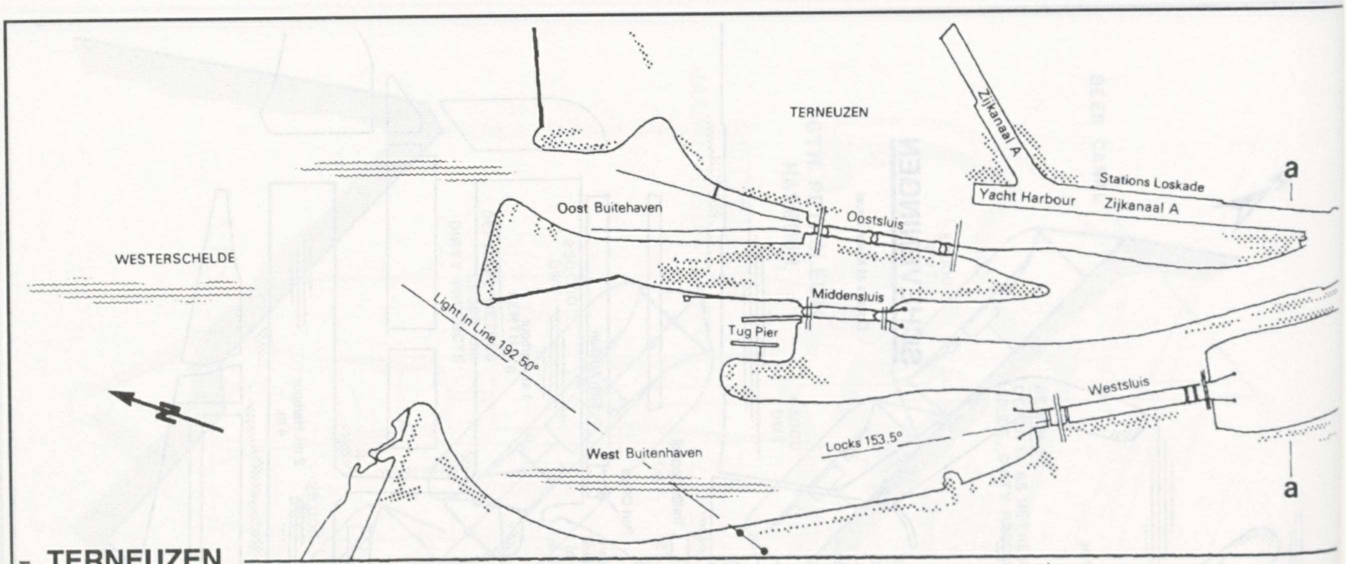
VOT TERMINAL

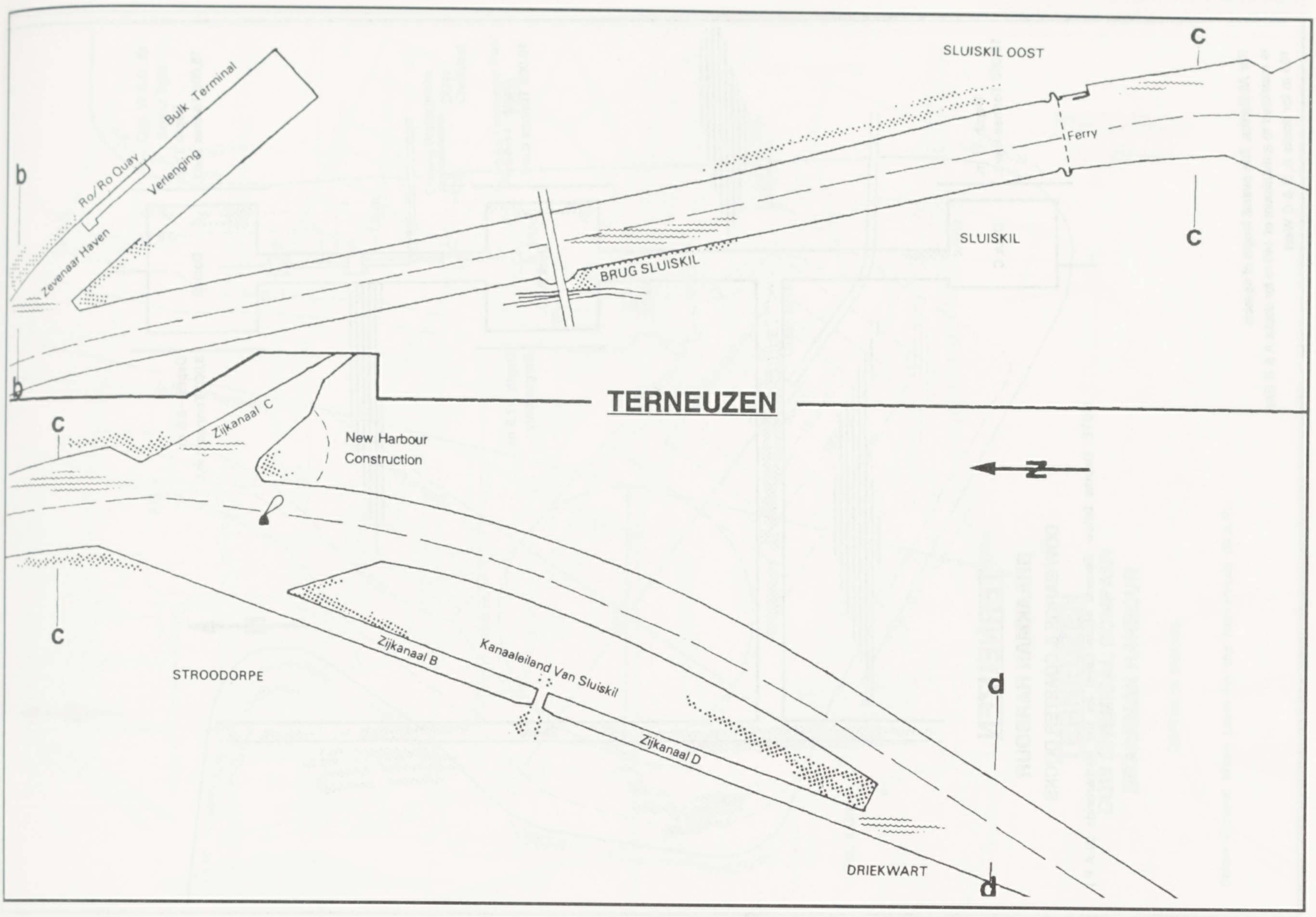
MET / MOBIL TERMINAL

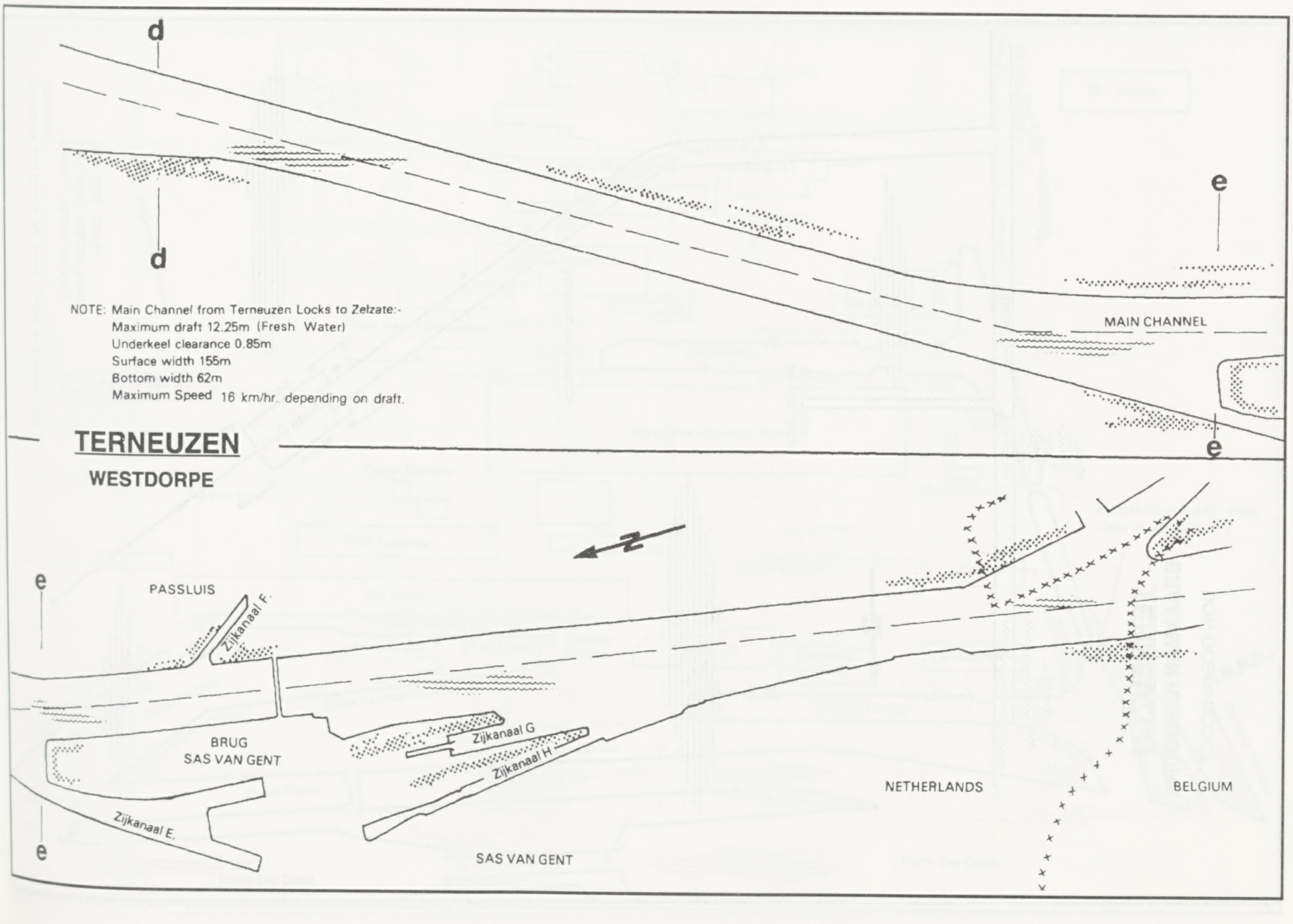
GENERAL MOORING ARRANGEMENTS

West Berth
East Berth
212,000 DWT.
30,000 DWT.
N

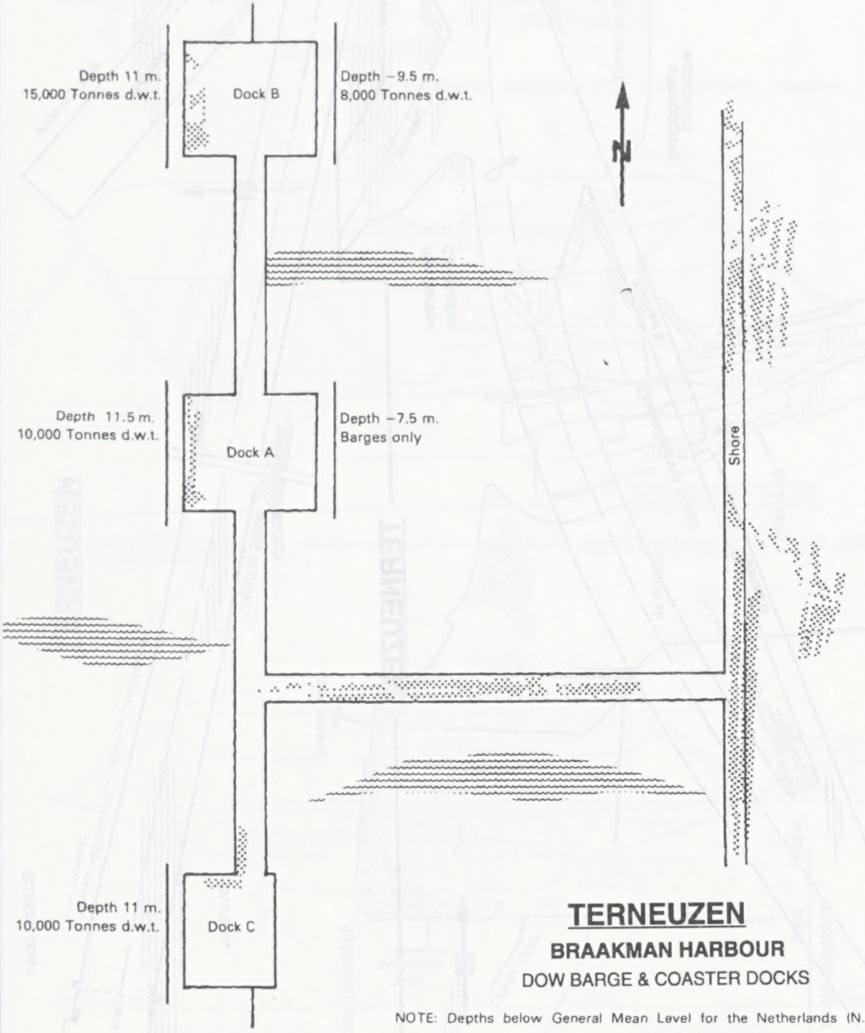

TERNEUZEN
WESTERSCHELDE
Scheldt Jetty
BRAAKMAN HARBOUR
Braakman Jetty
Dow
Dow
Ocean Dock
N
S
Oostbuitehaven
Westbuitehaven
East Lock
Middle Lock
Air Products
Terneuzen Roads & Anchorage
TERNEUZEN
West Lock
0
1000
1500 m.
SCALE IN METRES
N


TERNEUZEN
Zijkanaal A
a
Stations Loskade
Yacht Harbour
Zijkanaal A
Oost Buitehaven
Oostsluis
WESTERSCHELDE
Middensluis
Tug Pier
Light In Line 192 50°
Westsluis
N
Locks 153.5°
West Buitenhaven
a
- TERNEUZEN
a
b
Zijkanaal A
Noorder Kanaalhaven
Zuider Kanaalhaven
Zwaaikom
(Massagoedhaven)
Oost Sluis
Midden Sluis
Ro-Ro Haven
7.50 m.
Zevenaar Hav
Waiting Berth
Goessche Kade
Waiting Berth
a
b


TERNEUZEN
SLUISKIL OOST
c
Ferry
SLUISKIL
c
b
Ro/Ro Quay
Bulk Terminal
Verlenging
Zevenaar Haven
BRUG SLUISKIL
b
c
Zijkanaal C
New Harbour Construction
c
STROODORPE
Zijkanaal B
Kanaaleiland Van Sluiskil
Zijkanaal D
d
DRIEKWART
d


d
d
e
MAIN CHANNEL
e
TERNEUZEN
WESTDORPE
e
PASSLUIS
Zijkanaal F.
BRUG SAS VAN GENT
Zijkanaal G
Zijkanaal H
Zijkanaal E.
e
SAS VAN GENT
NETHERLANDS
BELGIUM

NOTE: Main Channel from Terneuzen Locks to Zelzate:-
Maximum draft 12.25m (Fresh Water)
Underkeel clearance 0.85m
Surface width 155m
Bottom width 62m
Maximum Speed 16 km/hr. depending on draft.


Depth 11 m.
15,000 Tonnes d.w.t.
Dock B
Depth –9.5 m.
8,000 Tonnes d.w.t.
N
Depth 11.5 m.
10,000 Tonnes d.w.t.
Dock A
Depth –7.5 m.
Barges only
Shore
Depth 11 m.
10,000 Tonnes d.w.t.
Dock C

TERNEUZEN

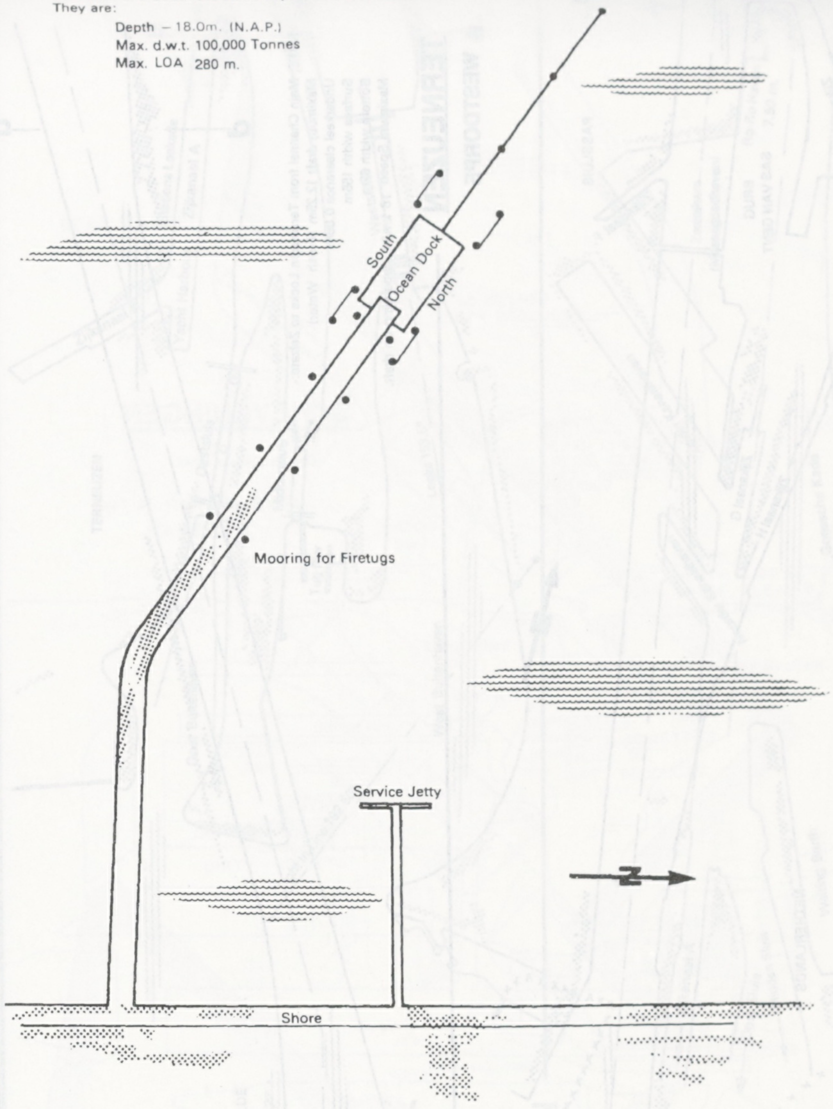
BRAAKMAN HARBOUR

DOW BARGE & COASTER DOCKS

NOTE: Depths below General Mean Level for the Netherlands (N.A.P.)

For All Berths, The overall length of vessels is restricted to a maximum of 140 m for docks A & B East 165 m for docks A, B & C West

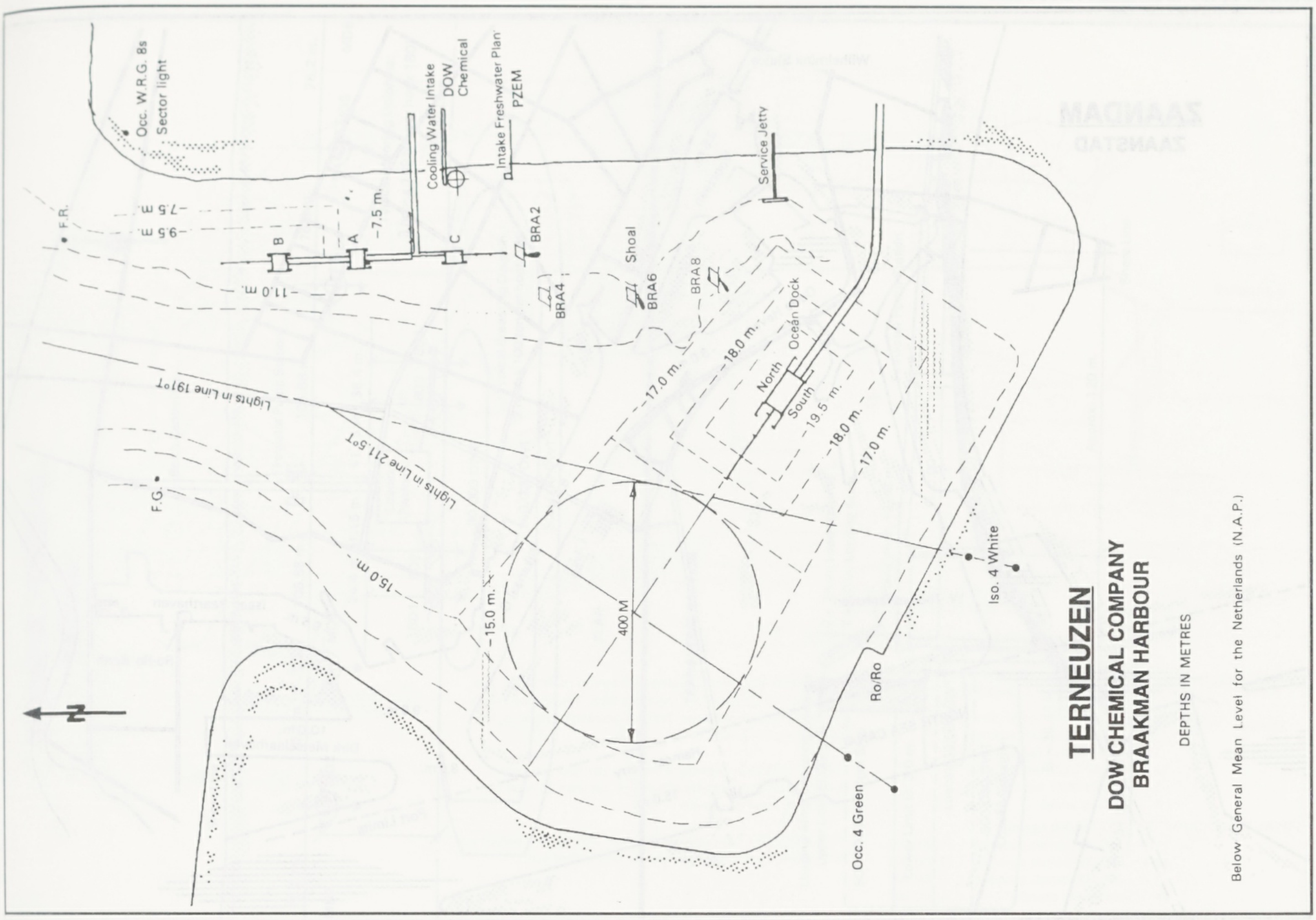
For North and South the same depths and restrictions.
They are:
Depth – 18.0m. (N.A.P.)
Max. d.w.t. 100,000 Tonnes
Max. LOA 280 m.


South
Ocean Dock
North
Mooring for Firetugs
Service Jetty
N
Shore

TERNEUZEN

BRAAKMAN HARBOUR

DOW OCEAN DOCK



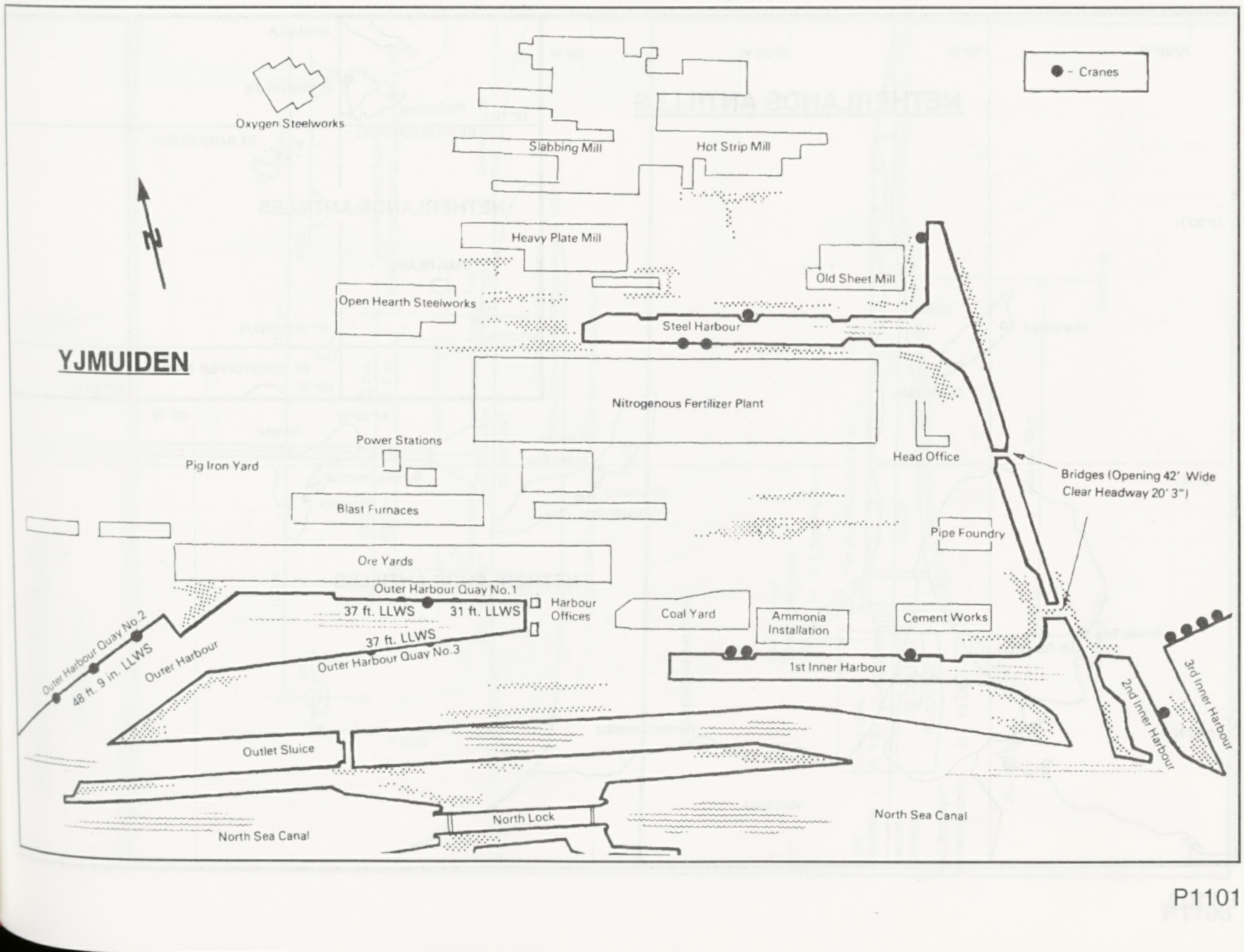
TERNEUZEN

DOW CHEMICAL COMPANY
BRAAKMAN HARBOUR

DEPTHS IN METRES

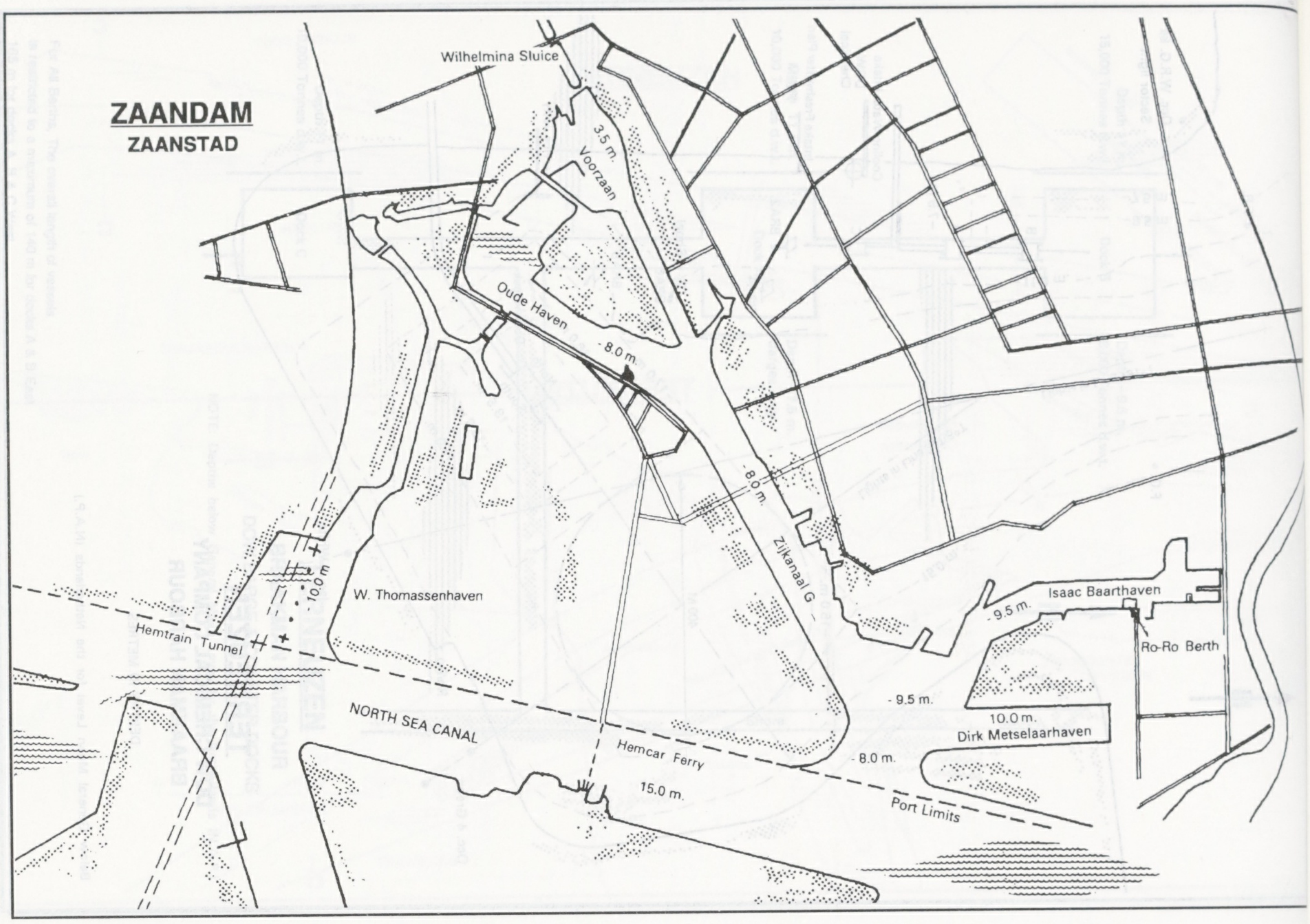
Below General Mean Level for the Netherlands (N.A.P.)

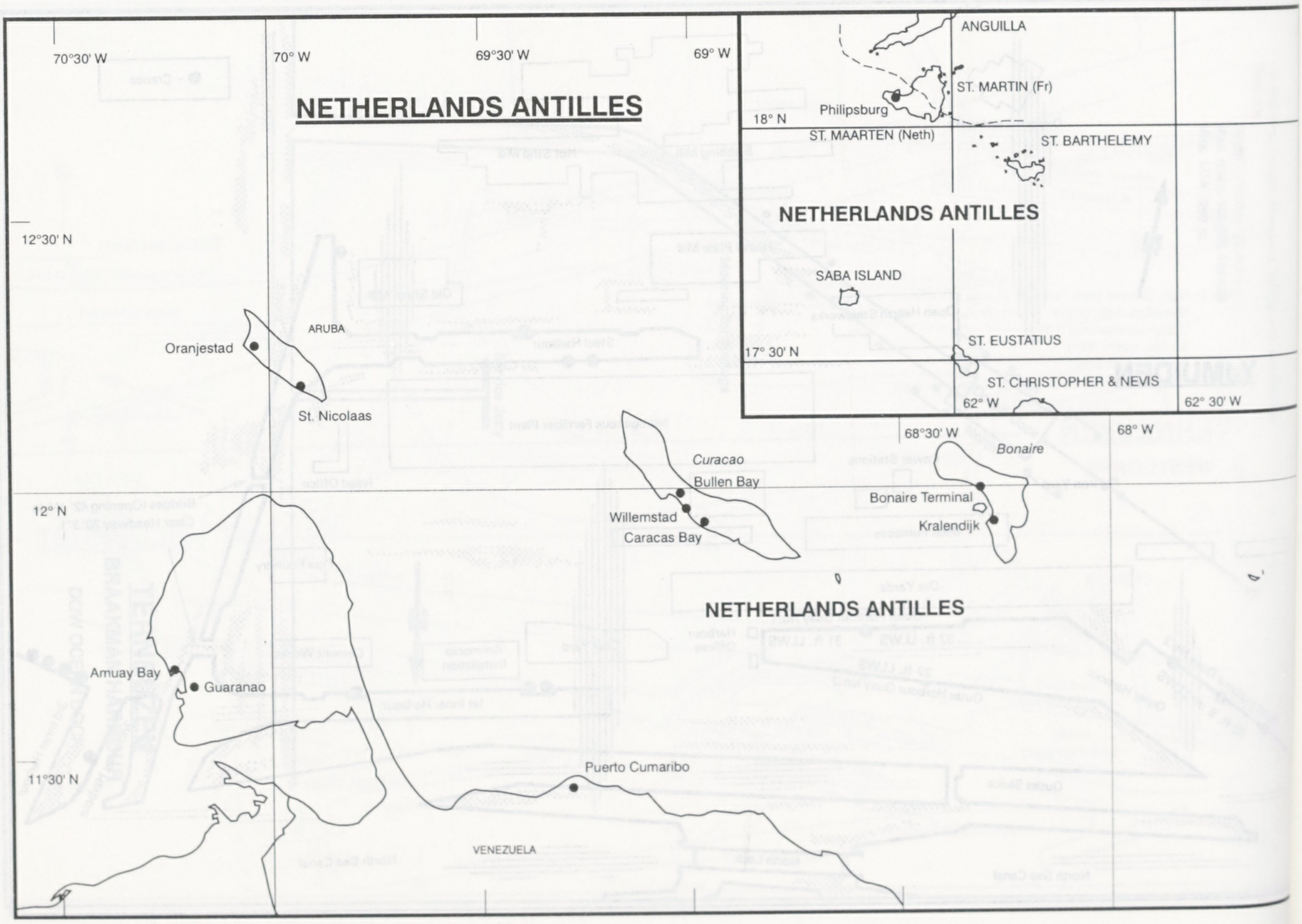
Occ. W.R.G. 8s
Sector light
Cooling Water Intake
DOW
Chemical
Intake Freshwater Plant
PZEM
Service Jetty
F.R.
-7.5 m.
9.5 m.
-7.5 m.
B
A
C
BRA2
11.0 m.
BRA4
Shoal
BRA6
BRA8
Lights in Line 191°T
Lights in Line 211.5°T
17.0 m.
18.0 m.
North
Ocean Dock
South
19.5 m.
18.0 m.
17.0 m.
F.G.
15.0 m.
-15.0 m.
400 M
Iso. 4 White
Ro/Ro
Occ. 4 Green
N



YJMUIDEN

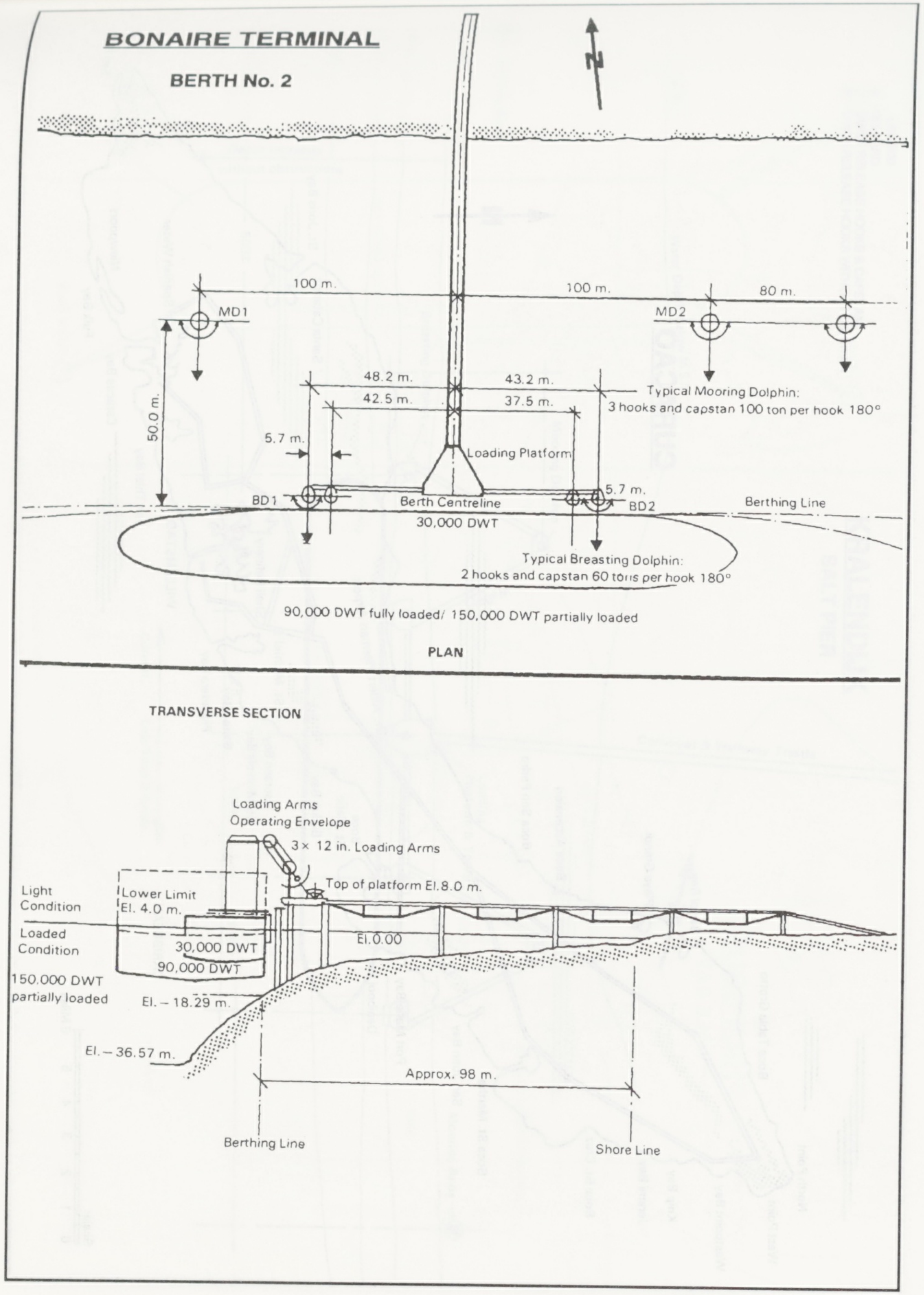
● - Cranes
Oxygen Steelworks
Slabbing Mill
Hot Strip Mill
N
Heavy Plate Mill
Old Sheet Mill
Open Hearth Steelworks
Steel Harbour
Nitrogenous Fertilizer Plant
Power Stations
Pig Iron Yard
Head Office
Bridges (Opening 42' Wide
Clear Headway 20' 3")
Blast Furnaces
Pipe Foundry
Ore Yards
Outer Harbour Quay No.1
37 ft. LLWS
31 ft. LLWS
Harbour
Offices
Coal Yard
Ammonia
Installation
Cement Works
Outer Harbour Quay No.2
48 ft. 9 in. LLWS
Outer Harbour
37 ft. LLWS
Outer Harbour Quay No.3
1st Inner Harbour
2nd Inner Harbour
3rd Inner Harbour
Outlet Sluice
North Lock
North Sea Canal
North Sea Canal


ZAANDAM
ZAANSTAD
Wilhelmina Sluice
3.5 m.
Voorzaan
Oude Haven
- 8.0 m.
- 8.0 m.
Zijkanaal G
- 10.0 m
W. Thomassenhaven
Hemtrain Tunnel
NORTH SEA CANAL
Hemcar Ferry
15.0 m.
Port Limits
- 9.5 m.
Isaac Baarthaven
Ro-Ro Berth
- 9.5 m.
10.0 m.
Dirk Metselaarhaven
- 8.0 m.


70°30' W
70° W
69°30' W
69° W
NETHERLANDS ANTILLES
12°30' N
ARUBA
Oranjestad
St. Nicolaas
12° N
11°30' N
Curacao
Bullen Bay
Willemstad
Caracas Bay
68°30' W
68° W
Bonaire
Bonaire Terminal
Kralendijk
NETHERLANDS ANTILLES
Amuay Bay
Guaranao
Puerto Cumaribo
VENEZUELA
ANGUILLA
ST. MARTIN (Fr)
Philipsburg
18° N
ST. MAARTEN (Neth)
ST. BARTHELEMY
NETHERLANDS ANTILLES
SABA ISLAND
17° 30' N
ST. EUSTATIUS
ST. CHRISTOPHER & NEVIS
62° W
62° 30' W

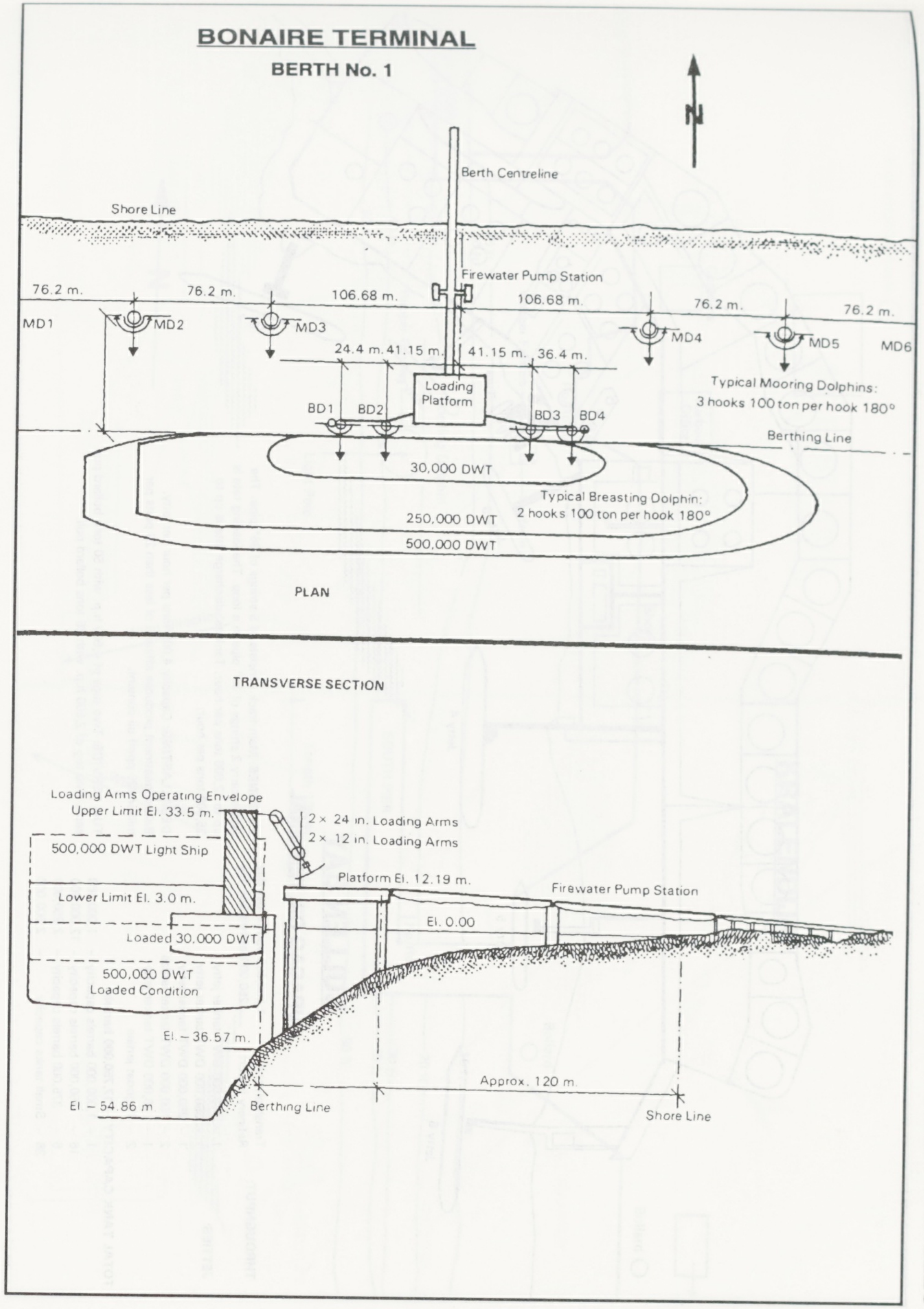
BONAIRE TERMINAL

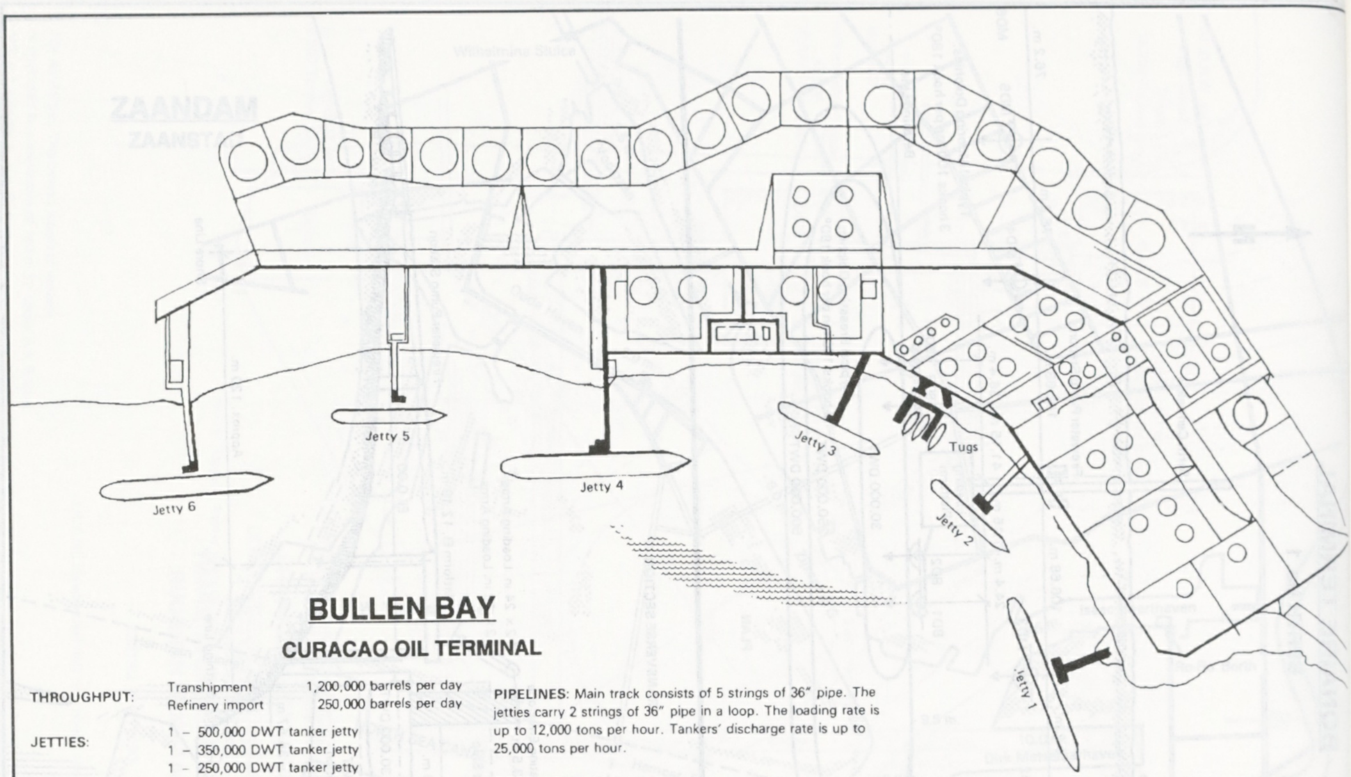
BERTH No. 2


N
100 m.
100 m.
80 m.
MD1
MD2
50.0 m.
48.2 m.
43.2 m.
42.5 m.
37.5 m.
Typical Mooring Dolphin:
3 hooks and capstan 100 ton per hook 180°
5.7 m.
Loading Platform
5.7 m.
BD1
Berth Centreline
BD2
Berthing Line
30,000 DWT
Typical Breasting Dolphin:
2 hooks and capstan 60 tons per hook 180°
90,000 DWT fully loaded/ 150,000 DWT partially loaded
PLAN
TRANSVERSE SECTION
Loading Arms
Operating Envelope
3× 12 in. Loading Arms
Top of platform El. 8.0 m.
Light
Condition
Lower Limit
El. 4.0 m.
Loaded
Condition
30,000 DWT
90,000 DWT
El. 0.00
150,000 DWT
partially loaded
El. – 18.29 m.
El. – 36.57 m.
Approx. 98 m.
Berthing Line
Shore Line

BONAIRE TERMINAL

BERTH No. 1


N
Berth Centreline
Shore Line
Firewater Pump Station
76.2 m.
76.2 m.
106.68 m.
106.68 m.
76.2 m.
76.2 m.
MD1
MD2
MD3
MD4
MD5
MD6
24.4 m.
41.15 m.
41.15 m.
36.4 m.
Loading
Platform
BD1
BD2
BD3
BD4
Typical Mooring Dolphins:
3 hooks 100 ton per hook 180°
Berthing Line
30,000 DWT
Typical Breasting Dolphin:
2 hooks 100 ton per hook 180°
250,000 DWT
500,000 DWT
PLAN
TRANSVERSE SECTION
Loading Arms Operating Envelope
Upper Limit El. 33.5 m.
2× 24 in. Loading Arms
2× 12 in. Loading Arms
500,000 DWT Light Ship
Platform El. 12.19 m.
Firewater Pump Station
Lower Limit El. 3.0 m.
El. 0.00
Loaded 30,000 DWT
500,000 DWT
Loaded Condition
El. – 36.57 m.
Approx. 120 m.
El – 54.86 m
Berthing Line
Shore Line


Jetty 6
Jetty 5
Jetty 4
Jetty 3
Tugs
Jetty 2
Jetty 1

BULLEN BAY

CURACAO OIL TERMINAL

THROUGHPUT:	Transhipment	1,200,000 barrels per day
	Refinery import	250,000 barrels per day

JETTIES:	1 – 500,000 DWT tanker jetty
	1 – 350,000 DWT tanker jetty
	1 – 250,000 DWT tanker jetty
	2 – 100,000 DWT tanker jetties
	1 – 70,000 DWT tanker jetty
	2 – Tugboat jetties

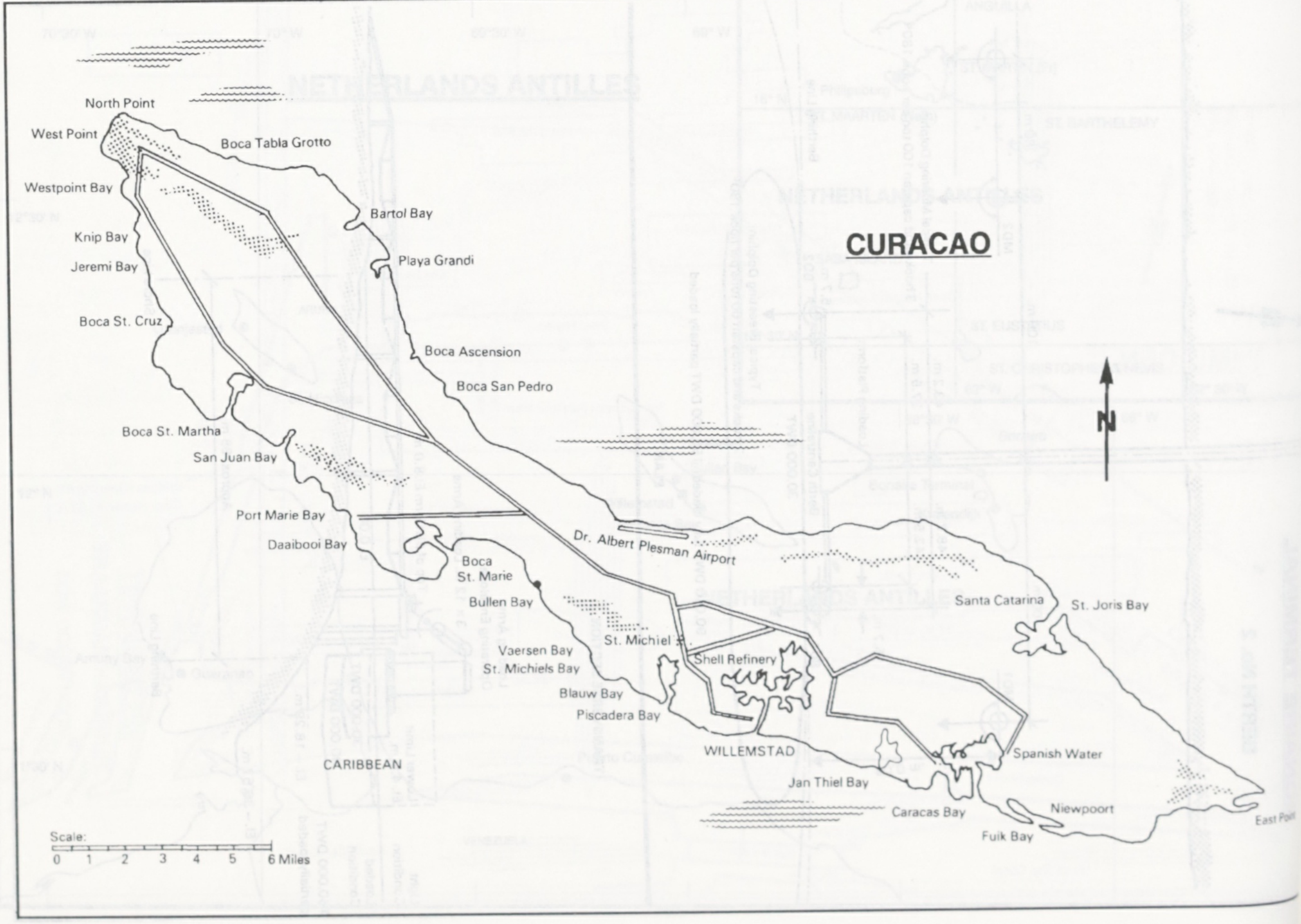
TOTAL TANK CAPACITY – 17,750,000 barrels

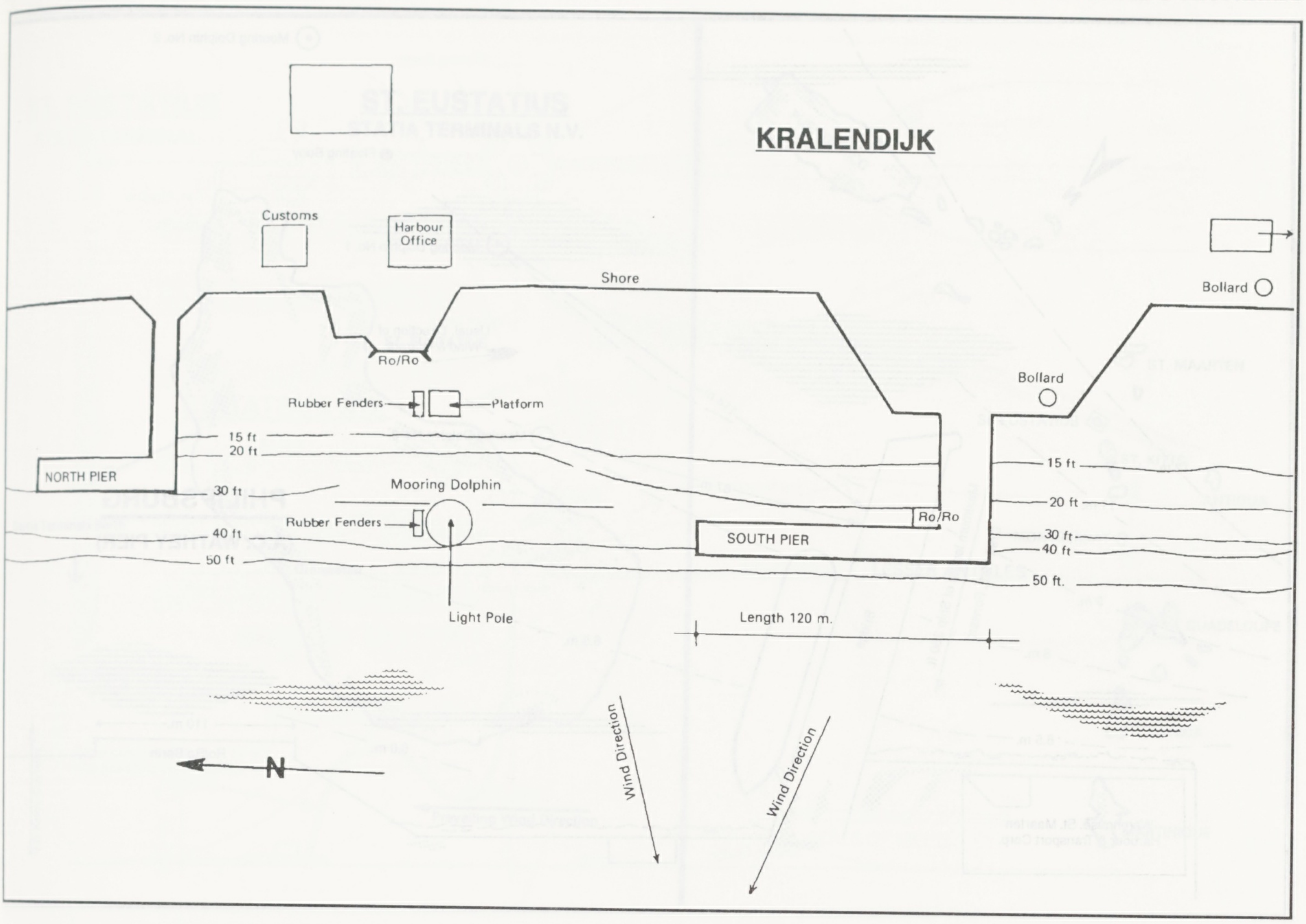
1 –	1,000,000 barrels capacity –	1,000,000
16 –	750,000 barrels capacity –	12,000,000
6 –	375,000 barrels capacity –	2,250,000
38 –	Small tanks capacity –	2,500,000

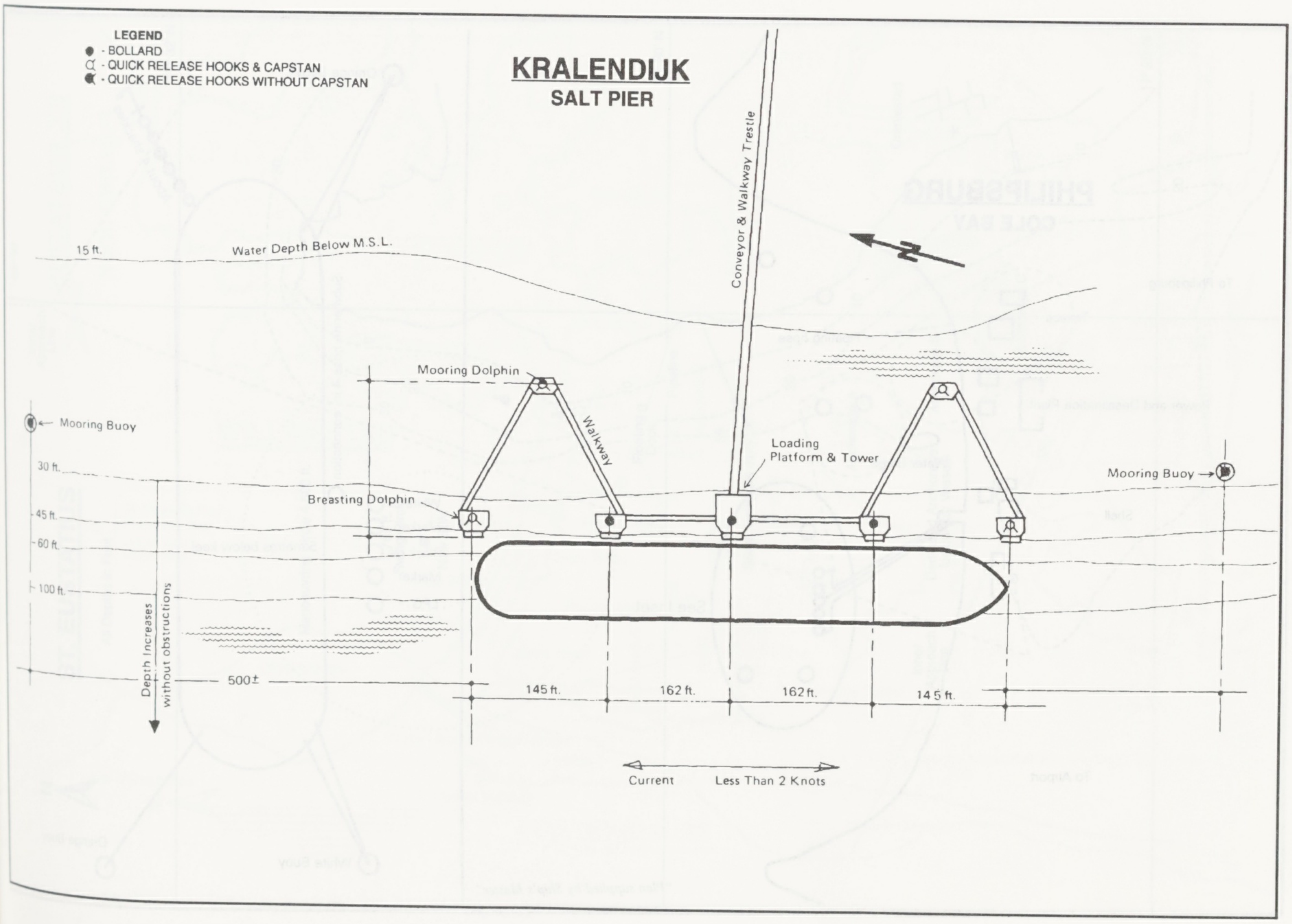
PIPELINES: Main track consists of 5 strings of 36" pipe. The jetties carry 2 strings of 36" pipe in a loop. The loading rate is up to 12,000 tons per hour. Tankers' discharge rate is up to 25,000 tons per hour.

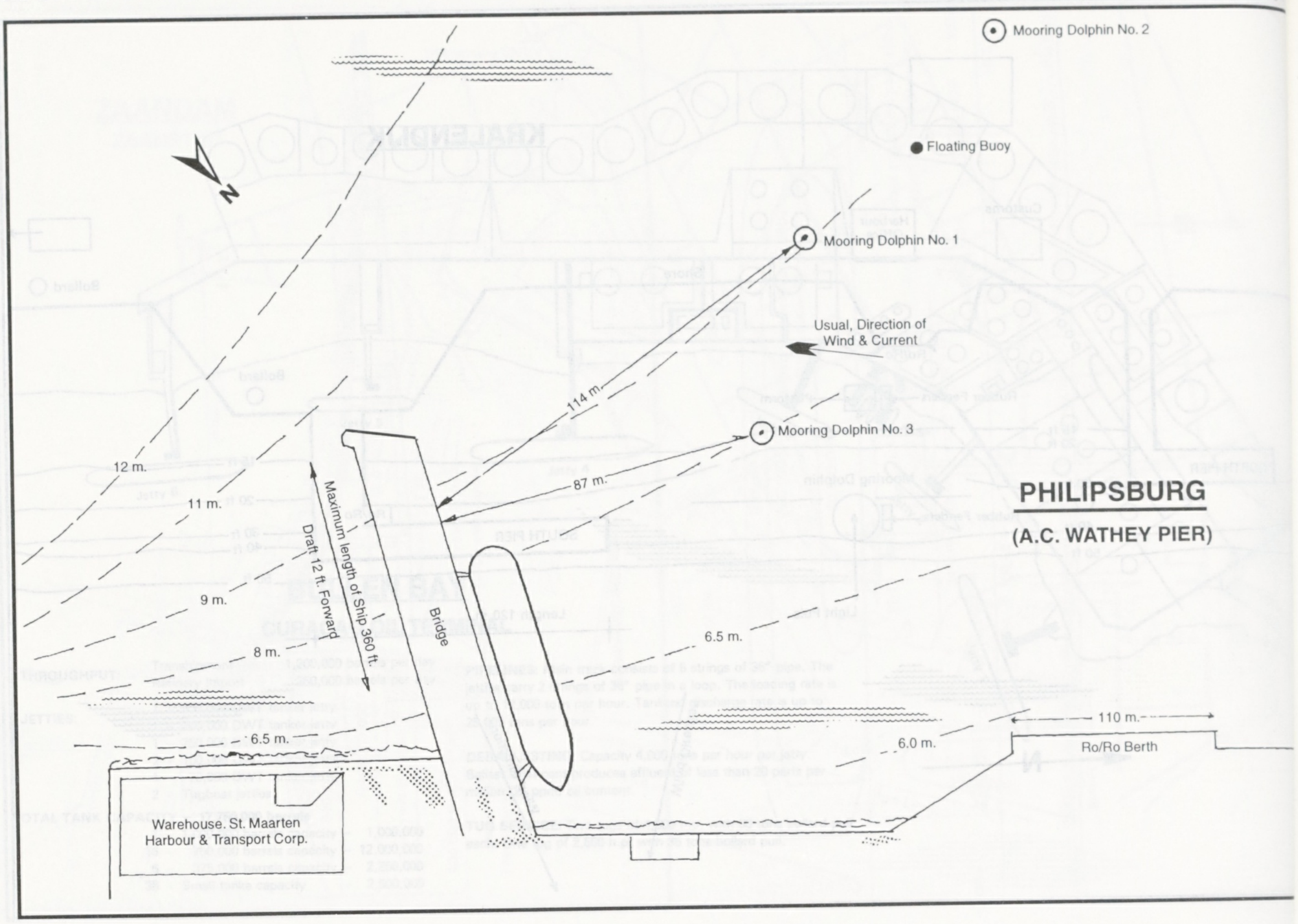
DEBALLASTING: Capacity 4,000 tons per hour per jetty. Ballast treatment produces affluent of less than 20 parts per million (20 ppm) oil content.

TUG SERVICE: Two tugs of 4,500 h.p. with 50 tons bollard pull each. One tug of 2,500 h.p. with 35 tons bollard pull.


CURACAO
N
North Point
West Point
Boca Tabla Grotto
Westpoint Bay
Bartol Bay
Knip Bay
Playa Grandi
Jeremi Bay
Boca St. Cruz
Boca Ascension
Boca San Pedro
Boca St. Martha
San Juan Bay
Port Marie Bay
Daaibooi Bay
Dr. Albert Plesman Airport
Boca St. Marie
Bullen Bay
St. Michiel
Vaersen Bay
St. Michiels Bay
Shell Refinery
Blauw Bay
Piscadera Bay
WILLEMSTAD
CARIBBEAN
Santa Catarina
St. Joris Bay
Spanish Water
Jan Thiel Bay
Caracas Bay
Newpoort
Fuik Bay
East Point
Scale:
0
1
2
3
4
5
6 Miles


KRALENDIJK
Customs
Harbour Office
Shore
Ro/Ro
Rubber Fenders
Platform
15 ft
20 ft
NORTH PIER
30 ft
Mooring Dolphin
Rubber Fenders
40 ft
50 ft
Light Pole
Bollard
Bollard
15 ft
20 ft
Ro/Ro
SOUTH PIER
30 ft
40 ft
50 ft.
Length 120 m.
Wind Direction
Wind Direction
N

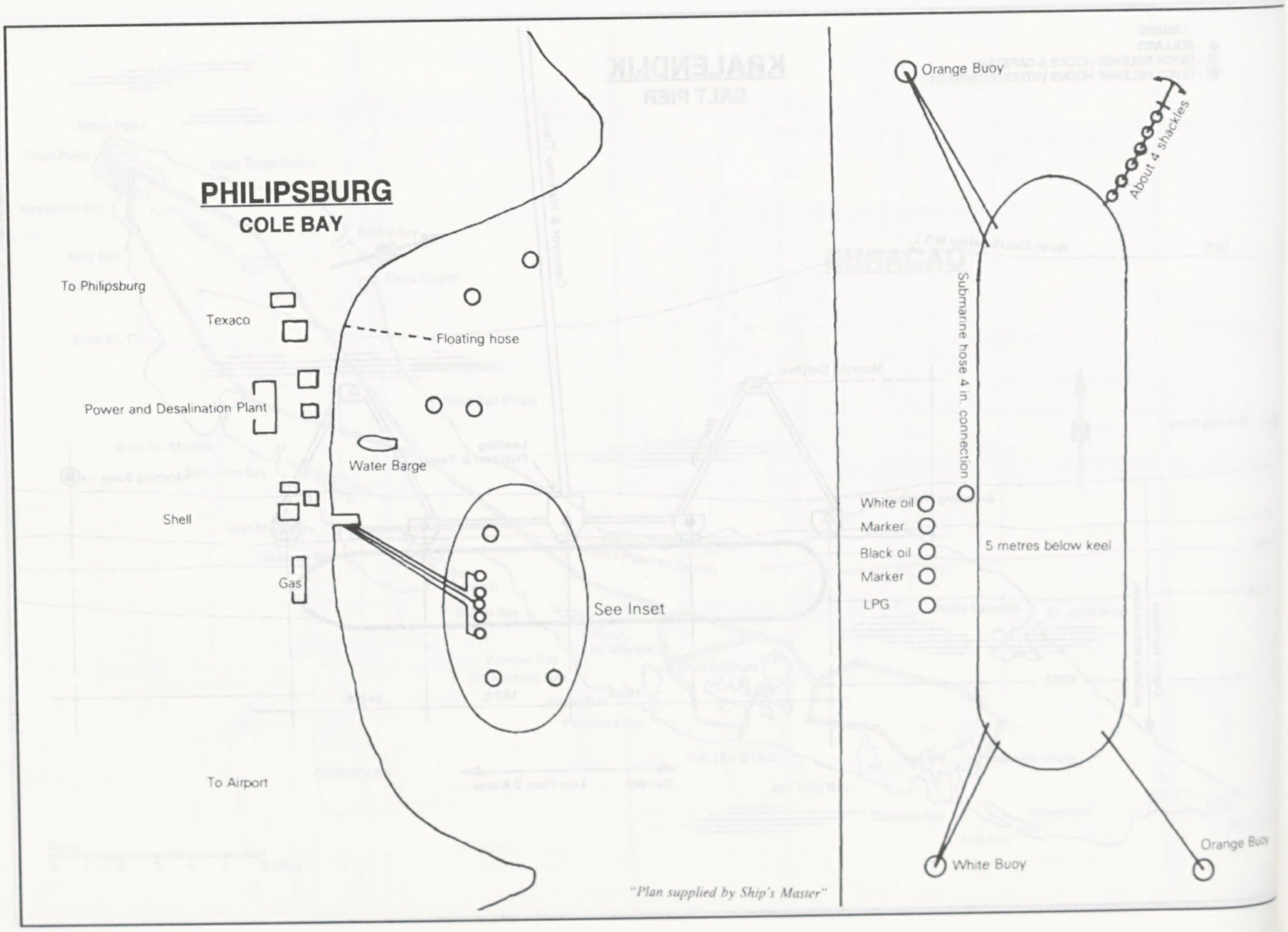

LEGEND
● - BOLLARD
- QUICK RELEASE HOOKS & CAPSTAN
- QUICK RELEASE HOOKS WITHOUT CAPSTAN
KRALENDIJK
SALT PIER
Conveyor & Walkway Trestle
N
15 ft.
Water Depth Below M.S.L.
Mooring Dolphin
Walkway
Mooring Buoy
Loading Platform & Tower
Mooring Buoy
30 ft.
45 ft.
60 ft.
100 ft.
Breasting Dolphin
Depth Increases without obstructions
500±
145 ft.
162 ft.
162 ft.
14 5 ft.
Current
Less Than 2 Knots



PHILIPSBURG

(A.C. WATHEY PIER)

N
Mooring Dolphin No. 2
Floating Buoy
Mooring Dolphin No. 1
Usual, Direction of Wind & Current
114 m.
Mooring Dolphin No. 3
87 m.
12 m.
11 m.
9 m.
8 m.
6.5 m.
6.5 m.
6.0 m.
Maximum length of Ship 360 ft.
Draft 12 ft. Forward
Bridge
110 m.
Ro/Ro Berth
Warehouse. St. Maarten Harbour & Transport Corp.

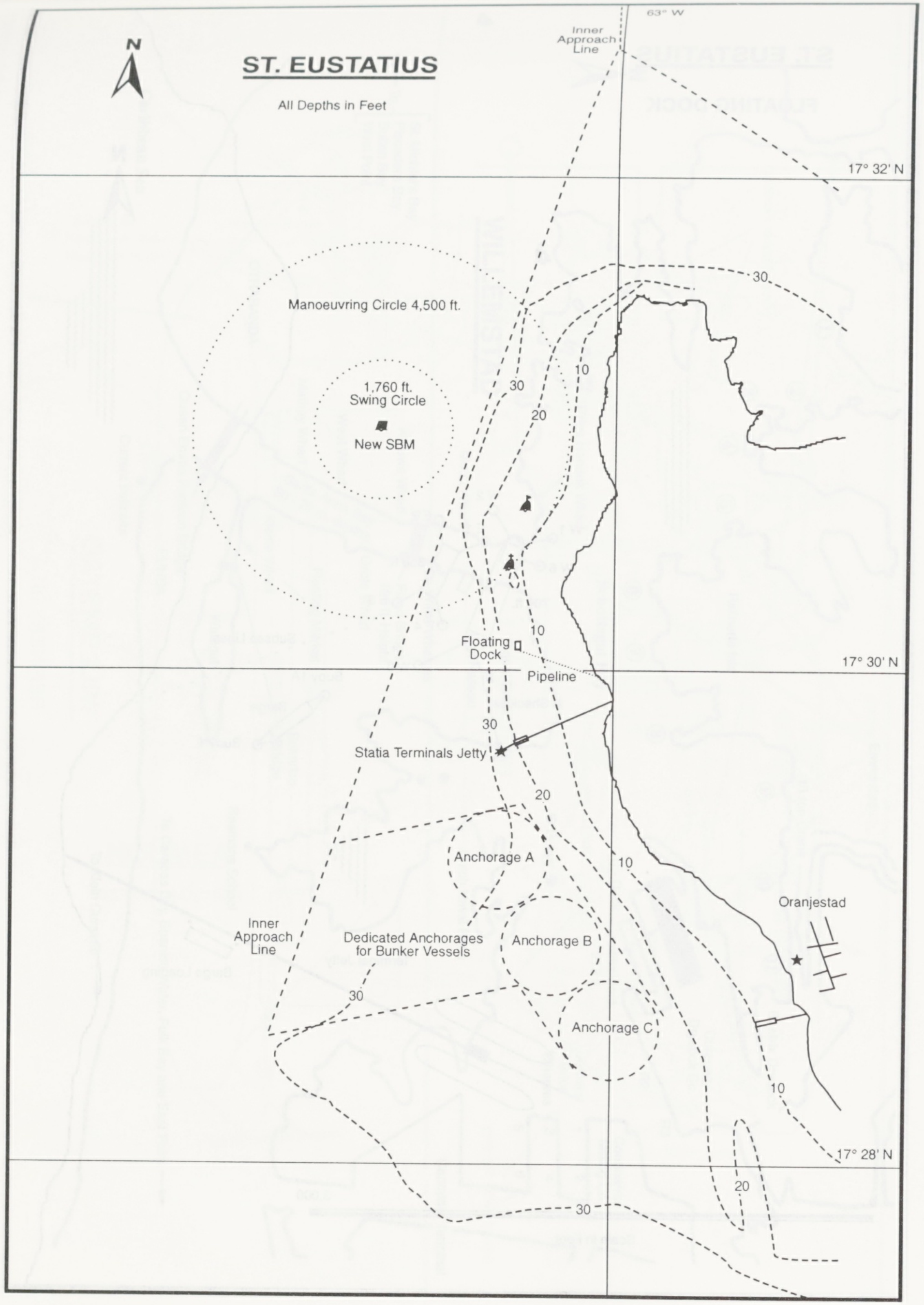


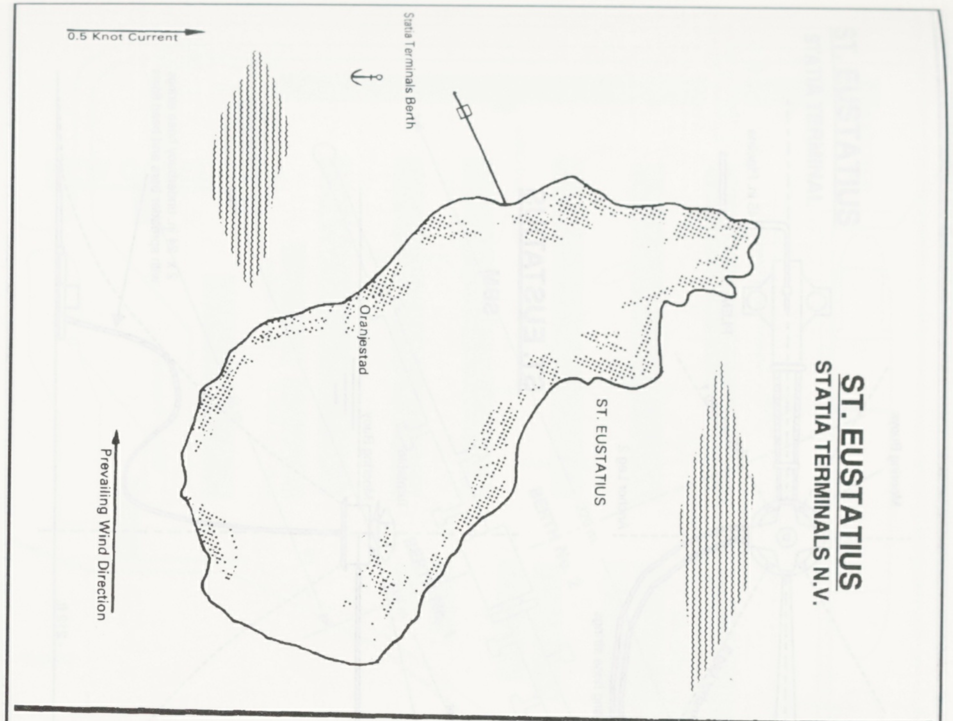
PHILIPSBURG

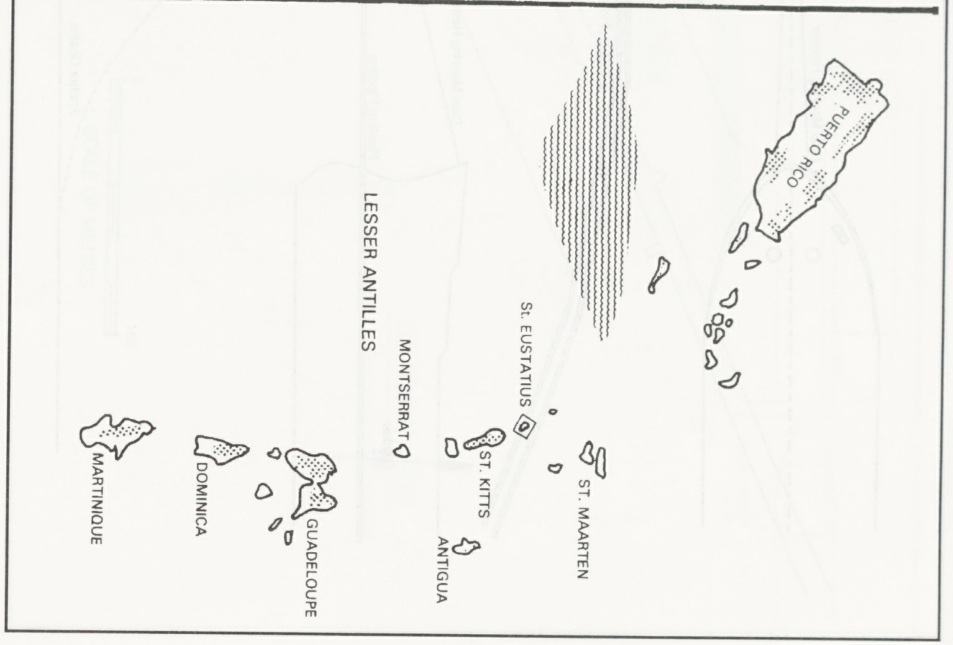
COLE BAY

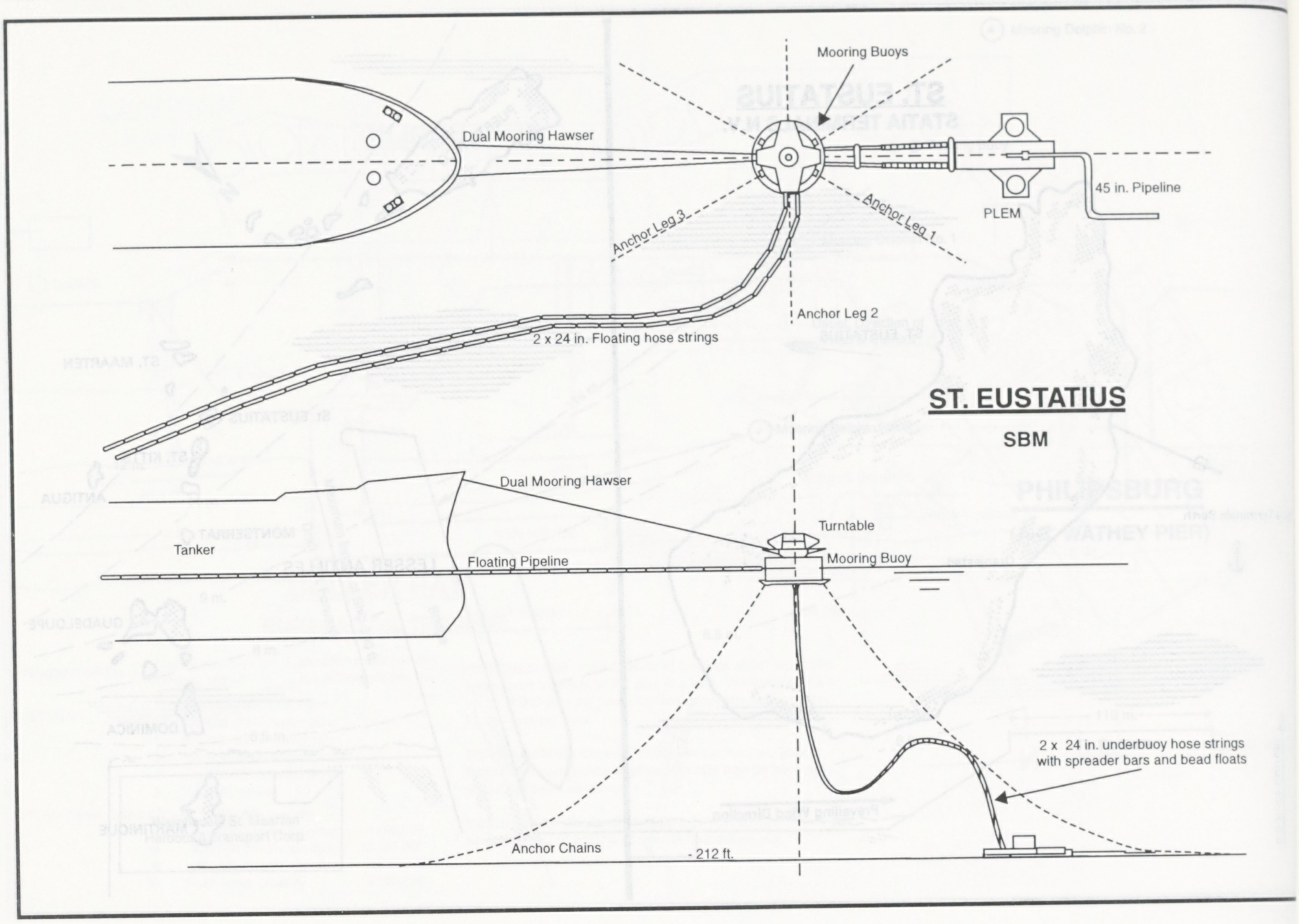
To Philipsburg
Texaco
Floating hose
Power and Desalination Plant
Water Barge
Shell
Gas
See Inset
To Airport
Orange Buoy
About 4 shackles
Submarine hose 4 in. connection
White oil
Marker
Black oil
Marker
LPG
5 metres below keel
White Buoy
Orange Buoy

"Plan supplied by Ship's Master"


N
ST. EUSTATIUS
All Depths in Feet
Inner Approach Line
63° W
17° 32' N
17° 30' N
17° 28' N
Manoeuvring Circle 4,500 ft.
1,760 ft. Swing Circle
New SBM
Floating Dock
Pipeline
Statia Terminals Jetty
Anchorage A
Anchorage B
Anchorage C
Dedicated Anchorages for Bunker Vessels
Inner Approach Line
Oranjestad
10
20
30


ST. EUSTATIUS
STATIA TERMINALS N.V.
0.5 Knot Current
Statia Terminals Berth
Oranjestad
ST. EUSTATIUS
Prevailing Wind Direction

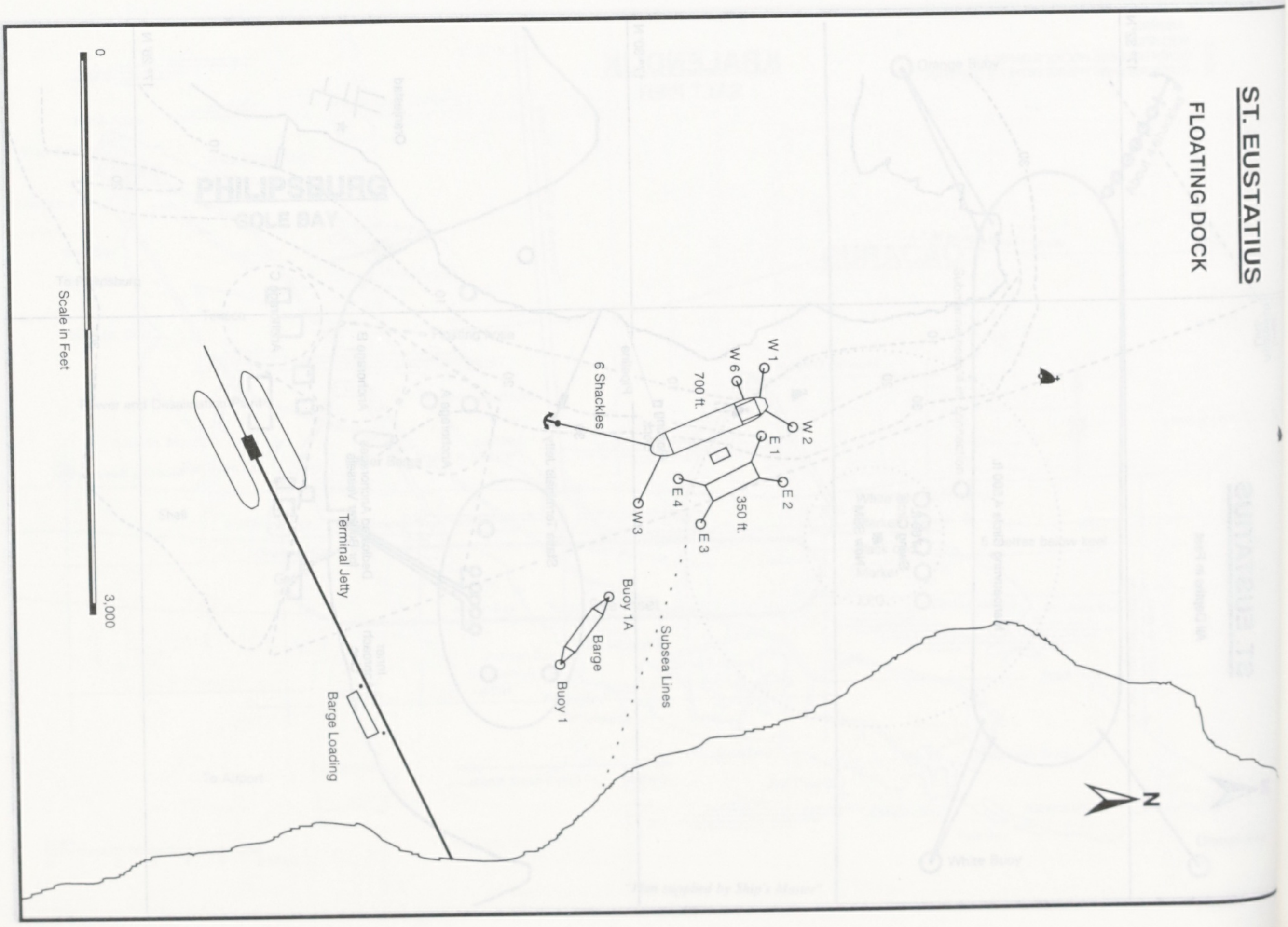

PUERTO RICO
LESSER ANTILLES
ST. MAARTEN
St. EUSTATIUS
ST. KITTS
ANTIGUA
MONTSERRAT
GUADELOUPE
DOMINICA
MARTINIQUE



ST. EUSTATIUS

SBM

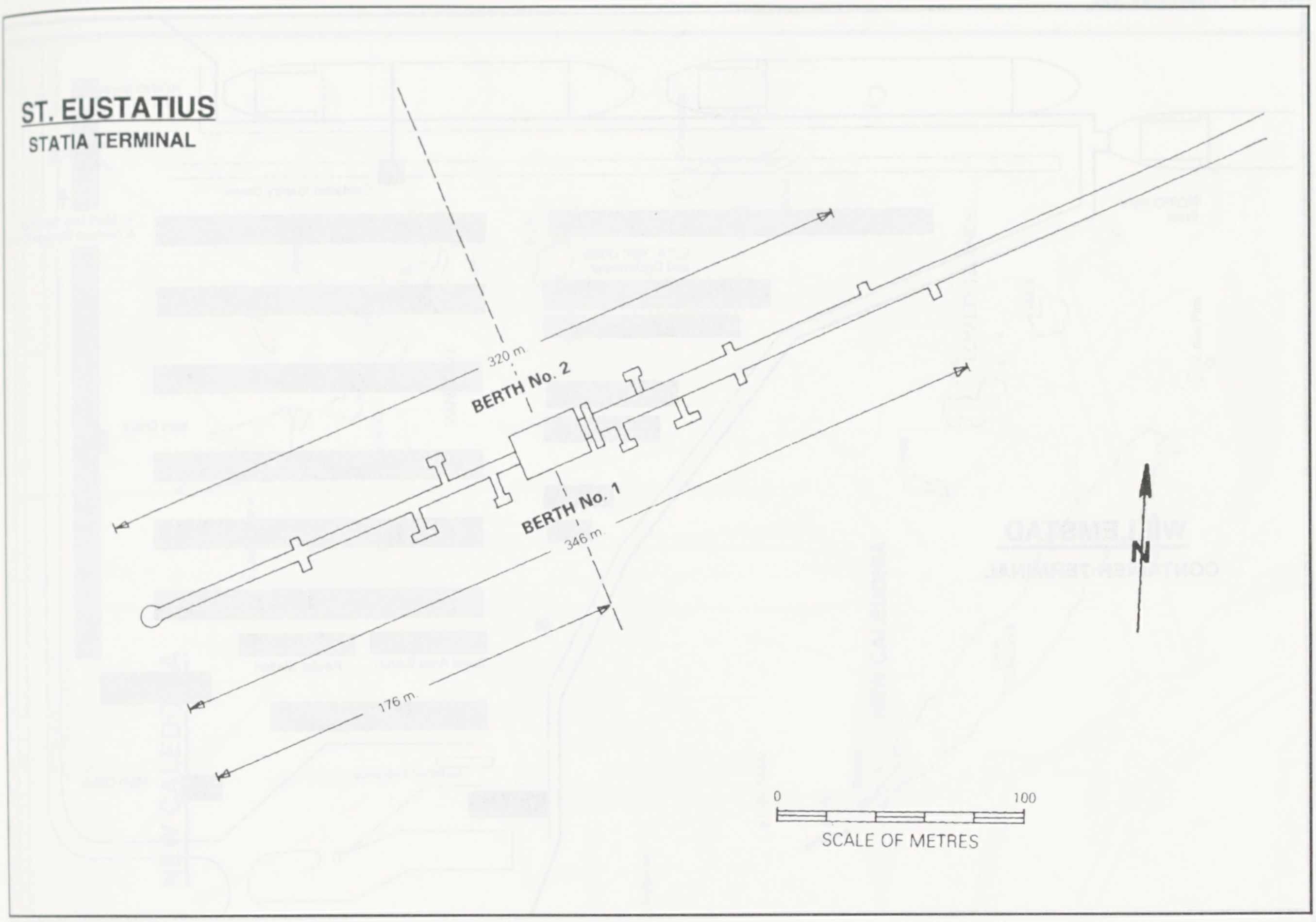
Mooring Buoys
Dual Mooring Hawser
PLEM
45 in. Pipeline
Anchor Leg 3
Anchor Leg 1
Anchor Leg 2
2 x 24 in. Floating hose strings
Dual Mooring Hawser
Turntable
Tanker
Mooring Buoy
Floating Pipeline
2 x 24 in. underbuoy hose strings
with spreader bars and bead floats
Anchor Chains
- 212 ft.

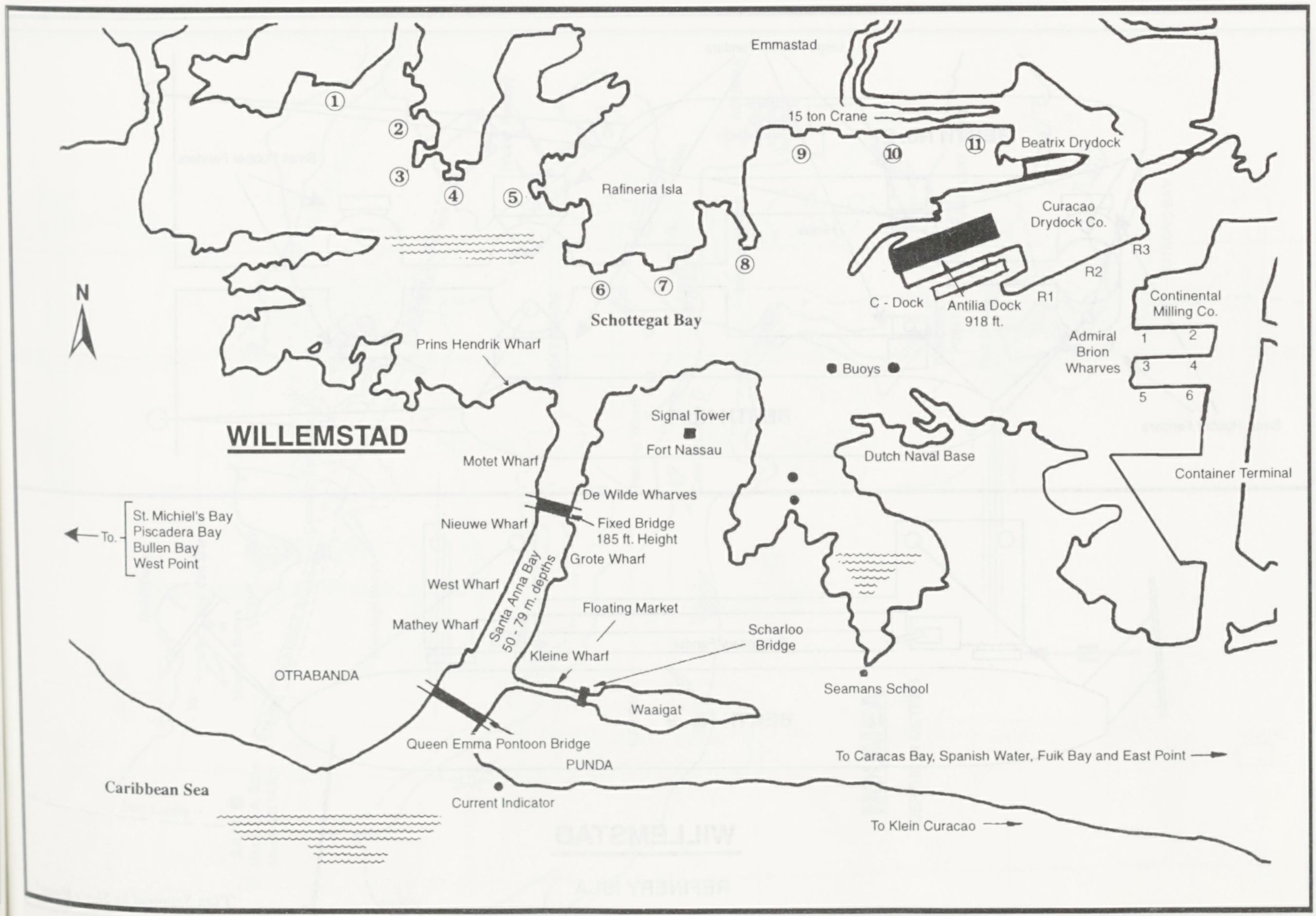


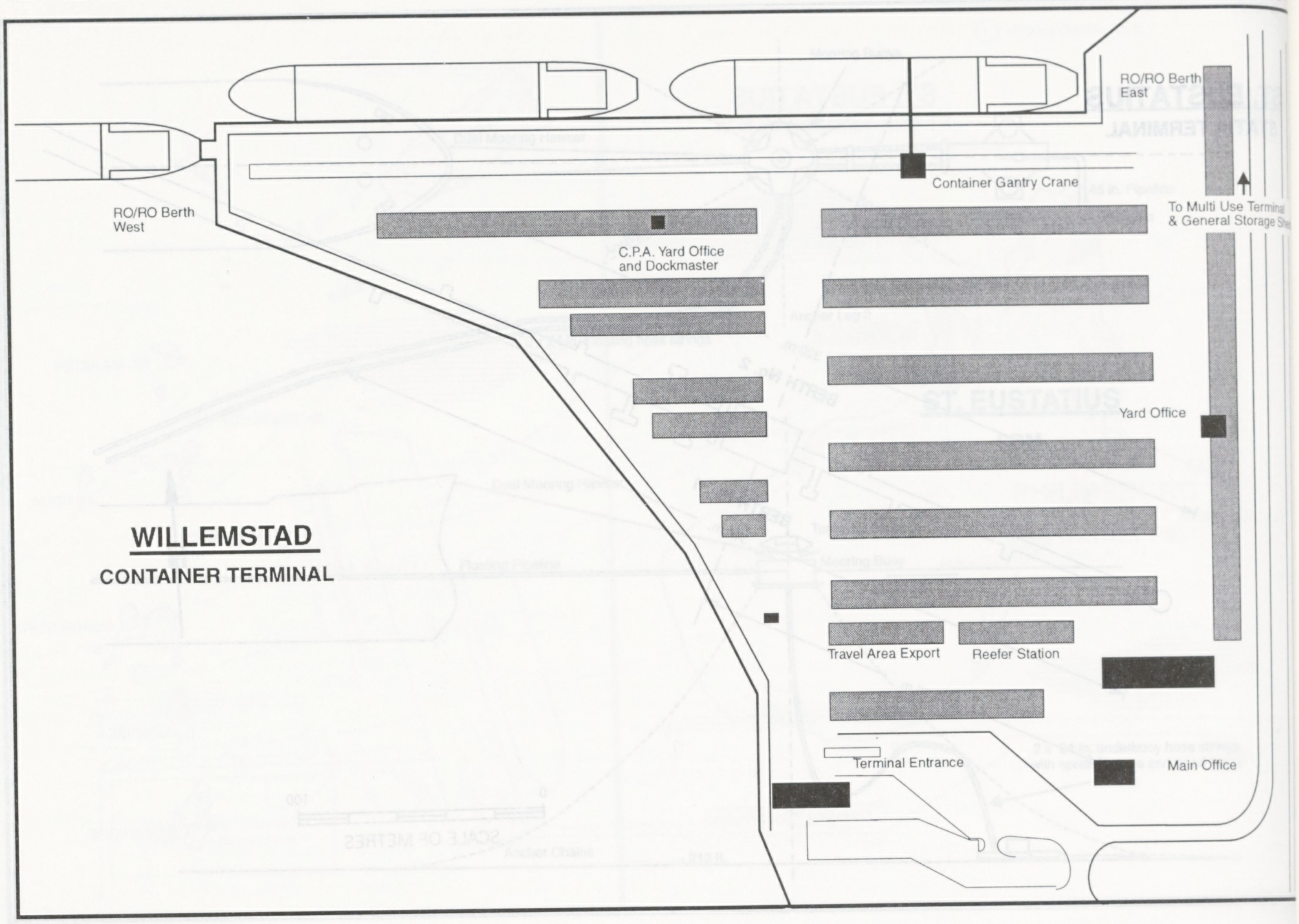
ST. EUSTATIUS

FLOATING DOCK

0
Scale in Feet
3,000
Terminal Jetty
Barge Loading
6 Shackles
700 ft.
W 6
W 1
W 2
E 1
E 2
E 4
W 3
E 3
350 ft.
Buoy 1A
Barge
Buoy 1
Subsea Lines
N

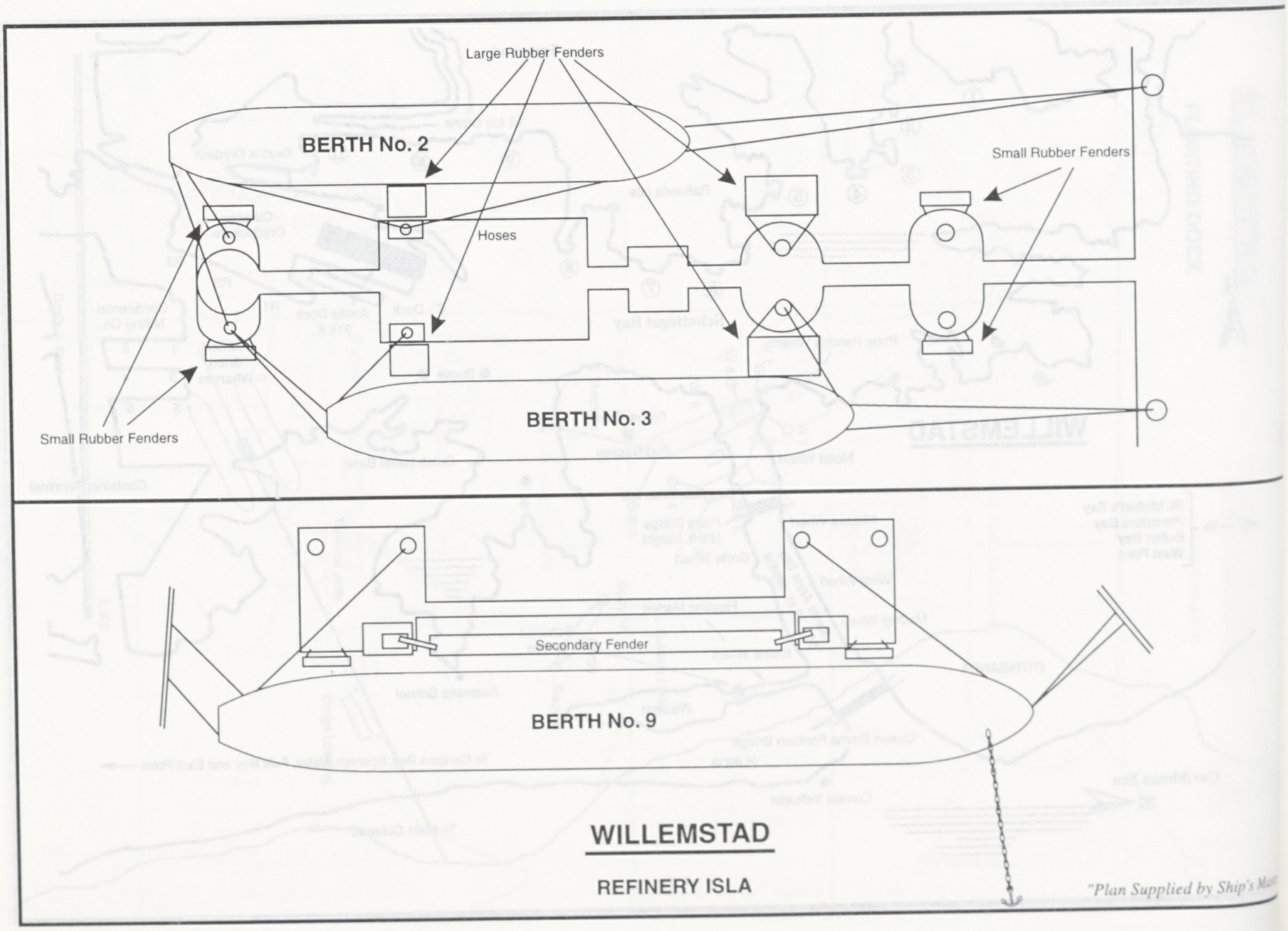

ST. EUSTATIUS
STATIA TERMINAL
BERTH No. 2
320 m.
BERTH No. 1
346 m.
176 m.
N
0
100
SCALE OF METRES


Emmastad
15 ton Crane
Beatrix Drydock
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
Rafineria Isla
Curacao Drydock Co.
R3
R2
R1
Continental Milling Co.
C - Dock
Antilia Dock 918 ft.
Admiral Brion Wharves
1
2
3
4
5
6
Schottegat Bay
N
Buoys
Prins Hendrik Wharf
Signal Tower
Fort Nassau
WILLEMSTAD
Motet Wharf
Dutch Naval Base
Container Terminal
De Wilde Wharves
To. St. Michiel's Bay
Piscadera Bay
Bullen Bay
West Point
Nieuwe Wharf
Fixed Bridge 185 ft. Height
Grote Wharf
Santa Anna Bay 50 - 79 m. depths
West Wharf
Floating Market
Mathey Wharf
Scharloo Bridge
Kleine Wharf
OTRABANDA
Seamans School
Waaigat
Queen Emma Pontoon Bridge
PUNDA
To Caracas Bay, Spanish Water, Fuik Bay and East Point
Caribbean Sea
Current Indicator
To Klein Curacao


RO/RO Berth West
RO/RO Berth East
Container Gantry Crane
To Multi Use Termina
& General Storage Sh
C.P.A. Yard Office and Dockmaster
Yard Office
Travel Area Export
Reefer Station
Terminal Entrance
Main Office

WILLEMSTAD

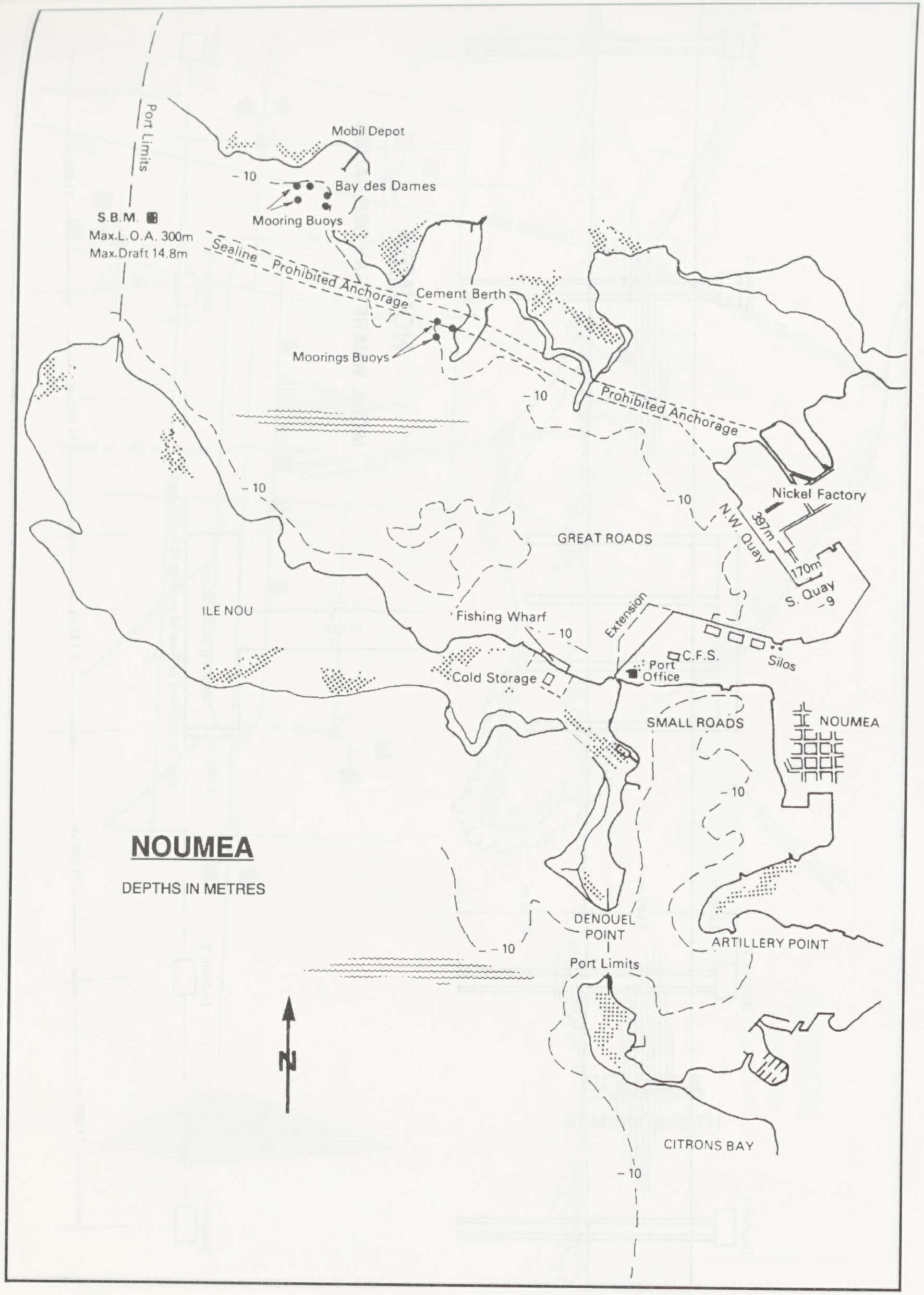
CONTAINER TERMINAL

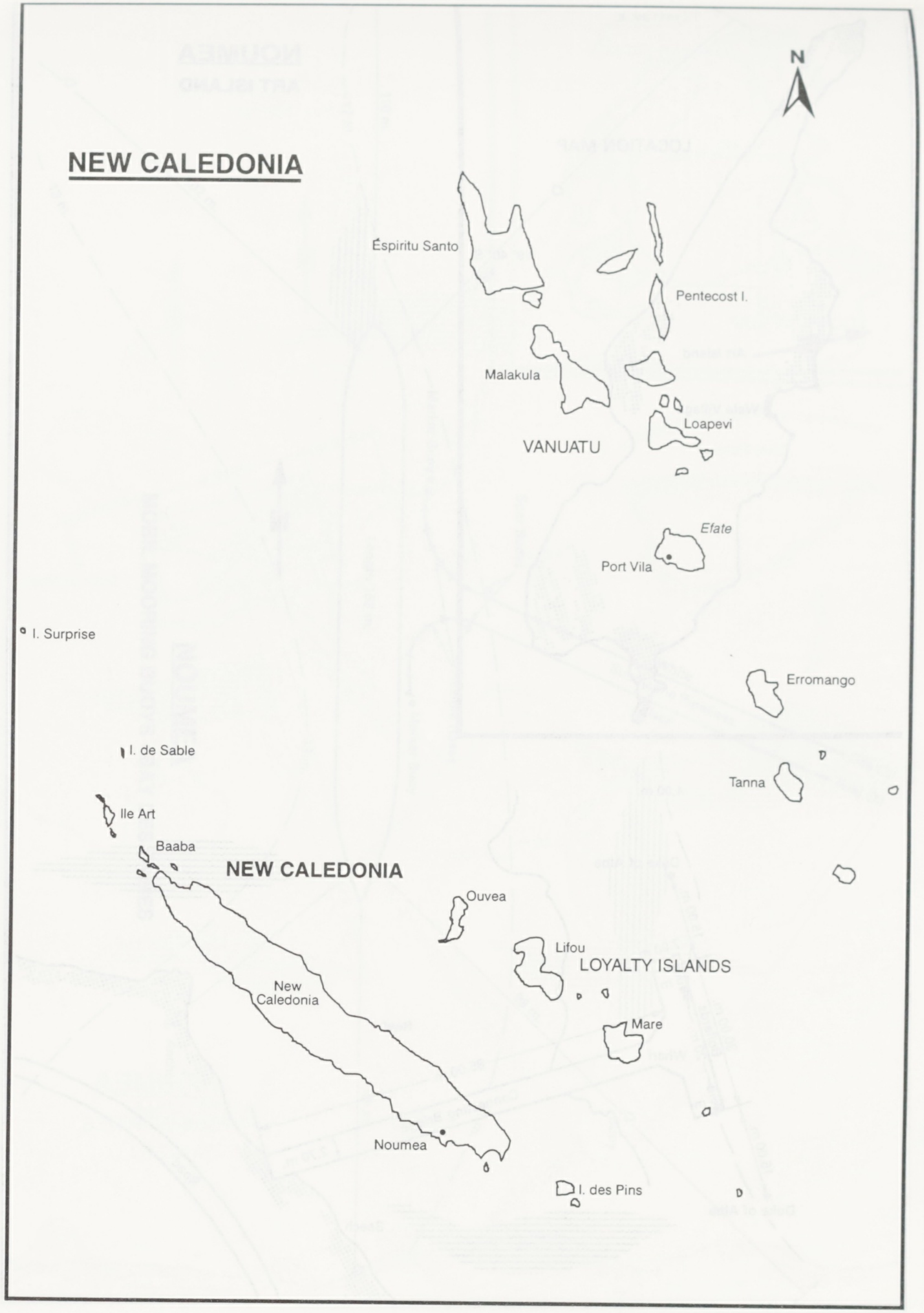

Large Rubber Fenders
BERTH No. 2
Small Rubber Fenders
Hoses
BERTH No. 3
Small Rubber Fenders
Secondary Fender
BERTH No. 9

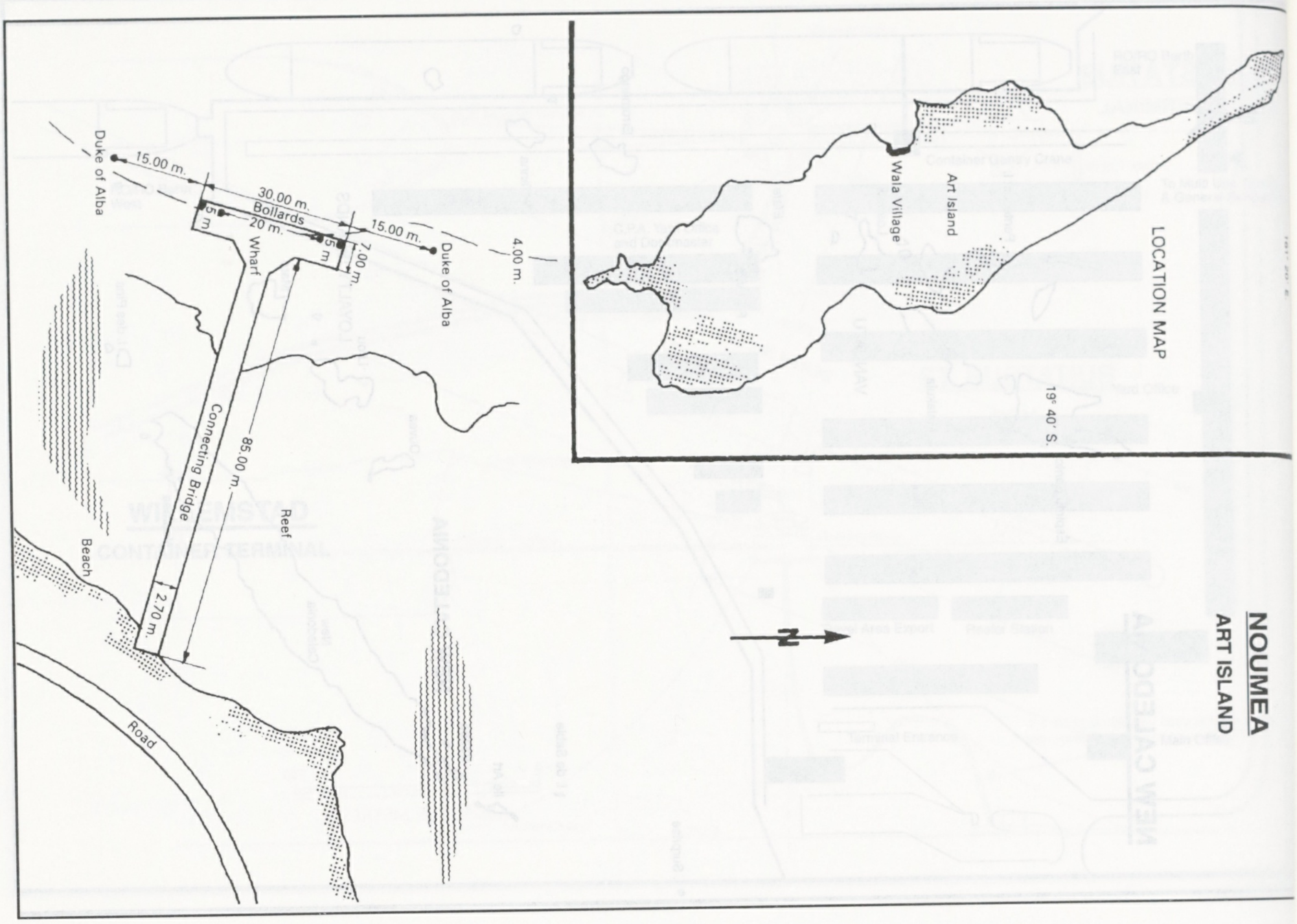
WILLEMSTAD

REFINERY ISLA

"Plan Supplied by Ship's Ma

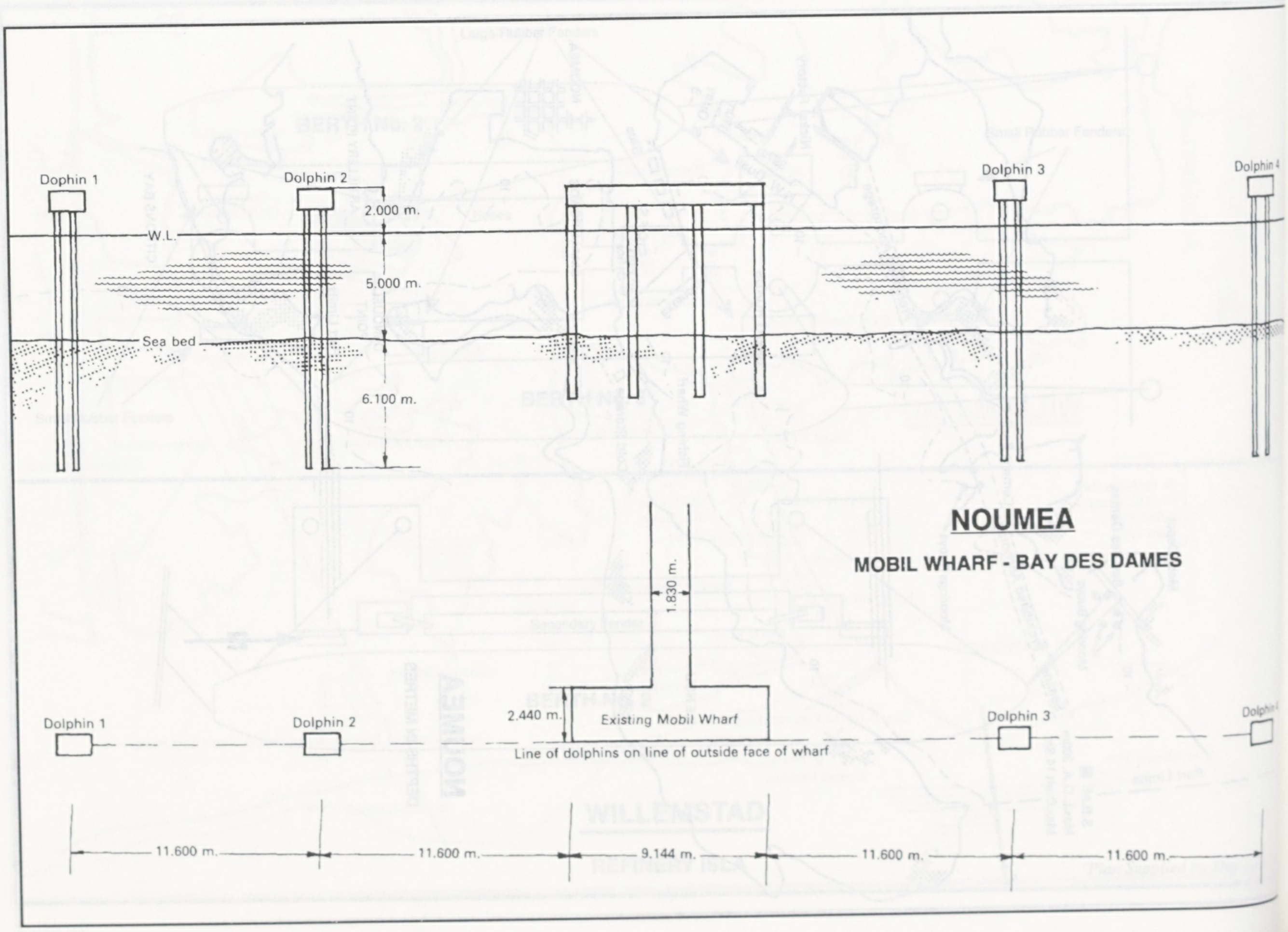

NOUMEA
DEPTHS IN METRES
Port Limits
Mobil Depot
Bay des Dames
Mooring Buoys
S.B.M.
Max.L.O.A. 300m
Max.Draft 14.8m
Sealine
Prohibited Anchorage
Cement Berth
Moorings Buoys
Prohibited Anchorage
Nickel Factory
N.W. Quay
397m
170m
S. Quay
-9
GREAT ROADS
ILE NOU
Fishing Wharf
Extension
Silos
C.F.S.
Port Office
Cold Storage
SMALL ROADS
NOUMEA
DENOUEL POINT
ARTILLERY POINT
Port Limits
CITRONS BAY
N
-10


NEW CALEDONIA
N
Espiritu Santo
Pentecost I.
Malakula
Loapevi
VANUATU
Efate
Port Vila
I. Surprise
Erromango
I. de Sable
Tanna
Ile Art
Baaba
NEW CALEDONIA
Ouvea
Lifou
LOYALTY ISLANDS
New Caledonia
Mare
Noumea
I. des Pins



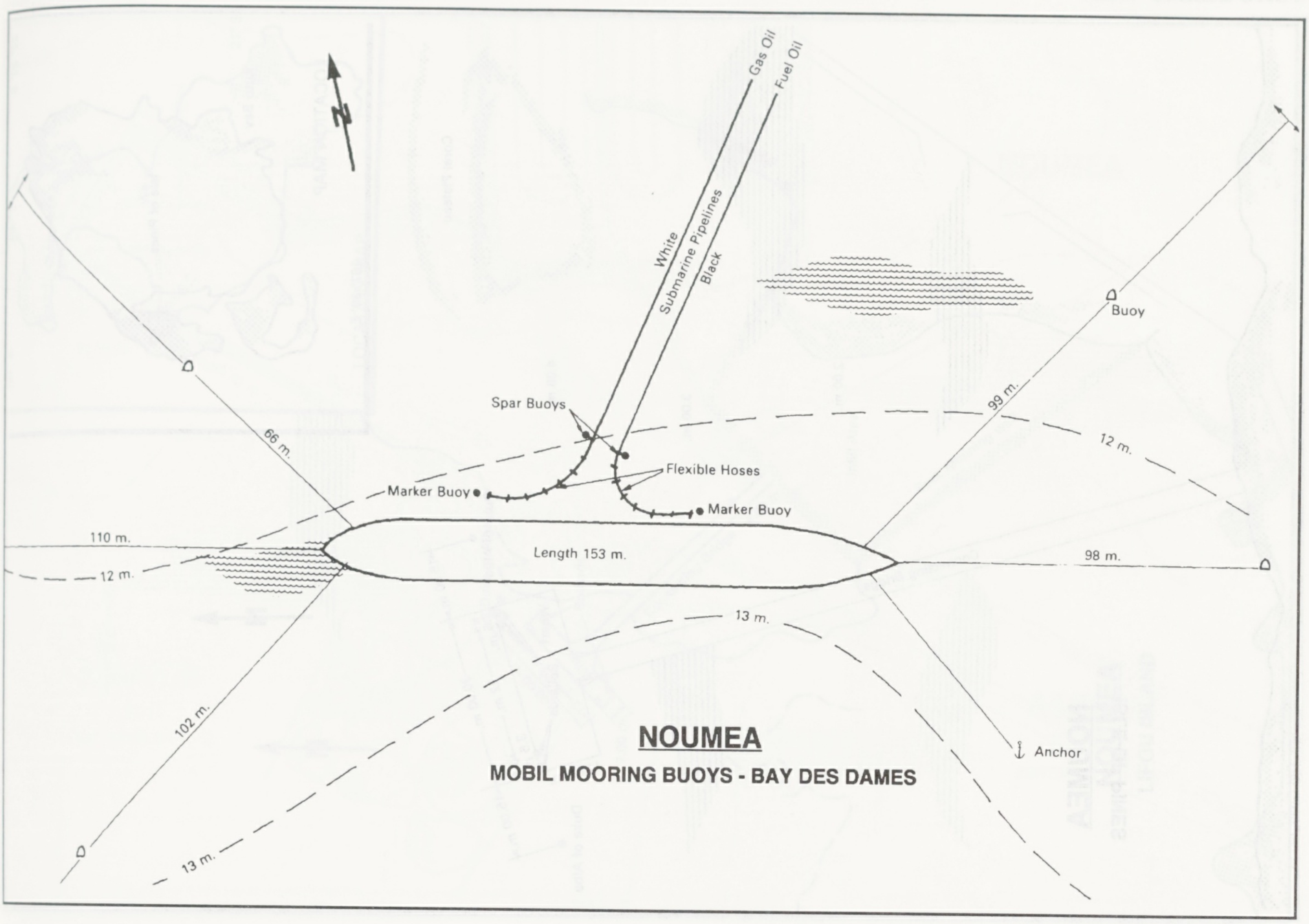
NOUMEA
ART ISLAND

Duke of Alba
15.00 m.
30.00 m.
Bollards
20 m.
5 m
5 m
15.00 m.
4.00 m.
7.00 m.
Duke of Alba
Wharf
Connecting Bridge
85.00 m.
Reef
Beach
2.70 m.
Road
N
LOCATION MAP
Art Island
Wala Village
19° 40' S.



NOUMEA
MOBIL WHARF - BAY DES DAMES

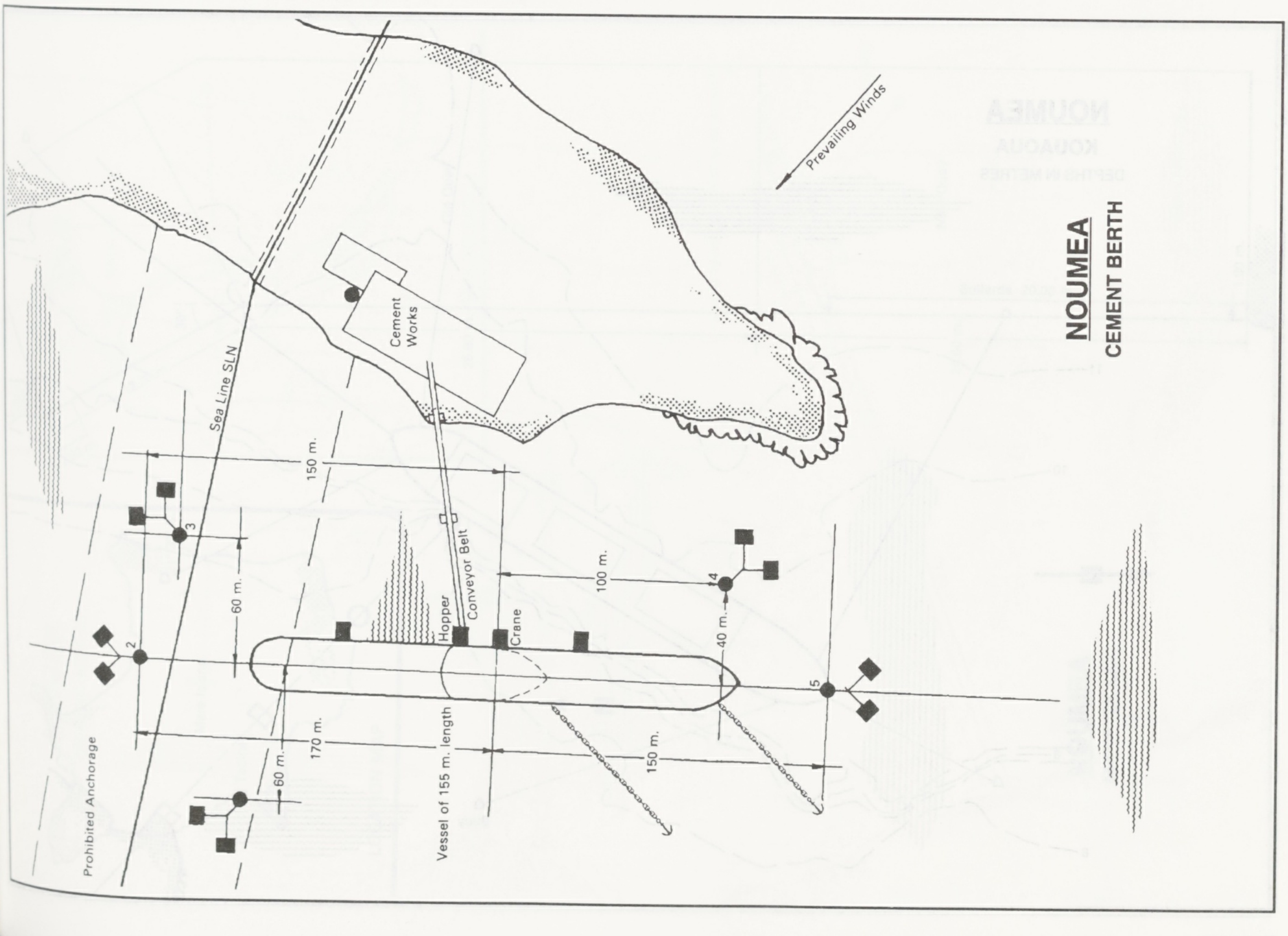
Dolphin 1
Dolphin 2
2.000 m.
W.L.
5.000 m.
Sea bed
6.100 m.
Dolphin 3
Dolphin 4
1.830 m.
2.440 m.
Existing Mobil Wharf
Dolphin 1
Dolphin 2
Dolphin 3
Dolphin 4
Line of dolphins on line of outside face of wharf
11.600 m.
11.600 m.
9.144 m.
11.600 m.
11.600 m.



NOUMEA

MOBIL MOORING BUOYS - BAY DES DAMES

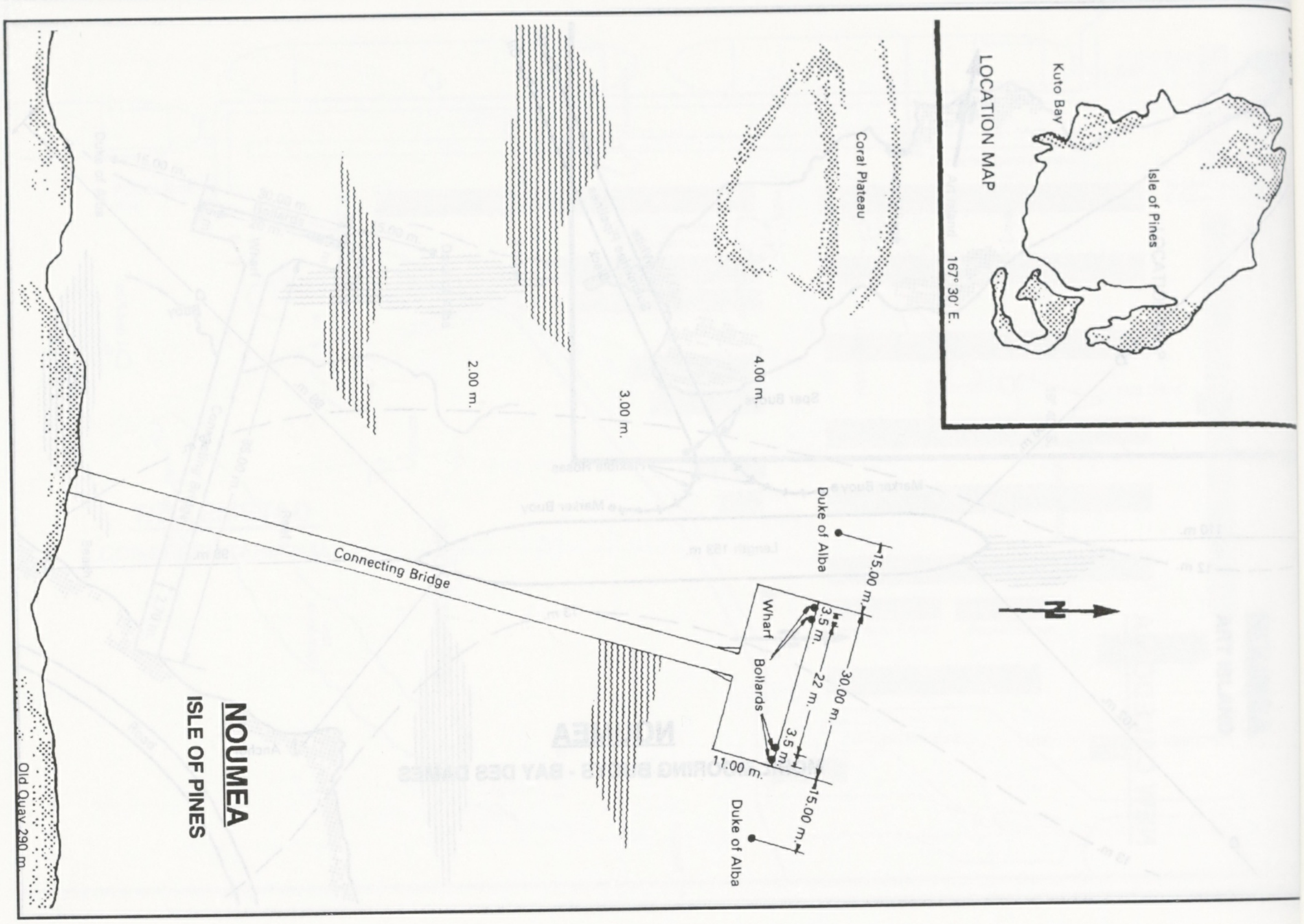
N
Gas Oil
Fuel Oil
White
Submarine Pipelines
Black
Buoy
Spar Buoys
Flexible Hoses
Marker Buoy
Marker Buoy
66 m.
99 m.
12 m.
110 m.
12 m.
Length 153 m.
98 m.
13 m.
102 m.
Anchor
13 m.

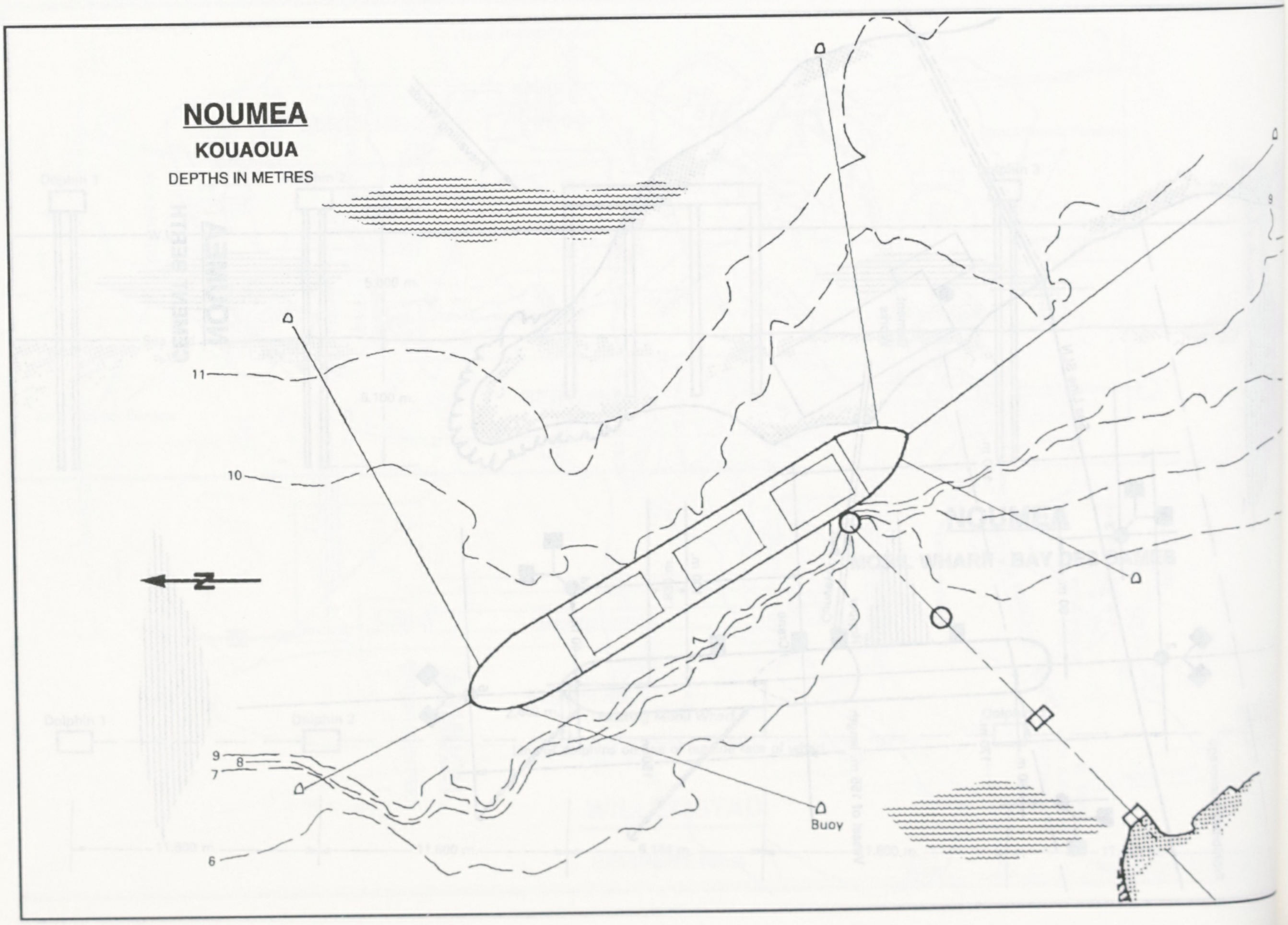


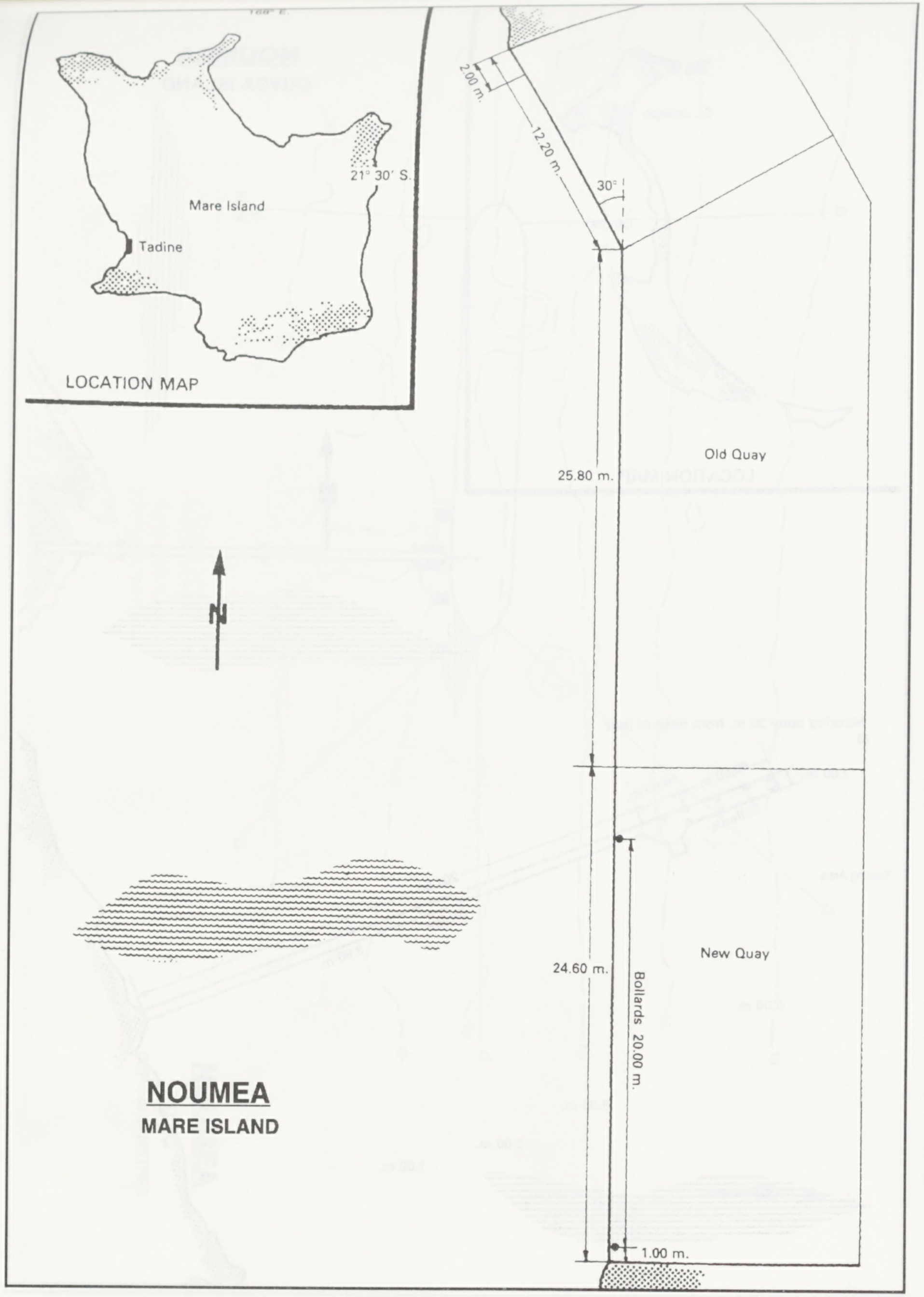
NOUMEA

CEMENT BERTH

Prevailing Winds
Cement Works
Sea Line SLN
150 m.
3
60 m.
100 m.
4
Hopper
Conveyor Belt
Crane
40 m.
2
5
170 m.
60 m.
150 m.
Vessel of 155 m. length
Prohibited Anchorage

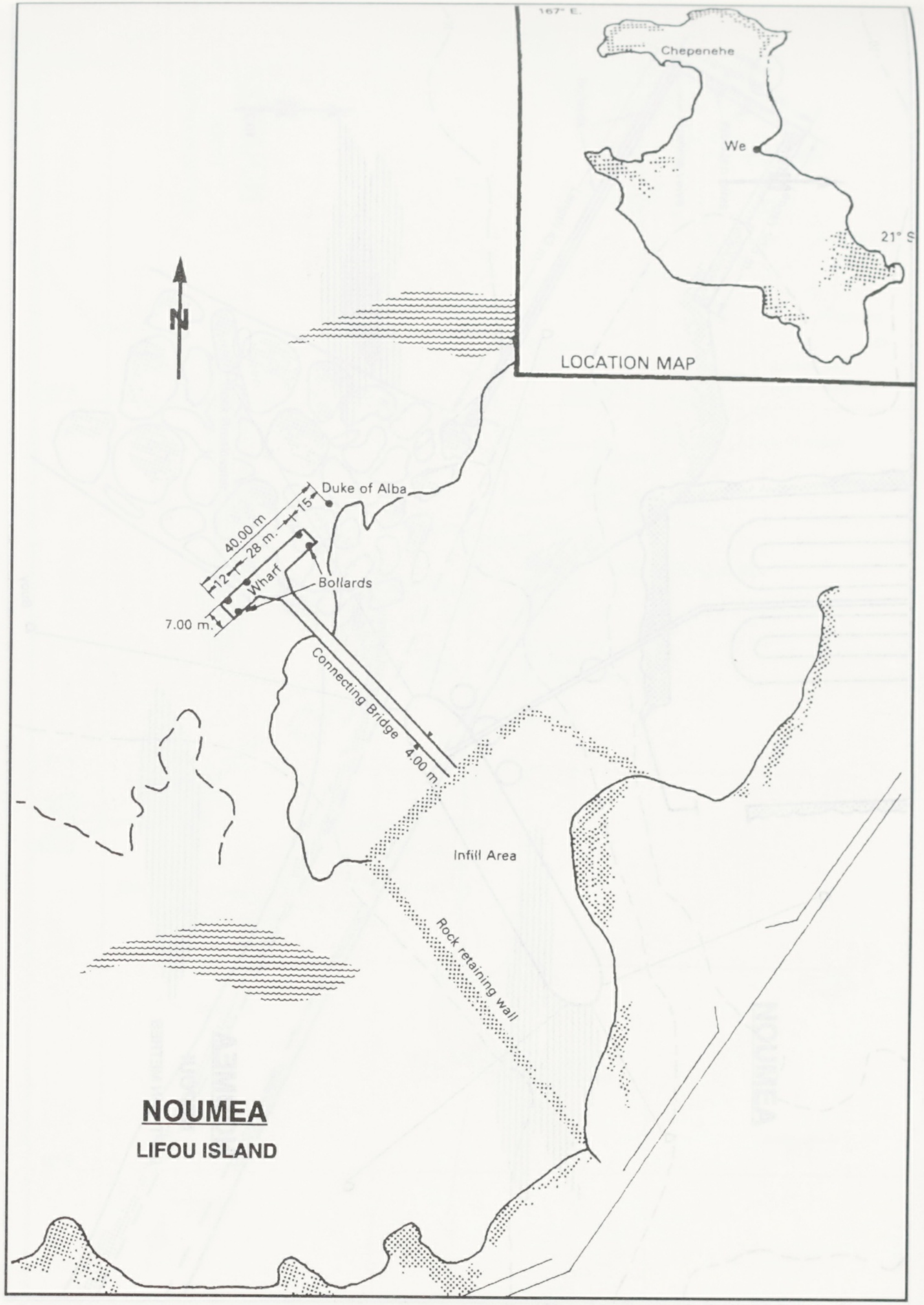

NOUMEA
ISLE OF PINES
LOCATION MAP
Kuto Bay
Isle of Pines
167° 30' E.
N
Coral Plateau
4.00 m.
3.00 m.
2.00 m.
Connecting Bridge
Duke of Alba
15.00 m.
3.5 m.
Wharf
Bollards
30.00 m.
22 m.
3.5 m.
11.00 m.
15.00 m.
Duke of Alba
Old Quay 290 m.


NOUMEA
KOUAOUA
DEPTHS IN METRES
N
11
10
9
8
7
6
9
Buoy



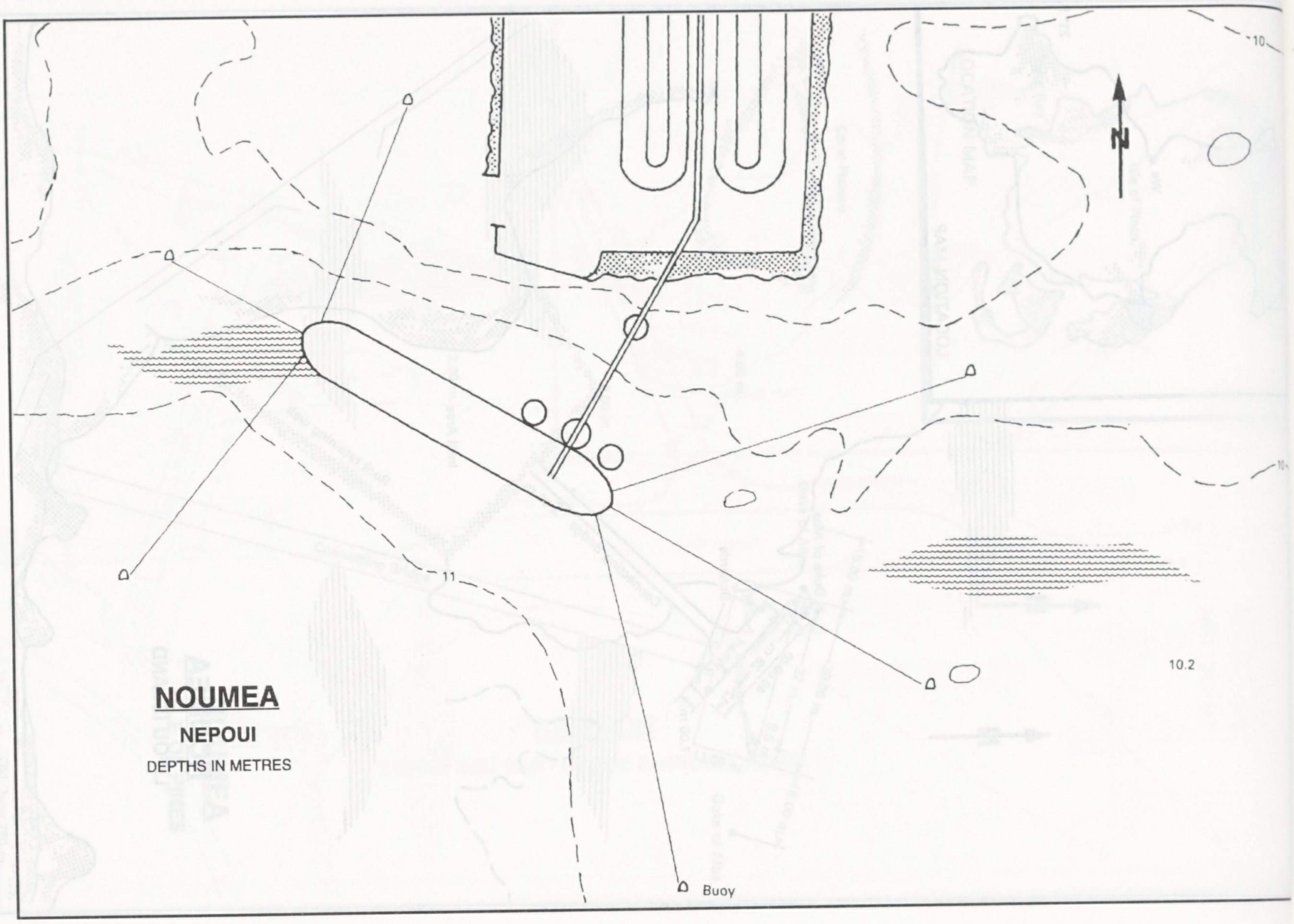
NOUMEA
MARE ISLAND

168° E.
21° 30' S.
Mare Island
Tadine
LOCATION MAP
N
2.00 m.
12.20 m.
30°
25.80 m.
Old Quay
24.60 m.
Bollards 20.00 m.
New Quay
1.00 m.



NOUMEA
LIFOU ISLAND

167° E.
Chepenehe
We
21° S
LOCATION MAP
N
Duke of Alba
40.00 m
15
28 m.
12
Wharf
Bollards
7.00 m.
Connecting Bridge
4.00 m.
Infill Area
Rock retaining wall

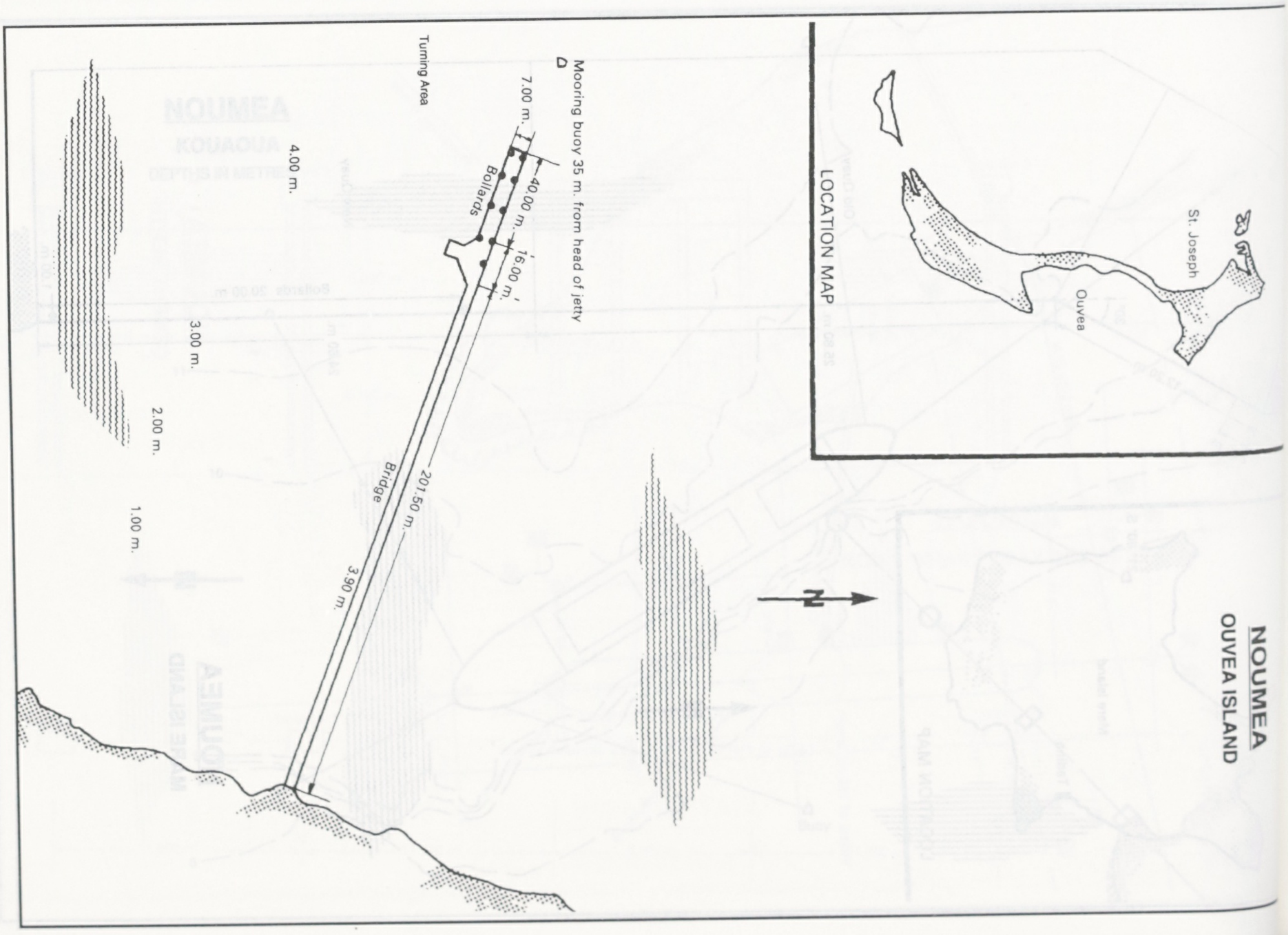


NOUMEA

NEPOUI

DEPTHS IN METRES

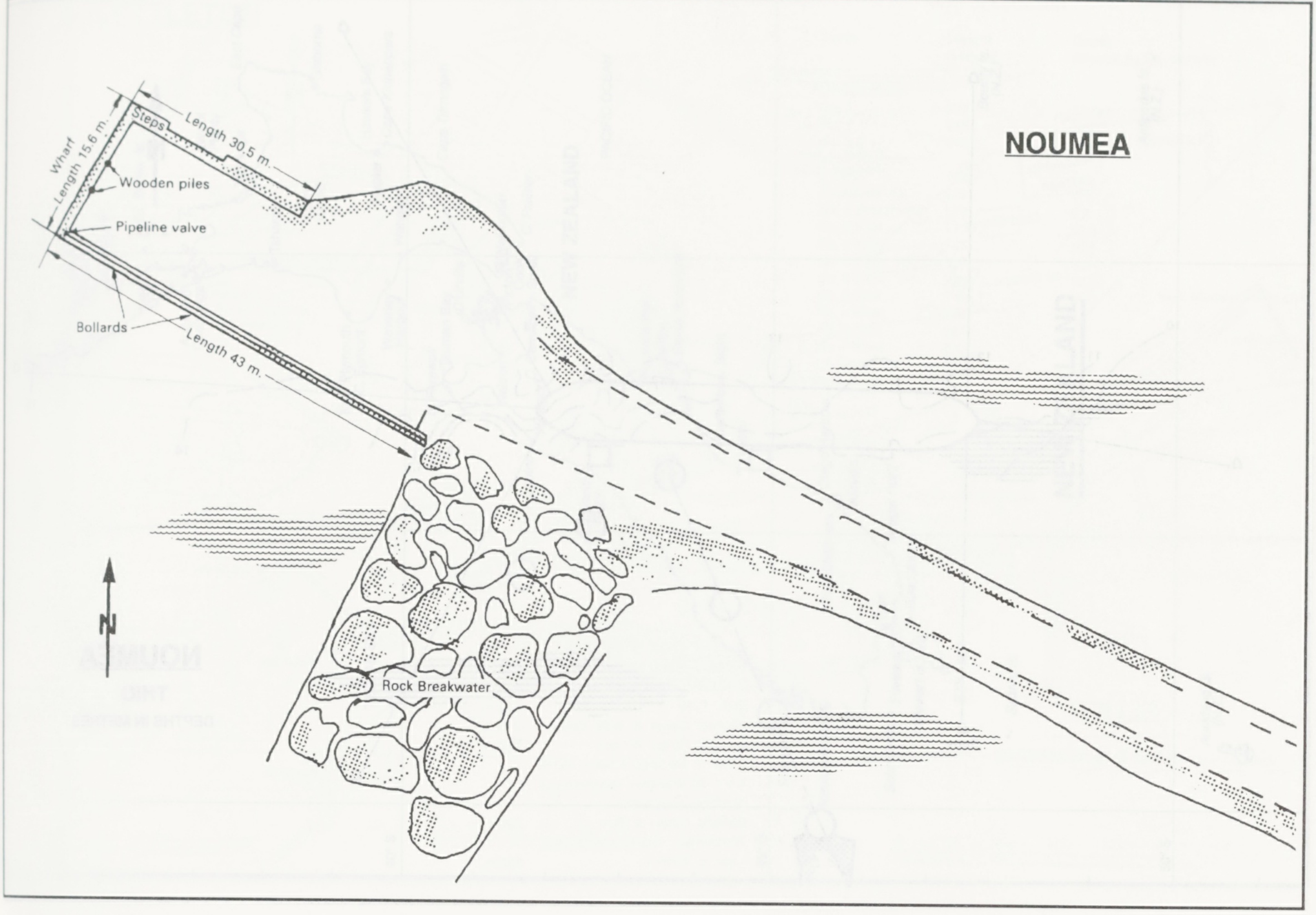
10
N
10
11
10.2
Buoy



NOUMEA

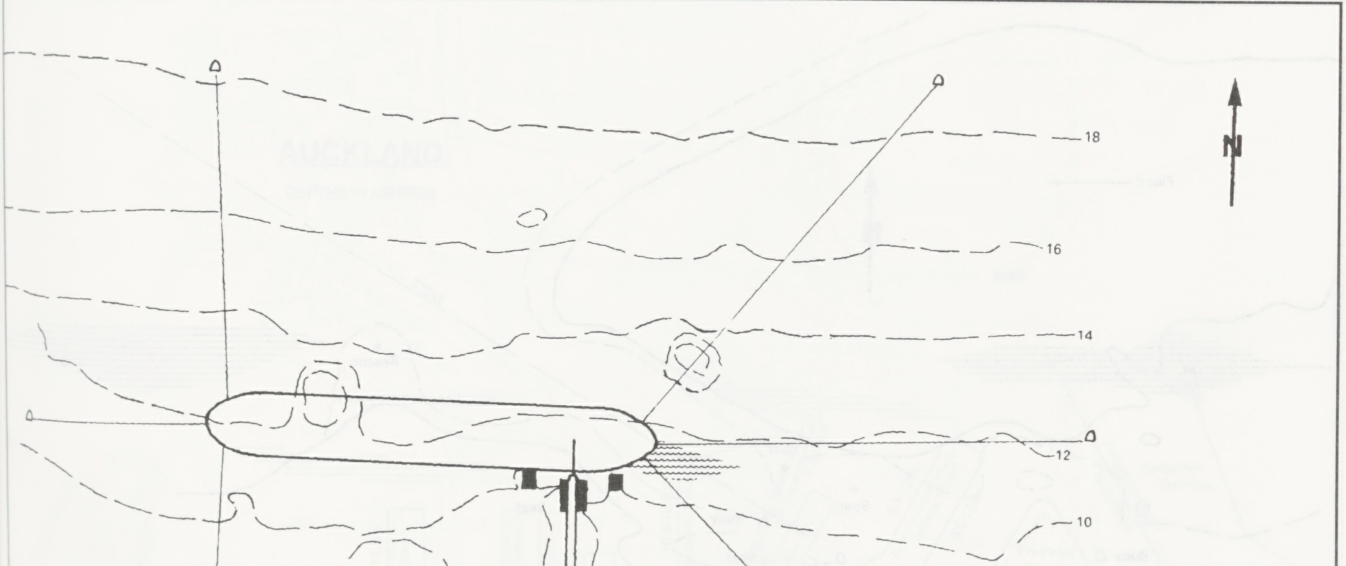
OUVEA ISLAND

LOCATION MAP
St. Joseph
Ouvea
Mooring buoy 35 m. from head of jetty
Turning Area
7.00 m.
40.00 m.
Bollards
16.00 m.
4.00 m.
3.00 m.
2.00 m.
1.00 m.
201.50 m.
Bridge
3.90 m.
N



NOUMEA

Steps
Length 30.5 m.
Wharf
Length 15.6 m.
Wooden piles
Pipeline valve
Bollards
Length 43 m.
Rock Breakwater
N

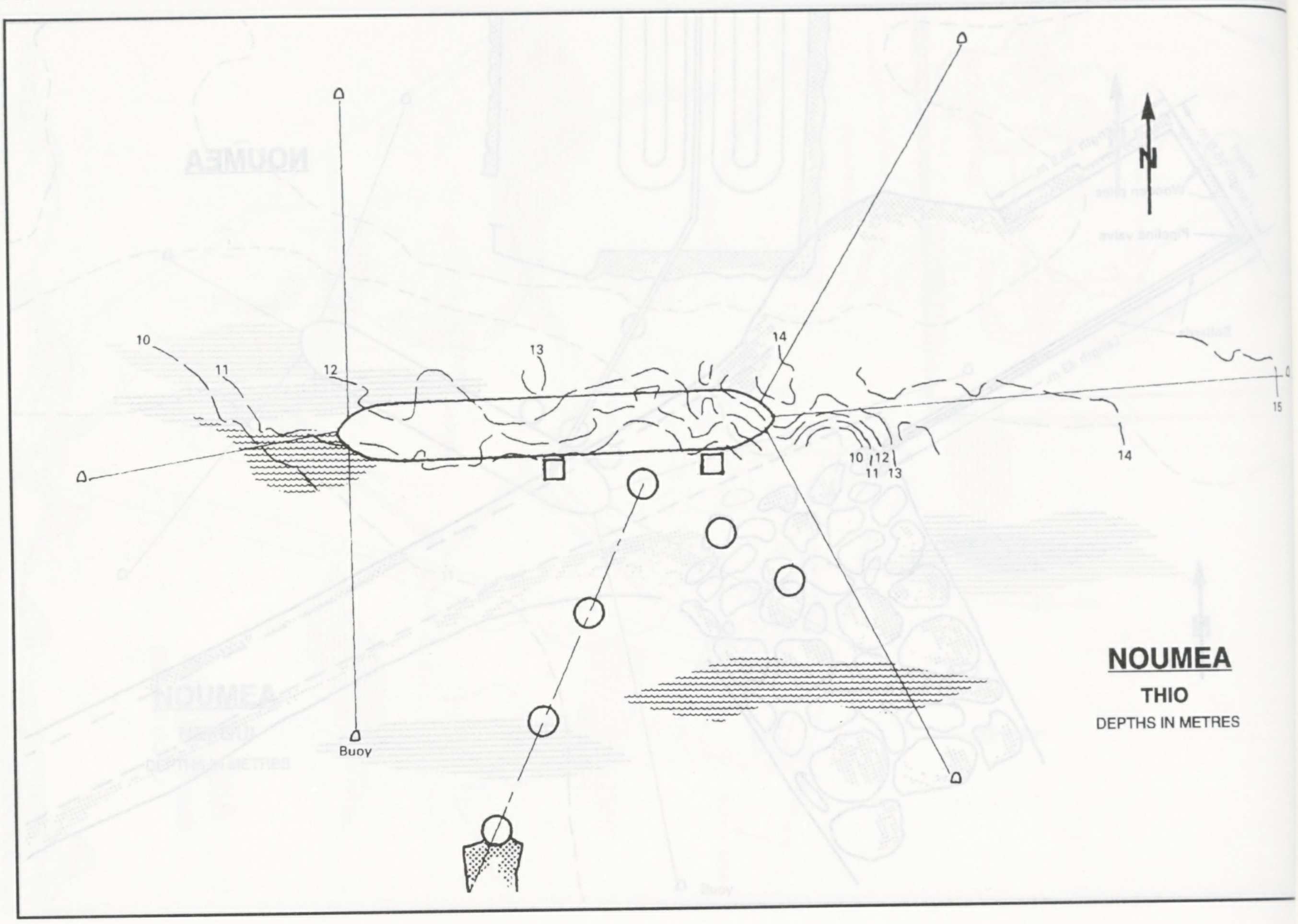


NOUMEA

PORO

DEPTHS IN METRES

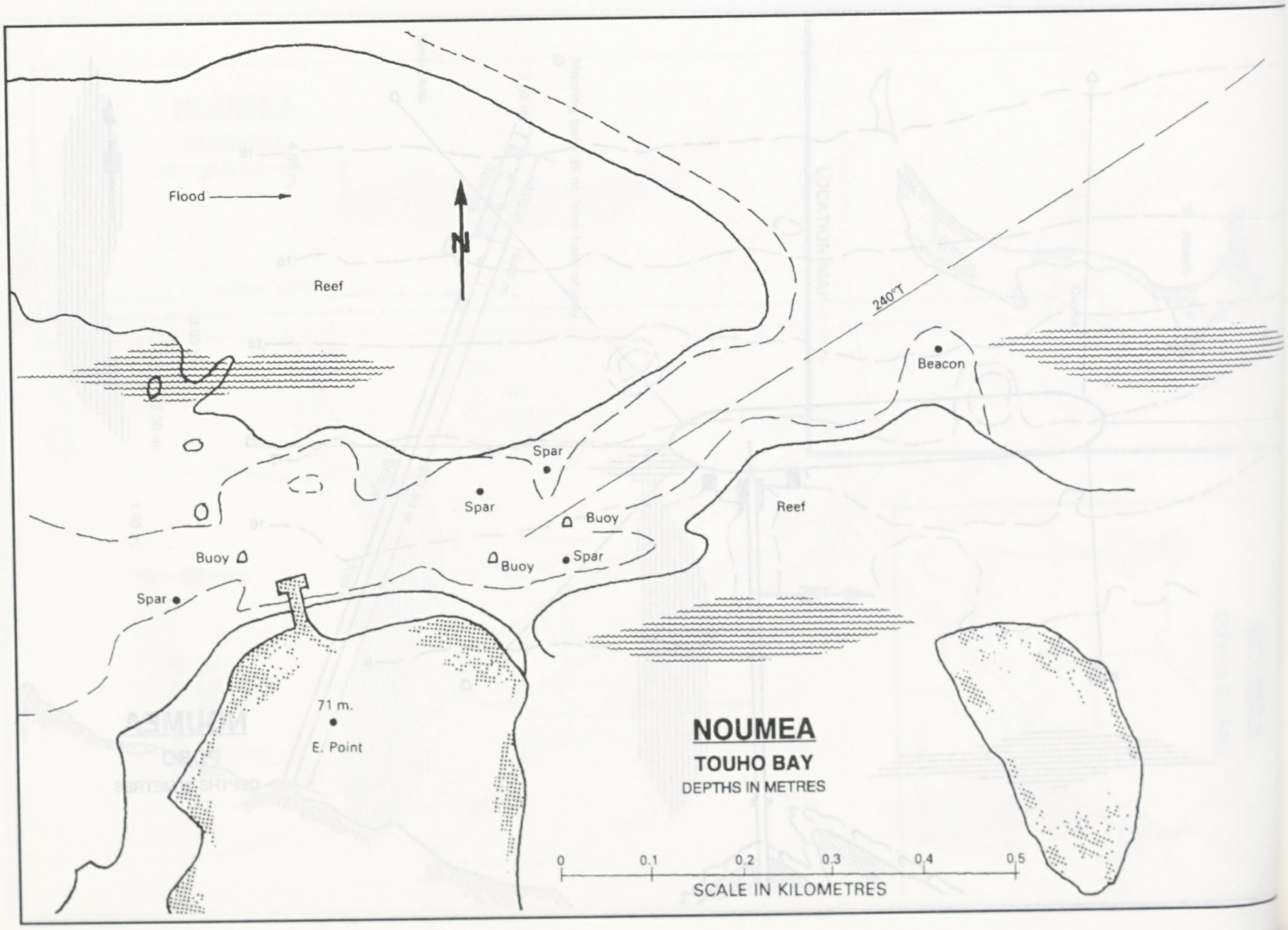
18
16
14
12
10
8
Buoy
N


10
11
12
13
14
10
12
11
13
14
15
Buoy
N

NOUMEA

THIO

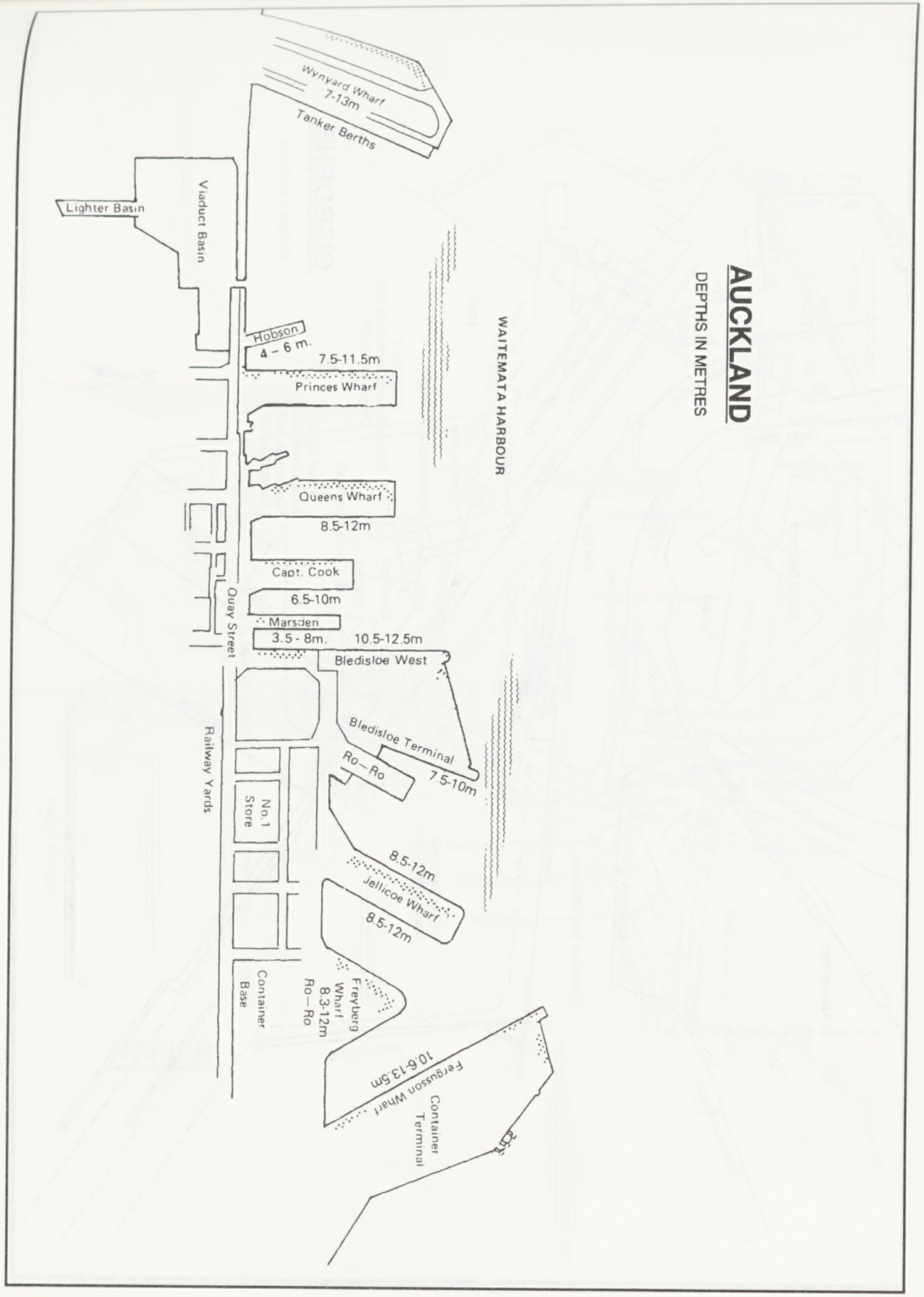
DEPTHS IN METRES


Flood
Reef
N
240°T
Beacon
Spar
Spar
Buoy
Reef
Buoy
Buoy
Spar
Spar
71 m.
E. Point
0
0.1
0.2
0.3
0.4
0.5
SCALE IN KILOMETRES

NOUMEA

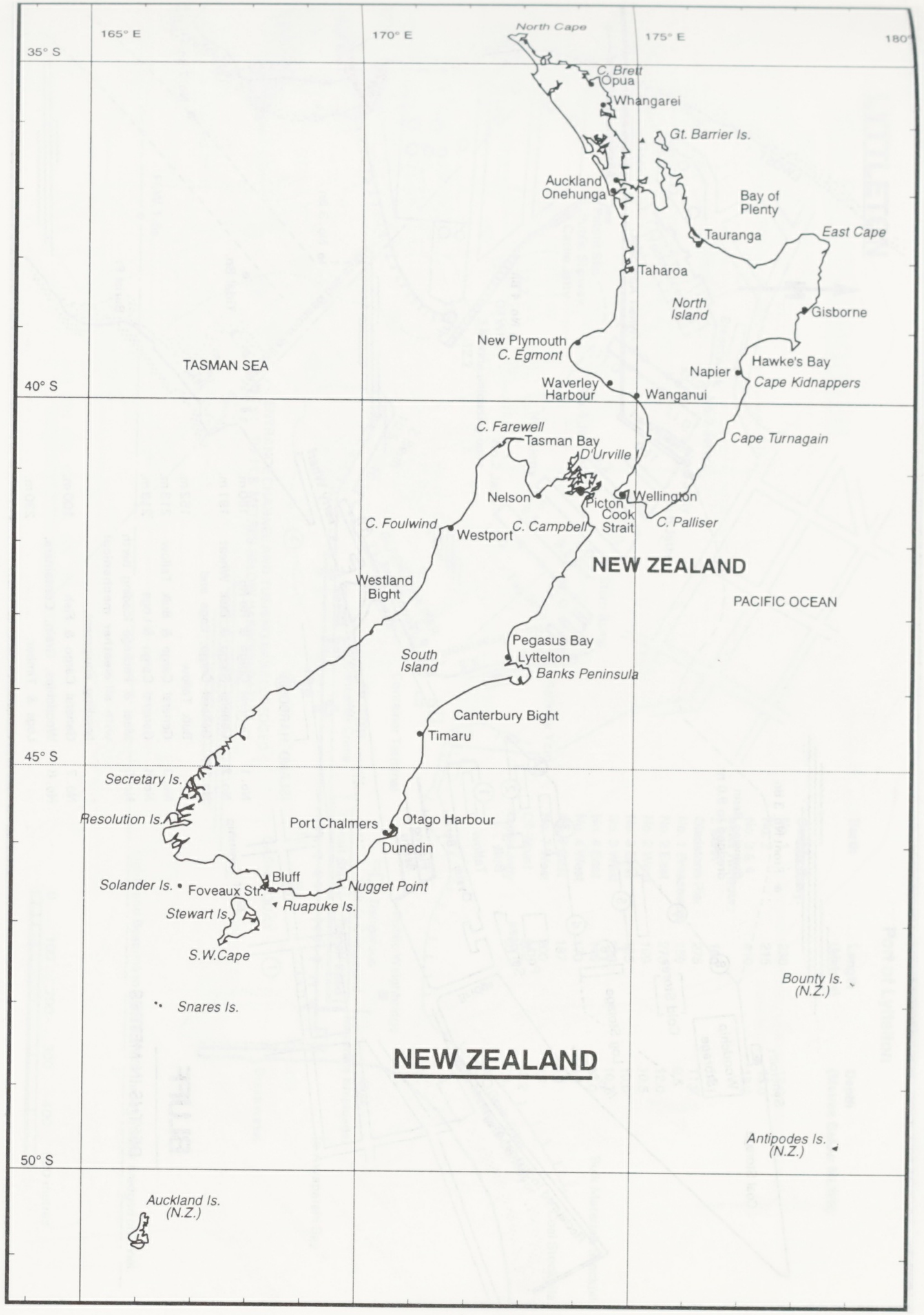
TOUHO BAY

DEPTHS IN METRES

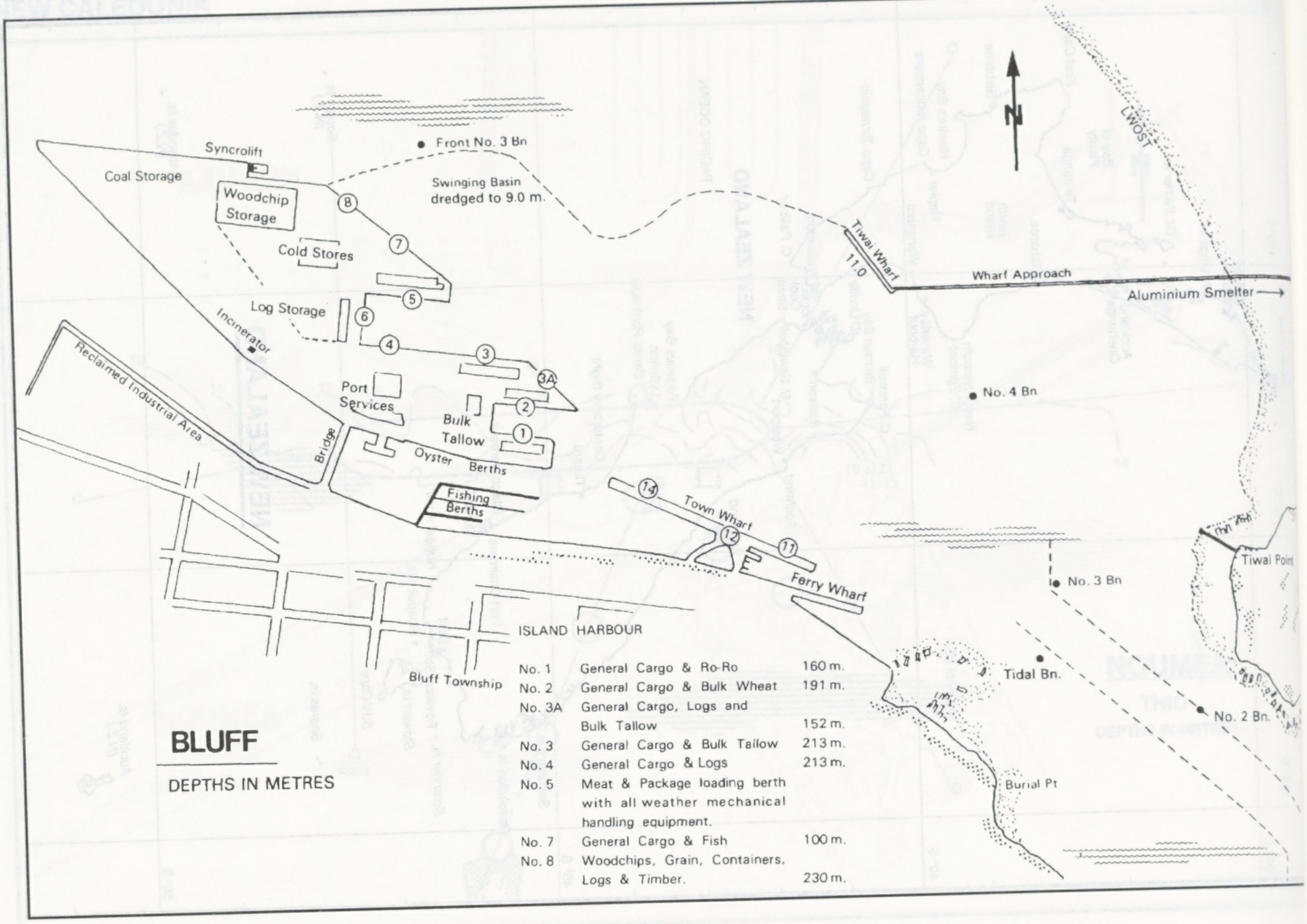

Wynyard Wharf
7-13m
Tanker Berths
Lighter Basin
Viaduct Basin
Hobson
4 – 6 m.
7.5-11.5m
Princes Wharf
WAITEMATA HARBOUR
Queens Wharf
8.5-12m
Capt. Cook
6.5-10m
Marsden
3.5 - 8m.
10.5-12.5m
Bledisloe West
Quay Street
Bledisloe Terminal
Ro – Ro
7.5-10m
Railway Yards
No.1
Store
8.5-12m
Jellicoe Wharf
8.5-12m
Container
Base
Freyberg
Wharf
8.3-12m
Ro – Ro
Fergusson Wharf
10.6-13.5m
Container
Terminal

AUCKLAND

DEPTHS IN METRES

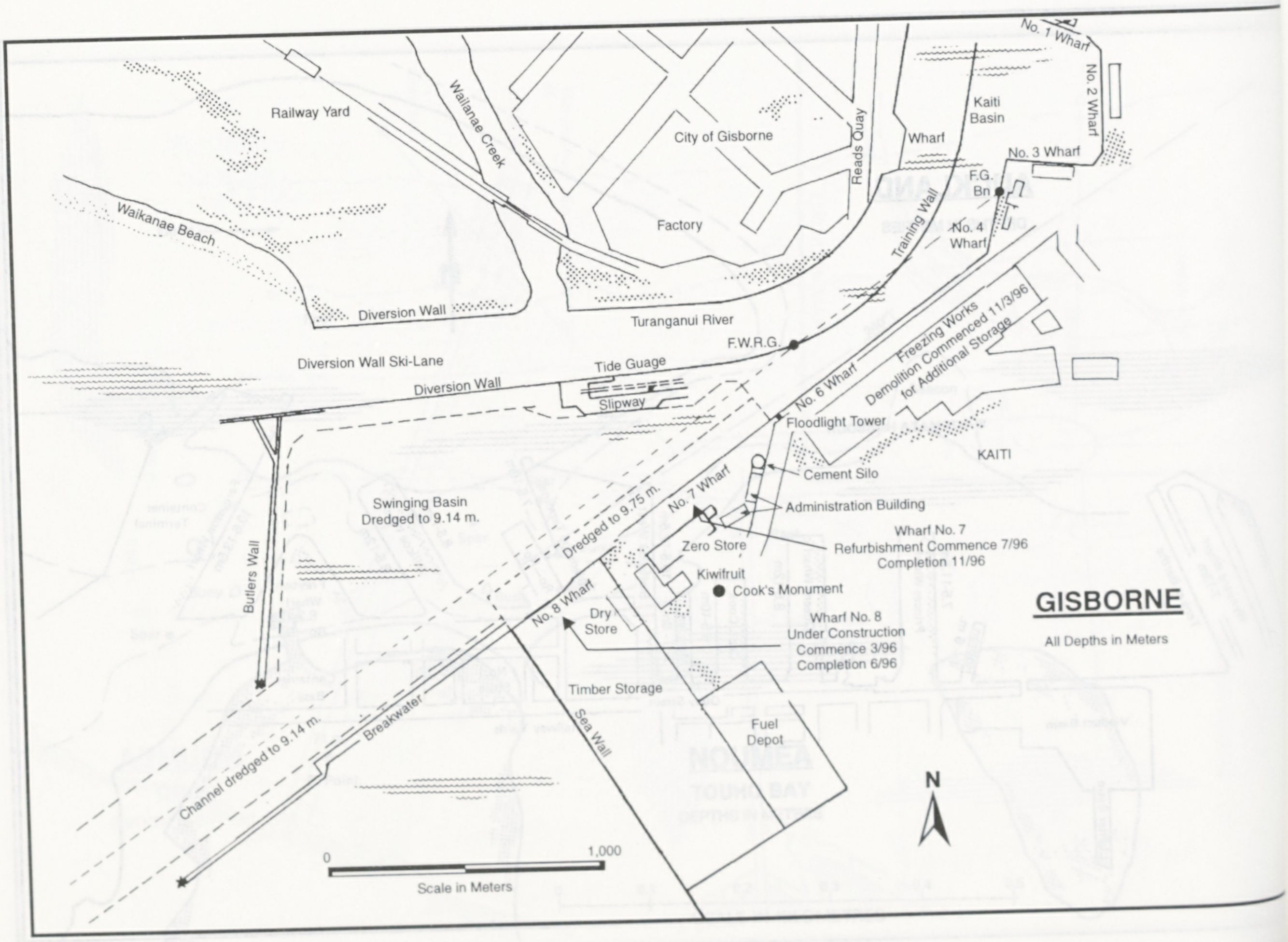

165° E
170° E
175° E
180°
35° S
40° S
45° S
50° S
North Cape
C. Brett
Opua
Whangarei
Gt. Barrier Is.
Auckland
Onehunga
Bay of
Plenty
Tauranga
East Cape
Taharoa
North
Island
Gisborne
New Plymouth
C. Egmont
TASMAN SEA
Napier
Hawke's Bay
Cape Kidnappers
Waverley
Harbour
Wanganui
C. Farewell
Tasman Bay
D'Urville I.
Cape Turnagain
Nelson
Picton
Wellington
Cook
Strait
C. Palliser
C. Foulwind
Westport
C. Campbell
NEW ZEALAND
PACIFIC OCEAN
Westland
Bight
Pegasus Bay
Lyttelton
Banks Peninsula
South
Island
Canterbury Bight
Timaru
Secretary Is.
Resolution Is.
Port Chalmers
Otago Harbour
Dunedin
Bluff
Solander Is.
Foveaux Str.
Nugget Point
Ruapuke Is.
Stewart Is.
S.W.Cape
Bounty Is.
(N.Z.)
Snares Is.
Antipodes Is.
(N.Z.)
Auckland Is.
(N.Z.)

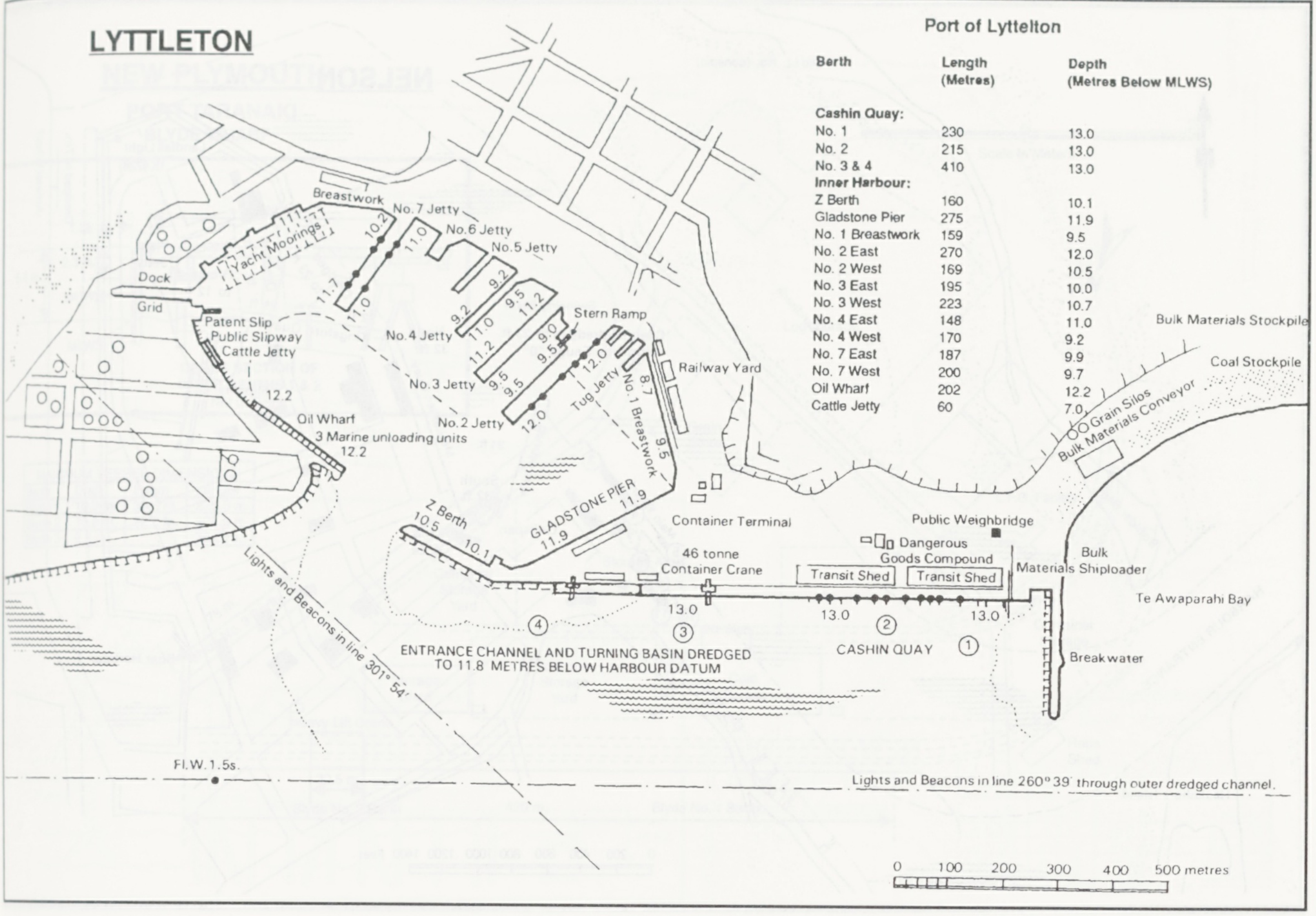
NEW ZEALAND


Syncrolift
Coal Storage
Woodchip Storage
Front No. 3 Bn
Swinging Basin dredged to 9.0 m.
8
7
Cold Stores
5
Log Storage
6
Incinerator
4
3
3A
2
1
Reclaimed Industrial Area
Port Services
Bulk Tallow
Bridge
Oyster Berths
Fishing Berths
14
Town Wharf
12
11
Ferry Wharf
Tiwai Wharf
11.0
Wharf Approach
Aluminium Smelter →
LWOST
No. 4 Bn
No. 3 Bn
Tidal Bn.
No. 2 Bn.
Tiwai Point
Burial Pt
Bluff Township
BLUFF
DEPTHS IN METRES

ISLAND HARBOUR

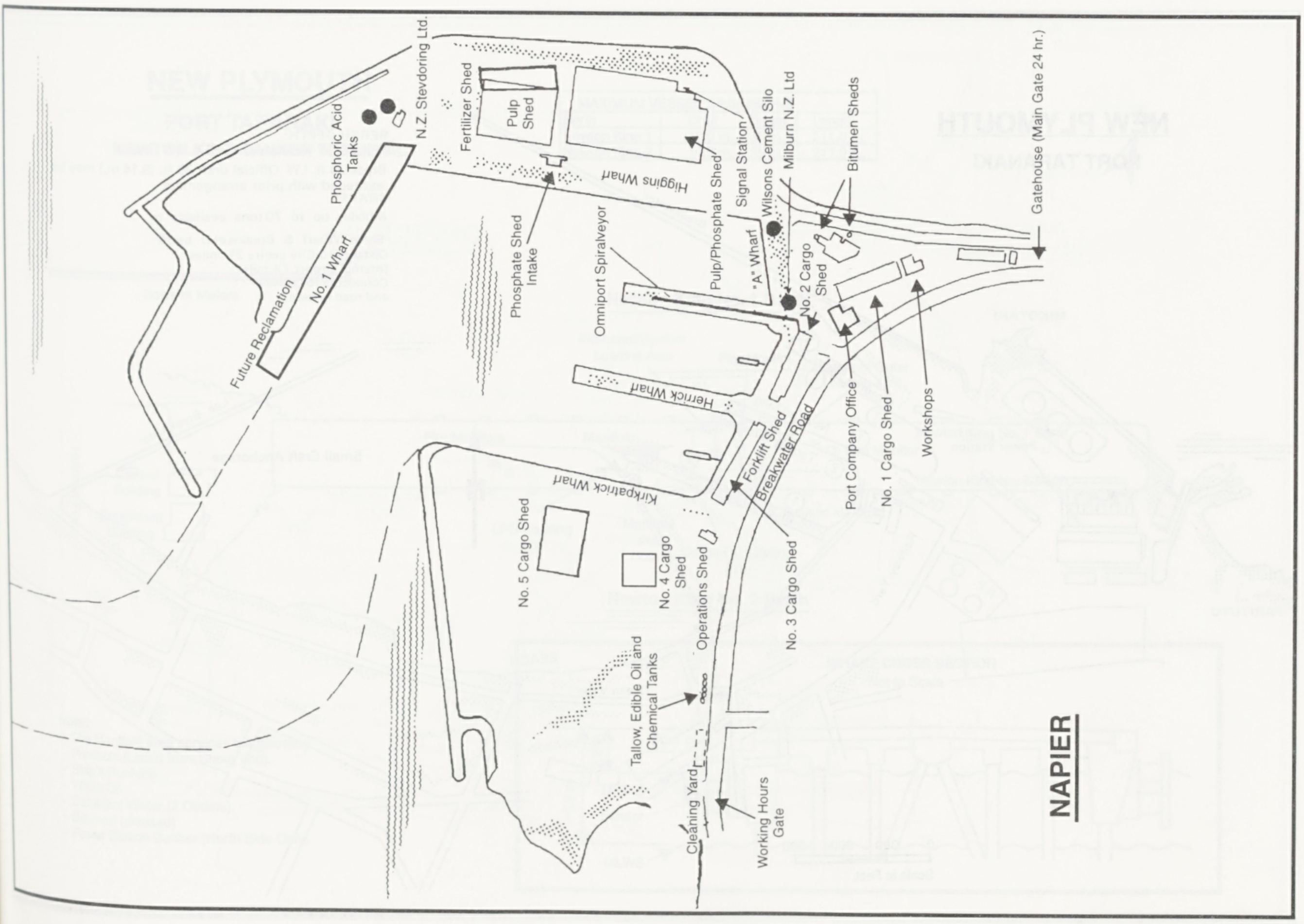
No. 1	General Cargo & Ro-Ro	160 m.
No. 2	General Cargo & Bulk Wheat	191 m.
No. 3A	General Cargo, Logs and Bulk Tallow	152 m.
No. 3	General Cargo & Bulk Tallow	213 m.
No. 4	General Cargo & Logs	213 m.
No. 5	Meat & Package loading berth with all weather mechanical handling equipment.	
No. 7	General Cargo & Fish	100 m.
No. 8	Woodchips, Grain, Containers, Logs & Timber.	230 m.

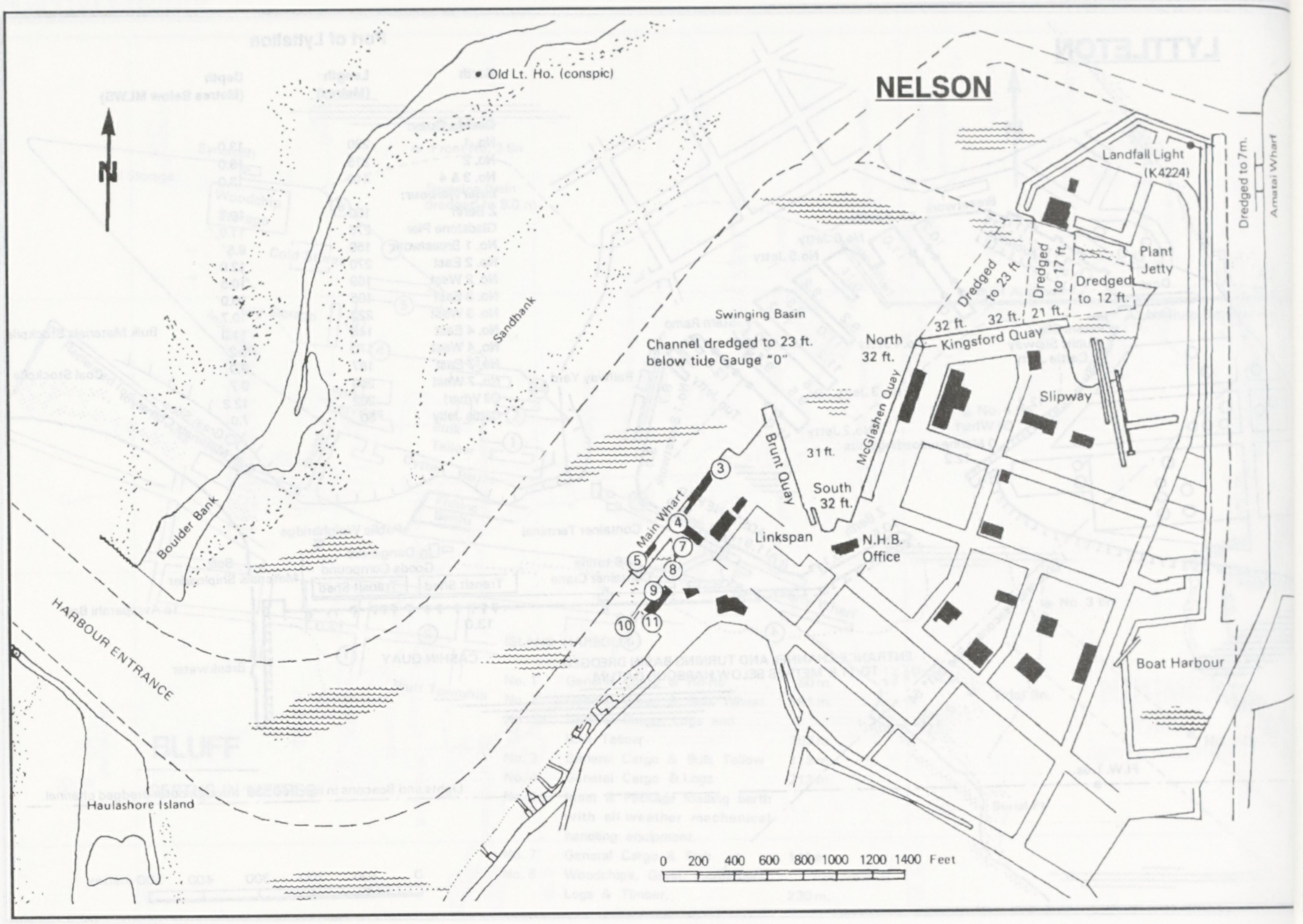

Railway Yard
Wailanae Creek
City of Gisborne
Reads Quay
Wharf
Kaiti Basin
No. 1 Wharf
No. 2 Wharf
No. 3 Wharf
F.G. Bn
No. 4 Wharf
Waikanae Beach
Factory
Training Wall
Diversion Wall
Turanganui River
Freezing Works Demolition Commenced 11/3/96 for Additional Storage
F.W.R.G.
Diversion Wall Ski-Lane
Tide Guage
Diversion Wall
Slipway
No. 6 Wharf
Floodlight Tower
KAITI
Cement Silo
Administration Building
Swinging Basin Dredged to 9.14 m.
Dredged to 9.75 m.
No. 7 Wharf
Wharf No. 7 Refurbishment Commence 7/96 Completion 11/96
Zero Store
Kiwifruit
Cook's Monument
Butlers Wall
No. 8 Wharf
Dry Store
Wharf No. 8 Under Construction Commence 3/96 Completion 6/96
GISBORNE
All Depths in Meters
Timber Storage
Sea Wall
Fuel Depot
Breakwater
Channel dredged to 9.14 m.
N
0
1,000
Scale in Meters


LYTTLETON
Breastwork
No. 7 Jetty
No. 6 Jetty
No. 5 Jetty
Yacht Moorings
Dock
Grid
Patent Slip
Public Slipway
Cattle Jetty
No. 4 Jetty
No. 3 Jetty
No. 2 Jetty
Stern Ramp
Tug Jetty
No. 1 Breastwork
Railway Yard
Oil Wharf
3 Marine unloading units
12.2
GLADSTONE PIER
Z Berth
Container Terminal
46 tonne
Container Crane
Public Weighbridge
Dangerous
Goods Compound
Transit Shed
Transit Shed
Bulk
Materials Shiploader
Te Awaparahi Bay
Breakwater
CASHIN QUAY
ENTRANCE CHANNEL AND TURNING BASIN DREDGED
TO 11.8 METRES BELOW HARBOUR DATUM
Lights and Beacons in line 301° 54'
Fl.W. 1.5s.
Lights and Beacons in line 260° 39' through outer dredged channel.
Grain Silos
Bulk Materials Conveyor
Bulk Materials Stockpile
Coal Stockpile
0 100 200 300 400 500 metres

Port of Lyttelton

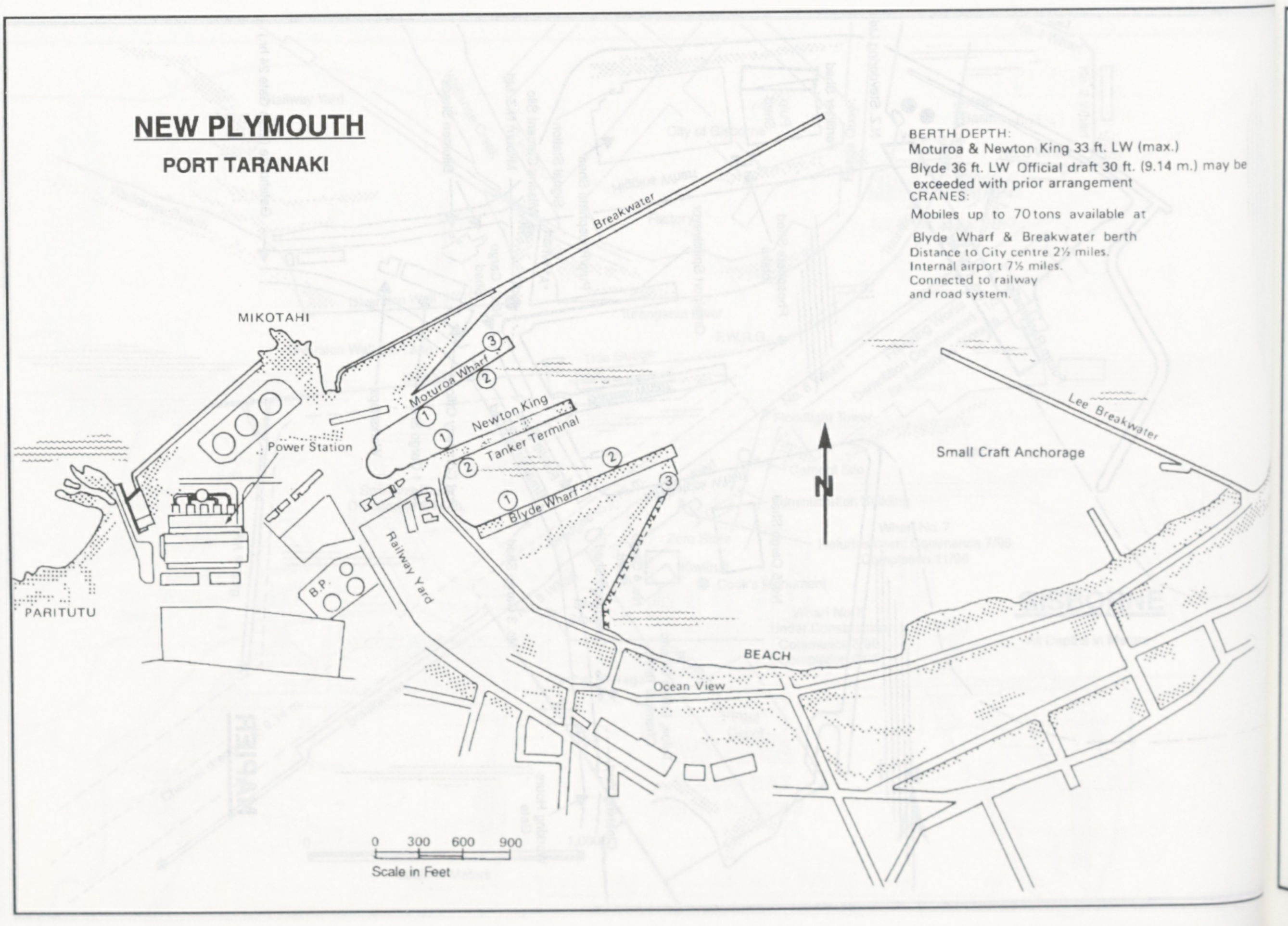
Berth	Length (Metres)	Depth (Metres Below MLWS)
Cashin Quay:		
No. 1	230	13.0
No. 2	215	13.0
No. 3 & 4	410	13.0
Inner Harbour:		
Z Berth	160	10.1
Gladstone Pier	275	11.9
No. 1 Breastwork	159	9.5
No. 2 East	270	12.0
No. 2 West	169	10.5
No. 3 East	195	10.0
No. 3 West	223	10.7
No. 4 East	148	11.0
No. 4 West	170	9.2
No. 7 East	187	9.9
No. 7 West	200	9.7
Oil Wharf	202	12.2
Cattle Jetty	60	7.0


N.Z. Stevdoring Ltd.
Phosphoric Acid Tanks
No. 1 Wharf
Future Reclamation
Fertilizer Shed
Pulp Shed
Higgins Wharf
Phosphate Shed Intake
Pulp/Phosphate Shed
Signal Station
Wilsons Cement Silo
Milburn N.Z. Ltd
Bitumen Sheds
Gatehouse (Main Gate 24 hr.)
Omniport Spiralveyor
"A" Wharf
No. 2 Cargo Shed
Herrick Wharf
Forklift Shed
Breakwater Road
Port Company Office
No. 1 Cargo Shed
Workshops
Kirkpatrick Wharf
No. 5 Cargo Shed
No. 4 Cargo Shed
Operations Shed
No. 3 Cargo Shed
Tallow, Edible Oil and Chemical Tanks
Cleaning Yard
Working Hours Gate
NAPIER



NELSON

N
Old Lt. Ho. (conspic)
Sandbank
Boulder Bank
HARBOUR ENTRANCE
Haulashore Island
Swinging Basin
Channel dredged to 23 ft.
below tide Gauge "0"
Main Wharf
③
④
⑤
⑦
⑧
⑨
⑩
⑪
Brunt Quay
31 ft.
South
32 ft.
Linkspan
N.H.B.
Office
North
32 ft.
McGlashen Quay
Kingsford Quay
32 ft.
32 ft.
21 ft.
Dredged to 23 ft.
Dredged to 17 ft.
Dredged to 12 ft.
Plant Jetty
Landfall Light
(K4224)
Dredged to 7 m.
Amatal Wharf
Slipway
Boat Harbour
0 200 400 600 800 1000 1200 1400 Feet



NEW PLYMOUTH

PORT TARANAKI

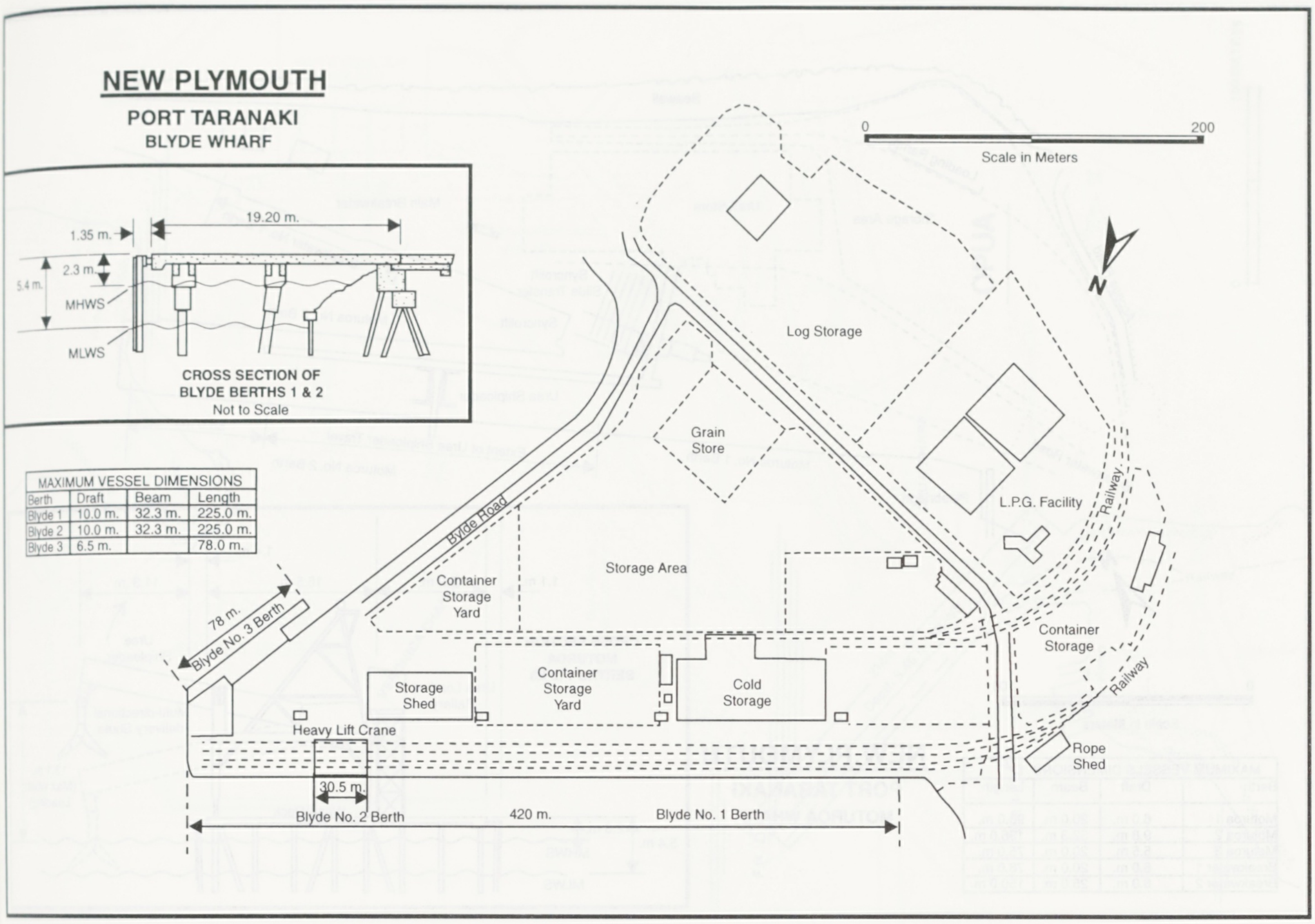
BERTH DEPTH:
Moturoa & Newton King 33 ft. LW (max.)
Blyde 36 ft. LW Official draft 30 ft. (9.14 m.) may be exceeded with prior arrangement
CRANES:
Mobiles up to 70 tons available at
Blyde Wharf & Breakwater berth
Distance to City centre 2½ miles.
Internal airport 7½ miles.
Connected to railway
and road system.

Breakwater
MIKOTAHI
Moturoa Wharf
③
②
①
Newton King
①
Tanker Terminal
②
Blyde Wharf
①
②
③
Power Station
B.P.
Railway Yard
PARITUTU
N
Lee Breakwater
Small Craft Anchorage
BEACH
Ocean View
0 300 600 900
Scale in Feet

NEW PLYMOUTH

PORT TARANAKI

BLYDE WHARF


19.20 m.
1.35 m.
2.3 m.
5.4 m.
MHWS
MLWS
CROSS SECTION OF BLYDE BERTHS 1 & 2
Not to Scale
0
200
Scale in Meters
N
Log Storage
Grain Store
L.P.G. Facility
Railway
Storage Area
Blyde Road
Container Storage Yard
78 m.
Blyde No. 3 Berth
Container Storage
Storage Shed
Container Storage Yard
Cold Storage
Railway
Rope Shed
Heavy Lift Crane
30.5 m.
Blyde No. 2 Berth
420 m.
Blyde No. 1 Berth

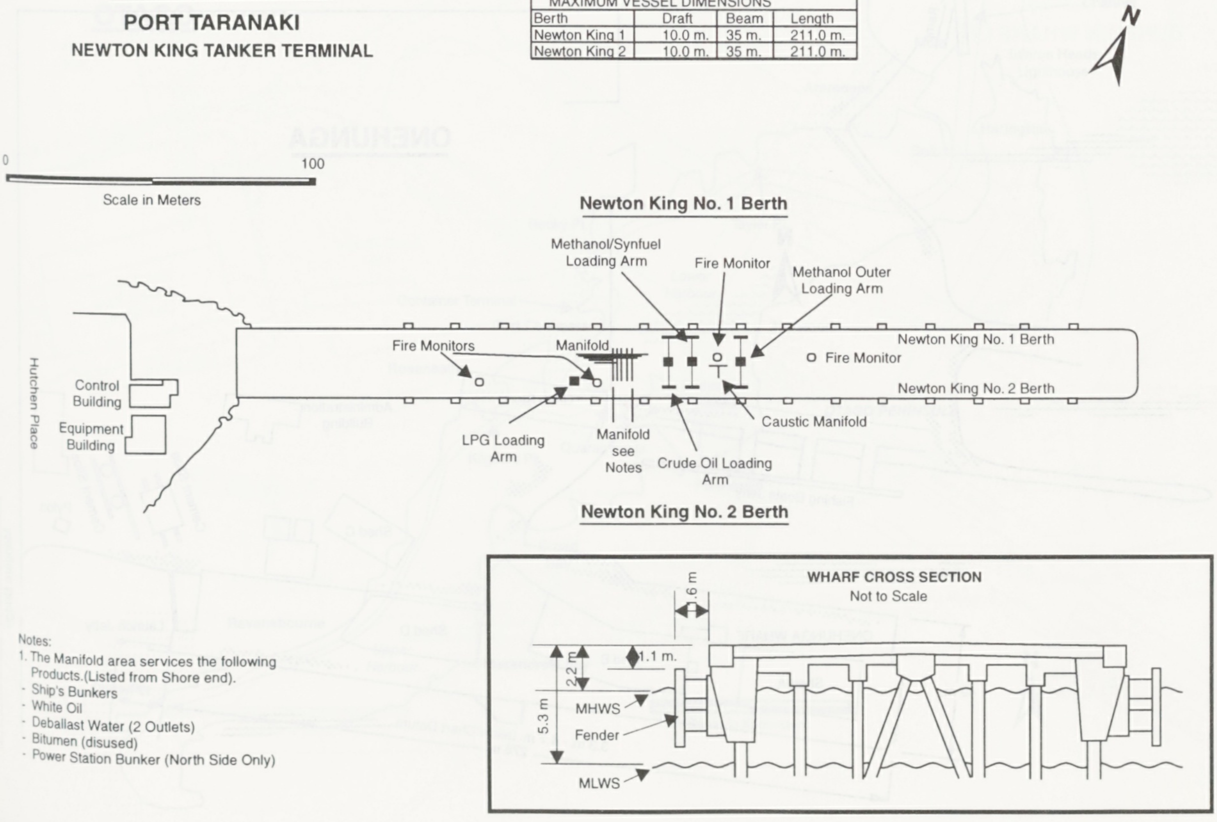
MAXIMUM VESSEL DIMENSIONS			
Berth	Draft	Beam	Length
Blyde 1	10.0 m.	32.3 m.	225.0 m.
Blyde 2	10.0 m.	32.3 m.	225.0 m.
Blyde 3	6.5 m.		78.0 m.

NEW PLYMOUTH

PORT TARANAKI

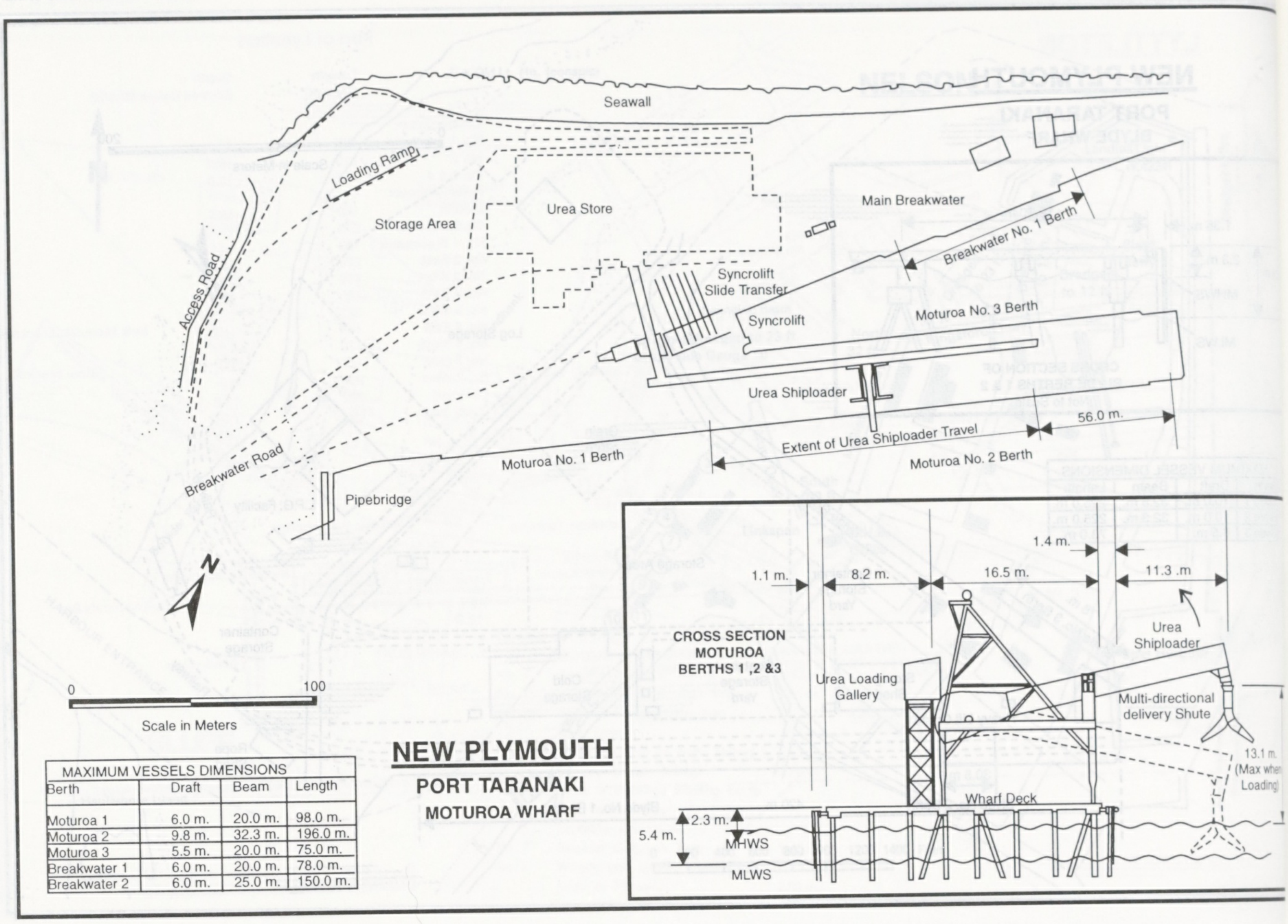
NEWTON KING TANKER TERMINAL

MAXIMUM VESSEL DIMENSIONS			
Berth	Draft	Beam	Length
Newton King 1	10.0 m.	35 m.	211.0 m.
Newton King 2	10.0 m.	35 m.	211.0 m.


N
0
100
Scale in Meters
Newton King No. 1 Berth
Methanol/Synfuel Loading Arm
Fire Monitor
Methanol Outer Loading Arm
Fire Monitors
Manifold
Newton King No. 1 Berth
Fire Monitor
Newton King No. 2 Berth
Hutchen Place
Control Building
Equipment Building
LPG Loading Arm
Manifold see Notes
Crude Oil Loading Arm
Caustic Manifold
Newton King No. 2 Berth
WHARF CROSS SECTION
Not to Scale
1.6 m
1.1 m.
2.2 m
5.3 m
MHWS
Fender
MLWS

Notes:

1. The Manifold area services the following Products.(Listed from Shore end).
   - Ship's Bunkers
   - White Oil
   - Deballast Water (2 Outlets)
   - Bitumen (disused)
   - Power Station Bunker (North Side Only)

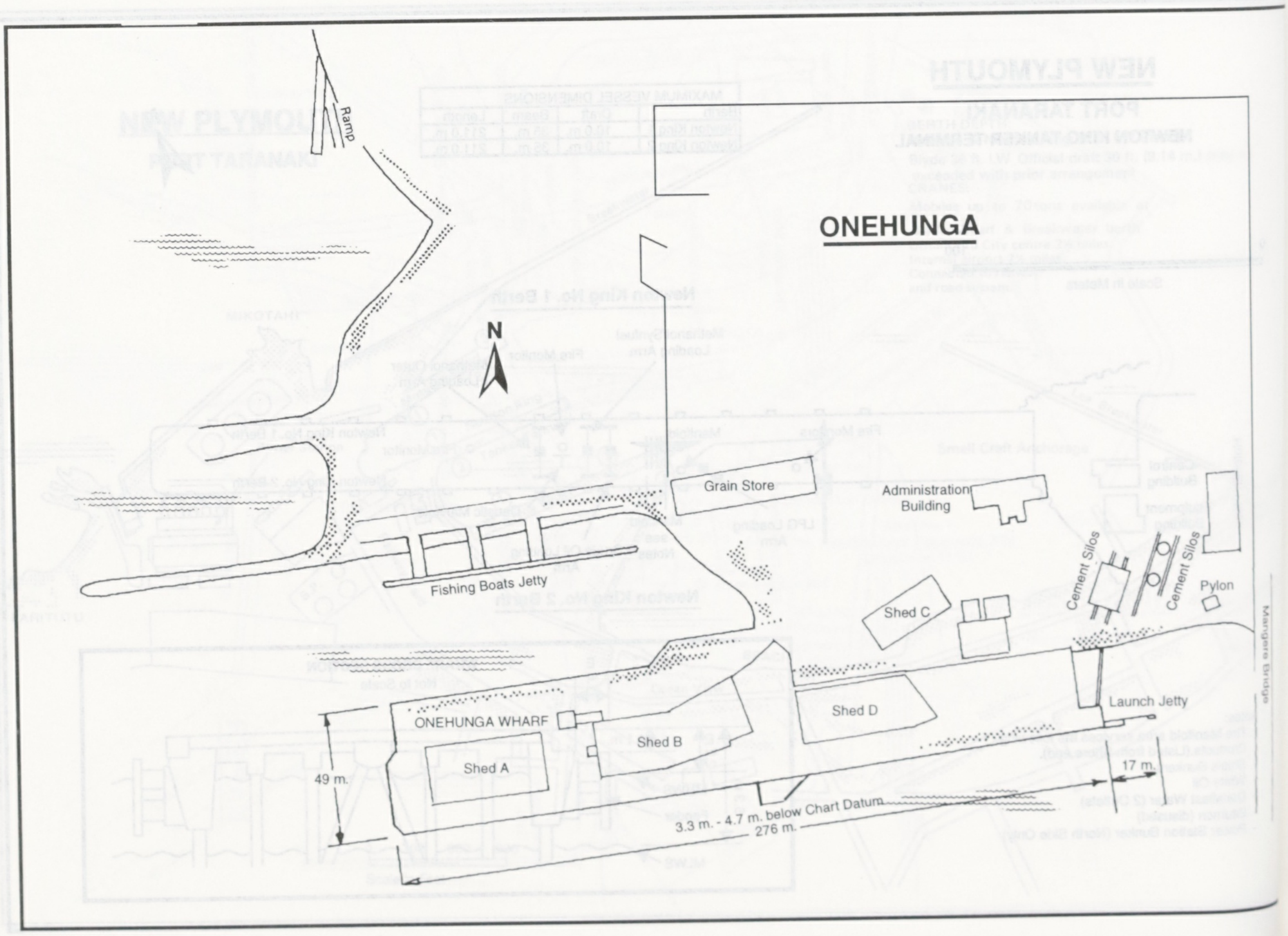

Seawall
Loading Ramp
Storage Area
Urea Store
Main Breakwater
Breakwater No. 1 Berth
Access Road
Syncrolift
Slide Transfer
Syncrolift
Moturoa No. 3 Berth
Urea Shiploader
56.0 m.
Extent of Urea Shiploader Travel
Moturoa No. 2 Berth
Breakwater Road
Moturoa No. 1 Berth
Pipebridge
N
0
100
Scale in Meters
1.4 m.
1.1 m.
8.2 m.
16.5 m.
11.3 .m
CROSS SECTION
MOTUROA
BERTHS 1 ,2 &3
Urea Loading
Gallery
Urea
Shiploader
Multi-directional
delivery Shute
13.1 m.
(Max whe
Loading)
Wharf Deck
2.3 m.
5.4 m.
MHWS
MLWS

NEW PLYMOUTH

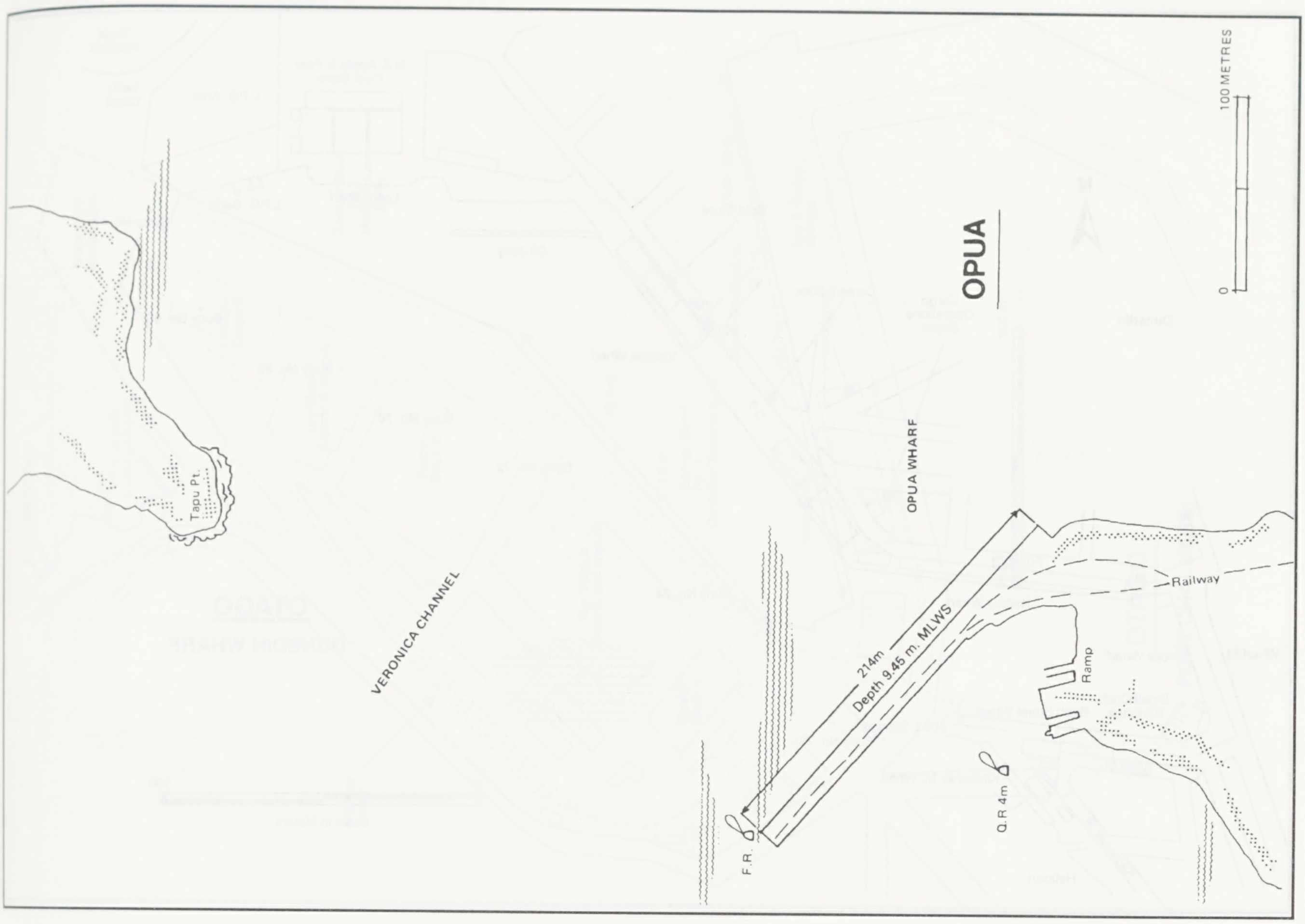
PORT TARANAKI

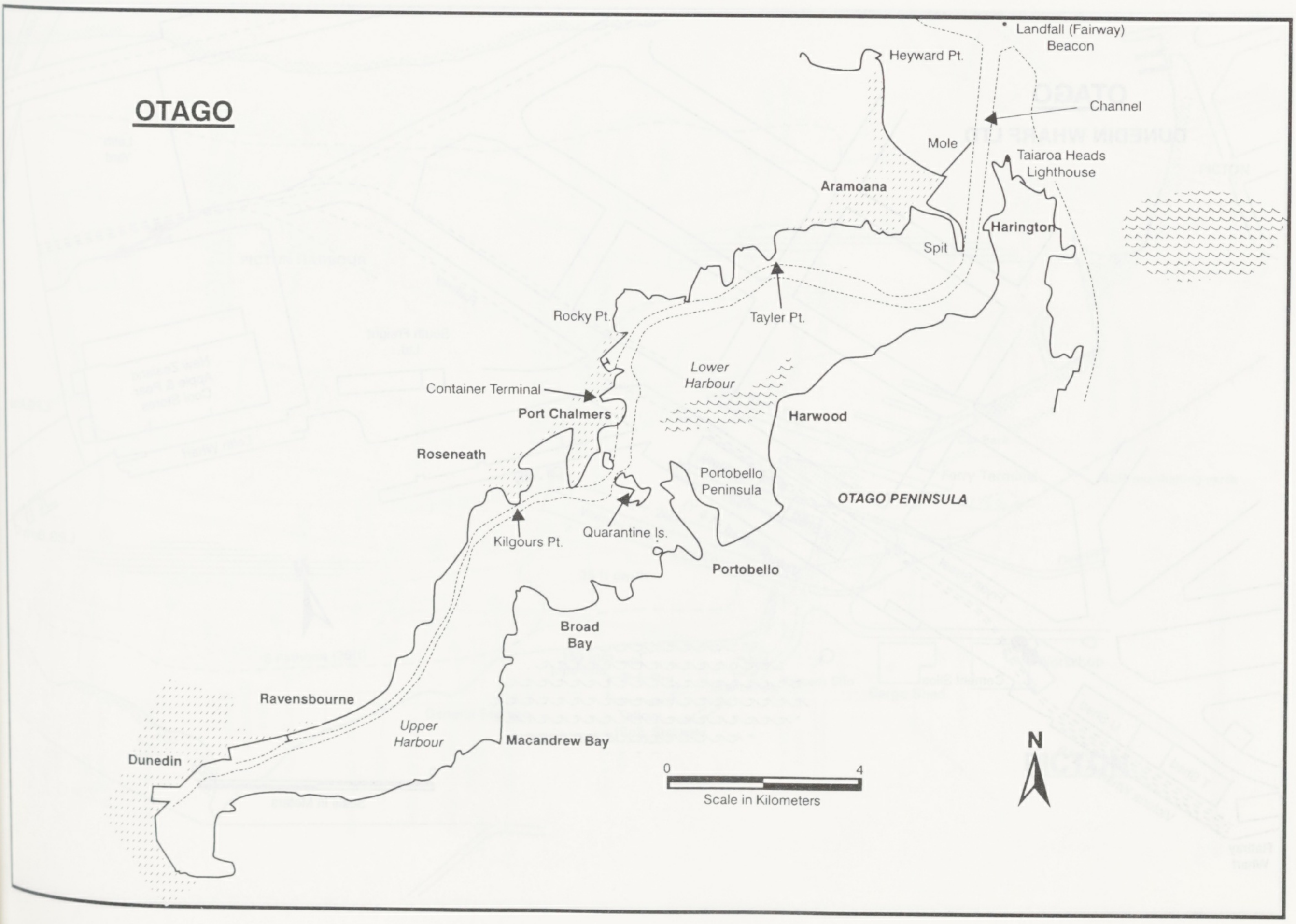
MOTUROA WHARF

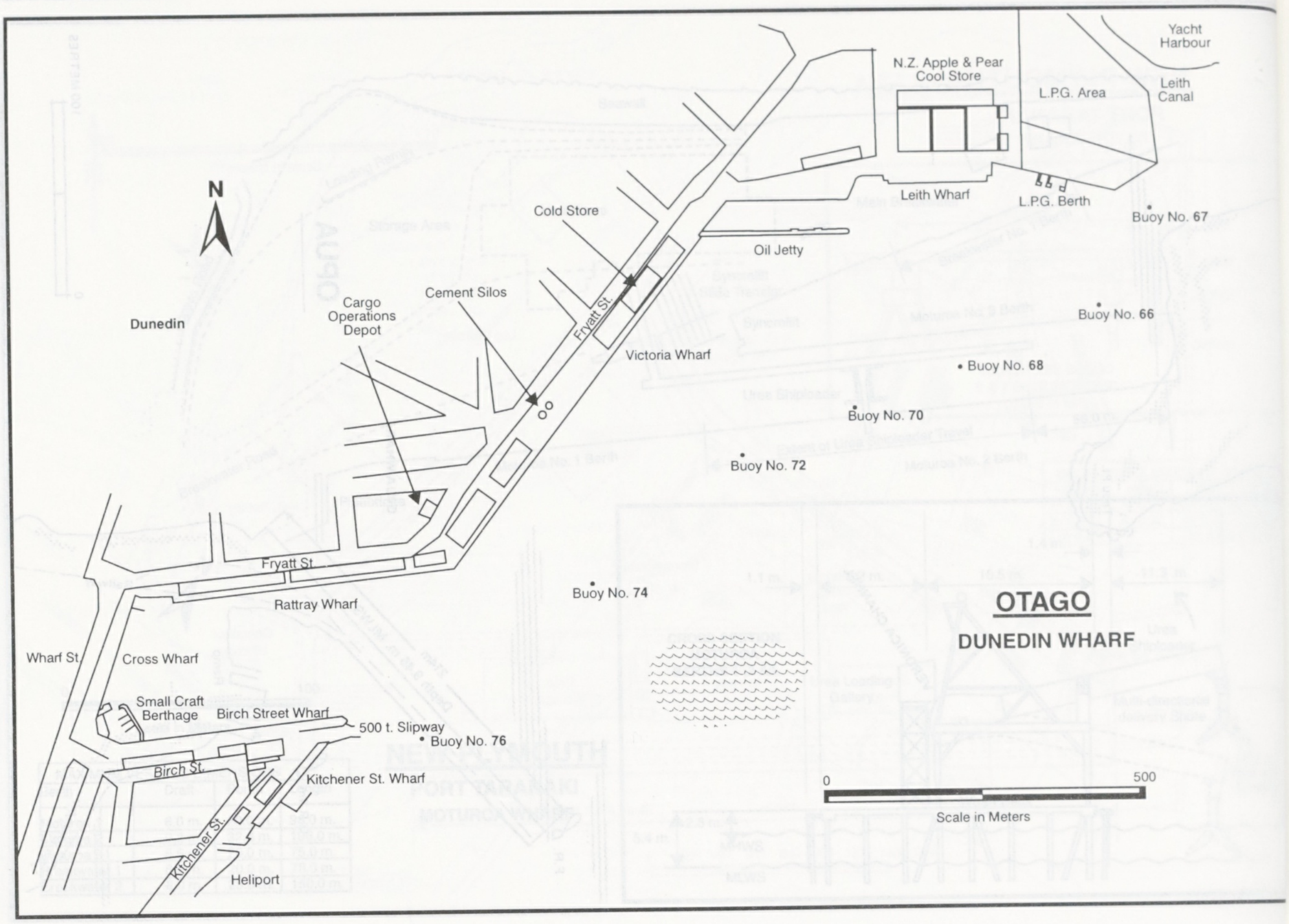
MAXIMUM VESSELS DIMENSIONS			
Berth	Draft	Beam	Length
Moturoa 1	6.0 m.	20.0 m.	98.0 m.
Moturoa 2	9.8 m.	32.3 m.	196.0 m.
Moturoa 3	5.5 m.	20.0 m.	75.0 m.
Breakwater 1	6.0 m.	20.0 m.	78.0 m.
Breakwater 2	6.0 m.	25.0 m.	150.0 m.

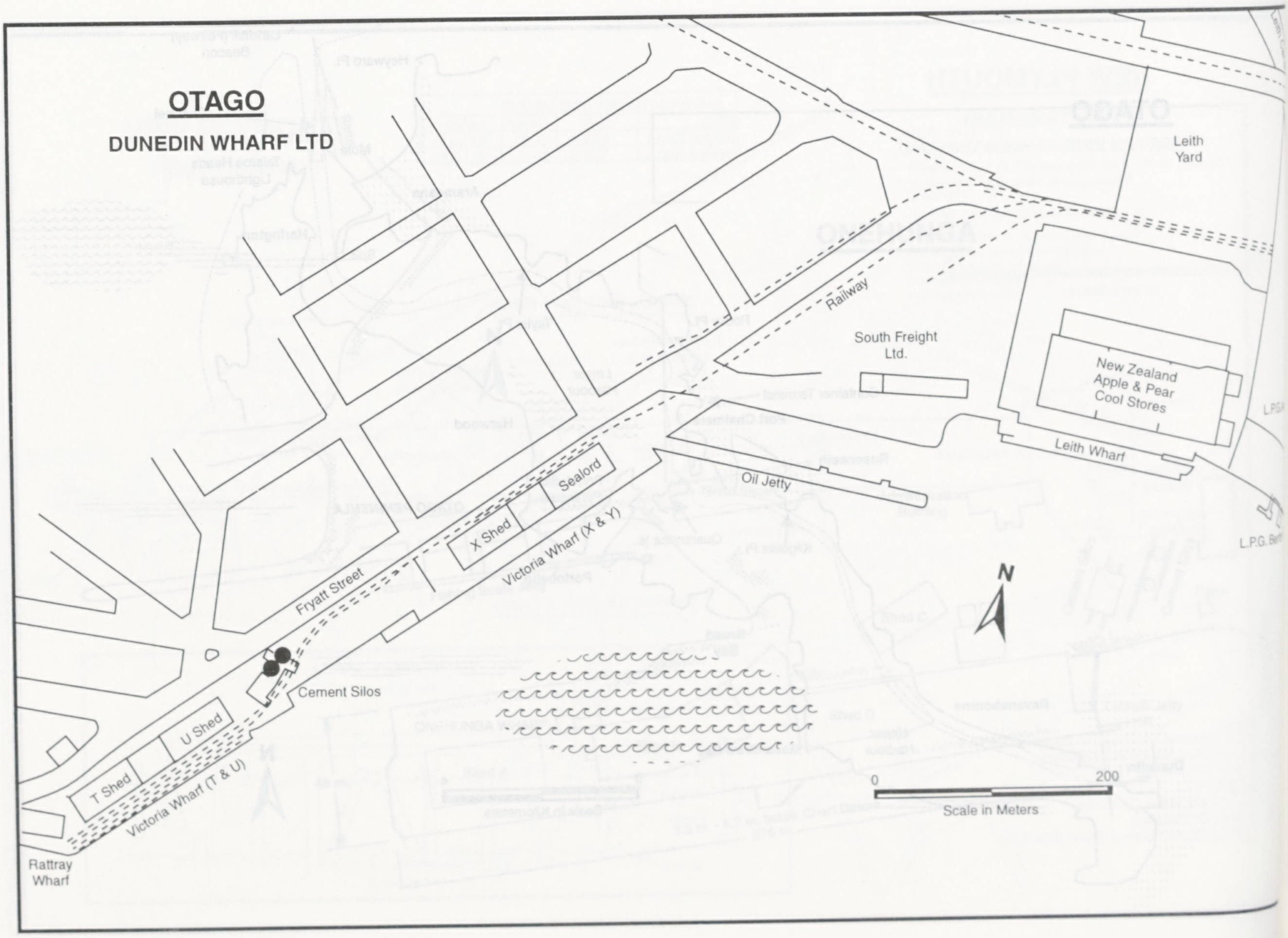

Ramp
N
Grain Store
Administration
Building
Fishing Boats Jetty
Cement Silos
Cement Silos
Pylon
Shed C
Shed D
Launch Jetty
ONEHUNGA WHARF
Shed A
Shed B
49 m.
17 m.
3.3 m. - 4.7 m. below Chart Datum
276 m.

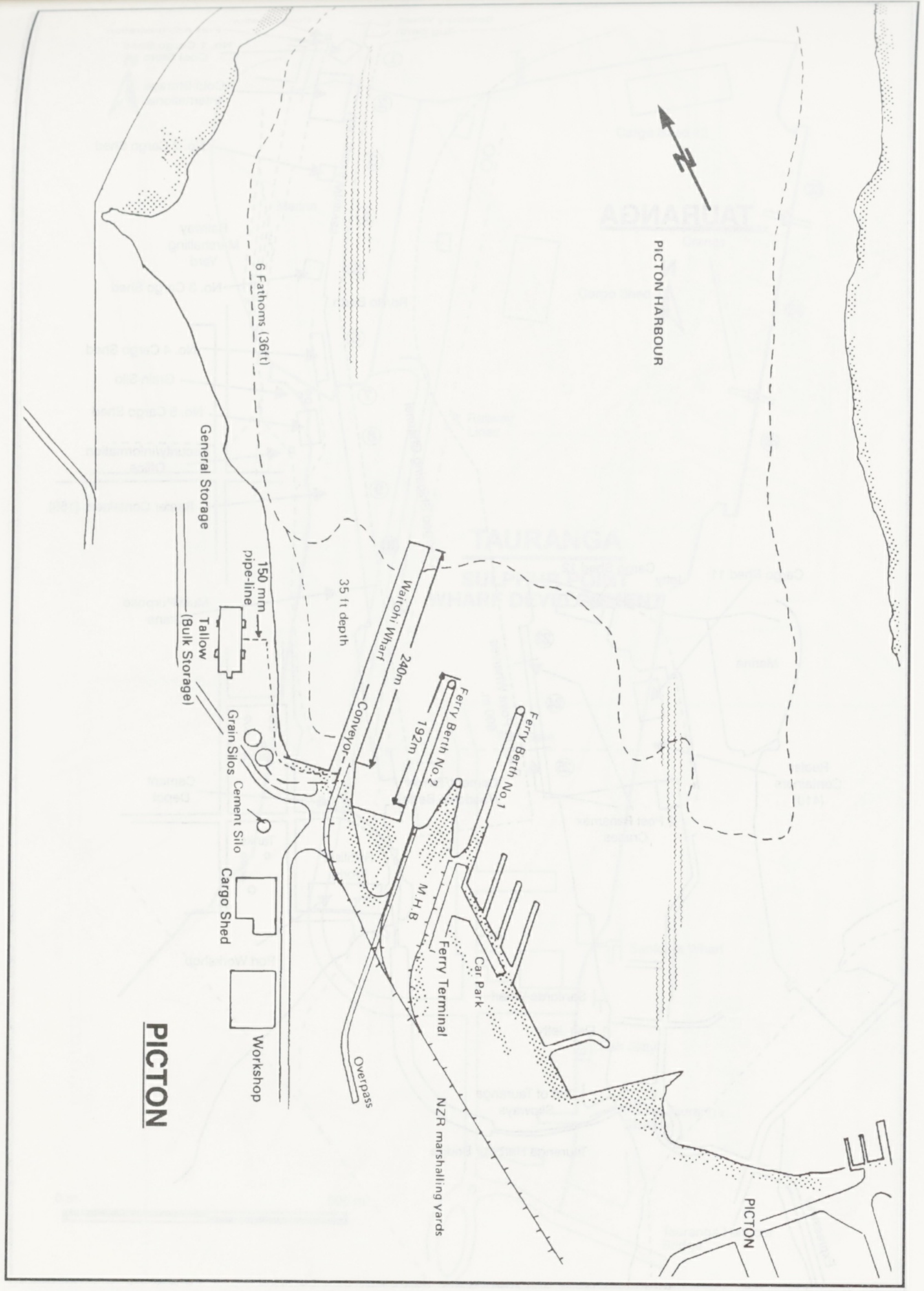
ONEHUNGA


OPUA
100 METRES
0
N
Tapu Pt.
VERONICA CHANNEL
OPUA WHARF
214m
Depth 9.45 m. MLWS
Railway
Ramp
Q.R 4m
F.R.

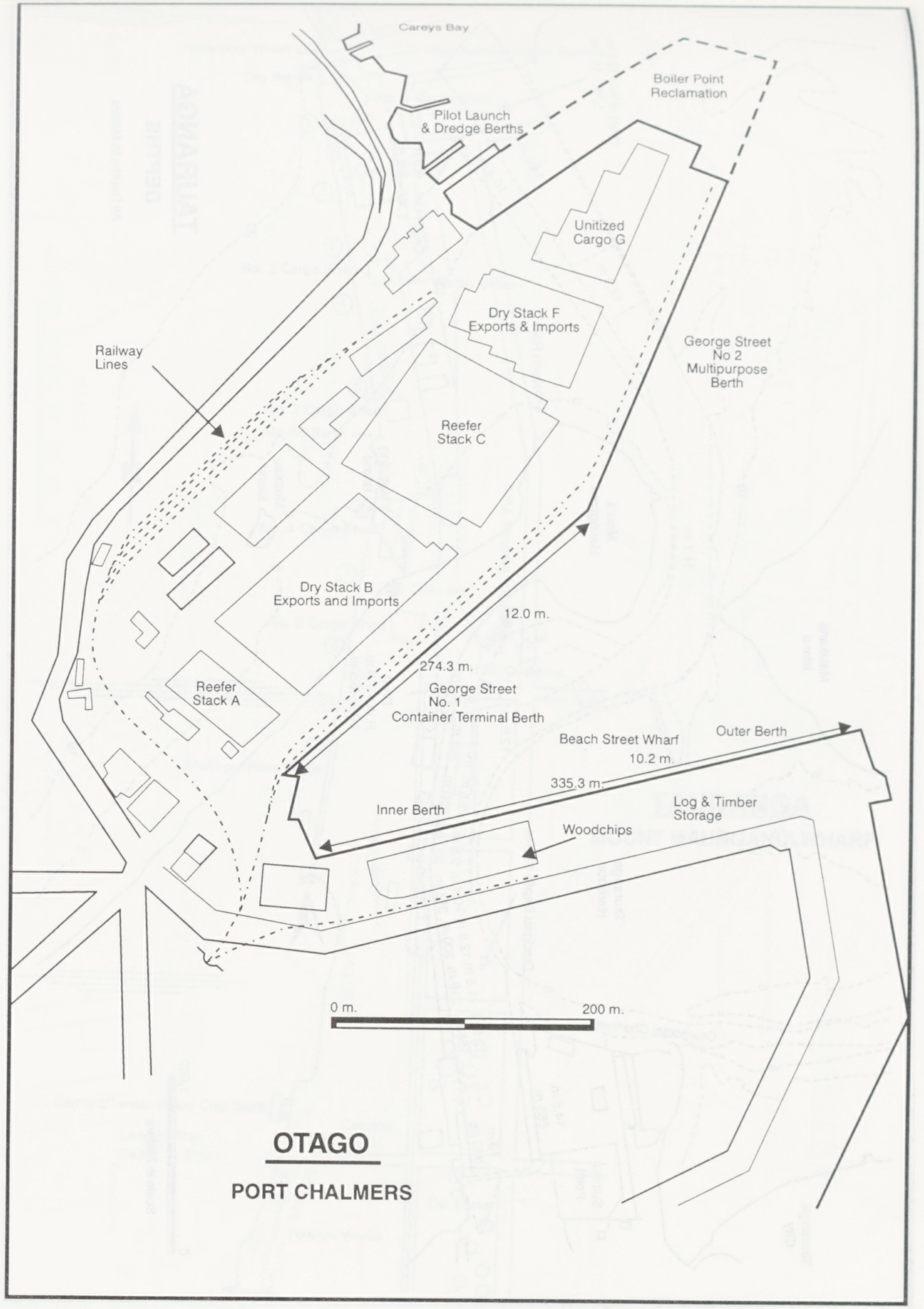

OTAGO
Landfall (Fairway) Beacon
Heyward Pt.
Channel
Mole
Taiaroa Heads Lighthouse
Aramoana
Harington
Spit
Tayler Pt.
Rocky Pt.
Lower Harbour
Container Terminal
Port Chalmers
Harwood
Roseneath
Portobello Peninsula
OTAGO PENINSULA
Kilgours Pt.
Quarantine Is.
Portobello
Broad Bay
Ravensbourne
Upper Harbour
Macandrew Bay
Dunedin
N
0
4
Scale in Kilometers


OTAGO
DUNEDIN WHARF
N
Yacht Harbour
N.Z. Apple & Pear Cool Store
L.P.G. Area
Leith Canal
Leith Wharf
L.P.G. Berth
Buoy No. 67
Cold Store
Oil Jetty
Cargo Operations Depot
Cement Silos
Dunedin
Fryatt St.
Buoy No. 66
Victoria Wharf
Buoy No. 68
Buoy No. 70
Buoy No. 72
Fryatt St
Rattray Wharf
Buoy No. 74
Wharf St.
Cross Wharf
Small Craft Berthage
Birch Street Wharf
500 t. Slipway
Buoy No. 76
Birch St.
Kitchener St. Wharf
Kitchener St.
Heliport
0
500
Scale in Meters


OTAGO
DUNEDIN WHARF LTD
Leith Yard
Railway
South Freight Ltd.
New Zealand Apple & Pear Cool Stores
LPG A
Leith Wharf
Oil Jetty
L.P.G. Ber
Sealord
X Shed
Victoria Wharf (X & Y)
N
Fryatt Street
Cement Silos
U Shed
T Shed
Victoria Wharf (T & U)
Rattray Wharf
0
200
Scale in Meters

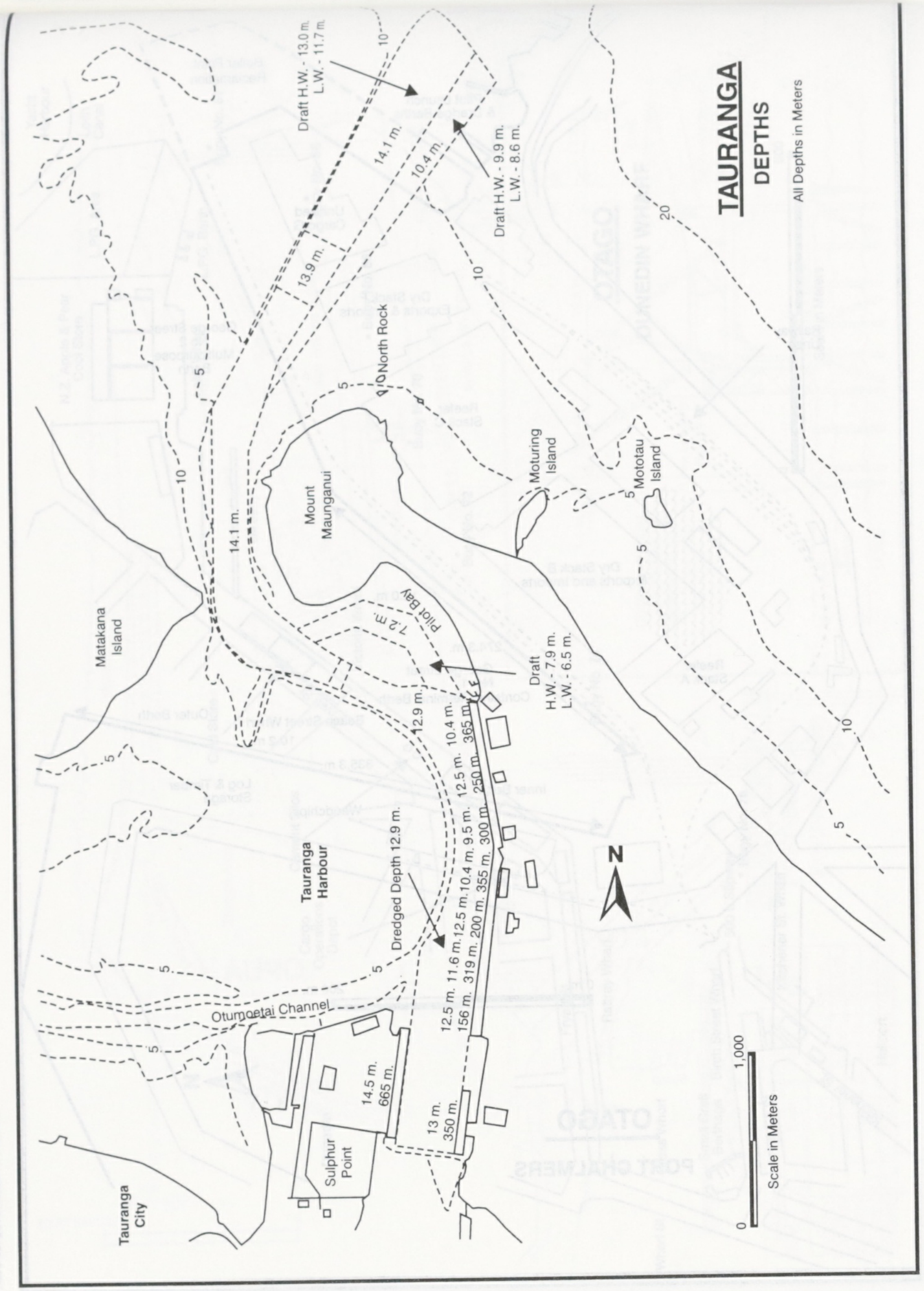

N
PICTON HARBOUR
6 Fathoms (36ft)
General Storage
150 mm pipe-line
Tallow (Bulk Storage)
35 ft depth
Waitohi Wharf
240m
Conveyor
Ferry Berth No.2
192m
Ferry Berth No.1
Grain Silos
Cement Silo
Cargo Shed
M.H.B.
Ferry Terminal
Car Park
Workshop
Overpass
NZR marshalling yards
PICTON

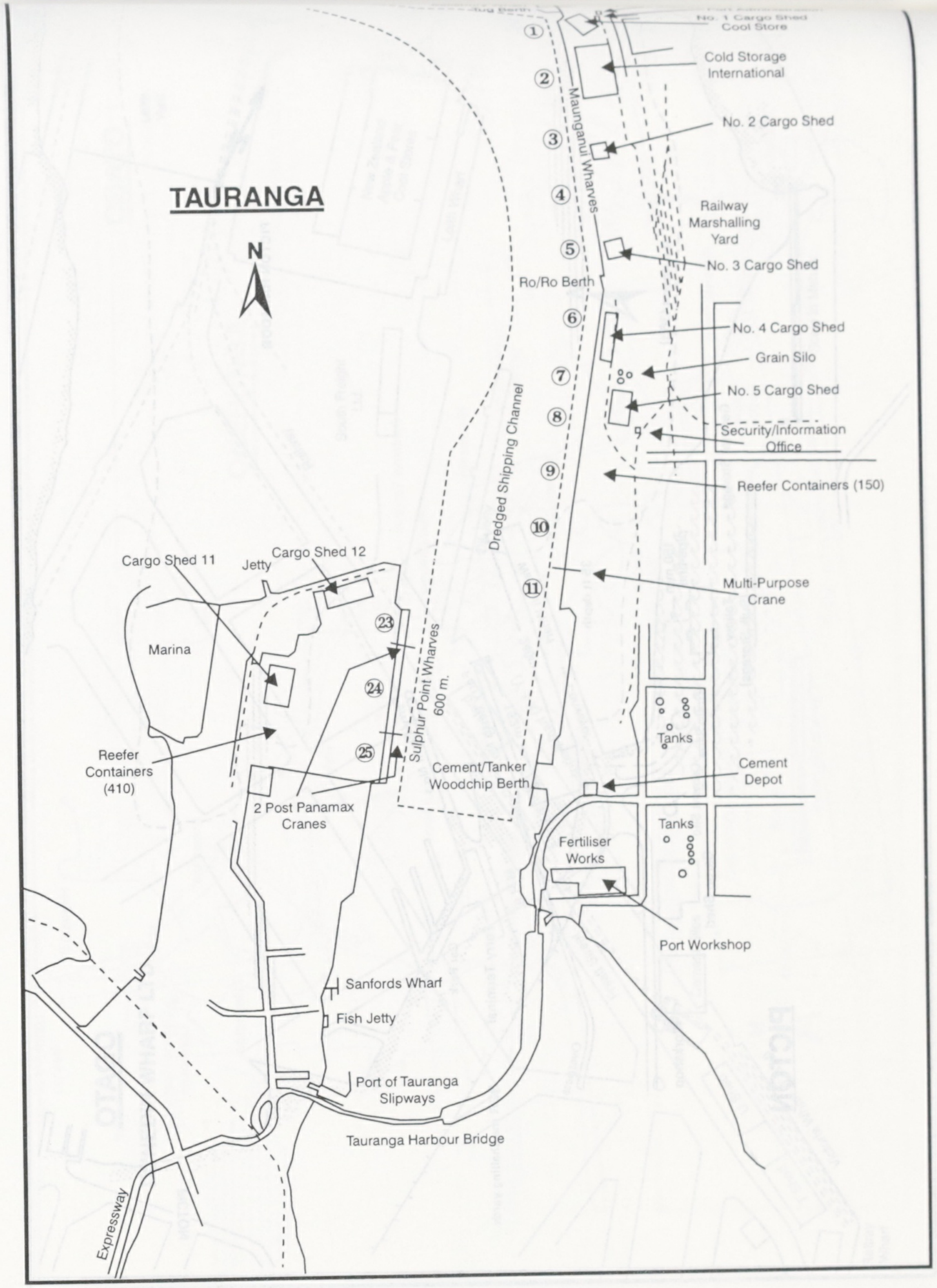
PICTON

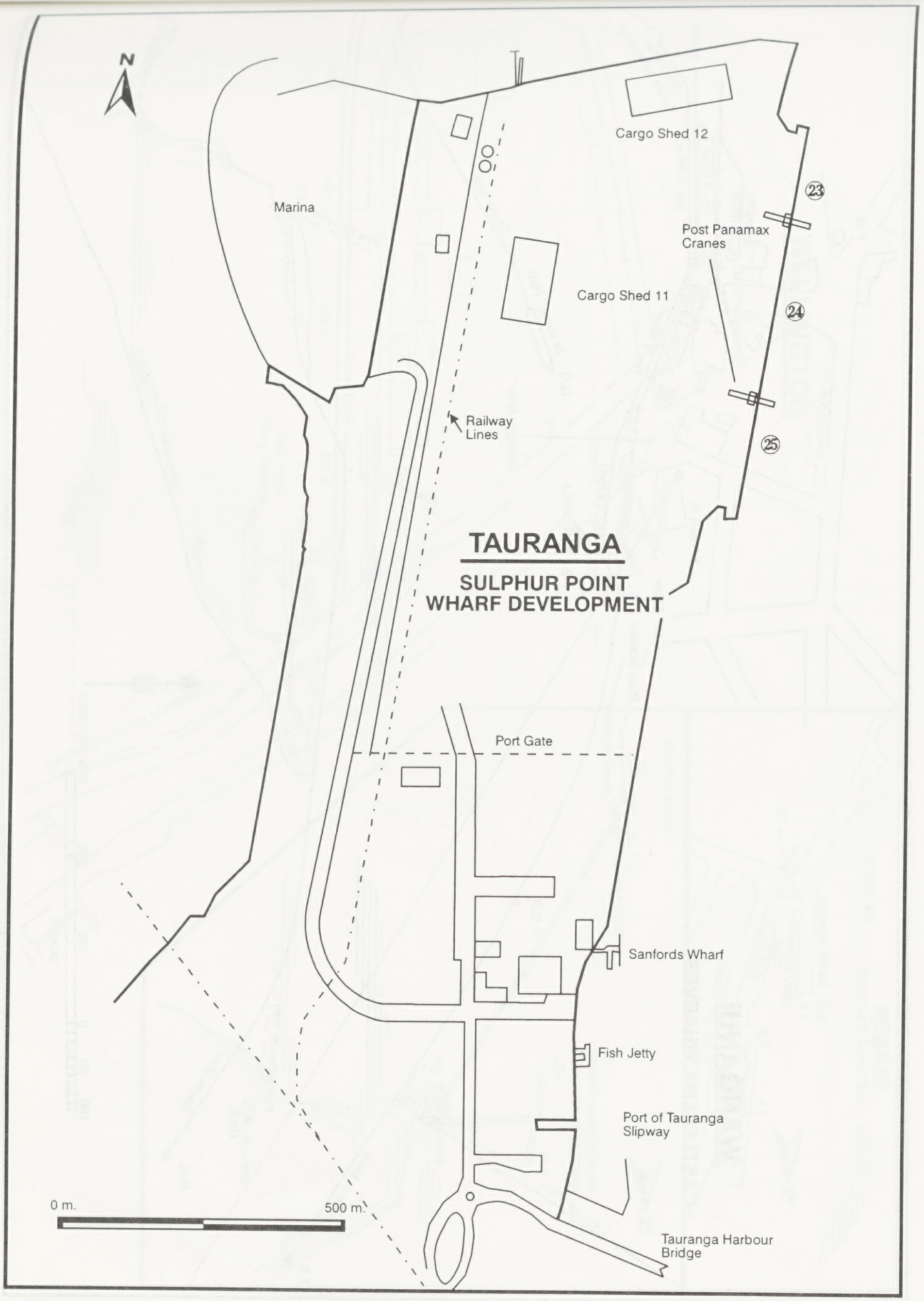

Careys Bay
Boiler Point Reclamation
Pilot Launch & Dredge Berths
Unitized Cargo G
Dry Stack F Exports & Imports
George Street No 2 Multipurpose Berth
Railway Lines
Reefer Stack C
Dry Stack B Exports and Imports
12.0 m.
274.3 m.
George Street No. 1 Container Terminal Berth
Reefer Stack A
Beach Street Wharf
Outer Berth
10.2 m.
335.3 m.
Log & Timber Storage
Inner Berth
Woodchips
0 m.
200 m.

OTAGO

PORT CHALMERS


TAURANGA
DEPTHS
All Depths in Meters
Draft H.W. - 13.0 m.
L.W. - 11.7 m.
Draft H.W. - 9.9 m.
L.W. - 8.6 m.
14.1 m.
10.4 m.
13.9 m.
North Rock
Mount Maunganui
Moturing Island
Mototau Island
Matakana Island
14.1 m.
Pilot Bay
7.2 m.
Draft H.W. - 7.9 m.
L.W. - 6.5 m.
12.9 m.
10.4 m. 365 m.
12.5 m. 250 m.
11.6 m. 12.5 m. 10.4 m. 9.5 m.
319 m. 200 m. 355 m. 300 m.
12.5 m. 156 m.
Dredged Depth 12.9 m.
Tauranga Harbour
Otumoetai Channel
14.5 m. 665 m.
13 m. 350 m.
Sulphur Point
Tauranga City
N
Scale in Meters
0
1,000
5
10
20

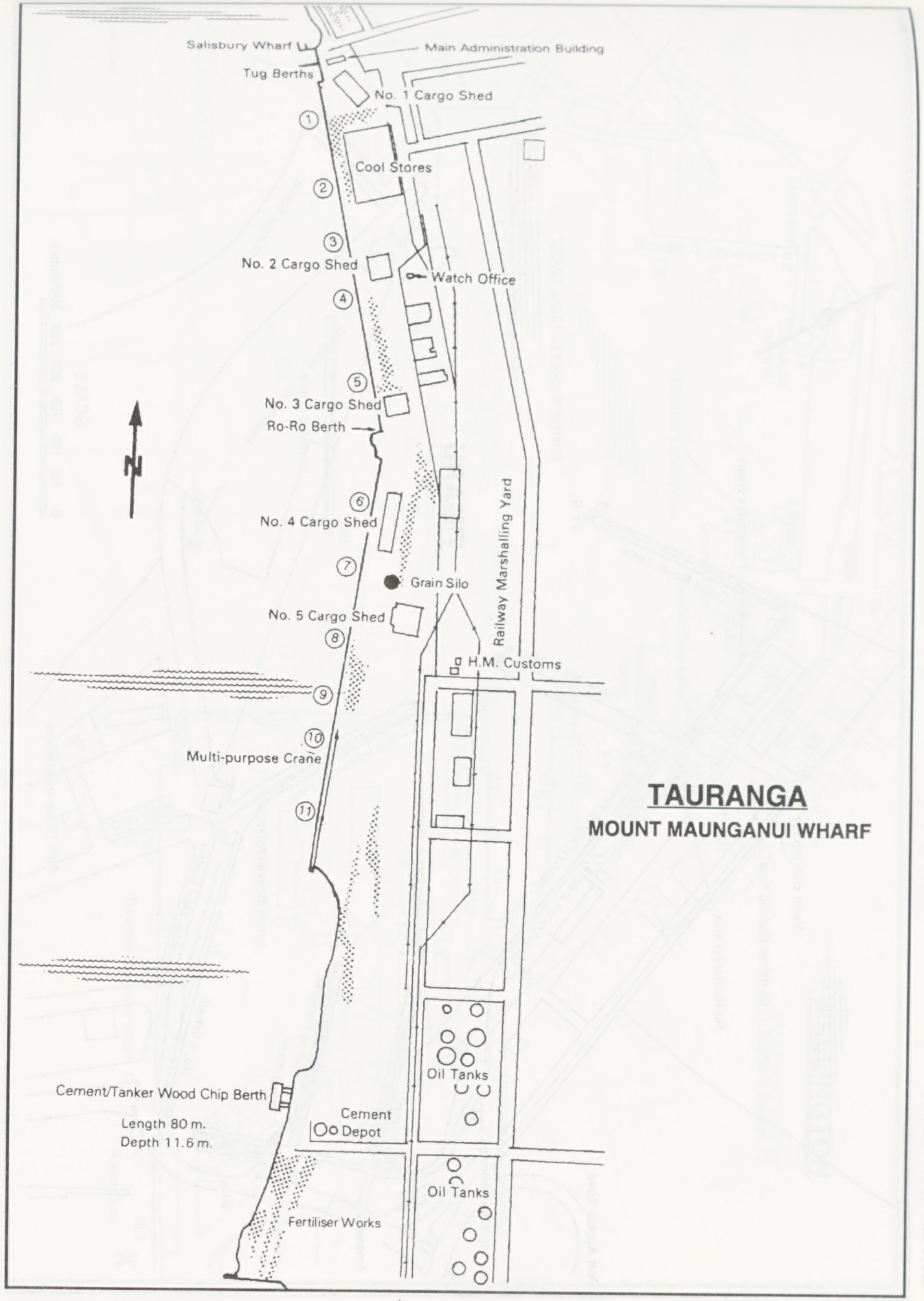

TAURANGA
N
No. 1 Cargo Shed
Cool Store
Cold Storage International
No. 2 Cargo Shed
Railway Marshalling Yard
No. 3 Cargo Shed
Ro/Ro Berth
No. 4 Cargo Shed
Grain Silo
No. 5 Cargo Shed
Security/Information Office
Reefer Containers (150)
Multi-Purpose Crane
Maunganui Wharves
Dredged Shipping Channel
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
Cargo Shed 11
Jetty
Cargo Shed 12
Marina
㉓
㉔
㉕
Sulphur Point Wharves 600 m.
Reefer Containers (410)
2 Post Panamax Cranes
Cement/Tanker Woodchip Berth
Tanks
Cement Depot
Tanks
Fertiliser Works
Port Workshop
Sanfords Wharf
Fish Jetty
Port of Tauranga Slipways
Tauranga Harbour Bridge
Expressway



TAURANGA

SULPHUR POINT WHARF DEVELOPMENT

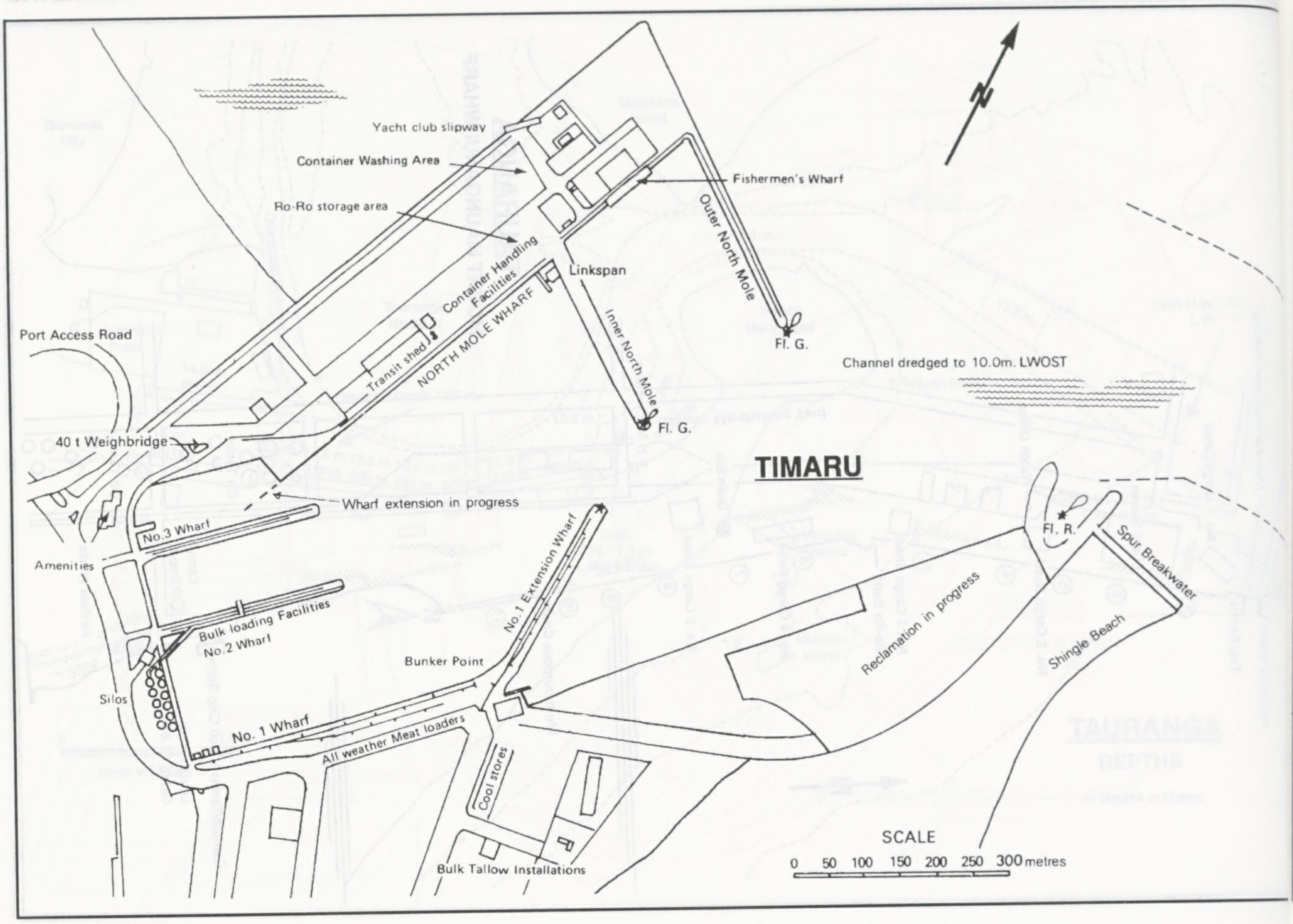
N
Cargo Shed 12
Marina
㉓
Post Panamax Cranes
Cargo Shed 11
㉔
Railway Lines
㉕
Port Gate
Sanfords Wharf
Fish Jetty
Port of Tauranga Slipway
Tauranga Harbour Bridge
0 m.
500 m.

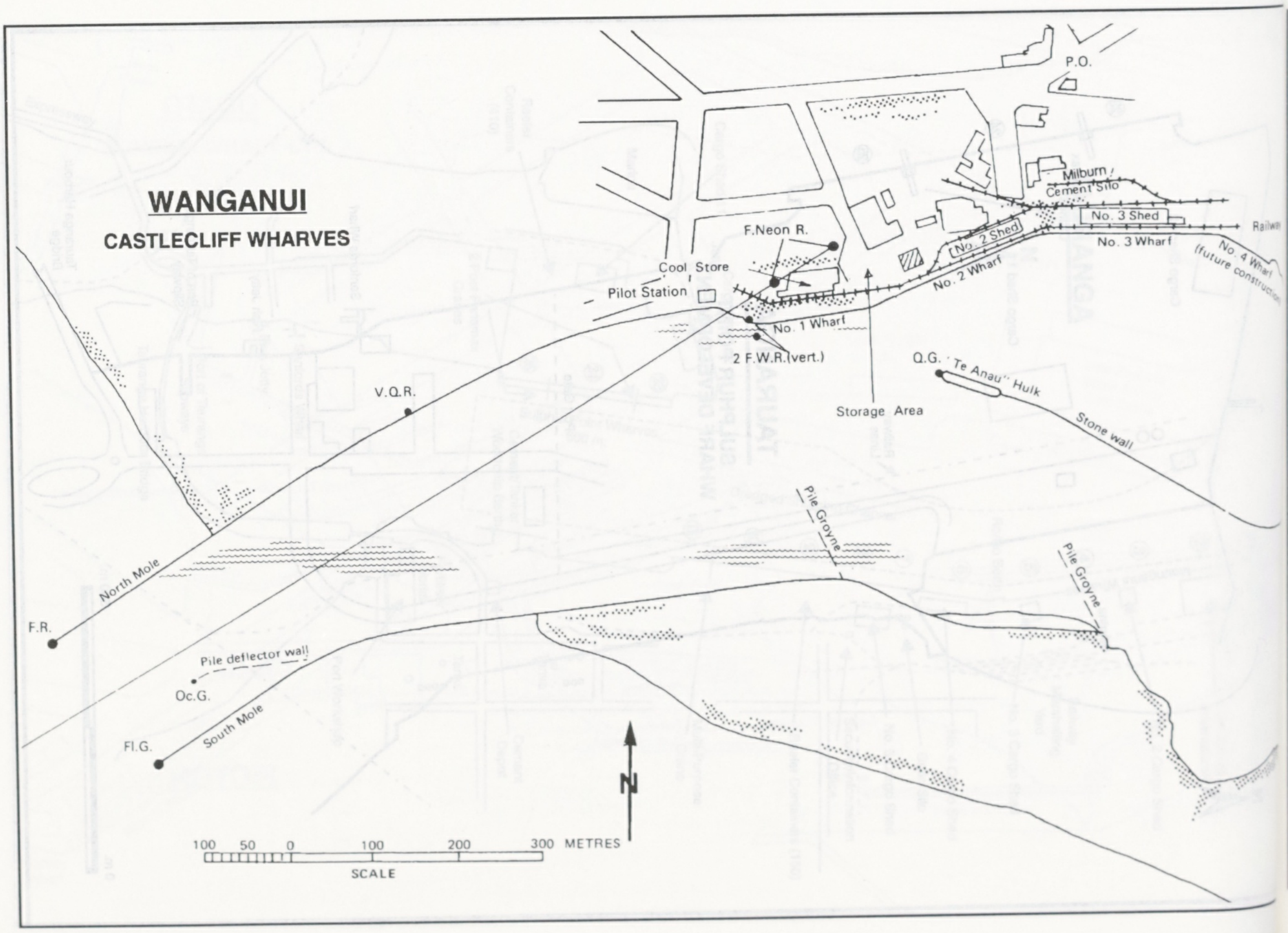


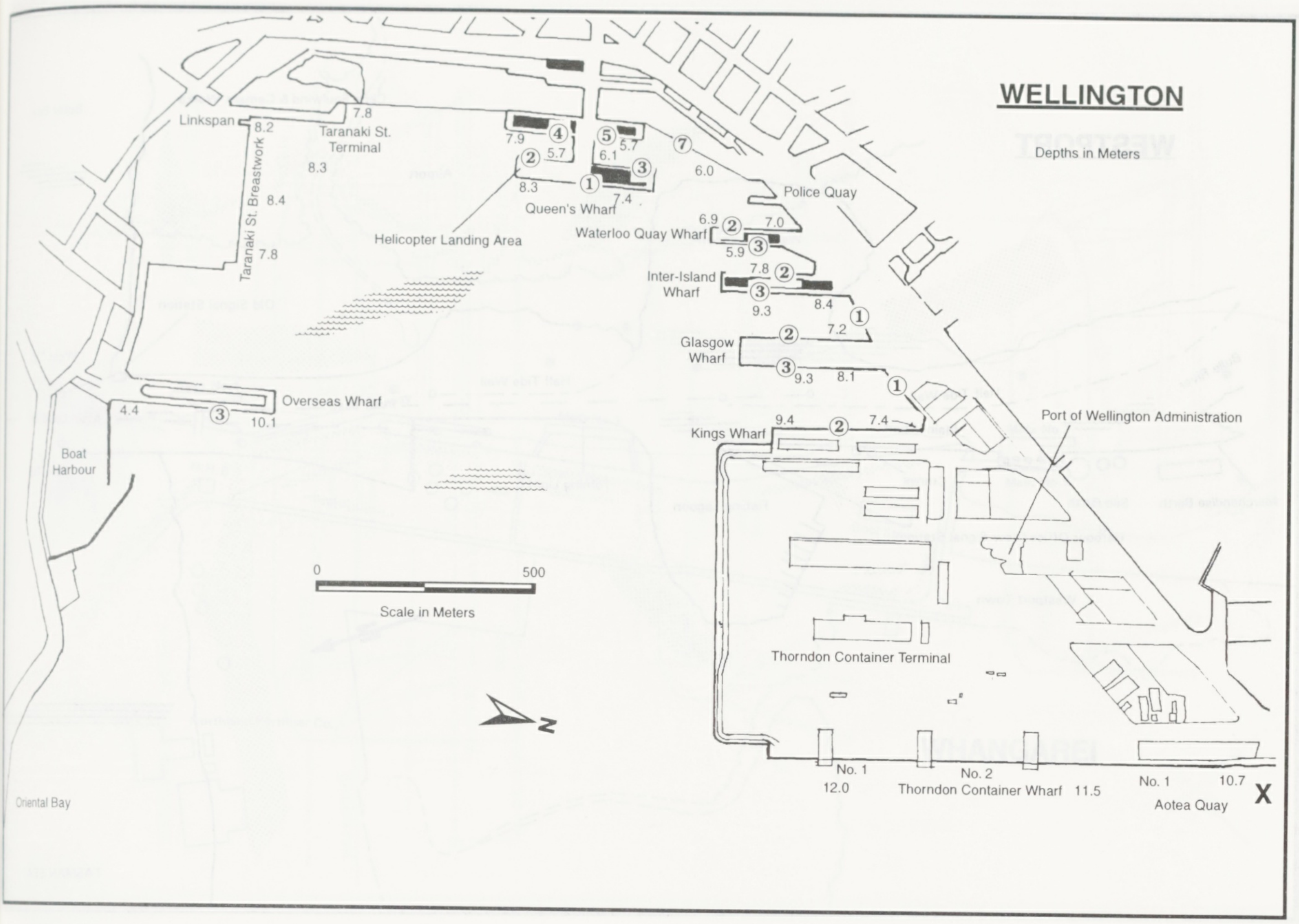
TAURANGA

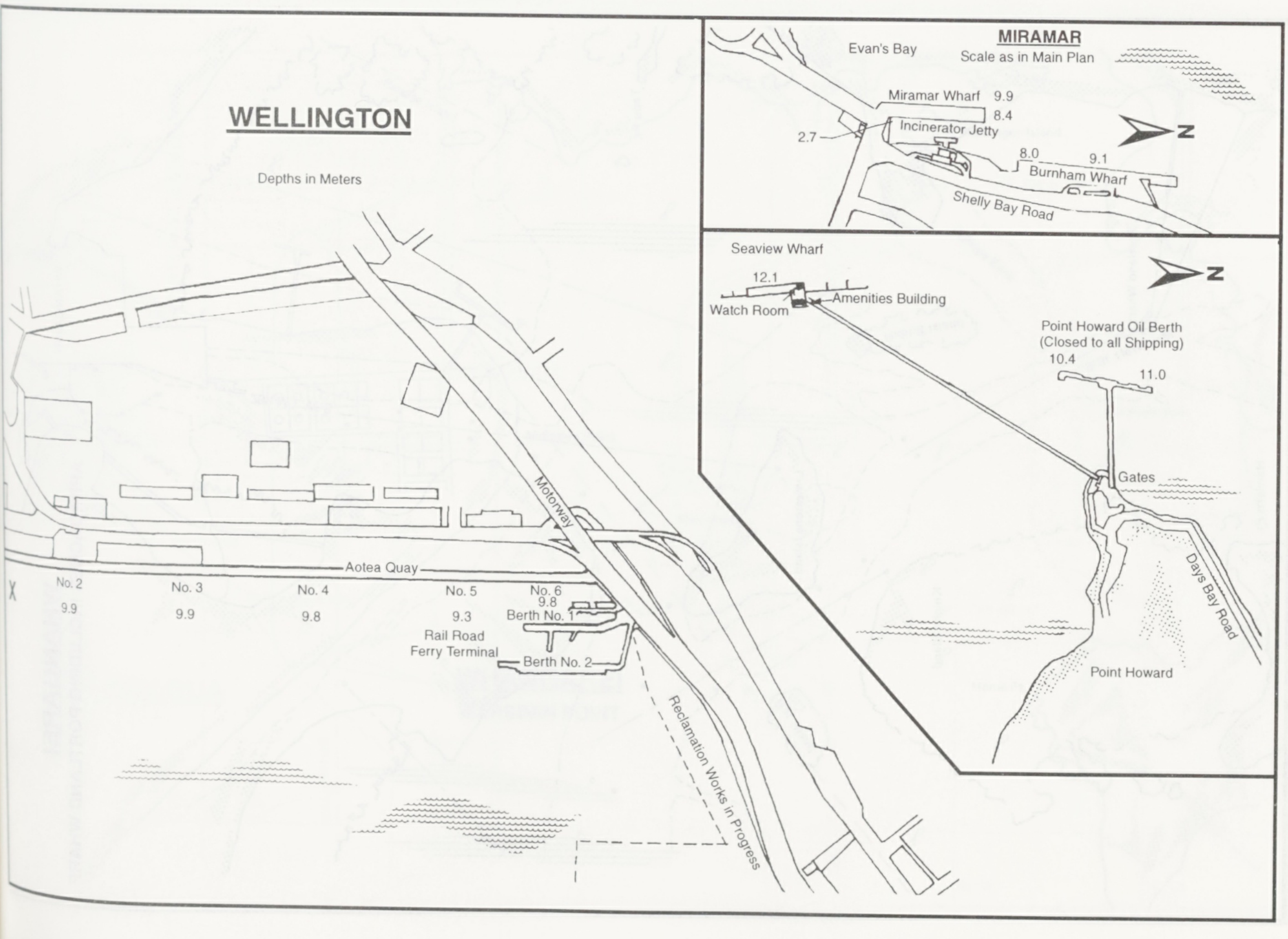
MOUNT MAUNGANUI WHARF

Salisbury Wharf
Main Administration Building
Tug Berths
No. 1 Cargo Shed
①
Cool Stores
②
③
No. 2 Cargo Shed
Watch Office
④
⑤
No. 3 Cargo Shed
Ro-Ro Berth
N
⑥
No. 4 Cargo Shed
⑦
Grain Silo
Railway Marshalling Yard
No. 5 Cargo Shed
⑧
H.M. Customs
⑨
⑩
Multi-purpose Crane
⑪
Oil Tanks
Cement/Tanker Wood Chip Berth
Length 80 m.
Depth 11.6 m.
Cement Depot
Oil Tanks
Fertiliser Works

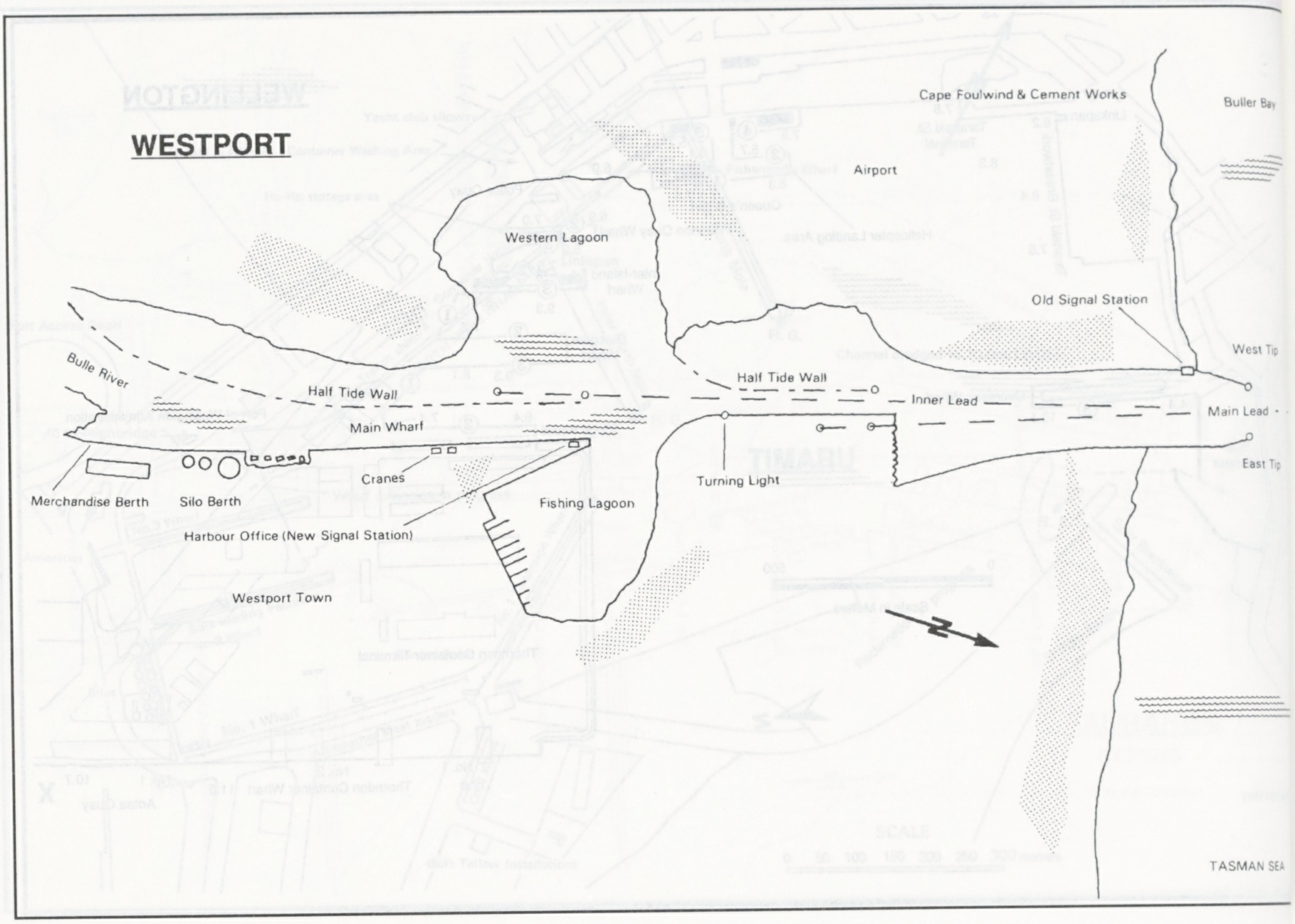

TIMARU
N
Yacht club slipway
Container Washing Area
Ro-Ro storage area
Fishermen's Wharf
Outer North Mole
Container Handling Facilities
Linkspan
Inner North Mole
Transit shed
NORTH MOLE WHARF
Port Access Road
Fl. G.
Fl. G.
Channel dredged to 10.0m. LWOST
40 t Weighbridge
Wharf extension in progress
No.3 Wharf
Amenities
No.1 Extension Wharf
Fl. R.
Spur Breakwater
Reclamation in progress
Shingle Beach
Bulk loading Facilities
No.2 Wharf
Bunker Point
Silos
No. 1 Wharf
All weather Meat loaders
Cool stores
Bulk Tallow Installations
SCALE
0 50 100 150 200 250 300 metres


WANGANUI
CASTLECLIFF WHARVES
P.O.
Milburn Cement Silo
No. 3 Shed
Railway
No. 3 Wharf
No. 4 Wharf (future construction)
No. 2 Shed
No. 2 Wharf
F.Neon R.
Cool Store
Pilot Station
No. 1 Wharf
2 F.W.R.(vert.)
Q.G. "Te Anau" Hulk
Stone wall
Storage Area
V.Q.R.
Pile Groyne
Pile Groyne
North Mole
F.R.
Pile deflector wall
Oc.G.
Fl.G.
South Mole
N
100 50 0 100 200 300 METRES
SCALE

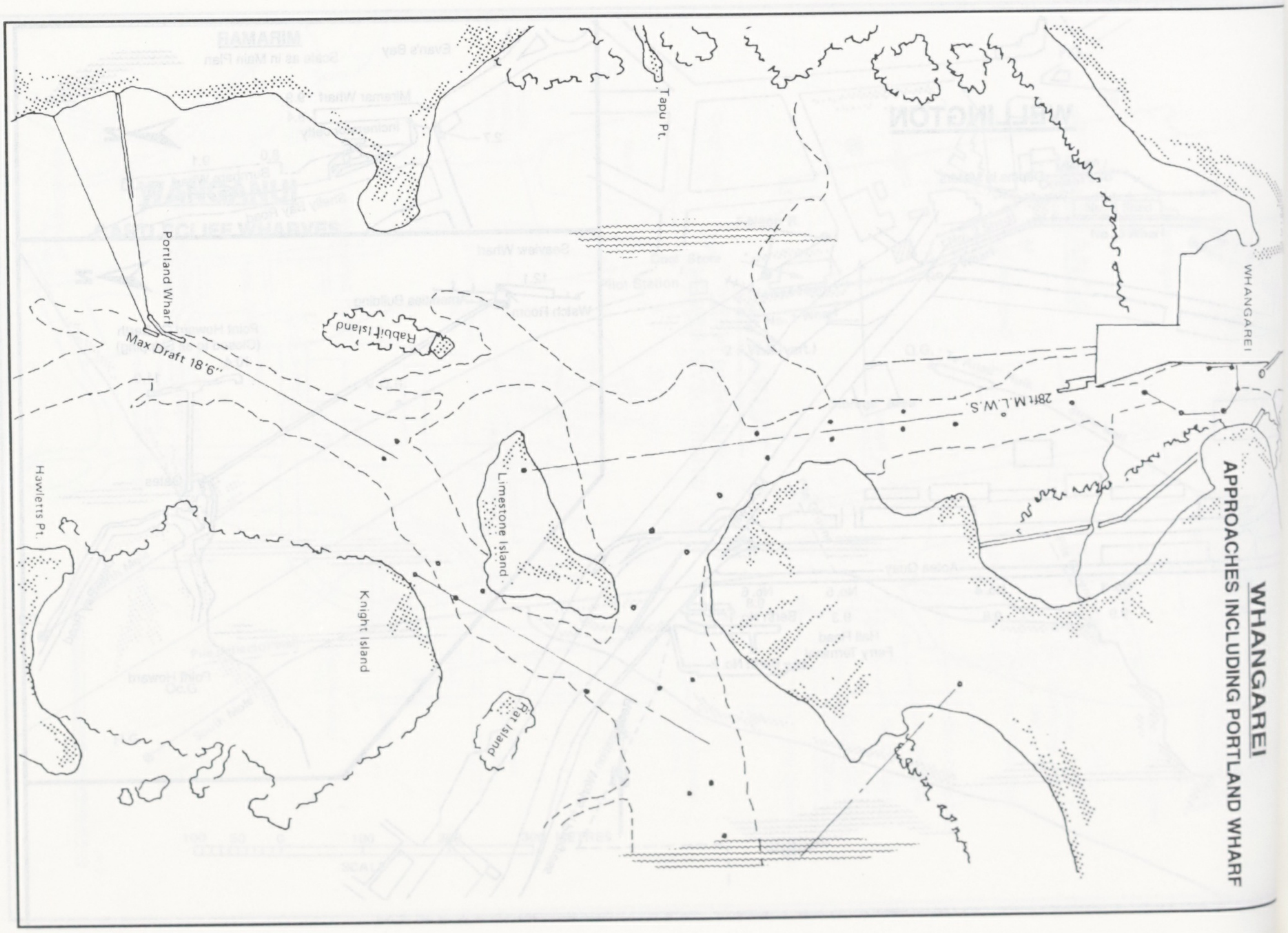

WELLINGTON
Depths in Meters
Linkspan
8.2
7.8
Taranaki St. Terminal
8.3
Taranaki St. Breastwork
8.4
7.8
7.9
④
5.7
②
8.3
⑤
5.7
6.1
③
①
7.4
⑦
6.0
Queen's Wharf
Helicopter Landing Area
Police Quay
6.9
②
7.0
Waterloo Quay Wharf
5.9
③
Inter-Island Wharf
7.8
②
③
9.3
8.4
①
7.2
Glasgow Wharf
②
③
9.3
8.1
①
Kings Wharf
9.4
②
7.4
Port of Wellington Administration
Overseas Wharf
4.4
③
10.1
Boat Harbour
0
500
Scale in Meters
N
Thorndon Container Terminal
No. 1
12.0
No. 2
Thorndon Container Wharf
11.5
No. 1
10.7
Aotea Quay
X
Oriental Bay

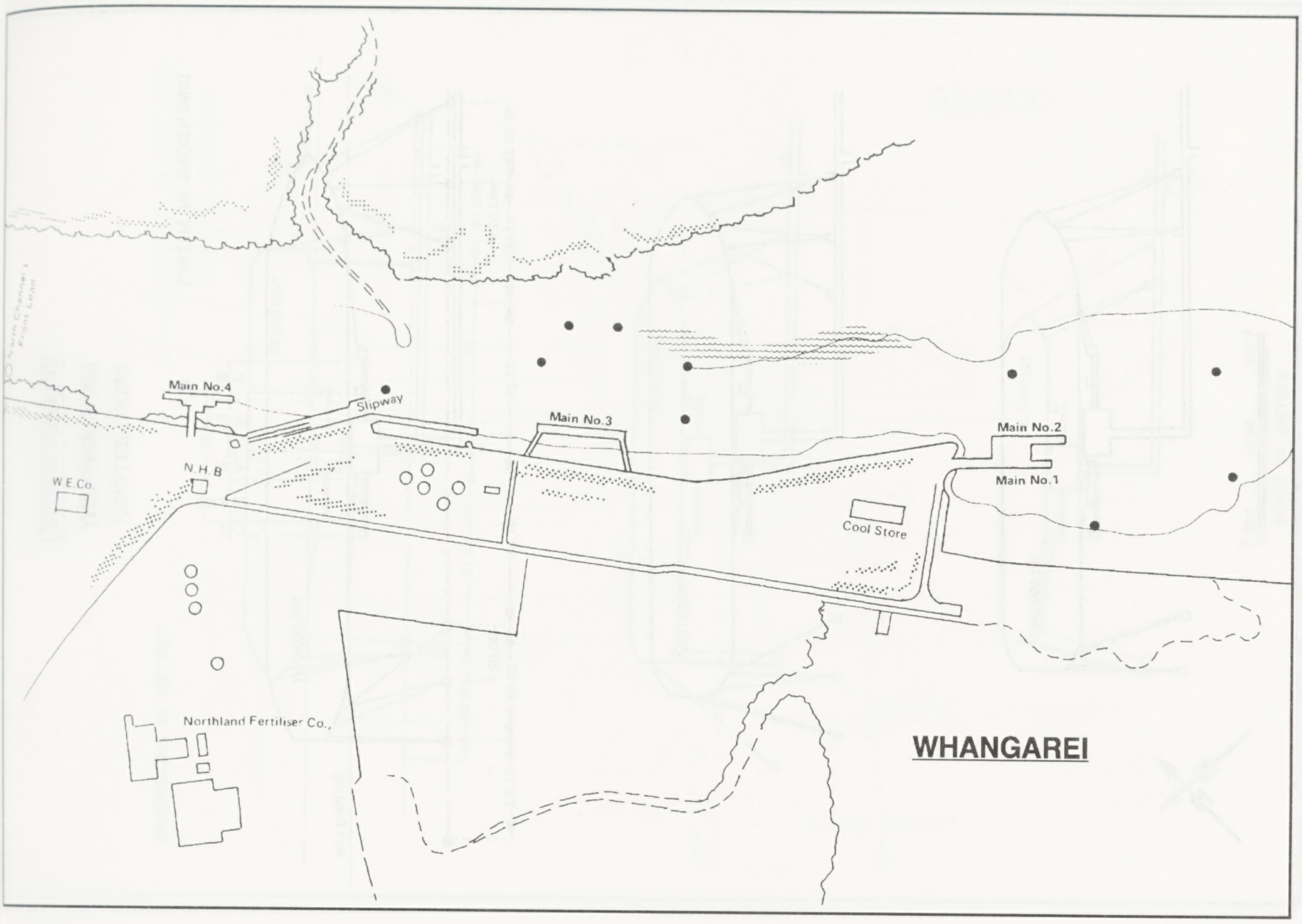

WELLINGTON
Depths in Meters
Motorway
Aotea Quay
X
No. 2
9.9
No. 3
9.9
No. 4
9.8
No. 5
9.3
No. 6
9.8
Berth No. 1
Rail Road Ferry Terminal
Berth No. 2
Reclamation Works in Progress
MIRAMAR
Scale as in Main Plan
Evan's Bay
Miramar Wharf
9.9
8.4
Incinerator Jetty
2.7
8.0
9.1
Burnham Wharf
Shelly Bay Road
N
Seaview Wharf
12.1
Watch Room
Amenities Building
N
Point Howard Oil Berth (Closed to all Shipping)
10.4
11.0
Gates
Days Bay Road
Point Howard

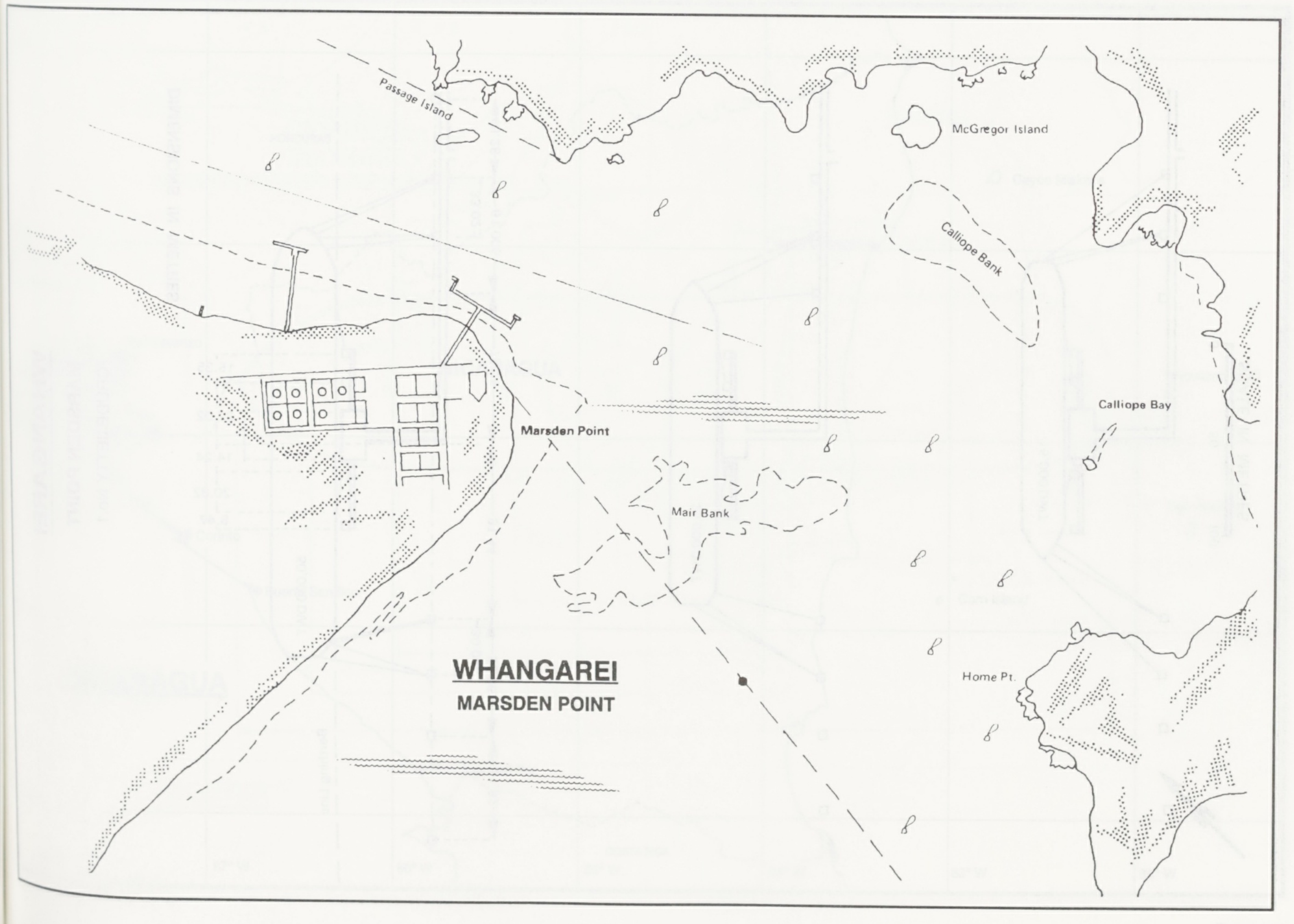
WESTPORT


Cape Foulwind & Cement Works
Buller Bay
Airport
Western Lagoon
Old Signal Station
West Tip
Bulle River
Half Tide Wall
Half Tide Wall
Inner Lead
Main Lead
Main Wharf
East Tip
Merchandise Berth
Silo Berth
Cranes
Harbour Office (New Signal Station)
Fishing Lagoon
Turning Light
Westport Town
TASMAN SEA

WHANGAREI APPROACHES INCLUDING PORTLAND WHARF


Tapu Pt.
Portland Wharf
Max Draft 18'6"
Rabbit Island
WHANGAREI
28ft M.L.W.S.
Hawletts Pt.
Limestone Island
Knight Island
Flat Island

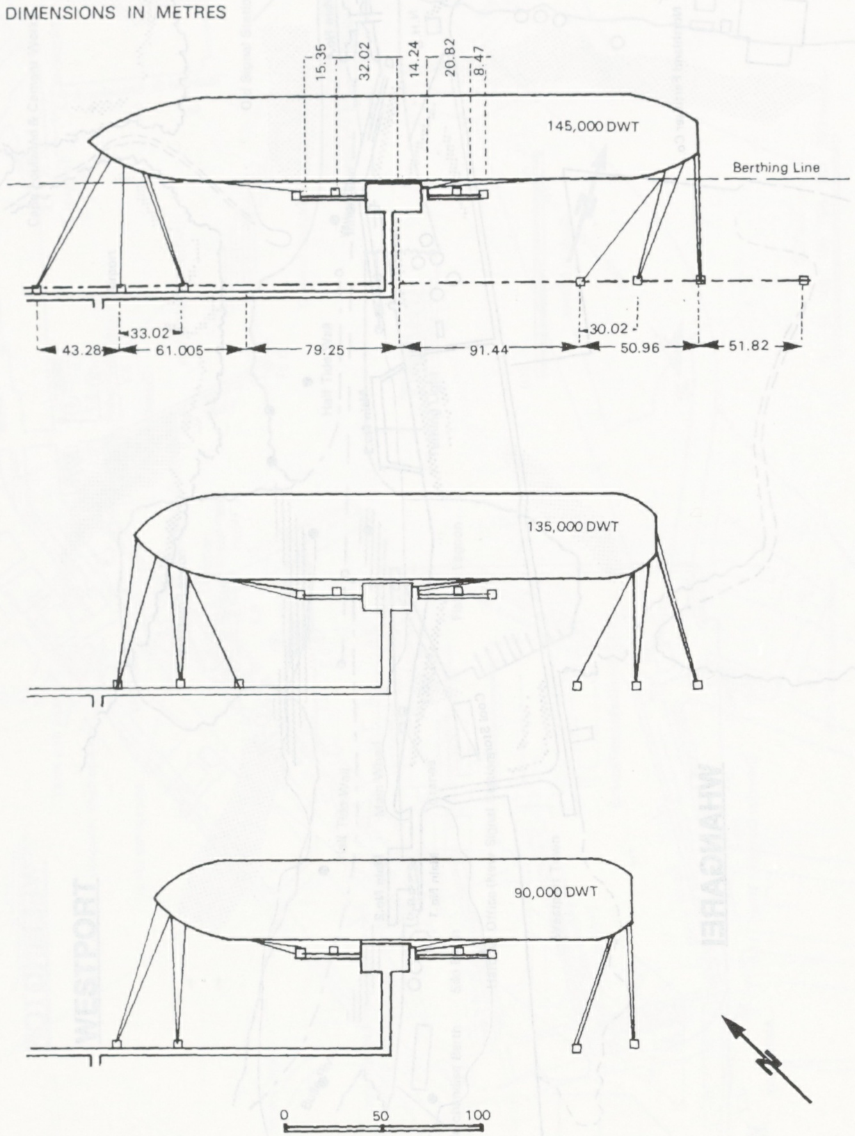

North Channel Front Lead
Main No.4
Slipway
Main No.3
Main No.2
Main No.1
N.H.B
W.E.Co.
Cool Store
Northland Fertiliser Co.,
WHANGAREI


Passage Island
McGregor Island
Calliope Bank
Calliope Bay
Marsden Point
Mair Bank
Home Pt.
WHANGAREI
MARSDEN POINT

WHANGAREI

MARSDEN POINT

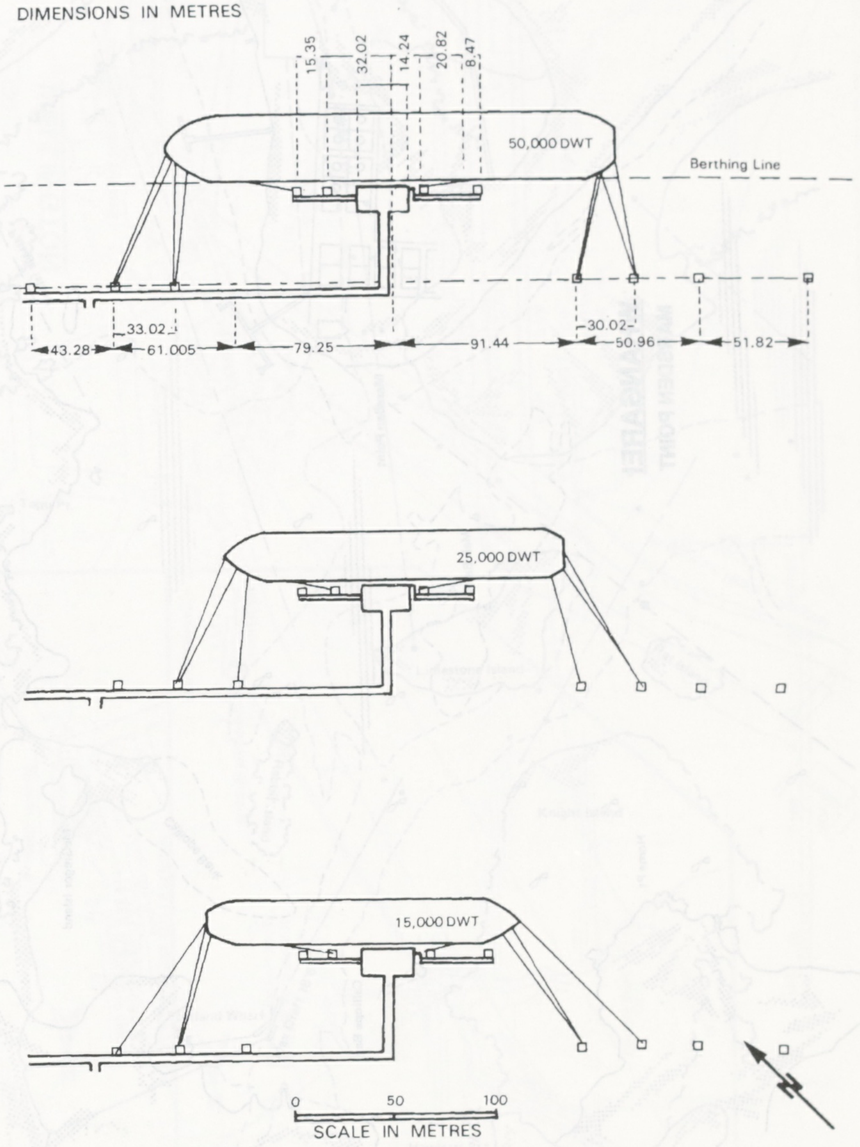
CRUDE JETTY No.1

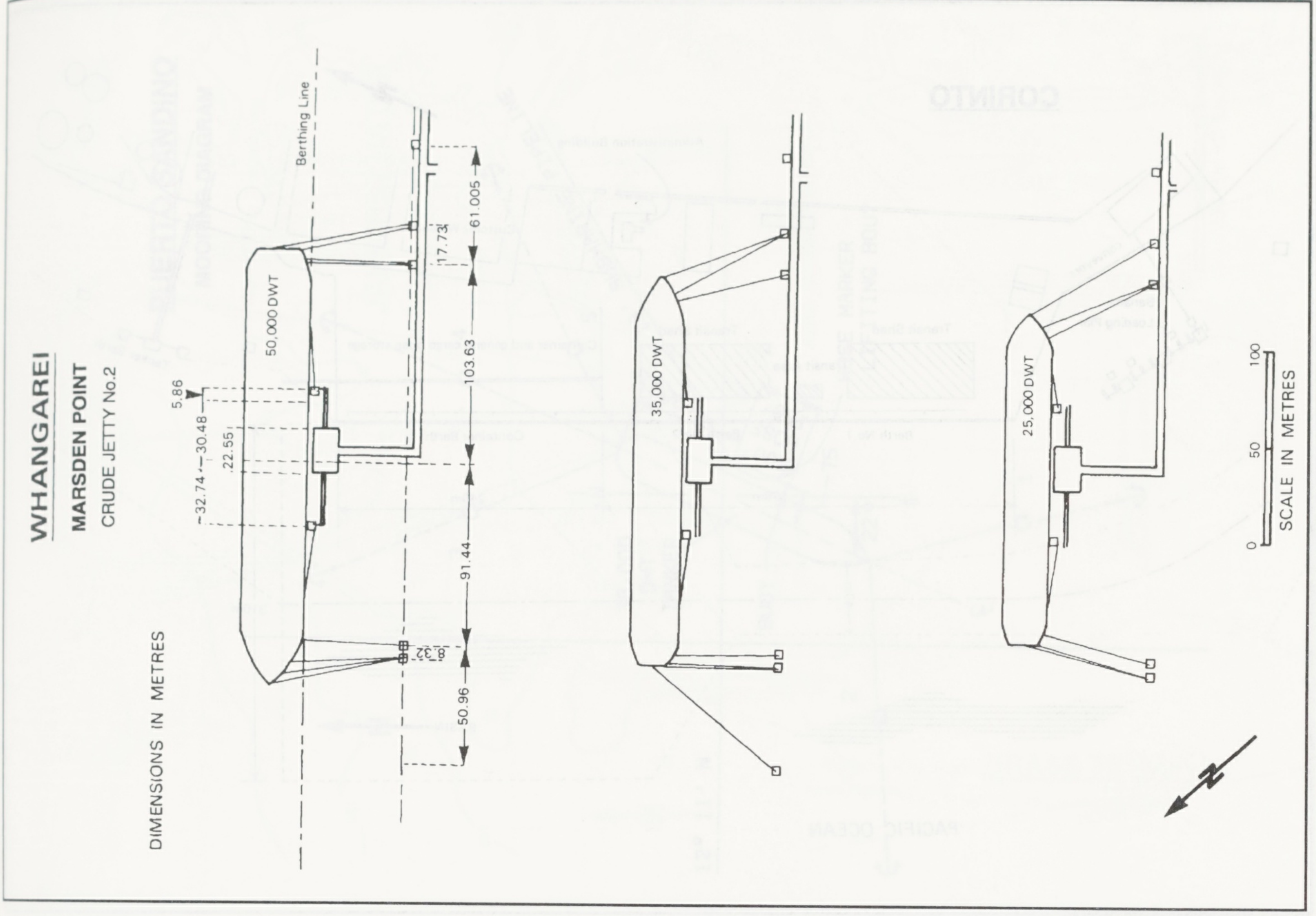

DIMENSIONS IN METRES
15.35
32.02
14.24
20.82
8.47
145,000 DWT
Berthing Line
33.02
43.28
61.005
79.25
91.44
30.02
50.96
51.82
135,000 DWT
90,000 DWT
0
50
100

WHANGAREI

MARSDEN POINT

CRUDE JETTY No.1


DIMENSIONS IN METRES
15.35
32.02
14.24
20.82
8.47
50,000 DWT
Berthing Line
33.02
43.28
61.005
79.25
91.44
30.02
50.96
51.82
25,000 DWT
15,000 DWT
0
50
100
SCALE IN METRES

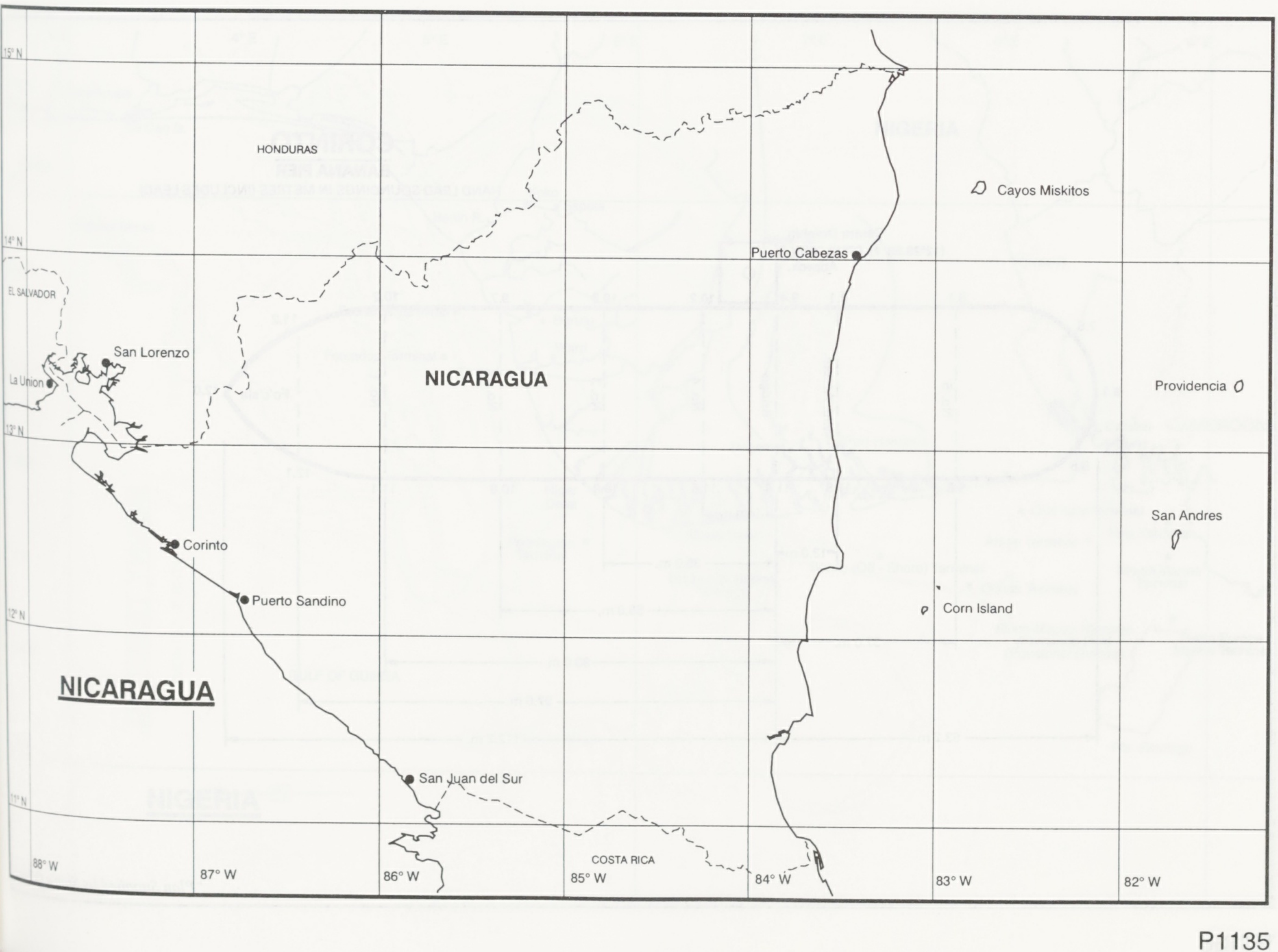


WHANGAREI

MARSDEN POINT

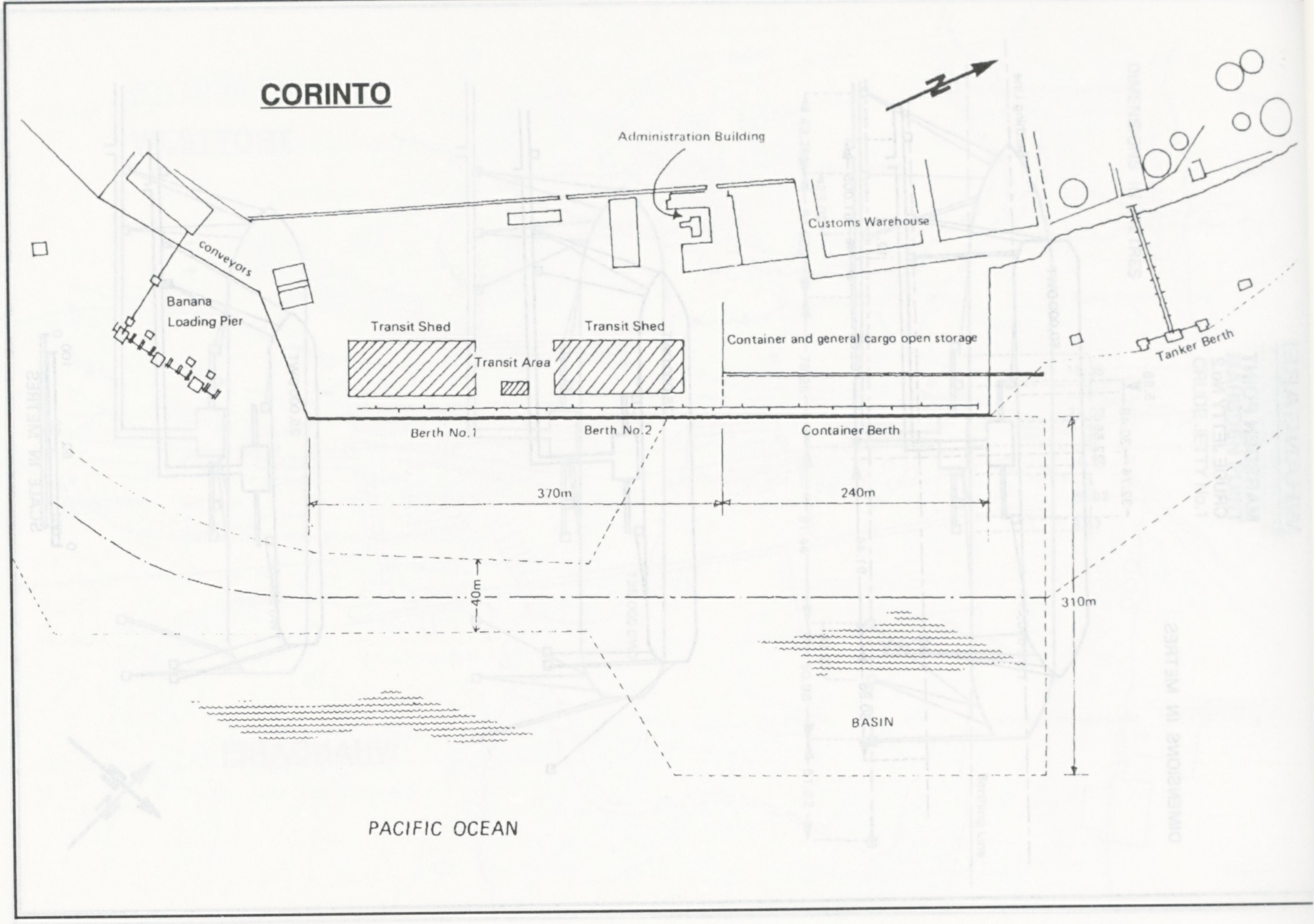
CRUDE JETTY No.2

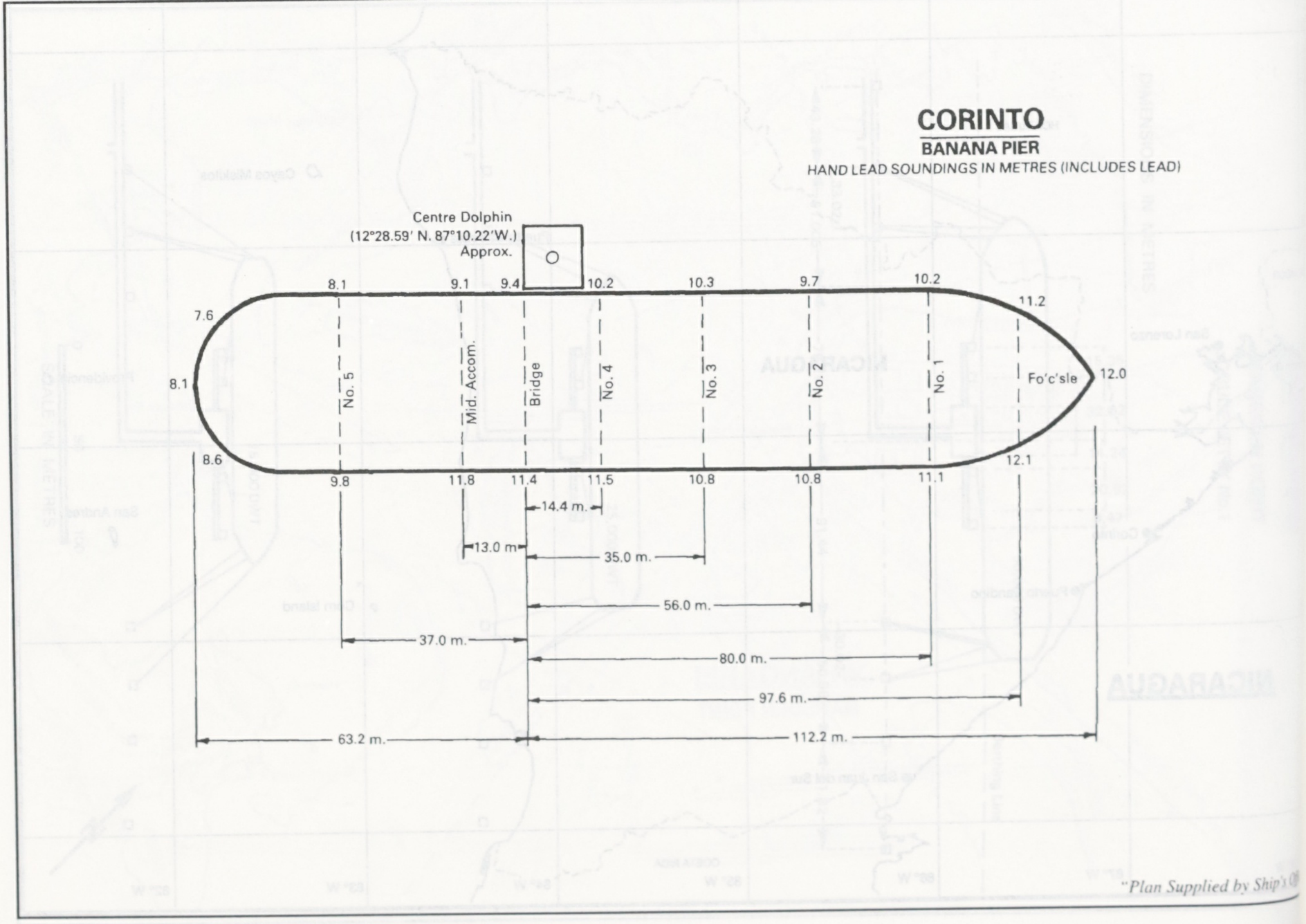
DIMENSIONS IN METRES
Berthing Line
61.005
17.73
103.63
91.44
8.32
50.96
5.86
30.48
32.74
22.55
50,000 DWT
35,000 DWT
25,000 DWT
0
50
100
SCALE IN METRES



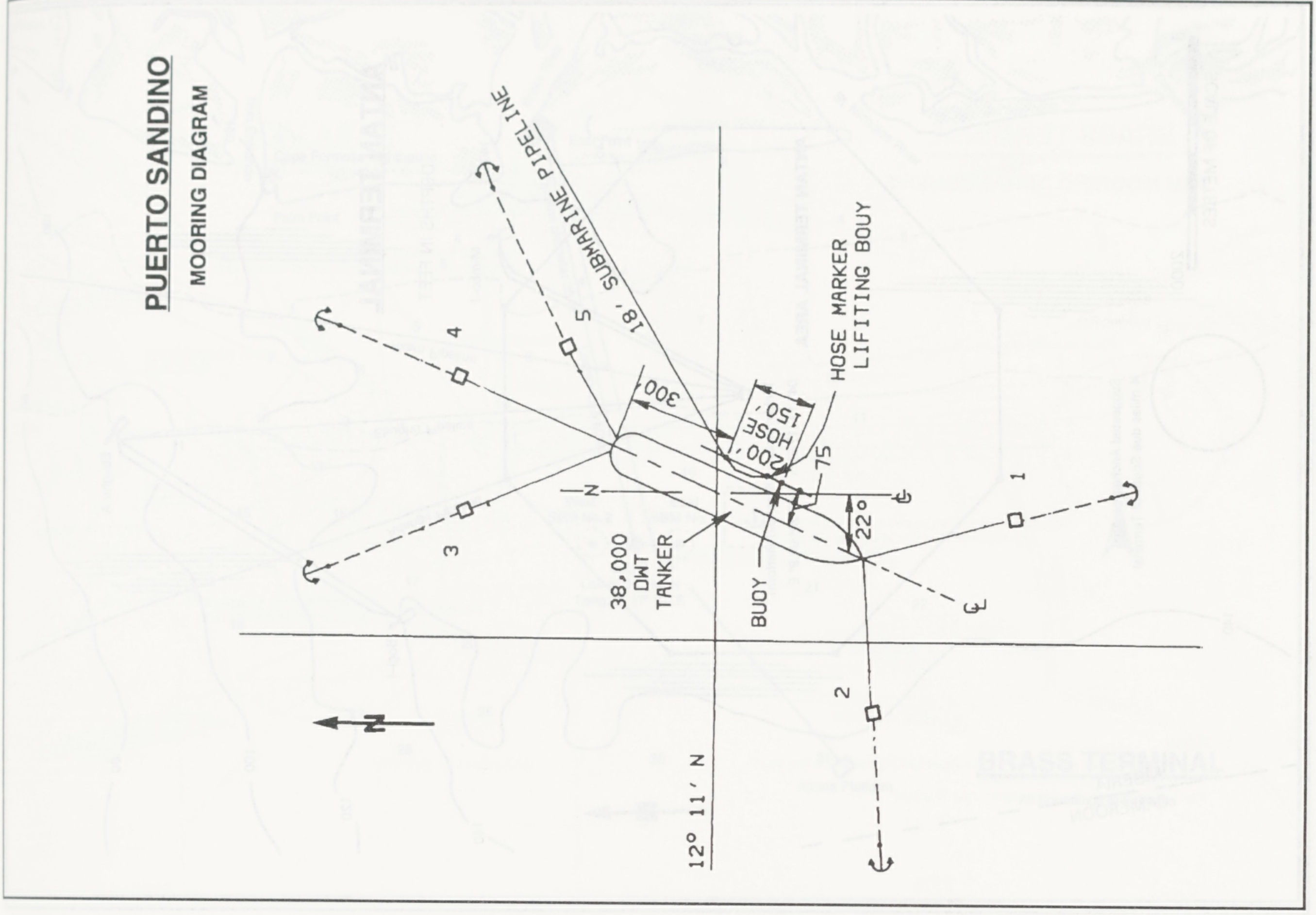
NICARAGUA

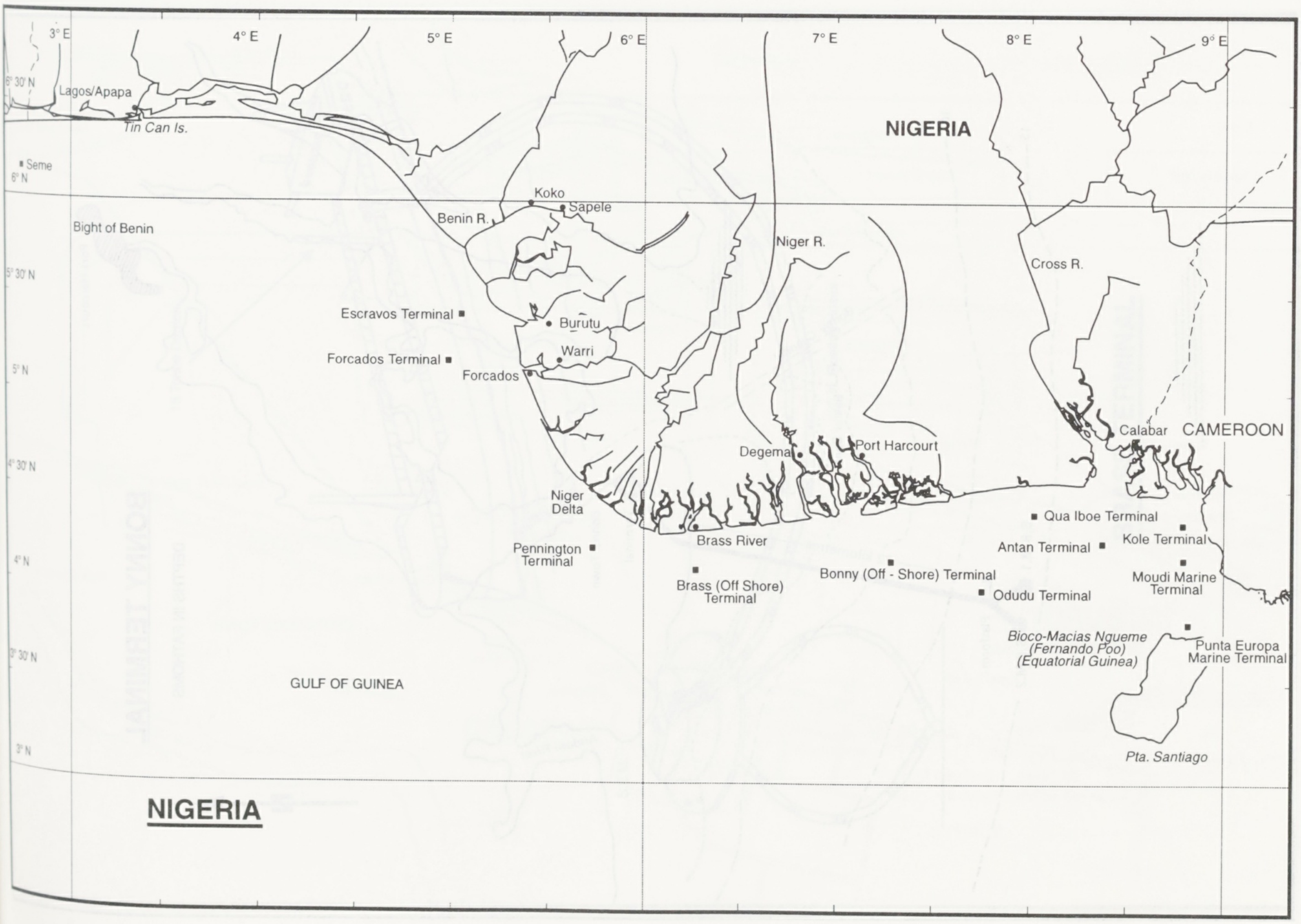
15° N
14° N
13° N
12° N
11° N
HONDURAS
Cayos Miskitos
Puerto Cabezas
EL SALVADOR
San Lorenzo
La Union
NICARAGUA
Providencia
San Andres
Corinto
Puerto Sandino
Corn Island
San Juan del Sur
COSTA RICA
88° W
87° W
86° W
85° W
84° W
83° W
82° W

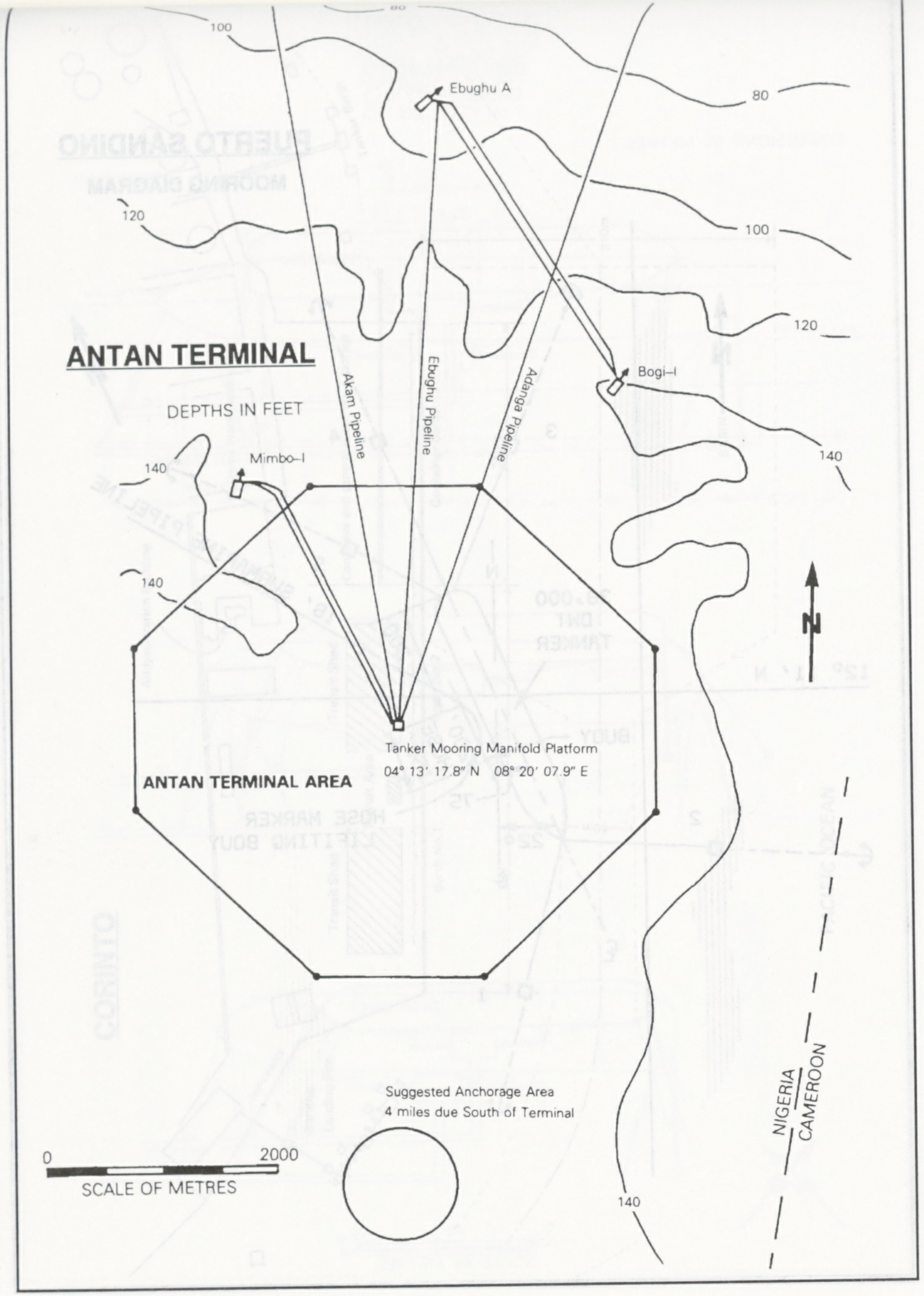

CORINTO
Administration Building
Customs Warehouse
conveyors
Banana
Loading Pier
Transit Shed
Transit Area
Transit Shed
Container and general cargo open storage
Tanker Berth
Berth No.1
Berth No.2
Container Berth
370m
240m
40m
310m
BASIN
PACIFIC OCEAN

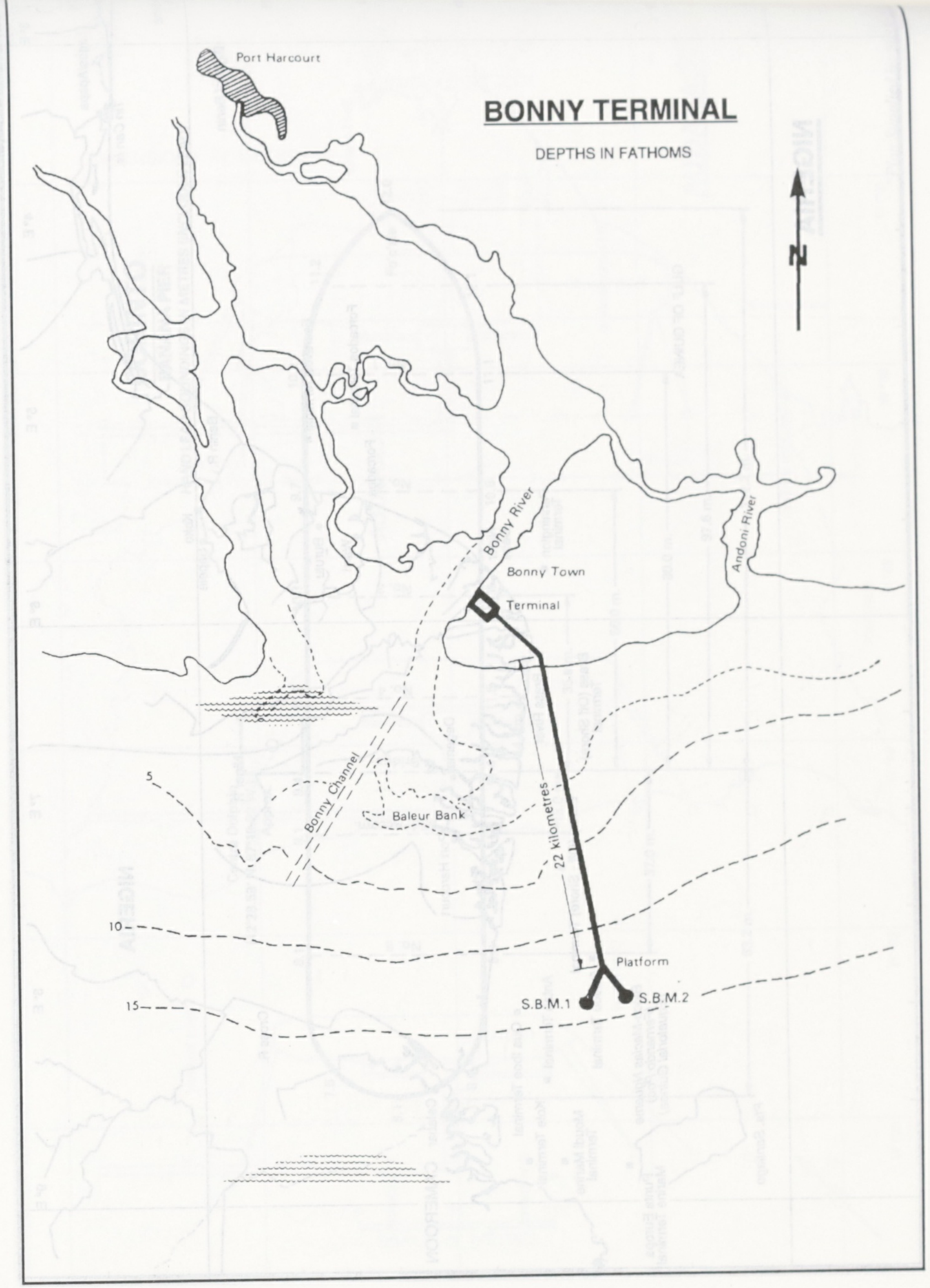

CORINTO
BANANA PIER
HAND LEAD SOUNDINGS IN METRES (INCLUDES LEAD)
Centre Dolphin
(12°28.59' N. 87°10.22'W.)
Approx.
8.1
9.1
9.4
10.2
10.3
9.7
10.2
11.2
7.6
8.1
12.0
8.6
12.1
9.8
11.8
11.4
11.5
10.8
10.8
11.1
No. 5
Mid. Accom.
Bridge
No. 4
No. 3
No. 2
No. 1
Fo'c'sle
14.4 m.
13.0 m.
35.0 m.
56.0 m.
37.0 m.
80.0 m.
97.6 m.
63.2 m.
112.2 m.

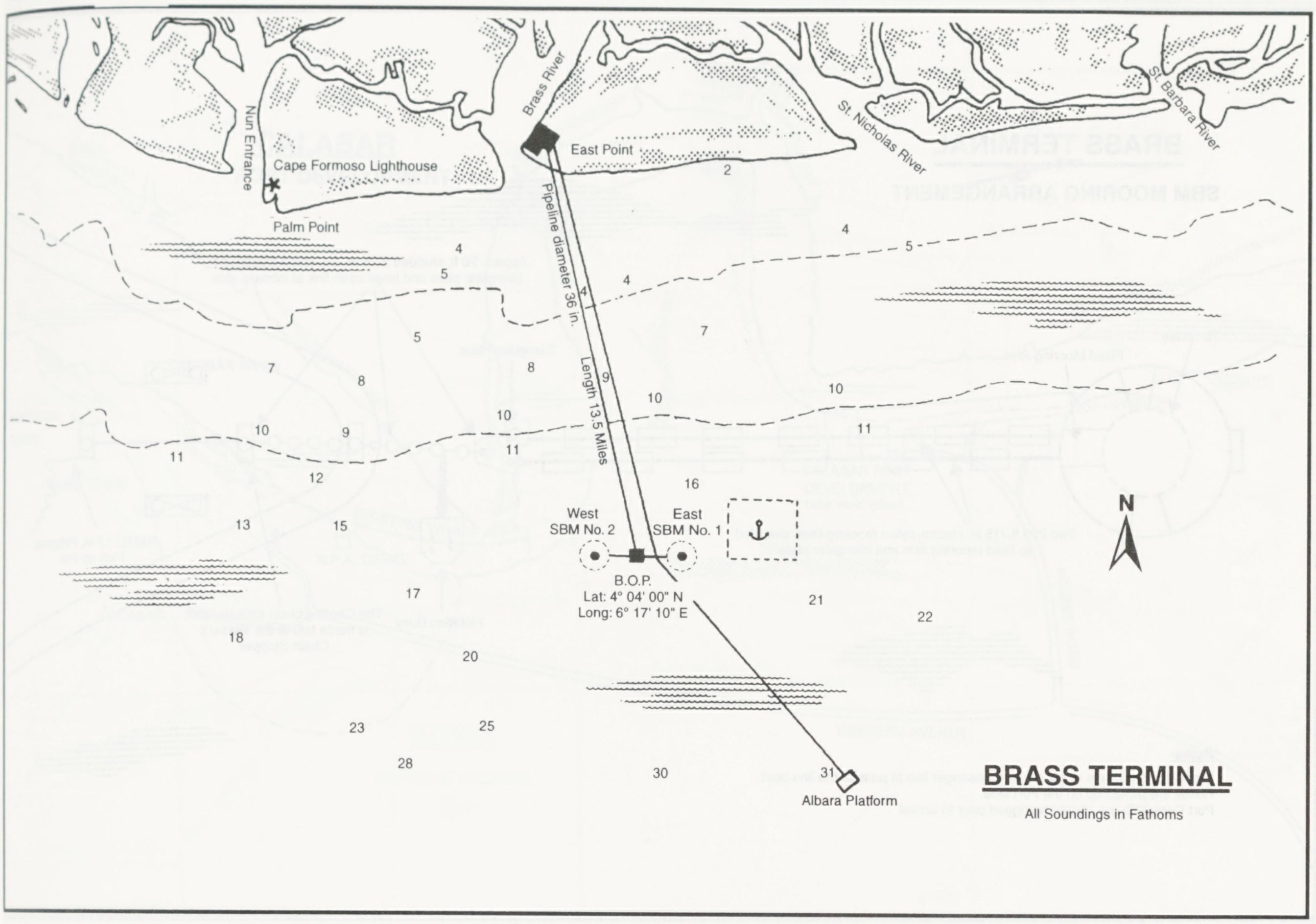
“Plan Supplied by Ship's

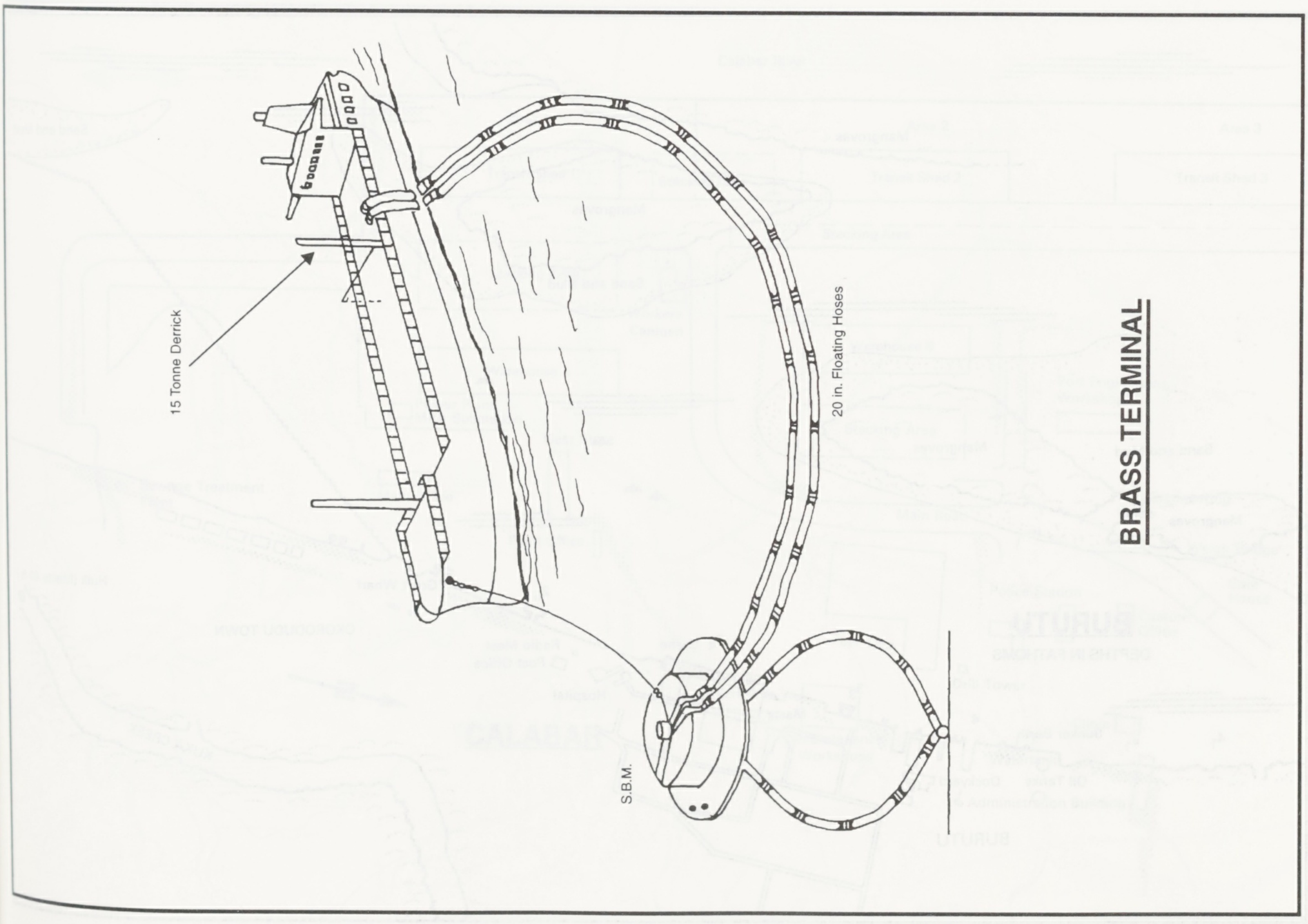

PUERTO SANDINO
MOORING DIAGRAM
18' SUBMARINE PIPELINE
HOSE MARKER
LIFITING BOUY
300'
200' HOSE
150'
75'
22°
38,000 DWT TANKER
BUOY
N
12° 11' N
1
2
3
4
5

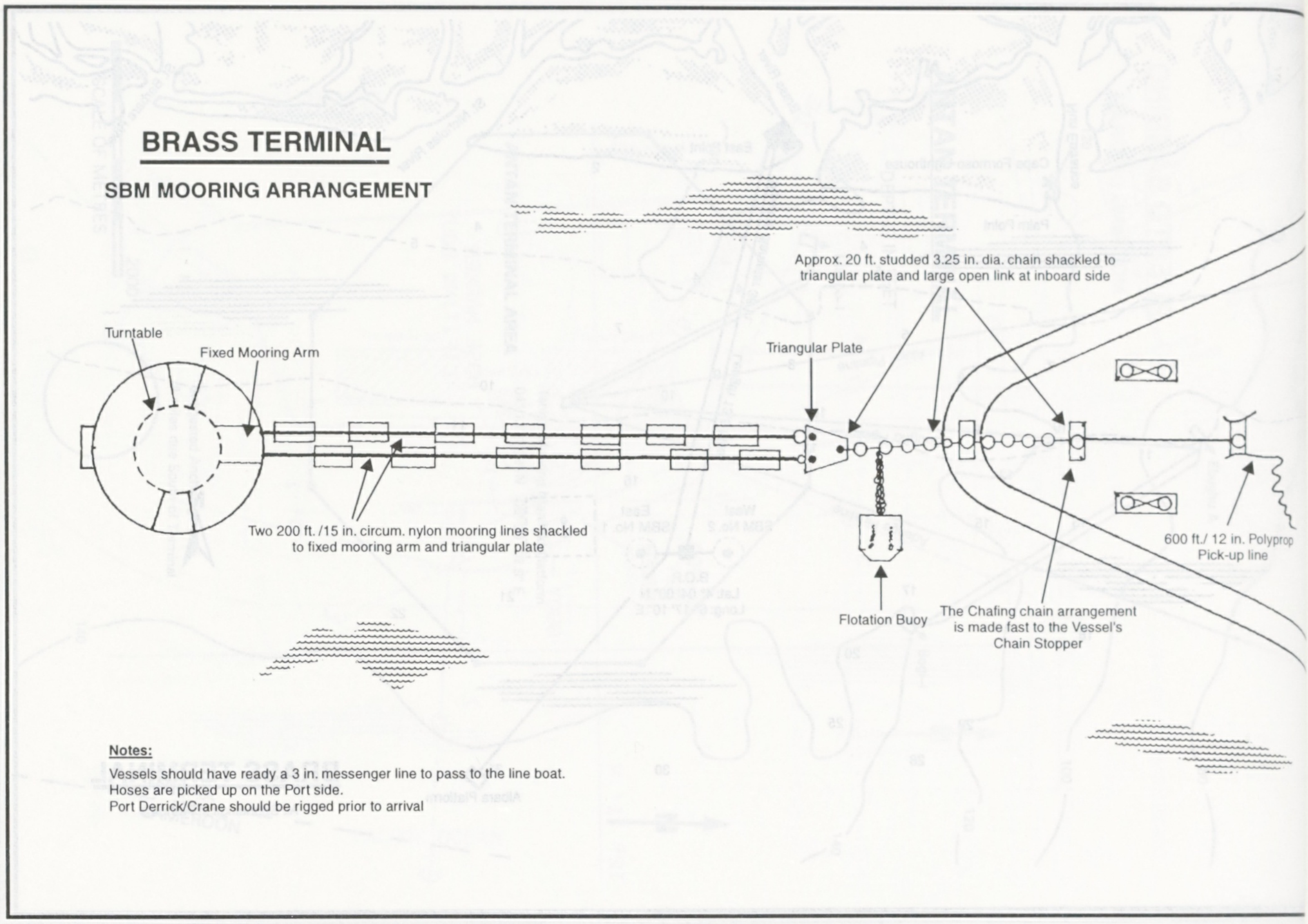

NIGERIA
3° E
4° E
5° E
6° E
7° E
8° E
9° E
6° 30' N
6° N
5° 30' N
5° N
4° 30' N
4° N
3° 30' N
3° N
Lagos/Apapa
Tin Can Is.
Seme
Bight of Benin
Benin R.
Koko
Sapele
Escravos Terminal
Burutu
Forcados Terminal
Warri
Forcados
Niger R.
Cross R.
Calabar
CAMEROON
Degema
Port Harcourt
Niger Delta
Brass River
Pennington Terminal
Brass (Off Shore) Terminal
Bonny (Off - Shore) Terminal
Qua Iboe Terminal
Antan Terminal
Kole Terminal
Odudu Terminal
Moudi Marine Terminal
Bioco-Macias Ngueme (Fernando Poo) (Equatorial Guinea)
Punta Europa Marine Terminal
Pta. Santiago
GULF OF GUINEA


100
80
Ebughu A
80
120
100
120
Bogi–I
ANTAN TERMINAL
DEPTHS IN FEET
Akam Pipeline
Ebughu Pipeline
Adanga Pipeline
140
Mimbo–I
140
140
N
Tanker Mooring Manifold Platform
04° 13′ 17.8″ N 08° 20′ 07.9″ E
ANTAN TERMINAL AREA
Suggested Anchorage Area
4 miles due South of Terminal
0
2000
SCALE OF METRES
140
NIGERIA
CAMEROON


Port Harcourt
BONNY TERMINAL
DEPTHS IN FATHOMS
N
Bonny River
Andoni River
Bonny Town
Terminal
Bonny Channel
Baleur Bank
22 kilometres
5
10
15
Platform
S.B.M.1
S.B.M.2


Brass River
St. Nicholas River
St. Barbara River
Nun Entrance
Cape Formoso Lighthouse
East Point
Palm Point
Pipeline diameter 36 in.
Length 13.5 Miles
West SBM No. 2
East SBM No. 1
B.O.P.
Lat: 4° 04' 00" N
Long: 6° 17' 10" E
N
Albara Platform
2
4
5
4
5
4
4
7
5
7
8
8
9
10
10
10
10
9
11
11
11
12
13
15
16
17
18
20
21
22
23
25
28
30
31
BRASS TERMINAL
All Soundings in Fathoms


15 Tonne Derrick
20 in. Floating Hoses
S.B.M.
BRASS TERMINAL



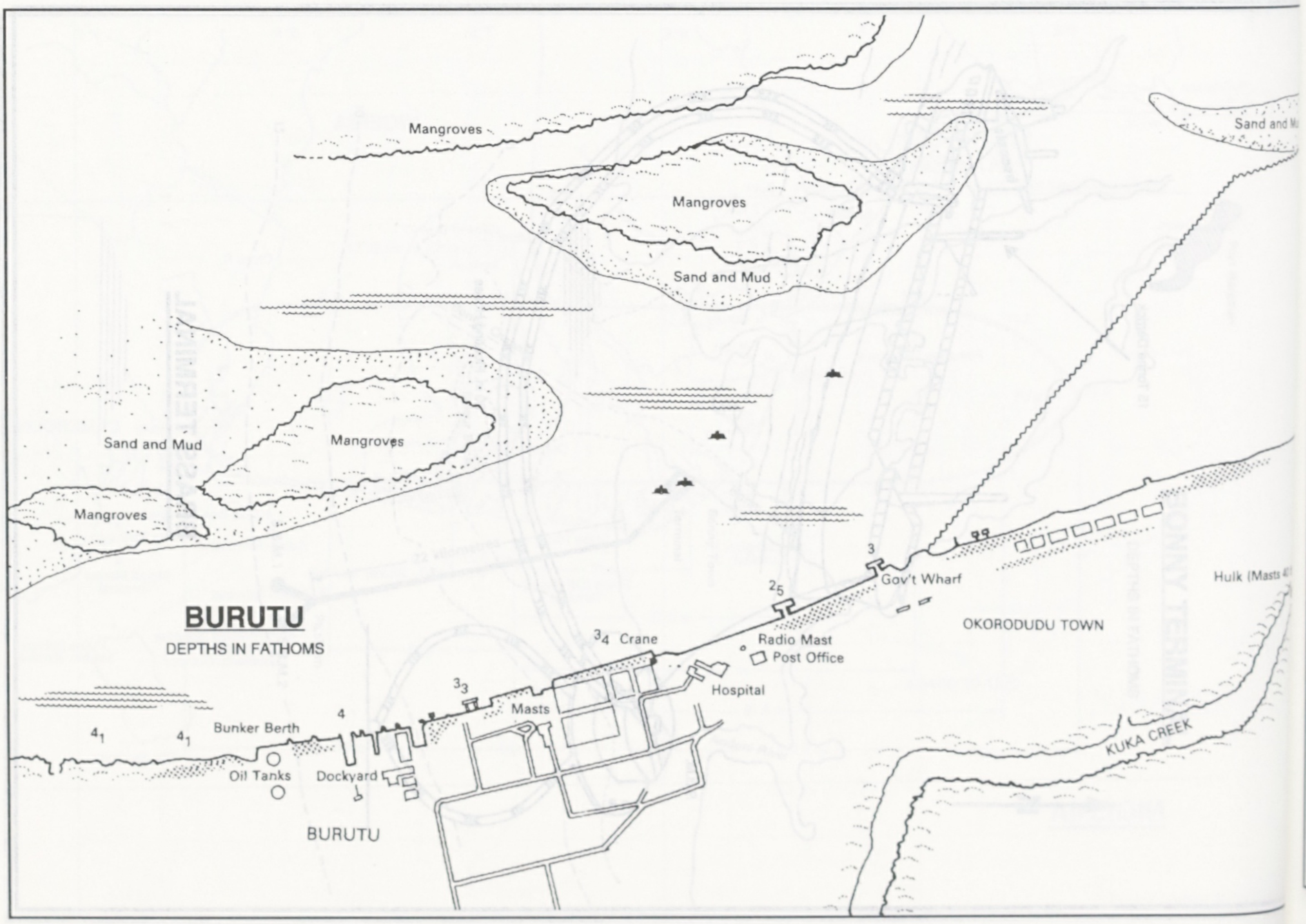
BRASS TERMINAL

SBM MOORING ARRANGEMENT

Approx. 20 ft. studded 3.25 in. dia. chain shackled to triangular plate and large open link at inboard side
Turntable
Fixed Mooring Arm
Triangular Plate
Two 200 ft. /15 in. circum. nylon mooring lines shackled to fixed mooring arm and triangular plate
Flotation Buoy
The Chafing chain arrangement is made fast to the Vessel's Chain Stopper
600 ft./ 12 in. Polyprop Pick-up line

Notes:

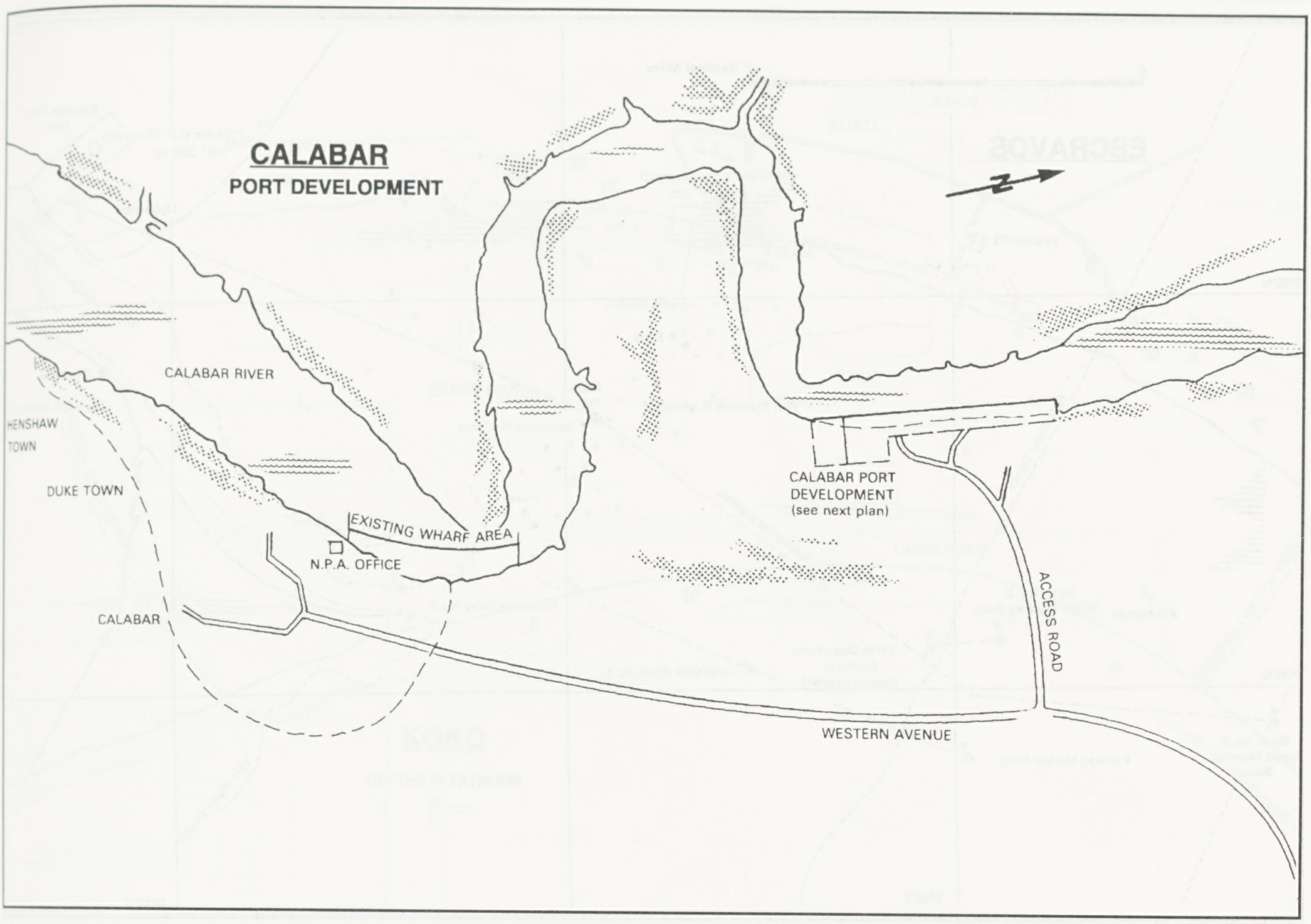
Vessels should have ready a 3 in. messenger line to pass to the line boat.
Hoses are picked up on the Port side.
Port Derrick/Crane should be rigged prior to arrival

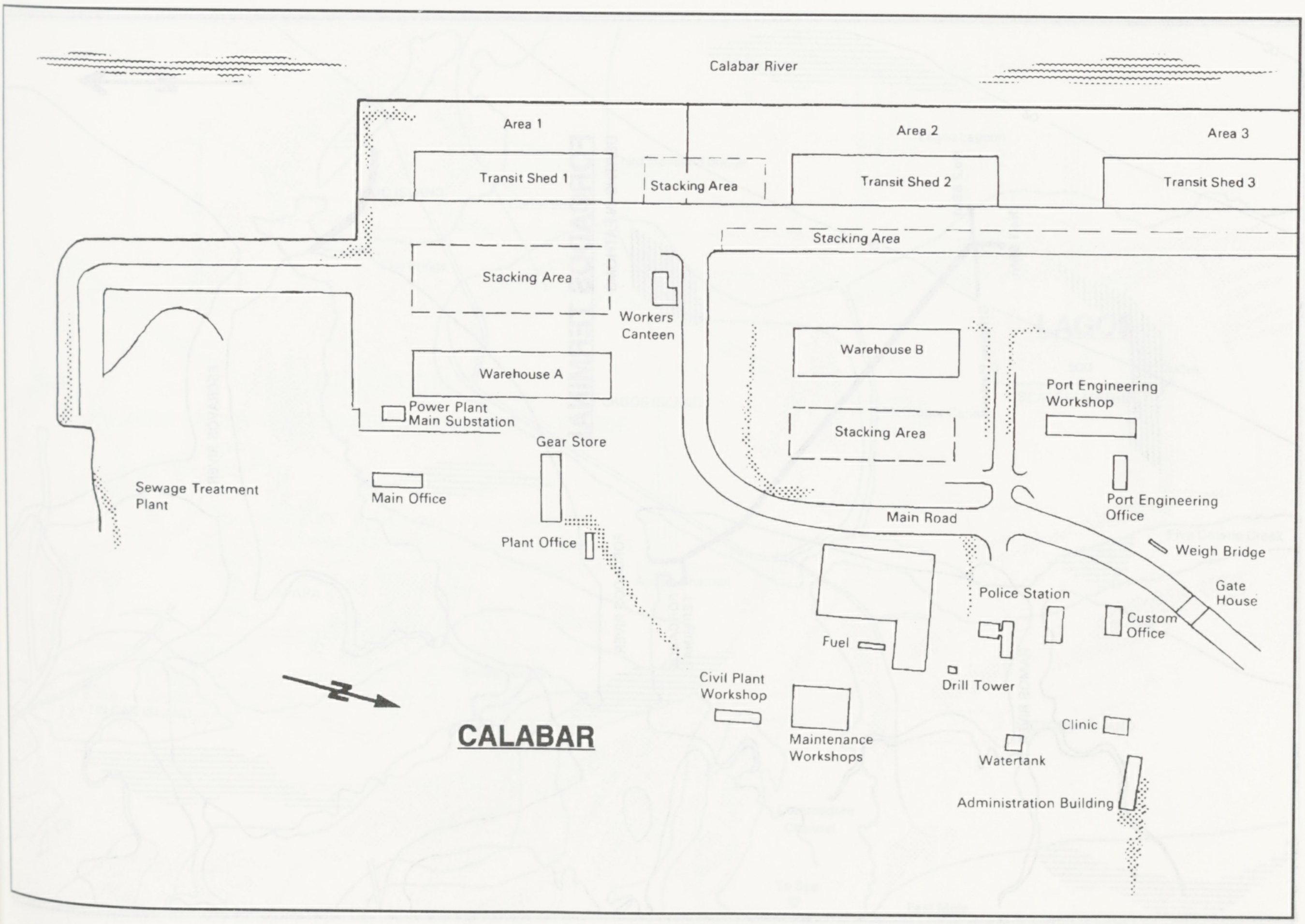


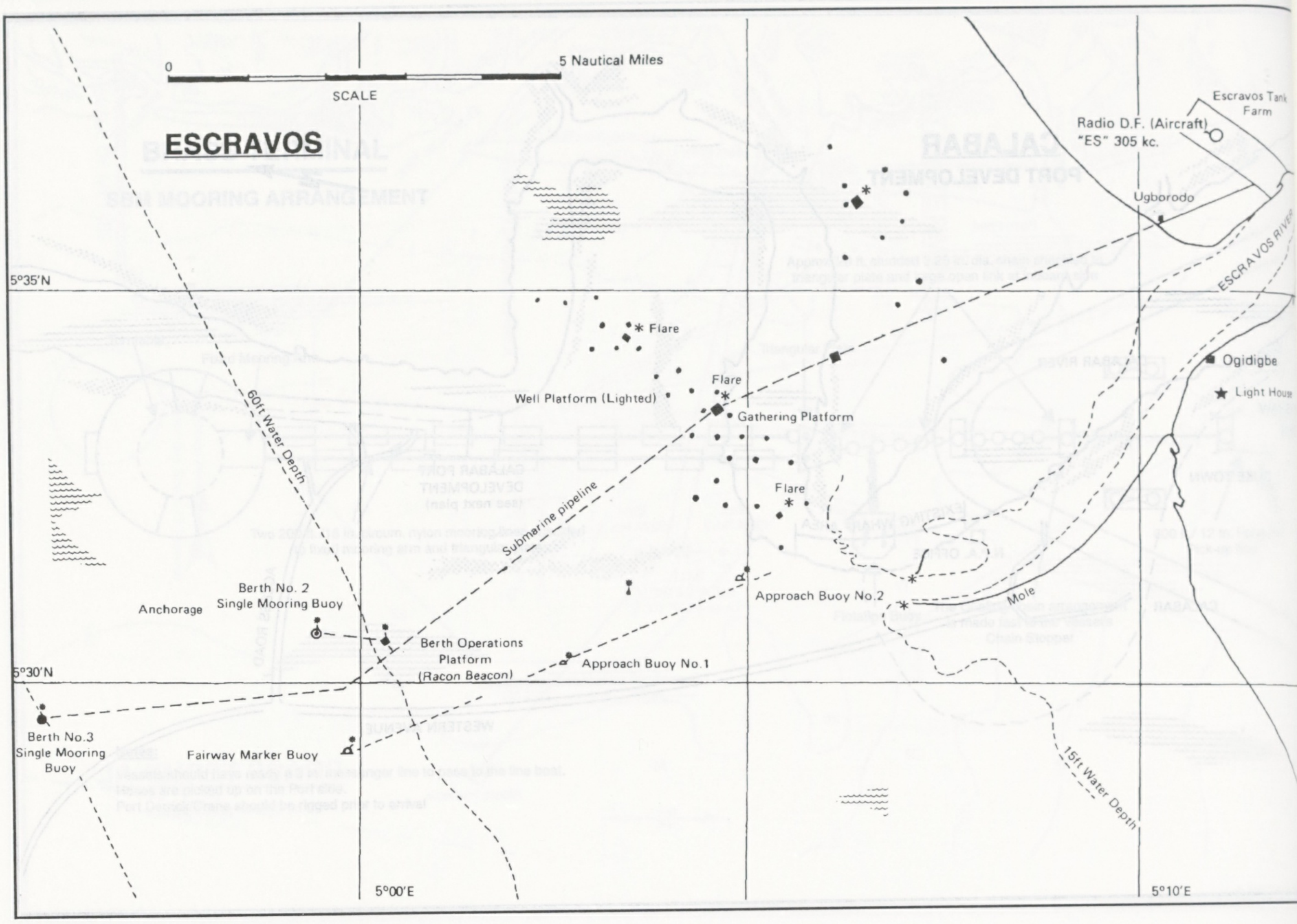
BURUTU

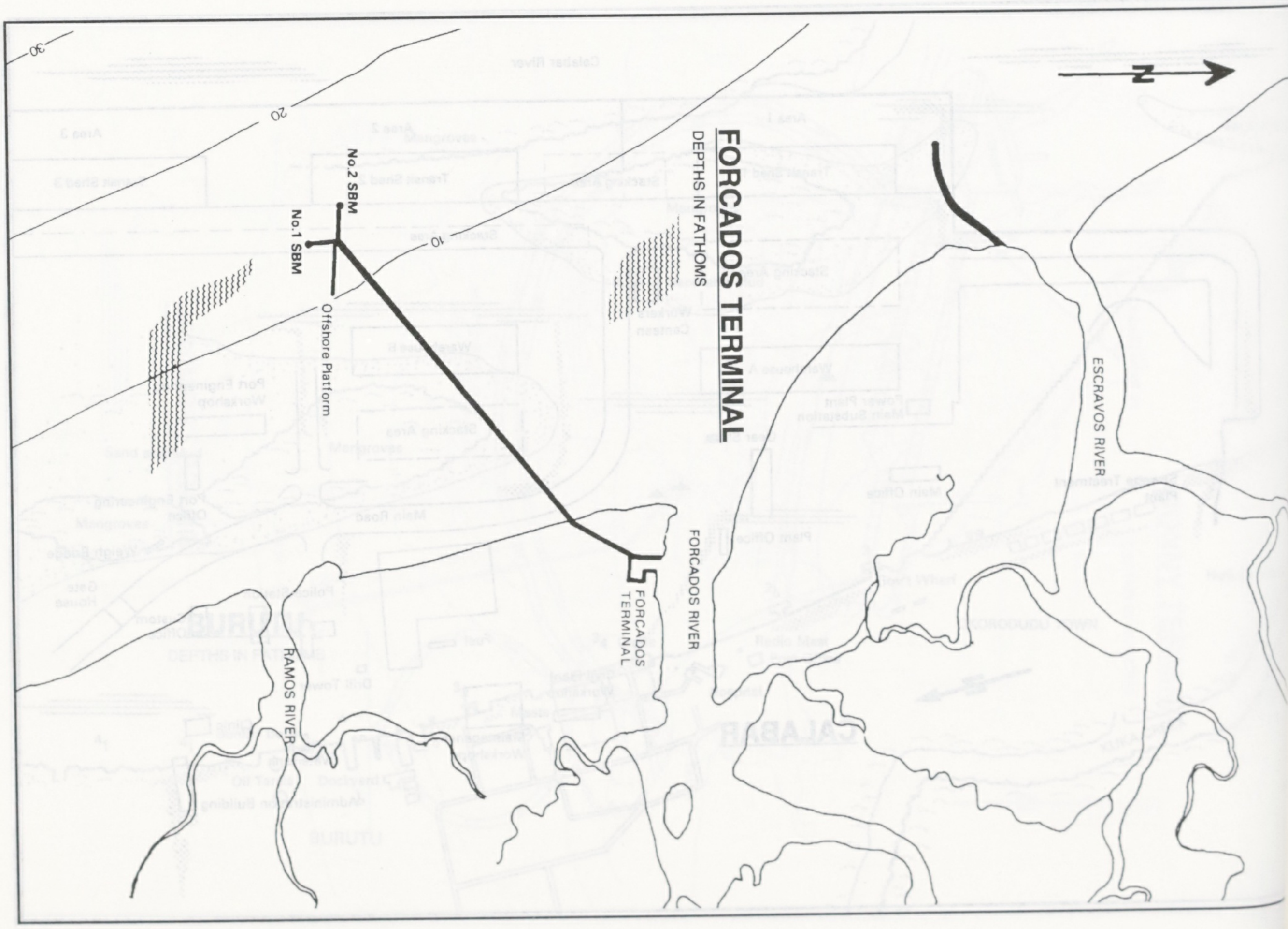
DEPTHS IN FATHOMS

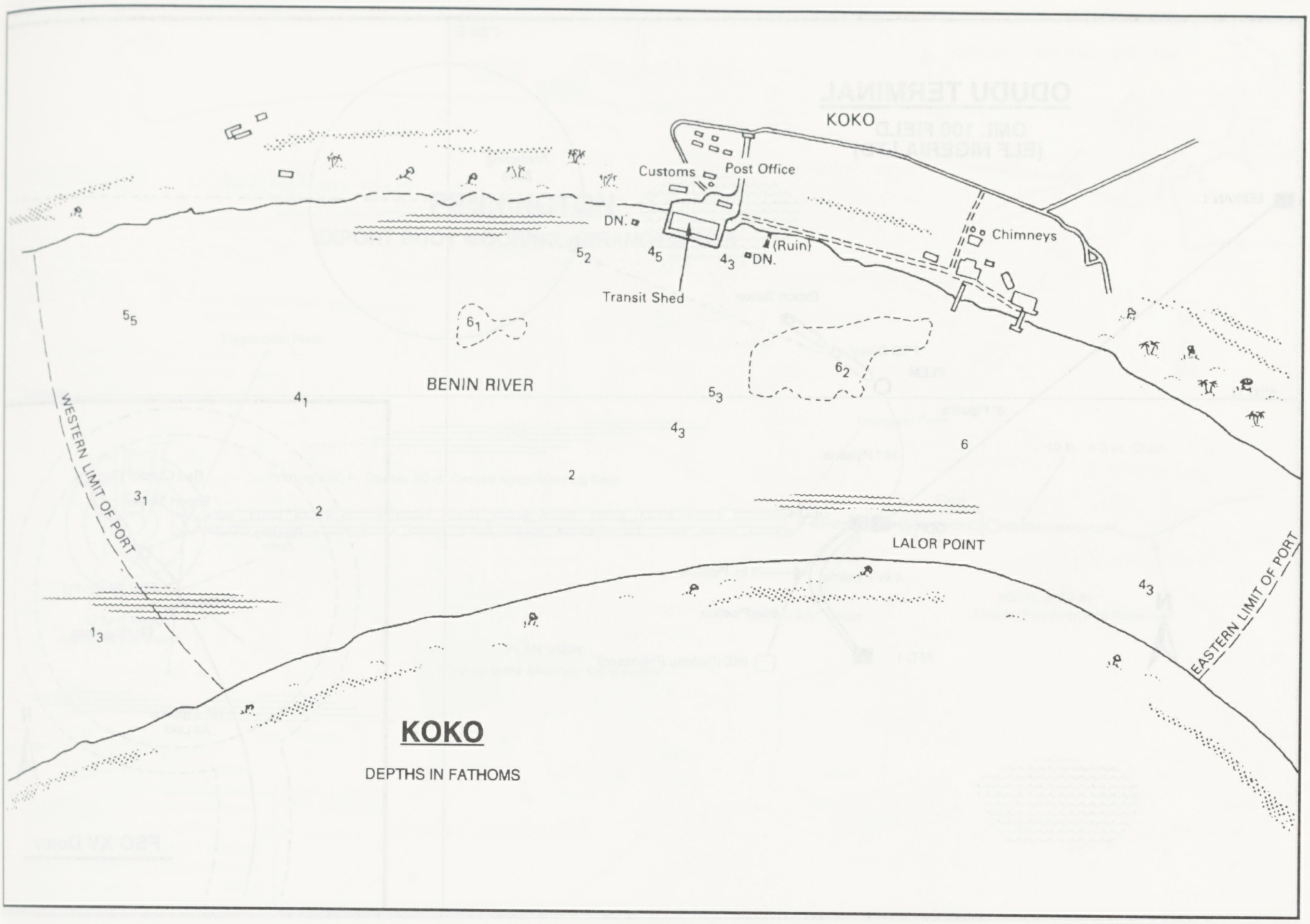
Mangroves
Sand and Mu
Mangroves
Sand and Mud
Sand and Mud
Mangroves
Mangroves
3
Gov't Wharf
2₅
Hulk (Masts 4
OKORODUDU TOWN
3₄ Crane
Radio Mast
Post Office
Hospital
3₃
Masts
4₁
4₁
Bunker Berth
4
Oil Tanks
Dockyard
BURUTU
KUKA CREEK

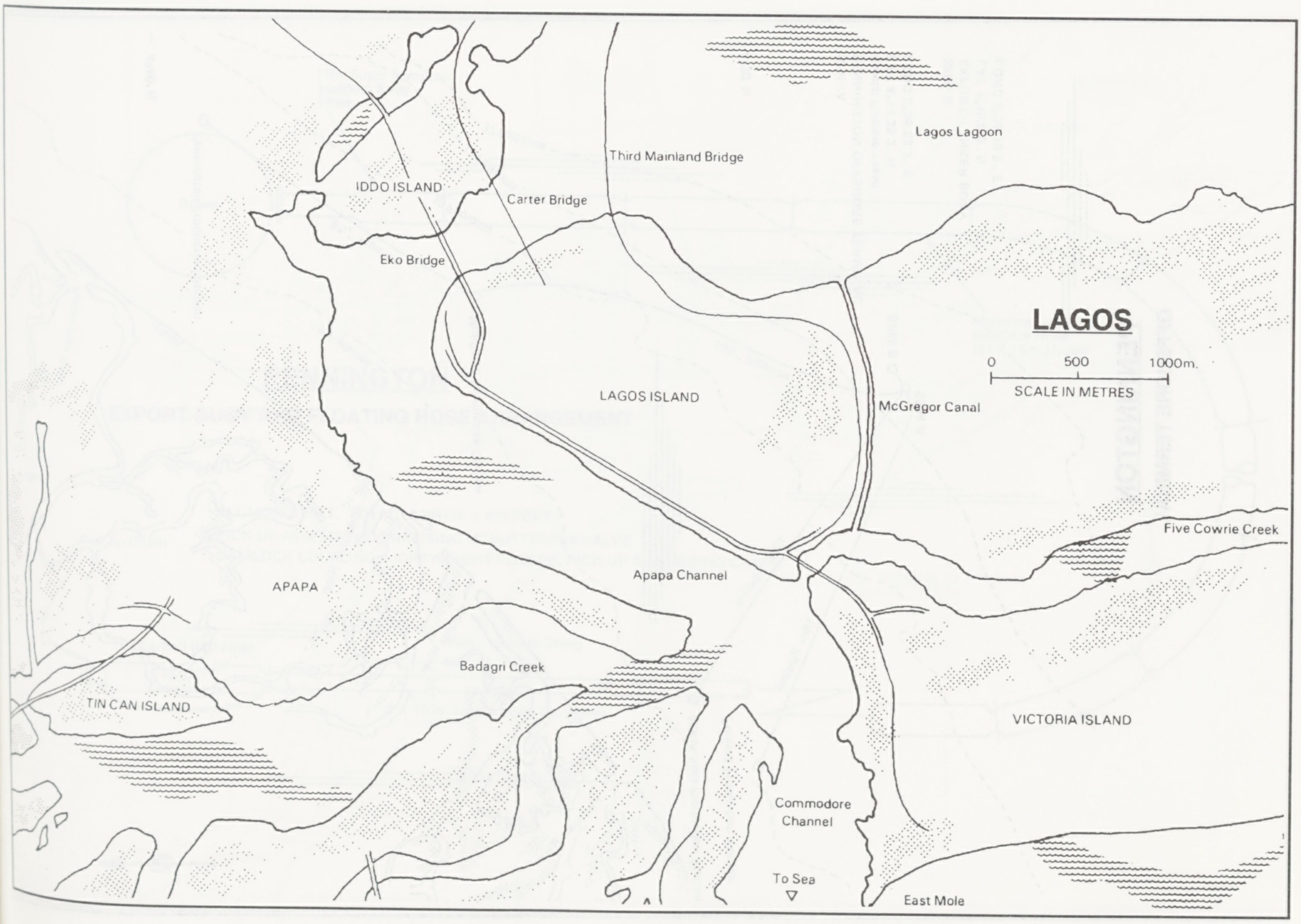

CALABAR
PORT DEVELOPMENT
CALABAR RIVER
HENSHAW TOWN
DUKE TOWN
EXISTING WHARF AREA
N.P.A. OFFICE
CALABAR
CALABAR PORT DEVELOPMENT (see next plan)
ACCESS ROAD
WESTERN AVENUE
N

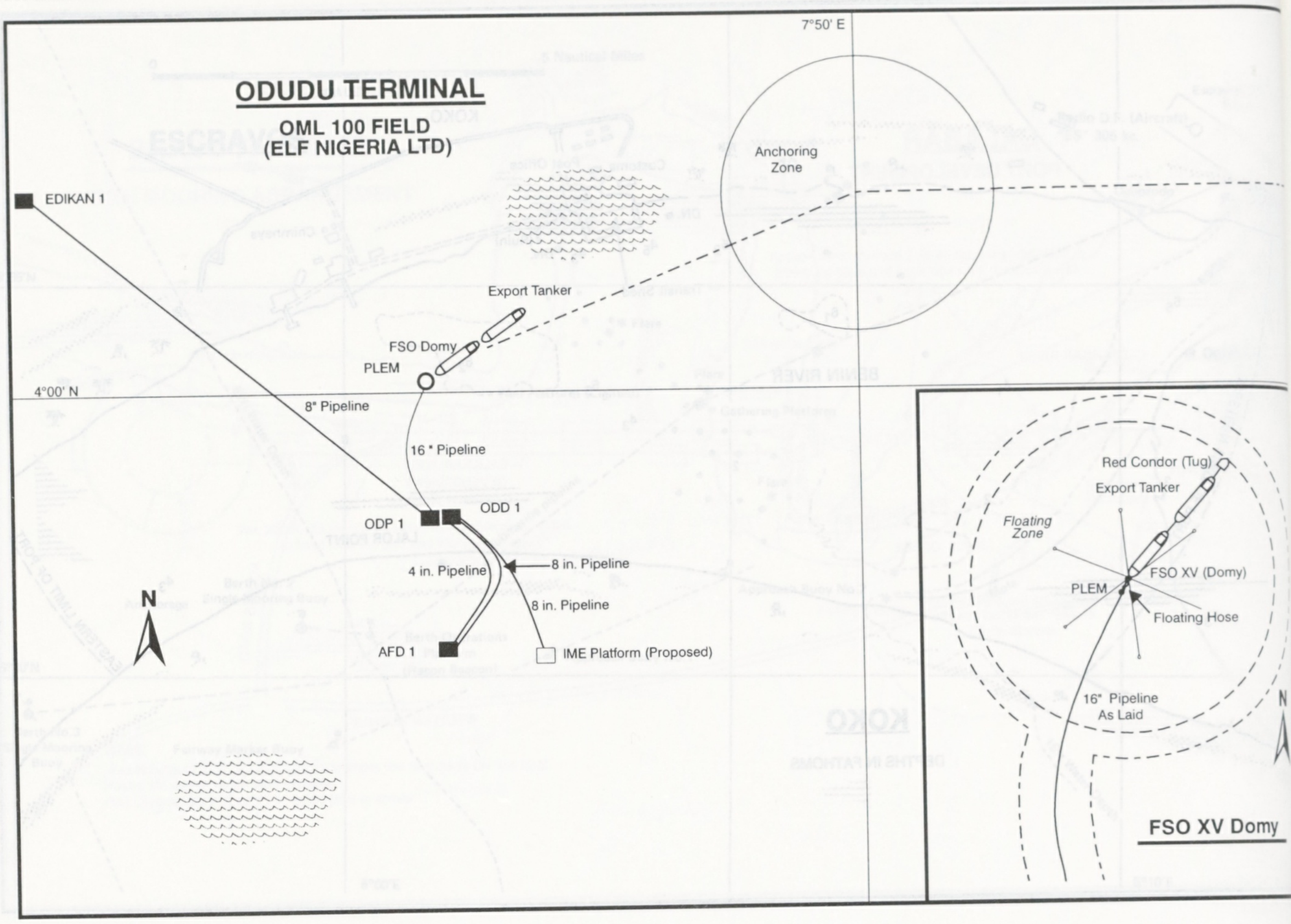

Calabar River
Area 1
Area 2
Area 3
Transit Shed 1
Stacking Area
Transit Shed 2
Transit Shed 3
Stacking Area
Stacking Area
Workers Canteen
Warehouse A
Warehouse B
Stacking Area
Port Engineering Workshop
Power Plant Main Substation
Gear Store
Sewage Treatment Plant
Main Office
Plant Office
Main Road
Port Engineering Office
Weigh Bridge
Gate House
Police Station
Custom Office
Fuel
Drill Tower
Civil Plant Workshop
Maintenance Workshops
Clinic
Watertank
Administration Building
N
CALABAR

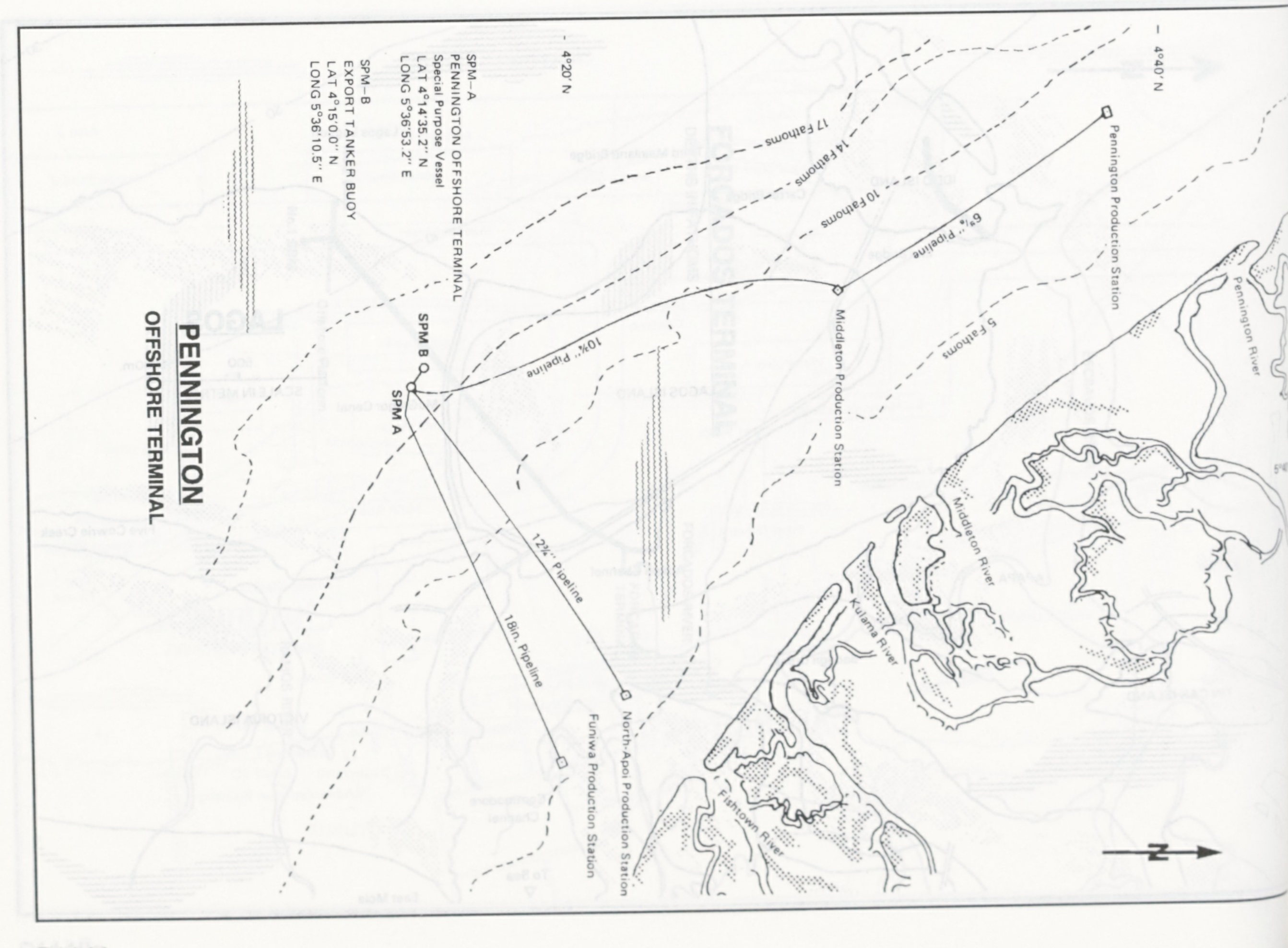

0
5 Nautical Miles
SCALE
ESCRAVOS
Escravos Tank Farm
Radio D.F. (Aircraft)
"ES" 305 kc.
Ugborodo
ESCRAVOS RIVER
5°35'N
Flare
Flare
Well Platform (Lighted)
Gathering Platform
Ogidigbe
Light House
60ft Water Depth
Submarine pipeline
Flare
Approach Buoy No.2
Mole
Berth No. 2
Single Mooring Buoy
Anchorage
Berth Operations
Platform
(Racon Beacon)
Approach Buoy No.1
5°30'N
Berth No.3
Single Mooring
Buoy
Fairway Marker Buoy
15ft Water Depth
5°00'E
5°10'E


30
20
10
N
FORCADOS TERMINAL
DEPTHS IN FATHOMS
No.2 SBM
No.1 SBM
Offshore Platform
FORCADOS RIVER
FORCADOS TERMINAL
RAMOS RIVER
ESCRAVOS RIVER


KOKO
Customs
Post Office
DN.
Chimneys
(Ruin)
DN.
Transit Shed
5_2
4_5
4_3
5_5
6_1
6_2
BENIN RIVER
4_1
5_3
4_3
6
2
3_1
2
WESTERN LIMIT OF PORT
LALOR POINT
4_3
EASTERN LIMIT OF PORT
1_3
KOKO
DEPTHS IN FATHOMS

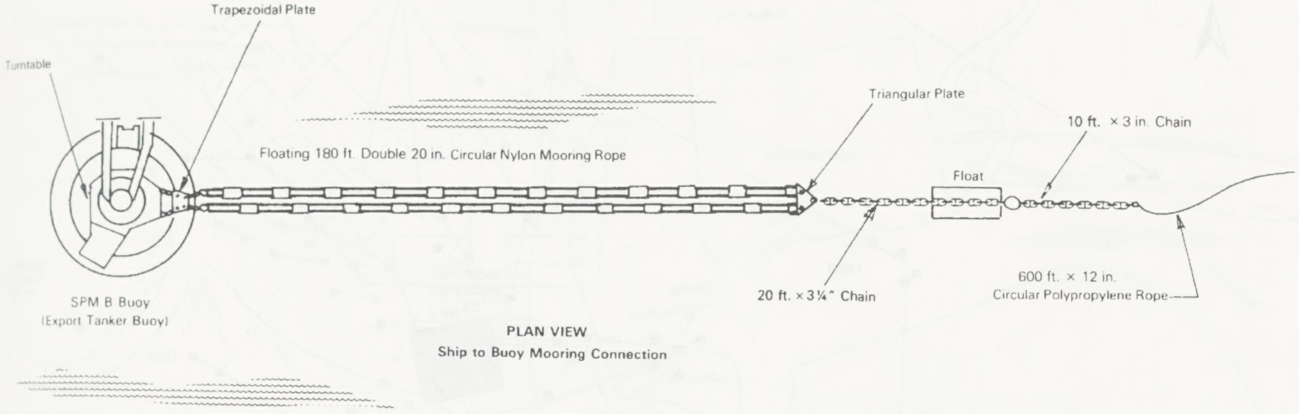

Lagos Lagoon
Third Mainland Bridge
IDDO ISLAND
Carter Bridge
Eko Bridge
LAGOS
0
500
1000m.
SCALE IN METRES
LAGOS ISLAND
McGregor Canal
Five Cowrie Creek
APAPA
Apapa Channel
Badagri Creek
TIN CAN ISLAND
VICTORIA ISLAND
Commodore Channel
To Sea
East Mole


ODUDU TERMINAL
OML 100 FIELD
(ELF NIGERIA LTD)
7°50' E
4°00' N
Anchoring Zone
Export Tanker
FSO Domy
PLEM
EDIKAN 1
8" Pipeline
16 " Pipeline
ODP 1
ODD 1
4 in. Pipeline
8 in. Pipeline
8 in. Pipeline
AFD 1
IME Platform (Proposed)
N
Red Condor (Tug)
Export Tanker
Floating Zone
FSO XV (Domy)
PLEM
Floating Hose
16" Pipeline As Laid
N
FSO XV Domy

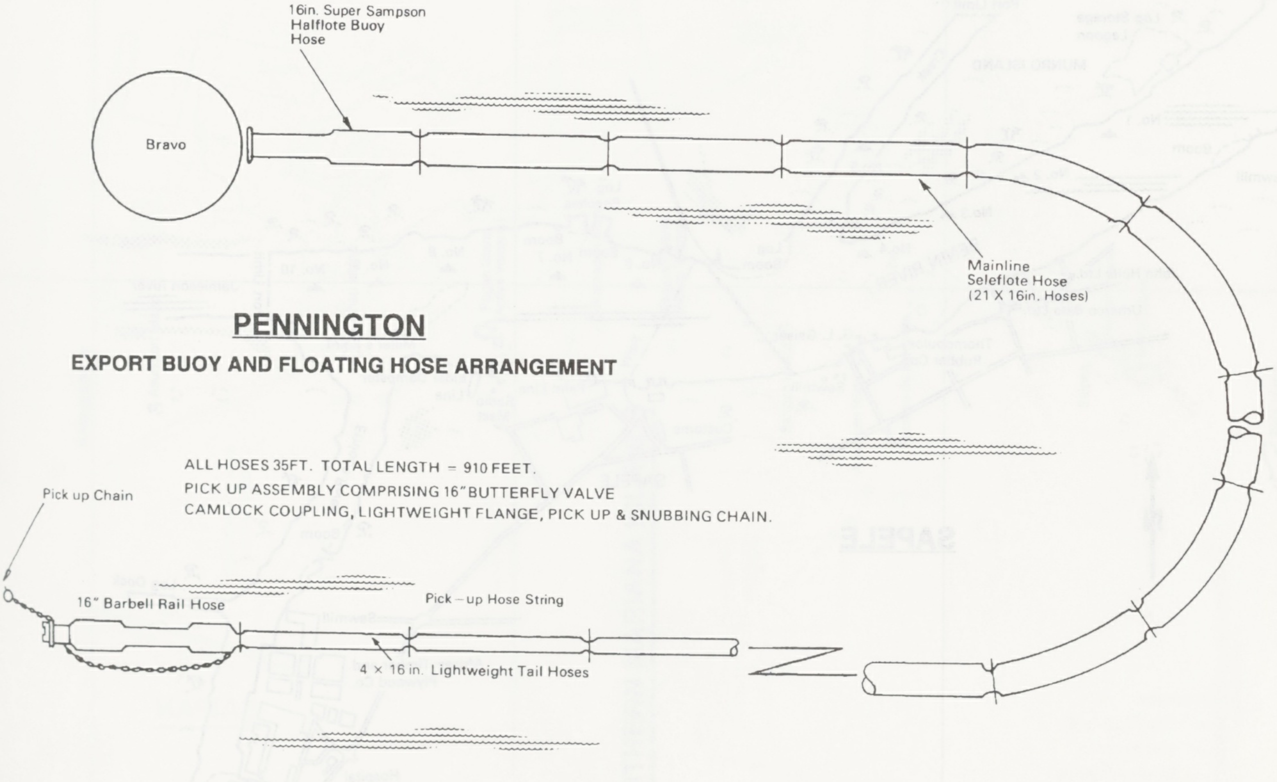

PENNINGTON
OFFSHORE TERMINAL
4°20' N
4°40' N
SPM–A
PENNINGTON OFFSHORE TERMINAL
Special Purpose Vessel
LAT 4°14'35.2" N
LONG 5°36'53.2" E
SPM–B
EXPORT TANKER BUOY
LAT 4°15'0.0" N
LONG 5°36'10.5" E
SPM B
SPM A
17 Fathoms
14 Fathoms
10 Fathoms
5 Fathoms
10¾" Pipeline
6⅝" Pipeline
12¾" Pipeline
18in. Pipeline
Pennington Production Station
Middleton Production Station
North Apoi Production Station
Funiwa Production Station
Pennington River
Middleton River
Kulama River
Fishtown River
N

PENNINGTON

EXPORT BUOY MOORING ARRANGEMENTS


Trapezoidal Plate
Turntable
Floating 180 ft. Double 20 in. Circular Nylon Mooring Rope
Triangular Plate
10 ft. × 3 in. Chain
Float
SPM B Buoy
(Export Tanker Buoy)
20 ft. × 3¼" Chain
600 ft. × 12 in.
Circular Polypropylene Rope

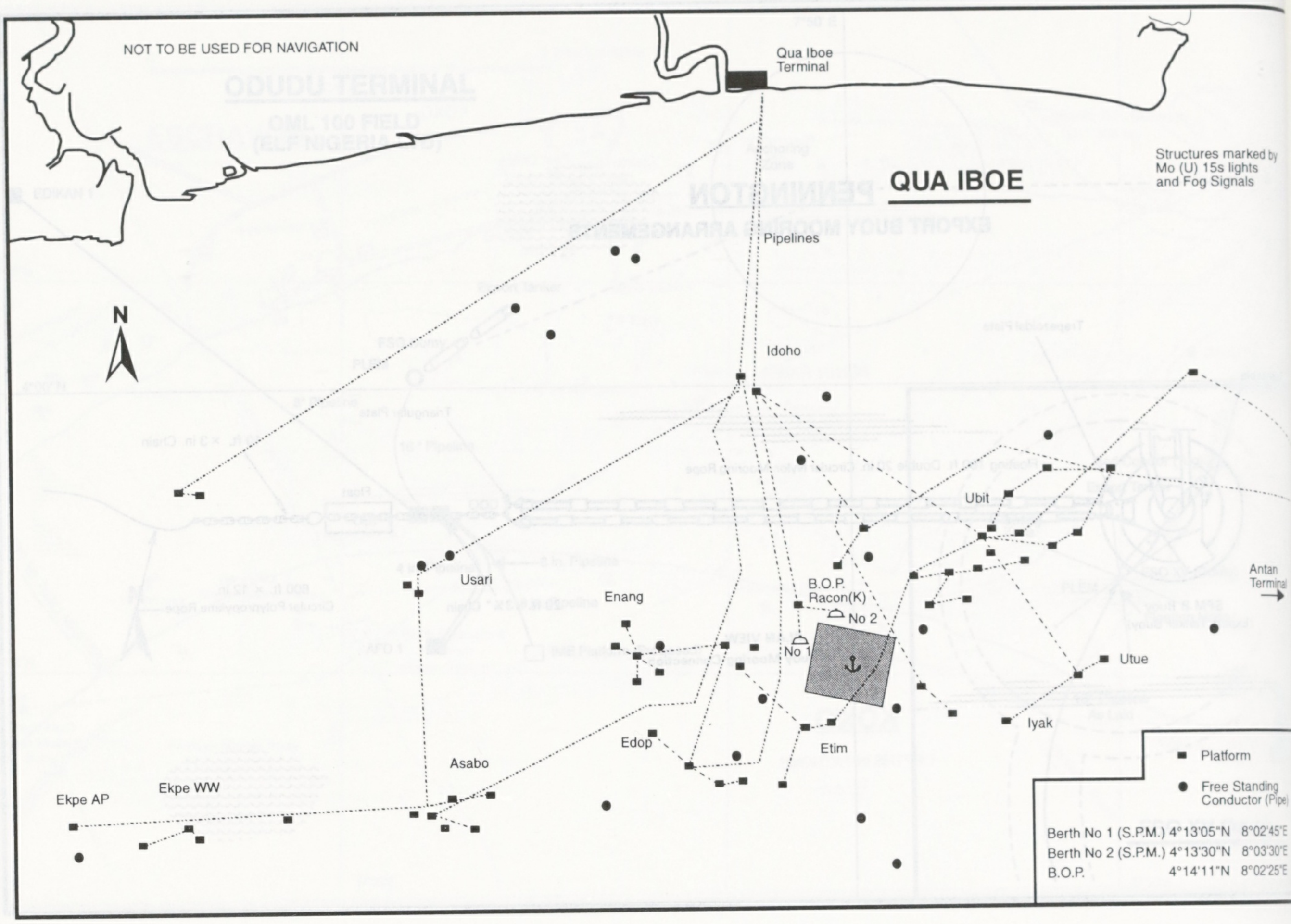
PLAN VIEW
Ship to Buoy Mooring Connection

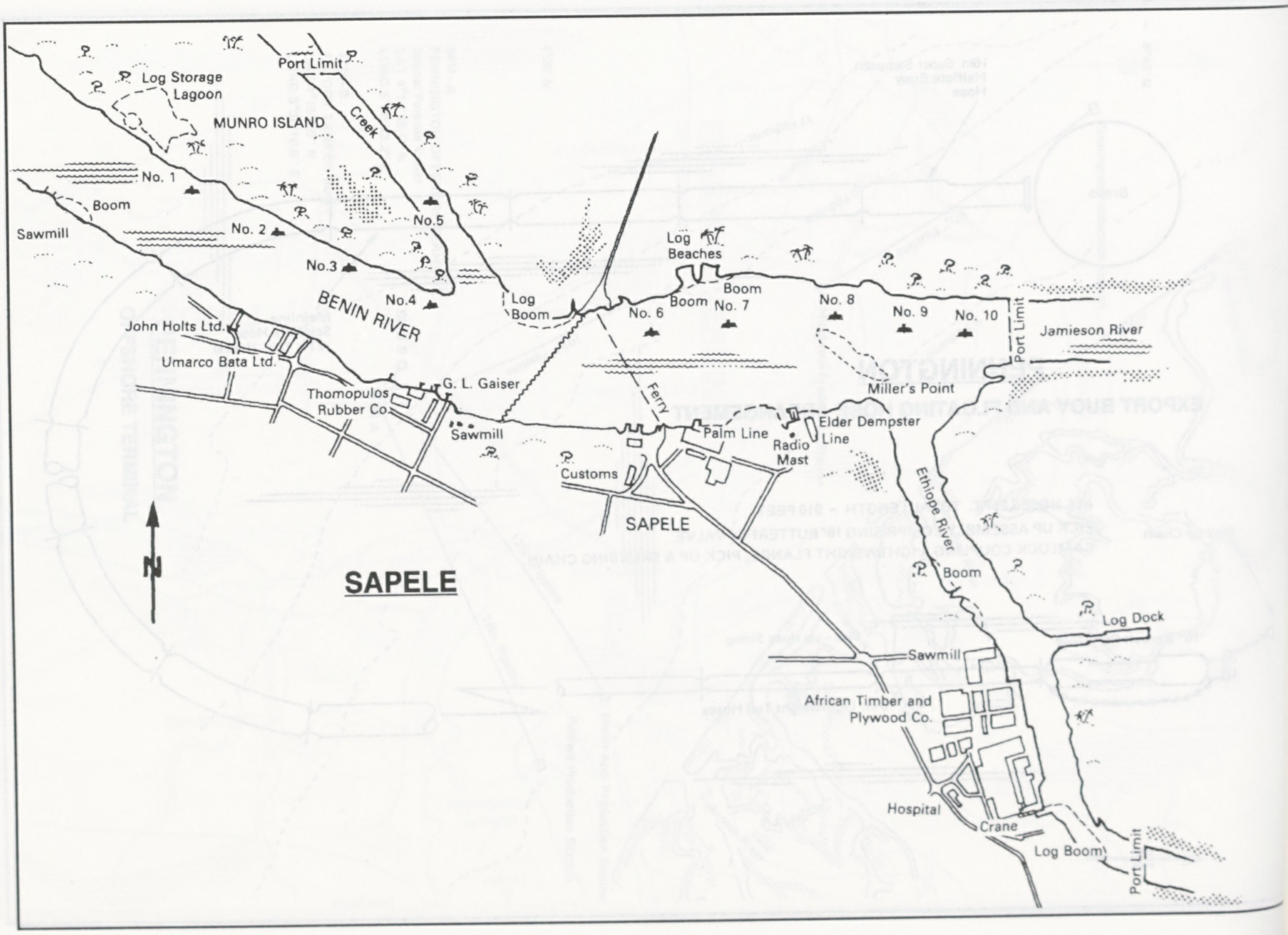

16in. Super Sampson
Halflote Buoy
Hose
Bravo
Mainline
Seleflote Hose
(21 X 16in. Hoses)
Pick up Chain
16" Barbell Rail Hose
Pick – up Hose String
4 × 16 in. Lightweight Tail Hoses

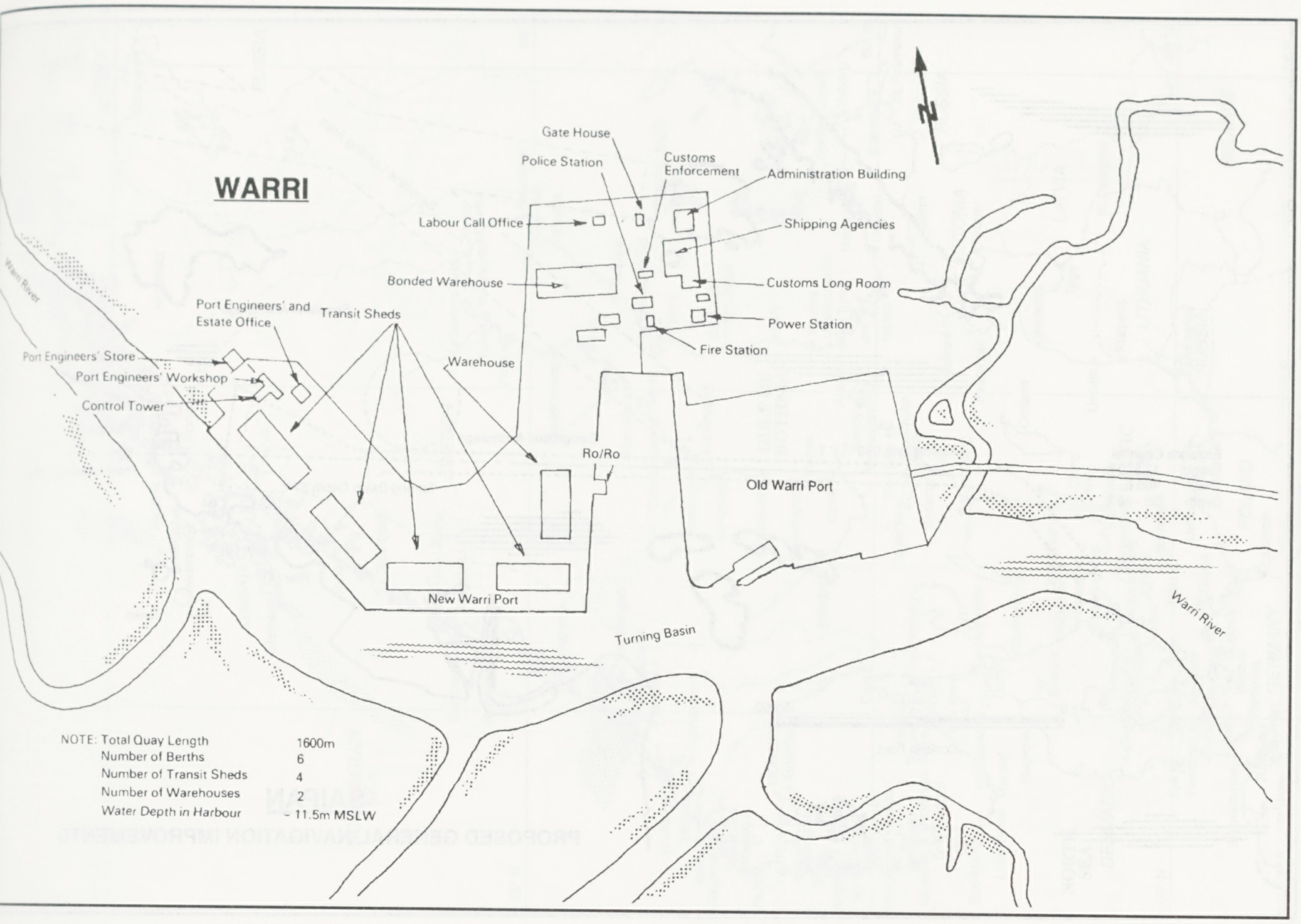
PENNINGTON

EXPORT BUOY AND FLOATING HOSE ARRANGEMENT

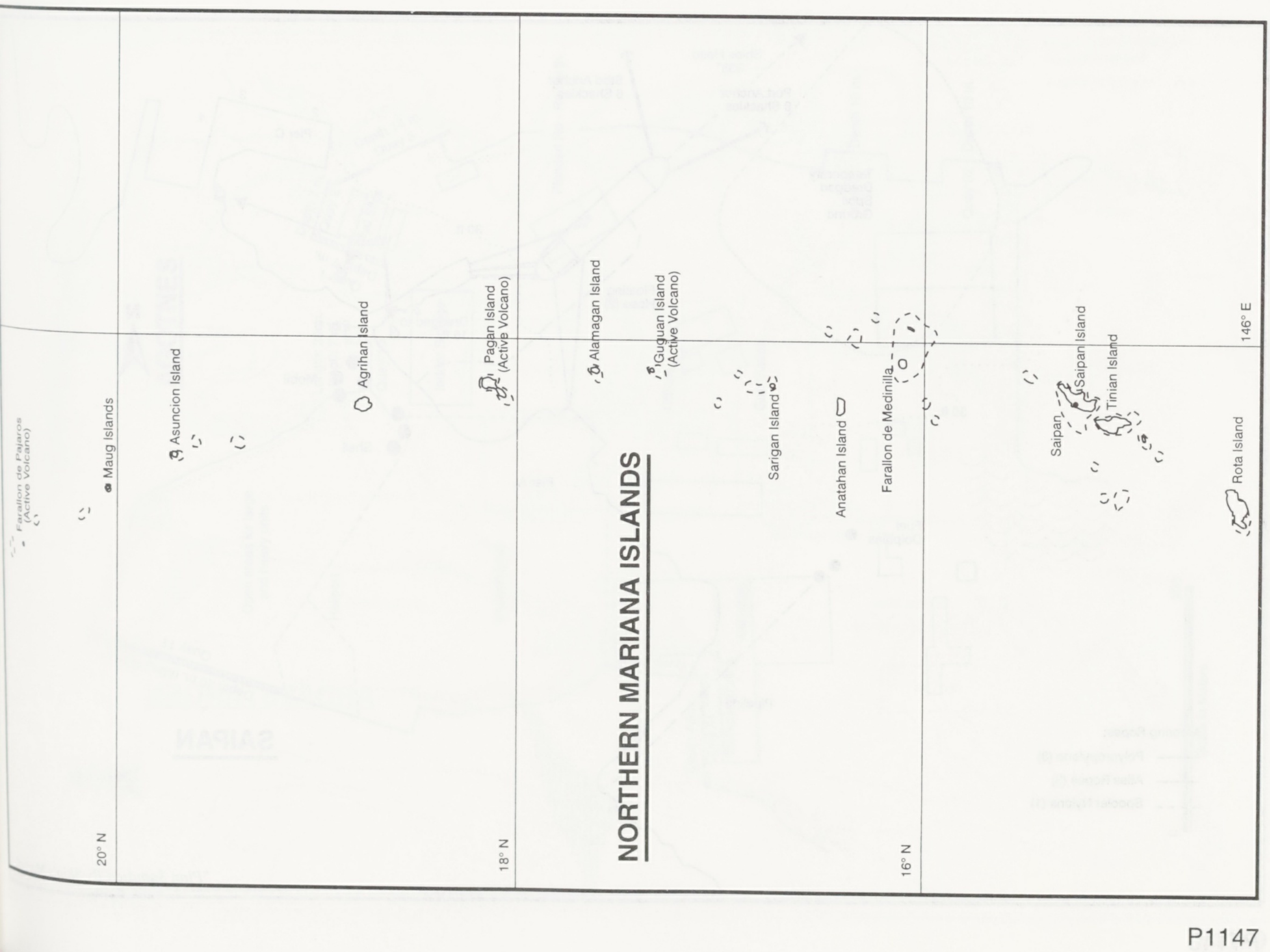
ALL HOSES 35FT. TOTAL LENGTH = 910 FEET.
PICK UP ASSEMBLY COMPRISING 16" BUTTERFLY VALVE
CAMLOCK COUPLING, LIGHTWEIGHT FLANGE, PICK UP & SNUBBING CHAIN.

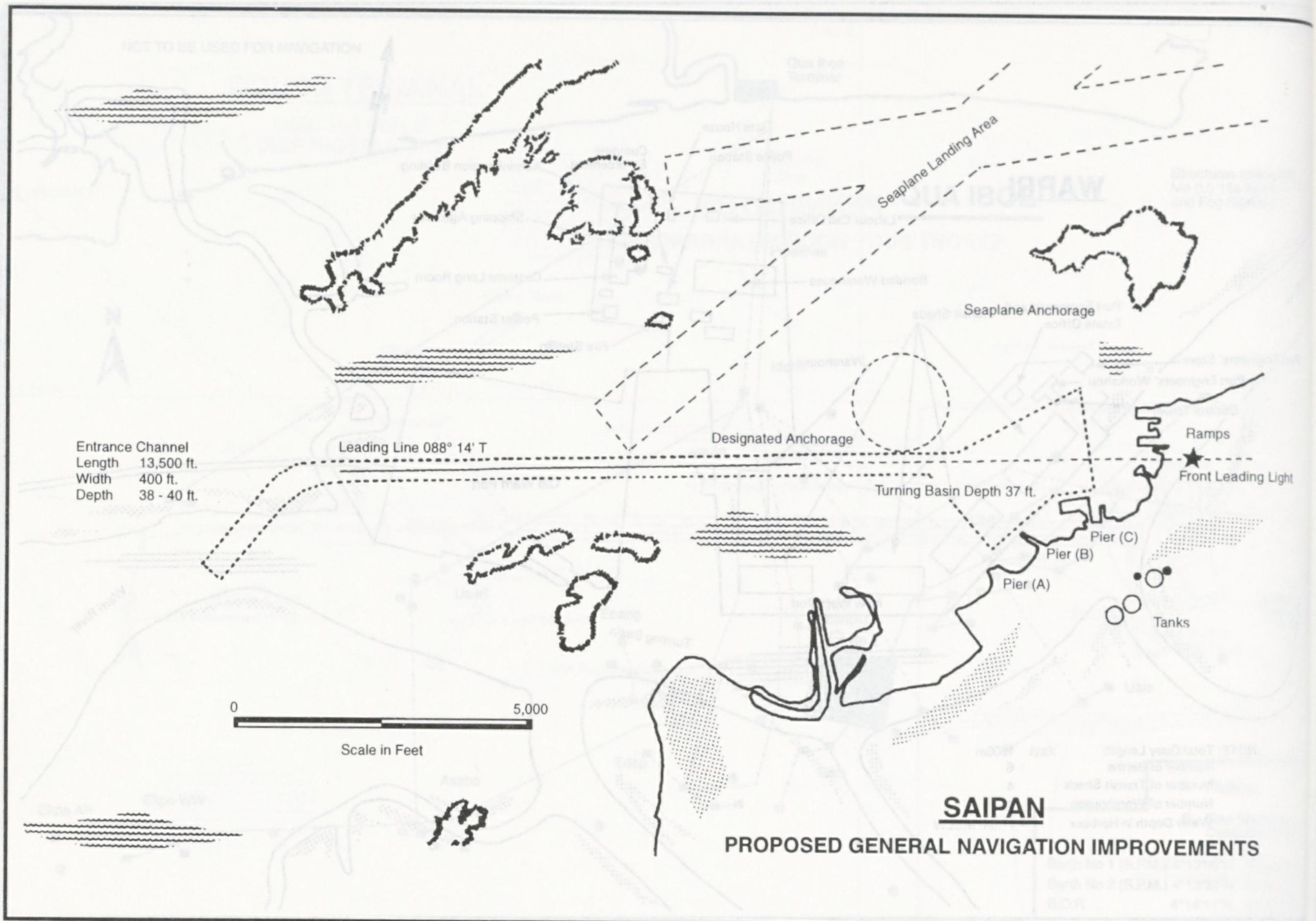

NOT TO BE USED FOR NAVIGATION
Qua Iboe Terminal
QUA IBOE
Structures marked by Mo (U) 15s lights and Fog Signals
N
Pipelines
Idoho
Ubit
Usari
Enang
B.O.P. Racon(K)
No 2
No 1
Antan Terminal
Utue
Iyak
Etim
Edop
Asabo
Ekpe AP
Ekpe WW
Platform
Free Standing Conductor (Pipe)
Berth No 1 (S.P.M.) 4°13'05"N 8°02'45"E
Berth No 2 (S.P.M.) 4°13'30"N 8°03'30"E
B.O.P. 4°14'11"N 8°02'25"E

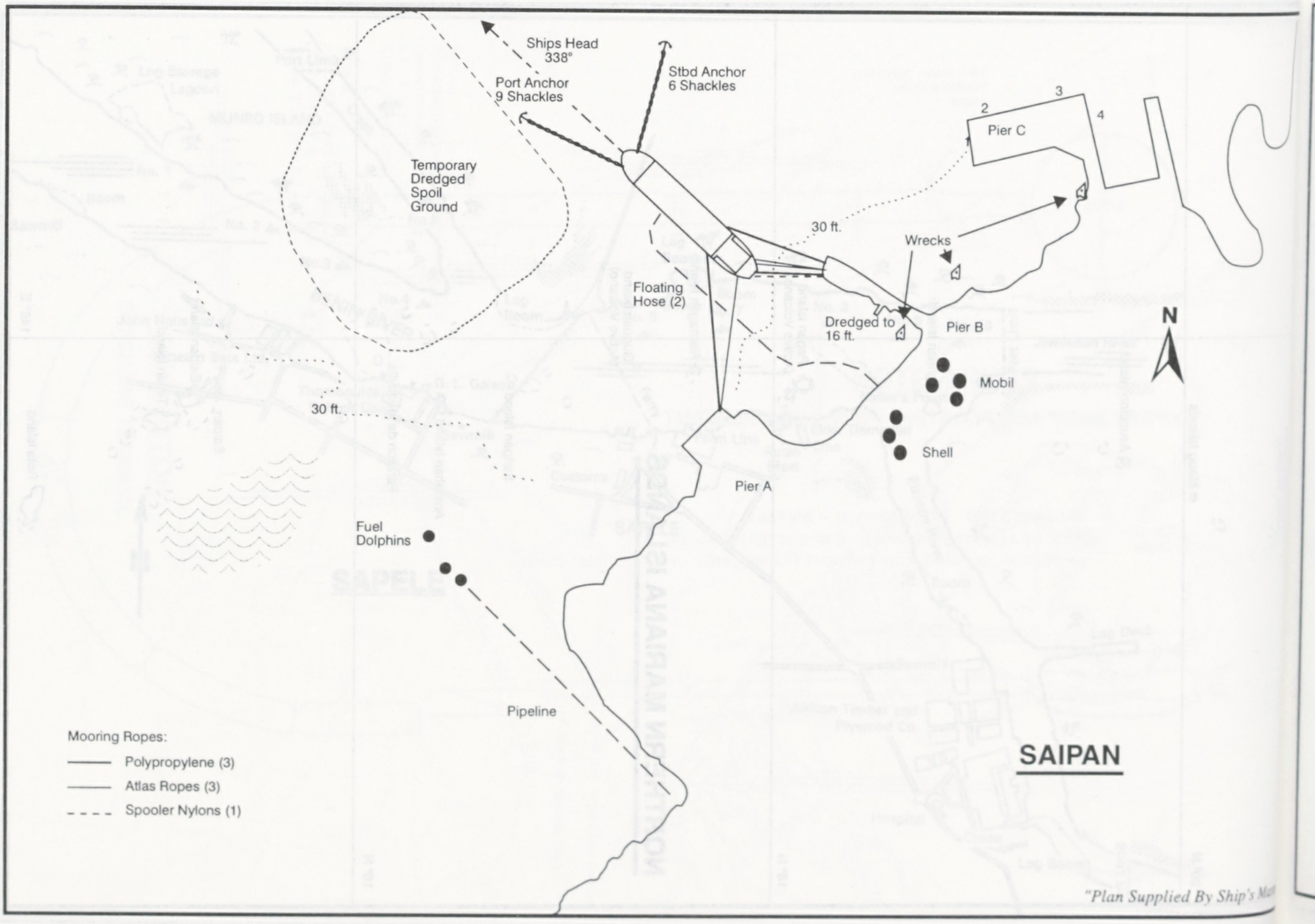

Log Storage Lagoon
Port Limit
MUNRO ISLAND
Creek
No. 1
Boom
Sawmill
No. 2
No.5
No.3
No.4
BENIN RIVER
Log Boom
John Holts Ltd.
Umarco Bata Ltd.
Thomopulos Rubber Co.
G. L. Gaiser
Sawmill
Ferry
Log Beaches
Boom
Boom No. 7
No. 6
No. 8
No. 9
No. 10
Port Limit
Jamieson River
Miller's Point
Palm Line
Elder Dempster Line
Radio Mast
Customs
SAPELE
Ethiope River
N
SAPELE
Boom
Log Dock
Sawmill
African Timber and Plywood Co.
Hospital
Crane
Log Boom
Port Limit


WARRI
Gate House
Police Station
Customs Enforcement
Administration Building
Labour Call Office
Shipping Agencies
Bonded Warehouse
Customs Long Room
Port Engineers' and Estate Office
Transit Sheds
Power Station
Fire Station
Port Engineers' Store
Warehouse
Port Engineers' Workshop
Control Tower
Ro/Ro
Old Warri Port
New Warri Port
Turning Basin
Warri River
Warri River

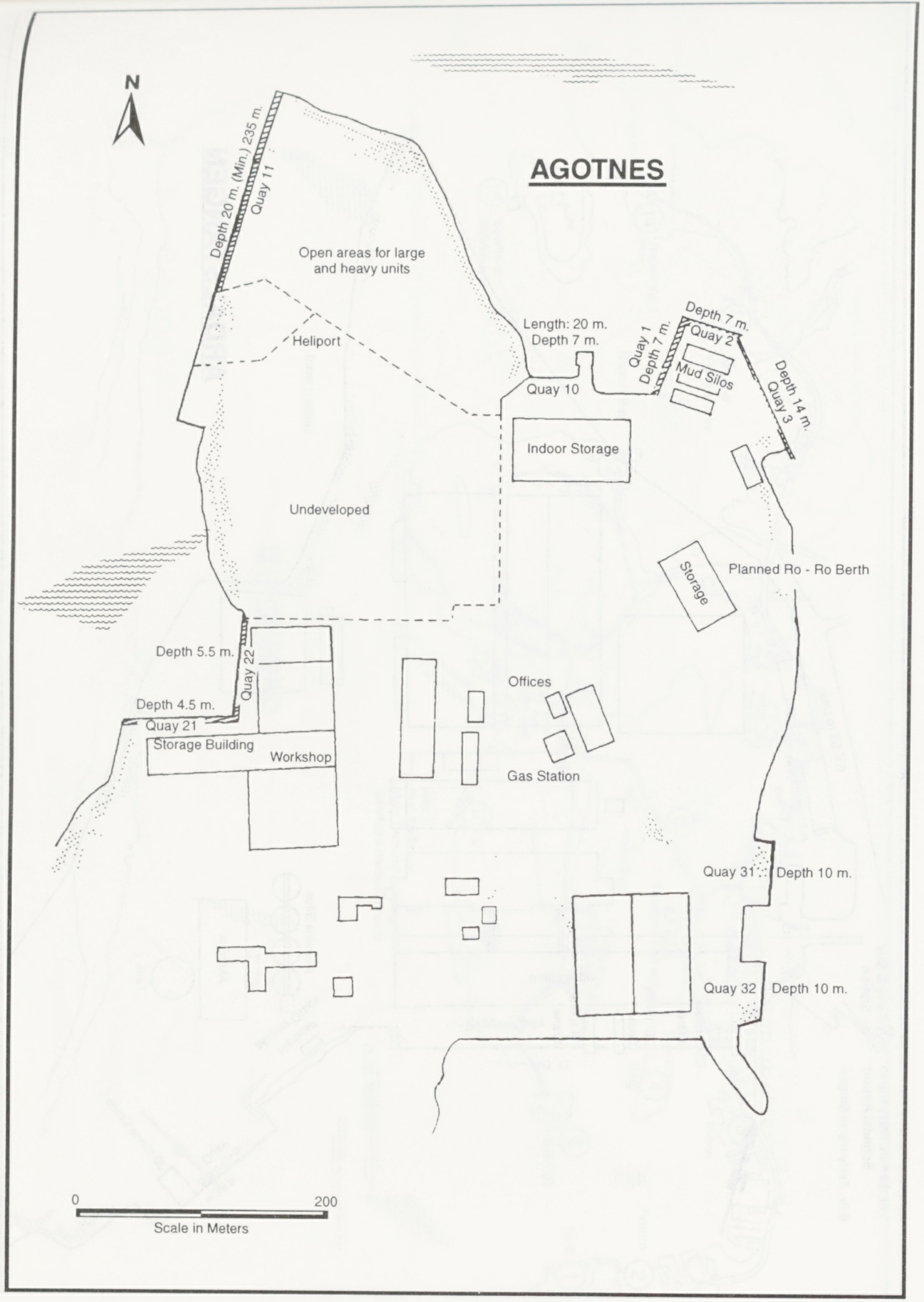
NOTE: Total Quay Length 1600m
Number of Berths 6
Number of Transit Sheds 4
Number of Warehouses 2
Water Depth in Harbour ~11.5m MSLW

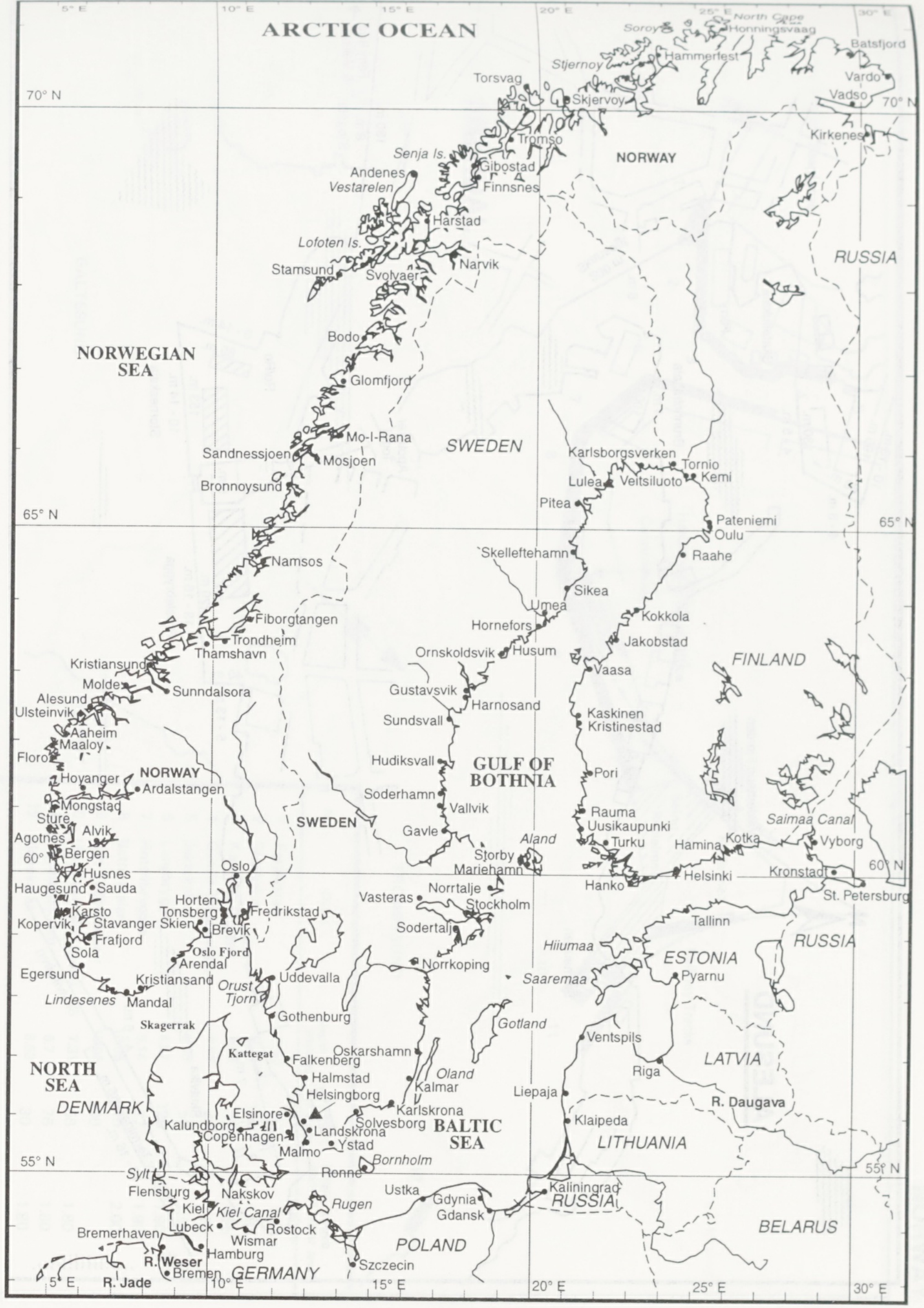

NORTHERN MARIANA ISLANDS
Farallon de Pajaros (Active Volcano)
Maug Islands
Asuncion Island
Agrihan Island
Pagan Island (Active Volcano)
Alamagan Island
Guguan Island (Active Volcano)
Sarigan Island
Anatahan Island
Farallon de Medinilla
Saipan
Saipan Island
Tinian Island
Rota Island
20° N
18° N
16° N
146° E

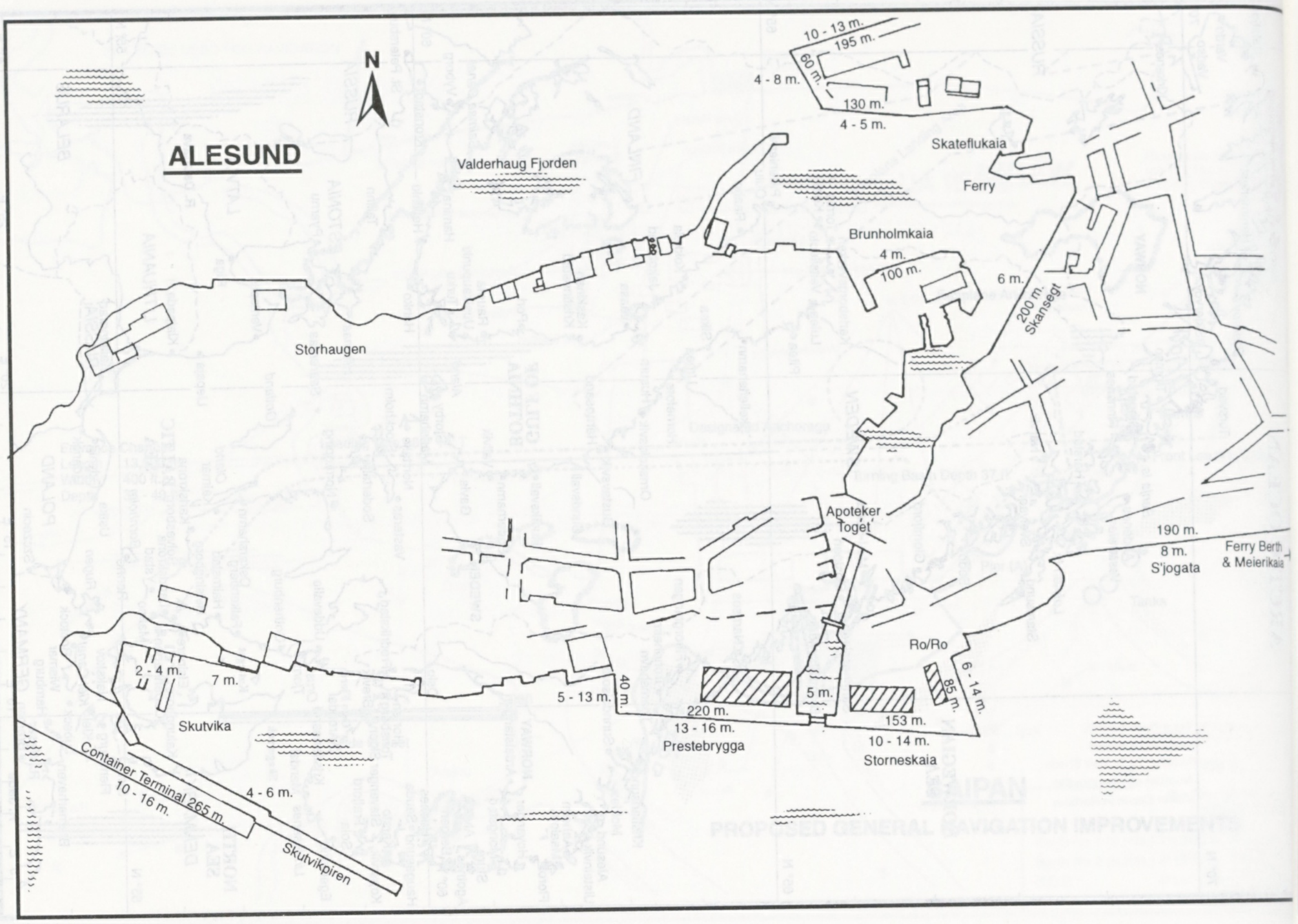

Seaplane Landing Area
Seaplane Anchorage
Entrance Channel
Length 13,500 ft.
Width 400 ft.
Depth 38 - 40 ft.
Leading Line 088° 14' T
Designated Anchorage
Ramps
Front Leading Light
Turning Basin Depth 37 ft.
Pier (C)
Pier (B)
Pier (A)
Tanks
0
5,000
Scale in Feet
SAIPAN
PROPOSED GENERAL NAVIGATION IMPROVEMENTS

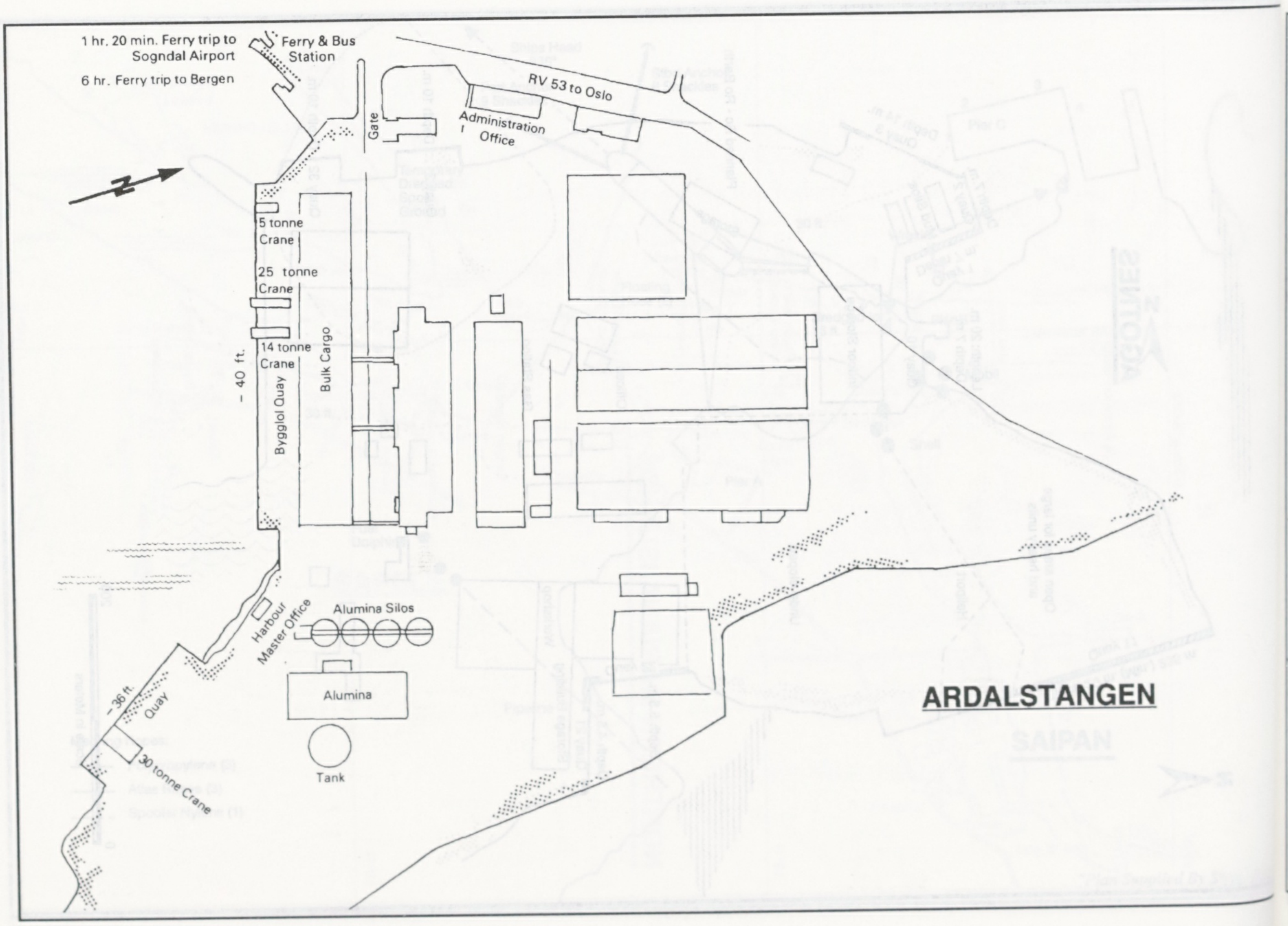

Ships Head 338°
Port Anchor 9 Shackles
Stbd Anchor 6 Shackles
Temporary Dredged Spoil Ground
2
3
4
Pier C
30 ft.
Wrecks
Floating Hose (2)
Dredged to 16 ft.
Pier B
N
Mobil
Shell
30 ft.
Pier A
Fuel Dolphins
Pipeline
Mooring Ropes:
Polypropylene (3)
Atlas Ropes (3)
Spooler Nylons (1)
SAIPAN
"Plan Supplied By Ship's Ma

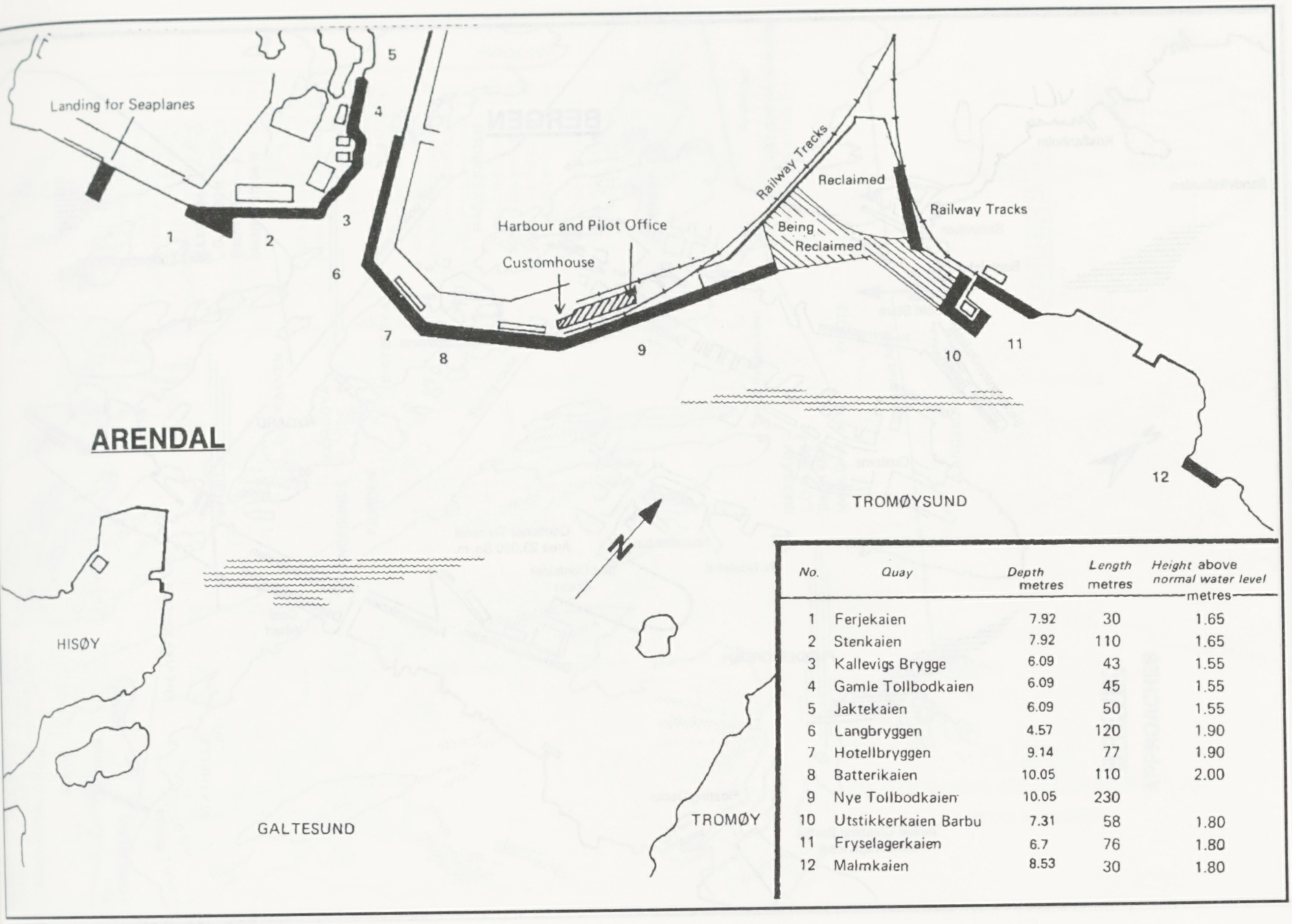
AGOTNES


N
Depth 20 m. (Min.) 235 m.
Quay 11
Open areas for large and heavy units
Heliport
Length: 20 m.
Depth 7 m.
Quay 10
Quay 1
Depth 7 m.
Depth 7 m.
Quay 2
Mud Silos
Depth 14 m.
Quay 3
Indoor Storage
Undeveloped
Storage
Planned Ro - Ro Berth
Depth 5.5 m.
Quay 22
Depth 4.5 m.
Quay 21
Storage Building
Workshop
Offices
Gas Station
Quay 31
Depth 10 m.
Quay 32
Depth 10 m.
0
200
Scale in Meters

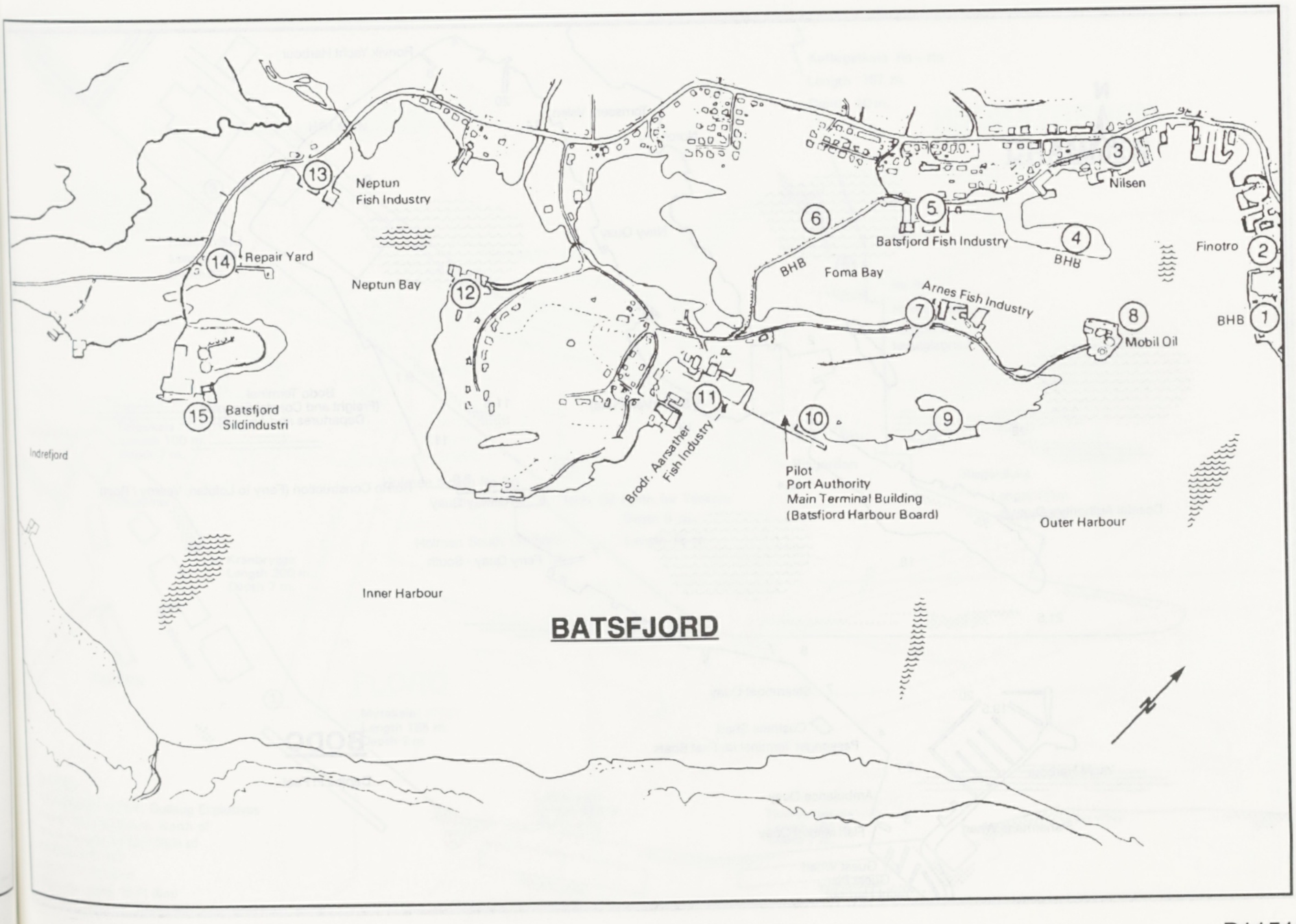

ARCTIC OCEAN
NORWEGIAN SEA
NORTH SEA
NORWAY
SWEDEN
FINLAND
RUSSIA
DENMARK
GERMANY
POLAND
ESTONIA
LATVIA
LITHUANIA
BELARUS
GULF OF BOTHNIA
BALTIC SEA
Skagerrak
Kattegat
5° E
10° E
15° E
20° E
25° E
30° E
70° N
65° N
60° N
55° N
North Cape
Honningsvaag
Soroy
Hammerfest
Batsfjord
Vardo
Vadso
Kirkenes
Stjernoy
Torsvag
Skjervoy
Tromso
Senja Is.
Gibostad
Finnsnes
Andenes
Vestarelen
Harstad
Lofoten Is.
Stamsund
Svolvaer
Narvik
Bodo
Glomfjord
Mo-I-Rana
Sandnessjoen
Mosjoen
Bronnoysund
Namsos
Fiborgtangen
Trondheim
Thamshavn
Kristiansund
Molde
Alesund
Ulsteinvik
Sunndalsora
Aaheim
Maaloy
Floro
Hoyanger
Ardalstangen
Mongstad
Sture
Alvik
Agotnes
Bergen
Husnes
Haugesund
Sauda
Karsto
Kopervik
Stavanger
Skien
Frafjord
Sola
Egersund
Lindesenes
Mandal
Kristiansand
Arendal
Oslo Fjord
Brevik
Horten
Tonsberg
Fredrikstad
Oslo
Orust
Tjorn
Uddevalla
Gothenburg
Falkenberg
Halmstad
Helsingborg
Elsinore
Kalundborg
Copenhagen
Landskrona
Malmo
Ystad
Solvesborg
Karlskrona
Kalmar
Oland
Oskarshamn
Gotland
Norrkoping
Sodertalje
Stockholm
Vasteras
Norrtalje
Storby
Mariehamn
Aland
Gavle
Vallvik
Soderhamn
Hudiksvall
Sundsvall
Harnosand
Gustavsvik
Ornskoldsvik
Husum
Hornefors
Umea
Sikea
Skelleftehamn
Pitea
Lulea
Karlsborgsverken
Veitsiluoto
Tornio
Kemi
Pateniemi
Oulu
Raahe
Kokkola
Jakobstad
Vaasa
Kaskinen
Kristinestad
Pori
Rauma
Uusikaupunki
Turku
Hanko
Helsinki
Hamina
Kotka
Saimaa Canal
Vyborg
Kronstadt
St. Petersburg
Tallinn
Hiiumaa
Saaremaa
Pyarnu
Ventspils
Riga
R. Daugava
Liepaja
Klaipeda
Kaliningrad
Gdynia
Gdansk
Ustka
Bornholm
Ronne
Rugen
Rostock
Szczecin
Wismar
Lubeck
Kiel
Kiel Canal
Nakskov
Flensburg
Sylt
Hamburg
Bremerhaven
R. Weser
Bremen
R. Jade

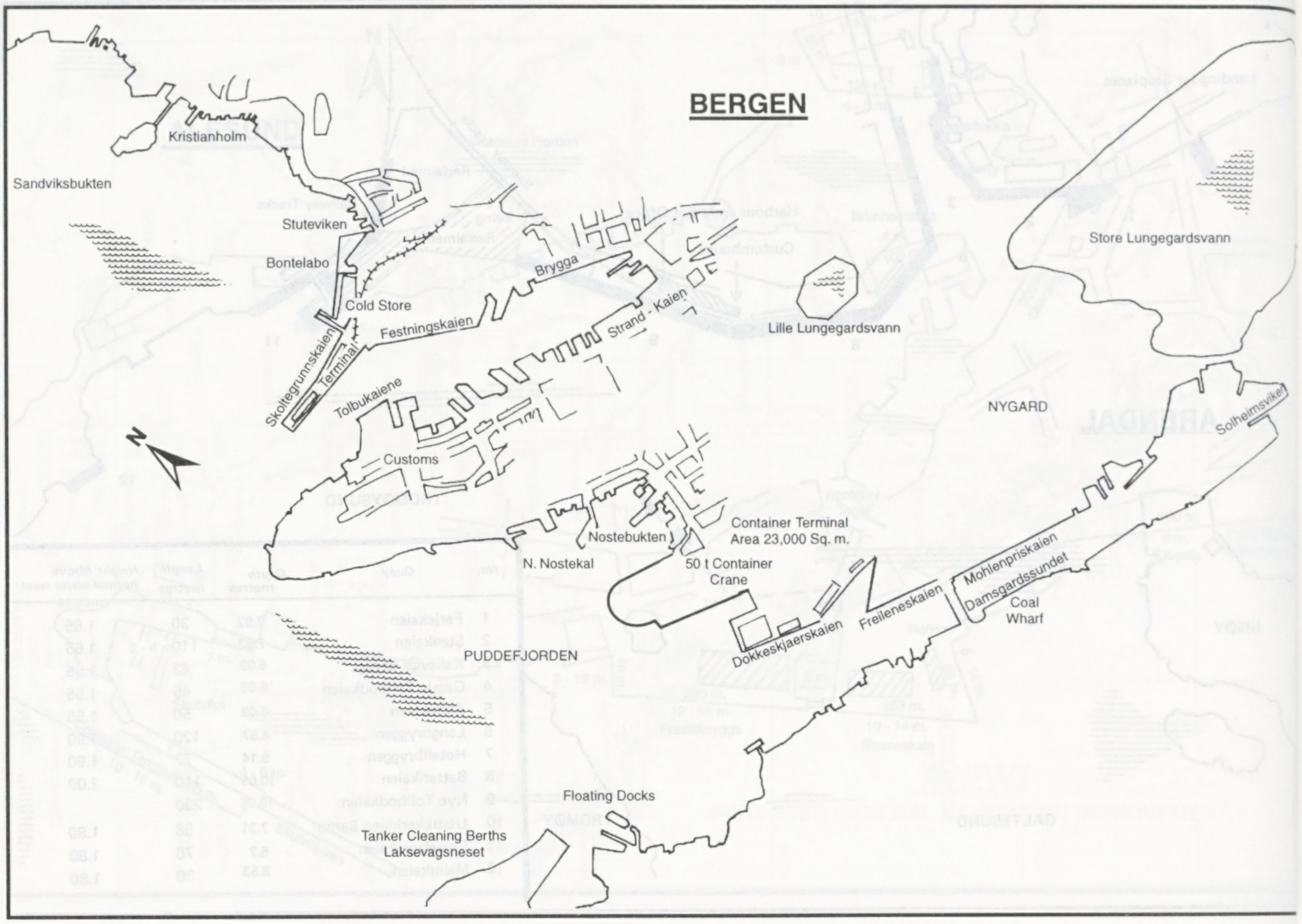

ALESUND
N
Valderhaug Fjorden
10 - 13 m.
195 m.
60 m.
4 - 8 m.
130 m.
4 - 5 m.
Skateflukaia
Ferry
Brunholmkaia
4 m.
100 m.
6 m.
200 m.
Skansegt
Storhaugen
Apoteker
Toget
190 m.
8 m.
S'jogata
Ferry Berth
& Meierikaia
Ro/Ro
6 - 14 m.
85 m.
5 m.
153 m.
10 - 14 m.
Storneskaia
40 m.
220 m.
13 - 16 m.
Prestebrygga
5 - 13 m.
2 - 4 m.
7 m.
Skutvika
Container Terminal 265 m.
10 - 16 m.
4 - 6 m.
Skutvikpiren

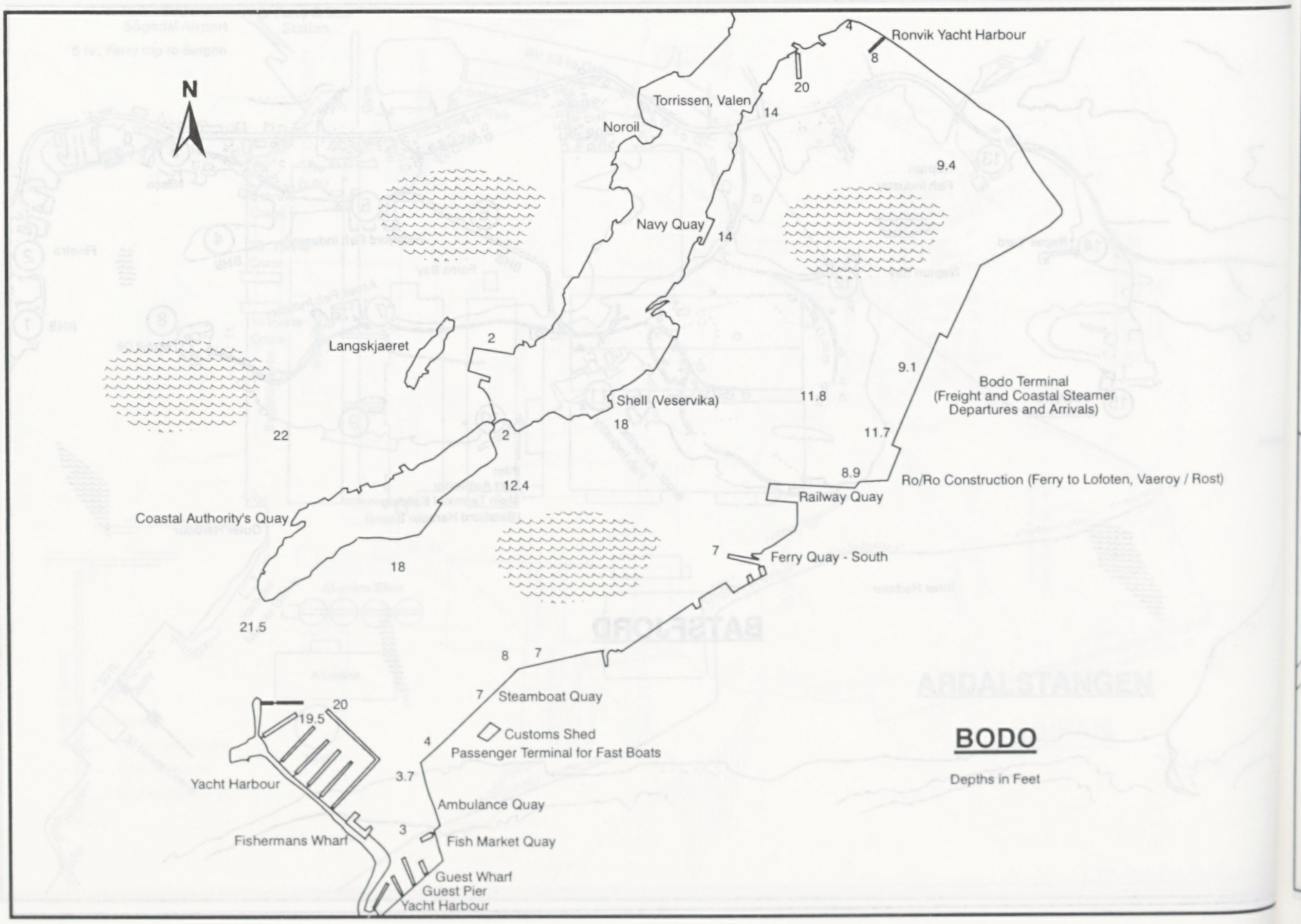

1 hr. 20 min. Ferry trip to
Sogndal Airport
6 hr. Ferry trip to Bergen
Ferry & Bus
Station
RV 53 to Oslo
Gate
Administration
Office
N
5 tonne
Crane
25 tonne
Crane
14 tonne
Crane
– 40 ft.
Byggiol Quay
Bulk Cargo
Harbour
Master Office
Alumina Silos
Alumina
Tank
– 36 ft.
Quay
30 tonne Crane
ARDALSTANGEN

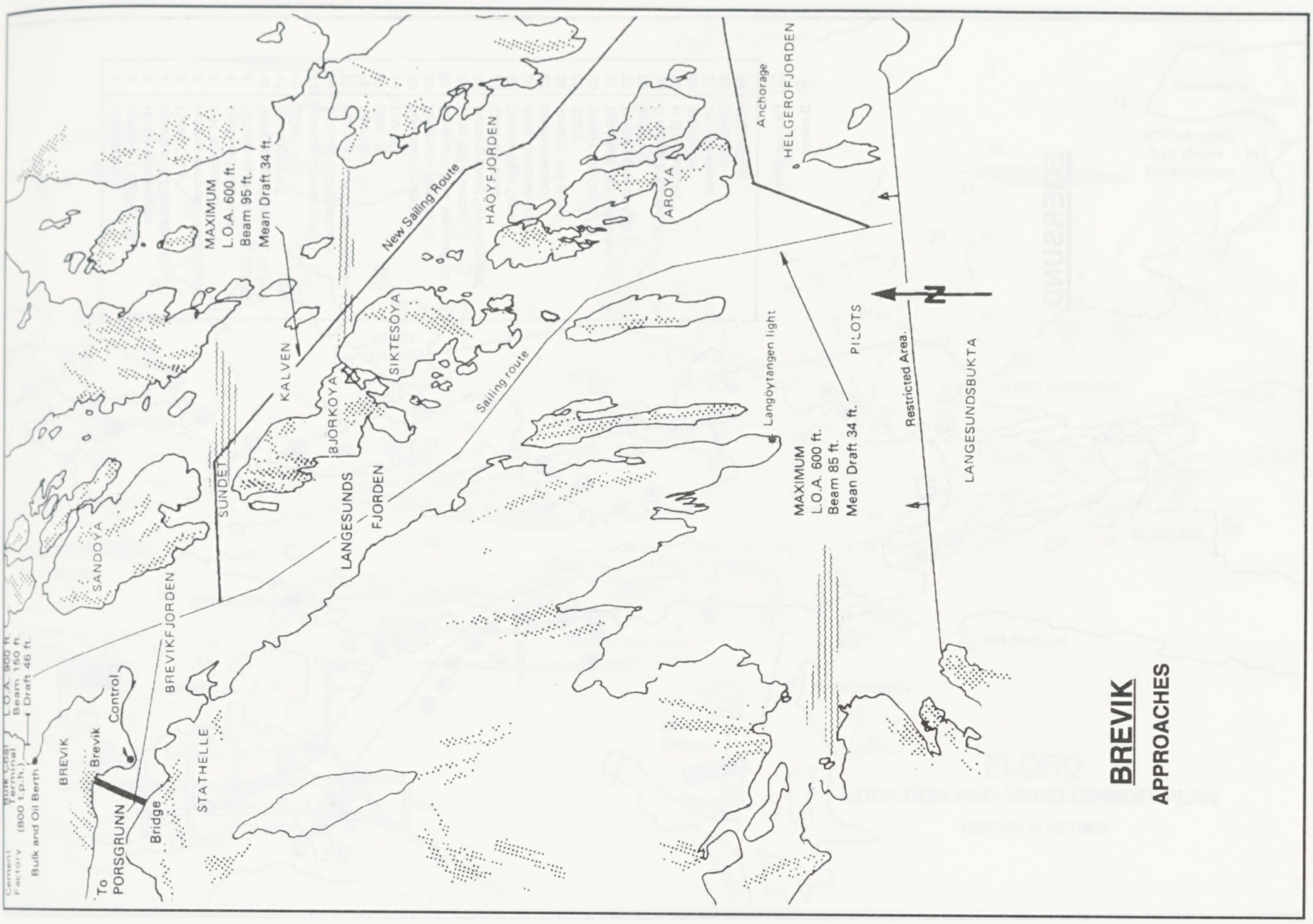

ARENDAL
Landing for Seaplanes
1
2
3
4
5
6
7
8
9
10
11
12
Harbour and Pilot Office
Customhouse
Railway Tracks
Reclaimed
Being Reclaimed
Railway Tracks
TROMØYSUND
HISØY
GALTESUND
TROMØY
N

No.	Quay	Depth metres	Length metres	Height above normal water level metres
1	Ferjekaien	7.92	30	1.65
2	Stenkaien	7.92	110	1.65
3	Kallevigs Brygge	6.09	43	1.55
4	Gamle Tollbodkaien	6.09	45	1.55
5	Jaktekaien	6.09	50	1.55
6	Langbryggen	4.57	120	1.90
7	Hotellbryggen	9.14	77	1.90
8	Batterikaien	10.05	110	2.00
9	Nye Tollbodkaien	10.05	230	
10	Utstikkerkaien Barbu	7.31	58	1.80
11	Fryselagerkaien	6.7	76	1.80
12	Malmkaien	8.53	30	1.80

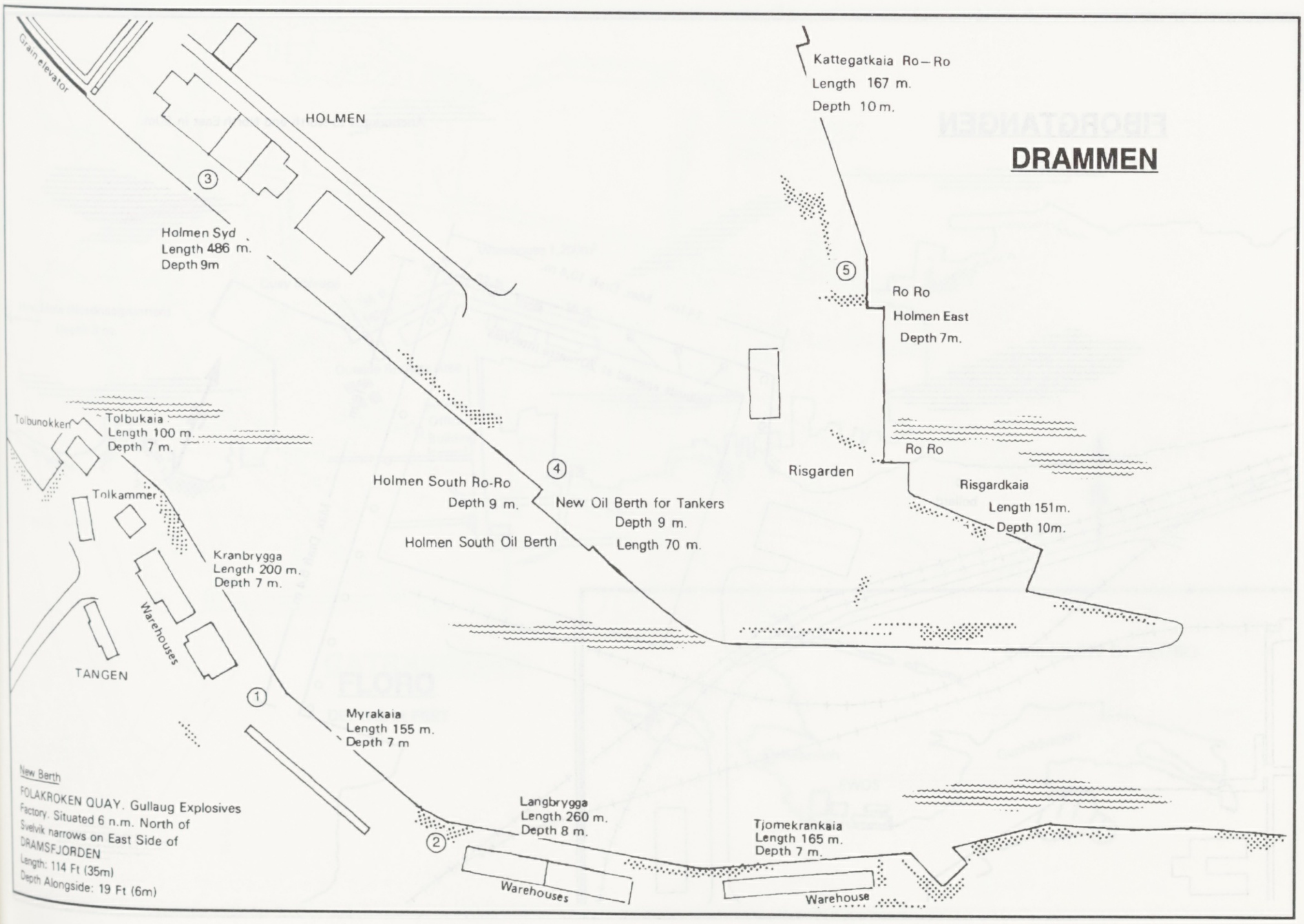

⑬ Neptun Fish Industry
⑭ Repair Yard
Neptun Bay
⑫
⑮ Batsfjord Sildindustri
Indrefjord
⑪ Brodr. Aarsather Fish Industry
⑩
Pilot
Port Authority
Main Terminal Building
(Batsfjord Harbour Board)
⑨
⑥
BHB
Foma Bay
⑤ Batsfjord Fish Industry
④
BHB
⑦ Arnes Fish Industry
⑧ Mobil Oil
③ Nilsen
Finotro ②
BHB ①
Outer Harbour
Inner Harbour
BATSFJORD
N


BERGEN
N
Kristianholm
Sandviksbukten
Stuteviken
Bontelabo
Cold Store
Skoltegrunnskaien
Terminal
Festningskaien
Brygga
Strand - Kaien
Tolbukaiene
Customs
Lille Lungegardsvann
Store Lungegardsvann
NYGARD
Solheimsviken
Nostebukten
Container Terminal
Area 23,000 Sq. m.
N. Nostekal
50 t Container
Crane
Mohlenpriskaien
Damsgardssundet
Coal
Wharf
Freileneskaien
Dokkeskjaerskaien
PUDDEFJORDEN
Floating Docks
Tanker Cleaning Berths
Laksevagsneset


N
4
Ronvik Yacht Harbour
8
20
Torrissen, Valen
14
Noroil
9.4
Navy Quay
14
Langskjaeret
2
9.1
Bodo Terminal
(Freight and Coastal Steamer
Departures and Arrivals)
Shell (Veservika)
11.8
18
22
2
11.7
12.4
8.9
Ro/Ro Construction (Ferry to Lofoten, Vaeroy / Rost)
Railway Quay
Coastal Authority's Quay
7
Ferry Quay - South
18
21.5
8
7
7
Steamboat Quay
20
19.5
Customs Shed
Passenger Terminal for Fast Boats
4
Yacht Harbour
3.7
Ambulance Quay
3
Fish Market Quay
Fishermans Wharf
Guest Wharf
Guest Pier
Yacht Harbour
BODO
Depths in Feet


Cement Factory
Bulk Coal Terminal (800 t.p.h.)
L.O.A. 900 ft.
Beam 150 ft.
Draft 46 ft.
Bulk and Oil Berth
BREVIK
Brevik
Control
To PORSGRUNN
Bridge
SANDOYA
BREVIKFJORDEN
STATHELLE
SUNDET
MAXIMUM
L.O.A. 600 ft.
Beam 95 ft.
Mean Draft 34 ft.
KALVEN
BJORKOYA
LANGESUNDS FJORDEN
SIKTESOYA
New Sailing Route
HAOYFJORDEN
Sailing route
AROYA
Anchorage
HELGEROFJORDEN
Langoytangen light
MAXIMUM
L.O.A. 600 ft.
Beam 85 ft.
Mean Draft 34 ft.
PILOTS
N
Restricted Area.
LANGESUNDSBUKTA

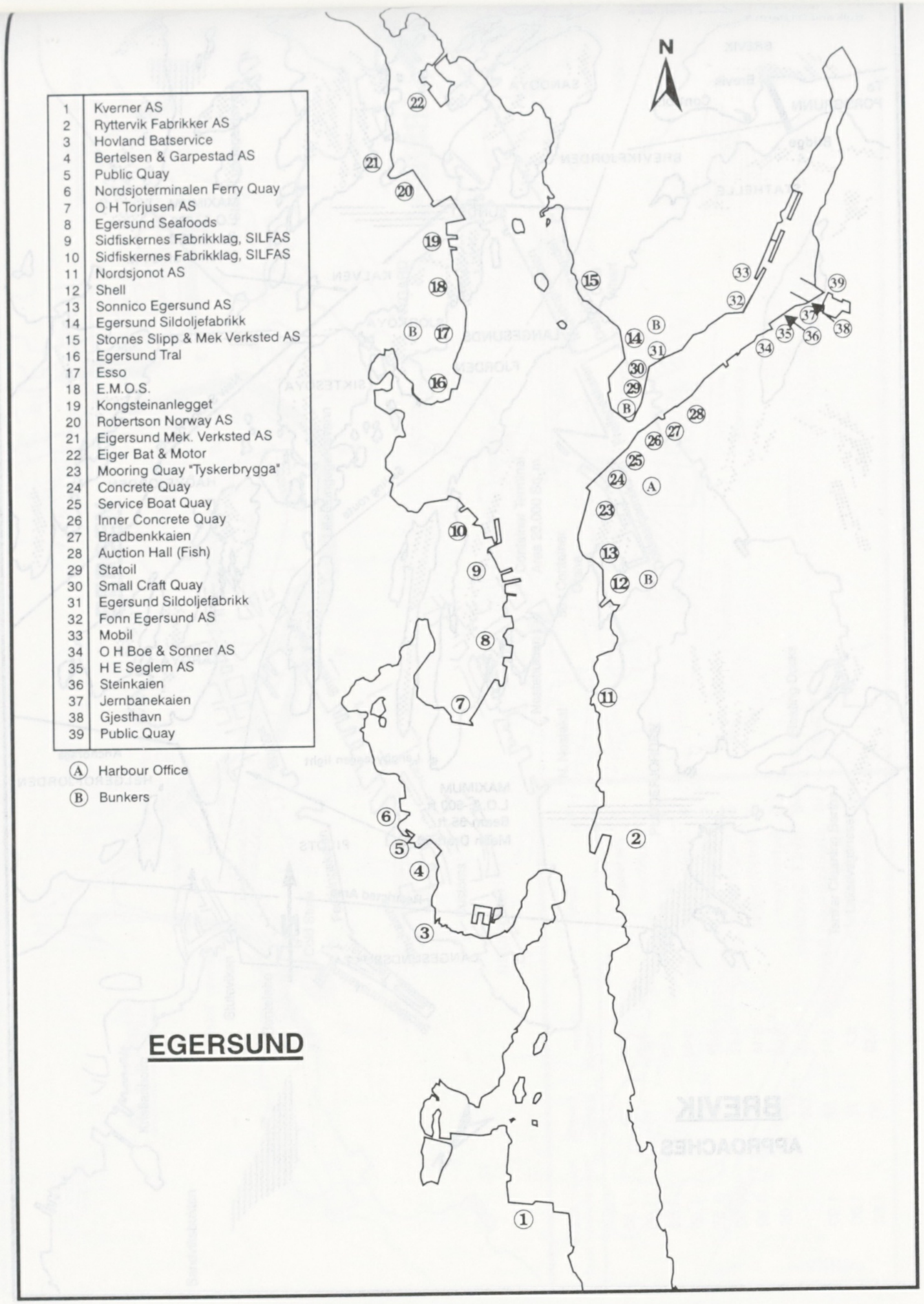
BREVIK
APPROACHES


Grain elevator
HOLMEN
③
Holmen Syd
Length 486 m.
Depth 9m
Kattegatkaia Ro–Ro
Length 167 m.
Depth 10 m.
⑤
Ro Ro
Holmen East
Depth 7m.
Tolbunokken
Tolbukaia
Length 100 m.
Depth 7 m.
Tolkammer
Kranbrygga
Length 200 m.
Depth 7 m.
Warehouses
TANGEN
①
Myrakaia
Length 155 m.
Depth 7 m
④
Holmen South Ro-Ro
Depth 9 m.
New Oil Berth for Tankers
Depth 9 m.
Length 70 m.
Holmen South Oil Berth
Risgarden
Ro Ro
Risgardkaia
Length 151m.
Depth 10m.
②
Langbrygga
Length 260 m.
Depth 8 m.
Warehouses
Tjomekrankaia
Length 165 m.
Depth 7 m.
Warehouse

DRAMMEN

New Berth

FOLAKROKEN QUAY. Gullaug Explosives Factory. Situated 6 n.m. North of Svelvik narrows on East Side of DRAMSFJORDEN
Length: 114 Ft (35m)
Depth Alongside: 19 Ft (6m)



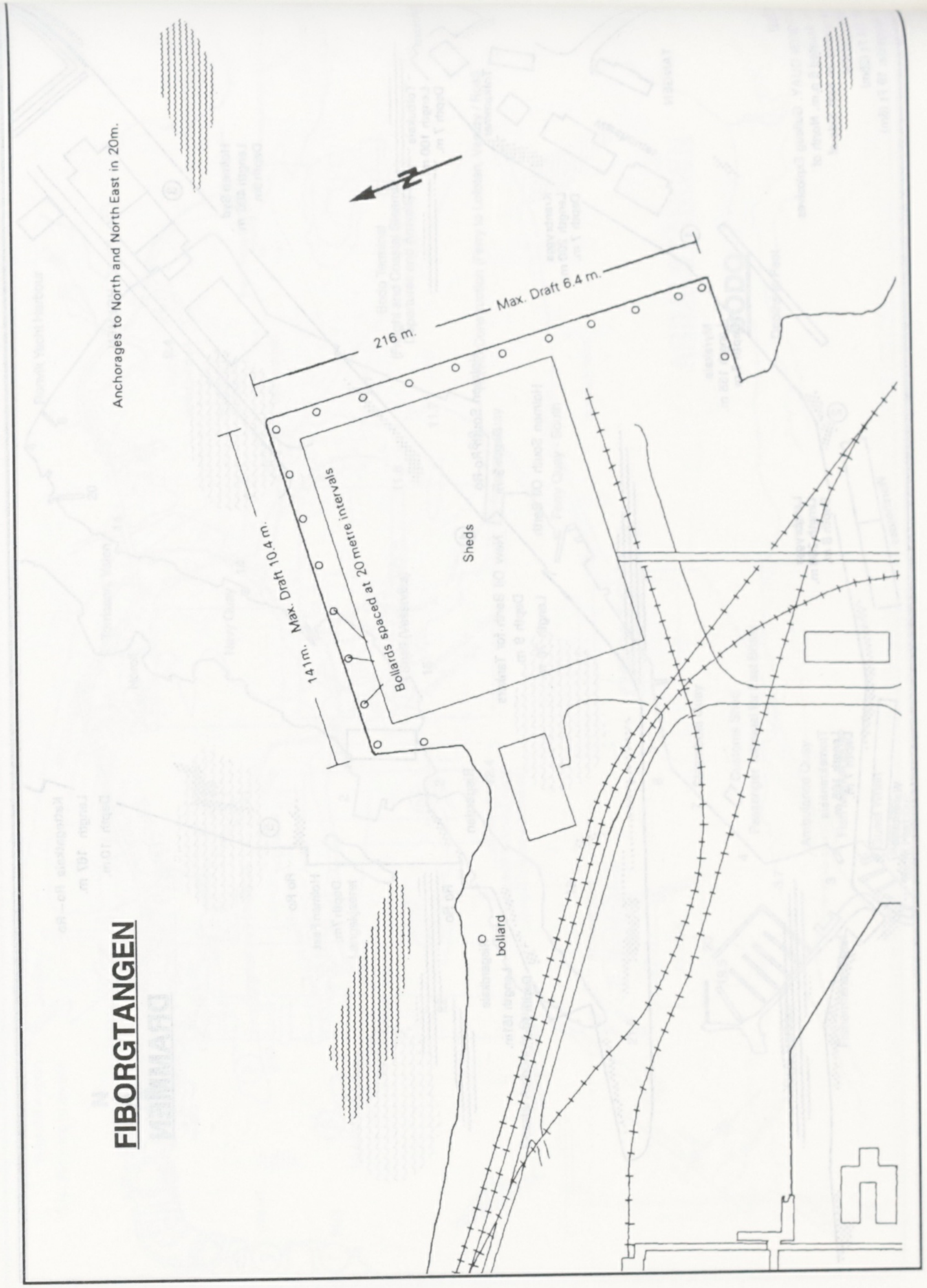
EGERSUND

1	Kverner AS
2	Ryttervik Fabrikker AS
3	Hovland Batservice
4	Bertelsen & Garpestad AS
5	Public Quay
6	Nordsjoterminalen Ferry Quay
7	O H Torjusen AS
8	Egersund Seafoods
9	Sidfiskernes Fabrikklag, SILFAS
10	Sidfiskernes Fabrikklag, SILFAS
11	Nordsjonot AS
12	Shell
13	Sonnico Egersund AS
14	Egersund Sildoljefabrikk
15	Stornes Slipp & Mek Verksted AS
16	Egersund Tral
17	Esso
18	E.M.O.S.
19	Kongsteinanlegget
20	Robertson Norway AS
21	Eigersund Mek. Verksted AS
22	Eiger Bat & Motor
23	Mooring Quay "Tyskerbrygga"
24	Concrete Quay
25	Service Boat Quay
26	Inner Concrete Quay
27	Bradbenkkaien
28	Auction Hall (Fish)
29	Statoil
30	Small Craft Quay
31	Egersund Sildoljefabrikk
32	Fonn Egersund AS
33	Mobil
34	O H Boe & Sonner AS
35	H E Seglem AS
36	Steinkaien
37	Jernbanekaien
38	Gjesthavn
39	Public Quay

Ⓐ Harbour Office

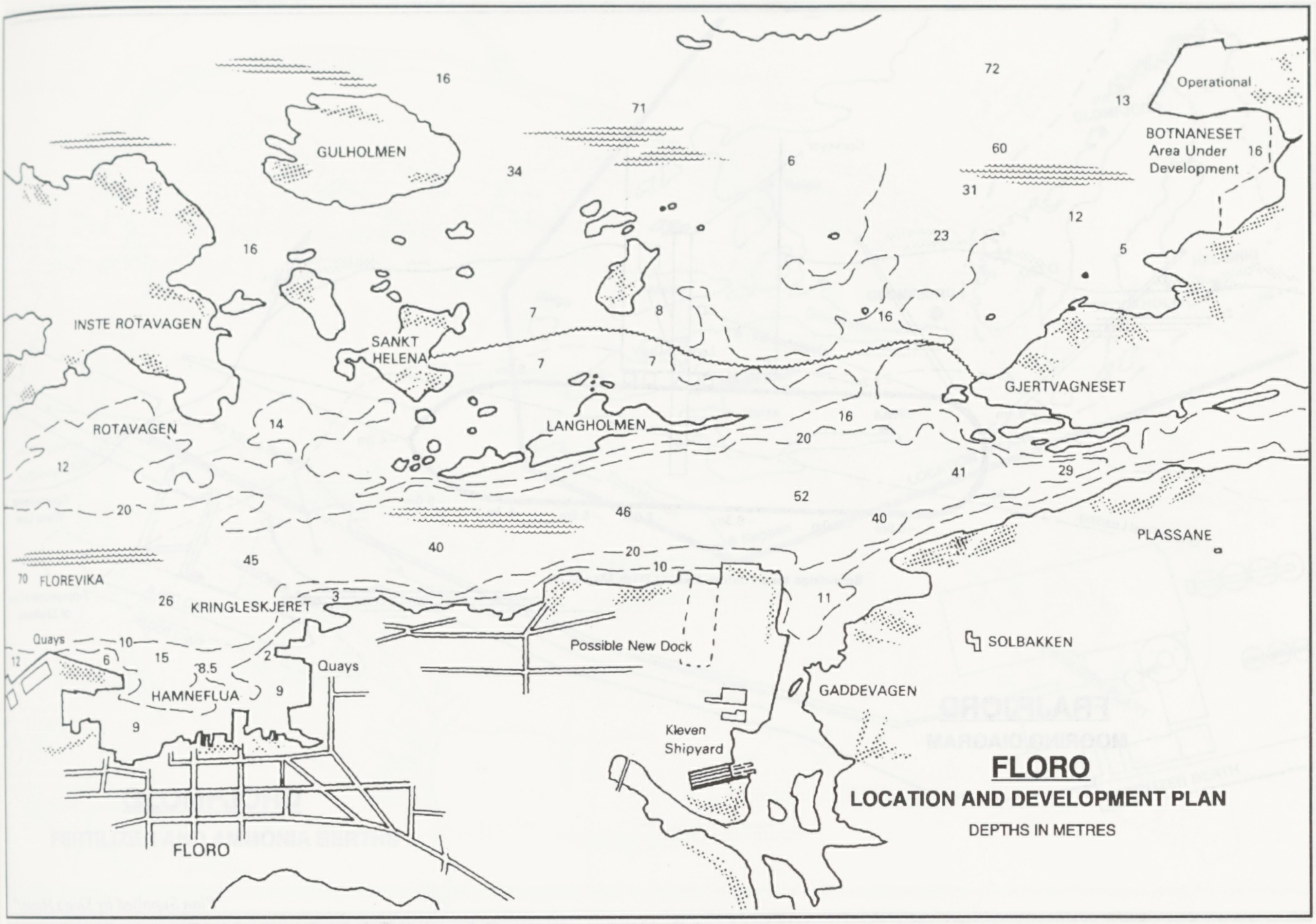
Ⓑ Bunkers

N
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
㉒
㉓
㉔
㉕
㉖
㉗
㉘
㉙
㉚
㉛
㉜
㉝
㉞
㉟
㊱
㊲
㊳
㊴
Ⓐ
Ⓑ



FIBORGTANGEN

N
Anchorages to North and North East in 20m.
216 m.
Max. Draft 6.4 m.
141m.
Max. Draft 10.4 m.
Bollards spaced at 20 metre intervals
Sheds
bollard

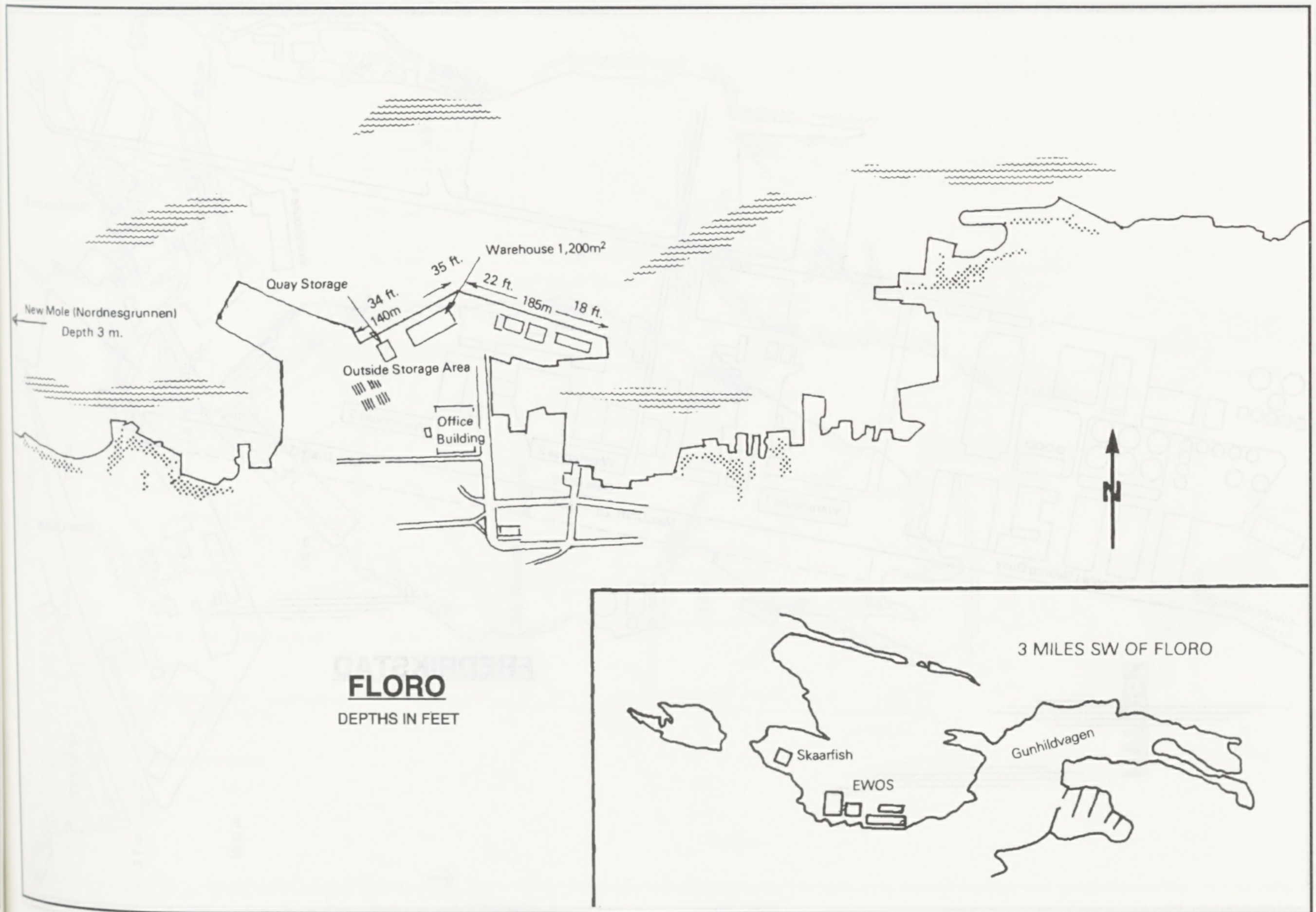


FLORO

LOCATION AND DEVELOPMENT PLAN

DEPTHS IN METRES

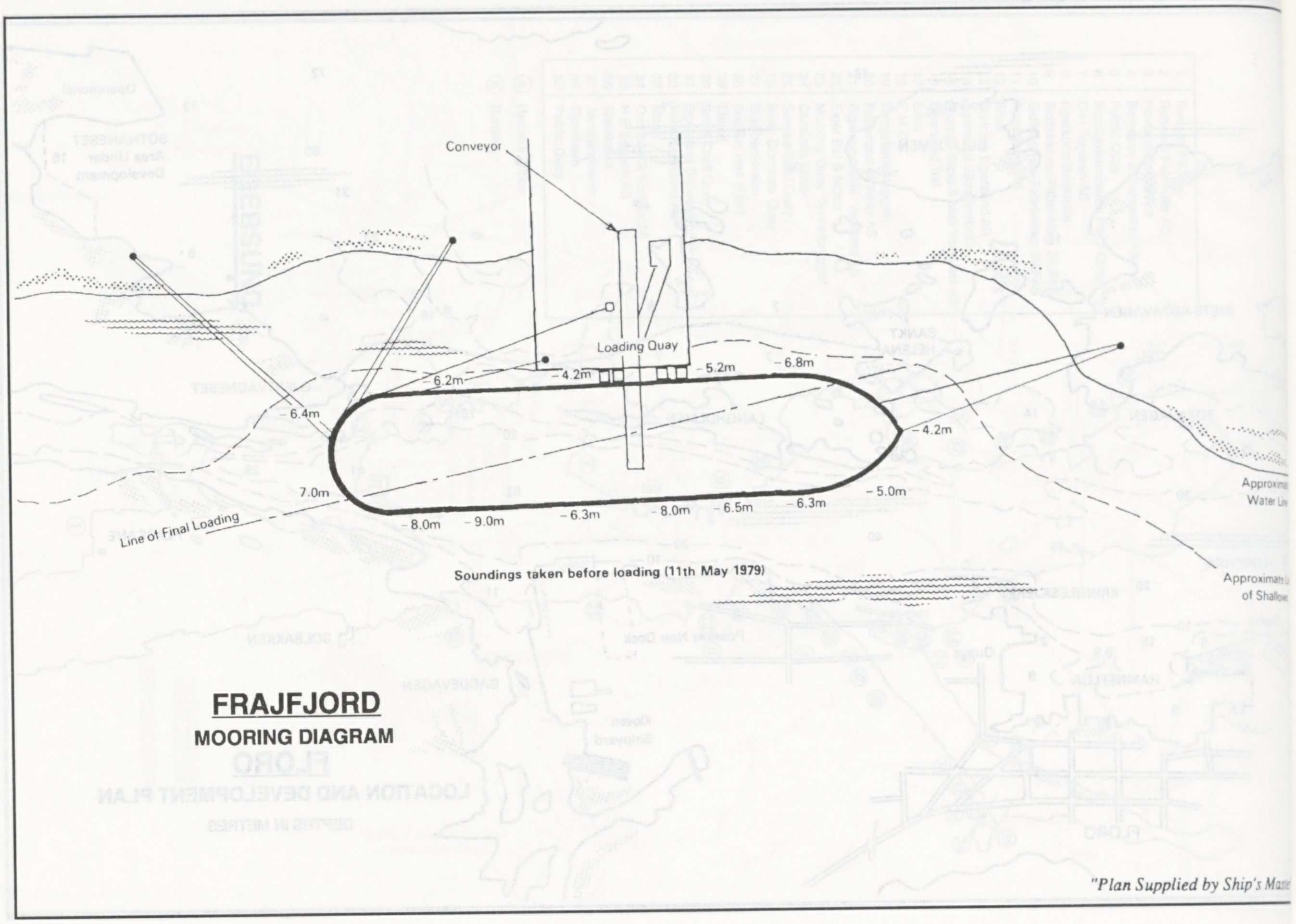
16
71
72
Operational
13
BOTNANESET
Area Under
Development
16
60
GULHOLMEN
34
6
31
12
23
5
16
INSTE ROTAVAGEN
SANKT
HELENA
7
8
16
7
7
GJERTVAGNESET
ROTAVAGEN
14
LANGHOLMEN
16
20
12
41
29
20
52
46
40
PLASSANE
40
45
20
10
70 FLOREVIKA
26
KRINGLESKJERET
3
11
Quays
10
6
15
2
Quays
Possible New Dock
SOLBAKKEN
12
8.5
HAMNEFLUA
9
GADDEVAGEN
9
Kleven
Shipyard
FLORO



FLORO

DEPTHS IN FEET

Warehouse 1,200m²
35 ft.
Quay Storage
22 ft.
34 ft.
140m
185m
18 ft.
New Mole (Nordnesgrunnen)
Depth 3 m.
Outside Storage Area
Office
Building
N
3 MILES SW OF FLORO
Skaarfish
Gunhildvagen
EWOS

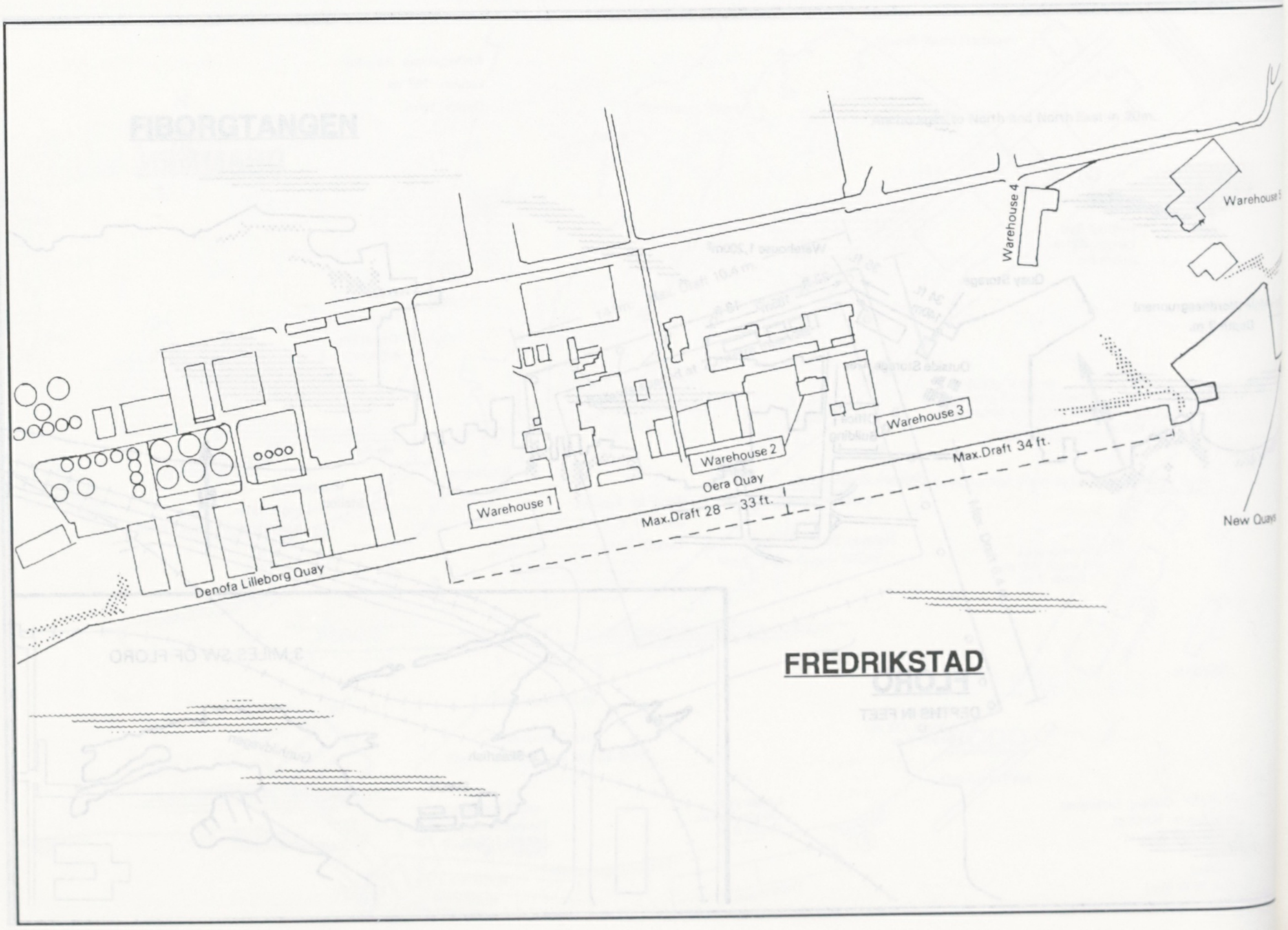

Conveyor
Loading Quay
– 4.2m
– 5.2m
– 6.8m
– 6.2m
– 6.4m
– 4.2m
7.0m
– 5.0m
– 8.0m
– 9.0m
– 6.3m
– 8.0m
– 6.5m
– 6.3m
Line of Final Loading
Approxim
Water Lin
Approximate
of Shallow

Soundings taken before loading (11th May 1979)

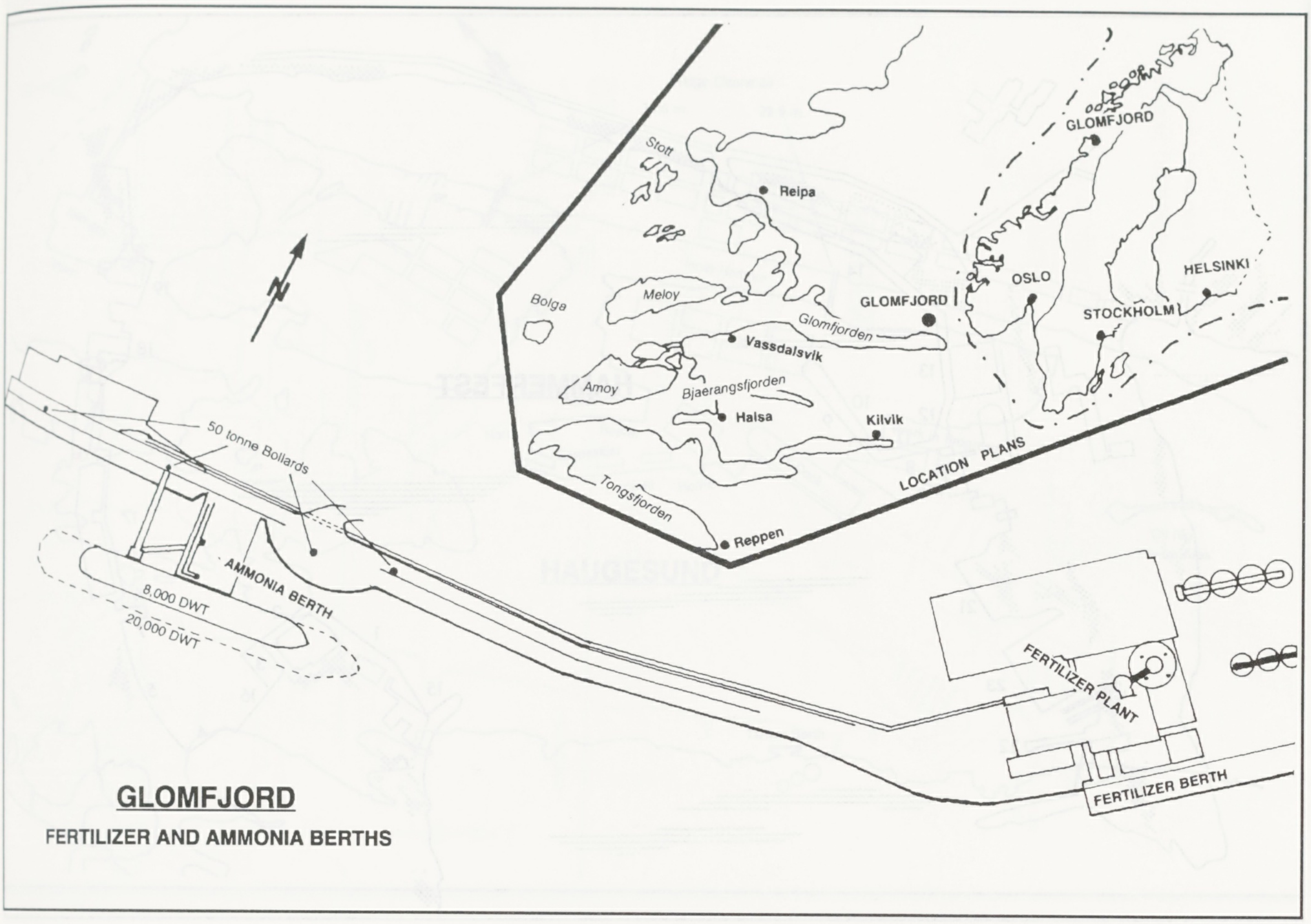
FRAJFJORD

MOORING DIAGRAM

"Plan Supplied by Ship's Maste

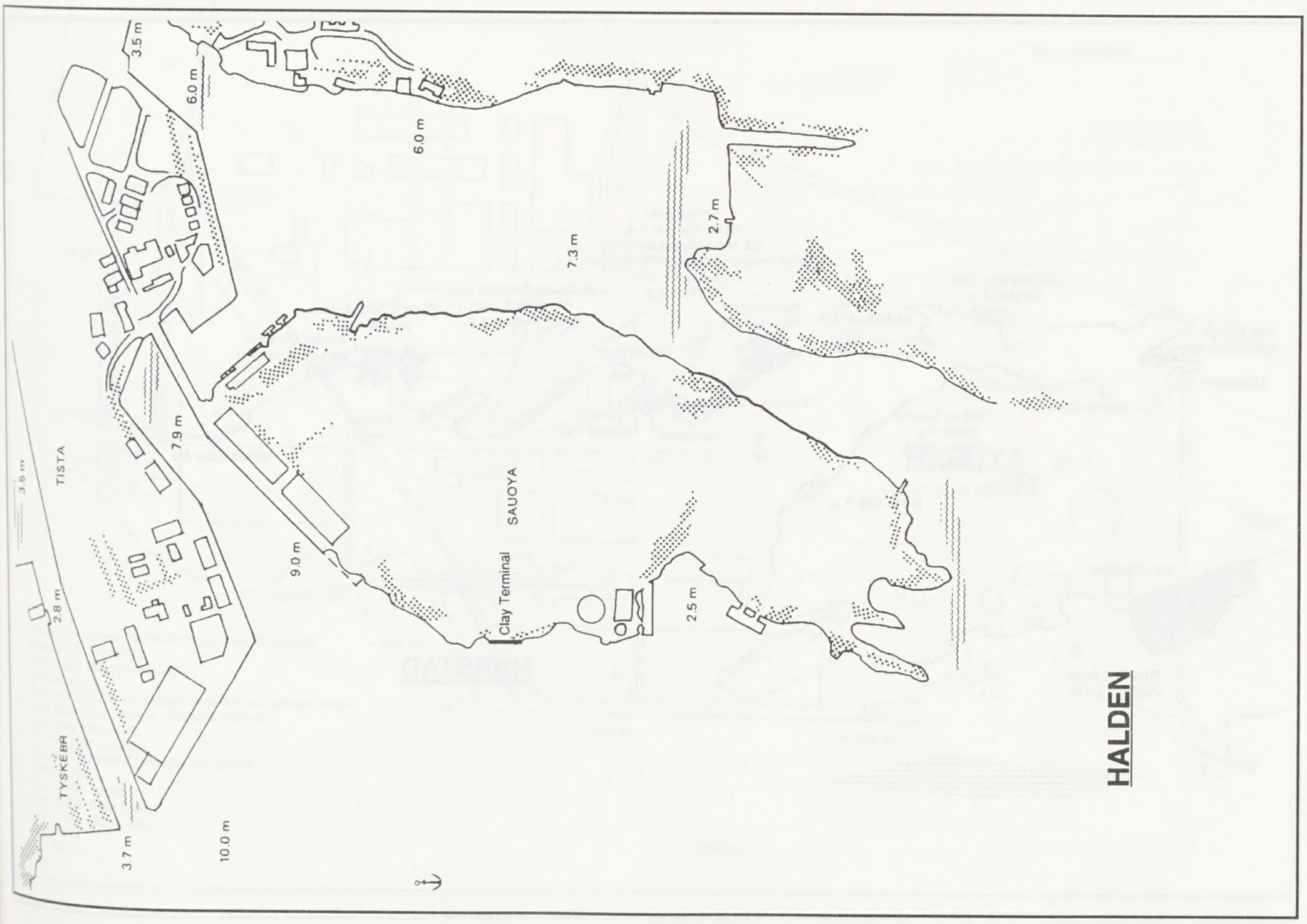

Warehouse 4
Warehouse
Warehouse 3
Warehouse 2
Oera Quay
Max.Draft 34 ft.
Max.Draft 28 – 33 ft.
Warehouse 1
Denofa Lilleborg Quay
New Qua

FREDRIKSTAD

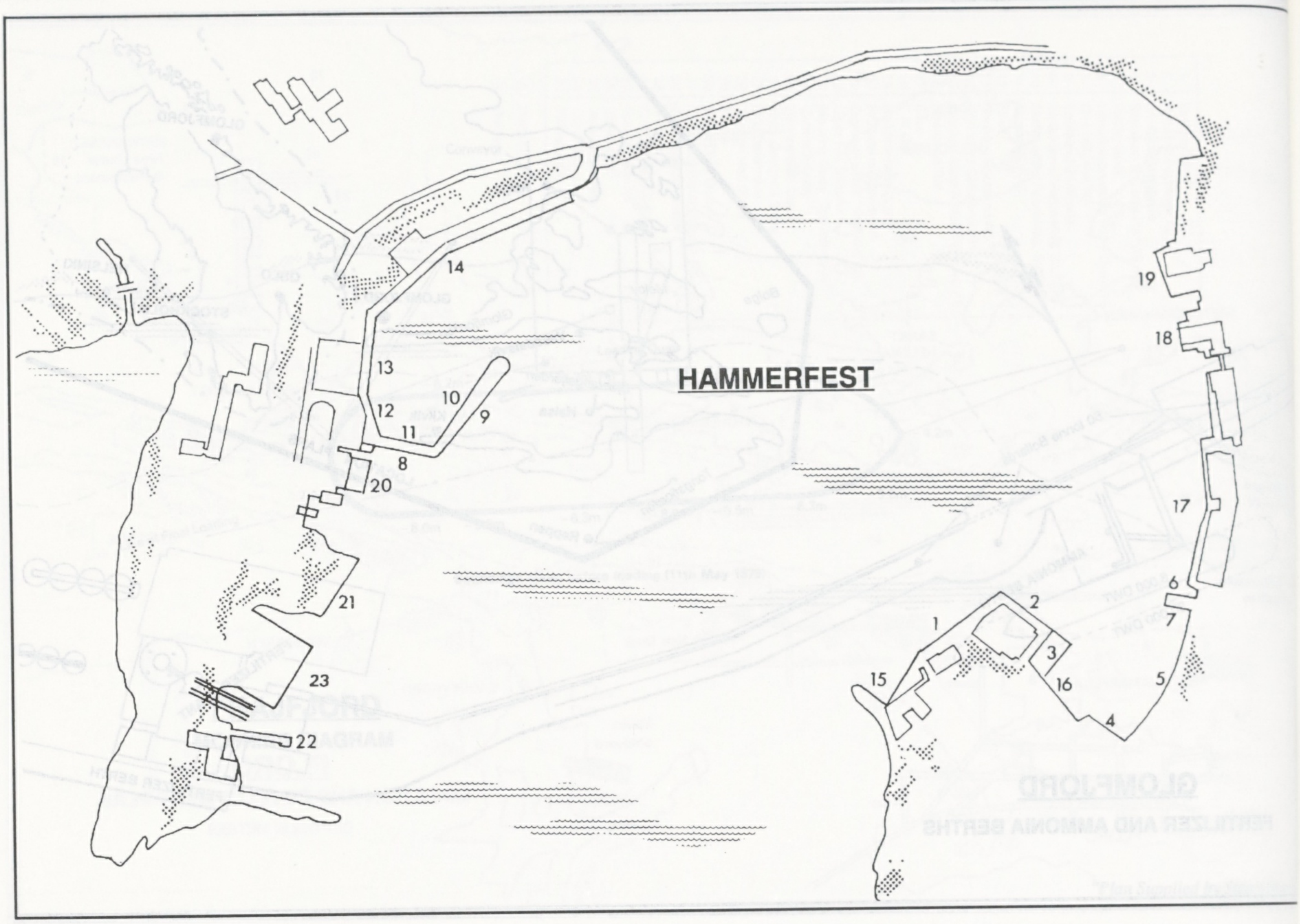

Stott
Reipa
Bolga
Meloy
GLOMFJORD
Glomfjorden
Vassdalsvik
Amoy
Bjaerangsfjorden
Halsa
Kilvik
Tongsfjorden
Reppen
LOCATION PLANS
GLOMFJORD
OSLO
STOCKHOLM
HELSINKI
N
50 tonne Bollards
AMMONIA BERTH
8,000 DWT
20,000 DWT
FERTILIZER PLANT
FERTILIZER BERTH

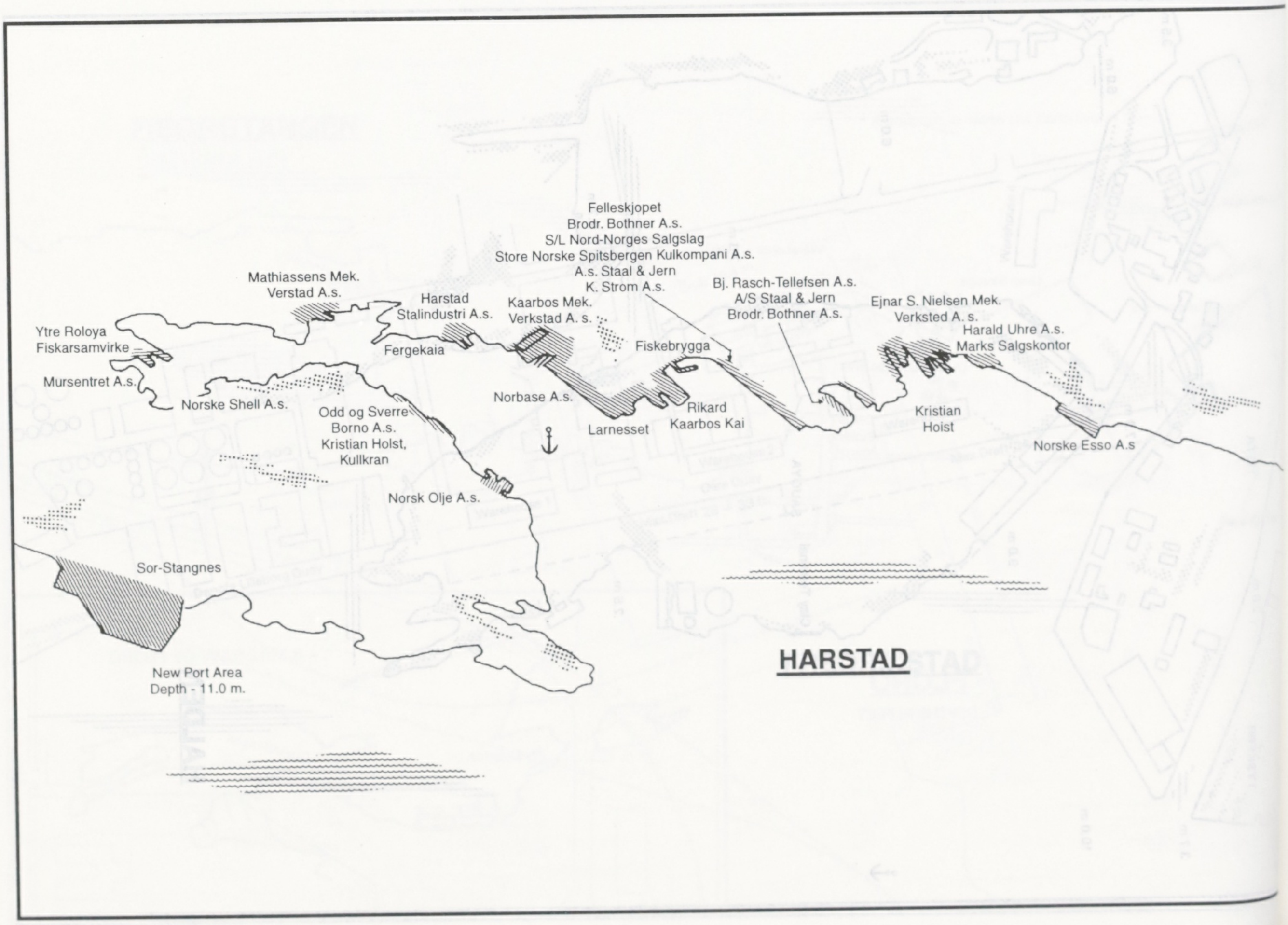
GLOMFJORD

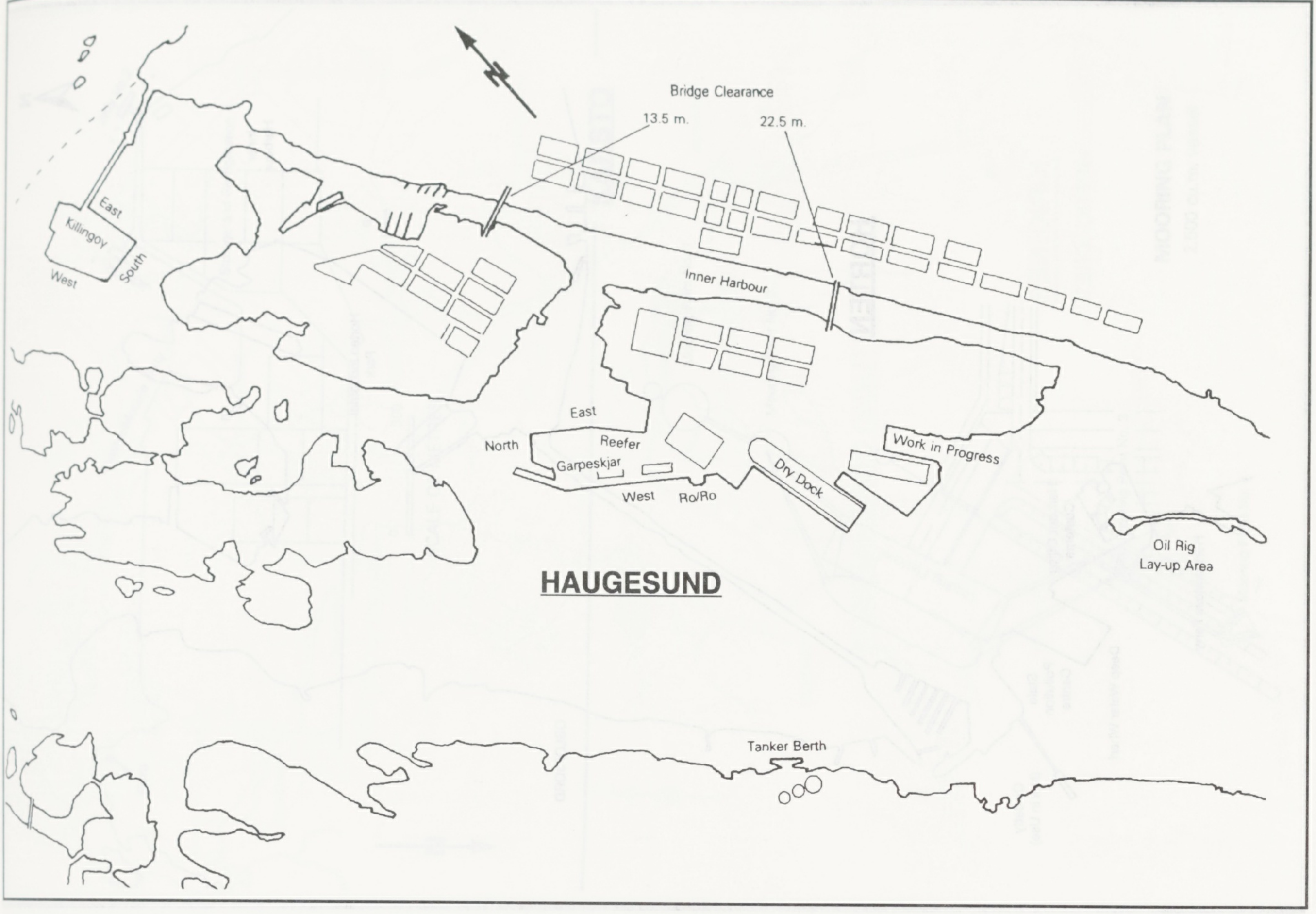
FERTILIZER AND AMMONIA BERTHS

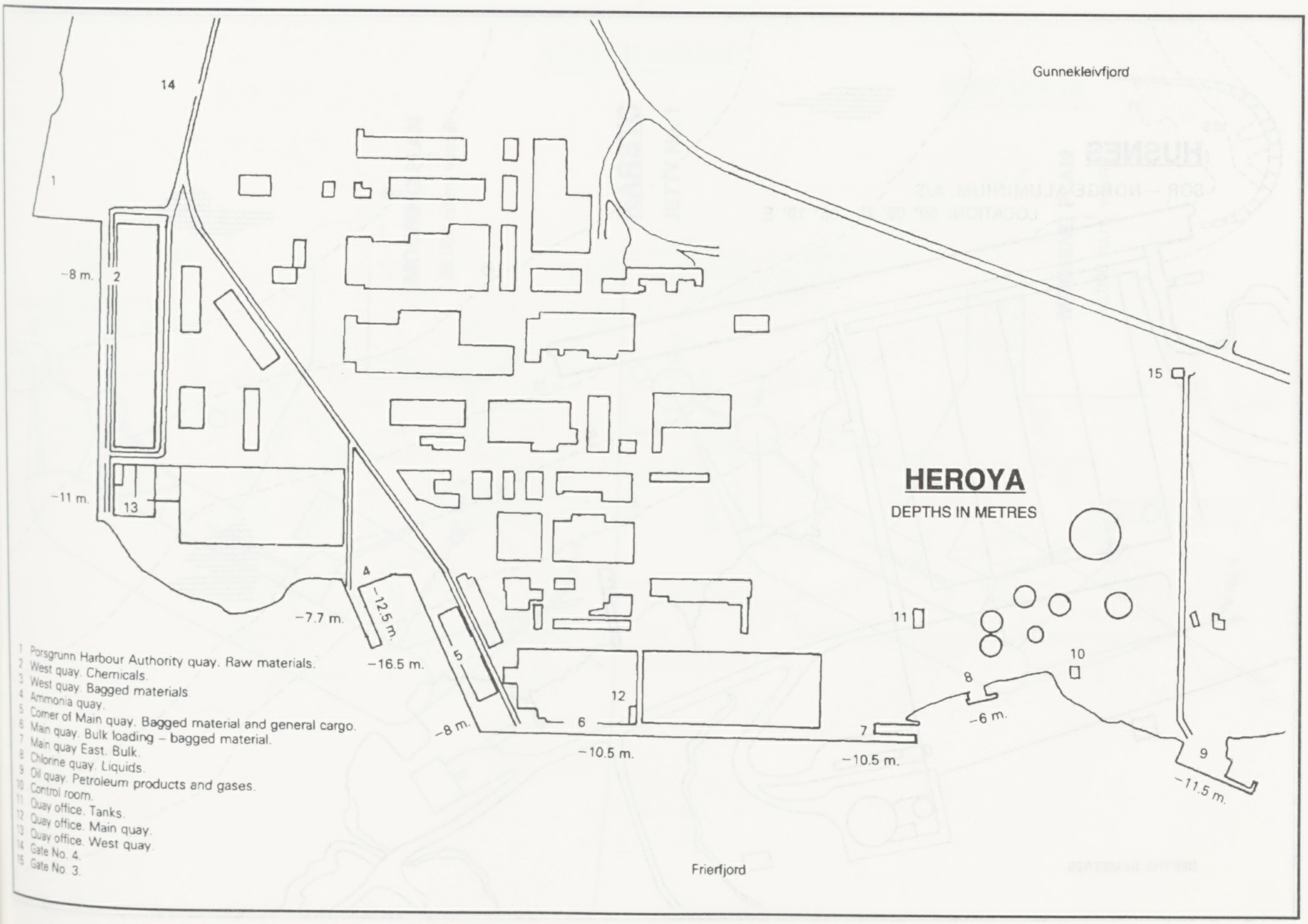

3.5 m
6.0 m
6.0 m
7.3 m
2.7 m
7.9 m
TISTA
3.5 m
SAUOYA
9.0 m
Clay Terminal
2.5 m
2.8 m
TYSKEBR
3.7 m
10.0 m

HALDEN

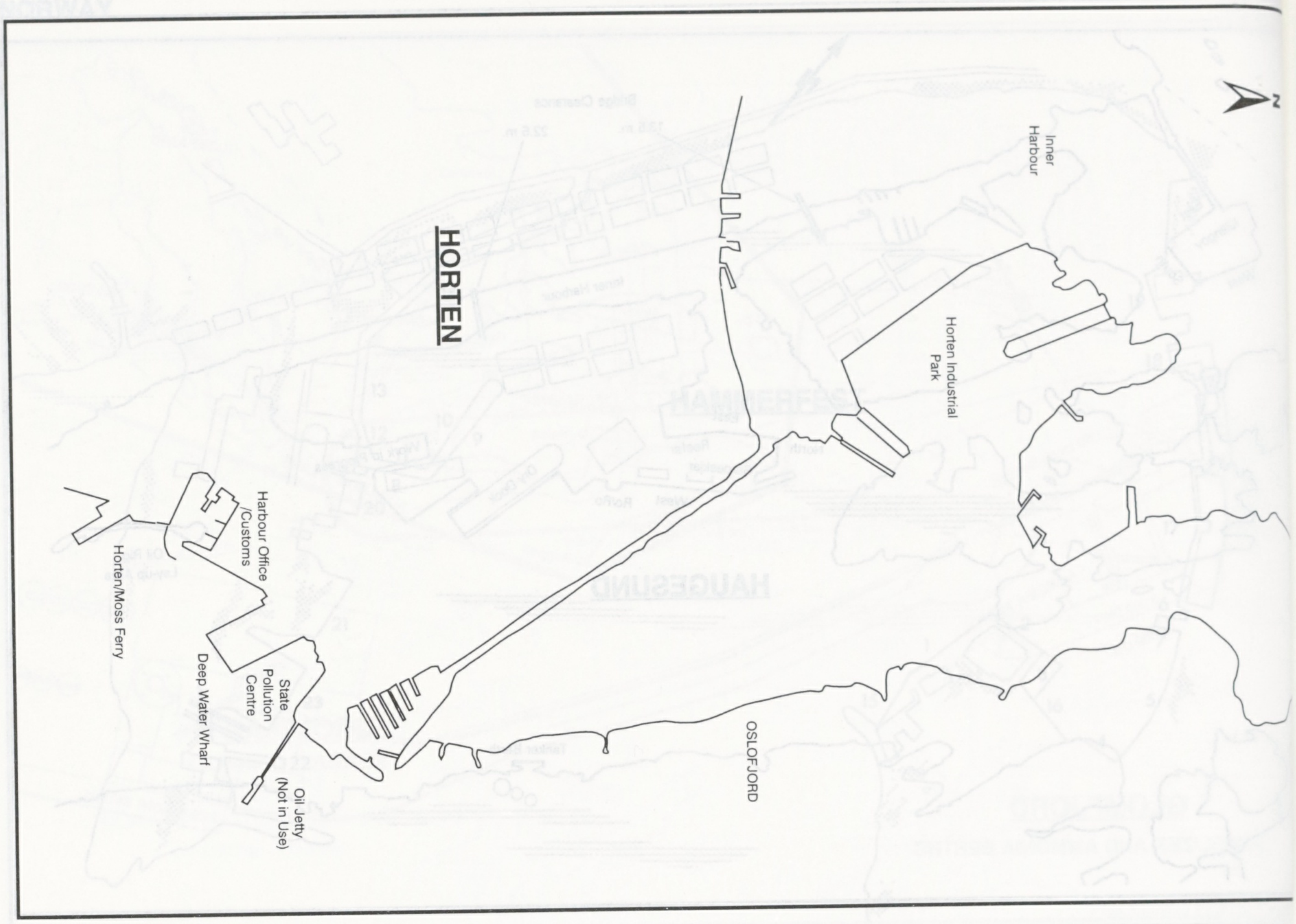

HAMMERFEST
14
13
12
11
10
9
8
20
21
23
22
19
18
17
6
7
5
2
1
3
16
15
4

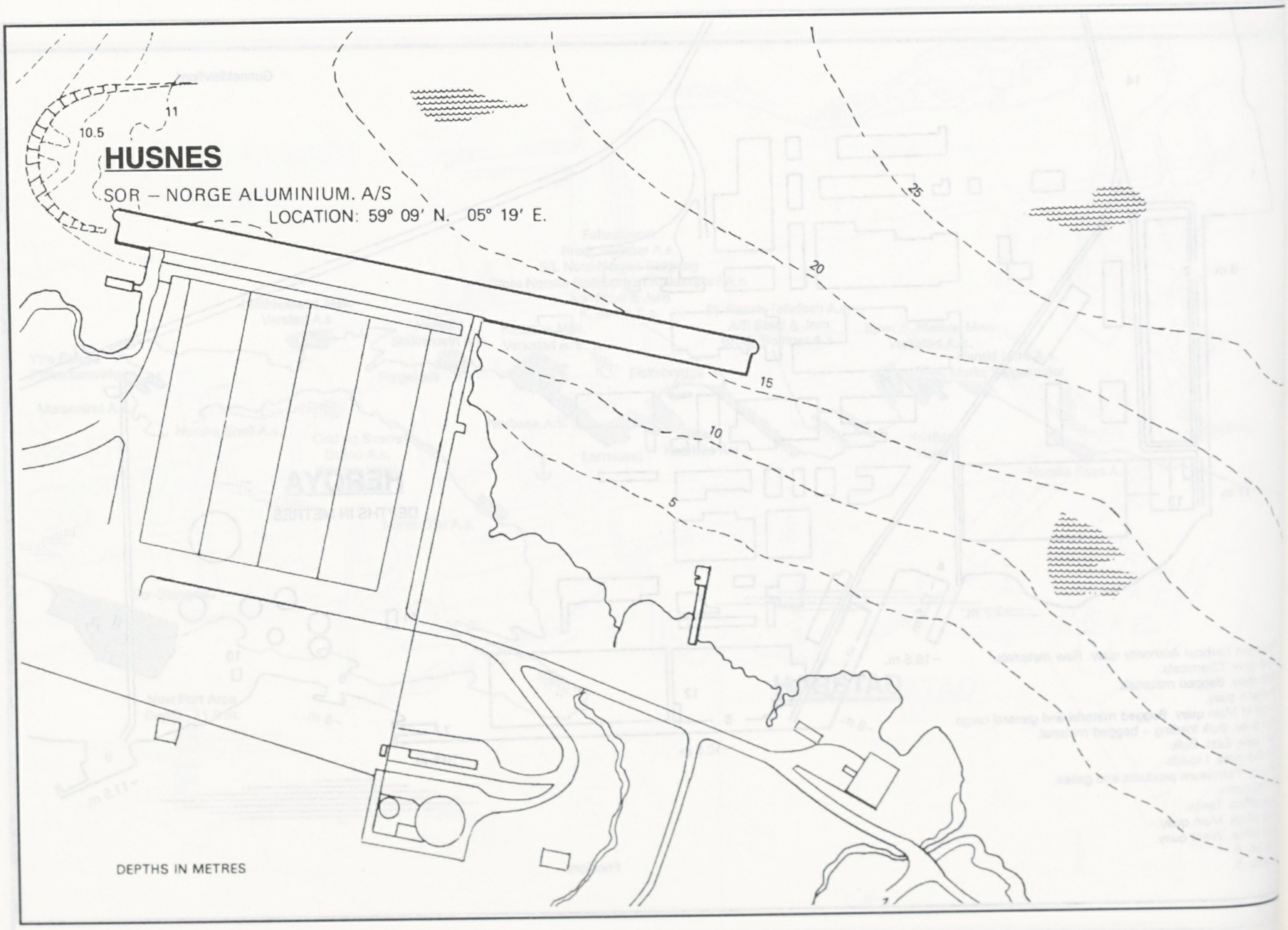

Felleskjopet
Brodr. Bothner A.s.
S/L Nord-Norges Salgslag
Store Norske Spitsbergen Kulkompani A.s.
A.s. Staal & Jern
K. Strom A.s.
Mathiassens Mek.
Verstad A.s.
Harstad
Stalindustri A.s.
Kaarbos Mek.
Verkstad A. s.
Bj. Rasch-Tellefsen A.s.
A/S Staal & Jern
Brodr. Bothner A.s.
Ejnar S. Nielsen Mek.
Verksted A. s.
Harald Uhre A.s.
Marks Salgskontor
Ytre Roloya
Fiskarsamvirke
Fergekaia
Fiskebrygga
Mursentret A.s.
Norske Shell A.s.
Odd og Sverre
Borno A.s.
Kristian Holst,
Kullkran
Norbase A.s.
Larnesset
Rikard
Kaarbos Kai
Kristian
Hoist
Norske Esso A.s
Norsk Olje A.s.
Sor-Stangnes
New Port Area
Depth - 11.0 m.
HARSTAD

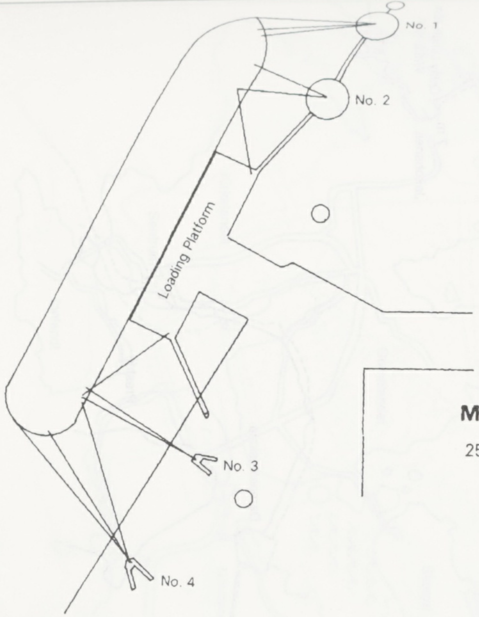

Bridge Clearance
13.5 m.
22.5 m.
East
Killingoy
South
West
Inner Harbour
East
North
Reefer
Garpeskjar
West
Ro/Ro
Dry Dock
Work in Progress
Oil Rig
Lay-up Area
HAUGESUND
Tanker Berth


HEROYA
DEPTHS IN METRES
Gunnekleivfjord
Frierfjord
14
1
−8 m.
2
−11 m.
13
4
−12.5 m.
−7.7 m.
−16.5 m.
5
−8 m.
6
12
−10.5 m.
7
−10.5 m.
8
−6 m.
11
10
9
−11.5 m.
15

1 Porsgrunn Harbour Authority quay. Raw materials.
2 West quay. Chemicals.
3 West quay. Bagged materials
4 Ammonia quay.
5 Corner of Main quay. Bagged material and general cargo.
6 Main quay. Bulk loading – bagged material.
7 Main quay East. Bulk.
8 Chlorine quay. Liquids.
9 Oil quay. Petroleum products and gases.
10 Control room.
11 Quay office. Tanks.
12 Quay office. Main quay.
13 Quay office. West quay
14 Gate No. 4.
15 Gate No. 3.


HORTEN
Inner Harbour
Horten Industrial Park
Harbour Office /Customs
Horten/Moss Ferry
State Pollution Centre
Deep Water Wharf
Oil Jetty (Not in Use)
OSLOFJORD


HUSNES
SOR – NORGE ALUMINIUM. A/S
LOCATION: 59° 09′ N. 05° 19′ E.
10.5
11
25
20
15
10
5
DEPTHS IN METRES

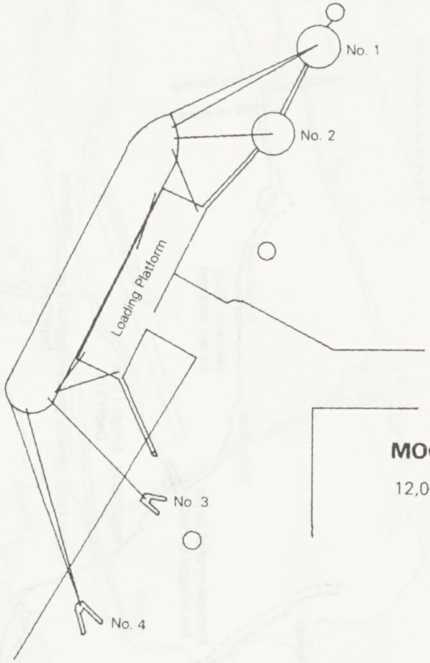

No. 1
No. 2
Loading Platform
No. 3
No. 4

MOORING PLAN

25,000 cu.m. vessel

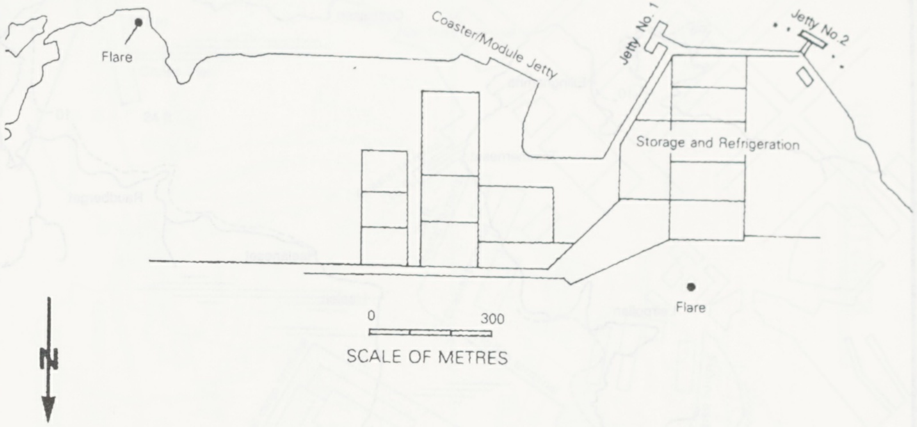
KARSTO

JETTY No. 1

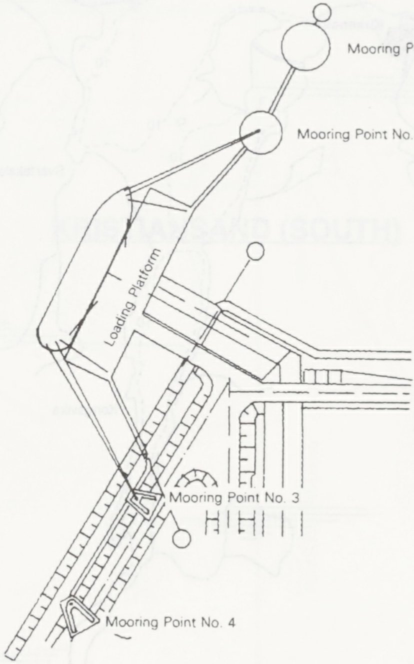

No. 1
No. 2
Loading Platform
No. 3
No. 4

MOORING PLAN

12,000 cu.m. vessel

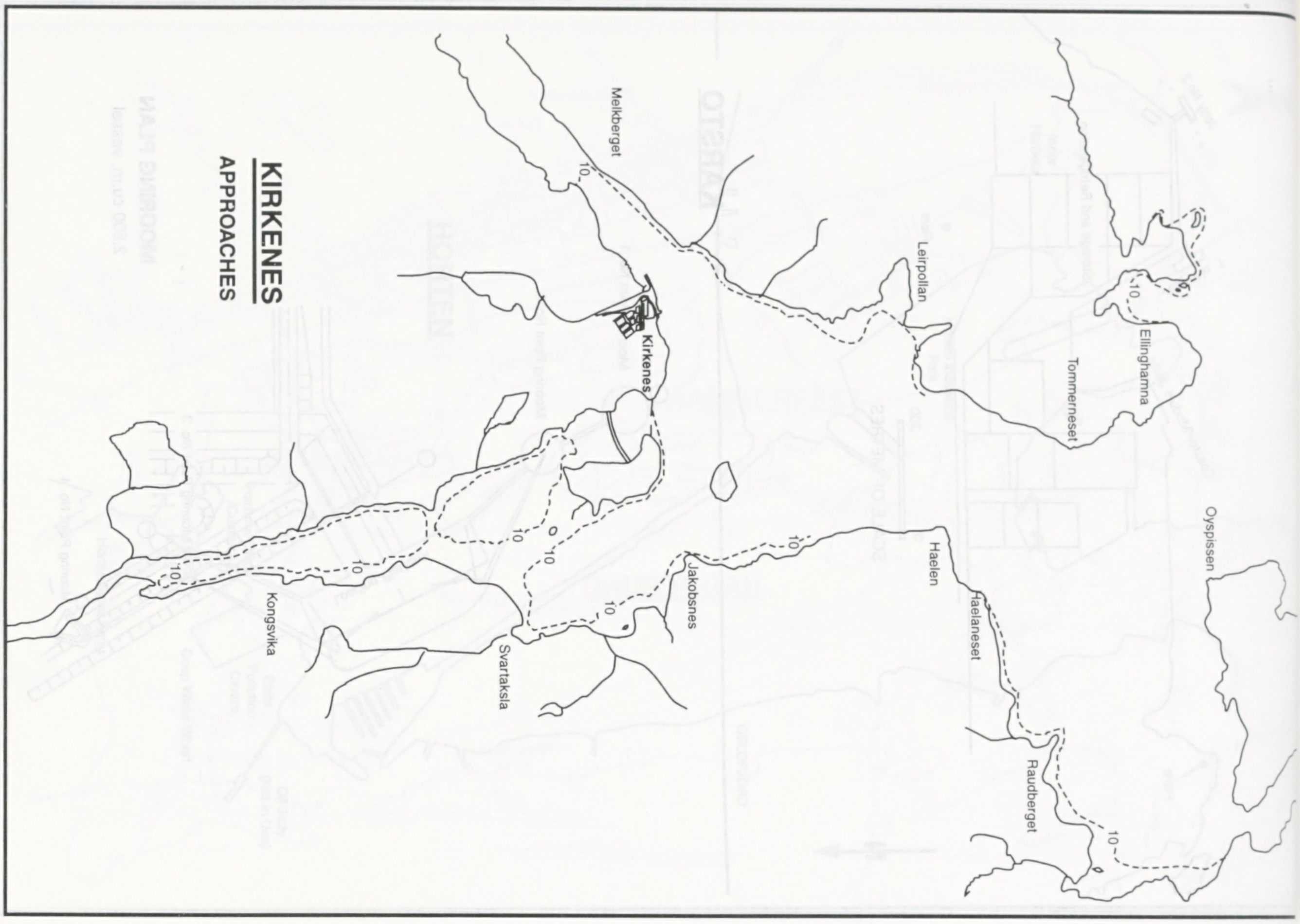

Flare
Coaster/Module Jetty
Jetty No. 1
Jetty No. 2
Storage and Refrigeration
Flare
0
300
SCALE OF METRES
N

KARSTO


Mooring Point No. 1
Mooring Point No. 2
Loading Platform
Mooring Point No. 3
Mooring Point No. 4

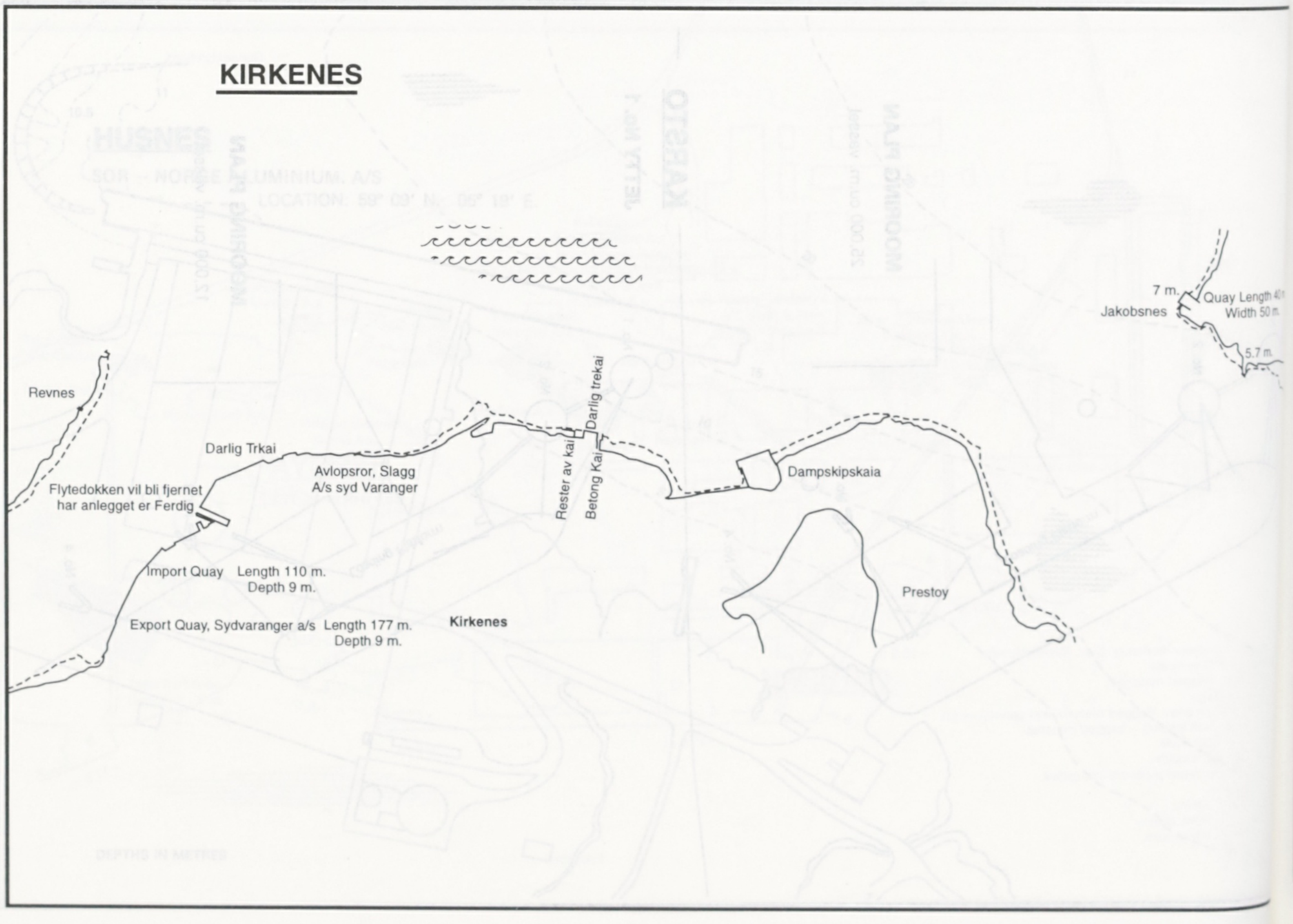
MOORING PLAN

2,500 cu.m. vessel



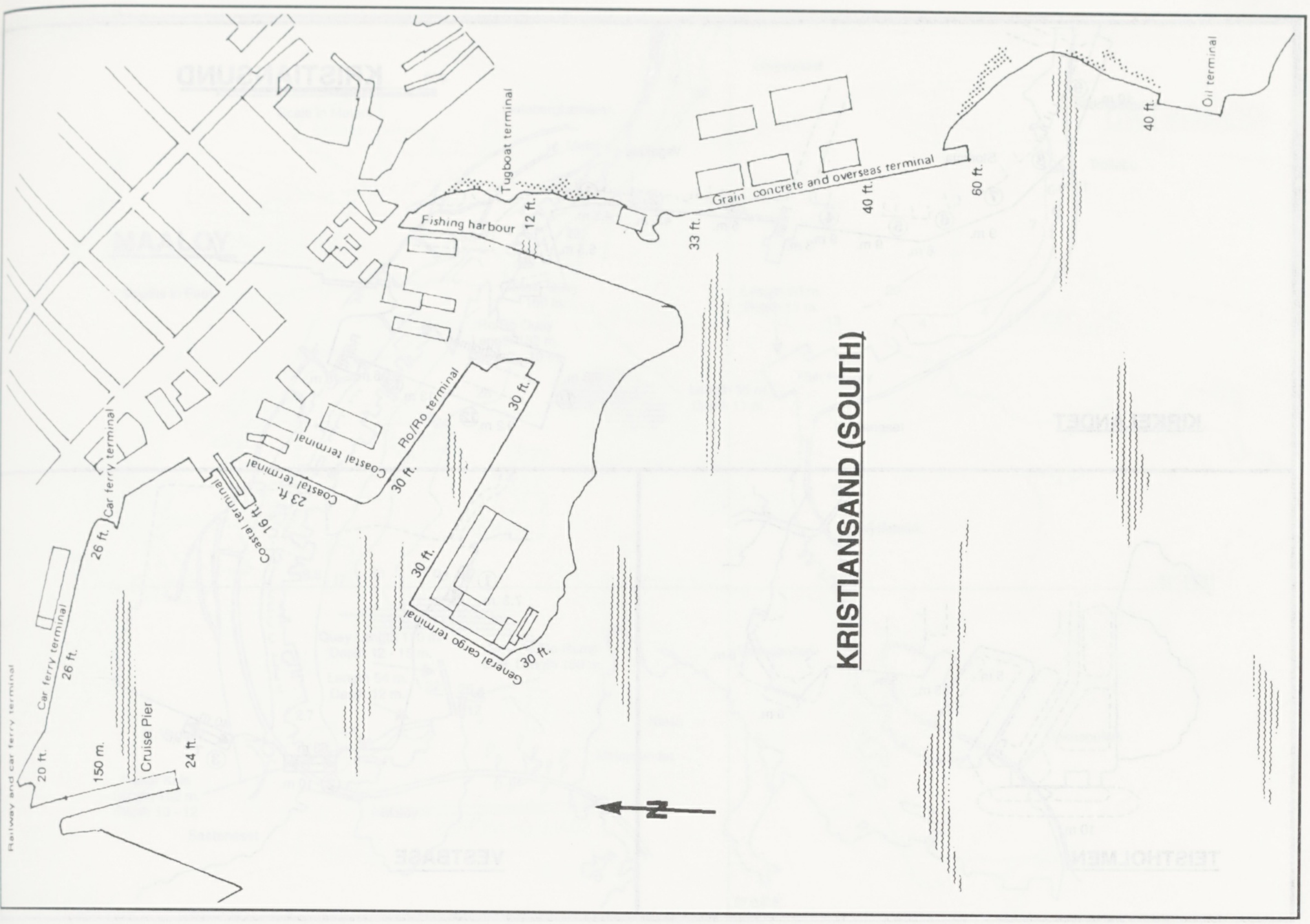
KIRKENES APPROACHES

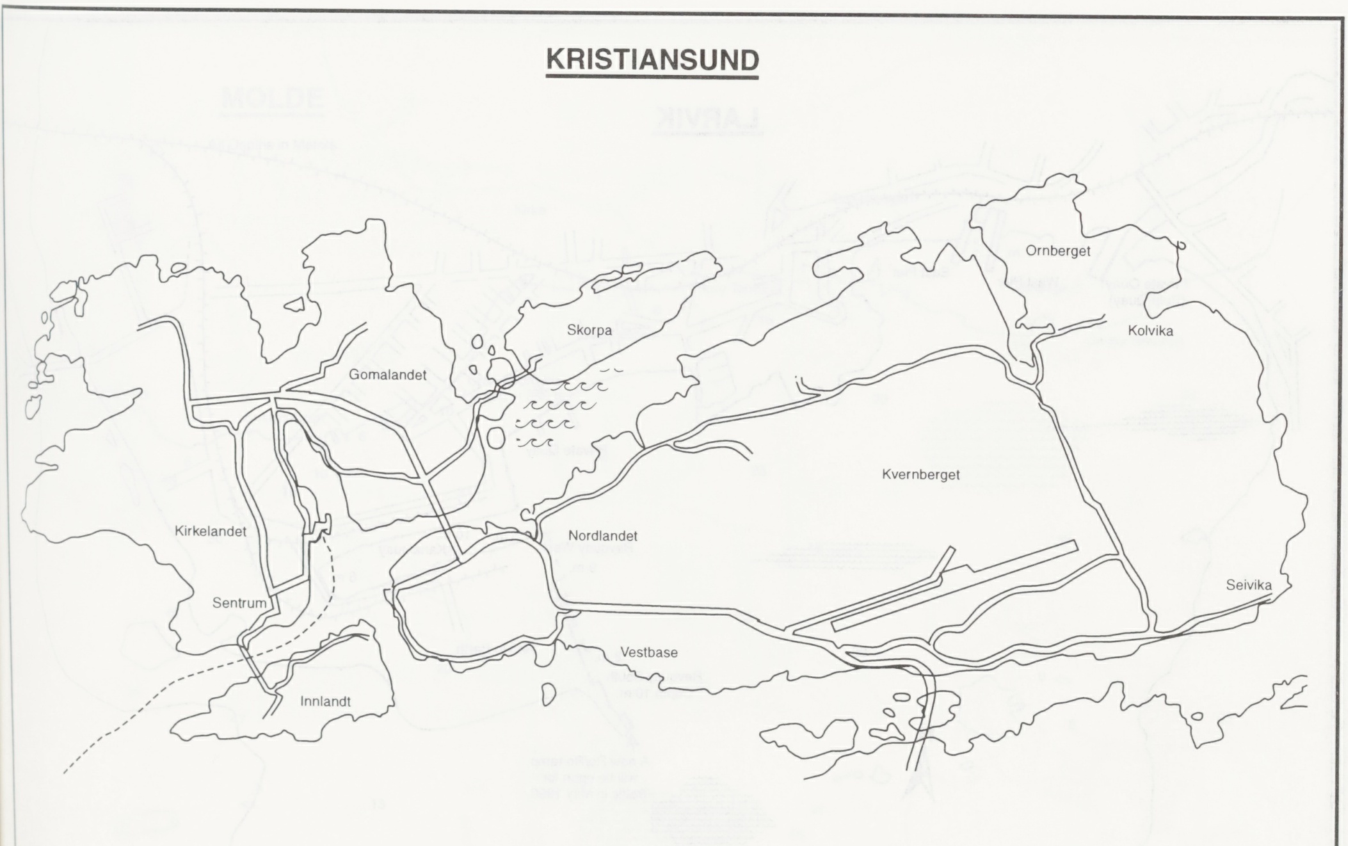
Melkberget
10
Leirpollan
10
Ellinghamna
Tommerneset
Kirkenes
Oyspissen
10
Haelen
Haelaneset
10
10
10
Jakobsnes
10
Svartaksla
Kongsvika
10
Raudberget
10

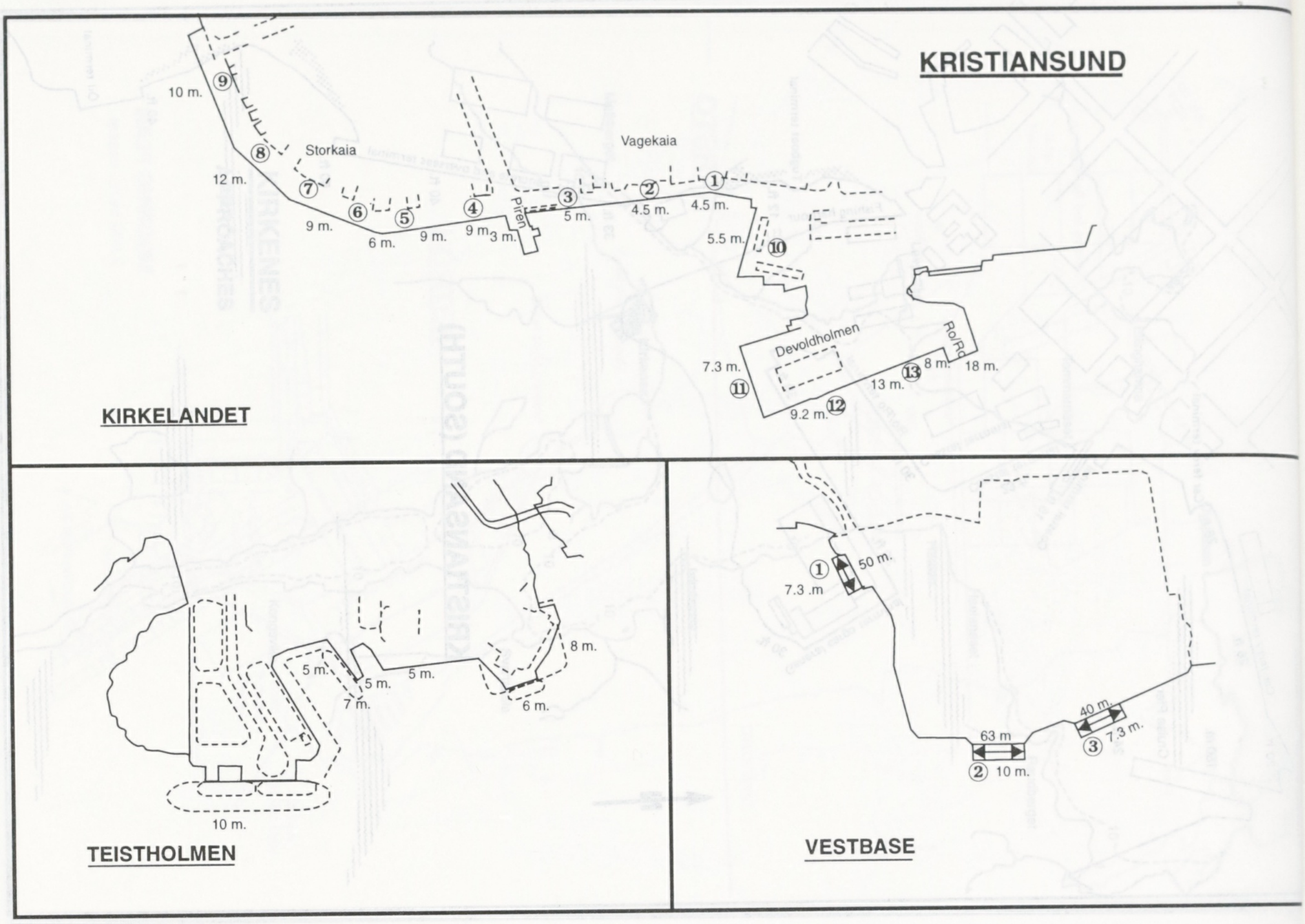


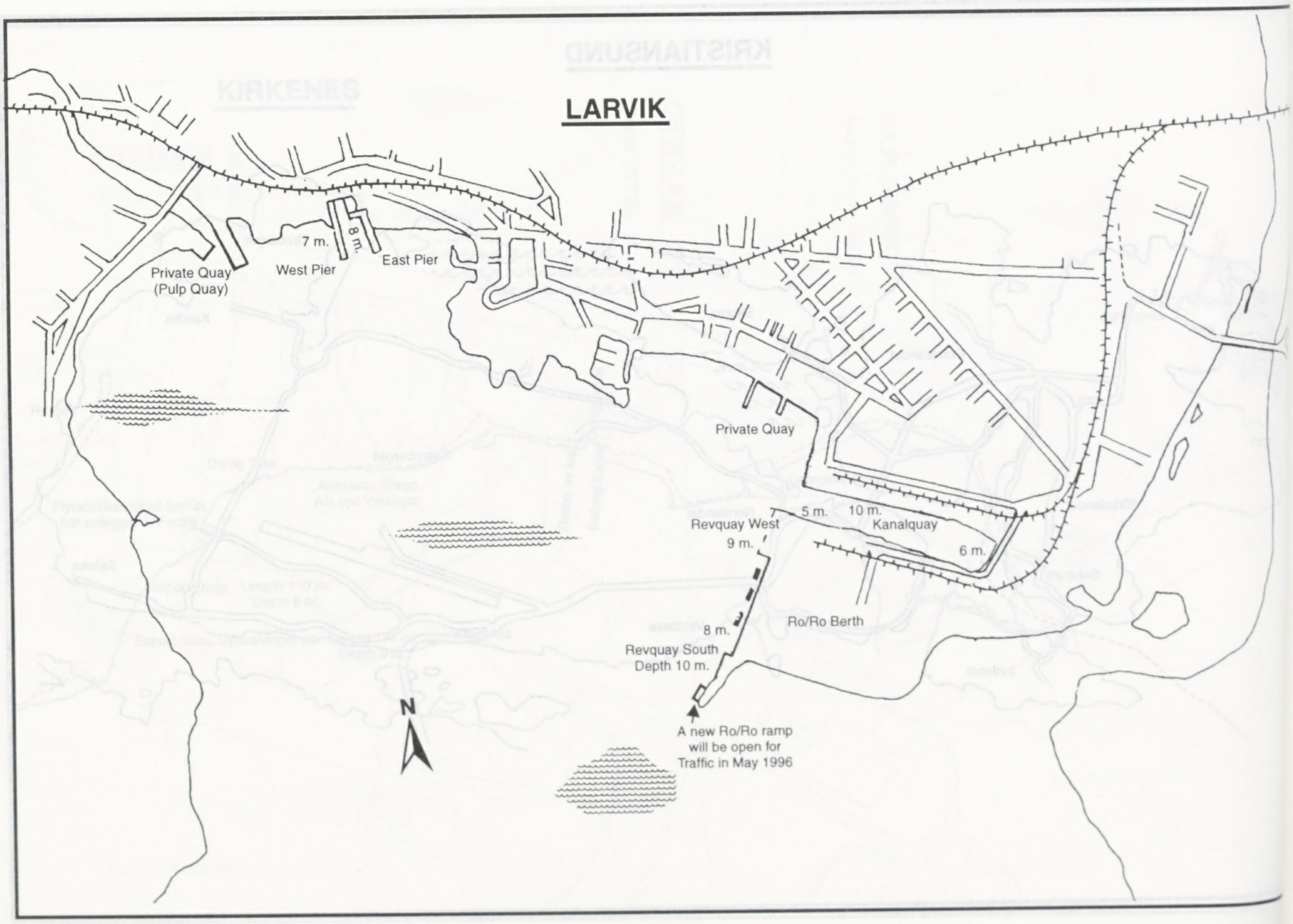
KIRKENES

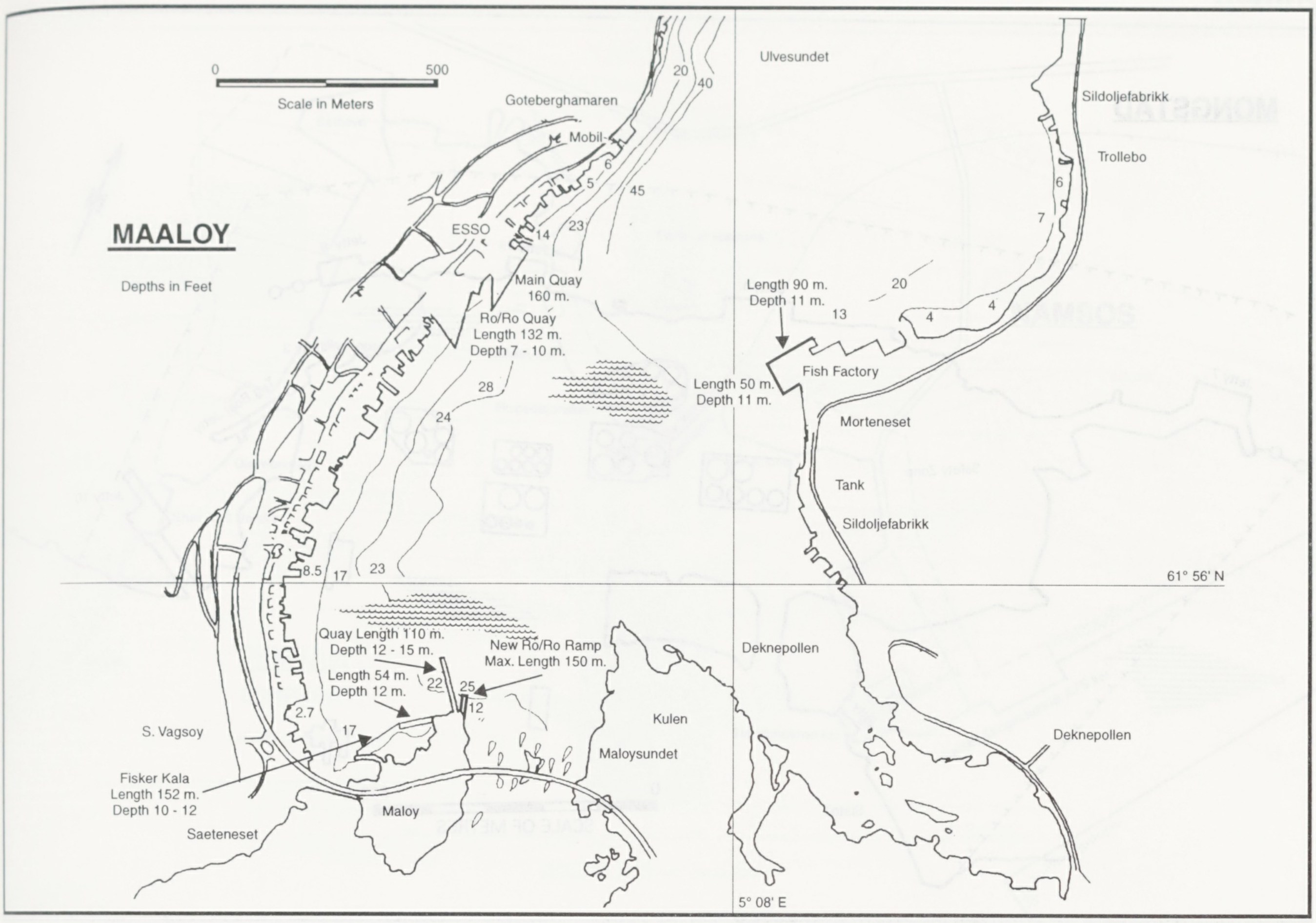
Revnes
Darlig Trkai
Flytedokken vil bli fjernet har anlegget er Ferdig
Avlopsror, Slagg A/s syd Varanger
Rester av kai
Betong Kai
Darlig trekai
Dampskipskaia
Import Quay Length 110 m. Depth 9 m.
Export Quay, Sydvaranger a/s Length 177 m. Depth 9 m.
Kirkenes
Prestoy
7 m.
Jakobsnes
Quay Length 40
Width 50 m.
5.7 m.

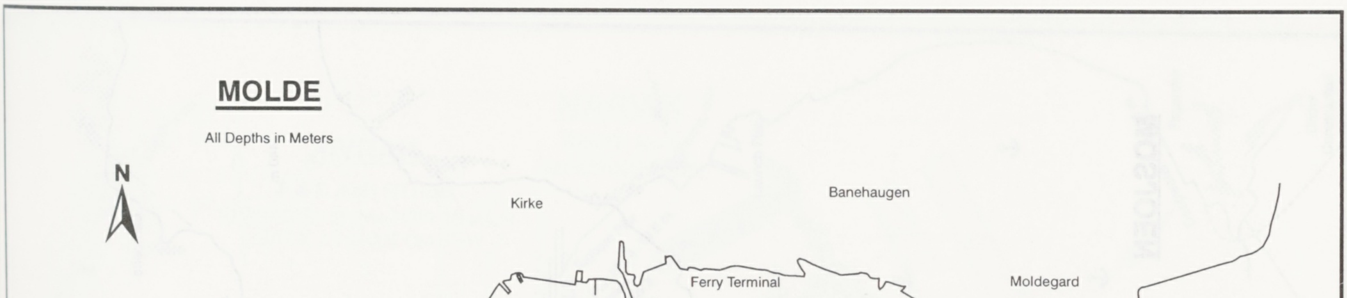

KRISTIANSAND (SOUTH)
Railway and car ferry terminal
20 ft.
150 m.
Cruise Pier
24 ft.
Car ferry terminal
26 ft.
26 ft.
Car ferry terminal
Coastal terminal
16 ft.
23 ft.
Coastal terminal
Coastal terminal
30 ft.
Ro/Ro terminal
30 ft.
30 ft.
General cargo terminal
30 ft.
Fishing harbour
12 ft.
Tugboat terminal
33 ft.
Grain concrete and overseas terminal
40 ft.
60 ft.
40 ft.
Oil terminal
N


KRISTIANSUND
Skorpa
Gomalandet
Ornberget
Kolvika
Kvernberget
Kirkelandet
Nordlandet
Sentrum
Seivika
Vestbase
Innlandt

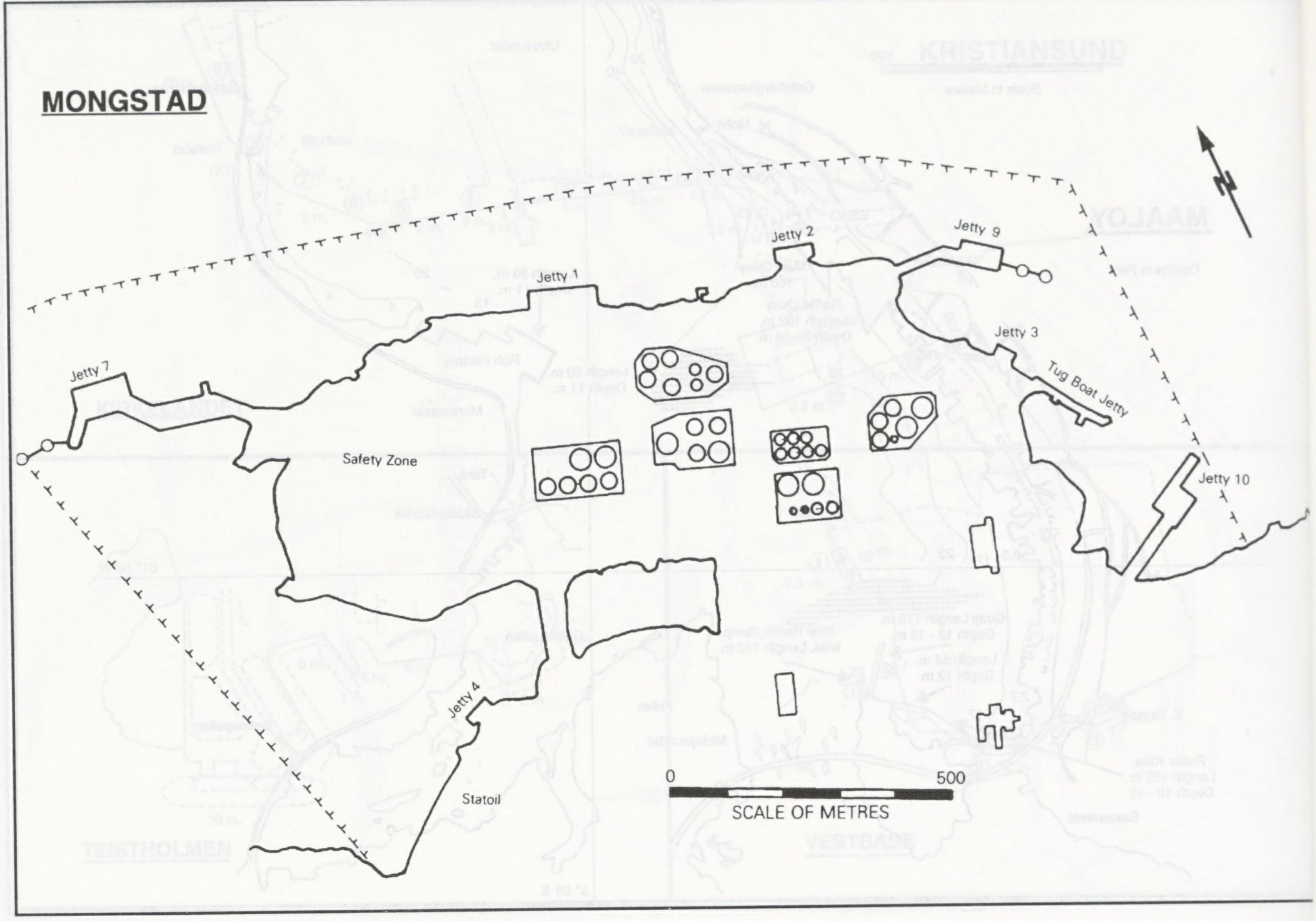

KRISTIANSUND
KIRKELANDET
Storkaia
Vagekaia
Piren
⑨ 10 m.
⑧ 12 m.
⑦ 9 m.
⑥ 6 m.
⑤ 9 m.
④ 9 m.
3 m.
③ 5 m.
② 4.5 m.
① 4.5 m.
⑩ 5.5 m.
Devoldholmen
Ro/Ro
⑪ 7.3 m.
⑫ 9.2 m.
⑬ 13 m.
8 m.
18 m.
TEISTHOLMEN
5 m.
5 m.
7 m.
5 m.
8 m.
6 m.
10 m.
VESTBASE
① 50 m. 7.3 m
② 63 m 10 m.
③ 40 m. 7.3 m.


LARVIK
Private Quay (Pulp Quay)
West Pier
7 m.
8 m.
East Pier
Private Quay
Revquay West
7
9 m.
5 m.
10 m.
Kanalquay
6 m.
Ro/Ro Berth
8 m.
Revquay South Depth 10 m.
A new Ro/Ro ramp will be open for Traffic in May 1996
N

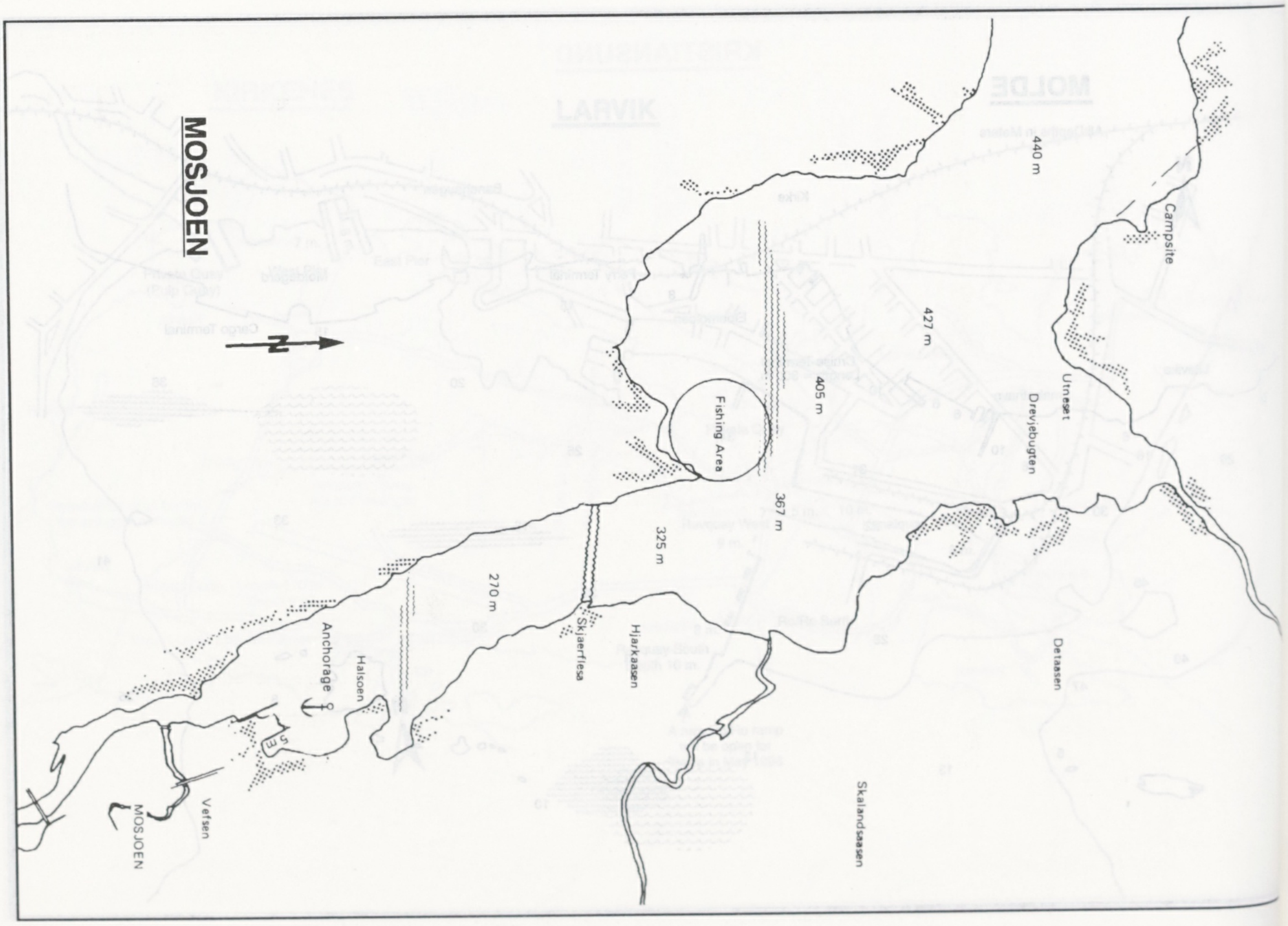

MAALOY
Depths in Feet
0
500
Scale in Meters
Gotebergharmaren
Mobil
ESSO
Main Quay
160 m.
Ro/Ro Quay
Length 132 m.
Depth 7 - 10 m.
20
40
6
5
45
14
23
28
24
8.5
17
23
Quay Length 110 m.
Depth 12 - 15 m.
Length 54 m.
Depth 12 m.
New Ro/Ro Ramp
Max. Length 150 m.
22
25
12
2.7
17
S. Vagsoy
Fisker Kala
Length 152 m.
Depth 10 - 12
Saeteneset
Maloy
Kulen
Maloysundet
Ulvesundet
Sildoljefabrikk
Trollebo
6
7
Length 90 m.
Depth 11 m.
20
13
4
4
Fish Factory
Length 50 m.
Depth 11 m.
Morteneset
Tank
Sildoljefabrikk
61° 56' N
Deknepollen
Deknepollen
5° 08' E

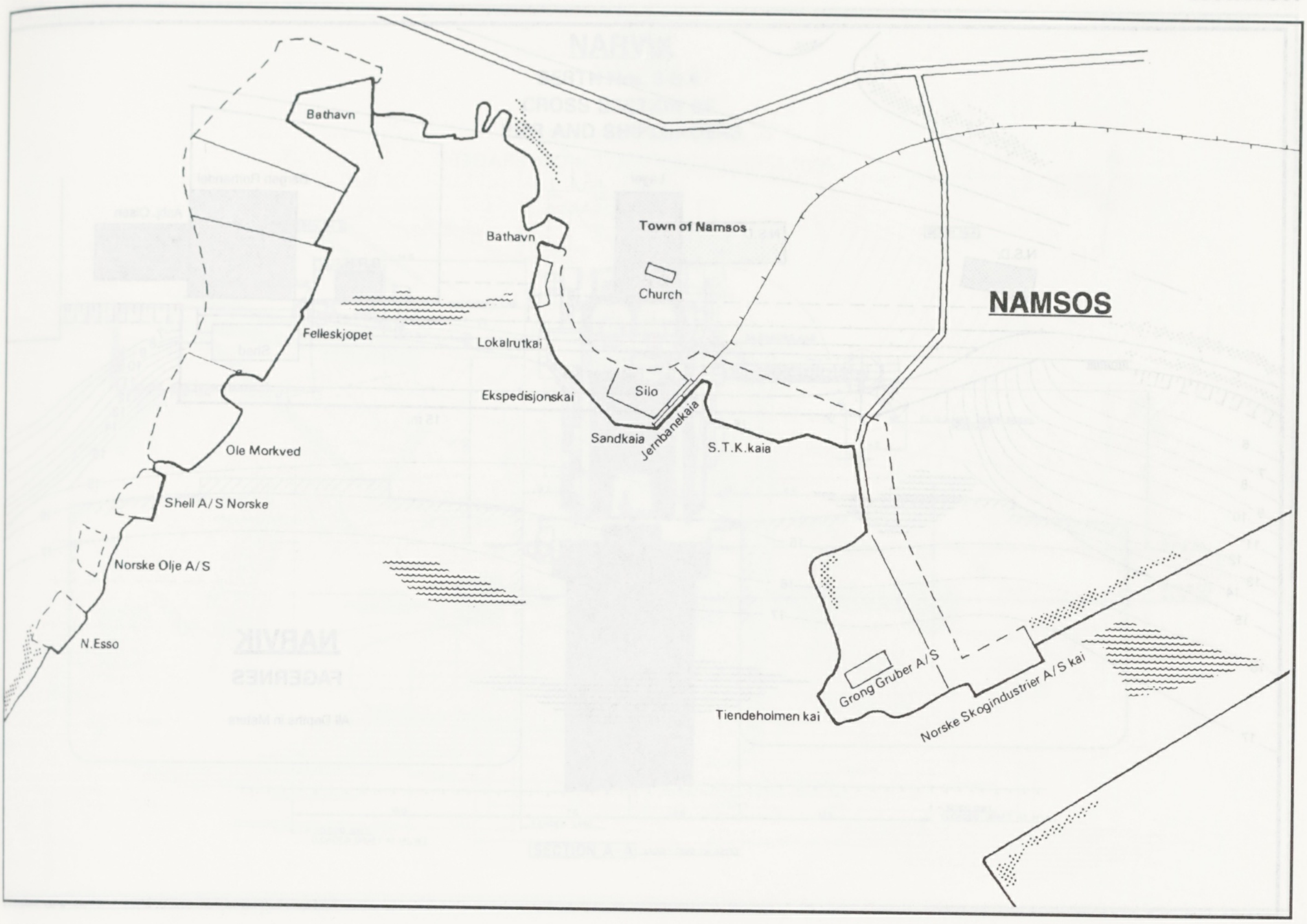

MOLDE
All Depths in Meters
N
Kirke
Banehaugen
Ferry Terminal
8
15
Eloemoloen
Moldegard
15
Cargo Terminal
Litevika
5
Smabathavn
6
6
10
Cruise Terminal
Length = 300 m.
10
20
36
6
20
16
16
31
34
25
30
22
18
33
41
45
30
30
28
23
49
47
8
25
5
13
13
10

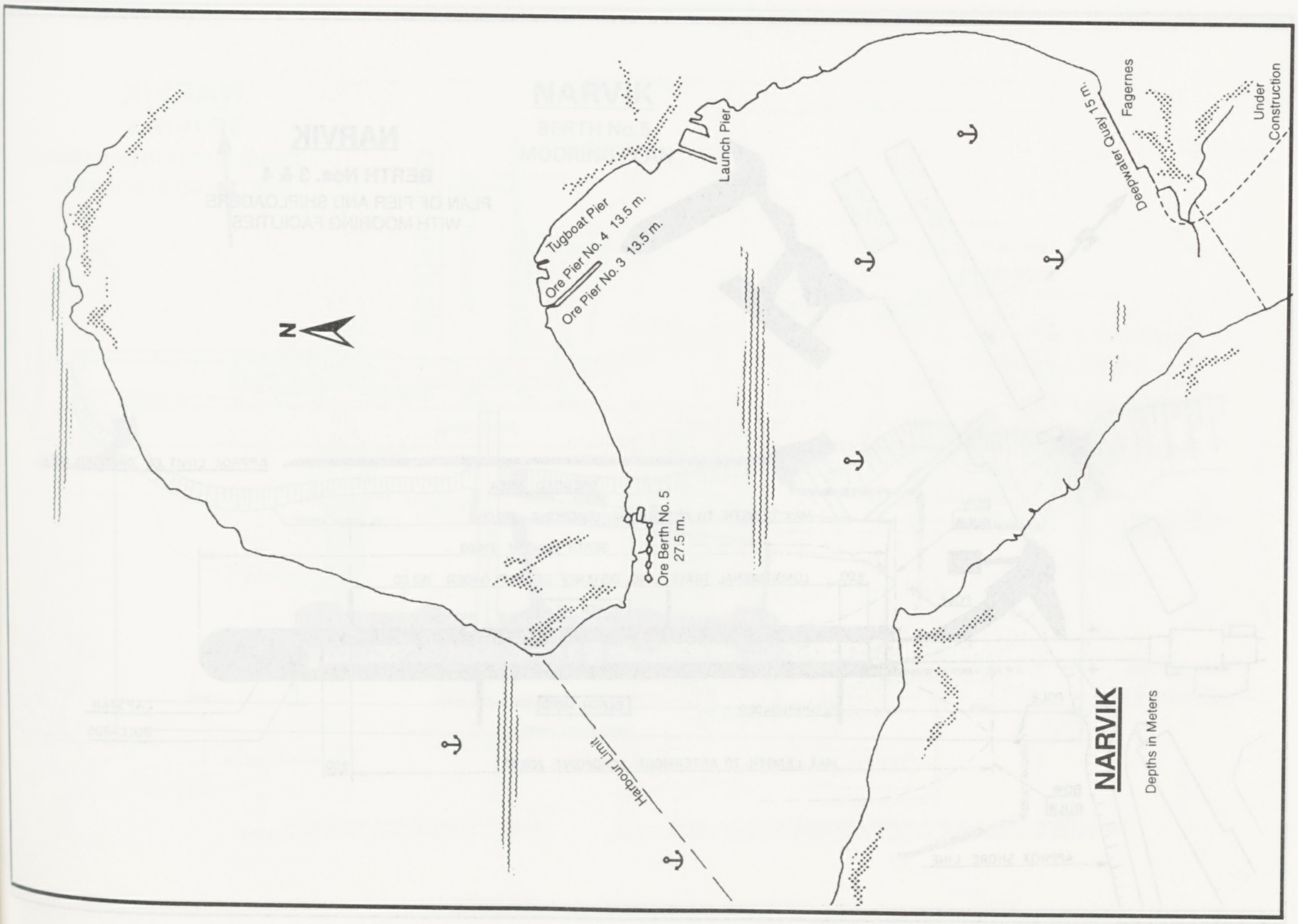
MONGSTAD

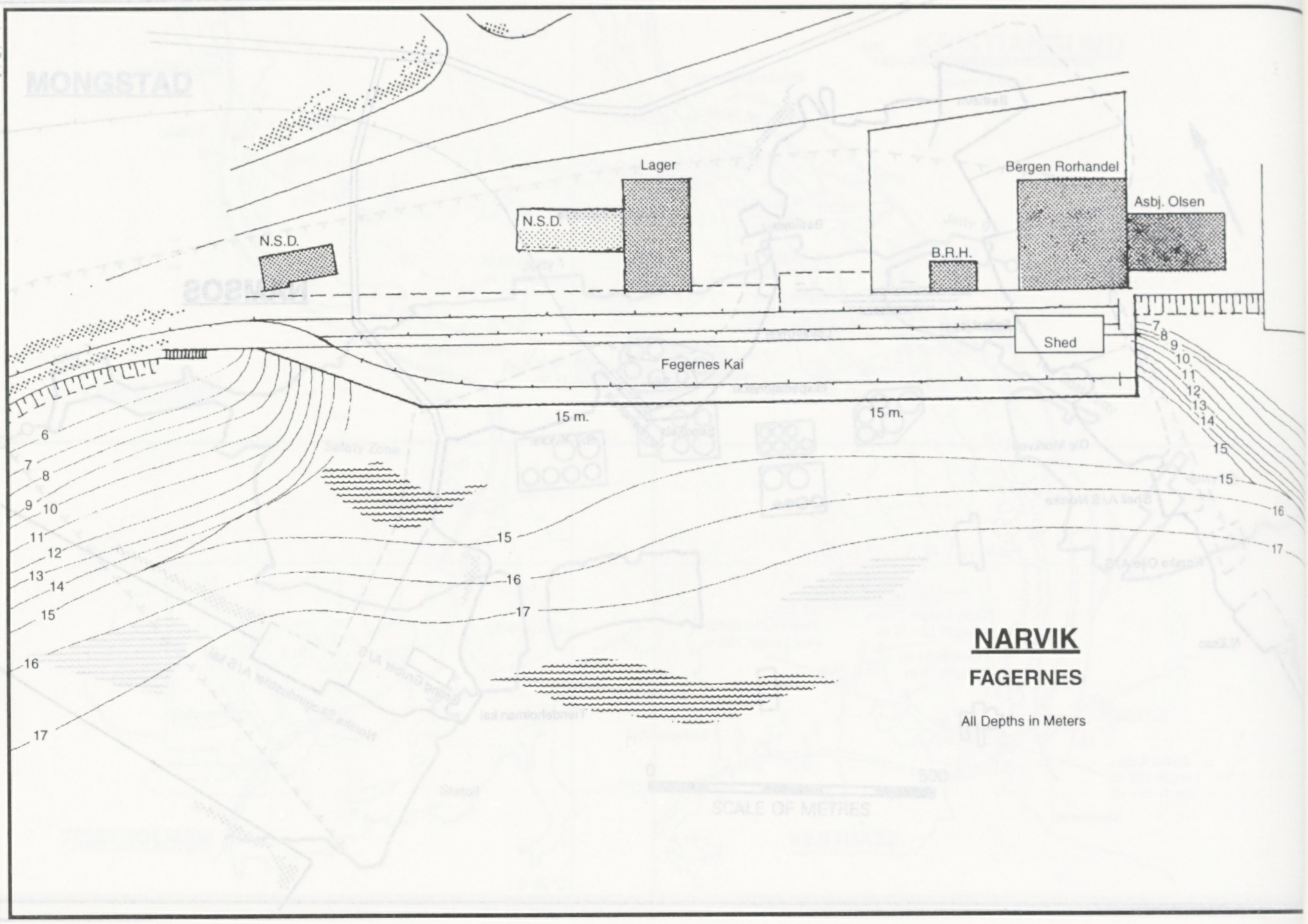

N
Jetty 7
Jetty 1
Jetty 2
Jetty 9
Jetty 3
Tug Boat Jetty
Jetty 10
Safety Zone
Jetty 4
Statoil
0
500
SCALE OF METRES

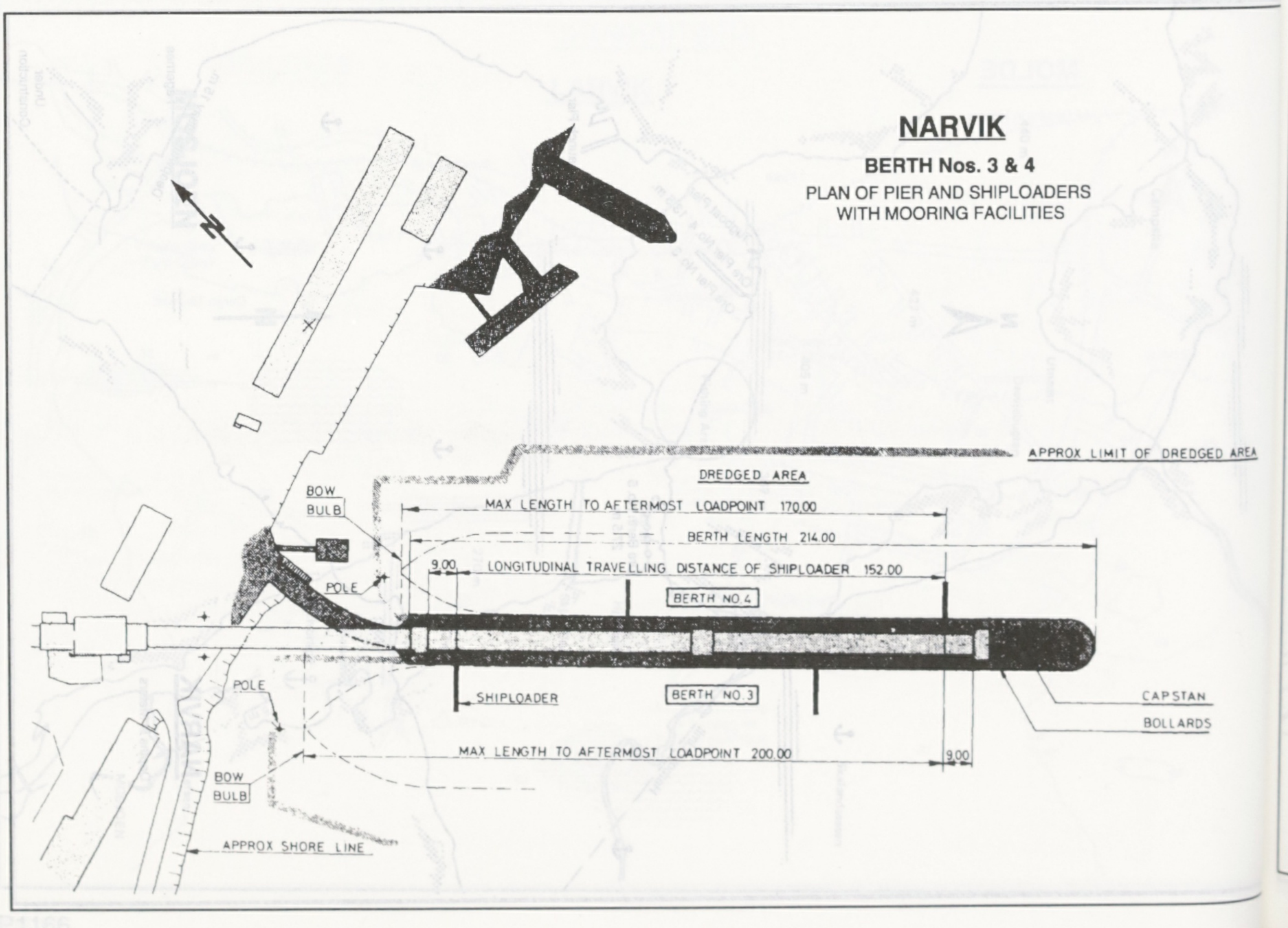
MOSJOEN


N
440 m
Campsite
427 m
405 m
Fishing Area
367 m
325 m
270 m
Utneset
Drevjebugten
Detaasen
Skalandsaasen
Hjarkaasen
Skjaerflesa
Halsoen
Anchorage
5 m
Vefsen
MOSJOEN


NAMSOS
Bathavn
Bathavn
Town of Namsos
Church
Felleskjopet
Lokalrutkai
Ekspedisjonskai
Silo
Sandkaia
Jernbanekaia
S.T.K.kaia
Ole Morkved
Shell A/S Norske
Norske Olje A/S
N.Esso
Grong Gruber A/S
Tiendeholmen kai
Norske Skogindustrier A/S kai

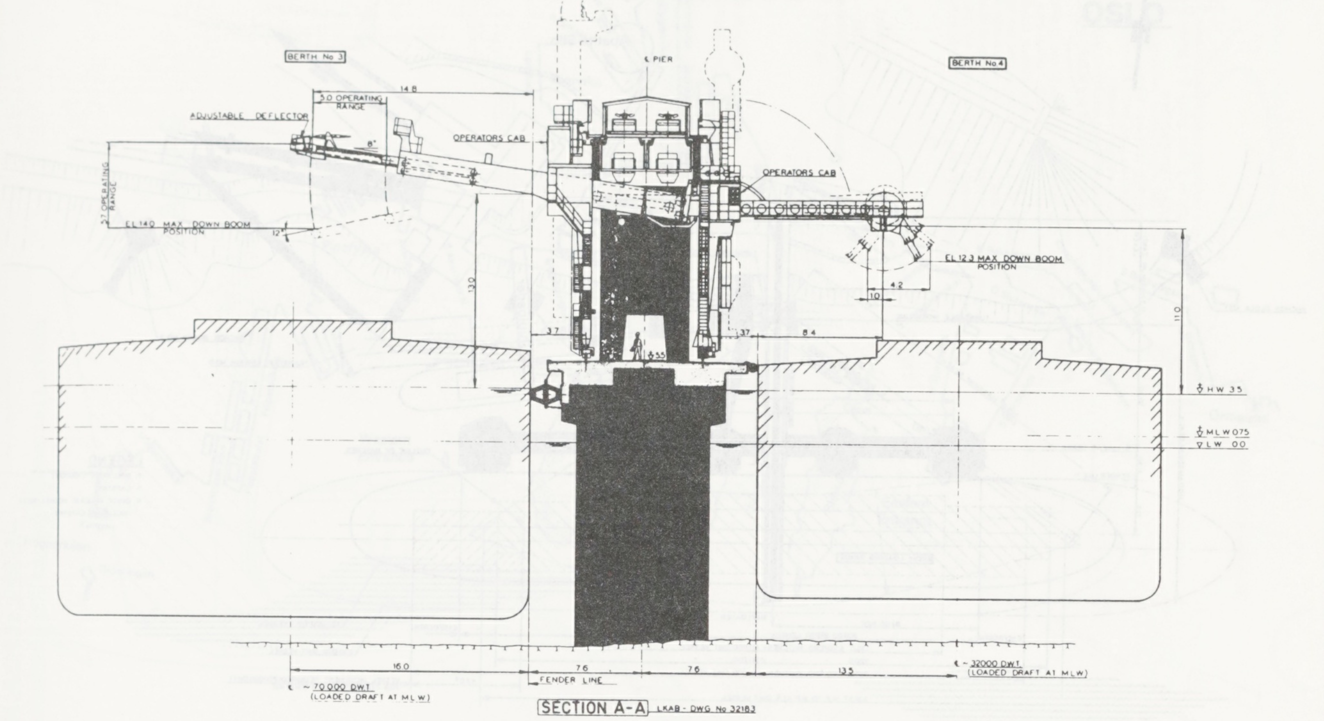

NARVIK
Depths in Meters
N
Tugboat Pier
Ore Pier No. 4 13.5 m.
Ore Pier No. 3 13.5 m.
Launch Pier
Deepwater Quay 15 m.
Fagernes
Under Construction
Ore Berth No. 5
27.5 m.
Harbour Limit


Lager
N.S.D.
N.S.D.
Bergen Rorhandel
Asbj. Olsen
B.R.H.
Shed
Fegernes Kai
15 m.
15 m.
6
7
8
9
10
11
12
13
14
15
16
17
NARVIK
FAGERNES
All Depths in Meters


NARVIK
BERTH Nos. 3 & 4
PLAN OF PIER AND SHIPLOADERS WITH MOORING FACILITIES
APPROX LIMIT OF DREDGED AREA
DREDGED AREA
MAX LENGTH TO AFTERMOST LOADPOINT 170.00
BERTH LENGTH 214.00
9.00
LONGITUDINAL TRAVELLING DISTANCE OF SHIPLOADER 152.00
BERTH NO.4
BOW BULB
POLE
SHIPLOADER
BERTH NO.3
CAPSTAN
BOLLARDS
POLE
MAX LENGTH TO AFTERMOST LOADPOINT 200.00
9.00
BOW BULB
APPROX SHORE LINE

NARVIK

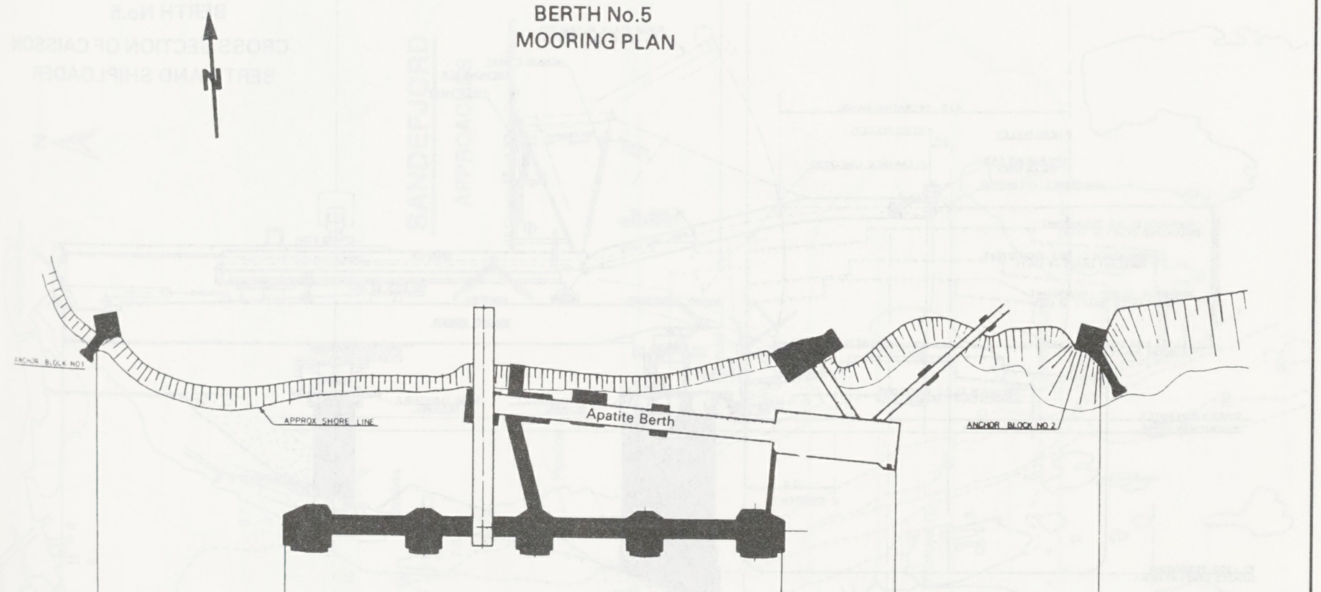
BERTH Nos. 3 & 4
CROSS SECTION OF
PIER AND SHIPLOADERS

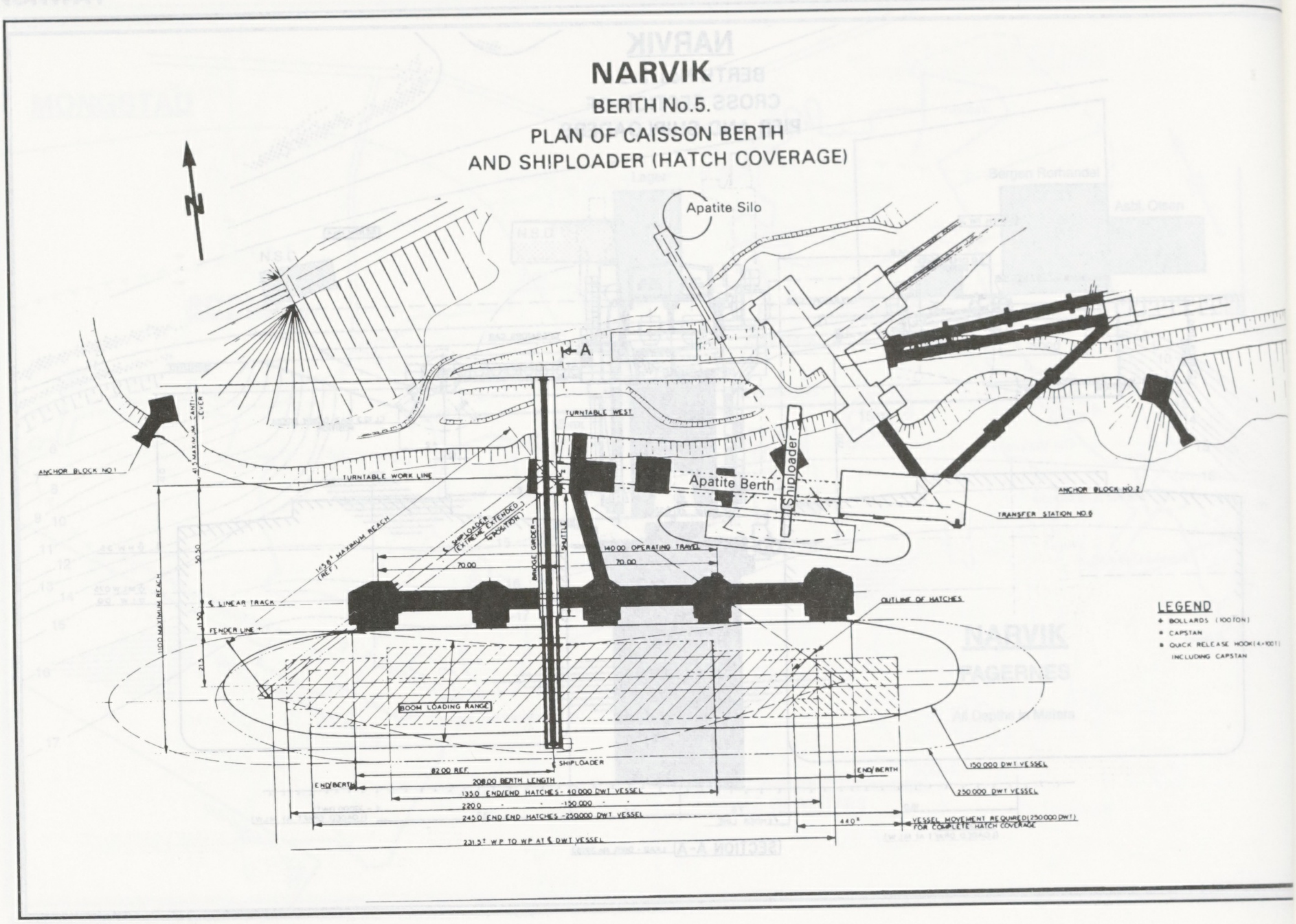

BERTH No 3
℄ PIER
BERTH No 4
14.8
5.0 OPERATING RANGE
ADJUSTABLE DEFLECTOR
8°
OPERATORS CAB
5.7 OPERATING RANGE
EL 14.0 MAX DOWN BOOM POSITION
12°
13.0
OPERATORS CAB
EL 12.3 MAX DOWN BOOM POSITION
4.2
1.0
11.0
3.7
3.7
8.4
5.5
HW 3.5
MLW 0.75
LW 0.0
16.0
7.6
7.6
13.5
FENDER LINE
℄ ~ 70 000 DWT (LOADED DRAFT AT MLW)
℄ ~ 32000 DWT (LOADED DRAFT AT MLW)

SECTION A-A LKAB - DWG No 32183

NARVIK

BERTH No.5
MOORING PLAN

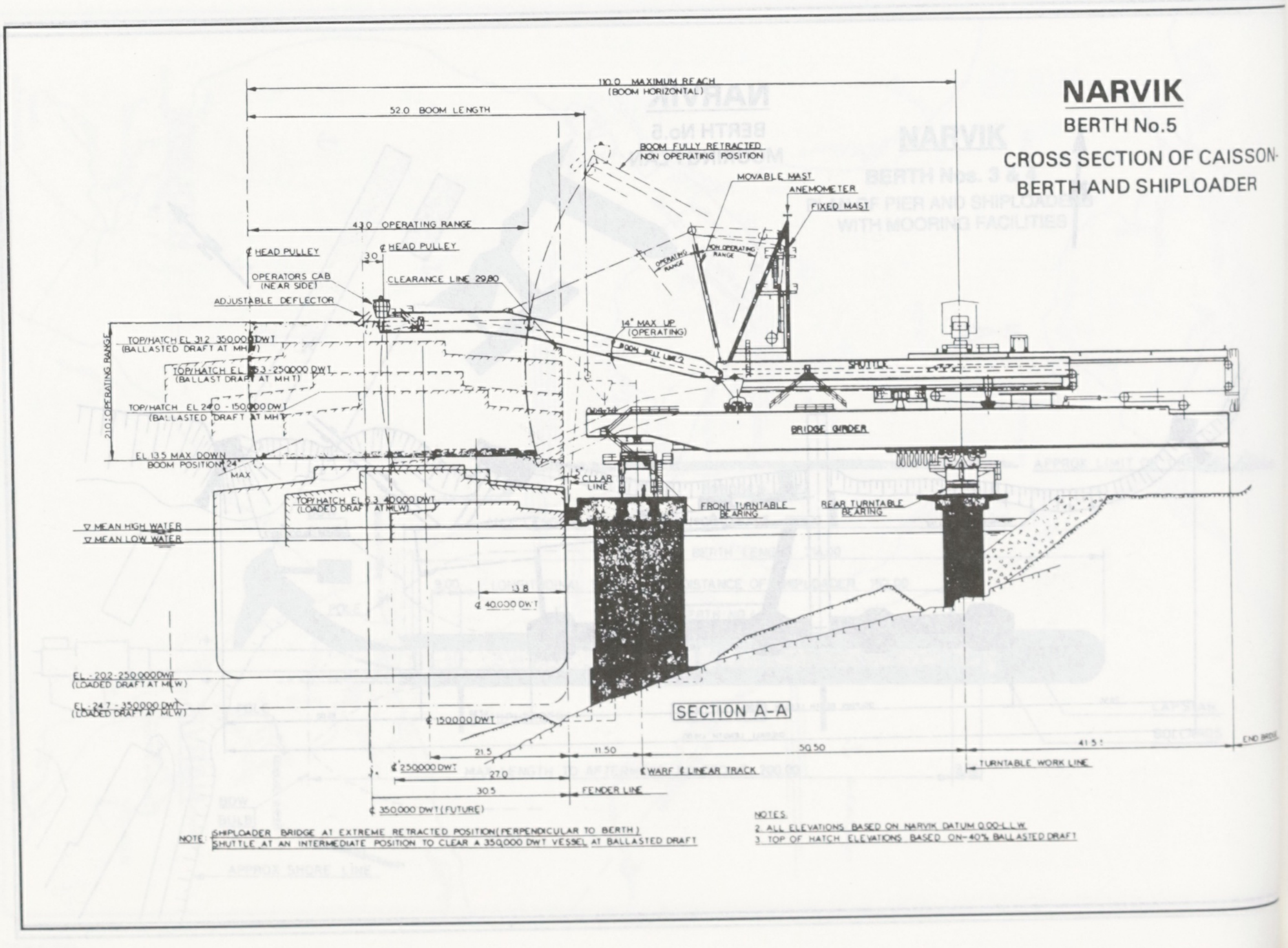

N
ANCHOR BLOCK NO 1
APPROX SHORE LINE
Apatite Berth
ANCHOR BLOCK NO 2
78.50
DOLPHIN BERTH LENGTH 208.00
47.50
85.00
OVERALL LENGTH 419.00



NARVIK

BERTH No.5.
PLAN OF CAISSON BERTH
AND SHIPLOADER (HATCH COVERAGE)

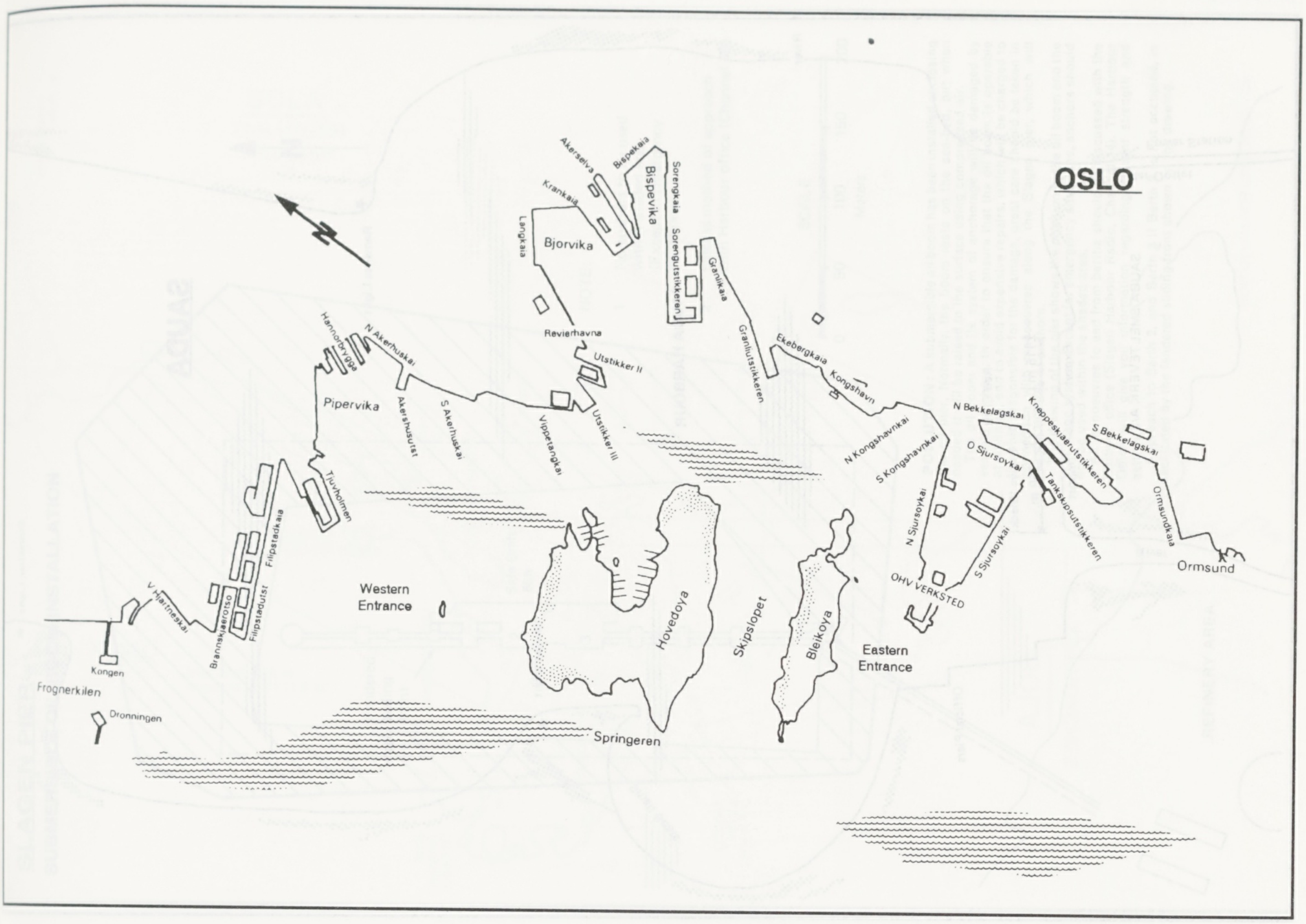
N
Apatite Silo
A
TURNTABLE WEST
ANCHOR BLOCK NO.1
41.5 MAXIMUM CANTI-LEVER
TURNTABLE WORK LINE
Apatite Berth
Shiploader
ANCHOR BLOCK NO.2
TRANSFER STATION NO.6
165.8± MAXIMUM REACH (REF)
℄ SHIPLOADER (EXTREME EXTENDED POSITION)
BRIDGE GIRDER
SHUTTLE
140.00 OPERATING TRAVEL
70.00
70.00
1100 MAXIMUM REACH
50.50
℄ LINEAR TRACK
11.50
FENDER LINE
21.5
OUTLINE OF HATCHES
BOOM LOADING RANGE
℄ SHIPLOADER
82.00 REF.
END/BERTH
208.00 BERTH LENGTH
END/BERTH
135.0 END/END HATCHES - 40.000 DWT VESSEL
220.0 - 150.000 -
245.0 END END HATCHES - 250.000 DWT VESSEL
44.0±
VESSEL MOVEMENT REQUIRED (250.000 DWT) FOR COMPLETE HATCH COVERAGE
231.5± WP TO WP AT ℄ DWT VESSEL
150.000 DWT VESSEL
250.000 DWT VESSEL
LEGEND
◆ BOLLARDS (100 TON)
● CAPSTAN
■ QUICK RELEASE HOOK (4×100 T) INCLUDING CAPSTAN

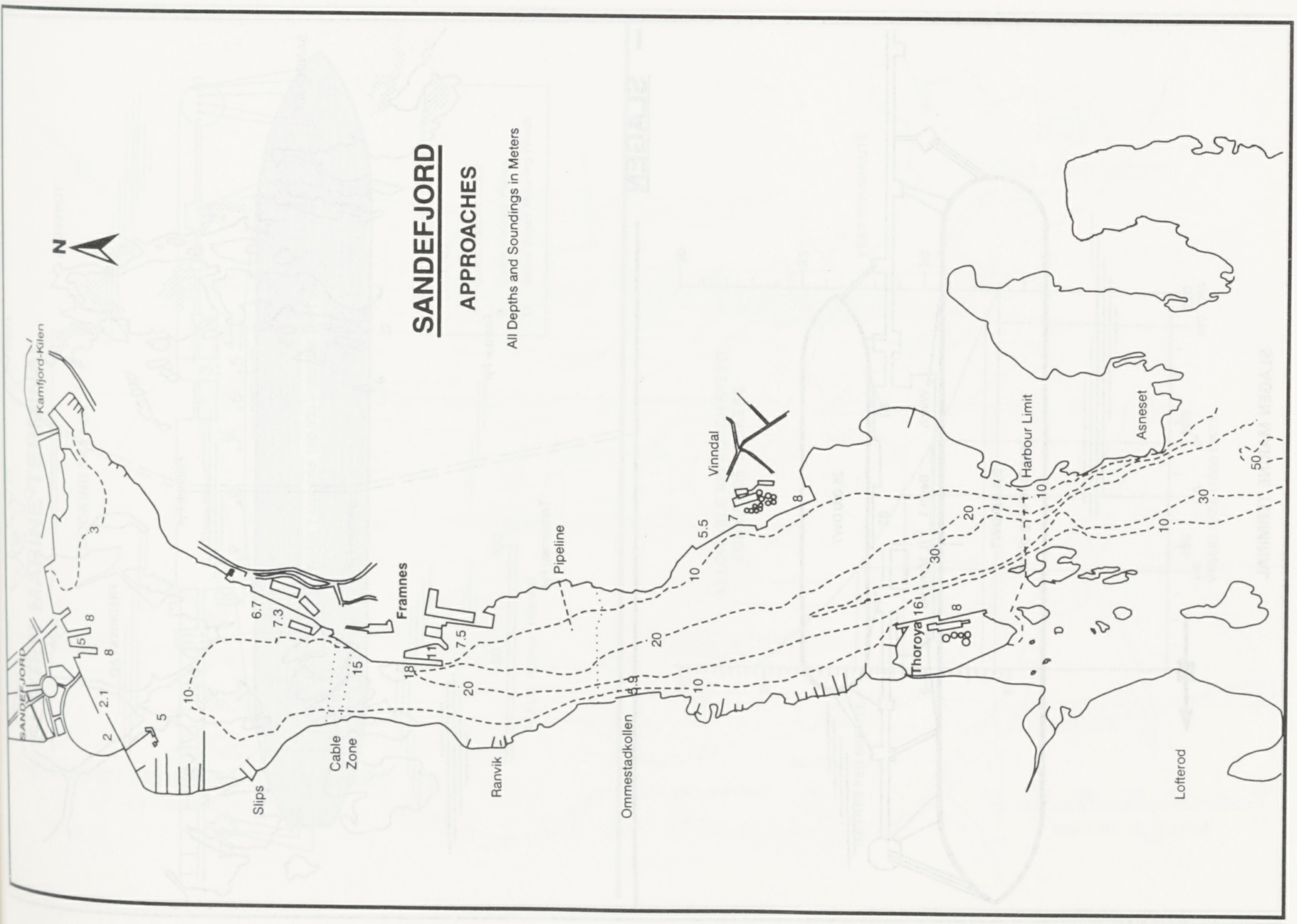


NARVIK

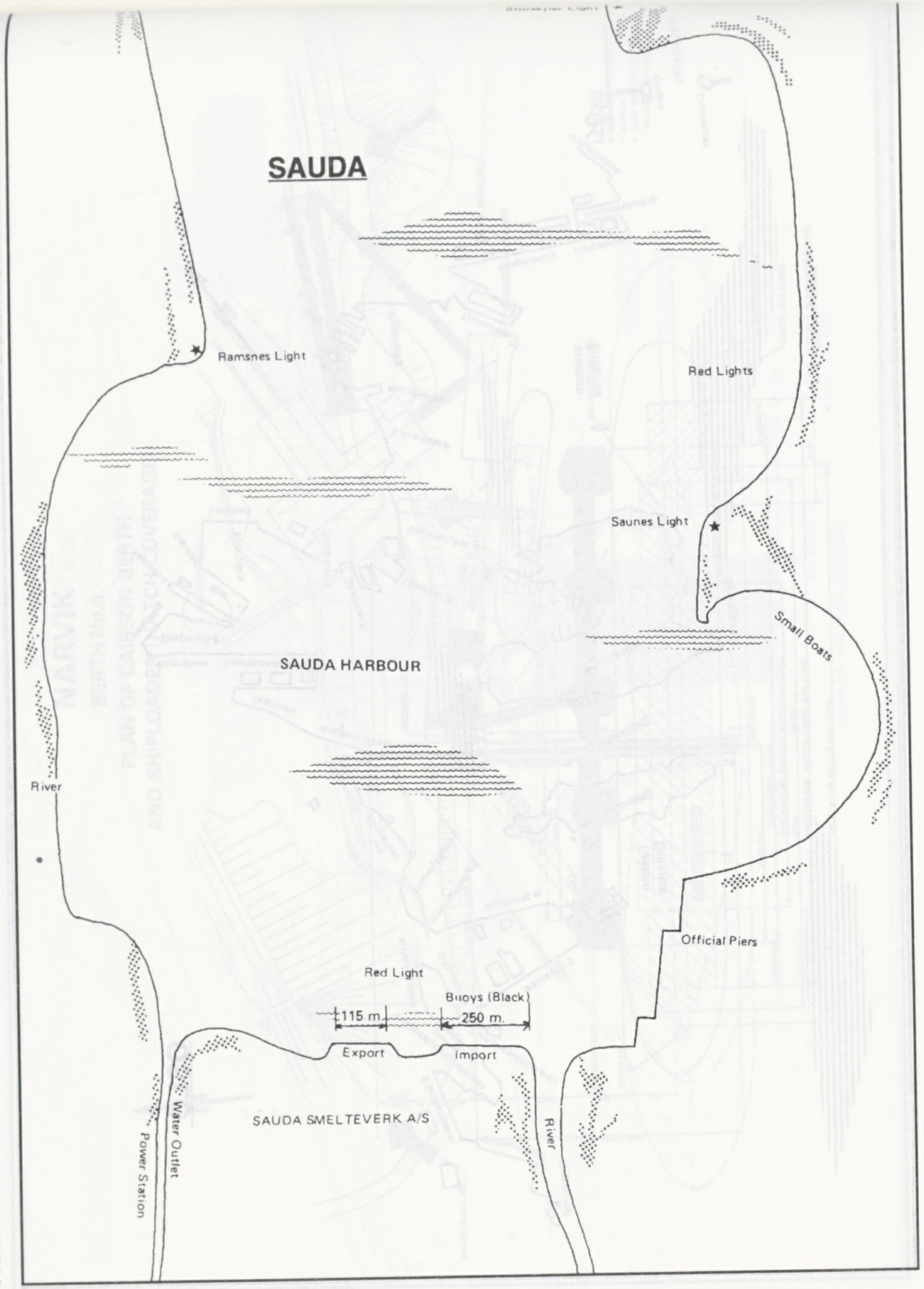
BERTH No.5
CROSS SECTION OF CAISSON-BERTH AND SHIPLOADER

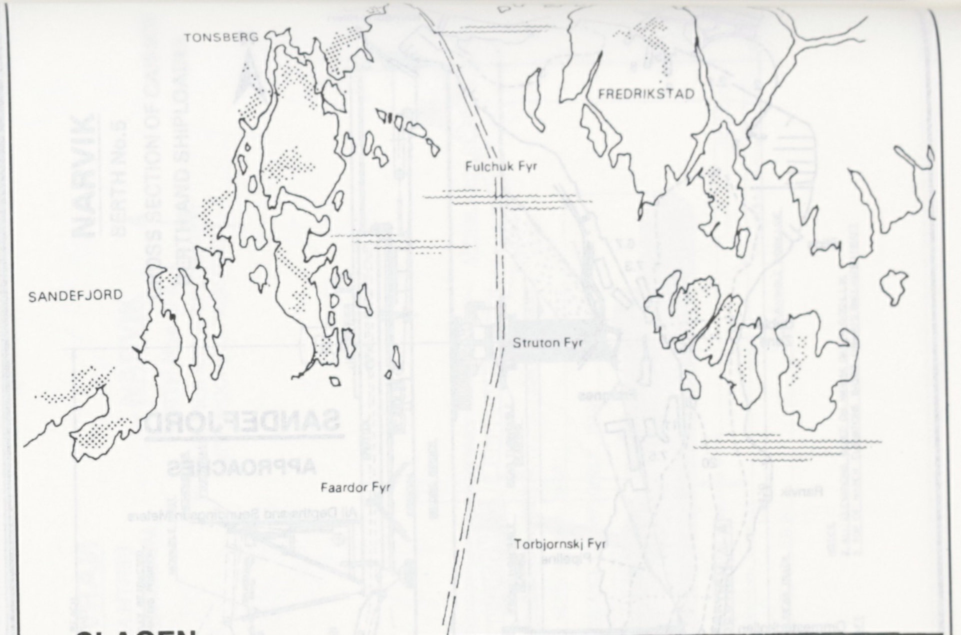
110.0 MAXIMUM REACH (BOOM HORIZONTAL)
52.0 BOOM LENGTH
BOOM FULLY RETRACTED NON OPERATING POSITION
MOVABLE MAST
ANEMOMETER
FIXED MAST
43.0 OPERATING RANGE
℄ HEAD PULLEY
3.0
℄ HEAD PULLEY
OPERATORS CAB (NEAR SIDE)
CLEARANCE LINE 29.80
ADJUSTABLE DEFLECTOR
OPERATING RANGE
NON OPERATING RANGE
14° MAX UP (OPERATING)
BOOM BELT LINE 2
SHUTTLE
BRIDGE GIRDER
21.0 OPERATING RANGE
TOP/HATCH EL 31.2 350.000 DWT (BALLASTED DRAFT AT MHT)
TOP/HATCH EL 25.3 - 250.000 DWT (BALLAST DRAFT AT MHT)
TOP/HATCH EL 24.0 - 150.000 DWT (BALLASTED DRAFT AT MHT)
EL 13.5 MAX DOWN BOOM POSITION 24° MAX
15° CLEAR LINE
TOP/HATCH EL 6.3 40.000 DWT (LOADED DRAFT AT MLW)
FRONT TURNTABLE BEARING
REAR TURNTABLE BEARING
▽ MEAN HIGH WATER
▽ MEAN LOW WATER
13.8
℄ 40.000 DWT
EL - 20.2 - 250.000 DWT (LOADED DRAFT AT MLW)
EL - 24.7 - 350.000 DWT (LOADED DRAFT AT MLW)
SECTION A-A
℄ 150.000 DWT
21.5
11.50
50.50
41.5±
END BRIDGE
℄ 250.000 DWT
27.0
WARF ℄ LINEAR TRACK
TURNTABLE WORK LINE
30.5
FENDER LINE
℄ 350.000 DWT (FUTURE)
NOTE: SHIPLOADER BRIDGE AT EXTREME RETRACTED POSITION (PERPENDICULAR TO BERTH)
SHUTTLE AT AN INTERMEDIATE POSITION TO CLEAR A 350.000 DWT VESSEL AT BALLASTED DRAFT
NOTES:
2. ALL ELEVATIONS BASED ON NARVIK DATUM 0.00-L.L.W.
3. TOP OF HATCH ELEVATIONS BASED ON-40% BALLASTED DRAFT


OSLO
N
Akerselva
Bispekaia
Bispevika
Krankaia
Bjorvika
Langkaia
Sorengkaia
Sorengutstikkeren
Granikaia
Granitutstikkeren
Revierhavna
Utstikker II
Utstikker III
Vippetangkai
Ekebergkaia
Kongshavn
N Bekkelagskai
Kneppeskjaerutstikkeren
S Bekkelagskai
N Kongshavnkai
S Kongshavnkai
O Sjursoykai
Tankskipsutstikkeren
Ormsundkaia
Ormsund
N Sjursoykai
S Sjursoykai
OHV VERKSTED
Hannorbrygga
N Akerhuskai
Pipervika
Akershusutst
S Akershuskai
Tjuvholmen
Filipstadkaia
Filipstadutst
Brannskjaerutso
V Hartneskai
Kongen
Frognerkilen
Dronningen
Western Entrance
Hovedoya
Skipslopet
Bleikoya
Eastern Entrance
Springeren

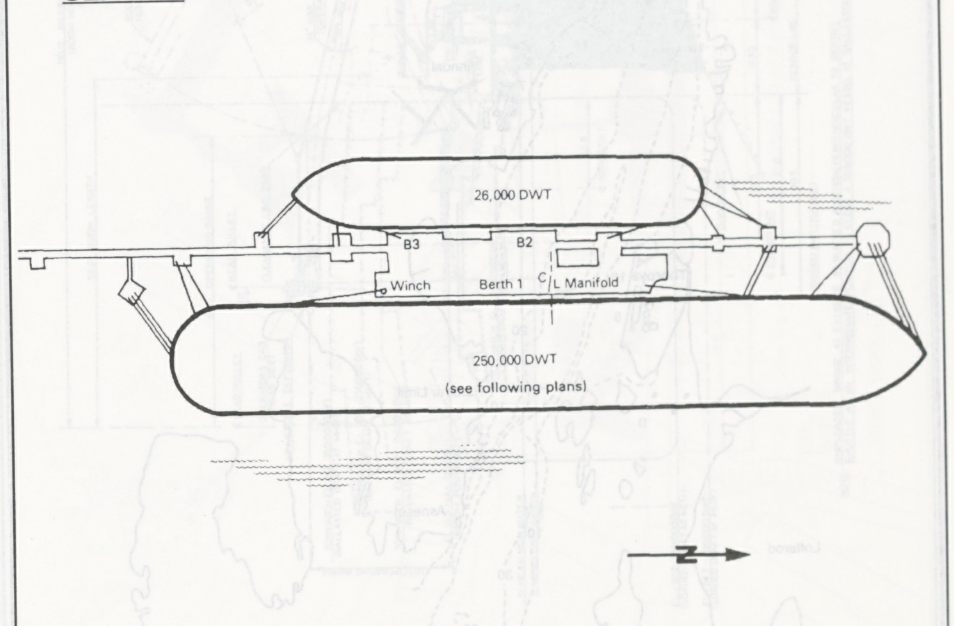

SANDEFJORD
APPROACHES
All Depths and Soundings in Meters
N
Kamfjord-Kilen
SANDEFJORD
3
8
5
8
2.1
2
5
10
Slips
6.7
7.3
15
Cable Zone
Framnes
18
11
7.5
20
Ranvik
Pipeline
Ommestadkollen
4.9
20
10
10
5.5
7
8
Vinndal
30
20
16
8
Thoroya
Harbour Limit
10
Asneset
10
30
50
Lofterod

SAUDA


Ramsnes Light
Red Lights
Saunes Light
Small Boats
SAUDA HARBOUR
River
Official Piers
Red Light
Buoys (Black)
115 m.
250 m.
Export
Import
SAUDA SMELTEVERK A/S
Water Outlet
Power Station
River


TONSBERG
FREDRIKSTAD
Fulchuk Fyr
SANDEFJORD
Struton Fyr
Faardor Fyr
Torbjornskj Fyr

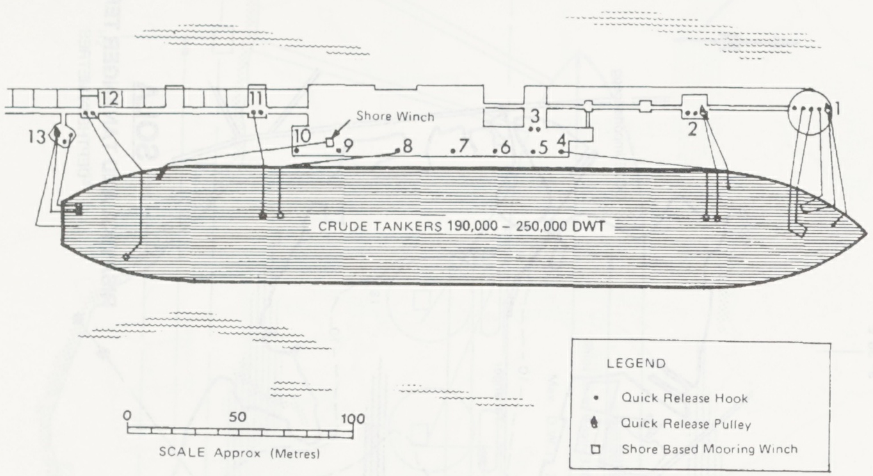
SLAGEN


26,000 DWT
B3
B2
Winch
Berth 1
CL Manifold
250,000 DWT
(see following plans)
N

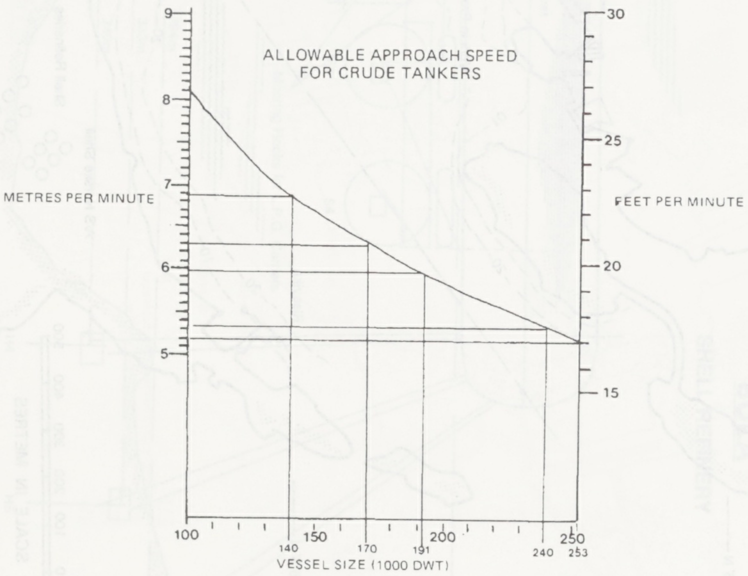
SLAGEN MARINE TERMINAL

SLAGEN MARINE TERMINAL

MOORING SKETCH

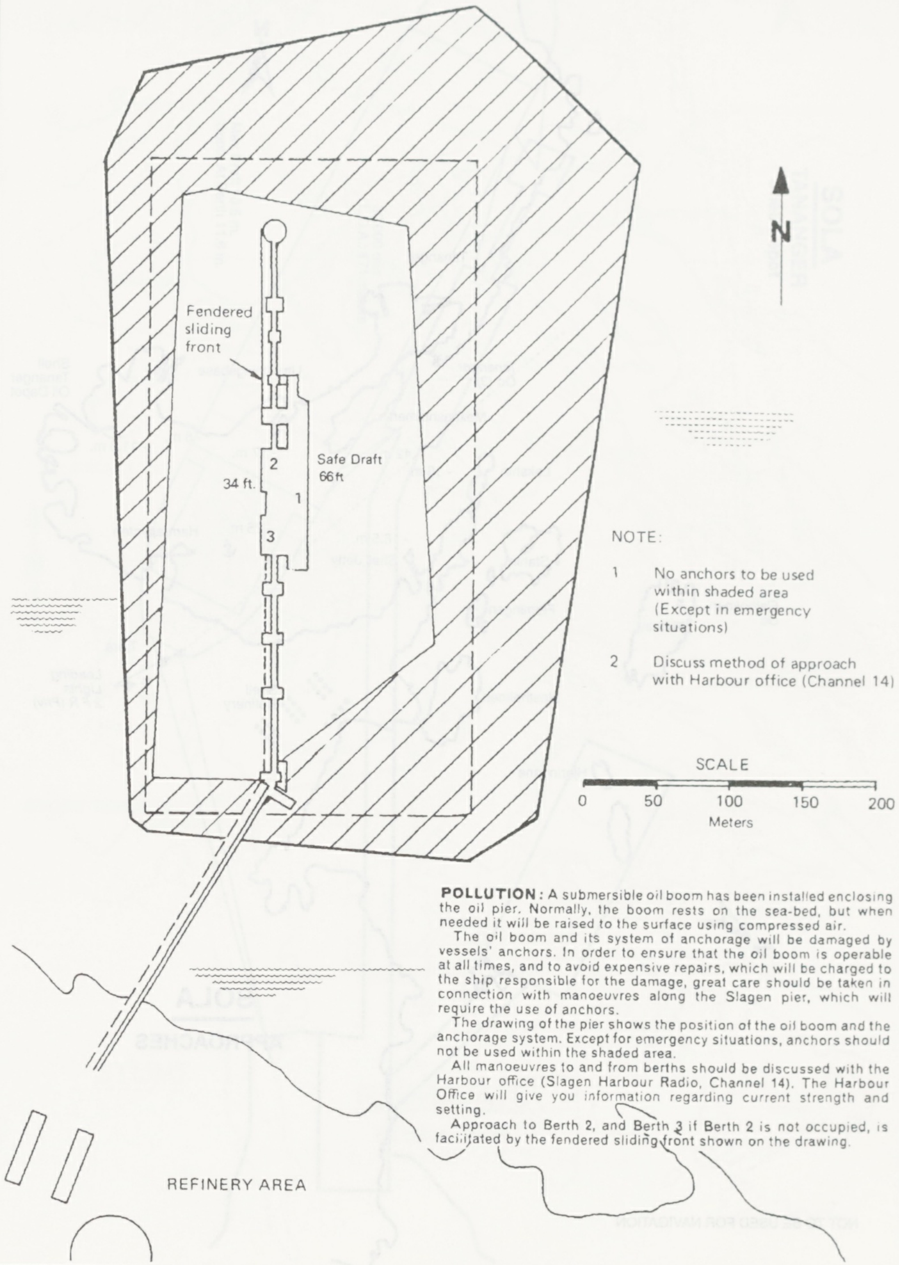

12
11
13
10
9
8
7
6
5
4
3
2
1
Shore Winch
CRUDE TANKERS 190,000 – 250,000 DWT
0
50
100
SCALE Approx (Metres)
LEGEND
• Quick Release Hook
Quick Release Pulley
☐ Shore Based Mooring Winch

ALLOWABLE APPROACH SPEED FOR CRUDE TANKERS



SLAGEN PIER

SUBMERSIBLE OIL BOOM INSTALLATION


N
Fendered sliding front
2
1
3
34 ft.
Safe Draft 66 ft
SCALE
0
50
100
150
200
Meters
REFINERY AREA

NOTE:

1 No anchors to be used within shaded area (Except in emergency situations)

2 Discuss method of approach with Harbour office (Channel 14)

POLLUTION: A submersible oil boom has been installed enclosing the oil pier. Normally, the boom rests on the sea-bed, but when needed it will be raised to the surface using compressed air.

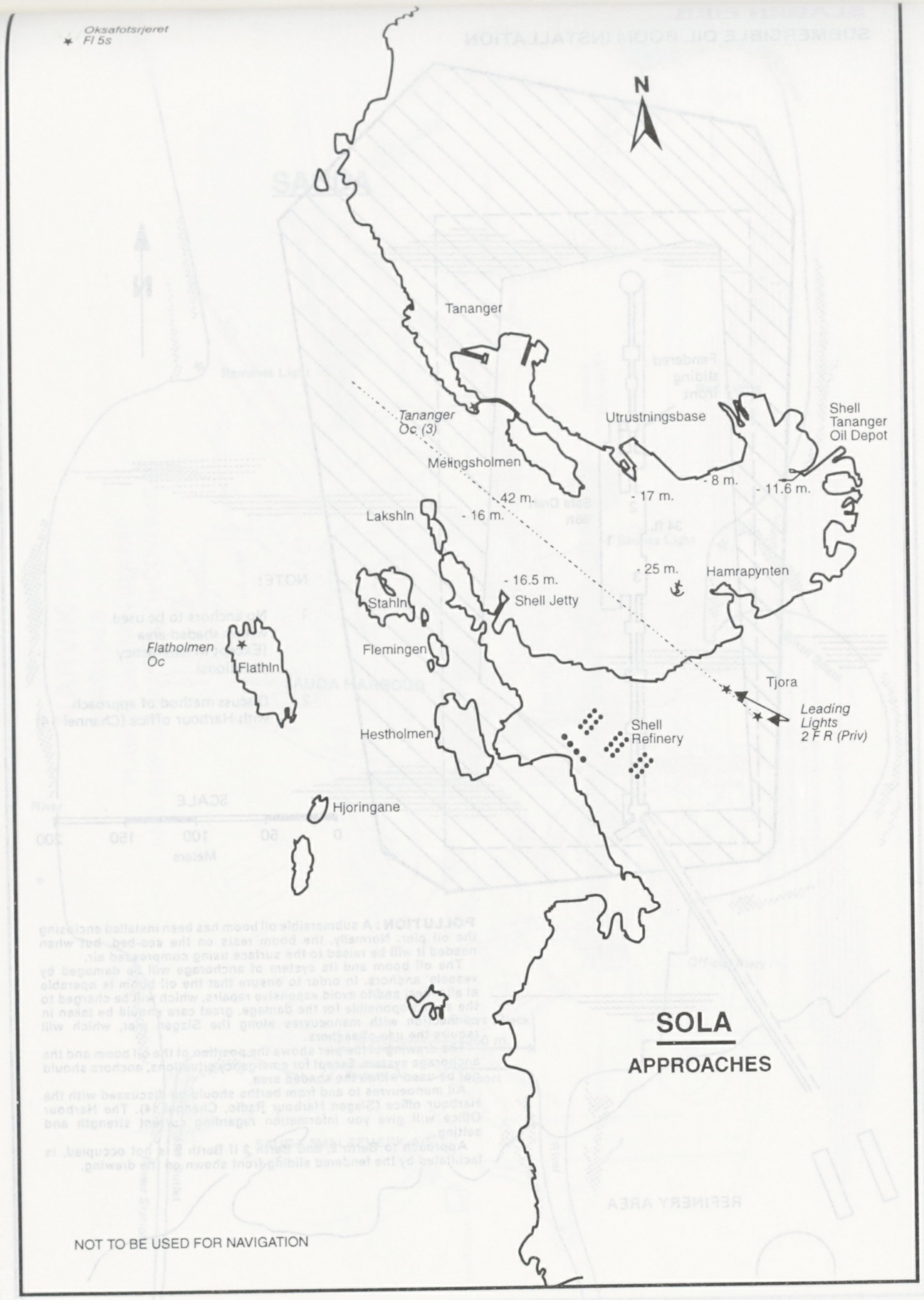
The oil boom and its system of anchorage will be damaged by vessels' anchors. In order to ensure that the oil boom is operable at all times, and to avoid expensive repairs, which will be charged to the ship responsible for the damage, great care should be taken in connection with manoeuvres along the Slagen pier, which will require the use of anchors.

The drawing of the pier shows the position of the oil boom and the anchorage system. Except for emergency situations, anchors should not be used within the shaded area.

All manoeuvres to and from berths should be discussed with the Harbour office (Slagen Harbour Radio, Channel 14). The Harbour Office will give you information regarding current strength and setting.

Approach to Berth 2, and Berth 3 if Berth 2 is not occupied, is facilitated by the fendered sliding front shown on the drawing.

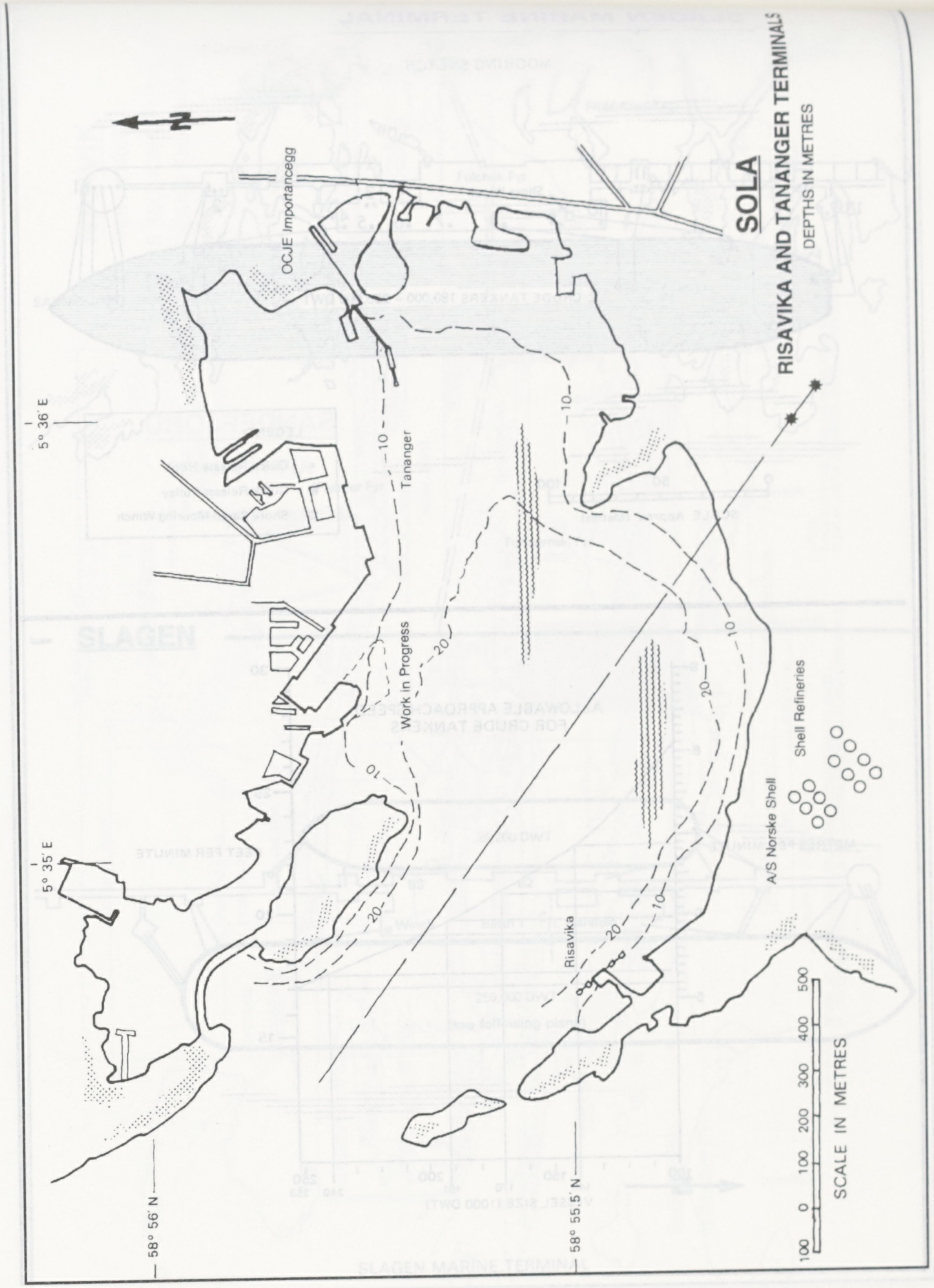
NORWAY


Oksafotsrjeret
Fl 5s
N
Tananger
Tananger
Oc (3)
Utrustningsbase
Shell
Tananger
Oil Depot
Melingsholmen
- 42 m.
17 m.
- 8 m.
- 11.6 m.
Lakshln
- 16 m.
- 25 m.
Hamrapynten
- 16.5 m.
Shell Jetty
Stahln
Flatholmen
Oc
Flathln
Flemingen
Tjora
Leading
Lights
2 F R (Priv)
Hestholmen
Shell
Refinery
Hjoringane

SOLA

APPROACHES

NOT TO BE USED FOR NAVIGATION

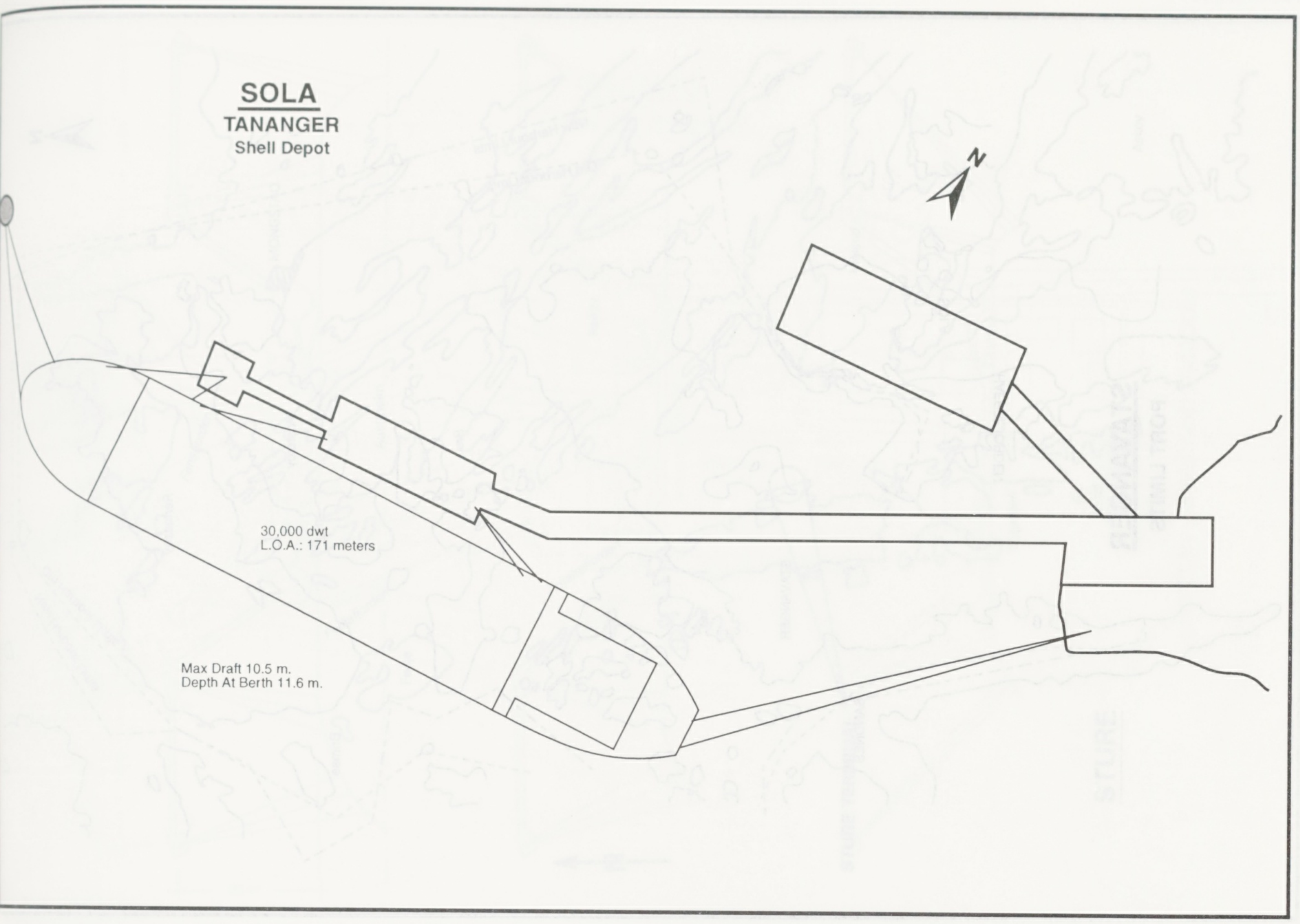

N
OCJE Importancegg
Tananger
Work in Progress
10
20
10
20
10
20
10
20
5° 36' E
5° 35' E
58° 56' N
58° 55.5 N
Risavika
A/S Norske Shell
Shell Refineries
100
0
100
200
300
400
500
SCALE IN METRES

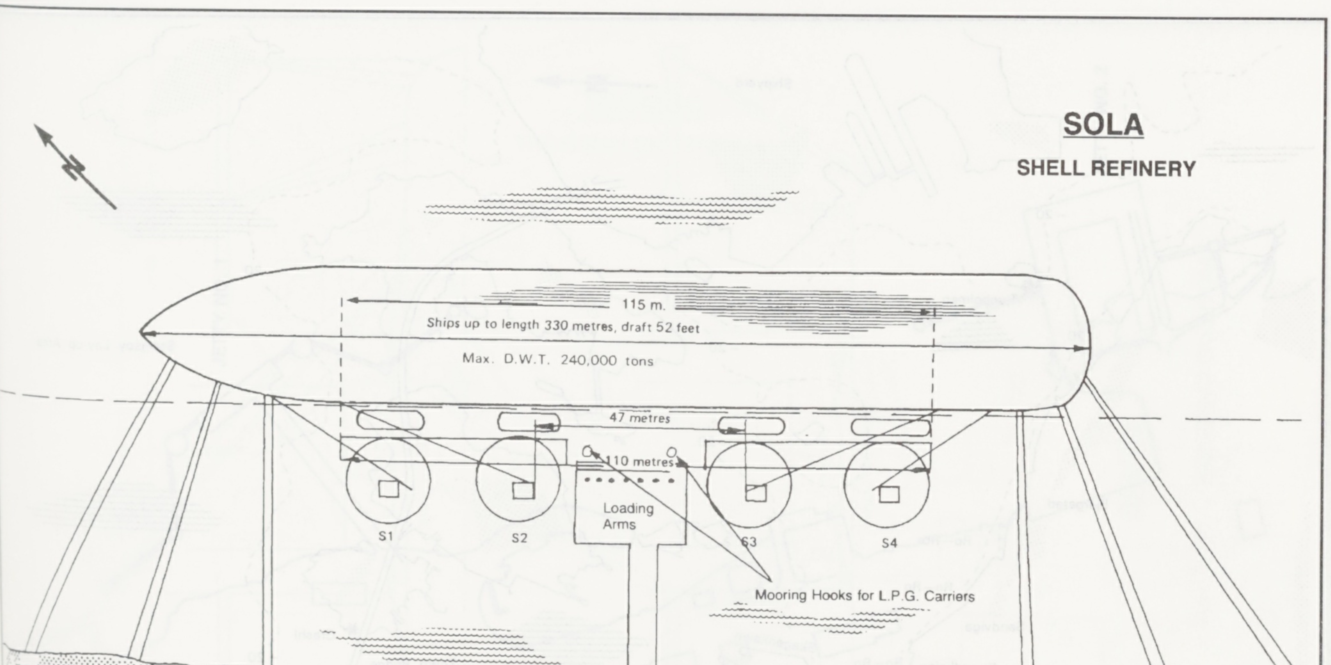
SOLA

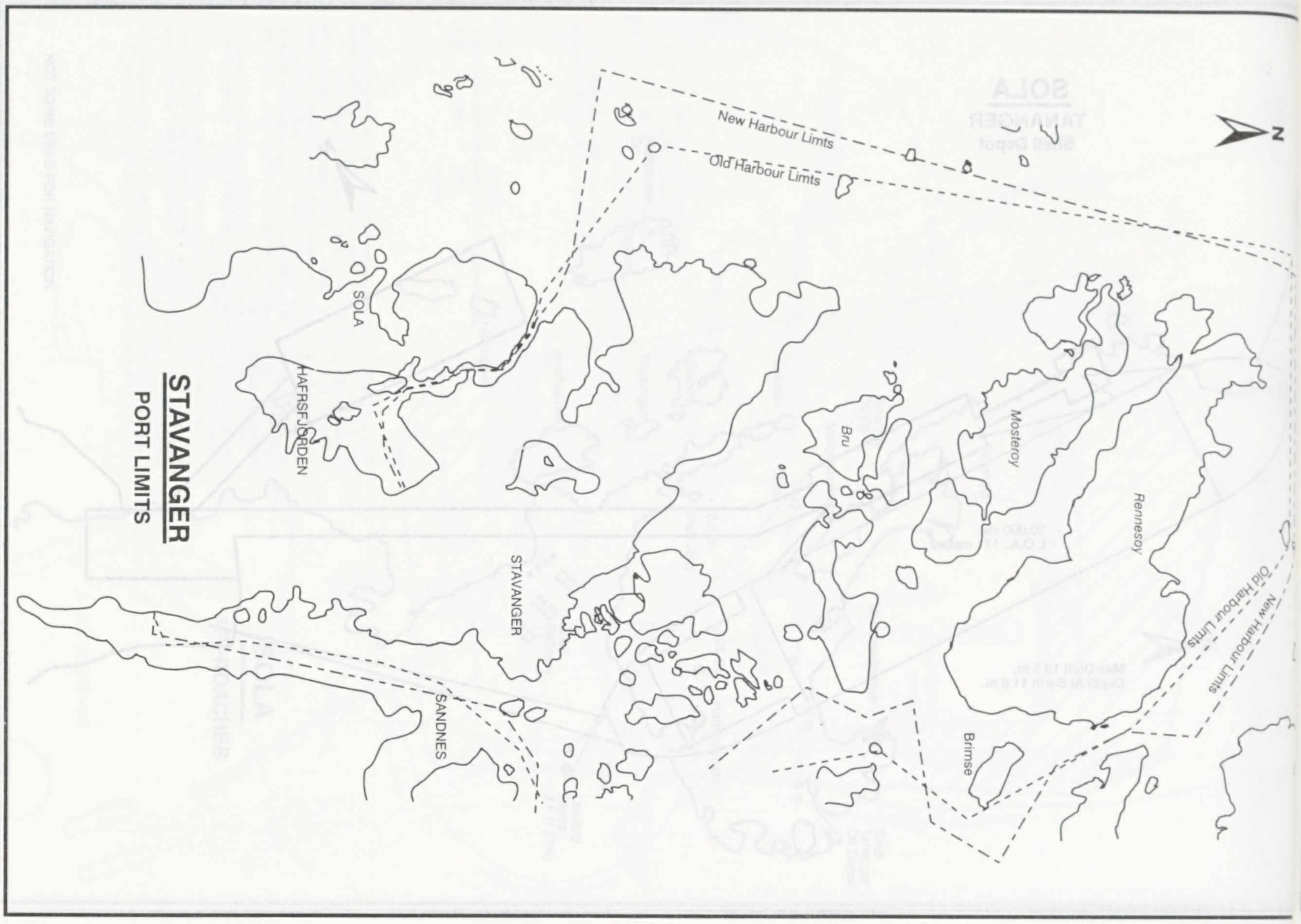
RISAVIKA AND TANANGER TERMINALS

DEPTHS IN METRES

P1174

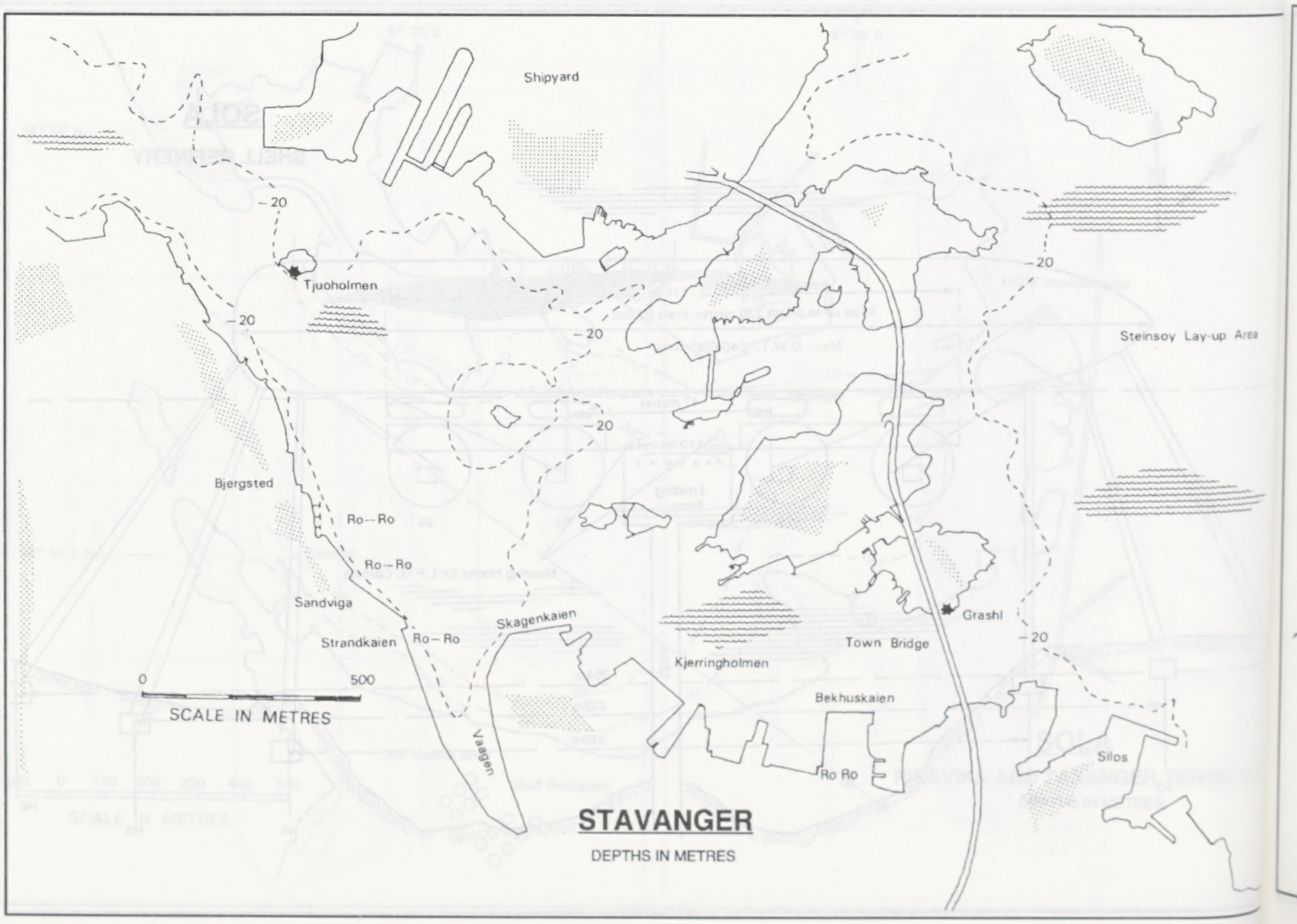

SOLA
TANANGER
Shell Depot
N
30,000 dwt
L.O.A.: 171 meters
Max Draft 10.5 m.
Depth At Berth 11.6 m.


SOLA
SHELL REFINERY
N
115 m.
Ships up to length 330 metres, draft 52 feet
Max. D.W.T. 240,000 tons
47 metres
110 metres
Loading Arms
S1
S2
S3
S4
Mooring Hooks for L.P.G. Carriers
120m
394m
333m
240m
H1
H2
H3
H4
H5
H6



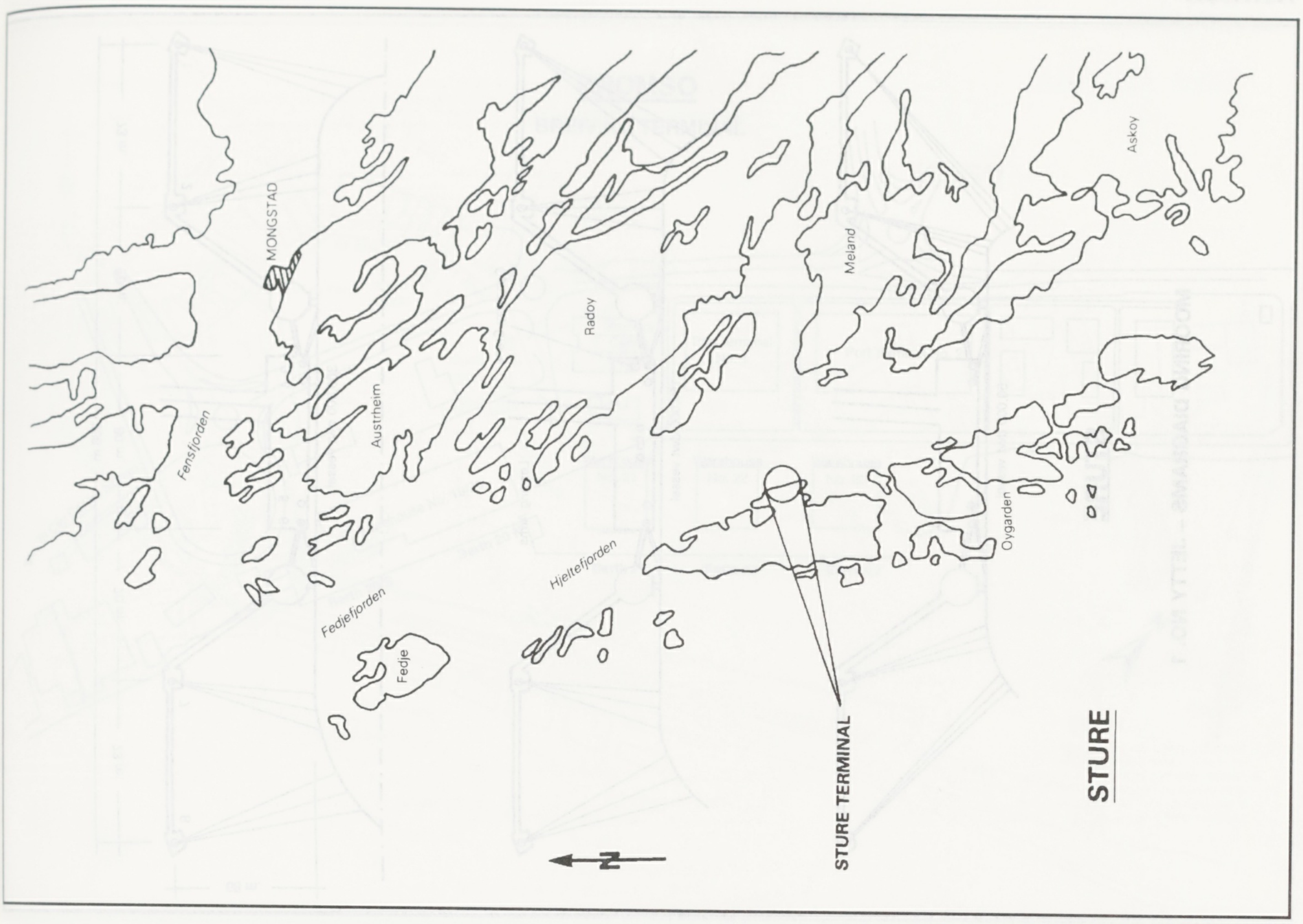
STAVANGER
PORT LIMITS

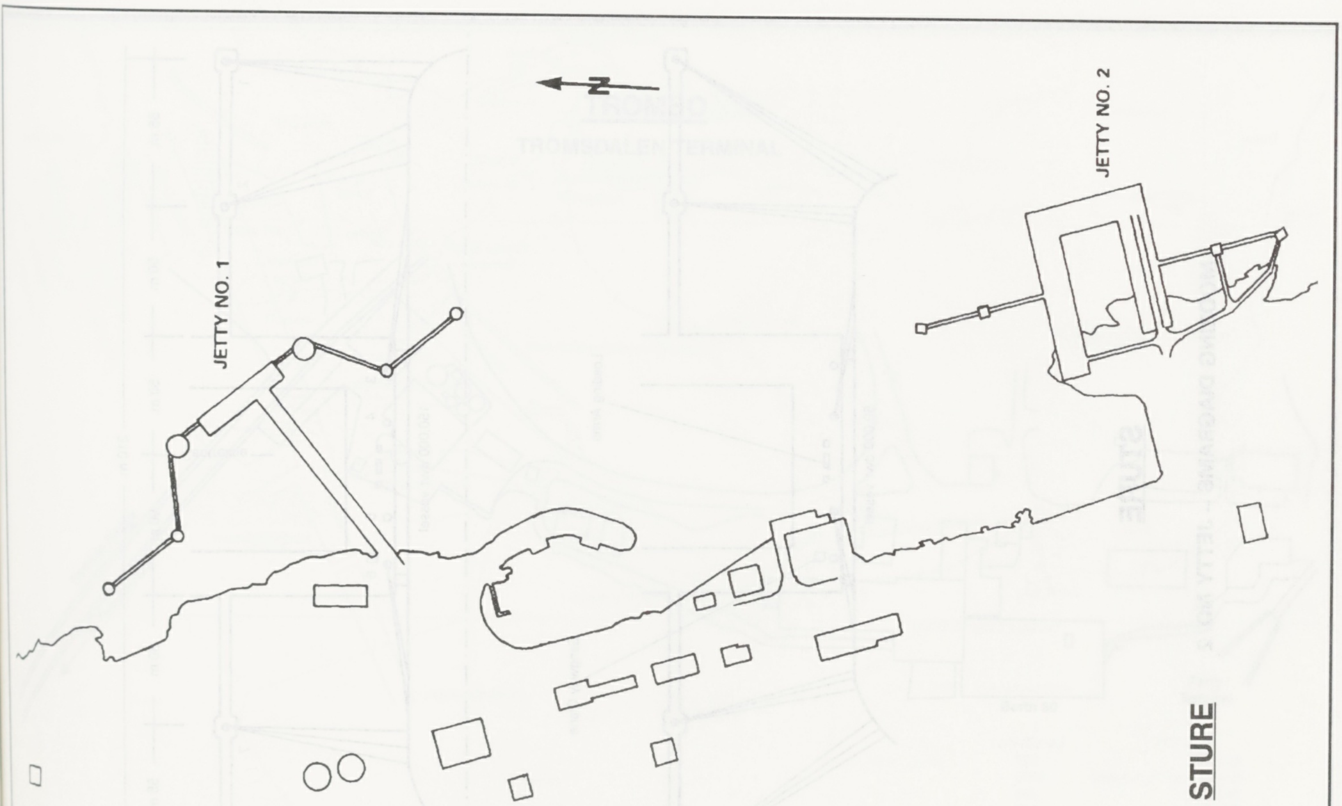
N
New Harbour Limts
Old Harbour Limts
SOLA
HAFRSFJORDEN
STAVANGER
SANDNES
Bru
Mosteroy
Rennesoy
Brimse
Old Harbour Limts
New Harbour Limts

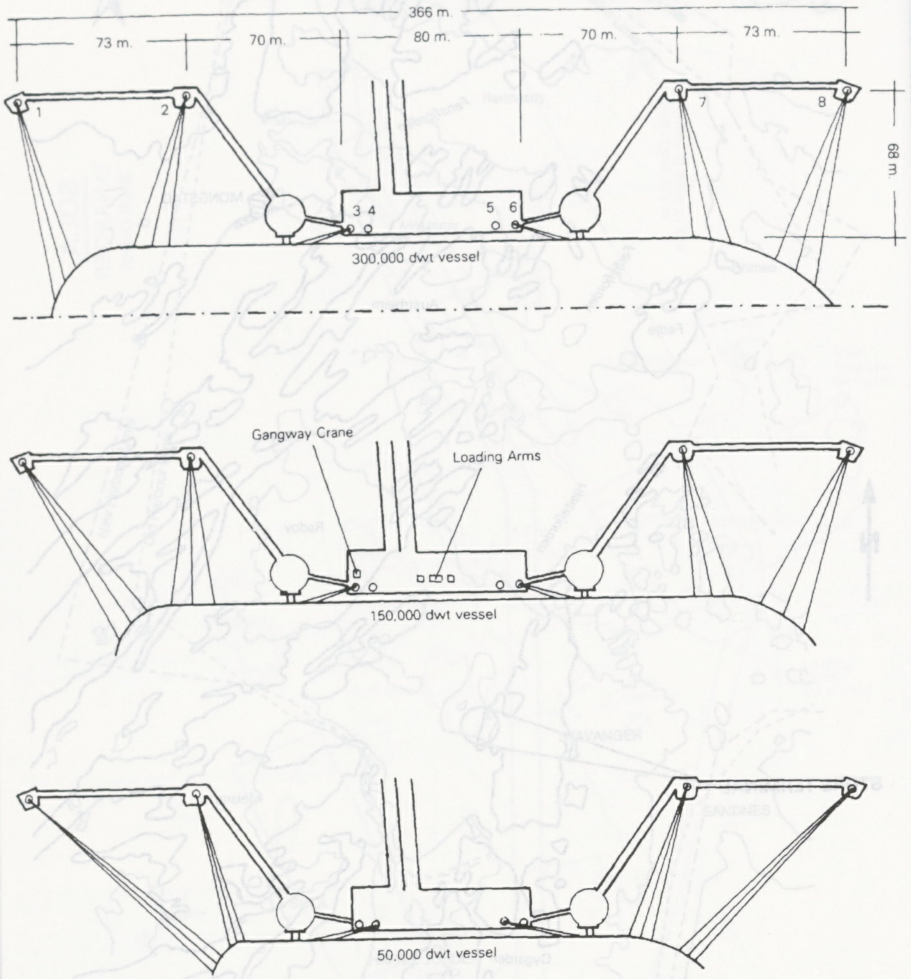


STAVANGER
DEPTHS IN METRES

Shipyard
– 20
Tjuoholmen
– 20
– 20
– 20
– 20
– 20
Steinsoy Lay-up Area
Bjergsted
Ro – Ro
Ro – Ro
Sandviga
Strandkaien
Ro – Ro
Skagenkaien
Grashl
Town Bridge
Kjerringholmen
Bekhuskaien
Ro Ro
Silos
Vaagen
0
500
SCALE IN METRES

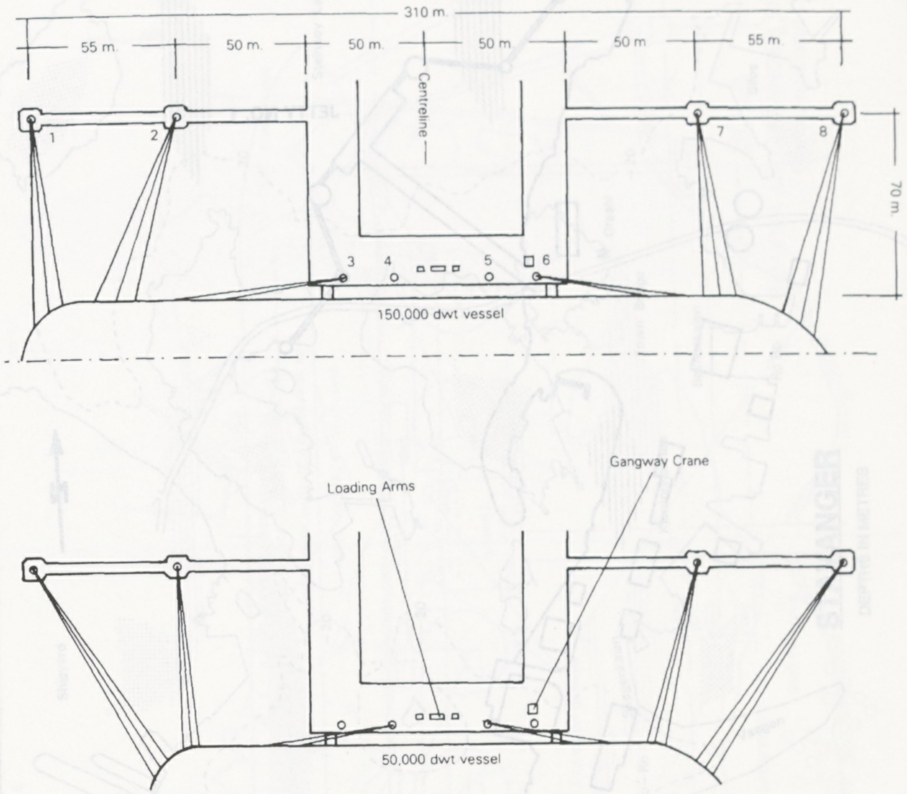

MONGSTAD
Fensfjorden
Austrheim
Fedjefjorden
Fedje
Radoy
Hjeltefjorden
Meland
Oygarden
Askoy
STURE TERMINAL
N
STURE


N
JETTY NO. 1
JETTY NO. 2
STURE


366 m.
73 m.
70 m.
80 m.
70 m.
73 m.
68 m.
1
2
3 4
5 6
7
8
300,000 dwt vessel
Gangway Crane
Loading Arms
150,000 dwt vessel
50,000 dwt vessel

STURE

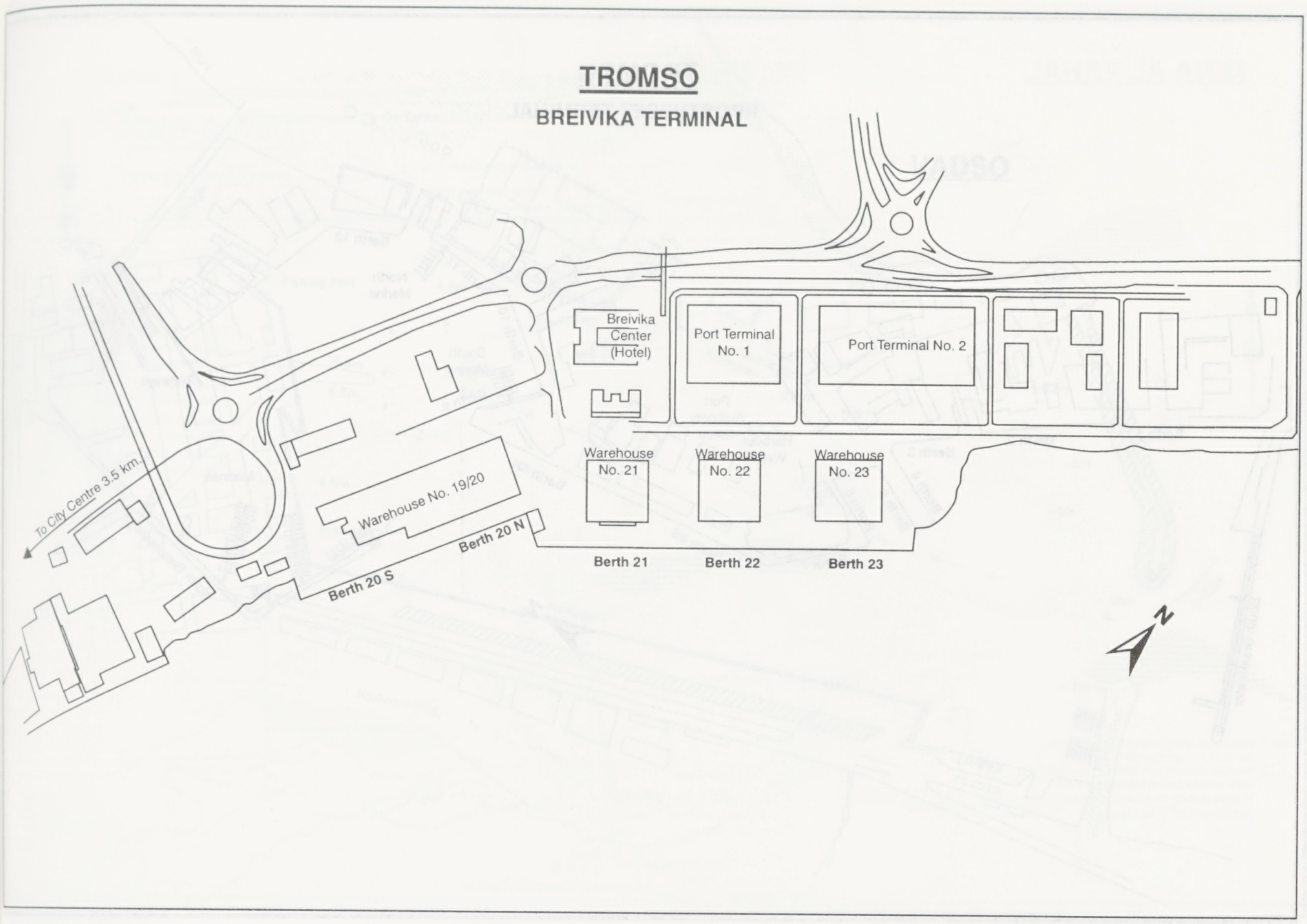
MOORING DIAGRAMS – JETTY NO. 1


310 m.
55 m.
50 m.
50 m.
50 m.
50 m
55 m.
Centreline
70 m.
1
2
3
4
5
6
7
8
150,000 dwt vessel
Loading Arms
Gangway Crane
50,000 dwt vessel

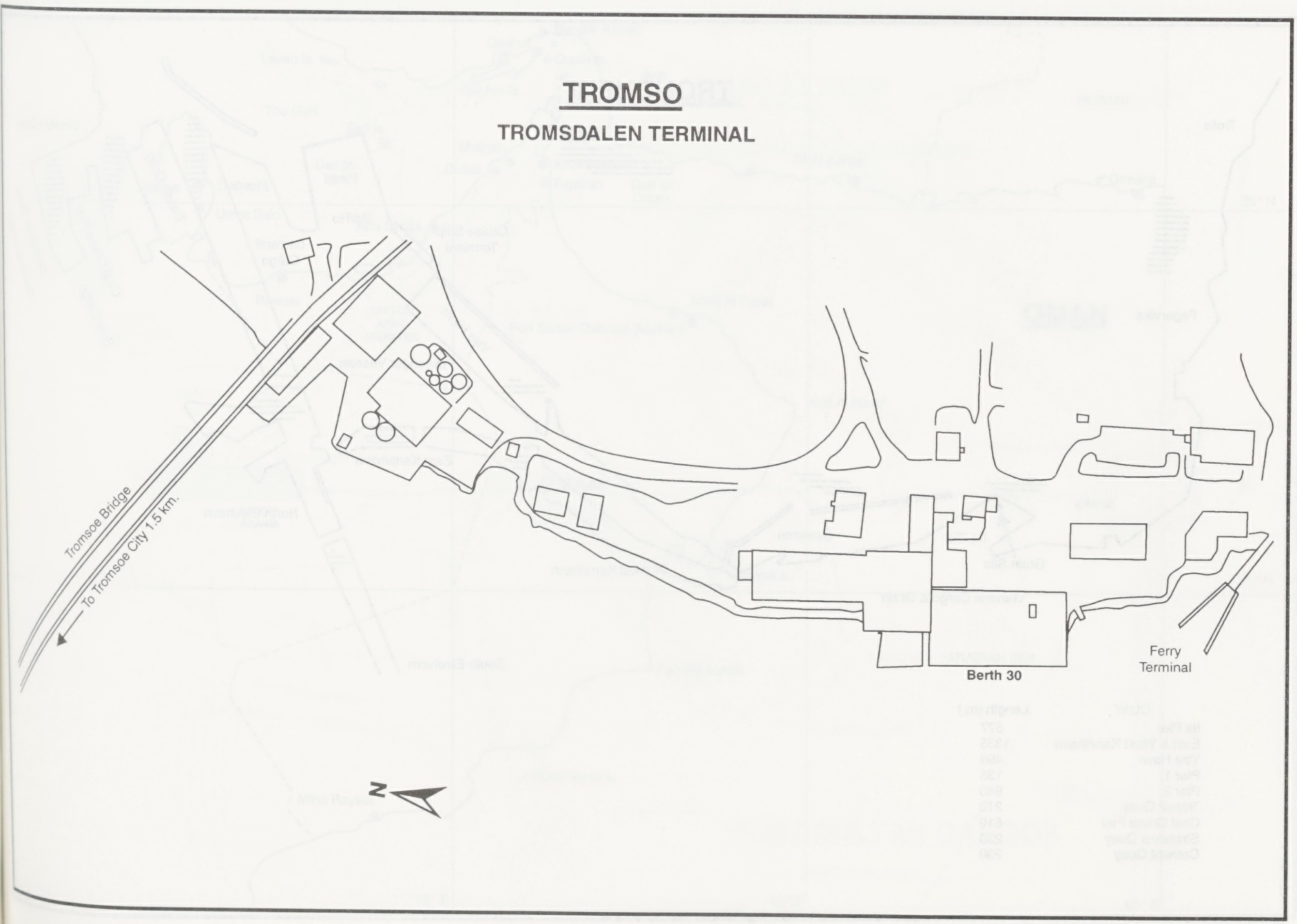
STURE

MOORING DIAGRAMS – JETTY NO. 2

TROMSO
BREIVIKA TERMINAL

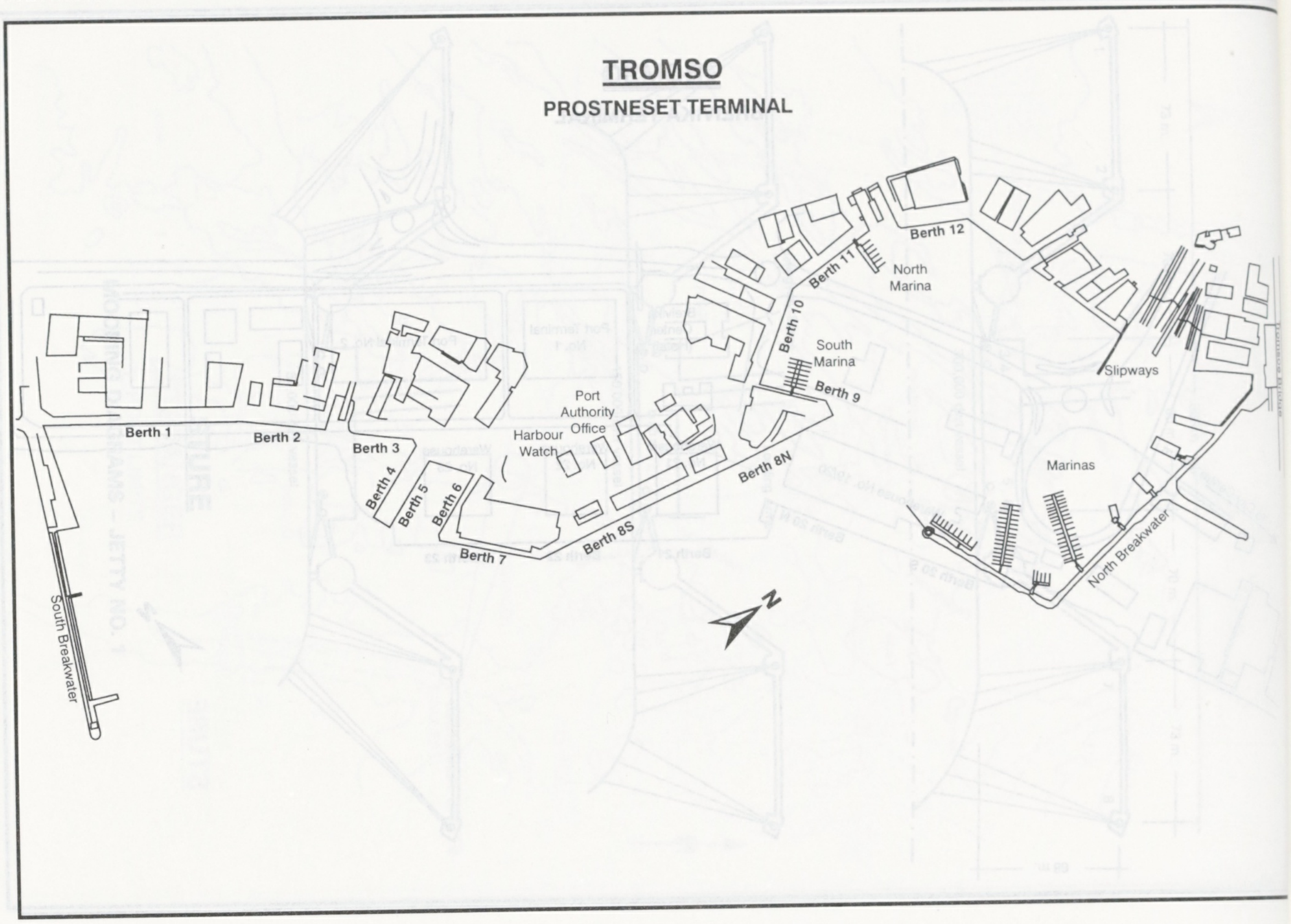

Breivika
Center
(Hotel)
Port Terminal
No. 1
Port Terminal No. 2
Warehouse
No. 21
Warehouse
No. 22
Warehouse
No. 23
Warehouse No. 19/20
Berth 20 N
Berth 20 S
Berth 21
Berth 22
Berth 23
To City Centre 3.5 km.
N

TROMSO
TROMSDALEN TERMINAL

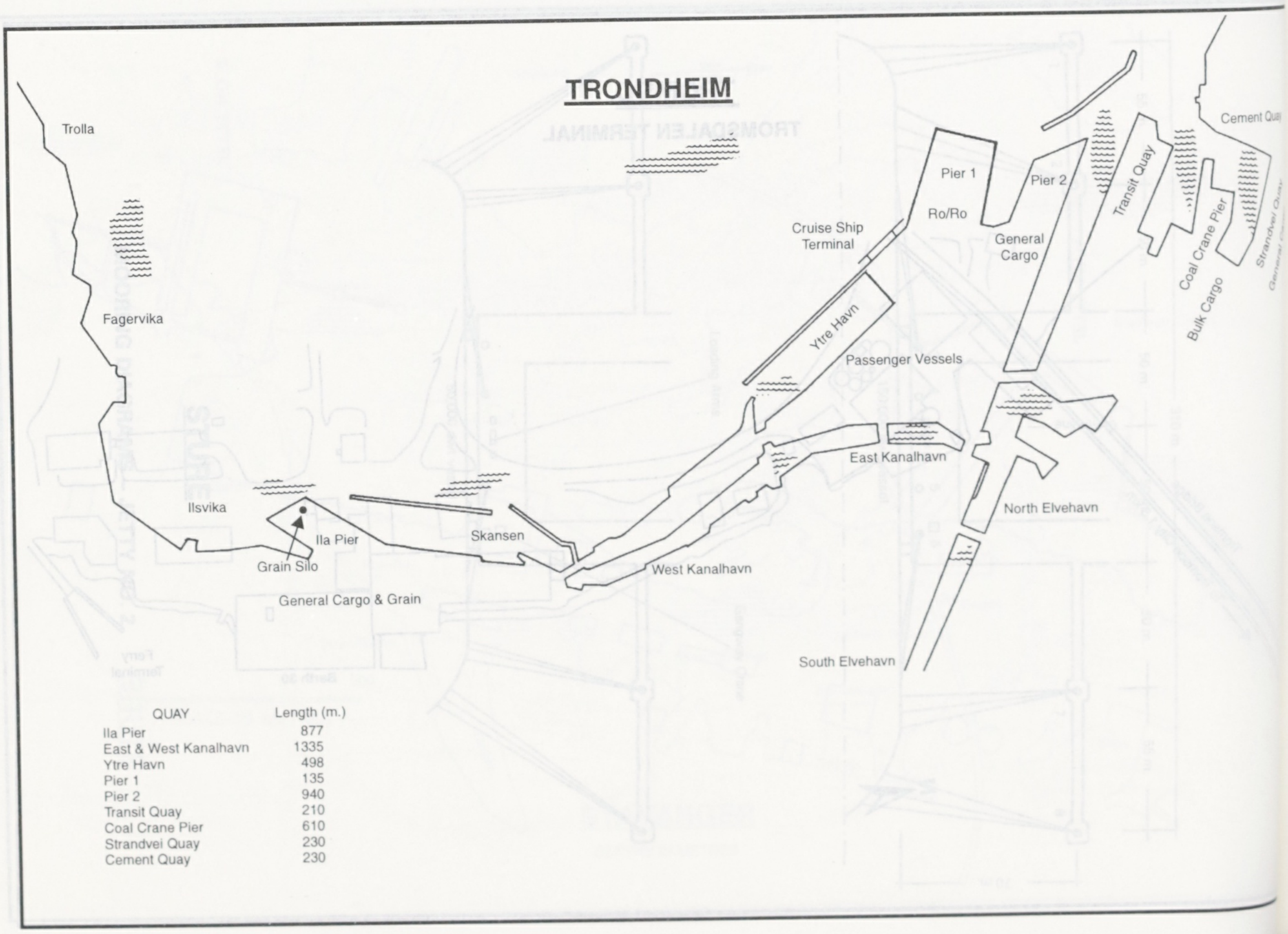

Tromsoe Bridge
To Tromsoe City 1.5 km.
Berth 30
Ferry
Terminal
N

TROMSO

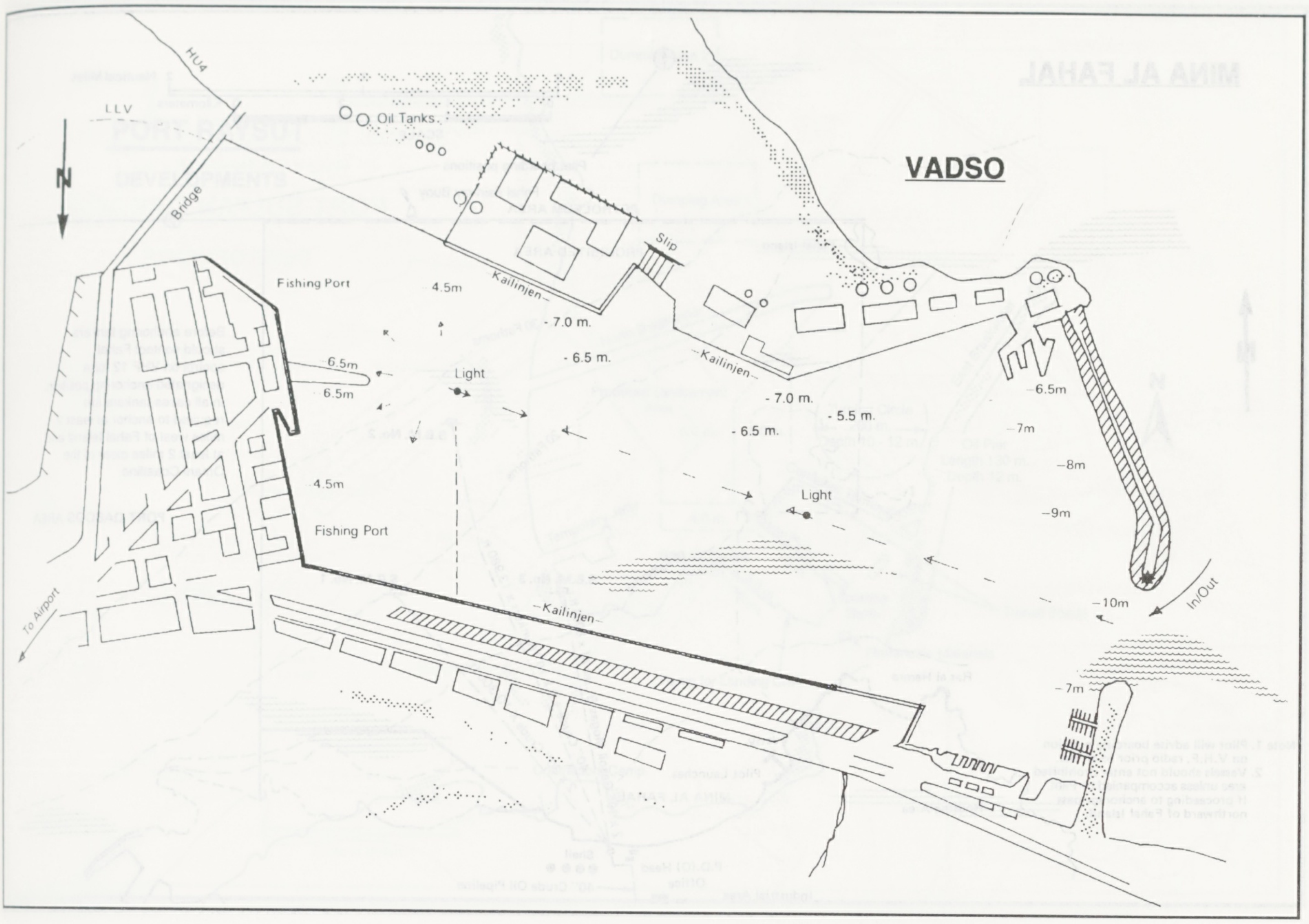
PROSTNESET TERMINAL

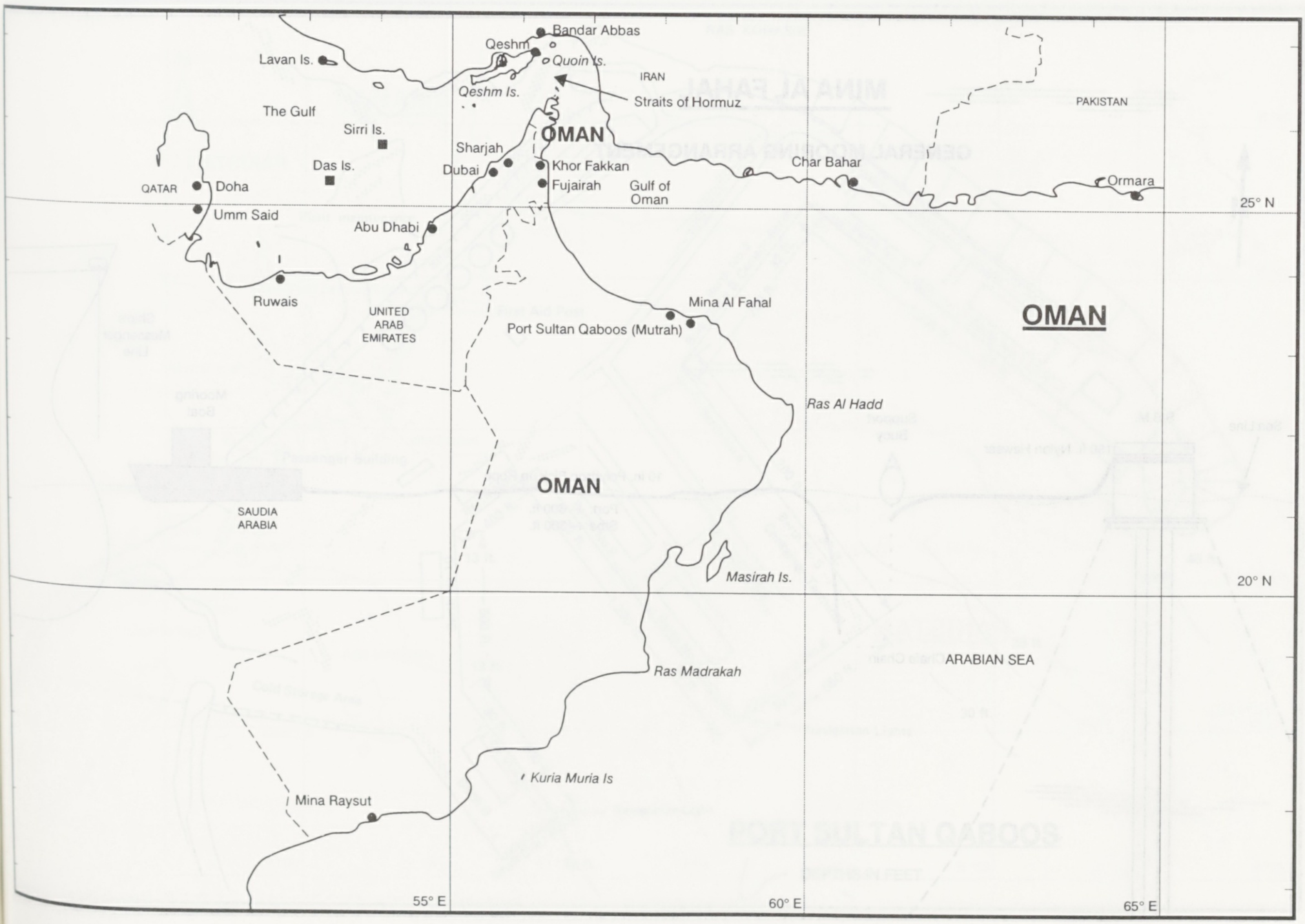

Berth 1
Berth 2
Berth 3
Berth 4
Berth 5
Berth 6
Berth 7
Berth 8S
Berth 8N
Berth 9
Berth 10
Berth 11
Berth 12
Harbour Watch
Port Authority Office
South Marina
North Marina
Slipways
Marinas
North Breakwater
South Breakwater
N

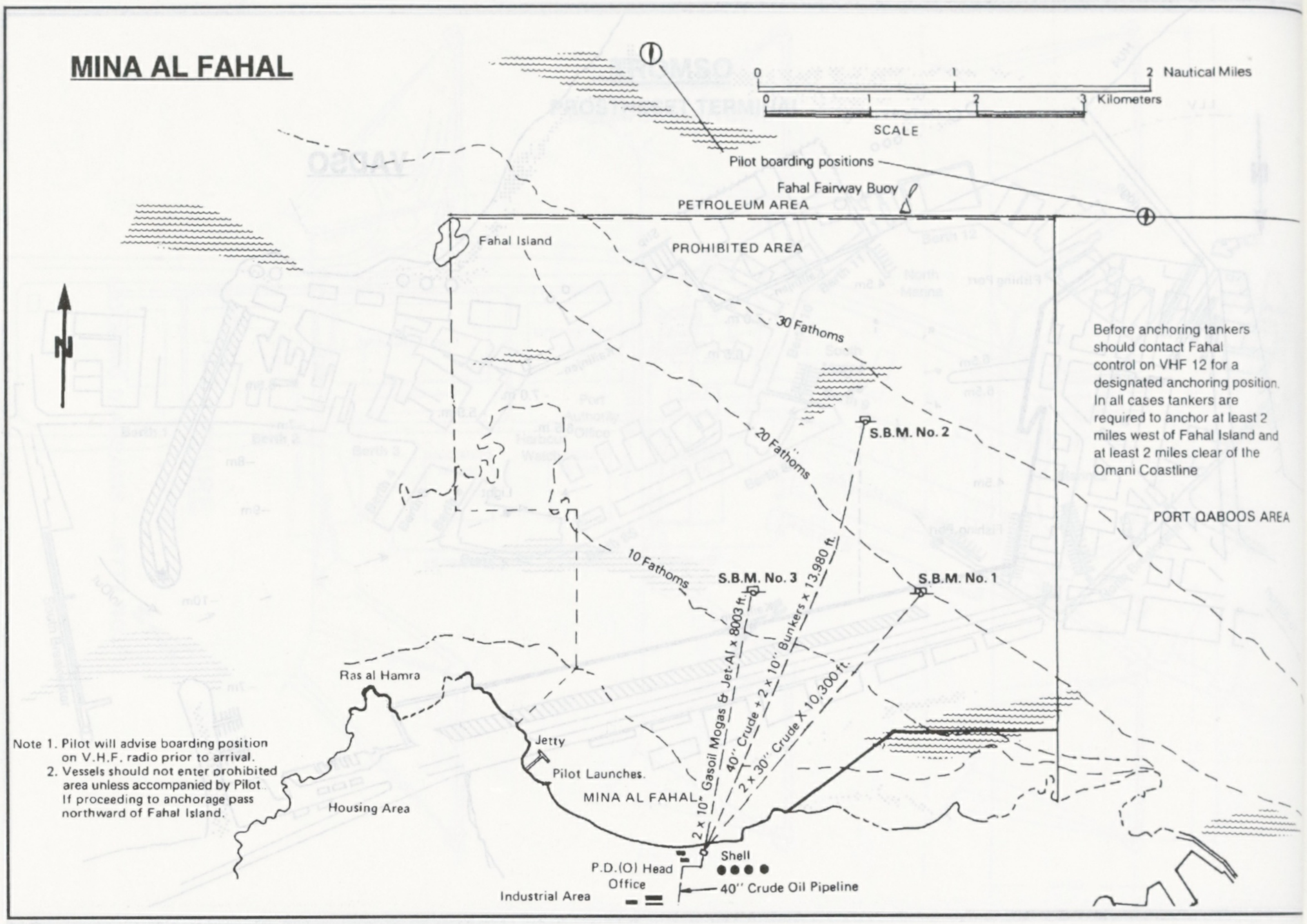
TRONDHEIM


Trolla
Fagervika
Ilsvika
Grain Silo
Ila Pier
General Cargo & Grain
Skansen
West Kanalhavn
East Kanalhavn
Passenger Vessels
Ytre Havn
Cruise Ship Terminal
Pier 1
Ro/Ro
Pier 2
General Cargo
Transit Quay
Coal Crane Pier
Bulk Cargo
Strandvei Quay
General
Cement Qua
North Elvehavn
South Elvehavn

QUAY	Length (m.)
Ila Pier	877
East & West Kanalhavn	1335
Ytre Havn	498
Pier 1	135
Pier 2	940
Transit Quay	210
Coal Crane Pier	610
Strandvei Quay	230
Cement Quay	230

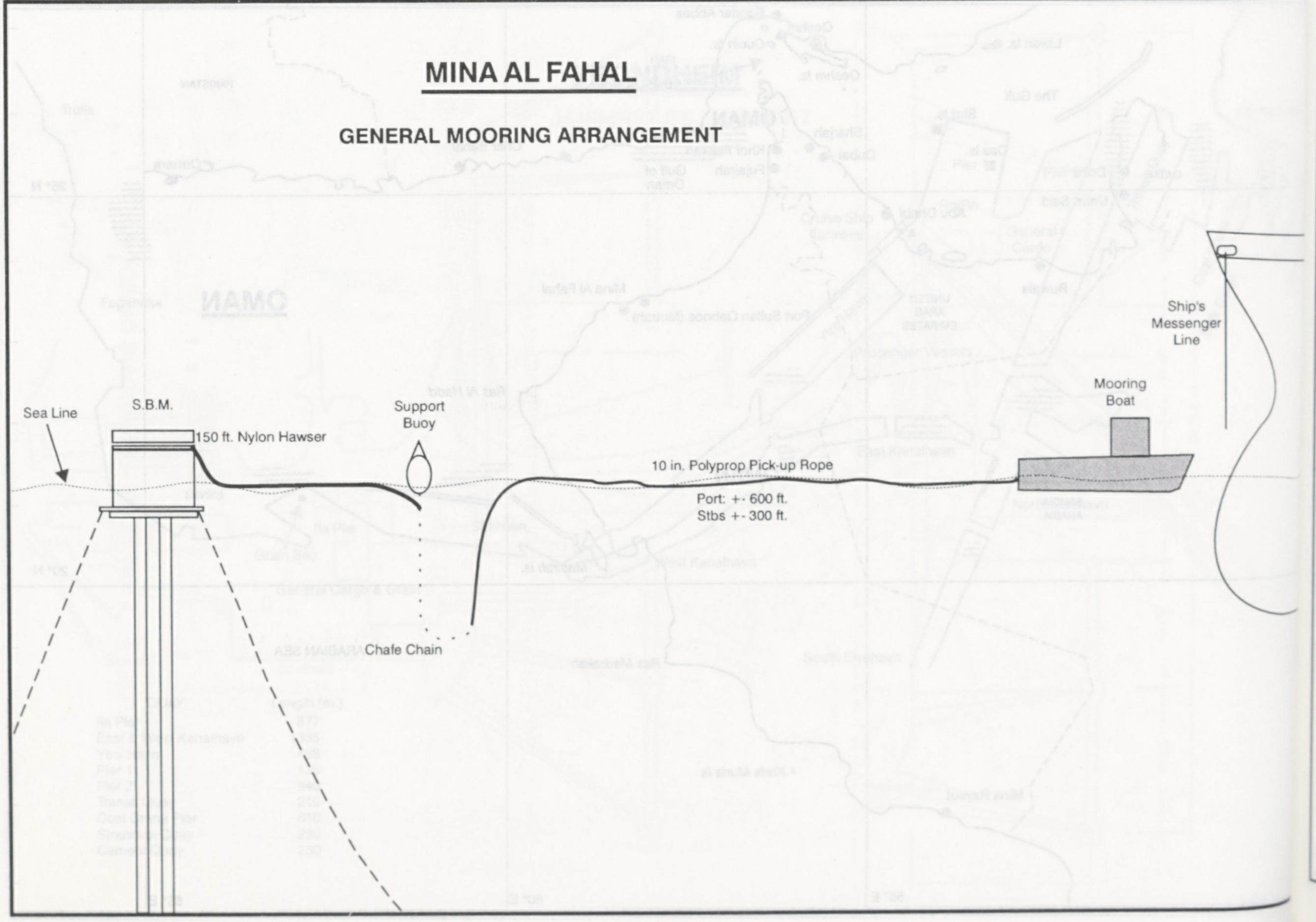

VADSO
N
HU4
LLV
Oil Tanks
Bridge
Fishing Port
4.5m
Kailinjen
Slip
- 7.0 m.
- 6.5 m.
6.5m
6.5m
Light
Kailinjen
- 7.0 m.
- 5.5 m.
- 6.5 m.
-6.5m
-7m
-8m
-9m
Light
4.5m
Fishing Port
To Airport
Kailinjen
-10m
In/Out
-7m

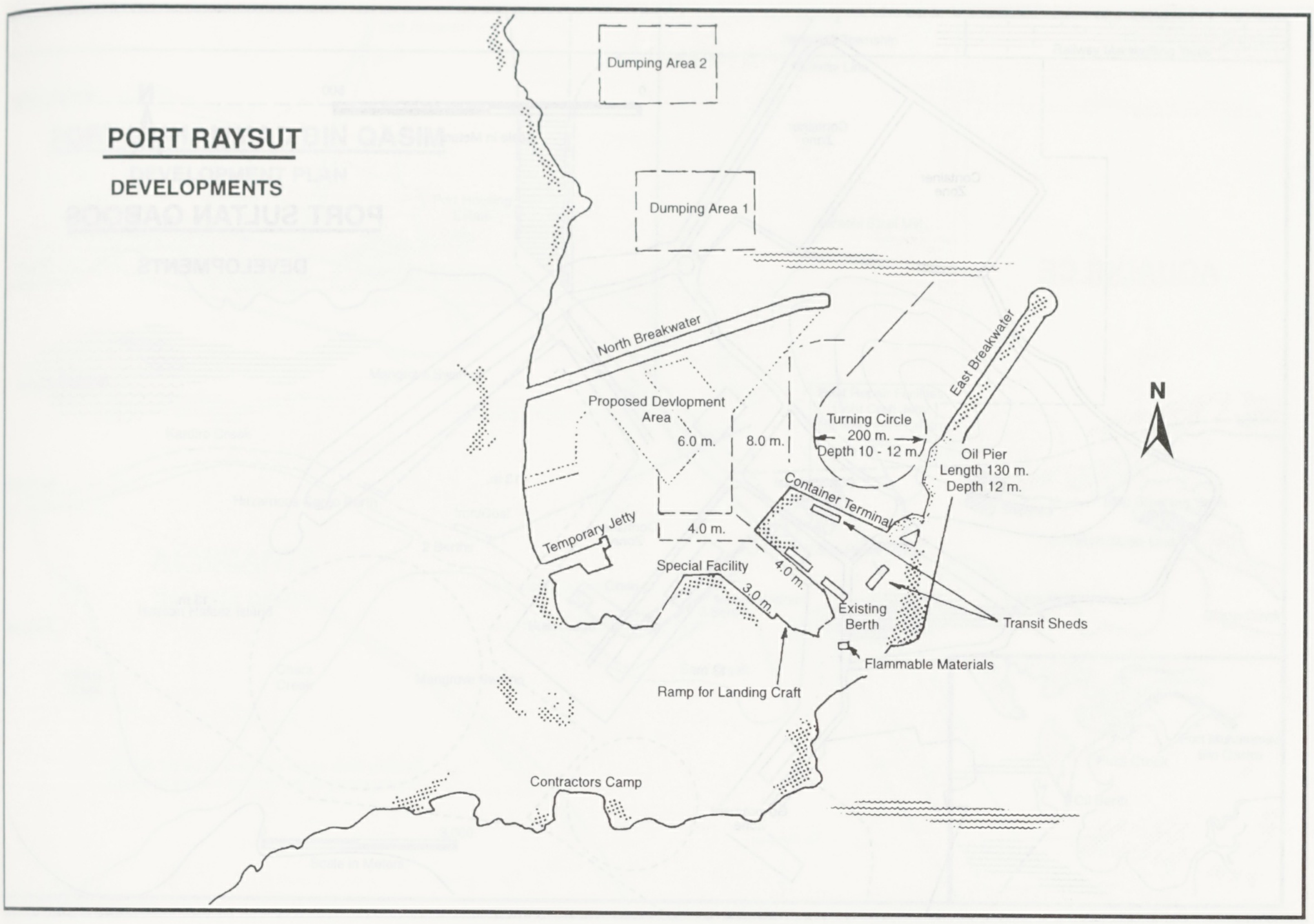

Bandar Abbas
Qeshm
Quoin Is.
Lavan Is.
IRAN
Qeshm Is.
Straits of Hormuz
PAKISTAN
The Gulf
Sirri Is.
OMAN
Sharjah
Das Is.
Dubai
Khor Fakkan
Char Bahar
Ormara
QATAR
Doha
Fujairah
Gulf of Oman
25° N
Umm Said
Abu Dhabi
Ruwais
UNITED ARAB EMIRATES
Mina Al Fahal
Port Sultan Qaboos (Mutrah)
OMAN
Ras Al Hadd
OMAN
SAUDIA ARABIA
Masirah Is.
20° N
Ras Madrakah
ARABIAN SEA
Kuria Muria Is
Mina Raysut
55° E
60° E
65° E

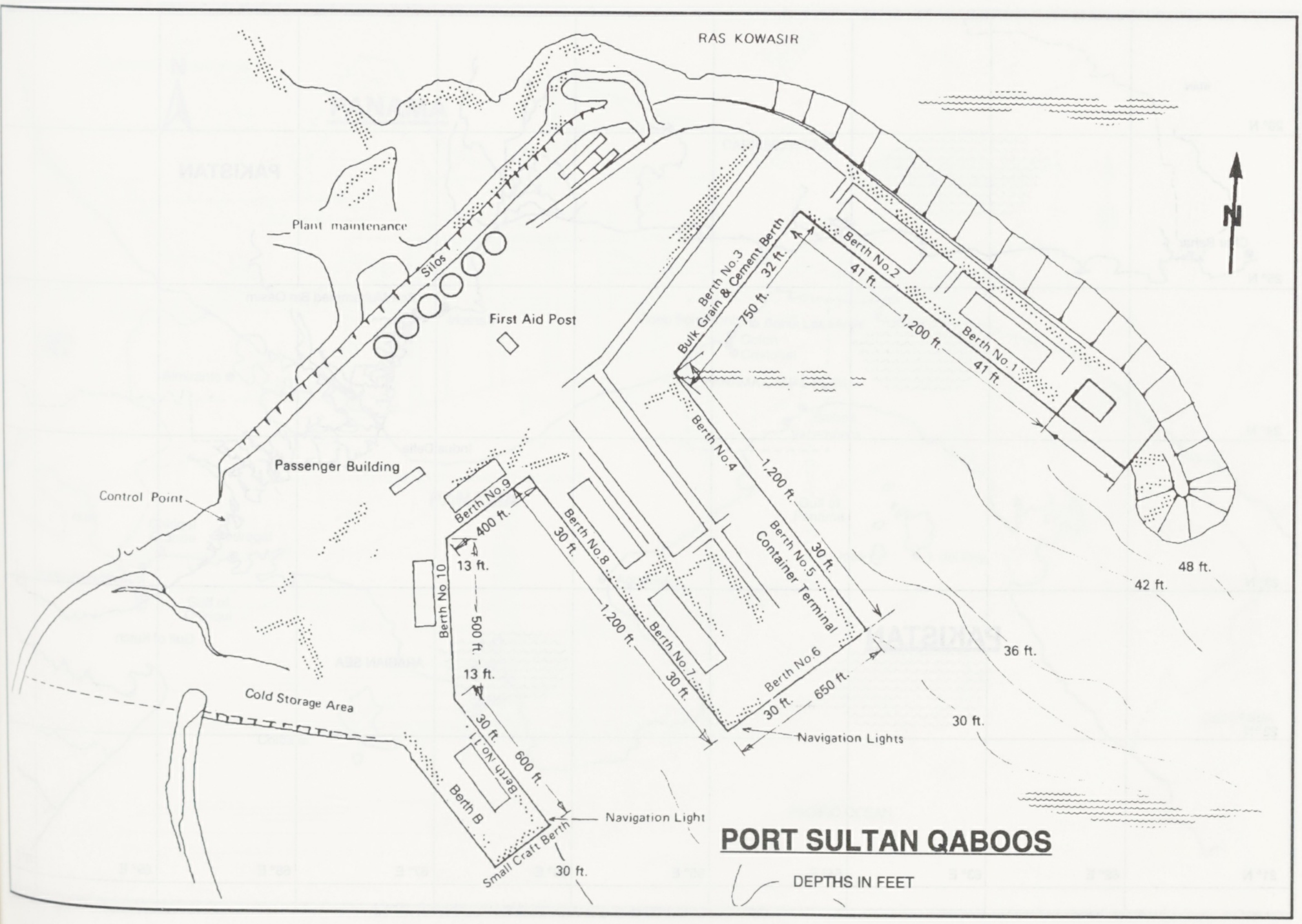

MINA AL FAHAL
0
1
2 Nautical Miles
0
1
2
3 Kilometers
SCALE
Pilot boarding positions
Fahal Fairway Buoy
PETROLEUM AREA
Fahal Island
PROHIBITED AREA
30 Fathoms
20 Fathoms
10 Fathoms
S.B.M. No. 2
S.B.M. No. 3
S.B.M. No. 1
PORT QABOOS AREA
Ras al Hamra
Jetty
Pilot Launches.
MINA AL FAHAL
Housing Area
2 x 10" Gasoil Mogas & Jet-Al x 8003 ft.
40" Crude + 2 x 10" Bunkers x 13,980 ft.
2 x 30" Crude X 10,300 ft.
Shell
P.D.(O) Head Office
40" Crude Oil Pipeline
Industrial Area

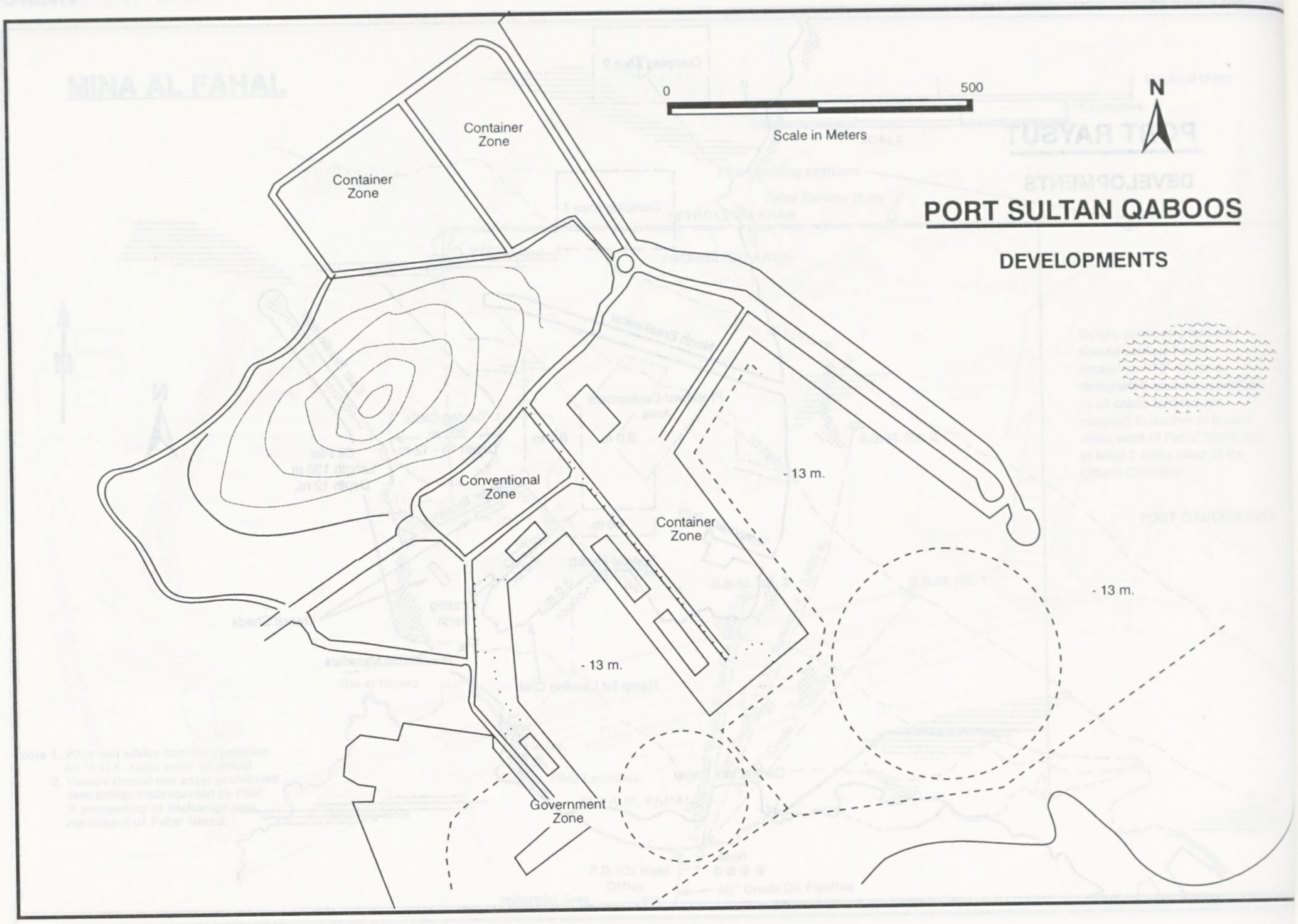
Before anchoring tankers should contact Fahal control on VHF 12 for a designated anchoring position. In all cases tankers are required to anchor at least 2 miles west of Fahal Island and at least 2 miles clear of the Omani Coastline

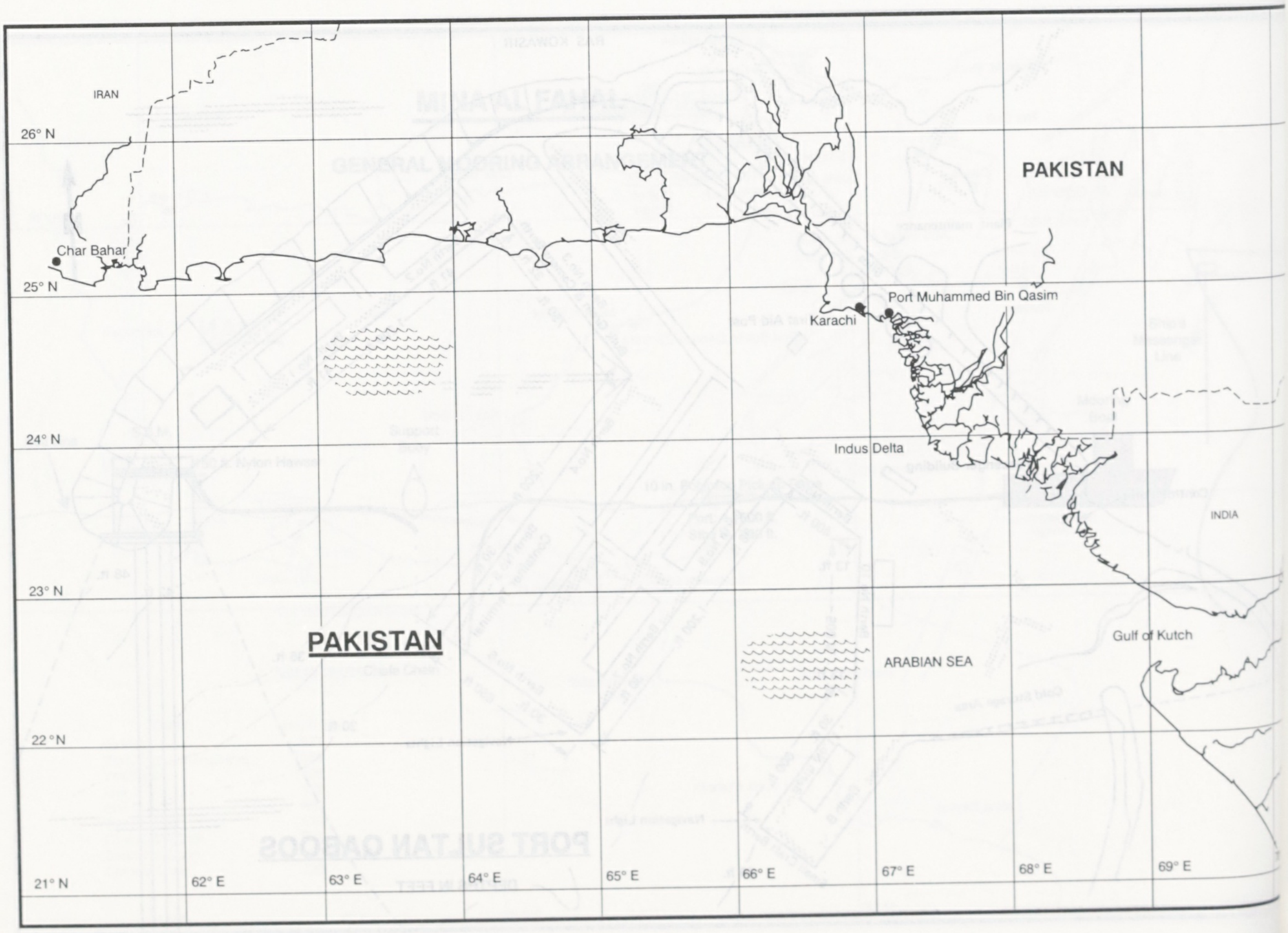
Note 1. Pilot will advise boarding position on V.H.F. radio prior to arrival.
2. Vessels should not enter prohibited area unless accompanied by Pilot. If proceeding to anchorage pass northward of Fahal Island.

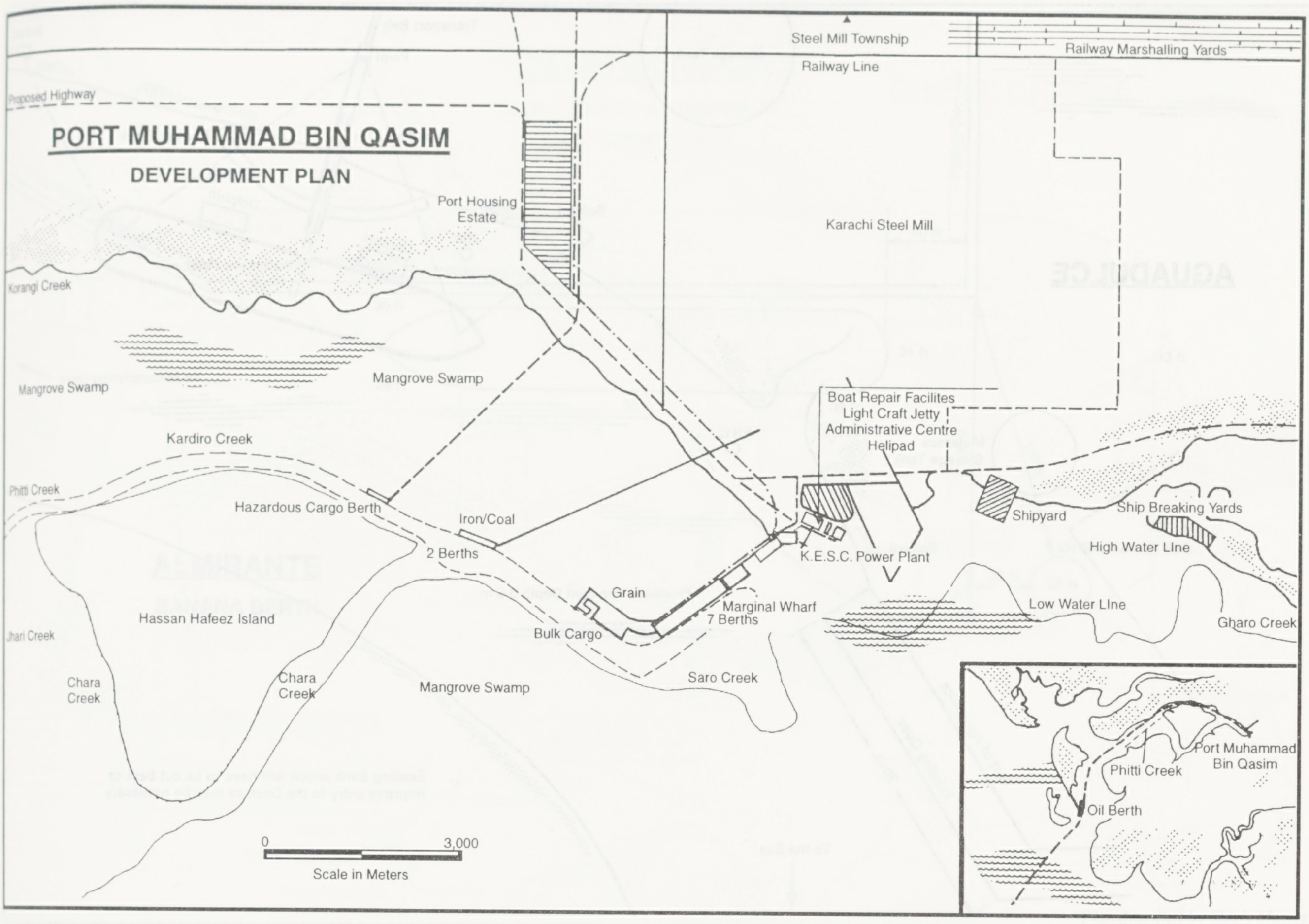

MINA AL FAHAL
GENERAL MOORING ARRANGEMENT
Sea Line
S.B.M.
150 ft. Nylon Hawser
Support Buoy
10 in. Polyprop Pick-up Rope
Port: +- 600 ft.
Stbs +- 300 ft.
Chafe Chain
Mooring Boat
Ship's Messenger Line

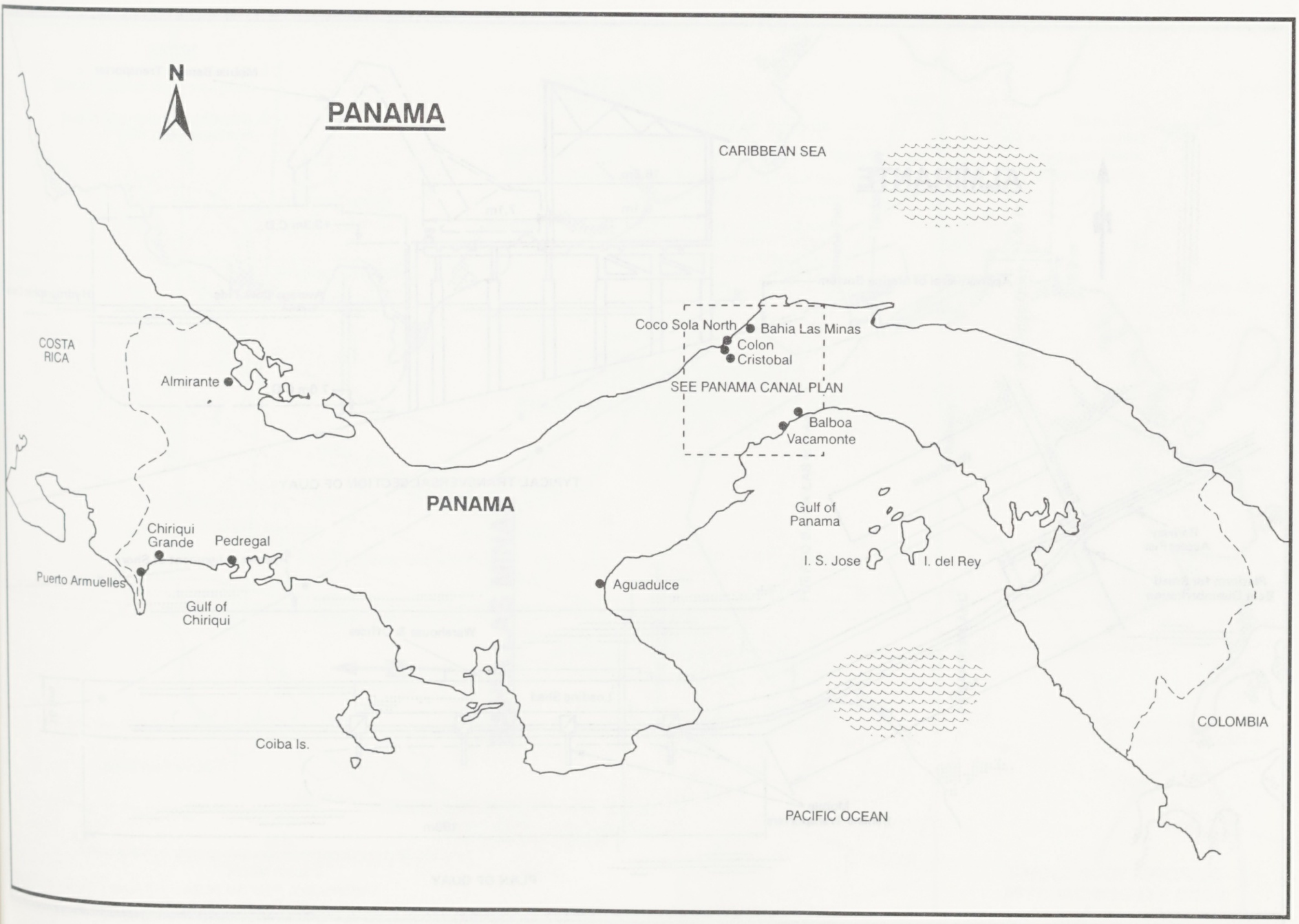

PORT RAYSUT
DEVELOPMENTS
Dumping Area 2
Dumping Area 1
North Breakwater
East Breakwater
N
Proposed Devlopment Area
6.0 m.
8.0 m.
Turning Circle
200 m.
Depth 10 - 12 m.
Oil Pier
Length 130 m.
Depth 12 m.
Container Terminal
Temporary Jetty
4.0 m.
Special Facility
4.0 m.
3.0 m.
Existing Berth
Transit Sheds
Flammable Materials
Ramp for Landing Craft
Contractors Camp

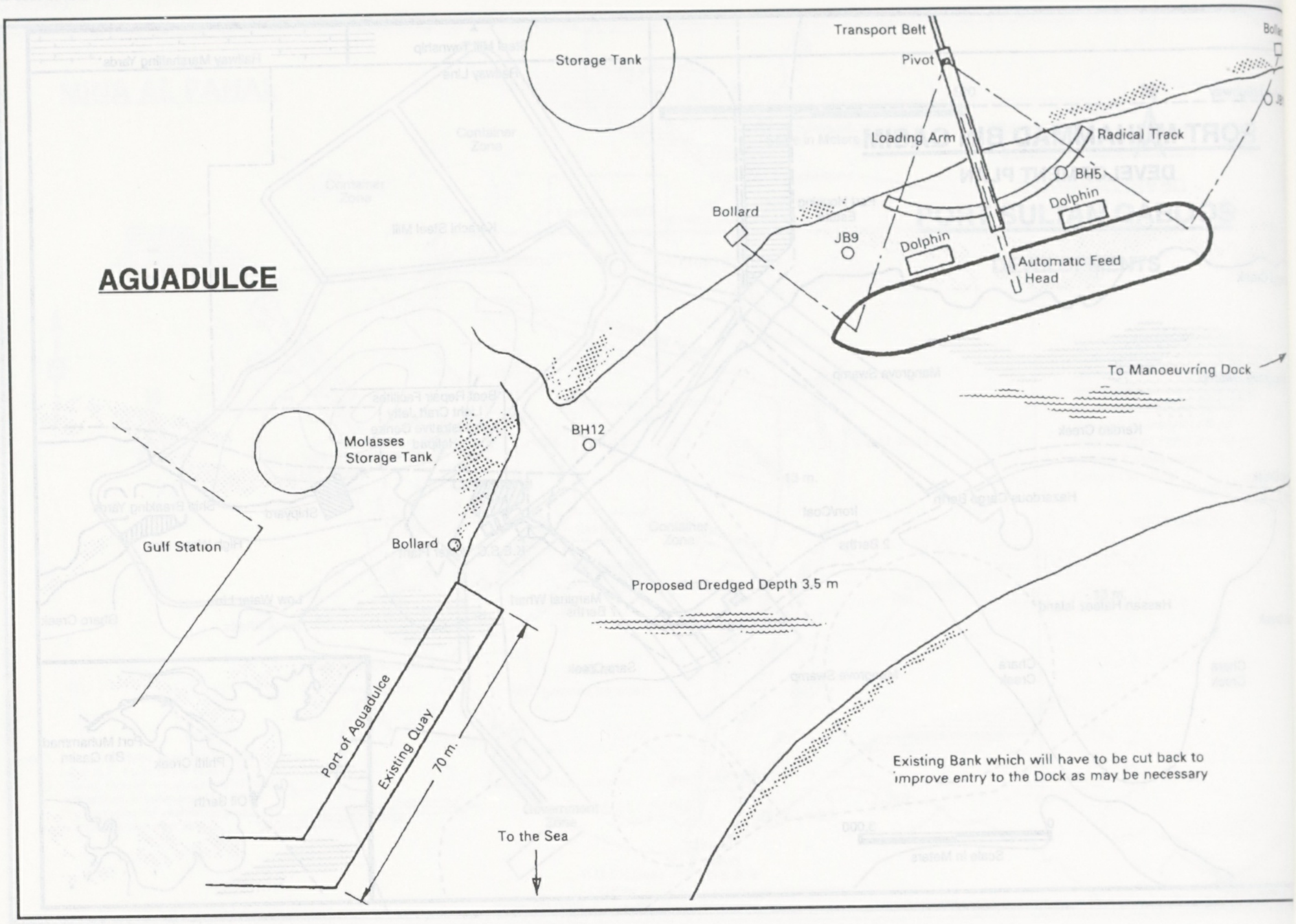

RAS KOWASIR
N
Plant maintenance
Silos
First Aid Post
Berth No.3
Bulk Grain & Cement Berth
750 ft.
32 ft.
Berth No.2
41 ft.
1,200 ft.
Berth No.1
41 ft.
Berth No.4
1,200 ft.
30 ft.
Berth No.5
Container Terminal
Passenger Building
Control Point
Berth No.9
400 ft.
13 ft.
Berth No.10
500 ft.
13 ft.
Berth No.8
30 ft.
1,200 ft.
Berth No.7
30 ft.
Berth No.6
30 ft.
650 ft.
Navigation Lights
48 ft.
42 ft.
36 ft.
30 ft.
Cold Storage Area
30 ft.
Berth No.11
600 ft.
Berth B
Navigation Light
Small Craft Berth
30 ft.
PORT SULTAN QABOOS
DEPTHS IN FEET

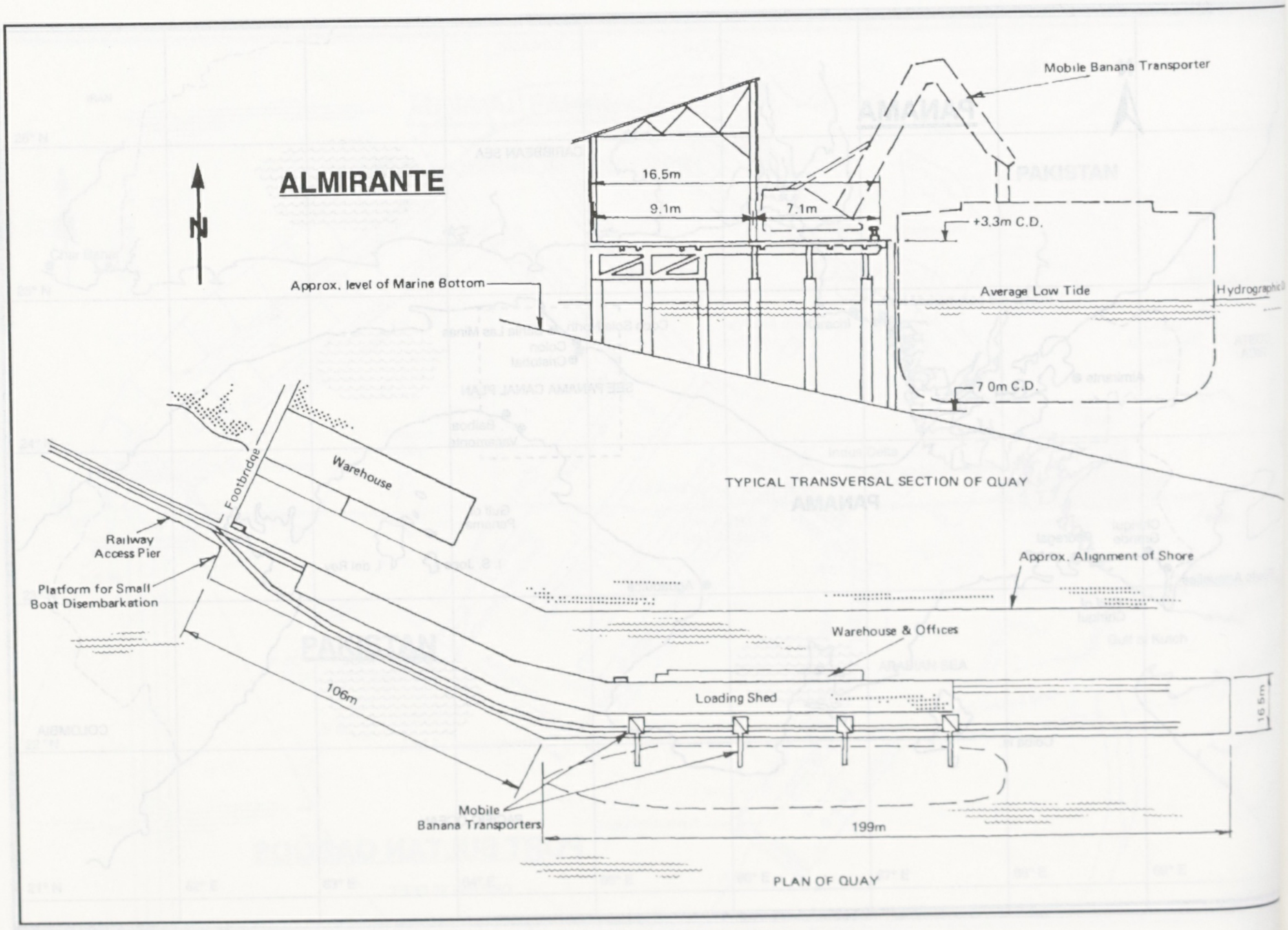

0
500
Scale in Meters
N
PORT SULTAN QABOOS
DEVELOPMENTS
Container Zone
Container Zone
Conventional Zone
Container Zone
Government Zone
- 13 m.
- 13 m.
- 13 m.

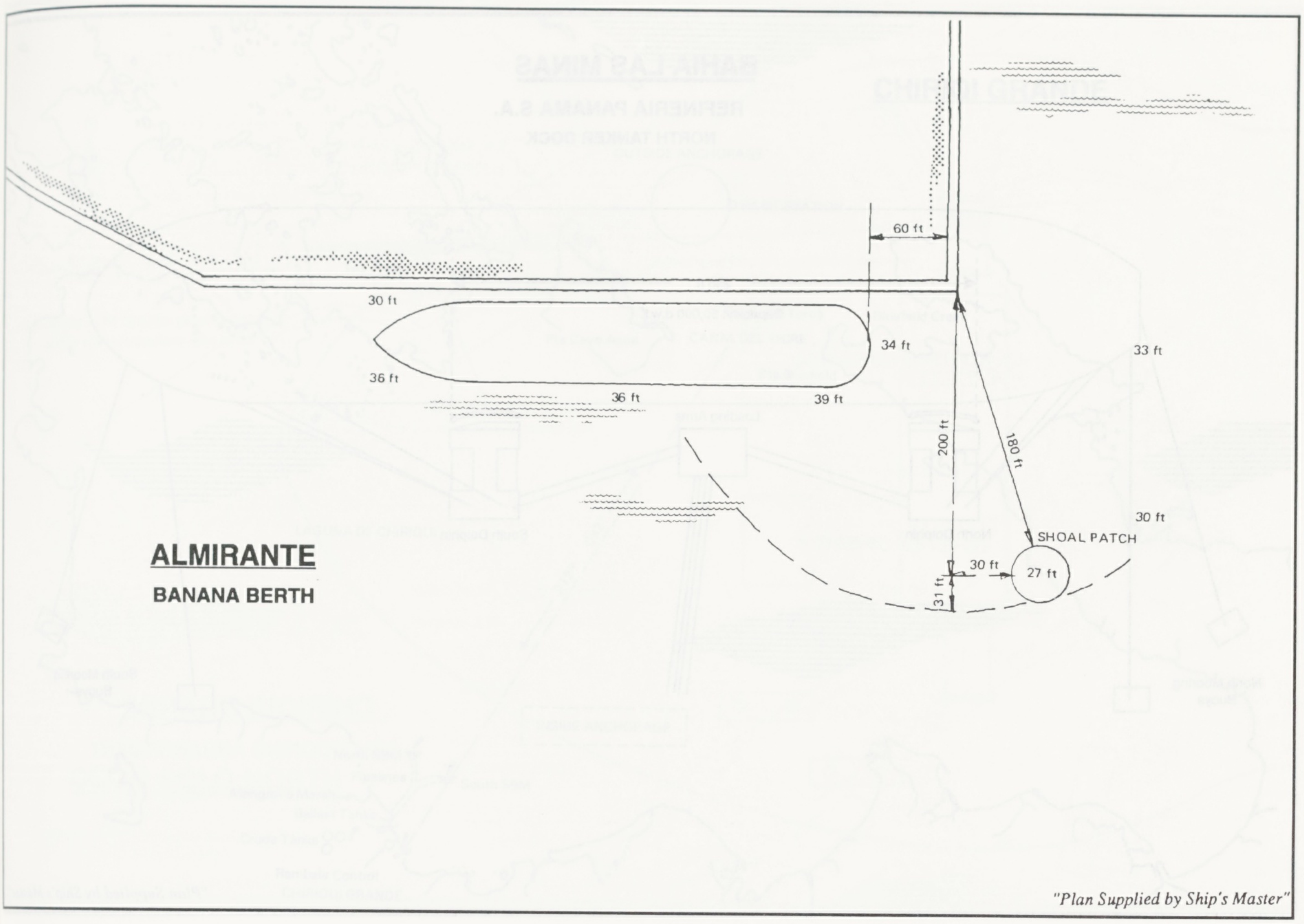

IRAN
PAKISTAN
Char Bahar
Karachi
Port Muhammed Bin Qasim
Indus Delta
INDIA
Gulf of Kutch
ARABIAN SEA
PAKISTAN
26° N
25° N
24° N
23° N
22° N
21° N
62° E
63° E
64° E
65° E
66° E
67° E
68° E
69° E


PORT MUHAMMAD BIN QASIM
DEVELOPMENT PLAN
Steel Mill Township
Railway Marshalling Yards
Railway Line
Proposed Highway
Port Housing Estate
Karachi Steel Mill
Korangi Creek
Mangrove Swamp
Mangrove Swamp
Boat Repair Facilites
Light Craft Jetty
Administrative Centre
Helipad
Kardiro Creek
Phitti Creek
Hazardous Cargo Berth
Iron/Coal
2 Berths
Shipyard
Ship Breaking Yards
High Water LIne
K.E.S.C. Power Plant
Grain
Marginal Wharf
7 Berths
Low Water LIne
Gharo Creek
Hassan Hafeez Island
Jhari Creek
Bulk Cargo
Chara Creek
Chara Creek
Mangrove Swamp
Saro Creek
Phitti Creek
Port Muhammad Bin Qasim
Oil Berth
0
3,000
Scale in Meters


N
PANAMA
CARIBBEAN SEA
Coco Sola North
Bahia Las Minas
Colon
Cristobal
SEE PANAMA CANAL PLAN
Balboa
Vacamonte
COSTA RICA
Almirante
PANAMA
Gulf of Panama
Chiriqui Grande
Pedregal
Puerto Armuelles
I. S. Jose
I. del Rey
Aguadulce
Gulf of Chiriqui
Coiba Is.
COLOMBIA
PACIFIC OCEAN


AGUADULCE
Storage Tank
Transport Belt
Pivot
Loading Arm
Radical Track
BH5
Dolphin
Dolphin
Bollard
JB9
Automatic Feed Head
To Manoeuvring Dock
Molasses Storage Tank
BH12
Gulf Station
Bollard
Proposed Dredged Depth 3.5 m
Port of Aguadulce
Existing Quay
70 m.
Existing Bank which will have to be cut back to improve entry to the Dock as may be necessary
To the Sea


ALMIRANTE
N
Mobile Banana Transporter
16.5m
9.1m
7.1m
+3.3m C.D.
Approx. level of Marine Bottom
Average Low Tide
Hydrographic
7.0m C.D.
TYPICAL TRANSVERSAL SECTION OF QUAY
Footbridge
Warehouse
Railway Access Pier
Platform for Small Boat Disembarkation
Approx. Alignment of Shore
Warehouse & Offices
106m
Loading Shed
16.5m
Mobile Banana Transporters
199m
PLAN OF QUAY

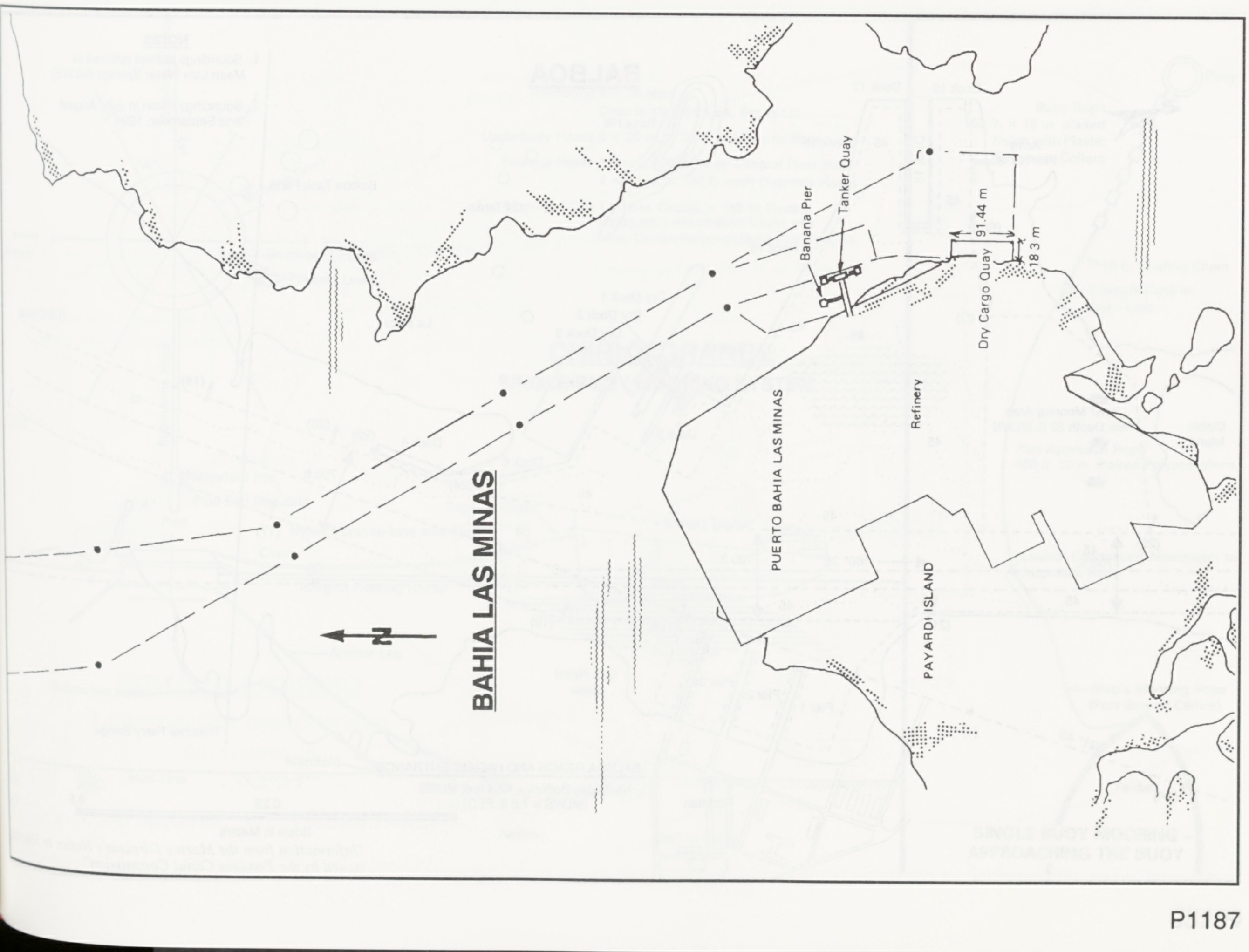


ALMIRANTE

BANANA BERTH

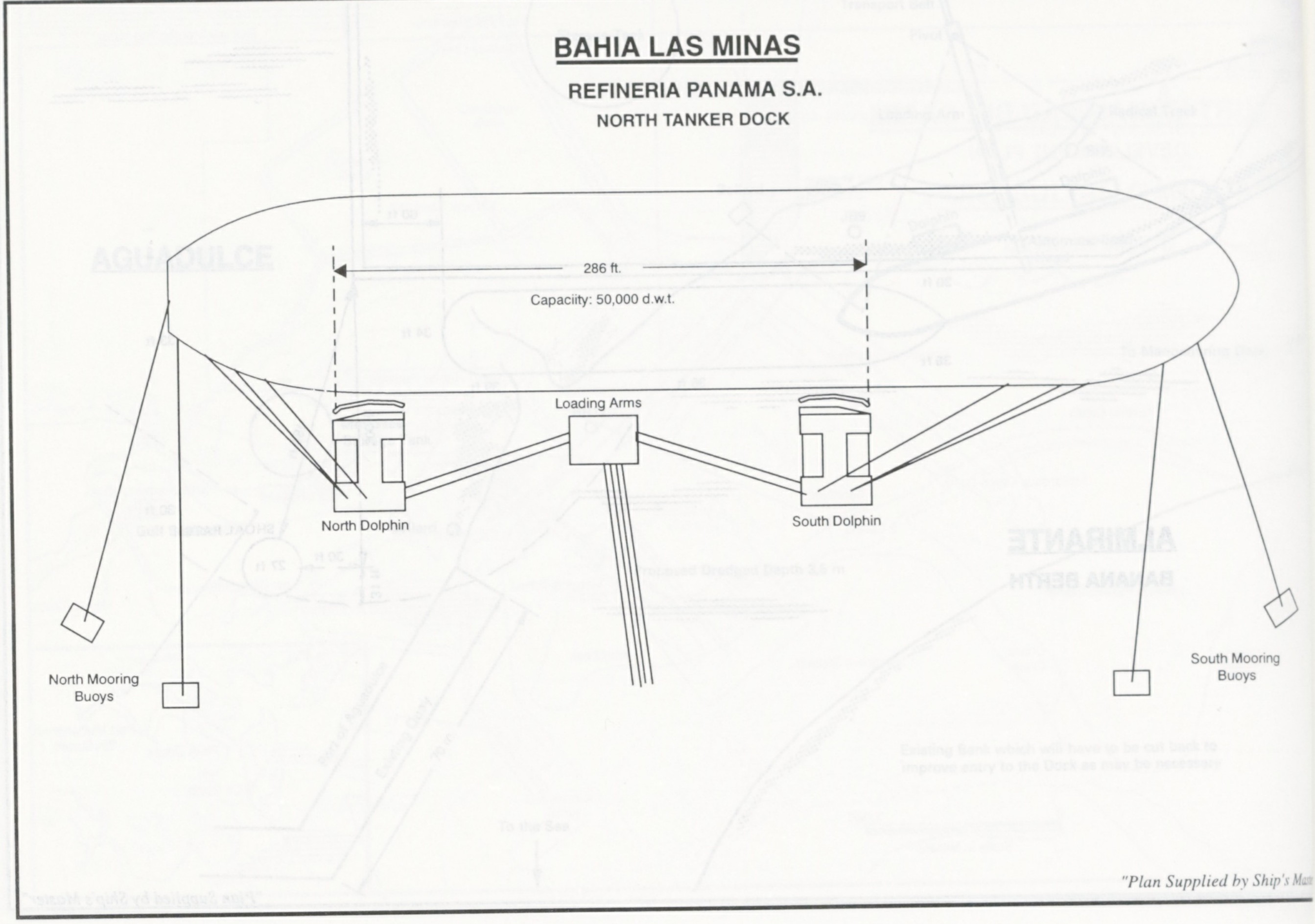
"Plan Supplied by Ship's Master"

60 ft
30 ft
36 ft
34 ft
36 ft
39 ft
33 ft
200 ft
180 ft
30 ft
SHOAL PATCH
30 ft
27 ft
31 ft

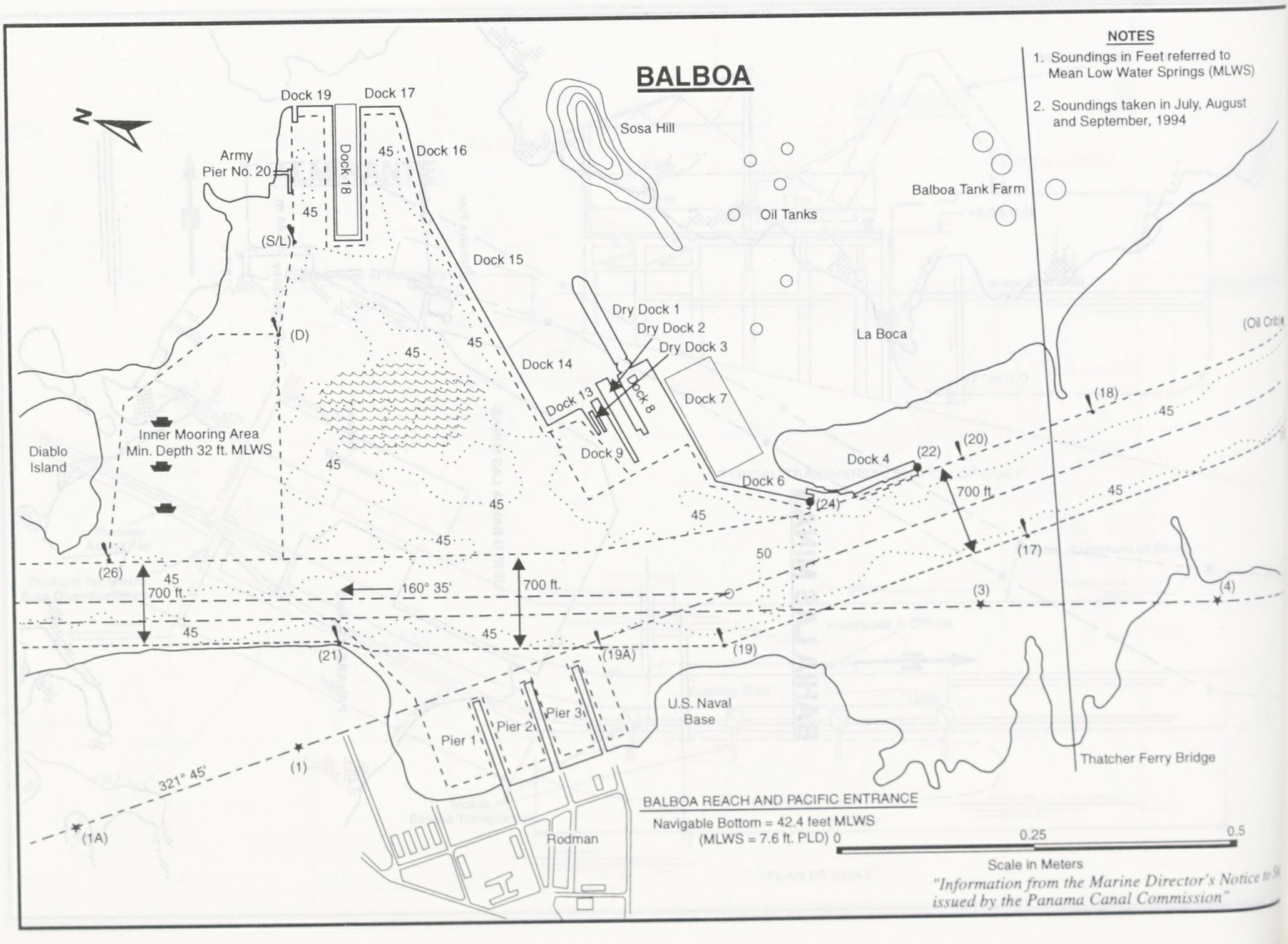


BAHIA LAS MINAS

N
Banana Pier
Tanker Quay
91.44 m
18.3 m
Dry Cargo Quay
Refinery
PUERTO BAHIA LAS MINAS
PAYARDI ISLAND


BAHIA LAS MINAS
REFINERIA PANAMA S.A.
NORTH TANKER DOCK
286 ft.
Capaciity: 50,000 d.w.t.
Loading Arms
North Dolphin
South Dolphin
North Mooring Buoys
South Mooring Buoys

"Plan Supplied by Ship's Mas


BALBOA
N
Dock 19
Dock 17
Dock 18
Dock 16
Army Pier No. 20
45
(S/L)
Dock 15
Sosa Hill
Oil Tanks
Balboa Tank Farm
Dry Dock 1
Dry Dock 2
Dry Dock 3
Dock 14
Dock 13
Dock 8
Dock 7
Dock 9
Dock 6
Dock 4
La Boca
(Oil Crib
(D)
Inner Mooring Area Min. Depth 32 ft. MLWS
Diablo Island
(26)
700 ft.
160° 35'
700 ft.
50
(21)
(19A)
(19)
(24)
(22)
(20)
(18)
(17)
(3)
(4)
(1)
(1A)
321° 45'
Pier 1
Pier 2
Pier 3
U.S. Naval Base
Rodman
Thatcher Ferry Bridge
0
0.25
0.5
Scale in Meters

NOTES

1. Soundings in Feet referred to Mean Low Water Springs (MLWS)
2. Soundings taken in July, August and September, 1994

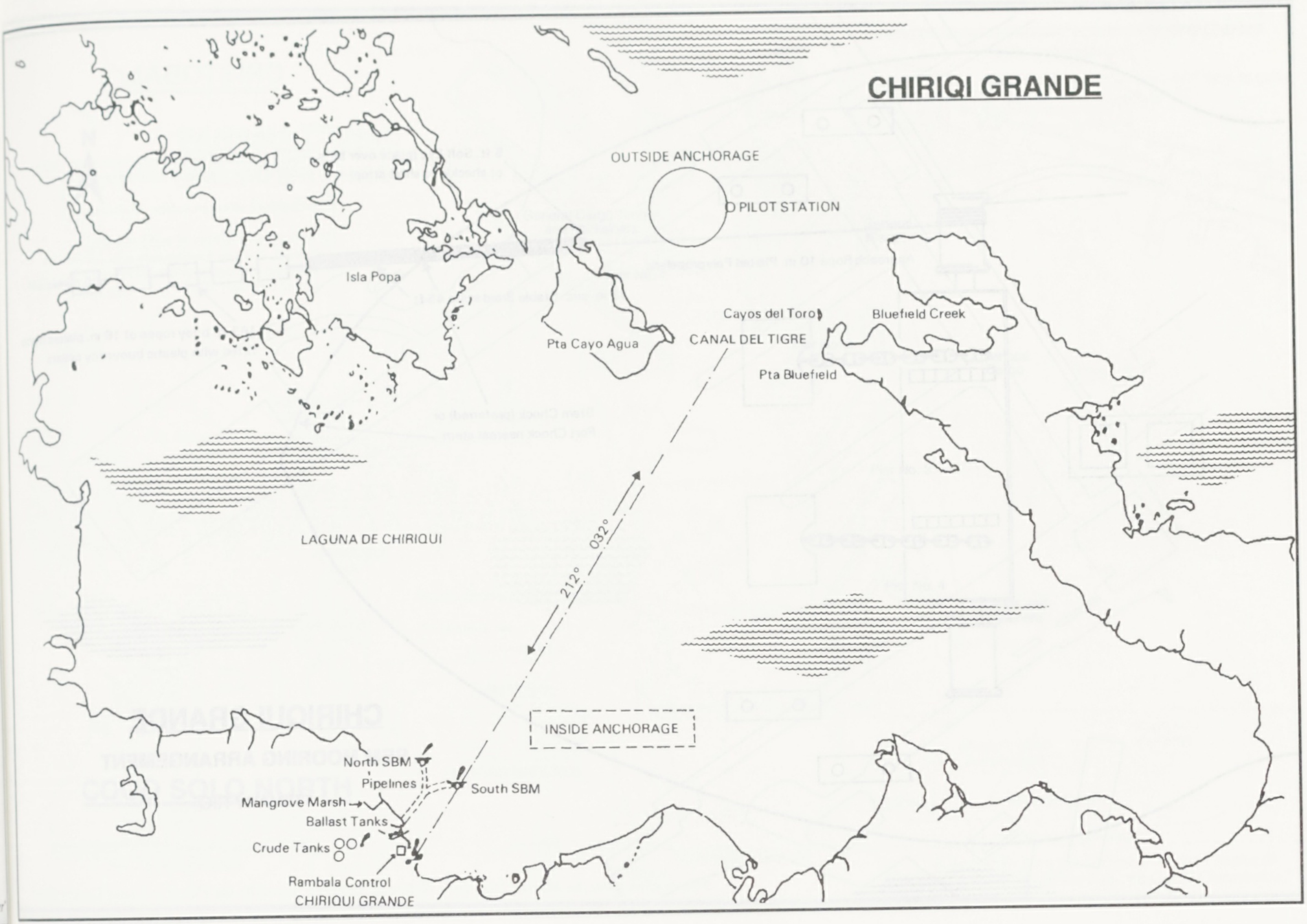
BALBOA REACH AND PACIFIC ENTRANCE

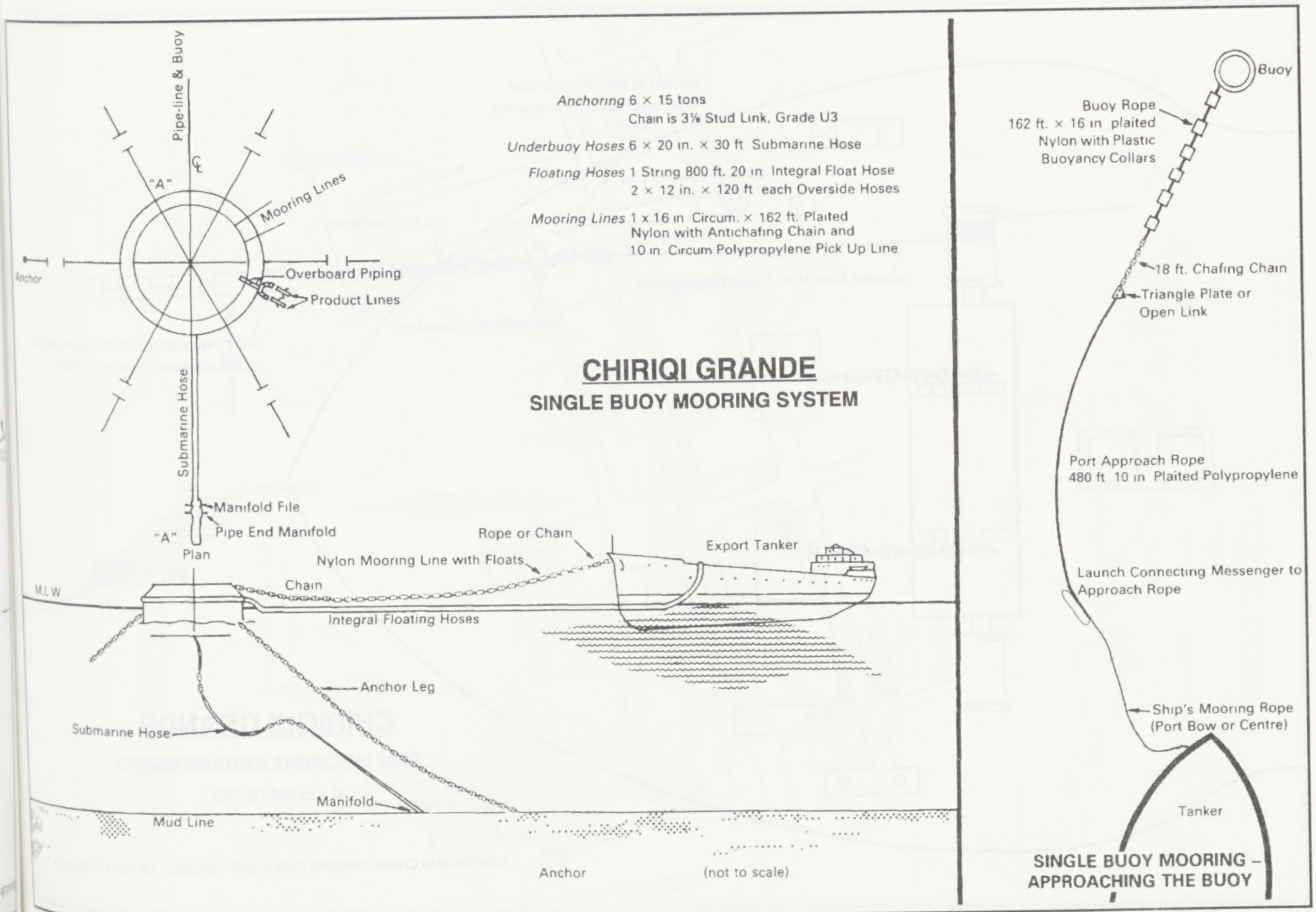
Navigable Bottom = 42.4 feet MLWS

(MLWS = 7.6 ft. PLD)

"Information from the Marine Director's Notice to

issued by the Panama Canal Commission"


CHIRIQI GRANDE
OUTSIDE ANCHORAGE
PILOT STATION
Isla Popa
Pta Cayo Agua
Cayos del Toro
Bluefield Creek
CANAL DEL TIGRE
Pta Bluefield
LAGUNA DE CHIRIQUI
032°
212°
INSIDE ANCHORAGE
North SBM
Pipelines
South SBM
Mangrove Marsh
Ballast Tanks
Crude Tanks
Rambala Control
CHIRIQUI GRANDE



CHIRIQI GRANDE

SINGLE BUOY MOORING SYSTEM

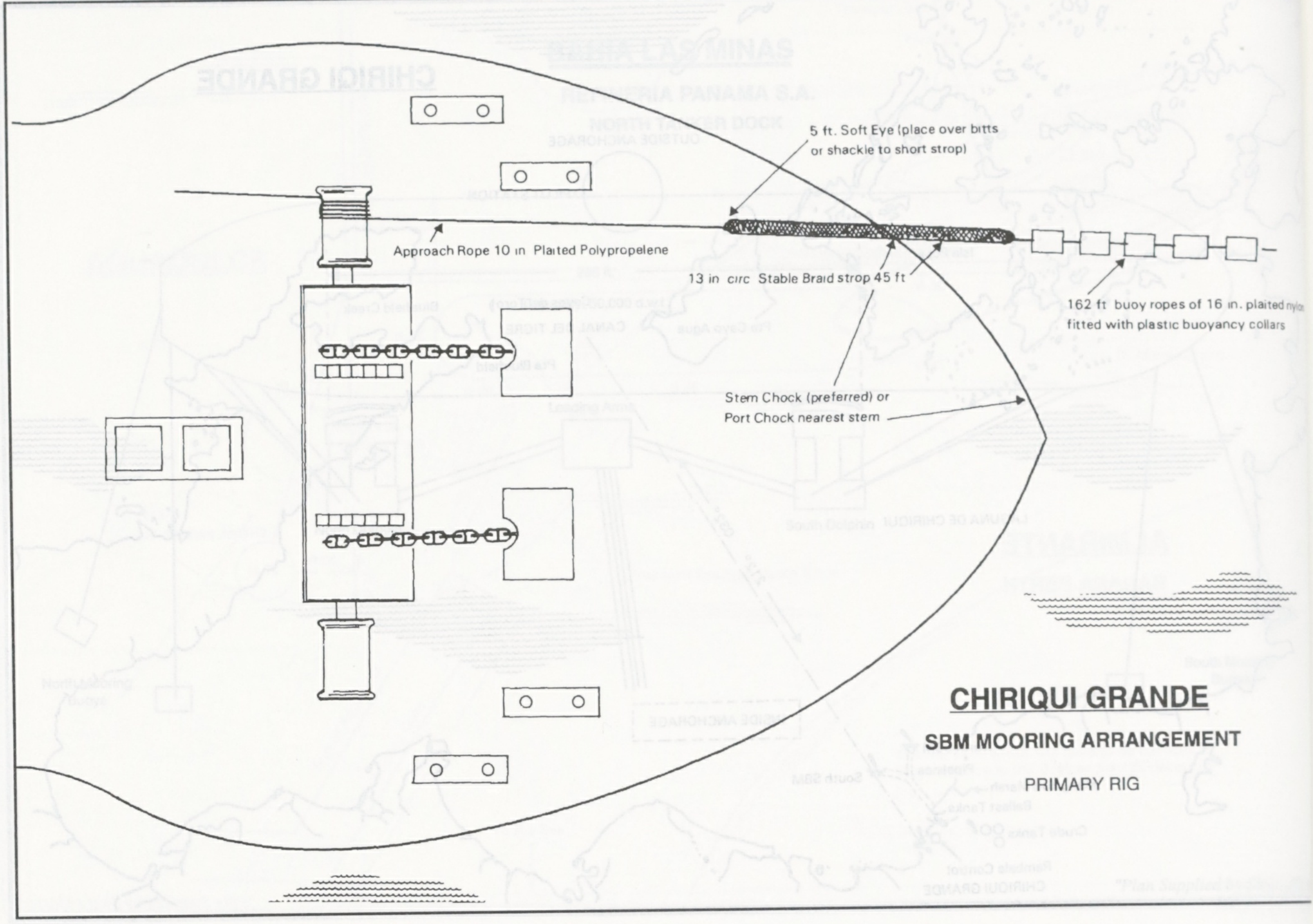
Anchoring 6 × 15 tons
Chain is 3⅛ Stud Link, Grade U3

Underbuoy Hoses 6 × 20 in. × 30 ft Submarine Hose

Floating Hoses 1 String 800 ft. 20 in Integral Float Hose
2 × 12 in. × 120 ft each Overside Hoses

Mooring Lines 1 x 16 in Circum. × 162 ft. Plaited Nylon with Antichafing Chain and 10 in Circum Polypropylene Pick Up Line

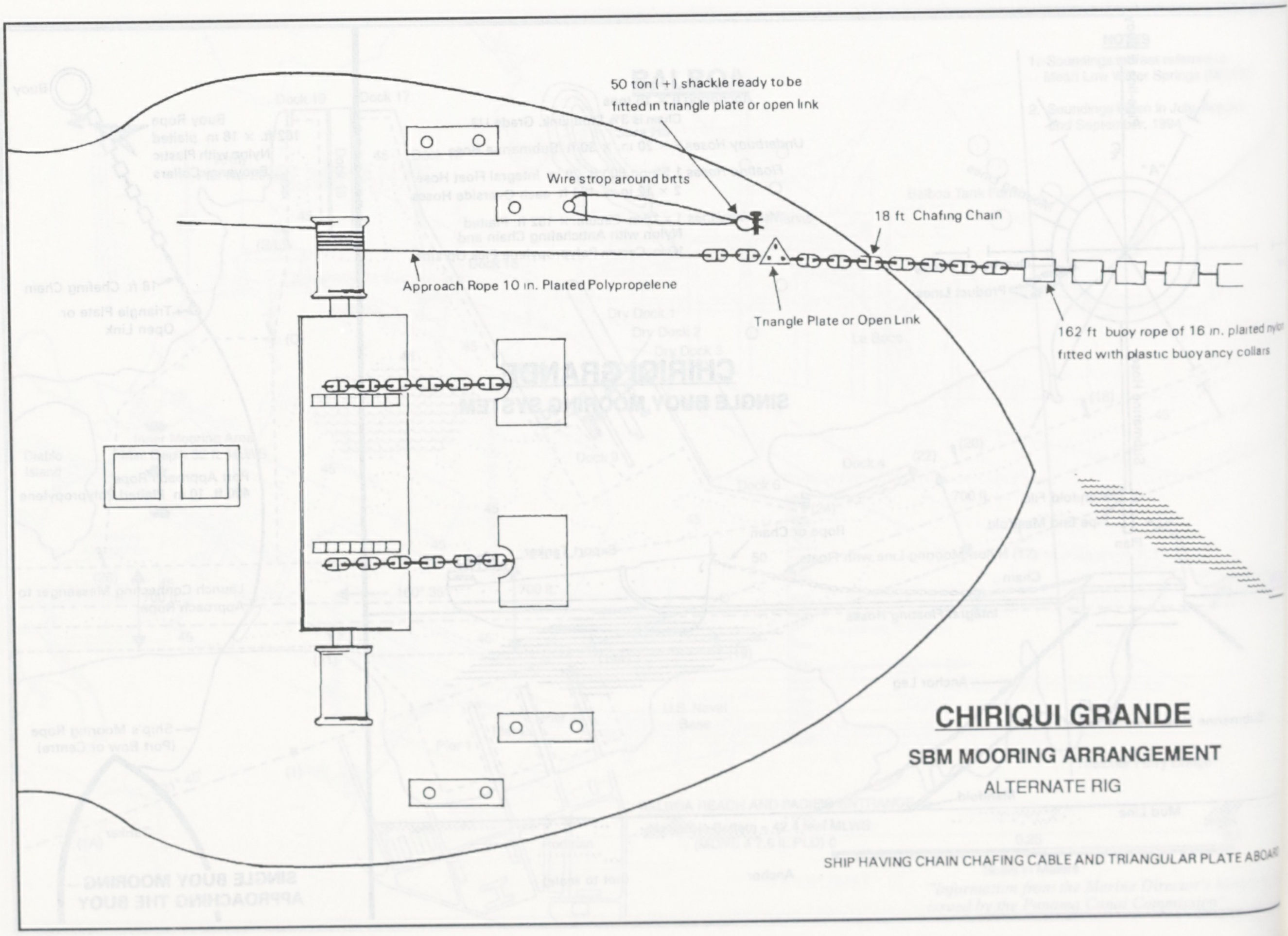
Pipe-line & Buoy
℄
"A"
Mooring Lines
Anchor
Overboard Piping
Product Lines
Submarine Hose
Manifold File
Pipe End Manifold
"A"
Plan
Rope or Chain
Export Tanker
Nylon Mooring Line with Floats
Chain
M.L.W
Integral Floating Hoses
Anchor Leg
Submarine Hose
Manifold
Mud Line
Anchor
(not to scale)
Buoy
Buoy Rope
162 ft. × 16 in plaited Nylon with Plastic Buoyancy Collars
18 ft. Chafing Chain
Triangle Plate or Open Link
Port Approach Rope
480 ft 10 in Plaited Polypropylene
Launch Connecting Messenger to Approach Rope
Ship's Mooring Rope (Port Bow or Centre)
Tanker
SINGLE BUOY MOORING – APPROACHING THE BUOY


5 ft. Soft Eye (place over bitts or shackle to short strop)
Approach Rope 10 in. Plaited Polypropelene
13 in. circ. Stable Braid strop 45 ft
162 ft buoy ropes of 16 in. plaited nylon fitted with plastic buoyancy collars
Stem Chock (preferred) or Port Chock nearest stem

CHIRIQUI GRANDE

SBM MOORING ARRANGEMENT

PRIMARY RIG

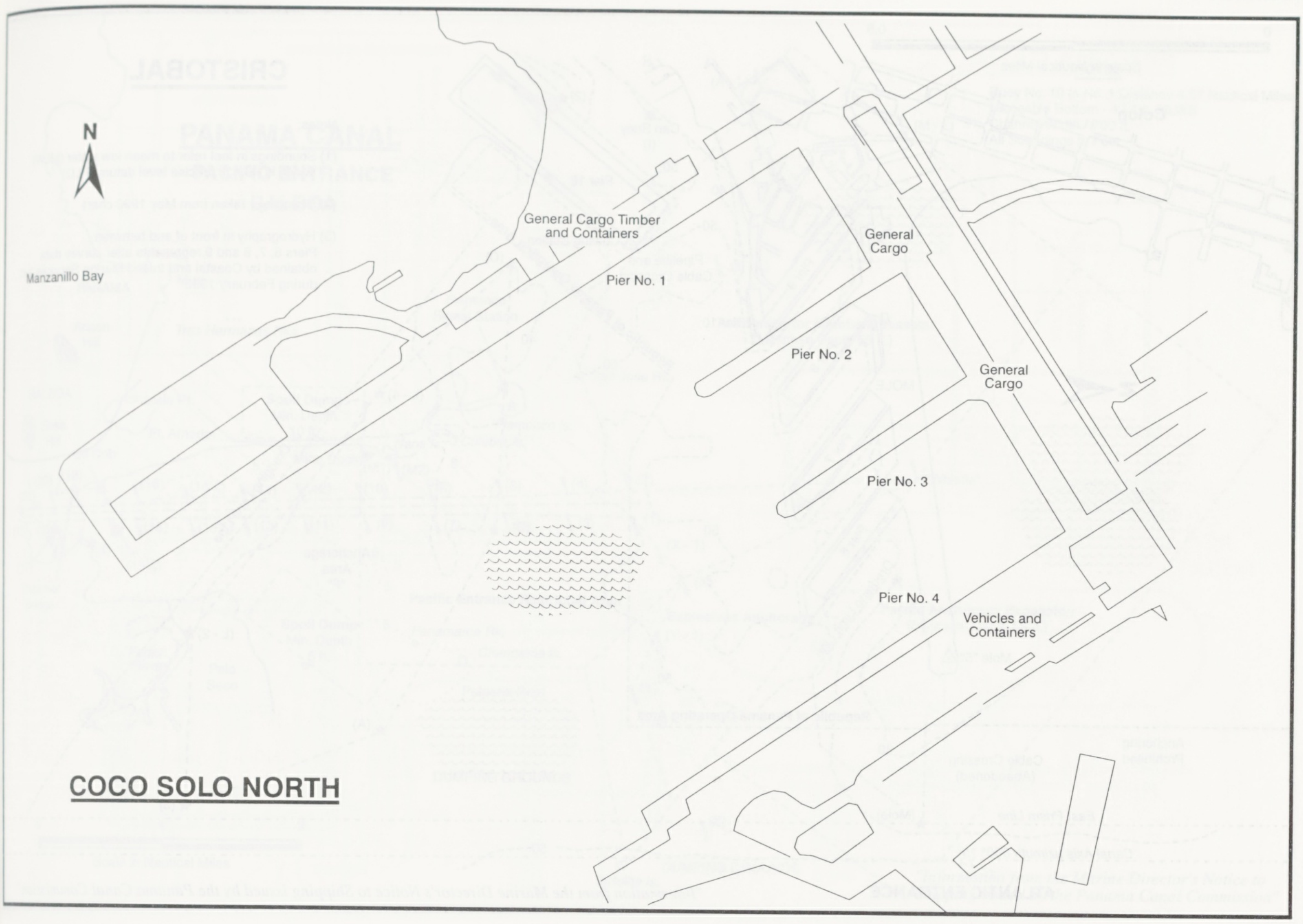

50 ton (+) shackle ready to be fitted in triangle plate or open link
Wire strop around bitts
18 ft Chafing Chain
Approach Rope 10 in. Plaited Polypropelene
Triangle Plate or Open Link
162 ft buoy rope of 16 in. plaited nylon fitted with plastic buoyancy collars

CHIRIQUI GRANDE

SBM MOORING ARRANGEMENT

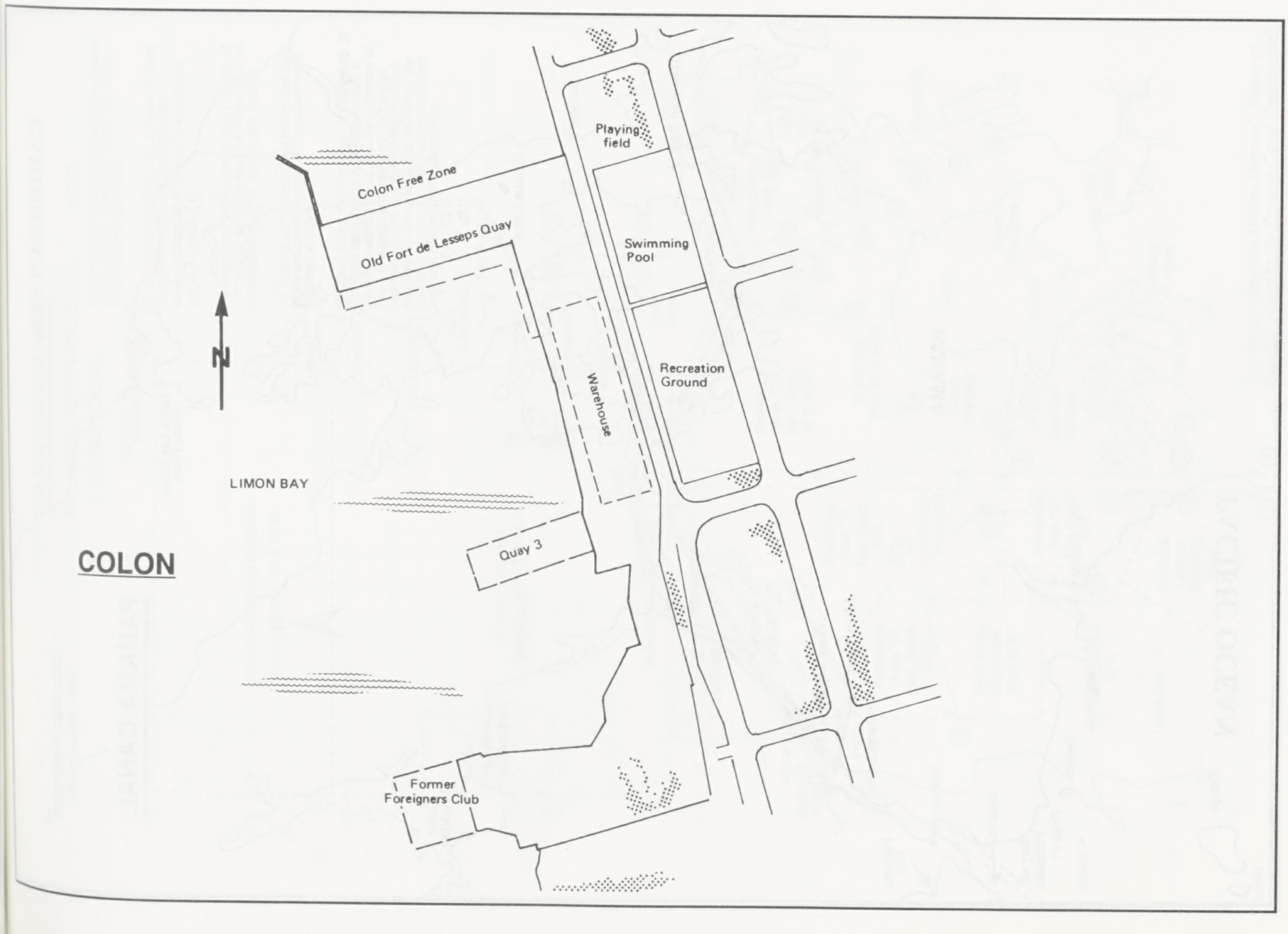
ALTERNATE RIG

SHIP HAVING CHAIN CHAFING CABLE AND TRIANGULAR PLATE ABOARD



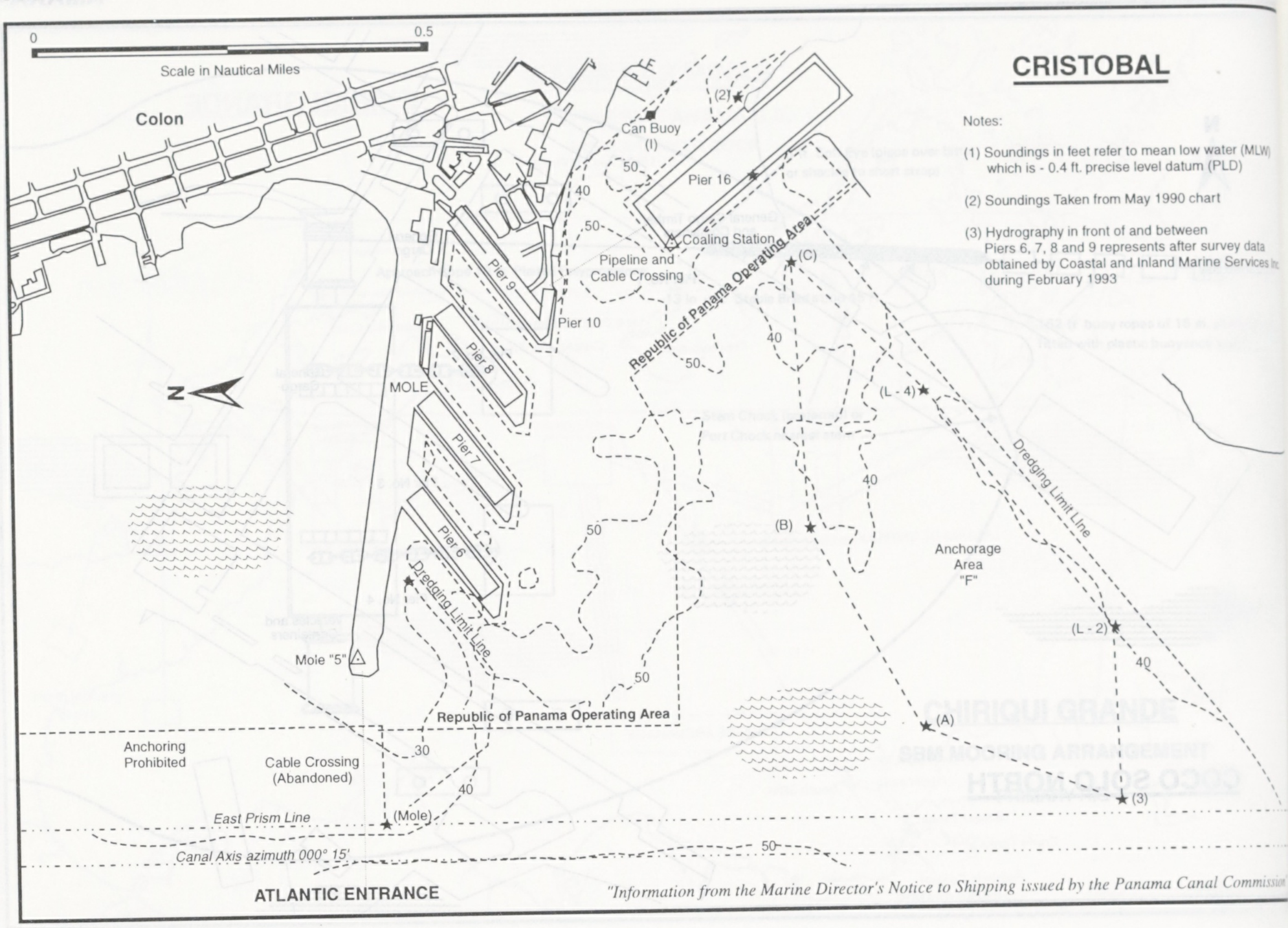
COCO SOLO NORTH

N
Manzanillo Bay
General Cargo Timber and Containers
Pier No. 1
General Cargo
Pier No. 2
General Cargo
Pier No. 3
Pier No. 4
Vehicles and Containers



COLON

N
Playing field
Colon Free Zone
Old Fort de Lesseps Quay
Swimming Pool
Warehouse
Recreation Ground
LIMON BAY
Quay 3
Former Foreigners Club


0
0.5
Scale in Nautical Miles
Colon
Can Buoy (I)
(2)
Pier 16
Coaling Station
Pipeline and Cable Crossing
Pier 9
Pier 10
Pier 8
Pier 7
Pier 6
MOLE
N
Mole "5"
Dredging Limit Line
Republic of Panama Operating Area
(C)
(L - 4)
(B)
(L - 2)
(A)
(3)
Anchorage Area "F"
Anchoring Prohibited
Cable Crossing (Abandoned)
East Prism Line
(Mole)
Canal Axis azimuth 000° 15'
ATLANTIC ENTRANCE
40
50
30

CRISTOBAL

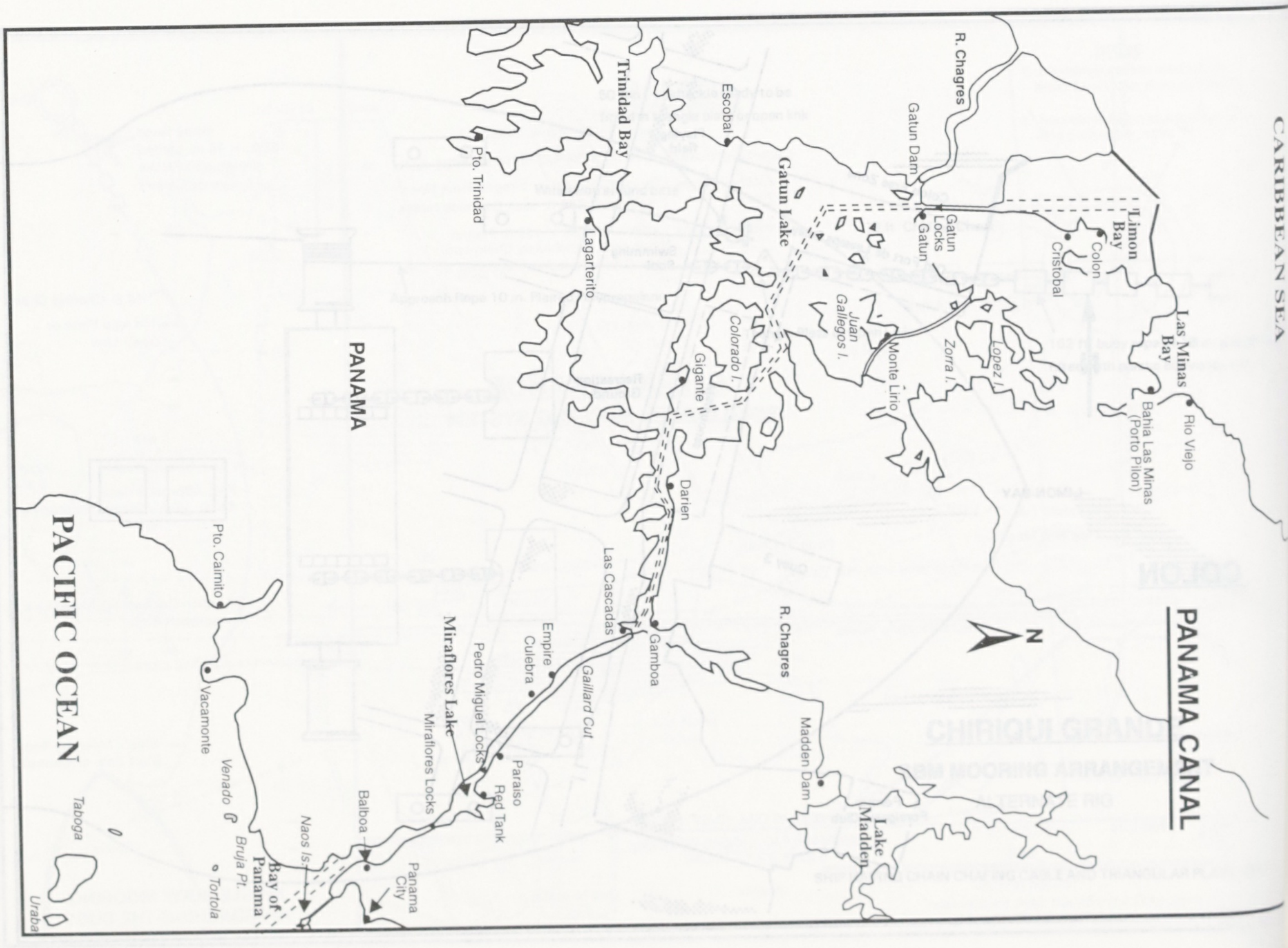
Notes:

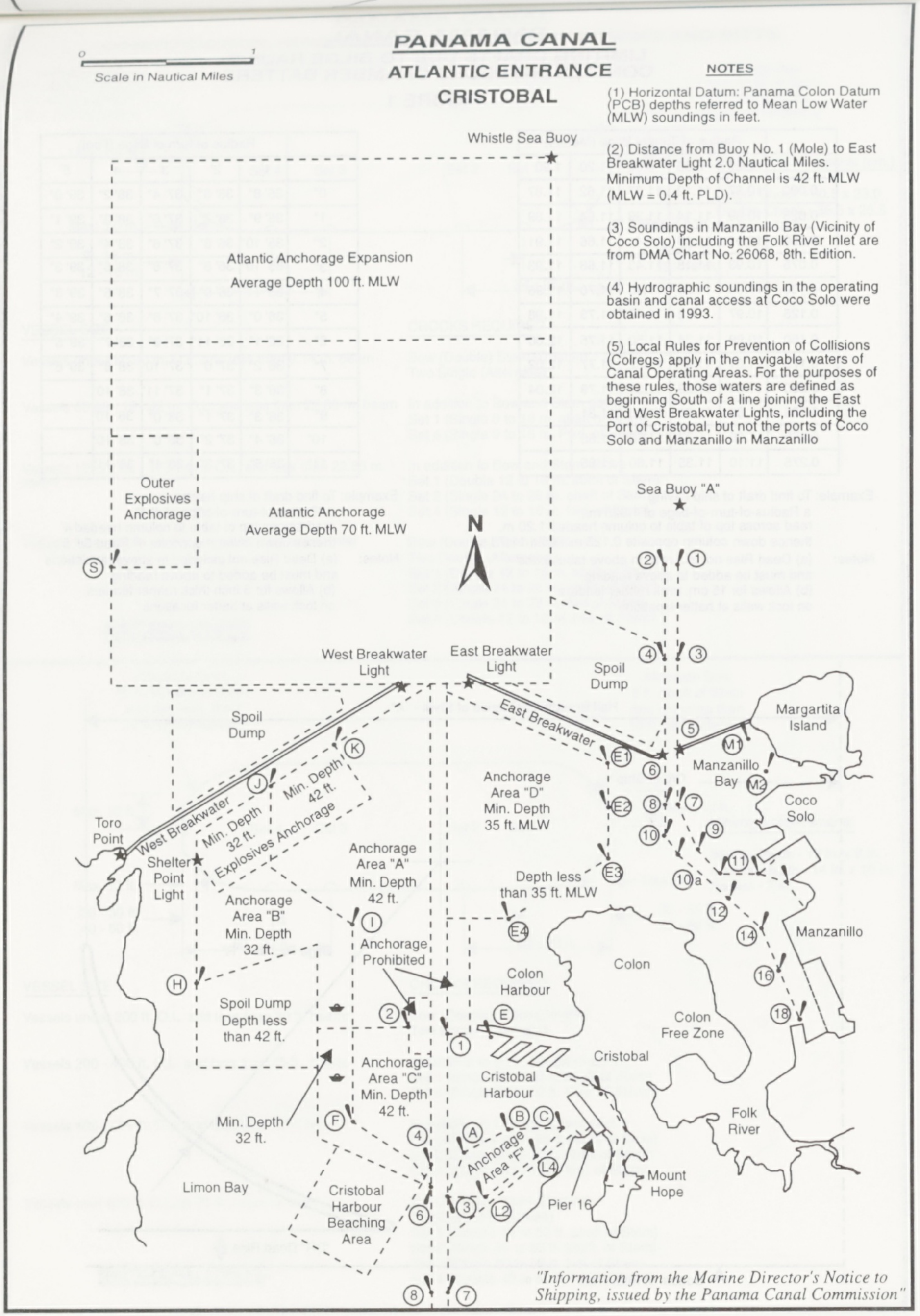
(1) Soundings in feet refer to mean low water (MLW) which is - 0.4 ft. precise level datum (PLD)

(2) Soundings Taken from May 1990 chart

(3) Hydrography in front of and between Piers 6, 7, 8 and 9 represents after survey data obtained by Coastal and Inland Marine Services Inc during February 1993

"Information from the Marine Director's Notice to Shipping issued by the Panama Canal Commission"


PANAMA CANAL
CARIBBEAN SEA
PACIFIC OCEAN
PANAMA
N
R. Chagres
Gatun Dam
Gatun Locks
Gatun
Gatun Lake
Escobal
Trinidad Bay
Pto. Trinidad
Lagarterito
Limon Bay
Colon
Cristobal
Las Minas Bay
Bahia Las Minas (Porto Pilon)
Rio Viejo
Juan Gallegos I.
Monte Lirio
Zorra I.
Lopez I.
Colorado I.
Gigante
Darien
Las Cascadas
Gamboa
Empire
Culebra
Gaillard Cut
R. Chagres
Madden Dam
Lake Madden
Pedro Miguel Locks
Miraflores Lake
Miraflores Locks
Paraiso
Red Tank
Balboa
Panama City
Naos Is.
Bay of Panama
Pto. Caimito
Vacamonte
Venado
Bruja Pt.
Taboga
Tortola
Uraba



PANAMA CANAL

ATLANTIC ENTRANCE
CRISTOBAL

NOTES

(1) Horizontal Datum: Panama Colon Datum (PCB) depths referred to Mean Low Water (MLW) soundings in feet.

(2) Distance from Buoy No. 1 (Mole) to East Breakwater Light 2.0 Nautical Miles. Minimum Depth of Channel is 42 ft. MLW (MLW = 0.4 ft. PLD).

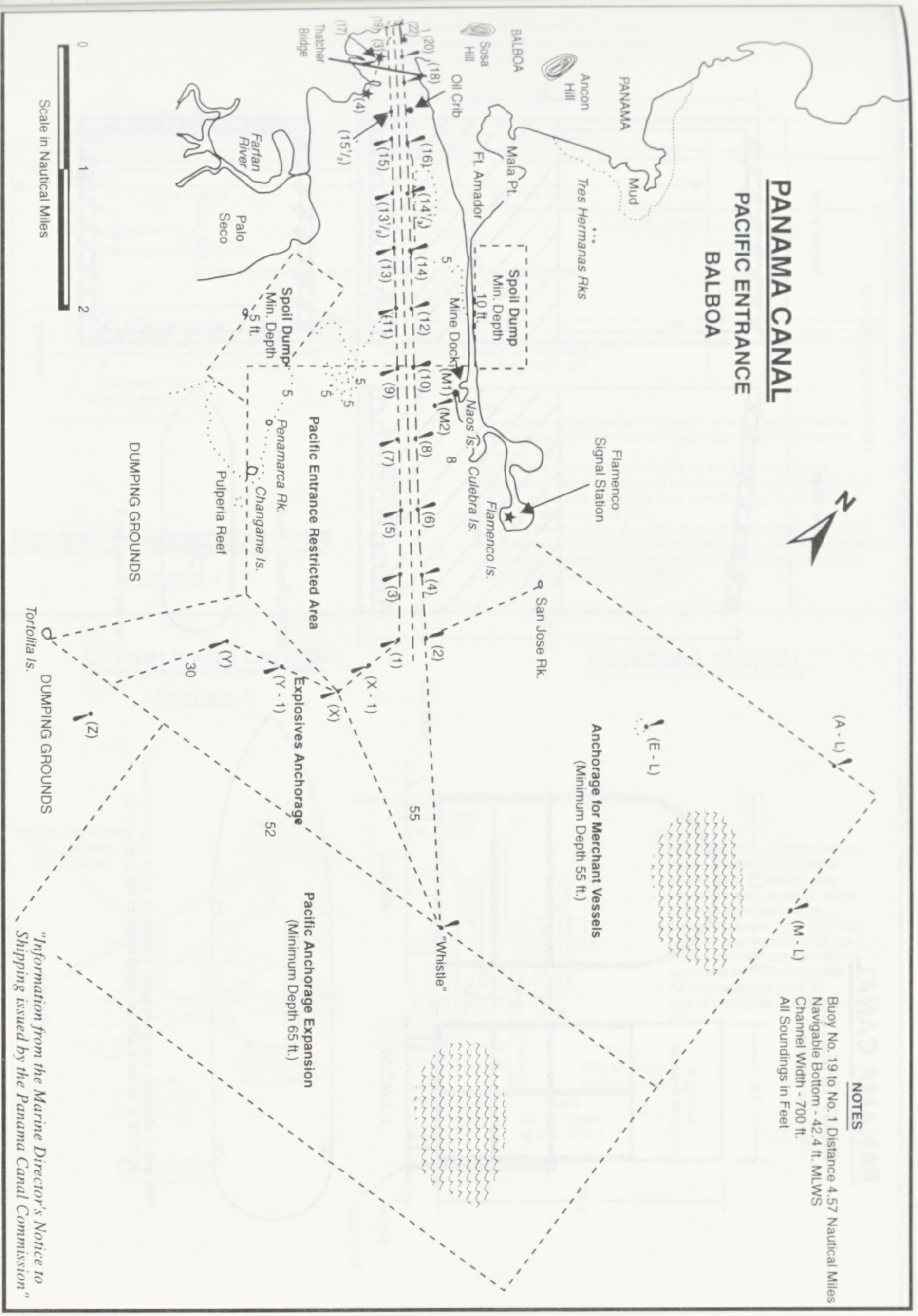
(3) Soundings in Manzanillo Bay (Vicinity of Coco Solo) including the Folk River Inlet are from DMA Chart No. 26068, 8th. Edition.

(4) Hydrographic soundings in the operating basin and canal access at Coco Solo were obtained in 1993.

(5) Local Rules for Prevention of Collisions (Colregs) apply in the navigable waters of Canal Operating Areas. For the purposes of these rules, those waters are defined as beginning South of a line joining the East and West Breakwater Lights, including the Port of Cristobal, but not the ports of Coco Solo and Manzanillo in Manzanillo

"Information from the Marine Director's Notice to Shipping, issued by the Panama Canal Commission"

0
1
Scale in Nautical Miles
Whistle Sea Buoy
Atlantic Anchorage Expansion
Average Depth 100 ft. MLW
Outer Explosives Anchorage
Atlantic Anchorage
Average Depth 70 ft. MLW
Sea Buoy "A"
N
S
West Breakwater Light
East Breakwater Light
Spoil Dump
Spoil Dump
East Breakwater
Margartita Island
Manzanillo Bay
Coco Solo
Toro Point
West Breakwater
Shelter Point Light
Min. Depth 32 ft.
Min. Depth 42 ft.
Explosives Anchorage
Anchorage Area "D"
Min. Depth 35 ft. MLW
Anchorage Area "A"
Min. Depth 42 ft.
Anchorage Area "B"
Min. Depth 32 ft.
Depth less than 35 ft. MLW
Anchorage Prohibited
Colon Harbour
Colon
Manzanillo
Spoil Dump Depth less than 42 ft.
Colon Free Zone
Cristobal
Anchorage Area "C"
Min. Depth 42 ft.
Cristobal Harbour
Min. Depth 32 ft.
Folk River
Anchorage Area "F"
Mount Hope
Pier 16
Limon Bay
Cristobal Harbour Beaching Area
1 2 3 4 5 6 7 8 9 10 10a 11 12 14 16 18
A B C D E F H I J K L2 L4 M1 M2 E1 E2 E3 E4



PANAMA CANAL

PACIFIC ENTRANCE
BALBOA

NOTES

Buoy No. 19 to No. 1 Distance 4.57 Nautical Miles
Navigable Bottom - 42.4 ft. MLWS
Channel Width - 700 ft.
All Soundings in Feet

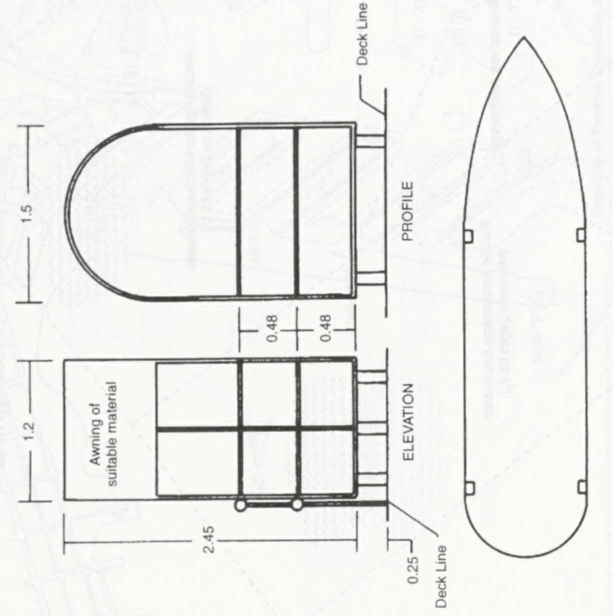
"Information from the Marine Director's Notice to Shipping issued by the Panama Canal Commission"

0
1
2
Scale in Nautical Miles
PANAMA
Ancon Hill
BALBOA
Sosa Hill
Thatcher Bridge
Oil Crib
Mud
Tres Hermanas Rks
Mala Pt.
Ft. Amador
Farfan River
Palo Seco
Spoil Dump
Min. Depth 10 ft.
Mine Dock
Flamenco Signal Station
Naos Is.
Culebra Is.
Flamenco Is.
Spoil Dump
Min. Depth 5 ft.
Pacific Entrance Restricted Area
Penamarca Rk.
Changame Is.
Pulperia Reef
DUMPING GROUNDS
San Jose Rk.
Tortolita Is.
DUMPING GROUNDS
Explosives Anchorage
Pacific Anchorage Expansion
(Minimum Depth 65 ft.)
Anchorage for Merchant Vessels
(Minimum Depth 55 ft.)
"Whistle"
(A - L)
(E - L)
(M - L)
(X)
(X - 1)
(Y)
(Y - 1)
(Z)
(M1)
(M2)
(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (13½) (14) (14½) (15) (15½) (16) (17) (18) (19) (20) (22)
5
8
30
52
55
N

PANAMA CANAL

PILOT SHELTER

Dimensions in Meters


Awning of
suitable material
1.2
2.45
ELEVATION
0.48
0.48
0.25
Deck Line
1.5
PROFILE
Deck Line

Pilot shelter platforms may be required on vessels with a maximum beam of 30.48 m. or more and an overall length of 190.5 m. or more

Figure 3

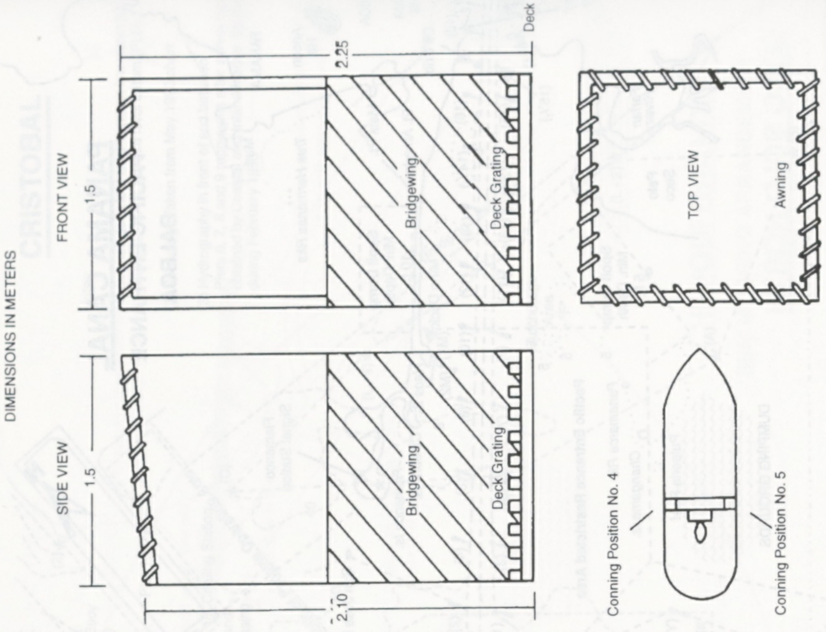

DIMENSIONS IN METERS
SIDE VIEW
1.5
FRONT VIEW
1.5
2.10
2.25
Deck
Bridgewing
Deck Grating
Bridgewing
Deck Grating
TOP VIEW
Awning
Conning Position No. 4
Conning Position No. 5

Figure 2

LIMITING DRAFTS DUE TO BILGE RADIUS CONTACTING LOCKS CHAMBER BATTERS:

FIGURE 1

	Radius of Turn of Bilge (Meters)				
	0.30	0.60	0.90	1.20	1.50
0.000	10.87	11.12	11.37	11.62	11.87
0.025	10.89	11.14	11.39	11.64	11.89
0.050	10.91	11.16	11.41	11.66	11.91
0.075	10.93	11.18	11.43	11.68	11.93
0.100	10.95	11.20	11.45	11.70	11.96
0.125	10.97	11.22	11.47	11.73	11.98
0.150	10.99	11.24	11.50	11.75	12.00
0.175	11.01	11.27	11.52	11.77	12.02
0.200	11.04	11.29	11.54	11.79	12.04
0.225	11.06	11.31	11.56	11.81	
0.250	11.08	11.33	11.58	11.83	
0.275	11.10	11.35	11.60	11.85	

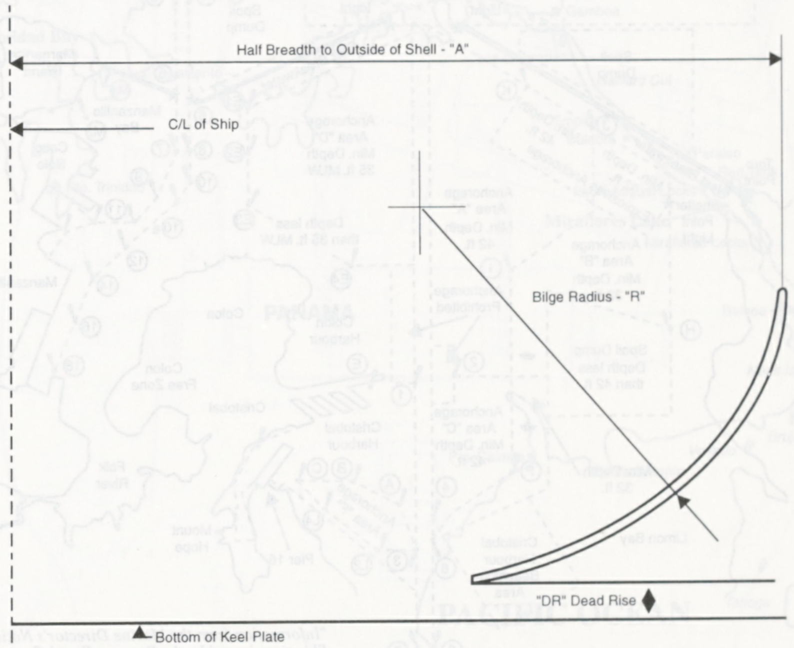
Example: To find draft of ship having
a Radius-of-turn-of-bilge of 1.325 m.,
read across top of table to column headed 1.20 m.
thence down column opposite 0.125 m. Read 11.73 m.

Notes: (a) Dead Rise not included in above tabulations and must be added to above reading
(b) Allows for 15 cm. thick rubber fenders on lock walls at batter locations

	Radius of turn of Bilge (Feet)				
	1'	2'	3'	4'	5'
0"	35' 8"	36' 6"	37' 4"	38' 2"	39' 0"
1"	35' 9"	36' 7"	37' 5"	38' 3"	39' 1"
2"	35' 10"	36' 8"	37' 6"	38' 4"	39' 2"
3"	35' 10"	36' 8"	37' 6"	38' 5"	39' 3"
4"	35' 11"	36' 9"	37' 7"	38' 5"	39' 3"
5"	36' 0"	36' 10"	37' 8"	38' 6"	39' 4"
6"	36' 1"	36' 11"	37' 9"	38' 7"	39' 5"
7"	36' 2"	37' 0"	37' 10"	38' 8"	39' 6"
8"	36' 3"	37' 1"	37' 11"	38' 10"	
9"	36' 3"	37' 1"	38' 0"	38' 10"	
10"	36' 4"	37' 2"	38' 0"	38' 10"	
11"	36' 5"	37' 3"	38' 1"	38' 11"	

Example: To find draft of ship having
a Radius-of-turn-of-bilge of 4' 4",
read across top of table to column headed 4'
thence down column opposite 4" Read 38' 5".

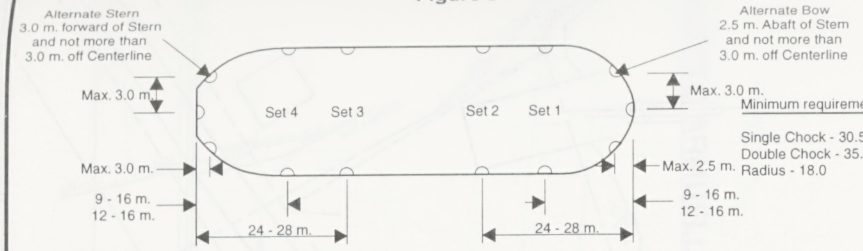
Notes: (a) Dead Rise not included in above tabulations and must be added to above reading
(b) Allows for 6 inch thick rubber fenders on lock walls at batter locations


Half Breadth to Outside of Shell - "A"
C/L of Ship
Bilge Radius - "R"
"DR" Dead Rise
Bottom of Keel Plate

PANAMA CANAL

CONSTRUCTION, NUMBER AND LOCATION OF CHOCKS AND BITTS

Figure 6

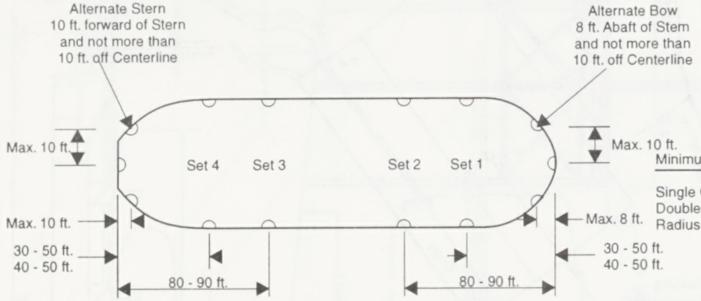

Alternate Stern
3.0 m. forward of Stern
and not more than
3.0 m. off Centerline
Alternate Bow
2.5 m. Abaft of Stem
and not more than
3.0 m. off Centerline
Max. 3.0 m.
Set 4
Set 3
Set 2
Set 1
Max. 3.0 m.
Max. 3.0 m.
Max. 2.5 m.
9 - 16 m.
12 - 16 m.
24 - 28 m.
24 - 28 m.
9 - 16 m.
12 - 16 m.

Minimum requirements (cm.)

Single Chock - 30.5 x 23.0
Double Chock - 35.5 x 25.5
Radius - 18.0

VESSEL SIZE	CHOCKS REQUIRED
Vessels under 60.96 m. O.L. and less than 9.14 m. beam	Bow (Double) Stern (Double) Two Single (Alternate)
Vessels 60.96 - 121.92 m. O.L. and less than 22.86 m. beam	In addition to Bow and Stern above Set 1 (Single 9 to 16 m. abaft of Stem) Set 4 (Single 9 to 16 m. Fwd. of Stern)
Vessels 121.92 m. - 173.74 m. O.L. and less than 22.86 m. beam	In addition to Bow and Stern above Set 1 (Double 12 to 16 m. abaft of Stem) Set 2 (Single 24 to 28 m. abaft of Stem) Set 4 (Single 12 to 16 m. fwd. of Stern)
Vessels over 173.74 m. O.L. or 22.86 m. beam or over	Bow (Double, Stern (Double) Two Double (Alternate) Set 1 (Double 12 to 16 m. abaft of Stem) Set 2 (Single 24 to 28 m. abaft. of Stem) Set 3 (Single 24 to 28 m. fwd of Stern) Set 4 (Double 12 to 16 m. fwd. of Stern)

METRIC UNITS

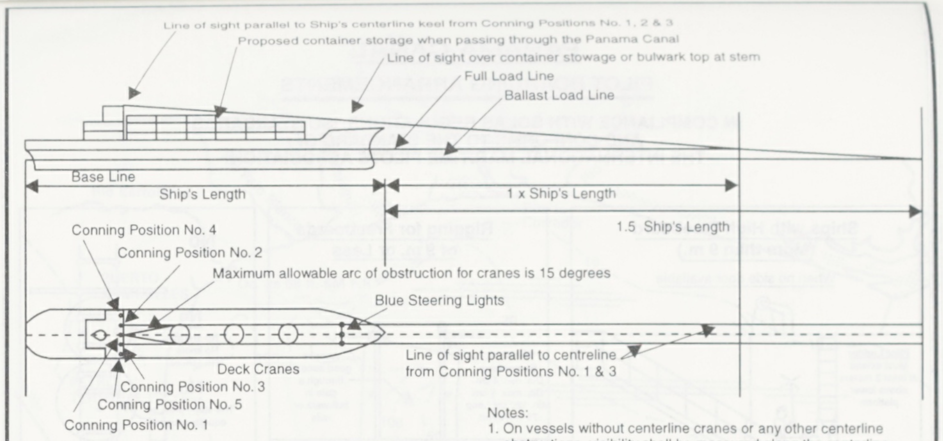

Alternate Stern
10 ft. forward of Stern
and not more than
10 ft. off Centerline
Alternate Bow
8 ft. Abaft of Stem
and not more than
10 ft. off Centerline
Max. 10 ft.
Set 4
Set 3
Set 2
Set 1
Max. 10 ft.
Max. 10 ft.
Max. 8 ft.
30 - 50 ft.
40 - 50 ft.
80 - 90 ft.
80 - 90 ft.
30 - 50 ft.
40 - 50 ft.

Minimum requirements

Single Chock - 12 in. x 9 in.
Double Chock - 14 in. x 10 in.
Radius - 7 in.

VESSEL SIZE	CHOCKS REQUIRED
Vessels under 200 ft. O.L. and less than 30 ft. beam:	Bow (Double) Stern (Double) Two Single (Alternate)
Vessels 200 - 400 ft. O.L. and less than 75 ft.. beam:	In addition to Bow and Stern above Set 1 (Single 30 to 50 ft. abaft of Stem) Set 4 (Single 30 to 50 ft. Fwd. of Stern)
Vessels 400 - 570 ft. O.L. and less than 75 ft. beam:	In addition to Bow and Stern above Set 1 (Double 40 to 50 ft. abaft of Stem) Set 2 (Single 80 to 90 ft. abaft of Stem) Set 4 (Single 40 to 50 ft. fwd. of Stern)
Vessels over 570 ft. O.L. or 75 ft. beam or over:	Bow (Double, Stern (Double) Two Double (Alternate) Set 1 (Double 40 to 50 ft. abaft of Stem) Set 2 (Single 80 to 90 ft. abaft. of Stem) Set 3 (Single 80 to 90 ft. fwd of Stern) Set 4 (Double 40 to 50 ft. fwd. of Stern)

IMPERIAL UNITS


Line of sight parallel to Ship's centerline keel from Conning Positions No. 1, 2 & 3
Proposed container storage when passing through the Panama Canal
Line of sight over container stowage or bulwark top at stem
Full Load Line
Ballast Load Line
Base Line
Ship's Length
1 x Ship's Length
1.5 Ship's Length
Conning Position No. 4
Conning Position No. 2
Maximum allowable arc of obstruction for cranes is 15 degrees
Blue Steering Lights
Deck Cranes
Line of sight parallel to centreline
from Conning Positions No. 1 & 3
Conning Position No. 3
Conning Position No. 5
Conning Position No. 1

NORMAL CONNING POSITIONS

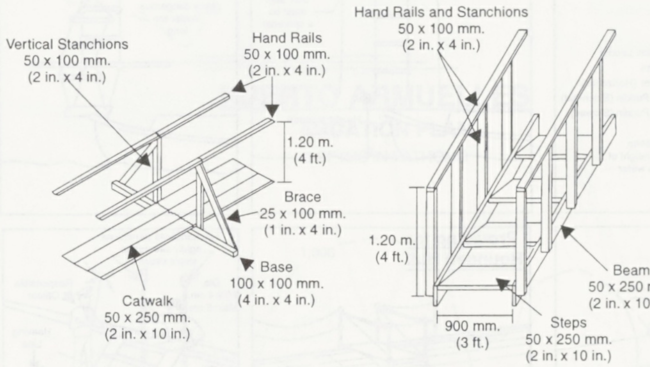
FIGURE 4

Notes:
1. On vessels without centerline cranes or any other centerline obstructions, visibility shall be measured along the centerline over the stem.
2. On vessels with centerline cranes or any other centerline obstruction, visibility should be measured along lines which are parallel to vessels centerline keel from Conning Positions No. 2 & 3 over vessel's bow.
3. Conning Positions No. 2 & 3 are to be at those windows in the wheelhouse which are the nearest windows to the centreline which will provide a clear unobstructed view ahead along lines which are parallel to vessel's centreline.

CATWALK AND LADDER

FIGURE 5

PANAMA CANAL


Vertical Stanchions
50 x 100 mm.
(2 in. x 4 in.)
Hand Rails
50 x 100 mm.
(2 in. x 4 in.)
1.20 m.
(4 ft.)
Brace
25 x 100 mm.
(1 in. x 4 in.)
Base
100 x 100 mm.
(4 in. x 4 in.)
Catwalk
50 x 250 mm.
(2 in. x 10 in.)
Hand Rails and Stanchions
50 x 100 mm.
(2 in. x 4 in.)
1.20 m.
(4 ft.)
900 mm.
(3 ft.)
Steps
50 x 250 mm.
(2 in. x 10 in.)
Beam
50 x 250 mm.
(2 in. x 10 in.)

CATWALK

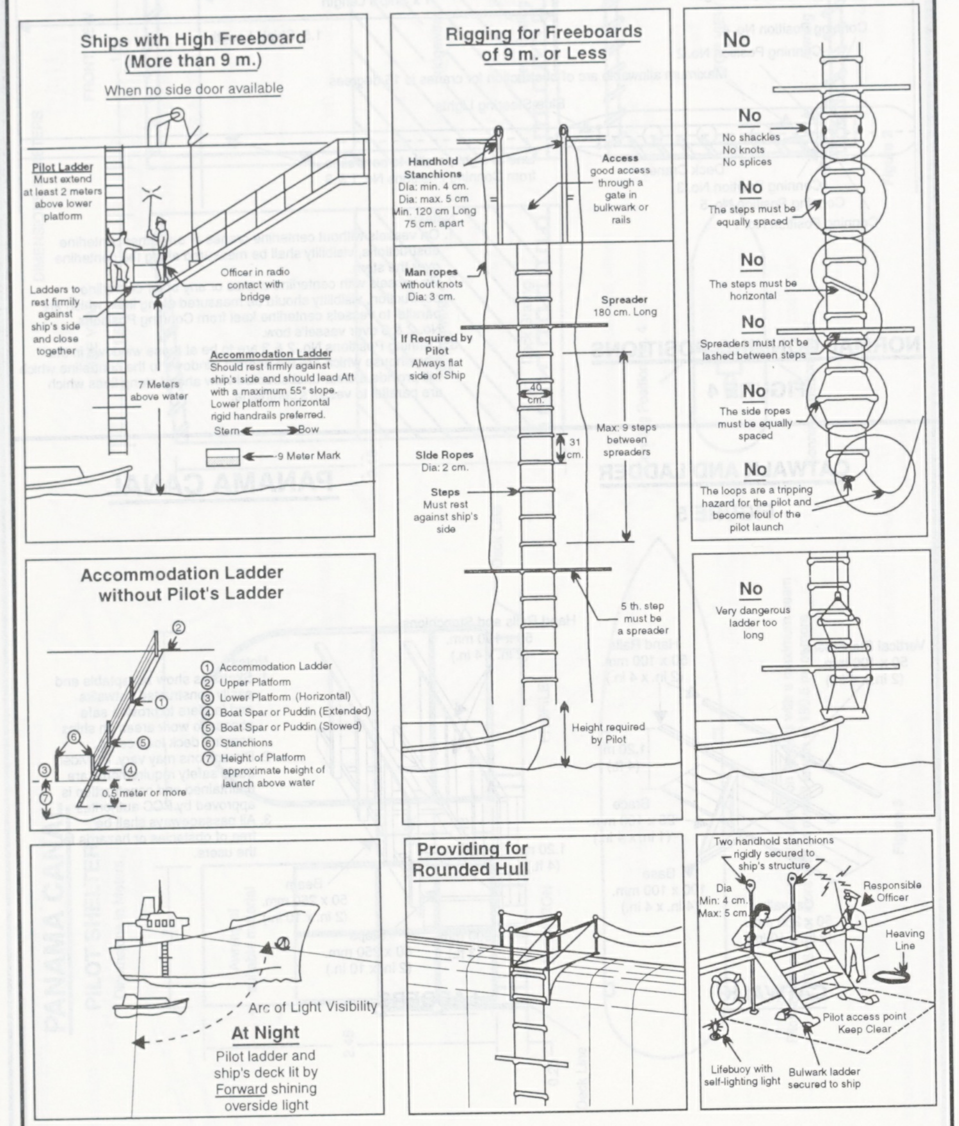
LADDERS

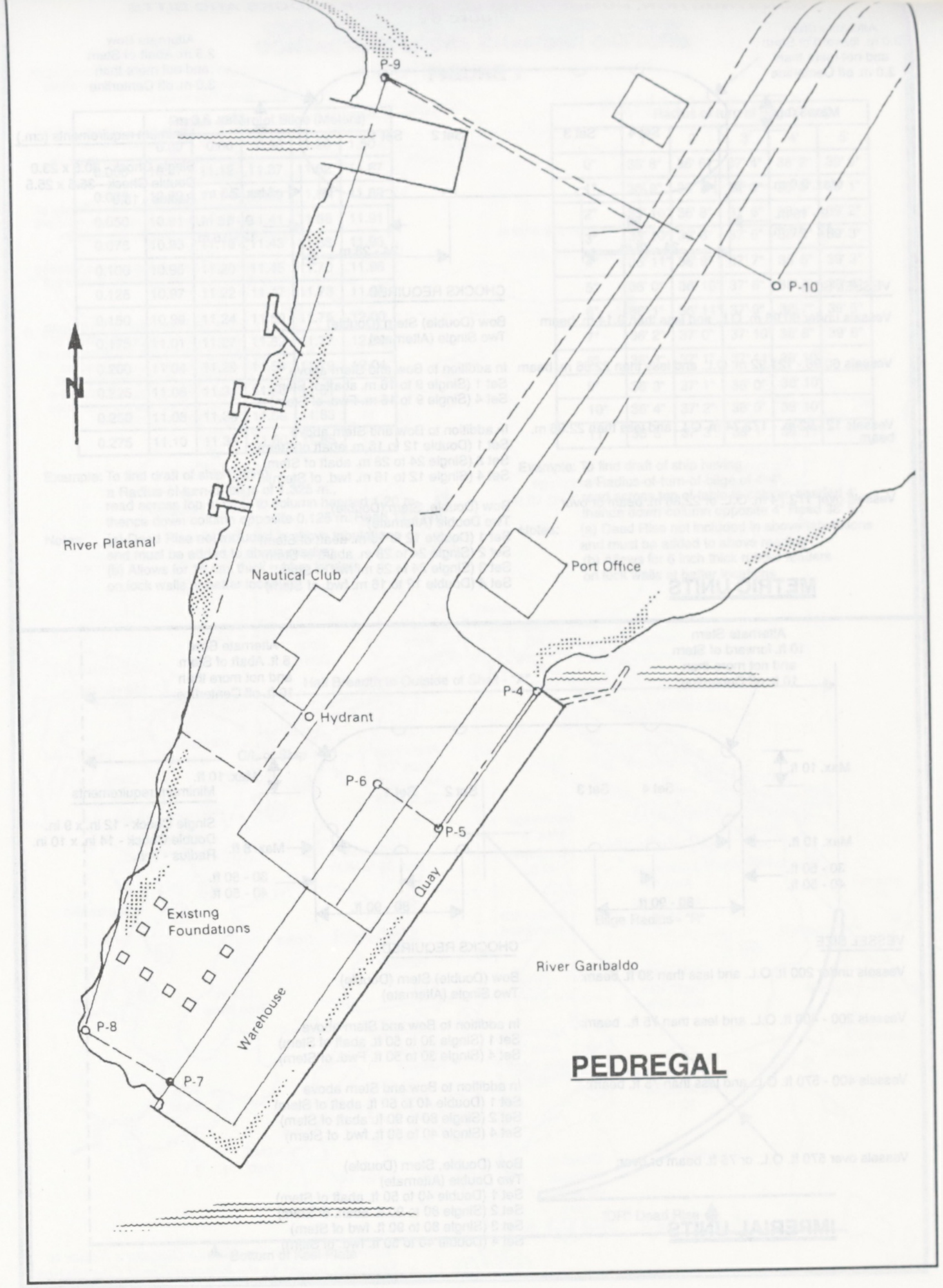
Notes:
1. Sketches show acceptable and easily constructed catwalks and ladders to provide safe access to work areas on ships carrying deck load cargo.
2. Dimensions may vary. Provided basic safety requirements are maintained and construction is approved by PCC authorities
3. All passageways shall be free of obstacles or hazards for the users.

PANAMA CANAL

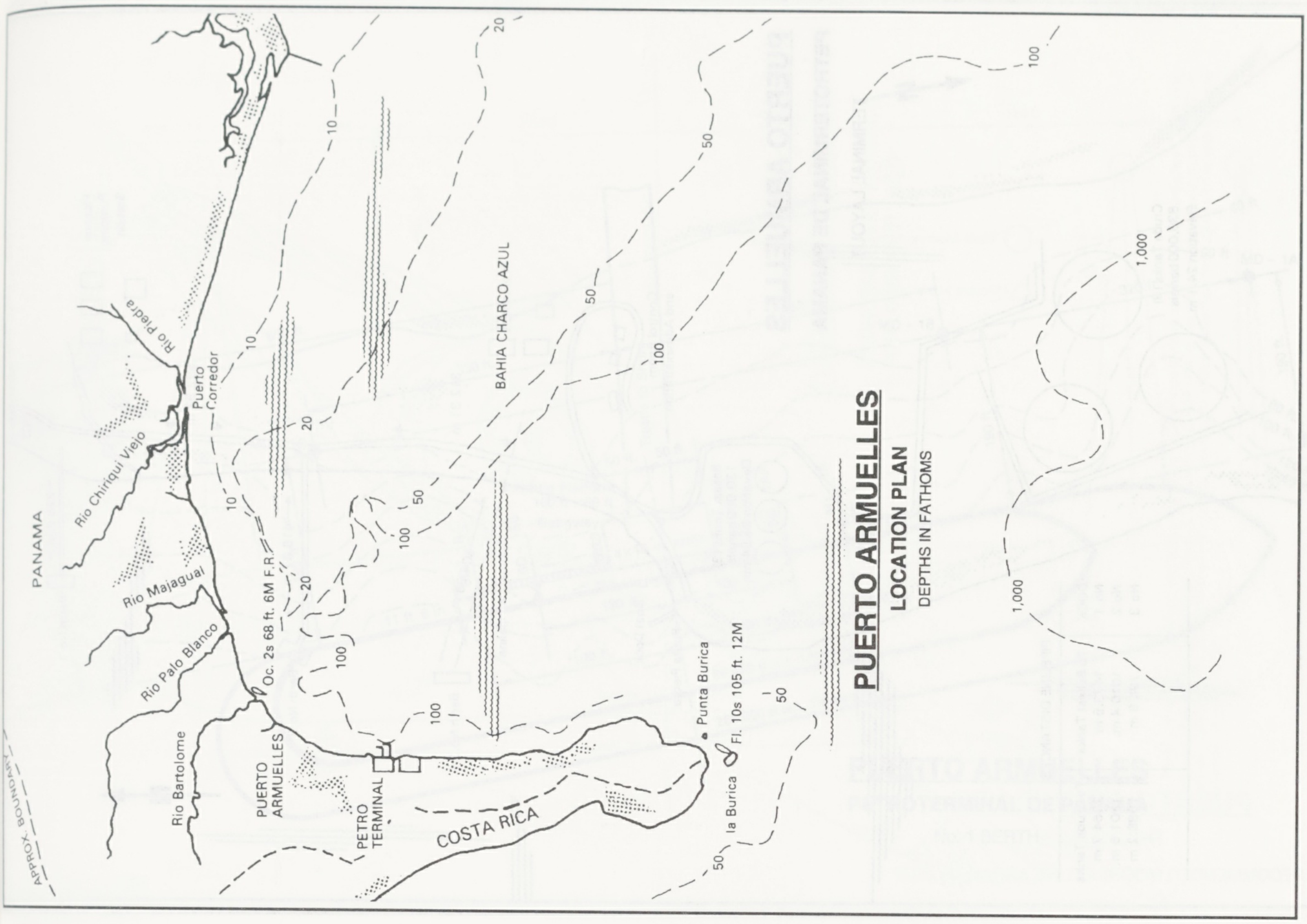
PILOT BOARDING ARRANGEMENTS

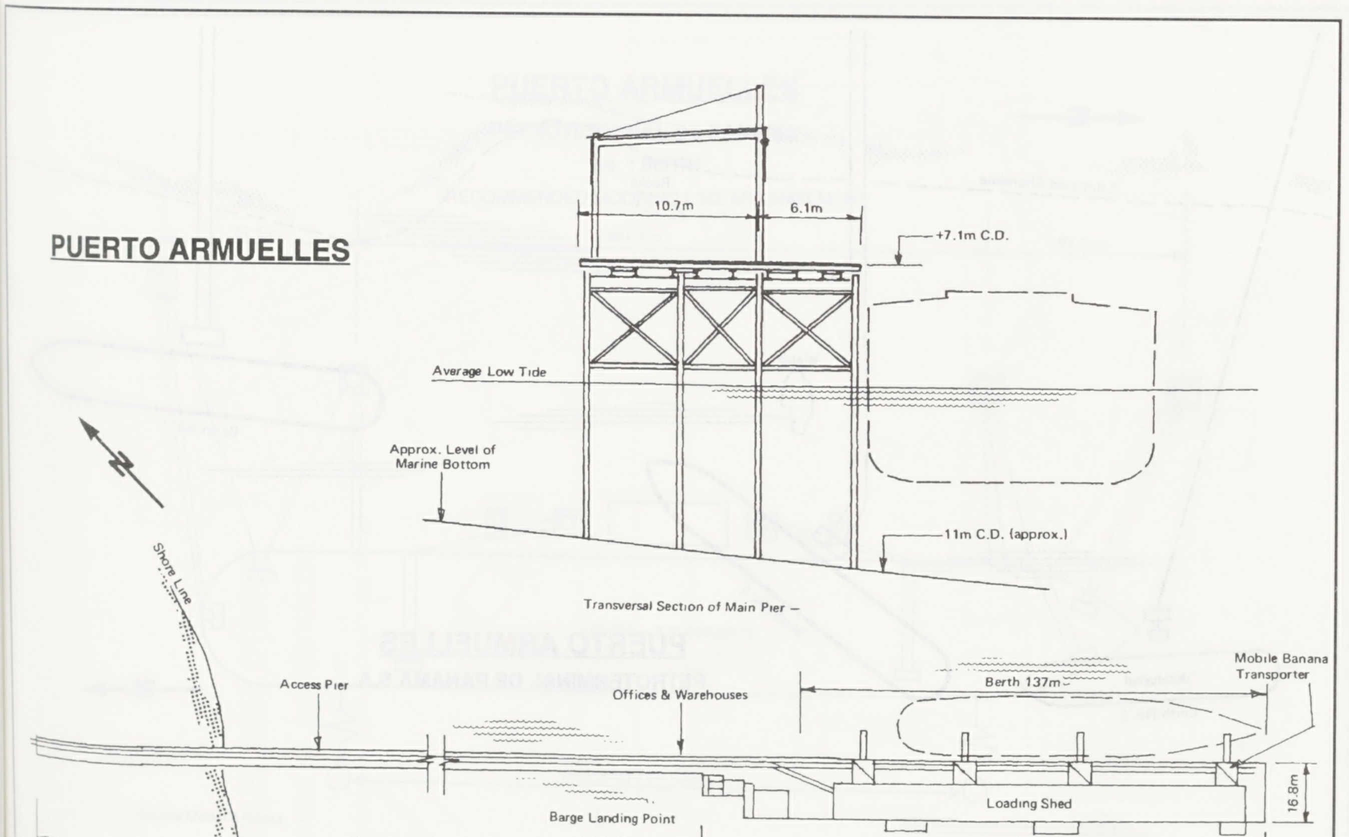
IN COMPLIANCE WITH SOLAS REGULATIONS, ISO STANDARDS
AND CONFORMS TO THE STANDARD OF
THE INTERNATIONAL MARITIME PILOTS ASSOCIATION


Ships with High Freeboard (More than 9 m.)
When no side door available
Pilot Ladder
Must extend at least 2 meters above lower platform
Ladders to rest firmily against ship's side and close together
Officer in radio contact with bridge
Accommodation Ladder
Should rest firmly against ship's side and should lead Aft with a maximum 55° slope. Lower platform horizontal rigid handrails preferred.
Stern
Bow
7 Meters above water
9 Meter Mark
Rigging for Freeboards of 9 m. or Less
Handhold Stanchions
Dia: min. 4 cm.
Dia: max. 5 cm
Min. 120 cm Long
75 cm. apart
Access
good access through a gate in bulkwark or rails
Man ropes
without knots
Dia: 3 cm.
Spreader
180 cm. Long
If Required by Pilot
Always flat side of Ship
40 cm.
31 cm.
Max: 9 steps between spreaders
Side Ropes
Dia: 2 cm.
Steps
Must rest against ship's side
5 th. step must be a spreader
Height required by Pilot
No
No
No shackles
No knots
No splices
No
The steps must be equally spaced
No
The steps must be horizontal
No
Spreaders must not be lashed between steps
No
The side ropes must be equally spaced
No
The loops are a tripping hazard for the pilot and become foul of the pilot launch
No
Very dangerous ladder too long
Accommodation Ladder without Pilot's Ladder
① Accommodation Ladder
② Upper Platform
③ Lower Platform (Horizontal)
④ Boat Spar or Puddin (Extended)
⑤ Boat Spar or Puddin (Stowed)
⑥ Stanchions
⑦ Height of Platform approximate height of launch above water
0.5 meter or more
Arc of Light Visibility
At Night
Pilot ladder and ship's deck lit by Forward shining overside light
Providing for Rounded Hull
Two handhold stanchions rigidly secured to ship's structure
Dia
Min: 4 cm.
Max: 5 cm.
Responsible Officer
Heaving Line
Pilot access point Keep Clear
Lifebuoy with self-lighting light
Bulwark ladder secured to ship


P-9
P-10
N
River Platanal
Nautical Club
Port Office
P-4
Hydrant
P-6
P-5
Quay
Existing Foundations
River Garibaldo
Warehouse
P-8
P-7

PEDREGAL

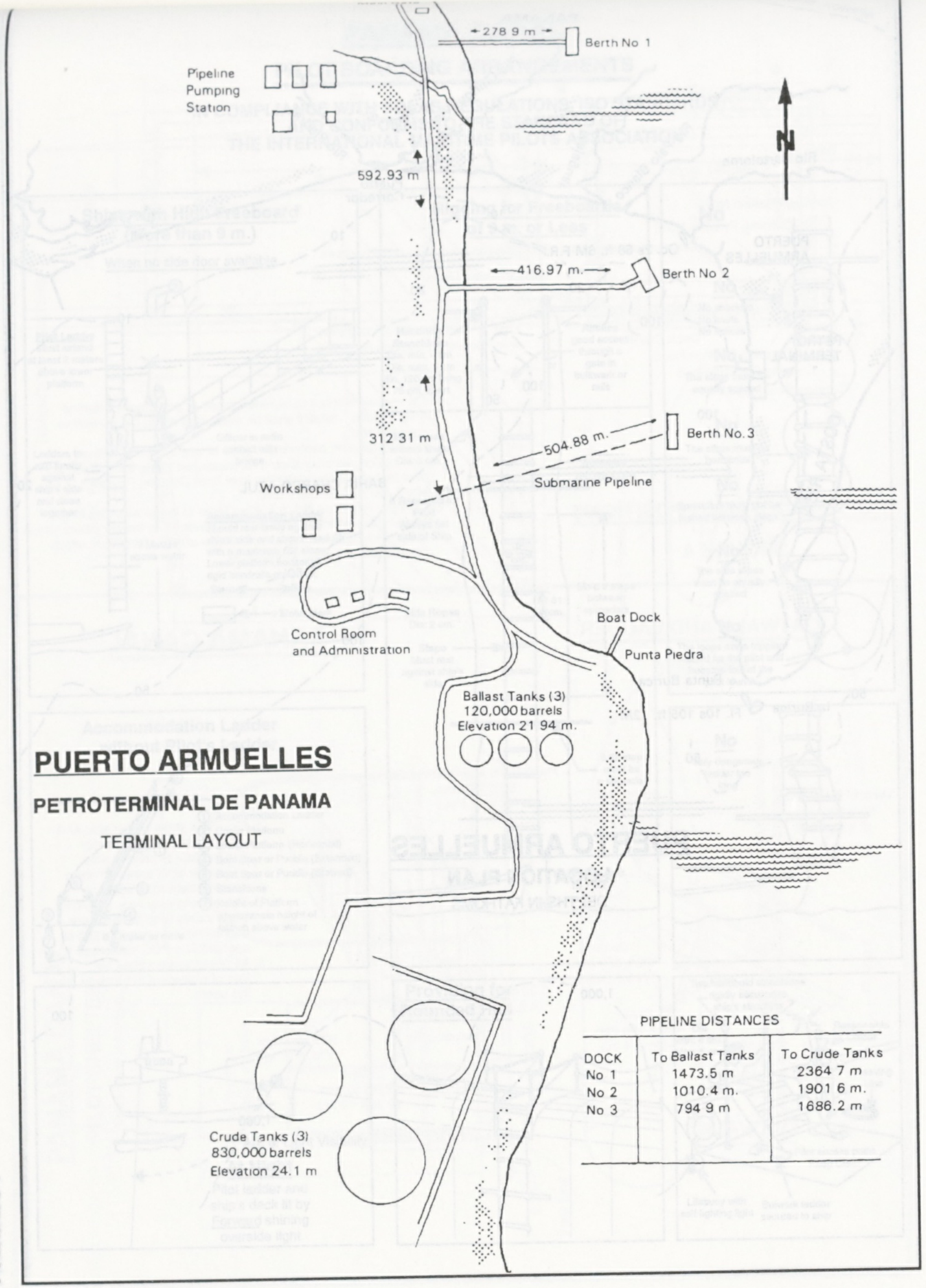

PUERTO ARMUELLES
LOCATION PLAN
DEPTHS IN FATHOMS
PANAMA
Rio Piedra
Puerto Corredor
Rio Chiriqui Viejo
Rio Majagual
Rio Palo Blanco
Rio Bartolome
APPROX. BOUNDARY
PUERTO ARMUELLES
Oc. 2s 68 ft. 6M F.R.
PETRO TERMINAL
COSTA RICA
BAHIA CHARCO AZUL
Punta Burica
Fl. 10s 105 ft. 12M
la Burica
10
20
50
100
1,000


PUERTO ARMUELLES
10.7m
6.1m
+7.1m C.D.
Average Low Tide
Approx. Level of Marine Bottom
11m C.D. (approx.)
Transversal Section of Main Pier –
Shore Line
Access Pier
Offices & Warehouses
Berth 137m
Mobile Banana Transporter
16.8m
Loading Shed
Barge Landing Point
277m
165m

PUERTO ARMUELLES

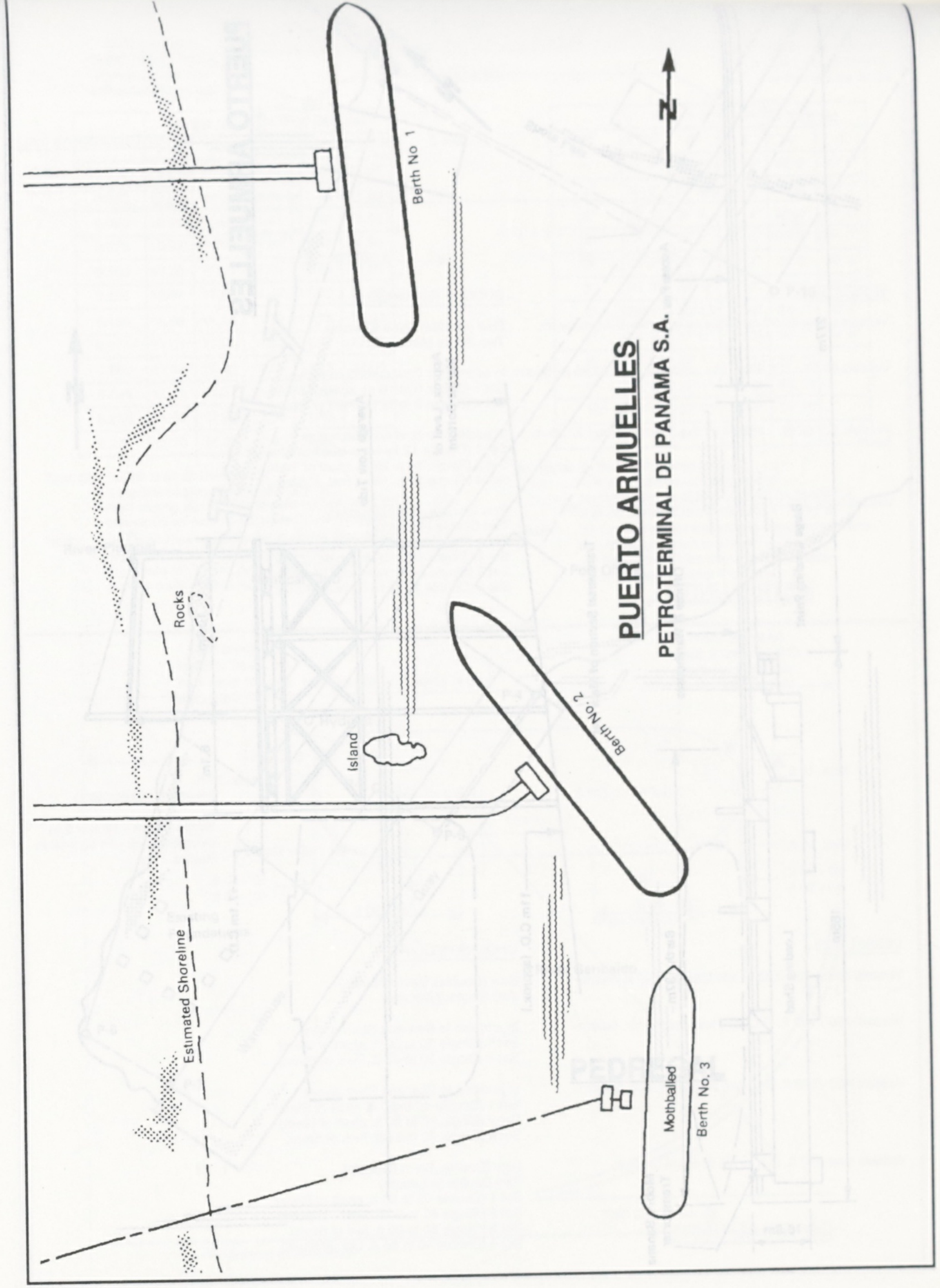
PETROTERMINAL DE PANAMA

TERMINAL LAYOUT


278 9 m
Berth No 1
Pipeline
Pumping
Station
N
592.93 m
416.97 m.
Berth No 2
312 31 m
504.88 m.
Berth No. 3
Workshops
Submarine Pipeline
Boat Dock
Punta Piedra
Control Room
and Administration
Ballast Tanks (3)
120,000 barrels
Elevation 21 94 m.
Crude Tanks (3)
830,000 barrels
Elevation 24.1 m

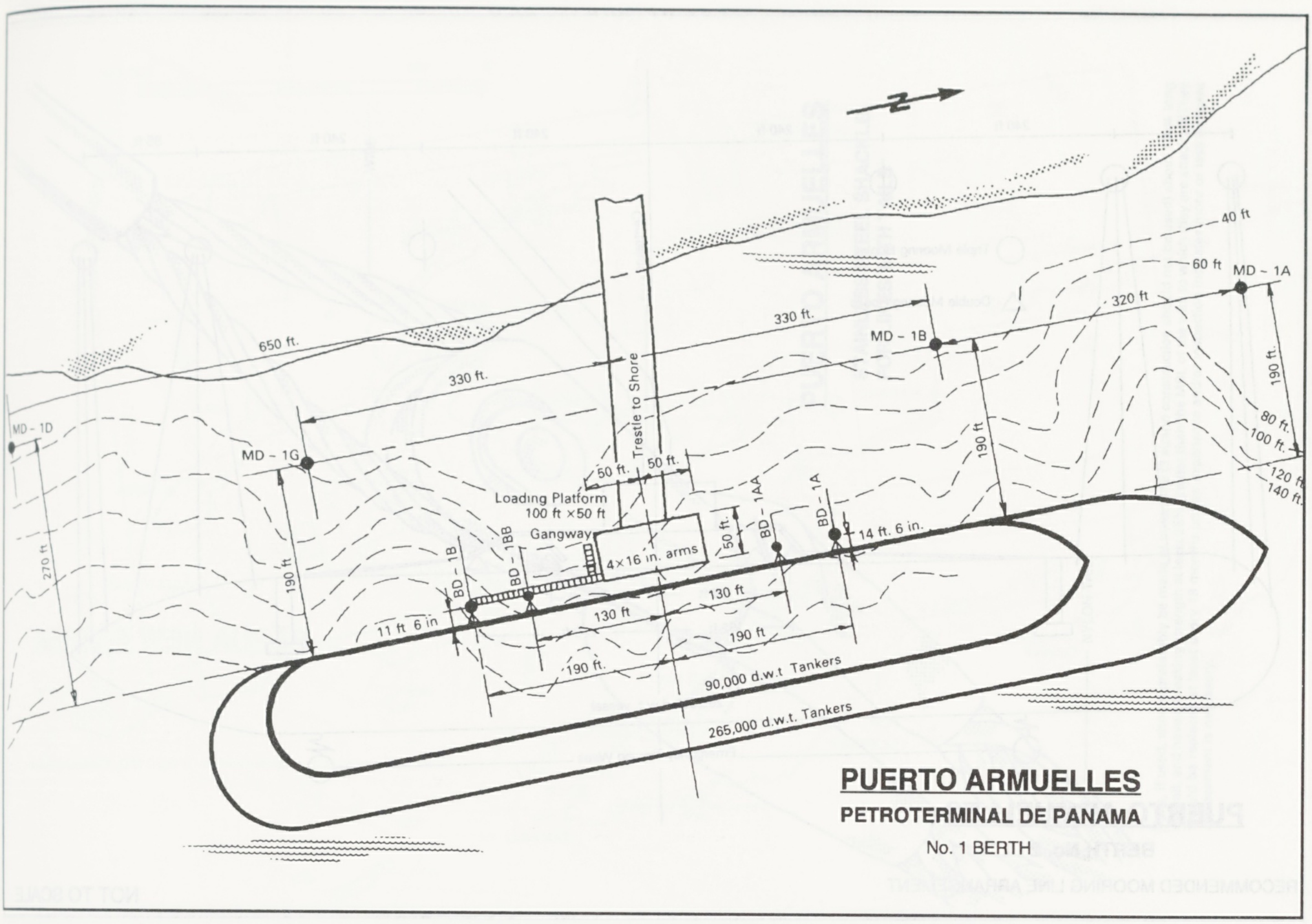
PIPELINE DISTANCES

DOCK	To Ballast Tanks	To Crude Tanks
No 1	1473.5 m	2364 7 m
No 2	1010.4 m.	1901 6 m.
No 3	794 9 m	1686.2 m


N
Berth No 1
Berth No. 2
Island
Rocks
Estimated Shoreline
Mothballed
Berth No. 3

PUERTO ARMUELLES

PETROTERMINAL DE PANAMA S.A.


N
40 ft
60 ft
MD - 1A
320 ft
190 ft.
80 ft.
100 ft.
120 ft.
140 ft.
330 ft.
MD - 1B
190 ft
650 ft.
330 ft.
Trestle to Shore
MD - 1D
270 ft
MD - 1G
190 ft
50 ft.
50 ft.
Loading Platform
100 ft × 50 ft
Gangway
4 × 16 in. arms
50 ft.
BD - 1AA
BD - 1A
14 ft. 6 in.
BD - 1B
BD - 1BB
11 ft 6 in
130 ft
130 ft
190 ft
190 ft.
90,000 d.w.t Tankers
265,000 d.w.t. Tankers

PUERTO ARMUELLES

PETROTERMINAL DE PANAMA

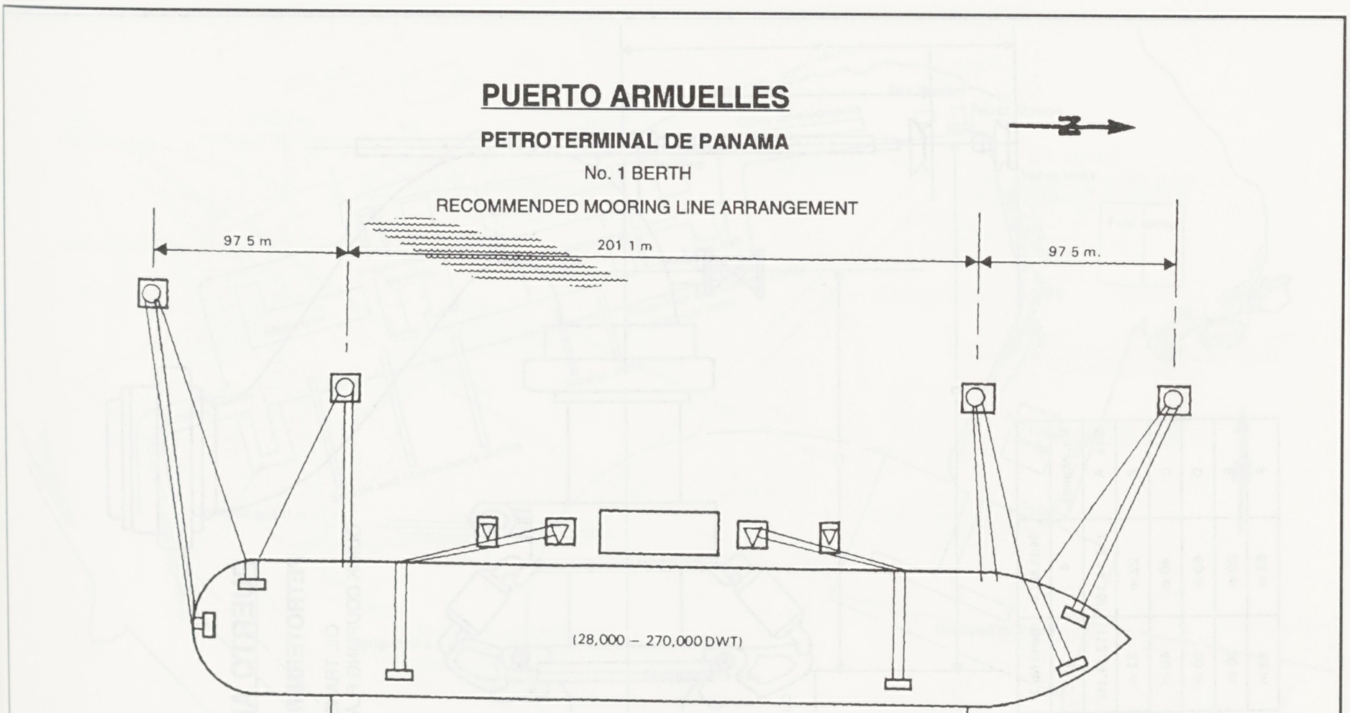
No. 1 BERTH

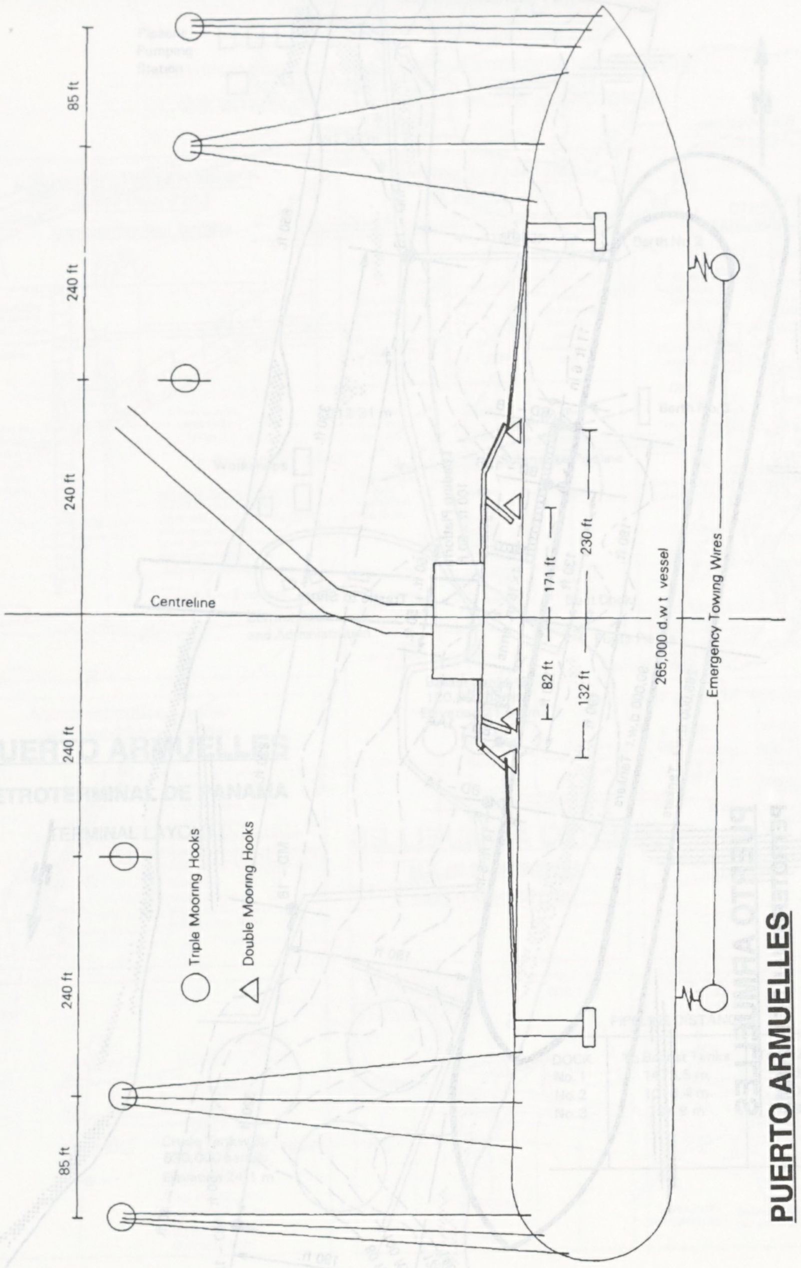
PUERTO ARMUELLES

PETROTERMINAL DE PANAMA

No. 1 BERTH

RECOMMENDED MOORING LINE ARRANGEMENT


N
97 5 m
201 1 m
97 5 m.
(28,000 – 270,000 DWT)
Emergency Tow Wires
△ Double Mooring Hooks
○ Triple Mooring Hooks


85 ft
240 ft
240 ft
240 ft
240 ft
85 ft
Centreline
171 ft
82 ft
230 ft
132 ft
265,000 d.w.t. vessel
Emergency Towing Wires
Triple Mooring Hooks
Double Mooring Hooks
NOT TO SCAL

PUERTO ARMUELLES

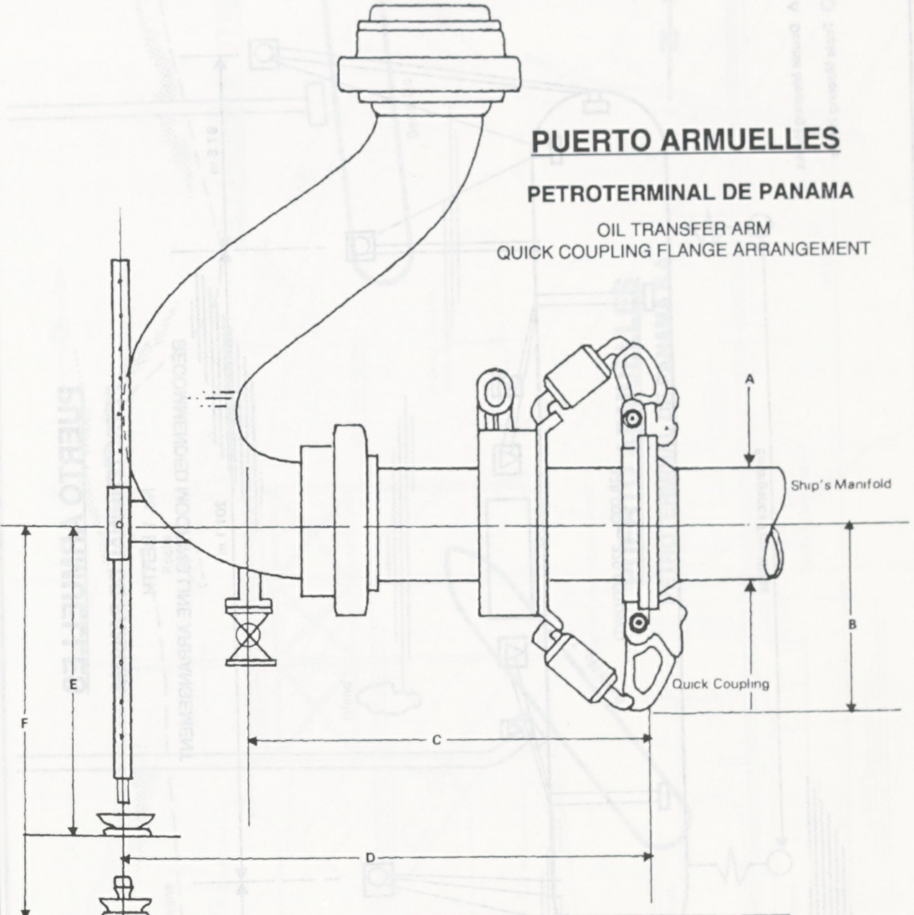
BERTH No. 2

RECOMMENDED MOORING LINE ARRANGEMENT

PUERTO ARMUELLES

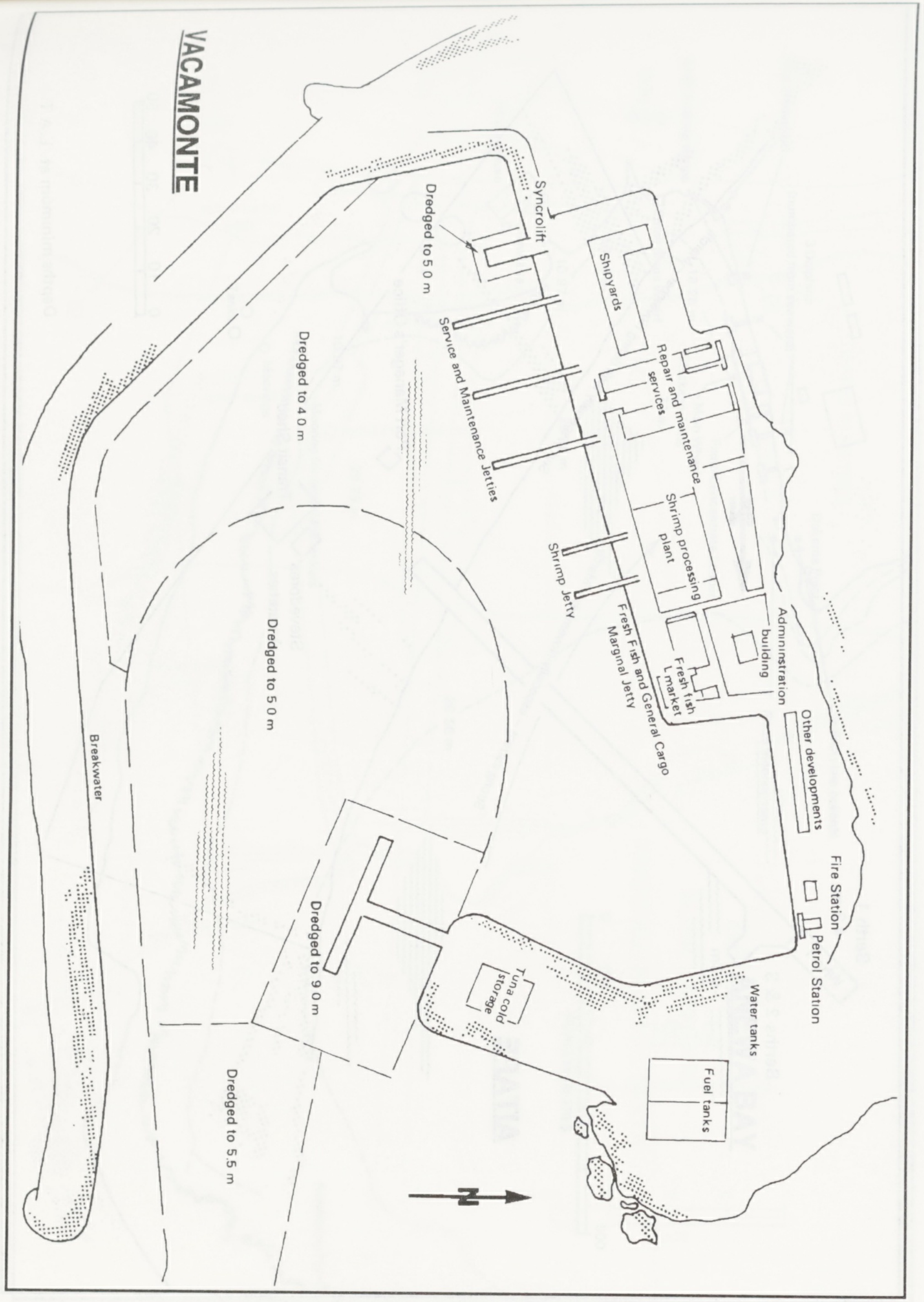
PETROTERMINAL DE PANAMA

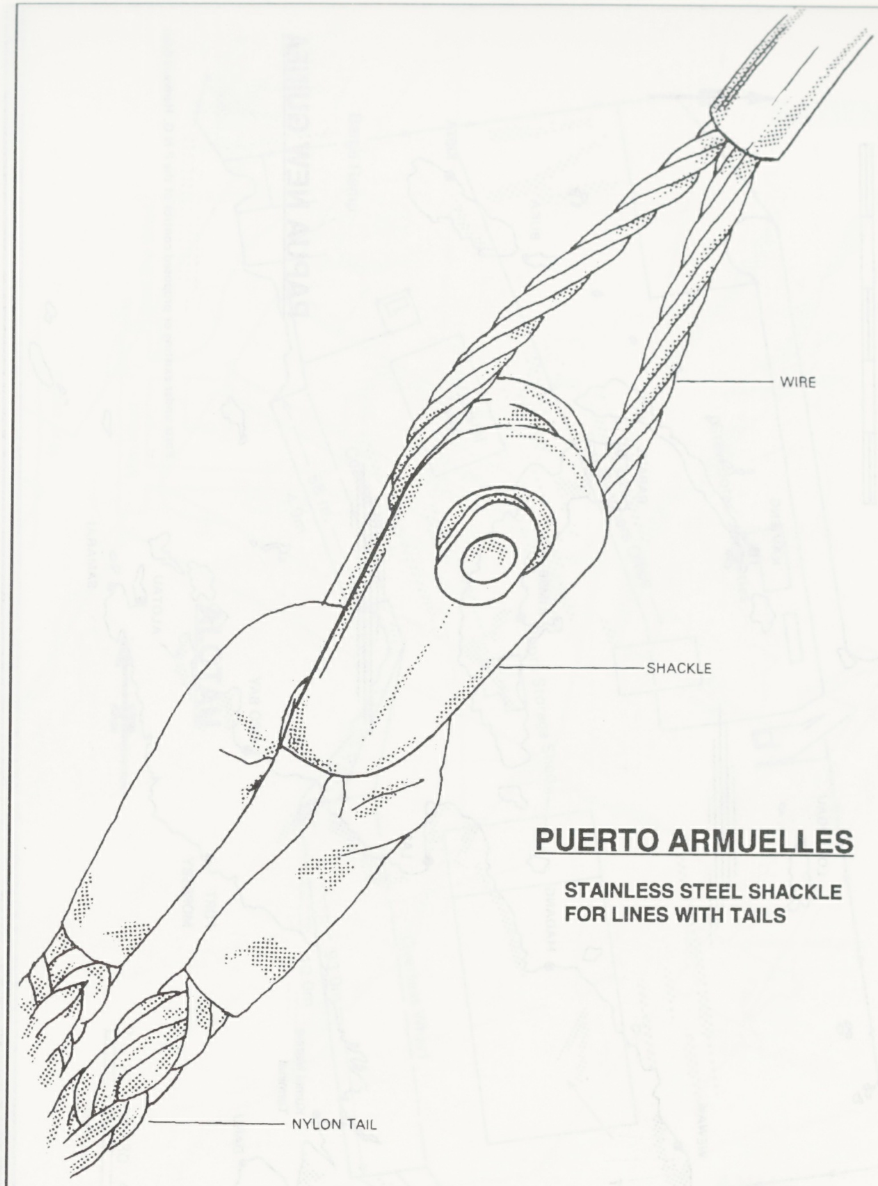
OIL TRANSFER ARM
QUICK COUPLING FLANGE ARRANGEMENT


A
Ship's Manifold
B
Quick Coupling
C
D
E
F

	Berth No. 1	Berth No 2	Berth No 3
No. of arms	4	3	3
Size A	(12,14,16)	(12,14,16)	(8,10,12)
B	22 in	22 in.	21 in.
C	40 in.	40 in	39 in
D	60 in	60 in	54 in.
E	20 in	20 in.	26 in.
F	63 in	63 in	60 in

VACAMONTE

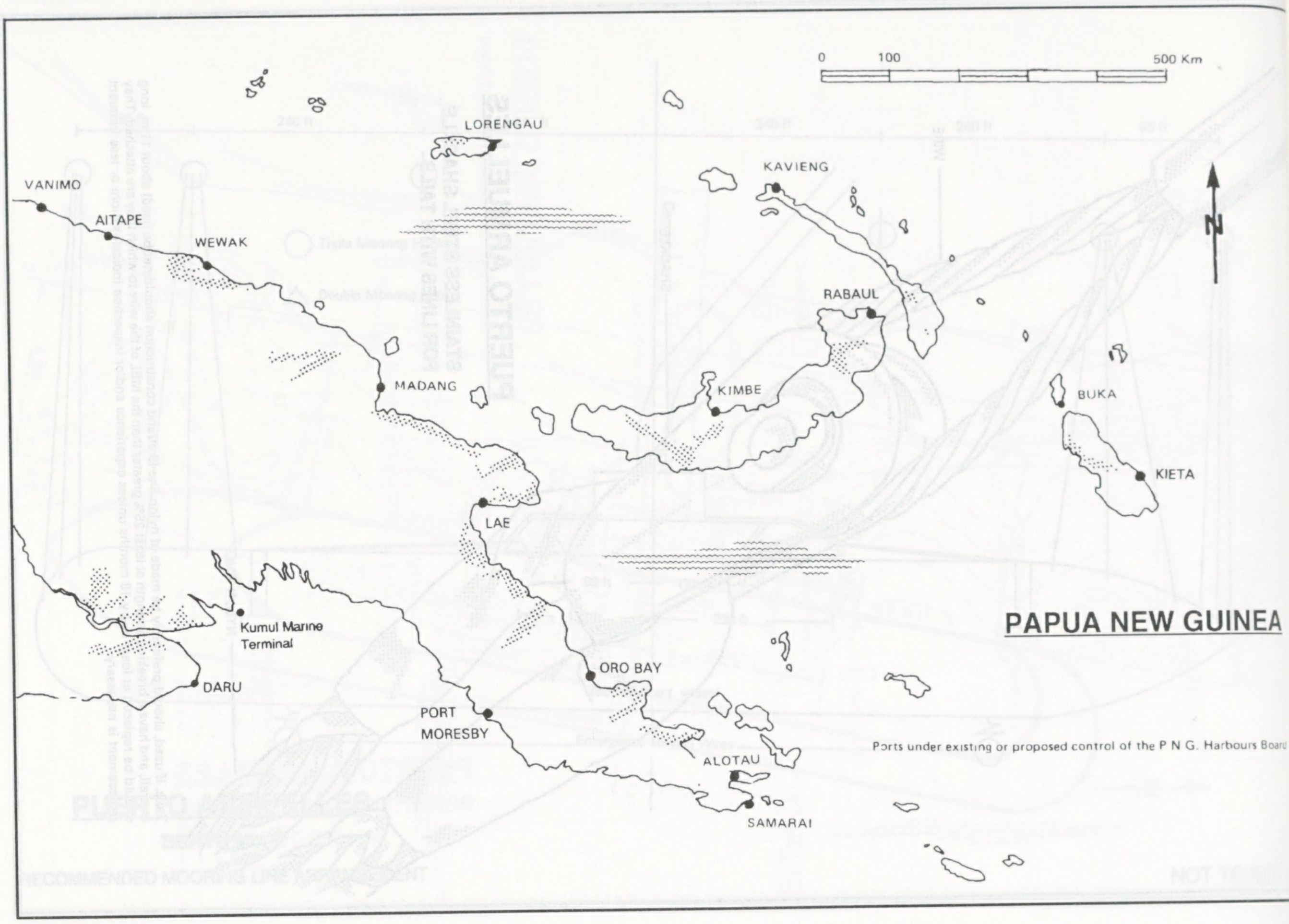

Syncrolift
Dredged to 5.0 m
Shipyards
Service and Maintenance Jetties
Repair and maintenance services
Dredged to 4.0 m
Shrimp processing plant
Shrimp Jetty
Administration building
Fresh fish market
Fresh Fish and General Cargo Marginal Jetty
Dredged to 5.0 m
Other developments
Breakwater
Fire Station
Petrol Station
Dredged to 9.0 m
Tuna cold storage
Water tanks
Fuel tanks
Dredged to 5.5 m
N


WIRE
SHACKLE
NYLON TAIL

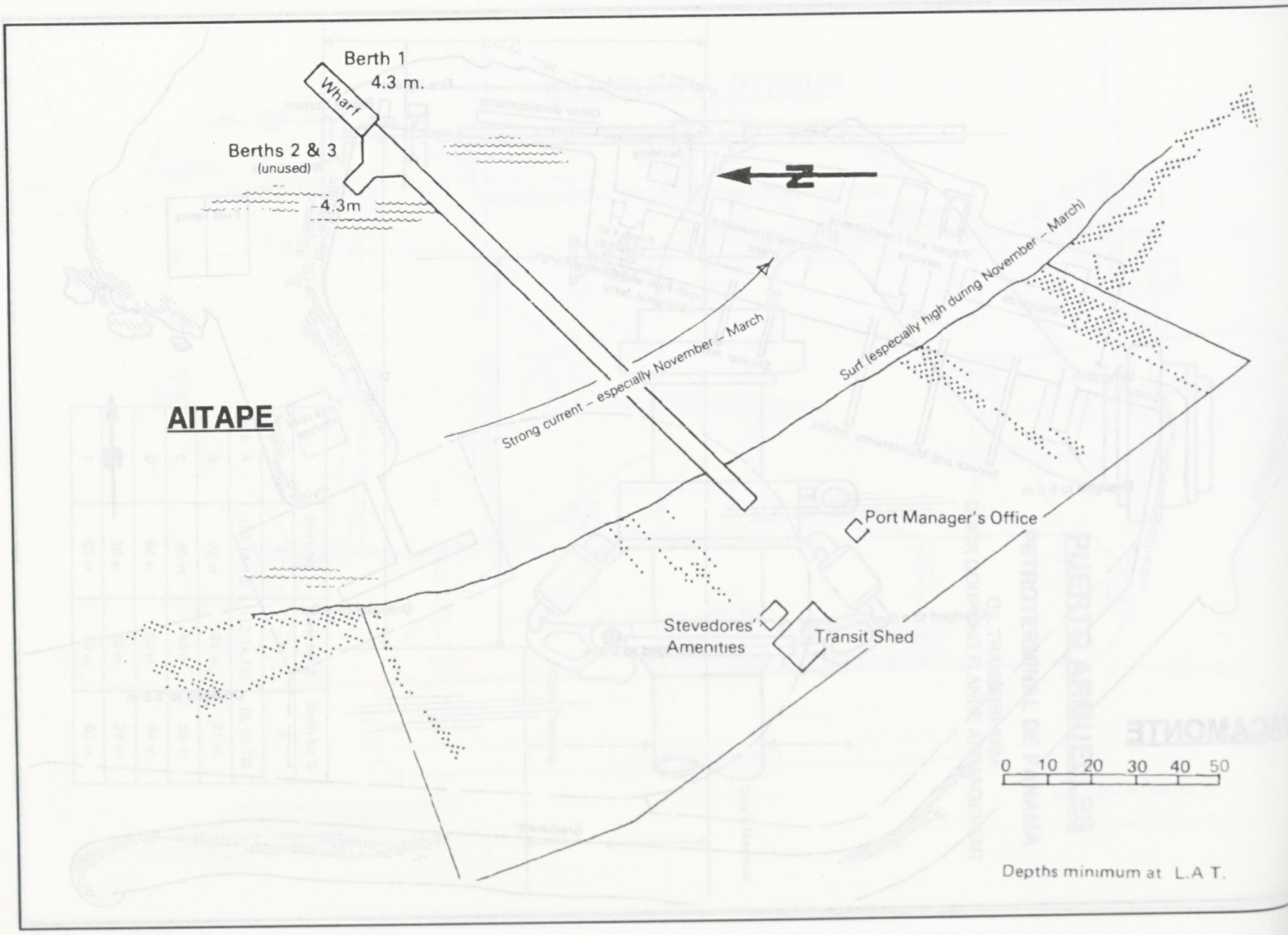
PUERTO ARMUELLES

STAINLESS STEEL SHACKLE FOR LINES WITH TAILS

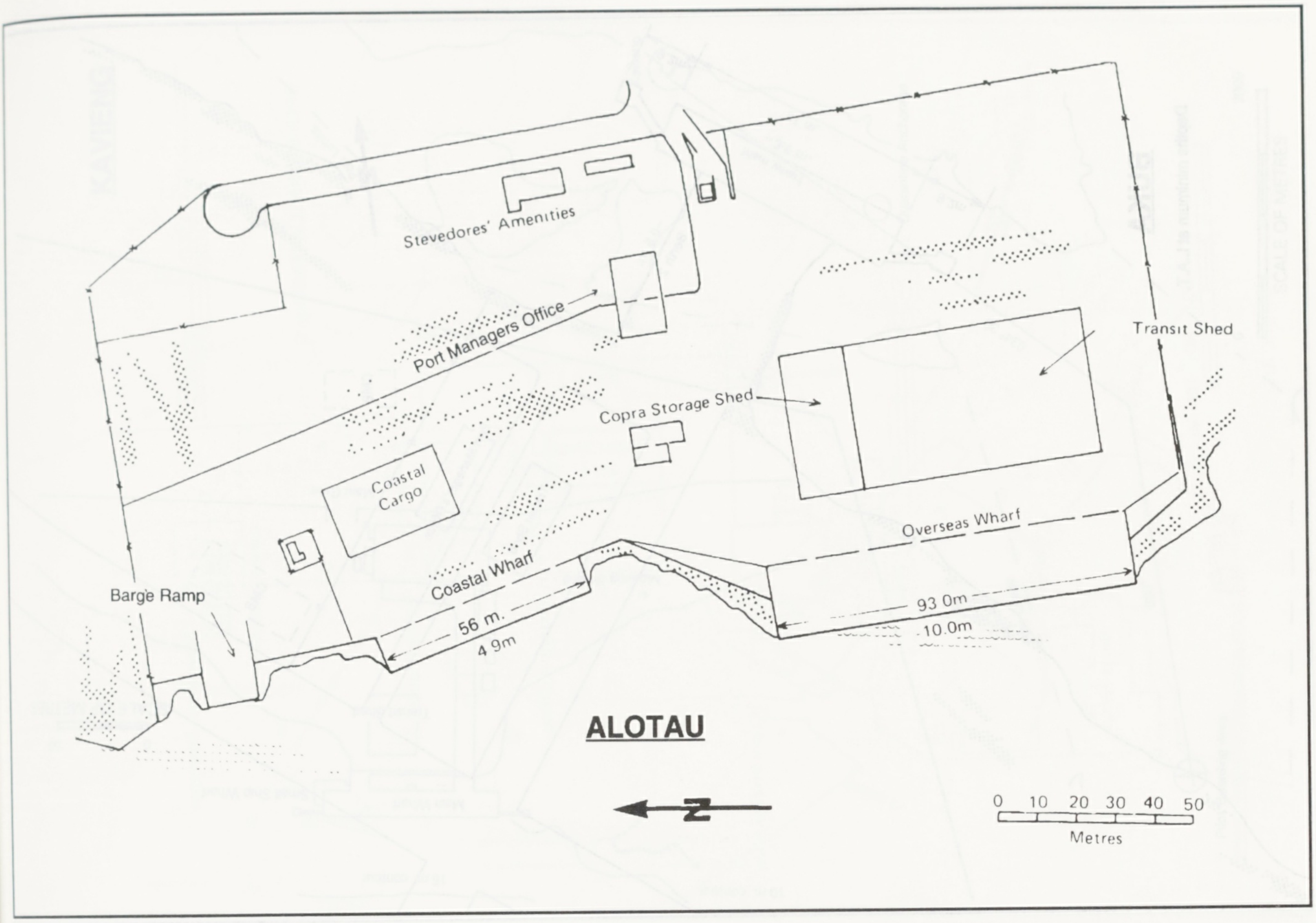
Tails, if used, should preferably be made of nylon line (3 strand construction should not be used) about 11 m. long overall, and have a breaking strength at least 25% greater than the MBL of the wire to which they are attached. They should be replaced at least every 18 months unless experience and/or inspection indicates more or less frequent replacement is necessary.

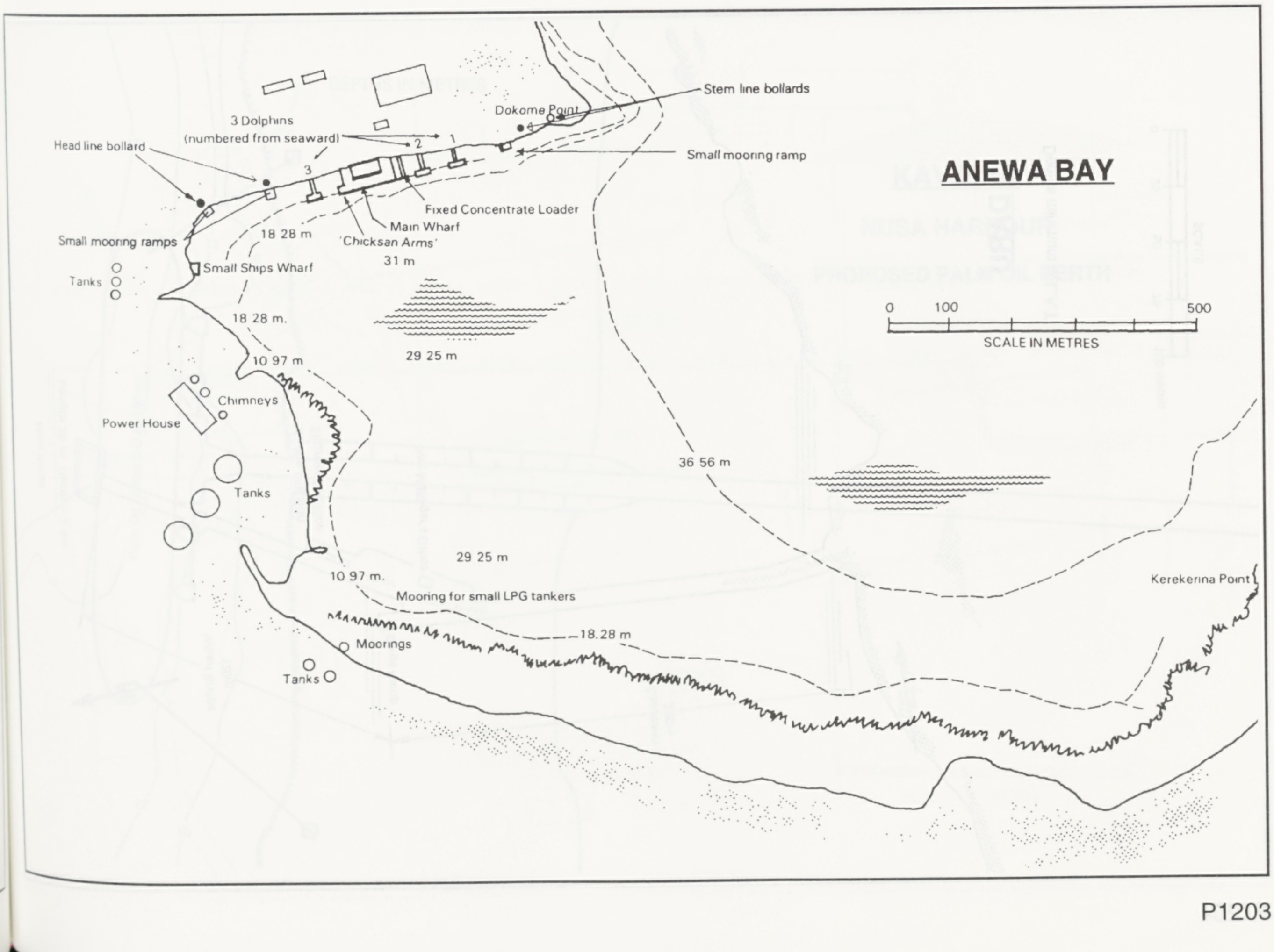

0
100
500 Km
N
LORENGAU
KAVIENG
VANIMO
AITAPE
WEWAK
RABAUL
MADANG
KIMBE
BUKA
KIETA
LAE
Kumul Marine Terminal
DARU
ORO BAY
PORT MORESBY
ALOTAU
SAMARAI
PAPUA NEW GUINEA

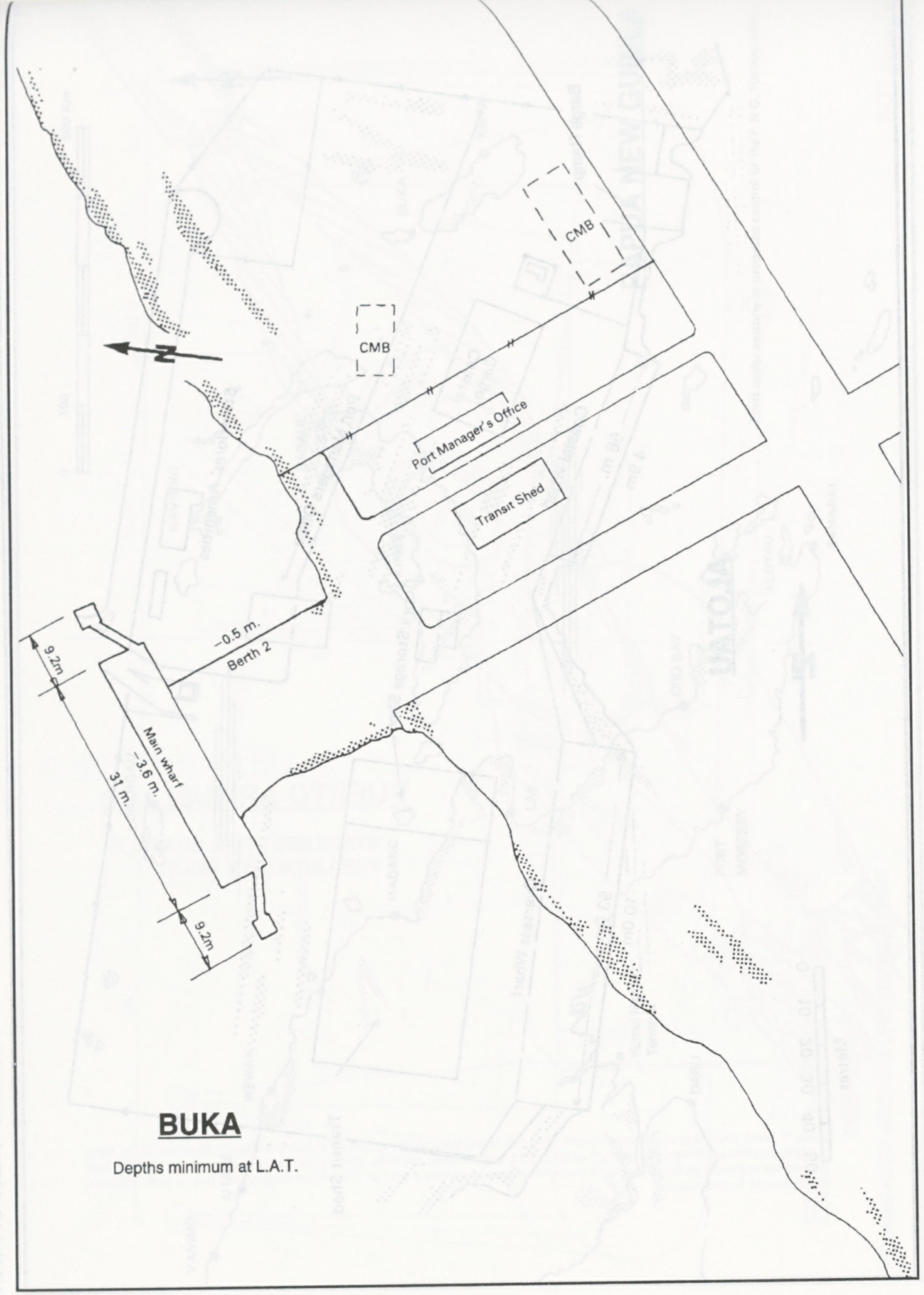
Ports under existing or proposed control of the P N G. Harbours Board


Berth 1
4.3 m.
Wharf
Berths 2 & 3
(unused)
4.3m
N
AITAPE
Strong current – especially November – March
Surf (especially high during November – March)
Port Manager's Office
Stevedores' Amenities
Transit Shed
0
10
20
30
40
50

Depths minimum at L.A.T.

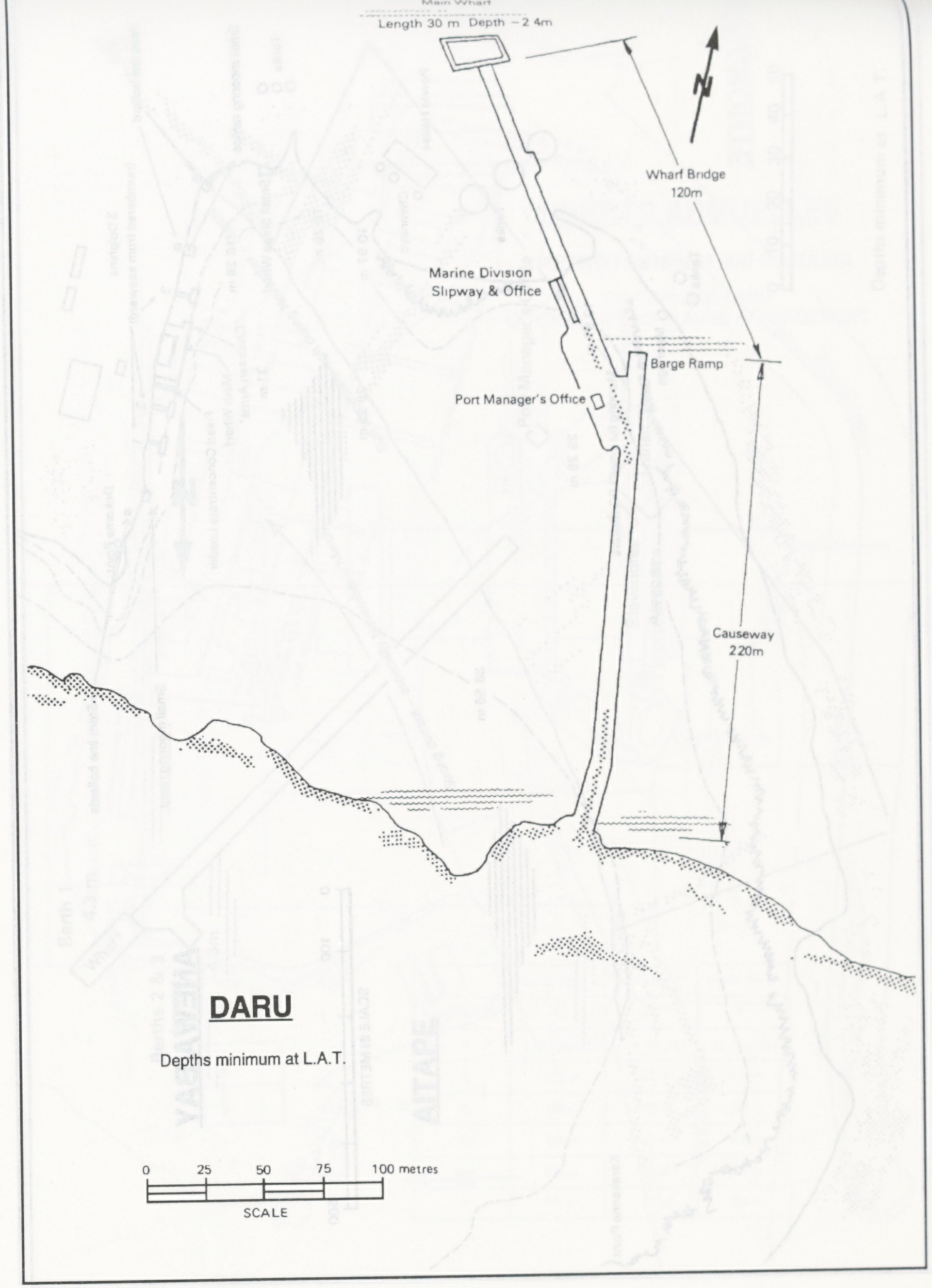

ALOTAU
Stevedores' Amenities
Port Managers Office
Copra Storage Shed
Transit Shed
Coastal Cargo
Barge Ramp
Coastal Wharf
Overseas Wharf
56 m.
4 9m
93 0m
10.0m
N
0 10 20 30 40 50
Metres


ANEWA BAY
Stem line bollards
Dokome Point
4
3 Dolphins
(numbered from seaward)
1
2
3
Small mooring ramp
Head line bollard
Fixed Concentrate Loader
Main Wharf
'Chicksan Arms'
Small mooring ramps
18 28 m
31 m
Small Ships Wharf
Tanks
18 28 m.
29 25 m
10 97 m
Chimneys
Power House
Tanks
36 56 m
29 25 m
10 97 m.
Mooring for small LPG tankers
18.28 m
Moorings
Tanks
Kerekerina Point
0 100 500
SCALE IN METRES


CMB
CMB
N
Port Manager's Office
Transit Shed
-0.5 m.
Berth 2
9.2m
Main wharf
-3.6 m.
31 m.
9.2m

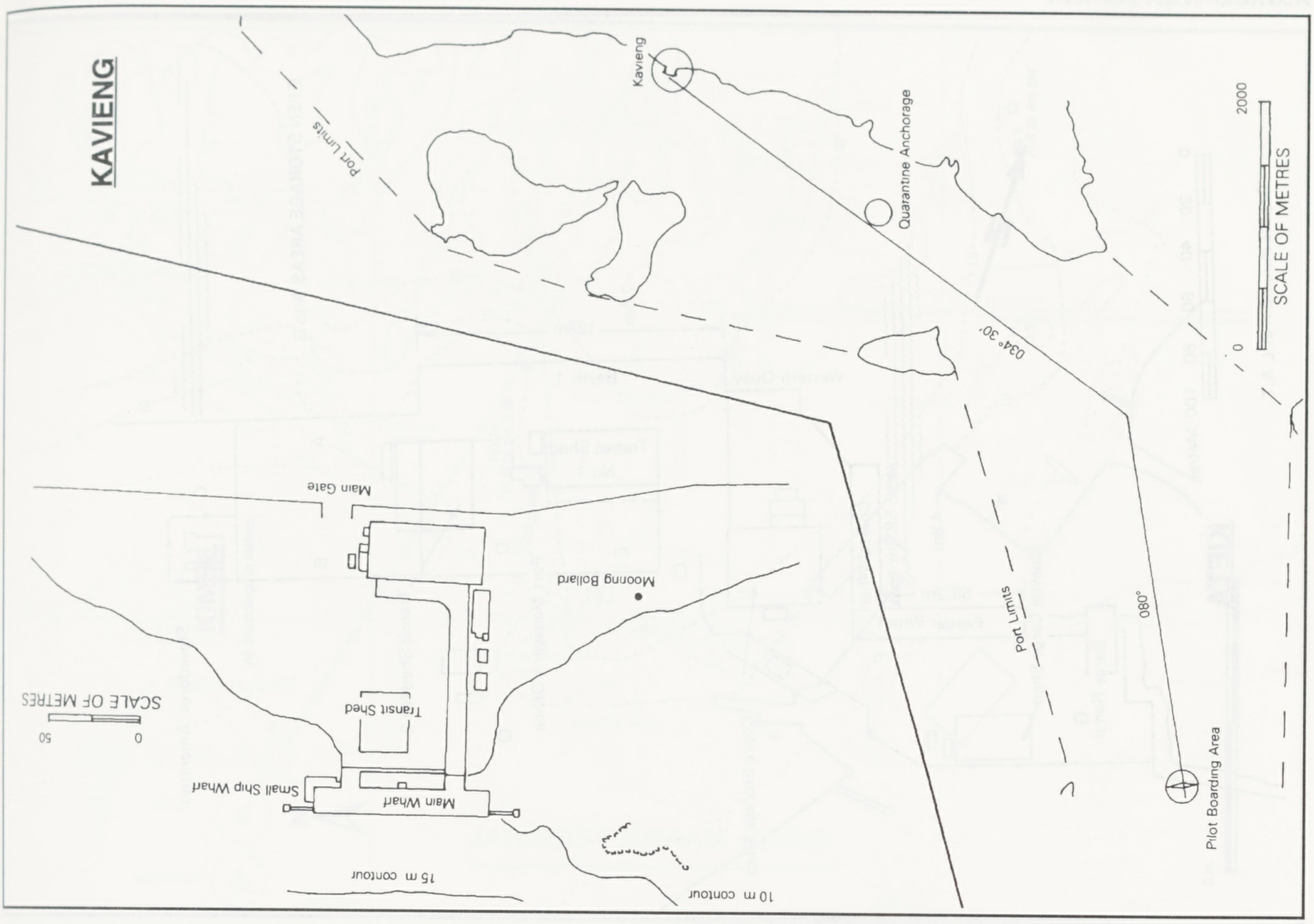
BUKA

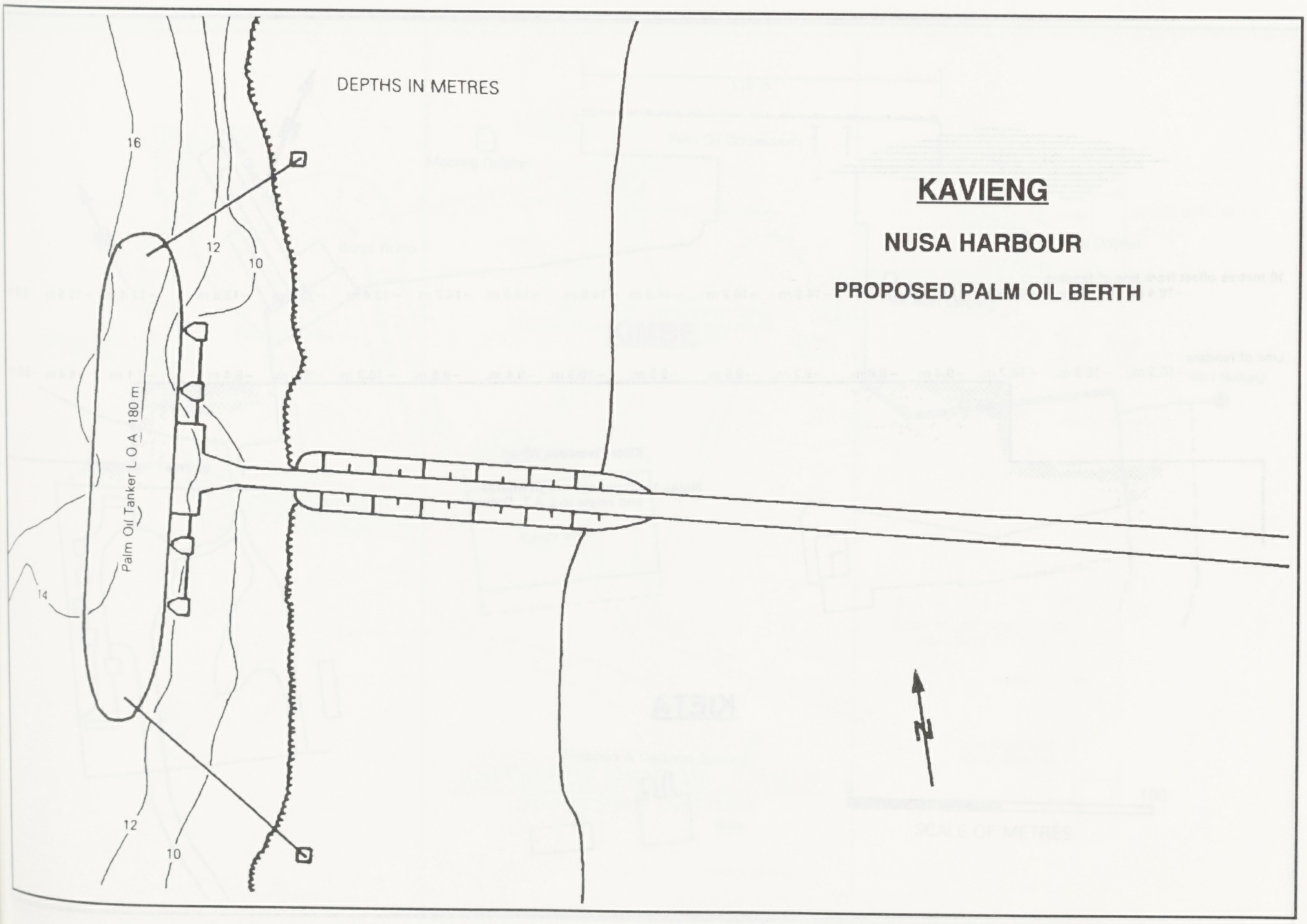
Depths minimum at L.A.T.

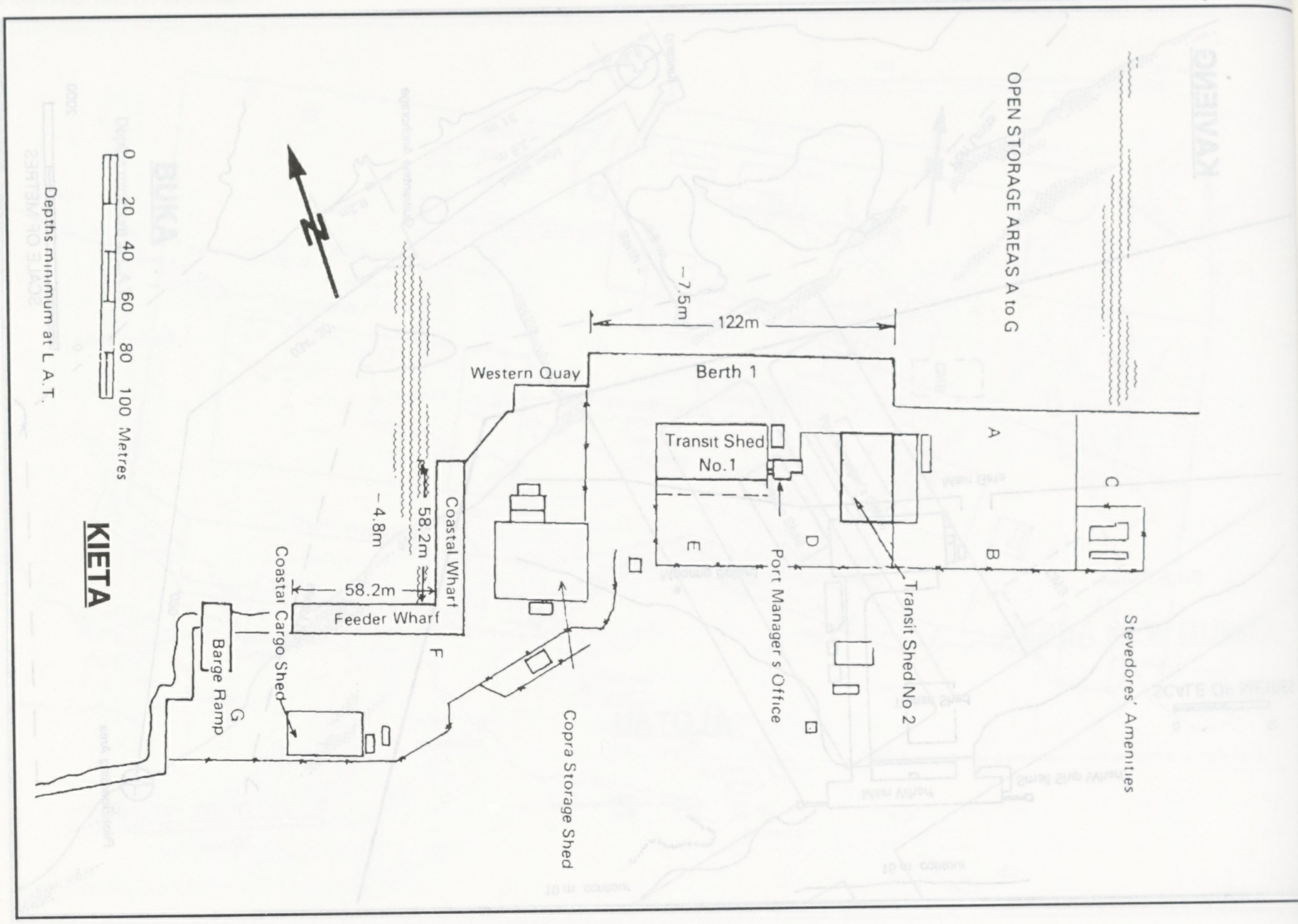

Main Wharf
Length 30 m Depth - 2.4m
N
Wharf Bridge
120m
Marine Division
Slipway & Office
Barge Ramp
Port Manager's Office
Causeway
220m
0
25
50
75
100 metres
SCALE

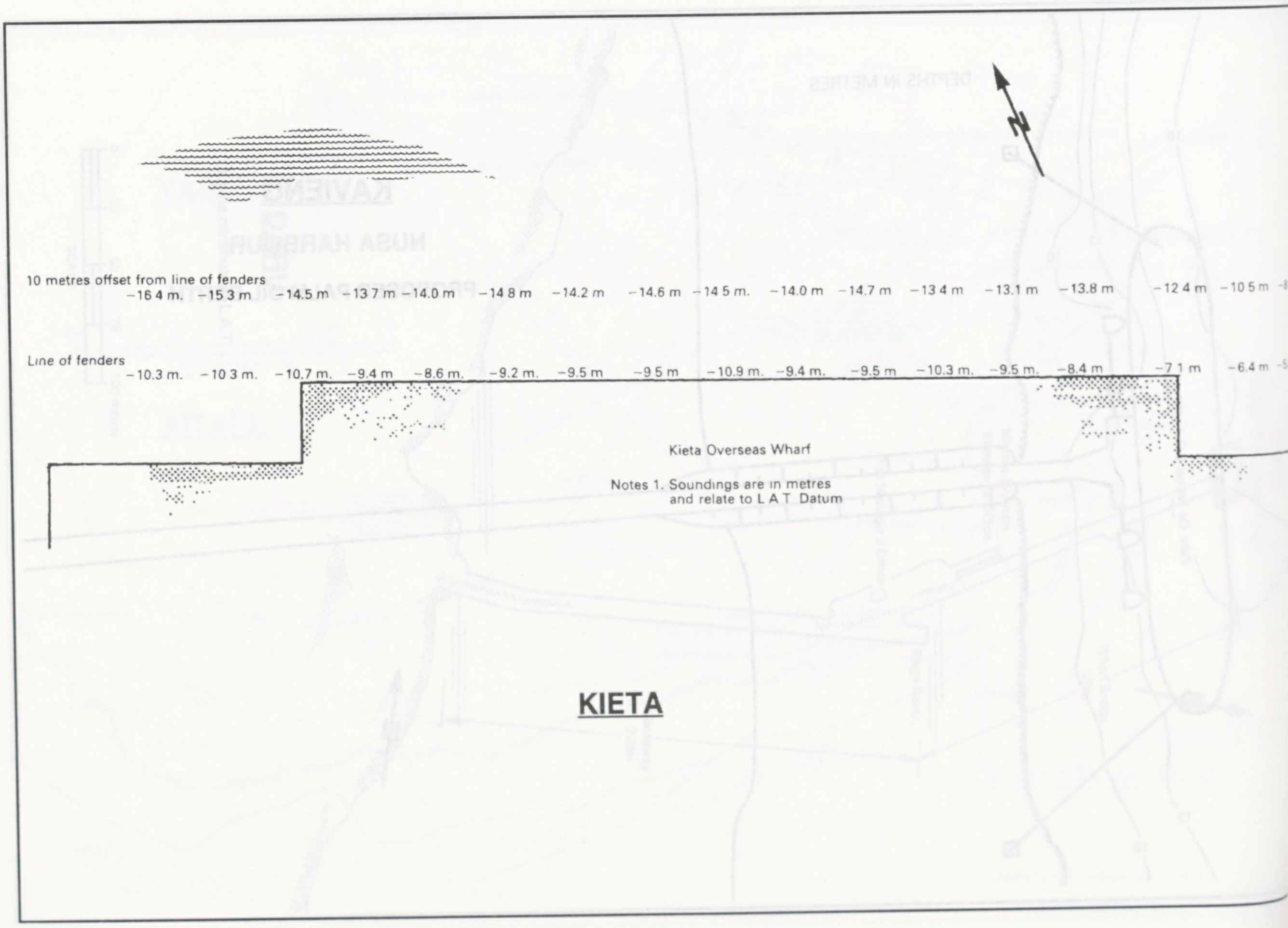
DARU

Depths minimum at L.A.T.


KAVIENG
Port Limits
Kavieng
Quarantine Anchorage
SCALE OF METRES
0
2000
034° 30'
080°
Port Limits
Pilot Boarding Area
Main Gate
Mooring Bollard
Transit Shed
Main Wharf
Small Ship Wharf
SCALE OF METRES
0
50
15 m contour
10 m contour

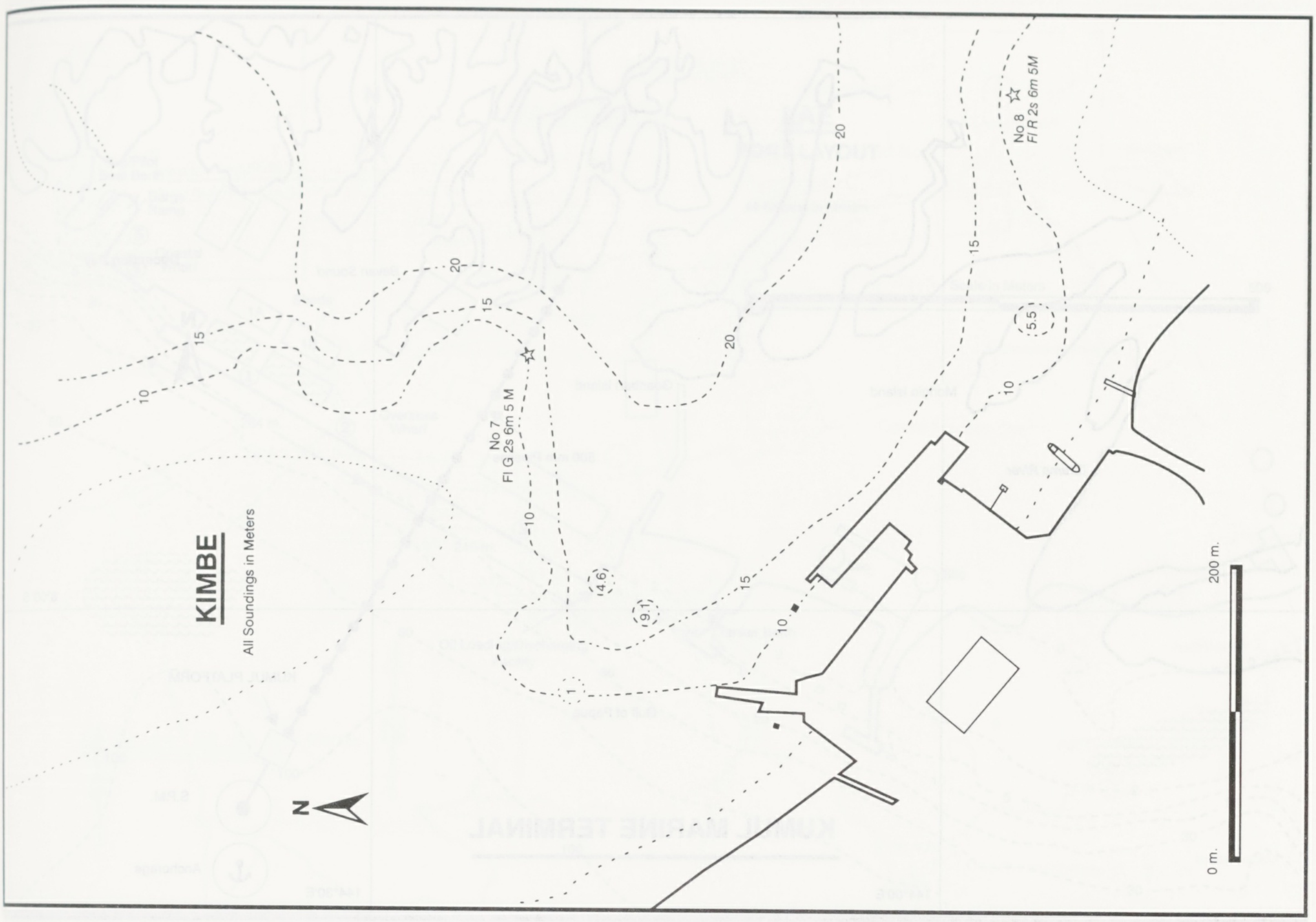

DEPTHS IN METRES
KAVIENG
NUSA HARBOUR
PROPOSED PALM OIL BERTH
16
12
10
14
12
10
Palm Oil Tanker L O A 180 m
N

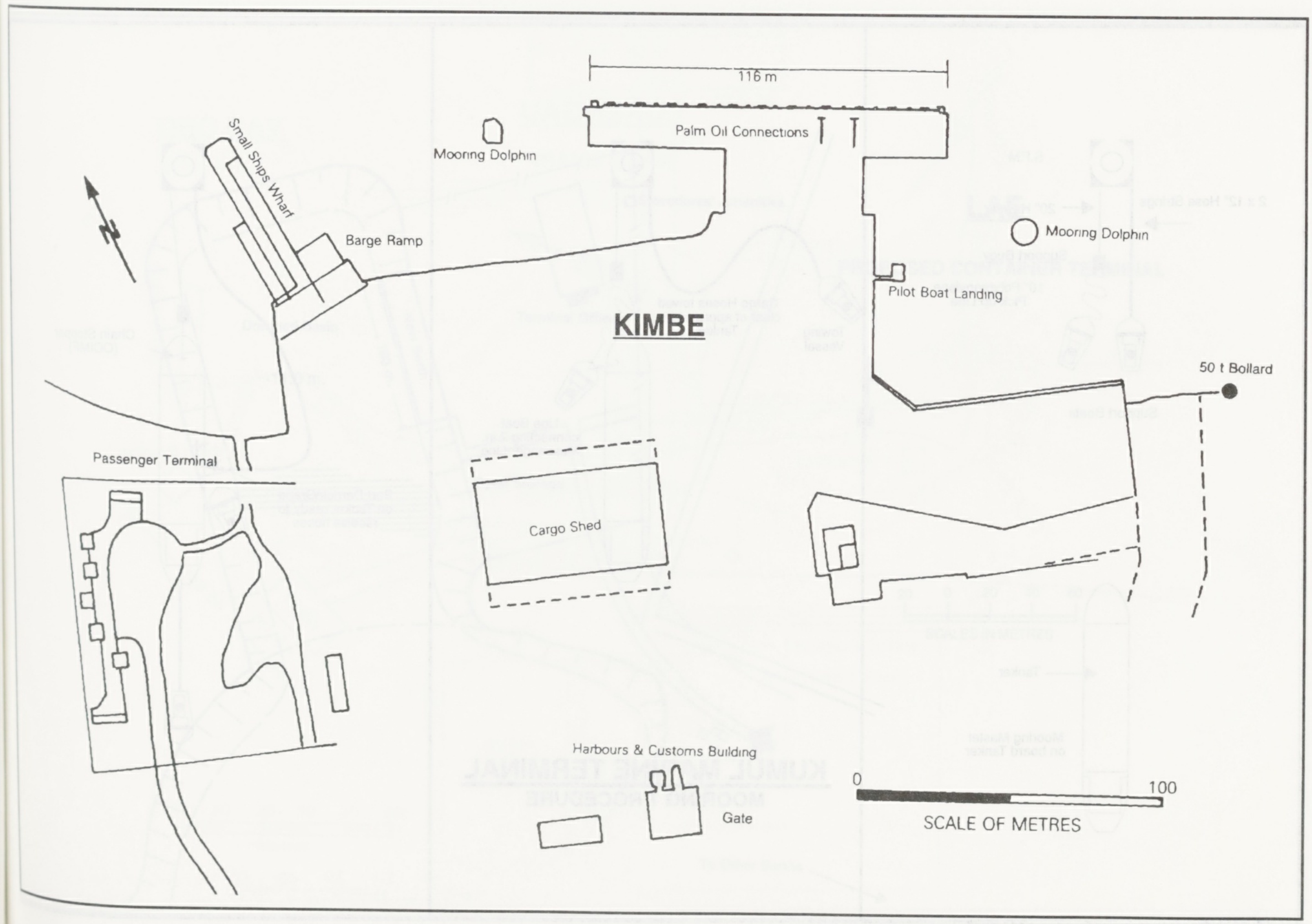

KIETA
Depths minimum at L.A.T.
0 20 40 60 80 100 Metres
N
OPEN STORAGE AREAS A to G
−7.5m
122m
Western Quay
Berth 1
Transit Shed No.1
A
C
B
D
E
F
G
Port Manager's Office
Transit Shed No 2
Stevedores' Amenities
−4.8m
58.2m
Coastal Wharf
58.2m
Feeder Wharf
Coastal Cargo Shed
Barge Ramp
Copra Storage Shed

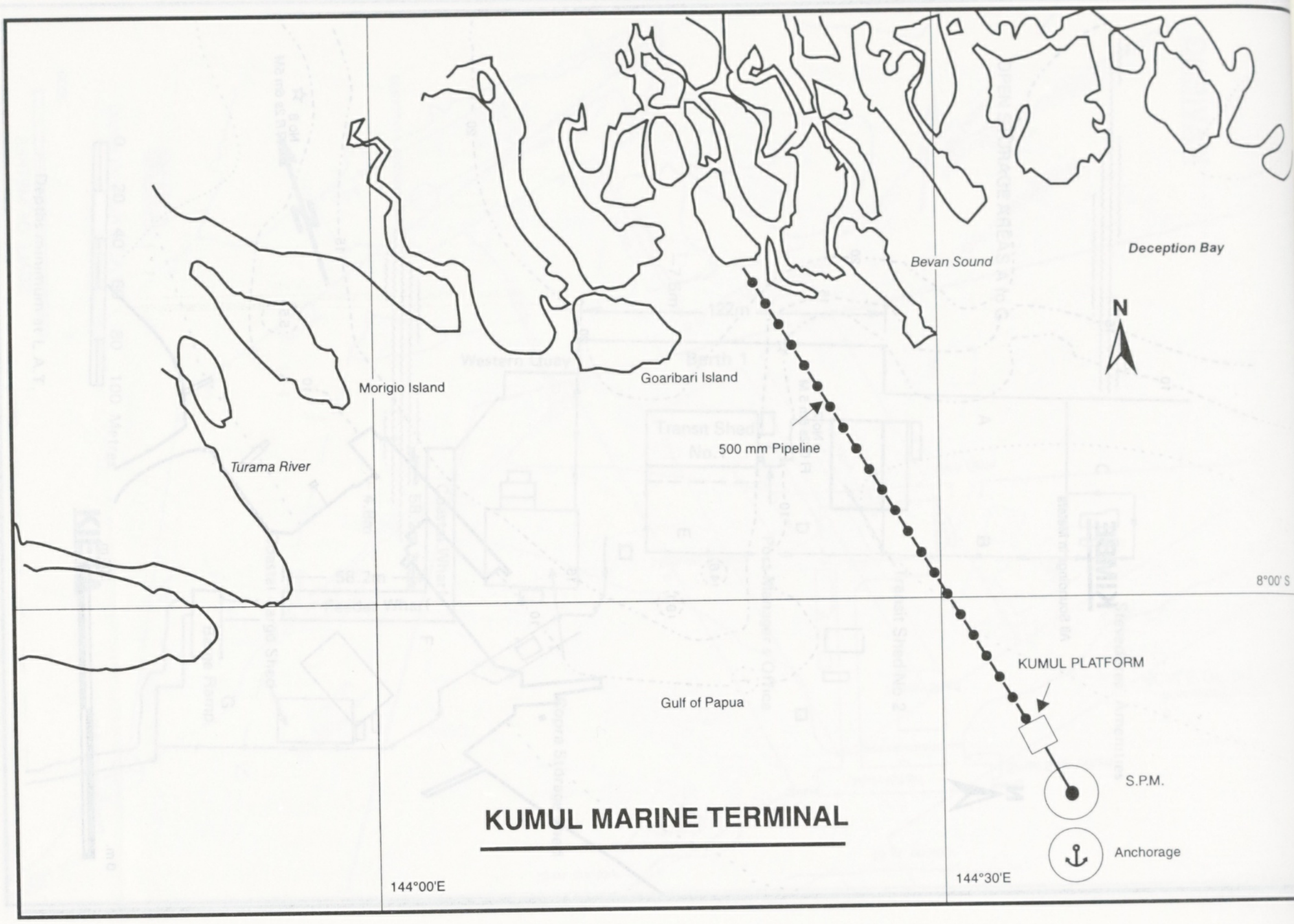

N
10 metres offset from line of fenders
−16 4 m. −15 3 m −14.5 m −13 7 m −14.0 m −14 8 m −14.2 m −14.6 m −14 5 m. −14.0 m −14.7 m −13 4 m −13.1 m −13.8 m −12 4 m −10 5 m
Line of fenders
−10.3 m. −10 3 m. −10.7 m. −9.4 m −8.6 m. −9.2 m. −9.5 m −9 5 m −10.9 m. −9.4 m. −9.5 m −10.3 m. −9.5 m. −8.4 m −7 1 m −6.4 m
Kieta Overseas Wharf

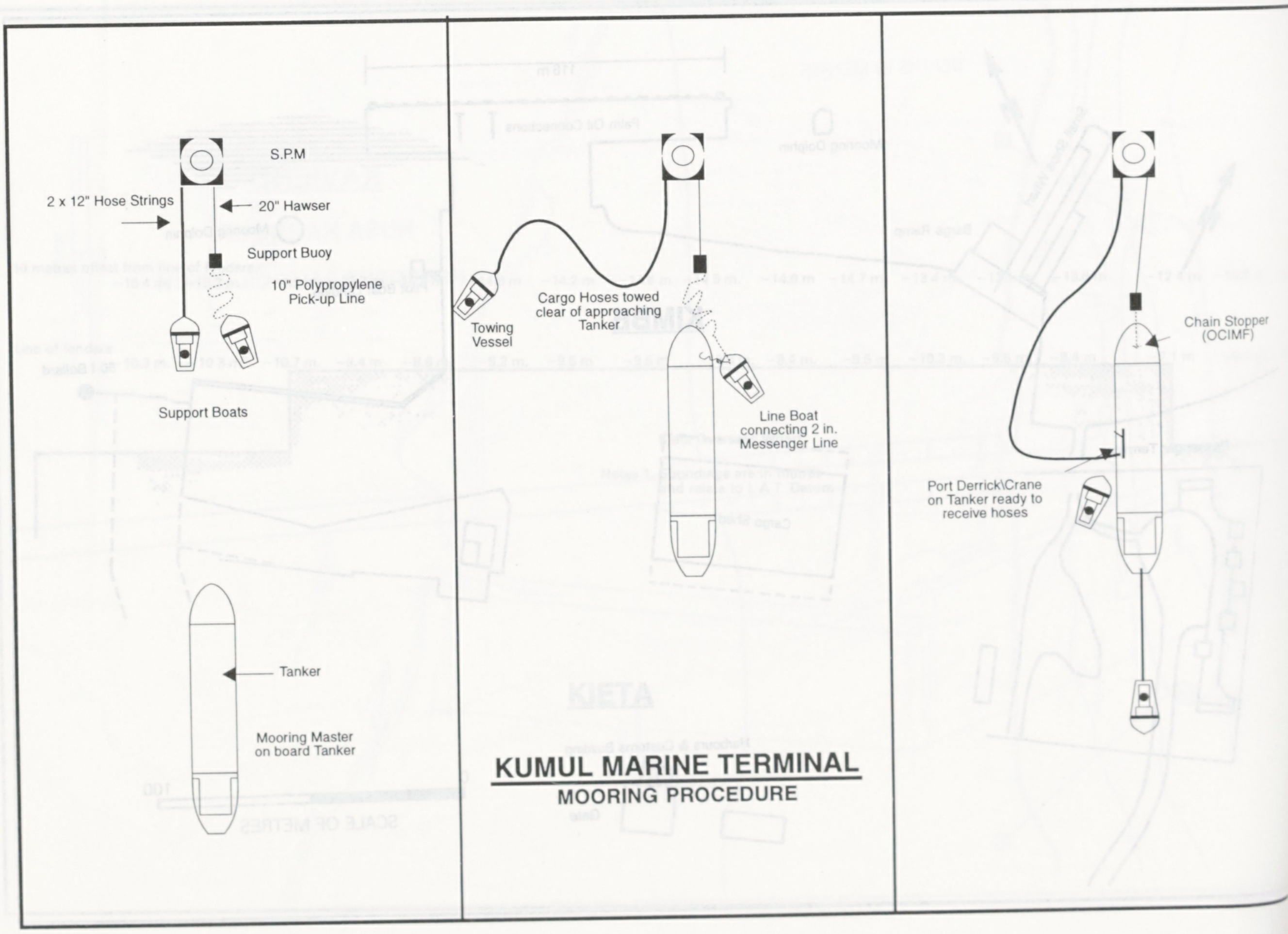
Notes 1. Soundings are in metres and relate to L A T Datum

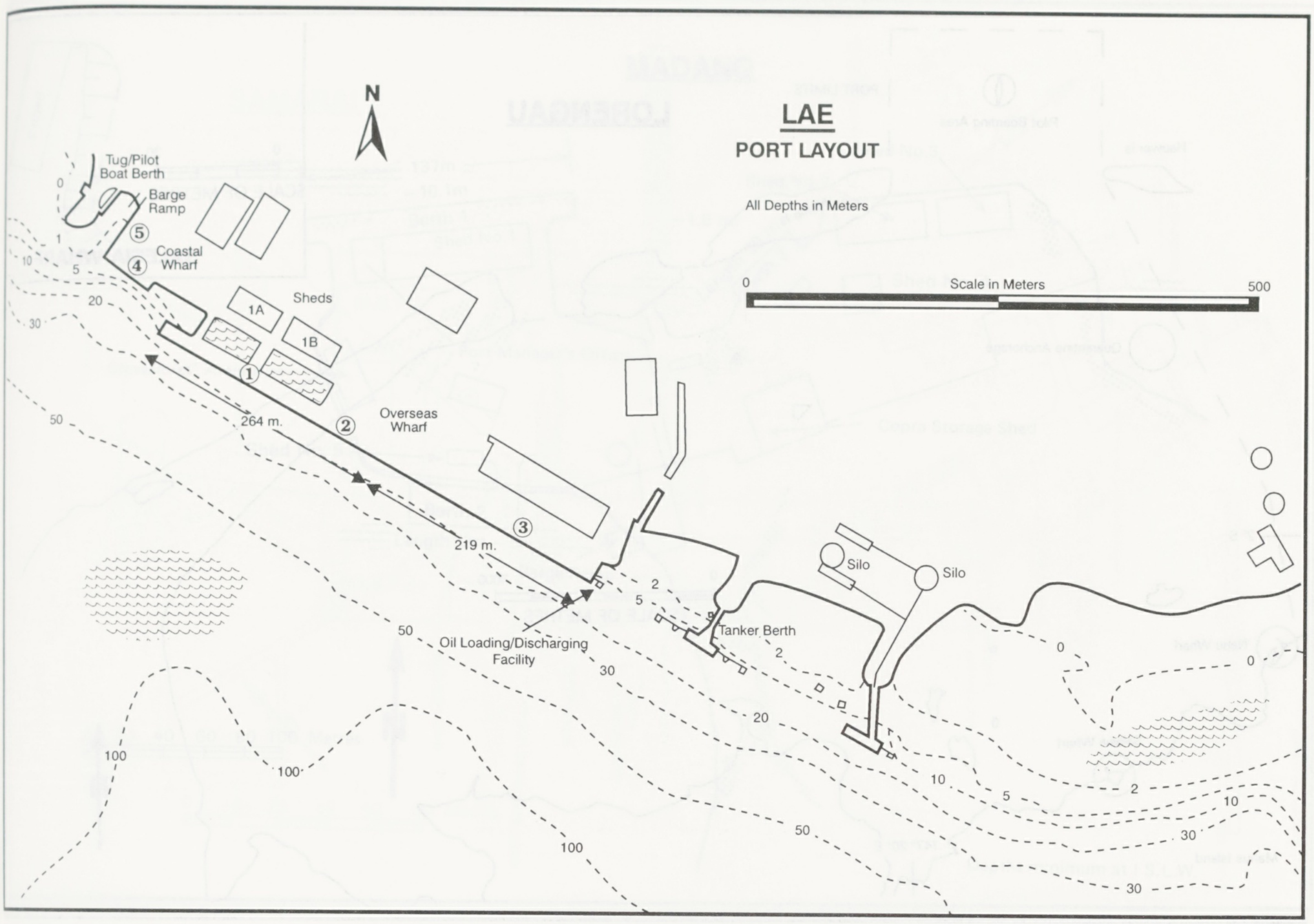
KIETA

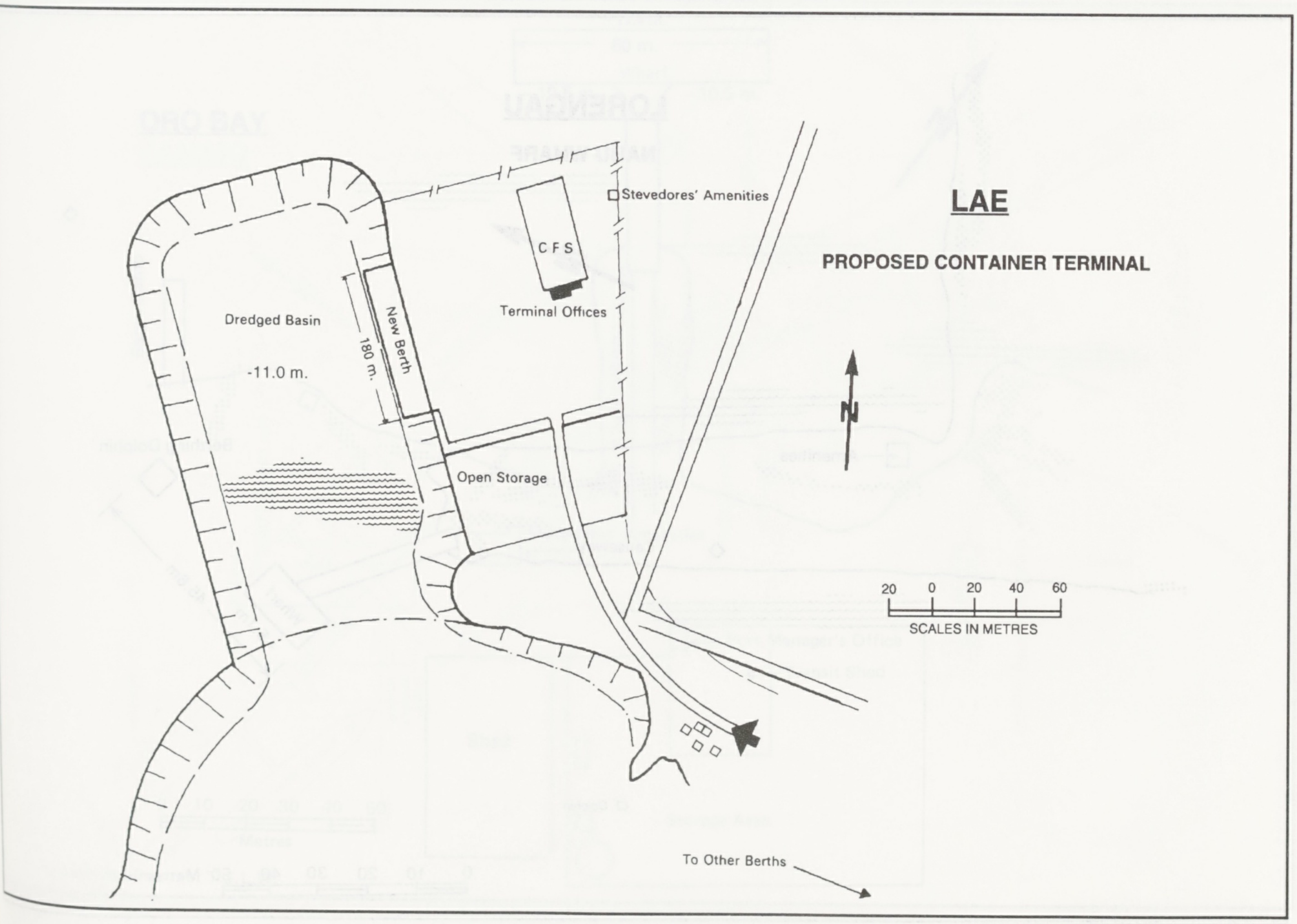

KIMBE
All Soundings in Meters
No 7
Fl G 2s 6m 5 M
No 8
Fl R 2s 6m 5M
20
15
10
(4.6)
(9.1)
(5.5)
200 m.
0 m.
N

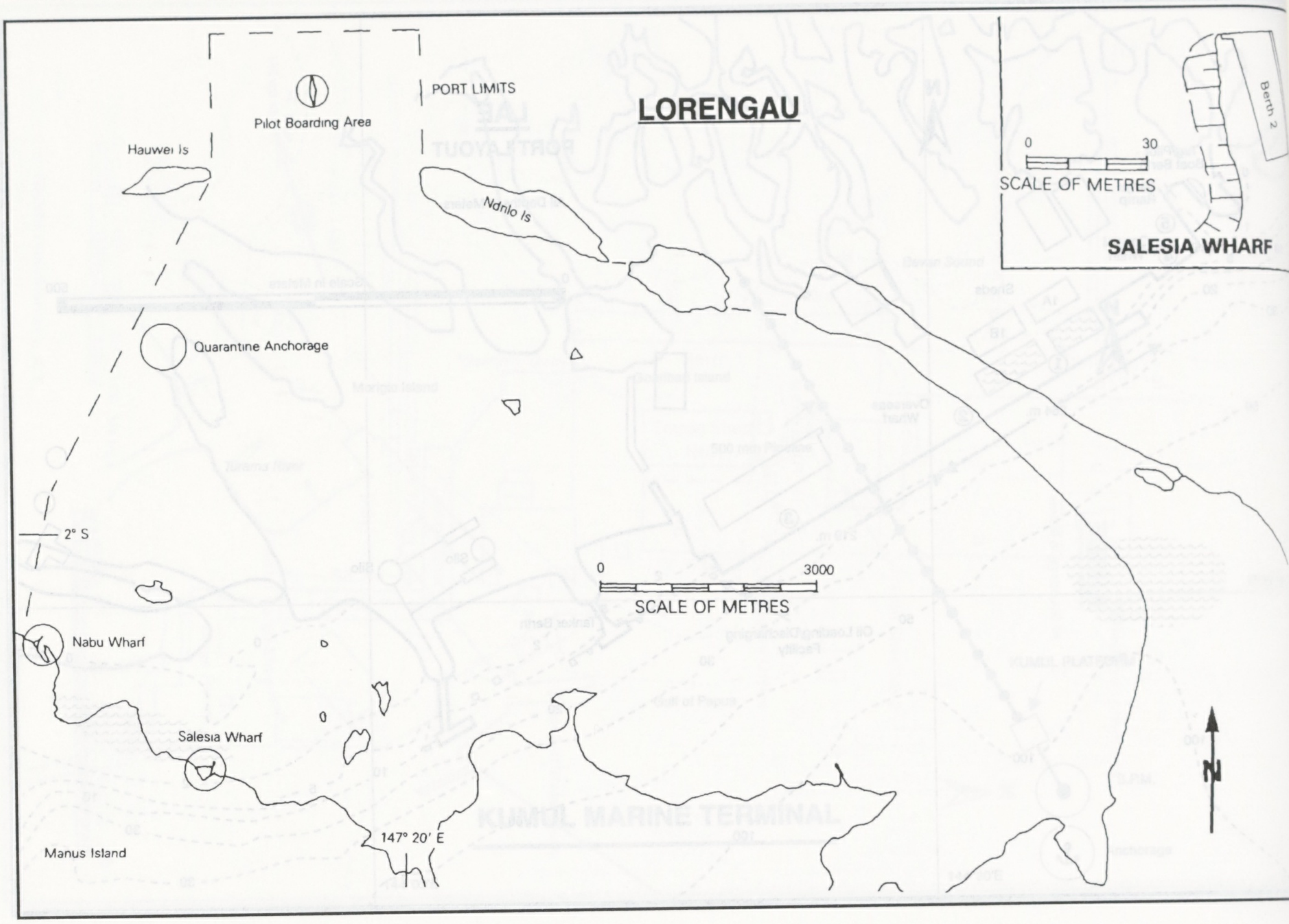

116 m
Palm Oil Connections
Mooring Dolphin
Small Ships Wharf
Barge Ramp
N
KIMBE
Mooring Dolphin
Pilot Boat Landing
50 t Bollard
Passenger Terminal
Cargo Shed
Harbours & Customs Building
Gate
0
100
SCALE OF METRES

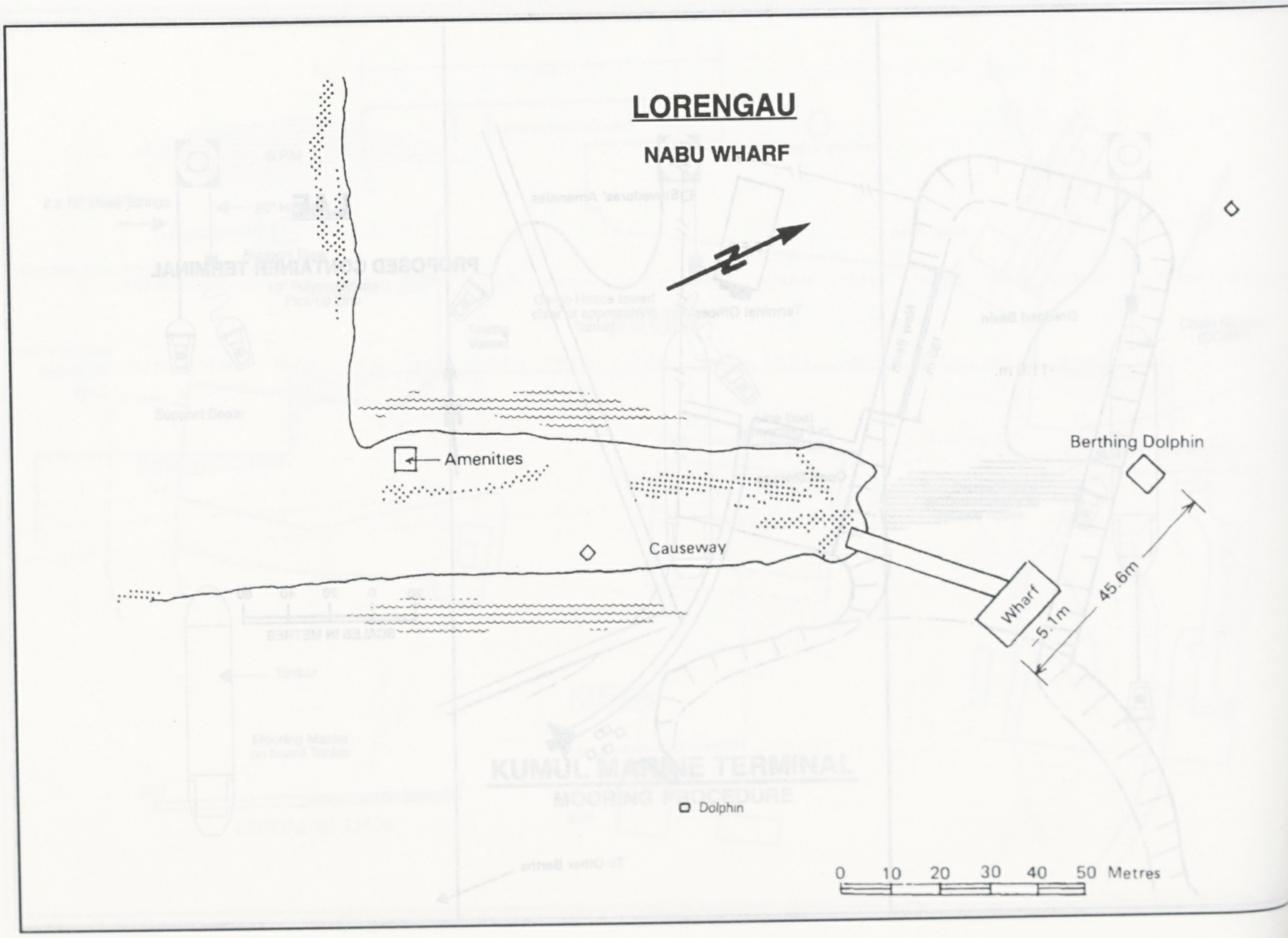

Deception Bay
Bevan Sound
N
Morigio Island
Goaribari Island
500 mm Pipeline
Turama River
8°00'S
KUMUL PLATFORM
Gulf of Papua
S.P.M.
Anchorage
KUMUL MARINE TERMINAL
144°00'E
144°30'E


S.P.M
2 x 12" Hose Strings
20" Hawser
Support Buoy
10" Polypropylene Pick-up Line
Support Boats
Tanker
Mooring Master on board Tanker
Cargo Hoses towed clear of approaching Tanker
Towing Vessel
Line Boat connecting 2 in. Messenger Line
Chain Stopper (OCIMF)
Port Derrick\Crane on Tanker ready to receive hoses
KUMUL MARINE TERMINAL
MOORING PROCEDURE

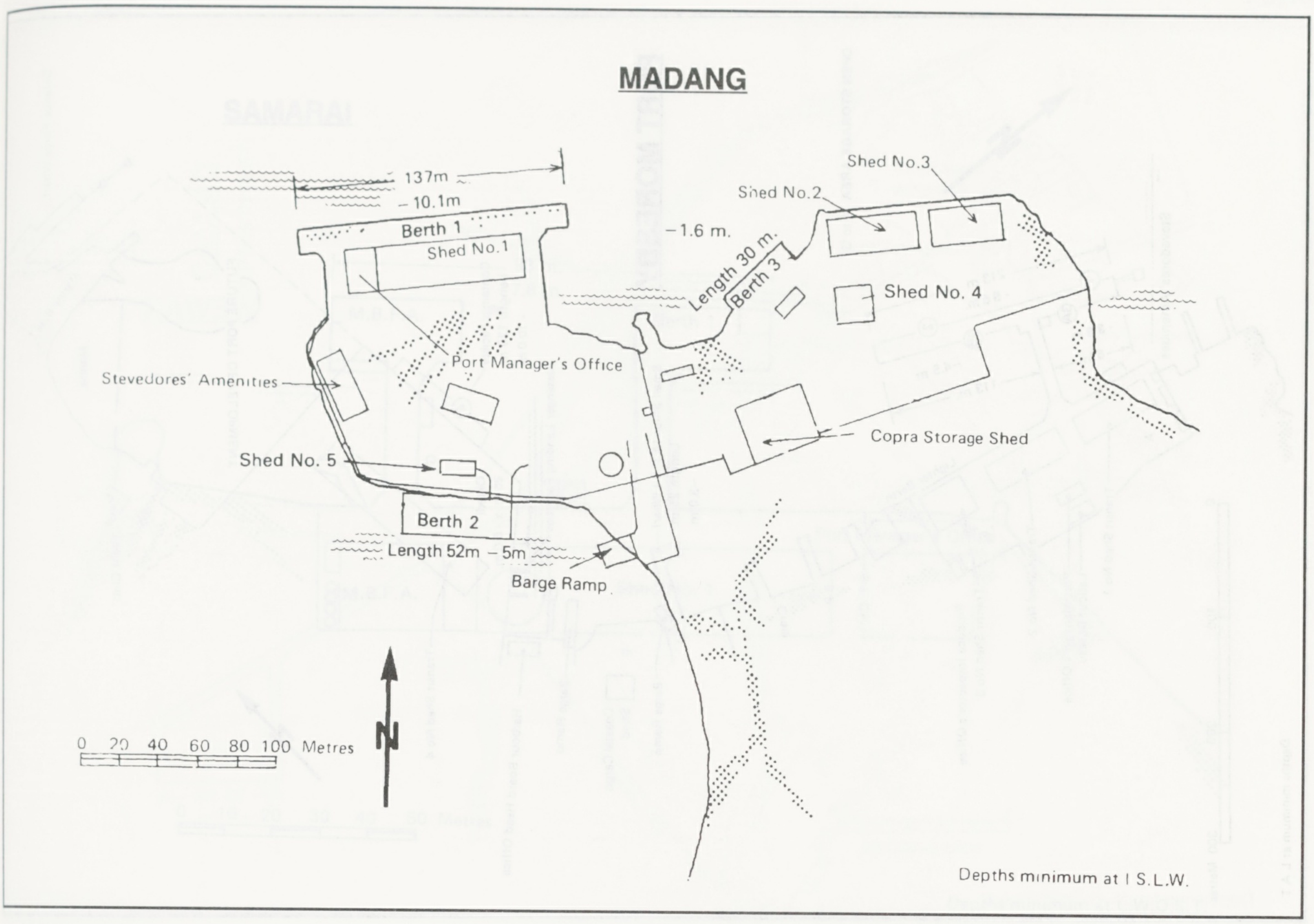

LAE
PORT LAYOUT
All Depths in Meters
Scale in Meters
0
500
N
Tug/Pilot Boat Berth
Barge Ramp
⑤
Coastal Wharf
④
Sheds
1A
1B
①
②
Overseas Wharf
264 m.
③
219 m.
Oil Loading/Discharging Facility
Tanker Berth
Silo
Silo
0
1
5
10
20
30
50
100
100
50
30
2
5
20
2
10
5
0
0
2
10
30
30
50
100


LAE
PROPOSED CONTAINER TERMINAL
Stevedores' Amenities
C F S
Terminal Offices
Dredged Basin
-11.0 m.
New Berth
180 m.
Open Storage
N
20
0
20
40
60
SCALES IN METRES
To Other Berths


LORENGAU
PORT LIMITS
Pilot Boarding Area
Hauwei Is
Ndrilo Is
Quarantine Anchorage
2° S
Nabu Wharf
Salesia Wharf
Manus Island
147° 20' E
0
3000
SCALE OF METRES
N
Berth 2
0
30
SCALE OF METRES
SALESIA WHARF

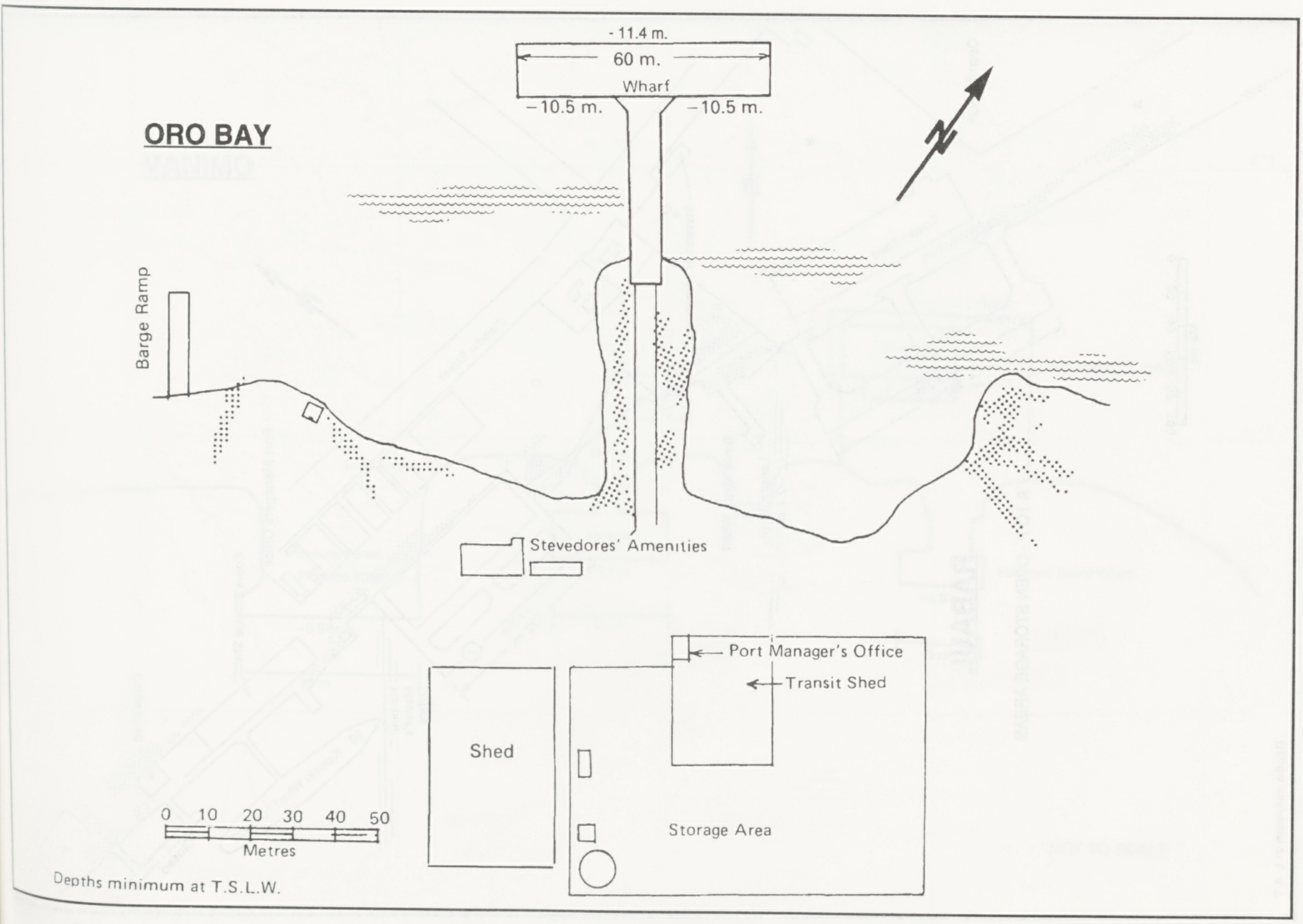

LORENGAU
NABU WHARF
Amenities
Causeway
Berthing Dolphin
Wharf
5.1m
45.6m
□ Dolphin
0
10
20
30
40
50
Metres

MADANG


137m
– 10.1m
Berth 1
Shed No.1
– 1.6 m.
Length 30 m.
Berth 3
Shed No.2
Shed No.3
Shed No. 4
Port Manager's Office
Stevedores' Amenities
Copra Storage Shed
Shed No. 5
Berth 2
Length 52m – 5m
Barge Ramp
0 20 40 60 80 100 Metres
N

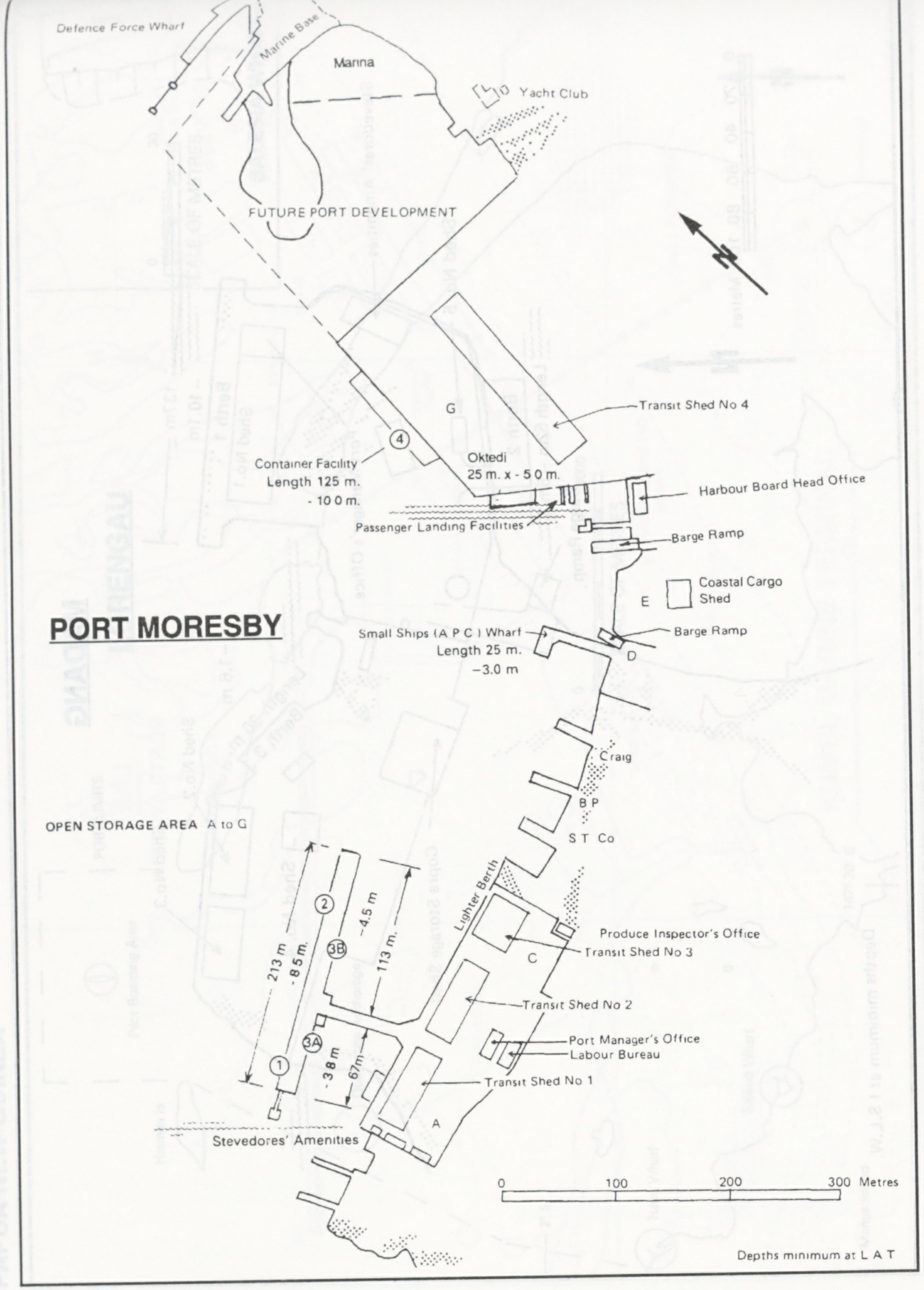
Depths minimum at I S.L.W.

ORO BAY

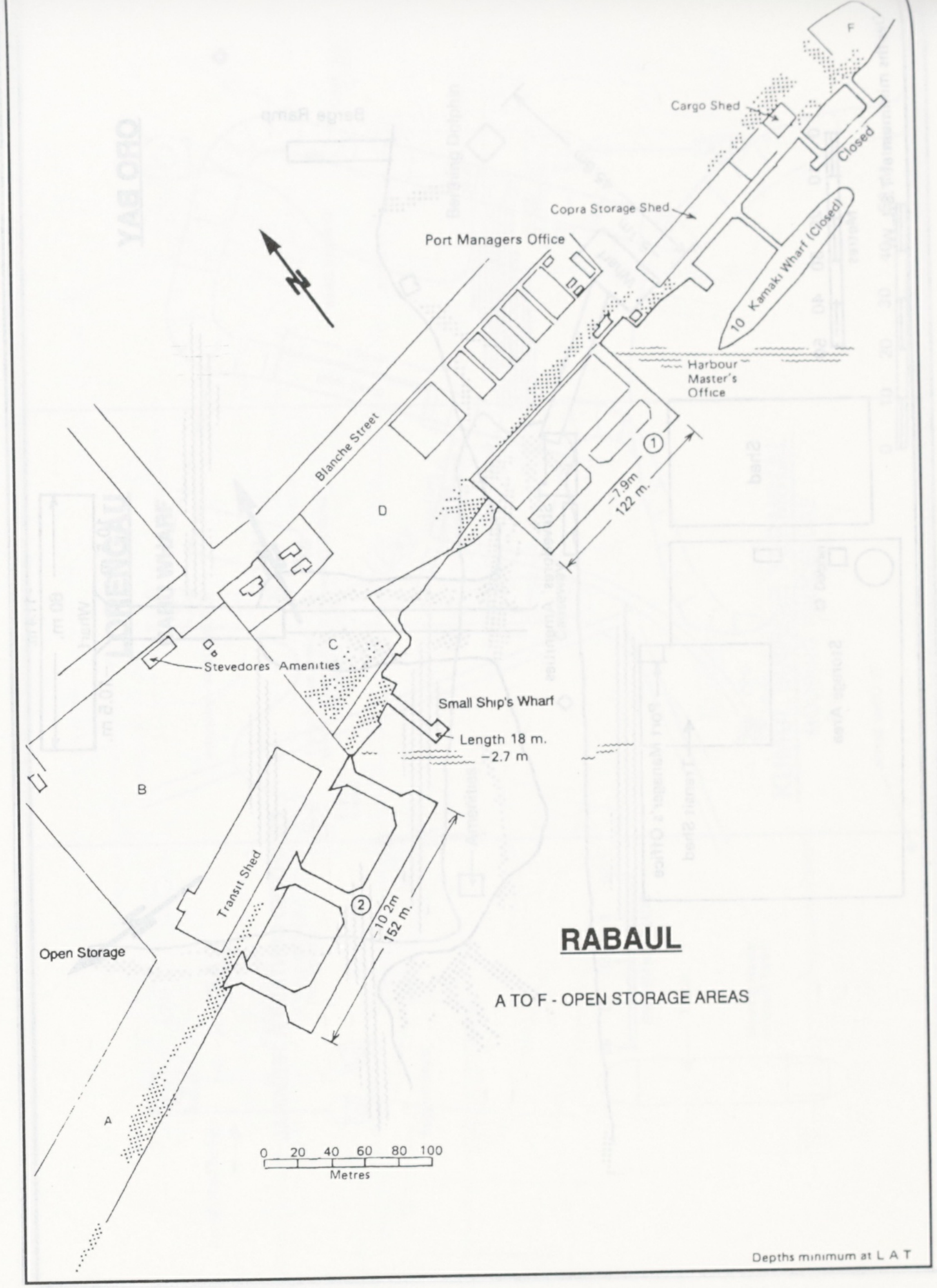

- 11.4 m.
60 m.
Wharf
– 10.5 m.
– 10.5 m.
N
Barge Ramp
Stevedores' Amenities
Port Manager's Office
Transit Shed
Shed
Storage Area
0 10 20 30 40 50
Metres

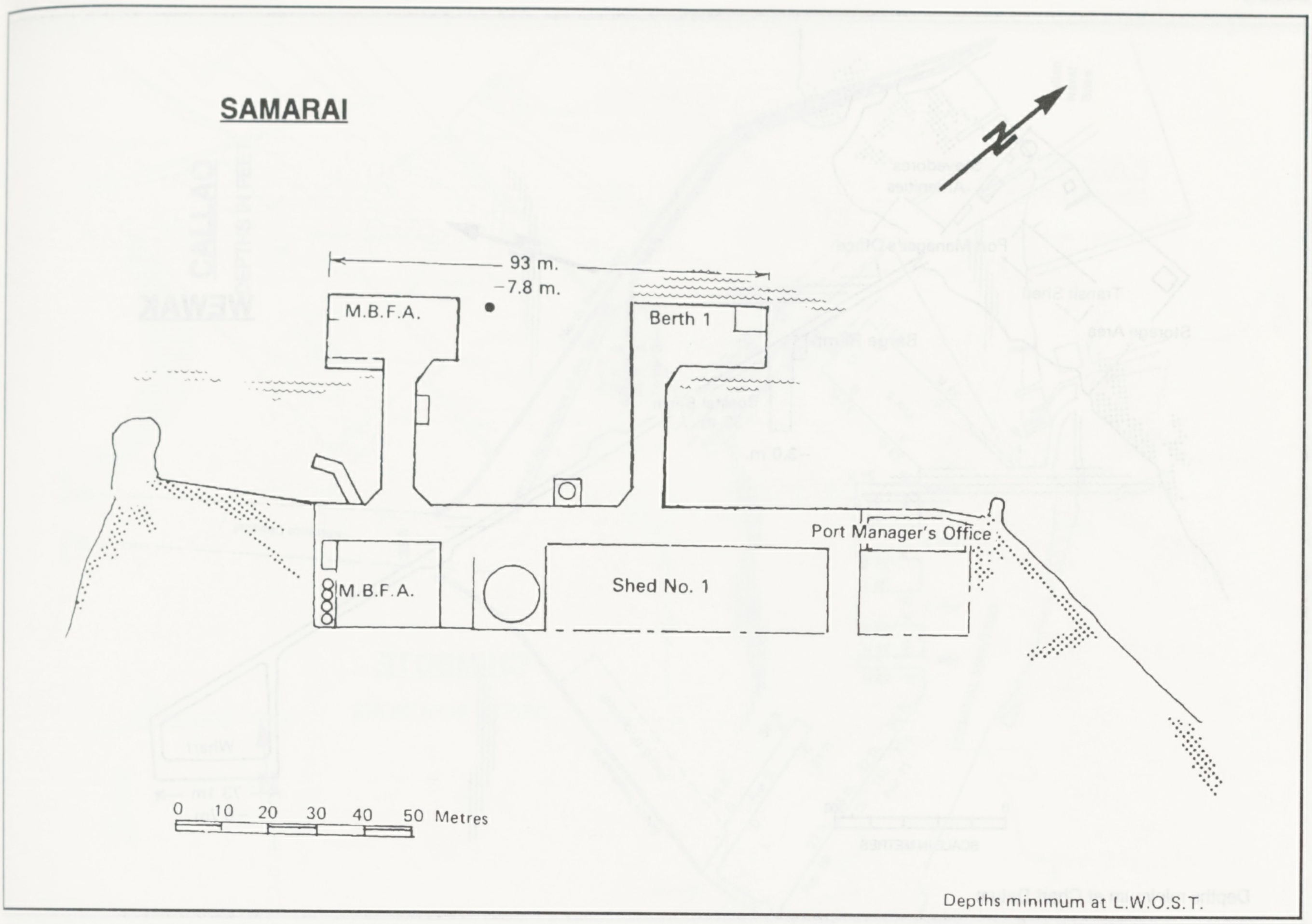
Depths minimum at T.S.L.W.

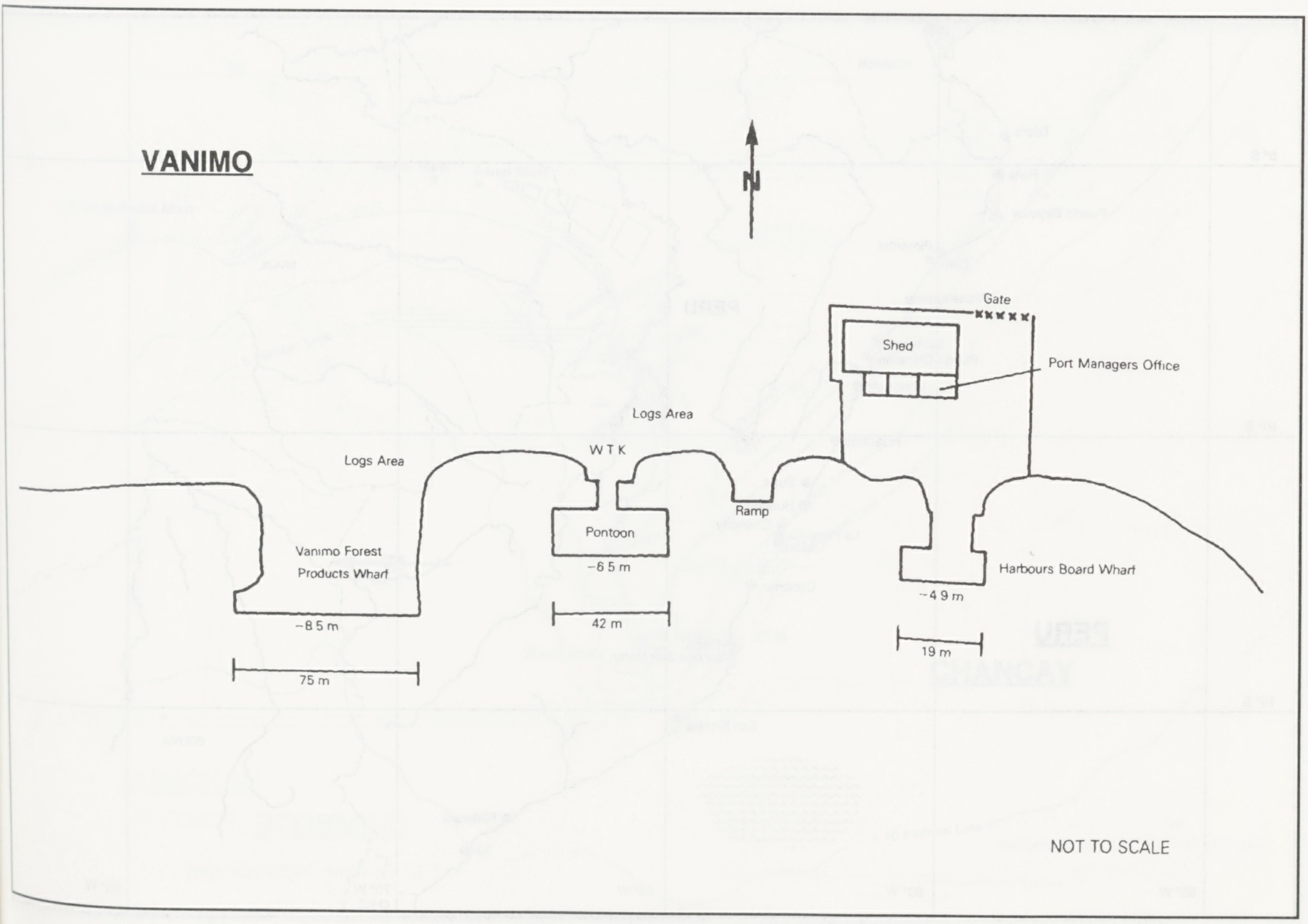
PORT MORESBY

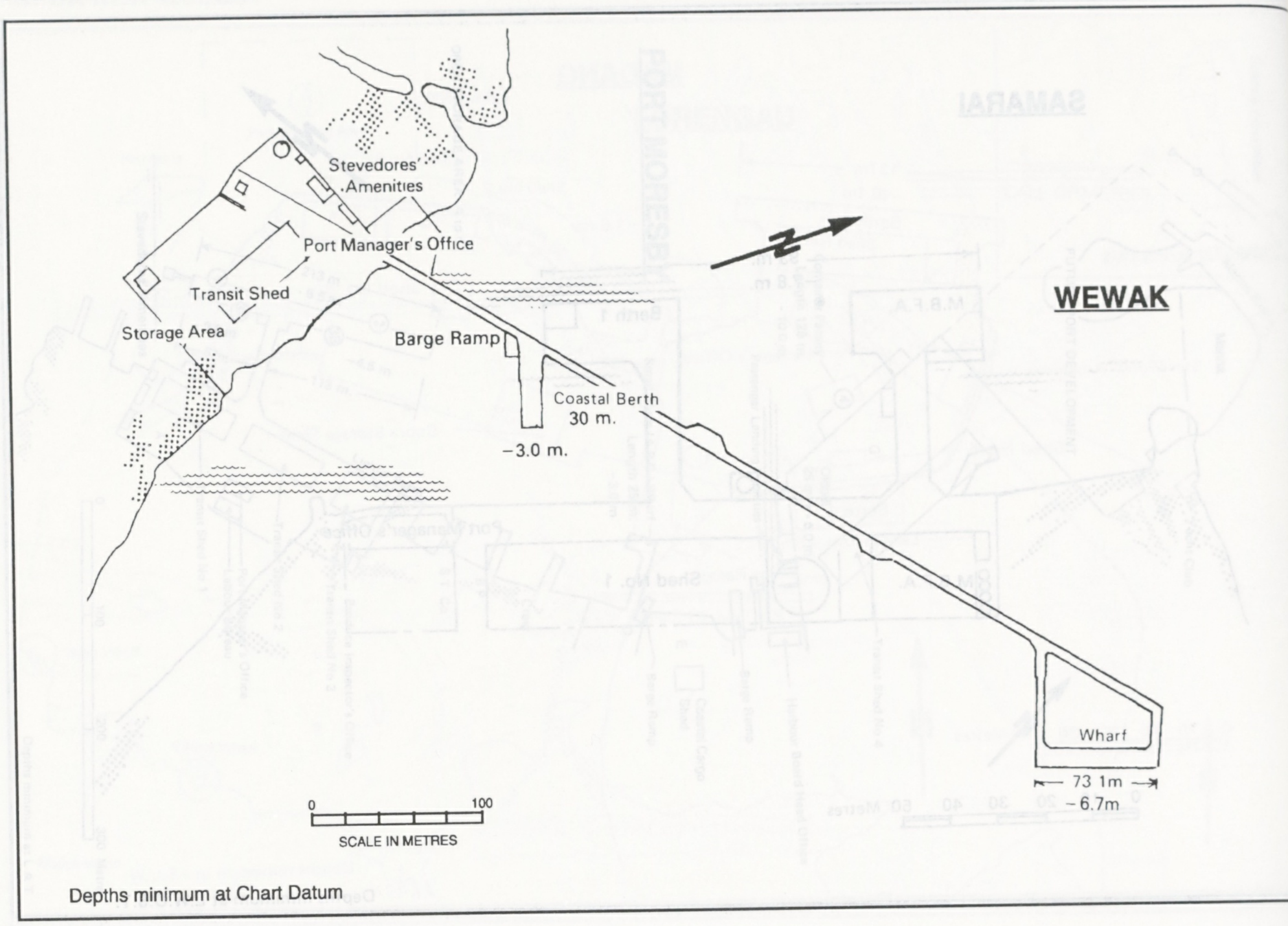

Defence Force Wharf
Marine Base
Marina
Yacht Club
FUTURE PORT DEVELOPMENT
G
④
Container Facility
Length 125 m.
- 10 0 m.
Oktedi
25 m. x - 5 0 m.
Transit Shed No 4
Harbour Board Head Office
Passenger Landing Facilities
Barge Ramp
Coastal Cargo Shed
E
Small Ships (A P C) Wharf
Length 25 m.
−3.0 m
Barge Ramp
D
Craig
B P
S T Co
OPEN STORAGE AREA A to G
Lighter Berth
Produce Inspector's Office
Transit Shed No 3
C
②
3B
213 m
- 8 5 m.
- 4.5 m
113 m.
Transit Shed No 2
Port Manager's Office
Labour Bureau
①
3A
- 3 8 m
67m
Transit Shed No 1
A
Stevedores' Amenities
0
100
200
300 Metres
Depths minimum at L A T

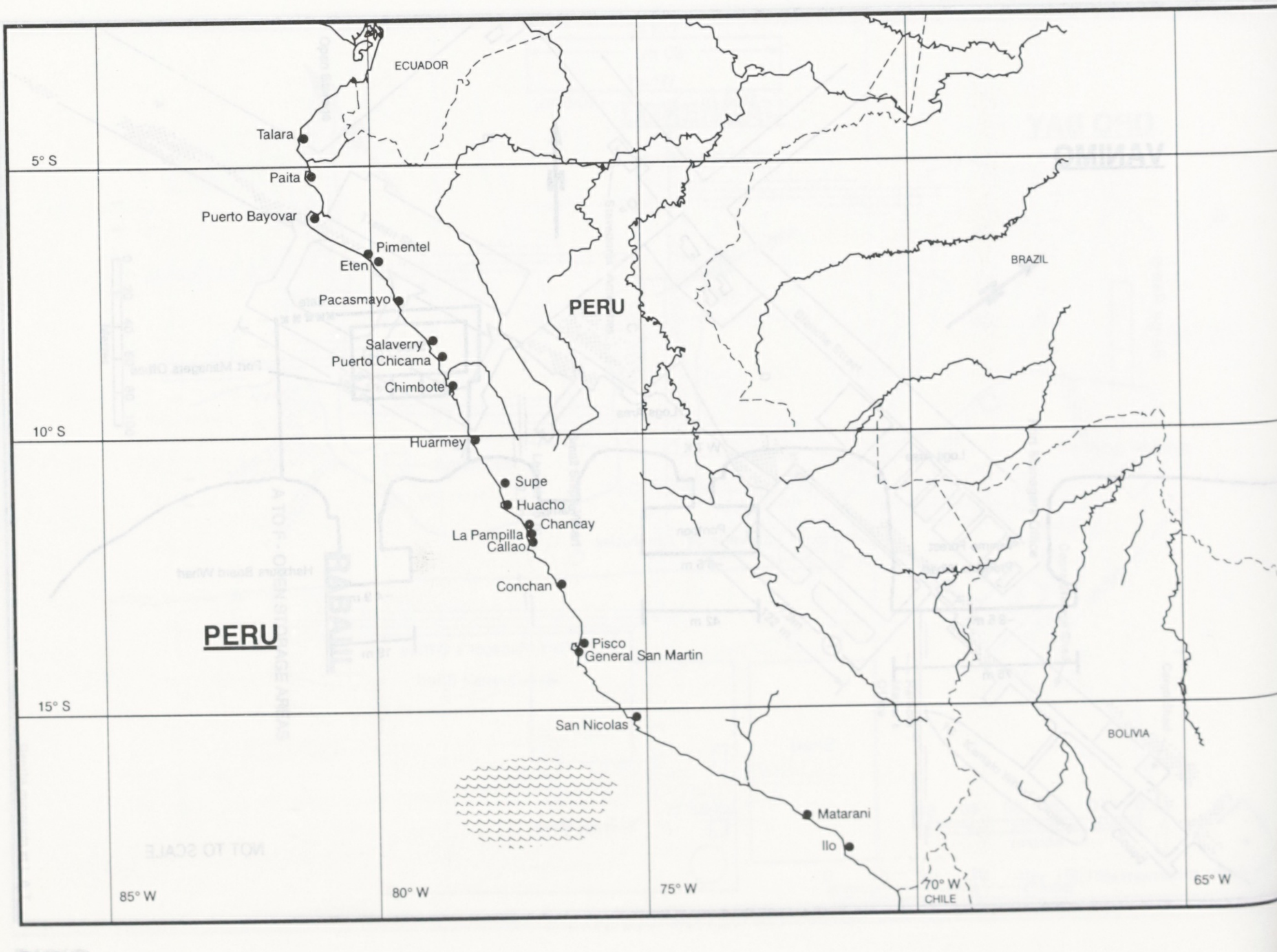
RABAUL

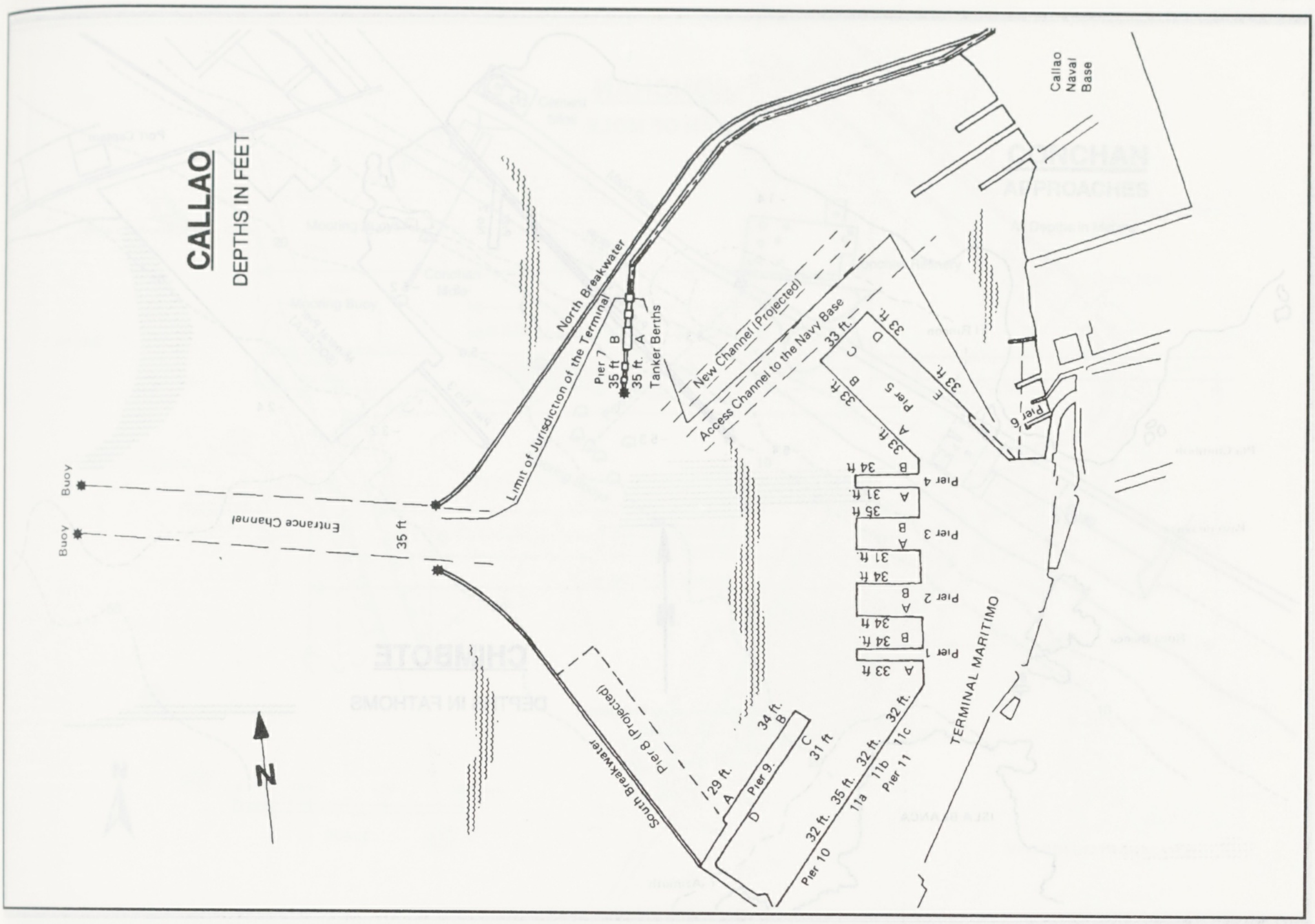

F
Cargo Shed
Closed
Copra Storage Shed
Port Managers Office
10 Kamaki Wharf (Closed)
Harbour Master's Office
Blanche Street
D
①
−7.9m
122 m.
C
Stevedores' Amenities
Small Ship's Wharf
Length 18 m.
−2.7 m
B
Transit Shed
②
−10.2m
152 m.
Open Storage
A
A TO F - OPEN STORAGE AREAS
0 20 40 60 80 100
Metres
Depths minimum at L A T

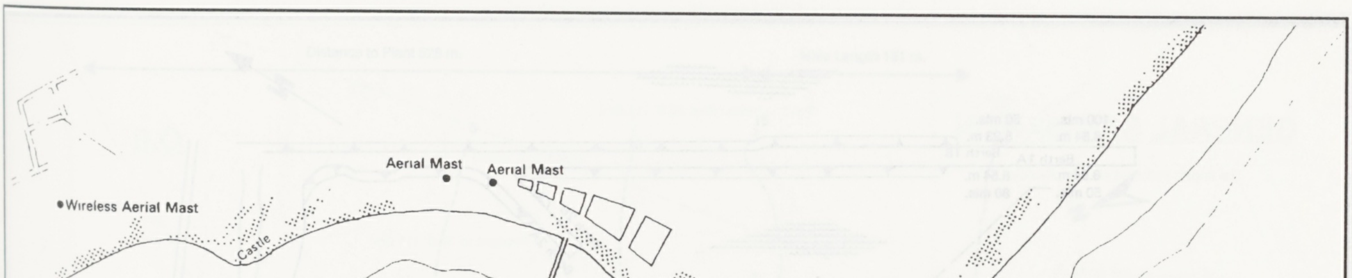

SAMARAI
N
93 m.
−7.8 m.
M.B.F.A.
Berth 1
Port Manager's Office
M.B.F.A.
Shed No. 1
0 10 20 30 40 50 Metres
Depths minimum at L.W.O.S.T.

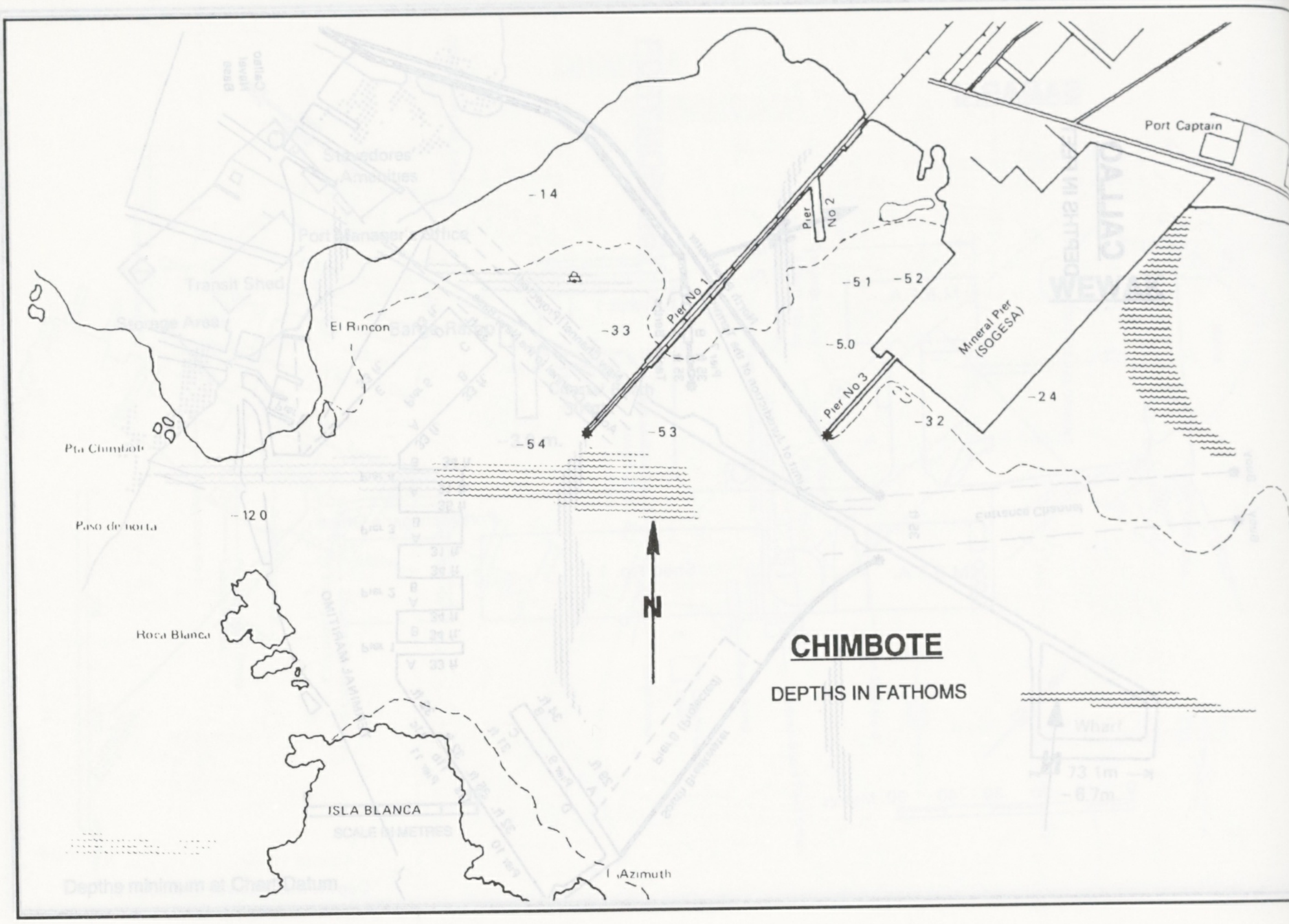

VANIMO
N
Gate
Shed
Port Managers Office
Logs Area
Logs Area
W T K
Ramp
Pontoon
−6 5 m
Vanimo Forest Products Wharf
−8 5 m
Harbours Board Wharf
−4 9 m
42 m
75 m
19 m
NOT TO SCALE


WEWAK
Stevedores' Amenities
Port Manager's Office
Transit Shed
Storage Area
Barge Ramp
Coastal Berth
30 m.
-3.0 m.
Wharf
73 1m
- 6.7m
0
100
SCALE IN METRES
Depths minimum at Chart Datum


ECUADOR
Talara
5° S
Paita
Puerto Bayovar
Pimentel
Eten
Pacasmayo
PERU
BRAZIL
Salaverry
Puerto Chicama
Chimbote
10° S
Huarmey
Supe
Huacho
Chancay
La Pampilla
Callao
Conchan
PERU
Pisco
General San Martin
15° S
San Nicolas
BOLIVIA
Matarani
Ilo
85° W
80° W
75° W
70° W
CHILE
65° W

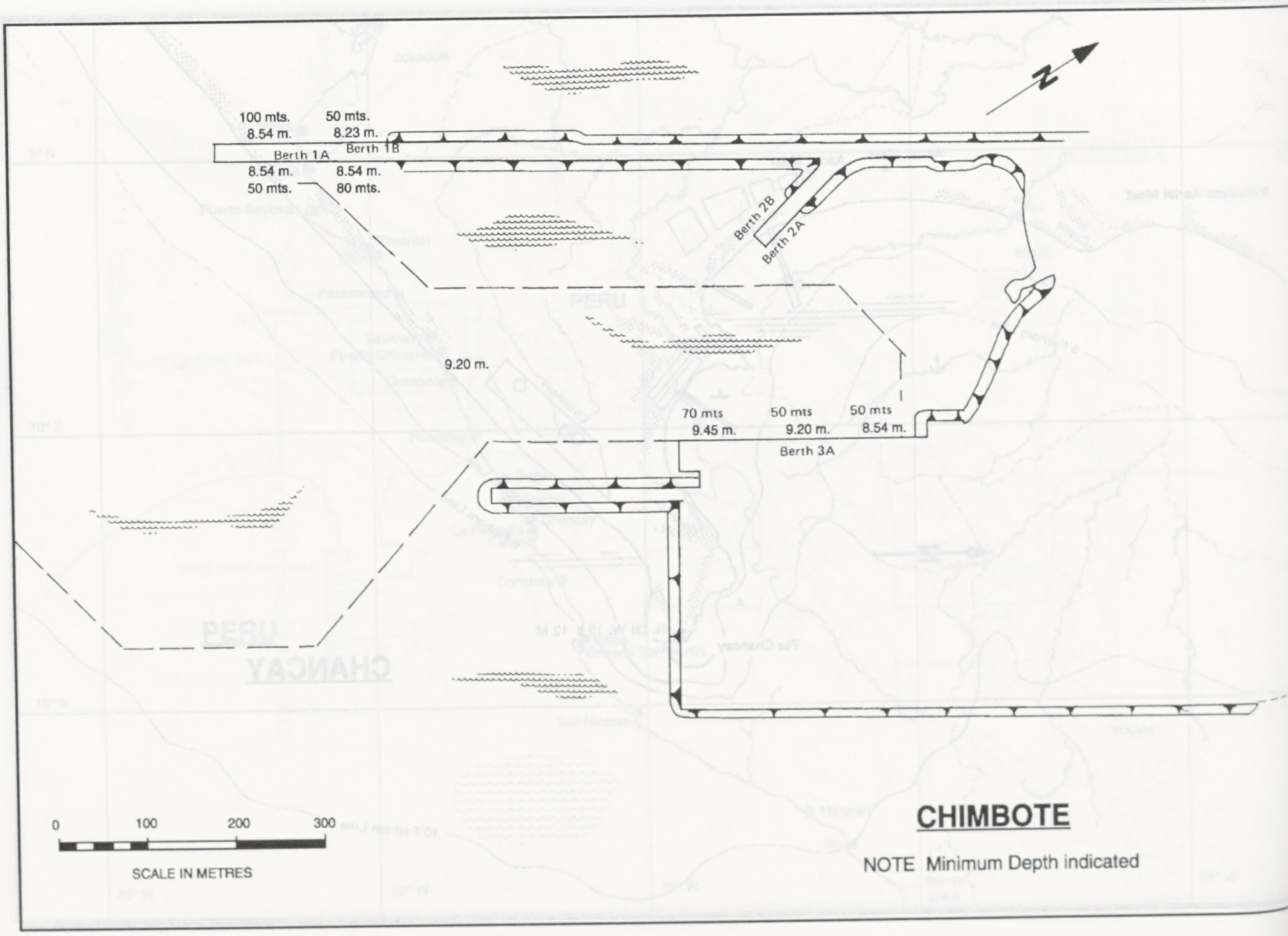

CALLAO
DEPTHS IN FEET
Callao Naval Base
North Breakwater
Limit of Jurisdiction of the Terminal
Pier 7
35 ft.
B
35 ft.
A
Tanker Berths
New Channel (Projected)
Access Channel to the Navy Base
33 ft.
C
D
33 ft.
E
33 ft.
B
33 ft.
Pier 5
A
33 ft.
Pier 6
B
34 ft
Pier 4
A
31 ft.
35 ft
B
Pier 3
A
31 ft.
34 ft
B
A
Pier 2
34 ft
B
34 ft.
Pier 1
A
33 ft
TERMINAL MARITIMO
Buoy
Buoy
Entrance Channel
35 ft
Pier 8 (Projected)
South Breakwater
34 ft.
B
C
31 ft.
Pier 9
29 ft.
A
D
32 ft.
35 ft.
32 ft.
32 ft.
11a
11b
11c
Pier 11
Pier 10
N


Wireless Aerial Mast
Aerial Mast
Aerial Mast
Castle
2s
5 Fathom Line
2
22
Chimneys
3 Fathom Line
5 Fathom Line
N
4
Pta Chancay
Fl. (3) W. 15 s 12 M
CHANCAY
10 Fathom Line


Port Captain
Pier No 2
Pier No 1
Mineral Pier (SOGESA)
Pier No 3
-14
-51
-52
-5.0
-33
-24
-32
-54
-53
El Rincon
Pta Chimbote
Paso de norta
-120
Roca Blanca
ISLA BLANCA
Azimuth
N

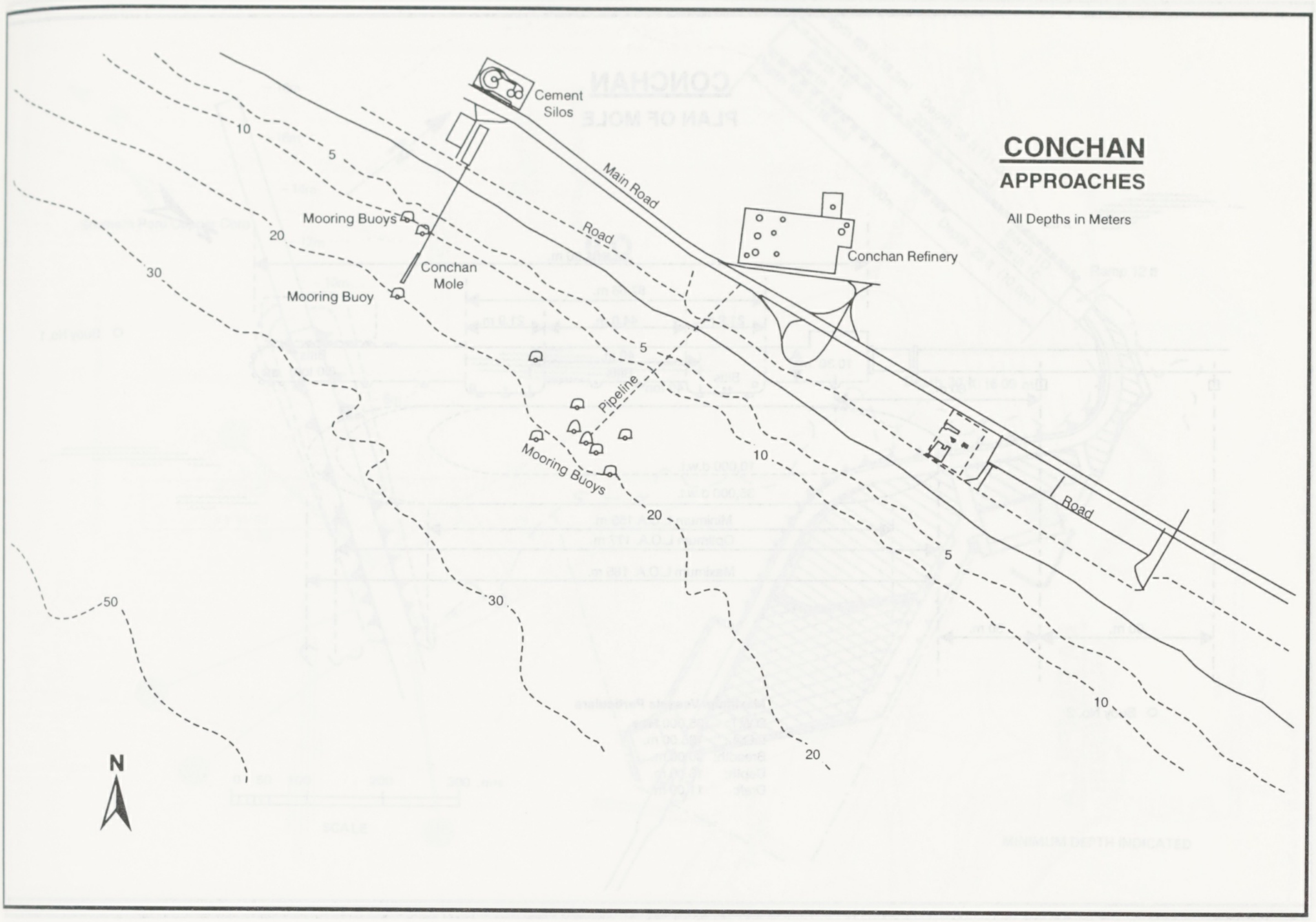
CHIMBOTE

DEPTHS IN FATHOMS


100 mts.
8.54 m.
50 mts.
8.23 m.
Berth 1A
Berth 1B
8.54 m.
50 mts.
8.54 m.
80 mts.
Berth 2B
Berth 2A
9.20 m.
70 mts
9.45 m.
50 mts
9.20 m.
50 mts
8.54 m.
Berth 3A
N
0
100
200
300
SCALE IN METRES

CHIMBOTE

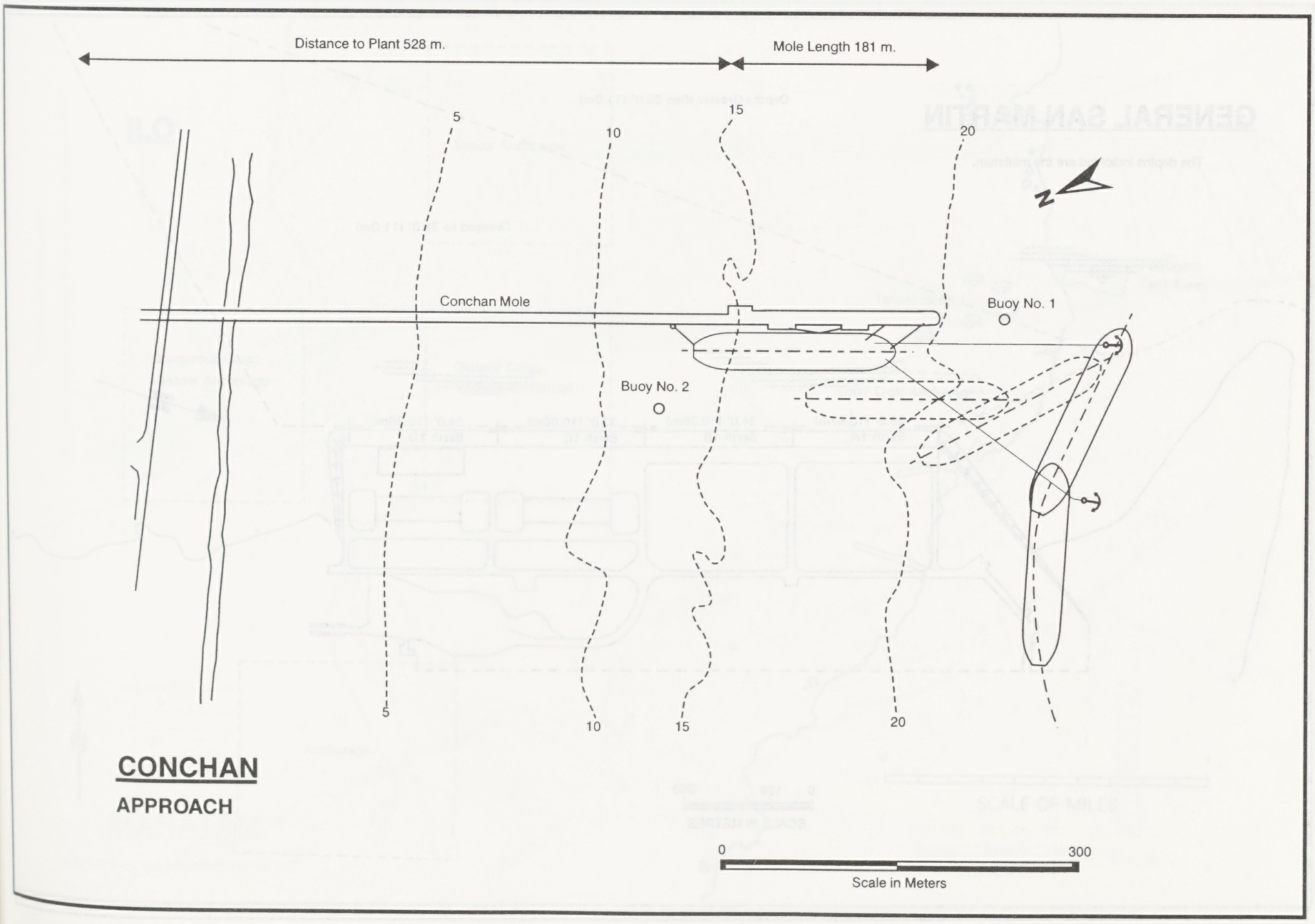
NOTE Minimum Depth indicated



CONCHAN
APPROACHES

All Depths in Meters

Cement Silos
Main Road
Road
Conchan Refinery
Mooring Buoys
Conchan Mole
Mooring Buoy
Pipeline
Mooring Buoys
Road
10
5
20
30
5
10
20
30
50
5
10
20
N

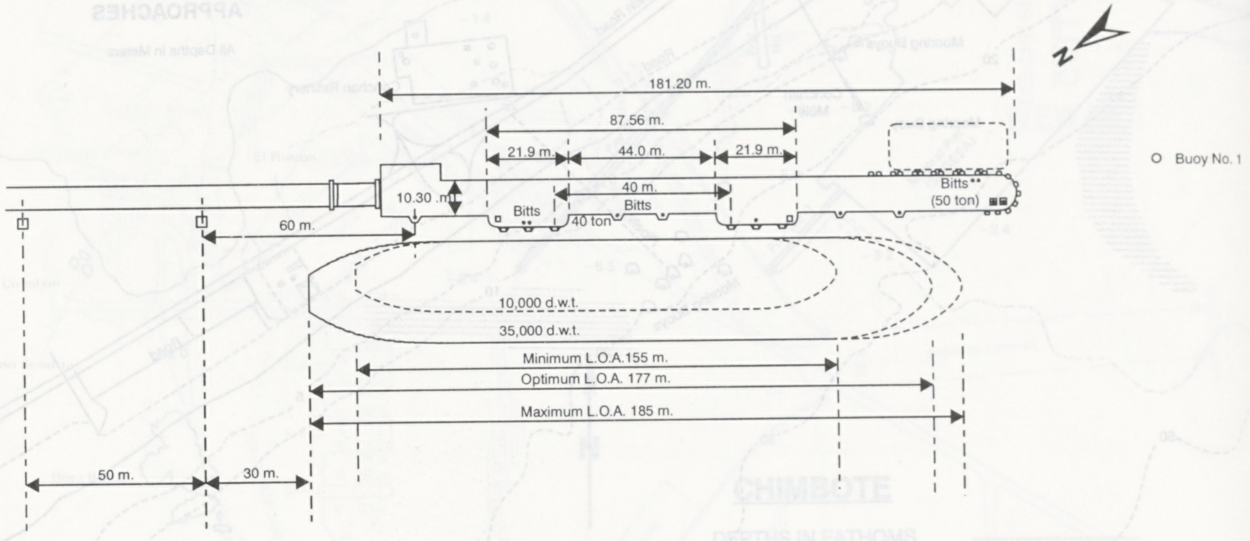


CONCHAN
APPROACH

Distance to Plant 528 m.
Mole Length 181 m.
5
10
15
20
Conchan Mole
Buoy No. 1
Buoy No. 2
5
10
15
20
0
300
Scale in Meters

CONCHAN

PLAN OF MOLE

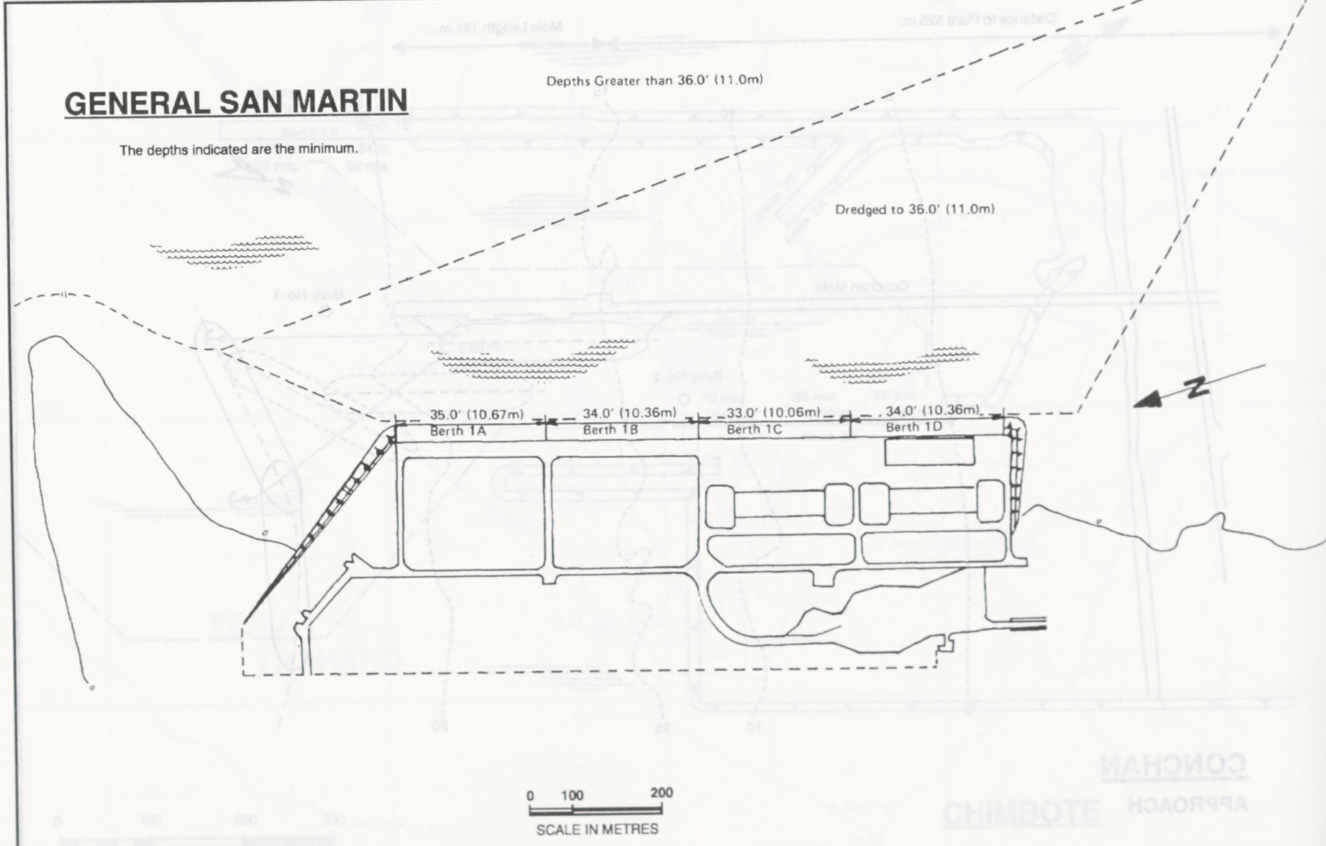

N
181.20 m.
87.56 m.
21.9 m.
44.0 m.
21.9 m.
40 m.
10.30 m
Bitts
40 ton
Bitts
Bitts
(50 ton)
Buoy No. 1
60 m.
10,000 d.w.t.
35,000 d.w.t.
Minimum L.O.A.155 m.
Optimum L.O.A. 177 m.
Maximum L.O.A. 185 m.
50 m.
30 m.
Buoy No. 2

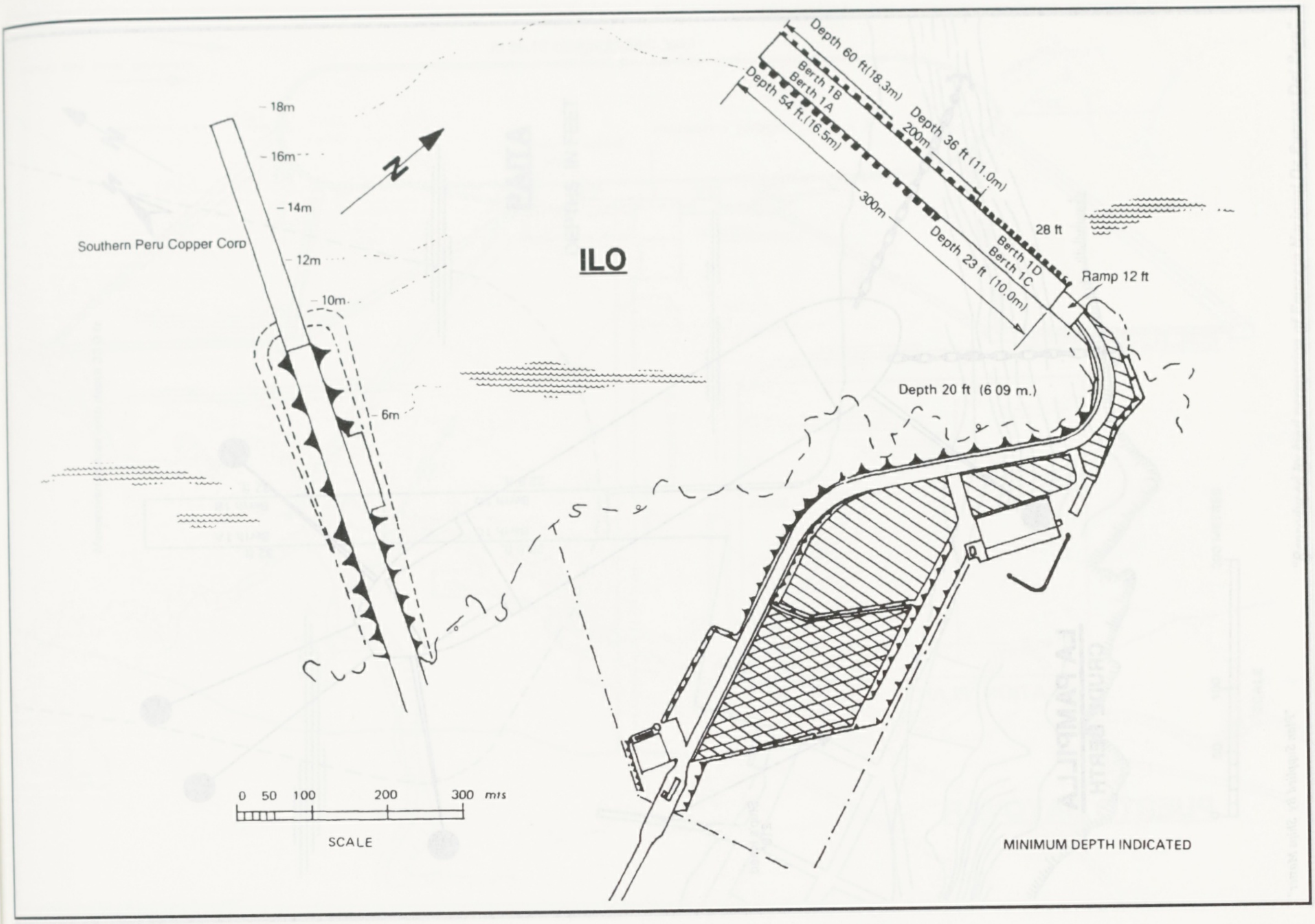
Maximum Vessels Particulars

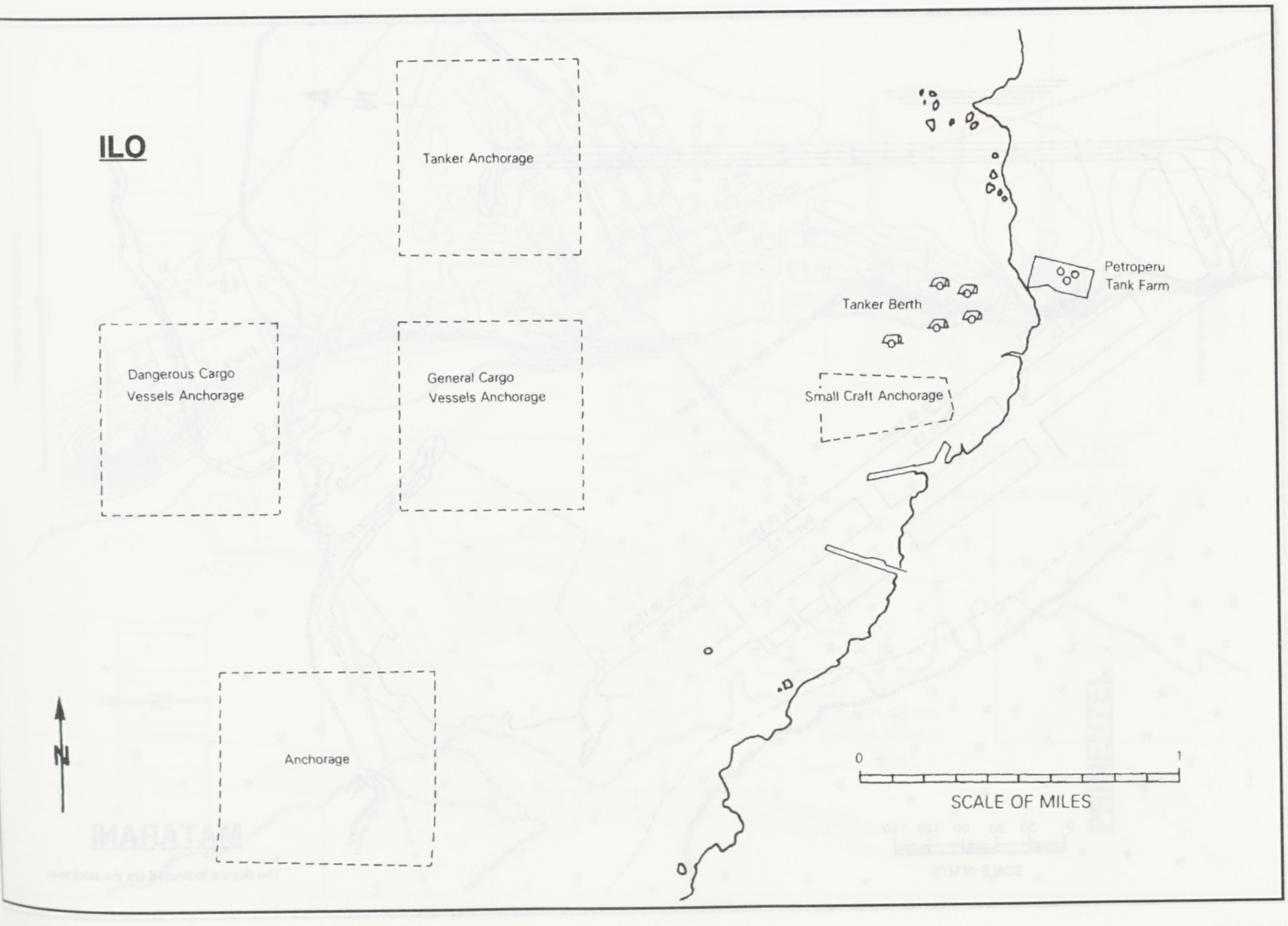
D.W.T.:	35,000 tons
L.O.A.:	185.00 m.
Breadth:	30.00 m.
Depth:	15.00 m.
Draft:	11.00 m.

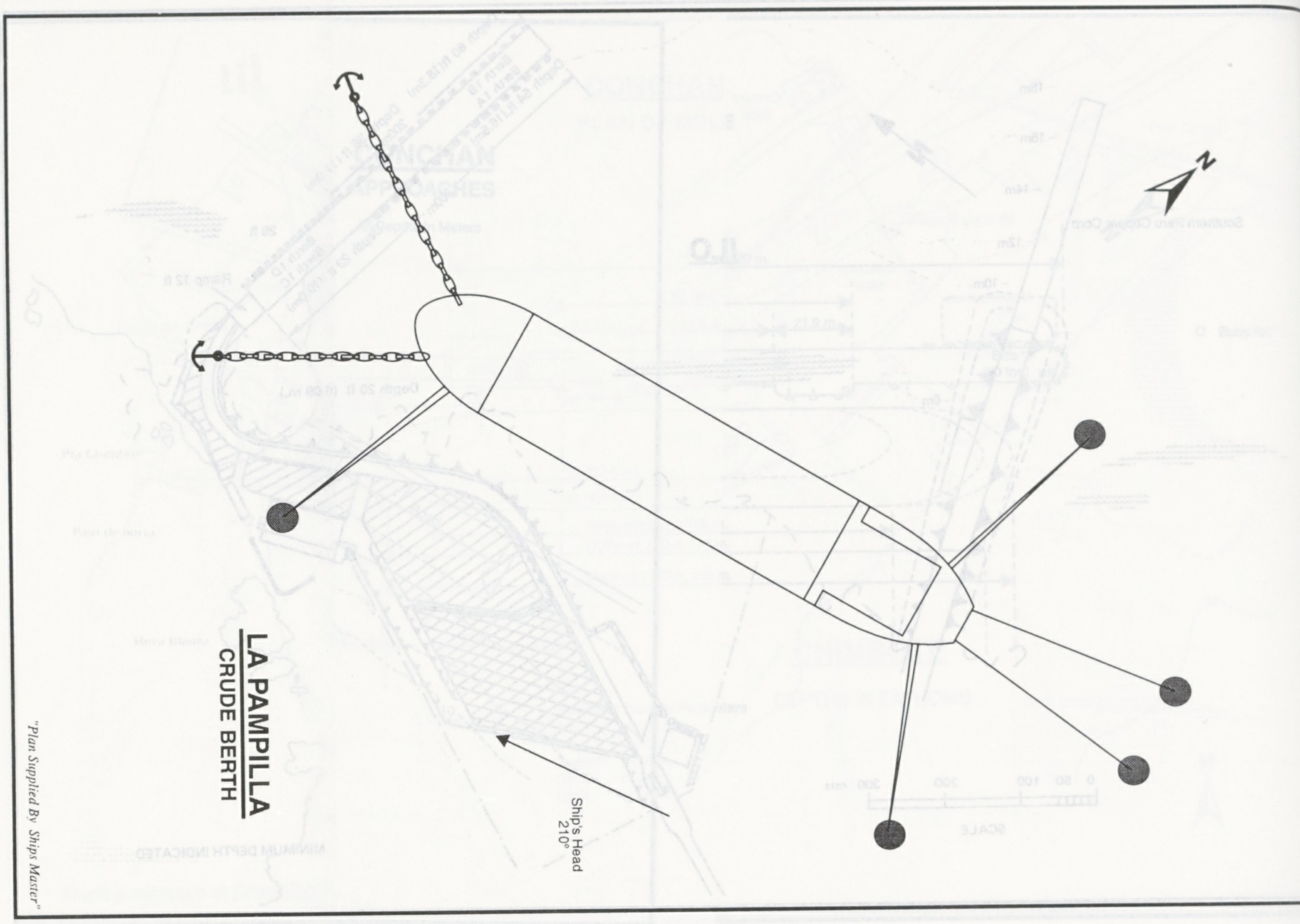
GENERAL SAN MARTIN

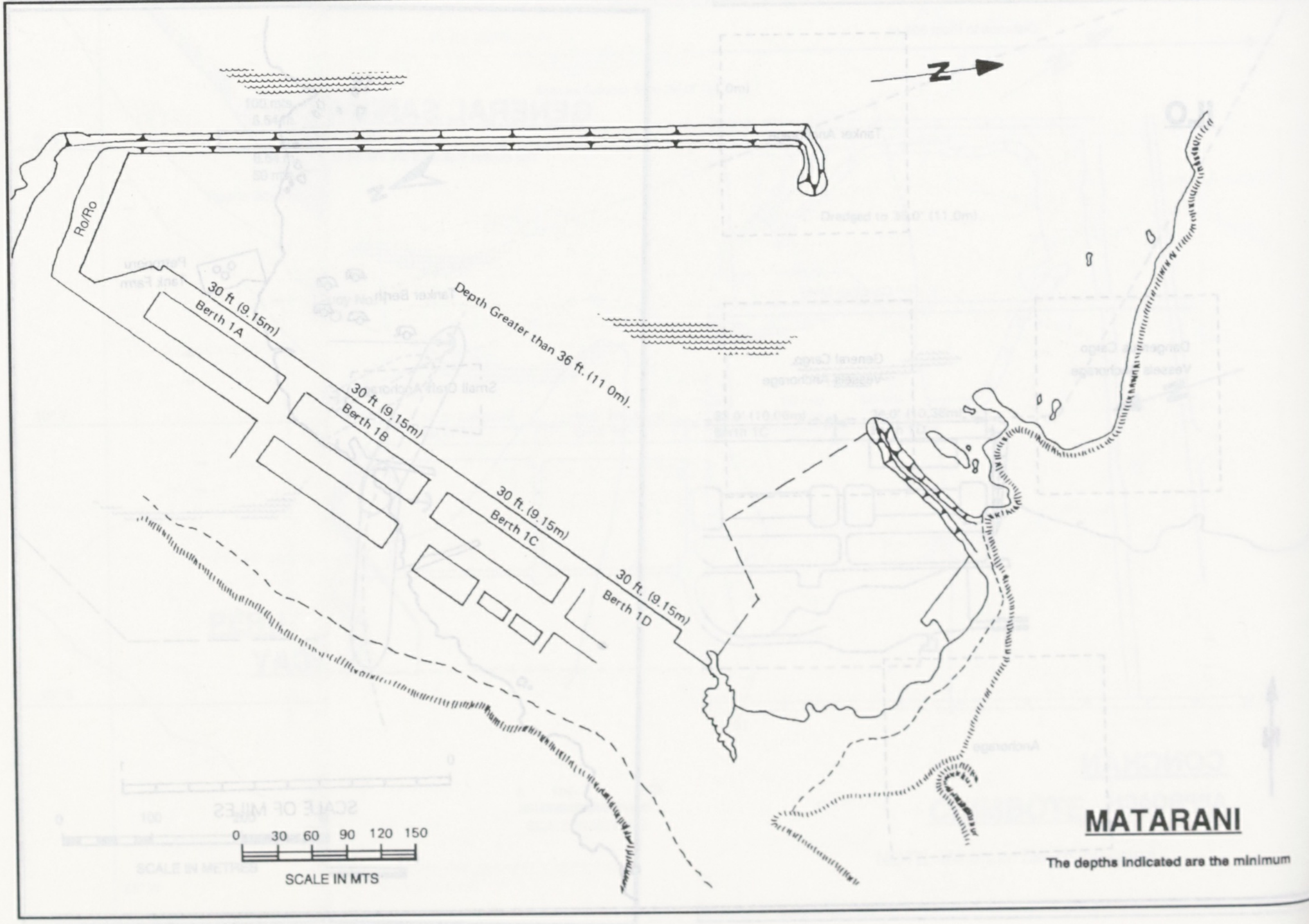
The depths indicated are the minimum.

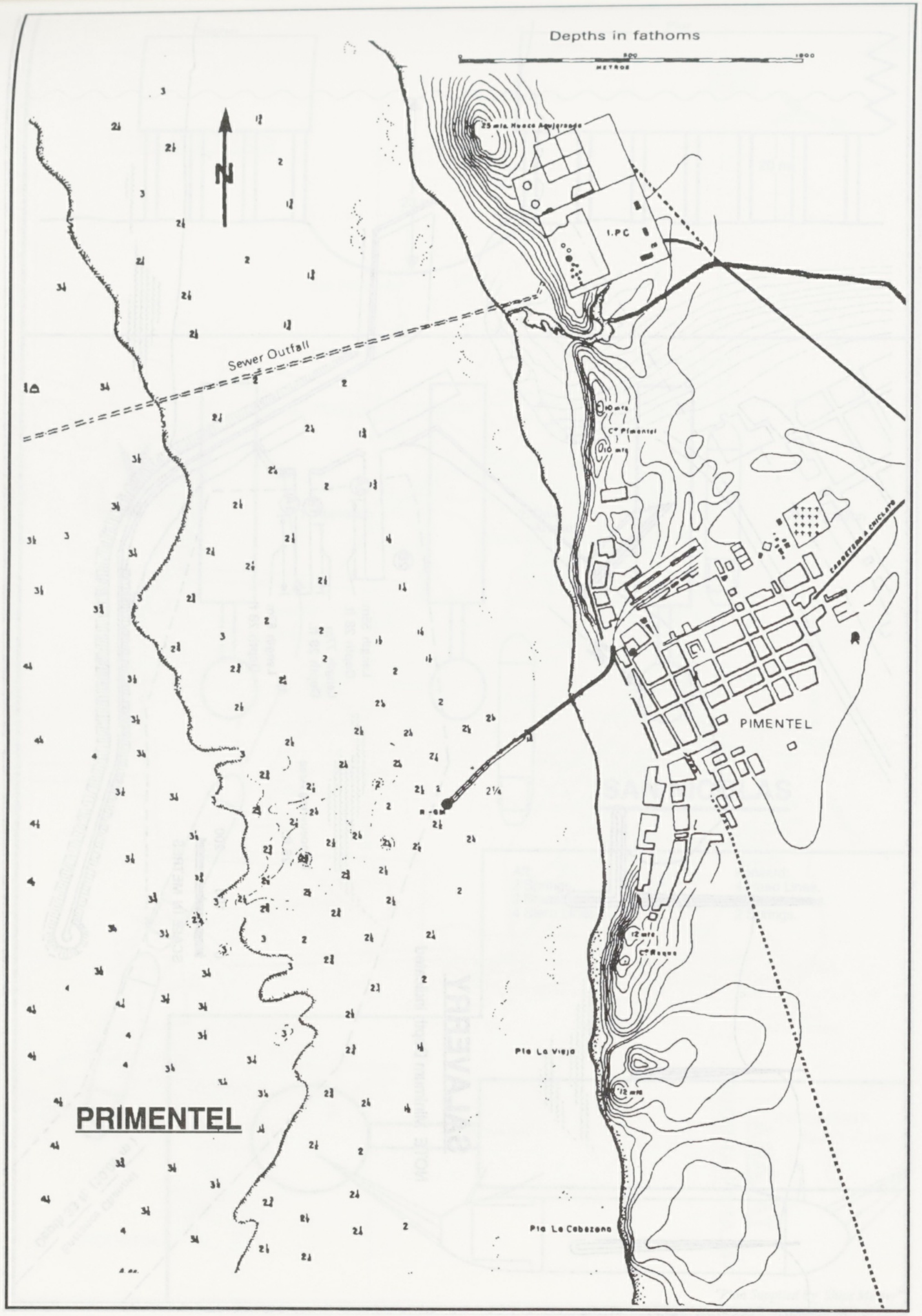

Depths Greater than 36.0' (11.0m)
Dredged to 36.0' (11.0m)
N
35.0' (10.67m)
Berth 1A
34.0' (10.36m)
Berth 1B
33.0' (10.06m)
Berth 1C
34.0' (10.36m)
Berth 1D
0
100
200
SCALE IN METRES

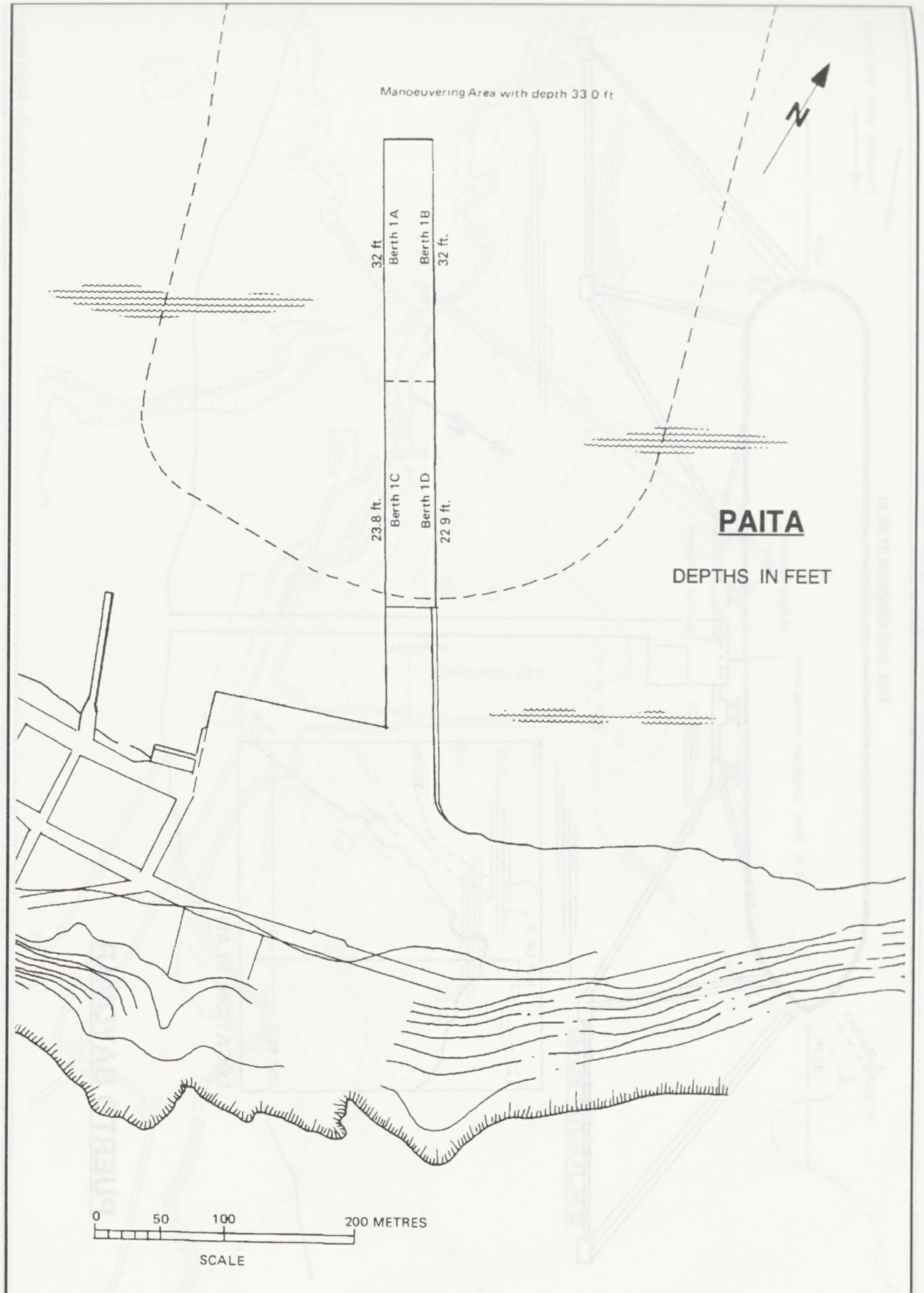

ILO
N
Southern Peru Copper Corp
18m
16m
14m
12m
10m
6m
Depth 60 ft(18.3m)
Berth 1B
Berth 1A
Depth 54 ft.(16.5m)
Depth 36 ft (11.0m)
200m
300m
Berth 1D
Berth 1C
Depth 23 ft (10.0m)
28 ft
Ramp 12 ft
Depth 20 ft (6 09 m.)
0 50 100 200 300 mts
SCALE
MINIMUM DEPTH INDICATED


ILO
Tanker Anchorage
Dangerous Cargo Vessels Anchorage
General Cargo Vessels Anchorage
Anchorage
Tanker Berth
Petroperu Tank Farm
Small Craft Anchorage
N
0
1
SCALE OF MILES

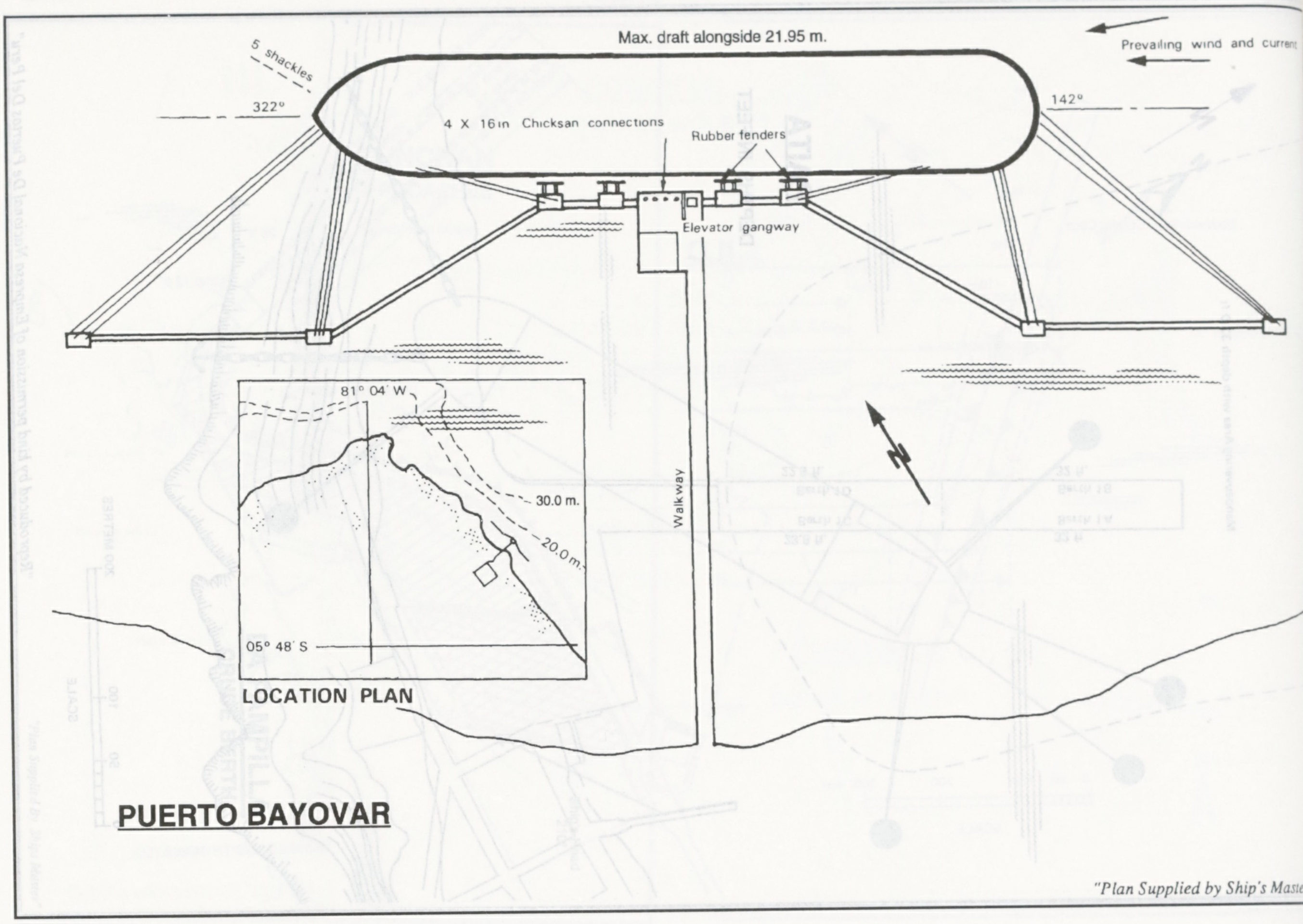

LA PAMPILLA
CRUDE BERTH
Ship's Head
210°
"Plan Supplied By Ships Master"


N
Ro/Ro
30 ft (9.15m)
Berth 1A
30 ft (9.15m)
Berth 1B
30 ft. (9.15m)
Berth 1C
30 ft. (9.15m)
Berth 1D
Depth Greater than 36 ft. (11.0m).
0 30 60 90 120 150
SCALE IN MTS
MATARANI
The depths indicated are the minimum


Depths in fathoms
0
500
1000
METRES
N
I.P.C.
Sewer Outfall
Cº Pimentel
PIMENTEL
Pta La Vieja
Pta La Cabezona
PRIMENTEL

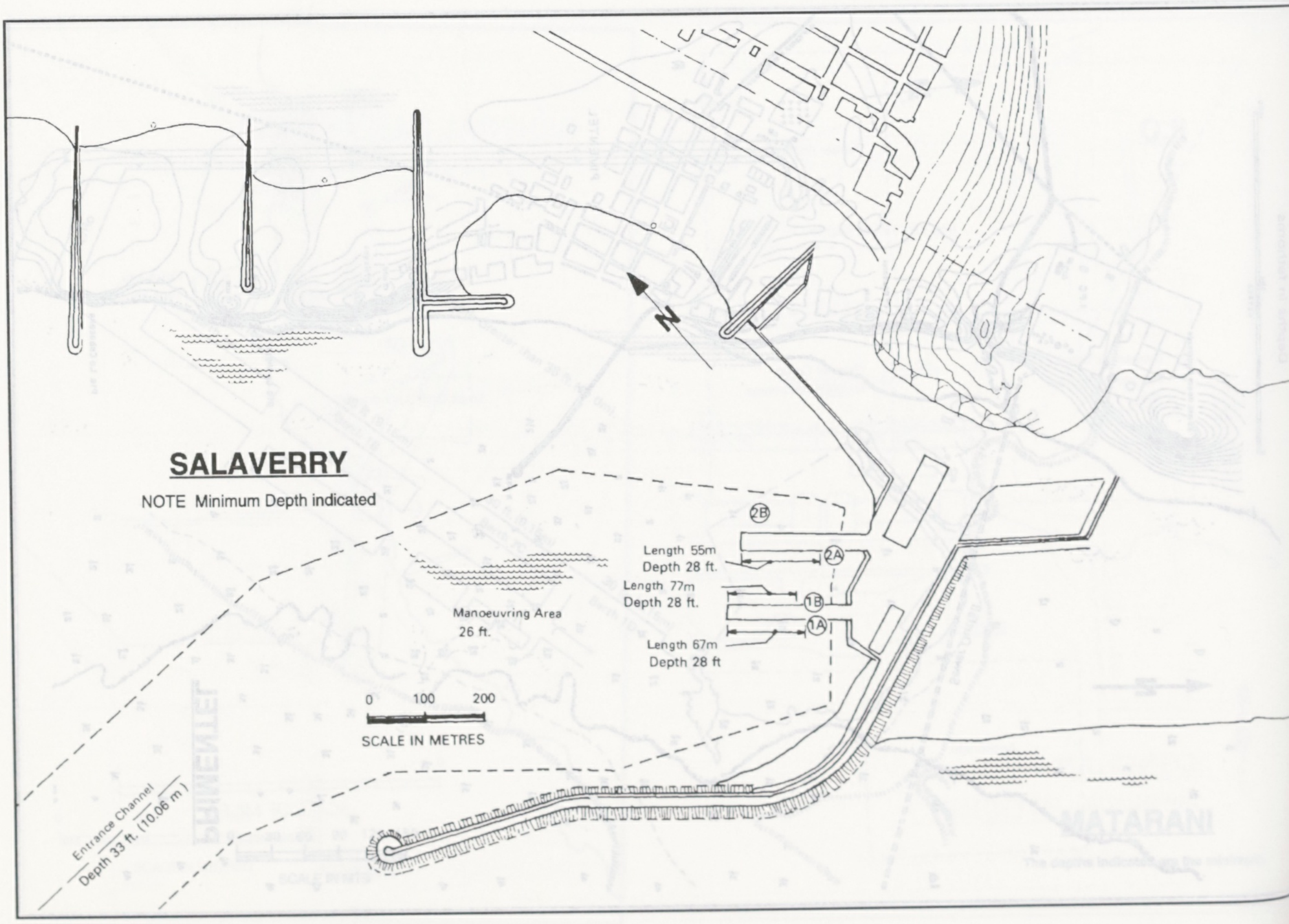

Manoeuvering Area with depth 33 0 ft
N
32 ft.
Berth 1A
Berth 1B
32 ft.
23.8 ft.
Berth 1C
Berth 1D
22 9 ft.
PAITA
DEPTHS IN FEET
0
50
100
200 METRES
SCALE

"Reproduced by kind permission of Empresa Nacional De Puertos Del Peru"


Max. draft alongside 21.95 m.
Prevailing wind and current
5 shackles
322°
142°
4 X 16in Chicksan connections
Rubber fenders
Elevator gangway
Walkway
N
81° 04' W
30.0 m.
20.0 m.
05° 48' S
LOCATION PLAN

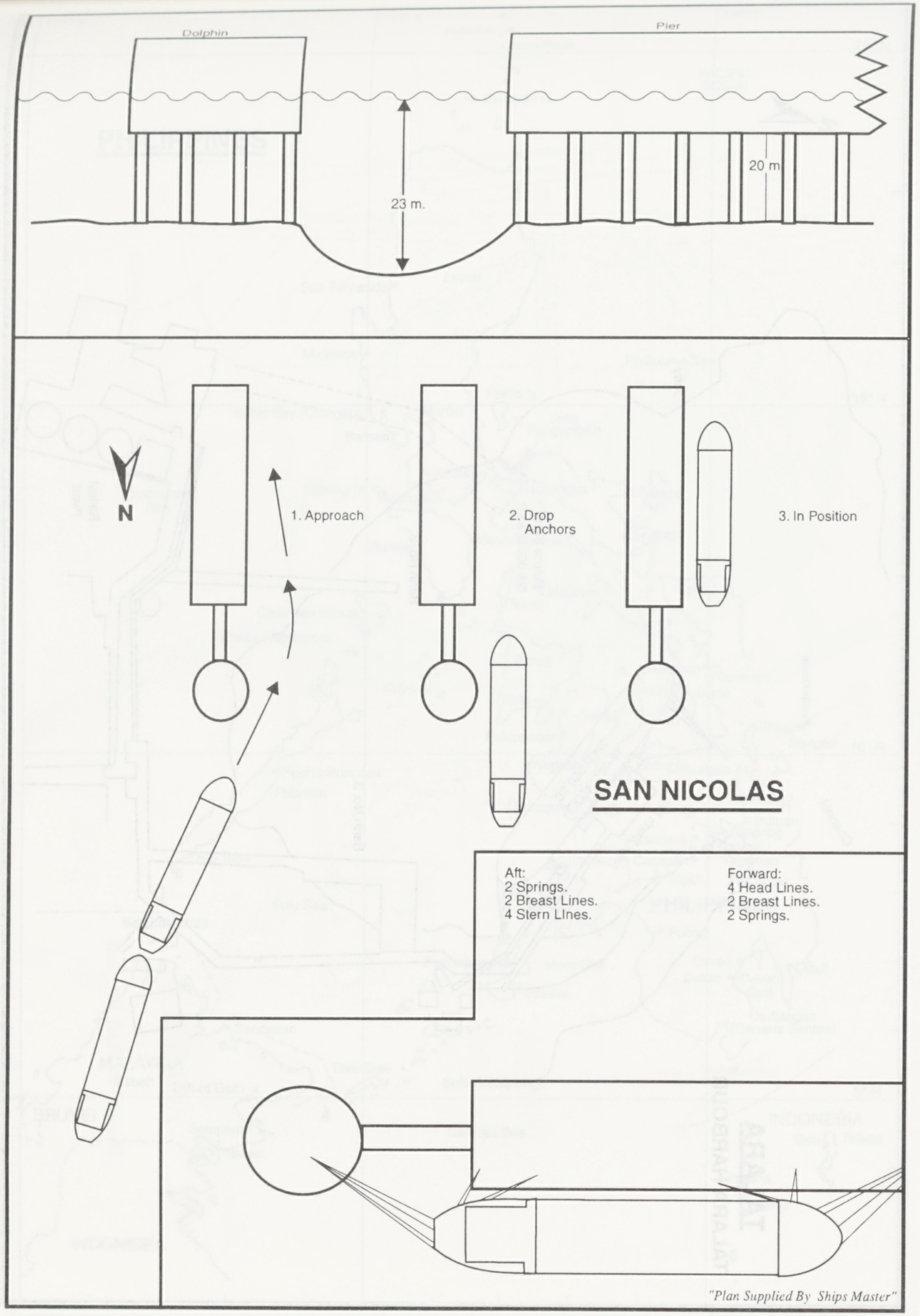
PUERTO BAYOVAR

"Plan Supplied by Ship's Maste


N
2B
2A
1B
1A
Length 55m
Depth 28 ft.
Length 77m
Depth 28 ft.
Length 67m
Depth 28 ft
Manoeuvring Area
26 ft.
0
100
200
SCALE IN METRES
Entrance Channel
Depth 33 ft. (10.06 m)

SALAVERRY

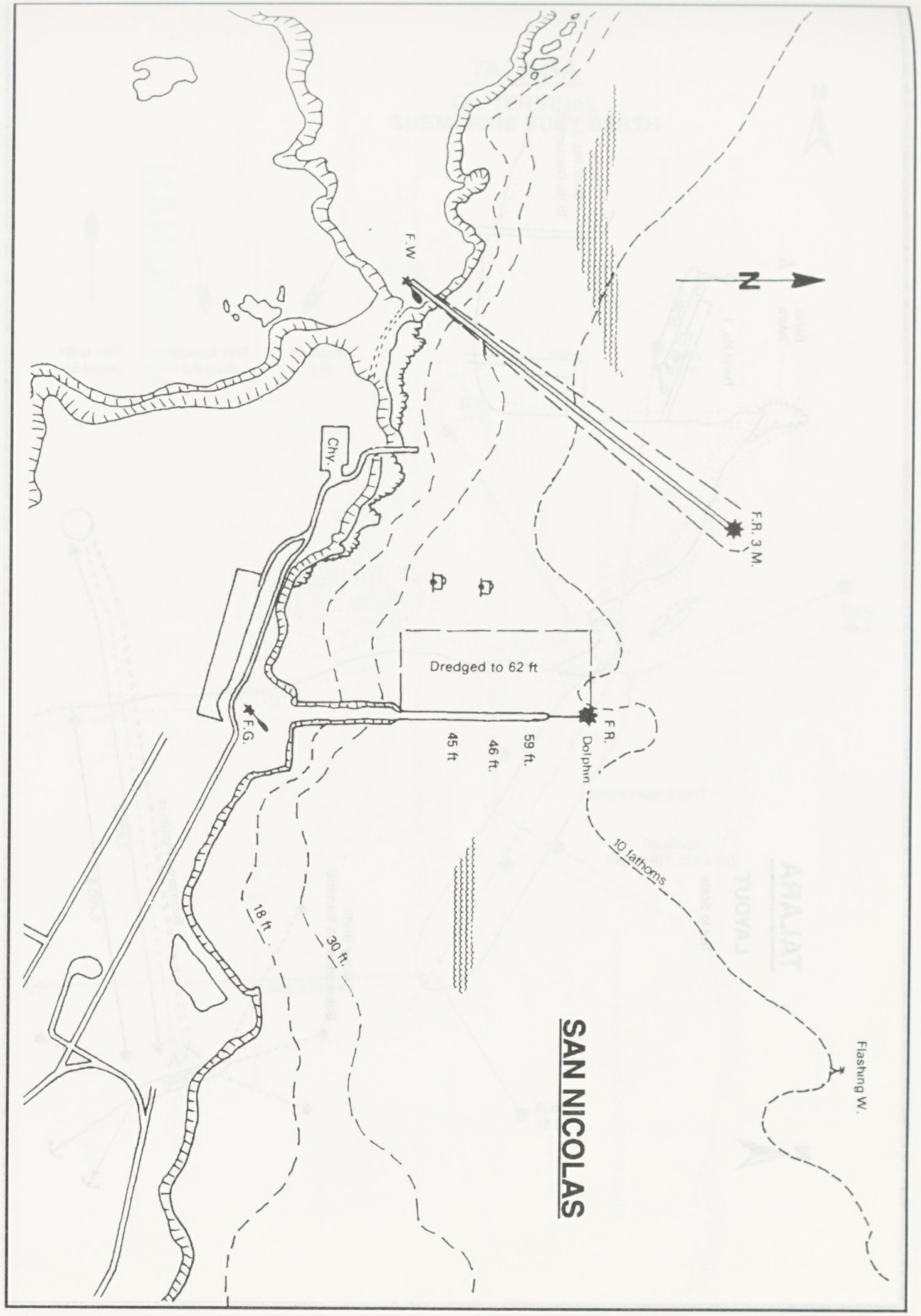
NOTE Minimum Depth indicated

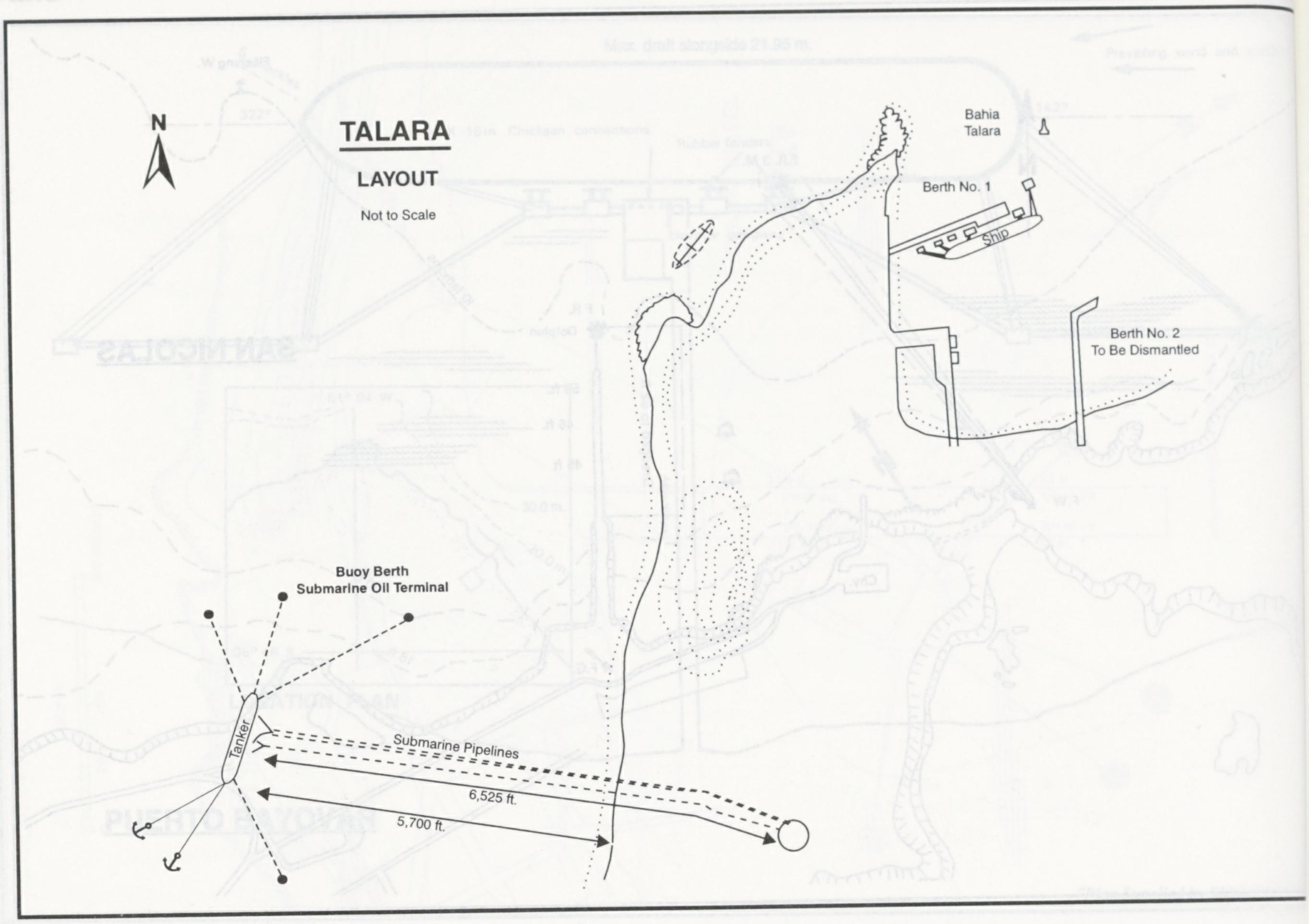

Dolphin
Pier
23 m.
20 m
N
1. Approach
2. Drop Anchors
3. In Position
SAN NICOLAS

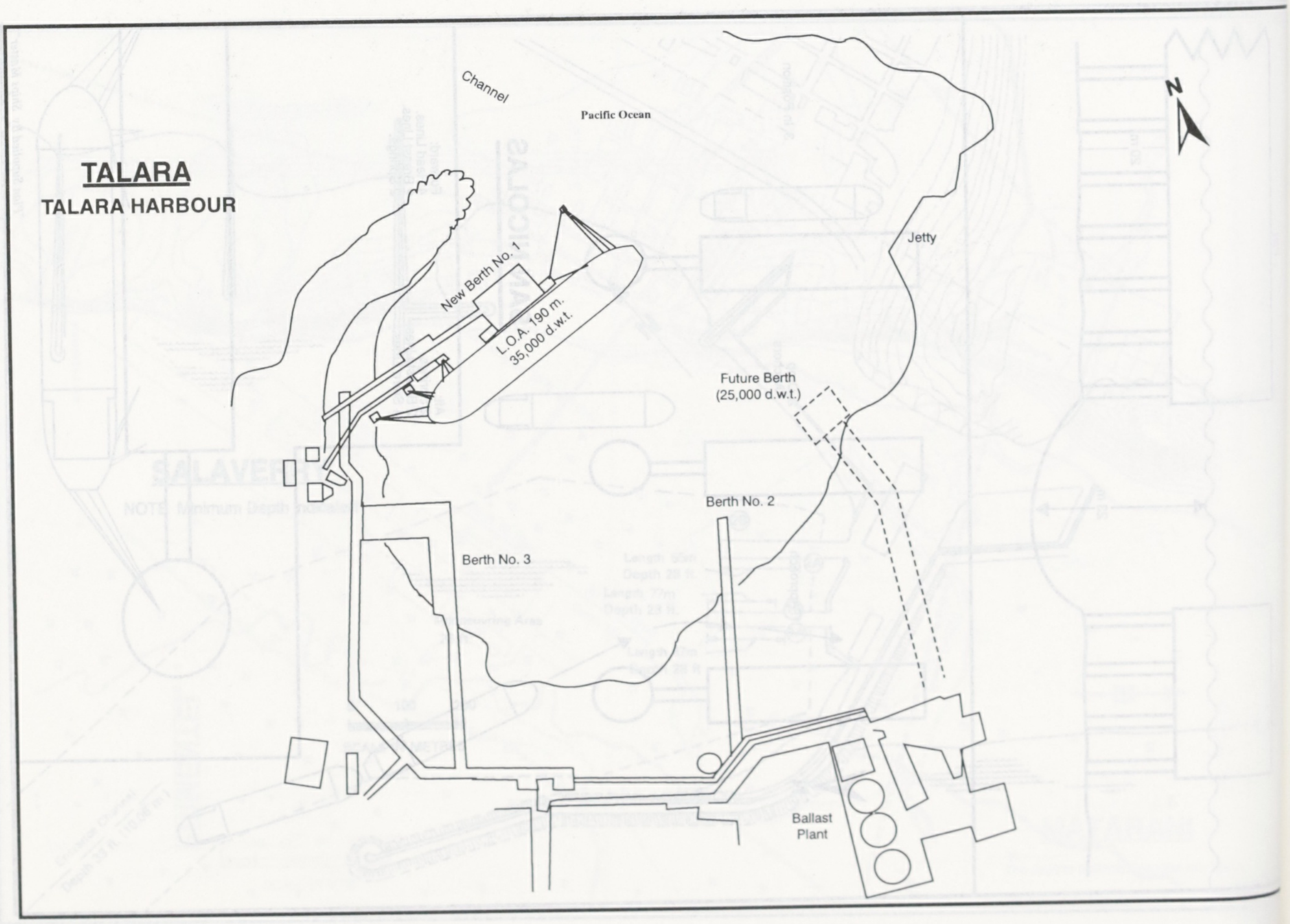
Aft:
2 Springs.
2 Breast Lines.
4 Stern Lines.

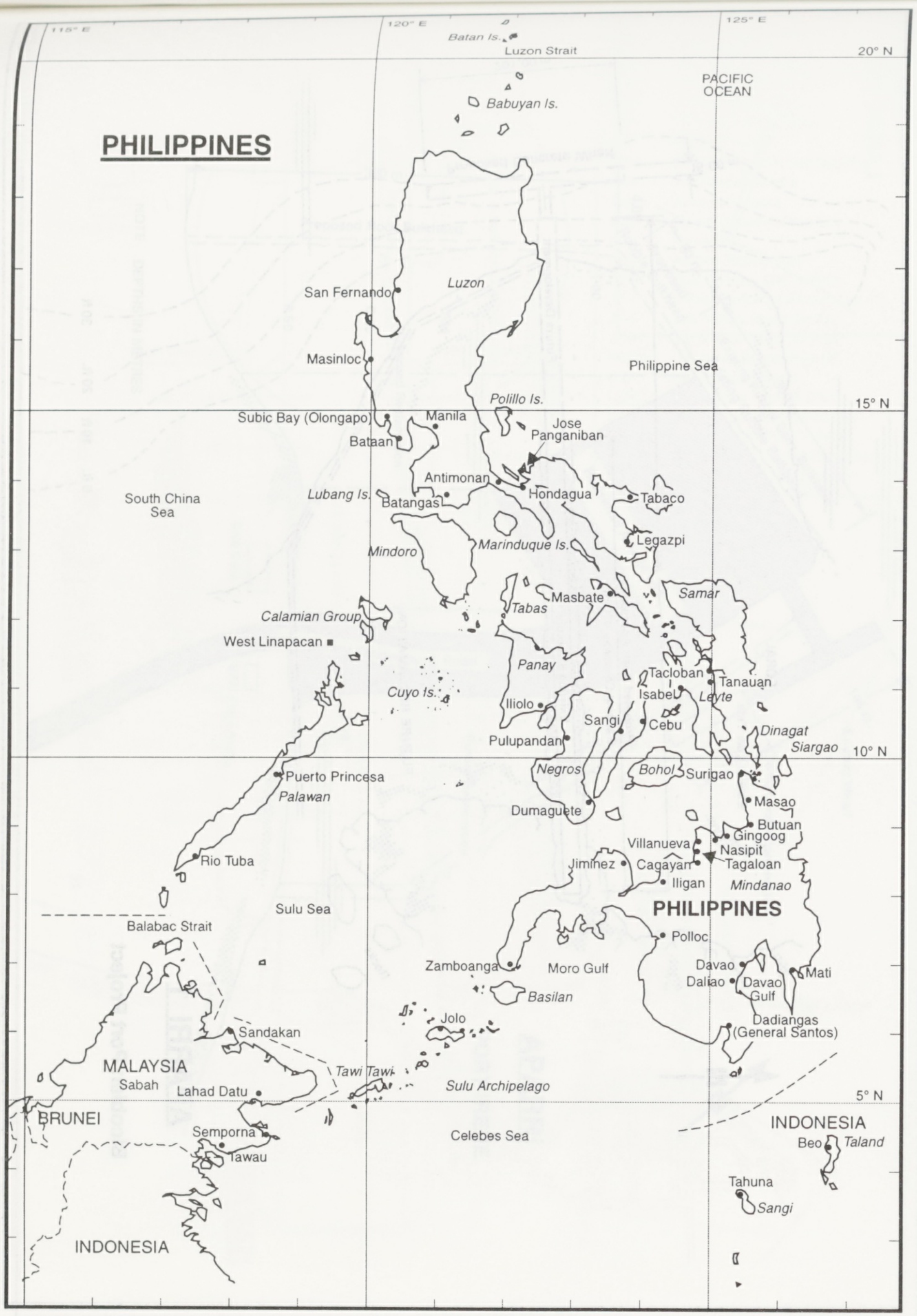
Forward:
4 Head Lines.
2 Breast Lines.
2 Springs.

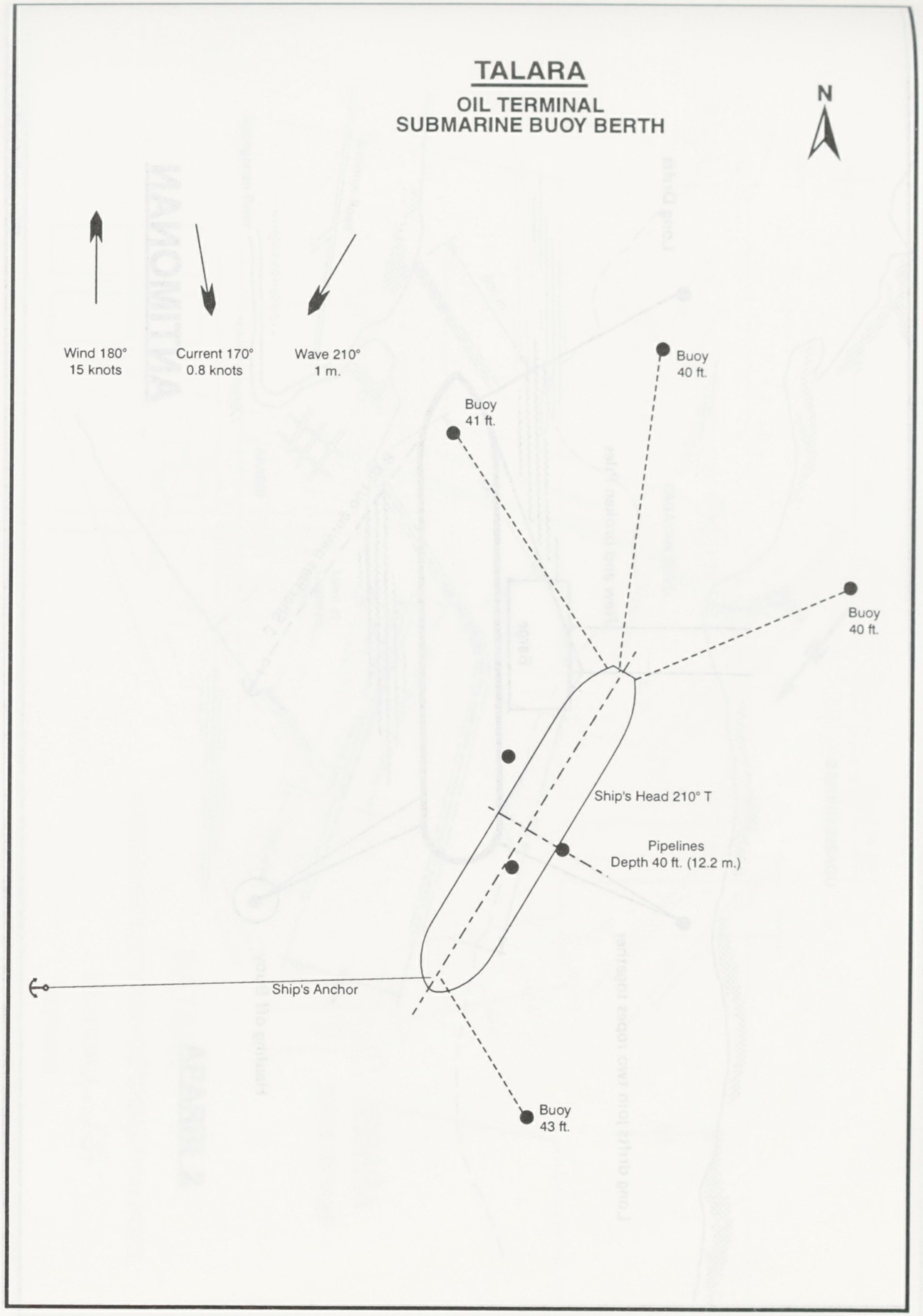
"Plan Supplied By Ships Master"

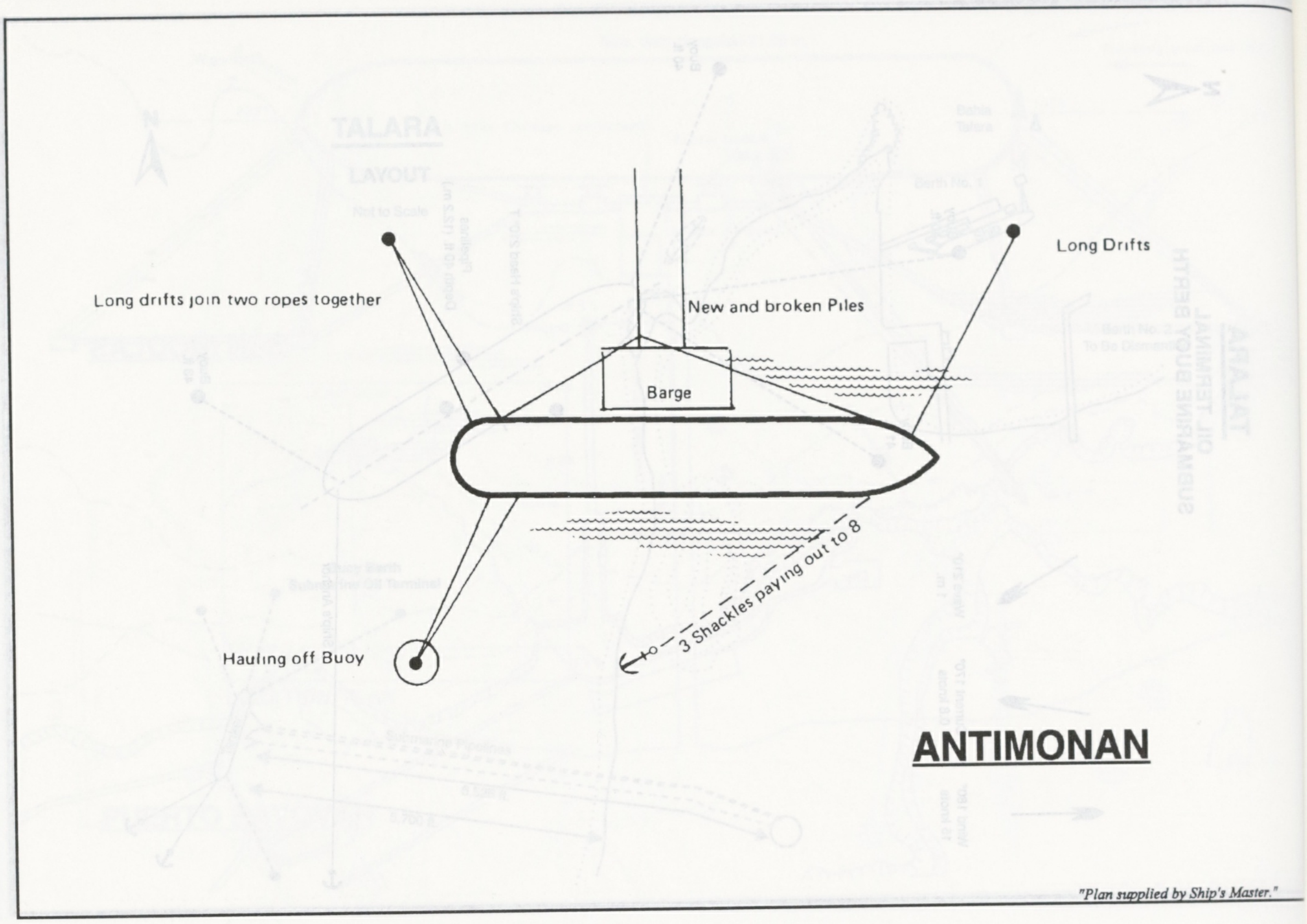

SAN NICOLAS
N
F.W.
F.R. 3 M.
Chy.
Dredged to 62 ft
F.R.
Dolphin
59 ft.
46 ft.
45 ft
F.G.
18 ft.
30 ft.
10 fathoms
Flashing W.


TALARA
LAYOUT
Not to Scale
N
Bahia Talara
Berth No. 1
Ship
Berth No. 2
To Be Dismantled
Buoy Berth
Submarine Oil Terminal
Tanker
Submarine Pipelines
6,525 ft.
5,700 ft.


TALARA
TALARA HARBOUR
N
Channel
Pacific Ocean
New Berth No. 1
L.O.A. 190 m.
35,000 d.w.t.
Jetty
Future Berth
(25,000 d.w.t.)
Berth No. 2
Berth No. 3
Ballast Plant

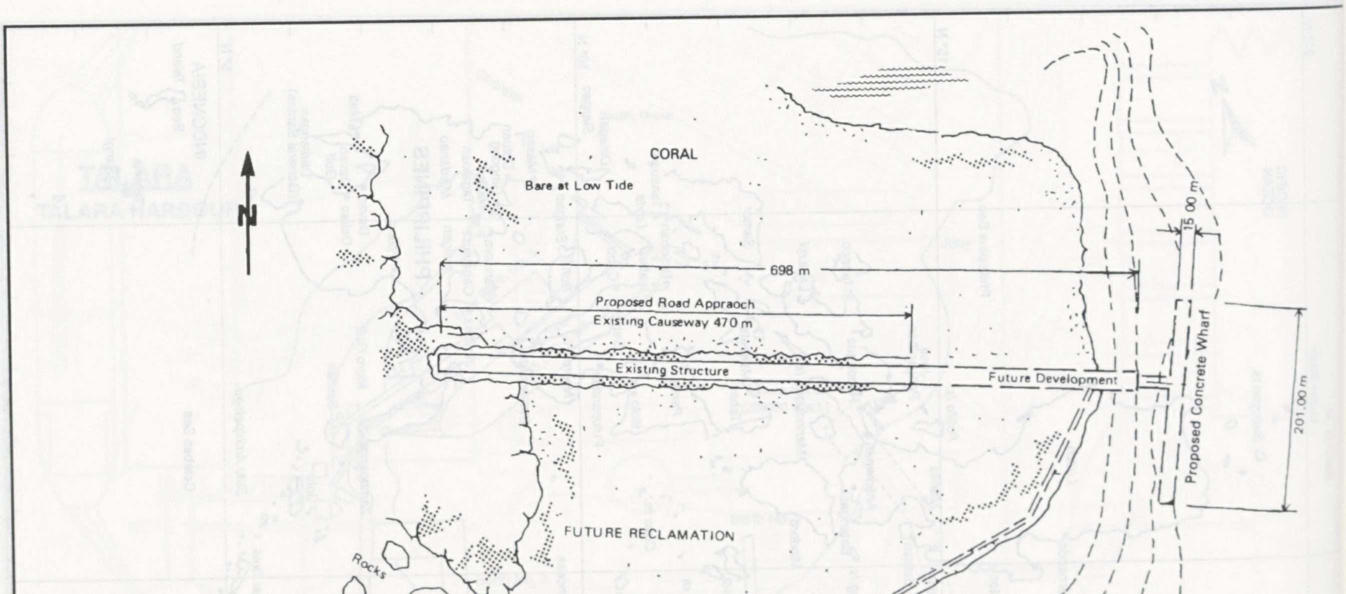

PHILIPPINES
115° E
120° E
125° E
20° N
15° N
10° N
5° N
Batan Is.
Luzon Strait
PACIFIC OCEAN
Babuyan Is.
Luzon
San Fernando
Masinloc
Philippine Sea
Polillo Is.
Subic Bay (Olongapo)
Manila
Jose Panganiban
Bataan
Antimonan
South China Sea
Lubang Is.
Batangas
Hondagua
Tabaco
Mindoro
Marinduque Is.
Legazpi
Samar
Masbate
Calamian Group
Tabas
West Linapacan
Panay
Tacloban
Tanauan
Isabel
Leyte
Cuyo Is.
Iliolo
Sangi
Cebu
Dinagat
Pulupandan
Siargao
Puerto Princesa
Negros
Bohol
Surigao
Palawan
Masao
Dumaguete
Butuan
Gingoog
Villanueva
Nasipit
Rio Tuba
Jiminez
Cagayan
Tagaloan
Iligan
Mindanao
Sulu Sea
PHILIPPINES
Balabac Strait
Polloc
Zamboanga
Moro Gulf
Davao
Daliao
Davao Gulf
Mati
Basilan
Jolo
Sandakan
Dadiangas (General Santos)
MALAYSIA
Sabah
Tawi Tawi
Sulu Archipelago
Lahad Datu
BRUNEI
INDONESIA
Semporna
Celebes Sea
Tawau
Beo
Taland
Tahuna
Sangi
INDONESIA


TALARA
OIL TERMINAL
SUBMARINE BUOY BERTH
N
Wind 180°
15 knots
Current 170°
0.8 knots
Wave 210°
1 m.
Buoy
40 ft.
Buoy
41 ft.
Buoy
40 ft.
Ship's Head 210° T
Pipelines
Depth 40 ft. (12.2 m.)
Ship's Anchor
Buoy
43 ft.


Long drifts join two ropes together
New and broken Piles
Long Drifts
Barge
3 Shackles paying out to 8
Hauling off Buoy

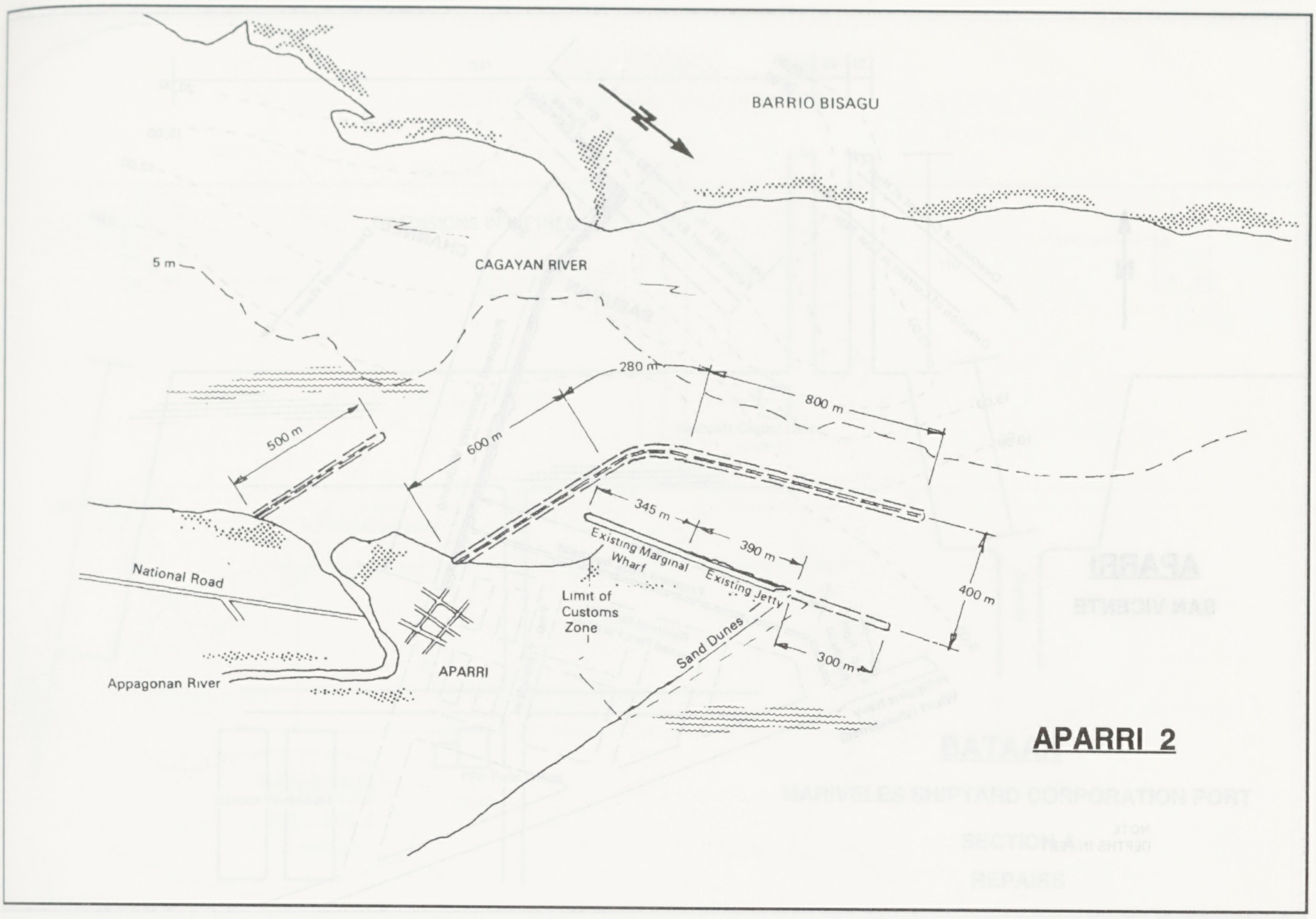
ANTIMONAN

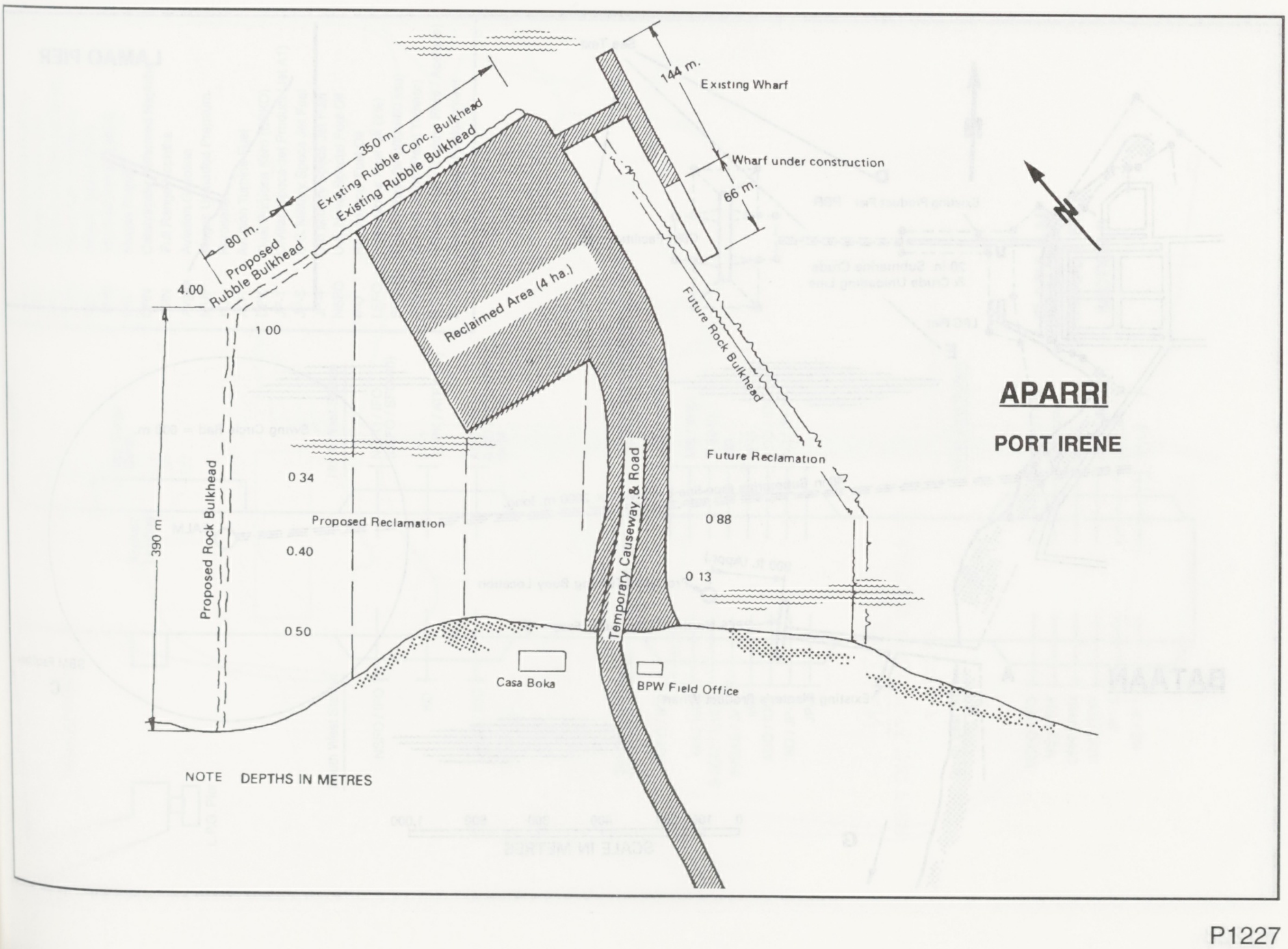
"Plan supplied by Ship's Master."

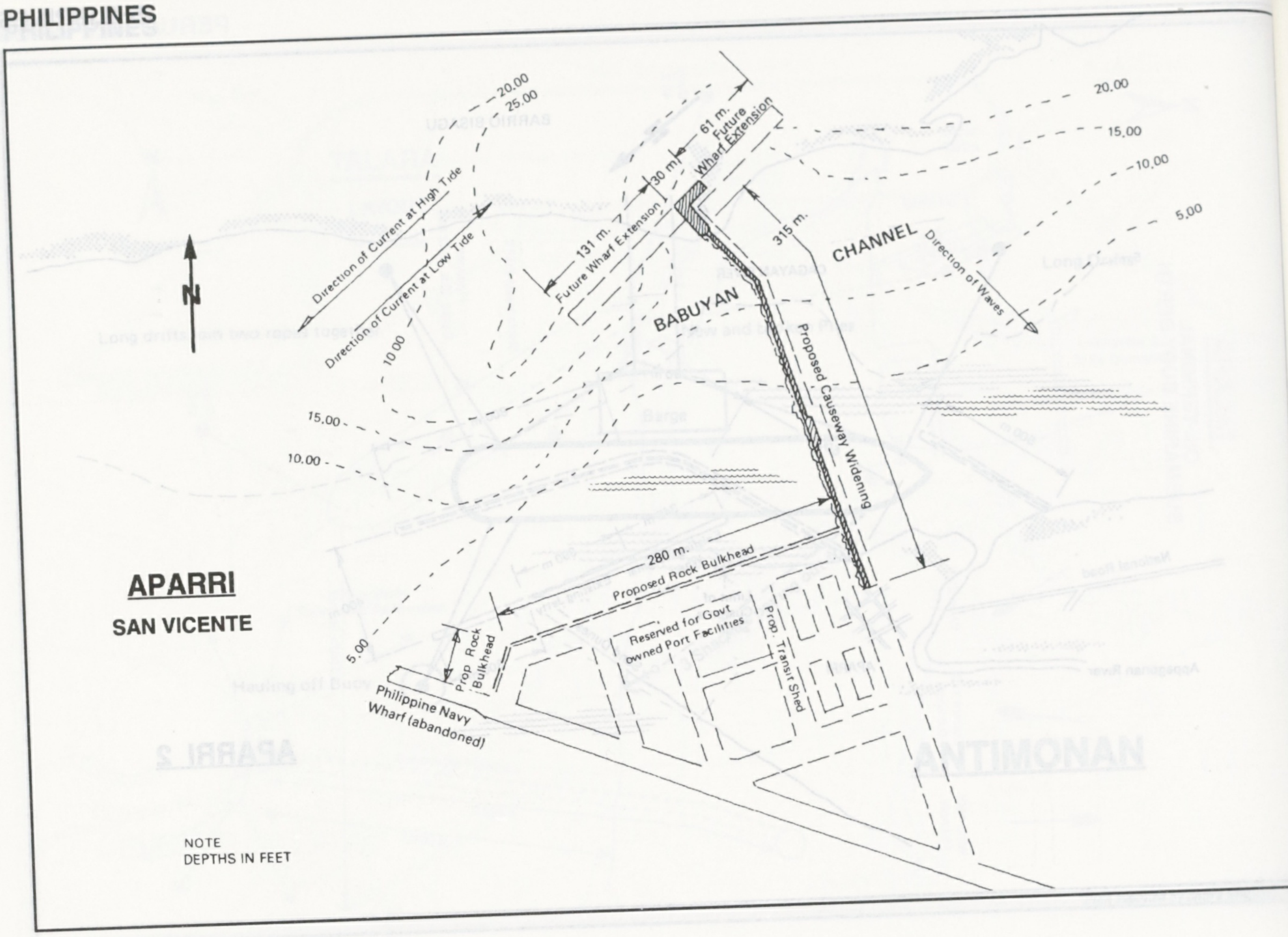

N
CORAL
Bare at Low Tide
698 m
15.00 m
Proposed Road Appraoch
Existing Causeway 470 m
Existing Structure
Future Development
Proposed Concrete Wharf
201.00 m
FUTURE RECLAMATION
Rocks
5 ft.
10 ft
20 ft.
30 ft

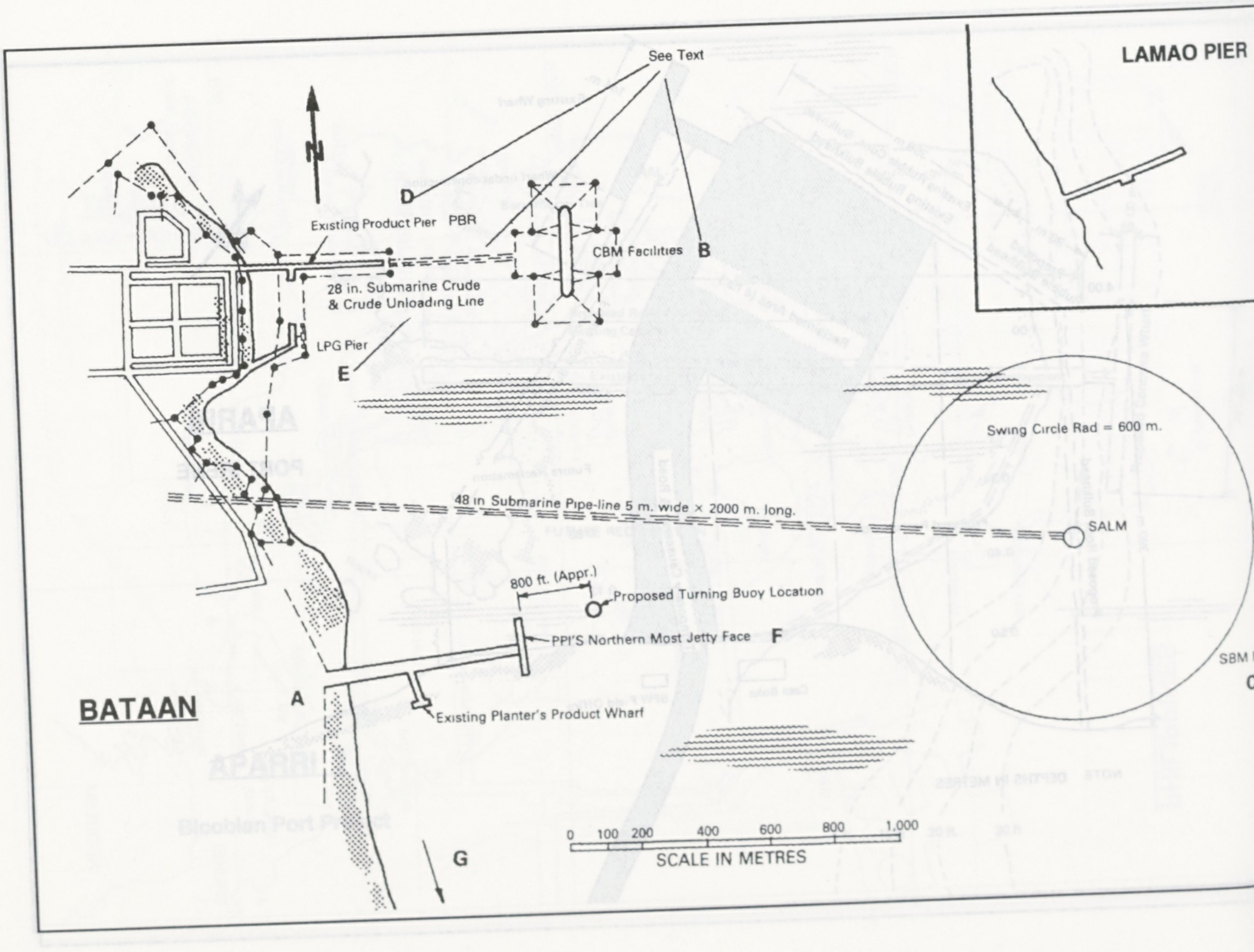
APARRI 1

Bicobian Port Project

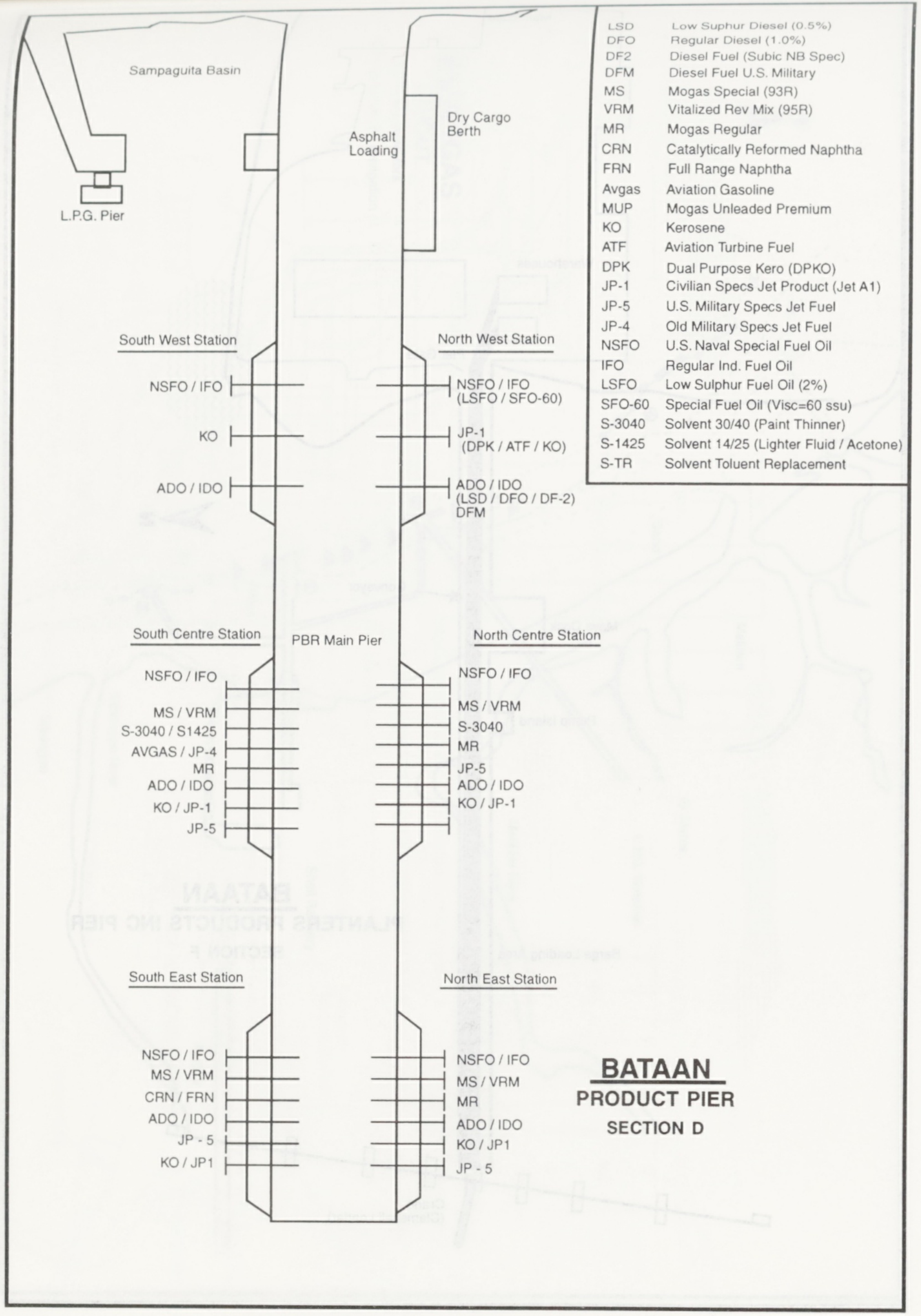

BARRIO BISAGU
N
5 m
CAGAYAN RIVER
280 m
800 m
500 m
600 m
345 m
390 m
400 m
Existing Marginal Wharf
Existing Jetty
National Road
Limit of Customs Zone
Sand Dunes
300 m
Appagonan River
APARRI
APARRI 2


144 m.
Existing Wharf
350 m
Existing Rubble Conc. Bulkhead
Existing Rubble Bulkhead
Wharf under construction
66 m.
N
80 m.
Proposed Rubble Bulkhead
4.00
1 00
Reclaimed Area (4 ha.)
Future Rock Bulkhead
APARRI
PORT IRENE
Future Reclamation
0 34
Proposed Reclamation
0 88
390 m
Proposed Rock Bulkhead
0.40
Temporary Causeway & Road
0 13
0 50
Casa Boka
BPW Field Office
NOTE DEPTHS IN METRES


APARRI
SAN VICENTE
N
NOTE
DEPTHS IN FEET
20.00
25.00
15.00
10.00
5.00
10.00
15.00
10.00
5.00
Direction of Current at High Tide
Direction of Current at Low Tide
61 m.
Future
Wharf Extension
30 m.
131 m.
Future Wharf Extension
315 m.
BABUYAN
CHANNEL
Direction of Waves
Proposed Causeway Widening
280 m.
Proposed Rock Bulkhead
Prop Rock Bulkhead
Reserved for Govt owned Port Facilities
Prop. Transit Shed
Philippine Navy Wharf (abandoned)


BATAAN
LAMAO PIER
N
See Text
D
Existing Product Pier PBR
CBM Facilities
B
28 in. Submarine Crude & Crude Unloading Line
LPG Pier
E
Swing Circle Rad = 600 m.
48 in Submarine Pipe-line 5 m. wide × 2000 m. long.
SALM
800 ft. (Appr.)
Proposed Turning Buoy Location
PPI'S Northern Most Jetty Face
F
SBM
A
Existing Planter's Product Wharf
G
0 100 200 400 600 800 1,000
SCALE IN METRES

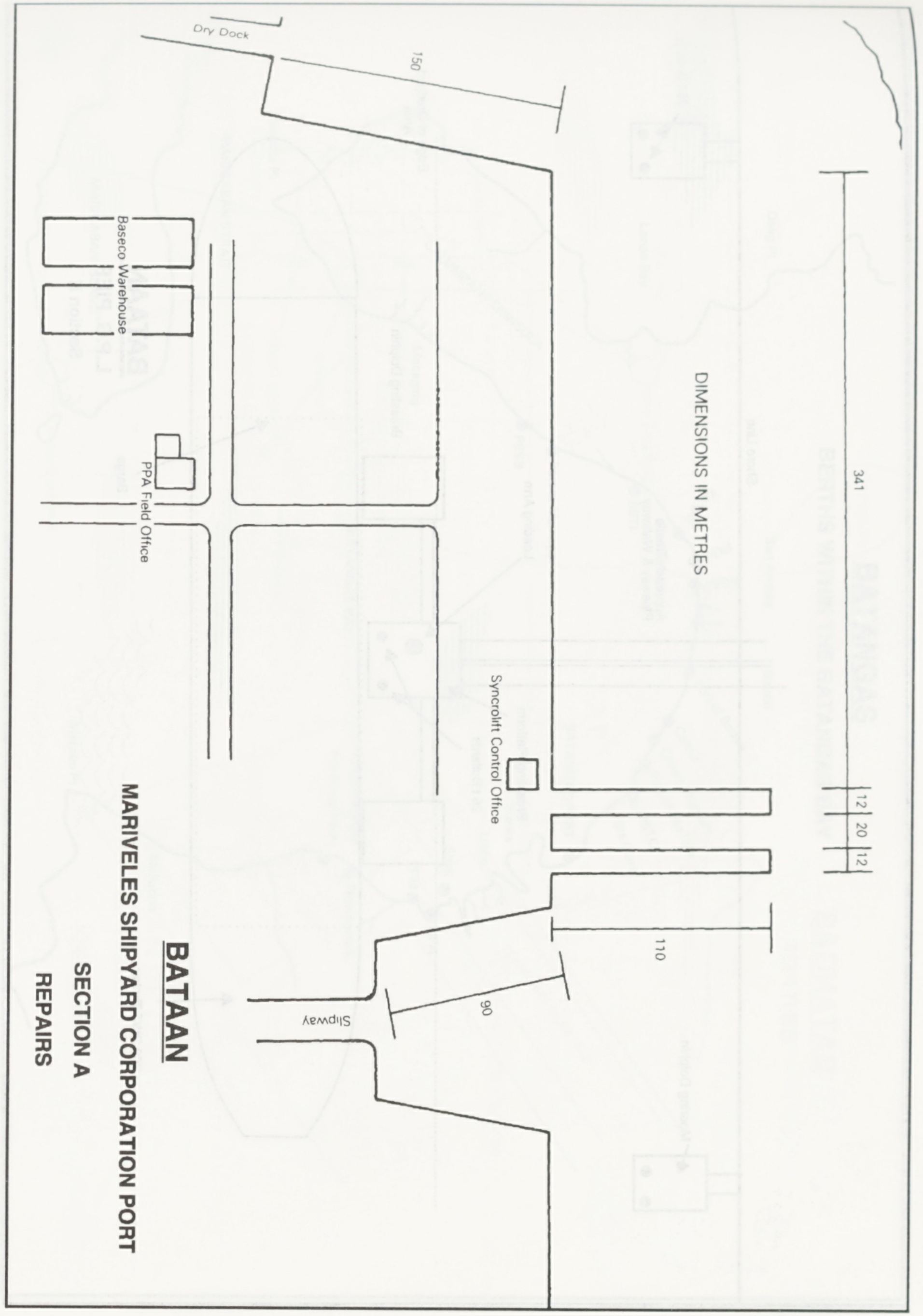
BATAAN
PRODUCT PIER
SECTION D



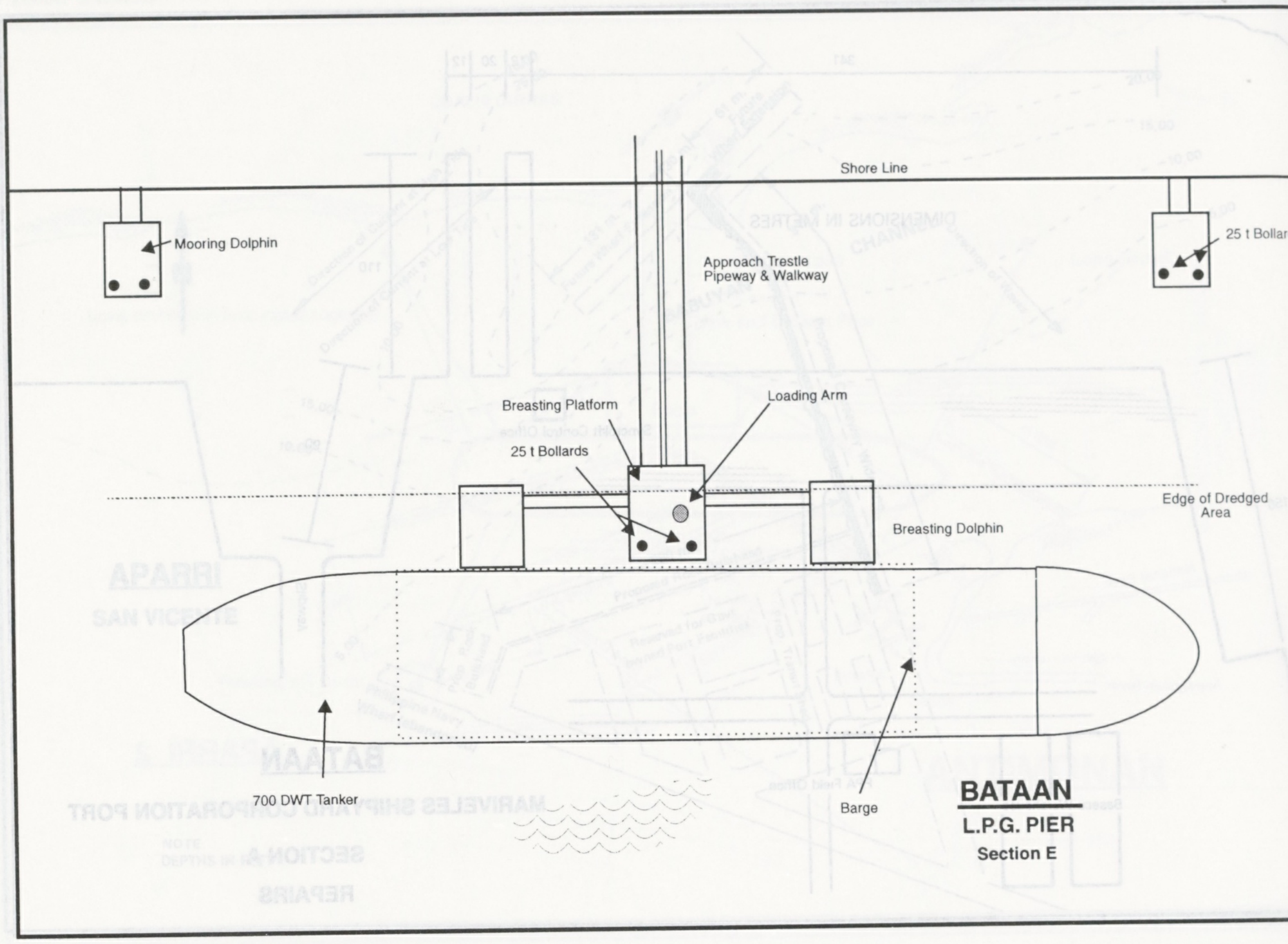
Sampaguita Basin
L.P.G. Pier
Asphalt Loading
Dry Cargo Berth
South West Station
NSFO / IFO
KO
ADO / IDO
North West Station
NSFO / IFO (LSFO / SFO-60)
JP-1 (DPK / ATF / KO)
ADO / IDO (LSD / DFO / DF-2) DFM
South Centre Station
PBR Main Pier
North Centre Station
NSFO / IFO
MS / VRM
S-3040 / S1425
AVGAS / JP-4
MR
ADO / IDO
KO / JP-1
JP-5
NSFO / IFO
MS / VRM
S-3040
MR
JP-5
ADO / IDO
KO / JP-1
South East Station
North East Station
NSFO / IFO
MS / VRM
CRN / FRN
ADO / IDO
JP - 5
KO / JP1
NSFO / IFO
MS / VRM
MR
ADO / IDO
KO / JP1
JP - 5

LSD	Low Suphur Diesel (0.5%)
DFO	Regular Diesel (1.0%)
DF2	Diesel Fuel (Subic NB Spec)
DFM	Diesel Fuel U.S. Military
MS	Mogas Special (93R)
VRM	Vitalized Rev Mix (95R)
MR	Mogas Regular
CRN	Catalytically Reformed Naphtha
FRN	Full Range Naphtha
Avgas	Aviation Gasoline
MUP	Mogas Unleaded Premium
KO	Kerosene
ATF	Aviation Turbine Fuel
DPK	Dual Purpose Kero (DPKO)
JP-1	Civilian Specs Jet Product (Jet A1)
JP-5	U.S. Military Specs Jet Fuel
JP-4	Old Military Specs Jet Fuel
NSFO	U.S. Naval Special Fuel Oil
IFO	Regular Ind. Fuel Oil
LSFO	Low Sulphur Fuel Oil (2%)
SFO-60	Special Fuel Oil (Visc=60 ssu)
S-3040	Solvent 30/40 (Paint Thinner)
S-1425	Solvent 14/25 (Lighter Fluid / Acetone)
S-TR	Solvent Toluent Replacement

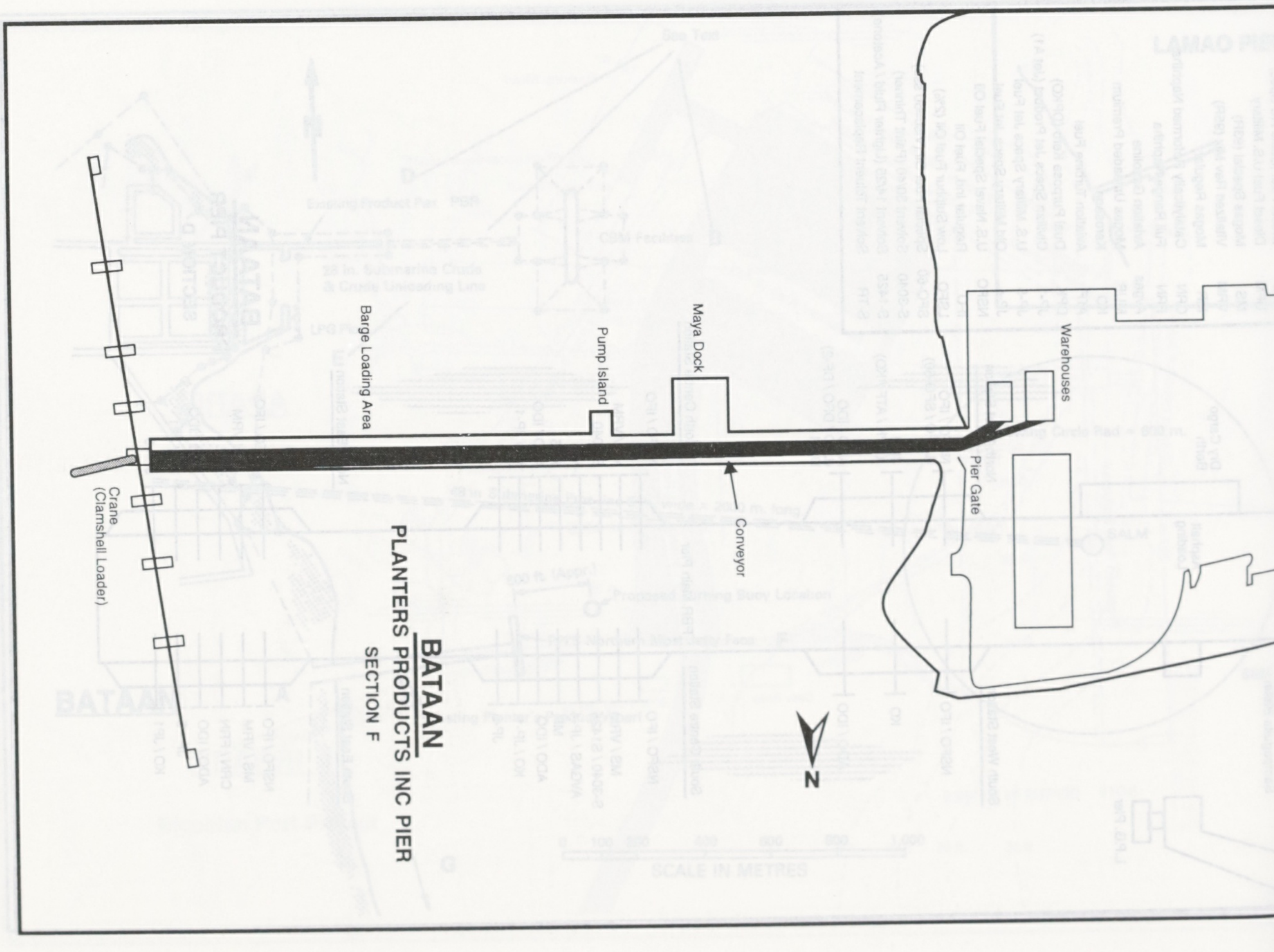
BATAAN
MARIVELES SHIPYARD CORPORATION PORT
SECTION A
REPAIRS



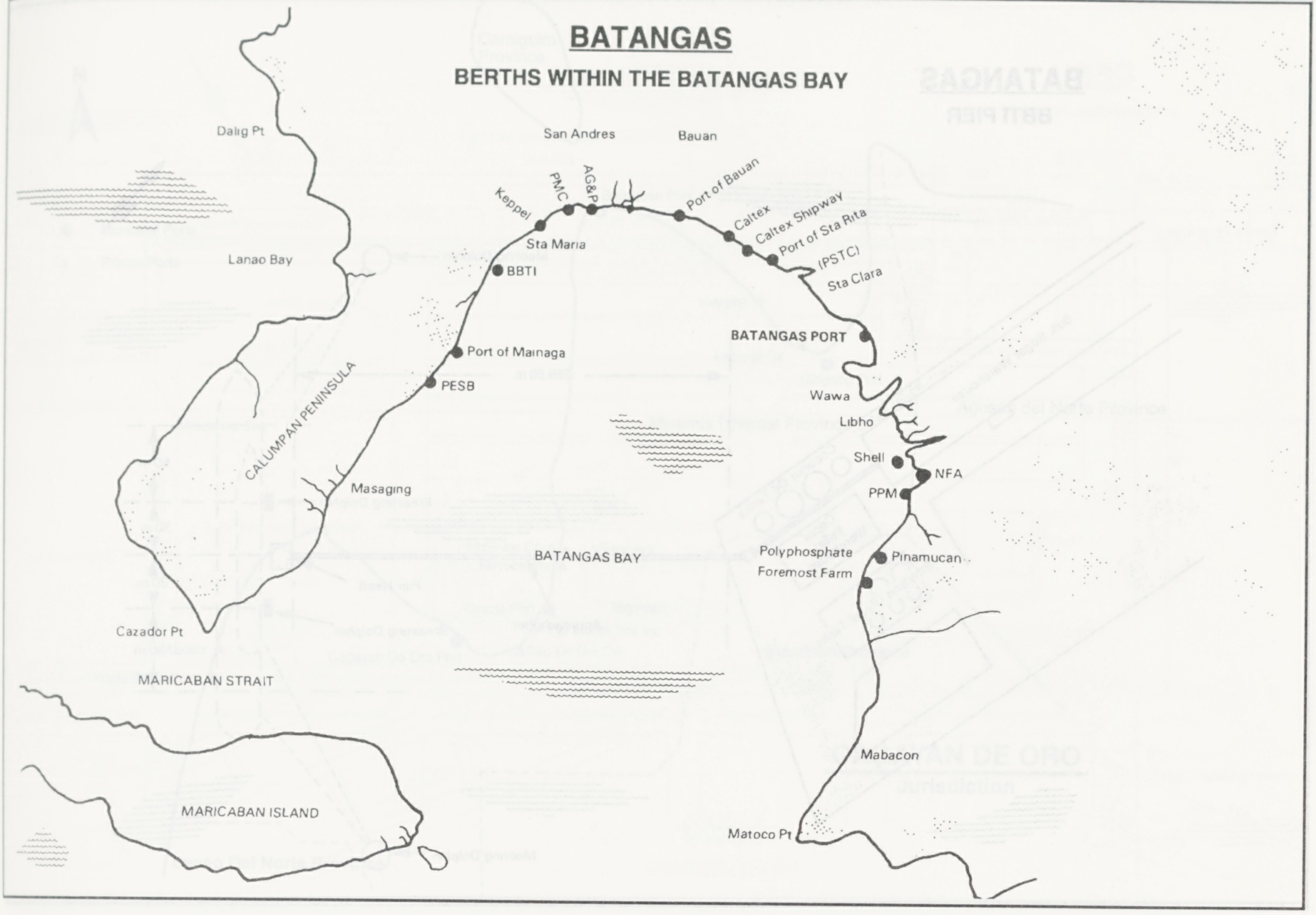
Dry Dock
150
341
DIMENSIONS IN METRES
Baseco Warehouse
PPA Field Office
Syncrolift Control Office
12
20
12
110
90
Slipway


Shore Line
Mooring Dolphin
25 t Bollar
Approach Trestle
Pipeway & Walkway
Breasting Platform
Loading Arm
25 t Bollards
Edge of Dredged
Area
Breasting Dolphin
700 DWT Tanker
Barge

BATAAN
L.P.G. PIER
Section E


Warehouses
Maya Dock
Pump Island
Barge Loading Area
Pier Gate
Conveyor
Crane
(Clamshell Loader)
N

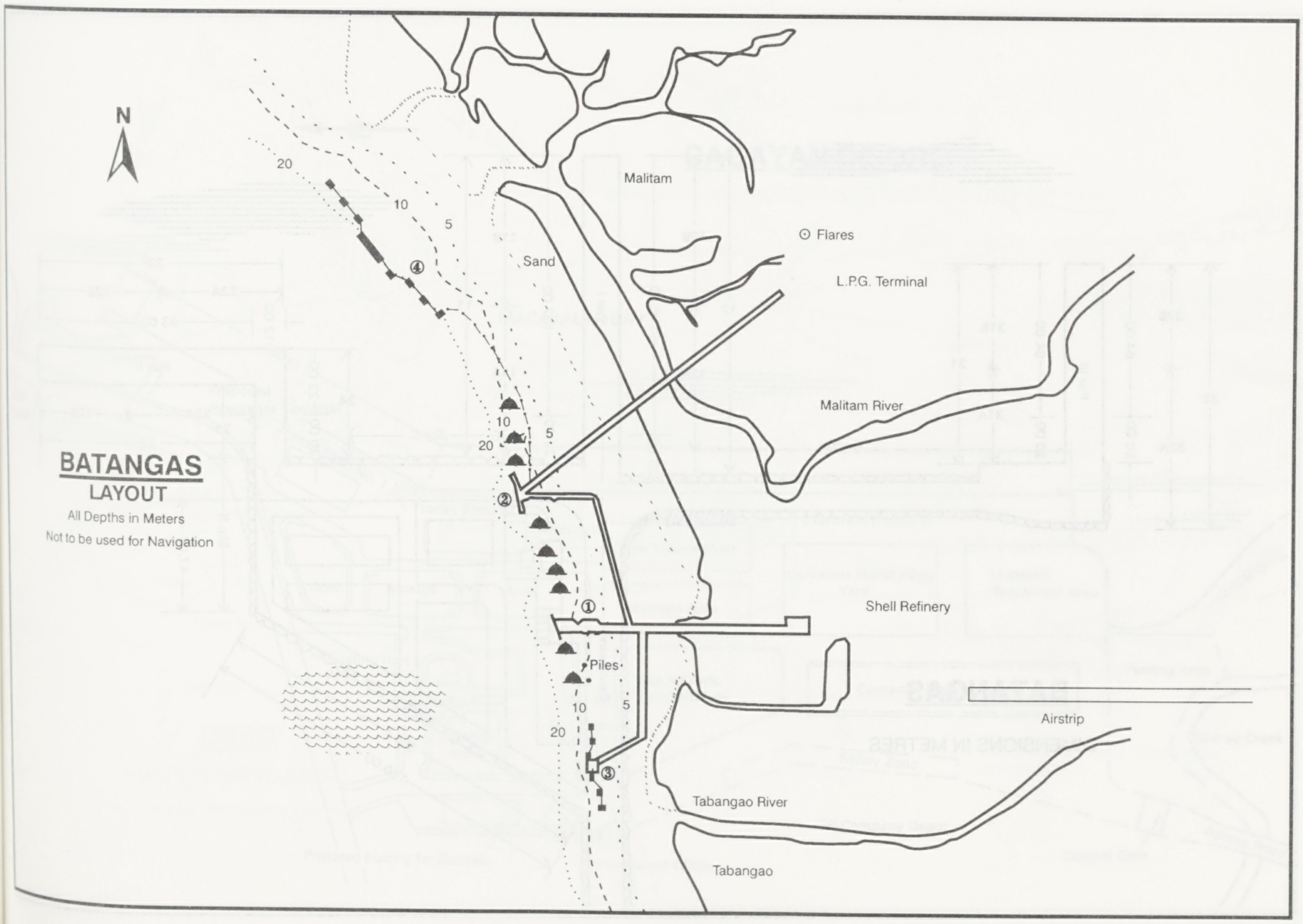
BATAAN
PLANTERS PRODUCTS INC PIER
SECTION F



BATANGAS

BERTHS WITHIN THE BATANGAS BAY

Dalig Pt
Lanao Bay
CALUMPAN PENINSULA
Masaging
Cazador Pt
MARICABAN STRAIT
MARICABAN ISLAND
San Andres
Bauan
Keppel
PMC
AG&P
Port of Bauan
Caltex
Caltex Shipway
Port of Sta Rita
(PSTC)
Sta Clara
Sta Maria
BBTI
Port of Mainaga
PESB
BATANGAS PORT
Wawa
Libho
Shell
NFA
PPM
BATANGAS BAY
Polyphosphate
Pinamucan
Foremost Farm
Mabacon
Matoco Pt



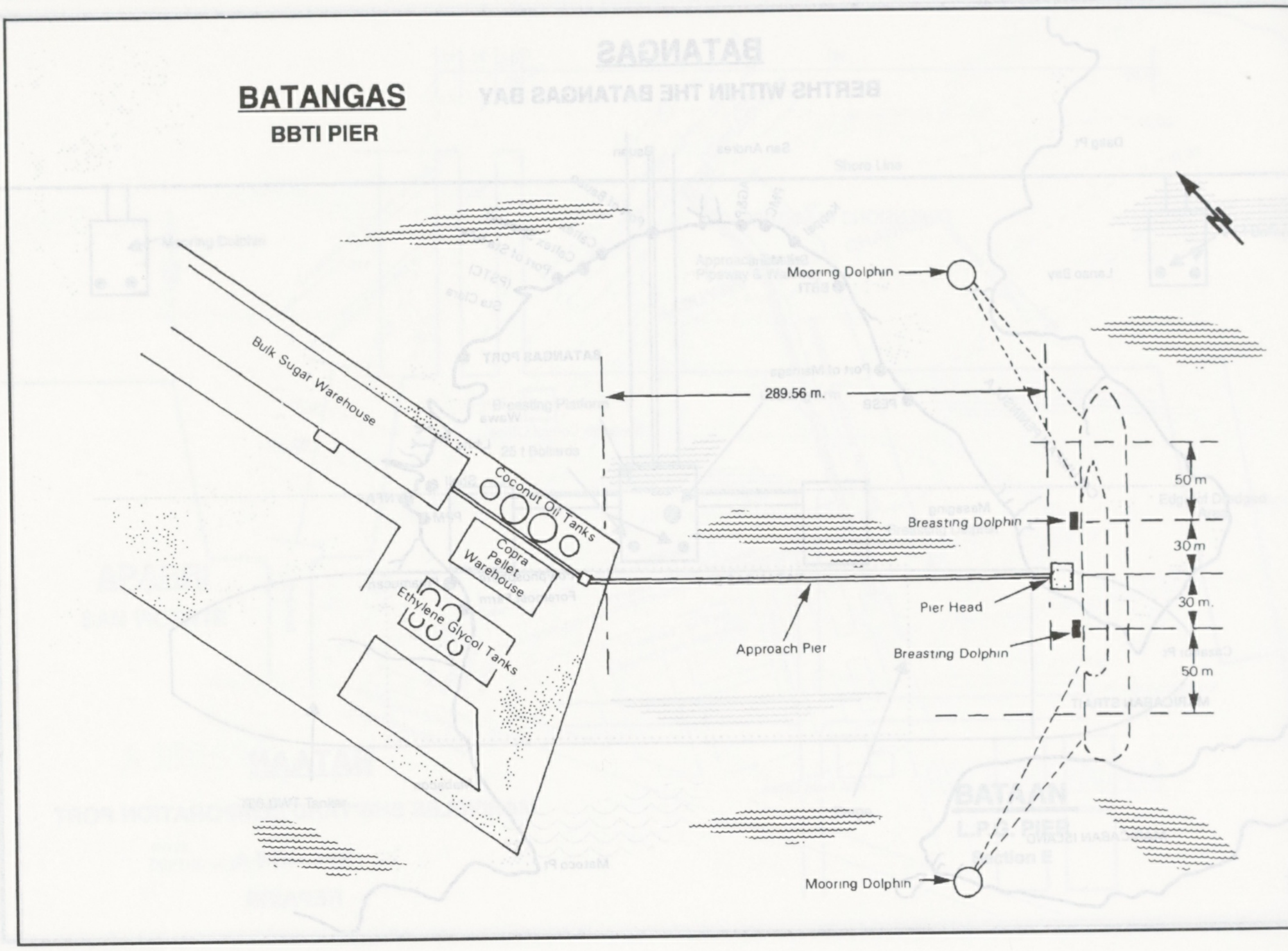
BATANGAS

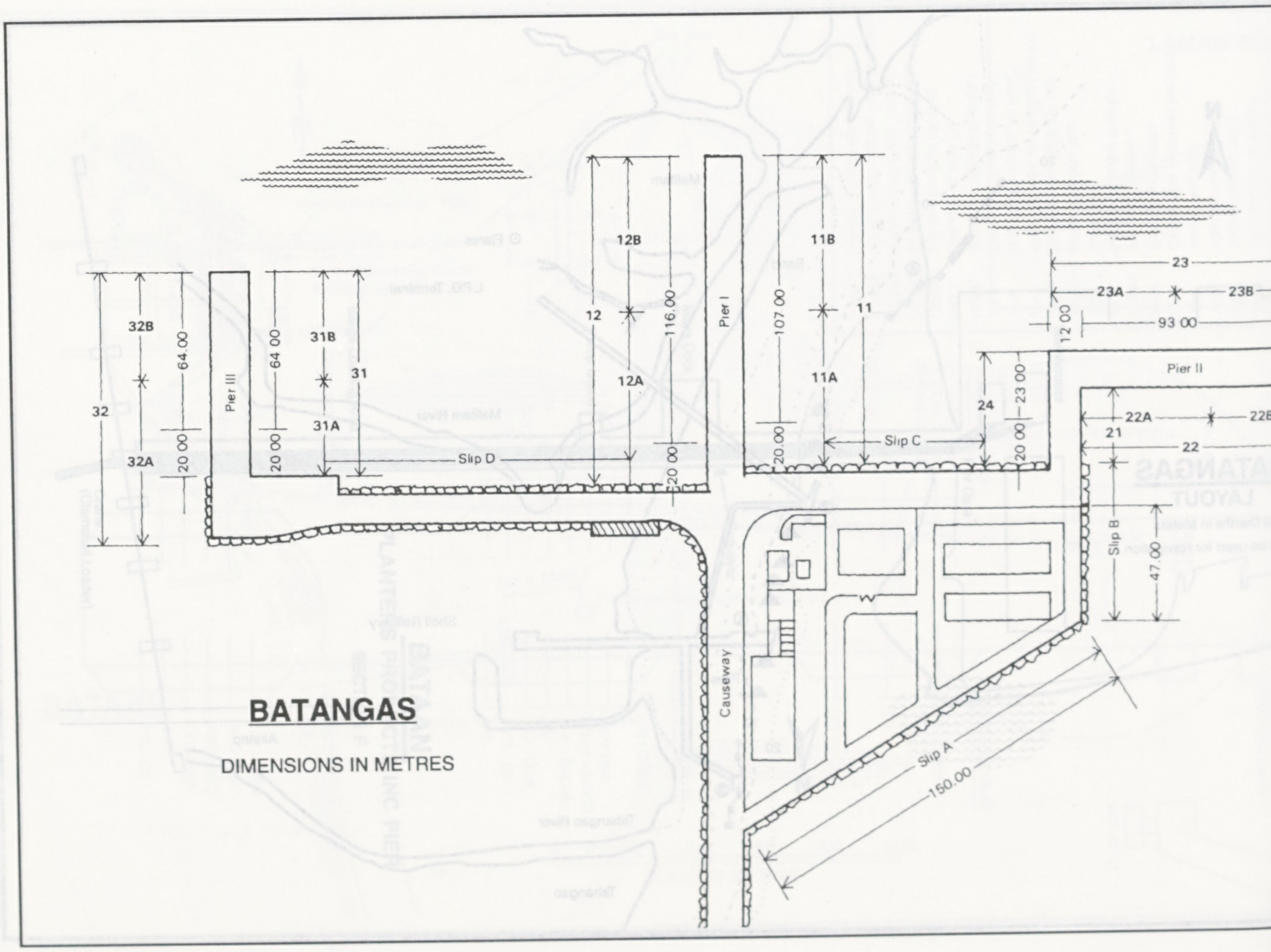
LAYOUT

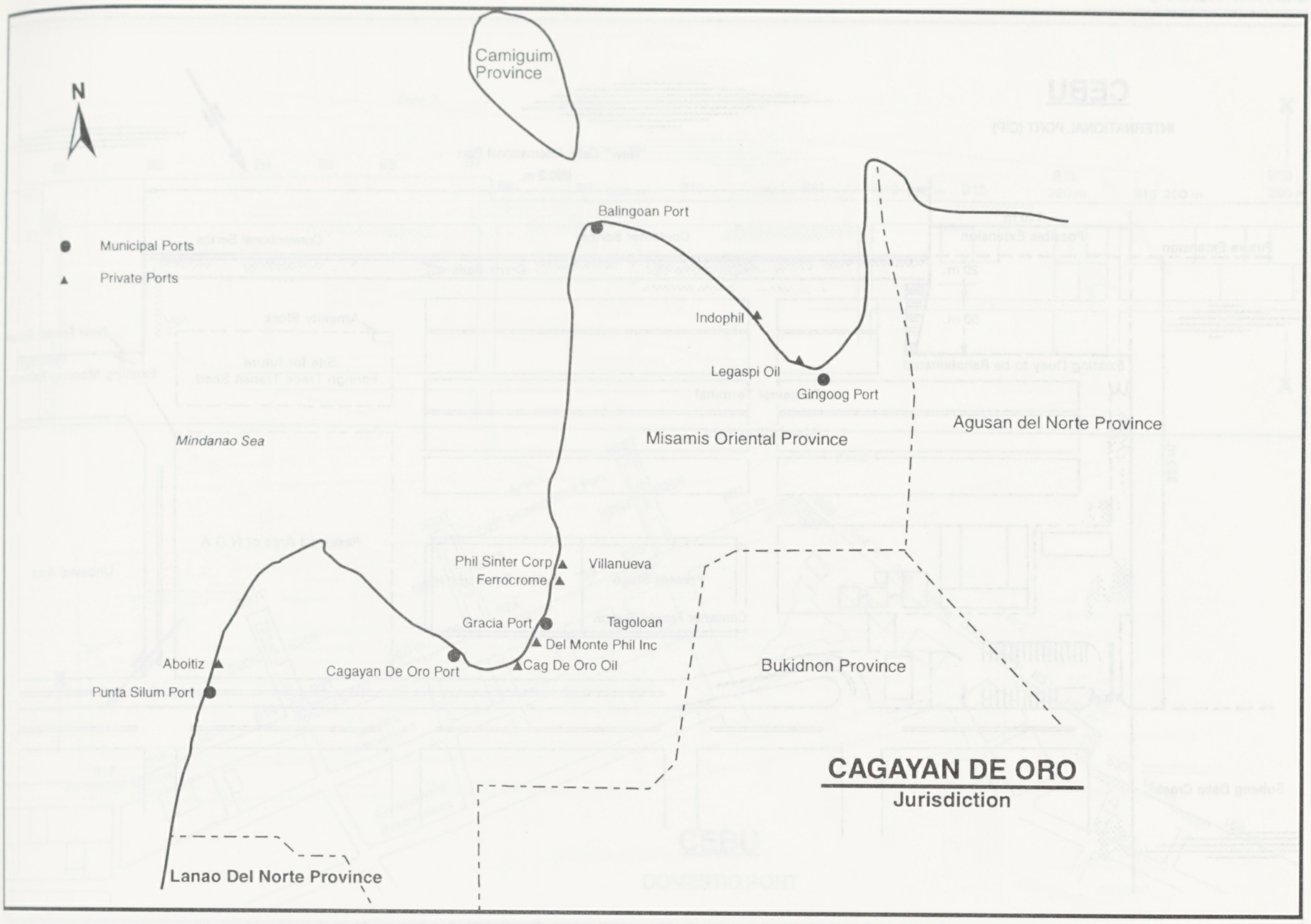
All Depths in Meters

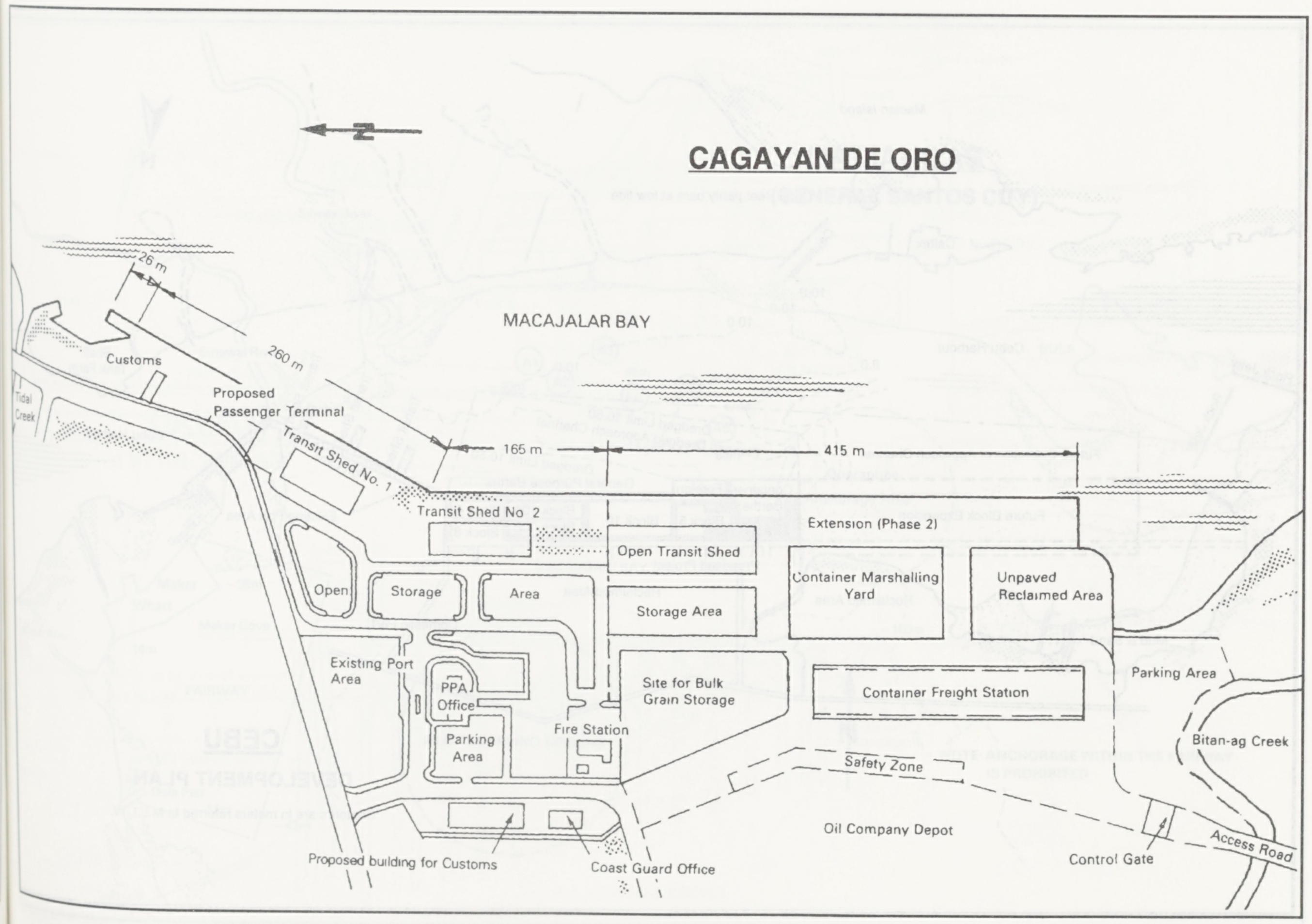
Not to be used for Navigation

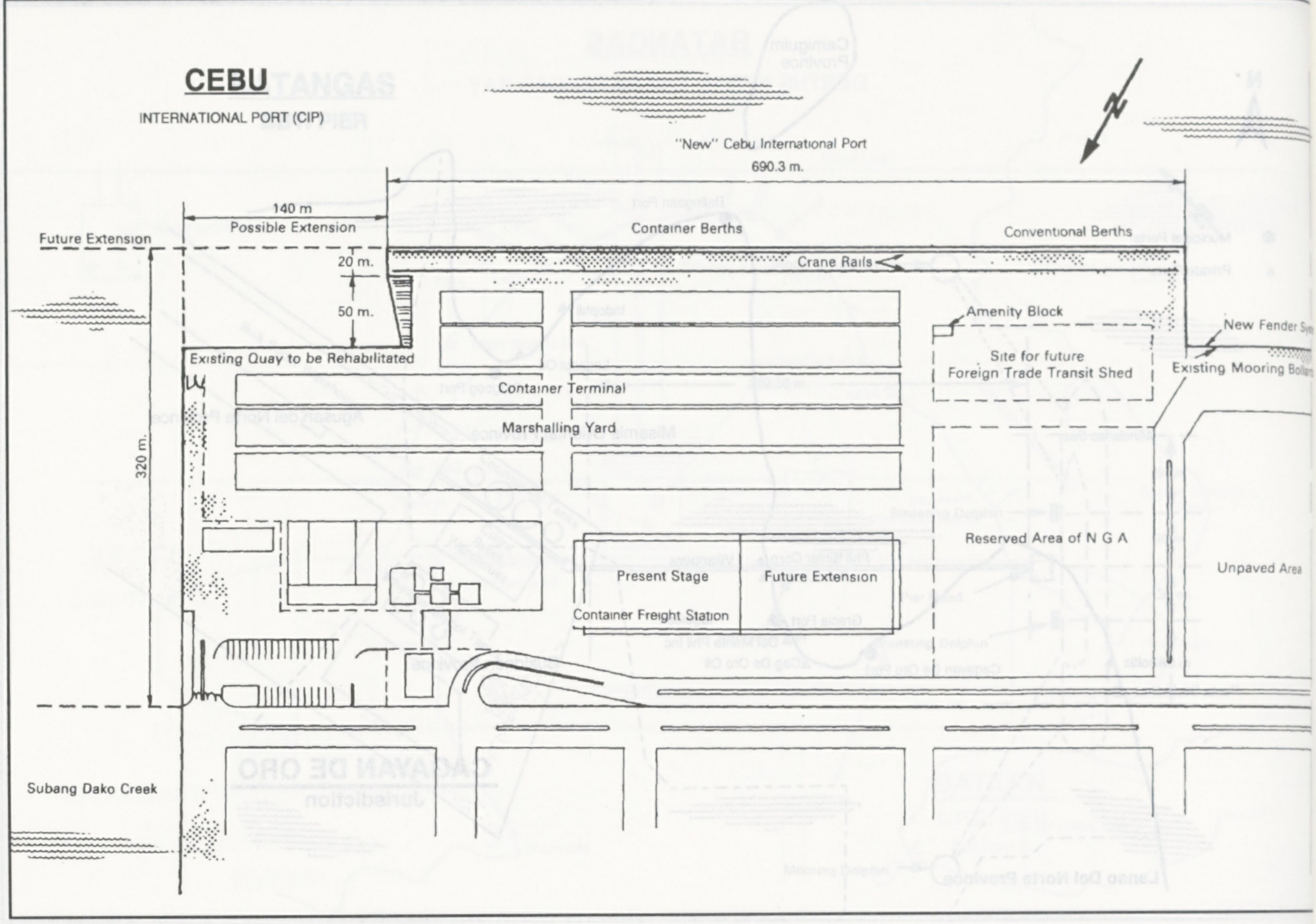
N
20
10
5
④
Sand
Malitam
Flares
L.P.G. Terminal
Malitam River
10
20
5
②
①
Shell Refinery
Piles
10
5
20
③
Airstrip
Tabangao River
Tabangao


BATANGAS
BBTI PIER
Bulk Sugar Warehouse
Coconut Oil Tanks
Copra Pellet Warehouse
Ethylene Glycol Tanks
289.56 m.
Mooring Dolphin
Breasting Dolphin
Pier Head
Approach Pier
Breasting Dolphin
Mooring Dolphin
50 m
30 m
30 m.
50 m


BATANGAS
DIMENSIONS IN METRES
32
32B
32A
64.00
20.00
Pier III
64.00
20.00
31B
31A
31
Slip D
12
12B
12A
116.00
20.00
Pier I
107.00
20.00
11B
11A
11
Slip C
24
23.00
20.00
23
23A
23B
12.00
93.00
Pier II
22A
22
21
Slip B
47.00
Causeway
Slip A
150.00


CAGAYAN DE ORO
Jurisdiction
N
Municipal Ports
Private Ports
Camiguim Province
Balingoan Port
Indophil
Legaspi Oil
Gingoog Port
Misamis Oriental Province
Agusan del Norte Province
Mindanao Sea
Phil Sinter Corp
Villanueva
Ferrocrome
Gracia Port
Tagoloan
Del Monte Phil Inc
Cag De Oro Oil
Cagayan De Oro Port
Aboitiz
Punta Silum Port
Bukidnon Province
Lanao Del Norte Province

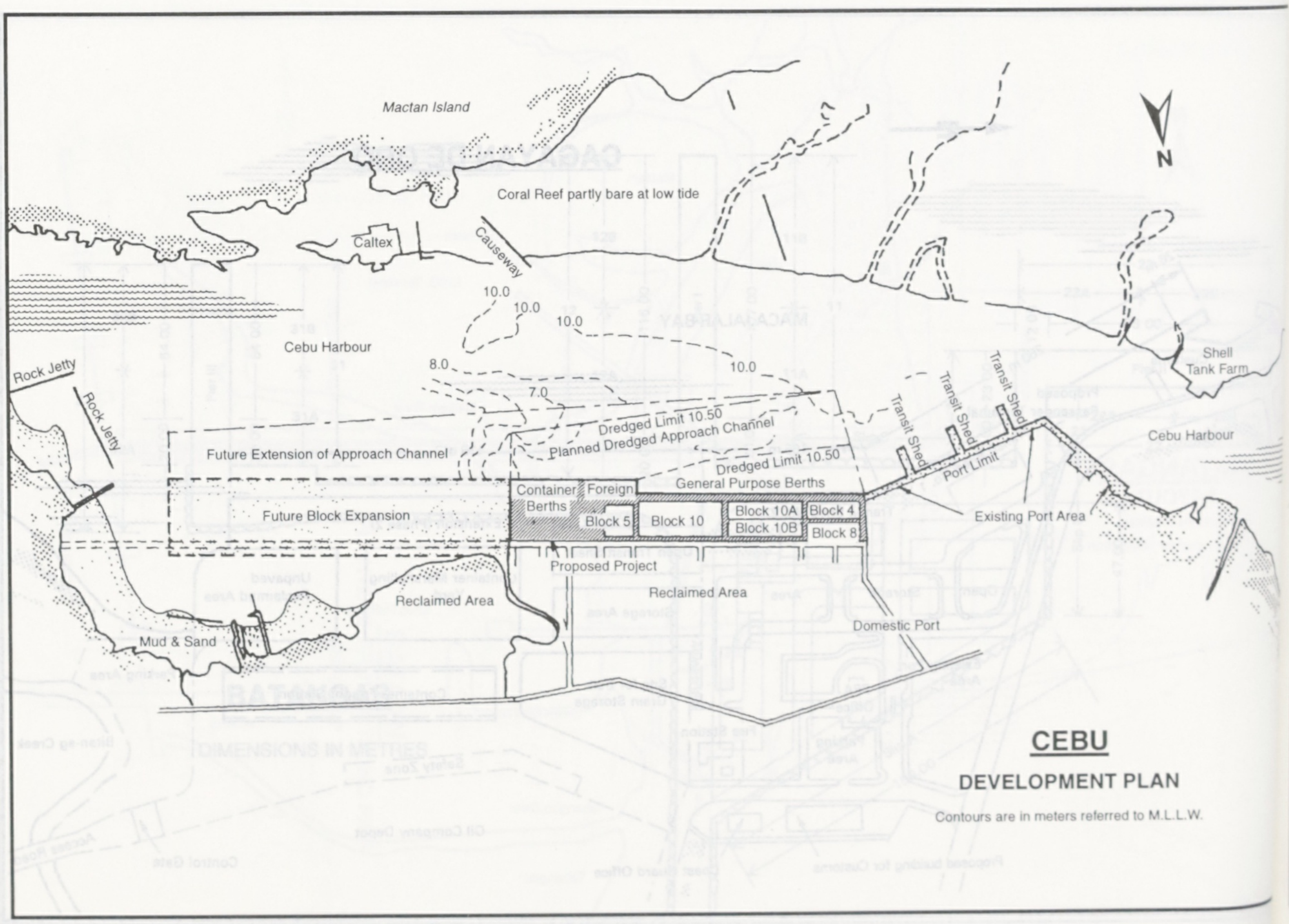

CAGAYAN DE ORO
N
MACAJALAR BAY
26 m
260 m
Customs
Tidal Creek
Proposed Passenger Terminal
Transit Shed No. 1
Transit Shed No. 2
165 m
415 m
Extension (Phase 2)
Open Transit Shed
Open
Storage
Area
Storage Area
Container Marshalling Yard
Unpaved Reclaimed Area
Existing Port Area
PPA Office
Site for Bulk Grain Storage
Container Freight Station
Parking Area
Parking Area
Fire Station
Bitan-ag Creek
Safety Zone
Oil Company Depot
Proposed building for Customs
Coast Guard Office
Control Gate
Access Road



CEBU

INTERNATIONAL PORT (CIP)

"New" Cebu International Port
690.3 m.
140 m
Possible Extension
Future Extension
Container Berths
Conventional Berths
20 m.
50 m.
Crane Rails
Amenity Block
New Fender Sys
Site for future
Foreign Trade Transit Shed
Existing Mooring Bollar
Existing Quay to be Rehabilitated
Container Terminal
Marshalling Yard
320 m.
Reserved Area of N G A
Unpaved Area
Present Stage
Future Extension
Container Freight Station
Subang Dako Creek

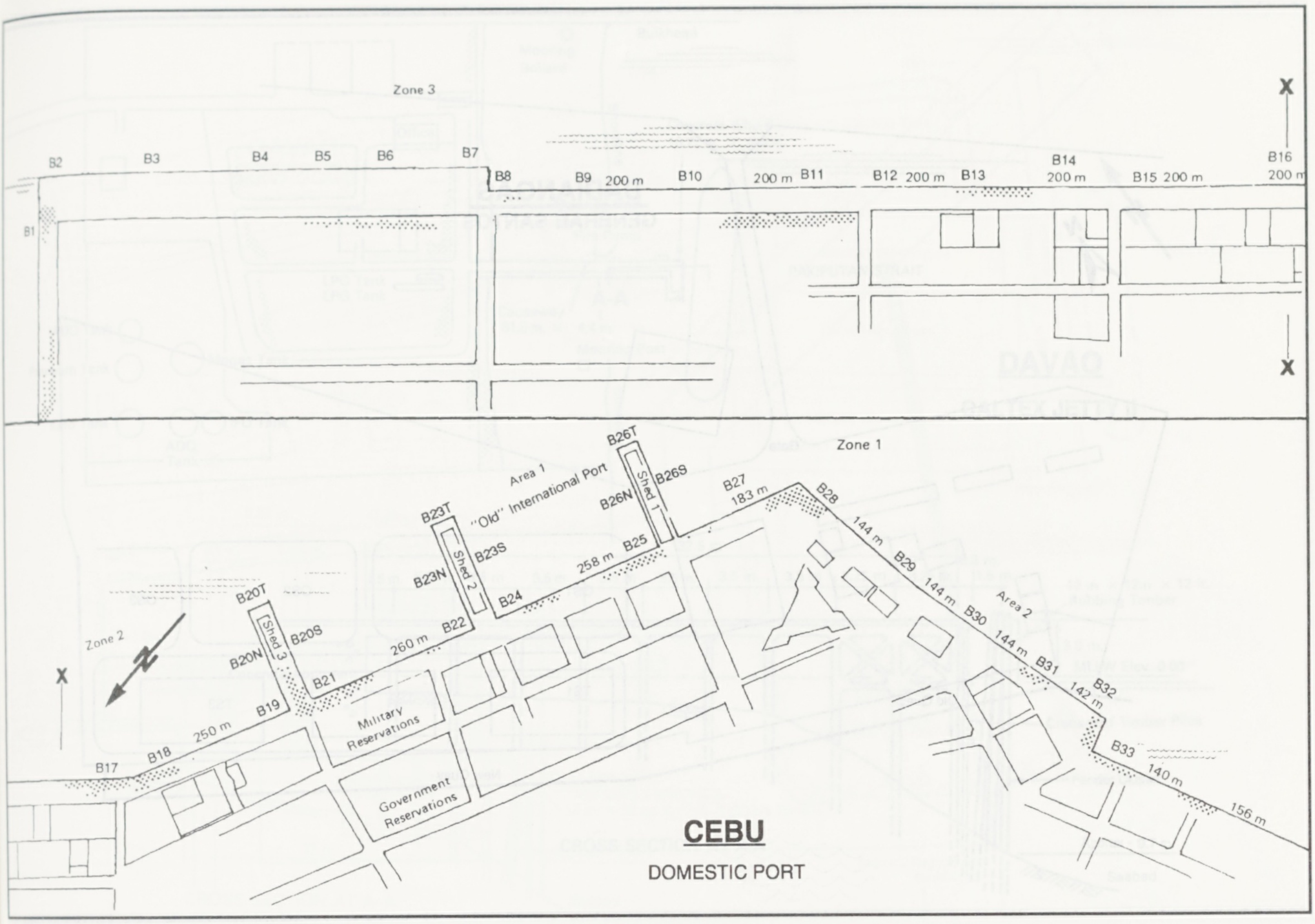


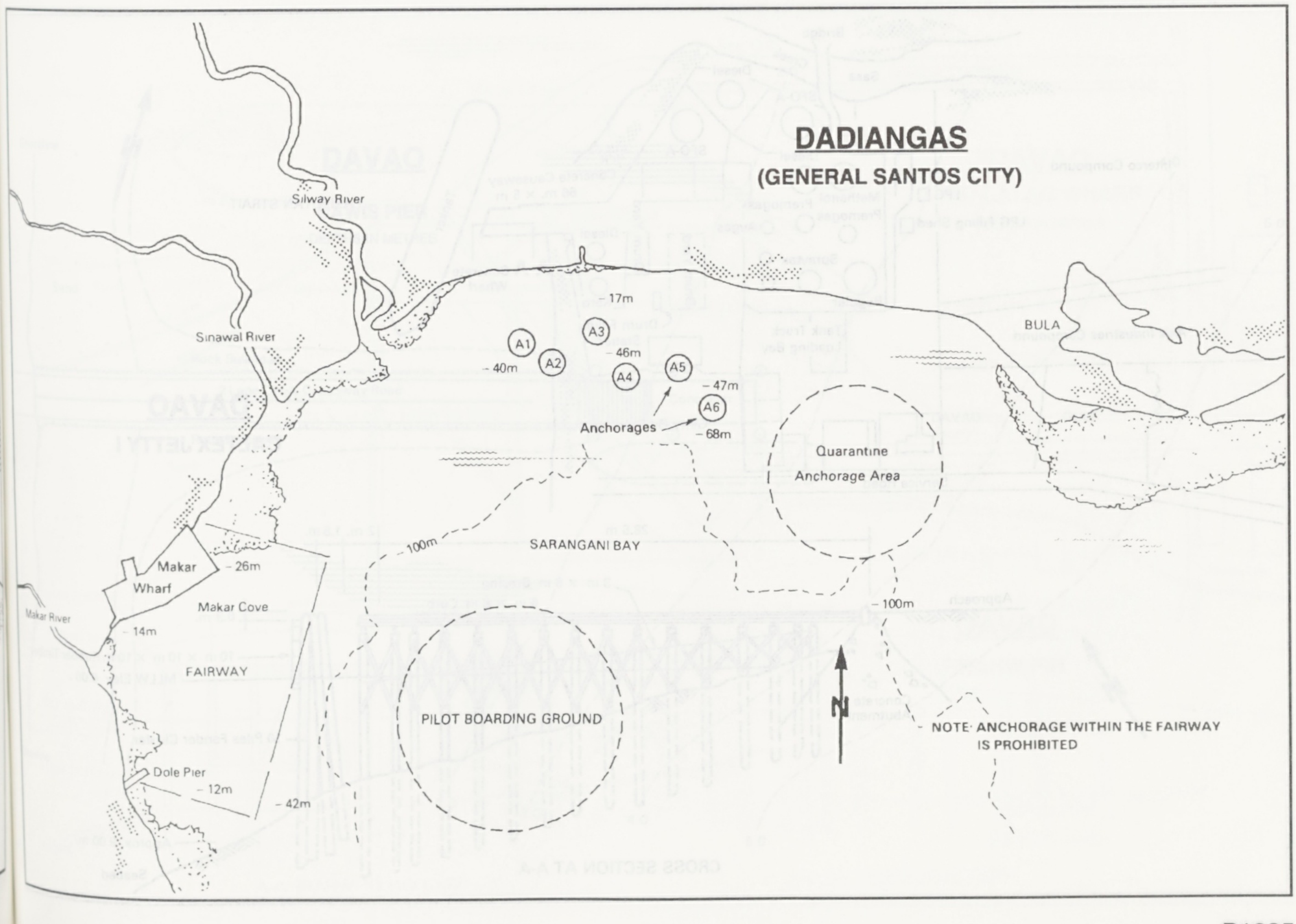
CEBU

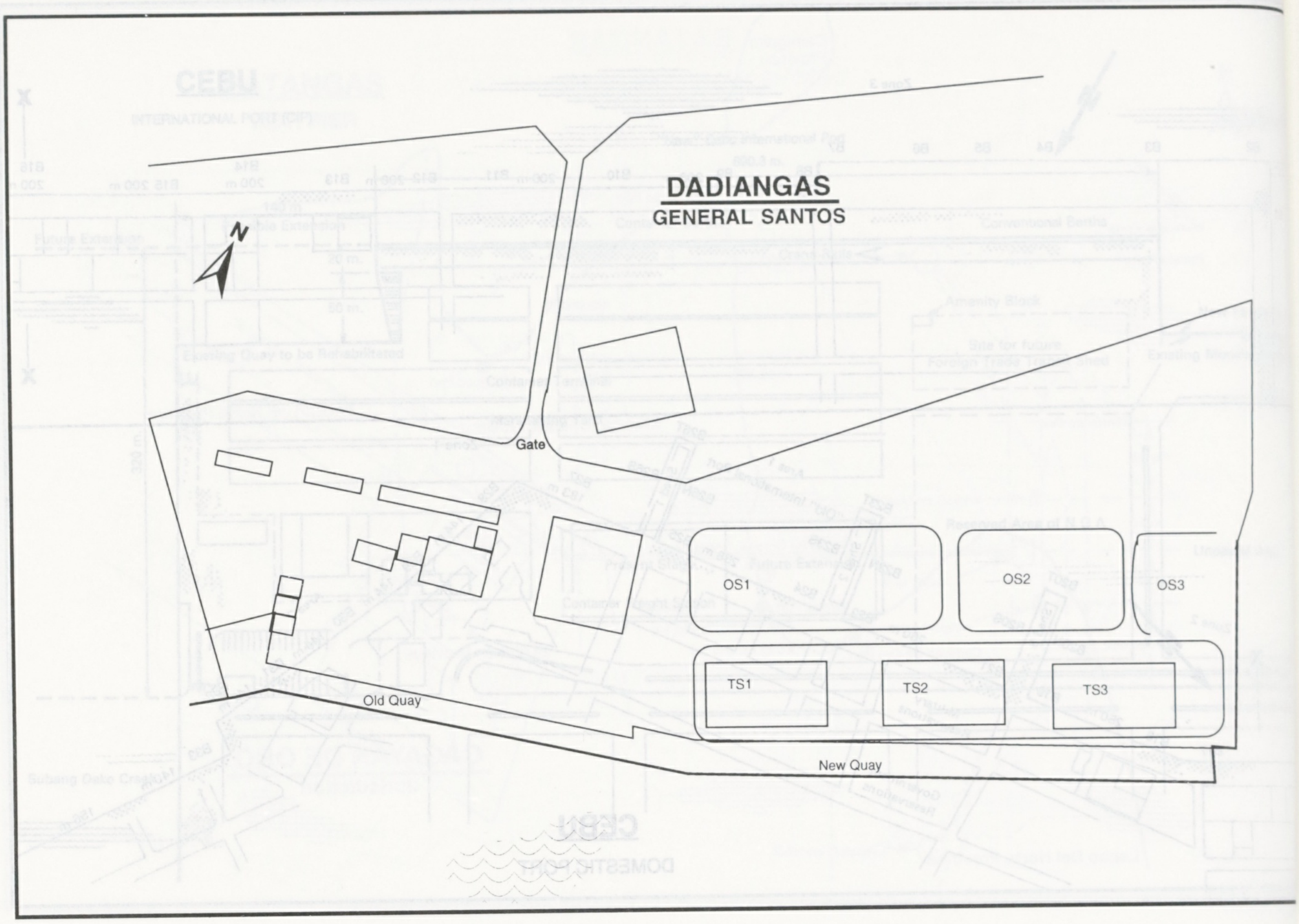
DEVELOPMENT PLAN

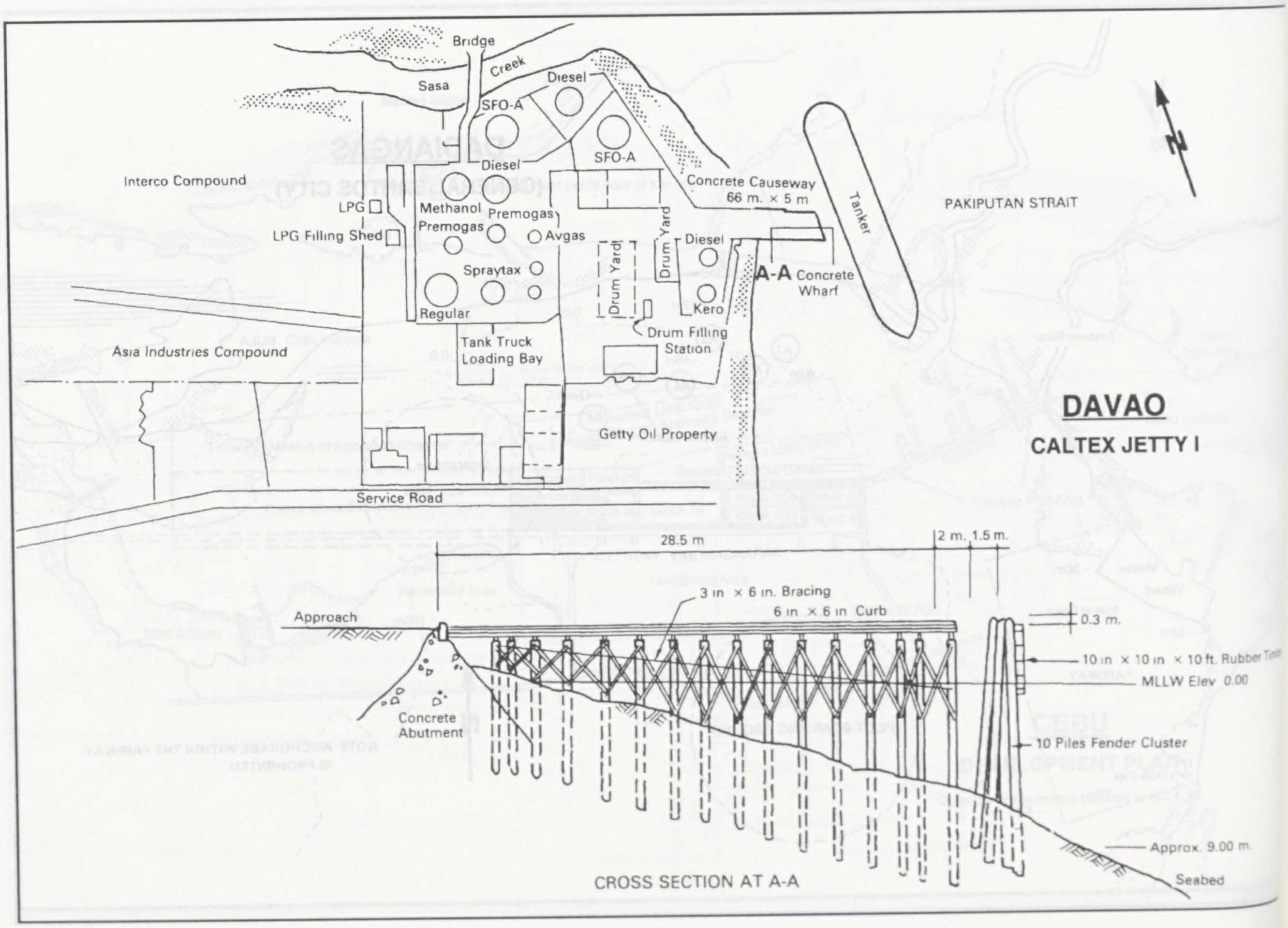
Contours are in meters referred to M.L.L.W.

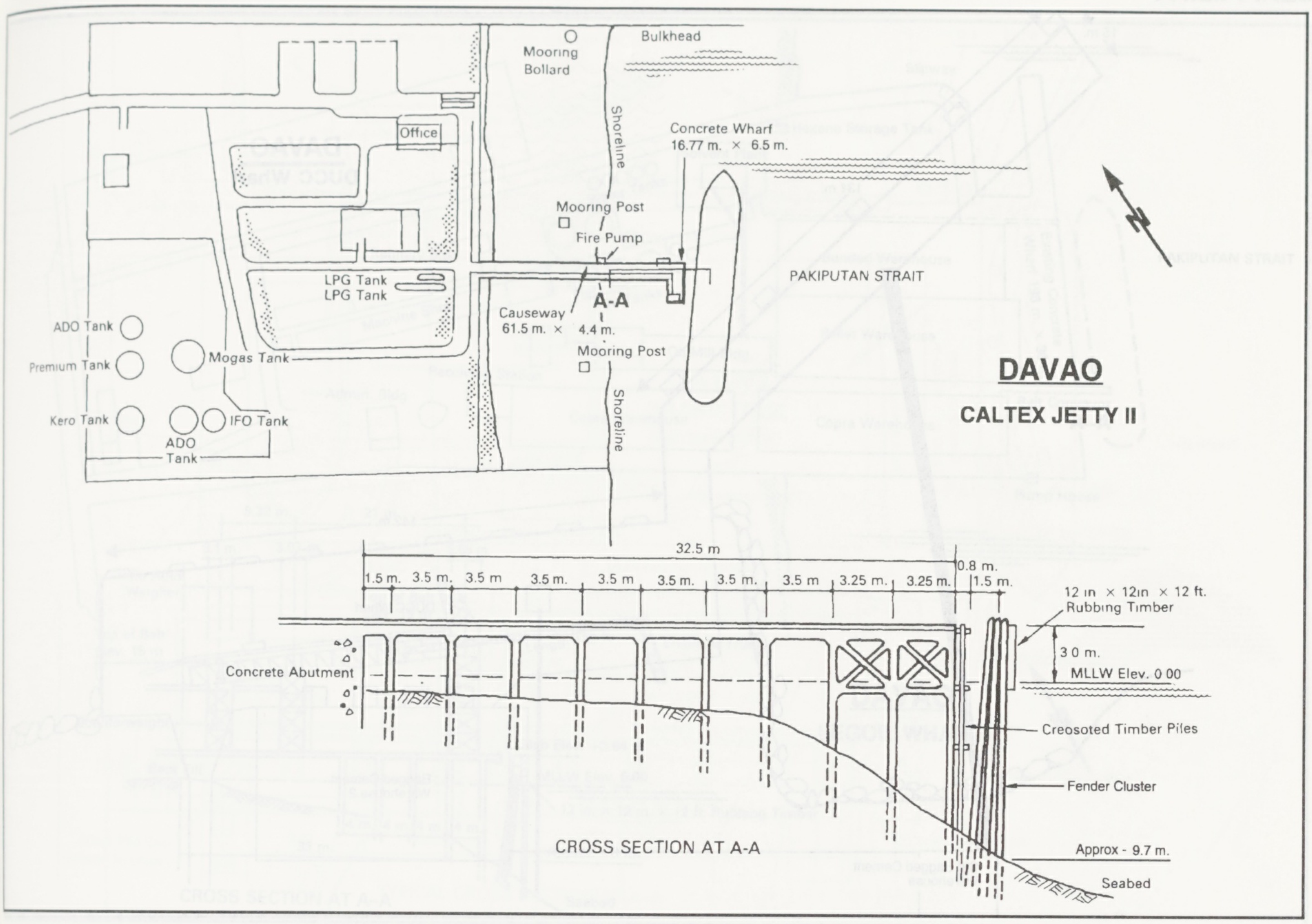
Mactan Island
N
Coral Reef partly bare at low tide
Caltex
Causeway
10.0
10.0
10.0
Cebu Harbour
8.0
10.0
7.0
Rock Jetty
Rock Jetty
Shell
Tank Farm
Cebu Harbour
Transit Shed
Transit Shed
Transit Shed
Dredged Limit 10.50
Planned Dredged Approach Channel
Dredged Limit 10.50
Future Extension of Approach Channel
Port Limit
General Purpose Berths
Container Berths
Foreign
Block 5
Block 10
Block 10A
Block 10B
Block 4
Block 8
Future Block Expansion
Existing Port Area
Proposed Project
Reclaimed Area
Reclaimed Area
Mud & Sand
Domestic Port


CEBU
DOMESTIC PORT
Zone 3
X
X
B1
B2
B3
B4
B5
B6
B7
B8
B9 200 m
B10
200 m B11
B12 200 m
B13
B14
200 m
B15 200 m
B16
200 m
Zone 1
Zone 2
X
Area 1
"Old" International Port
B26T
Shed 1
B26S
B26N
B27
183 m
B28
144 m
B29
144 m
B30
Area 2
144 m
B31
B32
142 m
B33
140 m
156 m
B23T
B23N
Shed 2
B23S
258 m
B25
B24
B20T
Shed 3
B20N
B20S
260 m
B22
B21
B19
250 m
B18
B17
Military Reservations
Government Reservations


DADIANGAS
(GENERAL SANTOS CITY)
Silway River
Sinawal River
- 17m
A1
A2
A3
- 40m
- 46m
A4
A5
- 47m
A6
Anchorages
- 68m
Quarantine Anchorage Area
BULA
100m
SARANGANI BAY
- 100m
Makar
Wharf
- 26m
Makar Cove
Makar River
- 14m
FAIRWAY
PILOT BOARDING GROUND
N
NOTE: ANCHORAGE WITHIN THE FAIRWAY IS PROHIBITED
Dole Pier
- 12m
- 42m


DADIANGAS
GENERAL SANTOS
N
Gate
OS1
OS2
OS3
TS1
TS2
TS3
Old Quay
New Quay

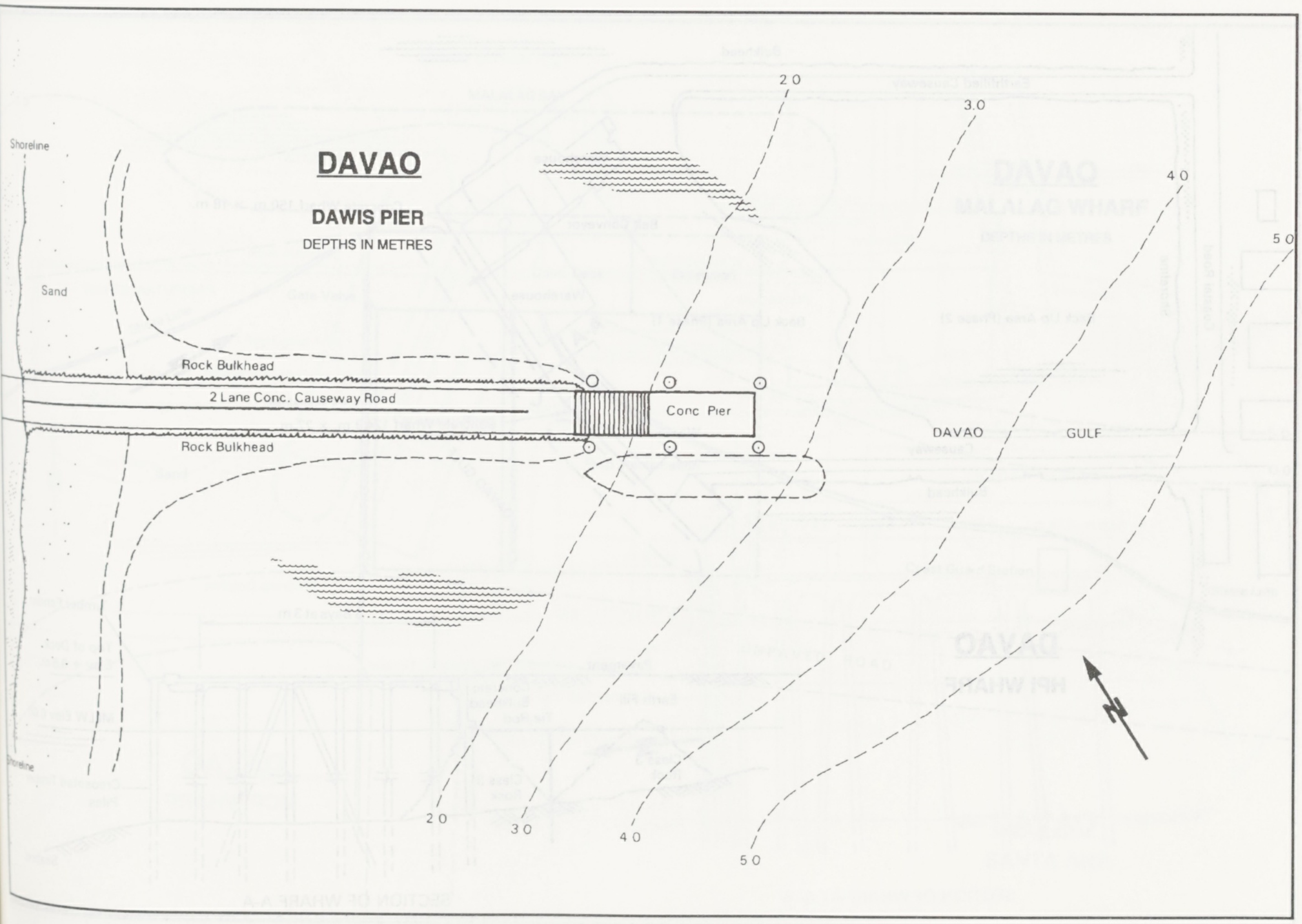

Bridge
Creek
Sasa
Diesel
SFO-A
Diesel
SFO-A
Interco Compound
LPG
LPG Filling Shed
Methanol
Premogas
Premogas
Avgas
Spraytax
Regular
Drum Yard
Drum Yard
Concrete Causeway
66 m. × 5 m
Diesel
Kero
A-A
Concrete Wharf
Tanker
PAKIPUTAN STRAIT
Drum Filling Station
Tank Truck Loading Bay
Asia Industries Compound
Getty Oil Property
Service Road
DAVAO
CALTEX JETTY I
28.5 m
2 m.
1.5 m.
3 in × 6 in. Bracing
6 in × 6 in Curb
Approach
0.3 m.
10 in × 10 in × 10 ft. Rubber Tim
MLLW Elev 0.00
Concrete Abutment
10 Piles Fender Cluster
Approx. 9.00 m.
Seabed
CROSS SECTION AT A-A



DAVAO

CALTEX JETTY II

Mooring Bollard
Bulkhead
Office
Shoreline
Concrete Wharf 16.77 m. × 6.5 m.
Mooring Post
Fire Pump
LPG Tank
LPG Tank
A-A
PAKIPUTAN STRAIT
Causeway 61.5 m. × 4.4 m.
ADO Tank
Premium Tank
Mogas Tank
Mooring Post
Kero Tank
IFO Tank
ADO Tank
Shoreline
32.5 m
0.8 m.
1.5 m.
3.5 m.
3.5 m
3.5 m.
3.5 m
3.5 m.
3.5 m.
3.5 m
3.25 m.
3.25 m.
1.5 m.
12 in × 12in × 12 ft. Rubbing Timber
3 0 m.
MLLW Elev. 0 00
Concrete Abutment
Creosoted Timber Piles
Fender Cluster
CROSS SECTION AT A-A
Approx - 9.7 m.
Seabed

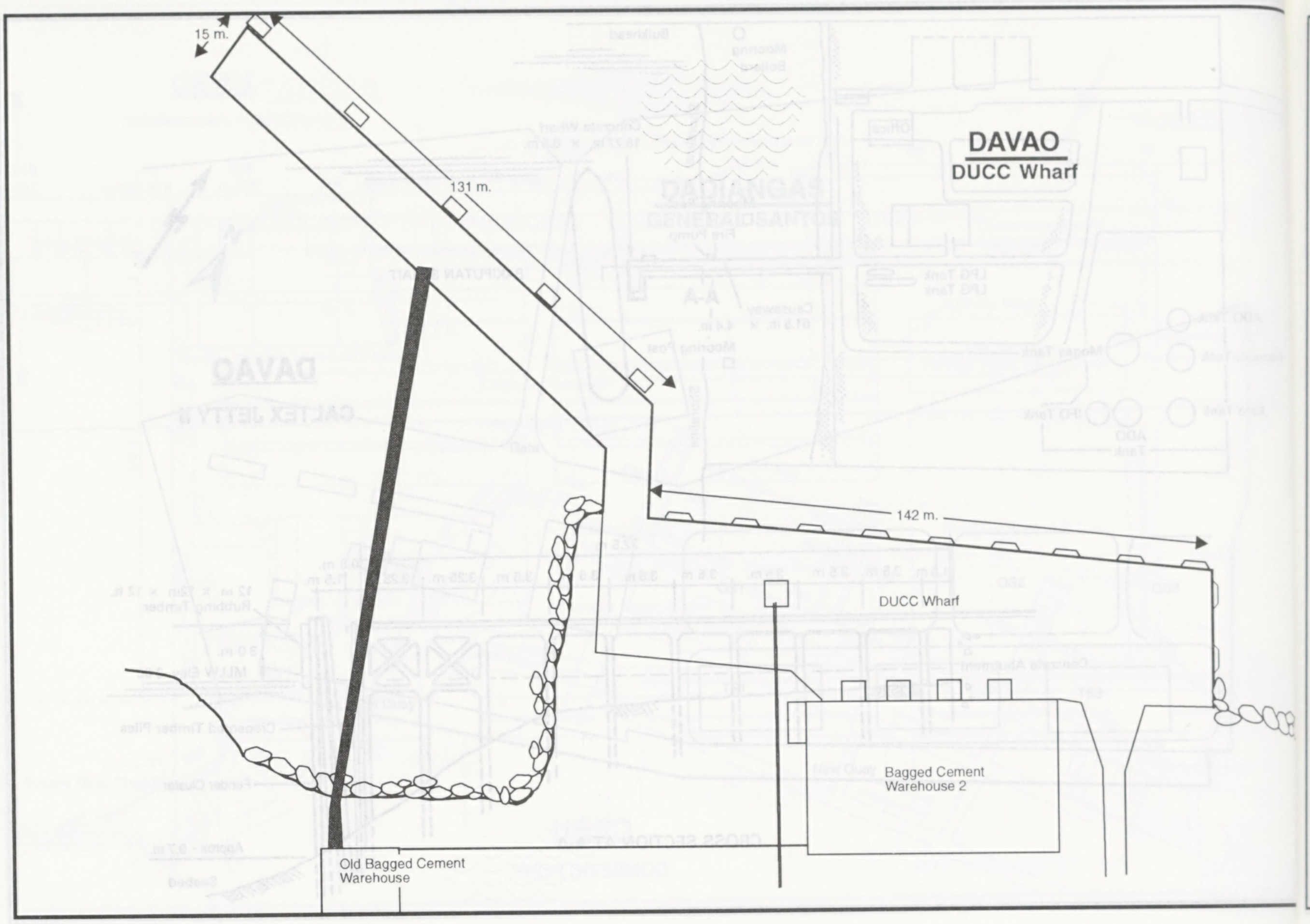


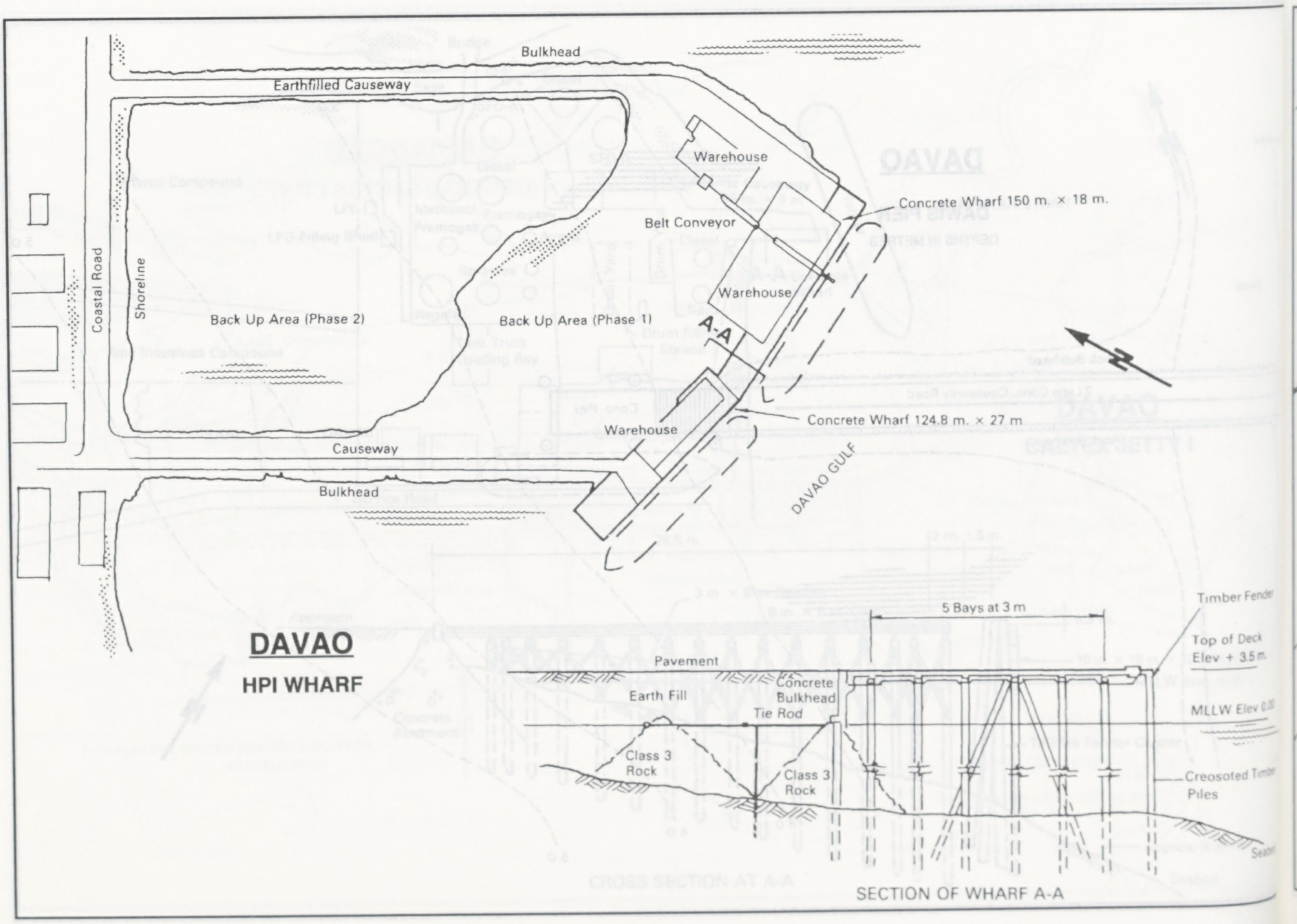
DAVAO

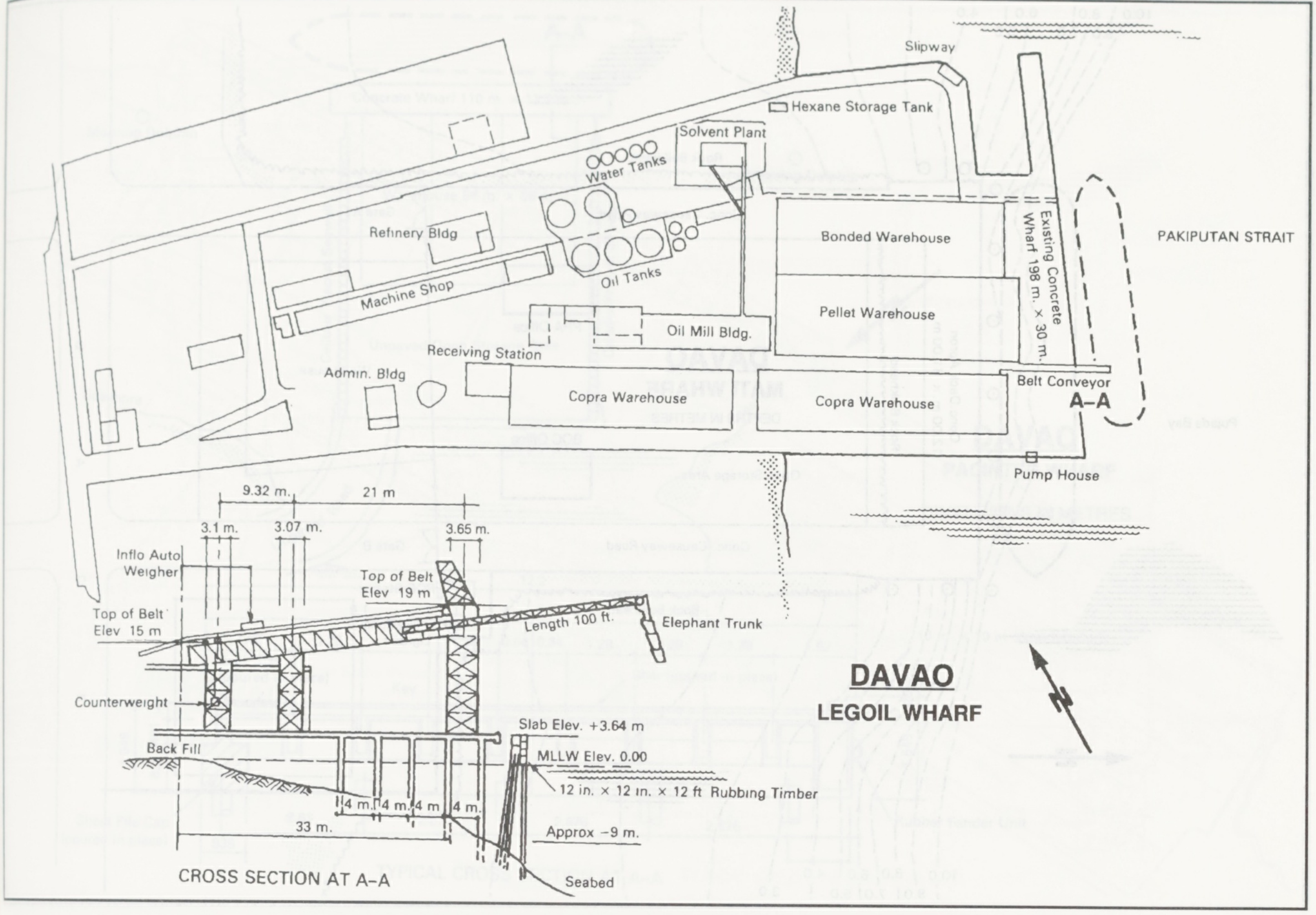
DAWIS PIER

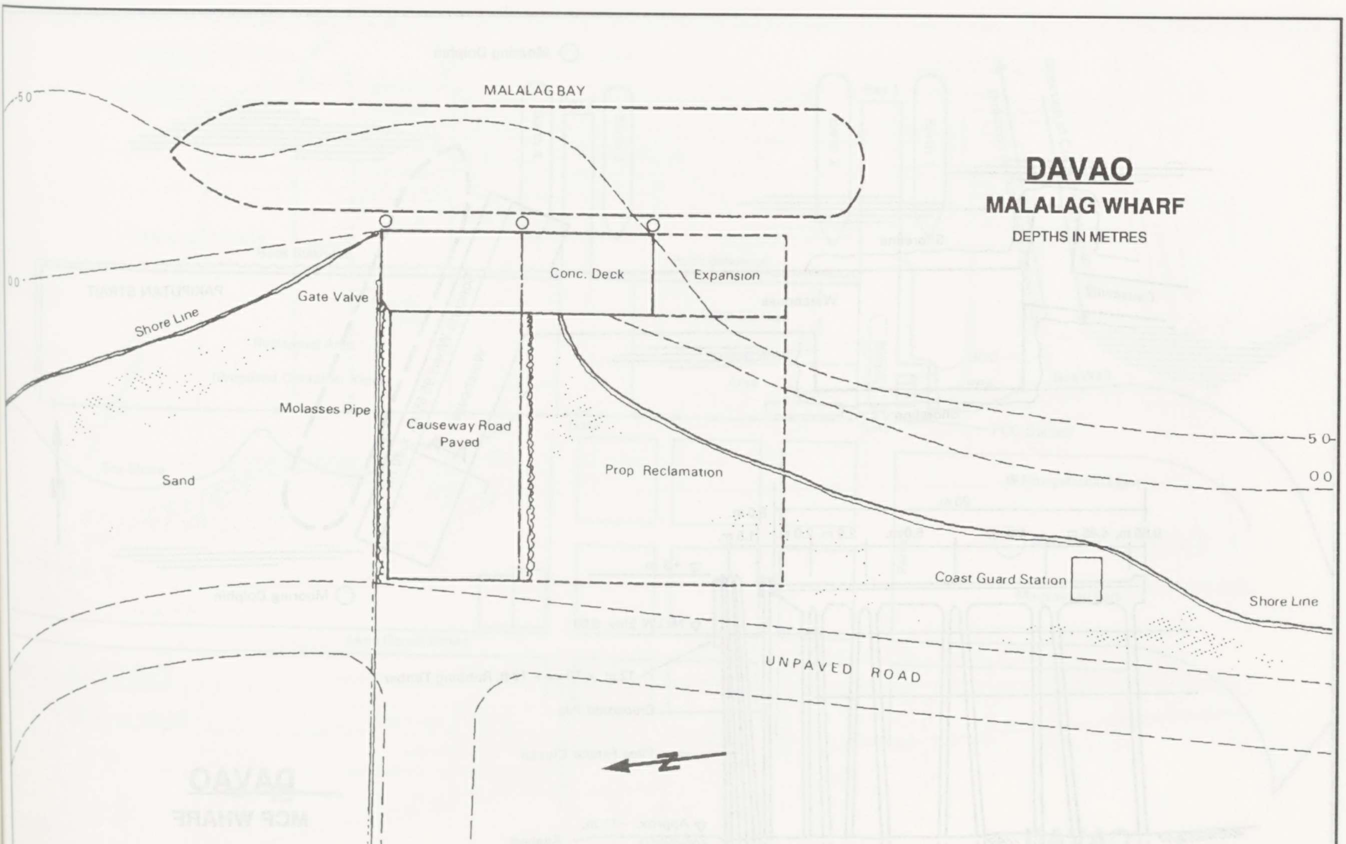
DEPTHS IN METRES

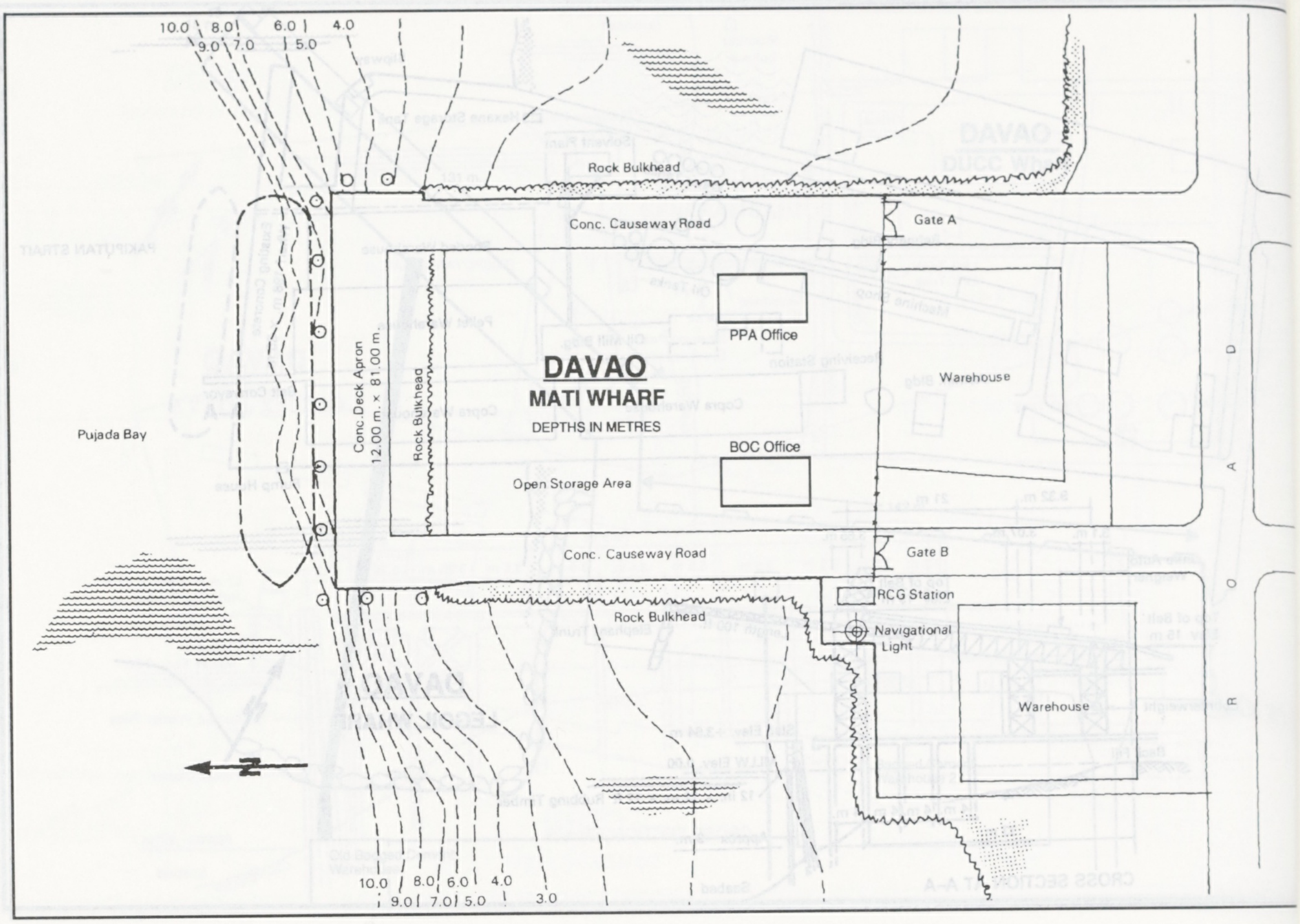
Shoreline
Sand
Rock Bulkhead
2 Lane Conc. Causeway Road
Rock Bulkhead
Conc Pier
DAVAO GULF
Shoreline
2 0
3 0
4 0
5 0
2 0
3 0
4 0
5 0

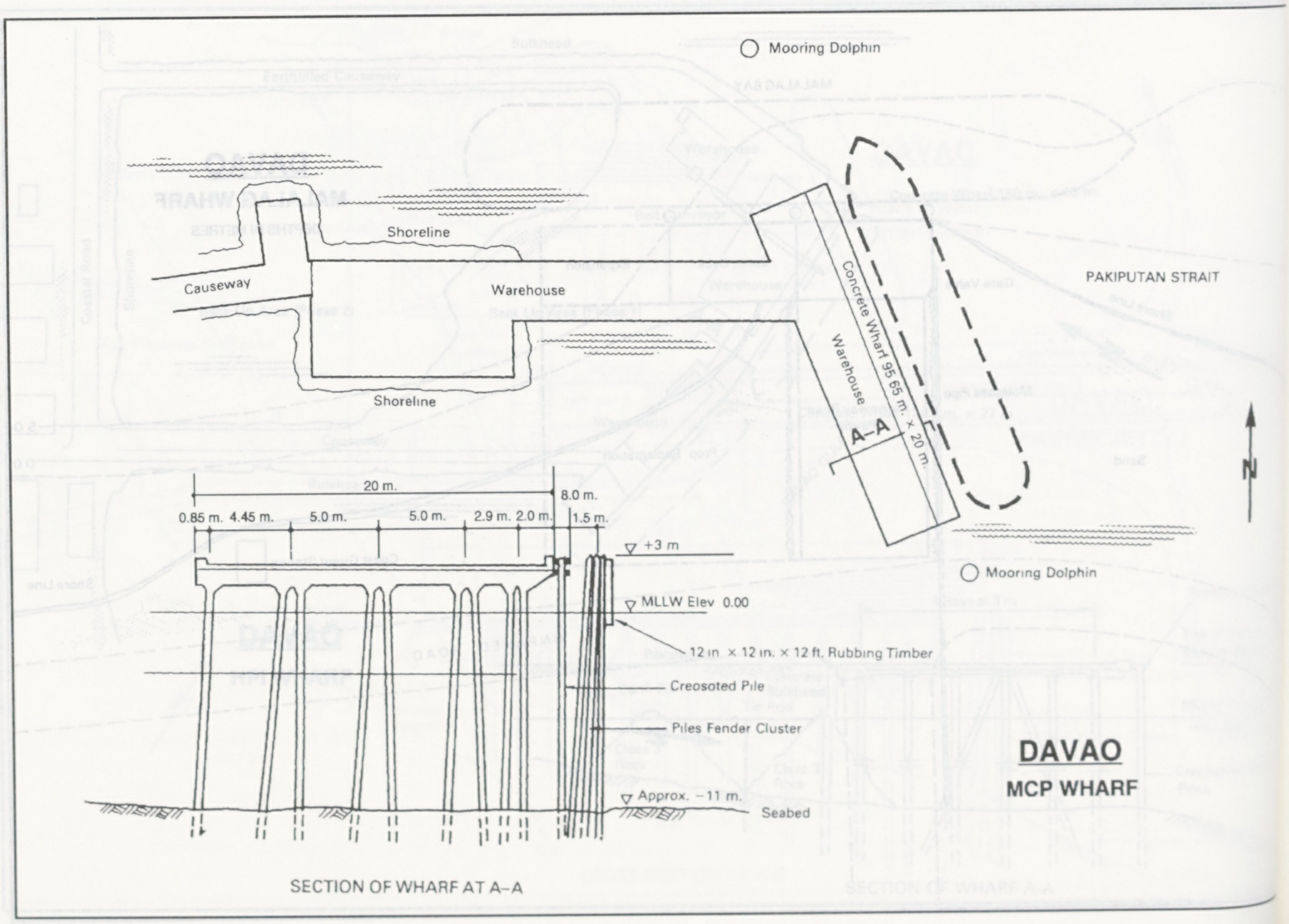

DAVAO
DUCC Wharf
15 m.
131 m.
142 m.
DUCC Wharf
Bagged Cement Warehouse 2
Old Bagged Cement Warehouse


Bulkhead
Earthfilled Causeway
Warehouse
Concrete Wharf 150 m. × 18 m.
Belt Conveyor
Warehouse
A-A
Coastal Road
Shoreline
Back Up Area (Phase 2)
Back Up Area (Phase 1)
Warehouse
Concrete Wharf 124.8 m. × 27 m.
Causeway
Bulkhead
DAVAO GULF
DAVAO
HPI WHARF
5 Bays at 3 m
Timber Fender
Top of Deck Elev + 3.5 m.
Pavement
Earth Fill
Concrete Bulkhead
Tie Rod
MLLW Elev 0.0
Class 3 Rock
Class 3 Rock
Creosoted Timbe Piles
Seab
SECTION OF WHARF A-A

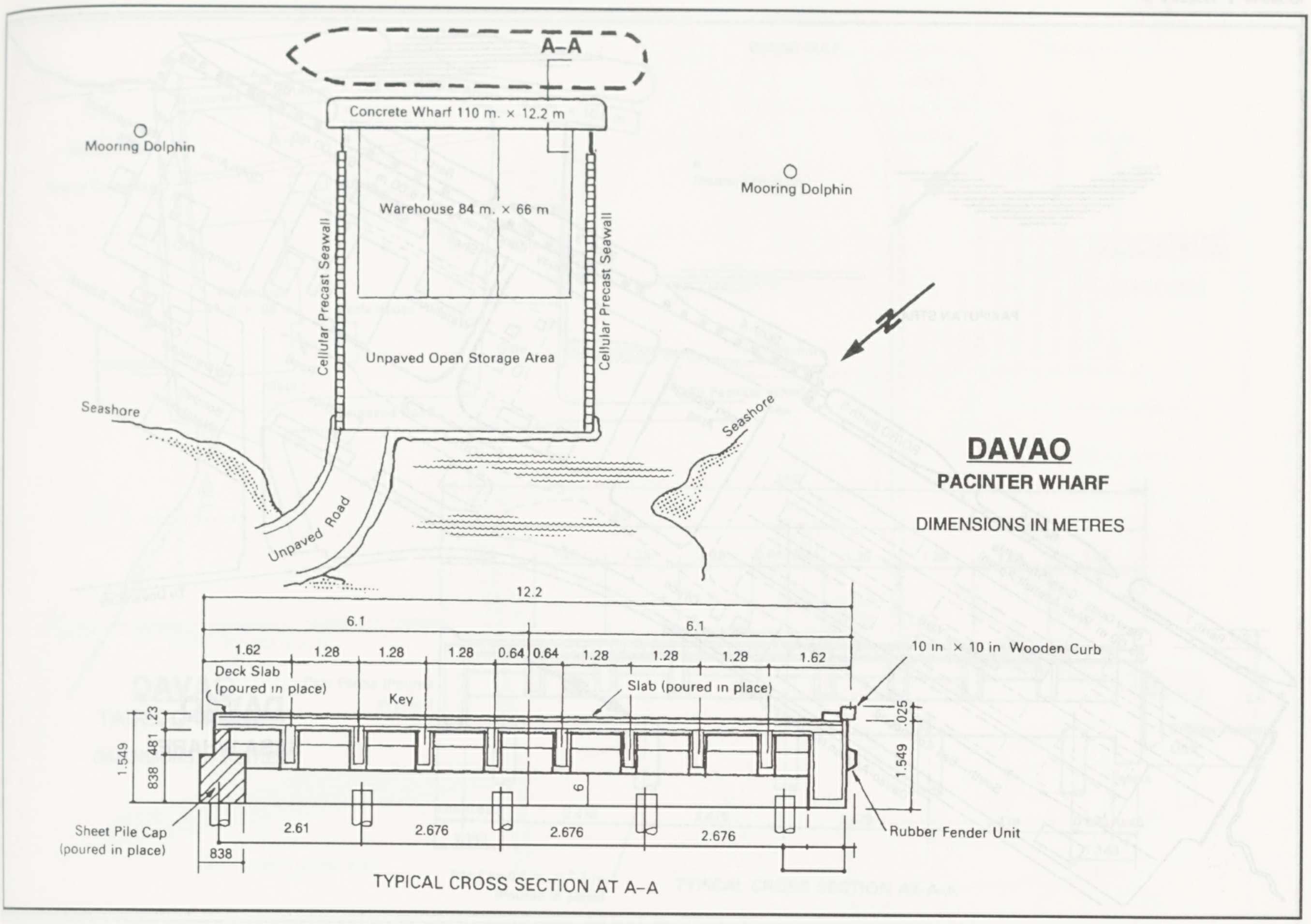

DAVAO
LEGOIL WHARF
Slipway
Hexane Storage Tank
Solvent Plant
Water Tanks
Refinery Bldg
Oil Tanks
Machine Shop
Oil Mill Bldg.
Bonded Warehouse
Pellet Warehouse
Existing Concrete Wharf 198 m. × 30 m.
PAKIPUTAN STRAIT
Receiving Station
Admin. Bldg
Copra Warehouse
Copra Warehouse
Belt Conveyor
A–A
Pump House
9.32 m.
21 m
3.1 m.
3.07 m.
3.65 m.
Inflo Auto Weigher
Top of Belt Elev 19 m
Top of Belt Elev 15 m
Length 100 ft.
Elephant Trunk
Counterweight
Slab Elev. +3.64 m
Back Fill
MLLW Elev. 0.00
12 in. × 12 in. × 12 ft Rubbing Timber
4 m.
4 m.
4 m
4 m.
33 m.
Approx –9 m.
CROSS SECTION AT A–A
Seabed
N

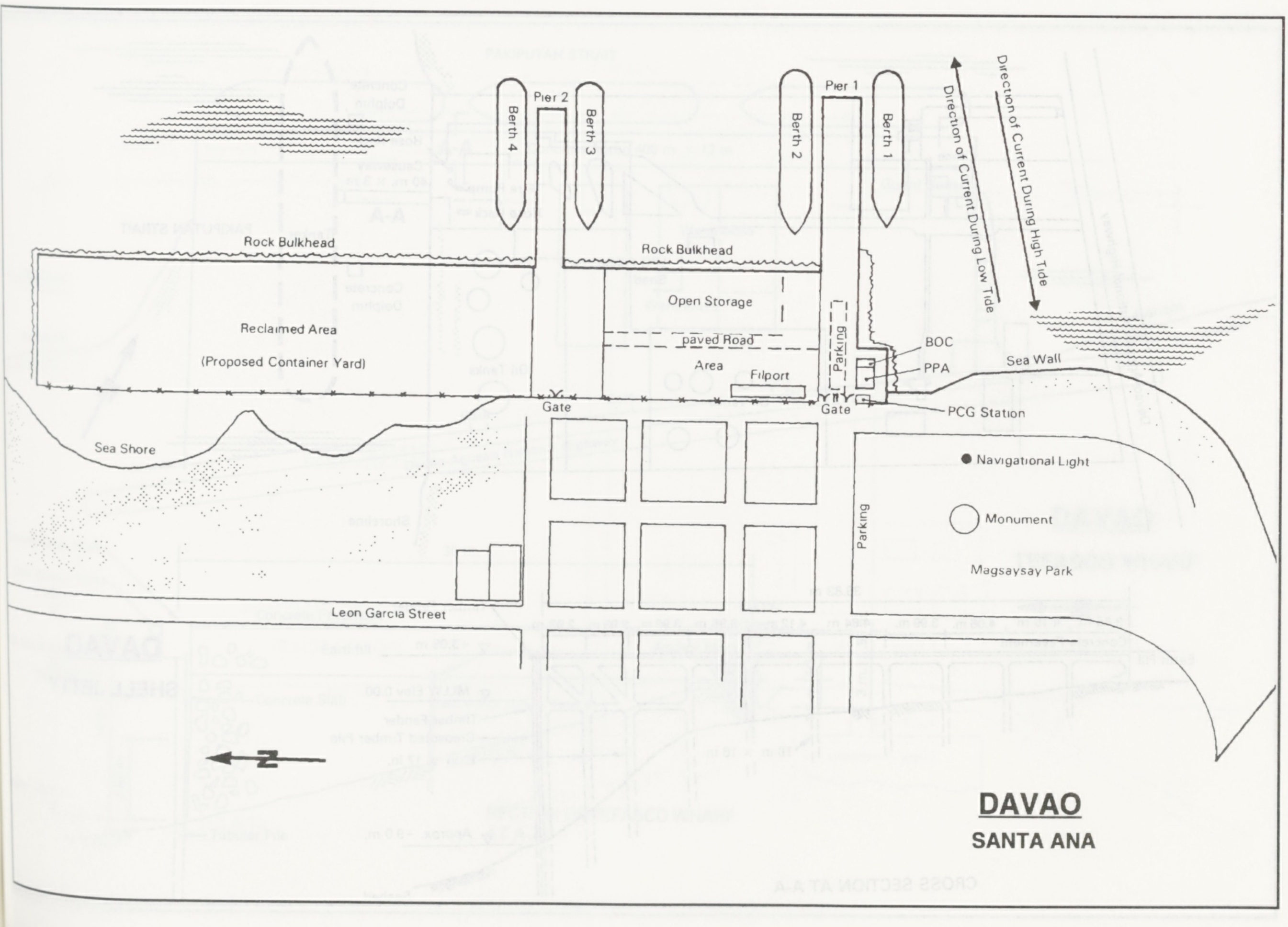

MALALAG BAY
DAVAO
MALALAG WHARF
DEPTHS IN METRES
5 0
0 0
Conc. Deck
Expansion
Gate Valve
Shore Line
Molasses Pipe
Causeway Road Paved
Prop Reclamation
Sand
5 0
0 0
Coast Guard Station
Shore Line
UNPAVED ROAD
N

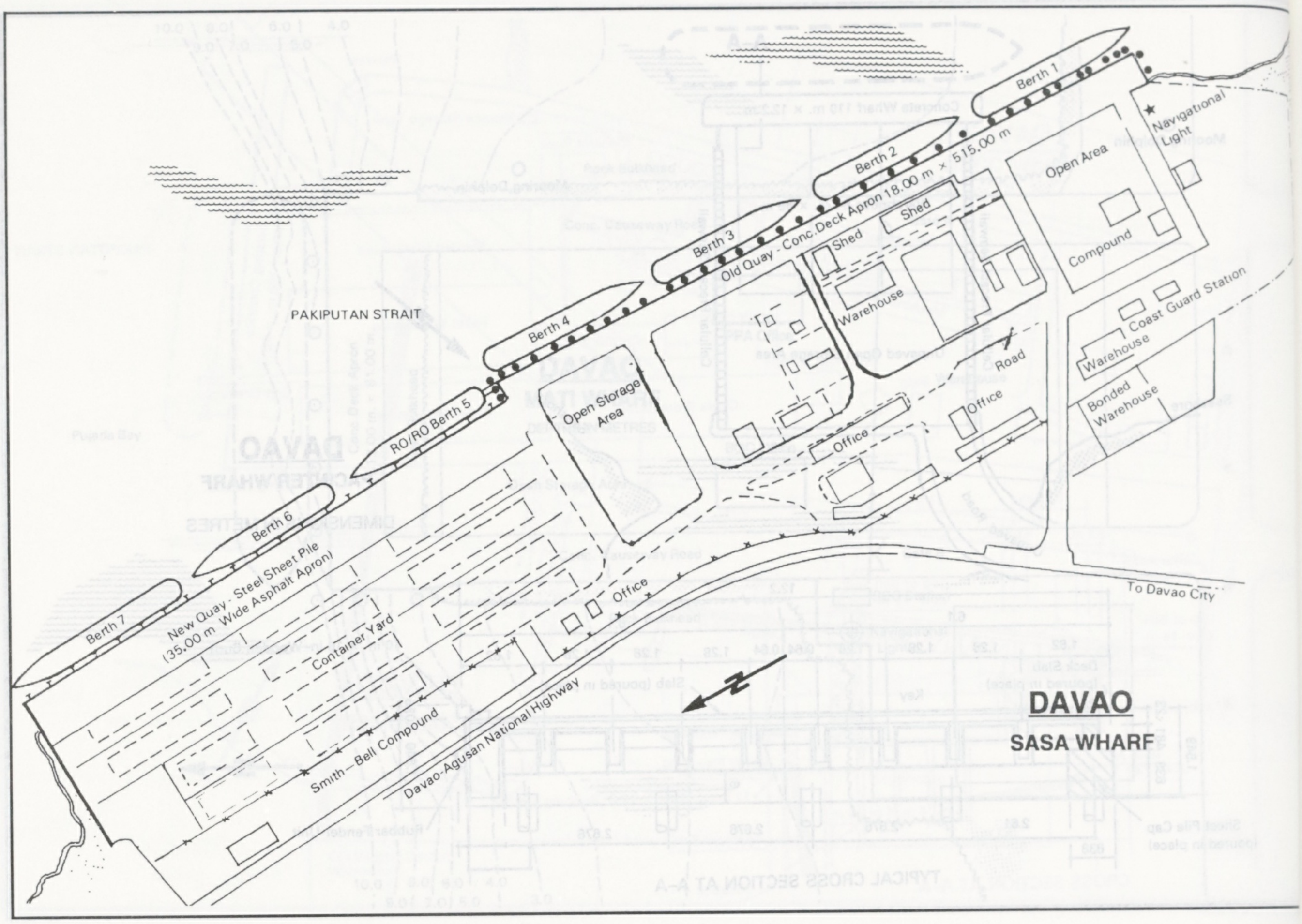

DAVAO
MATI WHARF
DEPTHS IN METRES
10.0
9.0
8.0
7.0
6.0
5.0
4.0
Rock Bulkhead
Conc. Causeway Road
Gate A
PPA Office
Warehouse
Conc.Deck Apron 12.00 m. × 81.00 m.
Rock Bulkhead
Pujada Bay
BOC Office
Open Storage Area
Conc. Causeway Road
Gate B
RCG Station
Rock Bulkhead
Navigational Light
Warehouse
N
D
A
O
R
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0

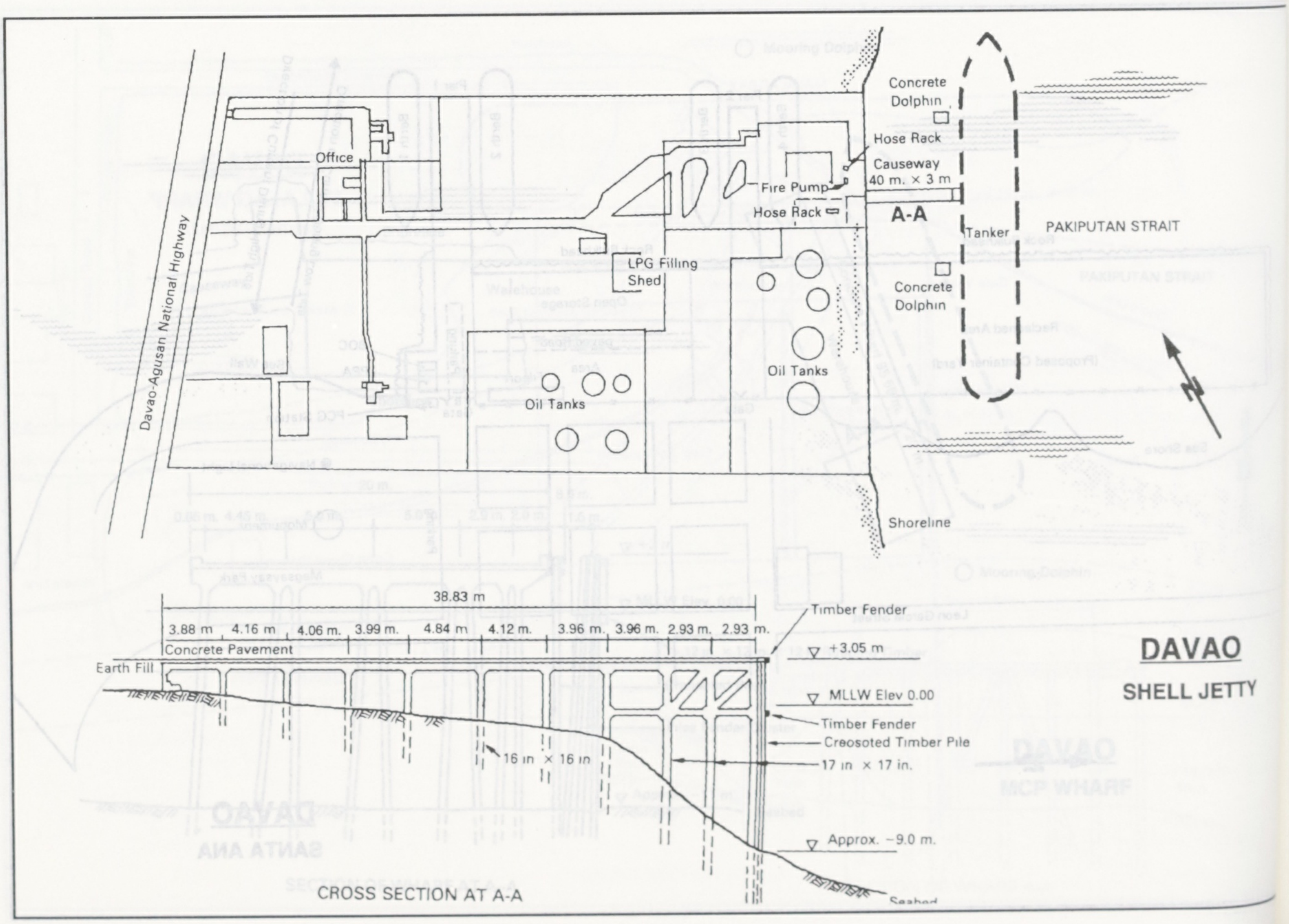

Mooring Dolphin
Shoreline
Causeway
Warehouse
Shoreline
Concrete Wharf 95.65 m. × 20 m.
Warehouse
A–A
PAKIPUTAN STRAIT
N
Mooring Dolphin
DAVAO
MCP WHARF
20 m.
8.0 m.
0.85 m.
4.45 m.
5.0 m.
5.0 m.
2.9 m.
2.0 m.
1.5 m.
+3 m
MLLW Elev 0.00
12 in. × 12 in. × 12 ft. Rubbing Timber
Creosoted Pile
Piles Fender Cluster
Approx. −11 m.
Seabed

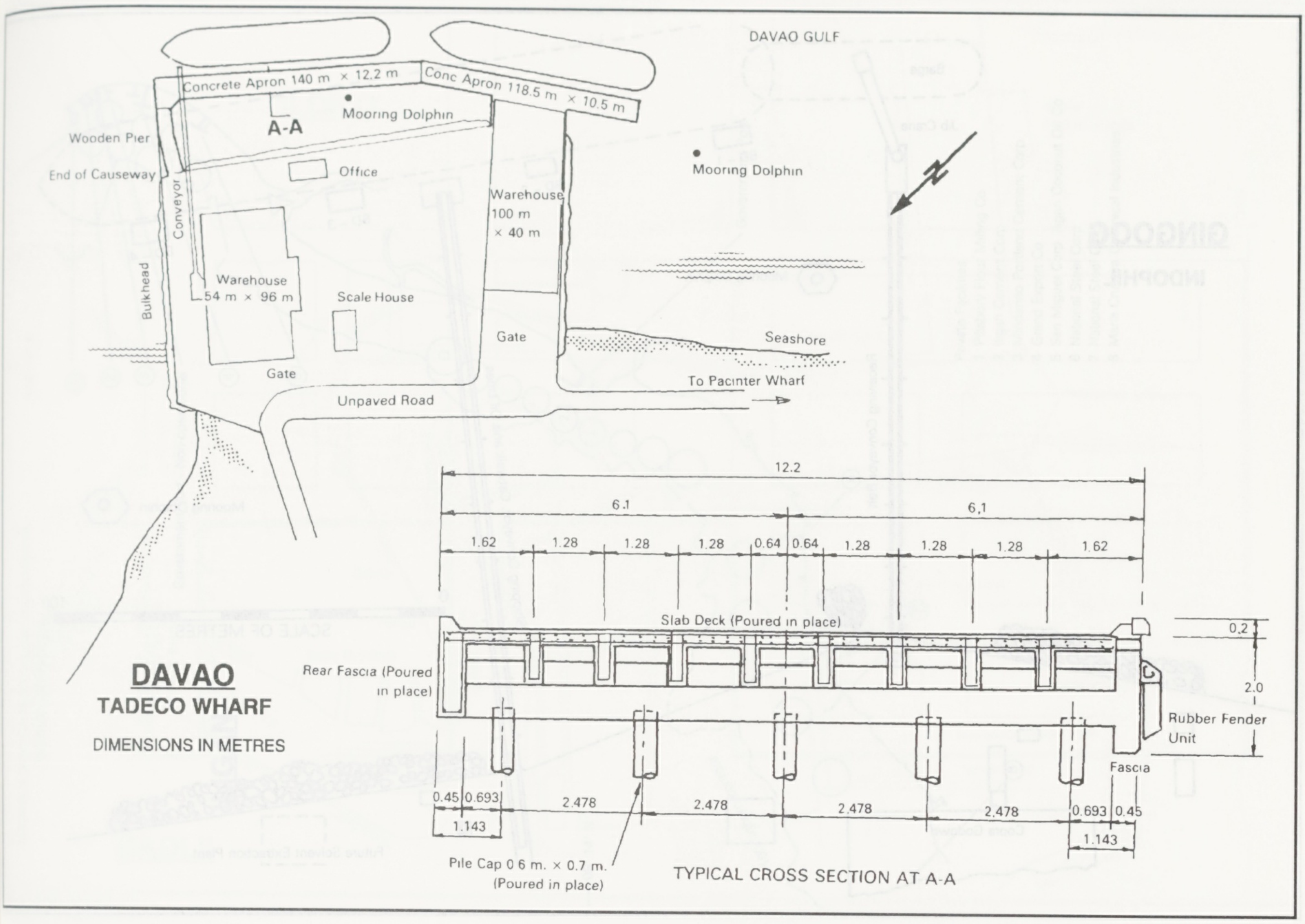
SECTION OF WHARF AT A–A


A–A
Concrete Wharf 110 m. × 12.2 m
Mooring Dolphin
Mooring Dolphin
Warehouse 84 m. × 66 m
Cellular Precast Seawall
Cellular Precast Seawall
Unpaved Open Storage Area
Seashore
Seashore
Unpaved Road
N
DAVAO
PACINTER WHARF
DIMENSIONS IN METRES
12.2
6.1
6.1
1.62
1.28
1.28
1.28
0.64
0.64
1.28
1.28
1.28
1.62
10 in × 10 in Wooden Curb
Deck Slab (poured in place)
Key
Slab (poured in place)
.23
481
838
1.549
.025
1.549
9
Sheet Pile Cap (poured in place)
2.61
2.676
2.676
2.676
838
Rubber Fender Unit
TYPICAL CROSS SECTION AT A–A


Pier 2
Pier 1
Berth 4
Berth 3
Berth 2
Berth 1
Direction of Current During Low Tide
Direction of Current During High Tide
Rock Bulkhead
Rock Bulkhead
Open Storage
Reclaimed Area
(Proposed Container Yard)
paved Road
Area
Filport
Parking
BOC
PPA
Sea Wall
Gate
Gate
PCG Station
Sea Shore
Navigational Light
Monument
Parking
Magsaysay Park
Leon Garcia Street
N
DAVAO
SANTA ANA


PAKIPUTAN STRAIT
Berth 1
Berth 2
Berth 3
Berth 4
RO/RO Berth 5
Berth 6
Berth 7
Old Quay - Conc. Deck Apron 18.00 m × 515.00 m
New Quay: Steel Sheet Pile (35.00 m Wide Asphalt Apron)
Navigational Light
Open Area
Compound
Coast Guard Station
Warehouse
Bonded Warehouse
Shed
Shed
Warehouse
Road
Office
Office
Open Storage Area
Container Yard
Office
Smith - Bell Compound
Davao-Agusan National Highway
To Davao City
N
DAVAO
SASA WHARF


Davao-Agusan National Highway
Office
LPG Filling Shed
Oil Tanks
Oil Tanks
Fire Pump
Hose Rack
Hose Rack
Concrete Dolphin
Causeway 40 m. × 3 m
A-A
Tanker
Concrete Dolphin
PAKIPUTAN STRAIT
N
Shoreline
38.83 m
3.88 m
4.16 m
4.06 m.
3.99 m.
4.84 m
4.12 m.
3.96 m.
3.96 m.
2.93 m.
2.93 m.
Concrete Pavement
Earth Fill
Timber Fender
+3.05 m
MLLW Elev 0.00
Timber Fender
Creosoted Timber Pile
17 in × 17 in.
16 in × 16 in
Approx. −9.0 m.
Seabed
CROSS SECTION AT A-A
DAVAO
SHELL JETTY

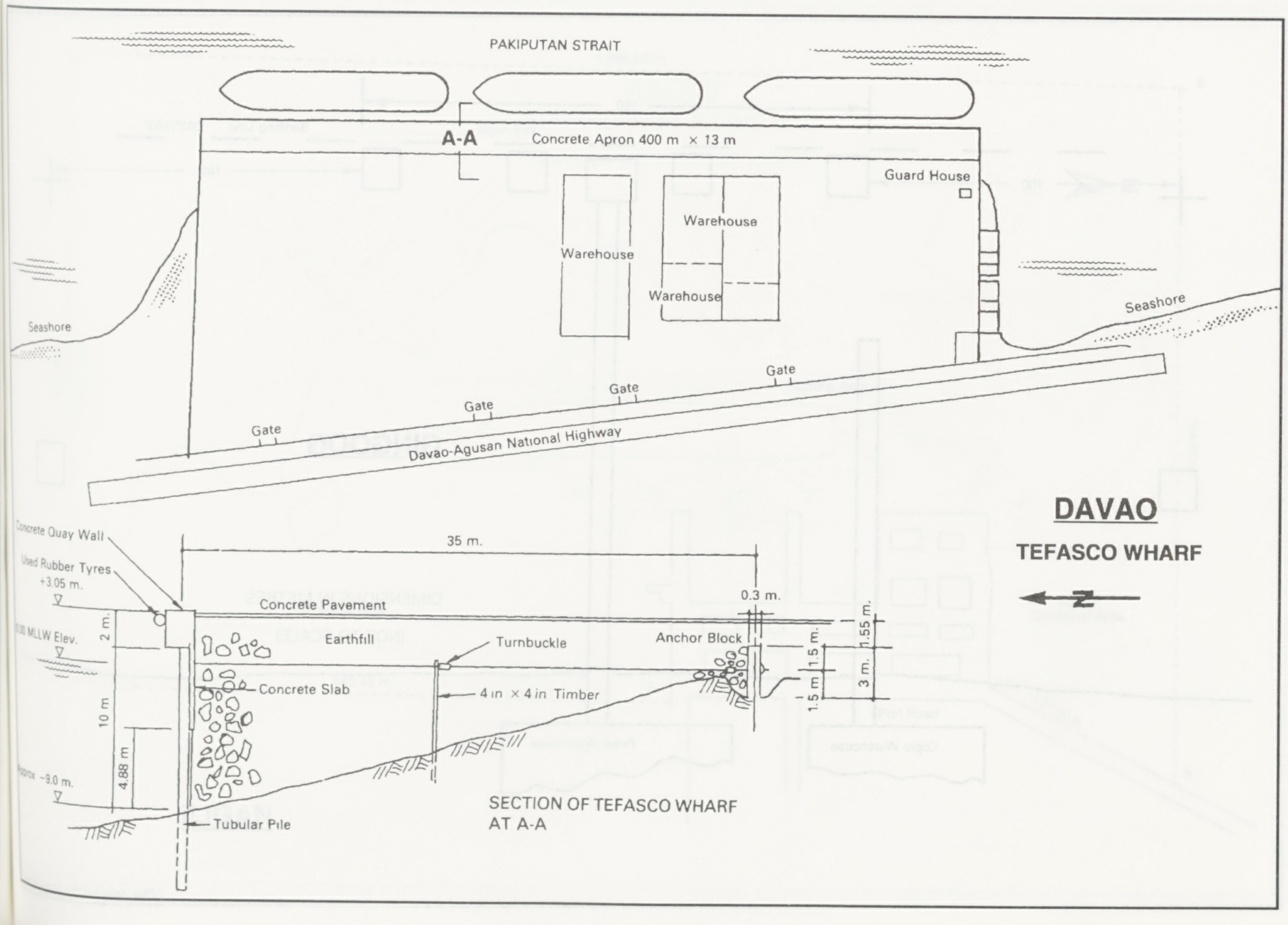


DAVAO

TADECO WHARF

DIMENSIONS IN METRES

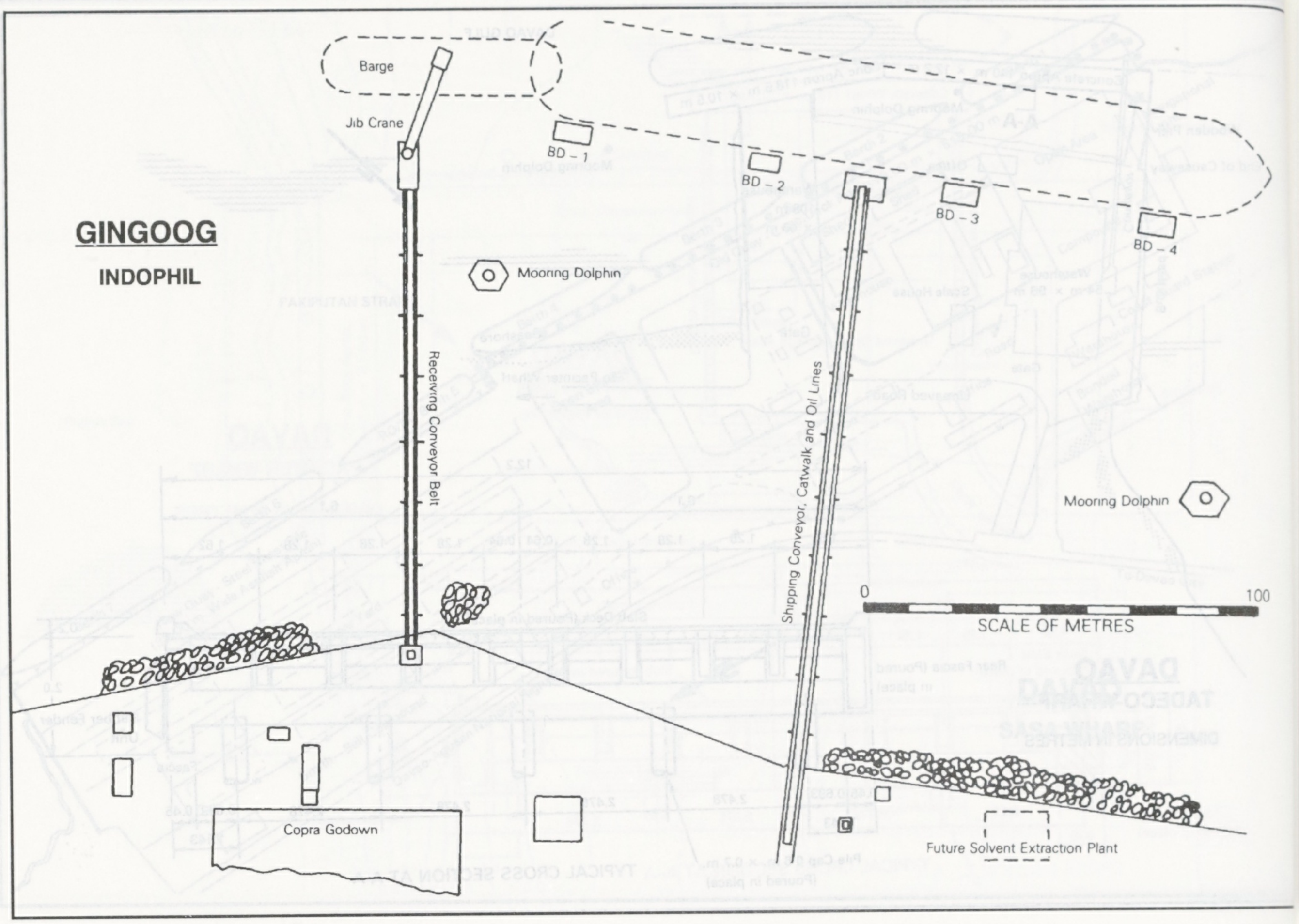
DAVAO GULF
Concrete Apron 140 m × 12.2 m
Conc Apron 118.5 m × 10.5 m
A-A
Mooring Dolphin
Wooden Pier
End of Causeway
Conveyor
Office
Warehouse 100 m × 40 m
Mooring Dolphin
Bulkhead
Warehouse 54 m × 96 m
Scale House
Gate
Seashore
Gate
To Pacinter Wharf
Unpaved Road
12.2
6.1
6.1
1.62
1.28
1.28
1.28
0.64
0.64
1.28
1.28
1.28
1.62
Slab Deck (Poured in place)
0.2
Rear Fascia (Poured in place)
2.0
Rubber Fender Unit
Fascia
0.45
0.693
2.478
2.478
2.478
2.478
0.693
0.45
1.143
1.143
Pile Cap 0.6 m. × 0.7 m. (Poured in place)
TYPICAL CROSS SECTION AT A-A

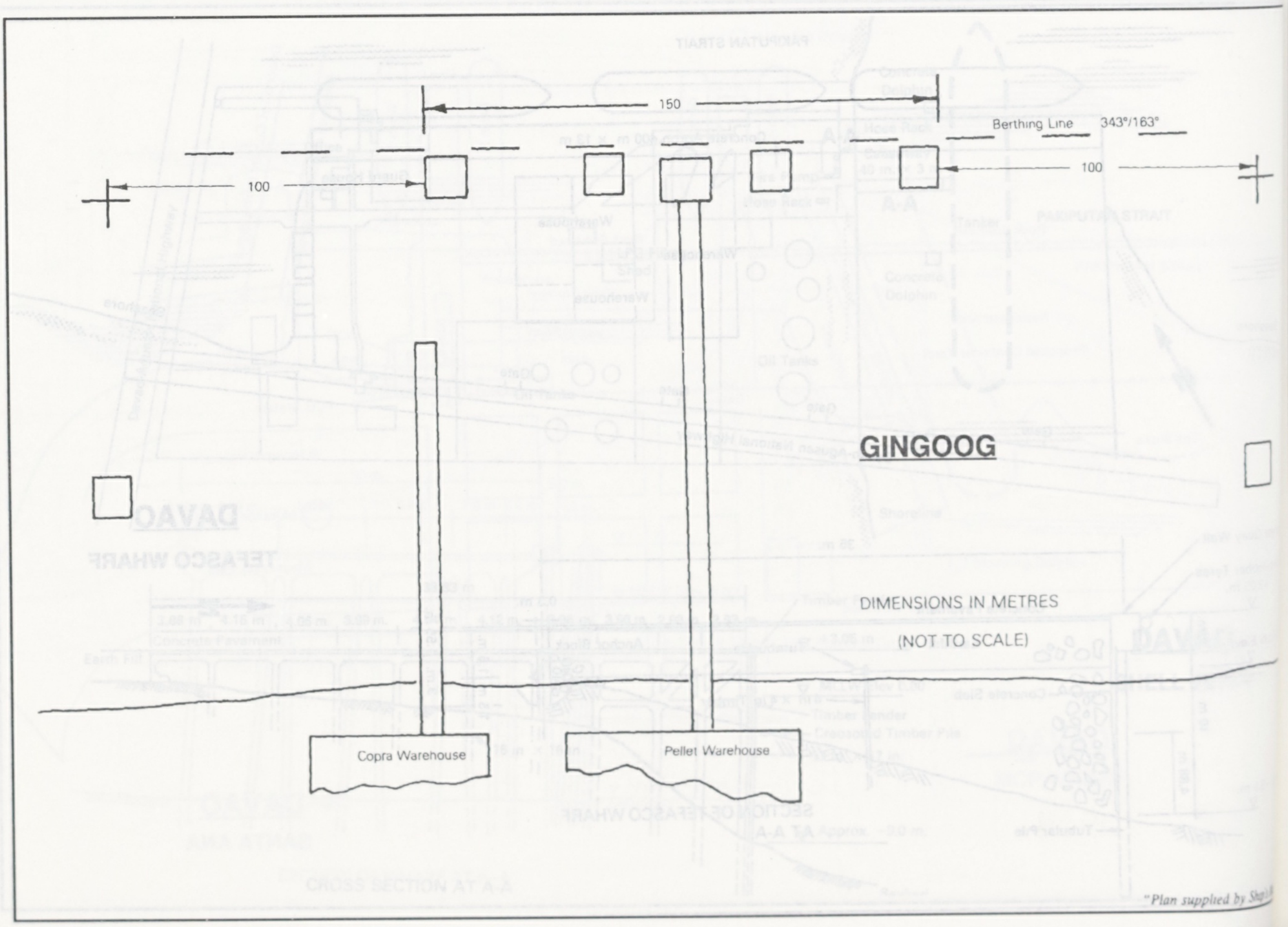


DAVAO

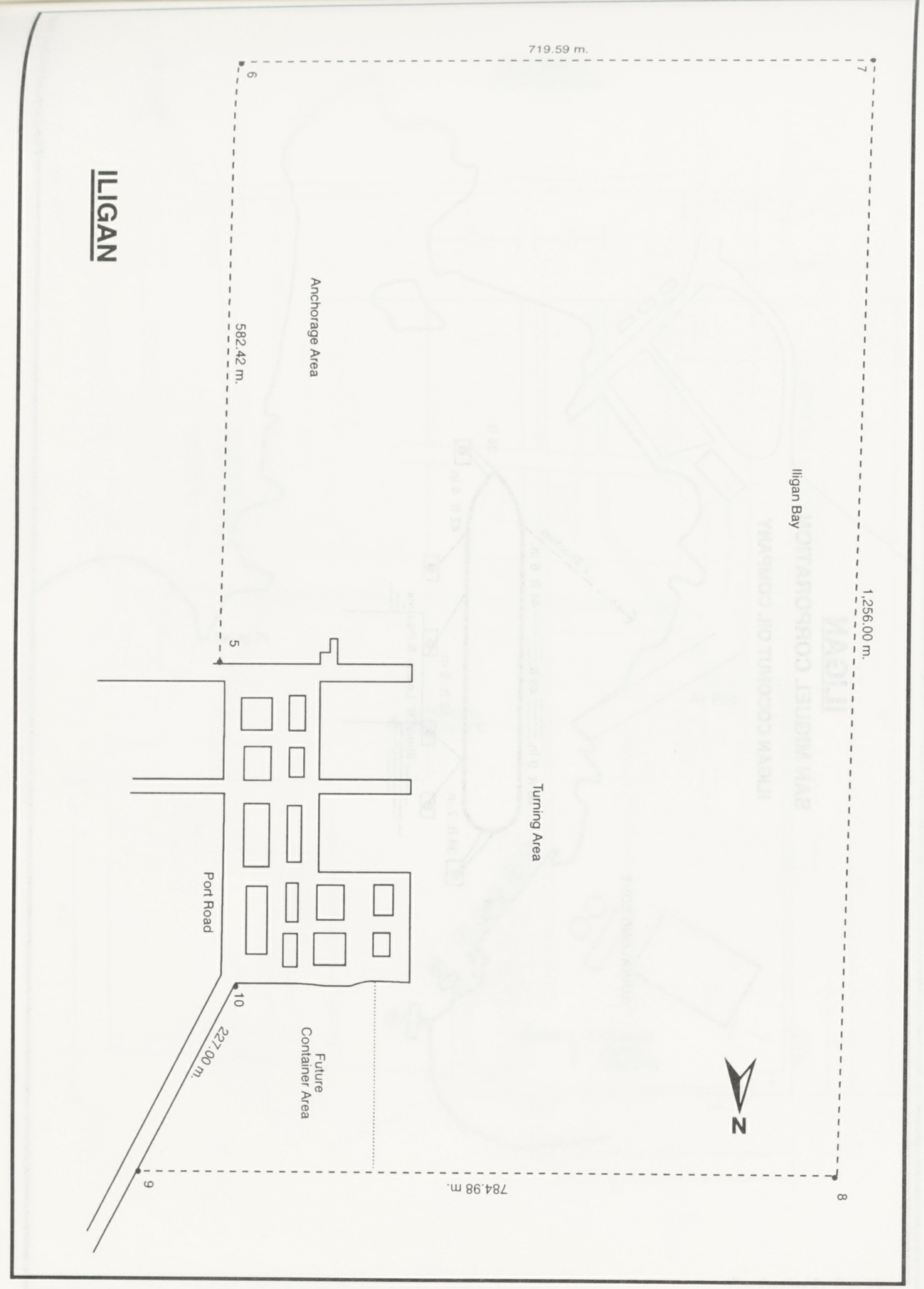
TEFASCO WHARF

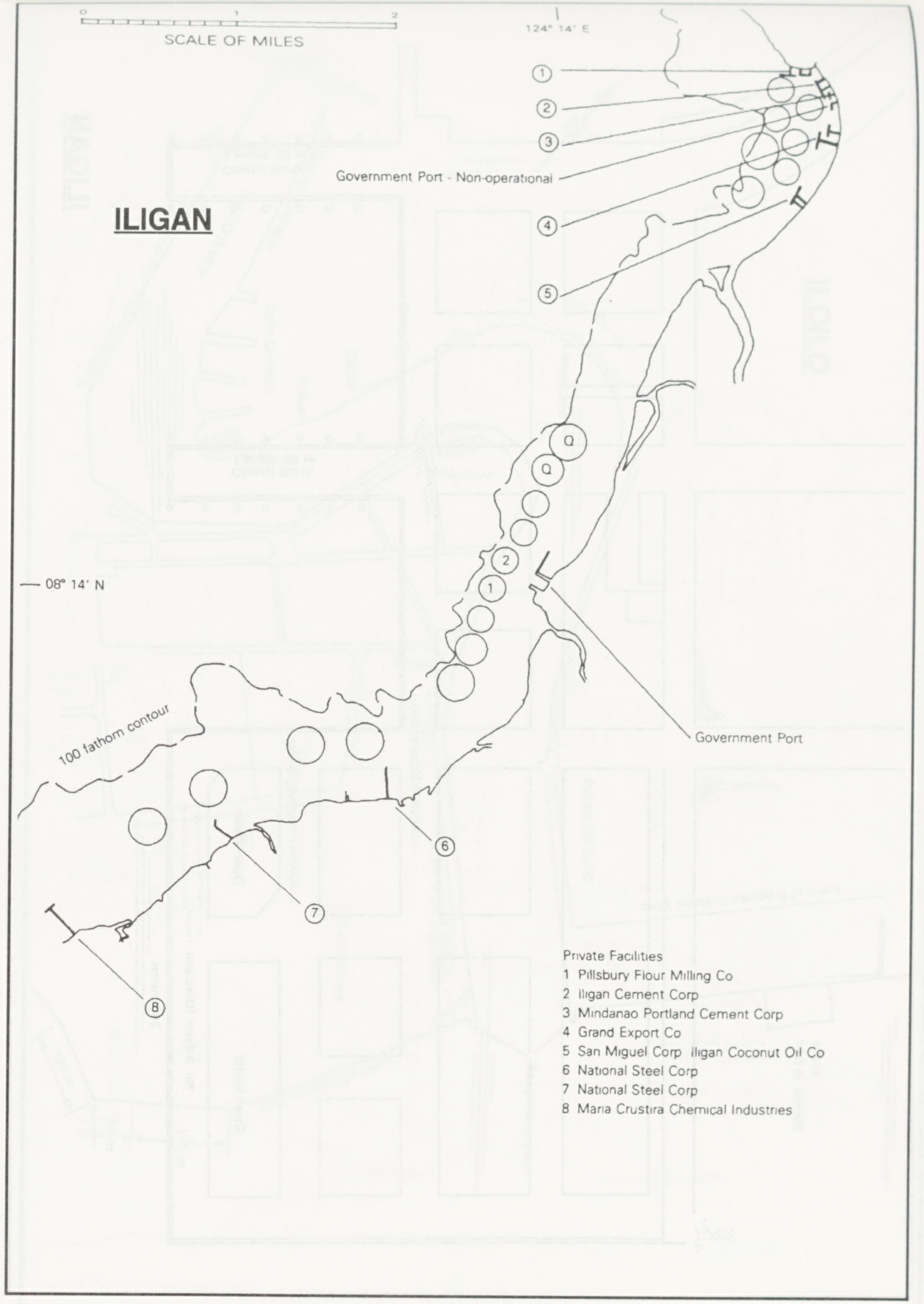
PAKIPUTAN STRAIT
A-A
Concrete Apron 400 m × 13 m
Guard House
Warehouse
Warehouse
Warehouse
Seashore
Seashore
Gate
Gate
Gate
Gate
Davao-Agusan National Highway
Concrete Quay Wall
Used Rubber Tyres
+3.05 m.
0.00 MLLW Elev.
Approx −9.0 m.
2 m.
10 m
4.88 m
35 m.
Concrete Pavement
Earthfill
Concrete Slab
Turnbuckle
4 in × 4 in Timber
Anchor Block
0.3 m.
1.5 m.
1.5 m
3 m.
1.55 m.
Tubular Pile
SECTION OF TEFASCO WHARF AT A-A


GINGOOG
INDOPHIL
Barge
Jib Crane
BD – 1
BD – 2
BD – 3
BD – 4
Mooring Dolphin
Receiving Conveyor Belt
Shipping Conveyor, Catwalk and Oil Lines
Mooring Dolphin
0
100
SCALE OF METRES
Copra Godown
Future Solvent Extraction Plant

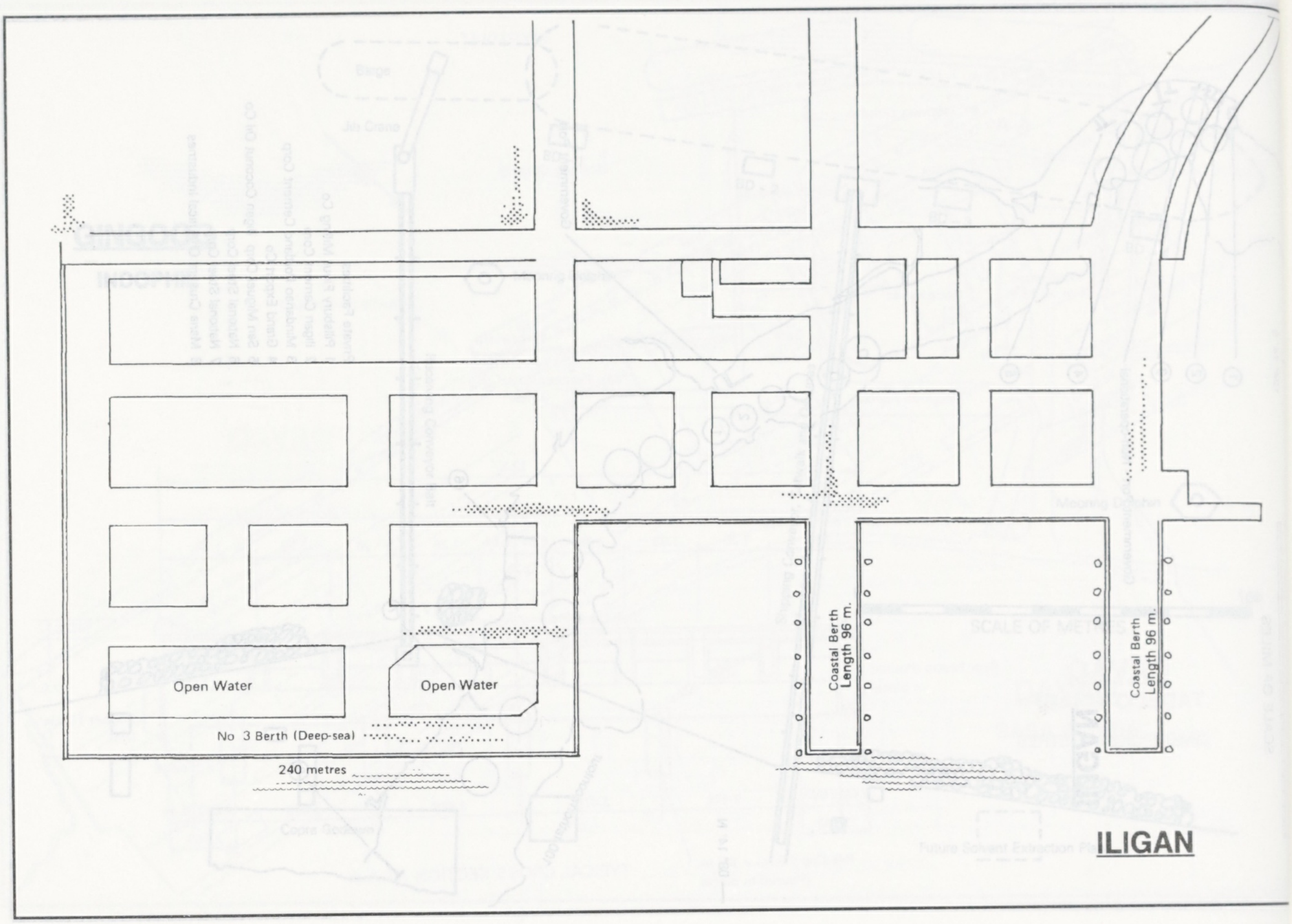

150
Berthing Line 343°/163°
100
100
GINGOOG
DIMENSIONS IN METRES
(NOT TO SCALE)
Copra Warehouse
Pellet Warehouse

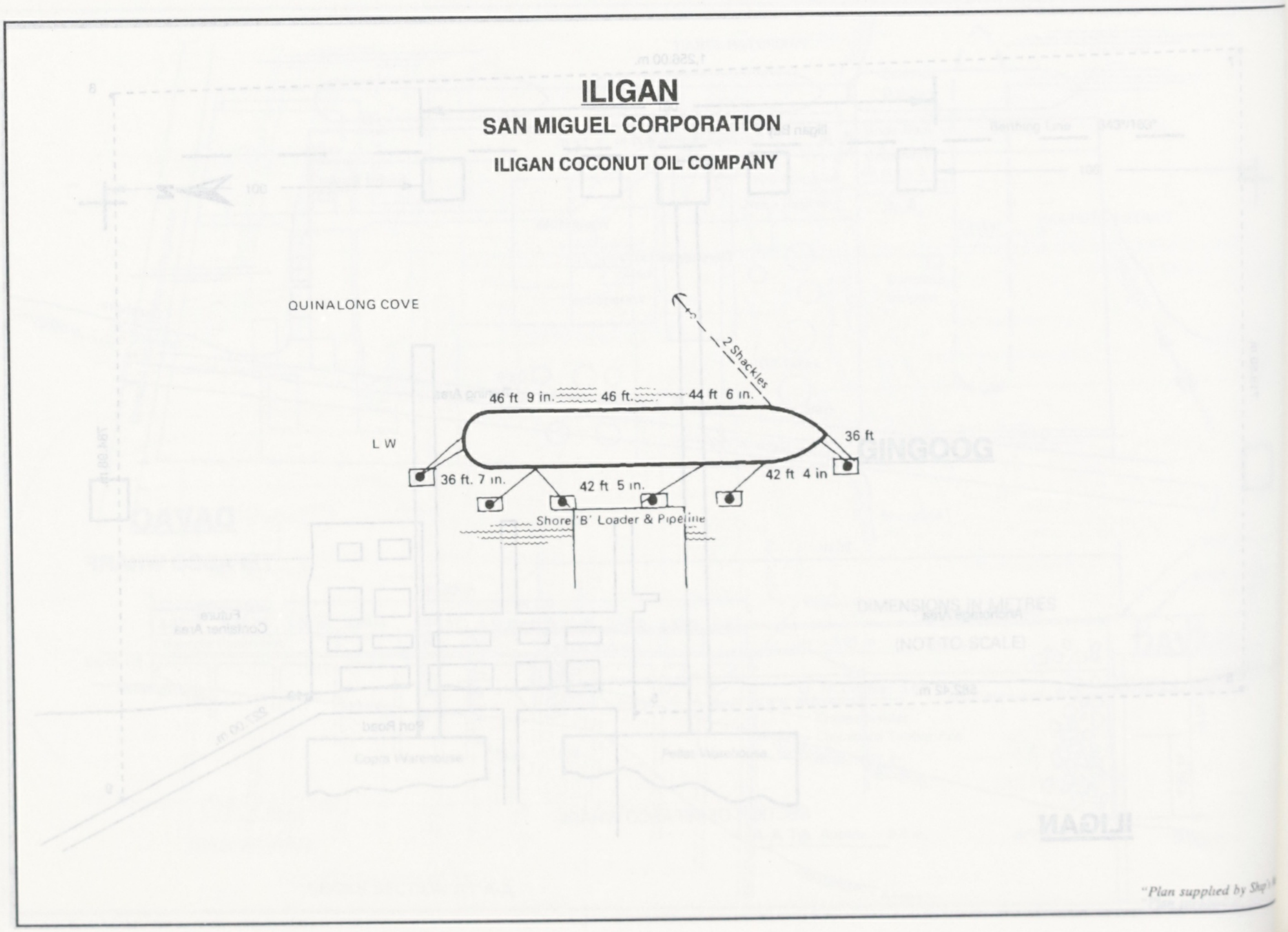
"Plan supplied by Sh


ILIGAN
719.59 m.
582.42 m.
1,256.00 m.
784.98 m.
227.00 m.
6
7
5
8
9
10
Anchorage Area
Iligan Bay
Turning Area
Port Road
Future Container Area
N

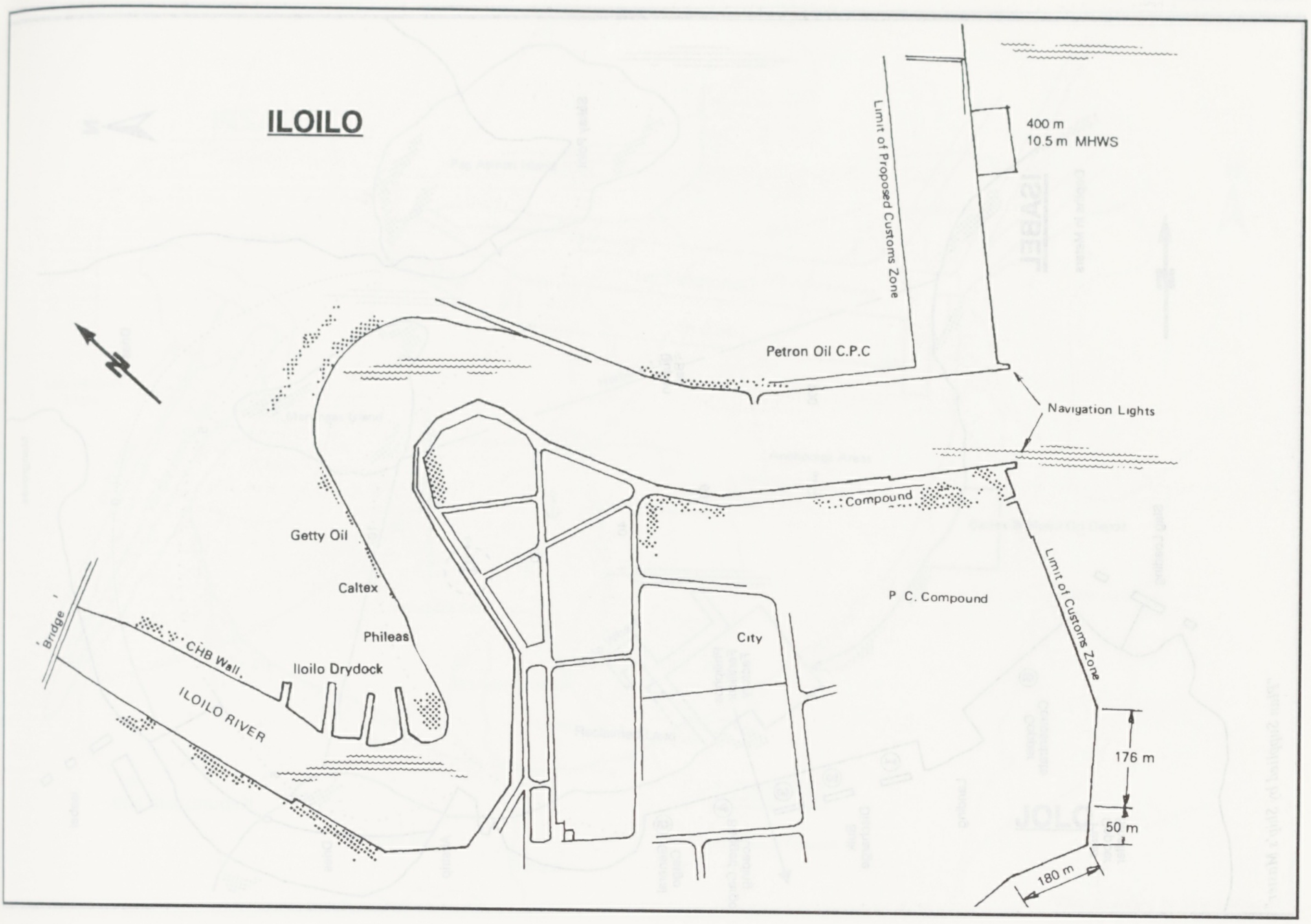

SCALE OF MILES
0
1
2
124° 14' E
08° 14' N
ILIGAN
①
②
③
Government Port - Non-operational
④
⑤
Q
Q
2
1
Government Port
100 fathom contour
⑥
⑦
⑧

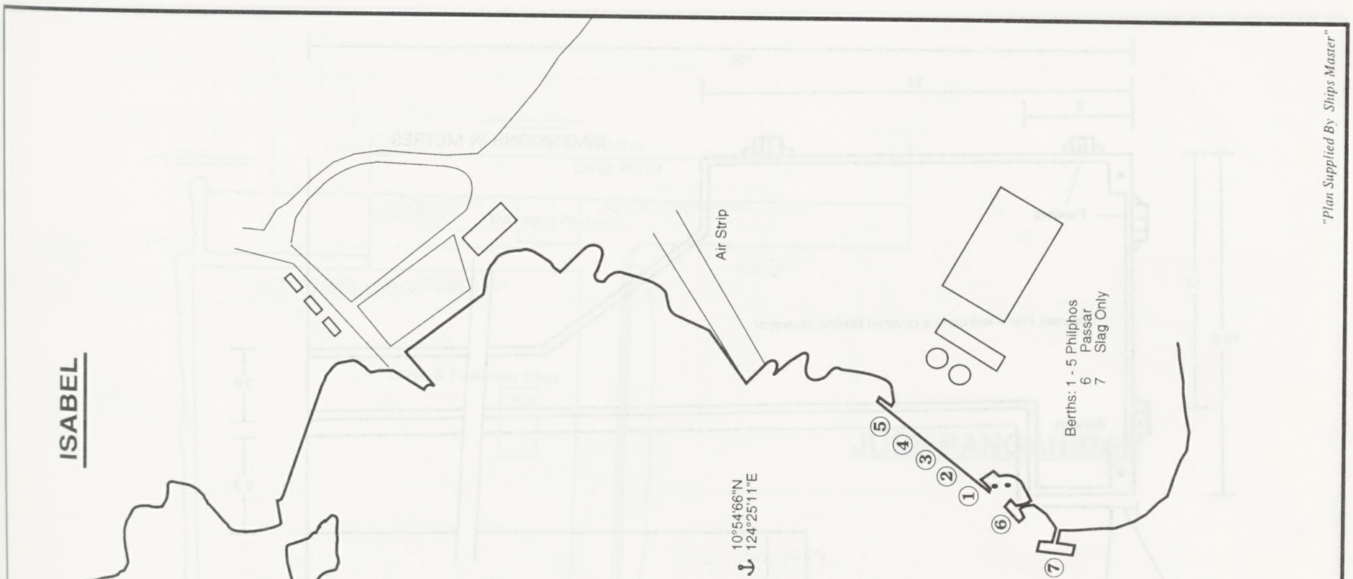
Private Facilities
1 Pillsbury Flour Milling Co
2 Iligan Cement Corp
3 Mindanao Portland Cement Corp
4 Grand Export Co
5 San Miguel Corp Iligan Coconut Oil Co
6 National Steel Corp
7 National Steel Corp
8 Maria Crustira Chemical Industries

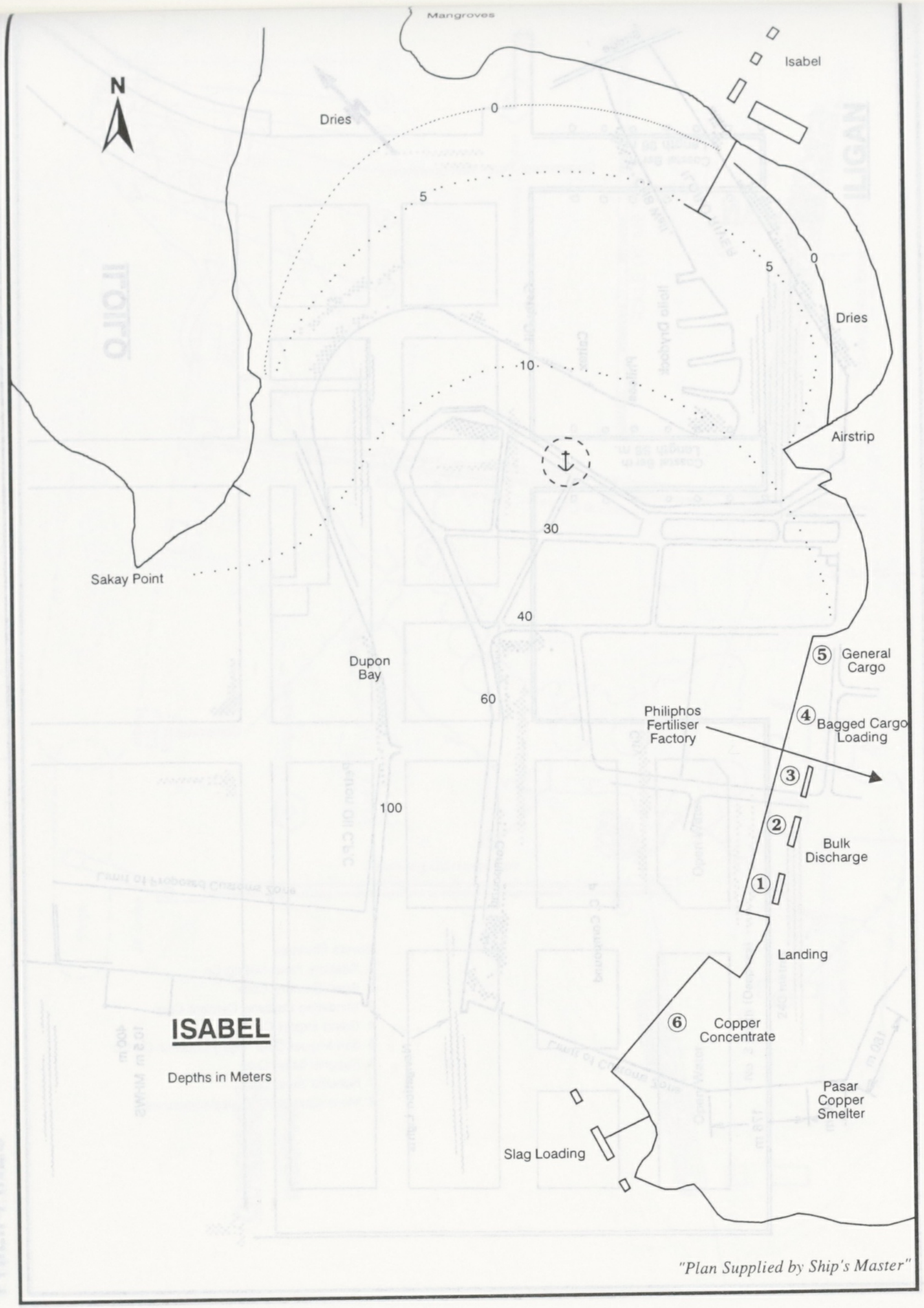

Open Water
Open Water
No 3 Berth (Deep-sea)
240 metres
Coastal Berth Length 96 m.
Coastal Berth Length 96 m.
ILIGAN


ILIGAN
SAN MIGUEL CORPORATION
ILIGAN COCONUT OIL COMPANY
QUINALONG COVE
2 Shackles
46 ft 9 in.
46 ft.
44 ft 6 in.
36 ft
L W
36 ft. 7 in.
42 ft 5 in.
42 ft 4 in
Shore 'B' Loader & Pipeline

“Plan supplied by Ship's


ILOILO
N
Limit of Proposed Customs Zone
400 m
10.5 m MHWS
Petron Oil C.P.C
Navigation Lights
Compound
Getty Oil
Caltex
Phileas
Iloilo Drydock
CHB Wall
ILOILO RIVER
Bridge
City
P C. Compound
Limit of Customs Zone
176 m
50 m
180 m

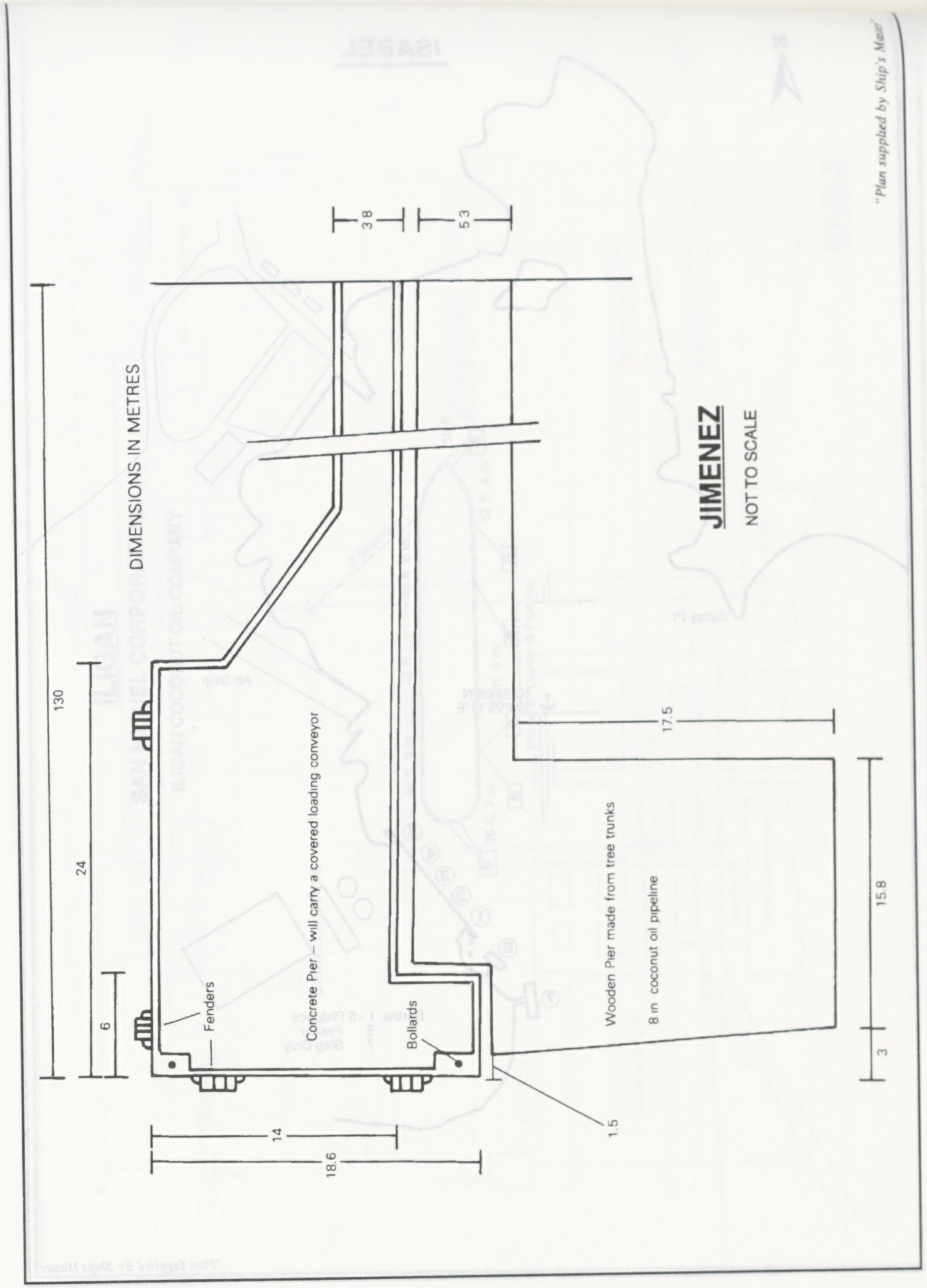

ISABEL
Air Strip
Berths: 1 - 5 Philphos
6 Passar
7 Slag Only
⑤
④
③
②
①
⑥
⑦
10°54'66"N
124°25'11"E
Sakay Pt
N
"Plan Supplied By Ships Master"


Mangroves
Isabel
N
Dries
0
5
5
0
10
30
40
60
100
Dries
Airstrip
Sakay Point
Dupon Bay
⑤ General Cargo
④ Bagged Cargo Loading
Philiphos Fertiliser Factory
③
②
①
Bulk Discharge
Landing
⑥ Copper Concentrate
Pasar Copper Smelter
Slag Loading

ISABEL

Depths in Meters

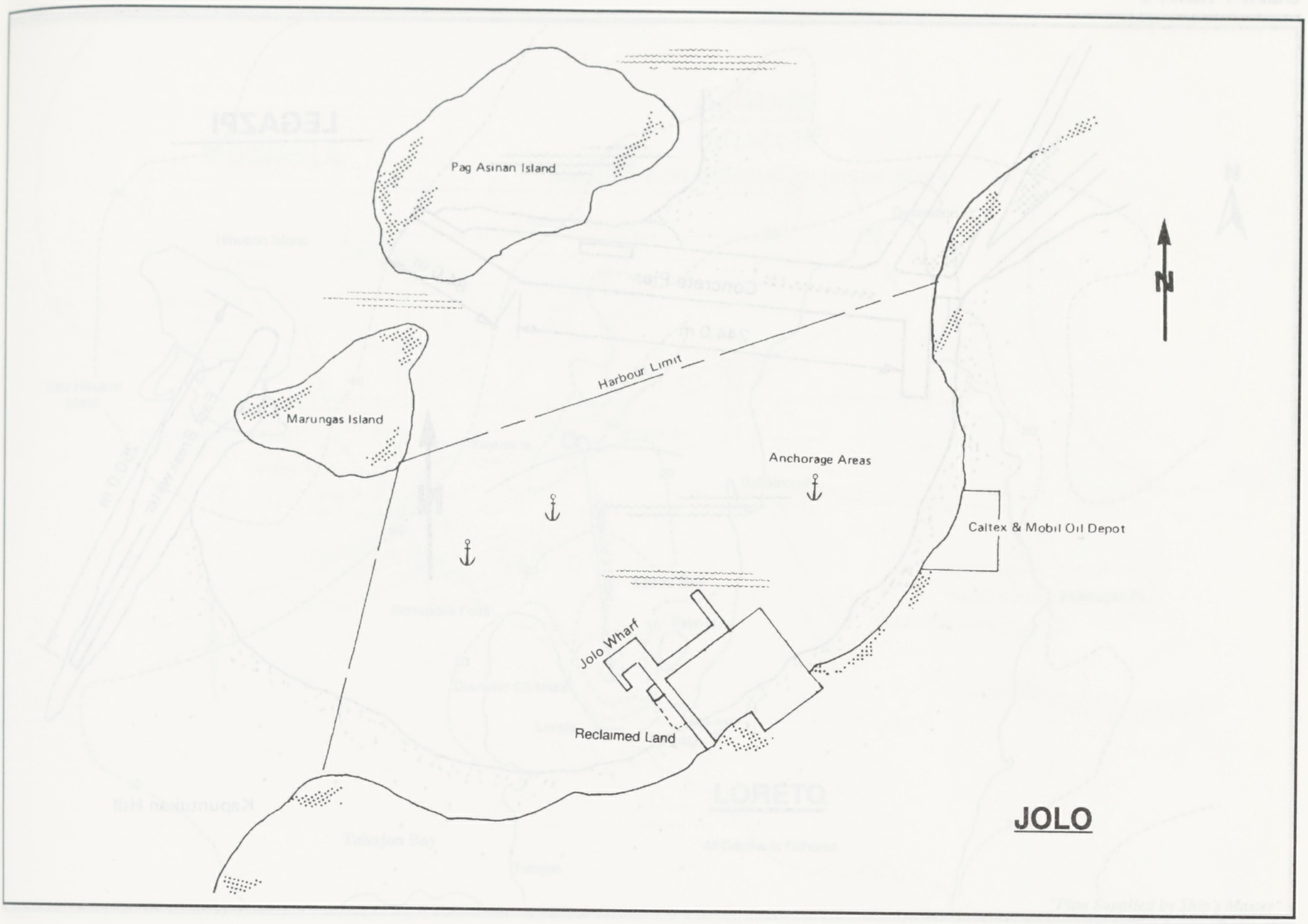
"Plan Supplied by Ship's Master"

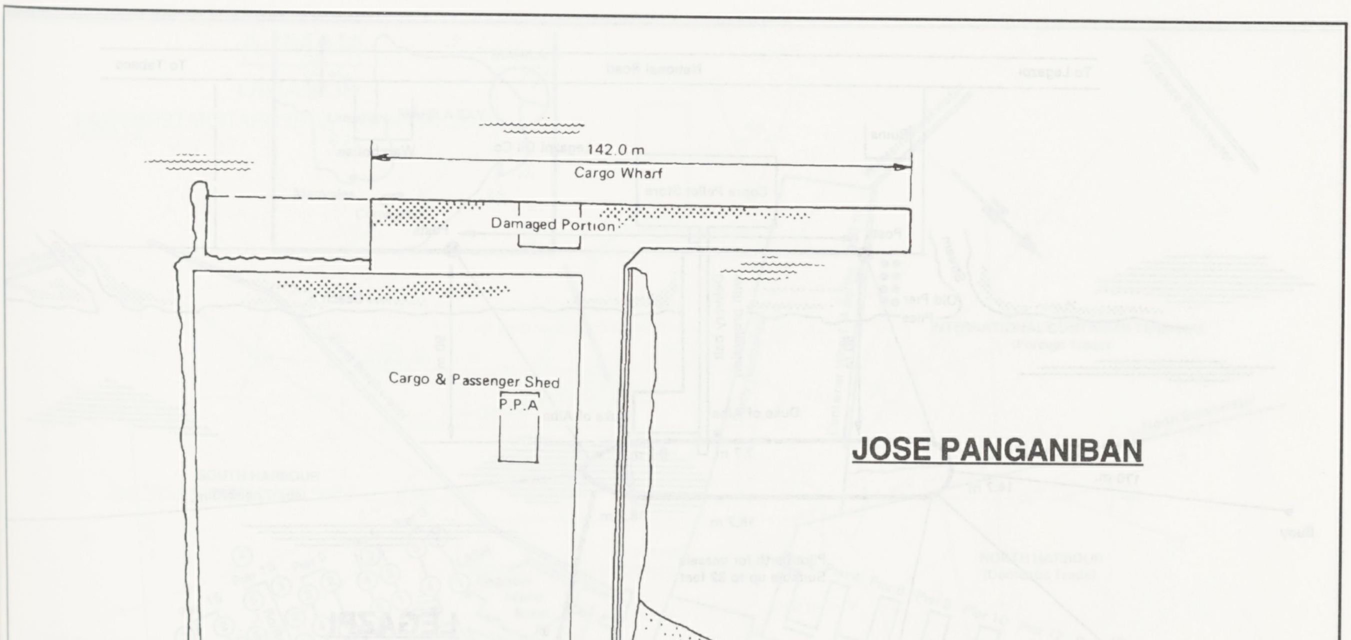

DIMENSIONS IN METRES
3.8
5.3
130
24
6
14
18.6
17.5
15.8
3
1.5
Fenders
Concrete Pier – will carry a covered loading conveyor
Bollards
Wooden Pier made from tree trunks
8 in coconut oil pipeline

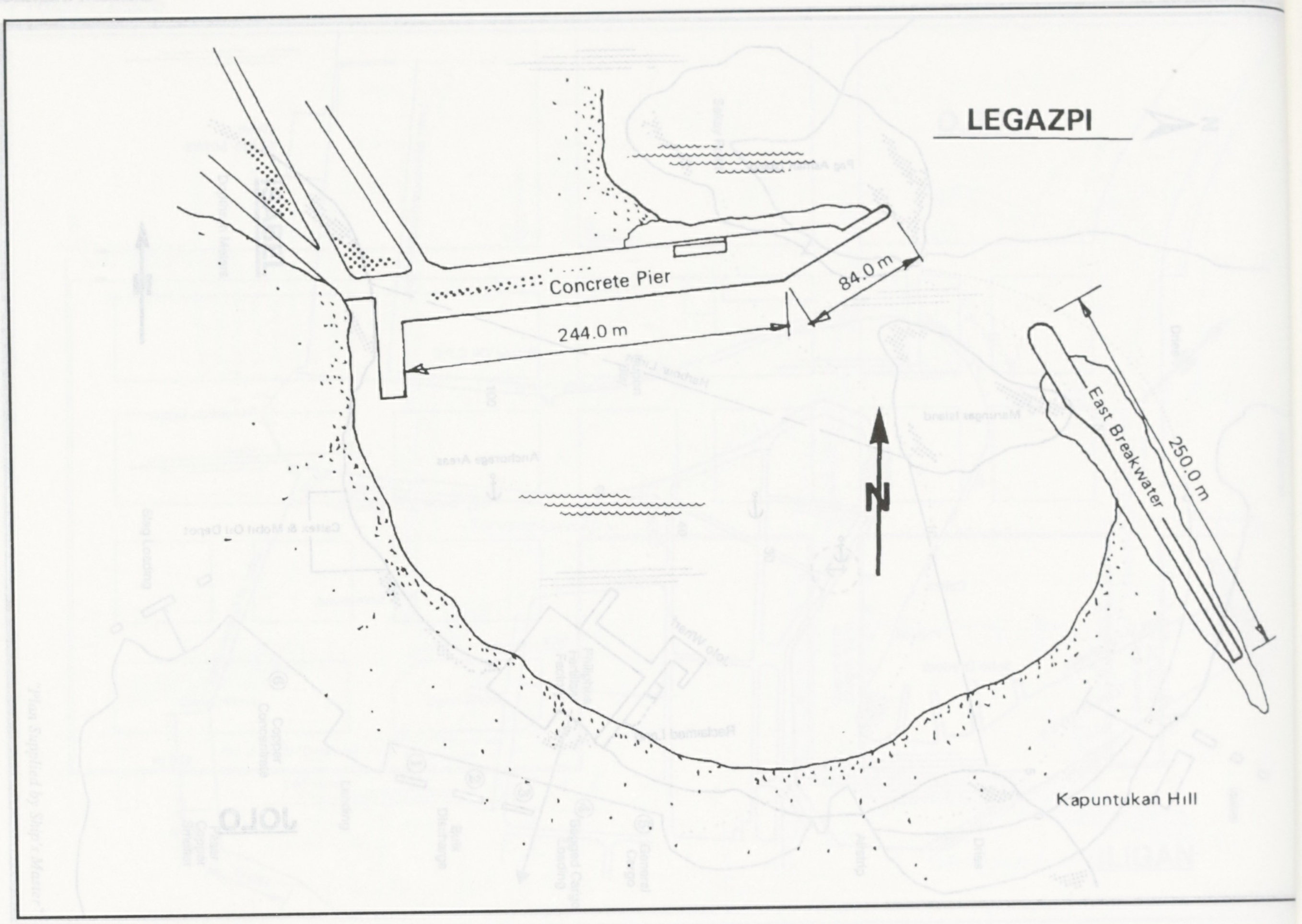
JIMENEZ

NOT TO SCALE

"Plan supplied by Ship's Master"

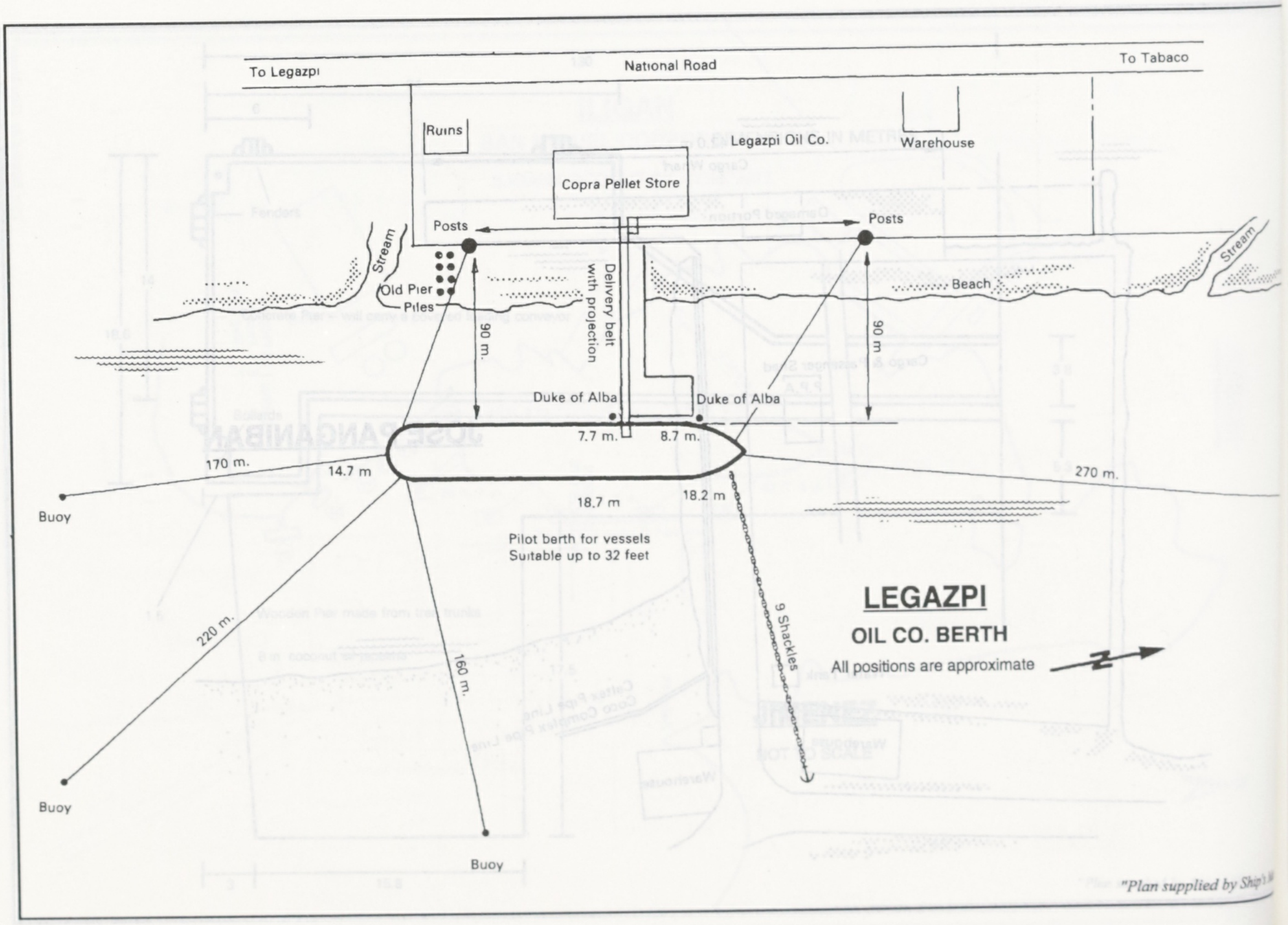

Pag Asinan Island
N
Harbour Limit
Marungas Island
Anchorage Areas
Caltex & Mobil Oil Depot
Jolo Wharf
Reclaimed Land
JOLO


142.0 m
Cargo Wharf
Damaged Portion
Cargo & Passenger Shed
P.P.A
JOSE PANGANIBAN
Water Tank
Warehouse
Caltex Pipe Line
Coco Complex Pipe Line
Warehouse



LEGAZPI

Concrete Pier
244.0 m
84.0 m
East Breakwater
250.0 m
N
Kapuntukan Hill

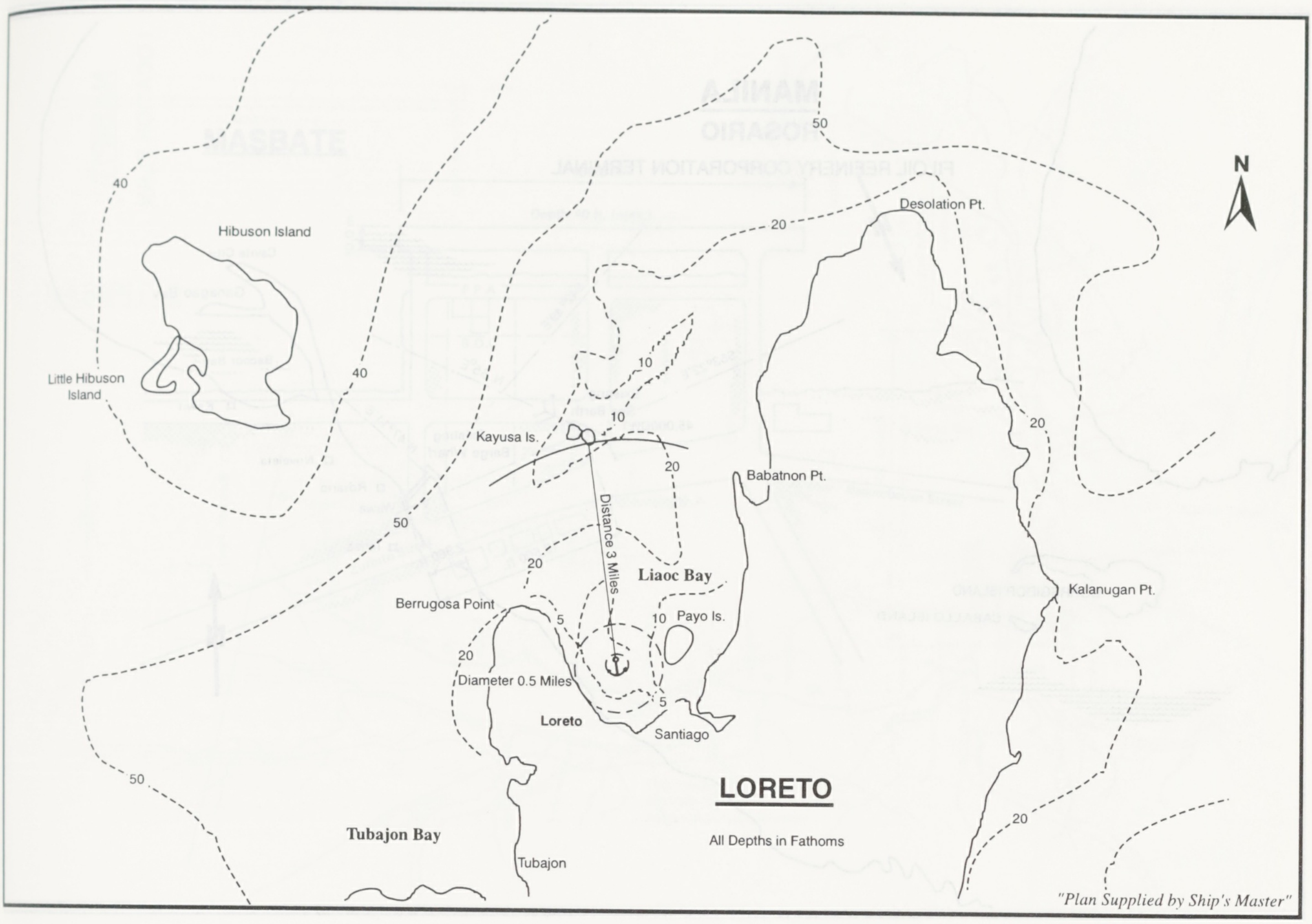


LEGAZPI

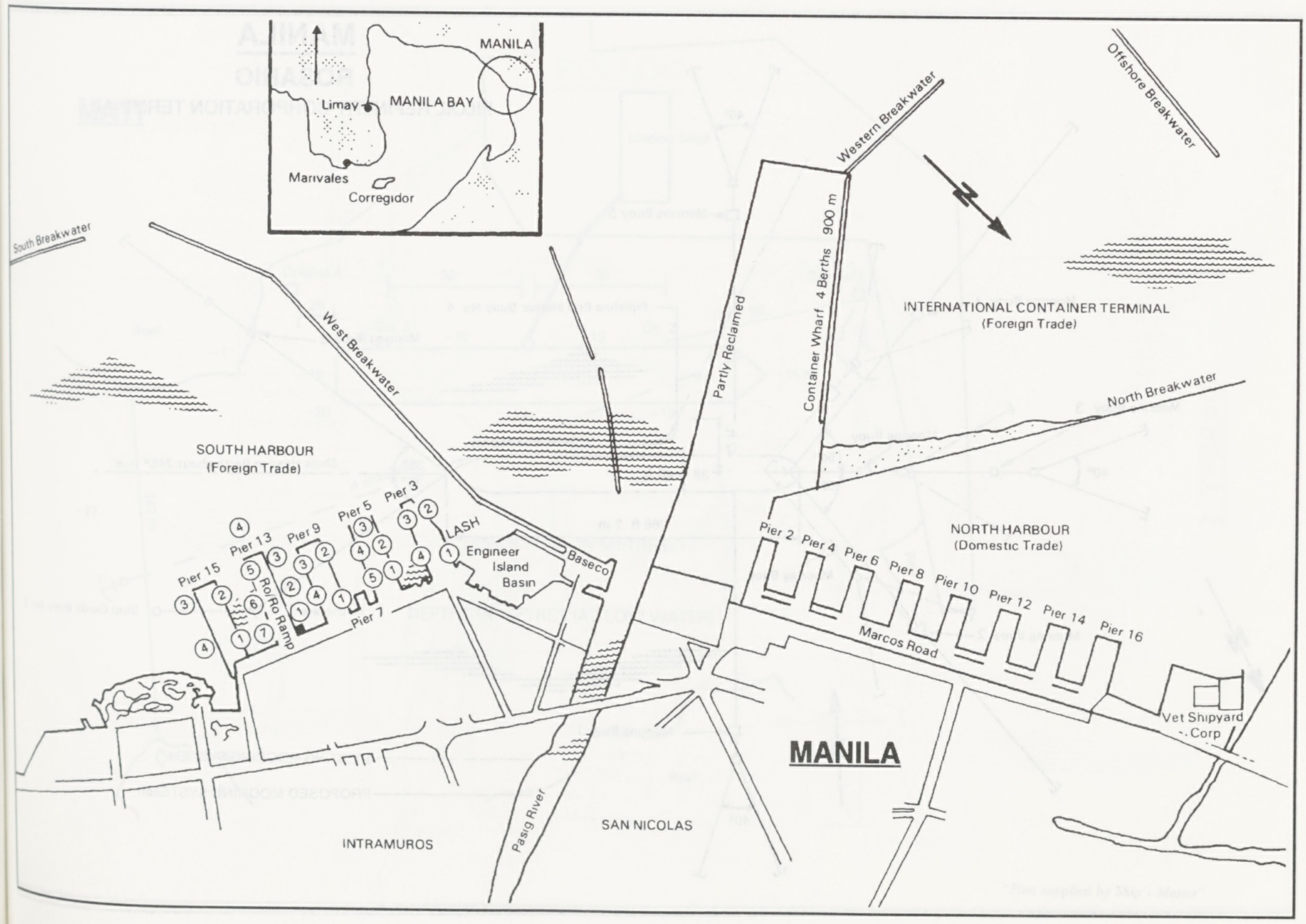
OIL CO. BERTH

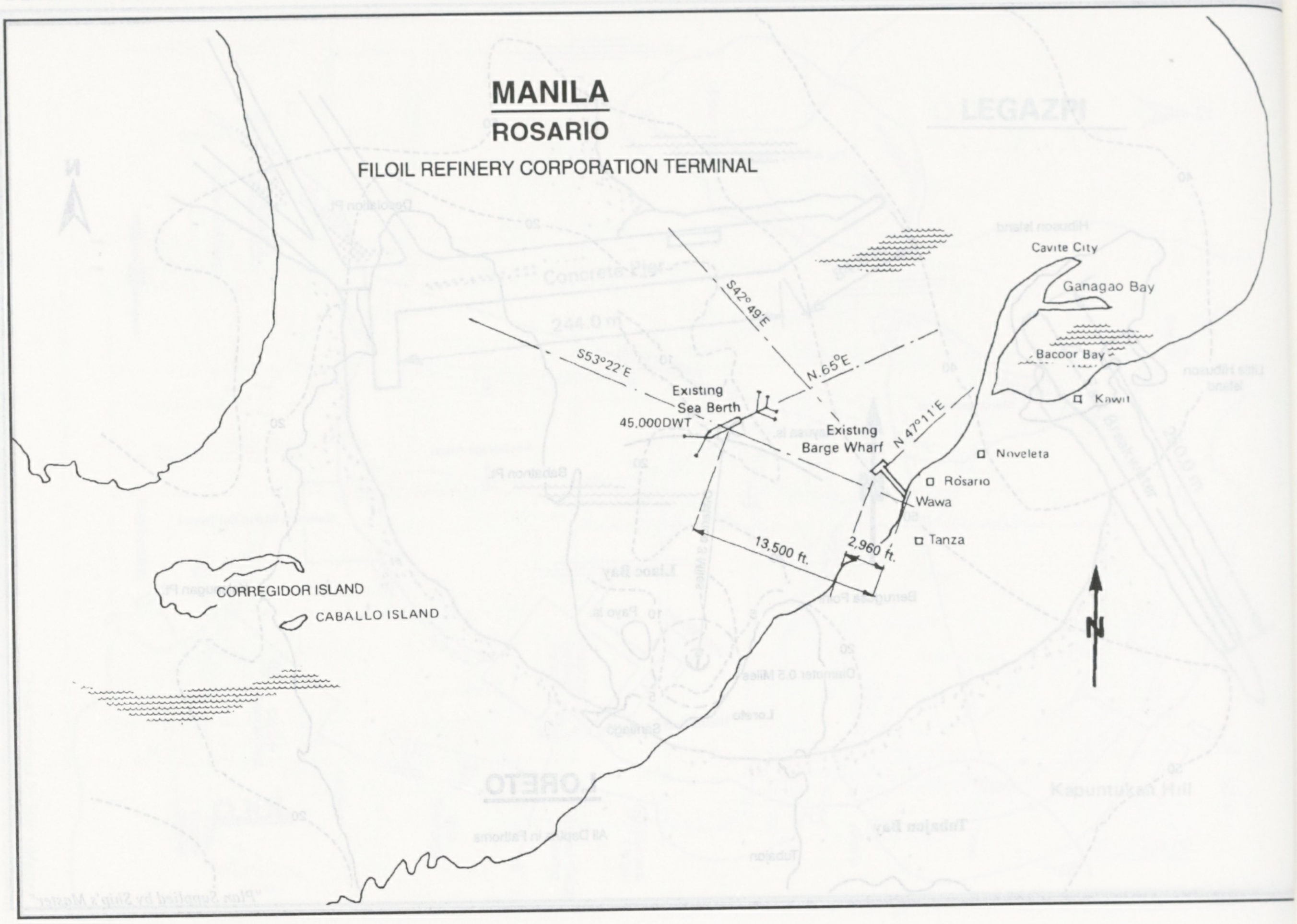
All positions are approximate

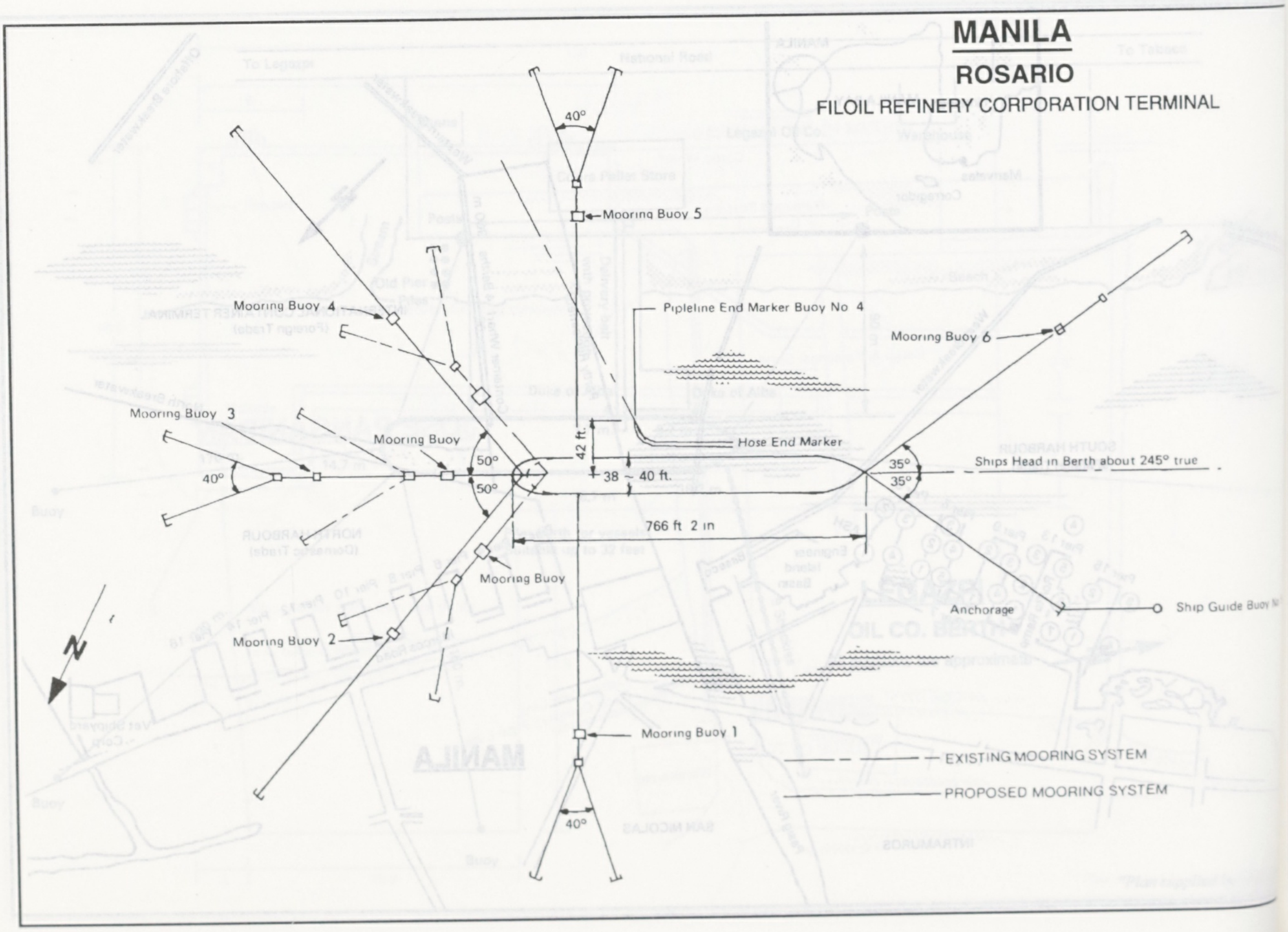
To Legazpi
National Road
To Tabaco
Ruins
Legazpi Oil Co.
Warehouse
Copra Pellet Store
Posts
Posts
Stream
Old Pier Piles
Delivery belt with projection
90 m.
90 m
Beach
Stream
Duke of Alba
Duke of Alba
7.7 m.
8.7 m.
170 m.
14.7 m
18.7 m
18.2 m
270 m.
Buoy
Pilot berth for vessels Suitable up to 32 feet
9 Shackles
220 m.
160 m.
Buoy
Buoy
N
"Plan supplied by Ship's M


N
Desolation Pt.
Hibuson Island
Little Hibuson Island
40
40
50
50
20
20
20
20
20
20
10
10
10
5
5
Kayusa Is.
Distance 3 Miles
Babatnon Pt.
Liaoc Bay
Berrugosa Point
Payo Is.
Kalanugan Pt.
Diameter 0.5 Miles
Loreto
Santiago
LORETO
Tubajon Bay
Tubajon
All Depths in Fathoms

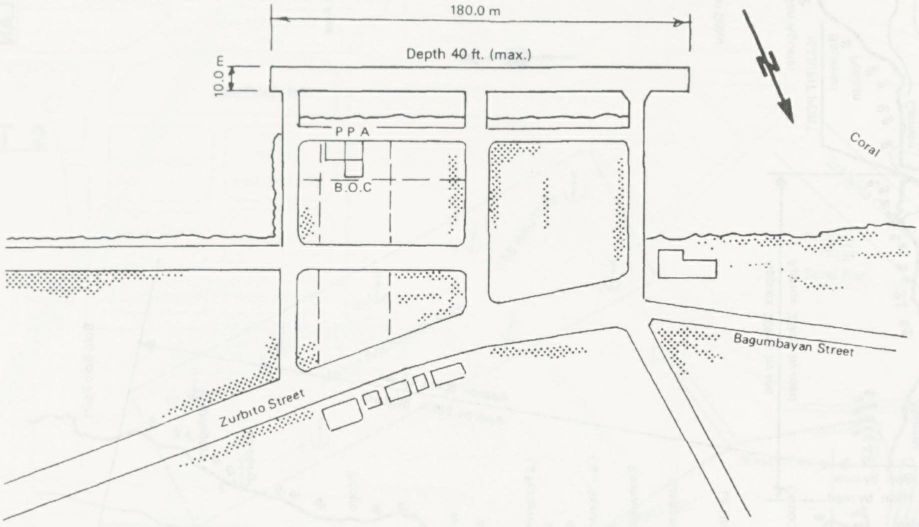
"Plan Supplied by Ship's Master"


MANILA
Limay
MANILA BAY
Mariveles
Corregidor
South Breakwater
West Breakwater
Western Breakwater
Offshore Breakwater
N
Partly Reclaimed
Container Wharf 4 Berths 900 m
INTERNATIONAL CONTAINER TERMINAL
(Foreign Trade)
North Breakwater
SOUTH HARBOUR
(Foreign Trade)
NORTH HARBOUR
(Domestic Trade)
Pier 15
Pier 13
Pier 9
Pier 5
Pier 3
Pier 7
Ro/Ro Ramp
LASH
Engineer Island Basin
Baseco
Pier 2
Pier 4
Pier 6
Pier 8
Pier 10
Pier 12
Pier 14
Pier 16
Marcos Road
Vet Shipyard Corp
MANILA
Pasig River
SAN NICOLAS
INTRAMUROS

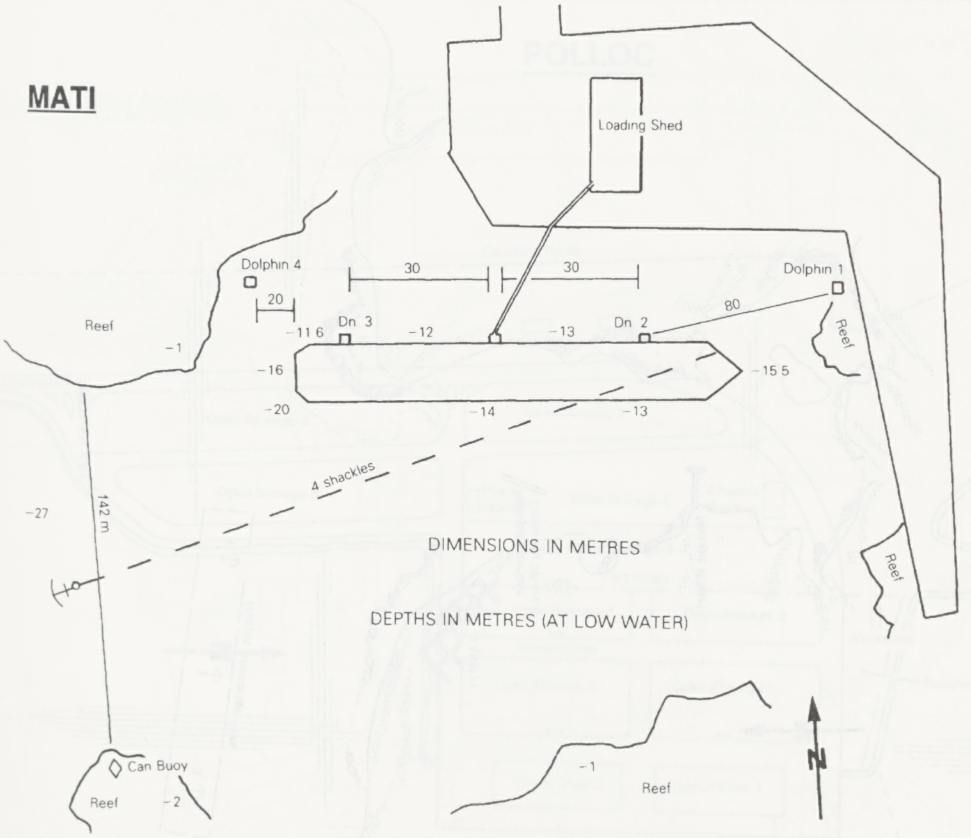

MANILA
ROSARIO
FILOIL REFINERY CORPORATION TERMINAL
S42° 49'E
S53°22'E
N.65°E
Existing
Sea Berth
45,000DWT
Existing
Barge Wharf
N 47°11'E
Cavite City
Ganagao Bay
Bacoor Bay
Kawit
Noveleta
Rosario
Wawa
Tanza
13,500 ft.
2,960 ft.
CORREGIDOR ISLAND
CABALLO ISLAND
N


MANILA
ROSARIO
FILOIL REFINERY CORPORATION TERMINAL
40°
Mooring Buoy 5
Pipleline End Marker Buoy No 4
Mooring Buoy 4
Mooring Buoy 6
Mooring Buoy 3
40°
Mooring Buoy
50°
50°
42 ft.
38 ~ 40 ft.
Hose End Marker
35°
35°
Ships Head in Berth about 245° true
766 ft 2 in
Mooring Buoy
Mooring Buoy 2
Anchorage
Ship Guide Buoy
N
Mooring Buoy 1
EXISTING MOORING SYSTEM
PROPOSED MOORING SYSTEM
40°

MASBATE


180.0 m
Depth 40 ft. (max.)
10.0 m
P P A
B.O.C
Coral
Bagumbayan Street
Zurbito Street

MATI


Loading Shed
Dolphin 4
20
30
30
Dolphin 1
80
Reef
−1
−11 6
Dn 3
−12
−13
Dn 2
Reef
−16
−15 5
−20
−14
−13
4 shackles
142 m
−27
Reef
Can Buoy
Reef
−2
−1
Reef

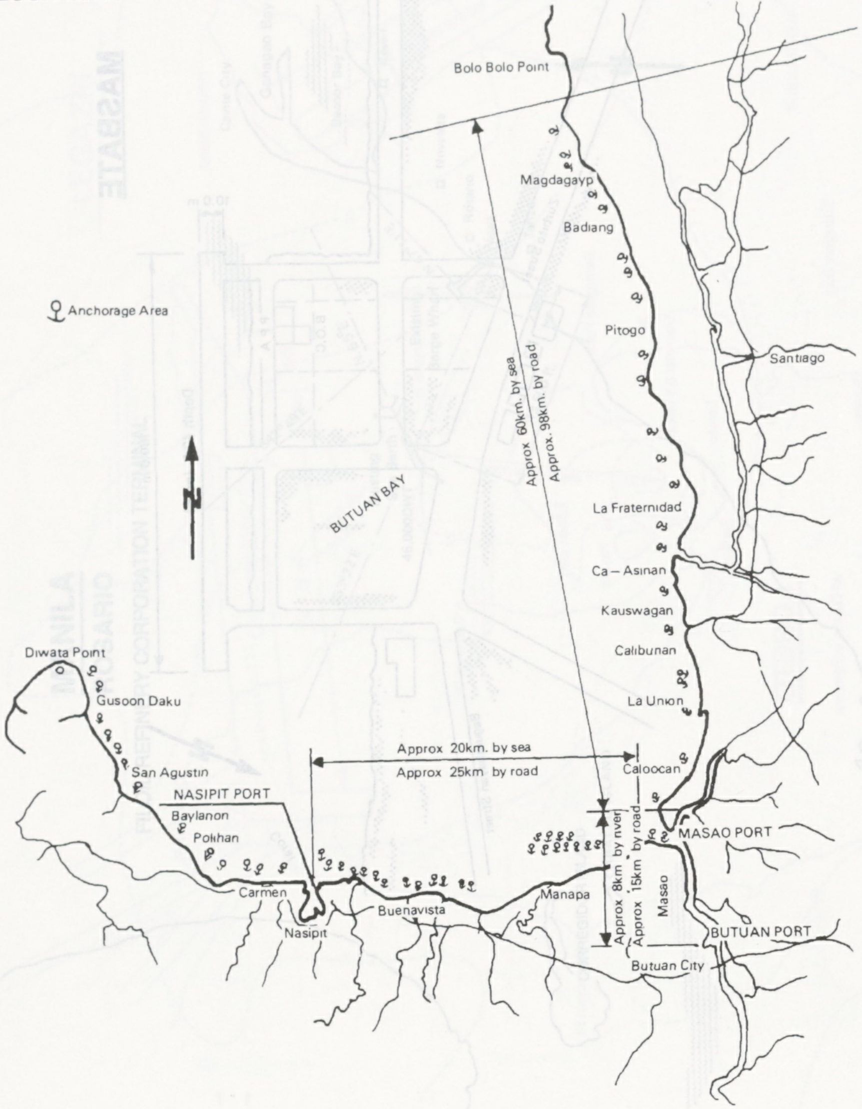
DIMENSIONS IN METRES

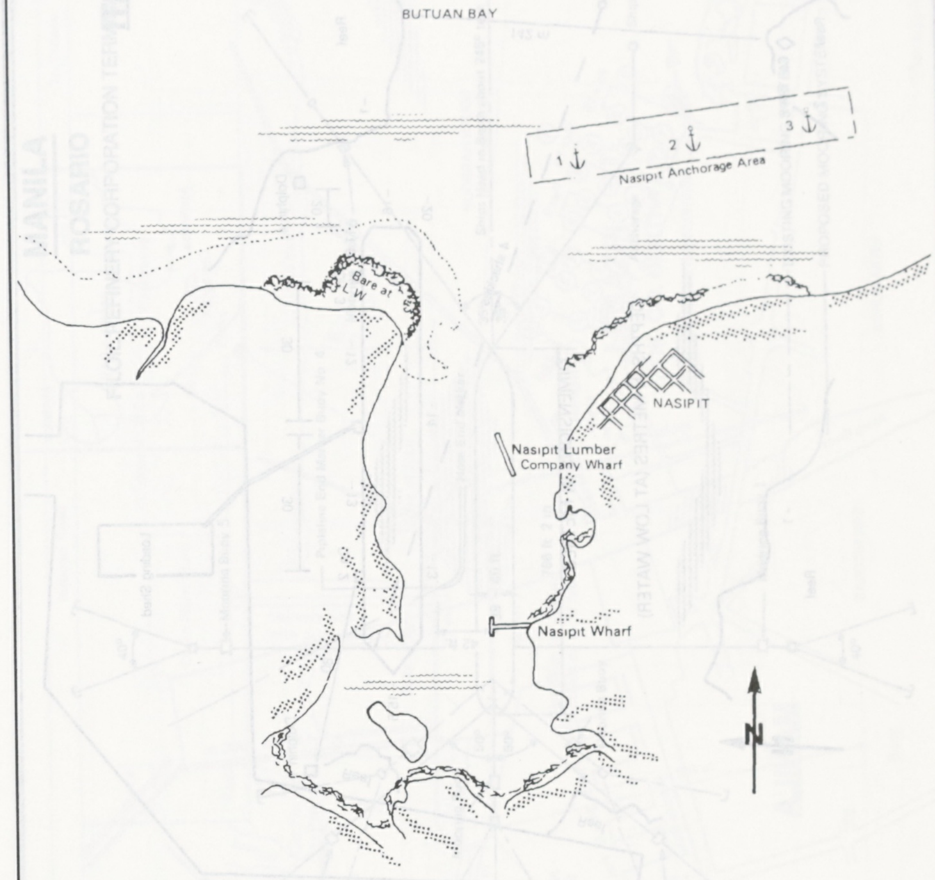
DEPTHS IN METRES (AT LOW WATER)

"Plan supplied by Ship's Master"

NASIPIT

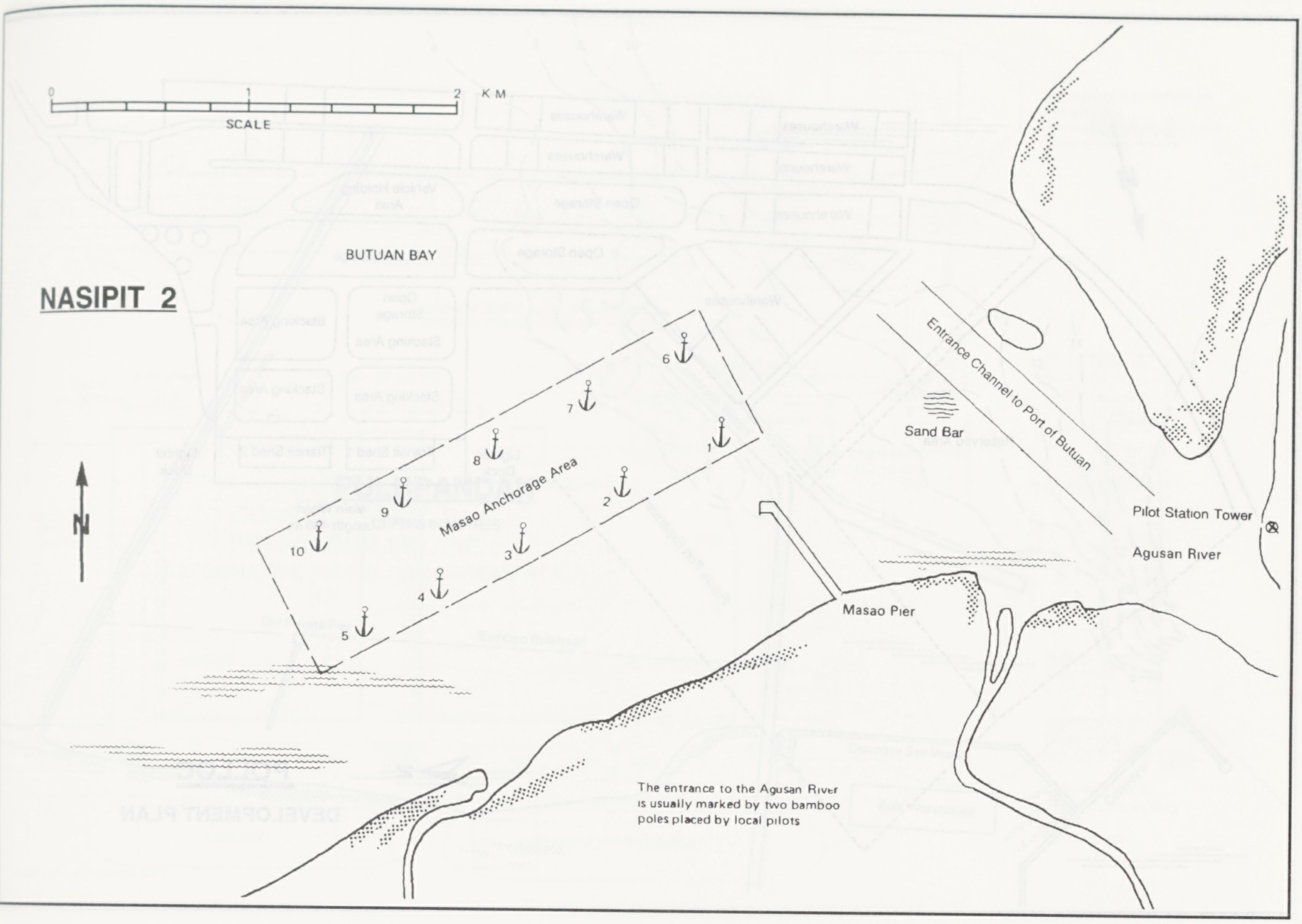
LOCATION PLAN


Bolo Bolo Point
Anchorage Area
Magdagayp
Badiang
Pitogo
Santiago
La Fraternidad
Ca – Asinan
Kauswagan
Calibunan
La Union
Caloocan
BUTUAN BAY
Approx 60km. by sea
Approx. 98km. by road
Diwata Point
Gusoon Daku
San Agustin
NASIPIT PORT
Baylanon
Polihan
Carmen
Nasipit
Approx 20km. by sea
Approx 25km by road
Buenavista
Manapa
Approx 8km by river
Approx 15km by road
MASAO PORT
Masao
BUTUAN PORT
Butuan City
N


BUTUAN BAY
1
2
3
Nasipit Anchorage Area
Bare at L.W.
NASIPIT
Nasipit Lumber Company Wharf
Nasipit Wharf
N

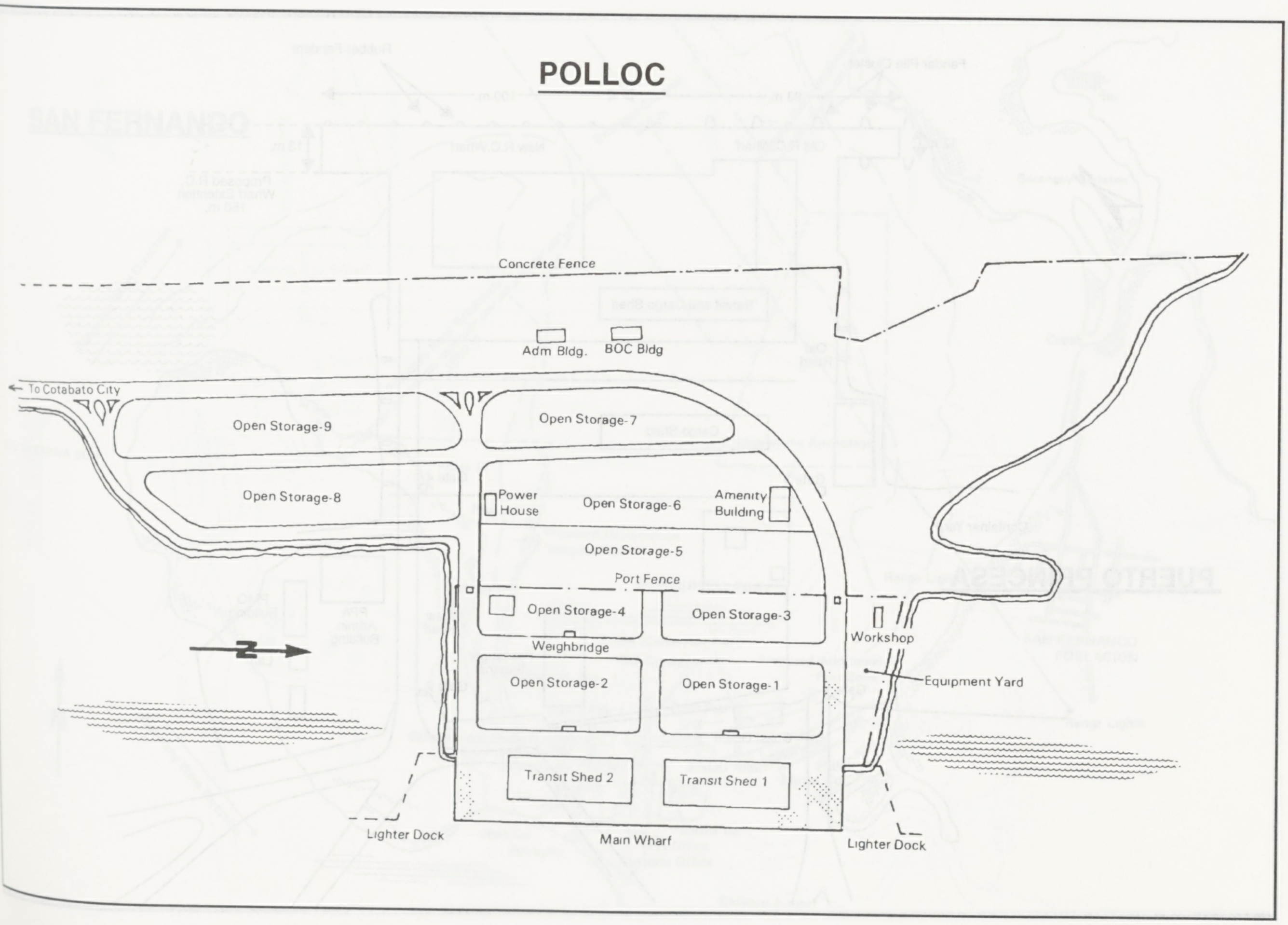
NASIPIT 1

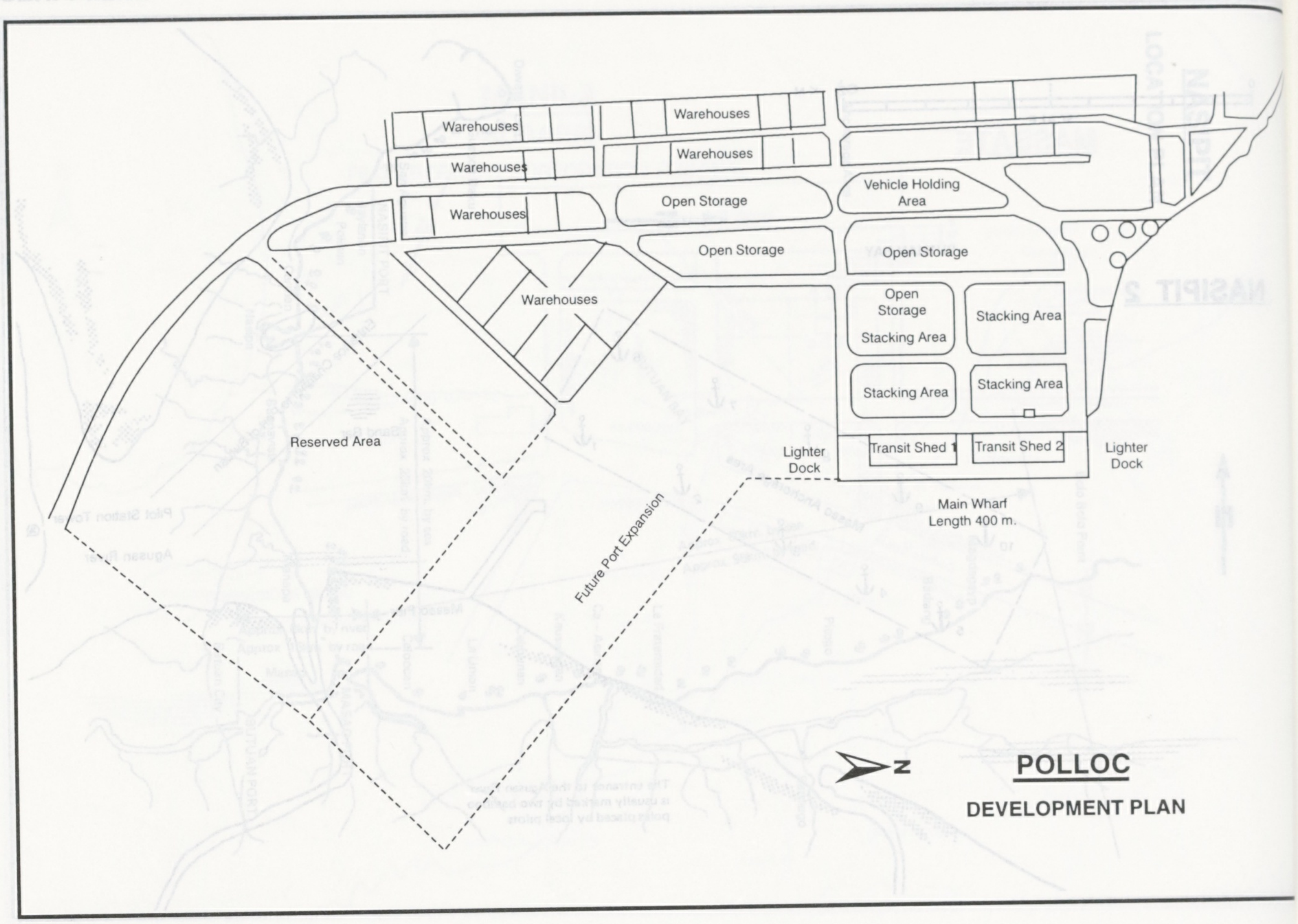
NASIPIT 2

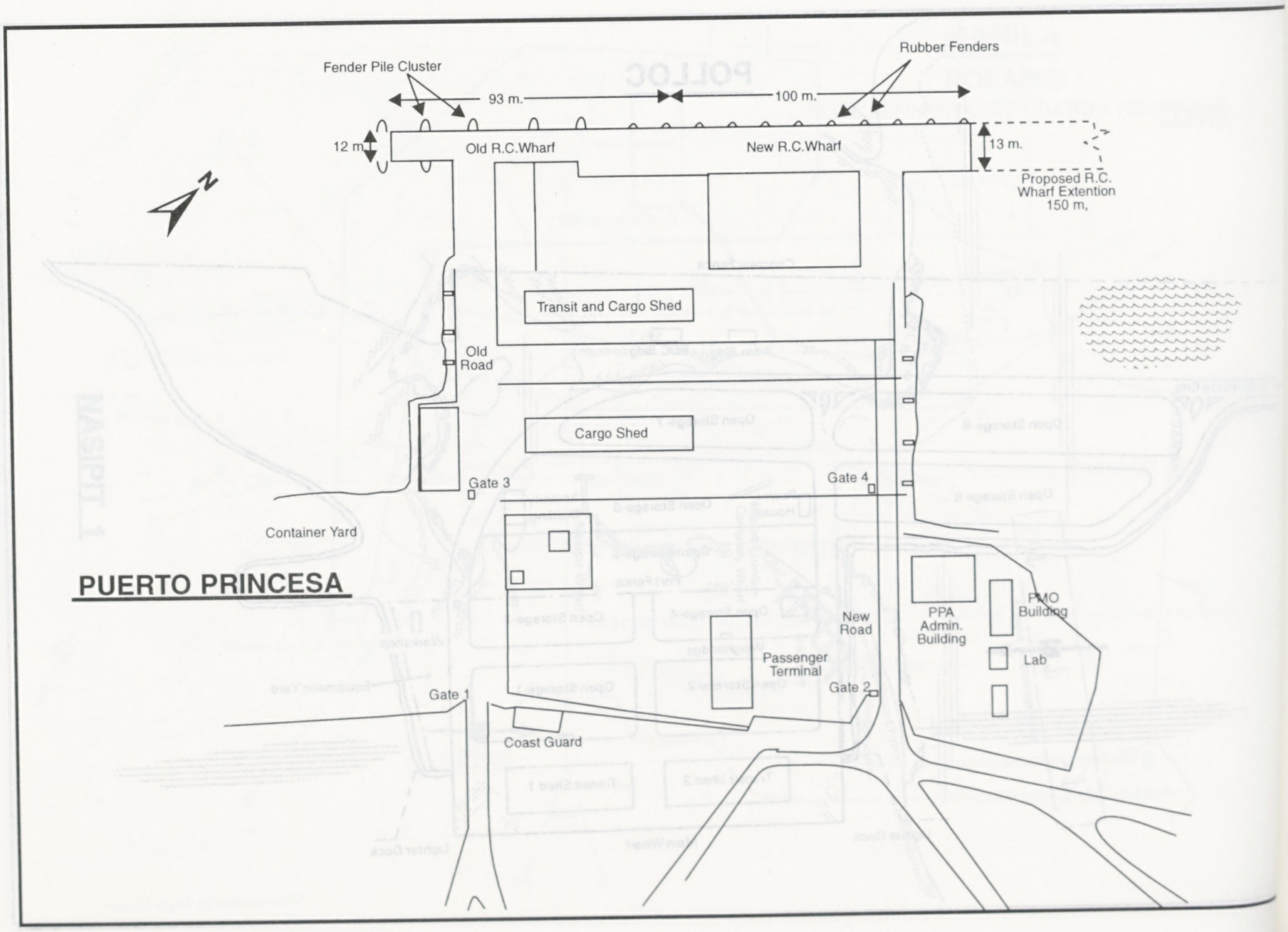

0
1
2
KM
SCALE
BUTUAN BAY
N
Masao Anchorage Area
1
2
3
4
5
6
7
8
9
10
Entrance Channel to Port of Butuan
Sand Bar
Pilot Station Tower
Agusan River
Masao Pier

The entrance to the Agusan River is usually marked by two bamboo poles placed by local pilots

POLLOC

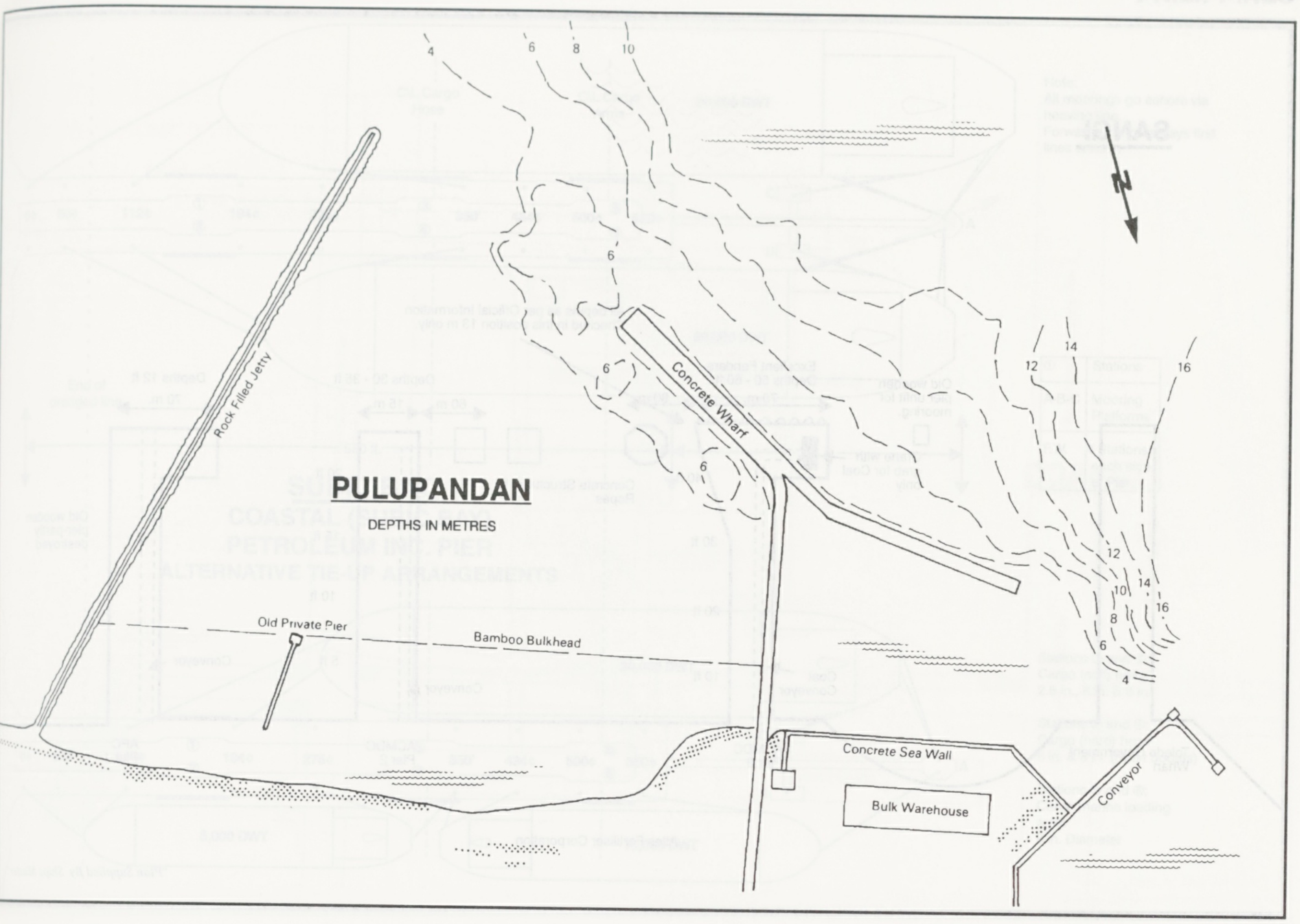

Concrete Fence
Adm Bldg.
BOC Bldg
To Cotabato City
Open Storage-9
Open Storage-7
Open Storage-8
Power House
Open Storage-6
Amenity Building
Open Storage-5
Port Fence
Open Storage-4
Open Storage-3
Workshop
Weighbridge
N
Open Storage-2
Open Storage-1
Equipment Yard
Transit Shed 2
Transit Shed 1
Lighter Dock
Main Wharf
Lighter Dock


Warehouses
Warehouses
Warehouses
Warehouses
Warehouses
Warehouses
Open Storage
Open Storage
Vehicle Holding Area
Open Storage
Warehouses
Open Storage
Stacking Area
Stacking Area
Stacking Area
Stacking Area
Reserved Area
Lighter Dock
Transit Shed 1
Transit Shed 2
Lighter Dock
Main Wharf Length 400 m.
Future Port Expansion
N
POLLOC
DEVELOPMENT PLAN

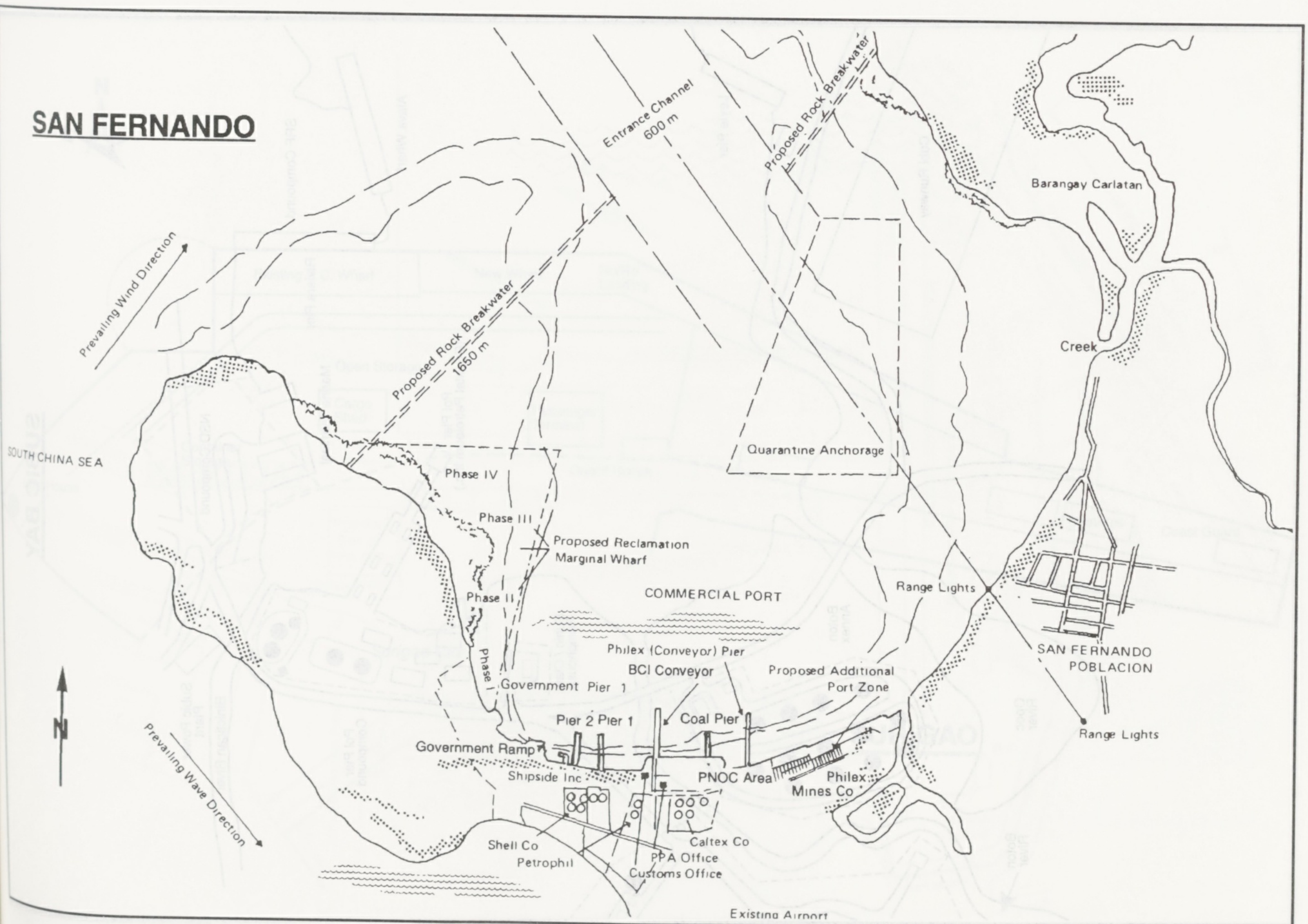

Fender Pile Cluster
Rubber Fenders
93 m.
100 m.
12 m
Old R.C.Wharf
New R.C.Wharf
13 m.
Proposed R.C. Wharf Extention 150 m,
N
Transit and Cargo Shed
Old Road
Cargo Shed
Gate 3
Gate 4
Container Yard
PUERTO PRINCESA
New Road
PPA Admin. Building
PMO Building
Lab
Passenger Terminal
Gate 2
Gate 1
Coast Guard

PULUPANDAN

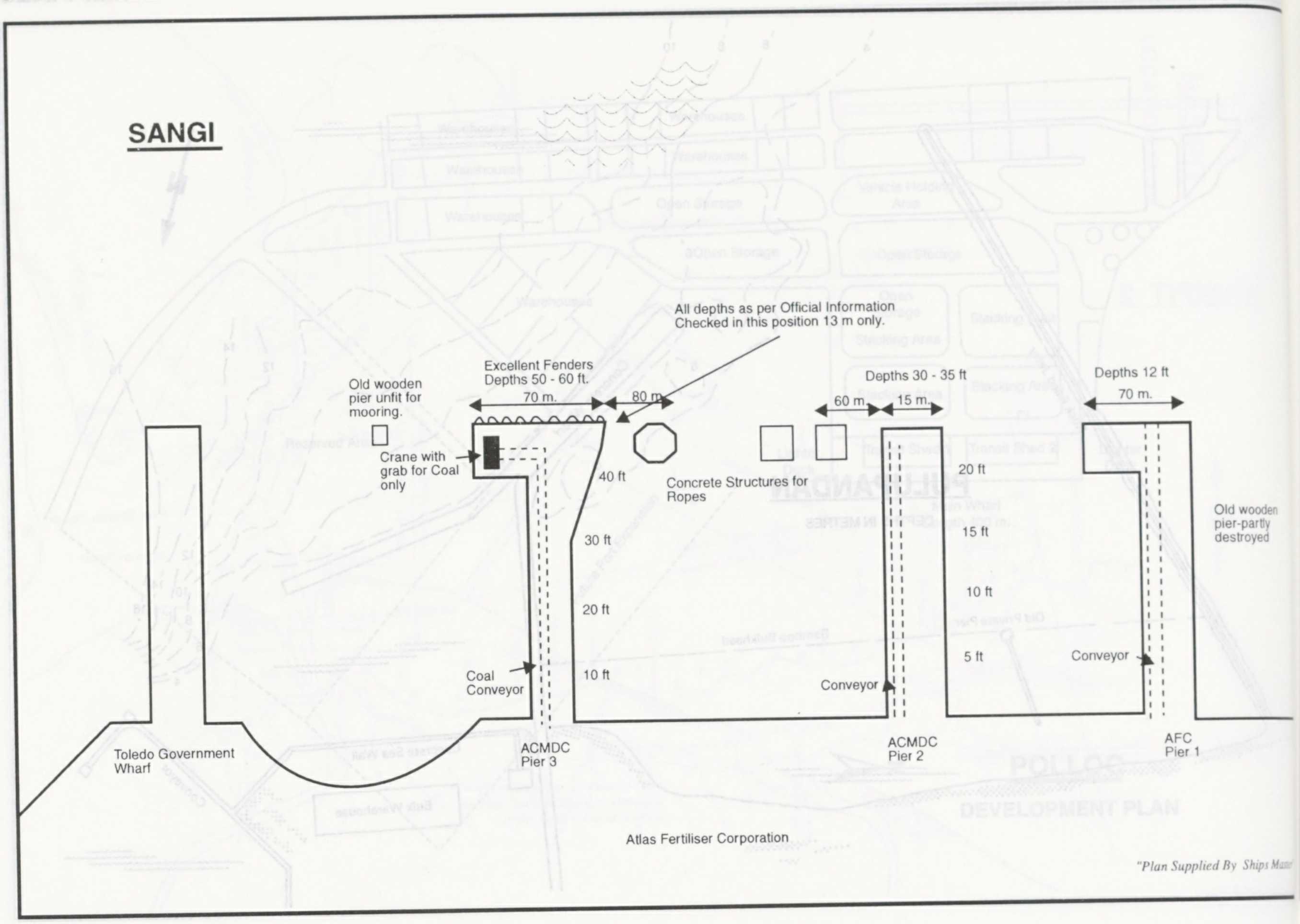
DEPTHS IN METRES


4
6
8
10
6
6
Rock Filled Jetty
Concrete Wharf
6
14
12
16
12
10
14
8
16
6
4
Old Private Pier
Bamboo Bulkhead
Concrete Sea Wall
Bulk Warehouse
Conveyor

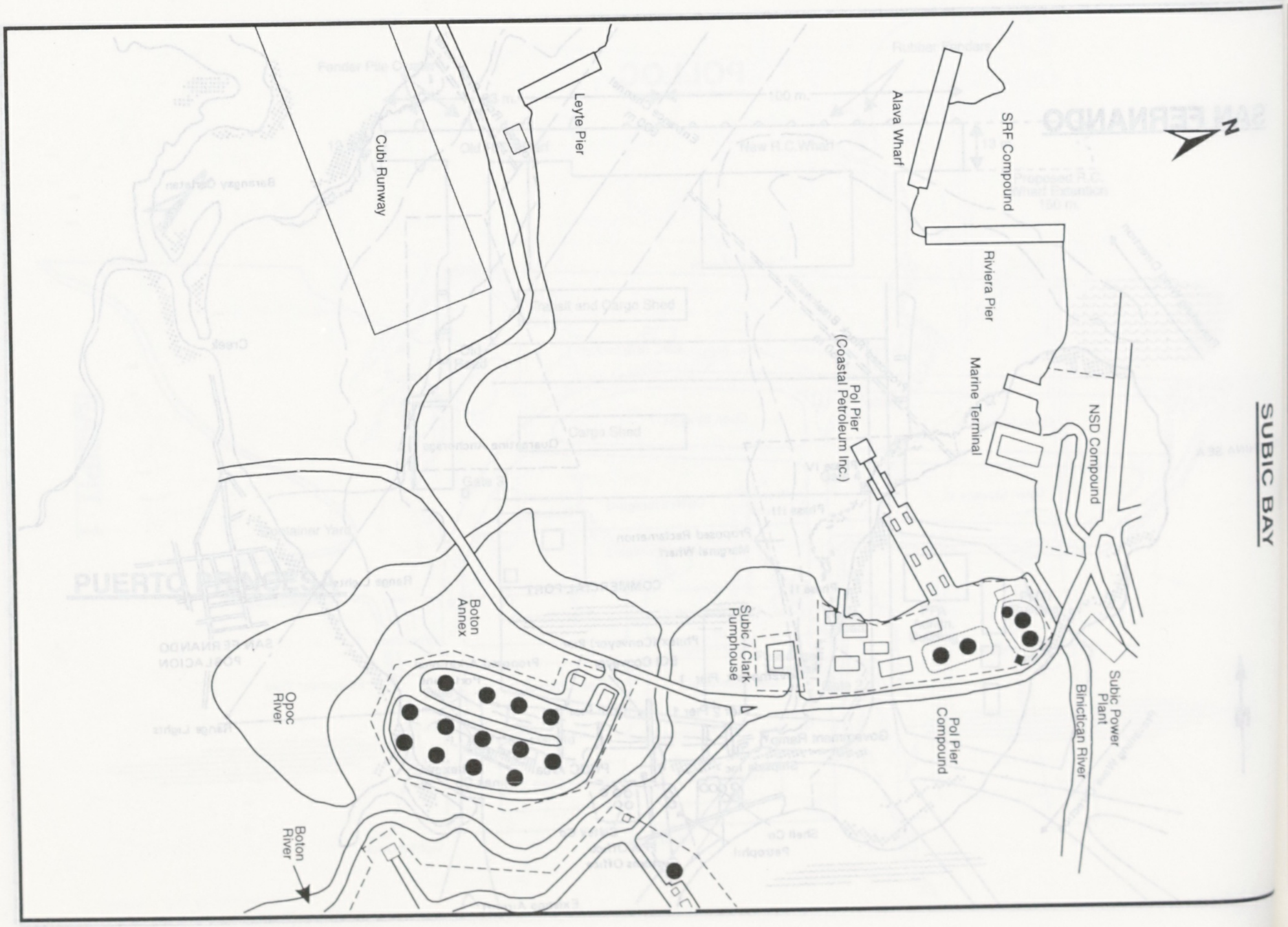
SAN FERNANDO


Entrance Channel
600 m
Proposed Rock Breakwater
Barangay Carlatan
Prevailing Wind Direction
Proposed Rock Breakwater
1650 m
Creek
SOUTH CHINA SEA
Quarantine Anchorage
Phase IV
Phase III
Proposed Reclamation
Marginal Wharf
Phase II
COMMERCIAL PORT
Range Lights
Phase I
Philex (Conveyor) Pier
BCI Conveyor
Proposed Additional
Port Zone
SAN FERNANDO
POBLACION
N
Government Pier 1
Pier 2 Pier 1
Coal Pier
Range Lights
Government Ramp
Prevailing Wave Direction
Shipside Inc
PNOC Area
Philex
Mines Co
Caltex Co
Shell Co
Petrophil
PPA Office
Customs Office
Existing Airport

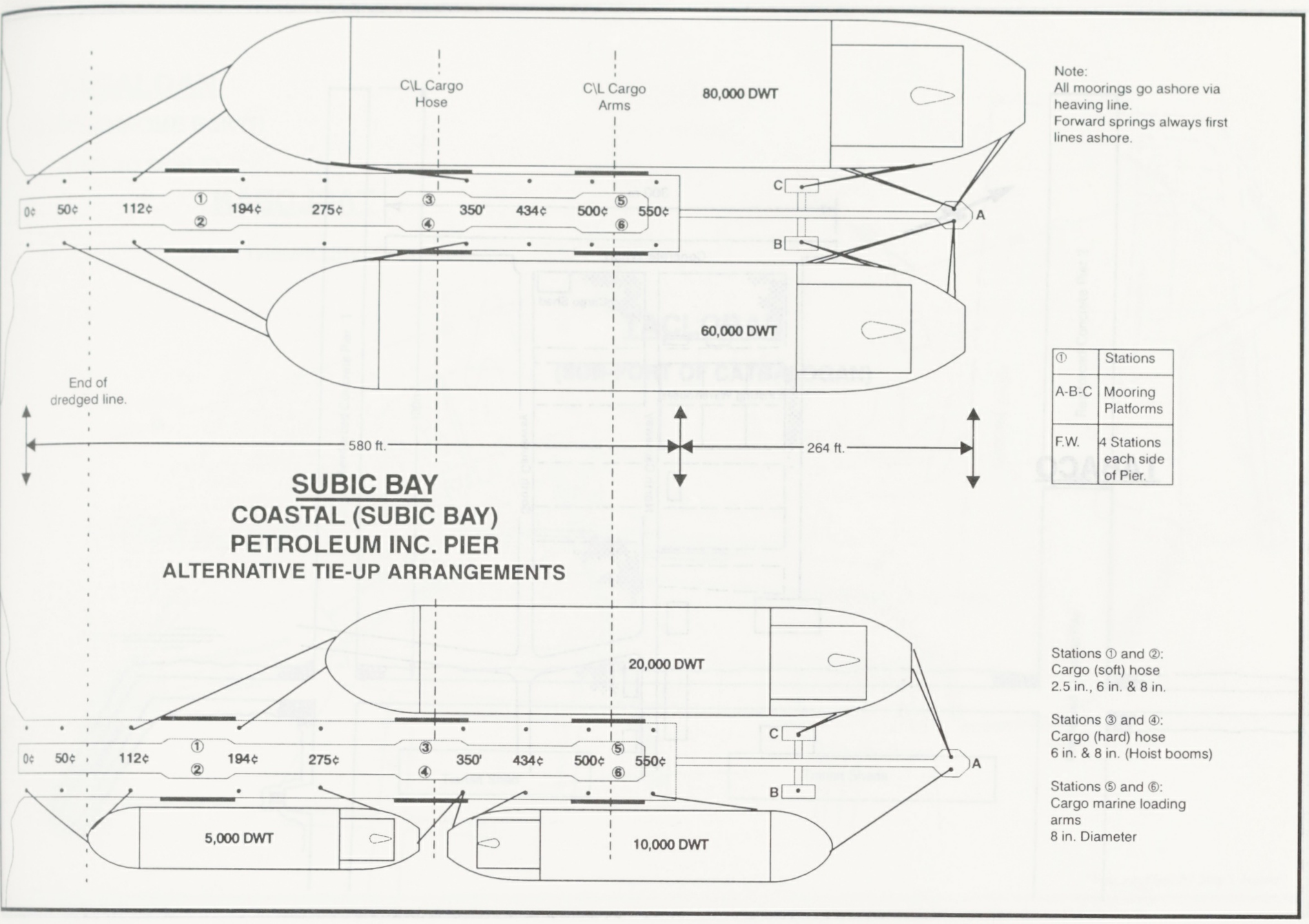
SANGI


All depths as per Official Information
Checked in this position 13 m only.
Excellent Fenders
Depths 50 - 60 ft.
70 m.
80 m.
Old wooden
pier unfit for
mooring.
Crane with
grab for Coal
only
Concrete Structures for
Ropes
40 ft
30 ft
20 ft
10 ft
Coal
Conveyor
Toledo Government
Wharf
ACMDC
Pier 3
Depths 30 - 35 ft
60 m.
15 m.
20 ft
15 ft
10 ft
5 ft
Conveyor
ACMDC
Pier 2
Depths 12 ft
70 m.
Conveyor
AFC
Pier 1
Old wooden
pier-partly
destroyed
Atlas Fertiliser Corporation

"Plan Supplied By Ships Mast


N
Cubi Runway
Leyte Pier
Alava Wharf
SRF Compound
Riviera Pier
Marine Terminal
Pol Pier
(Coastal Petroleum Inc.)
NSD Compound
Subic / Clark
Pumphouse
Boton
Annex
Opoc
River
Boton
River
Pol Pier
Compound
Subic Power
Plant
Binictican River

SUBIC BAY


C\L Cargo Hose
C\L Cargo Arms
80,000 DWT
60,000 DWT
20,000 DWT
5,000 DWT
10,000 DWT
0¢
50¢
112¢
194¢
275¢
350'
434¢
500¢
550¢
①
②
③
④
⑤
⑥
A
B
C
End of dredged line.
580 ft.
264 ft.

Note:
All moorings go ashore via heaving line.
Forward springs always first lines ashore.

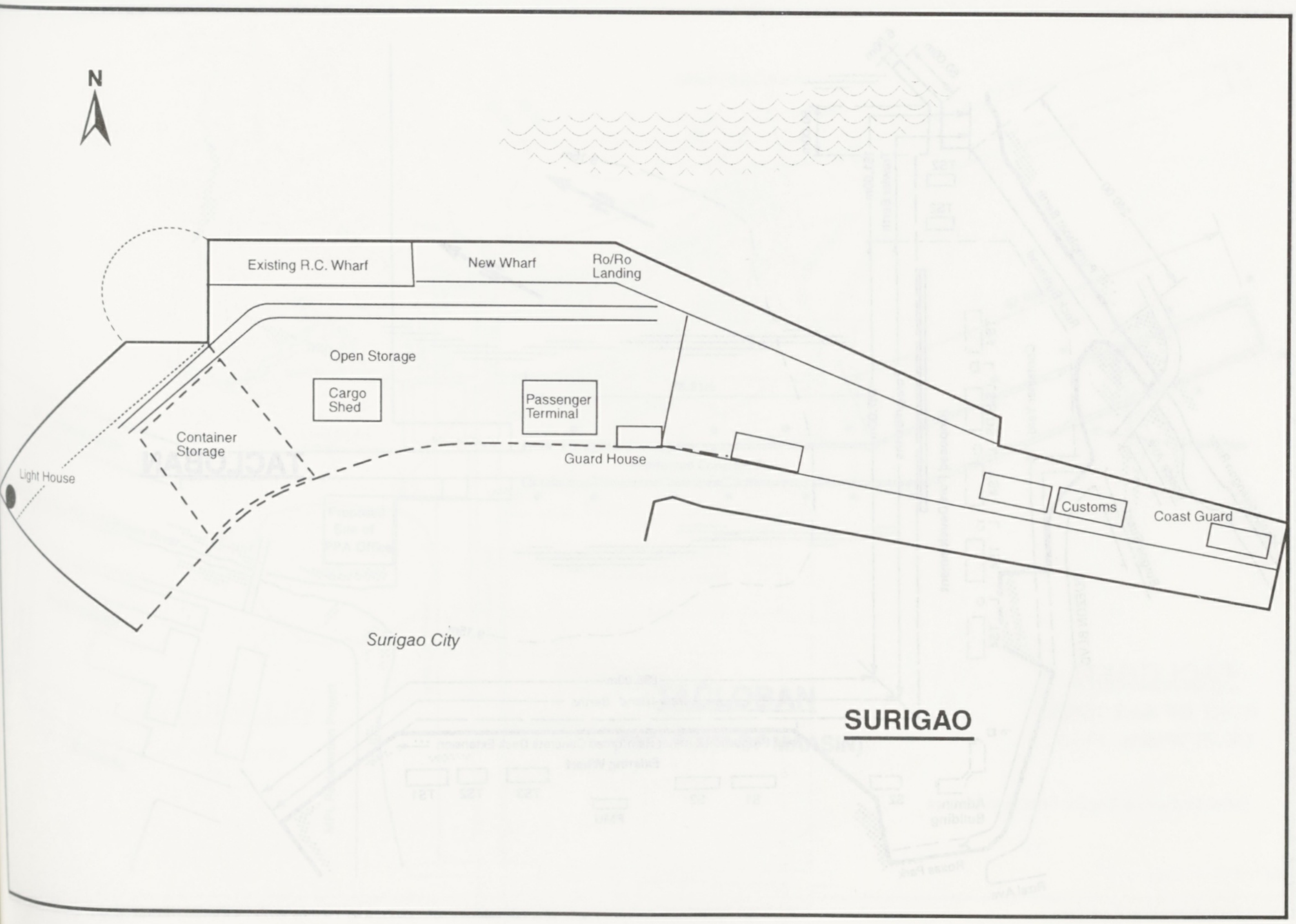
①	Stations
A-B-C	Mooring Platforms
F.W.	4 Stations each side of Pier.

SUBIC BAY
COASTAL (SUBIC BAY) PETROLEUM INC. PIER
ALTERNATIVE TIE-UP ARRANGEMENTS

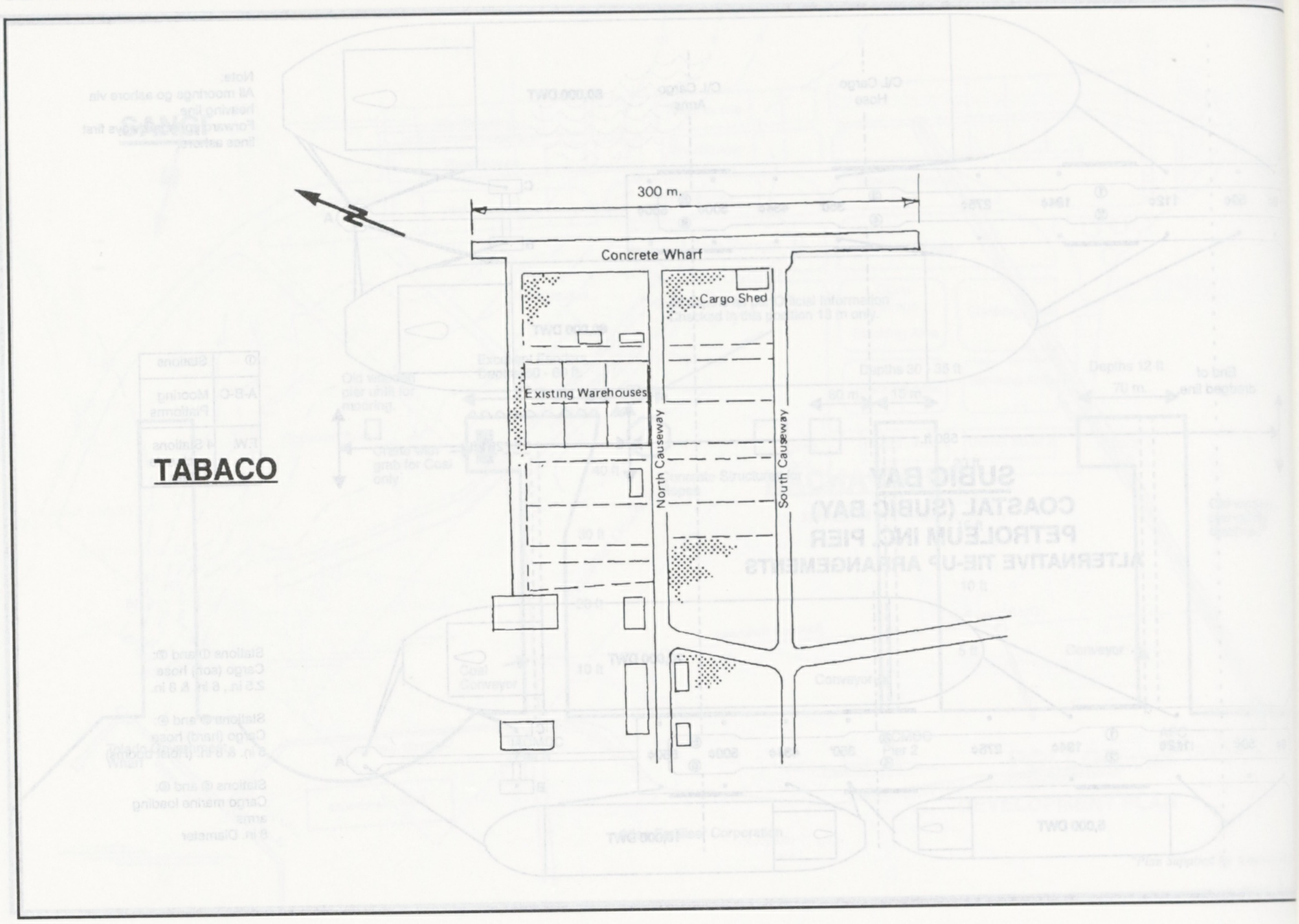
Stations ① and ②:
Cargo (soft) hose
2.5 in., 6 in. & 8 in.

Stations ③ and ④:
Cargo (hard) hose
6 in. & 8 in. (Hoist booms)

Stations ⑤ and ⑥:
Cargo marine loading arms
8 in. Diameter

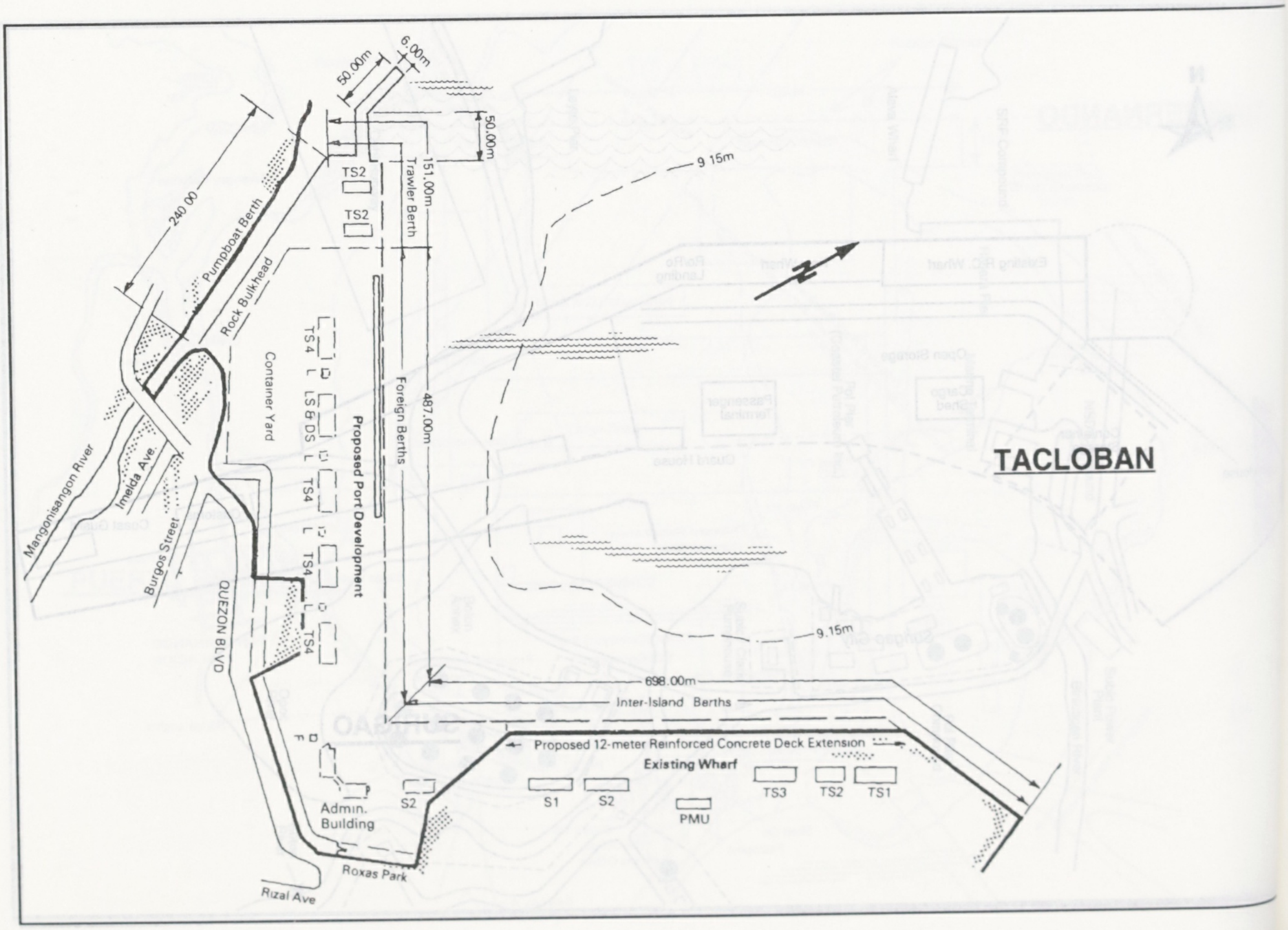

N
Existing R.C. Wharf
New Wharf
Ro/Ro Landing
Open Storage
Cargo Shed
Passenger Terminal
Container Storage
Light House
Guard House
Customs
Coast Guard
Surigao City

SURIGAO



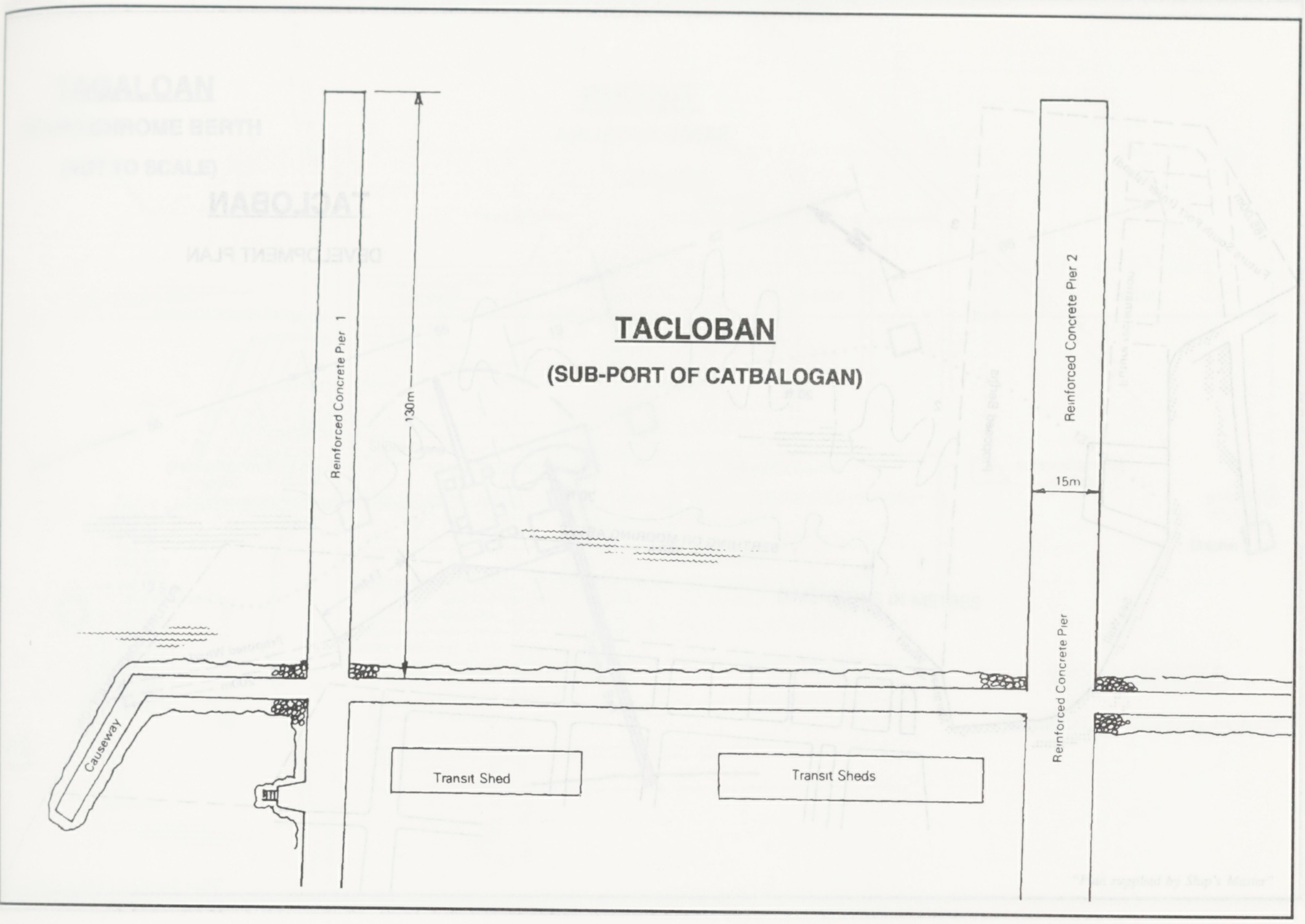
TABACO

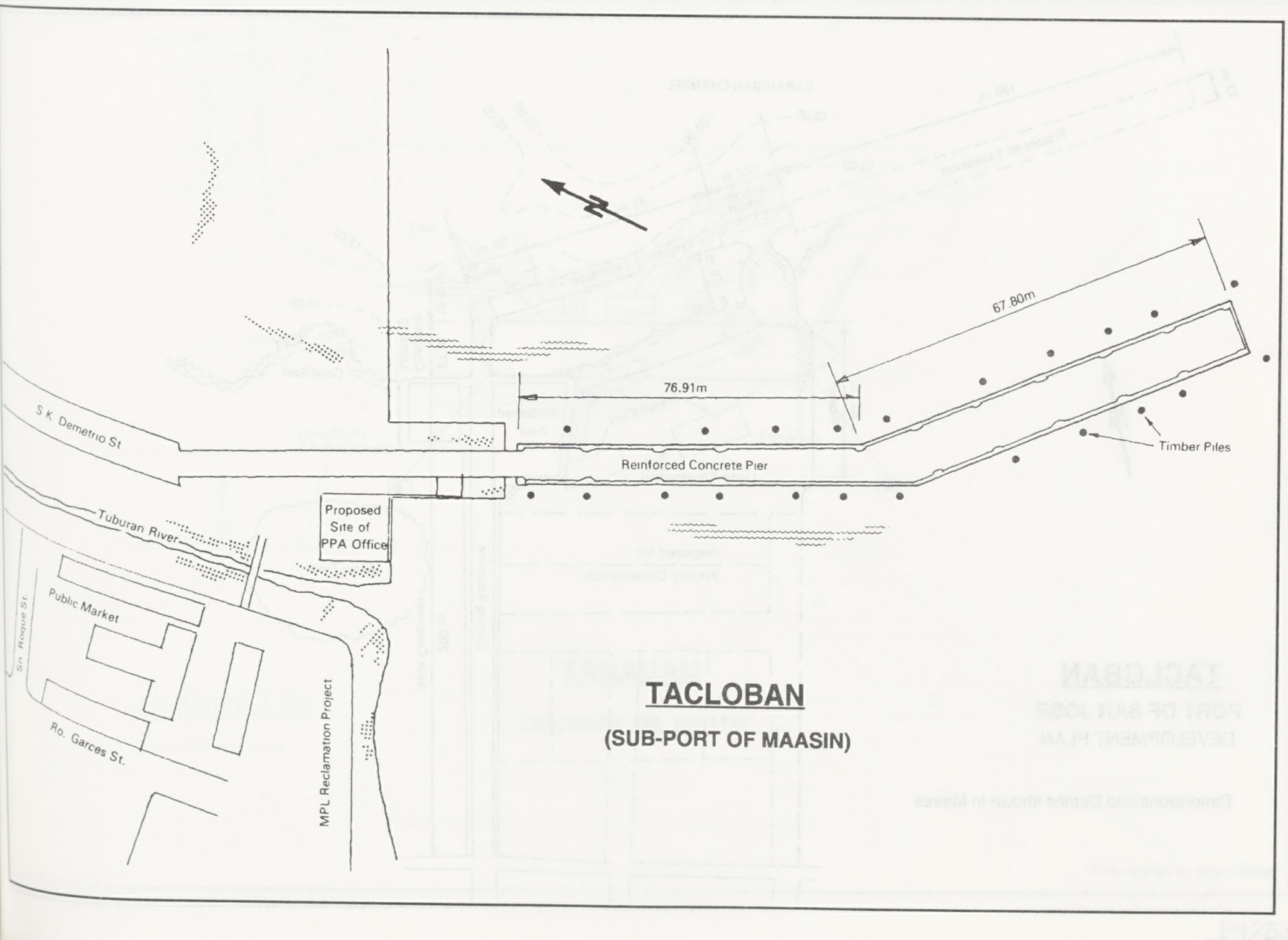
300 m.
Concrete Wharf
Cargo Shed
Existing Warehouses
North Causeway
South Causeway

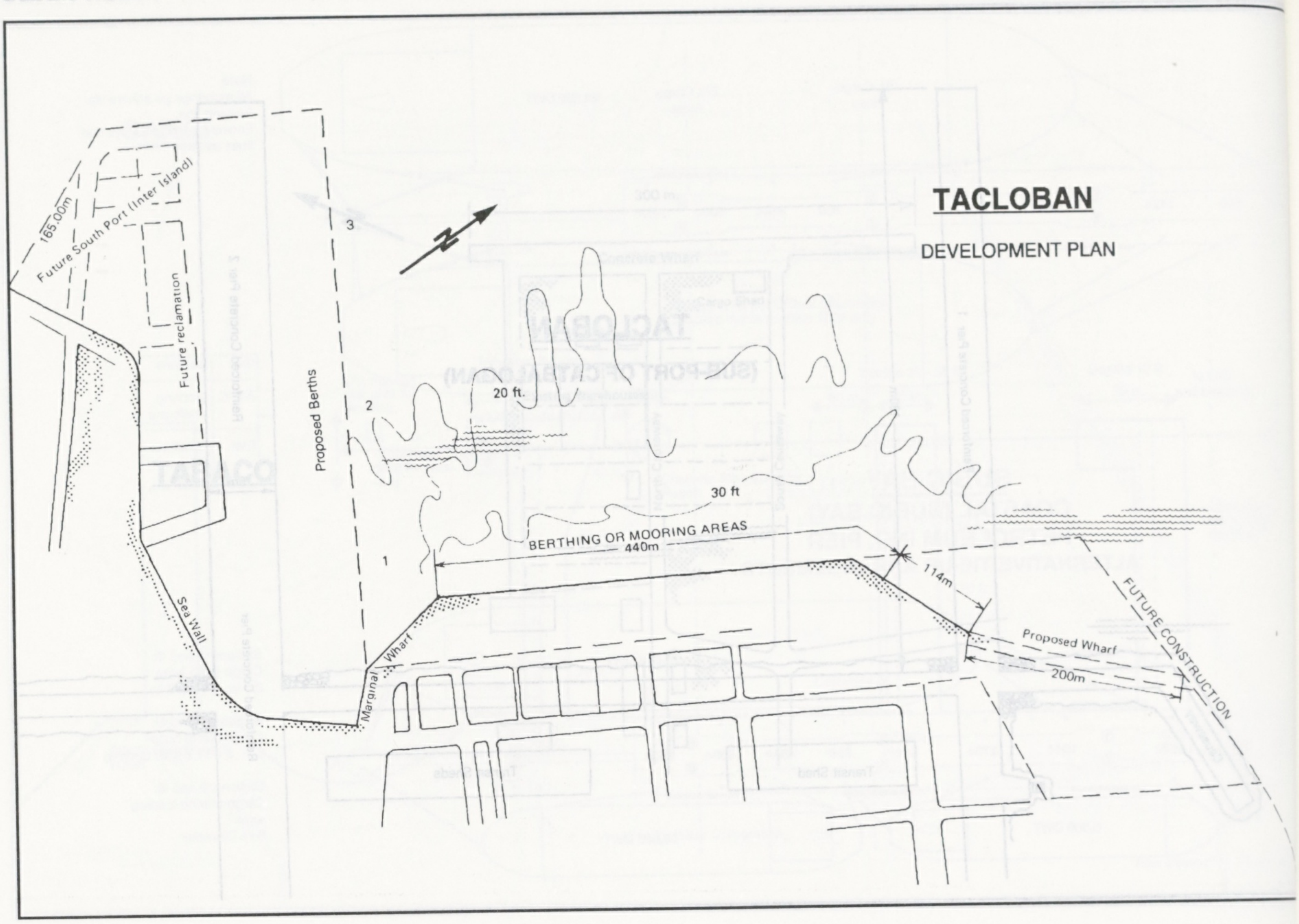


TACLOBAN

50.00m
6.00m
50.00m
240.00
151.00m
Trawler Berth
9.15m
TS2
TS2
Pumpboat Berth
Rock Bulkhead
Container Yard
TS4
LS&DS
TS4
TS4
TS4
Proposed Port Development
Foreign Berths
487.00m
Mangonisangon River
Imelda Ave.
Burgos Street
QUEZON BLVD
9.15m
698.00m
Inter-Island Berths
Proposed 12-meter Reinforced Concrete Deck Extension
Existing Wharf
Admin. Building
S2
S1
S2
PMU
TS3
TS2
TS1
Roxas Park
Rizal Ave


Reinforced Concrete Pier 1
130m
TACLOBAN
(SUB-PORT OF CATBALOGAN)
Reinforced Concrete Pier 2
15m
Reinforced Concrete Pier
Causeway
Transit Shed
Transit Sheds

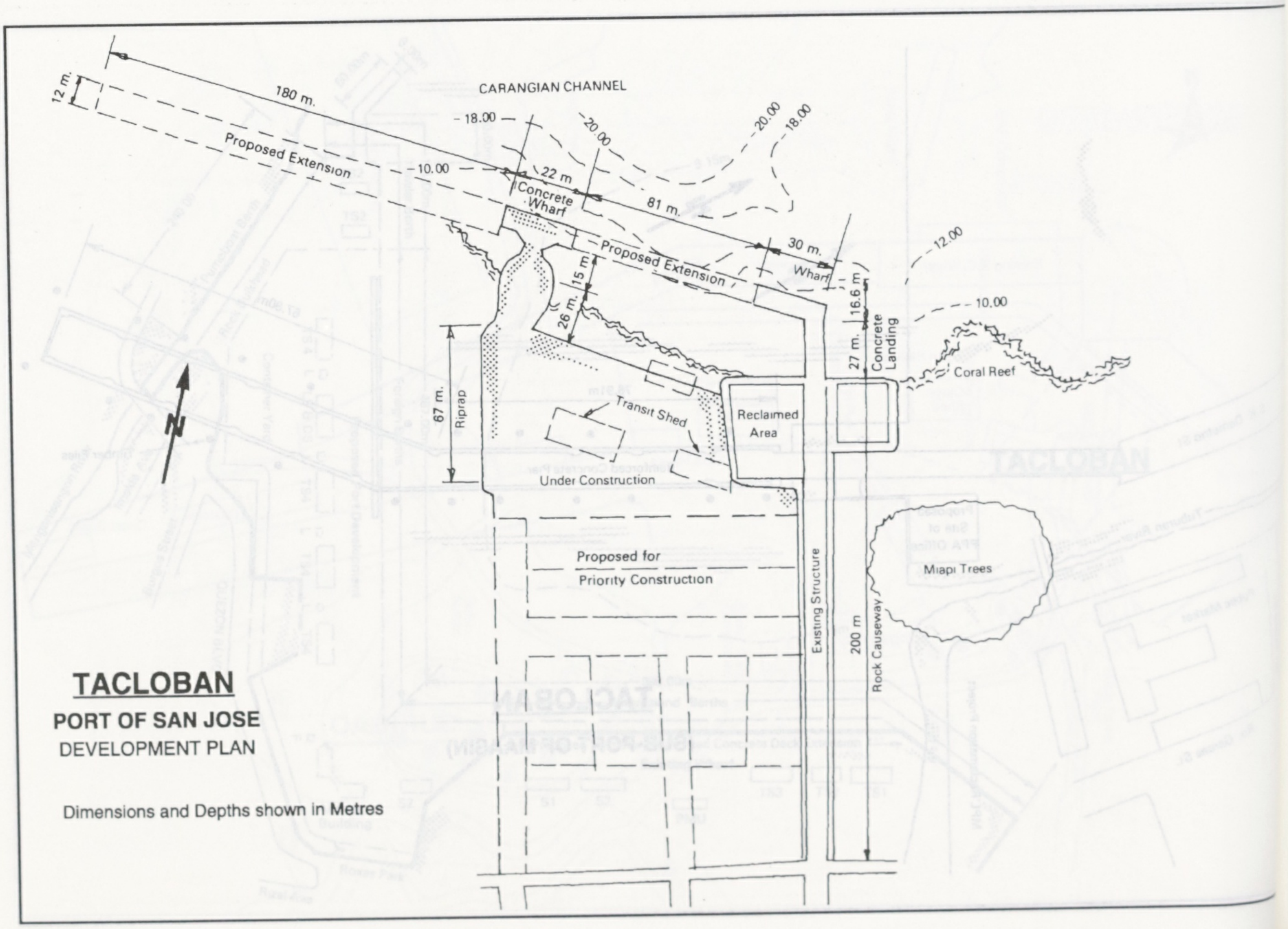

67.80m
76.91m
Reinforced Concrete Pier
Timber Piles
S.K. Demetrio St
Tuburan River
Proposed Site of PPA Office
Public Market
Sn. Roque St.
Ro. Garces St.
MPL Reclamation Project
TACLOBAN
(SUB-PORT OF MAASIN)



TACLOBAN

DEVELOPMENT PLAN

165.00m
Future South Port (Inter Island)
Future reclamation
Proposed Berths
3
2
1
20 ft.
30 ft
BERTHING OR MOORING AREAS
440m
114m
Proposed Wharf
200m
FUTURE CONSTRUCTION
Marginal Wharf
Sea Wall



TACLOBAN

PORT OF SAN JOSE
DEVELOPMENT PLAN

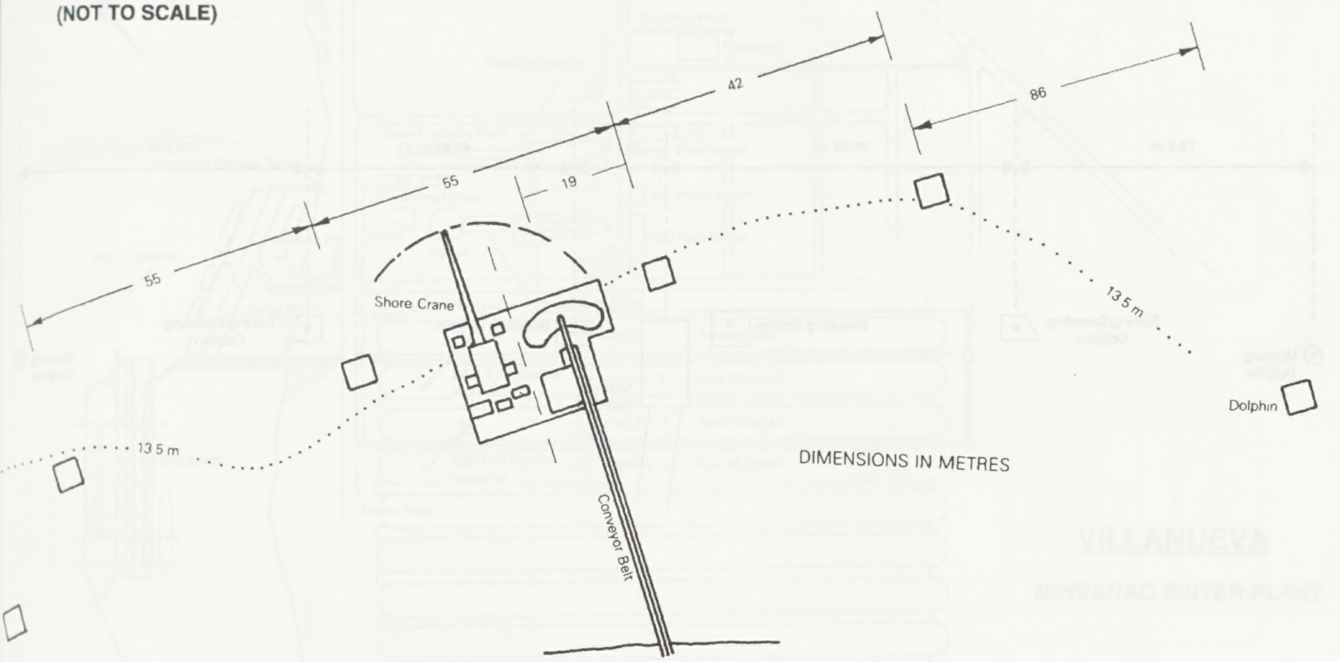
Dimensions and Depths shown in Metres

12 m.
180 m.
CARANGIAN CHANNEL
18.00
20.00
20.00
18.00
Proposed Extension
10.00
22 m
Concrete Wharf
81 m.
30 m.
Wharf
Proposed Extension
15 m
26 m.
16.6 m
27 m.
Concrete Landing
12.00
10.00
Coral Reef
67 m.
Riprap
Transit Shed
Reclaimed Area
Under Construction
Proposed for Priority Construction
Existing Structure
200 m
Rock Causeway
Miapi Trees

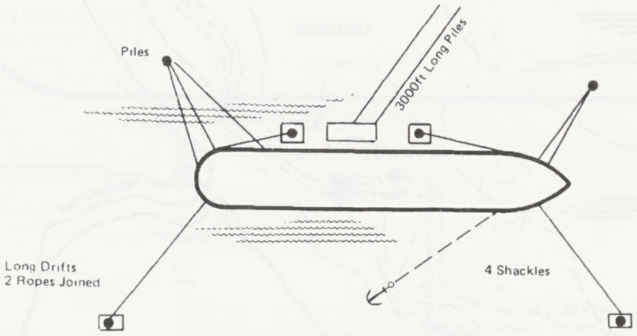
TAGALOAN

FERRO CHROME BERTH

(NOT TO SCALE)


55
55
19
42
86
13 5 m
13 5 m
Shore Crane
Conveyor Belt
Dolphin
DIMENSIONS IN METRES

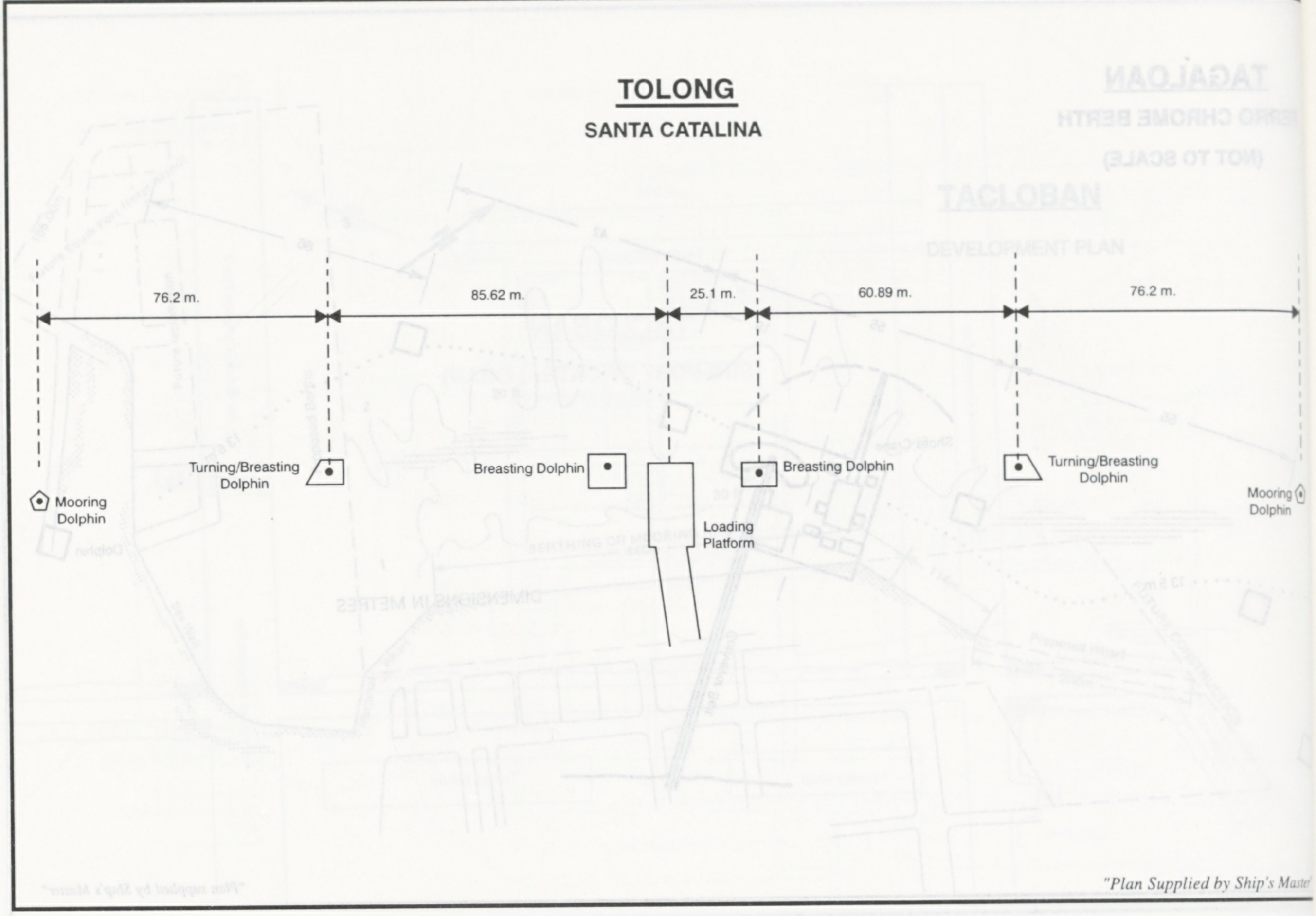
"Plan supplied by Ship's Master"


Piles
3000ft Long Piles
Long Drifts
2 Ropes Joined
4 Shackles

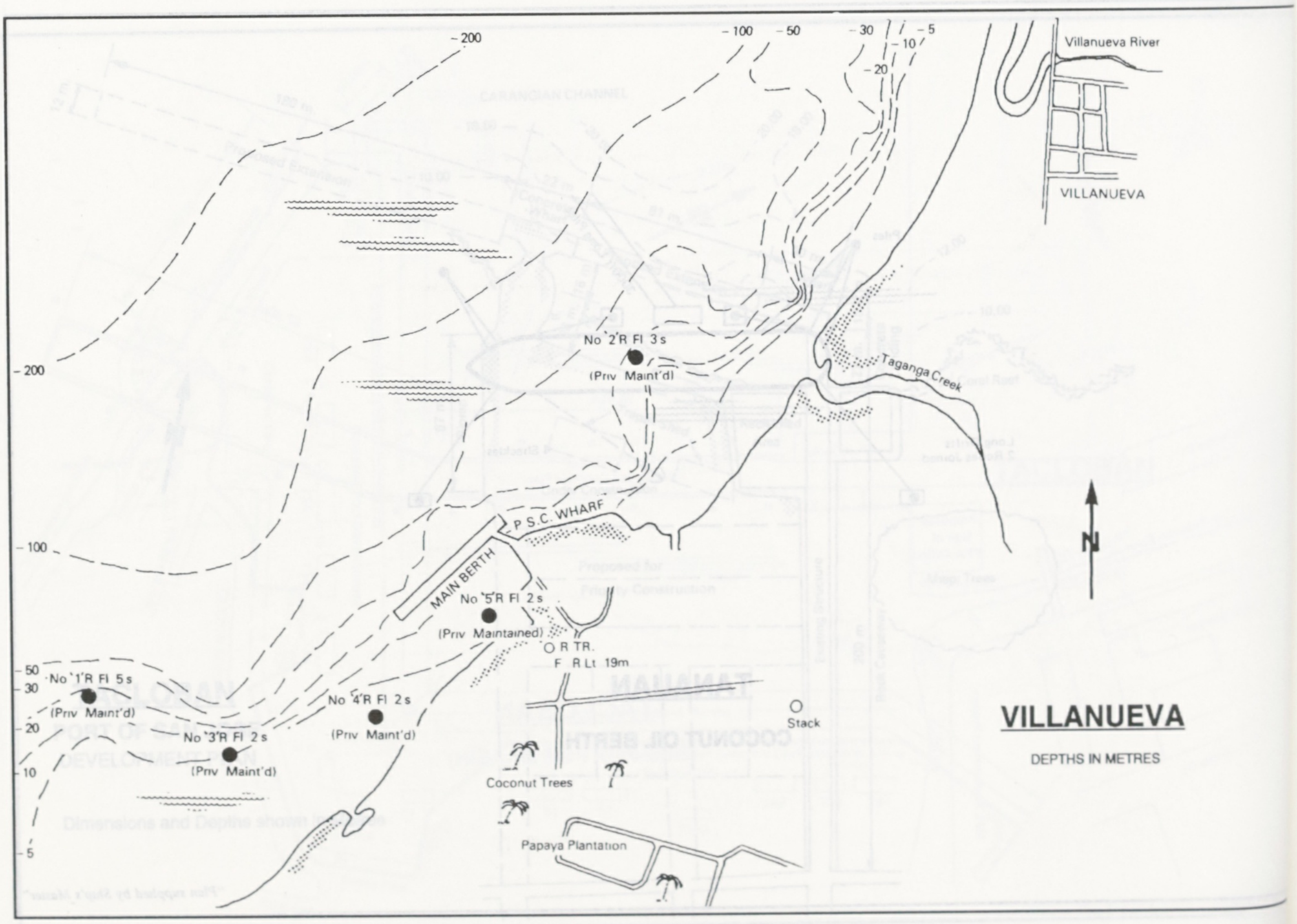
TANAUAN

COCONUT OIL BERTH

"Plan supplied by Ship's Master"

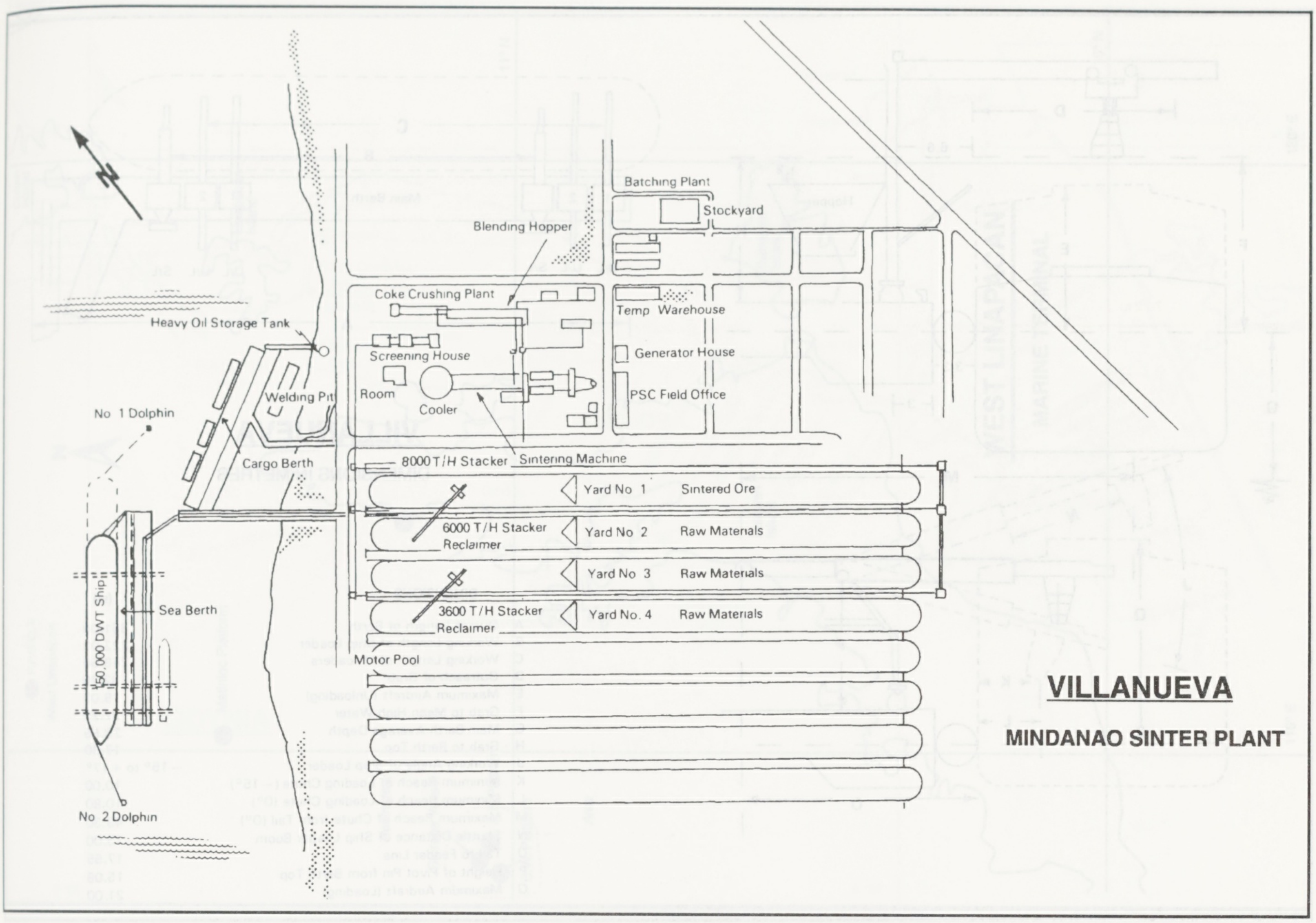

TOLONG
SANTA CATALINA
76.2 m.
85.62 m.
25.1 m.
60.89 m.
76.2 m.
Mooring Dolphin
Turning/Breasting Dolphin
Breasting Dolphin
Loading Platform
Breasting Dolphin
Turning/Breasting Dolphin
Mooring Dolphin

"Plan Supplied by Ship's Master


-200
-100
-50
-30
-20
-10
-5
-200
-100
-50
30
20
10
5
Villanueva River
VILLANUEVA
Taganga Creek
No 2 R Fl 3 s
(Priv Maint'd)
P S.C. WHARF
MAIN BERTH
No 5 R Fl 2 s
(Priv Maintained)
R TR.
F R Lt 19m
No 1 R Fl 5 s
(Priv Maint'd)
No 3 R Fl 2 s
(Priv Maint'd)
No 4 R Fl 2 s
(Priv Maint'd)
Stack
Coconut Trees
Papaya Plantation
N

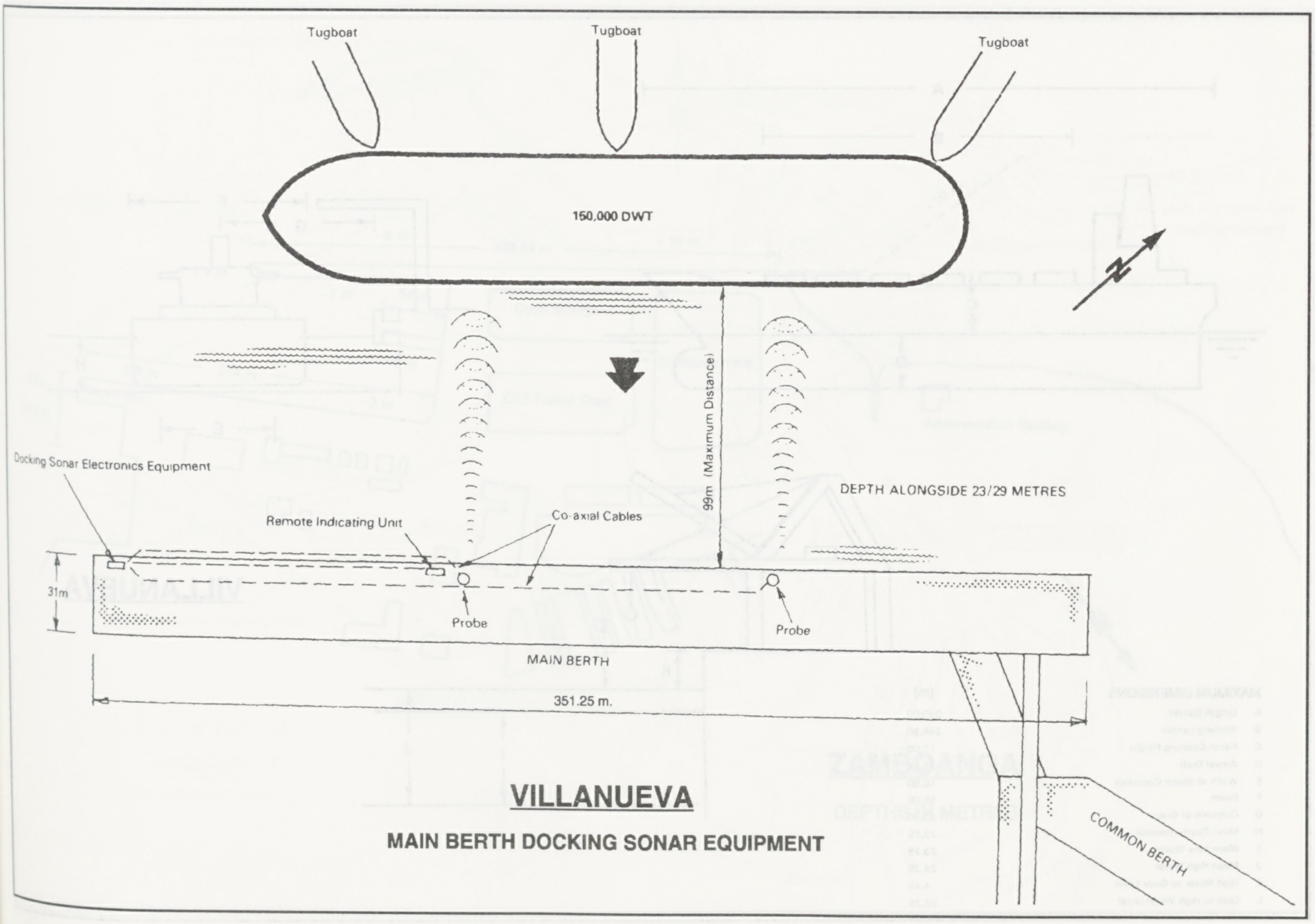
VILLANUEVA

DEPTHS IN METRES


N
Batching Plant
Stockyard
Blending Hopper
Coke Crushing Plant
Temp Warehouse
Heavy Oil Storage Tank
Screening House
Generator House
Welding Pit
Room
Cooler
PSC Field Office
No 1 Dolphin
Cargo Berth
8000 T/H Stacker
Sintering Machine
Yard No 1
Sintered Ore
6000 T/H Stacker
Reclaimer
Yard No 2
Raw Materials
Yard No 3
Raw Materials
150,000 DWT Ship
Sea Berth
3600 T/H Stacker
Reclaimer
Yard No. 4
Raw Materials
Motor Pool
No 2 Dolphin

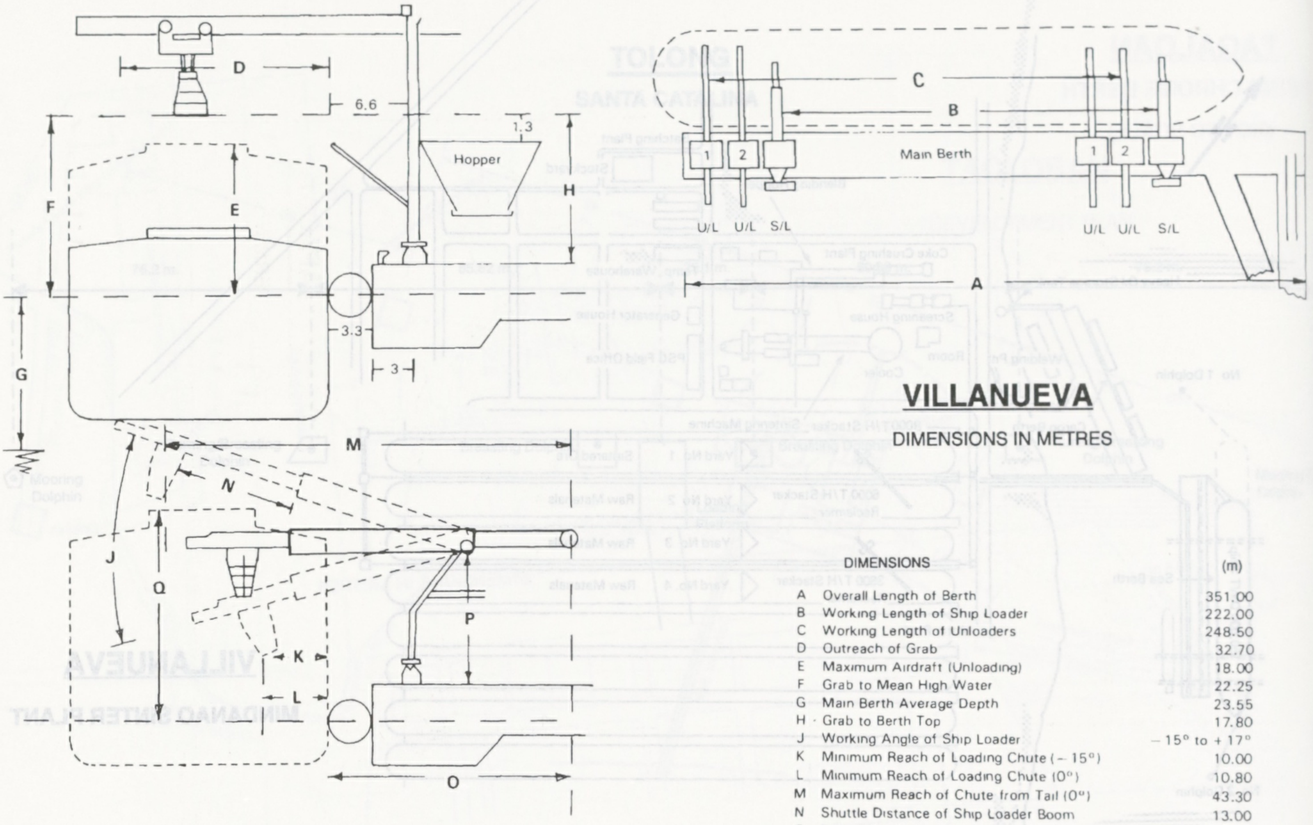
VILLANUEVA

MINDANAO SINTER PLANT


Tugboat
Tugboat
Tugboat
150,000 DWT
N
99m (Maximum Distance)
DEPTH ALONGSIDE 23/29 METRES
Docking Sonar Electronics Equipment
Remote Indicating Unit
Co-axial Cables
31m
Probe
Probe
MAIN BERTH
351.25 m.
COMMON BERTH

VILLANUEVA

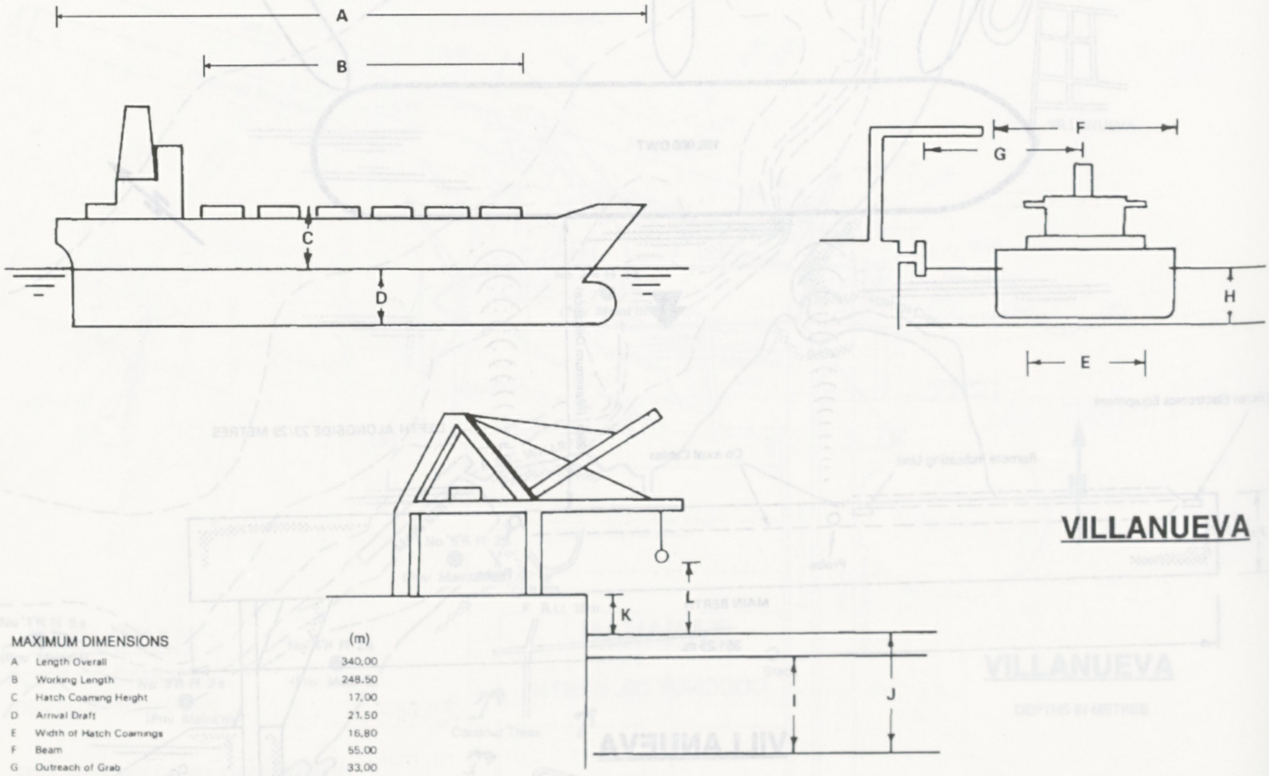
MAIN BERTH DOCKING SONAR EQUIPMENT



VILLANUEVA

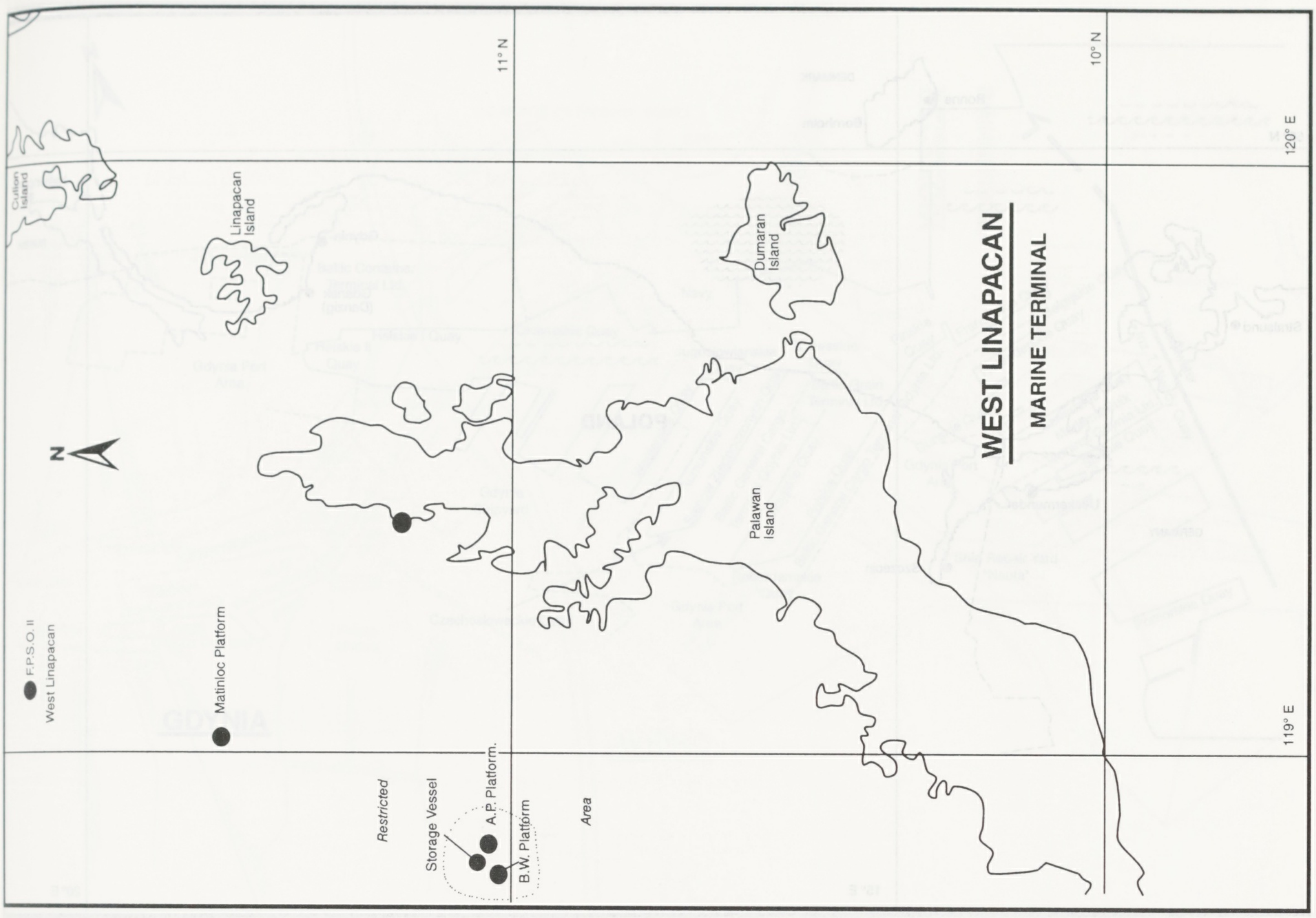
DIMENSIONS IN METRES

	DIMENSIONS	(m)
A	Overall Length of Berth	351.00
B	Working Length of Ship Loader	222.00
C	Working Length of Unloaders	248.50
D	Outreach of Grab	32.70
E	Maximum Airdraft (Unloading)	18.00
F	Grab to Mean High Water	22.25
G	Main Berth Average Depth	23.55
H	Grab to Berth Top	17.80
J	Working Angle of Ship Loader	−15° to +17°
K	Minimum Reach of Loading Chute (−15°)	10.00
L	Minimum Reach of Loading Chute (0°)	10.80
M	Maximum Reach of Chute from Tail (0°)	43.30
N	Shuttle Distance of Ship Loader Boom	13.00
O	Tail to Fender Line	17.55
P	Height of Pivot Pin from Berth Top	15.08
Q	Maximum Airdraft (Loading)	21.00



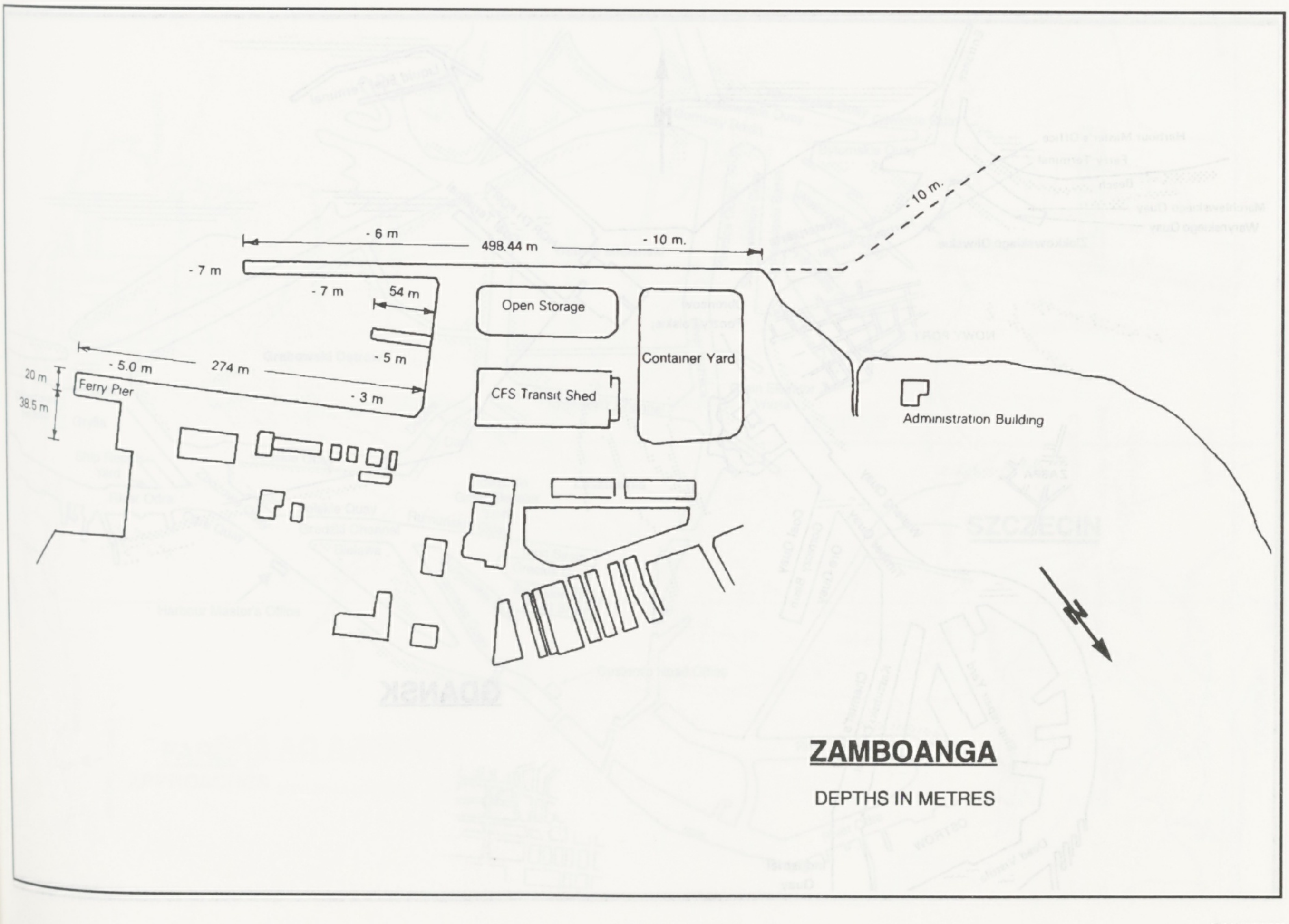
VILLANUEVA

	MAXIMUM DIMENSIONS	(m)
A	Length Overall	340.00
B	Working Length	248.50
C	Hatch Coaming Height	17.00
D	Arrival Draft	21.50
E	Width of Hatch Coamings	16.80
F	Beam	55.00
G	Outreach of Grab	33.00
H	Mean Depth Alonside	23.55
I	Mean Low Water	23.28
J	Mean High Water	24.38
K	High Water to Quay Level	4.45
L	Grab to High Water Level	22.25


11° N
10° N
120° E
119° E
Culion Island
Linapacan Island
Dumaran Island
Palawan Island
N
● F.P.S.O. II West Linapacan
Matinloc Platform
Restricted Area
Storage Vessel
A.P. Platform.
B.W. Platform

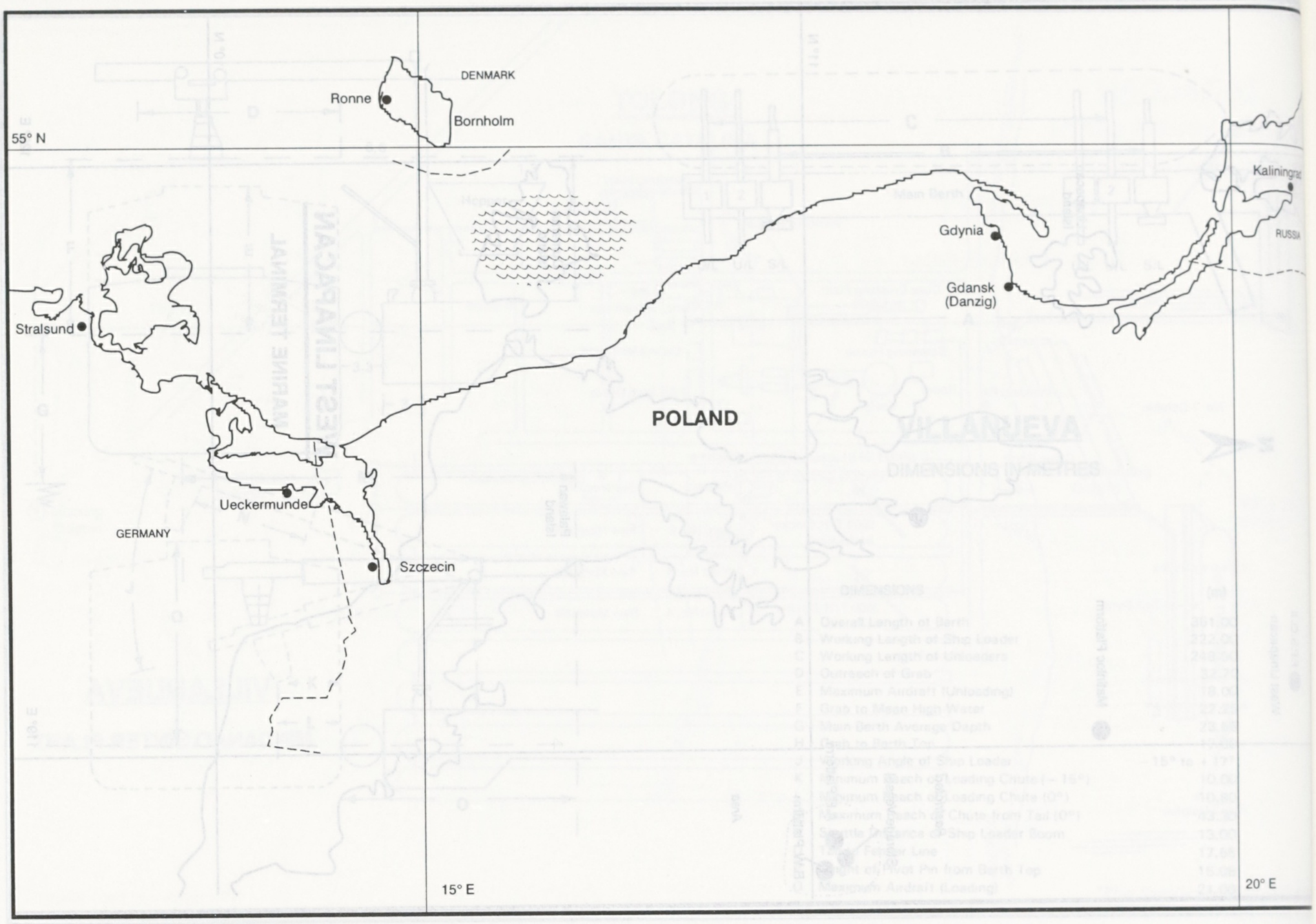
WEST LINAPACAN

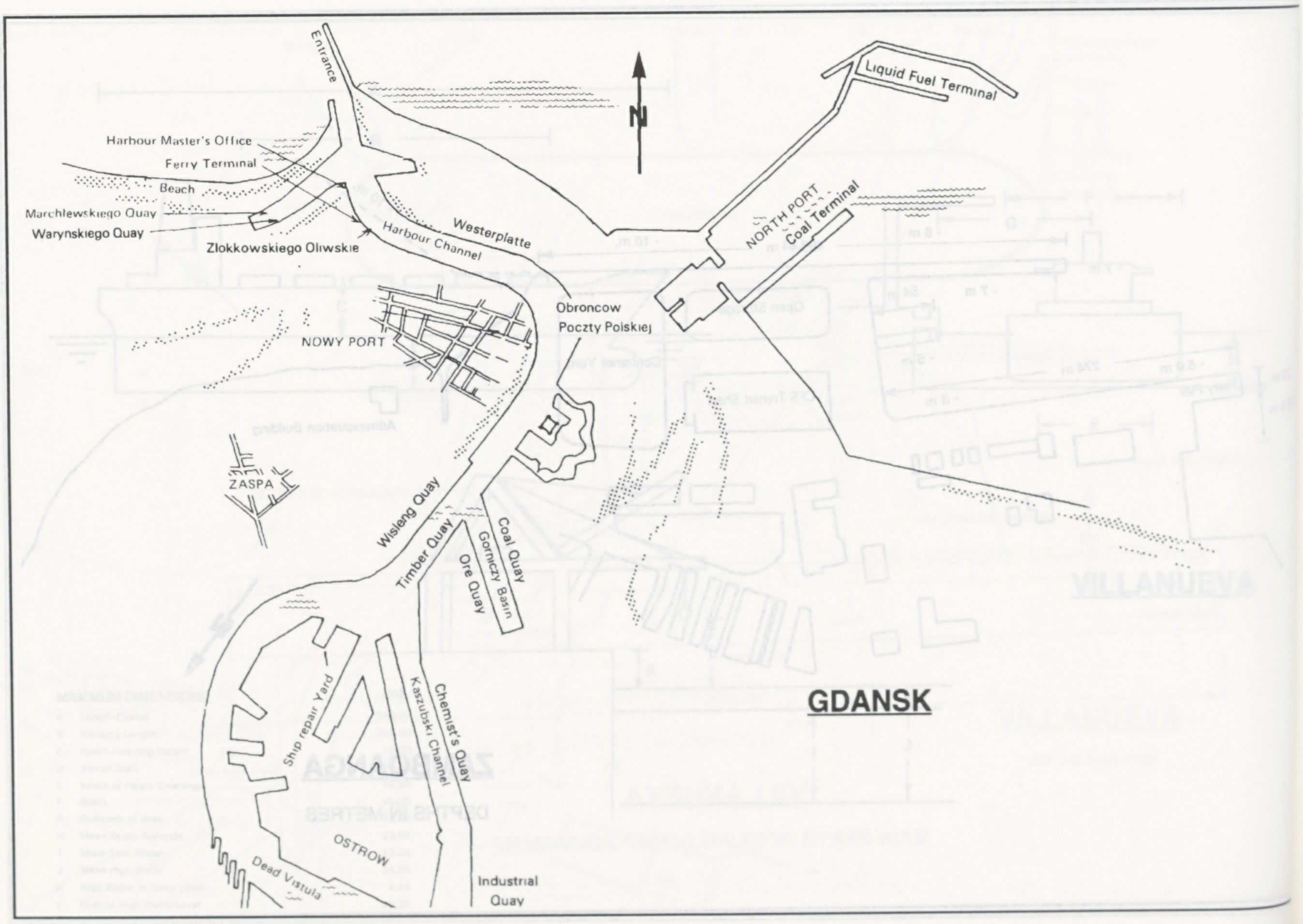
MARINE TERMINAL

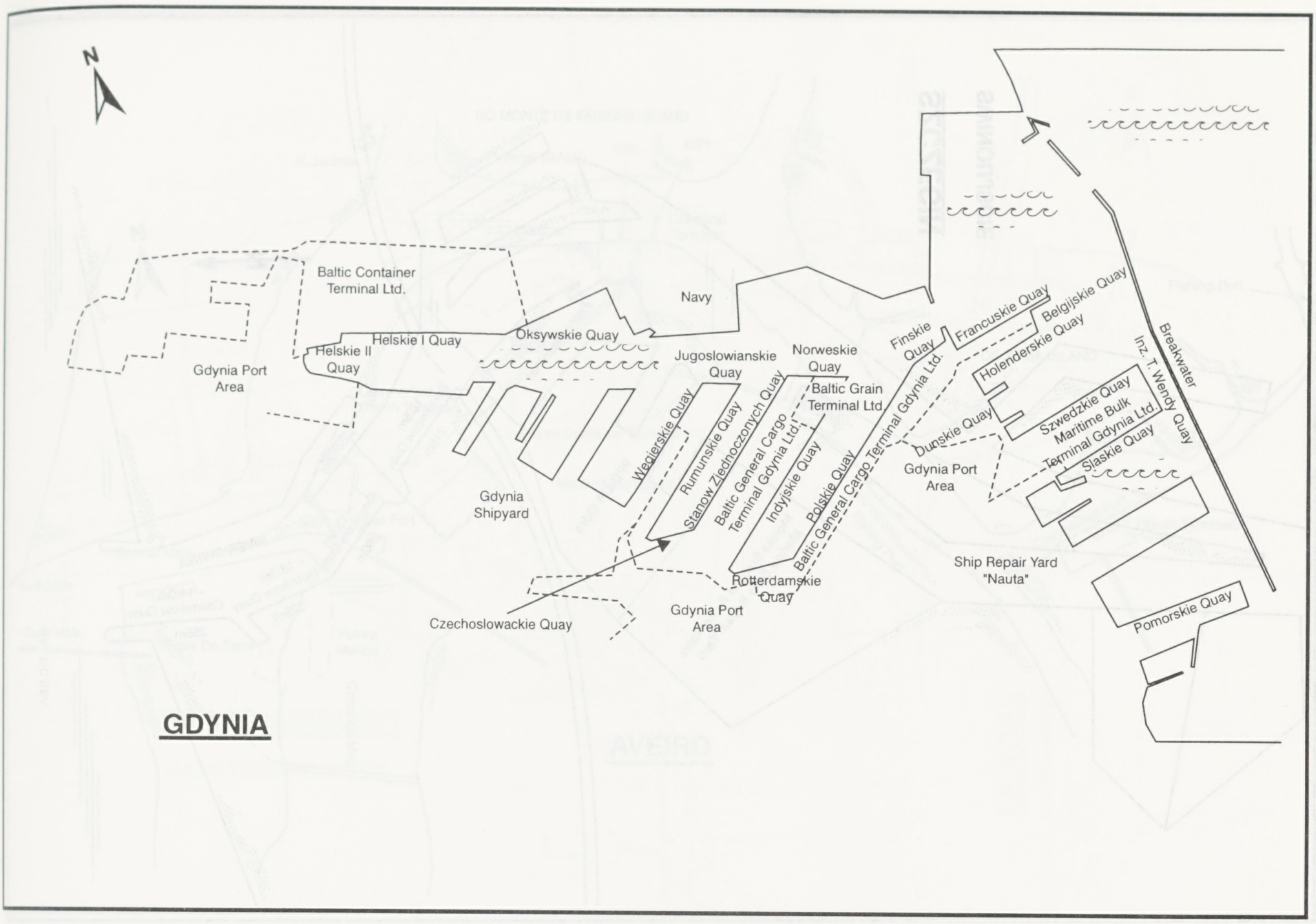

- 6 m
498.44 m
- 10 m.
- 10 m.
- 7 m
- 7 m
54 m
Open Storage
Container Yard
- 5.0 m
274 m
- 5 m
20 m
38.5 m
Ferry Pier
- 3 m
CFS Transit Shed
Administration Building
N

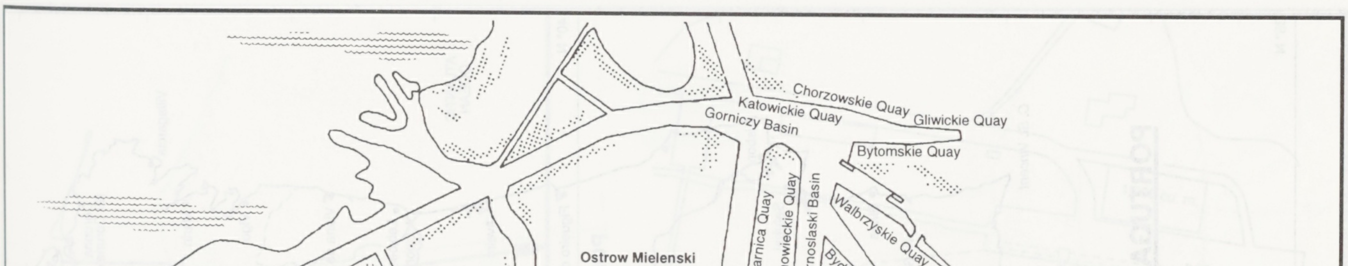
ZAMBOANGA

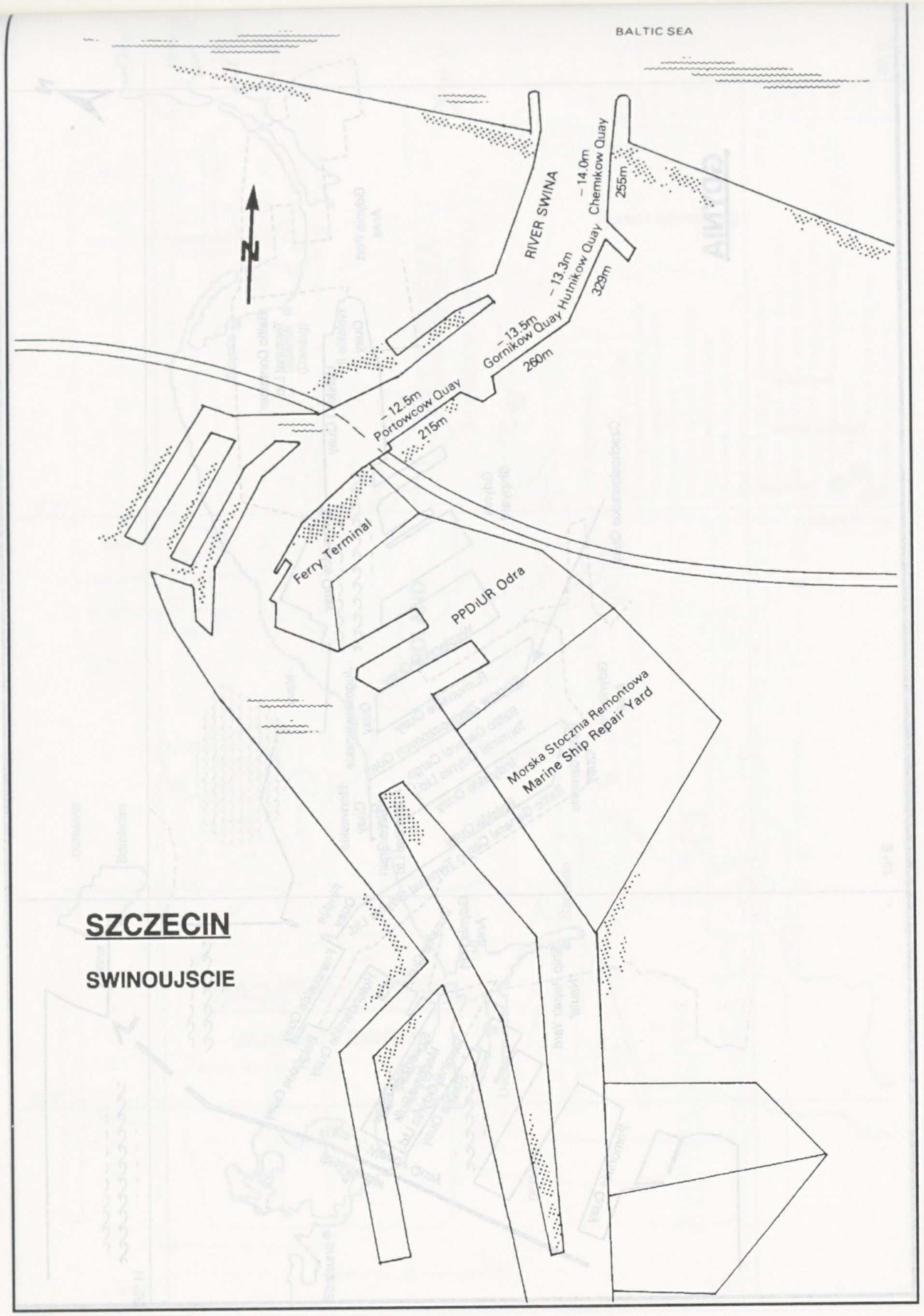
DEPTHS IN METRES


DENMARK
Ronne
Bornholm
55° N
Kaliningra
RUSSIA
Gdynia
Gdansk
(Danzig)
Stralsund
POLAND
Ueckermunde
GERMANY
Szczecin
15° E
20° E


Entrance
N
Liquid Fuel Terminal
Harbour Master's Office
Ferry Terminal
Beach
Marchlewskiego Quay
Warynskiego Quay
Zlokkowskiego Oliwskie
Harbour Channel
Westerplatte
NORTH PORT
Coal Terminal
Obroncow
Poczty Polskiej
NOWY PORT
ZASPA
Wisleng Quay
Timber Quay
Coal Quay
Gorniczy Basin
Ore Quay
Ship repair Yard
Kaszubski Channel
Chemist's Quay
OSTROW
Dead Vistula
Industrial Quay
GDANSK

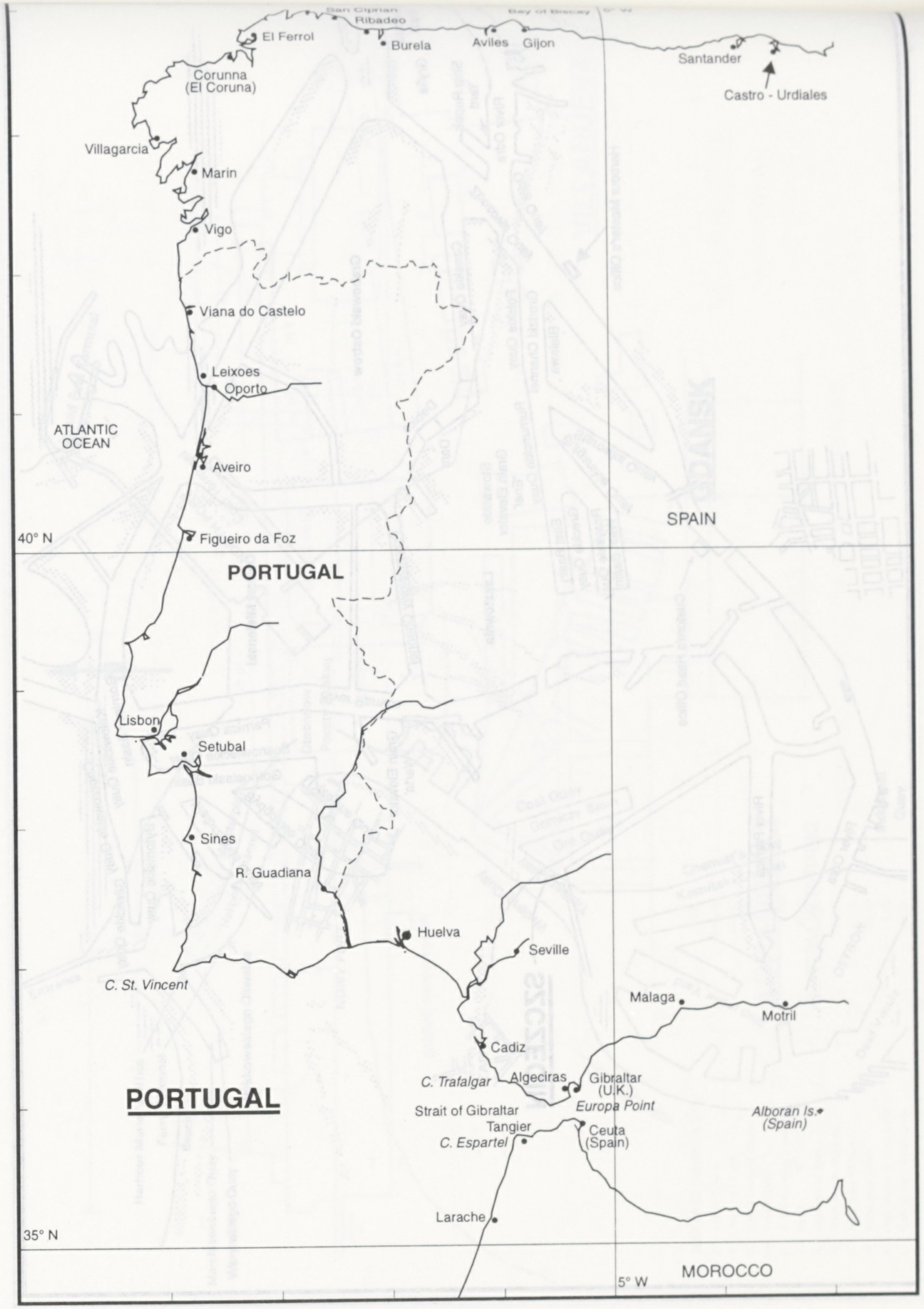

N
Baltic Container Terminal Ltd.
Navy
Helskie I Quay
Helskie II Quay
Oksywskie Quay
Gdynia Port Area
Jugoslowianskie Quay
Norweskie Quay
Baltic Grain Terminal Ltd
Finskie Quay
Francuskie Quay
Belgijskie Quay
Holenderskie Quay
Breakwater
Inz. T. Wendy Quay
Wegierskie Quay
Rumunskie Quay
Stanow Ziednoczonych Quay
Baltic General Cargo Terminal Gdynia Ltd.
Indyjskie Quay
Polskie Quay
Baltic General Cargo Terminal Gdynia Ltd.
Dunskie Quay
Szwedzkie Quay
Maritime Bulk Terminal Gdynia Ltd.
Slaskie Quay
Gdynia Shipyard
Gdynia Port Area
Ship Repair Yard "Nauta"
Rotterdamskie Quay
Czechoslowackie Quay
Gdynia Port Area
Pomorskie Quay
GDYNIA


Chorzowskie Quay
Katowickie Quay
Gliwickie Quay
Gorniczy Basin
Bytomskie Quay
Walbrzyskie Quay
Parnica Quay
Sosnowieckie Quay
Gornoslaski Basin
Bydgoskie Quay
Drzewne Quay
Ostrow Mielenski
Grabowski Ostrow
River Parnica
Grain Elevator 'Warta'
Przemyslowy Channel
Okretowa Island
Gryfia
Debica
Dam
Ship Repair Yard
Czeskie Quay
Stowackie Grain Elevator 'Enel'
Lasztownia
River Odra
Zbozowe Quay
Polskie Quay
Odre Quay
Grodzki Channel
Rumunskie Quay
Bielawa
East Basin
Greckie Quay
Bulgarskie Quay
Starowka Quay
Rosyskie Quay
West Basin
Harbour Master's Office
Custom's Head Office
SZCZECIN
River Parnica
River Odra

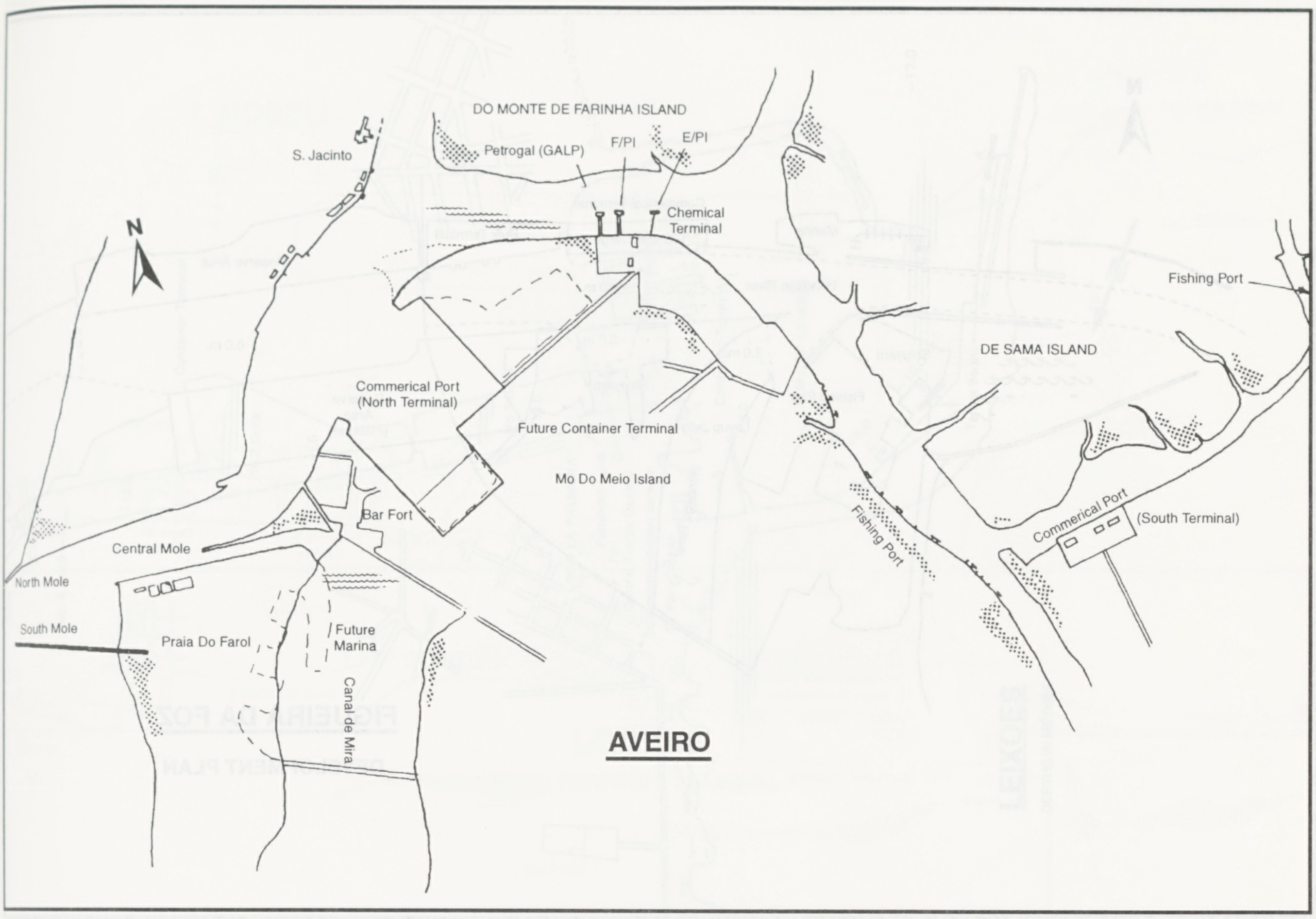

BALTIC SEA
N
RIVER SWINA
– 14.0m
Chemikow Quay
255m
– 13.3m
Hutnikow Quay
329m
– 13.5m
Gornikow Quay
260m
– 12.5m
Portowcow Quay
215m
Ferry Terminal
PPDiUR Odra
Morska Stocznia Remontowa
Marine Ship Repair Yard

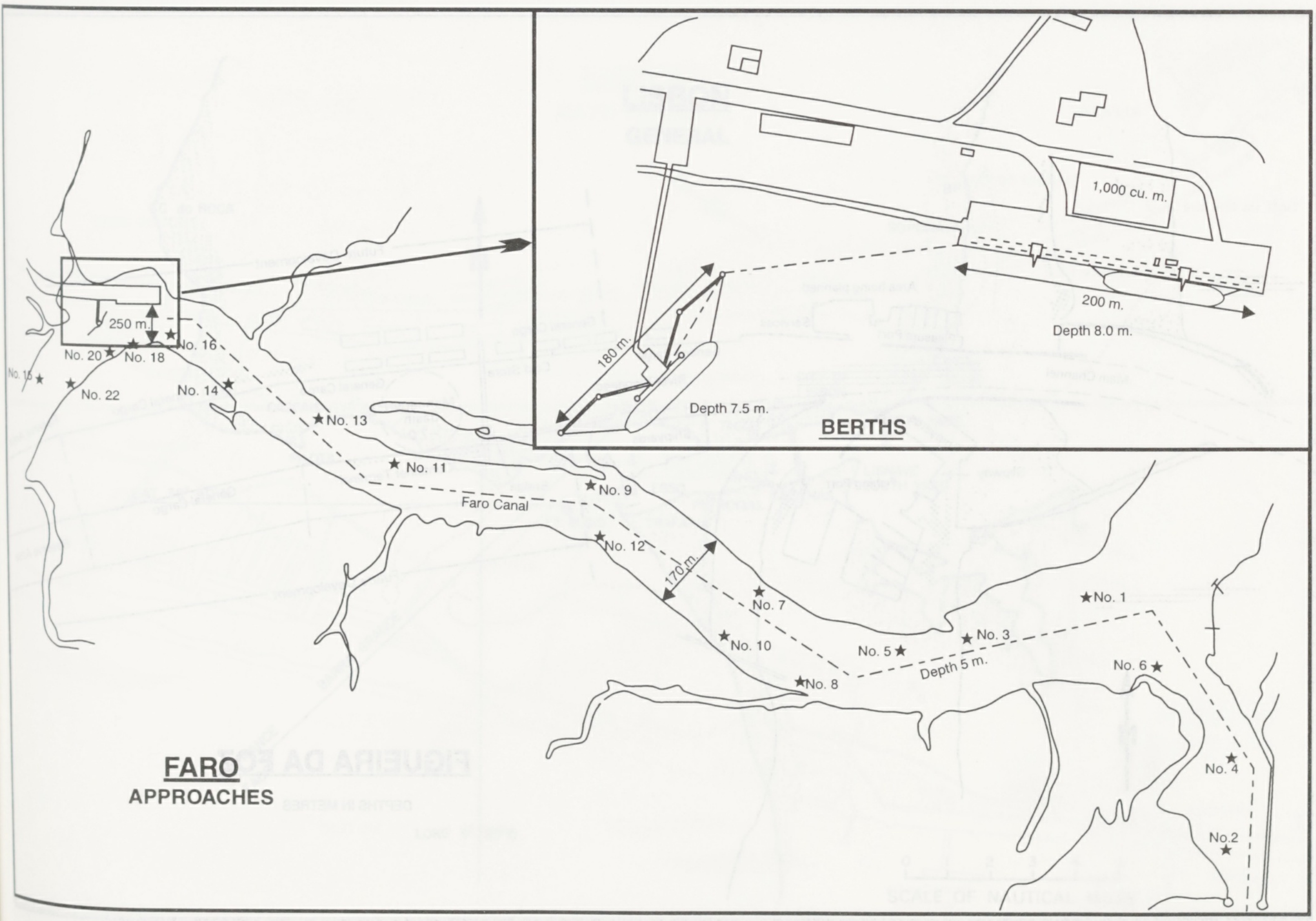
SZCZECIN

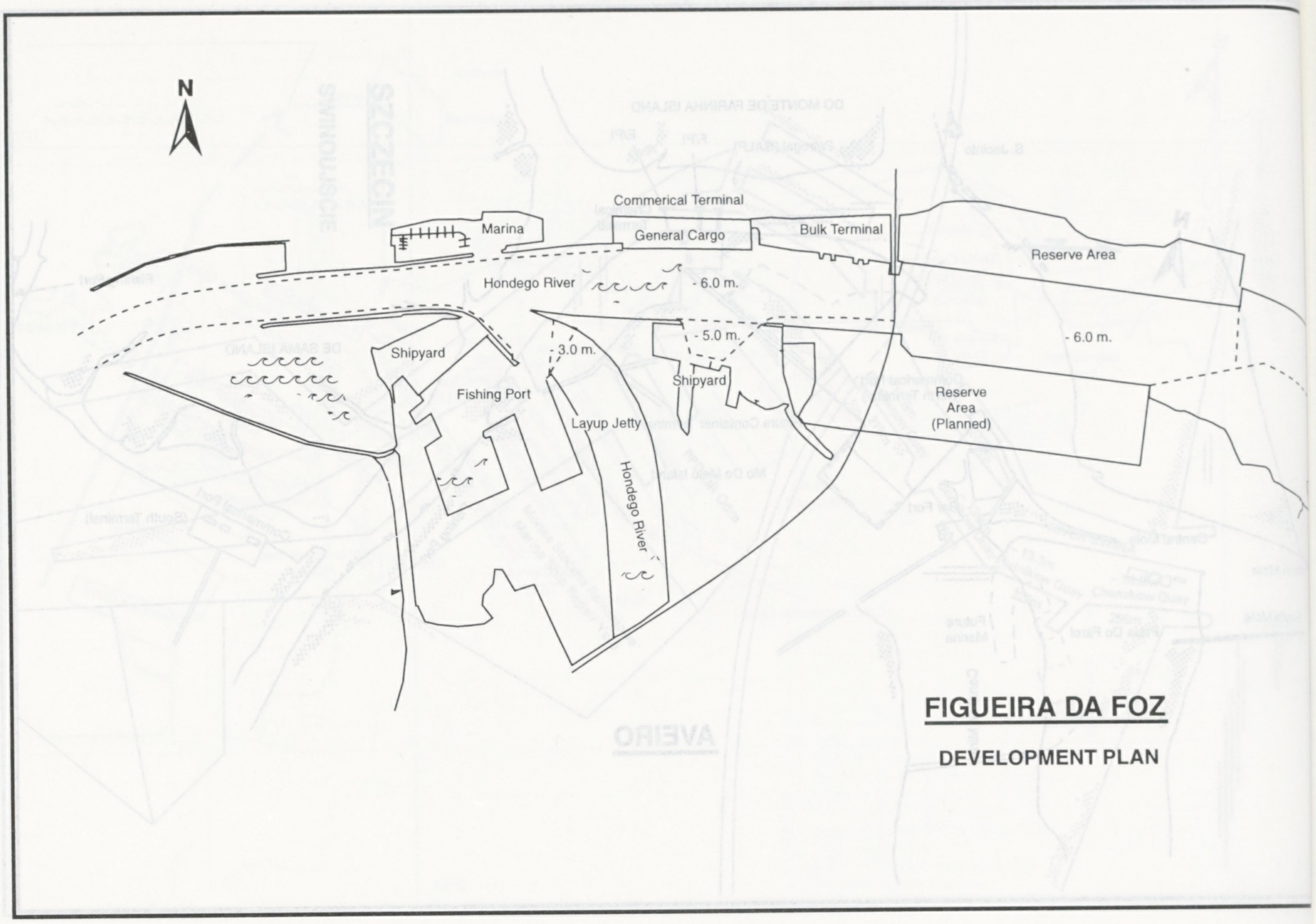
SWINOUJSCIE


San Ciprian
Ribadeo
Bay of Biscay
El Ferrol
Burela
Aviles
Gijon
Santander
Castro - Urdiales
Corunna
(El Coruna)
Villagarcia
Marin
Vigo
Viana do Castelo
Leixoes
Oporto
ATLANTIC
OCEAN
Aveiro
40° N
Figueiro da Foz
PORTUGAL
SPAIN
Lisbon
Setubal
Sines
R. Guadiana
Huelva
Seville
C. St. Vincent
Malaga
Motril
Cadiz
C. Trafalgar
Algeciras
Gibraltar
(U.K.)
Europa Point
Strait of Gibraltar
Tangier
C. Espartel
Ceuta
(Spain)
Alboran Is.
(Spain)
Larache
35° N
5° W
MOROCCO

PORTUGAL

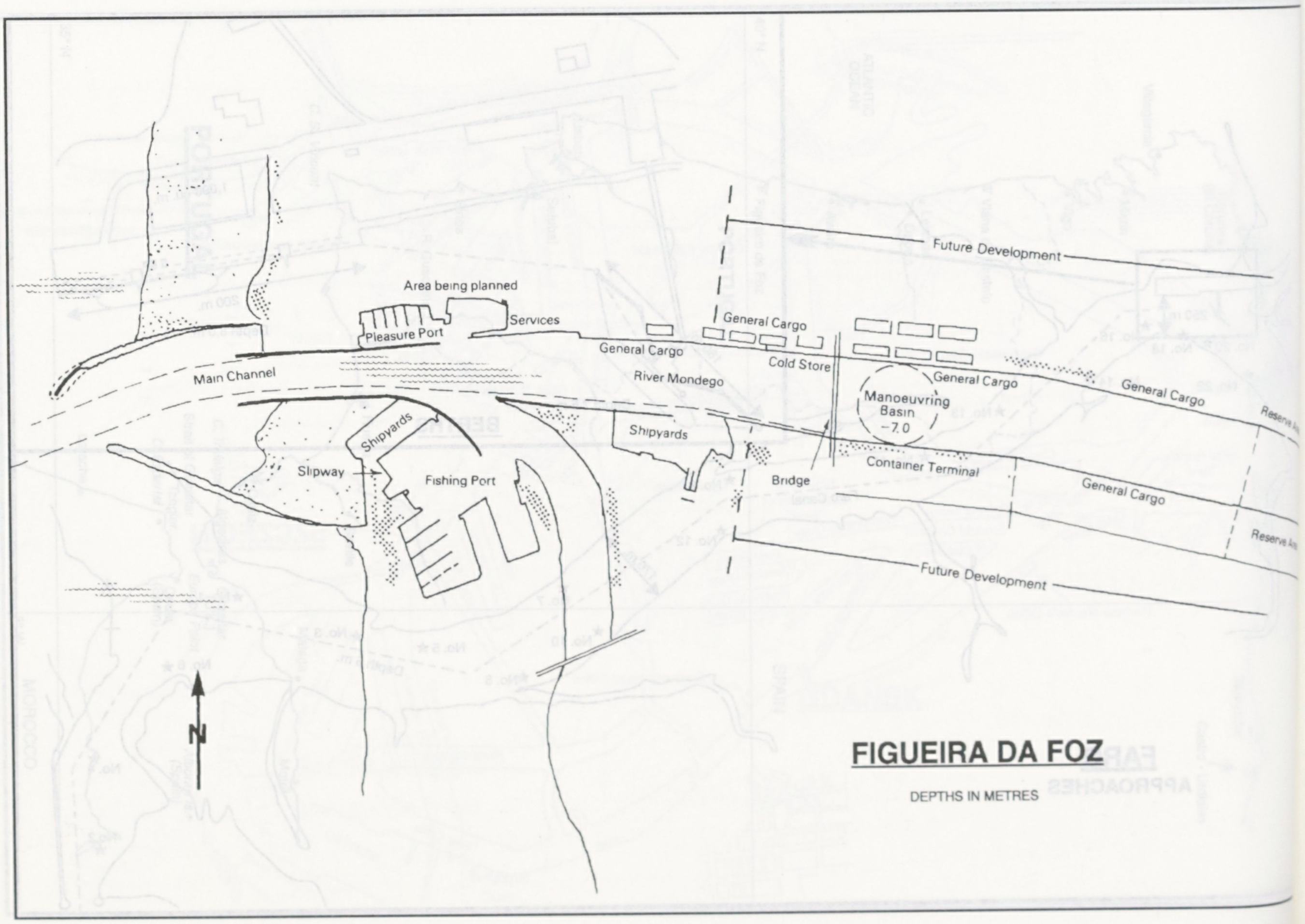

DO MONTE DE FARINHA ISLAND
S. Jacinto
Petrogal (GALP)
F/PI
E/PI
Chemical Terminal
N
Fishing Port
DE SAMA ISLAND
Commerical Port (North Terminal)
Future Container Terminal
Mo Do Meio Island
Bar Fort
Central Mole
North Mole
South Mole
Praia Do Farol
Future Marina
Canal de Mira
Fishing Port
Commerical Port
(South Terminal)
AVEIRO


1,000 cu. m.
200 m.
Depth 8.0 m.
180 m.
Depth 7.5 m.
BERTHS
250 m.
No. 20
No. 18
No. 16
No. 15
No. 22
No. 14
No. 13
No. 11
No. 9
Faro Canal
No. 12
170 m.
No. 7
No. 10
No. 8
No. 5
No. 3
No. 1
Depth 5 m.
No. 6
No. 4
No. 2
FARO
APPROACHES


N
Commerical Terminal
Marina
General Cargo
Bulk Terminal
Reserve Area
Hondego River
- 6.0 m.
- 5.0 m.
- 3.0 m.
Shipyard
Fishing Port
Layup Jetty
Shipyard
Reserve Area (Planned)
- 6.0 m.
Hondego River

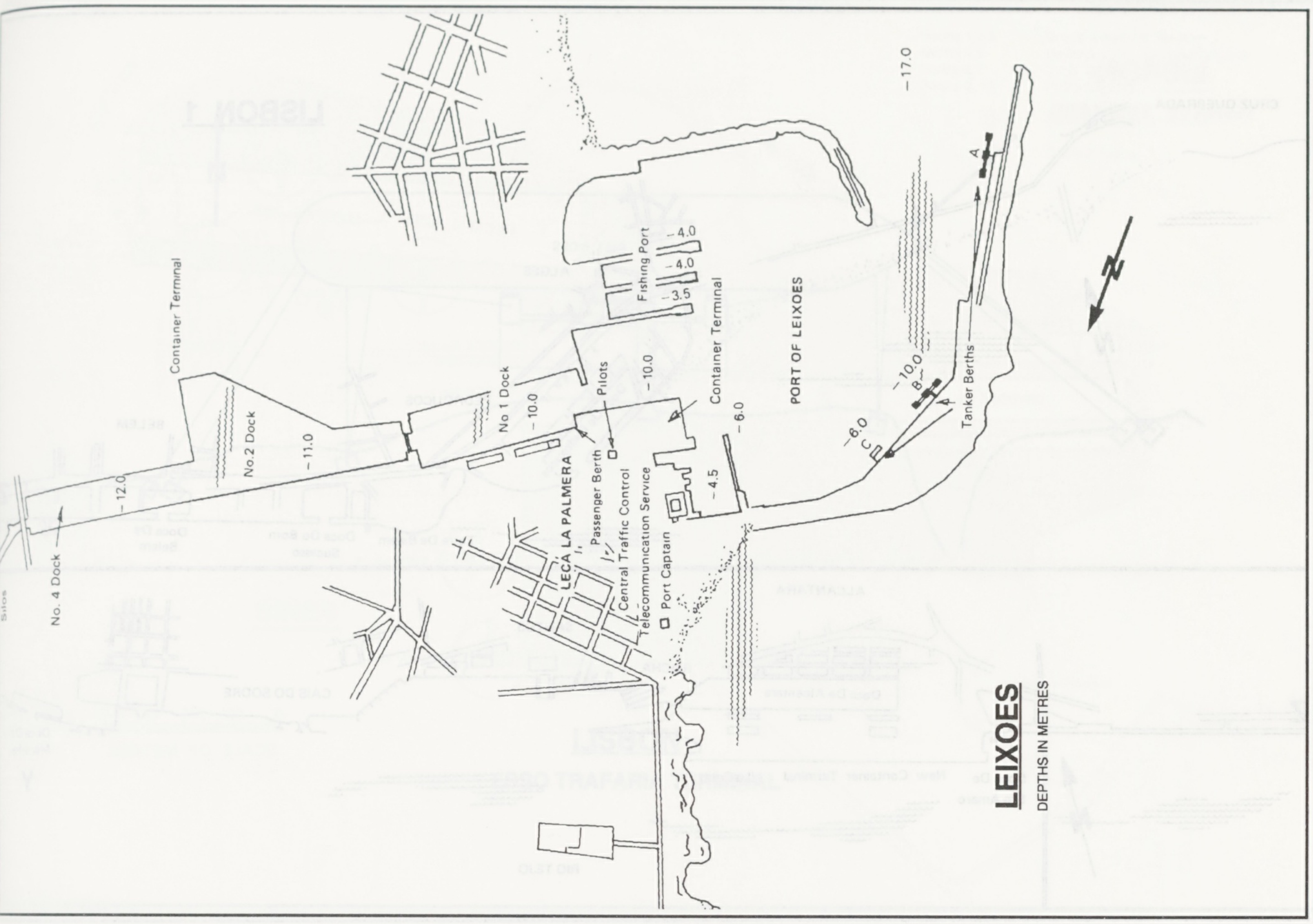
FIGUEIRA DA FOZ

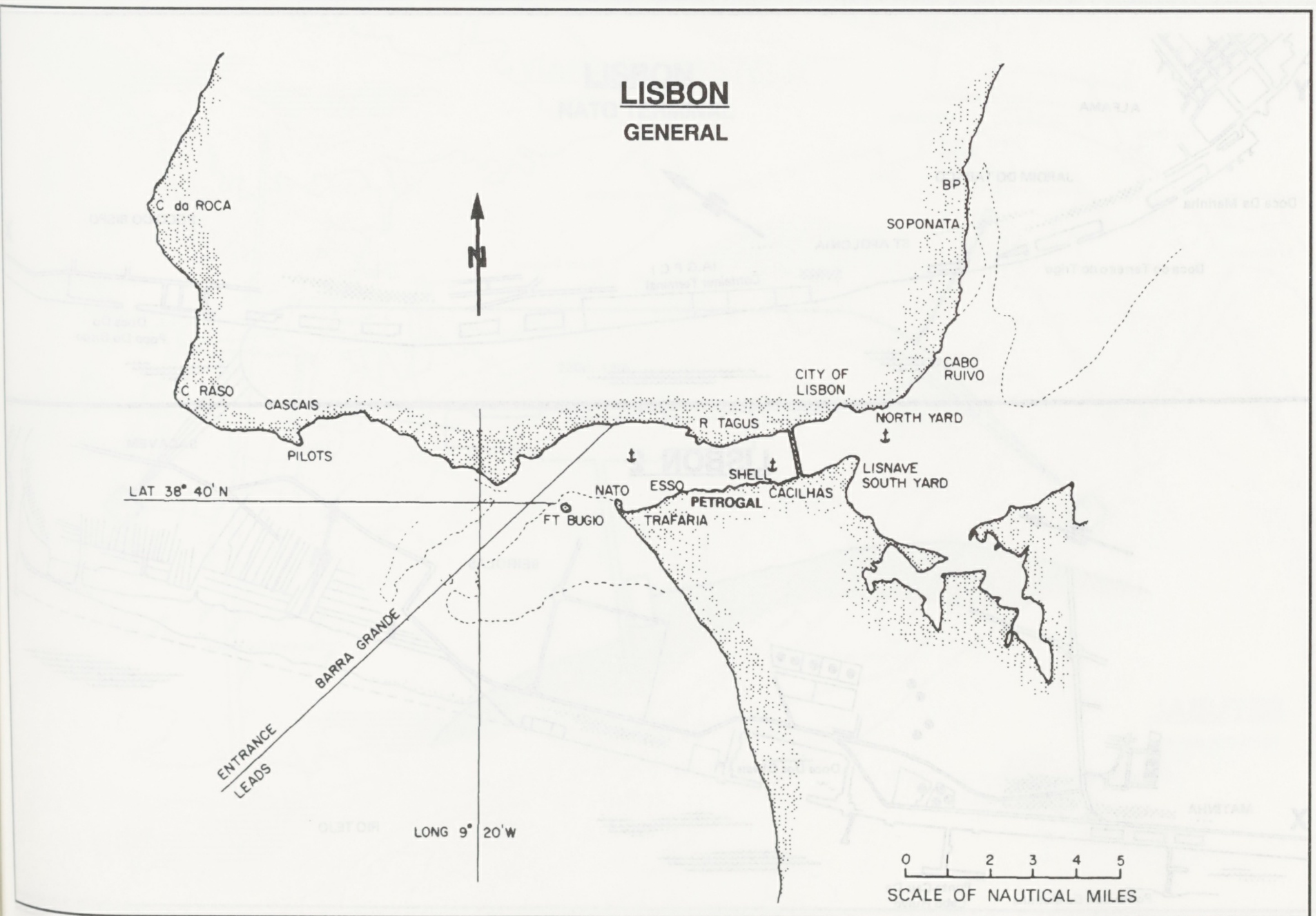
DEVELOPMENT PLAN

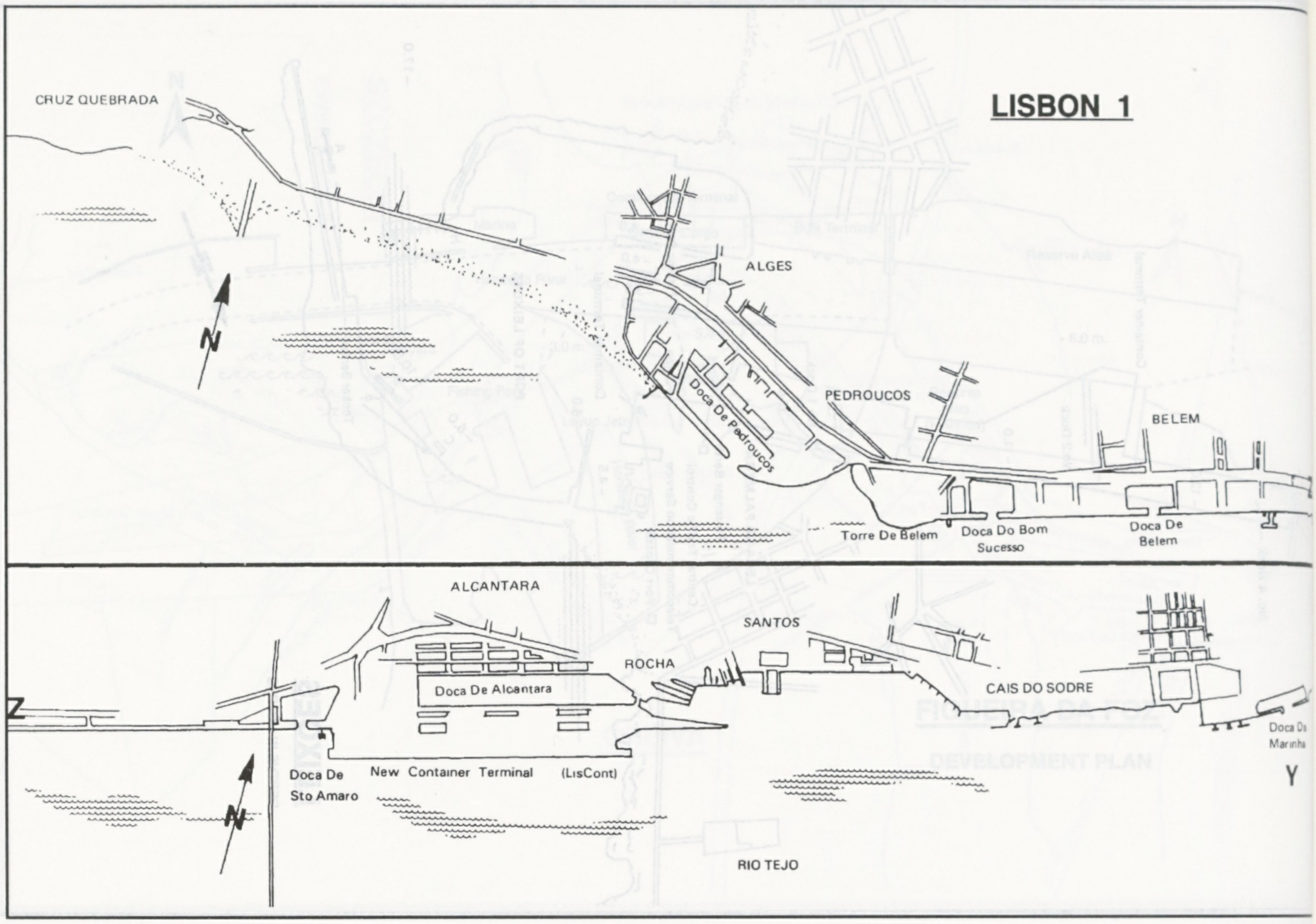

Area being planned
Pleasure Port
Services
General Cargo
General Cargo
Cold Store
Main Channel
River Mondego
General Cargo
General Cargo
Reserve Ar
Manoeuvring Basin -7.0
Shipyards
Shipyards
Slipway
Fishing Port
Bridge
Container Terminal
General Cargo
Reserve A
Future Development
Future Development
N

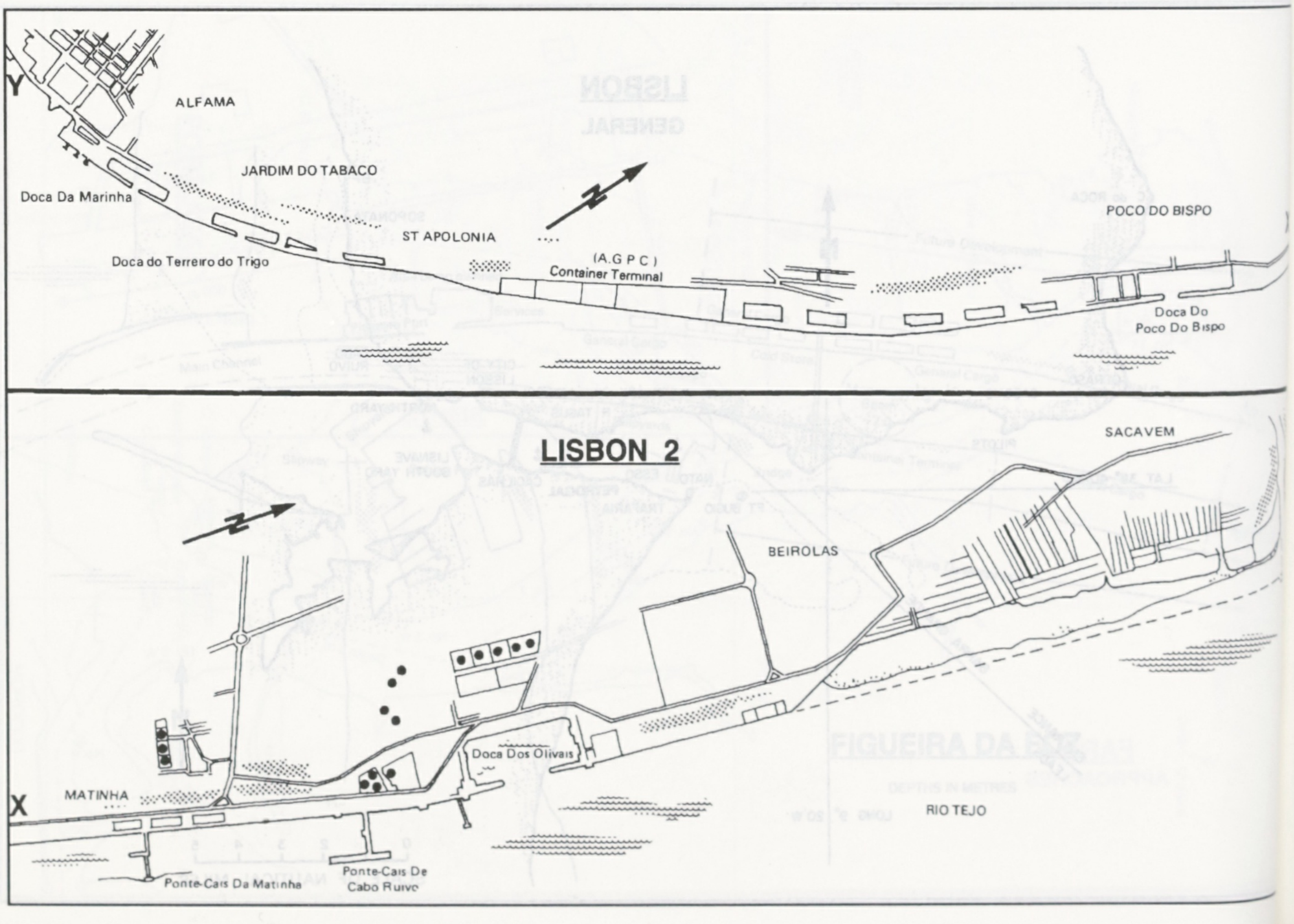
FIGUEIRA DA FOZ

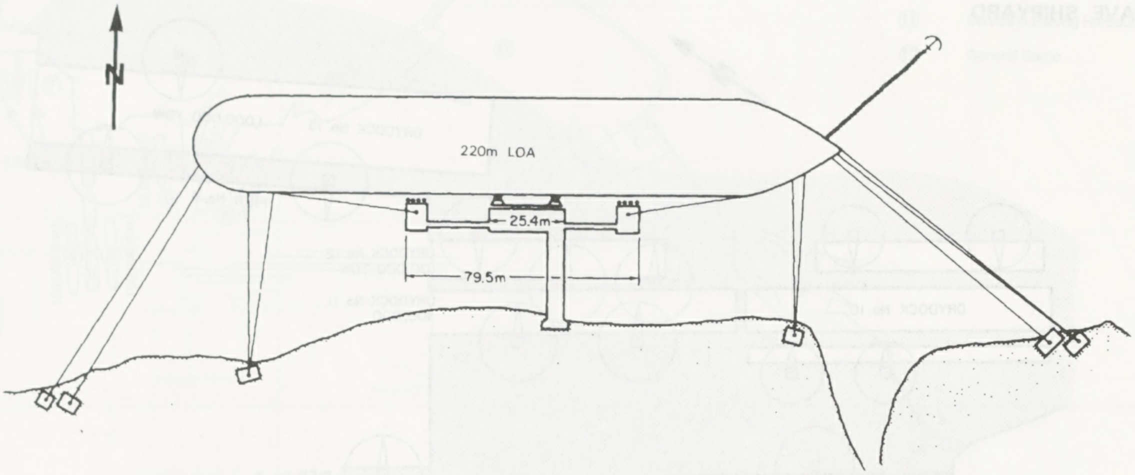
DEPTHS IN METRES


LEIXOES
DEPTHS IN METRES
PORT OF LEIXOES
N
−17.0
A
Tanker Berths
B
C
−10.0
−6.0
Container Terminal
−6.0
−4.5
Fishing Port
−4.0
−4.0
−3.5
−10.0
Pilots
Passenger Berth
Central Traffic Control
Telecommunication Service
Port Captain
LECA LA PALMERA
No 1 Dock
−10.0
Container Terminal
No.2 Dock
−11.0
−12.0
No. 4 Dock
Silos


LISBON
GENERAL
N
C do ROCA
C RASO
CASCAIS
PILOTS
LAT 38° 40'N
LONG 9° 20'W
ENTRANCE
LEADS
BARRA GRANDE
FT BUGIO
NATO
ESSO
TRAFARIA
PETROGAL
SHELL
CACILHAS
R TAGUS
CITY OF LISBON
LISNAVE SOUTH YARD
NORTH YARD
CABO RUIVO
SOPONATA
BP
0 1 2 3 4 5
SCALE OF NAUTICAL MILES


LISBON 1
CRUZ QUEBRADA
N
ALGES
Doca De Pedroucos
PEDROUCOS
BELEM
Torre De Belem
Doca Do Bom Sucesso
Doca De Belem
ALCANTARA
SANTOS
ROCHA
Doca De Alcantara
CAIS DO SODRE
Z
N
Doca De Sto Amaro
New Container Terminal
(LisCont)
Doca Da Marinha
Y
RIO TEJO


Y
ALFAMA
JARDIM DO TABACO
Doca Da Marinha
N
ST APOLONIA
Doca do Terreiro do Trigo
(A.G.P.C)
Container Terminal
POCO DO BISPO
Doca Do Poco Do Bispo
LISBON 2
SACAVEM
N
BEIROLAS
ALFAMA
Doca Dos Olivais
MATINHA
X
RIO TEJO
Ponte-Cais Da Matinha
Ponte-Cais De Cabo Ruivo

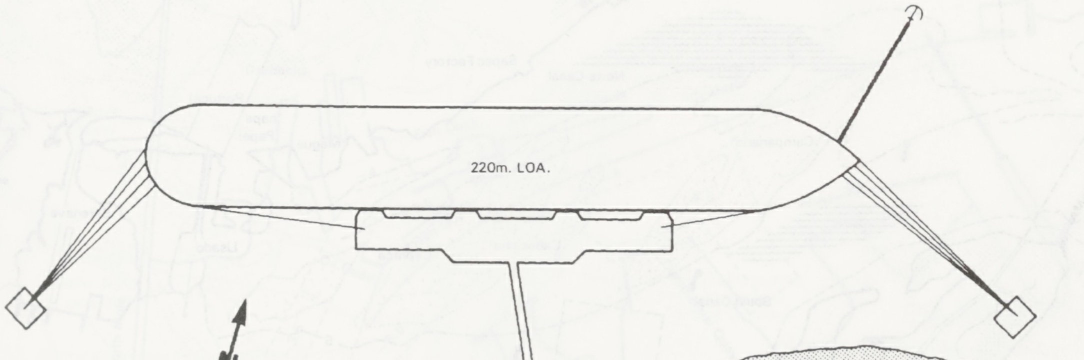

N
220m LOA
25.4m
79.5m

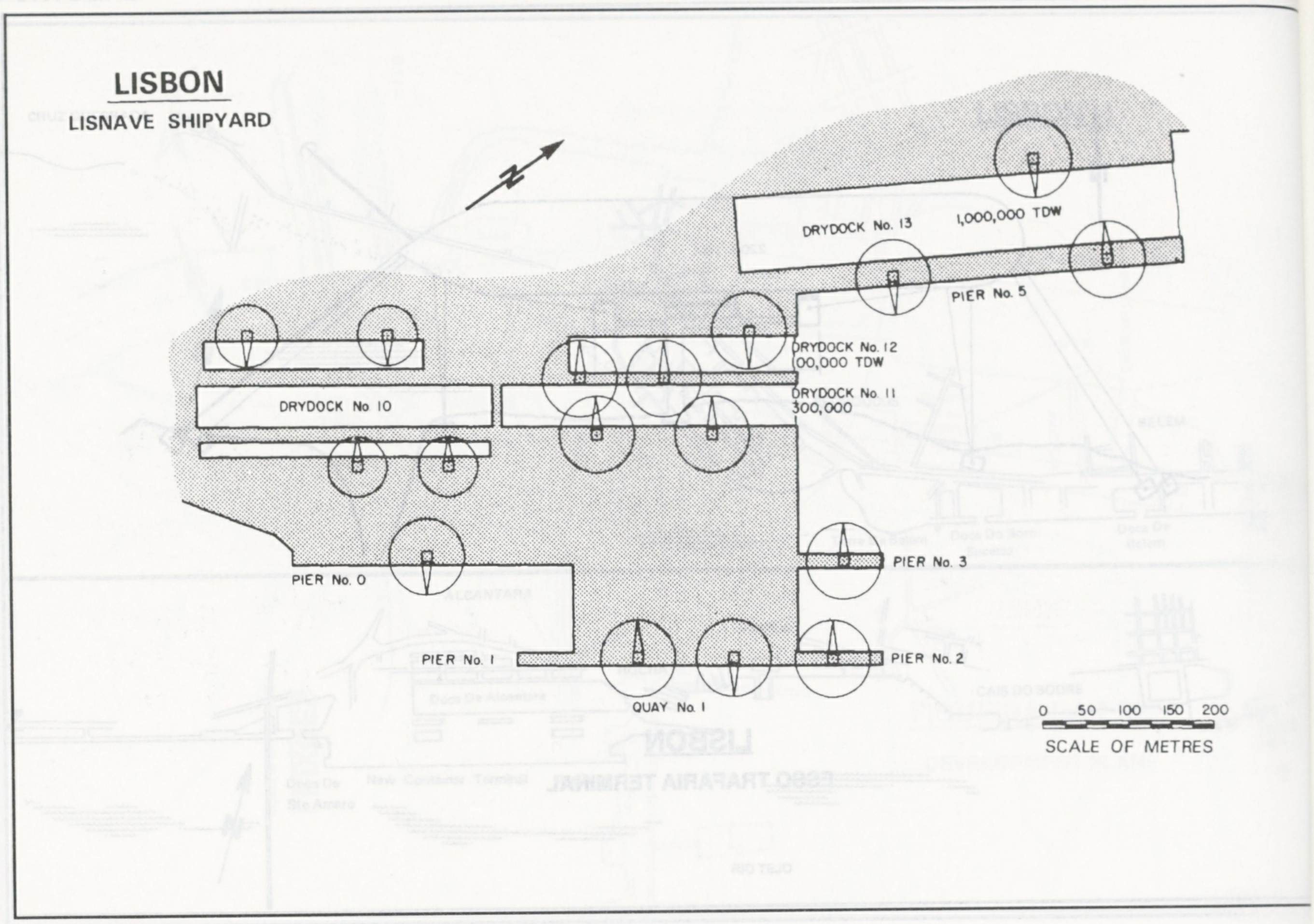
LISBON

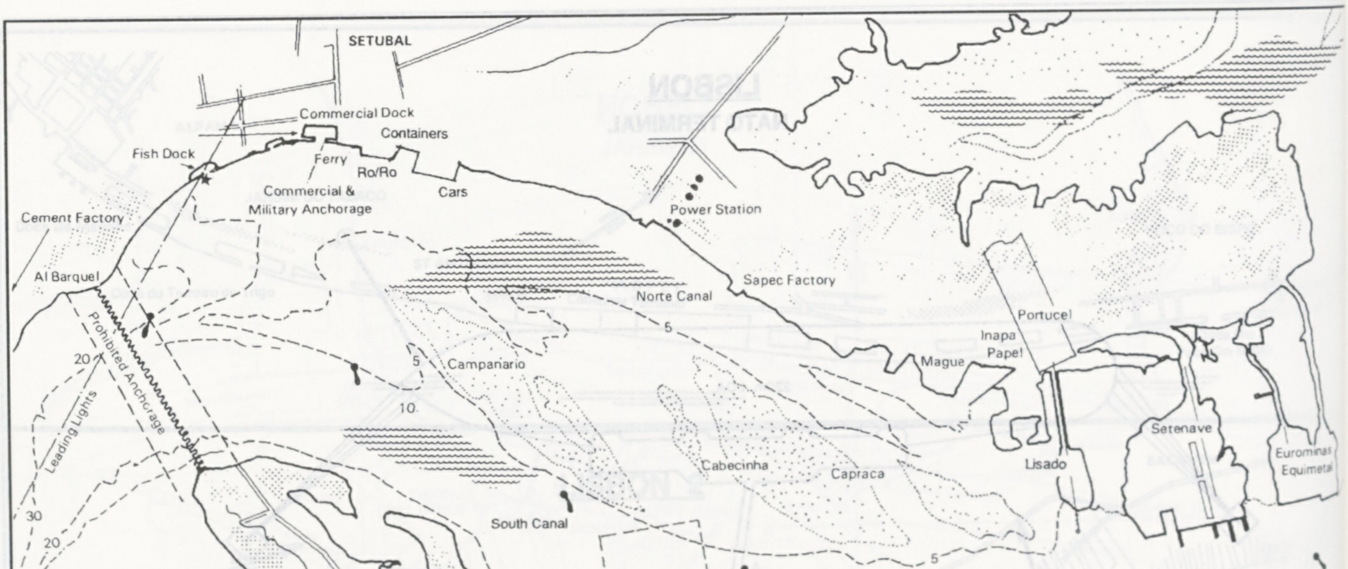
ESSO TRAFARIA TERMINAL

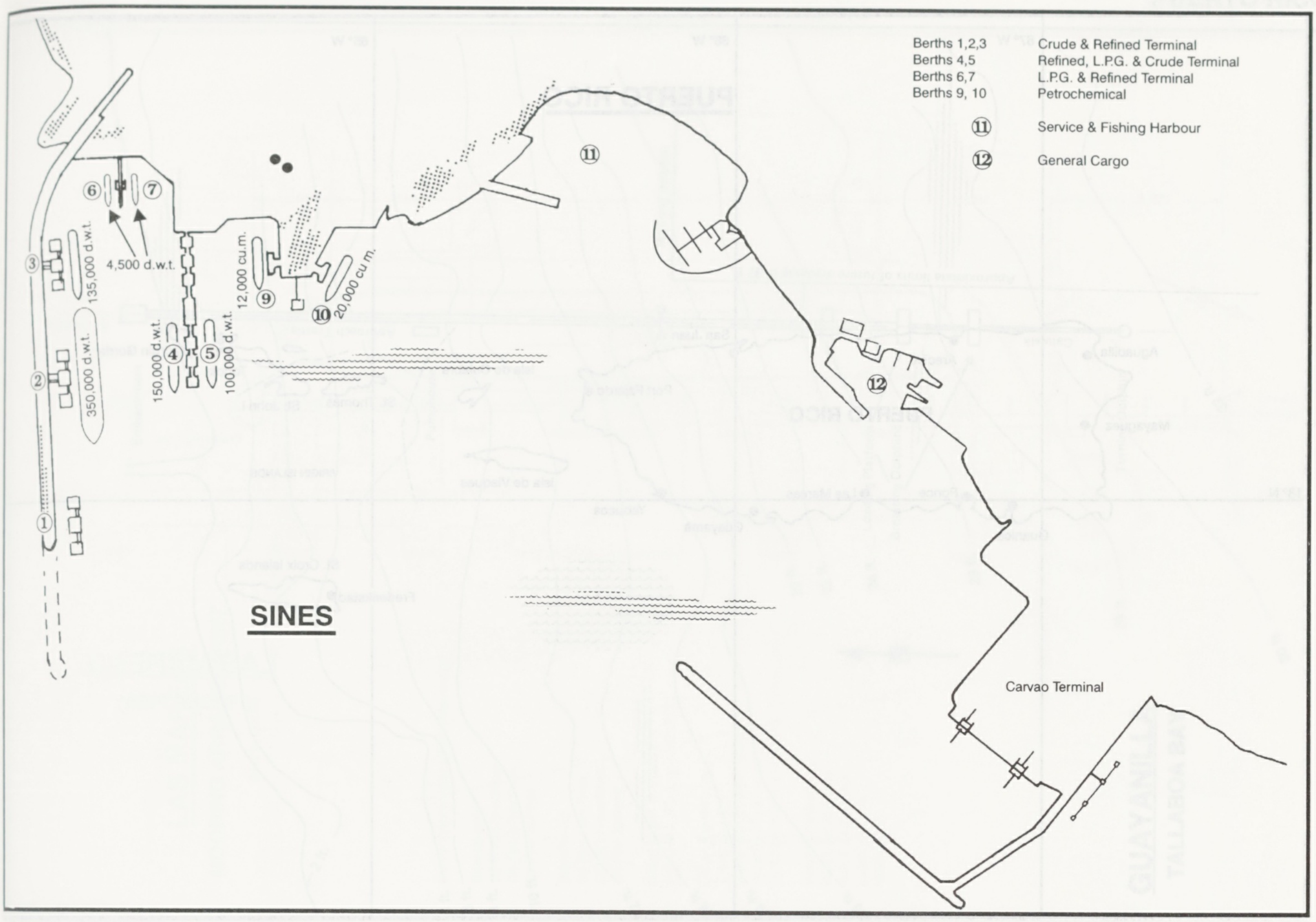
LISBON

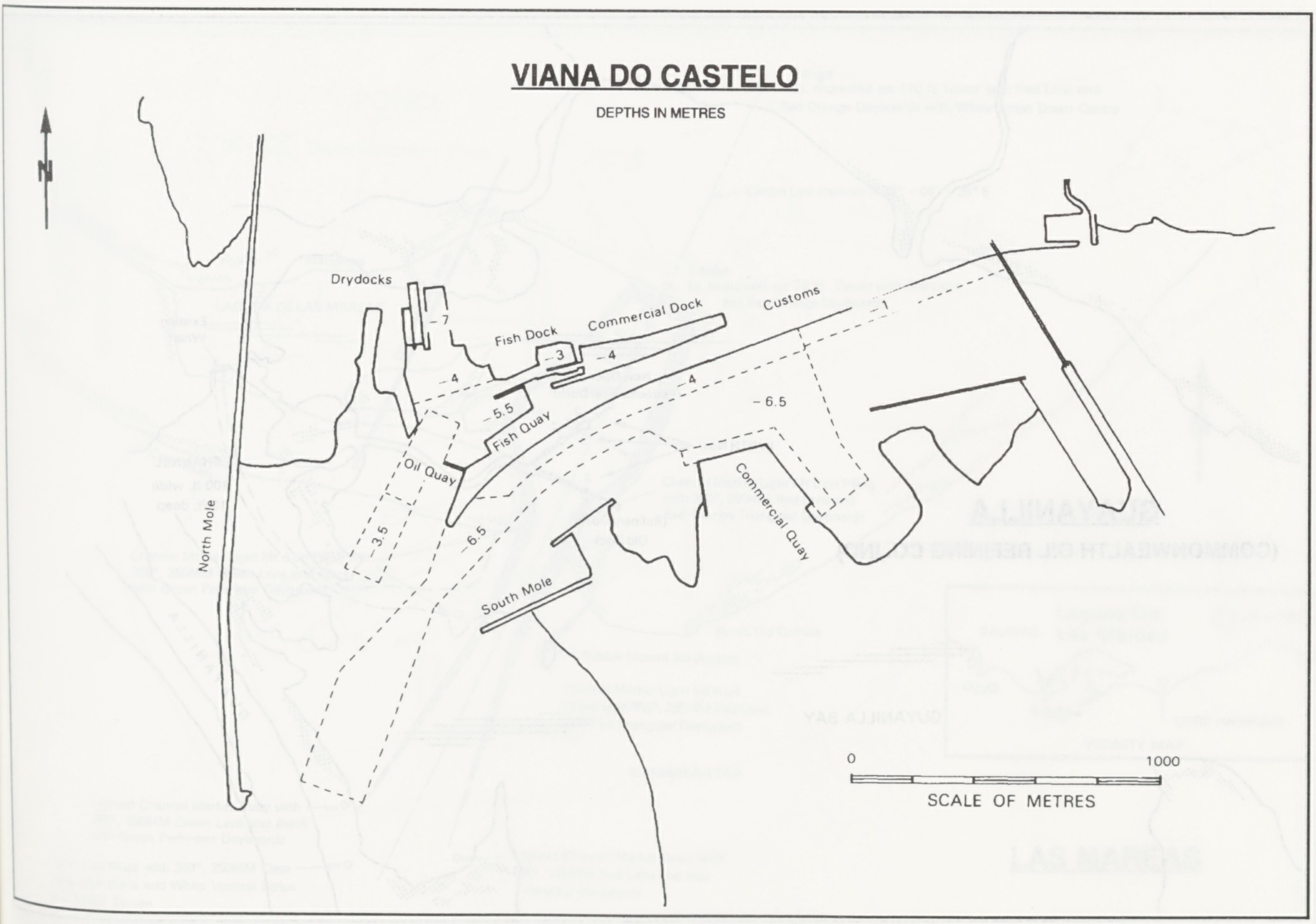
NATO TERMINAL

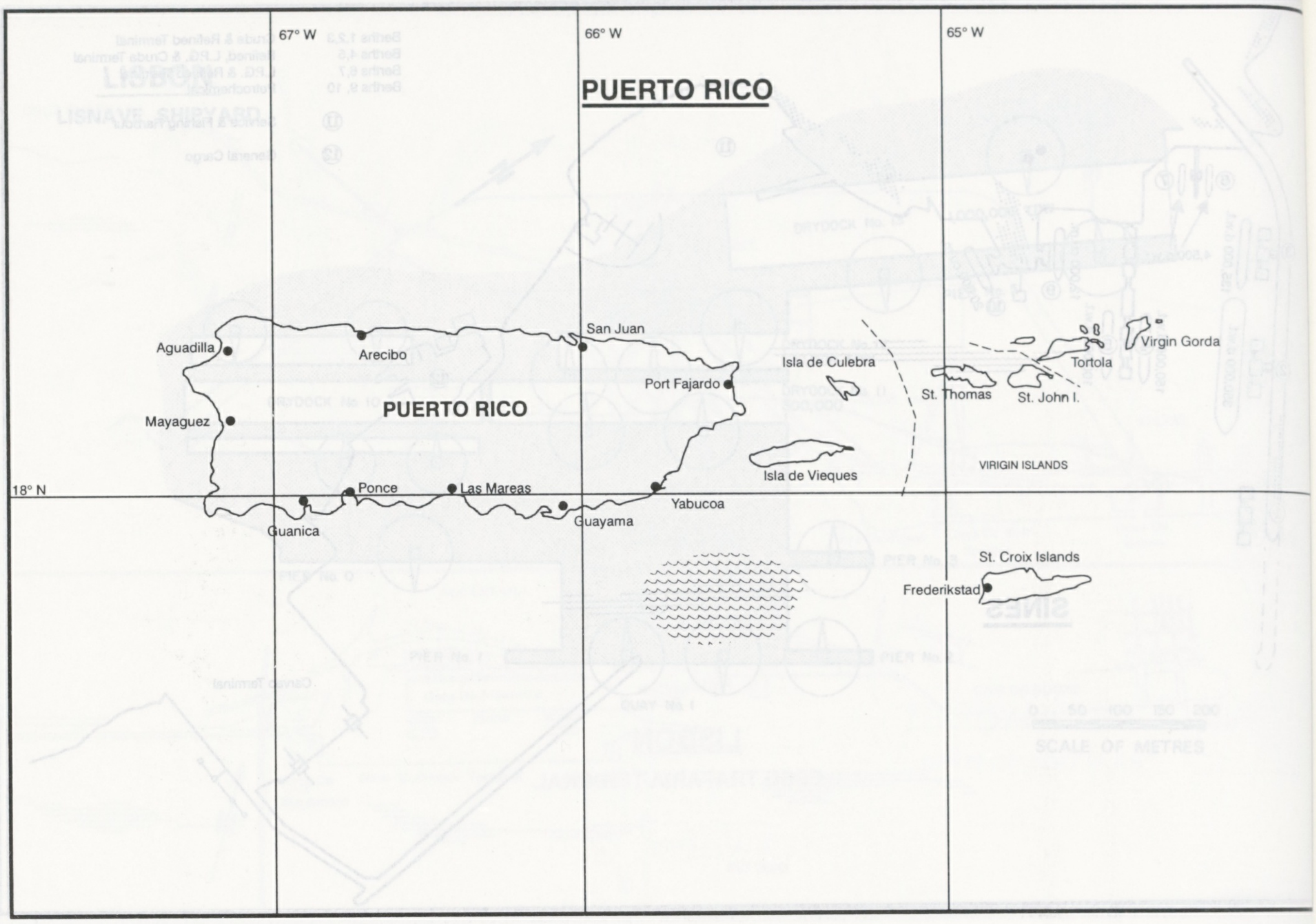


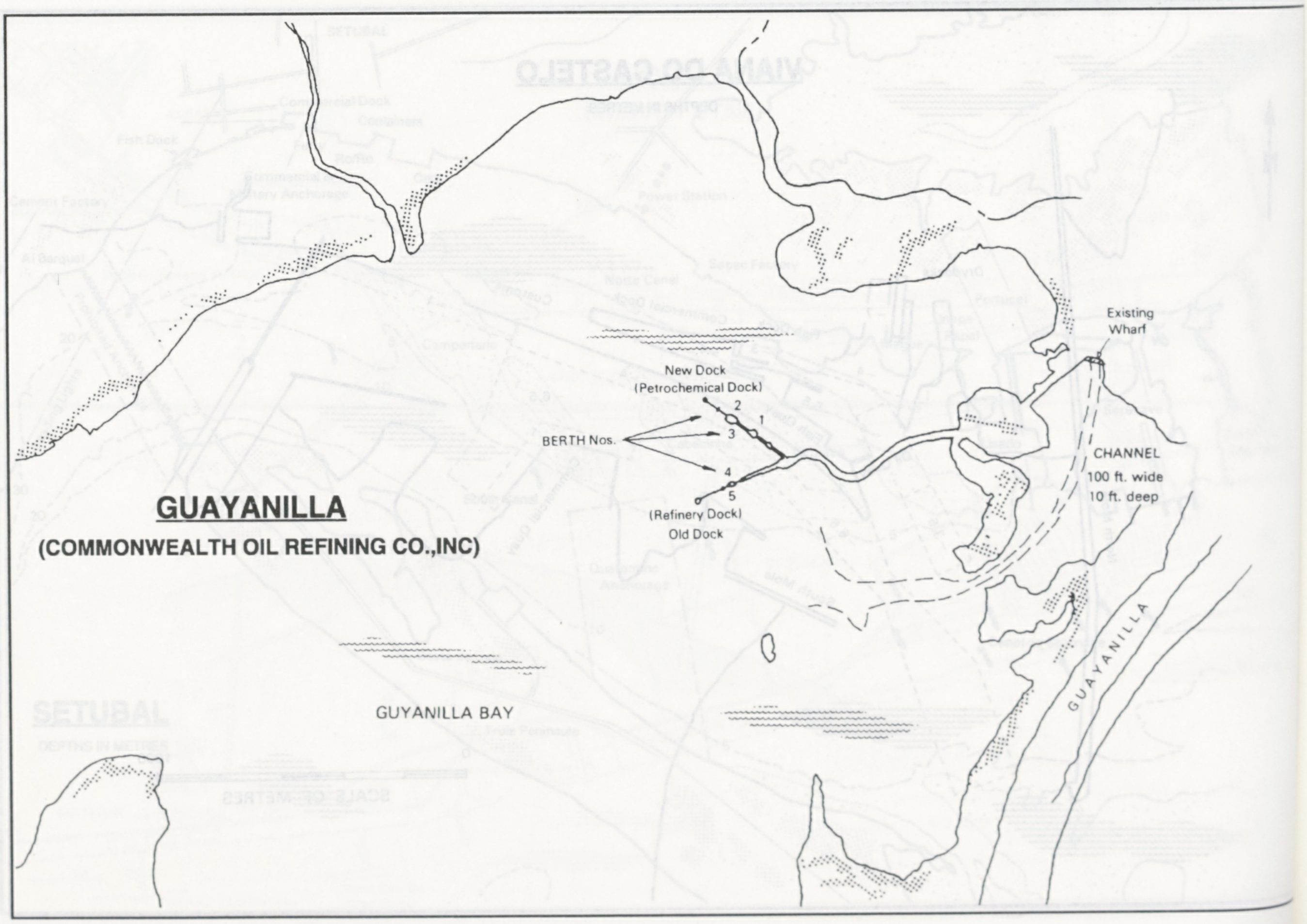

LISBON
LISNAVE SHIPYARD
DRYDOCK No. 13
1,000,000 TDW
PIER No. 5
DRYDOCK No. 12
00,000 TDW
DRYDOCK No. 11
300,000
DRYDOCK No 10
PIER No. 0
PIER No. 1
QUAY No. 1
PIER No. 3
PIER No. 2
0 50 100 150 200
SCALE OF METRES

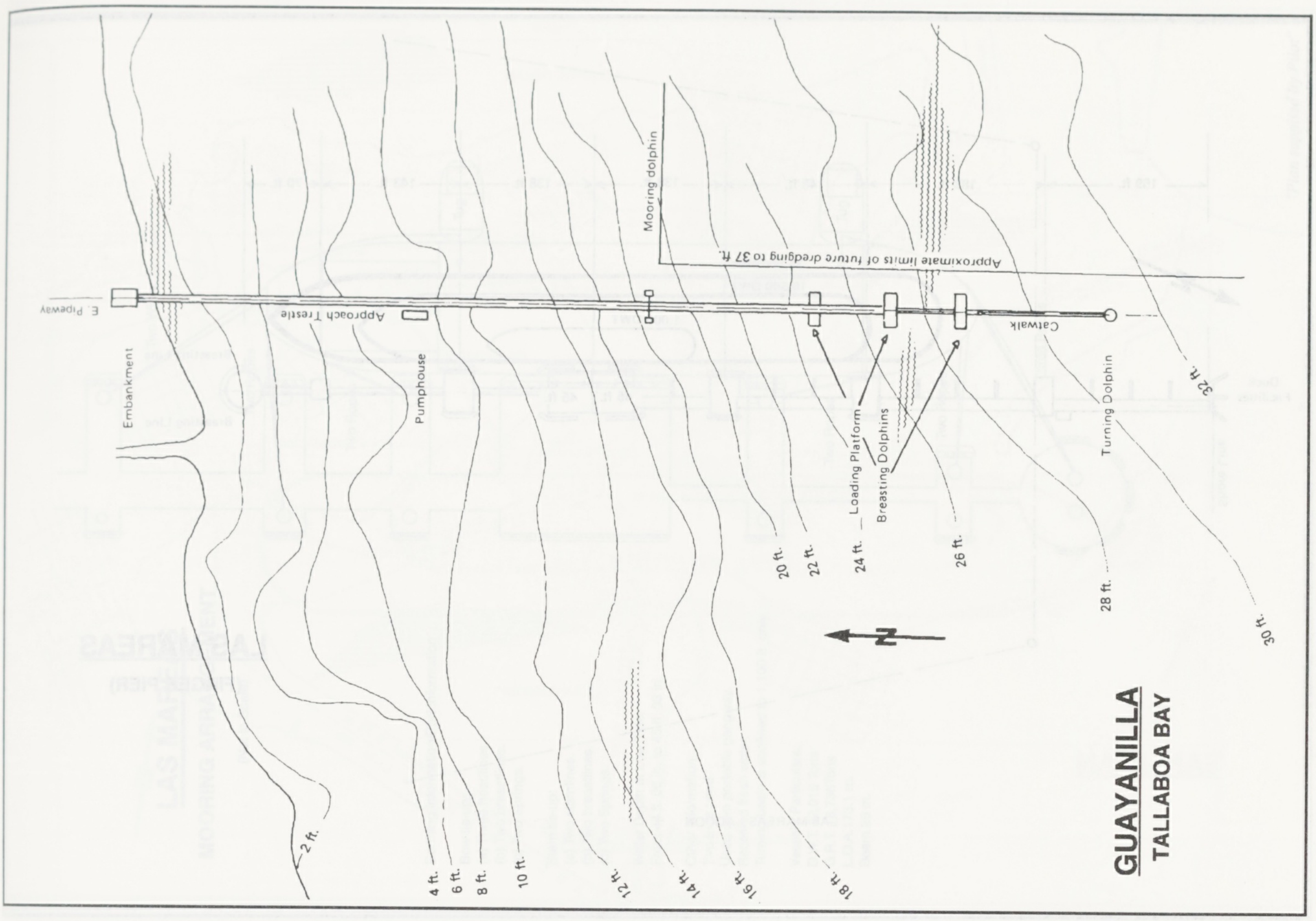

SETUBAL
Commercial Dock
Containers
Fish Dock
Ferry
Ro/Ro
Commercial &
Military Anchorage
Cars
Cement Factory
Al Barquel
Power Station
Sapec Factory
Norte Canal
Portucel
Inapa
Papel
Mague
Campanario
Prohibited Anchorage
Leading Lights
Cabecinha
Capraca
Lisado
Setenave
Eurominas
Equimetal
South Canal
Quarantine
Anchorage
Costa da Gale
Canal de Setenave
Troia Peninsula
SETUBAL
DEPTHS IN METRES
5
10
20
30


Berths 1,2,3 Crude & Refined Terminal
Berths 4,5 Refined, L.P.G. & Crude Terminal
Berths 6,7 L.P.G. & Refined Terminal
Berths 9, 10 Petrochemical
⑪ Service & Fishing Harbour
⑫ General Cargo
⑥
⑦
4,500 d.w.t.
③
135,000 d.w.t.
②
350,000 d.w.t.
①
④
⑤
150,000 d.w.t.
100,000 d.w.t.
12,000 cu.m.
⑨
⑩
20,000 cu.m.
⑪
⑫
Carvao Terminal
SINES


VIANA DO CASTELO
DEPTHS IN METRES
N
Drydocks
-7
Fish Dock
-3
-4
Commercial Dock
Customs
-1
-4
-4
-5.5
Fish Quay
-6.5
Oil Quay
-3.5
-6.5
Commercial Quay
North Mole
South Mole
0
1000
SCALE OF METRES

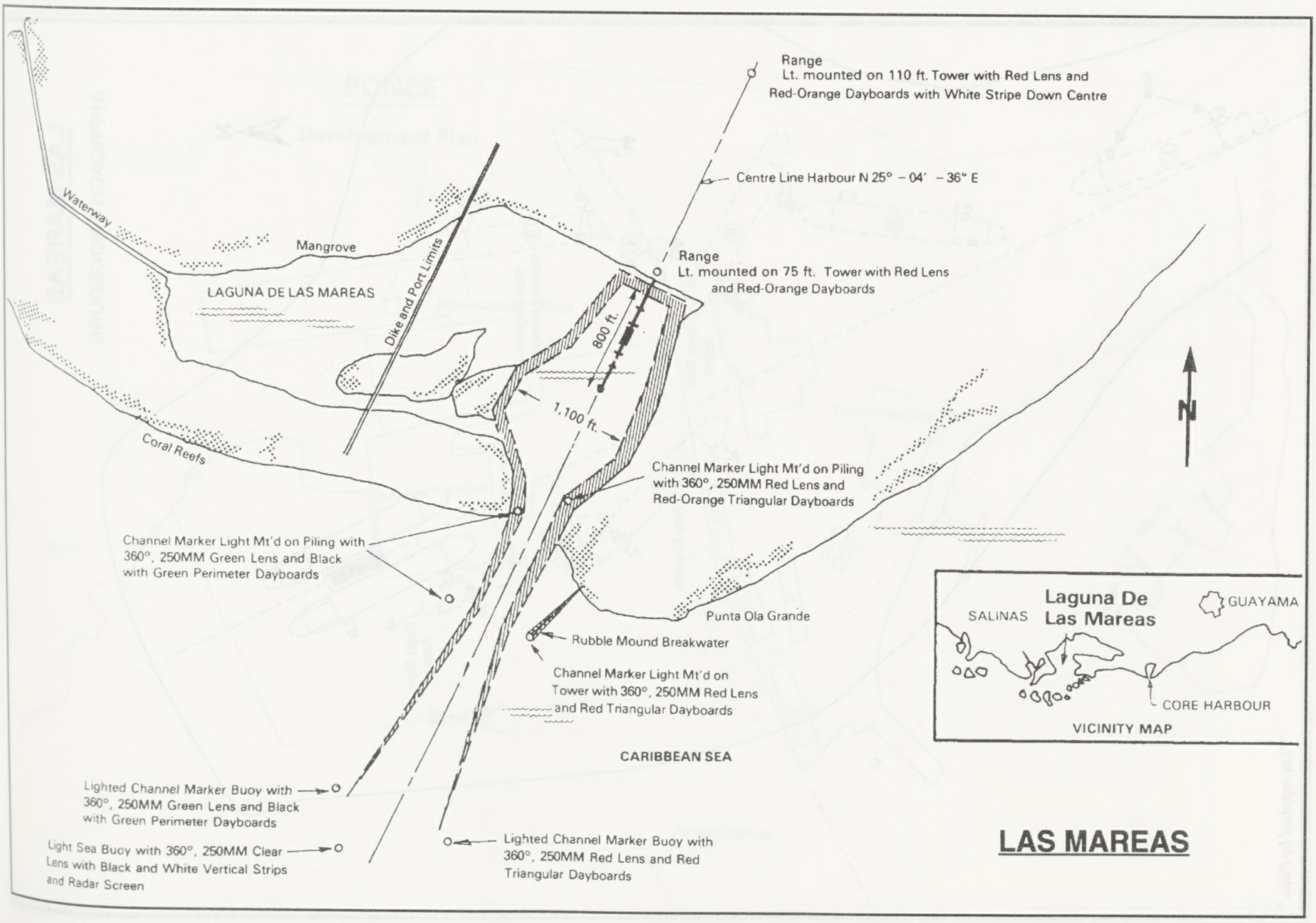

67° W
66° W
65° W
PUERTO RICO
Aguadilla
Arecibo
San Juan
Port Fajardo
Isla de Culebra
St. Thomas
St. John I.
Tortola
Virgin Gorda
Mayaguez
PUERTO RICO
Isla de Vieques
VIRIGIN ISLANDS
18° N
Ponce
Las Mareas
Yabucoa
Guanica
Guayama
St. Croix Islands
Frederikstad


Existing Wharf
New Dock
(Petrochemical Dock)
2
1
3
BERTH Nos.
4
5
(Refinery Dock)
Old Dock
CHANNEL
100 ft. wide
10 ft. deep
GUAYANILLA
(COMMONWEALTH OIL REFINING CO.,INC)
GUYANILLA BAY
GUAYANILLA

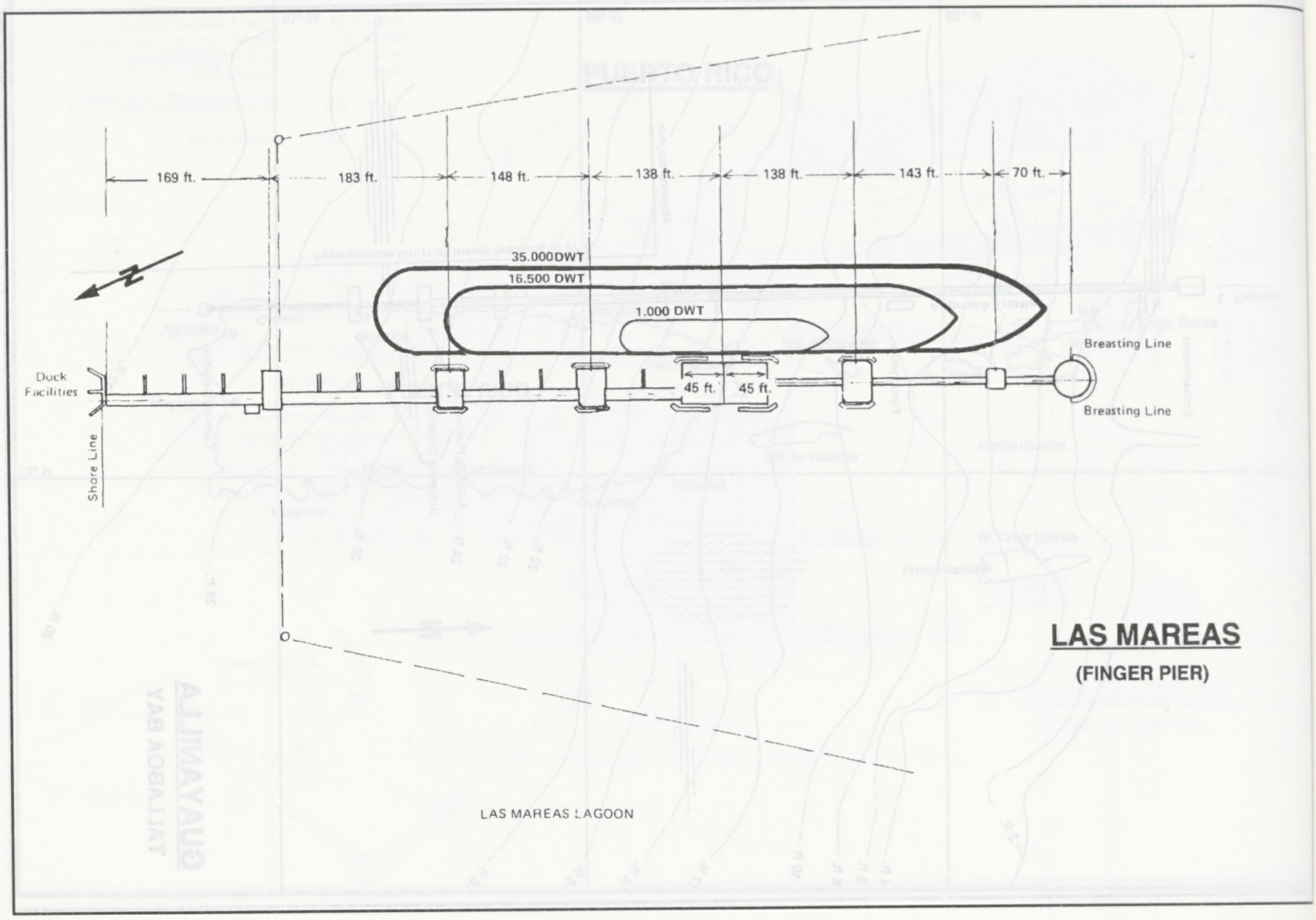

E. Pipeway
Embankment
Approach Trestle
Pumphouse
Mooring dolphin
Approximate limits of future dredging to 37 ft.
Catwalk
Loading Platform
Breasting Dolphins
Turning Dolphin
2 ft.
4 ft.
6 ft.
8 ft.
10 ft.
12 ft.
14 ft.
16 ft.
18 ft.
20 ft.
22 ft.
24 ft.
26 ft.
28 ft.
30 ft.
32 ft.
N

GUAYANILLA

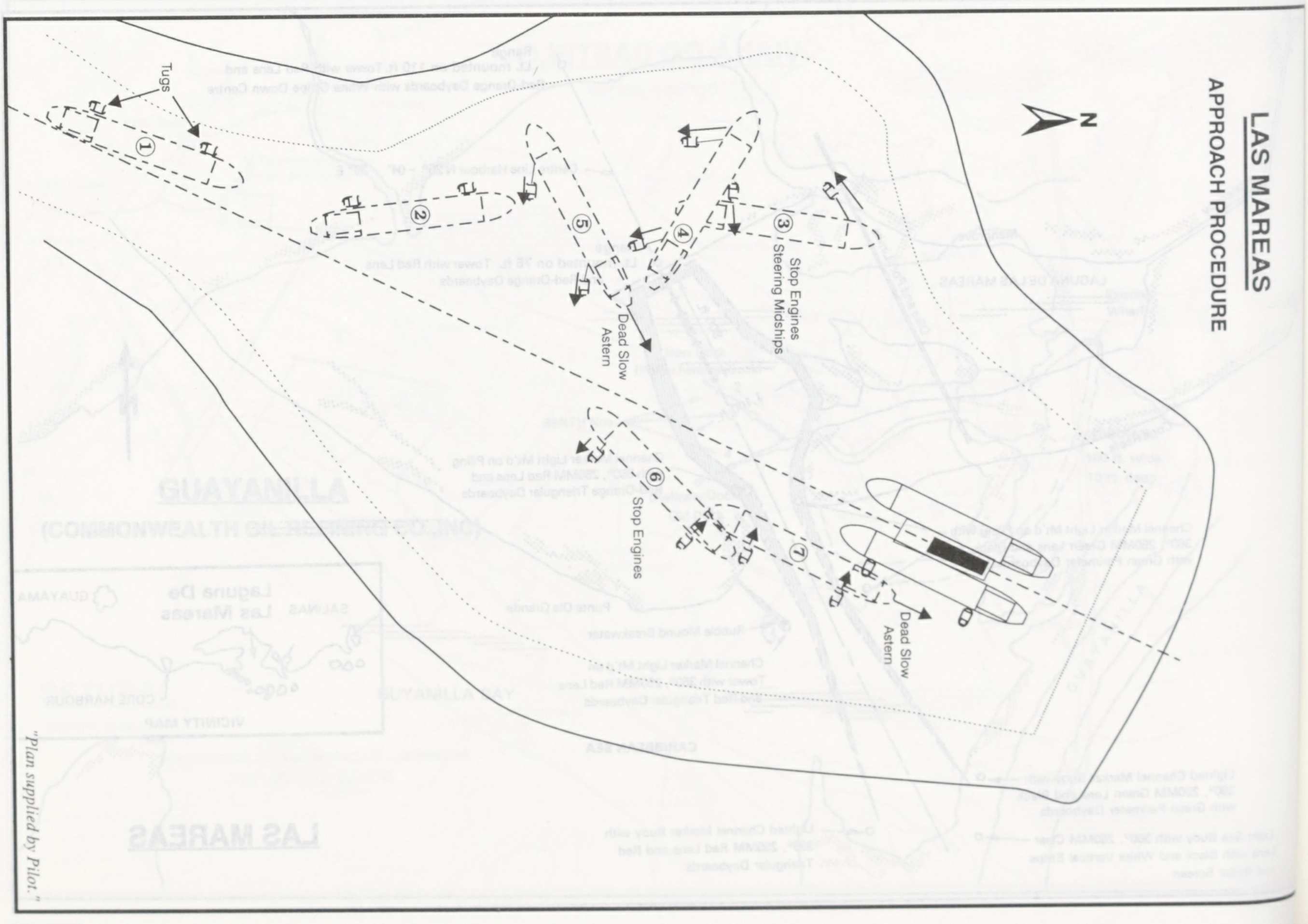
TALLABOA BAY


Range
Lt. mounted on 110 ft. Tower with Red Lens and Red-Orange Dayboards with White Stripe Down Centre
Centre Line Harbour N 25° – 04' – 36" E
Range
Lt. mounted on 75 ft. Tower with Red Lens and Red-Orange Dayboards
Waterway
Mangrove
LAGUNA DE LAS MAREAS
Dike and Port Limits
800 ft.
1,100 ft.
Coral Reefs
Channel Marker Light Mt'd on Piling with 360°, 250MM Red Lens and Red-Orange Triangular Dayboards
Channel Marker Light Mt'd on Piling with 360°, 250MM Green Lens and Black with Green Perimeter Dayboards
Punta Ola Grande
Rubble Mound Breakwater
Channel Marker Light Mt'd on Tower with 360°, 250MM Red Lens and Red Triangular Dayboards
CARIBBEAN SEA
Lighted Channel Marker Buoy with 360°, 250MM Green Lens and Black with Green Perimeter Dayboards
Light Sea Buoy with 360°, 250MM Clear Lens with Black and White Vertical Strips and Radar Screen
Lighted Channel Marker Buoy with 360°, 250MM Red Lens and Red Triangular Dayboards
N
Laguna De Las Mareas
SALINAS
GUAYAMA
CORE HARBOUR
VICINITY MAP

LAS MAREAS


169 ft.
183 ft.
148 ft.
138 ft.
138 ft.
143 ft.
70 ft.
N
35.000DWT
16.500 DWT
1.000 DWT
Breasting Line
Duck Facilities
45 ft.
45 ft.
Breasting Line
Shore Line
LAS MAREAS LAGOON

LAS MAREAS
(FINGER PIER)

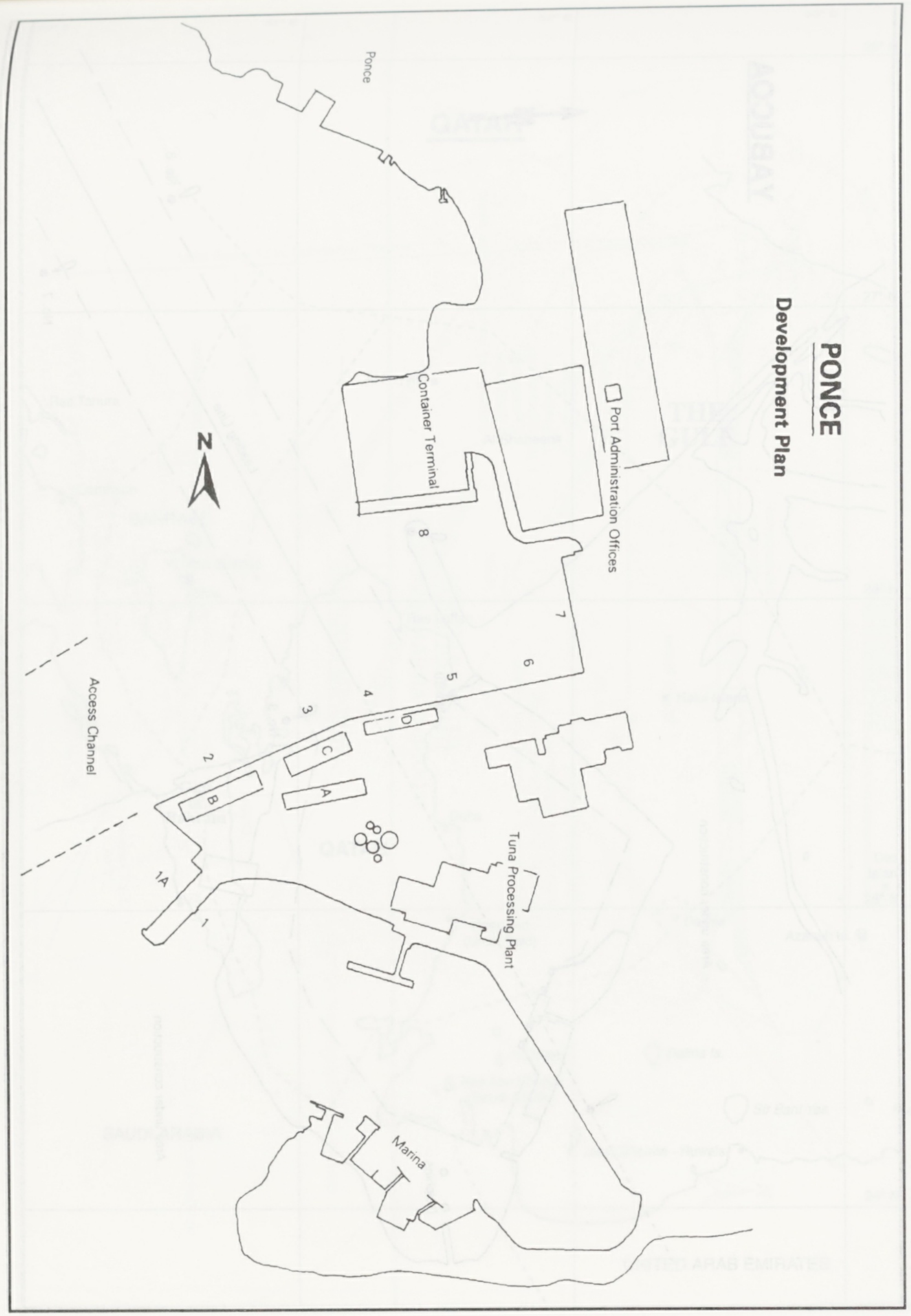

N
Tugs
①
②
③
Stop Engines Steering Midships
④
⑤
Dead Slow Astern
⑥
Stop Engines
⑦
Dead Slow Astern

LAS MAREAS
APPROACH PROCEDURE

"Plan supplied by Pilot."

PONCE

Development Plan


Ponce
N
Container Terminal
Port Administration Offices
8
7
6
5
4
3
2
1A
1
D
C
B
A
Access Channel
Tuna Processing Plant
Marina

LAS MAREAS

MOORING ARRANGEMENT

(Not to Scale)

Berthing information/Port Information

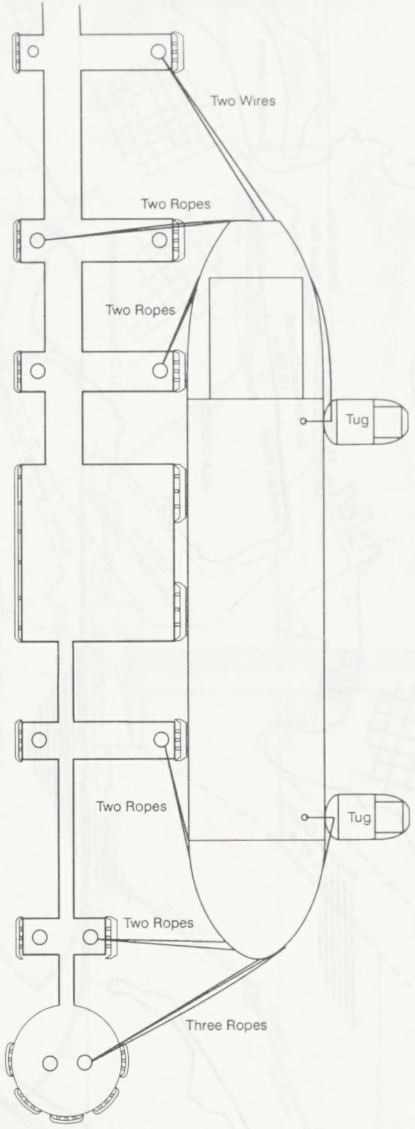
Bow tie-up:
(a) Three headlines.
(b) Two breastlines.
(c) Two Springs.

Stern tie-up:
(a) Two sternlines.
(b) Two breastlines.
(c) Two Springs.

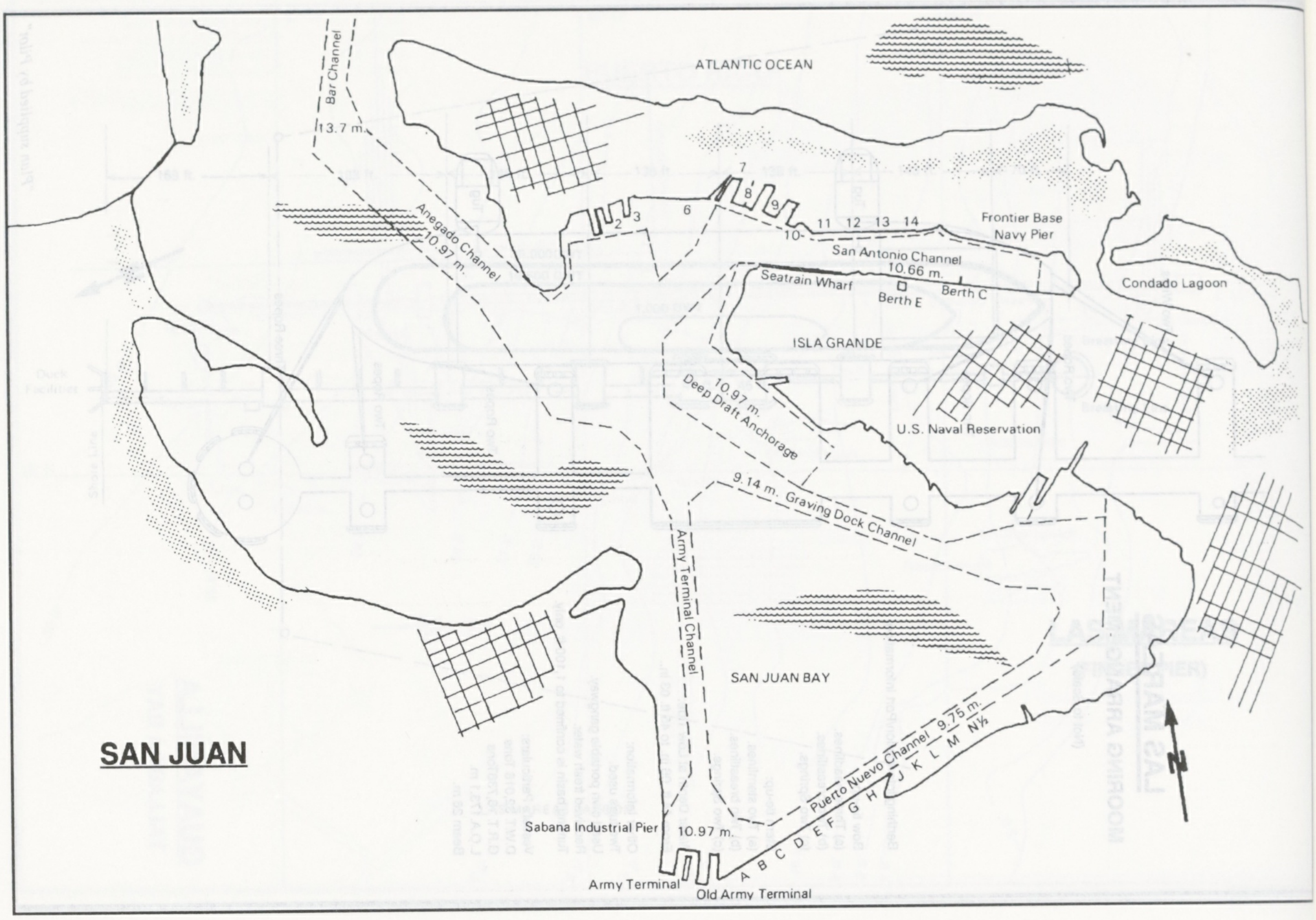
Water Depth at Low Tide:
From 44 ft. 06 in. to 45 ft. 03 in..

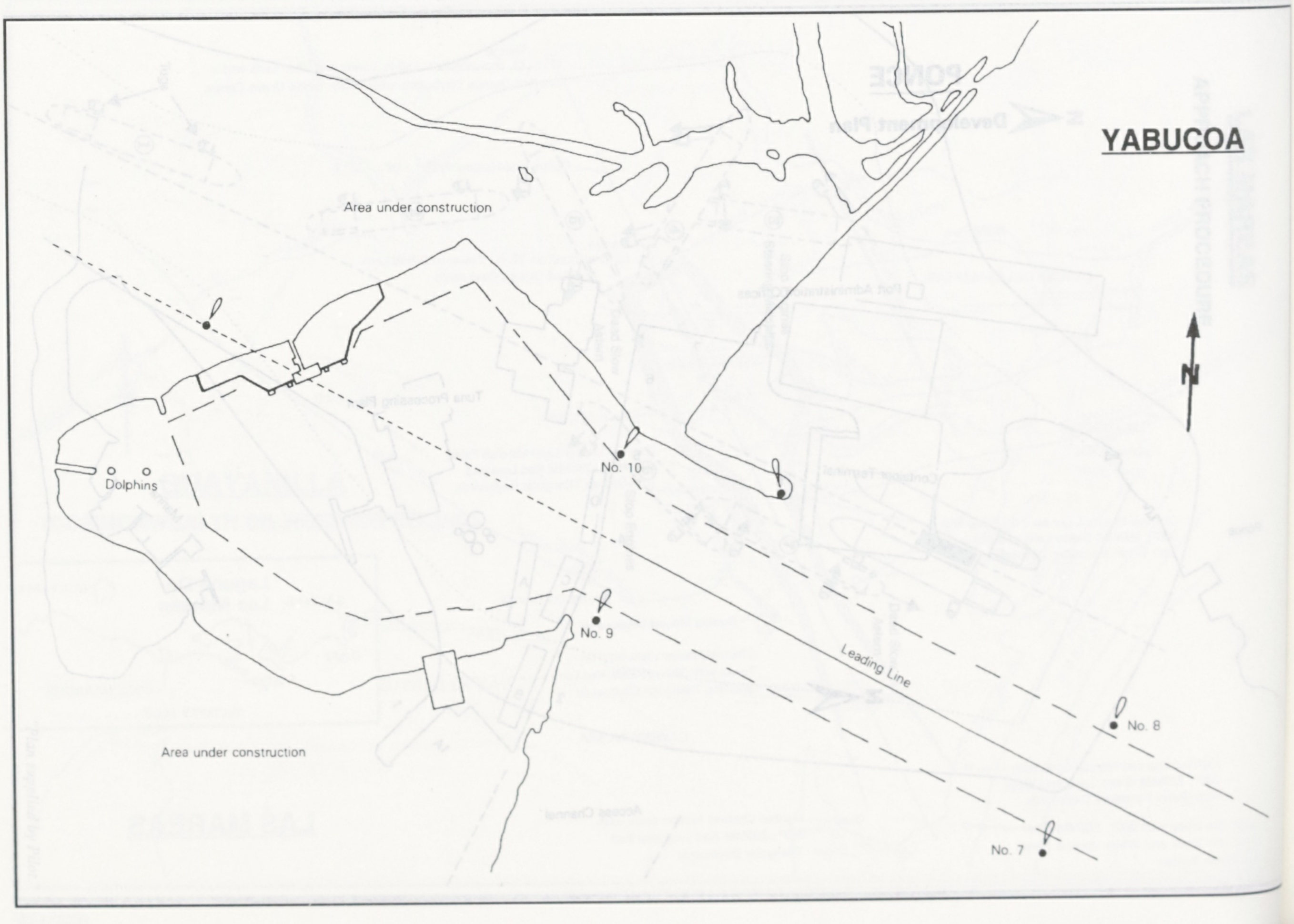
Other Information:
Two tugs used.
Used own portable gangway.
Received fresh water.
Turning basin is confined to 1,100 ft. only.

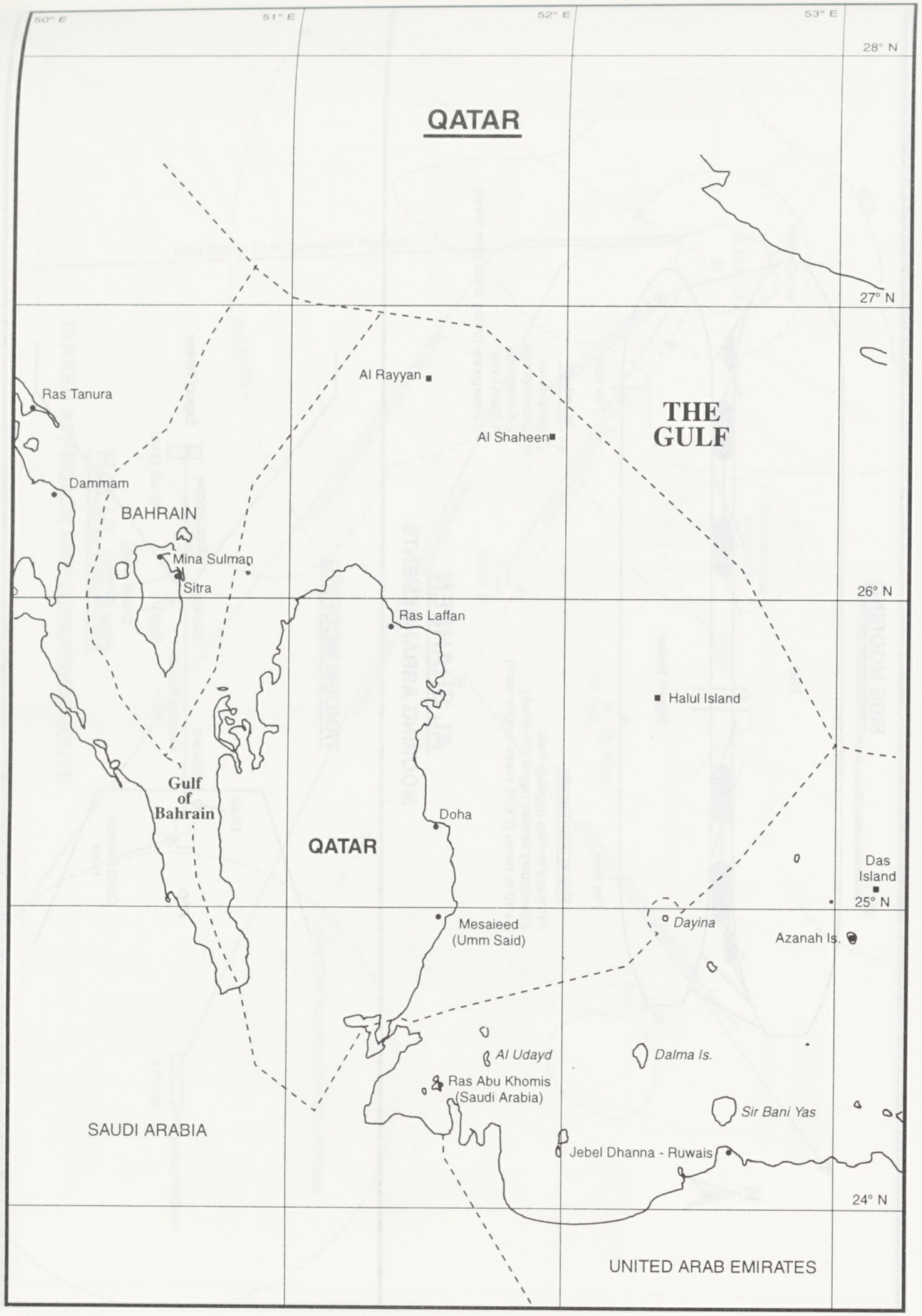
Vessel's Particulars:
D.W.T. 32,016 Tons
G.R.T. 18,736Tons
L.O.A.173.1 m.
Beam 26 m.

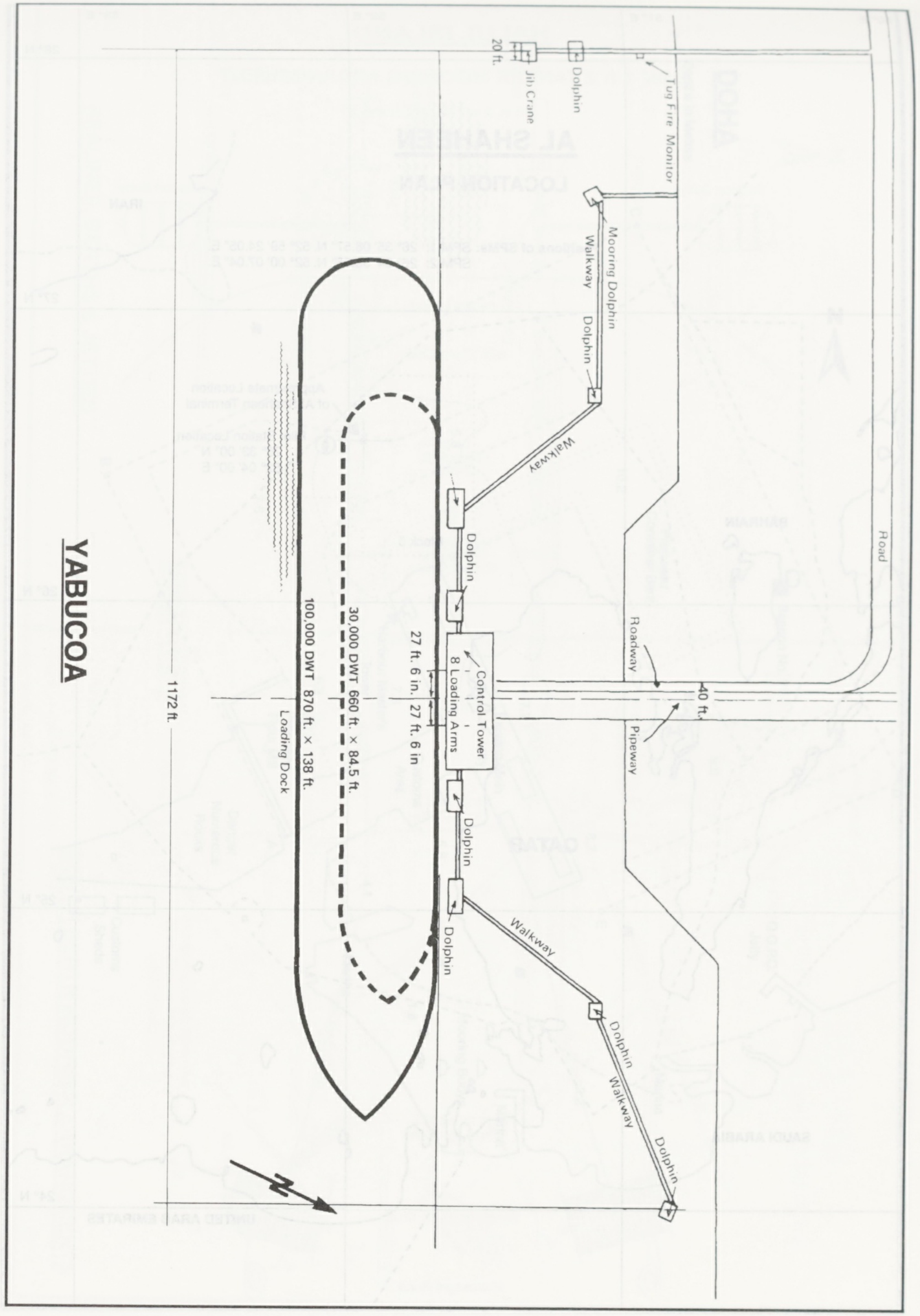

Two Wires
Two Ropes
Two Ropes
Tug
Two Ropes
Tug
Two Ropes
Three Ropes

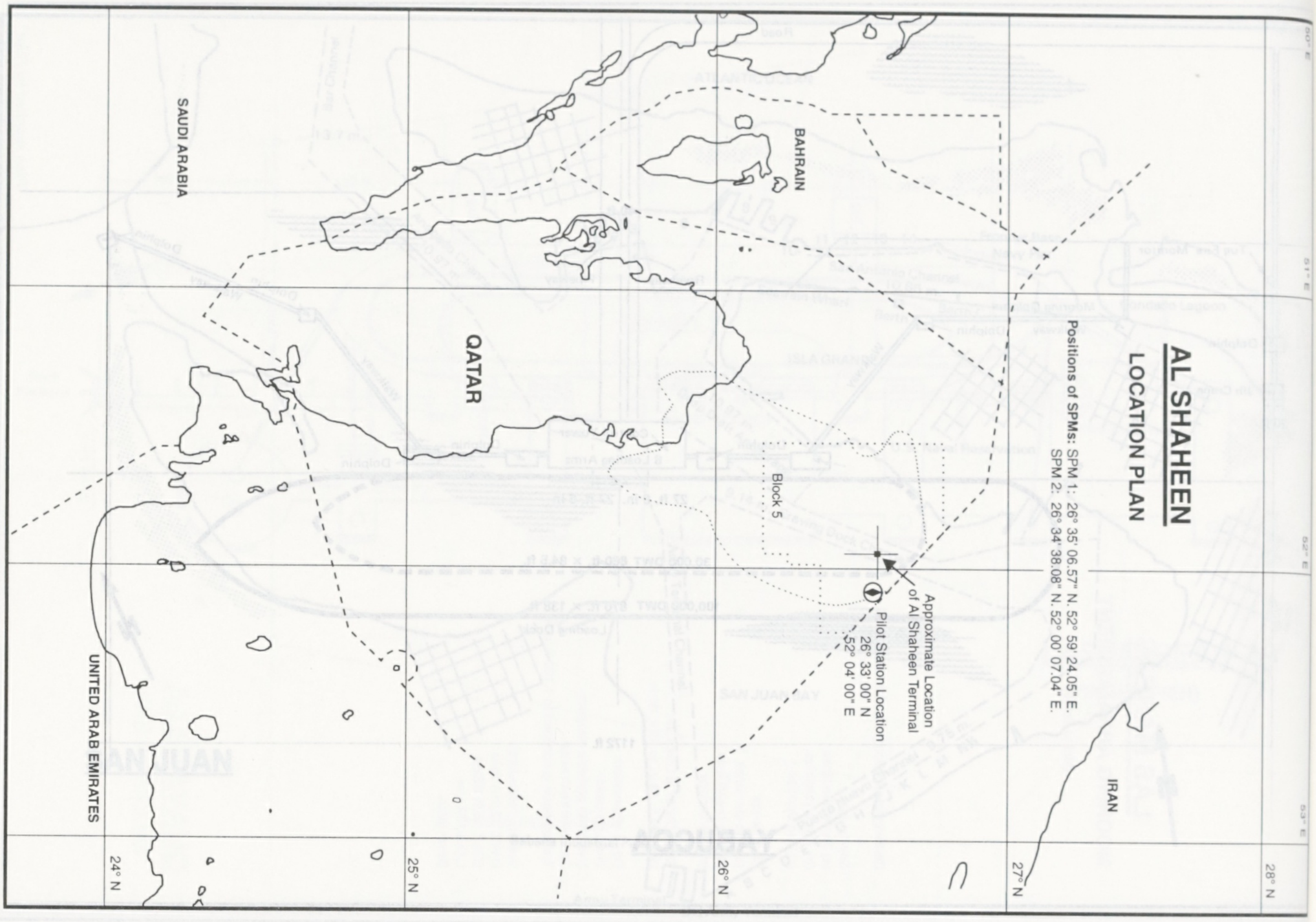
"Plan supplied by Pilot"


SAN JUAN
ATLANTIC OCEAN
Bar Channel
13.7 m.
Anegado Channel
10.97 m.
2
3
6
7
8
9
10
11
12
13
14
Frontier Base
Navy Pier
San Antonio Channel
10.66 m.
Seatrain Wharf
Berth E
Berth C
Condado Lagoon
ISLA GRANDE
10.97 m.
Deep Draft Anchorage
U.S. Naval Reservation
9.14 m. Graving Dock Channel
Army Terminal Channel
SAN JUAN BAY
Puerto Nuevo Channel 9.75 m.
A B C D E F G H J K L M N½
Sabana Industrial Pier
10.97 m.
Army Terminal
Old Army Terminal
N


YABUCOA
Area under construction
Dolphins
No. 10
No. 9
Leading Line
No. 8
No. 7
Area under construction
N


QATAR
50° E
51° E
52° E
53° E
28° N
27° N
26° N
25° N
24° N
Ras Tanura
Dammam
BAHRAIN
Mina Sulman
Sitra
Gulf of Bahrain
Al Rayyan
Al Shaheen
THE GULF
Ras Laffan
Halul Island
Doha
QATAR
Das Island
Mesaieed (Umm Said)
Dayina
Azanah Is.
Al Udayd
Dalma Is.
Ras Abu Khomis (Saudi Arabia)
Sir Bani Yas
Jebel Dhanna - Ruwais
SAUDI ARABIA
UNITED ARAB EMIRATES


YABUCOA
20 ft.
Jib Crane
Dolphin
Tug Fire Monitor
Mooring Dolphin
Walkway
Dolphin
Walkway
Dolphin
Control Tower
8 Loading Arms
27 ft. 6 in.
27 ft. 6 in
Dolphin
Dolphin
Walkway
Dolphin
Walkway
Dolphin
Roadway
40 ft.
Pipeway
Road
30,000 DWT 660 ft. × 84.5 ft.
100,000 DWT 870 ft. × 138 ft.
Loading Dock
1172 ft.
N


SAUDI ARABIA
BAHRAIN
QATAR
UNITED ARAB EMIRATES
IRAN
Block 5
24° N
25° N
26° N
27° N
28° N
50° E
51° E
52° E
53° E

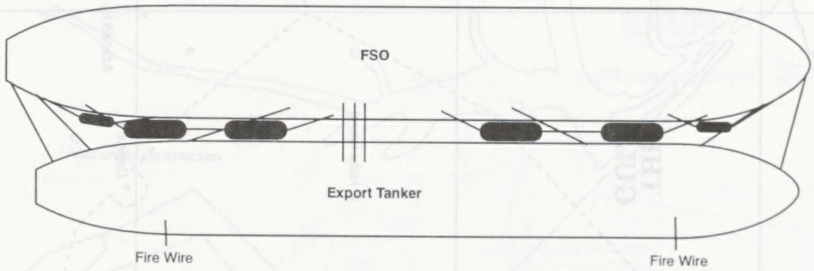
AL SHAHEEN
LOCATION PLAN

Positions of SPMs: SPM 1: 26° 35' 06.57" N. 52° 59' 24.05" E.
SPM 2: 26° 34' 38.08" N. 52° 00' 07.04" E.

Approximate Location of Al Shaheen Terminal

Pilot Station Location
26° 33' 00" N
52° 04' 00" E

SIDE MOORING


FSO
Export Tanker
Fire Wire
Fire Wire

Ship to Ship Transfer

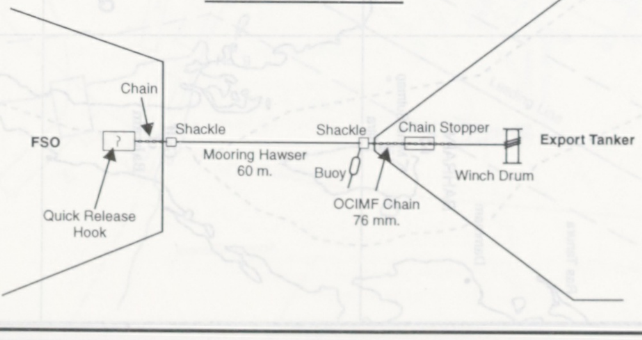
4 Primary fenders rigged in Pairs
2 Secondary fenders rigged individually
3 x 10 in. hoses (2 x 10 metre lengths each)

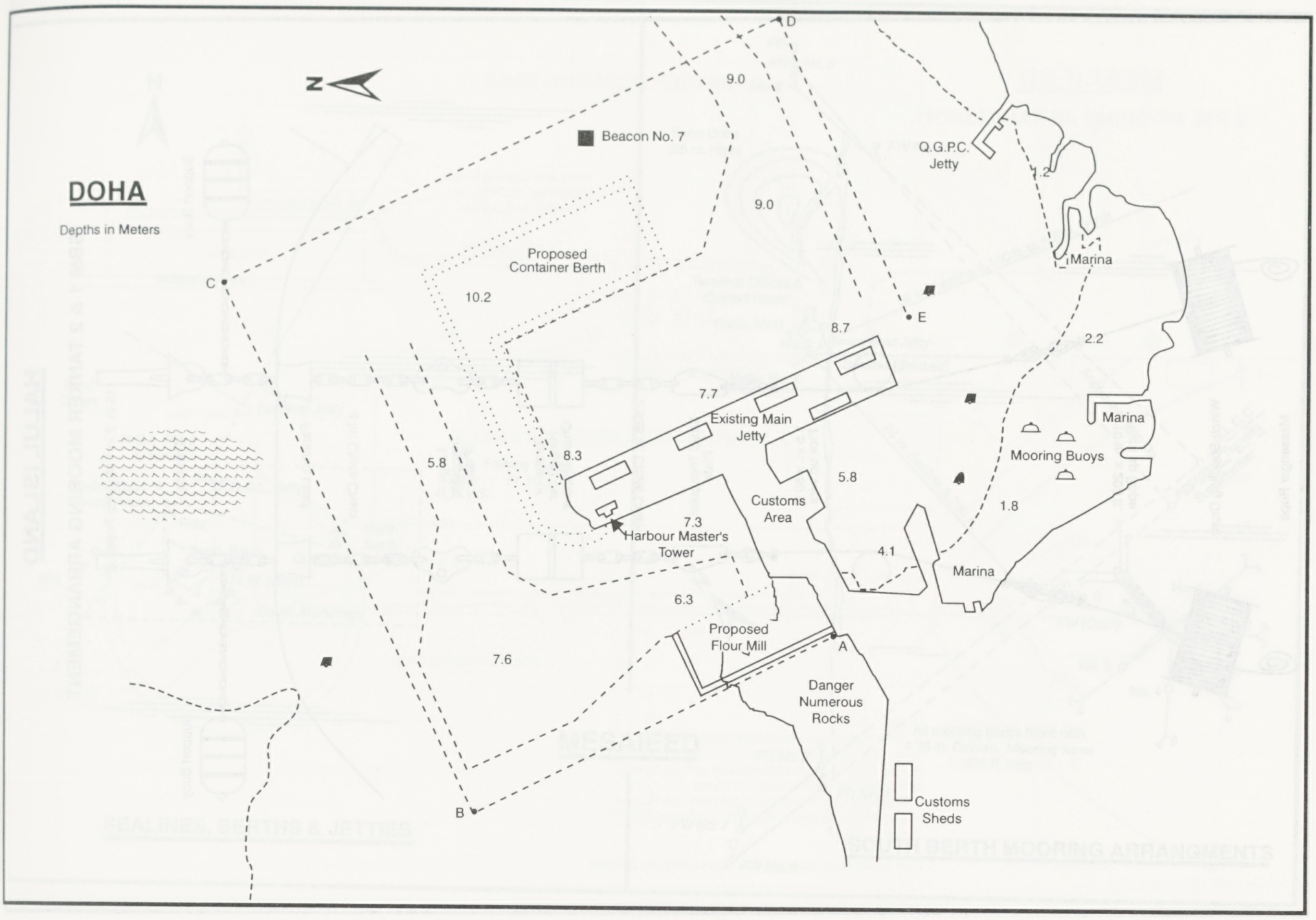
Moorings

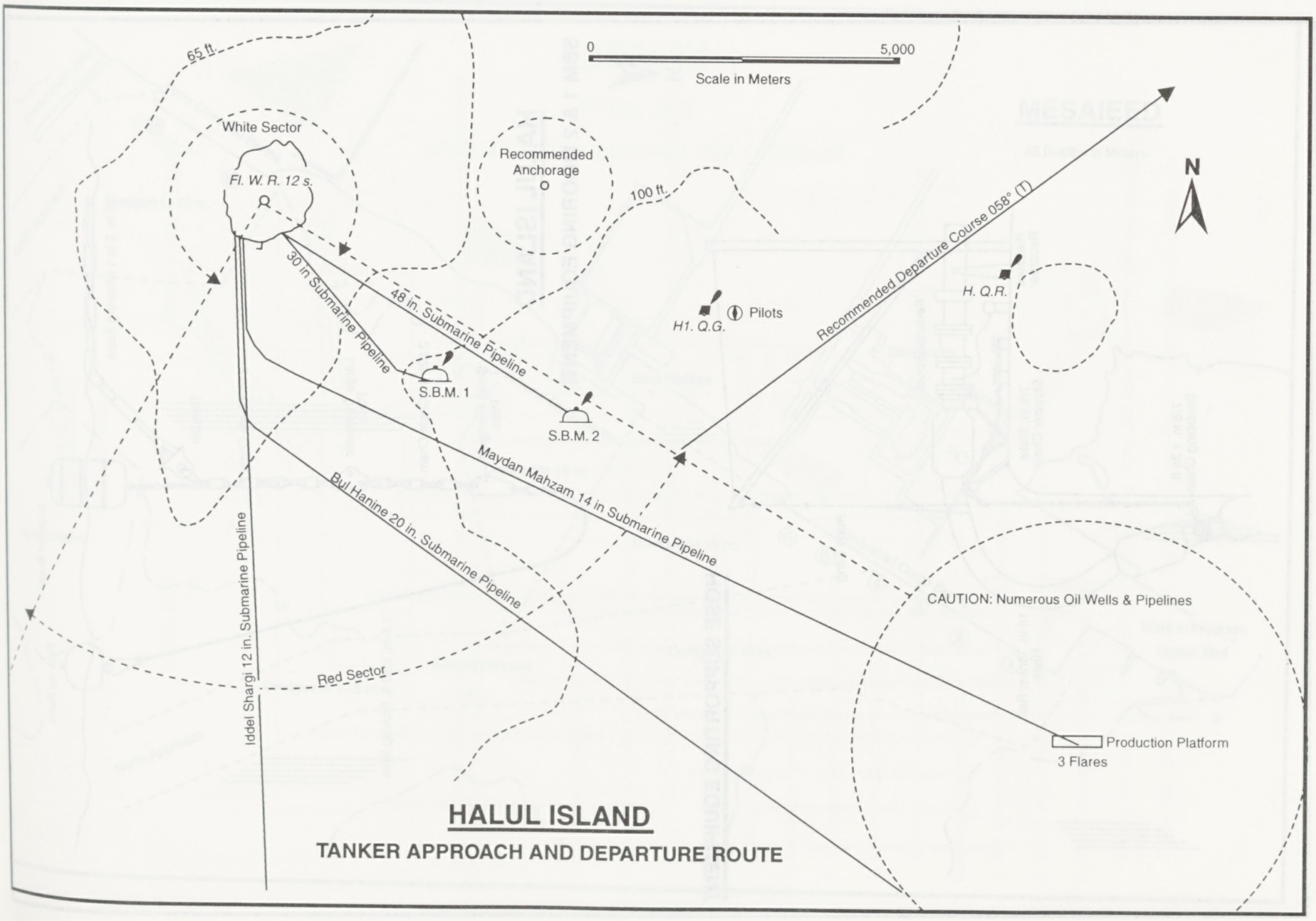
4 Headlines
2 Backsprings
2 Foresprings
4 Stern Lines
2 Emergency Towing Wires (Fire Wires)

AL SHAHEEN
MOORING ARRANGEMENTS

TANDEM MOORING

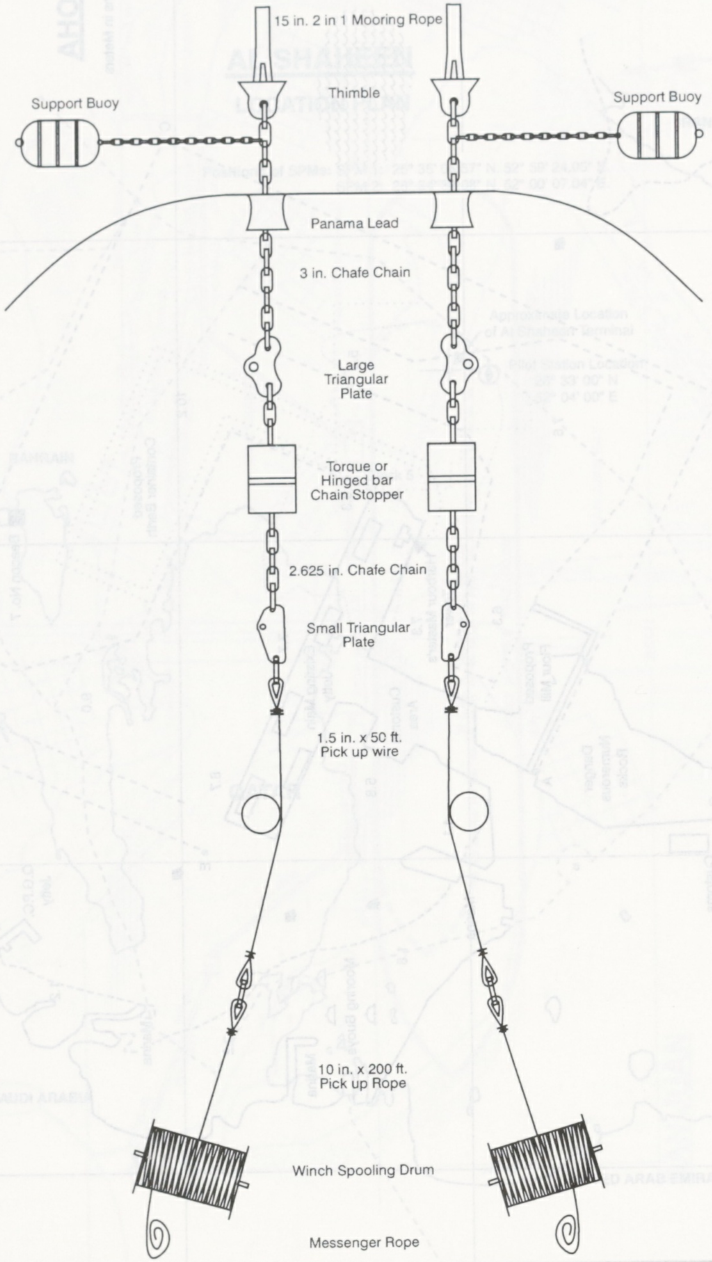

FSO
Chain
Shackle
Quick Release Hook
Mooring Hawser 60 m.
Shackle
Buoy
Chain Stopper
OCIMF Chain 76 mm.
Winch Drum
Export Tanker


N
DOHA
Depths in Meters
D
9.0
Beacon No. 7
Q.G.P.C.
Jetty
1.2
9.0
Marina
C
Proposed
Container Berth
10.2
E
8.7
2.2
7.7
Existing Main
Jetty
Marina
Mooring Buoys
8.3
5.8
5.8
Customs
Area
1.8
7.3
Harbour Master's
Tower
4.1
Marina
6.3
Proposed
Flour Mill
A
7.6
Danger
Numerous
Rocks
Customs
Sheds
B


65 ft.
0
5,000
Scale in Meters
White Sector
Fl. W. R. 12 s.
Recommended
Anchorage
100 ft.
N
Recommended Departure Course 058° (T)
30 in Submarine Pipeline
48 in. Submarine Pipeline
H. Q.R.
Pilots
H1. Q.G.
S.B.M. 1
S.B.M. 2
Maydan Mahzam 14 in Submarine Pipeline
Bul Hanine 20 in. Submarine Pipeline
CAUTION: Numerous Oil Wells & Pipelines
Iddel Shargi 12 in. Submarine Pipeline
Red Sector
Production Platform
3 Flares
HALUL ISLAND
TANKER APPROACH AND DEPARTURE ROUTE

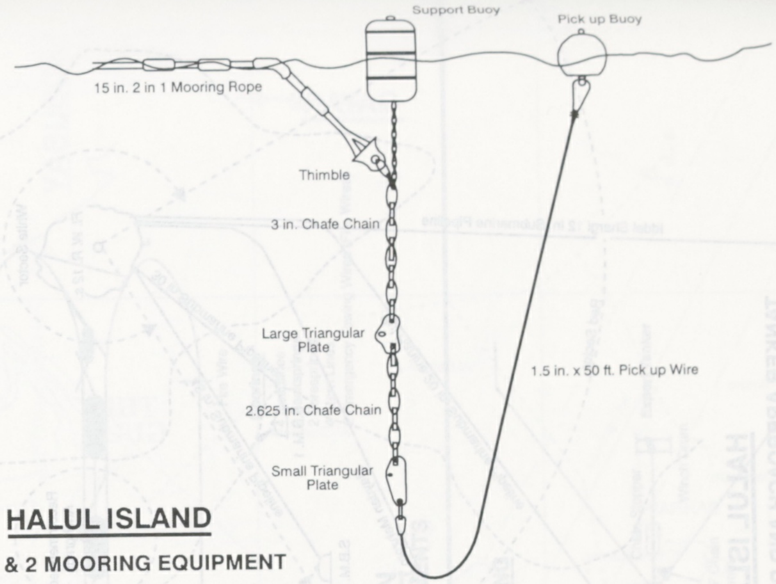
HALUL ISLAND

SBM 1 & 2 TANKER MOORING ARRANGEMENT

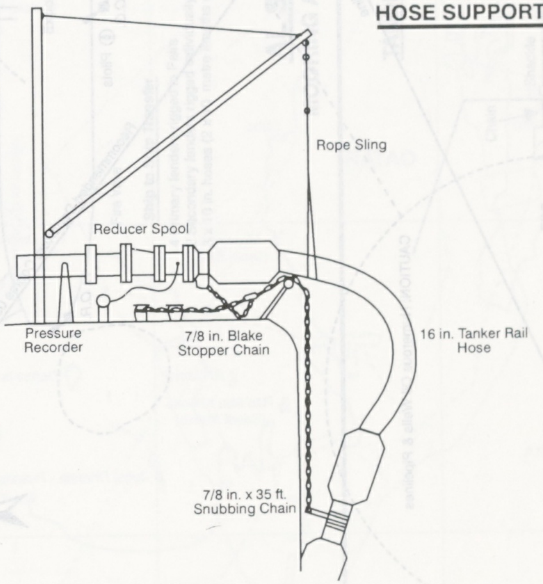

15 in. 2 in 1 Mooring Rope
Thimble
Support Buoy
Support Buoy
Panama Lead
3 in. Chafe Chain
Large Triangular Plate
Torque or Hinged bar Chain Stopper
2.625 in. Chafe Chain
Small Triangular Plate
1.5 in. x 50 ft. Pick up wire
10 in. x 200 ft. Pick up Rope
Winch Spooling Drum
Messenger Rope

HALUL ISLAND

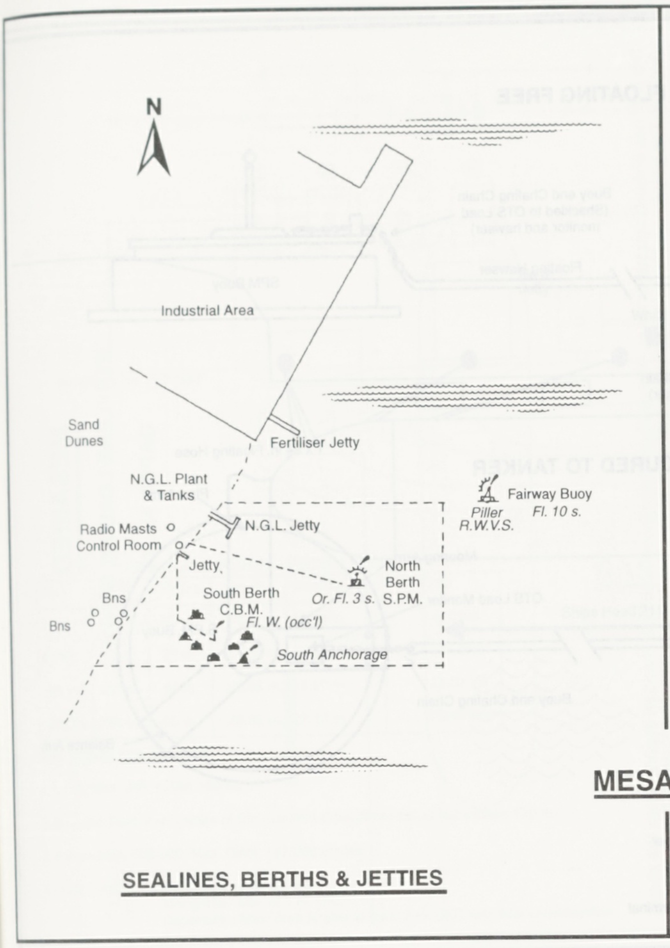
SBM 1 & 2 MOORING EQUIPMENT


Support Buoy
Pick up Buoy
15 in. 2 in 1 Mooring Rope
Thimble
3 in. Chafe Chain
Large Triangular Plate
1.5 in. x 50 ft. Pick up Wire
2.625 in. Chafe Chain
Small Triangular Plate

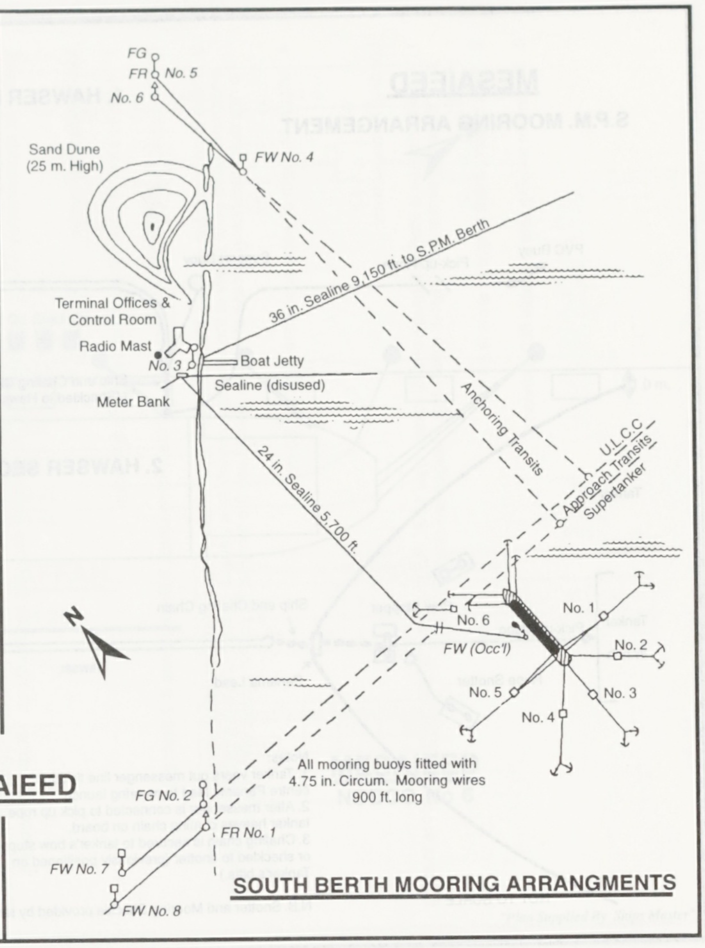
HOSE SUPPORTING EQUIPMENT


Rope Sling
Reducer Spool
Pressure Recorder
7/8 in. Blake Stopper Chain
16 in. Tanker Rail Hose
7/8 in. x 35 ft. Snubbing Chain

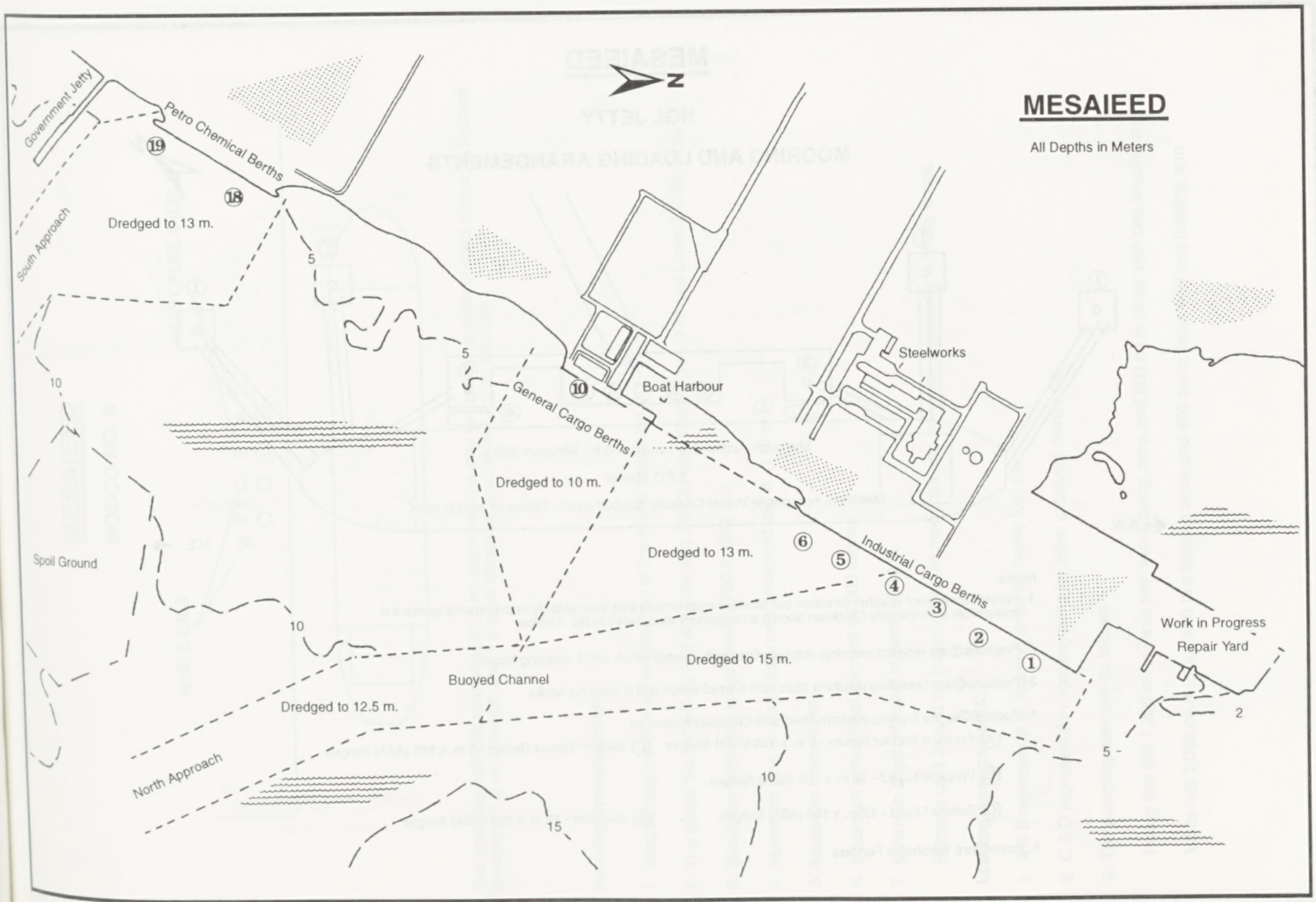
MESAIEED


N
Industrial Area
Sand Dunes
Fertiliser Jetty
N.G.L. Plant & Tanks
Radio Masts Control Room
N.G.L. Jetty
Fairway Buoy
Fl. 10 s.
Piller
R.W.V.S.
Jetty
North Berth S.P.M.
Or. Fl. 3 s.
Bns
Bns
South Berth C.B.M.
Fl. W. (occ'l)
South Anchorage

SEALINES, BERTHS & JETTIES

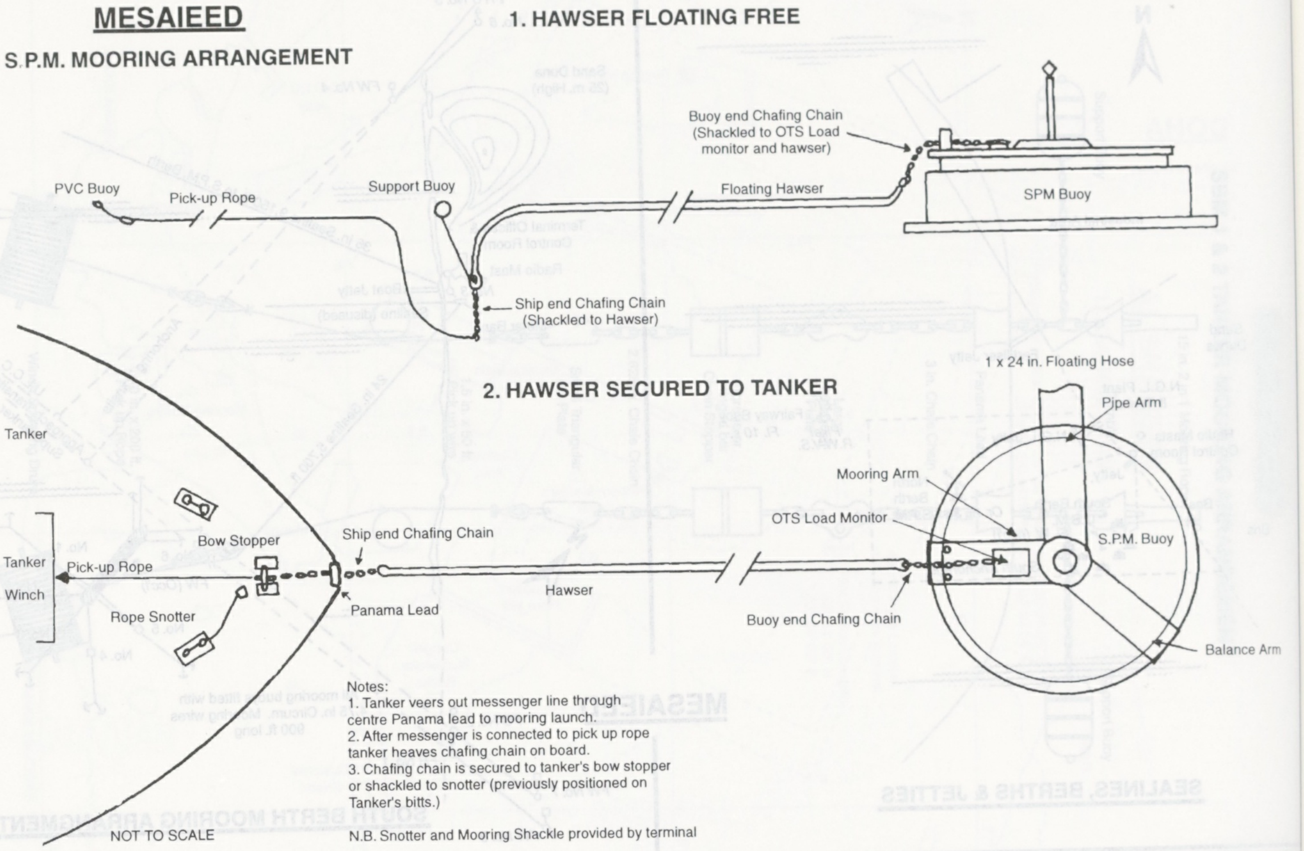

FG
FR
No. 5
No. 6
FW No. 4
Sand Dune (25 m. High)
Terminal Offices & Control Room
Radio Mast
No. 3
Boat Jetty
Sealine (disused)
Meter Bank
36 in. Sealine 9,150 ft. to S.PM. Berth
Anchoring Transits
U.L.C.C. Approach Transits Supertanker
24 in. Sealine 5,700 ft.
N
No. 6
FW (Occ'l)
No. 1
No. 2
No. 3
No. 4
No. 5
All mooring buoys fitted with 4.75 in. Circum. Mooring wires 900 ft. long
FG No. 2
FR No. 1
FW No. 7
FW No. 8

SOUTH BERTH MOORING ARRANGMENTS


N
MESAIEED
All Depths in Meters
Government Jetty
Petro Chemical Berths
⑲
⑱
Dredged to 13 m.
South Approach
5
5
10
⑩
Boat Harbour
General Cargo Berths
Steelworks
Dredged to 10 m.
Spoil Ground
Dredged to 13 m.
⑥
⑤
④
③
②
①
Industrial Cargo Berths
Work in Progress
Repair Yard
10
Dredged to 15 m.
Buoyed Channel
Dredged to 12.5 m.
North Approach
10
15
5
2

MESAIEED

S.P.M. MOORING ARRANGEMENT


1. HAWSER FLOATING FREE
Buoy end Chafing Chain (Shackled to OTS Load monitor and hawser)
PVC Buoy
Pick-up Rope
Support Buoy
Floating Hawser
SPM Buoy
Ship end Chafing Chain (Shackled to Hawser)
2. HAWSER SECURED TO TANKER
1 x 24 in. Floating Hose
Pipe Arm
Tanker
Mooring Arm
OTS Load Monitor
Bow Stopper
Ship end Chafing Chain
S.P.M. Buoy
Tanker Winch
Pick-up Rope
Rope Snotter
Panama Lead
Hawser
Buoy end Chafing Chain
Balance Arm
NOT TO SCALE

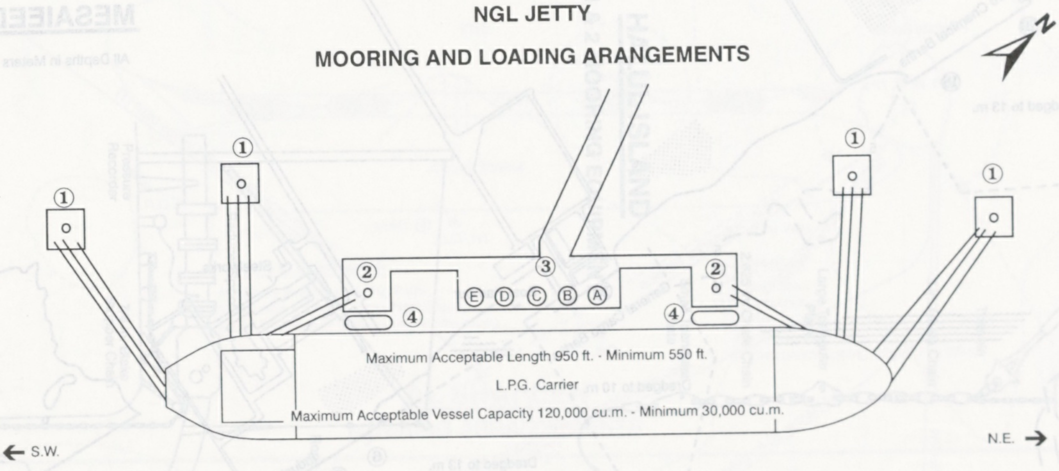
Notes:
1. Tanker veers out messenger line through centre Panama lead to mooring launch.
2. After messenger is connected to pick up rope tanker heaves chafing chain on board.
3. Chafing chain is secured to tanker's bow stopper or shackled to snotter (previously positioned on Tanker's bitts.)

N.B. Snotter and Mooring Shackle provided by terminal

MESAIEED

NGL JETTY

MOORING AND LOADING ARANGEMENTS


①
①
①
①
②
②
③
④
④
Ⓔ Ⓓ Ⓒ Ⓑ Ⓐ
Maximum Acceptable Length 950 ft. - Minimum 550 ft.
L.P.G. Carrier
Maximum Acceptable Vessel Capacity 120,000 cu.m. - Minimum 30,000 cu.m.
S.W.
N.E.

Notes:
1. Vessels may moor in either direction but Masters must ensure that their vessels manifold arrangement is compatible with the jetty Chicksan booms arrangement as detailed in No. 4 below
2. Positions①are isolated mooring dolphins fitted with a small winch and 3 mooring hooks
3. Positons②are breasting dolphins fitted with a small winch and 2 mooring hooks
4. Position③is the loading platform fitted with Chicksan booms for:
   - Ⓐ Propane Vapour Return - 8 in. x 150 (ASA) flanges
   - Ⓑ Propane Liquid - 12 in. x 150 (ASA) flanges
   - Ⓒ Butane Liquid - 12 in. x 150 (ASA) flanges
   - Ⓓ Butane Vapour Return - 8 in. x 150 (ASA) flanges
   - Ⓔ Gasoline - 12 in. x 150 (ASA) flanges
5. Items④are Yokohama Fenders

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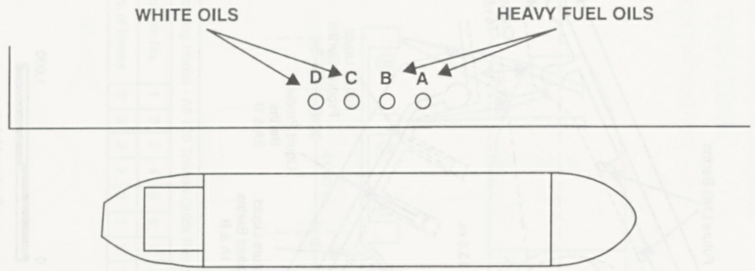
NODCO NO. 6



The Jetty has bollards spaced at 21.5 m. intervals. The jetty fendering consists of solid rubber, cylindrical fenders of 1.5 m. in length and 1.0 m. in diameter, spaced at 10.5 m. intervals.

Mooring Arrangements:

1. Vessels may moor in either direction at the Pilot's discretion.
2. The actual "tie-up" will be 3, 3 & 2 Fore and Aft. (3 Head/Stern Lines, 3 Breast Lines & 2 Springs)
3. Maximum permitted length overall 780 ft. (238 m.)
4. Maximum bow or stern distance to manifold 390 ft. (119 m.)
5. Maximum beam 45 m.
6. Maximum arrival displacement 60,000 tonnes.
7. Minimum depth of water at berth 13.00 m.

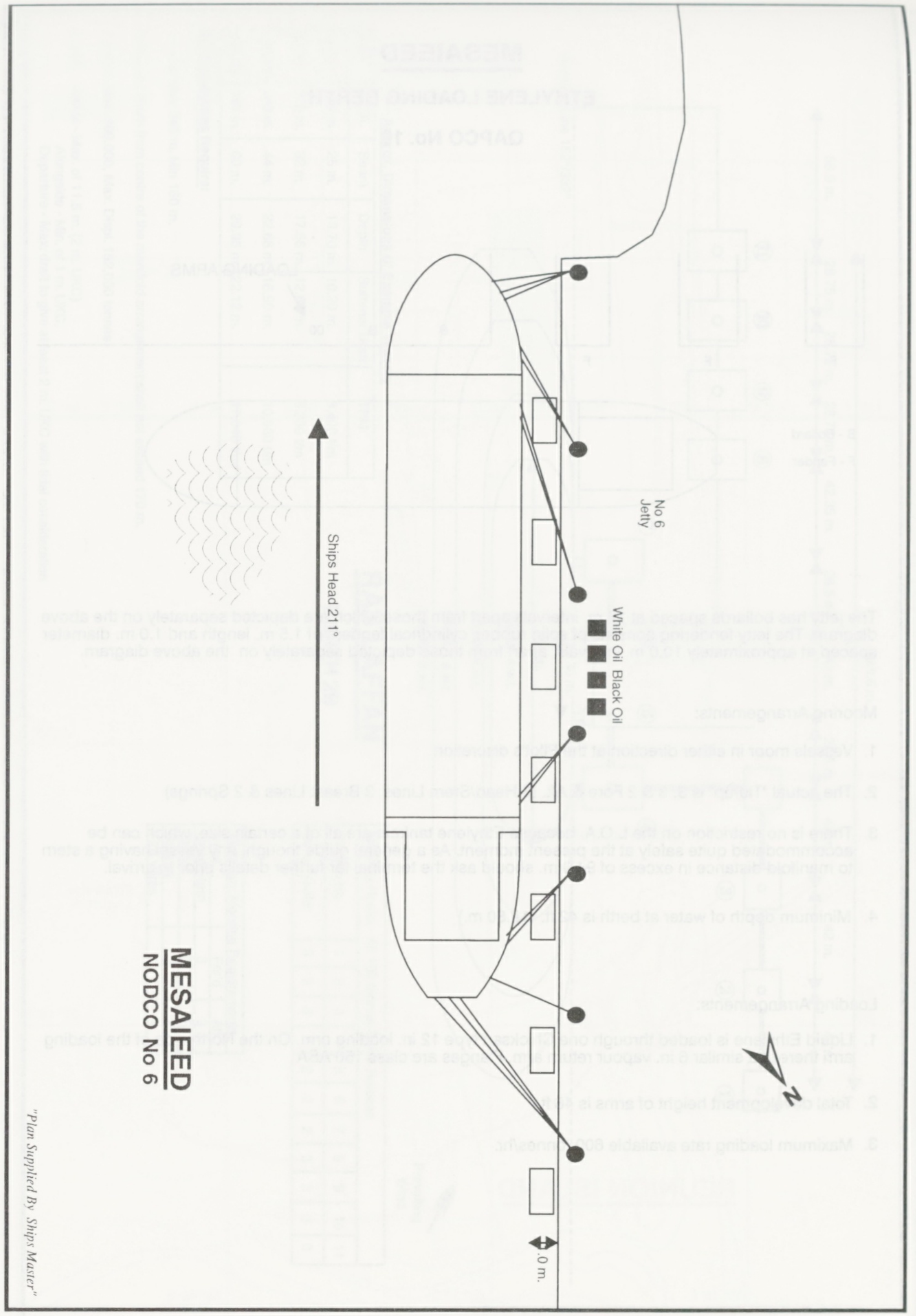
Extreme care should be taken to tend to moorings and gangway, especially in NW'ly winds.

Loading Arrangements:

1. A & B represent 8 in. loading arms for heavy fuel oil.
2. C & D represent 8 in. loading arms for other products (White Oil).
3. The pumping rates are as follows :-

Heavy fuel oils 1,200 cu.m./hour with two loading arms and 500 cu.m./hour with one loading arm.

White oils 1,000 cu.m./hour with two loading arms and 400 cu.m./hour with one loading arm

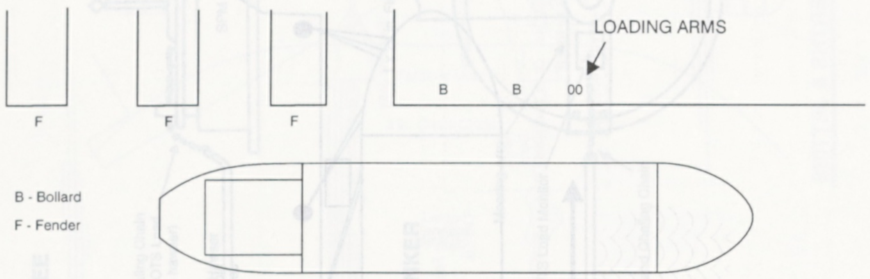


"Plan Supplied By Ships Master"

MESAIEED

ETHYLENE LOADING BERTH

QAPCO No. 19


LOADING ARMS
B
B
00
F
F
F
B - Bollard
F - Fender

The jetty has bollards spaced at 17 m. intervals apart from those which are depicted separately on the above diagram. The jetty fendering consists of solid rubber, cylindrical fenders of 1.5 m. length and 1.0 m. diameter spaced at approximately 10.0 m. intervals, apart from those depicted separately on the above diagram.

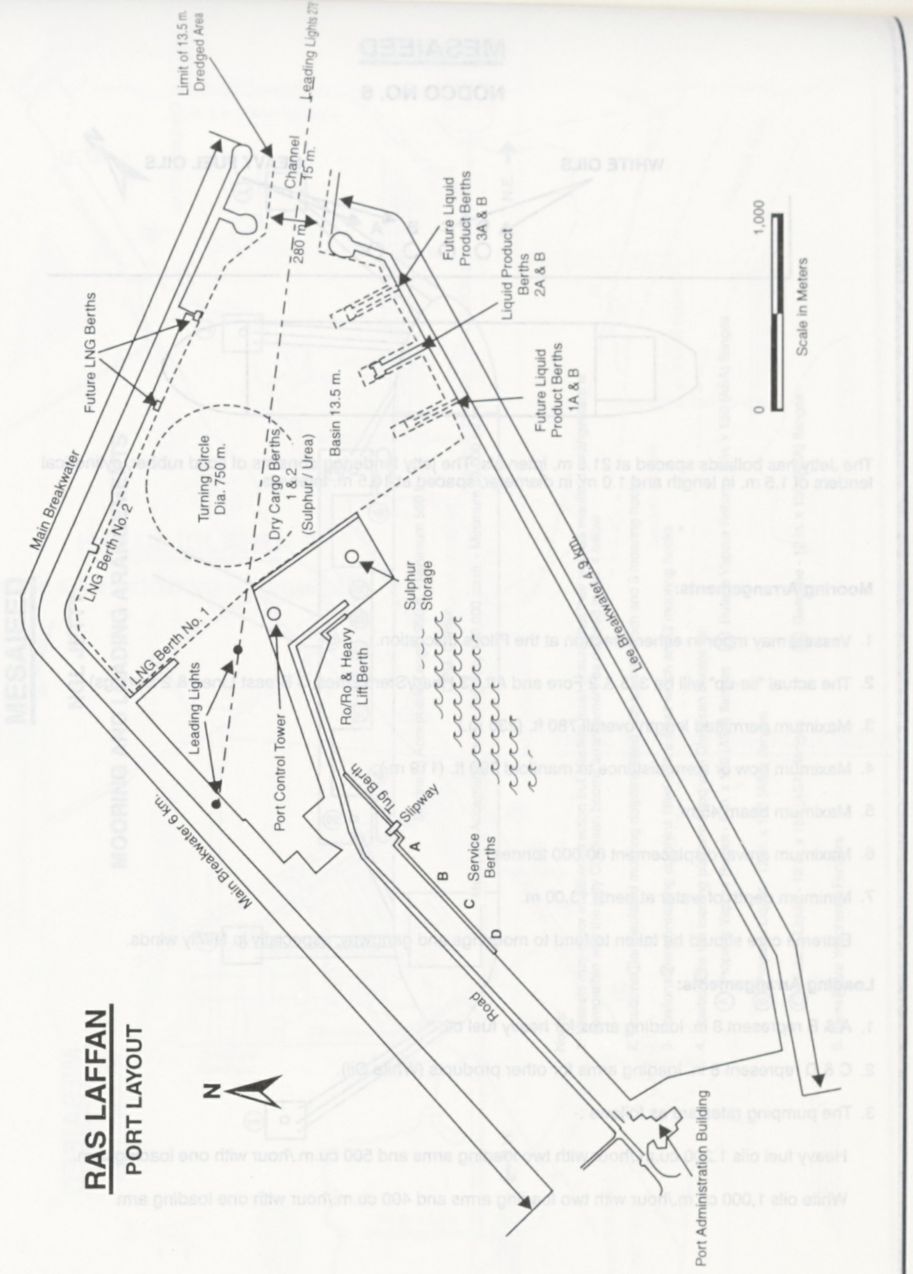
Mooring Arrangements:

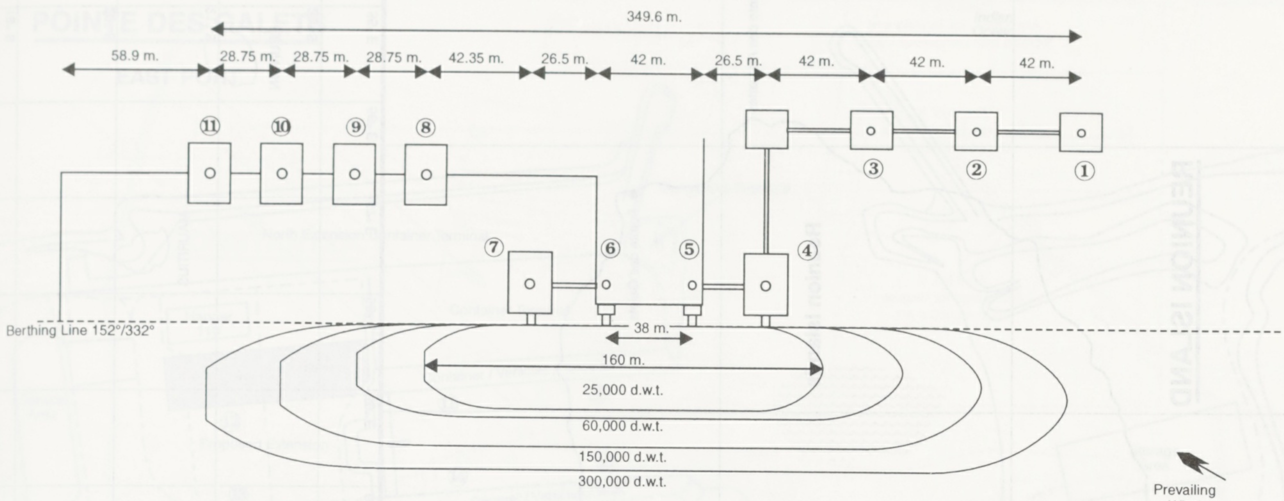
1. Vessels moor in either direction at the Pilot's discretion
2. The actual "Tie-up" is 3, 3 & 2 Fore & Aft. (3 Head/Stern Lines, 3 Breast Lines & 2 Springs)
3. There is no restriction on the L.O.A. because Ethylene tankers are all of a certain size, which can be accommodated quite safely at the present moment. As a general guide though, any vessel having a stern to manifold distance in excess of 94.0 m. should ask the terminal for further details prior to arrival.
4. Minimum depth of water at berth is 42 ft. (12.80 m.)

Loading Arrangements:

1. Liquid Ethylene is loaded through one Chicksan type 12 in. loading arm. On the North side of the loading arm there is a similar 6 in. vapour return arm. Flanges are class 150 ASA
2. Total development height of arms is 46 ft.
3. Maximum loading rate available 600 tonnes/hr.

RAS LAFFAN
PORT LAYOUT


N
Limit of 13.5 m. Dredged Area
Leading Lights
Channel 15 m.
280 m.
Future Liquid Product Berths 3A & B
Liquid Product Berths 2A & B
Future Liquid Product Berths 1A & B
Future LNG Berths
Main Breakwater
LNG Berth No. 2
LNG Berth No. 1
Turning Circle Dia. 750 m.
Dry Cargo Berths 1 & 2 (Sulphur / Urea)
Basin 13.5 m.
Sulphur Storage
Leading Lights
Port Control Tower
Ro/Ro & Heavy Lift Berth
Tug Berth
Slipway
A
B
C
D
Service Berths
Main Breakwater 6 km.
Lee Breakwater 4.9 km.
Road
Port Administration Building
0
1,000
Scale in Meters


349.6 m.
58.9 m.
28.75 m.
28.75 m.
28.75 m.
42.35 m.
26.5 m.
42 m.
26.5 m.
42 m.
42 m.
42 m.
⑪
⑩
⑨
⑧
③
②
①
⑦
⑥
⑤
④
Berthing Line 152°/332°
38 m.
160 m.
25,000 d.w.t.
60,000 d.w.t.
150,000 d.w.t.
300,000 d.w.t.
Prevailing Wind

RAS LAFFAN

BERTH 2B

Approx. Dimensions of Example Vessels

d.w.t.	L.O.A.	Beam	Depth	Summer Draft	TPM
25,000	160 m	25 m.	13.70 m.	10.20 m.	3,400 t/m
60,000	220 m.	32 m.	17.56 m.	12.80 m.	6,330 t/m
150,000	280 m.	44 m.	22.68 m.	16.90 m.	10,960 t/m
300,000	345 m.	60 m.	29.95 m.	22.12 m.	17,840 t/m/

Mooring Hooks - All 100 tonnes Quick Release											
Dolphin No.	1	2	3	4	5	6	7	8	9	10	11
No. of Hooks	3	3	3	2	2	2	2	3	3	3	3

Minimum. Mooring Requirements		
Lines	For'd	Aft
Head/Stern	3	3
Breast	3	3
Springs	2	2
Fire Wires	1	1

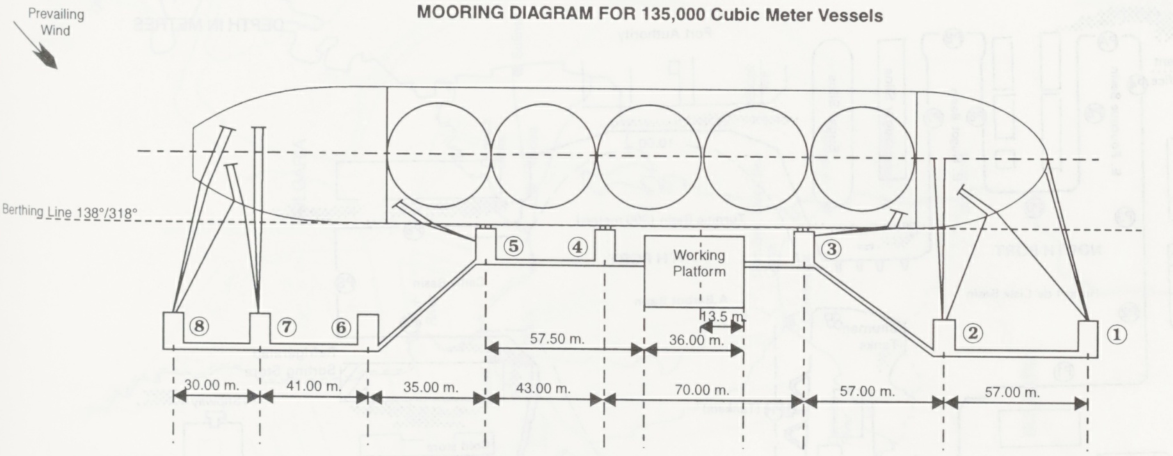
Port Regulations Require:

1. L.O.A. Max: 345 m. Min 160 m.
2. Bow and Stern from centre of the manifold arrangement shall not exceed 170 m.
3. S.d.w.t. Max. 300,000, Max. Displ. 152,000 tonnes
4. Draft: Arrival - Max. of 11.5 m. (2 m. UKC)
Alongside - Min. of 1 m. UKC.
Departure - Max. draft to give at least 2 m. UKC with tidal consideration

RAS LAFFAN

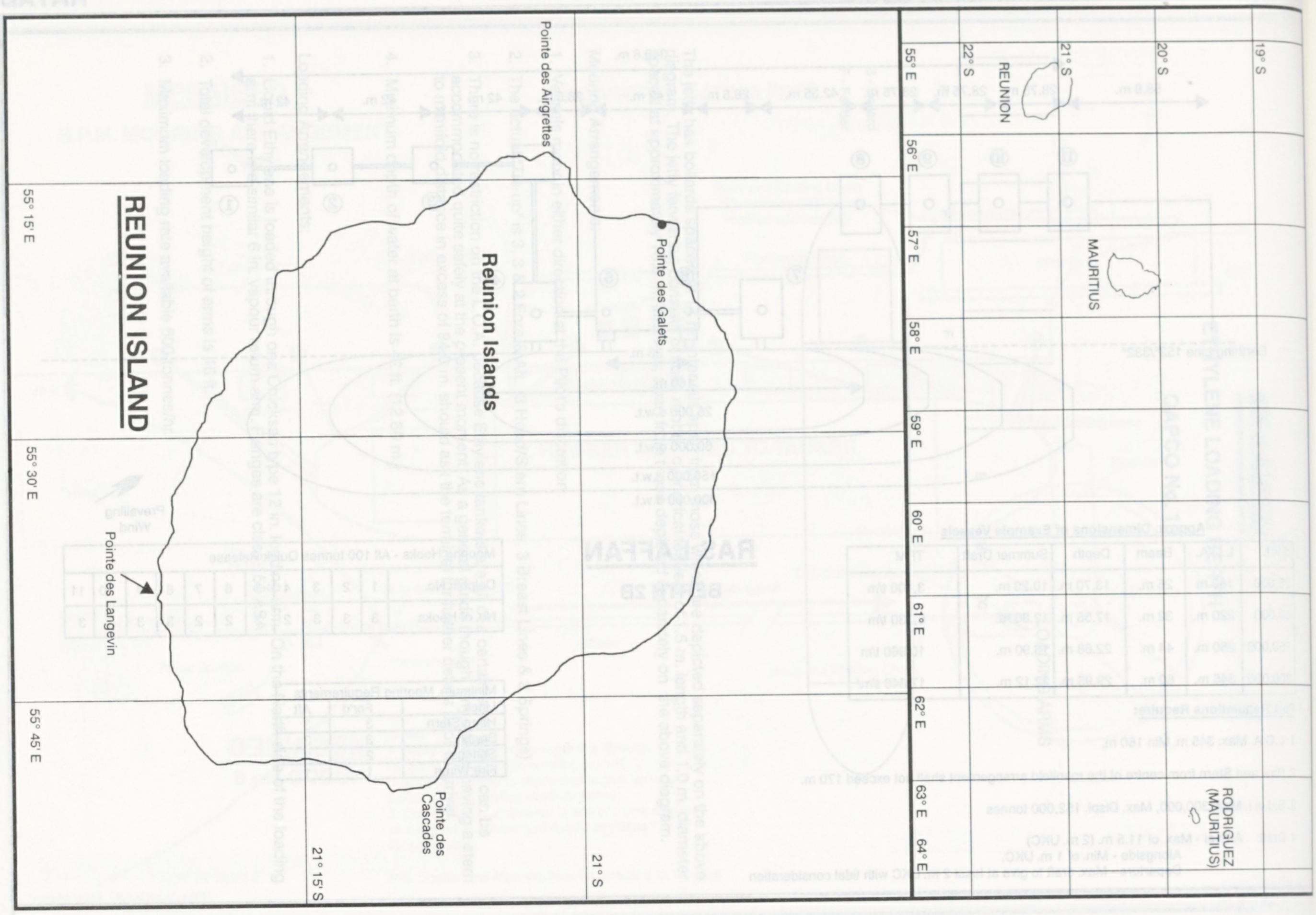
BERTH LNG 1

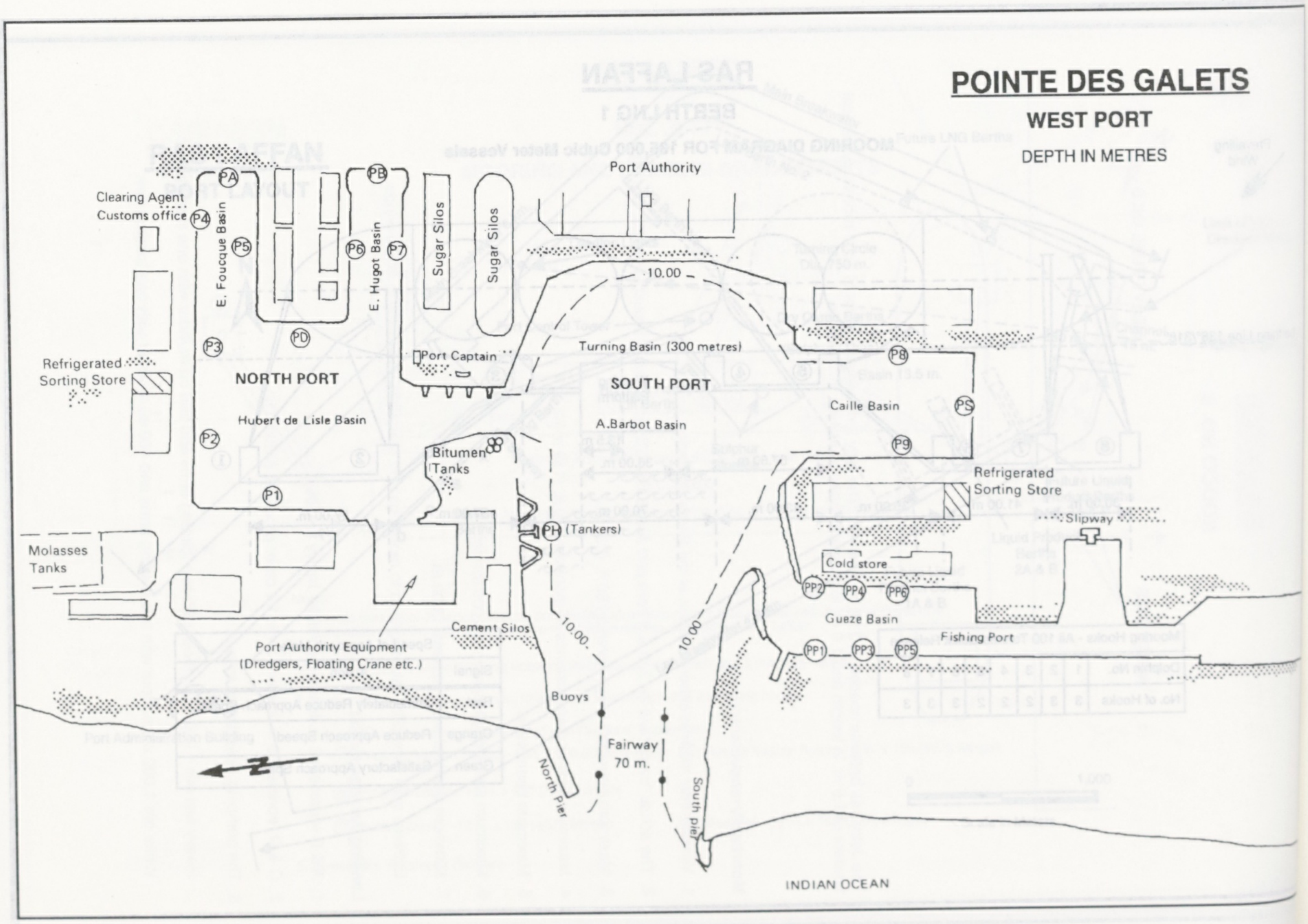
MOORING DIAGRAM FOR 135,000 Cubic Meter Vessels

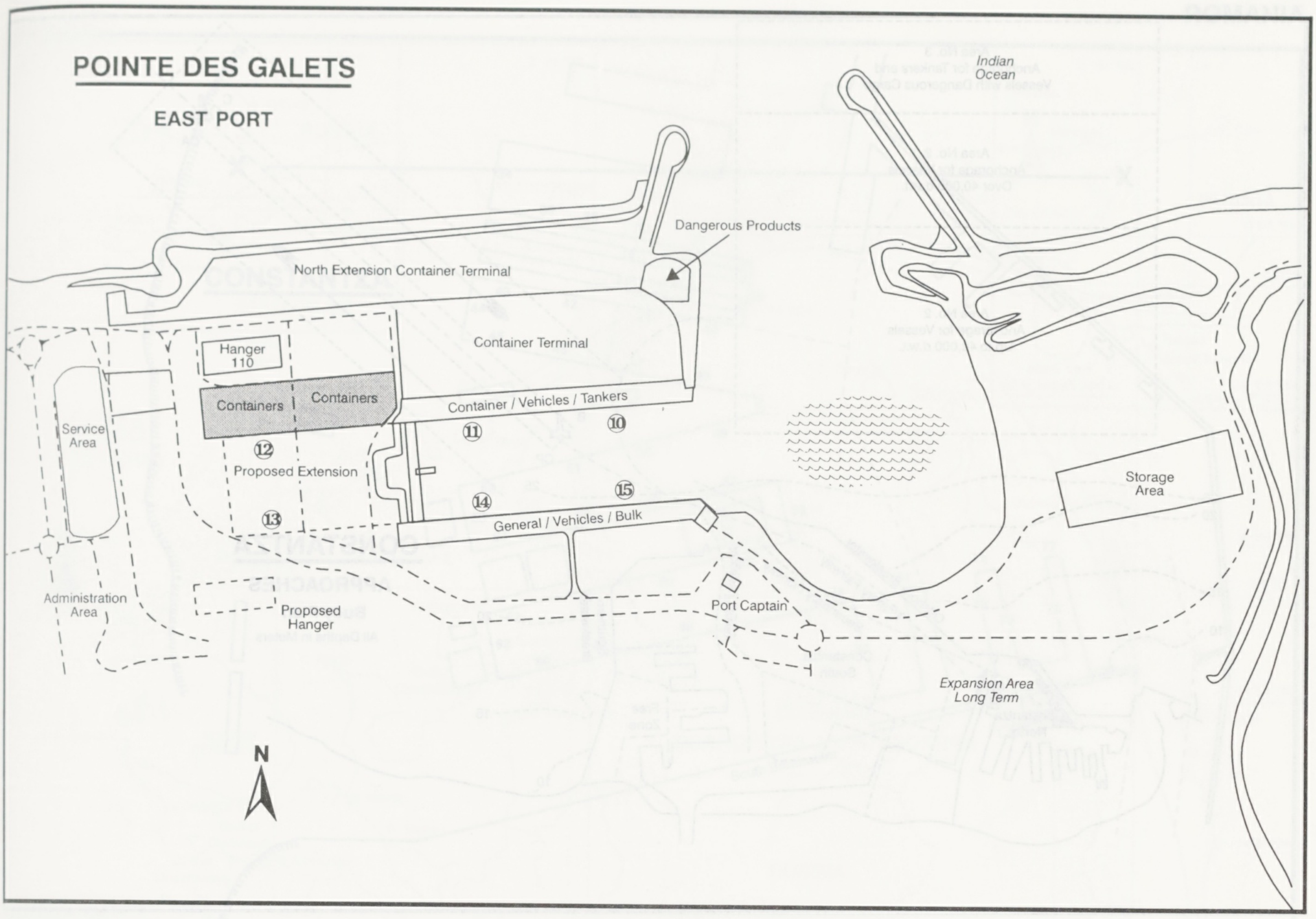

Prevailing Wind
Berthing Line 138°/318°
⑤
④
Working Platform
③
⑧
⑦
⑥
②
①
13.5 m.
57.50 m.
36.00 m.
30.00 m.
41.00 m.
35.00 m.
43.00 m.
70.00 m.
57.00 m.
57.00 m.

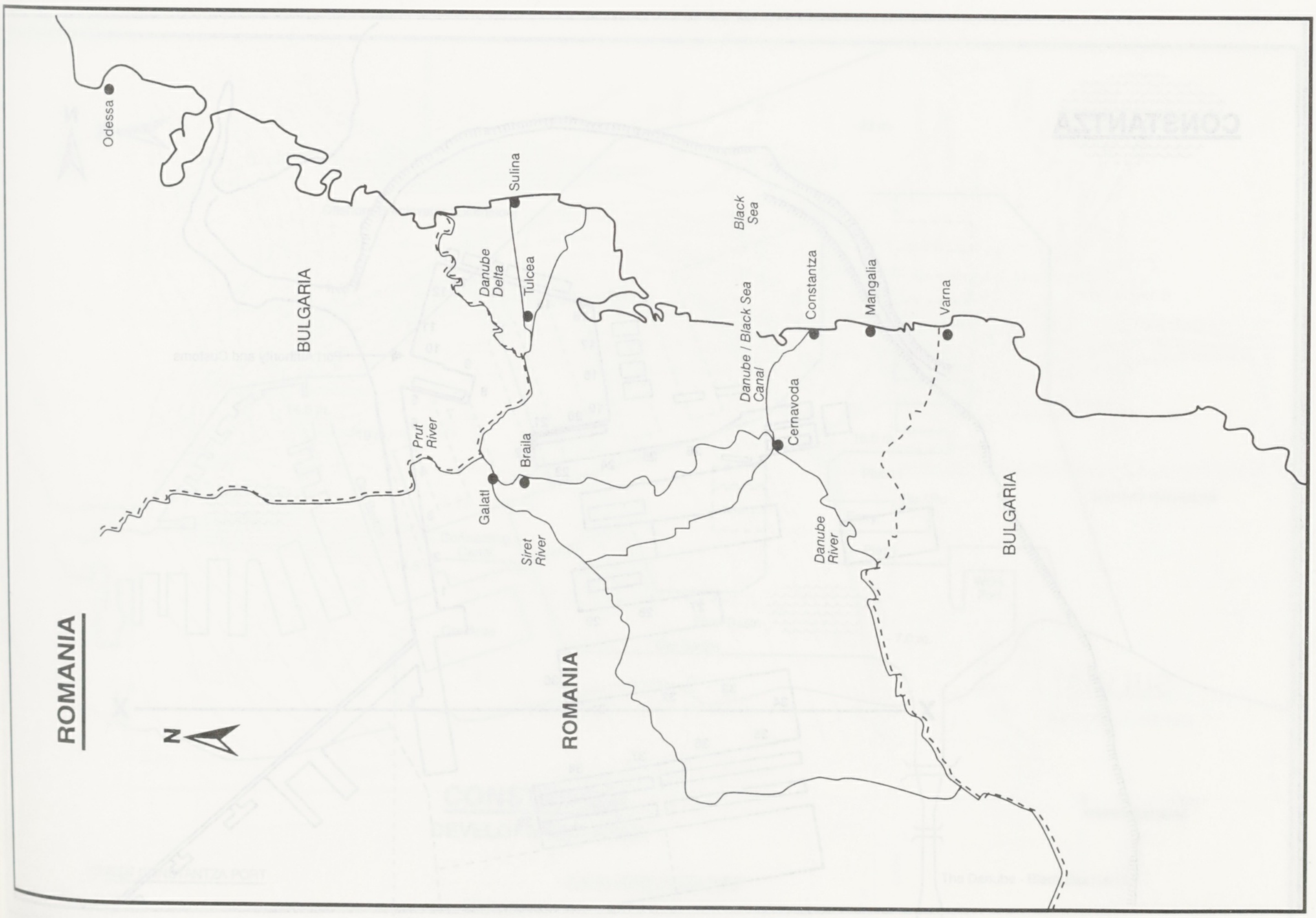
Mooring Hooks - All 100 Tonnes Quick Release								
Dolphin No.	1	2	3	4	5	6	7	8
No. of Hooks	3	3	2	2	2	3	3	3

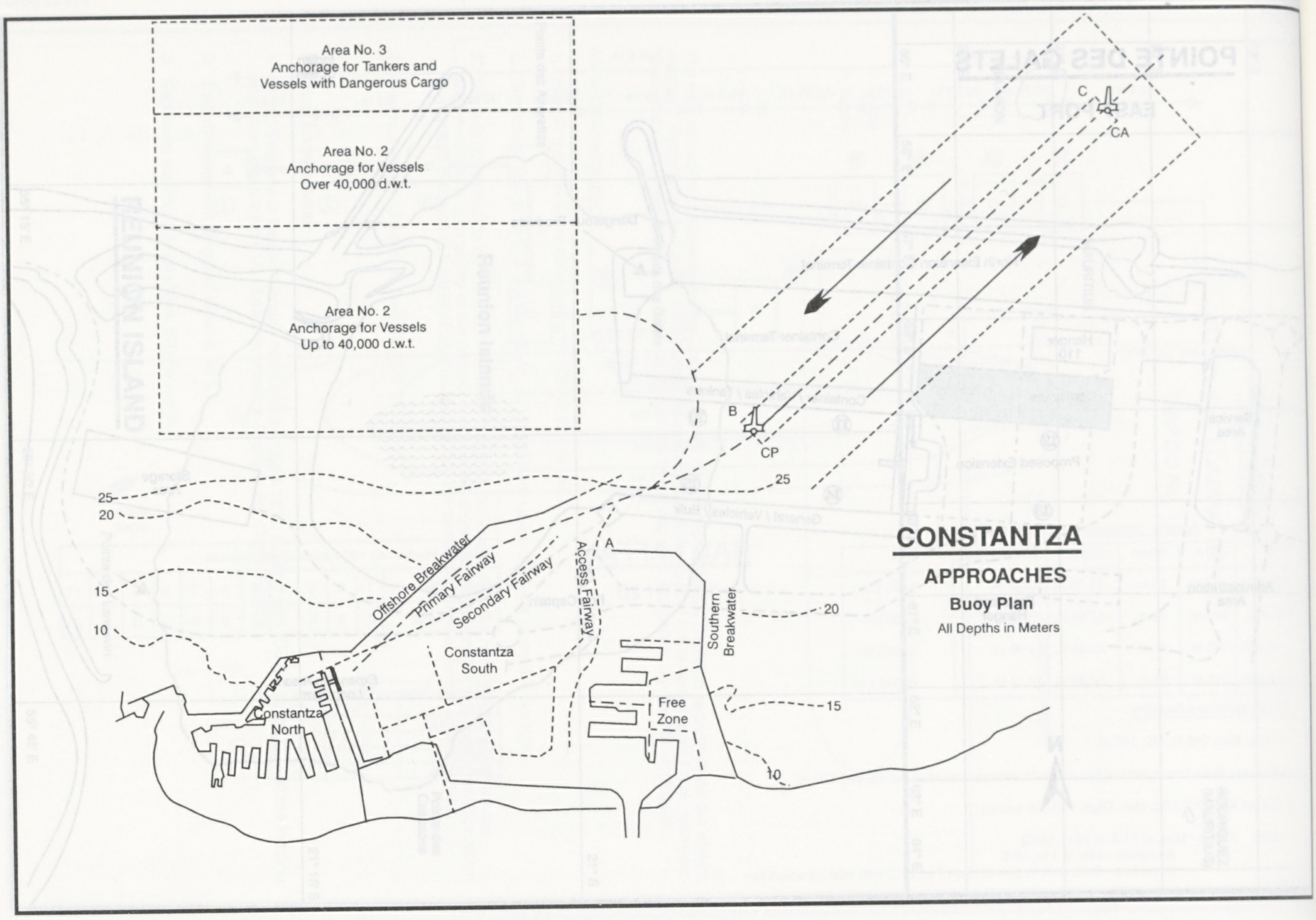
Speed of Approach Meter	
Signal	Action
Red	Immediately Reduce Approach Speed
Orange	Reduce Approach Speed
Green	Satisfactory Approach Speed

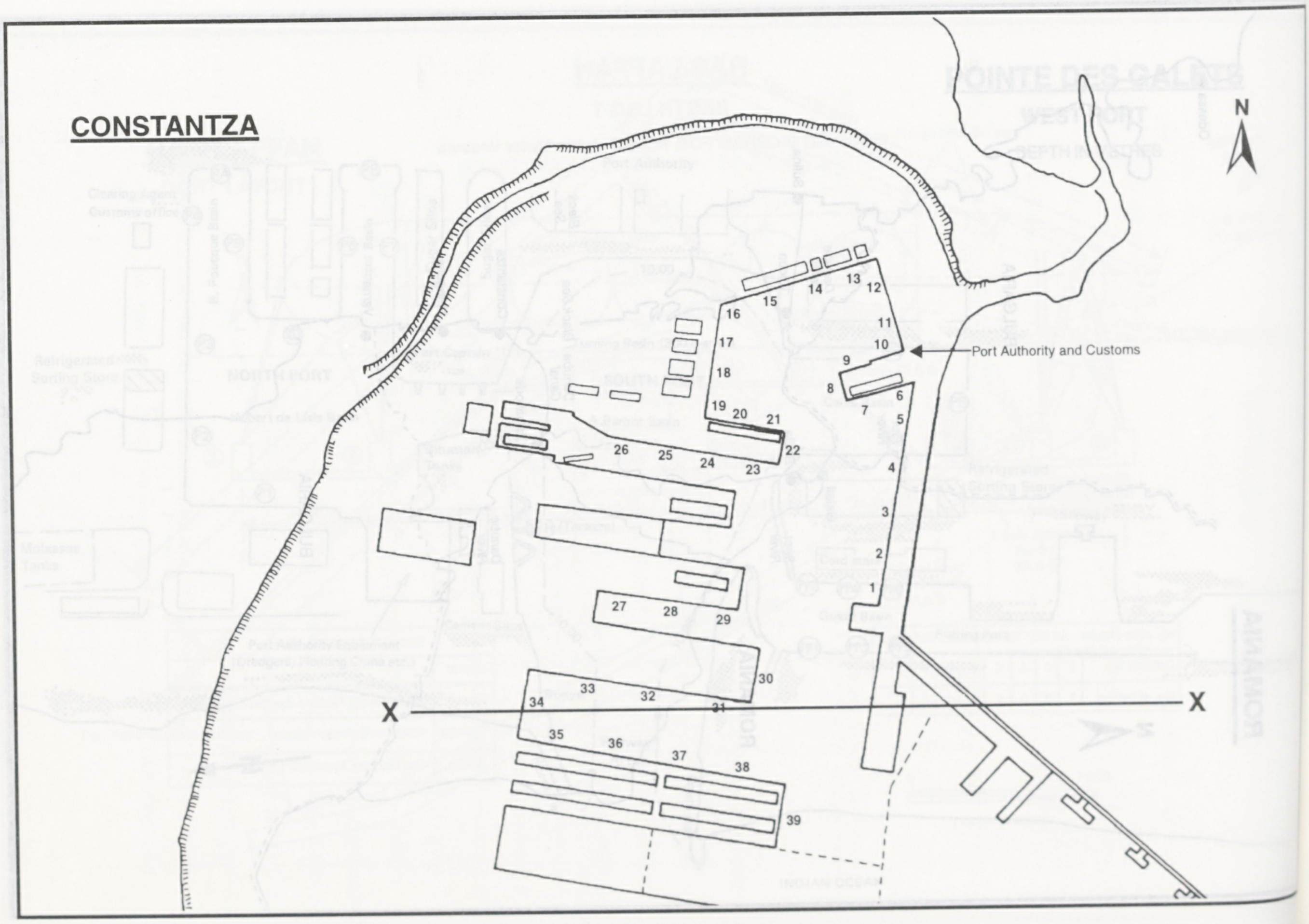

REUNION ISLAND
Reunion Islands
Pointe des Aigrettes
Pointe des Galets
Pointe des Cascades
Pointe des Langevin
Prevailing Wind
55° 15' E
55° 30' E
55° 45' E
21° 15' S
21° S
19° S
20° S
21° S
22° S
REUNION
MAURITIUS
RODRIGUEZ (MAURITIUS)
55° E
56° E
57° E
58° E
59° E
60° E
61° E
62° E
63° E
64° E

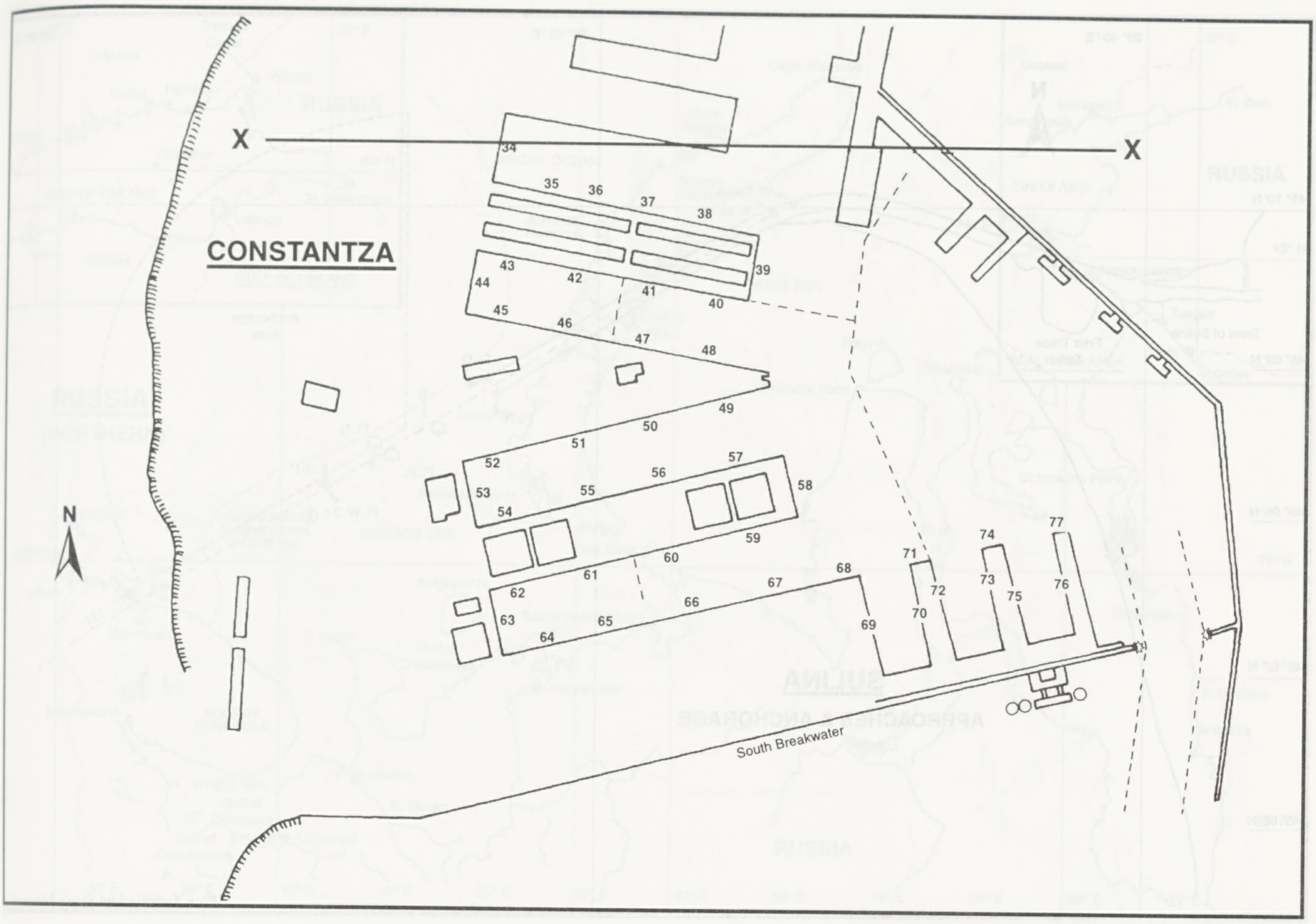

POINTE DES GALETS
WEST PORT
DEPTH IN METRES
Port Authority
Clearing Agent
Customs office
PA
PB
P4
P5
P6
P7
E. Foucque Basin
E. Hugot Basin
Sugar Silos
Sugar Silos
10.00
PD
P3
Port Captain
Turning Basin (300 metres)
P8
Refrigerated Sorting Store
NORTH PORT
SOUTH PORT
Caille Basin
PS
Hubert de Lisle Basin
A.Barbot Basin
P2
Bitumen Tanks
P9
Refrigerated Sorting Store
P1
Slipway
PH (Tankers)
Molasses Tanks
Cold store
PP2
PP4
PP6
Gueze Basin
Cement Silos
10.00
10.00
Fishing Port
PP1
PP3
PP5
Port Authority Equipment (Dredgers, Floating Crane etc.)
Buoys
Fairway 70 m.
North Pier
South pier
N
INDIAN OCEAN

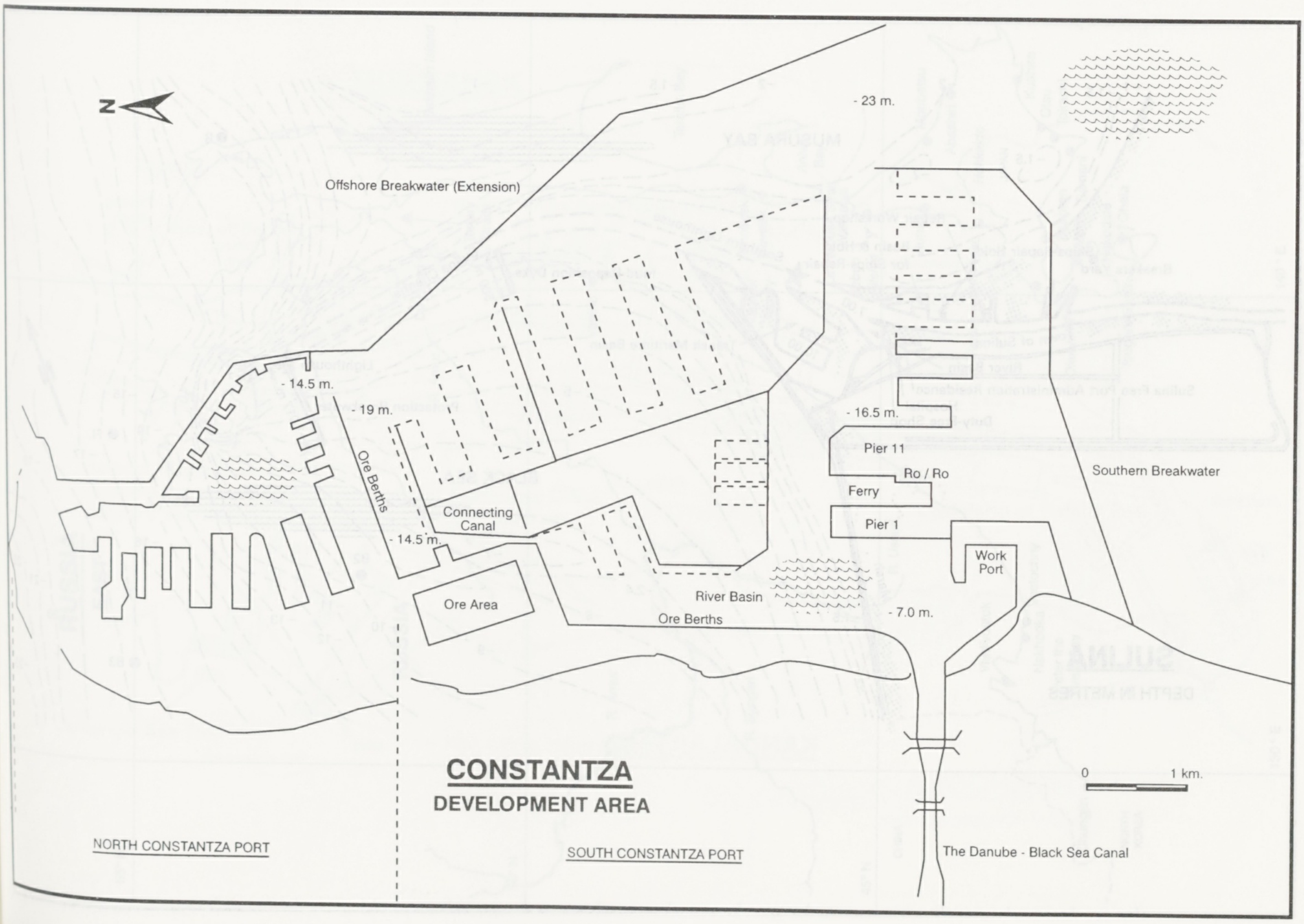

POINTE DES GALETS
EAST PORT
Indian Ocean
Dangerous Products
North Extension Container Terminal
Container Terminal
Hanger 110
Containers
Containers
Container / Vehicles / Tankers
⑪
⑩
Service Area
⑫
Proposed Extension
⑭
⑮
⑬
General / Vehicles / Bulk
Storage Area
Administration Area
Proposed Hanger
Port Captain
Expansion Area Long Term
N

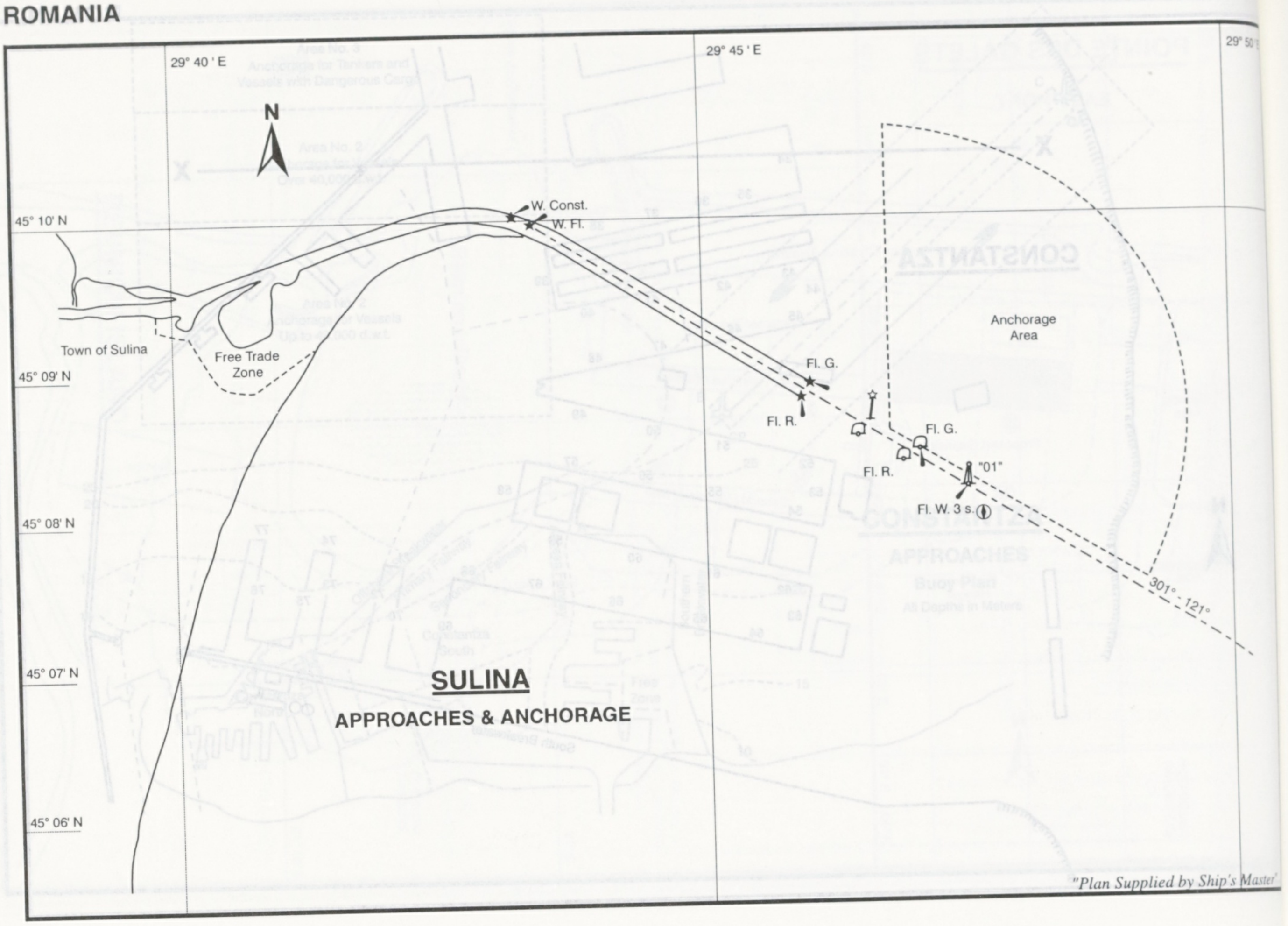

Odessa
Sulina
Black Sea
Danube Delta
Tulcea
BULGARIA
Constantza
Mangalia
Varna
Danube / Black Sea Canal
Cernavoda
Prut River
Braila
Galatl
Siret River
Danube River
BULGARIA
ROMANIA
ROMANIA
N


Area No. 3
Anchorage for Tankers and Vessels with Dangerous Cargo
Area No. 2
Anchorage for Vessels Over 40,000 d.w.t.
Area No. 2
Anchorage for Vessels Up to 40,000 d.w.t.
C
CA
B
CP
A
25
20
15
10
25
20
15
10
Offshore Breakwater
Primary Fairway
Secondary Fairway
Access Fairway
Southern Breakwater
Constantza South
Constantza North
Free Zone
CONSTANTZA
APPROACHES
Buoy Plan
All Depths in Meters

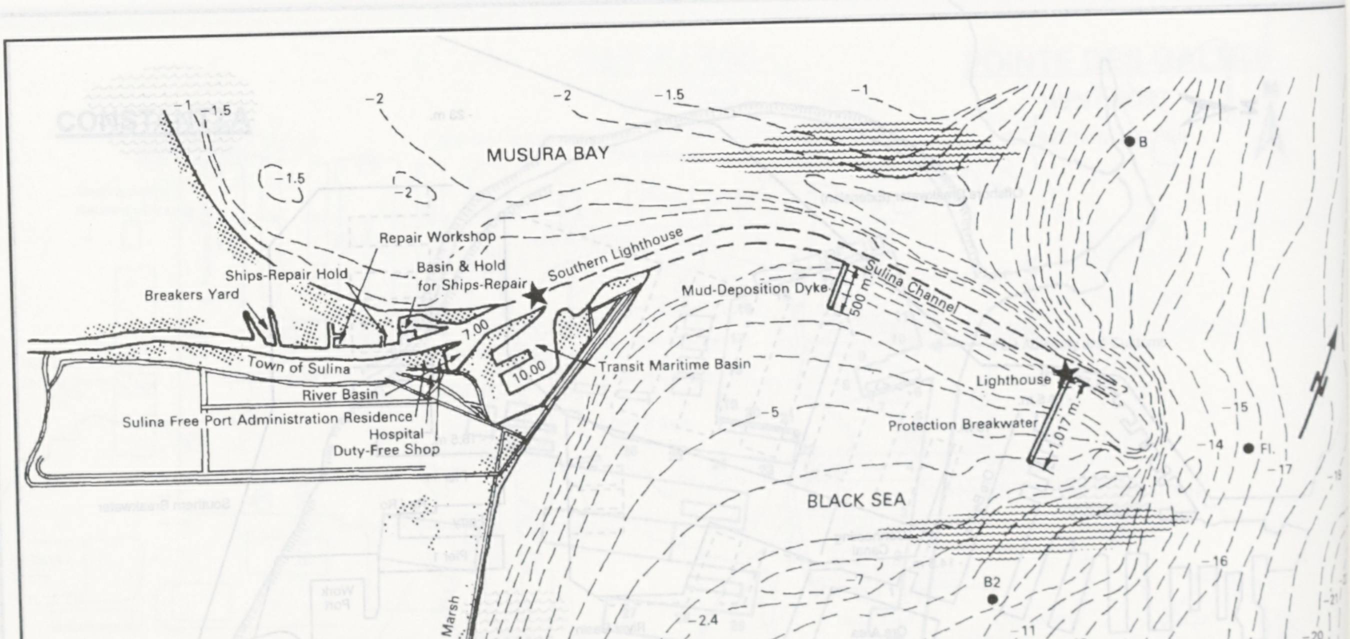

CONSTANTZA
N
Port Authority and Customs
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
X
X

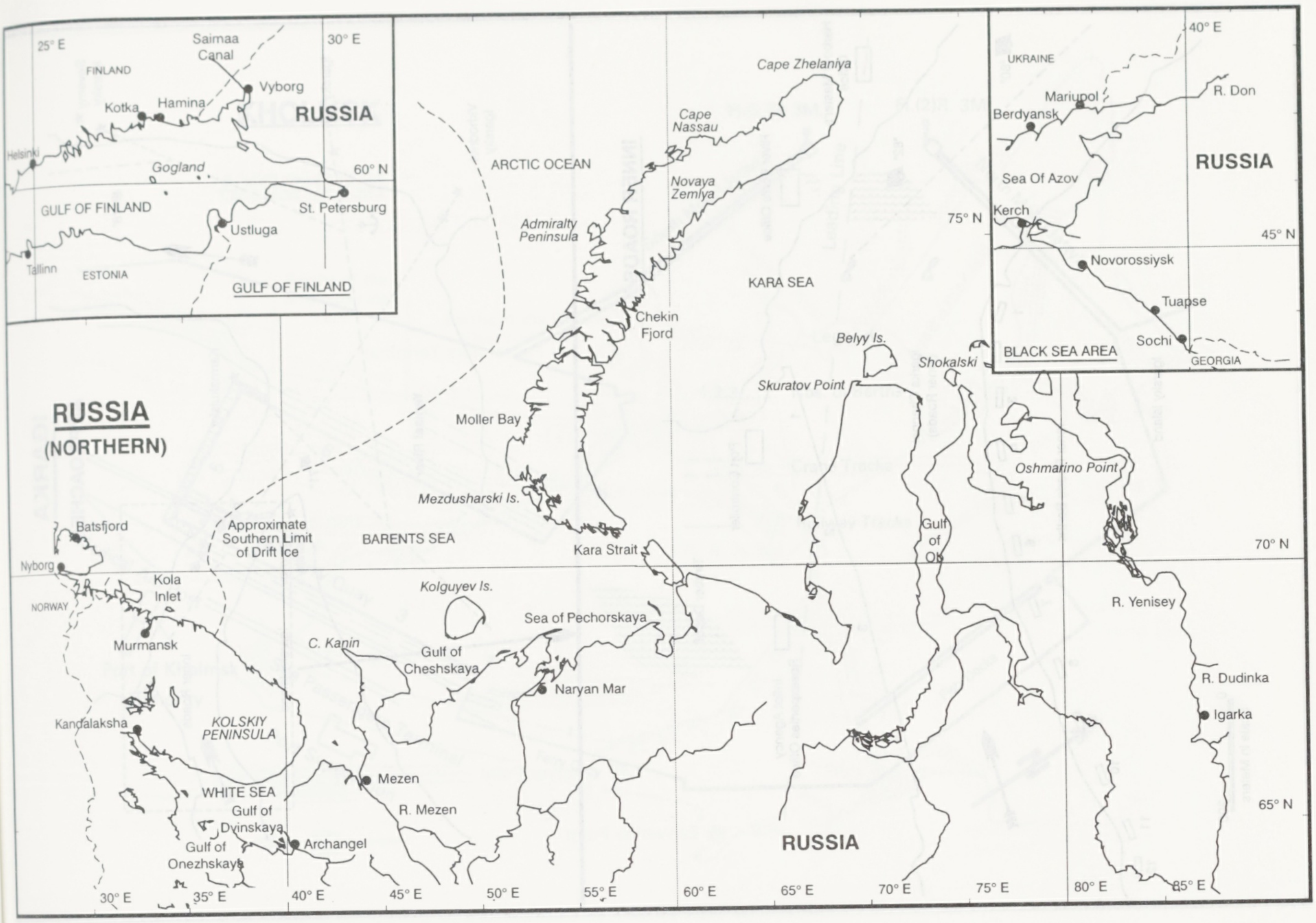

X
X
CONSTANTZA
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
N
South Breakwater

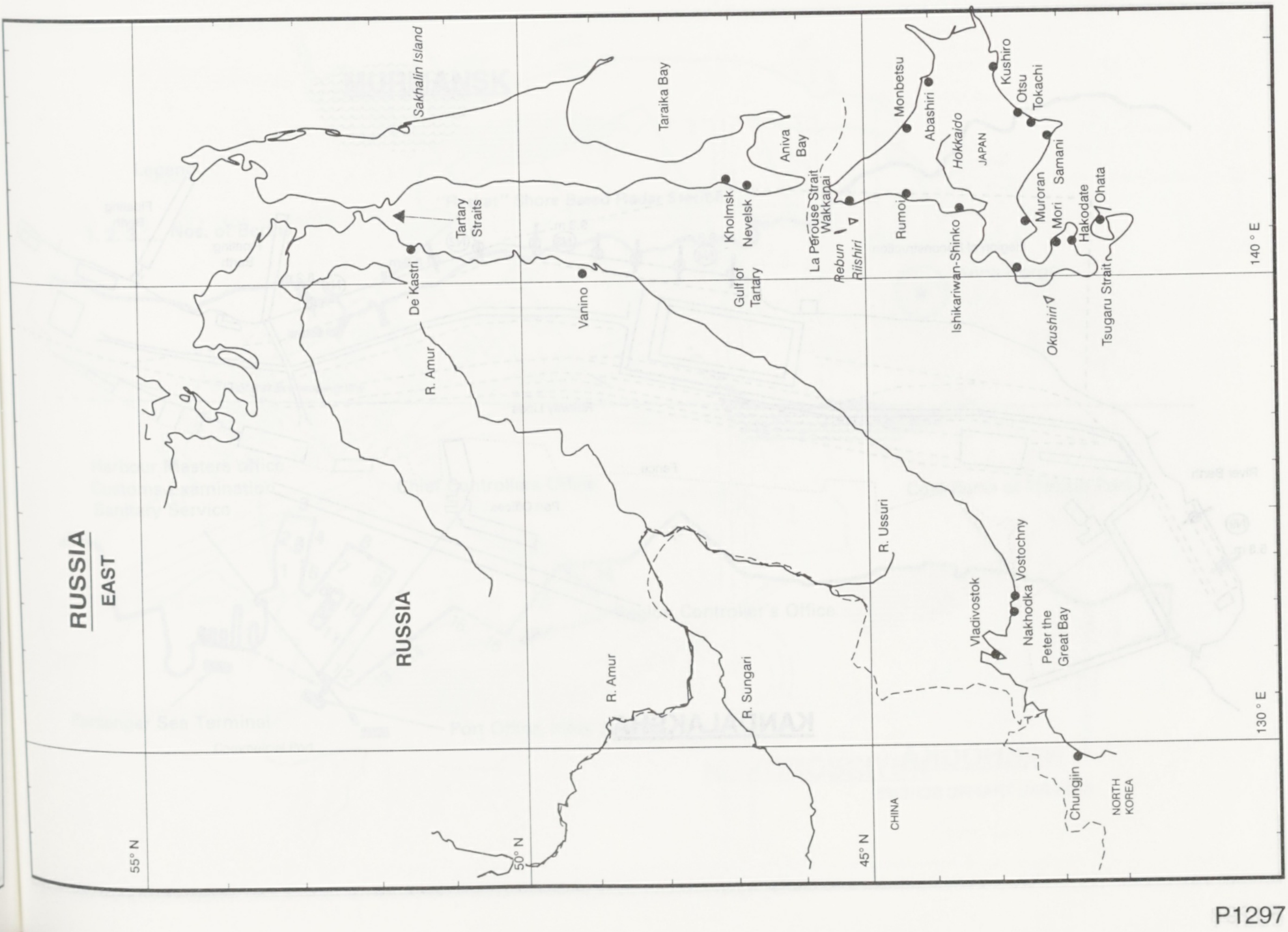

N
- 23 m.
Offshore Breakwater (Extension)
- 14.5 m.
19 m.
Ore Berths
Connecting Canal
- 14.5 m.
Ore Area
River Basin
Ore Berths
- 16.5 m.
Pier 11
Ro / Ro
Ferry
Pier 1
Work Port
- 7.0 m.
Southern Breakwater
CONSTANTZA
DEVELOPMENT AREA
0
1 km.
NORTH CONSTANTZA PORT
SOUTH CONSTANTZA PORT
The Danube - Black Sea Canal

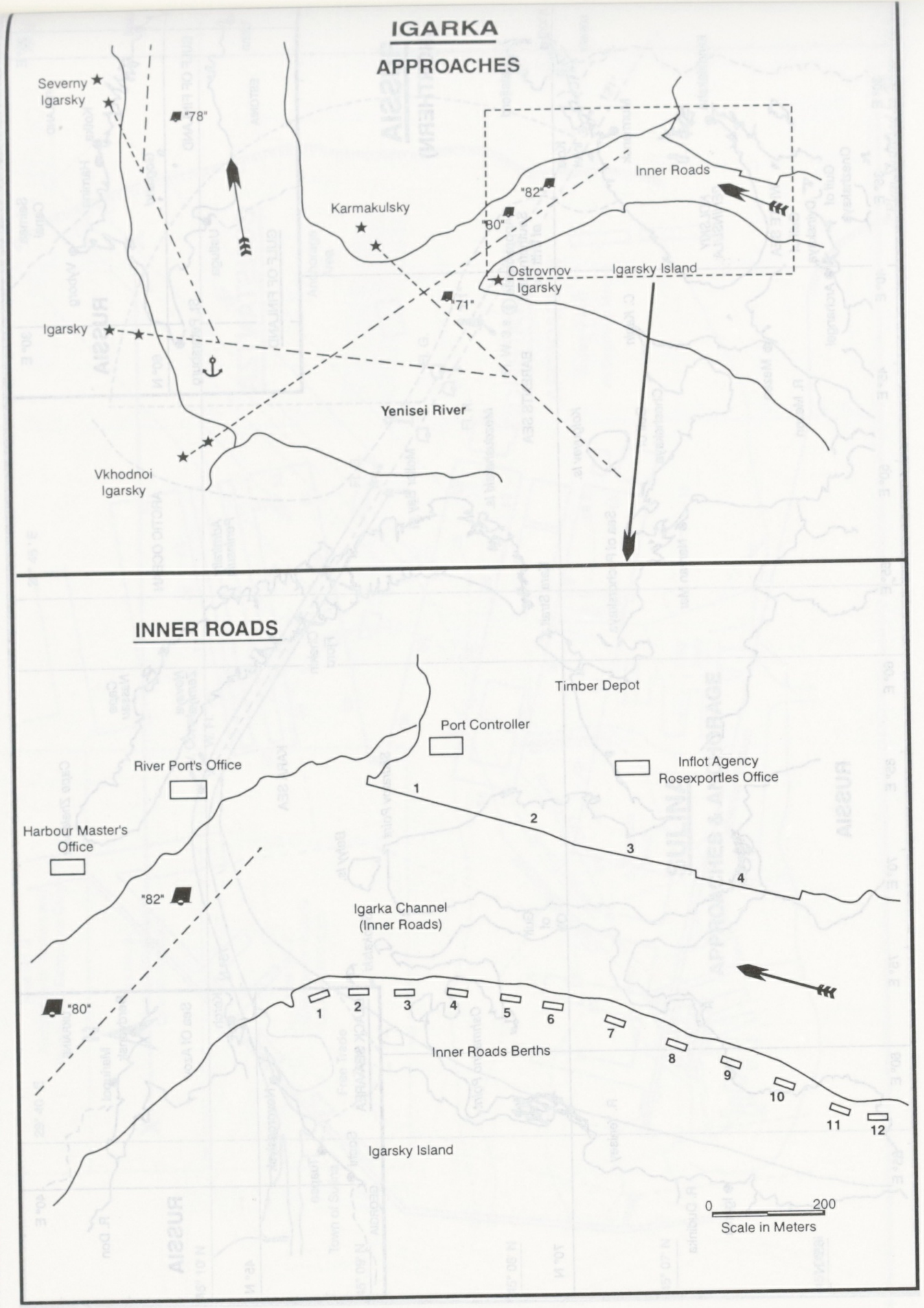

29° 40 ' E
29° 45 ' E
29° 50
N
45° 10' N
45° 09' N
45° 08' N
45° 07' N
45° 06' N
W. Const.
W. Fl.
Town of Sulina
Free Trade Zone
Fl. G.
Fl. R.
Fl. G.
Fl. R.
"01"
Fl. W. 3 s.
Anchorage Area
301° 121°
SULINA
APPROACHES & ANCHORAGE

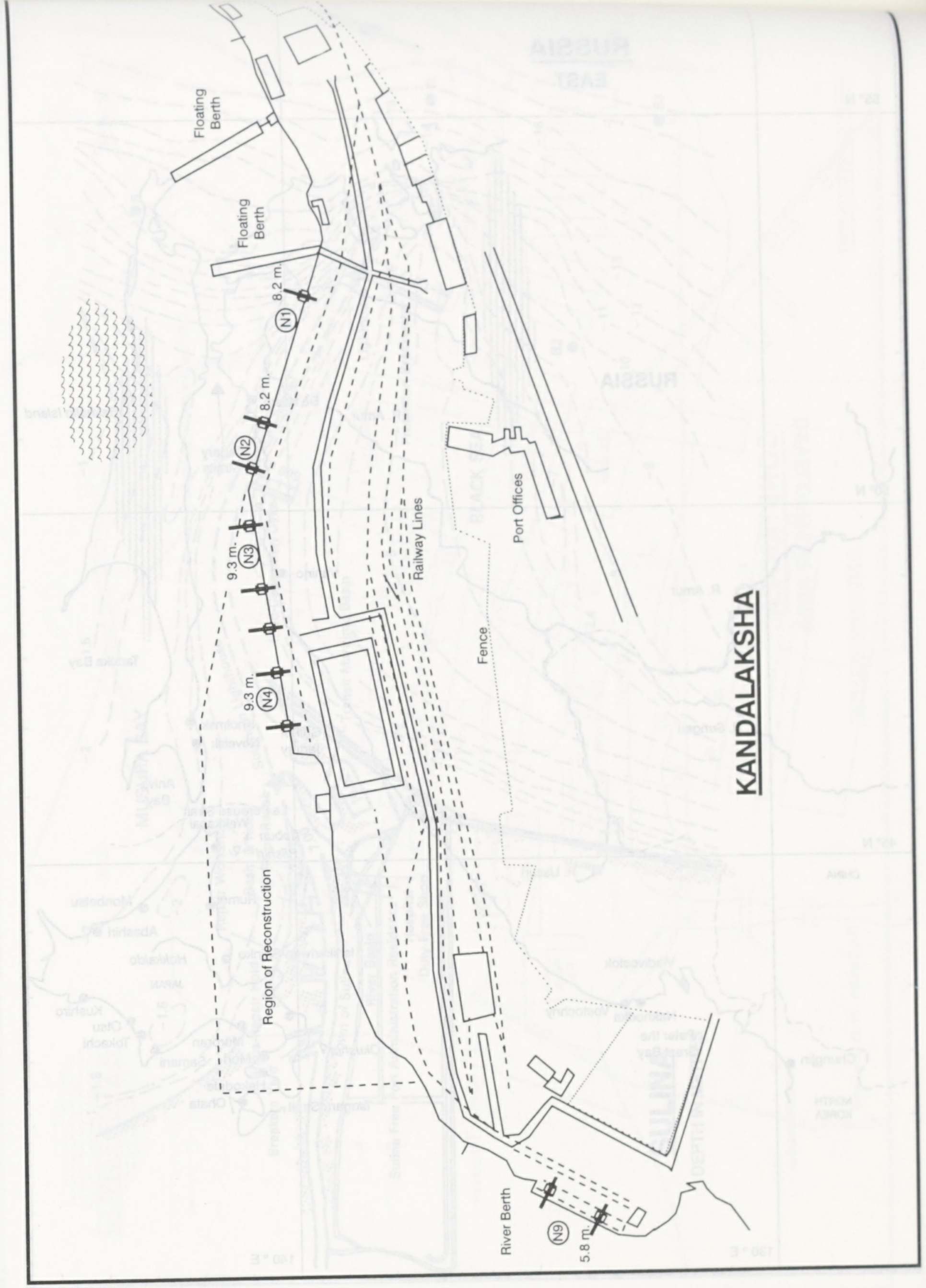
"Plan Supplied by Ship's Master"


−1
−1.5
−2
−1.5
−2
−2
−1.5
−1
MUSURA BAY
B
Repair Workshop
Ships-Repair Hold
Basin & Hold for Ships-Repair
Southern Lighthouse
Breakers Yard
Mud-Deposition Dyke
500 m
Sulina Channel
7.00
10.00
Transit Maritime Basin
Town of Sulina
River Basin
Lighthouse
Sulina Free Port Administration Residence
−5
Protection Breakwater
1,017 m
−15
Hospital
Duty-Free Shop
−14
Fl.
−17
BLACK SEA
−16
−7
B2
Marsh
−2.4
−11
−13
−8
−20
−1.5
−10
−12
−9
B3
SULINA
DEPTH IN METRES

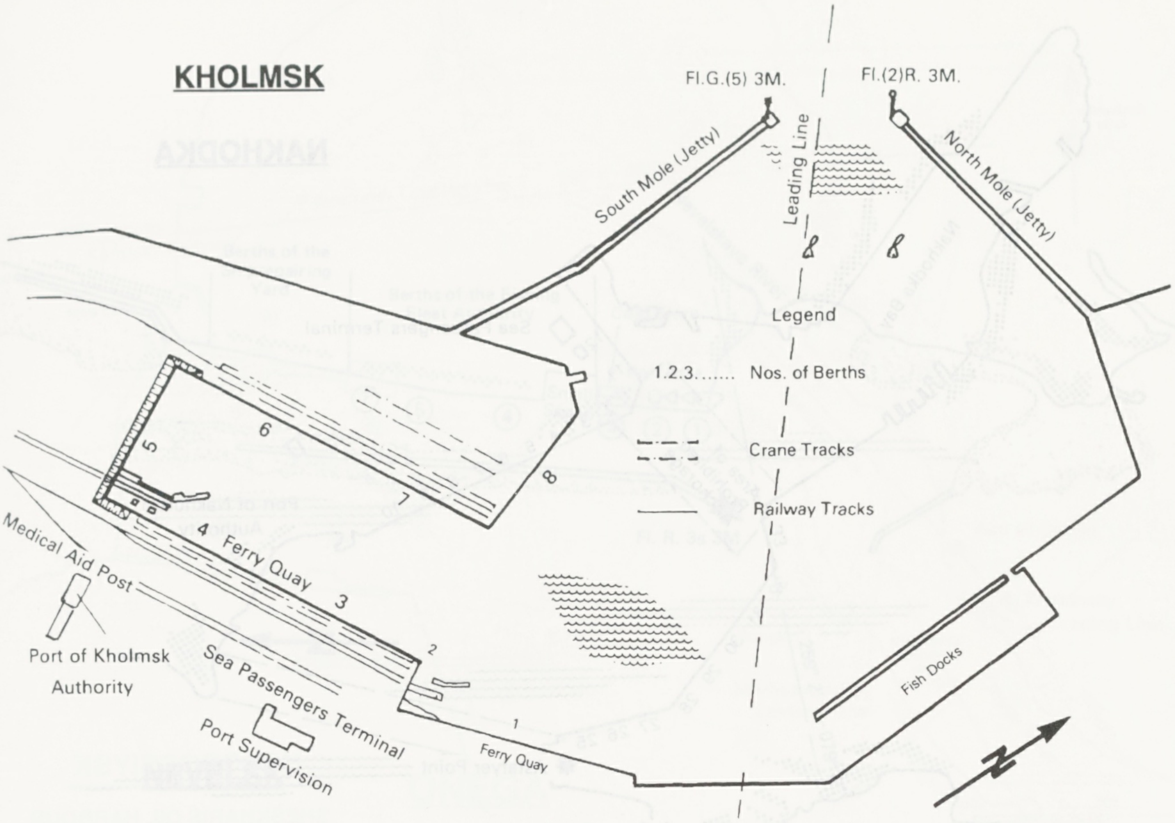

RUSSIA (NORTHERN)
25° E
30° E
Saimaa Canal
FINLAND
Vyborg
Kotka
Hamina
RUSSIA
Helsinki
Gogland
60° N
GULF OF FINLAND
St. Petersburg
Ustluga
Tallinn
ESTONIA
GULF OF FINLAND
UKRAINE
40° E
Mariupol
R. Don
Berdyansk
RUSSIA
Sea Of Azov
75° N
Kerch
45° N
Novorossiysk
Tuapse
Sochi
BLACK SEA AREA
GEORGIA
Cape Zhelaniya
Cape Nassau
ARCTIC OCEAN
Novaya Zemlya
Admiralty Peninsula
KARA SEA
Chekin Fjord
Belyy Is.
Shokalski
Skuratov Point
Moller Bay
Oshmarino Point
Mezdusharski Is.
Batsfjord
Approximate Southern Limit of Drift Ice
BARENTS SEA
Kara Strait
Gulf of Ob
70° N
Nyborg
Kola Inlet
Kolguyev Is.
NORWAY
R. Yenisey
Sea of Pechorskaya
Murmansk
C. Kanin
Gulf of Cheshskaya
R. Dudinka
Naryan Mar
Igarka
Kandalaksha
KOLSKIY PENINSULA
Mezen
65° N
WHITE SEA
R. Mezen
Gulf of Dvinskaya
Archangel
RUSSIA
Gulf of Onezhskaya
30° E
35° E
40° E
45° E
50° E
55° E
60° E
65° E
70° E
75° E
80° E
85° E


RUSSIA EAST
Sakhalin Island
Taraika Bay
Aniva Bay
Kholmsk
Nevelsk
Tartary Straits
La Perouse Strait
Wakkanai
Rebun
Riishiri
Monbetsu
Abashiri
Rumoi
Hokkaido
JAPAN
Kushiro
Otsu
Tokachi
Samani
Muroran
Mori
Hakodate
Ohata
Ishikariwan-Shinko
Okushiri
Tsugaru Strait
De Kastri
Vanino
Gulf of Tartary
140° E
R. Amur
R. Ussuri
Vladivostok
Nakhodka
Vostochny
Peter the Great Bay
RUSSIA
R. Amur
R. Sungari
130° E
Chungjin
NORTH KOREA
CHINA
55° N
50° N
45° N

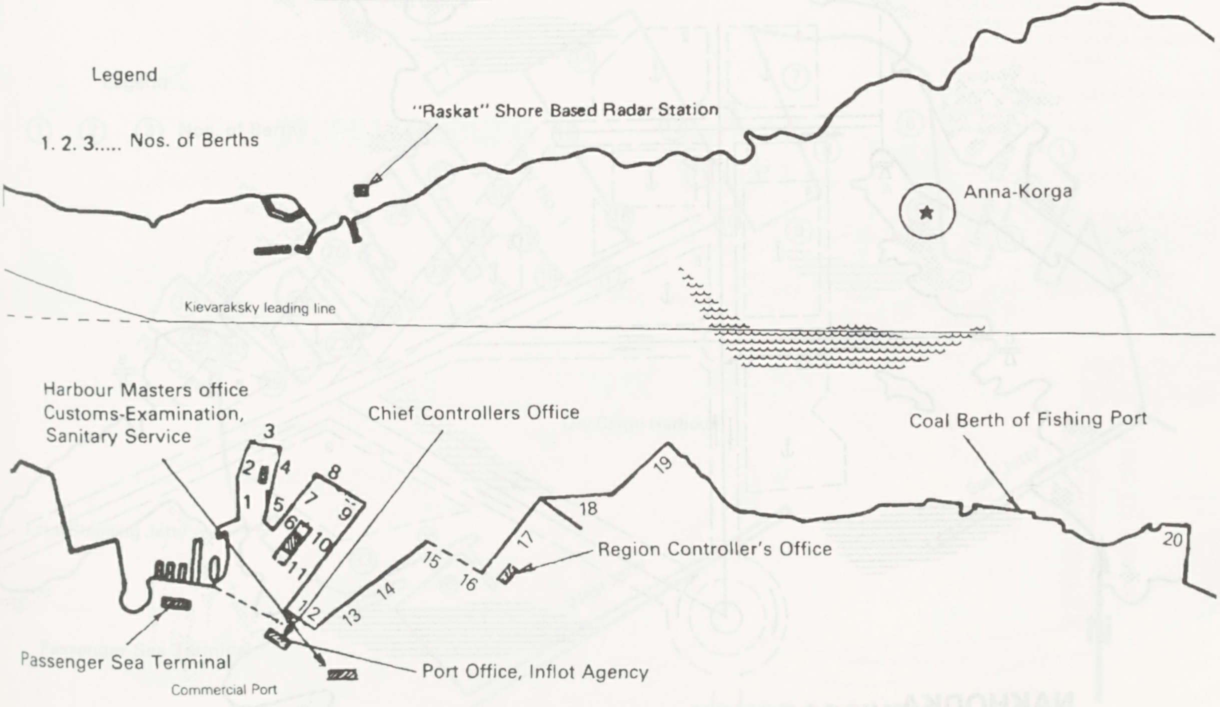

IGARKA
APPROACHES
Severny Igarsky
"78"
Karmakulsky
"82"
"80"
Inner Roads
Ostrovnov Igarsky
Igarsky Island
"71"
Igarsky
Yenisei River
Vkhodnoi Igarsky
INNER ROADS
Timber Depot
Port Controller
River Port's Office
Inflot Agency Rosexportles Office
Harbour Master's Office
1
2
3
4
"82"
Igarka Channel (Inner Roads)
"80"
1
2
3
4
5
6
7
8
9
10
11
12
Inner Roads Berths
Igarsky Island
0
200
Scale in Meters

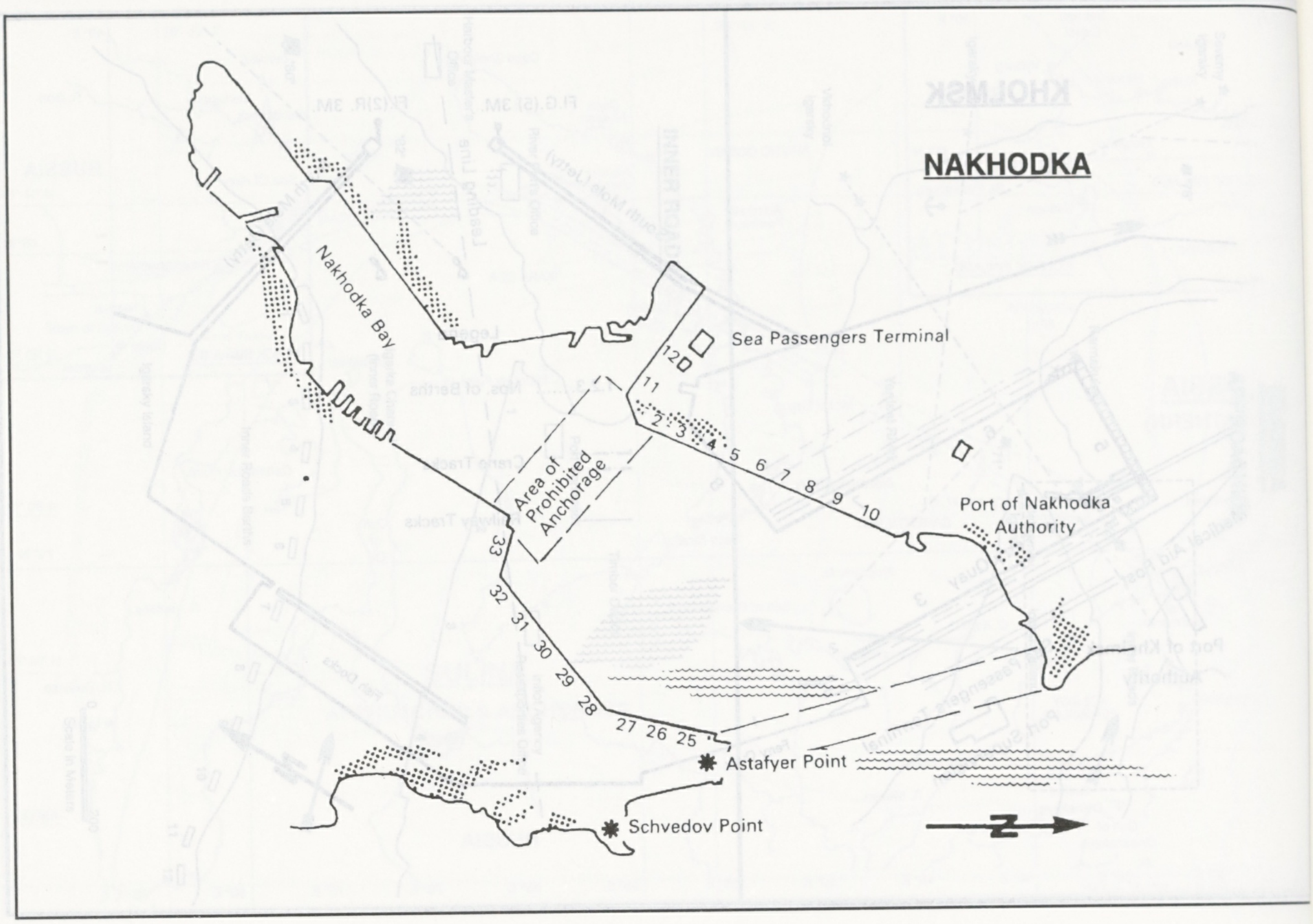

Floating Berth
Floating Berth
8.2 m.
N1
8.2 m.
N2
9.3 m.
N3
9.3 m.
N4
Region of Reconstruction
Railway Lines
Fence
Port Offices
KANDALAKSHA
River Berth
N9
5.8 m.

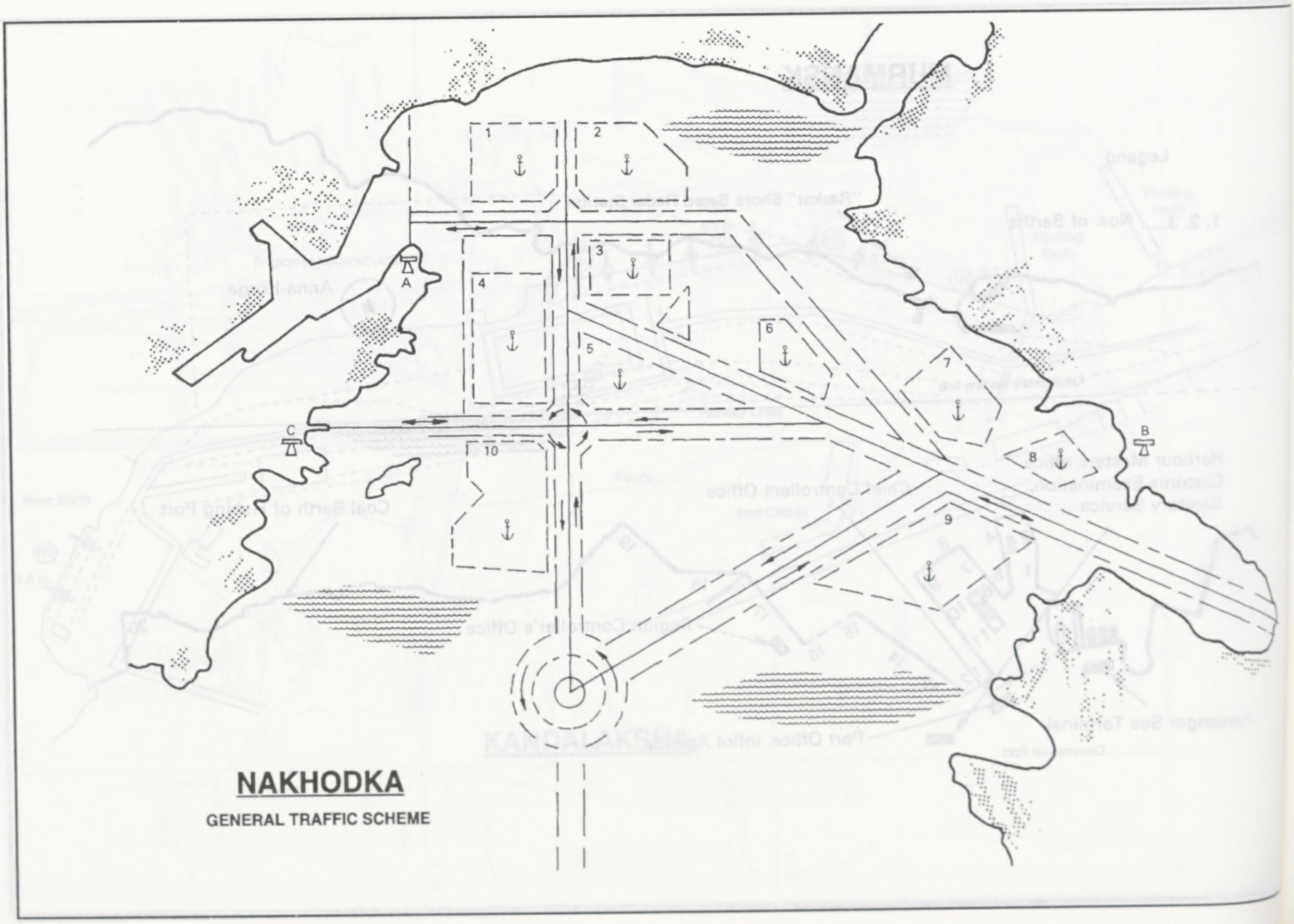
KHOLMSK


Fl.G.(5) 3M.
Fl.(2)R. 3M.
South Mole (Jetty)
North Mole (Jetty)
Leading Line
Legend
1.2.3....... Nos. of Berths
Crane Tracks
Railway Tracks
1
2
3
4
5
6
7
8
Ferry Quay
Ferry Quay
Medical Aid Post
Port of Kholmsk Authority
Sea Passengers Terminal
Port Supervision
Fish Docks
N

MURMANSK

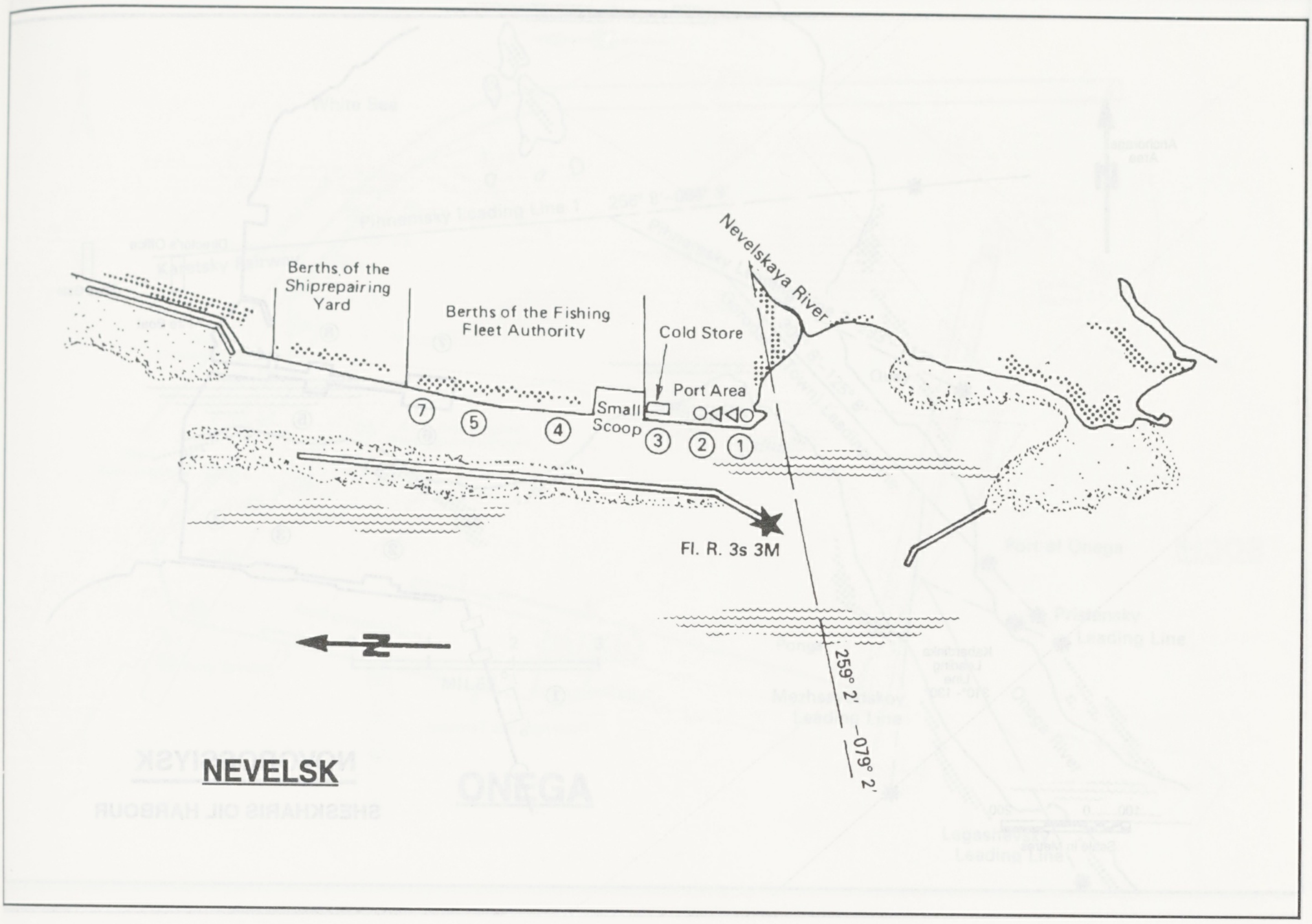

Legend
1. 2. 3..... Nos. of Berths
"Raskat" Shore Based Radar Station
Anna-Korga
Kievaraksky leading line
Harbour Masters office Customs-Examination, Sanitary Service
Chief Controllers Office
Coal Berth of Fishing Port
Region Controller's Office
Passenger Sea Terminal
Commercial Port
Port Office, Inflot Agency
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

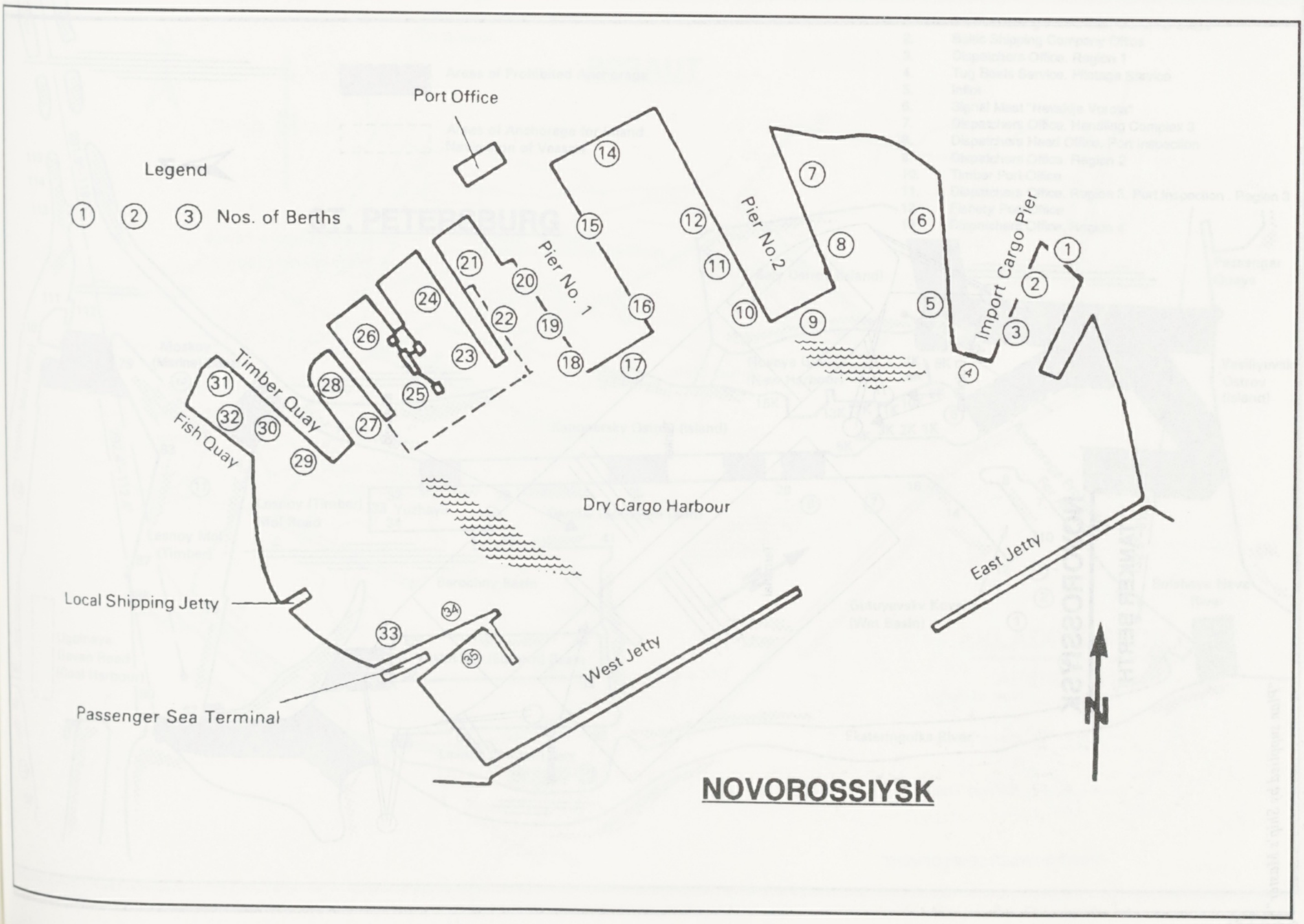

NAKHODKA
Sea Passengers Terminal
Nakhodka Bay
12
11
2
3
4
5
6
7
8
9
10
Area of Prohibited Anchorage
Port of Nakhodka Authority
33
32
31
30
29
28
27
26
25
Astafyer Point
Schvedov Point
N

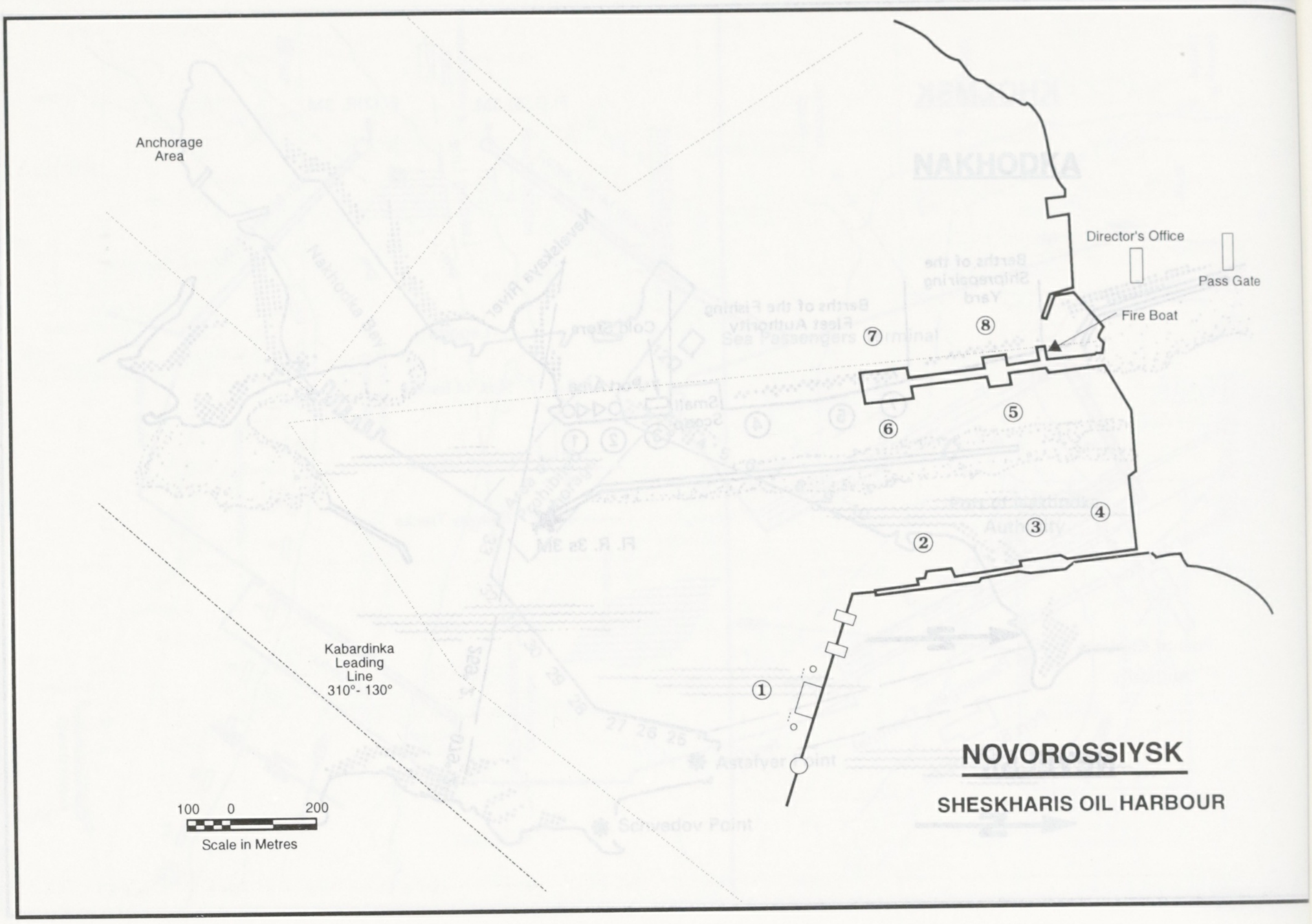

1
2
3
4
5
6
7
8
9
10
A
B
C

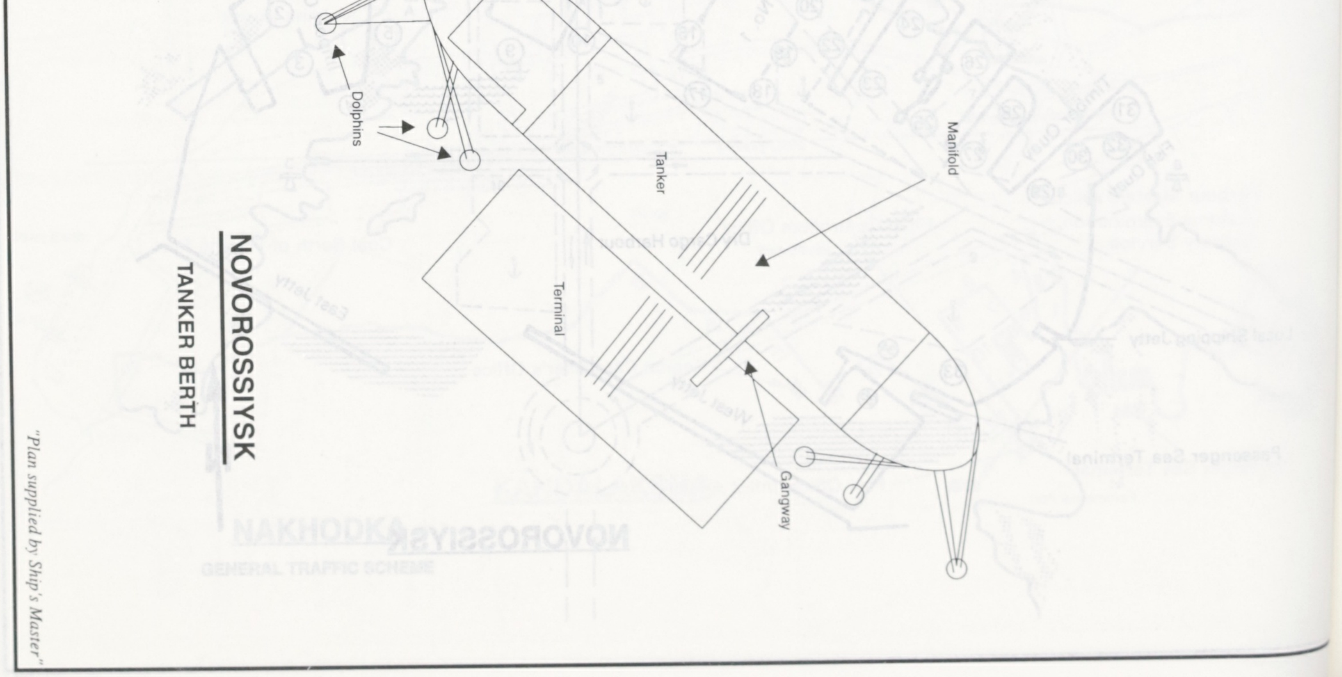
NAKHODKA

GENERAL TRAFFIC SCHEME

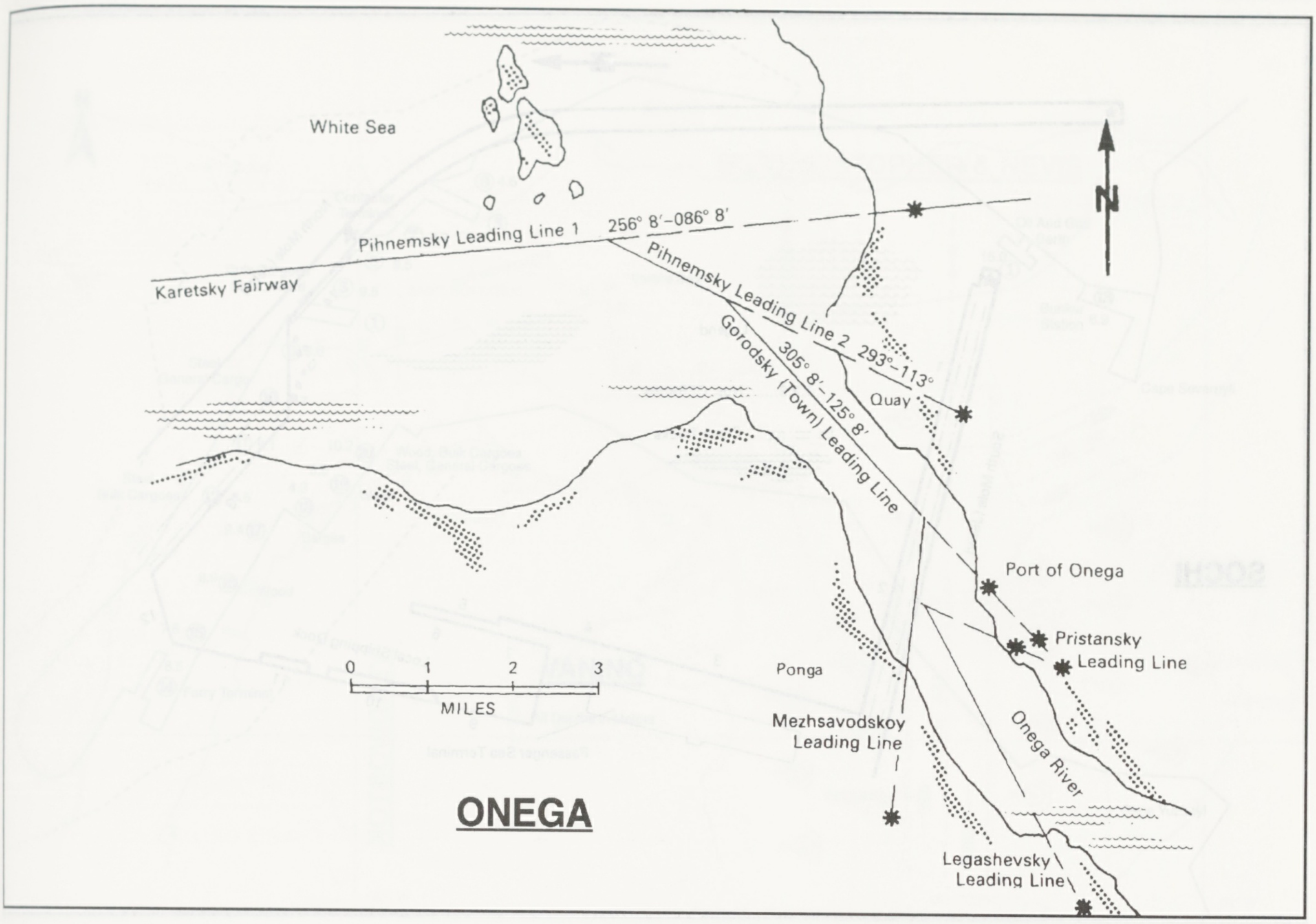

Berths of the Shiprepairing Yard
Berths of the Fishing Fleet Authority
Cold Store
Port Area
Small Scoop
Nevelskaya River
⑦
⑤
④
③
②
①
Fl. R. 3s 3M
259° 2' —079° 2'
N
NEVELSK

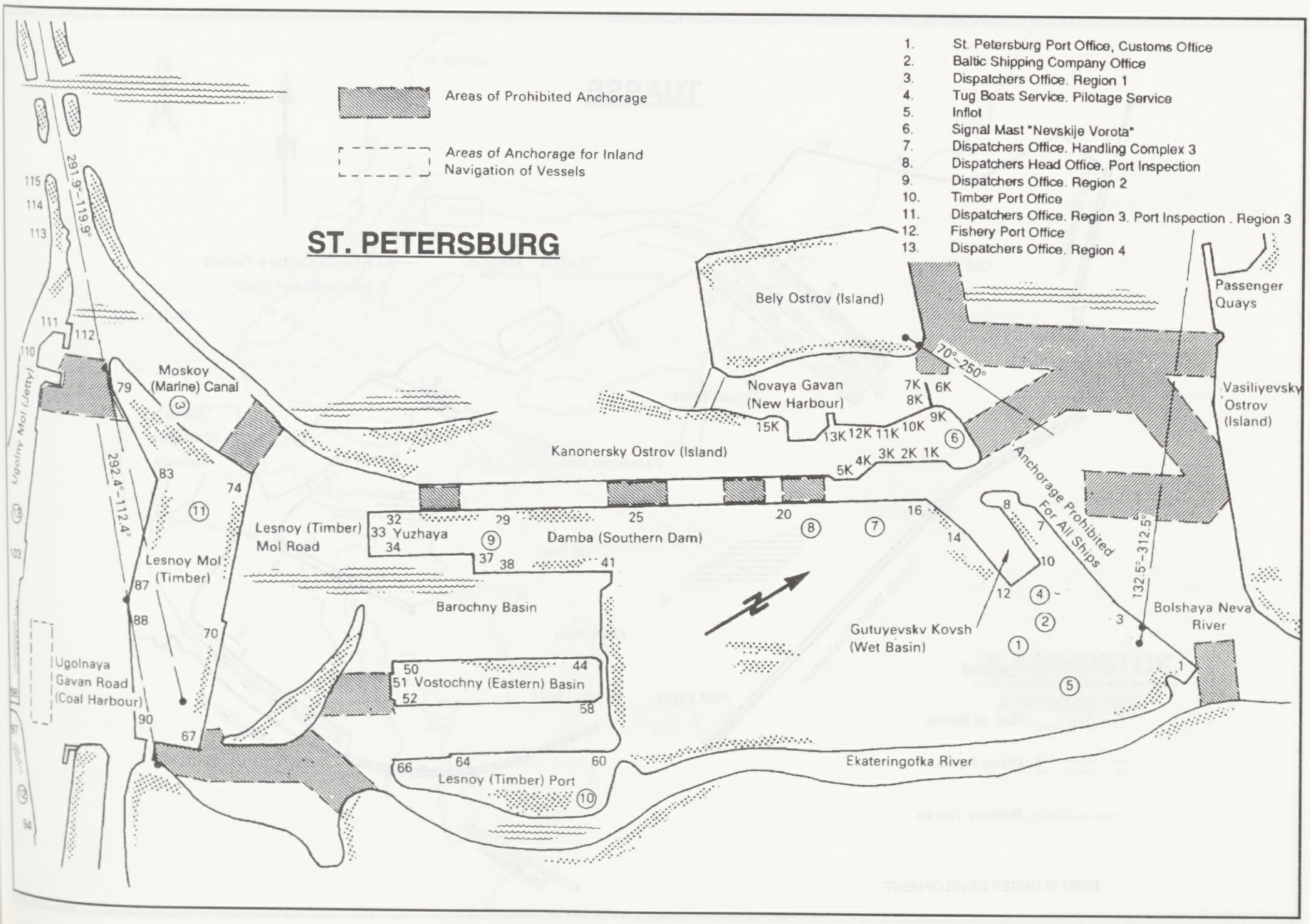

Port Office
Legend
① ② ③ Nos. of Berths
Pier No. 1
Pier No. 2
Import Cargo Pier
Timber Quay
Fish Quay
Dry Cargo Harbour
Local Shipping Jetty
Passenger Sea Terminal
West Jetty
East Jetty
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ ⑳ ㉑ ㉒ ㉓ ㉔ ㉕ ㉖ ㉗ ㉘ ㉙ ㉚ ㉛ ㉜ ㉝ ㉞ ㉟
N
NOVOROSSIYSK


Anchorage
Area
Kabardinka
Leading
Line
310°- 130°
100
0
200
Scale in Metres
Director's Office
Pass Gate
Fire Boat
⑦
⑧
⑥
⑤
④
③
②
①
NOVOROSSIYSK
SHESKHARIS OIL HARBOUR

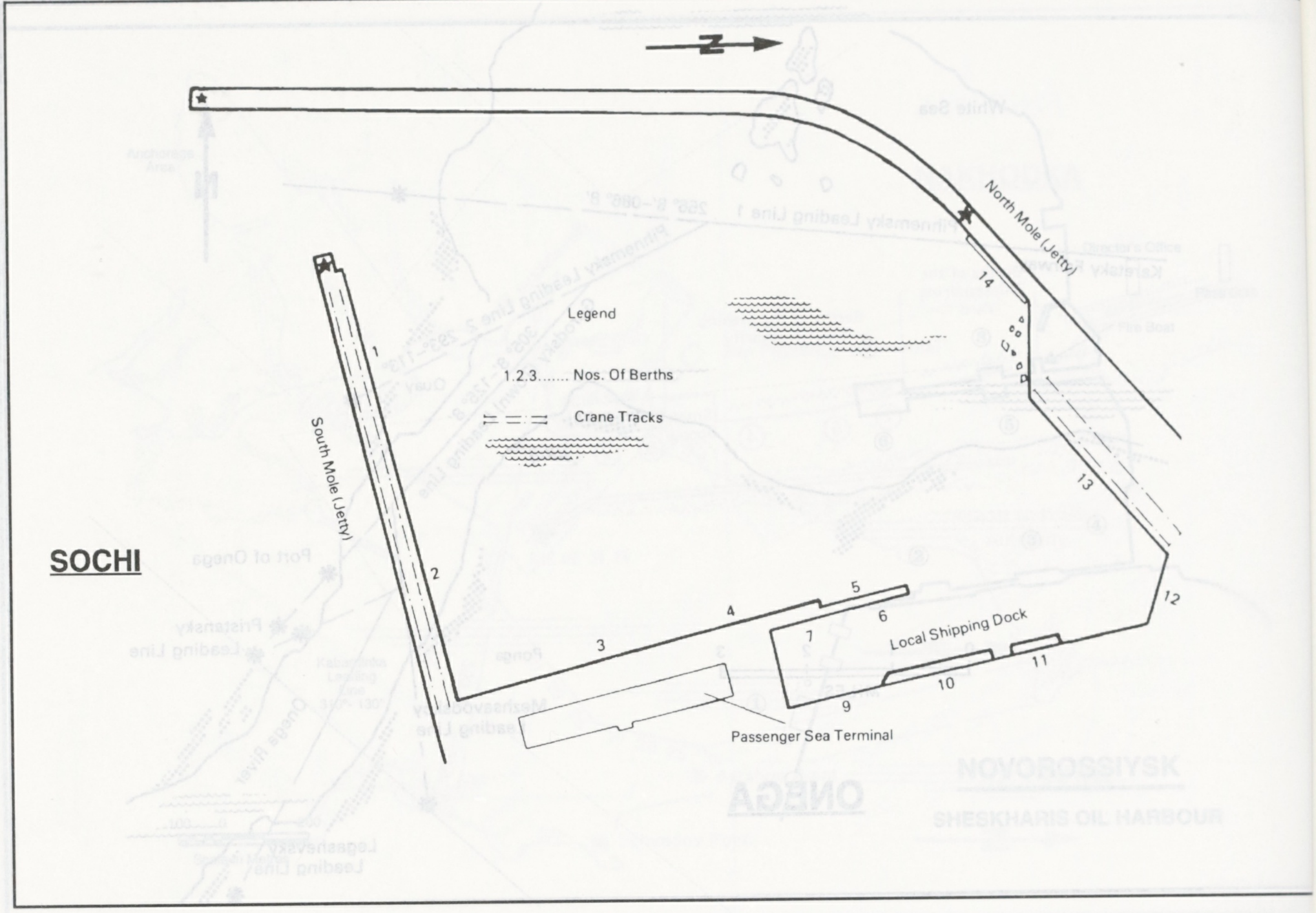

N
Dolphins
Tanker
Terminal
Manifold
Gangway
NOVOROSSIYSK
TANKER BERTH

"Plan supplied by Ship's Master"

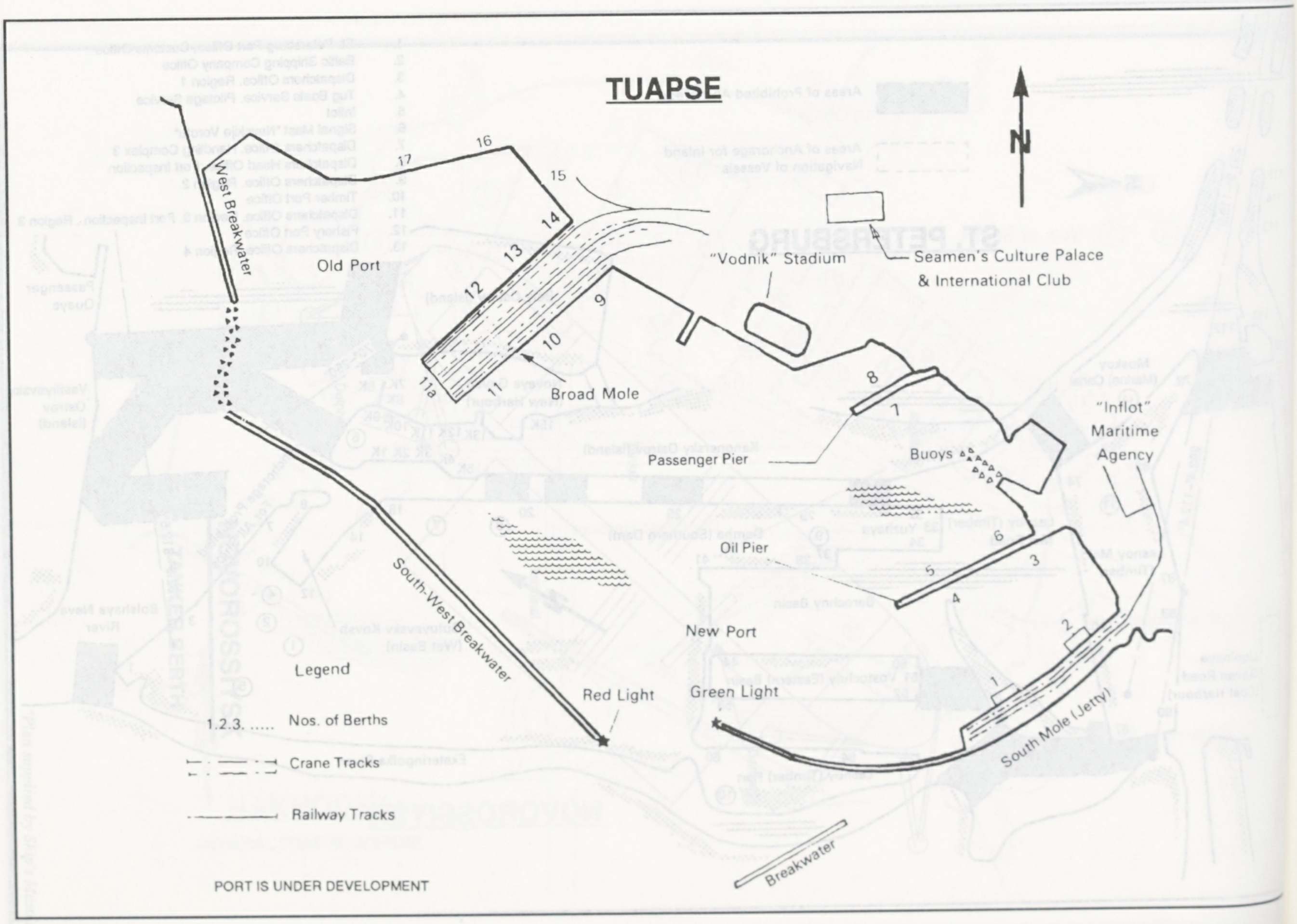

White Sea
N
Pihnemsky Leading Line 1
256° 8′–086° 8′
Karetsky Fairway
Pihnemsky Leading Line 2 293°–113°
305° 8′–125° 8′
Gorodsky (Town) Leading Line
Quay
Port of Onega
Pristansky Leading Line
Ponga
0 1 2 3
MILES
Mezhsavodskoy Leading Line
Onega River
Legashevsky Leading Line
ONEGA


ST. PETERSBURG
▨ Areas of Prohibited Anchorage
Areas of Anchorage for Inland Navigation of Vessels
1. St. Petersburg Port Office, Customs Office
2. Baltic Shipping Company Office
3. Dispatchers Office, Region 1
4. Tug Boats Service, Pilotage Service
5. Inflot
6. Signal Mast "Nevskije Vorota"
7. Dispatchers Office, Handling Complex 3
8. Dispatchers Head Office, Port Inspection
9. Dispatchers Office, Region 2
10. Timber Port Office
11. Dispatchers Office, Region 3, Port Inspection, Region 3
12. Fishery Port Office
13. Dispatchers Office, Region 4
291.9°–119.9°
292.4°–112.4°
Ugolny Mol (Jetty)
Moskoy (Marine) Canal
Lesnoy Mol (Timber)
Lesnoy (Timber) Mol Road
Ugolnaya Gavan Road (Coal Harbour)
Yuzhaya
Damba (Southern Dam)
Barochny Basin
Vostochny (Eastern) Basin
Lesnoy (Timber) Port
Kanonersky Ostrov (Island)
Bely Ostrov (Island)
Novaya Gavan (New Harbour)
70°–250°
Anchorage Prohibited For All Ships
132.5°–312.5°
Passenger Quays
Vasiliyevsky Ostrov (Island)
Bolshaya Neva River
Gutuyevskv Kovsh (Wet Basin)
Ekateringofka River
115 114 113 111 112 110 79 83 74 87 88 70 90 67 103
32 33 34 29 37 38 41 25 20 16 14 8 7 10 12 3 1
50 51 52 44 58 66 64 60
15K 13K 12K 11K 10K 9K 8K 7K 6K 5K 4K 3K 2K 1K
N

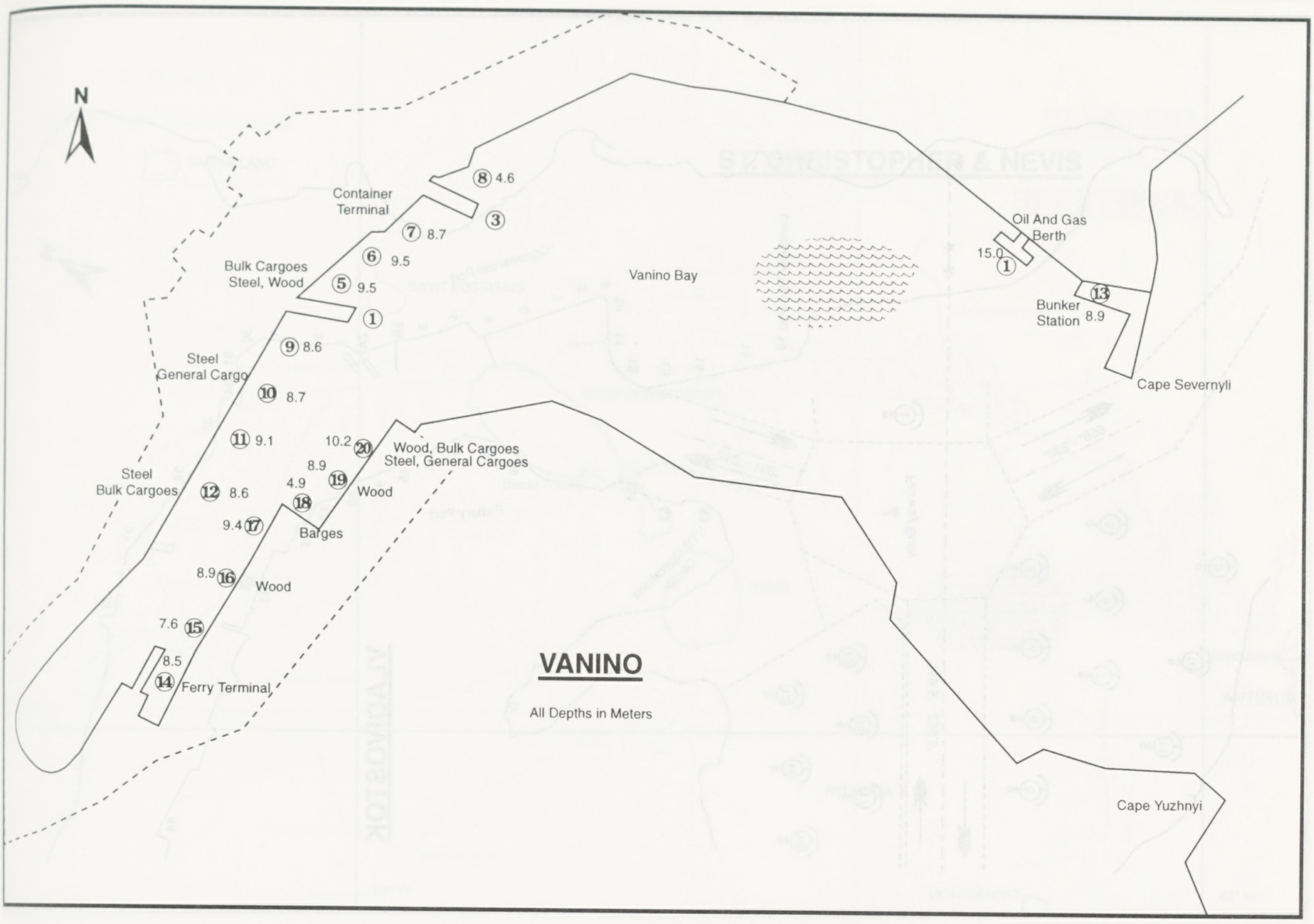
SOCHI

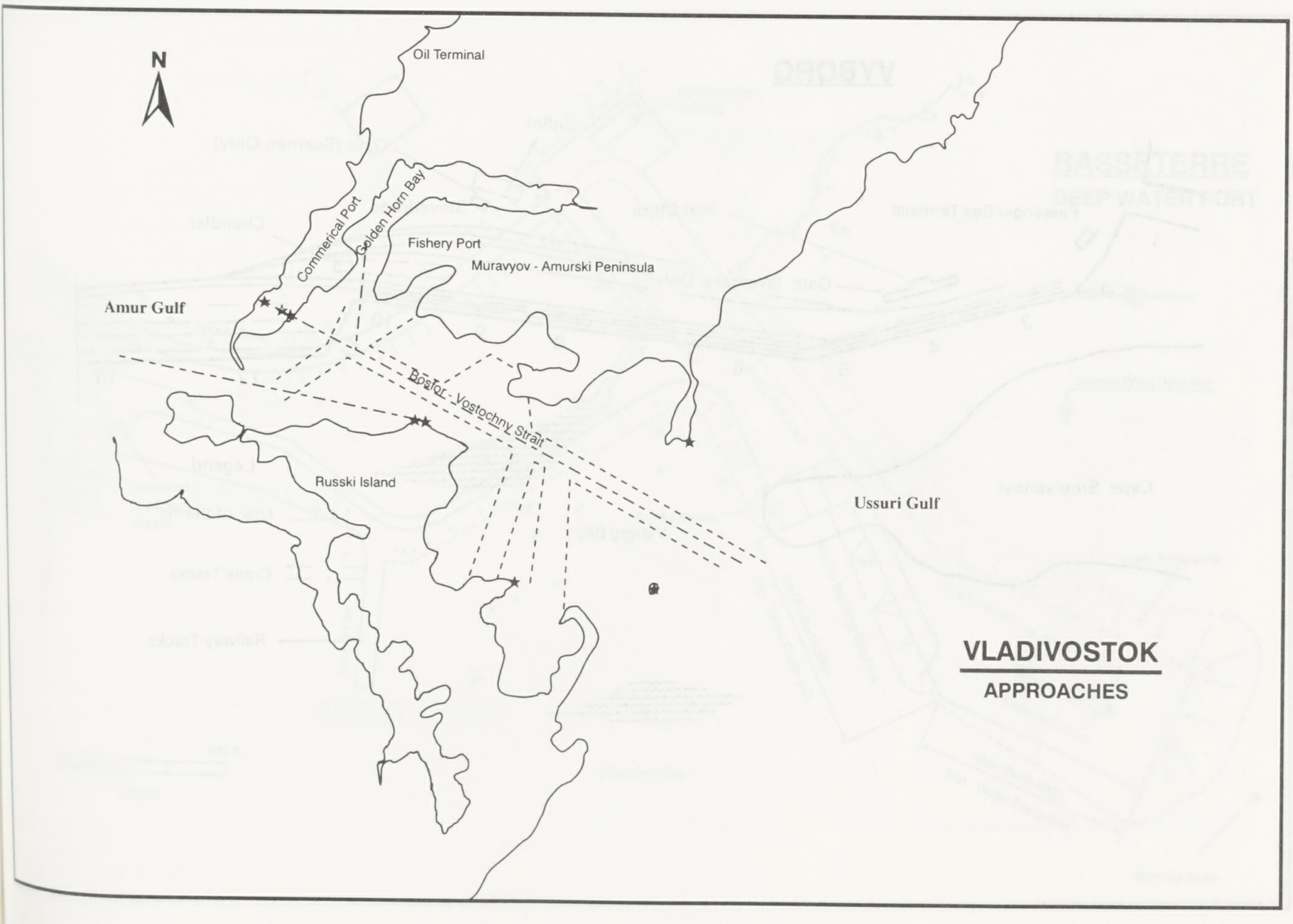

N
Legend
1.2.3....... Nos. Of Berths
Crane Tracks
South Mole (Jetty)
North Mole (Jetty)
Local Shipping Dock
Passenger Sea Terminal
1
2
3
4
5
6
7
9
10
11
12
13
14

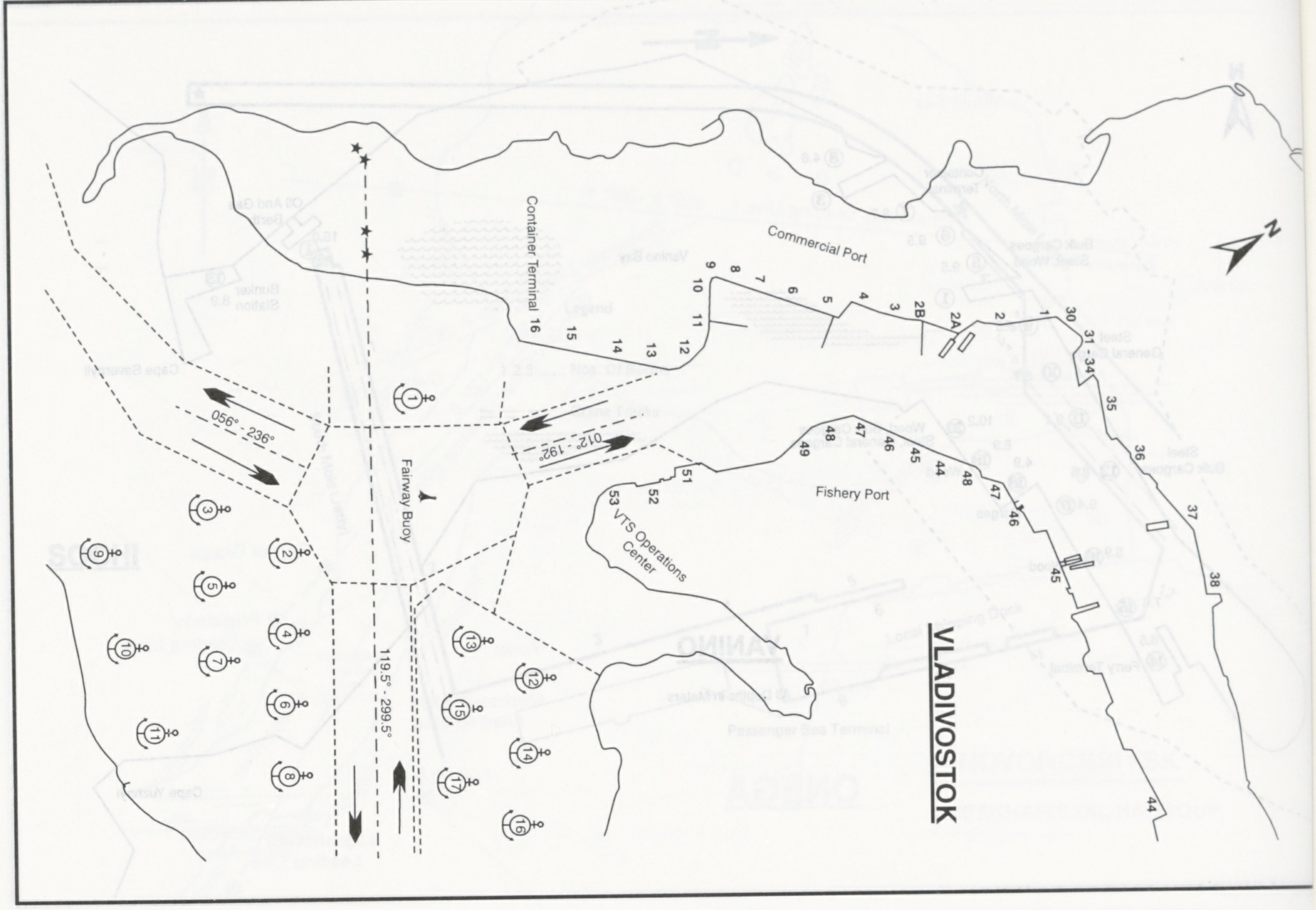
TUAPSE

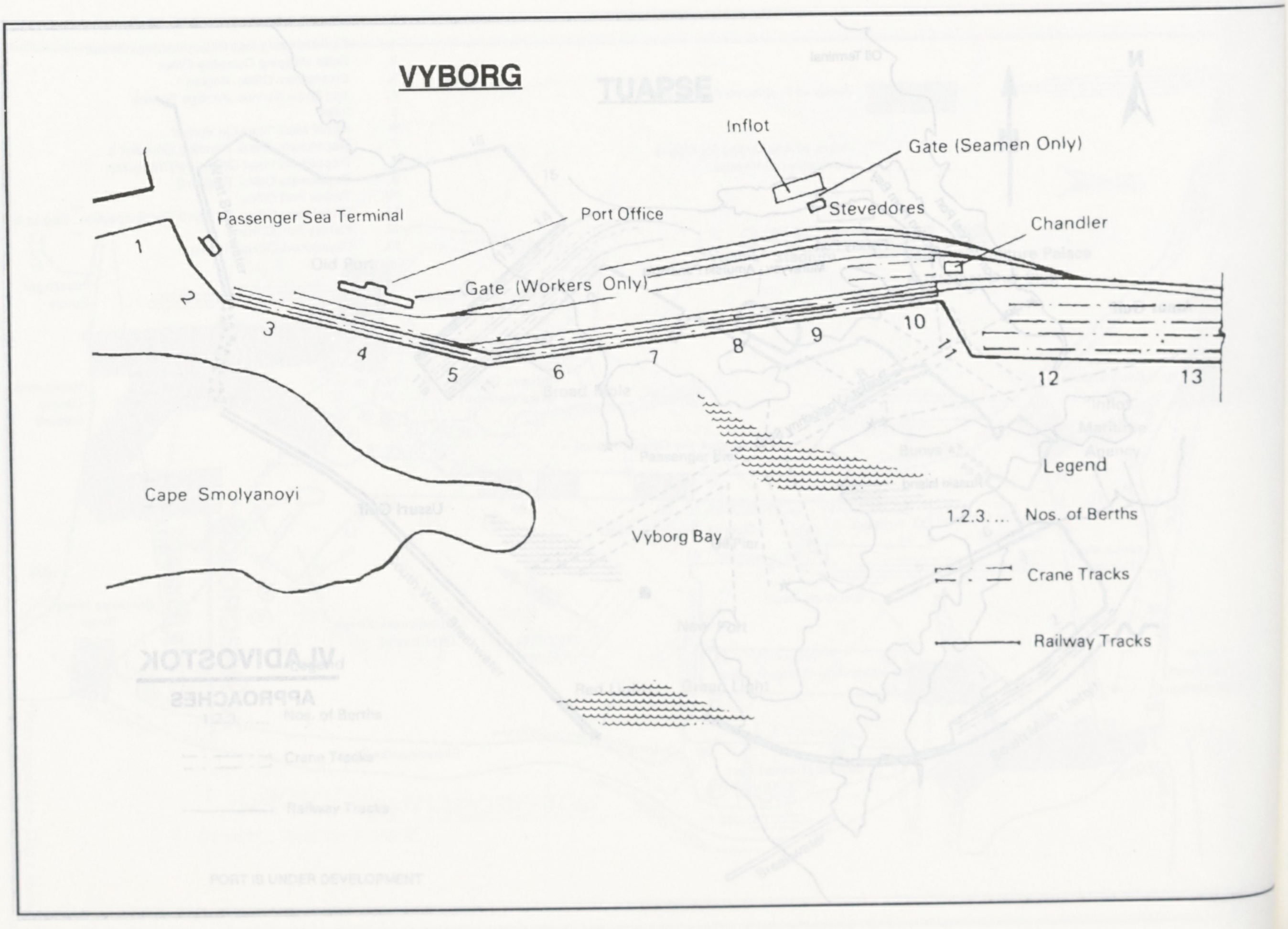

N
West Breakwater
Old Port
Broad Mole
"Vodnik" Stadium
Seamen's Culture Palace
& International Club
"Inflot"
Maritime
Agency
Passenger Pier
Buoys
Oil Pier
New Port
South-West Breakwater
Red Light
Green Light
South Mole (Jetty)
Breakwater
Legend
1.2.3. ..... Nos. of Berths
Crane Tracks
Railway Tracks
1
2
3
4
5
6
8
9
10
11
11a
12
13
14
15
16
17

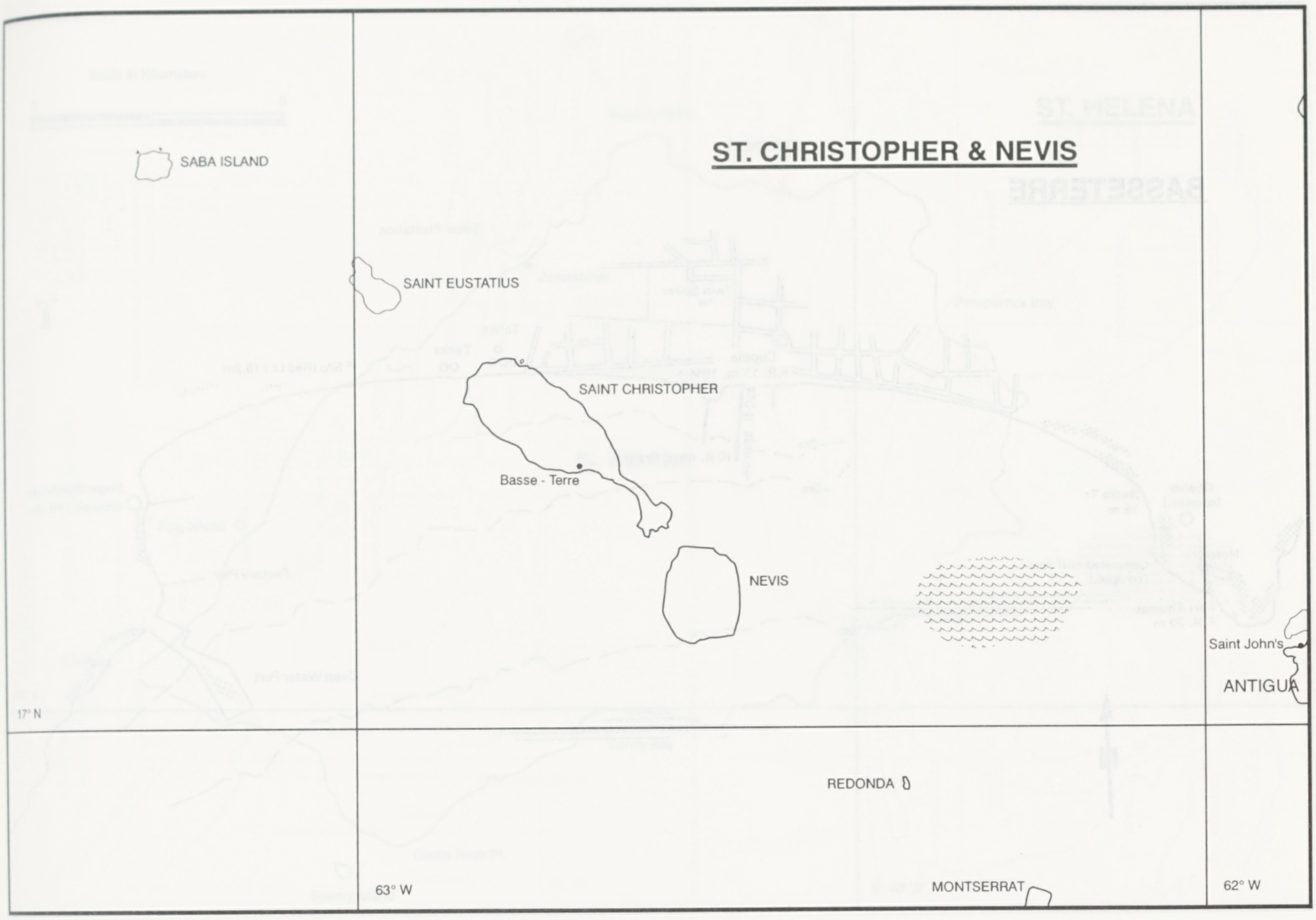
PORT IS UNDER DEVELOPMENT

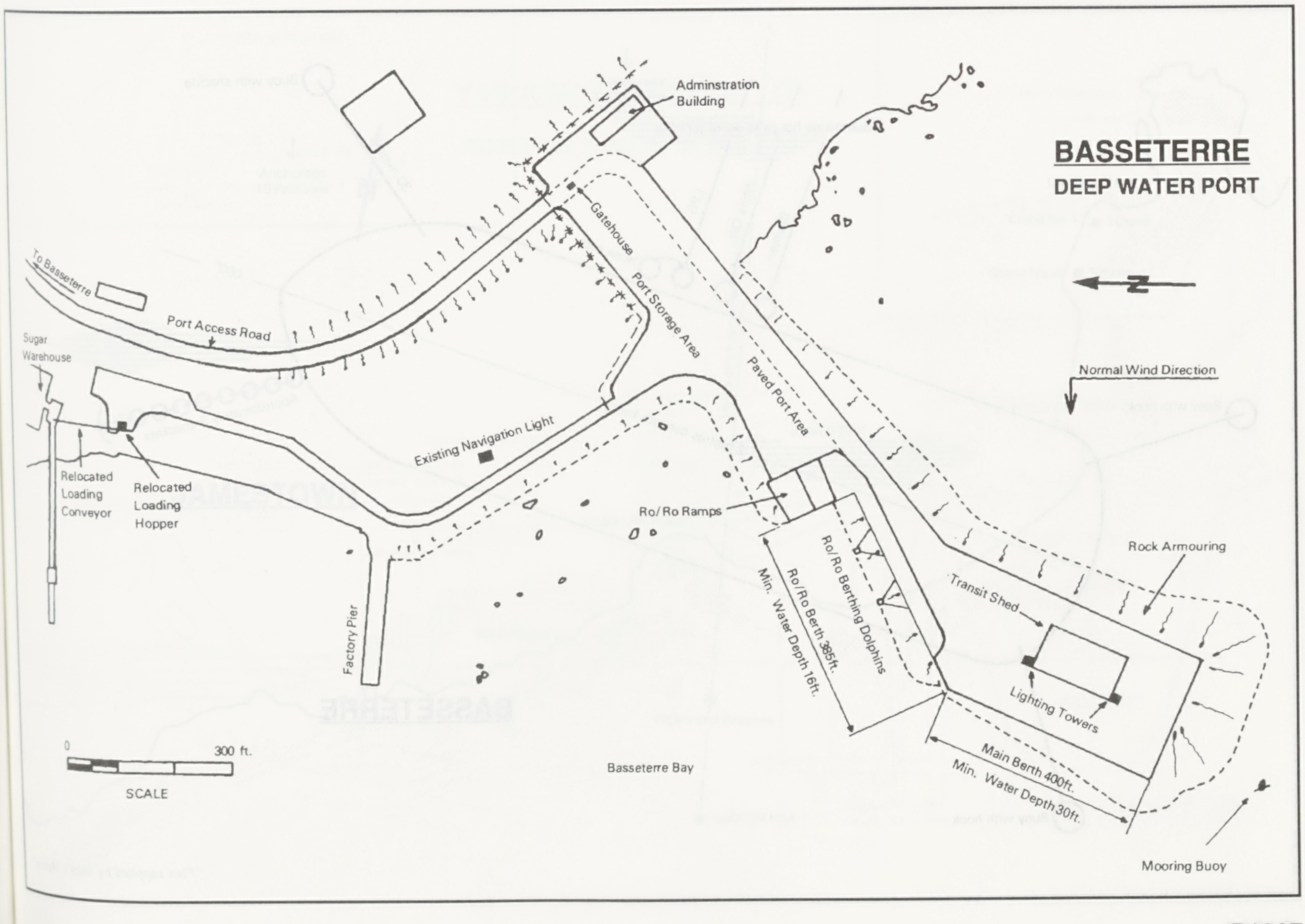

N
Container Terminal
⑧ 4.6
③
⑦ 8.7
⑥ 9.5
Bulk Cargoes Steel, Wood
⑤ 9.5
①
⑨ 8.6
Steel General Cargo
⑩ 8.7
⑪ 9.1
Steel Bulk Cargoes
⑫ 8.6
10.2 ⑳
Wood, Bulk Cargoes Steel, General Cargoes
8.9 ⑲
Wood
4.9 ⑱
Barges
9.4 ⑰
8.9 ⑯
Wood
7.6 ⑮
8.5 ⑭
Ferry Terminal
Vanino Bay
Oil And Gas Berth
15.0 ①
⑬
Bunker Station 8.9
Cape Severnyli
VANINO
All Depths in Meters
Cape Yuzhnyi

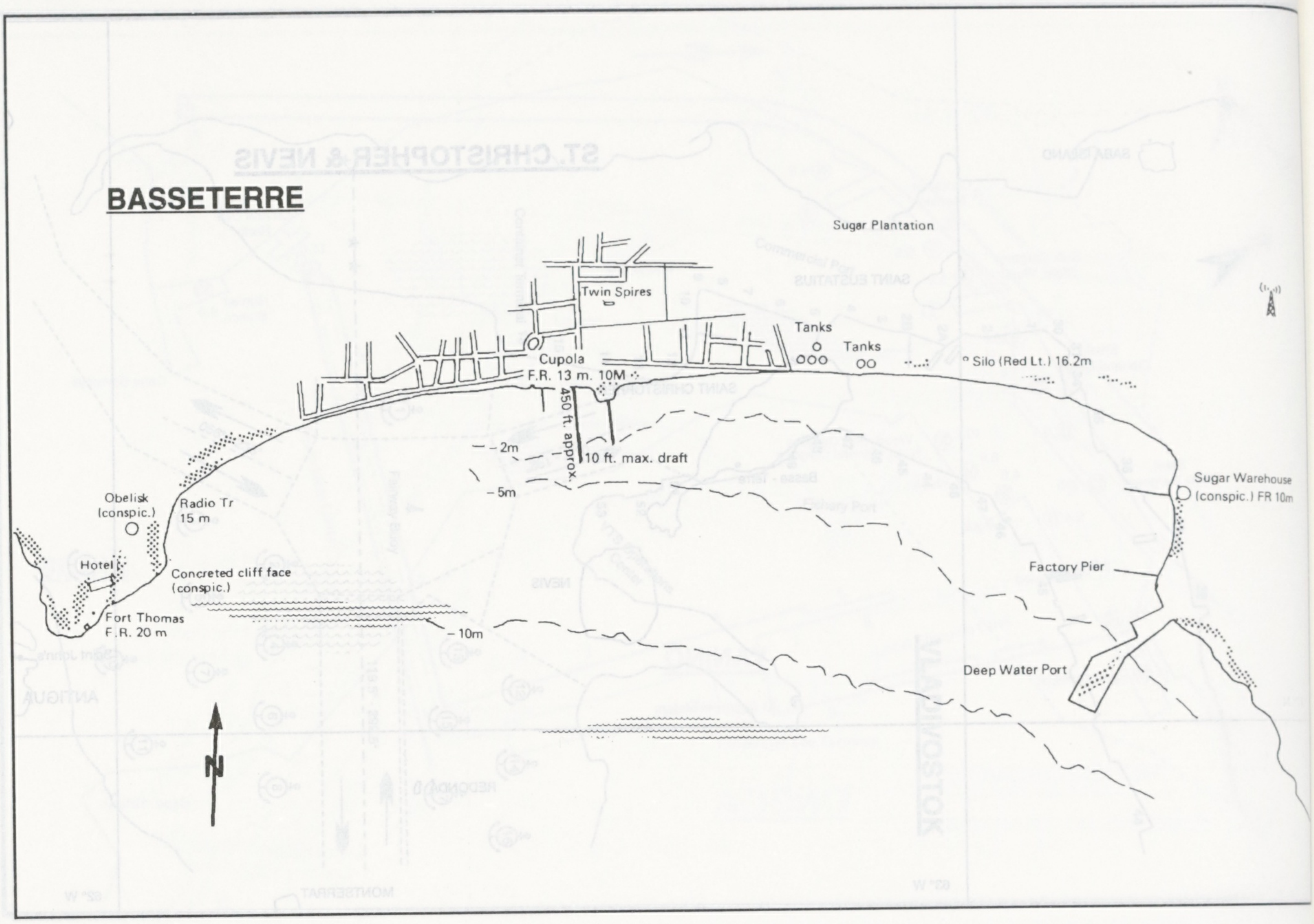

N
Oil Terminal
Commerical Port
Golden Horn Bay
Fishery Port
Muravyov - Amurski Peninsula
Amur Gulf
Bosfor - Vostochny Strait
Russki Island
Ussuri Gulf
VLADIVOSTOK
APPROACHES

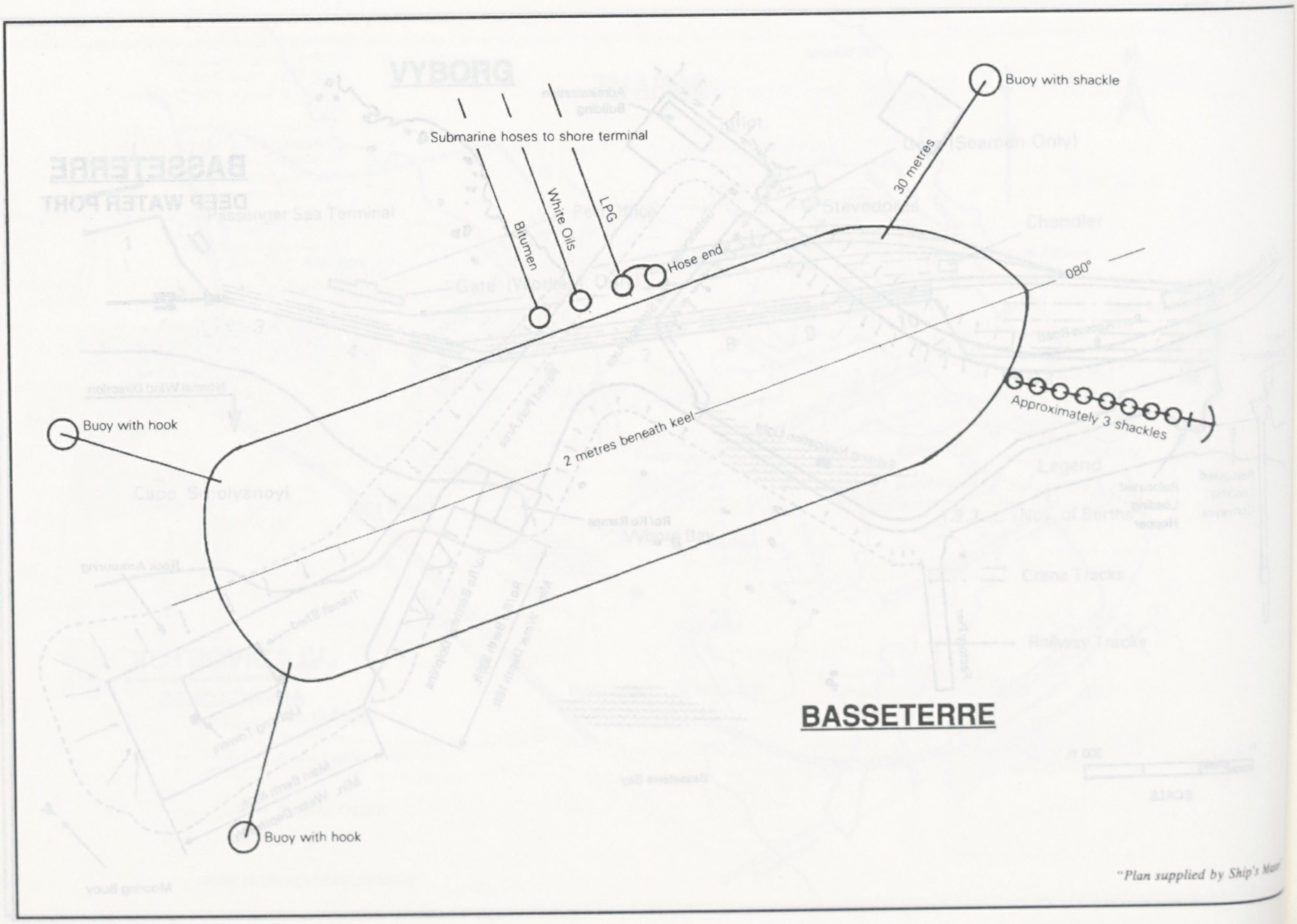

VLADIVOSTOK
N
Commercial Port
Container Terminal 16
15
14
13
12
11
10
9
8
7
6
5
4
3
2B
2A
2
1
30
31 - 34
35
36
37
38
44
Fishery Port
49
48
47
46
45
44
48
47
46
45
51
52
53
VTS Operations Center
Fairway Buoy
056° - 236°
012° - 192°
119.5° - 299.5°
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17


VYBORG
Inflot
Gate (Seamen Only)
Stevedores
Chandler
Passenger Sea Terminal
Port Office
Gate (Workers Only)
1
2
3
4
5
6
7
8
9
10
11
12
13
Cape Smolyanoyi
Vyborg Bay
Legend
1.2.3.... Nos. of Berths
Crane Tracks
Railway Tracks

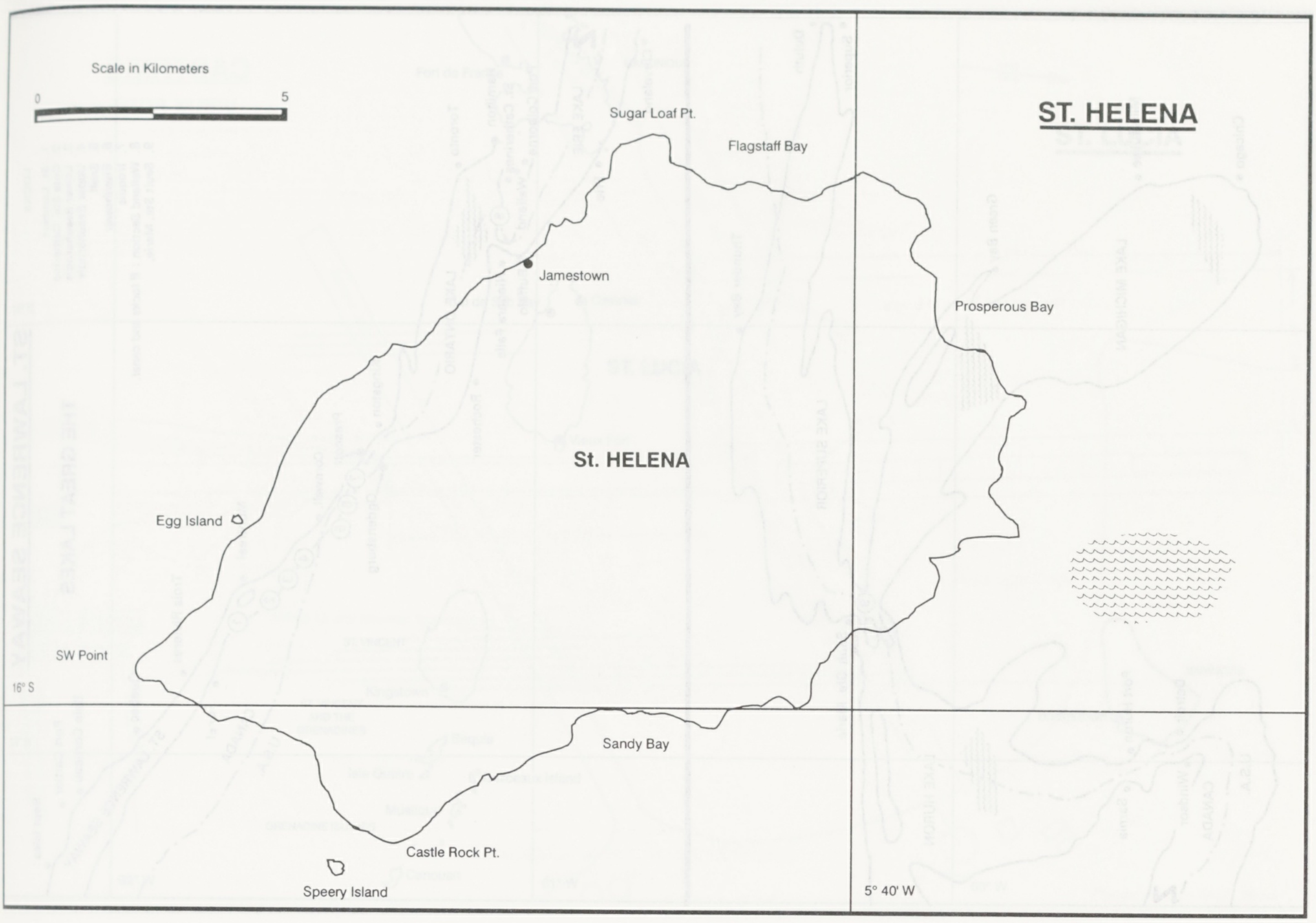

ST. CHRISTOPHER & NEVIS
SABA ISLAND
SAINT EUSTATIUS
SAINT CHRISTOPHER
Basse - Terre
NEVIS
Saint John's
ANTIGUA
17° N
REDONDA
63° W
MONTSERRAT
62° W


BASSETERRE
DEEP WATER PORT
Adminstration Building
Gatehouse
Port Storage Area
Paved Port Area
To Basseterre
Port Access Road
Sugar Warehouse
Relocated Loading Conveyor
Relocated Loading Hopper
Existing Navigation Light
Ro/Ro Ramps
Ro/Ro Berthing Dolphins
Ro/Ro Berth 385ft.
Min. Water Depth 16ft.
Factory Pier
Normal Wind Direction
N
Rock Armouring
Transit Shed
Lighting Towers
Main Berth 400ft.
Min. Water Depth 30ft.
Mooring Buoy
Basseterre Bay
0
300 ft.
SCALE

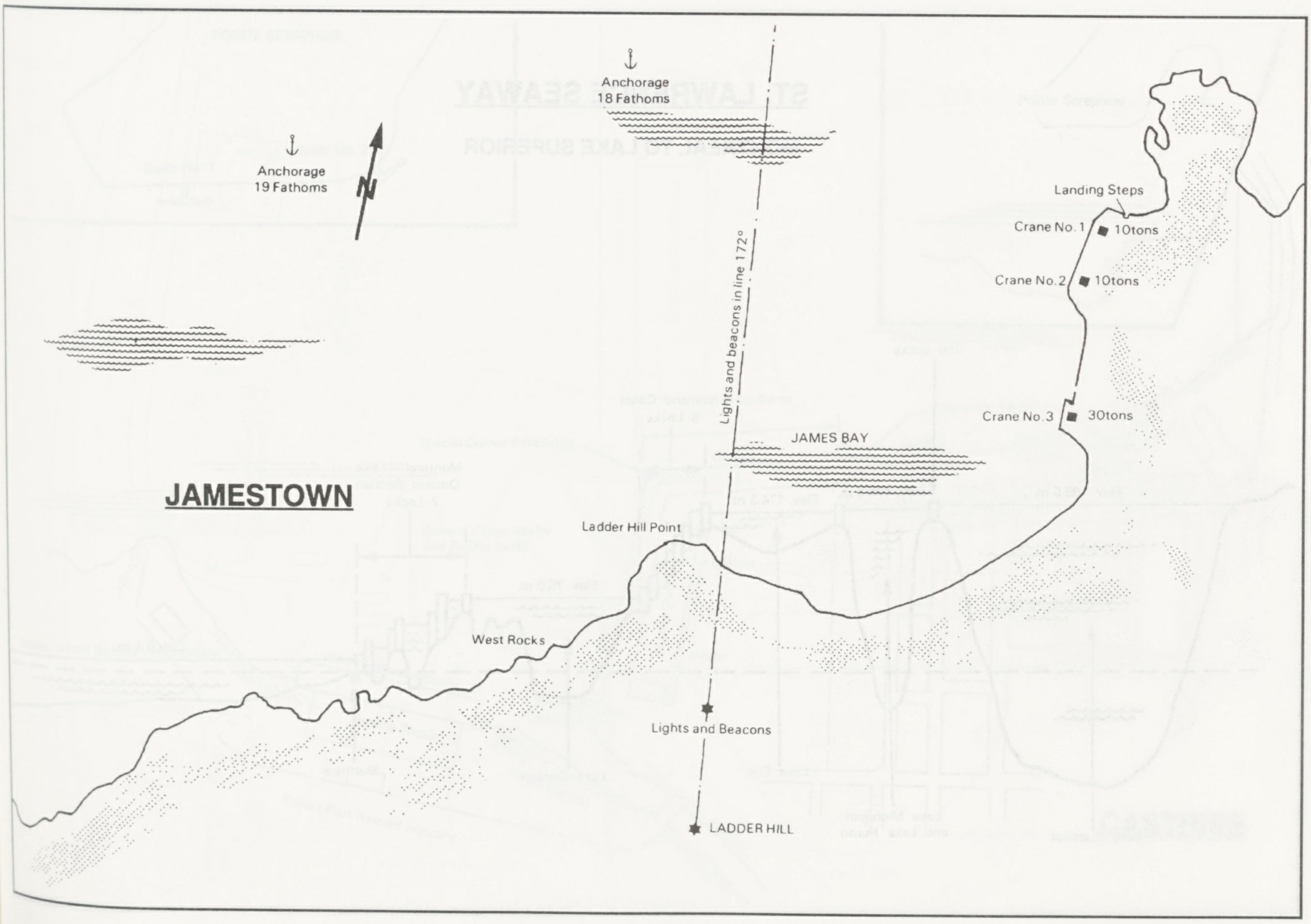

BASSETERRE
Sugar Plantation
Twin Spires
Tanks
Tanks
Cupola
F.R. 13 m. 10M
Silo (Red Lt.) 16.2m
450 ft. approx.
10 ft. max. draft
– 2m
– 5m
– 10m
Obelisk (conspic.)
Radio Tr 15 m
Hotel
Concreted cliff face (conspic.)
Fort Thomas F.R. 20 m
N
Sugar Warehouse (conspic.) FR 10m
Factory Pier
Deep Water Port

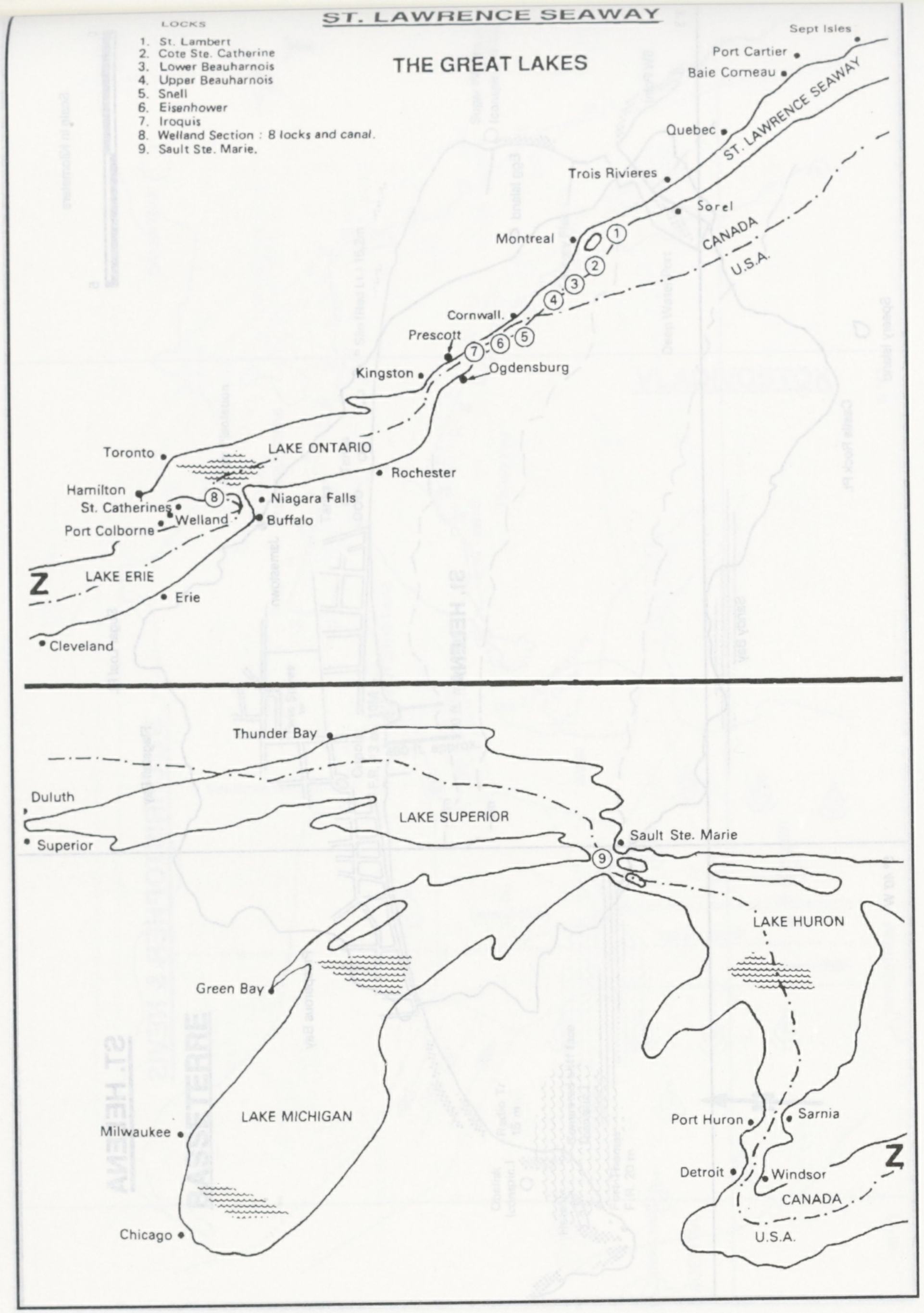

Submarine hoses to shore terminal
Bitumen
White Oils
LPG
Hose end
Buoy with shackle
30 metres
080°
Approximately 3 shackles
2 metres beneath keel
Buoy with hook
Buoy with hook
BASSETERRE
"Plan supplied by Ship's Mas

ST. HELENA


Scale in Kilometers
0
5
Sugar Loaf Pt.
Flagstaff Bay
Jamestown
Prosperous Bay
St. HELENA
Egg Island
SW Point
16° S
Sandy Bay
Castle Rock Pt.
Speery Island
5° 40' W

JAMESTOWN

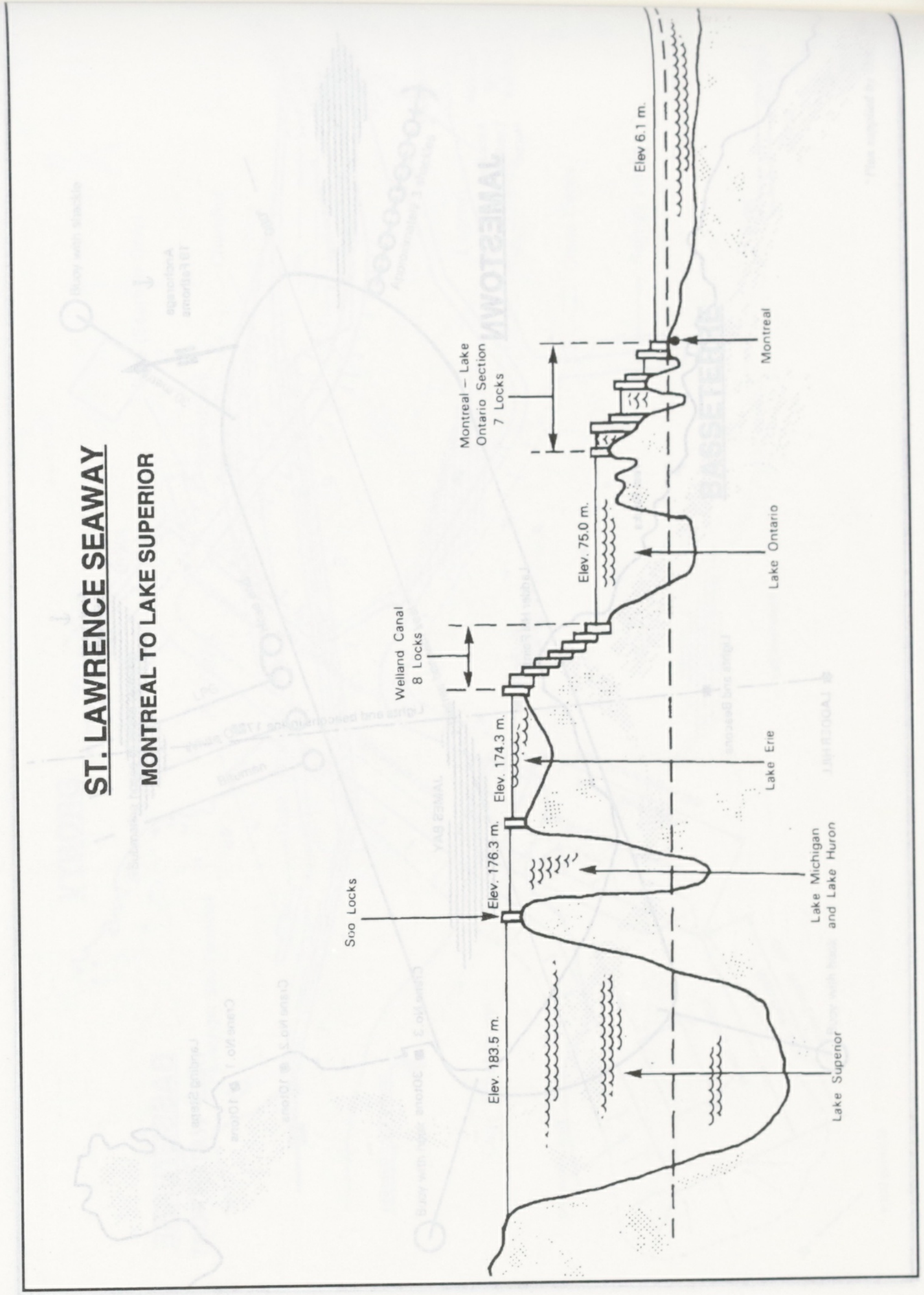

Anchorage
18 Fathoms
Anchorage
19 Fathoms
N
Lights and beacons in line 172°
Landing Steps
Crane No. 1
10tons
Crane No. 2
10tons
Crane No. 3
30tons
JAMES BAY
Ladder Hill Point
West Rocks
Lights and Beacons
LADDER HILL



ST. LAWRENCE SEAWAY

THE GREAT LAKES

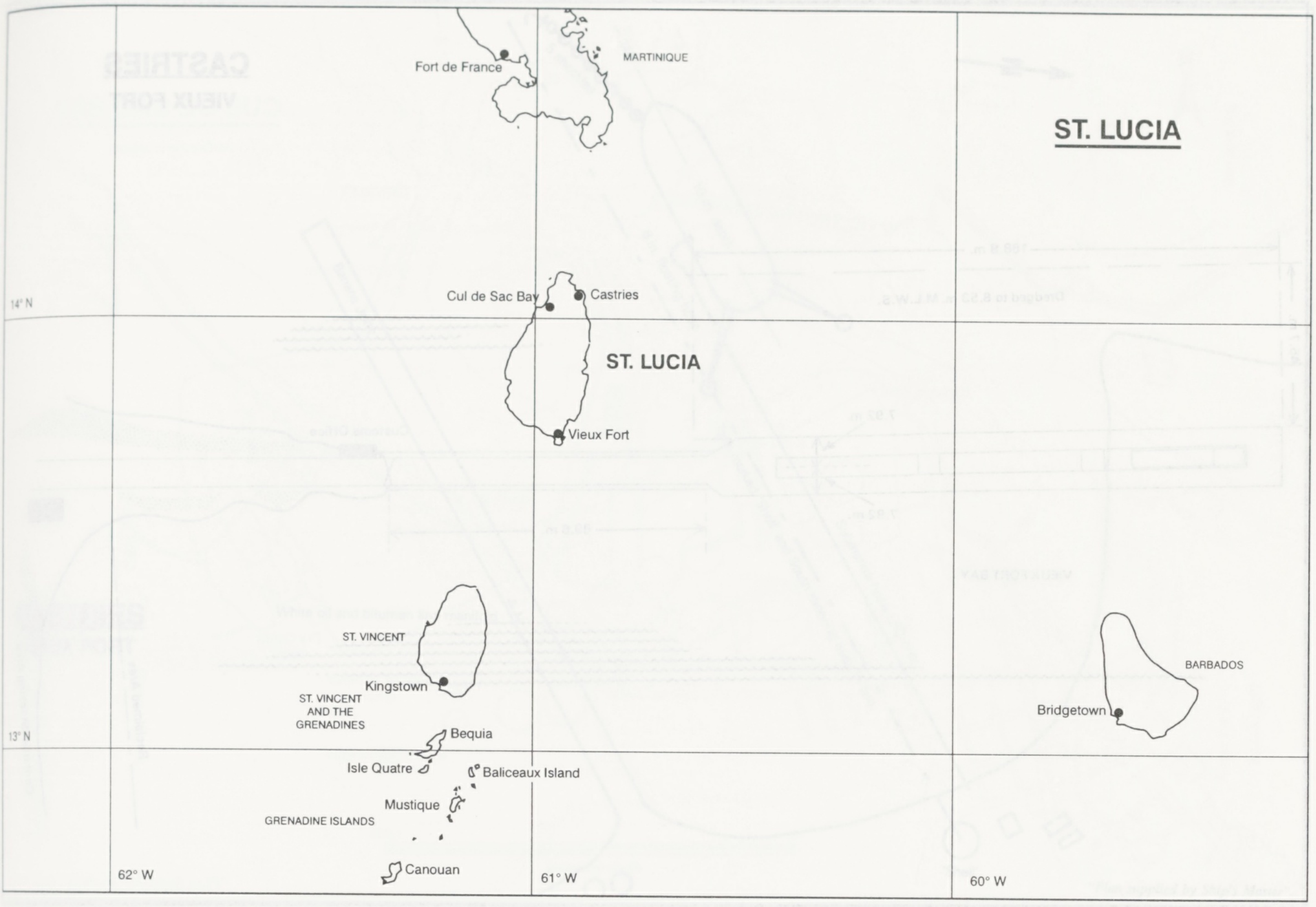
LOCKS
1. St. Lambert
2. Cote Ste. Catherine
3. Lower Beauharnois
4. Upper Beauharnois
5. Snell
6. Eisenhower
7. Iroquis
8. Welland Section : 8 locks and canal.
9. Sault Ste. Marie.
Sept Isles
Port Cartier
Baie Corneau
ST. LAWRENCE SEAWAY
Quebec
Trois Rivieres
Sorel
Montreal
CANADA
U.S.A.
Cornwall
Prescott
Ogdensburg
Kingston
Toronto
LAKE ONTARIO
Rochester
Hamilton
St. Catherines
Welland
Niagara Falls
Buffalo
Port Colborne
LAKE ERIE
Erie
Cleveland
N
Thunder Bay
Duluth
LAKE SUPERIOR
Superior
Sault Ste. Marie
LAKE HURON
Green Bay
LAKE MICHIGAN
Milwaukee
Chicago
Port Huron
Sarnia
Detroit
Windsor
CANADA
U.S.A.
N

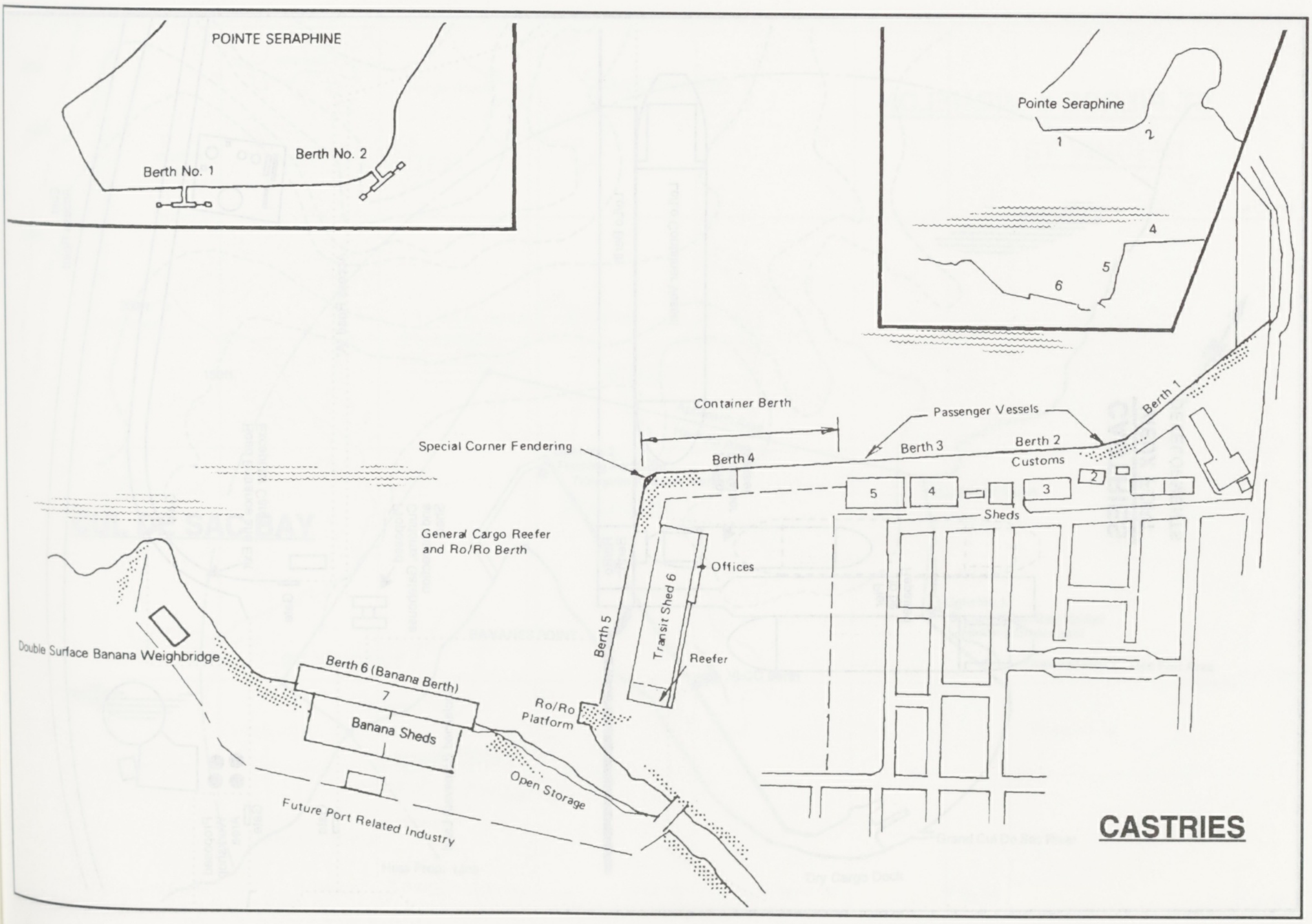


ST. LAWRENCE SEAWAY

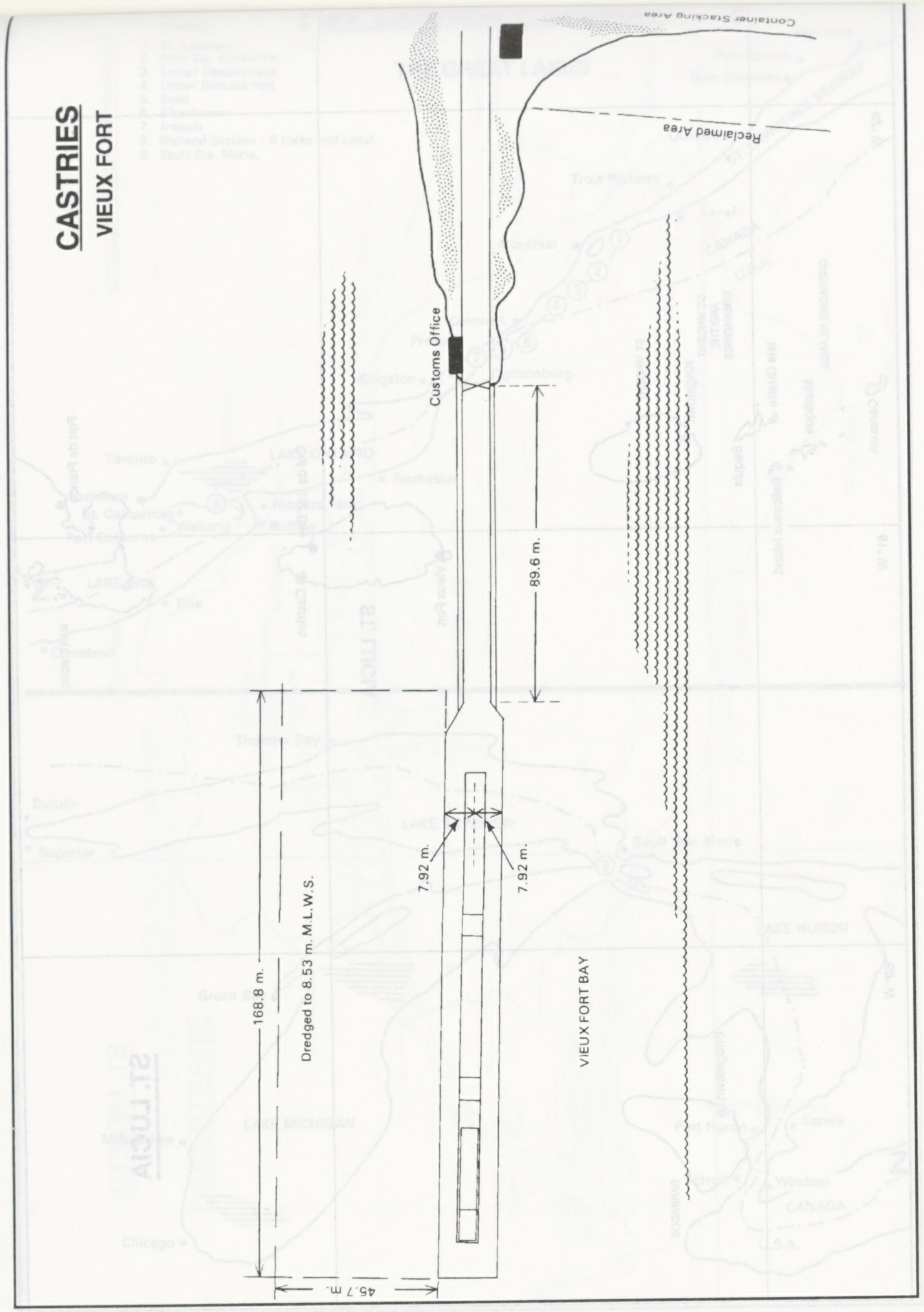
MONTREAL TO LAKE SUPERIOR

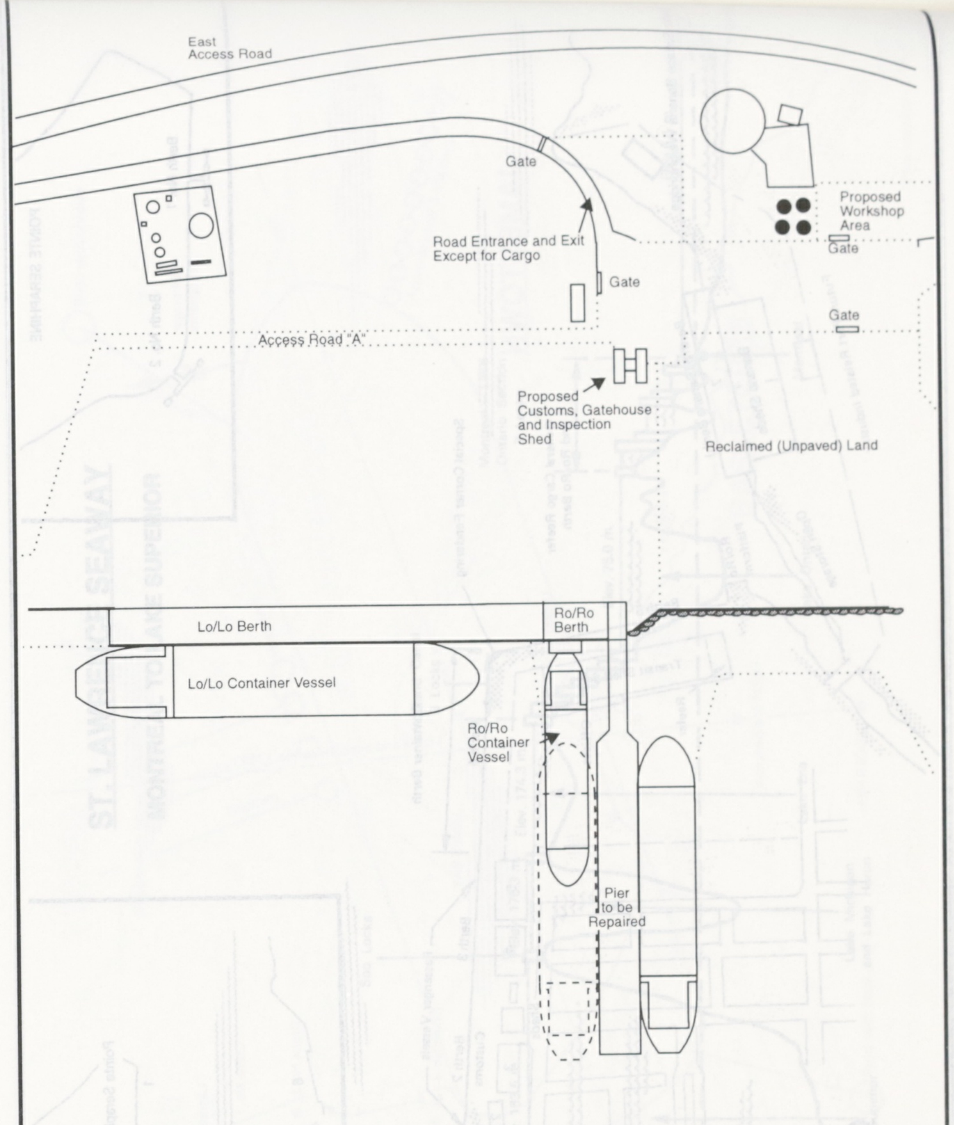
Elev 6.1 m.
Montreal
Montreal – Lake Ontario Section 7 Locks
Elev. 75.0 m.
Lake Ontario
Welland Canal 8 Locks
Elev. 174.3 m.
Lake Erie
Elev. 176.3 m.
Lake Michigan and Lake Huron
Soo Locks
Elev. 183.5 m.
Lake Superior


ST. LUCIA
Fort de France
MARTINIQUE
Cul de Sac Bay
Castries
ST. LUCIA
Vieux Fort
14° N
ST. VINCENT
Kingstown
ST. VINCENT AND THE GRENADINES
Bequia
Isle Quatre
Baliceaux Island
Mustique
GRENADINE ISLANDS
Canouan
13° N
BARBADOS
Bridgetown
62° W
61° W
60° W

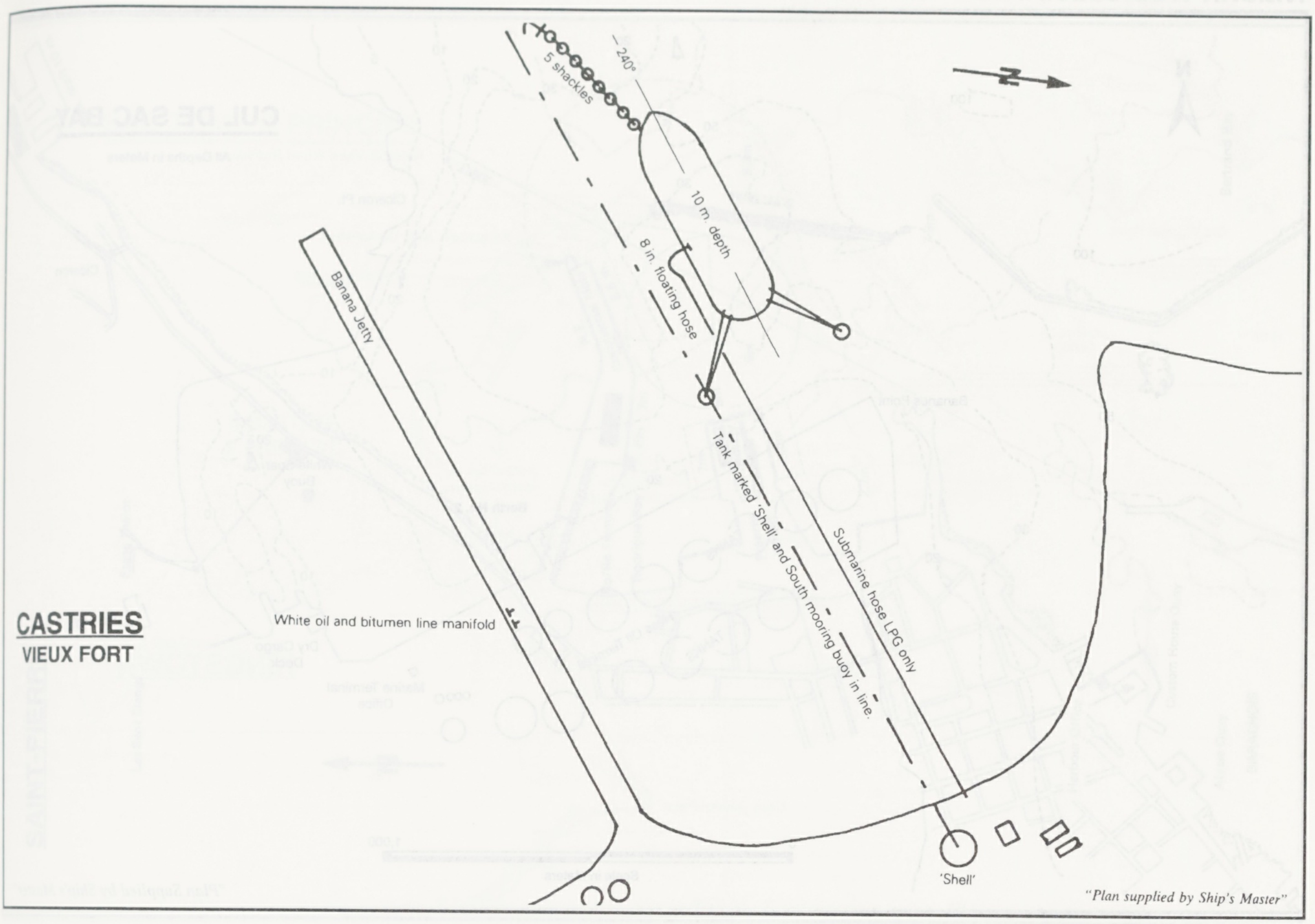

POINTE SERAPHINE
Berth No. 1
Berth No. 2
Pointe Seraphine
1
2
4
5
6
Container Berth
Passenger Vessels
Berth 1
Special Corner Fendering
Berth 4
Berth 3
Berth 2
Customs
5
4
3
2
Sheds
General Cargo Reefer and Ro/Ro Berth
Offices
Transit Shed 6
Berth 5
Reefer
Double Surface Banana Weighbridge
Berth 6 (Banana Berth)
7
Banana Sheds
Ro/Ro Platform
Open Storage
Future Port Related Industry
CASTRIES

CASTRIES
VIEUX FORT

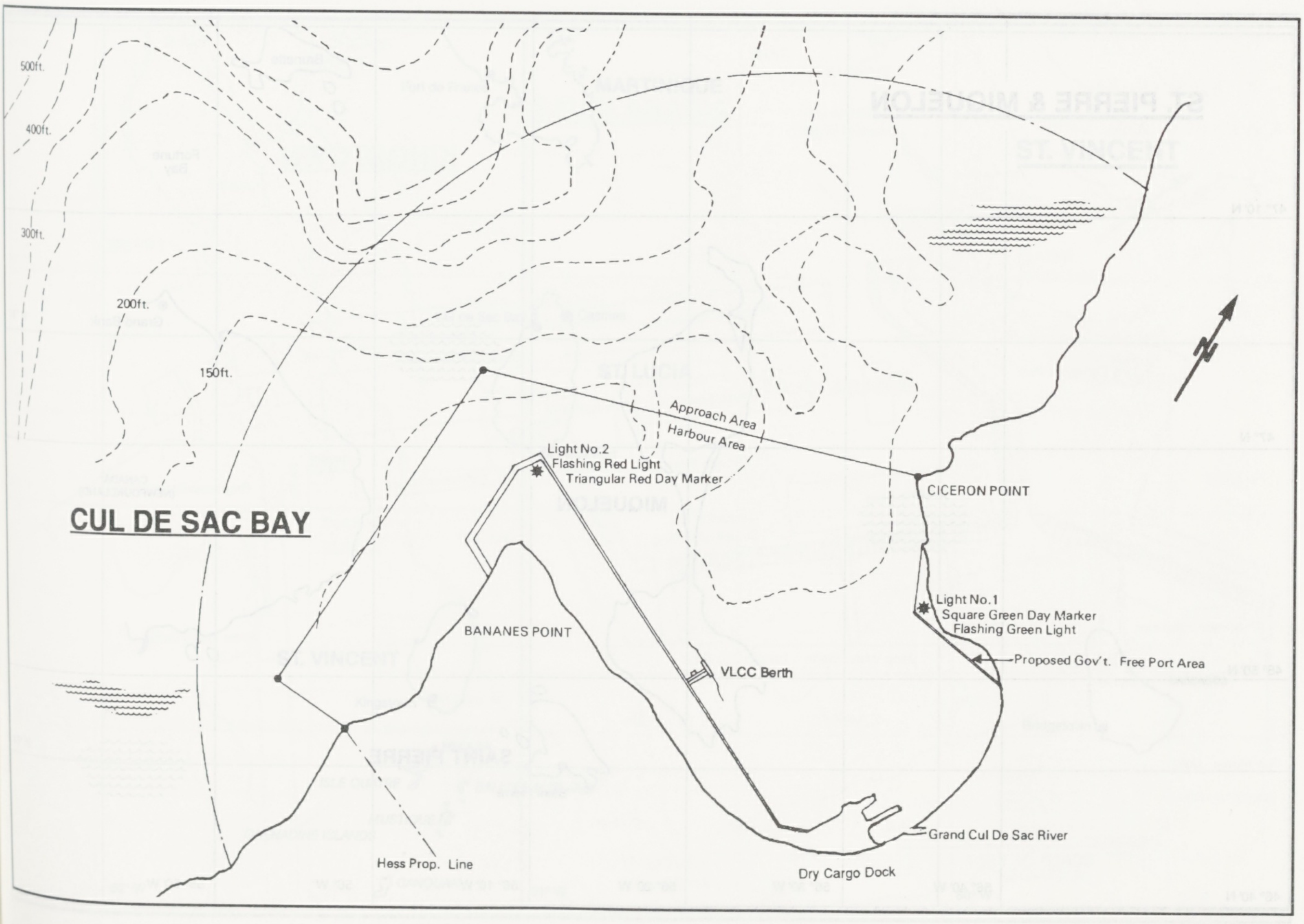

Container Stacking Area
Reclaimed Area
Customs Office
89.6 m.
7.92 m.
7.92 m.
168.8 m.
Dredged to 8.53 m. M.L.W.S.
VIEUX FORT BAY
45.7 m.

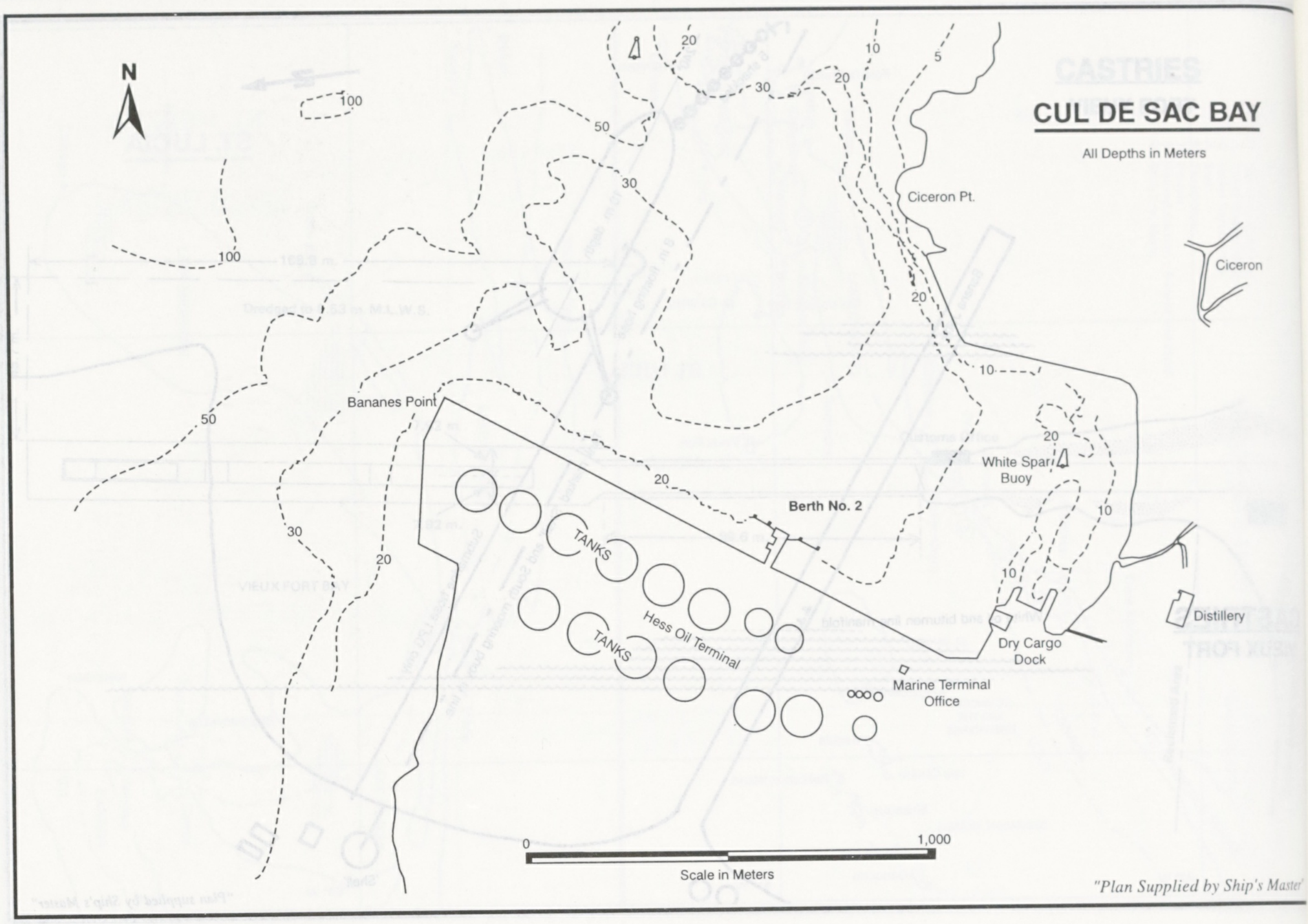

East
Access Road
Gate
Road Entrance and Exit
Except for Cargo
Gate
Proposed
Workshop
Area
Gate
Gate
Access Road "A"
Proposed
Customs, Gatehouse
and Inspection
Shed
Reclaimed (Unpaved) Land
Lo/Lo Berth
Ro/Ro
Berth
Lo/Lo Container Vessel
Ro/Ro
Container
Vessel
Pier
to be
Repaired

CASTRIES
VIEUX FORT
DEVELOPMENTS

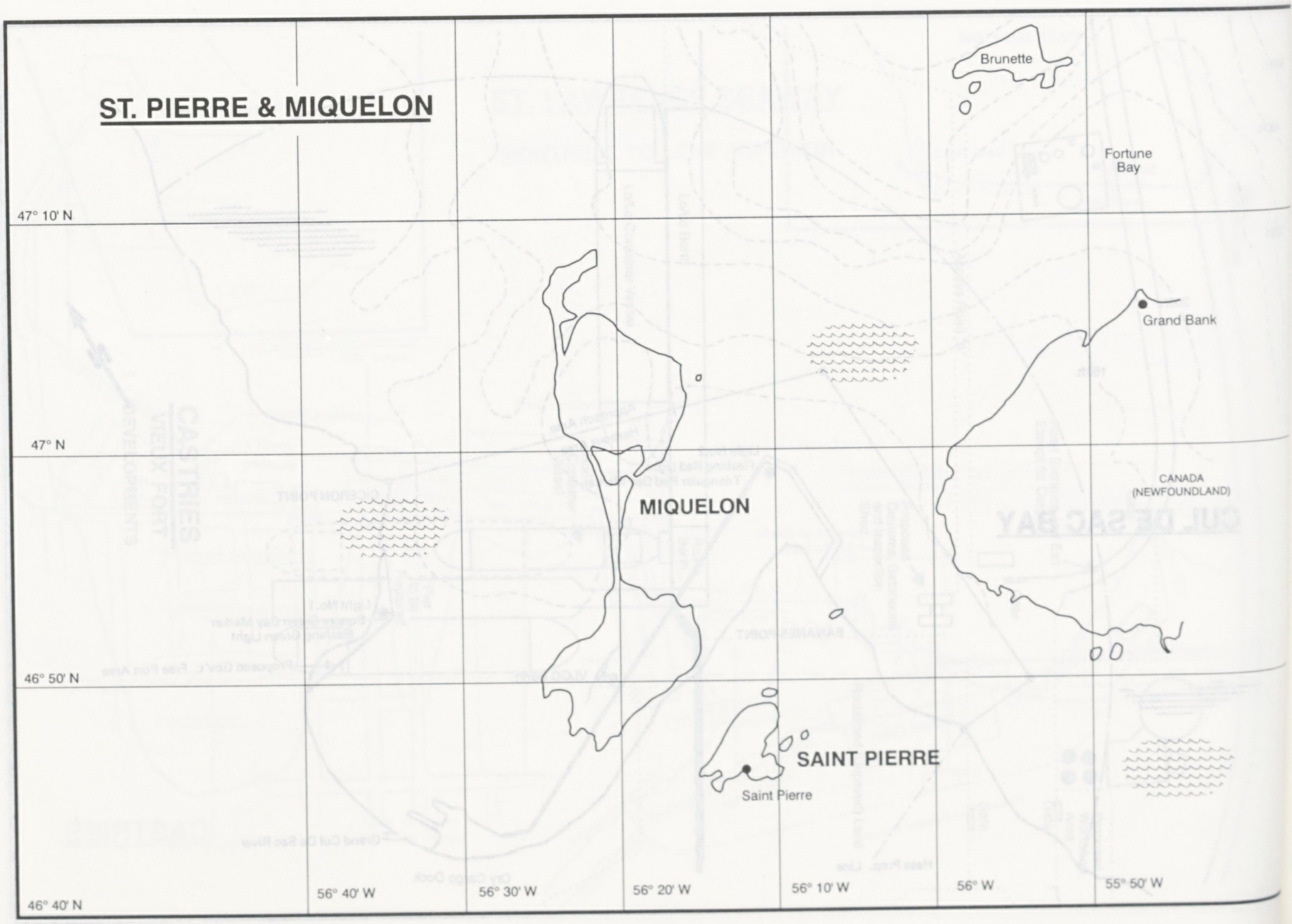

CASTRIES
VIEUX FORT
5 shackles
240°
10 m. depth
8 in. floating hose
Banana Jetty
Tank marked 'Shell' and South mooring buoy in line.
Submarine hose LPG only
White oil and bitumen line manifold
'Shell'
N

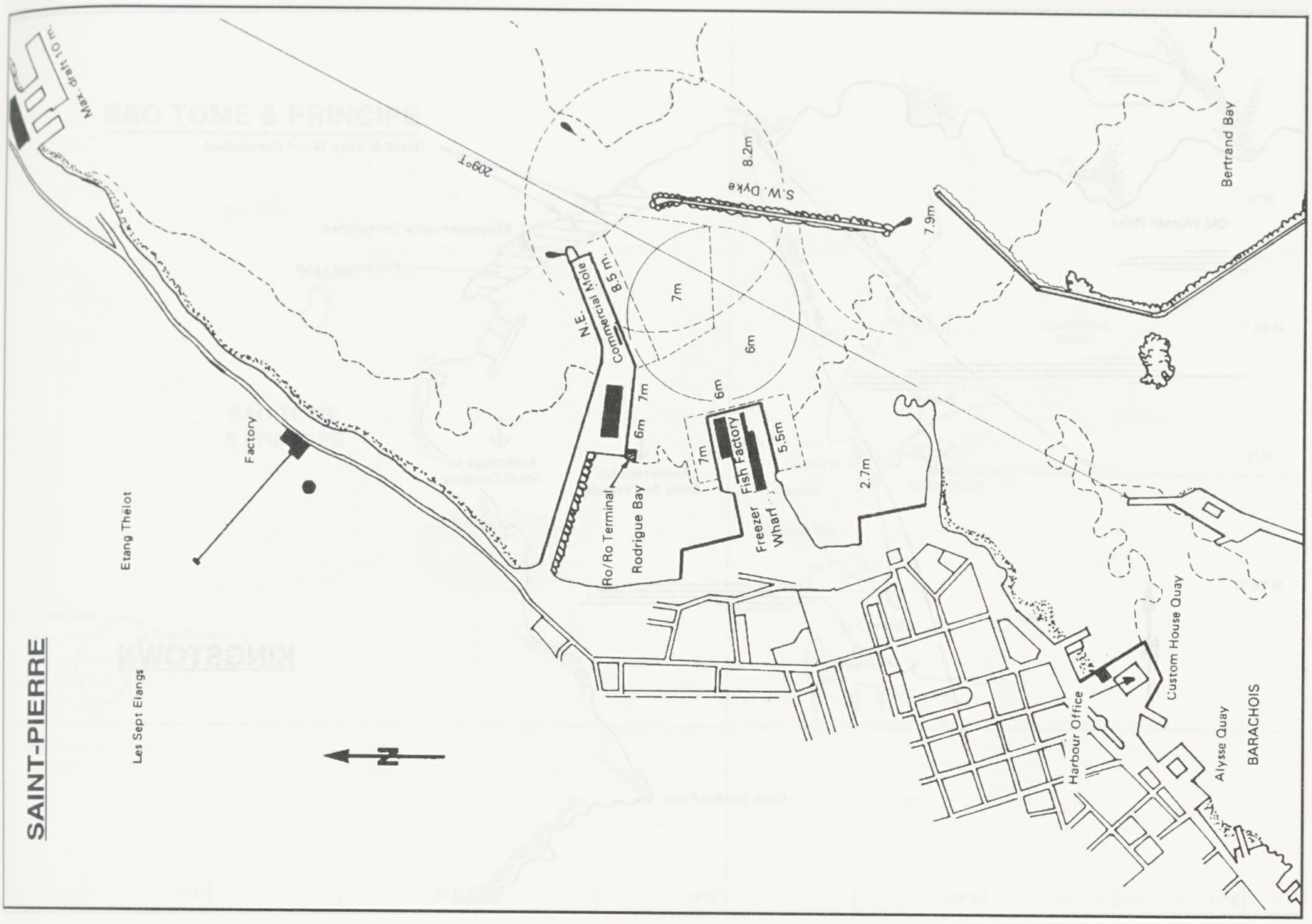
"Plan supplied by Ship's Master"

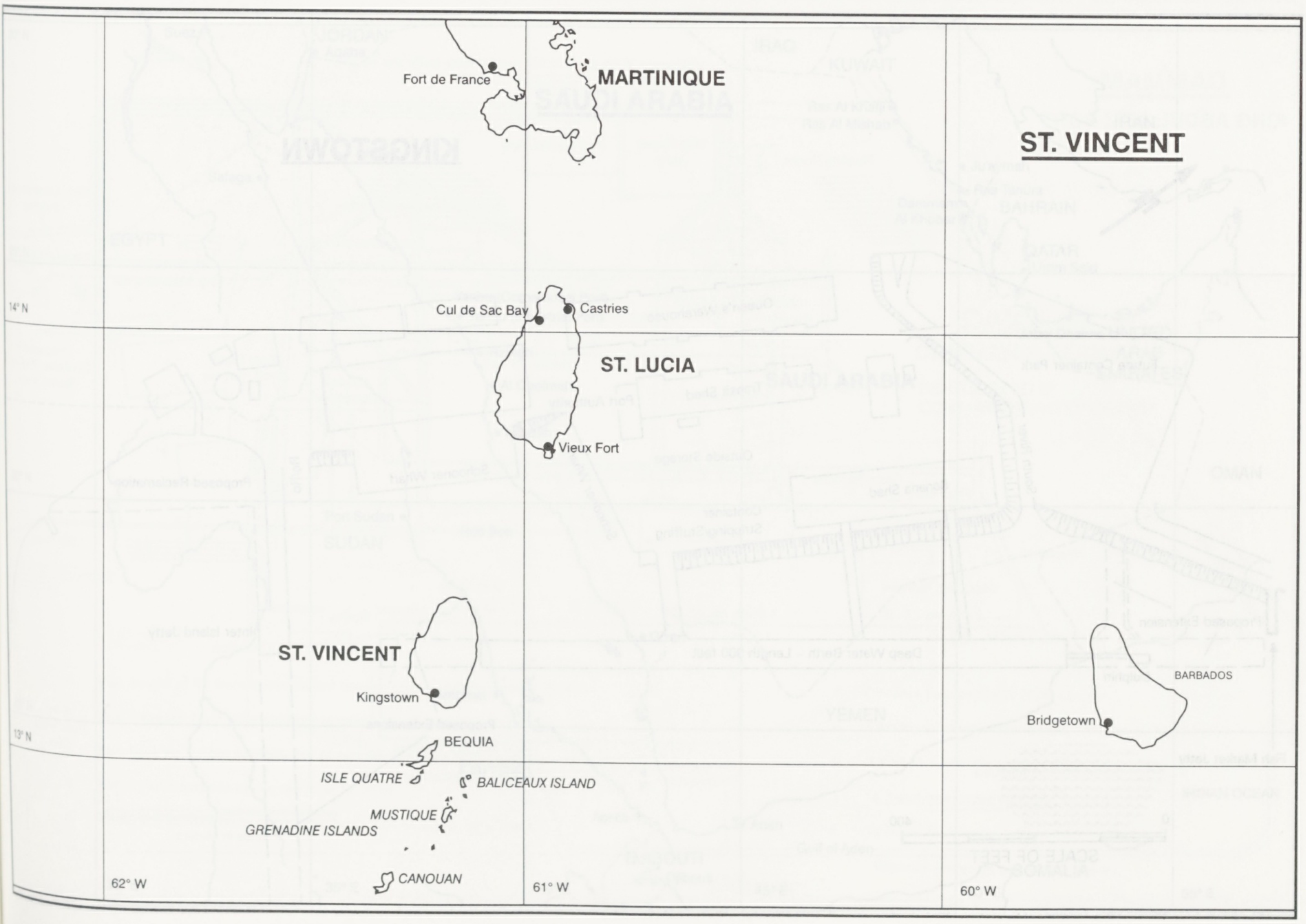

CUL DE SAC BAY
500ft.
400ft.
300ft.
200ft.
150ft.
Approach Area
Harbour Area
Light No.2
Flashing Red Light
Triangular Red Day Marker
CICERON POINT
BANANES POINT
Light No.1
Square Green Day Marker
Flashing Green Light
Proposed Gov't. Free Port Area
VLCC Berth
Grand Cul De Sac River
Hess Prop. Line
Dry Cargo Dock
N

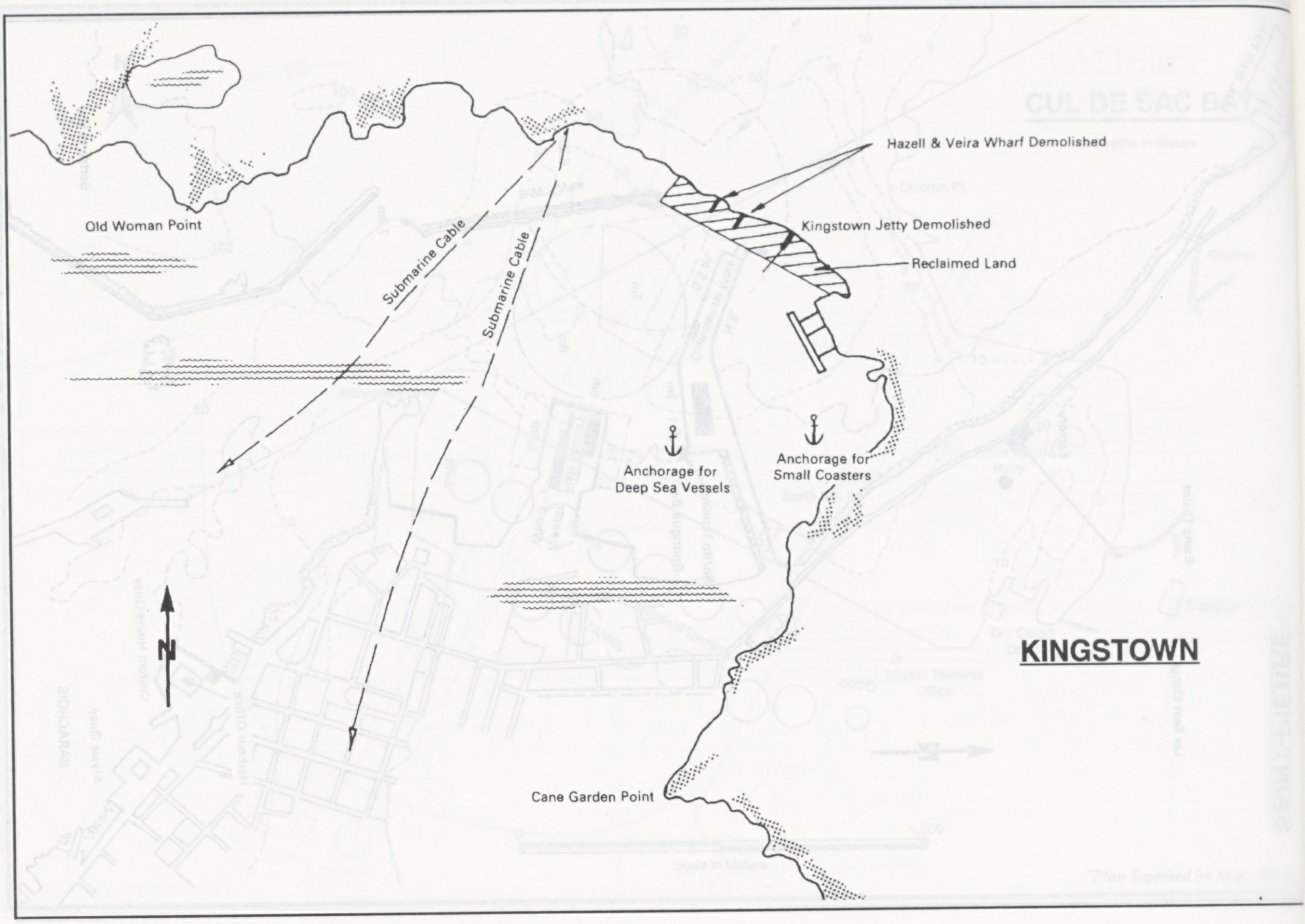

CUL DE SAC BAY
All Depths in Meters
N
100
100
50
30
20
10
5
20
30
Ciceron Pt.
Ciceron
20
10
Bananes Point
50
20
30
20
Berth No. 2
White Spar Buoy
20
10
10
TANKS
TANKS
Hess Oil Terminal
Distillery
Dry Cargo Dock
Marine Terminal Office
0
1,000
Scale in Meters

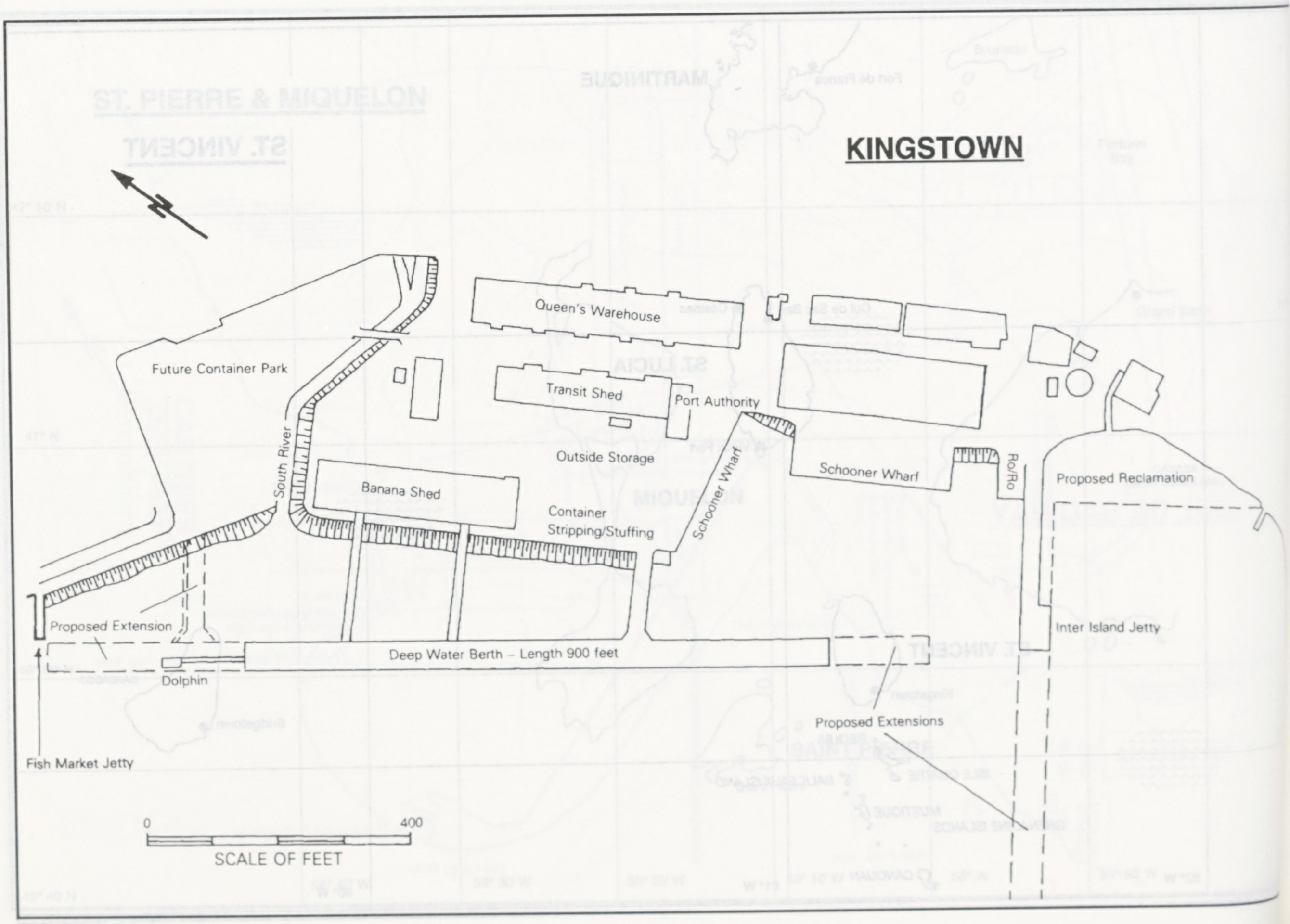
"Plan Supplied by Ship's Master"

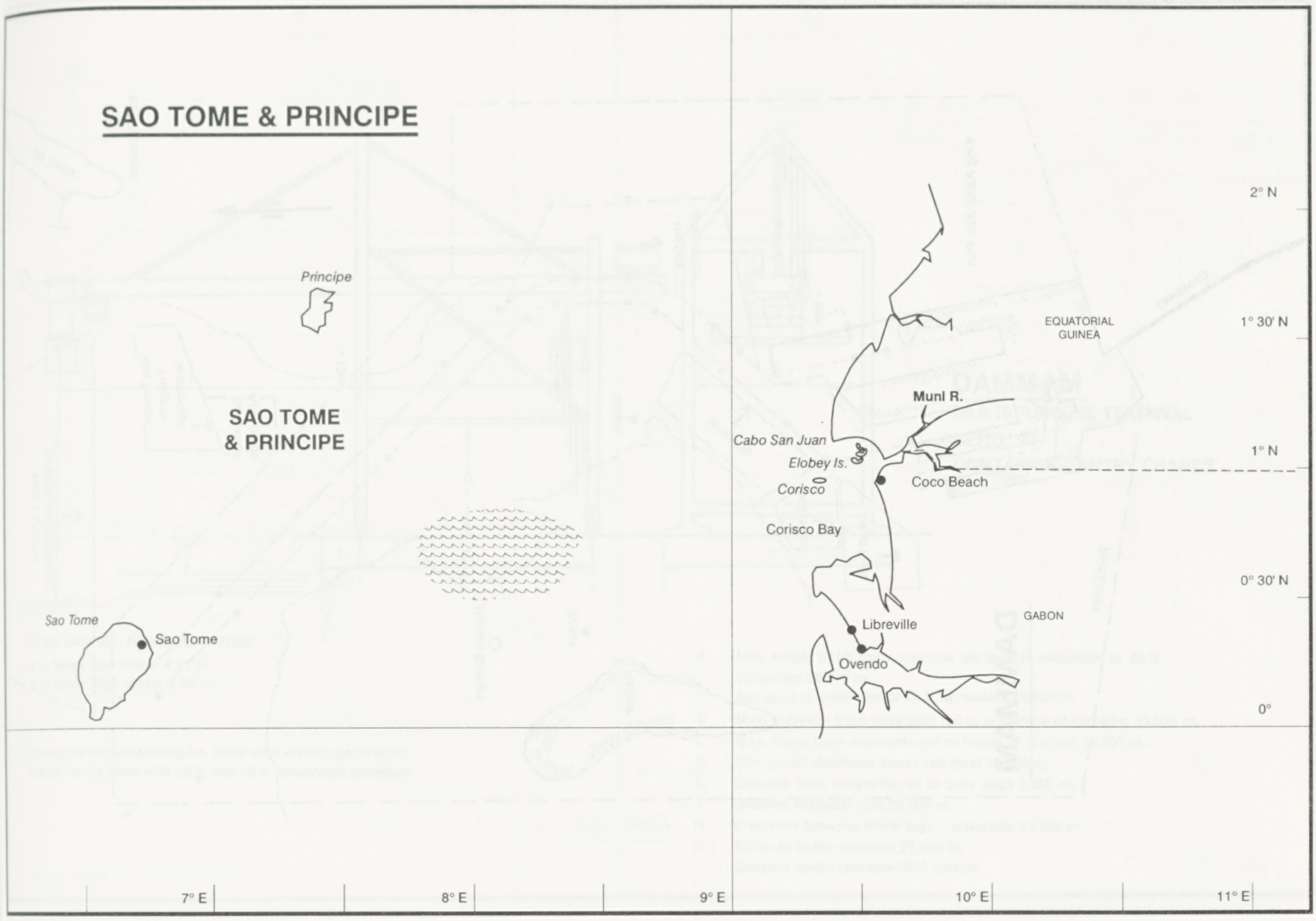

ST. PIERRE & MIQUELON
Brunette
Fortune Bay
47° 10' N
Grand Bank
47° N
CANADA (NEWFOUNDLAND)
MIQUELON
46° 50' N
SAINT PIERRE
Saint Pierre
46° 40' N
56° 40' W
56° 30' W
56° 20' W
56° 10' W
56° W
55° 50' W

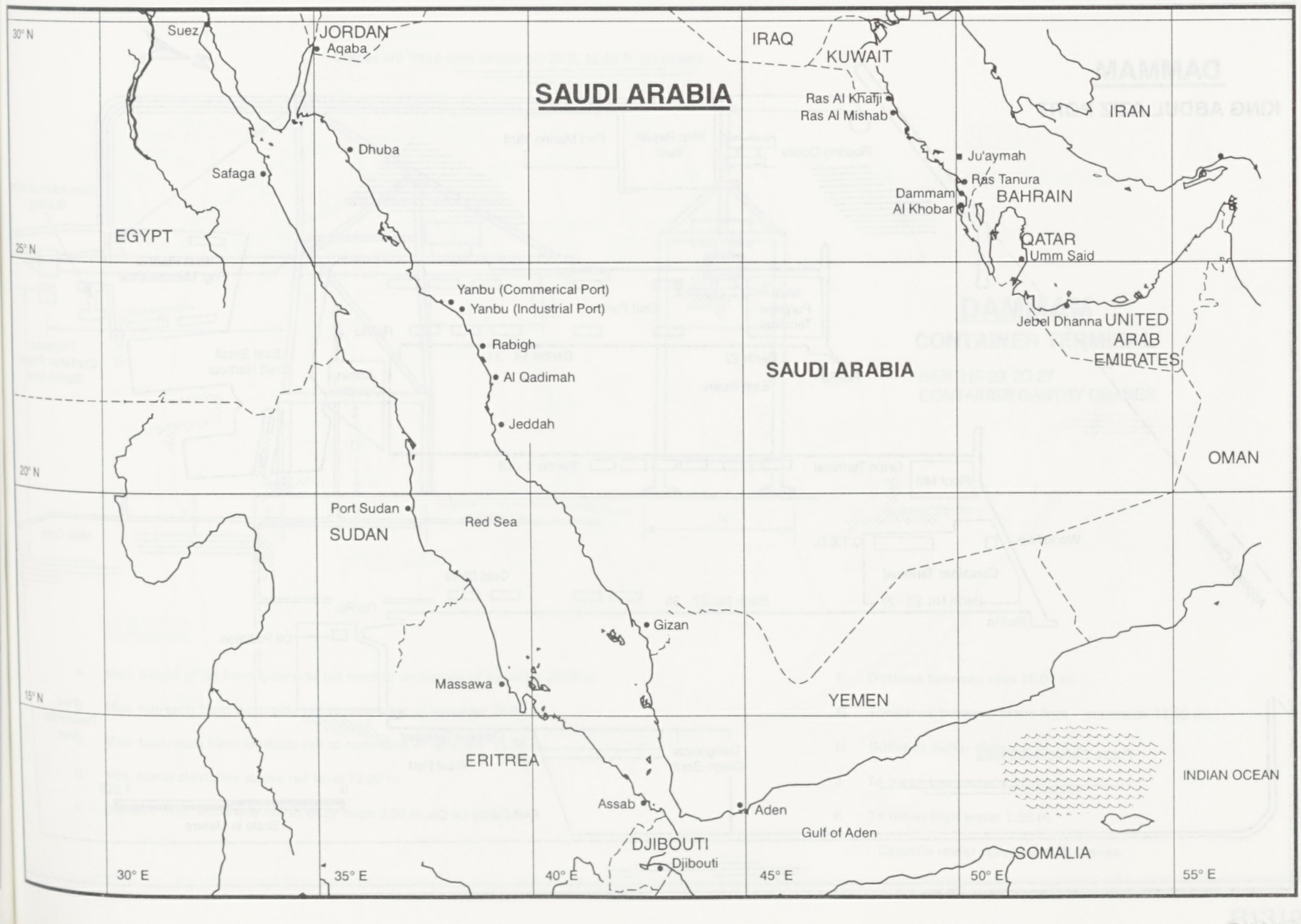

SAINT-PIERRE
Max draft 10 m
209°T
S.W. Dyke
8.2m
7.9m
Bertrand Bay
N.E. Commercial Mole
8.5 m
7m
6m
7m
6m
6m
7m
Fish Factory
5.5m
Freezer Wharf
2.7m
Ro/Ro Terminal
Rodrigue Bay
Factory
Etang Thélot
Les Sept Etangs
N
Custom House Quay
Harbour Office
Alysse Quay
BARACHOIS

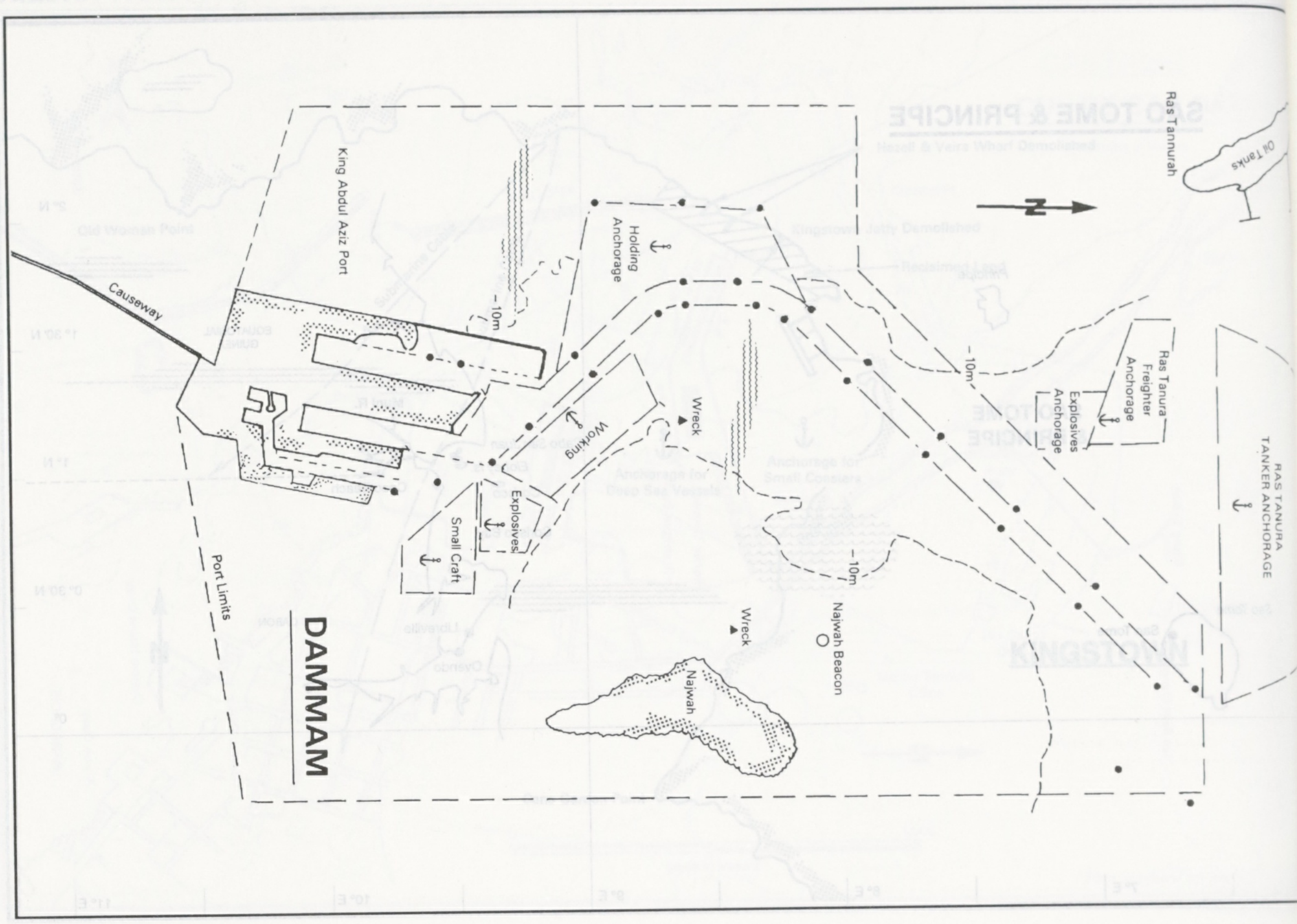

ST. VINCENT
MARTINIQUE
Fort de France
14° N
Cul de Sac Bay
Castries
ST. LUCIA
Vieux Fort
ST. VINCENT
Kingstown
13° N
BEQUIA
ISLE QUATRE
BALICEAUX ISLAND
MUSTIQUE
GRENADINE ISLANDS
CANOUAN
BARBADOS
Bridgetown
62° W
61° W
60° W

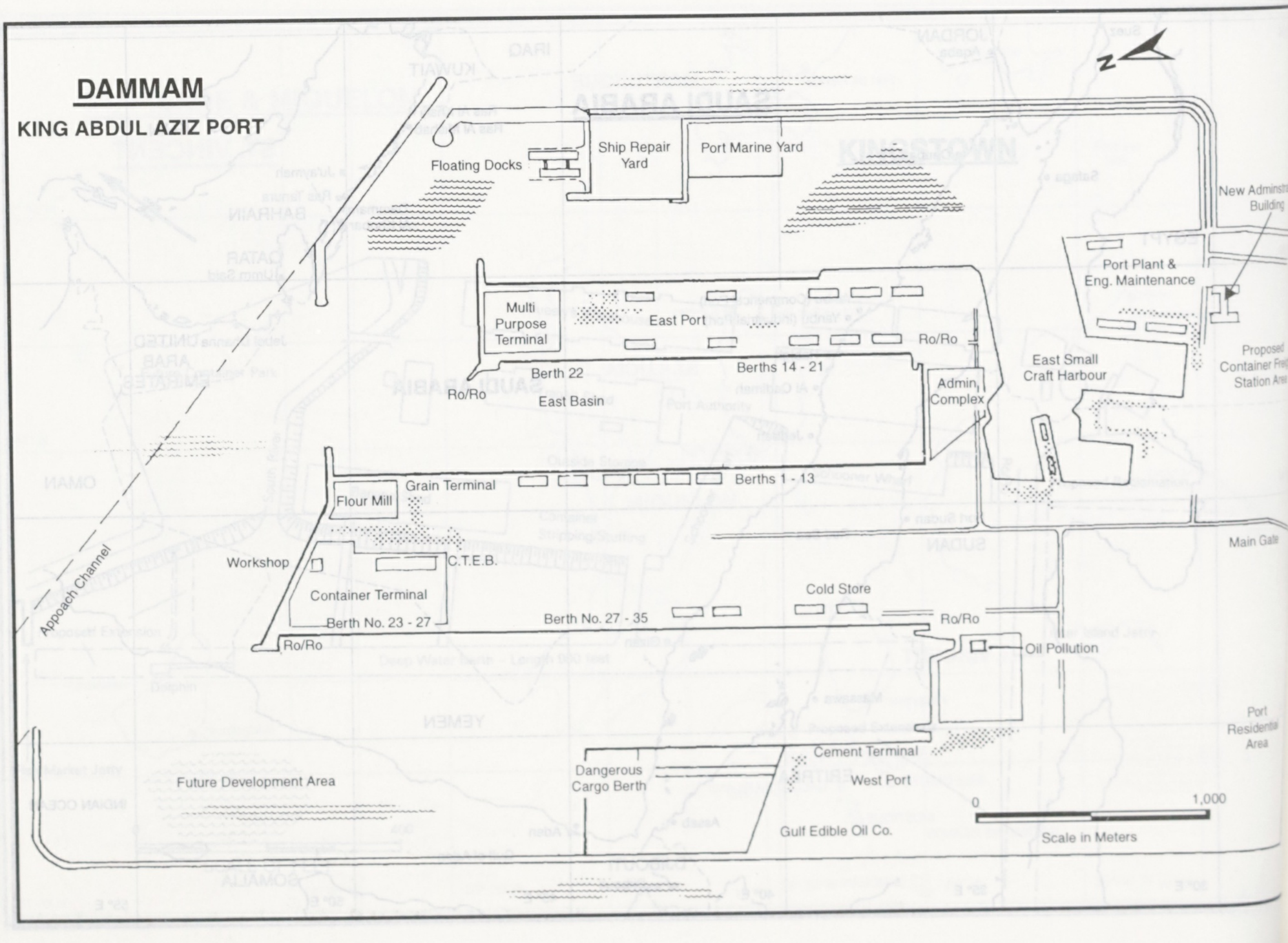

Hazell & Veira Wharf Demolished
Kingstown Jetty Demolished
Reclaimed Land
Old Woman Point
Submarine Cable
Submarine Cable
Anchorage for Deep Sea Vessels
Anchorage for Small Coasters
N
KINGSTOWN
Cane Garden Point

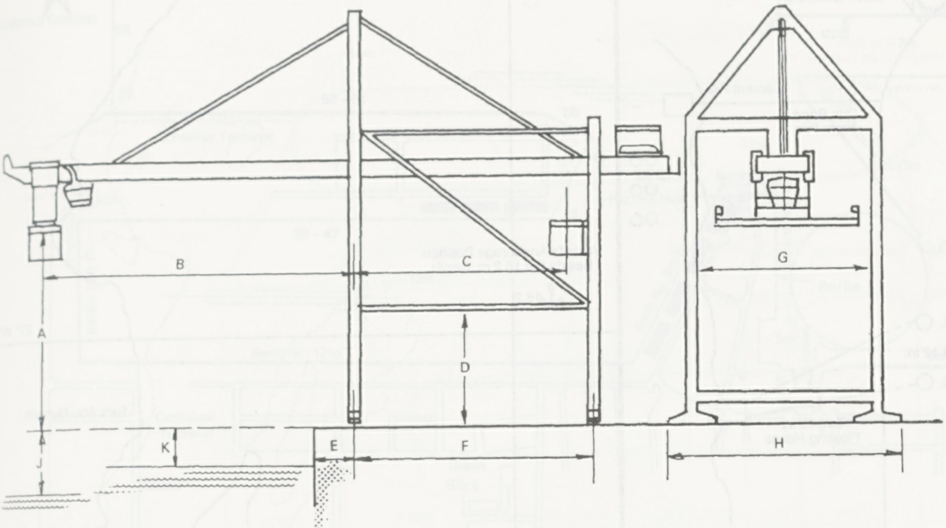

KINGSTOWN
N
Queen's Warehouse
Future Container Park
Transit Shed
Port Authority
South River
Outside Storage
Schooner Wharf
Schooner Wharf
RoRo
Proposed Reclamation
Banana Shed
Container Stripping/Stuffing
Inter Island Jetty
Proposed Extension
Deep Water Berth – Length 900 feet
Dolphin
Proposed Extensions
Fish Market Jetty
0
400
SCALE OF FEET


SAO TOME & PRINCIPE
Principe
SAO TOME
& PRINCIPE
Sao Tome
Sao Tome
EQUATORIAL
GUINEA
Muni R.
Cabo San Juan
Elobey Is.
Corisco
Coco Beach
Corisco Bay
Libreville
Ovendo
GABON
2° N
1° 30' N
1° N
0° 30' N
0°
7° E
8° E
9° E
10° E
11° E


SAUDI ARABIA
Suez
JORDAN
Aqaba
IRAQ
KUWAIT
Ras Al Khafji
Ras Al Mishab
IRAN
Dhuba
Safaga
Ju'aymah
Ras Tanura
Dammam
Al Khobar
BAHRAIN
QATAR
Umm Said
EGYPT
Yanbu (Commerical Port)
Yanbu (Industrial Port)
Rabigh
Al Qadimah
Jeddah
Jebel Dhanna
UNITED
ARAB
EMIRATES
SAUDI ARABIA
OMAN
Port Sudan
SUDAN
Red Sea
Gizan
Massawa
YEMEN
ERITREA
INDIAN OCEAN
Assab
Aden
Gulf of Aden
DJIBOUTI
Djibouti
SOMALIA
30° N
25° N
20° N
15° N
30° E
35° E
40° E
45° E
50° E
55° E


King Abdul Aziz Port
Causeway
Holding Anchorage
-10m
Working
Explosives
Small Craft
Wreck
Port Limits
DAMMAM
Wreck
Najwah
Najwah Beacon
-10m
Ras Tannurah
Oil Tanks
N
Ras Tanura Freighter Anchorage
Explosives Anchorage
RAS TANURA TANKER ANCHORAGE


DAMMAM
KING ABDUL AZIZ PORT
N
Floating Docks
Ship Repair Yard
Port Marine Yard
New Administration Building
Multi Purpose Terminal
East Port
Ro/Ro
Port Plant & Eng. Maintenance
Berth 22
Berths 14 - 21
Ro/Ro
East Basin
Admin Complex
East Small Craft Harbour
Proposed Container Freight Station Area
Grain Terminal
Berths 1 - 13
Flour Mill
Workshop
C.T.E.B.
Container Terminal
Main Gate
Appoach Channel
Cold Store
Berth No. 23 - 27
Berth No. 27 - 35
Ro/Ro
Ro/Ro
Oil Pollution
Port Residential Area
Cement Terminal
Future Development Area
Dangerous Cargo Berth
West Port
0
1,000
Scale in Meters
Gulf Edible Oil Co.



DAMMAM

MULTI-PURPOSE TERMINAL

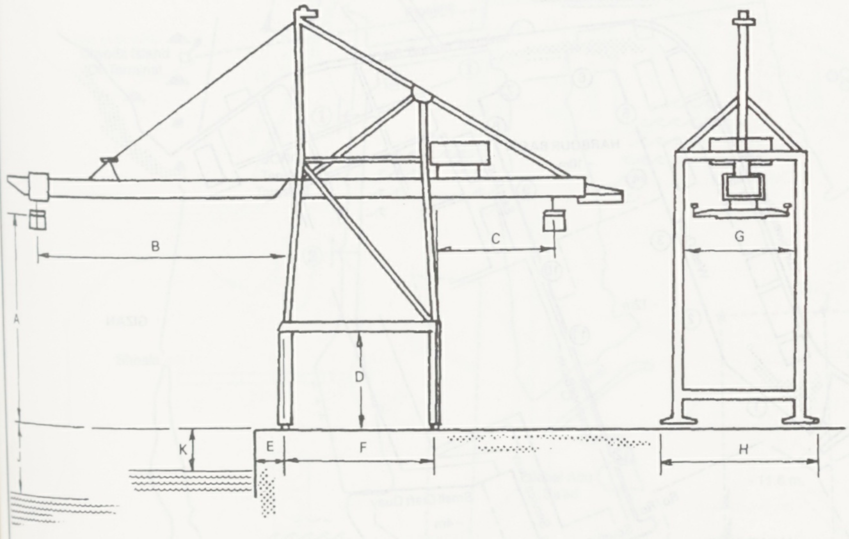
BERTH 22
CONTAINER GANTRY CRANES

TIDAL RANGE – FROM QUAY EDGE
J to Mean Low Water 4.31 m.
K to Mean High Water 2.55 m.

Cranes are self-sustaining i.e. fitted with electric generators
Cranes can be fitted with 20 ft. and 40 ft. detachable spreaders

A	Max. height of lift from quayside rail level to underside of 40 ft. Spreaders 20.715 m. Rail level to underside of 20 ft. spreaders 19.624 m.
B	Max. outreach from waterside rail to centreline of spreader 35.000 m.
C	Max. travel from waterside rail to inside of rear rail 18.000 m.
D	Min. portal clearance above rail level 10.700 m.
E	Distance from waterside rail to quay edge 2.000 m.
F	Distance between rails 20.000 m.
G	Clearance between crane legs – waterside 14.300 m.
H	Buffer to buffer distance 22.000 m. Capacity under spreader 30.5 tonnes.

Cranes are fitted with telescopic 20 ft. to 40 ft. spreaders



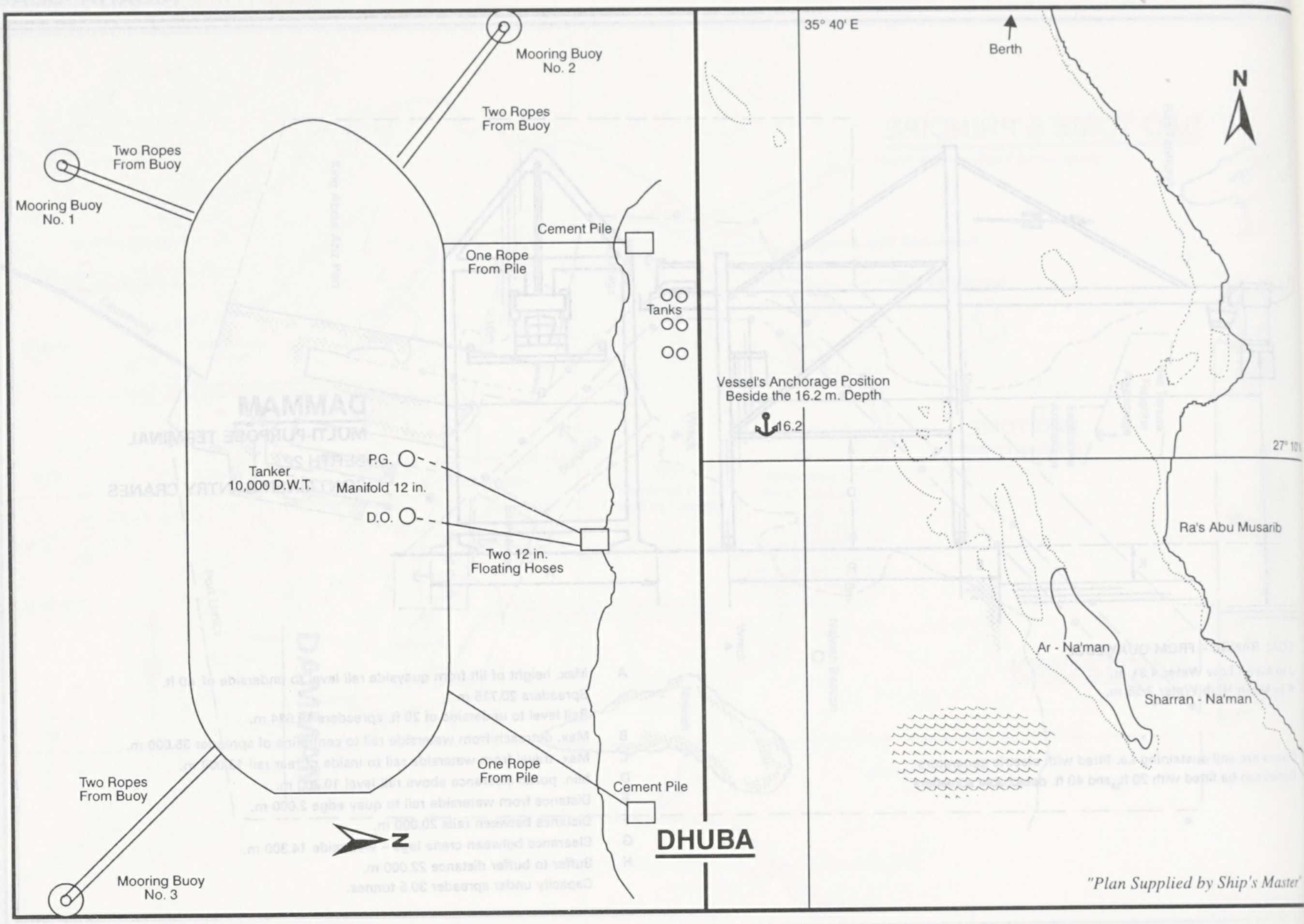
DAMMAM

CONTAINER TERMINAL

BERTHS 23 TO 27
CONTAINER GANTRY CRANES

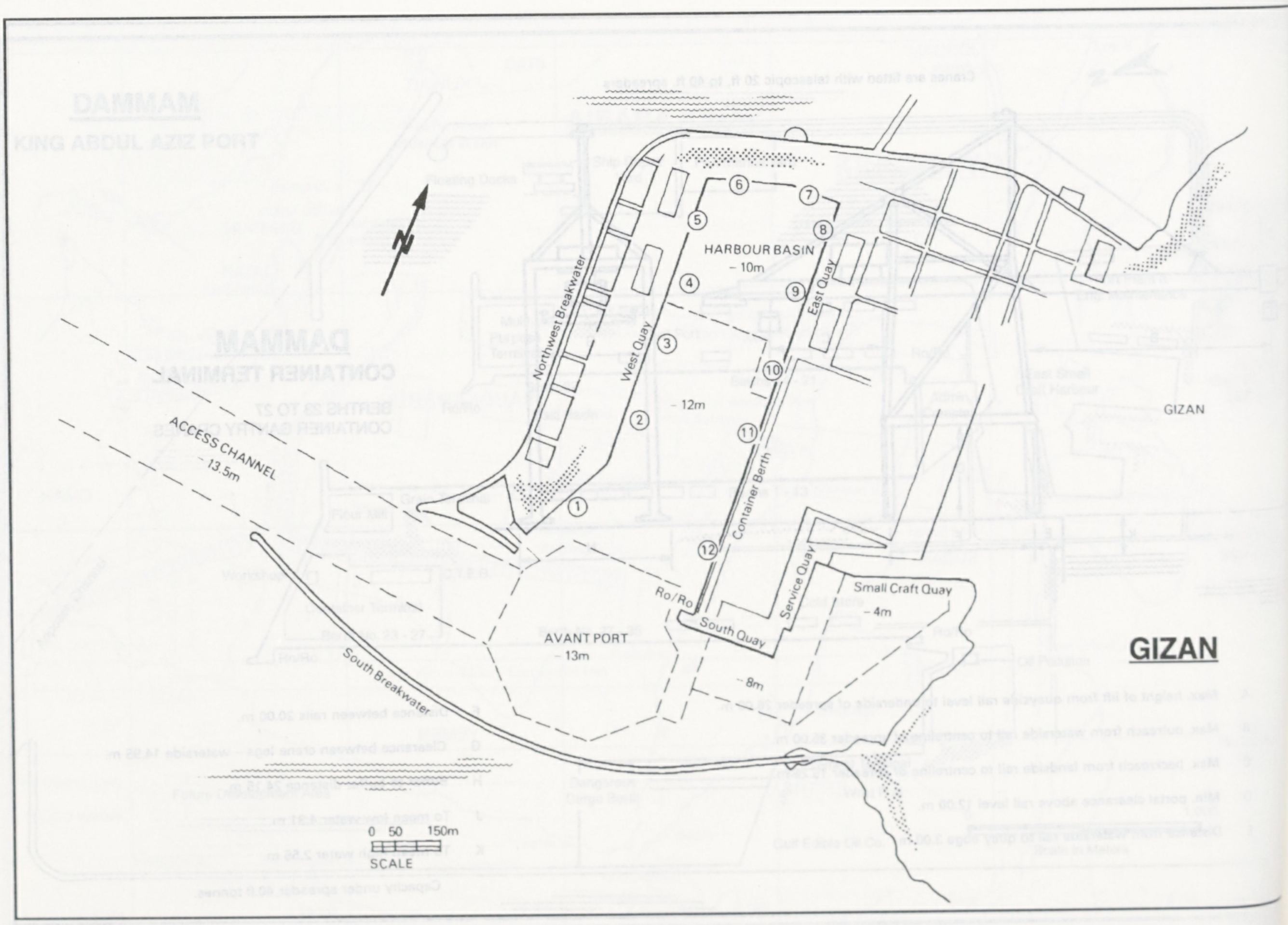
A	Max. height of lift from quayside rail level to underside of spreader 26.00 m.
B	Max. outreach from waterside rail to centreline of spreader 35.00 m.
C	Max. backreach from landside rail to centreline of spreader 15.25 m.
D	Min. portal clearance above rail level 12.00 m.
E	Distance from waterside rail to quay edge 3.00 m.
F	Distance between rails 20.00 m.
G	Clearance between crane legs – waterside 14.95 m.
H	Buffer to buffer distance 24.15 m.
J	To mean low water 4.31 m.
K	To mean high water 2.55 m.

Capacity under spreader 40.0 tonnes.

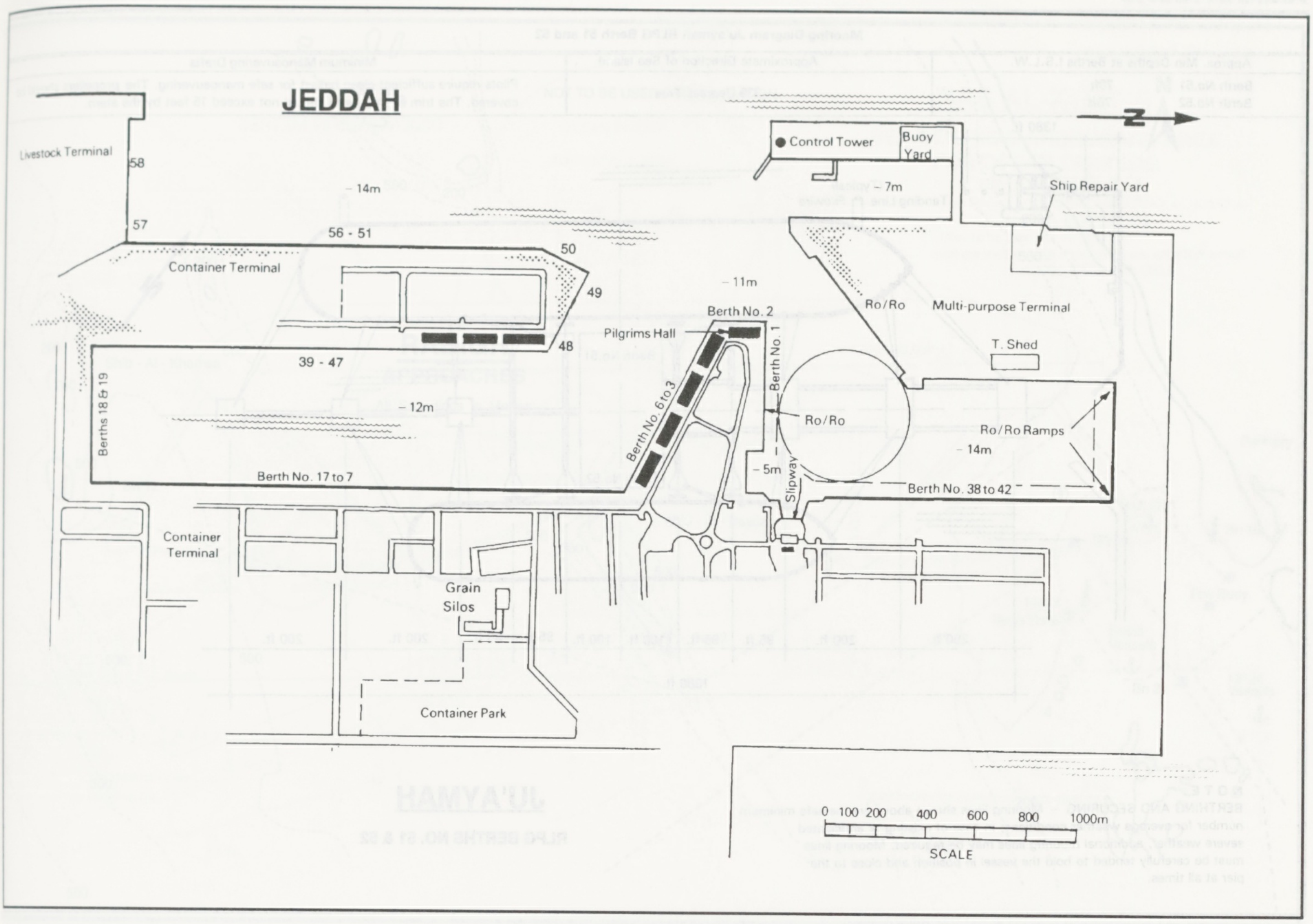

Mooring Buoy No. 2
Two Ropes From Buoy
Two Ropes From Buoy
Mooring Buoy No. 1
Cement Pile
One Rope From Pile
Tanks
Tanker 10,000 D.W.T.
P.G.
Manifold 12 in.
D.O.
Two 12 in. Floating Hoses
Two Ropes From Buoy
One Rope From Pile
Cement Pile
N
Mooring Buoy No. 3
35° 40' E
Berth
N
Vessel's Anchorage Position Beside the 16.2 m. Depth
16.2
27° 10
Ra's Abu Musarib
Ar - Na'man
Sharran - Na'man

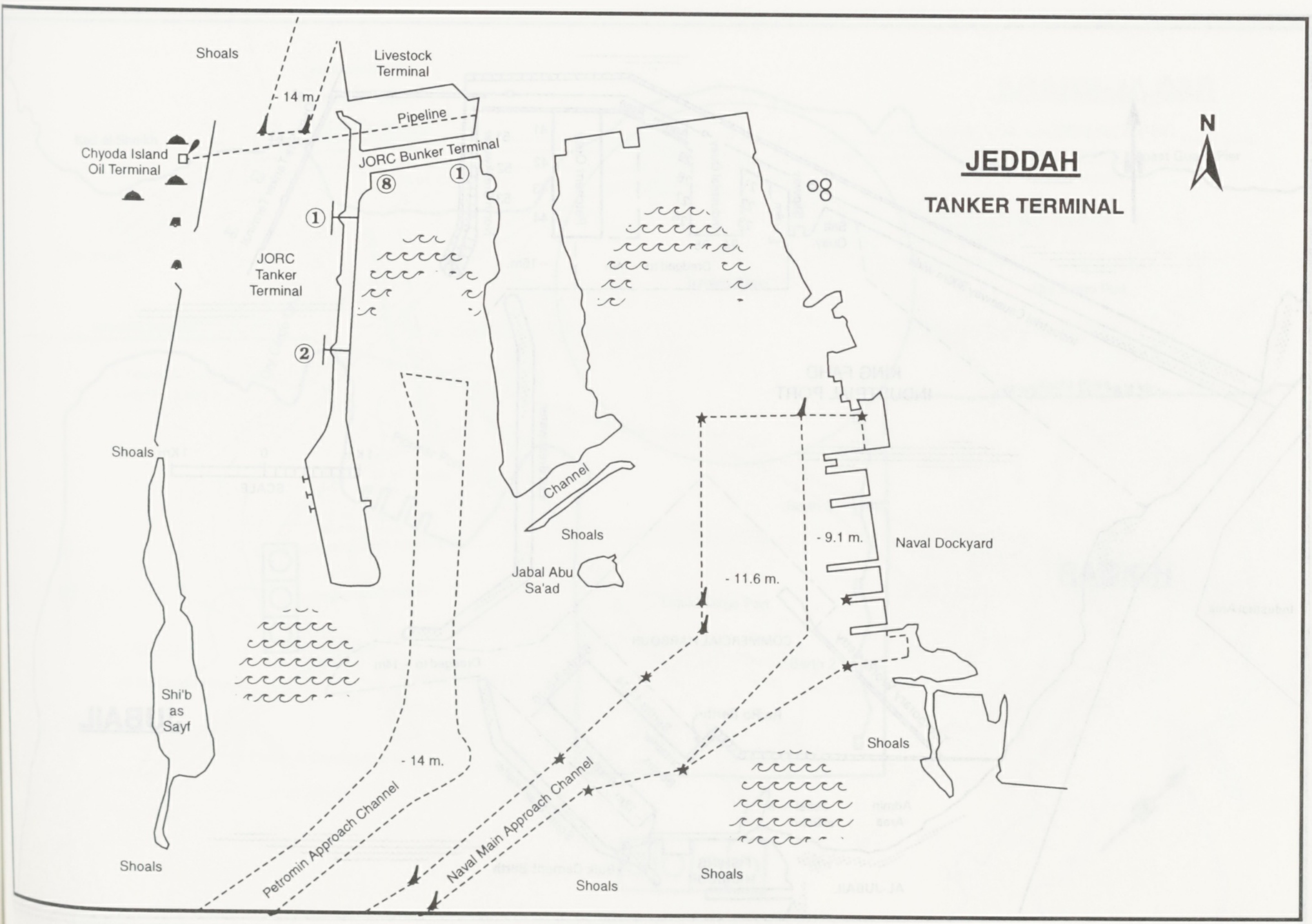
DHUBA

"Plan Supplied by Ship's Master"


⑥
⑦
⑤
⑧
HARBOUR BASIN
- 10m
④
⑨
East Quay
Northwest Breakwater
③
West Quay
⑩
- 12m
②
⑪
GIZAN
ACCESS CHANNEL
- 13.5m
Container Berth
①
⑫
Service Quay
Small Craft Quay
- 4m
Ro/Ro
South Quay
AVANT PORT
- 13m
- 8m
South Breakwater
0 50 150m
SCALE

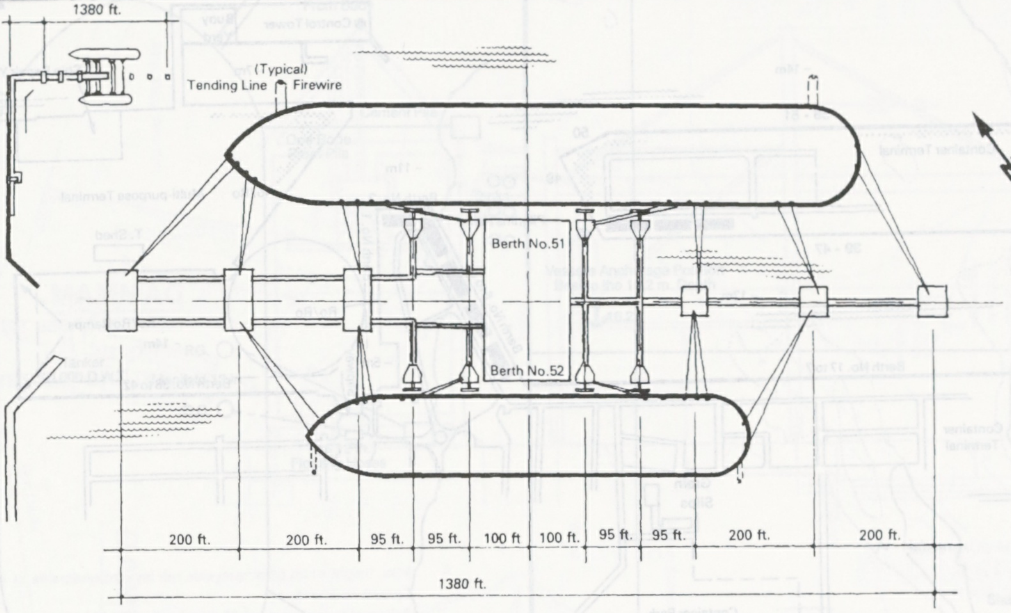
GIZAN


JEDDAH
Livestock Terminal
58
57
- 14m
56 - 51
Container Terminal
50
49
48
39 - 47
Berths 18 & 19
- 12m
Berth No. 17 to 7
Container Terminal
Grain Silos
Container Park
Pilgrims Hall
Berth No. 2
Berth No. 1
Berth No. 6 to 3
- 11m
- 5m
Slipway
Ro/Ro
Control Tower
Buoy Yard
- 7m
N
Ship Repair Yard
Ro/Ro
Multi-purpose Terminal
T. Shed
Ro/Ro Ramps
- 14m
Berth No. 38 to 42
0 100 200 400 600 800 1000m
SCALE


Shoals
Livestock Terminal
- 14 m
Pipeline
JORC Bunker Terminal
Chyoda Island Oil Terminal
⑧
①
①
JORC Tanker Terminal
②
N
JEDDAH
TANKER TERMINAL
Shoals
Channel
Shoals
Jabal Abu Sa'ad
- 9.1 m.
Naval Dockyard
- 11.6 m.
Shi'b as Sayf
- 14 m.
Shoals
Petromin Approach Channel
Naval Main Approach Channel
Shoals
Shoals
Shoals

Mooring Diagram Ju'aymah RLPG Berth 51 and 52

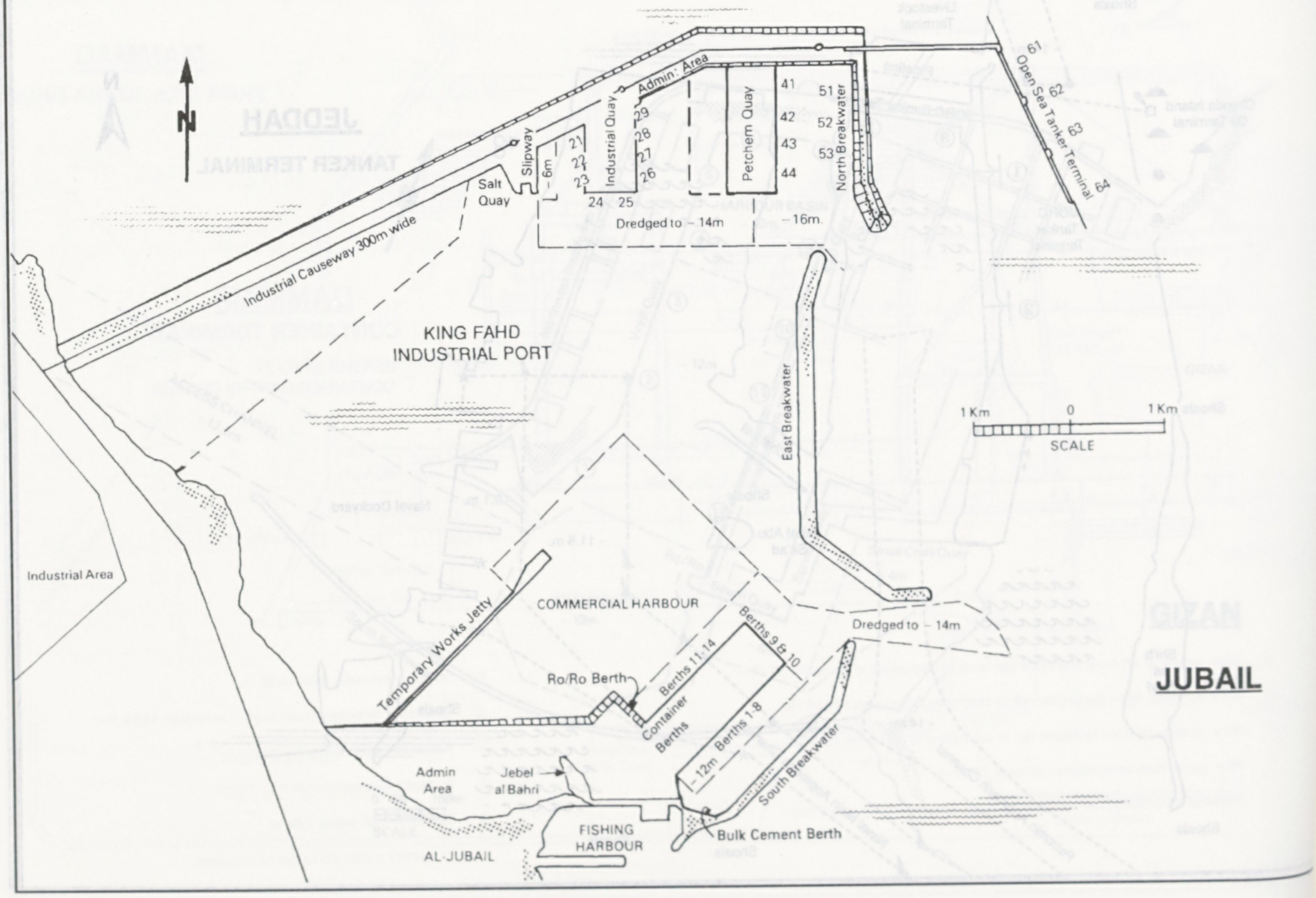
Approx. Min Depths at Berths I.S.L.W.		Approximate Direction of Sea Island	Minimum Manoeuvering Drafts
Berth No.51 Berth No.52	78ft 78ft	335 Degrees True	Pilots require sufficient clean ballast for safe manoeuvering. The propellers should covered. The trim of the vessel should not exceed 15 feet by the stern.


1380 ft.
(Typical)
Tending Line
Firewire
Berth No.51
Berth No.52
200 ft.
200 ft.
95 ft.
95 ft.
100 ft
100 ft.
95 ft.
95 ft.
200 ft.
200 ft.
1380 ft.

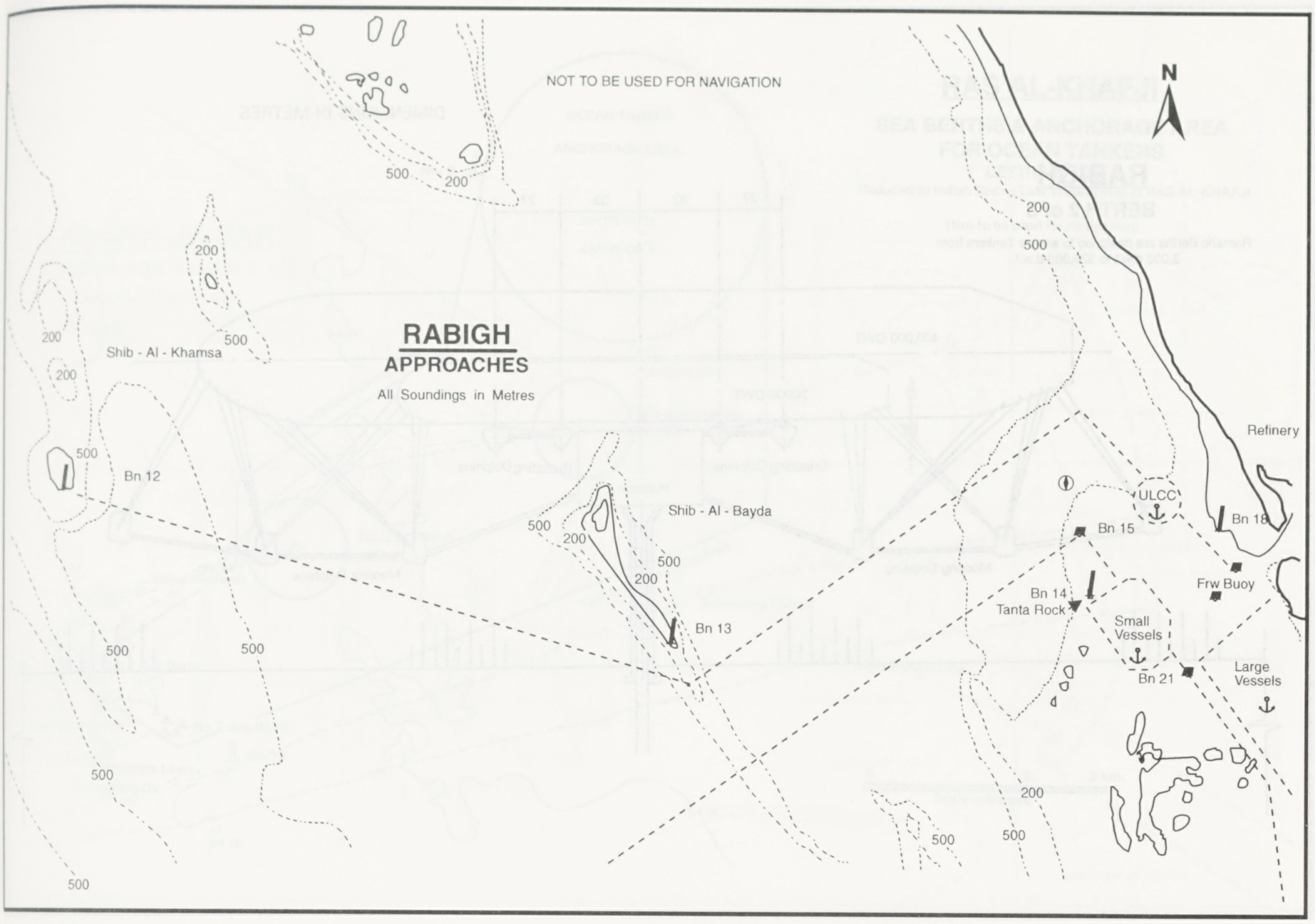
NOTE:
BERTHING AND SECURING – Mooring lines shown above are the safe minimum number for average weather conditions; in case of existing or anticipated severe weather, additional mooring lines may be required. Mooring lines must be carefully tended to hold the vessel in position and close to the pier at all times.

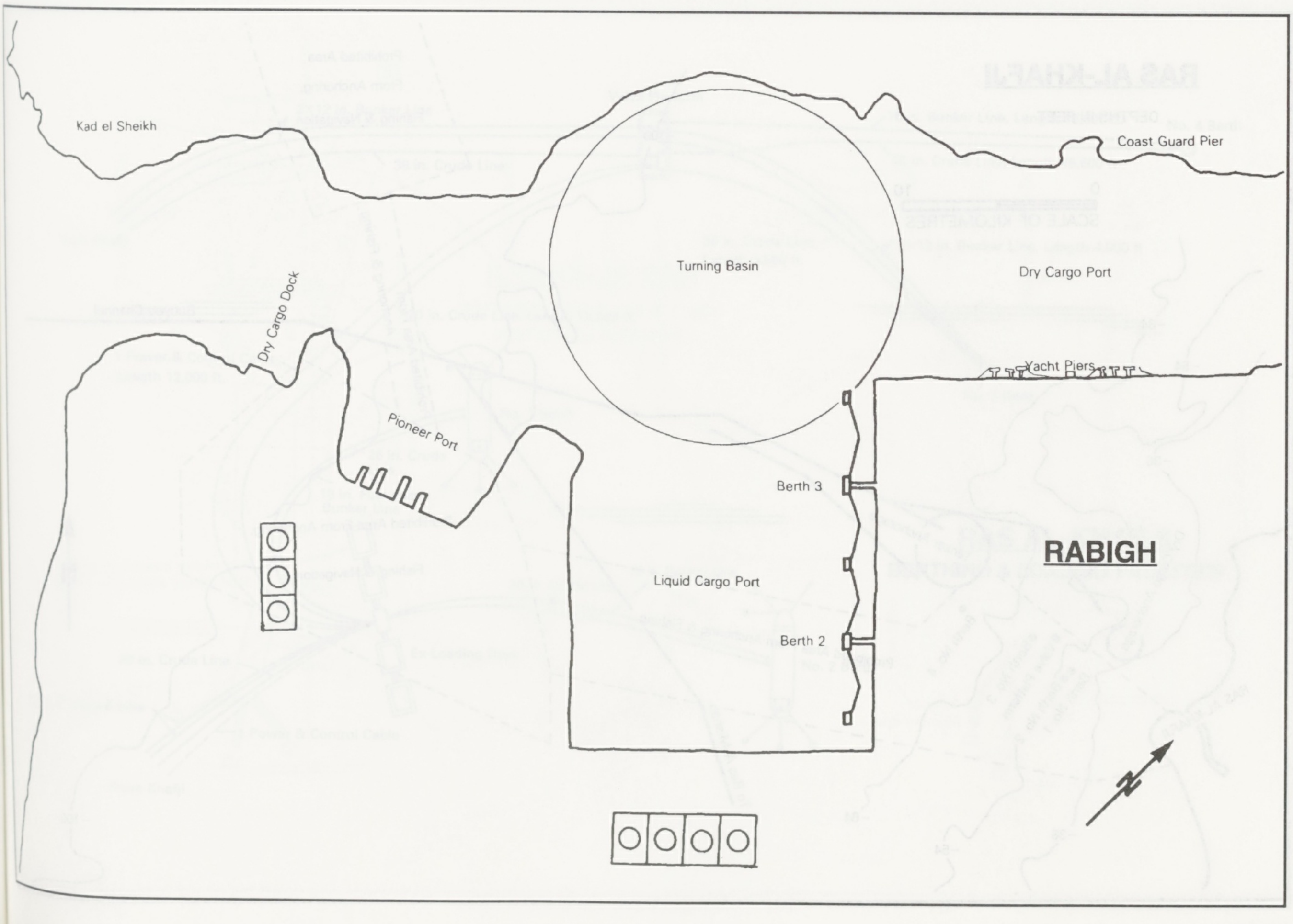
JU'AYMAH

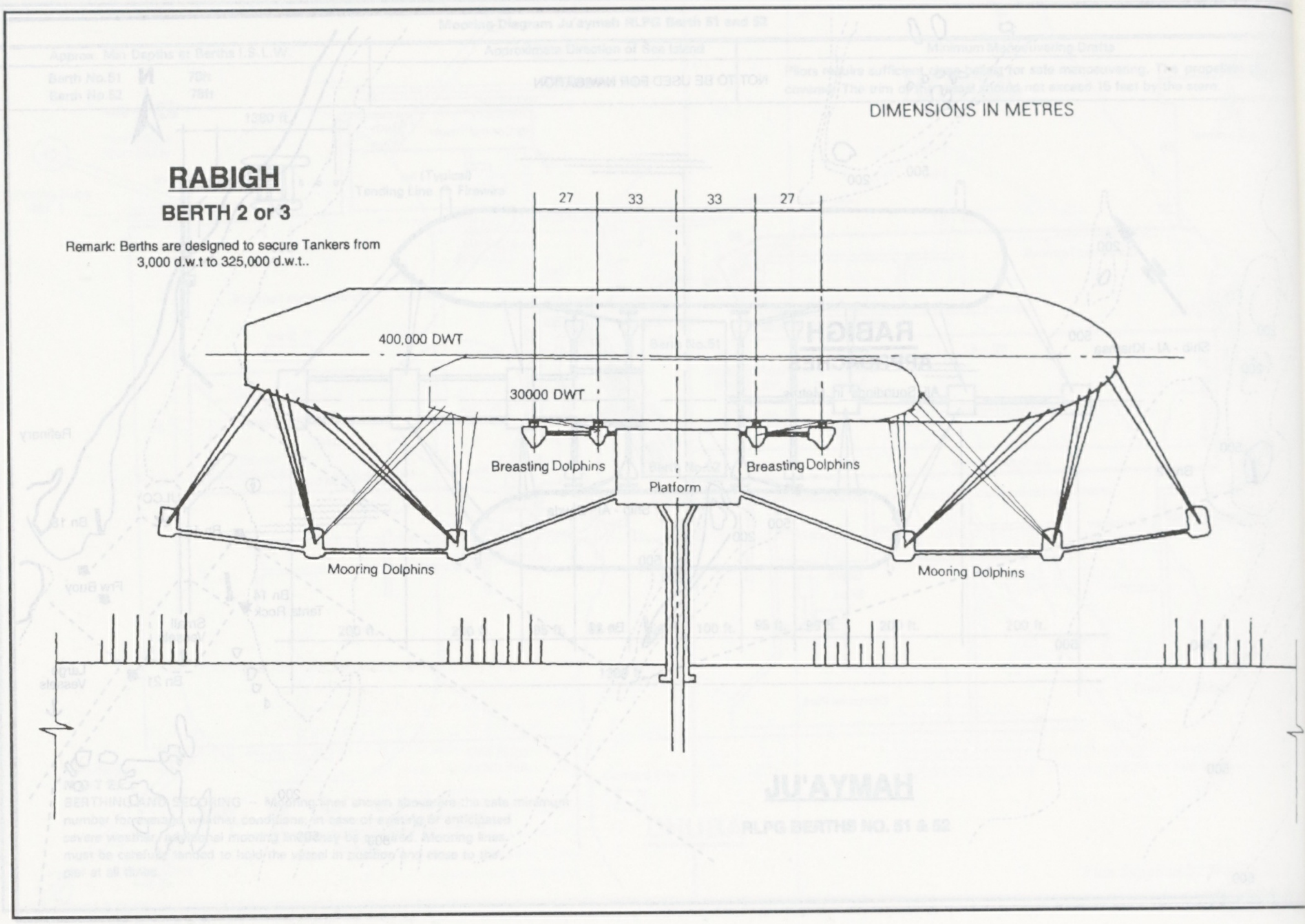
RLPG BERTHS NO. 51 & 52

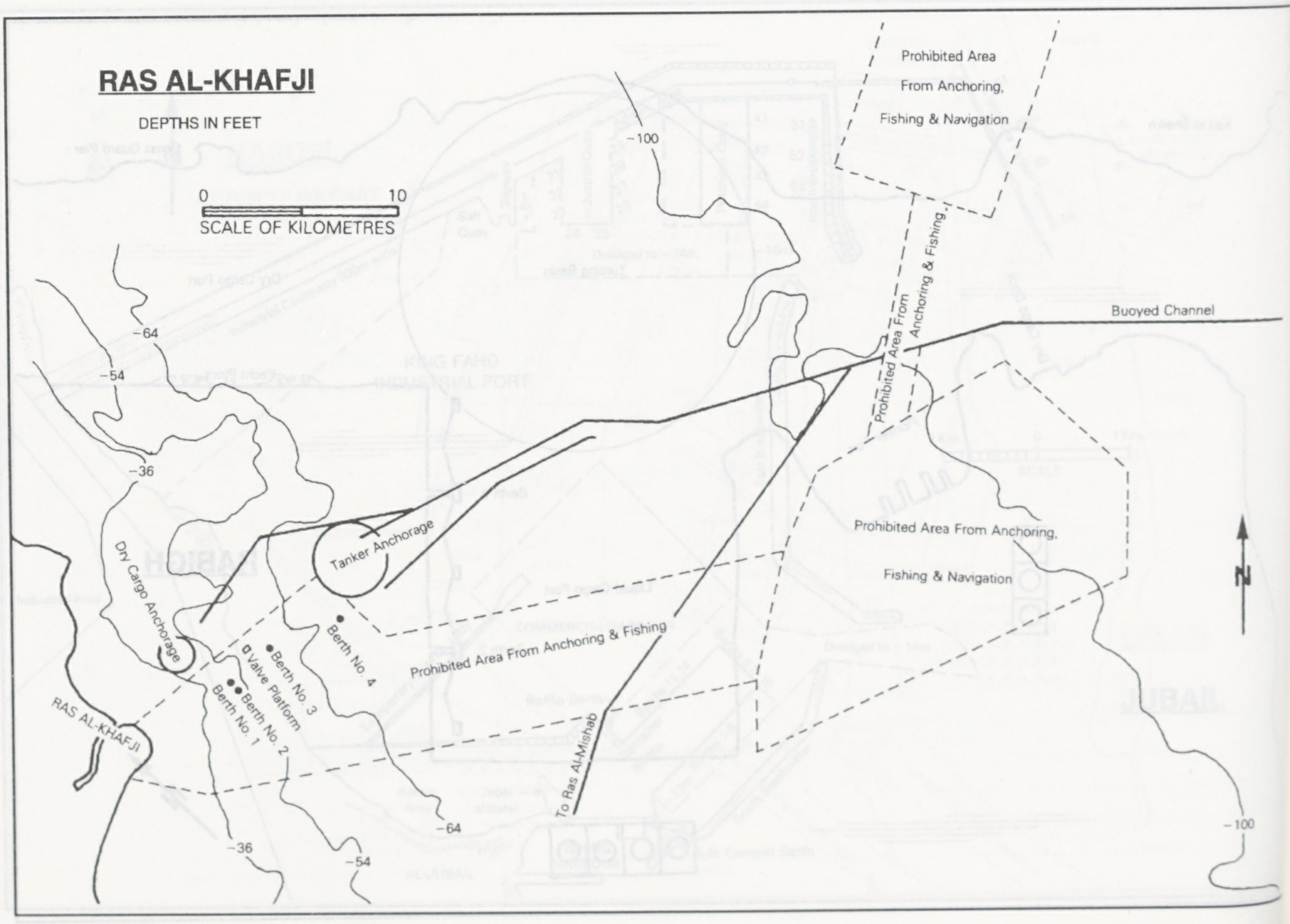

N
Admin. Area
Industrial Quay
Petchem Quay
North Breakwater
41
42
43
44
51
52
53
61
62
63
64
Open Sea Tanker Terminal
Slipway
– 6m
Salt Quay
21
22
23
24
25
26
27
28
29
Dredged to – 14m
–16m
Industrial Causeway 300m wide
KING FAHD INDUSTRIAL PORT
East Breakwater
1 Km
0
1 Km
SCALE
Industrial Area
Temporary Works Jetty
COMMERCIAL HARBOUR
Berths 9 & 10
Berths 11-14
Dredged to – 14m
Ro/Ro Berth
Container Berths
– 12m
Berths 1-8
South Breakwater
Admin Area
Jebel al Bahri
FISHING HARBOUR
Bulk Cement Berth
AL-JUBAIL

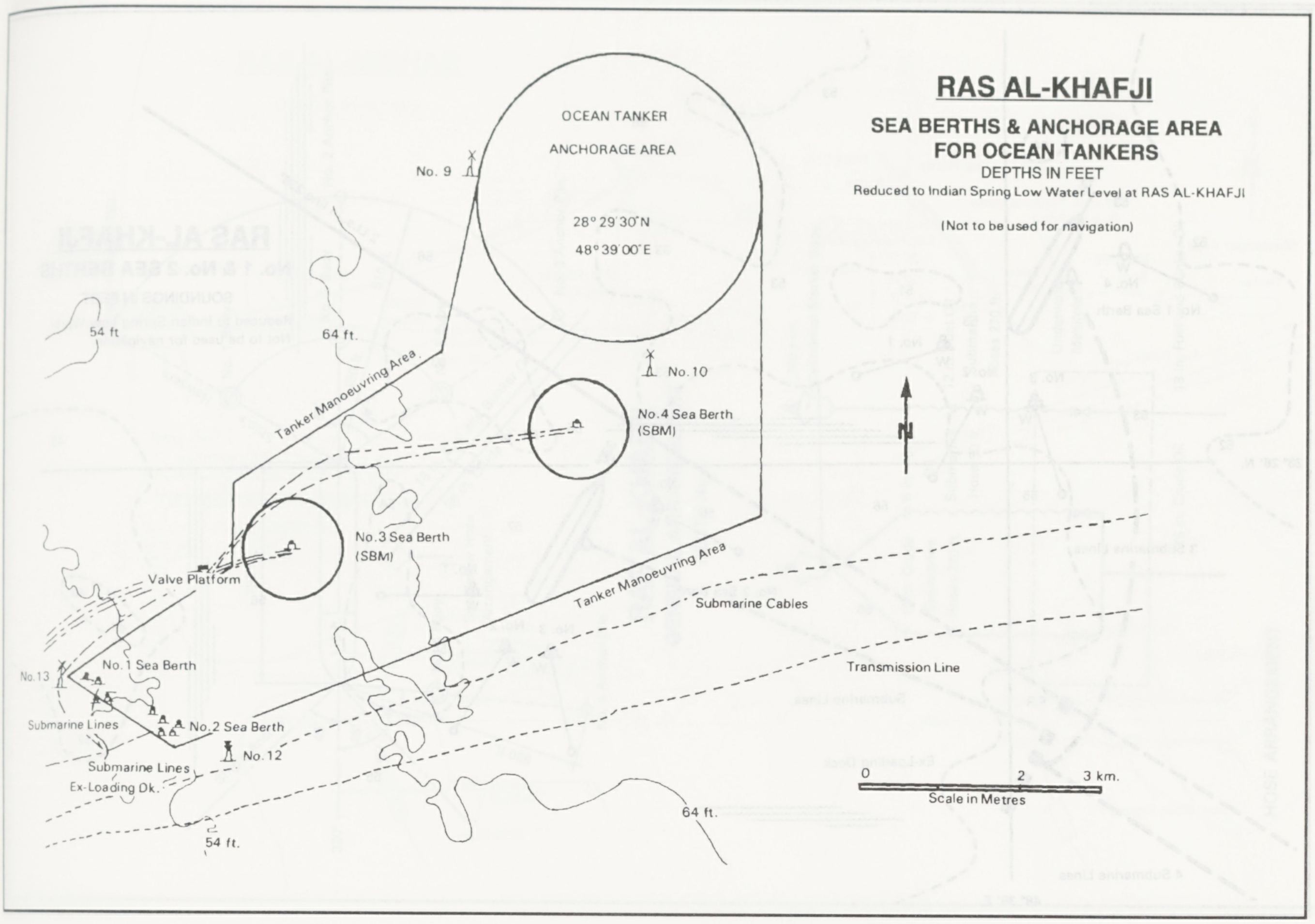
JUBAIL


NOT TO BE USED FOR NAVIGATION
RABIGH
APPROACHES
All Soundings in Metres
N
Shib - Al - Khamsa
Shib - Al - Bayda
Bn 12
Bn 13
Bn 14
Tanta Rock
Bn 15
Bn 18
Bn 21
ULCC
Frw Buoy
Small Vessels
Large Vessels
Refinery
200
500


Kad el Sheikh
Coast Guard Pier
Turning Basin
Dry Cargo Port
Yacht Piers
Dry Cargo Dock
Pioneer Port
Berth 3
Liquid Cargo Port
Berth 2
RABIGH
N


RABIGH
BERTH 2 or 3
Remark: Berths are designed to secure Tankers from 3,000 d.w.t to 325,000 d.w.t..
DIMENSIONS IN METRES
27
33
33
27
400,000 DWT
30000 DWT
Breasting Dolphins
Platform
Breasting Dolphins
Mooring Dolphins
Mooring Dolphins


RAS AL-KHAFJI
DEPTHS IN FEET
0
10
SCALE OF KILOMETRES
Prohibited Area From Anchoring, Fishing & Navigation
-100
Prohibited Area From Anchoring & Fishing
Buoyed Channel
-64
-54
-36
Tanker Anchorage
Dry Cargo Anchorage
Prohibited Area From Anchoring, Fishing & Navigation
Berth No. 4
Berth No. 3
Valve Platform
Berth No. 2
Berth No. 1
Prohibited Area From Anchoring & Fishing
RAS AL-KHAFJI
To Ras Al-Mishab
-64
-36
-54
-100



RAS AL-KHAFJI

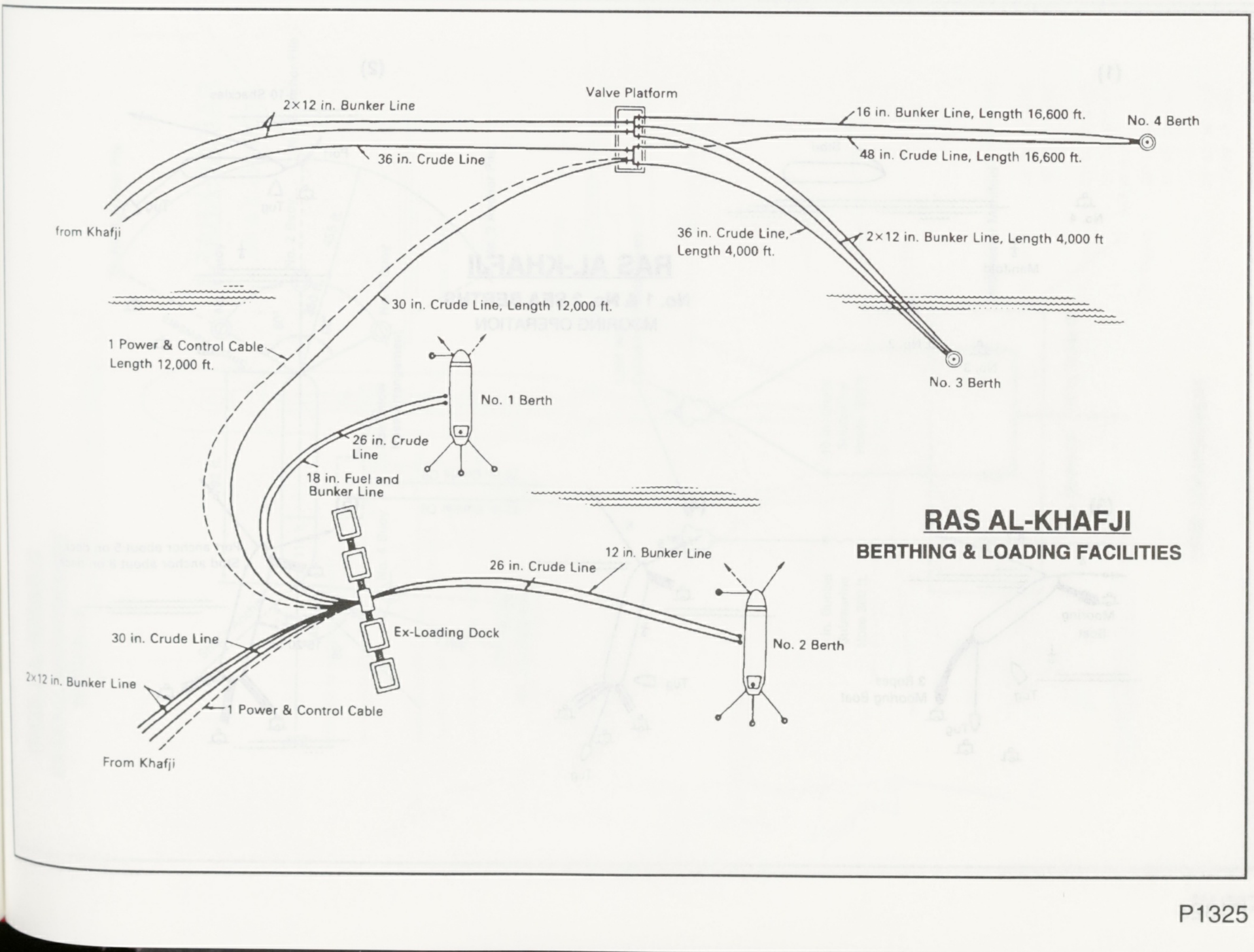
SEA BERTHS & ANCHORAGE AREA FOR OCEAN TANKERS

DEPTHS IN FEET

Reduced to Indian Spring Low Water Level at RAS AL-KHAFJI

(Not to be used for navigation)

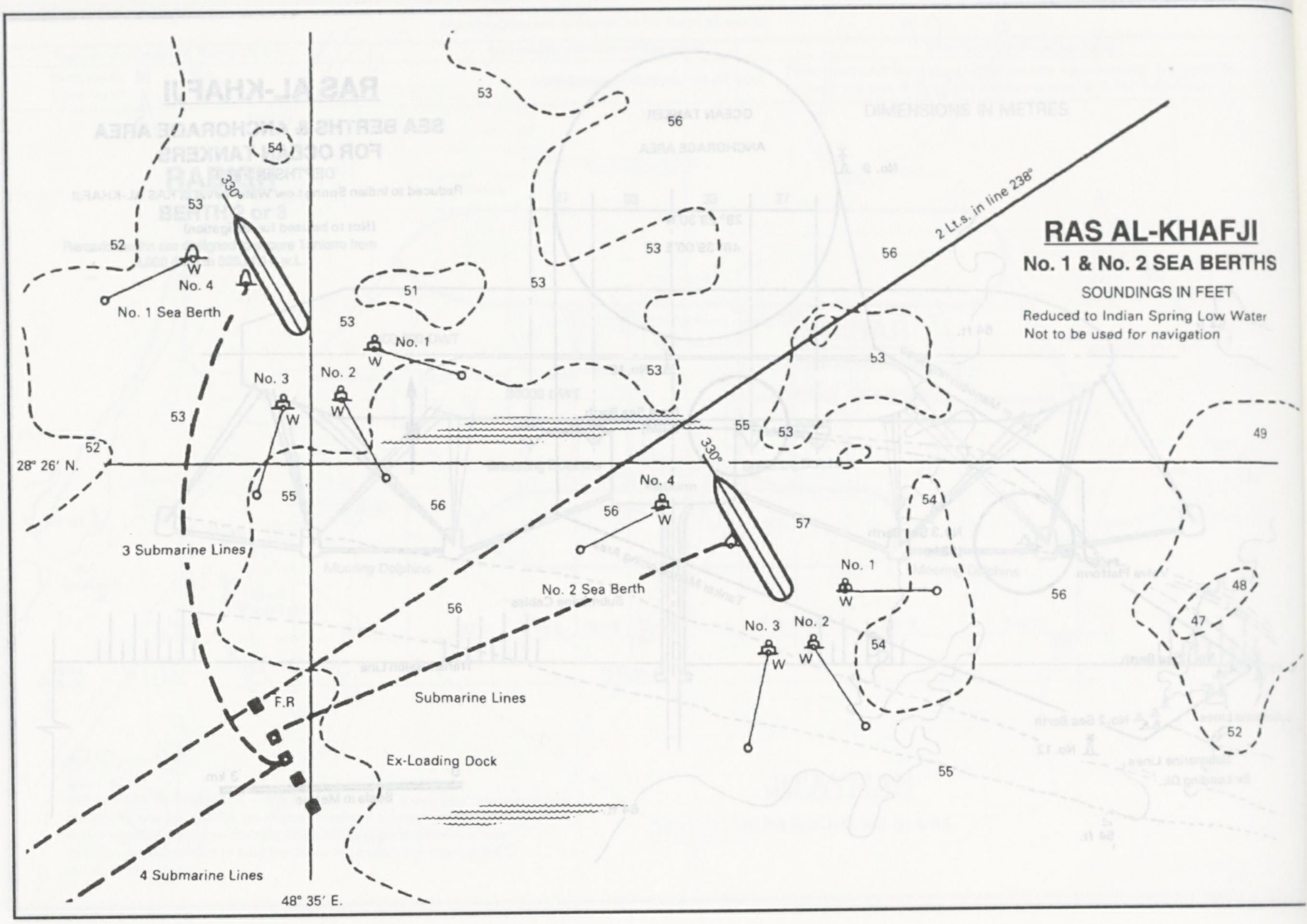
OCEAN TANKER
ANCHORAGE AREA
28° 29' 30" N
48° 39' 00" E
No. 9
No. 10
54 ft
64 ft.
Tanker Manoeuvring Area
No.4 Sea Berth
(SBM)
No.3 Sea Berth
(SBM)
Valve Platform
Tanker Manoeuvring Area
Submarine Cables
Transmission Line
No.13
No.1 Sea Berth
Submarine Lines
No.2 Sea Berth
No.12
Submarine Lines
Ex-Loading Dk.
64 ft.
54 ft.
N
0
2
3 km.
Scale in Metres

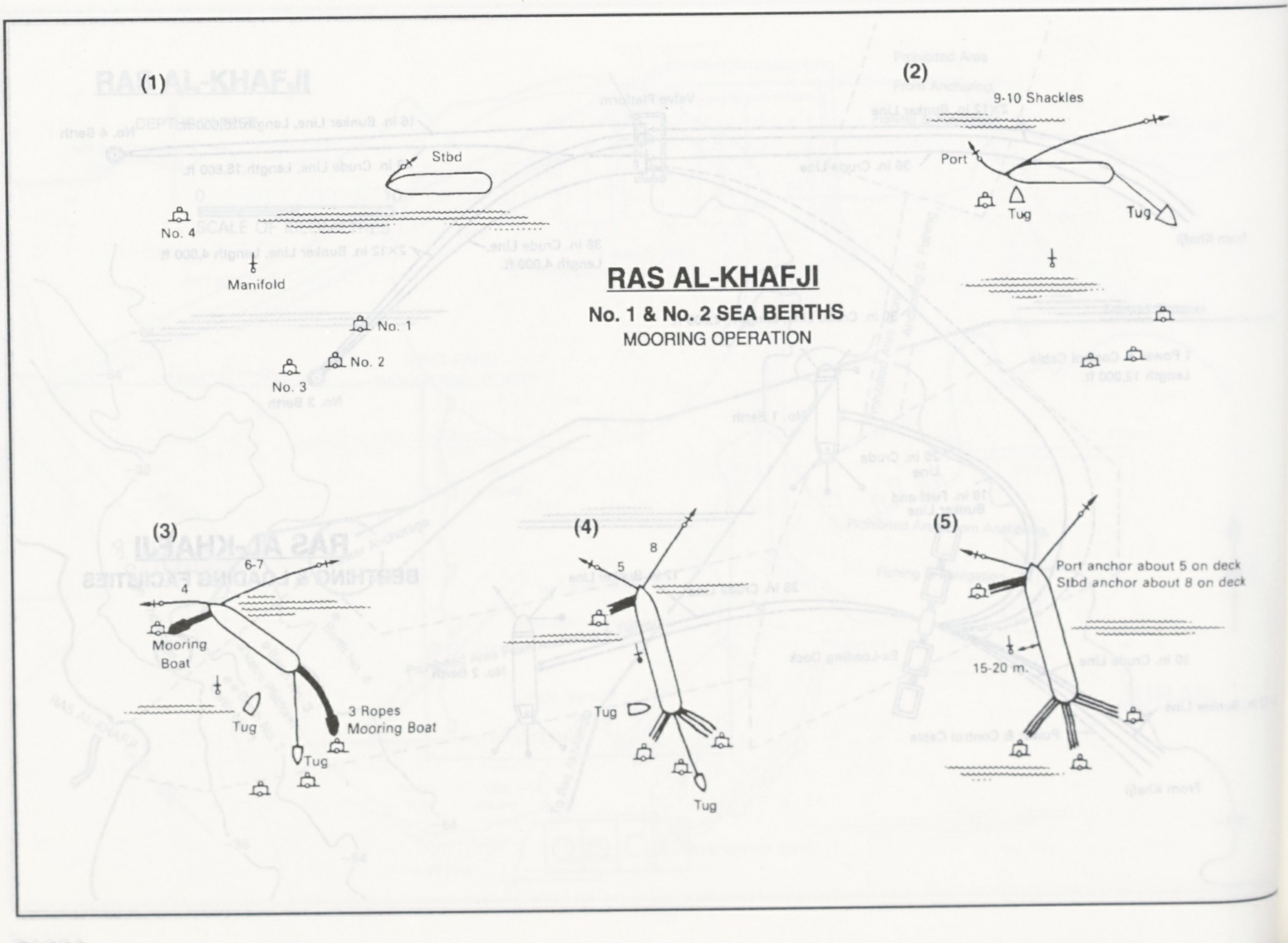


RAS AL-KHAFJI

BERTHING & LOADING FACILITIES

Valve Platform
2×12 in. Bunker Line
36 in. Crude Line
16 in. Bunker Line, Length 16,600 ft.
No. 4 Berth
48 in. Crude Line, Length 16,600 ft.
from Khafji
36 in. Crude Line,
Length 4,000 ft.
2×12 in. Bunker Line, Length 4,000 ft
30 in. Crude Line, Length 12,000 ft.
1 Power & Control Cable
Length 12,000 ft.
No. 3 Berth
No. 1 Berth
26 in. Crude
Line
18 in. Fuel and
Bunker Line
12 in. Bunker Line
26 in. Crude Line
Ex-Loading Dock
30 in. Crude Line
No. 2 Berth
2×12 in. Bunker Line
1 Power & Control Cable
From Khafji

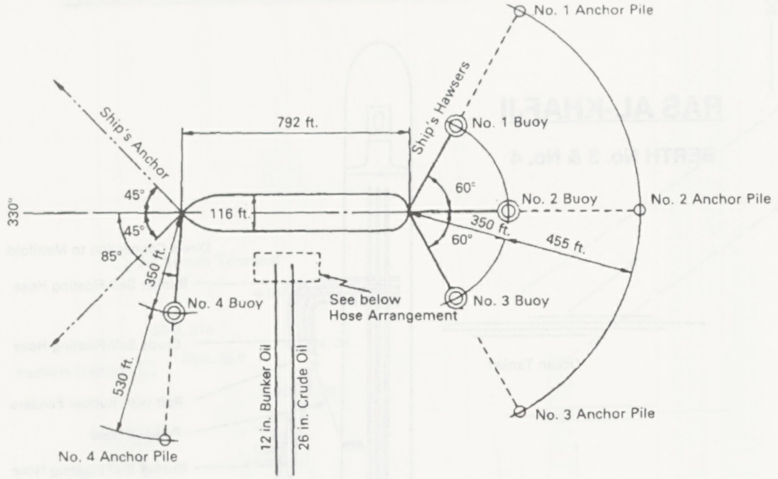

RAS AL-KHAFJI
No. 1 & No. 2 SEA BERTHS
SOUNDINGS IN FEET
Reduced to Indian Spring Low Water
Not to be used for navigation
2 Lt.s. in line 238°
330°
330°
No. 1 Sea Berth
No. 2 Sea Berth
No. 1
No. 2
No. 3
No. 4
W
F.R
3 Submarine Lines
Submarine Lines
4 Submarine Lines
Ex-Loading Dock
28° 26′ N.
48° 35′ E.
52
53
54
51
56
55
57
49
48
47
52

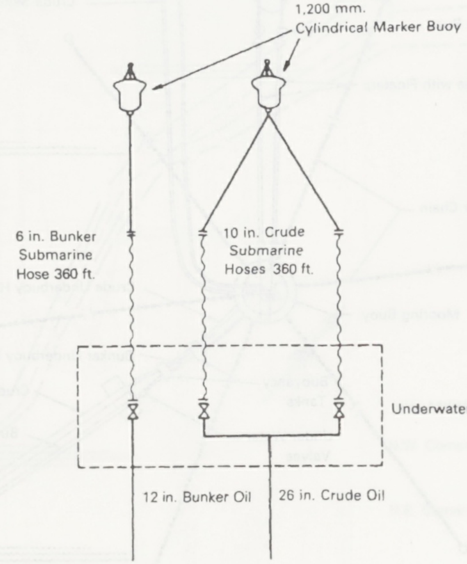

RAS AL-KHAFJI
No. 1 & No. 2 SEA BERTHS
MOORING OPERATION
(1)
Stbd
No. 4
Manifold
No. 1
No. 2
No. 3
(2)
9-10 Shackles
Port
Tug
Tug
(3)
6-7
4
Mooring Boat
Tug
3 Ropes Mooring Boat
Tug
(4)
8
5
Tug
Tug
(5)
Port anchor about 5 on deck
Stbd anchor about 8 on deck
15-20 m.

RAS AL-KHAFJI

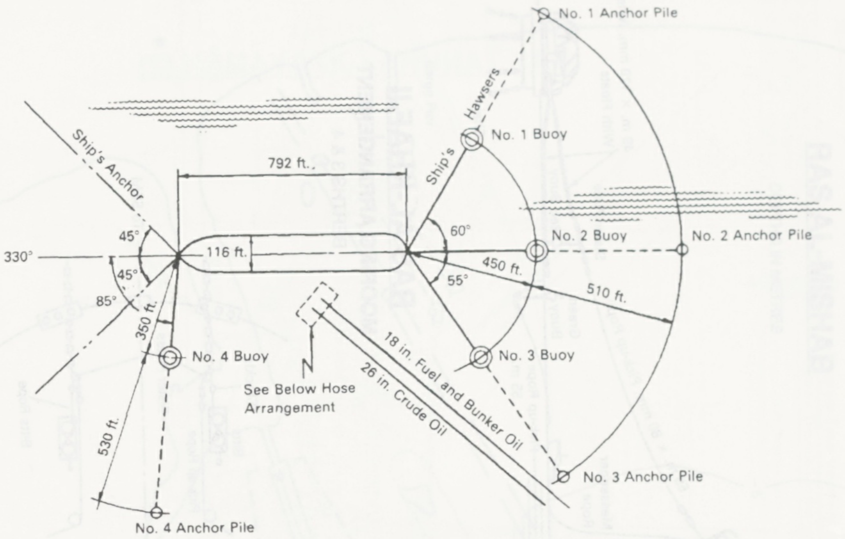
GENERAL ARRANGEMENT

BERTH No. 2


No. 1 Anchor Pile
Ship's Hawsers
792 ft.
No. 1 Buoy
Ship's Anchor
60°
No. 2 Buoy
No. 2 Anchor Pile
330°
45°
116 ft.
45°
350 ft.
455 ft.
60°
85°
350 ft.
See below
Hose Arrangement
No. 3 Buoy
No. 4 Buoy
530 ft.
12 in. Bunker Oil
26 in. Crude Oil
No. 3 Anchor Pile
No. 4 Anchor Pile


1,200 mm.
Cylindrical Marker Buoy
6 in. Bunker
Submarine
Hose 360 ft.
10 in. Crude
Submarine
Hoses 360 ft.
Underwater Manifold
12 in. Bunker Oil
26 in. Crude Oil

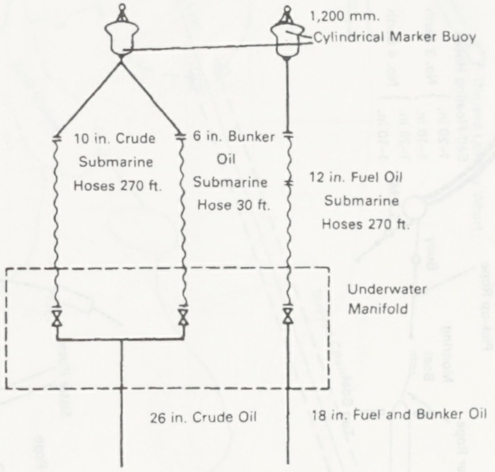
HOSE ARRANGEMENT


No. 1 Anchor Pile
Ship's Hawsers
No. 1 Buoy
Ship's Anchor
792 ft.
60°
No. 2 Buoy
No. 2 Anchor Pile
330°
45°
116 ft.
45°
450 ft.
510 ft.
55°
85°
350 ft.
No. 4 Buoy
See Below Hose
Arrangement
18 in. Fuel and Bunker Oil
26 in. Crude Oil
No. 3 Buoy
530 ft.
No. 3 Anchor Pile
No. 4 Anchor Pile

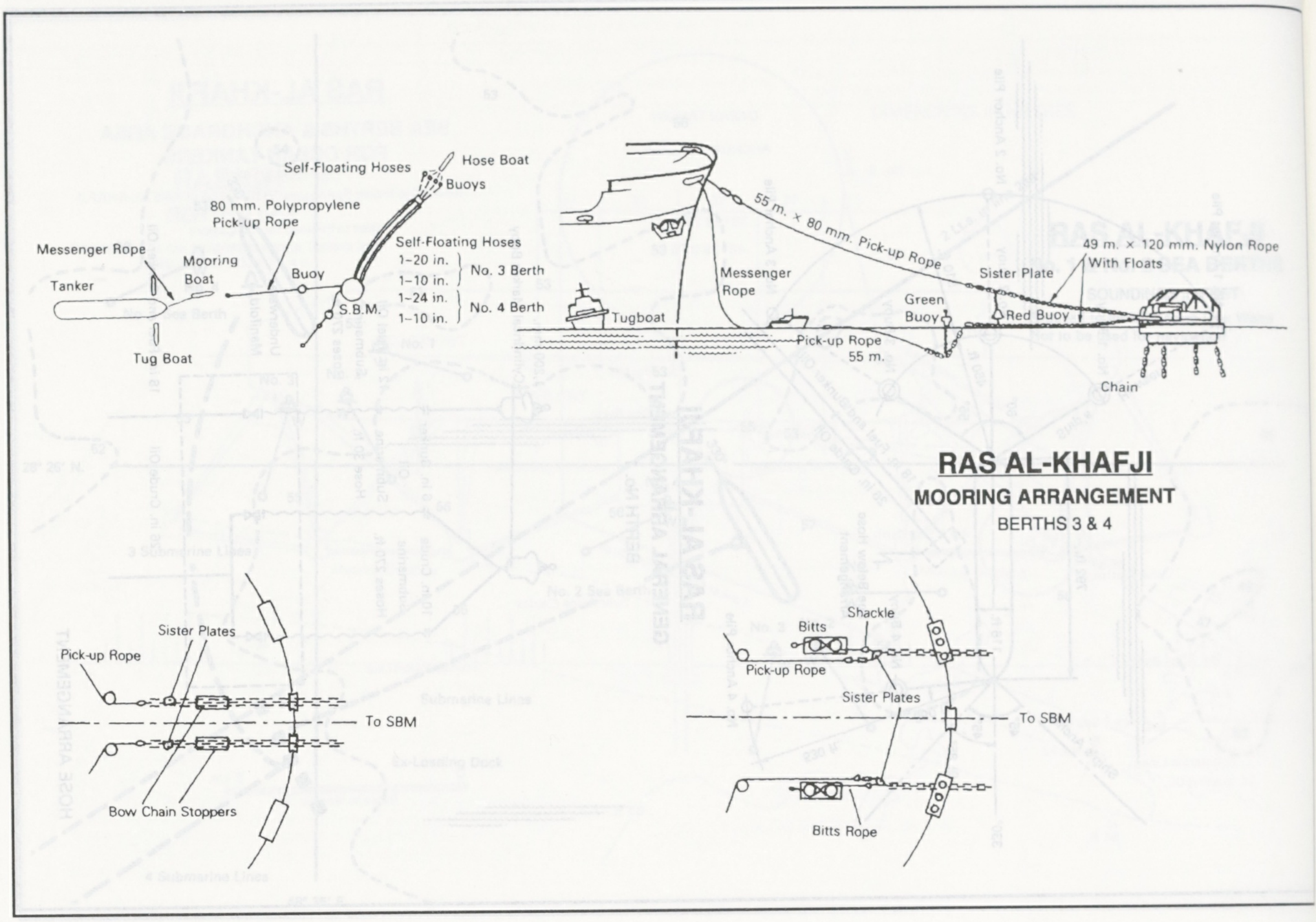
RAS AL-KHAFJI

GENERAL ARRANGEMENT

BERTH No. 1


1,200 mm.
Cylindrical Marker Buoy
10 in. Crude
Submarine
Hoses 270 ft.
6 in. Bunker
Oil
Submarine
Hose 30 ft.
12 in. Fuel Oil
Submarine
Hoses 270 ft.
Underwater
Manifold
26 in. Crude Oil
18 in. Fuel and Bunker Oil

HOSE ARRANGEMENT

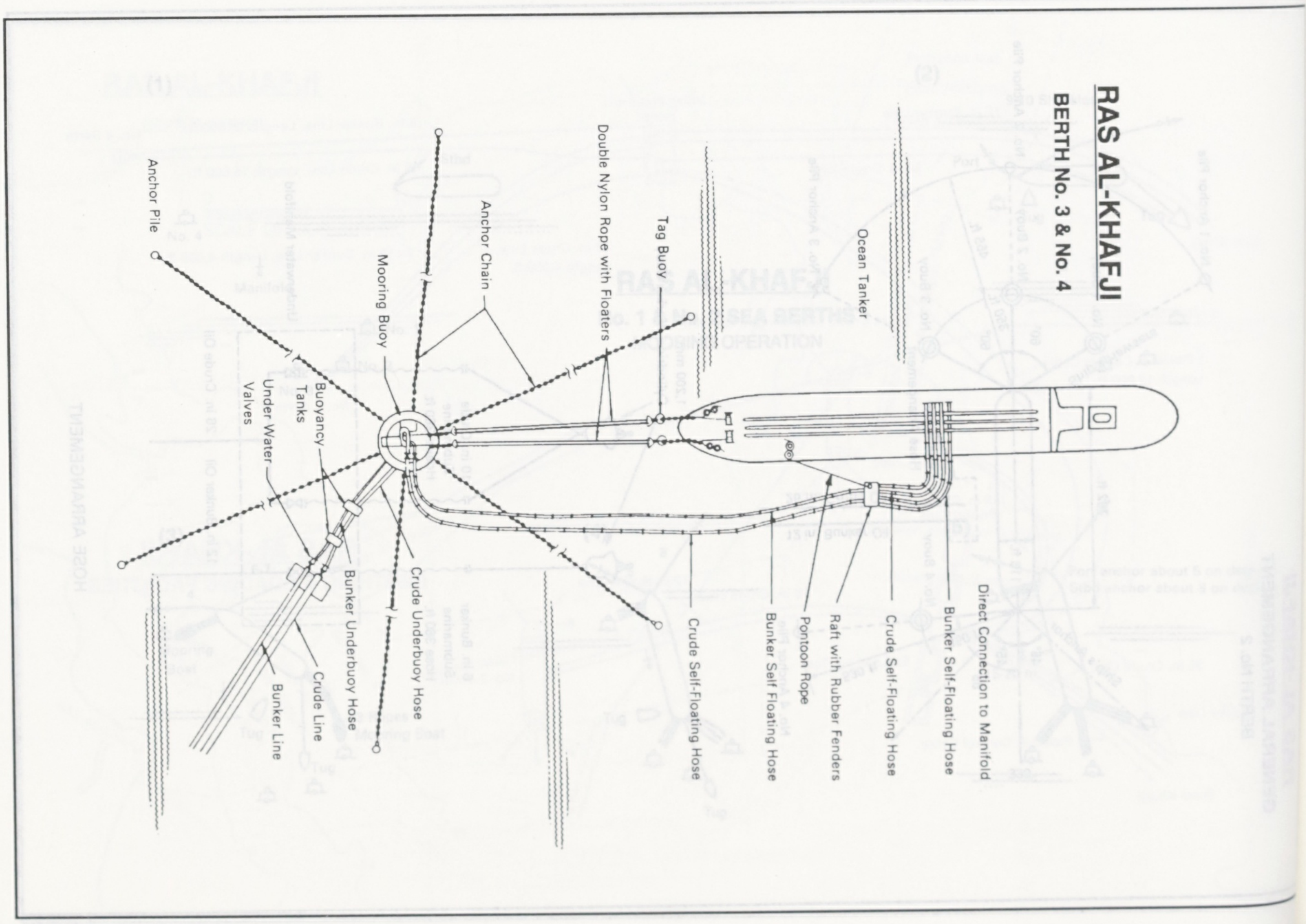


RAS AL-KHAFJI

MOORING ARRANGEMENT

BERTHS 3 & 4

Self-Floating Hoses
Hose Boat
Buoys
80 mm. Polypropylene Pick-up Rope
Messenger Rope
Mooring Boat
Tanker
Buoy
Self-Floating Hoses
1–20 in.
1–10 in.
No. 3 Berth
1–24 in.
1–10 in.
No. 4 Berth
S.B.M.
Tug Boat
55 m. × 80 mm. Pick-up Rope
49 m. × 120 mm. Nylon Rope With Floats
Messenger Rope
Sister Plate
Green Buoy
Red Buoy
Tugboat
Pick-up Rope 55 m.
Chain
Sister Plates
Pick-up Rope
To SBM
Bow Chain Stoppers
Bitts
Shackle
Pick-up Rope
Sister Plates
To SBM
Bitts Rope

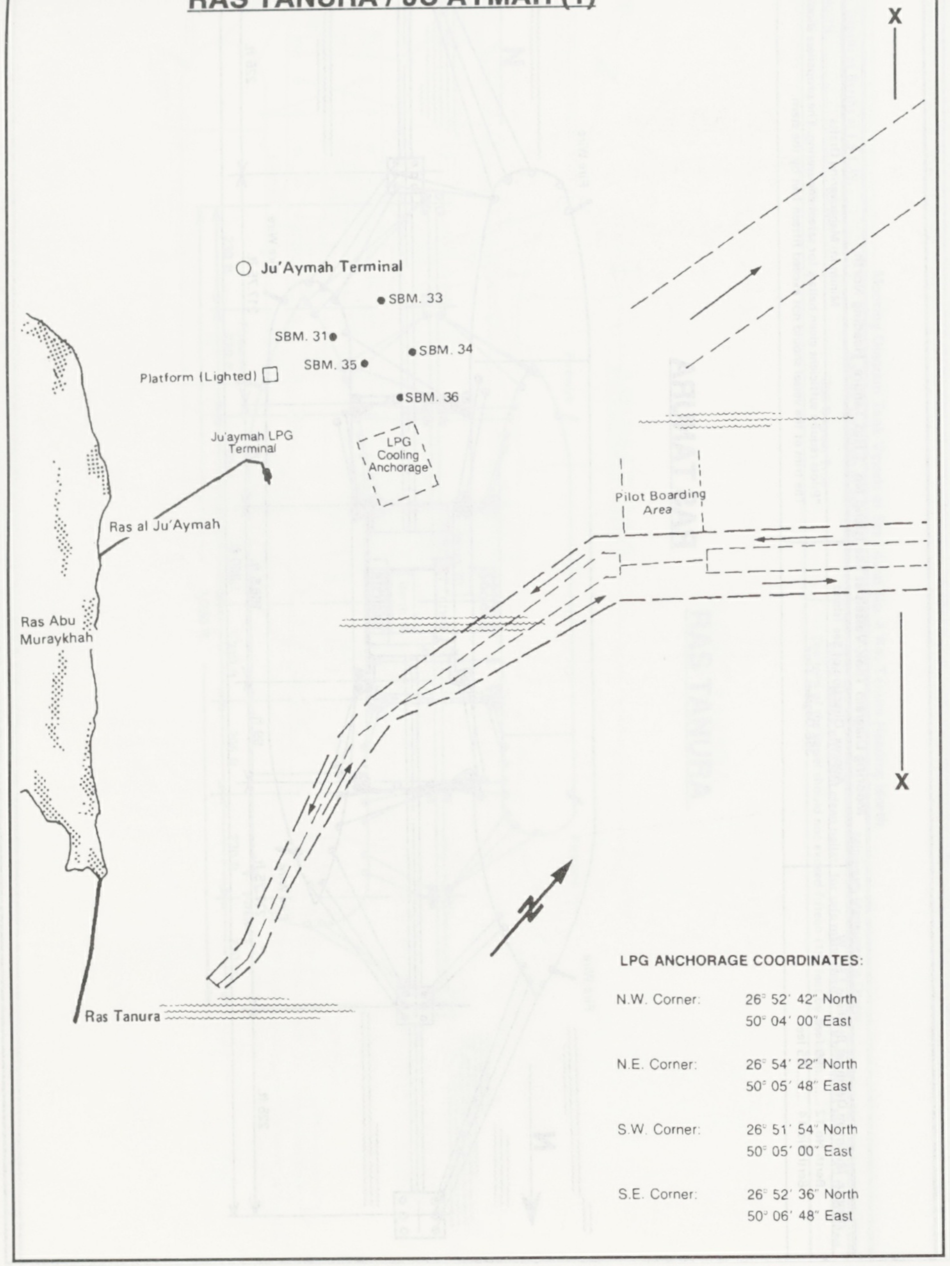


RAS AL-KHAFJI

BERTH No. 3 & No. 4

Ocean Tanker
Tag Buoy
Double Nylon Rope with Floaters
Anchor Chain
Mooring Buoy
Anchor Pile
Buoyancy Tanks
Under Water Valves
Bunker Underbuoy Hose
Crude Underbuoy Hose
Crude Line
Bunker Line
Crude Self-Floating Hose
Bunker Self Floating Hose
Pontoon Rope
Raft with Rubber Fenders
Crude Self-Floating Hose
Bunker Self-Floating Hose
Direct Connection to Manifold

RAS TANURA / JU'AYMAH (1)

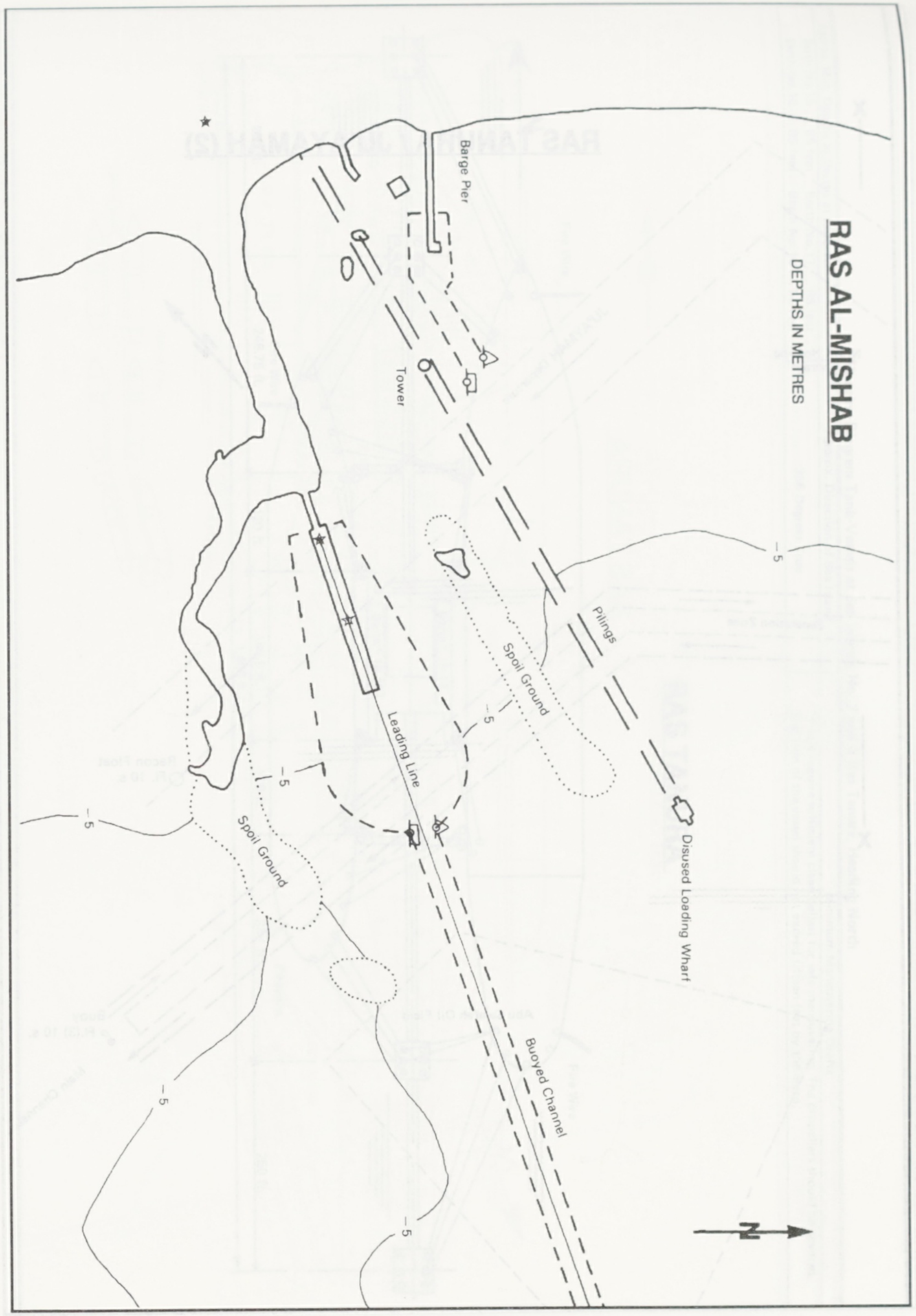

X
Ju'Aymah Terminal
SBM. 33
SBM. 31
SBM. 34
SBM. 35
Platform (Lighted)
SBM. 36
Ju'aymah LPG Terminal
LPG Cooling Anchorage
Pilot Boarding Area
Ras al Ju'Aymah
Ras Abu Muraykhah
X
N
Ras Tanura

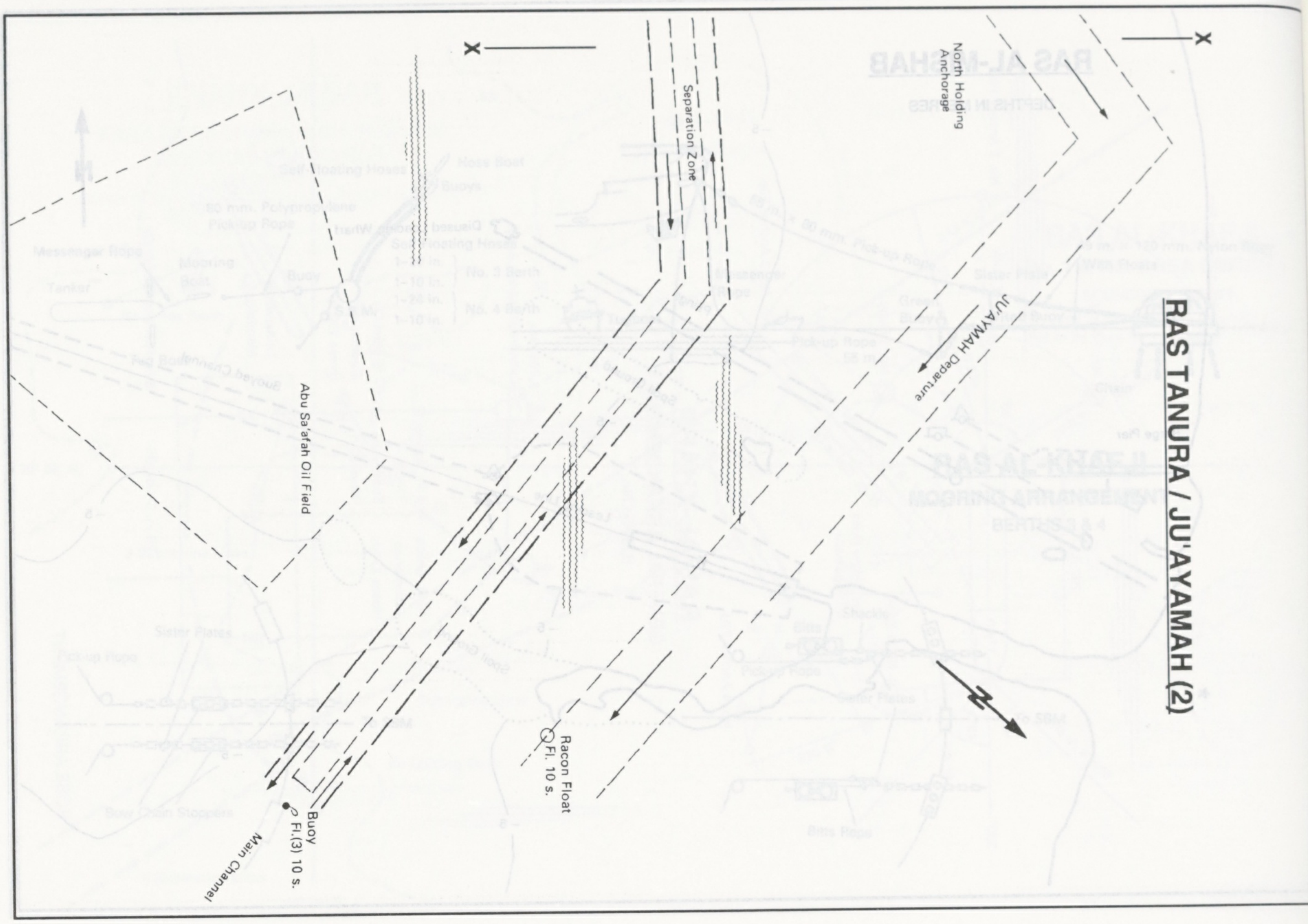
LPG ANCHORAGE COORDINATES:

N.W. Corner:	26° 52' 42" North 50° 04' 00" East
N.E. Corner:	26° 54' 22" North 50° 05' 48" East
S.W. Corner:	26° 51' 54" North 50° 05' 00" East
S.E. Corner:	26° 52' 36" North 50° 06' 48" East

RAS AL-MISHAB

DEPTHS IN METRES


Barge Pier
Tower
-5
Pilings
Spoil Ground
-5
Leading Line
-5
-5
Spoil Ground
Disused Loading Wharf
-5
Buoyed Channel
-5
N



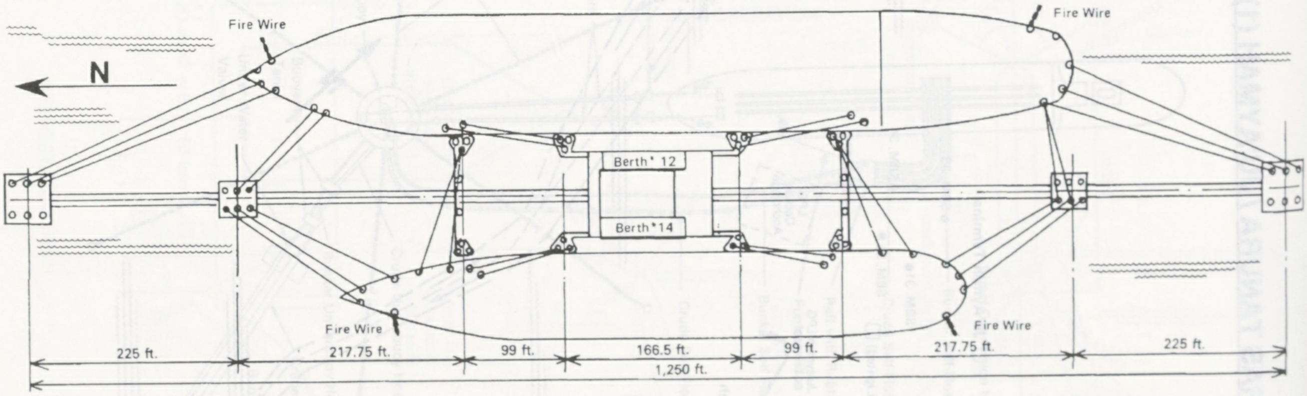
RAS TANURA / JU'AYAMAH (2)

X
X
Separation Zone
North Holding Anchorage
JU'AYMAH Departure
Abu Sa'afah Oil Field
Racon Float
Fl. 10 s.
Buoy
Fl.(3) 10 s.
Main Channel

Mooring-Diagram Tank-Vessels at Sea Island No. 1 Ras Tanura, Heading North.

Approx. Minimum Depths at Berths at I.S.L.W.	Approx. Direction of Sea Island	Minimum Maneuvering Drafts
Berth No.12 .... 85 feet Berth No.14 .... 85 feet	356 Degrees True	*Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed fifteen feet by the stern.

RAS TANURA

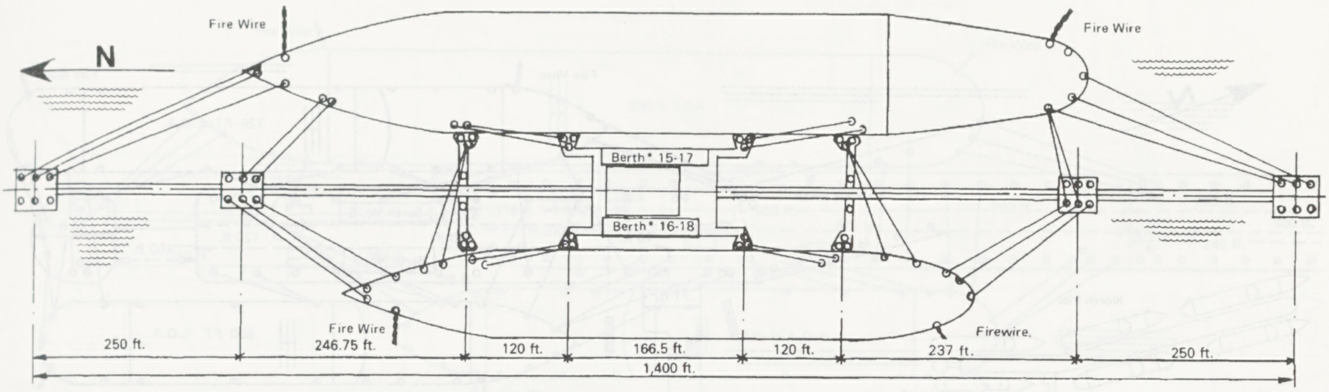


Fire Wire
N
Fire Wire
Berth 12
Berth 14
Fire Wire
Fire Wire
225 ft.
217.75 ft.
99 ft.
166.5 ft.
99 ft.
217.75 ft.
225 ft.
1,250 ft.

Mooring-Diagram Tank-Vessels at Sea Islands No. 2 and 3 Ras Tanura, Heading North

Approx. Min. Depths at Berths at I.S.L.W.	Approx. Direction of Sea Island	Minimum Maneuvering Drafts
Berth No.15 .... 85 feet Berth No.17 .... 85 feet Berth No.16 .... 85 feet Berth No.18 .... 85 feet	356 Degrees True	*Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed fifteen feet by the stern.

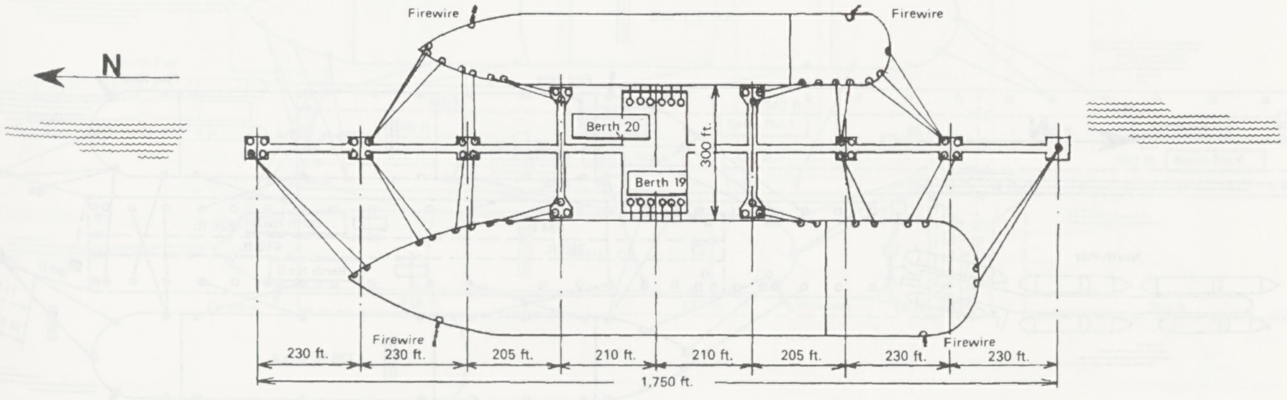
RAS TANURA


Fire Wire
N
Fire Wire
Berth* 15-17
Berth* 16-18
Fire Wire
Firewire.
250 ft.
246.75 ft.
120 ft.
166.5 ft.
120 ft.
237 ft.
250 ft.
1,400 ft.

Mooring-Diagram Tank-Vessels at Sea Island No. 4 Ras Tanura Heading North

Approx. Min. Depths at Berths at I.S.L.W.	Approx. Direction of Sea Island	Minimum Maneuvering Drafts
Berth No.19 .... 85 feet Berth No.20 .... 85 feet	356 Degrees True	*Pilots require sufficient clean ballast for safe maneuvering. The propellers should not be covered. The trim of the vessel should not exceed fifteen (15) feet by the stern.

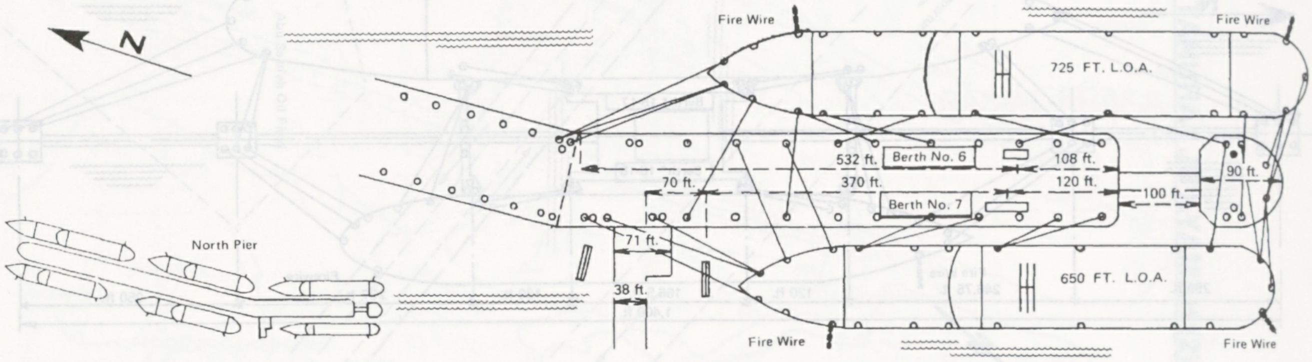
RAS TANURA


Firewire
Firewire
N
Berth 20
300 ft.
Berth 19
Firewire
Firewire
230 ft.
230 ft.
205 ft.
210 ft.
210 ft.
205 ft.
230 ft.
230 ft.
1,750 ft.

Mooring-Diagram Tank-Vessels at North Pier Ras Tanura, Heading North

Approx Minimum Depths at Berths at I.S.L.W.	Approximate Direction of Pier	Maneuvering Drafts
DEPTHS SUBJECT TO SURVEY	Berths Nos. 6 & 7 —346° True	Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed ten feet by the stern.

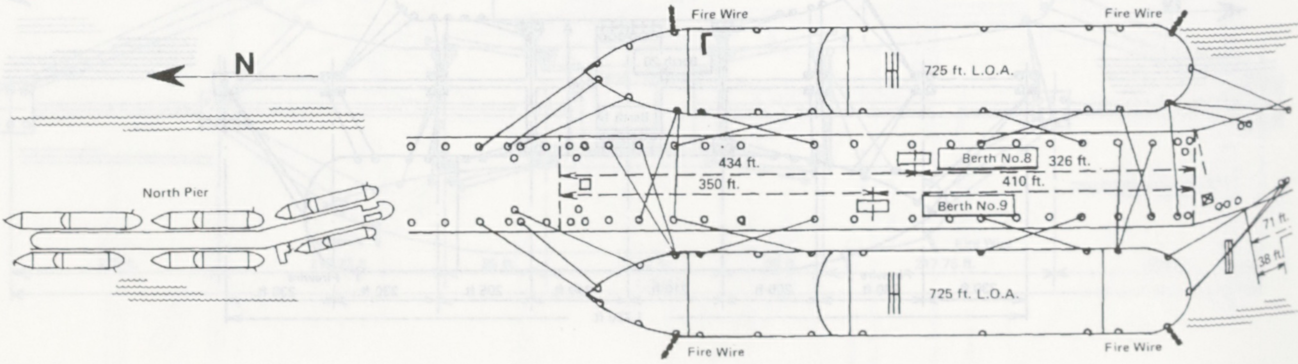
RAS TANURA


N
Fire Wire
Fire Wire
725 FT. L.O.A.
532 ft.
Berth No. 6
108 ft.
70 ft.
370 ft.
120 ft.
100 ft.
90 ft.
Berth No. 7
North Pier
71 ft.
38 ft.
650 FT. L.O.A.
Fire Wire
Fire Wire

Mooring-Diagram Tank-Vessels at North Pier Ras Tanura, Heading North

Approx. Minimum Depths at Berths at I.S.L.W.	Approximate Direction of Pier	Maneuvering Drafts
DEPTHS SUBJECT TO SURVEY	Berths Nos. 8, 9 – 360° True	Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed ten feet by the stern.

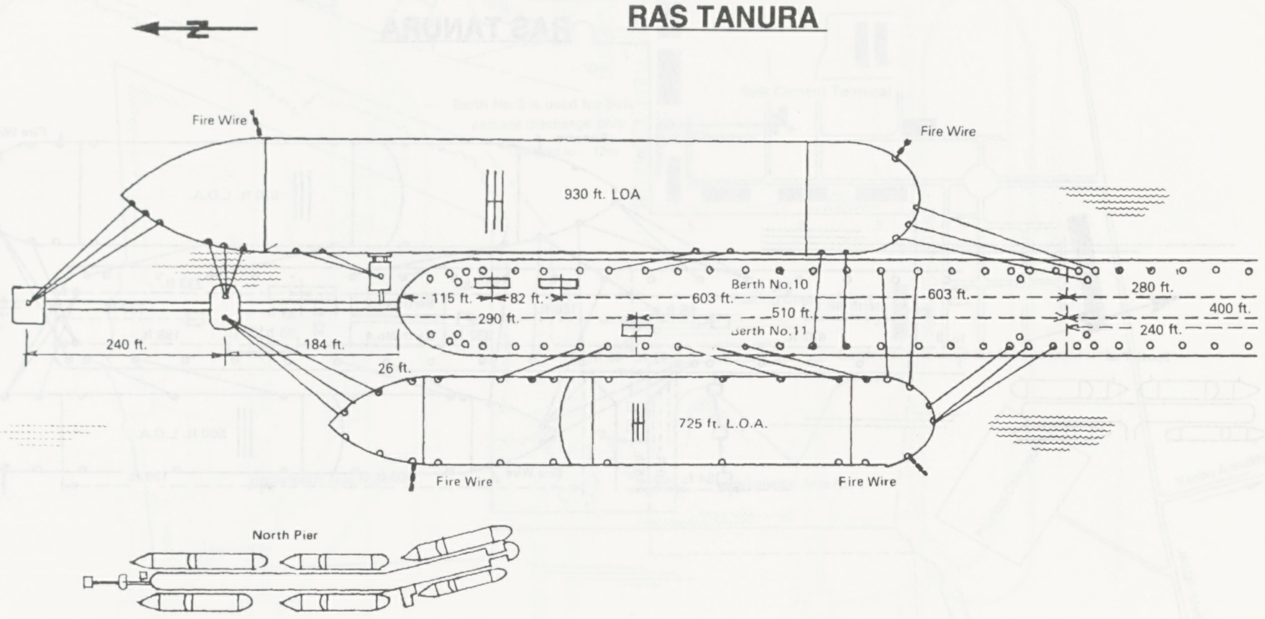
RAS TANURA


Fire Wire
Fire Wire
N
725 ft. L.O.A.
North Pier
Berth No.8
326 ft.
434 ft.
410 ft.
350 ft.
Berth No.9
71 ft.
38 ft.
725 ft. L.O.A.
Fire Wire
Fire Wire

Mooring-Diagram Tank-Vessels at North Pier Ras Tanura, Heading North

Approx. Minimum Depths at Berths at I.S.L.W.	Approximate Direction of Pier	Maneuvering Drafts
DEPTHS SUBJECT TO SURVEY	Berths Nos. 10 & 11-360° True	Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed ten feet by the stern.

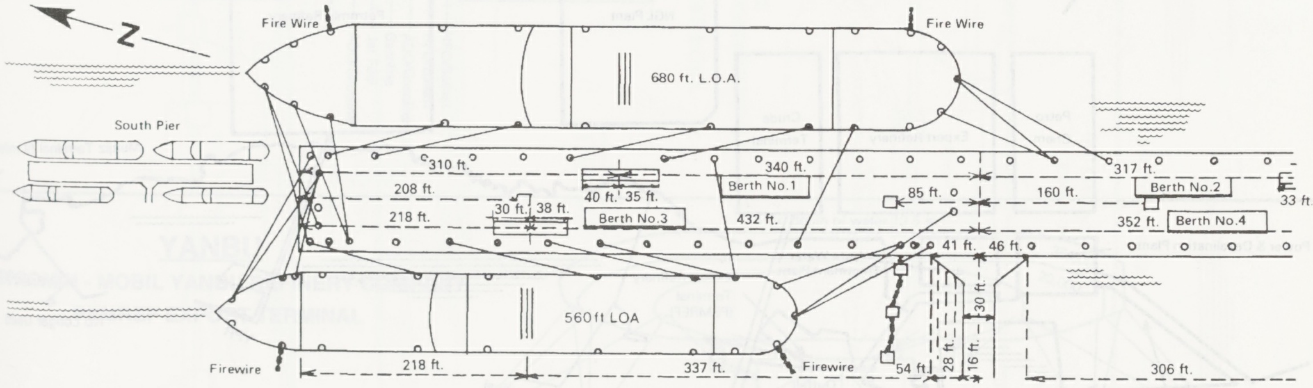
RAS TANURA


N
Fire Wire
Fire Wire
930 ft. LOA
115 ft.
82 ft.
290 ft.
603 ft.
Berth No.10
510 ft.
Berth No.11
603 ft.
280 ft.
400 ft.
240 ft.
240 ft.
184 ft.
26 ft.
725 ft. L.O.A.
Fire Wire
Fire Wire
North Pier

Mooring-Diagram Tank-Vessels at South Pier Ras Tanura, Heading North.

Approx. Min. Depths at Berths at I.S.L.W.	Approximate Direction of Pier	Maneuvering Drafts
DEPTHS SUBJECT TO SURVEY	346 Degrees True	Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed ten feet by the stern.

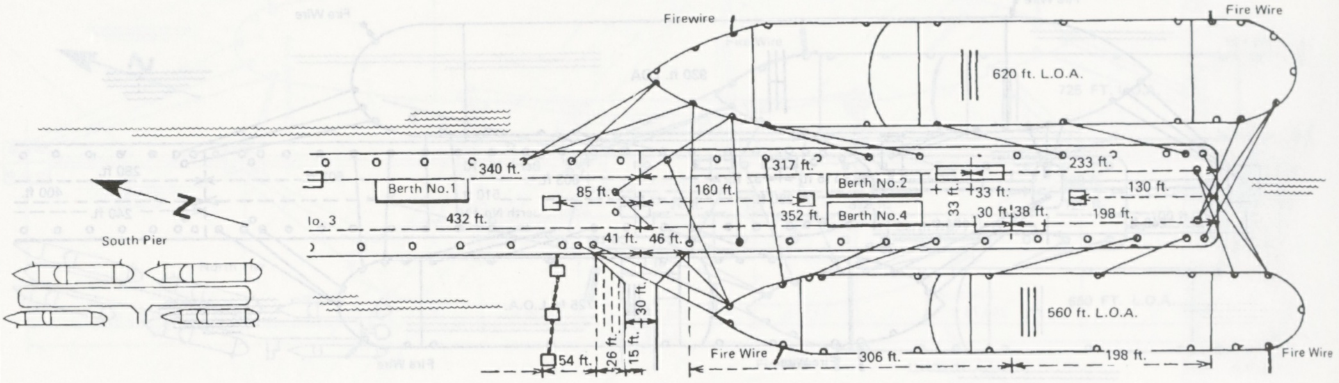
RAS TANURA


N
Fire Wire
Fire Wire
680 ft. L.O.A.
South Pier
310 ft.
340 ft.
317 ft.
Berth No.1
Berth No.2
208 ft.
40 ft.
35 ft.
85 ft.
160 ft.
33 ft.
218 ft.
30 ft.
38 ft.
Berth No.3
432 ft.
352 ft.
Berth No.4
41 ft.
46 ft.
30 ft.
560 ft LOA
Firewire
Firewire
218 ft.
337 ft.
54 ft.
28 ft.
16 ft.
306 ft.

Mooring-Diagram Tank-Vessels at South Pier Ras Tanura, Heading North.

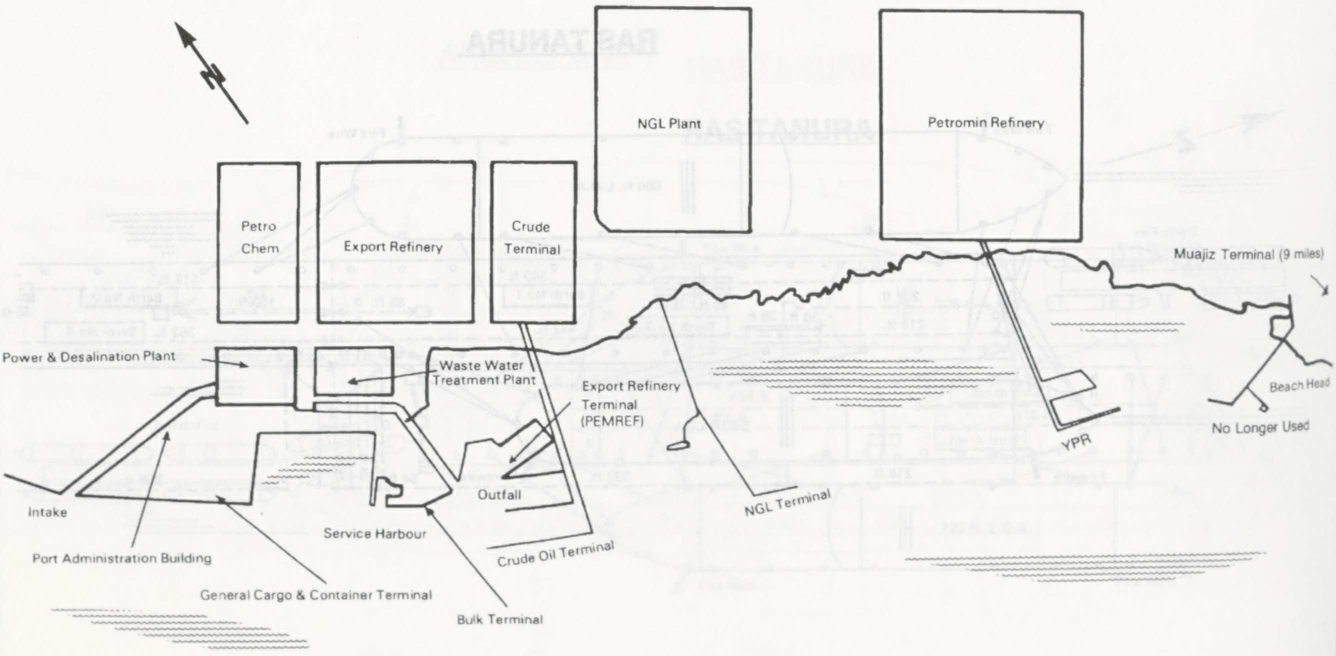
Approx. Minimum Depths at Berths at I.S.L.W.	Approximate Direction of Pier	Maneuvering Drafts
DEPTHS SUBJECT TO SURVEY	346 Degrees True	Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed ten feet by the stern.

RAS TANURA


Firewire
Fire Wire
620 ft. L.O.A.
340 ft.
85 ft.
160 ft.
317 ft.
Berth No.2
233 ft.
130 ft.
Berth No.1
432 ft.
lo. 3
352 ft.
Berth No.4
33 ft.
33 ft.
30 ft.
38 ft.
198 ft.
Z
South Pier
41 ft.
46 ft.
30 ft.
560 ft. L.O.A.
26 ft.
15 ft.
54 ft.
Fire Wire
306 ft.
198 ft.
Fire Wire

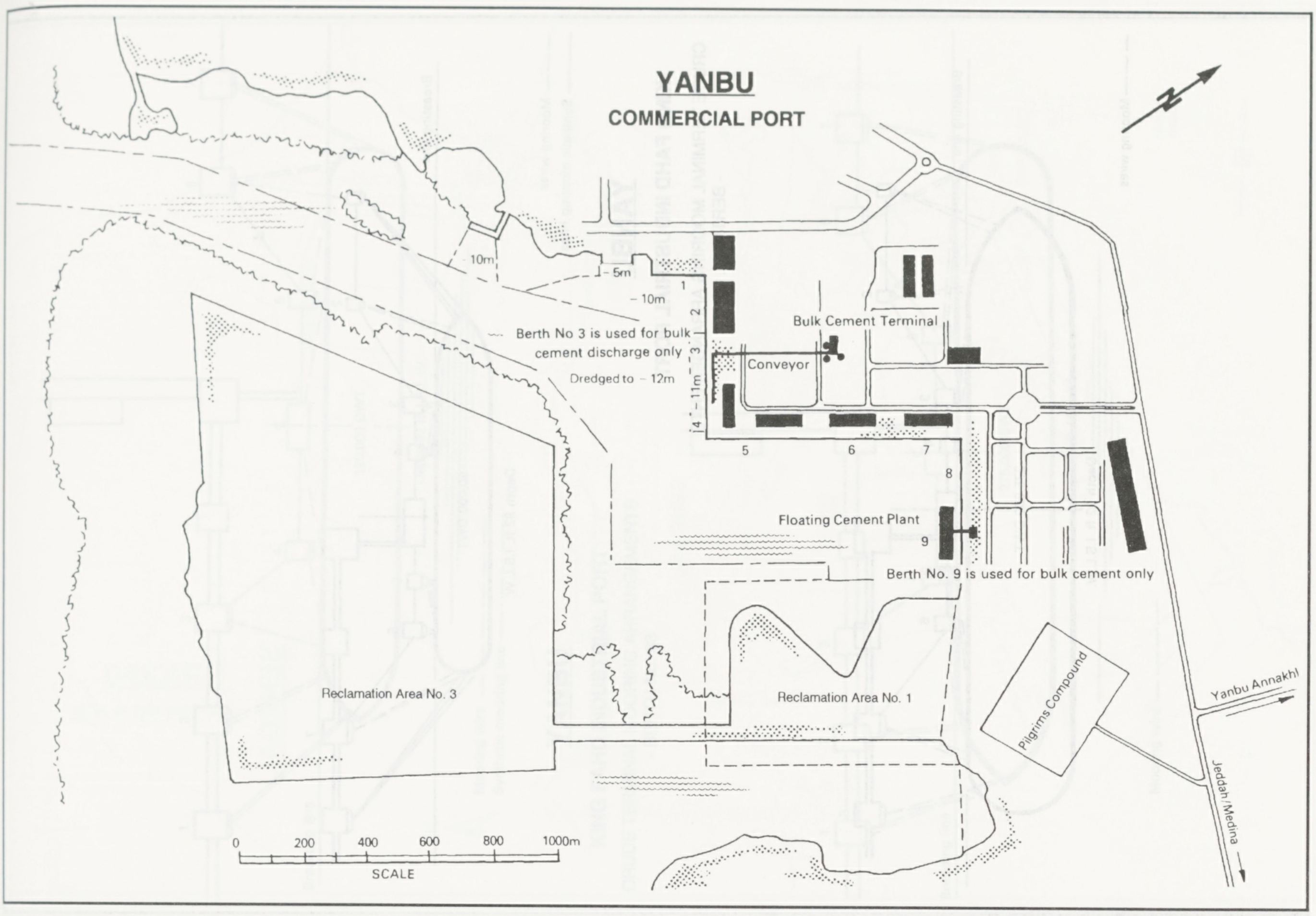
YANBU

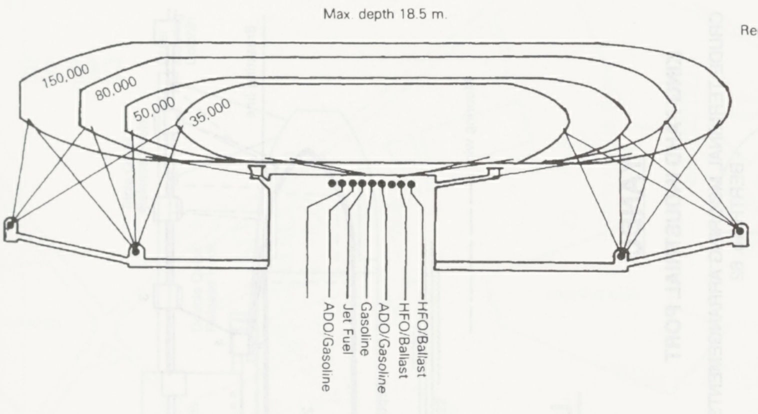
KING FAHD PORT


N
NGL Plant
Petromin Refinery
Petro Chem
Export Refinery
Crude Terminal
Muajiz Terminal (9 miles)
Power & Desalination Plant
Waste Water Treatment Plant
Export Refinery Terminal (PEMREF)
Beach Head
No Longer Used
YPR
Intake
Outfall
NGL Terminal
Service Harbour
Crude Oil Terminal
Port Administration Building
General Cargo & Container Terminal
Bulk Terminal

YANBU

COMMERCIAL PORT


- 10m
- 5m
- 10m
1
2
3
4
Berth No 3 is used for bulk cement discharge only
Dredged to - 12m
4 - 11m
Bulk Cement Terminal
Conveyor
5
6
7
8
Floating Cement Plant
9
Berth No. 9 is used for bulk cement only
Reclamation Area No. 3
Reclamation Area No. 1
Pilgrims Compound
Yanbu Annakhl
Jeddah/Medina
0
200
400
600
800
1000m
SCALE

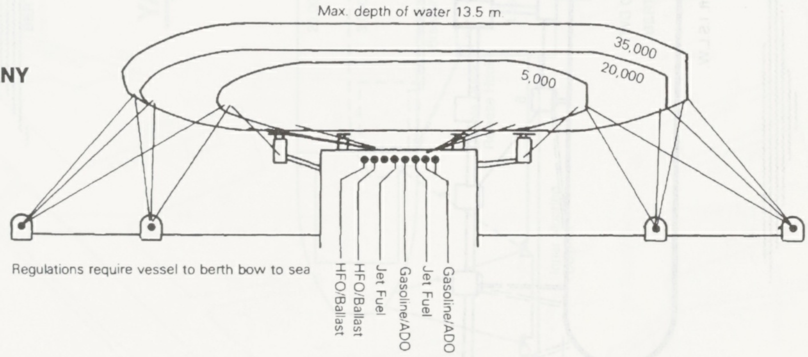

Max. depth 18.5 m.
150,000
80,000
50,000
35,000
HFO/Ballast
HFO/Ballast
ADO/Gasoline
Gasoline
Jet Fuel
ADO/Gasoline

Regulations require vessel to berth bow to sea

BERTH 54 & 55 35,000 – 150,000 DWT

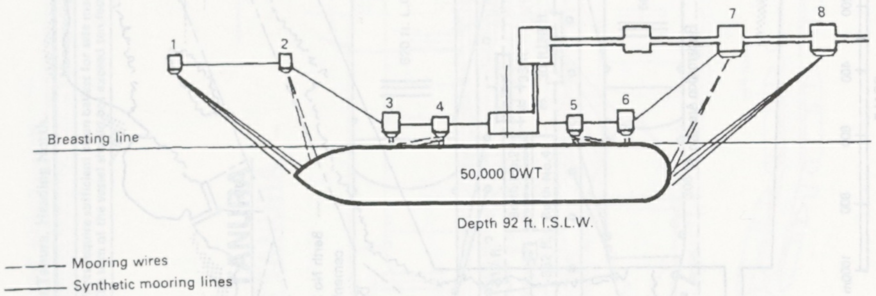
YANBU

PETROMIN - MOBIL YANBU REFINERY COMPANY
PEMREF EXPORT TERMINAL


Max. depth of water 13.5 m
35,000
20,000
5,000
HFO/Ballast
HFO/Ballast
Jet Fuel
Gasoline/ADO
Jet Fuel
Gasoline/ADO

Regulations require vessel to berth bow to sea

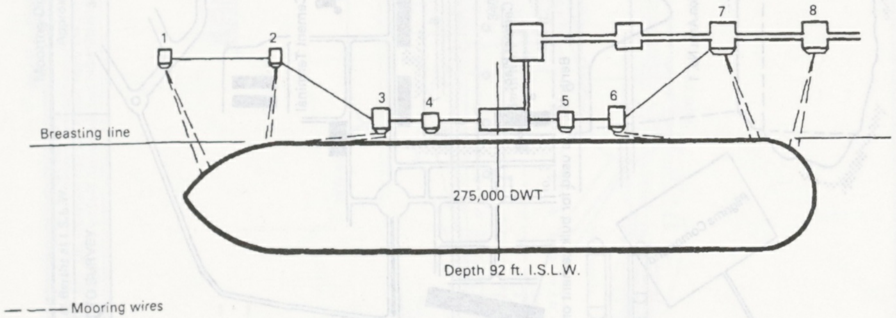
BERTH 42 5,000 – 35,000 DWT

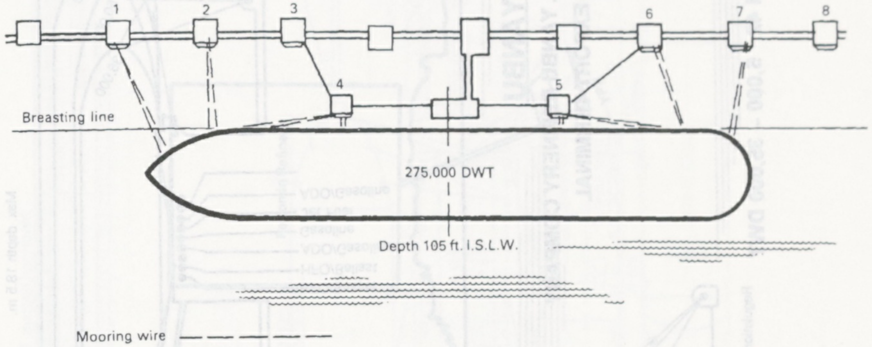

1
2
3
4
5
6
7
8
Breasting line
50,000 DWT
Depth 92 ft. I.S.L.W.
Mooring wires
Synthetic mooring lines

YANBU

KING FAHD INDUSTRIAL PORT

CRUDE TERMINAL MOORING ARRANGEMENTS
- BERTH No. 61

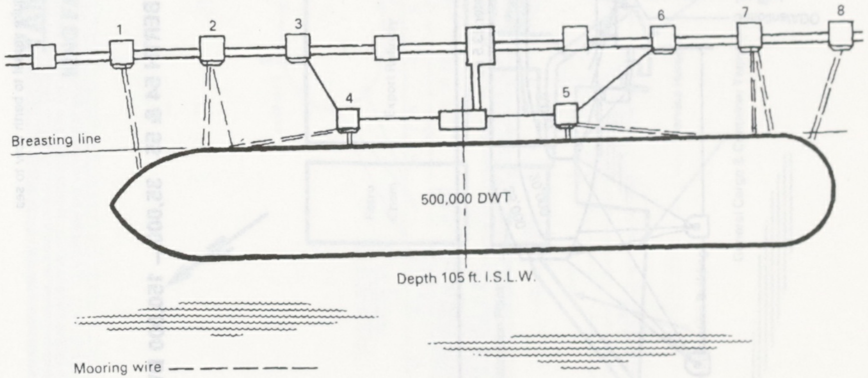

1
2
3
4
5
6
7
8
Breasting line
275,000 DWT
Depth 92 ft. I.S.L.W.
Mooring wires

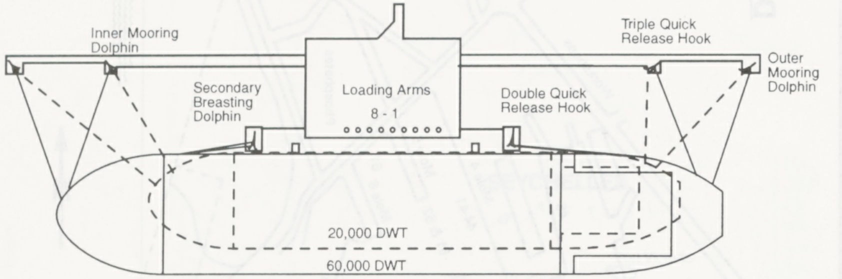

1
2
3
4
5
6
7
8
Breasting line
275,000 DWT
Depth 105 ft. I.S.L.W.
Mooring wire

YANBU

KING FAHD INDUSTRIAL PORT

CRUDE TERMINAL MOORING ARRANGEMENTS
- BERTH No. 62

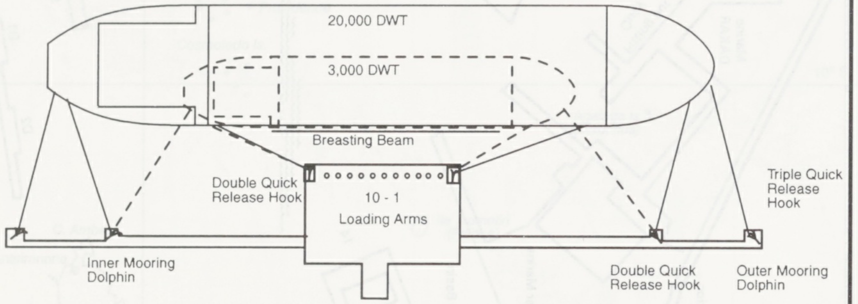

1
2
3
4
5
6
7
8
Breasting line
500,000 DWT
Depth 105 ft. I.S.L.W.
Mooring wire


Inner Mooring Dolphin
Triple Quick Release Hook
Outer Mooring Dolphin
Secondary Breasting Dolphin
Loading Arms
8 - 1
Double Quick Release Hook
20,000 DWT
60,000 DWT

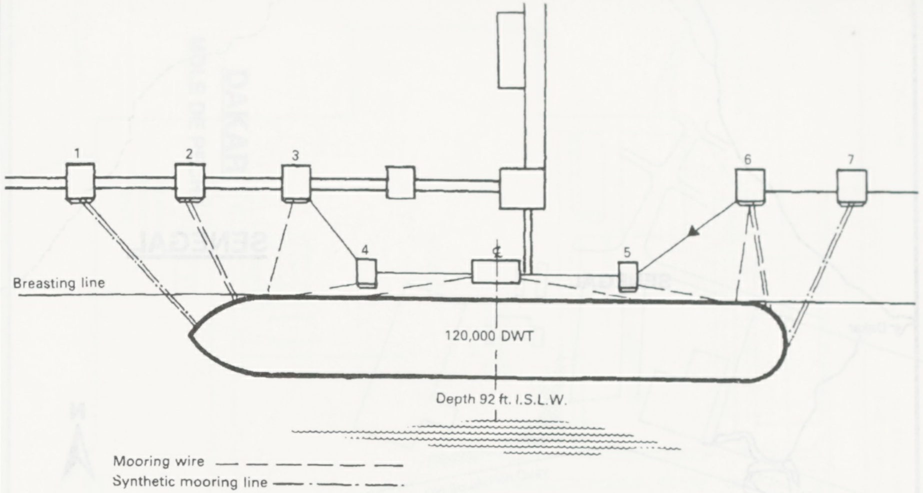
BERTHS 91 & 92

YANBU

Y.P.R.


20,000 DWT
3,000 DWT
Breasting Beam
Double Quick Release Hook
10 - 1
Loading Arms
Triple Quick Release Hook
Inner Mooring Dolphin
Double Quick Release Hook
Outer Mooring Dolphin

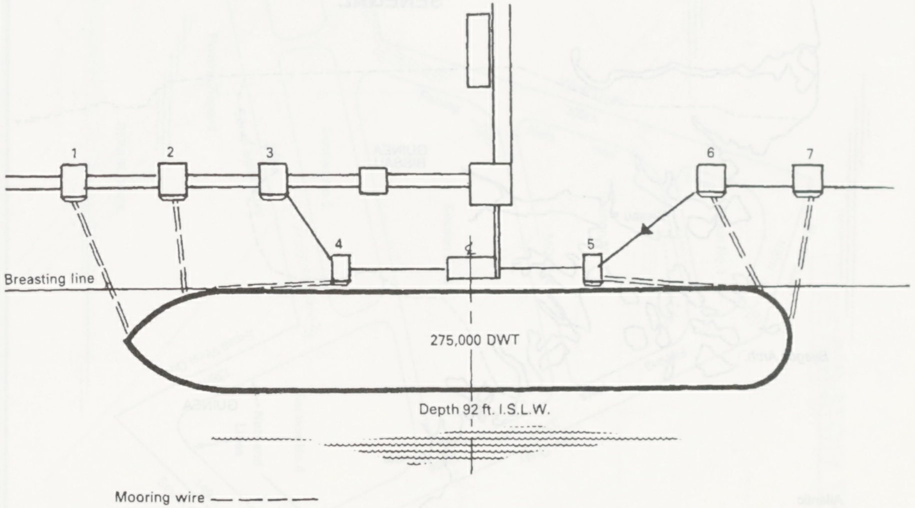
BERTHS 93 & 94

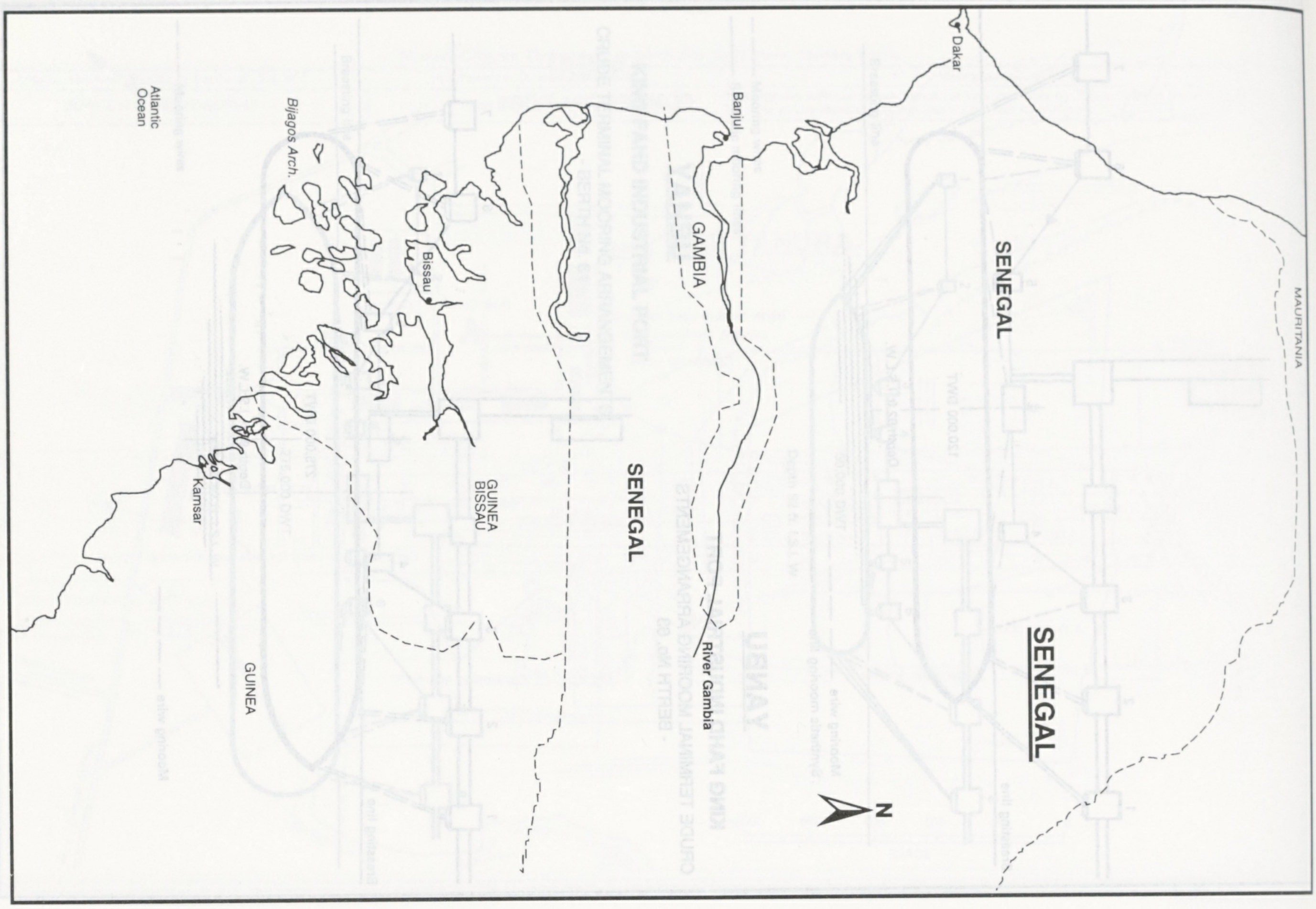

1
2
3
6
7
4
℄
5
Breasting line
120,000 DWT
Depth 92 ft. I.S.L.W.
Mooring wire
Synthetic mooring line

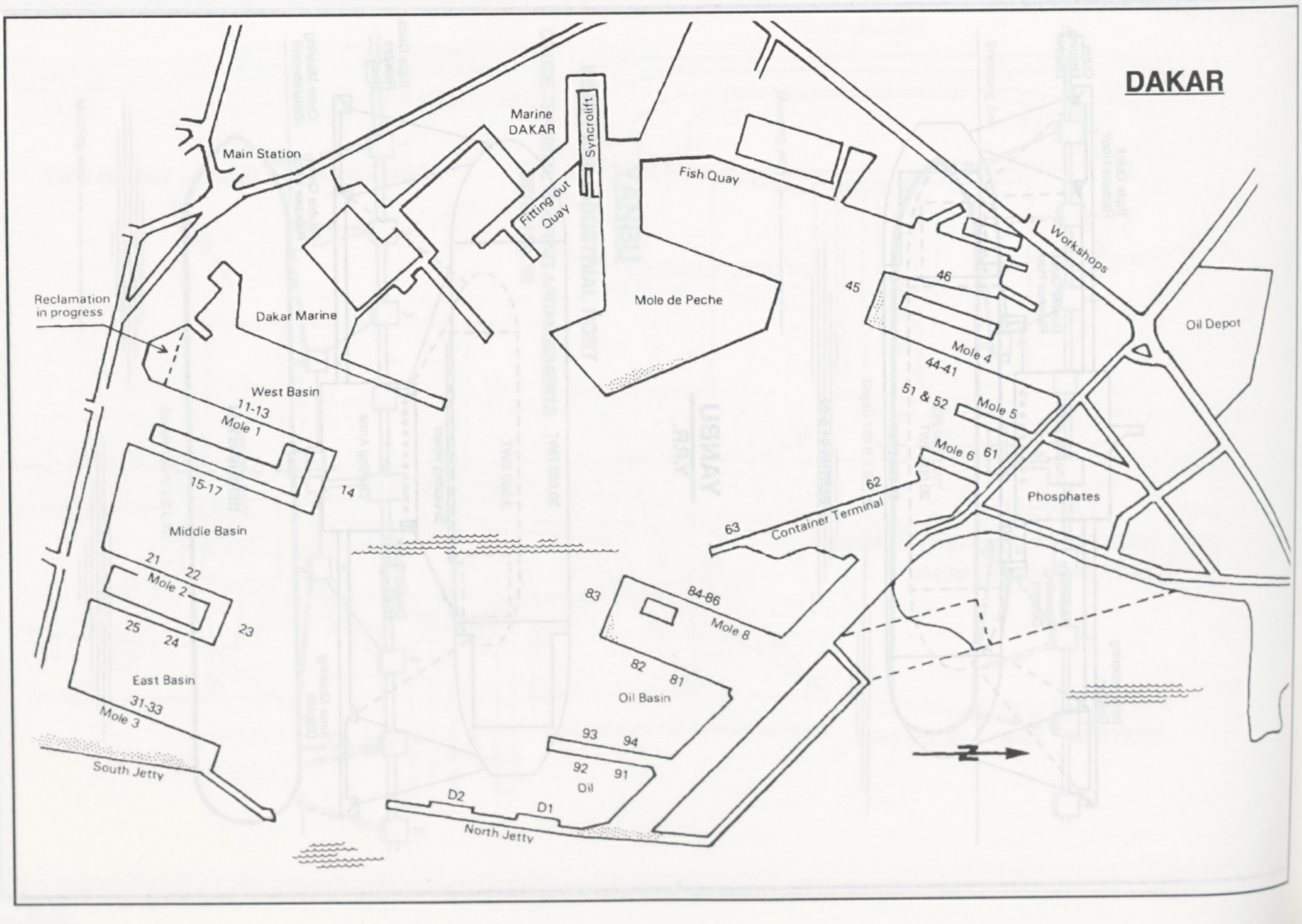
YANBU

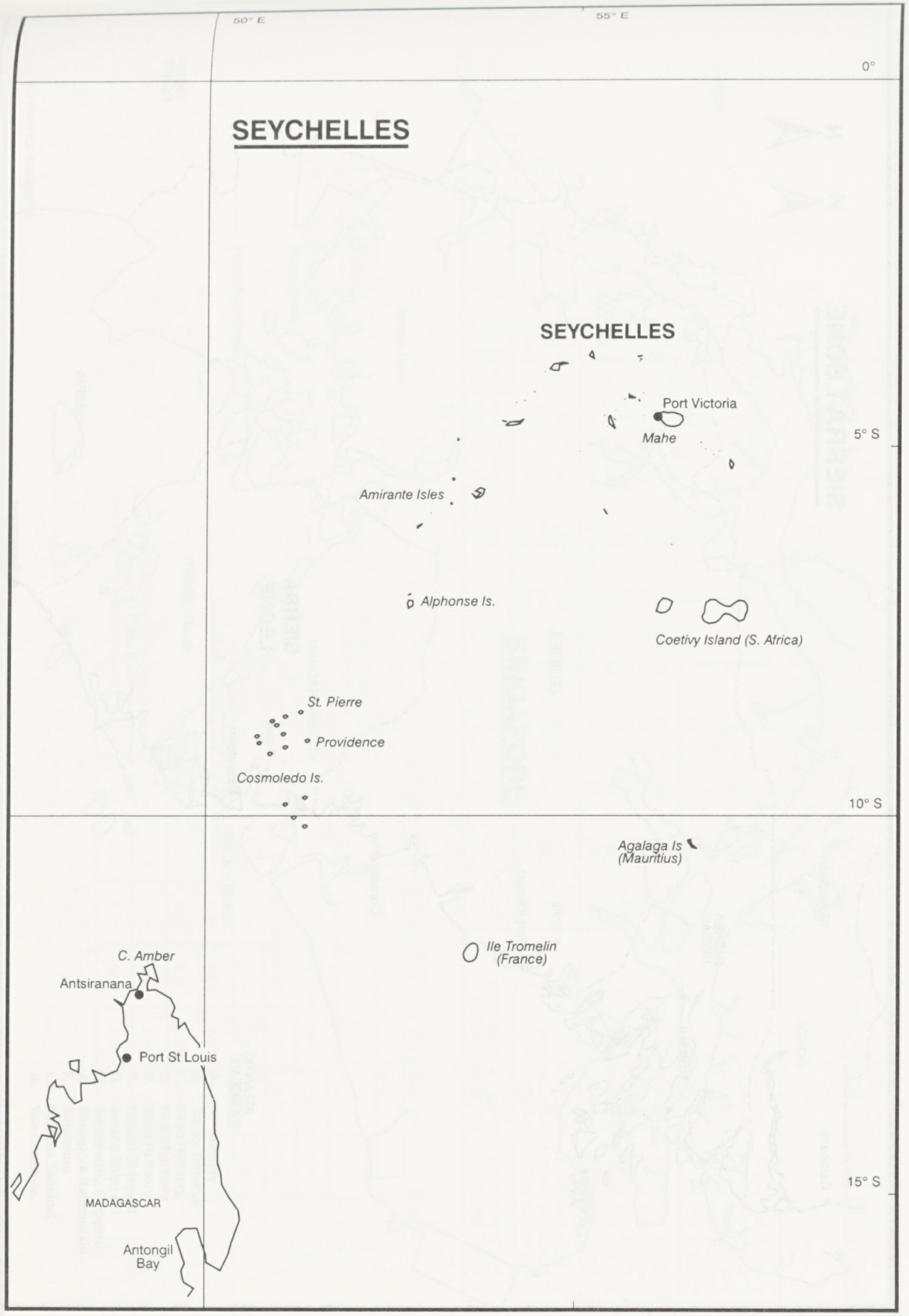
KING FAHD INDUSTRIAL PORT

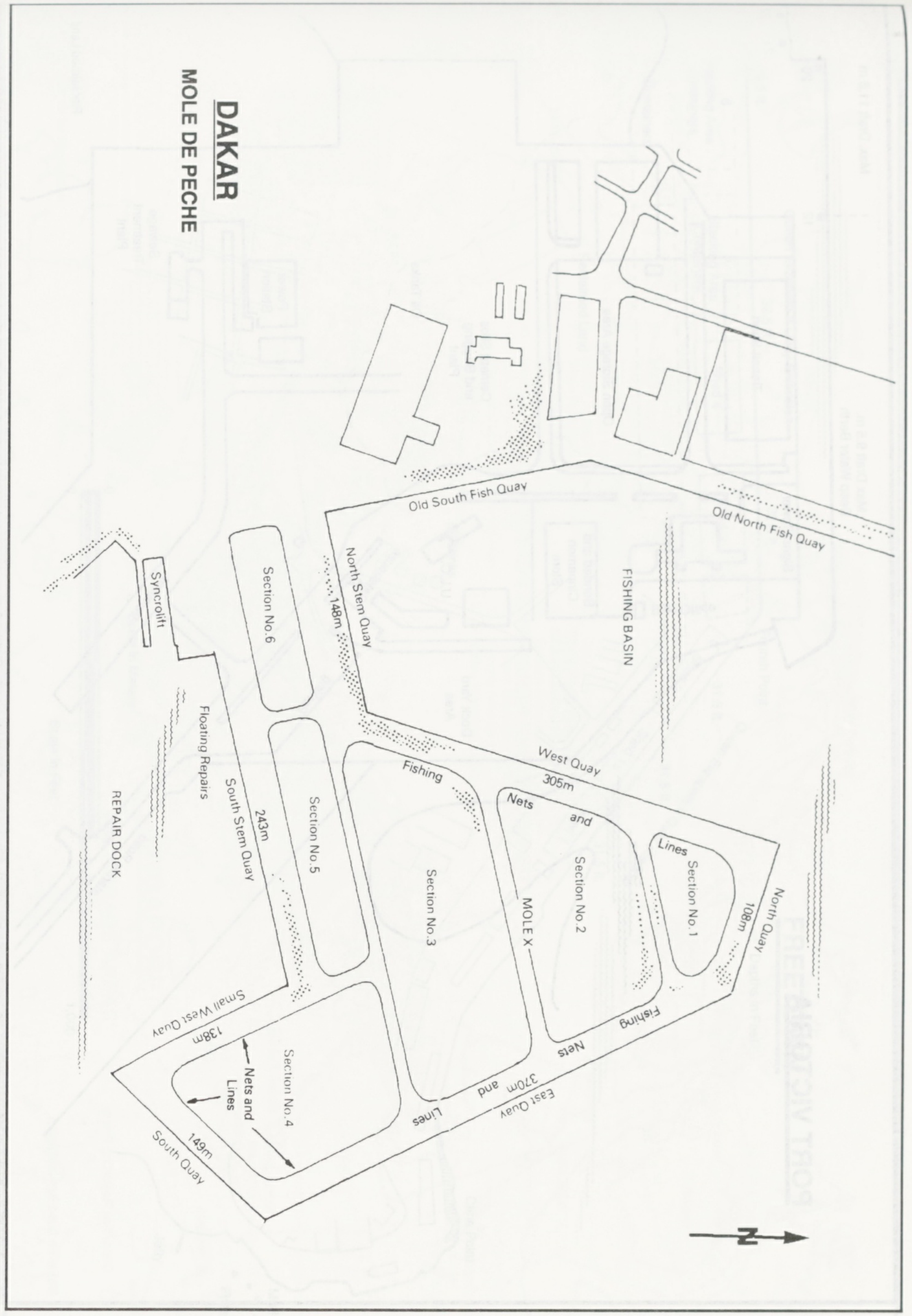
CRUDE TERMINAL MOORING ARRANGEMENTS
- BERTH No. 63

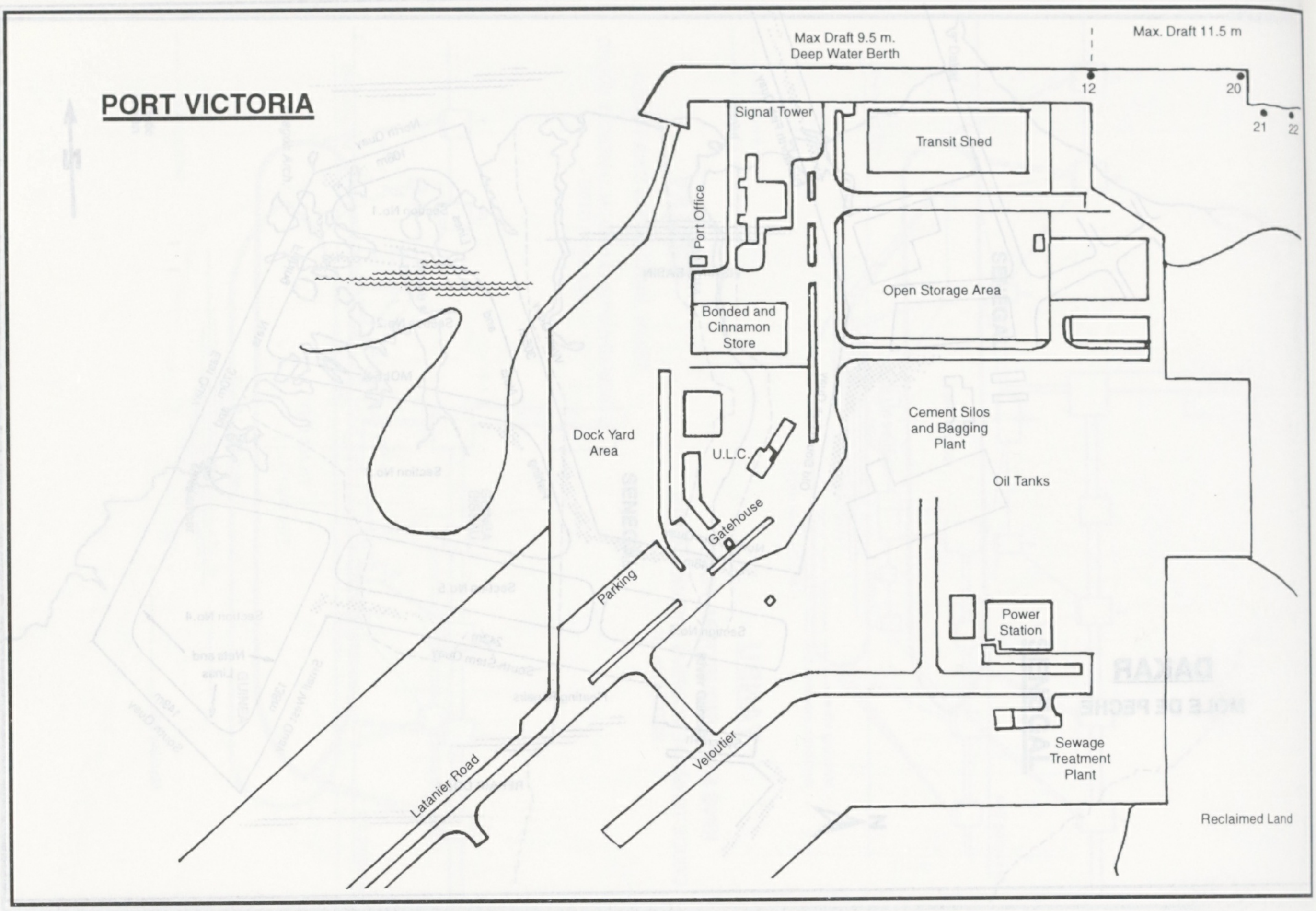

1
2
3
6
7
4
℄
5
Breasting line
275,000 DWT
Depth 92 ft. I.S.L.W.
Mooring wire

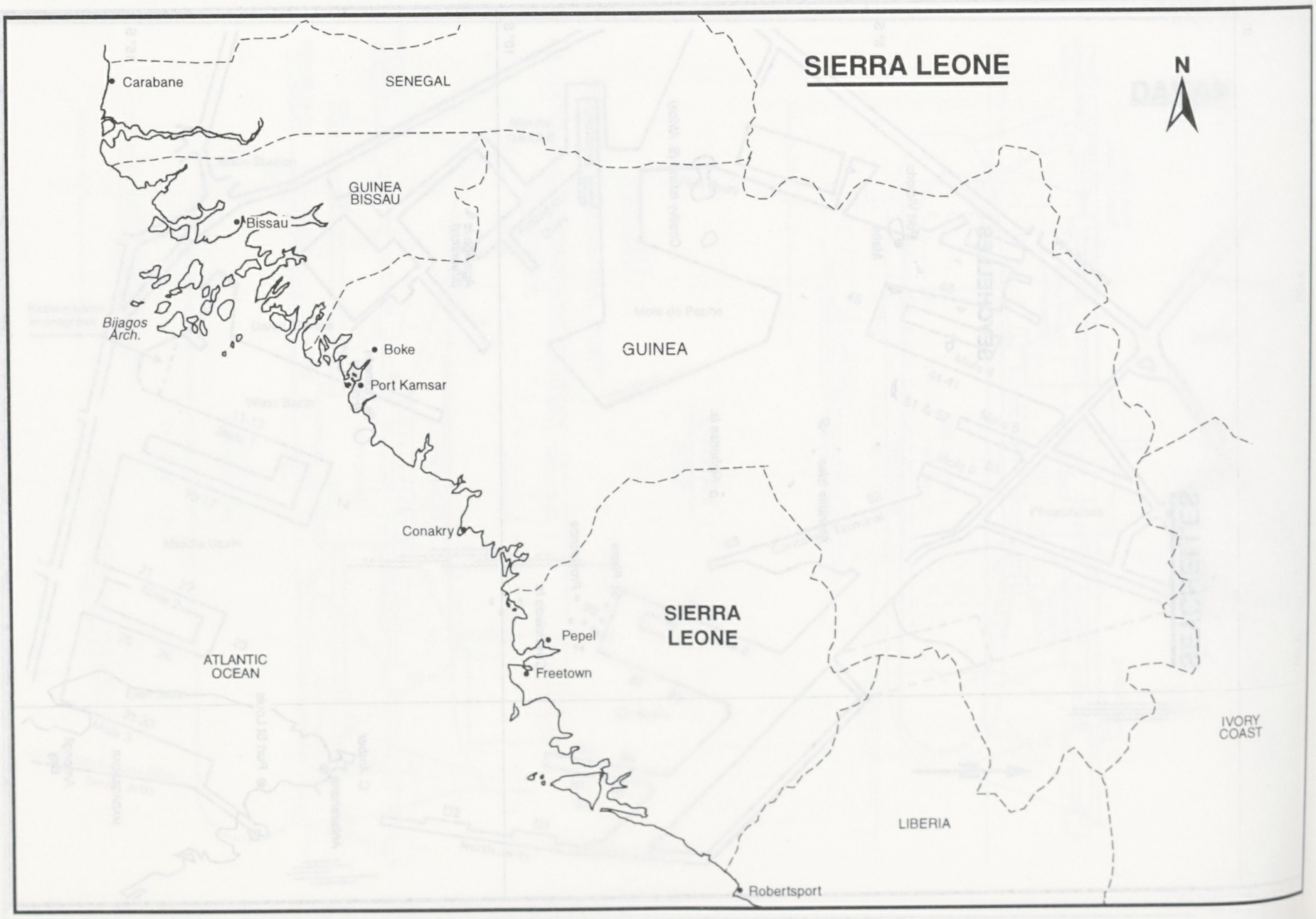

Dakar
Banjul
GAMBIA
River Gambia
SENEGAL
SENEGAL
SENEGAL
MAURITANIA
Bissau
GUINEA BISSAU
Bijagos Arch.
Atlantic Ocean
Kamsar
GUINEA
N

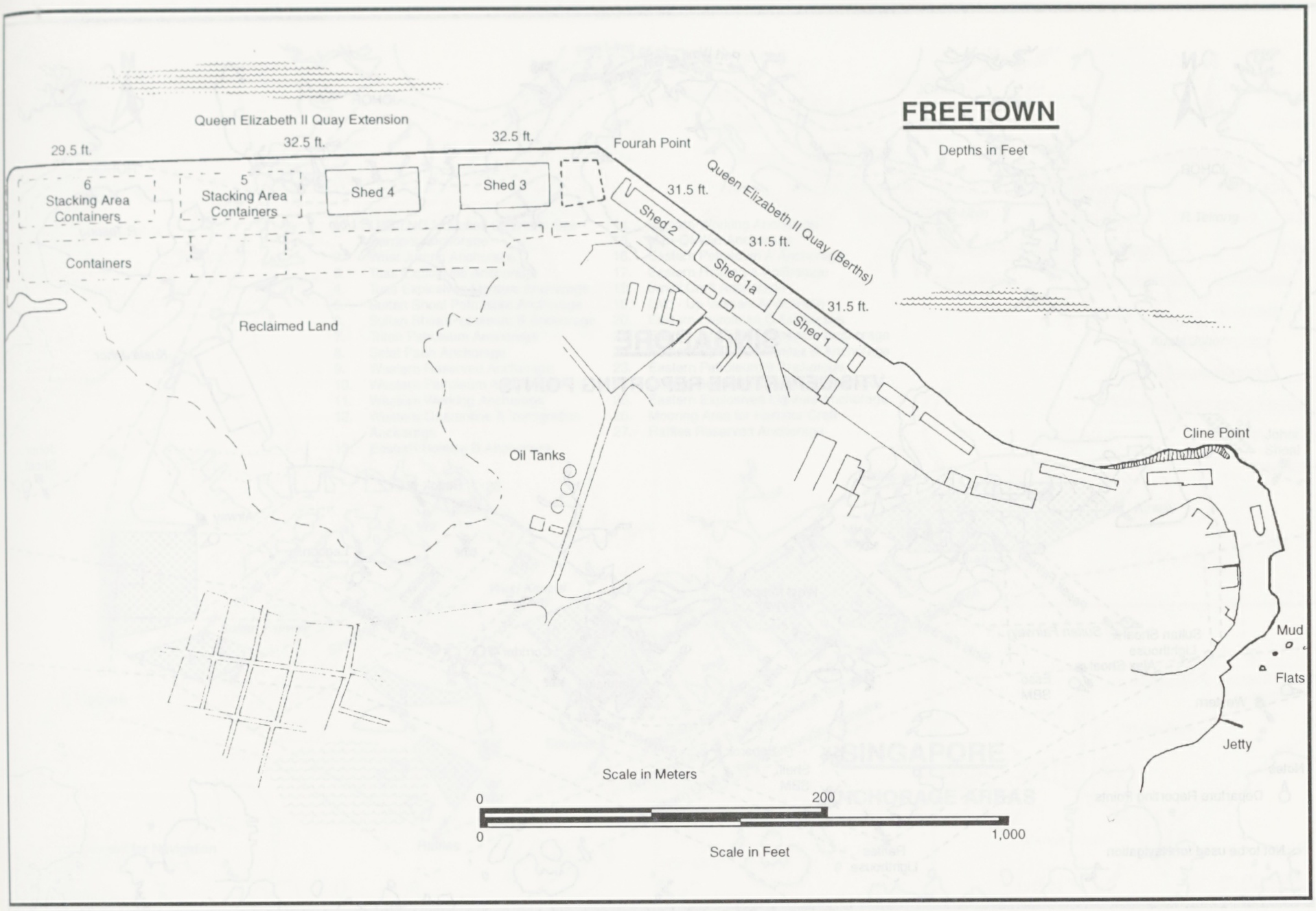

DAKAR
Main Station
Marine DAKAR
Syncrolift
Fitting out Quay
Fish Quay
Workshops
Reclamation in progress
Dakar Marine
Mole de Peche
45
46
Oil Depot
Mole 4
44-41
51 & 52
Mole 5
West Basin
11-13
Mole 1
Mole 6
61
62
Phosphates
15-17
14
Container Terminal
63
Middle Basin
21
22
Mole 2
83
84-86
Mole 8
25
24
23
82
81
East Basin
Oil Basin
31-33
Mole 3
93
94
South Jetty
92
91
Oil
D2
D1
North Jetty
N

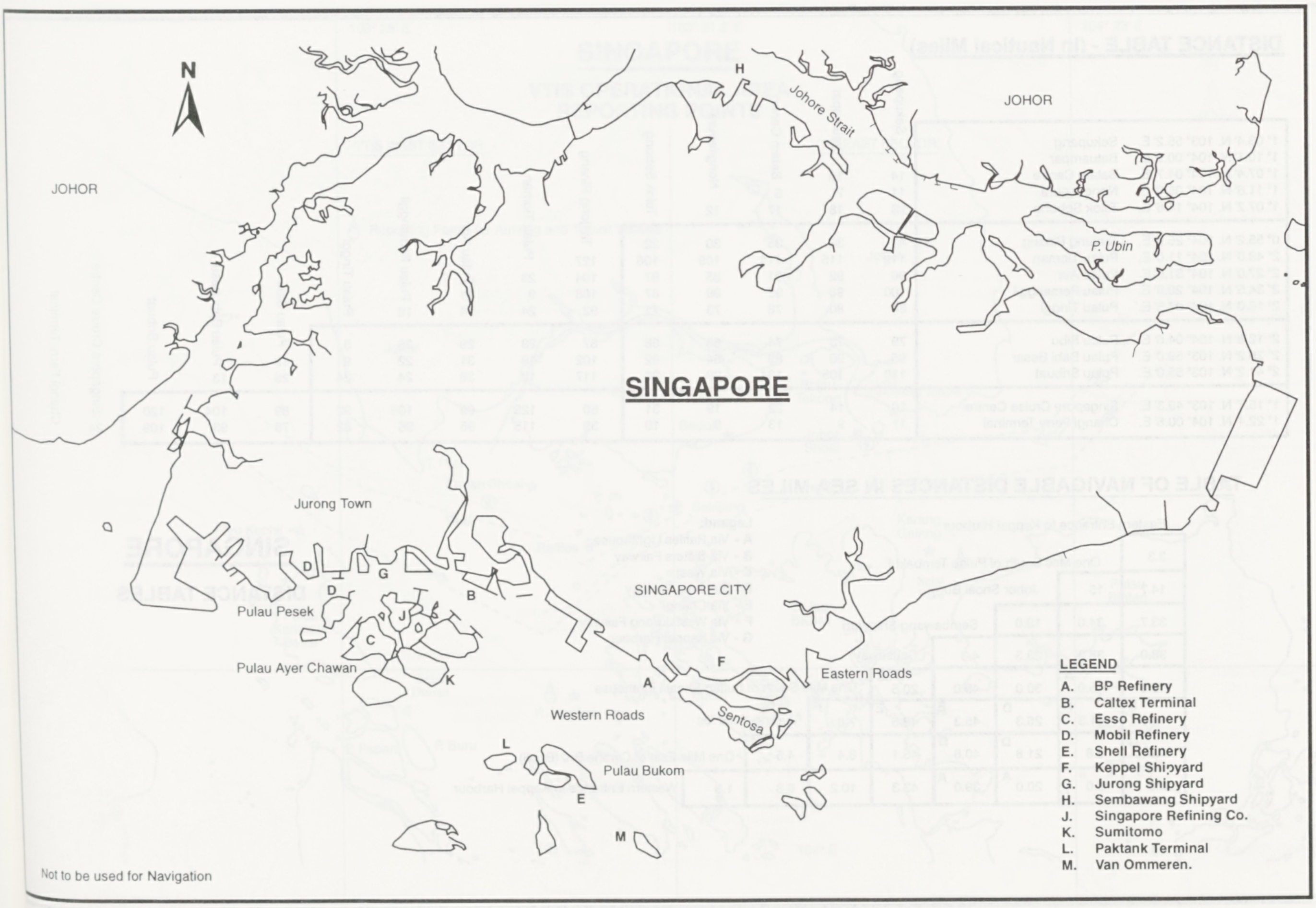

SEYCHELLES
50° E
55° E
0°
5° S
10° S
15° S
SEYCHELLES
Port Victoria
Mahe
Amirante Isles
Alphonse Is.
Coetivy Island (S. Africa)
St. Pierre
Providence
Cosmoledo Is.
Agalaga Is (Mauritius)
Ile Tromelin (France)
C. Amber
Antsiranana
Port St Louis
MADAGASCAR
Antongil Bay

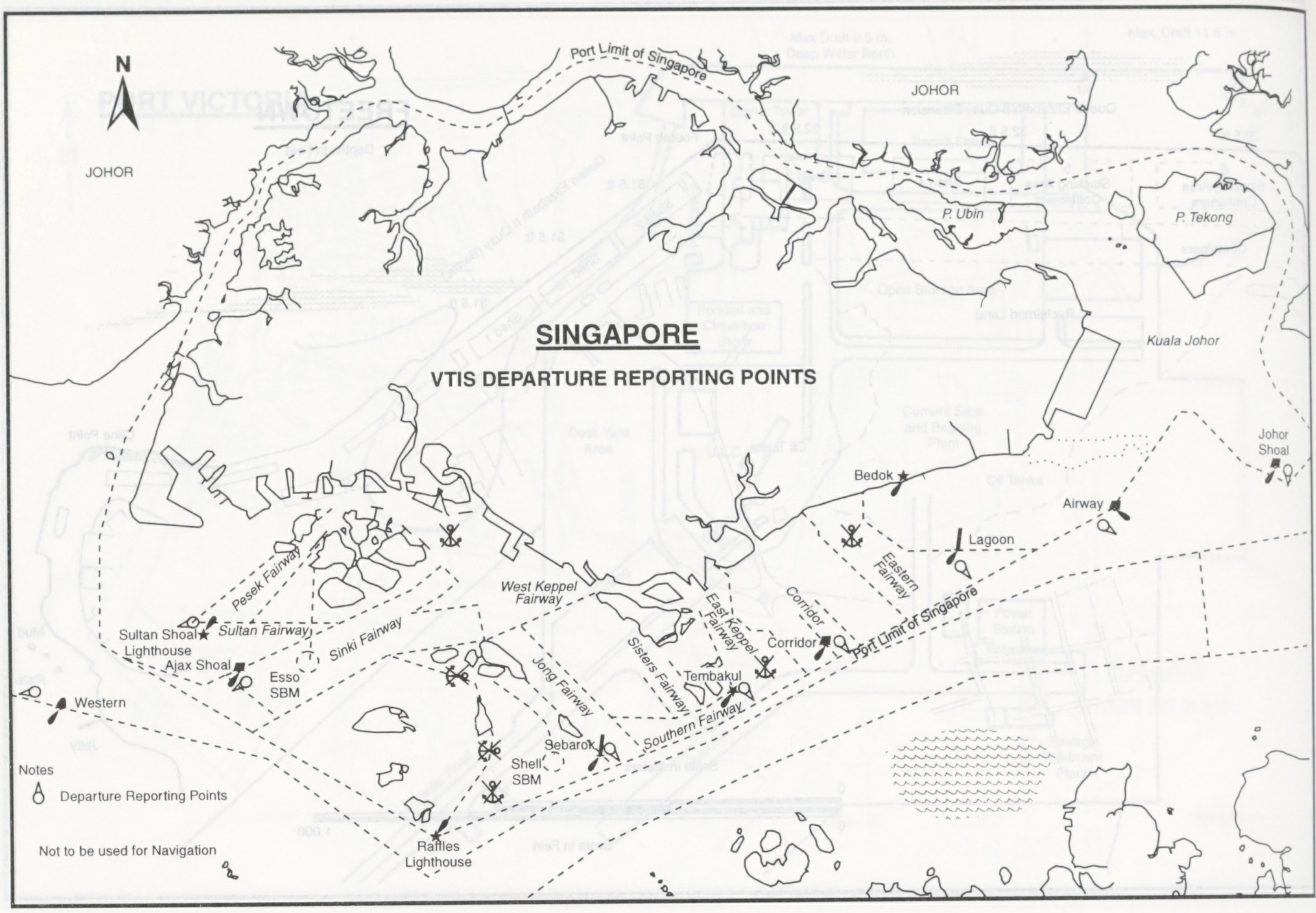

DAKAR
MOLE DE PECHE
Old South Fish Quay
Old North Fish Quay
FISHING BASIN
North Stem Quay
148m
Syncrolift
Section No.6
Section No.5
Floating Repairs
South Stem Quay
243m
REPAIR DOCK
West Quay
305m
Fishing
Nets
and
Lines
Section No.3
MOLEX
Section No.2
Section No.1
North Quay
108m
Small West Quay
138m
Nets and Lines
Section No.4
South Quay
149m
East Quay
370m
N


PORT VICTORIA
N
Max Draft 9.5 m.
Deep Water Berth
Max. Draft 11.5 m
12
20
21
22
Signal Tower
Transit Shed
Port Office
Open Storage Area
Bonded and Cinnamon Store
Dock Yard Area
U.L.C.
Cement Silos and Bagging Plant
Oil Tanks
Gatehouse
Parking
Power Station
Sewage Treatment Plant
Veloutier
Latanier Road
Reclaimed Land


SIERRA LEONE
N
Carabane
SENEGAL
GUINEA BISSAU
Bissau
Bijagos Arch.
Boke
Port Kamsar
GUINEA
Conakry
Pepel
Freetown
SIERRA LEONE
ATLANTIC OCEAN
IVORY COAST
LIBERIA
Robertsport


FREETOWN
Depths in Feet
Queen Elizabeth II Quay Extension
29.5 ft.
32.5 ft.
32.5 ft.
Fourah Point
6
Stacking Area
Containers
5
Stacking Area
Containers
Shed 4
Shed 3
Containers
Queen Elizabeth II Quay (Berths)
31.5 ft.
Shed 2
31.5 ft.
Shed 1a
31.5 ft.
Shed 1
Reclaimed Land
Oil Tanks
Cline Point
Mud
Flats
Jetty
Scale in Meters
0
200
0
1,000
Scale in Feet


N
JOHOR
H
Johore Strait
JOHOR
P. Ubin
SINGAPORE
Jurong Town
D
G
D
B
Pulau Pesek
J
C
SINGAPORE CITY
Pulau Ayer Chawan
K
F
A
Eastern Roads
Western Roads
Sentosa
L
Pulau Bukom
E
M
Not to be used for Navigation
LEGEND
A. BP Refinery
B. Caltex Terminal
C. Esso Refinery
D. Mobil Refinery
E. Shell Refinery
F. Keppel Shipyard
G. Jurong Shipyard
H. Sembawang Shipyard
J. Singapore Refining Co.
K. Sumitomo
L. Paktank Terminal
M. Van Ommeren.


SINGAPORE
VTIS DEPARTURE REPORTING POINTS
N
JOHOR
JOHOR
Port Limit of Singapore
P. Ubin
P. Tekong
Kuala Johor
Johor Shoal
Bedok
Airway
Lagoon
Eastern Fairway
Corridor
Corridor
Port Limit of Singapore
East Keppel Fairway
Tembakul
Sisters Fairway
Southern Fairway
West Keppel Fairway
Jong Fairway
Sebarok
Shell SBM
Raffles Lighthouse
Pesek Fairway
Sultan Fairway
Sinki Fairway
Sultan Shoal Lighthouse
Ajax Shoal
Esso SBM
Western
Notes
Departure Reporting Points
Not to be used for Navigation

DISTANCE TABLE - (In Nautical Miles)

		Sekupang	Batuampar	Batam Centre	Nongsapura	Telok Sebong	Tanjong Pinang	Pulau Tioman	Pulau Aur	Pulau Pemanggil	Pulau Tinggi	Pulau Sibu	Pulau Babi Besar	Pulau Sribuat	Singapore Cruise Centre	Changi Ferry Terminal
1° 08.4' N. 103° 55.2' E.	Sekupang															
1° 10.1' N. 104° 00.0' E.	Batuampar	5														
1° 07.4' N. 104° 04.7' E.	Batam Centre	14	10													
1° 11.6' N. 104° 05.0' E.	Nongsapura	11	7	6												
1° 07.2' N. 104° 14.6' E.	Telok Sebong	23	18	17	12											
0° 55.2' N. 104° 26.6' E.	Tanjung Pinang	41	36	35	30	22										
2° 48.0' N. 104° 11.0' E.	Pulau Tioman	119	115	114	109	106	127									
2° 27.0' N. 104° 31.5' E.	Pulau Aur	96	92	91	85	97	104	23								
2° 34.5' N. 104° 20.0' E.	Pulau Pemanggil	100	96	95	89	87	108	9	11							
2° 18.0' N. 104° 07.5' E.	Pulau Tinggi	84	80	78	73	71	92	24	24	19						
2° 12.8' N. 104° 04.6' E.	Pulau Sibu	79	75	74	68	66	87	29	29	26	5					
2° 26.2' N. 103° 59.0' E.	Pulau Babi Besar	95	90	89	84	82	102	19	31	22	9	12				
2° 41.2' N. 103° 55.0' E.	Pulau Sribuat	110	105	104	99	96	117	13	38	24	24	28	13			
1° 15.7' N. 103° 49.3' E.	Singapore Cruise Centre	10	14	22	19	31	50	125	99	105	92	89	104	120		
1° 22.4' N. 104° 00.6' E.	Changi Ferry Terminal	11	9	13	9	19	39	115	95	96	82	78	93	109	24	

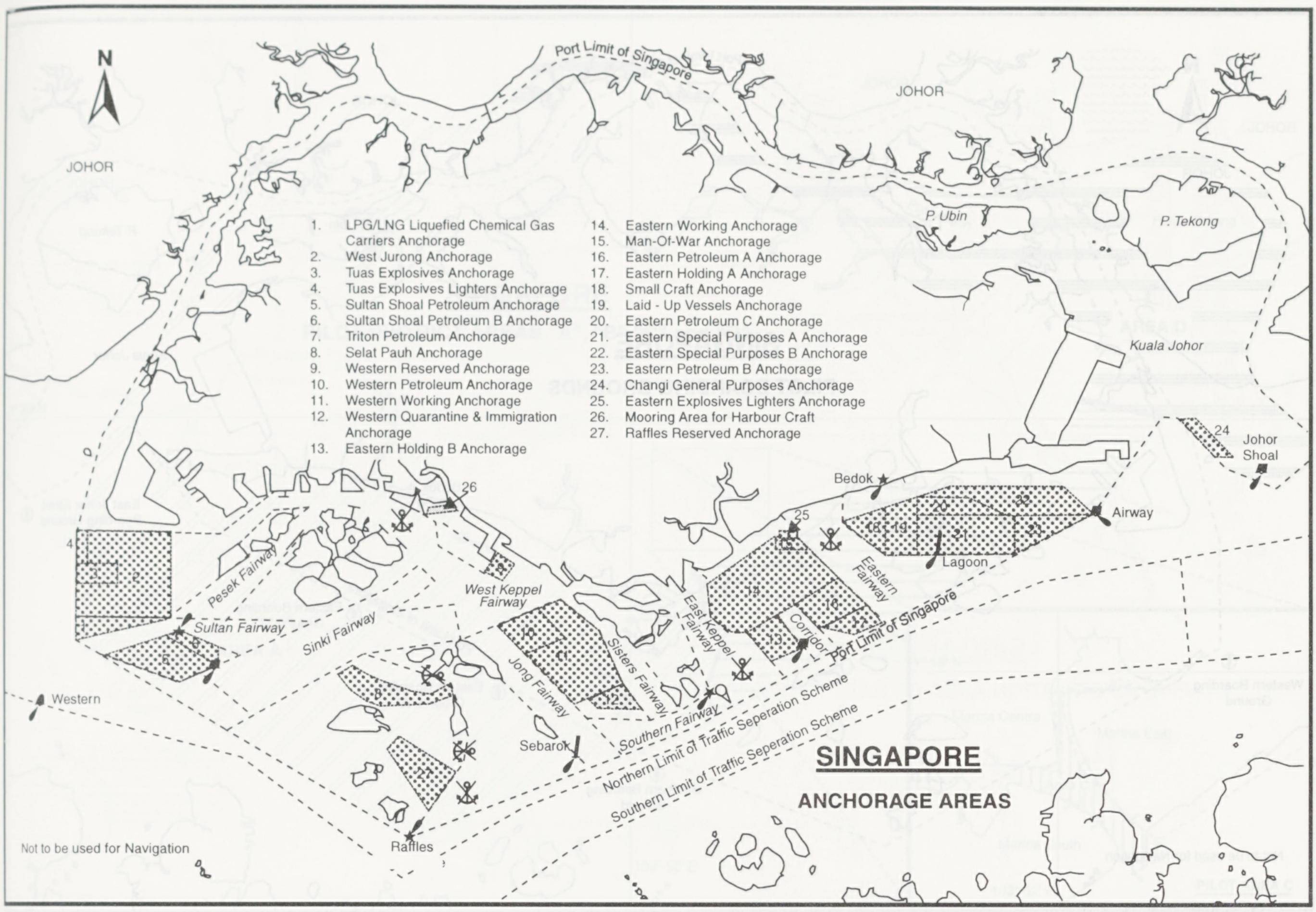
TABLE OF NAVIGABLE DISTANCES IN SEA MILES

	Eastern Entrance to Keppel Harbour	One Mile South of Pulau Tembakul	Johor Shoal Buoy	Sembawang Shipyard	Causeway	One Mile South of Sultan Shoal Lighthouse	Jurong Wharves	One Mile East of Cyrene Bn. (Bn. 6)
One Mile South of Pulau Tembakul	3.3							
Johor Shoal Buoy	14.7	15						
Sembawang Shipyard	33.7	34.0	19.0					
Causeway	38.0	38.3	23.3	4.3				
One Mile South of Sultan Shoal Lighthouse	18.3	15.0 A	30.0	49.0	20.5 C			
Jurong Wharves	14.6 B	11.3 D	26.3 D	45.3 E	49.6 E	7.8 F		
One Mile East of Cyrene Bn. (Bn. 6)	4.6 G	6.8	21.8 D	40.8 D	45.1	8.4	4.5	
Western Entrance to Keppel Harbour	2.8	5.0	20.0 A	39.0 A	43.3	10.2	6.3	1.8

Legand:
- **A** - Via Raffles Lighthouse
- **B** - Via Sisters Fairway
- **C** - Via West
- **D** - Via Jong Fairway
- **E** - Via Changi
- **F** - Via West Jurong Fairway
- **G** - Via Keppel Harbour

SINGAPORE

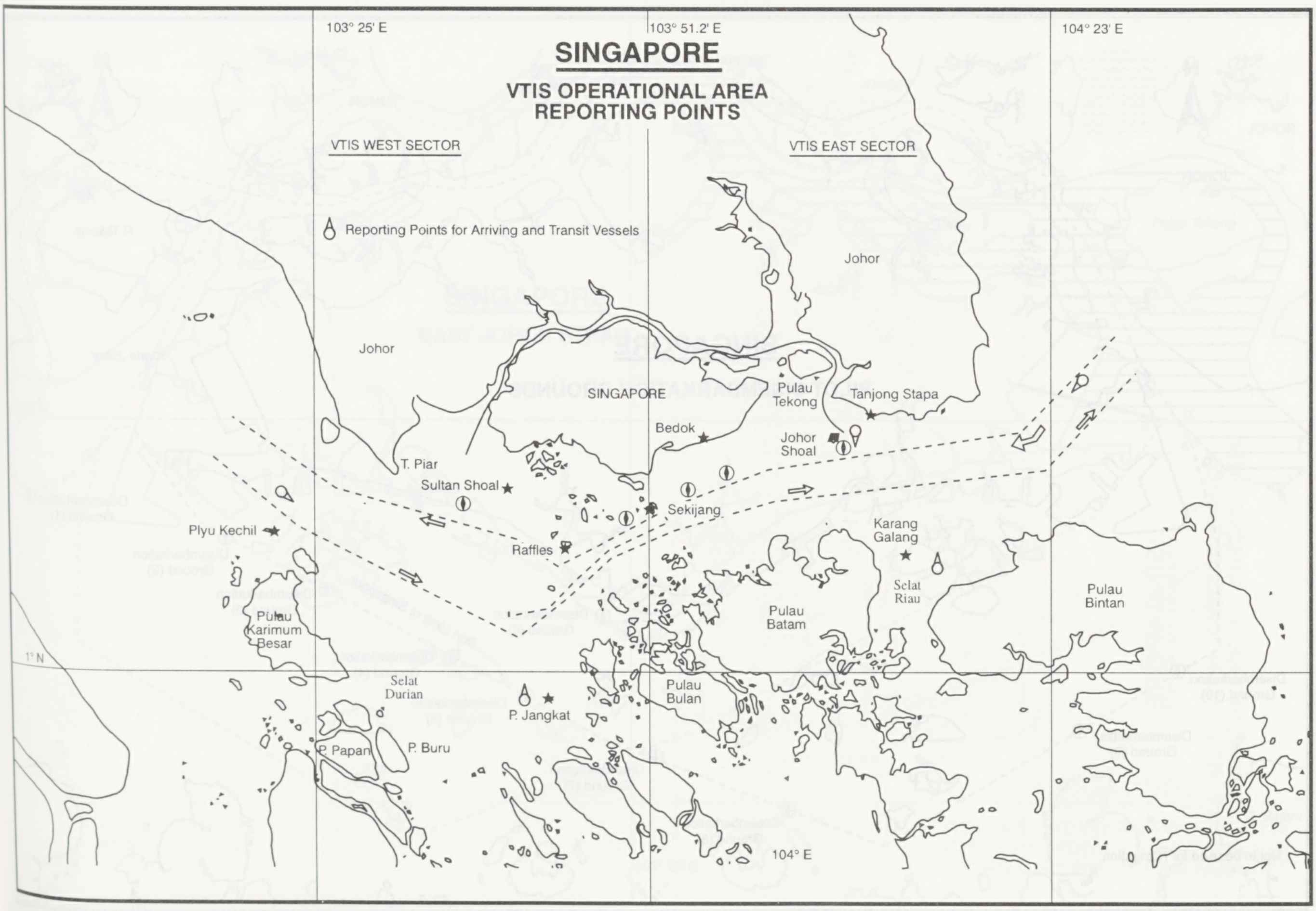
DISTANCE TABLES



SINGAPORE

ANCHORAGE AREAS

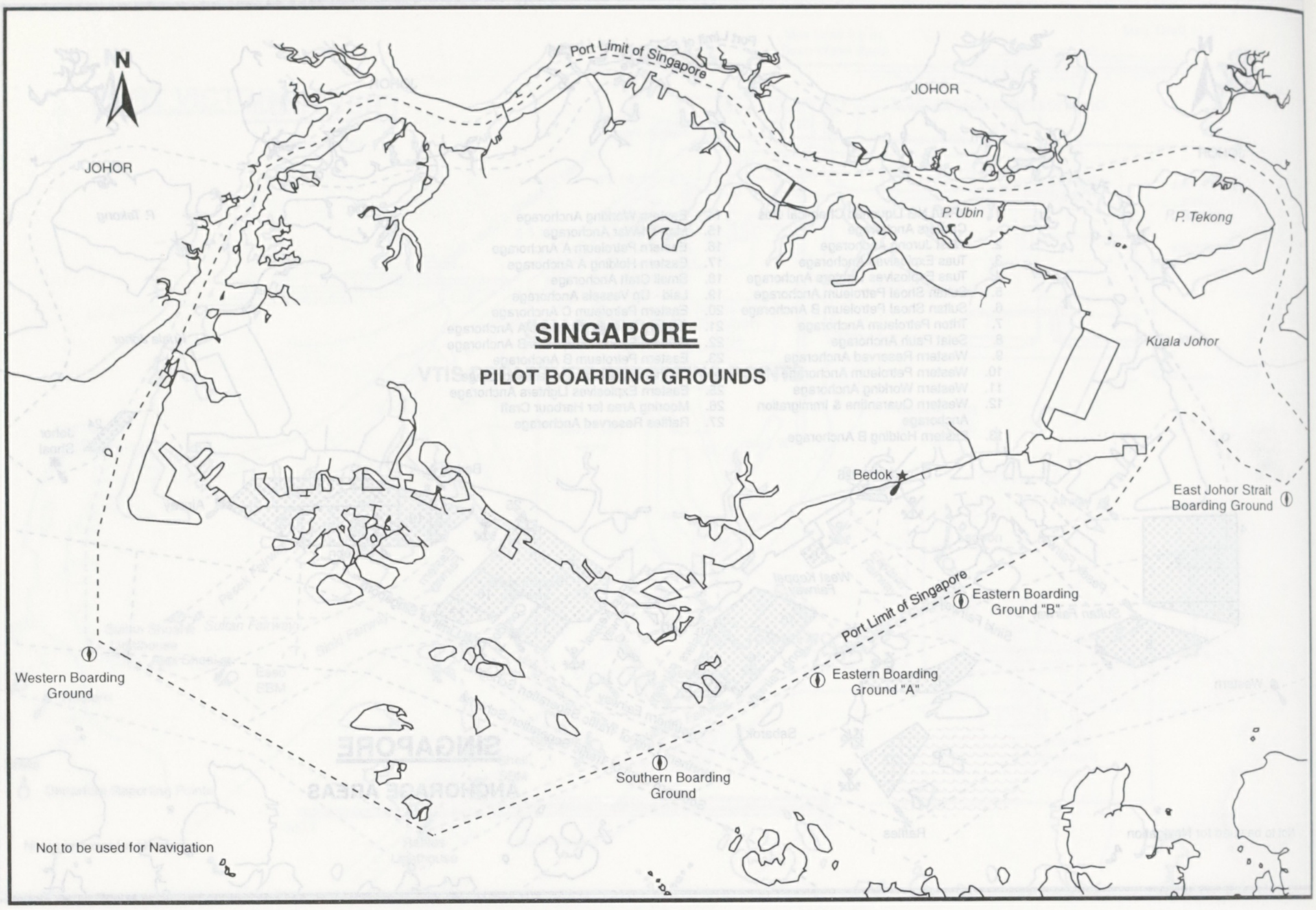
N
Port Limit of Singapore
JOHOR
JOHOR
P. Ubin
P. Tekong
Kuala Johor
1. LPG/LNG Liquefied Chemical Gas Carriers Anchorage
2. West Jurong Anchorage
3. Tuas Explosives Anchorage
4. Tuas Explosives Lighters Anchorage
5. Sultan Shoal Petroleum Anchorage
6. Sultan Shoal Petroleum B Anchorage
7. Triton Petroleum Anchorage
8. Selat Pauh Anchorage
9. Western Reserved Anchorage
10. Western Petroleum Anchorage
11. Western Working Anchorage
12. Western Quarantine & Immigration Anchorage
13. Eastern Holding B Anchorage
14. Eastern Working Anchorage
15. Man-Of-War Anchorage
16. Eastern Petroleum A Anchorage
17. Eastern Holding A Anchorage
18. Small Craft Anchorage
19. Laid - Up Vessels Anchorage
20. Eastern Petroleum C Anchorage
21. Eastern Special Purposes A Anchorage
22. Eastern Special Purposes B Anchorage
23. Eastern Petroleum B Anchorage
24. Changi General Purposes Anchorage
25. Eastern Explosives Lighters Anchorage
26. Mooring Area for Harbour Craft
27. Raffles Reserved Anchorage
24
Johor Shoal
Bedok
Airway
Lagoon
Eastern Fairway
Corridor
East Keppel Fairway
West Keppel Fairway
Pesek Fairway
Sultan Fairway
Sinki Fairway
Jong Fairway
Sisters Fairway
Southern Fairway
Port Limit of Singapore
Northern Limit of Traffic Seperation Scheme
Southern Limit of Traffic Seperation Scheme
Western
Sebarok
Raffles
Not to be used for Navigation

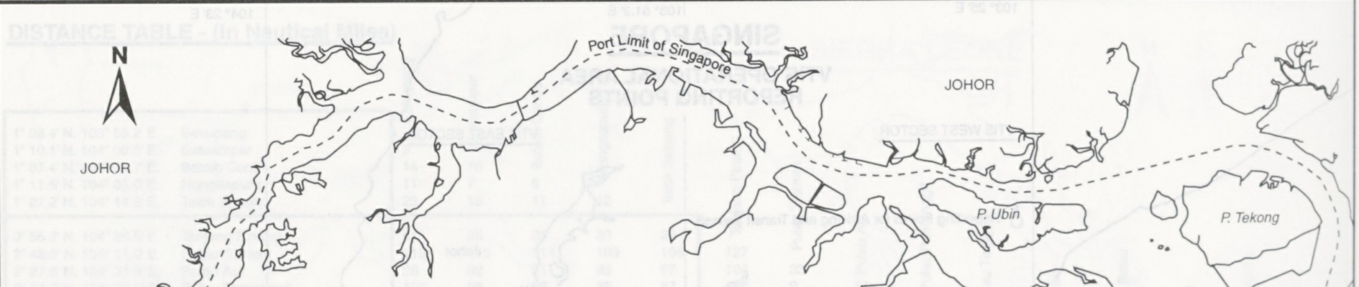


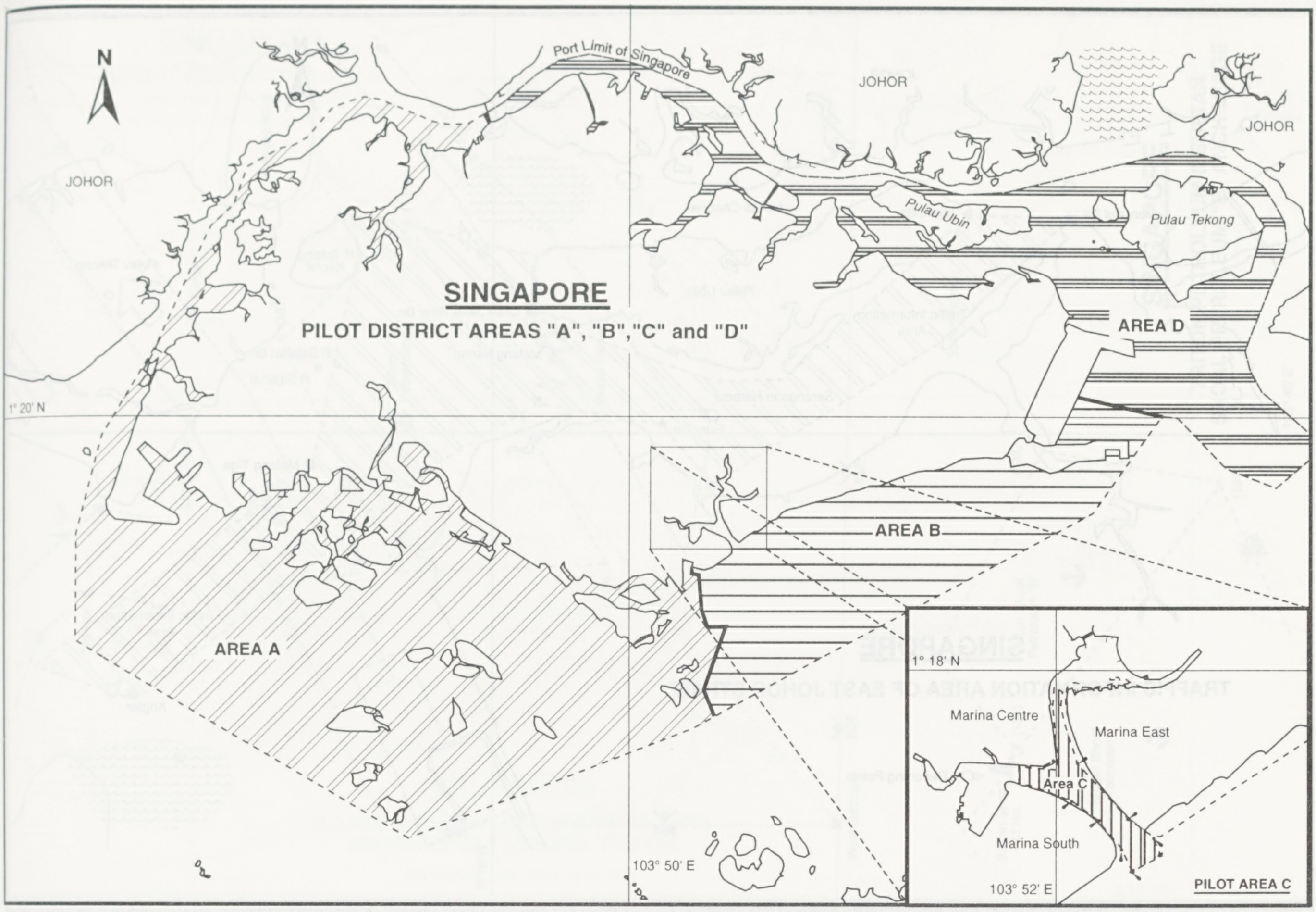
SINGAPORE

VTIS OPERATIONAL AREA
REPORTING POINTS

103° 25' E
103° 51.2' E
104° 23' E
VTIS WEST SECTOR
VTIS EAST SECTOR
Reporting Points for Arriving and Transit Vessels
Johor
Johor
SINGAPORE
Pulau Tekong
Tanjong Stapa
Bedok
Johor Shoal
T. Piar
Sultan Shoal
Sekijang
Plyu Kechil
Raffles
Karang Galang
Selat Riau
Pulau Batam
Pulau Bintan
Pulau Karimum Besar
1° N
Selat Durian
P. Jangkat
Pulau Bulan
P. Papan
P. Buru
104° E


SINGAPORE
PILOT BOARDING GROUNDS
N
JOHOR
Port Limit of Singapore
JOHOR
P. Ubin
P. Tekong
Kuala Johor
Bedok
East Johor Strait Boarding Ground
Eastern Boarding Ground "B"
Port Limit of Singapore
Eastern Boarding Ground "A"
Western Boarding Ground
Southern Boarding Ground
Not to be used for Navigation

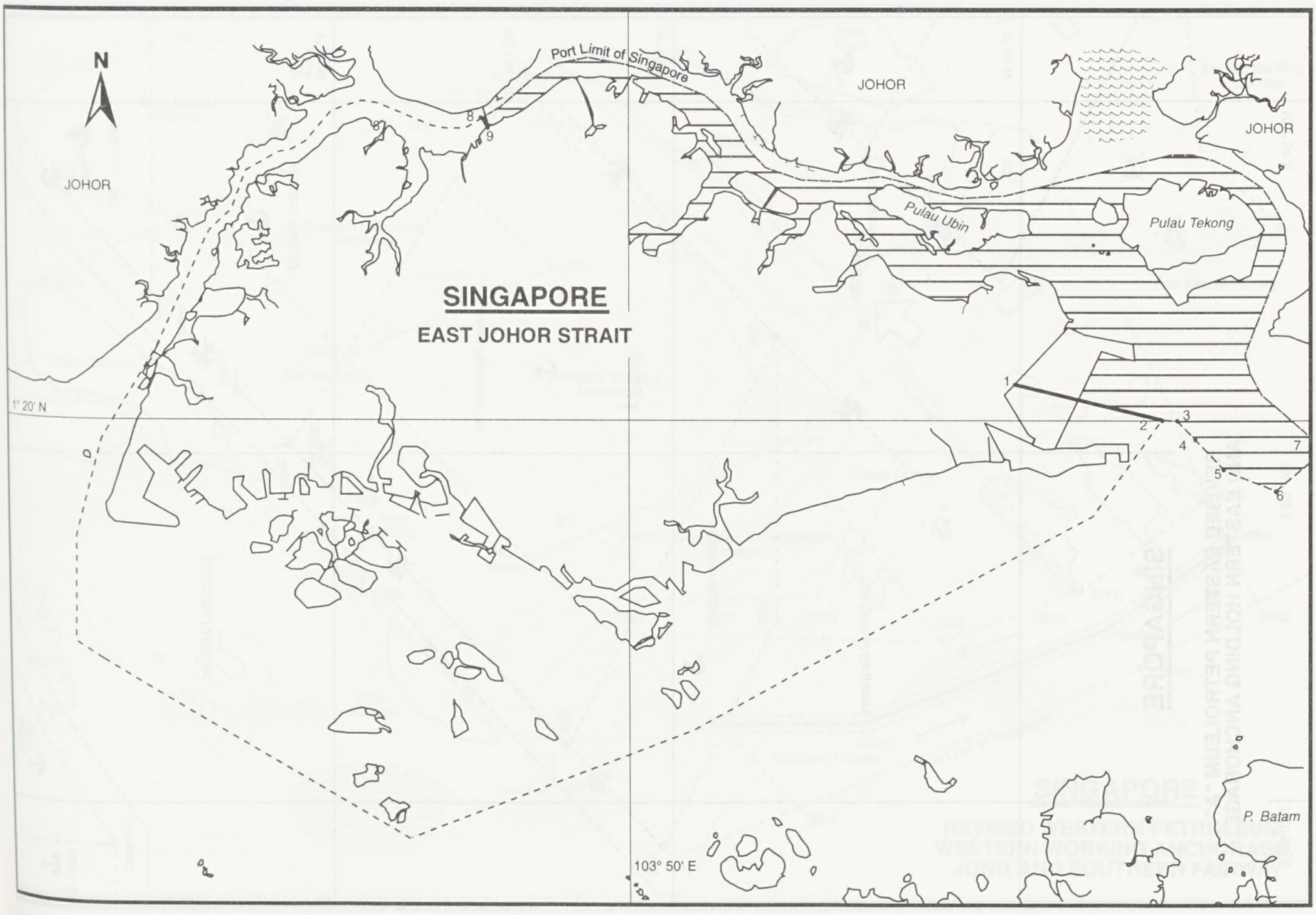

SINGAPORE
PILOT DISEMBARKATION GROUNDS
N
JOHOR
Port Limit of Singapore
JOHOR
P. Ubin
P. Tekong
Kuala Johor
Bedok
Disembarkation Ground (1)
Disembarkation Ground (2)
Disembarkation Ground (3)
Port Limit of Singapore
Disembarkation Ground (6)
Disembarkation Ground (4)
Disembarkation Ground (5)
Disembarkation Ground (10)
Disembarkation Ground (9)
Disembarkation Ground (7)
Disembarkation Ground (8)
Not to be used for Navigation



SINGAPORE

PILOT DISTRICT AREAS "A", "B","C" and "D"

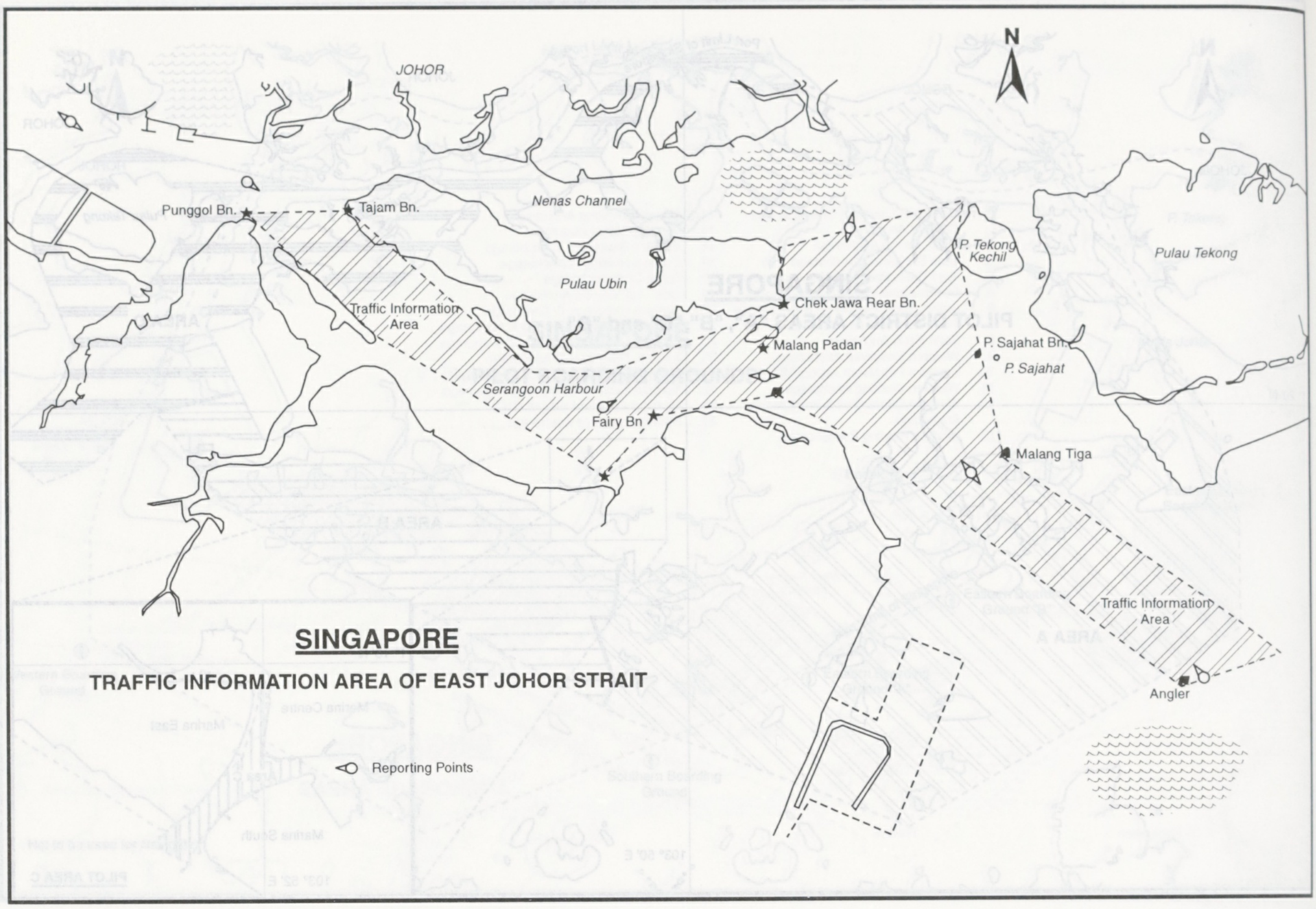
N
Port Limit of Singapore
JOHOR
JOHOR
JOHOR
Pulau Ubin
Pulau Tekong
AREA D
1° 20' N
AREA B
AREA A
103° 50' E
1° 18' N
Marina Centre
Marina East
Area C
Marina South
103° 52' E
PILOT AREA C



SINGAPORE

EAST JOHOR STRAIT

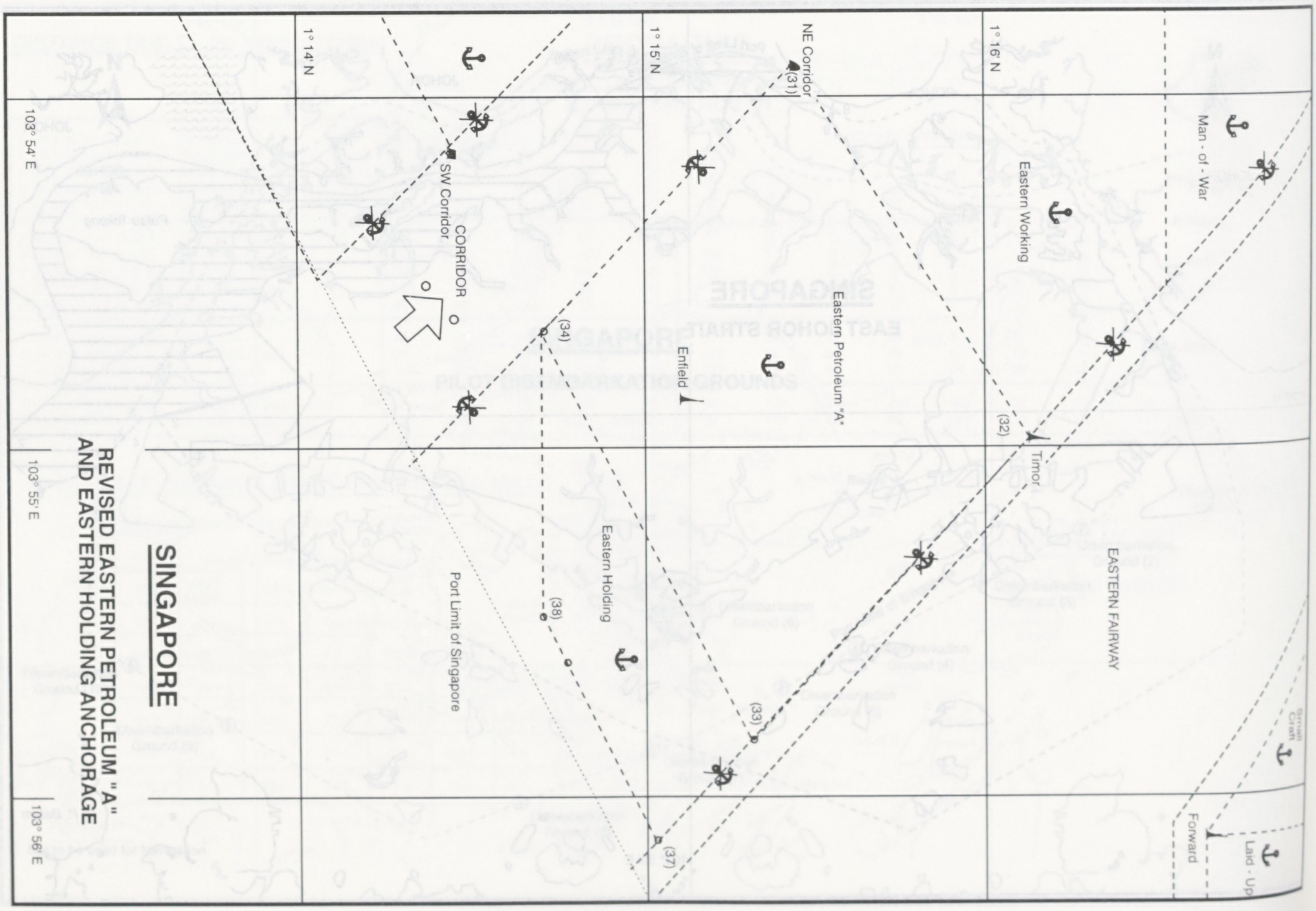
N
Port Limit of Singapore
JOHOR
JOHOR
JOHOR
8
9
Pulau Ubin
Pulau Tekong
1° 20' N
1
2
3
4
5
6
7
103° 50' E
P. Batam



SINGAPORE

TRAFFIC INFORMATION AREA OF EAST JOHOR STRAIT

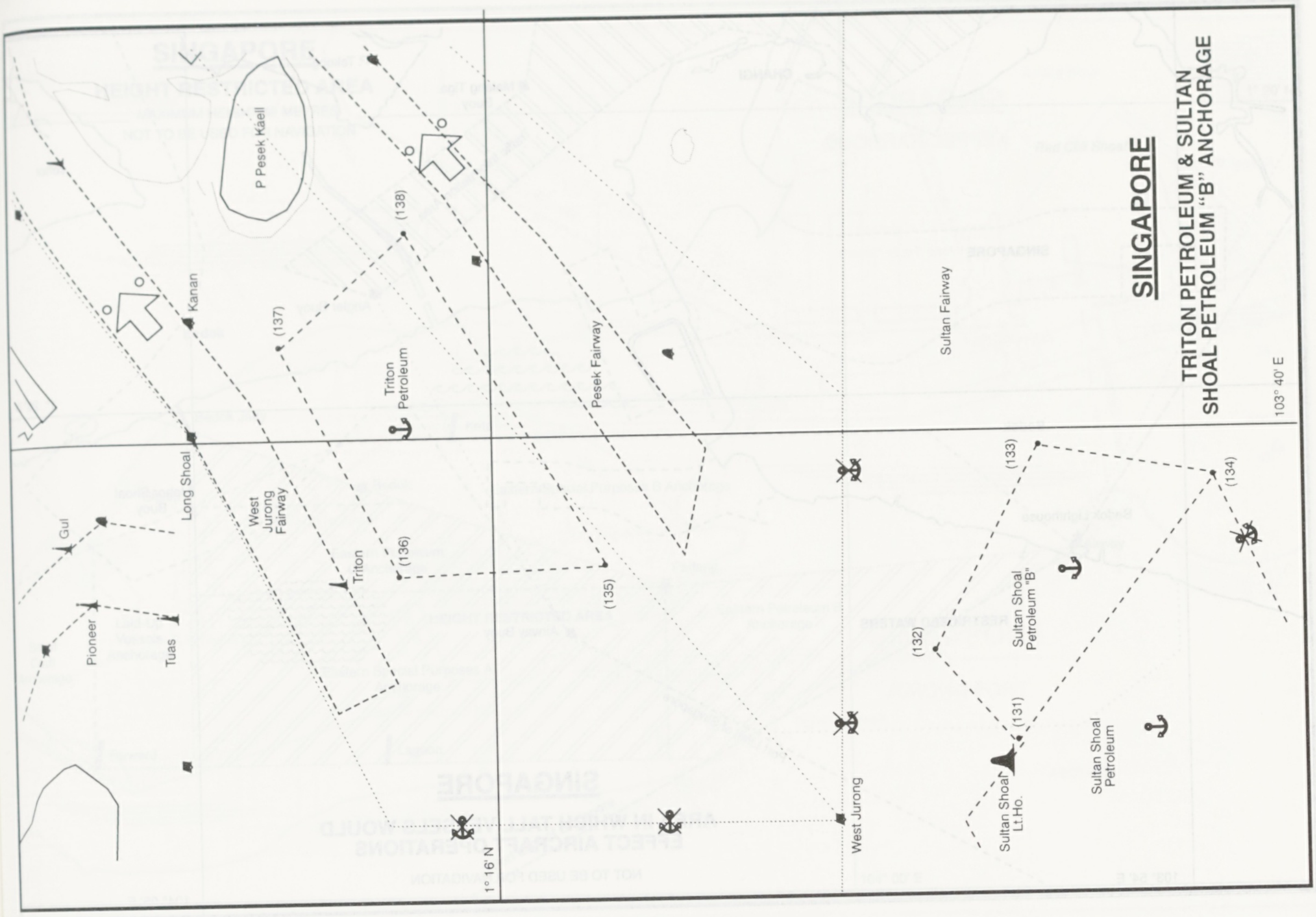
N
JOHOR
Punggol Bn.
Tajam Bn.
Nenas Channel
P. Tekong Kechil
Pulau Tekong
Pulau Ubin
Traffic Information Area
Chek Jawa Rear Bn.
Malang Padan
P. Sajahat Bn.
P. Sajahat
Serangoon Harbour
Fairy Bn
Malang Tiga
Traffic Information Area
Angler
Reporting Points



SINGAPORE

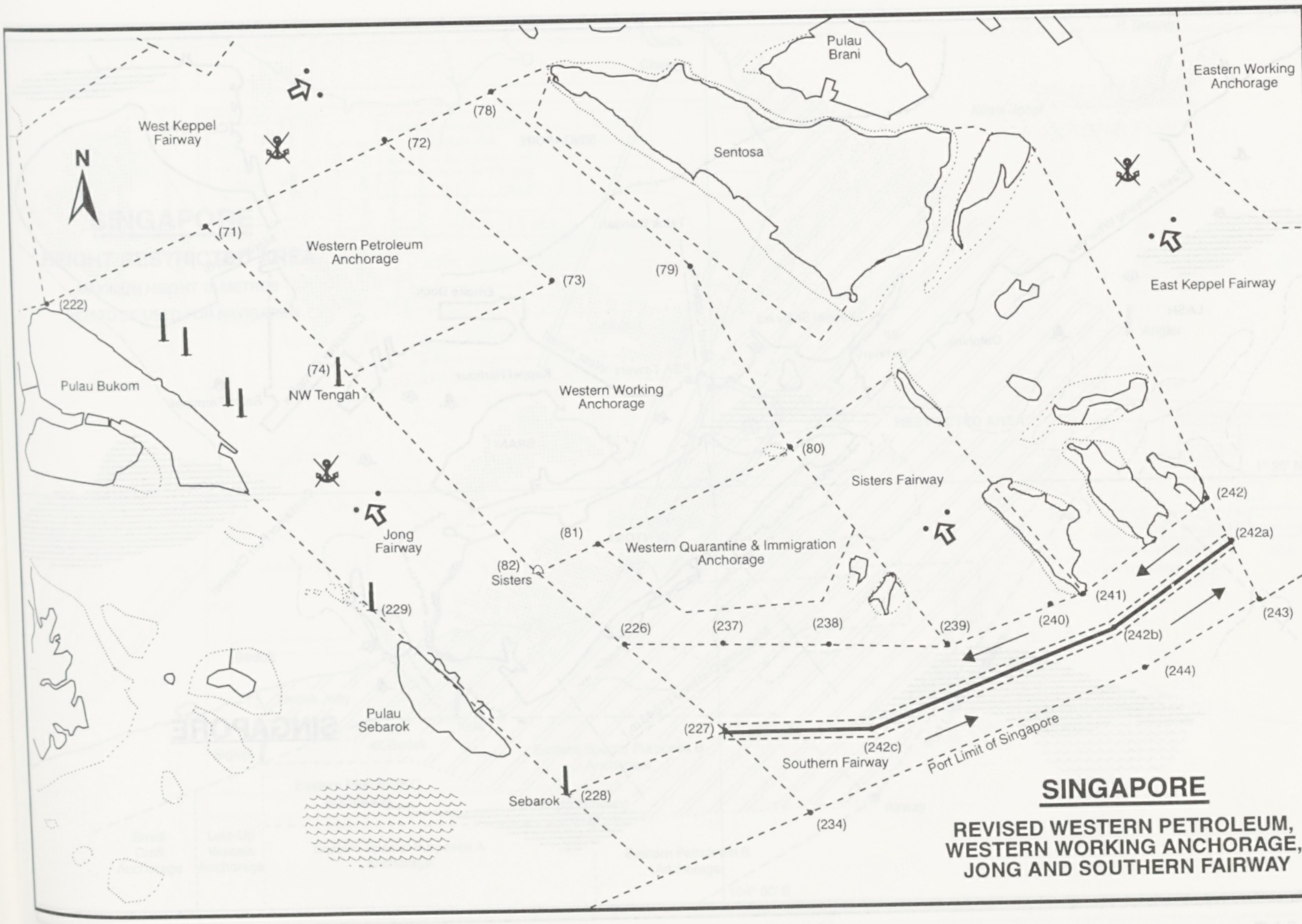
REVISED EASTERN PETROLEUM "A" AND EASTERN HOLDING ANCHORAGE

1° 14' N
1° 15' N
1° 16' N
103° 54' E
103° 55' E
103° 56' E
NE Corridor
(31)
SW Corridor
CORRIDOR
Man - of - War
Eastern Working
Eastern Petroleum "A"
Enfield
(34)
(32)
Timor
Eastern Holding
(38)
Port Limit of Singapore
EASTERN FAIRWAY
(33)
(37)
Small Craft
Forward
Laid - Up


P Pesek Kaeil
Kanan
(138)
(137)
Triton Petroleum
Pesek Fairway
Sultan Fairway
Long Shoal
West Jurong Fairway
Gul
Pioneer
Tuas
Triton
(136)
(135)
(133)
(134)
Sultan Shoal Petroleum "B"
(132)
(131)
Sultan Shoal Lt.Ho.
Sultan Shoal Petroleum
West Jurong
1° 16' N
103° 40' E

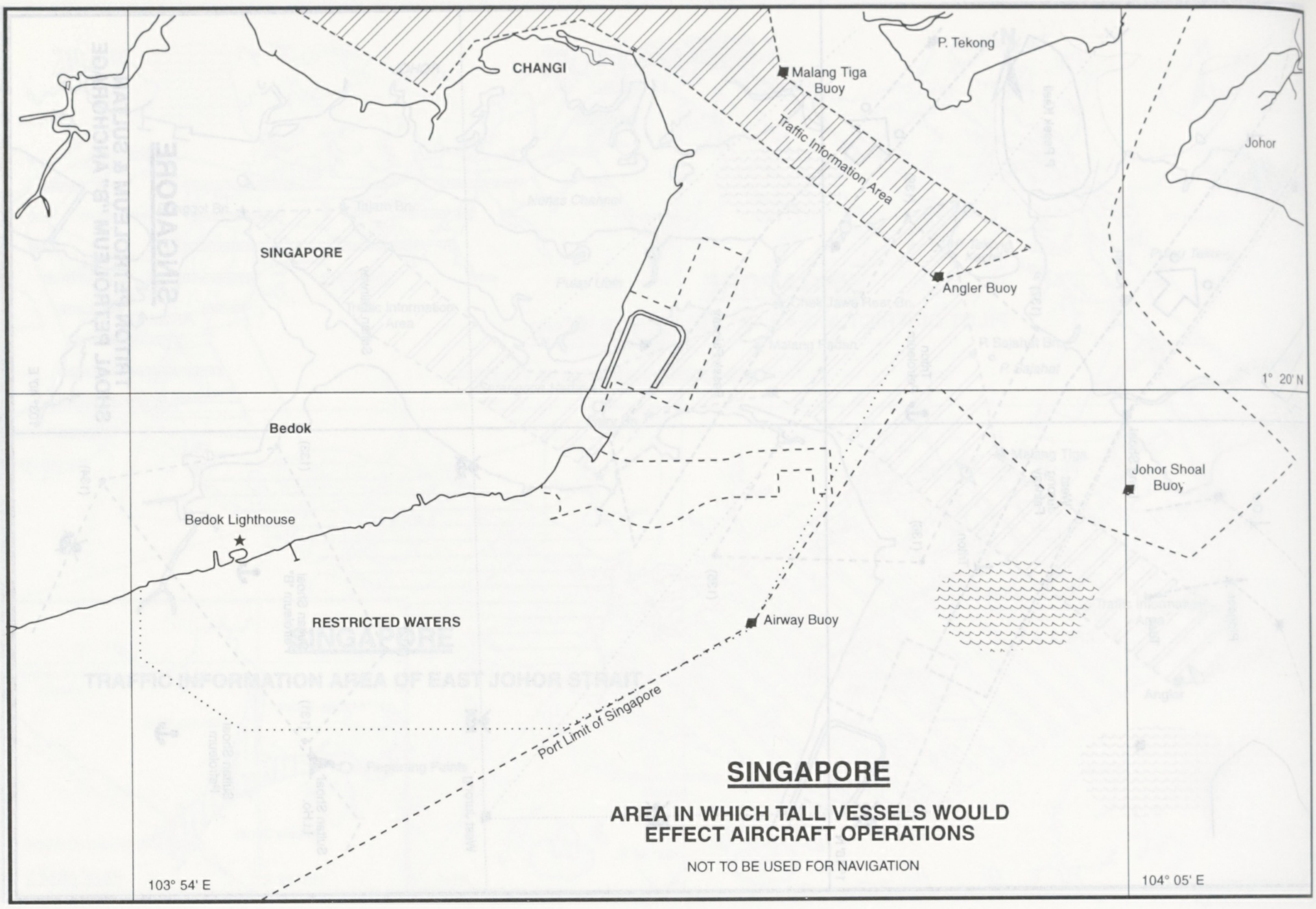
SINGAPORE

TRITON PETROLEUM & SULTAN SHOAL PETROLEUM "B" ANCHORAGE


Pulau Brani
Eastern Working Anchorage
West Keppel Fairway
(78)
(72)
Sentosa
N
(71)
Western Petroleum Anchorage
(73)
(79)
East Keppel Fairway
(222)
Pulau Bukom
(74)
NW Tengah
Western Working Anchorage
(80)
Sisters Fairway
(242)
(242a)
Jong Fairway
(81)
Western Quarantine & Immigration Anchorage
(82) Sisters
(229)
(241)
(240)
(226)
(237)
(238)
(239)
(242b)
(243)
(244)
Pulau Sebarok
(227)
(242c)
Southern Fairway
Port Limit of Singapore
Sebarok
(228)
(234)

SINGAPORE

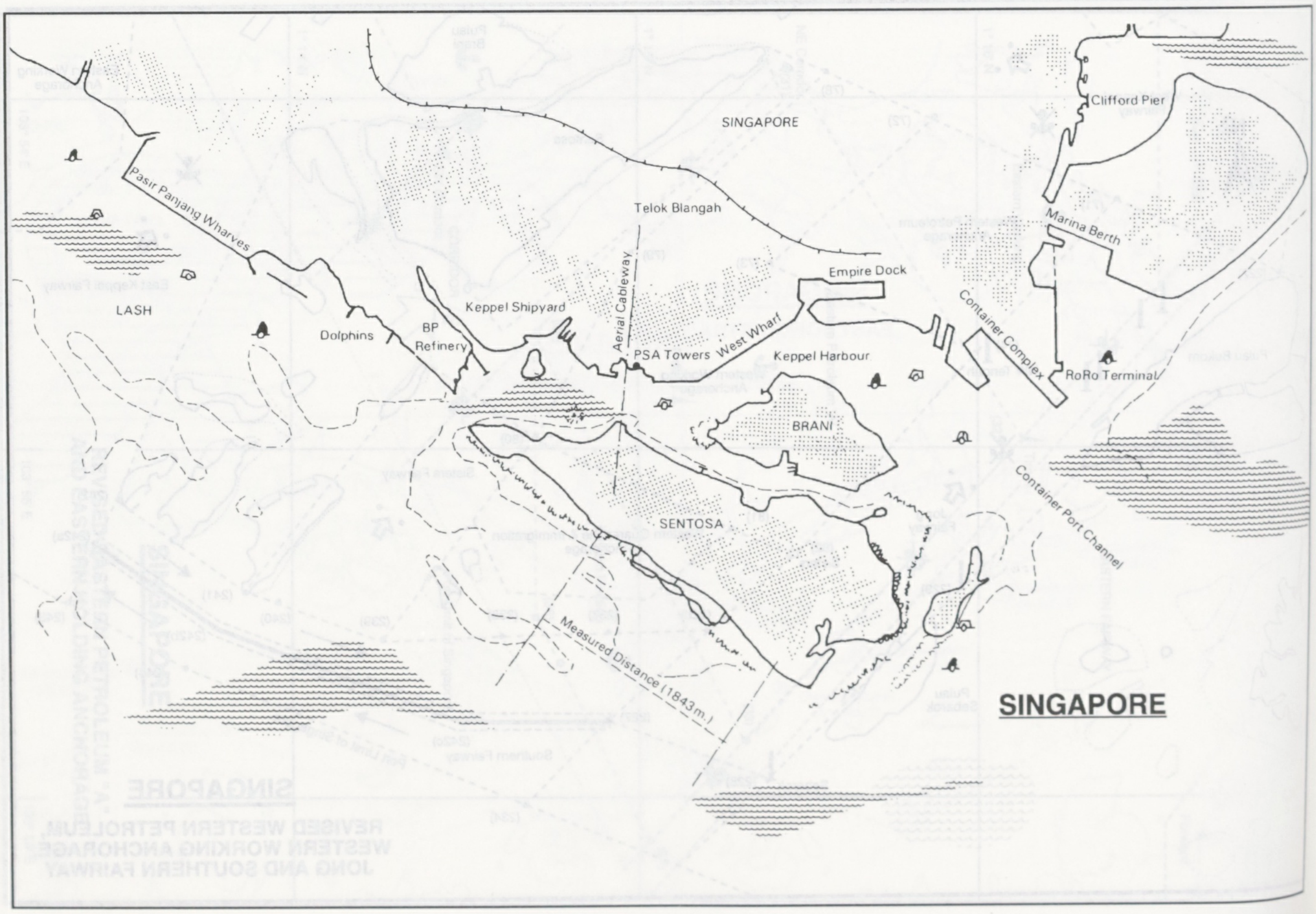
REVISED WESTERN PETROLEUM, WESTERN WORKING ANCHORAGE, JONG AND SOUTHERN FAIRWAY


CHANGI
Malang Tiga Buoy
P. Tekong
Johor
Traffic Information Area
SINGAPORE
Angler Buoy
1° 20' N
Bedok
Johor Shoal Buoy
Bedok Lighthouse
RESTRICTED WATERS
Airway Buoy
Port Limit of Singapore
103° 54' E
104° 05' E

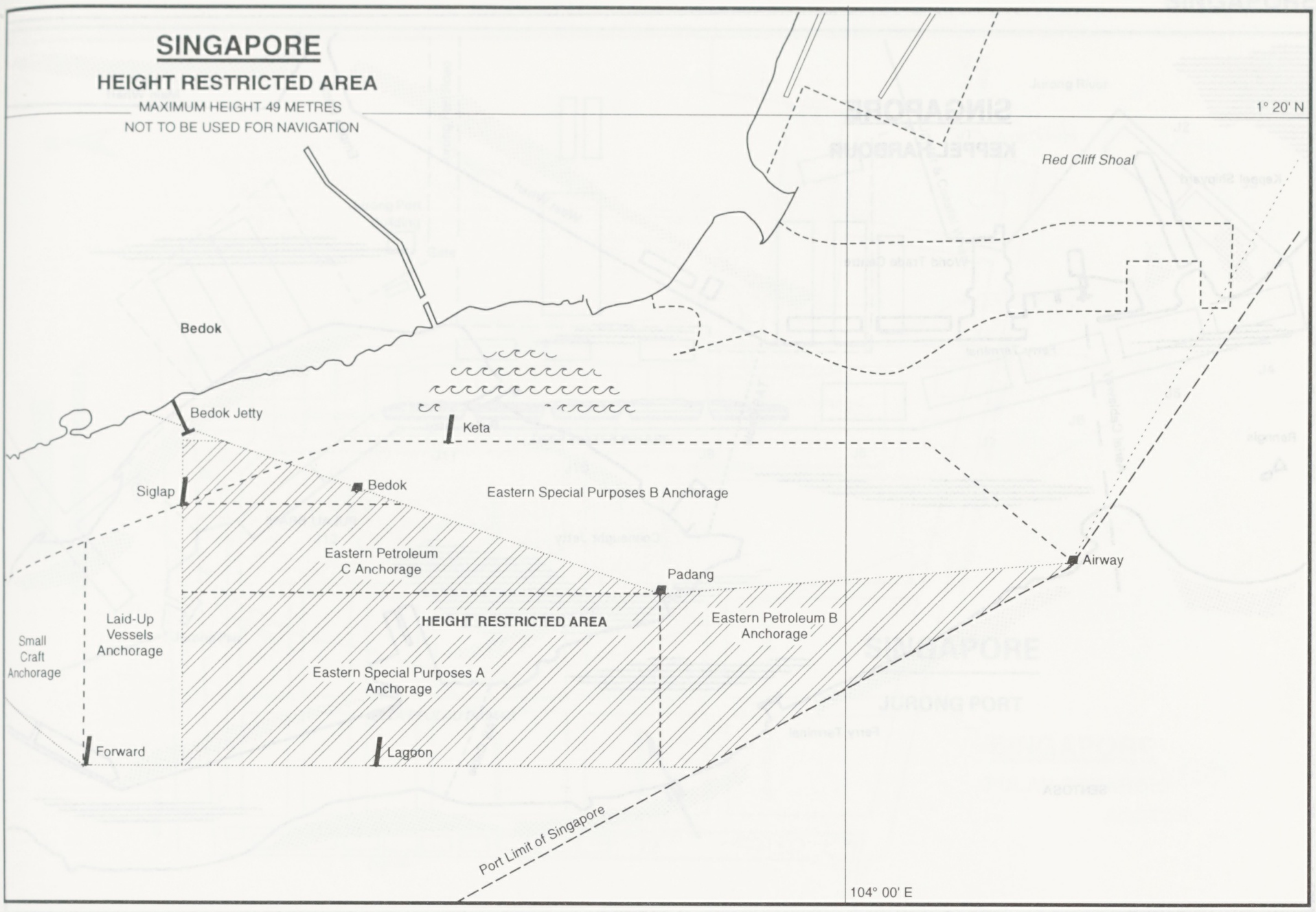
SINGAPORE

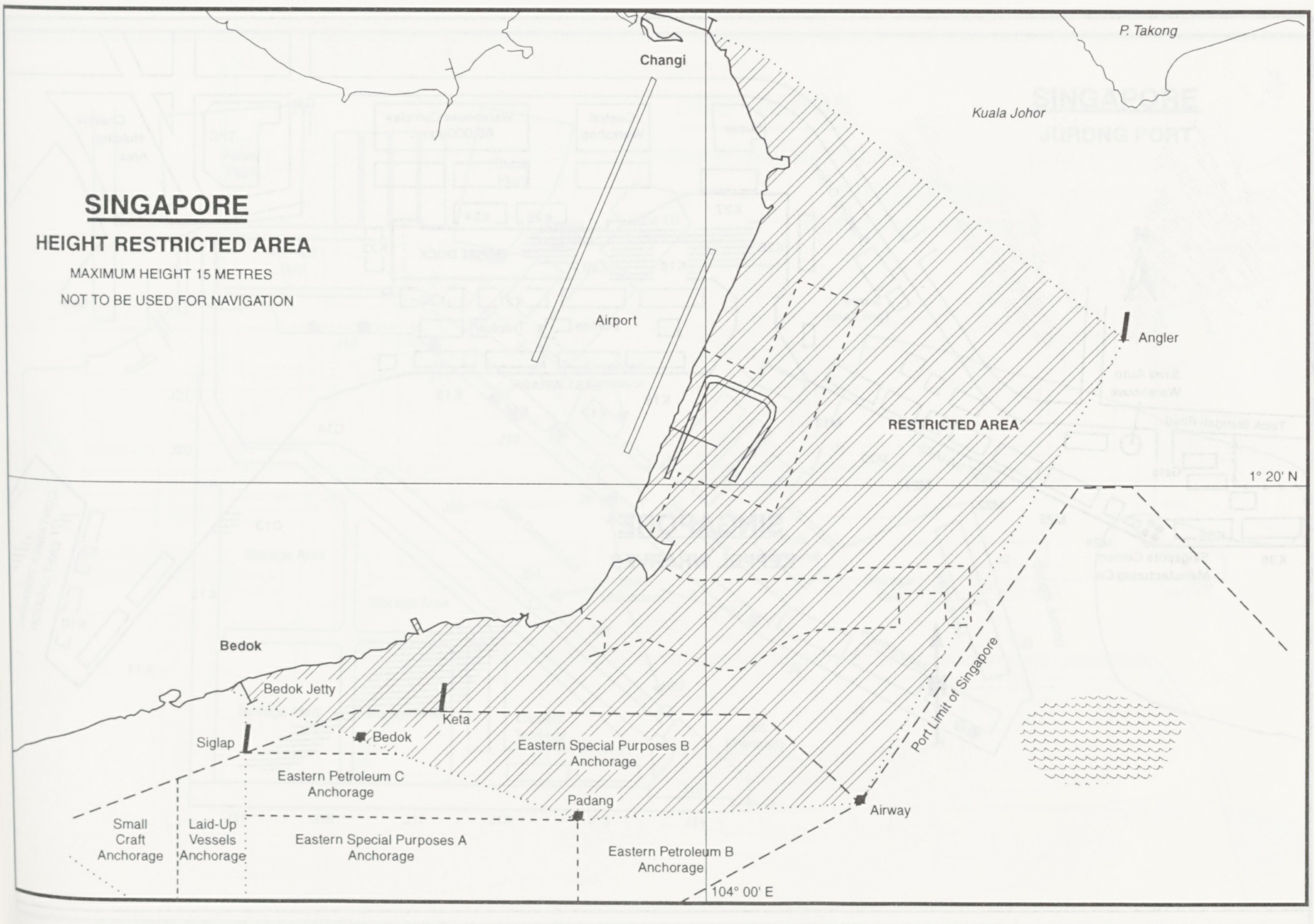
AREA IN WHICH TALL VESSELS WOULD EFFECT AIRCRAFT OPERATIONS

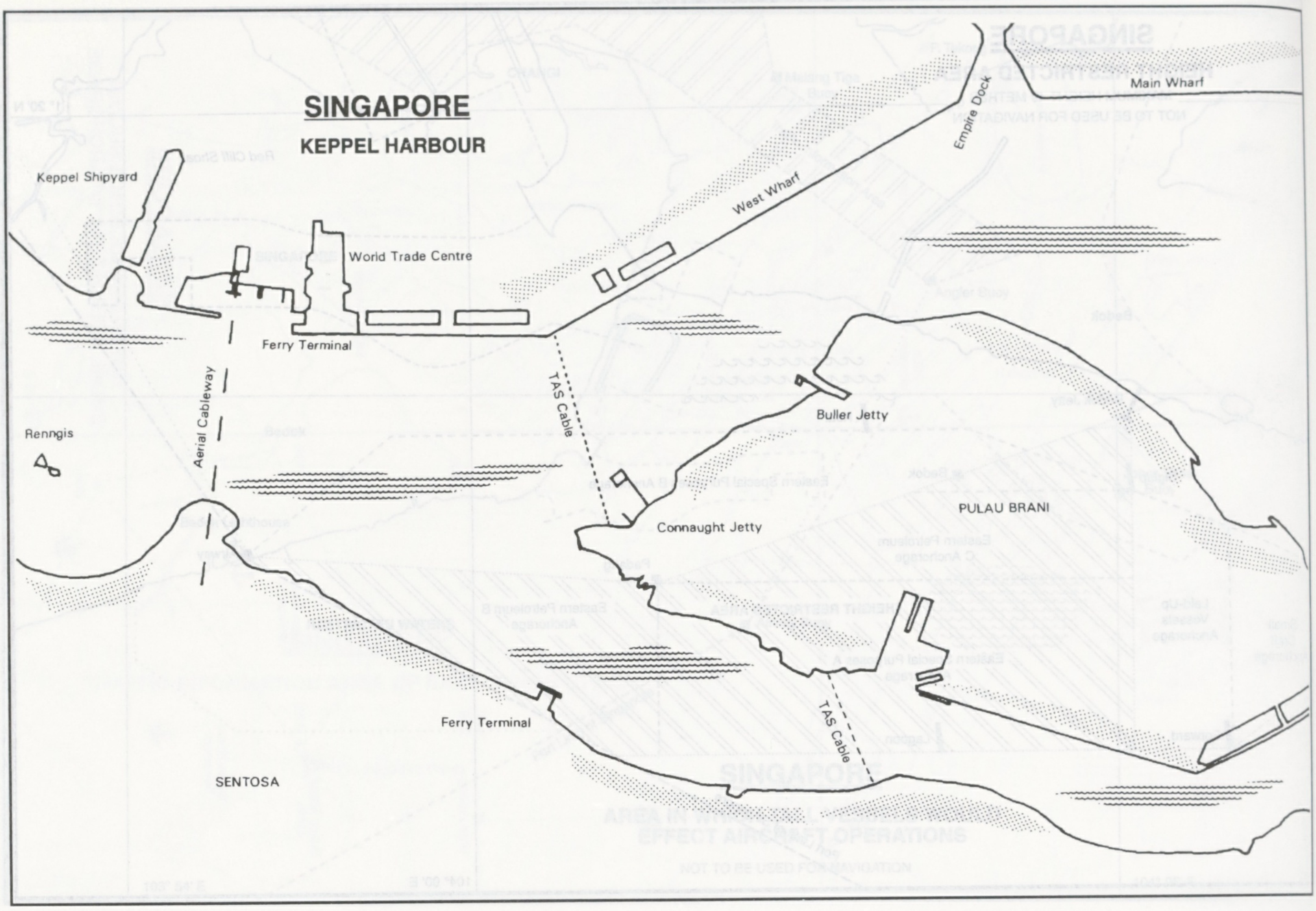
NOT TO BE USED FOR NAVIGATION

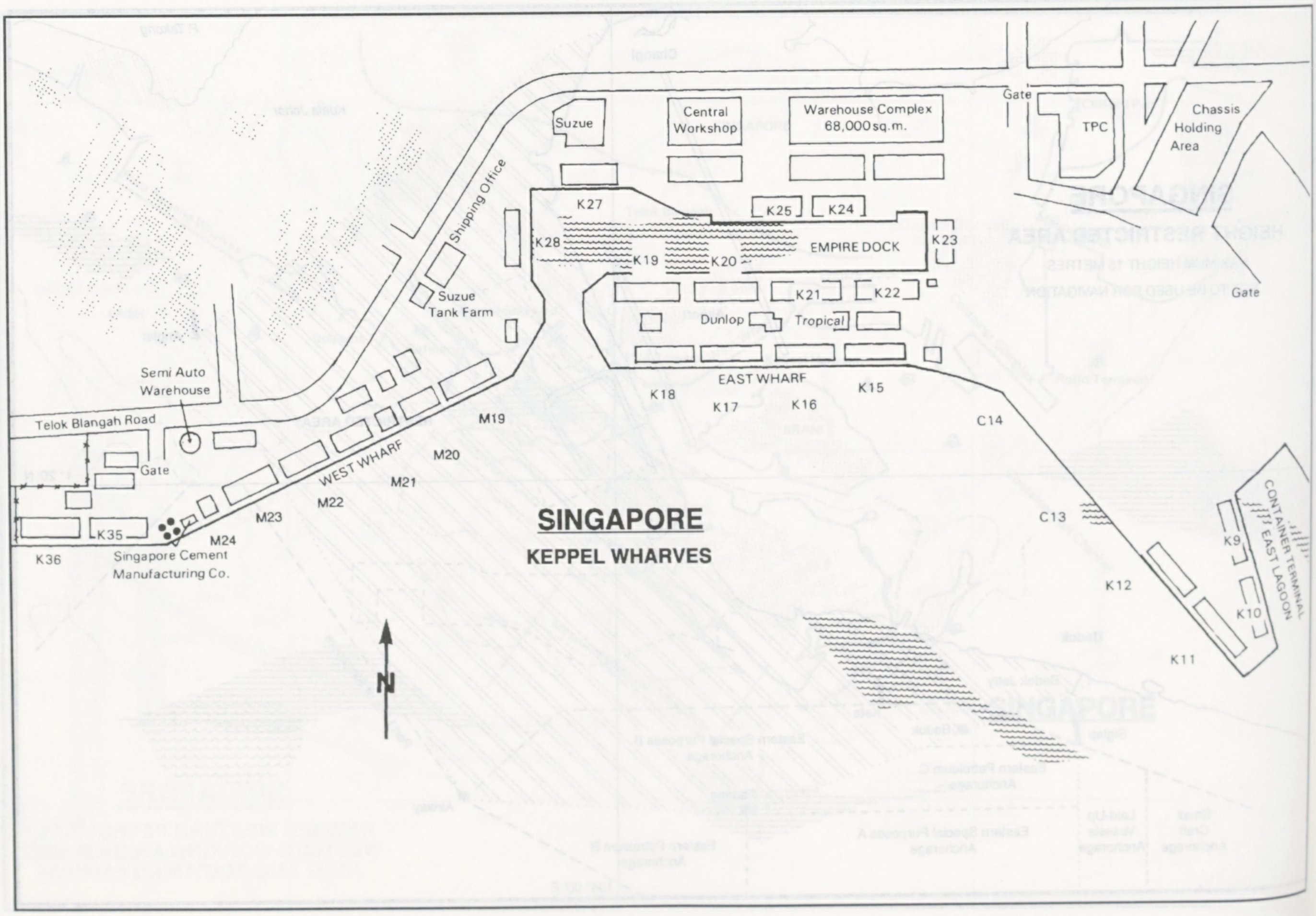

Clifford Pier
SINGAPORE
Pasir Panjang Wharves
Marina Berth
Telok Blangah
Empire Dock
LASH
Keppel Shipyard
Aerial Cableway
Container Complex
Dolphins
BP Refinery
PSA Towers
West Wharf
Keppel Harbour
RoRo Terminal
BRANI
Container Port Channel
SENTOSA
Measured Distance (1843 m.)

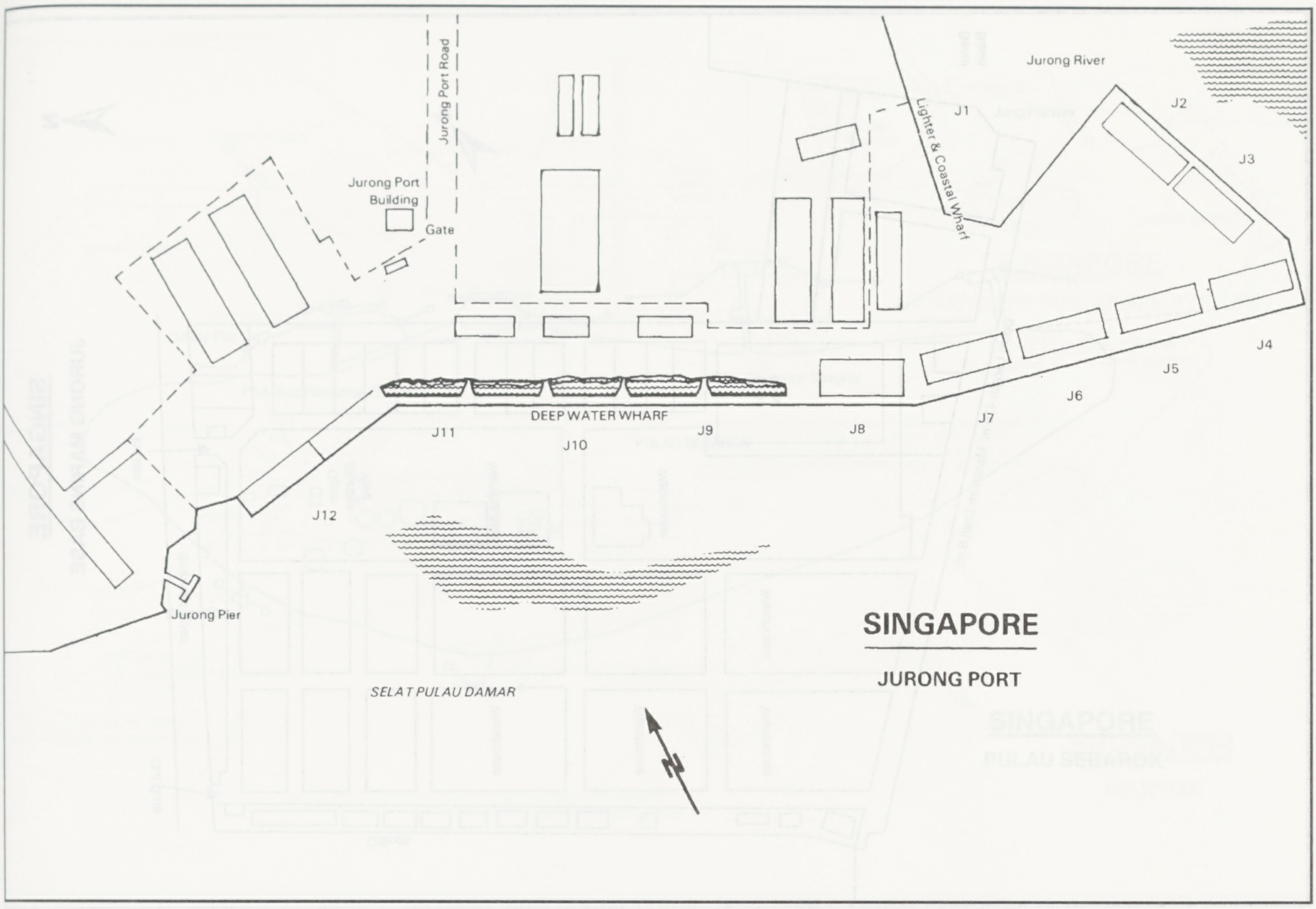
SINGAPORE

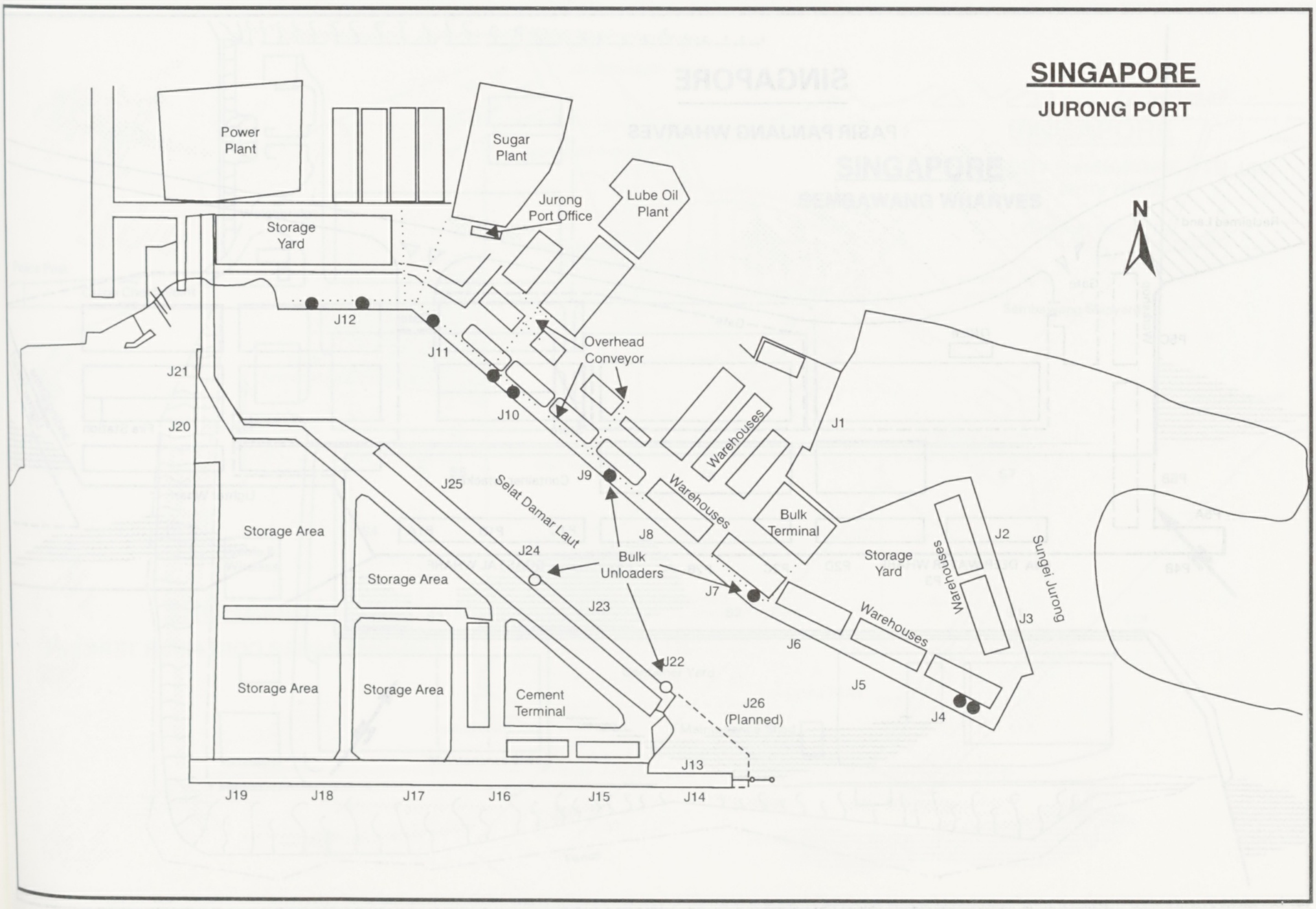

SINGAPORE
HEIGHT RESTRICTED AREA
MAXIMUM HEIGHT 49 METRES
NOT TO BE USED FOR NAVIGATION
1° 20' N
Red Cliff Shoal
Bedok
Bedok Jetty
Keta
Siglap
Bedok
Eastern Special Purposes B Anchorage
Eastern Petroleum C Anchorage
Padang
Airway
HEIGHT RESTRICTED AREA
Eastern Petroleum B Anchorage
Laid-Up Vessels Anchorage
Small Craft Anchorage
Eastern Special Purposes A Anchorage
Forward
Lagoon
Port Limit of Singapore
104° 00' E

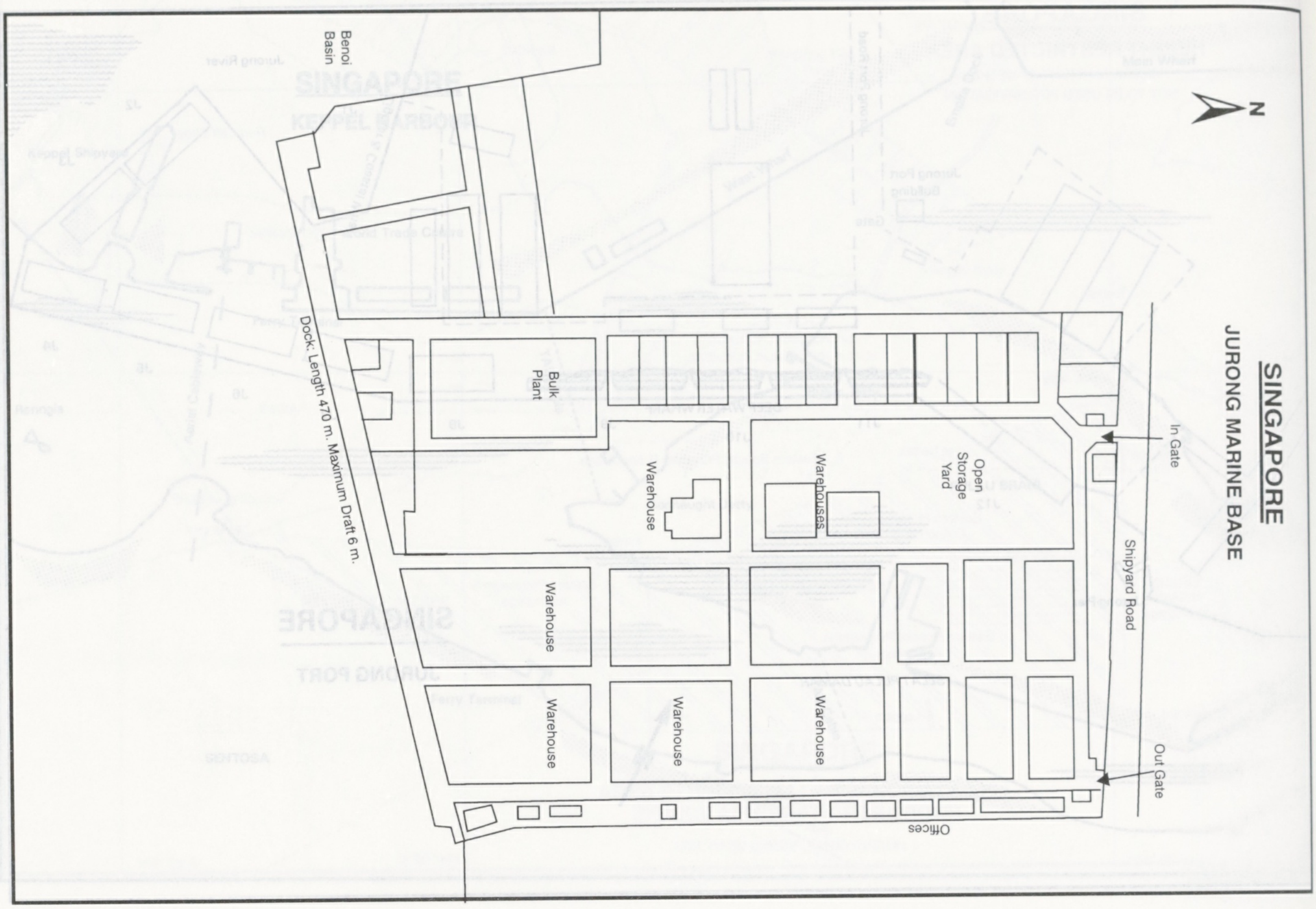

P. Takong
Changi
Kuala Johor
SINGAPORE
HEIGHT RESTRICTED AREA
MAXIMUM HEIGHT 15 METRES
NOT TO BE USED FOR NAVIGATION
Airport
Angler
RESTRICTED AREA
1° 20' N
Bedok
Bedok Jetty
Keta
Siglap
Bedok
Port Limit of Singapore
Eastern Special Purposes B Anchorage
Eastern Petroleum C Anchorage
Padang
Airway
Small Craft Anchorage
Laid-Up Vessels Anchorage
Eastern Special Purposes A Anchorage
Eastern Petroleum B Anchorage
104° 00' E


SINGAPORE
KEPPEL HARBOUR
Keppel Shipyard
World Trade Centre
Ferry Terminal
West Wharf
Empire Dock
Main Wharf
Aerial Cableway
TAS Cable
Renngis
Buller Jetty
Connaught Jetty
PULAU BRANI
Ferry Terminal
TAS Cable
SENTOSA

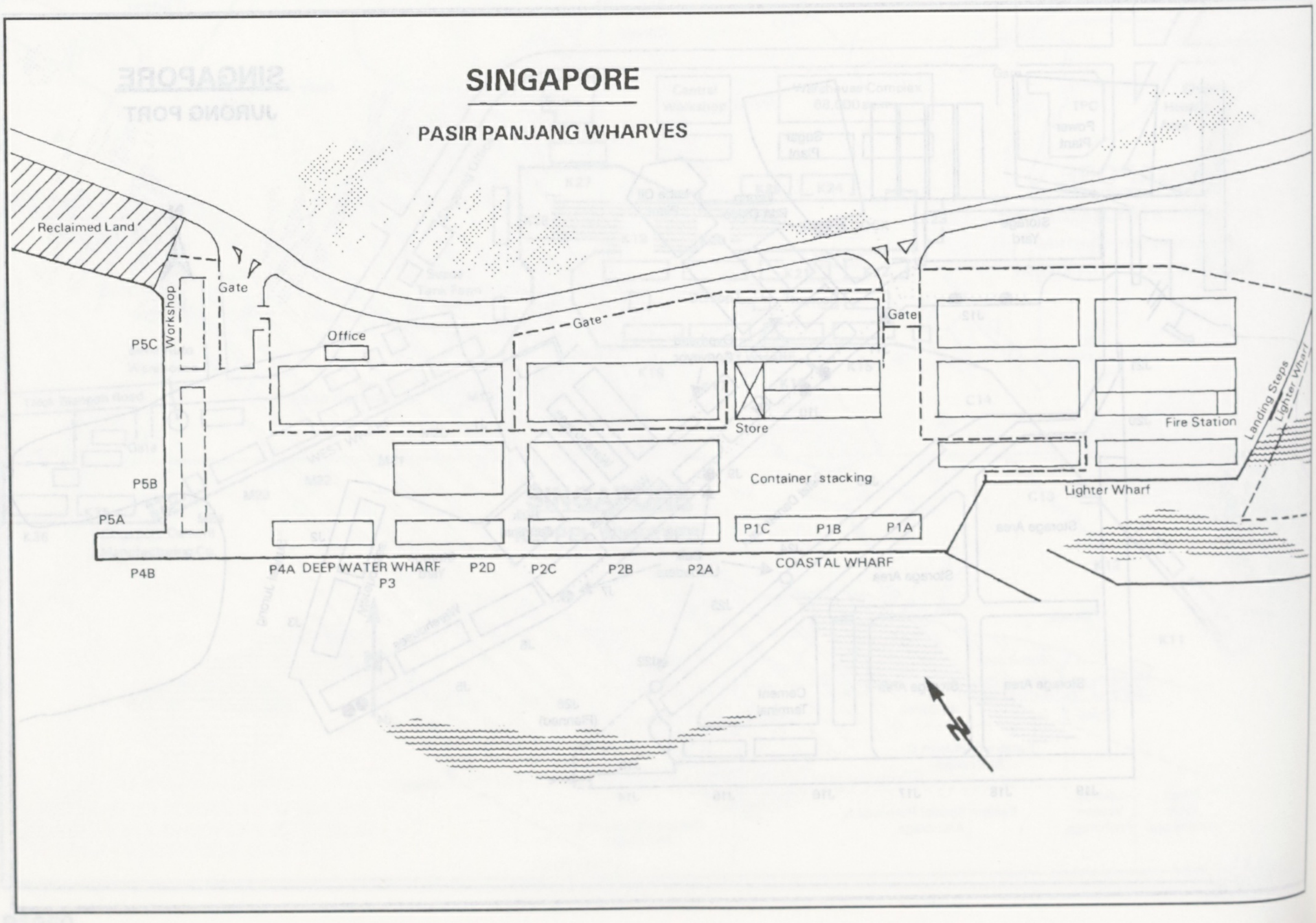

Suzue
Central Workshop
Warehouse Complex 68,000 sq.m.
Gate
TPC
Chassis Holding Area
Shipping Office
K27
K25
K24
K28
K19
K20
EMPIRE DOCK
K23
Suzue Tank Farm
K21
K22
Dunlop
Tropical
Gate
EAST WHARF
K18
K17
K16
K15
C14
Semi Auto Warehouse
Telok Blangah Road
M19
M20
Gate
WEST WHARF
M21
M22
M23
M24
K35
K36
Singapore Cement Manufacturing Co.
SINGAPORE
KEPPEL WHARVES
C13
CONTAINER TERMINAL EAST LAGOON
K9
K12
K10
K11
N


Jurong River
J1
J2
J3
Lighter & Coastal Wharf
Jurong Port Road
Jurong Port Building
Gate
J4
J5
J6
J7
J8
J9
J10
J11
J12
DEEP WATER WHARF
Jurong Pier
SELAT PULAU DAMAR
SINGAPORE
JURONG PORT
N

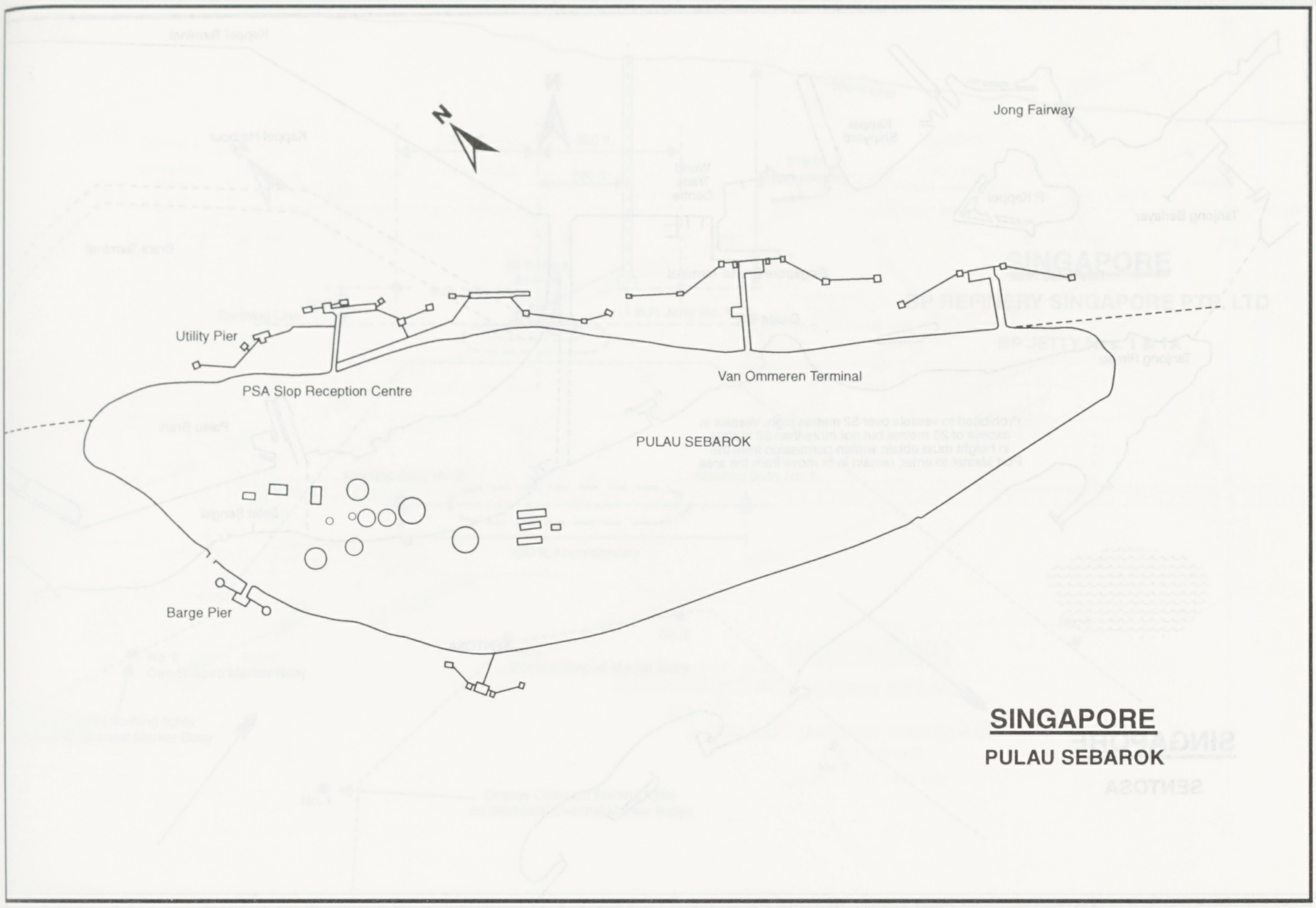

SINGAPORE
JURONG PORT
N
Power Plant
Sugar Plant
Jurong Port Office
Lube Oil Plant
Storage Yard
J12
J11
J10
J9
J8
J7
J6
J5
J4
J3
J2
J1
J13
J14
J15
J16
J17
J18
J19
J20
J21
J22
J23
J24
J25
J26 (Planned)
Overhead Conveyor
Warehouses
Warehouses
Warehouses
Warehouses
Bulk Terminal
Storage Yard
Sungei Jurong
Selat Damar Laut
Bulk Unloaders
Storage Area
Storage Area
Storage Area
Storage Area
Cement Terminal

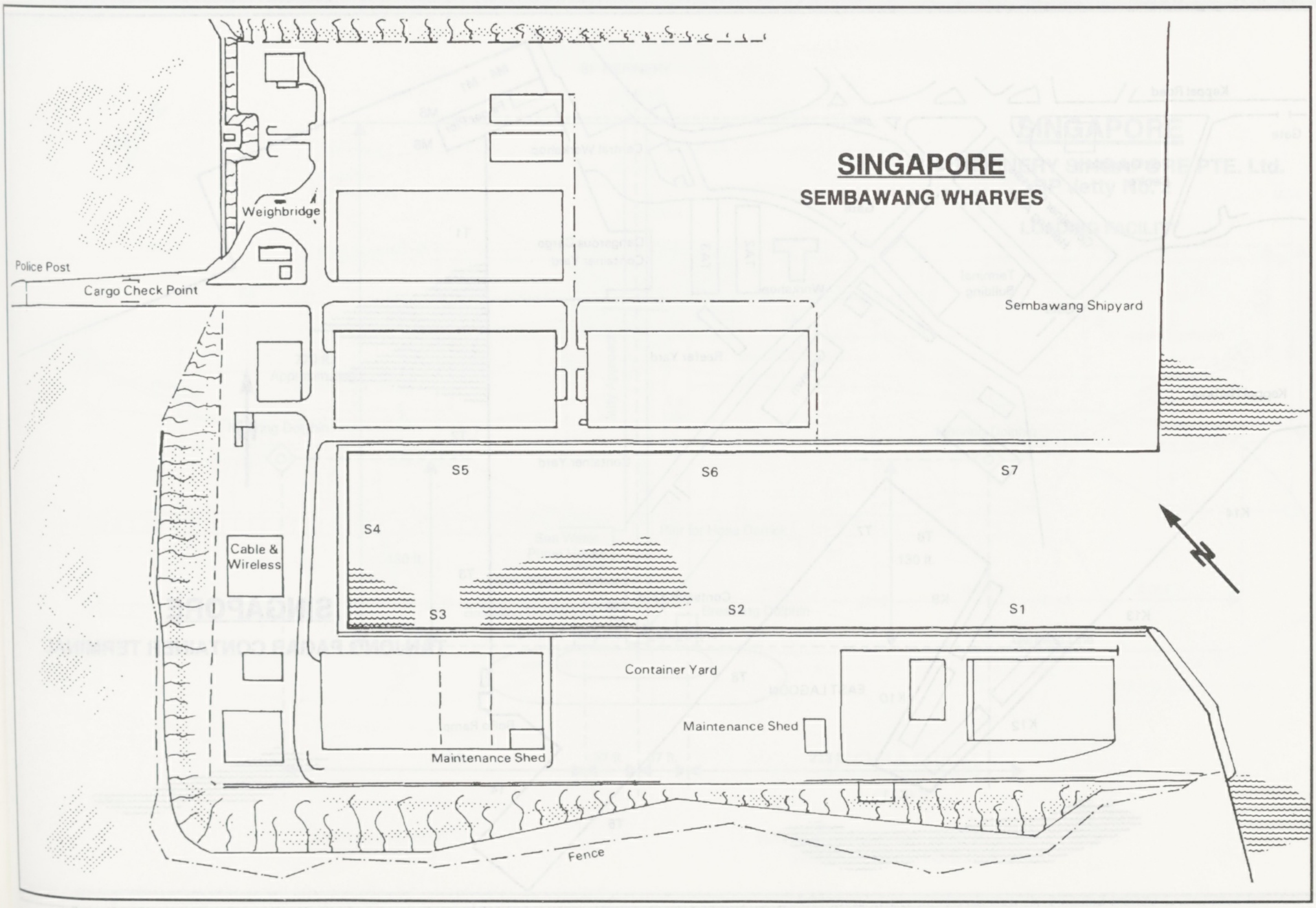

SINGAPORE

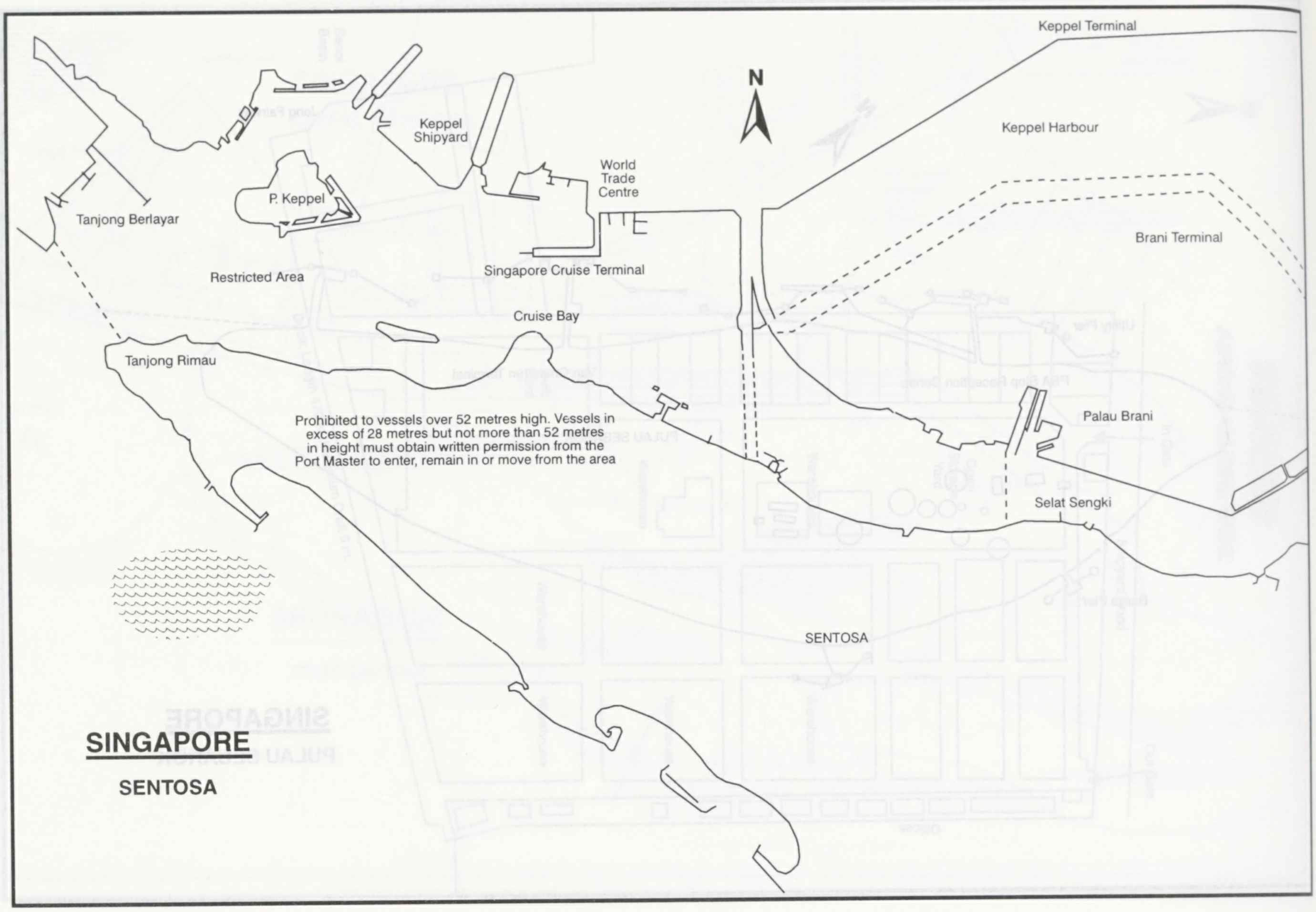
JURONG MARINE BASE
N
Benoi Basin
Dock: Length 470 m. Maximum Draft 6 m.
Bulk Plant
Warehouse
Warehouses
Open Storage Yard
In Gate
Shipyard Road
Warehouse
Warehouse
Warehouse
Warehouse
Warehouse
Out Gate
Offices

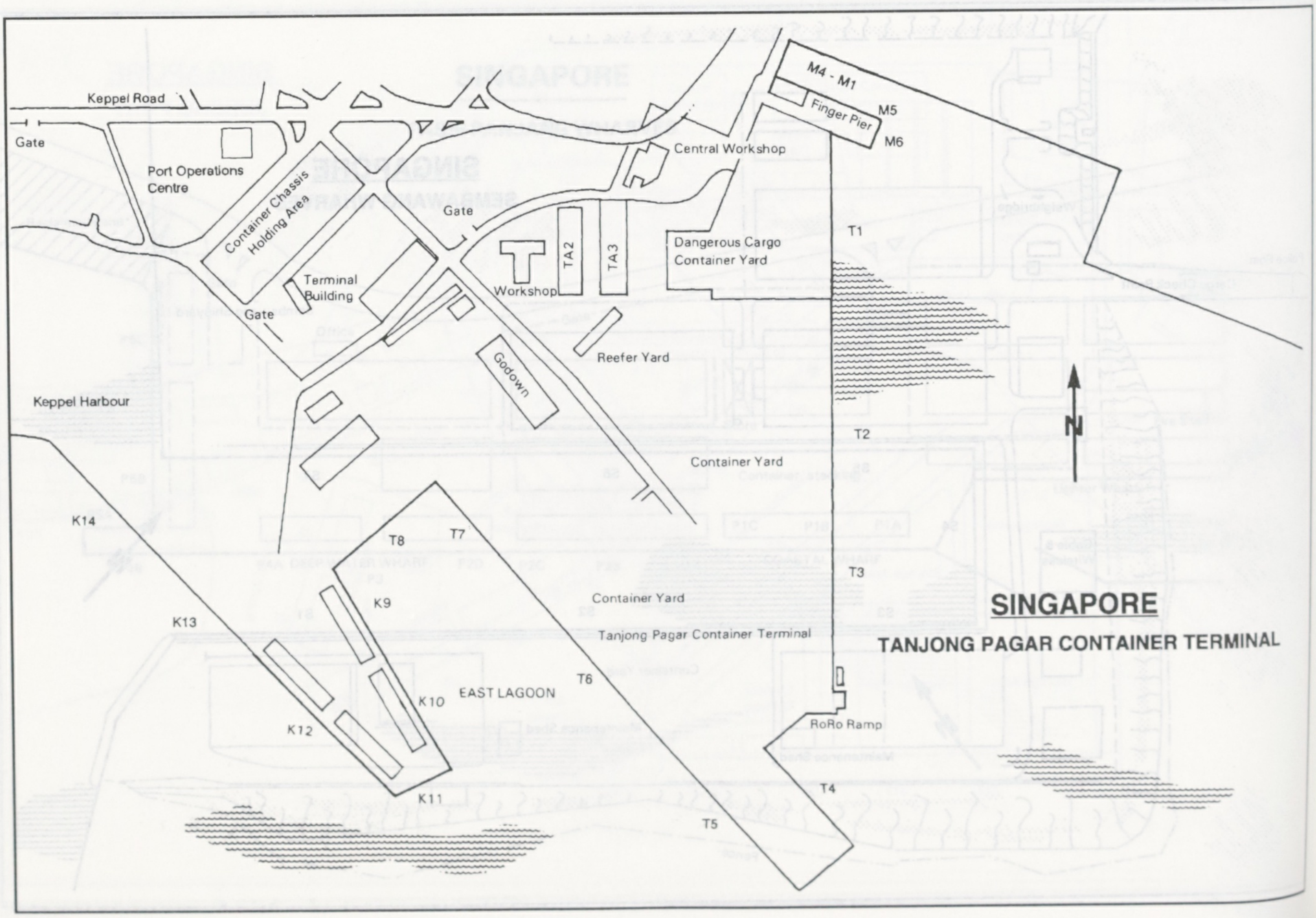

SINGAPORE

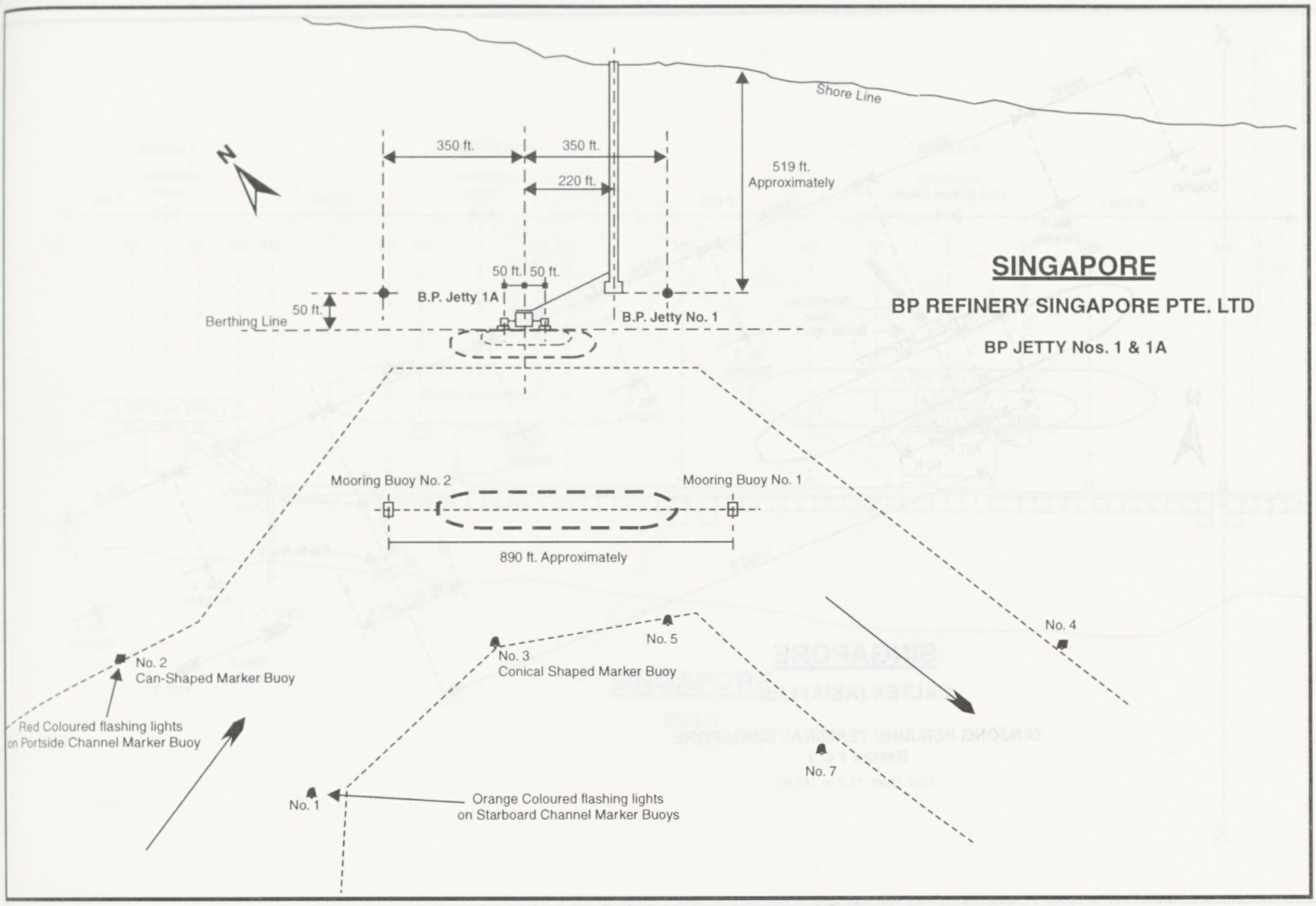
PASIR PANJANG WHARVES
Reclaimed Land
Gate
Workshop
P5C
Office
Gate
Gate
P5B
P5A
P4B
P4A
DEEP WATER WHARF
P3
P2D
P2C
P2B
P2A
Store
Container stacking
P1C
P1B
P1A
COASTAL WHARF
Fire Station
Landing Steps
Lighter Wharf
Lighter Wharf
N


N
Jong Fairway
Utility Pier
PSA Slop Reception Centre
Van Ommeren Terminal
PULAU SEBAROK
Barge Pier
SINGAPORE
PULAU SEBAROK


SINGAPORE
SEMBAWANG WHARVES
Weighbridge
Police Post
Cargo Check Point
Sembawang Shipyard
S5
S6
S7
S4
Cable & Wireless
N
S3
S2
S1
Container Yard
Maintenance Shed
Maintenance Shed
Fence


Keppel Terminal
N
Keppel Harbour
Keppel Shipyard
World Trade Centre
Tanjong Berlayar
P. Keppel
Brani Terminal
Restricted Area
Singapore Cruise Terminal
Cruise Bay
Tanjong Rimau
Prohibited to vessels over 52 metres high. Vessels in excess of 28 metres but not more than 52 metres in height must obtain written permission from the Port Master to enter, remain in or move from the area
Palau Brani
Selat Sengki
SENTOSA
SINGAPORE
SENTOSA


M4 - M1
Keppel Road
Finger Pier
M5
M6
Gate
Central Workshop
Port Operations Centre
Container Chassis Holding Area
Gate
T1
TA2
TA3
Dangerous Cargo Container Yard
Terminal Building
Workshop
Gate
Reefer Yard
Godown
Keppel Harbour
N
T2
Container Yard
K14
T8
T7
T3
K9
Container Yard
K13
Tanjong Pagar Container Terminal
SINGAPORE
TANJONG PAGAR CONTAINER TERMINAL
T6
EAST LAGOON
K10
K12
RoRo Ramp
T4
K11
T5

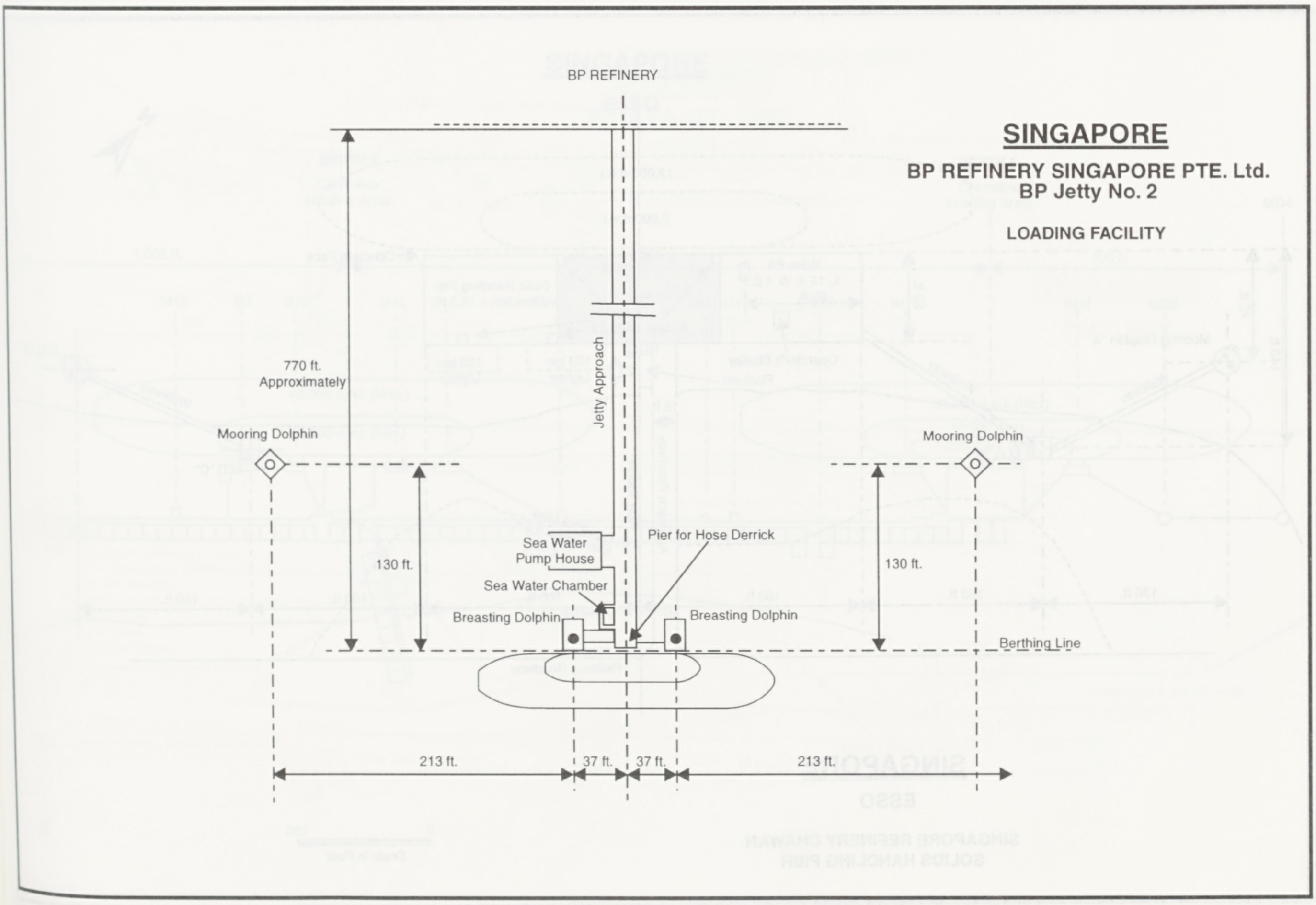


SINGAPORE

BP REFINERY SINGAPORE PTE. LTD

BP JETTY Nos. 1 & 1A

Shore Line
N
350 ft.
350 ft.
220 ft.
519 ft.
Approximately
50 ft.
50 ft.
B.P. Jetty 1A
50 ft.
Berthing Line
B.P. Jetty No. 1
Mooring Buoy No. 2
Mooring Buoy No. 1
890 ft. Approximately
No. 4
No. 5
No. 3
Conical Shaped Marker Buoy
No. 2
Can-Shaped Marker Buoy
Red Coloured flashing lights
on Portside Channel Marker Buoy
No. 7
No. 1
Orange Coloured flashing lights
on Starboard Channel Marker Buoys

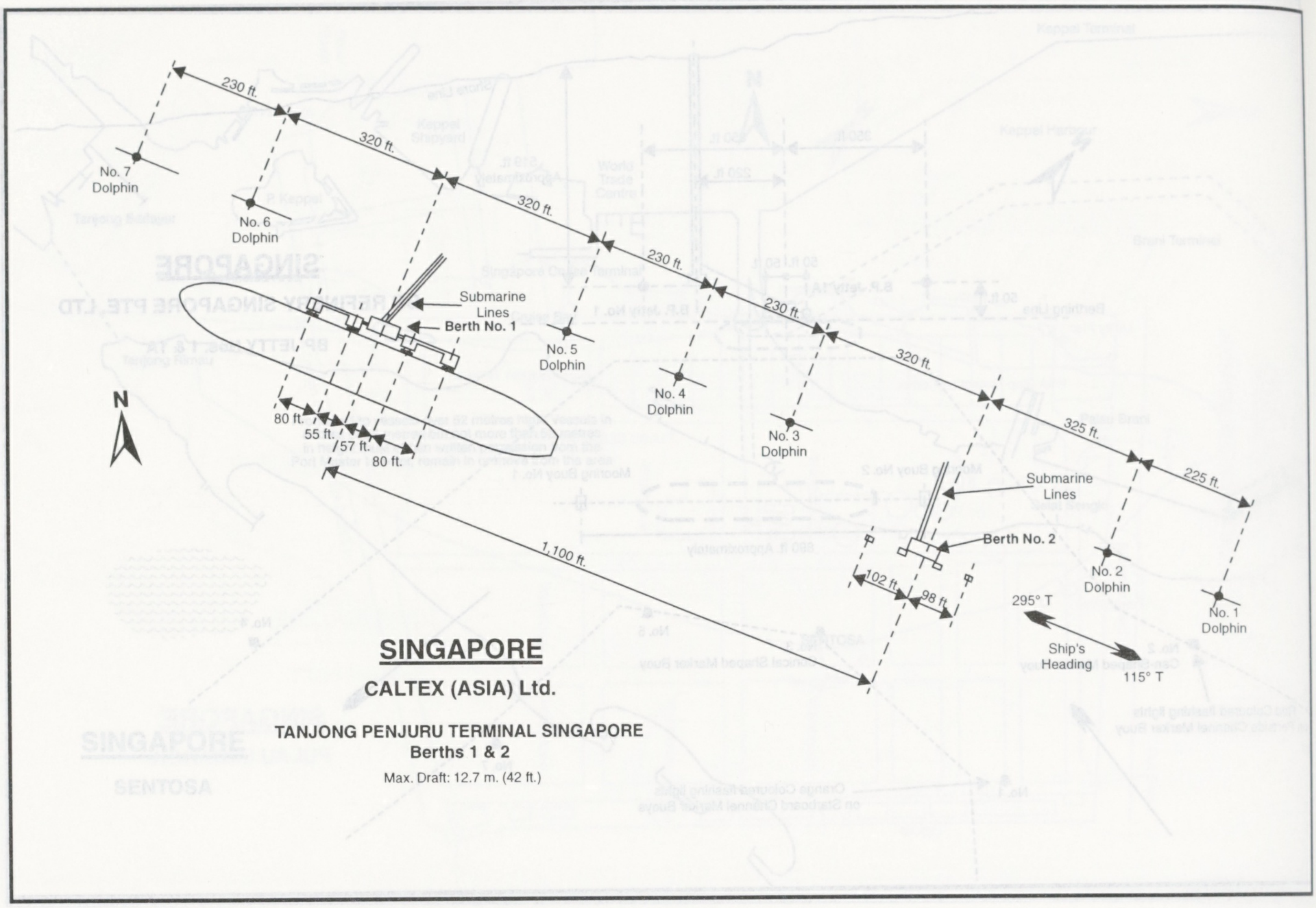


SINGAPORE

BP REFINERY SINGAPORE PTE. Ltd.
BP Jetty No. 2

LOADING FACILITY

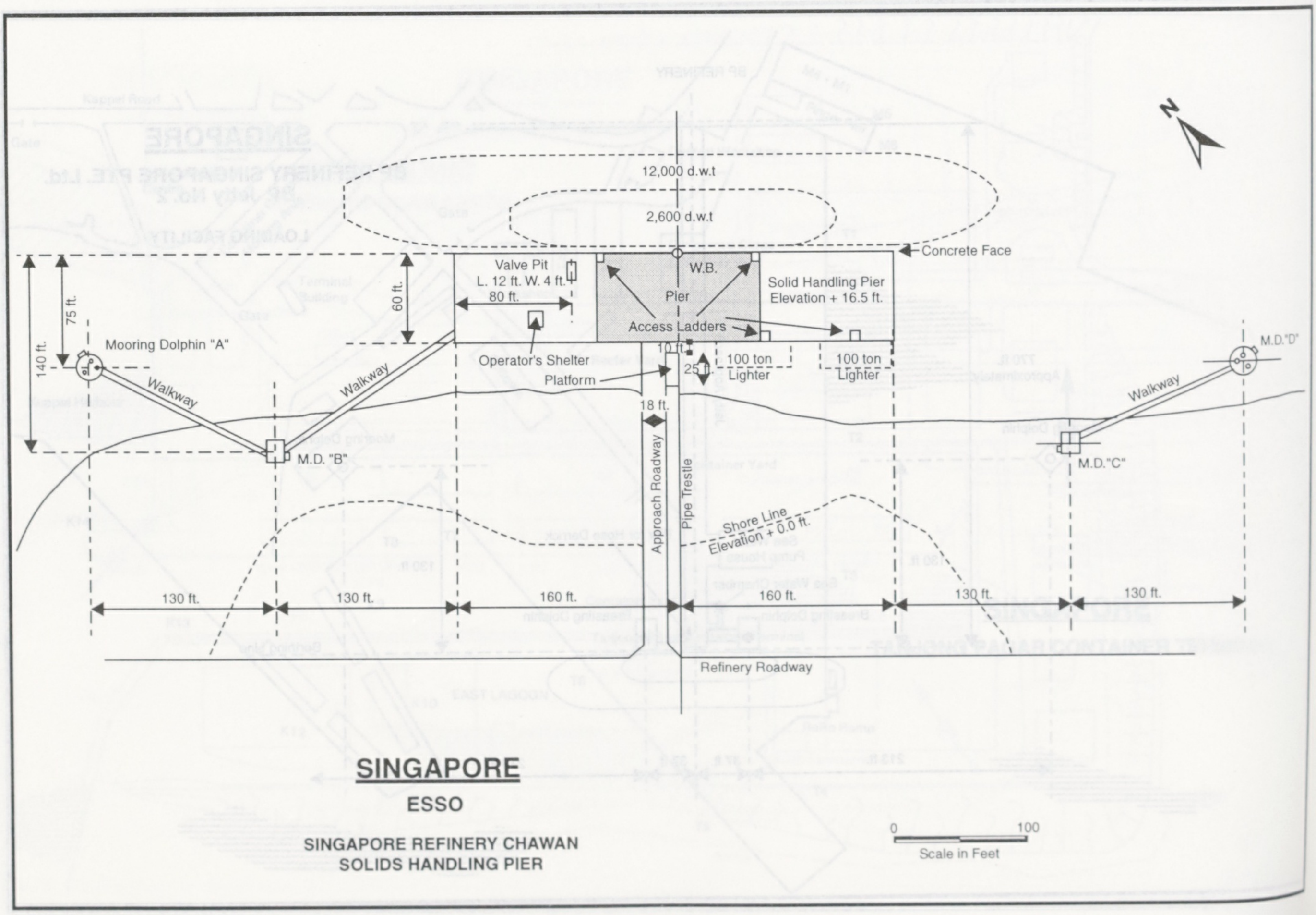
BP REFINERY
Jetty Approach
770 ft.
Approximately
Mooring Dolphin
Mooring Dolphin
130 ft.
130 ft.
Sea Water
Pump House
Pier for Hose Derrick
Sea Water Chamber
Breasting Dolphin
Breasting Dolphin
Berthing Line
213 ft.
37 ft.
37 ft.
213 ft.


230 ft.
320 ft.
320 ft.
230 ft.
230 ft.
320 ft.
325 ft.
225 ft.
No. 7 Dolphin
No. 6 Dolphin
Submarine Lines
Berth No. 1
No. 5 Dolphin
No. 4 Dolphin
No. 3 Dolphin
N
80 ft.
55 ft.
57 ft.
80 ft.
1,100 ft.
Submarine Lines
Berth No. 2
102 ft.
98 ft.
No. 2 Dolphin
No. 1 Dolphin
295° T
Ship's Heading
115° T

SINGAPORE

CALTEX (ASIA) Ltd.

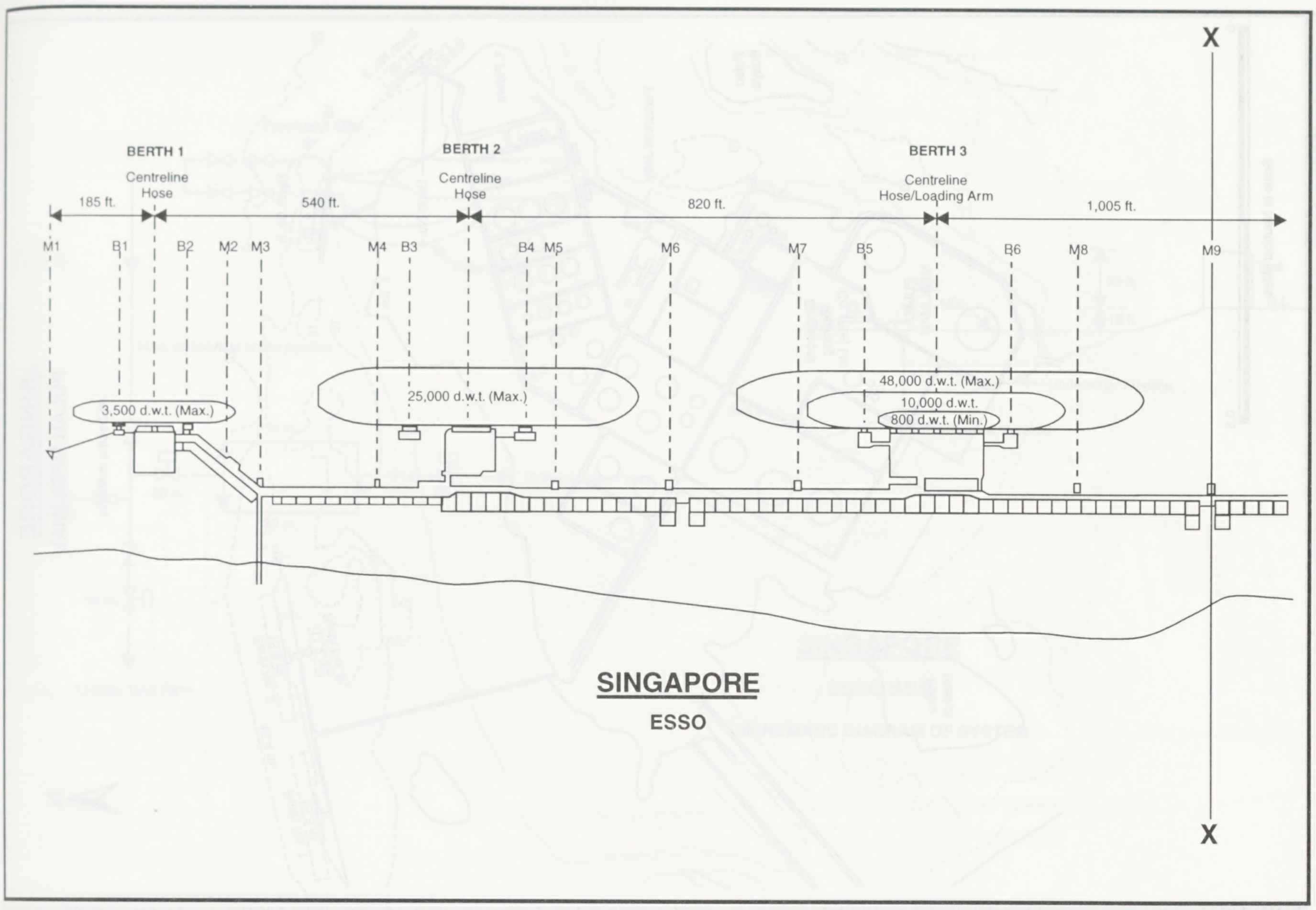
TANJONG PENJURU TERMINAL SINGAPORE
Berths 1 & 2
Max. Draft: 12.7 m. (42 ft.)

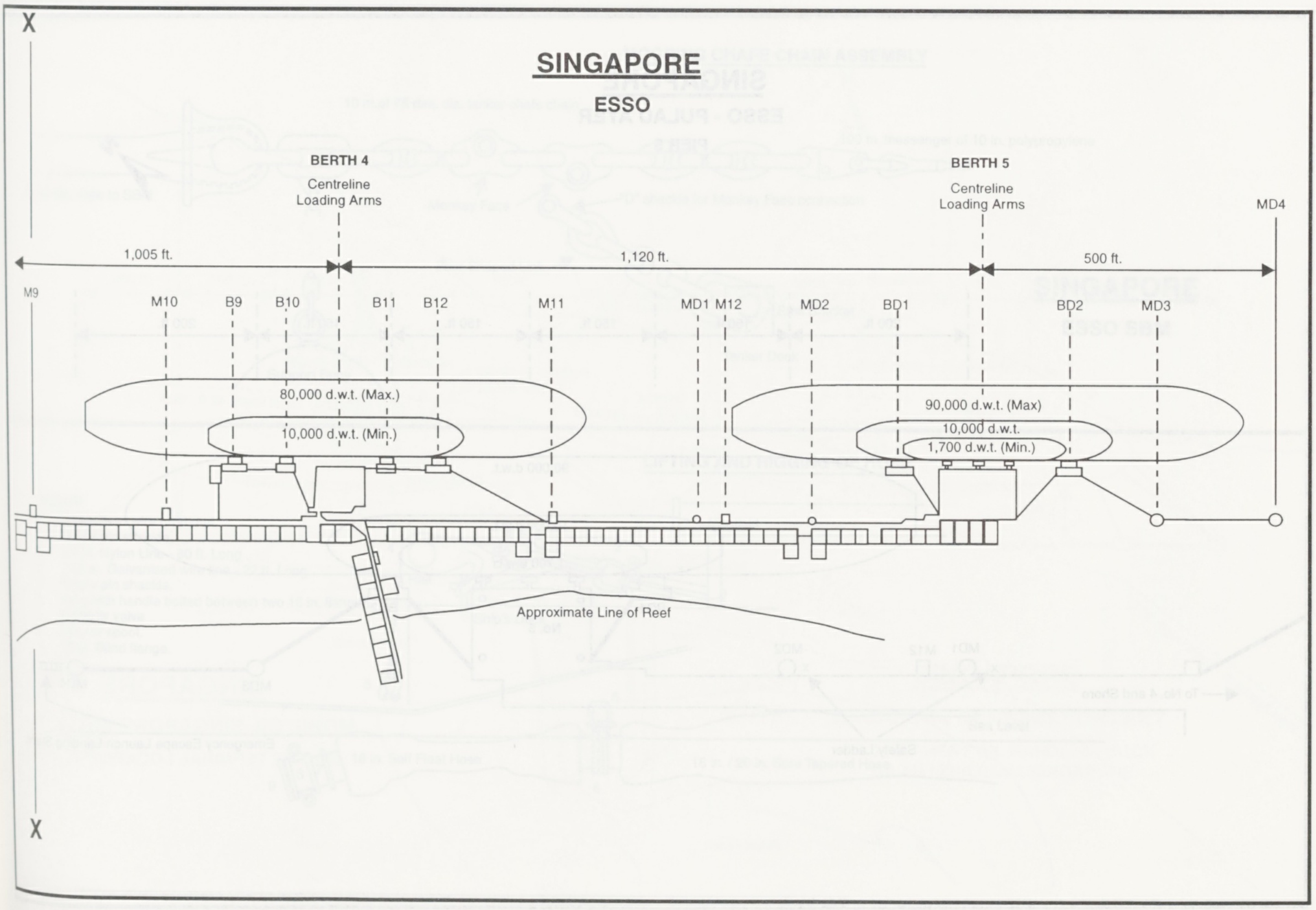

N
12,000 d.w.t
2,600 d.w.t
Concrete Face
Valve Pit
L. 12 ft. W. 4 ft.
80 ft.
W.B.
Pier
Solid Handling Pier
Elevation + 16.5 ft.
Access Ladders
60 ft.
75 ft.
140 ft.
Mooring Dolphin "A"
Walkway
Walkway
M.D. "B"
Operator's Shelter
Platform
10 ft.
25 ft.
100 ton Lighter
100 ton Lighter
18 ft.
Approach Roadway
Pipe Trestle
Shore Line
Elevation + 0.0 ft.
M.D."D"
Walkway
M.D."C"
130 ft.
130 ft.
160 ft.
160 ft.
130 ft.
130 ft.
Refinery Roadway
0
100
Scale in Feet

SINGAPORE

ESSO

SINGAPORE REFINERY CHAWAN
SOLIDS HANDLING PIER

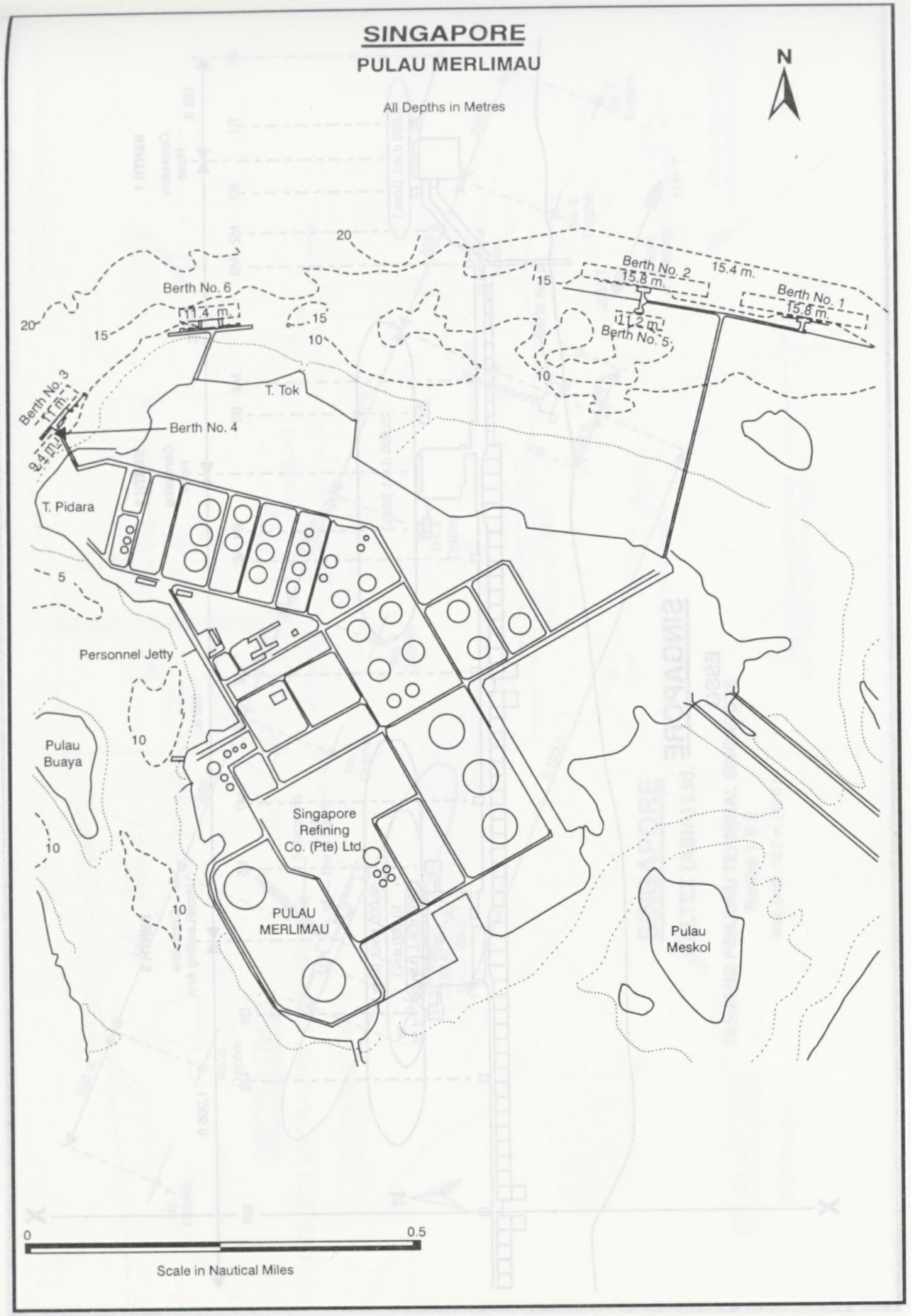

X
BERTH 1
Centreline
Hose
BERTH 2
Centreline
Hose
BERTH 3
Centreline
Hose/Loading Arm
185 ft.
540 ft.
820 ft.
1,005 ft.
M1
B1
B2
M2
M3
M4
B3
B4
M5
M6
M7
B5
B6
M8
M9
3,500 d.w.t. (Max.)
25,000 d.w.t. (Max.)
48,000 d.w.t. (Max.)
10,000 d.w.t.
800 d.w.t. (Min.)
SINGAPORE
ESSO
X


X
SINGAPORE
ESSO
BERTH 4
Centreline
Loading Arms
BERTH 5
Centreline
Loading Arms
MD4
1,005 ft.
1,120 ft.
500 ft.
M9
M10
B9
B10
B11
B12
M11
MD1
M12
MD2
BD1
BD2
MD3
80,000 d.w.t. (Max.)
10,000 d.w.t. (Min.)
90,000 d.w.t. (Max)
10,000 d.w.t.
1,700 d.w.t. (Min.)
Approximate Line of Reef
X

SINGAPORE

PULAU MERLIMAU

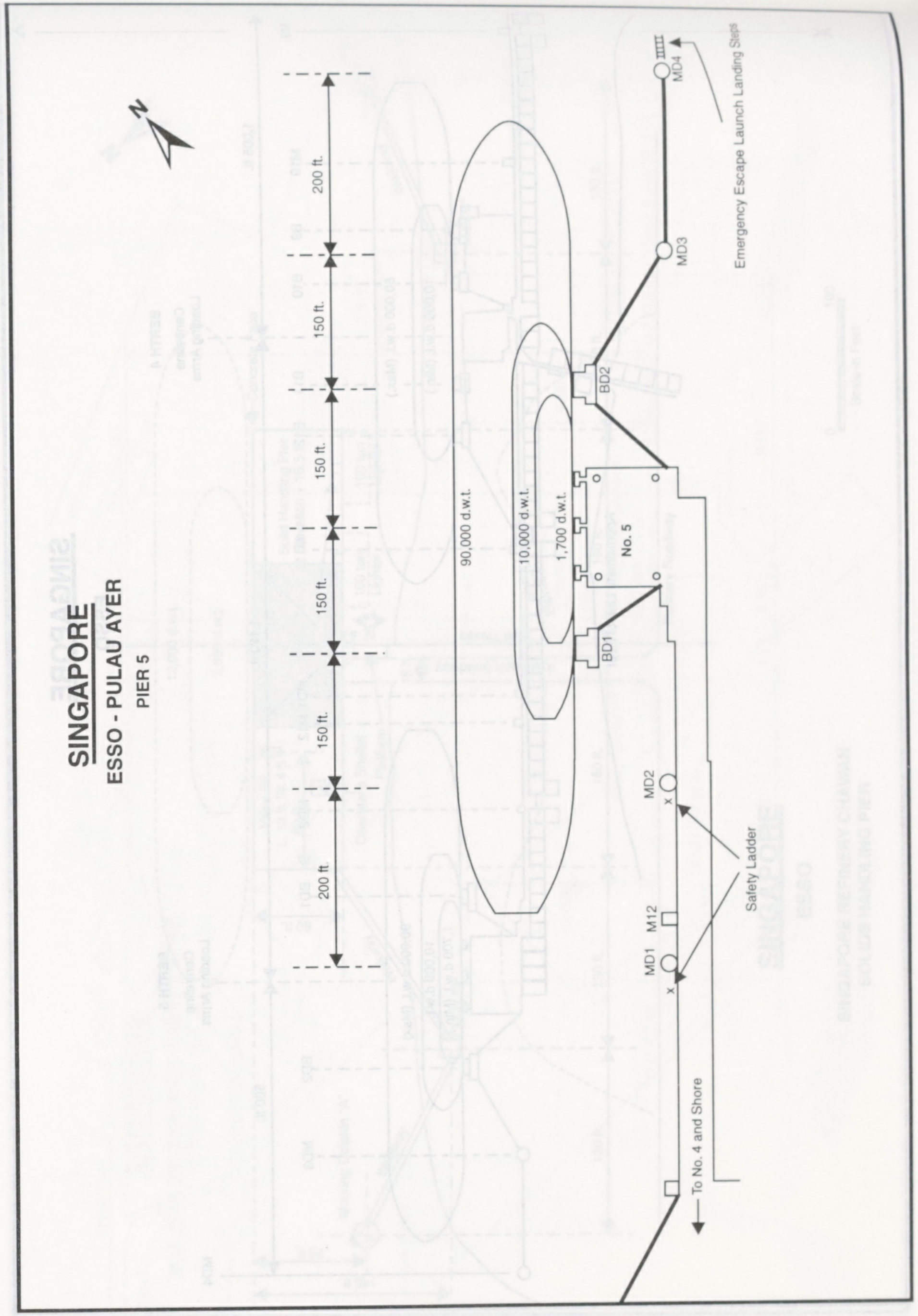
All Depths in Metres

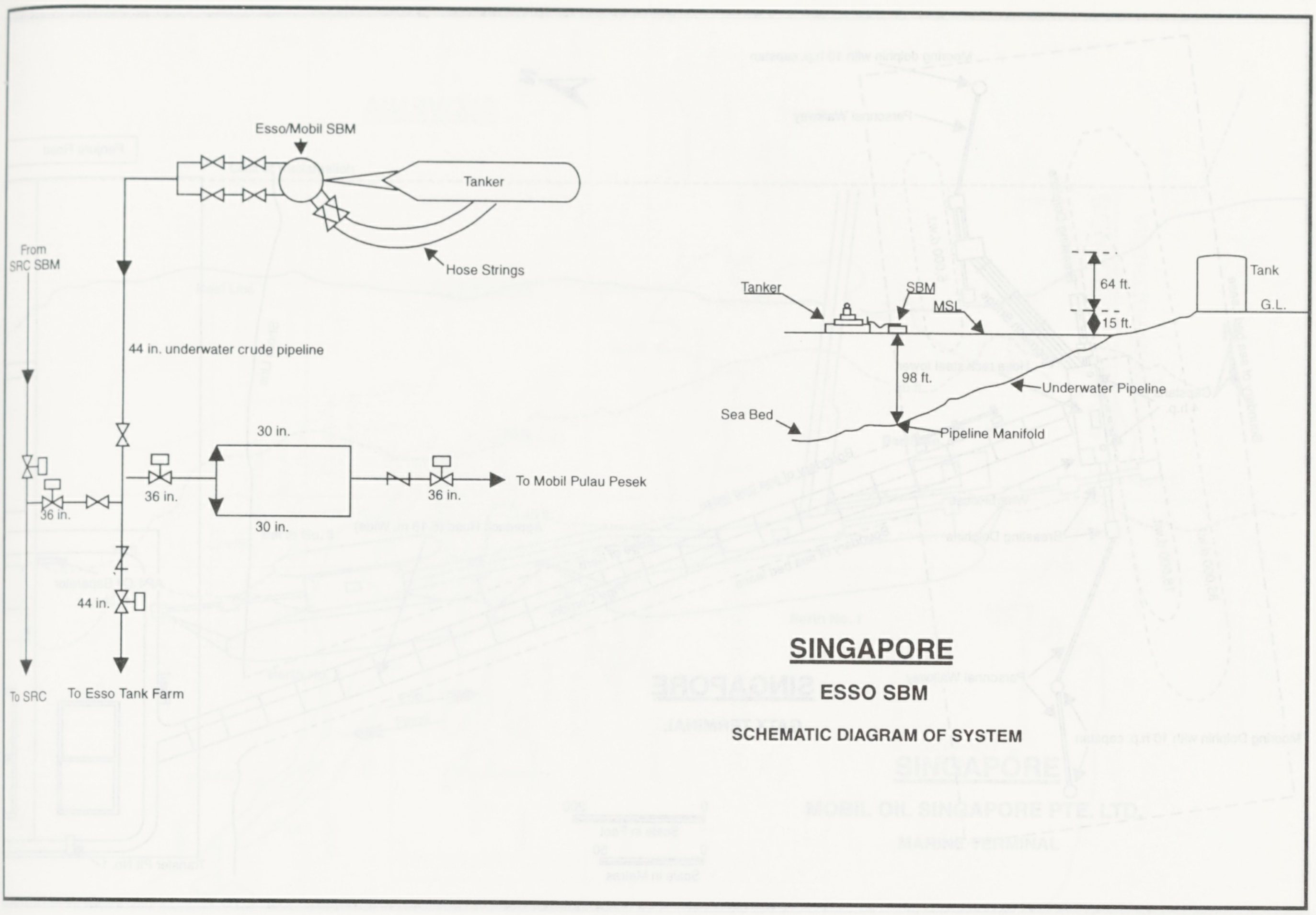

N
Berth No. 2
15.8 m.
15.4 m.
Berth No. 1
15.8 m.
11.2 m.
Berth No. 5
Berth No. 6
11.4 m.
Berth No. 3
11 m.
Berth No. 4
9.4 m.
T. Tok
T. Pidara
Personnel Jetty
Pulau Buaya
Singapore Refining Co. (Pte) Ltd.
PULAU MERLIMAU
Pulau Meskol
20
15
10
5
0
0.5
Scale in Nautical Miles

SINGAPORE

ESSO - PULAU AYER

PIER 5

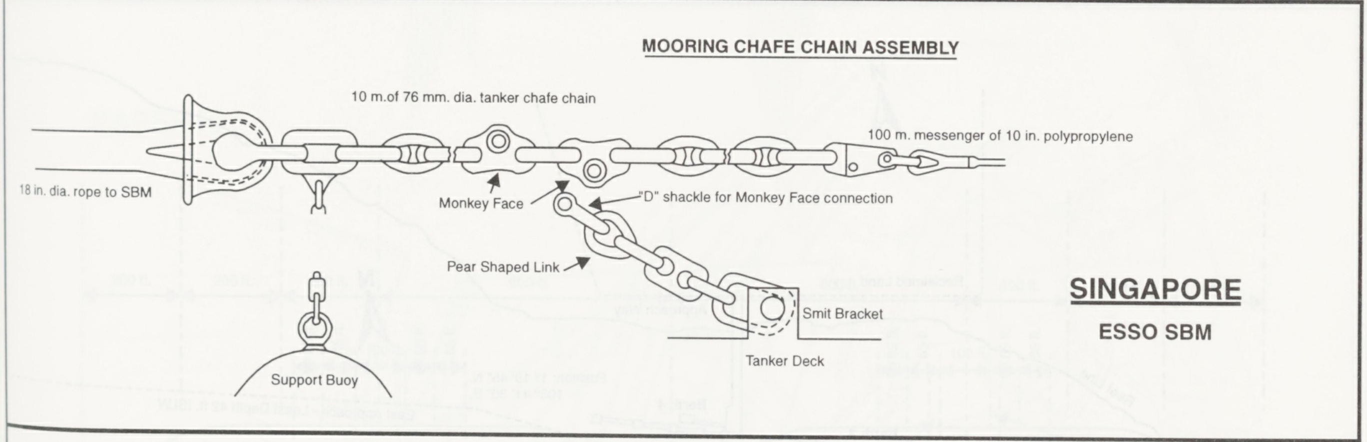

N
MD4
Emergency Escape Launch Landing Steps
MD3
BD2
No. 5
BD1
90,000 d.w.t.
10,000 d.w.t.
1,700 d.w.t.
200 ft.
150 ft.
150 ft.
150 ft.
150 ft.
200 ft.
MD2
M12
MD1
x
x
Safety Ladder
To No. 4 and Shore


Esso/Mobil SBM
Tanker
Hose Strings
From SRC SBM
44 in. underwater crude pipeline
30 in.
36 in.
36 in.
36 in.
30 in.
To Mobil Pulau Pesek
44 in.
To SRC
To Esso Tank Farm
Tanker
SBM
MSL
64 ft.
15 ft.
Tank
G.L.
98 ft.
Underwater Pipeline
Sea Bed
Pipeline Manifold

SINGAPORE

ESSO SBM

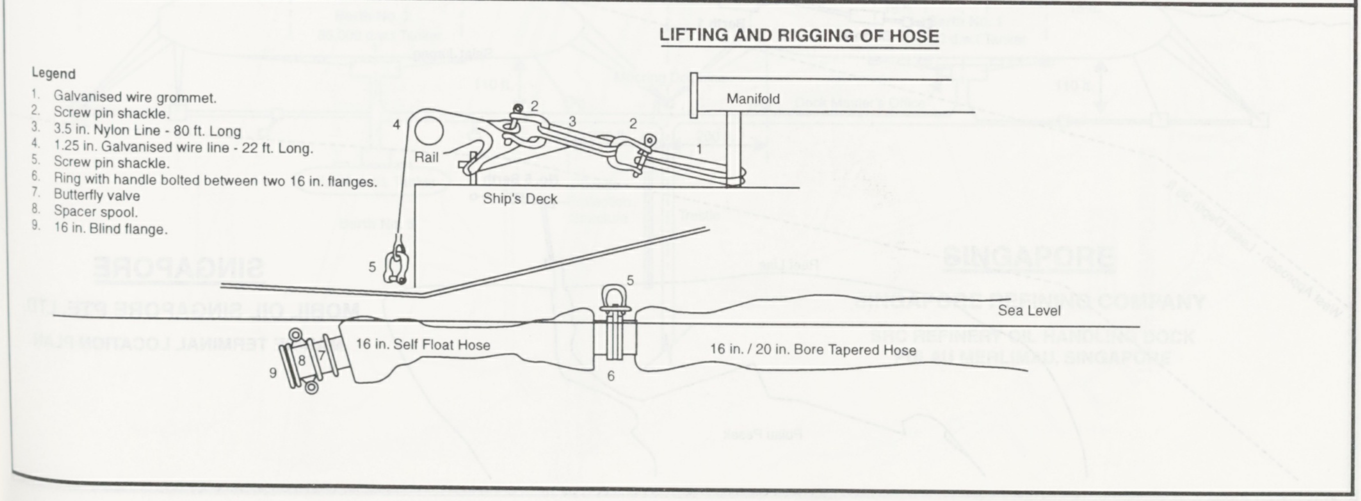
SCHEMATIC DIAGRAM OF SYSTEM


MOORING CHAFE CHAIN ASSEMBLY

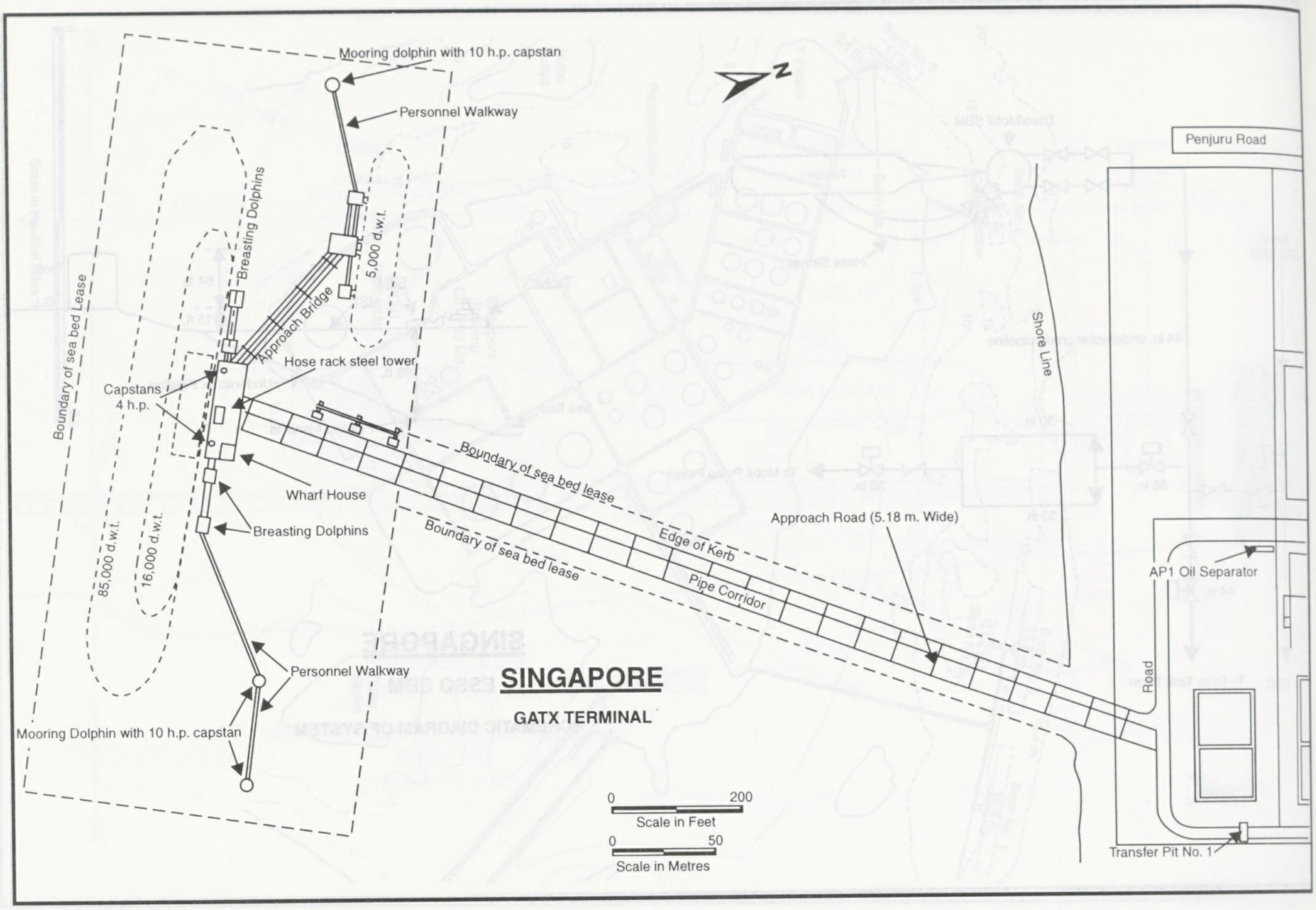
10 m.of 76 mm. dia. tanker chafe chain
100 m. messenger of 10 in. polypropylene
18 in. dia. rope to SBM
Monkey Face
"D" shackle for Monkey Face connection
Pear Shaped Link
Smit Bracket
Tanker Deck
Support Buoy

SINGAPORE

ESSO SBM


LIFTING AND RIGGING OF HOSE

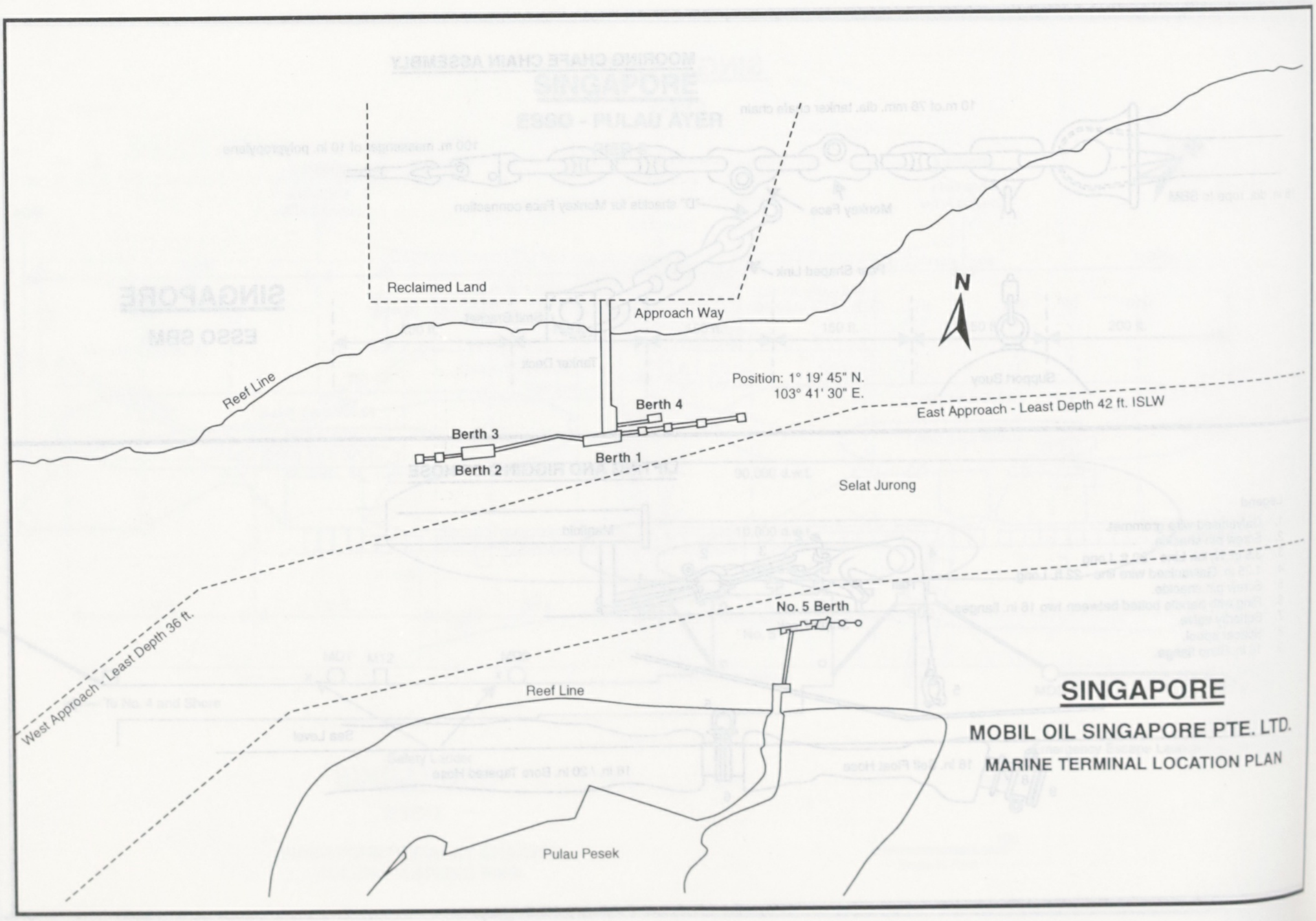
Legend
1. Galvanised wire grommet.
2. Screw pin shackle.
3. 3.5 in. Nylon Line - 80 ft. Long
4. 1.25 in. Galvanised wire line - 22 ft. Long.
5. Screw pin shackle.
6. Ring with handle bolted between two 16 in. flanges.
7. Butterfly valve
8. Spacer spool.
9. 16 in. Blind flange.
Manifold
4
Rail
2
3
2
1
Ship's Deck
5
5
Sea Level
16 in. Self Float Hose
16 in. / 20 in. Bore Tapered Hose
9
8
7
6



SINGAPORE

GATX TERMINAL

Mooring dolphin with 10 h.p. capstan
Personnel Walkway
N
Penjuru Road
Breasting Dolphins
5,000 d.w.t.
Approach Bridge
Boundary of sea bed lease
Hose rack steel tower
Capstans 4 h.p.
Shore Line
Boundary of sea bed lease
Wharf House
Breasting Dolphins
Boundary of sea bed lease
Approach Road (5.18 m. Wide)
Edge of Kerb
AP1 Oil Separator
Pipe Corridor
85,000 d.w.t.
16,000 d.w.t.
Personnel Walkway
Road
Mooring Dolphin with 10 h.p. capstan
0
200
Scale in Feet
0
50
Scale in Metres
Transfer Pit No. 1

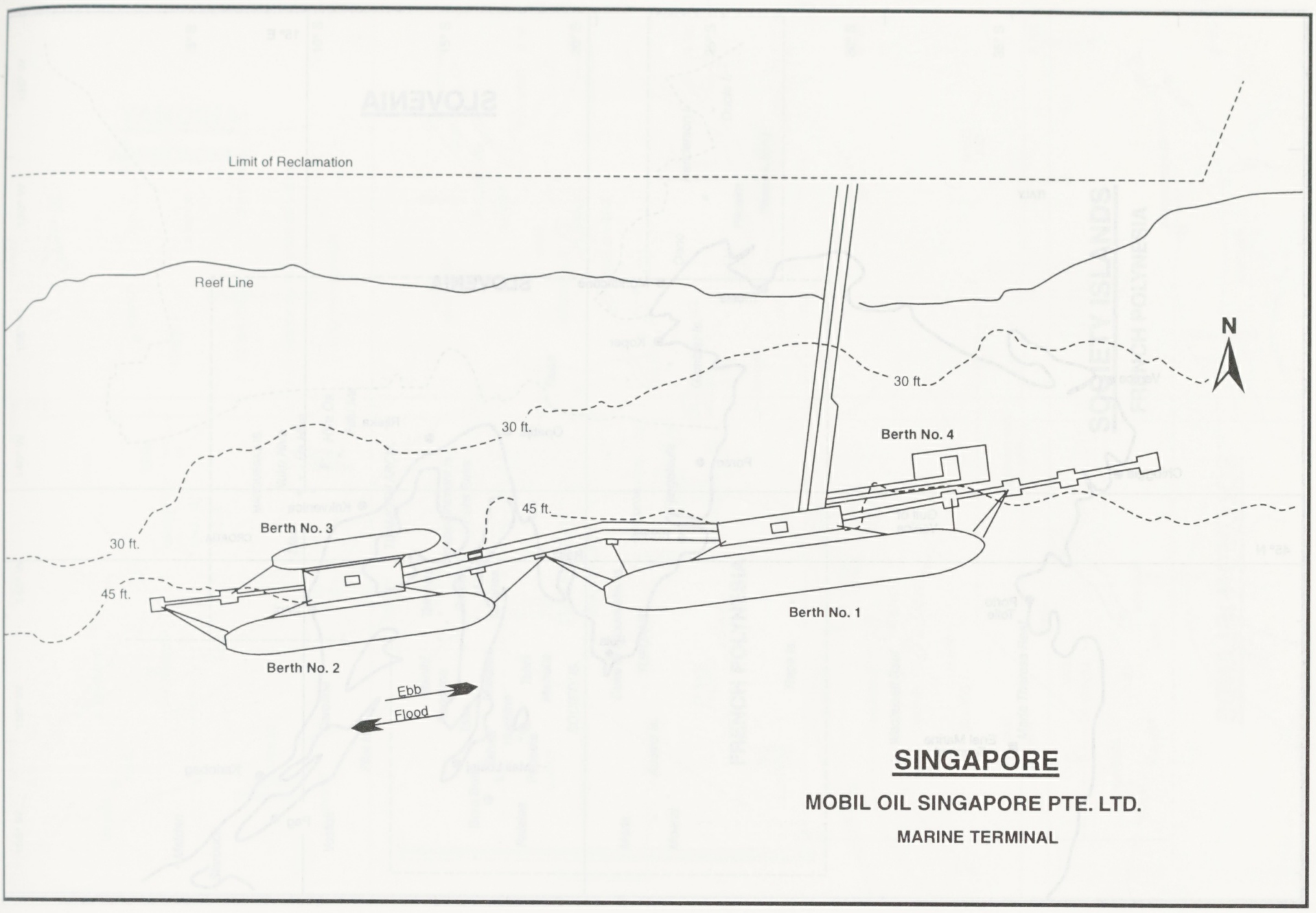


SINGAPORE

MOBIL OIL SINGAPORE PTE. LTD.

MARINE TERMINAL LOCATION PLAN

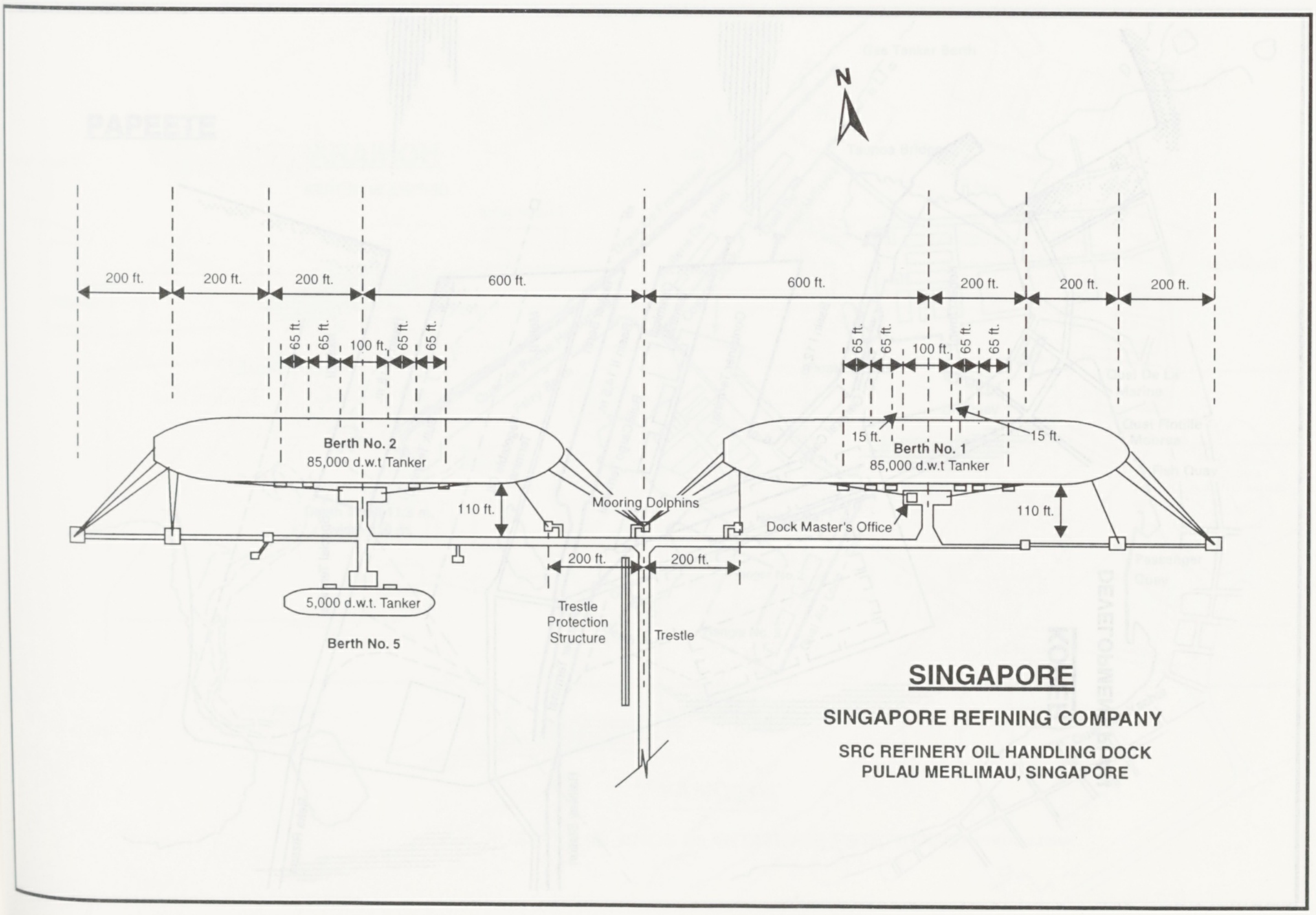
Reclaimed Land
Approach Way
N
Reef Line
Position: 1° 19' 45" N.
103° 41' 30" E.
Berth 4
East Approach - Least Depth 42 ft. ISLW
Berth 3
Berth 1
Berth 2
Selat Jurong
No. 5 Berth
West Approach - Least Depth 36 ft.
Reef Line
Pulau Pesek


Limit of Reclamation
Reef Line
N
30 ft.
30 ft.
30 ft.
45 ft.
45 ft.
Berth No. 4
Berth No. 3
Berth No. 1
Berth No. 2
Ebb
Flood

SINGAPORE

MOBIL OIL SINGAPORE PTE. LTD.

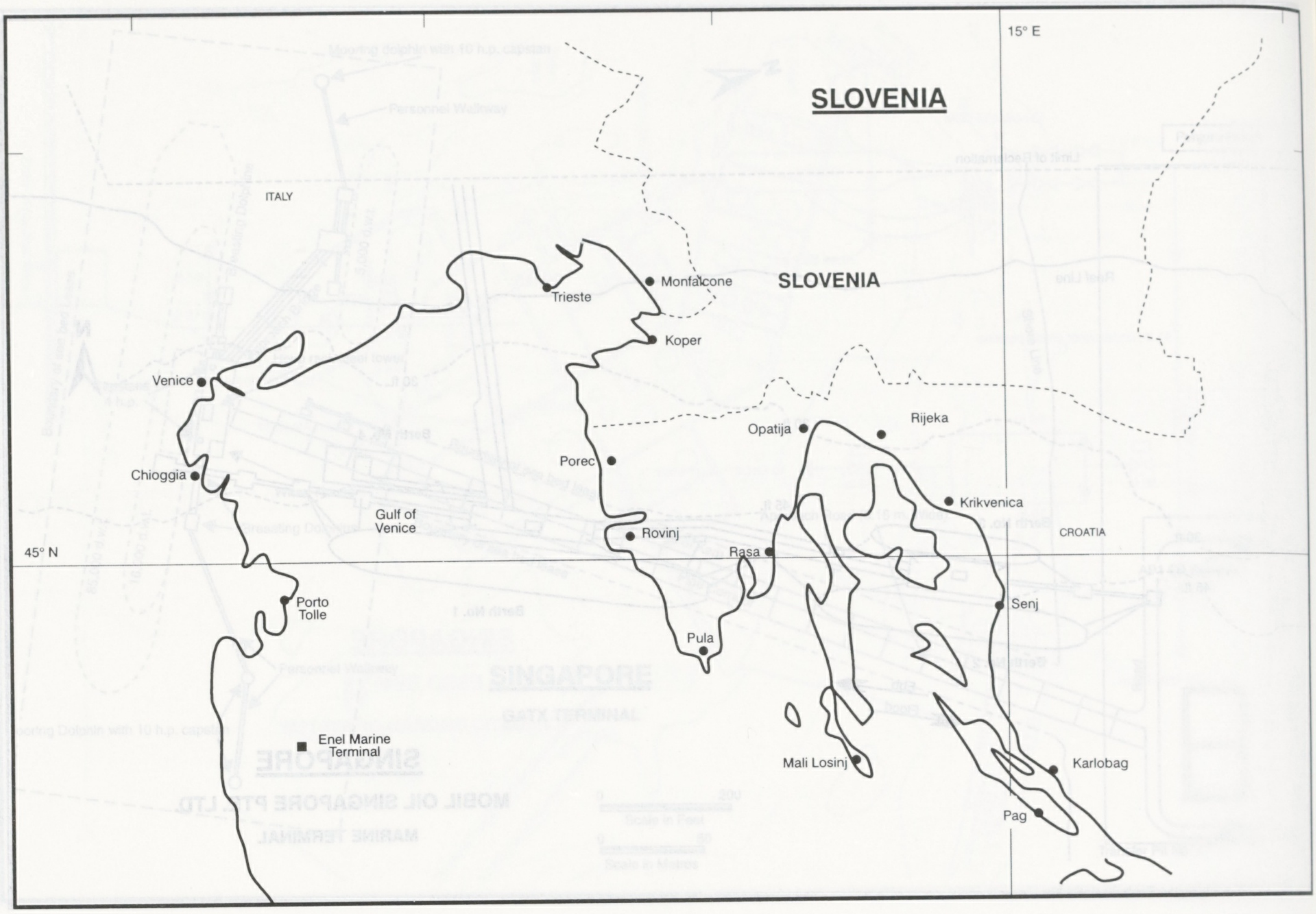
MARINE TERMINAL


N
200 ft.
200 ft.
200 ft.
600 ft.
600 ft.
200 ft.
200 ft.
200 ft.
65 ft.
65 ft.
100 ft.
65 ft.
65 ft.
65 ft.
65 ft.
100 ft.
65 ft.
65 ft.
15 ft.
15 ft.
Berth No. 2
85,000 d.w.t Tanker
Berth No. 1
85,000 d.w.t Tanker
110 ft.
110 ft.
Mooring Dolphins
Dock Master's Office
200 ft.
200 ft.
5,000 d.w.t. Tanker
Berth No. 5
Trestle
Protection
Structure
Trestle

SINGAPORE

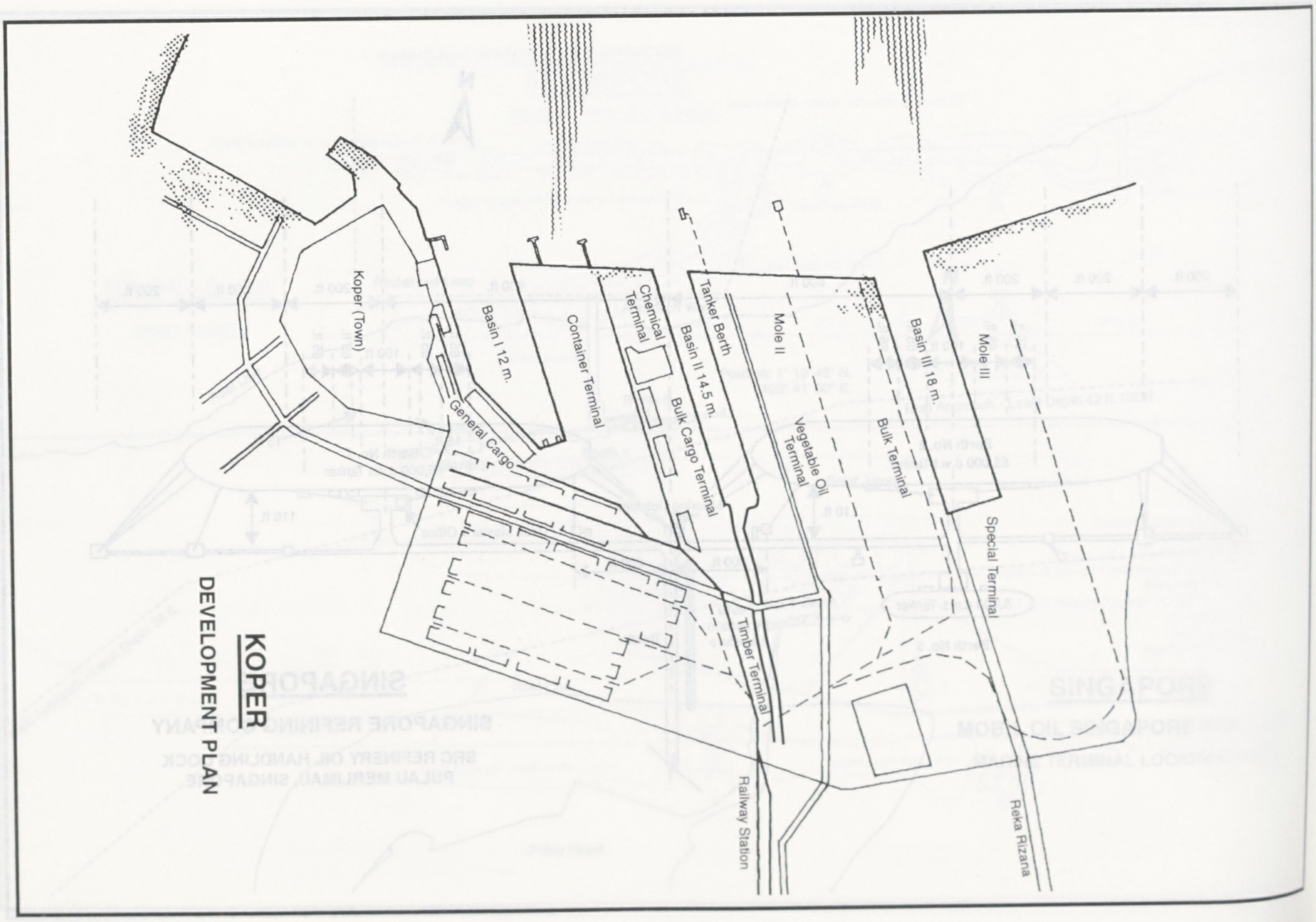
SINGAPORE REFINING COMPANY

SRC REFINERY OIL HANDLING DOCK
PULAU MERLIMAU, SINGAPORE



SLOVENIA

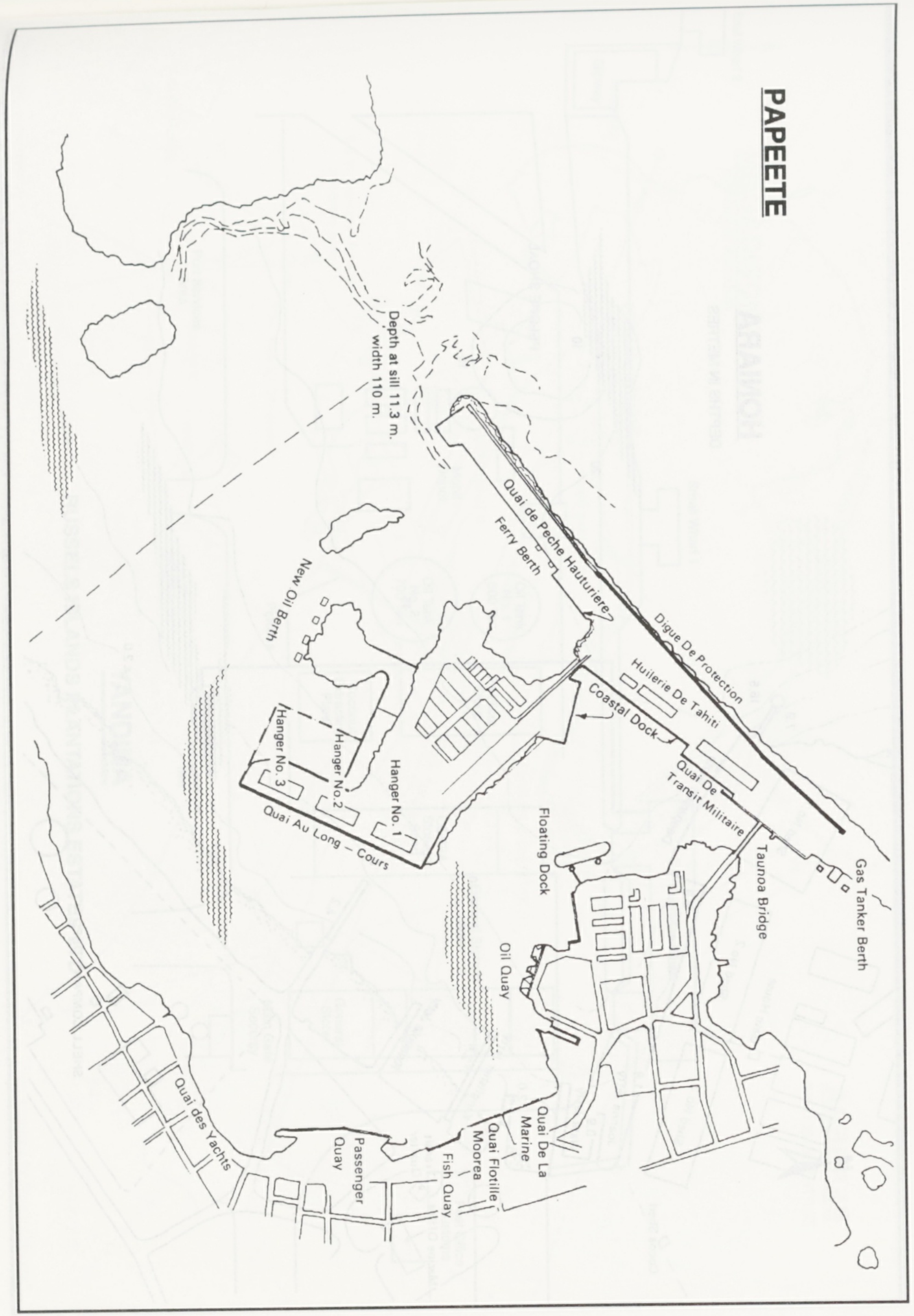
15° E
45° N
ITALY
SLOVENIA
CROATIA
Trieste
Monfalcone
Koper
Venice
Chioggia
Porec
Rovinj
Gulf of Venice
Porto Tolle
Enel Marine Terminal
Opatija
Rijeka
Krikvenica
Rasa
Pula
Senj
Mali Losinj
Karlobag
Pag



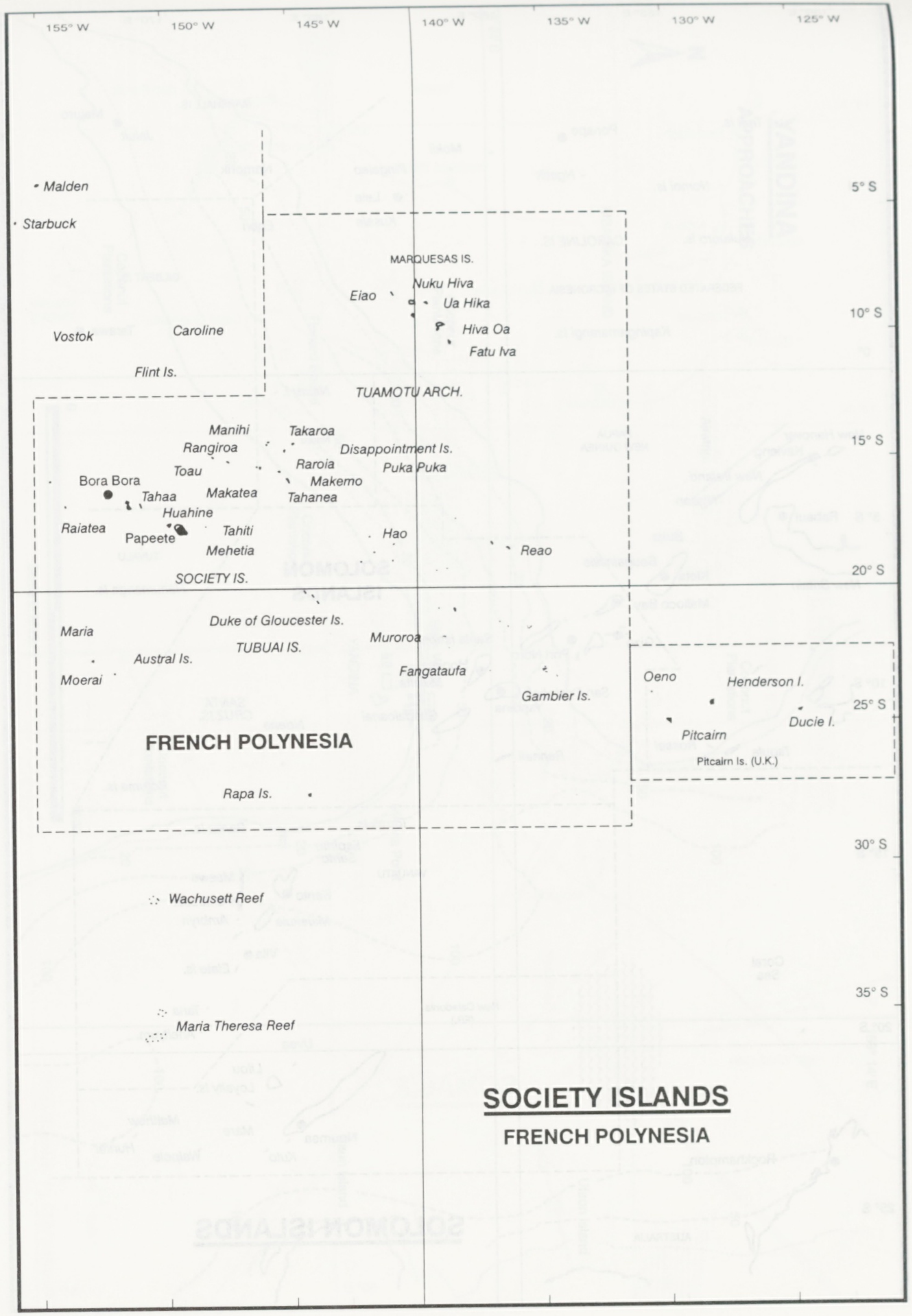
KOPER

DEVELOPMENT PLAN

Koper (Town)
Basin I 12 m.
General Cargo
Container Terminal
Chemical Terminal
Basin II 14.5 m.
Bulk Cargo Terminal
Tanker Berth
Mole II
Vegetable Oil Terminal
Timber Terminal
Railway Station
Basin III 18 m.
Bulk Terminal
Mole III
Special Terminal
Reka Rizana

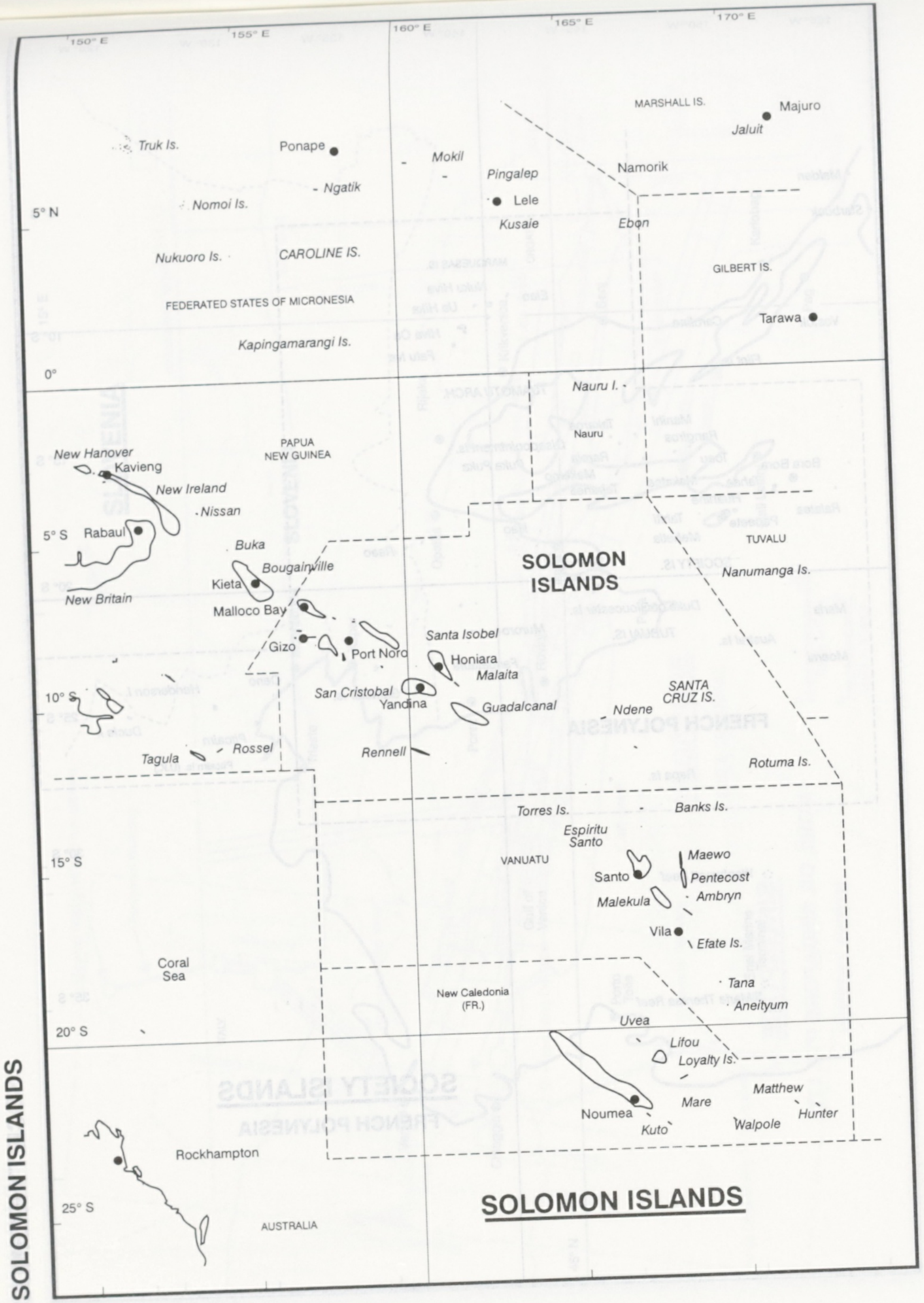

PAPEETE

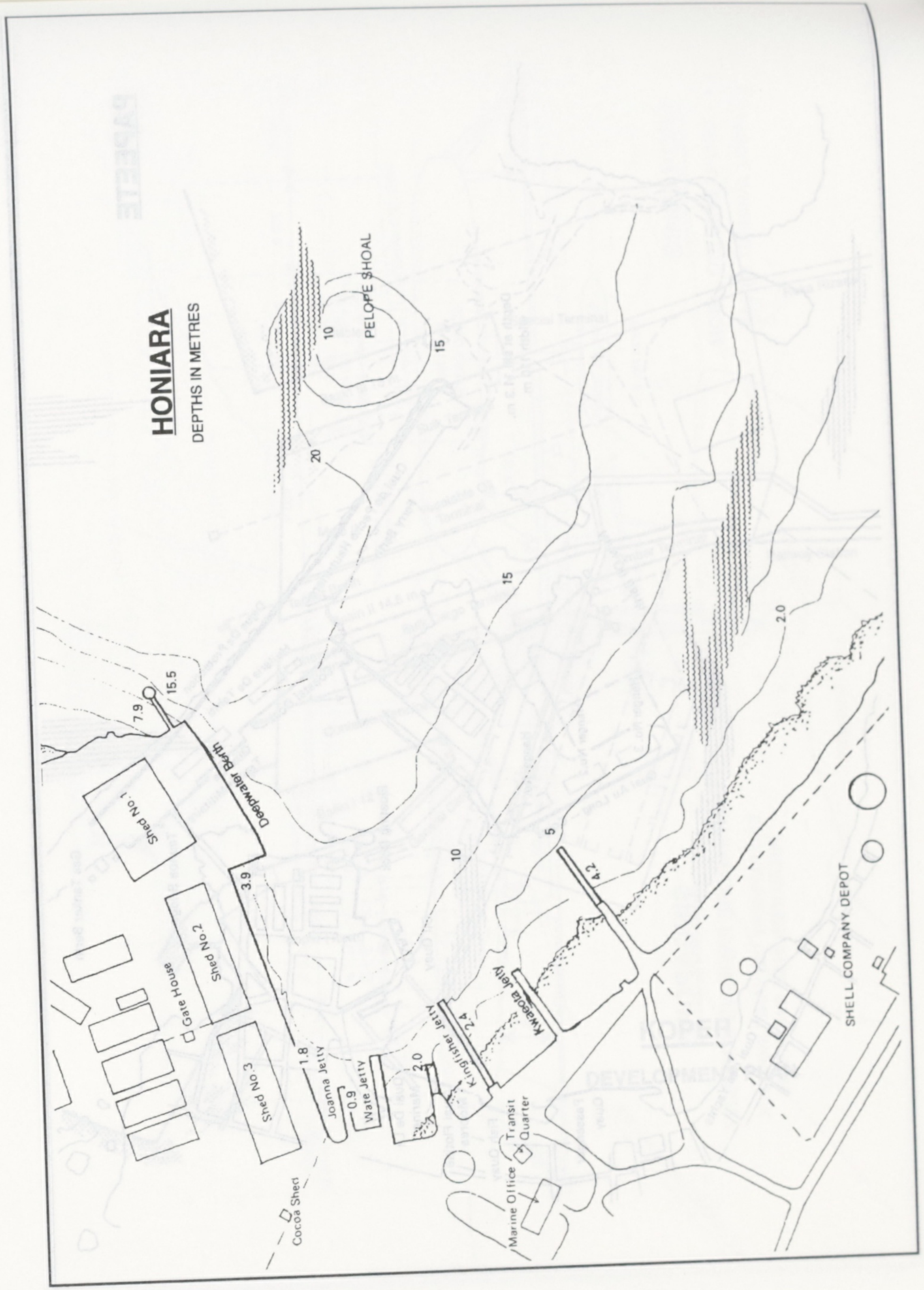
Depth at sill 11.3 m.
width 110 m.
Quai de Peche Hauturiere
Ferry Berth
Digue De Protection
Huilerie De Tahiti
Coastal Dock
Quai De Transit Militaire
New Oil Berth
Hanger No. 1
Hanger No.2
Hanger No. 3
Quai Au Long – Cours
Floating Dock
Taunoa Bridge
Gas Tanker Berth
Oil Quay
Quai De La Marine
Quai Flotille Moorea
Fish Quay
Passenger Quay
Quai des Yachts

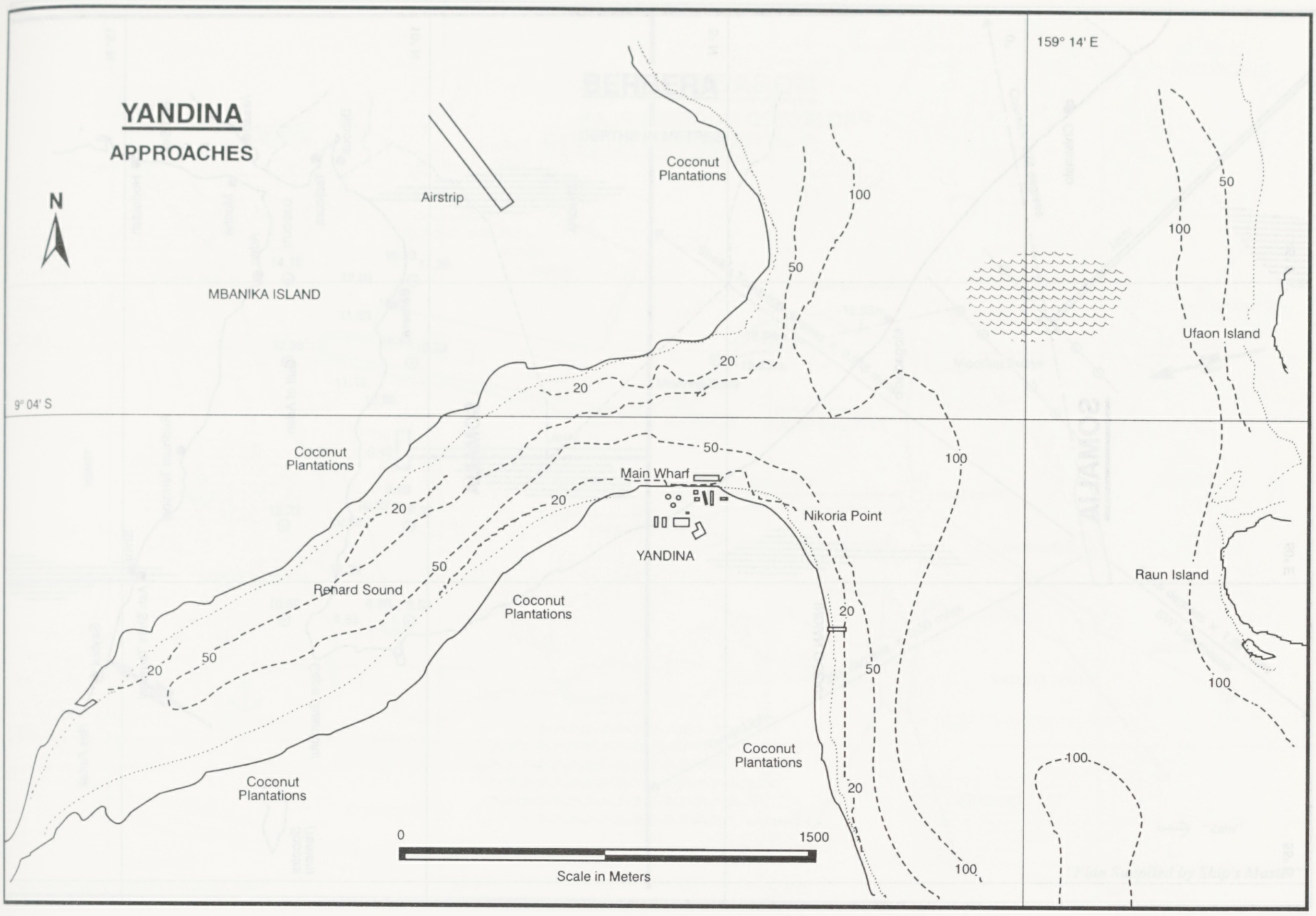

SOCIETY ISLANDS

FRENCH POLYNESIA

155° W
150° W
145° W
140° W
135° W
130° W
125° W
5° S
10° S
15° S
20° S
25° S
30° S
35° S
Malden
Starbuck
MARQUESAS IS.
Nuku Hiva
Eiao
Ua Hika
Hiva Oa
Fatu Iva
Vostok
Caroline
Flint Is.
TUAMOTU ARCH.
Manihi
Takaroa
Rangiroa
Disappointment Is.
Raroia
Puka Puka
Toau
Makemo
Bora Bora
Tahaa
Makatea
Tahanea
Huahine
Raiatea
Tahiti
Hao
Papeete
Mehetia
Reao
SOCIETY IS.
Duke of Gloucester Is.
Maria
TUBUAI IS.
Mururoa
Austral Is.
Moerai
Fangataufa
Gambier Is.
Oeno
Henderson I.
Ducie I.
Pitcairn
Pitcairn Is. (U.K.)
FRENCH POLYNESIA
Rapa Is.
Wachusett Reef
Maria Theresa Reef


150° E
155° E
160° E
165° E
170° E
MARSHALL IS.
Majuro
Jaluit
Truk Is.
Ponape
Mokil
Pingalep
Namorik
Ngatik
Lele
Kusaie
Ebon
5° N
Nomoi Is.
Nukuoro Is.
CAROLINE IS.
GILBERT IS.
FEDERATED STATES OF MICRONESIA
Tarawa
Kapingamarangi Is.
0°
Nauru I.
Nauru
PAPUA
NEW GUINEA
New Hanover
Kavieng
New Ireland
Nissan
5° S
Rabaul
Buka
SOLOMON
ISLANDS
TUVALU
Bougainville
Nanumanga Is.
Kieta
New Britain
Malloco Bay
Santa Isobel
Gizo
Port Noro
Honiara
Malaita
10° S
San Cristobal
Yandina
SANTA
CRUZ IS.
Guadalcanal
Ndene
Rossel
Tagula
Rennell
Rotuma Is.
Torres Is.
Banks Is.
Espiritu
Santo
15° S
VANUATU
Maewo
Santo
Pentecost
Malekula
Ambryn
Vila
Efate Is.
Coral
Sea
Tana
New Caledonia
(FR.)
Aneityum
Uvea
20° S
Lifou
Loyalty Is.
Matthew
Mare
Hunter
Noumea
Kuto
Walpole
Rockhampton
25° S
AUSTRALIA
SOLOMON ISLANDS

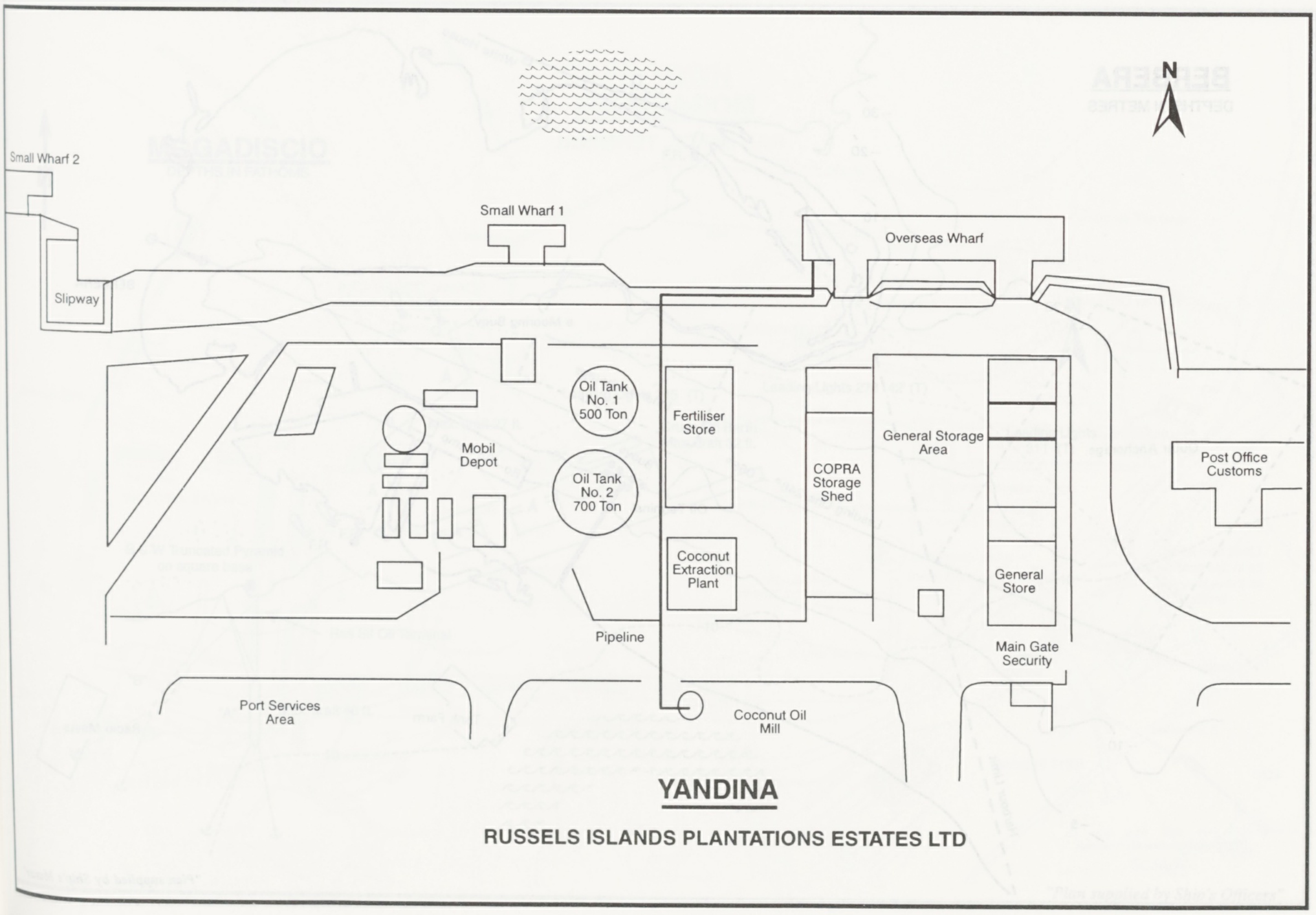

HONIARA
DEPTHS IN METRES
PELOPE SHOAL
10
15
20
15
2.0
15.5
7.9
Deepwater Berth
Shed No.1
Shed No.2
3.9
Gate House
Shed No.3
1.8
Joanna Jetty
0.9
Wate Jetty
2.0
Kingfisher Jetty
2.4
Kwaiola Jetty
10
5
4.2
Transit
Quarter
Marine Office
Cocoa Shed
SHELL COMPANY DEPOT



YANDINA

APPROACHES

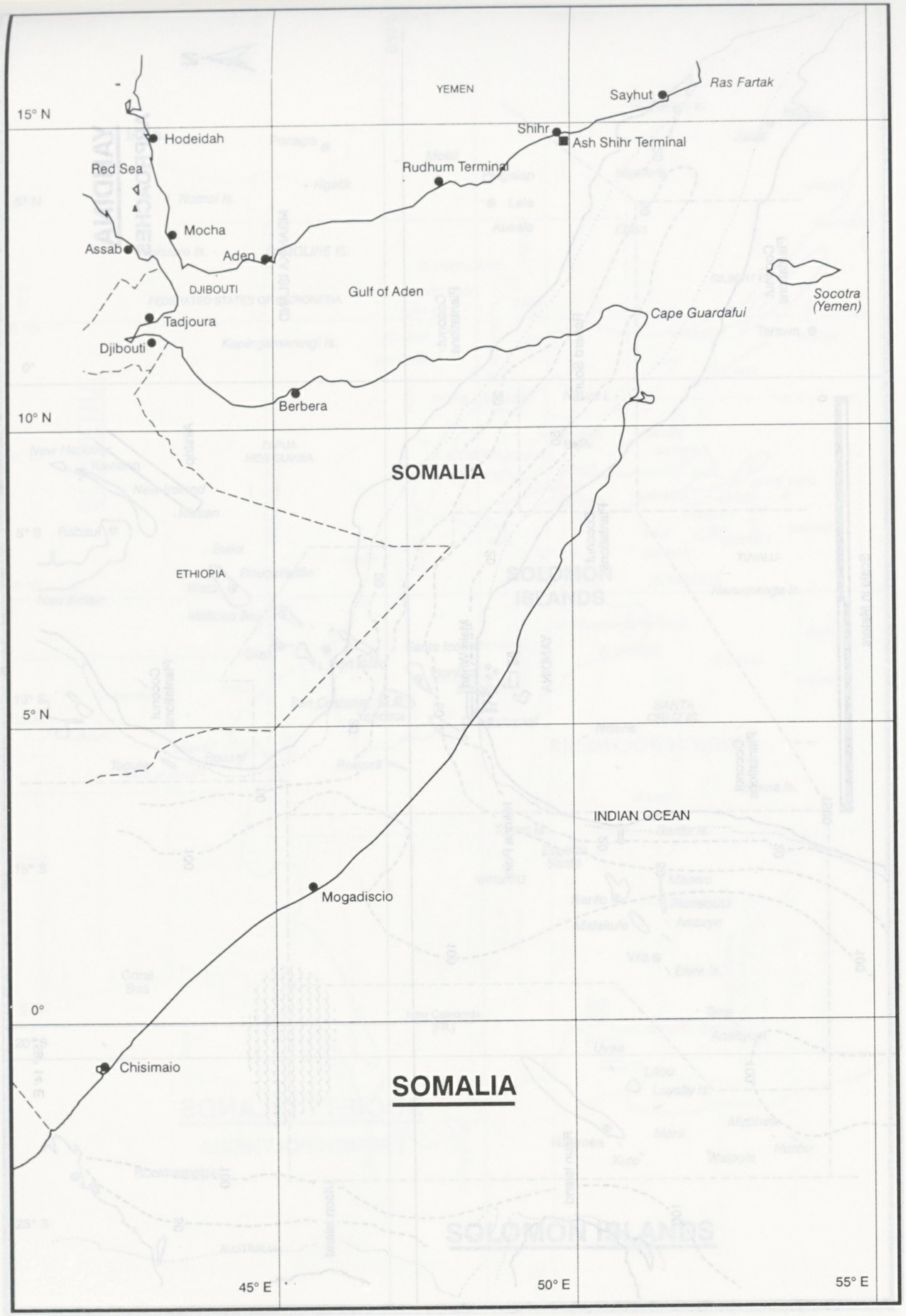
N
159° 14' E
9° 04' S
Airstrip
MBANIKA ISLAND
Coconut Plantations
Coconut Plantations
Coconut Plantations
Coconut Plantations
Coconut Plantations
Renard Sound
Main Wharf
Nikoria Point
YANDINA
Ufaon Island
Raun Island
20
50
100
0
1500
Scale in Meters

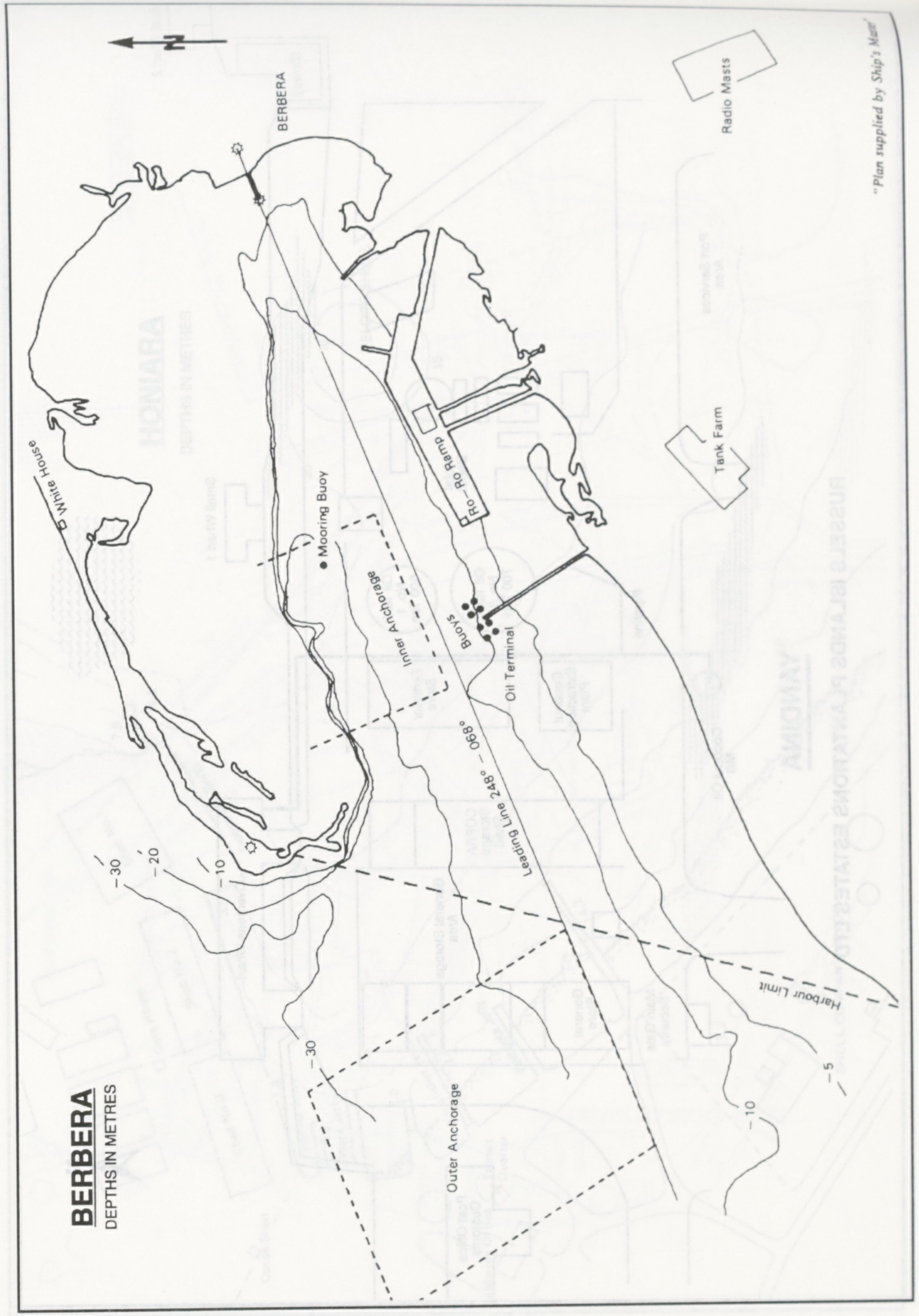


YANDINA

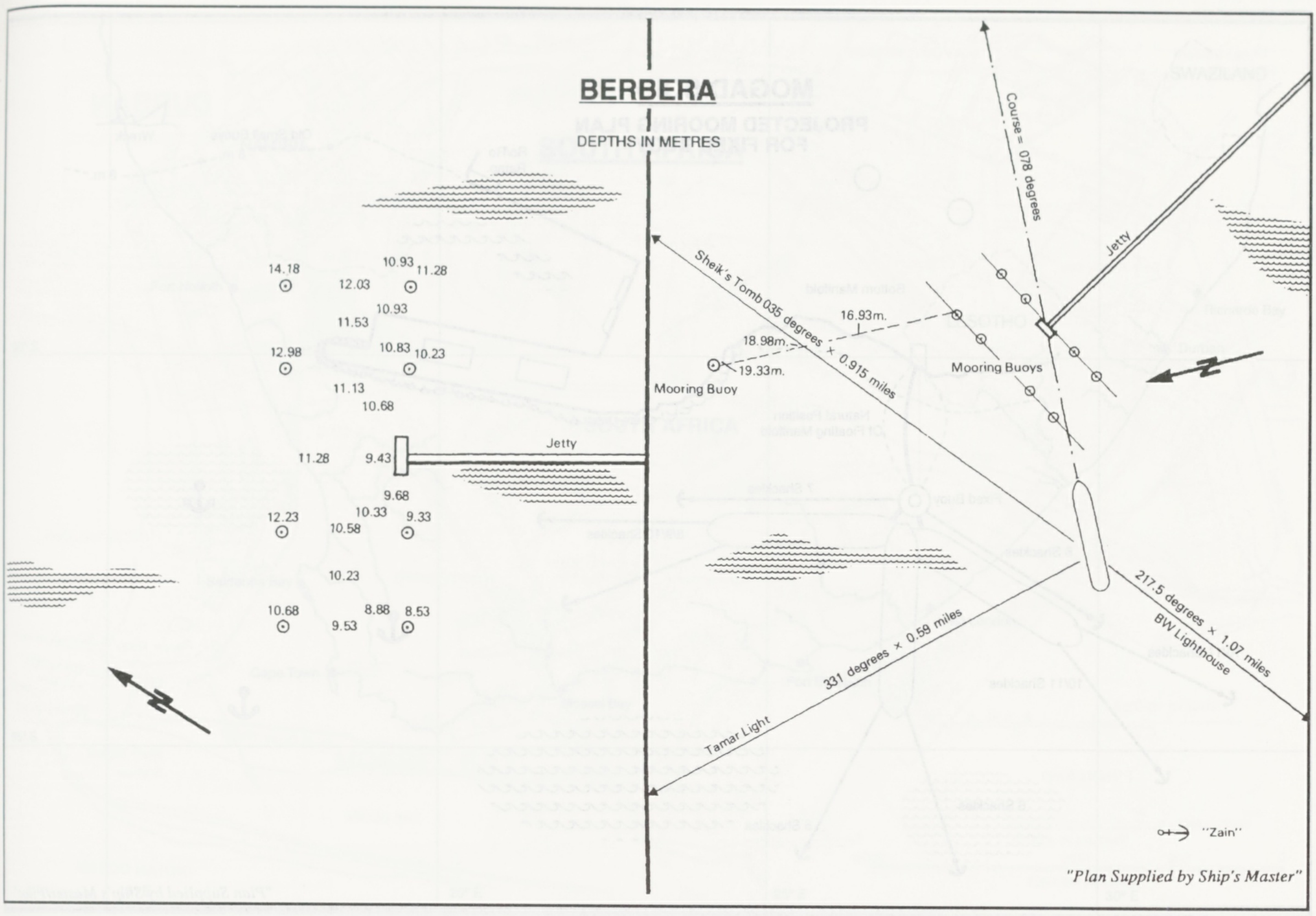
RUSSELS ISLANDS PLANTATIONS ESTATES LTD

N
Small Wharf 2
Small Wharf 1
Overseas Wharf
Slipway
Oil Tank No. 1 500 Ton
Oil Tank No. 2 700 Ton
Mobil Depot
Fertiliser Store
Coconut Extraction Plant
COPRA Storage Shed
General Storage Area
General Store
Post Office Customs
Pipeline
Main Gate Security
Port Services Area
Coconut Oil Mill

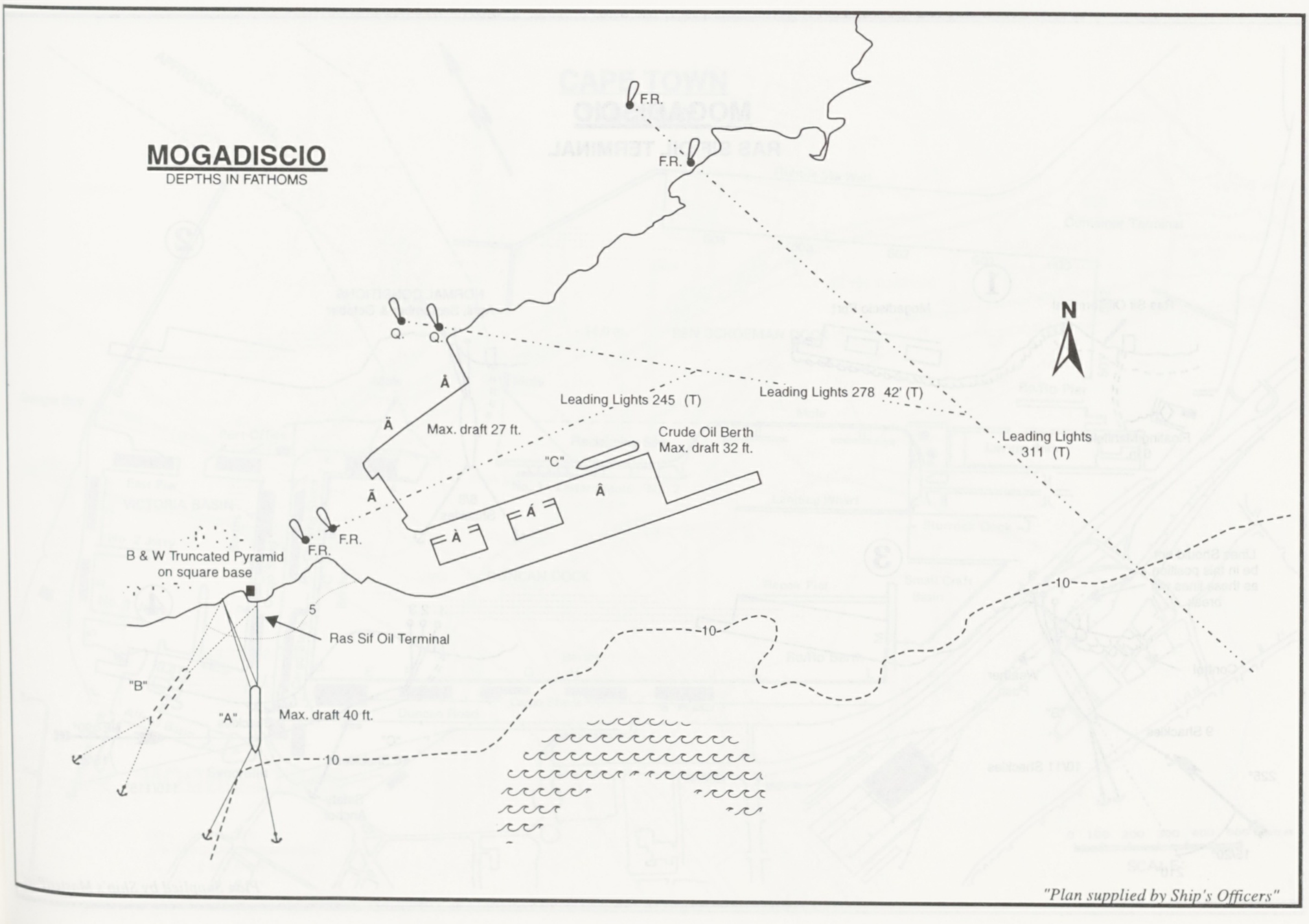

YEMEN
Sayhut
Ras Fartak
15° N
Shihr
Ash Shihr Terminal
Hodeidah
Red Sea
Rudhum Terminal
Mocha
Assab
Aden
DJIBOUTI
Gulf of Aden
Socotra
(Yemen)
Cape Guardafui
Tadjoura
Djibouti
Berbera
10° N
SOMALIA
ETHIOPIA
5° N
INDIAN OCEAN
Mogadiscio
0°
Chisimaio
SOMALIA
45° E
50° E
55° E


N
BERBERA
Radio Masts
White House
Mooring Buoy
Ro—Ro Ramp
Tank Farm
Inner Anchorage
Buoys
Oil Terminal
Leading Line 248° — 068°
−30
−20
−10
−30
Harbour Limit
Outer Anchorage
−10
−5
BERBERA
DEPTHS IN METRES

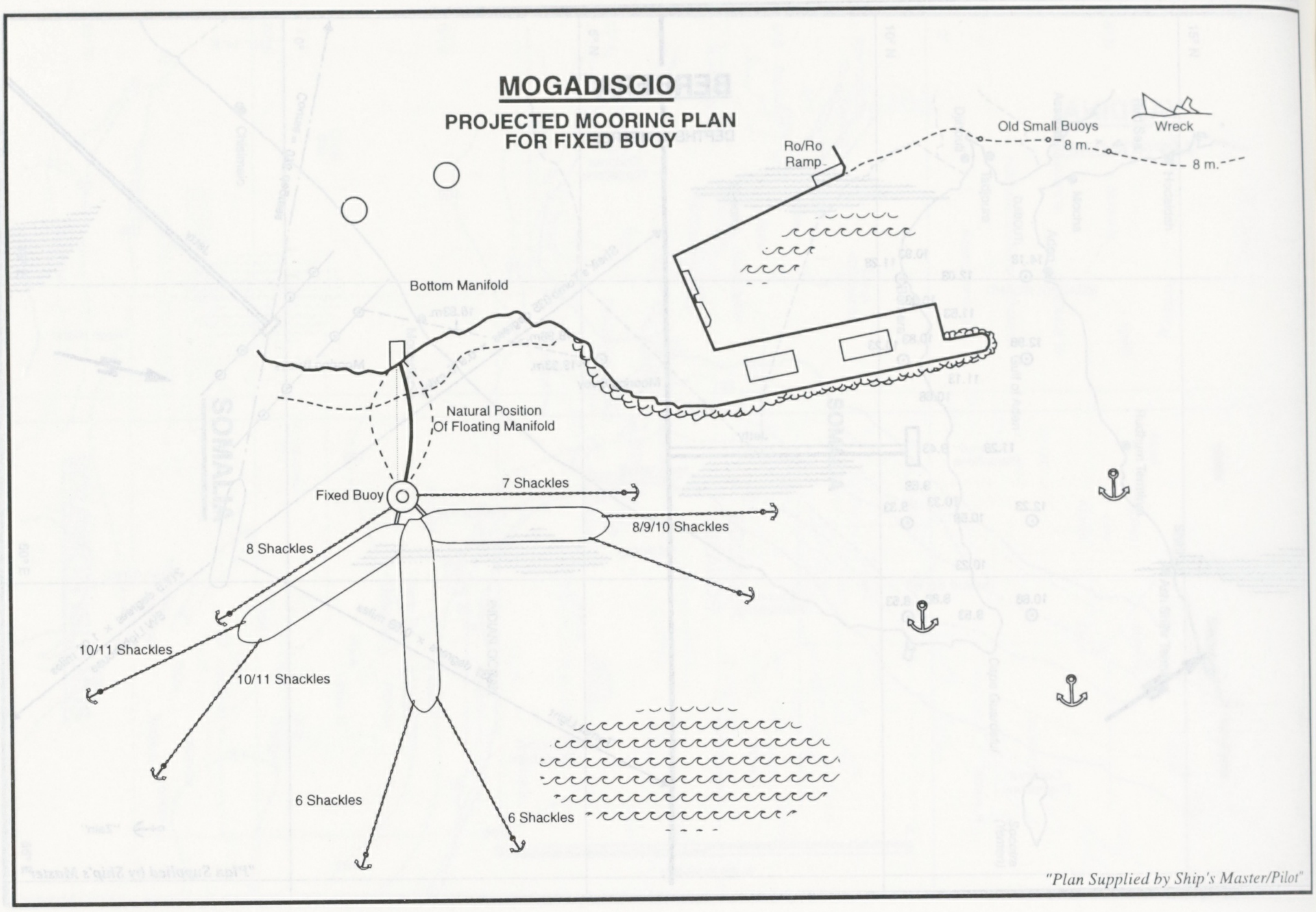
"Plan supplied by Ship's Mate"


BERBERA
DEPTHS IN METRES
14.18
10.93
11.28
12.03
10.93
11.53
12.98
10.83
10.23
11.13
10.68
11.28
9.43
Jetty
9.68
10.33
9.33
12.23
10.58
10.23
10.68
8.88
8.53
9.53
Course = 078 degrees
Jetty
Sheik's Tomb 035 degrees × 0.915 miles
16.93m.
18.98m.
19.33m.
Mooring Buoy
Mooring Buoys
217.5 degrees × 1.07 miles
BW Lighthouse
331 degrees × 0.58 miles
Tamar Light
"Zain"

"Plan Supplied by Ship's Master"


MOGADISCIO
DEPTHS IN FATHOMS
F.R.
F.R.
Q.
Q.
Leading Lights 245 (T)
Leading Lights 278 42' (T)
Leading Lights 311 (T)
N
Max. draft 27 ft.
Crude Oil Berth
Max. draft 32 ft.
"C"
F.R.
F.R.
B & W Truncated Pyramid on square base
5
Ras Sif Oil Terminal
10
10
10
"B"
"A"
Max. draft 40 ft.

"Plan supplied by Ship's Officers"

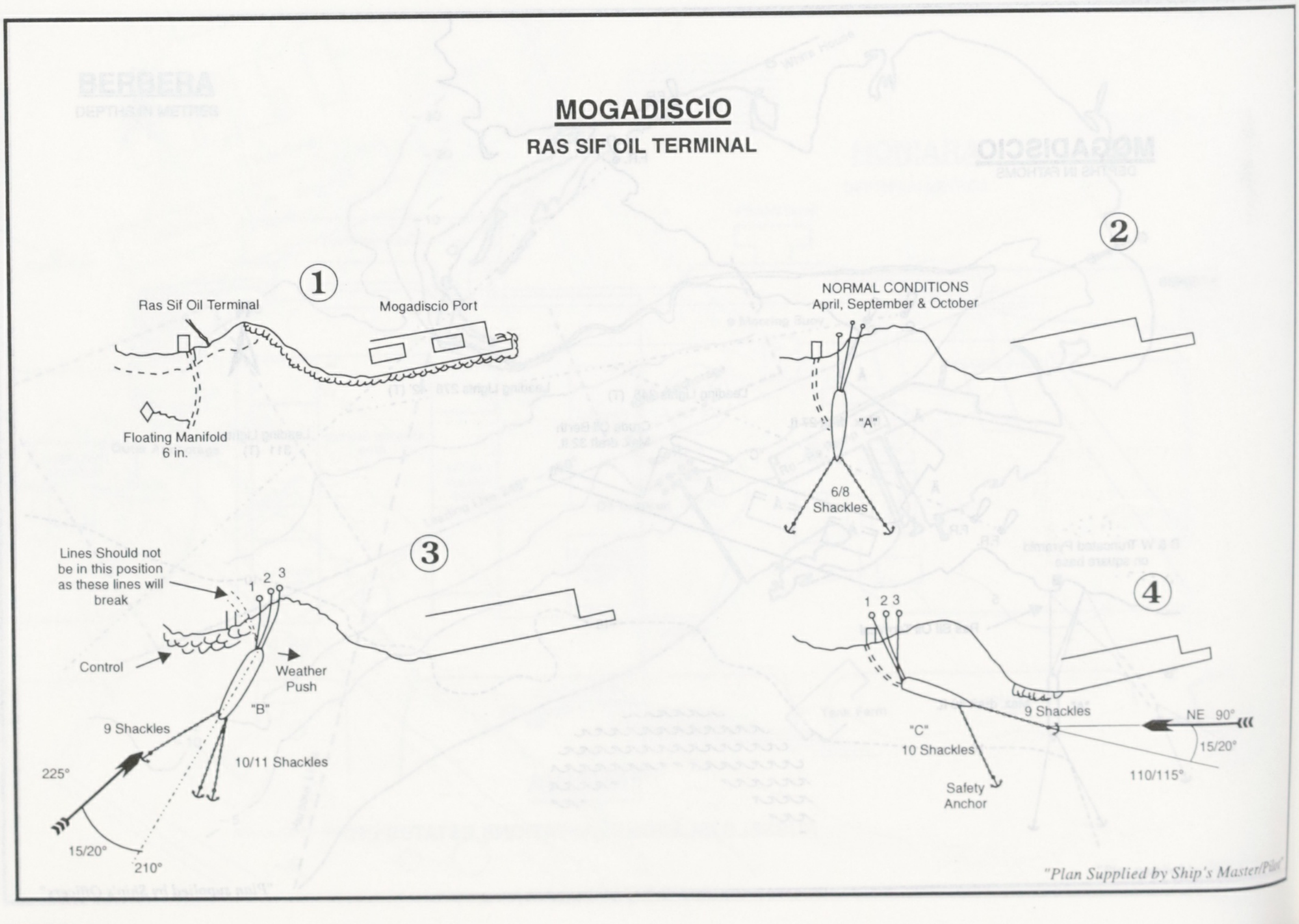


MOGADISCIO

PROJECTED MOORING PLAN FOR FIXED BUOY

Ro/Ro Ramp
Old Small Buoys
Wreck
8 m.
8 m.
Bottom Manifold
Natural Position Of Floating Manifold
Fixed Buoy
7 Shackles
8/9/10 Shackles
8 Shackles
10/11 Shackles
10/11 Shackles
6 Shackles
6 Shackles

"Plan Supplied by Ship's Master/Pilot"

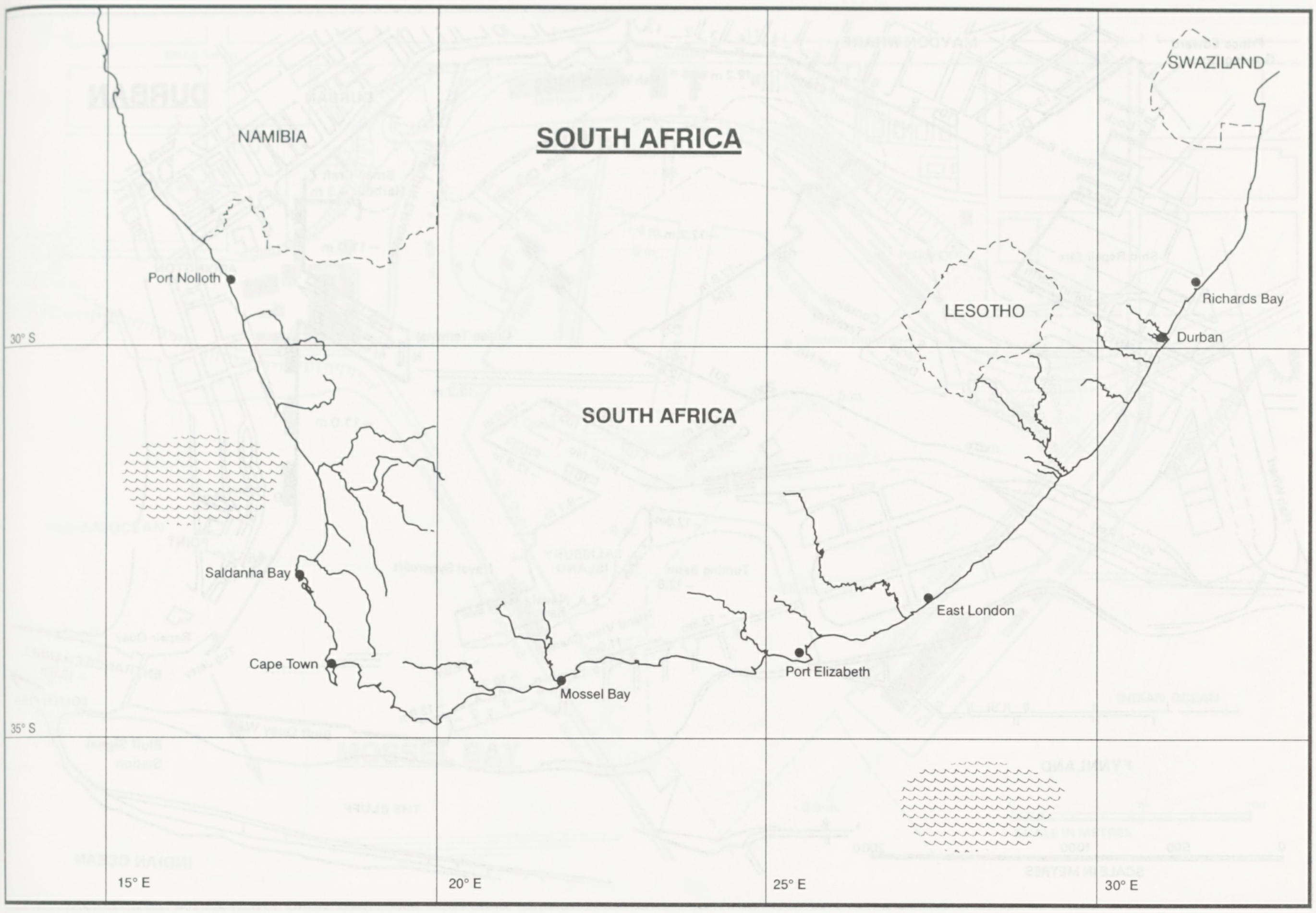


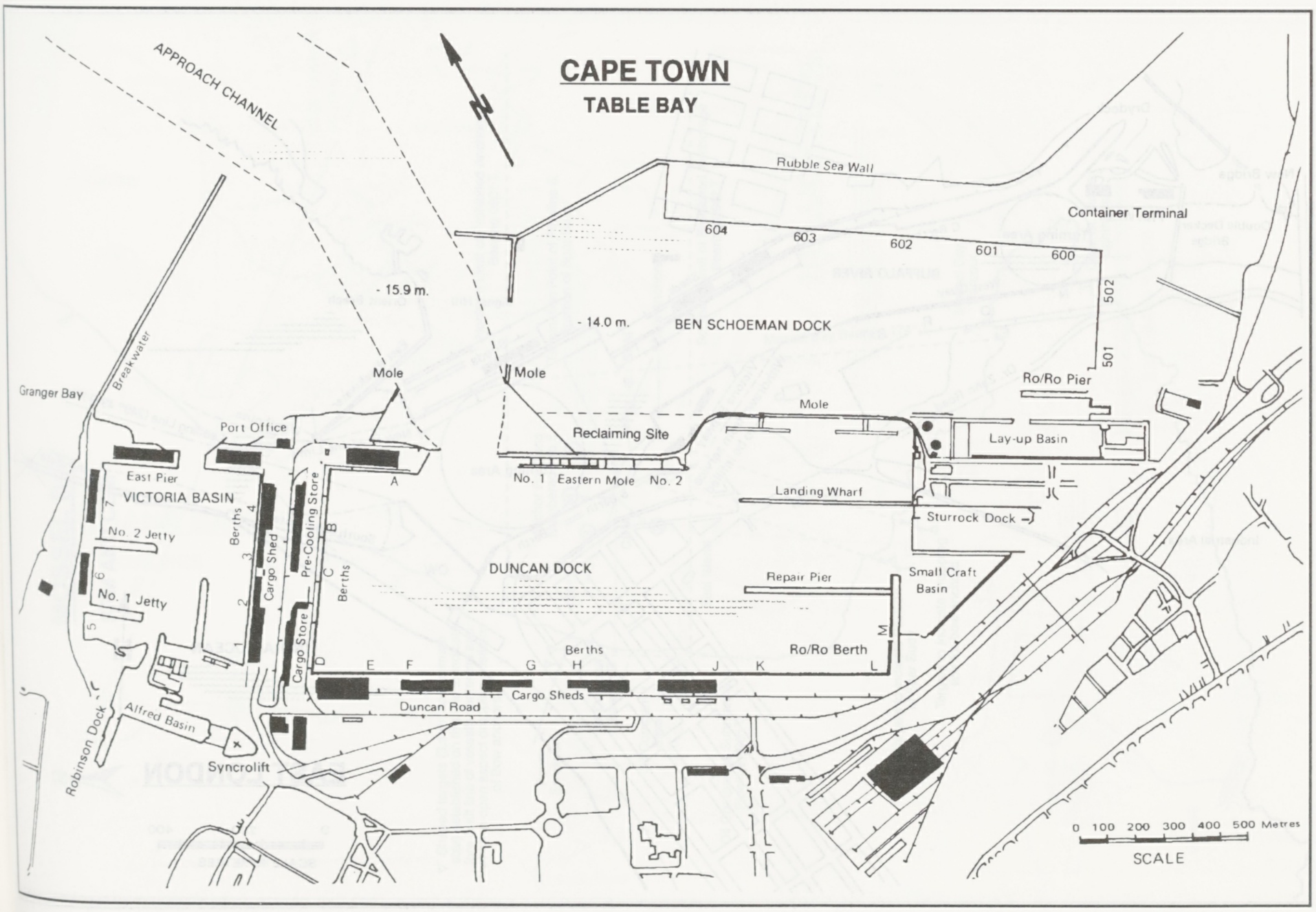
MOGADISCIO

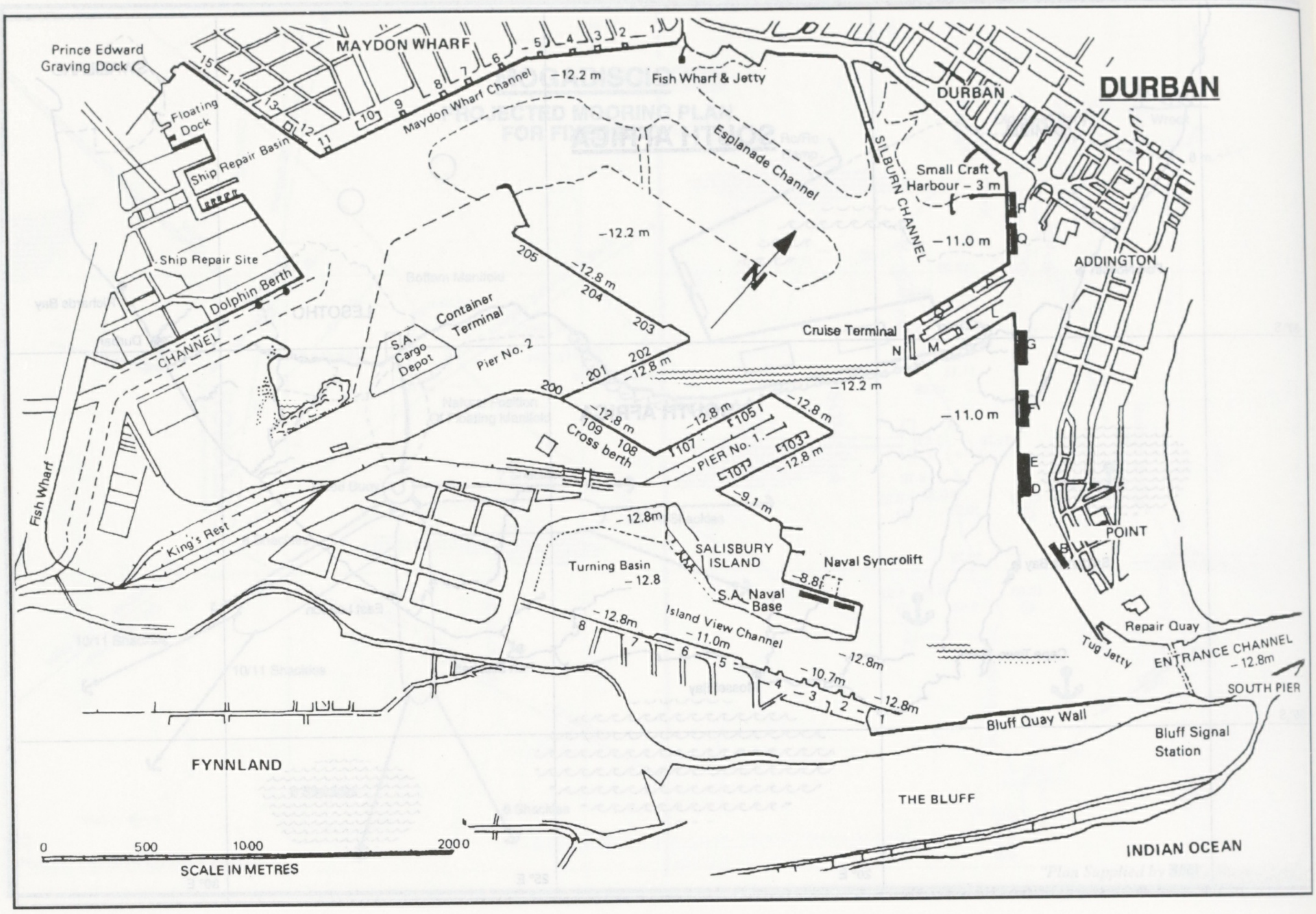
RAS SIF OIL TERMINAL

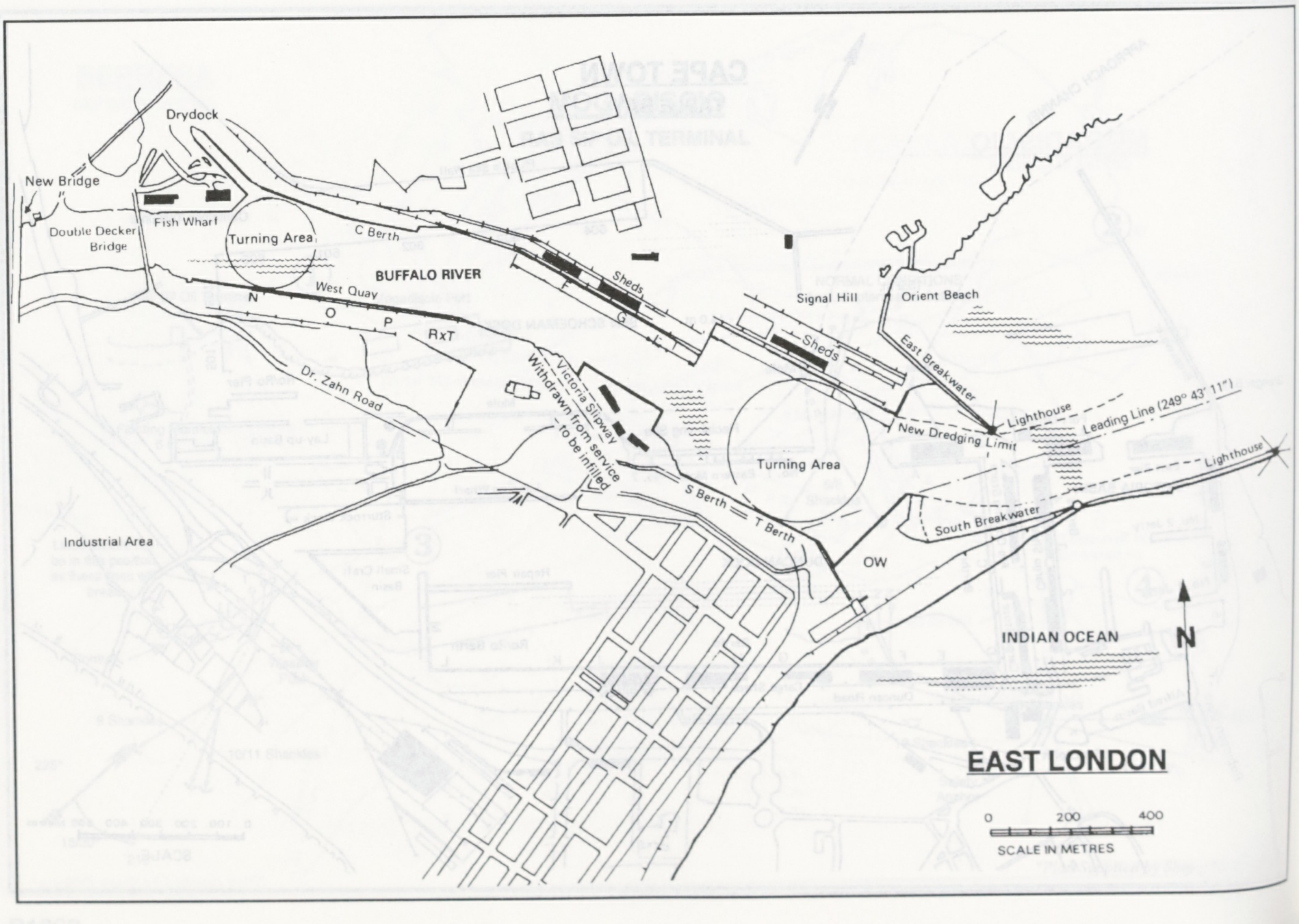
①
Ras Sif Oil Terminal
Mogadiscio Port
Floating Manifold
6 in.
②
NORMAL CONDITIONS
April, September & October
"A"
6/8 Shackles
③
Lines Should not be in this position as these lines will break
1 2 3
Control
Weather Push
"B"
9 Shackles
10/11 Shackles
225°
15/20°
210°
④
1 2 3
9 Shackles
NE 90°
15/20°
"C"
10 Shackles
Safety Anchor
110/115°

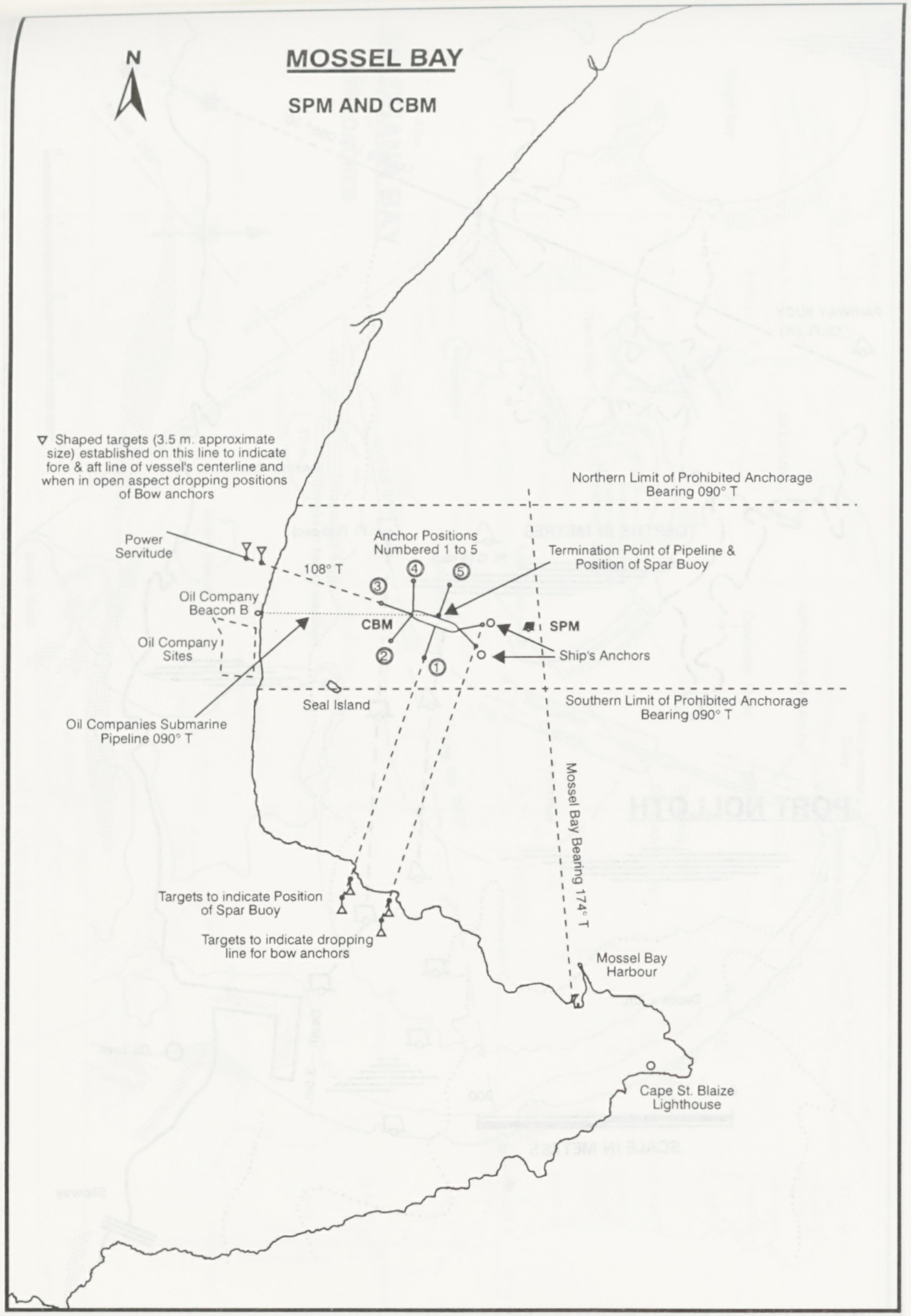
"Plan Supplied by Ship's Master/Pilot"

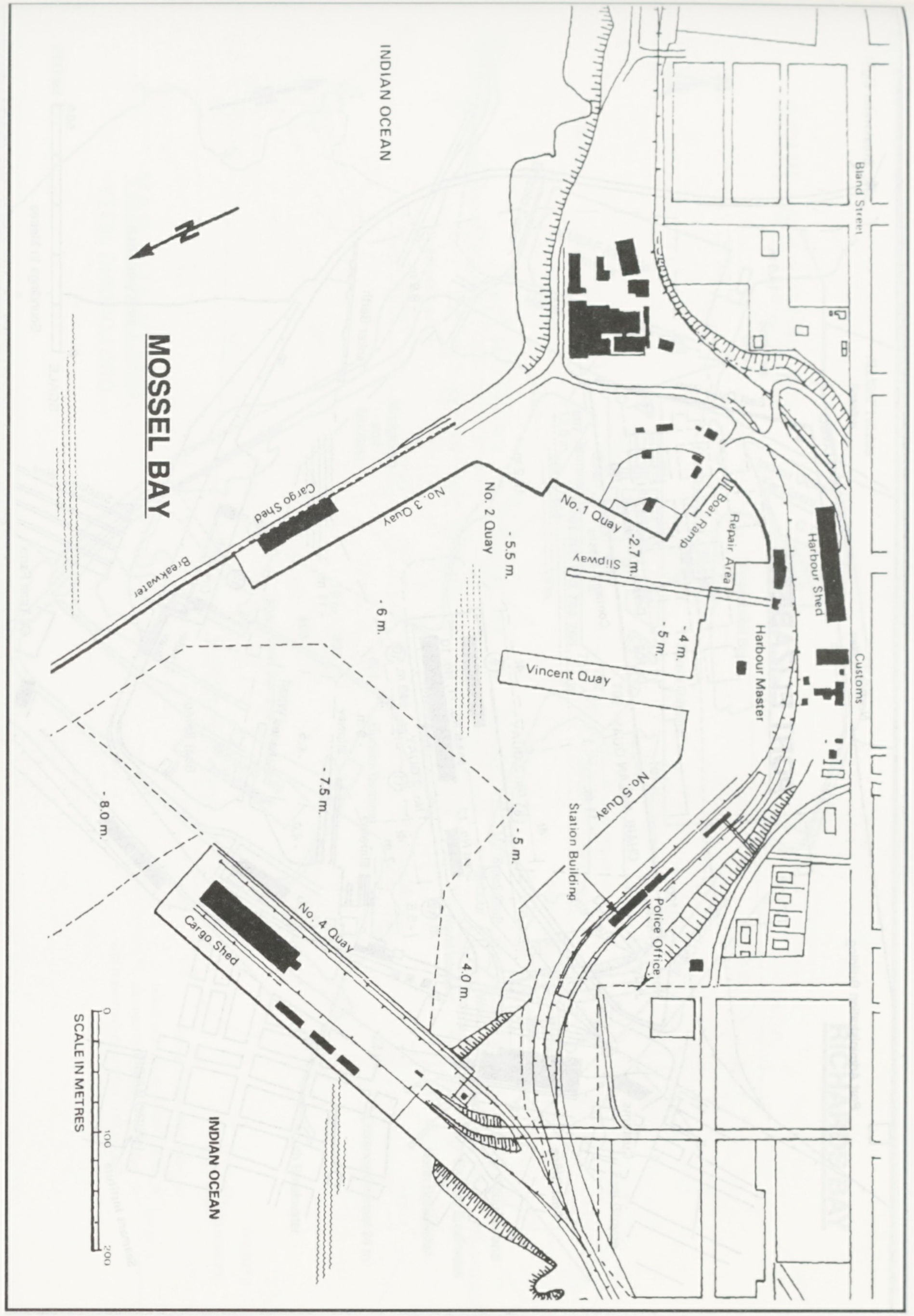

SOUTH AFRICA
SWAZILAND
NAMIBIA
Port Nolloth
LESOTHO
Richards Bay
Durban
30° S
SOUTH AFRICA
Saldanha Bay
East London
Cape Town
Mossel Bay
Port Elizabeth
35° S
15° E
20° E
25° E
30° E

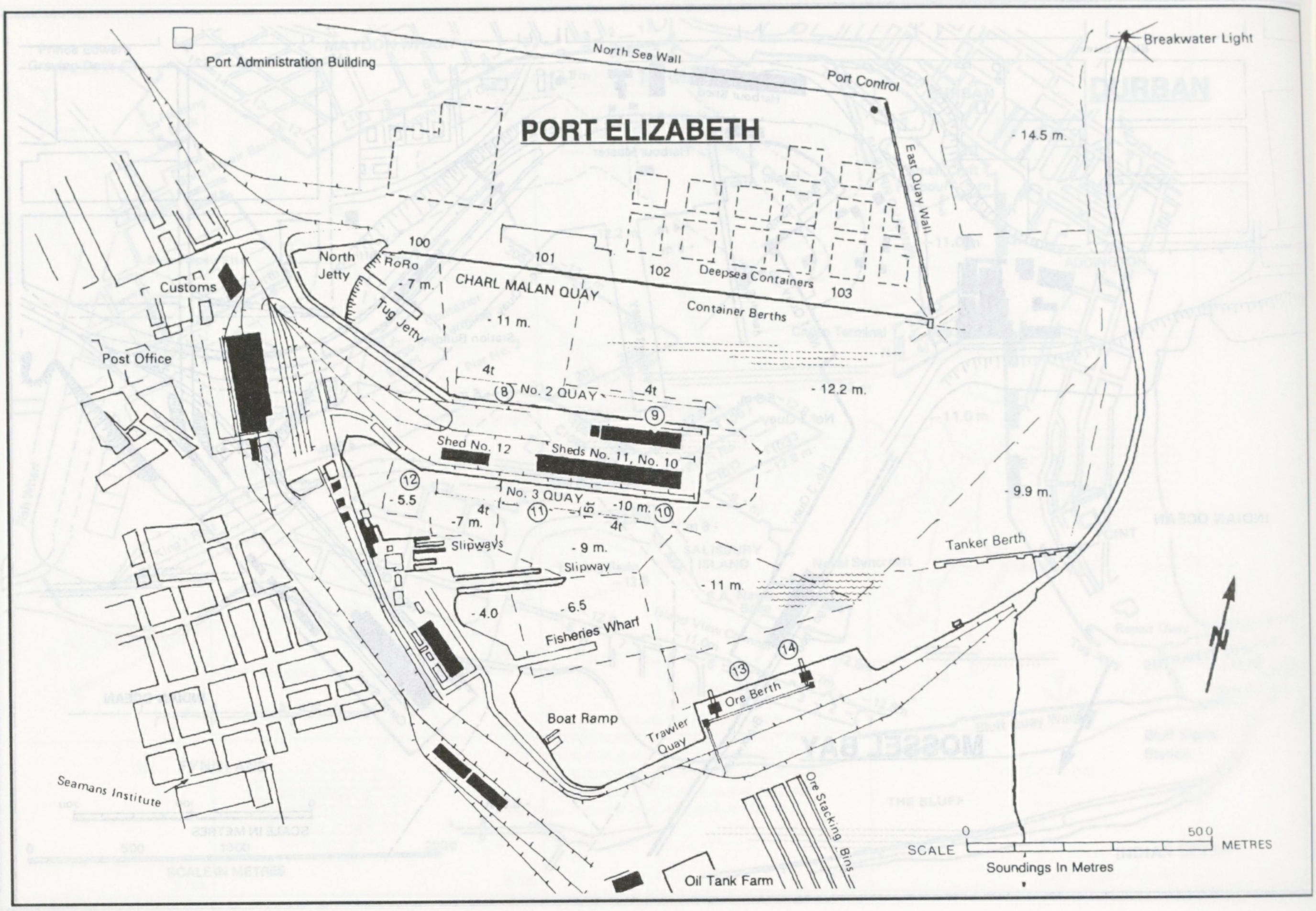

CAPE TOWN
TABLE BAY
APPROACH CHANNEL
N
Rubble Sea Wall
Container Terminal
604
603
602
601
600
502
501
- 15.9 m.
- 14.0 m.
BEN SCHOEMAN DOCK
Ro/Ro Pier
Granger Bay
Breakwater
Mole
Mole
Mole
Port Office
Reclaiming Site
Lay-up Basin
East Pier
A
No. 1
Eastern Mole
No. 2
Landing Wharf
VICTORIA BASIN
7
Berths
4
Pre-Cooling Store
B
Sturrock Dock
No. 2 Jetty
3
Cargo Shed
C
Berths
6
No. 1 Jetty
2
DUNCAN DOCK
Repair Pier
Small Craft Basin
5
1
Cargo Store
M
D
E
F
Berths
G
H
J
K
Ro/Ro Berth
L
Cargo Sheds
Duncan Road
Robinson Dock
Alfred Basin
Syncrolift
0 100 200 300 400 500 Metres
SCALE

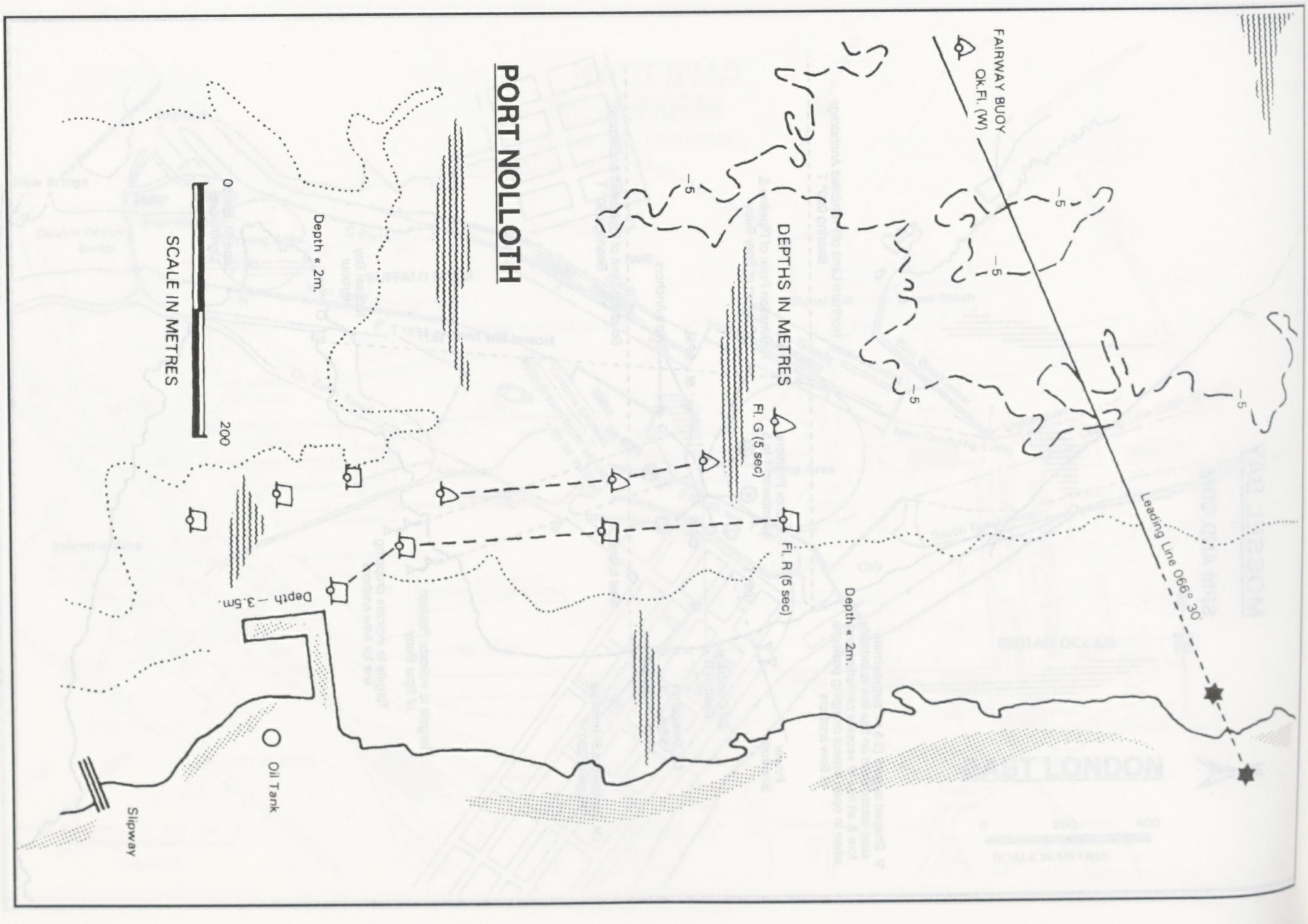

DURBAN
Prince Edward Graving Dock
MAYDON WHARF
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
–12.2 m
Maydon Wharf Channel
Fish Wharf & Jetty
Floating Dock
Ship Repair Basin
Esplanade Channel
SILBURN CHANNEL
DURBAN
Small Craft Harbour – 3 m
R
Q
–11.0 m
ADDINGTON
–12.2 m
N
Ship Repair Site
Dolphin Berth
205
–12.8 m
204
203
202
201
200
–12.8 m
Container Terminal
S.A. Cargo Depot
Pier No. 2
CHANNEL
Cruise Terminal
N
M
L
G
–12.2 m
–11.0 m
F
E
D
109
108
–12.8 m
Cross berth
107
–12.8 m
105
–12.8 m
103
–12.8 m
101
PIER No. 1.
–9.1 m
Fish Wharf
King's Rest
–12.8m
SALISBURY ISLAND
Turning Basin –12.8
Naval Syncrolift
–8.8
S.A. Naval Base
POINT
B
Repair Quay
Tug Jetty
ENTRANCE CHANNEL –12.8m
SOUTH PIER
8
–12.8m
7
Island View Channel
–11.0m
6
5
4
3
2
1
–12.8m
–10.7m
–12.8m
Bluff Quay Wall
Bluff Signal Station
FYNNLAND
THE BLUFF
INDIAN OCEAN
0
500
1000
2000
SCALE IN METRES

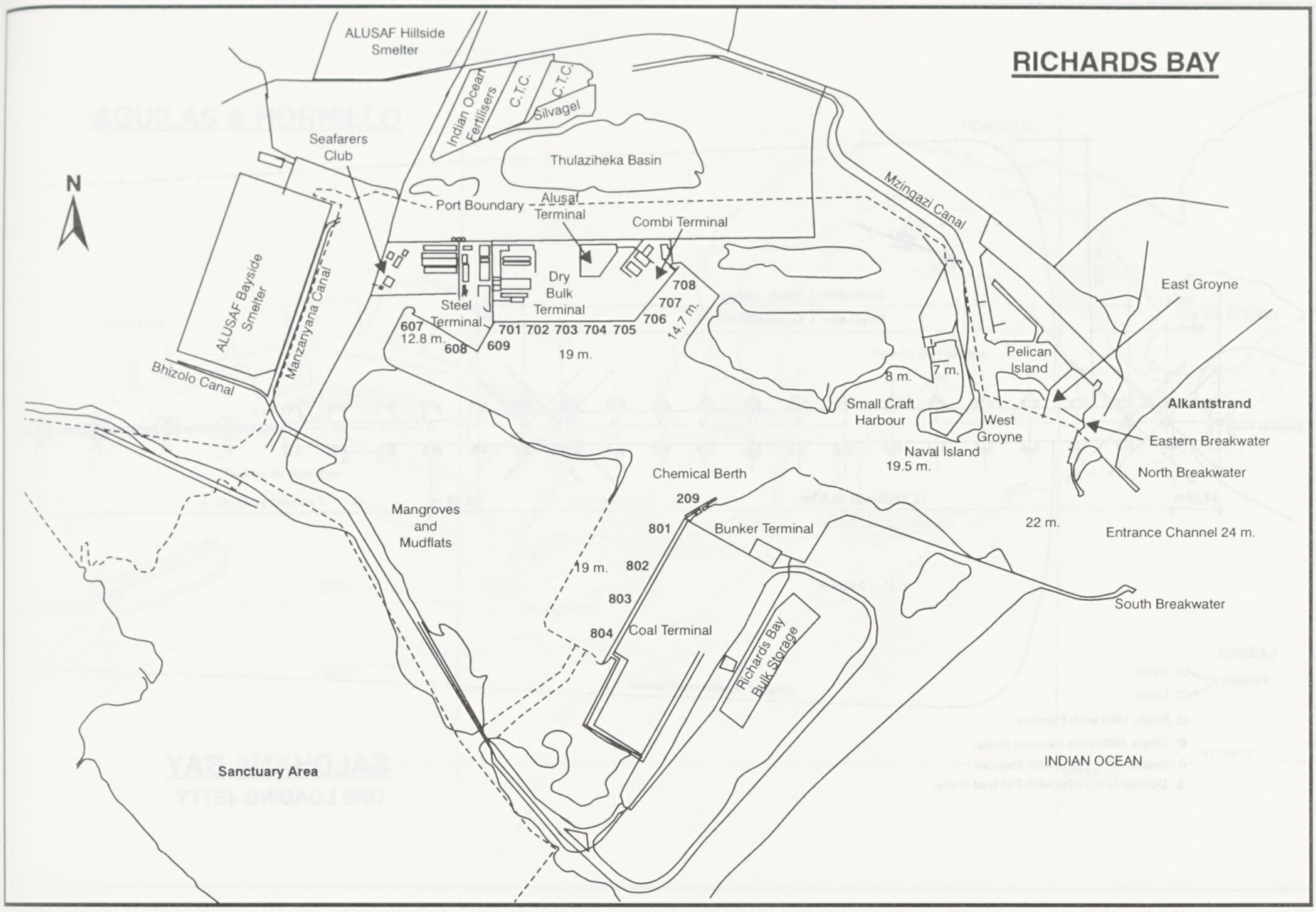

Drydock
New Bridge
Fish Wharf
Double Decker Bridge
Turning Area
C Berth
BUFFALO RIVER
West Quay
N
O
P
RxT
Sheds
F
G
Signal Hill
Orient Beach
Sheds
East Breakwater
Dr. Zahn Road
Victoria Slipway Withdrawn from service to be infilled
New Dredging Limit
Lighthouse
Leading Line (249° 43' 11")
Turning Area
Lighthouse
South Breakwater
S Berth
T Berth
OW
Industrial Area
INDIAN OCEAN
N
EAST LONDON
0
200
400
SCALE IN METRES

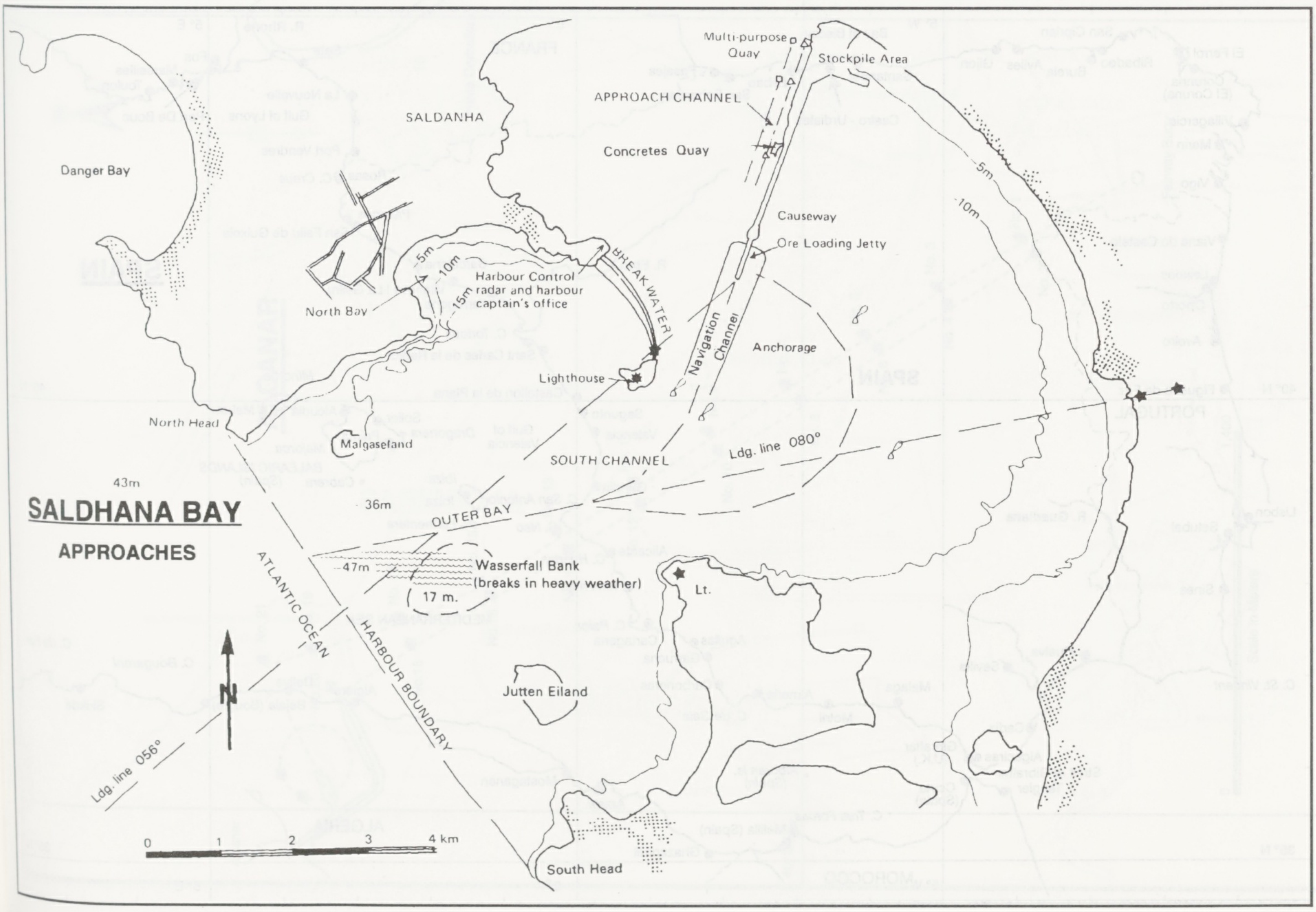

N
MOSSEL BAY
SPM AND CBM
▽ Shaped targets (3.5 m. approximate size) established on this line to indicate fore & aft line of vessel's centerline and when in open aspect dropping positions of Bow anchors
Northern Limit of Prohibited Anchorage Bearing 090° T
Power Servitude
Anchor Positions Numbered 1 to 5
Termination Point of Pipeline & Position of Spar Buoy
108° T
③
④
⑤
Oil Company Beacon B
CBM
SPM
Oil Company Sites
②
①
Ship's Anchors
Seal Island
Southern Limit of Prohibited Anchorage Bearing 090° T
Oil Companies Submarine Pipeline 090° T
Mossel Bay Bearing 174° T
Targets to indicate Position of Spar Buoy
Targets to indicate dropping line for bow anchors
Mossel Bay Harbour
Cape St. Blaize Lighthouse

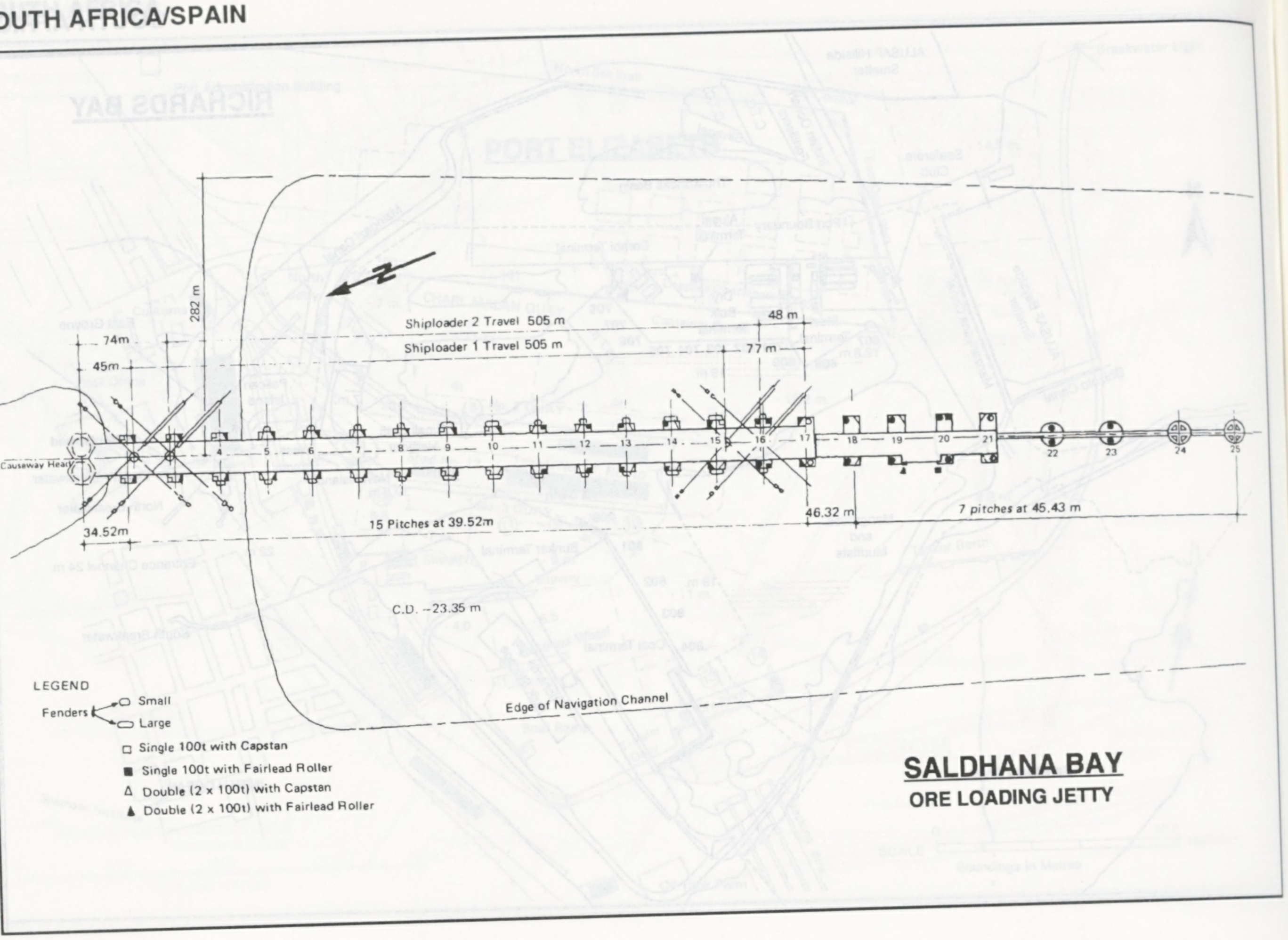

INDIAN OCEAN
MOSSEL BAY
N
Bland Street
Cargo Shed
Breakwater
No. 3 Quay
No. 2 Quay
-5.5 m.
No. 1 Quay
-2.7 m.
Boat Ramp
Slipway
Repair Area
Harbour Shed
-6 m.
-4 m.
-5 m.
Harbour Master
Vincent Quay
Customs
-7.5 m.
-8.0 m.
No. 5 Quay
Station Building
-5 m.
Police Office
No. 4 Quay
Cargo Shed
-4.0 m.
SCALE IN METRES
0
100
200
INDIAN OCEAN


PORT ELIZABETH
Port Administration Building
North Sea Wall
Port Control
Breakwater Light
East Quay Wall
- 14.5 m.
100
101
102
103
North Jetty
RoRo
- 7 m.
CHARL MALAN QUAY
Deepsea Containers
Container Berths
Customs
Tug Jetty
- 11 m.
Post Office
4t
8
No. 2 QUAY
4t
9
- 12.2 m.
Shed No. 12
Sheds No. 11, No. 10
12
- 5.5
No. 3 QUAY
15t
- 10 m.
4t
11
10
4t
- 7 m.
Slipways
- 9 m.
Slipway
- 11 m.
- 9.9 m.
Tanker Berth
- 4.0
- 6.5
Fisheries Wharf
13
14
Ore Berth
Boat Ramp
Trawler Quay
Ore Stacking Bins
Seamans Institute
Oil Tank Farm
SCALE
0
500
METRES
Soundings In Metres

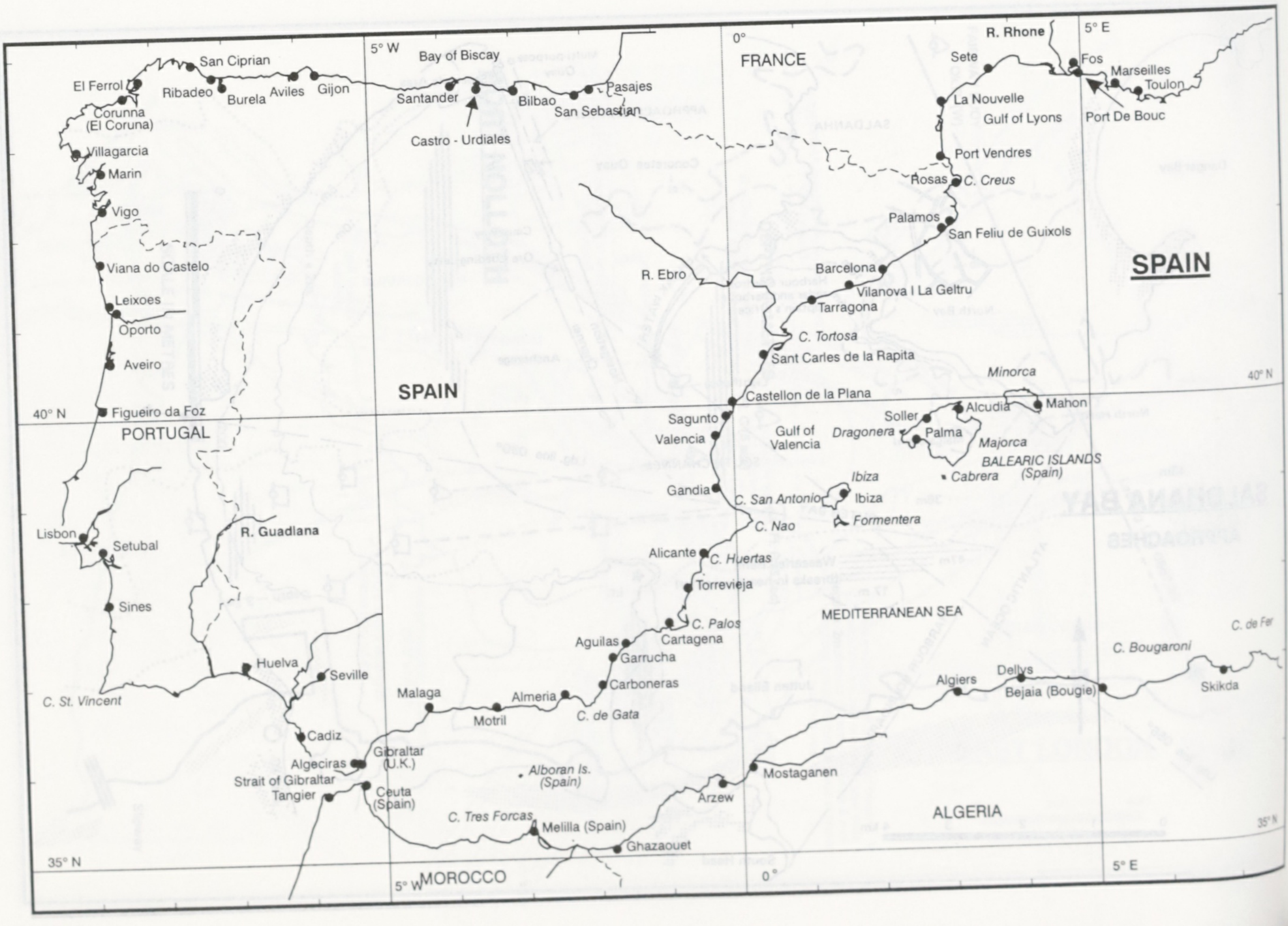

PORT NOLLOTH
SCALE IN METRES
0
200
Depth ≈ 2m.
DEPTHS IN METRES
FAIRWAY BUOY
Qk.Fl. (W)
-5
-5
-5
-5
-5
Fl. G (5 sec)
Fl. R (5 sec)
Depth ≈ 2m.
Depth – 3.5m.
Leading Line 066° 30'
Oil Tank
Slipway

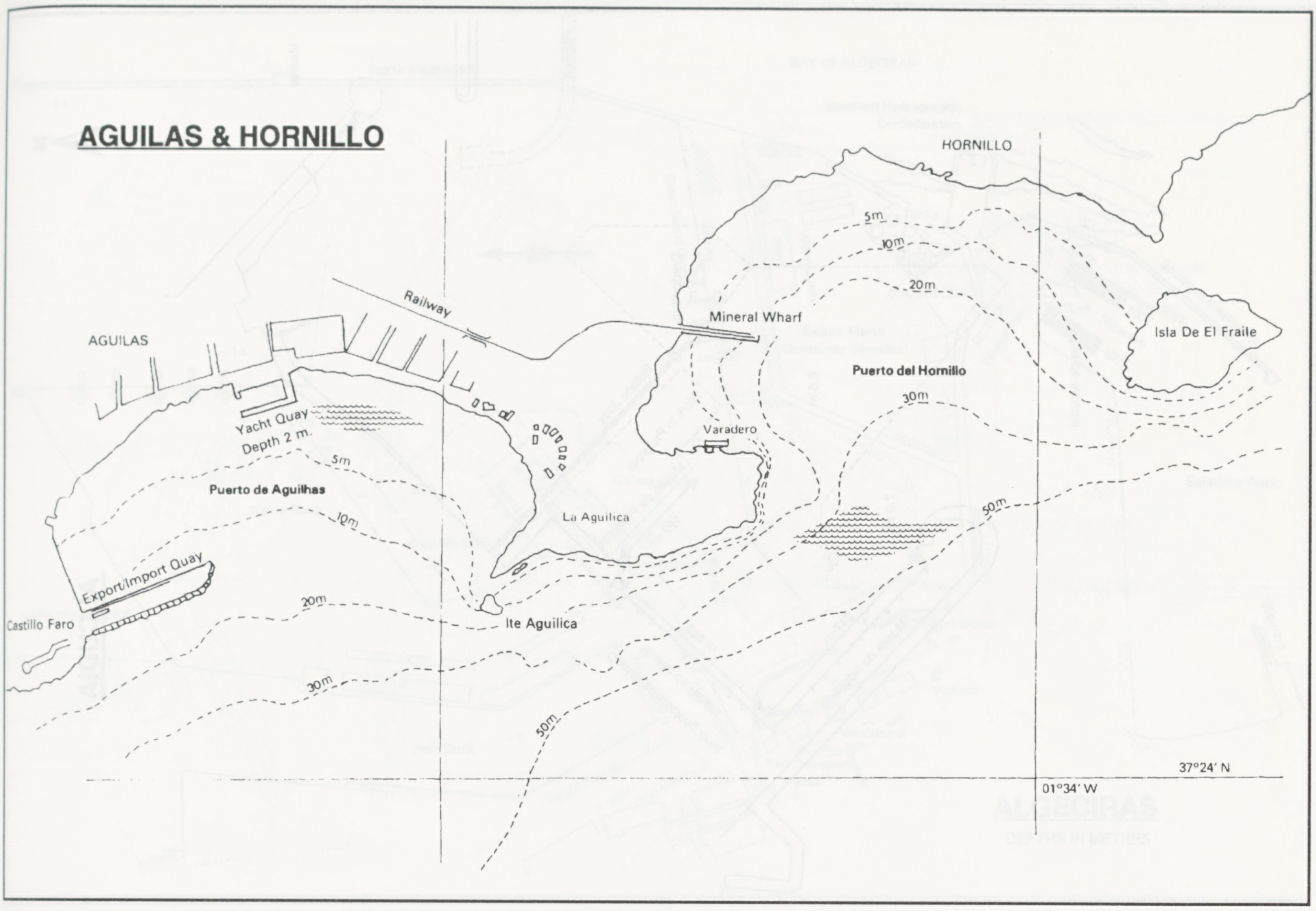

RICHARDS BAY
N
ALUSAF Hillside Smelter
Indian Ocean Fertilisers
C.T.C.
C.T.C.
Silvagel
Thulazihleka Basin
Seafarers Club
Port Boundary
Alusaf Terminal
Combi Terminal
Mzingazi Canal
ALUSAF Bayside Smelter
Manzanyana Canal
Steel Terminal
Dry Bulk Terminal
708
707
706
14.7 m.
607
12.8 m.
608
609
701 702 703 704 705
19 m.
Bhizolo Canal
East Groyne
Pelican Island
7 m.
8 m.
Small Craft Harbour
West Groyne
Naval Island
19.5 m.
Alkantstrand
Eastern Breakwater
North Breakwater
Chemical Berth
209
801
Bunker Terminal
22 m.
Entrance Channel 24 m.
Mangroves and Mudflats
19 m.
802
803
804
Coal Terminal
Richards Bay Bulk Storage
South Breakwater
INDIAN OCEAN
Sanctuary Area

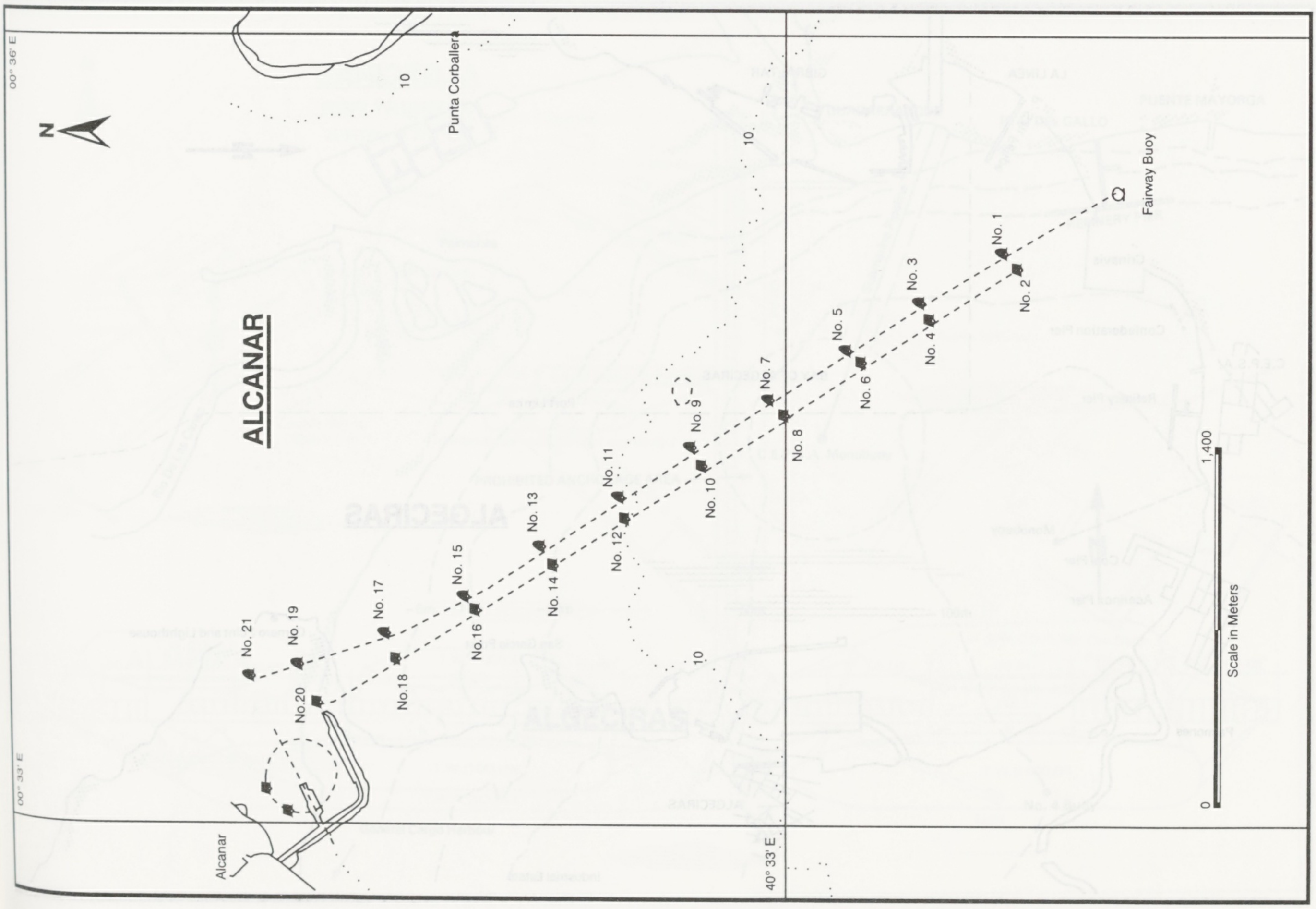

Multi-purpose Quay
Stockpile Area
APPROACH CHANNEL
SALDANHA
Concretes Quay
Danger Bay
5m
10m
Causeway
Ore Loading Jetty
5m
10m
15m
BREAKWATER
Harbour Control radar and harbour captain's office
North Bay
Navigation Channel
Anchorage
Lighthouse
North Head
Malgaseiland
SOUTH CHANNEL
Ldg. line 080°
43m
36m
SALDHANA BAY
APPROACHES
OUTER BAY
47m
Wasserfall Bank (breaks in heavy weather)
17 m.
Lt.
ATLANTIC OCEAN
HARBOUR BOUNDARY
N
Jutten Eiland
Ldg. line 056°
0
1
2
3
4 km
South Head

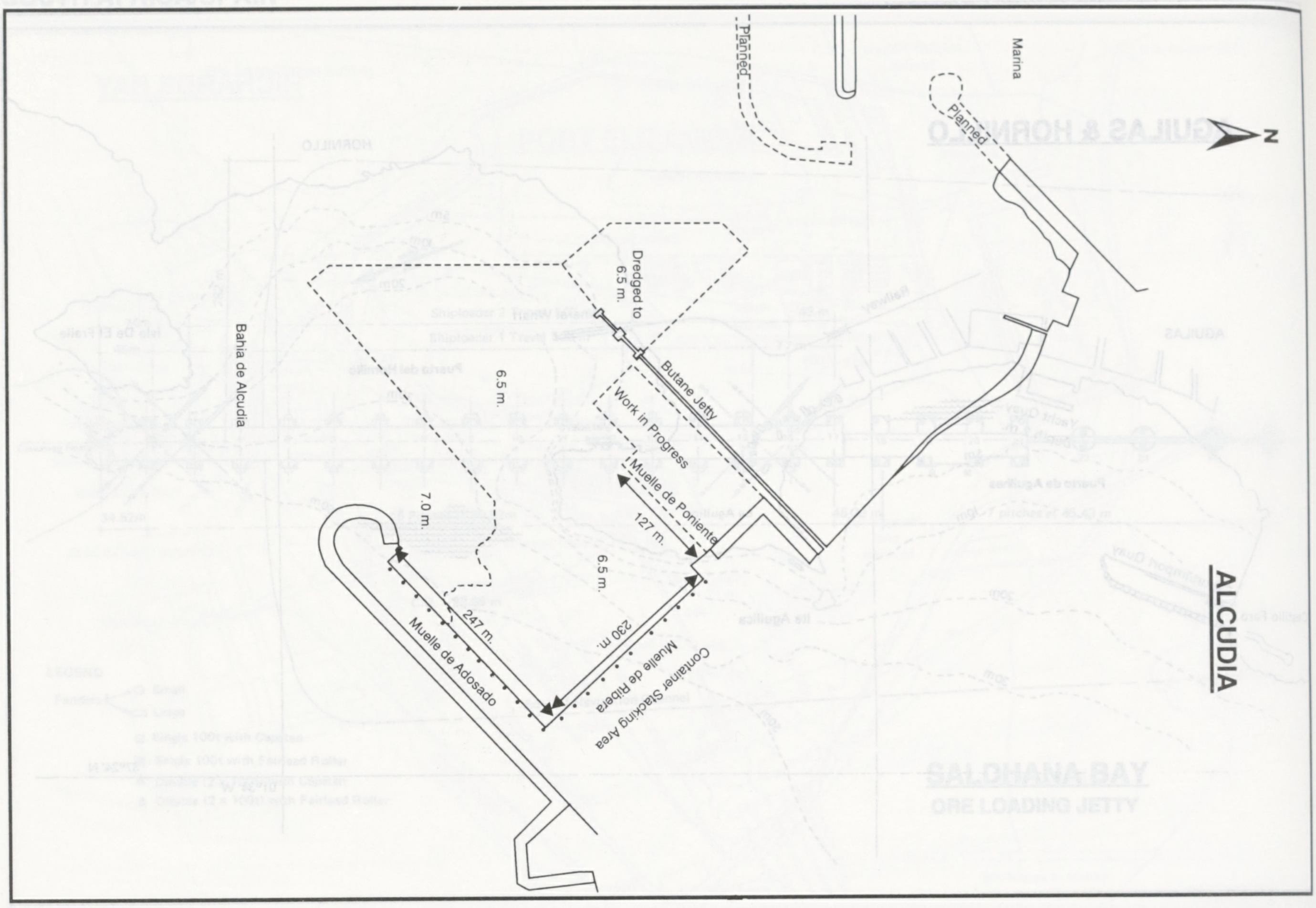

282 m
74m
45m
Shiploader 2 Travel 505 m
Shiploader 1 Travel 505 m
48 m
77 m
Causeway Head
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
34.52m
15 Pitches at 39.52m
46.32 m
7 pitches at 45.43 m
C.D. -23.35 m
Edge of Navigation Channel
LEGEND
Fenders
Small
Large
□ Single 100t with Capstan
■ Single 100t with Fairlead Roller
Δ Double (2 x 100t) with Capstan
▲ Double (2 x 100t) with Fairlead Roller

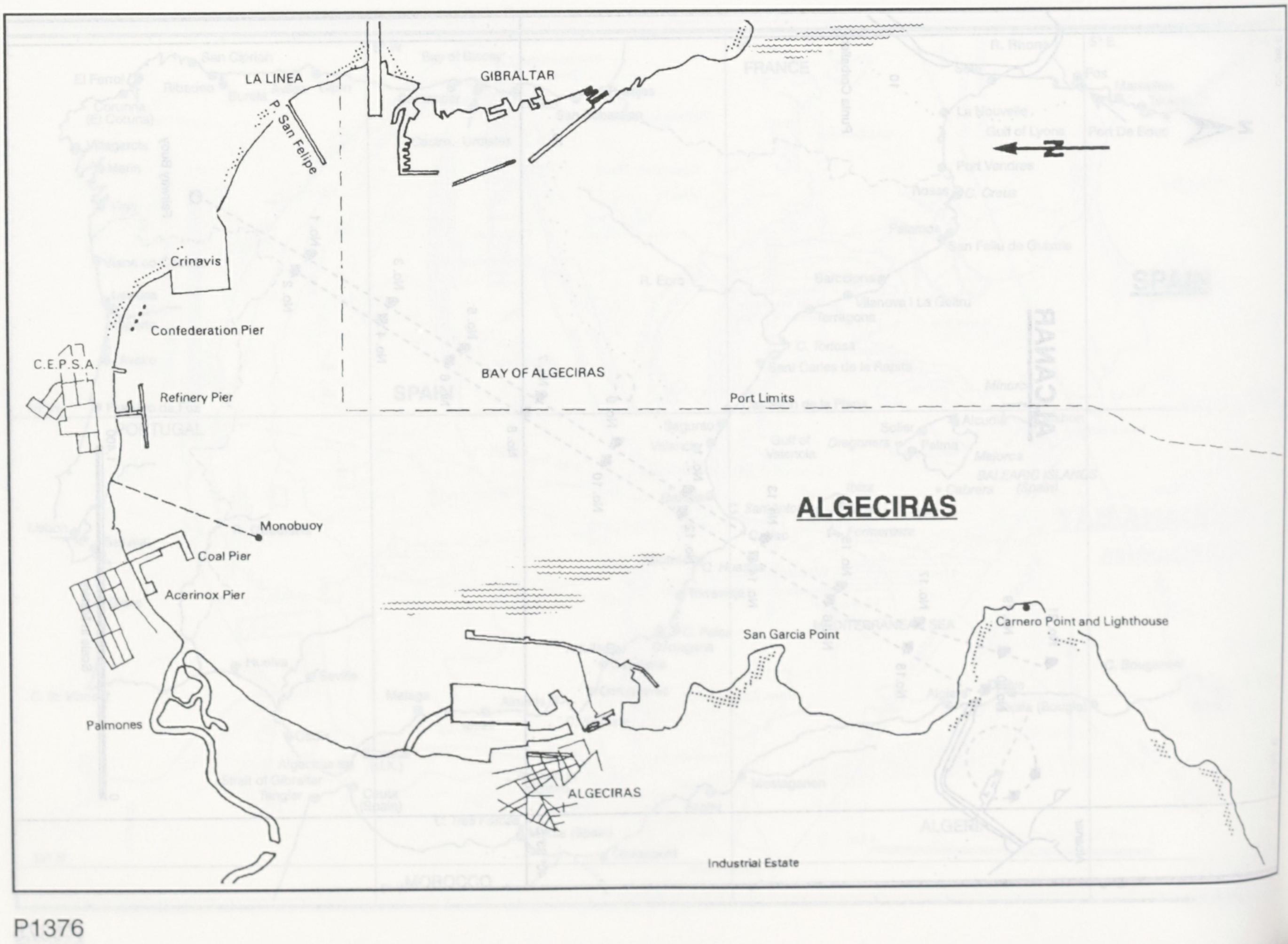
SALDHANA BAY
ORE LOADING JETTY

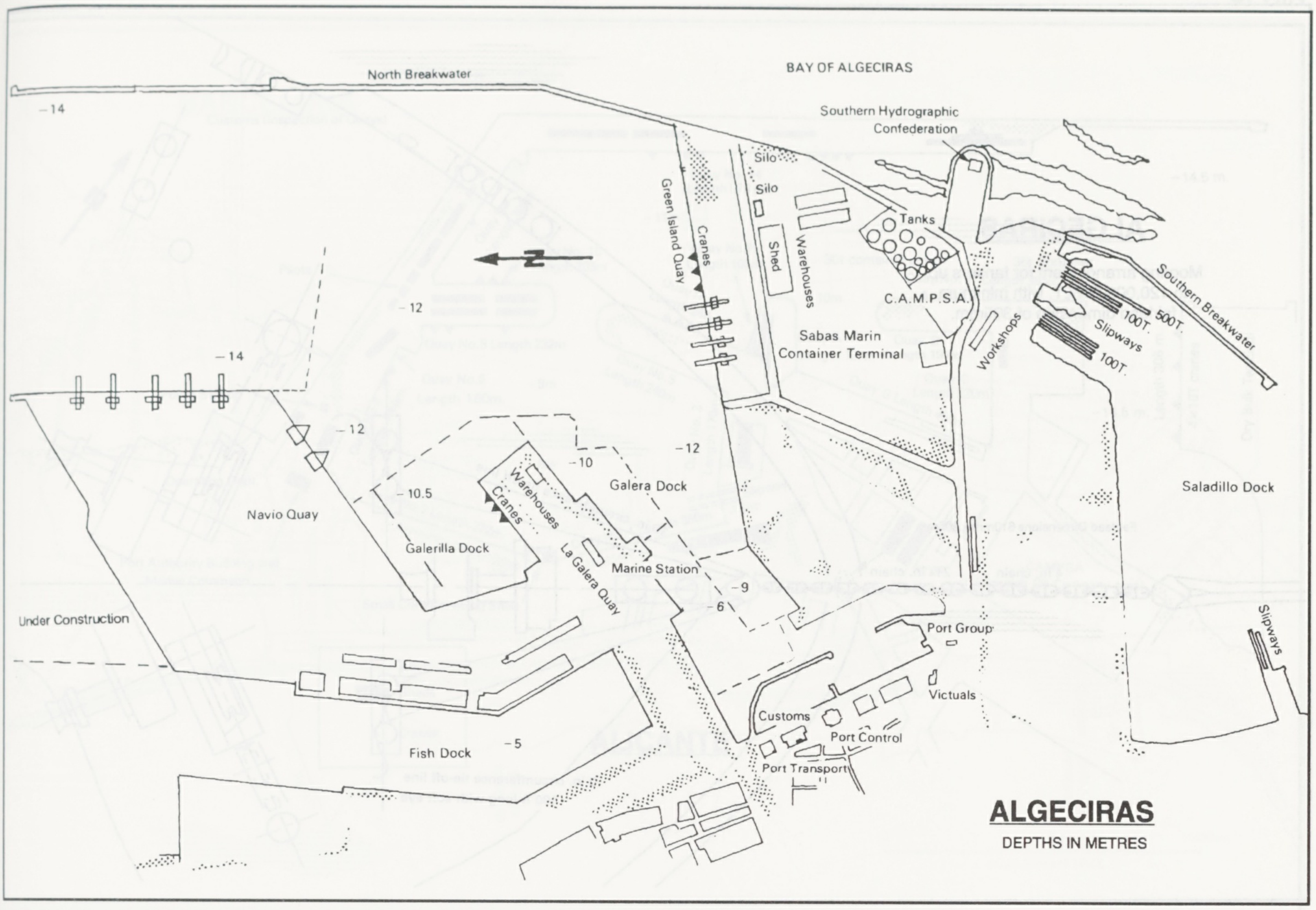

El Ferrol
San Ciprian
Ribadeo
Burela
Aviles
Gijon
Corunna (El Coruna)
Villagarcia
Marin
Vigo
Viana do Castelo
Leixoes
Oporto
Aveiro
Figueiro da Foz
40° N
PORTUGAL
Lisbon
Setubal
Sines
C. St. Vincent
R. Guadlana
Huelva
Seville
Cadiz
Algeciras
Strait of Gibraltar
Tangier
Gibraltar (U.K.)
Ceuta (Spain)
35° N
5° W
Bay of Biscay
Santander
Castro - Urdiales
Bilbao
Pasajes
San Sebastian
SPAIN
Malaga
Motril
Almeria
C. de Gata
Alboran Is. (Spain)
C. Tres Forcas
Melilla (Spain)
Ghazaouet
MOROCCO
0°
FRANCE
R. Ebro
R. Rhone
Sete
La Nouvelle
Gulf of Lyons
Port Vendres
Rosas
C. Creus
Palamos
San Feliu de Guixols
Barcelona
Vilanova I La Geltru
Tarragona
C. Tortosa
Sant Carles de la Rapita
Castellon de la Plana
Sagunto
Valencia
Gulf of Valencia
Gandia
C. San Antonio
C. Nao
Alicante
C. Huertas
Torrevieja
C. Palos
Cartagena
Aguilas
Garrucha
Carboneras
Dragonera
Soller
Palma
Alcudia
Minorca
Mahon
Majorca
BALEARIC ISLANDS (Spain)
Cabrera
Ibiza
Ibiza
Formentera
MEDITERRANEAN SEA
5° E
Fos
Marseilles
Toulon
Port De Bouc
SPAIN
40° N
Algiers
Dellys
Bejaia (Bougie)
C. Bougaroni
C. de Fer
Skikda
Mostaganen
Arzew
ALGERIA
35° N
0°
5° E


AGUILAS & HORNILLO
HORNILLO
AGUILAS
Railway
Mineral Wharf
Isla De El Fraile
Puerto del Hornillo
Yacht Quay
Depth 2 m.
Varadero
Puerto de Aguilhas
La Aguilica
Export/Import Quay
Castillo Faro
Ite Aguilica
5m
10m
20m
30m
50m
37°24' N
01°34' W


ALCANAR
N
Punta Corballera
Fairway Buoy
No. 1
No. 2
No. 3
No. 4
No. 5
No. 6
No. 7
No. 8
No. 9
No. 10
No. 11
No. 12
No. 13
No. 14
No. 15
No. 16
No. 17
No. 18
No. 19
No.20
No. 21
10
00° 36' E
00° 33' E
40° 33' E
Alcanar
Scale in Meters
0
1,400

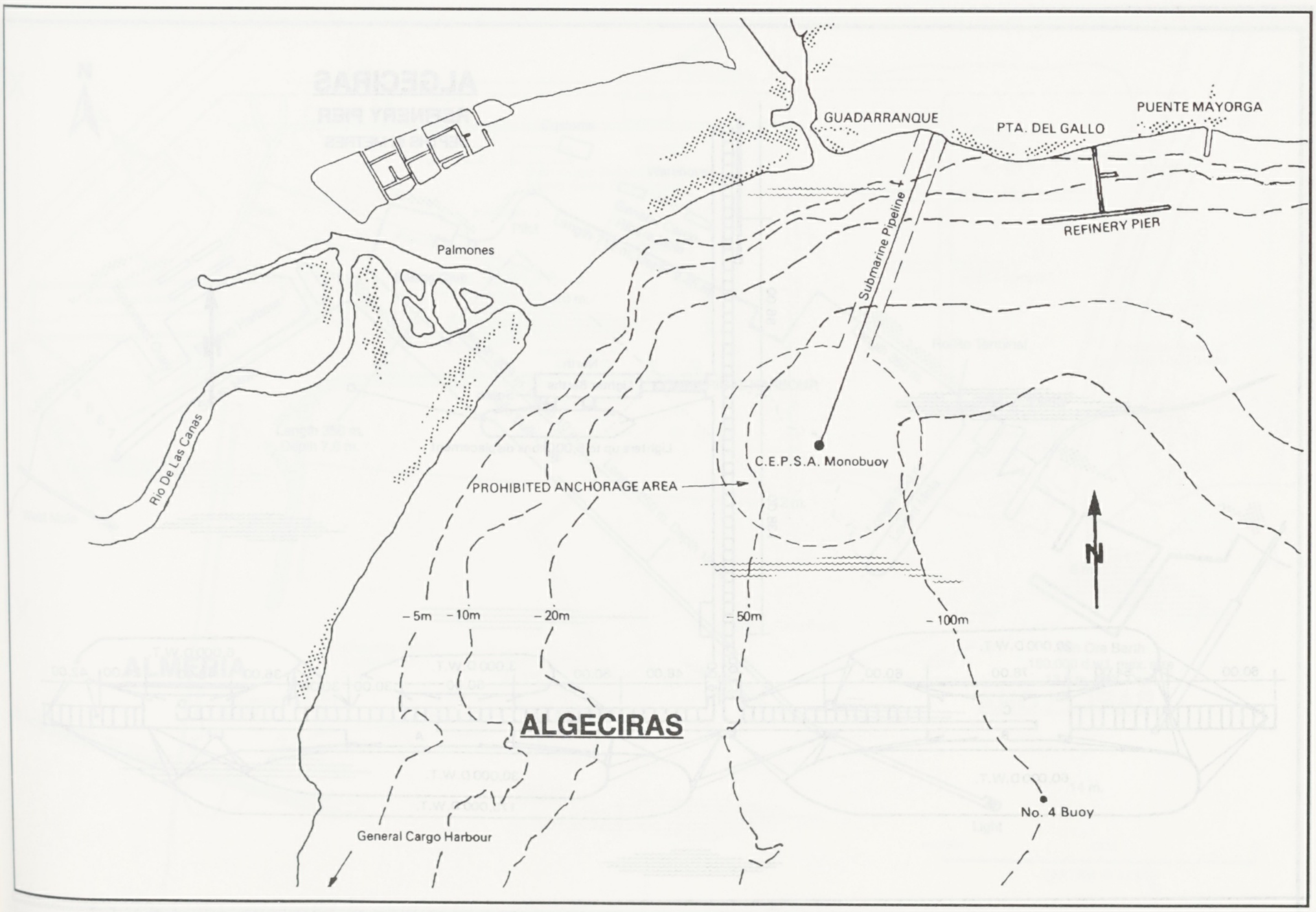

ALCUDIA
N
Marina
Planned
Planned
Dredged to 6.5 m.
Butane Jetty
Work in Progress
Muelle de Poniente
127 m.
6.5 m.
6.5 m.
7.0 m.
230 m.
Muelle de Ribera
Container Stacking Area
247 m.
Muelle de Adosado


ALGECIRAS
N
LA LINEA
P. San Felipe
GIBRALTAR
Crinavis
Confederation Pier
C.E.P.S.A.
Refinery Pier
BAY OF ALGECIRAS
Port Limits
Monobuoy
Coal Pier
Acerinox Pier
San Garcia Point
Carnero Point and Lighthouse
Palmones
ALGECIRAS
Industrial Estate

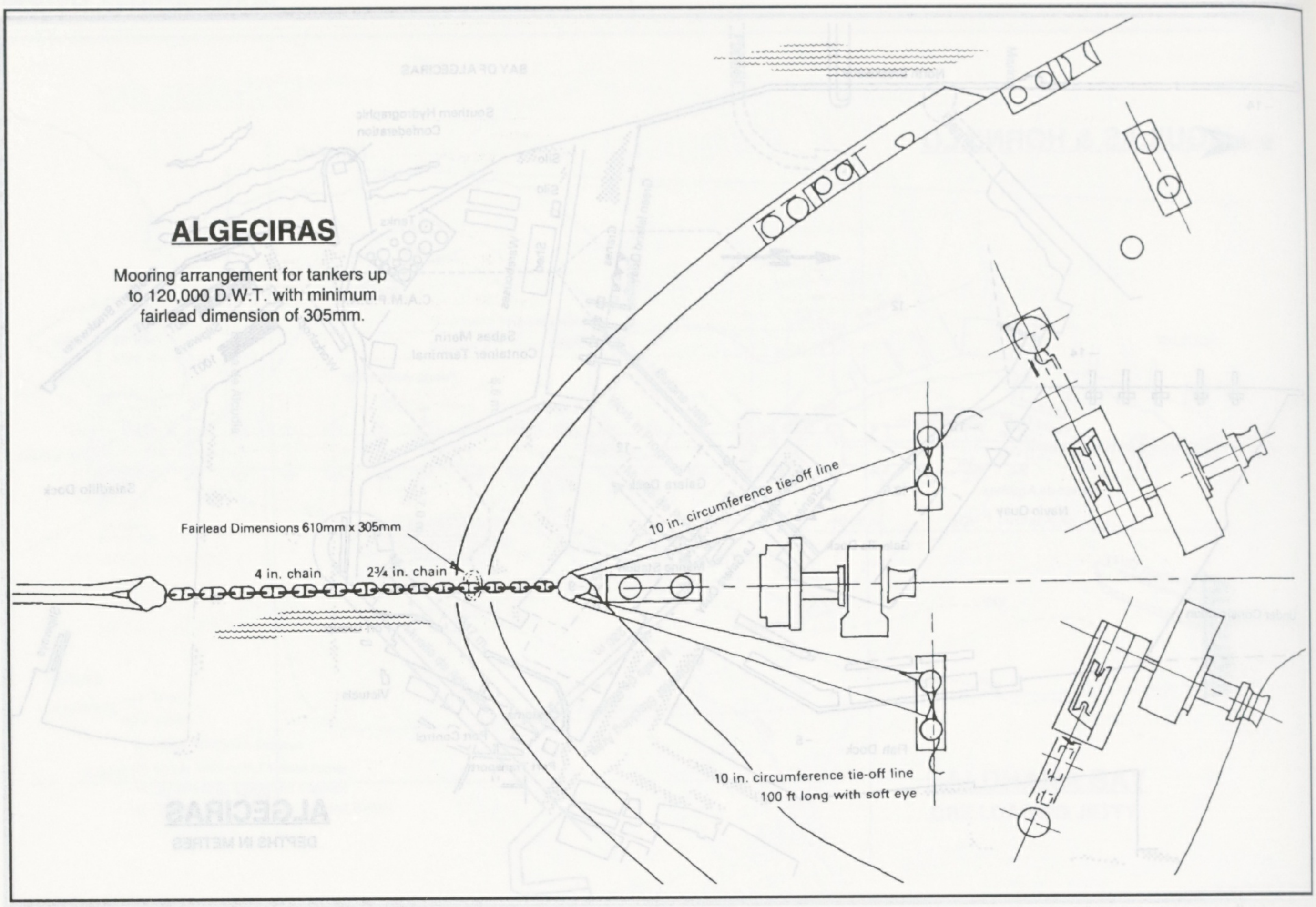

North Breakwater
BAY OF ALGECIRAS
Southern Hydrographic Confederation
–14
Silo
Silo
Green Island Quay
Cranes
Shed
Warehouses
Tanks
C.A.M.P.S.A.
Workshops
500T.
100T.
Slipways
100T.
Southern Breakwater
N
–12
–14
Sabas Marin Container Terminal
–12
–10
–12
Galera Dock
–10.5
Warehouses
Cranes
Navio Quay
Galerilla Dock
La Galera Quay
Marine Station
–9
–6
Saladillo Dock
Slipways
Under Construction
Port Group
Victuals
Customs
Port Control
Port Transport
Fish Dock
–5

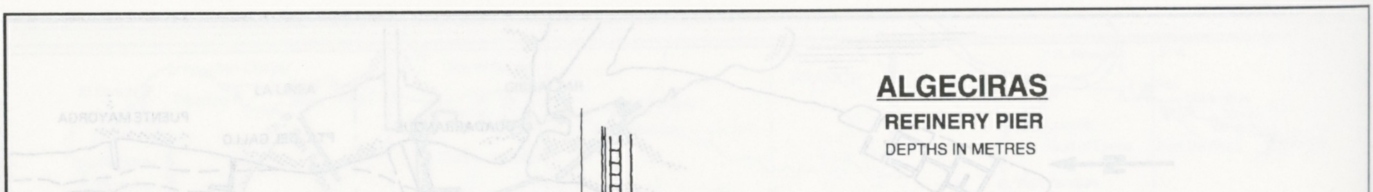
ALGECIRAS

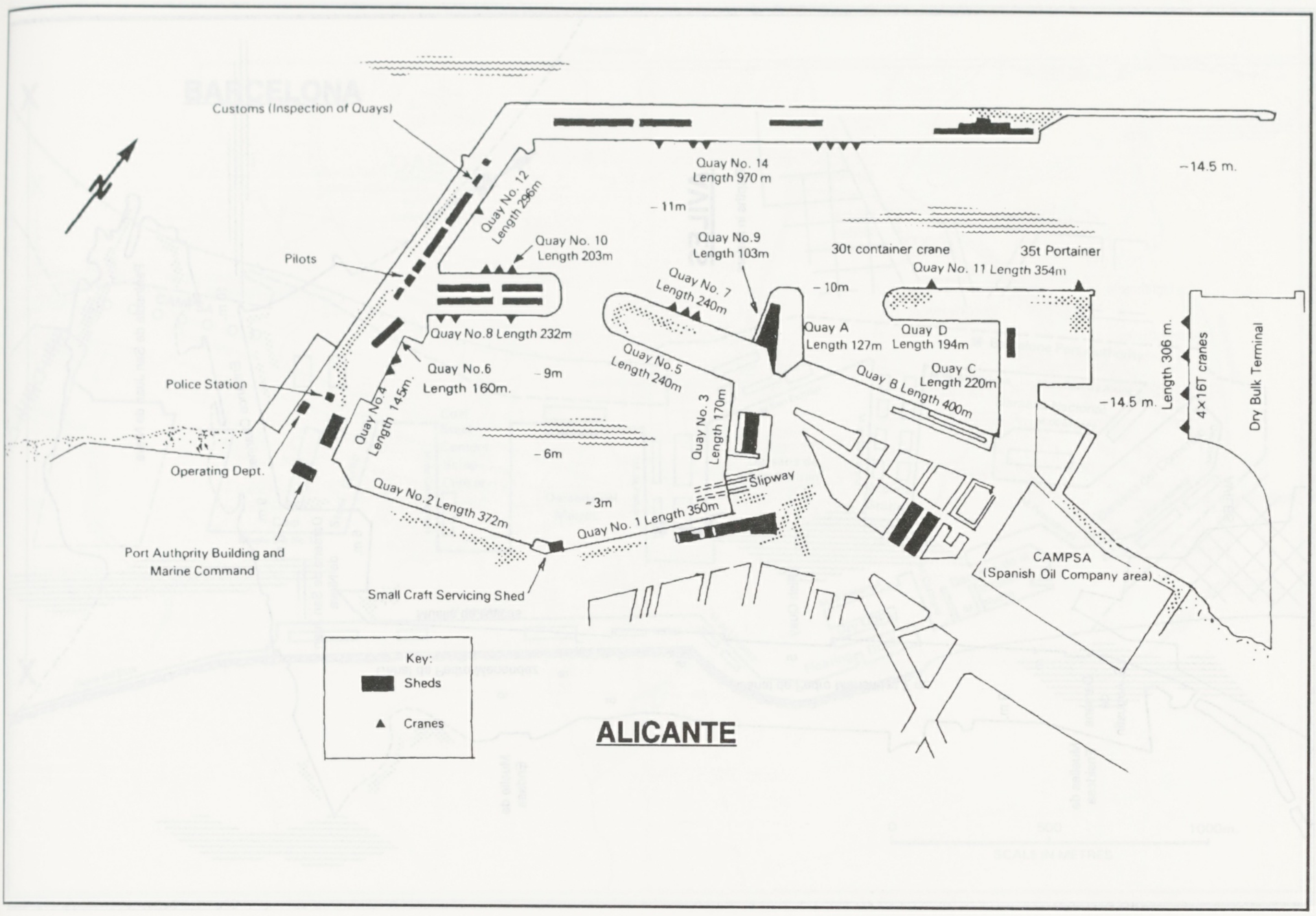
DEPTHS IN METRES

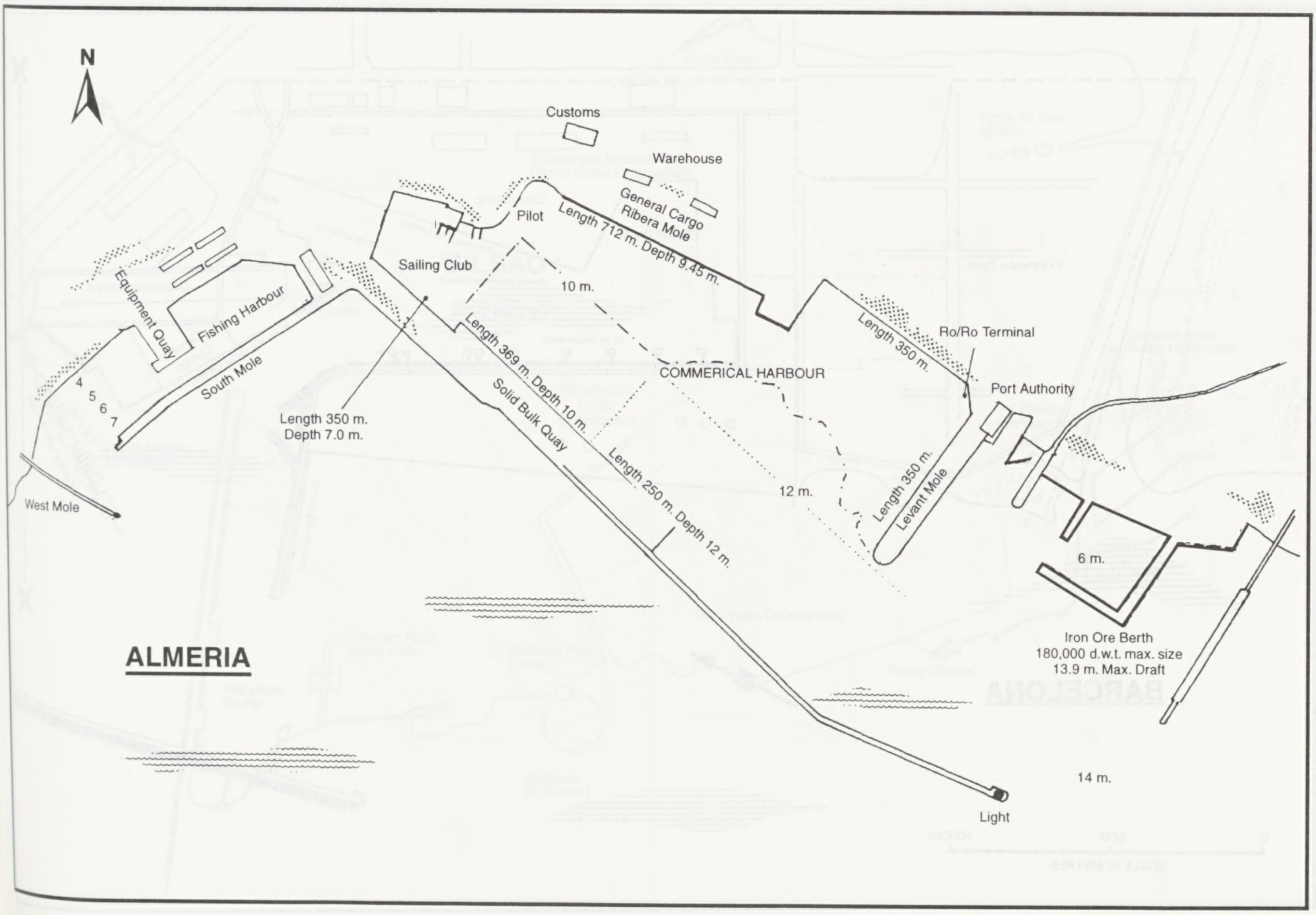

GUADARRANQUE
PTA. DEL GALLO
PUENTE MAYORGA
REFINERY PIER
Palmones
Submarine Pipeline
Rio De Las Canas
C.E.P.S.A. Monobuoy
PROHIBITED ANCHORAGE AREA
N
– 5m
– 10m
– 20m
– 50m
– 100m
No. 4 Buoy
General Cargo Harbour

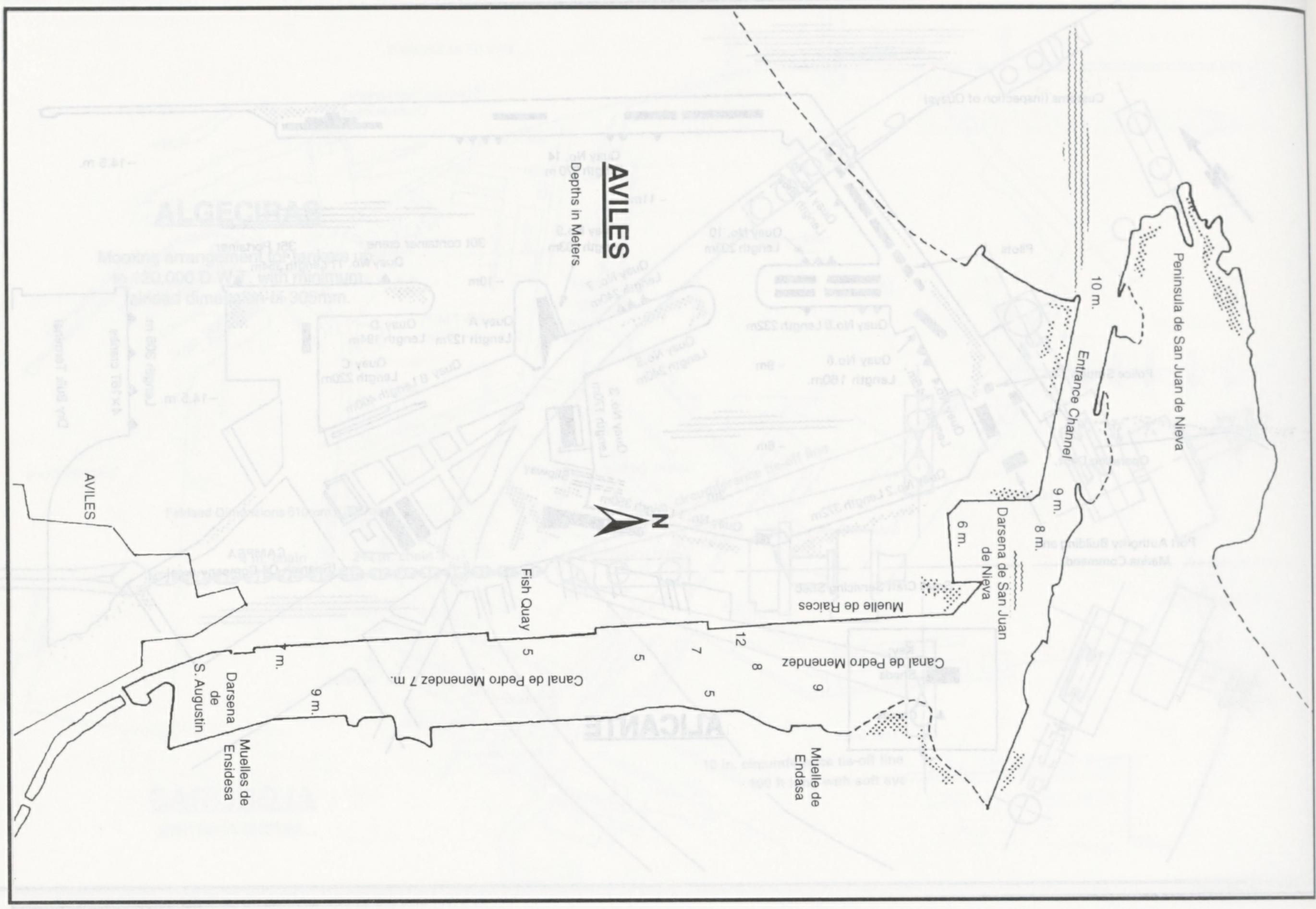
ALGECIRAS

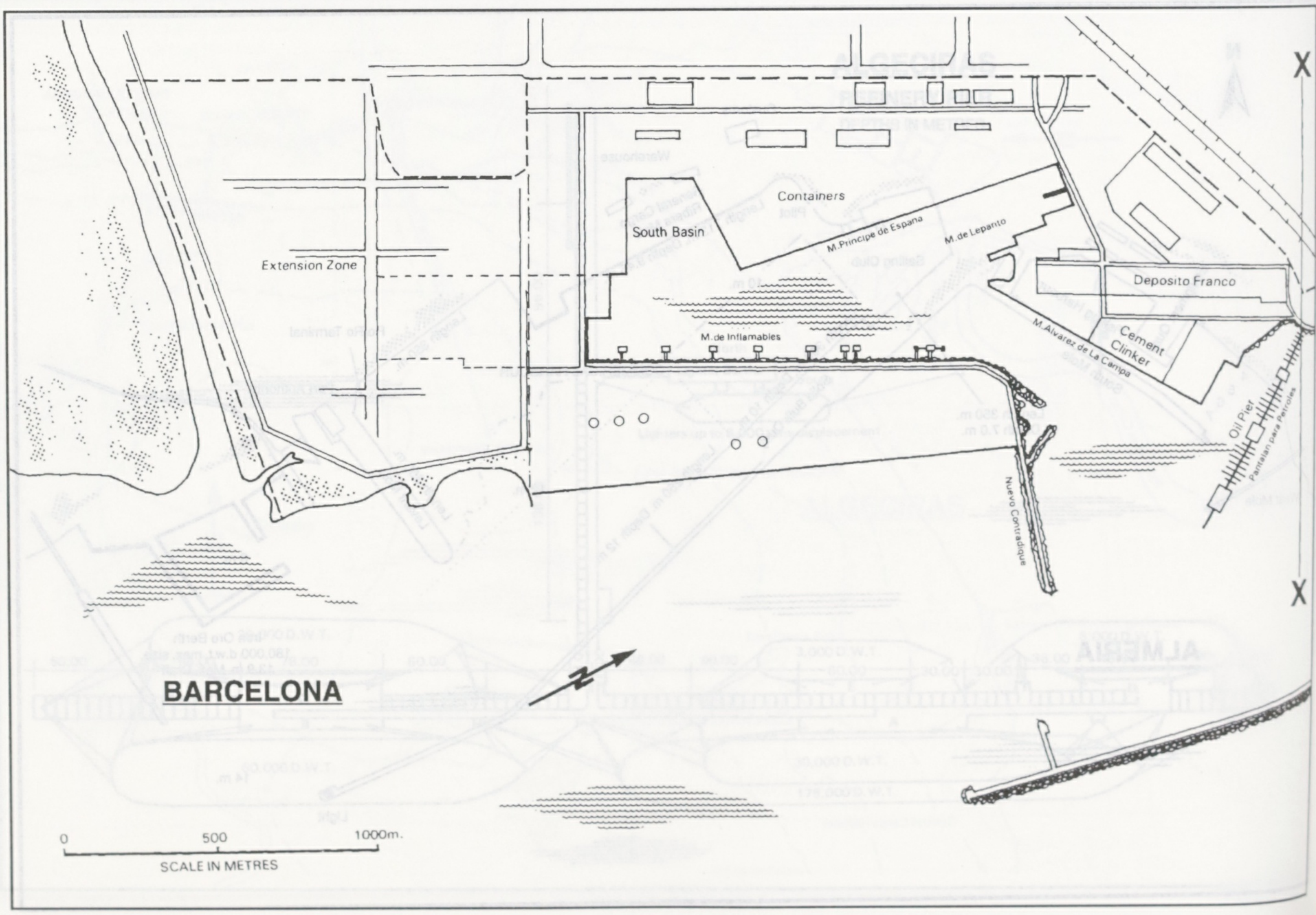

ALGECIRAS
Mooring arrangement for tankers up to 120,000 D.W.T. with minimum fairlead dimension of 305mm.
Fairlead Dimensions 610mm x 305mm
4 in. chain
2¾ in. chain
10 in. circumference tie-off line
10 in. circumference tie-off line 100 ft long with soft eye

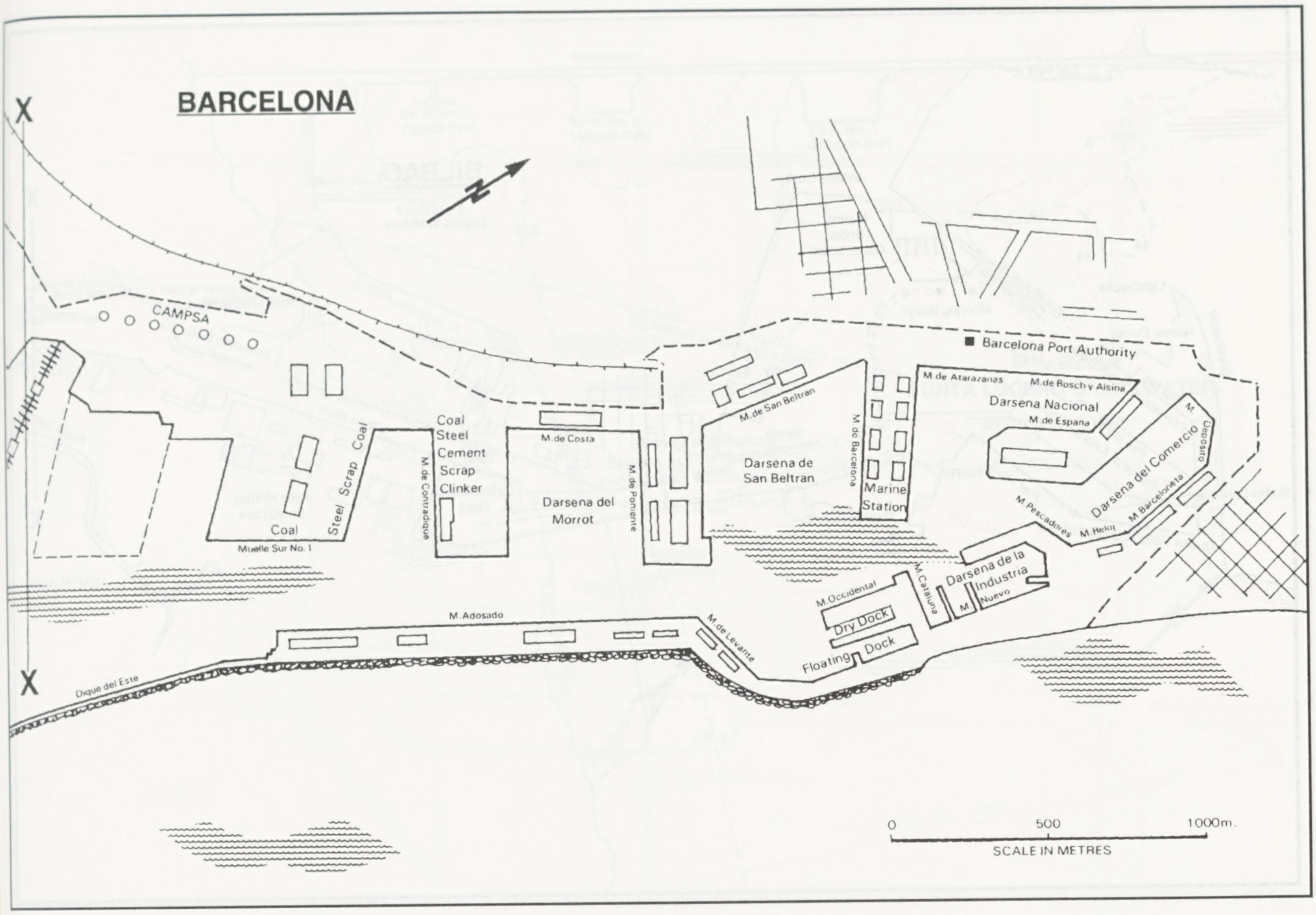

ALGECIRAS
REFINERY PIER
DEPTHS IN METRES
N
96.00
138.00
North
Lighter Berths
South
Lighters up to 6,000 tons displacement
20,000 D.W.T.
3,000 D.W.T.
6,000 D.W.T.
60.00
54.00
78.00
60.00
13.00
6.00
48.00
60.00
60.00
30.00
30.00
36.00
48.00
24.00
42.00
C
B
E
A
D
60,000 D.W.T.
30,000 D.W.T.
175,000 D.W.T.

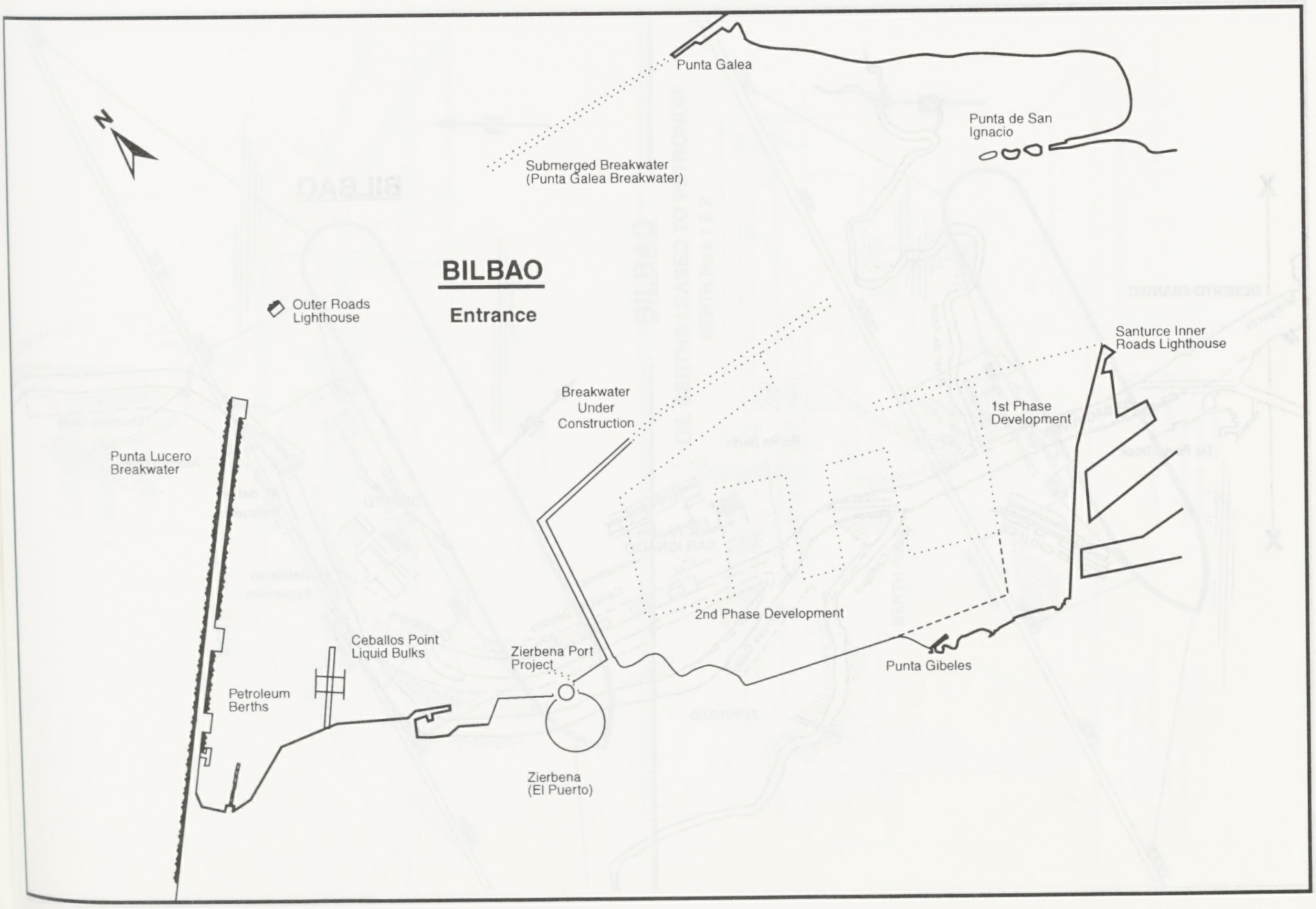

Customs (Inspection of Quays)
Quay No. 12
Length 296m
Quay No. 14
Length 970 m
~14.5 m.
~11m
Pilots
Quay No. 10
Length 203m
Quay No.9
Length 103m
30t container crane
35t Portainer
Quay No. 11 Length 354m
Quay No. 7
Length 240m
~10m
Quay A
Length 127m
Quay D
Length 194m
Quay No.8 Length 232m
Quay No.6
Length 160m.
~9m
Quay No.5
Length 240m
Quay C
Length 220m
Quay B Length 400m
~14.5 m.
Length 306 m.
4×16T cranes
Dry Bulk Terminal
Police Station
Quay No.4
Length 145m.
Quay No. 3
Length 170m
~6m
Operating Dept.
Slipway
~3m
Quay No.2 Length 372m
Quay No. 1 Length 350m
Port Authority Building and
Marine Command
Small Craft Servicing Shed
CAMPSA
(Spanish Oil Company area)
Key:
Sheds
Cranes
ALICANTE

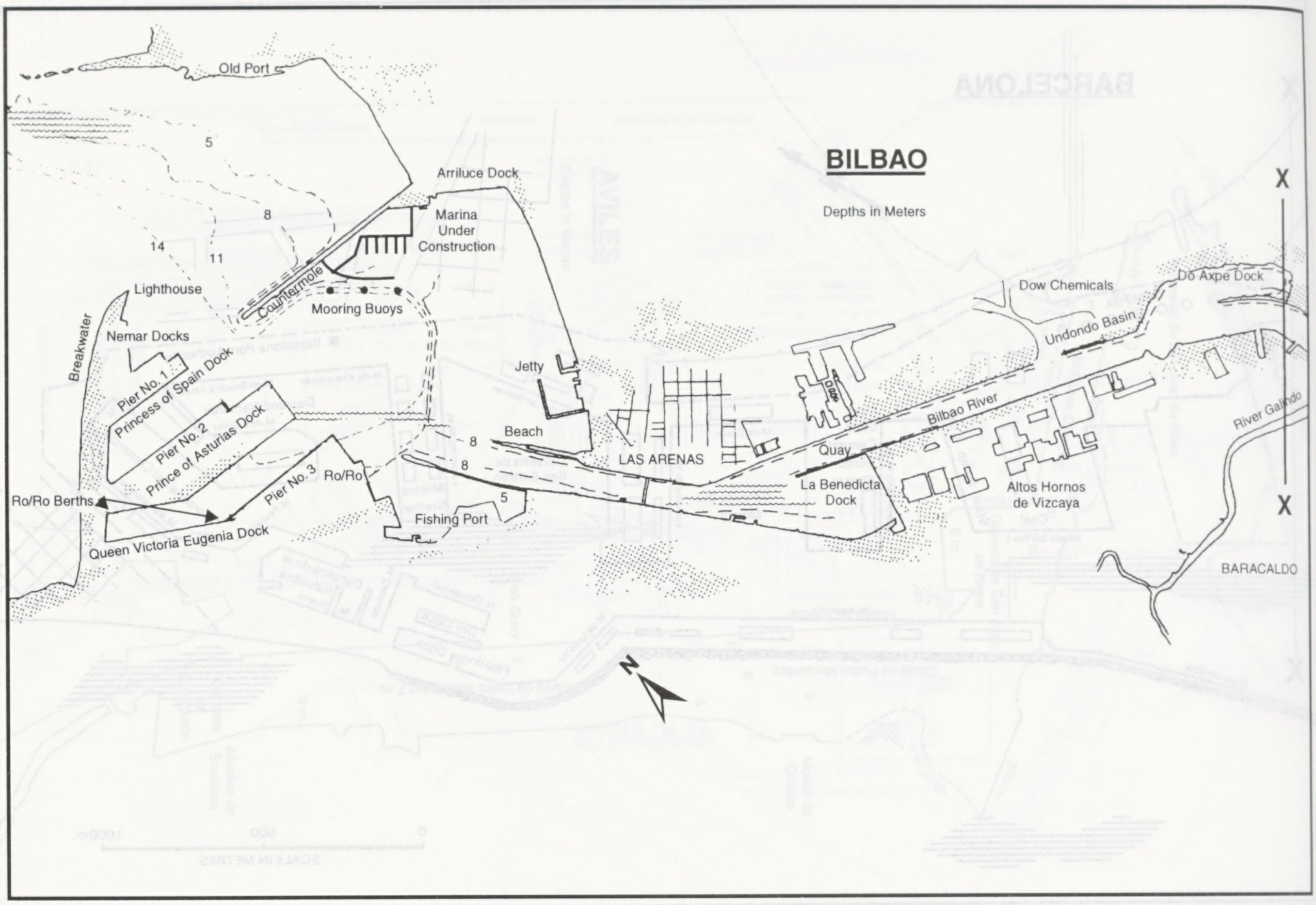

N
Customs
Warehouse
General Cargo
Ribera Mole
Pilot
Length 712 m. Depth 9.45 m.
Sailing Club
10 m.
Equipment Quay
Fishing Harbour
South Mole
4
5
6
7
Length 369 m. Depth 10 m.
Solid Bulk Quay
COMMERICAL HARBOUR
Length 350 m.
Ro/Ro Terminal
Port Authority
Length 350 m.
Depth 7.0 m.
Length 250 m. Depth 12 m.
12 m.
Length 350 m.
Levant Mole
West Mole
6 m.
Iron Ore Berth
180,000 d.w.t. max. size
13.9 m. Max. Draft
ALMERIA
14 m.
Light

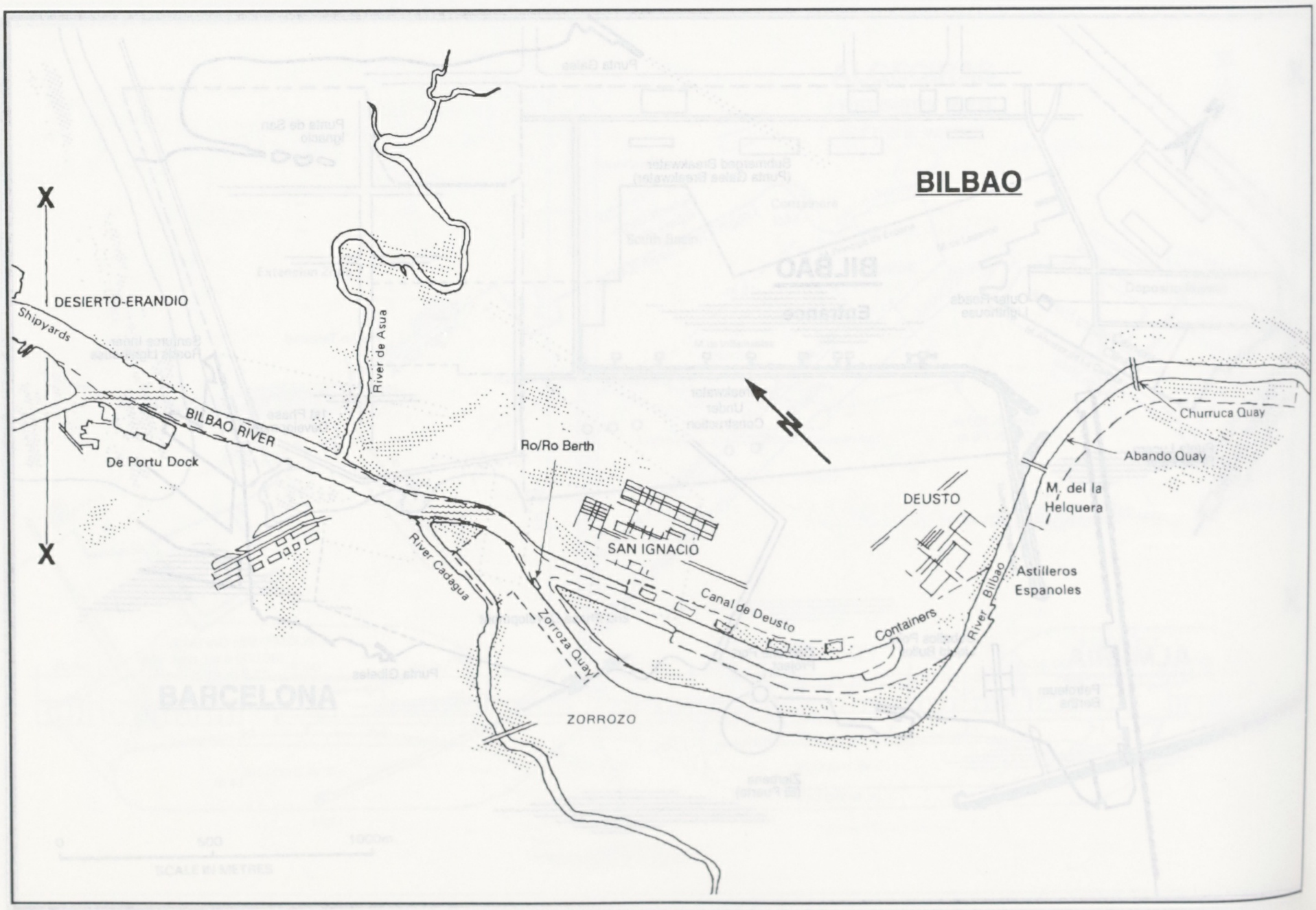

AVILES
Depths in Meters
N
Peninsula de San Juan de Nieva
10 m.
Entrance Channel
9 m.
8 m.
Darsena de San Juan de Nieva
6 m.
Muelle de Raices
Canal de Pedro Menendez
12
8
9
7
5
5
Muelle de Endasa
Canal de Pedro Menendez 7 m.
Fish Quay
5
9 m.
7 m.
Darsena de S. Augustin
Muelles de Ensidesa
AVILES

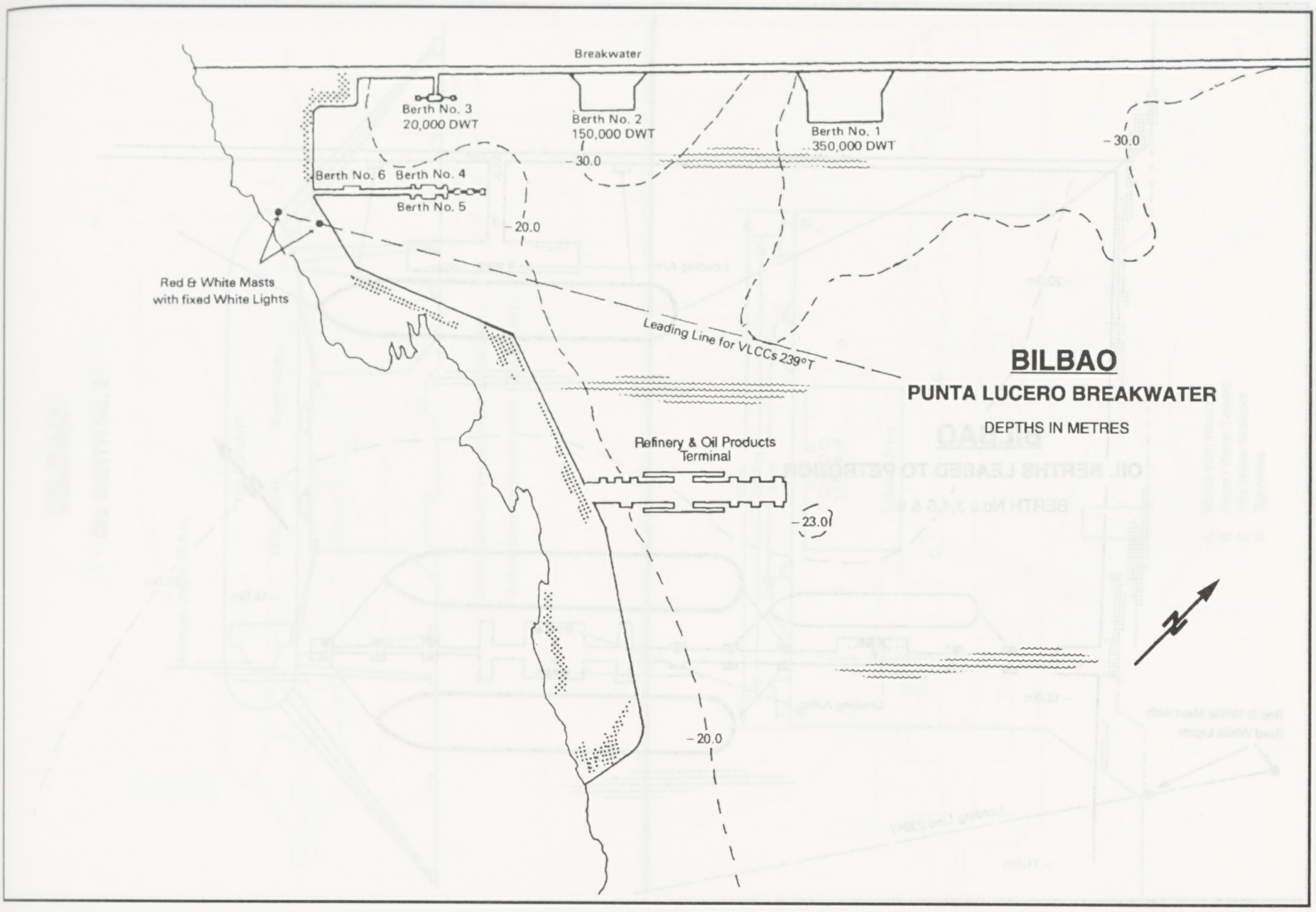

X
X
Containers
South Basin
M.Principe de Espana
M.de Lepanto
Extension Zone
Deposito Franco
M.de Inflamables
Cement Clinker
M.Alvarez de La Campa
Oil Pier
Pantalan para Petroleos
Nuevo Contradique
N
BARCELONA
0
500
1000m.
SCALE IN METRES


BARCELONA
X
X
CAMPSA
Coal
Steel Scrap Coal
Muelle Sur No.1
M. de Contradique
Coal
Steel
Cement
Scrap
Clinker
M. de Costa
Darsena del Morrot
M. de Poniente
M. de San Beltran
Darsena de San Beltran
M. de Barcelona
Marine Station
Barcelona Port Authority
M. de Atarazanas
M. de Bosch y Alsina
Darsena Nacional
M. de Espana
M. Deposito
Darsena del Comercio
M. Barceloneta
M. Pescadores
M. Heloj
M. Occidental
M. Cataluna
Darsena de la Industria
M.
Nuevo
Dry Dock
Floating Dock
M. Adosado
M. de Levante
Dique del Este
0
500
1000m.
SCALE IN METRES


N
Punta Galea
Punta de San Ignacio
Submerged Breakwater (Punta Galea Breakwater)
BILBAO
Entrance
Outer Roads Lighthouse
Santurce Inner Roads Lighthouse
1st Phase Development
Breakwater Under Construction
Punta Lucero Breakwater
2nd Phase Development
Ceballos Point Liquid Bulks
Zierbena Port Project
Punta Gibeles
Petroleum Berths
Zierbena (El Puerto)


BILBAO
Depths in Meters
Old Port
5
8
14
11
Arriluce Dock
Marina Under Construction
Lighthouse
Countermole
Mooring Buoys
Breakwater
Nemar Docks
Pier No. 1
Princess of Spain Dock
Pier No. 2
Prince of Asturias Dock
Pier No. 3
Ro/Ro
Ro/Ro Berths
Queen Victoria Eugenia Dock
Jetty
Beach
8
8
5
Fishing Port
LAS ARENAS
Quay
La Benedicta Dock
Bilbao River
Altos Hornos de Vizcaya
Dow Chemicals
Undondo Basin
Do Axpe Dock
River Galindo
BARACALDO
X
X
N


BILBAO
X
X
DESIERTO-ERANDIO
Shipyards
BILBAO RIVER
De Portu Dock
River de Asua
River Cadagua
Ro/Ro Berth
SAN IGNACIO
Canal de Deusto
Zorroza Quay
ZORROZO
Containers
DEUSTO
River Bilbao
M. del la Helquera
Astilleros Espanoles
Abando Quay
Churruca Quay
N

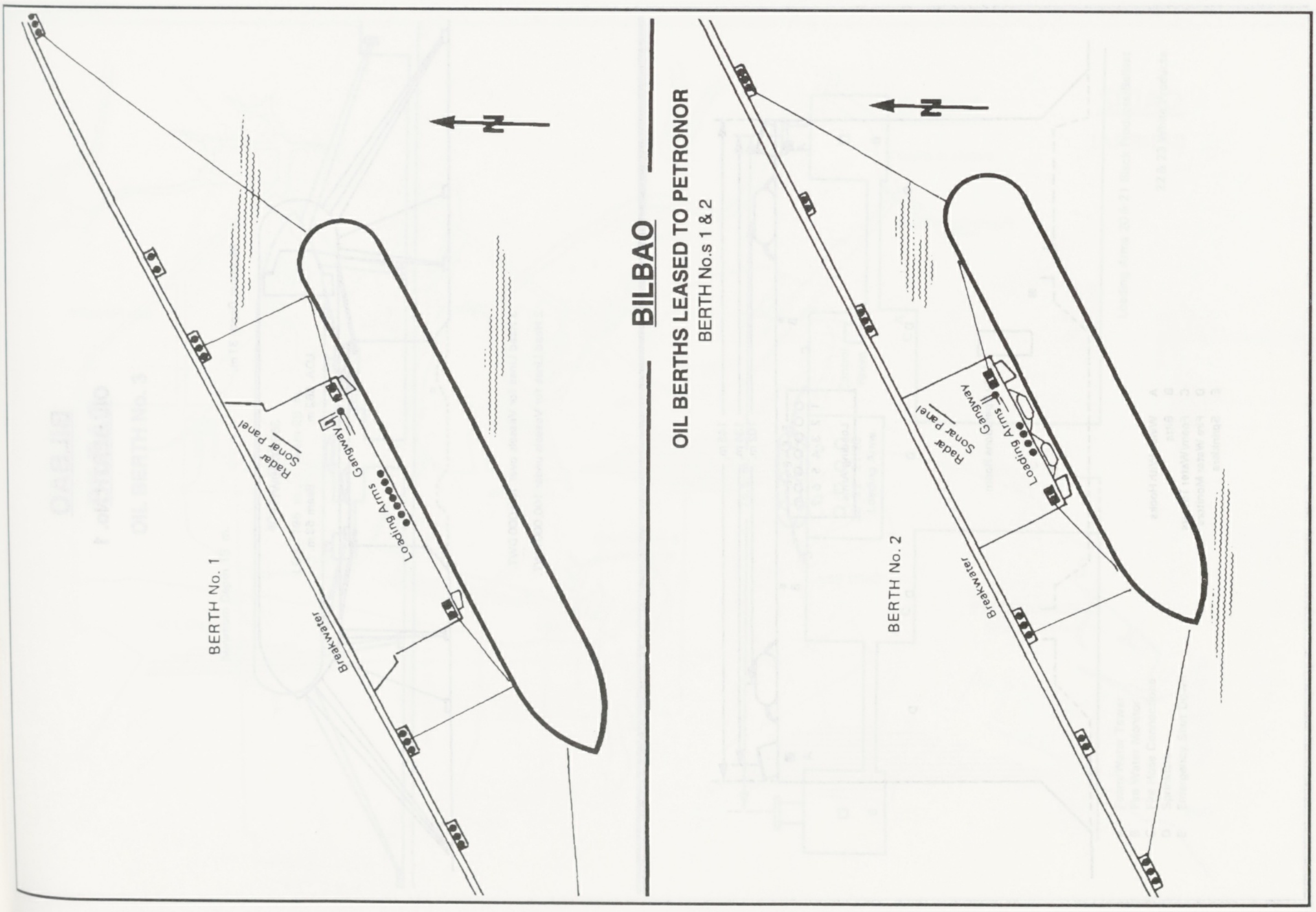


BILBAO

PUNTA LUCERO BREAKWATER

DEPTHS IN METRES

Breakwater
Berth No. 3
20,000 DWT
Berth No. 2
150,000 DWT
Berth No. 1
350,000 DWT
– 30.0
– 30.0
Berth No. 6
Berth No. 4
Berth No. 5
– 20.0
Red & White Masts
with fixed White Lights
Leading Line for VLCCs 239°T
Refinery & Oil Products
Terminal
– 23.0
– 20.0
N

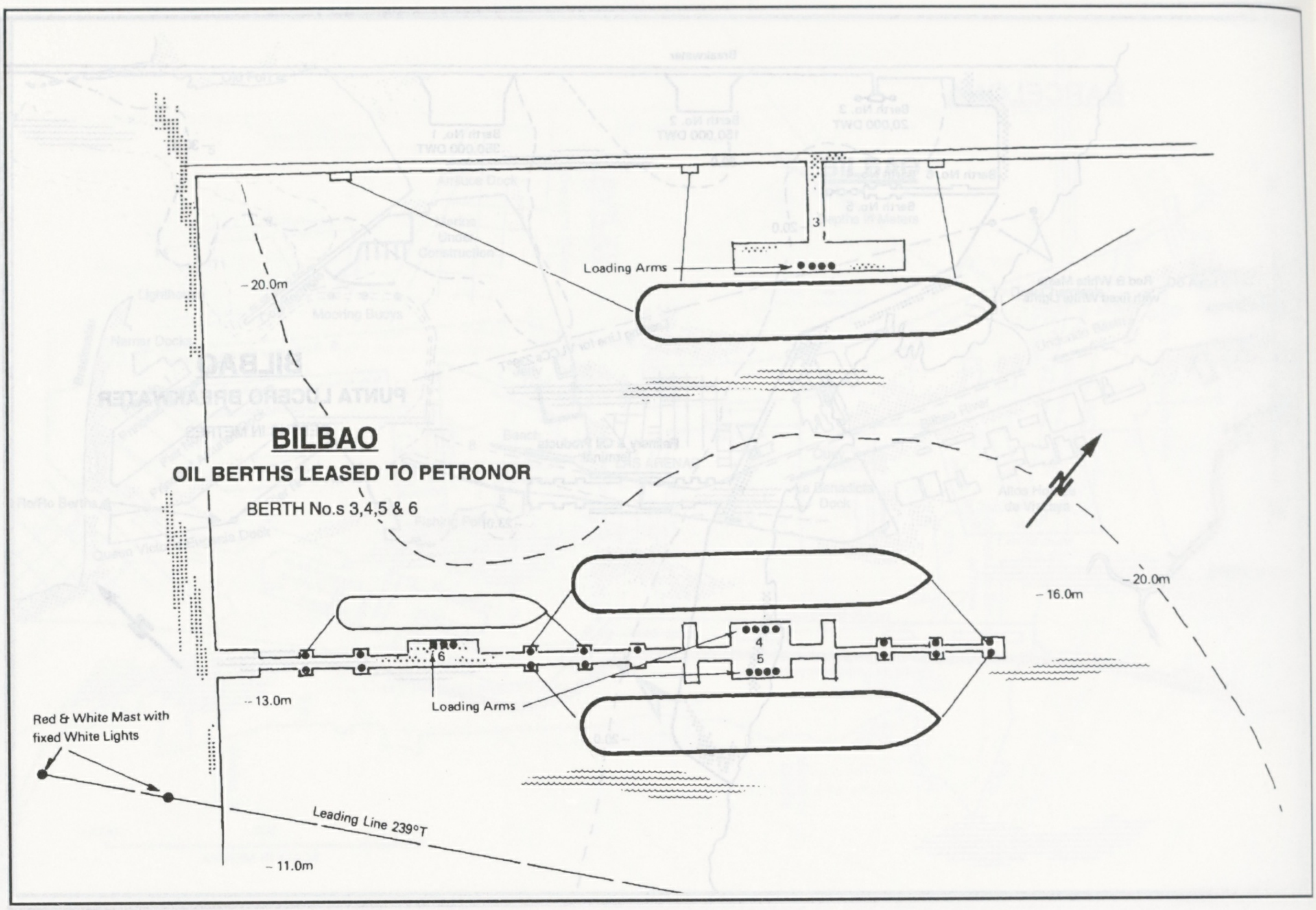


BILBAO

OIL BERTHS LEASED TO PETRONOR

BERTH No.s 1 & 2

N
BERTH No. 1
Breakwater
Radar
Sonar Panel
Gangway
Loading Arms
N
BERTH No. 2
Breakwater
Radar
Sonar Panel
Gangway
Loading Arms

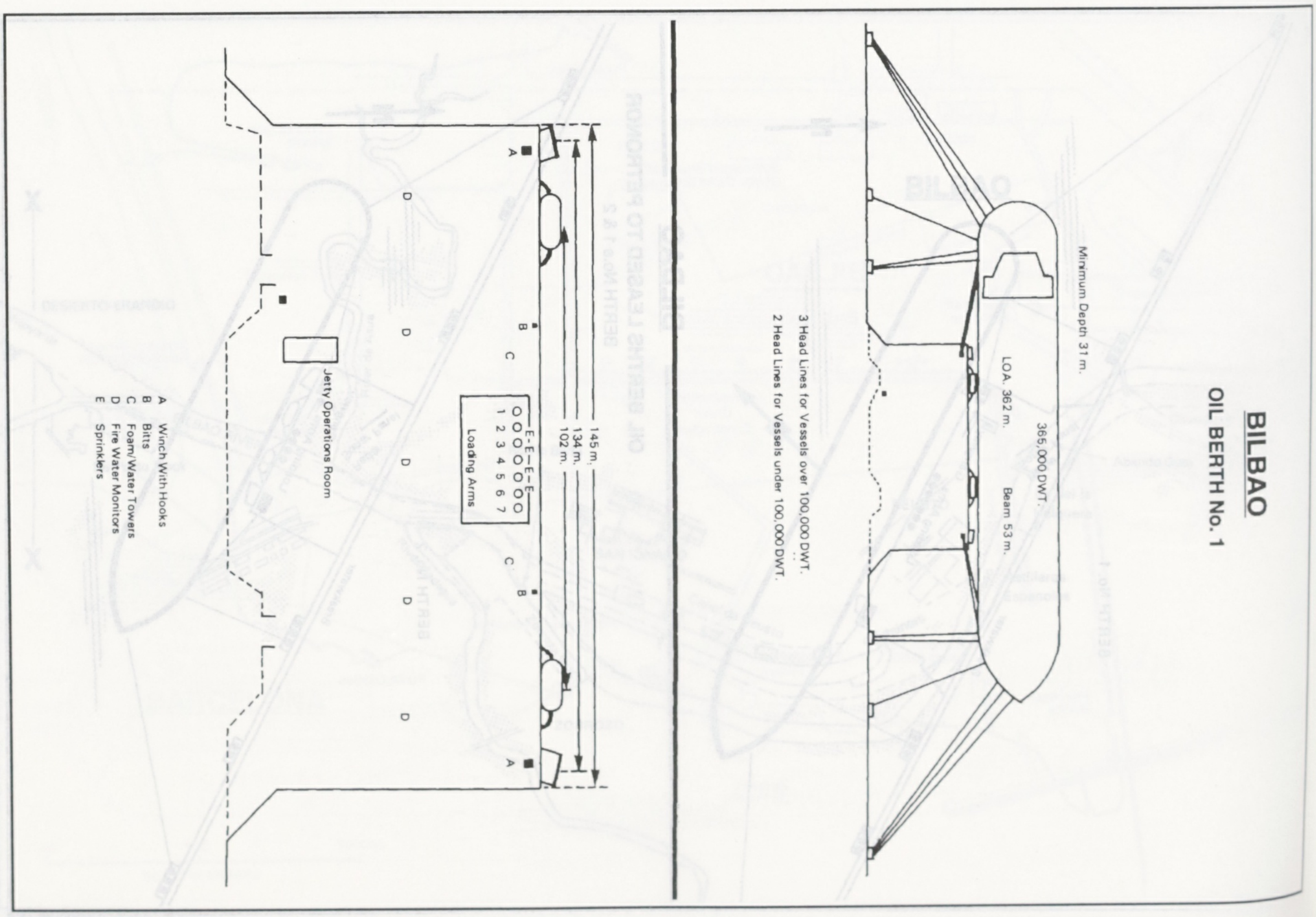


BILBAO

OIL BERTHS LEASED TO PETRONOR

BERTH No.s 3,4,5 & 6

Loading Arms
3
– 20.0m
– 16.0m
– 20.0m
4
5
6
Loading Arms
– 13.0m
Red & White Mast with fixed White Lights
Leading Line 239°T
– 11.0m



BILBAO

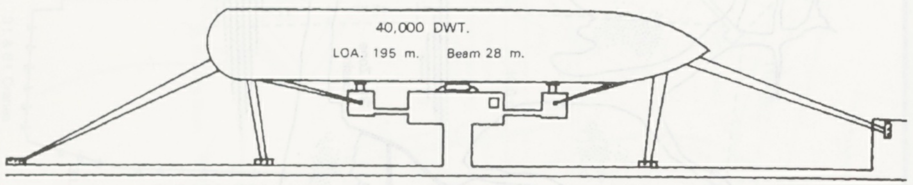
OIL BERTH No. 1

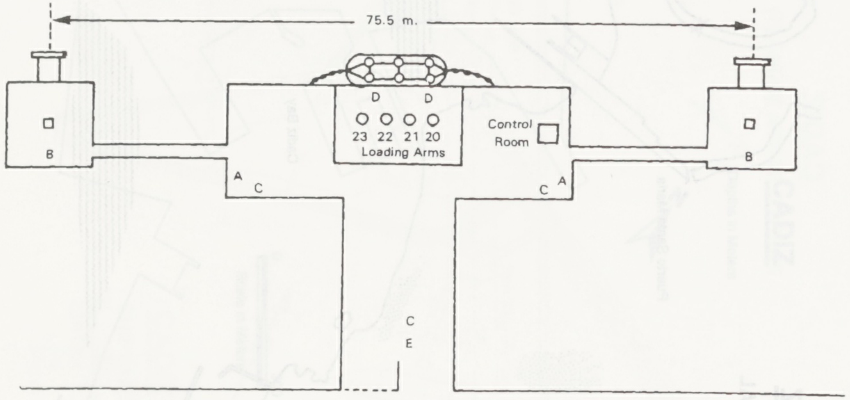
Minimum Depth 31 m.
365,000 DWT.
LOA. 362 m.
Beam 53 m.
3 Head Lines for Vessels over 100,000 DWT.
2 Head Lines for Vessels under 100,000 DWT.
145 m.
134 m.
102 m.
E E E E
1 2 3 4 5 6 7
Loading Arms
Jetty Operations Room
A
B
C
D
A Winch With Hooks
B Bitts
C Foam/Water Towers
D Fire Water Monitors
E Sprinklers

BILBAO

OIL BERTH No. 3

Minimum Depth 15 m.


40,000 DWT.
LOA. 195 m.
Beam 28 m.


75.5 m.
D
D
23 22 21 20
Loading Arms
Control Room
A
B
C
C
A
B
C
E

- A Foam/Water Tower
- B Fire Water Monitor
- C Fire Hose Connections
- D Sprinklers
- E Emergency Shut Down

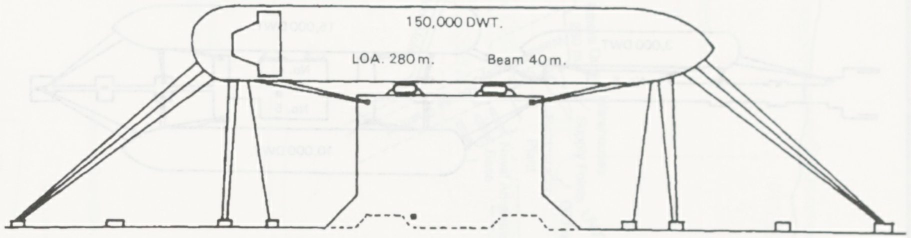
Loading Arms 20 & 21 Black Products/Ballast

22 & 23 White Products

BILBAO

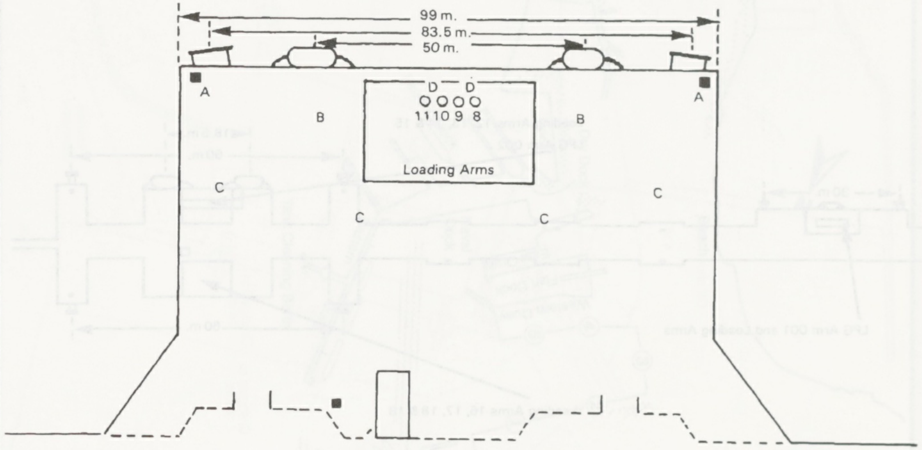
OIL BERTH No. 2

Minimum Depth 19.5 m.

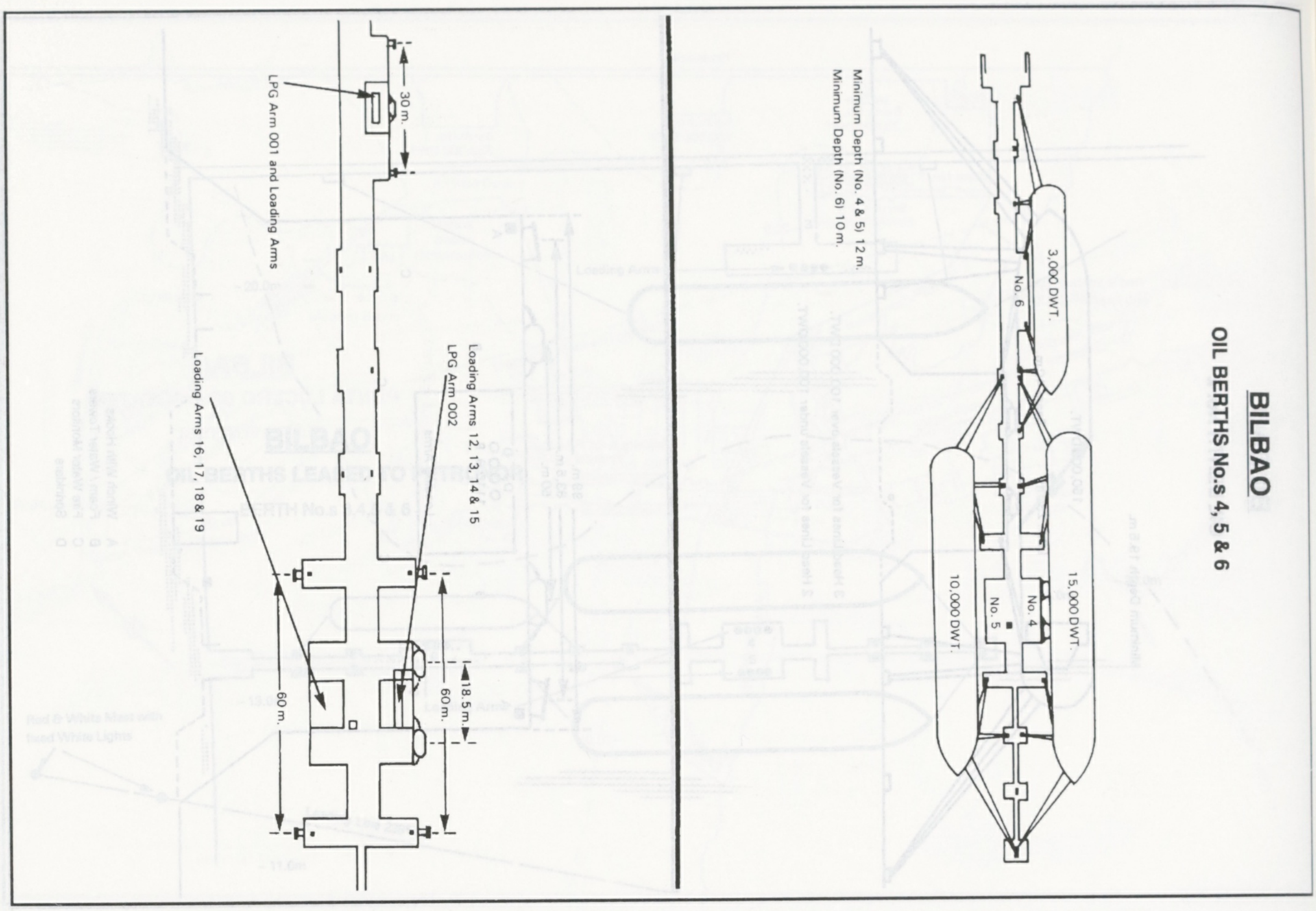

150,000 DWT.
LOA. 280 m.
Beam 40 m.

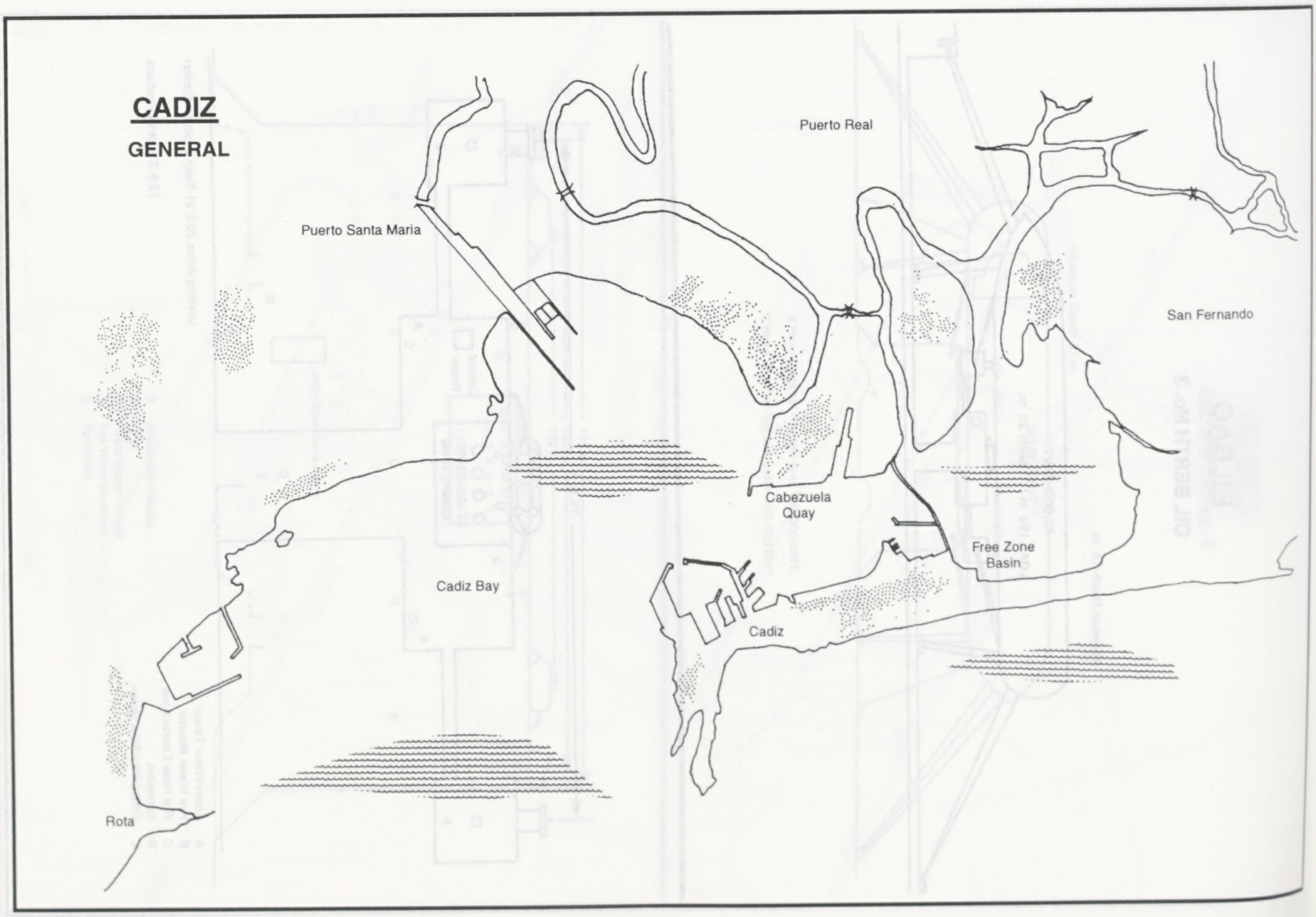
3 Head Lines for Vessels over 100,000 DWT.

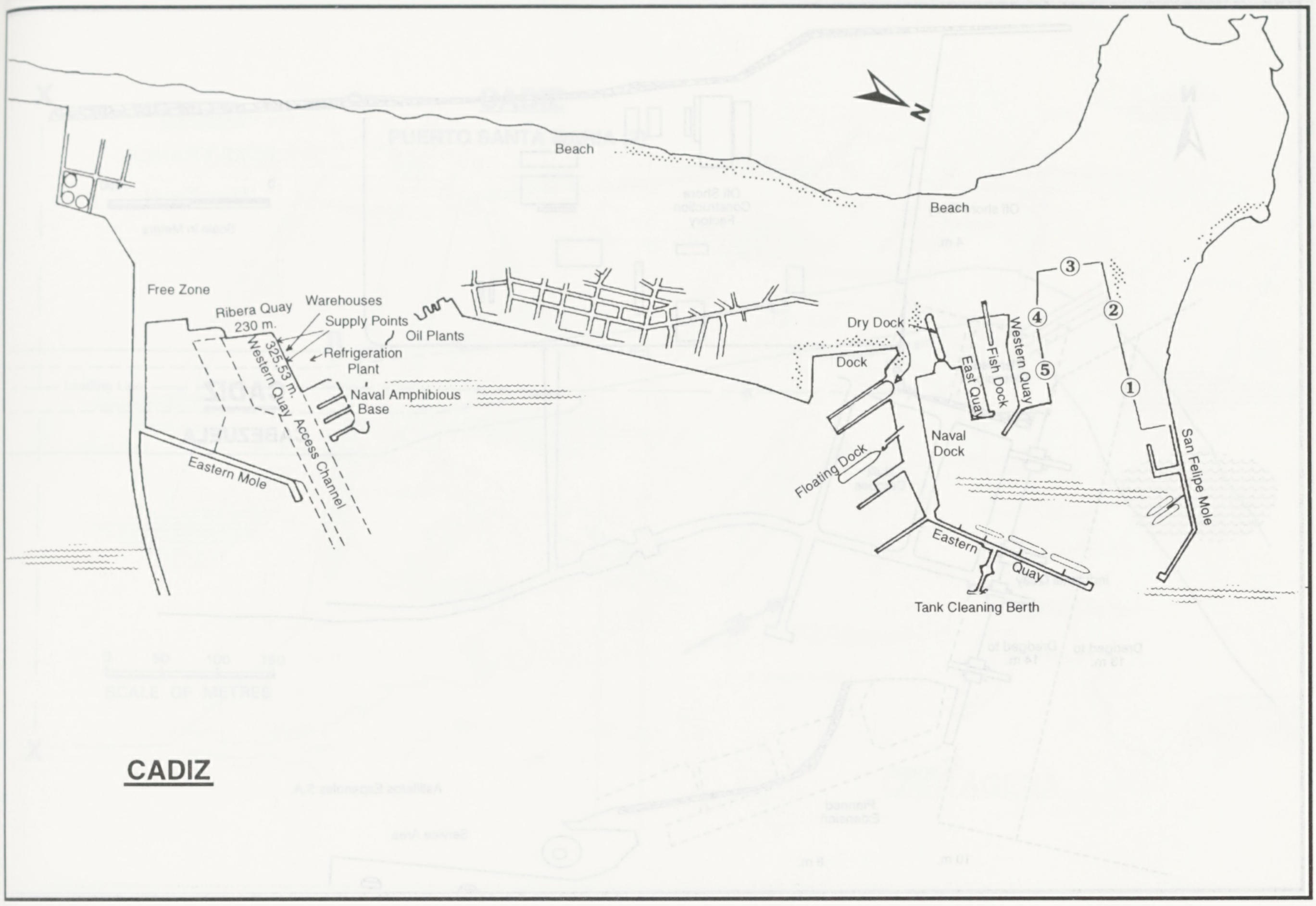
2 Head Lines for Vessels under 100,000 DWT.

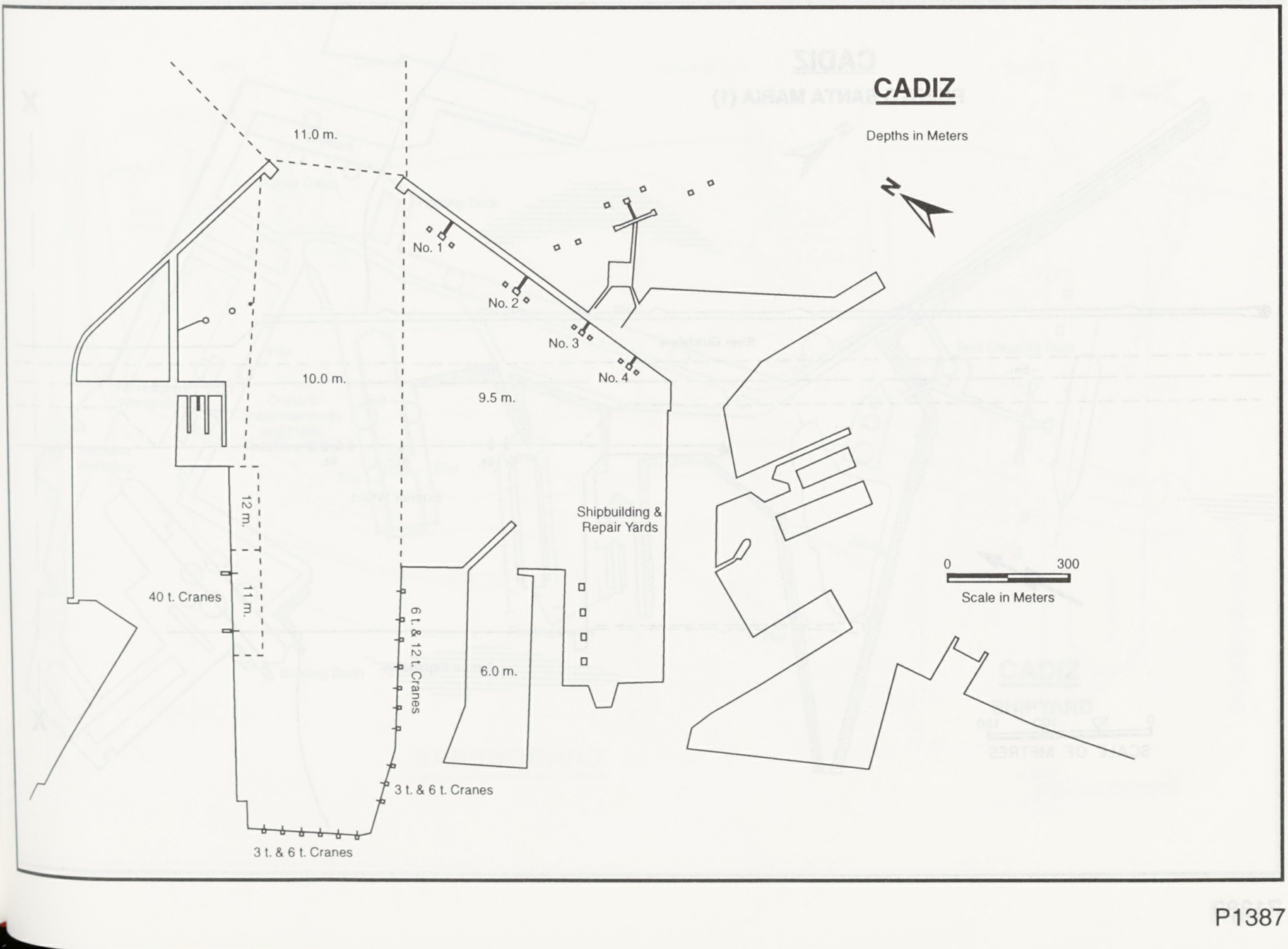

99 m.
83.5 m.
50 m.
A
D D
1110 9 8
B
Loading Arms
B
A
C
C
C
C

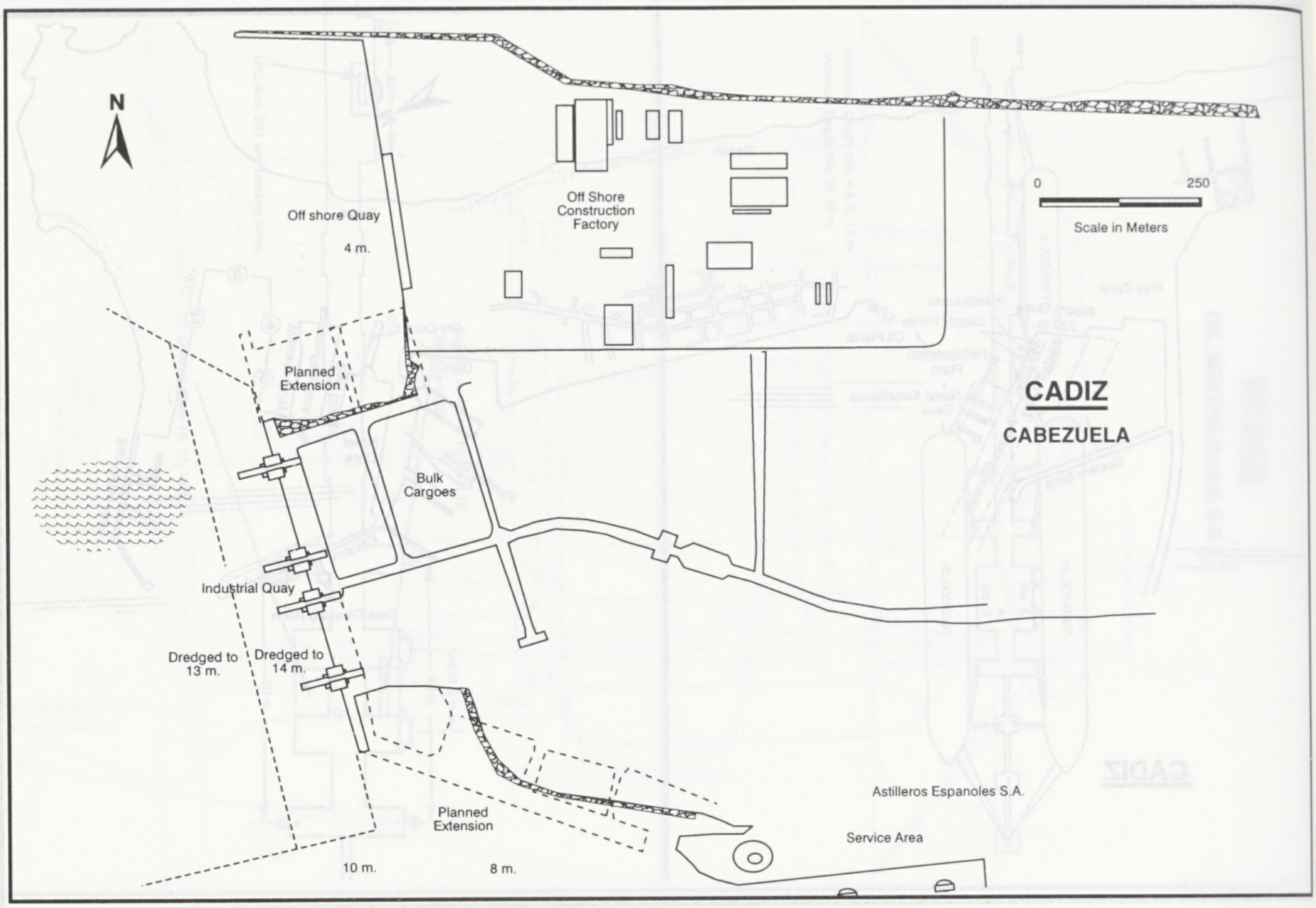
- A Winch With Hooks
- B Foam / Water Towers
- C Fire Water Monitors
- D Sprinklers

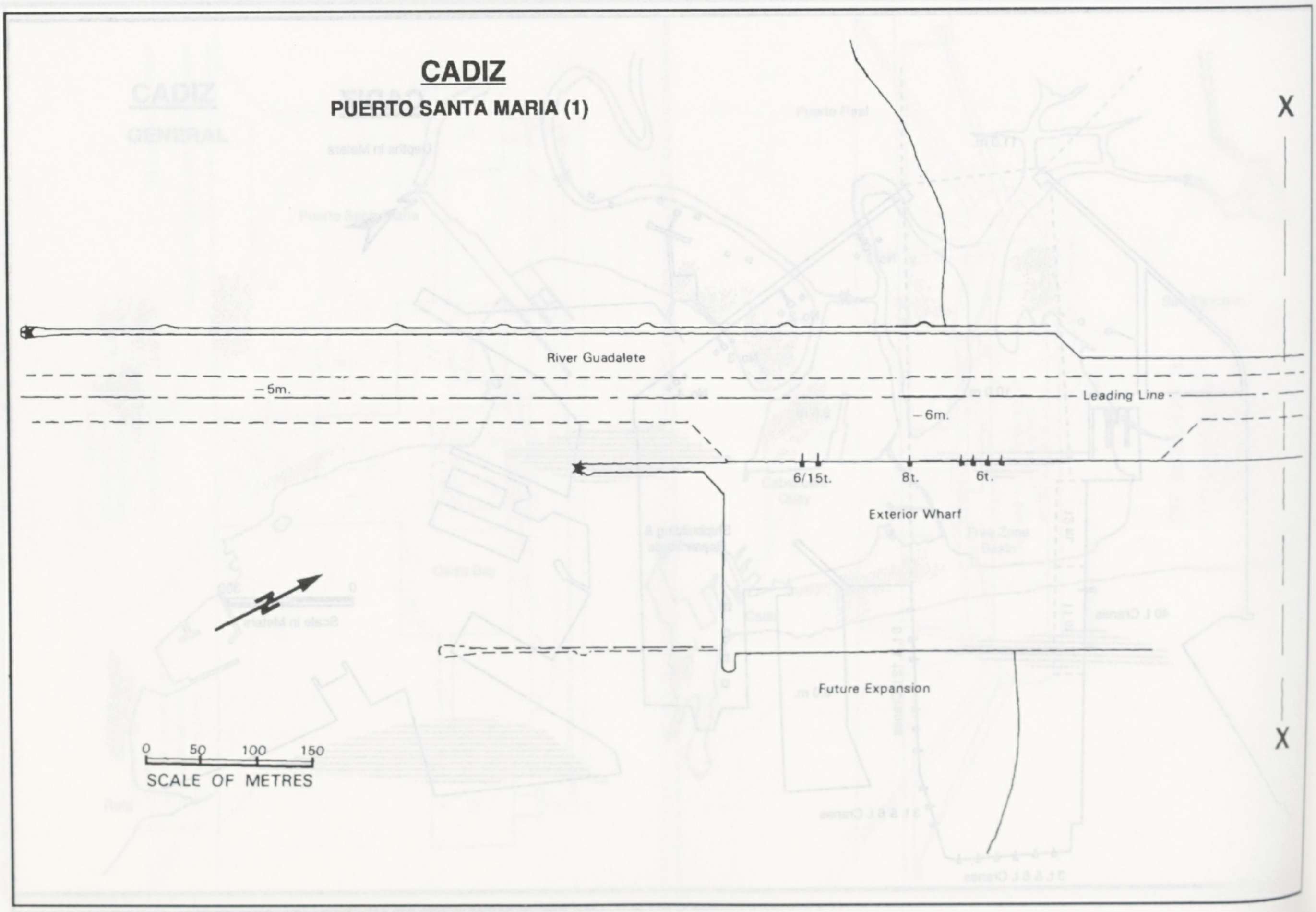

BILBAO
OIL BERTHS No.s 4, 5 & 6
3,000 DWT.
No. 6
15,000 DWT.
No. 4
No. 5
10,000 DWT.
Minimum Depth (No. 4 & 5) 12 m.
Minimum Depth (No. 6) 10 m.
LPG Arm 001 and Loading Arms
30 m.
Loading Arms 16, 17, 18 & 19
Loading Arms 12, 13, 14 & 15
LPG Arm 002
18.5 m.
60 m.
60 m.

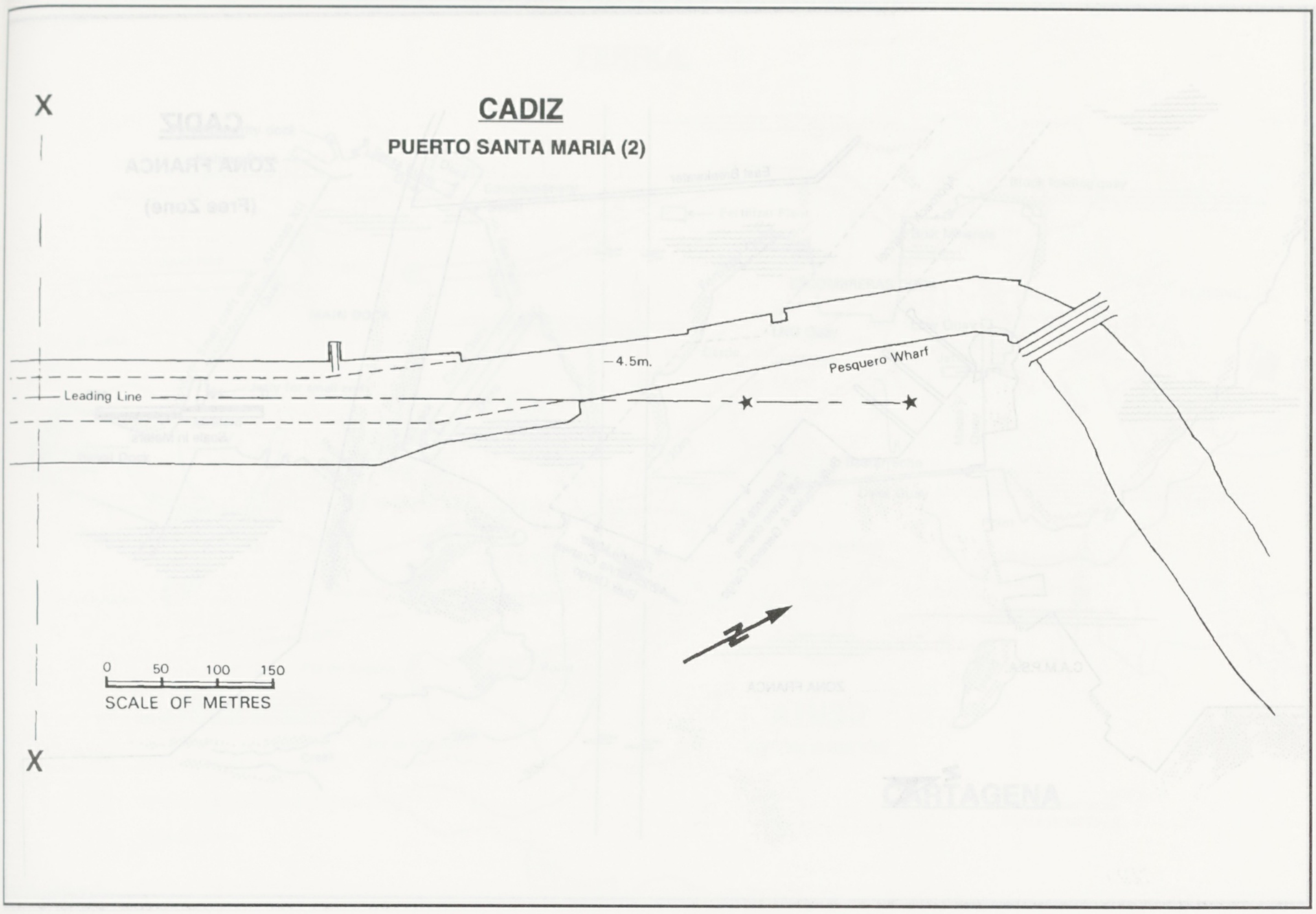

CADIZ
GENERAL
Puerto Real
Puerto Santa Maria
San Fernando
Cabezuela Quay
Free Zone Basin
Cadiz Bay
Cadiz
Rota


N
Beach
Beach
Free Zone
Ribera Quay
230 m.
Warehouses
Supply Points
Oil Plants
Refrigeration
Plant
325.53 m.
Western Quay
Naval Amphibious
Base
Access Channel
Eastern Mole
Dry Dock
Dock
Floating Dock
Naval
Dock
East Quay
Fish Dock
Western Quay
③
④
⑤
②
①
San Felipe Mole
Eastern
Quay
Tank Cleaning Berth
CADIZ


CADIZ
Depths in Meters
N
11.0 m.
No. 1
No. 2
No. 3
No. 4
10.0 m.
9.5 m.
12 m.
11 m.
40 t. Cranes
6 t. & 12 t. Cranes
6.0 m.
Shipbuilding &
Repair Yards
0
300
Scale in Meters
3 t. & 6 t. Cranes
3 t. & 6 t. Cranes


CADIZ
CABEZUELA
N
0
250
Scale in Meters
Off shore Quay
4 m.
Off Shore Construction Factory
Planned Extension
Bulk Cargoes
Industrial Quay
Dredged to 13 m.
Dredged to 14 m.
Planned Extension
10 m.
8 m.
Astilleros Espanoles S.A.
Service Area

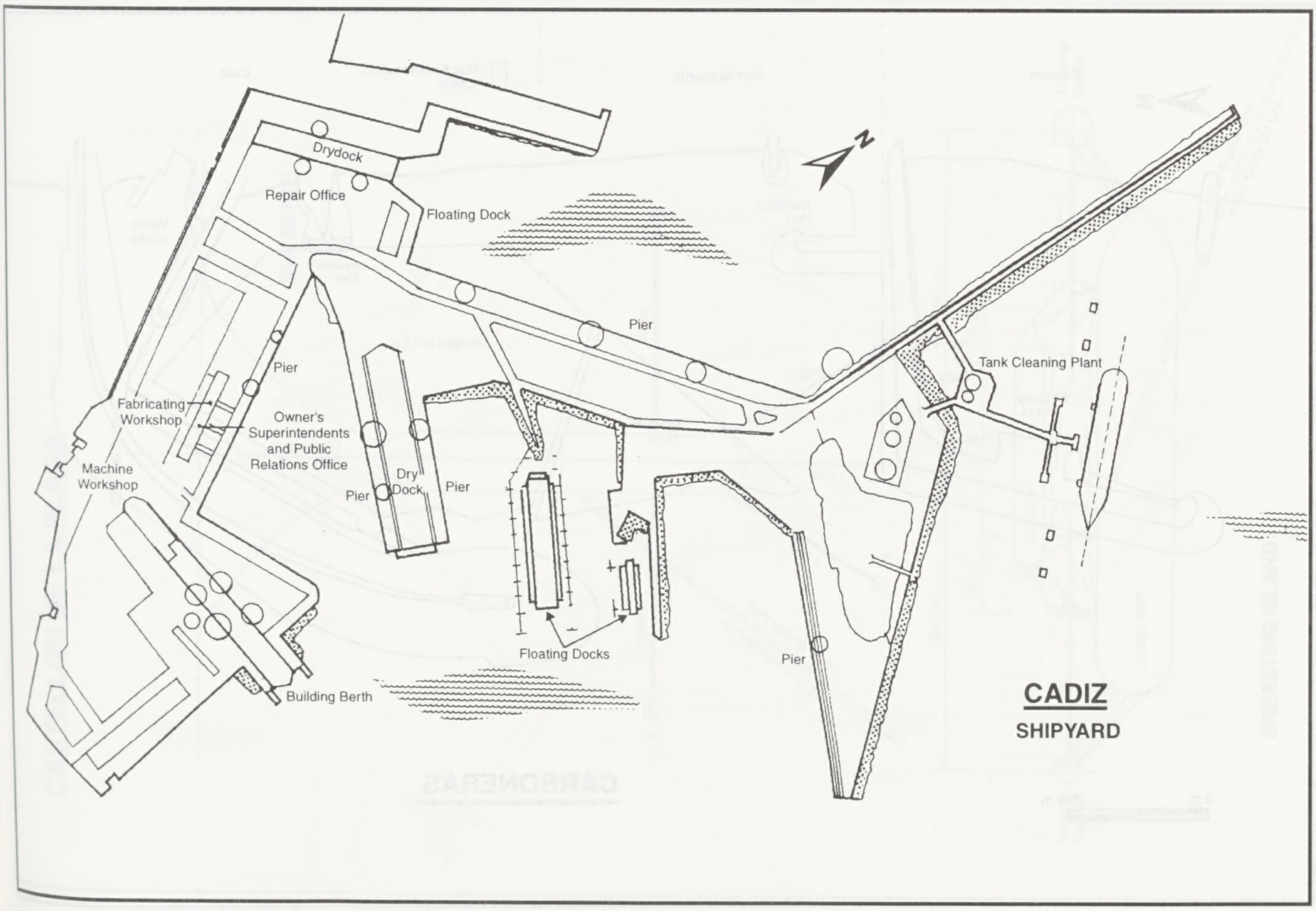

CADIZ
PUERTO SANTA MARIA (1)
X
River Guadalete
– 5m.
Leading Line
– 6m.
6/15t.
8t.
6t.
Exterior Wharf
Future Expansion
0
50
100
150
SCALE OF METRES
X



CADIZ

PUERTO SANTA MARIA (2)

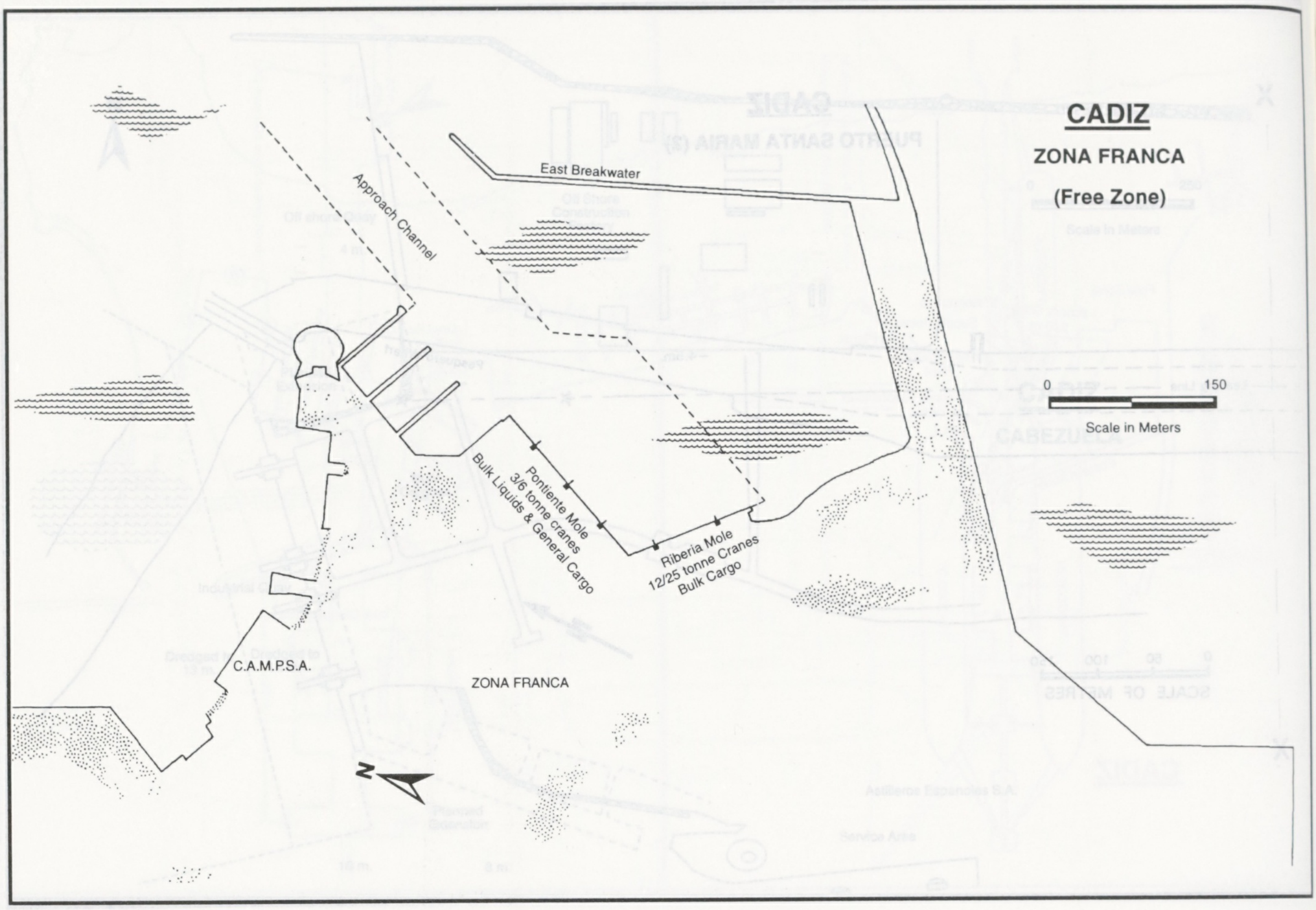
X
X
-4.5m.
Pesquero Wharf
Leading Line
0
50
100
150
SCALE OF METRES
N

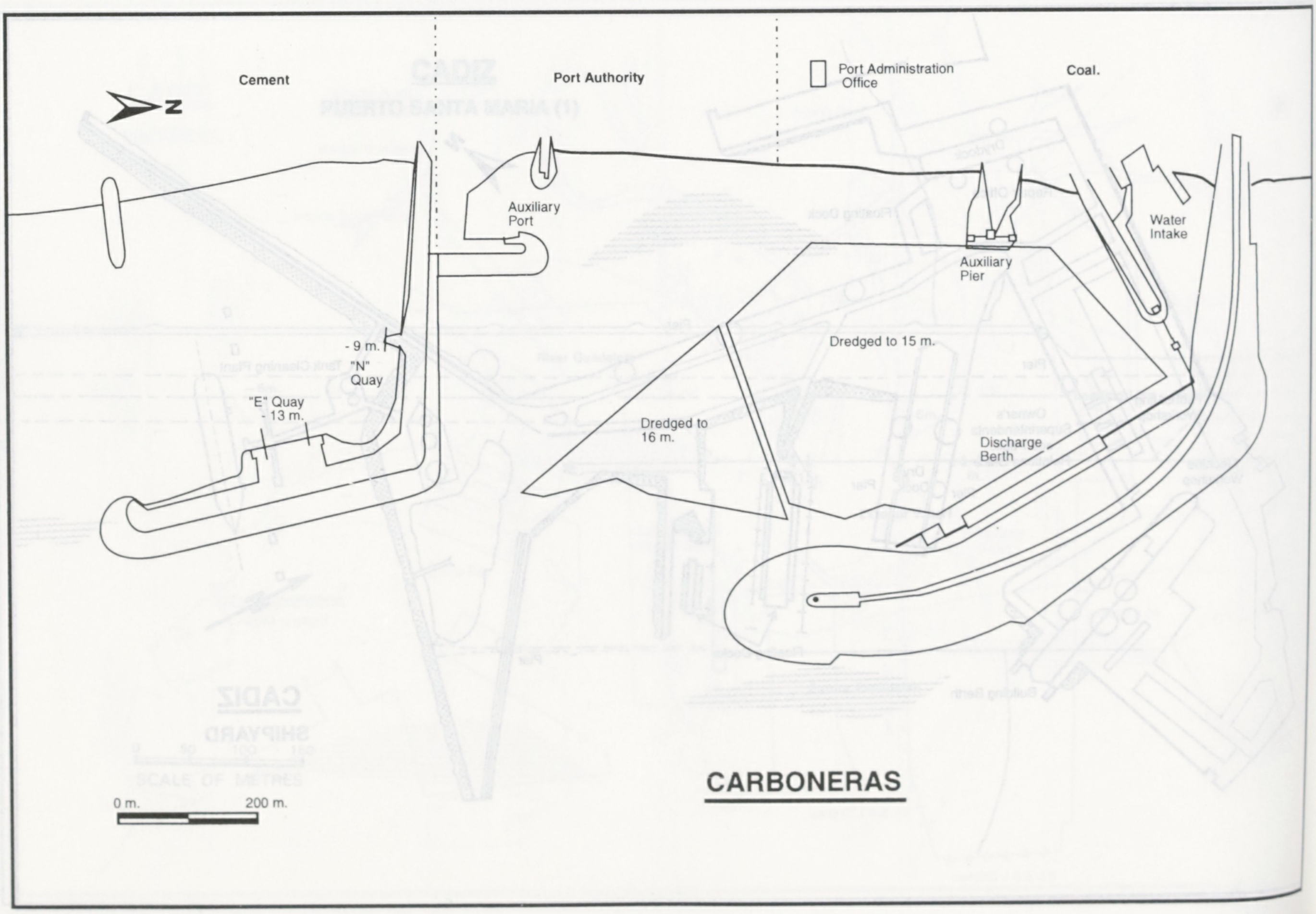


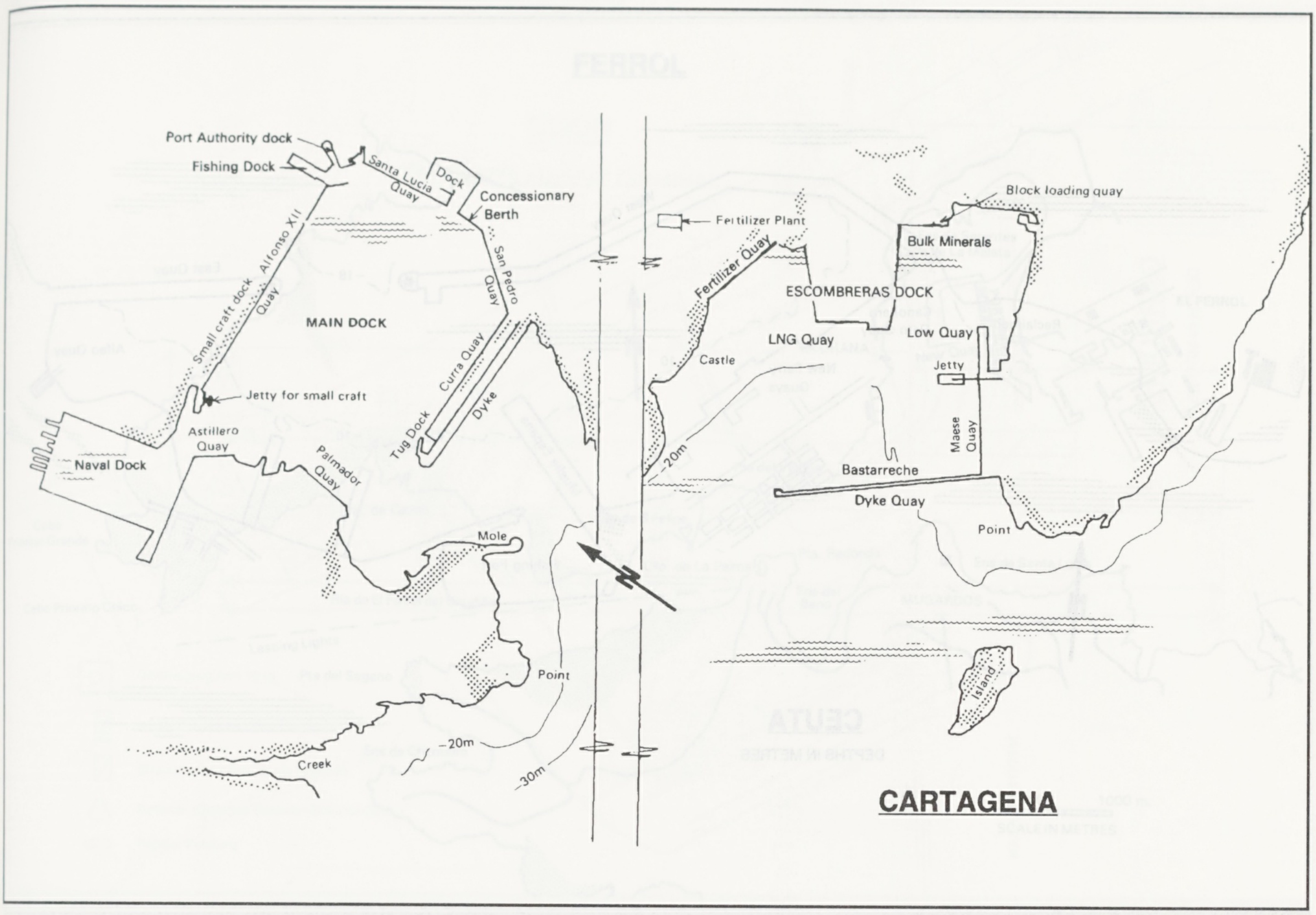
CADIZ

SHIPYARD

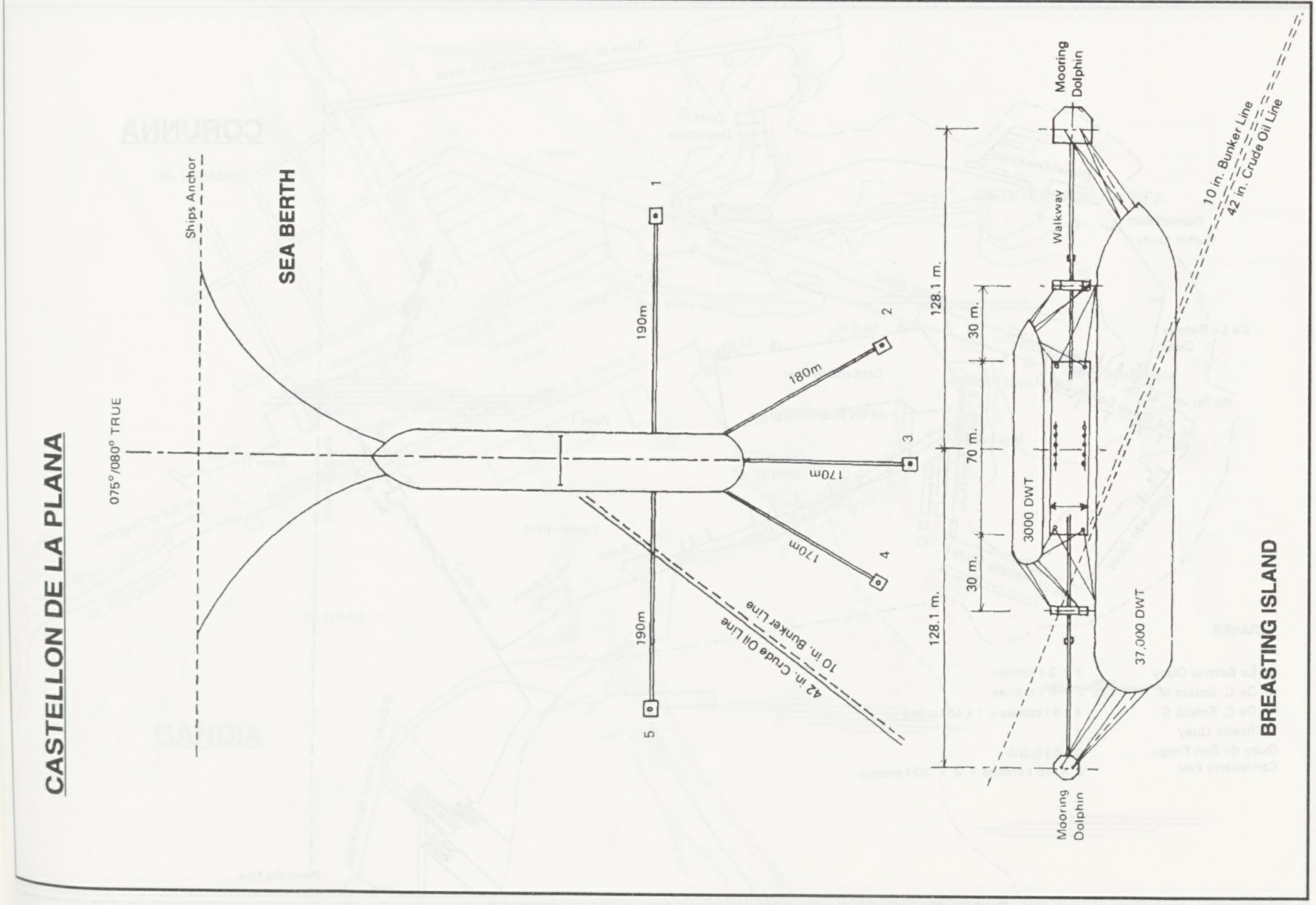
N
Drydock
Repair Office
Floating Dock
Pier
Pier
Fabricating Workshop
Owner's Superintendents and Public Relations Office
Machine Workshop
Pier
Dry Dock
Pier
Floating Docks
Building Berth
Tank Cleaning Plant
Pier


CADIZ
ZONA FRANCA
(Free Zone)
0
150
Scale in Meters
East Breakwater
Approach Channel
Pontiente Mole
3/6 tonne cranes
Bulk Liquids & General Cargo
Riberia Mole
12/25 tonne Cranes
Bulk Cargo
C.A.M.P.S.A.
ZONA FRANCA
N

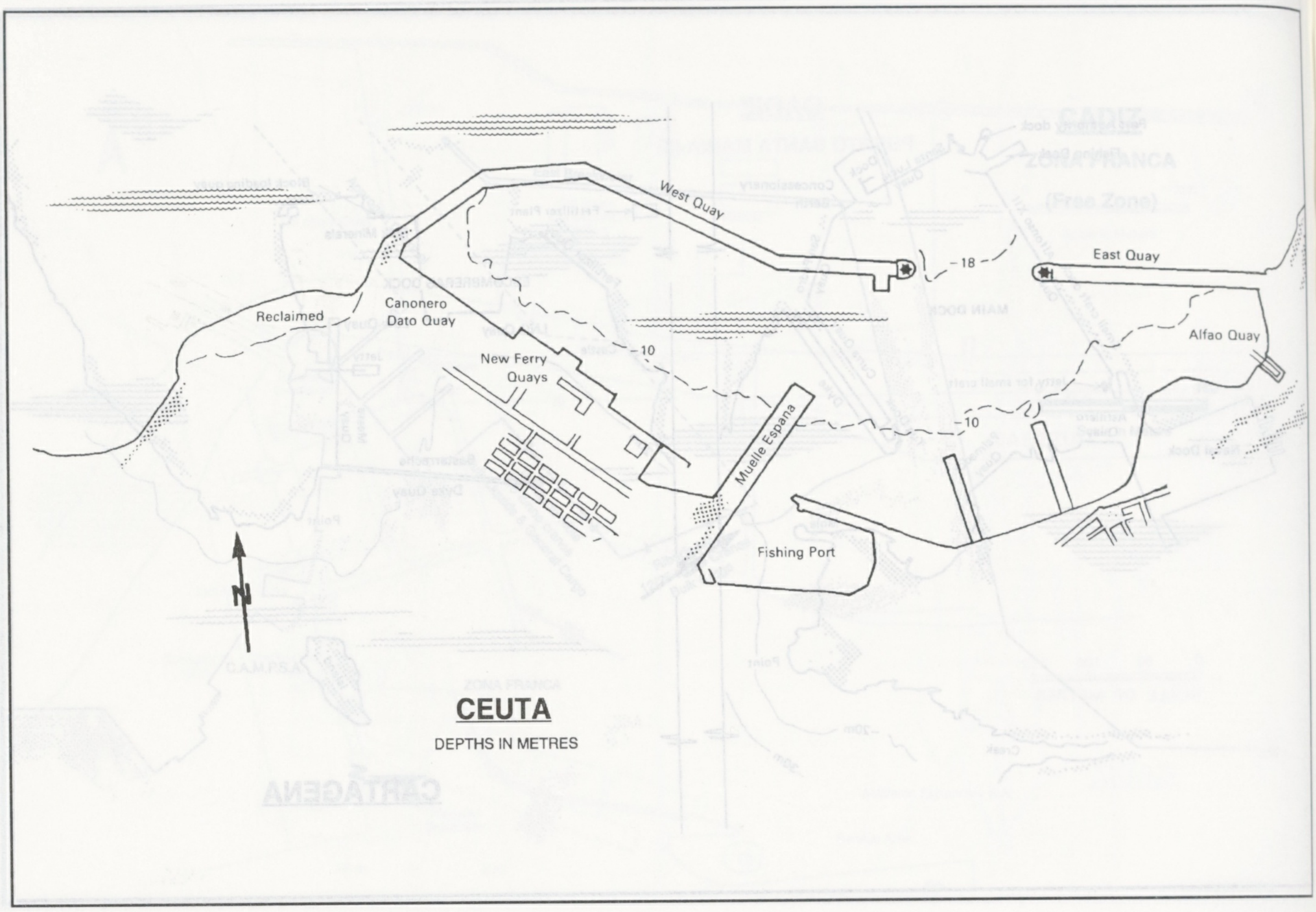

Cement
Port Authority
Port Administration Office
Coal.
N
Auxiliary Port
Auxiliary Pier
Water Intake
Dredged to 15 m.
- 9 m.
"N" Quay
"E" Quay
- 13 m.
Dredged to 16 m.
Discharge Berth
CARBONERAS
0 m.
200 m.

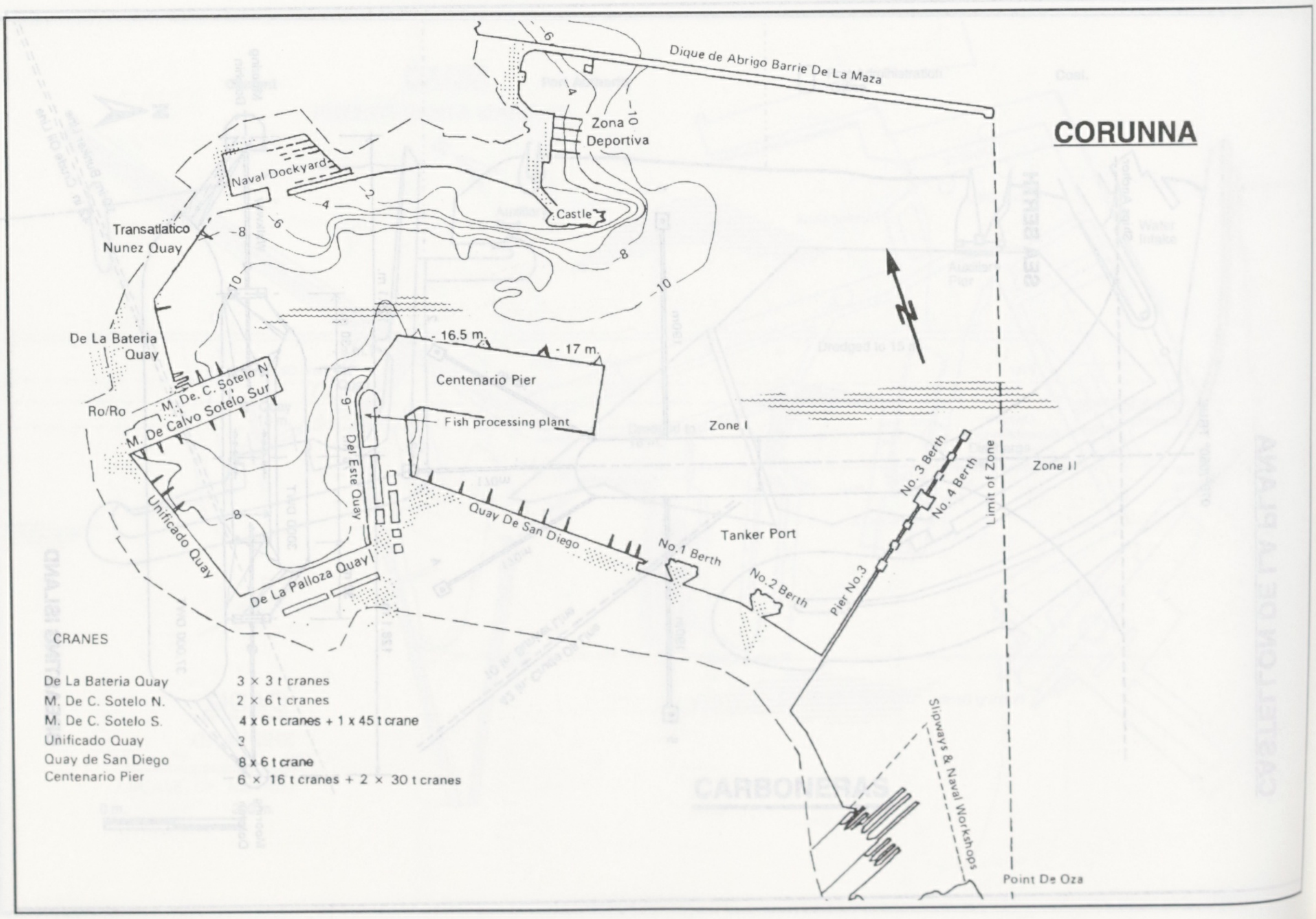

CARTAGENA

Port Authority dock
Fishing Dock
Santa Lucia Quay
Dock
Concessionary Berth
Alfonso XII Quay
Small craft dock
San Pedro Quay
MAIN DOCK
Curra Quay
Dyke
Tug Dock
Jetty for small craft
Astillero Quay
Naval Dock
Palmador Quay
Mole
Point
-20m
-30m
Creek
Fertilizer Plant
Fertilizer Quay
Block loading quay
Bulk Minerals
ESCOMBRERAS DOCK
LNG Quay
Castle
Low Quay
Jetty
Maese Quay
-20m
Bastarreche
Dyke Quay
Point
Island


CASTELLON DE LA PLANA

075°/080° TRUE
Ships Anchor
SEA BERTH
1
2
3
4
5
190m
180m
170m
170m
190m
10 in. Bunker Line
42 in. Crude Oil Line
BREASTING ISLAND
Mooring Dolphin
Mooring Dolphin
Walkway
128.1 m.
128.1 m.
30 m.
70 m.
30 m.
3000 DWT
37,000 DWT
10 in. Bunker Line
42 in. Crude Oil Line

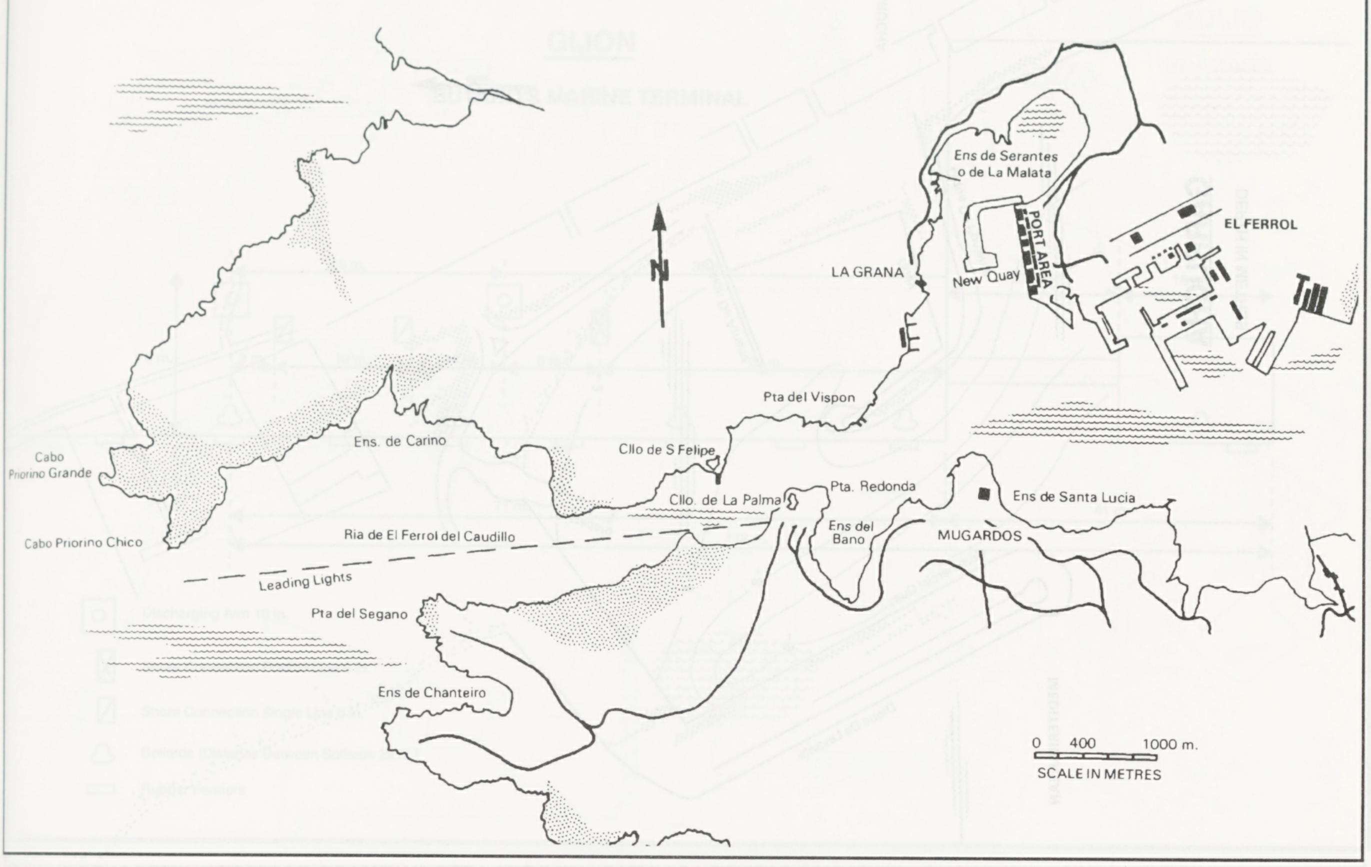

West Quay
East Quay
18
Alfao Quay
Reclaimed
Canonero Dato Quay
New Ferry Quays
10
10
Muelle Espana
Fishing Port
N
CEUTA
DEPTHS IN METRES


Dique de Abrigo Barrie De La Maza
CORUNNA
6
4
10
Zona Deportiva
Naval Dockyard
2
4
6
8
Castle
8
10
Transatlatico Nunez Quay
10
De La Bateria Quay
16.5 m.
17 m.
Centenario Pier
N
M. De. C. Sotelo N.
M. De Calvo Sotelo Sur
Ro/Ro
9
Fish processing plant
Zone I
Del Este Quay
8
Unificado Quay
Quay De San Diego
No. 3 Berth
No. 4 Berth
Limit of Zone
Zone II
Tanker Port
No.1 Berth
No.2 Berth
Pier No.3
De La Palloza Quay
Slipways & Naval Workshops
Point De Oza

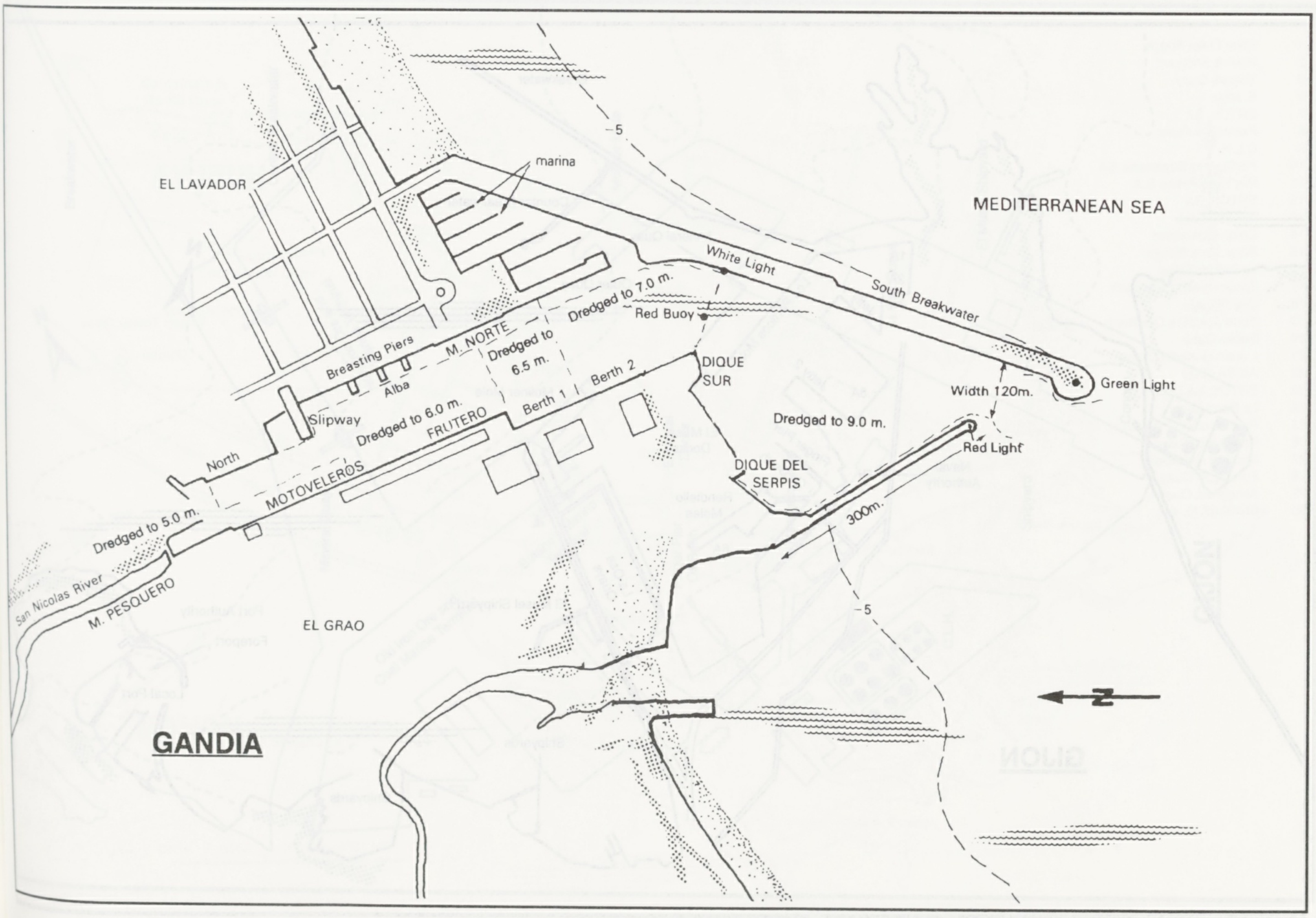
CRANES

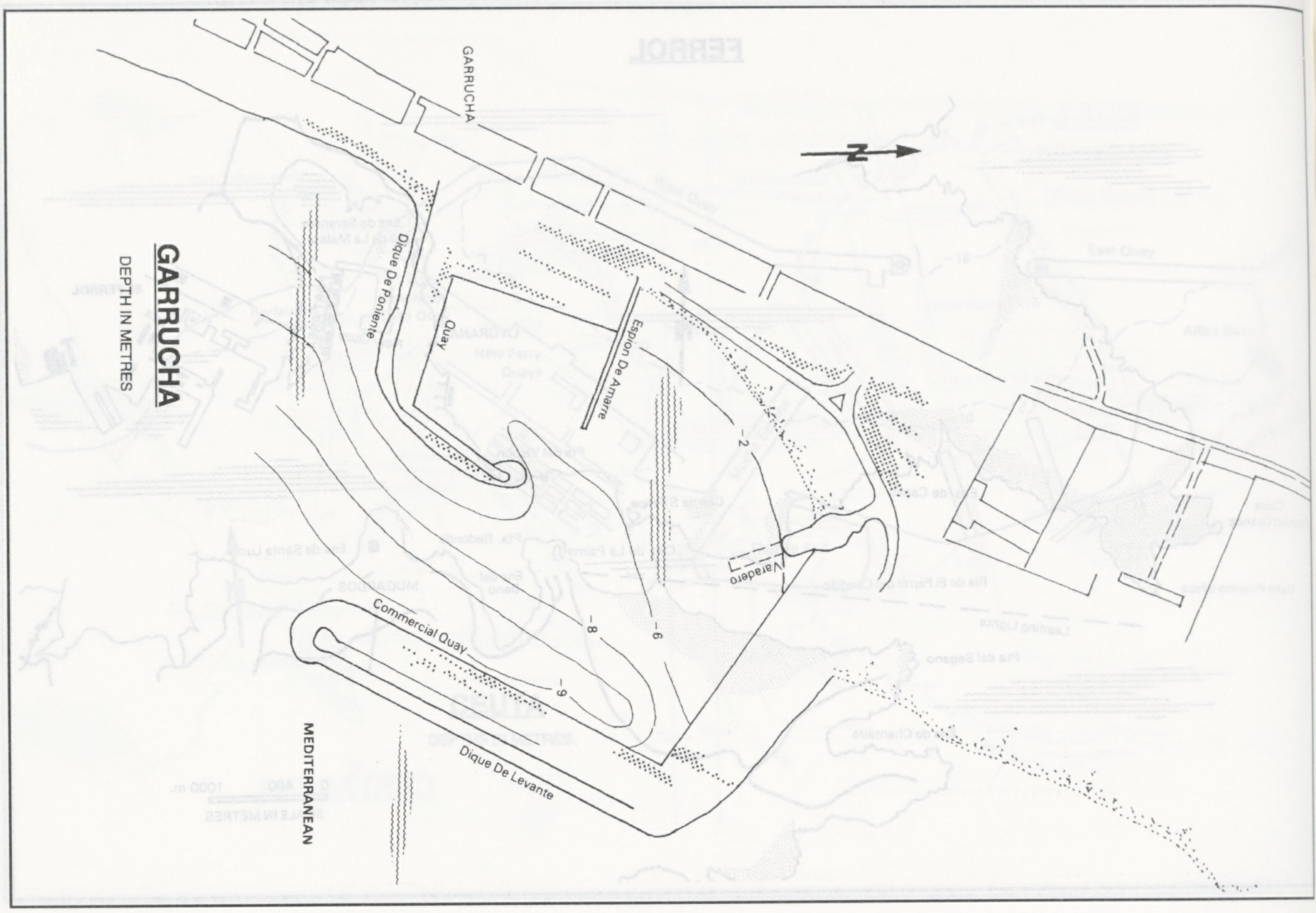
De La Bateria Quay	3 × 3 t cranes
M. De C. Sotelo N.	2 × 6 t cranes
M. De C. Sotelo S.	4 x 6 t cranes + 1 x 45 t crane
Unificado Quay	3
Quay de San Diego	8 x 6 t crane
Centenario Pier	6 × 16 t cranes + 2 × 30 t cranes

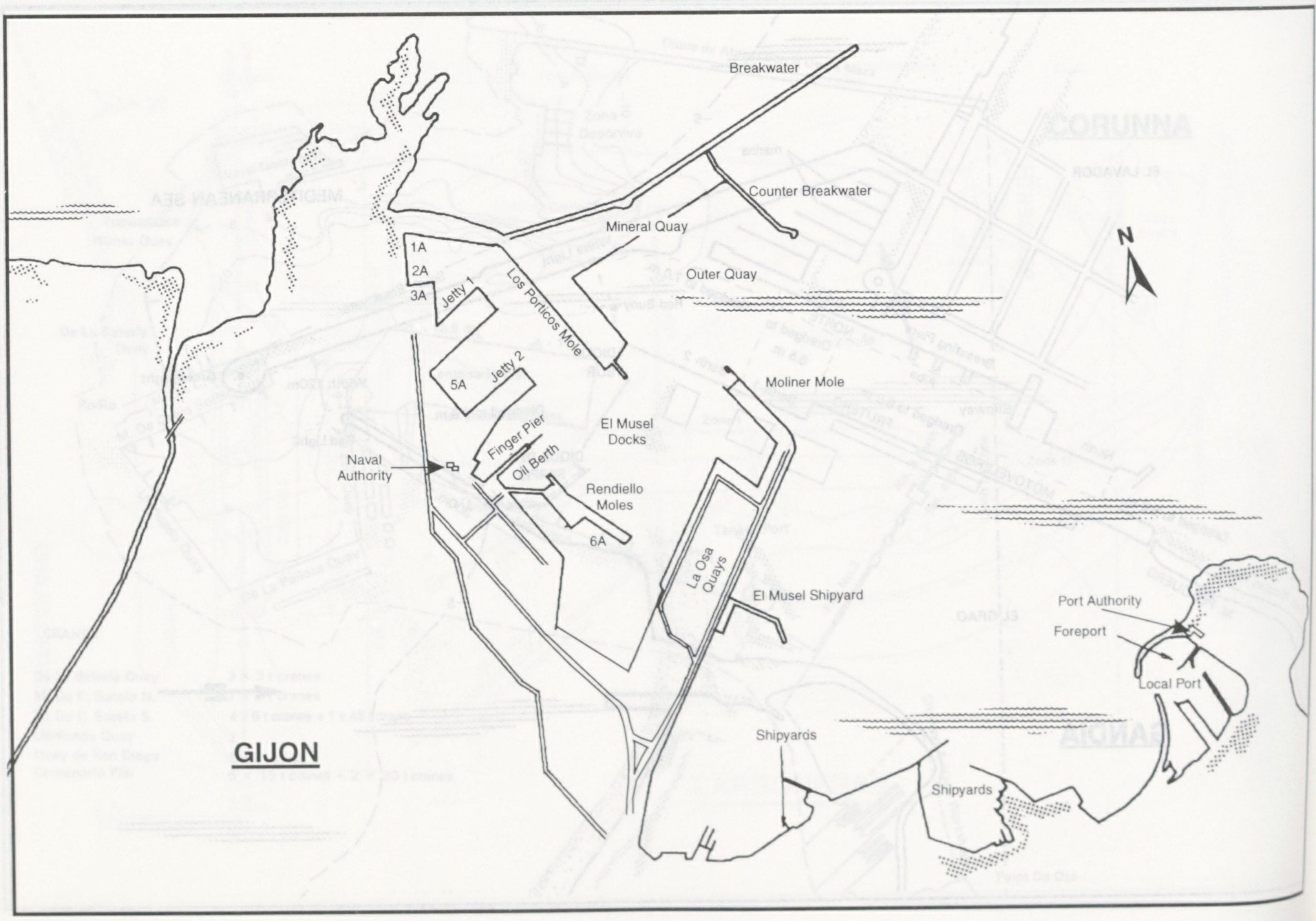
FERROL


Ens de Serantes
o de La Malata
PORT AREA
EL FERROL
LA GRANA
New Quay
N
Pta del Vispon
Ens. de Carino
Cllo de S Felipe
Cabo
Priorino Grande
Cllo. de La Palma
Pta. Redonda
Ens de Santa Lucia
Cabo Priorino Chico
Ria de El Ferrol del Caudillo
Ens del
Bano
MUGARDOS
Leading Lights
Pta del Segano
Ens de Chanteiro
0 400 1000 m.
SCALE IN METRES

GANDIA

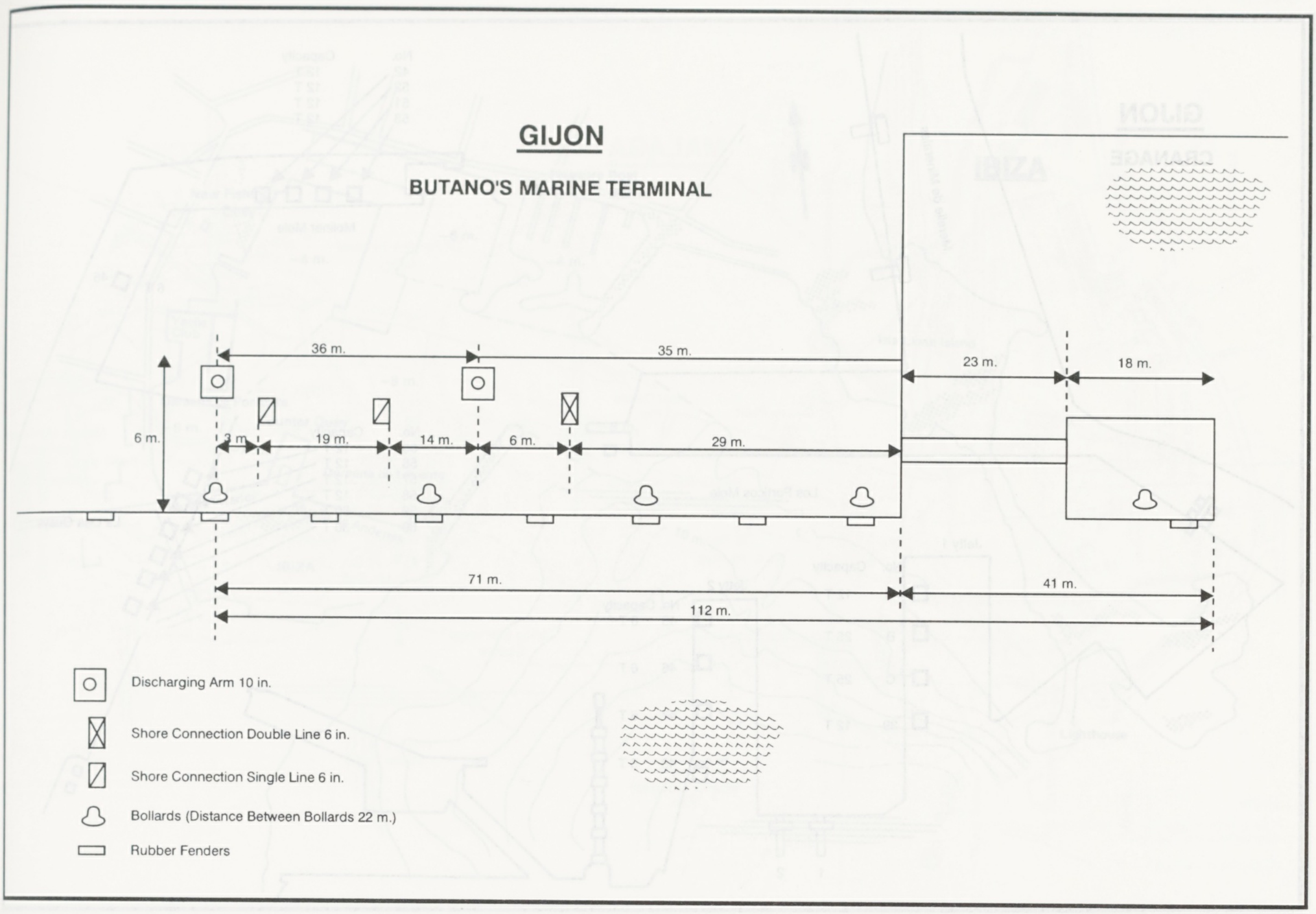

-5
marina
EL LAVADOR
MEDITERRANEAN SEA
White Light
South Breakwater
Dredged to 7.0 m.
Red Buoy
M. NORTE
Dredged to
6.5 m.
Breasting Piers
DIQUE
SUR
Green Light
Alba
Berth 2
Width 120m.
Berth 1
Slipway
Dredged to 6.0 m.
FRUTERO
Dredged to 9.0 m.
North
Red Light
MOTOVELEROS
DIQUE DEL
SERPIS
Dredged to 5.0 m.
300m.
San Nicolas River
M. PESQUERO
EL GRAO
-5
N

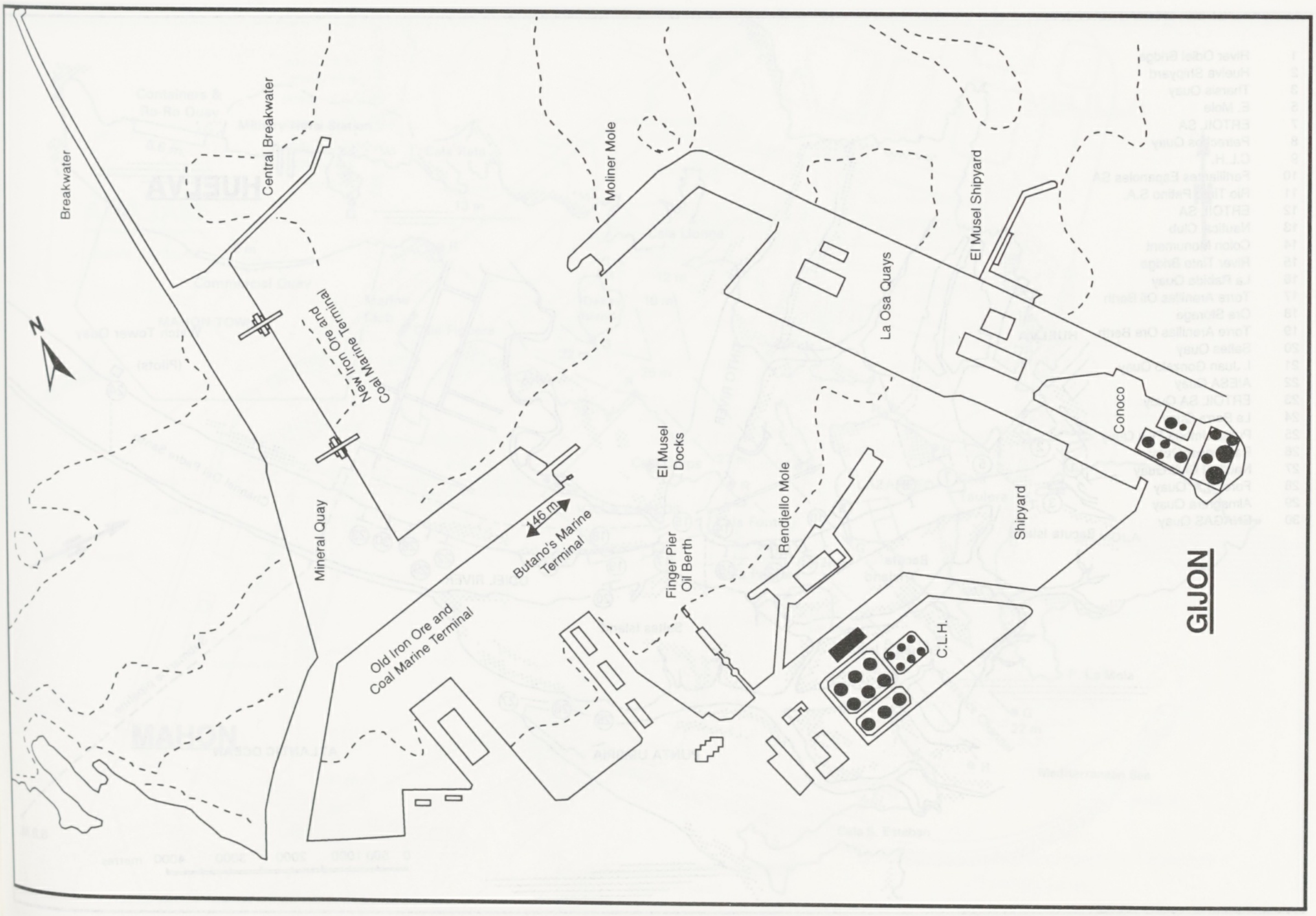

GARRUCHA
DEPTH IN METRES
GARRUCHA
N
Dique De Poniente
Quay
Espion De Amarre
–2
Varadero
Commercial Quay
–8
–6
–9
Dique De Levante
MEDITERRANEAN

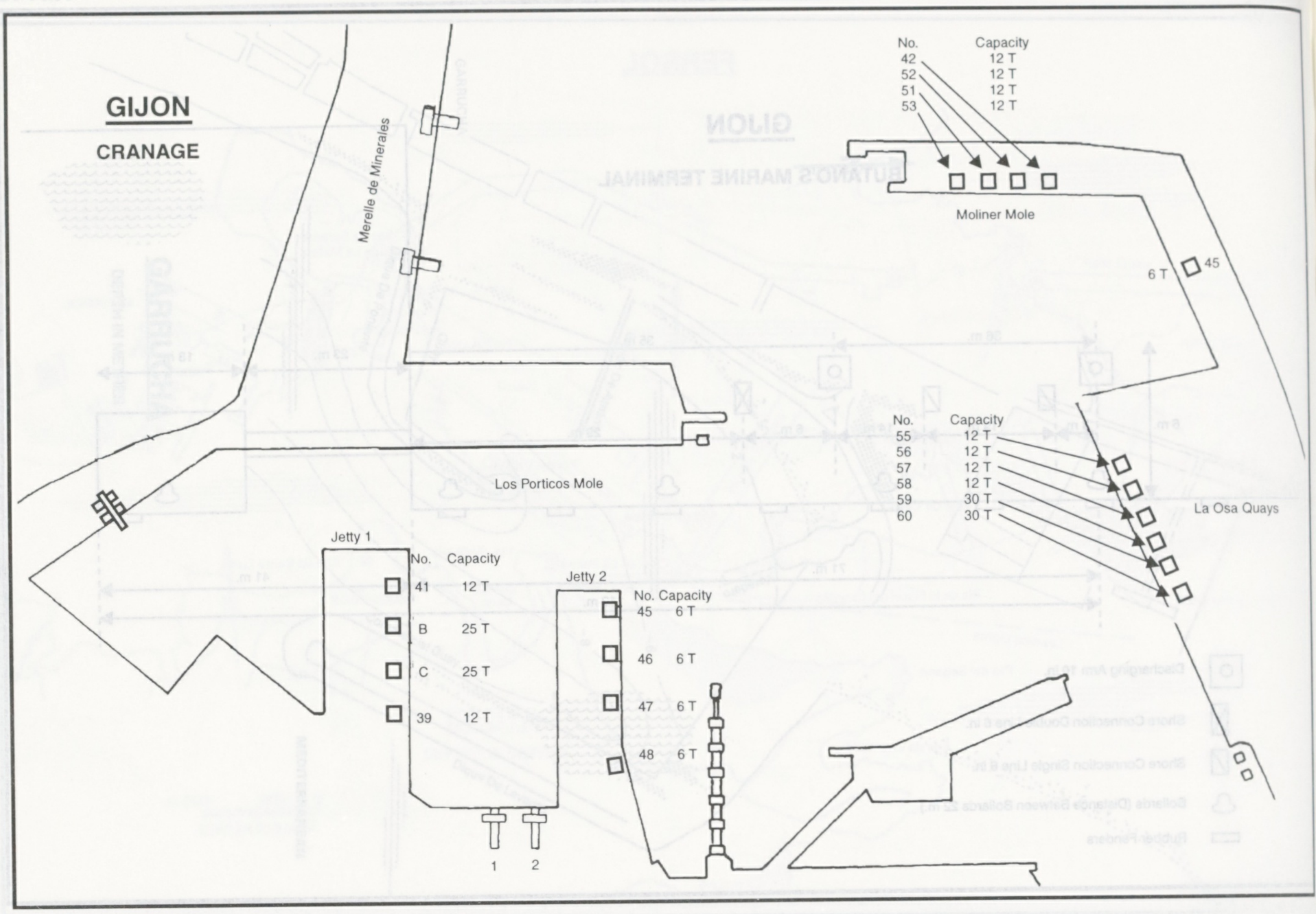

Breakwater
Counter Breakwater
Mineral Quay
Outer Quay
1A
2A
3A
Jetty 1
Los Porticos Mole
Jetty 2
5A
Moliner Mole
El Musel Docks
Finger Pier
Oil Berth
Naval Authority
Rendiello Moles
6A
La Osa Quays
El Musel Shipyard
N
Port Authority
Foreport
Local Port
Shipyards
Shipyards
GIJON

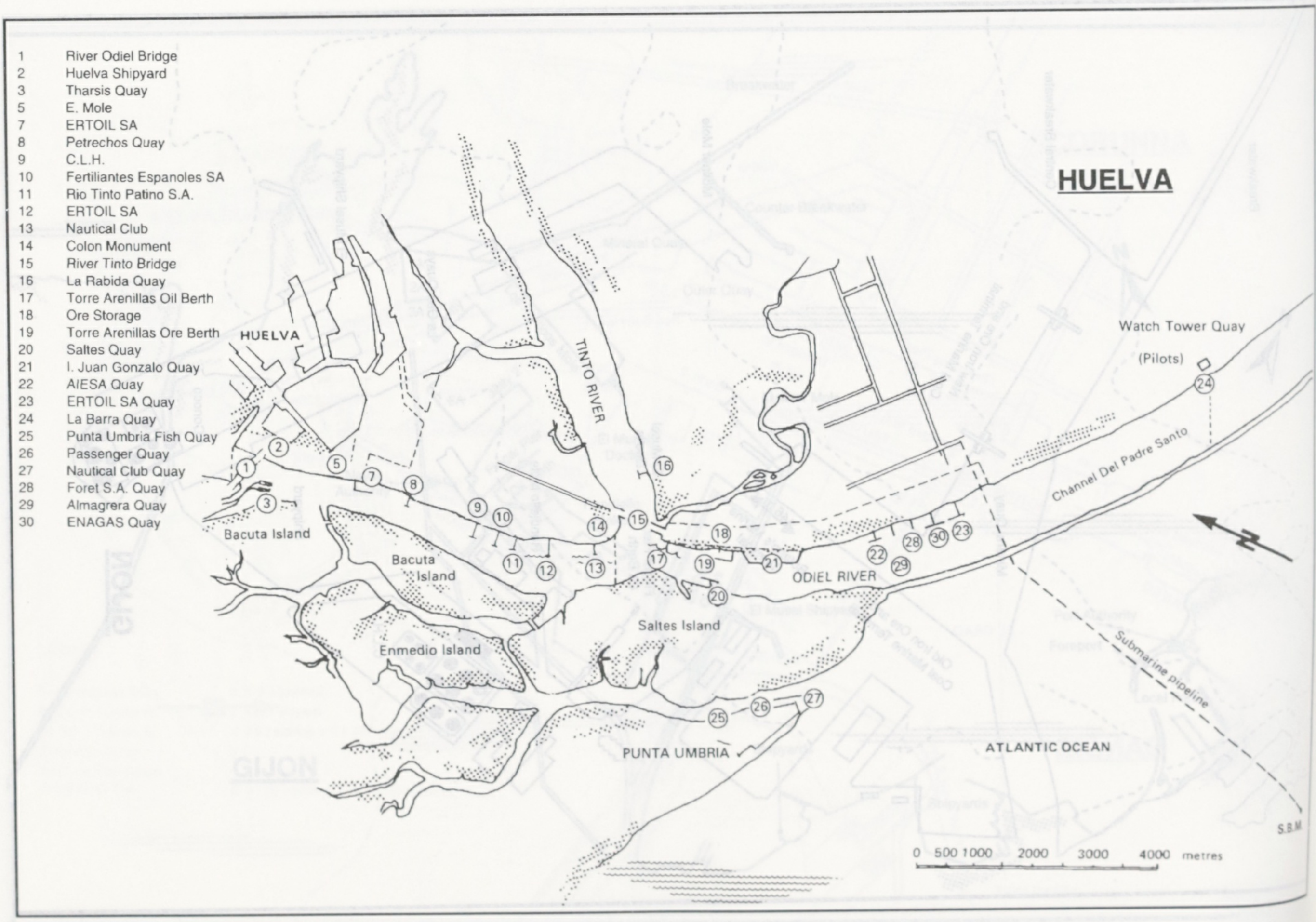
GIJON

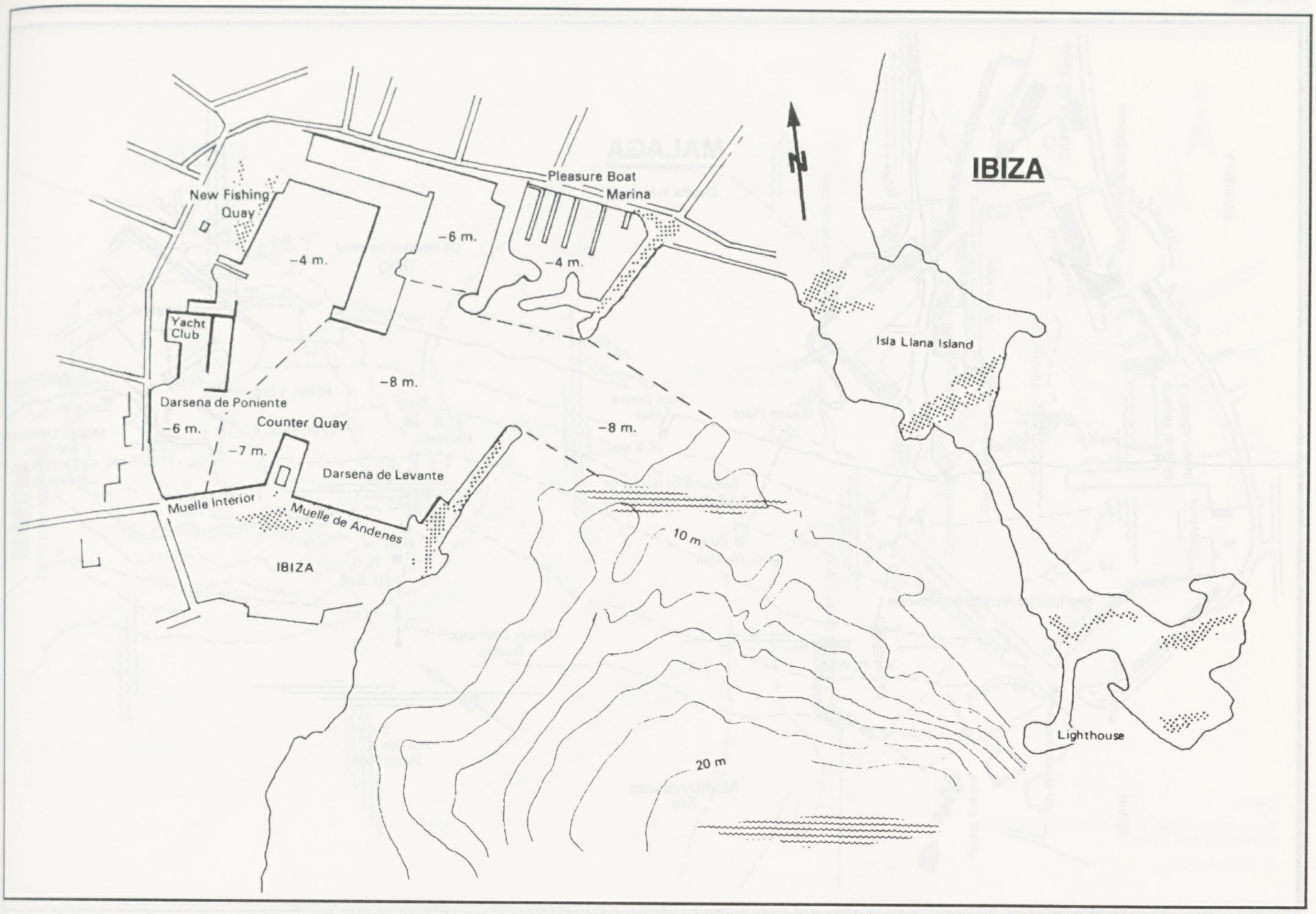
BUTANO'S MARINE TERMINAL

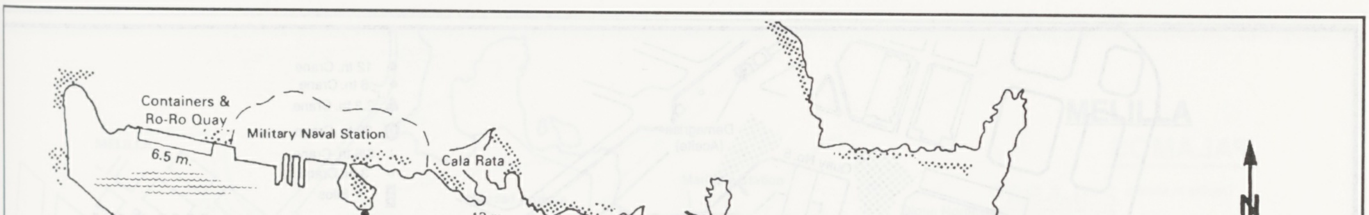

36 m.
35 m.
23 m.
18 m.
6 m.
3 m.
19 m.
14 m.
6 m.
29 m.
71 m.
41 m.
112 m.
Discharging Arm 10 in.
Shore Connection Double Line 6 in.
Shore Connection Single Line 6 in.
Bollards (Distance Between Bollards 22 m.)
Rubber Fenders

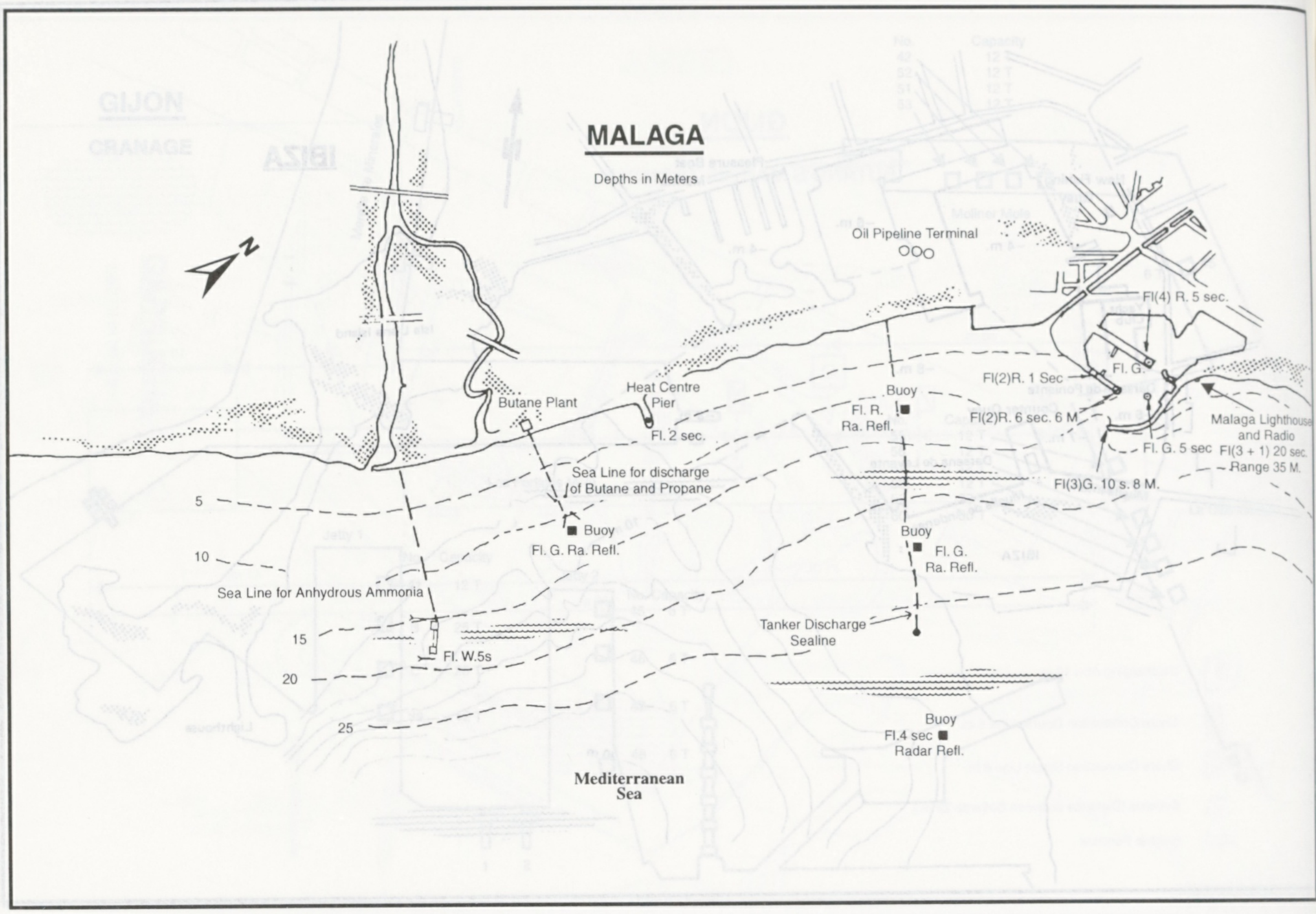

Breakwater
Central Breakwater
N
New Iron Ore and Coal Marine Terminal
Mineral Quay
Moliner Mole
El Musel Docks
146 m.
Butano's Marine Terminal
Old Iron Ore and Coal Marine Terminal
Finger Pier Oil Berth
Rendjello Mole
La Osa Quays
El Musel Shipyard
Conoco
Shipyard
C.L.H.
GIJON

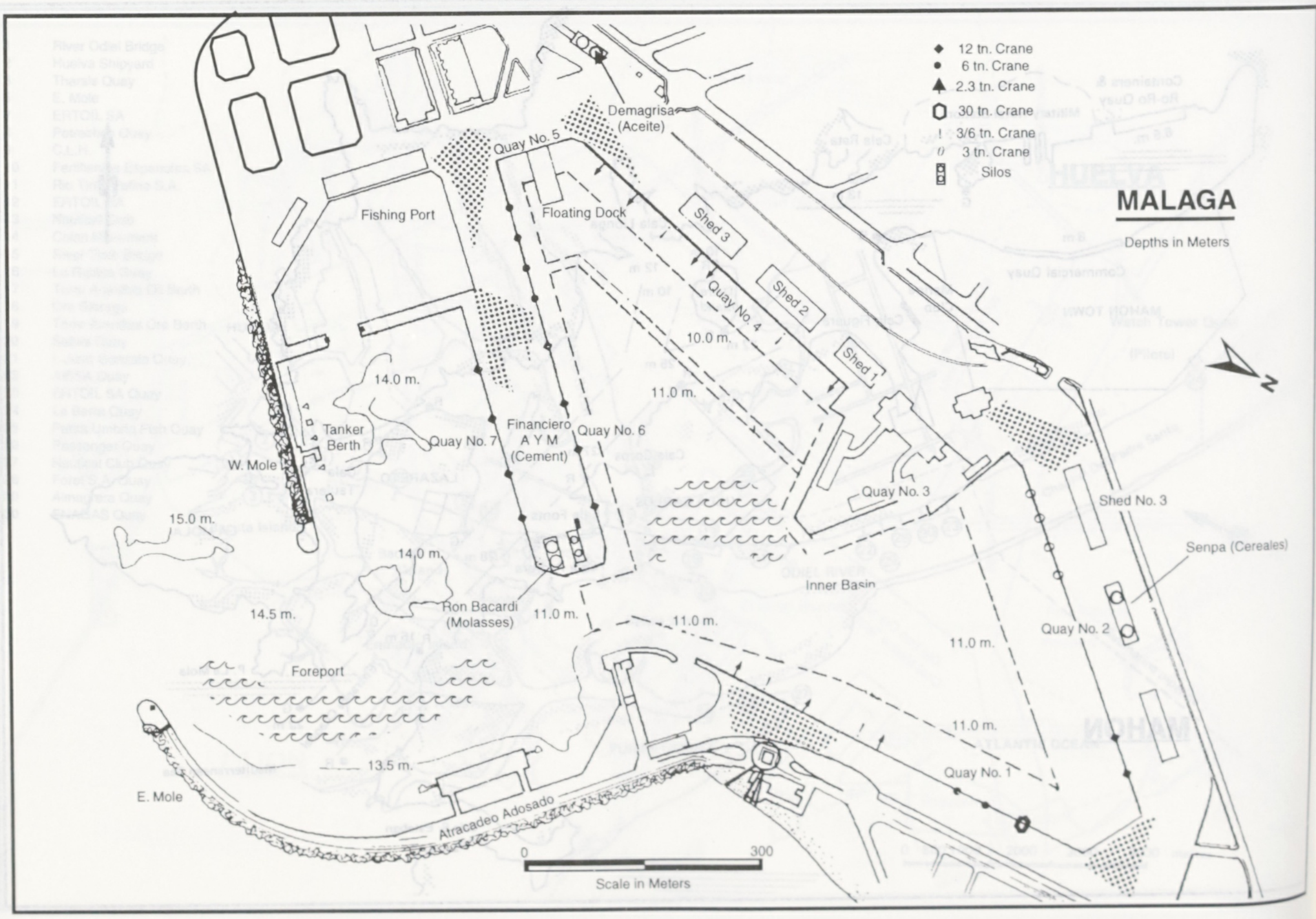

GIJON
CRANAGE
Merelle de Minerales
No. Capacity
42 12 T
52 12 T
51 12 T
53 12 T
Moliner Mole
6 T
45
Los Porticos Mole
No. Capacity
55 12 T
56 12 T
57 12 T
58 12 T
59 30 T
60 30 T
La Osa Quays
Jetty 1
No. Capacity
41 12 T
B 25 T
C 25 T
39 12 T
Jetty 2
No. Capacity
45 6 T
46 6 T
47 6 T
48 6 T
1
2

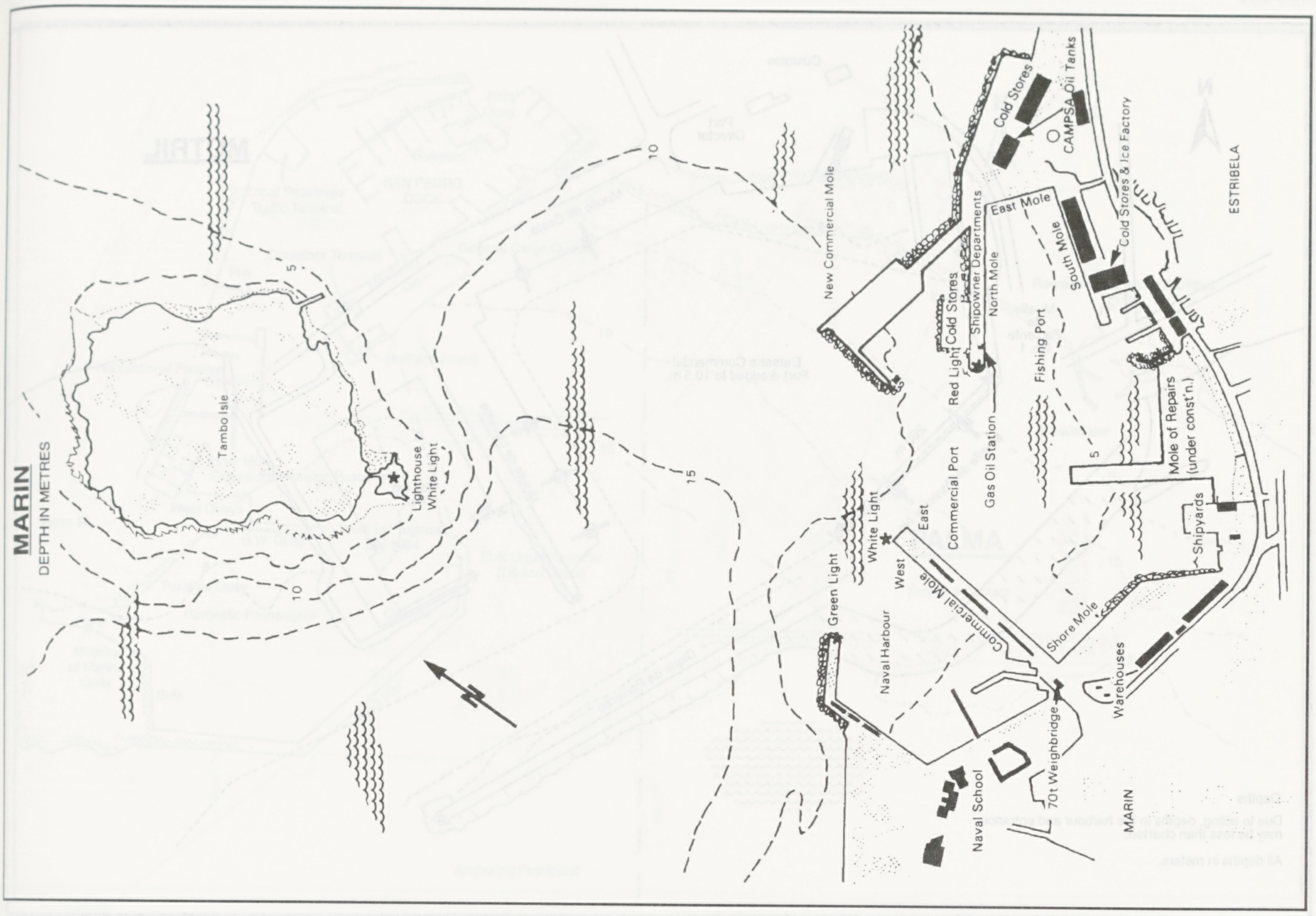

1 River Odiel Bridge
2 Huelva Shipyard
3 Tharsis Quay
5 E. Mole
7 ERTOIL SA
8 Petrechos Quay
9 C.L.H.
10 Fertiliantes Espanoles SA
11 Rio Tinto Patino S.A.
12 ERTOIL SA
13 Nautical Club
14 Colon Monument
15 River Tinto Bridge
16 La Rabida Quay
17 Torre Arenillas Oil Berth
18 Ore Storage
19 Torre Arenillas Ore Berth
20 Saltes Quay
21 I. Juan Gonzalo Quay
22 AIESA Quay
23 ERTOIL SA Quay
24 La Barra Quay
25 Punta Umbria Fish Quay
26 Passenger Quay
27 Nautical Club Quay
28 Foret S.A. Quay
29 Almagrera Quay
30 ENAGAS Quay
HUELVA
HUELVA
TINTO RIVER
Bacuta Island
Bacuta Island
Enmedio Island
Saltes Island
ODIEL RIVER
PUNTA UMBRIA
ATLANTIC OCEAN
Watch Tower Quay
(Pilots)
Channel Del Padre Santo
Submarine pipeline
S.B.M.
0 500 1000 2000 3000 4000 metres

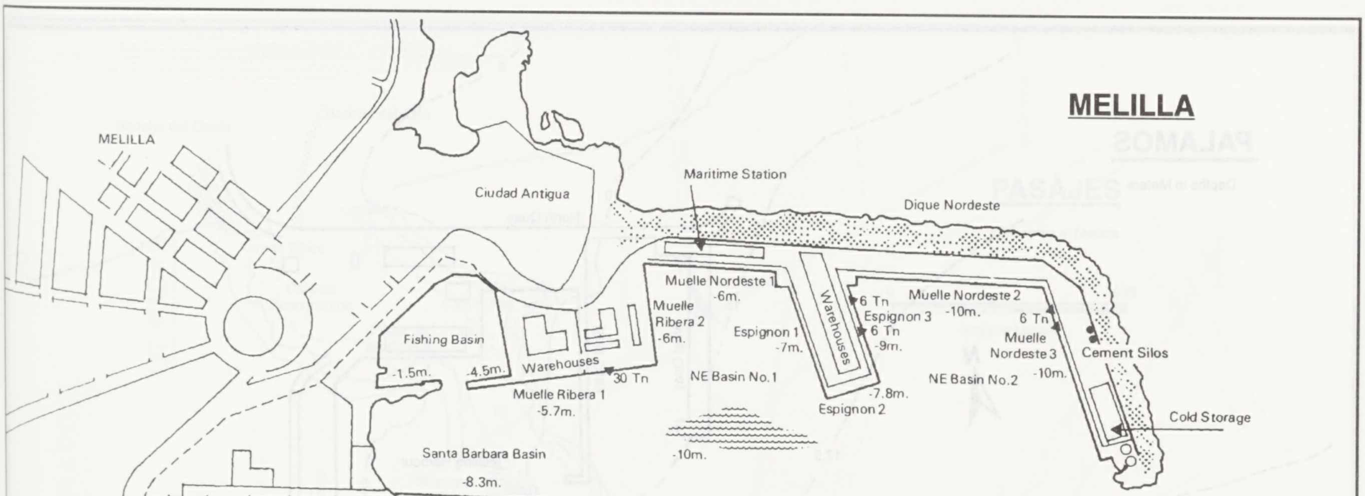

IBIZA
N
New Fishing Quay
Yacht Club
–4 m.
–6 m.
Pleasure Boat Marina
–4 m.
–8 m.
Darsena de Poniente
–6 m.
Counter Quay
–7 m.
–8 m.
Darsena de Levante
Muelle Interior
Muelle de Andenes
IBIZA
Isla Llana Island
10 m
20 m
Lighthouse


Containers & Ro-Ro Quay
Military Naval Station
6.5 m.
Cala Rata
G
13 m
8 m
R
Commercial Quay
MAHON TOWN
Marine Club
Cala Figuera
Cala Llonga
10 m
R
12 m
10 m
Delrey Island
G
22 m
25 m
R
Cala Corps
27 m
R
G
VILLA CARLOS
Cala Fonts
Cala Pedrera
R
R
LAZARETO
Cala Taulera
G
28 m
LA MOLA
G
R
16 m
Entrance Channel
P. La Mola
G
22 m
R
Mediterranean Sea
Cala S. Esteban
MAHON
N

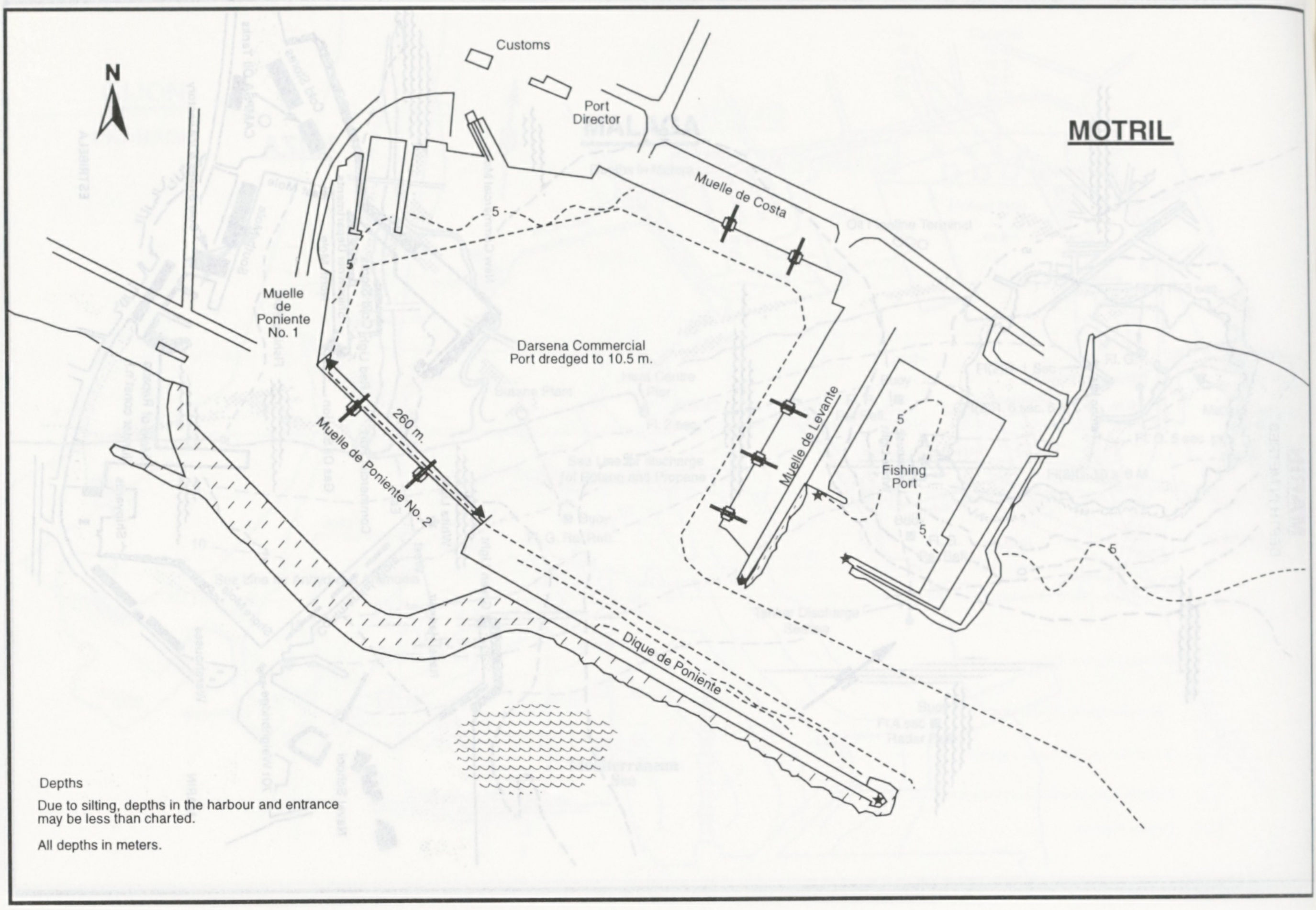

MALAGA
Depths in Meters
N
Oil Pipeline Terminal
Fl(4) R. 5 sec.
Fl. G.
Fl(2)R. 1 Sec
Fl(2)R. 6 sec. 6 M
Malaga Lighthouse and Radio
Fl(3 + 1) 20 sec.
Range 35 M.
Fl. G. 5 sec
Fl(3)G. 10 s. 8 M.
Buoy
Fl. R.
Ra. Refl.
Heat Centre Pier
Fl. 2 sec.
Butane Plant
Sea Line for discharge of Butane and Propane
Buoy
Fl. G. Ra. Refl.
5
10
Sea Line for Anhydrous Ammonia
15
Fl. W.5s
20
25
Buoy
Fl. G.
Ra. Refl.
Tanker Discharge Sealine
Buoy
Fl.4 sec
Radar Refl.
Mediterranean Sea


◆ 12 tn. Crane
• 6 tn. Crane
▲ 2.3 tn. Crane
⬡ 30 tn. Crane
! 3/6 tn. Crane
0 3 tn. Crane
Silos
MALAGA
Depths in Meters
N
Demagrisa (Aceite)
Quay No. 5
Fishing Port
Floating Dock
Shed 3
Shed 2
Shed 1
Quay No. 4
10.0 m.
11.0 m.
14.0 m.
Tanker Berth
Quay No. 7
Financiero A Y M (Cement)
Quay No. 6
W. Mole
Quay No. 3
Shed No. 3
Senpa (Cereales)
15.0 m.
14.0 m.
Inner Basin
Ron Bacardi (Molasses)
14.5 m.
11.0 m.
11.0 m.
11.0 m.
Quay No. 2
Foreport
11.0 m.
13.5 m.
Quay No. 1
E. Mole
Atracadeo Adosado
0
300
Scale in Meters


MARIN
DEPTH IN METRES
Tambo Isle
Lighthouse
White Light
5
10
15
New Commercial Mole
Red Light
Cold Stores
Shipowner Departments
North Mole
East Mole
Cold Stores
CAMPSA Oil Tanks
Cold Stores & Ice Factory
ESTRIBELA
South Mole
Fishing Port
Gas Oil Station
Commercial Port
East
West
Commercial Mole
White Light
Green Light
Naval Harbour
Shore Mole
Mole of Repairs (under const'n.)
Shipyards
Warehouses
70t Weighbridge
Naval School
MARIN


MELILLA
MELILLA
Ciudad Antigua
Maritime Station
Dique Nordeste
Muelle Nordeste 1
-6m.
Muelle Ribera 2
-6m.
Espignon 1
-7m.
Warehouses
6 Tn
Espignon 3
6 Tn
-9m.
Muelle Nordeste 2
-10m.
6 Tn
Muelle Nordeste 3
-10m.
Cement Silos
Fishing Basin
-1.5m.
-4.5m.
Warehouses
30 Tn
NE Basin No.1
-7.8m.
NE Basin No.2
Espignon 2
Muelle Ribera 1
-5.7m.
Cold Storage
Santa Barbara Basin
-8.3m.
-10m.
Ore Berth
San Lorenzo Beach
N
Mediterranean Sea

MOTRIL

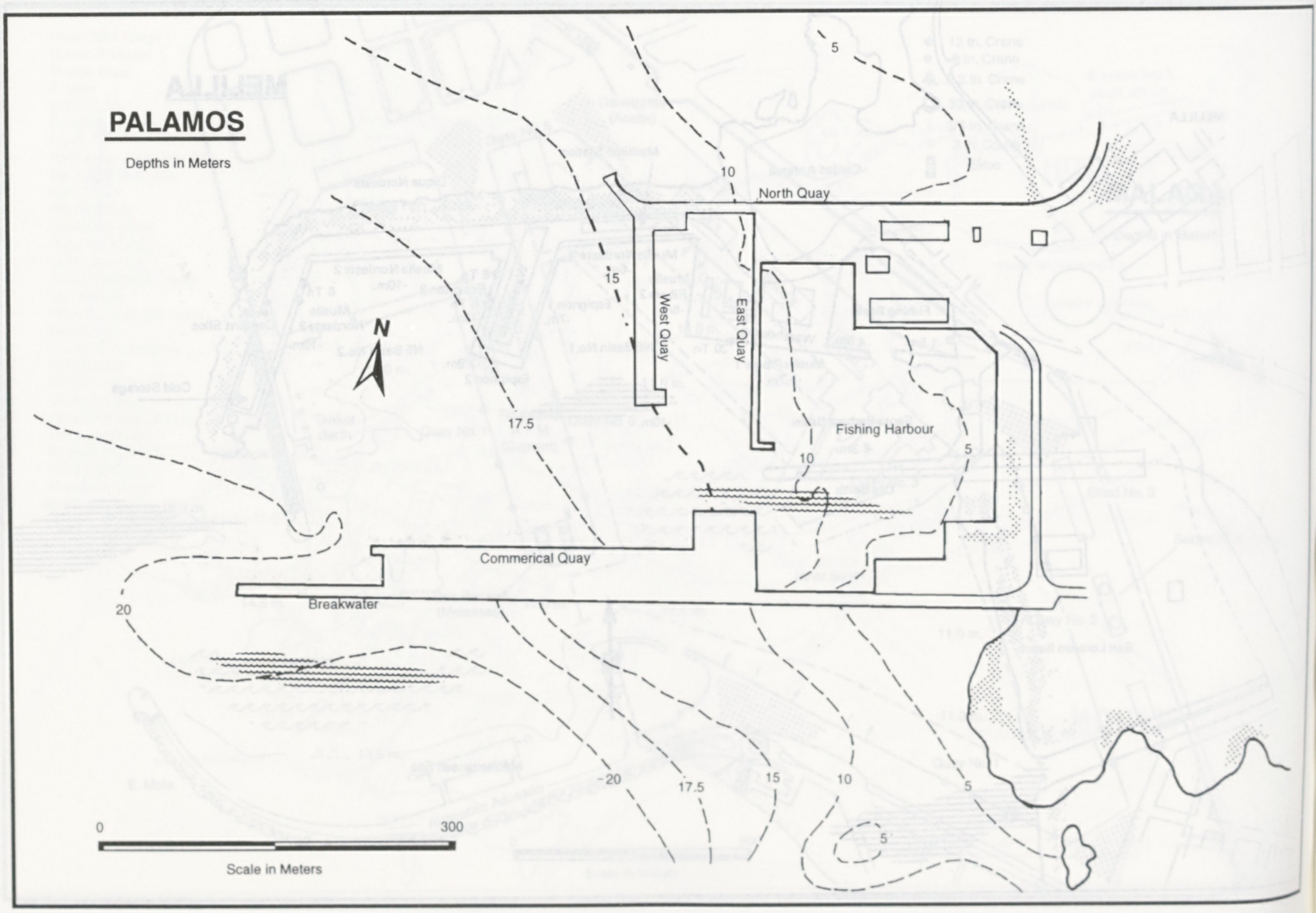

N
Customs
Port Director
Muelle de Costa
Muelle de Poniente No. 1
Darsena Commercial Port dredged to 10.5 m.
260 m.
Muelle de Poniente No. 2
Muelle de Levante
Fishing Port
Dique de Poniente
5
6

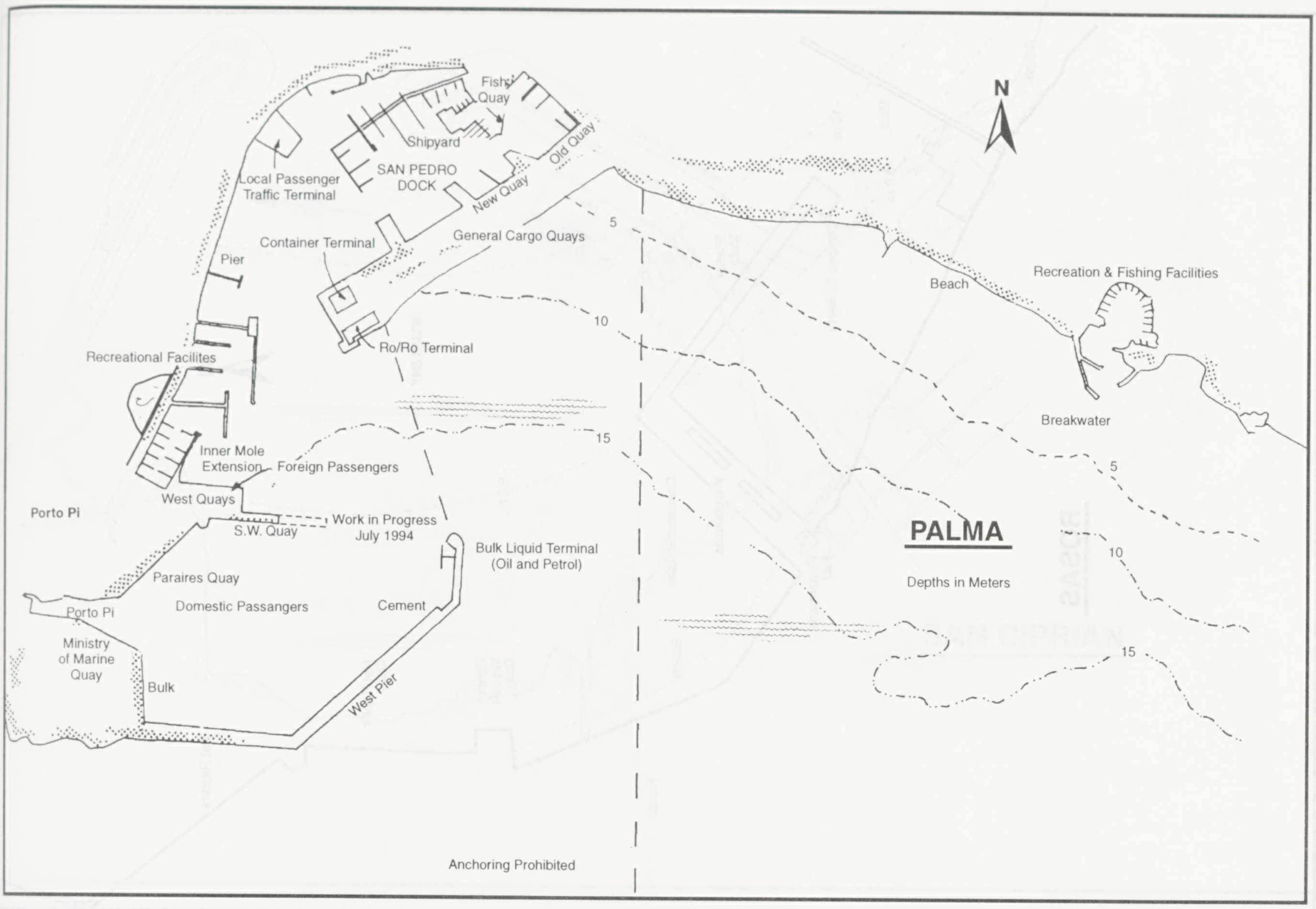
Depths

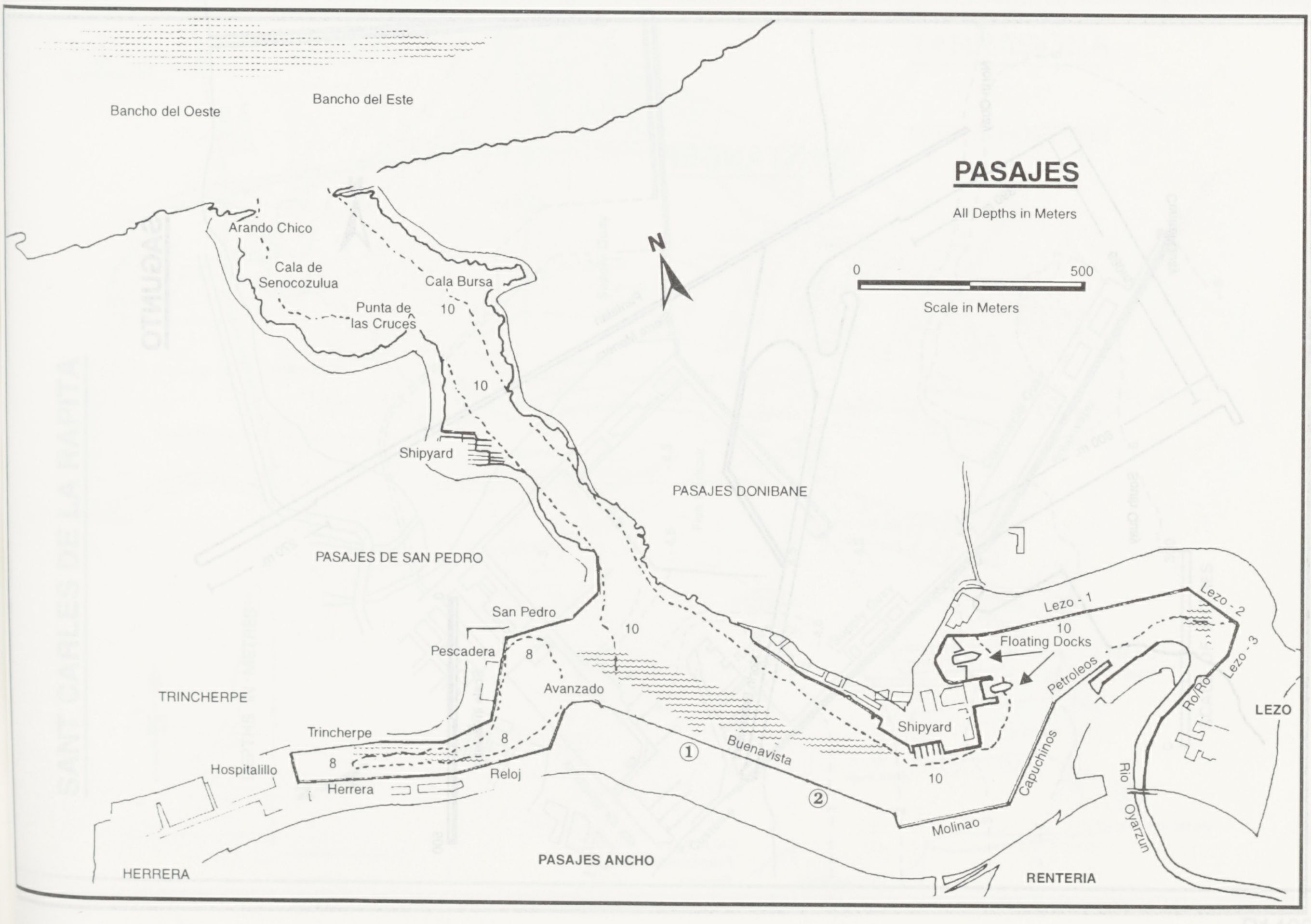
Due to silting, depths in the harbour and entrance may be less than charted.

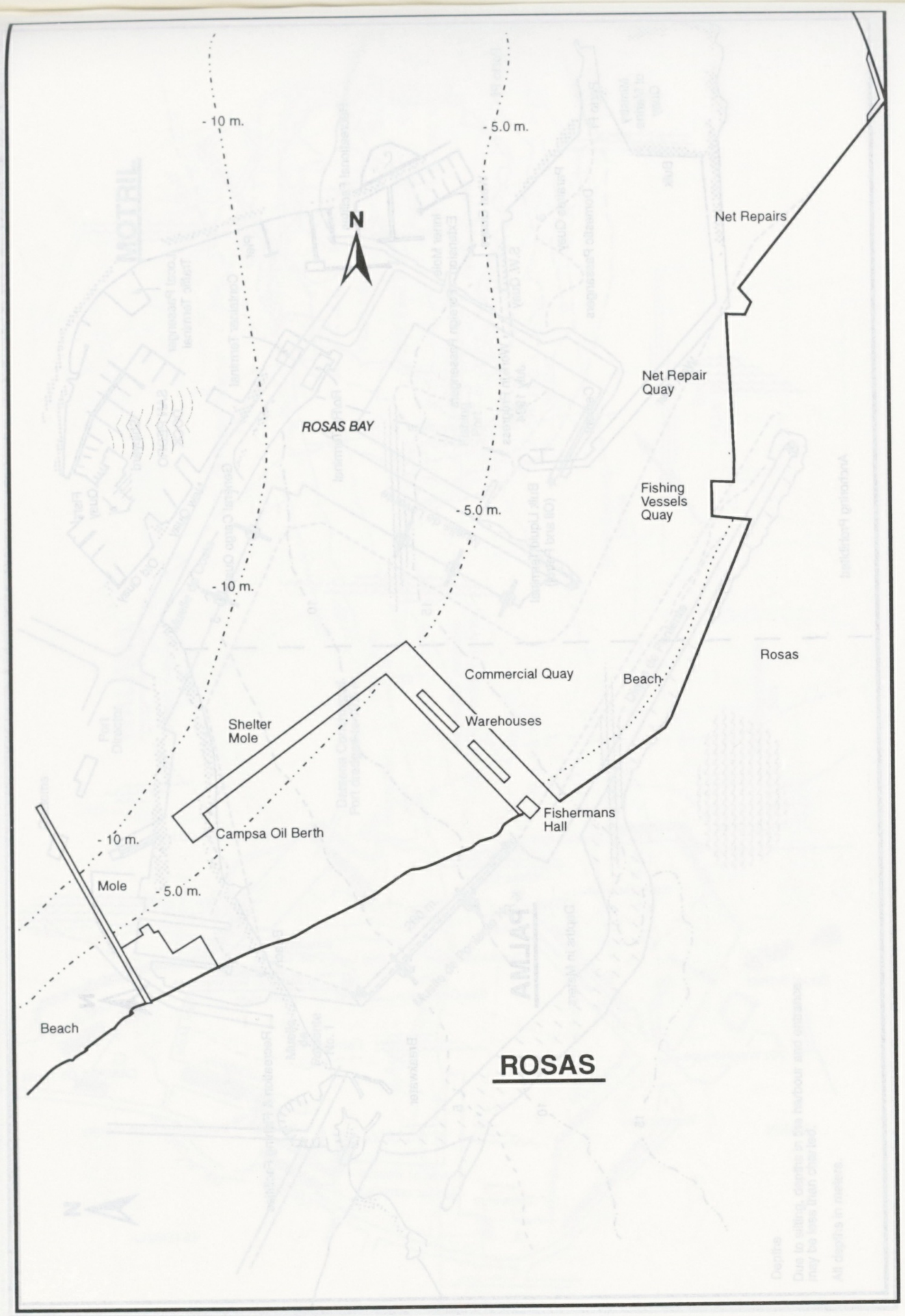
All depths in meters.

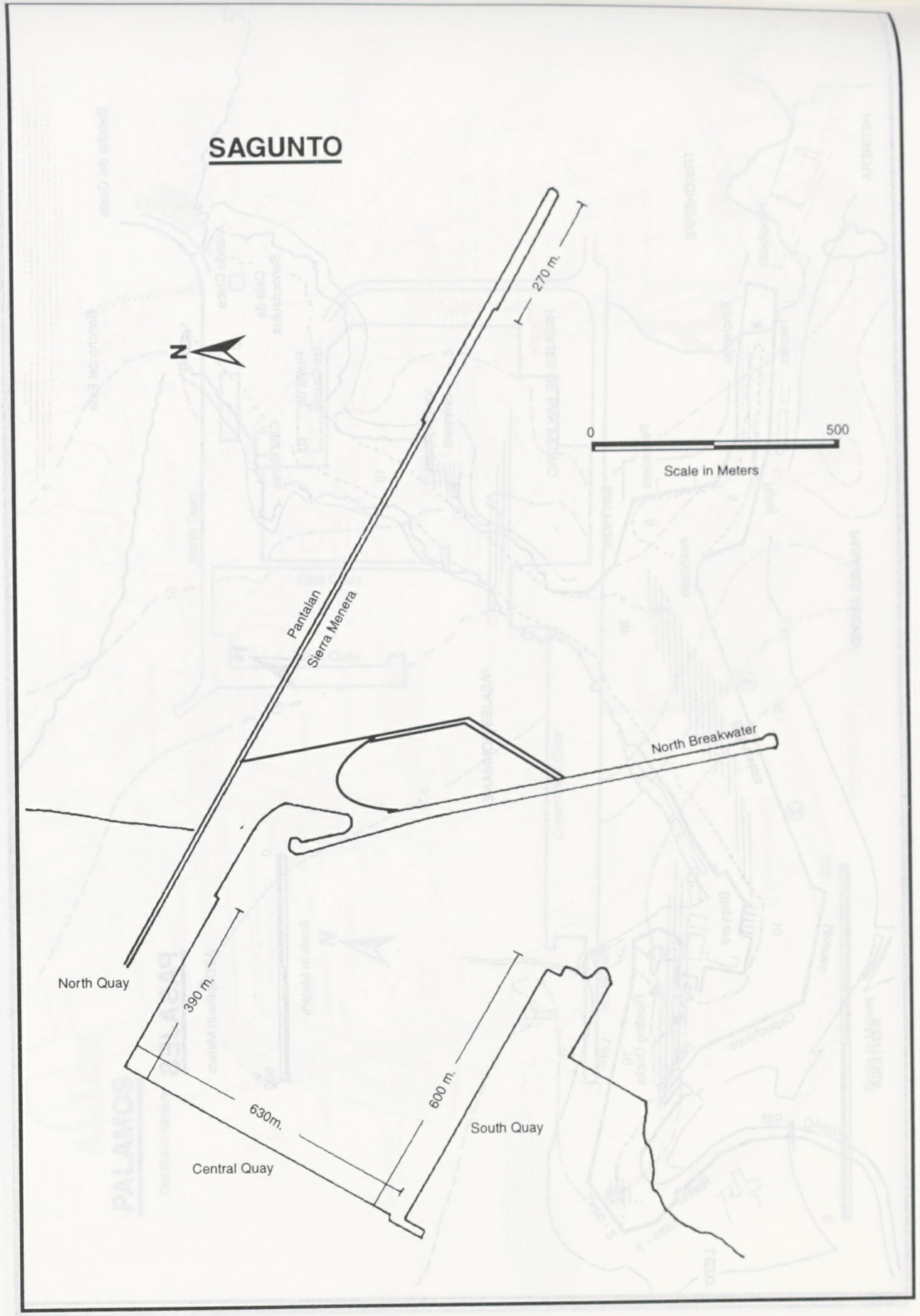
PALAMOS


Depths in Meters
N
North Quay
West Quay
East Quay
Fishing Harbour
Commerical Quay
Breakwater
5
10
15
17.5
20
-20
0
300
Scale in Meters

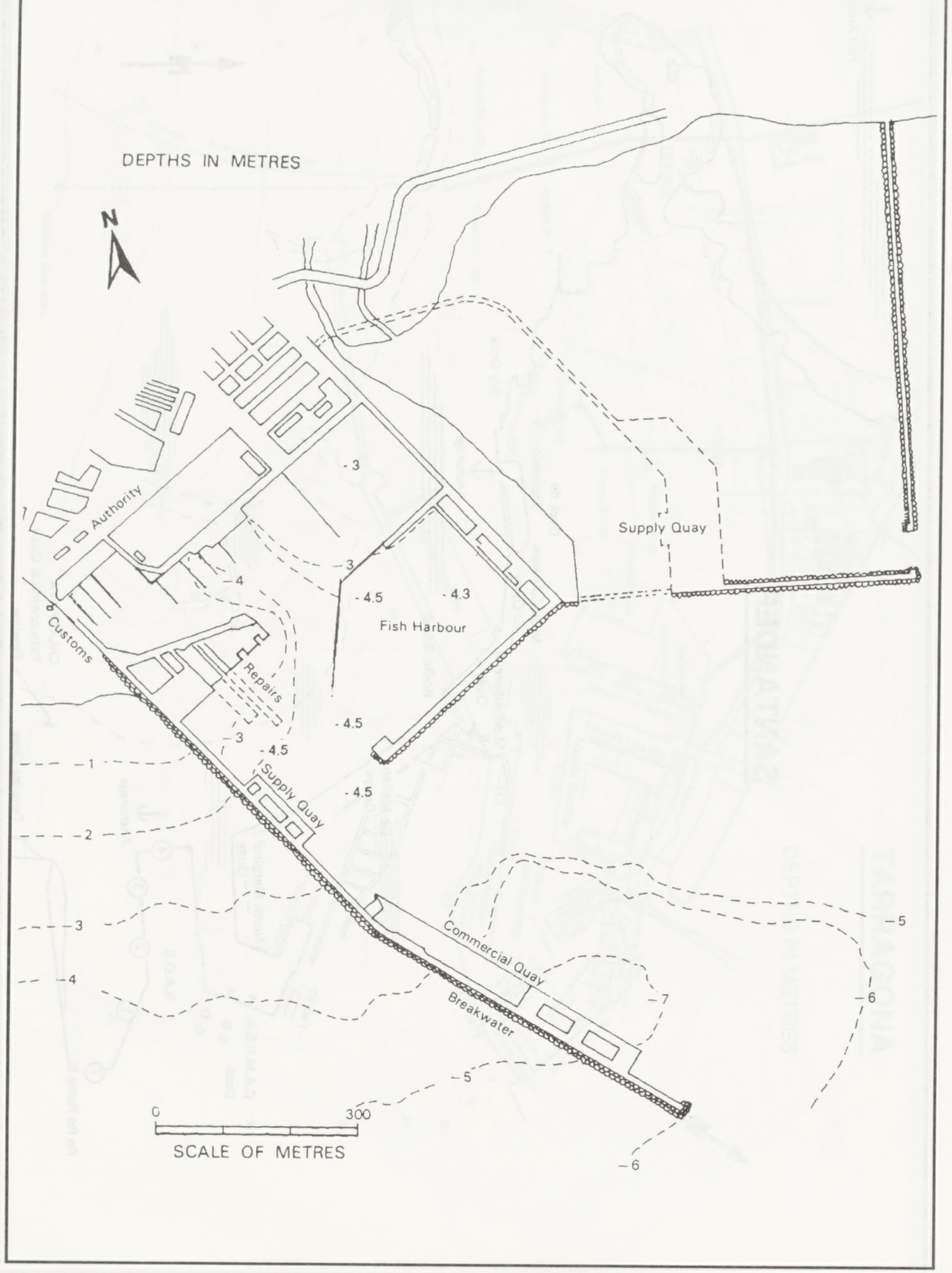

N
Fish Quay
Shipyard
Old Quay
SAN PEDRO DOCK
New Quay
Local Passenger Traffic Terminal
Container Terminal
General Cargo Quays
5
Pier
Beach
Recreation & Fishing Facilities
10
Ro/Ro Terminal
Recreational Facilites
Breakwater
15
Inner Mole Extension
Foreign Passengers
5
West Quays
Porto Pi
S.W. Quay
Work in Progress July 1994
PALMA
10
Bulk Liquid Terminal (Oil and Petrol)
Depths in Meters
Paraires Quay
Porto Pi
Domestic Passangers
Cement
15
Ministry of Marine Quay
Bulk
West Pier
Anchoring Prohibited


Bancho del Oeste
Bancho del Este
PASAJES
All Depths in Meters
N
Arando Chico
Cala de Senocozulua
Cala Bursa
0
500
Scale in Meters
Punta de las Cruces
10
10
Shipyard
PASAJES DONIBANE
PASAJES DE SAN PEDRO
Lezo - 1
Lezo - 2
San Pedro
10
10
Floating Docks
Pescadera
8
Lezo - 3
Petroleos
Avanzado
TRINCHERPE
Ro/Ro
LEZO
Trincherpe
8
Shipyard
8
①
Buenavista
Capuchinos
Hospitalillo
Reloj
10
Herrera
②
Rio Oyarzun
Molinao
PASAJES ANCHO
HERRERA
RENTERIA

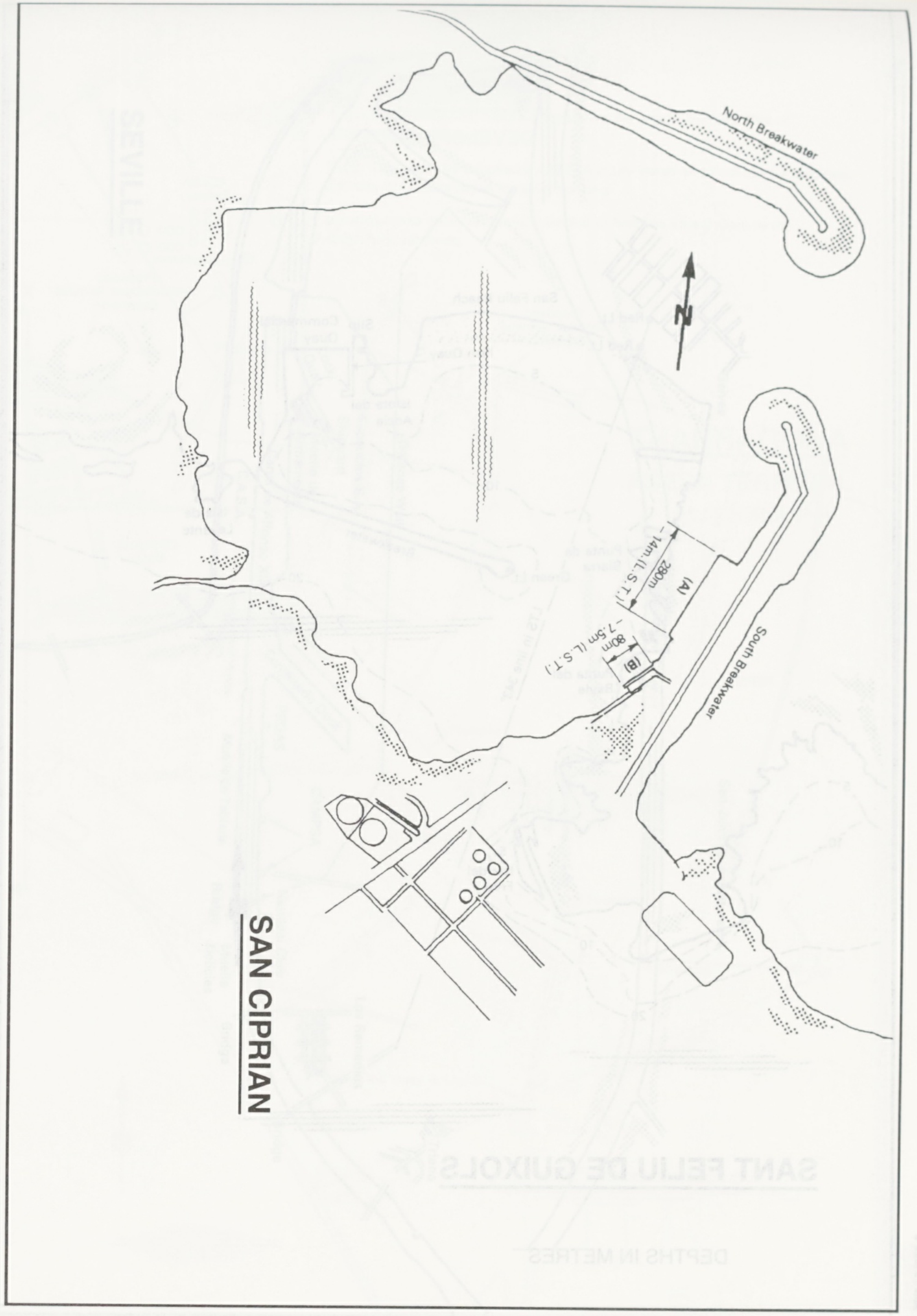

- 10 m.
- 5.0 m.
N
Net Repairs
ROSAS BAY
Net Repair Quay
Fishing Vessels Quay
- 5.0 m.
- 10 m.
Rosas
Commercial Quay
Beach
Shelter Mole
Warehouses
Fishermans Hall
Campsa Oil Berth
- 10 m.
Mole
- 5.0 m.
Beach
ROSAS

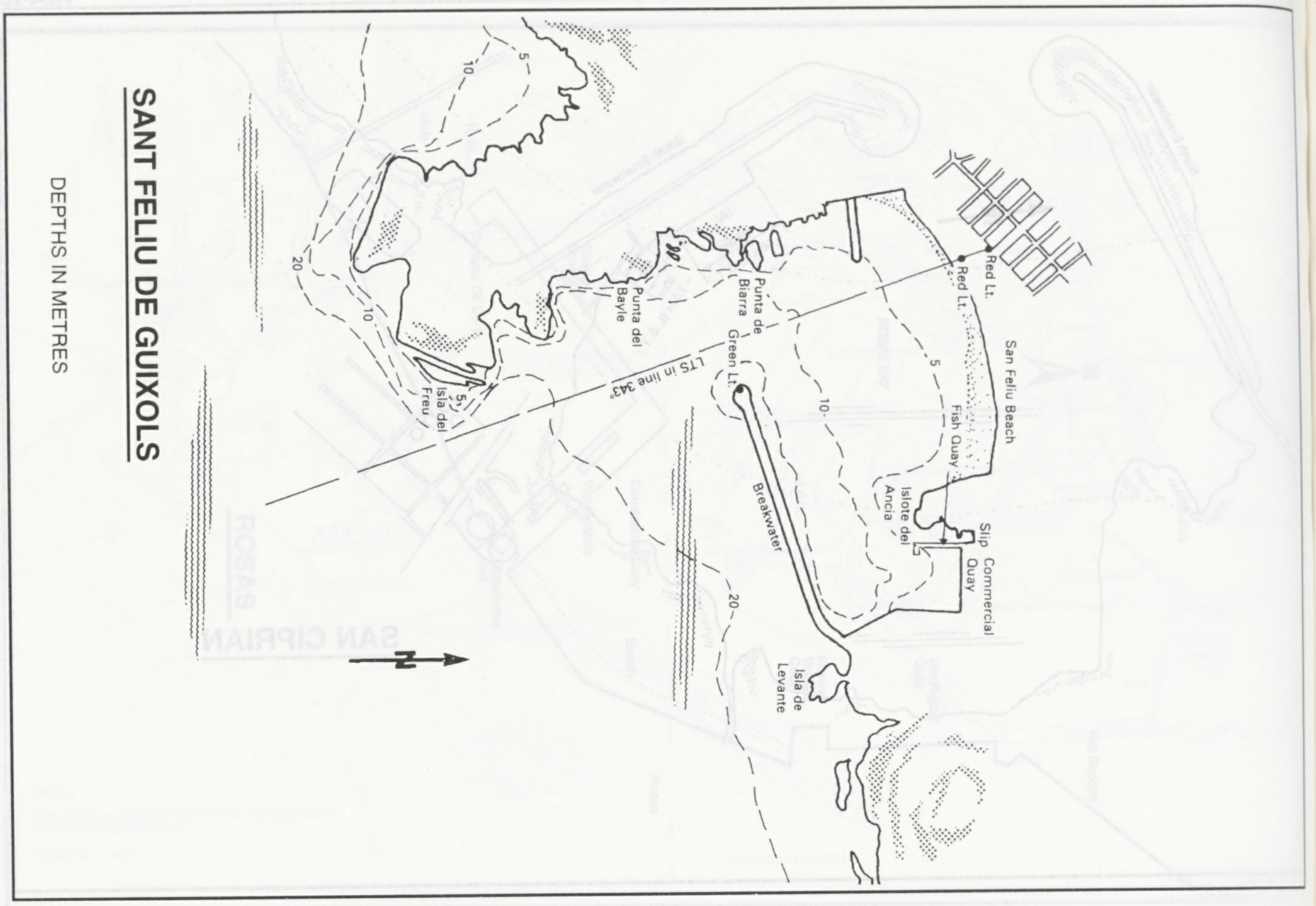

SAGUNTO
270 m.
N
0
500
Scale in Meters
Pantalan Sierra Menera
North Breakwater
North Quay
390 m.
600 m.
630m.
South Quay
Central Quay

SANT CARLES DE LA RAPITA


DEPTHS IN METRES
N
Authority
Customs
Repairs
Supply Quay
Supply Quay
Fish Harbour
- 3
- 3
- 4
- 4.5
- 4.3
- 4.5
- 3
- 4.5
- 4.5
- 1
- 2
- 3
- 4
- 5
- 5
- 6
- 6
- 7
Commercial Quay
Breakwater
0
300
SCALE OF METRES

SAN CIPRIAN

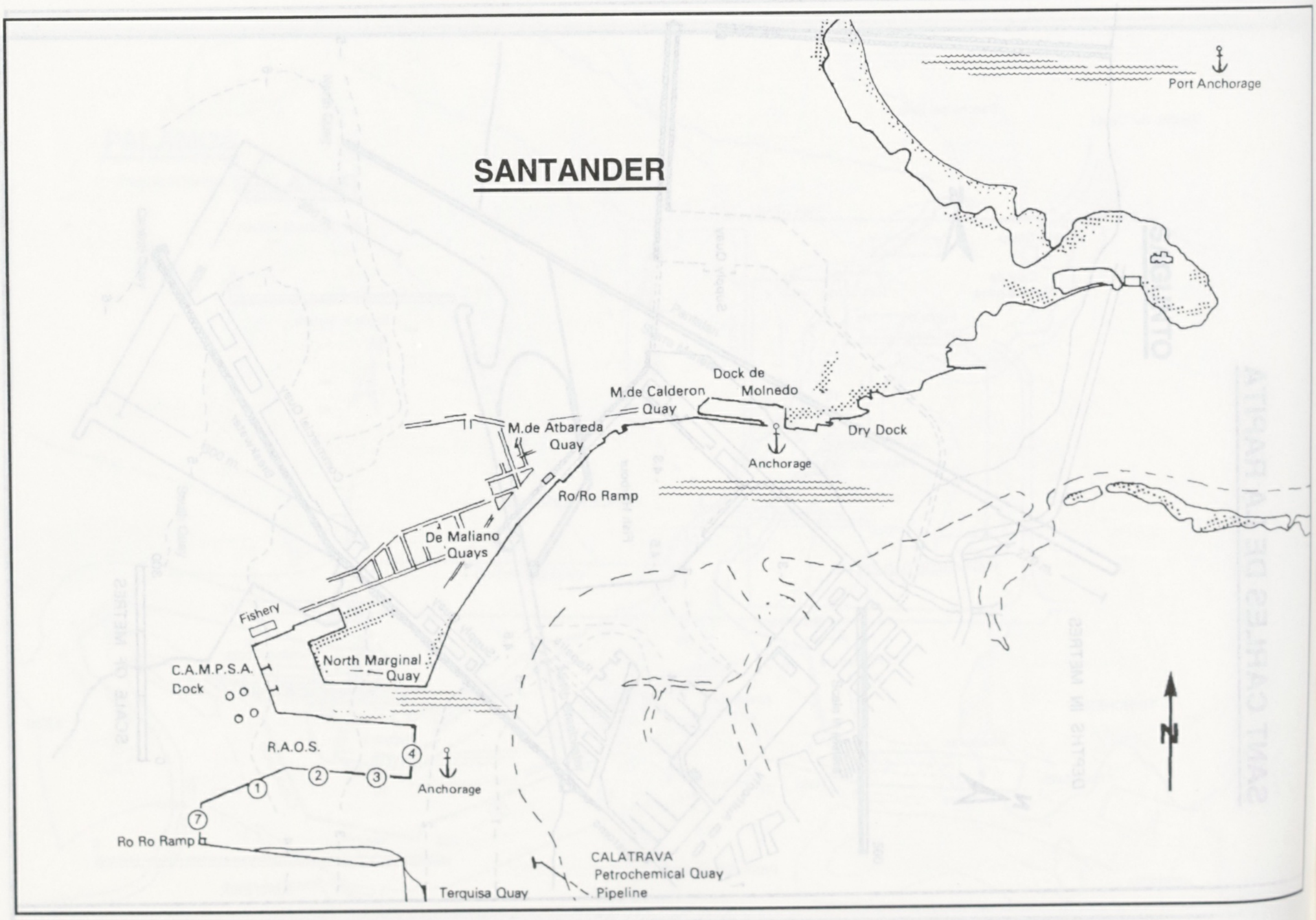

North Breakwater
N
South Breakwater
(A)
280m
-14m.(L.S.T.)
(B)
80m
-7.5m (L.S.T.)



SANT FELIU DE GUIXOLS

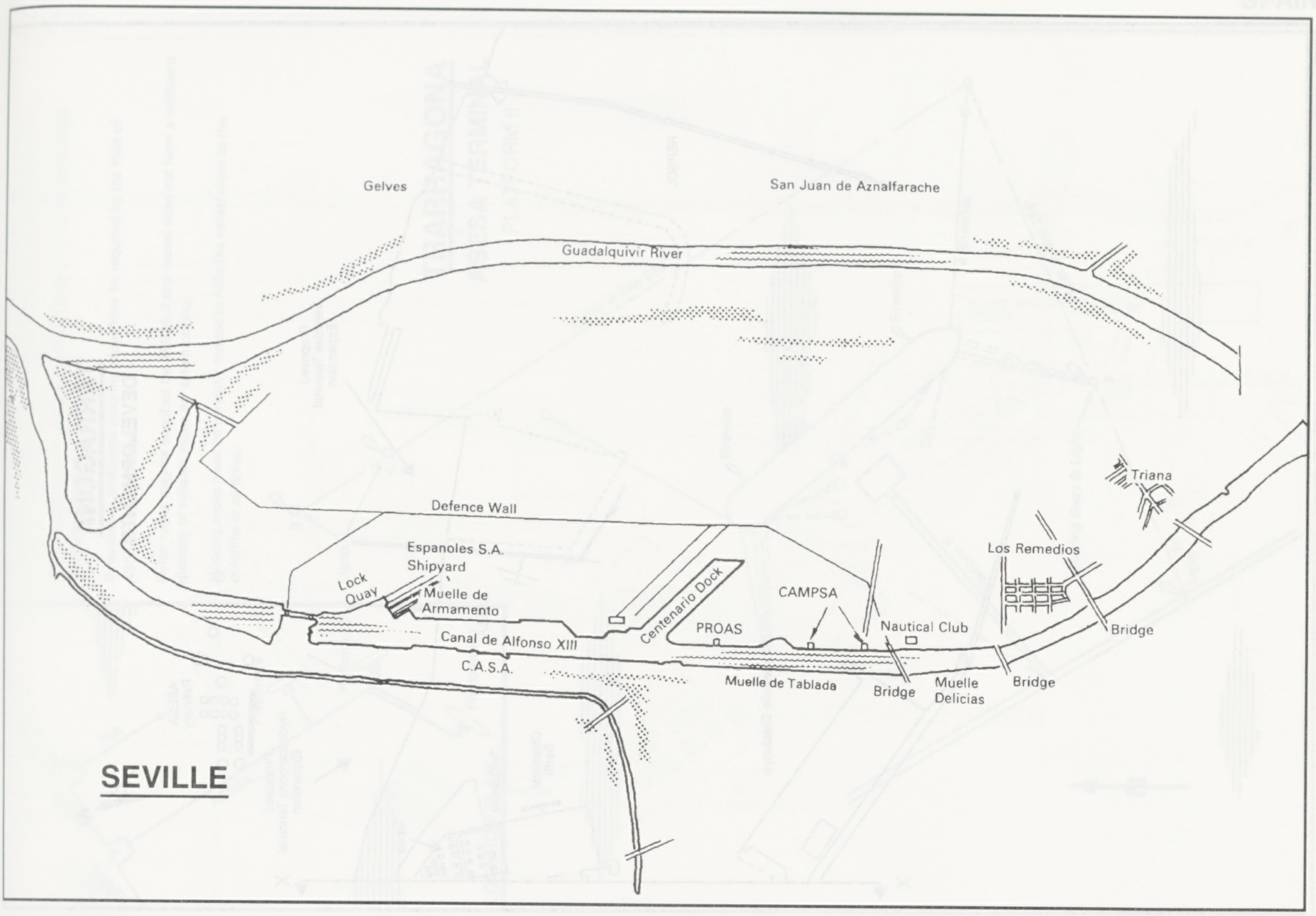
DEPTHS IN METRES

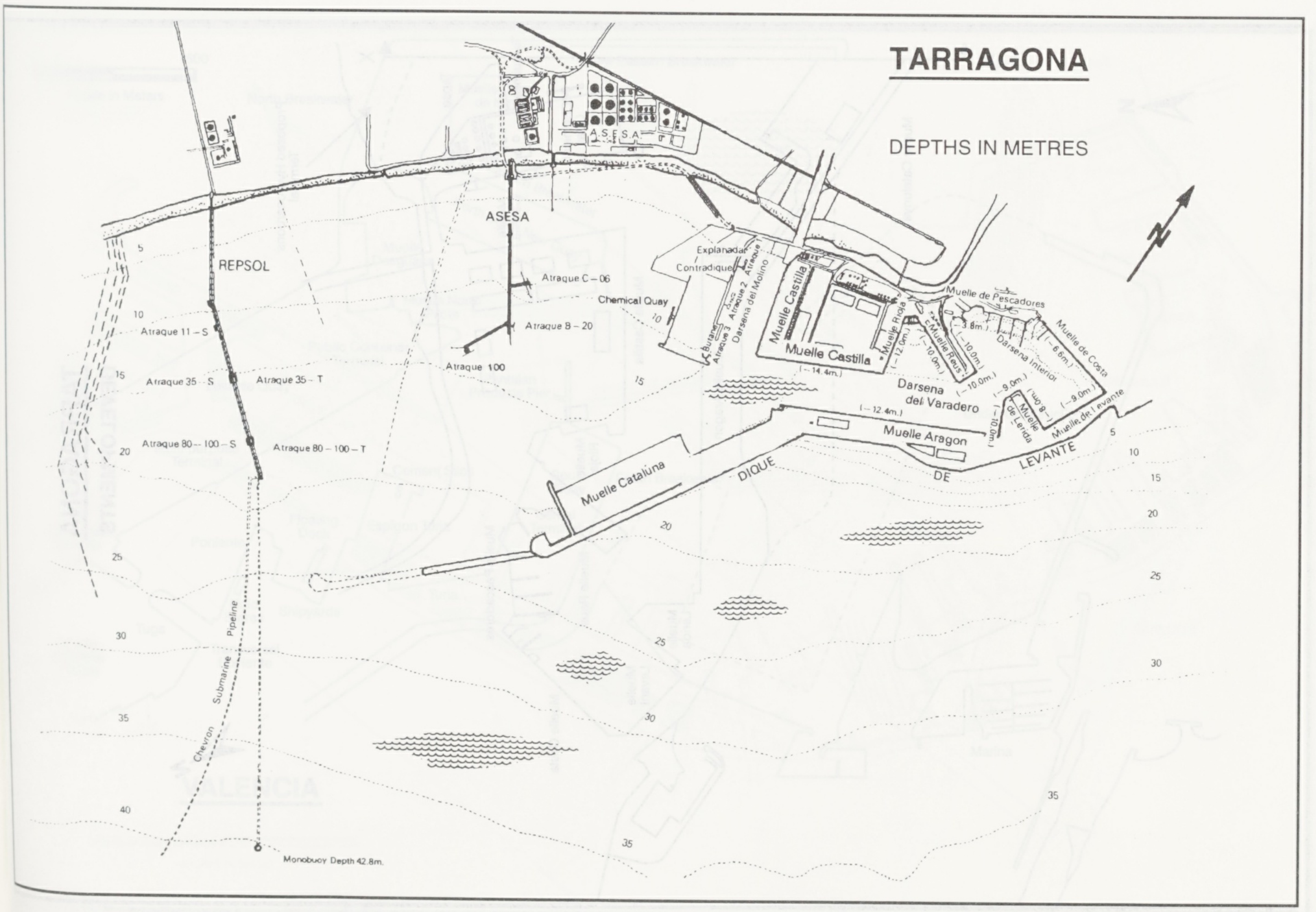
Red Lt.
Red Lt.
San Feliu Beach
Fish Quay
Islote del Ancia
Slip
Commercial Quay
Breakwater
Isla de Levante
Punta de Biarra
Green Lt.
Punta del Bayle
LTS in line 343°
Isla del Freu
5
10
20
N



SANTANDER

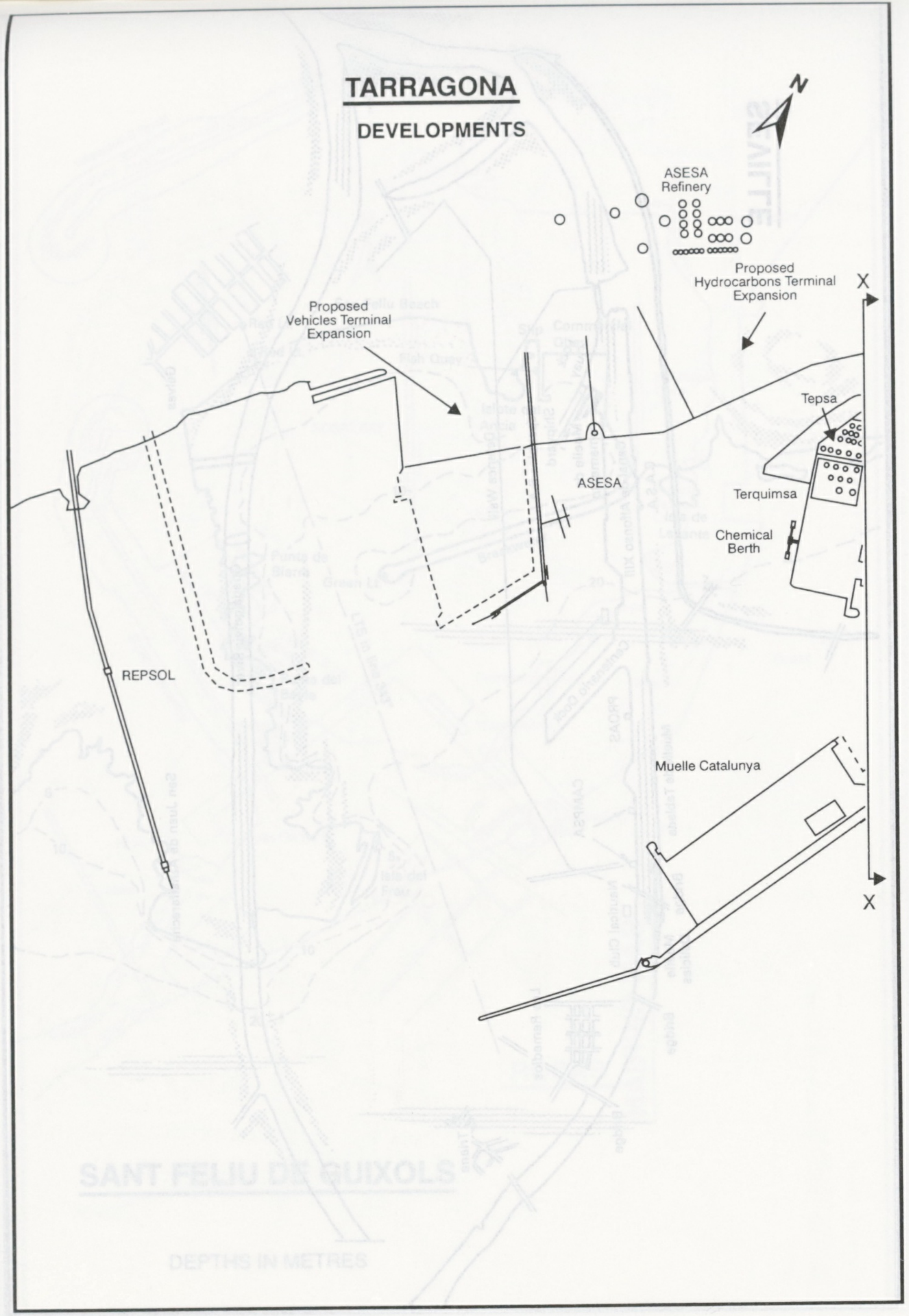
Port Anchorage
Dock de Molnedo
M.de Calderon Quay
M.de Atbareda Quay
Dry Dock
Anchorage
Ro/Ro Ramp
De Maliano Quays
Fishery
North Marginal Quay
C.A.M.P.S.A. Dock
R.A.O.S.
①
②
③
④
⑦
Anchorage
Ro Ro Ramp
Terquisa Quay
CALATRAVA
Petrochemical Quay
Pipeline
N


Gelves
San Juan de Aznalfarache
Guadalquivir River
Triana
Defence Wall
Espanoles S.A.
Shipyard
Lock
Quay
Muelle de
Armamento
Los Remedios
CAMPSA
Centenario Dock
PROAS
Nautical Club
Canal de Alfonso XIII
Bridge
C.A.S.A.
Muelle de Tablada
Bridge
Muelle
Delicias
Bridge
SEVILLE


TARRAGONA
DEPTHS IN METRES
ASESA
REPSOL
ASESA
Explanadar
Contradique
Atraque 1
Atraque 2
Atraque 3
Darsena del Molino
Butane
Atraque C – 06
Chemical Quay
Atraque B – 20
Atraque 100
Atraque 11 – S
Atraque 35 – S
Atraque 35 – T
Atraque 80 – 100 – S
Atraque 80 – 100 – T
Muelle Castilla
Muelle Castilla
(– 14.4m.)
Muelle Rioja
(– 12.0m.)
Muelle Reus
(– 10.0m.)
(– 10.0m.)
(– 10.0m.)
Muelle de Pescadores
(– 3.8m.)
Darsena Interior
(– 6.6m.)
Muelle de Costa
(– 9.0m.)
(– 9.0m.)
(– 8.0m.)
Muelle de Lerida
(– 10.0m.)
Darsena del Varadero
(– 12.4m.)
Muelle Aragon
Muelle de Levante
Muelle Cataluna
DIQUE DE LEVANTE
Chevron Submarine Pipeline
Monobuoy Depth 42.8m.
5
10
15
20
25
30
35
40

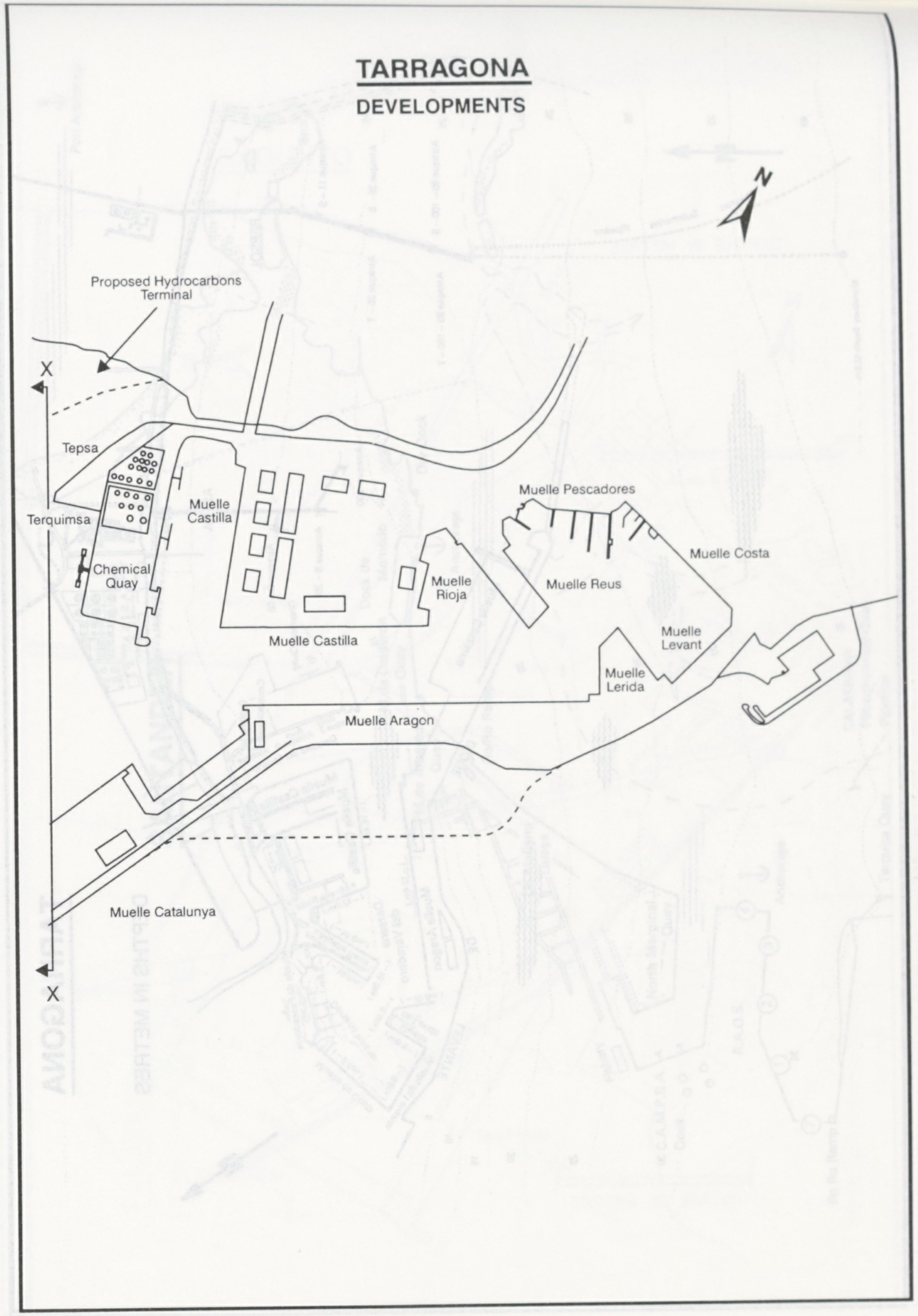
TARRAGONA

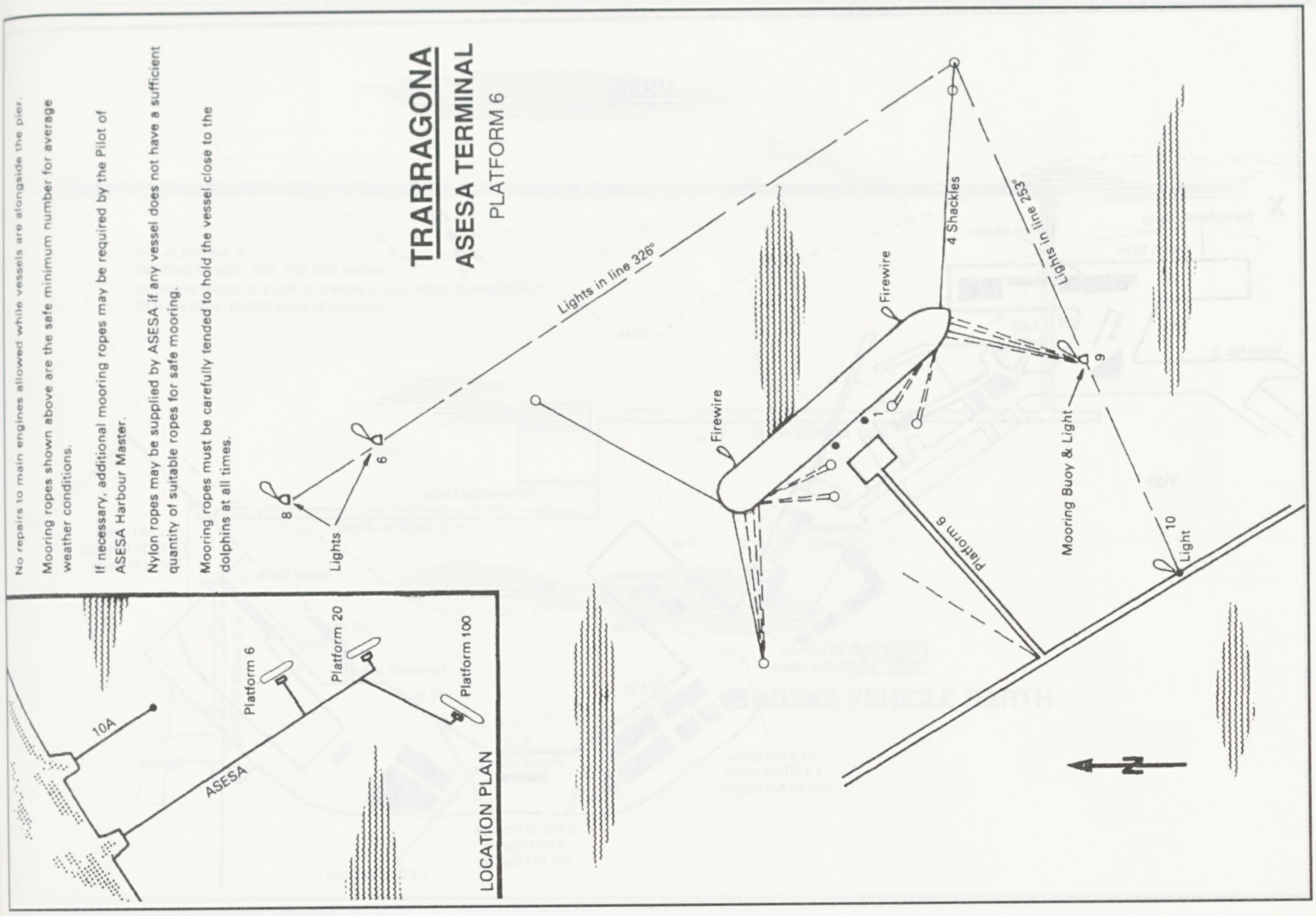
DEVELOPMENTS


ASESA Refinery
Proposed Hydrocarbons Terminal Expansion
X
Proposed Vehicles Terminal Expansion
Tepsa
ASESA
Terquimsa
Chemical Berth
REPSOL
Muelle Catalunya
X

TARRAGONA

DEVELOPMENTS


Proposed Hydrocarbons Terminal
X
Tepsa
Terquimsa
Muelle Castilla
Chemical Quay
Muelle Pescadores
Muelle Costa
Muelle Rioja
Muelle Reus
Muelle Castilla
Muelle Levant
Muelle Lerida
Muelle Aragon
Muelle Catalunya
X



TARRAGONA
ASESA TERMINAL
PLATFORM 6

No repairs to main engines allowed while vessels are alongside the pier.

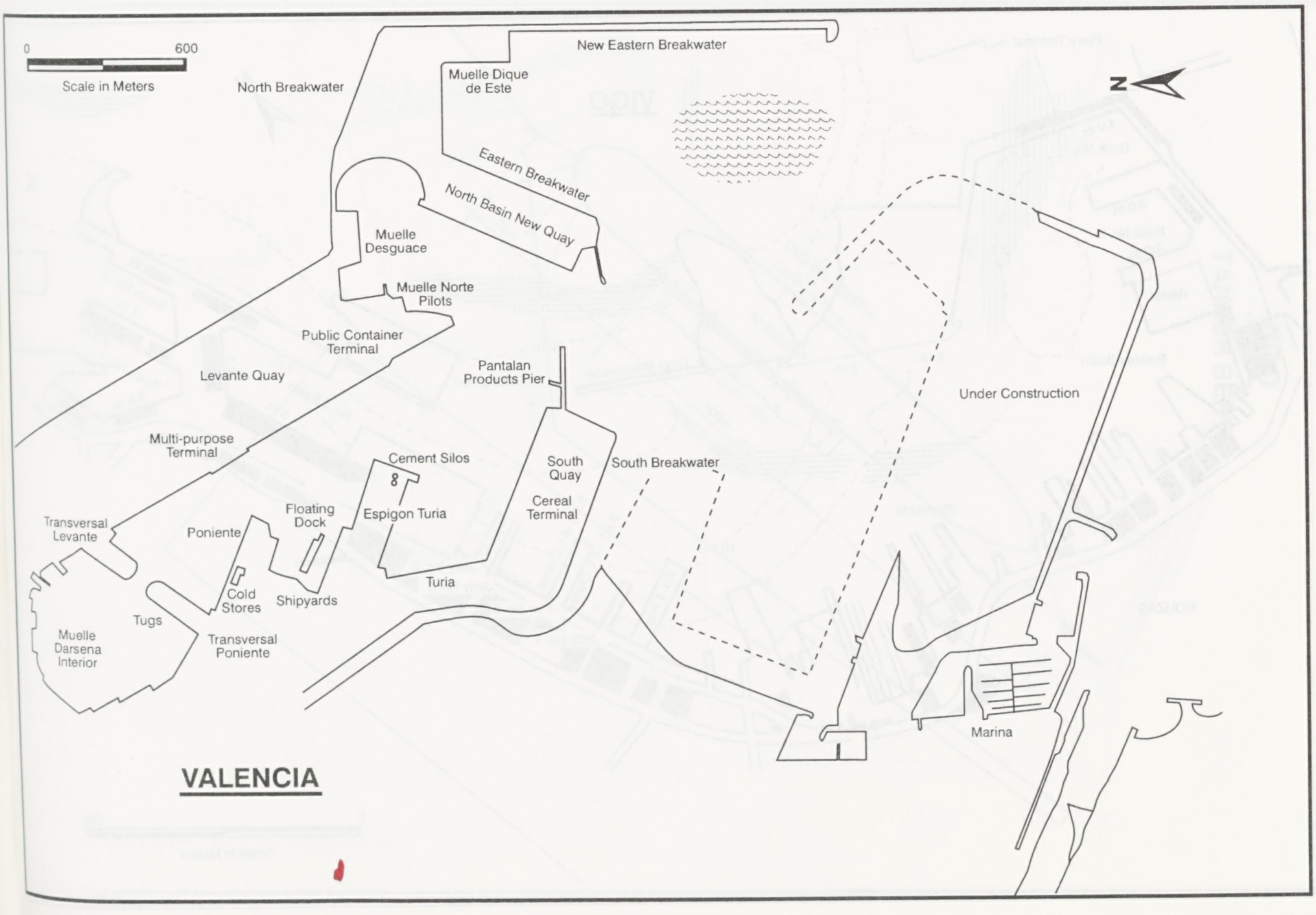
Mooring ropes shown above are the safe minimum number for average weather conditions.

If necessary, additional mooring ropes may be required by the Pilot of ASESA Harbour Master.

Nylon ropes may be supplied by ASESA if any vessel does not have a sufficient quantity of suitable ropes for safe mooring.

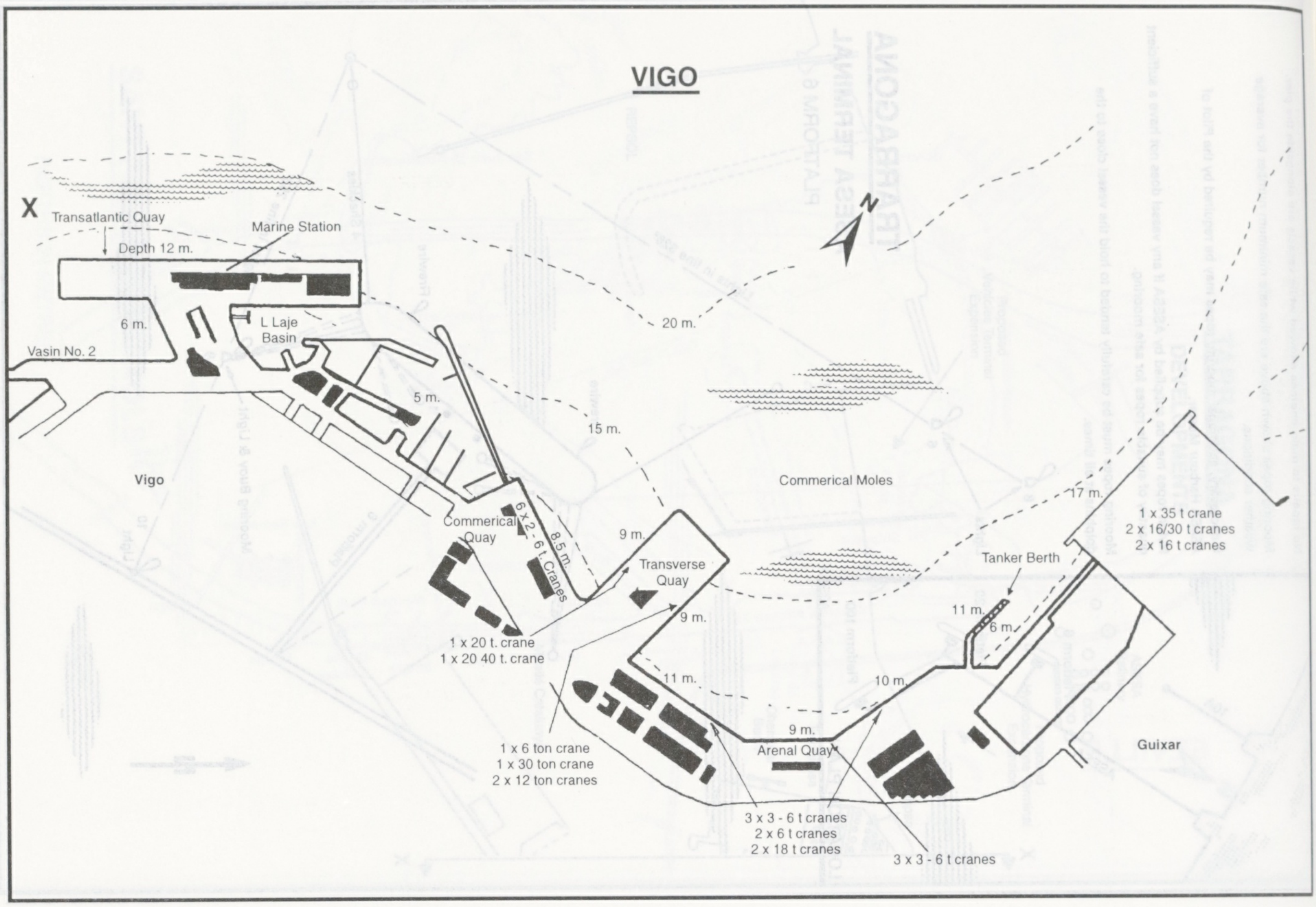
Mooring ropes must be carefully tended to hold the vessel close to the dolphins at all times.

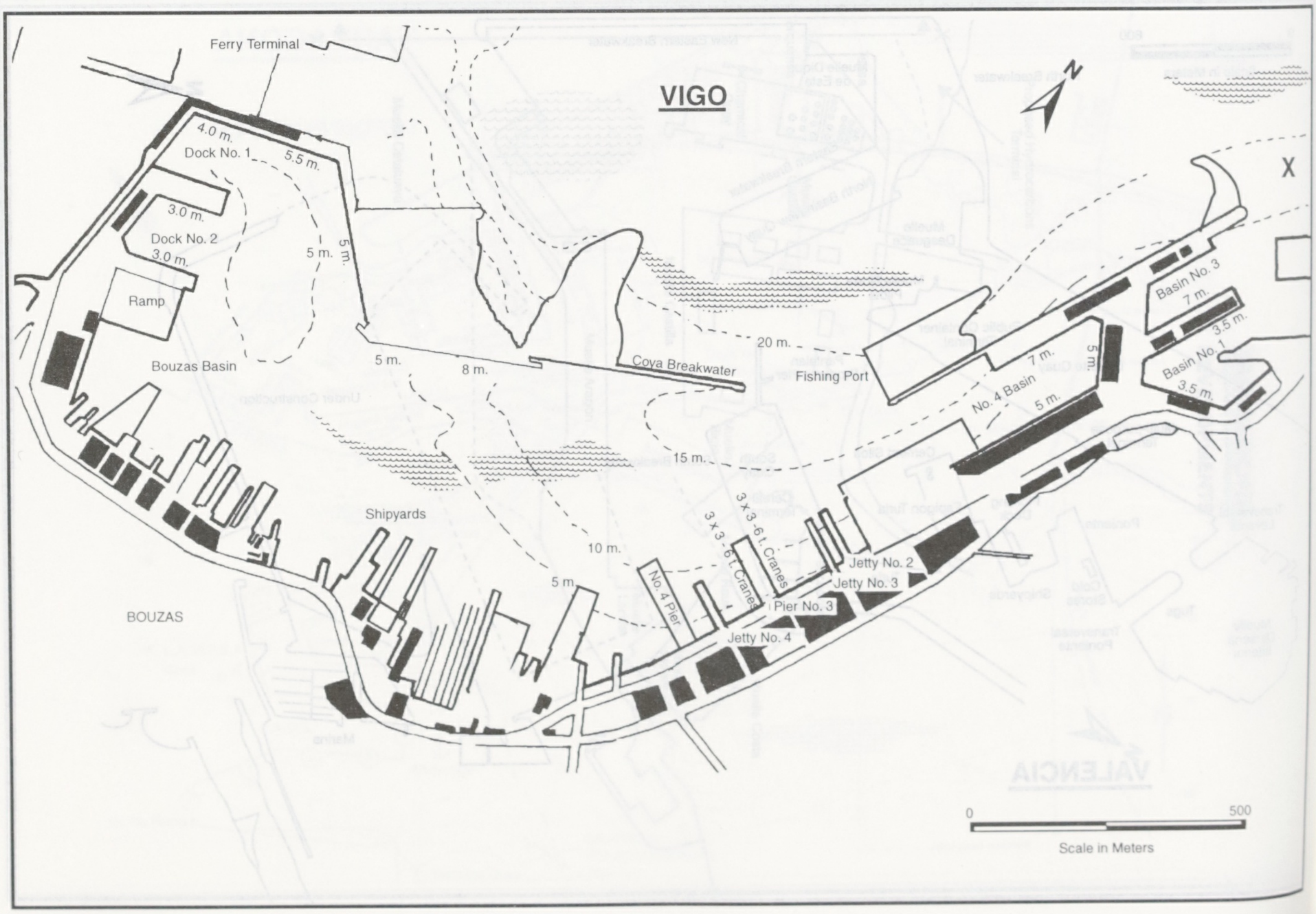
Lights in line 326°
4 Shackles
Lights in line 253°
Firewire
Firewire
1
9
Mooring Buoy & Light
10
Light
Platform 6
6
8
Lights
N
LOCATION PLAN
Platform 6
Platform 20
Platform 100
10A
ASESA

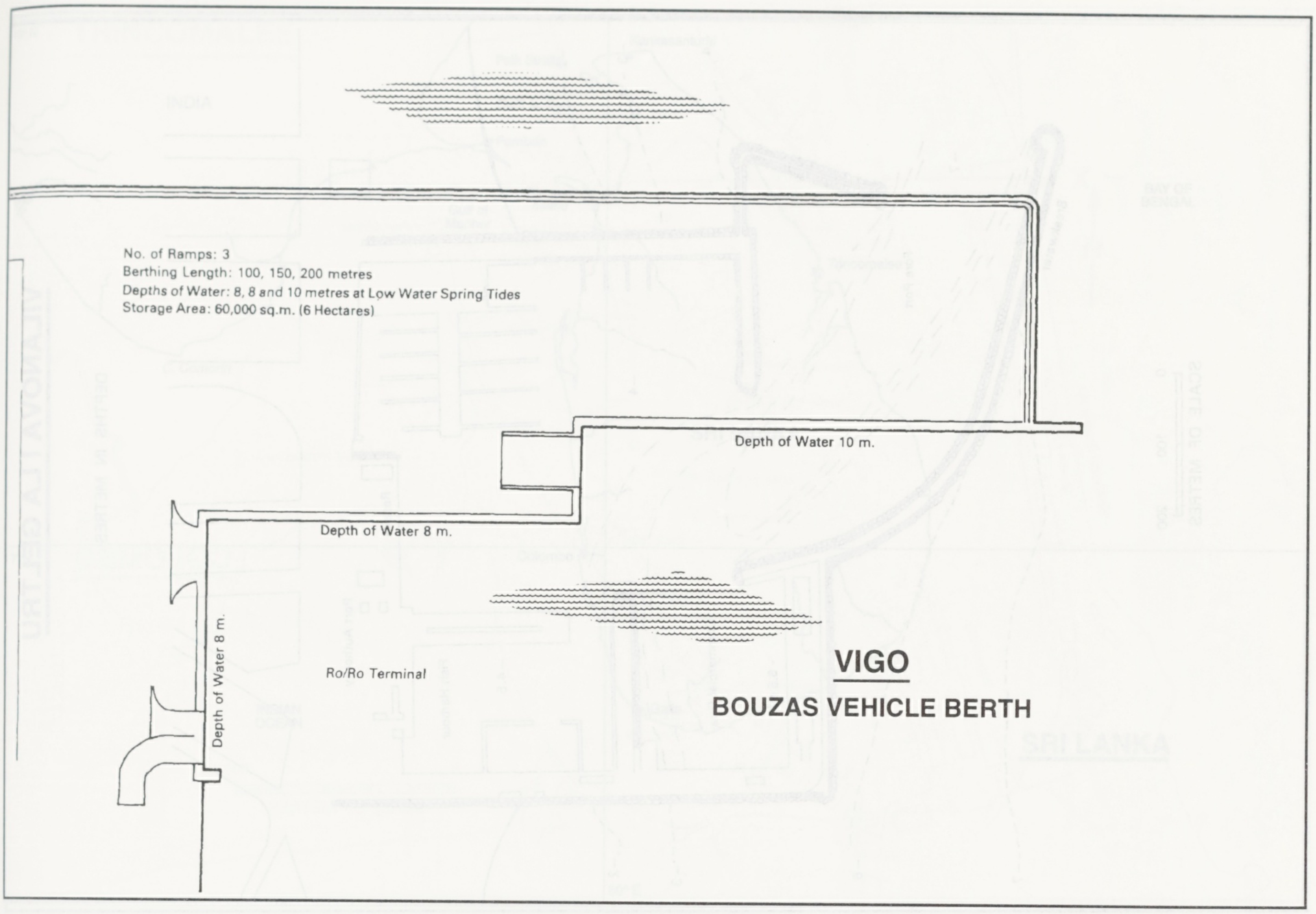


VALENCIA

0
600
Scale in Meters
North Breakwater
Muelle Dique de Este
New Eastern Breakwater
N
Eastern Breakwater
North Basin New Quay
Muelle Desguace
Muelle Norte Pilots
Public Container Terminal
Levante Quay
Pantalan Products Pier
Under Construction
Multi-purpose Terminal
Cement Silos
South Quay
South Breakwater
Cereal Terminal
Transversal Levante
Poniente
Floating Dock
Espigon Turia
Turia
Cold Stores
Shipyards
Tugs
Muelle Darsena Interior
Transversal Poniente
Marina


VIGO
X
Transatlantic Quay
Depth 12 m.
Marine Station
6 m.
L Laje Basin
Vasin No. 2
5 m.
15 m.
20 m.
Vigo
Commerical Moles
17 m.
1 x 35 t crane
2 x 16/30 t cranes
2 x 16 t cranes
Commerical Quay
6 x 2 - 6 t. Cranes
8.5 m.
9 m.
Transverse Quay
Tanker Berth
11 m.
6 m.
9 m.
1 x 20 t. crane
1 x 20 40 t. crane
11 m.
10 m.
9 m.
Arenal Quay
Guixar
1 x 6 ton crane
1 x 30 ton crane
2 x 12 ton cranes
3 x 3 - 6 t cranes
2 x 6 t cranes
2 x 18 t cranes
3 x 3 - 6 t cranes

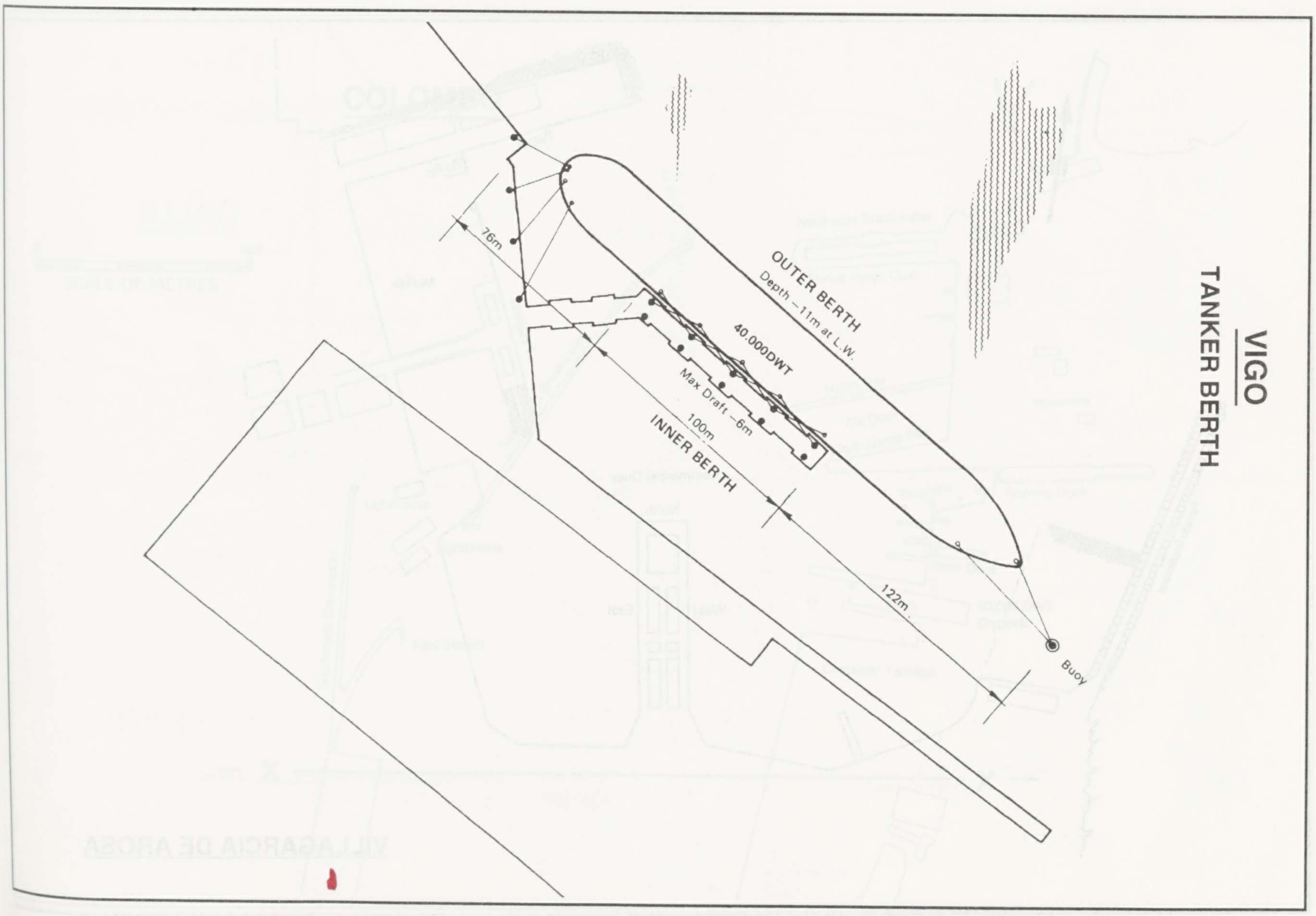

Ferry Terminal
VIGO
4.0 m.
Dock No. 1
5.5 m.
3.0 m.
Dock No. 2
3.0 m.
5 m.
5 m.
Ramp
Bouzas Basin
5 m.
8 m.
Coya Breakwater
20 m.
Fishing Port
X
Basin No. 3
7 m.
3.5 m.
Basin No. 1
3.5 m.
7 m.
5 m.
No. 4 Basin
5 m.
15 m.
Shipyards
3 x 3 -6 t. Cranes
3 x 3 -6 t. Cranes
10 m.
5 m.
No. 4 Pier
Jetty No. 2
Jetty No. 3
Pier No. 3
Jetty No. 4
BOUZAS
0
500
Scale in Meters



VIGO
BOUZAS VEHICLE BERTH

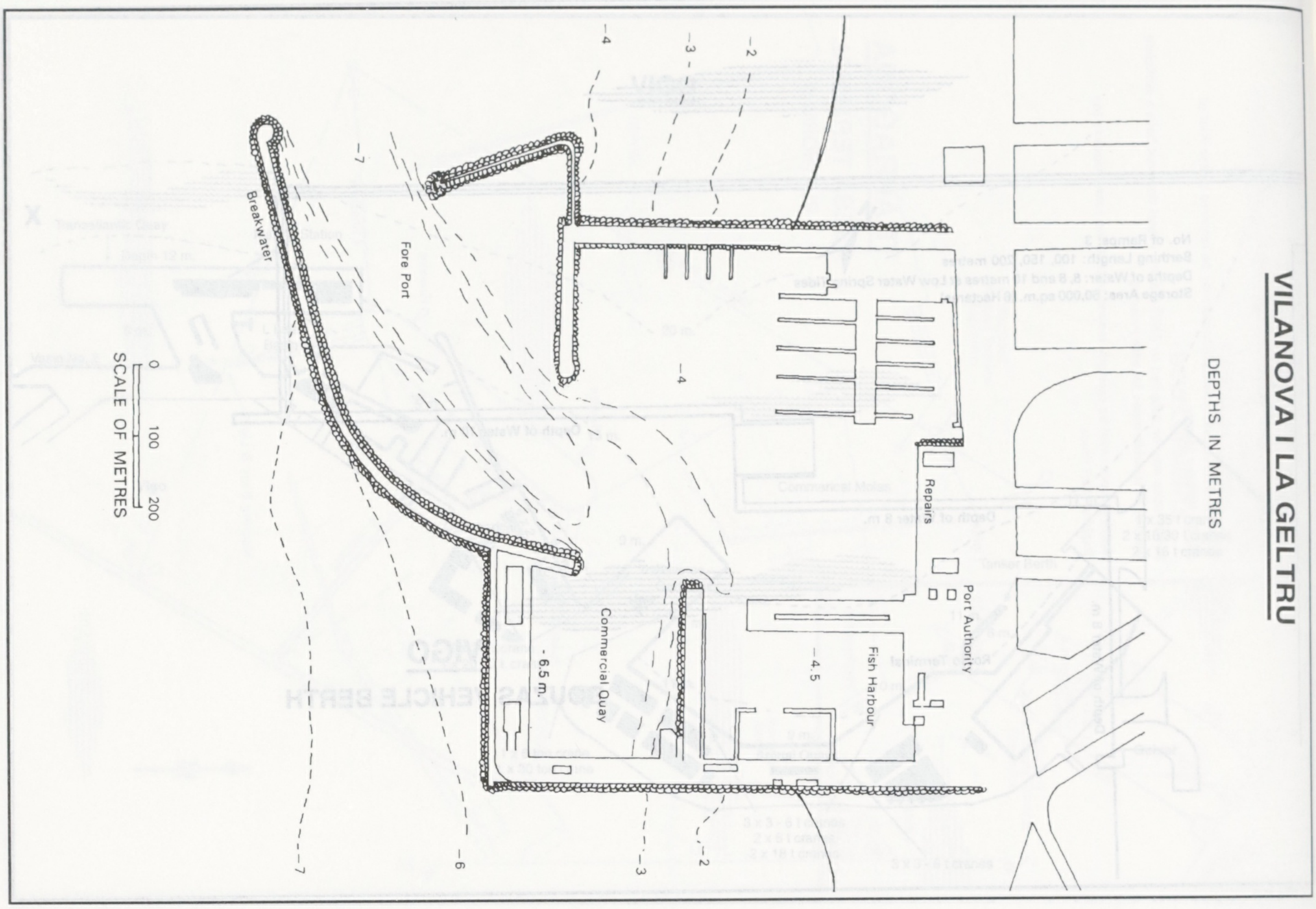
No. of Ramps: 3
Berthing Length: 100, 150, 200 metres
Depths of Water: 8, 8 and 10 metres at Low Water Spring Tides
Storage Area: 60,000 sq.m. (6 Hectares)

Depth of Water 10 m.
Depth of Water 8 m.
Depth of Water 8 m.
Ro/Ro Terminal



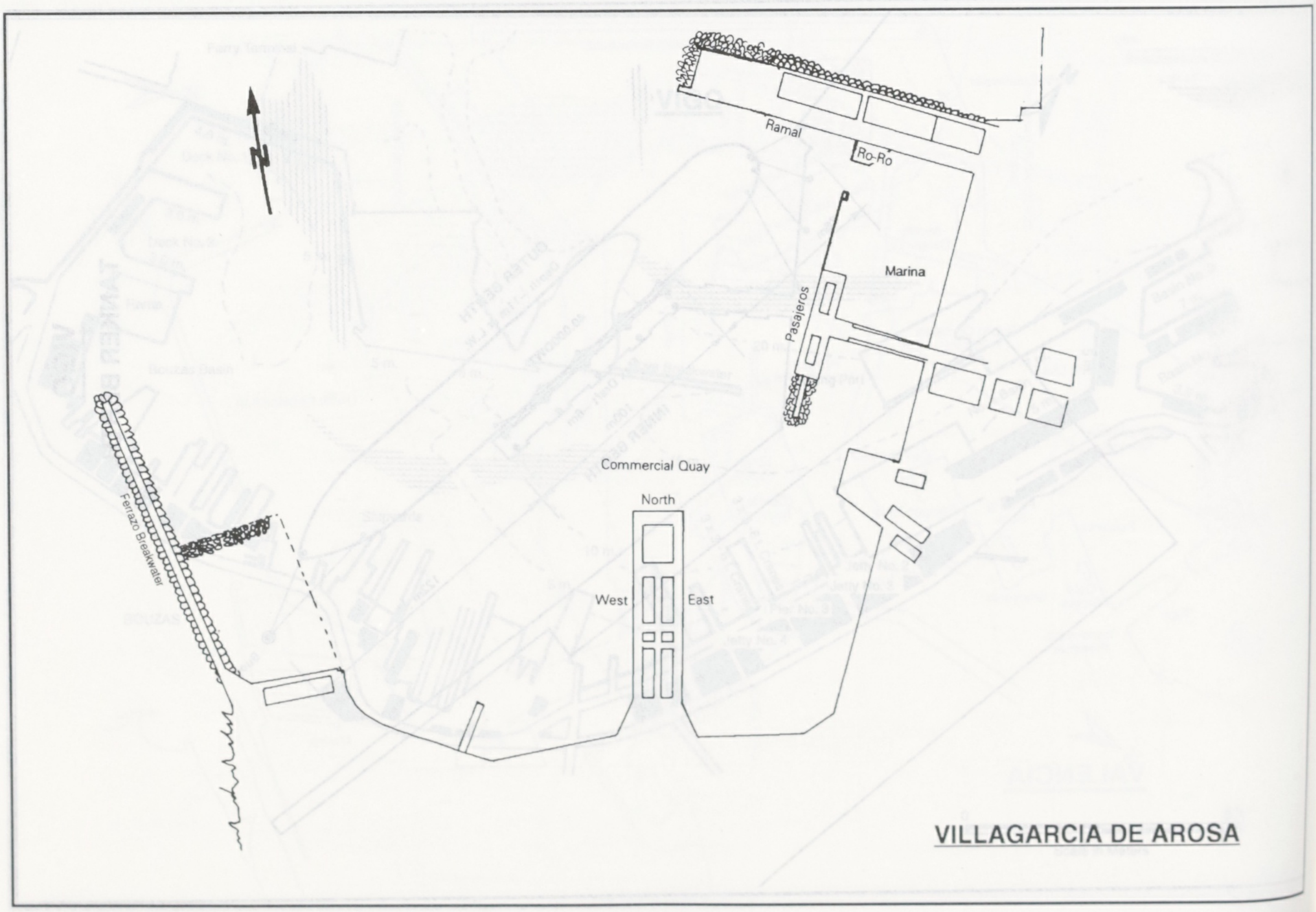
VIGO
TANKER BERTH

OUTER BERTH
Depth –11m at L.W.
40.000DWT
Max Draft –6m
100m
INNER BERTH
76m
122m
Buoy



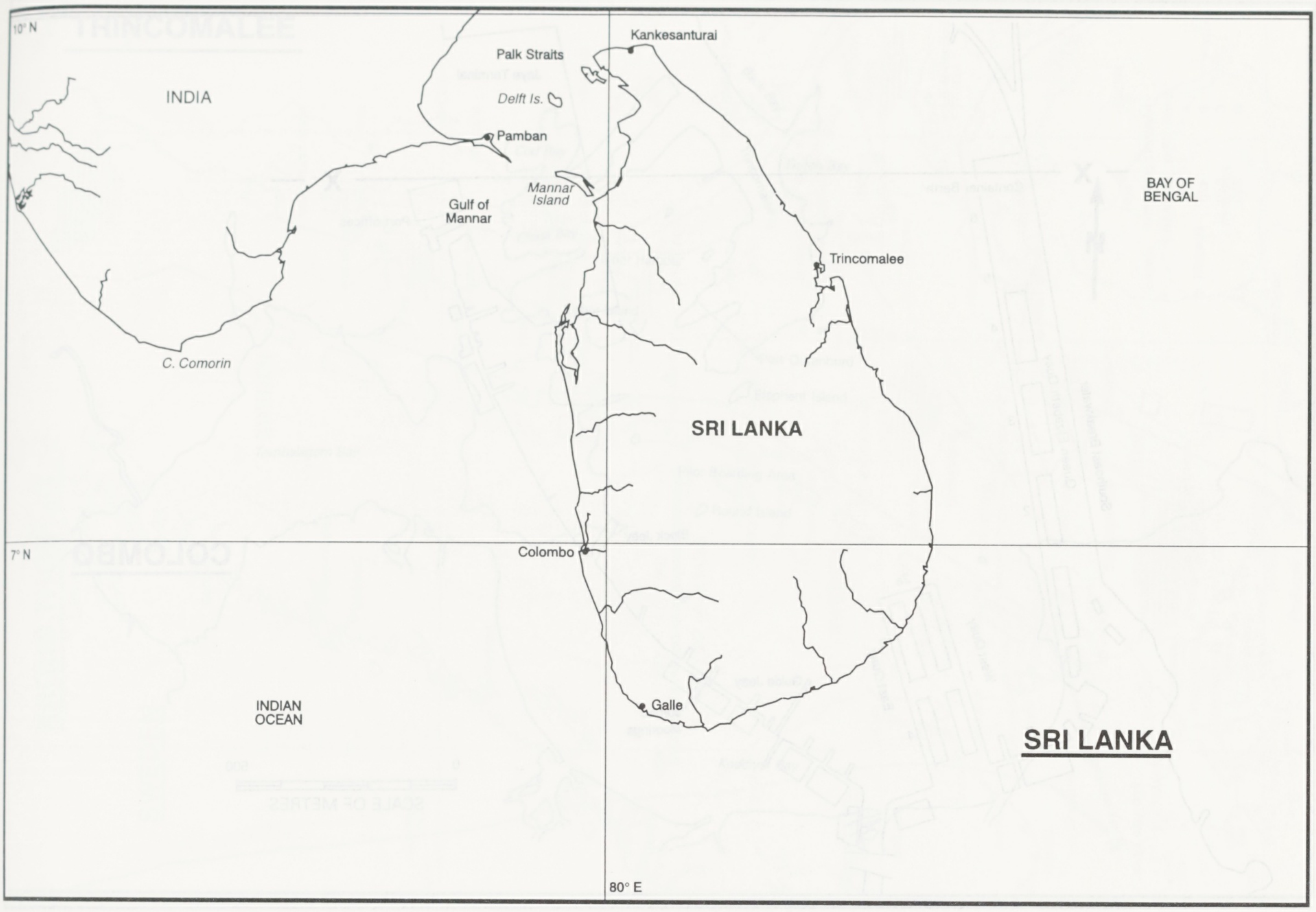
VILANOVA I LA GELTRU

DEPTHS IN METRES
Repairs
Port Authority
Fish Harbour
-4.5
Commercial Quay
-6.5 m.
Fore Port
Breakwater
-2
-3
-4
-6
-7
SCALE OF METRES
0
100
200



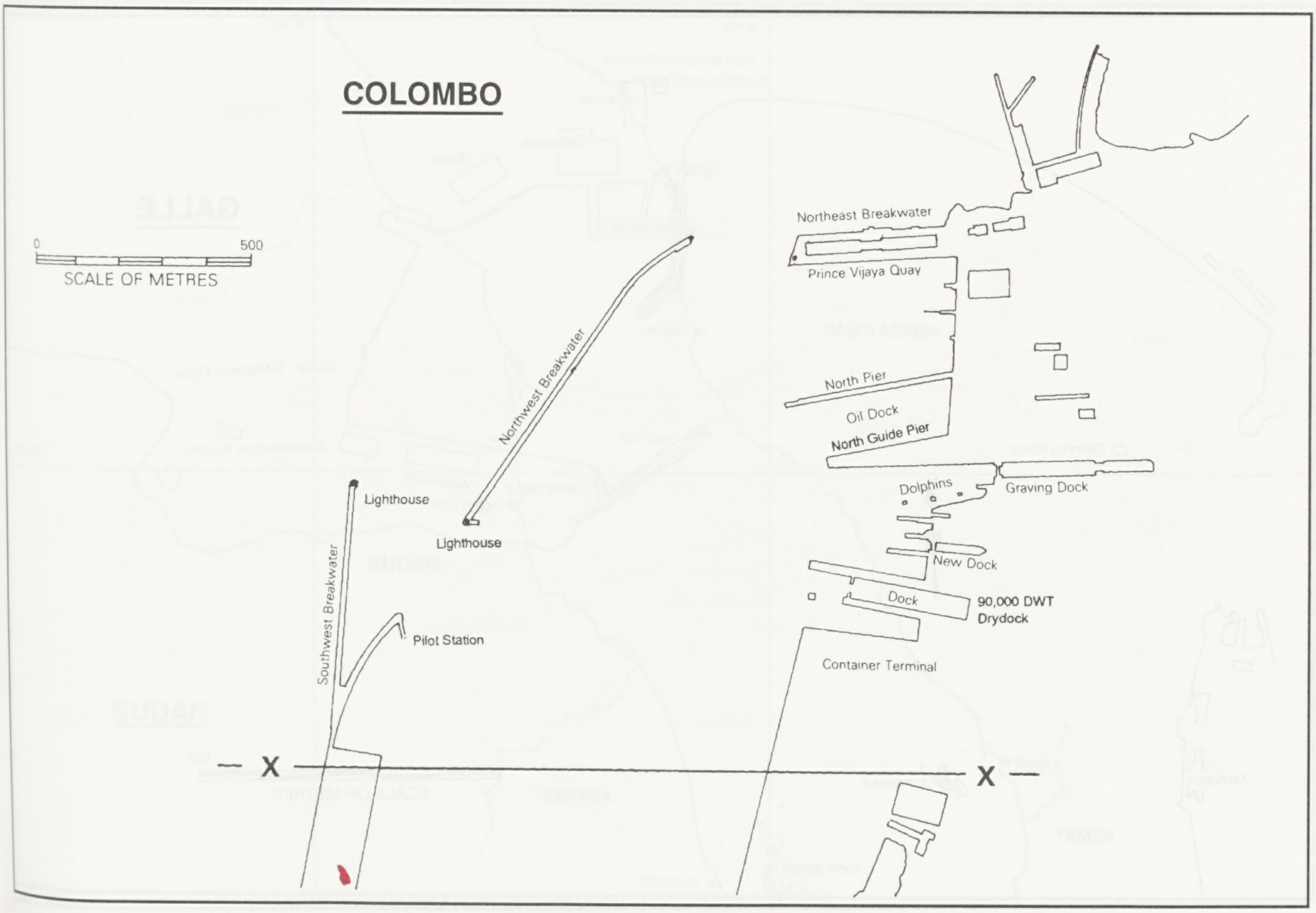
VILLAGARCIA DE AROSA

Ramal
Ro-Ro
Marina
Pasajeros
Commercial Quay
North
West
East
Ferrazo Breakwater



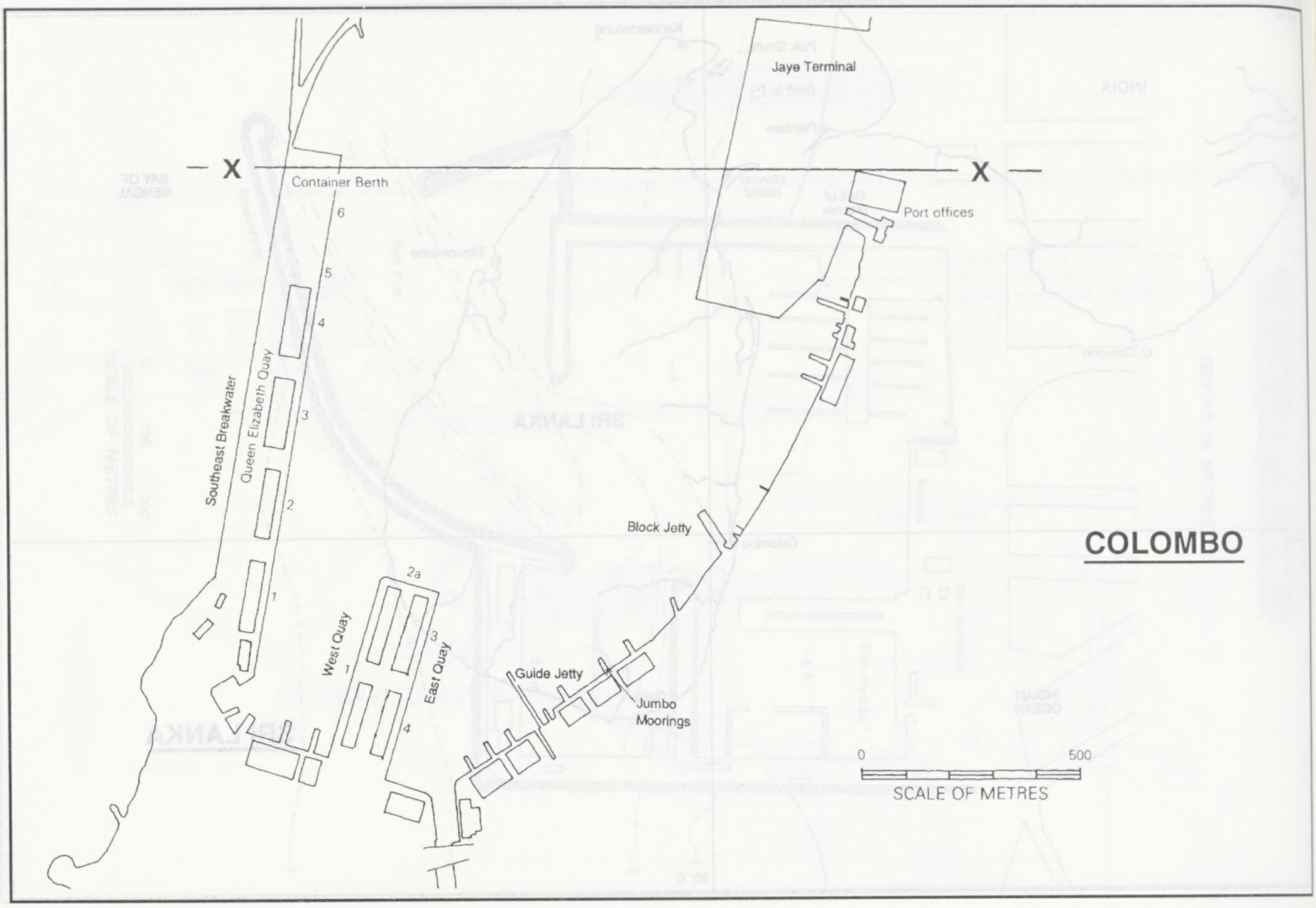
SRI LANKA

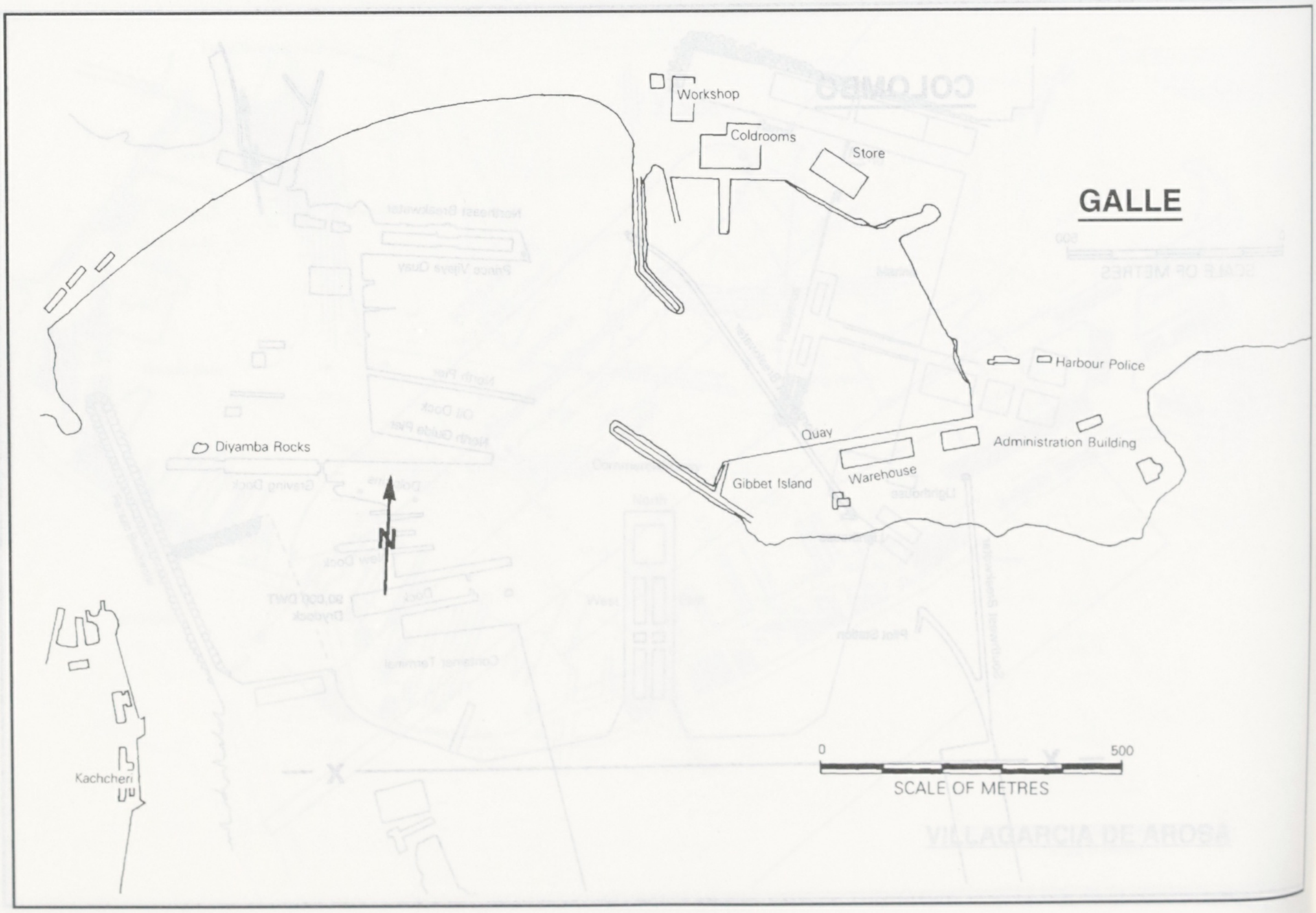
10° N
INDIA
Palk Straits
Kankesanturai
Delft Is.
Pamban
Mannar Island
Gulf of Mannar
BAY OF BENGAL
Trincomalee
C. Comorin
SRI LANKA
7° N
Colombo
INDIAN OCEAN
Galle
80° E

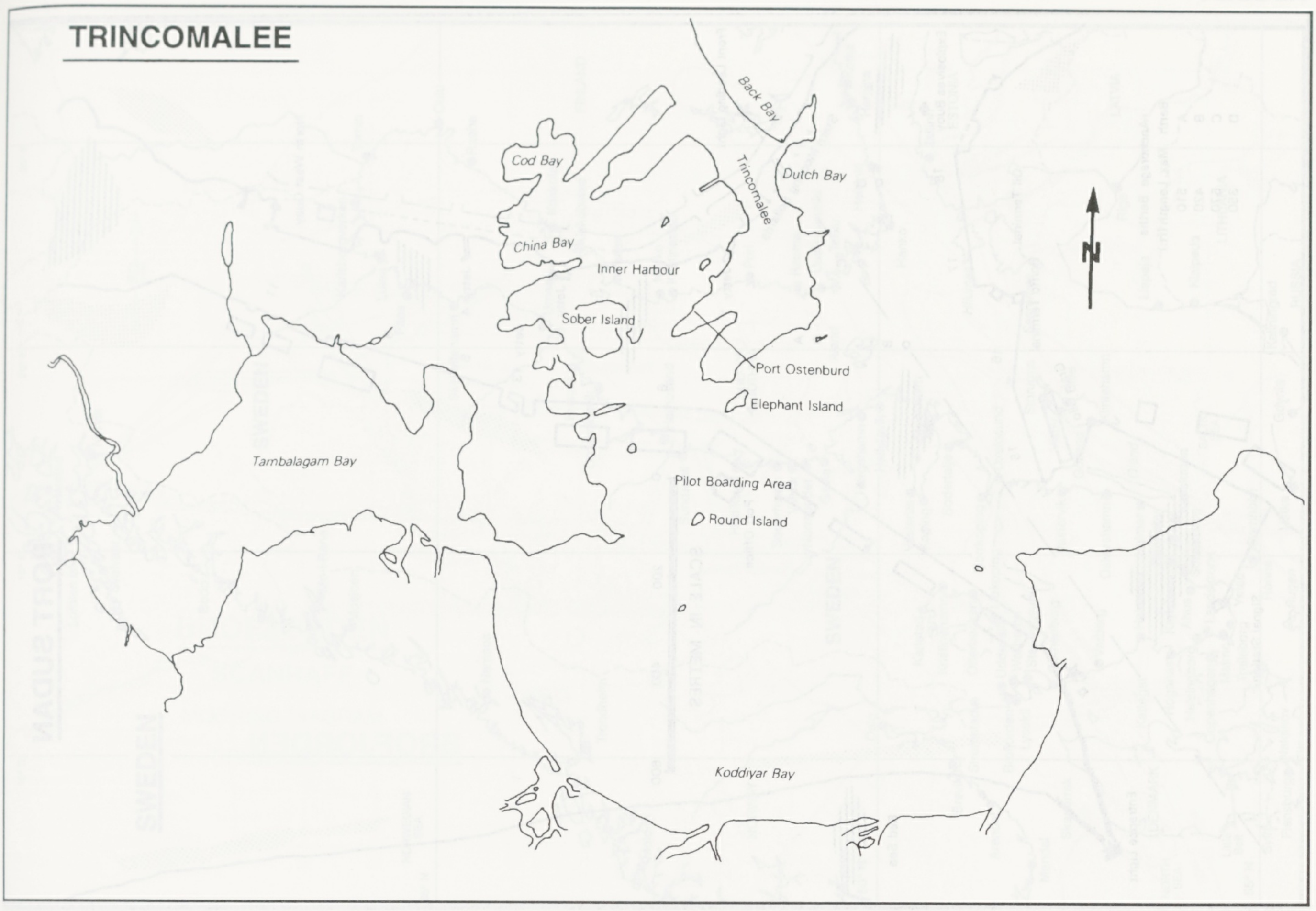


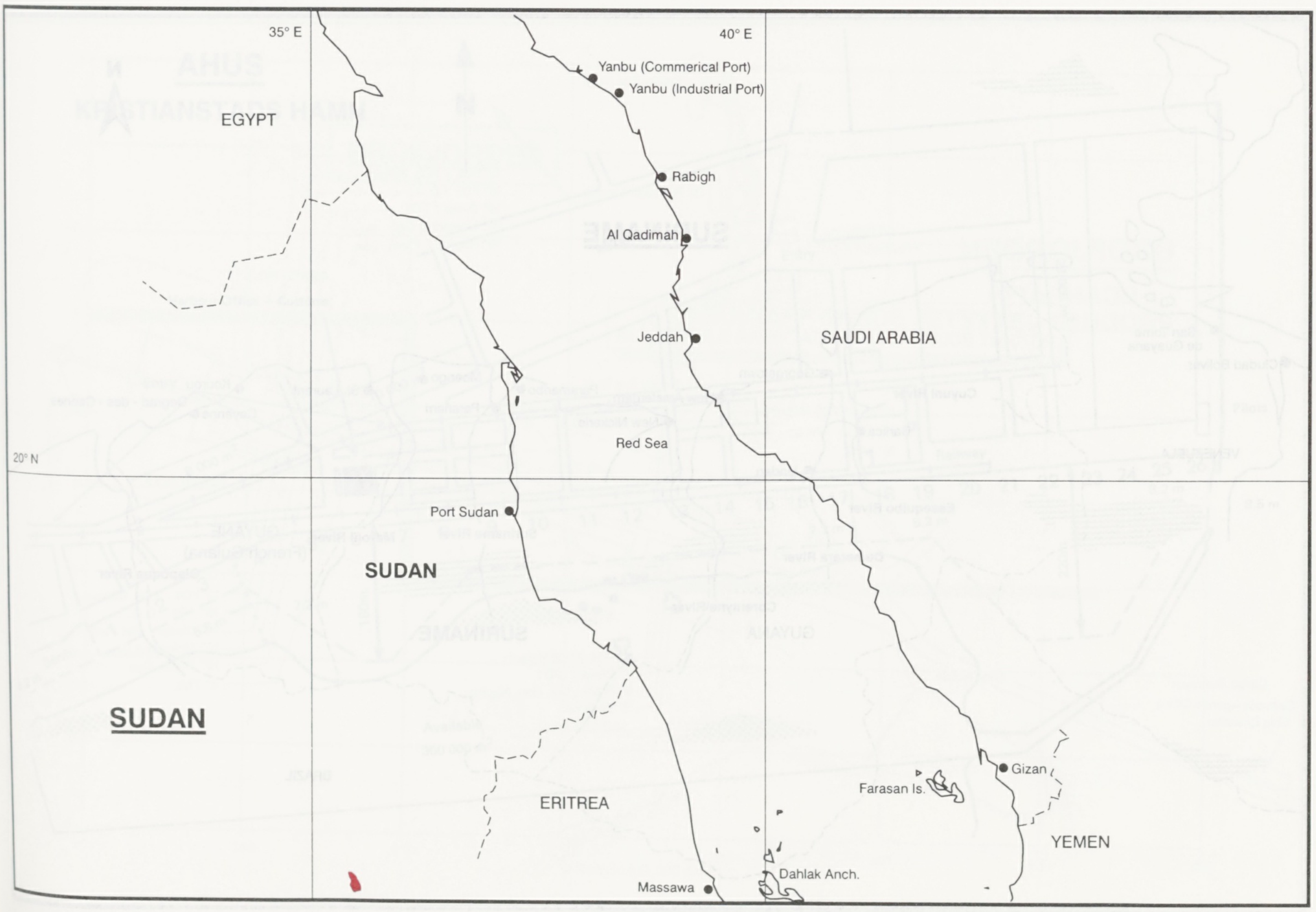
COLOMBO

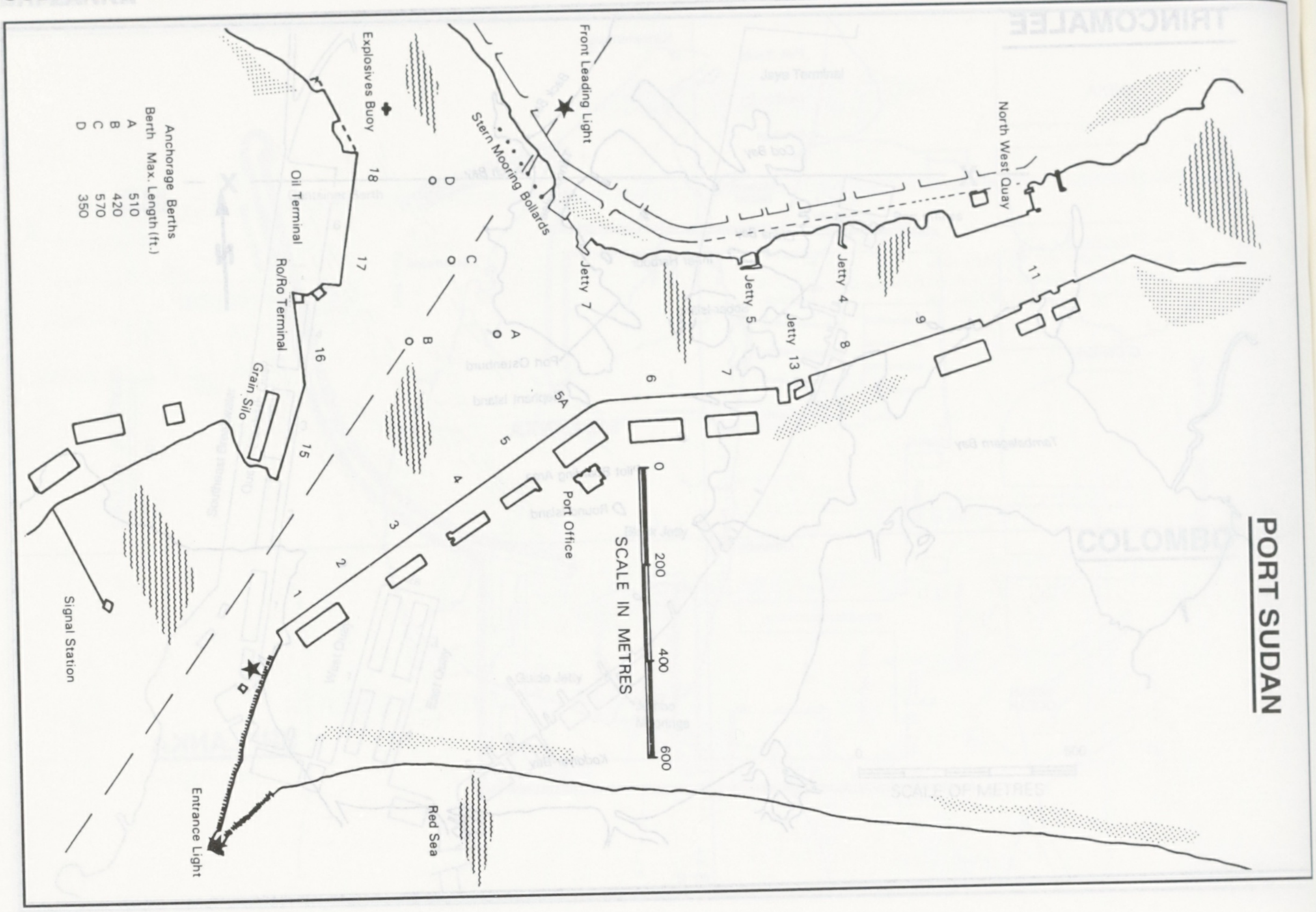
0
500
SCALE OF METRES
Northeast Breakwater
Prince Vijaya Quay
Northwest Breakwater
North Pier
Oil Dock
North Guide Pier
Dolphins
Graving Dock
Lighthouse
Lighthouse
New Dock
Dock
90,000 DWT Drydock
Southwest Breakwater
Pilot Station
Container Terminal
X
X

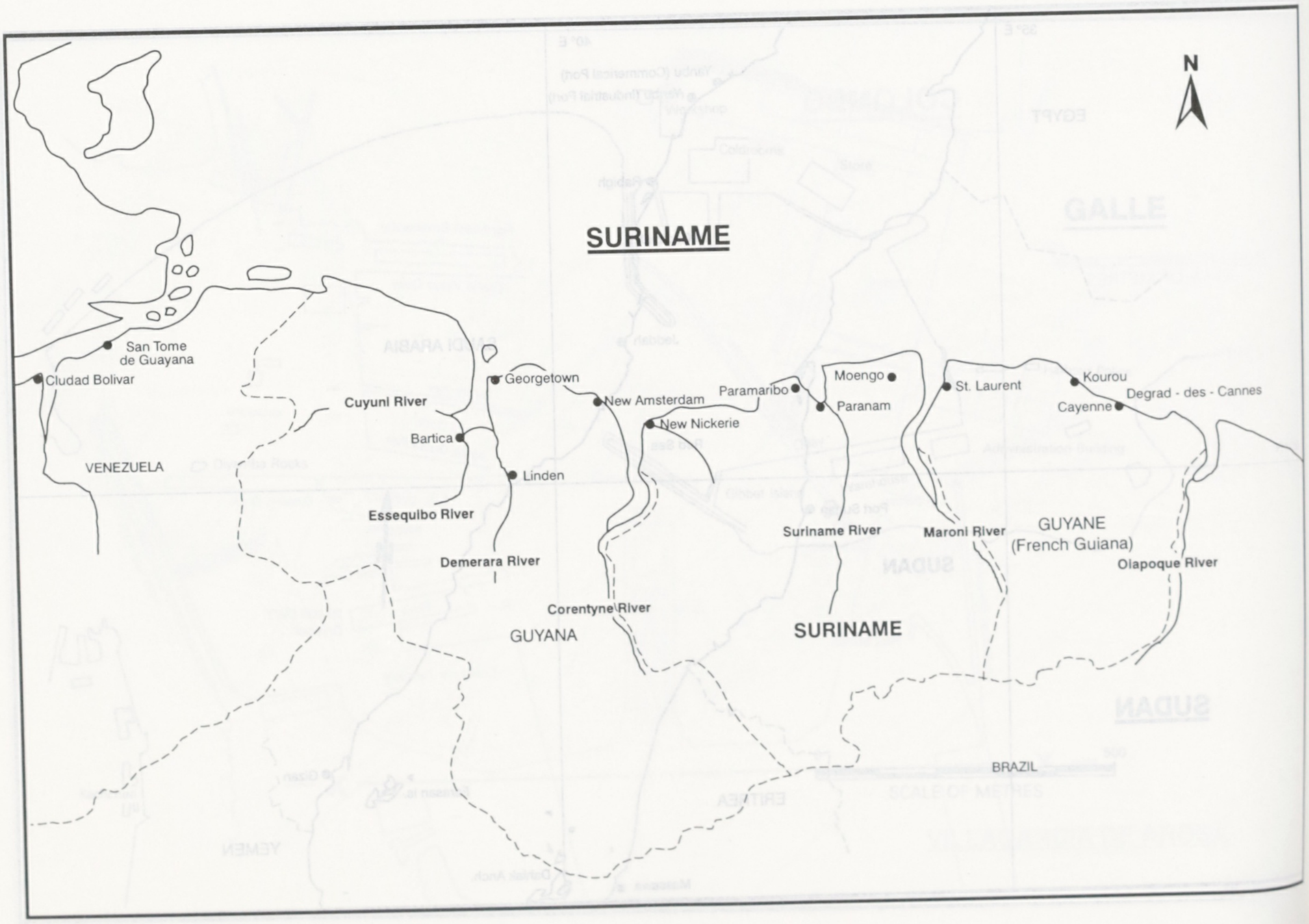

X
X
Jaye Terminal
Container Berth
Port offices
6
5
4
3
2
1
Southeast Breakwater
Queen Elizabeth Quay
Block Jetty
COLOMBO
2a
3
West Quay
1
East Quay
4
Guide Jetty
Jumbo
Moorings
0
500
SCALE OF METRES

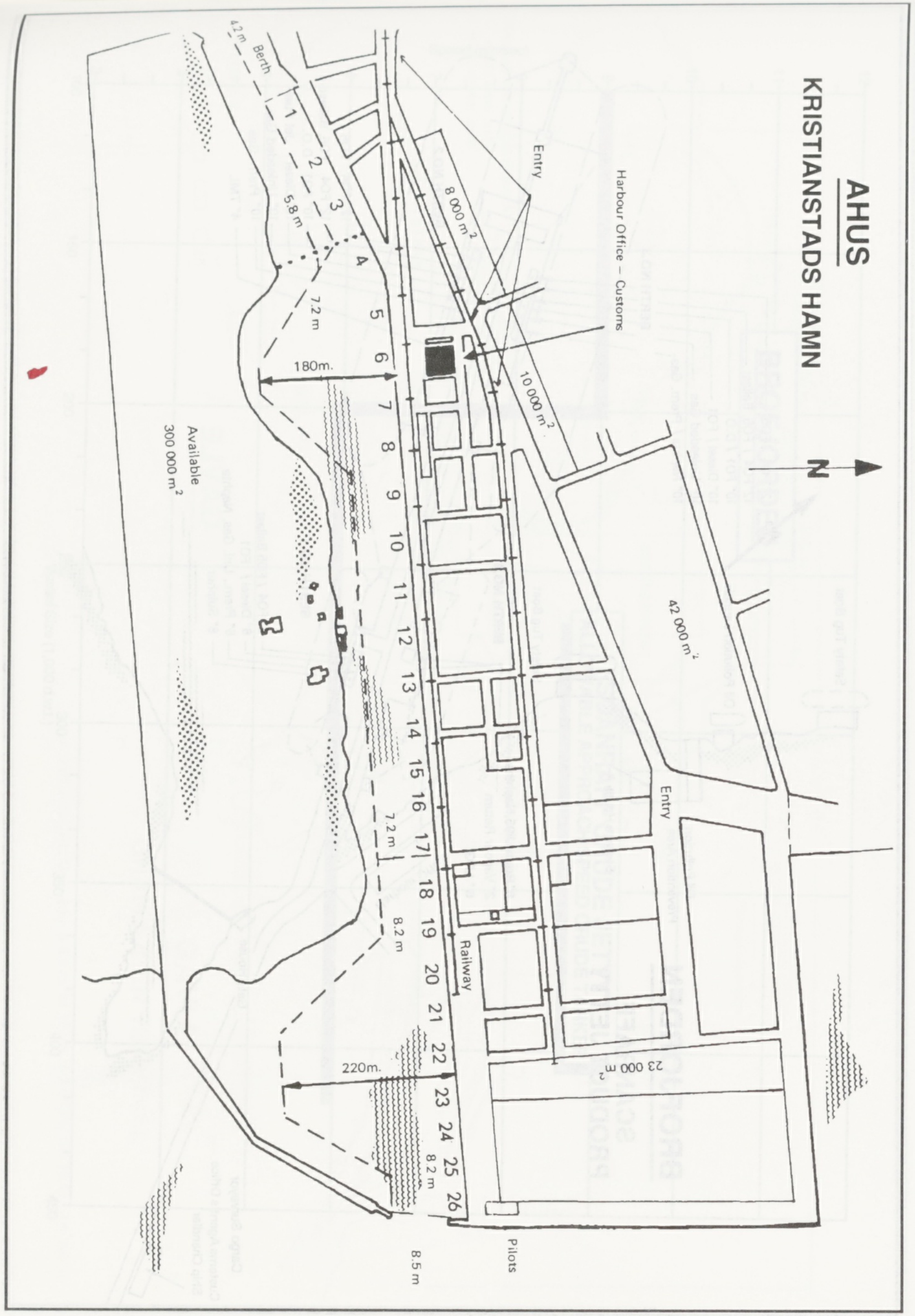

Workshop
Coldrooms
Store
GALLE
Harbour Police
Diyamba Rocks
Quay
Administration Building
Gibbet Island
Warehouse
N
Kachcheri
0
500
SCALE OF METRES

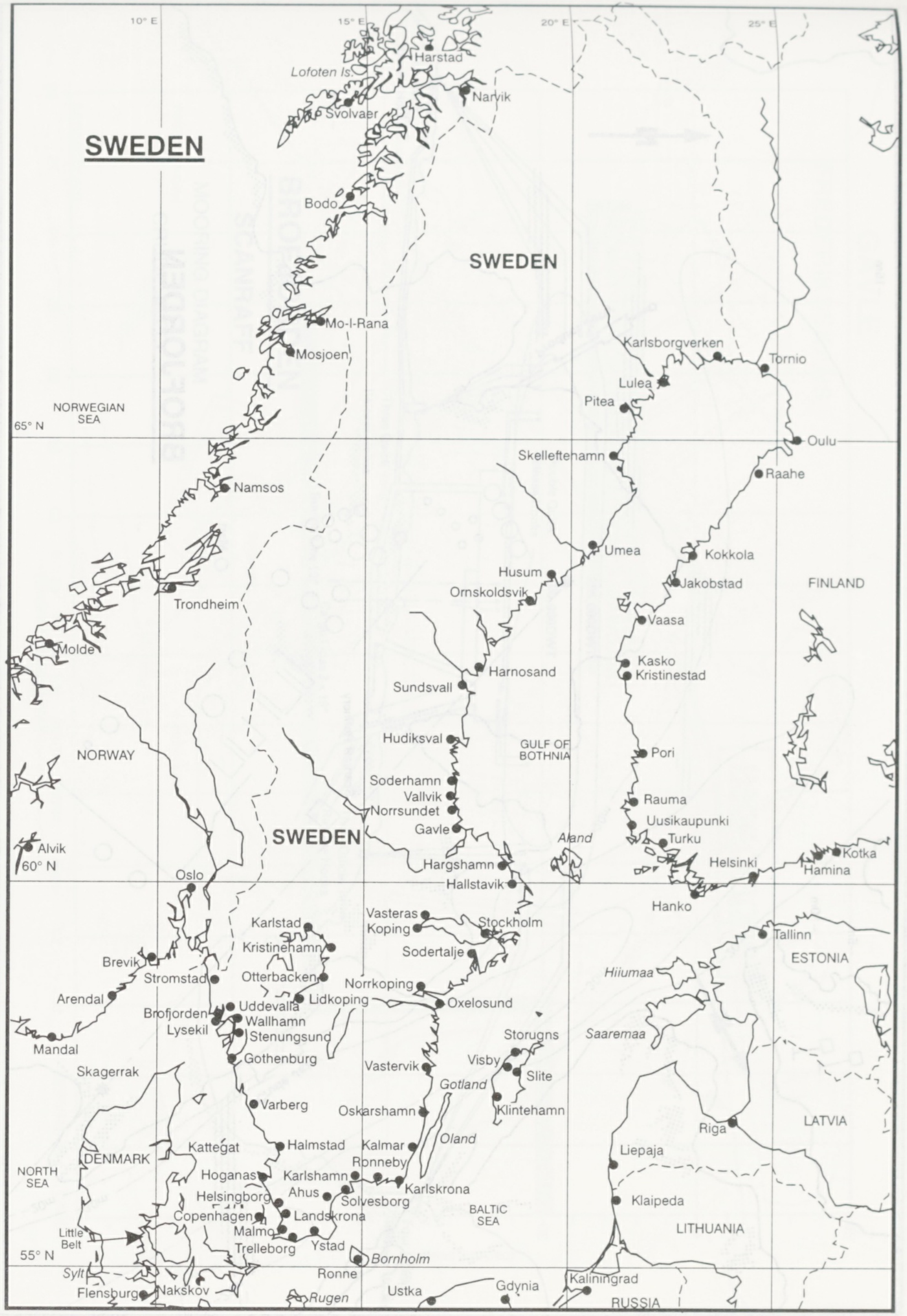

TRINCOMALEE
Back Bay
Cod Bay
Dutch Bay
Trincomalee
China Bay
Inner Harbour
Sober Island
Port Ostenburd
Elephant Island
Tambalagam Bay
Pilot Boarding Area
Round Island
Koddiyar Bay
N

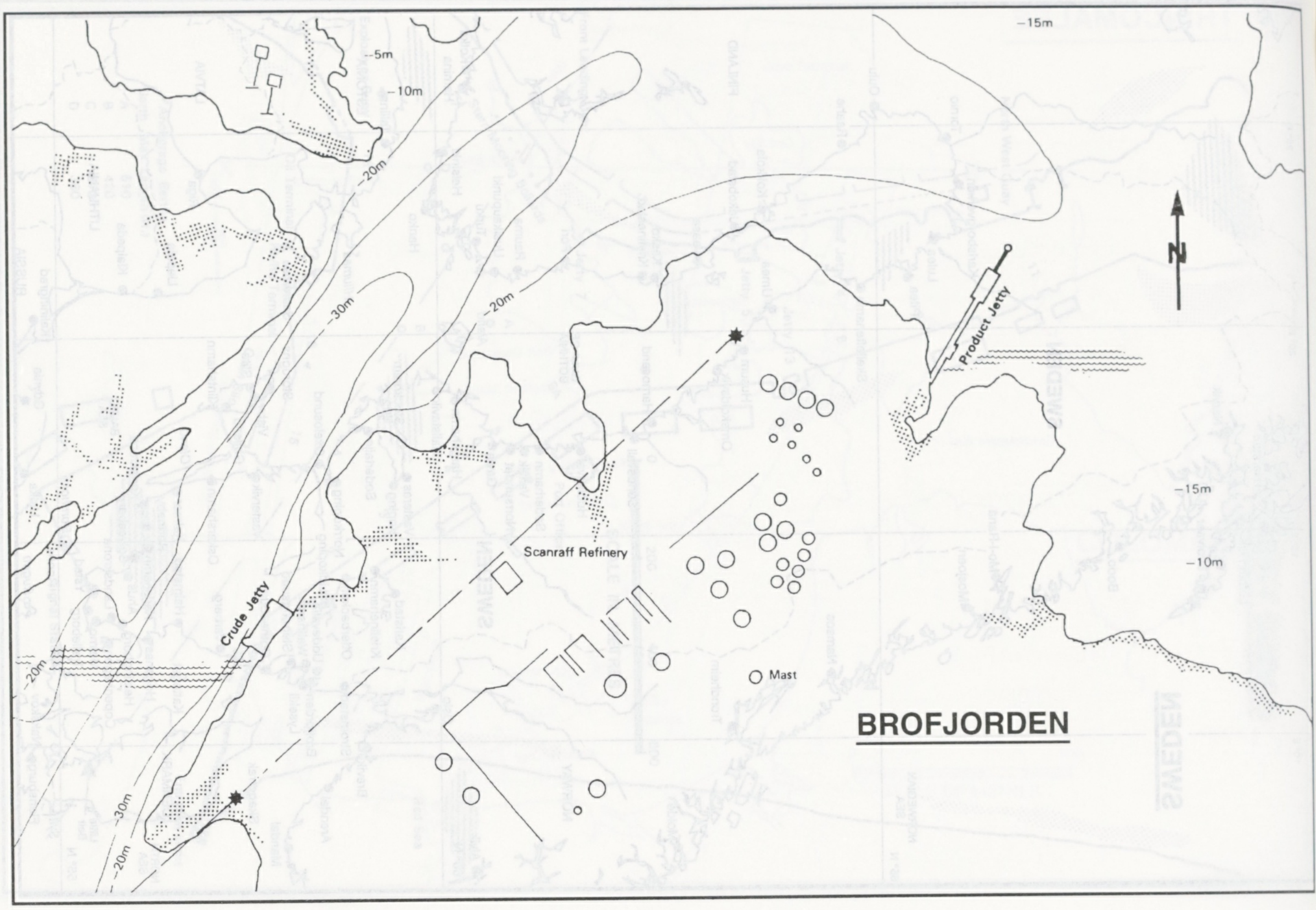

35° E
40° E
Yanbu (Commerical Port)
Yanbu (Industrial Port)
EGYPT
Rabigh
Al Qadimah
Jeddah
SAUDI ARABIA
Red Sea
20° N
Port Sudan
SUDAN
SUDAN
Gizan
Farasan Is.
ERITREA
YEMEN
Dahlak Anch.
Massawa

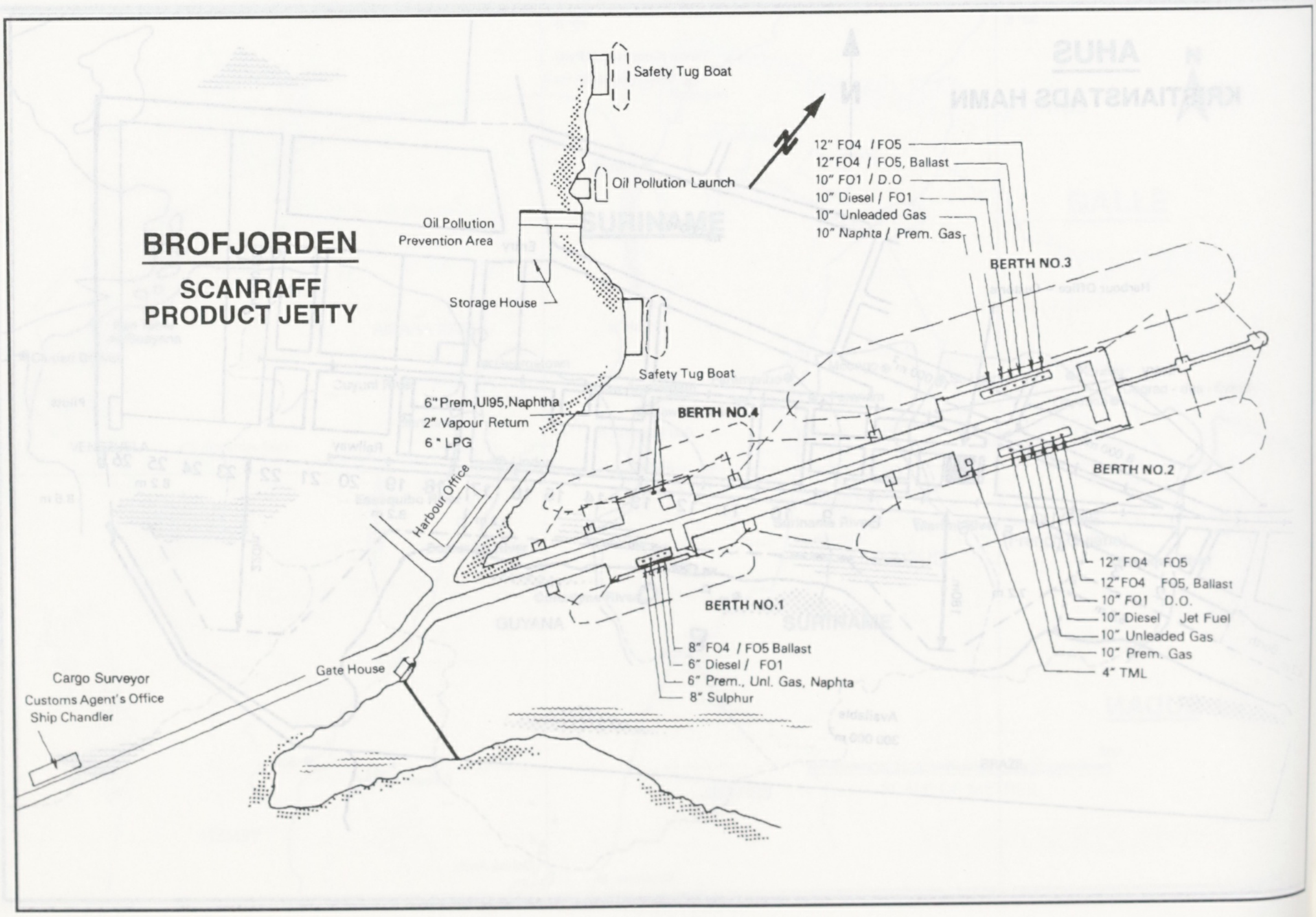

PORT SUDAN
Anchorage Berths
Berth Max. Length (ft.)
A 510
B 420
C 570
D 350
Explosives Buoy
Front Leading Light
Stern Mooring Bollards
North West Quay
Jetty 7
Jetty 5
Jetty 4
Jetty 13
Oil Terminal
Ro/Ro Terminal
Grain Silo
Port Office
Signal Station
Entrance Light
Red Sea
SCALE IN METRES
0
200
400
600
A
B
C
D
1
2
3
4
5
5A
6
7
8
9
11
15
16
17
18

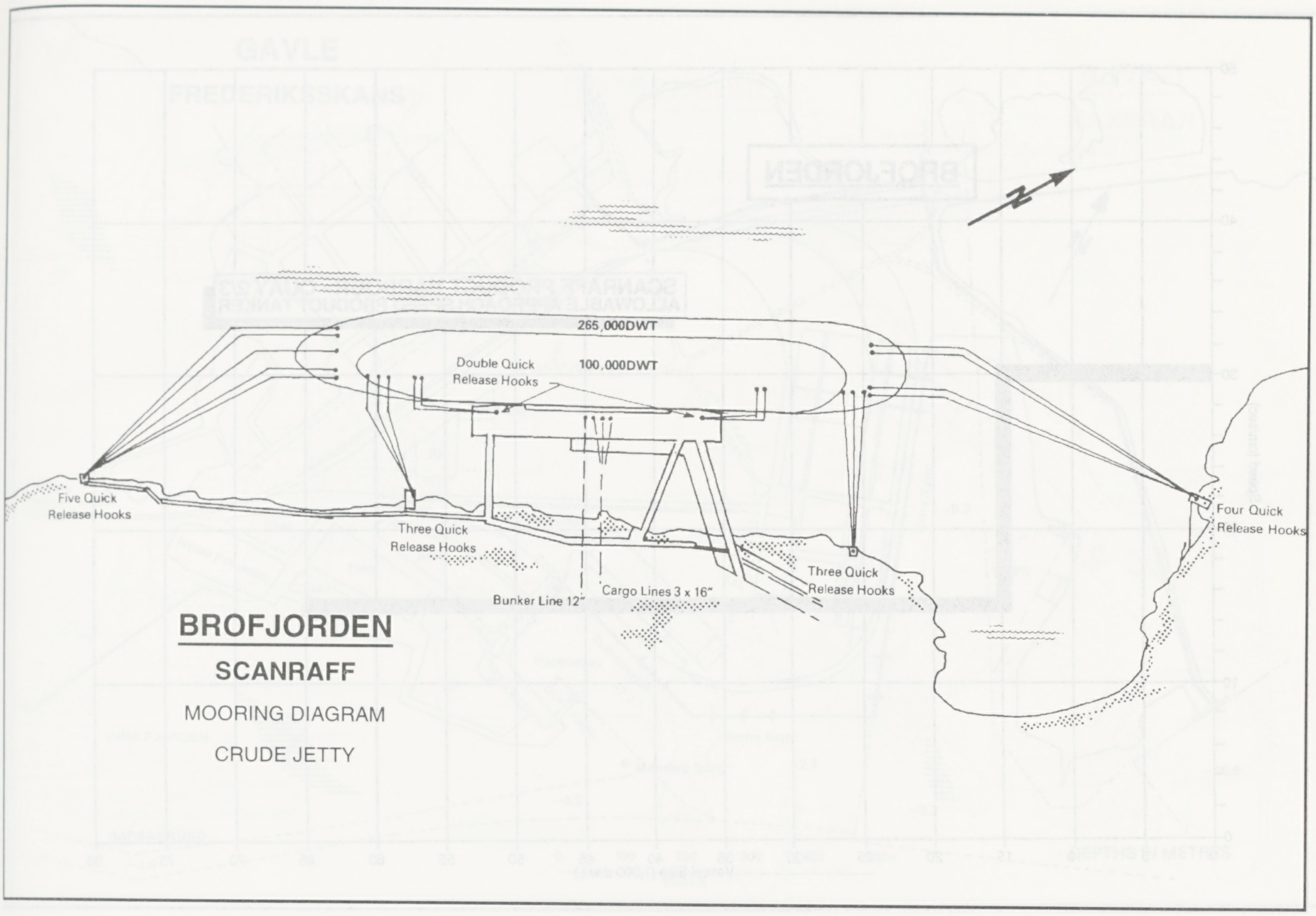

N
SURINAME
San Tome de Guayana
Cludad Bolivar
VENEZUELA
Cuyuni River
Bartica
Georgetown
Linden
Essequibo River
Demerara River
New Amsterdam
New Nickerie
Corentyne River
GUYANA
Paramaribo
Moengo
Paranam
Suriname River
SURINAME
St. Laurent
Maroni River
Kourou
Cayenne
Degrad - des - Cannes
GUYANE
(French Guiana)
Oiapoque River
BRAZIL

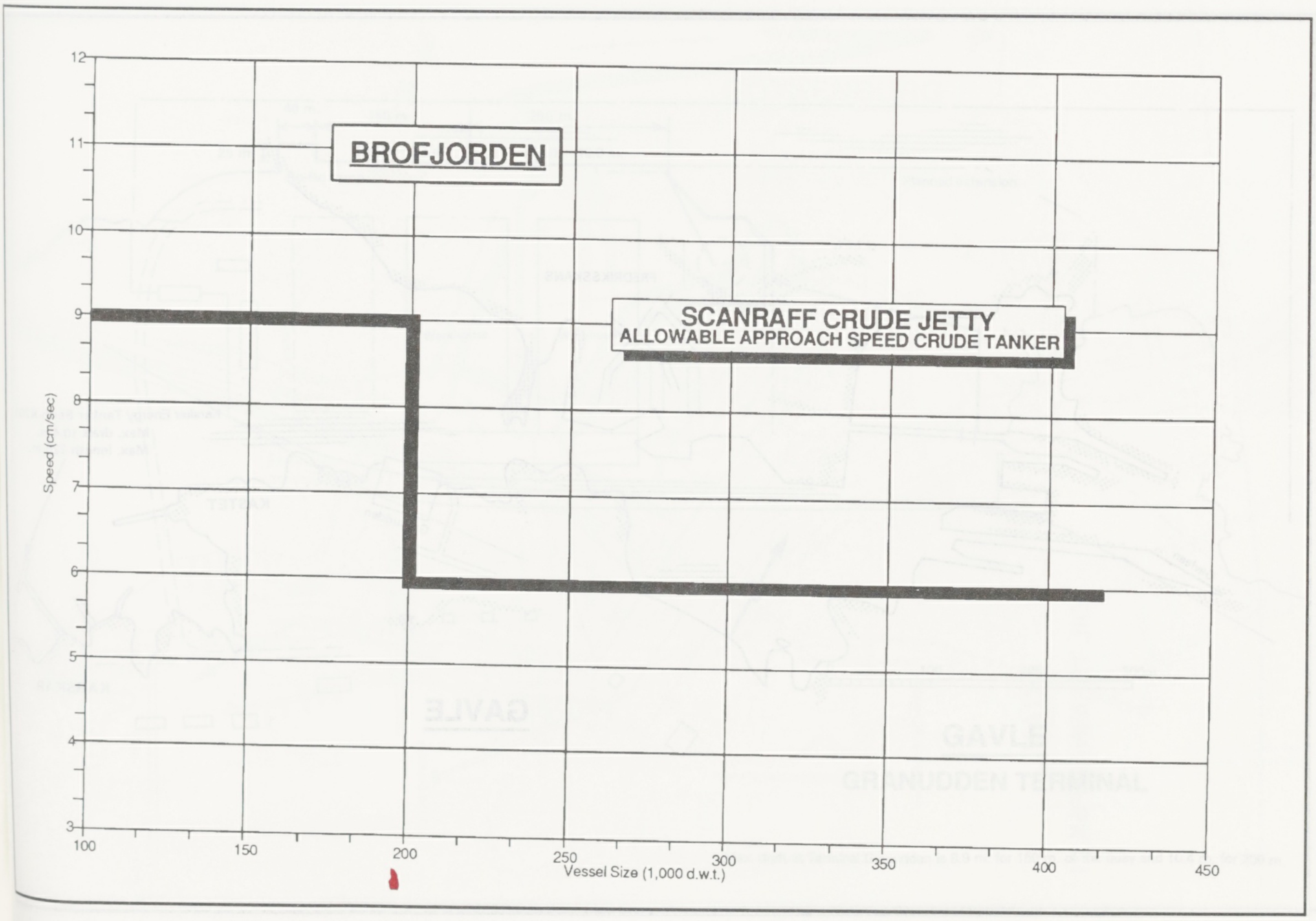

AHUS
KRISTIANSTADS HAMN
N
42 m Berth
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
5.8 m
7.2 m
7.2 m
8.2 m
8.2 m
8.5 m
180m.
220m.
Available 300 000 m²
8 000 m²
10 000 m²
42 000 m²
23 000 m²
Entry
Entry
Harbour Office – Customs
Railway
Pilots

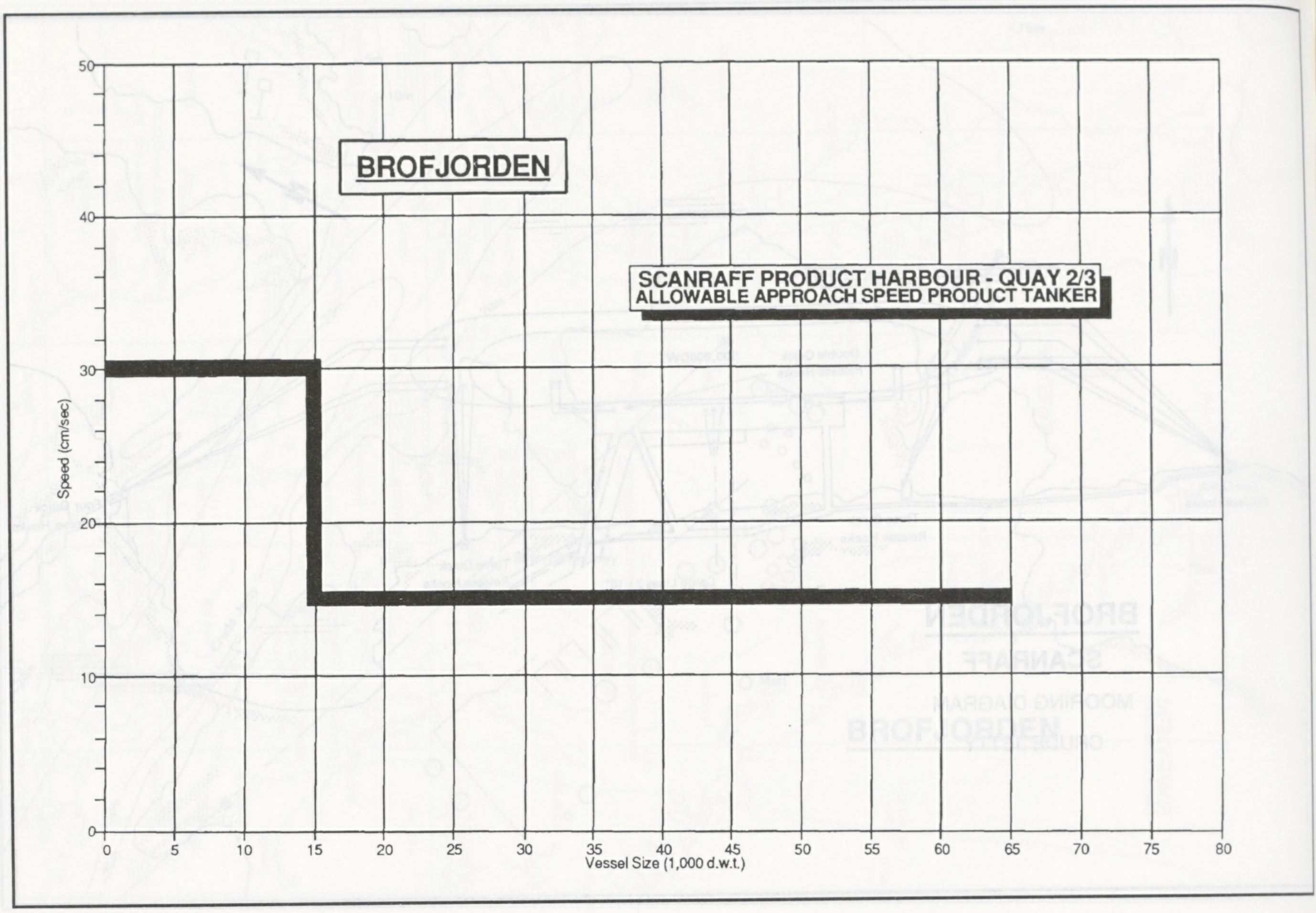

SWEDEN
10° E
15° E
20° E
25° E
65° N
60° N
55° N
Lofoten Is.
Harstad
Narvik
Svolvaer
Bodo
Mo-I-Rana
Mosjoen
NORWEGIAN SEA
Namsos
Trondheim
Molde
NORWAY
Alvik
Oslo
Brevik
Arendal
Mandal
Skagerrak
NORTH SEA
DENMARK
Little Belt
Sylt
Flensburg
Nakskov
SWEDEN
SWEDEN
Karlsborgverken
Tornio
Lulea
Pitea
Oulu
Raahe
Skelleftehamn
Umea
Kokkola
Jakobstad
Husum
Ornskoldsvik
FINLAND
Vaasa
Harnosand
Sundsvall
Kasko
Kristinestad
Hudiksval
GULF OF BOTHNIA
Pori
Soderhamn
Vallvik
Norrsundet
Gavle
Rauma
Uusikaupunki
Turku
Aland
Helsinki
Kotka
Hamina
Hargshamn
Hallstavik
Hanko
Karlstad
Kristinehamn
Vasteras
Koping
Stockholm
Sodertalje
Tallinn
ESTONIA
Stromstad
Otterbacken
Norrkoping
Hiiumaa
Lidkoping
Oxelosund
Brofjorden
Uddevalla
Wallhamn
Lysekil
Stenungsund
Storugns
Saaremaa
Gothenburg
Visby
Vastervik
Slite
Gotland
Varberg
Oskarshamn
Klintehamn
LATVIA
Riga
Kattegat
Halmstad
Kalmar
Oland
Ronneby
Liepaja
Hoganas
Karlshamn
Karlskrona
Helsingborg
Ahus
Solvesborg
BALTIC SEA
Klaipeda
Copenhagen
Landskrona
Malmo
Ystad
LITHUANIA
Trelleborg
Bornholm
Ronne
Ustka
Gdynia
Kaliningrad
RUSSIA
Rugen

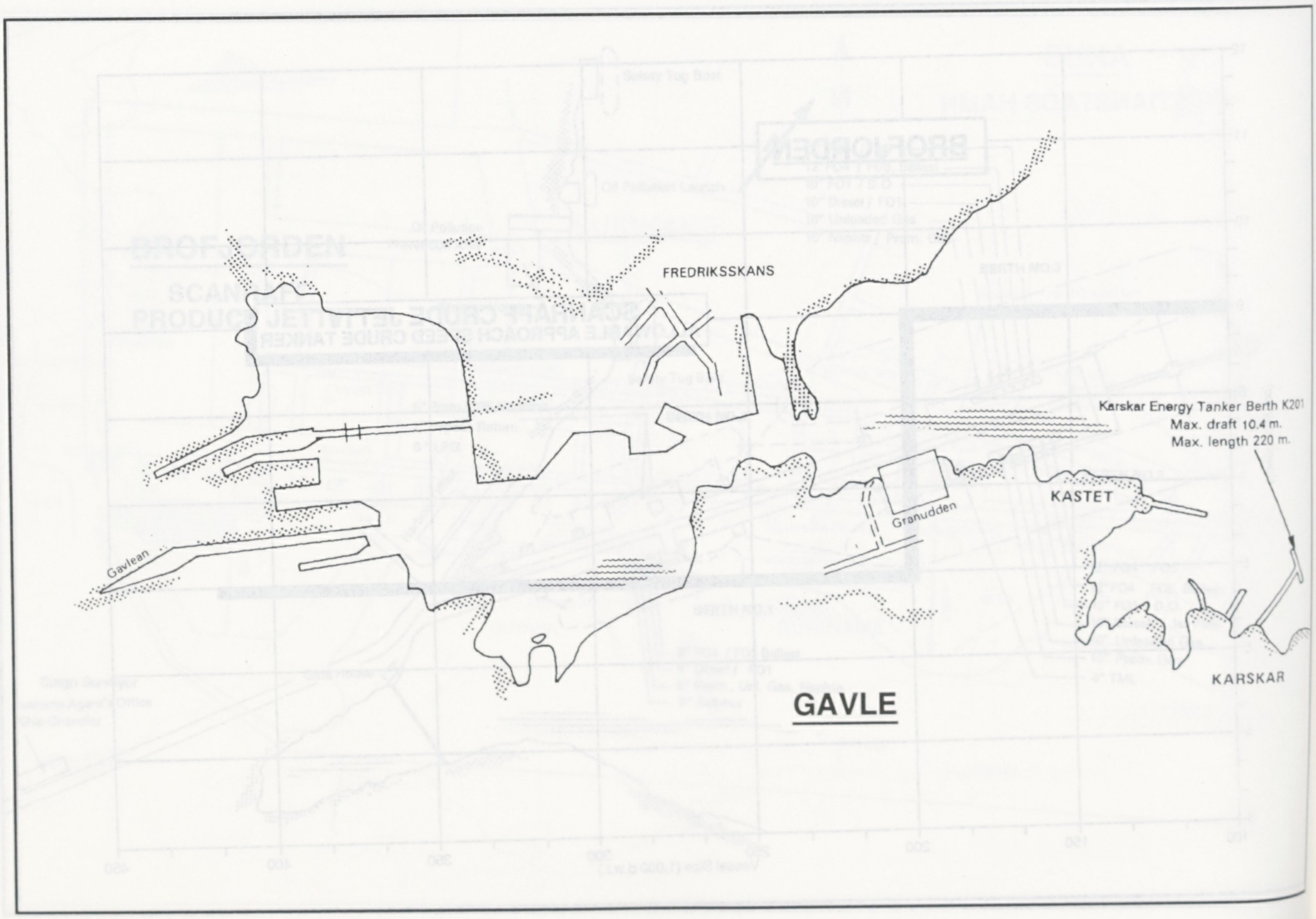

-5m
-10m
-20m
-30m
-15m
-10m
N
Product Jetty
Crude Jetty
Scanraff Refinery
Mast
BROFJORDEN


BROFJORDEN
SCANRAFF
PRODUCT JETTY
N
Safety Tug Boat
Oil Pollution Launch
Oil Pollution
Prevention Area
Storage House
Safety Tug Boat
12" FO4 / FO5
12" FO4 / FO5, Ballast
10" FO1 / D.O
10" Diesel / FO1
10" Unleaded Gas
10" Naphta / Prem. Gas
BERTH NO.3
6" Prem, Ul95, Naphtha
2" Vapour Return
6" LPG
BERTH NO.4
Harbour Office
BERTH NO.2
12" FO4 FO5
12" FO4 FO5, Ballast
10" FO1 D.O.
10" Diesel Jet Fuel
10" Unleaded Gas
10" Prem. Gas
4" TML
BERTH NO.1
8" FO4 / FO5 Ballast
6" Diesel / FO1
6" Prem., Unl. Gas, Naphta
8" Sulphur
Gate House
Cargo Surveyor
Customs Agent's Office
Ship Chandler

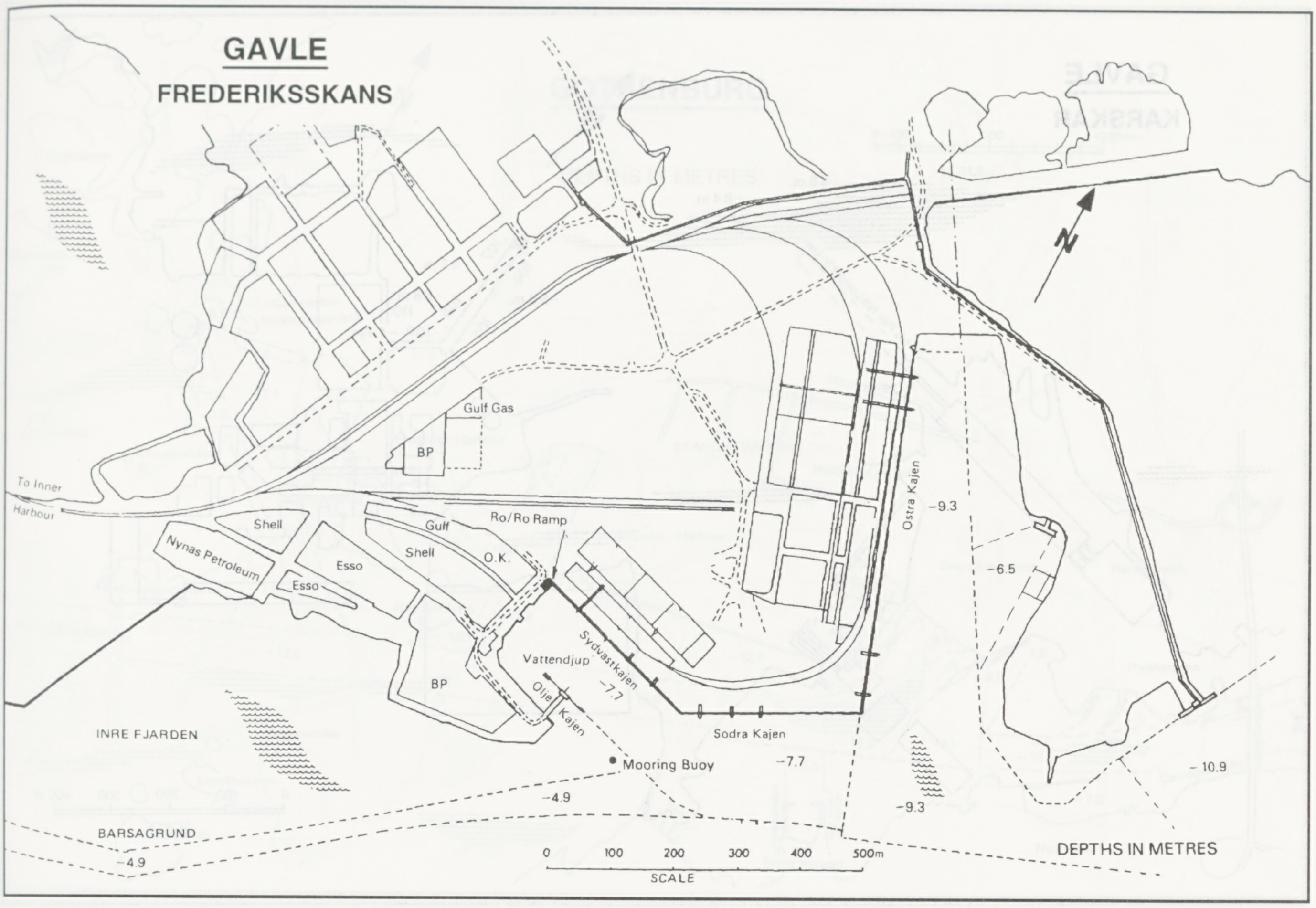

265,000DWT
Double Quick
Release Hooks
100,000DWT
Five Quick
Release Hooks
Three Quick
Release Hooks
Bunker Line 12"
Cargo Lines 3 x 16"
Three Quick
Release Hooks
Four Quick
Release Hooks
BROFJORDEN
SCANRAFF
MOORING DIAGRAM
CRUDE JETTY

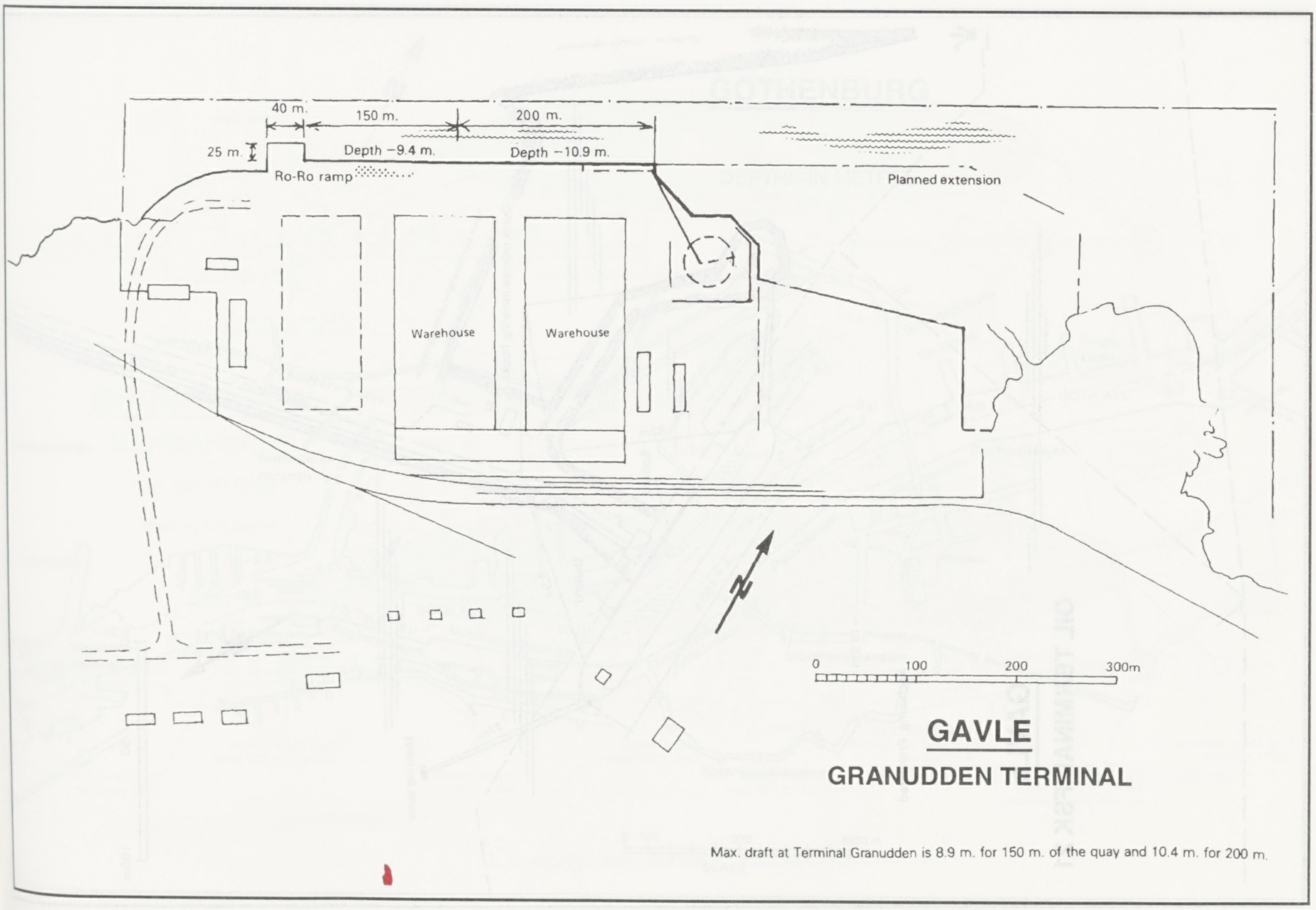

BROFJORDEN
SCANRAFF CRUDE JETTY
ALLOWABLE APPROACH SPEED CRUDE TANKER
Speed (cm/sec)
12
11
10
9
8
7
6
5
4
3
100
150
200
250
300
350
400
450
Vessel Size (1,000 d.w.t.)


BROFJORDEN
SCANRAFF PRODUCT HARBOUR - QUAY 2/3
ALLOWABLE APPROACH SPEED PRODUCT TANKER
Speed (cm/sec)
50
40
30
20
10
0
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
Vessel Size (1,000 d.w.t.)


FREDRIKSSKANS
Karskar Energy Tanker Berth K201
Max. draft 10.4 m.
Max. length 220 m.
KASTET
Granudden
Gavlean
KARSKAR
GAVLE

GAVLE
FREDERIKSSKANS

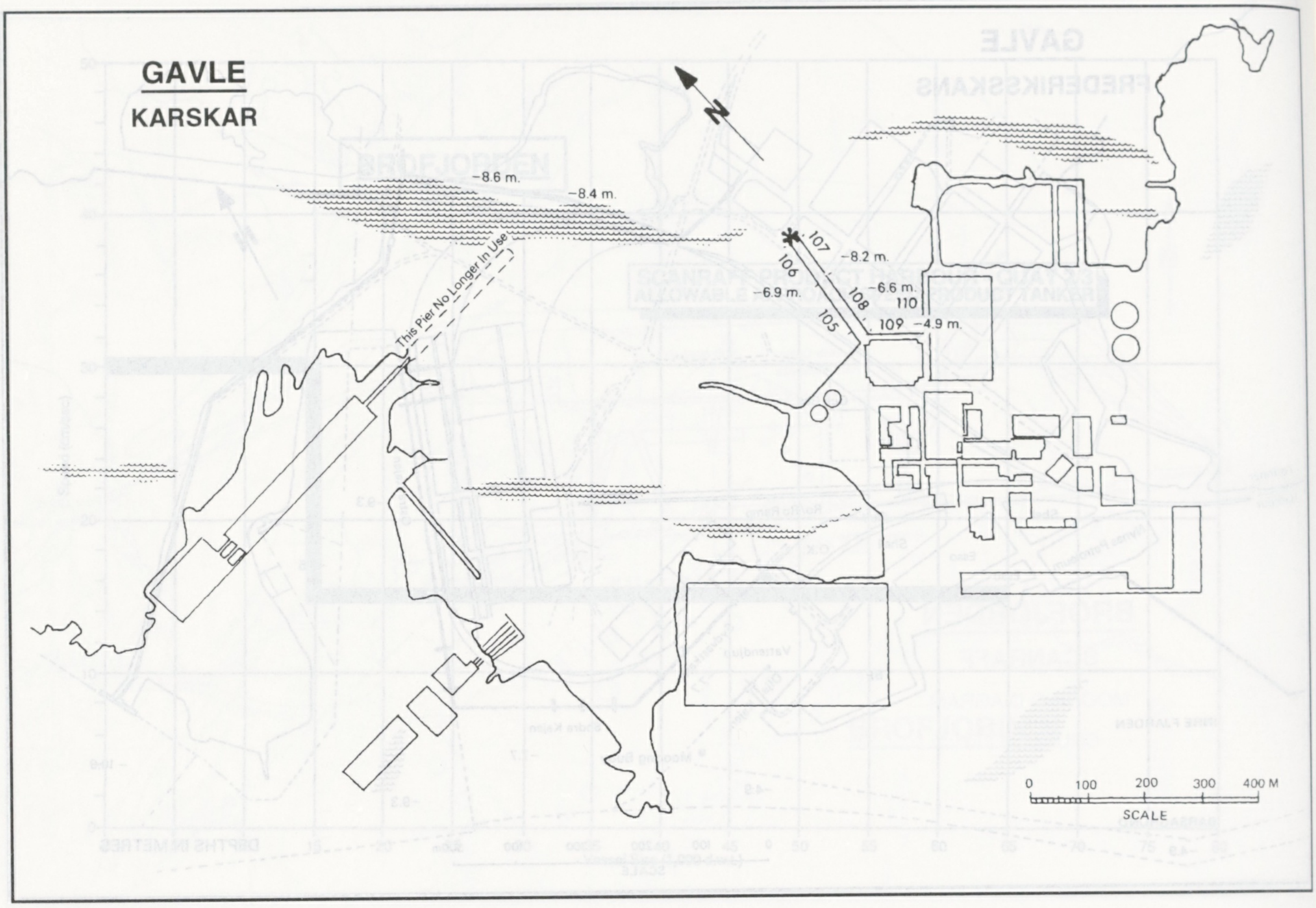

To Inner Harbour
Gulf Gas
BP
Shell
Nynas Petroleum
Esso
Esso
Gulf
Shell
O.K.
Ro/Ro Ramp
BP
Vattendjup
Sydvastkajen
-7.7
Olje Kajen
Mooring Buoy
Sodra Kajen
-7.7
Ostra Kajen
-9.3
-6.5
-10.9
-9.3
-4.9
INRE FJARDEN
BARSAGRUND
-4.9
0
100
200
300
400
500m
SCALE
DEPTHS IN METRES
N


40 m.
150 m.
200 m.
25 m.
Depth -9.4 m.
Depth -10.9 m.
Ro-Ro ramp
Planned extension
Warehouse
Warehouse
N
0
100
200
300m

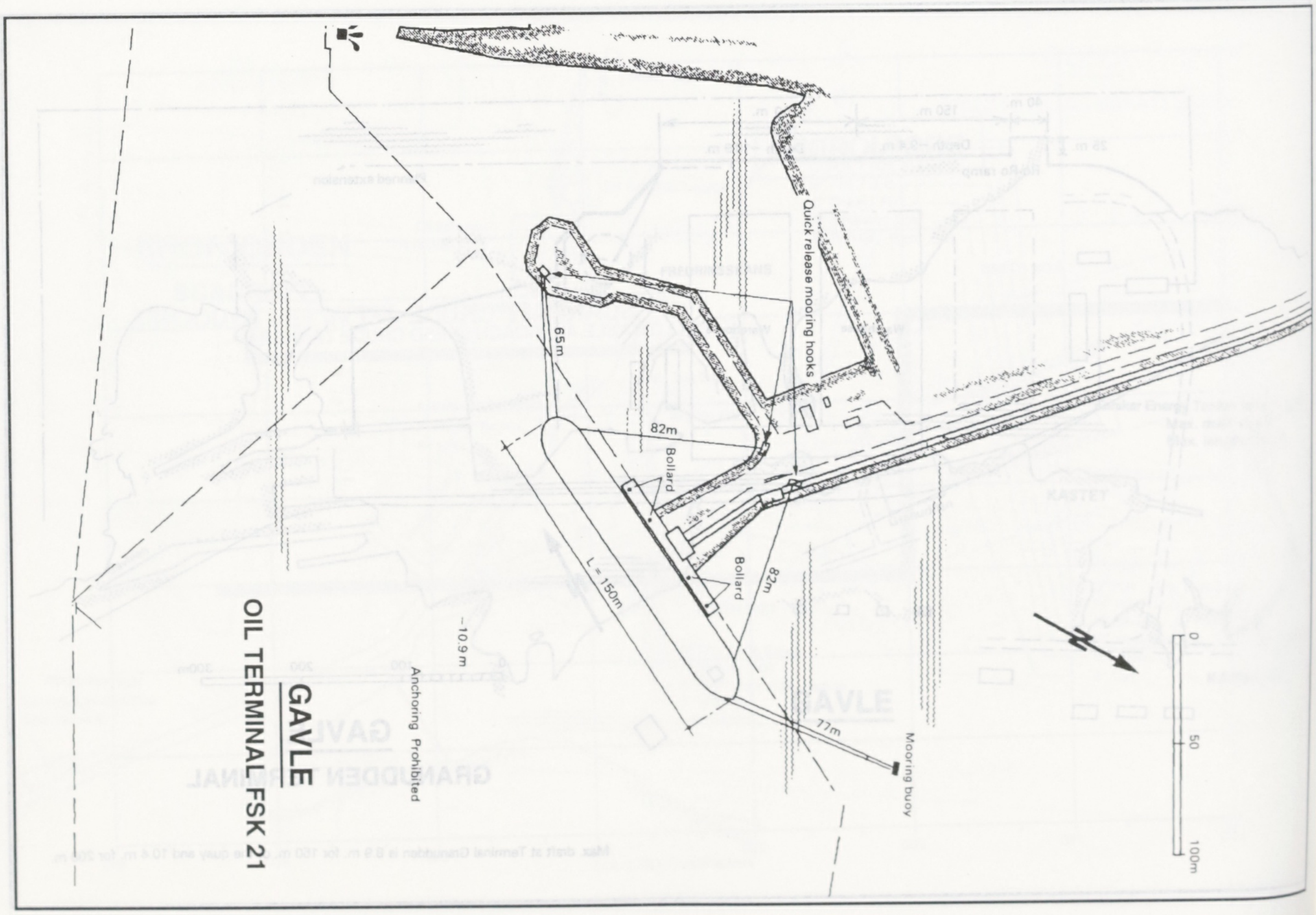
GAVLE
GRANUDDEN TERMINAL

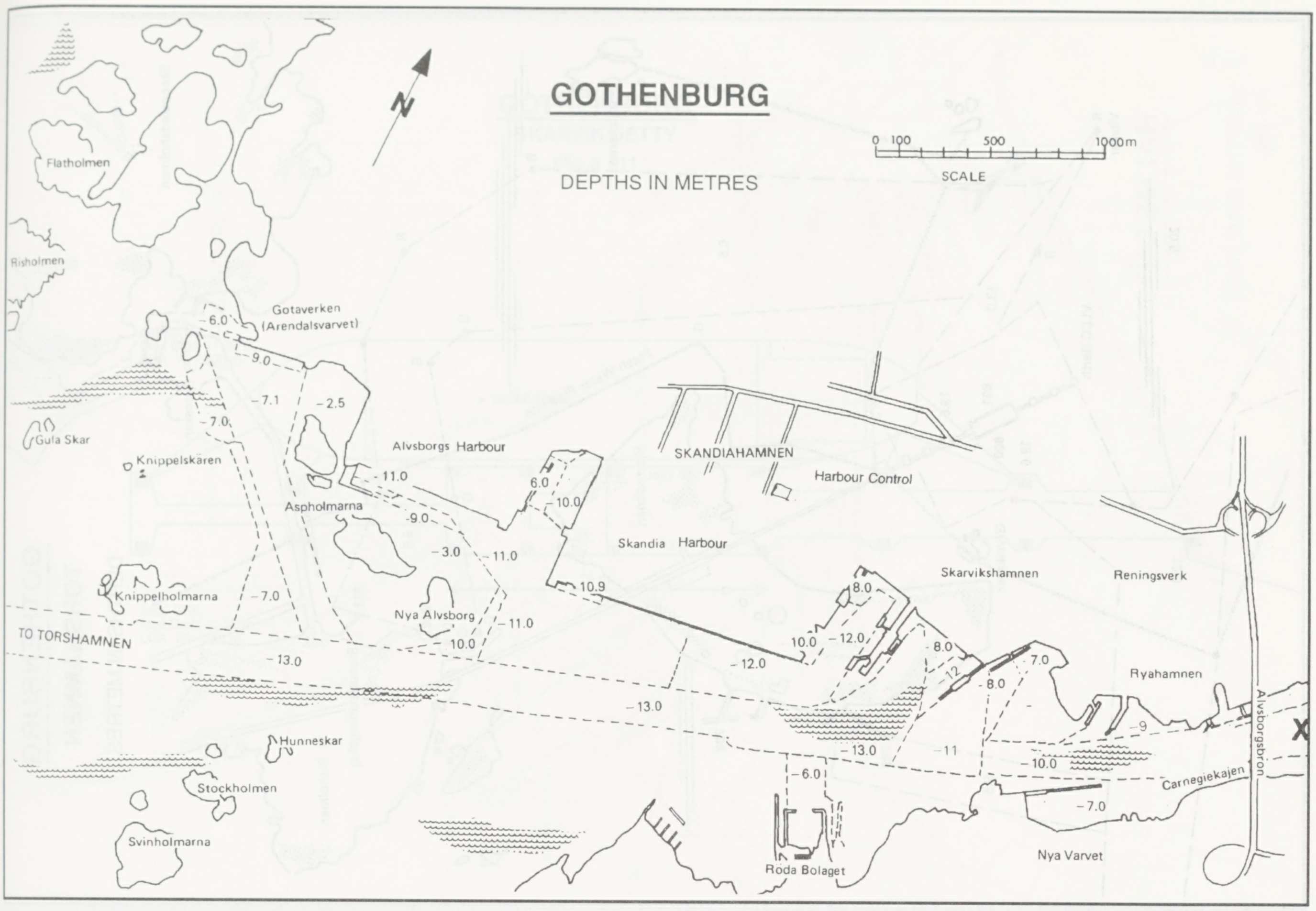
Max. draft at Terminal Granudden is 8.9 m. for 150 m. of the quay and 10.4 m. for 200 m.

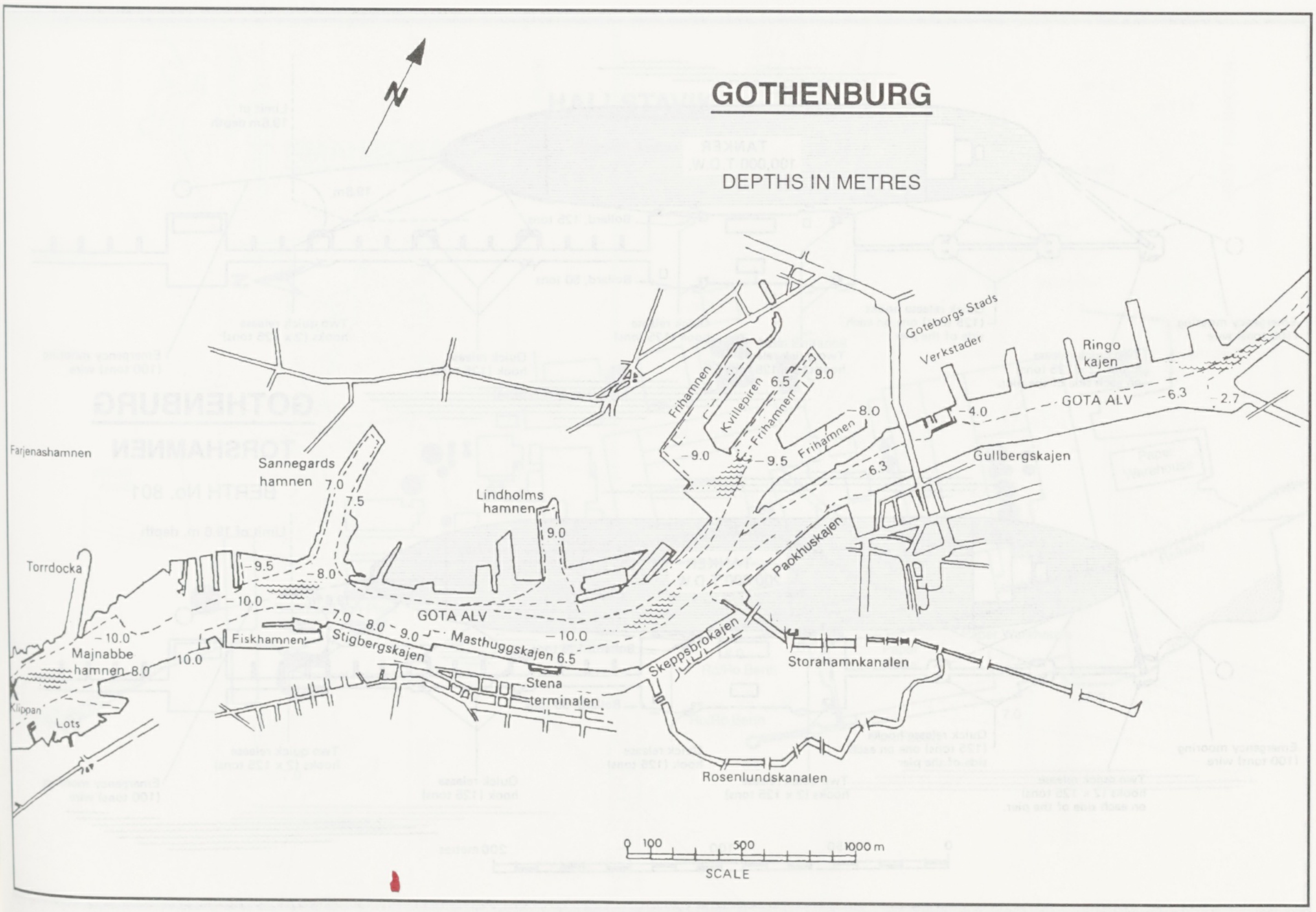
GAVLE
KARSKAR

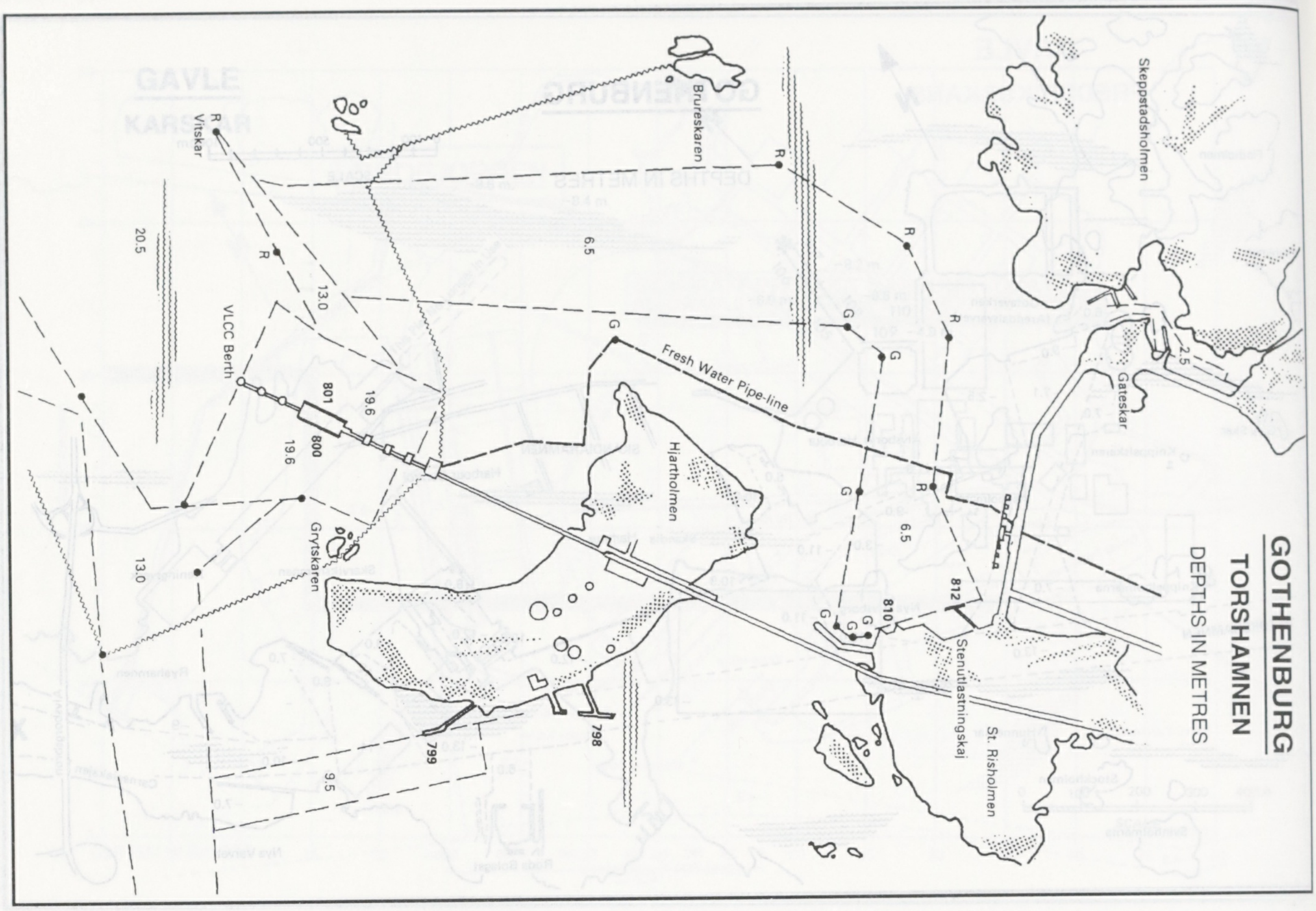

N
-8.6 m.
-8.4 m.
This Pier No Longer In Use
107
106
108
105
-8.2 m.
-6.6 m.
110
-6.9 m.
109
-4.9 m.
0
100
200
300
400 M
SCALE

GAVLE
OIL TERMINAL FSK 21

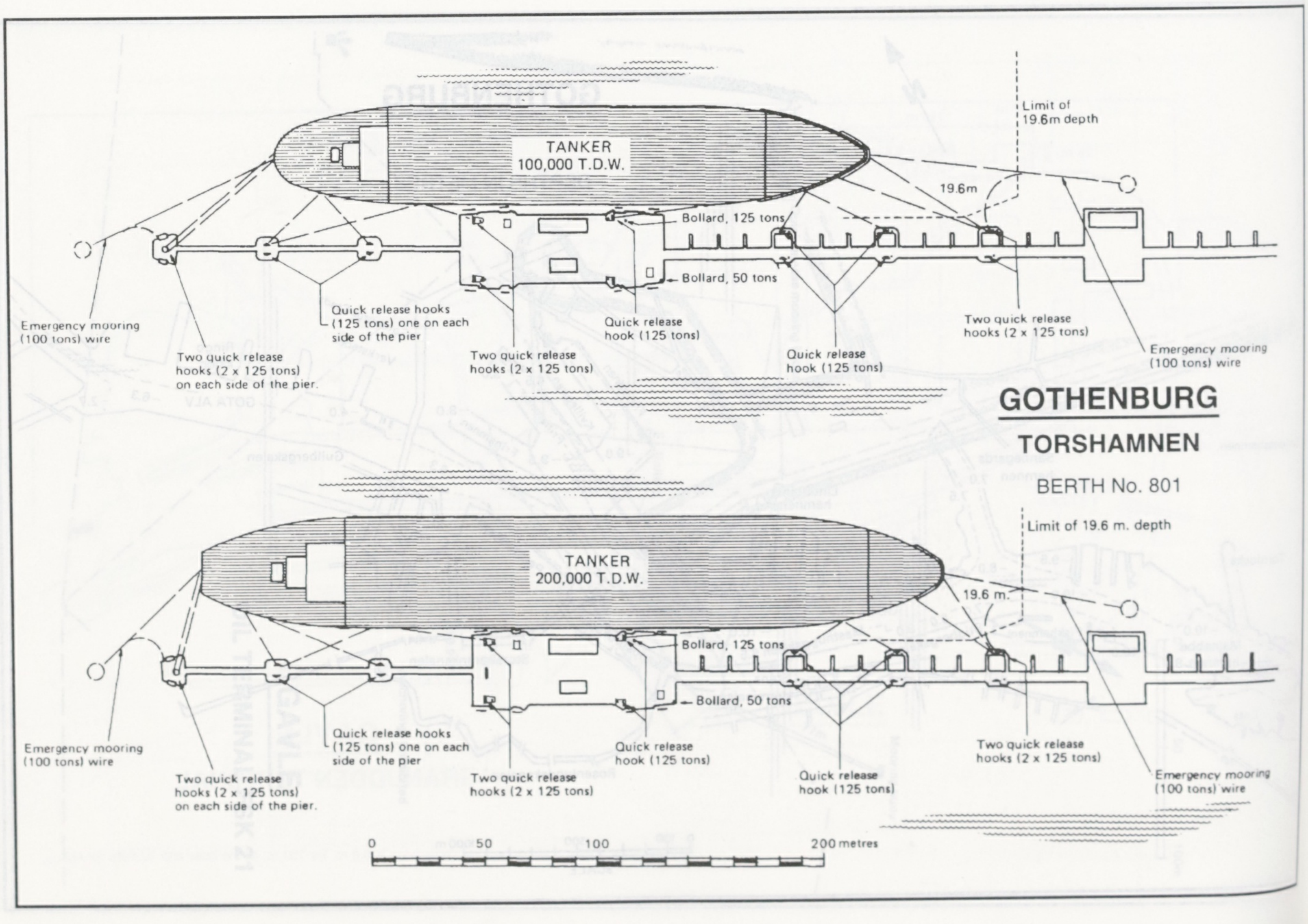

Quick release mooring hooks
65m
82m
Bollard
Bollard
82m
L = 150m
-10.9 m
Anchoring Prohibited
77m
Mooring buoy
N
0
50
100m


GOTHENBURG
DEPTHS IN METRES
N
0 100 500 1000m
SCALE
Flatholmen
Risholmen
Gotaverken (Arendalsvarvet)
6.0
9.0
7.1
2.5
7.0
Gula Skar
Knippelskären
Alvsborgs Harbour
11.0
Aspholmarna
9.0
6.0
10.0
SKANDIAHAMNEN
Harbour Control
Skandia Harbour
3.0
11.0
10.9
Knippelholmarna
7.0
Nya Alvsborg
11.0
TO TORSHAMNEN
10.0
13.0
12.0
10.0
12.0
8.0
Skarvikshamnen
Reningsverk
Ryahamnen
8.0
7.0
12
8.0
13.0
Hunneskar
9
Alvsborgsbron
X
13.0
11
10.0
Carnegiekajen
6.0
Stockholmen
Svinholmarna
7.0
Nya Varvet
Roda Bolaget


GOTHENBURG
DEPTHS IN METRES
N
Goteborgs Stads Verkstader
Ringo kajen
9.0
6.5
Kvillepiren
Frihamnen
Frihamnen
Frihamnen
8.0
4.0
GOTA ALV
6.3
2.7
Farjenashamnen
9.0
9.5
6.3
Gullbergskajen
Sannegards hamnen
7.0
7.5
Lindholms hamnen
9.0
Paokhuskajen
Torrdocka
9.5
8.0
10.0
GOTA ALV
7.0
8.0
9.0
Masthuggskajen
10.0
6.5
Fiskhamnen
Stigbergskajen
Skeppsbrokajen
Storahamnkanalen
10.0
Majnabbe hamnen
8.0
10.0
Stena terminalen
Klippan
Lots
Rosenlundskanalen
0 100 500 1000m
SCALE

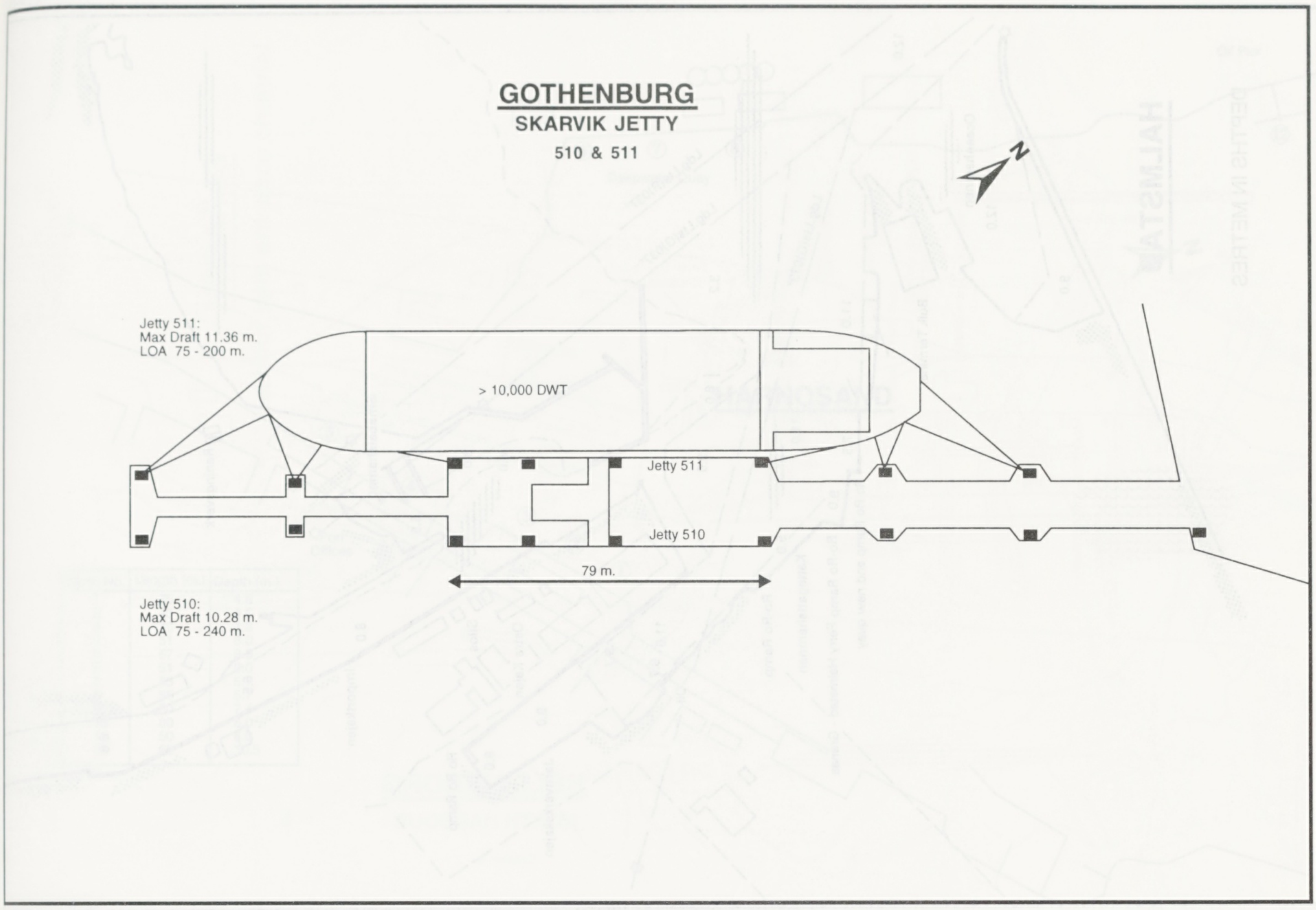

R
Vitskar
20.5
R
13.0
VLCC Berth
801
800
19.6
19.6
13.0
Grytskaren
Bruraskaren
R
6.5
G
G
G
R
R
Fresh Water Pipe-line
Hjartholmen
798
799
9.5
G
G
6.5
R
810
812
G
G
G
Stenutlastningskaj
St. Risholmen
Skeppstadsholmen
Gateskar
2.5

GOTHENBURG
TORSHAMNEN
DEPTHS IN METRES

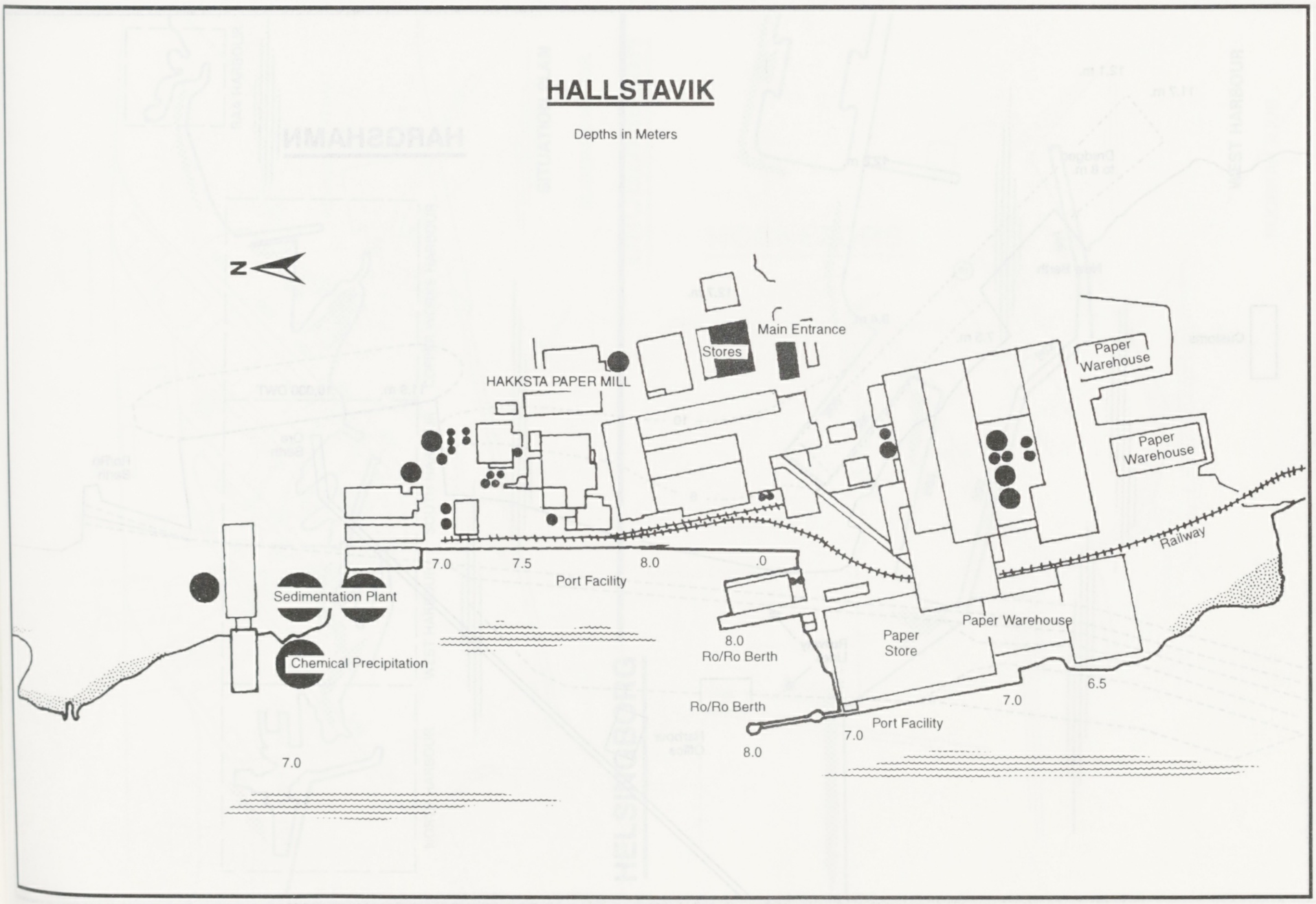

Limit of
19.6m depth
TANKER
100,000 T.D.W.
19.6m
Bollard, 125 tons
Bollard, 50 tons
Emergency mooring
(100 tons) wire
Two quick release
hooks (2 x 125 tons)
on each side of the pier.
Quick release hooks
(125 tons) one on each
side of the pier
Two quick release
hooks (2 x 125 tons)
Quick release
hook (125 tons)
Quick release
hook (125 tons)
Two quick release
hooks (2 x 125 tons)
Emergency mooring
(100 tons) wire
Limit of 19.6 m. depth
TANKER
200,000 T.D.W.
19.6 m.
Bollard, 125 tons
Bollard, 50 tons
Emergency mooring
(100 tons) wire
Two quick release
hooks (2 x 125 tons)
on each side of the pier.
Quick release hooks
(125 tons) one on each
side of the pier
Two quick release
hooks (2 x 125 tons)
Quick release
hook (125 tons)
Quick release
hook (125 tons)
Two quick release
hooks (2 x 125 tons)
Emergency mooring
(100 tons) wire
0
50
100
200 metres

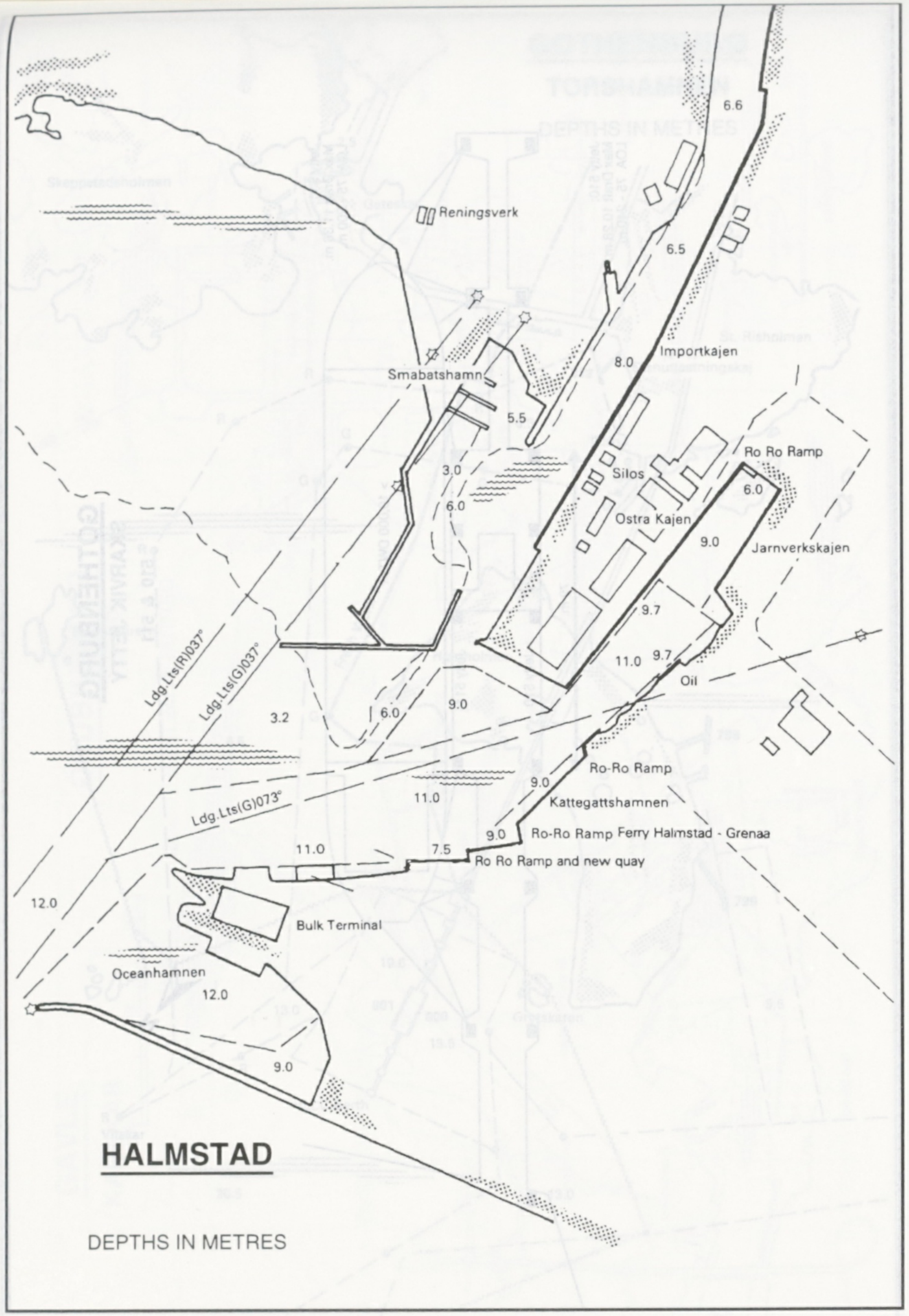
GOTHENBURG
TORSHAMNEN
BERTH No. 801

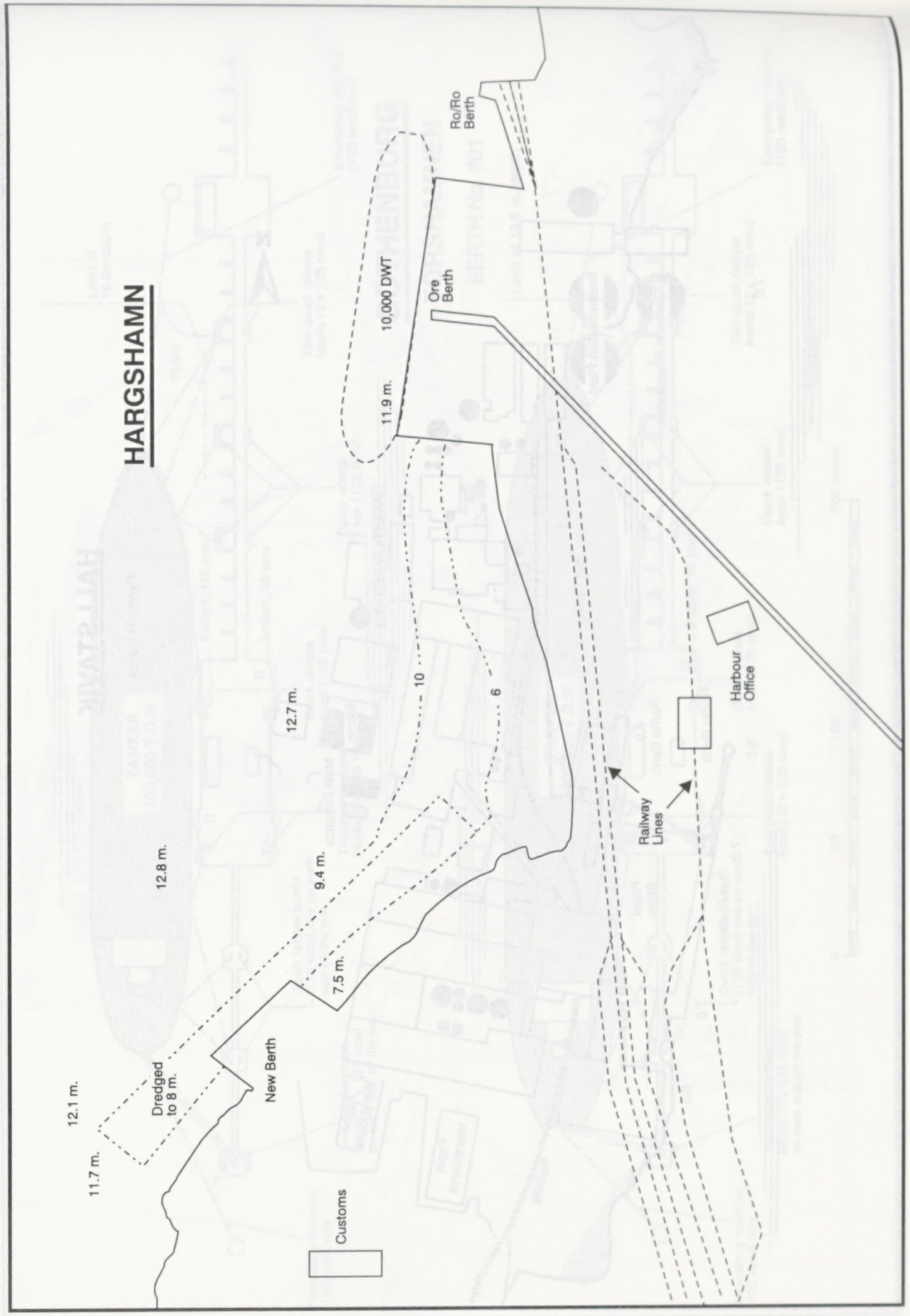
GOTHENBURG
SKARVIK JETTY
510 & 511

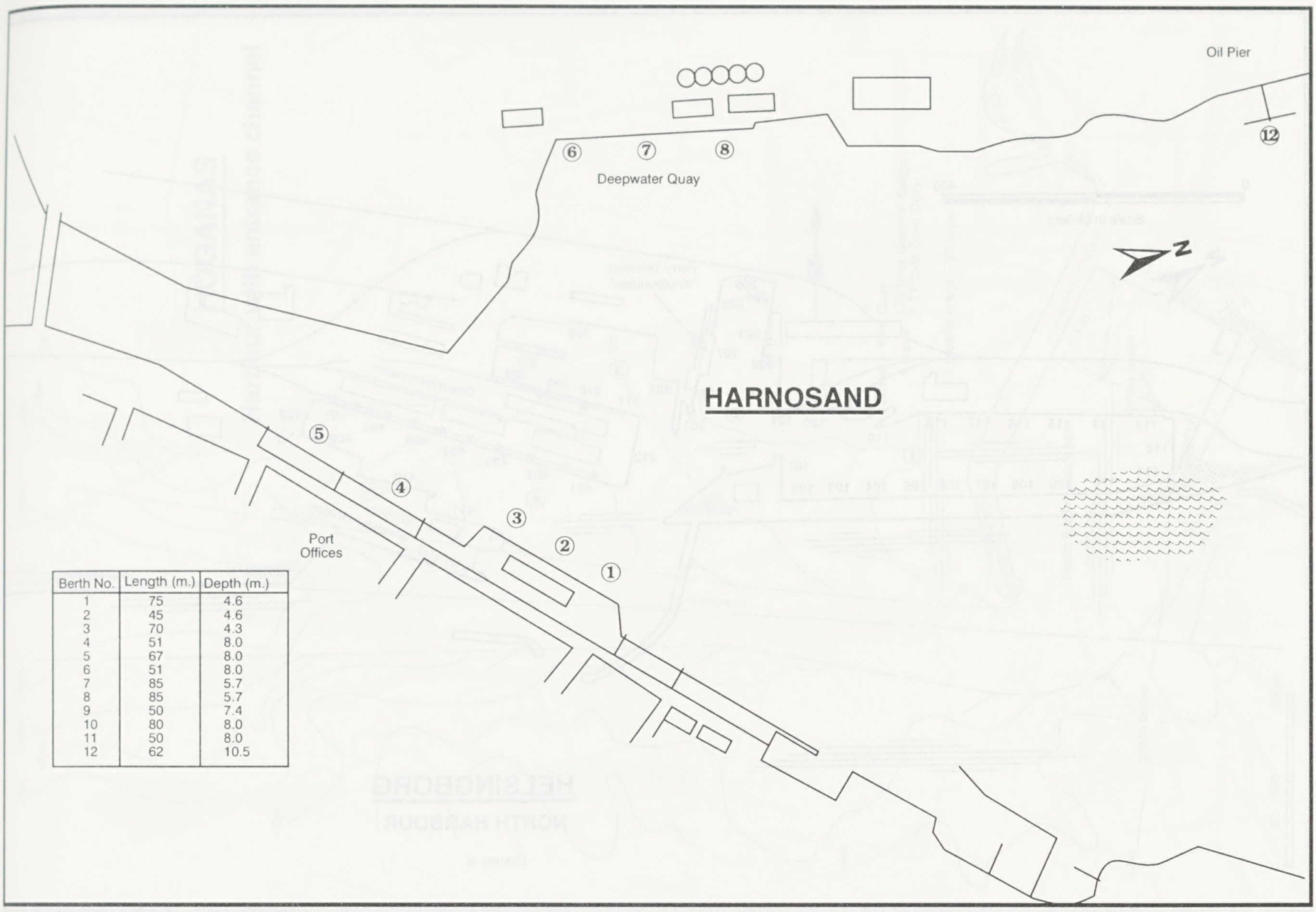

Jetty 511:
Max Draft 11.36 m.
LOA 75 - 200 m.
> 10,000 DWT
Jetty 511
Jetty 510
79 m.
Jetty 510:
Max Draft 10.28 m.
LOA 75 - 240 m.
N

HALLSTAVIK
Depths in Meters

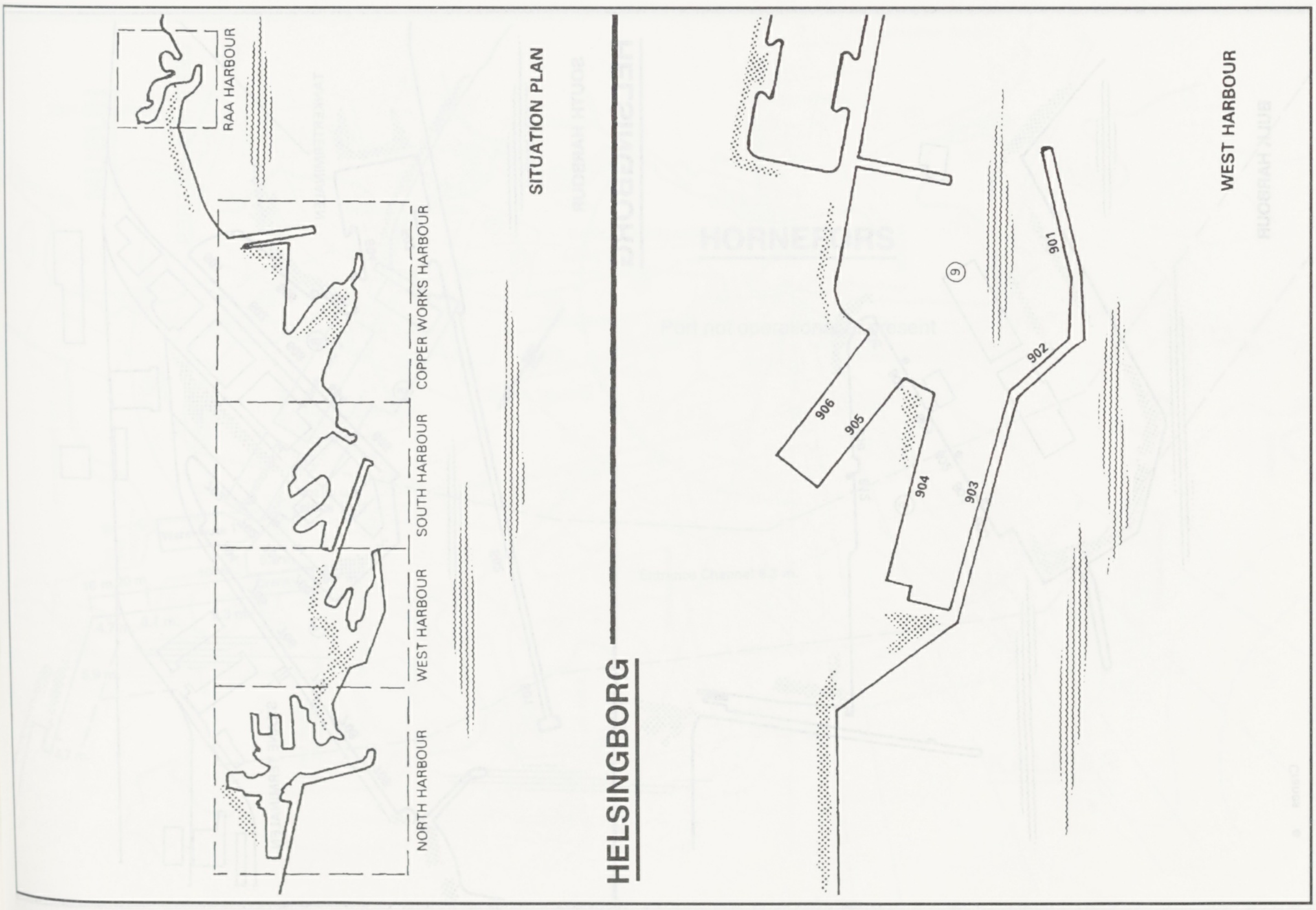

N
Main Entrance
Stores
HAKKSTA PAPER MILL
Paper Warehouse
Paper Warehouse
Railway
7.0
7.5
8.0
.0
Port Facility
Sedimentation Plant
Chemical Precipitation
8.0
Ro/Ro Berth
Paper Store
Paper Warehouse
6.5
7.0
Ro/Ro Berth
7.0
Port Facility
8.0
7.0

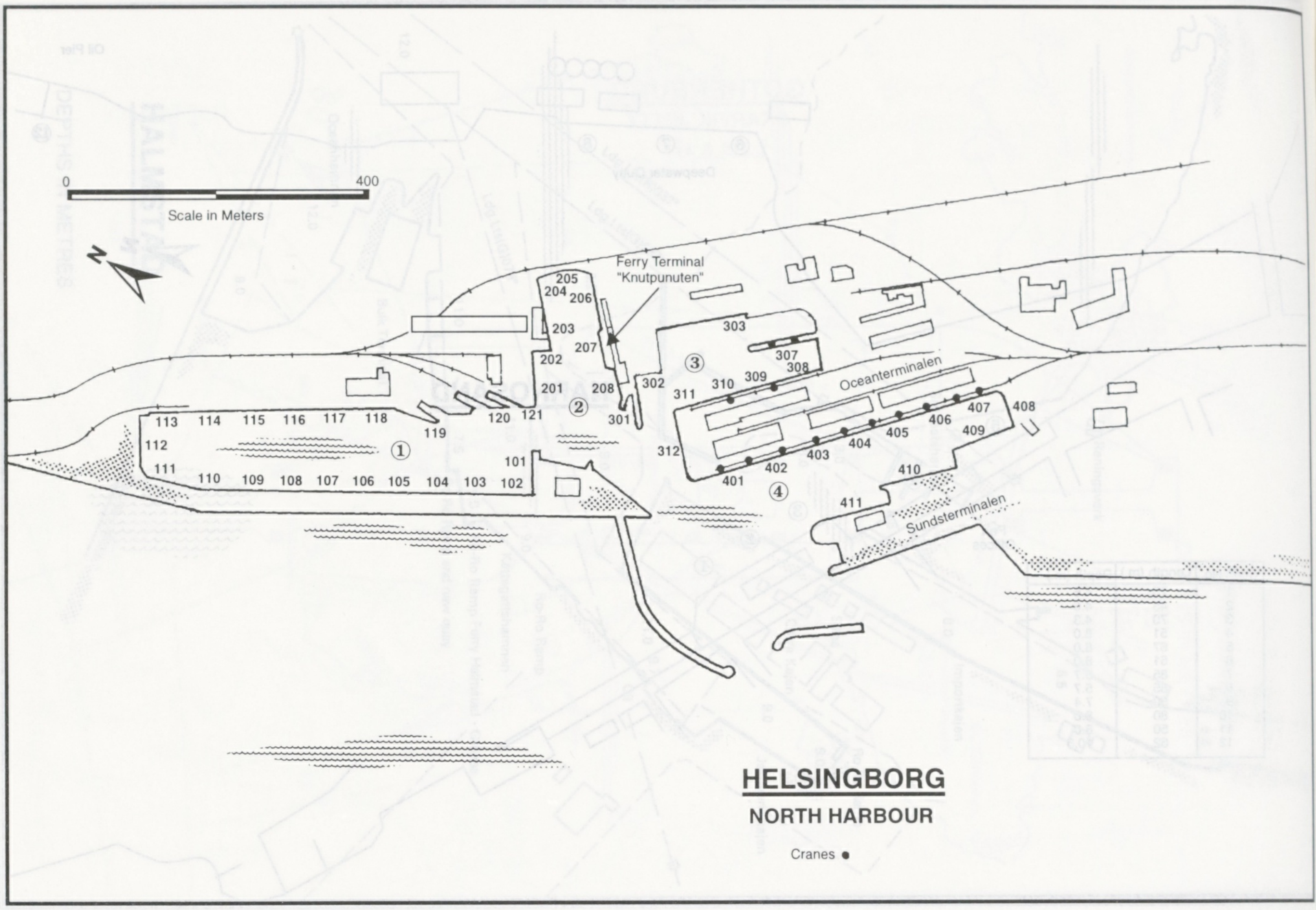

HALMSTAD
DEPTHS IN METRES
Reningsverk
Smabatshamn
Importkajen
Silos
Ostra Kajen
Ro Ro Ramp
Jarnverkskajen
Oil
Ro-Ro Ramp
Kattegattshamnen
Ro-Ro Ramp Ferry Halmstad - Grenaa
Ro Ro Ramp and new quay
Bulk Terminal
Oceanhamnen
Ldg.Lts(R)037°
Ldg.Lts(G)037°
Ldg.Lts(G)073°
6.6
6.5
8.0
5.5
3.0
6.0
6.0
9.0
9.7
11.0
9.7
3.2
6.0
9.0
11.0
9.0
9.0
7.5
11.0
12.0
12.0
9.0

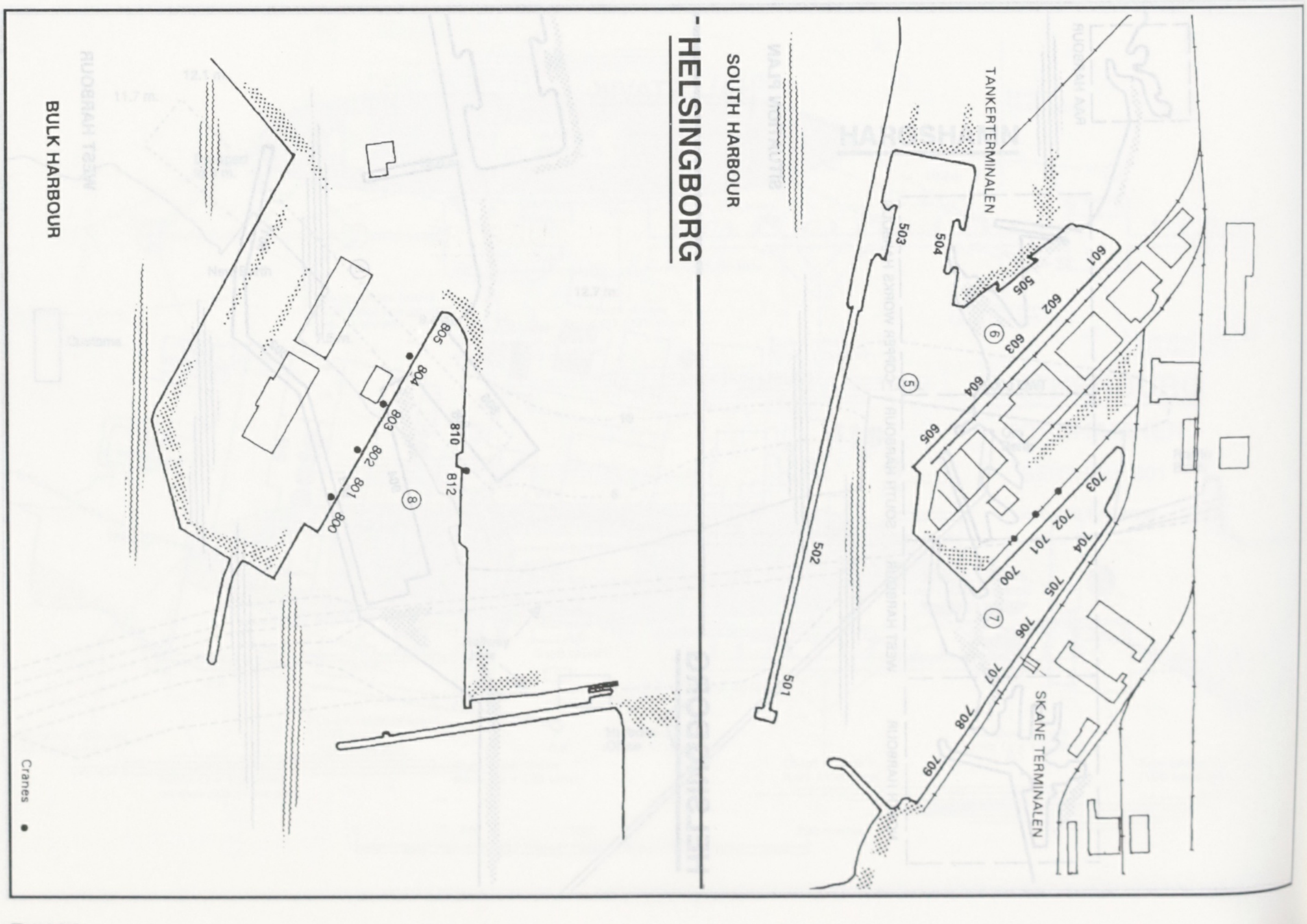

HARGSHAMN
Ro/Ro Berth
Ore Berth
10,000 DWT
11.9 m.
10
6
12.7 m.
12.8 m.
9.4 m.
7.5 m.
Dredged to 8 m.
New Berth
12.1 m.
11.7 m.
Customs
Railway Lines
Harbour Office

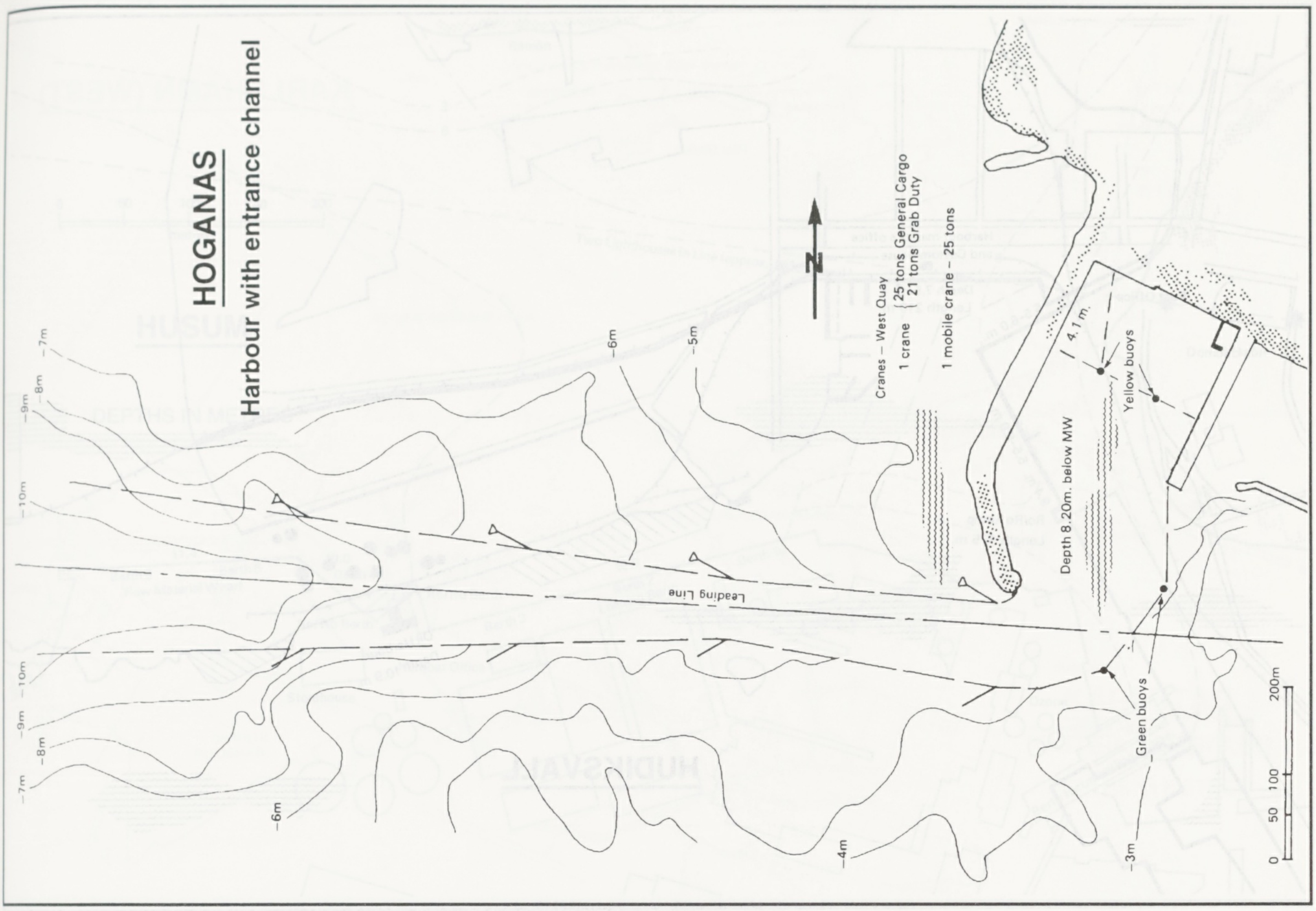

Oil Pier
⑫
⑥
⑦
⑧
Deepwater Quay
N
HARNOSAND
⑤
④
③
②
①
Port Offices

Berth No.	Length (m.)	Depth (m.)
1	75	4.6
2	45	4.6
3	70	4.3
4	51	8.0
5	67	8.0
6	51	8.0
7	85	5.7
8	85	5.7
9	50	7.4
10	80	8.0
11	50	8.0
12	62	10.5


SITUATION PLAN
RAA HARBOUR
COPPER WORKS HARBOUR
SOUTH HARBOUR
WEST HARBOUR
NORTH HARBOUR
HELSINGBORG
WEST HARBOUR
⑨
901
902
903
904
905
906


0
400
Scale in Meters
N
Ferry Terminal
"Knutpunuten"
205
204
206
203
207
202
201
208
②
302
301
303
307
308
③
311
310
309
Oceanterminalen
113
114
115
116
117
118
112
①
119
120
121
111
110
109
108
107
106
105
104
103
102
101
312
401
402
403
404
405
406
407
408
409
410
④
411
Sundsterminalen
HELSINGBORG
NORTH HARBOUR
Cranes ●

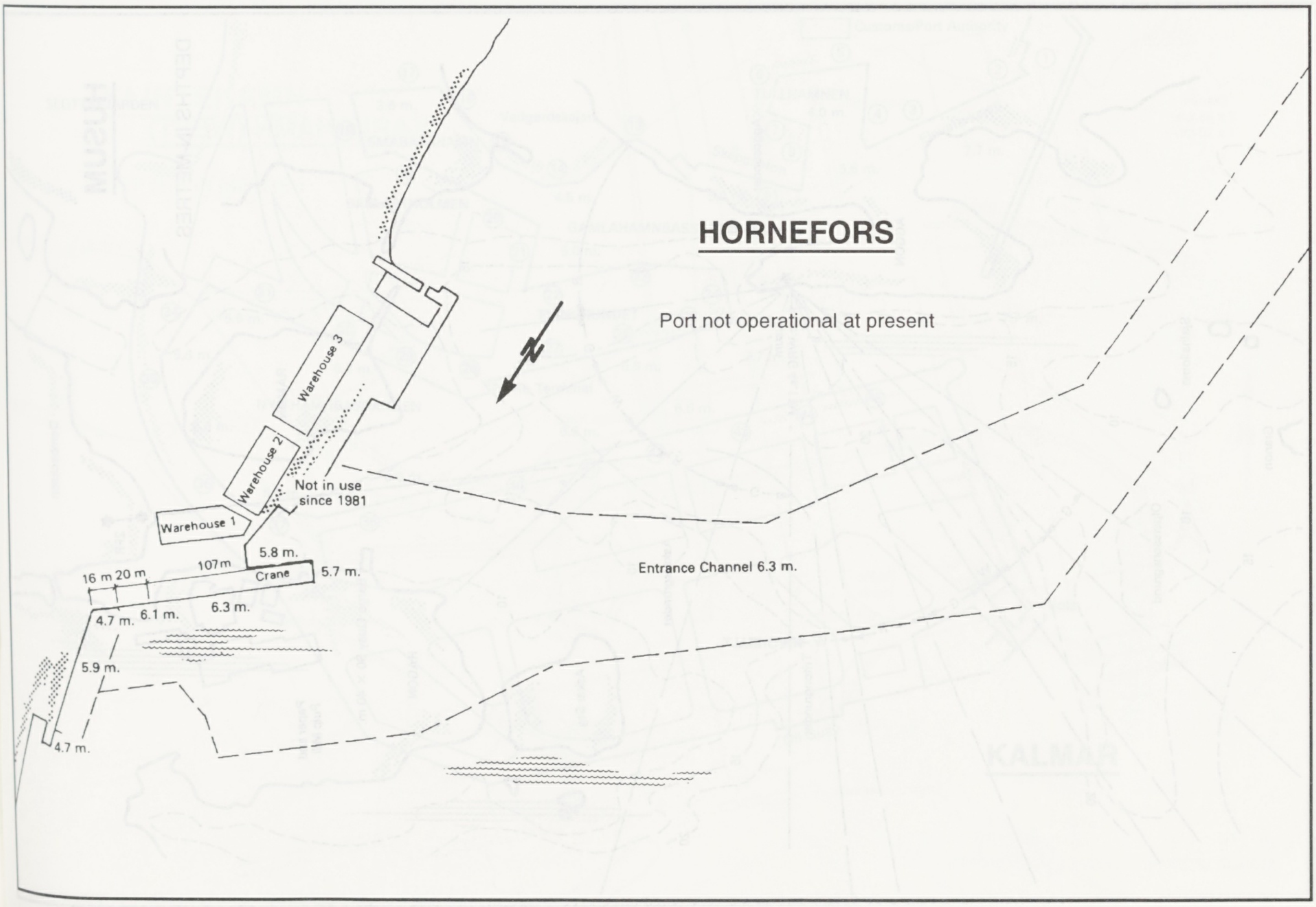

BULK HARBOUR
805
804
803
802
801
800
⑧
810
812
Cranes ●
HELSINGBORG
SOUTH HARBOUR
TANKERTERMINALEN
503
504
505
601
602
603
604
605
⑥
⑤
502
501
703
702
701
700
704
705
706
⑦
707
708
709
SKANE TERMINALEN



HOGANAS

Harbour with entrance channel

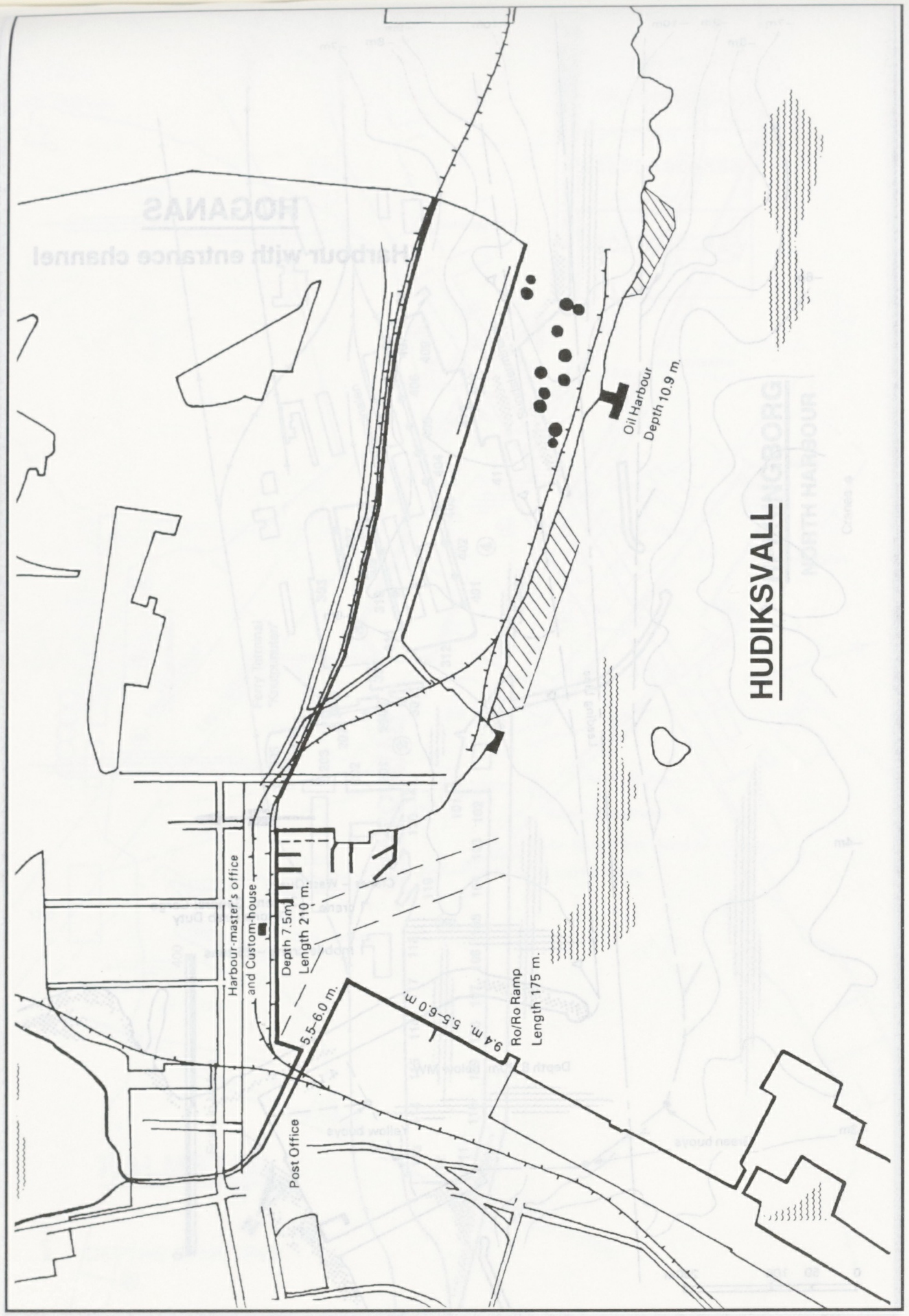
N
Cranes – West Quay
1 crane { 25 tons General Cargo
21 tons Grab Duty
1 mobile crane – 25 tons
Leading Line
Depth 8.20m. below MW
4.1 m.
Yellow buoys
Green buoys
–7m
–8m
–9m
–10m
–6m
–5m
–4m
–3m
0
50
100
200m



HORNEFORS

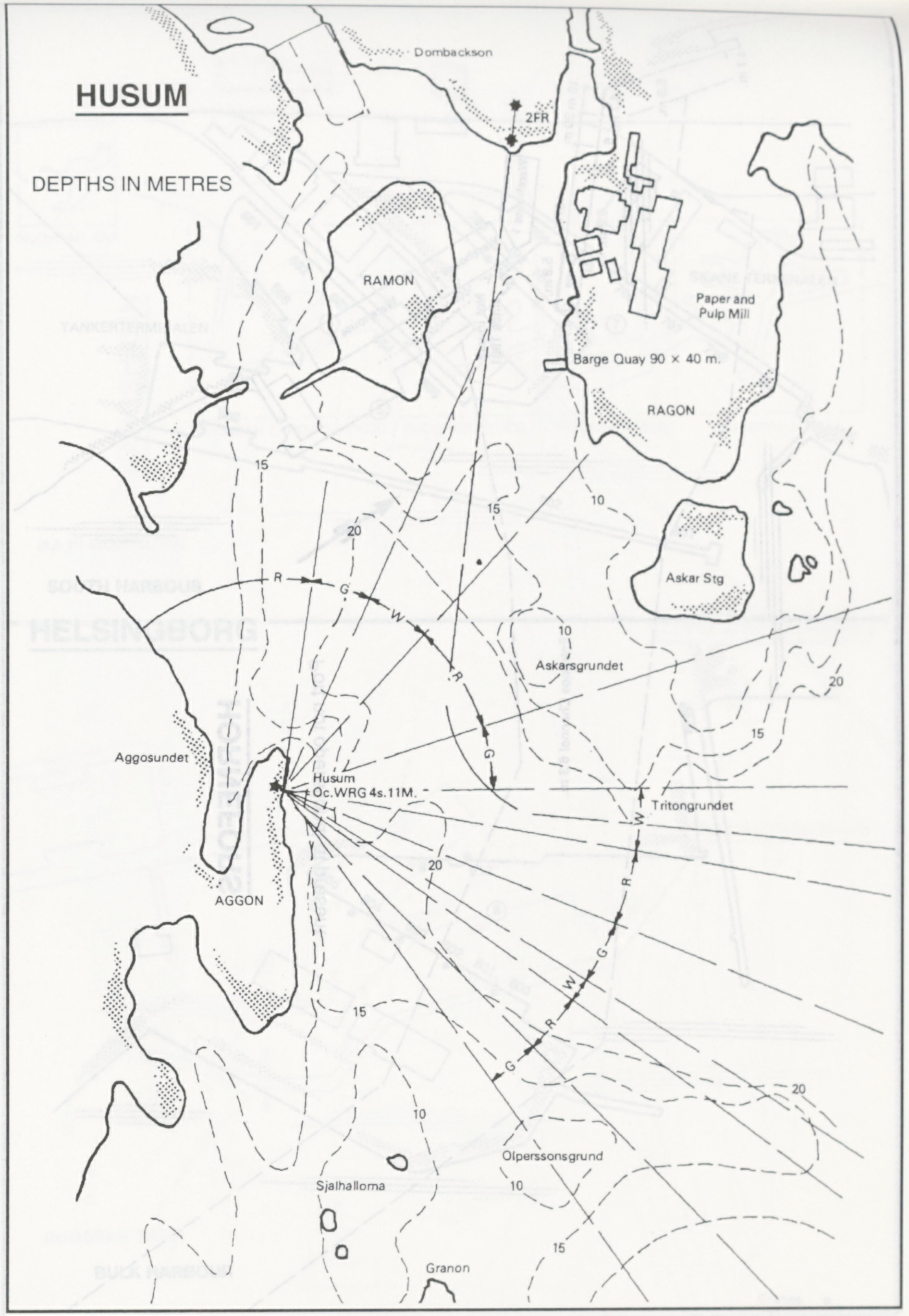
Port not operational at present

N
Warehouse 3
Warehouse 2
Warehouse 1
Not in use since 1981
5.8 m.
107m
Crane
5.7 m.
16 m
20 m
4.7 m.
6.1 m.
6.3 m.
5.9 m.
4.7 m.
Entrance Channel 6.3 m.



HUDIKSVALL

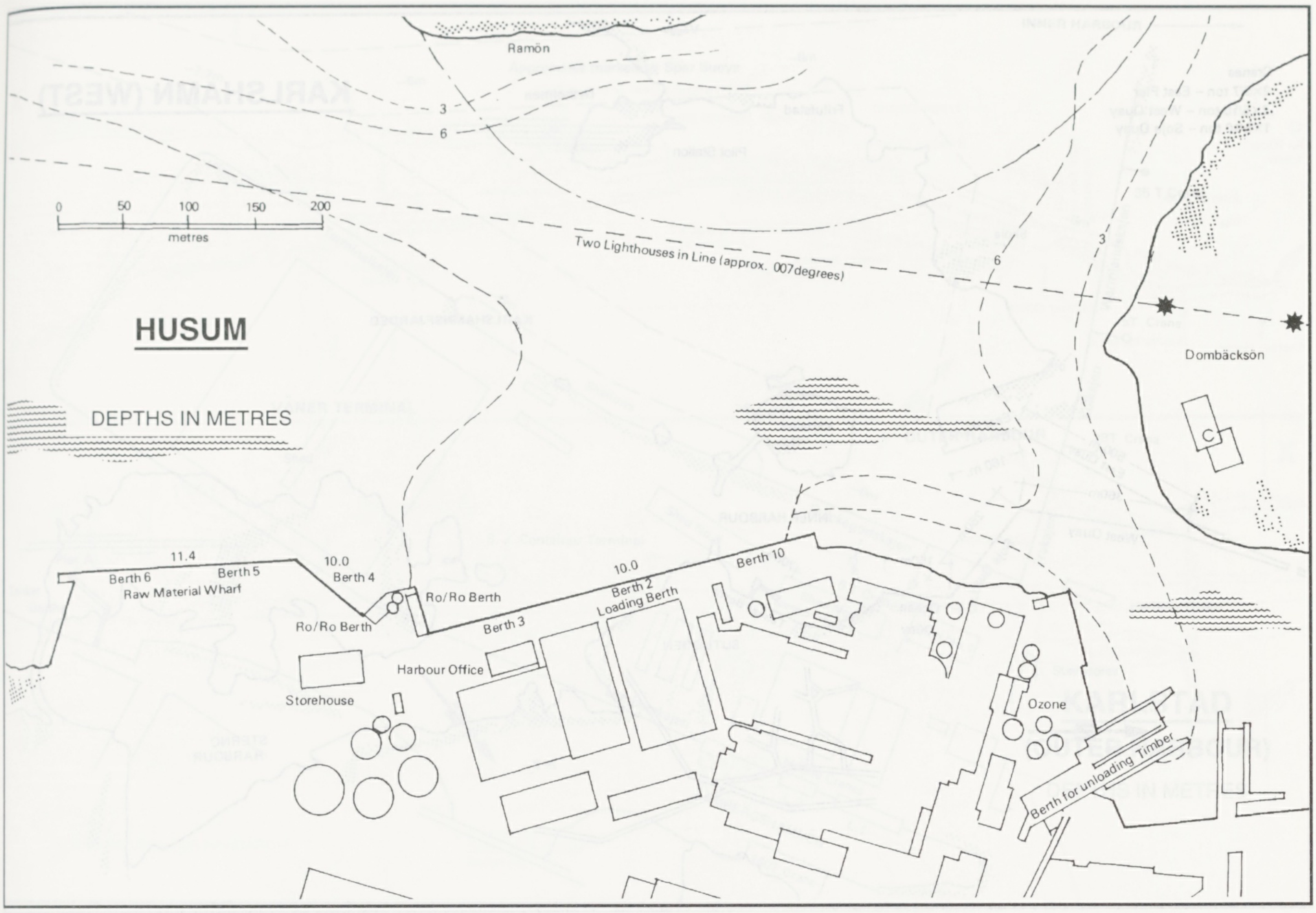
Oil Harbour
Depth 10.9 m.
Harbour-master's office
and Custom-house
Depth 7.5m
Length 210 m.
5.5-6.0 m.
9.4 m. 5.5-6.0 m.
Ro/Ro Ramp
Length 175 m.
Post Office

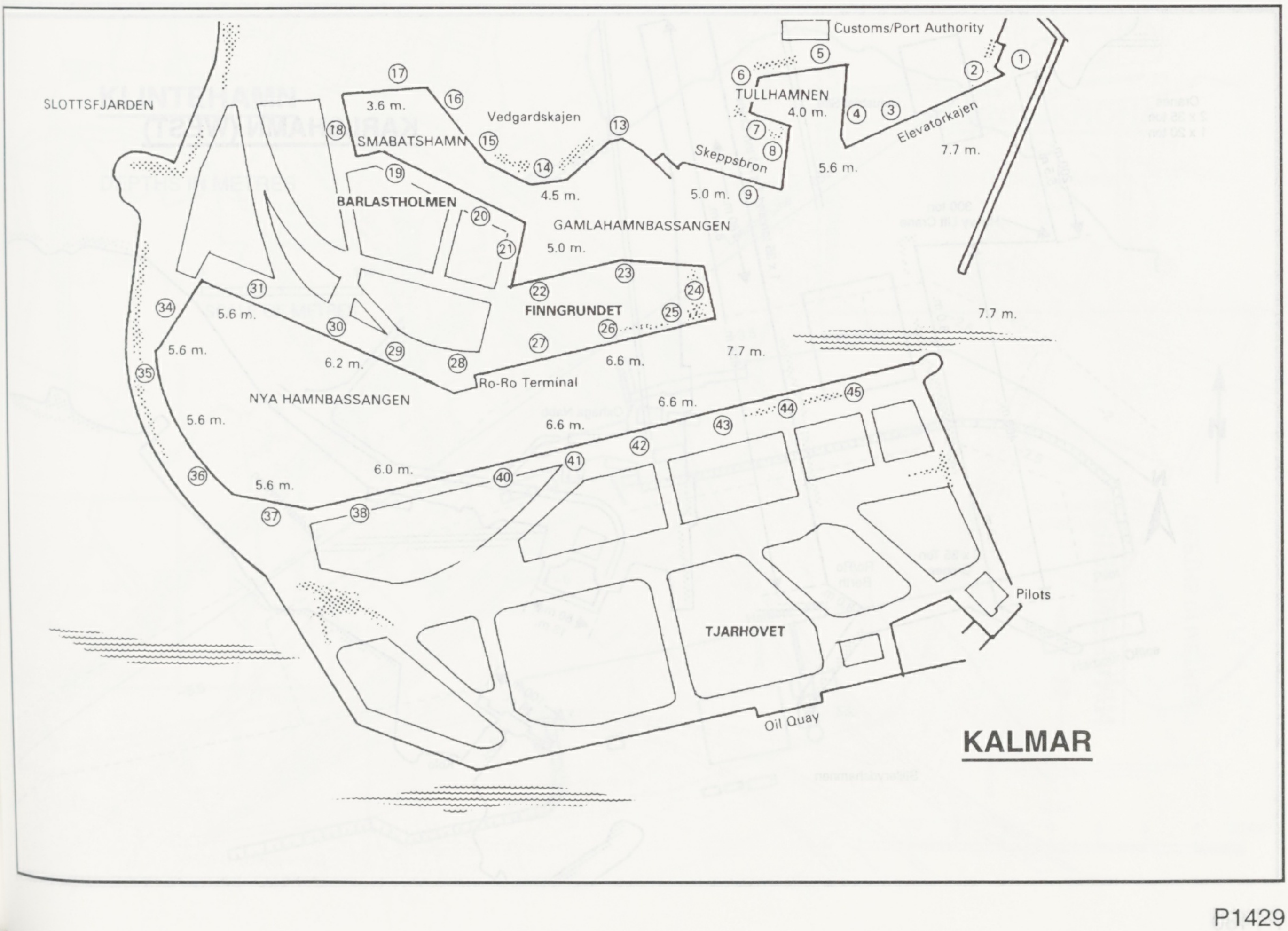


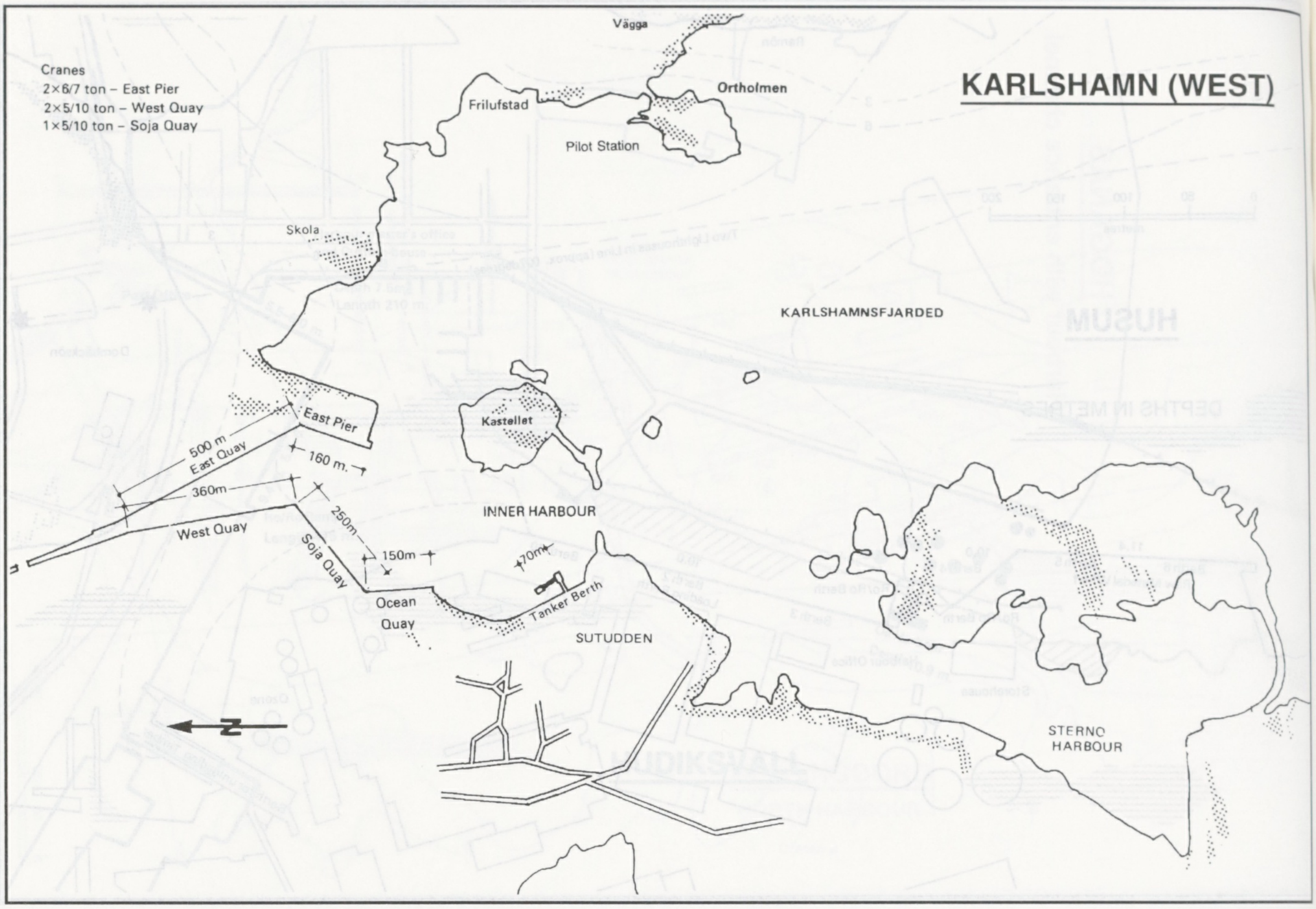
HUSUM

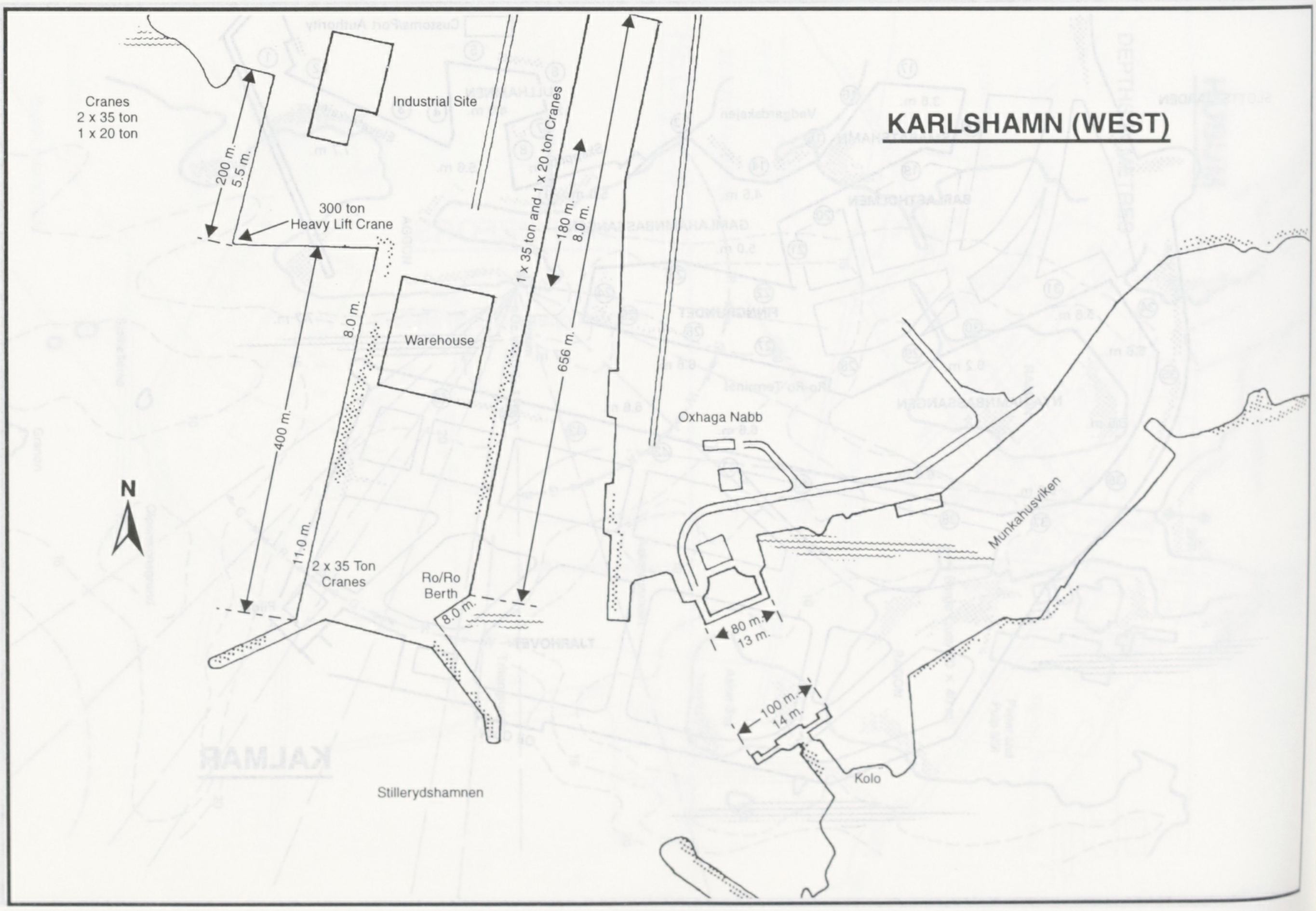
DEPTHS IN METRES

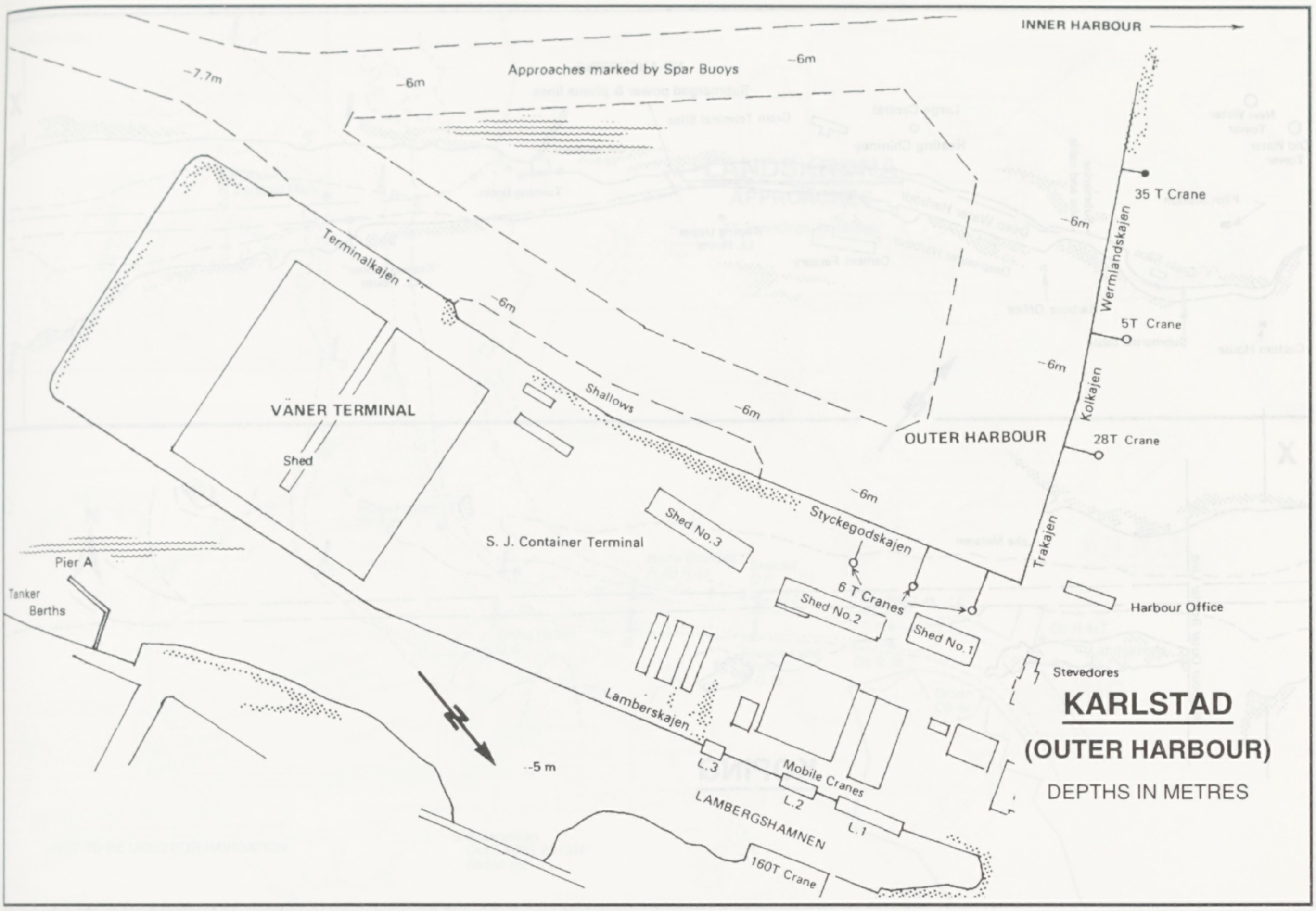
Dombackson
2FR
RAMON
Paper and
Pulp Mill
Barge Quay 90 × 40 m.
RAGON
15
10
20
Askar Stg
R
G
W
Askarsgrundet
Aggosundet
Husum
Oc.WRG 4s.11M.
Tritongrundet
AGGON
Olperssonsgrund
Sjalhallorna
Granon

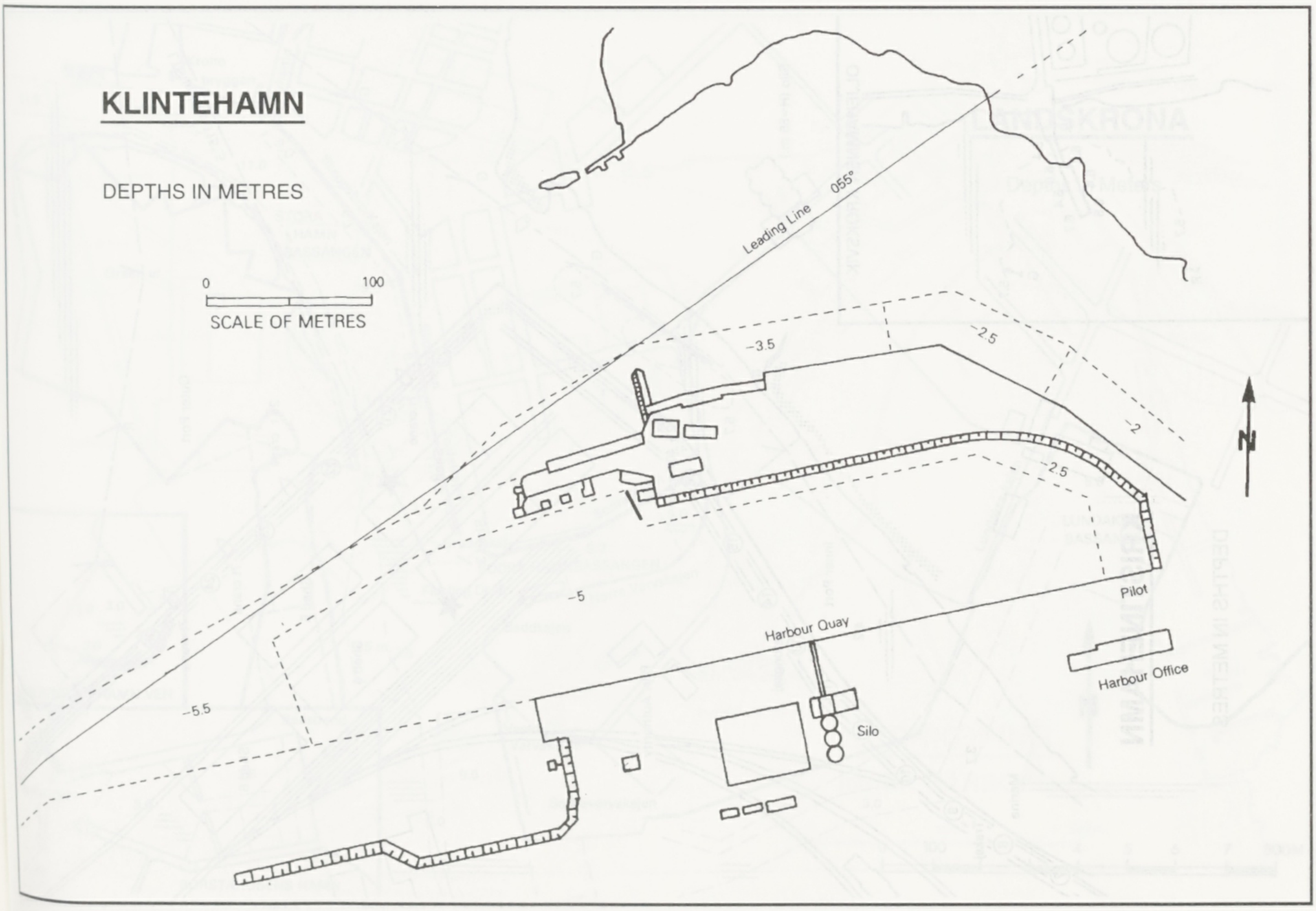

Ramön
3
6
0 50 100 150 200
metres
Two Lighthouses in Line (approx. 007degrees)
HUSUM
DEPTHS IN METRES
6
3
Dombäcksön
11.4
Berth 6
Berth 5
Raw Material Wharf
10.0
Berth 4
Ro/Ro Berth
Ro/Ro Berth
Berth 3
10.0
Berth 2
Loading Berth
Berth 10
Harbour Office
Storehouse
Ozone
Berth for unloading Timber

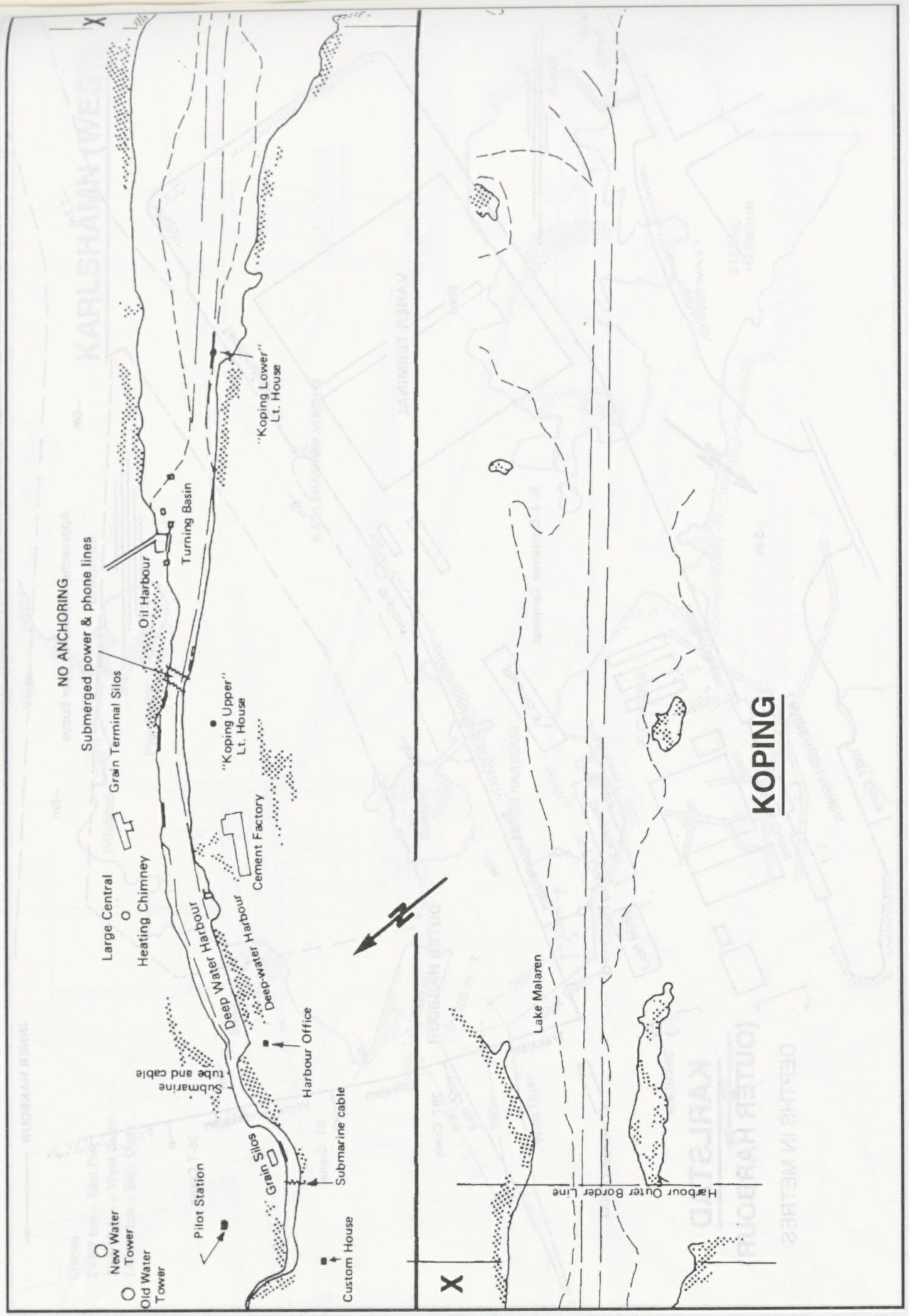

Customs/Port Authority
SLOTTSFJARDEN
⑰
⑯
3.6 m.
Vedgardskajen
⑱
SMABATSHAMN
⑮
⑬
⑥
⑤
TULLHAMNEN
4.0 m.
④
③
②
①
Elevatorkajen
⑦
⑧
Skeppsbron
7.7 m.
5.6 m.
⑲
⑭
4.5 m.
5.0 m.
⑨
BARLASTHOLMEN
⑳
GAMLAHAMNBASSANGEN
㉑
5.0 m.
㉓
㉒
㉔
FINNGRUNDET
㉕
㉖
㉛
㉞
5.6 m.
㉚
7.7 m.
5.6 m.
㉙
㉗
6.6 m.
7.7 m.
6.2 m.
㉘
㉟
Ro-Ro Terminal
NYA HAMNBASSANGEN
6.6 m.
㊹
㊺
5.6 m.
6.6 m.
㊸
㊷
㊶
6.0 m.
㊵
㊱
5.6 m.
㊳
㊲
Pilots
TJARHOVET
Oil Quay
KALMAR


KARLSHAMN (WEST)
Cranes
2×6/7 ton – East Pier
2×5/10 ton – West Quay
1×5/10 ton – Soja Quay
Vägga
Frilufstad
Ortholmen
Pilot Station
Skola
KARLSHAMNSFJARDED
East Pier
500 m
East Quay
160 m.
360m
West Quay
Kastellet
250m
Soja Quay
150m
Ocean
Quay
70m
Tanker Berth
INNER HARBOUR
SUTUDDEN
STERNO
HARBOUR
N


KARLSHAMN (WEST)
Cranes
2 x 35 ton
1 x 20 ton
Industrial Site
200 m.
5.5 m.
300 ton
Heavy Lift Crane
1 x 35 ton and 1 x 20 ton Cranes
180 m.
8.0 m.
8.0 m.
Warehouse
656 m.
400 m.
11.0 m.
N
2 x 35 Ton
Cranes
Ro/Ro
Berth
8.0 m.
Oxhaga Nabb
Munkahusviken
80 m.
13 m.
100 m.
14 m.
Kolo
Stillerydshamnen

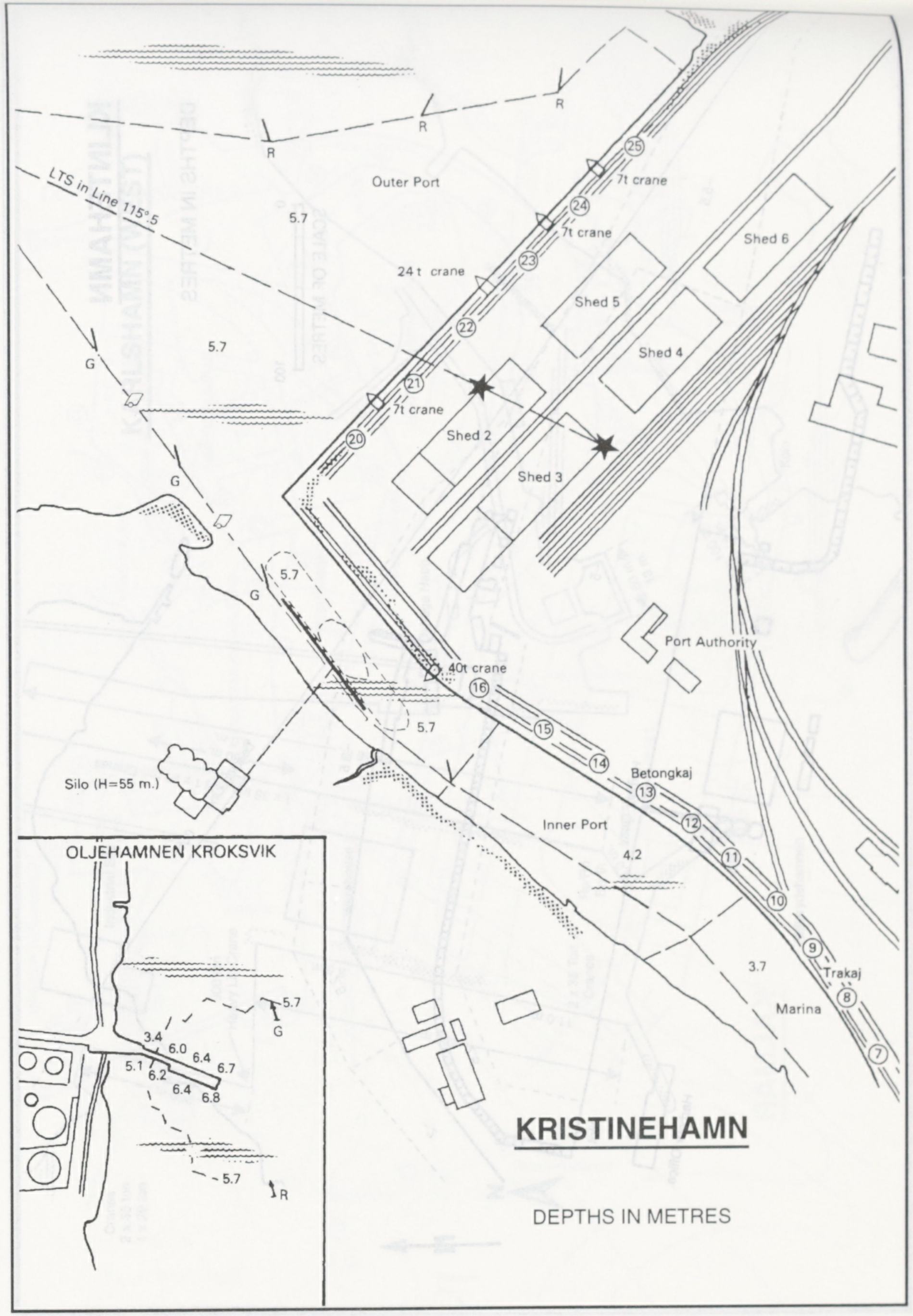

INNER HARBOUR
Approaches marked by Spar Buoys
-7.7m
-6m
-6m
-6m
-6m
-6m
-6m
-6m
-5 m
Terminalkajen
VÄNER TERMINAL
Shed
Shallows
S. J. Container Terminal
Shed No.3
Shed No.2
Shed No.1
Styckegodskajen
6 T Cranes
OUTER HARBOUR
Wermlandskajen
35 T Crane
5T Crane
Kolkajen
28T Crane
Trakajen
Harbour Office
Stevedores
Pier A
Tanker Berths
Lamberskajen
L.3
L.2
L.1
Mobile Cranes
LAMBERGSHAMNEN
160T Crane
KARLSTAD
(OUTER HARBOUR)
DEPTHS IN METRES


KLINTEHAMN
DEPTHS IN METRES
0
100
SCALE OF METRES
Leading Line 055°
-3.5
-2.5
-2
2.5
-5
-5.5
Pilot
Harbour Quay
Harbour Office
Silo



KOPING

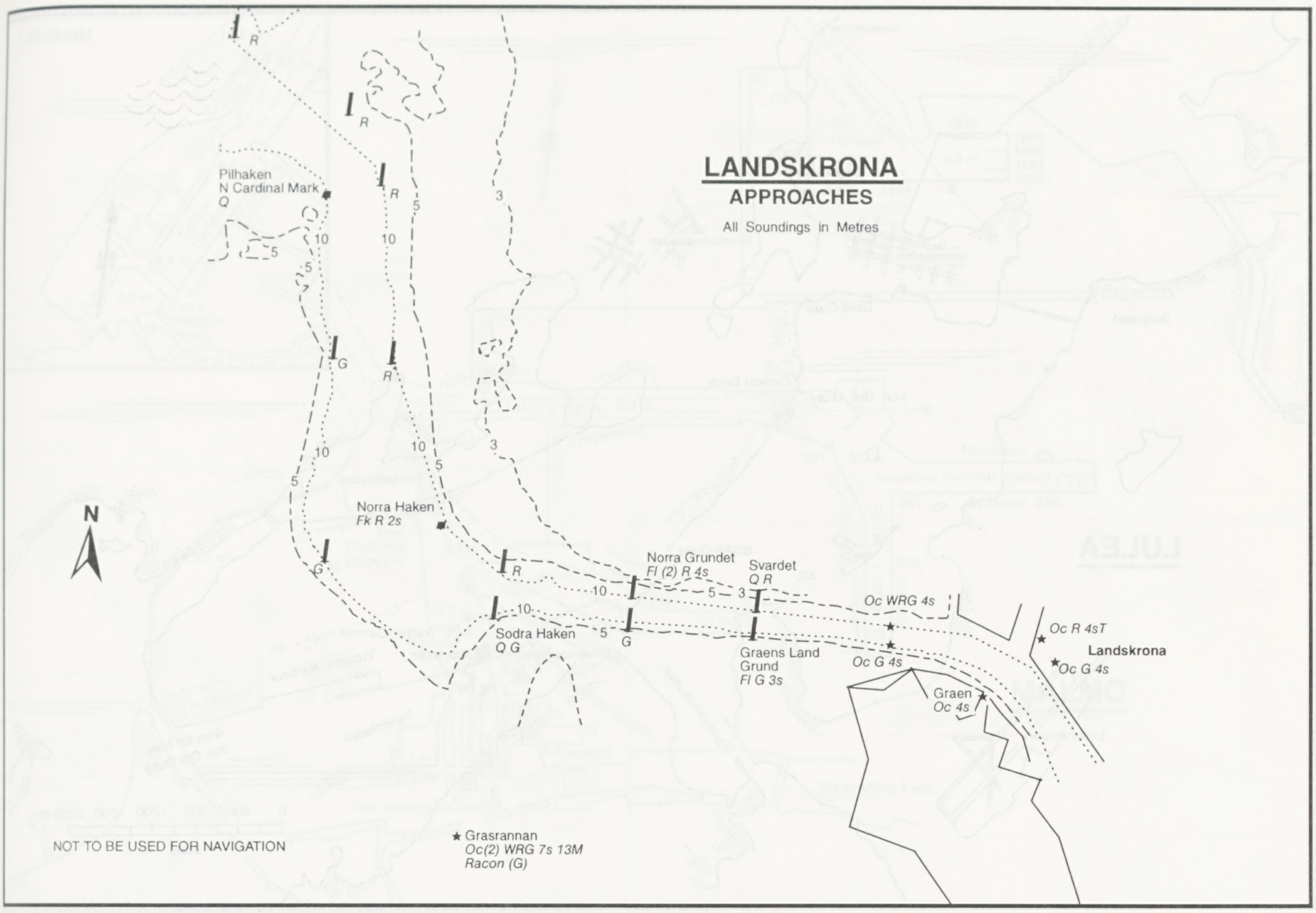
X
NO ANCHORING
Submerged power & phone lines
Grain Terminal Silos
Oil Harbour
Turning Basin
"Koping Lower" Lt. House
"Koping Upper" Lt. House
Cement Factory
Large Central Heating Chimney
Deep Water Harbour
Deep-water Harbour
Harbour Office
Submarine tube and cable
Submarine cable
Grain Silos
Pilot Station
New Water Tower
Old Water Tower
Custom House
N
Lake Malaren
Harbour Outer Border Line
X

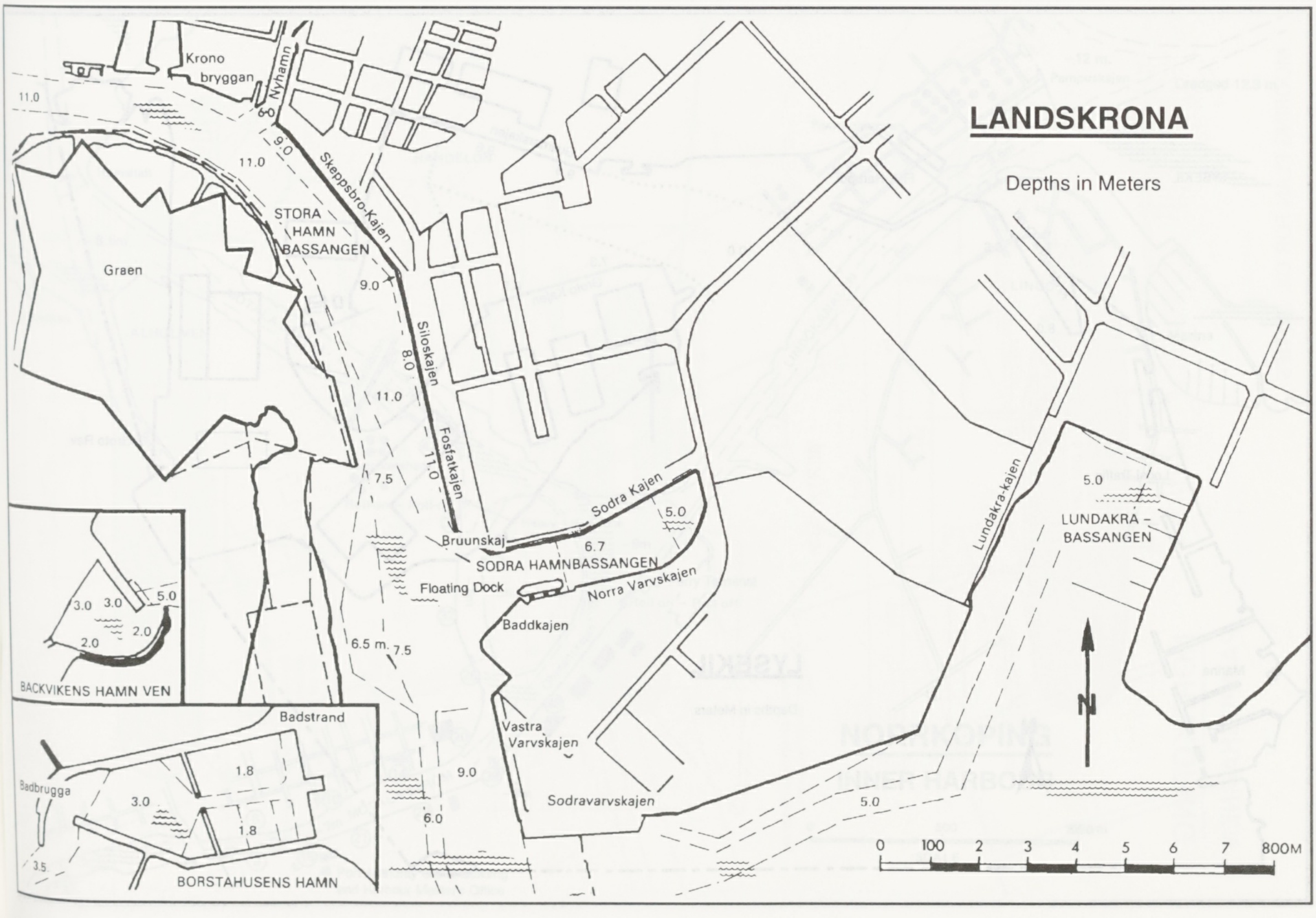


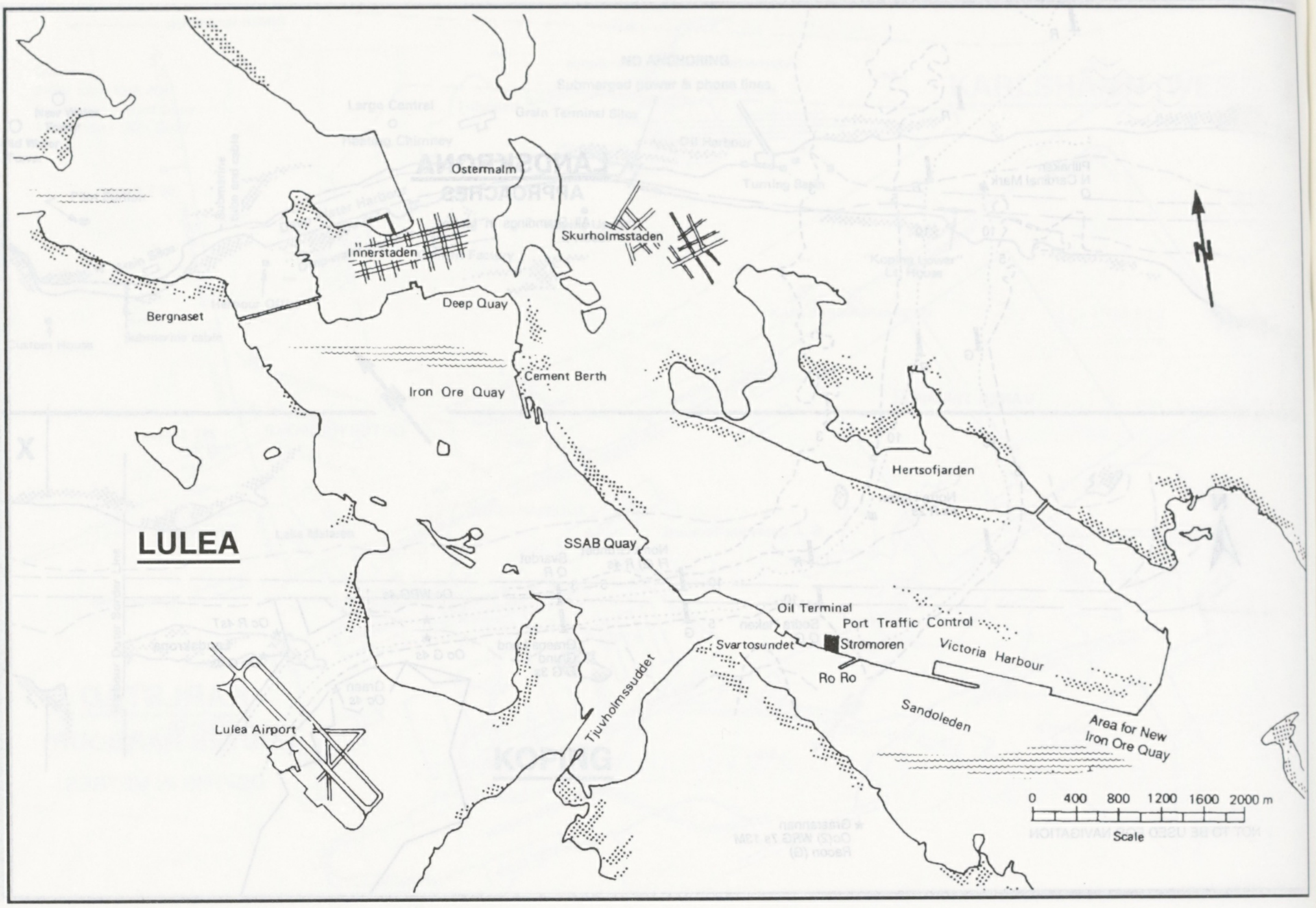
KRISTINEHAMN

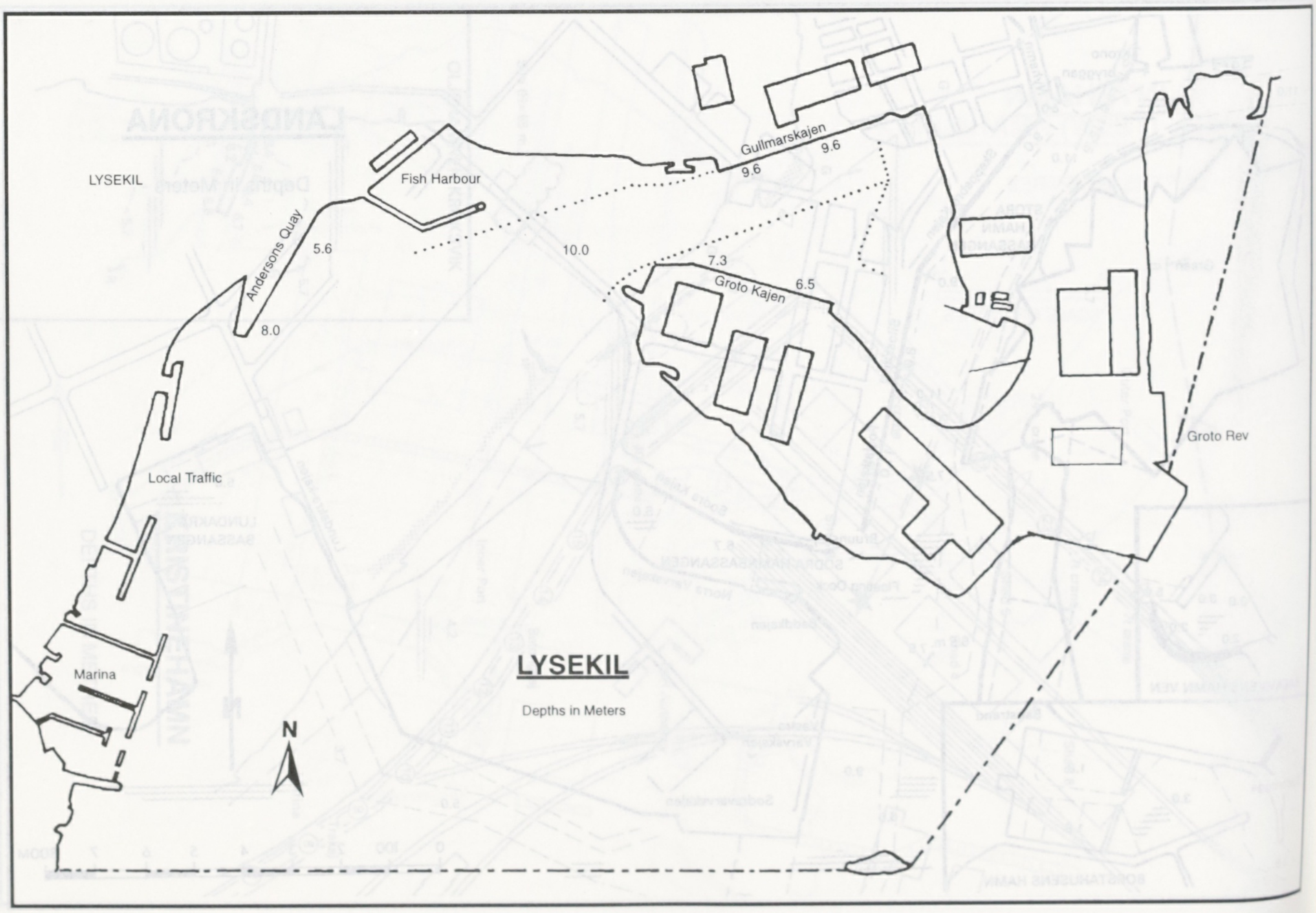
DEPTHS IN METRES

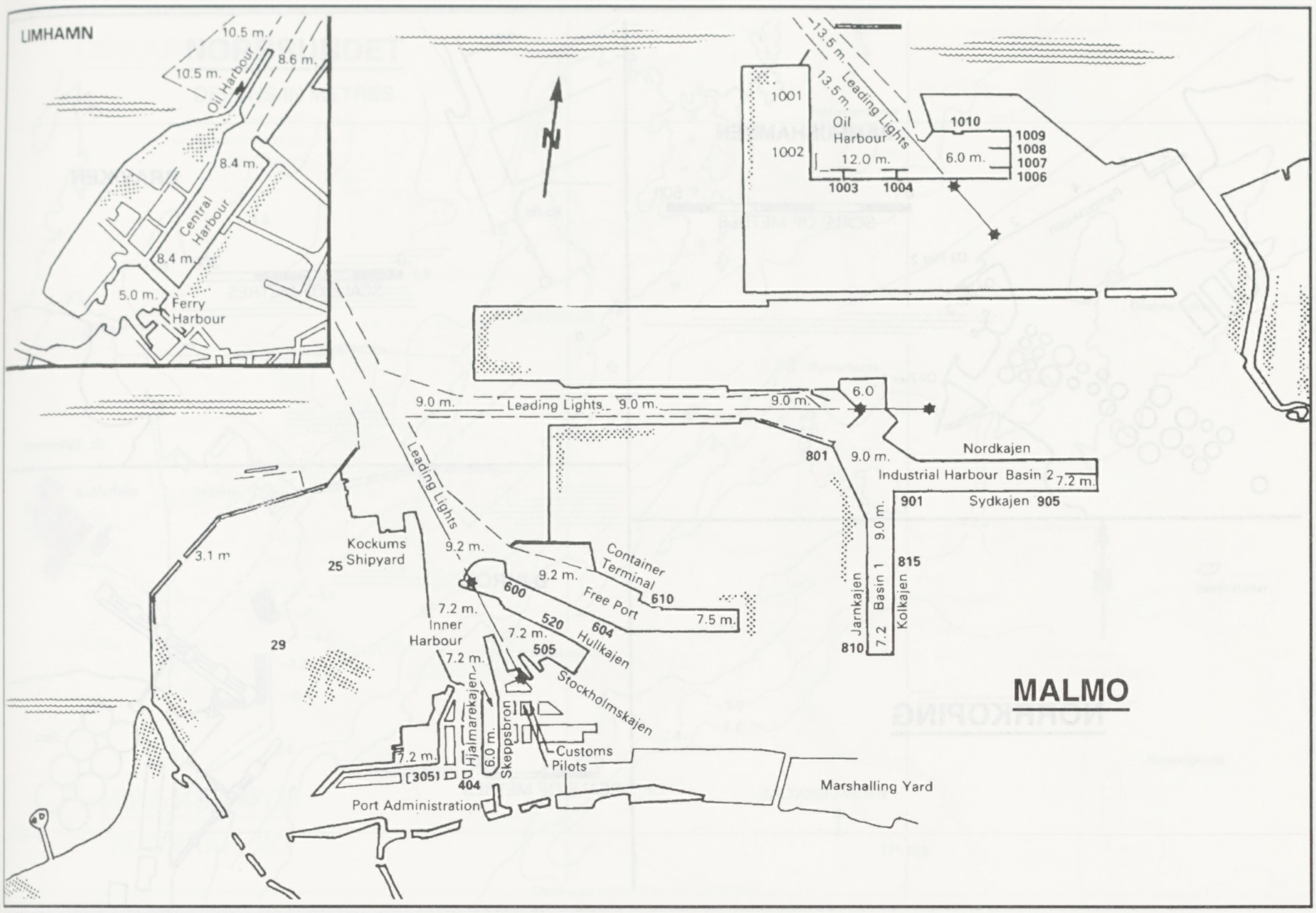
R
R
R
Outer Port
LTS in Line 115°.5
5.7
5.7
24 t crane
7t crane
7t crane
7t crane
25
24
23
22
21
20
Shed 6
Shed 5
Shed 4
Shed 2
Shed 3
G
G
G
5.7
5.7
40t crane
16
15
14
13
12
11
10
9
8
7
Port Authority
Betongkaj
Silo (H=55 m.)
Inner Port
4.2
3.7
Trakaj
Marina
OLJEHAMNEN KROKSVIK
3.4
6.0
6.4
6.7
5.1
6.2
6.4
6.8
5.7
G
5.7
R

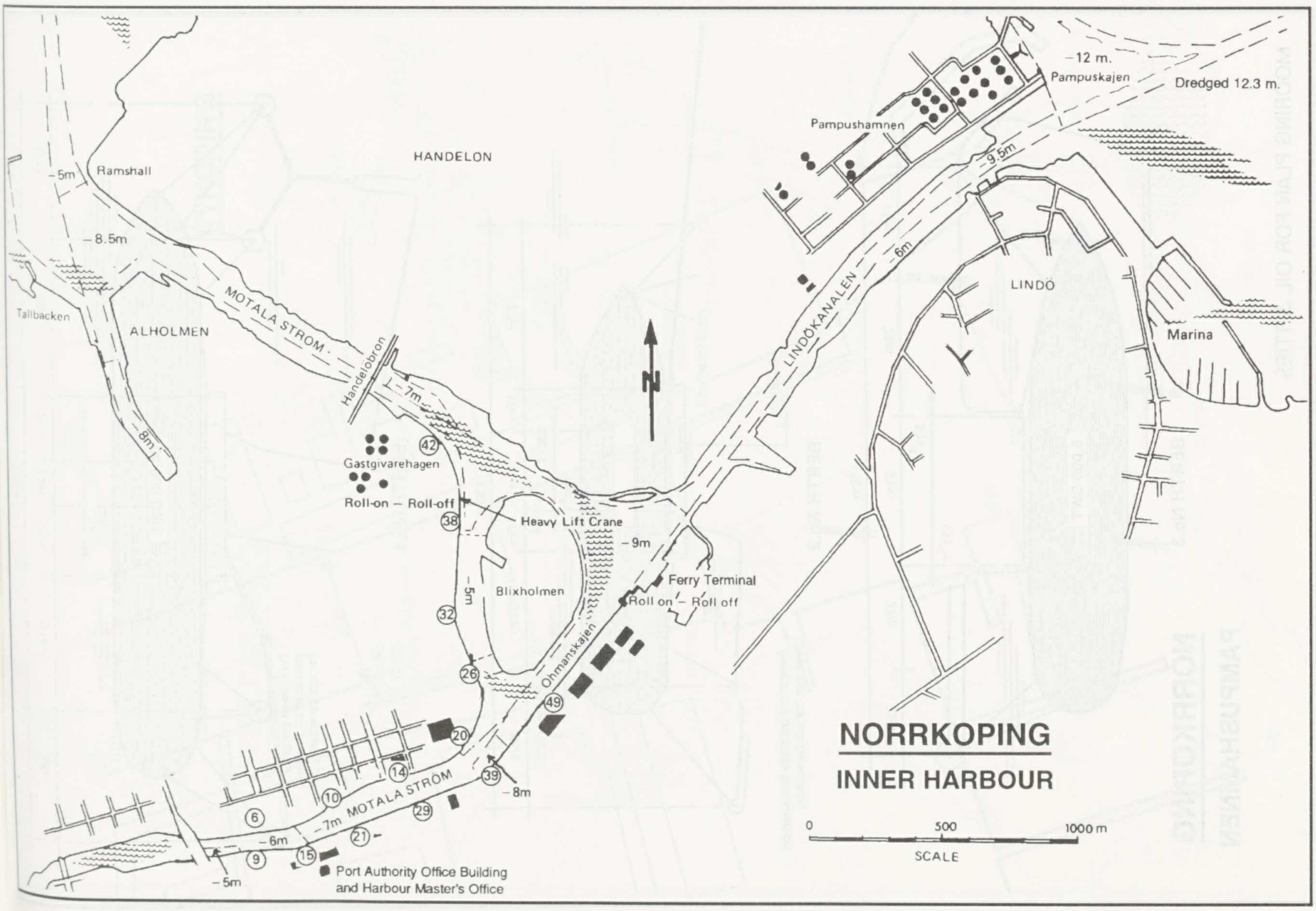

LANDSKRONA
APPROACHES
All Soundings in Metres
Pilhaken
N Cardinal Mark
Q
R
R
R
R
G
G
R
G
Norra Haken
Fk R 2s
Norra Grundet
Fl (2) R 4s
Svardet
Q R
Sodra Haken
Q G
Graens Land
Grund
Fl G 3s
Oc WRG 4s
Oc G 4s
Oc R 4sT
Landskrona
Oc G 4s
Graen
Oc 4s
Grasrannan
Oc(2) WRG 7s 13M
Racon (G)
N
10
10
5
5
3
3
10
5
10
5
10
5
3
10
5
NOT TO BE USED FOR NAVIGATION

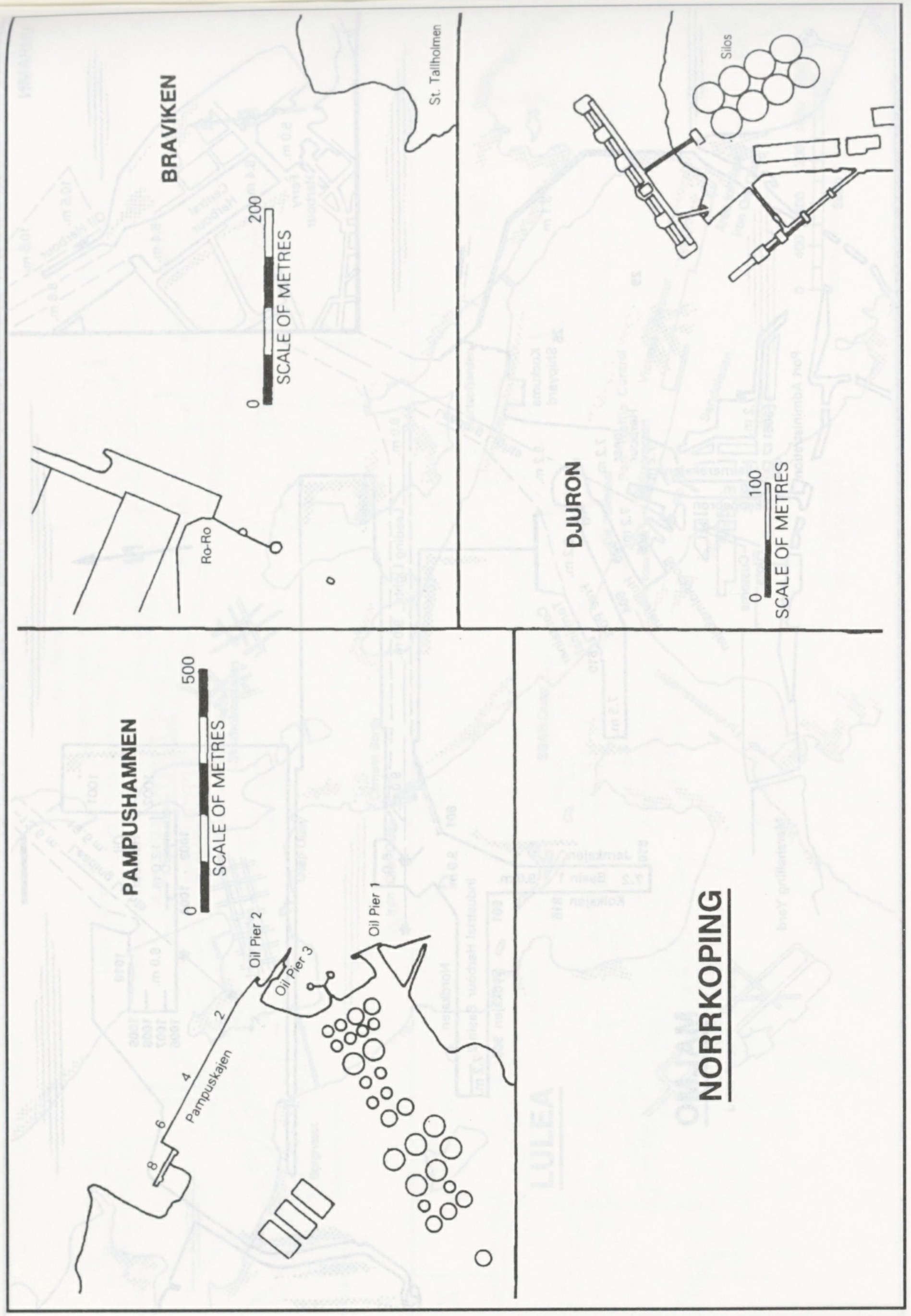

LANDSKRONA
Depths in Meters
Krono
bryggan
Nyhamn
11.0
6.0
9.0
11.0
Skeppsbro-Kajen
STORA
HAMN
BASSANGEN
Graen
9.0
Siloskajen
8.0
11.0
Fosfatkajen
11.0
7.5
Bruunskaj
Sodra Kajen
5.0
6.7
SODRA HAMNBASSANGEN
Floating Dock
Norra Varvskajen
Baddkajen
6.5 m.
7.5
Vastra
Varvskajen
9.0
Sodravarvskajen
6.0
5.0
Lundakra-kajen
5.0
LUNDAKRA-
BASSANGEN
N
0
100
2
3
4
5
6
7
800M
3.0
3.0
5.0
2.0
2.0
BACKVIKENS HAMN VEN
Badstrand
Badbrugga
1.8
3.0
1.8
3.5
BORSTAHUSENS HAMN

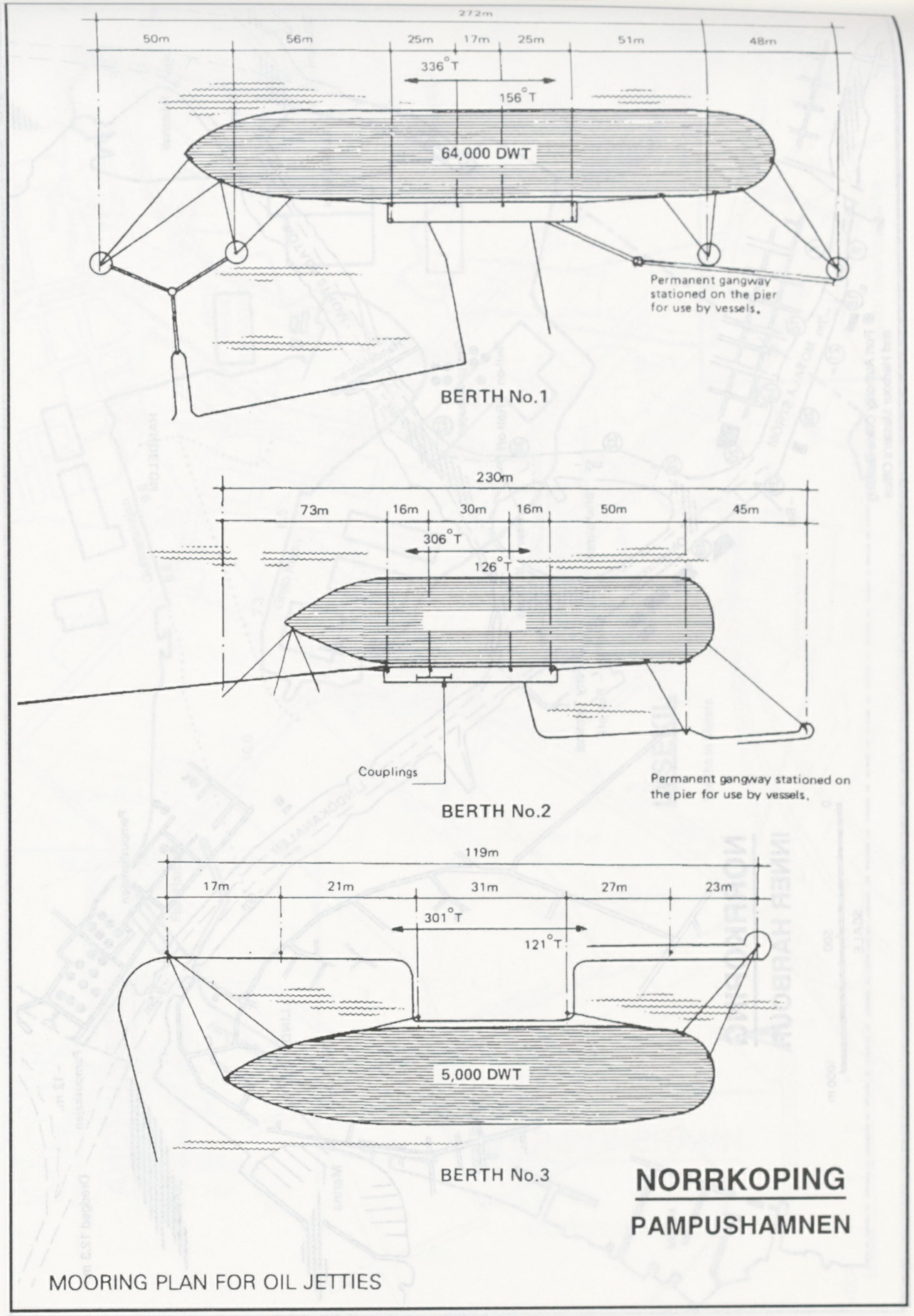

Ostermalm
Innerstaden
Skurholmsstaden
Bergnaset
Deep Quay
Cement Berth
Iron Ore Quay
Hertsofjarden
LULEA
SSAB Quay
Oil Terminal
Port Traffic Control
Stromoren
Svartosundet
Victoria Harbour
Ro Ro
Sandoleden
Area for New Iron Ore Quay
Lulea Airport
Tjuvholmssuddet
0 400 800 1200 1600 2000 m
Scale
N


LYSEKIL
Fish Harbour
Gullmarskajen
9.6
9.6
Andersons Quay
5.6
10.0
7.3
Groto Kajen
6.5
8.0
Local Traffic
Groto Rev
Marina
LYSEKIL
Depths in Meters
N

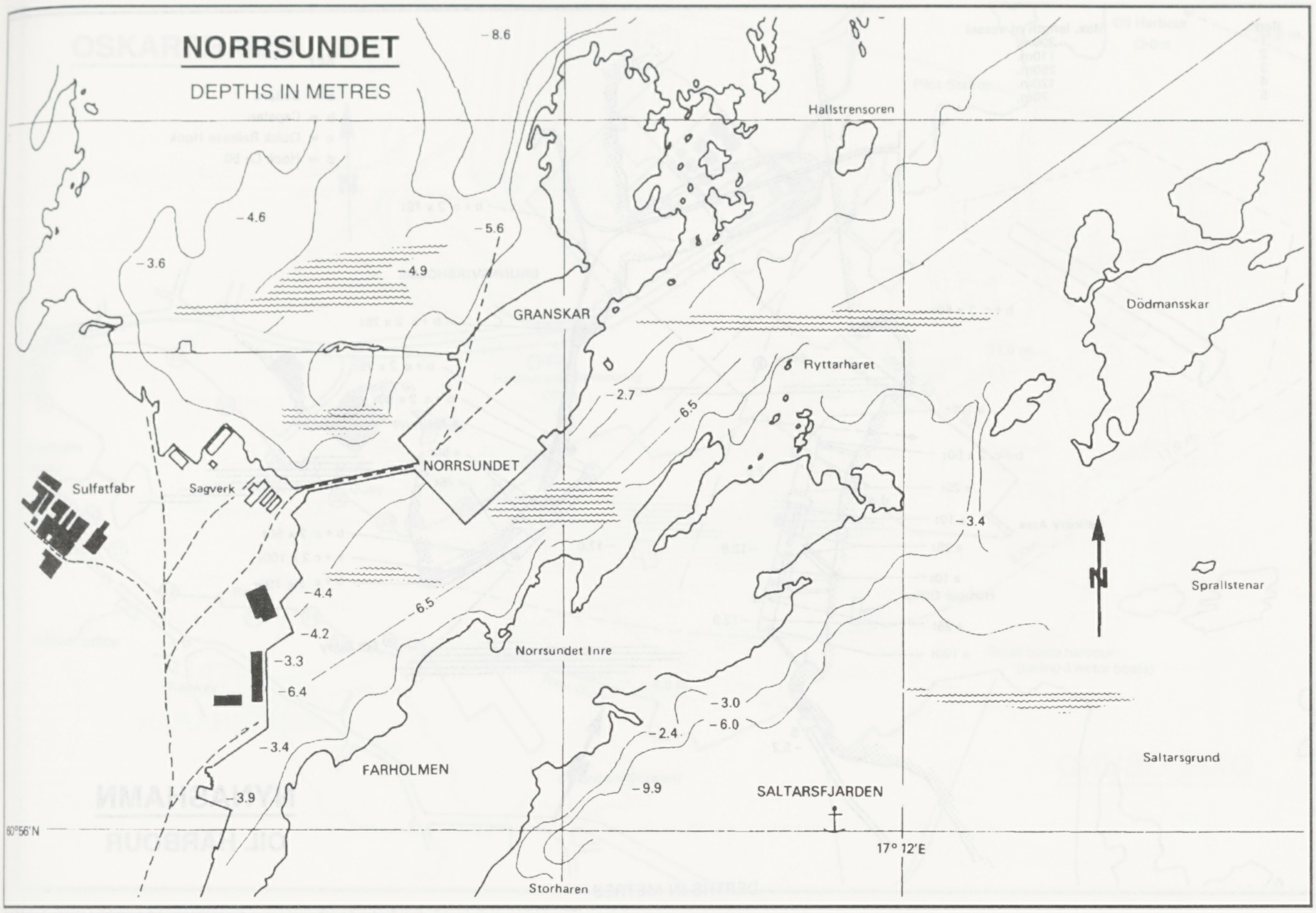

MALMO
LIMHAMN
10.5 m.
10.5 m.
8.6 m.
Oil Harbour
8.4 m.
Central Harbour
8.4 m.
5.0 m.
Ferry Harbour
13.5 m.
13.5 m.
Leading Lights
1001
1002
Oil Harbour
12.0 m.
1003
1004
1010
6.0 m.
1009
1008
1007
1006
9.0 m.
Leading Lights
9.0 m.
9.0 m.
6.0
801
9.0 m.
Nordkajen
Industrial Harbour Basin 2
7.2 m.
901
Sydkajen
905
9.0 m.
815
Basin 1
Jarnkajen
Kolkajen
7.2
810
Leading Lights
3.1 m
Kockums Shipyard
25
29
9.2 m.
Container Terminal
9.2 m.
600
Free Port
610
7.5 m.
7.2 m.
Inner Harbour
520
604
7.2 m.
505
Hullkajen
7.2 m.
Stockholmskajen
Hjalmarekajen
6.0 m.
Skeppsbron
Customs
Pilots
7.2 m.
305
404
Port Administration
Marshalling Yard

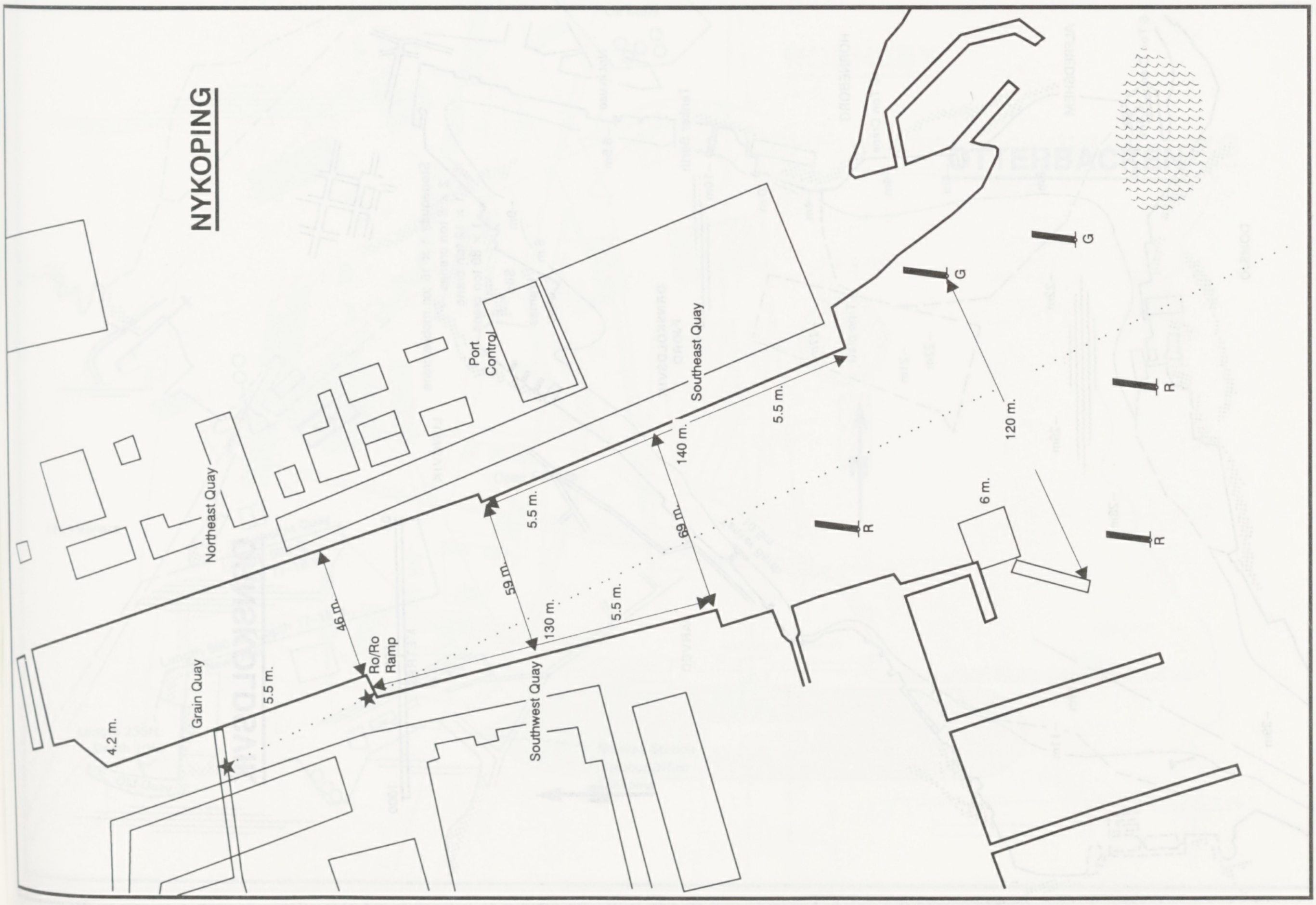

NORRKOPING
INNER HARBOUR
-12 m.
Pampuskajen
Dredged 12.3 m.
Pampushamnen
9.5m
HANDELON
-5m
Ramshall
- 8.5m
Tallbacken
ALHOLMEN
MOTALA STROM
Handelöbron
7m
8m
LINDÖKANALEN
6m
LINDÖ
Marina
42
Gastgivarehagen
Roll-on — Roll-off
38
Heavy Lift Crane
-9m
Ferry Terminal
Roll on — Roll off
-5m
Blixholmen
32
26
Ohmanskajen
49
20
14
39
-8m
10
MOTALA STRÖM
6
29
-7m
-6m
21
9
15
-5m
Port Authority Office Building and Harbour Master's Office
0
500
1000 m
SCALE

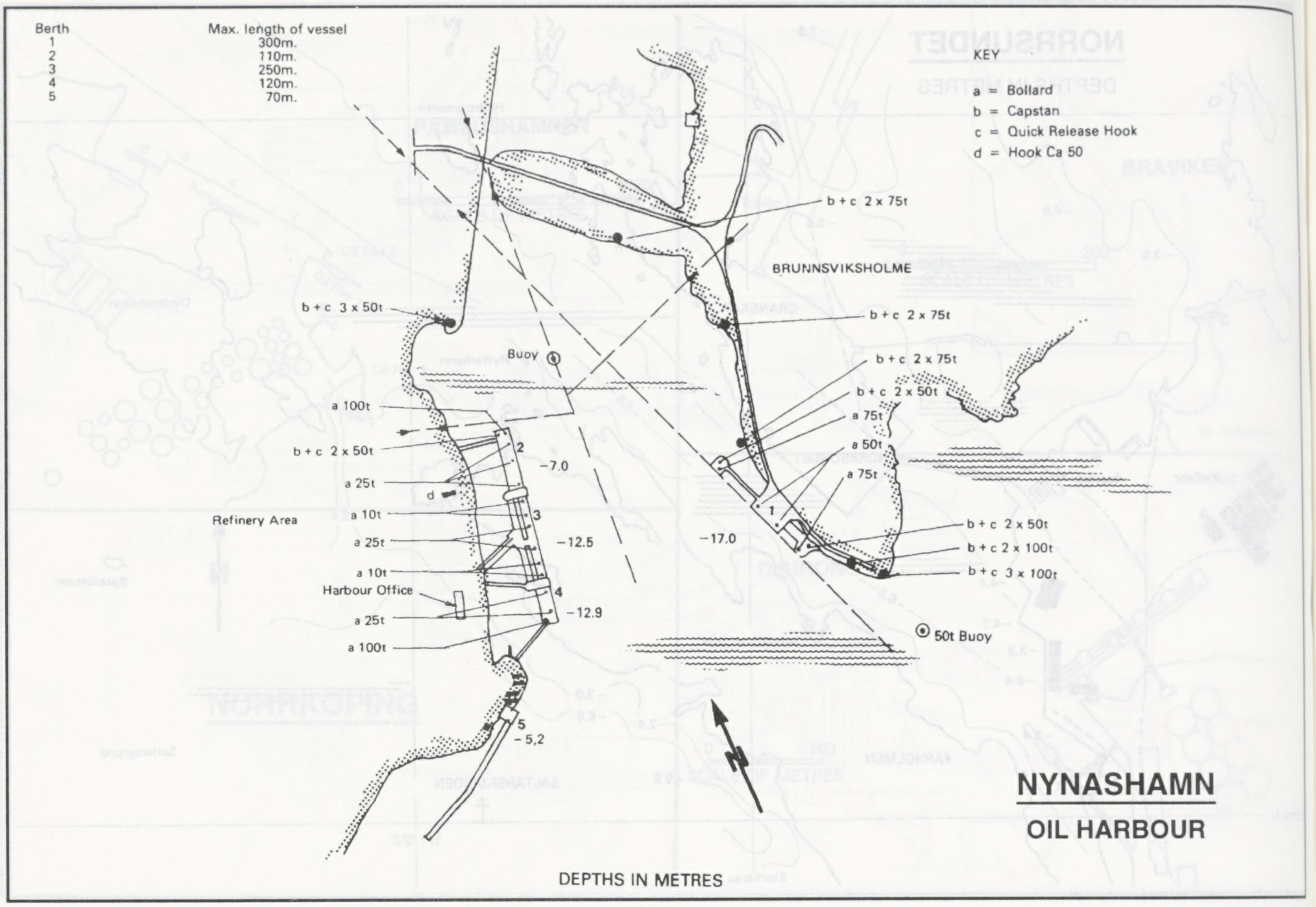

NORRKOPING
BRAVIKEN
0
200
SCALE OF METRES
St. Tallholmen
Silos
Ro-Ro
DJURON
0
100
SCALE OF METRES
PAMPUSHAMNEN
0
500
SCALE OF METRES
Oil Pier 2
Oil Pier 3
Oil Pier 1
Pampuskajen
2
4
6
8


NORRKOPING
PAMPUSHAMNEN

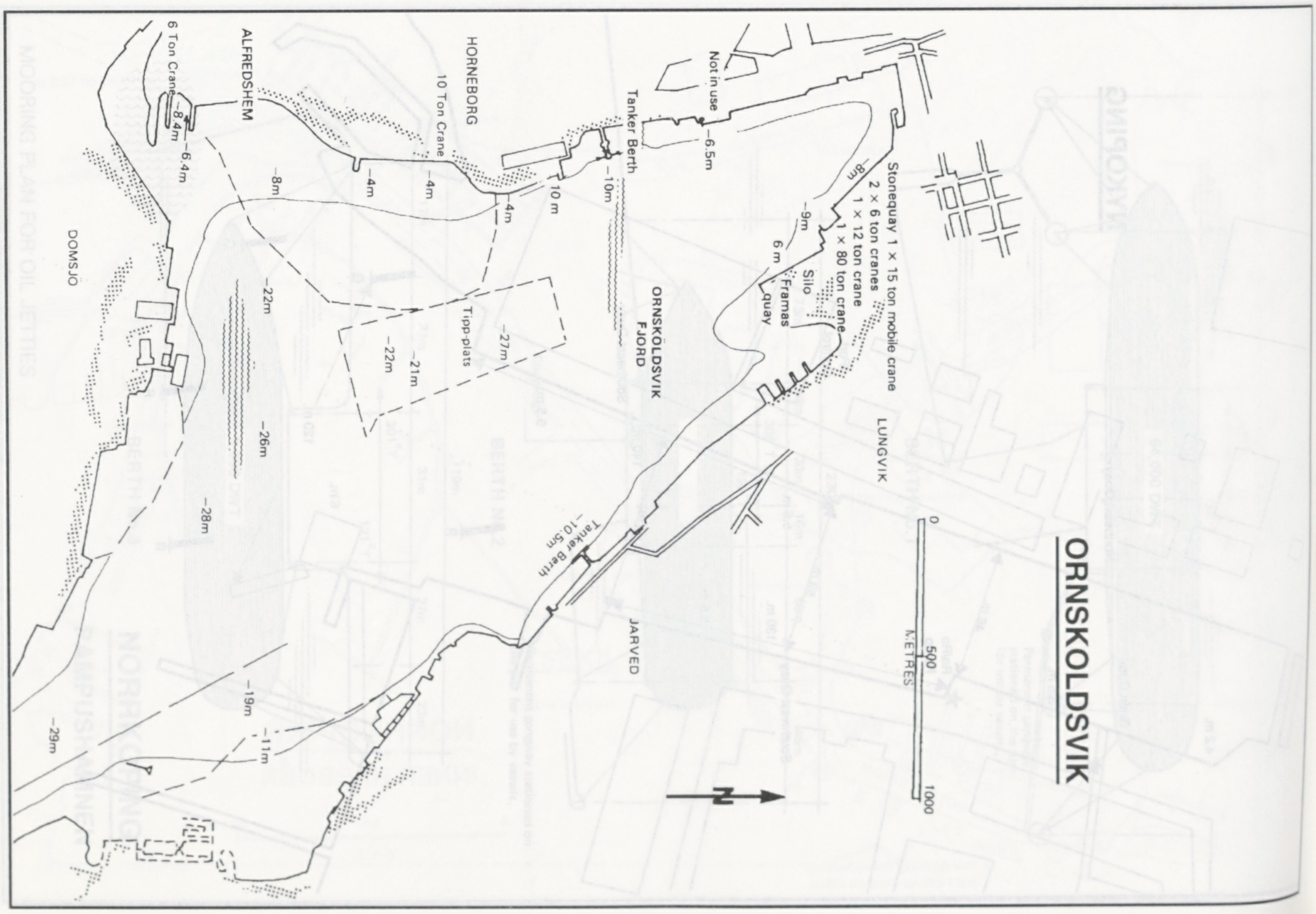
MOORING PLAN FOR OIL JETTIES
272m
50m
56m
25m
17m
25m
51m
48m
336°T
156°T
64,000 DWT
Permanent gangway stationed on the pier for use by vessels.
BERTH No.1
230m
73m
16m
30m
16m
50m
45m
306°T
126°T
Couplings
Permanent gangway stationed on the pier for use by vessels.
BERTH No.2
119m
17m
21m
31m
27m
23m
301°T
121°T
5,000 DWT
BERTH No.3


NORRSUNDET
DEPTHS IN METRES
−8.6
−4.6
−3.6
−5.6
−4.9
GRANSKAR
Hallstrensoren
Dödmansskar
Ryttarharet
−2.7
6.5
NORRSUNDET
Sulfatfabr
Sagverk
−3.4
N
Sprallstenar
−4.4
−4.2
6.5
−3.3
−6.4
Norrsundet Inre
−3.0
−6.0
−2.4
−3.4
FARHOLMEN
Saltarsgrund
−3.9
−9.9
SALTARSFJARDEN
60°56'N
17° 12'E
Storharen


NYKOPING
G
G
Port Control
Southeast Quay
5.5 m.
120 m.
R
140 m.
5.5 m.
R
6 m.
R
Northeast Quay
69 m.
59 m.
46 m.
5.5 m.
130 m.
Ro/Ro Ramp
Grain Quay
5.5 m.
Southwest Quay
4.2 m.

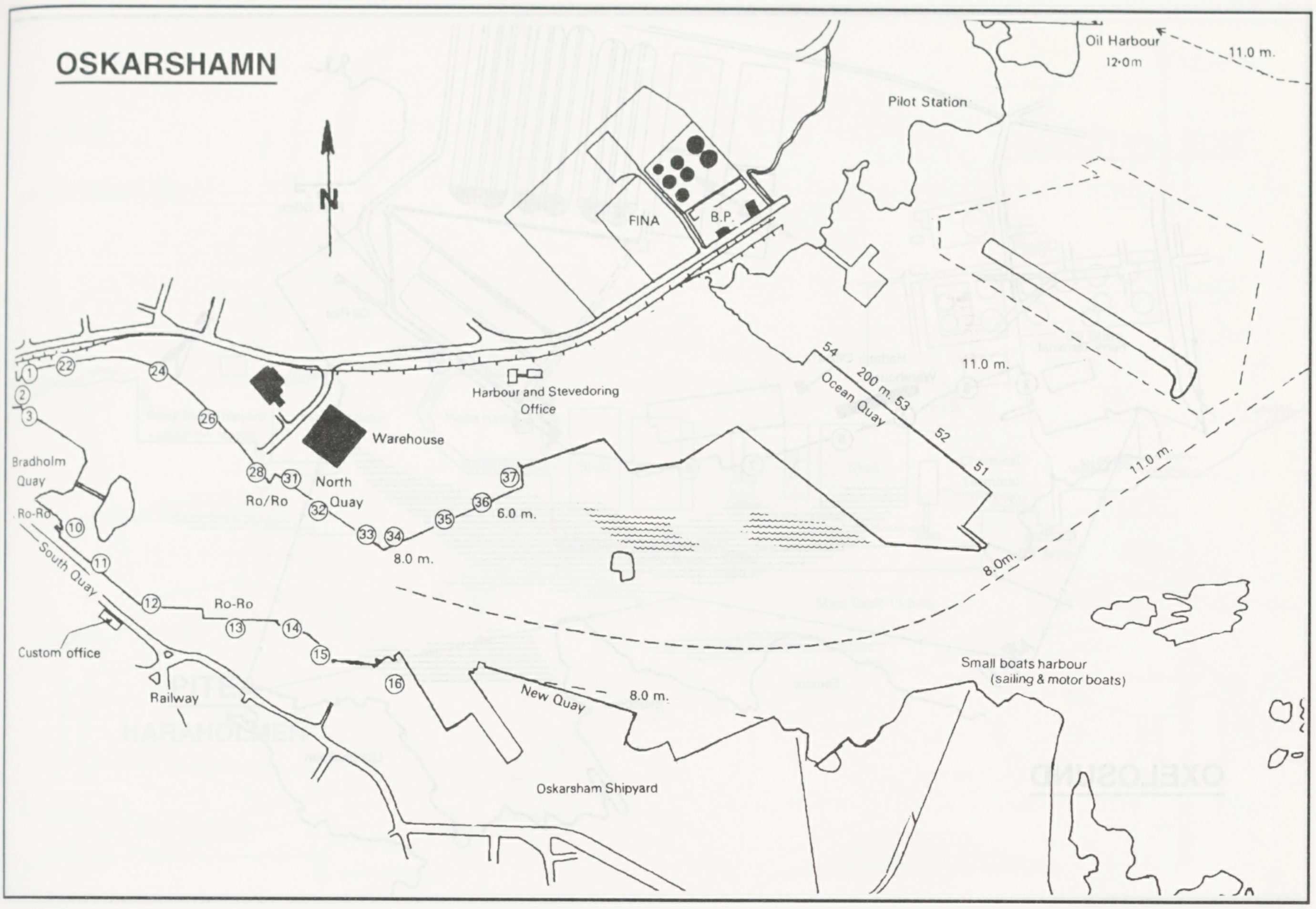

Berth
Max. length of vessel
1 300m.
2 110m.
3 250m.
4 120m.
5 70m.
KEY
a = Bollard
b = Capstan
c = Quick Release Hook
d = Hook Ca 50
b + c 2 x 75t
BRUNNSVIKSHOLME
b + c 3 x 50t
b + c 2 x 75t
Buoy
b + c 2 x 75t
b + c 2 x 50t
a 100t
a 75t
b + c 2 x 50t
a 50t
a 25t
2
-7.0
a 75t
d
a 10t
3
1
Refinery Area
a 25t
-12.5
-17.0
b + c 2 x 50t
b + c 2 x 100t
a 10t
b + c 3 x 100t
Harbour Office
4
a 25t
-12.9
50t Buoy
a 100t
5
-5,2
N
DEPTHS IN METRES

NYNASHAMN
OIL HARBOUR

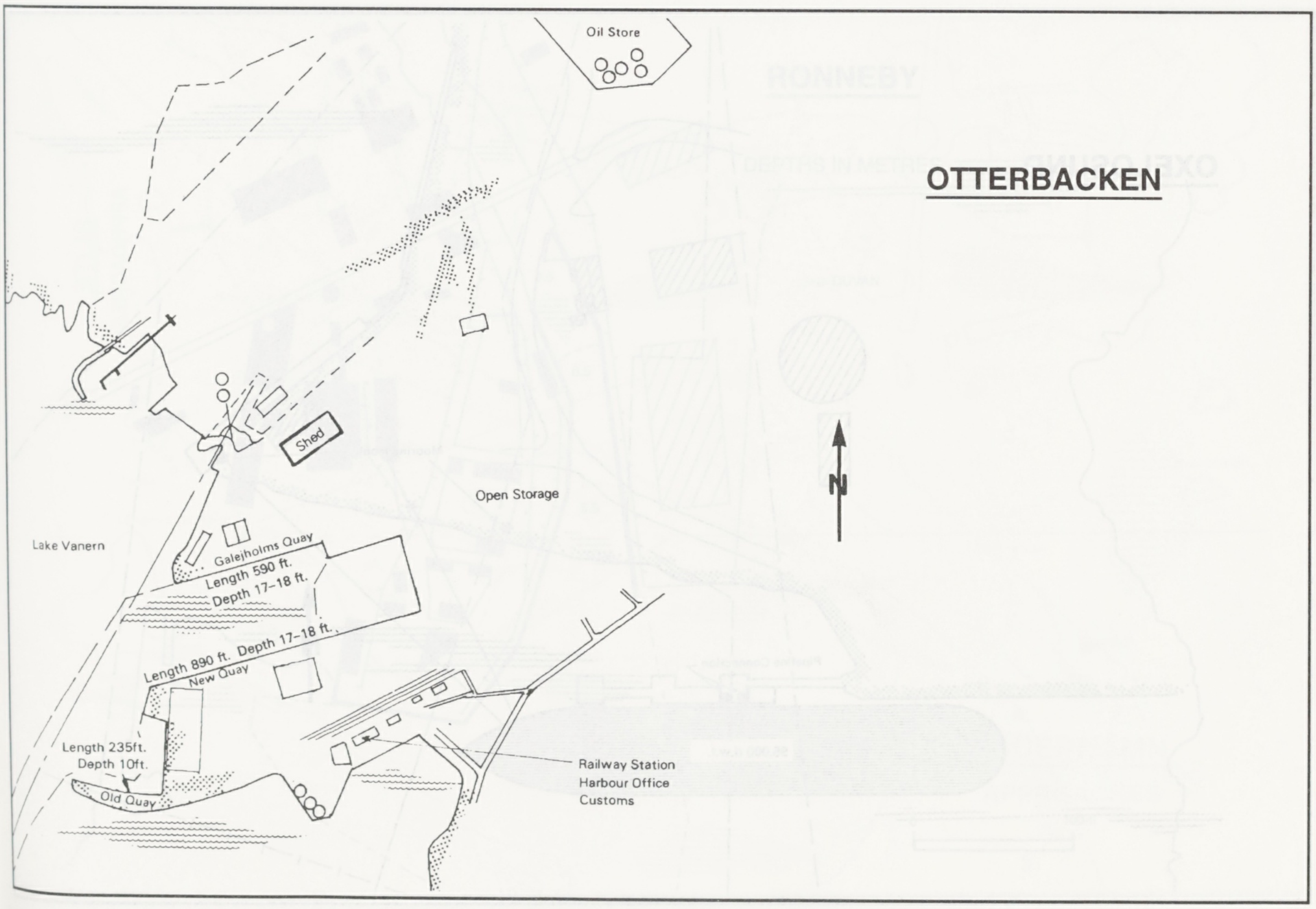

6 Ton Crane
ALFREDSHEM
HORNEBORG
10 Ton Crane
Not in use
Tanker Berth
-8.4m
-6.4m
-8m
-4m
-4m
4m
10m
-10m
-6.5m
-8m
Stonequay 1 x 15 ton mobile crane
2 x 6 ton cranes
1 x 12 ton crane
1 x 80 ton crane
-9m
6 m
Silo
Framas
quay
DOMSJO
-22m
Tipp-plats
-27m
-21m
-22m
ORNSKÖLDSVIK
FJORD
LUNGVIK
-26m
-28m
Tanker Berth
-10.5m
JARVED
0
500
1000
METRES
-19m
-29m
-11m
N

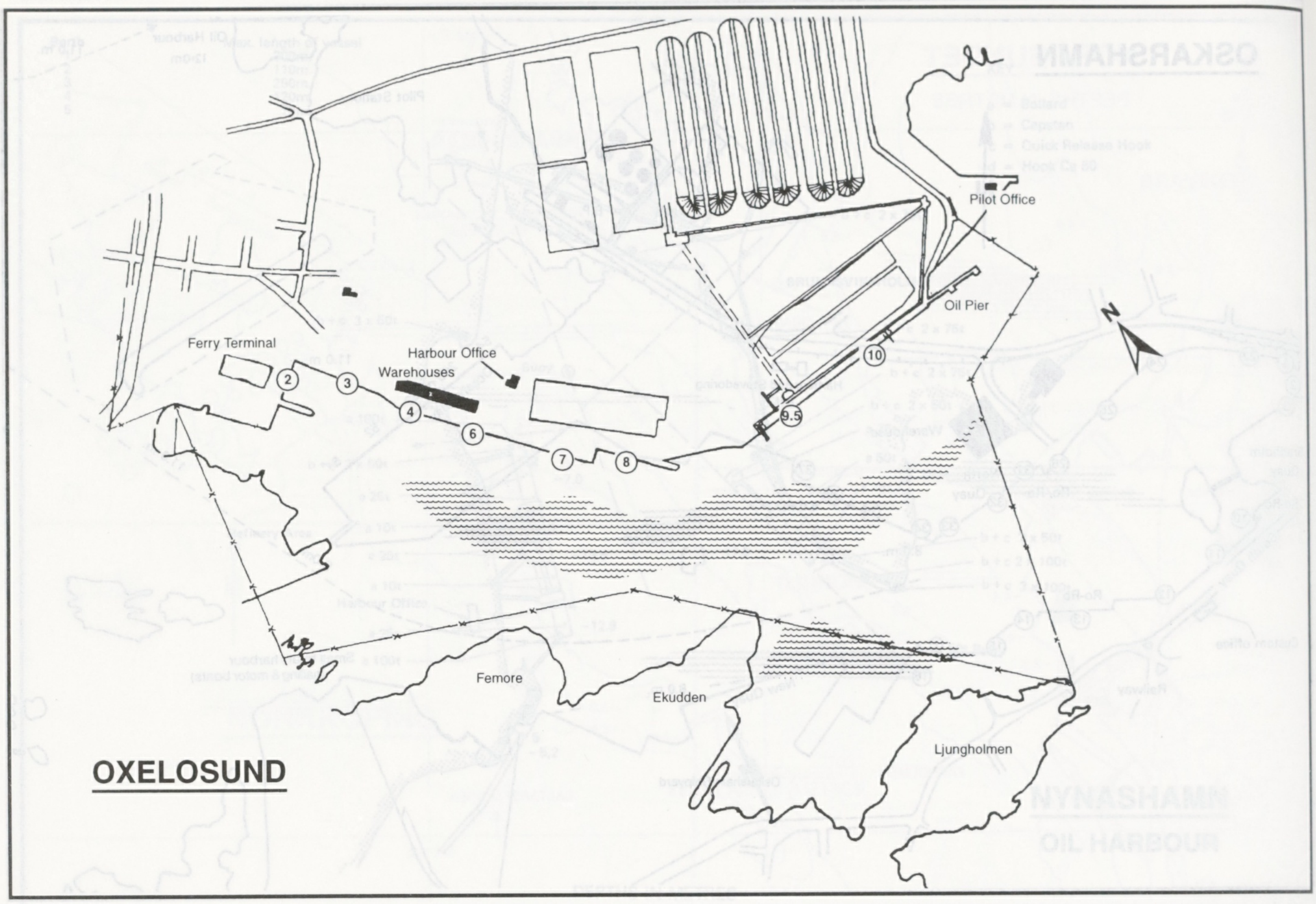
ORNSKOLDSVIK

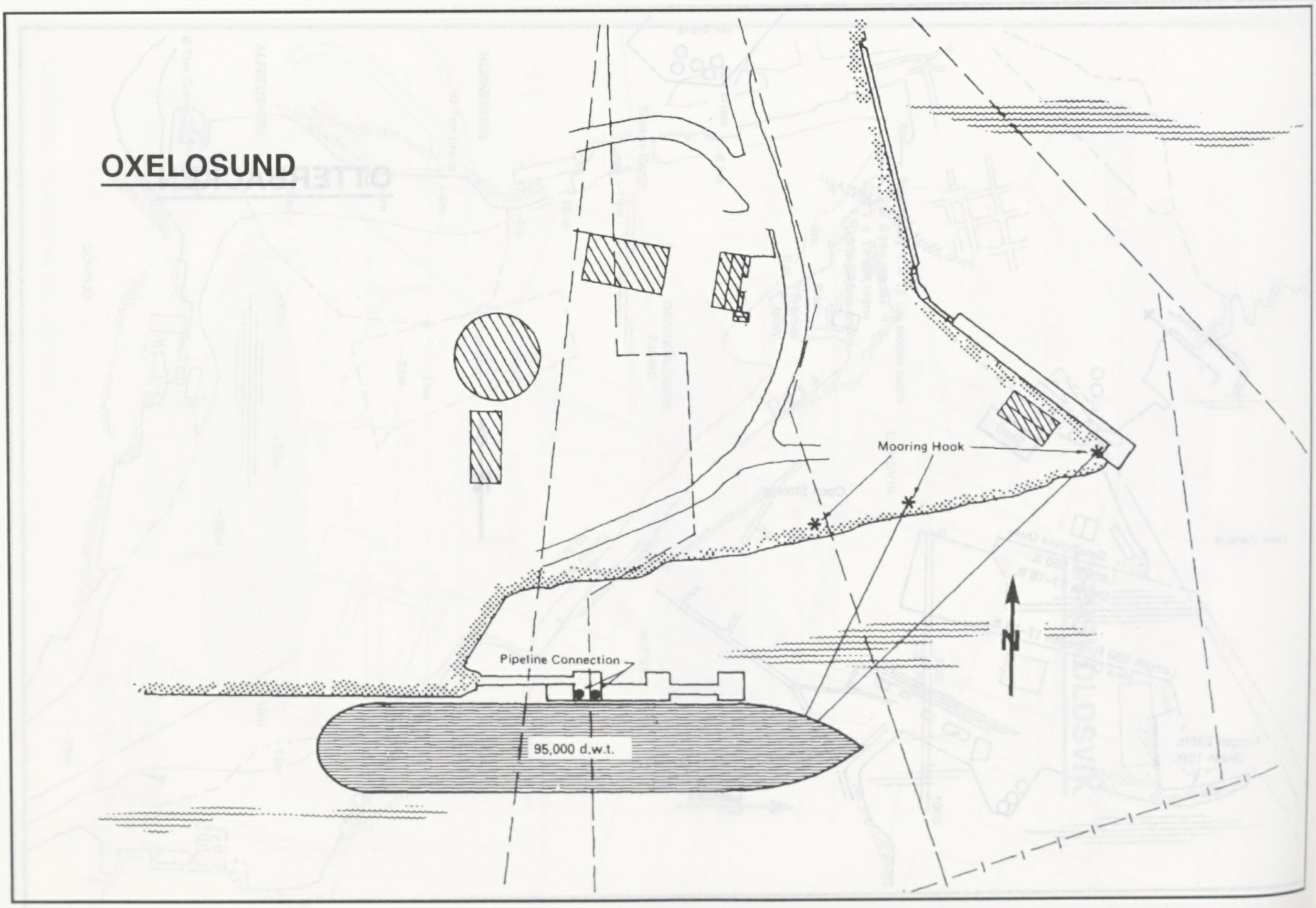
OSKARSHAMN

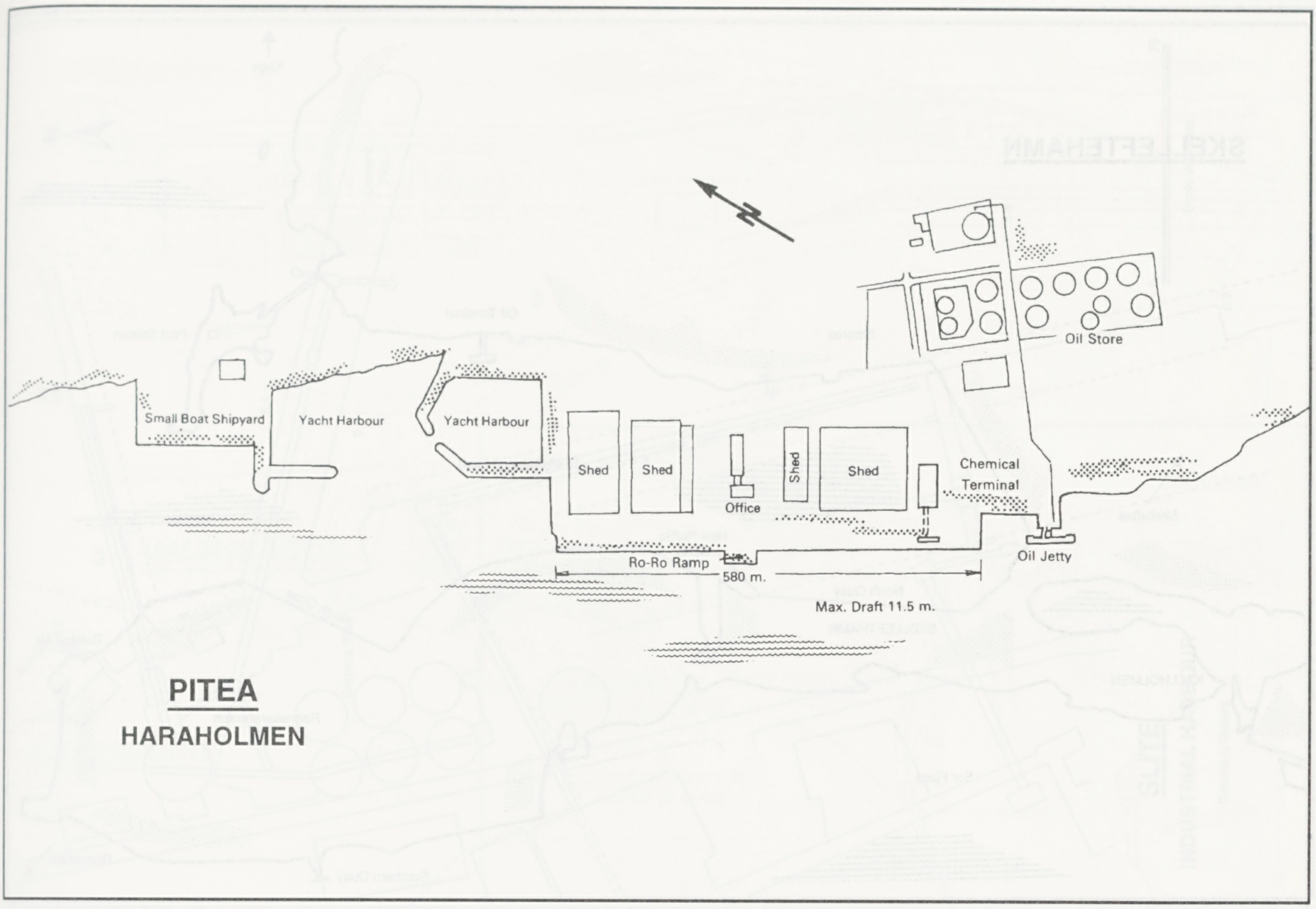

N
Oil Harbour
12·0m
11.0 m.
Pilot Station
FINA
B.P.
54
200 m. 53
Ocean Quay
52
51
11.0 m.
11.0 m.
8.0m.
1
2
3
22
24
26
28
31
32
33
34
35
36
37
Harbour and Stevedoring Office
Warehouse
North Quay
Ro/Ro
6.0 m.
8.0 m.
Bradholm Quay
Ro-Ro
10
11
South Quay
12
Ro-Ro
13
14
15
16
Custom office
Railway
New Quay
8.0 m.
Small boats harbour (sailing & motor boats)
Oskarsham Shipyard

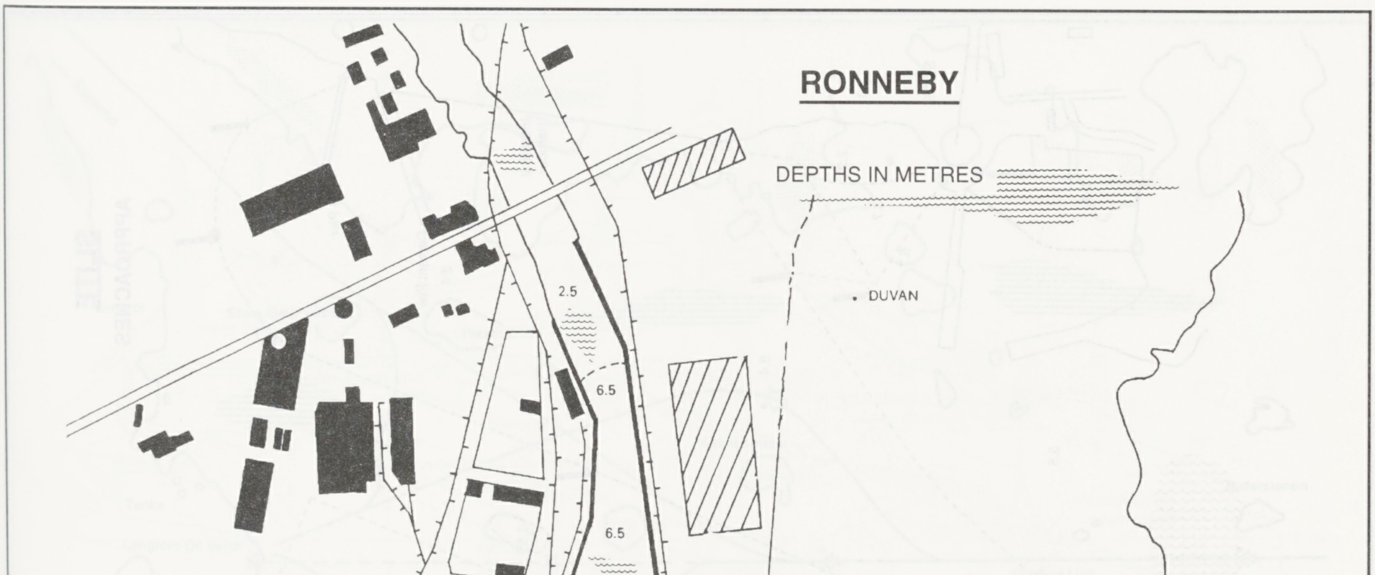
OTTERBACKEN

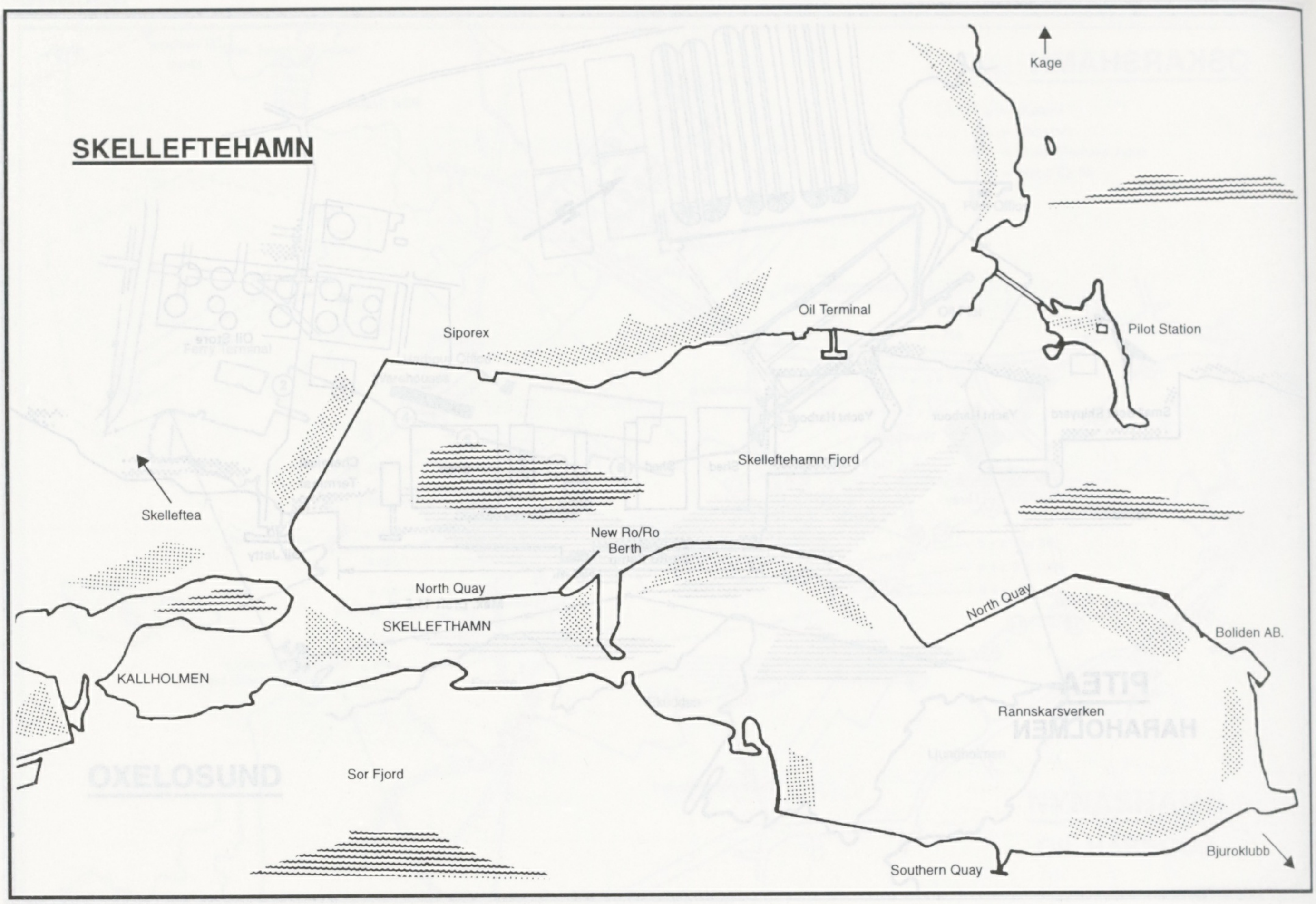

Oil Store
N
Shed
Open Storage
Lake Vanern
Galeholms Quay
Length 590 ft.
Depth 17–18 ft.
Length 890 ft. Depth 17–18 ft.
New Quay
Length 235ft.
Depth 10ft.
Old Quay
Railway Station
Harbour Office
Customs

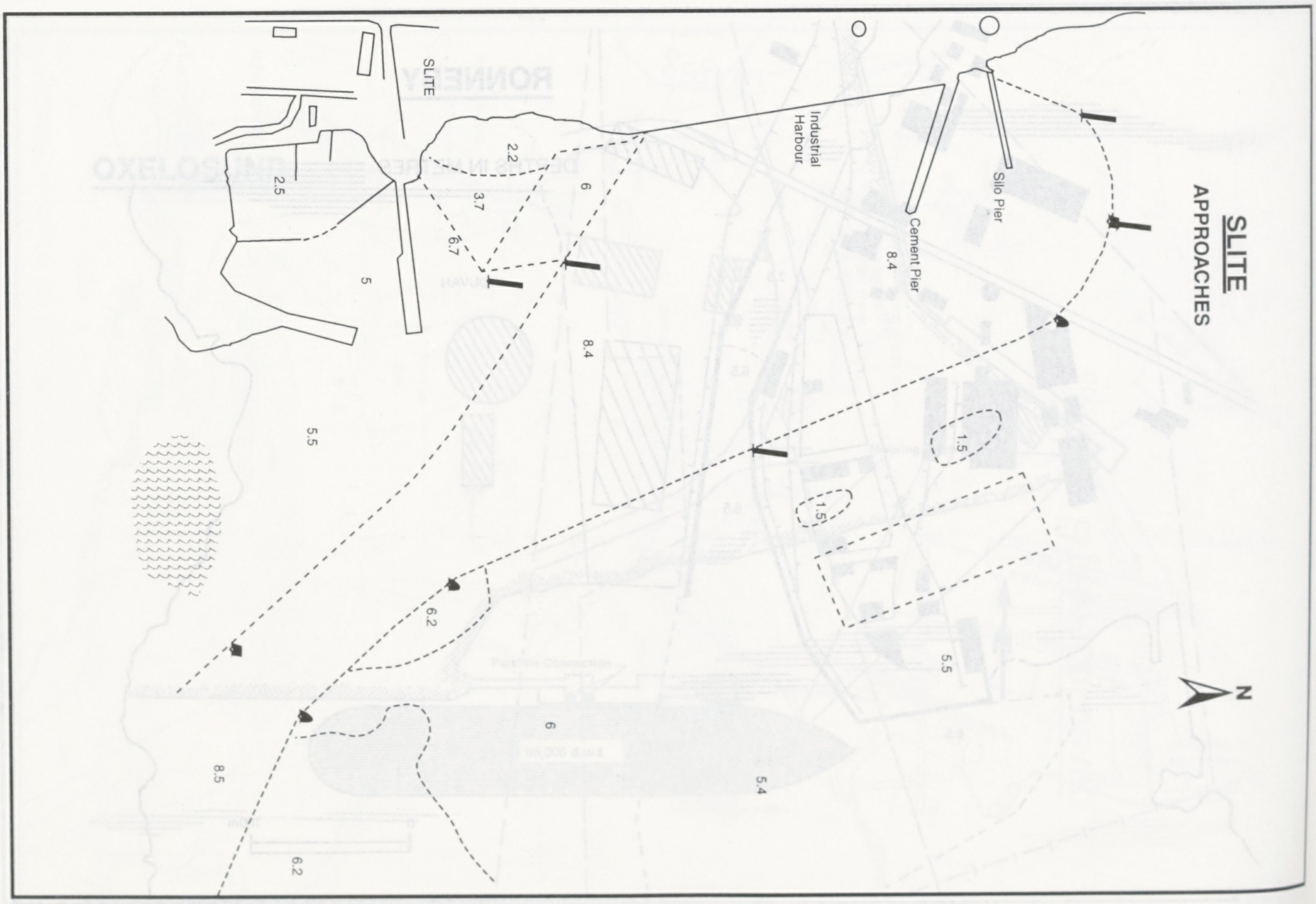

Pilot Office
Oil Pier
N
Ferry Terminal
Harbour Office
Warehouses
2
3
4
6
7
8
9.5
10
Femore
Ekudden
Ljungholmen
OXELOSUND

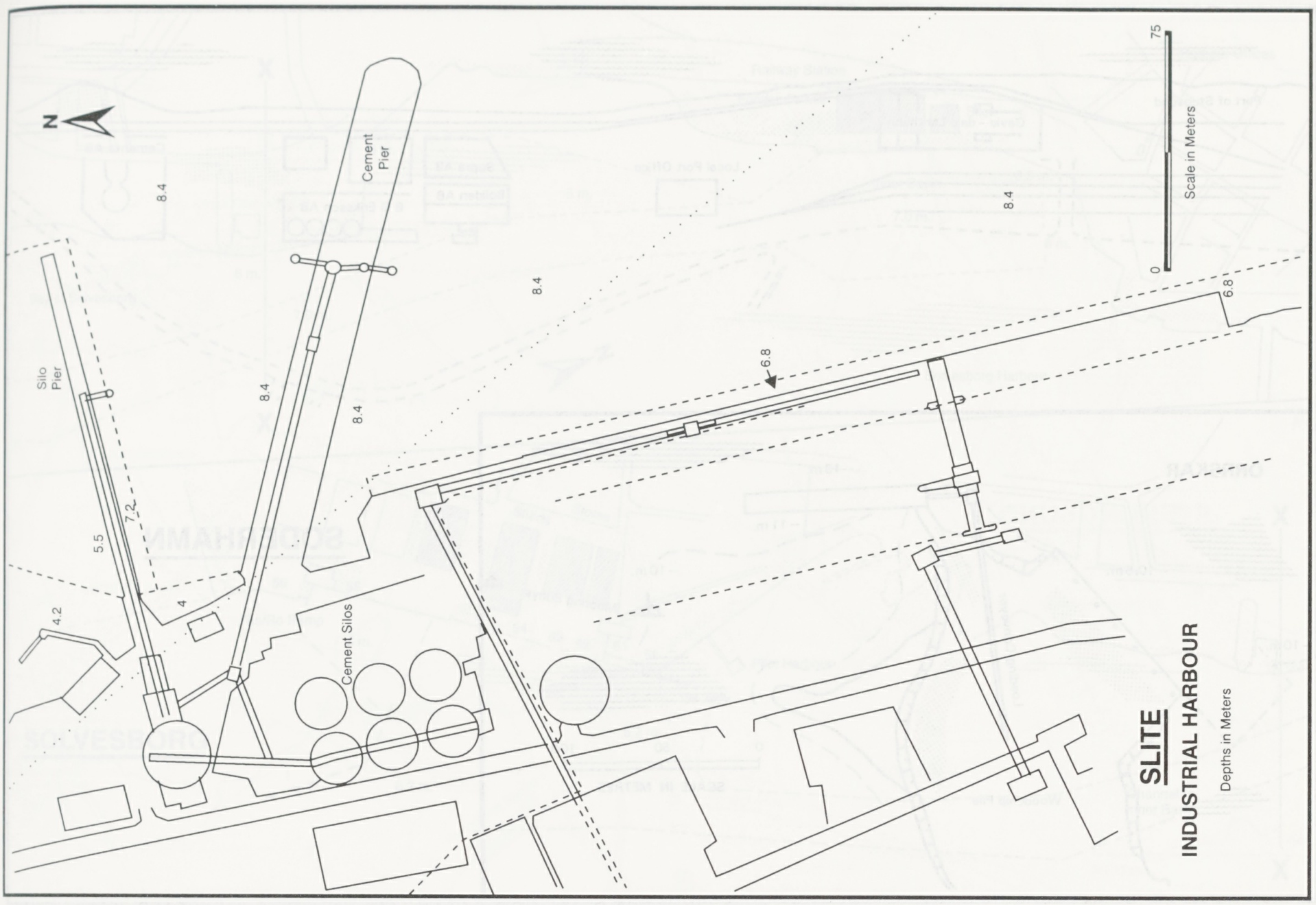

OXELOSUND
Mooring Hook
N
Pipeline Connection
95,000 d.w.t.

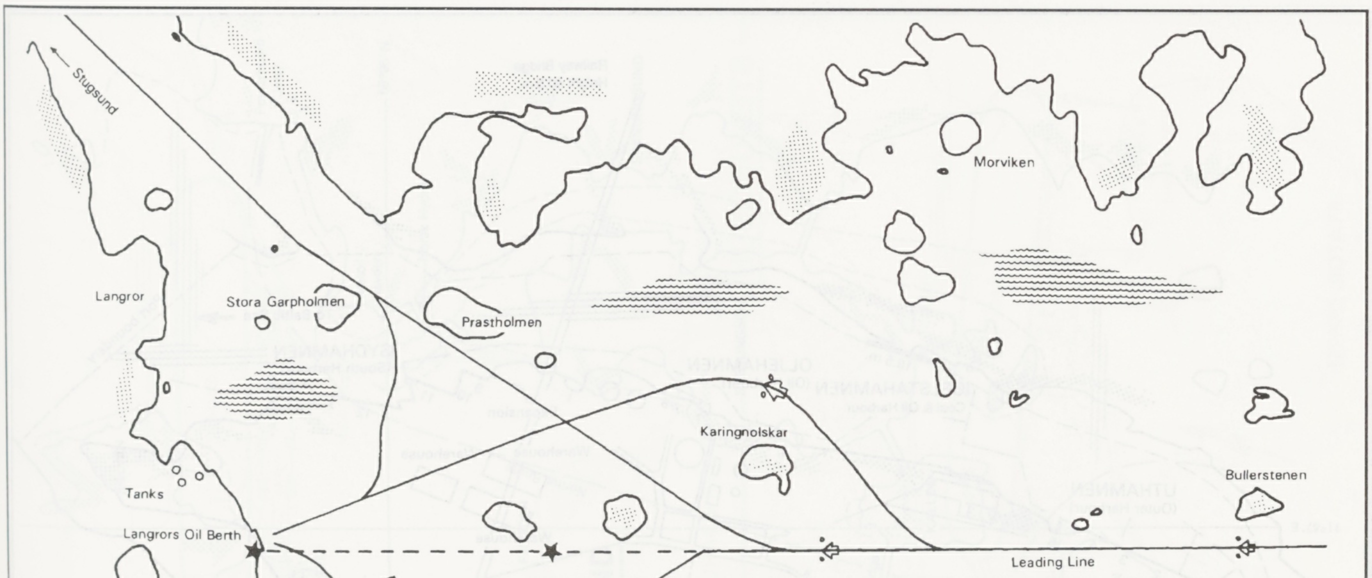

PITEA
HARAHOLMEN
Small Boat Shipyard
Yacht Harbour
Yacht Harbour
Shed
Shed
Office
Shed
Shed
Chemical Terminal
Oil Store
Oil Jetty
Ro-Ro Ramp
580 m.
Max. Draft 11.5 m.

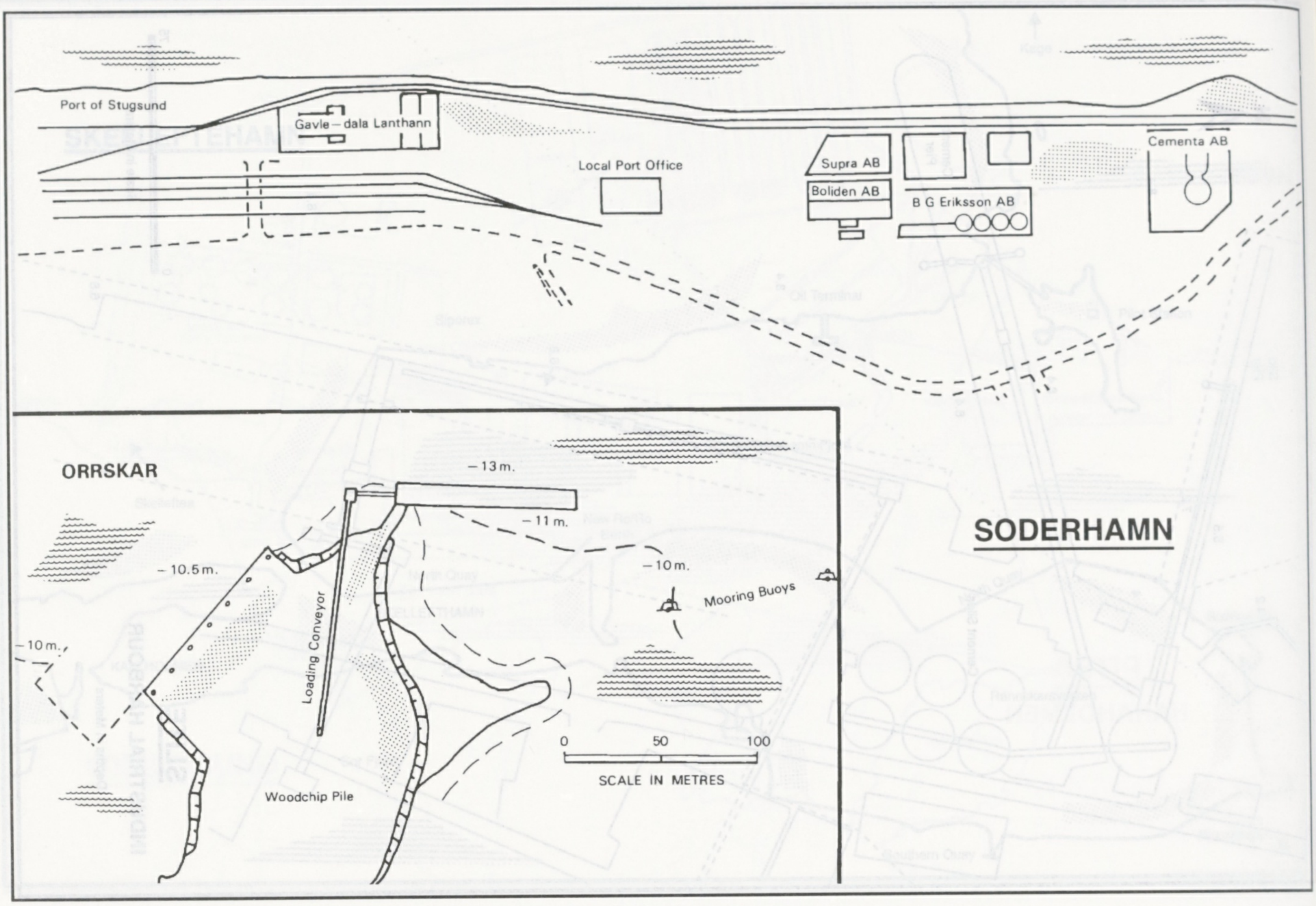

RONNEBY
DEPTHS IN METRES
DUVAN
2.5
6.5
6.5
6.5
6.5
0
100m

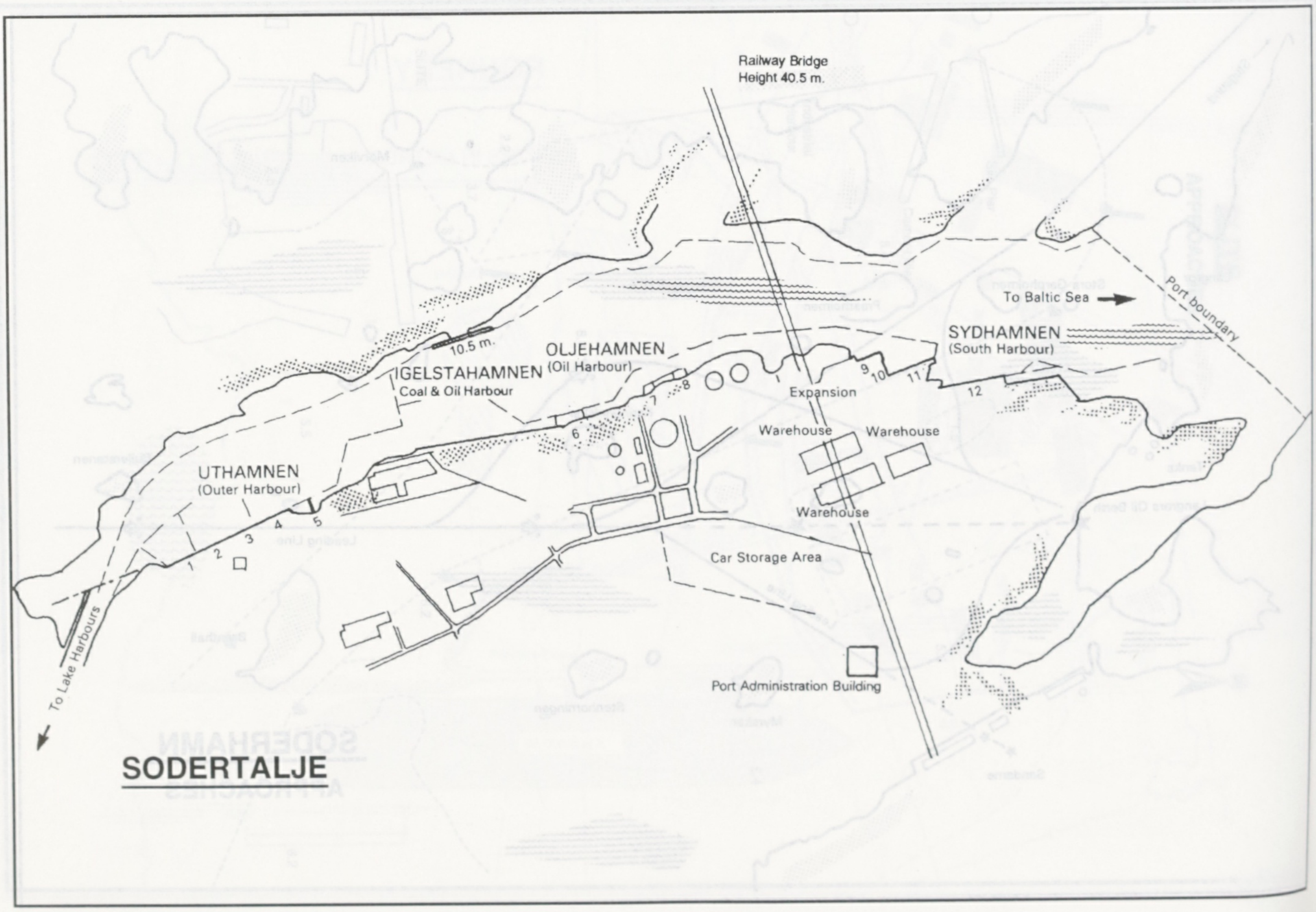

SKELLEFTEHAMN
Kage
Oil Terminal
Pilot Station
Siporex
Skelleftehamn Fjord
Skelleftea
New Ro/Ro Berth
North Quay
SKELLEFTHAMN
KALLHOLMEN
North Quay
Boliden AB.
Rannskarsverken
Sor Fjord
Southern Quay
Bjuroklubb

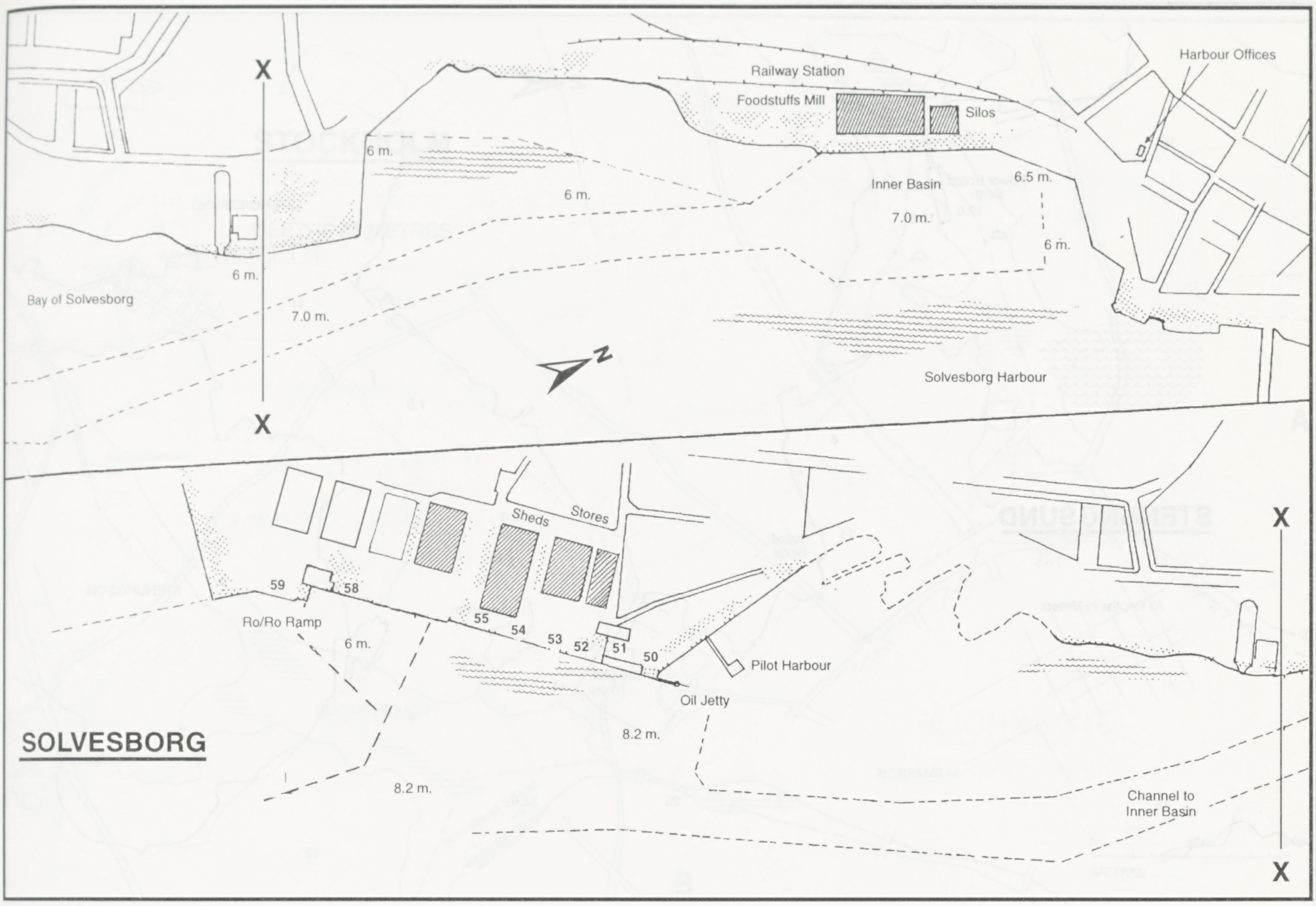

SLITE APPROACHES
SLITE
Industrial Harbour
Cement Pier
Silo Pier
N
2.2
2.5
3.7
6
6.7
5
8.4
8.4
5.5
1.5
1.5
6.2
5.5
8.5
6
5.4
6.2

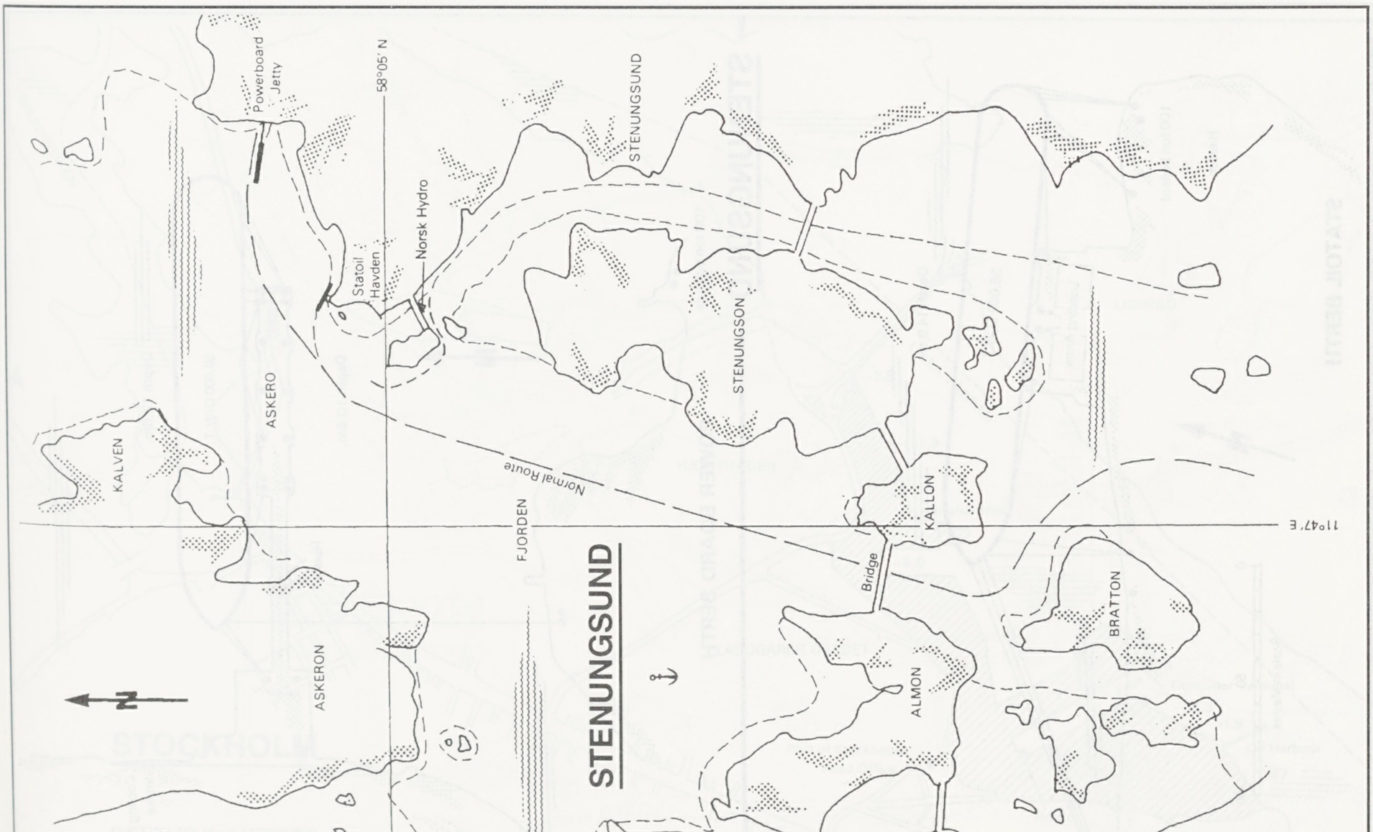

Cement Pier
Silo Pier
Cement Silos
8.4
8.4
8.4
8.4
8.4
8.4
6.8
6.8
7.2
5.5
4.2
4
Scale in Meters
0
75
SLITE
INDUSTRIAL HARBOUR
Depths in Meters

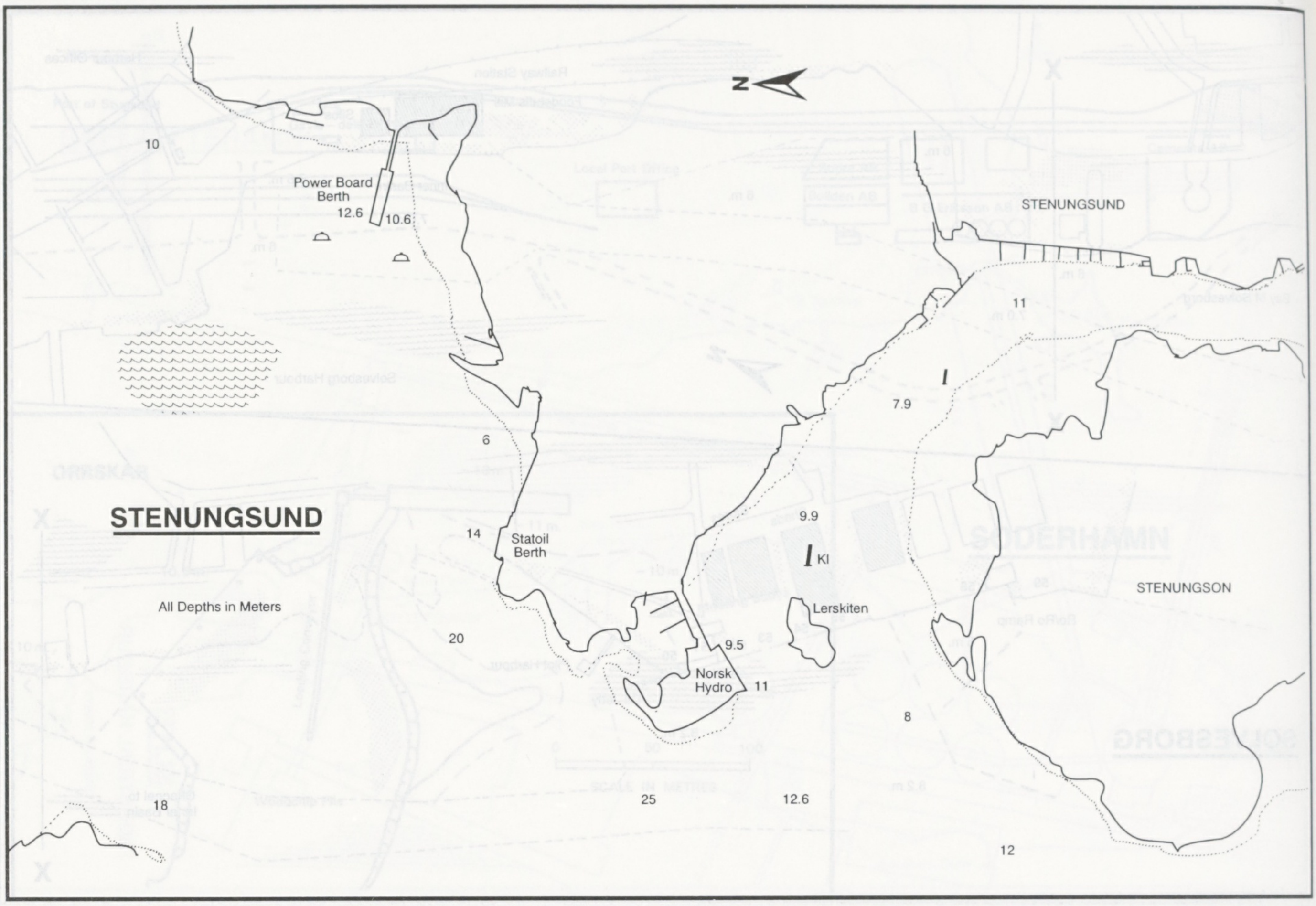

Stugsund
Langror
Stora Garpholmen
Prastholmen
Morviken
Karingnolskar
Tanks
Langrors Oil Berth
Bullerstenen
Leading Line
Leading Line
Branthall
Myrskar
Stenhorningen
Sandarne
SODERHAMN
APPROACHES

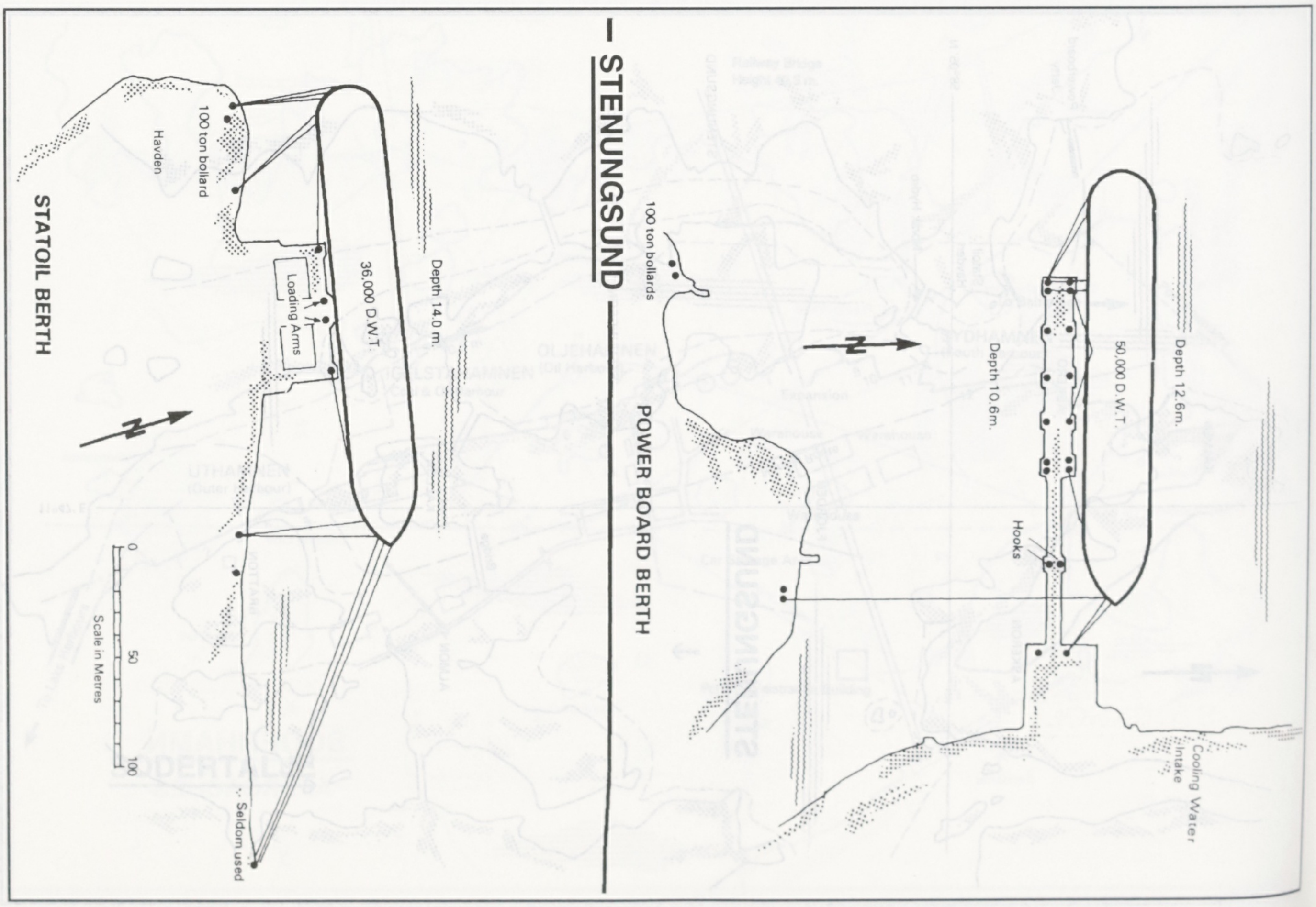

Port of Stugsund
Gavle – dala Lanthann
Local Port Office
Supra AB
Boliden AB
B G Eriksson AB
Cementa AB
ORRSKAR
– 13 m.
– 11 m.
– 10.5 m.
– 10 m.
– 10 m.
Loading Conveyor
Mooring Buoys
Woodchip Pile
0
50
100
SCALE IN METRES
SODERHAMN

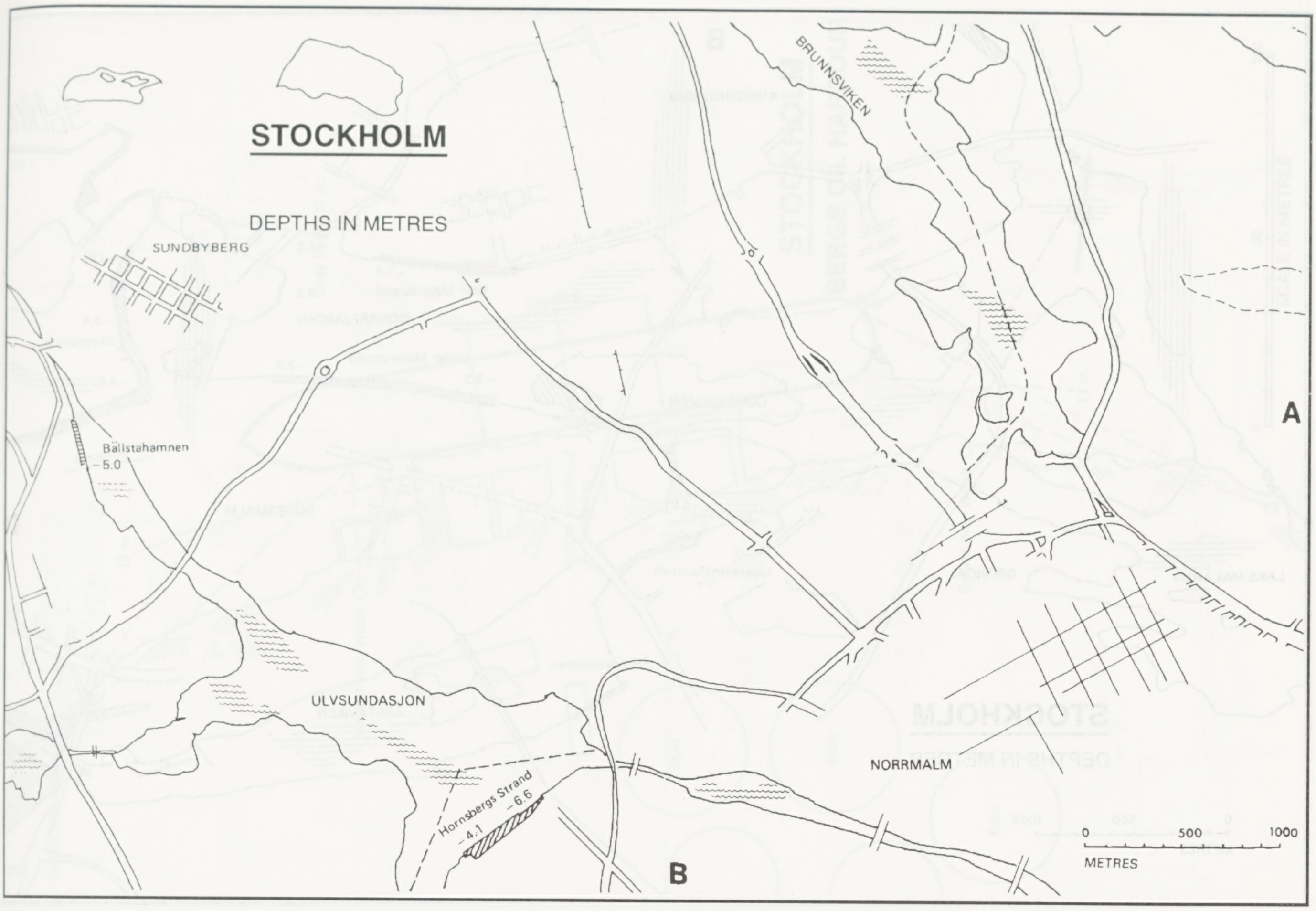

Railway Bridge
Height 40.5 m.
To Baltic Sea
Port boundary
SYDHAMNEN
(South Harbour)
OLJEHAMNEN
(Oil Harbour)
IGELSTAHAMNEN
Coal & Oil Harbour
10.5 m.
UTHAMNEN
(Outer Harbour)
1
2
3
4
5
6
7
8
9
10
11
12
Expansion
Warehouse
Warehouse
Warehouse
Car Storage Area
Port Administration Building
To Lake Harbours
SODERTALJE

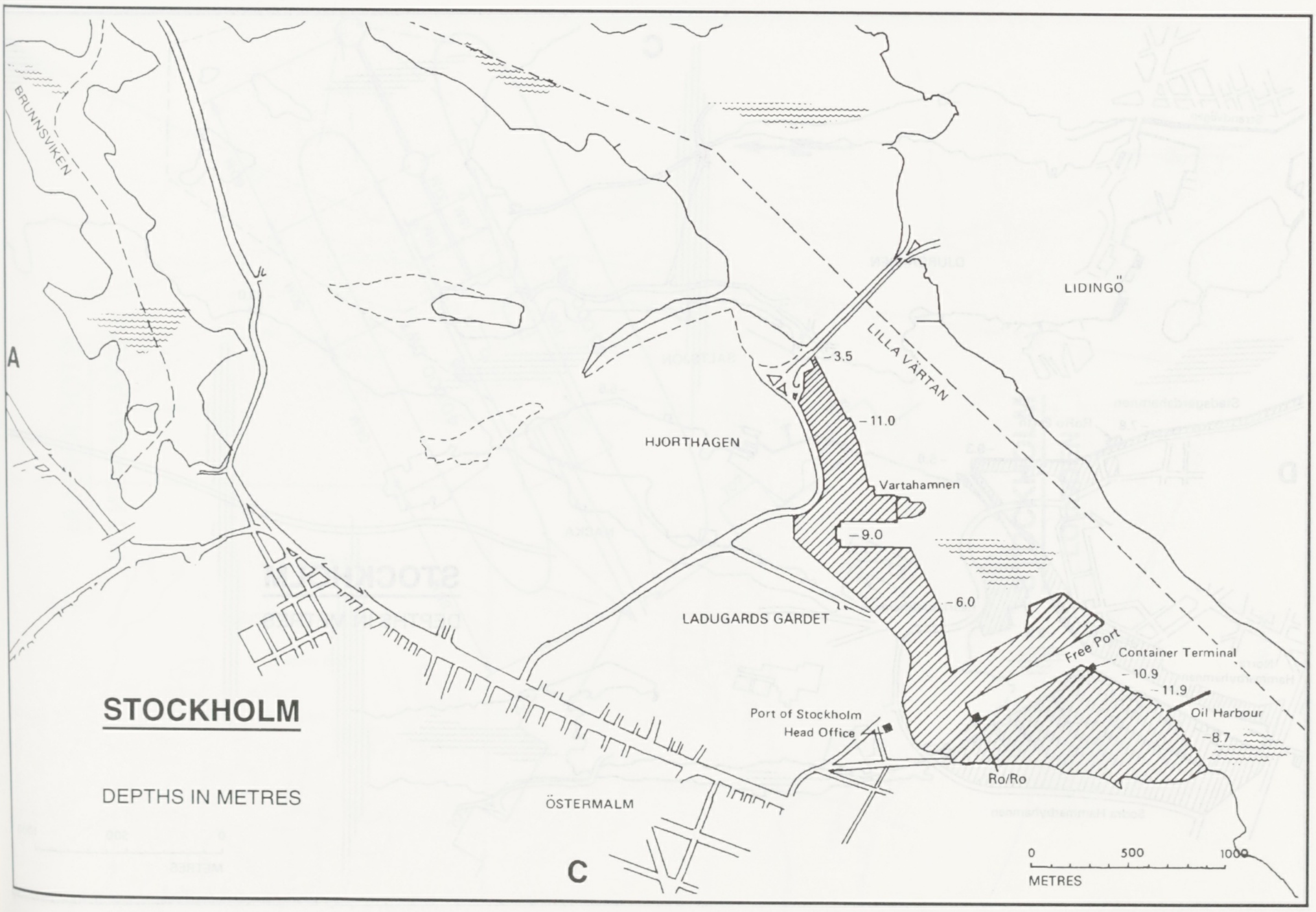

X
X
Railway Station
Foodstuffs Mill
Silos
Harbour Offices
6 m.
6 m.
Inner Basin
6.5 m.
7.0 m.
6 m.
6 m.
Bay of Solvesborg
7.0 m.
N
Solvesborg Harbour
Sheds
Stores
X
59
58
Ro/Ro Ramp
6 m.
55
54
53
52
51
50
Pilot Harbour
Oil Jetty
SOLVESBORG
8.2 m.
8.2 m.
Channel to Inner Basin
X

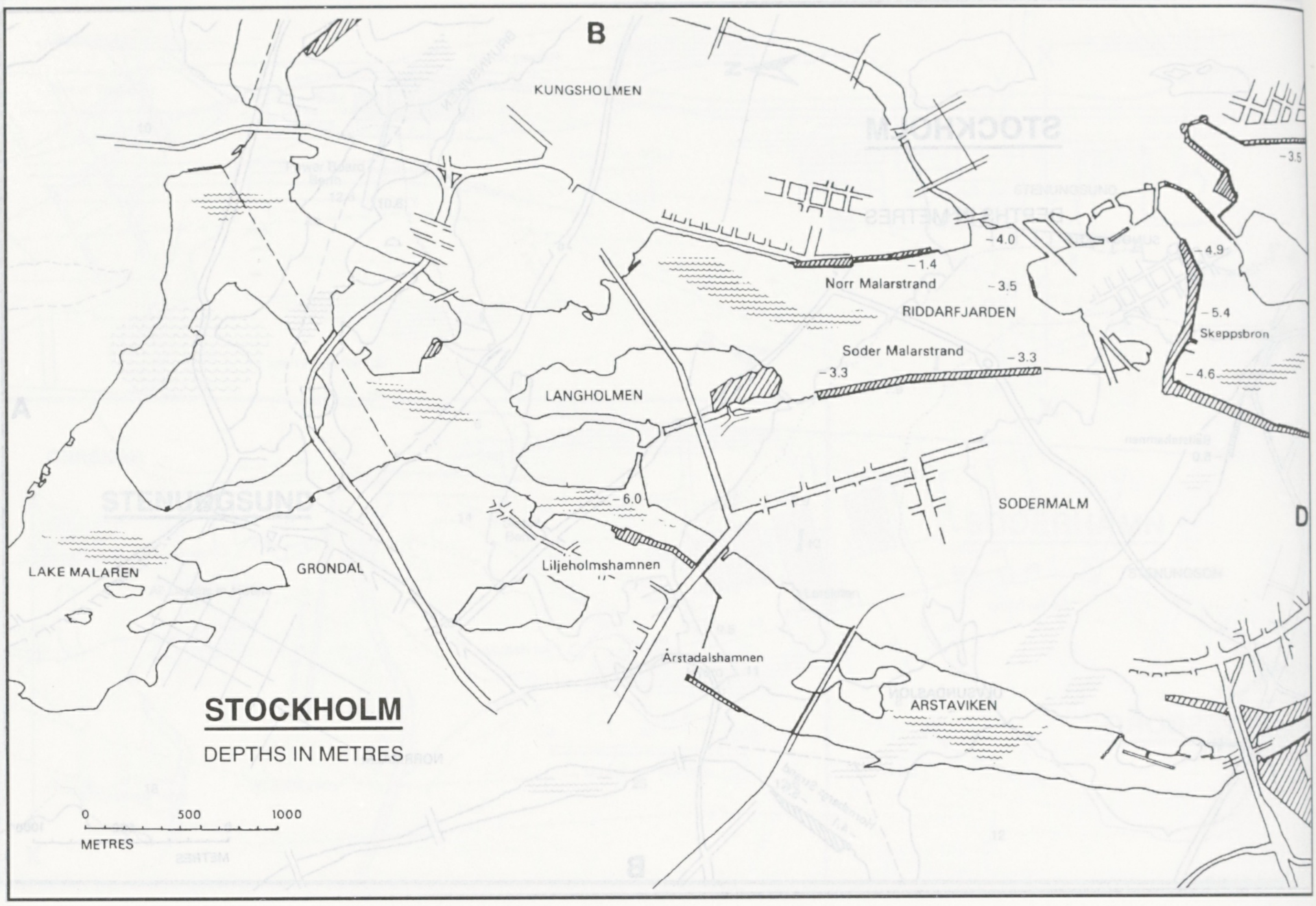

Powerboard Jetty
58°05' N
STENUNGSUND
Norsk Hydro
Statoil Havden
STENUNGSON
ASKERO
KALVEN
Normal Route
FJORDEN
11°47' E
KALLON
Bridge
BRATTON
STENUNGSUND
ALMON
ASKERON
N

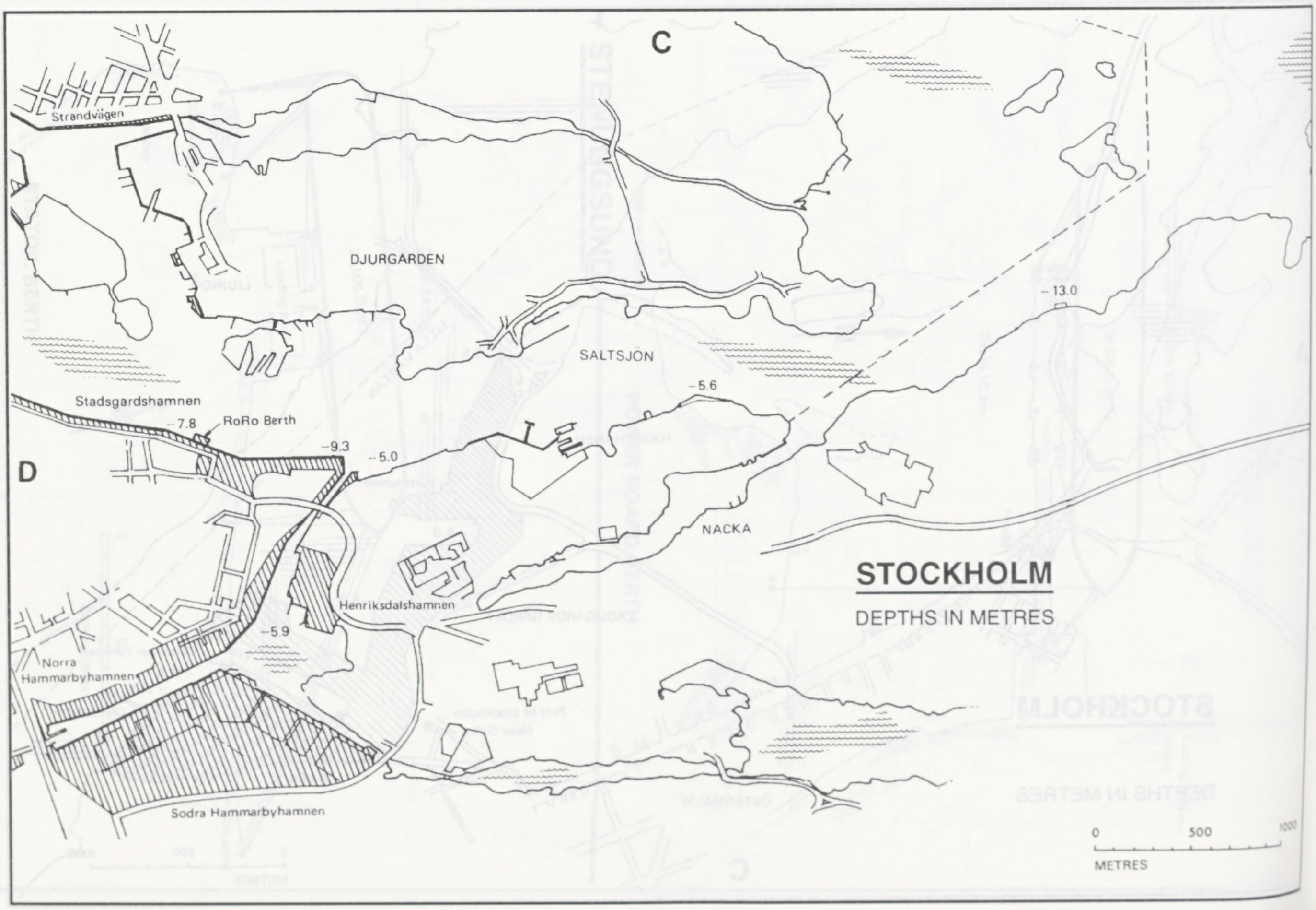

N
10
Power Board Berth
12.6
10.6
STENUNGSUND
11
6
7.9
STENUNGSUND
14
Statoil Berth
9.9
Kl
All Depths in Meters
Lerskiten
STENUNGSON
20
9.5
Norsk Hydro
11
8
18
25
12.6
12

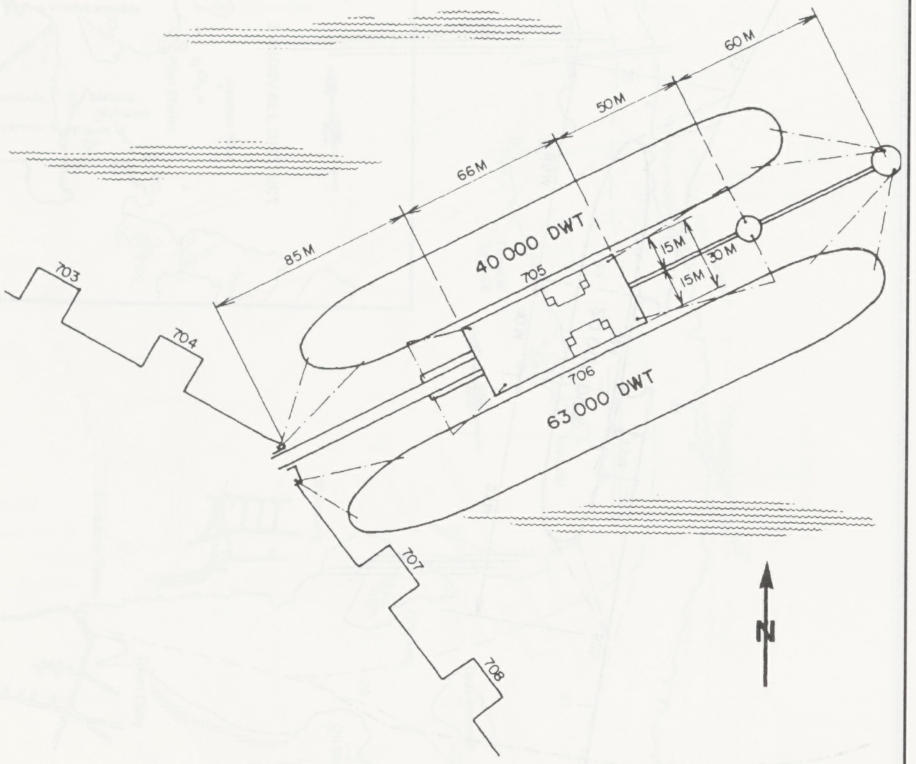

STENUNGSUND
STATOIL BERTH
100 ton bollard
Havden
36,000 D.W.T.
Depth 14.0 m.
Loading Arms
N
0
50
100
Scale in Metres
Seldom used
POWER BOARD BERTH
100 ton bollards
N
Depth 10.6m.
50,000 D.W.T.
Depth 12.6m.
Hooks
Cooling Water Intake


STOCKHOLM
DEPTHS IN METRES
SUNDBYBERG
Bällstahamnen
−5.0
BRUNNSVIKEN
A
ULVSUNDASJON
Hornsbergs Strand
−4.1
−6.6
B
NORRMALM
0
500
1000
METRES


BRUNNSVIKEN
A
LIDINGÖ
LILLA VÄRTAN
−3.5
−11.0
HJORTHAGEN
Vartahamnen
−9.0
−6.0
LADUGARDS GARDET
Free Port
Container Terminal
−10.9
−11.9
Oil Harbour
−8.7
Port of Stockholm
Head Office
Ro/Ro
STOCKHOLM
DEPTHS IN METRES
ÖSTERMALM
C
0
500
1000
METRES


B
KUNGSHOLMEN
−3.5
−4.0
−1.4
Norr Malarstrand
−3.5
RIDDARFJARDEN
−4.9
−5.4
Skeppsbron
Soder Malarstrand
−3.3
−3.3
−4.6
LANGHOLMEN
−6.0
SODERMALM
D
LAKE MALAREN
GRONDAL
Liljeholmshamnen
Årstadalshamnen
ARSTAVIKEN
STOCKHOLM
DEPTHS IN METRES
0
500
1000
METRES

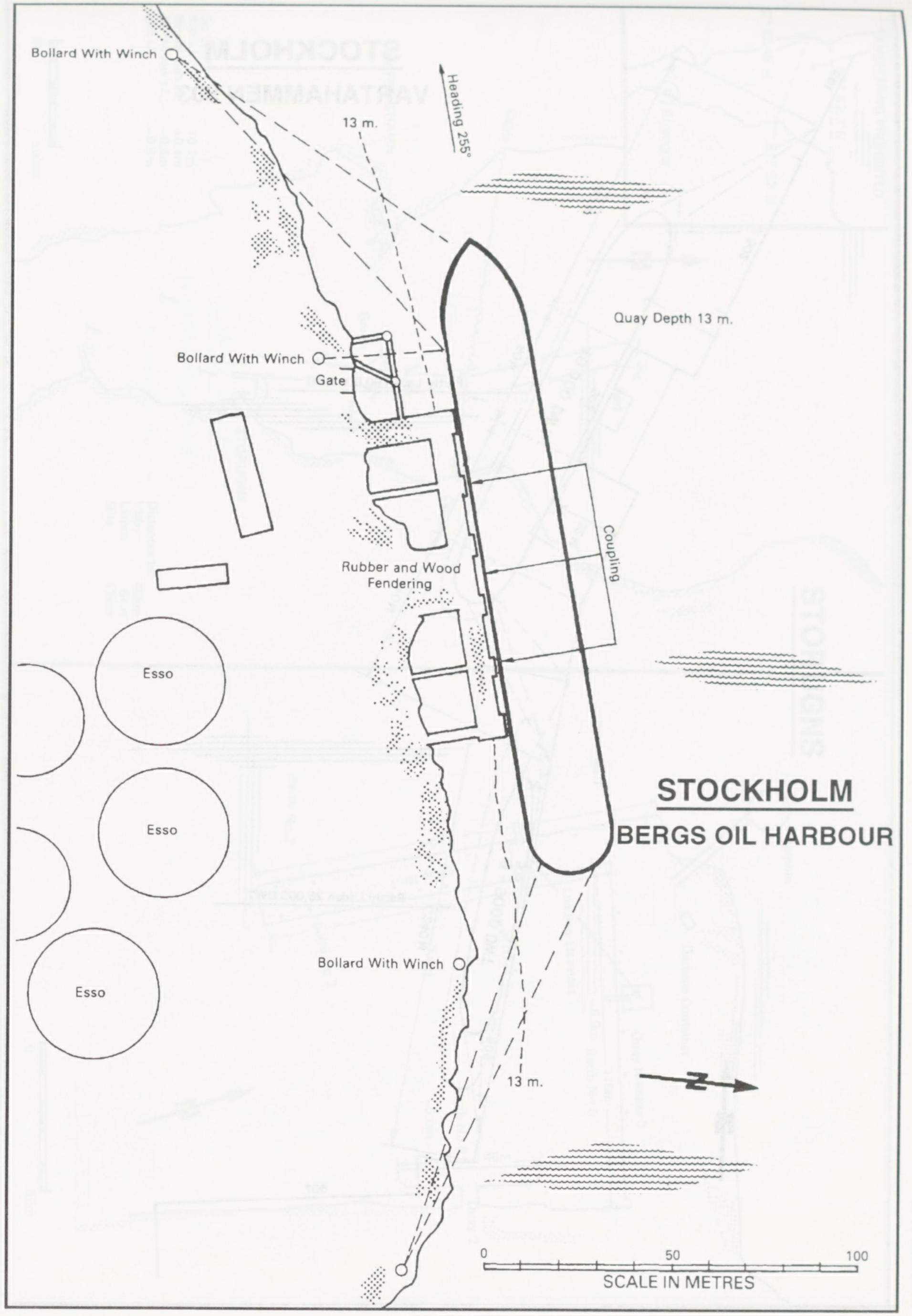

C
Strandvägen
DJURGARDEN
SALTSJÖN
−13.0
−5.6
Stadsgardshamnen
−7.8
RoRo Berth
−9.3
−5.0
D
NACKA
STOCKHOLM
DEPTHS IN METRES
Henriksdalshamnen
−5.9
Norra Hammarbyhamnen
Sodra Hammarbyhamnen
0
500
1000
METRES



703
704
705
706
707
708
85 M
66 M
50 M
60 M
15 M
15 M
30 M
40 000 DWT
63 000 DWT
N

STOCKHOLM

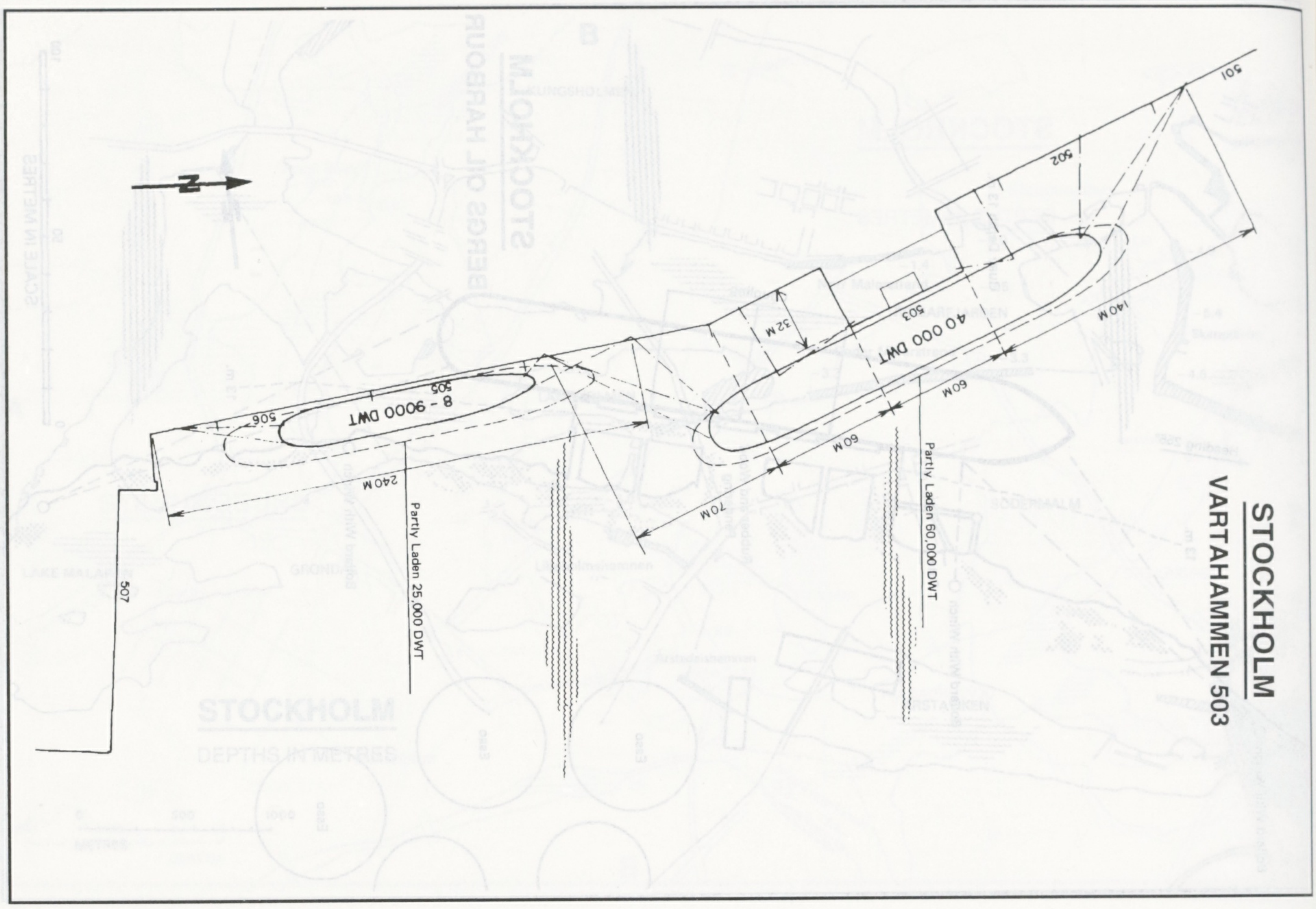
LOUDDEN



Bollard With Winch
Heading 255°
13 m.
Quay Depth 13 m.
Bollard With Winch
Gate
Coupling
Rubber and Wood Fendering
Esso
Esso
Esso
Bollard With Winch
13 m.
N
0
50
100
SCALE IN METRES

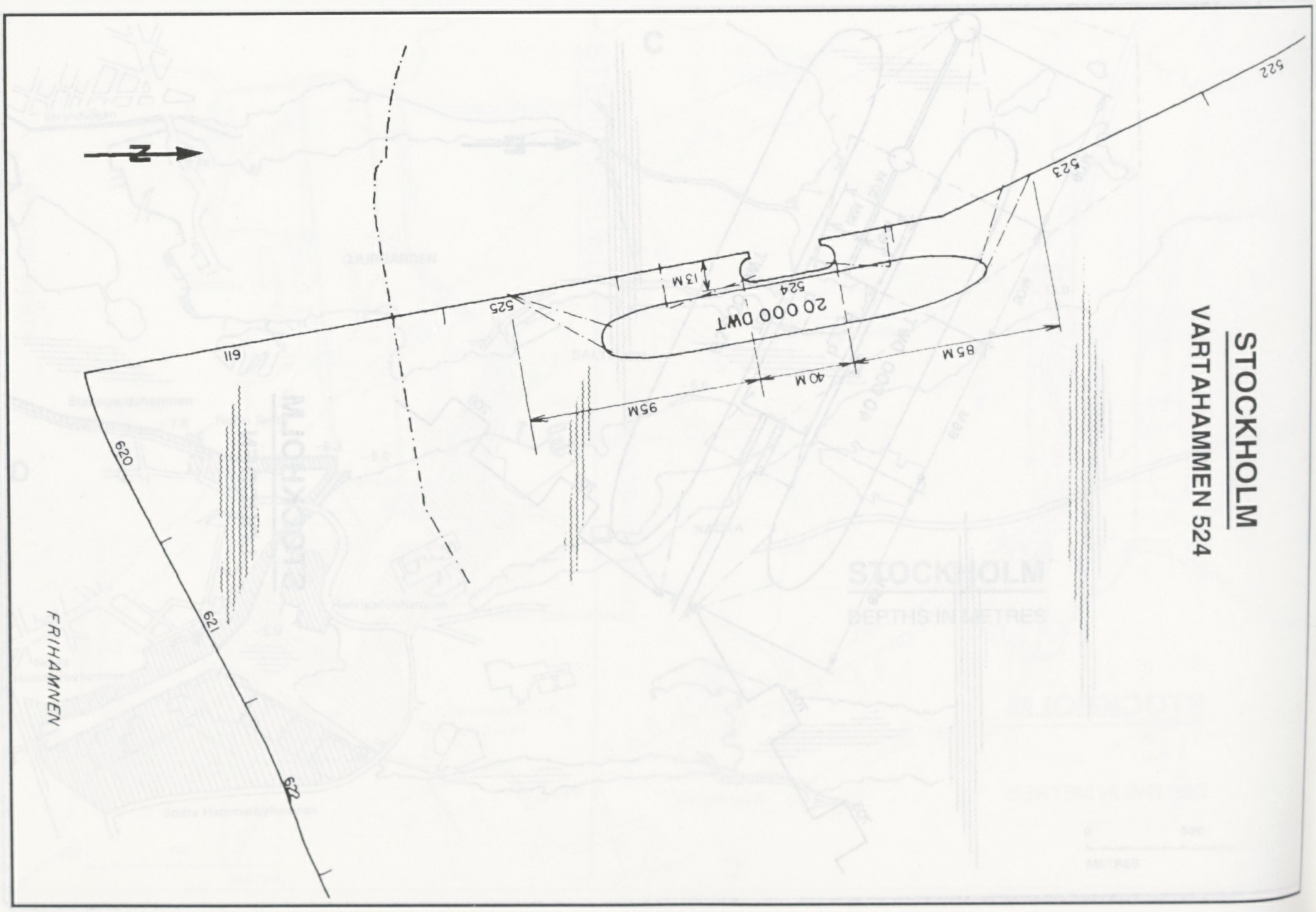
STOCKHOLM

BERGS OIL HARBOUR



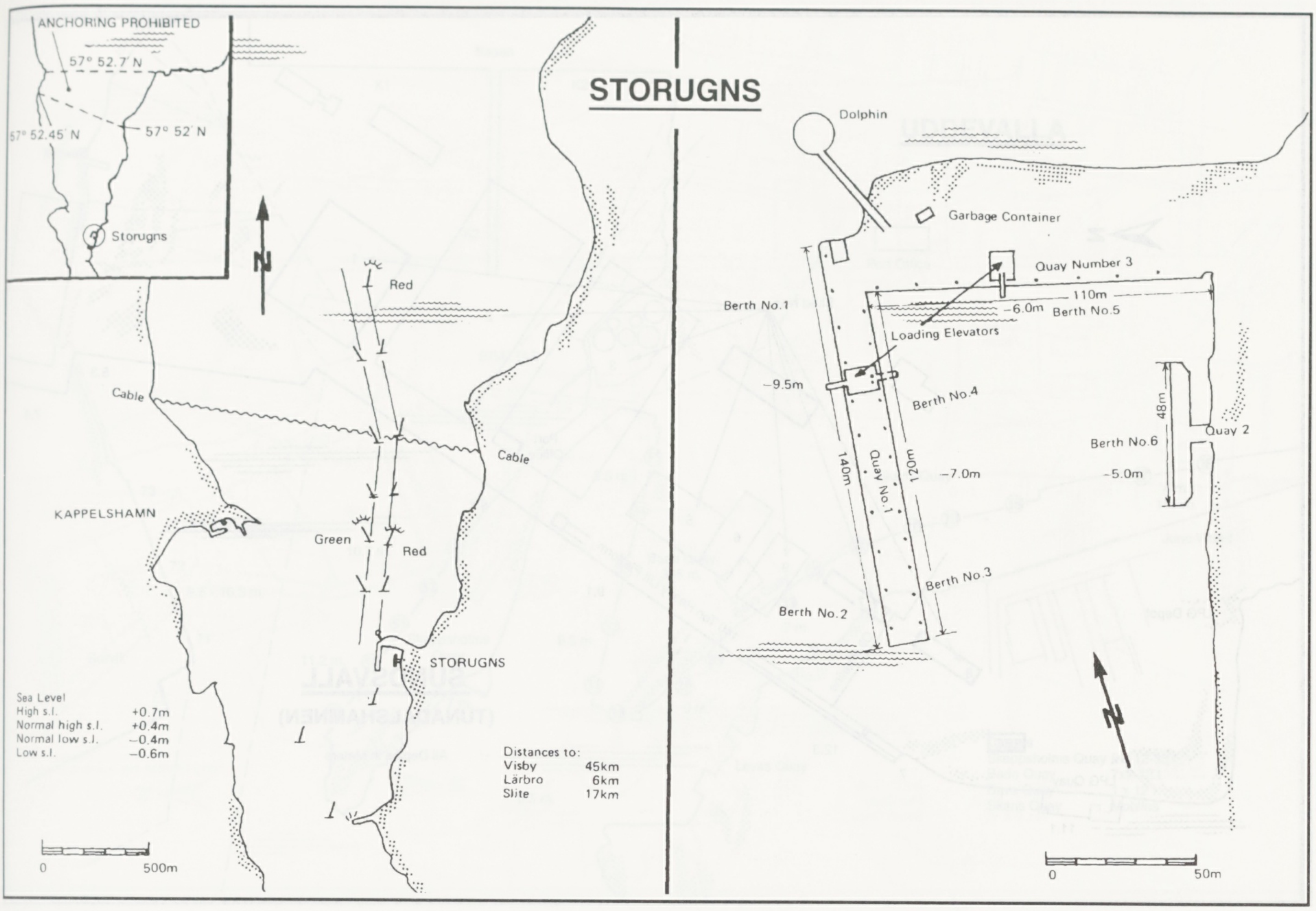
STOCKHOLM
VARTAHAMMEN 503

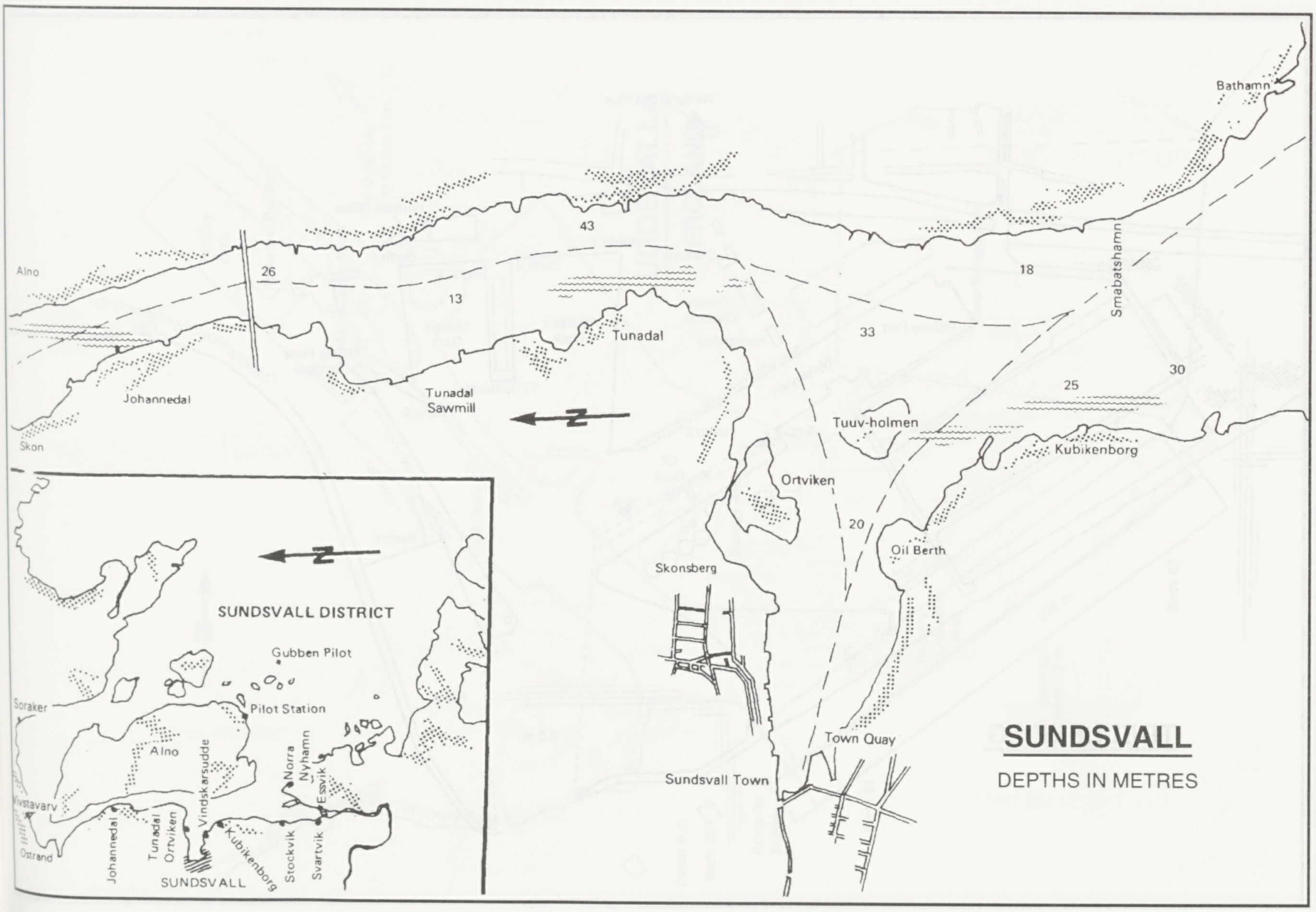
N
501
502
503
505
506
507
40 000 DWT
8 - 9000 DWT
140 M
60 M
60 M
32 M
70 M
240 M
Partly Laden 25,000 DWT
Partly Laden 60,000 DWT

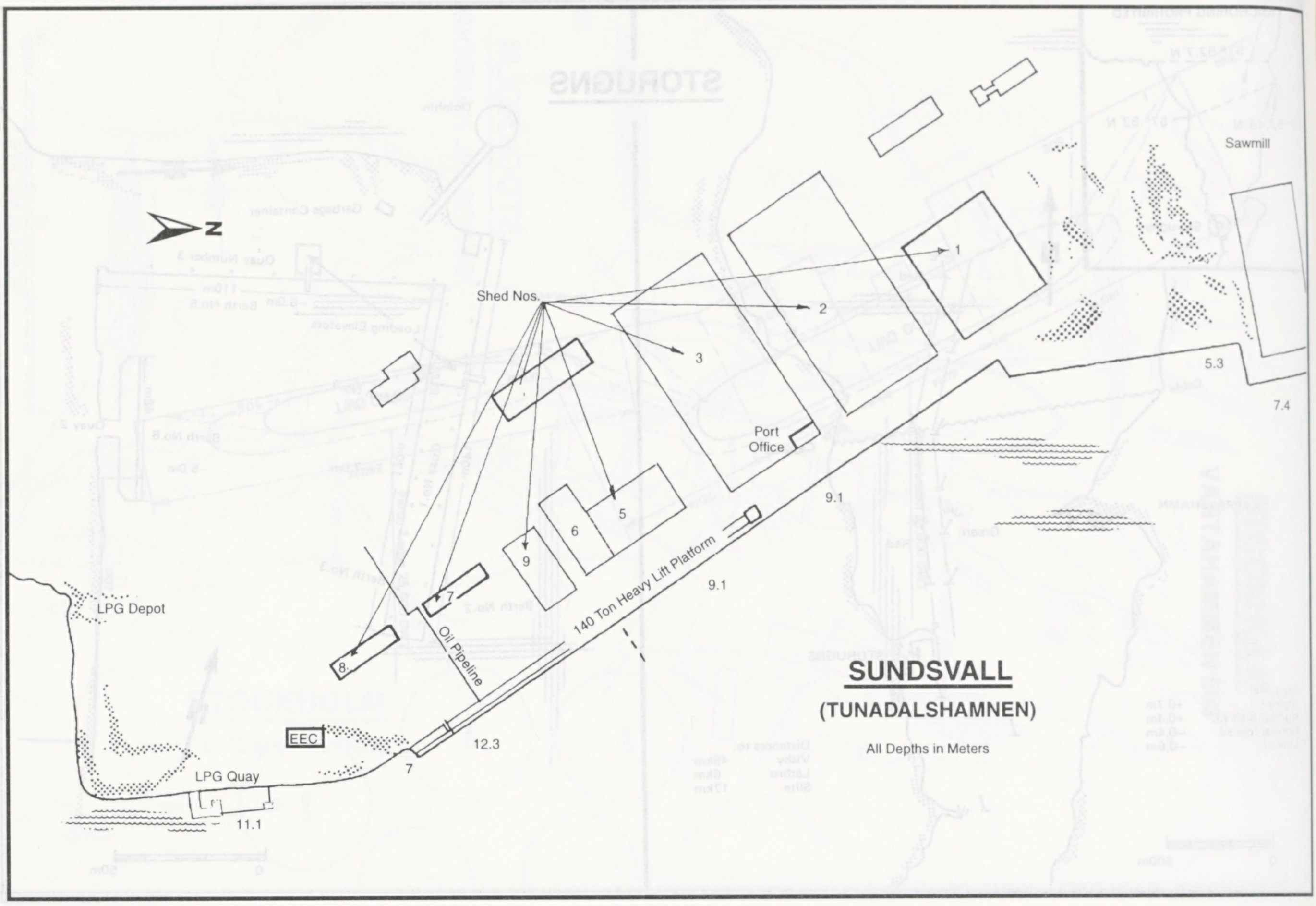


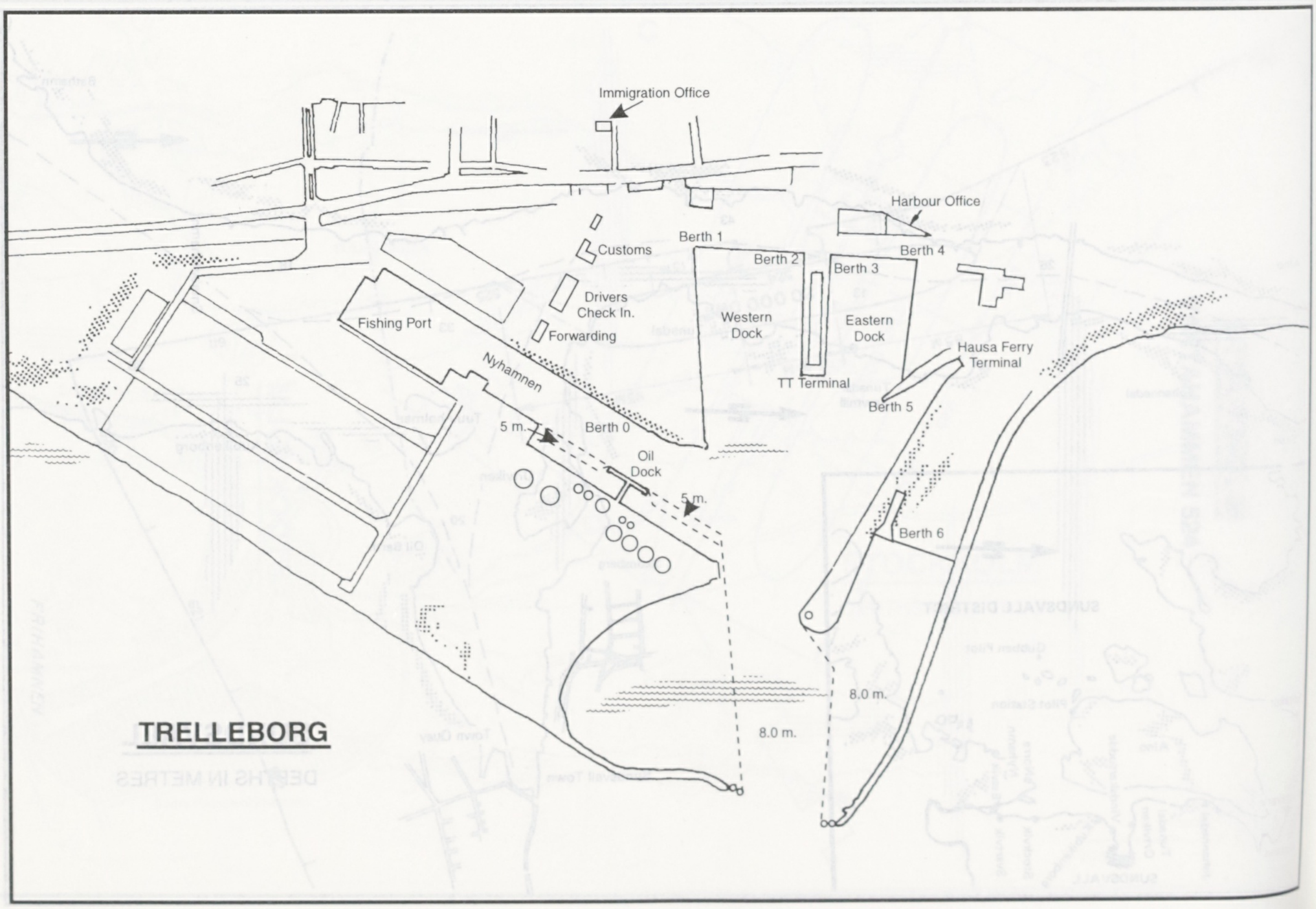
STOCKHOLM
VARTAHAMMEN 524

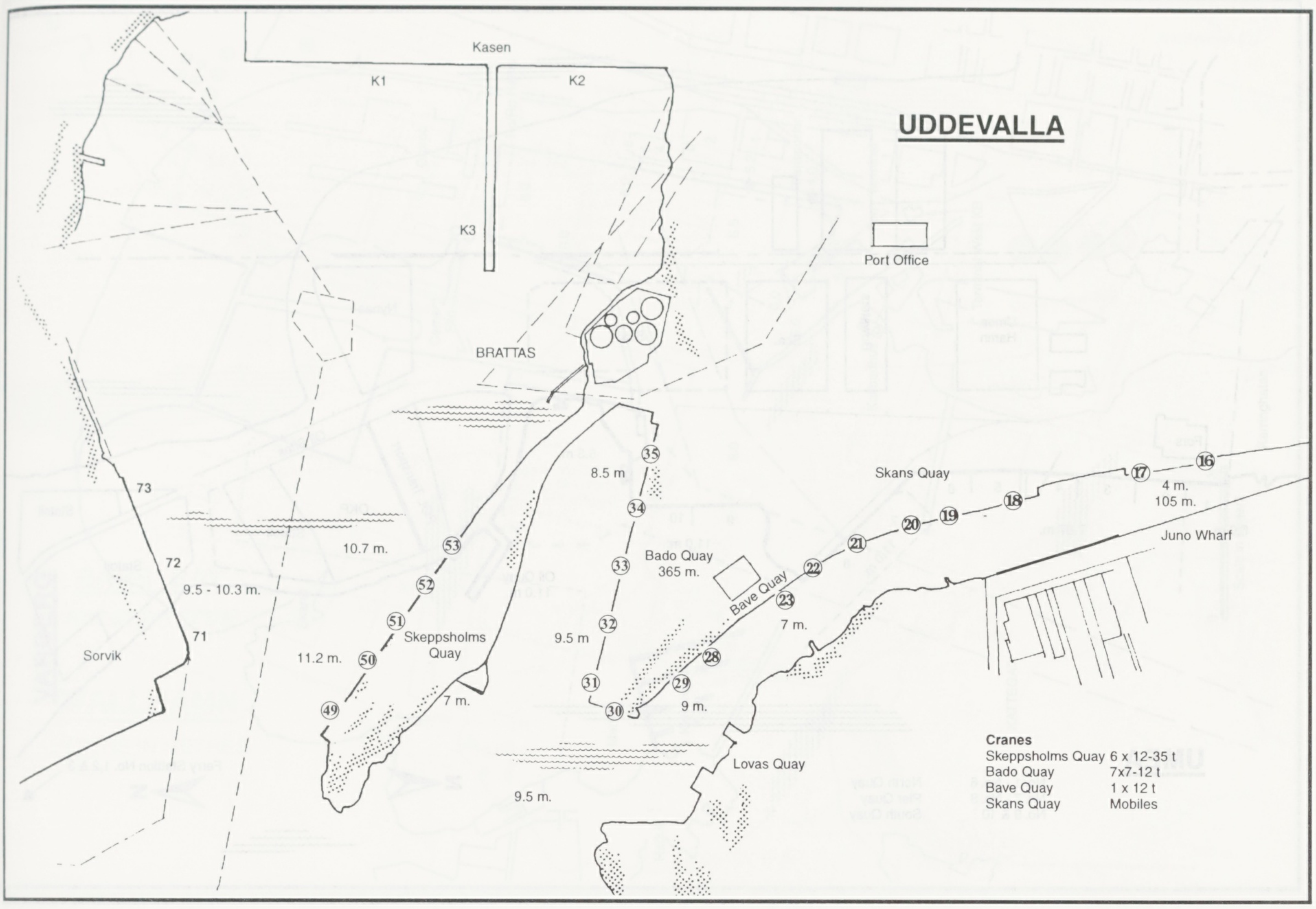
N
522
523
524
525
611
620
621
622
20 000 DWT
13 M
40 M
85 M
95 M
FRIHAMNEN

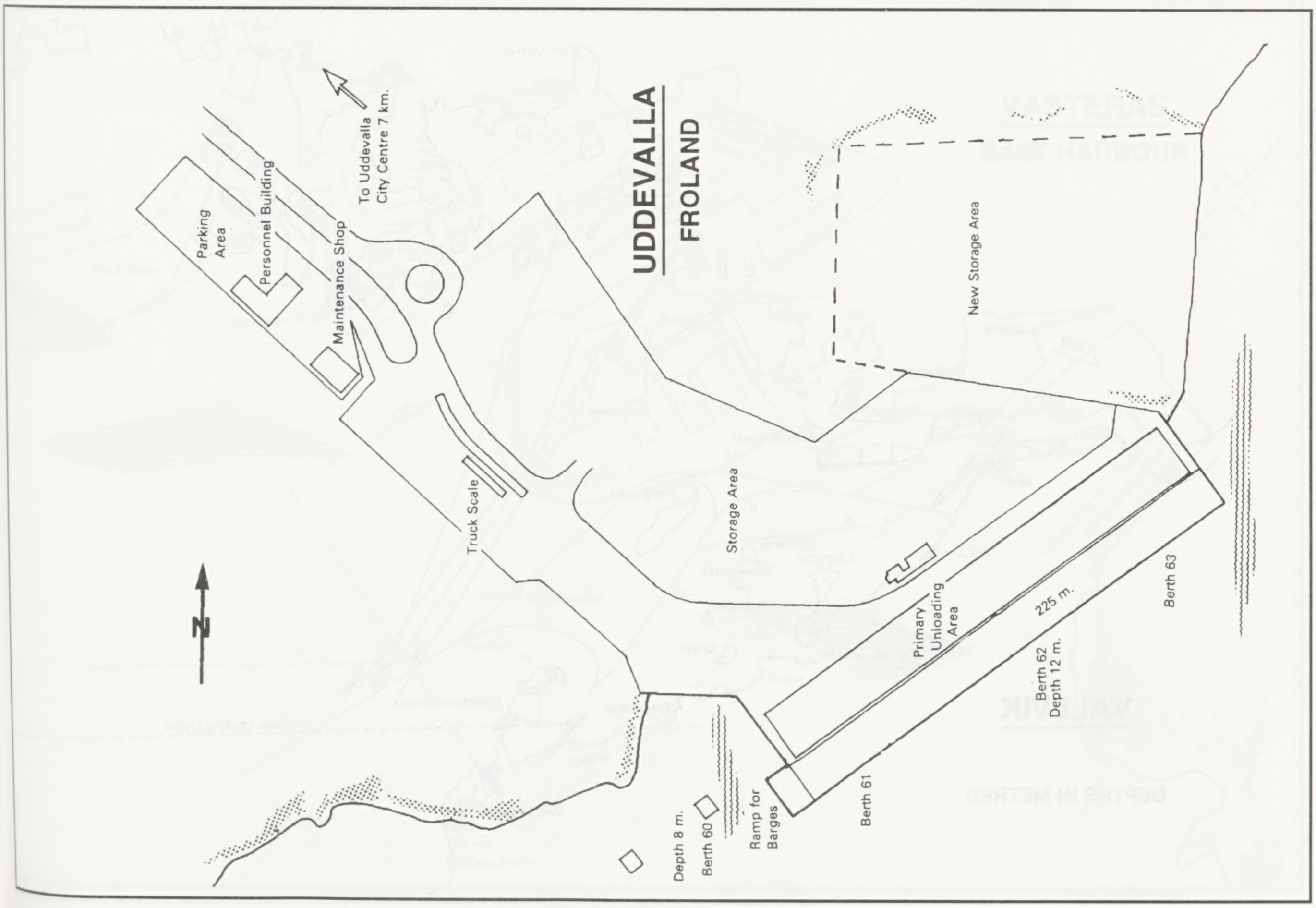

STORUGNS
ANCHORING PROHIBITED
57° 52.7' N
57° 52.45' N
57° 52' N
Storugns
N
Red
Cable
Cable
KAPPELSHAMN
Green
Red
STORUGNS
Sea Level
High s.l. +0.7m
Normal high s.l. +0.4m
Normal low s.l. –0.4m
Low s.l. –0.6m
Distances to:
Visby 45km
Lärbro 6km
Slite 17km
0
500m
Dolphin
Garbage Container
Quay Number 3
110m
Berth No.1
–6.0m
Berth No.5
Loading Elevators
–9.5m
Berth No.4
48m
Quay 2
Berth No.6
140m
Quay No.1
120m
–7.0m
–5.0m
Berth No.3
Berth No.2
N
0
50m

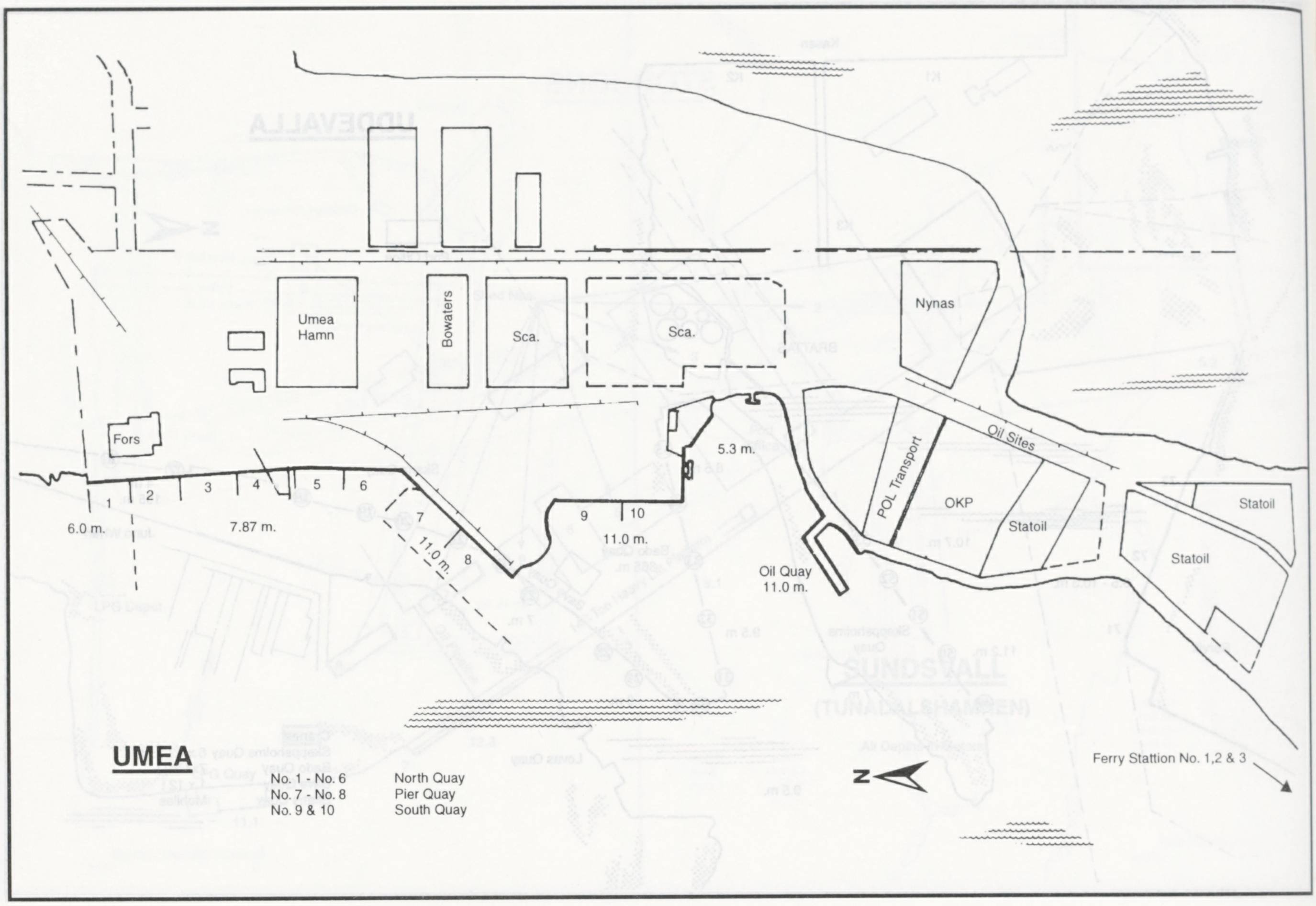

Bathamn
Smabatshamn
43
Alno
26
13
18
33
Tunadal
Johannedal
Tunadal Sawmill
25
30
Skon
N
Tuuv-holmen
Kubikenborg
Ortviken
20
Oil Berth
Skonsberg
Town Quay
Sundsvall Town
SUNDSVALL
DEPTHS IN METRES
SUNDSVALL DISTRICT
N
Gubben Pilot
Pilot Station
Soraker
Alno
Vindskarsudde
Norra Nyhamn
Essvik
Kivstavarv
Johannedal
Tunadal
Ortviken
Kubikenborg
Stockvik
Svartvik
Ostrand
SUNDSVALL

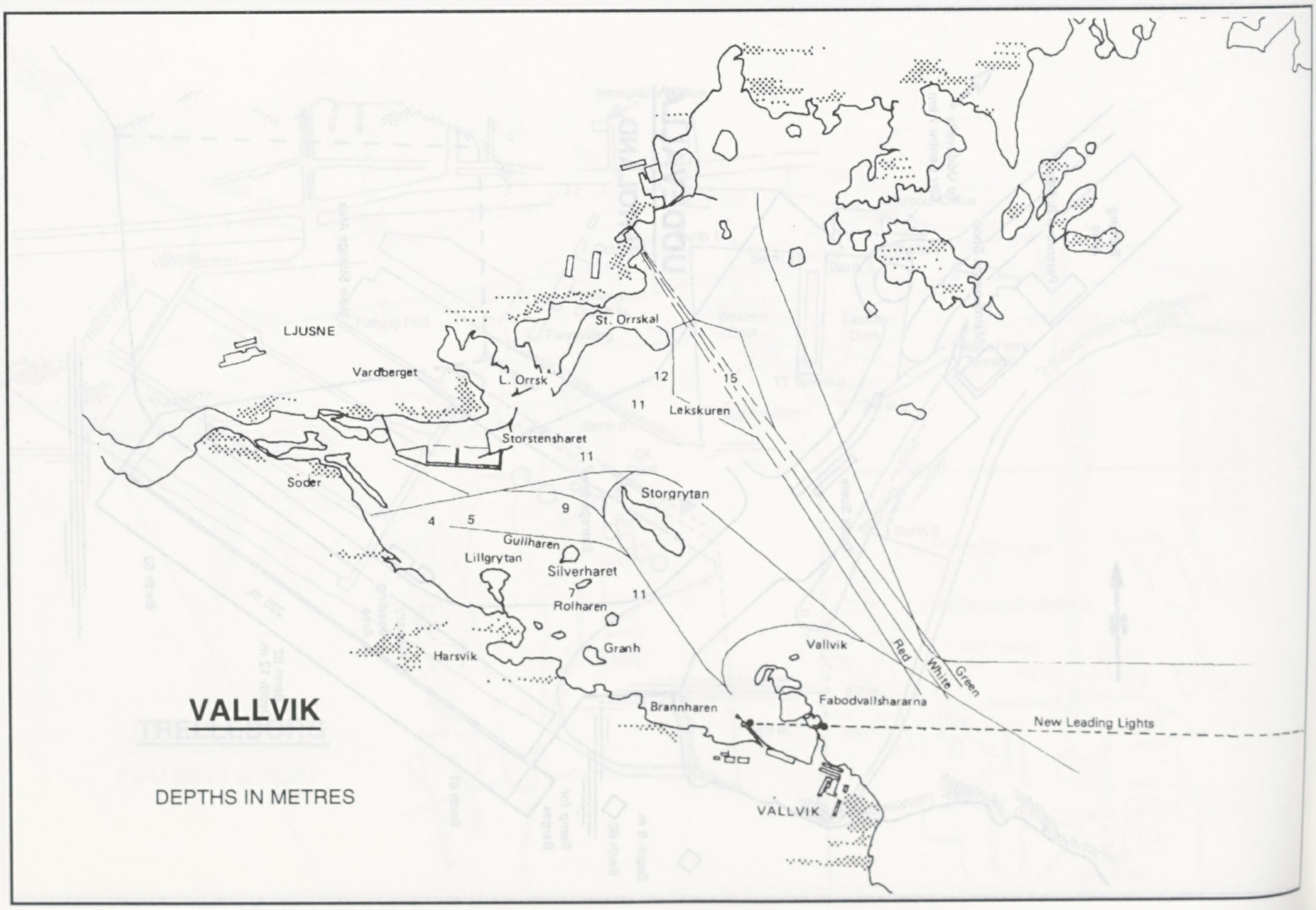

N
Sawmill
Shed Nos.
1
2
3
5.3
7.4
Port Office
5
6
9
9.1
9.1
140 Ton Heavy Lift Platform
7
LPG Depot
Oil Pipeline
8
SUNDSVALL
(TUNADALSHAMNEN)
All Depths in Meters
EEC
12.3
7
LPG Quay
11.1

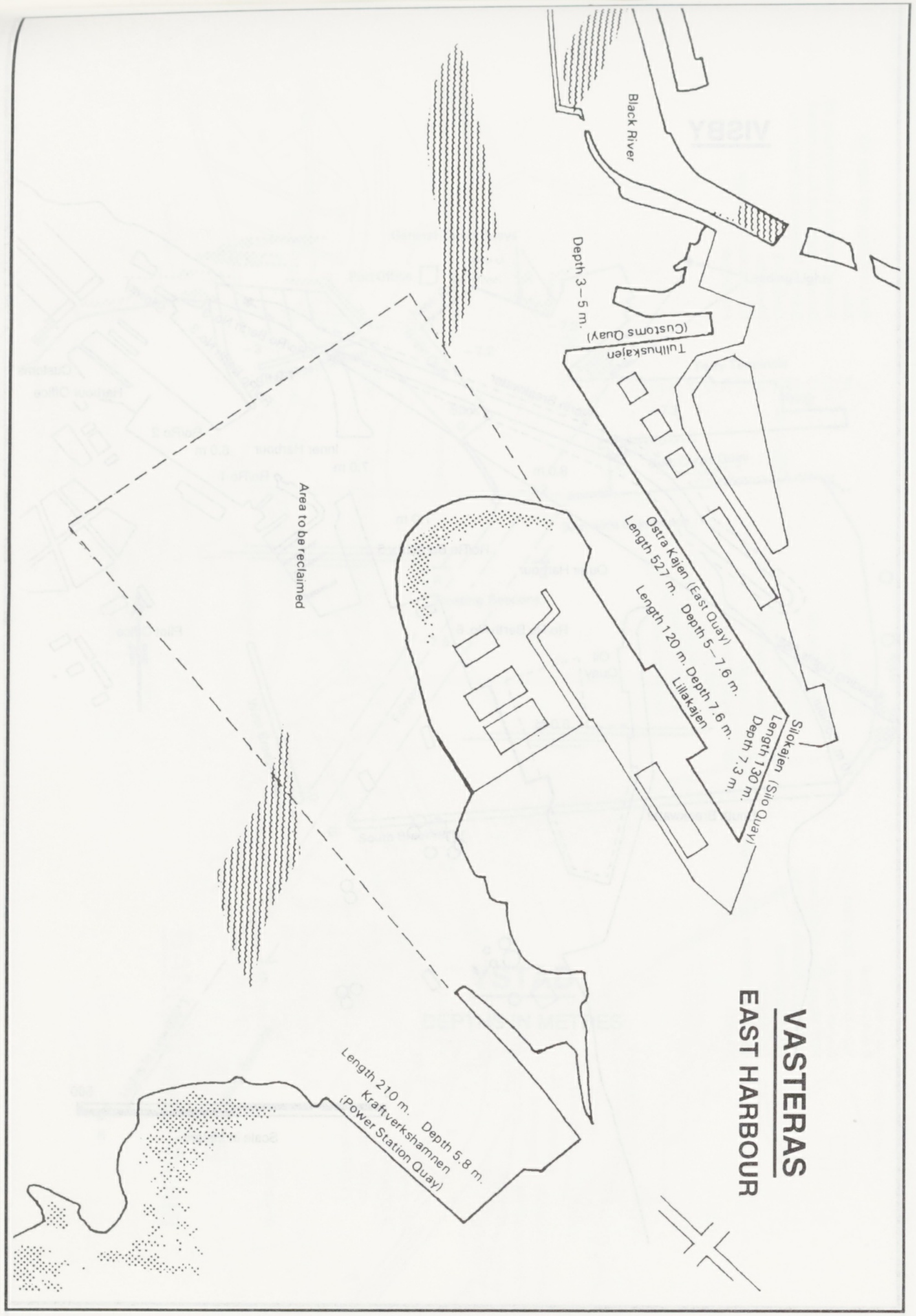

Immigration Office
Harbour Office
Customs
Berth 1
Berth 2
Berth 3
Berth 4
Drivers Check In.
Fishing Port
Western Dock
Eastern Dock
Forwarding
Hausa Ferry Terminal
TT Terminal
Nyhamnen
Berth 5
5 m.
Berth 0
Oil Dock
5 m.
Berth 6
8.0 m.
8.0 m.
TRELLEBORG


UDDEVALLA
Kasen
K1
K2
K3
Port Office
BRATTAS
Skans Quay
16
17
4 m.
105 m.
18
19
20
21
22
23
Juno Wharf
35
8.5 m
34
Bado Quay
365 m.
33
Bave Quay
32
9.5 m
31
30
28
29
9 m.
7 m.
53
52
51
50
49
10.7 m.
11.2 m.
Skeppsholms Quay
7 m.
73
72
71
9.5 - 10.3 m.
Sorvik
Lovas Quay
9.5 m.
Cranes
Skeppsholms Quay 6 x 12-35 t
Bado Quay 7x7-12 t
Bave Quay 1 x 12 t
Skans Quay Mobiles


UDDEVALLA
FROLAND
To Uddevalla City Centre 7 km.
Parking Area
Personnel Building
Maintenance Shop
Truck Scale
Storage Area
New Storage Area
N
Primary Unloading Area
225 m.
Berth 63
Berth 62
Depth 12 m.
Berth 61
Ramp for Barges
Berth 60
Depth 8 m.

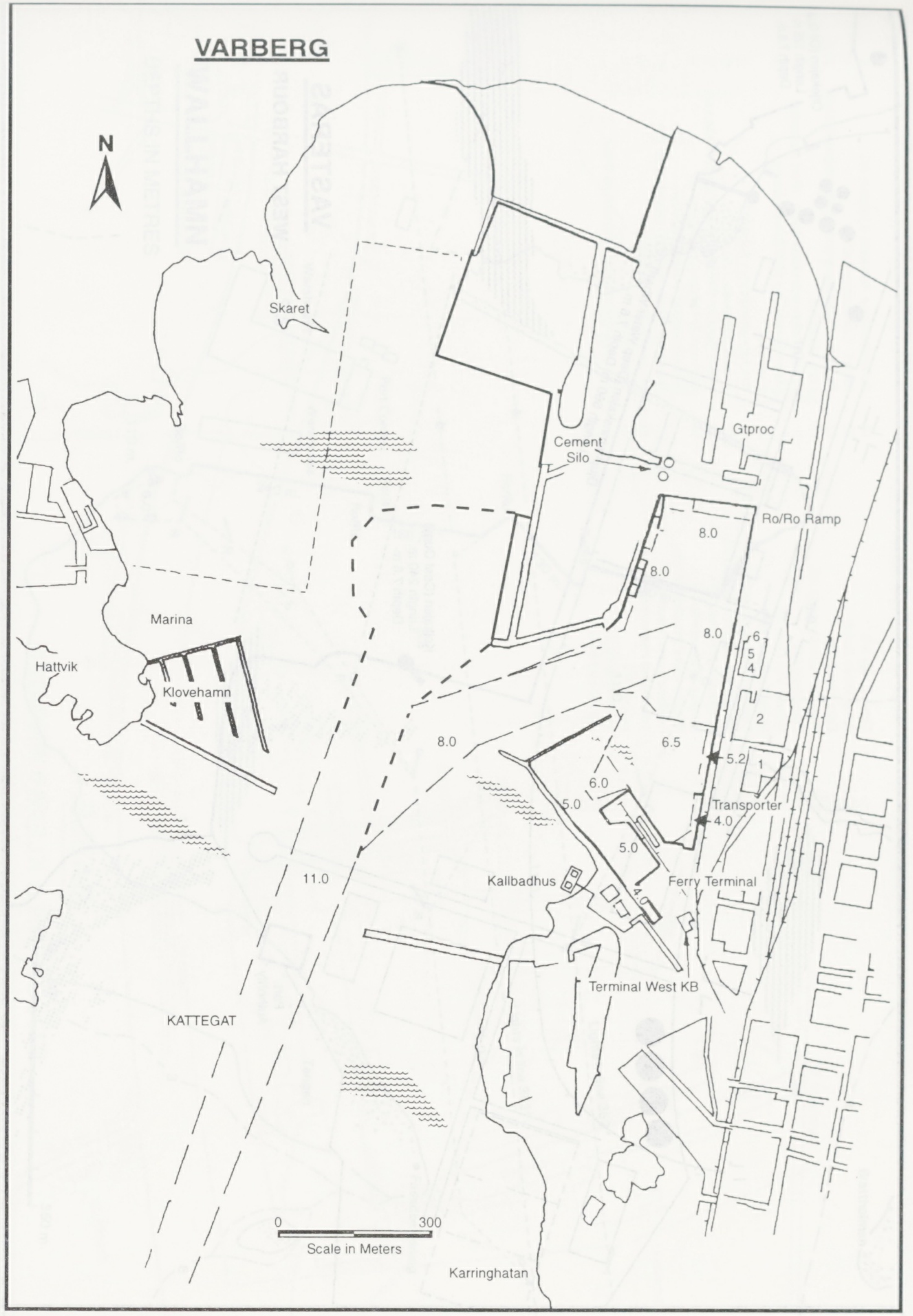

UMEA
Umea Hamn
Bowaters
Sca.
Sca.
Nynas
Fors
1
2
3
4
5
6
7
8
9
10
6.0 m.
7.87 m.
11.0 m.
11.0 m.
5.3 m.
Oil Quay
11.0 m.
POL Transport
Oil Sites
OKP
Statoil
Statoil
Statoil
Ferry Stattion No. 1,2 & 3
N
No. 1 - No. 6 North Quay
No. 7 - No. 8 Pier Quay
No. 9 & 10 South Quay


LJUSNE
Vardberget
St. Orrskal
L. Orrsk
12
15
11
Lekskuren
Storstensharet
11
Soder
Storgrytan
9
4
5
Gullharen
Lillgrytan
Silverharet
7
Rolharen
11
Harsvik
Granh
Vallvik
Red
White
Green
Fabodvallshararna
Brannharen
New Leading Lights
VALLVIK
VALLVIK
DEPTHS IN METRES



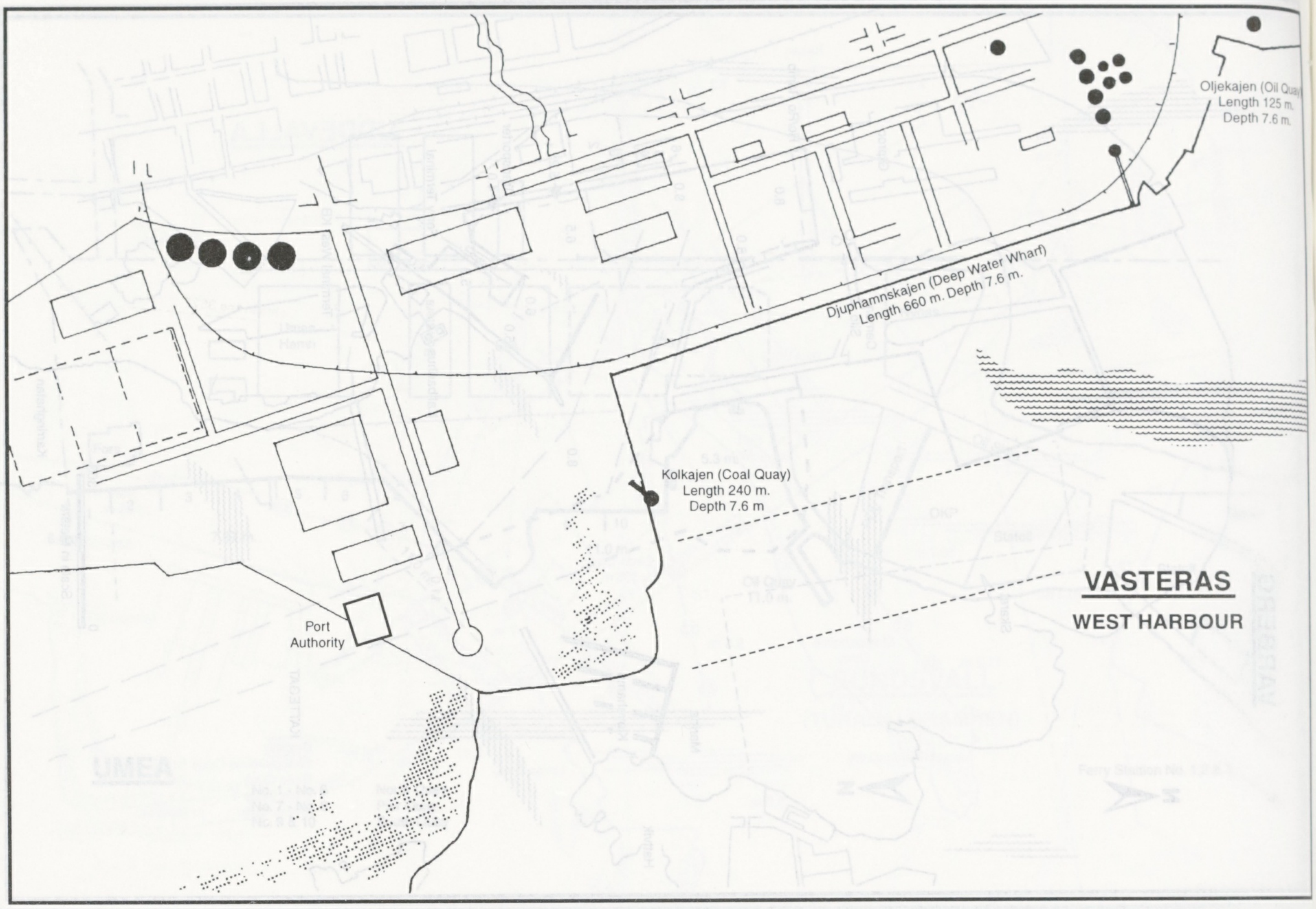
VASTERAS
EAST HARBOUR

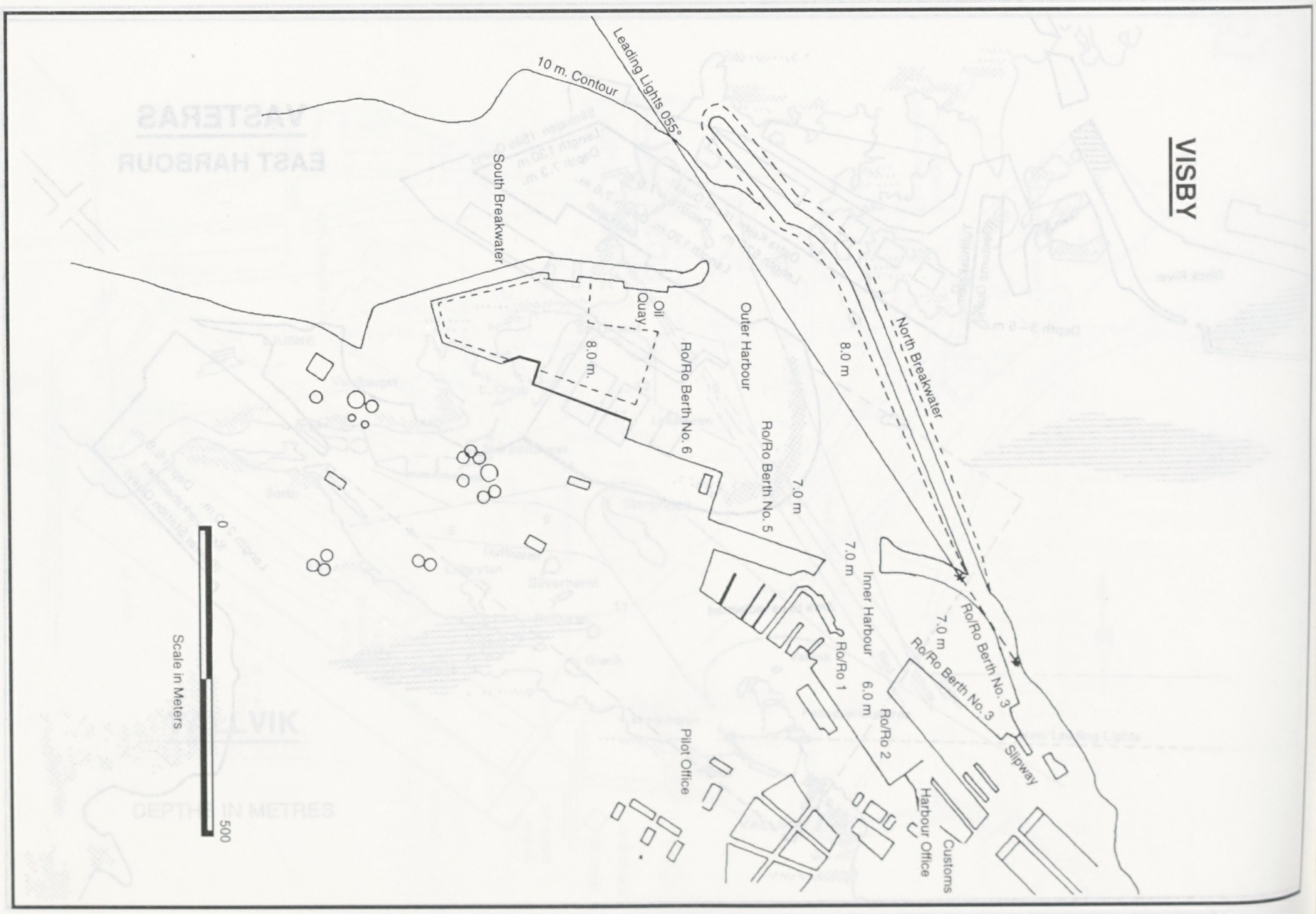
Black River
Depth 3–5 m.
Tullhuskajen
(Customs Quay)
Area to be reclaimed
Ostra Kajen (East Quay)
Length 527 m. Depth 5–7.6 m.
Length 120 m. Depth 7.6 m.
Lillakajen
Silokajen (Silo Quay)
Length 130 m.
Depth 7.3 m.
Length 210 m. Depth 5.8 m.
Kraftverkshamnen
(Power Station Quay)

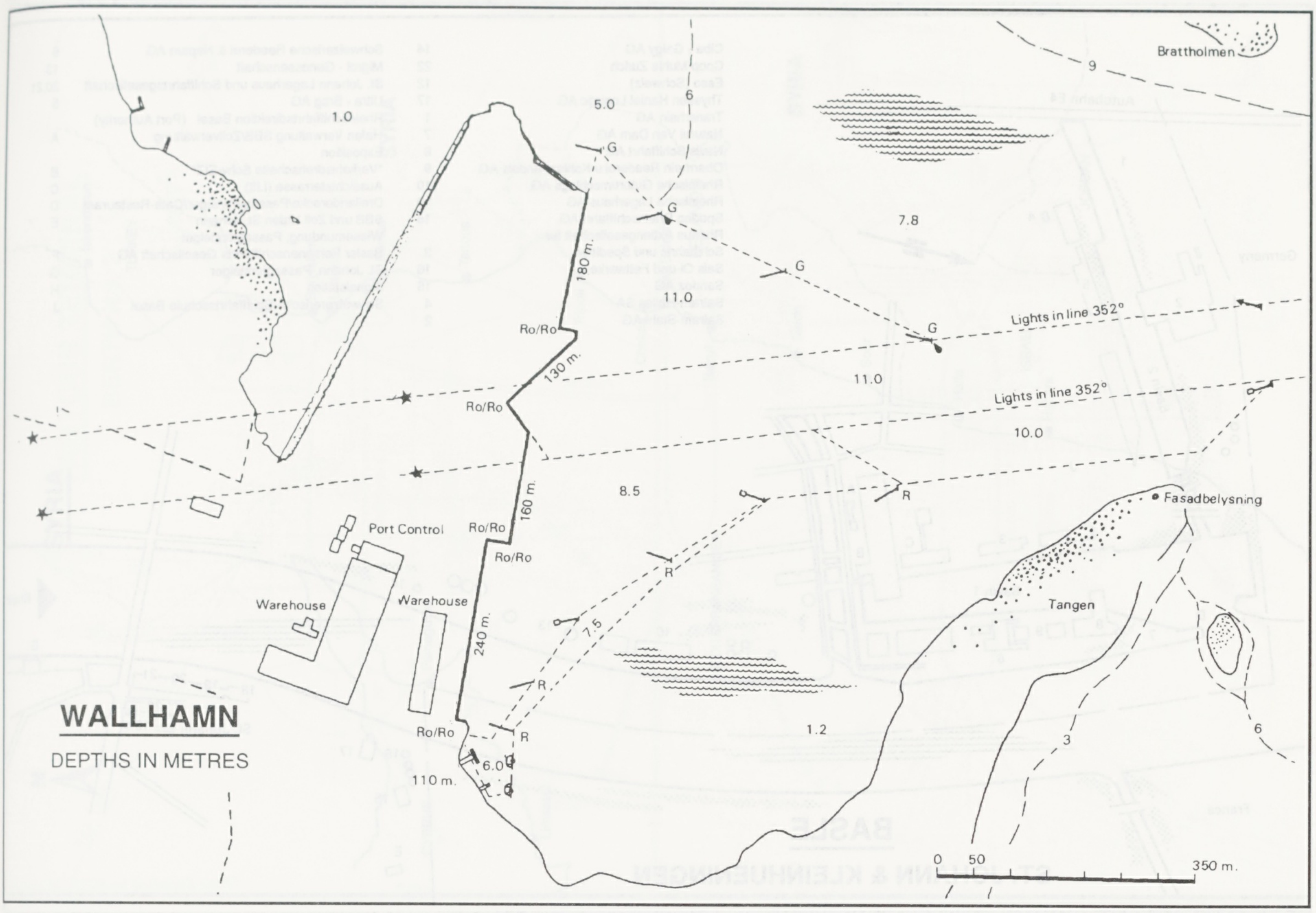


VARBERG

N
Skaret
Cement
Silo
Gtproc
Ro/Ro Ramp
8.0
8.0
8.0
6
5
4
2
1
5.2
Transporter
4.0
6.5
8.0
6.0
5.0
5.0
Marina
Hattvik
Klovehamn
Kallbadhus
Ferry Terminal
11.0
Terminal West KB
KATTEGAT
0
300
Scale in Meters
Karringhatan


Oljekajen (Oil Quay)
Length 125 m.
Depth 7.6 m.
Djuphamnskajen (Deep Water Wharf)
Length 660 m. Depth 7.6 m.
Kolkajen (Coal Quay)
Length 240 m.
Depth 7.6 m
Port Authority
VASTERAS
WEST HARBOUR

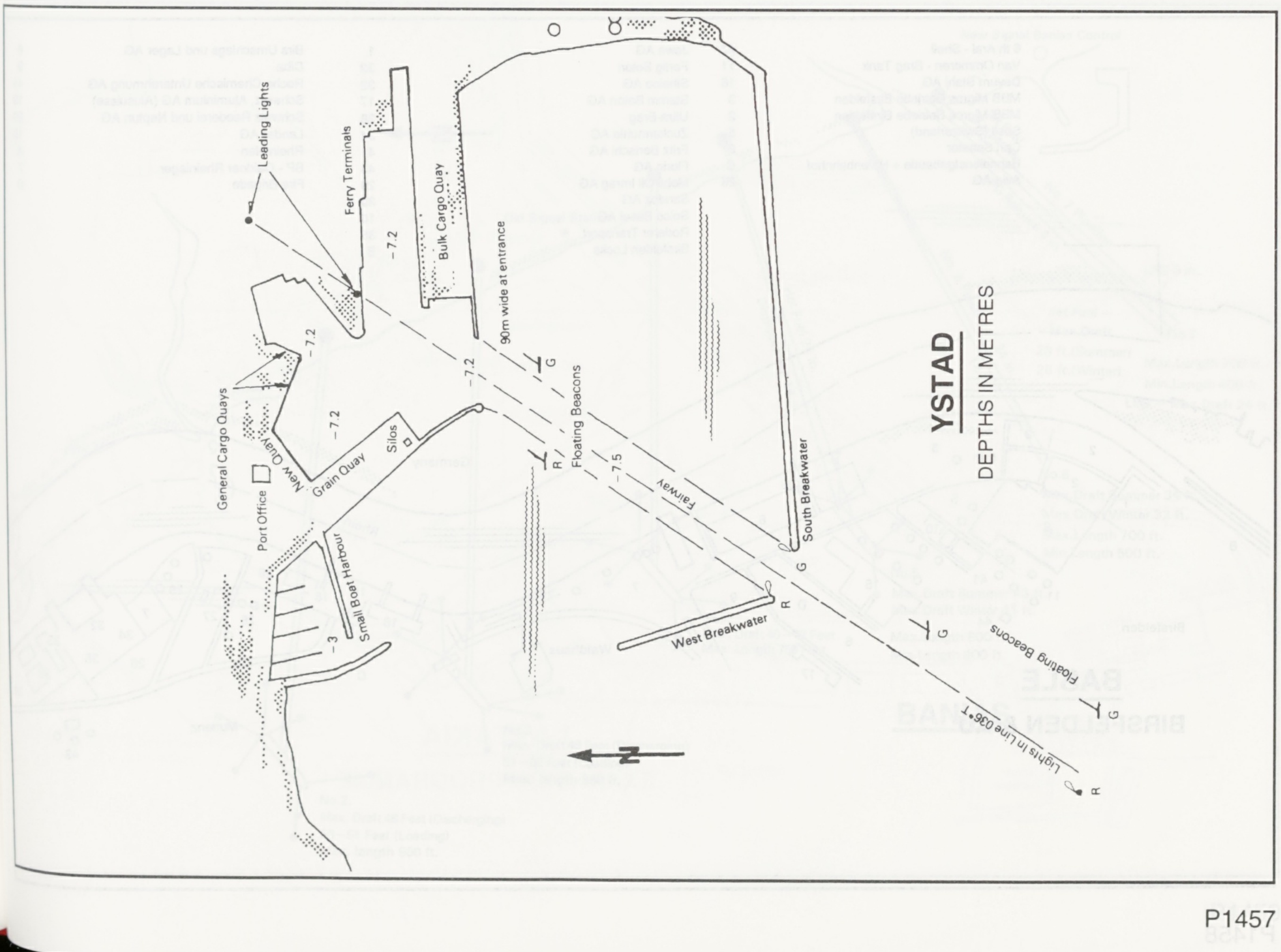

VISBY
10 m. Contour
Leading Lights 055°
South Breakwater
Oil Quay
8.0 m
Outer Harbour
Ro/Ro Berth No. 6
Ro/Ro Berth No. 5
7.0 m
North Breakwater
8.0 m
7.0 m
Inner Harbour
Ro/Ro 1
6.0 m
Ro/Ro 2
Ro/Ro Berth No. 3
7.0 m
Ro/Ro Berth No. 3
Slipway
Pilot Office
Harbour Office
Customs
0
500
Scale in Meters



WALLHAMN

DEPTHS IN METRES

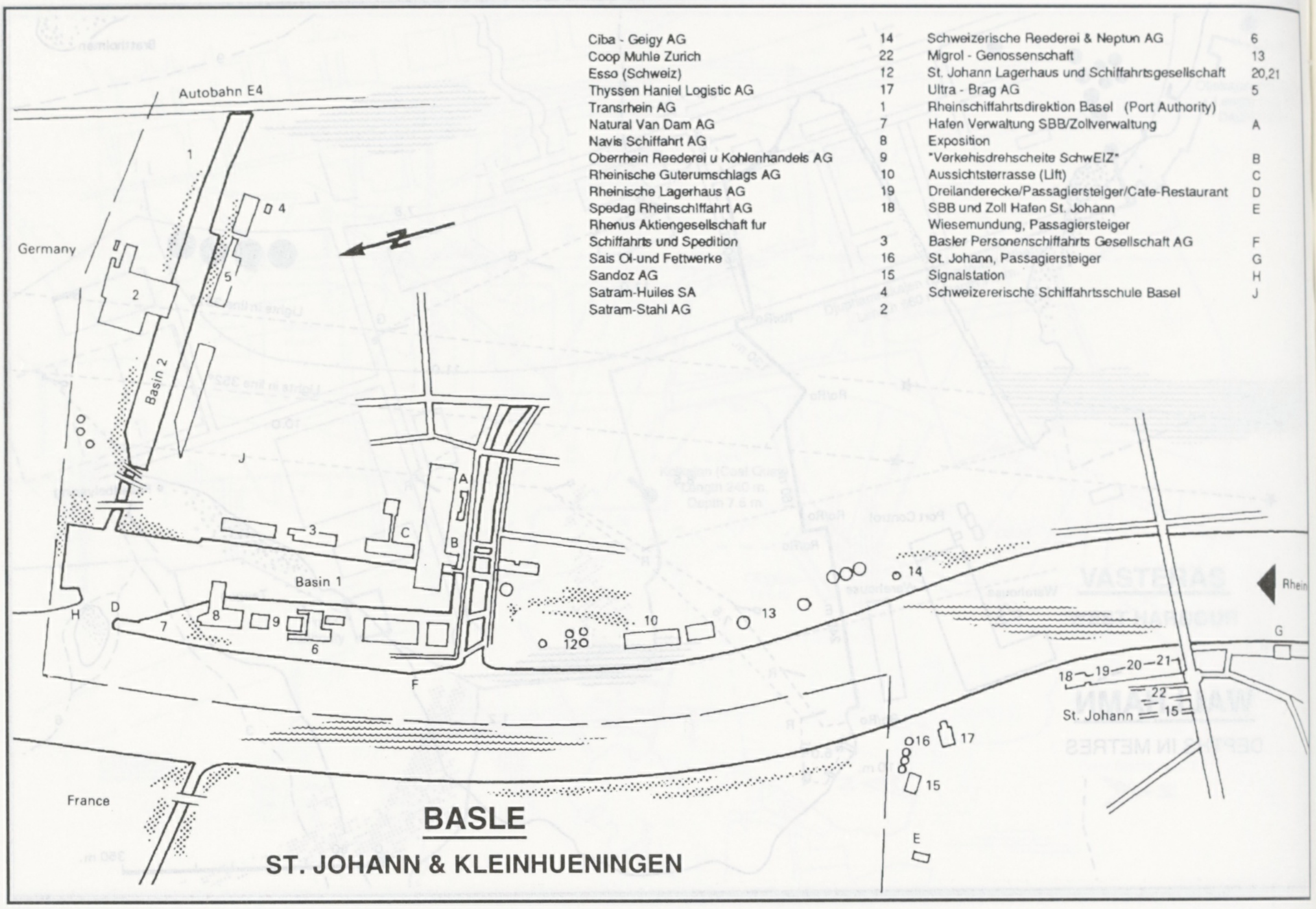
1.0
5.0
6
G
G
7.8
G
180 m.
11.0
Ro/Ro
G
Lights in line 352°
130 m.
Ro/Ro
11.0
Lights in line 352°
10.0
160 m.
8.5
R
Port Control
Ro/Ro
Ro/Ro
R
Fasadbelysning
Warehouse
Warehouse
7.5
Tangen
240 m.
R
1.2
Ro/Ro
R
6.0
3
6
110 m.
0
50
350 m.
Brattholmen
9



YSTAD

DEPTHS IN METRES

Leading Lights
Ferry Terminals
–7.2
Bulk Cargo Quay
90m wide at entrance
–7.2
–7.2
General Cargo Quays
–7.2
G
Floating Beacons
R
–7.5
Fairway
New Quay
Grain Quay
Silos
Port Office
Small Boat Harbour
–3
South Breakwater
G
R
West Breakwater
G
Floating Beacons
G
Lights In Line 036°T
R
N

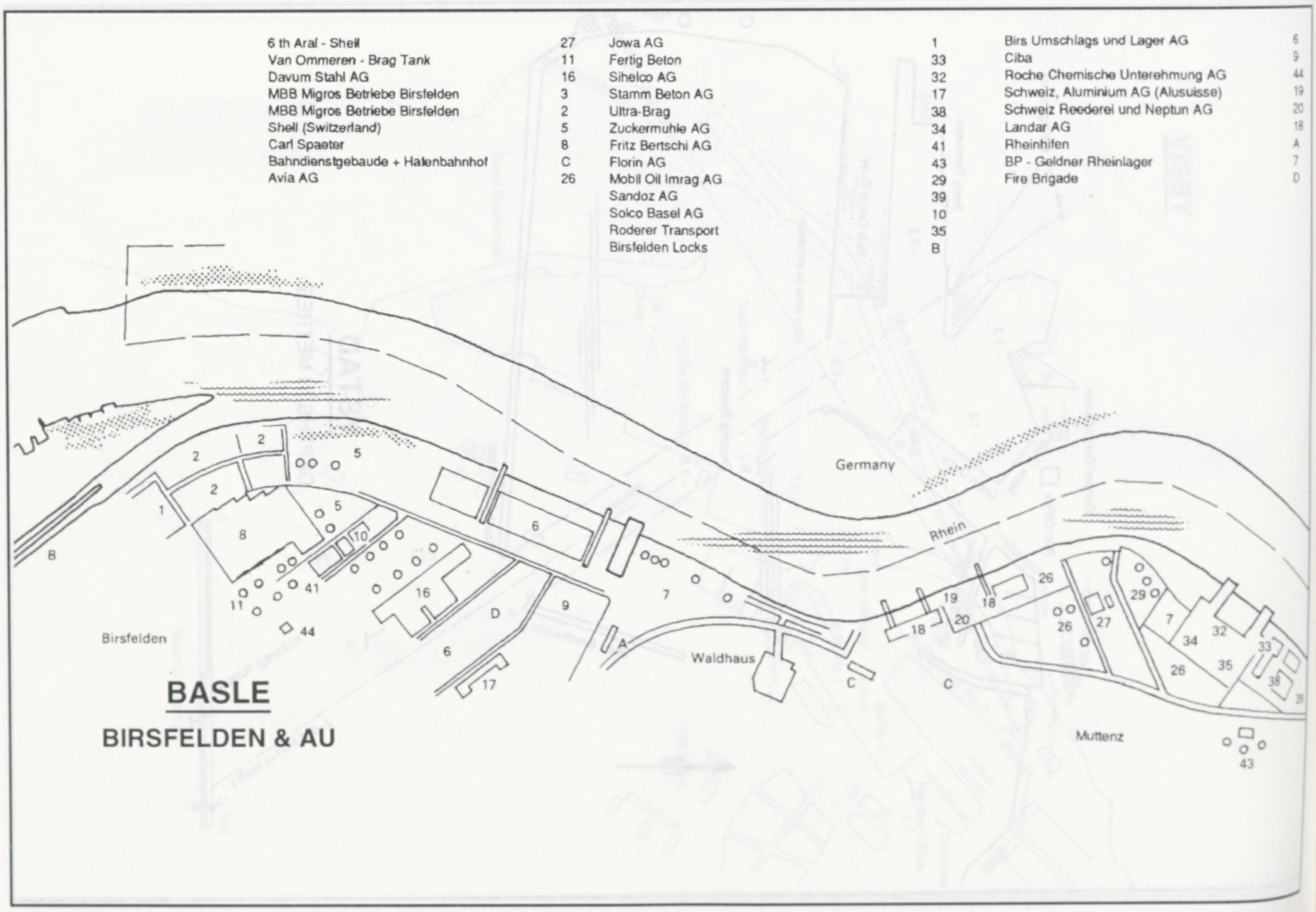

Autobahn E4
Germany
France
Basin 2
Basin 1
Rhein
St. Johann
1
2
3
4
5
6
7
8
9
10
12
13
14
15
16
17
18
19
20
21
22
A
B
C
D
E
F
G
H
J

Ciba - Geigy AG	14
Coop Muhle Zurich	22
Esso (Schweiz)	12
Thyssen Haniel Logistic AG	17
Transrhein AG	1
Natural Van Dam AG	7
Navis Schiffahrt AG	8
Oberrhein Reederei u Kohlenhandels AG	9
Rheinische Guterumschlags AG	10
Rheinische Lagerhaus AG	19
Spedag Rheinschiffahrt AG	18
Rhenus Aktiengesellschaft fur Schiffahrts und Spedition	3
Sais Ol-und Fettwerke	16
Sandoz AG	15
Satram-Huiles SA	4
Satram-Stahl AG	2

Schweizerische Reederei & Neptun AG	6
Migrol - Genossenschaft	13
St. Johann Lagerhaus und Schiffahrtsgesellschaft	20,21
Ultra - Brag AG	5
Rheinschiffahrtsdirektion Basel (Port Authority)	
Hafen Verwaltung SBB/Zollverwaltung	A
Exposition	
"Verkehisdrehscheite SchwEIZ"	B
Aussichtsterrasse (Lift)	C
Dreilanderecke/Passagiersteiger/Cafe-Restaurant	D
SBB und Zoll Hafen St. Johann	E
Wiesemundung, Passagiersteiger	
Basler Personenschiffahrts Gesellschaft AG	F
St. Johann, Passagiersteiger	G
Signalstation	H
Schweizererische Schiffahrtsschule Basel	J

BASLE

ST. JOHANN & KLEINHUENINGEN


Germany
Rhein
Birsfelden
Waldhaus
Muttenz
1
2
5
6
7
8
9
10
11
16
17
18
19
20
26
27
29
32
33
34
35
38
39
41
43
44
A
B
C
D

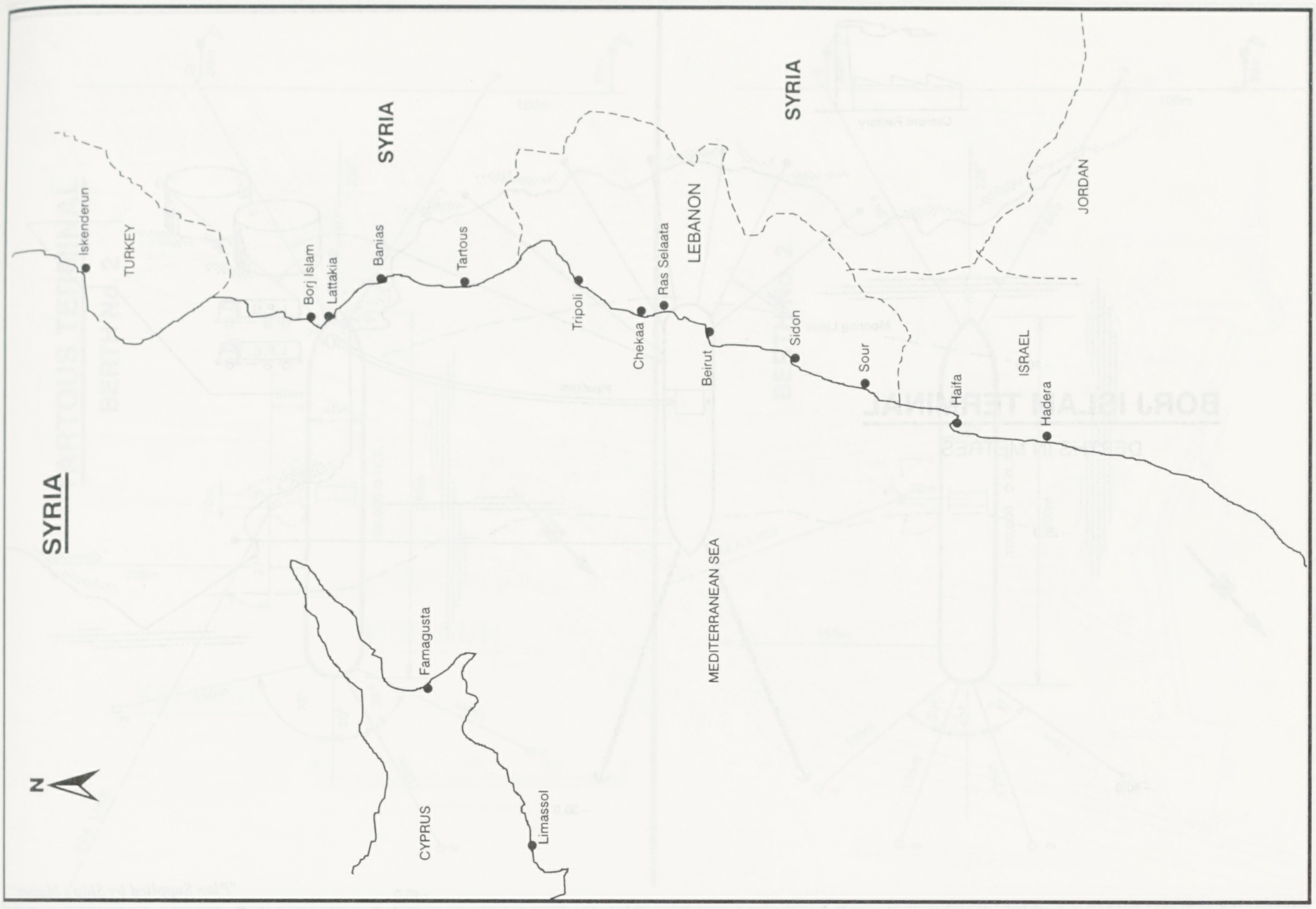
6 th Aral - Shell	27
Van Ommeren - Brag Tank	11
Davum Stahl AG	16
MBB Migros Betriebe Birsfelden	3
MBB Migros Betriebe Birsfelden	2
Shell (Switzerland)	5
Carl Spaeter	8
Bahndienstgebaude + Hafenbahnhof	C
Avia AG	26

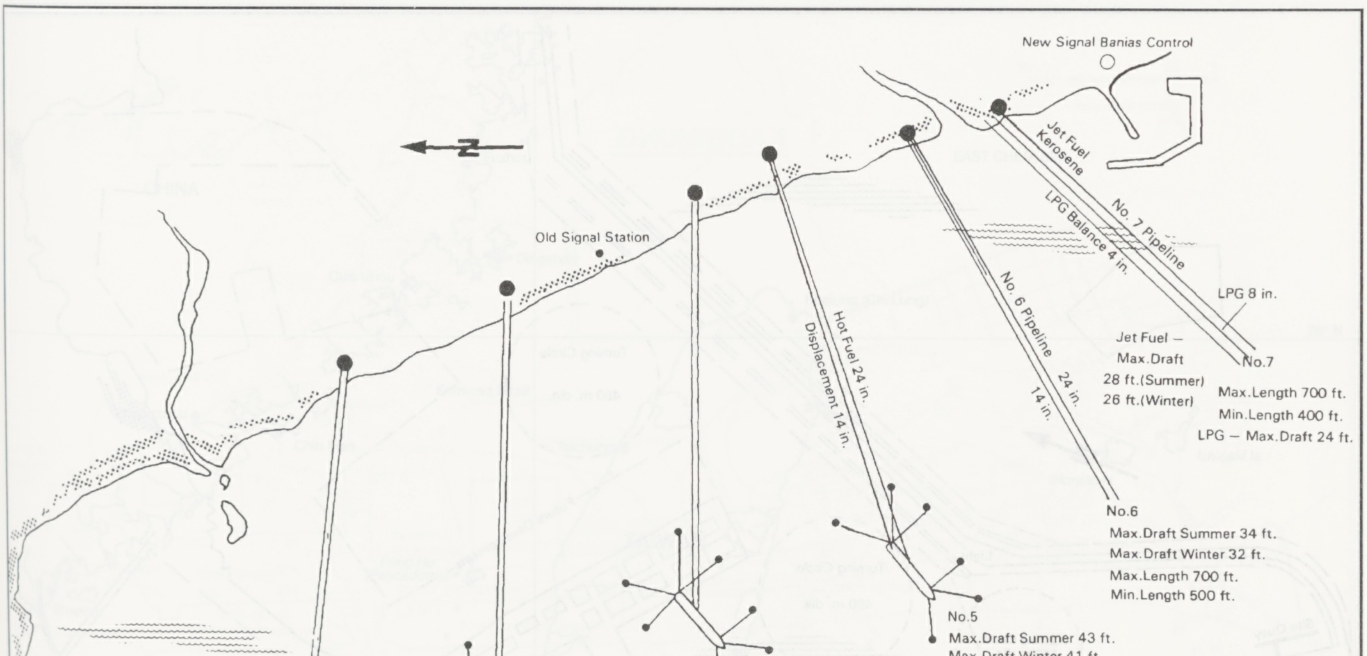
Jowa AG	1
Fertig Beton	33
Sihelco AG	32
Stamm Beton AG	17
Ultra-Brag	38
Zuckermuhle AG	34
Fritz Bertschi AG	41
Florin AG	43
Mobil Oil Imrag AG	29
Sandoz AG	39
Solco Basel AG	10
Roderer Transport	35
Birsfelden Locks	B

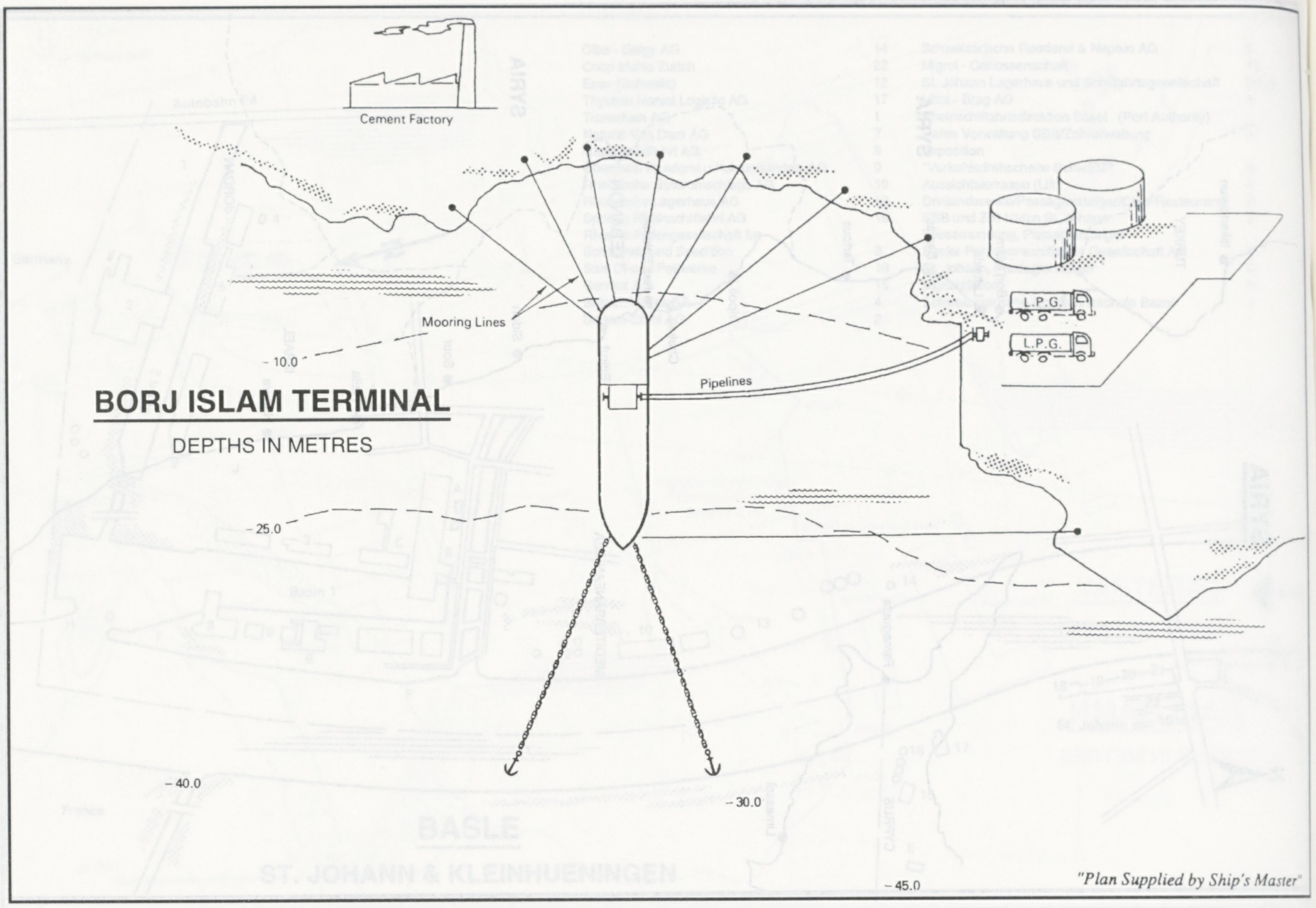
Birs Umschlags und Lager AG	6
Ciba	9
Roche Chemische Unterehmung AG	44
Schweiz, Aluminium AG (Alusuisse)	19
Schweiz Reederei und Neptun AG	20
Landar AG	18
Rheinhifen	A
BP - Geldner Rheinlager	7
Fire Brigade	D

BASLE

BIRSFELDEN & AU


SYRIA
Iskenderun
TURKEY
Borj Islam
Lattakia
Banias
SYRIA
Tartous
Tripoli
Chekaa
Ras Selaata
LEBANON
Beirut
Sidon
SYRIA
Sour
Haifa
ISRAEL
Hadera
JORDAN
MEDITERRANEAN SEA
Famagusta
CYPRUS
Limassol
N


New Signal Banias Control
N
Old Signal Station
Jet Fuel
Kerosene
No. 7 Pipeline
LPG Balance 4 in.
LPG 8 in.
No. 6 Pipeline
24 in.
14 in.
Hot Fuel 24 in.
Displacement 14 in.
Jet Fuel –
Max.Draft
28 ft.(Summer)
26 ft.(Winter)
No.7
Max.Length 700 ft.
Min.Length 400 ft.
LPG – Max.Draft 24 ft.
No.6
Max.Draft Summer 34 ft.
Max.Draft Winter 32 ft.
Max.Length 700 ft.
Min.Length 500 ft.
No.5
Max.Draft Summer 43 ft.
Max.Draft Winter 41 ft.
Max.Length 800 ft.
Min.Length 600 ft.
No.4
Max. Draft 40 – 42 Feet
Max. Length 750 Feet
No.3
Max. Draft 49 Feet (Discharging)
51 – 52 Feet (Loading)
Max. length 950 ft.
No.2.
Max. Draft 48 Feet (Discharging)
50 – 51 Feet (Loading)
Max. length 900 ft.
BANIAS

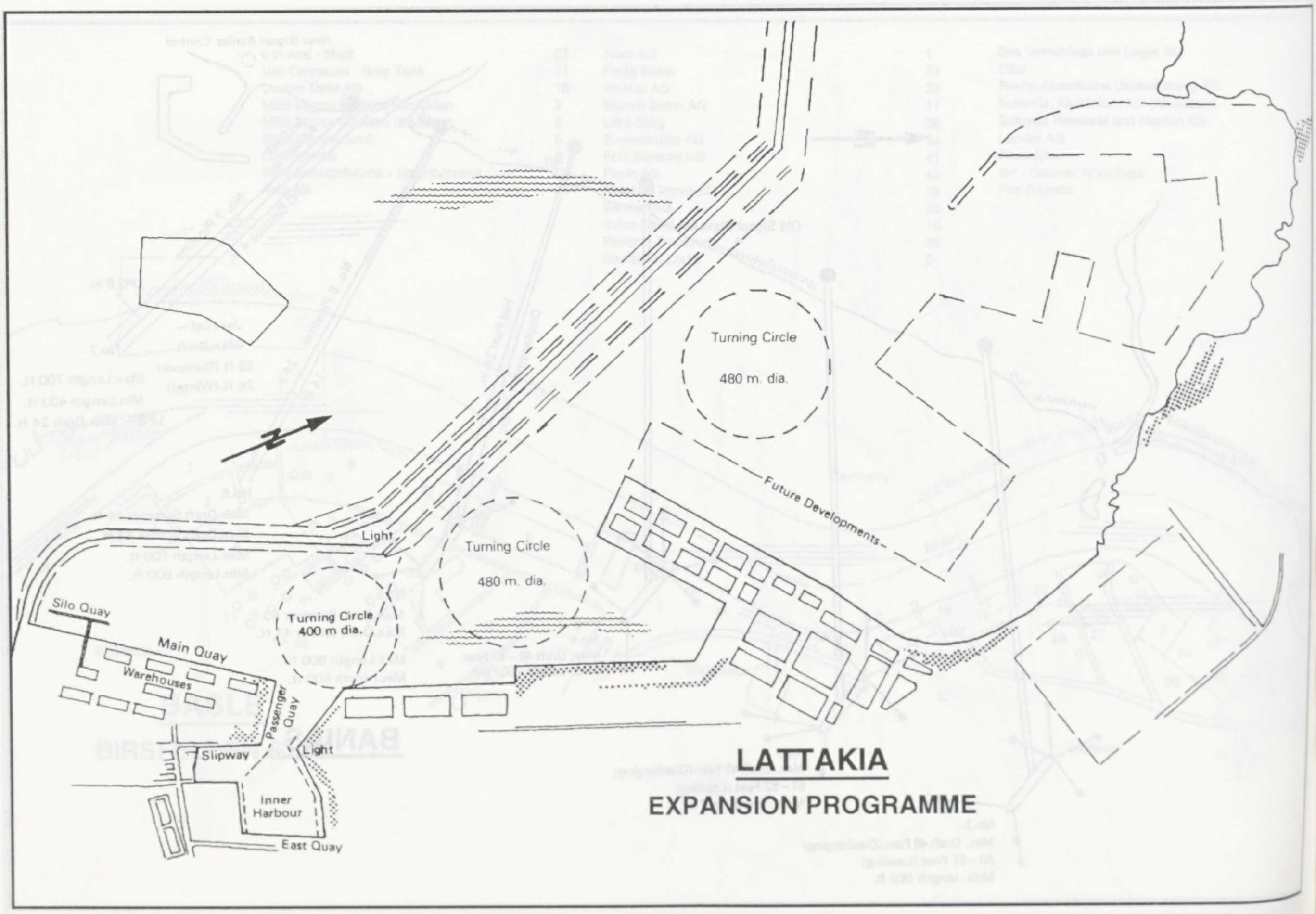


BORJ ISLAM TERMINAL

DEPTHS IN METRES

Cement Factory
Mooring Lines
Pipelines
L.P.G.
L.P.G.
- 10.0
- 25.0
- 40.0
- 30.0
- 45.0

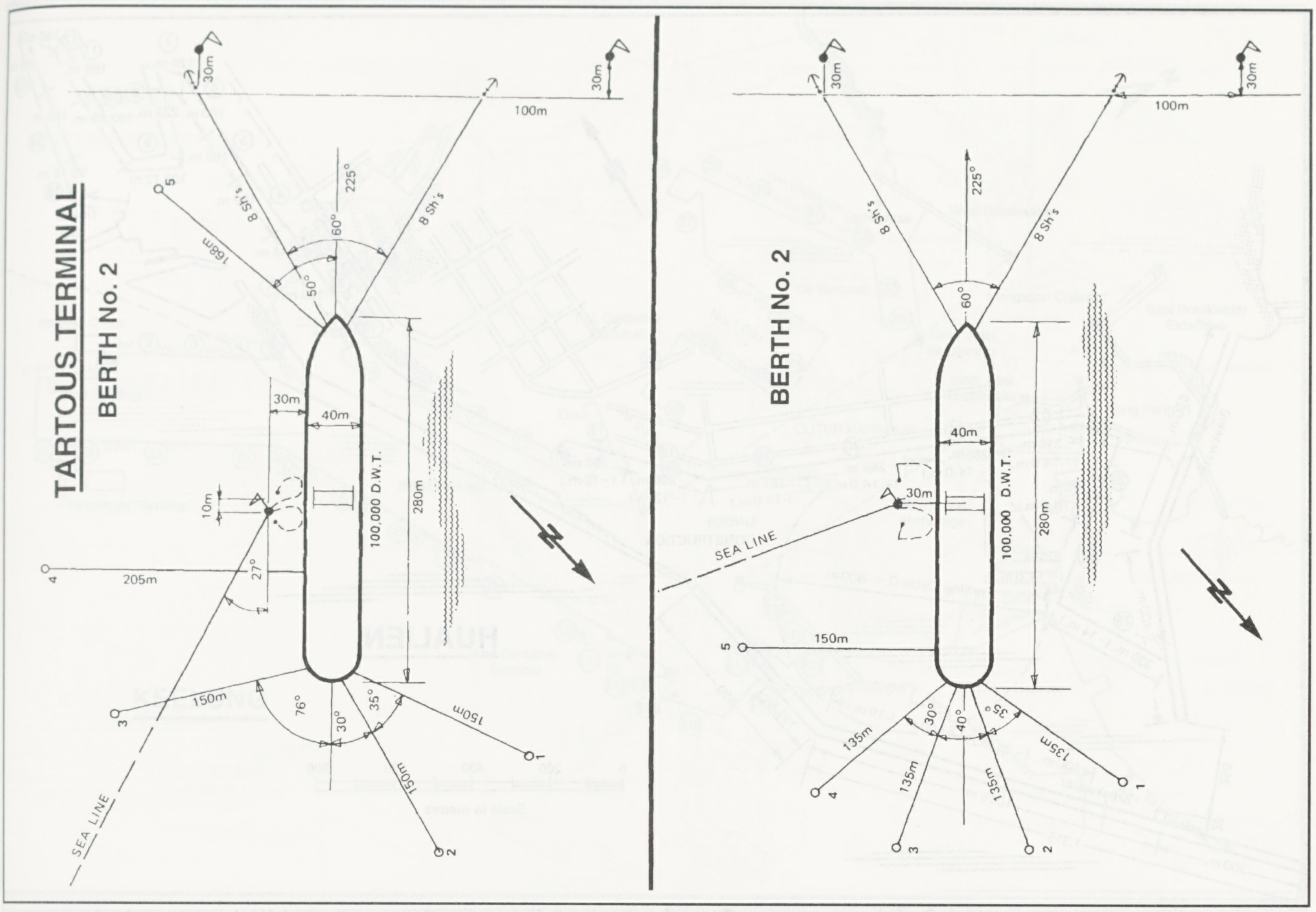
"Plan Supplied by Ship's Master"

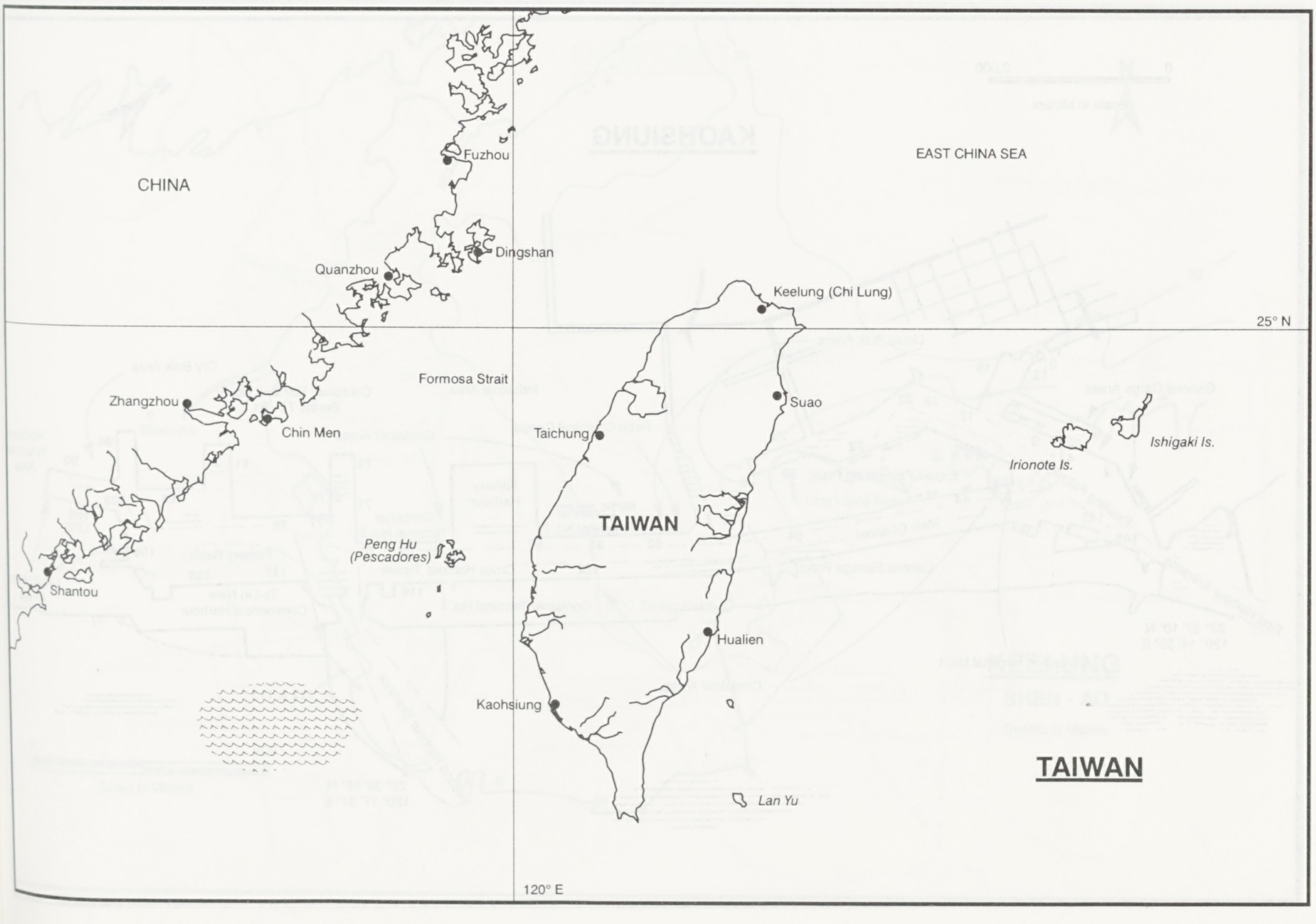


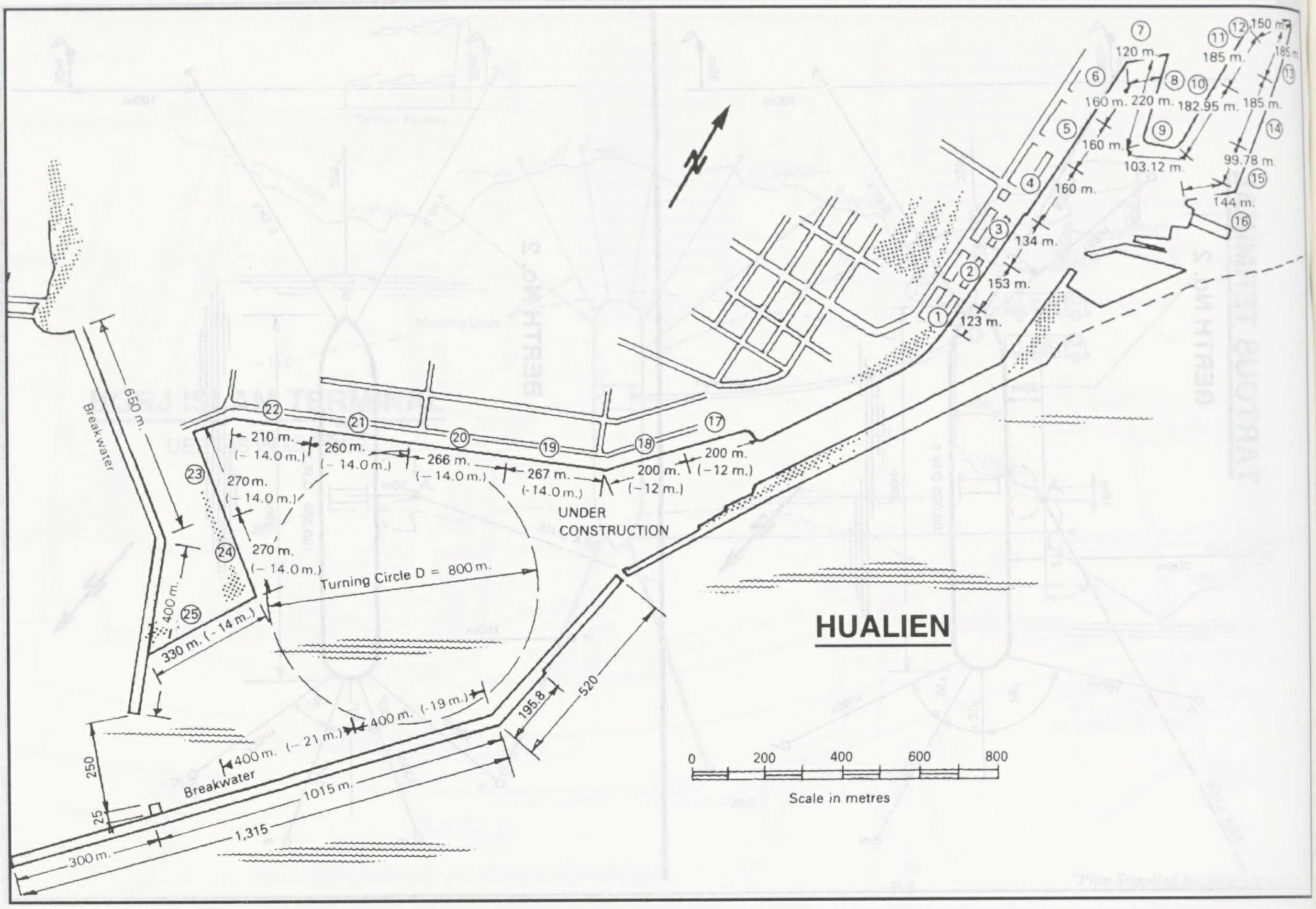
LATTAKIA

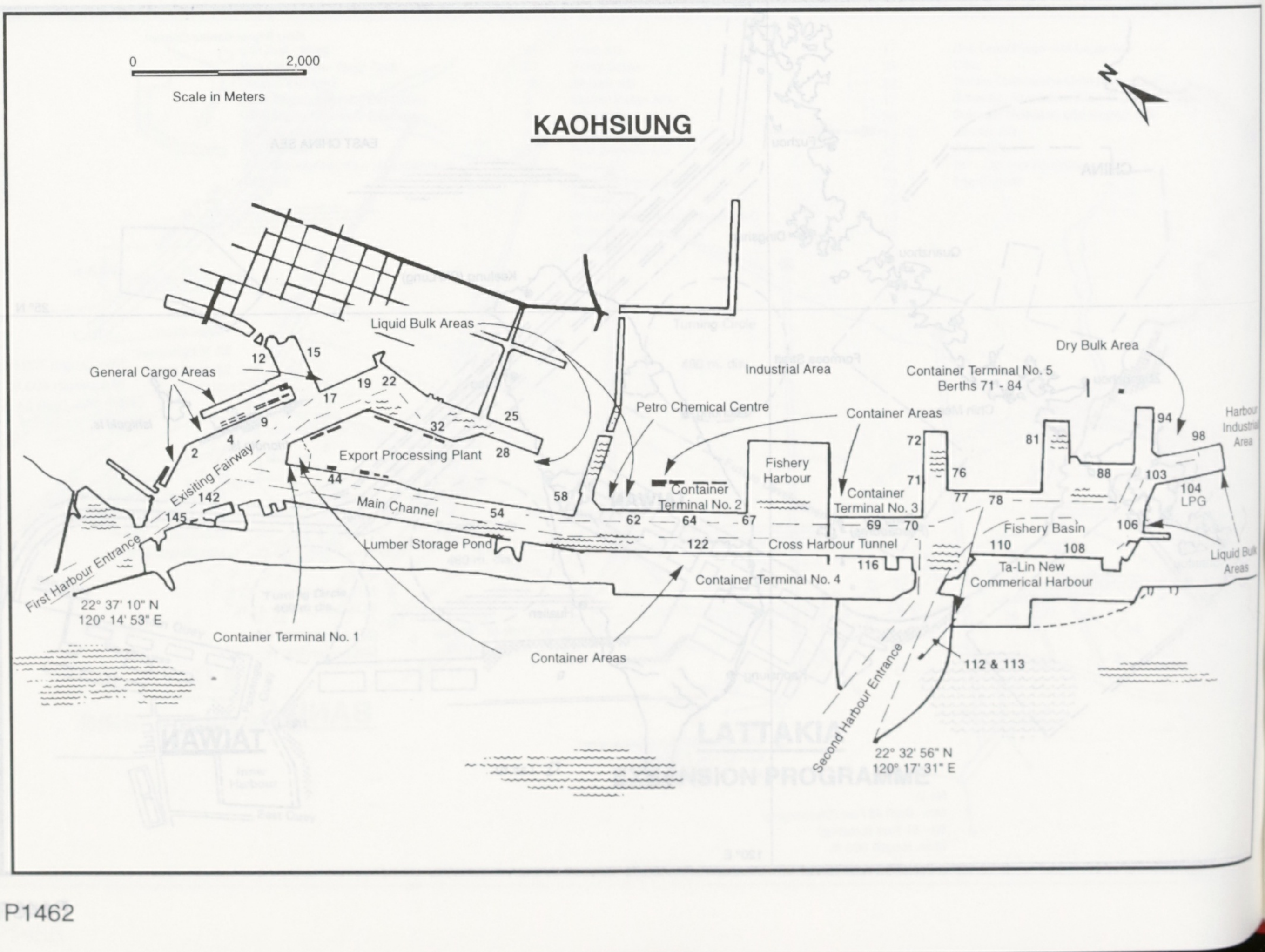
EXPANSION PROGRAMME

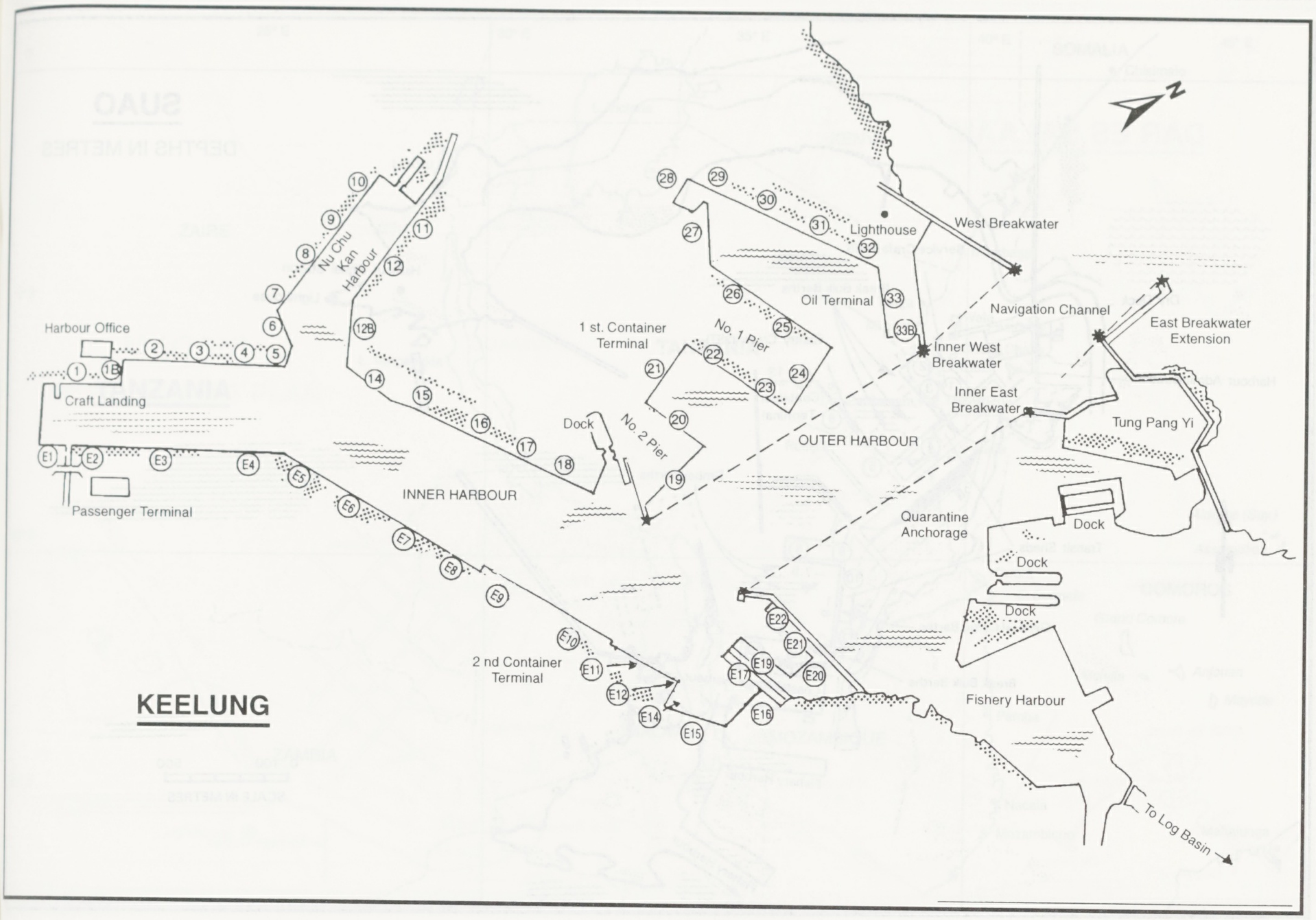
Turning Circle
480 m. dia.
Future Developments
Light
Turning Circle
480 m. dia.
Turning Circle
400 m dia.
Silo Quay
Main Quay
Warehouses
Passenger Quay
Slipway
Light
Inner Harbour
East Quay

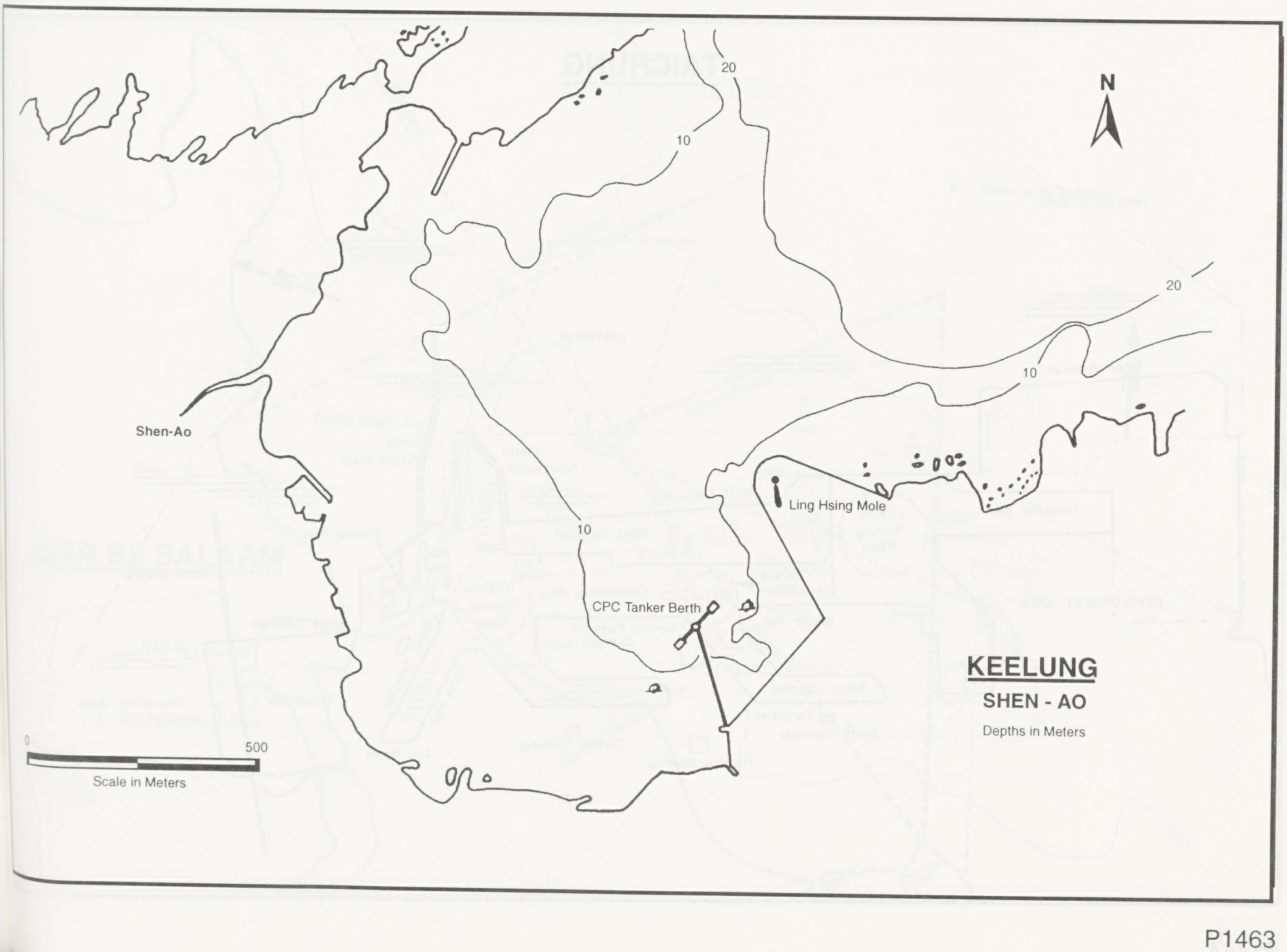

TARTOUS TERMINAL
BERTH No. 2
30m
30m
100m
5
168m
8 Sh's
8 Sh's
225°
60°
50°
30m
40m
10m
100,000 D.W.T.
280m
4
205m
27°
150m
3
76°
30°
35°
150m
1
150m
2
SEA LINE
N
BERTH No. 2
30m
30m
100m
225°
8 Sh's
8 Sh's
60°
40m
30m
SEA LINE
100,000 D.W.T.
280m
5
150m
135m
4
135m
3
30°
40°
35°
135m
2
135m
1
N

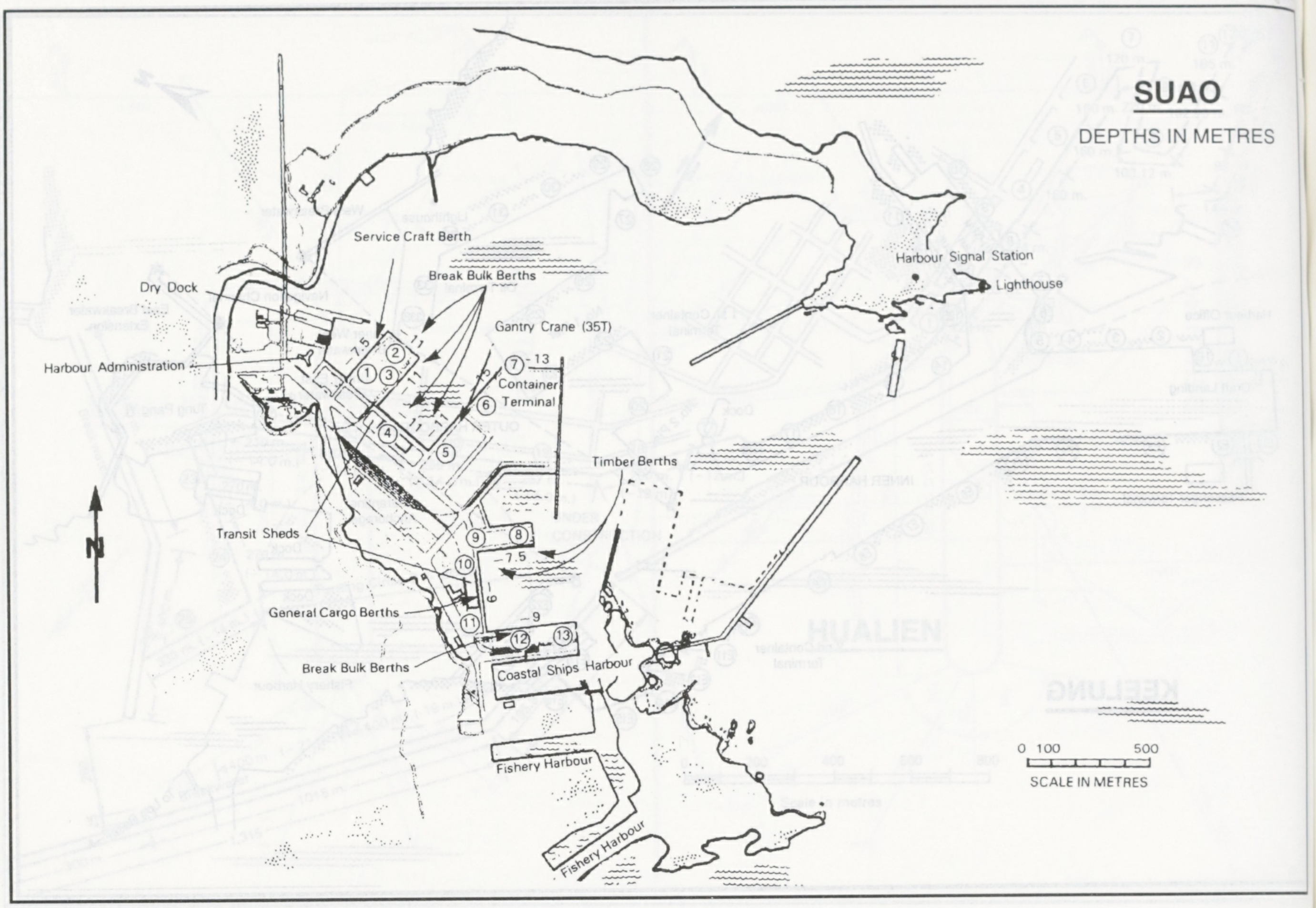

CHINA
Fuzhou
EAST CHINA SEA
Dingshan
Quanzhou
Keelung (Chi Lung)
25° N
Formosa Strait
Zhangzhou
Suao
Chin Men
Taichung
Ishigaki Is.
Irionote Is.
TAIWAN
Peng Hu
(Pescadores)
Shantou
Hualien
Kaohsiung
TAIWAN
Lan Yu
120° E

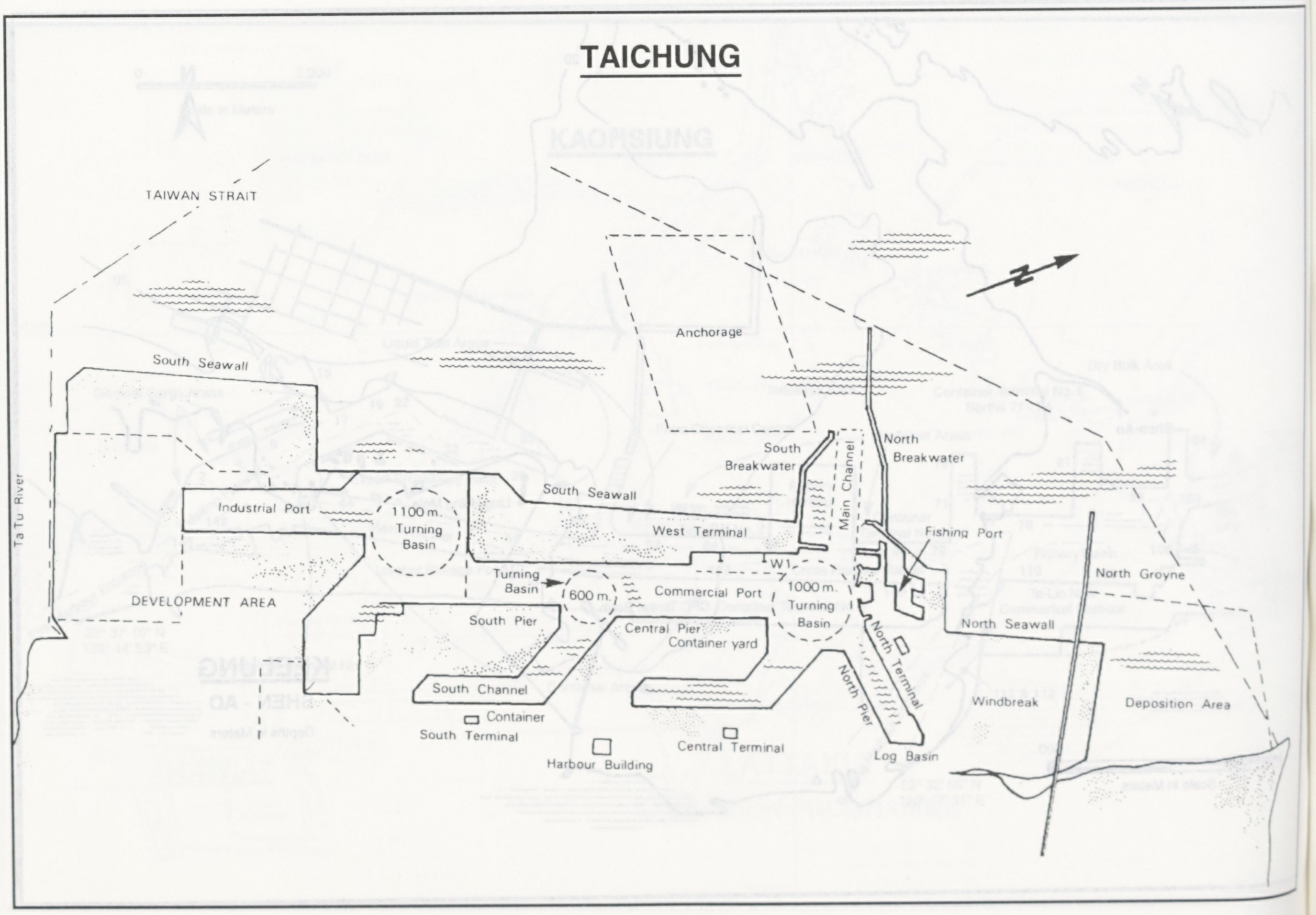

HUALIEN
N
⑦
120 m.
⑥
160 m.
220 m.
⑧
⑩
182.95 m.
⑪
⑫
150 m.
185 m.
185 m.
⑬
185 m.
⑤
160 m.
⑨
103.12 m.
⑭
99.78 m.
④
160 m.
⑮
144 m.
⑯
③
134 m.
②
153 m.
①
123 m.
650 m.
Breakwater
㉒
㉑
⑳
⑲
⑱
⑰
210 m.
(– 14.0 m.)
260 m.
(– 14.0 m.)
266 m.
(– 14.0 m.)
267 m.
(-14.0 m.)
200 m.
(–12 m.)
200 m.
(–12 m.)
㉓
270 m.
(– 14.0 m.)
UNDER
CONSTRUCTION
㉔
270 m.
(– 14.0 m.)
Turning Circle D = 800 m.
400 m.
㉕
330 m. (- 14 m.)
520
195.8
400 m. (-19 m.)
400 m. (– 21 m.)
250
Breakwater
1015 m.
25
1,315
300 m.
0
200
400
600
800
Scale in metres

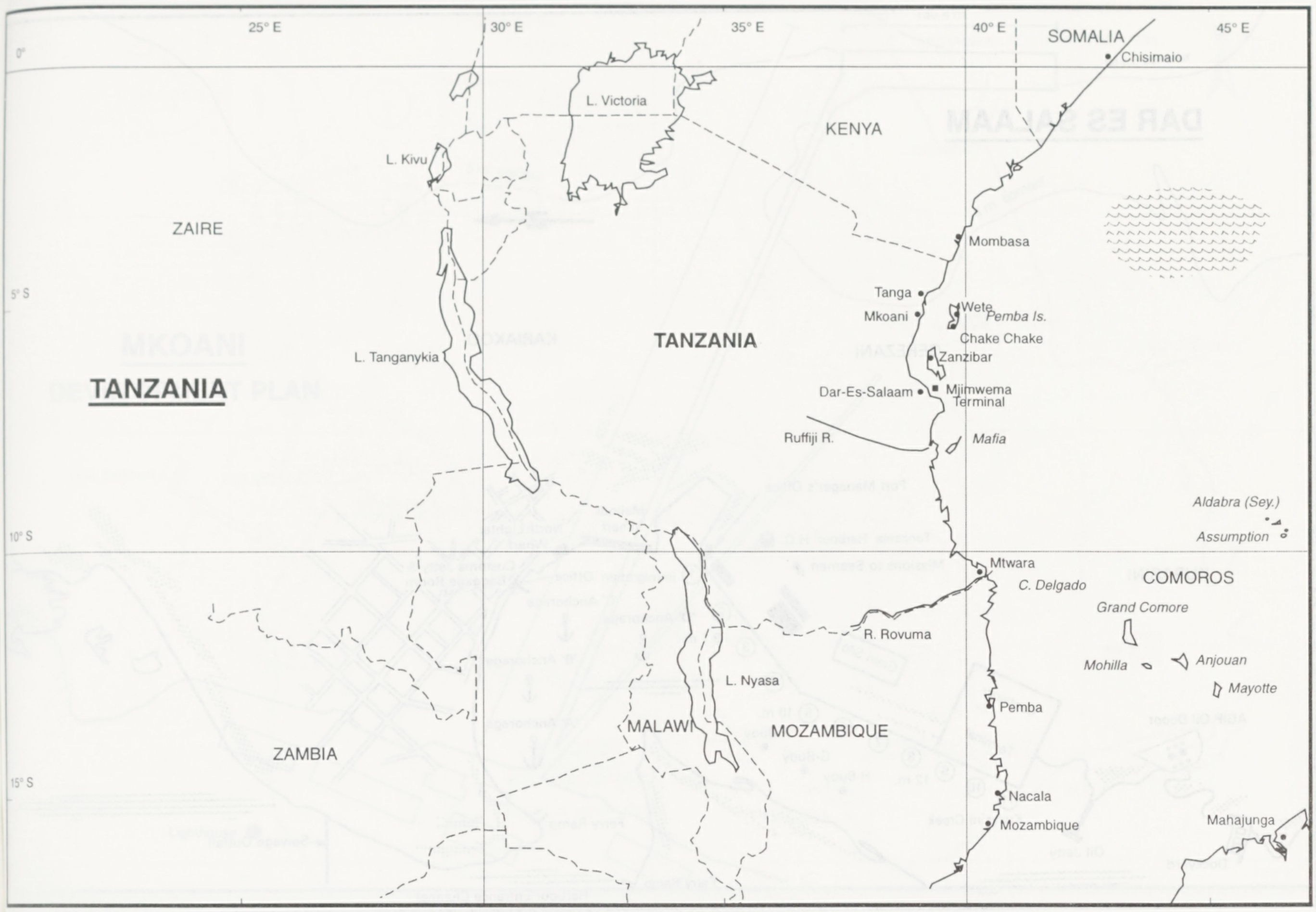

0
2,000
Scale in Meters
KAOHSIUNG
N
Liquid Bulk Areas
12
15
General Cargo Areas
17
19
22
Industrial Area
Container Terminal No. 5
Berths 71 - 84
Dry Bulk Area
Petro Chemical Centre
Container Areas
9
32
25
4
2
Exisiting Fairway
Export Processing Plant
28
72
81
94
98
Harbour Industrial Area
Fishery Harbour
44
Container Terminal No. 2
71
76
88
103
104
LPG
142
58
Container Terminal No. 3
77
78
145
Main Channel
54
62
64
67
69
70
Fishery Basin
106
Lumber Storage Pond
122
Cross Harbour Tunnel
110
108
First Harbour Entrance
116
Ta-Lin New
Commerical Harbour
Liquid Bulk Areas
Container Terminal No. 4
22° 37' 10" N
120° 14' 53" E
Container Terminal No. 1
Container Areas
112 & 113
Second Harbour Entrance
22° 32' 56" N
120° 17' 31" E


KEELUNG
Harbour Office
Craft Landing
Passenger Terminal
Nu Chu Kan Harbour
INNER HARBOUR
1 st. Container Terminal
No. 1 Pier
No. 2 Pier
Dock
Oil Terminal
Lighthouse
West Breakwater
Navigation Channel
East Breakwater Extension
Inner West Breakwater
Inner East Breakwater
OUTER HARBOUR
Tung Pang Yi
Quarantine Anchorage
Dock
Dock
Dock
Fishery Harbour
To Log Basin
2 nd Container Terminal
N
1 1B 2 3 4 5 6 7 8 9 10 11 12 12B 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 33B
E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12 E14 E15 E16 E17 E19 E20 E21 E22


KEELUNG
SHEN - AO
Depths in Meters
N
Shen-Ao
Ling Hsing Mole
CPC Tanker Berth
20
10
20
10
10
0
500
Scale in Meters

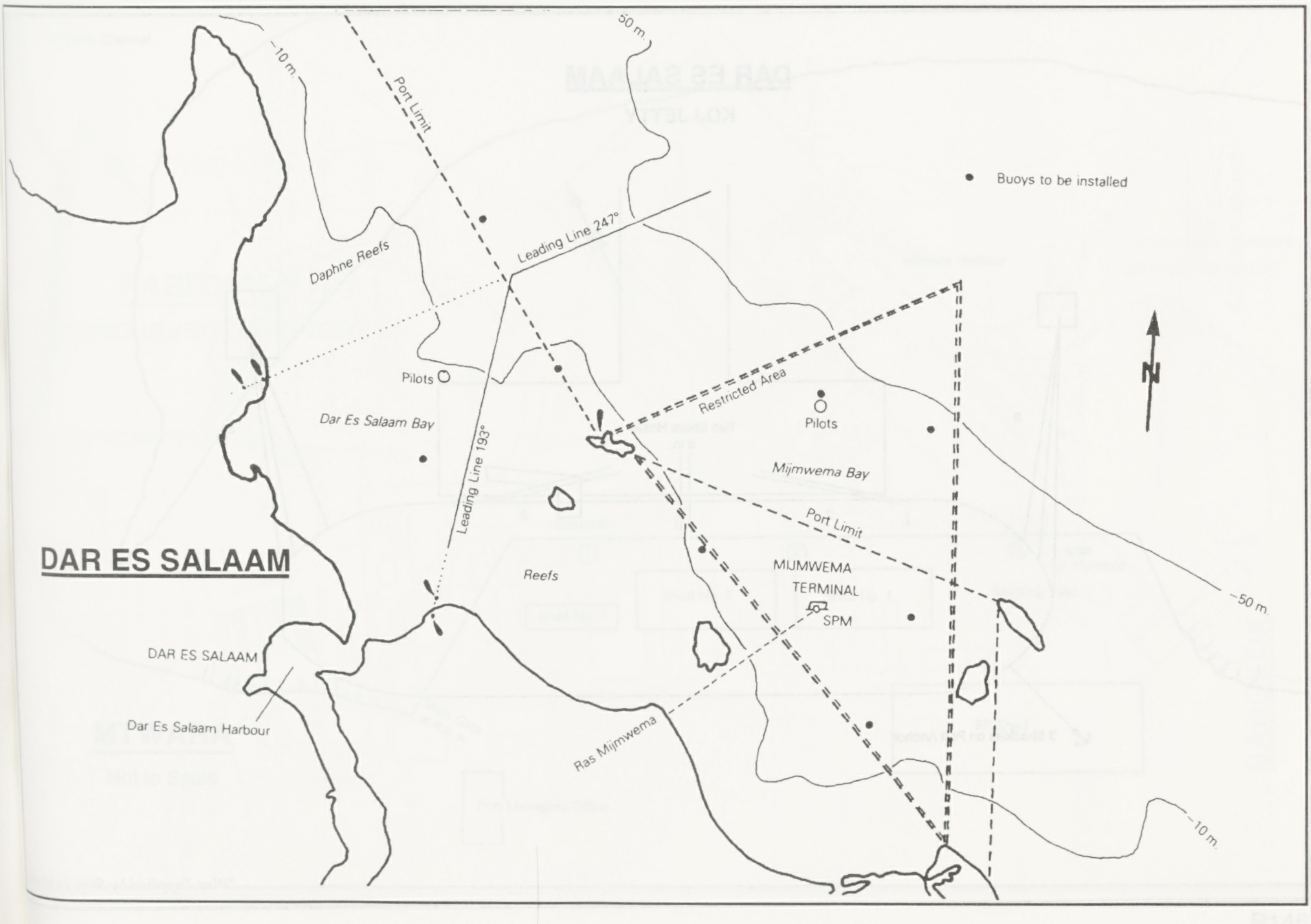

SUAO
DEPTHS IN METRES
Service Craft Berth
Break Bulk Berths
Dry Dock
Gantry Crane (35T)
Harbour Administration
-13
Container Terminal
-11.5
-11
-7.5
-9
-9
Timber Berths
Transit Sheds
General Cargo Berths
Break Bulk Berths
Coastal Ships Harbour
Fishery Harbour
Fishery Harbour
Harbour Signal Station
Lighthouse
N
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
0 100 500
SCALE IN METRES


TAICHUNG
TAIWAN STRAIT
Anchorage
N
South Seawall
Ta Tu River
Industrial Port
1100 m. Turning Basin
DEVELOPMENT AREA
South Seawall
West Terminal
South Breakwater
Main Channel
North Breakwater
Fishing Port
W1
Turning Basin
600 m.
Commercial Port
1000 m. Turning Basin
South Pier
Central Pier Container yard
North Terminal
North Pier
North Groyne
North Seawall
South Channel
Container
South Terminal
Harbour Building
Central Terminal
Log Basin
Windbreak
Deposition Area



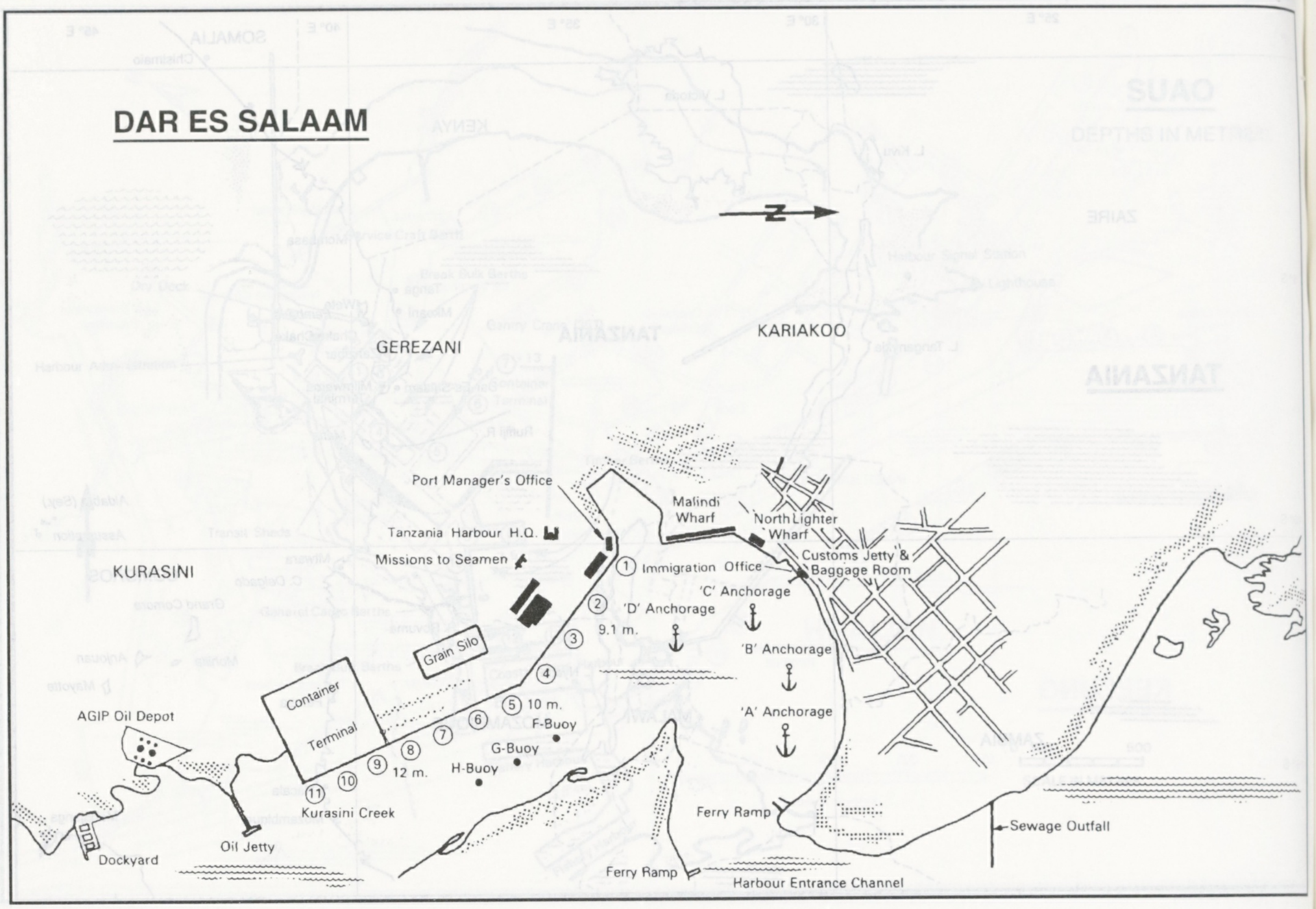
TANZANIA

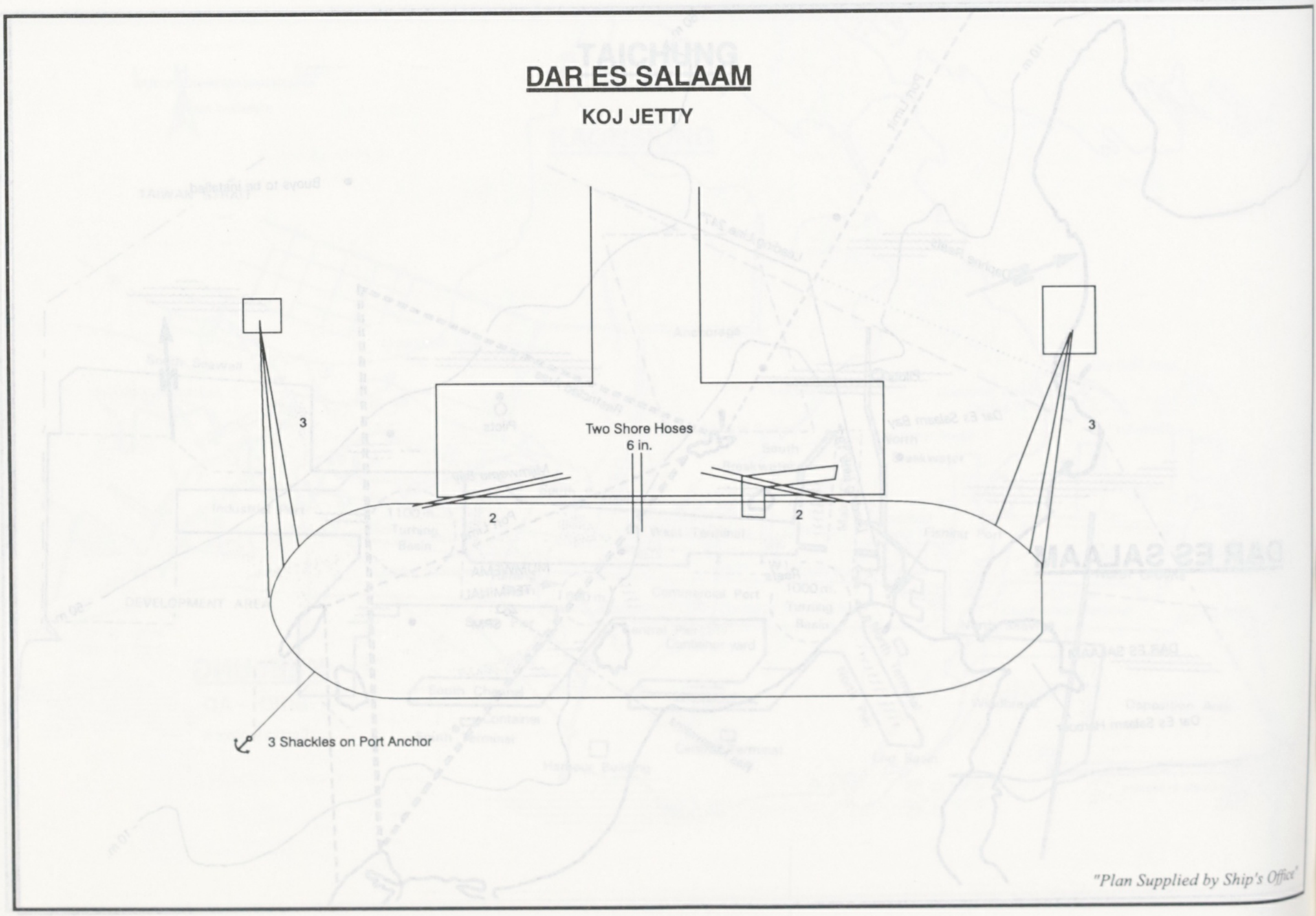
25° E
30° E
35° E
40° E
45° E
0°
5° S
10° S
15° S
SOMALIA
Chisimaio
L. Victoria
KENYA
L. Kivu
ZAIRE
Mombasa
Tanga
Wete
Pemba Is.
Mkoani
Chake Chake
Zanzibar
TANZANIA
L. Tanganykia
Dar-Es-Salaam
Mjimwema Terminal
Ruffiji R.
Mafia
Aldabra (Sey.)
Assumption
Mtwara
C. Delgado
COMOROS
Grand Comore
R. Rovuma
Mohilla
Anjouan
Mayotte
L. Nyasa
Pemba
MALAWI
MOZAMBIQUE
ZAMBIA
Nacala
Mozambique
Mahajunga



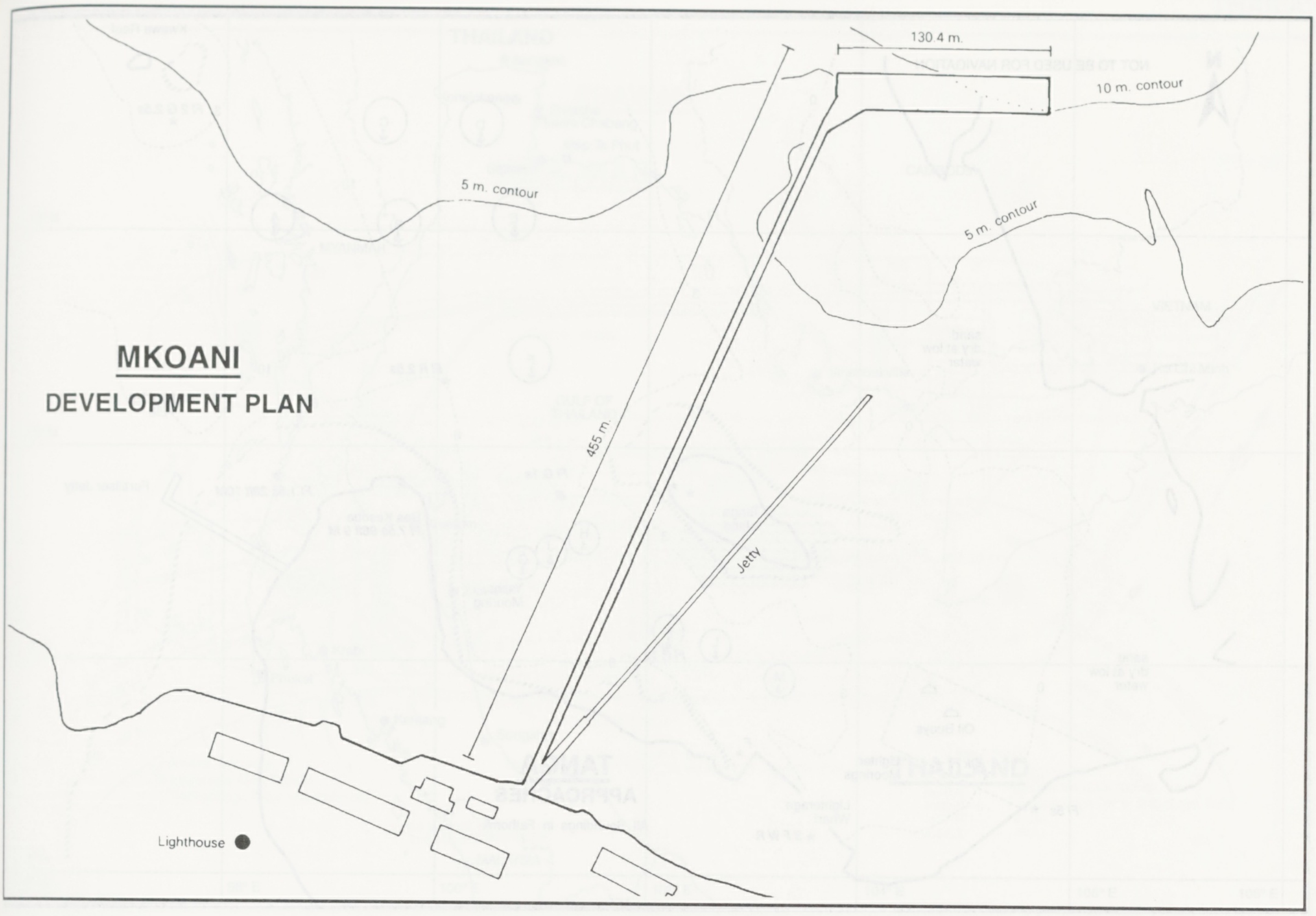
DAR ES SALAAM

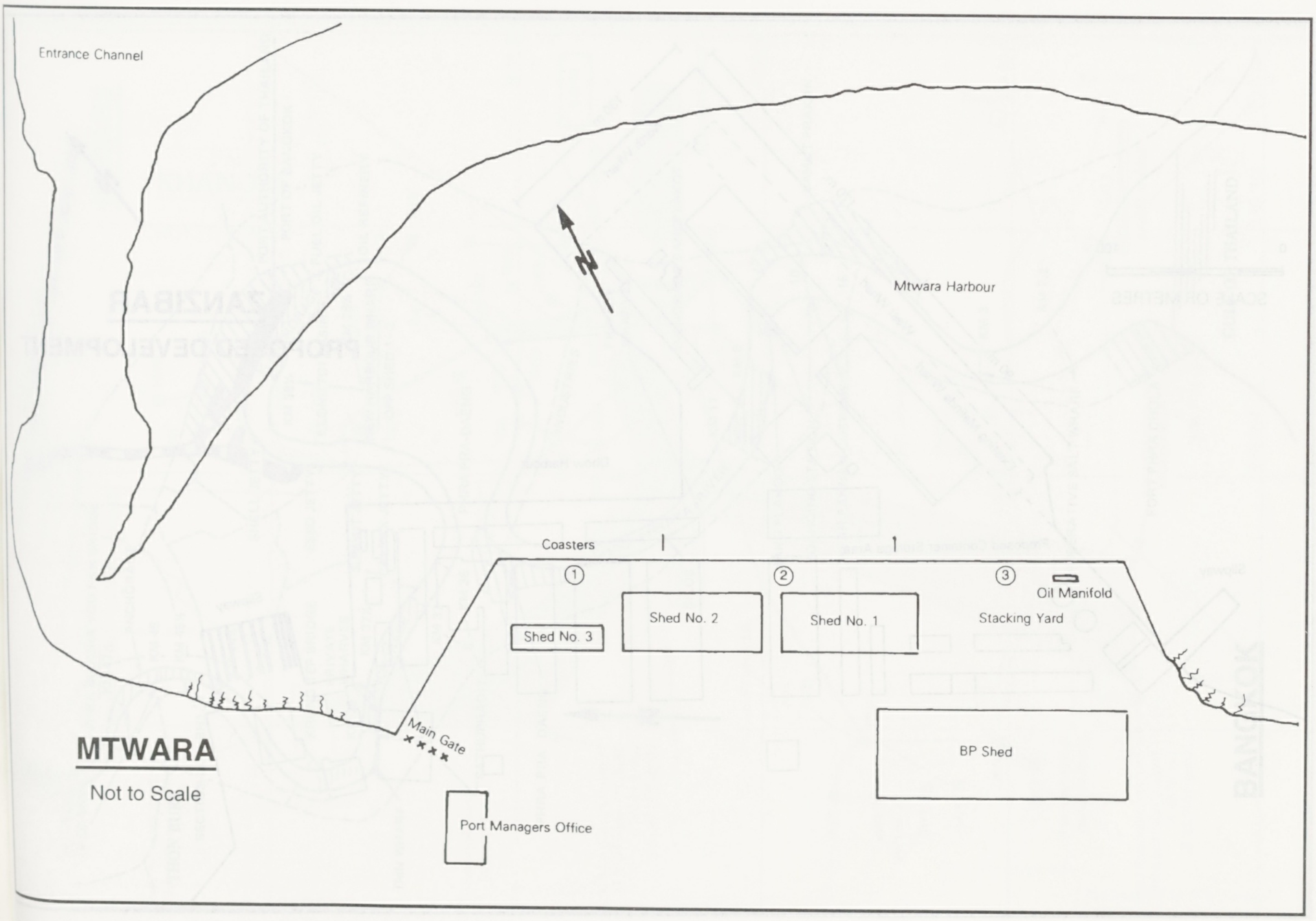
10 m
50 m
Port Limit
Buoys to be installed
Leading Line 247°
Daphne Reefs
Restricted Area
Pilots
Pilots
Dar Es Salaam Bay
Leading Line 193°
Mijmwema Bay
Port Limit
Reefs
MIJMWEMA TERMINAL
SPM
50 m
DAR ES SALAAM
Dar Es Salaam Harbour
Ras Mijmwema
10 m
N

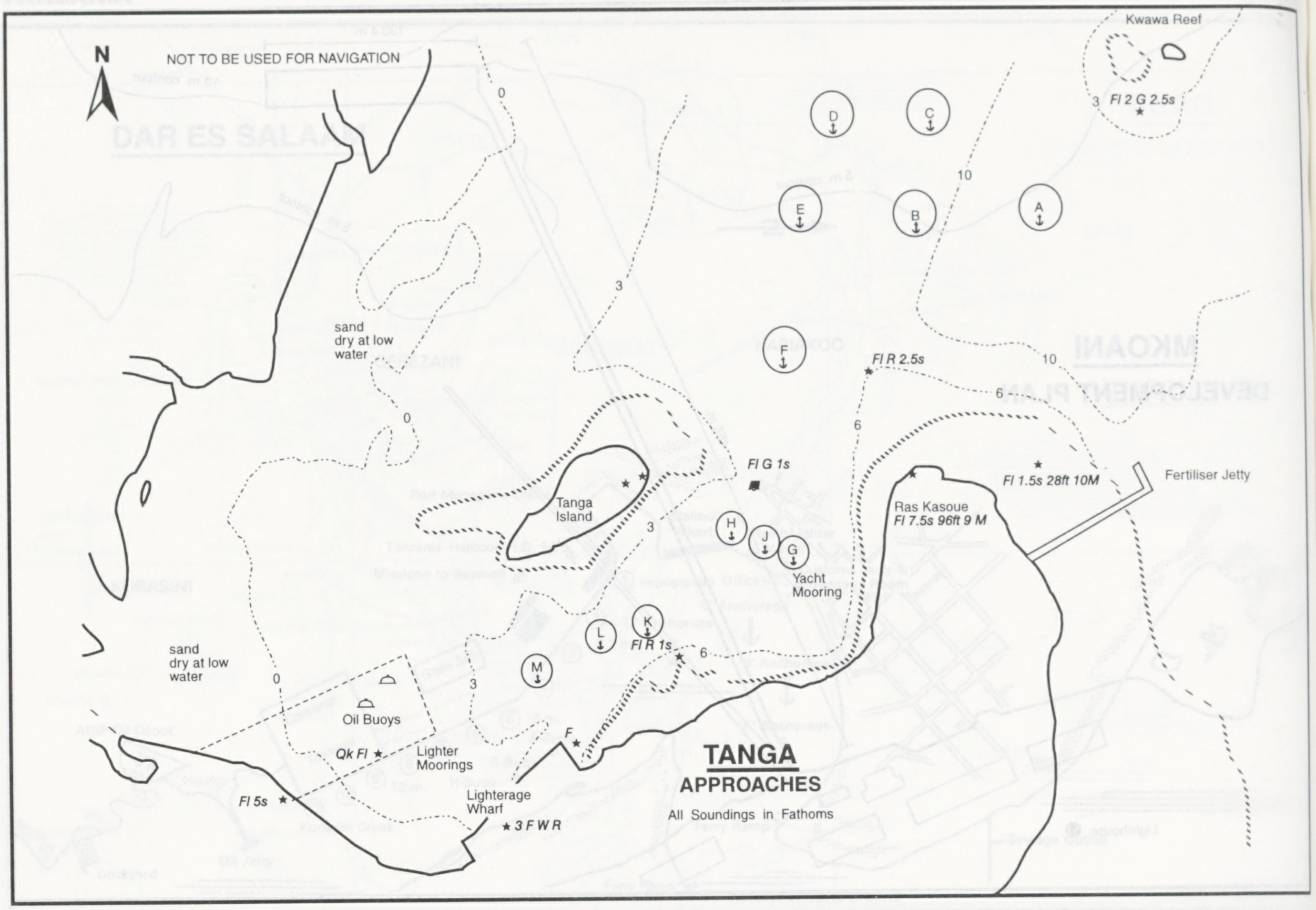

DAR ES SALAAM
N
GEREZANI
KARIAKOO
KURASINI
Port Manager's Office
Tanzania Harbour H.Q.
Missions to Seamen
Malindi Wharf
North Lighter Wharf
Customs Jetty & Baggage Room
Immigration Office
'C' Anchorage
'D' Anchorage
'B' Anchorage
'A' Anchorage
9.1 m.
10 m.
12 m.
Grain Silo
Container Terminal
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪
F-Buoy
G-Buoy
H-Buoy
AGIP Oil Depot
Kurasini Creek
Oil Jetty
Dockyard
Ferry Ramp
Ferry Ramp
Harbour Entrance Channel
Sewage Outfall

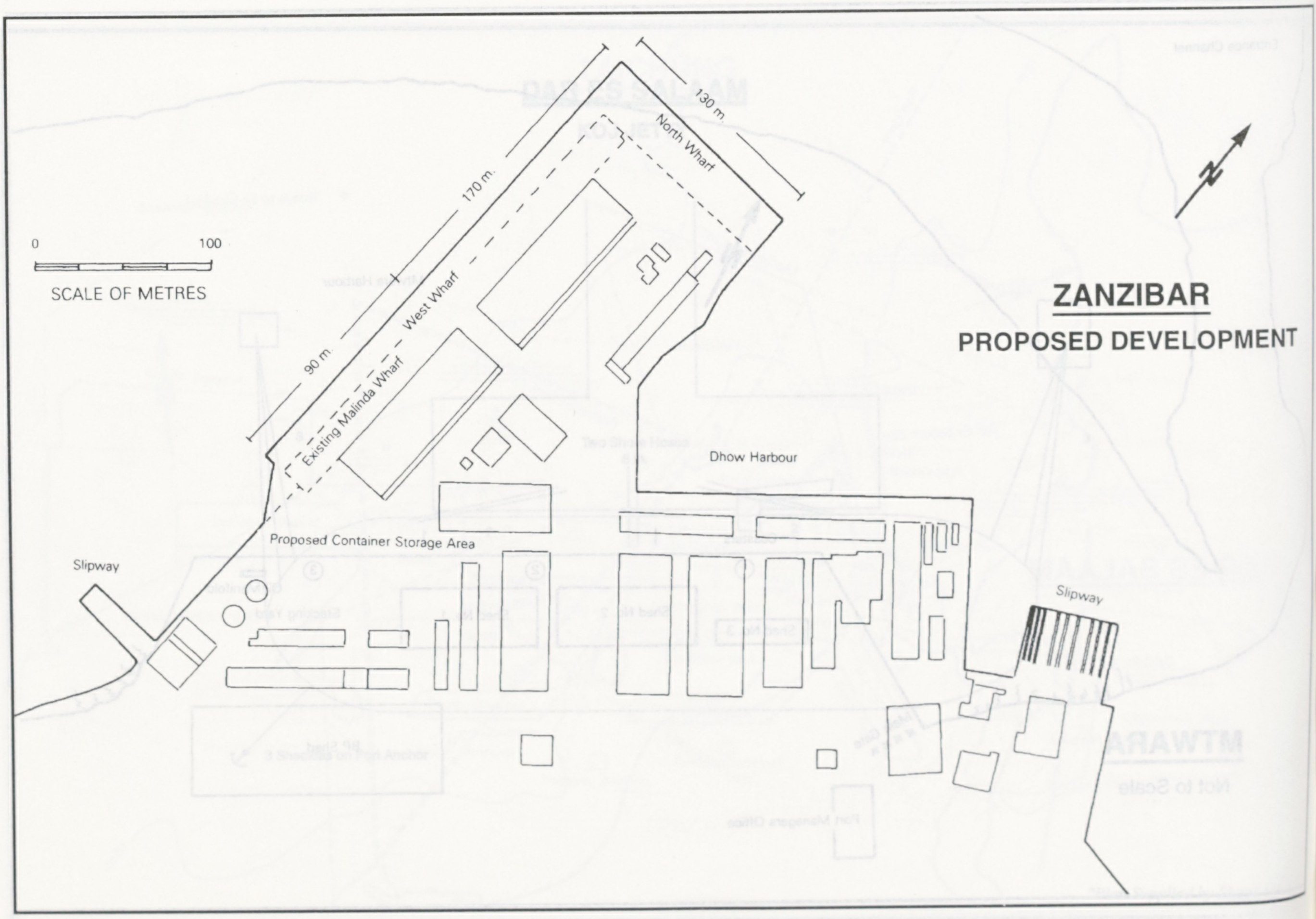

DAR ES SALAAM
KOJ JETTY
Two Shore Hoses 6 in.
3
3
2
2
3 Shackles on Port Anchor

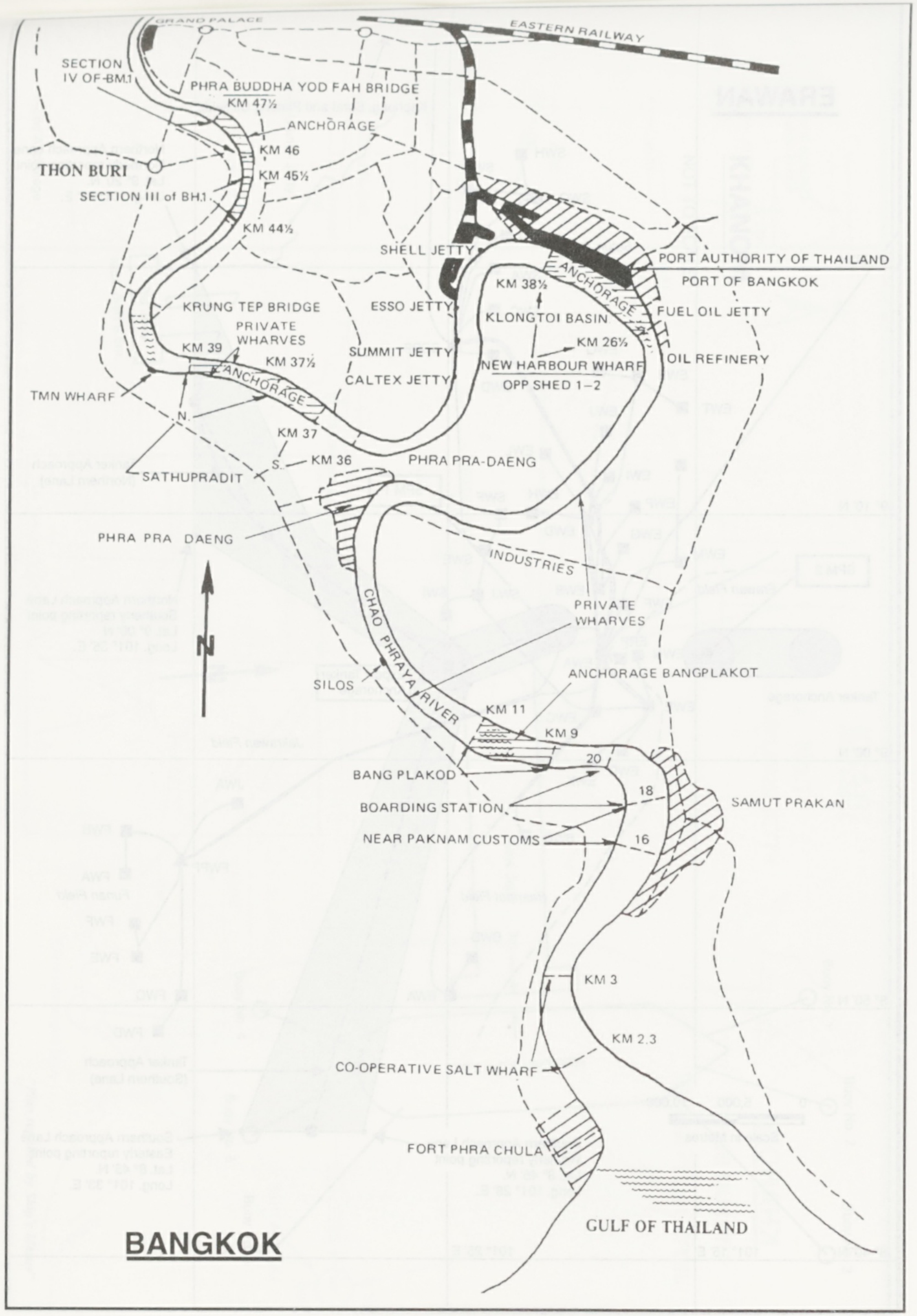
"Plan Supplied by Ship's Office"


130.4 m.
10 m. contour
5 m. contour
5 m. contour
MKOANI
DEVELOPMENT PLAN
455 m
Jetty
Lighthouse

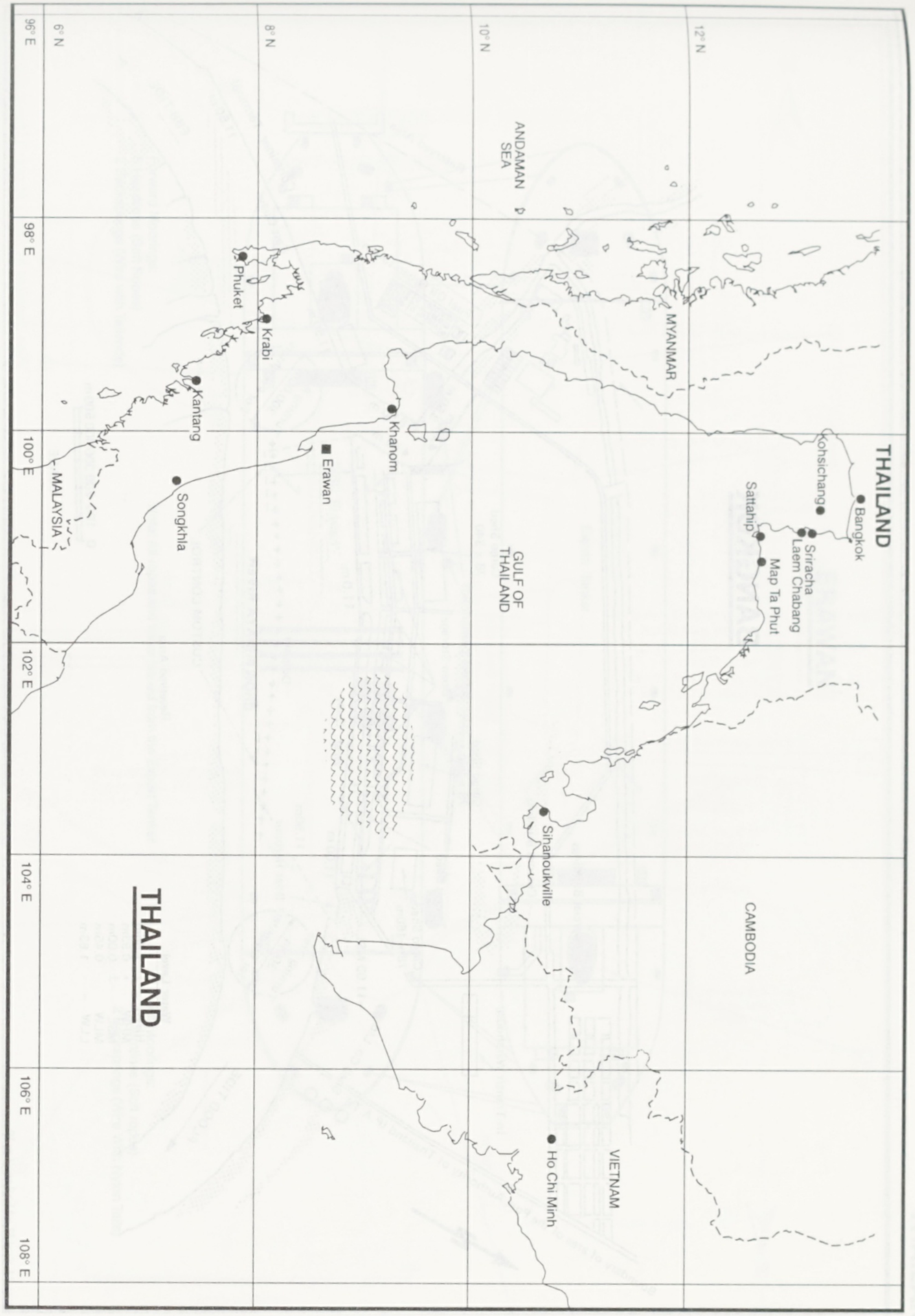

Entrance Channel
N
Mtwara Harbour
Coasters
①
②
③
Oil Manifold
Shed No. 3
Shed No. 2
Shed No. 1
Stacking Yard
Main Gate
BP Shed
Port Managers Office
MTWARA
Not to Scale


N
NOT TO BE USED FOR NAVIGATION
Kwawa Reef
3
Fl 2 G 2.5s
D
C
10
E
B
A
0
3
sand
dry at low
water
F
Fl R 2.5s
10
6
0
6
Fl G 1s
Fertiliser Jetty
Fl 1.5s 28ft 10M
Tanga
Island
Ras Kasoue
Fl 7.5s 96ft 9 M
H
J
G
3
Yacht
Mooring
K
L
Fl R 1s
6
sand
dry at low
water
M
0
3
Oil Buoys
F
Qk Fl
Lighter
Moorings
Fl 5s
Lighterage
Wharf
3 F W R
TANGA
APPROACHES
All Soundings in Fathoms

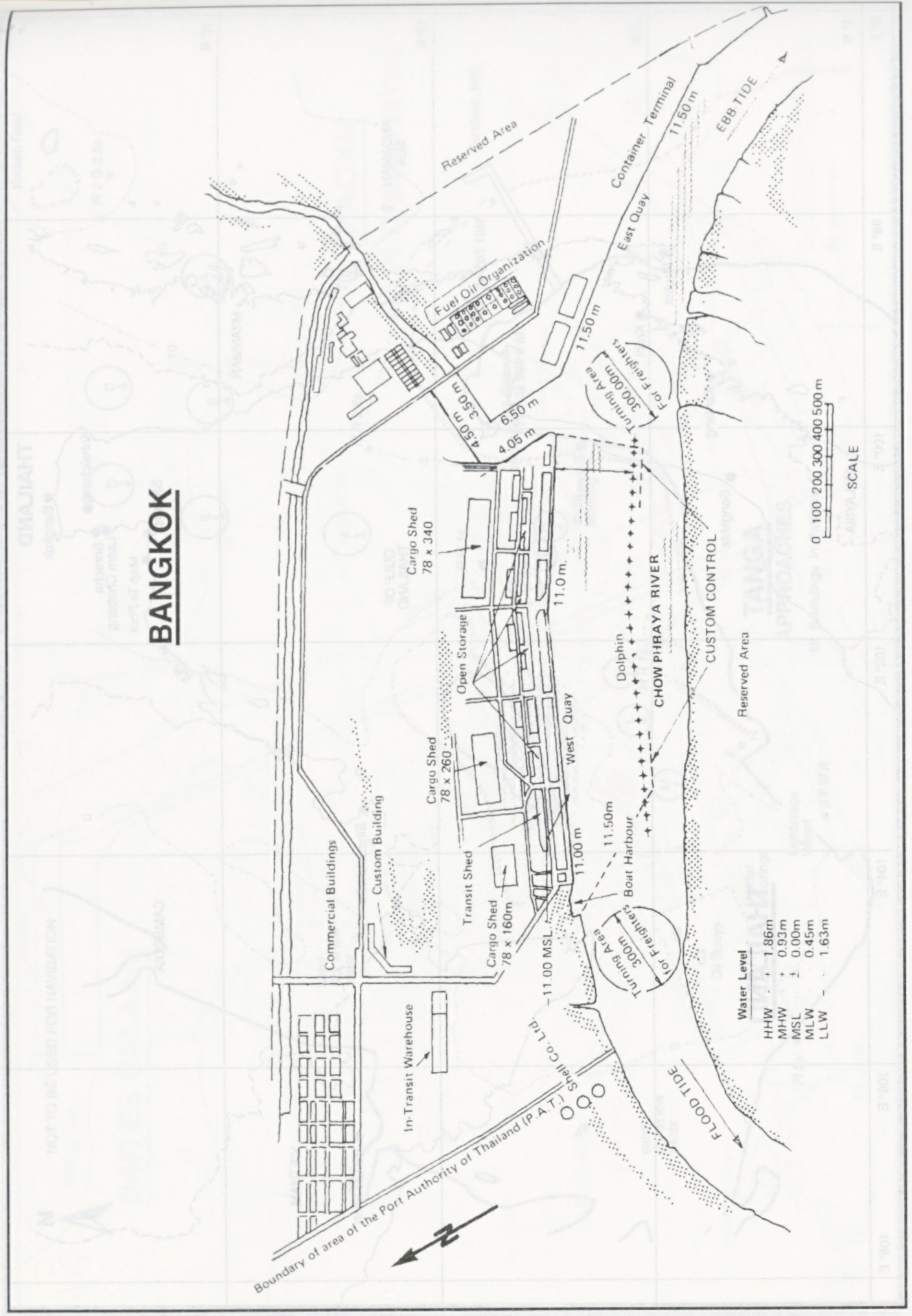

130 m.
North Wharf
170 m.
West Wharf
90 m.
Existing Malinda Wharf
0
100
SCALE OF METRES
ZANZIBAR
PROPOSED DEVELOPMENT
Dhow Harbour
Proposed Container Storage Area
Slipway
Slipway

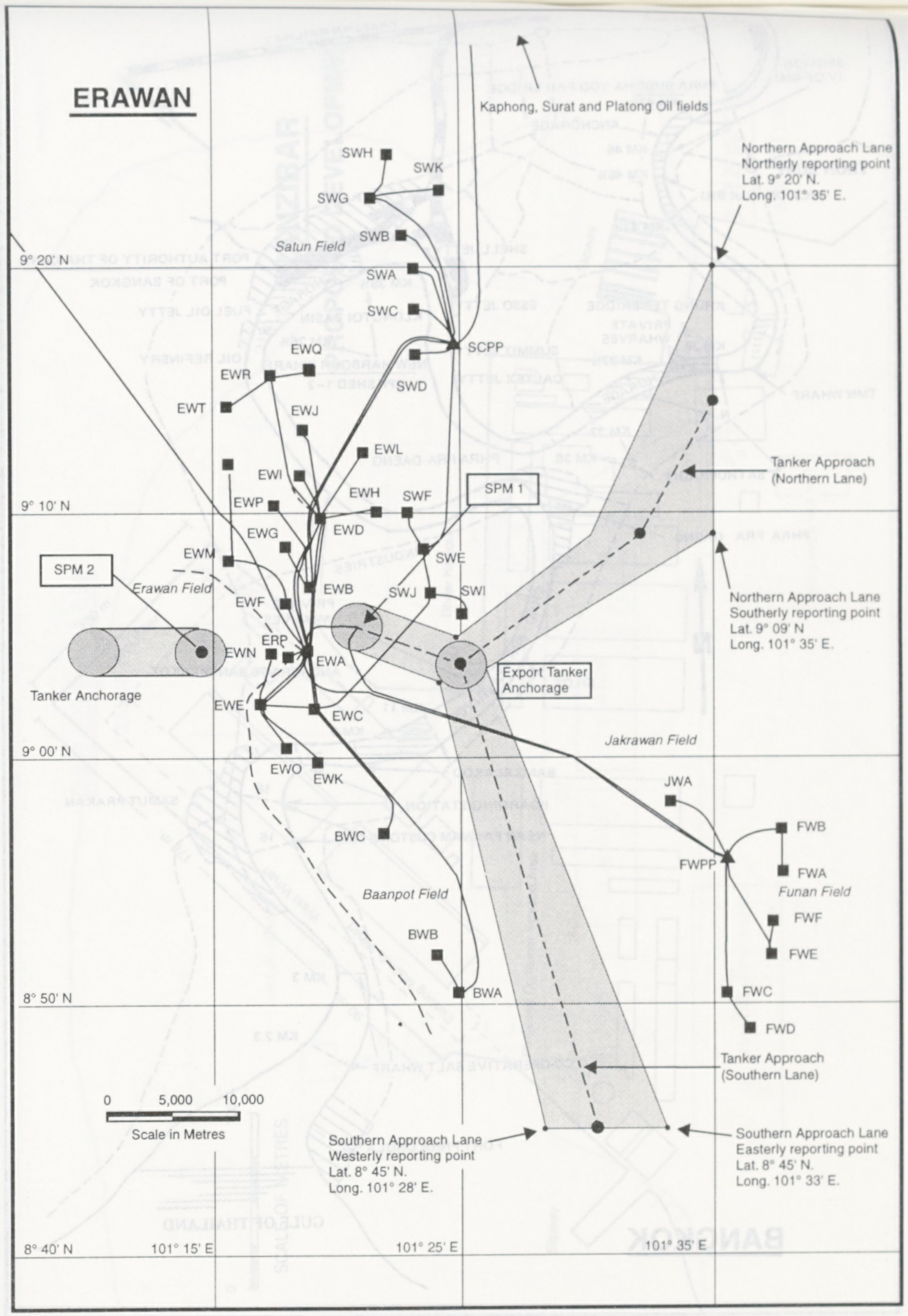

GRAND PALACE
EASTERN RAILWAY
SECTION IV OF-BM.1
PHRA BUDDHA YOD FAH BRIDGE
KM 47½
ANCHORAGE
KM 46
THON BURI
KM 45½
SECTION III of BH.1
KM 44½
SHELL JETTY
PORT AUTHORITY OF THAILAND
PORT OF BANGKOK
KM 38¾
ANCHORAGE
KRUNG TEP BRIDGE
ESSO JETTY
KLONGTOI BASIN
FUEL OIL JETTY
PRIVATE WHARVES
KM 26½
KM 39
KM 37½
SUMMIT JETTY
NEW HARBOUR WHARF
OIL REFINERY
CALTEX JETTY
OPP SHED 1-2
TMN WHARF
ANCHORAGE
N.
KM 37
S.
KM 36
SATHUPRADIT
PHRA PRA-DAENG
PHRA PRA DAENG
INDUSTRIES
N
CHAO PHRAYA RIVER
PRIVATE WHARVES
SILOS
ANCHORAGE BANGPLAKOT
KM 11
KM 9
20
BANG PLAKOD
18
BOARDING STATION
SAMUT PRAKAN
NEAR PAKNAM CUSTOMS
16
KM 3
KM 2.3
CO-OPERATIVE SALT WHARF
FORT PHRA CHULA
GULF OF THAILAND

BANGKOK

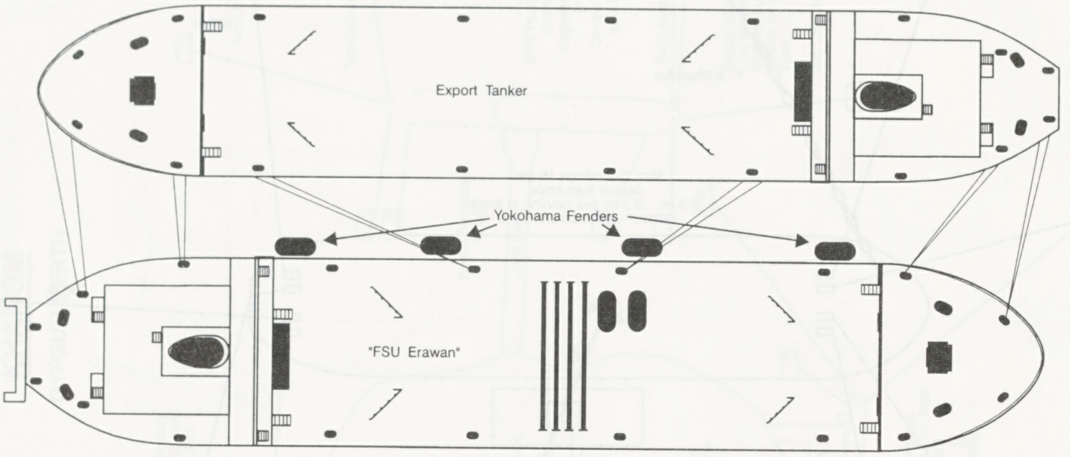

96° E
98° E
100° E
102° E
104° E
106° E
108° E
6° N
8° N
10° N
12° N
ANDAMAN SEA
MYANMAR
THAILAND
Bangkok
Koh Sichang
Sriracha
Laem Chabang
Sattahip
Map Ta Phut
Phuket
Krabi
Kantang
Khanom
Erawan
Songkhla
MALAYSIA
GULF OF THAILAND
Sihanoukville
CAMBODIA
VIETNAM
Ho Chi Minh

THAILAND


BANGKOK
Reserved Area
Fuel Oil Organization
Container Terminal
East Quay
11.50 m
EBB TIDE
11.50 m
Turning Area 300.00m For Freighters
6.50 m
3.50 m
4.50 m
4.05 m
Cargo Shed 78 x 340
11.0 m
Open Storage
Dolphin
CHOW PHRAYA RIVER
CUSTOM CONTROL
Reserved Area
0 100 200 300 400 500 m
APPROX SCALE
Cargo Shed 78 x 260
West Quay
Transit Shed
Cargo Shed 78 x 160m
11.00 m
11.50m
Boat Harbour
Turning Area 300m for Freighters
11.00 MSL
Commercial Buildings
Custom Building
In-Transit Warehouse
Shell Co. Ltd.
Boundary of area of the Port Authority of Thailand (P.A.T.)
FLOOD TIDE
N
Water Level
HHW + 1.86m
MHW + 0.93m
MSL ± 0.00m
MLW - 0.45m
LLW - 1.63m


ERAWAN
Kaphong, Surat and Platong Oil fields
Northern Approach Lane
Northerly reporting point
Lat. 9° 20' N.
Long. 101° 35' E.
SWH
SWK
SWG
SWB
Satun Field
SWA
SWC
SCPP
SWD
EWQ
EWR
EWT
EWJ
EWL
EWI
EWH
SWF
SPM 1
EWP
EWD
EWG
EWM
SPM 2
Erawan Field
SWE
EWB
SWJ
SWI
EWF
ERP
EWN
EWA
Tanker Anchorage
EWE
EWC
Export Tanker Anchorage
EWO
EWK
BWC
Jakrawan Field
JWA
FWB
FWPP
FWA
Funan Field
FWF
FWE
Baanpot Field
BWB
BWA
FWC
FWD
Tanker Approach (Northern Lane)
Northern Approach Lane
Southerly reporting point
Lat. 9° 09' N
Long. 101° 35' E.
Tanker Approach (Southern Lane)
Southern Approach Lane
Westerly reporting point
Lat. 8° 45' N.
Long. 101° 28' E.
Southern Approach Lane
Easterly reporting point
Lat. 8° 45' N.
Long. 101° 33' E.
0 5,000 10,000
Scale in Metres
9° 20' N
9° 10' N
9° 00' N
8° 50' N
8° 40' N
101° 15' E
101° 25' E
101° 35' E

ERAWAN


Export Tanker
Yokohama Fenders
"FSU Erawan"

Forward Moorings:
5 Headlines (Soft Ropes)
2 Backsprings (Wire with Tailends)

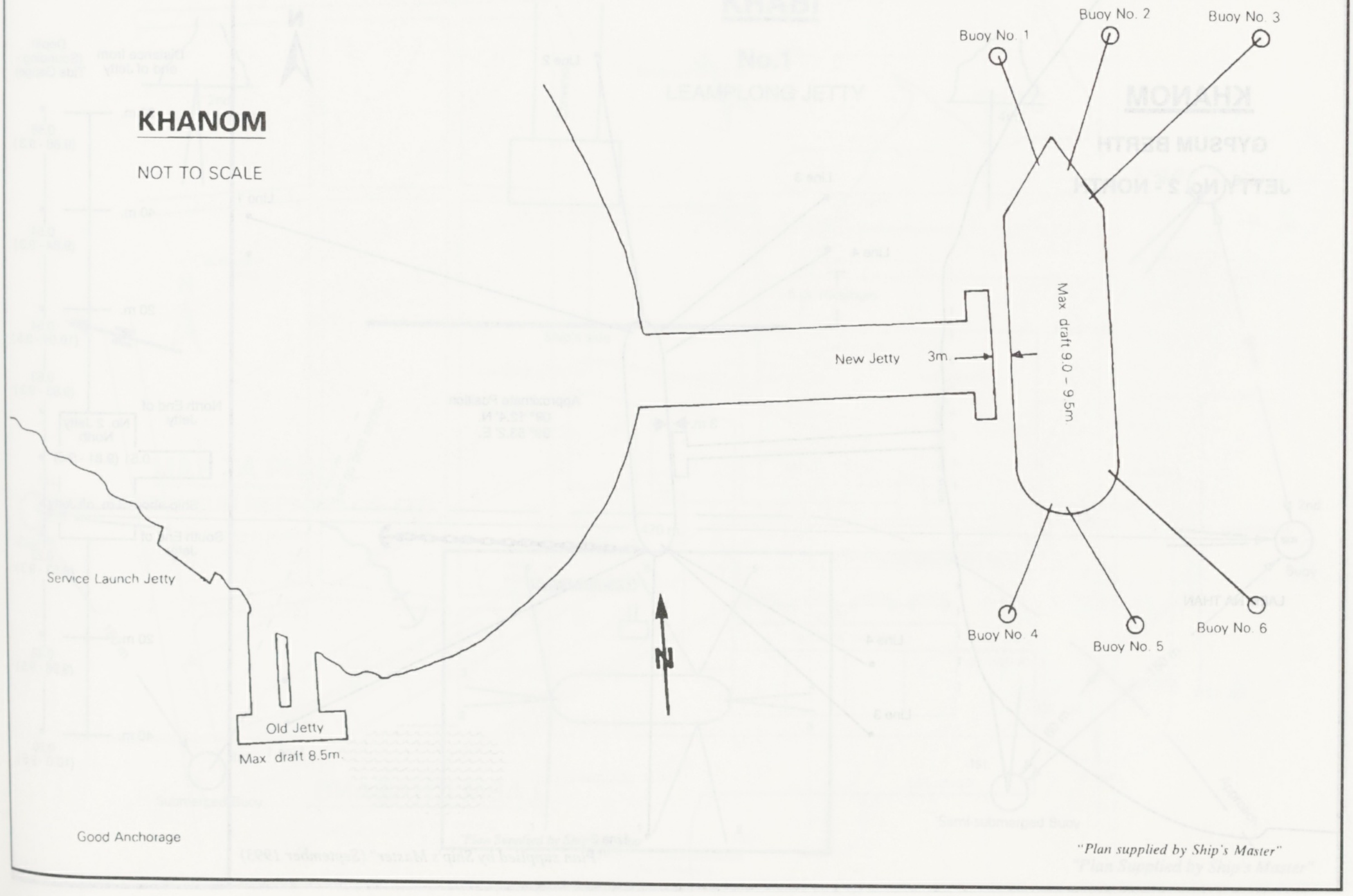
Note: All ropes and wires issued from the Export Tanker.

Aft Moorings:
4 Sternlines (Soft ropes)
2 Backsprings (Wire With Nylon Tails)

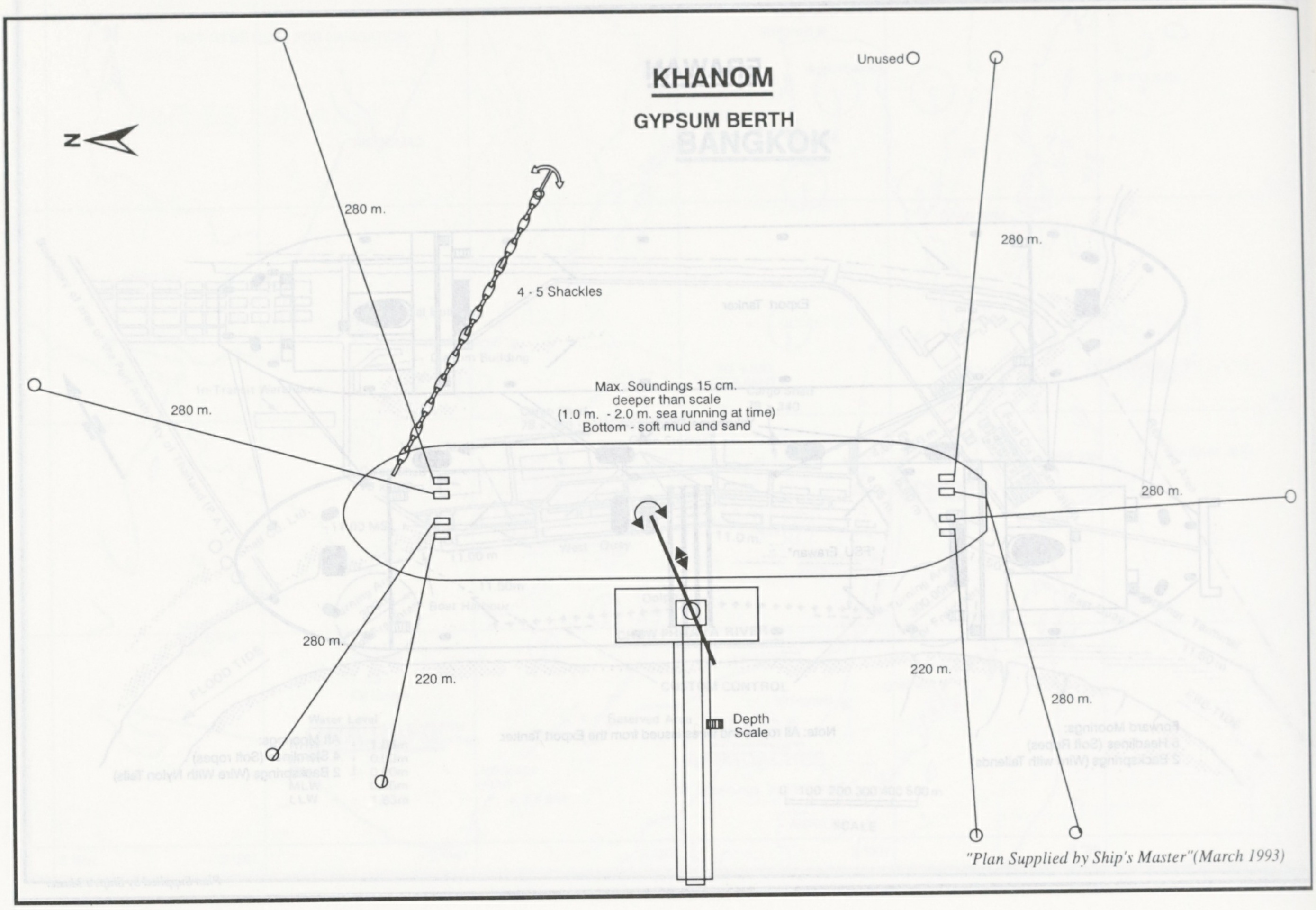
Plan Supplied by Ships's Master

KHANOM

NOT TO SCALE


Buoy No. 1
Buoy No. 2
Buoy No. 3
Max draft 9.0 – 9.5m
New Jetty
3m
Service Launch Jetty
N
Buoy No. 4
Buoy No. 5
Buoy No. 6
Old Jetty
Max draft 8.5m
Good Anchorage

"Plan supplied by Ship's Master"

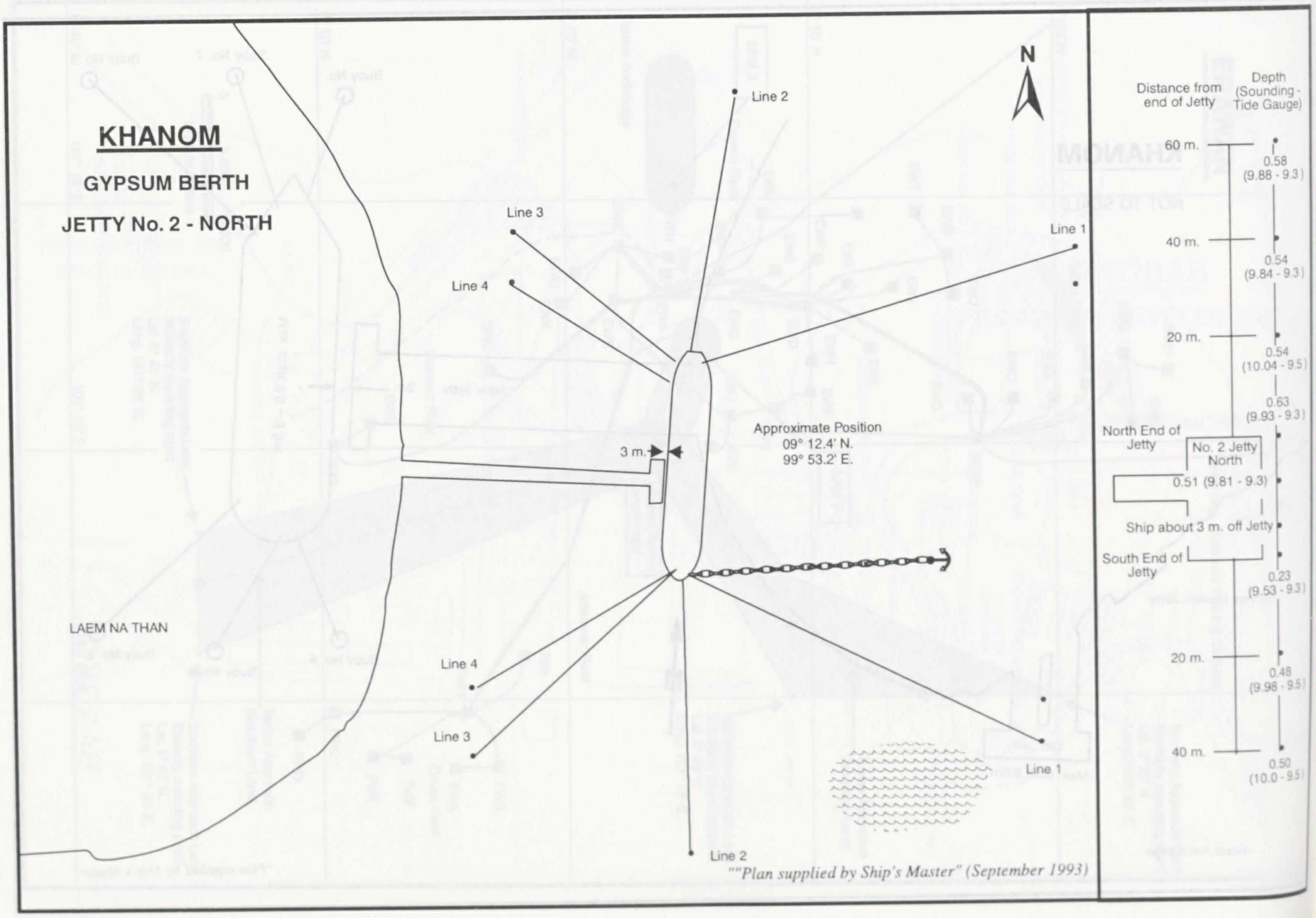


KHANOM

GYPSUM BERTH

N
Unused
280 m.
280 m.
4 - 5 Shackles
280 m.
Max. Soundings 15 cm.
deeper than scale
(1.0 m. - 2.0 m. sea running at time)
Bottom - soft mud and sand
280 m.
280 m.
220 m.
220 m.
280 m.
Depth
Scale

"Plan Supplied by Ship's Master"(March 1993)



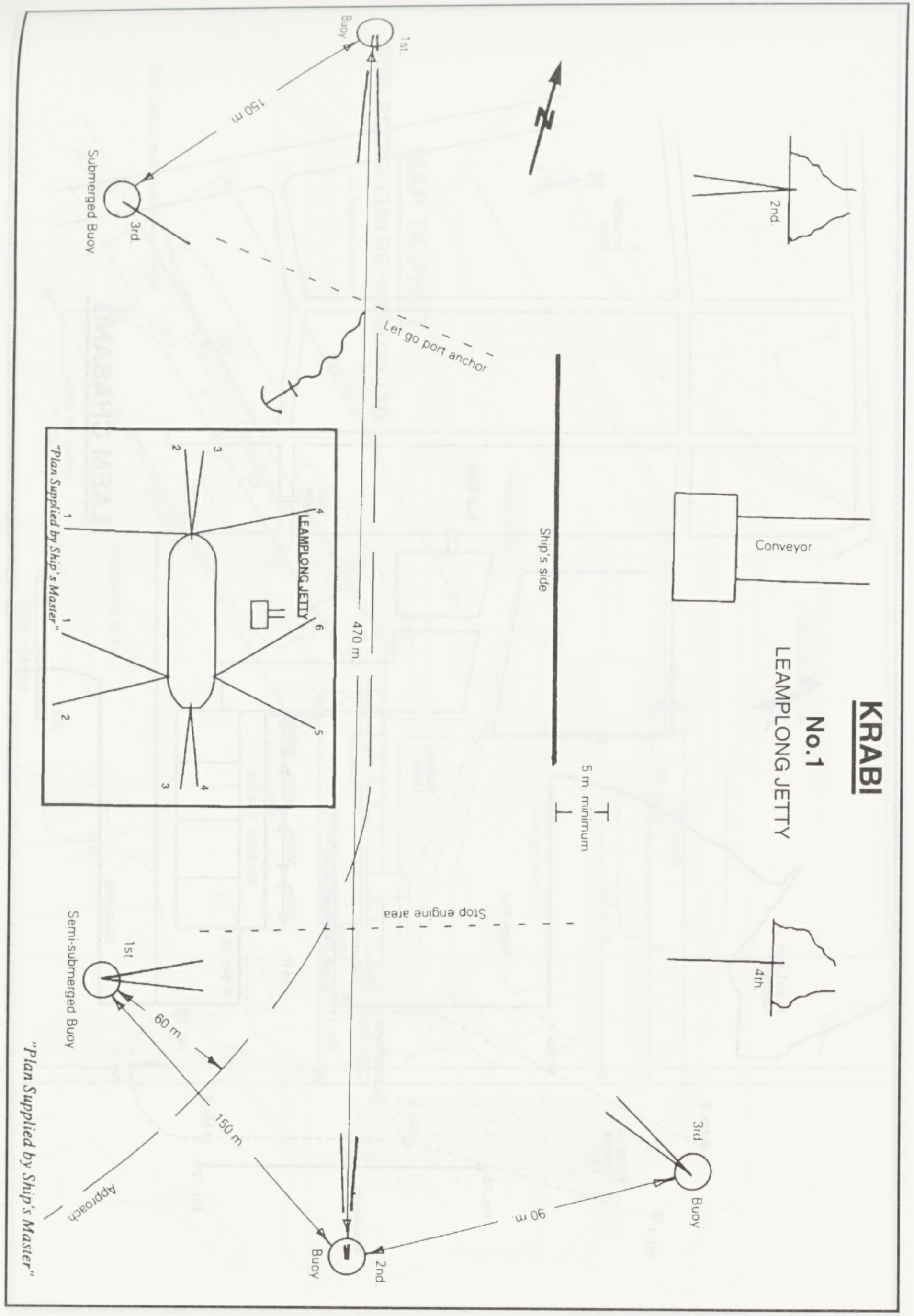
KHANOM

GYPSUM BERTH

JETTY No. 2 - NORTH

N
Line 2
Line 3
Line 1
Line 4
3 m.
Approximate Position
09° 12.4' N.
99° 53.2' E.
LAEM NA THAN
Line 4
Line 3
Line 1
Line 2
Distance from
end of Jetty
Depth
(Sounding -
Tide Gauge)
60 m.
0.58
(9.88 - 9.3)
40 m.
0.54
(9.84 - 9.3)
20 m.
0.54
(10.04 - 9.5)
0.63
(9.93 - 9.3)
North End of
Jetty
No. 2 Jetty
North
0.51 (9.81 - 9.3)
Ship about 3 m. off Jetty
South End of
Jetty
0.23
(9.53 - 9.3)
20 m.
0.48
(9.98 - 9.5)
40 m.
0.50
(10.0 - 9.5)

""Plan supplied by Ship's Master" (September 1993)



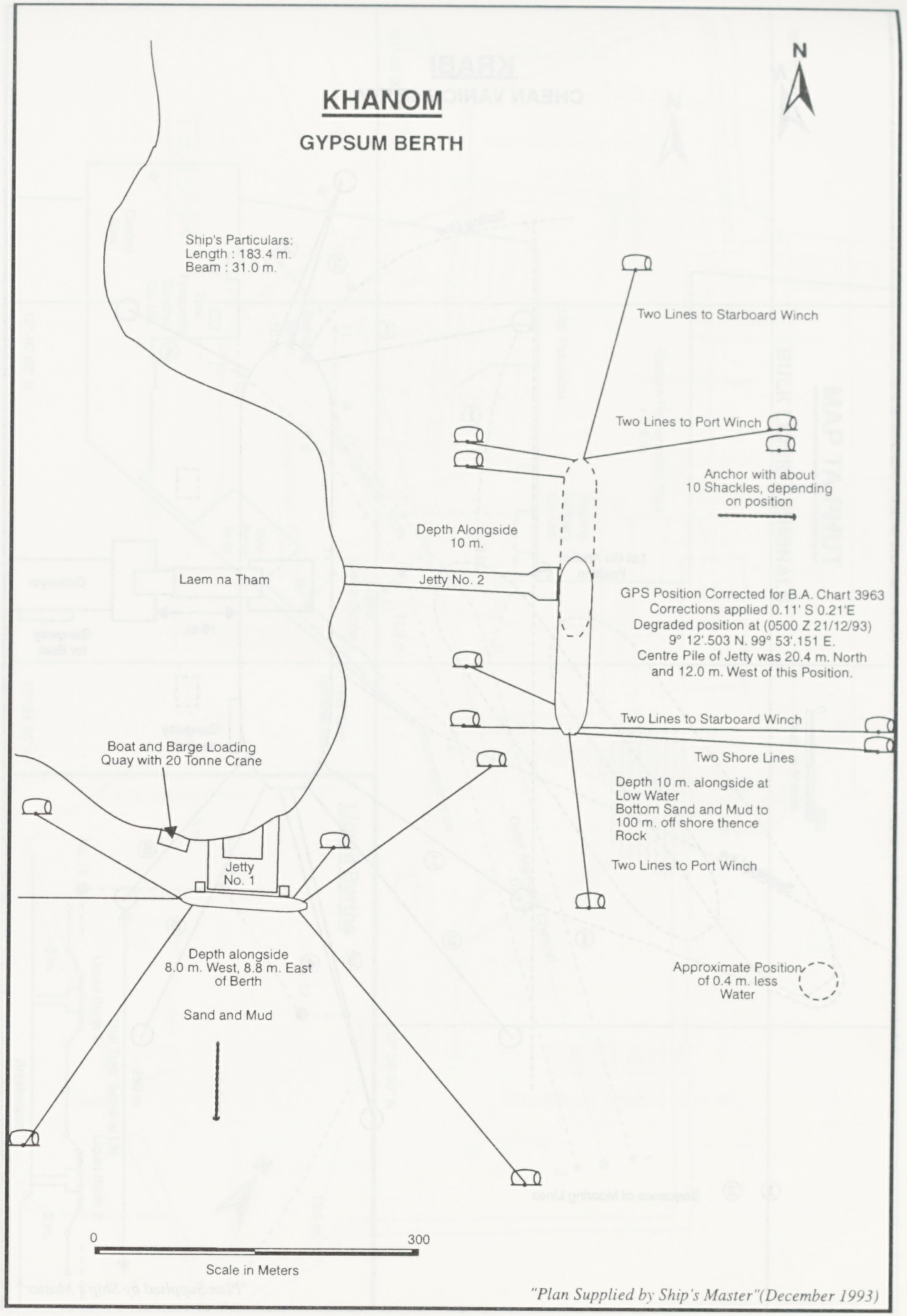
KRABI

No.1
LEAMPLONG JETTY

N
1st.
Buoy
150 m
Submerged Buoy
3rd
Let go port anchor
2nd.
Conveyor
Ship's side
470 m
5 m minimum
Stop engine area
4th
LEAMPLONG JETTY
1
2
3
4
5
6
1st.
Semi-submerged Buoy
60 m
150 m
Approach
90 m
3rd
Buoy
2nd.
Buoy

"Plan Supplied by Ship's Master"

"Plan Supplied by Ship's Master"

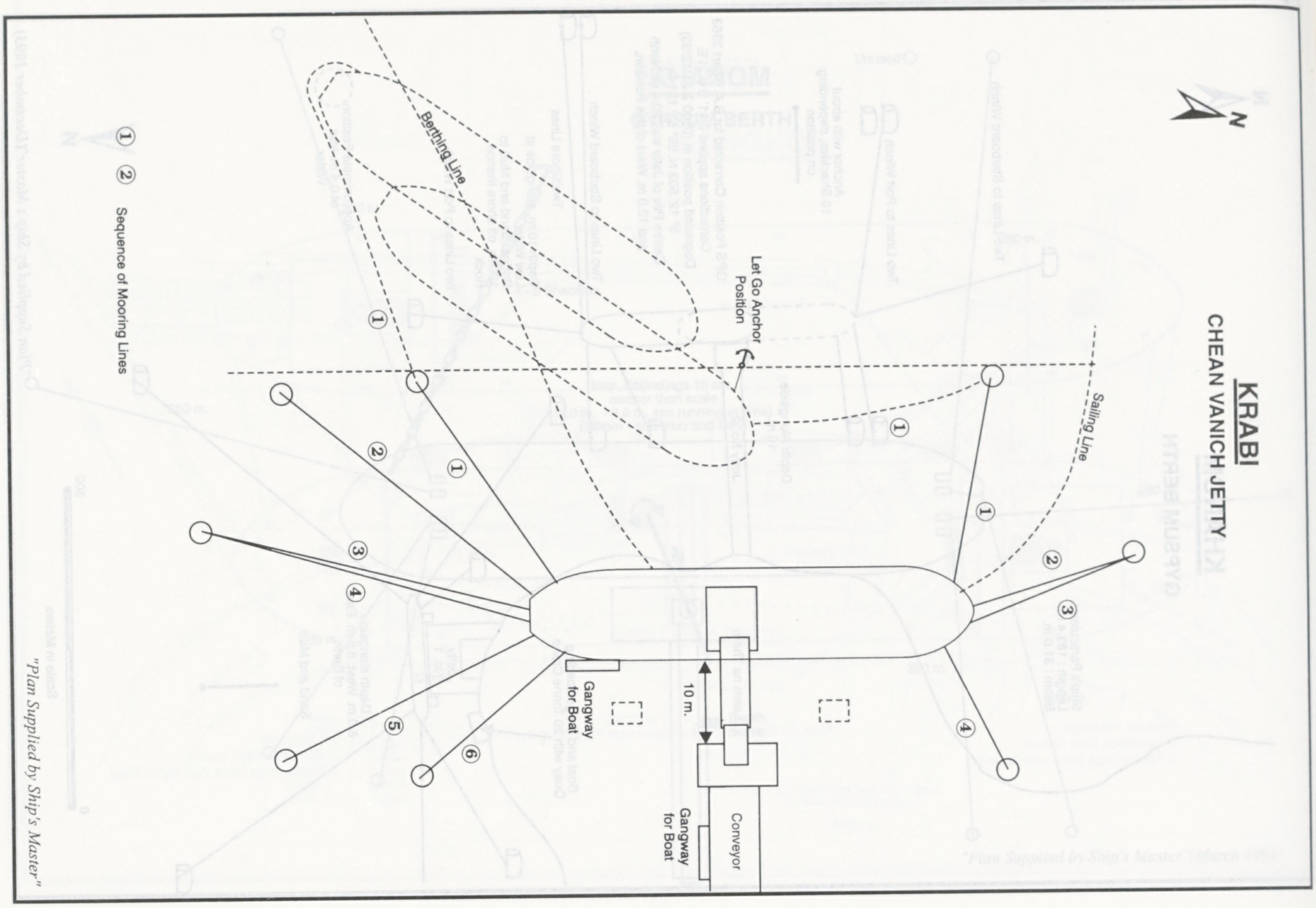


KHANOM

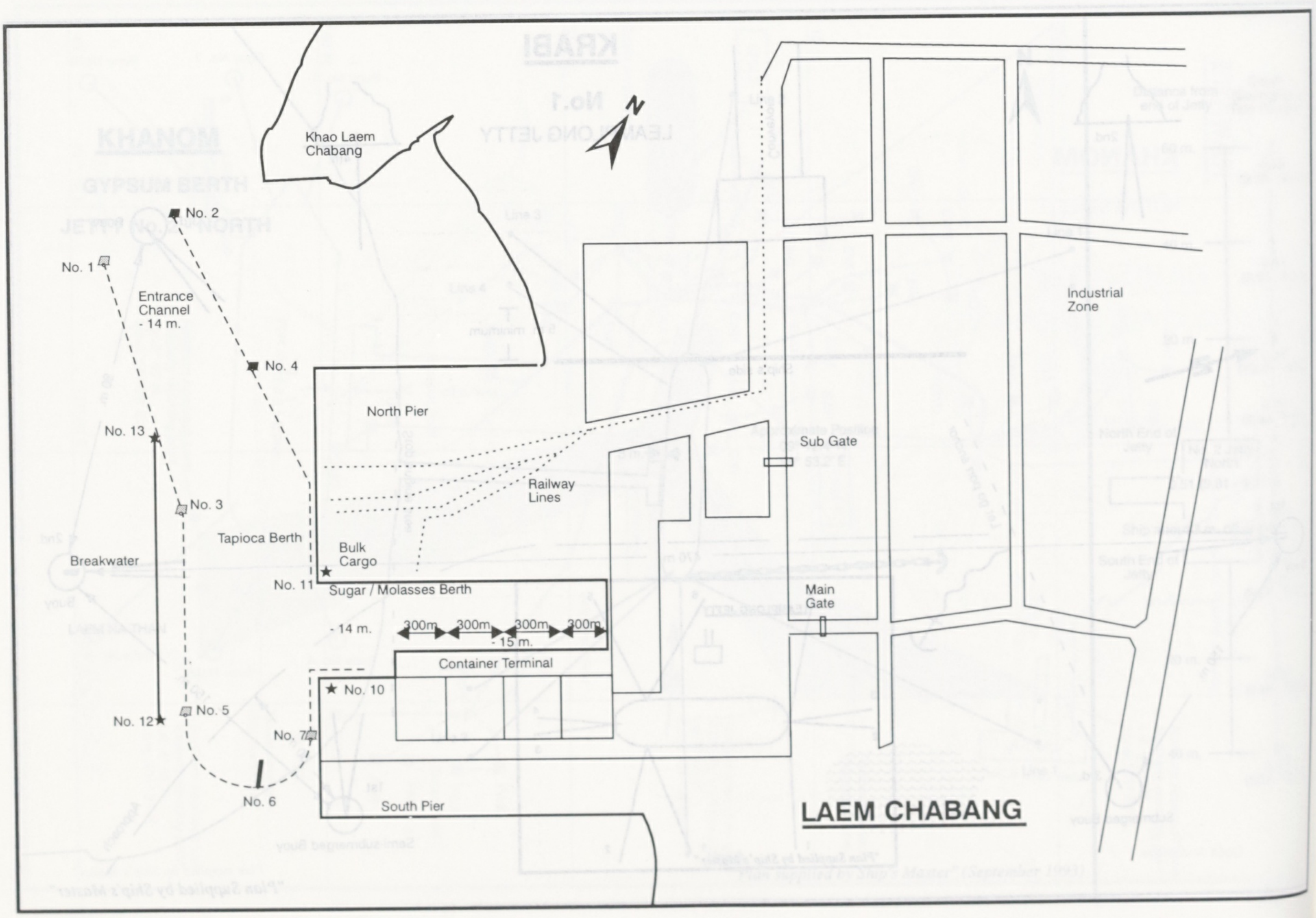
GYPSUM BERTH

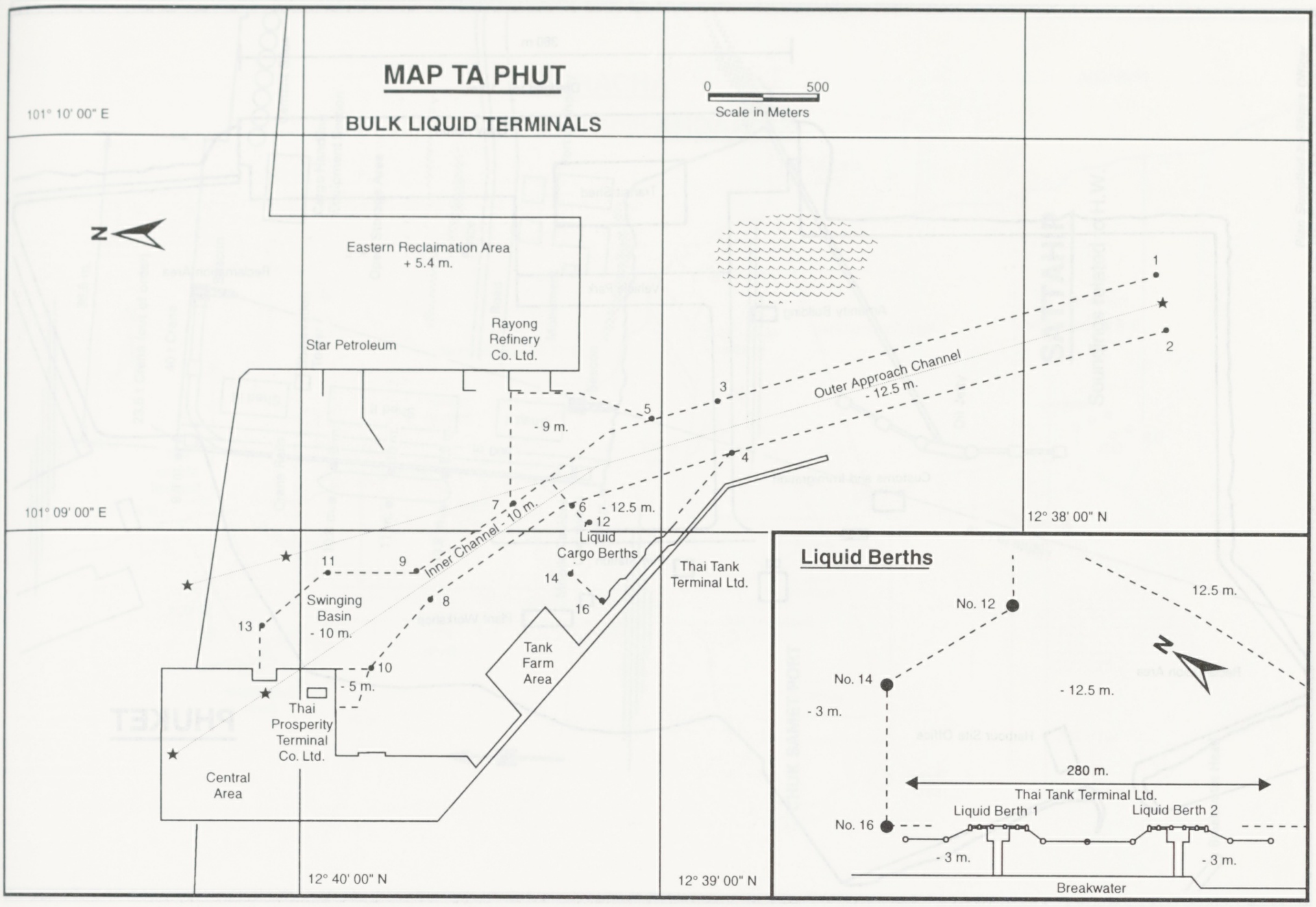
N
Ship's Particulars:
Length : 183.4 m.
Beam : 31.0 m.
Two Lines to Starboard Winch
Two Lines to Port Winch
Anchor with about 10 Shackles, depending on position
Depth Alongside 10 m.
Laem na Tham
Jetty No. 2
GPS Position Corrected for B.A. Chart 3963
Corrections applied 0.11' S 0.21'E
Degraded position at (0500 Z 21/12/93)
9° 12'.503 N. 99° 53'.151 E.
Centre Pile of Jetty was 20.4 m. North and 12.0 m. West of this Position.
Two Lines to Starboard Winch
Two Shore Lines
Depth 10 m. alongside at Low Water
Bottom Sand and Mud to 100 m. off shore thence Rock
Two Lines to Port Winch
Boat and Barge Loading Quay with 20 Tonne Crane
Jetty No. 1
Depth alongside 8.0 m. West, 8.8 m. East of Berth
Sand and Mud
Approximate Position of 0.4 m. less Water
0
300
Scale in Meters

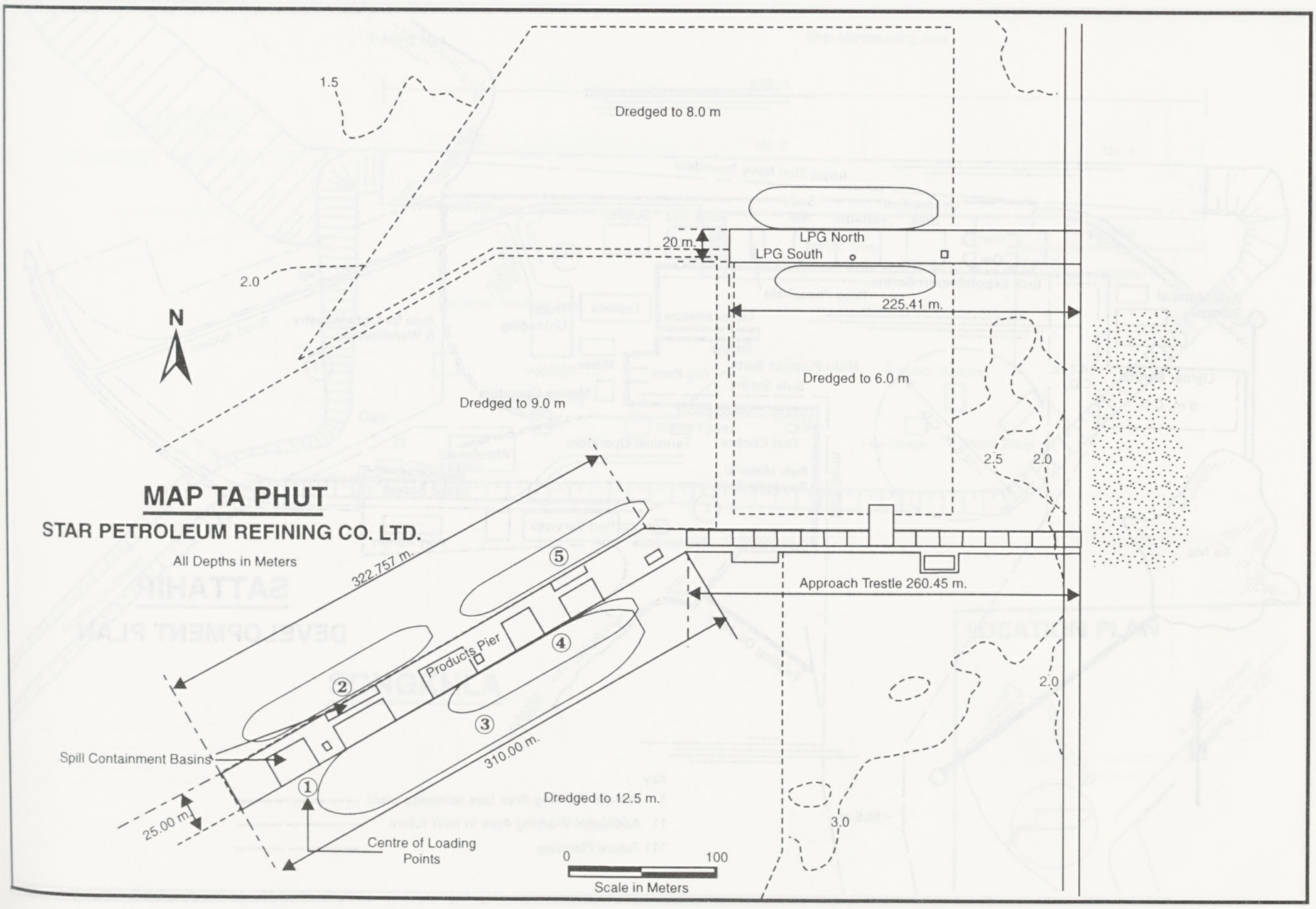
"Plan Supplied by Ship's Master"(December 1993)

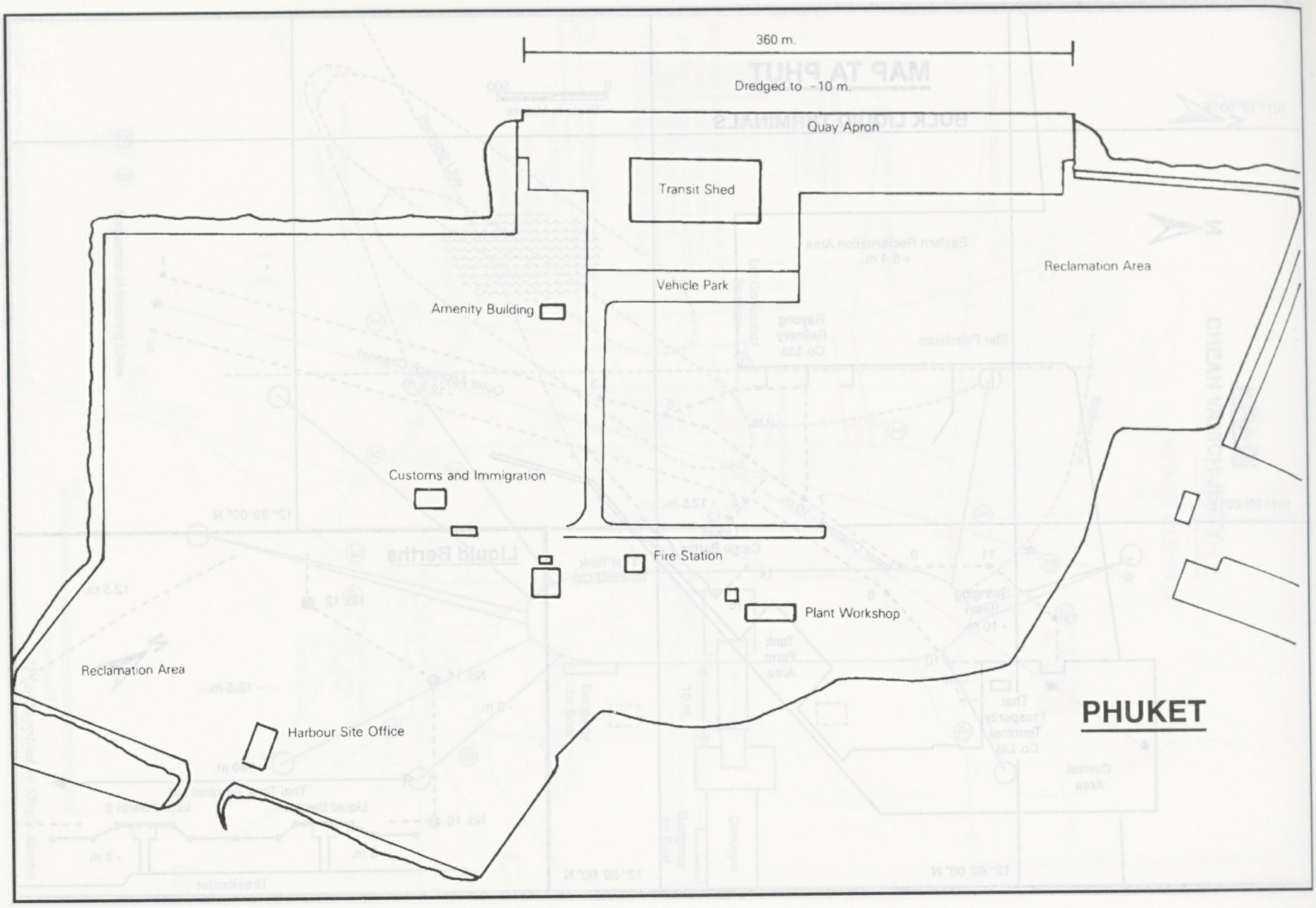

KRABI
CHEAN VANICH JETTY
Sailing Line
Let Go Anchor Position
Berthing Line
① ② Sequence of Mooring Lines
①
②
③
④
⑤
⑥
10 m.
Gangway for Boat
Conveyor
Gangway for Boat

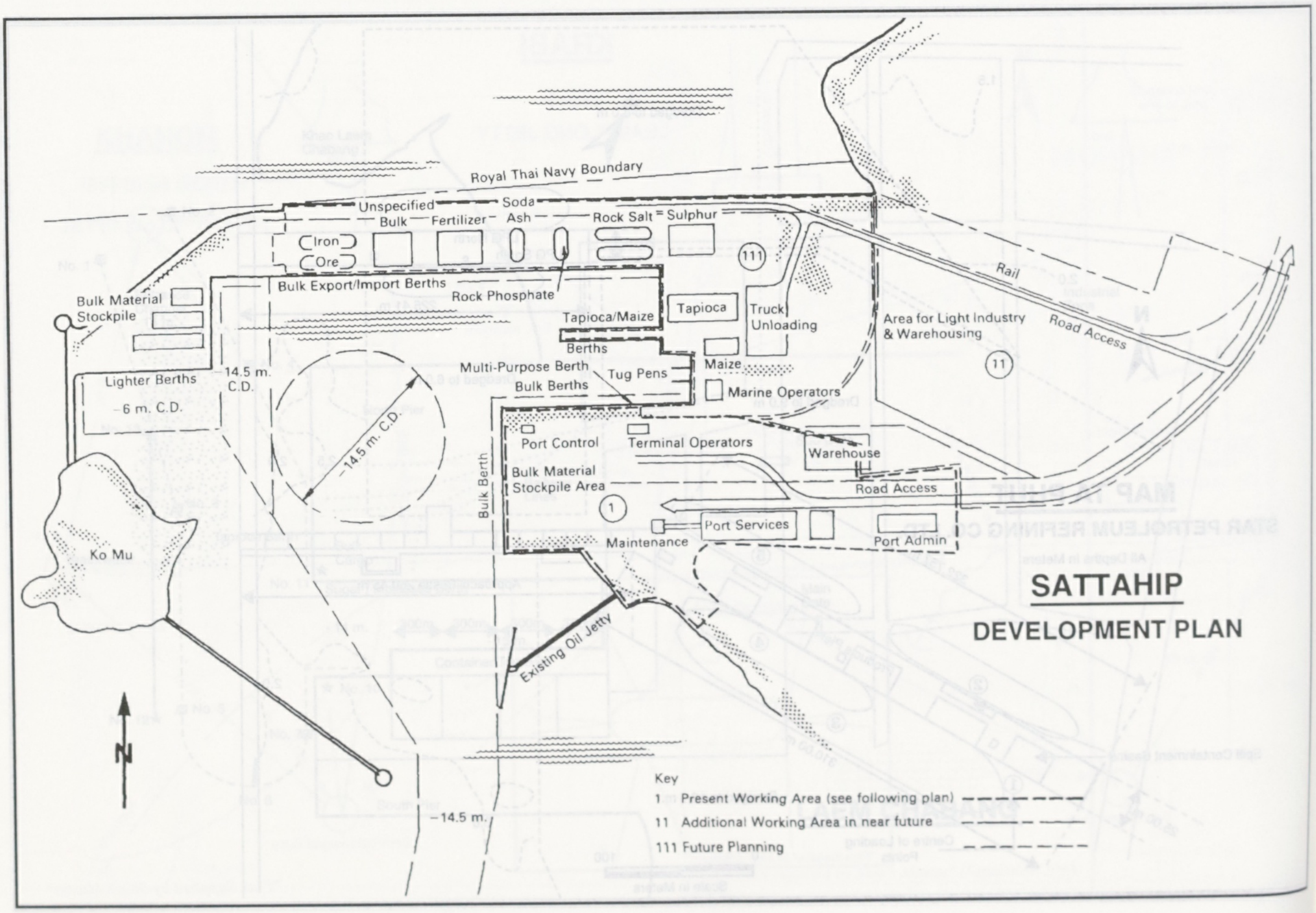
"Plan Supplied by Ship's Master"

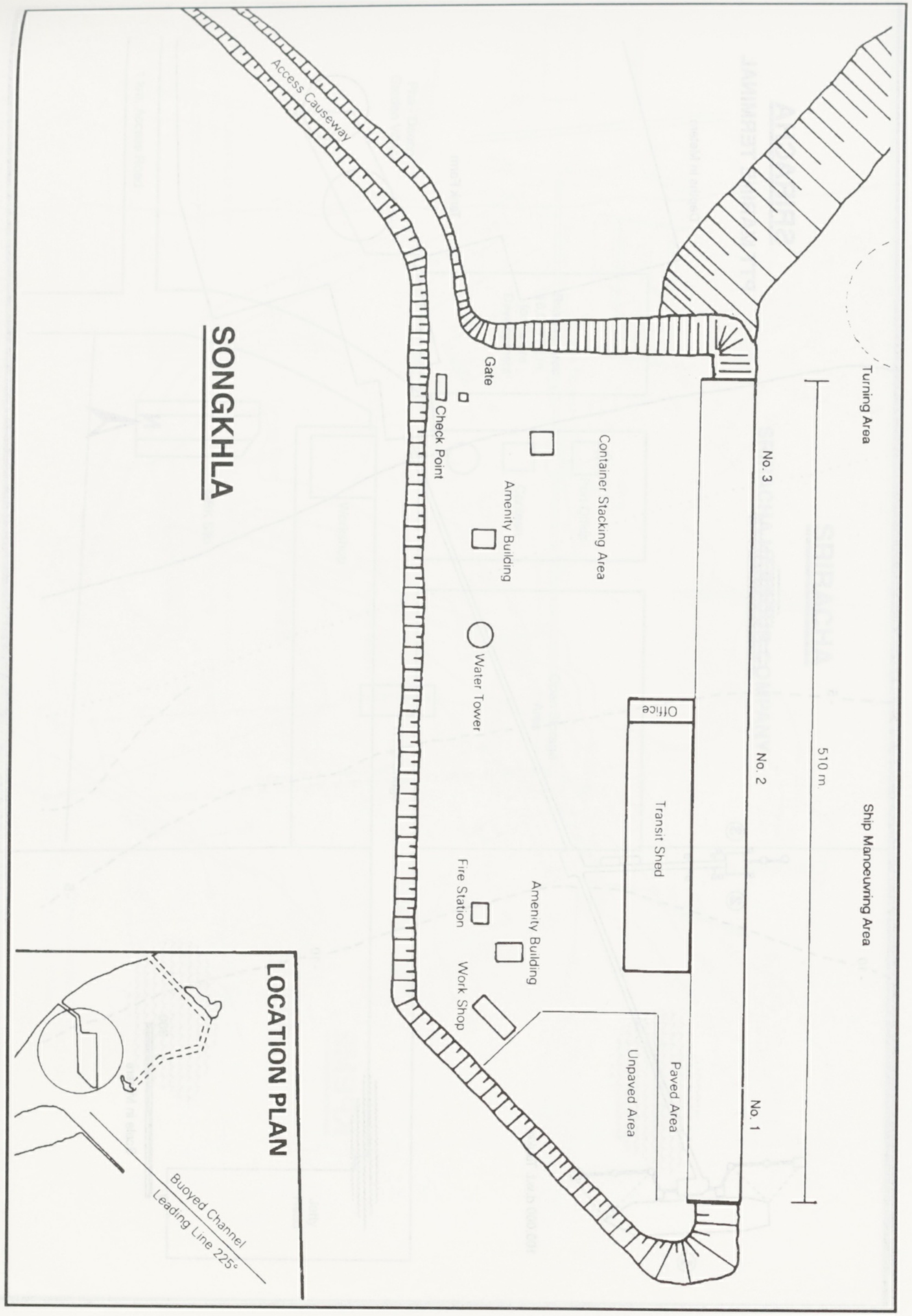

LAEM CHABANG
Khao Laem Chabang
No. 1
No. 2
Entrance Channel - 14 m.
No. 4
North Pier
No. 13
No. 3
Railway Lines
Tapioca Berth
Breakwater
Bulk Cargo
No. 11
Sugar / Molasses Berth
- 14 m.
300m
300m
300m
300m
- 15 m.
Container Terminal
No. 10
No. 12
No. 5
No. 7
No. 6
South Pier
Sub Gate
Main Gate
Industrial Zone


MAP TA PHUT
BULK LIQUID TERMINALS
0
500
Scale in Meters
101° 10' 00" E
101° 09' 00" E
12° 40' 00" N
12° 39' 00" N
12° 38' 00" N
N
Eastern Reclaimation Area
+ 5.4 m.
Star Petroleum
Rayong Refinery Co. Ltd.
Outer Approach Channel
- 12.5 m.
Inner Channel - 10 m.
- 9 m.
- 12.5 m.
Liquid Cargo Berths
Thai Tank Terminal Ltd.
Swinging Basin
- 10 m.
- 5 m.
Tank Farm Area
Thai Prosperity Terminal Co. Ltd.
Central Area
1
2
3
4
5
6
7
8
9
10
11
12
13
14
16
Liquid Berths
No. 12
No. 14
No. 16
12.5 m.
- 12.5 m.
- 3 m.
280 m.
Thai Tank Terminal Ltd.
Liquid Berth 1
Liquid Berth 2
- 3 m.
- 3 m.
Breakwater


MAP TA PHUT
STAR PETROLEUM REFINING CO. LTD.
All Depths in Meters
N
1.5
2.0
Dredged to 8.0 m
20 m.
LPG North
LPG South
225.41 m.
Dredged to 6.0 m
Dredged to 9.0 m
2.5
2.0
322.757 m.
⑤
④
③
②
①
Products Pier
Spill Containment Basins
310.00 m.
25.00 m.
Centre of Loading Points
Approach Trestle 260.45 m.
Dredged to 12.5 m.
2.0
3.0
0
100
Scale in Meters

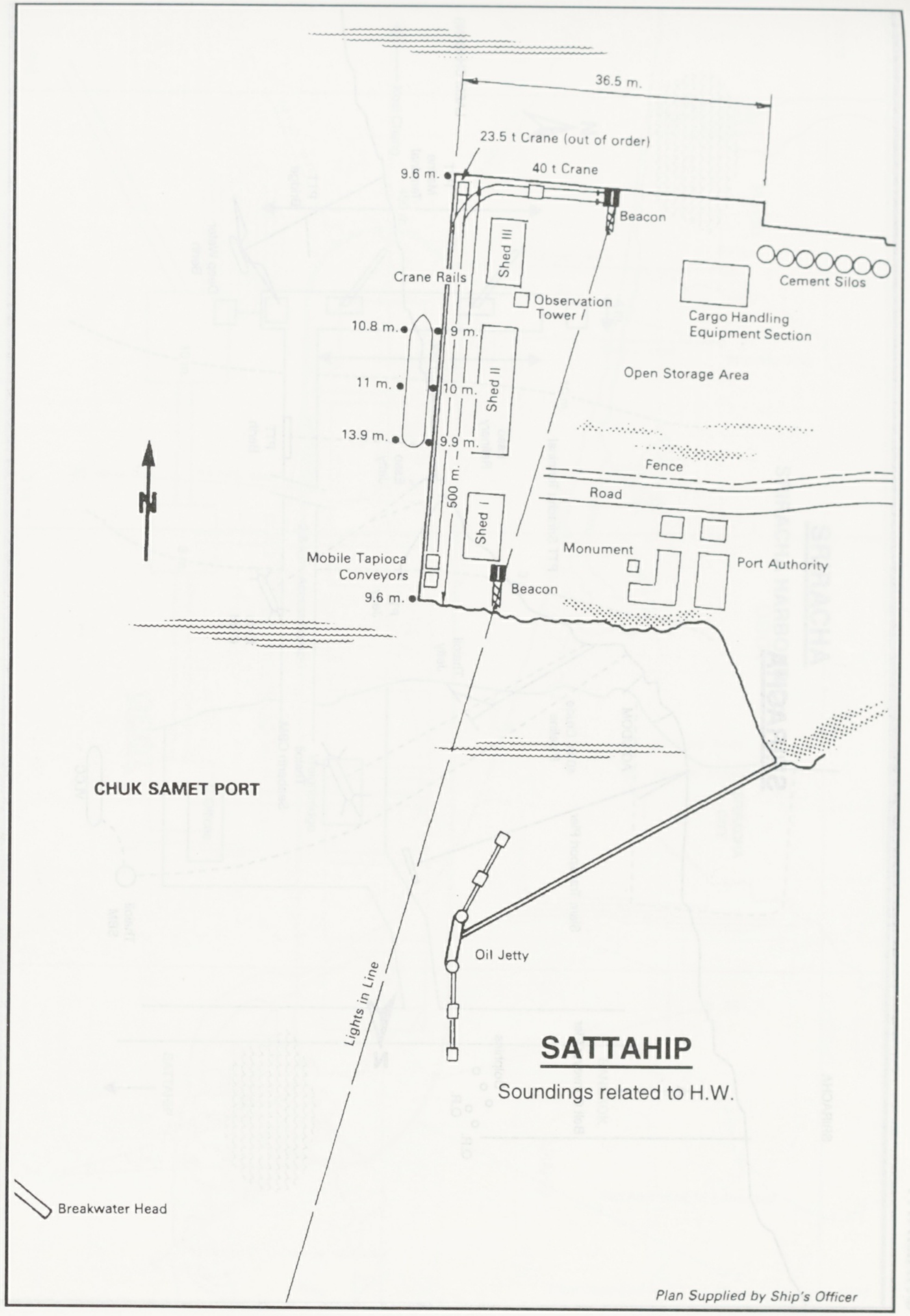

360 m.
Dredged to -10 m.
Quay Apron
Transit Shed
Vehicle Park
Reclamation Area
Amenity Building
Customs and Immigration
Fire Station
Plant Workshop
Reclamation Area
Harbour Site Office
PHUKET


Royal Thai Navy Boundary
Unspecified Bulk
Fertilizer
Soda Ash
Rock Salt
Sulphur
Iron
Ore
111
Bulk Export/Import Berths
Rock Phosphate
Bulk Material Stockpile
Tapioca/Maize
Berths
Tapioca
Truck Unloading
Area for Light Industry & Warehousing
Rail
Road Access
11
Lighter Berths
-6 m. C.D.
14.5 m. C.D.
Multi-Purpose Berth
Bulk Berths
Tug Pens
Maize
Marine Operators
-14.5 m. C.D.
Port Control
Terminal Operators
Warehouse
Bulk Material Stockpile Area
Bulk Berth
Road Access
1
Port Services
Maintenance
Port Admin
Ko Mu
Existing Oil Jetty
N
-14.5 m.
Key
1 Present Working Area (see following plan)
11 Additional Working Area in near future
111 Future Planning
SATTAHIP
DEVELOPMENT PLAN



SONGKHLA

Access Causeway
Turning Area
Gate
Check Point
Container Stacking Area
Amenity Building
Water Tower
No. 3
No. 2
No. 1
510 m.
Office
Transit Shed
Ship Manoeuvring Area
Fire Station
Amenity Building
Work Shop
Paved Area
Unpaved Area
LOCATION PLAN
Buoyed Channel
Leading Line 225°

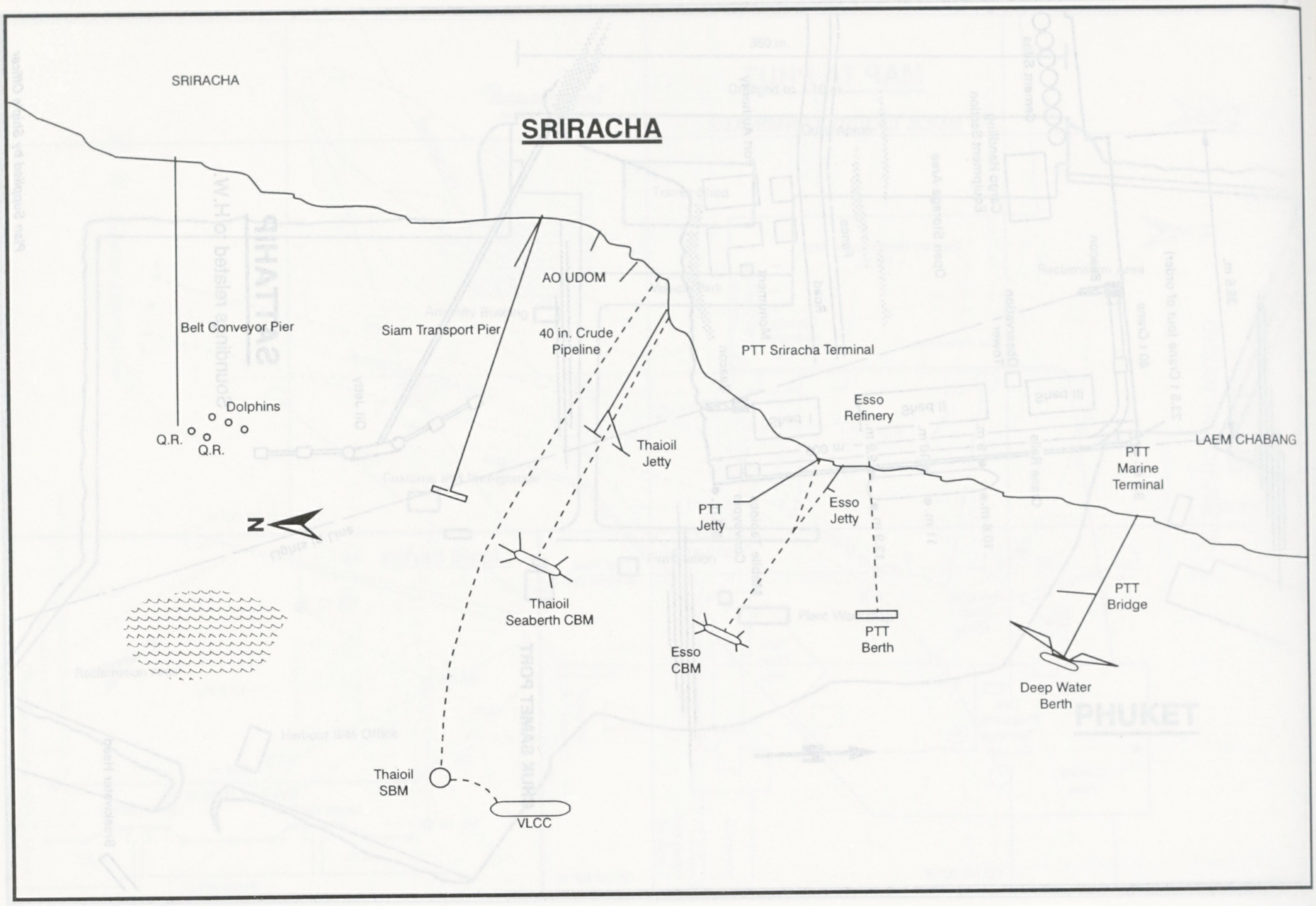


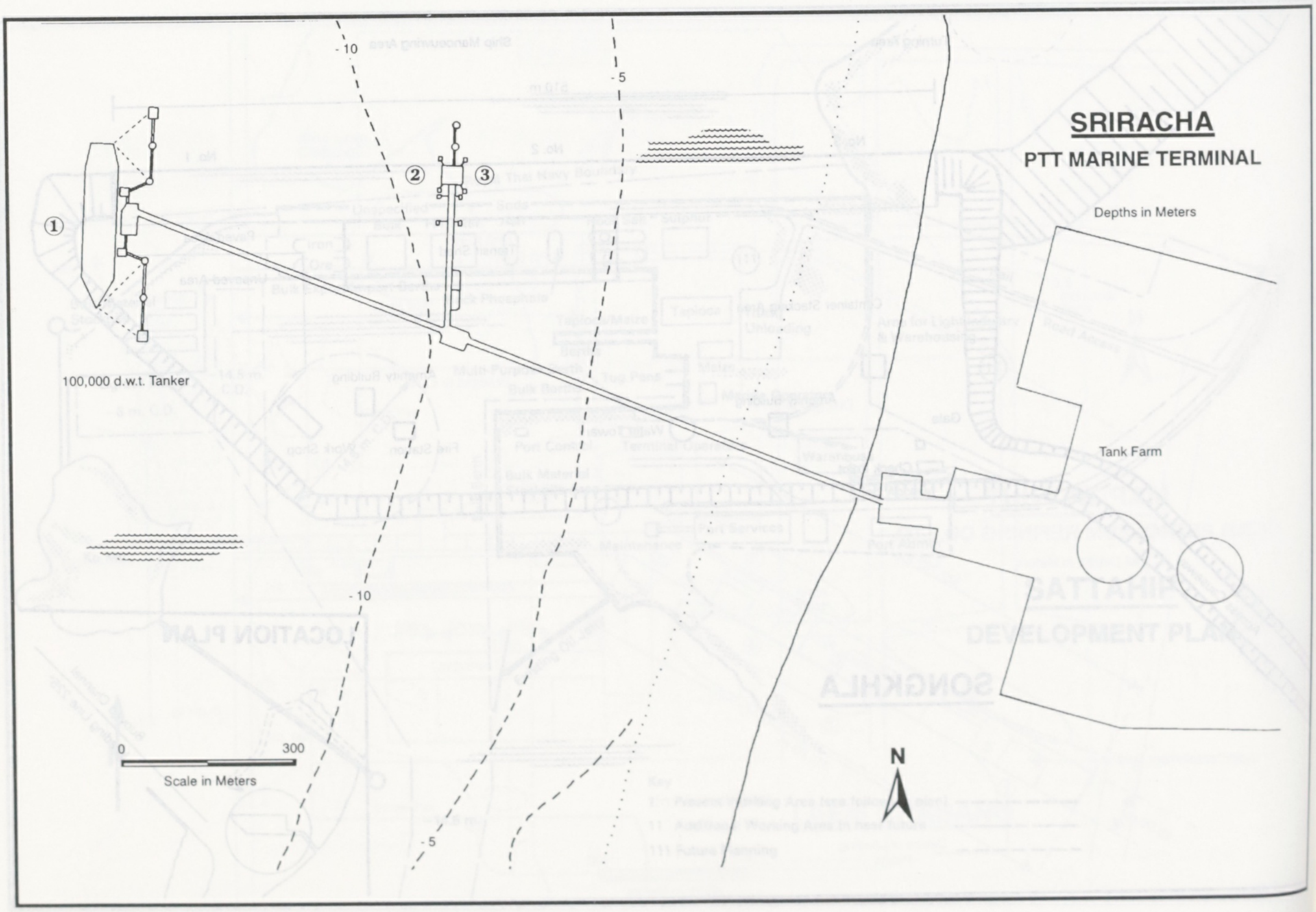
SATTAHIP

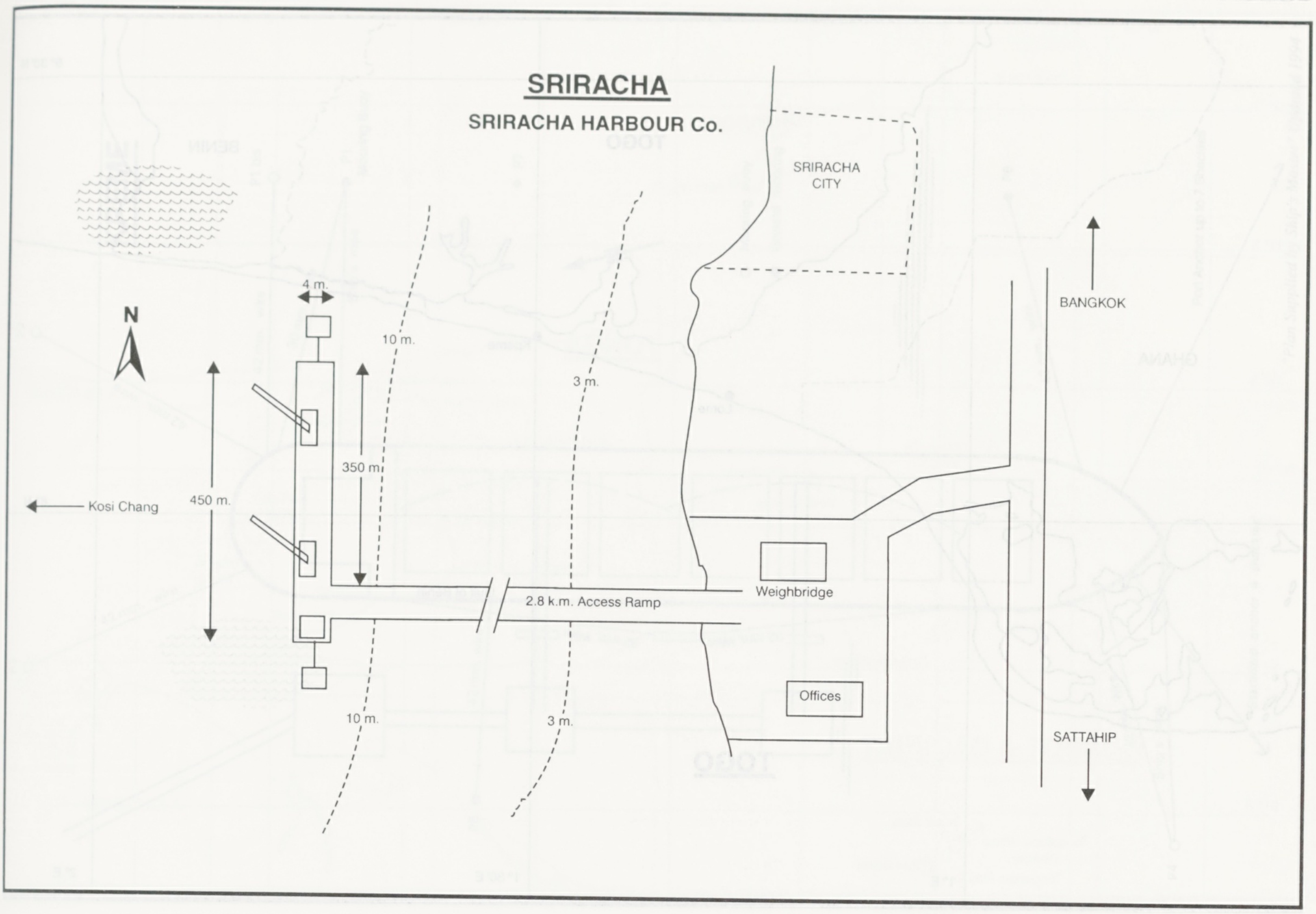
Soundings related to H.W.

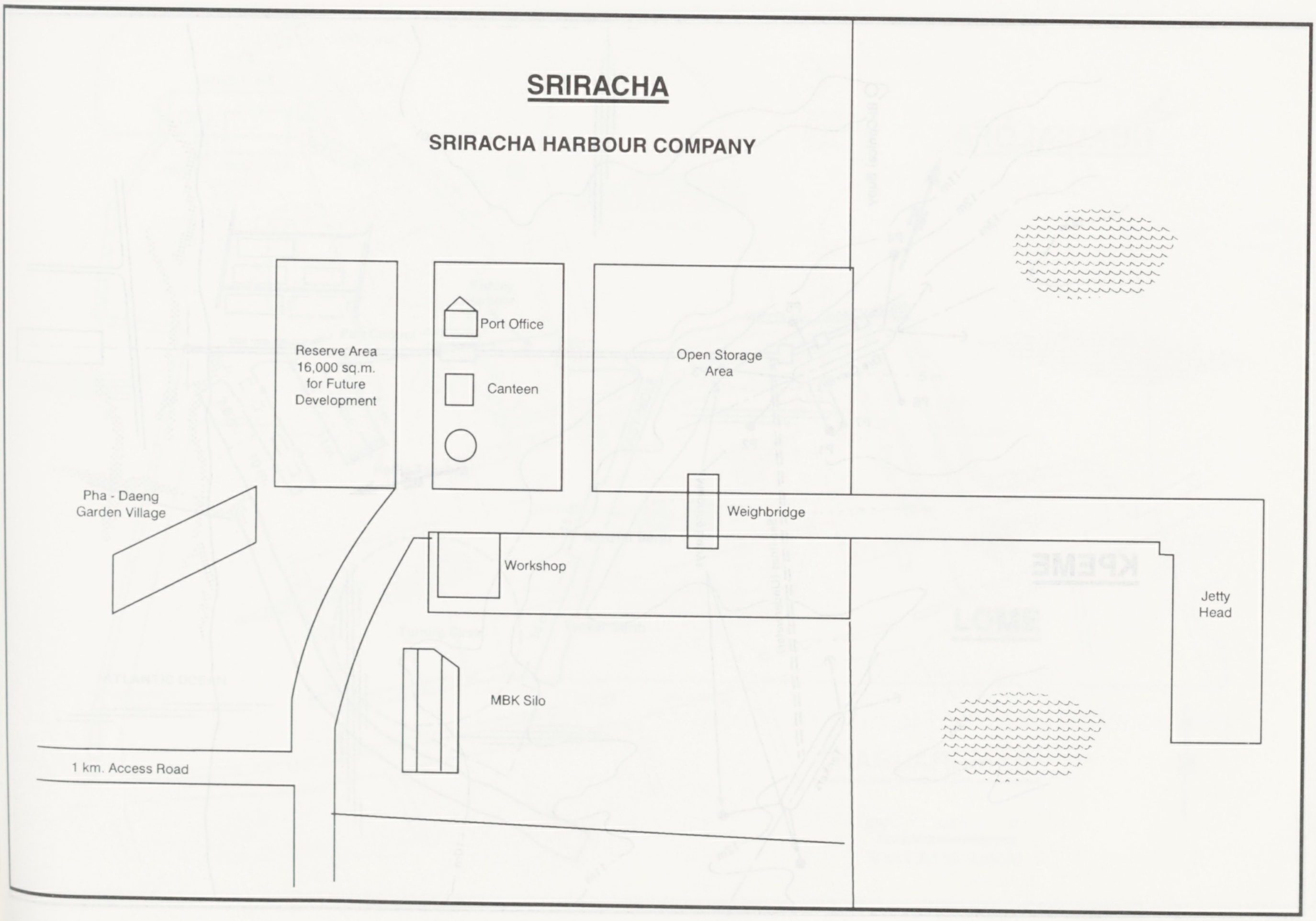
36.5 m.
23.5 t Crane (out of order)
40 t Crane
9.6 m.
Beacon
Shed III
Cement Silos
Crane Rails
Observation Tower
Cargo Handling Equipment Section
10.8 m.
9 m.
11 m.
10 m.
Shed II
Open Storage Area
13.9 m.
9.9 m.
Fence
Road
500 m.
Shed I
Monument
Port Authority
Mobile Tapioca Conveyors
9.6 m.
Beacon
N
CHUK SAMET PORT
Oil Jetty
Lights in Line
Breakwater Head

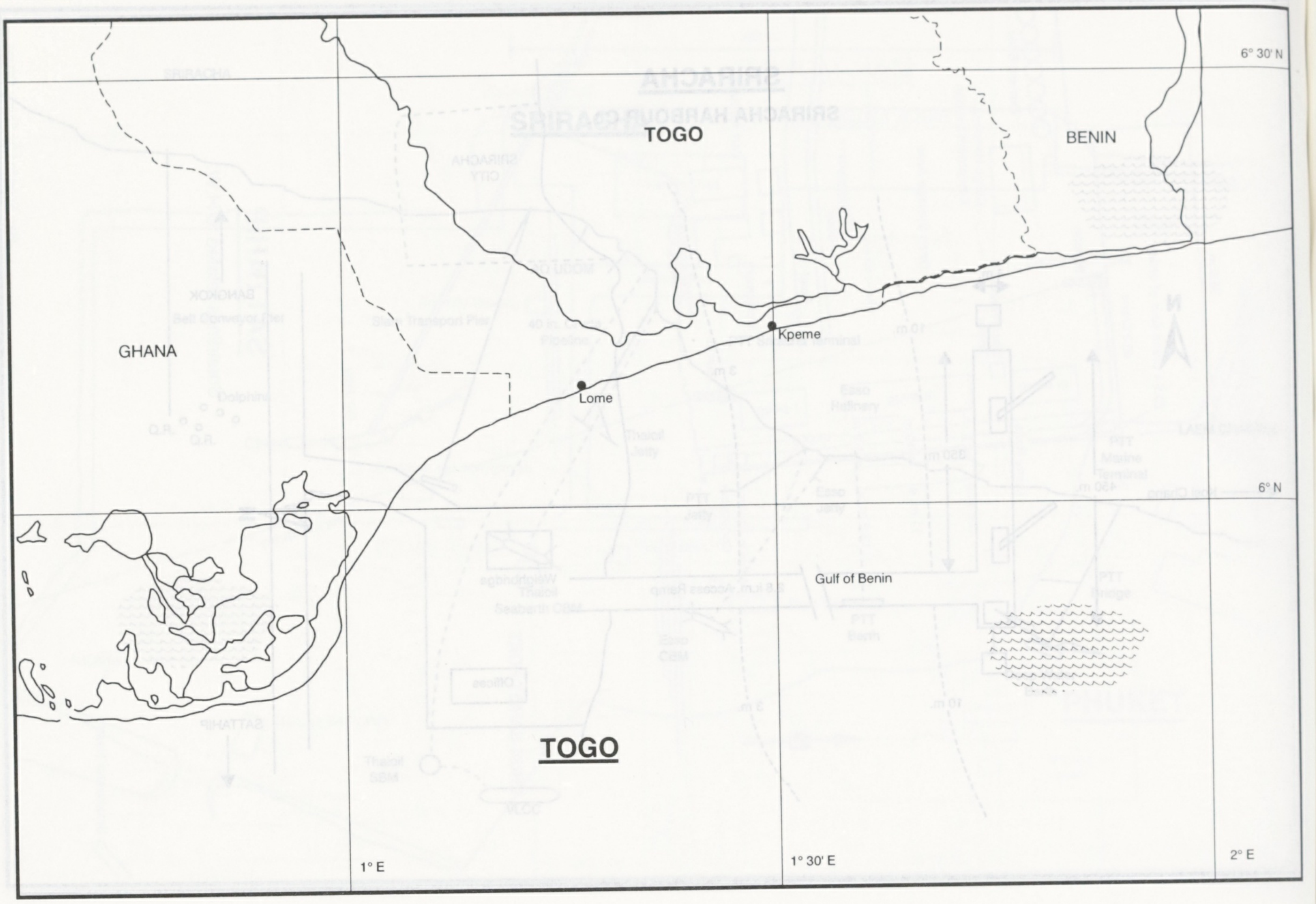
Plan Supplied by Ship's Officer

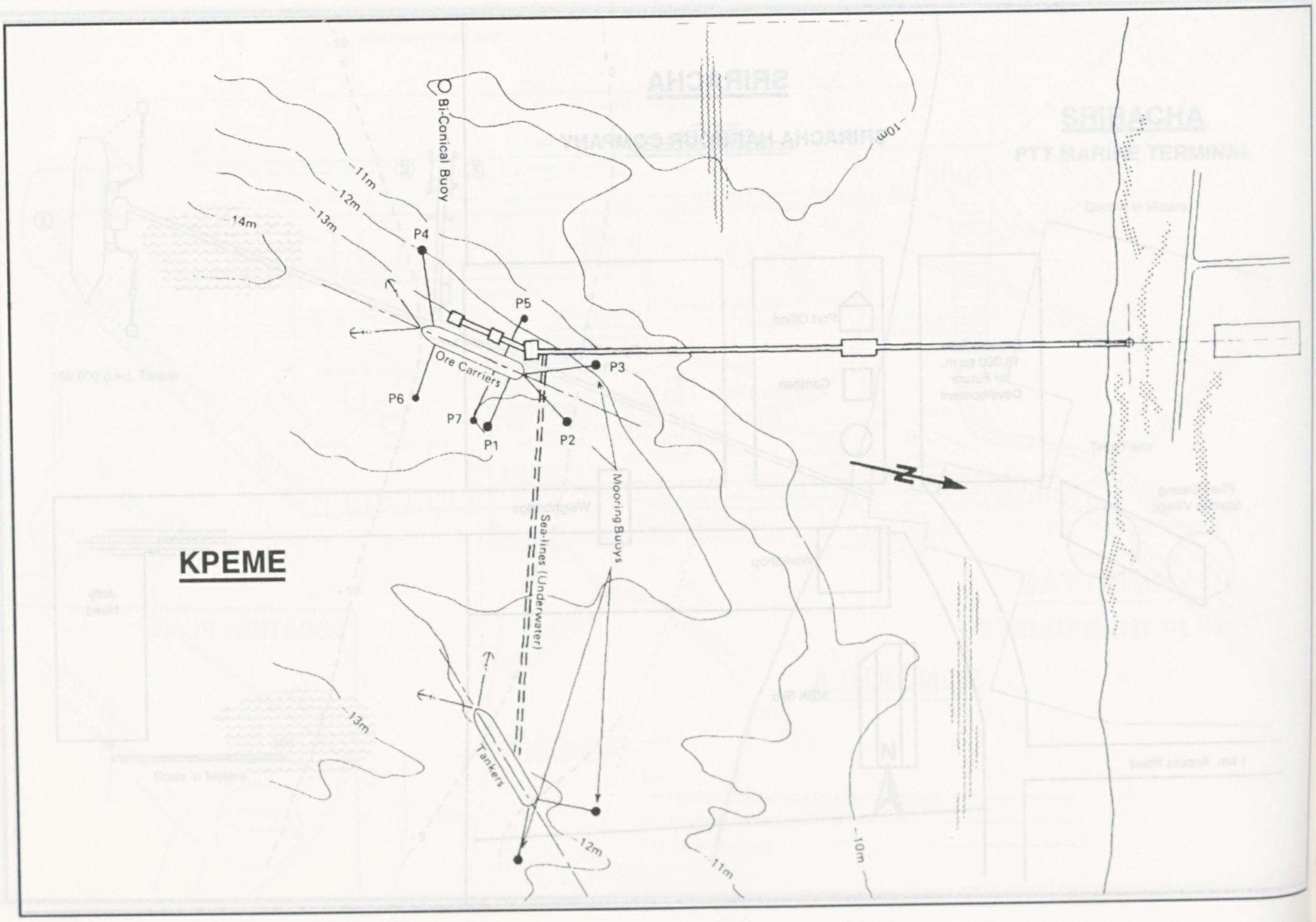

SRIRACHA
SRIRACHA
AO UDOM
Belt Conveyor Pier
Siam Transport Pier
40 in. Crude Pipeline
PTT Sriracha Terminal
Dolphins
Q.R.
Q.R.
Thaioil Jetty
Esso Refinery
LAEM CHABANG
PTT Marine Terminal
N
PTT Jetty
Esso Jetty
PTT Bridge
Thaioil Seaberth CBM
Esso CBM
PTT Berth
Deep Water Berth
Thaioil SBM
VLCC

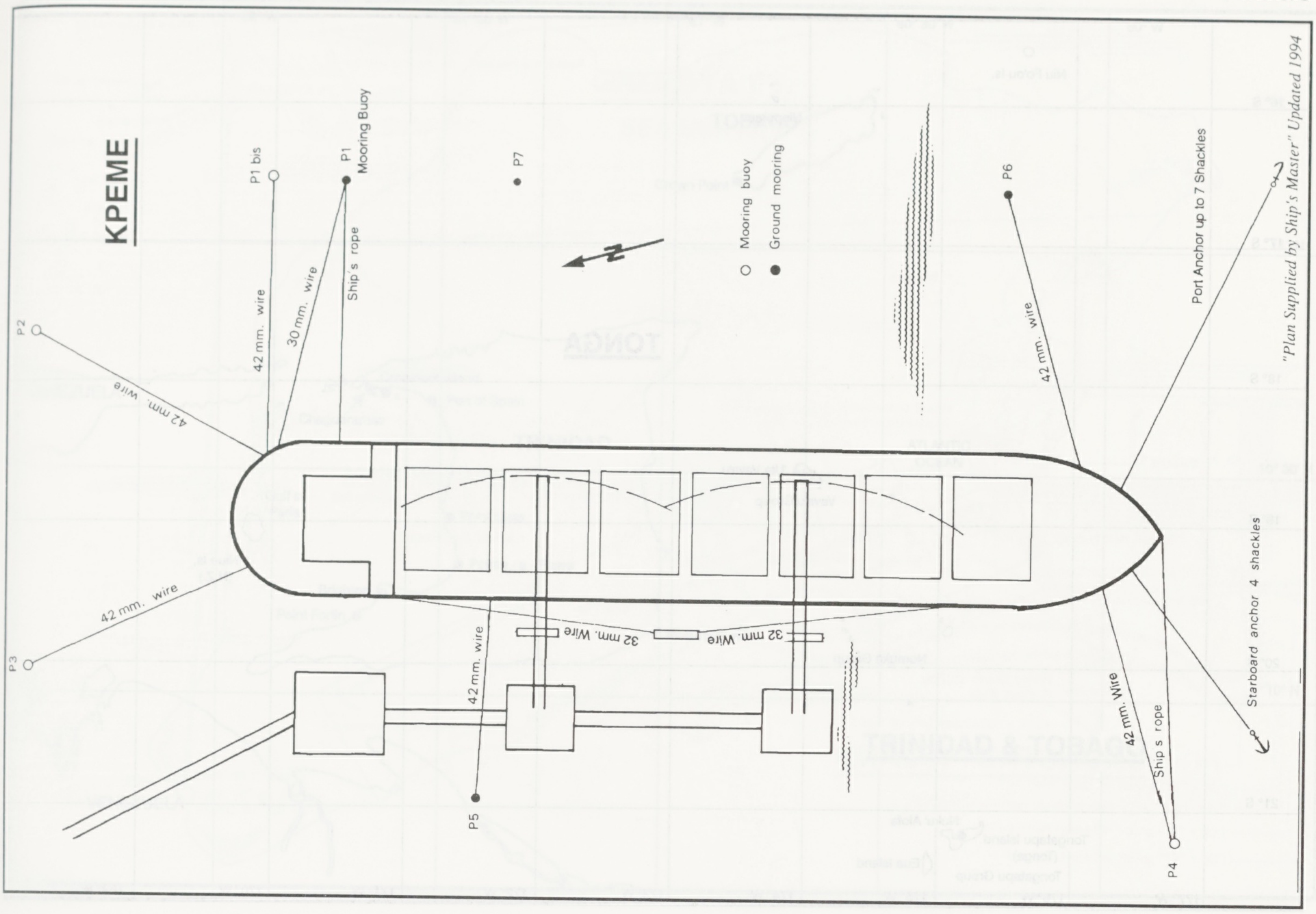

SRIRACHA
PTT MARINE TERMINAL
Depths in Meters
- 10
- 5
①
②
③
100,000 d.w.t. Tanker
Tank Farm
- 10
0
300
Scale in Meters
N
- 5


SRIRACHA
SRIRACHA HARBOUR Co.
SRIRACHA CITY
BANGKOK
N
4 m.
10 m.
3 m.
350 m.
450 m.
Kosi Chang
2.8 k.m. Access Ramp
Weighbridge
Offices
10 m.
3 m.
SATTAHIP

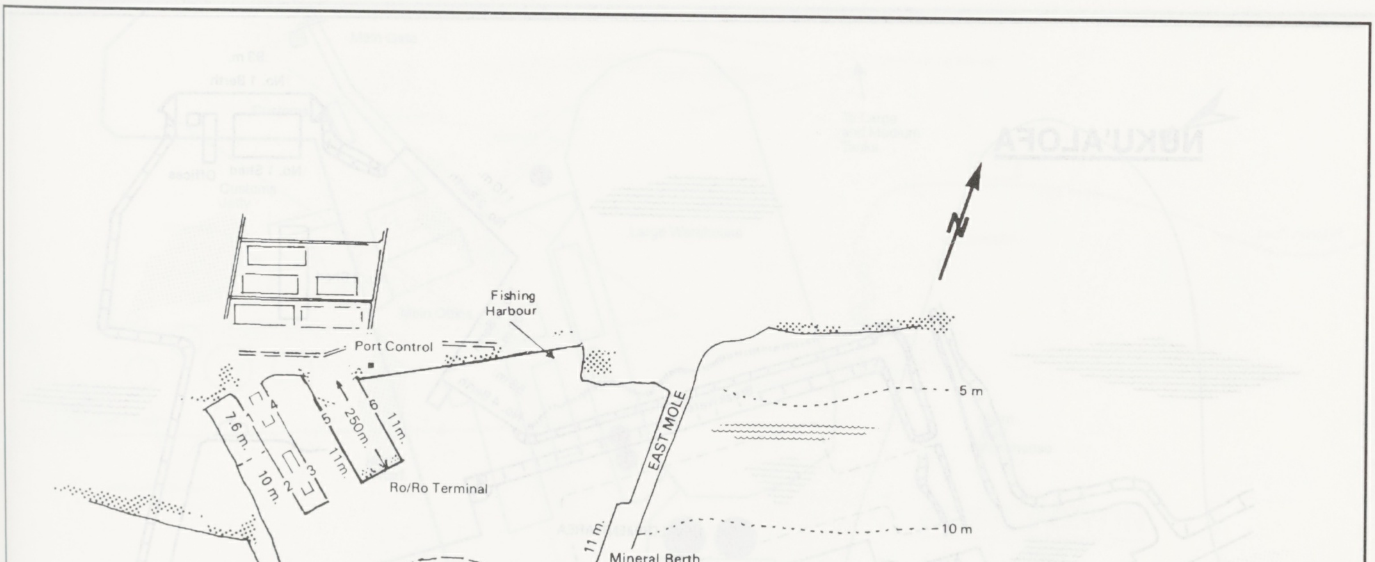

SRIRACHA
SRIRACHA HARBOUR COMPANY
Reserve Area 16,000 sq.m. for Future Development
Port Office
Canteen
Open Storage Area
Pha - Daeng Garden Village
Weighbridge
Workshop
Jetty Head
MBK Silo
1 km. Access Road

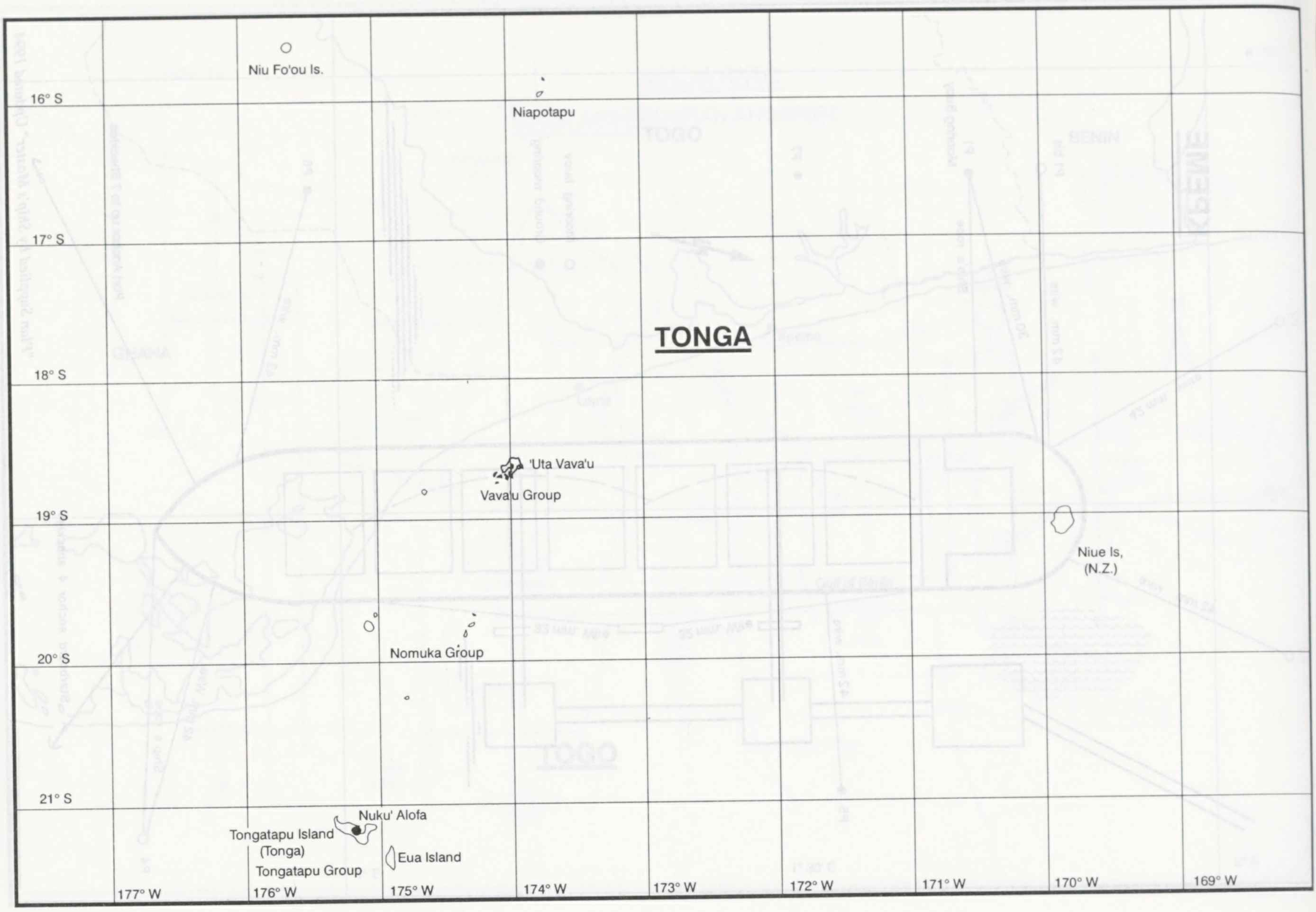

6° 30' N
TOGO
BENIN
GHANA
Kpeme
Lome
6° N
Gulf of Benin
TOGO
1° E
1° 30' E
2° E

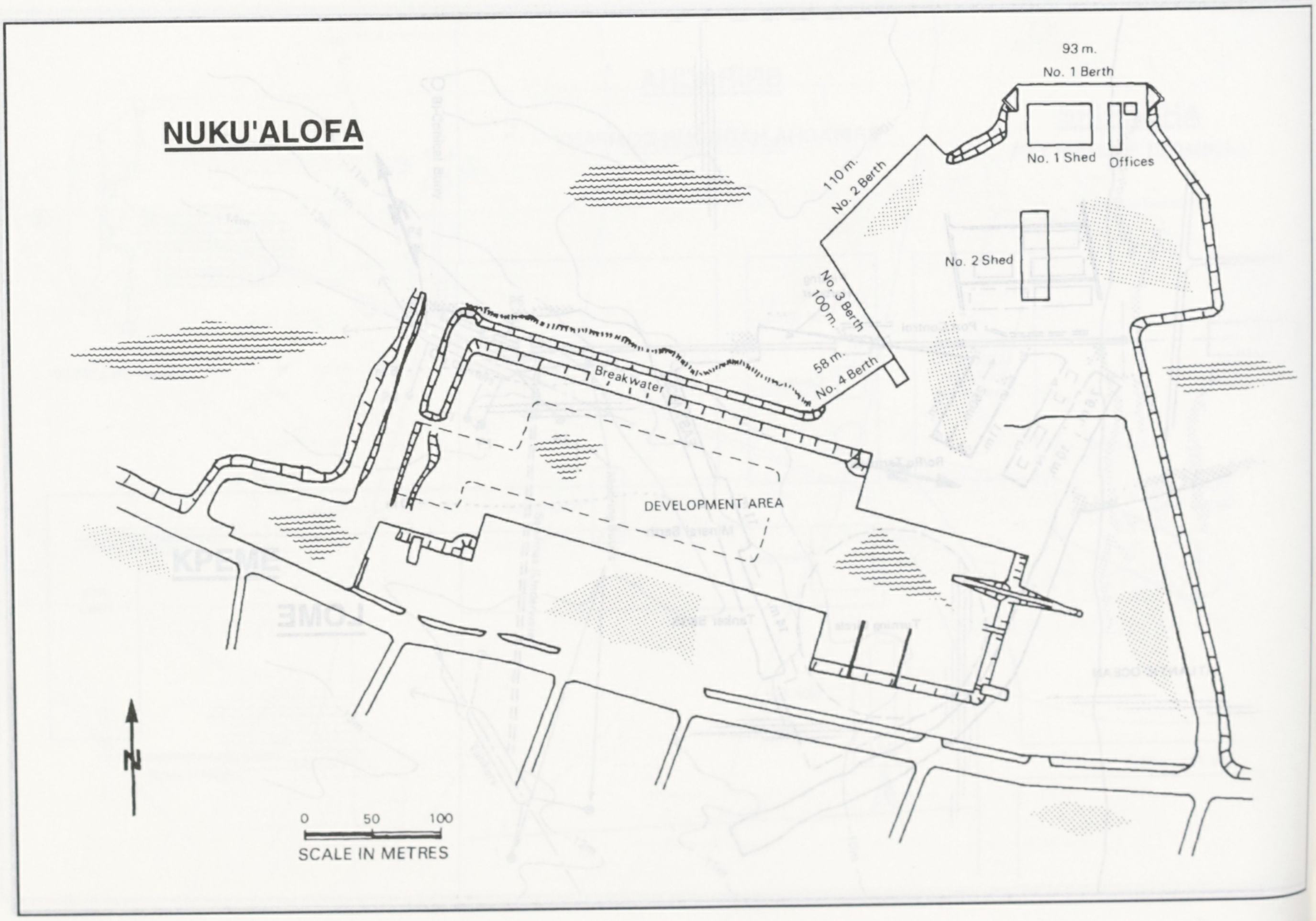

Bi-Conical Buoy
10m
11m
12m
13m
14m
P4
P5
Ore Carriers
P3
P6
P7
P1
P2
Mooring Buoys
Sea-lines (Underwater)
KPEME
13m
Tankers
12m
11m
10m

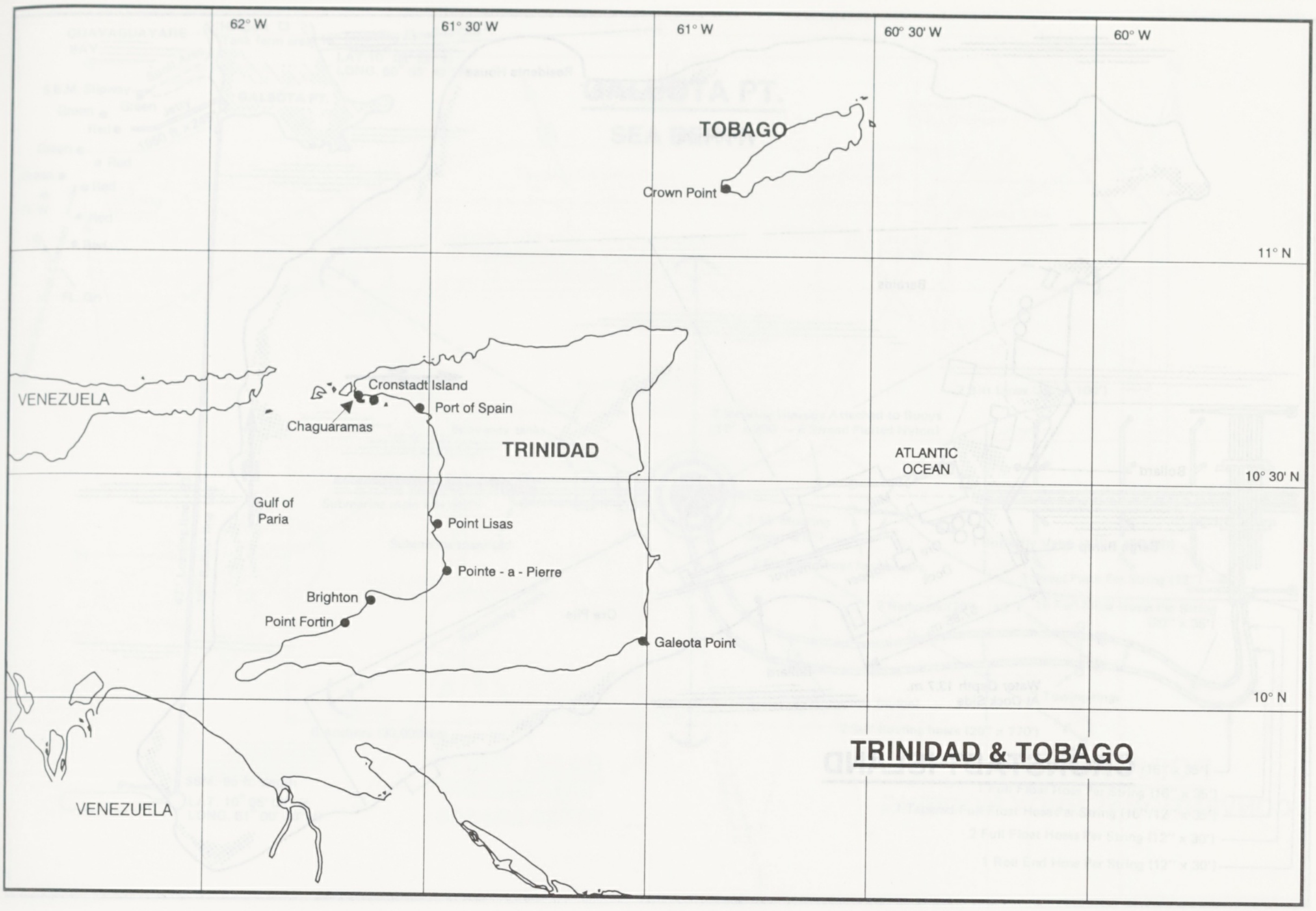

KPEME
P1 bis
P1 Mooring Buoy
P7
P2
P3
P4
P5
P6
42 mm. wire
30 mm. wire
Ship's rope
42 mm. wire
42 mm. wire
Mooring buoy
Ground mooring
32 mm. Wire
32 mm. Wire
42 mm. wire
42 mm. wire
Port Anchor up to 7 Shackles
Starboard anchor 4 shackles
42 mm. Wire
Ship s rope

"Plan Supplied by Ship's Master" Updated 1994

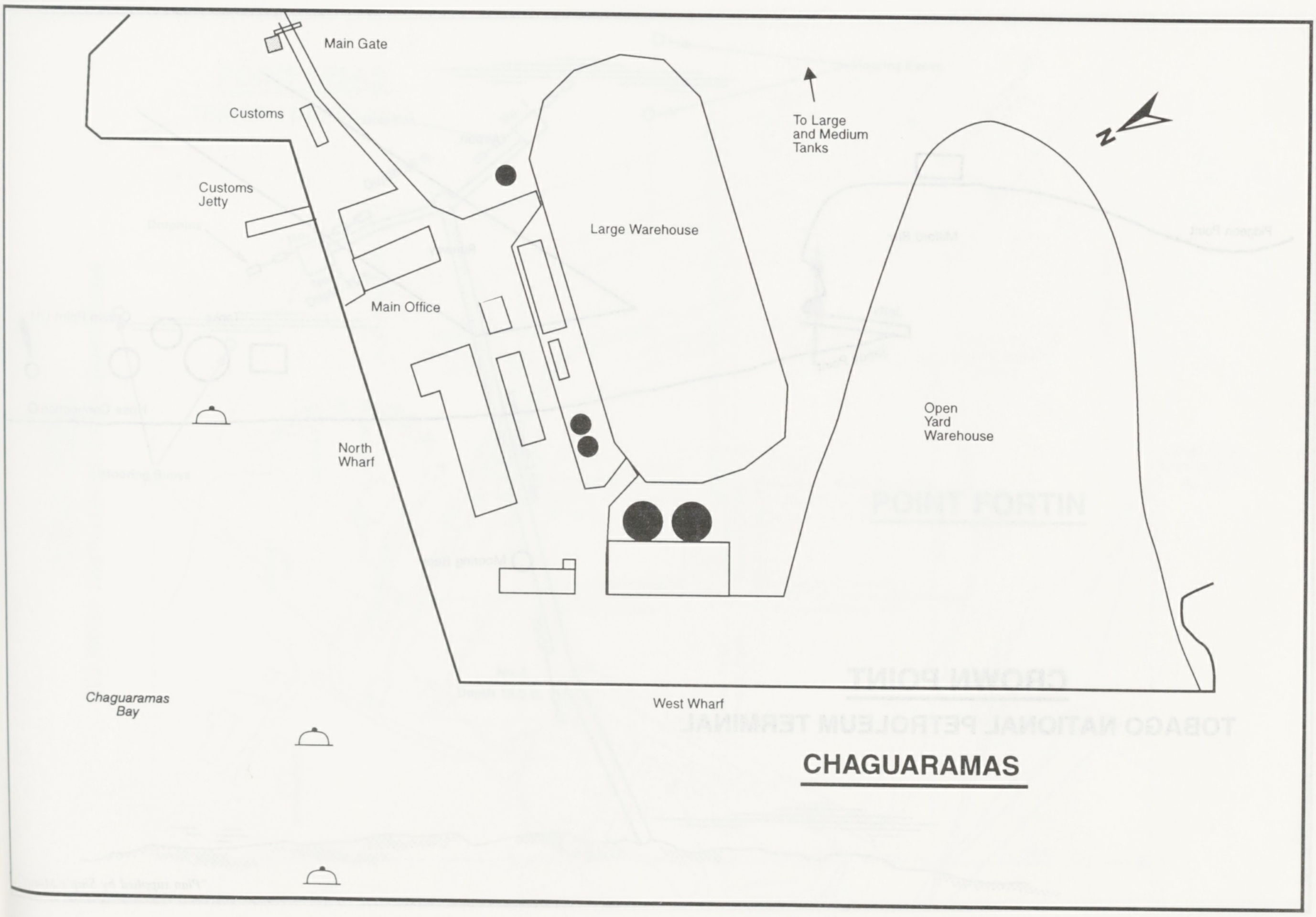

Fishing Harbour
Port Control
4
5
6
7.6 m.
10 m.
2
3
250m.
11m.
11m.
Ro/Ro Terminal
EAST MOLE
5 m
10 m
11 m.
Mineral Berth
14 m.
Tanker Berth
Turning Circle
ATLANTIC OCEAN
LOME


TONGA
Niu Fo'ou Is.
Niapotapu
'Uta Vava'u
Vavau Group
Niue Is,
(N.Z.)
Nomuka Group
Nuku' Alofa
Tongatapu Island
(Tonga)
Tongatapu Group
Eua Island
16° S
17° S
18° S
19° S
20° S
21° S
177° W
176° W
175° W
174° W
173° W
172° W
171° W
170° W
169° W

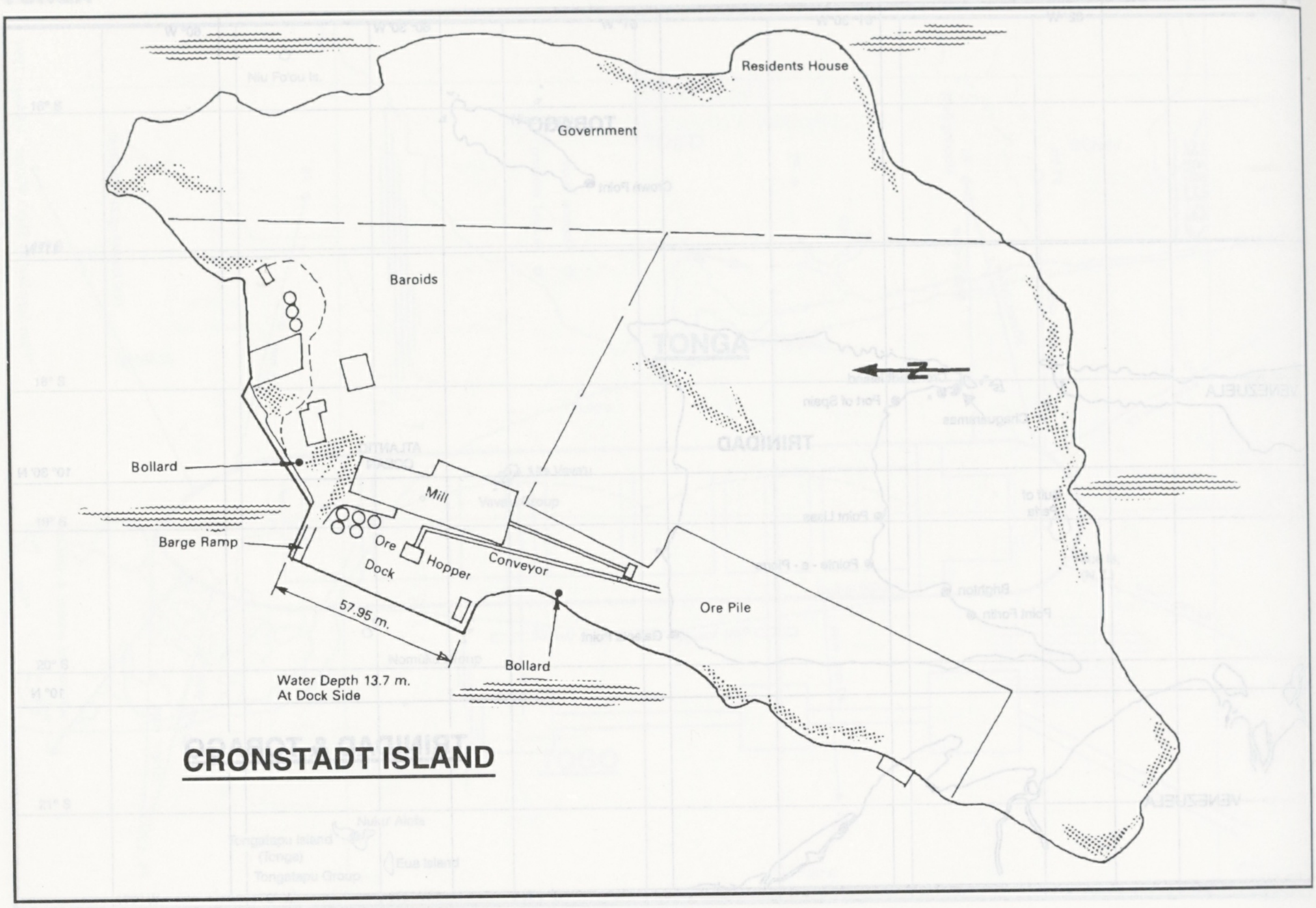

NUKU'ALOFA
93 m.
No. 1 Berth
No. 1 Shed
Offices
110 m.
No. 2 Berth
No. 2 Shed
No. 3 Berth
100 m.
58 m.
No. 4 Berth
Breakwater
DEVELOPMENT AREA
N
0
50
100
SCALE IN METRES


62° W
61° 30' W
61° W
60° 30' W
60° W
11° N
10° 30' N
10° N
TOBAGO
Crown Point
VENEZUELA
Cronstadt Island
Port of Spain
Chaguaramas
TRINIDAD
ATLANTIC OCEAN
Gulf of Paria
Point Lisas
Pointe - a - Pierre
Brighton
Point Fortin
Galeota Point
VENEZUELA

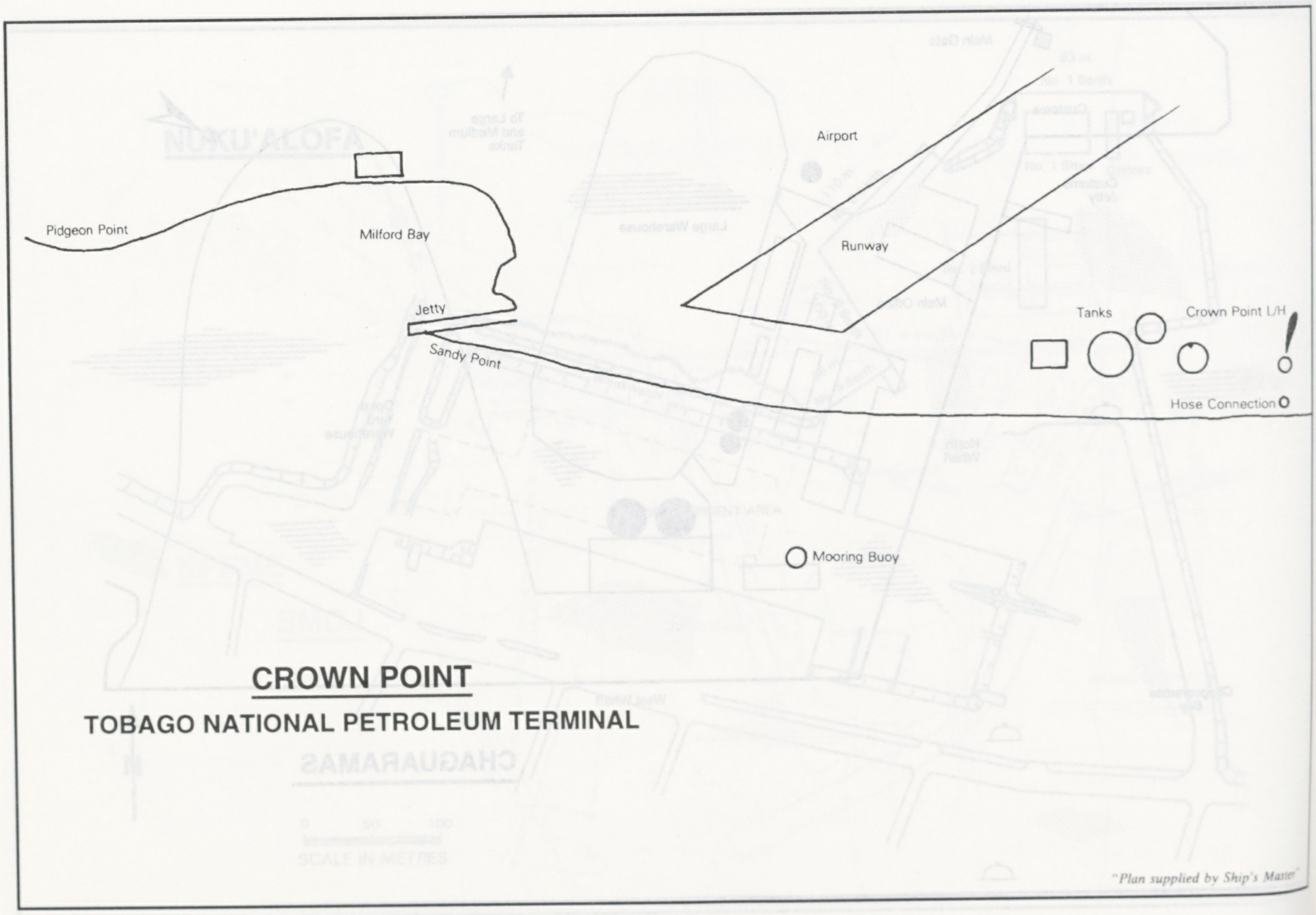
TRINIDAD & TOBAGO


Main Gate
Customs
Customs Jetty
To Large and Medium Tanks
Large Warehouse
Main Office
Open Yard Warehouse
North Wharf
N
Chaguaramas Bay
West Wharf

CHAGUARAMAS


Residents House
Government
Baroids
N
Bollard
Mill
Barge Ramp
Ore
Hopper
Conveyor
Dock
57.95 m.
Ore Pile
Bollard
Water Depth 13.7 m.
At Dock Side

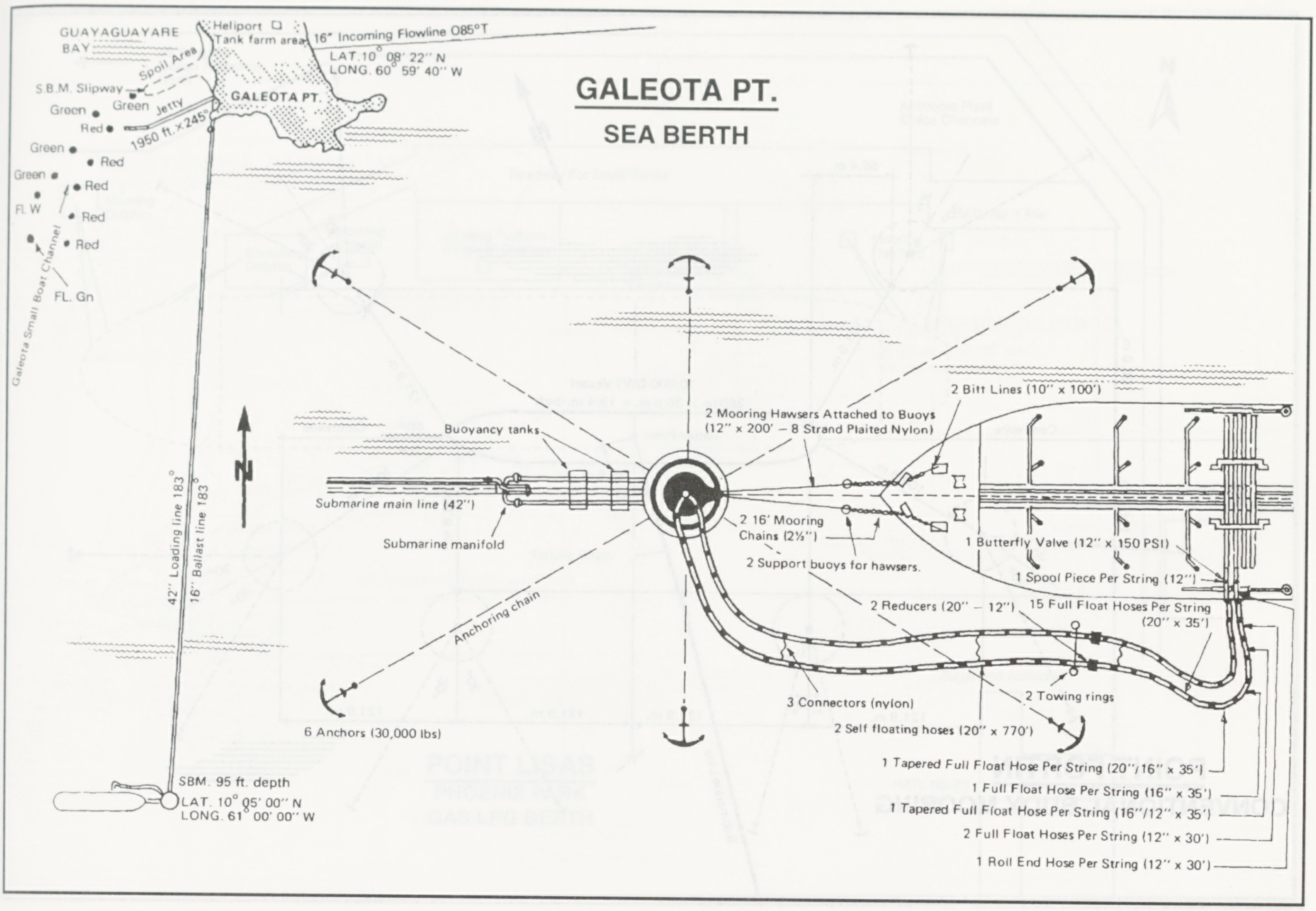
CRONSTADT ISLAND

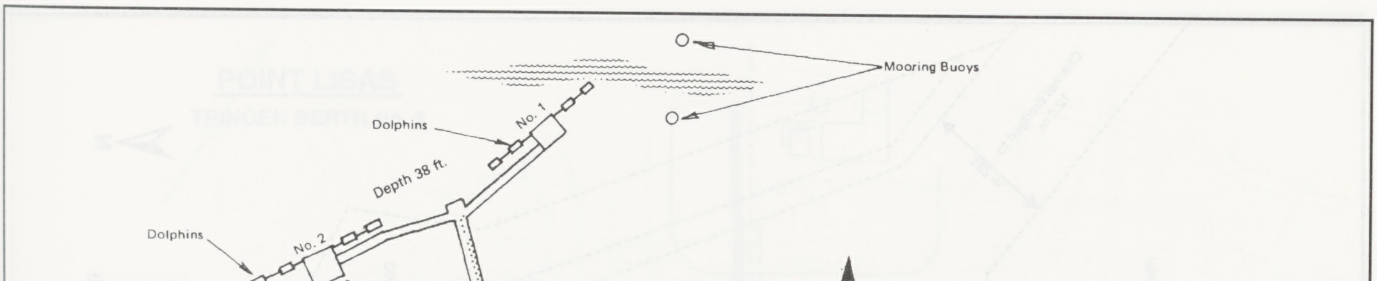

Airport
Pidgeon Point
Milford Bay
Runway
Jetty
Sandy Point
Tanks
Crown Point L/H
Hose Connection
Mooring Buoy

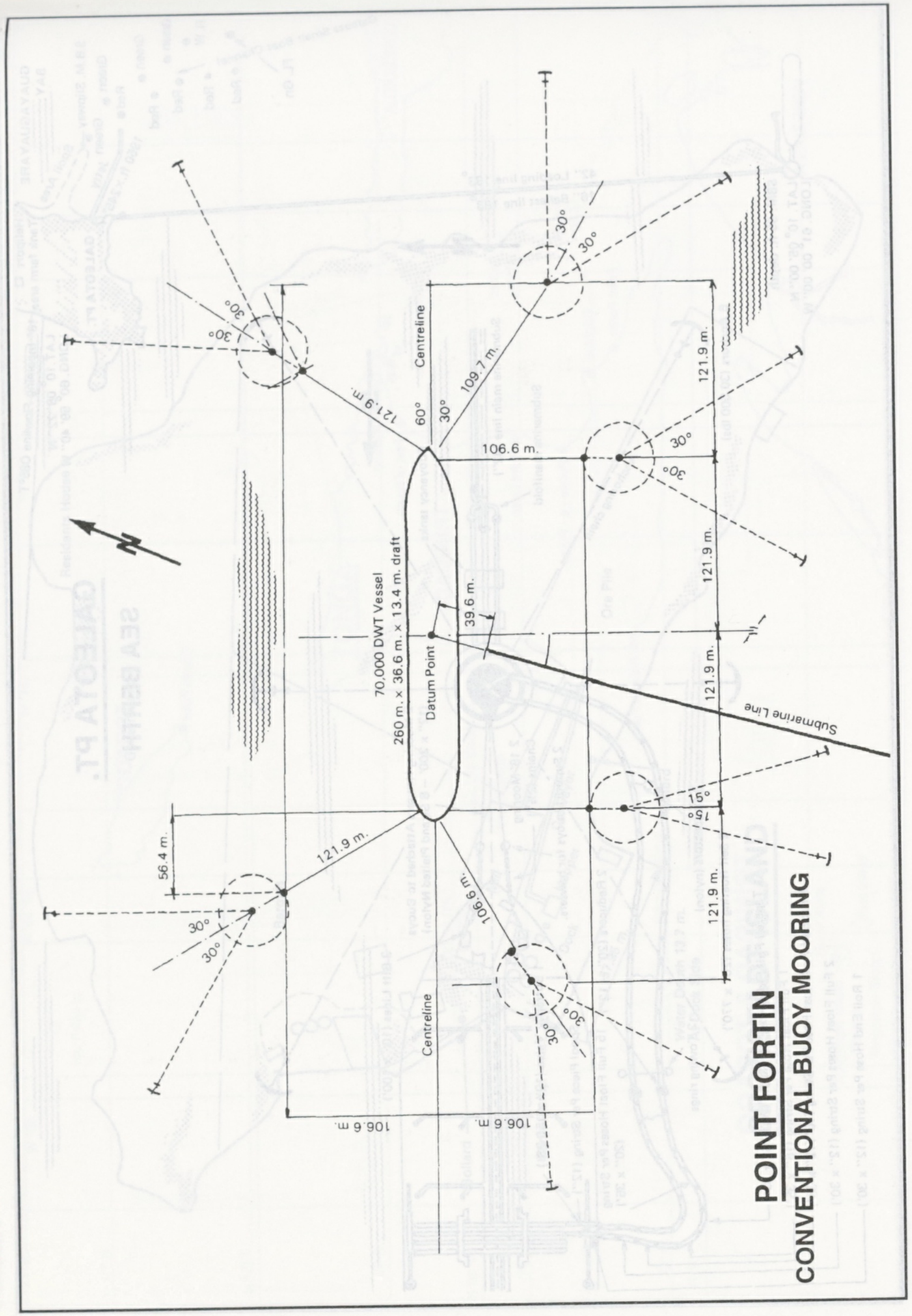
CROWN POINT

TOBAGO NATIONAL PETROLEUM TERMINAL

"Plan supplied by Ship's Master"

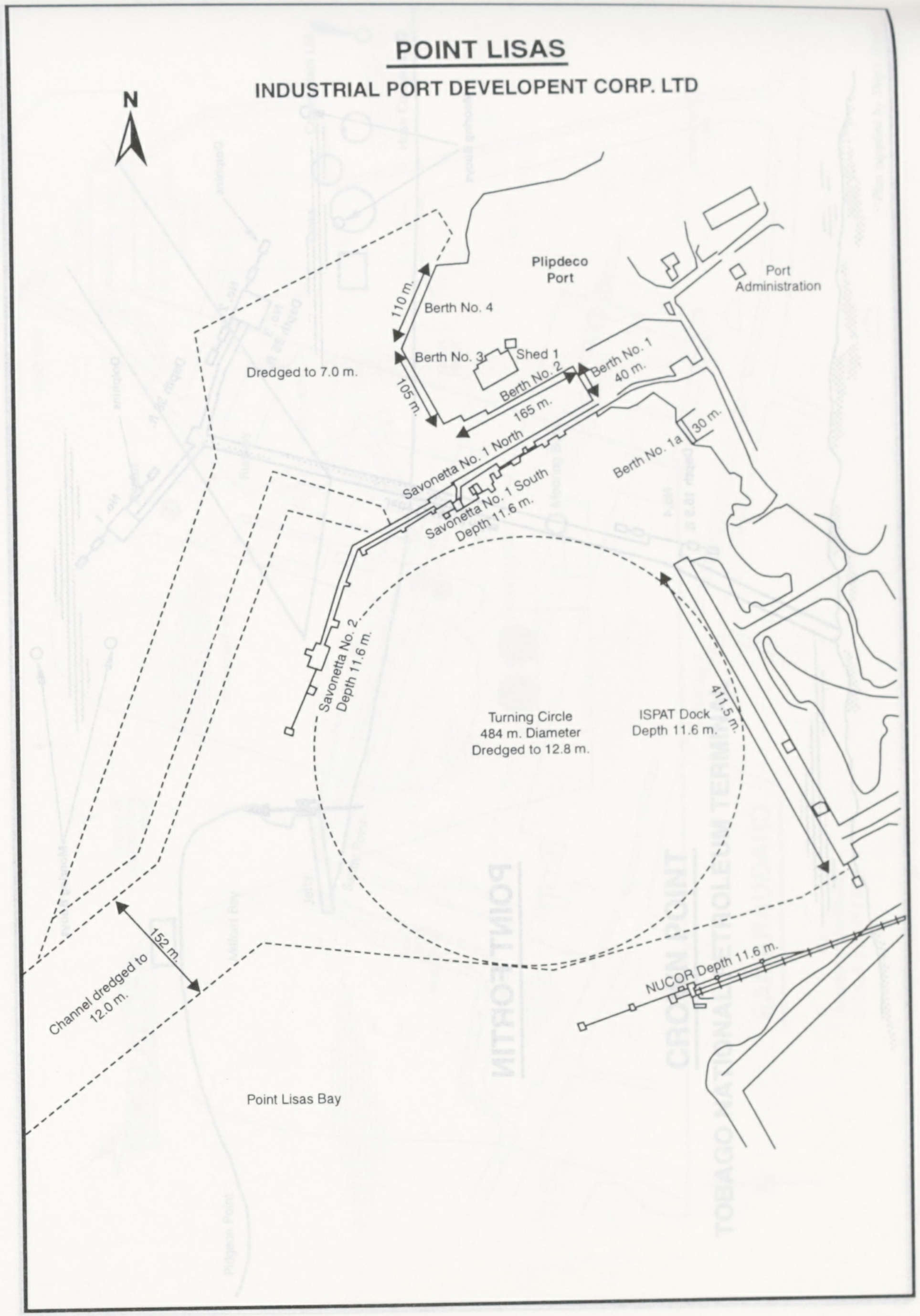

GALEOTA PT.
SEA BERTH
GUAYAGUAYARE BAY
Heliport
Tank farm area
16" Incoming Flowline 085°T
LAT. 10° 08' 22" N
LONG. 60° 59' 40" W
Spoil Area
S.B.M. Slipway
GALEOTA PT.
Green
Green
Jetty
Red
1950 ft. x 245°
Green
Red
Green
Red
Fl. W
Red
Red
Galeota Small Boat Channel
FL. Gn
N
42" Loading line 183°
16" Ballast line 183°
SBM. 95 ft. depth
LAT. 10° 05' 00" N
LONG. 61° 00' 00" W
Buoyancy tanks
Submarine main line (42")
Submarine manifold
Anchoring chain
6 Anchors (30,000 lbs)
2 Mooring Hawsers Attached to Buoys (12" x 200' – 8 Strand Plaited Nylon)
2 Bitt Lines (10" x 100')
2 16' Mooring Chains (2½")
2 Support buoys for hawsers.
1 Butterfly Valve (12" x 150 PSI)
1 Spool Piece Per String (12")
2 Reducers (20" – 12")
15 Full Float Hoses Per String (20" x 35')
2 Towing rings
3 Connectors (nylon)
2 Self floating hoses (20" x 770')
1 Tapered Full Float Hose Per String (20"/16" x 35')
1 Full Float Hose Per String (16" x 35')
1 Tapered Full Float Hose Per String (16"/12" x 35')
2 Full Float Hoses Per String (12" x 30')
1 Roll End Hose Per String (12" x 30')


Mooring Buoys
Dolphins
No. 1
Depth 38 ft.
Dolphins
No. 2
No. 3
Depth 35 ft.
N
Mooring Buoys
Jetty Length 2 miles
POINT FORTIN
No. 4
Depth 15.5 ft.



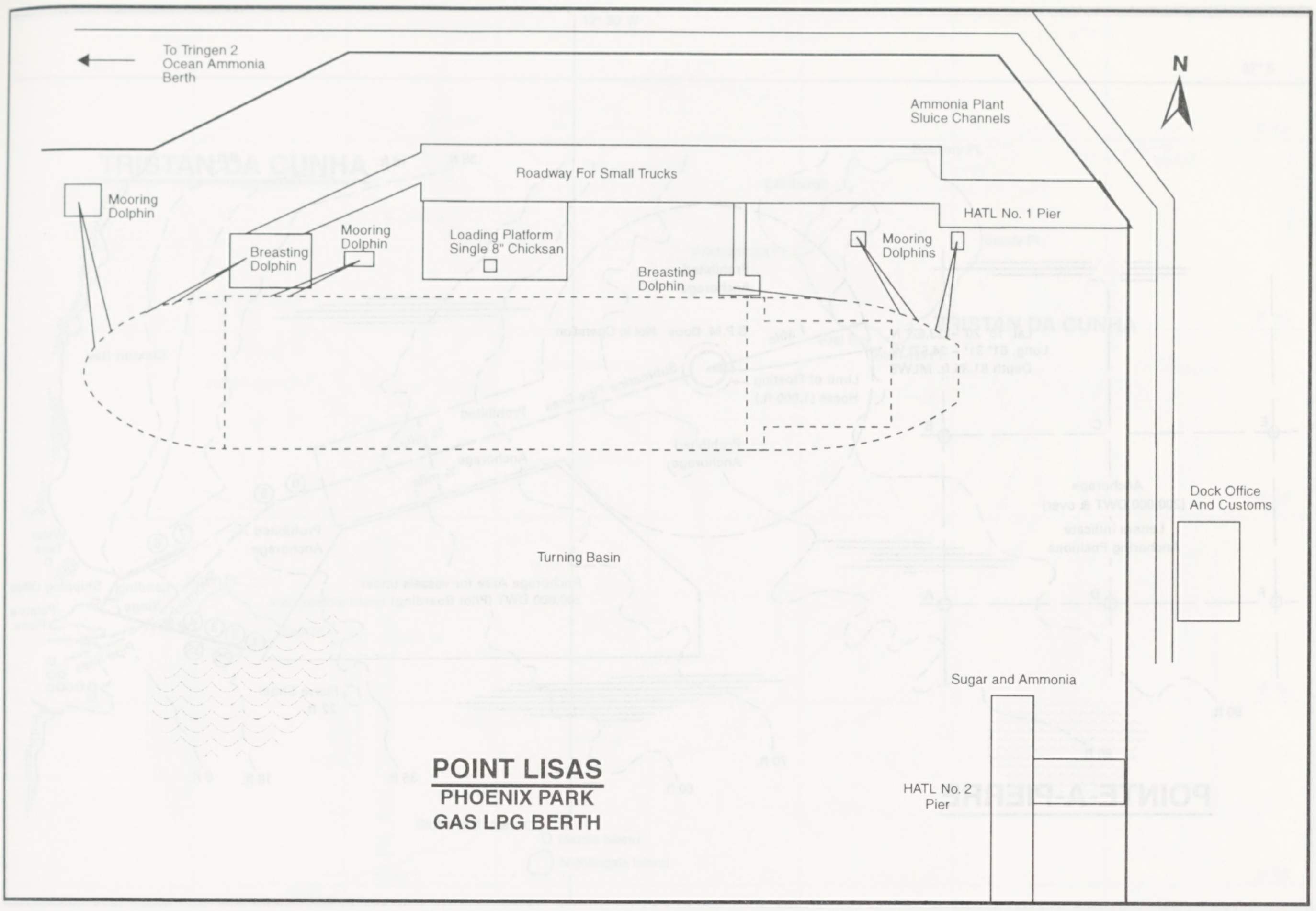
POINT FORTIN
CONVENTIONAL BUOY MOORING

N
70,000 DWT Vessel
260 m. x 36.6 m. x 13.4 m. draft
Datum Point
Centreline
Centreline
Submarine Line
121.9 m.
121.9 m.
121.9 m.
121.9 m.
121.9 m.
121.9 m.
109.7 m.
106.6 m.
106.6 m.
106.6 m.
106.6 m.
39.6 m.
56.4 m.
60°
30°
30°
30°
30°
30°
30°
30°
30°
30°
30°
30°
15°
15°



POINT LISAS
INDUSTRIAL PORT DEVELOPENT CORP. LTD

N
Plipdeco Port
Port Administration
Berth No. 4
110 m.
Berth No. 3
105 m.
Shed 1
Berth No. 2
165 m.
Berth No. 1
40 m.
Berth No. 1a
30 m.
Dredged to 7.0 m.
Savonetta No. 1 North
Savonetta No. 1 South
Savonetta No. 1 South Depth 11.6 m.
Savonetta No. 2 Depth 11.6 m.
Turning Circle
484 m. Diameter
Dredged to 12.8 m.
ISPAT Dock
Depth 11.6 m.
411.5 m.
NUCOR Depth 11.6 m.
Channel dredged to 12.0 m.
152 m.
Point Lisas Bay

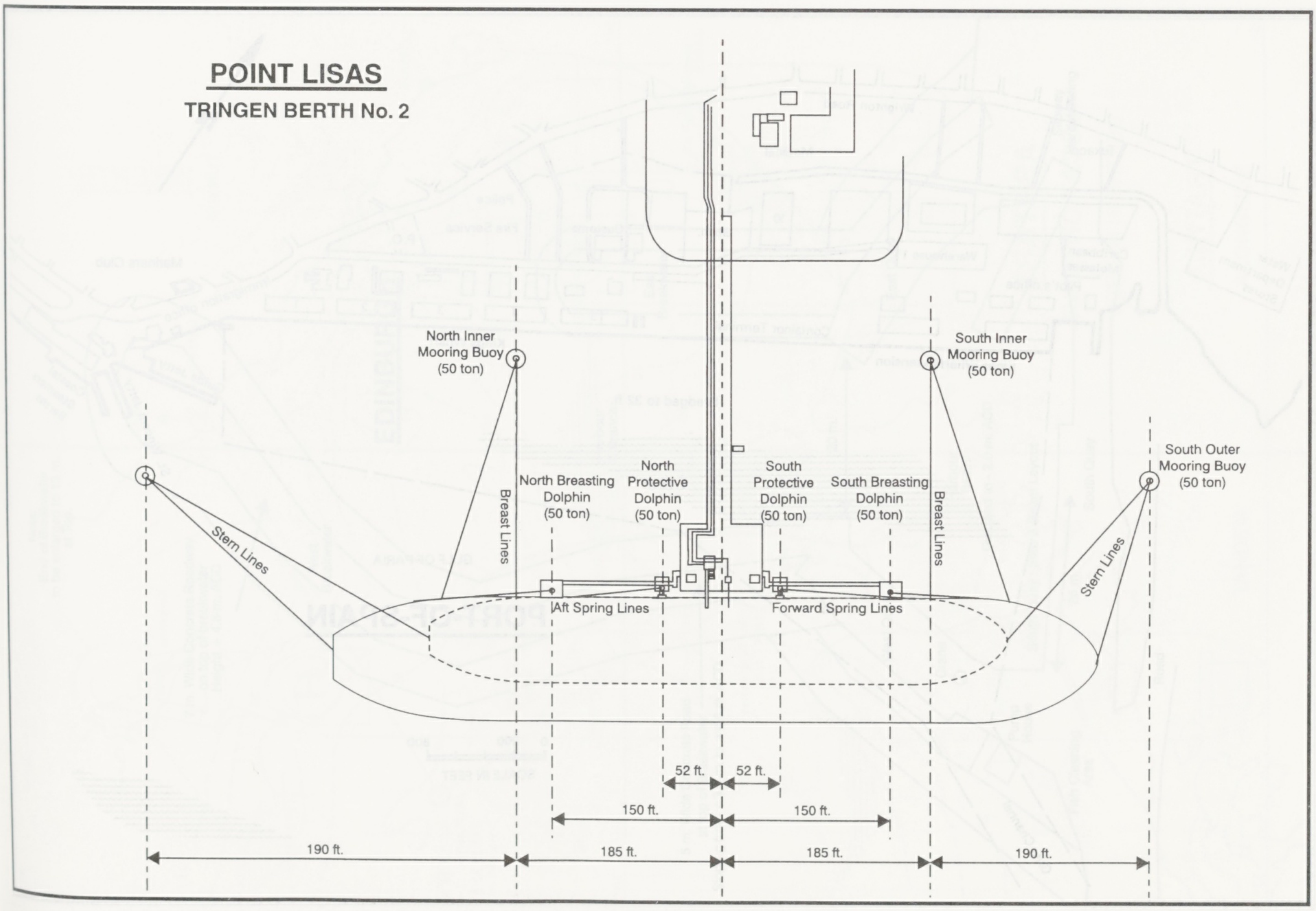


POINT LISAS

PHOENIX PARK

GAS LPG BERTH

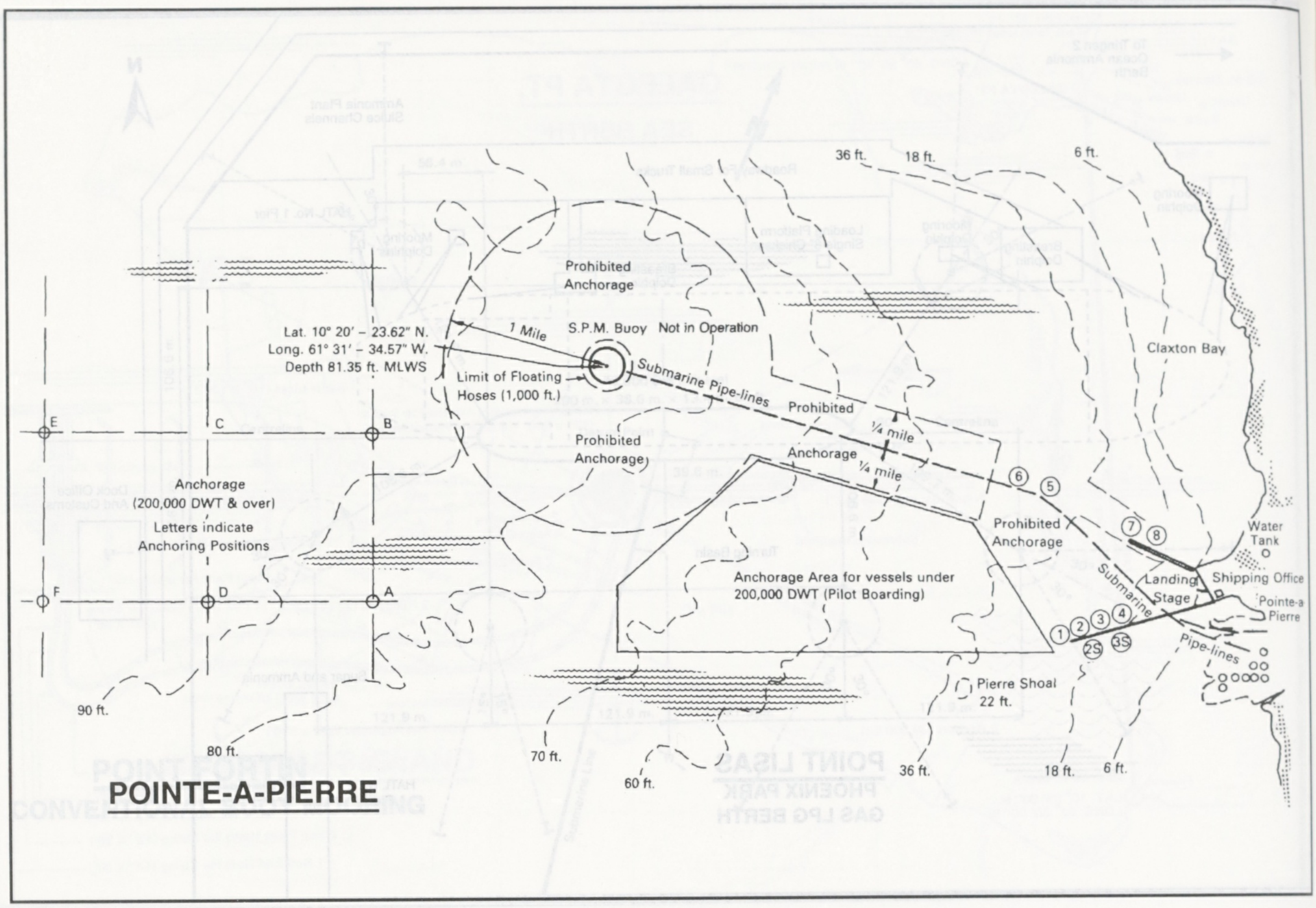
To Tringen 2
Ocean Ammonia
Berth
N
Ammonia Plant
Sluice Channels
Roadway For Small Trucks
Mooring
Dolphin
Breasting
Dolphin
Mooring
Dolphin
Loading Platform
Single 8" Chicksan
Breasting
Dolphin
HATL No. 1 Pier
Mooring
Dolphins
Dock Office
And Customs
Turning Basin
Sugar and Ammonia
HATL No. 2
Pier



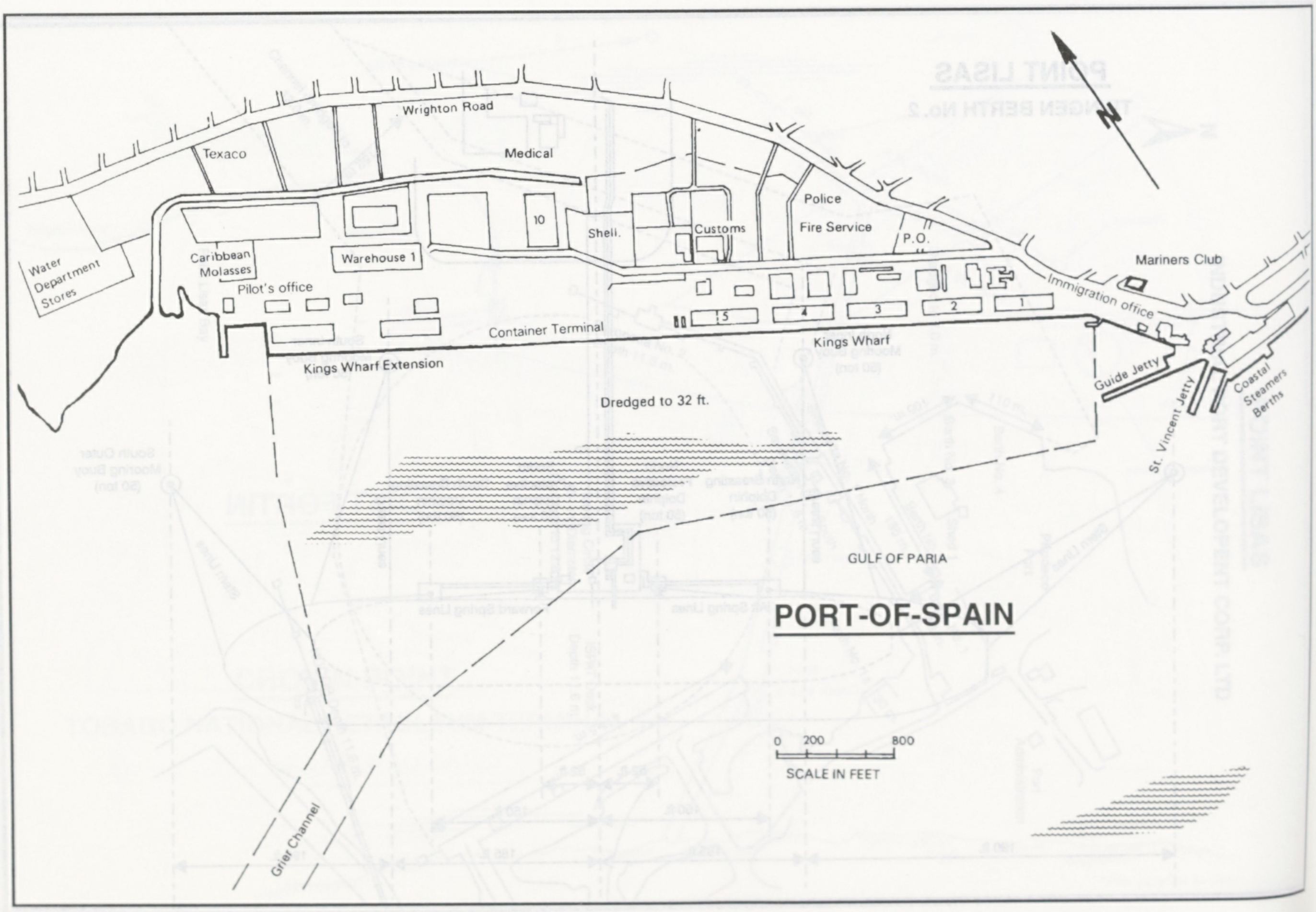
POINT LISAS

TRINGEN BERTH No. 2

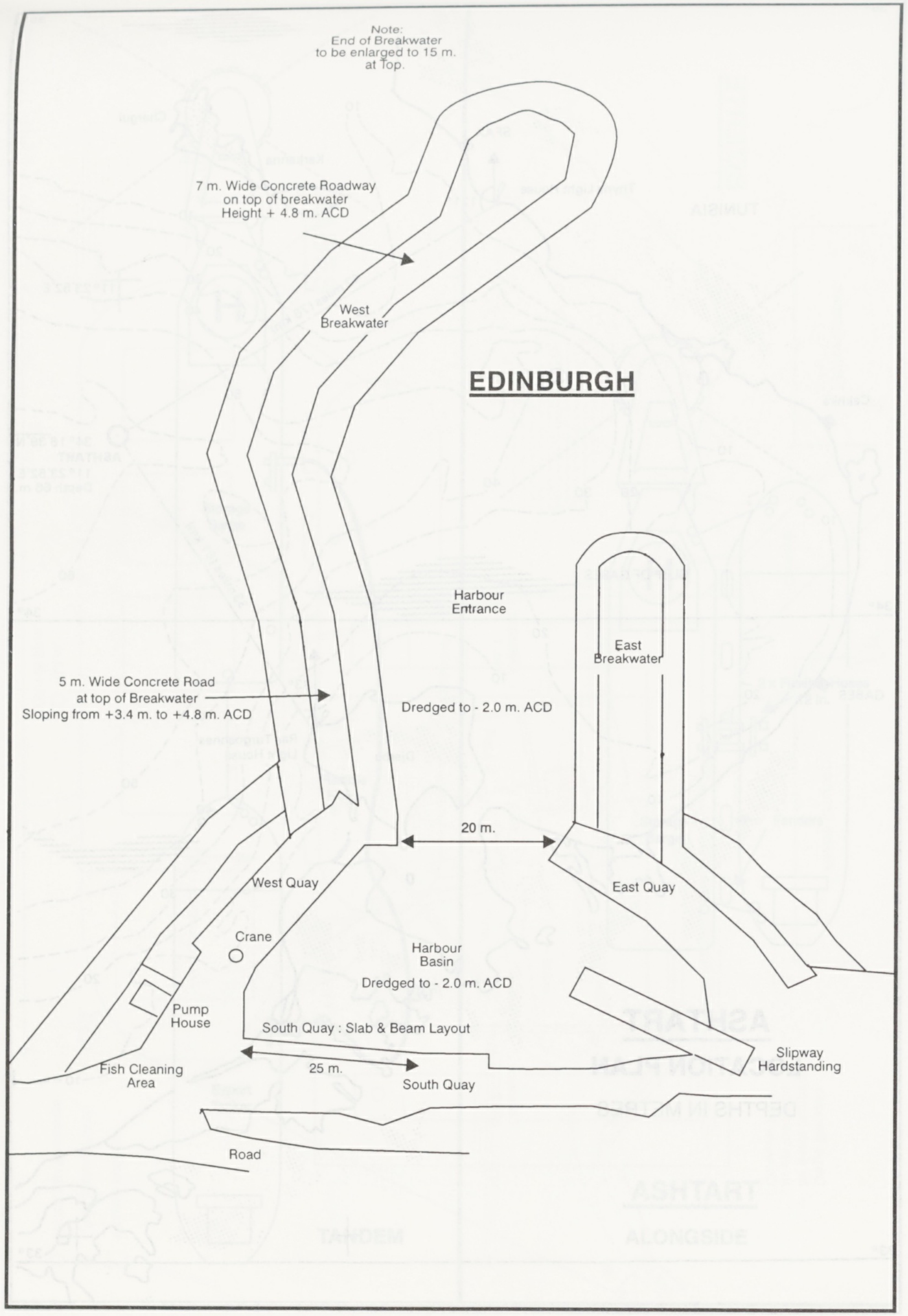
North Inner
Mooring Buoy
(50 ton)
South Inner
Mooring Buoy
(50 ton)
South Outer
Mooring Buoy
(50 ton)
Stern Lines
Breast Lines
North Breasting
Dolphin
(50 ton)
North
Protective
Dolphin
(50 ton)
South
Protective
Dolphin
(50 ton)
South Breasting
Dolphin
(50 ton)
Breast Lines
Stern Lines
Aft Spring Lines
Forward Spring Lines
52 ft.
52 ft.
150 ft.
150 ft.
190 ft.
185 ft.
185 ft.
190 ft.

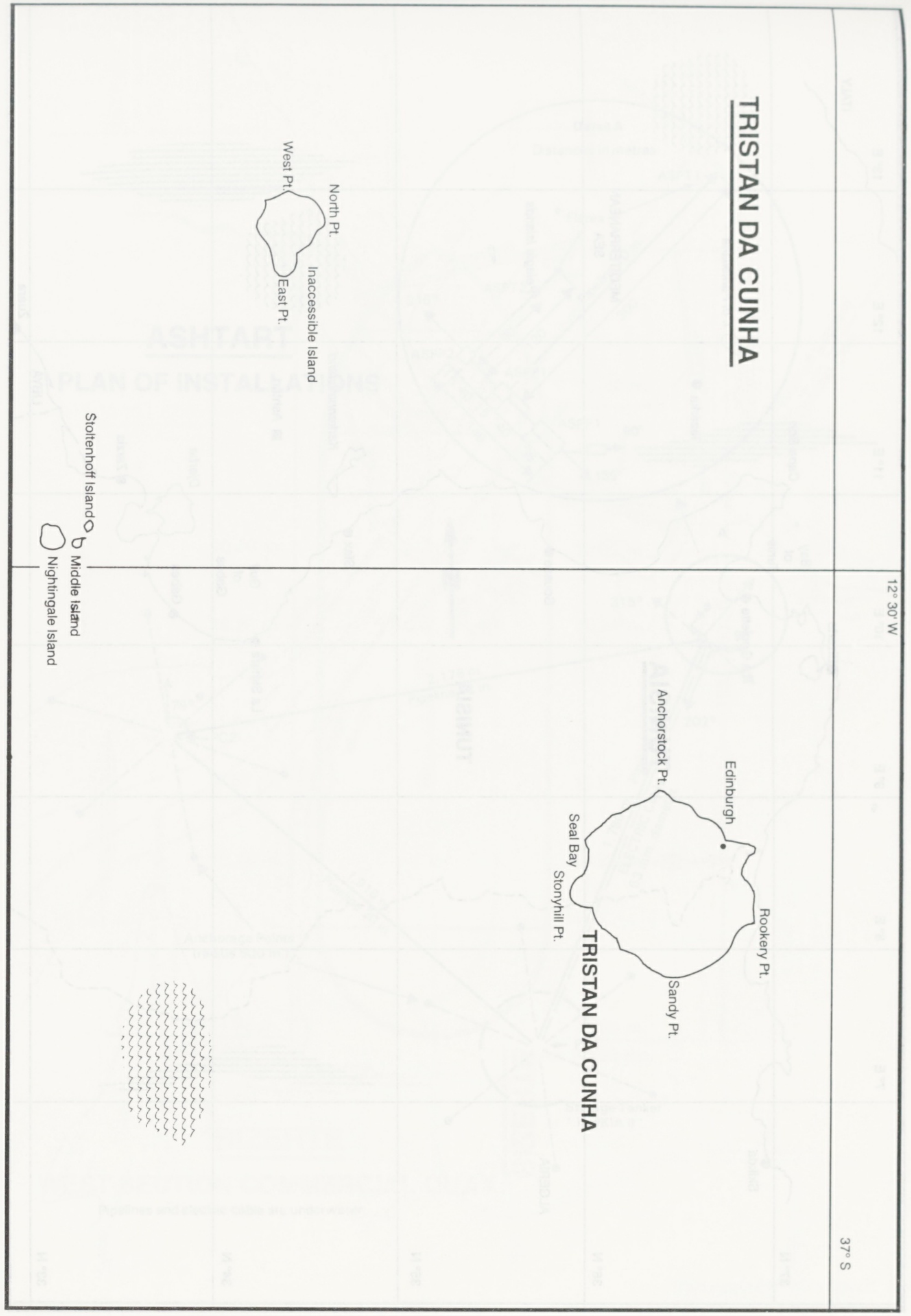

36 ft.
18 ft.
6 ft.
Prohibited Anchorage
1 Mile
S.P.M. Buoy Not in Operation
Lat. 10° 20′ – 23.62″ N.
Long. 61° 31′ – 34.57″ W.
Depth 81.35 ft. MLWS
Limit of Floating Hoses (1,000 ft.)
Submarine Pipe-lines
Prohibited
¼ mile
Anchorage
¼ mile
Claxton Bay
E
C
B
Prohibited Anchorage
Anchorage (200,000 DWT & over)
Letters indicate Anchoring Positions
F
D
A
⑥
⑤
Prohibited Anchorage
⑦
⑧
Water Tank
Anchorage Area for vessels under 200,000 DWT (Pilot Boarding)
Landing Stage
Shipping Office
Submarine
Pointe-a Pierre
①②③④
2S
3S
Pipe-lines
Pierre Shoal 22 ft.
90 ft.
80 ft.
70 ft.
60 ft.
36 ft.
18 ft.
6 ft.

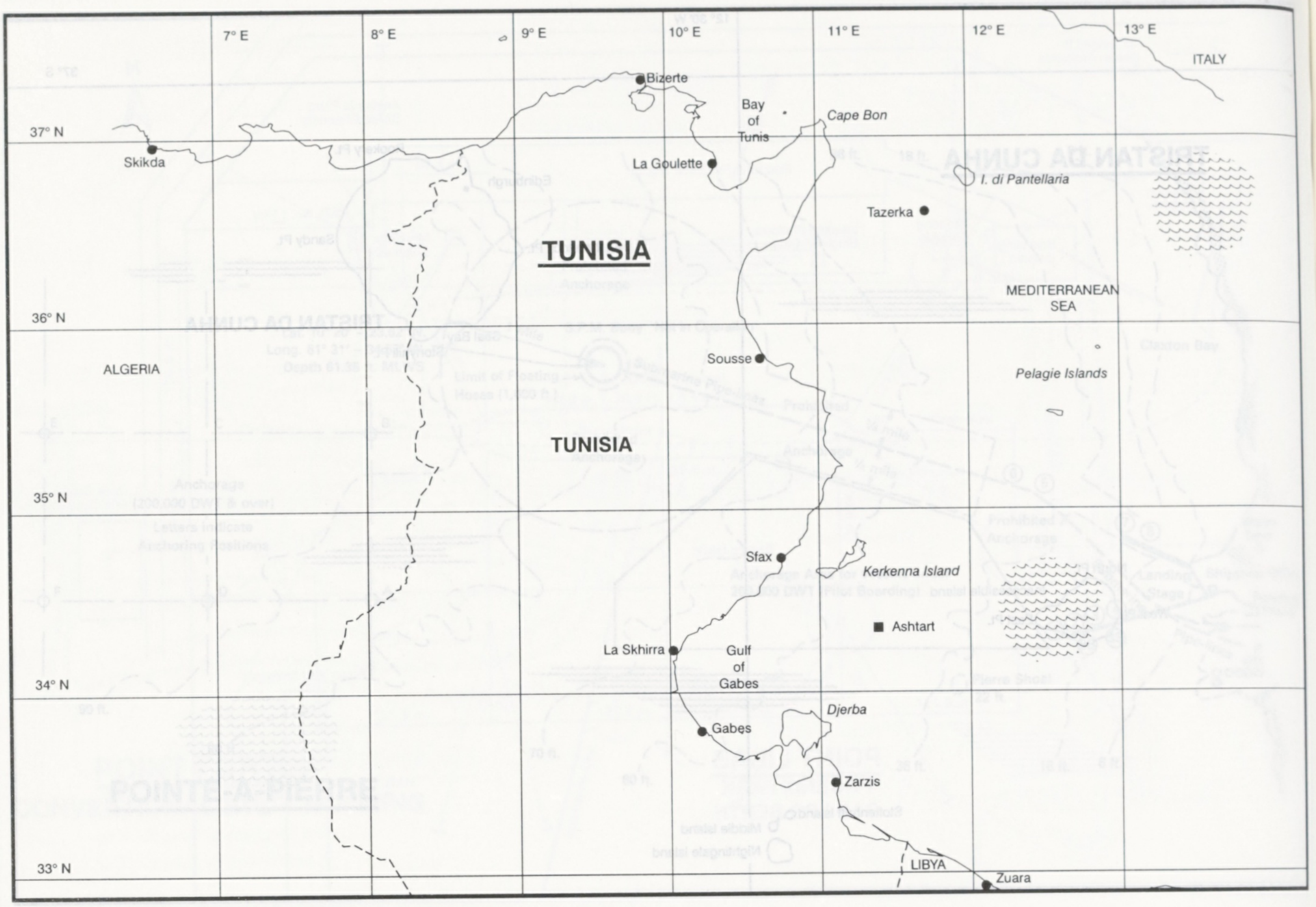
POINTE-A-PIERRE

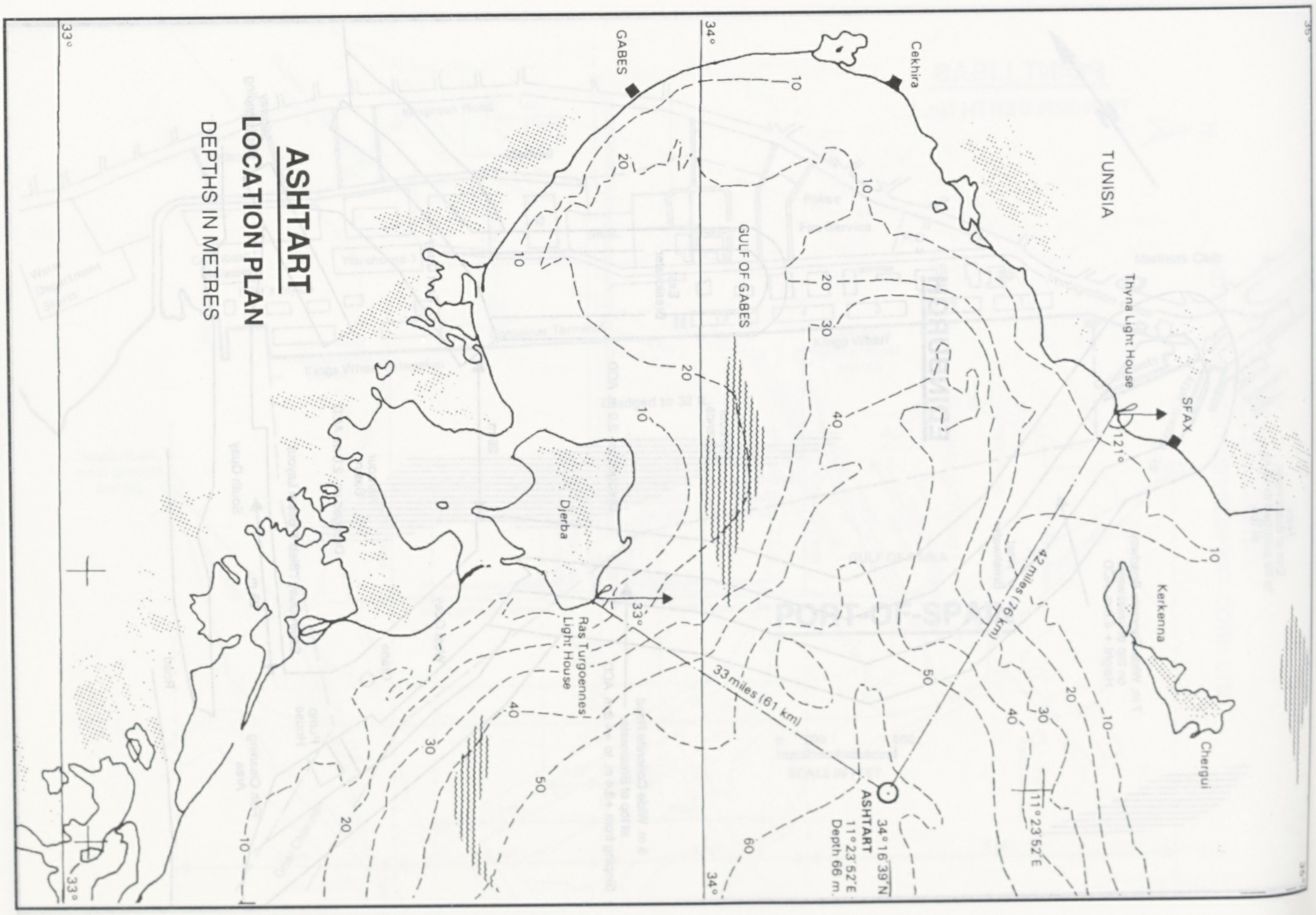

Wrighton Road
Texaco
Medical
Police
Fire Service
10
Shell
Customs
P.O.
Water Department Stores
Caribbean Molasses
Warehouse 1
Mariners Club
Pilot's office
Immigration office
5
4
3
2
1
Container Terminal
Kings Wharf
Kings Wharf Extension
Guide Jetty
Coastal Steamers Berths
Dredged to 32 ft.
St. Vincent Jetty
GULF OF PARIA
0 200 800
SCALE IN FEET
Grier Channel

PORT-OF-SPAIN

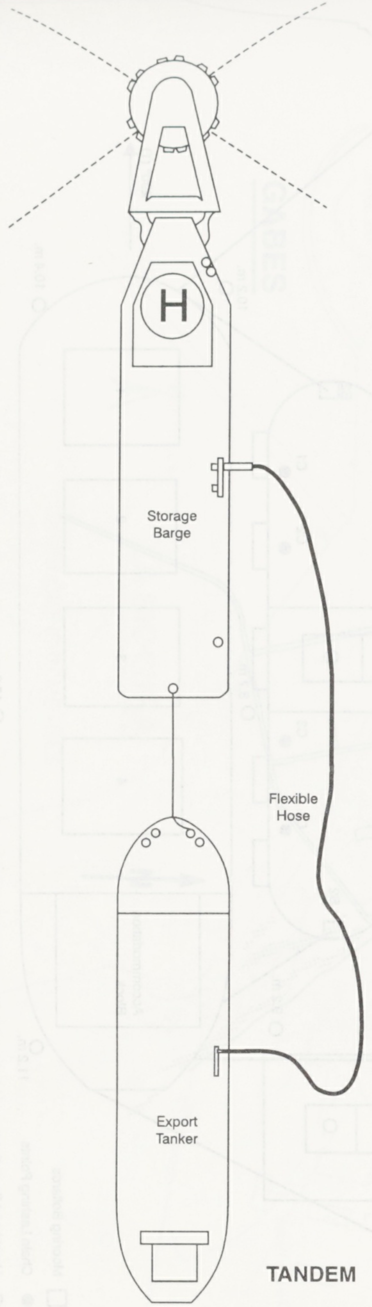

Note:
End of Breakwater
to be enlarged to 15 m.
at Top.
7 m. Wide Concrete Roadway
on top of breakwater
Height + 4.8 m. ACD
West Breakwater
EDINBURGH
Harbour Entrance
East Breakwater
5 m. Wide Concrete Road
at top of Breakwater
Sloping from +3.4 m. to +4.8 m. ACD
Dredged to - 2.0 m. ACD
20 m.
West Quay
East Quay
Crane
Harbour Basin
Dredged to - 2.0 m. ACD
Pump House
South Quay : Slab & Beam Layout
Slipway Hardstanding
Fish Cleaning Area
25 m.
South Quay
Road


TRISTAN DA CUNHA
North Pt.
West Pt.
East Pt.
Inaccessible Island
Stoltenhoff Island
Middle Island
Nightingale Island
12° 30' W
37° S
Anchorstock Pt.
Edinburgh
Seal Bay
Stonyhill Pt.
Rookery Pt.
Sandy Pt.
TRISTAN DA CUNHA

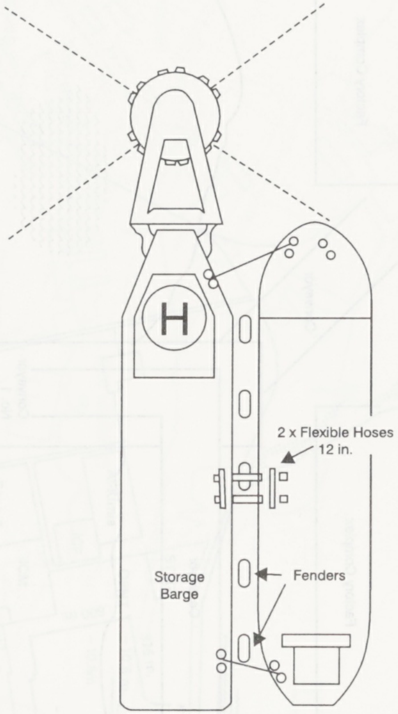

7° E
8° E
9° E
10° E
11° E
12° E
13° E
37° N
36° N
35° N
34° N
33° N
ITALY
Bizerte
Bay of Tunis
Cape Bon
Skikda
La Goulette
I. di Pantellaria
Tazerka
TUNISIA
MEDITERRANEAN SEA
ALGERIA
Sousse
Pelagie Islands
TUNISIA
Sfax
Kerkenna Island
Ashtart
La Skhirra
Gulf of Gabes
Gabes
Djerba
Zarzis
LIBYA
Zuara


ASHTART
LOCATION PLAN
DEPTHS IN METRES

33°
34°
GABES
Cekhira
TUNISIA
GULF OF GABES
Thyna Light House
SFAX
121°
42 miles (78 Km)
Kerkenna
Chergui
Djerba
Ras Turgonnes Light House
33°
33 miles (61 km)
34° 16' 39" N
ASHTART
11° 23' 52" E
Depth 66 m.
11° 23' 52" E
10
20
30
40
50
60


H
Storage Barge
Flexible Hose
Export Tanker

TANDEM

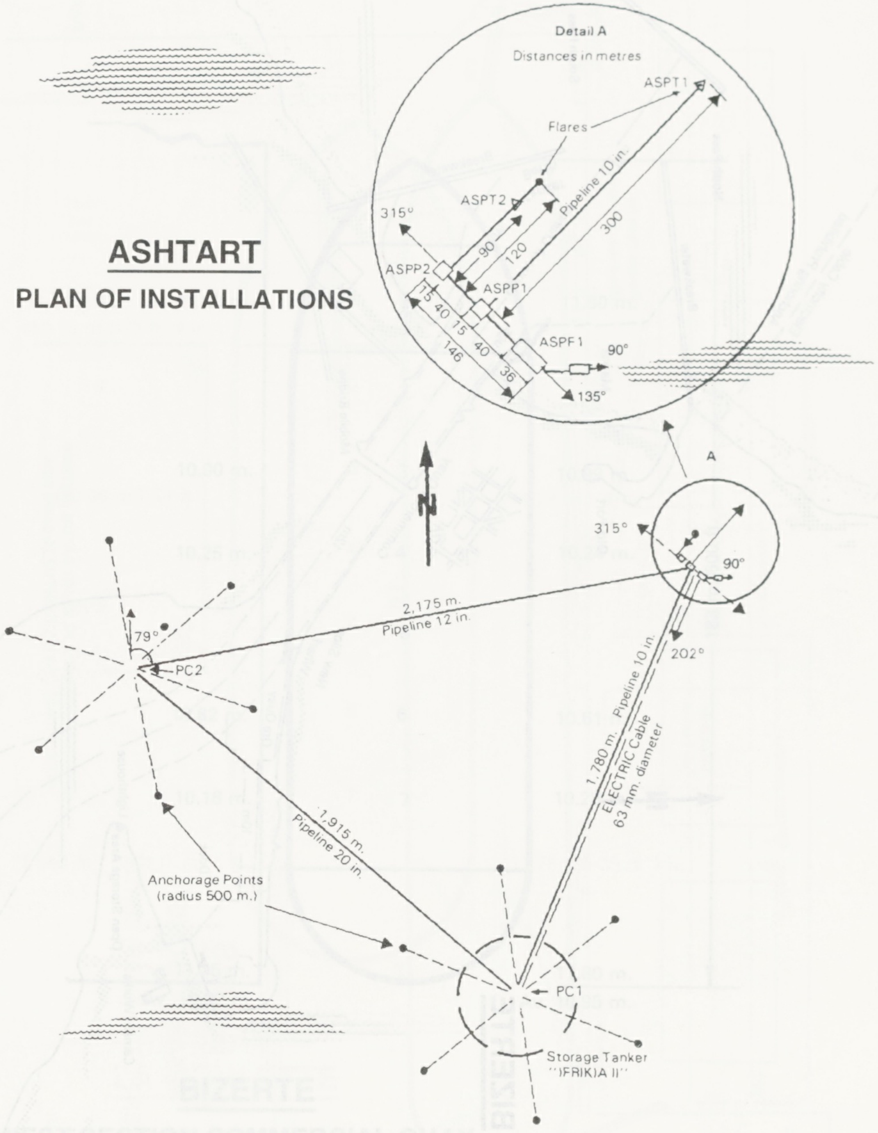

H
2 x Flexible Hoses 12 in.
Storage Barge
Fenders

ASHTART

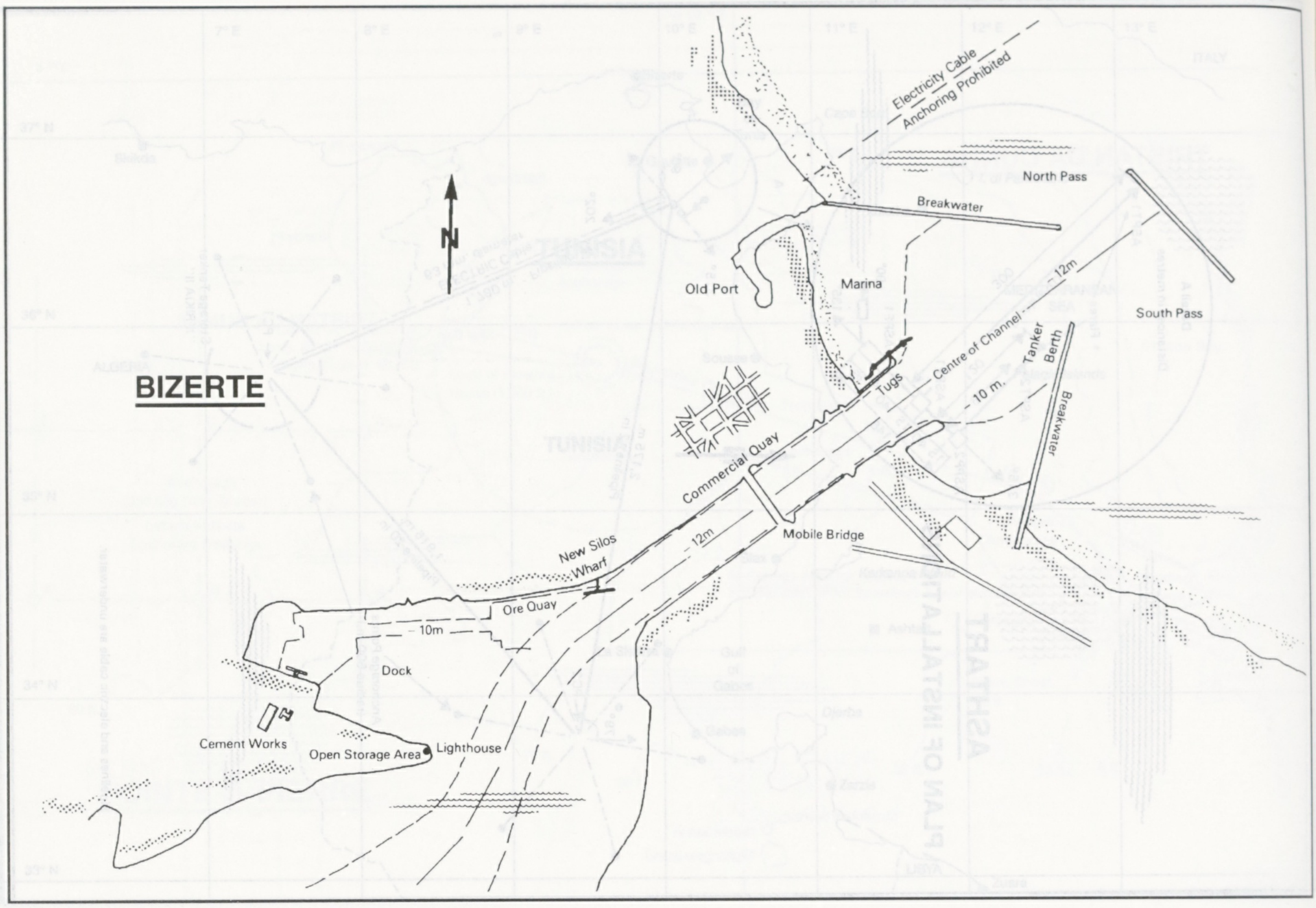
ALONGSIDE

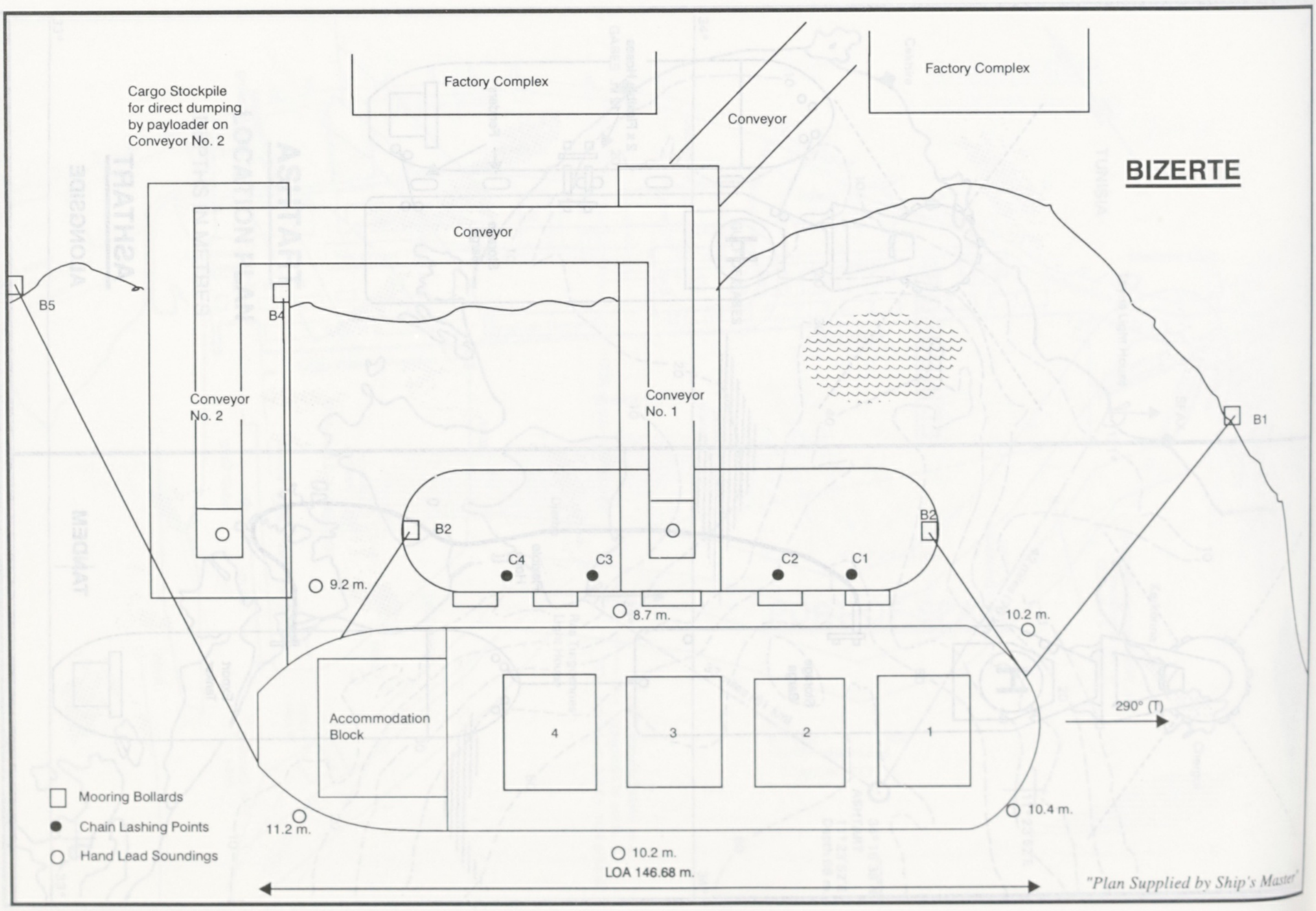
ASHTART

PLAN OF INSTALLATIONS

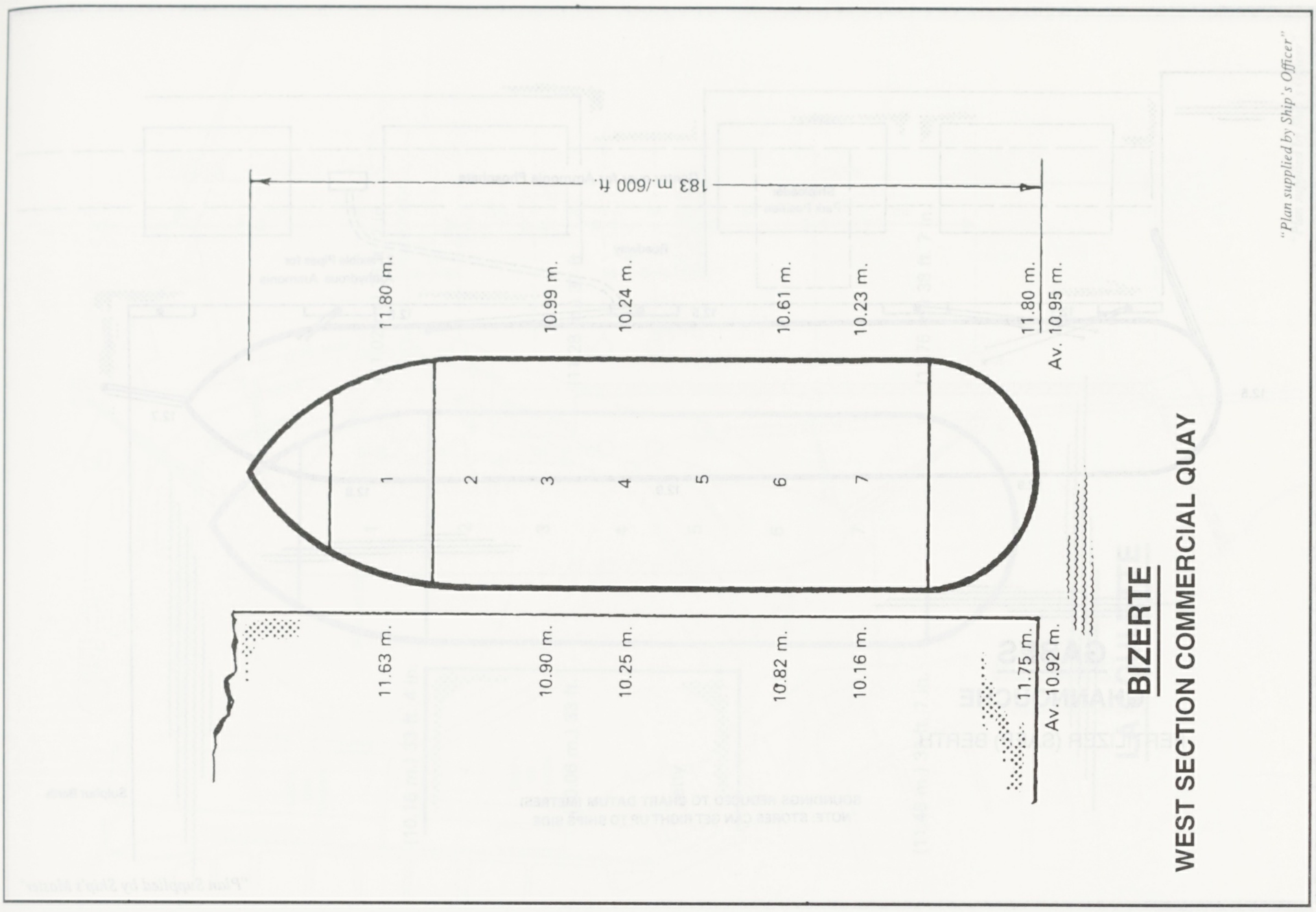

Detail A
Distances in metres
ASPT1
Flares
Pipeline 10 in.
300
ASPT2
315°
90
120
ASPP2
ASPP1
15
40
15
40
146
36
ASPF1
90°
135°
N
A
315°
90°
202°
2,175 m.
Pipeline 12 in.
79°
PC2
1,780 m. Pipeline 10 in.
ELECTRIC Cable 63 mm. diameter
1,915 m.
Pipeline 20 in.
Anchorage Points (radius 500 m.)
PC1
Storage Tanker "IFRIKIA II"

Pipelines and electric cable are underwater.


BIZERTE
N
Electricity Cable
Anchoring Prohibited
North Pass
Breakwater
Old Port
Marina
South Pass
12m
Centre of Channel
Tanker Berth
Tugs
10 m.
Breakwater
Commercial Quay
Mobile Bridge
12m
New Silos Wharf
Ore Quay
10m
Dock
Cement Works
Open Storage Area
Lighthouse


Cargo Stockpile for direct dumping by payloader on Conveyor No. 2
Factory Complex
Conveyor
Factory Complex
BIZERTE
Conveyor
B5
B4
Conveyor No. 2
Conveyor No. 1
B1
B2
B2
C4
C3
C2
C1
9.2 m.
8.7 m.
10.2 m.
Accommodation Block
4
3
2
1
290° (T)
Mooring Bollards
Chain Lashing Points
Hand Lead Soundings
11.2 m.
10.4 m.
10.2 m.
LOA 146.68 m.

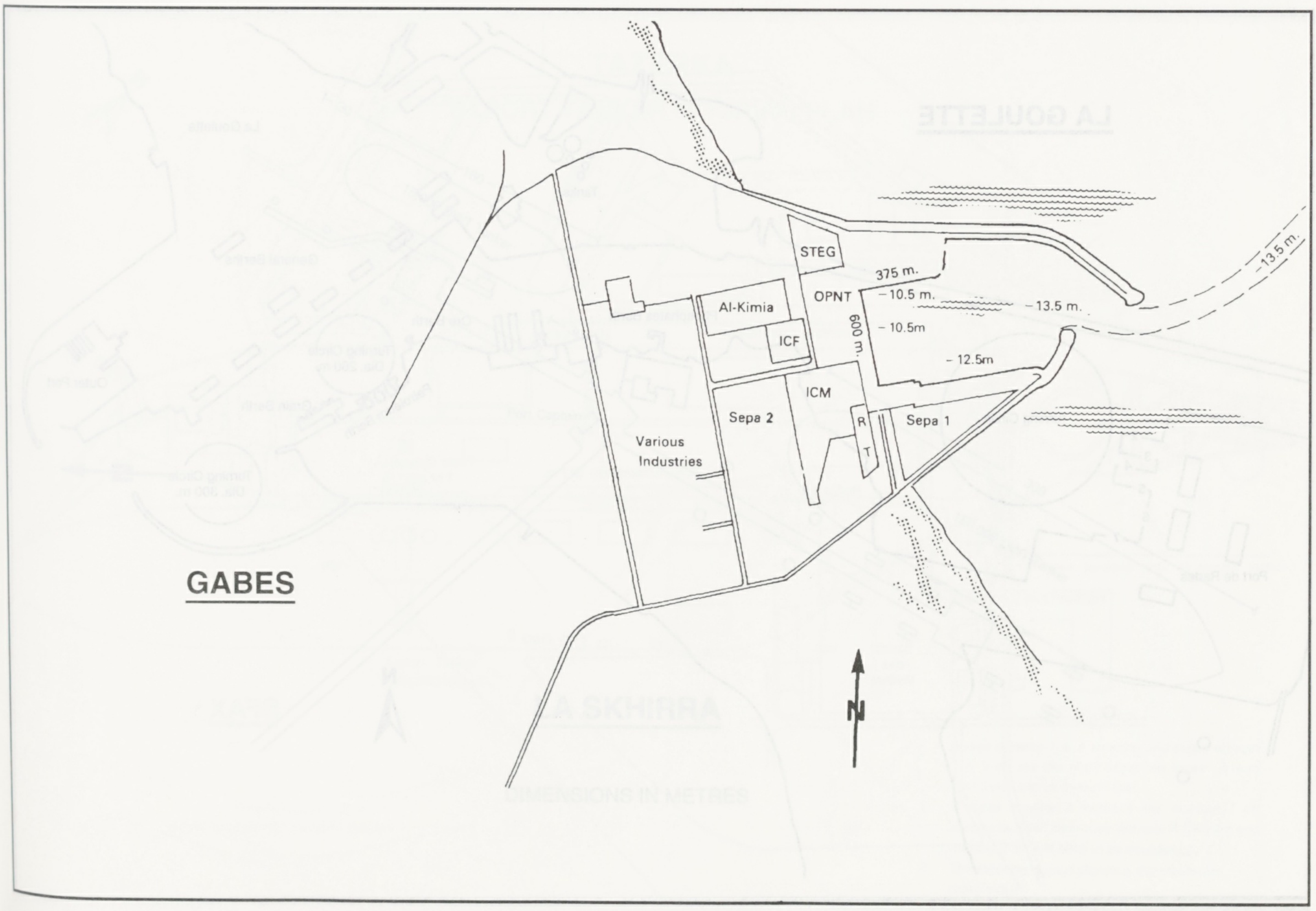
"Plan Supplied by Ship's Master"



BIZERTE
WEST SECTION COMMERCIAL QUAY

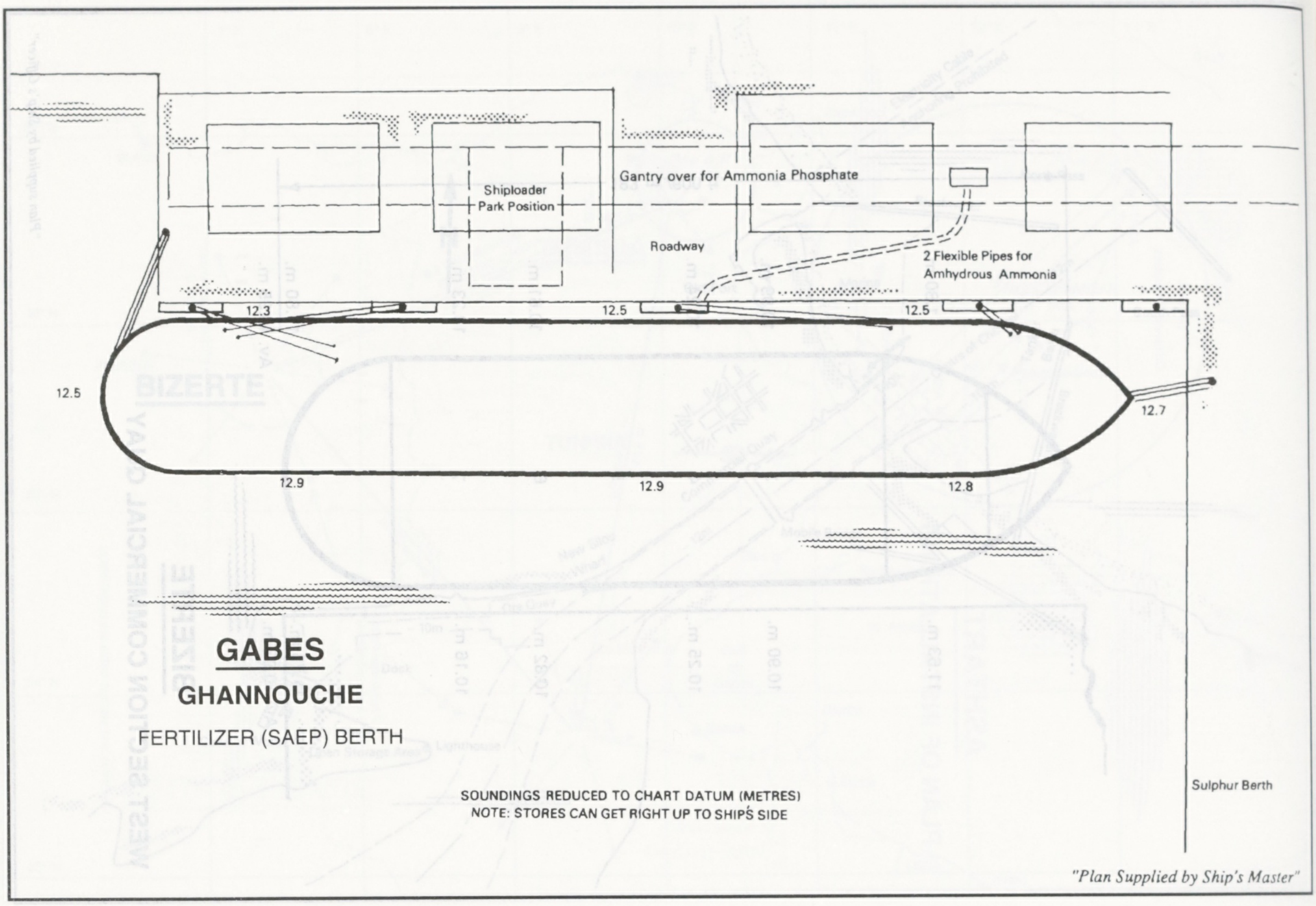
183 m./600 ft.
11.80 m.
10.99 m.
10.24 m.
10.61 m.
10.23 m.
11.80 m.
Av. 10.95 m.
1
2
3
4
5
6
7
11.63 m.
10.90 m.
10.25 m.
10.82 m.
10.16 m.
11.75 m.
Av. 10.92 m.

"Plan supplied by Ship's Officer"



GABES

STEG
375 m.
OPNT
– 10.5 m.
– 10.5m
600 m.
– 13.5 m.
– 12.5m
–13.5 m.
Al-Kimia
ICF
ICM
Sepa 2
Sepa 1
R
T
Various Industries
N



GABES

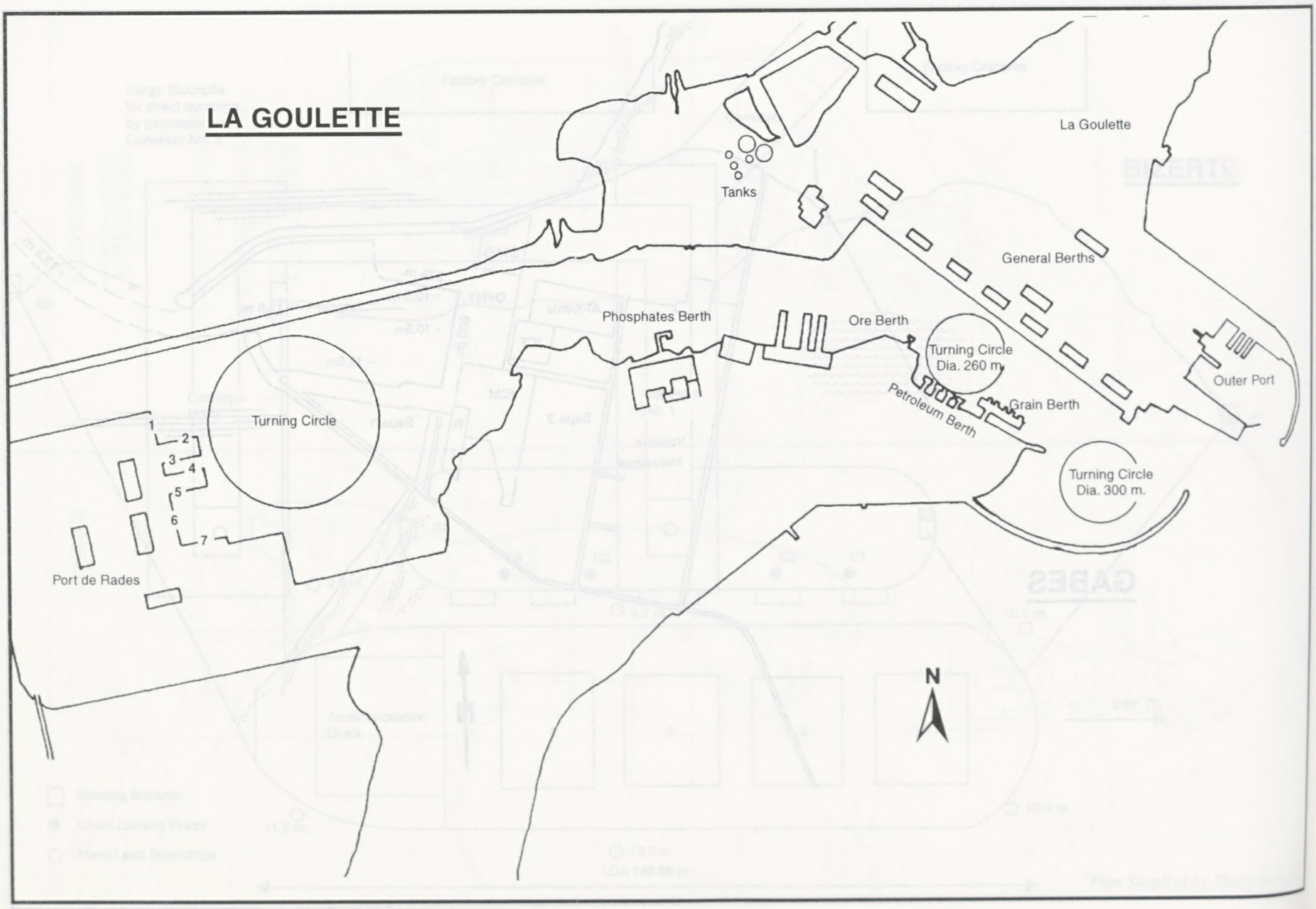
GHANNOUCHE

FERTILIZER (SAEP) BERTH

SOUNDINGS REDUCED TO CHART DATUM (METRES)
NOTE: STORES CAN GET RIGHT UP TO SHIPŚ SIDE

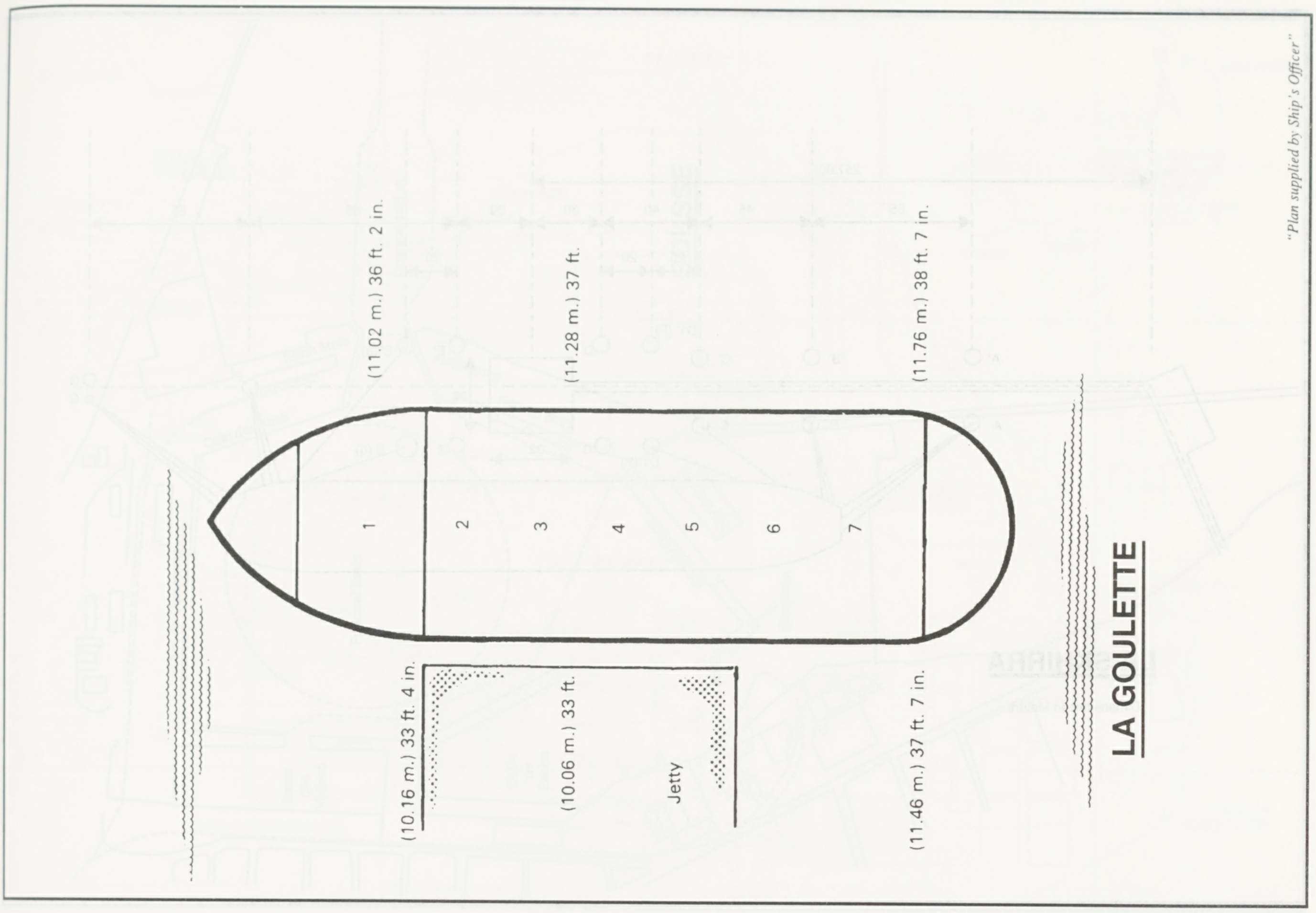
"Plan Supplied by Ship's Master"

Gantry over for Ammonia Phosphate
Shiploader
Park Position
Roadway
2 Flexible Pipes for
Amhydrous Ammonia
12.3
12.5
12.5
12.5
12.7
12.9
12.9
12.8
Sulphur Berth

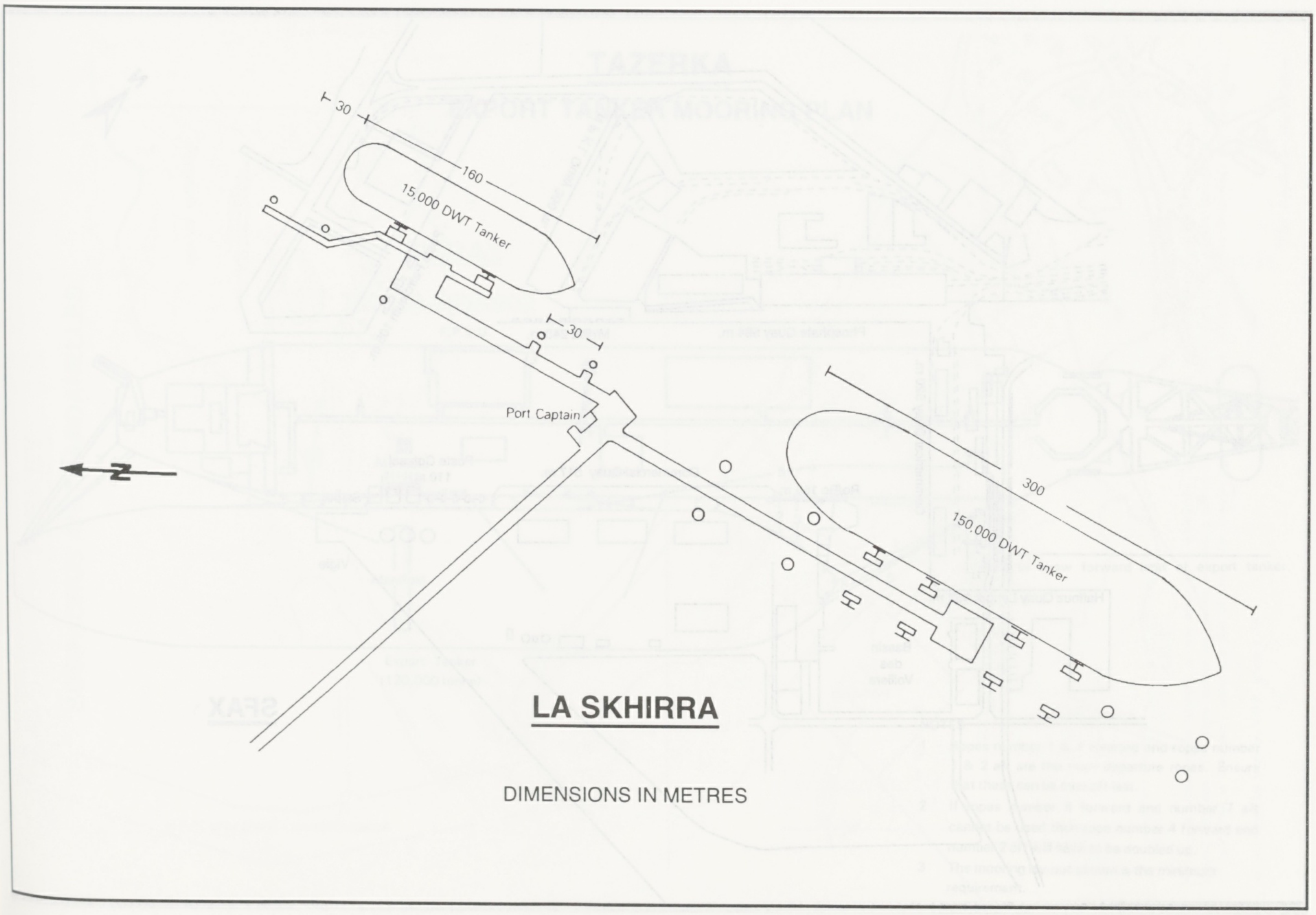


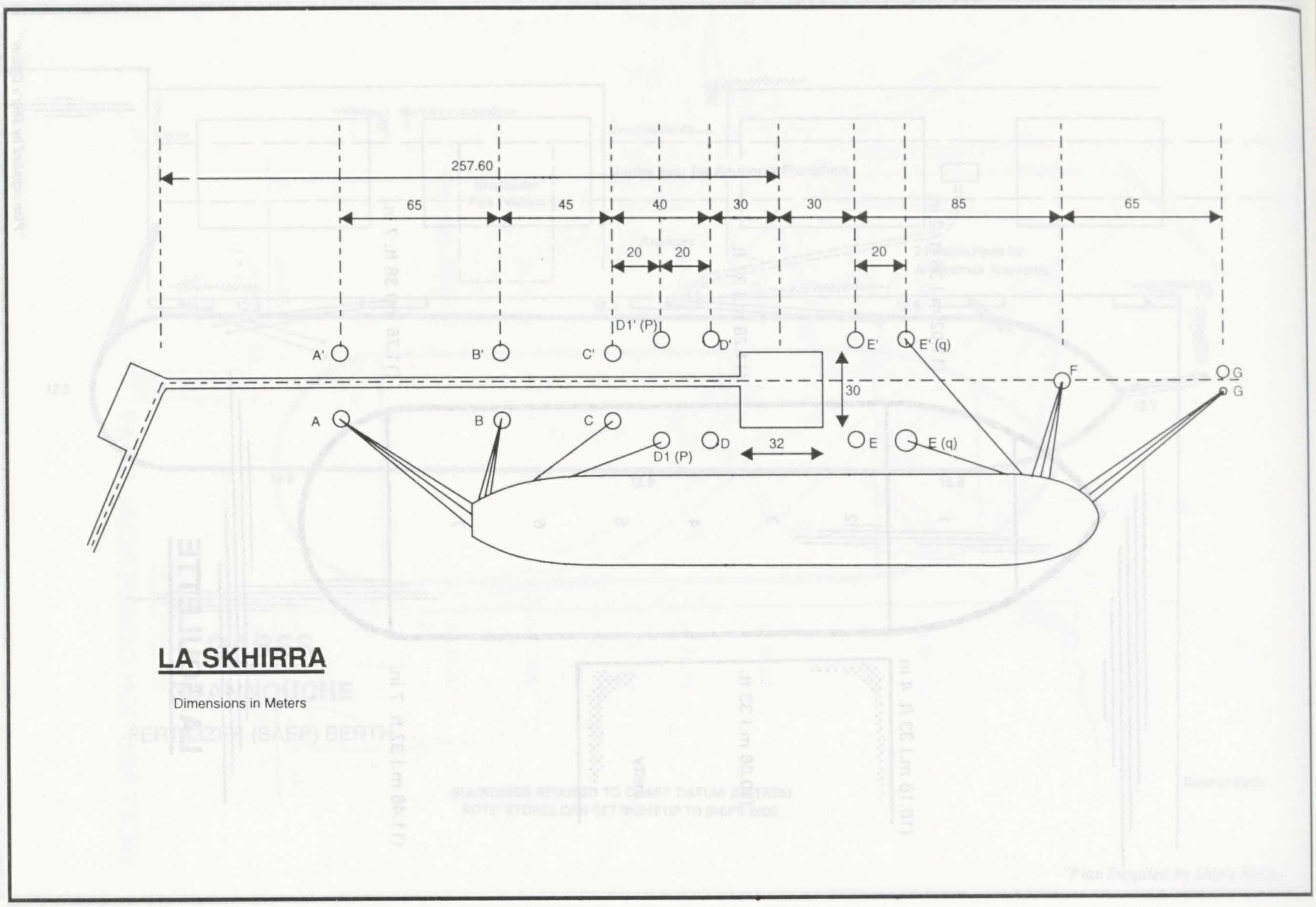
LA GOULETTE

La Goulette
Tanks
General Berths
Phosphates Berth
Ore Berth
Turning Circle
Dia. 260 m.
Outer Port
Petroleum Berth
Grain Berth
Turning Circle
Dia. 300 m.
Turning Circle
1
2
3
4
5
6
7
Port de Rades
N


LA GOULETTE
(11.02 m.) 36 ft. 2 in.
(11.28 m.) 37 ft.
(11.76 m.) 38 ft. 7 in.
1
2
3
4
5
6
7
(10.16 m.) 33 ft. 4 in.
(10.06 m.) 33 ft.
Jetty
(11.46 m.) 37 ft. 7 in.

"Plan supplied by Ship's Officer"

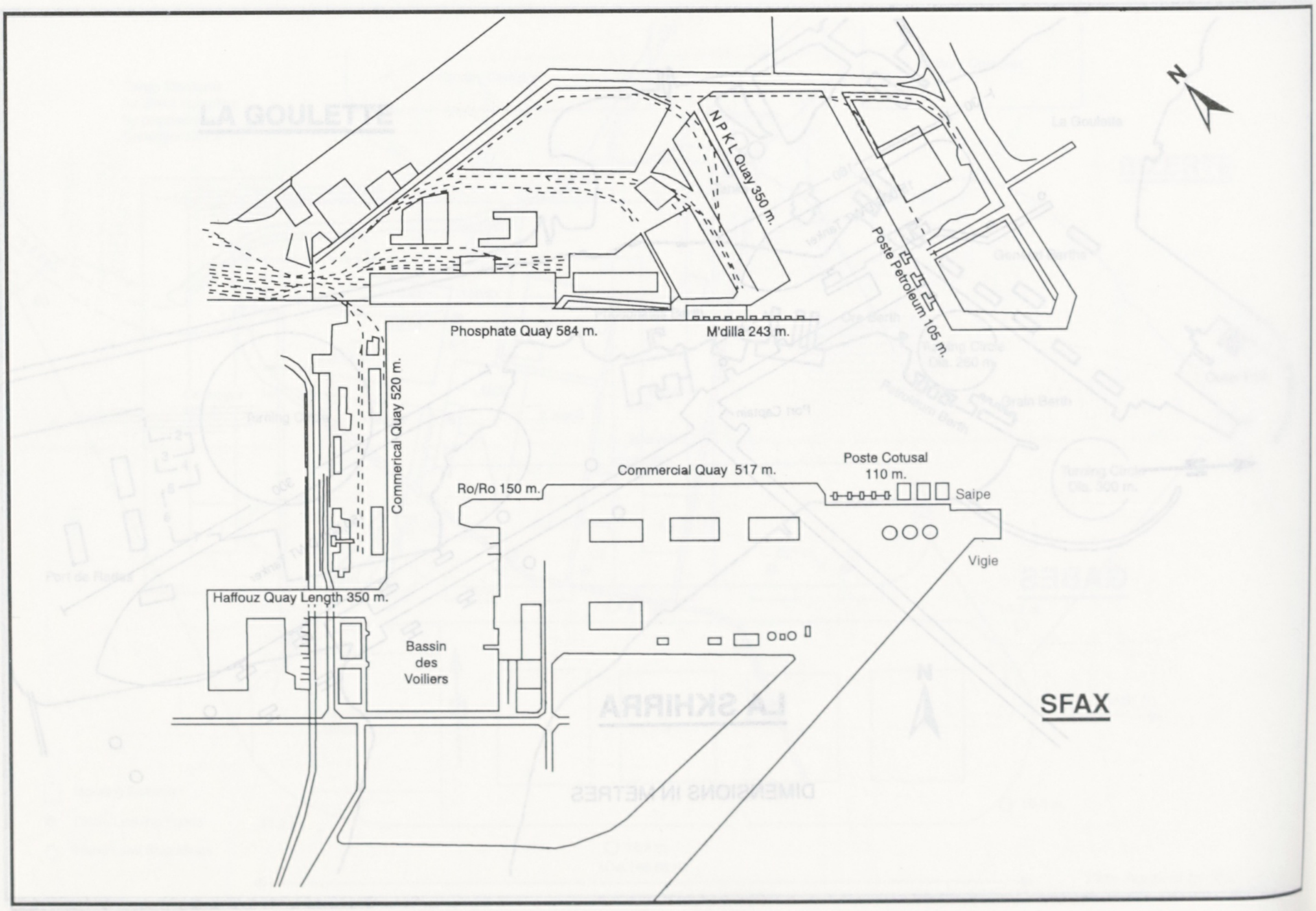

LA SKHIRRA
DIMENSIONS IN METRES
N
30
160
15,000 DWT Tanker
30
Port Captain
300
150,000 DWT Tanker



LA SKHIRRA

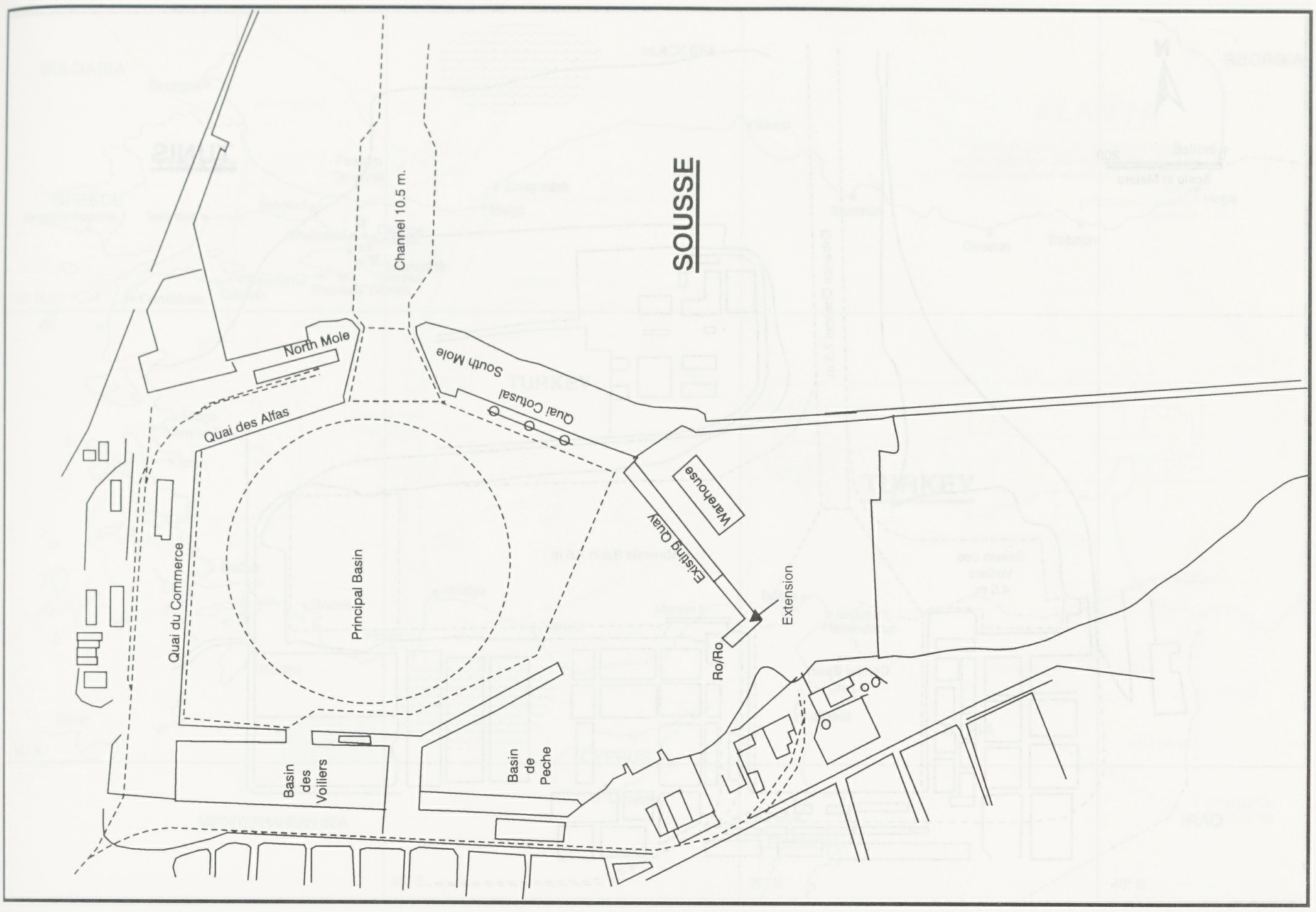
Dimensions in Meters

257.60
65
45
40
30
30
85
65
20
20
20
A'
B'
C'
D1' (P)
D'
E'
E' (q)
F
G
G
30
A
B
C
D1 (P)
D
32
E
E (q)



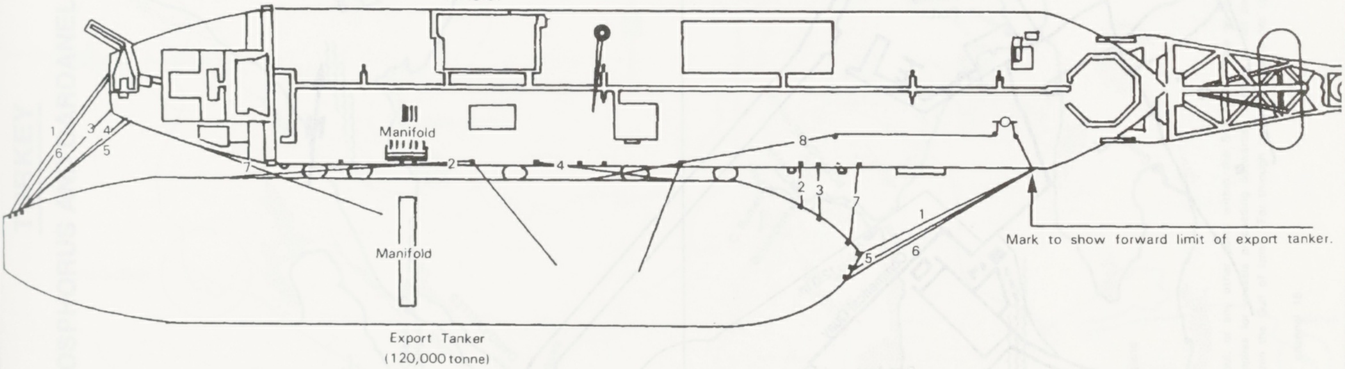
SFAX

N
N P K L Quay 350 m.
Poste Petroleum 105 m.
Phosphate Quay 584 m.
M'dilla 243 m.
Commerical Quay 520 m.
Poste Cotusal
110 m.
Commercial Quay 517 m.
Ro/Ro 150 m.
Saipe
Vigie
Haffouz Quay Length 350 m.
Bassin
des
Voiliers


SOUSSE
Channel 10.5 m.
North Mole
South Mole
Quai Cotusal
Quai des Alfas
Warehouse
Existing Quay
Extension
Ro/Ro
Principal Basin
Quai du Commerce
Basin des Voiliers
Basin de Peche

TAZERKA

EXPORT TANKER MOORING PLAN

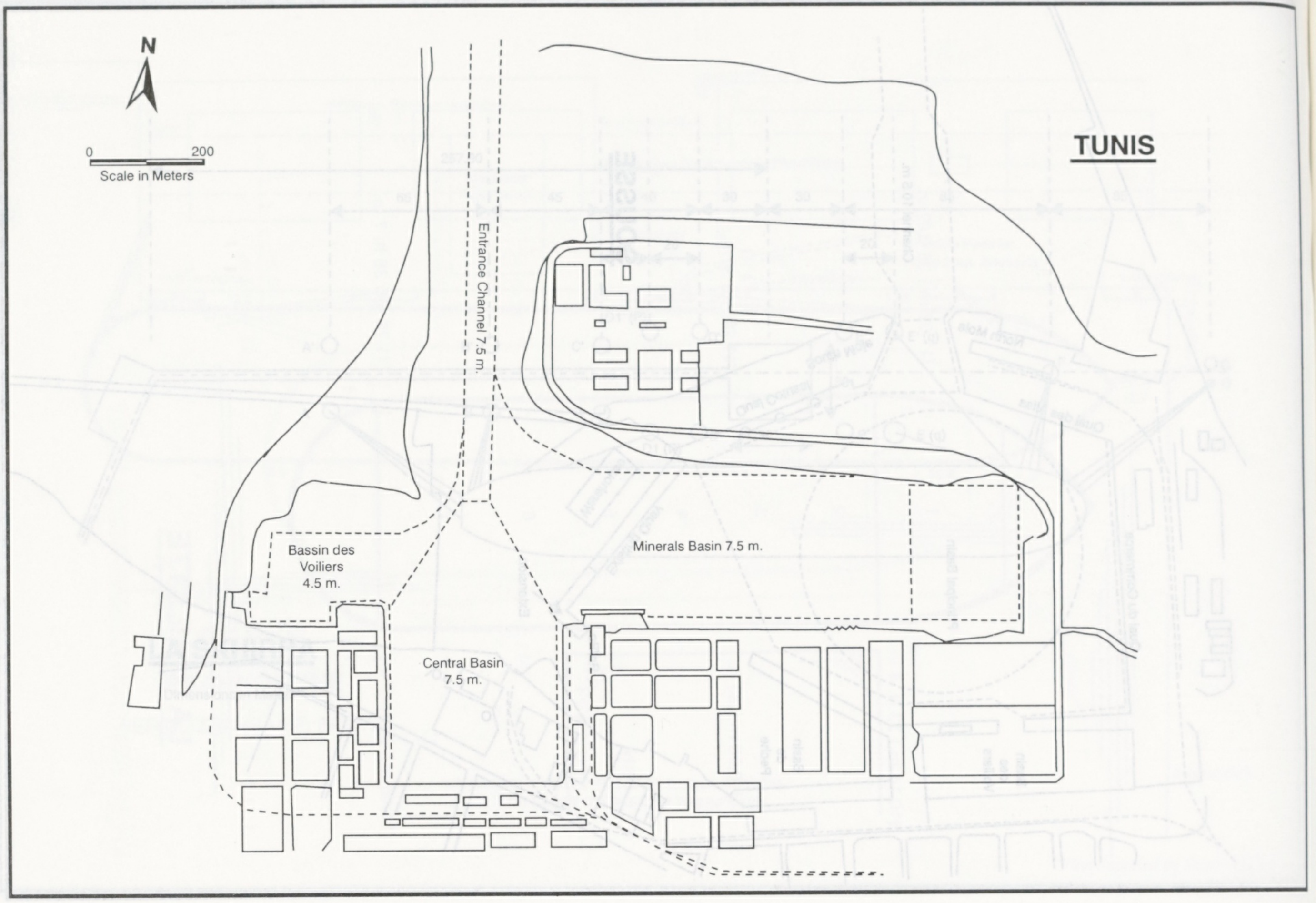

F.P.S.U.
Manifold
1
3
4
6
5
7
2
4
8
2
3
7
1
5
6
Manifold
Export Tanker
(120,000 tonne)
Mark to show forward limit of export tanker.

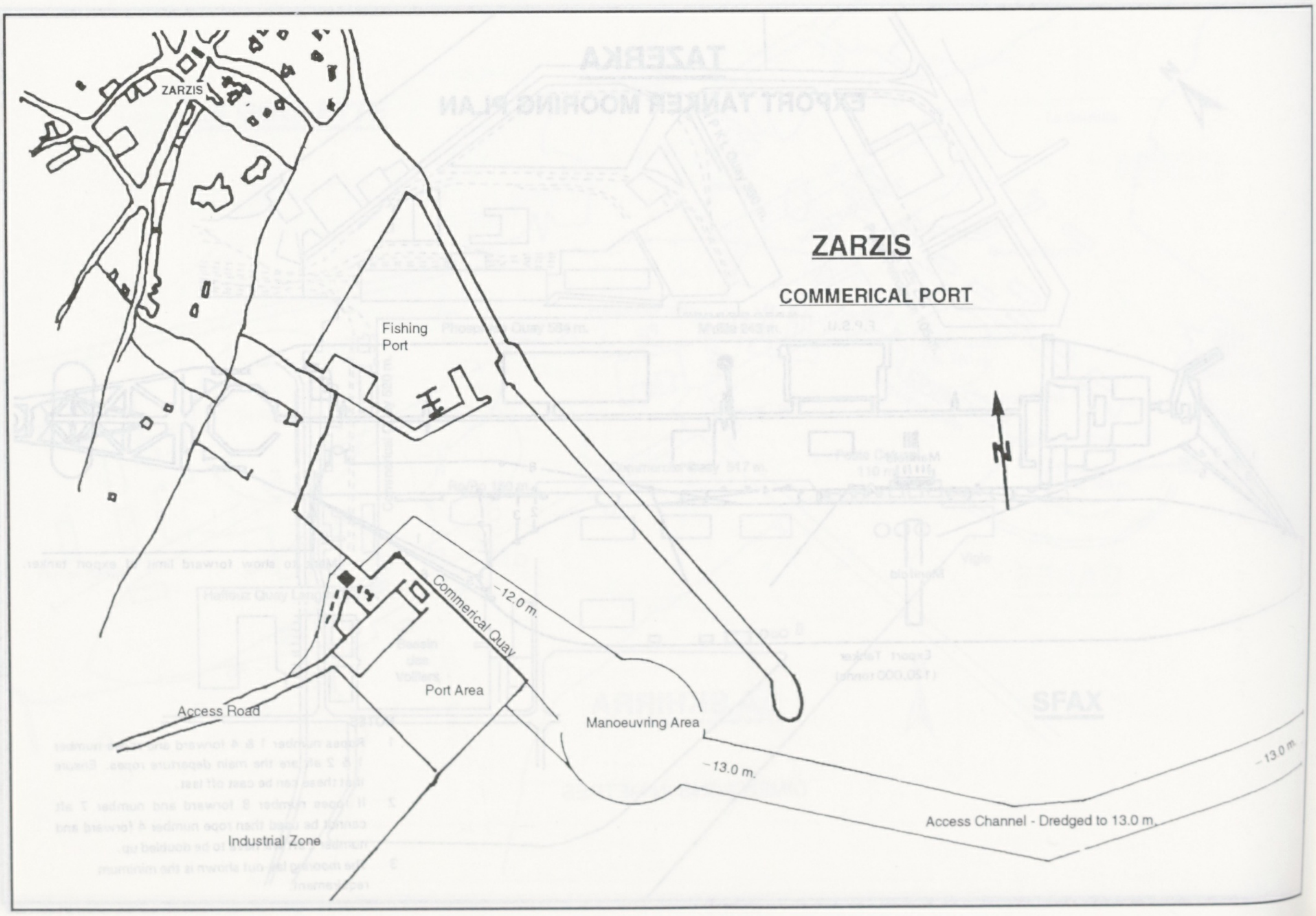
NOTES

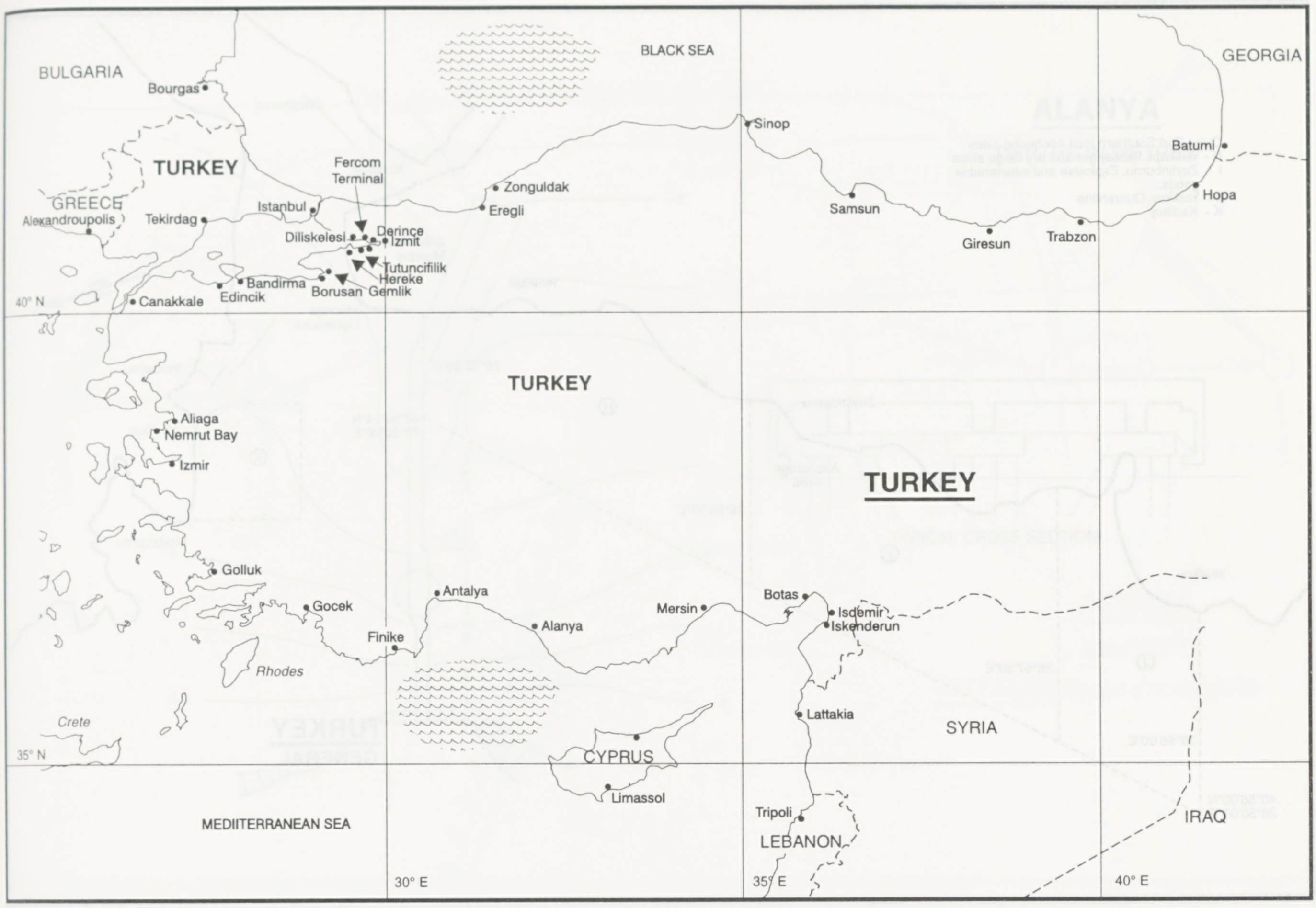
1 Ropes number 1 & 4 forward and ropes number 1 & 2 aft are the main departure ropes. Ensure that these can be cast off last.

2 If ropes number 8 forward and number 7 aft cannot be used then rope number 4 forward and number 2 aft will have to be doubled up.

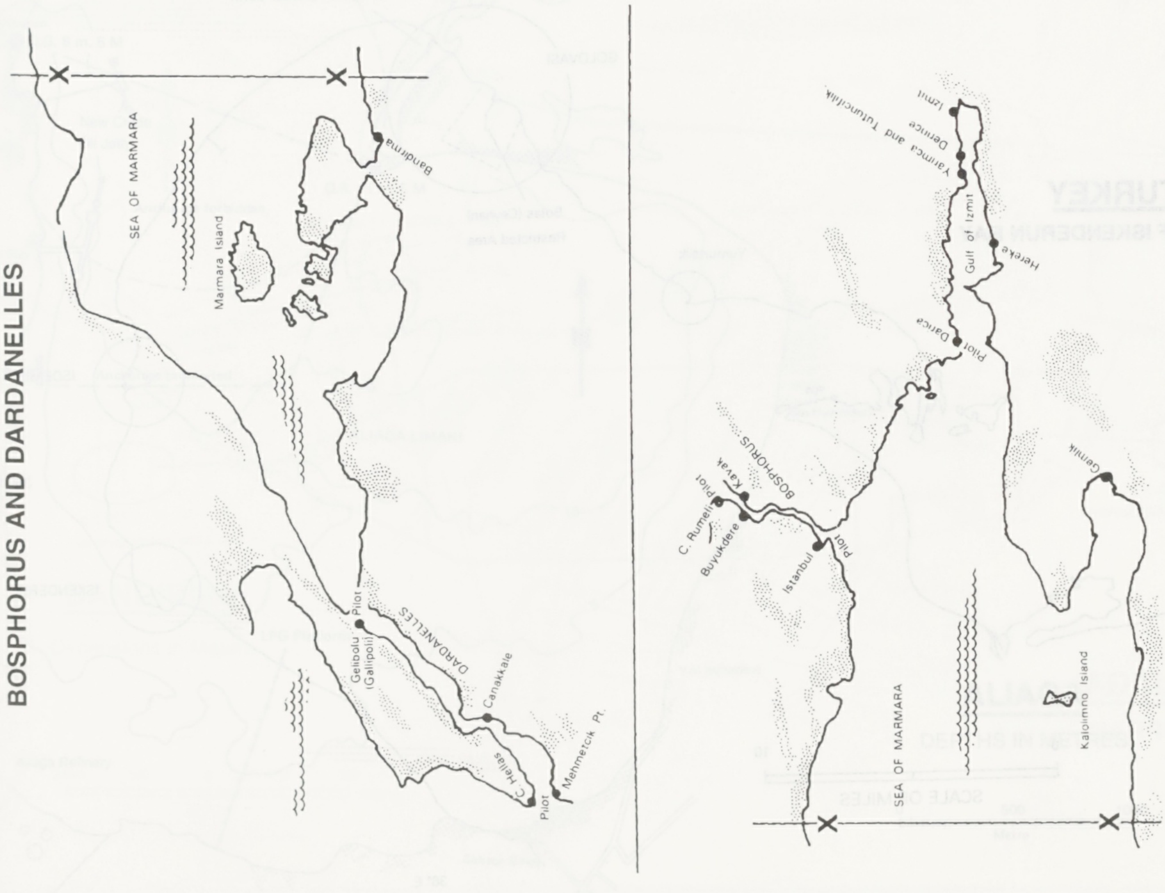
3 The mooring lay-out shown is the minimum requirement.


N
0
200
Scale in Meters
TUNIS
Entrance Channel 7.5 m.
Bassin des Voiliers 4.5 m.
Minerals Basin 7.5 m.
Central Basin 7.5 m.


ZARZIS
ZARZIS
COMMERICAL PORT
Fishing Port
N
Commerical Quay
~12.0 m.
Port Area
Access Road
Manoeuvring Area
~13.0 m.
~13.0 m.
Access Channel - Dredged to 13.0 m.
Industrial Zone


BULGARIA
Bourgas
TURKEY
GREECE
Alexandroupolis
Tekirdag
Istanbul
Fercom Terminal
Diliskelesi
Derince
Izmit
Tutuncifilik
Hereke
Borusan
Gemlik
Bandirma
Edincik
Canakkale
40° N
BLACK SEA
Zonguldak
Eregli
Sinop
Samsun
Giresun
Trabzon
Hopa
Batumi
GEORGIA
TURKEY
Aliaga
Nemrut Bay
Izmir
TURKEY
Golluk
Gocek
Finike
Antalya
Alanya
Mersin
Botas
Isdemir
Iskenderun
Rhodes
Crete
35° N
CYPRUS
Limassol
Lattakia
SYRIA
Tripoli
LEBANON
IRAQ
MEDIITERRANEAN SEA
30° E
35° E
40° E

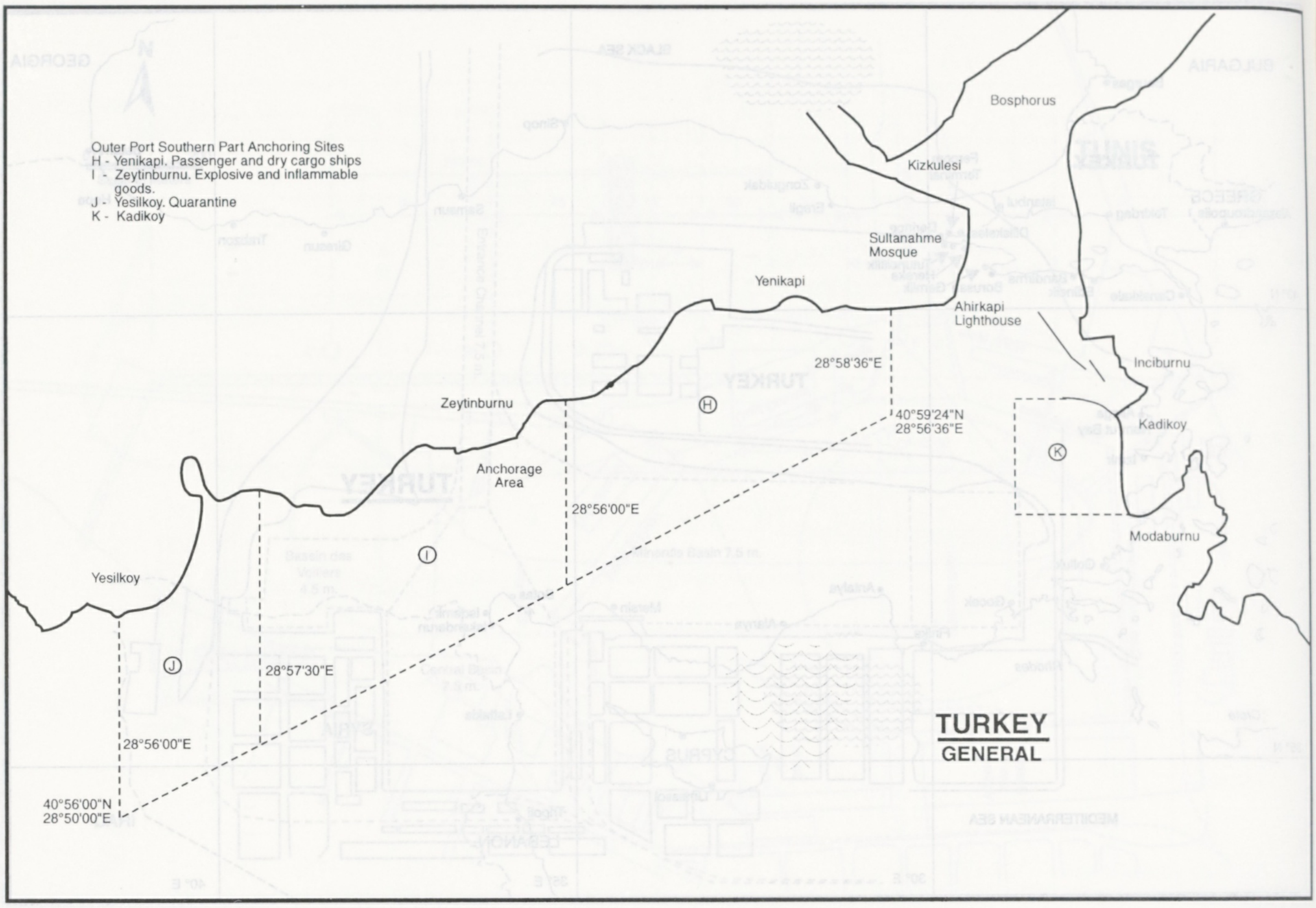
TURKEY
BOSPHORUS AND DARDANELLES


SEA OF MARMARA
Marmara Island
Bandirma
Pilot
Gelibolu (Gallipoli)
DARDANELLES
Canakkale
C. Helles
Mehmetcik Pt.
Pilot
Izmit
Yarimca and Tutuncifilik
Derince
Gulf of Izmit
Hereke
Darica
Pilot
BOSPHORUS
Kavak
Pilot
C. Rumeli
Buyukdere
Istanbul
Pilot
Gemlik
SEA OF MARMARA
Kalolimno Island

For vessels proceeding to Istanbul, or any other ports within the Sea of Marmara or Gulf of Izmit, pilotage is compulsory from the southern entrance. The same applies for vessels proceeding outwards. Pilotage is not compulsory for vessels proceeding from Gelibolu to Darica, but is compulsory within the Gulf of Izmit. For through traffic pilotage is not compulsory for the Bosphorous and Dardanelles

All pilot stations monitor V.H.F. channel 16.

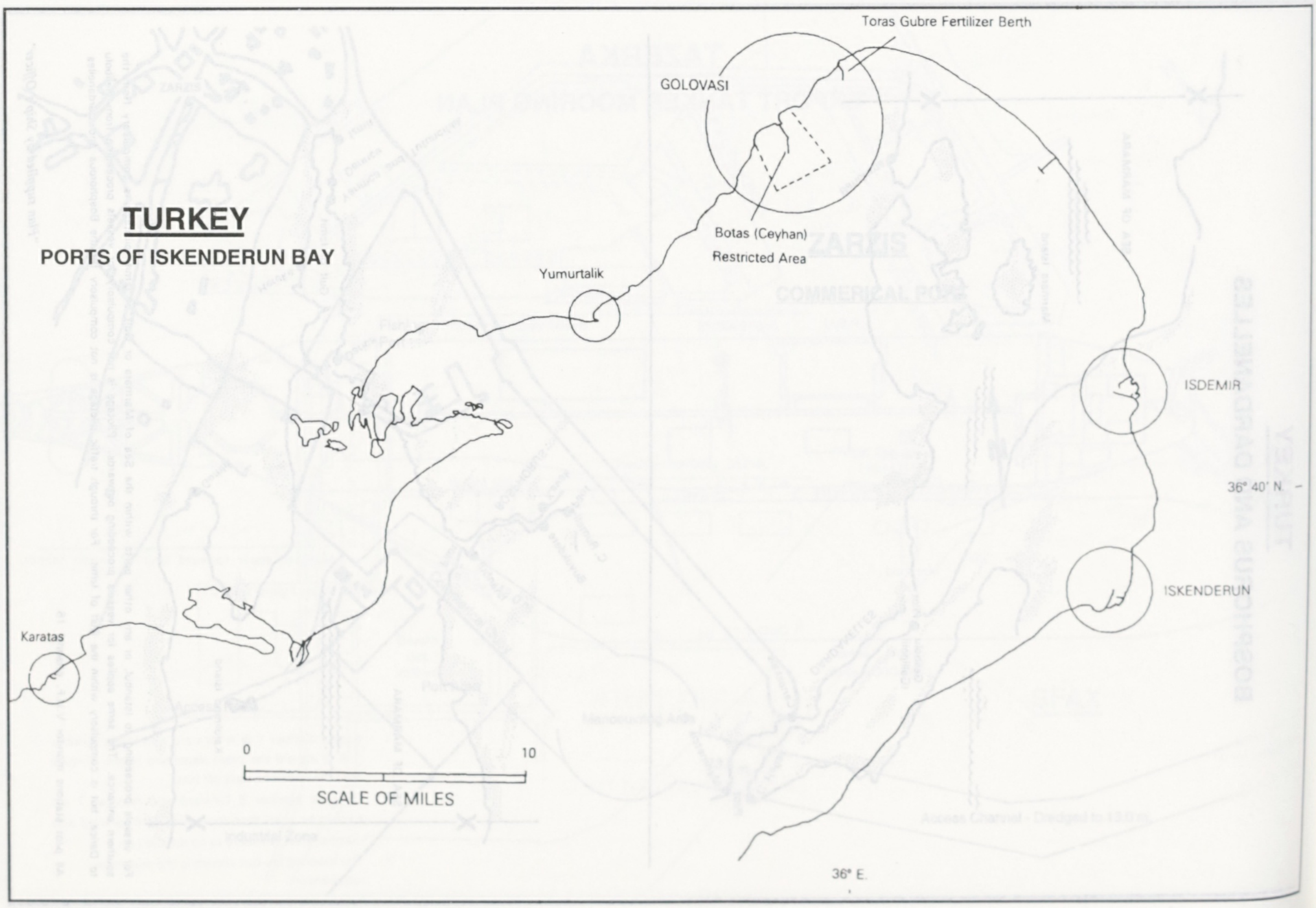
"Plan supplied by Ship's Officer"



TURKEY
GENERAL

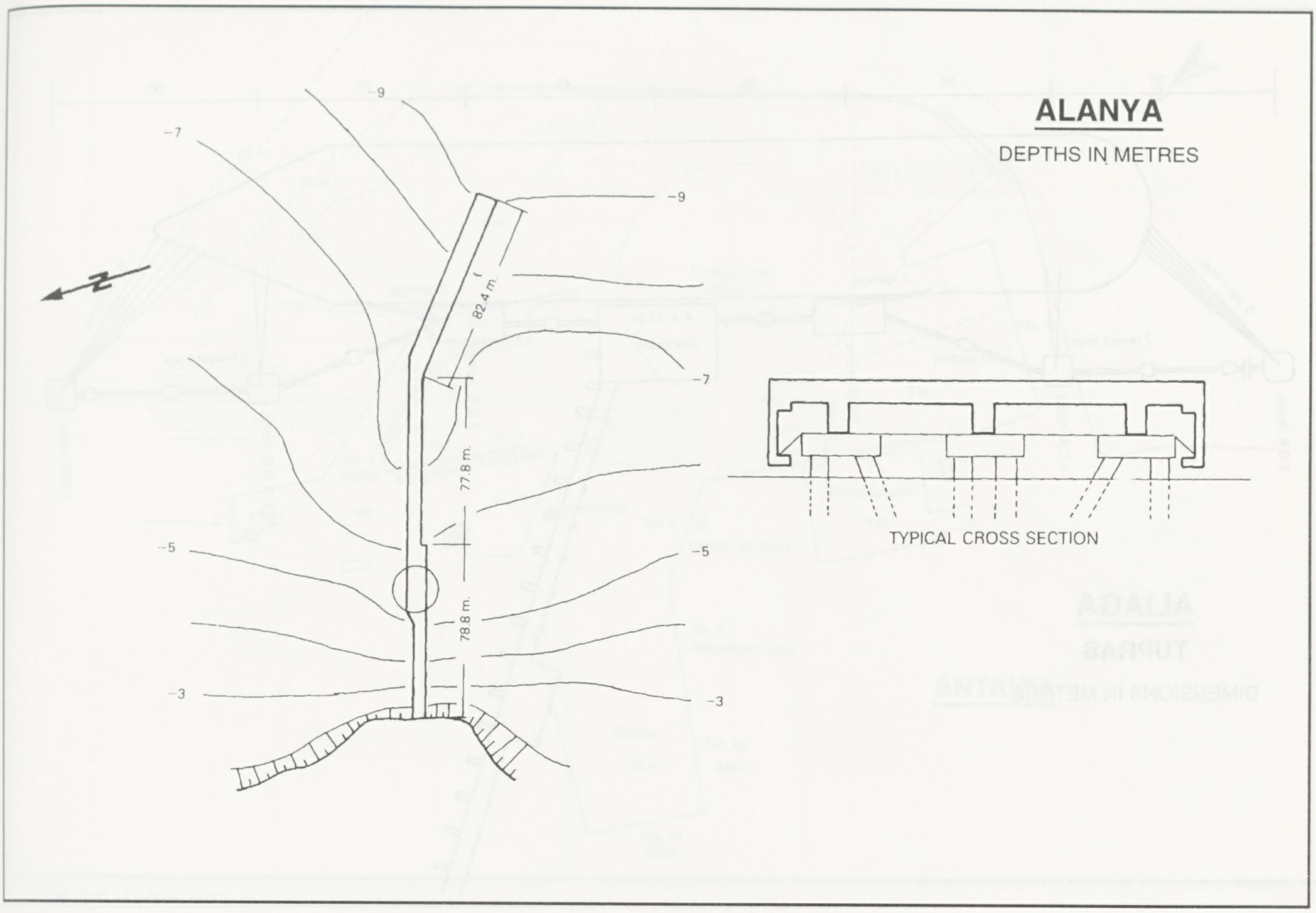
Outer Port Southern Part Anchoring Sites
H - Yenikapi. Passenger and dry cargo ships
I - Zeytinburnu. Explosive and inflammable goods.
J - Yesilkoy. Quarantine
K - Kadikoy

Bosphorus
Kizkulesi
Sultanahme Mosque
Yenikapi
Ahirkapi Lighthouse
Inciburnu
28°58'36"E
Zeytinburnu
H
40°59'24"N
28°56'36"E
Kadikoy
K
Anchorage Area
28°56'00"E
Modaburnu
Yesilkoy
I
J
28°57'30"E
28°56'00"E
40°56'00"N
28°50'00"E



TURKEY
PORTS OF ISKENDERUN BAY

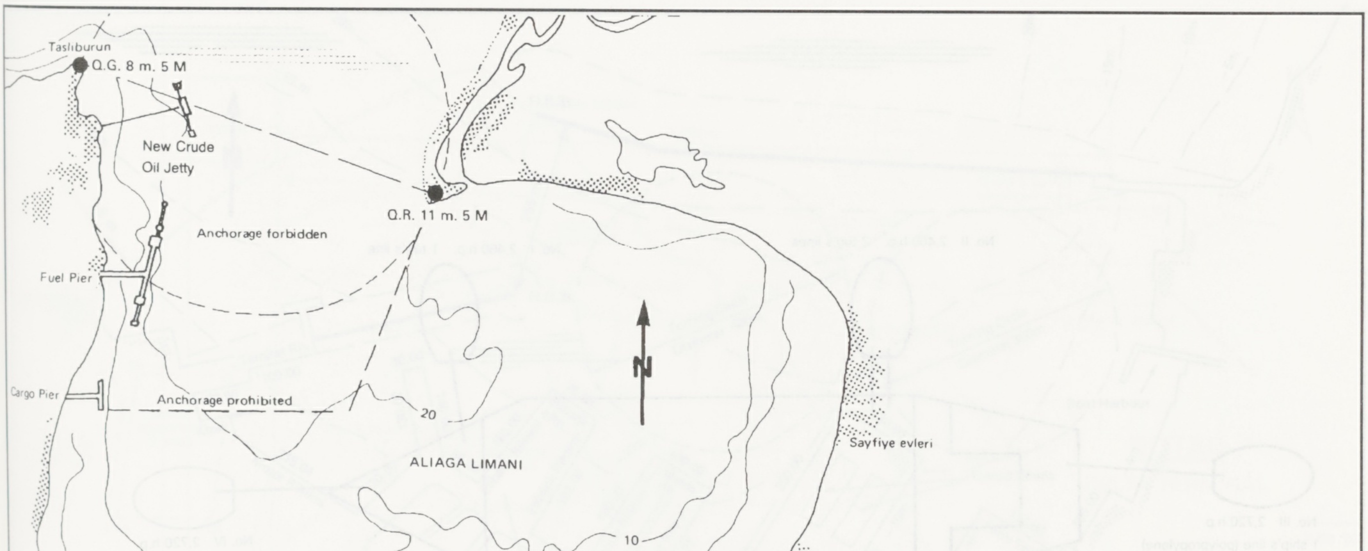
Toras Gubre Fertilizer Berth
GOLOVASI
Botas (Ceyhan)
Restricted Area
Yumurtalik
ISDEMIR
36° 40' N.
ISKENDERUN
Karatas
0
10
SCALE OF MILES
36° E.



ALANYA

DEPTHS IN METRES

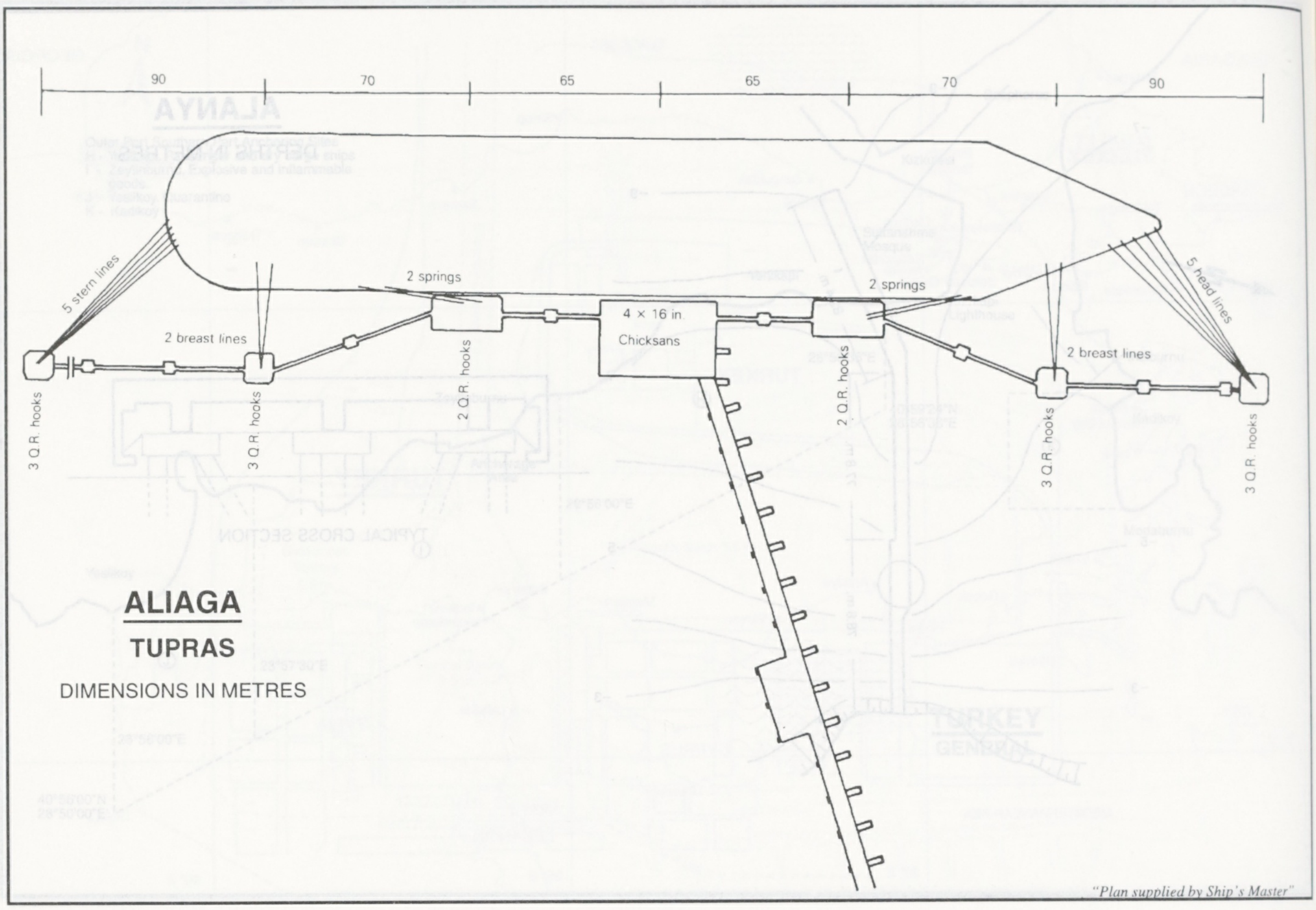
-9
-7
-9
82.4 m.
-7
77.8 m.
N
-5
-5
78.8 m.
-3
-3
TYPICAL CROSS SECTION



ALIAGA

DEPTHS IN METRES

Tasliburun
Q.G. 8 m. 5 M
New Crude
Oil Jetty
Q.R. 11 m. 5 M
Anchorage forbidden
Fuel Pier
N
Cargo Pier
Anchorage prohibited
20
ALIAGA LIMANI
Sayfiye evleri
10
5
LPG Platform
Yol bakimevi
Aliaga Refinery
Sektor Binasi
0
500
1000
Metre

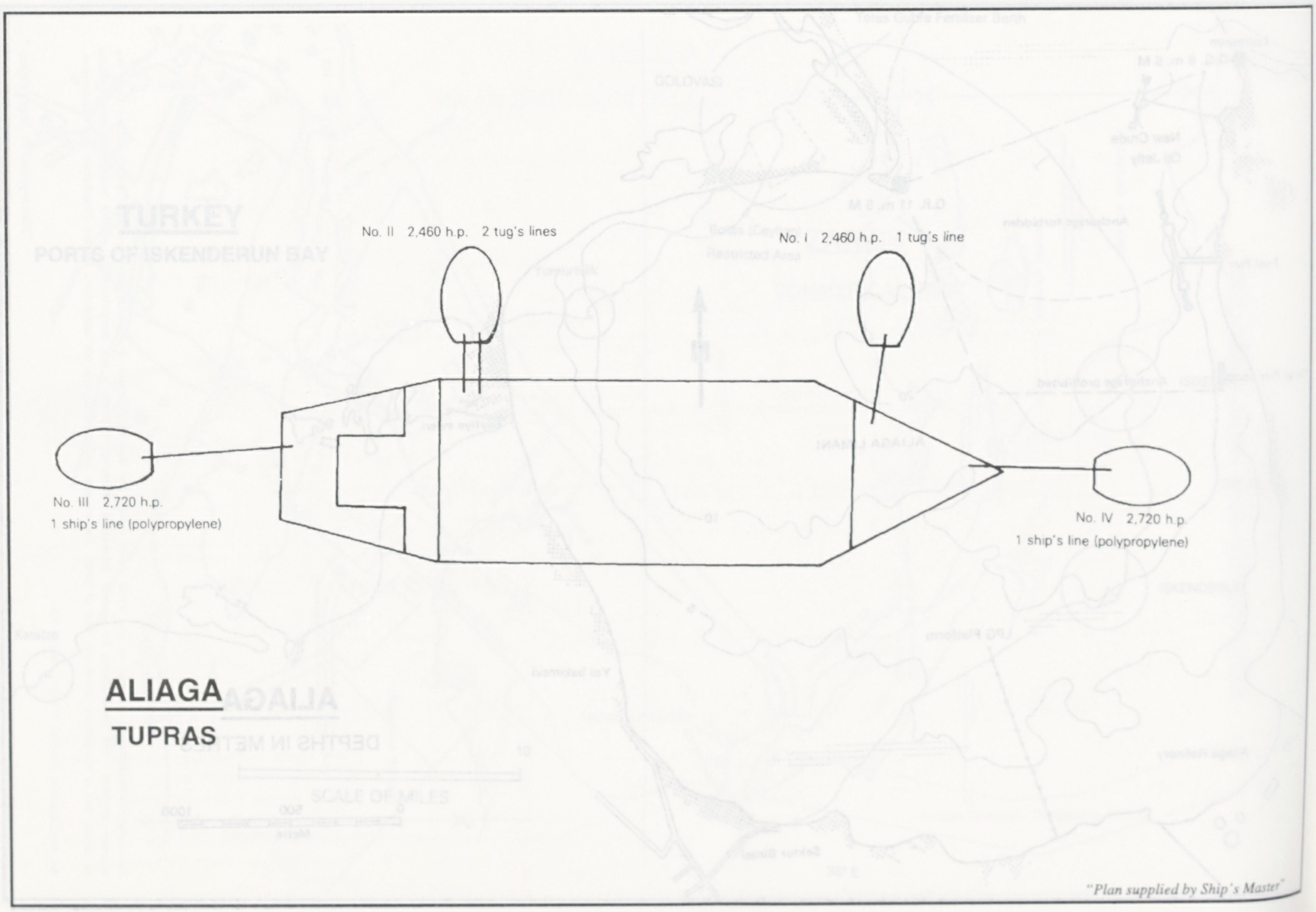

90
70
65
65
70
90
5 stern lines
2 springs
2 springs
5 head lines
2 breast lines
2 breast lines
4 × 16 in.
Chicksans
3 Q.R. hooks
3 Q.R. hooks
2 Q.R. hooks
2 Q.R. hooks
3 Q.R. hooks
3 Q.R. hooks

ALIAGA

TUPRAS

DIMENSIONS IN METRES

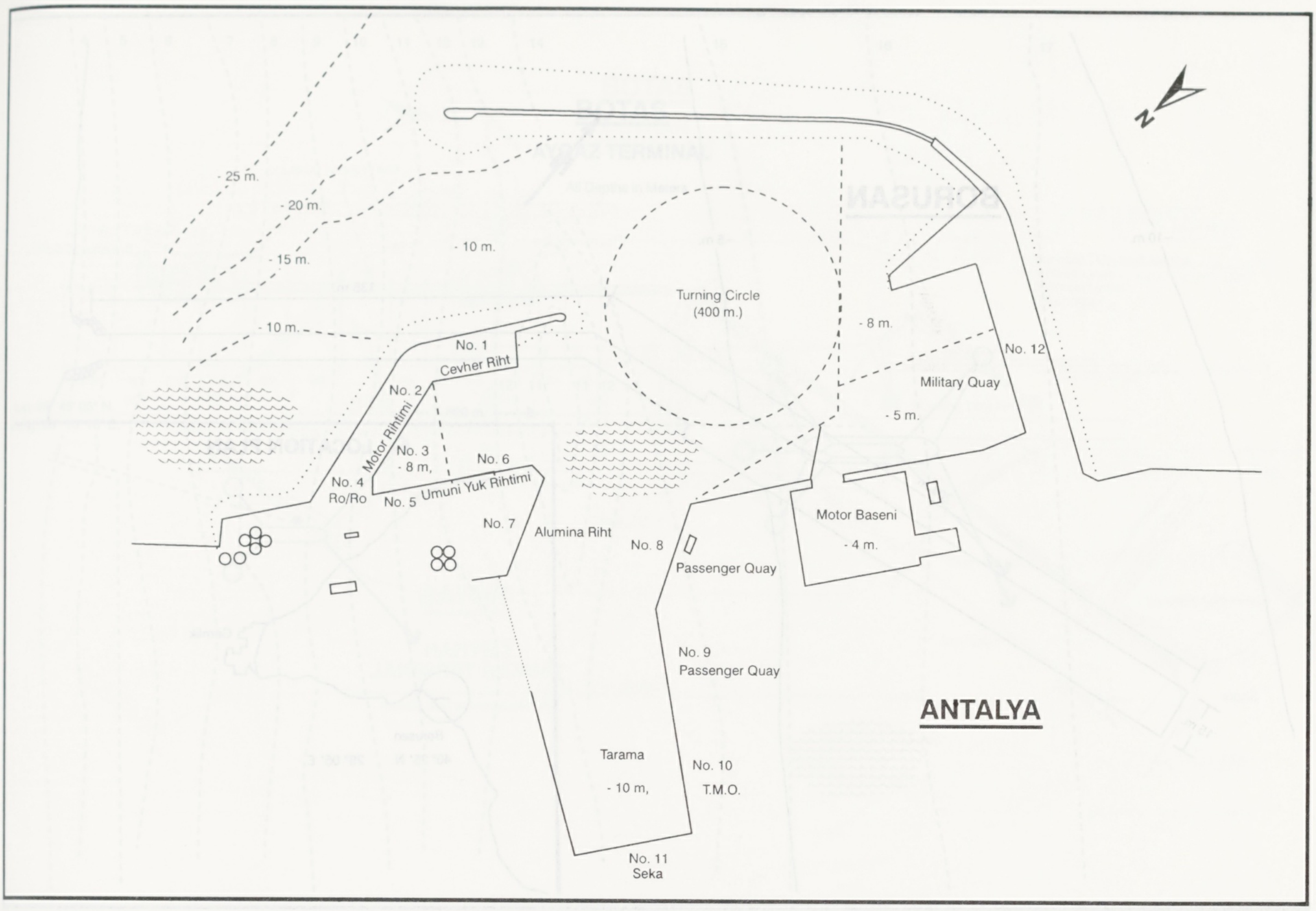
"Plan supplied by Ship's Master"

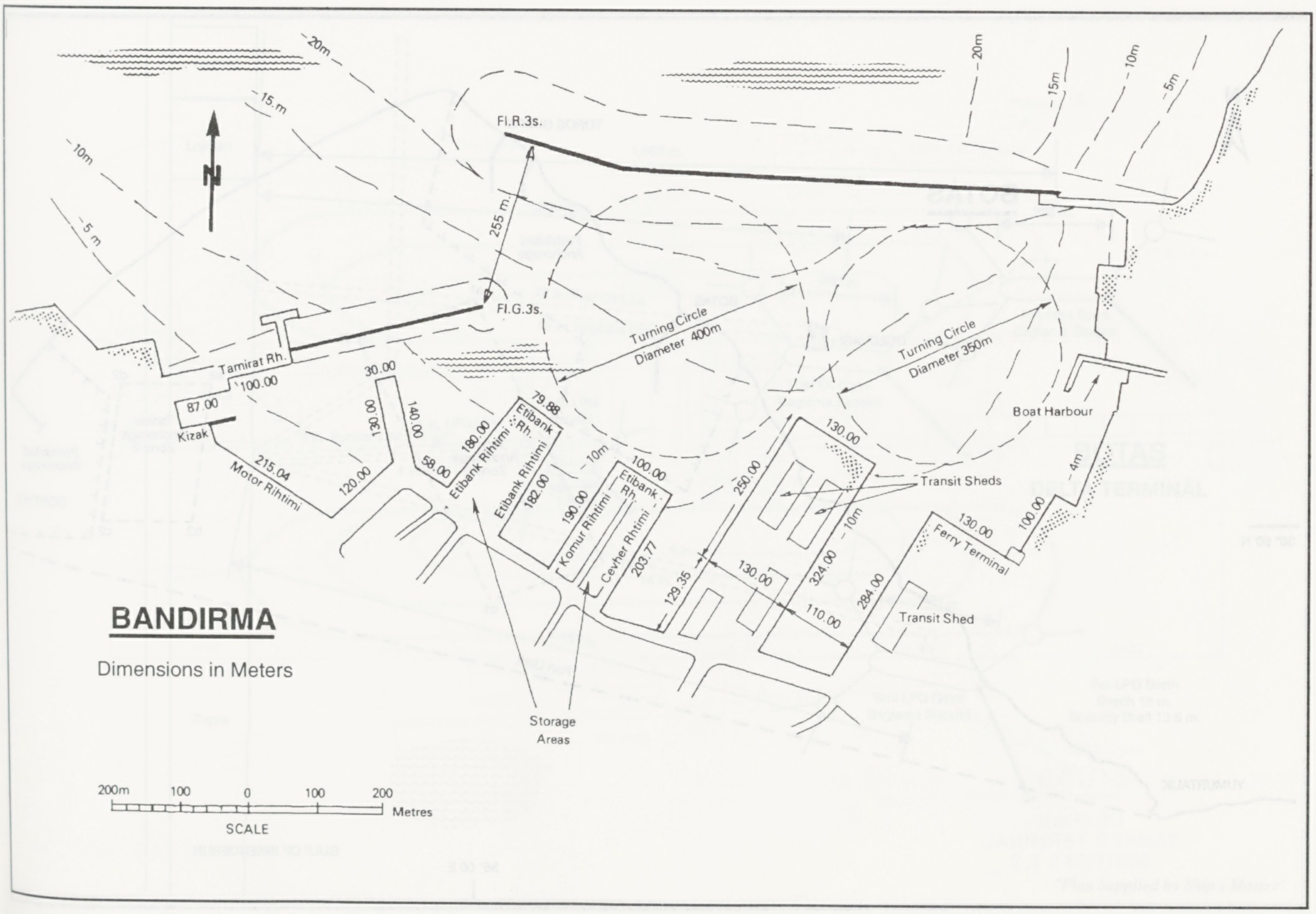

No. II 2,460 h.p. 2 tug's lines
No. I 2,460 h.p. 1 tug's line
No. III 2,720 h.p.
1 ship's line (polypropylene)
No. IV 2,720 h.p.
1 ship's line (polypropylene)

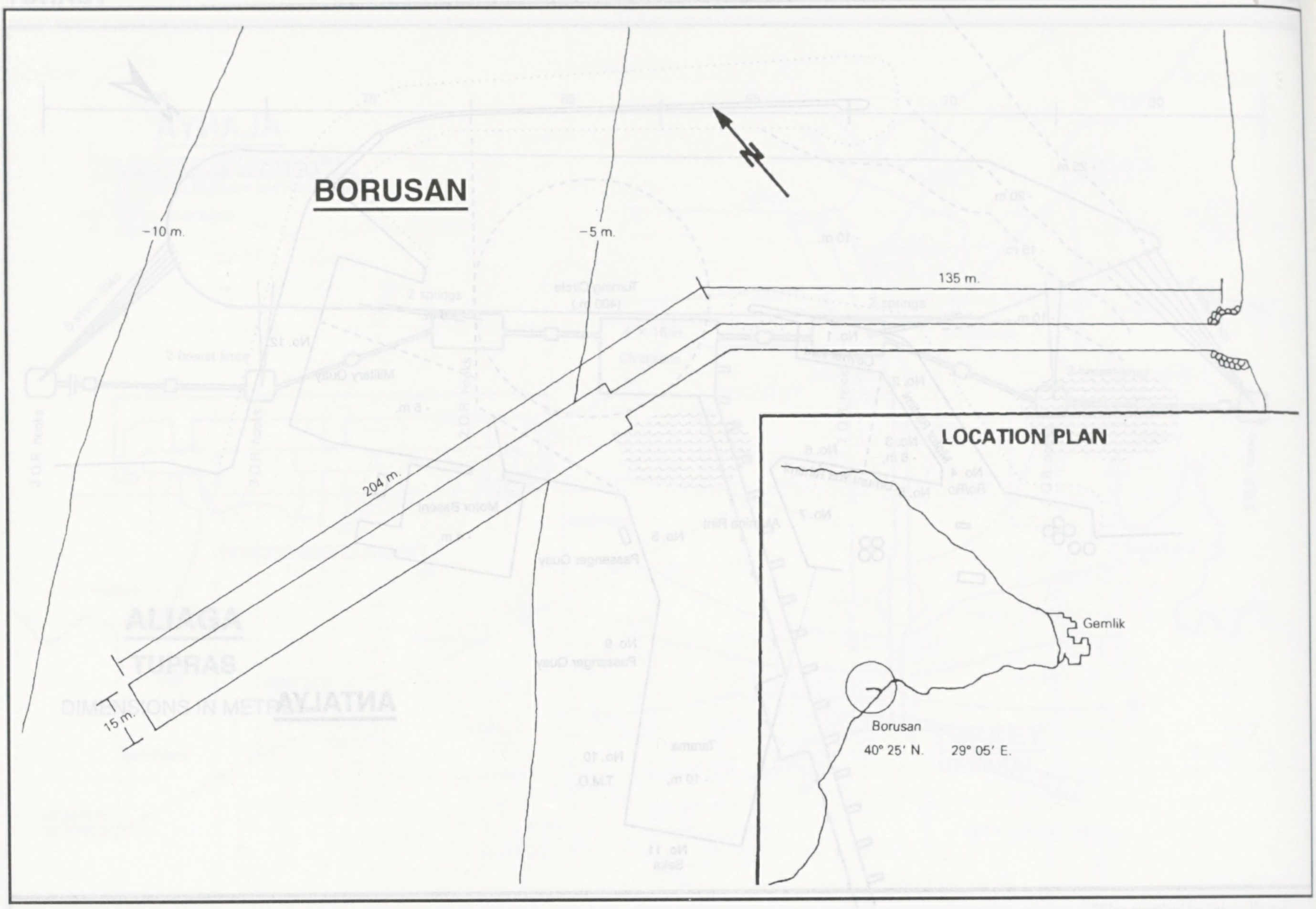
ALIAGA

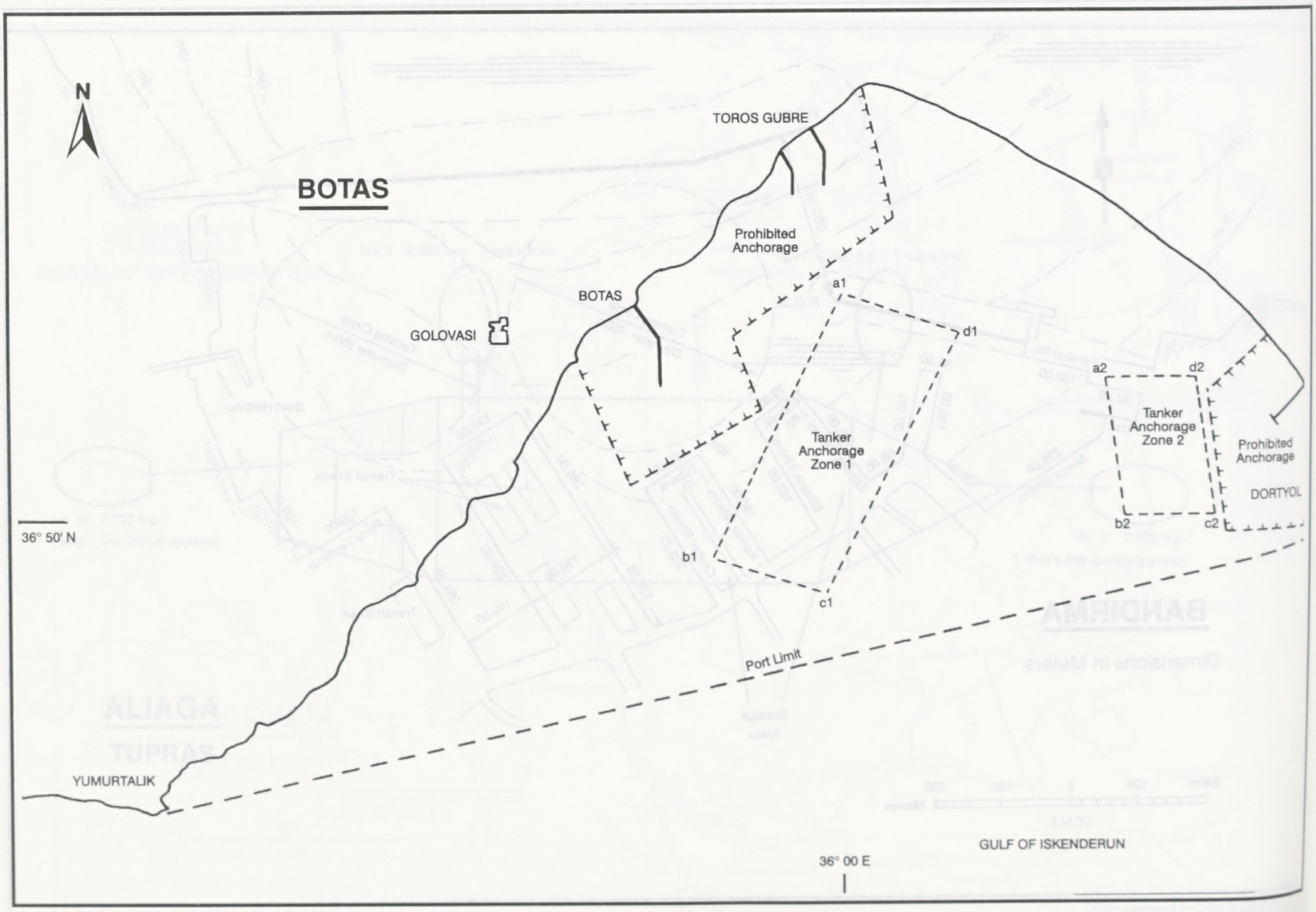
TUPRAS

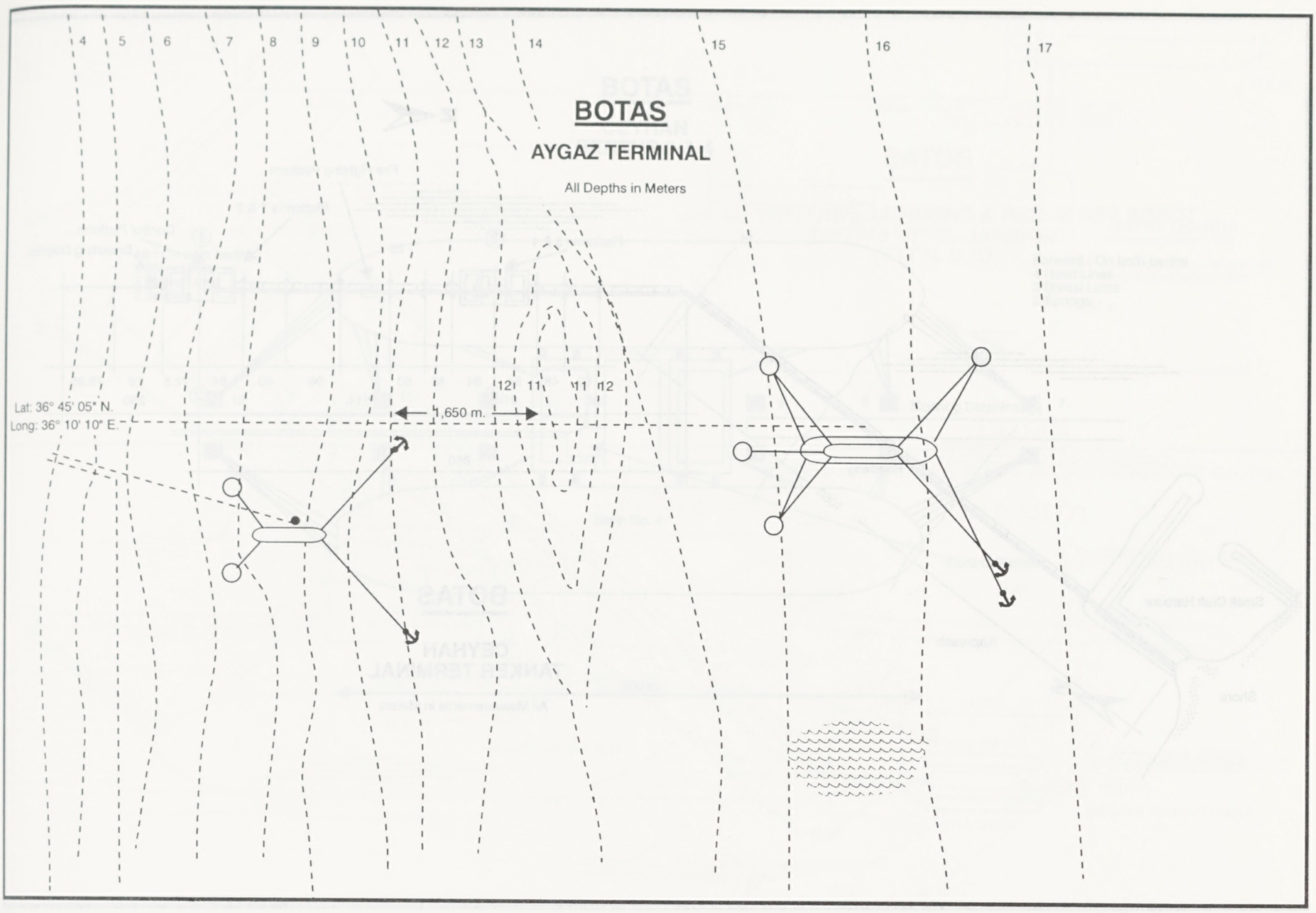
"Plan supplied by Ship's Master"

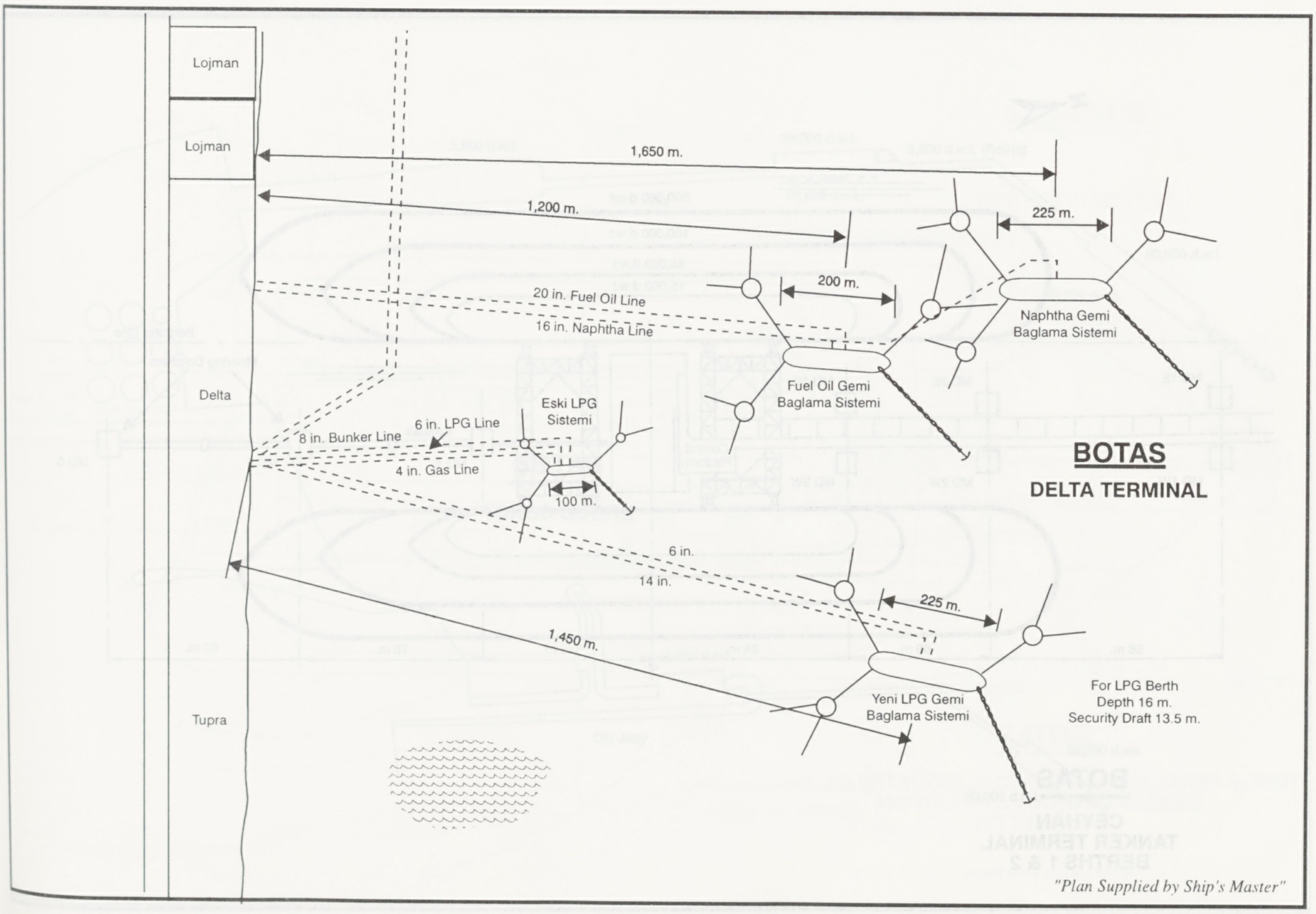

- 25 m.
- 20 m.
- 15 m.
- 10 m.
- 10 m.
Turning Circle (400 m.)
- 8 m.
No. 12
Military Quay
- 5 m.
No. 1
Cevher Riht
No. 2
Motor Rihtimi
No. 3
- 8 m,
No. 6
Umuni Yuk Rihtimi
No. 4
Ro/Ro
No. 5
No. 7
Alumina Riht
No. 8
Passenger Quay
Motor Baseni
- 4 m.
No. 9
Passenger Quay
ANTALYA
Tarama
- 10 m,
No. 10
T.M.O.
No. 11
Seka
N


20m
15 m
10m
5 m
N
Fl.R.3s.
255 m.
Fl.G.3s.
20m
15m
10m
5m
Turning Circle
Diameter 400m
Turning Circle
Diameter 350m
Tamirat Rh.
100.00
87.00
Kizak
30.00
130.00
140.00
215.04
Motor Rihtimi
120.00
58.00
180.00
Etibank Rihtimi
79.88
Etibank Rh.
Etibank Rihtimi
182.00
10m
100.00
Etibank Rh.
190.00
Komur Rihtimi
Cevher Rhtimi
203.77
250.00
130.00
Transit Sheds
10m
324.00
129.35
130.00
110.00
284.00
130.00
Ferry Terminal
100.00
4m
Boat Harbour
Transit Shed
Storage Areas
BANDIRMA
Dimensions in Meters
200m
100
0
100
200
Metres
SCALE


BORUSAN
-10 m.
-5 m.
135 m.
204 m.
15 m.
LOCATION PLAN
Gemlik
Borusan
40° 25' N.
29° 05' E.

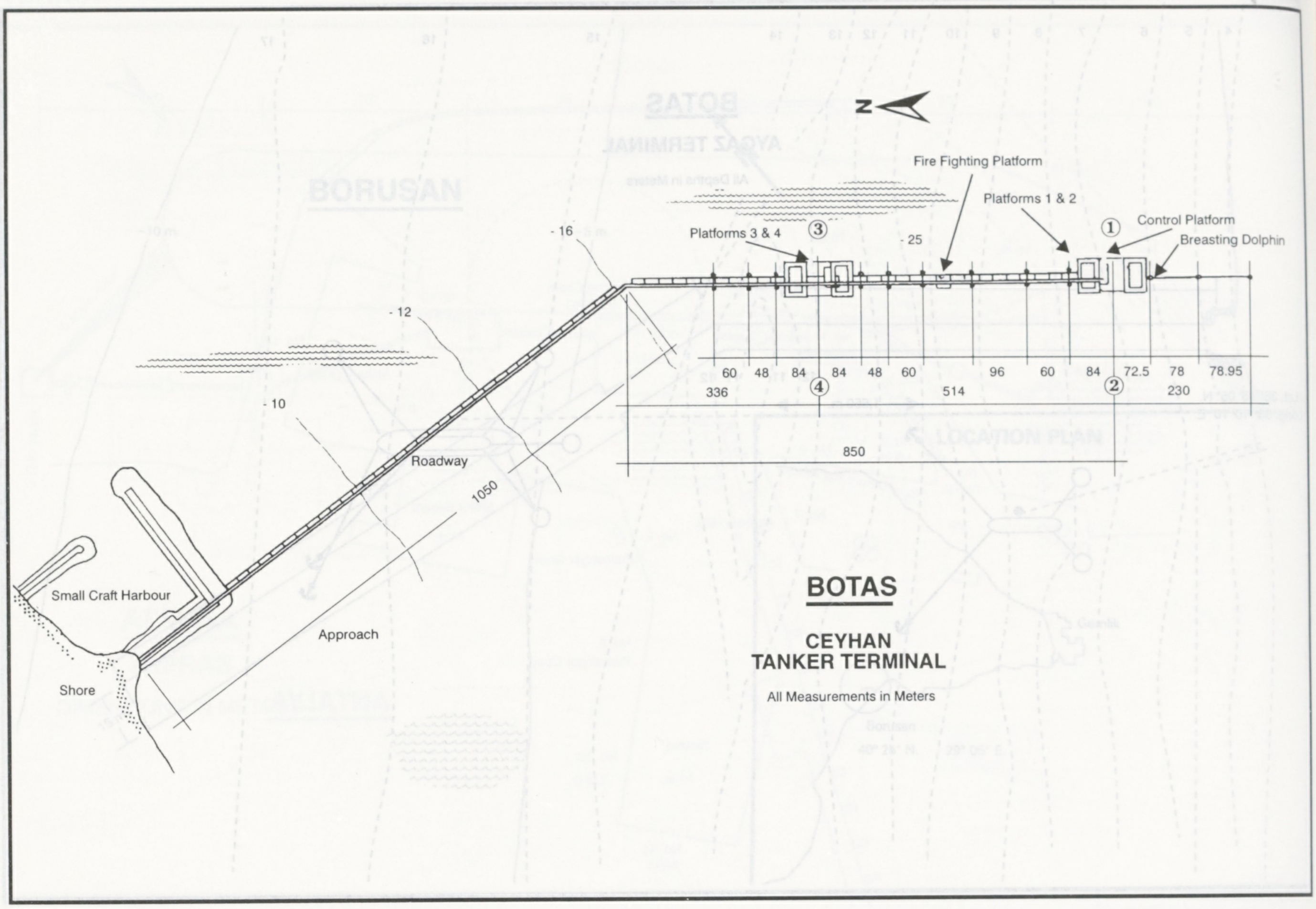

N
BOTAS
TOROS GUBRE
Prohibited Anchorage
BOTAS
GOLOVASI
a1
d1
Tanker Anchorage Zone 1
b1
c1
a2
d2
Tanker Anchorage Zone 2
b2
c2
Prohibited Anchorage
DORTYOL
36° 50' N
Port Limit
YUMURTALIK
GULF OF ISKENDERUN
36° 00 E


4
5
6
7
8
9
10
11
12
13
14
15
16
17
BOTAS
AYGAZ TERMINAL
All Depths in Meters
Lat: 36° 45' 05" N.
Long: 36° 10' 10" E.
1,650 m.
12
11
11
12

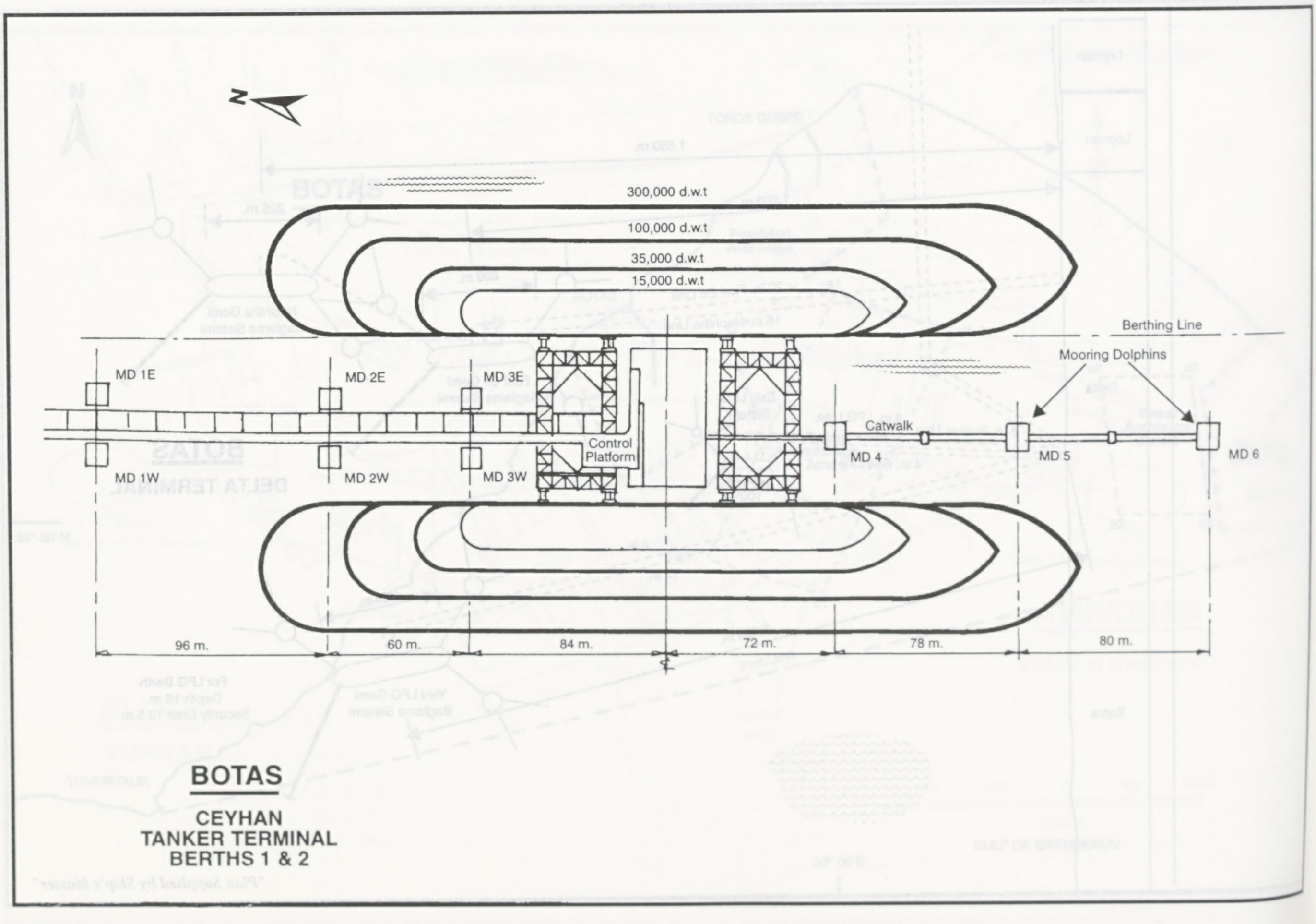

Lojman
Lojman
1,650 m.
1,200 m.
225 m.
200 m.
20 in. Fuel Oil Line
16 in. Naphtha Line
Naphtha Gemi
Baglama Sistemi
Fuel Oil Gemi
Baglama Sistemi
Delta
Eski LPG
Sistemi
6 in. LPG Line
8 in. Bunker Line
4 in. Gas Line
100 m.
BOTAS
DELTA TERMINAL
6 in.
14 in.
225 m.
1,450 m.
Yeni LPG Gemi
Baglama Sistemi
Tupra

For LPG Berth
Depth 16 m.
Security Draft 13.5 m.

"Plan Supplied by Ship's Master"



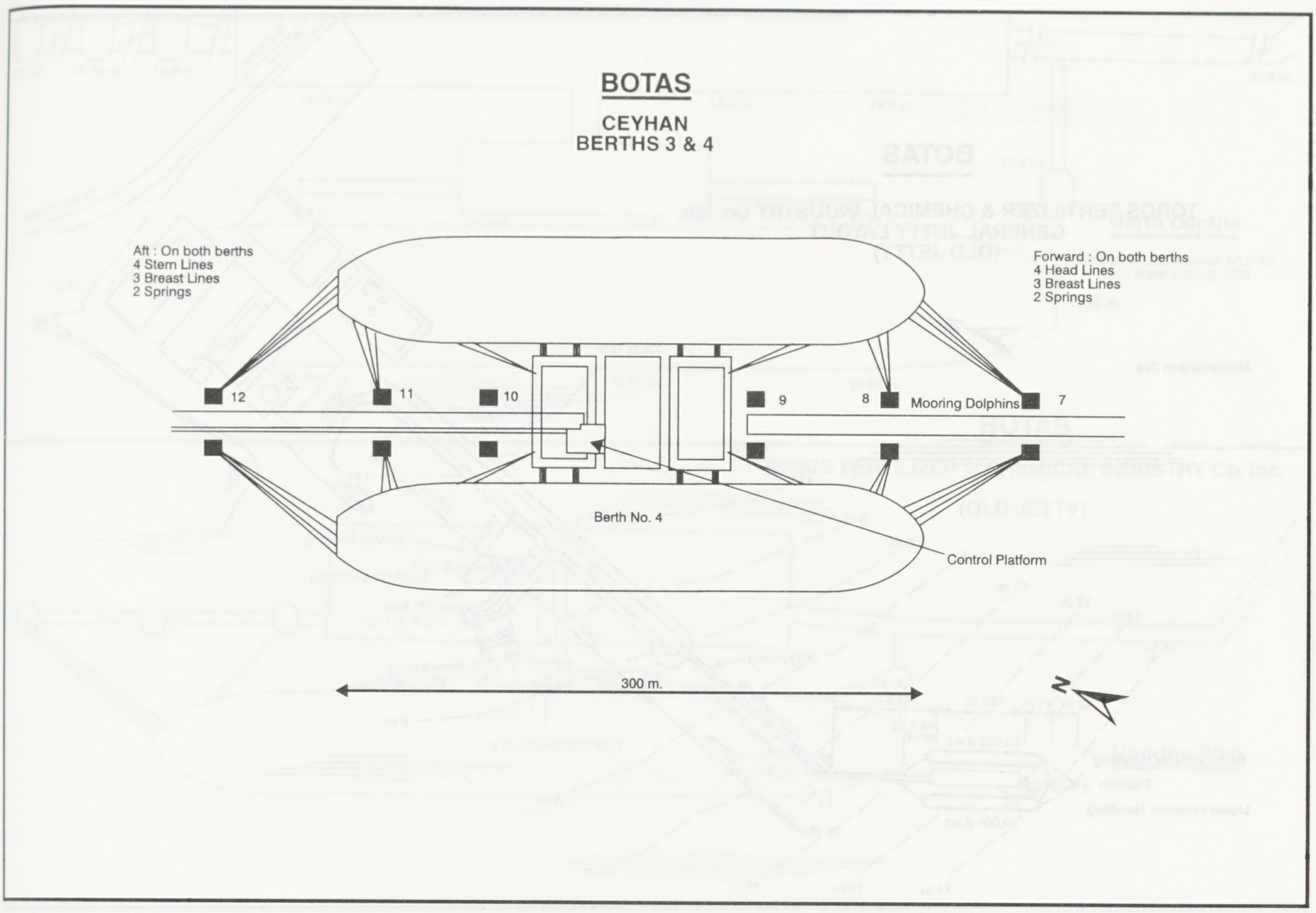
N
Fire Fighting Platform
Platforms 1 & 2
Control Platform
Breasting Dolphin
Platforms 3 & 4
③
①
- 16
- 25
- 12
- 10
60
48
84
84
48
60
96
60
84
72.5
78
78.95
336
④
514
②
230
850
Roadway
1050
Small Craft Harbour
Approach
Shore
BOTAS
CEYHAN
TANKER TERMINAL
All Measurements in Meters



N
300,000 d.w.t
100,000 d.w.t
35,000 d.w.t
15,000 d.w.t
Berthing Line
Mooring Dolphins
MD 1E
MD 2E
MD 3E
MD 1W
MD 2W
MD 3W
Control Platform
Catwalk
MD 4
MD 5
MD 6
96 m.
60 m.
84 m.
72 m.
78 m.
80 m.
BOTAS
CEYHAN
TANKER TERMINAL
BERTHS 1 & 2

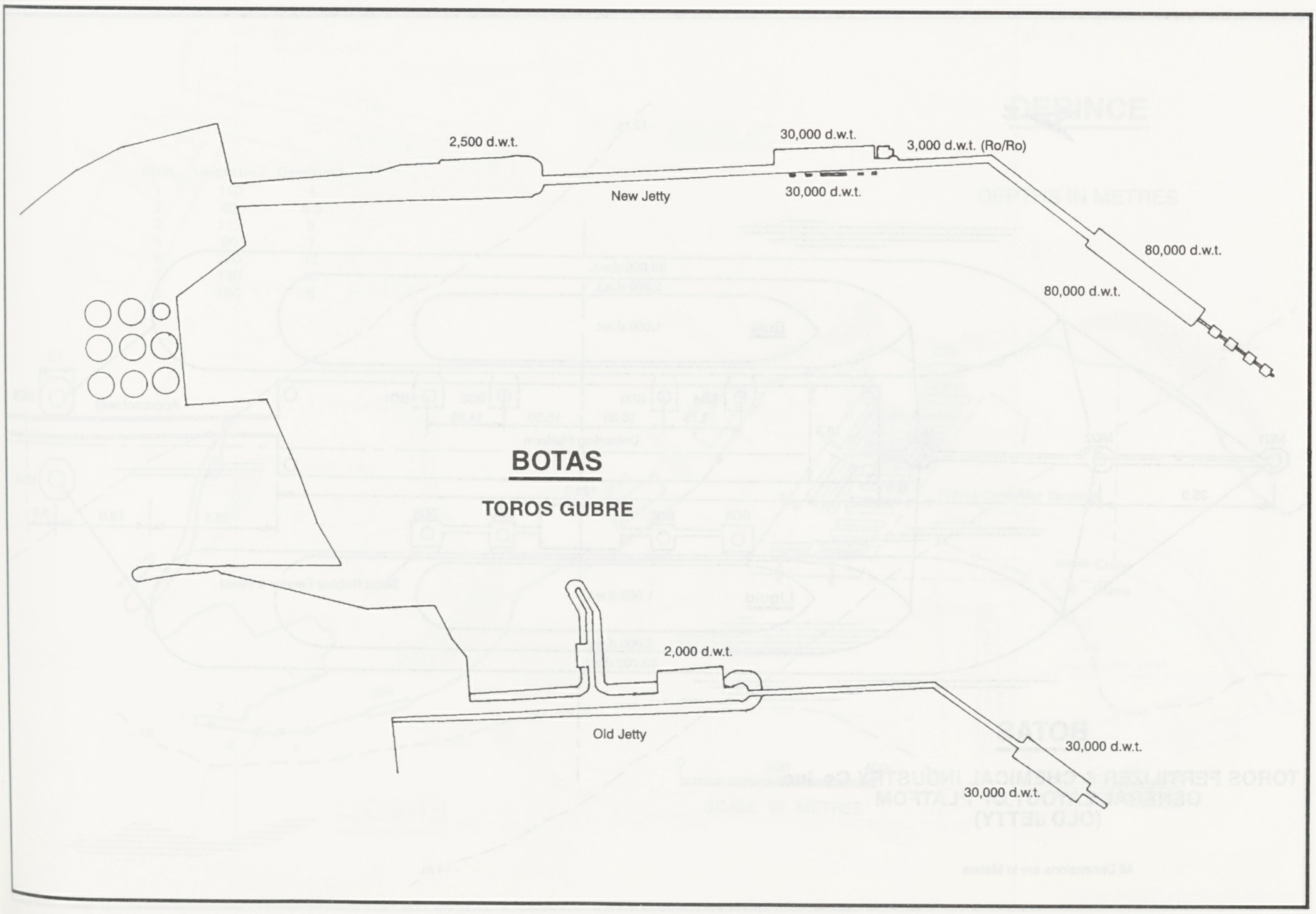
BOTAS

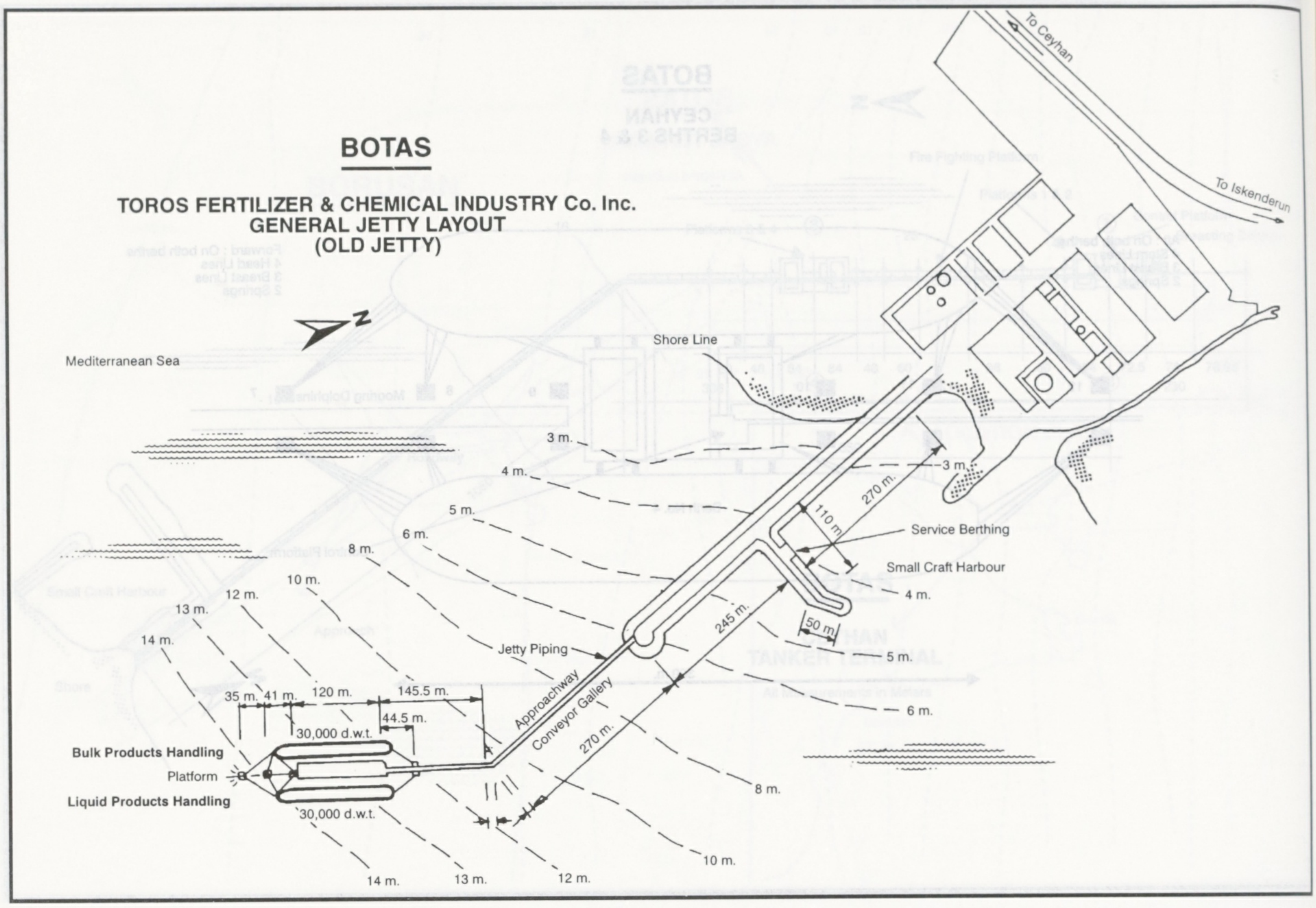
CEYHAN
BERTHS 3 & 4


Aft : On both berths
4 Stern Lines
3 Breast Lines
2 Springs
Forward : On both berths
4 Head Lines
3 Breast Lines
2 Springs
12
11
10
9
8
Mooring Dolphins
7
Berth No. 4
Control Platform
300 m.
N

BOTAS

TOROS GUBRE

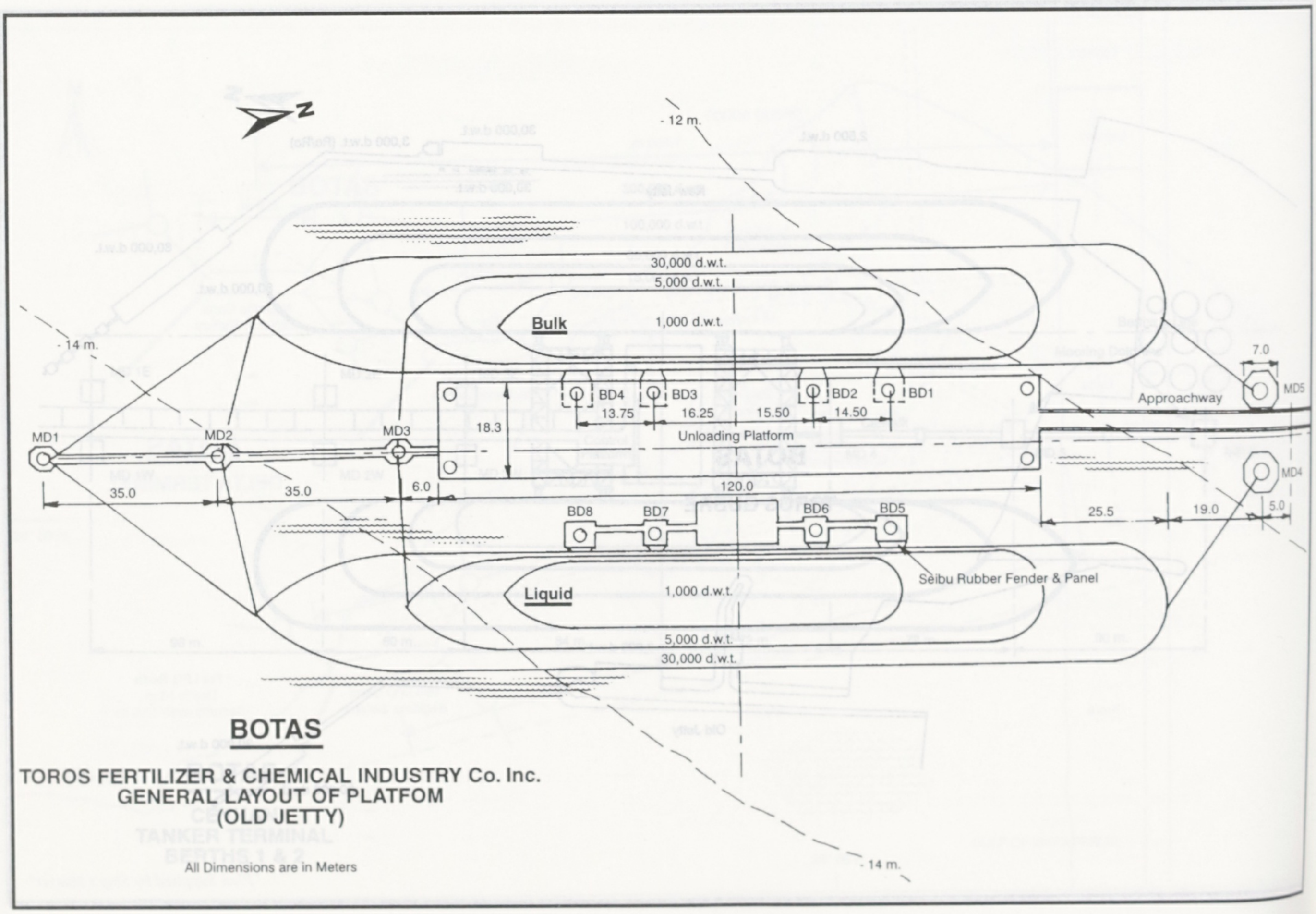

2,500 d.w.t.
30,000 d.w.t.
3,000 d.w.t. (Ro/Ro)
New Jetty
30,000 d.w.t.
80,000 d.w.t.
80,000 d.w.t.
2,000 d.w.t.
Old Jetty
30,000 d.w.t.
30,000 d.w.t.



BOTAS

TOROS FERTILIZER & CHEMICAL INDUSTRY Co. Inc.
GENERAL JETTY LAYOUT
(OLD JETTY)

N
Mediterranean Sea
Shore Line
To Ceyhan
To Iskenderun
3 m.
4 m.
5 m.
6 m.
8 m.
10 m.
12 m.
13 m.
14 m.
270 m.
110 m
Service Berthing
Small Craft Harbour
4 m.
50 m
245 m.
5 m.
6 m.
Jetty Piping
Approachway
Conveyor Gallery
270 m.
35 m.
41 m.
120 m.
145.5 m.
44.5 m.
30,000 d.w.t.
Bulk Products Handling
Platform
Liquid Products Handling
30,000 d.w.t.
8 m.
10 m.
14 m.
13 m.
12 m.

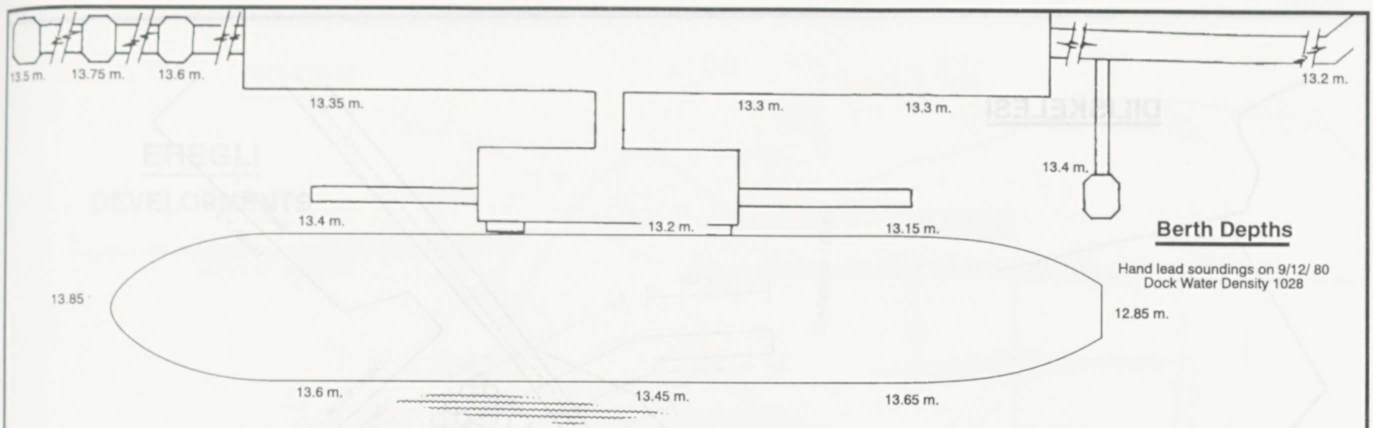


N
- 12 m.
- 14 m.
30,000 d.w.t.
5,000 d.w.t.
1,000 d.w.t.
Bulk
BD4
BD3
BD2
BD1
13.75
16.25
15.50
14.50
Unloading Platform
18.3
7.0
MD5
Approachway
MD4
MD1
MD2
MD3
35.0
35.0
6.0
120.0
25.5
19.0
5.0
BD8
BD7
BD6
BD5
Seibu Rubber Fender & Panel
Liquid
1,000 d.w.t.
5,000 d.w.t.
30,000 d.w.t.
- 14 m.

BOTAS

TOROS FERTILIZER & CHEMICAL INDUSTRY Co. Inc.
GENERAL LAYOUT OF PLATFOM
(OLD JETTY)

All Dimensions are in Meters


13.5 m.
13.75 m.
13.6 m.
13.35 m.
13.3 m.
13.3 m.
13.2 m.
13.4 m.
13.4 m.
13.2 m.
13.15 m.
13.85
12.85 m.
13.6 m.
13.45 m.
13.65 m.

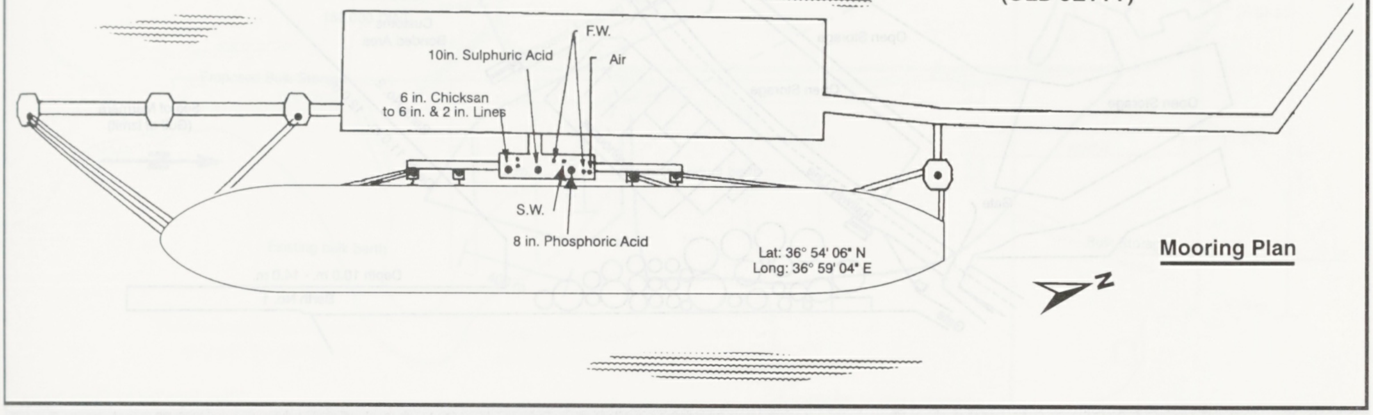
Berth Depths

Hand lead soundings on 9/12/ 80
Dock Water Density 1028

BOTAS

TOROS FERTILIZER & CHEMICAL INDUSTRY Co. Inc.

(OLD JETTY)

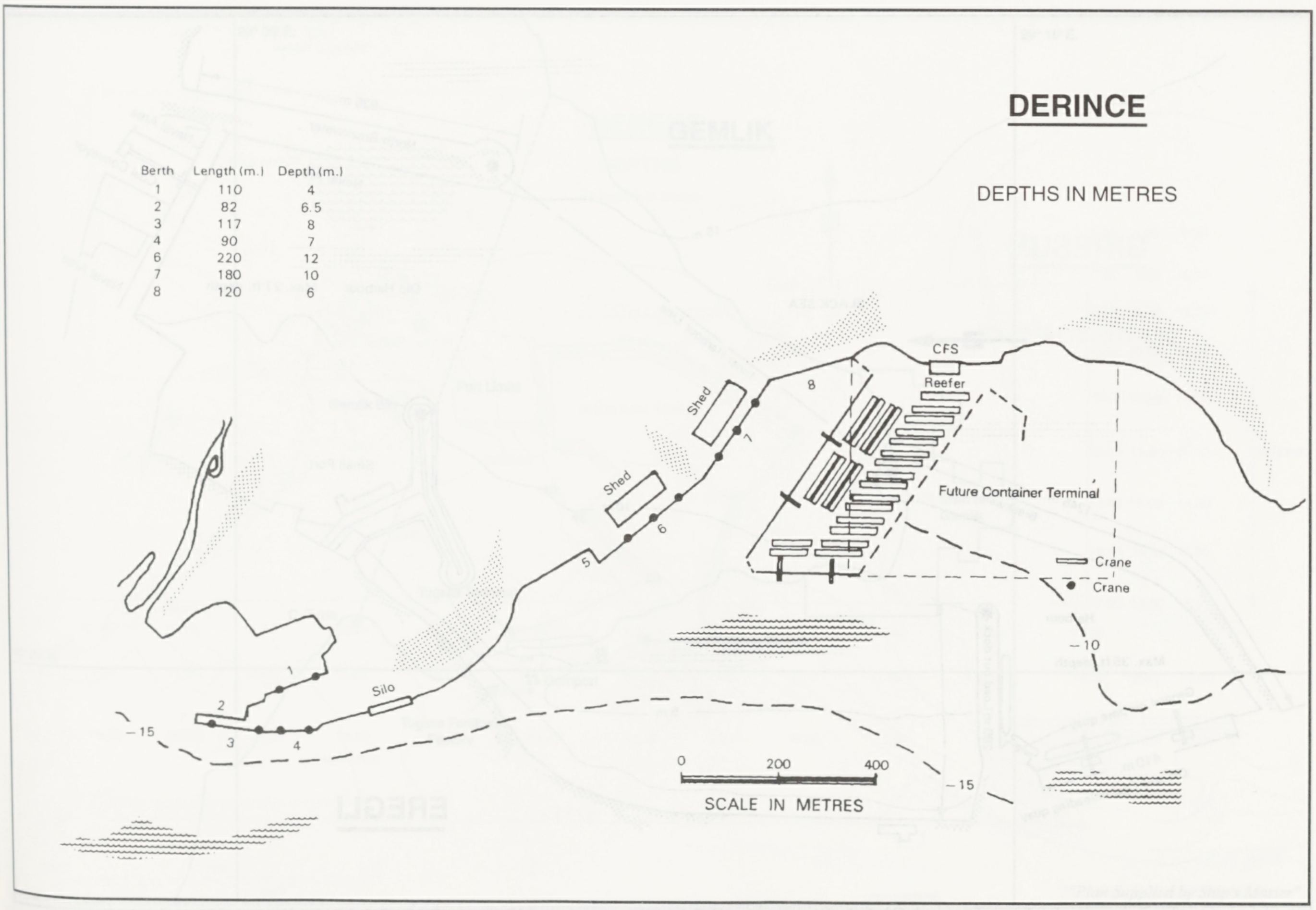

F.W.
10in. Sulphuric Acid
Air
6 in. Chicksan
to 6 in. & 2 in. Lines
S.W.
8 in. Phosphoric Acid
N

Lat: 36° 54' 06" N
Long: 36° 59' 04" E

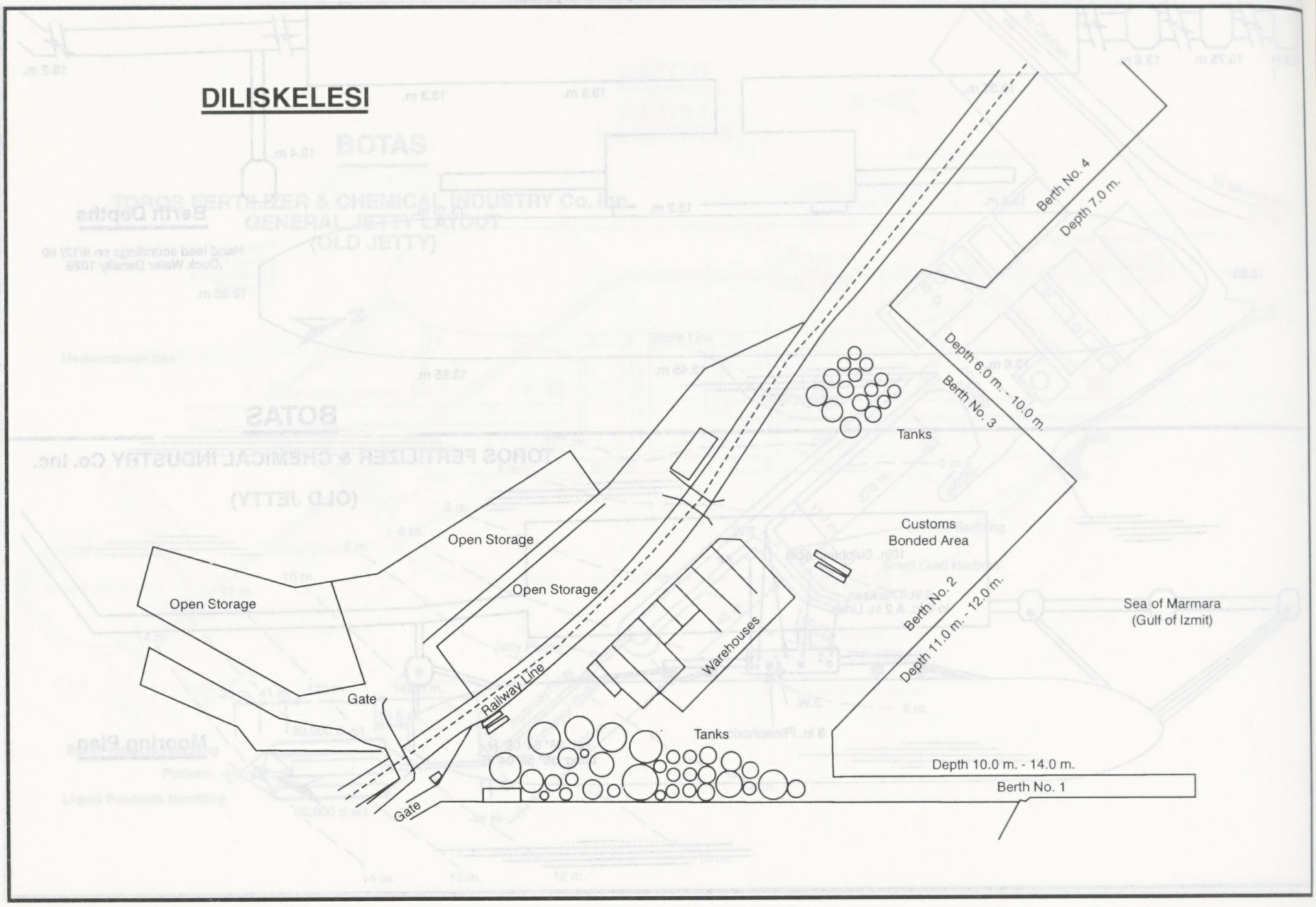
Mooring Plan

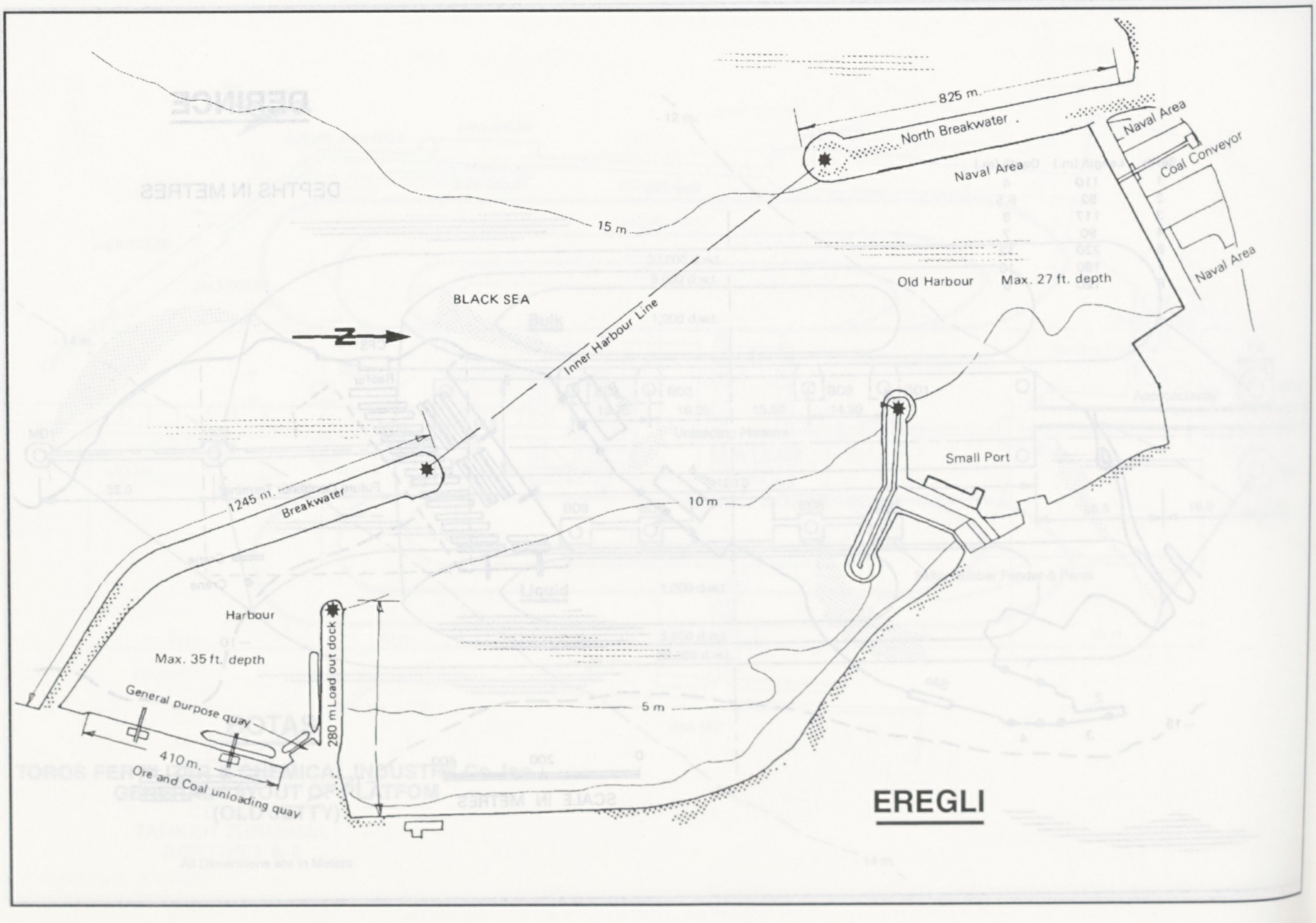
DERINCE

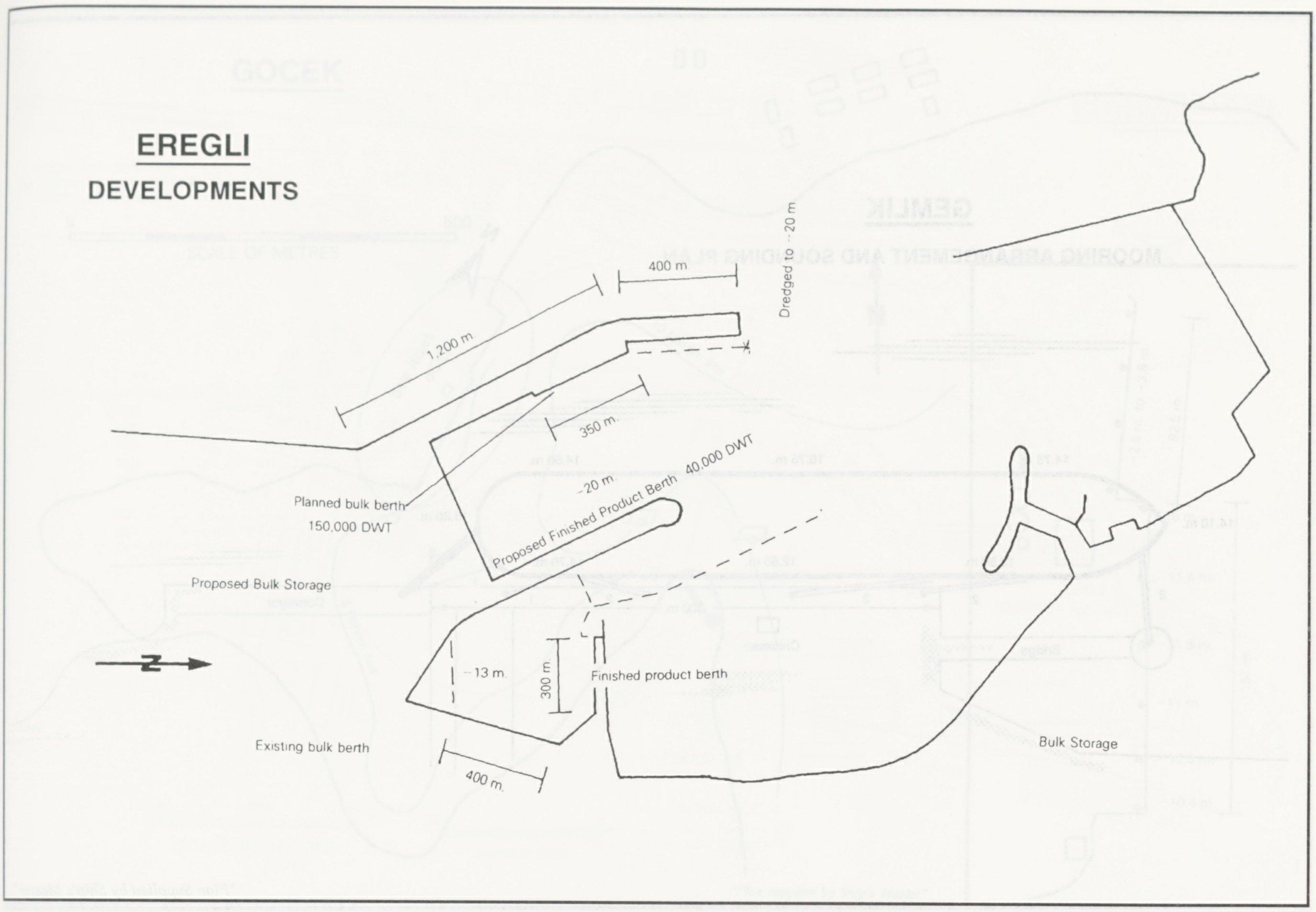
DEPTHS IN METRES

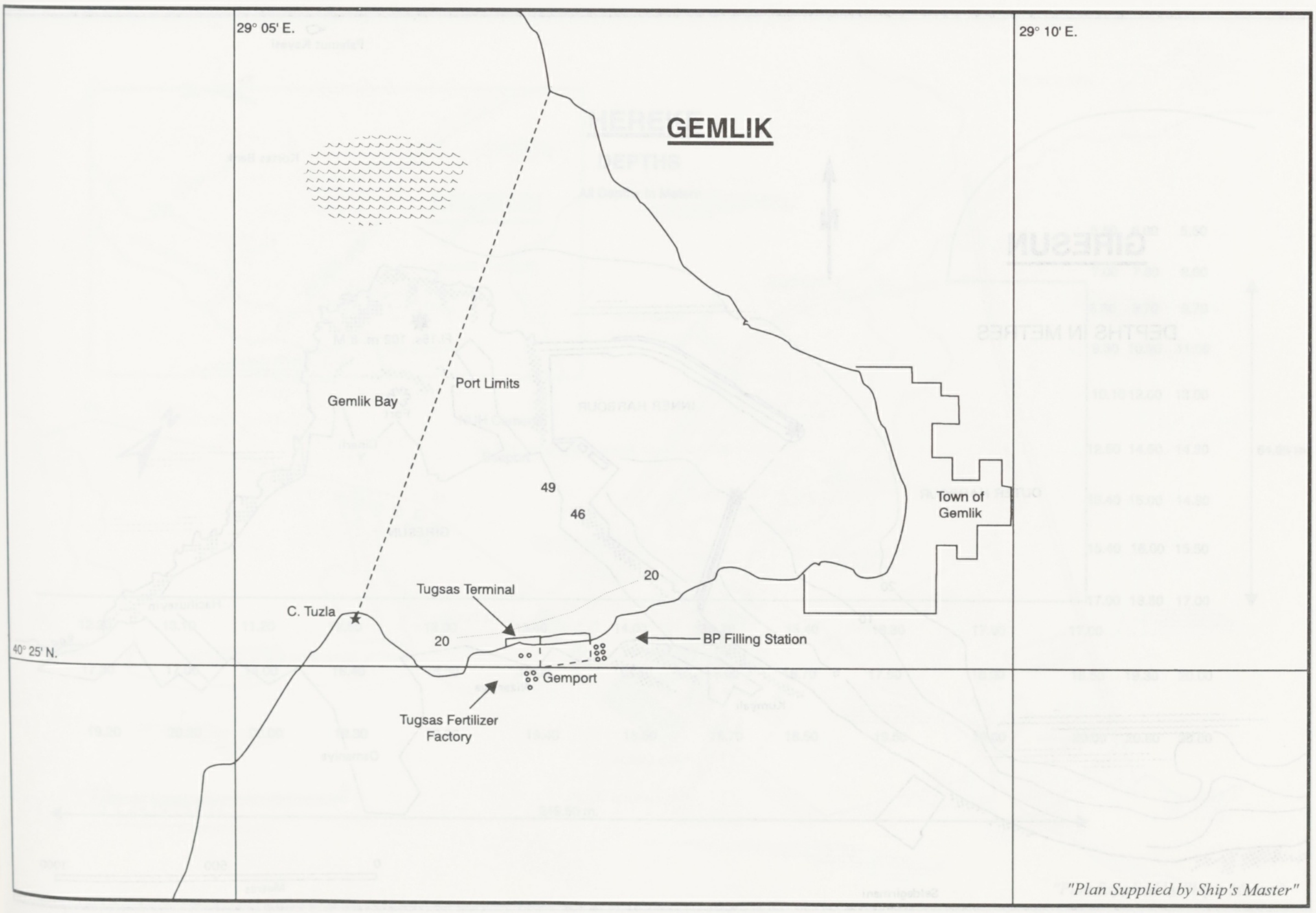

CFS
Reefer
8
Shed
7
Shed
6
5
Future Container Terminal
Crane
Crane
– 10
1
2
3
4
Silo
– 15
– 15
0
200
400
SCALE IN METRES

Berth	Length (m.)	Depth (m.)
1	110	4
2	82	6.5
3	117	8
4	90	7
6	220	12
7	180	10
8	120	6

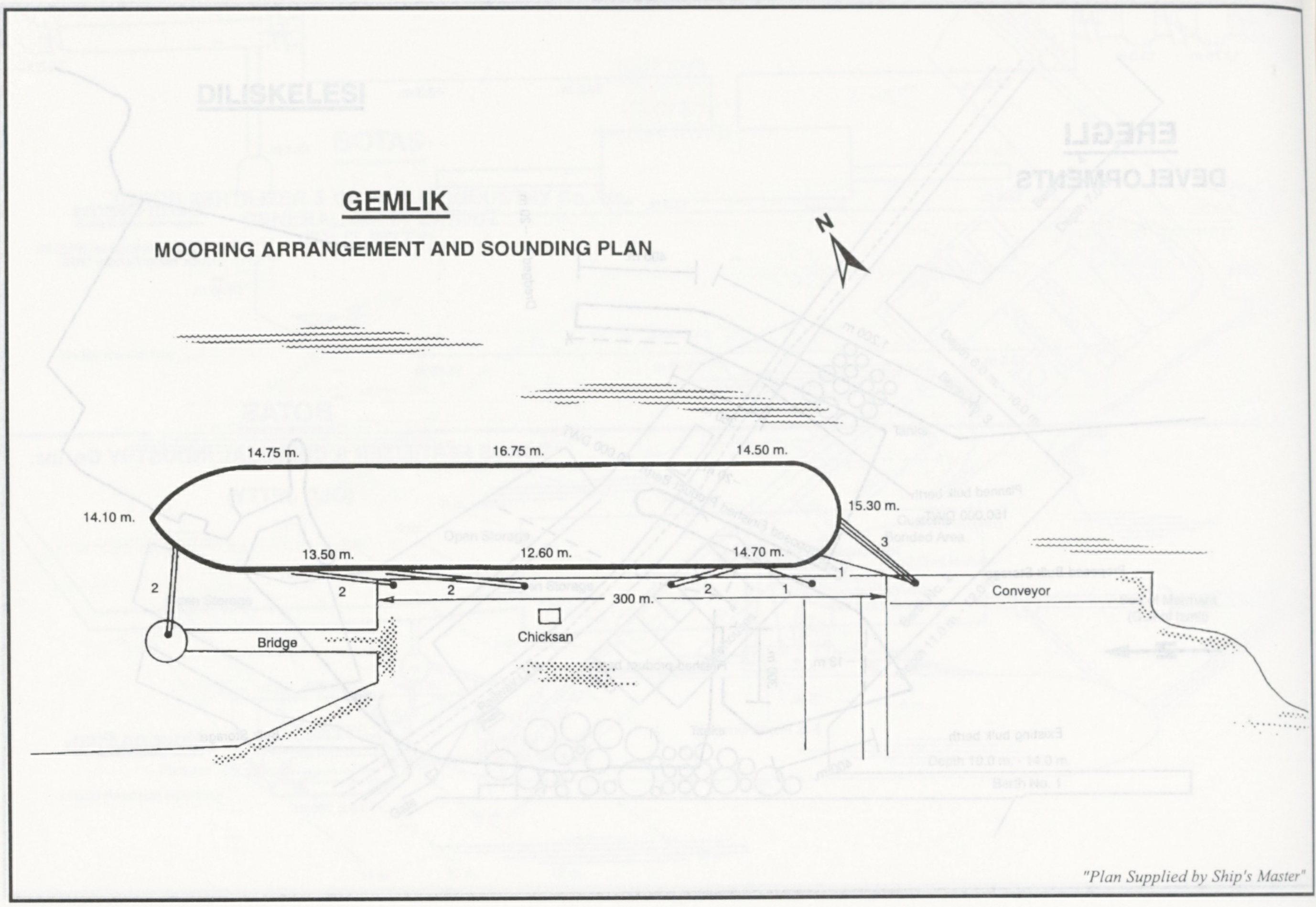

DILISKELESI
Berth No. 4
Depth 7.0 m.
Depth 6.0 m. - 10.0 m.
Berth No. 3
Tanks
Customs
Bonded Area
Sea of Marmara
(Gulf of Izmit)
Berth No. 2
Depth 11.0 m. - 12.0 m.
Open Storage
Open Storage
Open Storage
Warehouses
Railway Line
Gate
Gate
Tanks
Depth 10.0 m. - 14.0 m.
Berth No. 1

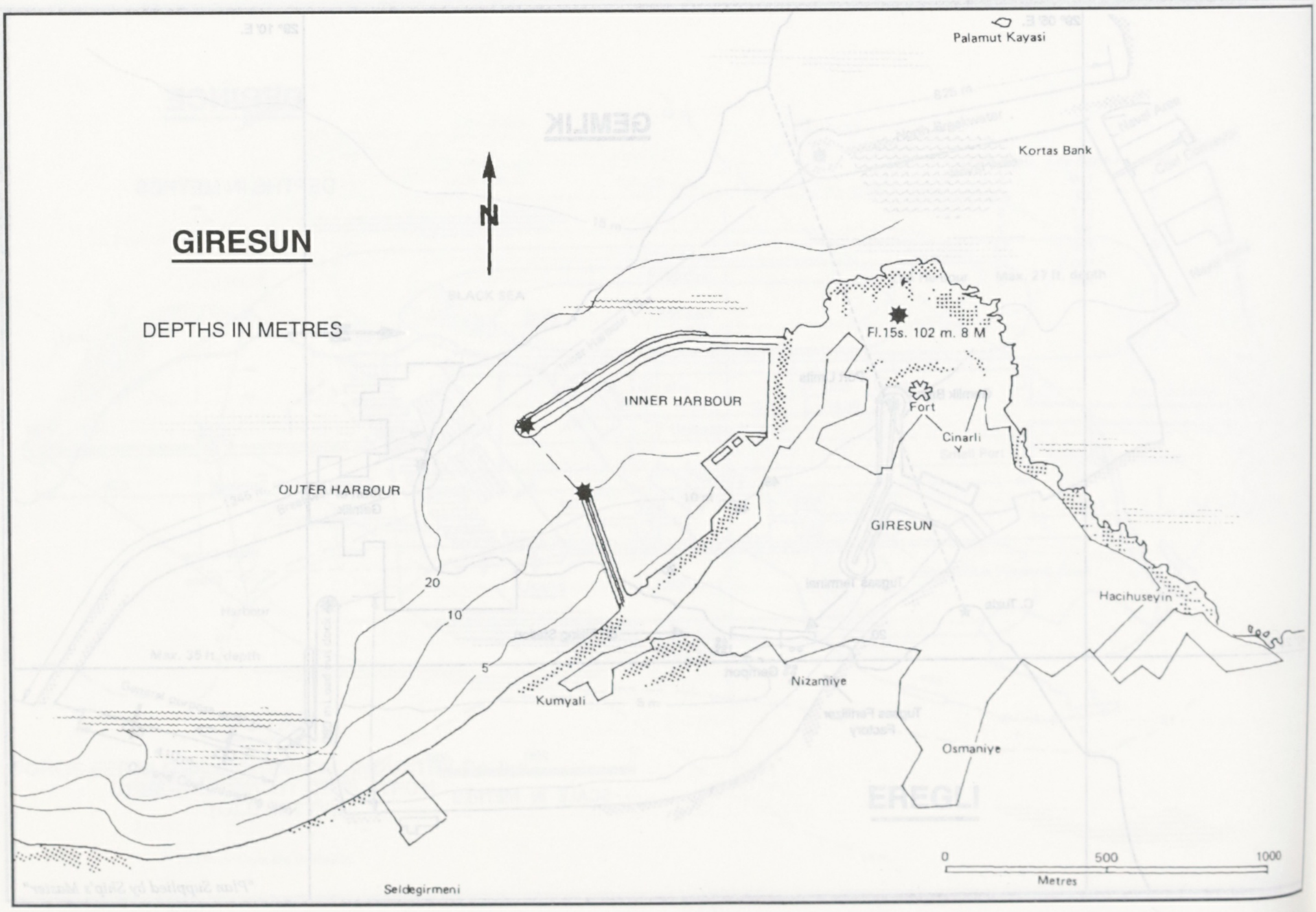

825 m.
North Breakwater
Naval Area
Naval Area
Coal Convevor
Naval Area
15 m
Old Harbour
Max. 27 ft. depth
BLACK SEA
N
Inner Harbour Line
1245 m.
Breakwater
10 m
Small Port
Harbour
Max. 35 ft. depth
General purpose quay
410 m.
Ore and Coal unloading quay
280 m Load out dock
5 m
EREGLI

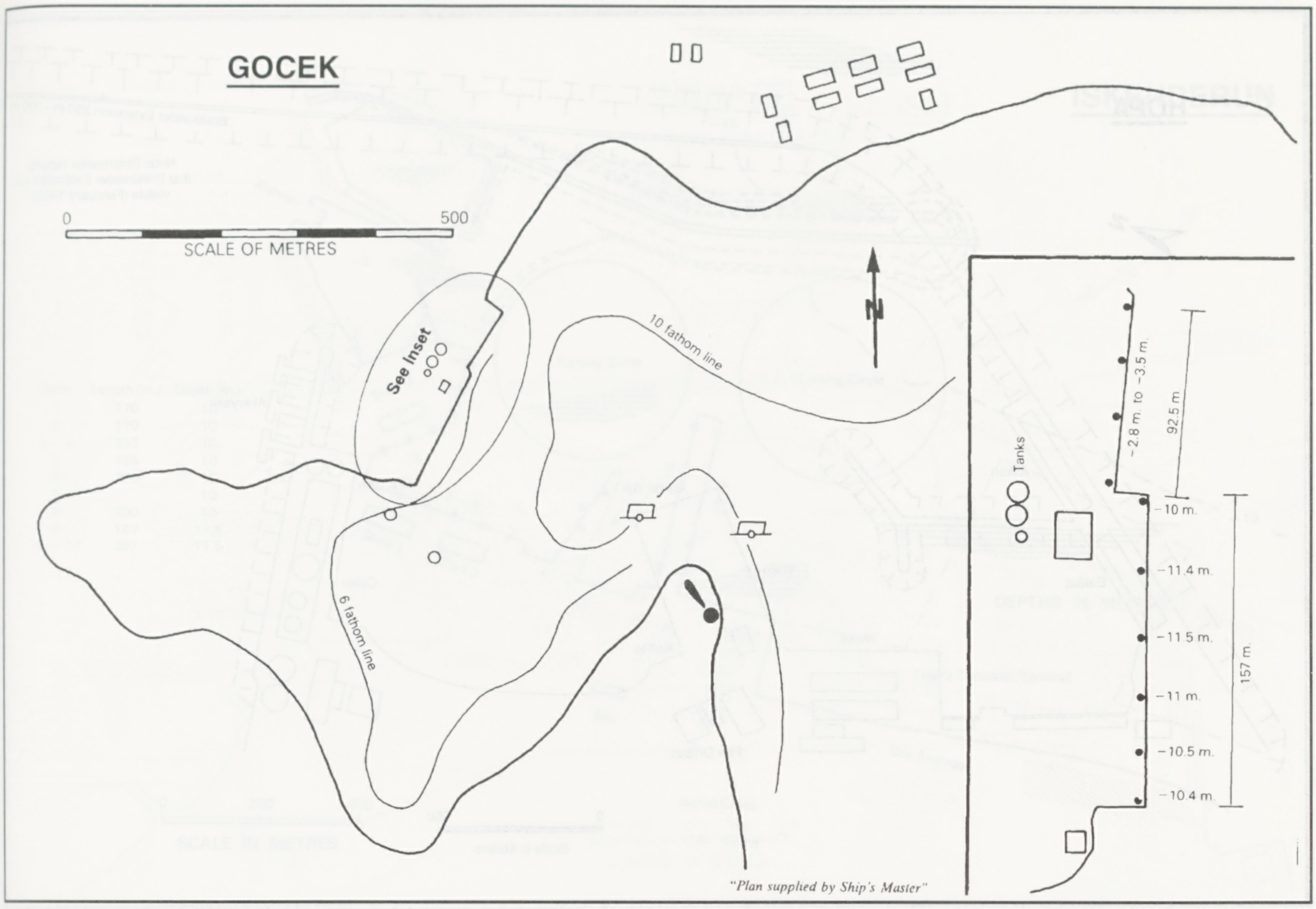

EREGLI
DEVELOPMENTS
400 m
Dredged to −20 m
1,200 m
350 m
−20 m
Proposed Finished Product Berth 40,000 DWT
Planned bulk berth
150,000 DWT
Proposed Bulk Storage
N
−13 m
300 m
Finished product berth
Existing bulk berth
400 m.
Bulk Storage


29° 05' E.
29° 10' E.
GEMLIK
Port Limits
Gemlik Bay
49
46
20
Town of Gemlik
Tugsas Terminal
C. Tuzla
20
40° 25' N.
BP Filling Station
Gemport
Tugsas Fertilizer Factory

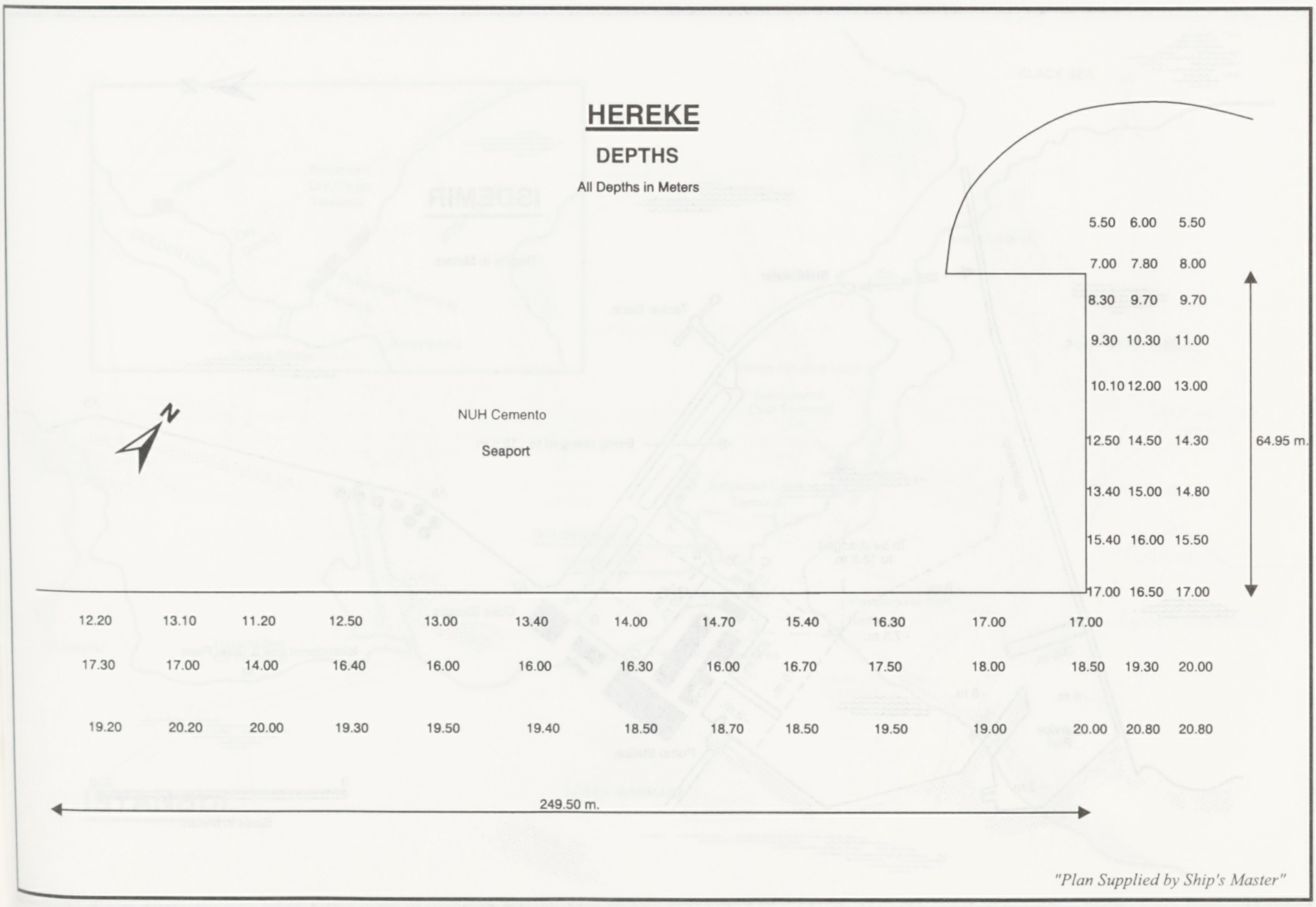
"Plan Supplied by Ship's Master"


GEMLIK
MOORING ARRANGEMENT AND SOUNDING PLAN
N
14.75 m.
16.75 m.
14.50 m.
14.10 m.
15.30 m.
3
13.50 m.
12.60 m.
14.70 m.
1
2
2
2
2
1
300 m.
Conveyor
Bridge
Chicksan
"Plan Supplied by Ship's Master"

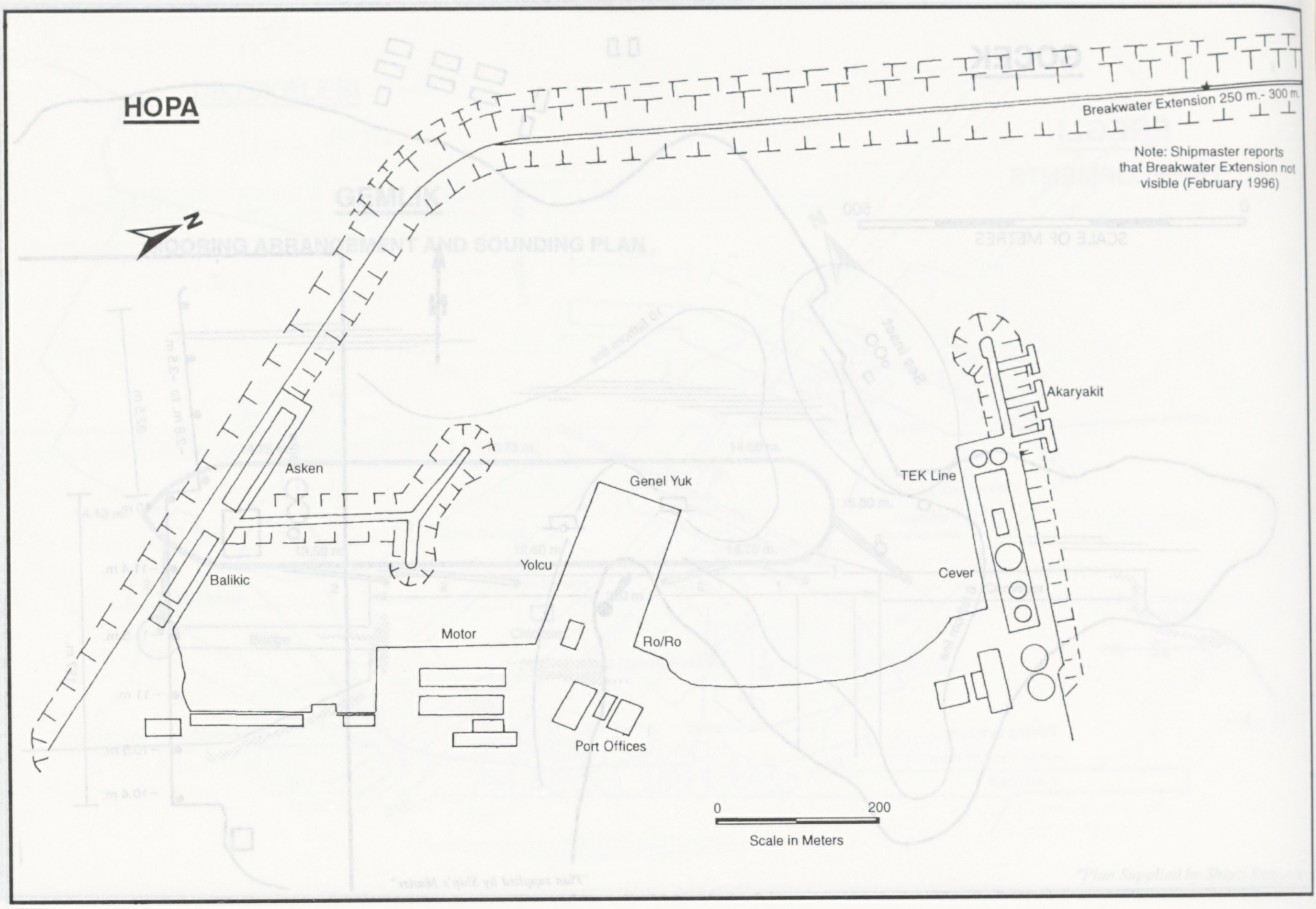

GIRESUN
DEPTHS IN METRES
N
Palamut Kayasi
Kortas Bank
Fl.15s. 102 m. 8 M
INNER HARBOUR
Fort
Cinarli
OUTER HARBOUR
GIRESUN
20
10
5
Hacıhuseyin
Kumyali
Nizamiye
Osmaniye
Seldegirmeni
0
500
1000
Metres


GOCEK
0
500
SCALE OF METRES
See Inset
10 fathom line
6 fathom line
N
Tanks
-2.8 m. to -3.5 m.
92.5 m.
-10 m.
-11.4 m.
-11.5 m.
-11 m.
-10.5 m.
-10.4 m.
157 m.

"Plan supplied by Ship's Master"

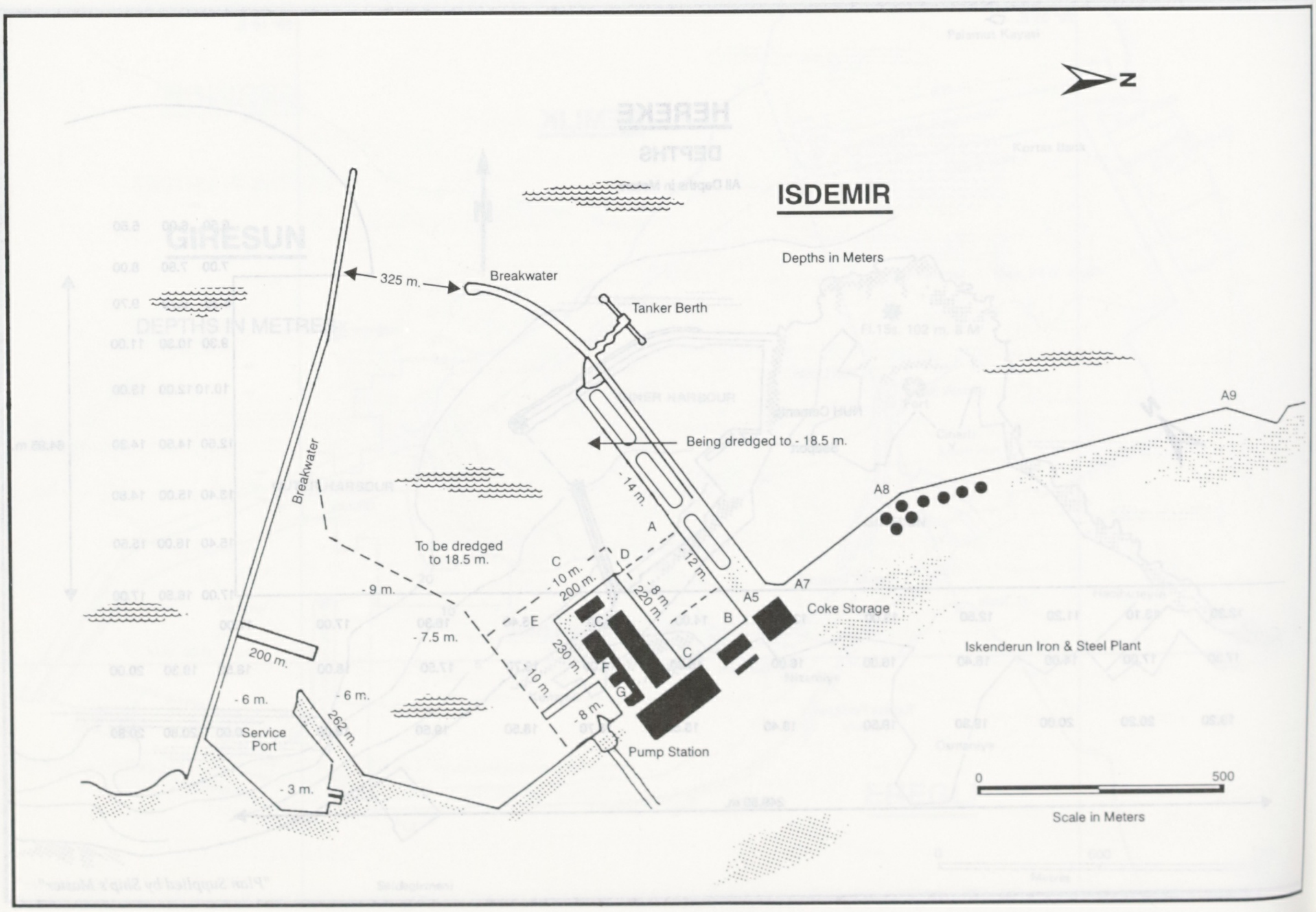

HEREKE
DEPTHS
All Depths in Meters
5.50 6.00 5.50
7.00 7.80 8.00
8.30 9.70 9.70
9.30 10.30 11.00
10.10 12.00 13.00
12.50 14.50 14.30
13.40 15.00 14.80
15.40 16.00 15.50
17.00 16.50 17.00
64.95 m.
N
NUH Cemento
Seaport
12.20 13.10 11.20 12.50 13.00 13.40 14.00 14.70 15.40 16.30 17.00 17.00
17.30 17.00 14.00 16.40 16.00 16.00 16.30 16.00 16.70 17.50 18.00 18.50 19.30 20.00
19.20 20.20 20.00 19.30 19.50 19.40 18.50 18.70 18.50 19.50 19.00 20.00 20.80 20.80
249.50 m.

"Plan Supplied by Ship's Master"



HOPA

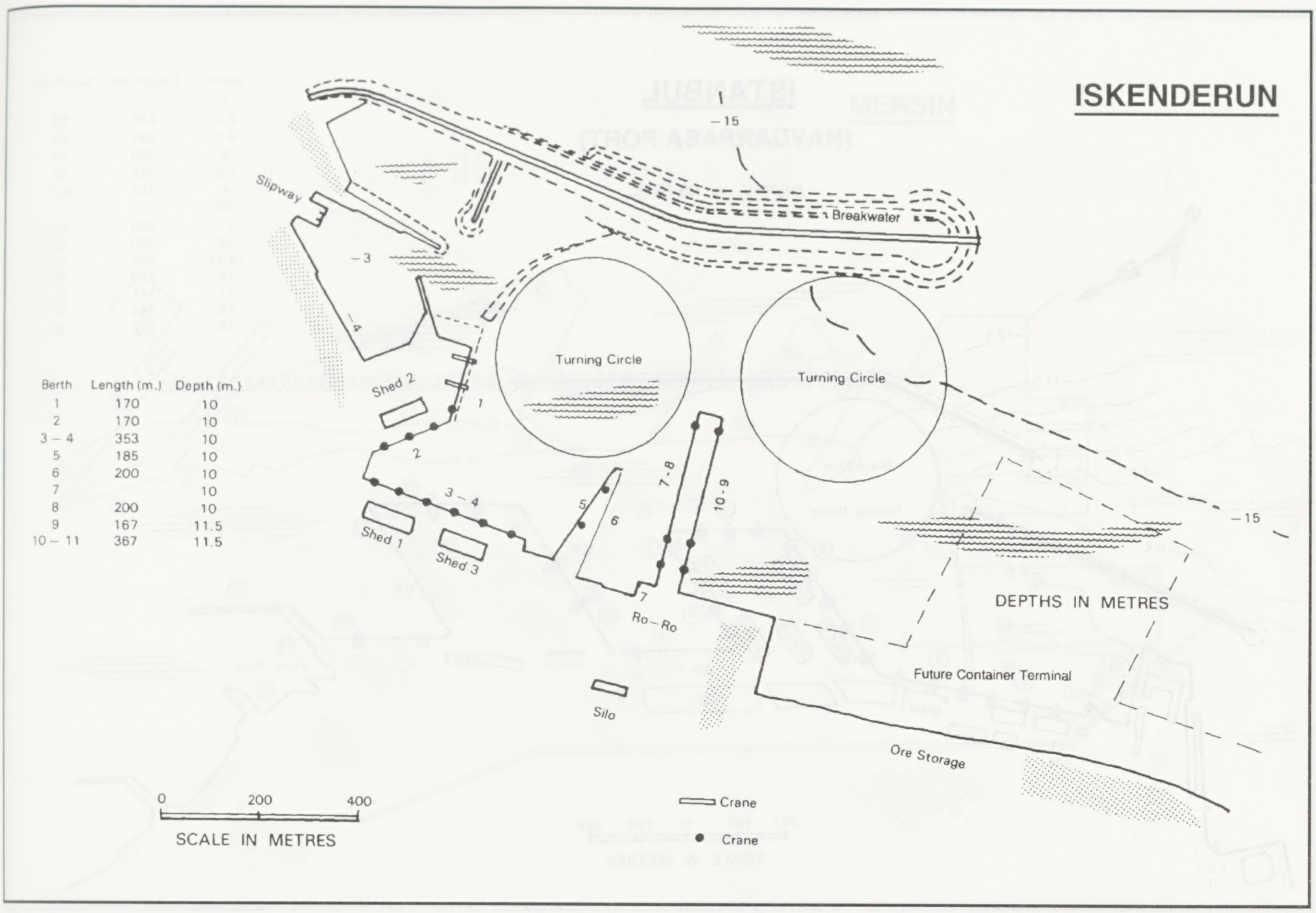
N
Breakwater Extension 250 m.- 300 m.
Note: Shipmaster reports that Breakwater Extension not visible (February 1996)
Asken
Balikic
Yolcu
Motor
Genel Yuk
Ro/Ro
Port Offices
Akaryakit
TEK Line
Cever
0
200
Scale in Meters



ISDEMIR

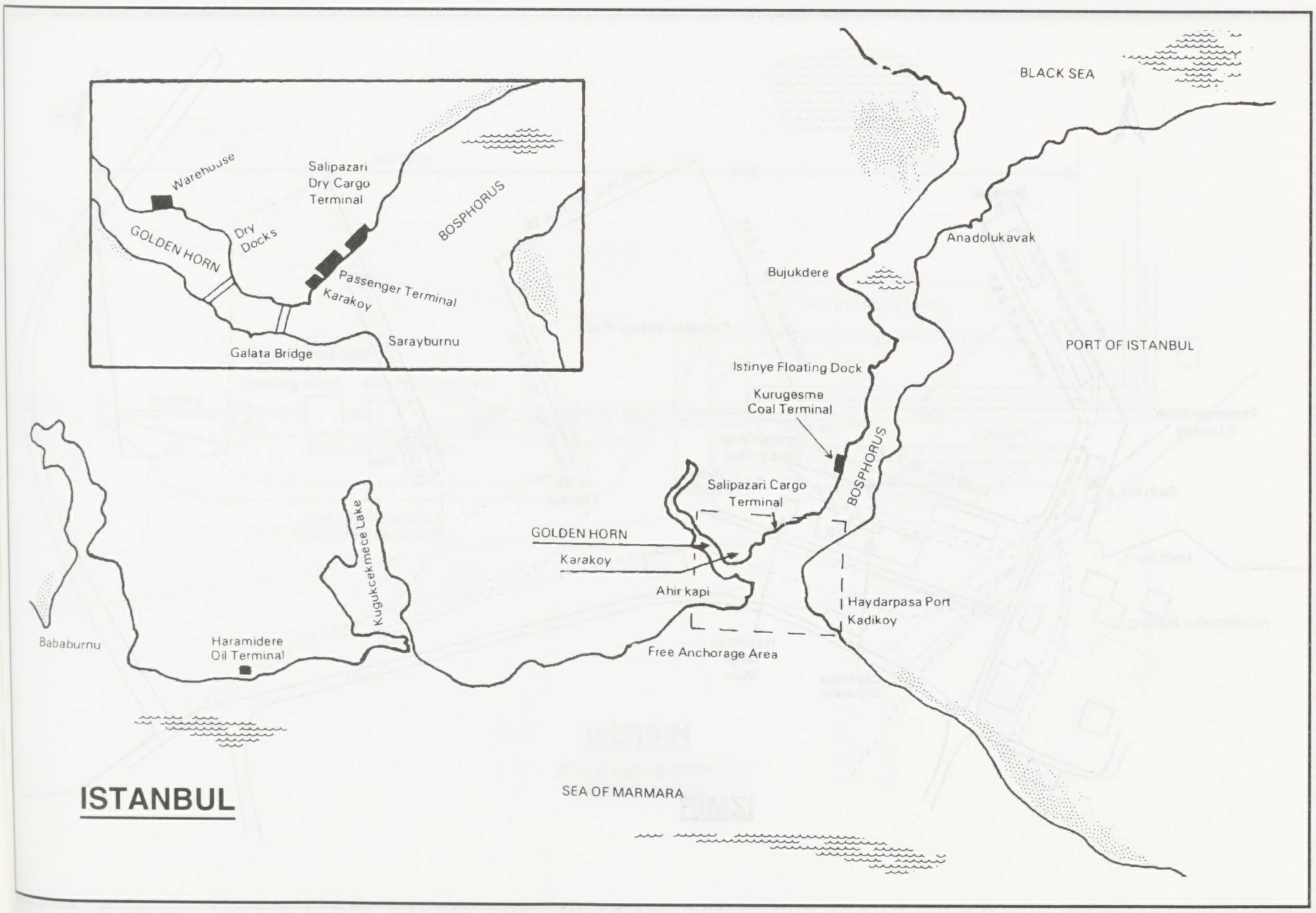
N
Depths in Meters
325 m.
Breakwater
Tanker Berth
Being dredged to - 18.5 m.
Breakwater
- 14 m.
A
To be dredged to 18.5 m.
C
D
- 12 m.
- 10 m.
200 m.
- 8 m.
220 m.
- 9 m.
E
C
B
A5
A7
A8
A9
Coke Storage
Iskenderun Iron & Steel Plant
- 7.5 m.
230 m.
F
C
G
200 m.
- 6 m.
- 6 m.
262 m.
10 m.
- 8 m.
Service Port
Pump Station
- 3 m.
0
500
Scale in Meters

ISKENDERUN



Berth	Length (m.)	Depth (m.)
1	170	10
2	170	10
3 – 4	353	10
5	185	10
6	200	10
7		10
8	200	10
9	167	11.5
10 – 11	367	11.5

–15
Breakwater
Slipway
–3
–4
Turning Circle
Turning Circle
Shed 2
1
2
3 – 4
5
6
7 - 8
10 - 9
7
Ro – Ro
Shed 1
Shed 3
Silo
–15
DEPTHS IN METRES
Future Container Terminal
Ore Storage
0
200
400
SCALE IN METRES
Crane
● Crane

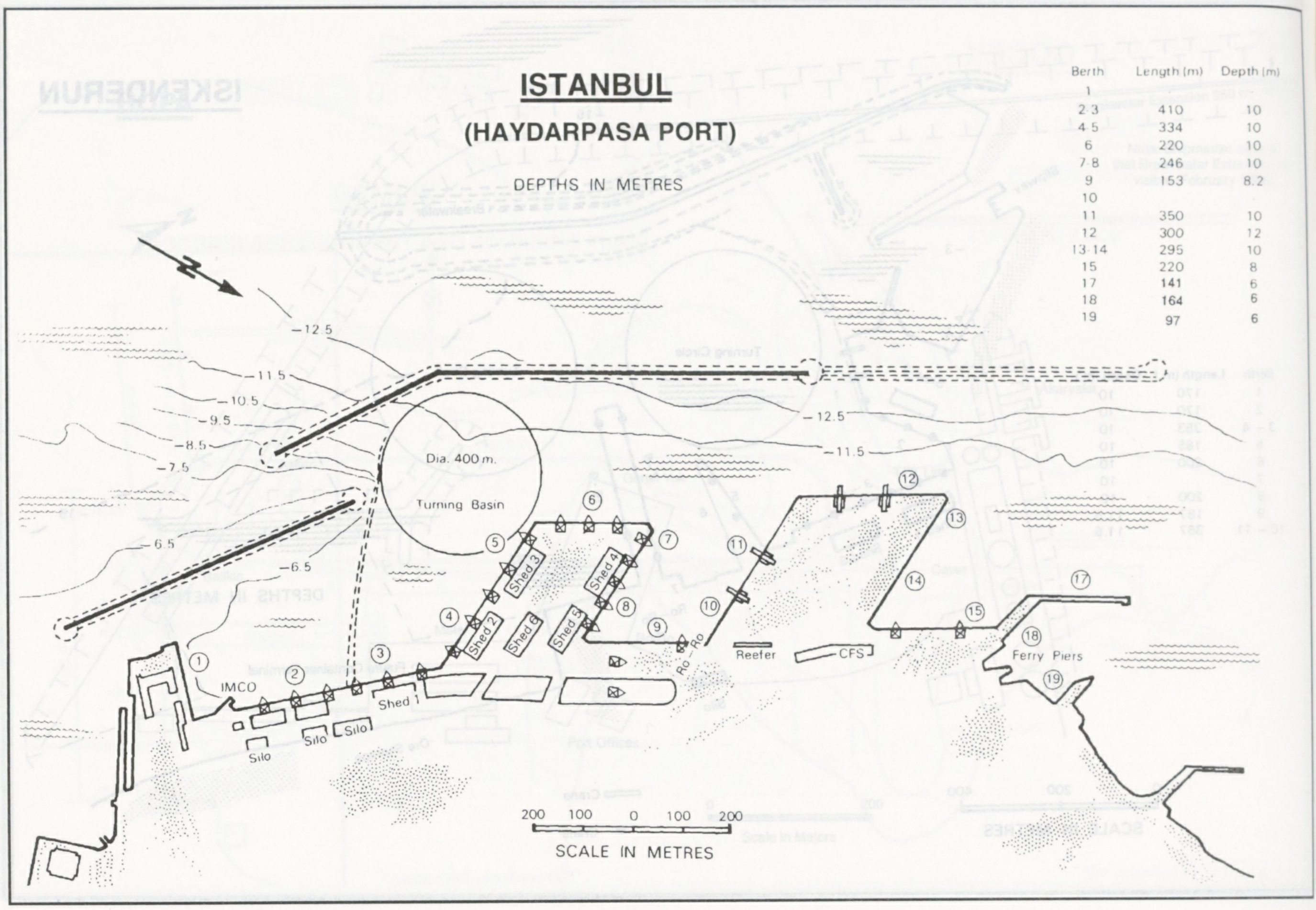


Warehouse
Salipazari
Dry Cargo
Terminal
GOLDEN HORN
Dry
Docks
BOSPHORUS
Passenger Terminal
Karakoy
Sarayburnu
Galata Bridge
BLACK SEA
Anadolukavak
Bujukdere
PORT OF ISTANBUL
Istinye Floating Dock
Kurugesme
Coal Terminal
BOSPHORUS
Salipazari Cargo
Terminal
GOLDEN HORN
Karakoy
Ahir kapi
Haydarpasa Port
Kadikoy
Free Anchorage Area
Kugukcekmece Lake
Haramidere
Oil Terminal
Bababurnu
SEA OF MARMARA

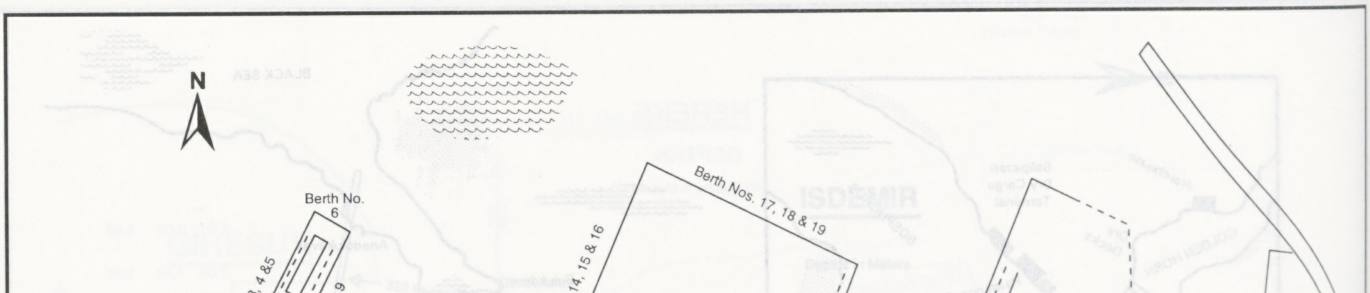
ISTANBUL

ISTANBUL
(HAYDARPASA PORT)

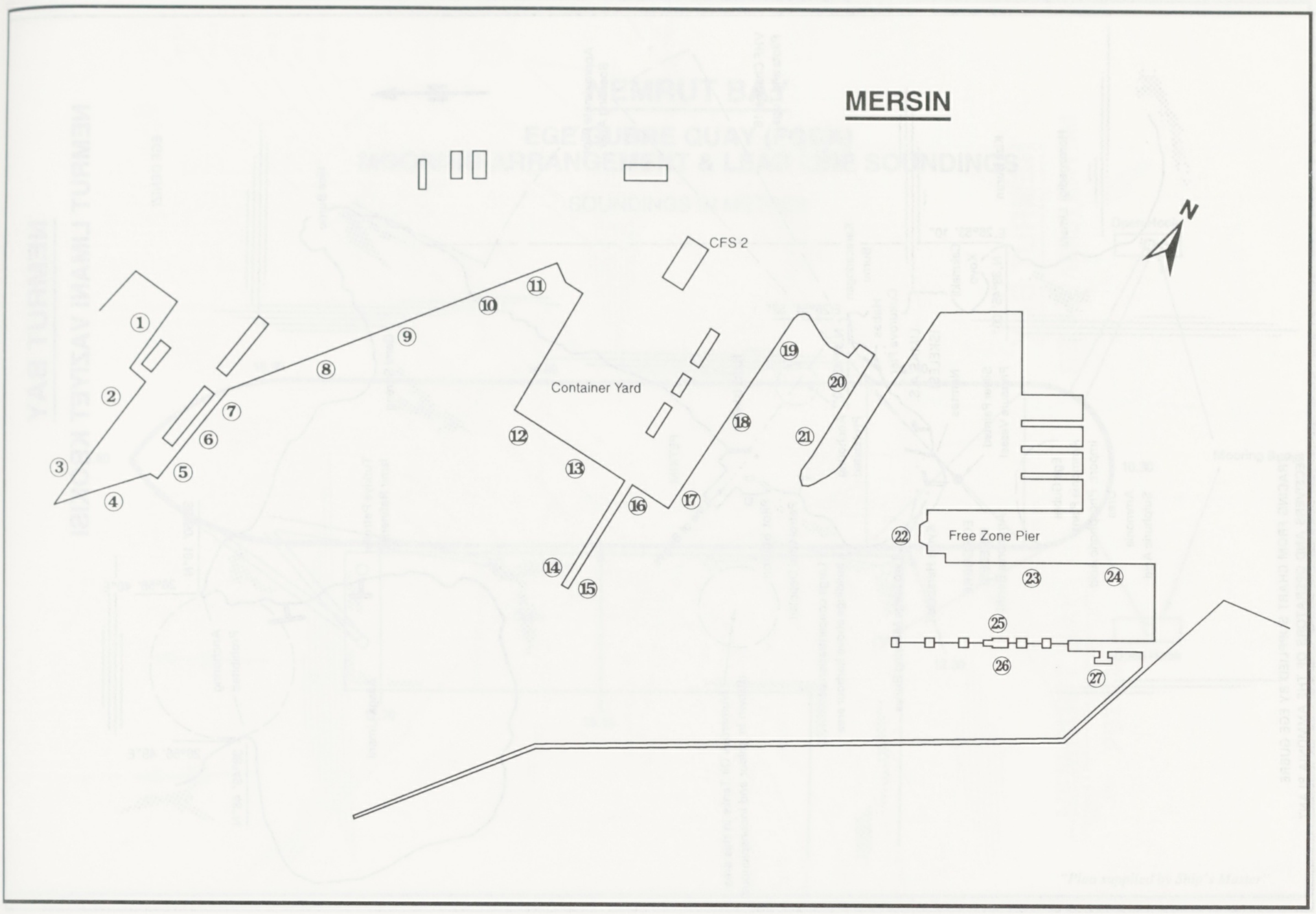
DEPTHS IN METRES

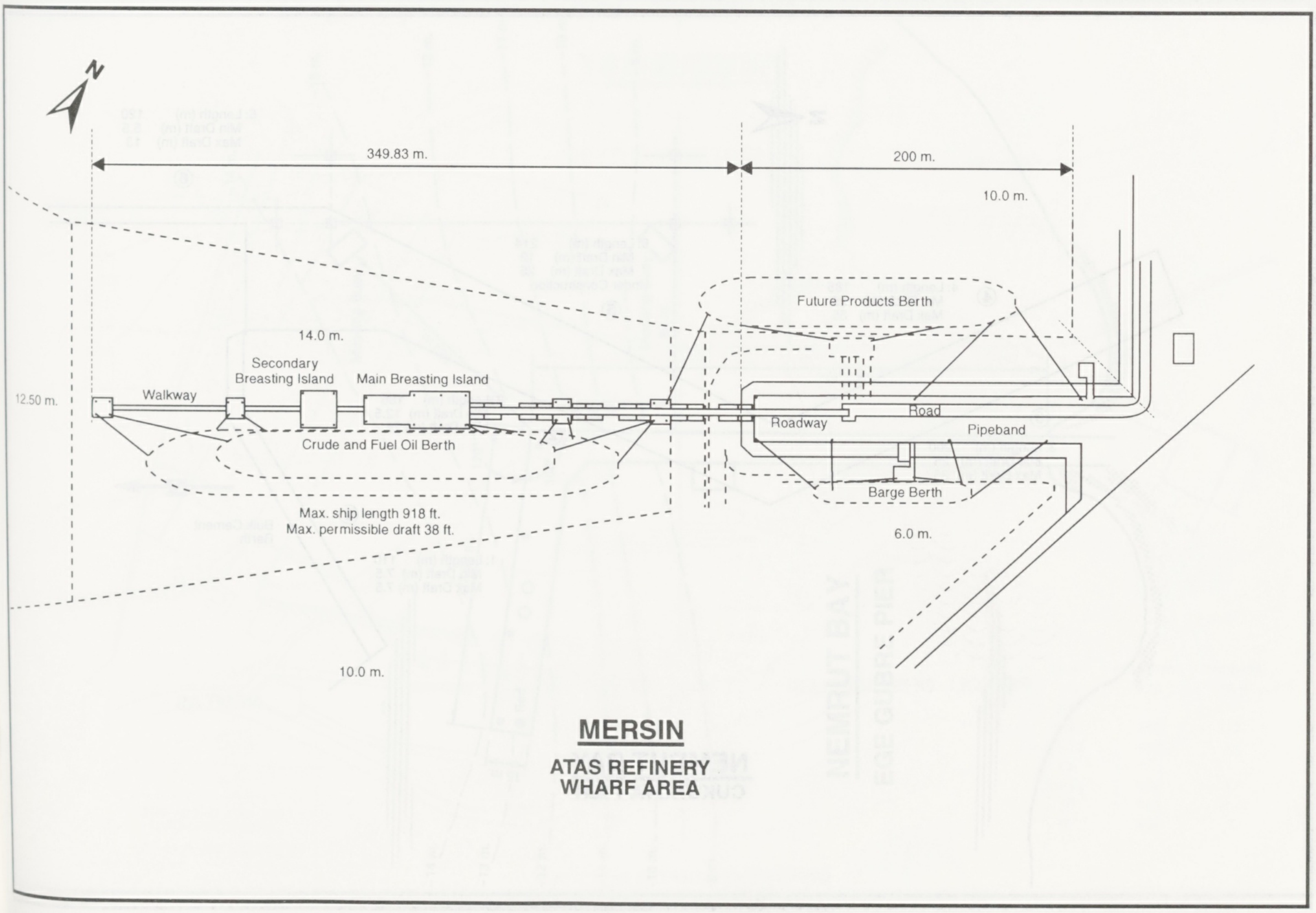

N
−12.5
−11.5
−10.5
−9.5
−8.5
−7.5
−6.5
−6.5
−12.5
−11.5
Dia. 400 m.
Turning Basin
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑰
⑱
⑲
IMCO
Silo
Silo
Silo
Shed 1
Shed 2
Shed 3
Shed 4
Shed 5
Shed 6
Ro-Ro
Reefer
CFS
Ferry Piers
200 100 0 100 200
SCALE IN METRES

Berth	Length (m)	Depth (m)
1		
2·3	410	10
4·5	334	10
6	220	10
7·8	246	10
9	153	8.2
10		
11	350	10
12	300	12
13·14	295	10
15	220	8
17	141	6
18	164	6
19	97	6


N
Berth No. 6
Berth Nos. 3, 4 & 5
Berth Nos. 7, 8 & 9
Passenger Berth & Lounge
Berth No. 2
Berth No. 1
Administrative Building
Berth Nos. 10, 11 & 12
Berth Nos. 13, 14, 15 & 16
Berth Nos. 17, 18 & 19
Berth Nos. 20, 21 & 22
Container Storage Yard
General Cargo Storage Yard
Reefer Facilities
C.F.S.
Oily Water Separator
Hazardous Cargo Store
Ro/Ro Facilities
Grain Conveyor
Silos

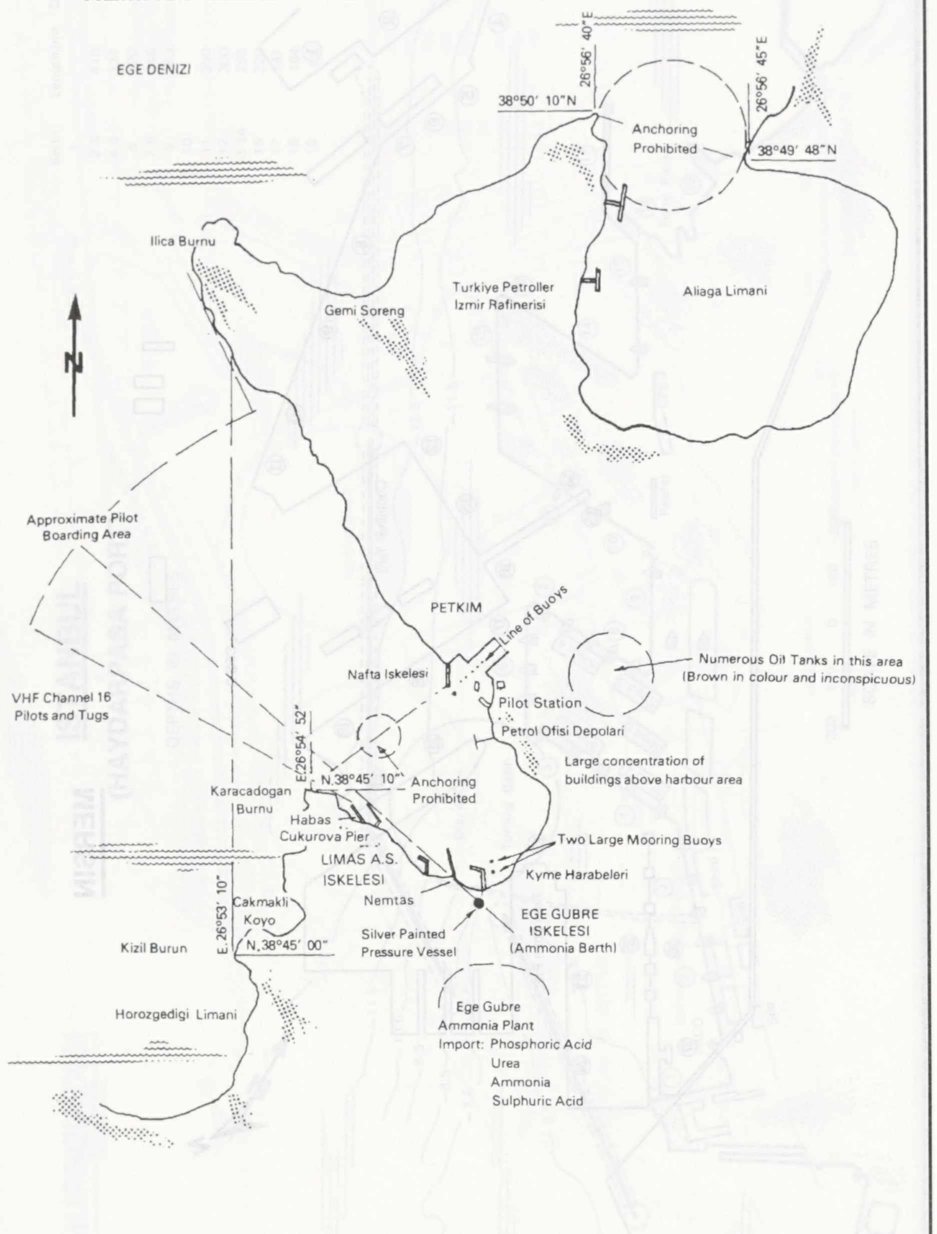
IZMIR


MERSIN
N
CFS 2
Container Yard
Free Zone Pier
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
㉒
㉓
㉔
㉕
㉖
㉗


N
349.83 m.
200 m.
10.0 m.
Future Products Berth
14.0 m.
Secondary Breasting Island
Main Breasting Island
12.50 m.
Walkway
Roadway
Road
Pipeband
Crude and Fuel Oil Berth
Barge Berth
Max. ship length 918 ft.
Max. permissible draft 38 ft.
6.0 m.
10.0 m.
MERSIN
ATAS REFINERY
WHARF AREA

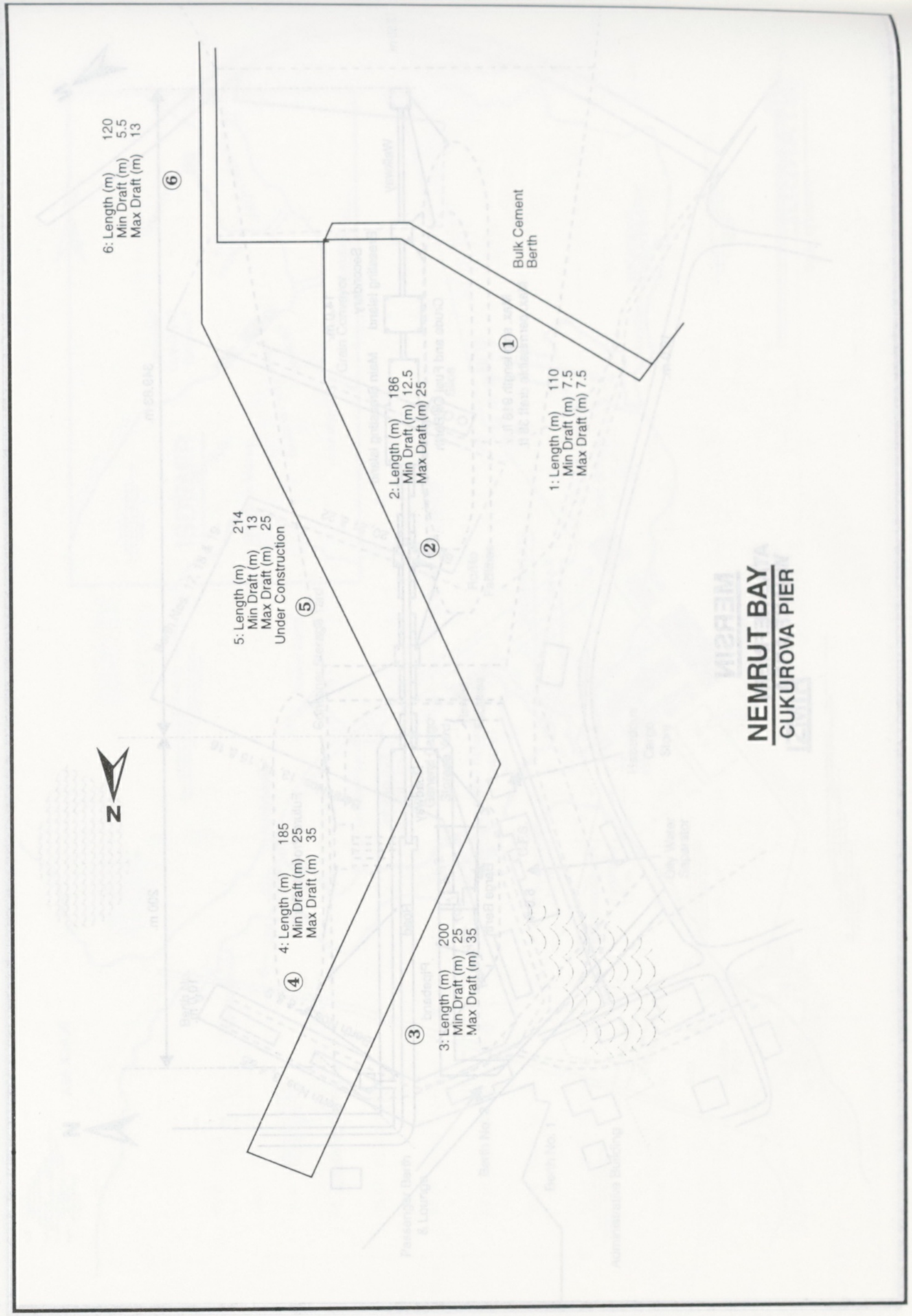
NEMRUT BAY

NEMRUT LIMANI VAZIYET KROKISI


EGE DENIZI
26°56' 40"E
38°50' 10"N
26°56' 45"E
38°49' 48"N
Anchoring Prohibited
Ilica Burnu
Gemi Soreng
Turkiye Petroller Izmir Rafinerisi
Aliaga Limani
N
Approximate Pilot Boarding Area
PETKIM
Line of Buoys
Nafta Iskelesi
Numerous Oil Tanks in this area (Brown in colour and inconspicuous)
VHF Channel 16 Pilots and Tugs
Pilot Station
Petrol Ofisi Depolari
E.26°54' 52"
N.38°45' 10"
Anchoring Prohibited
Large concentration of buildings above harbour area
Karacadogan Burnu
Habas
Cukurova Pier
LIMAS A.S. ISKELESI
Two Large Mooring Buoys
Kyme Harabeleri
Nemtas
E.26°53' 10"
Cakmakli Koyo
Kizil Burun
N.38°45' 00"
Silver Painted Pressure Vessel
EGE GUBRE ISKELESI (Ammonia Berth)
Ege Gubre Ammonia Plant
Import: Phosphoric Acid
Urea
Ammonia
Sulphuric Acid
Horozgedigi Limani

TRACING FROM CHART SUPPLIED BY EGE GUBRE
RECEIVERS AND OPERATORS OF THE AMMONIA PLANT

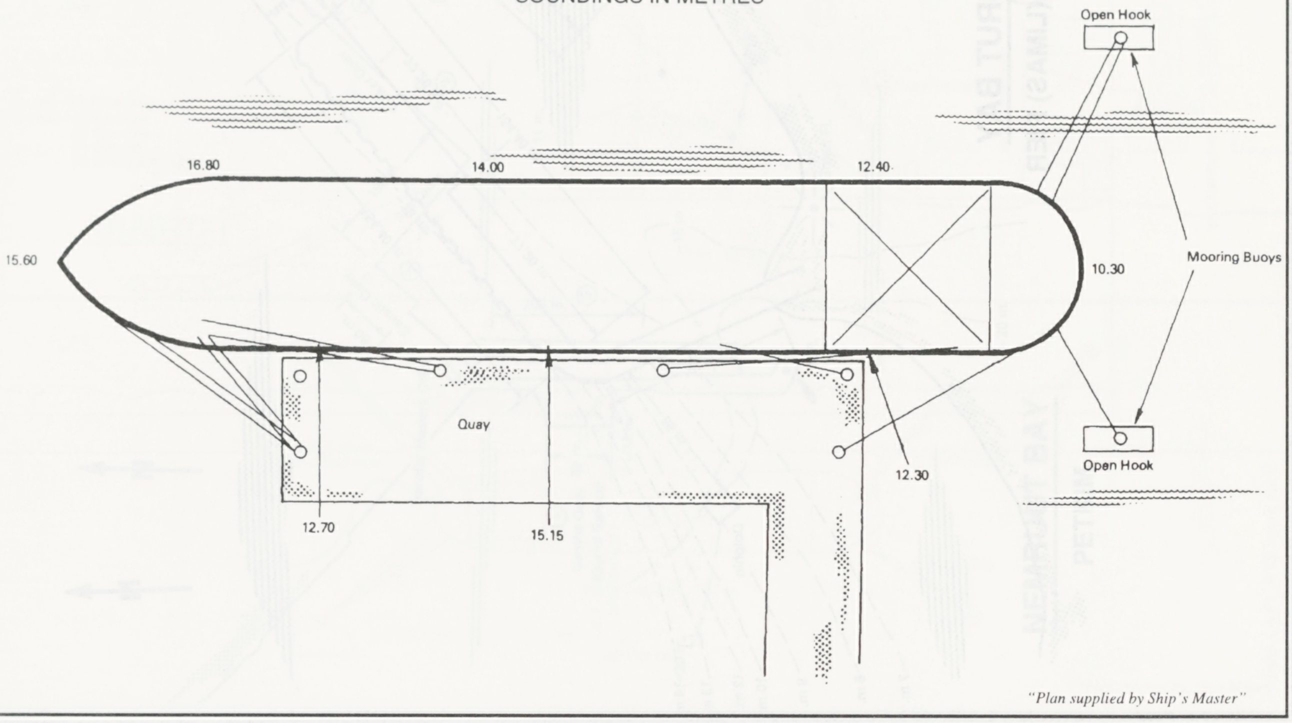
NEMRUT BAY
CUKUROVA PIER


N
⑥
6: Length (m) 120
Min Draft (m) 5.5
Max Draft (m) 13
Bulk Cement Berth
①
1: Length (m) 110
Min Draft (m) 7.5
Max Draft (m) 7.5
②
2: Length (m) 186
Min Draft (m) 12.5
Max Draft (m) 25
⑤
5: Length (m) 214
Min Draft (m) 13
Max Draft (m) 25
Under Construction
④
4: Length (m) 185
Min Draft (m) 25
Max Draft (m) 35
③
3: Length (m) 200
Min Draft (m) 25
Max Draft (m) 35

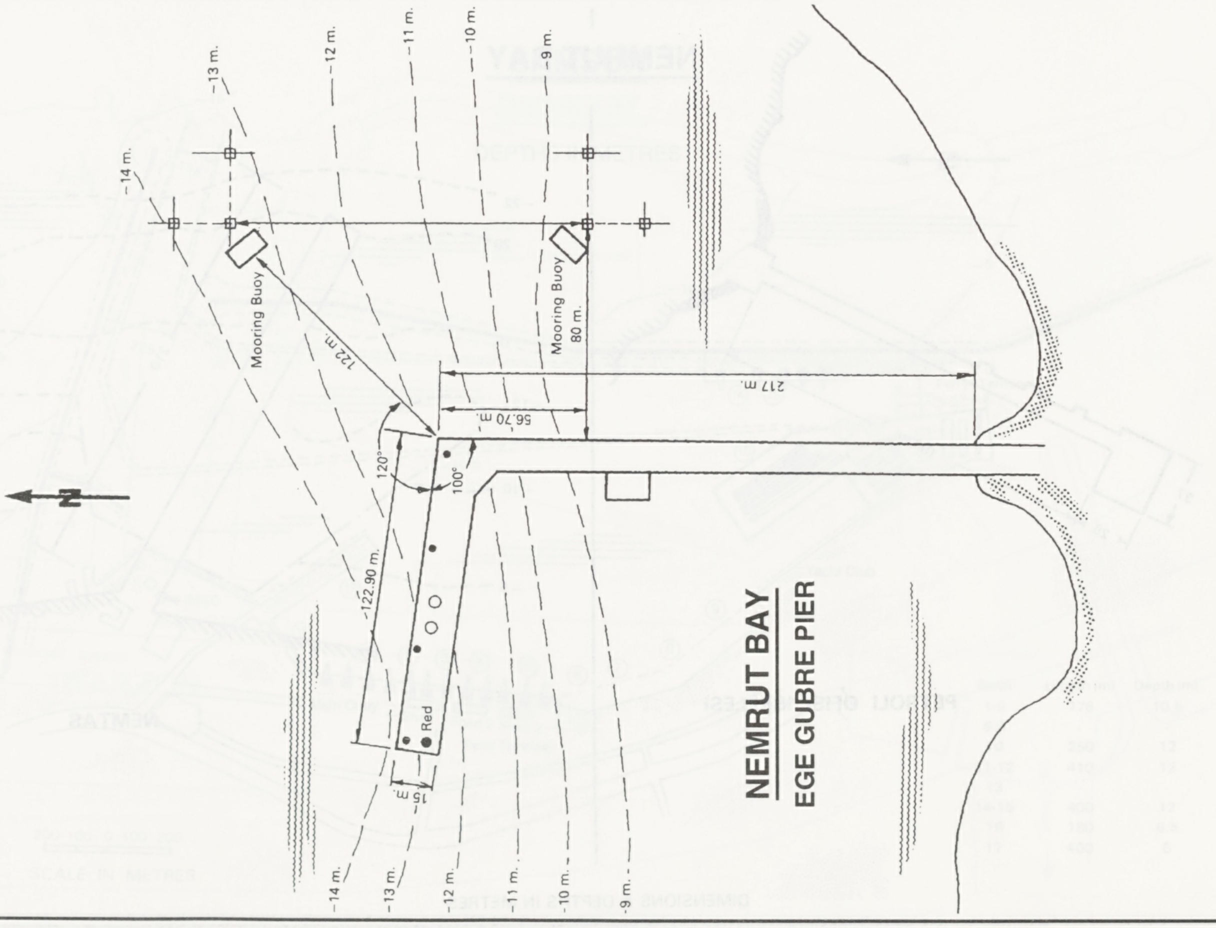
NEMRUT BAY

EGE GUBRE QUAY (FOCA)
MOORING ARRANGEMENT & LEAD LINE SOUNDINGS

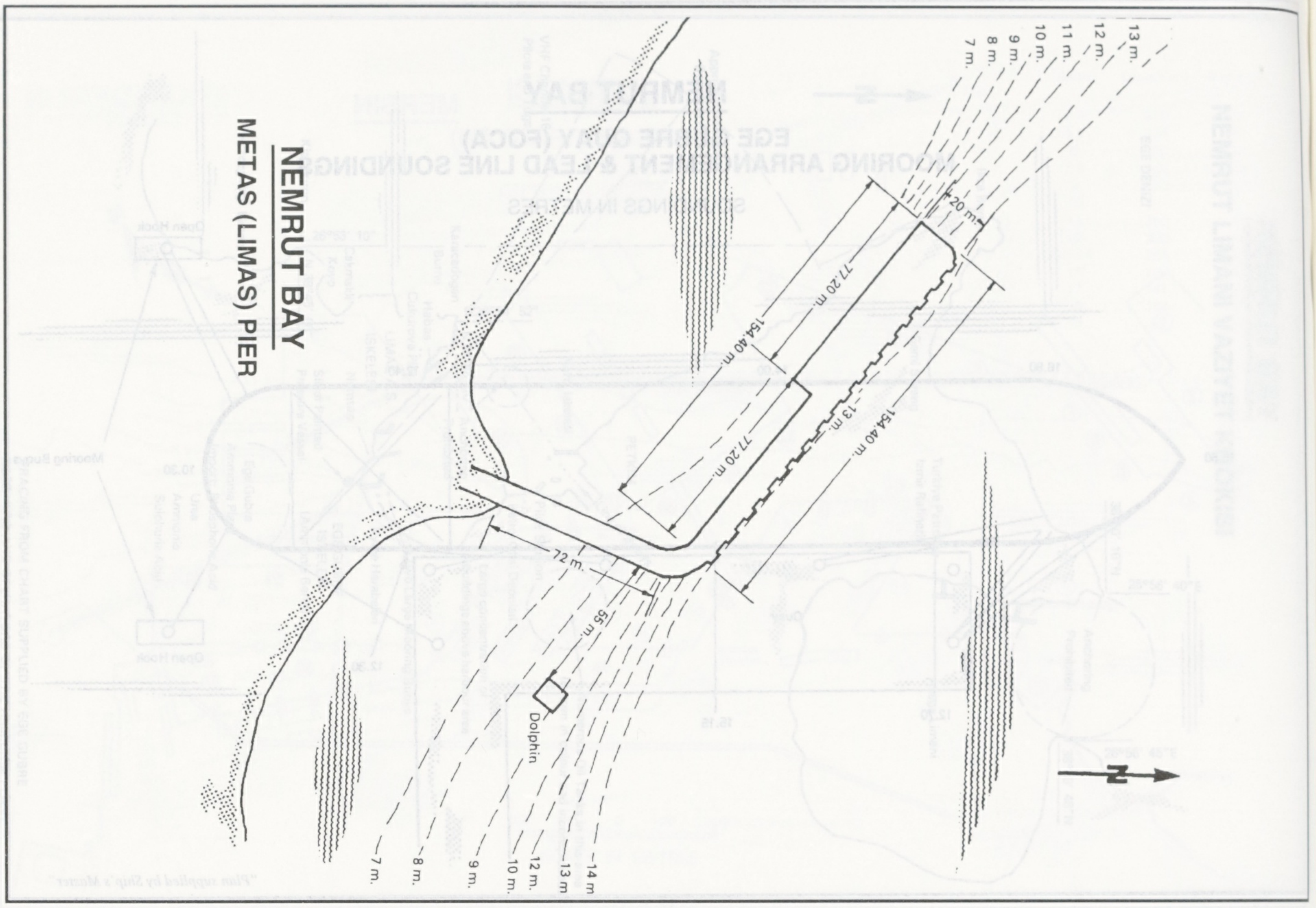
SOUNDINGS IN METRES

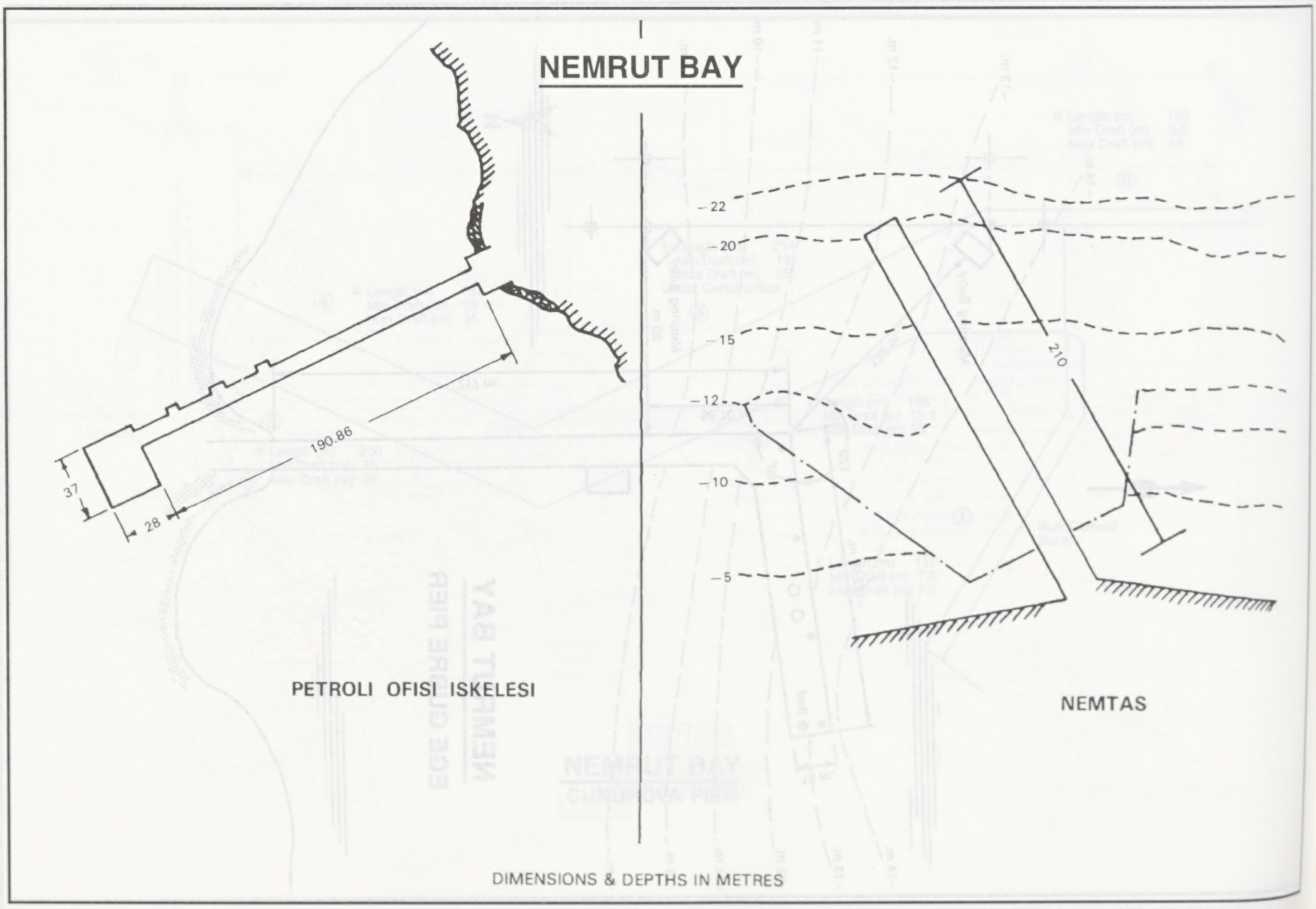

Open Hook
16.80
14.00
12.40
15.60
10.30
Mooring Buoys
Quay
12.70
15.15
12.30
Open Hook

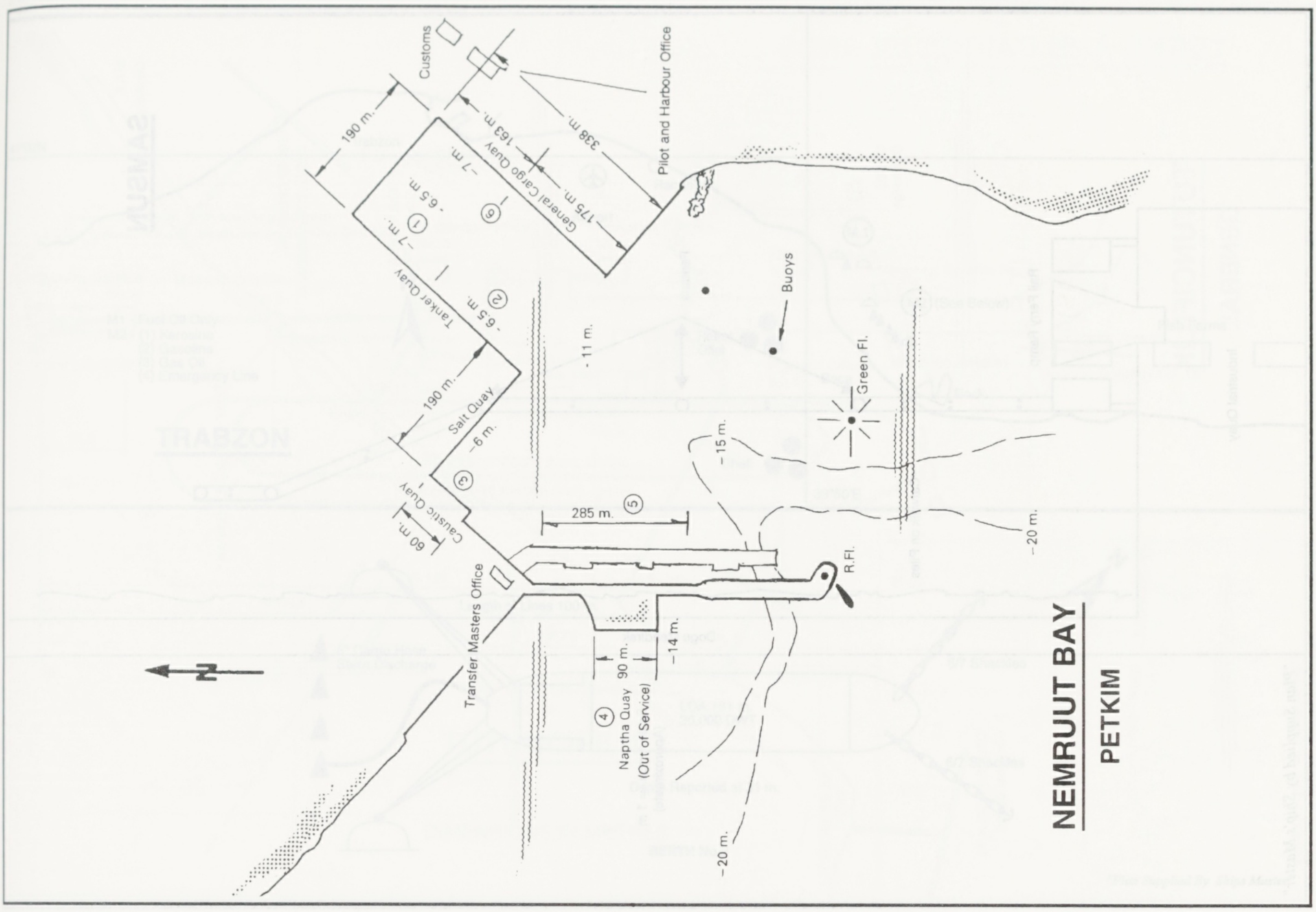
"Plan supplied by Ship's Master"


-14 m.
-13 m.
-12 m.
-11 m.
-10 m.
-9 m.
Mooring Buoy
122 m.
Mooring Buoy
80 m.
217 m.
56.70 m.
120°
100°
-122.90 m.
Red
15 m.
N
-14 m.
-13 m.
-12 m.
-11 m.
-10 m.
-9 m.

NEMRUT BAY
EGE GUBRE PIER


NEMRUT BAY
METAS (LIMAS) PIER
13 m.
12 m.
11 m.
10 m.
9 m.
8 m.
7 m.
20 m.
77.20 m.
154.40 m.
13 m.
77.20 m.
154.40 m.
72 m.
55 m.
Dolphin
14 m
13 m
12 m.
10 m.
9 m.
8 m.
7 m.
N

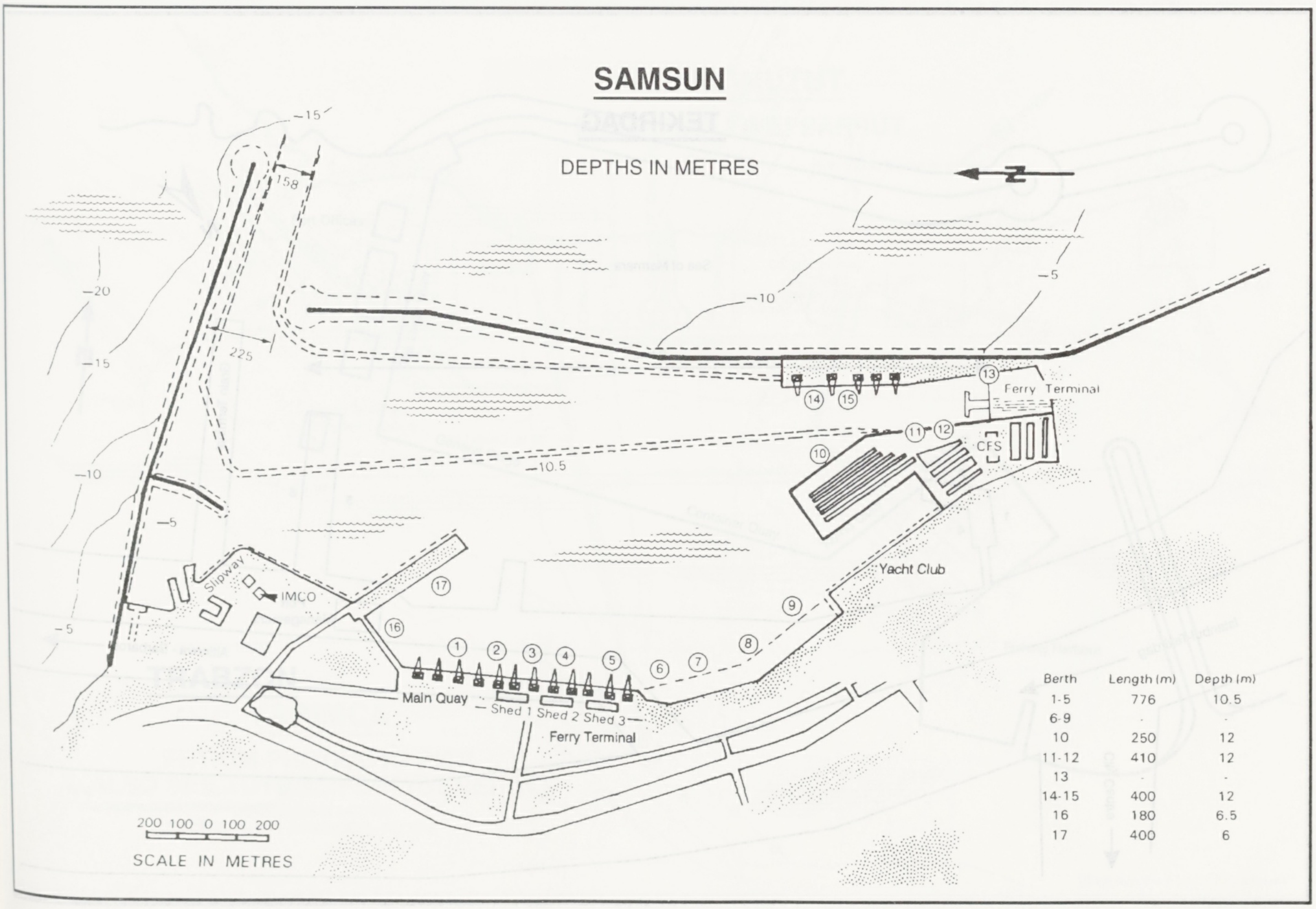

NEMRUT BAY
-22
-20
-15
-12
-10
-5
210
190.86
37
28
PETROLI OFISI ISKELESI
NEMTAS
DIMENSIONS & DEPTHS IN METRES



NEMRUUT BAY

PETKIM

Customs
Pilot and Harbour Office
190 m.
163 m.
338 m.
General Cargo Quay
–7 m.
175 m.
⑥
-6.5 m.
①
–7 m.
Tanker Quay
②
-6.5 m.
-11 m.
Buoys
Green Fl.
190 m.
Salt Quay
–6 m.
③
Caustic Quay
60 m.
285 m.
⑤
–15 m.
–20 m.
R.Fl.
Transfer Masters Office
–14 m.
90 m.
④
Naptha Quay
(Out of Service)
–20 m.
N



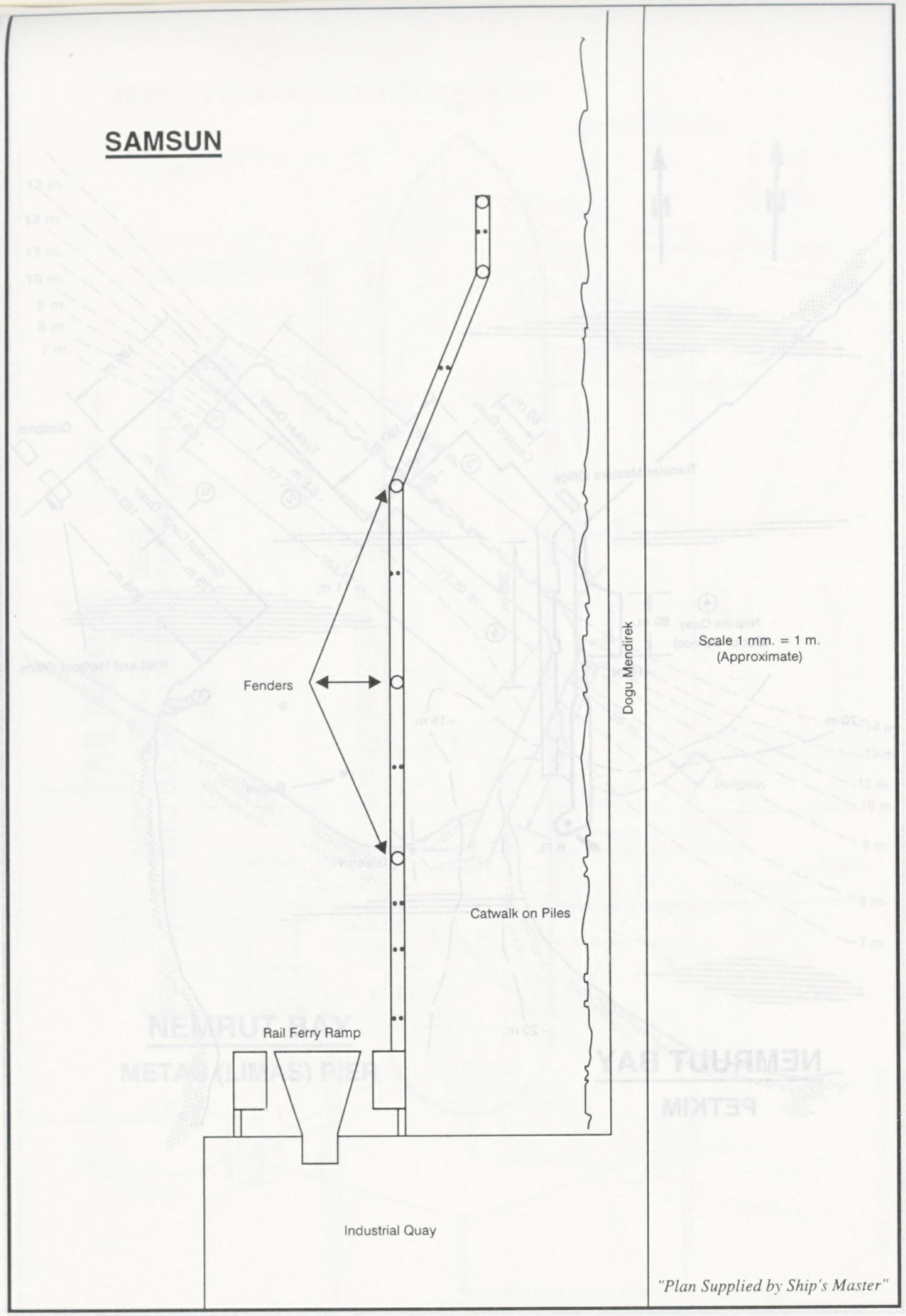
SAMSUN

DEPTHS IN METRES

N
–15
158
–20
225
–15
–10
–10.5
–10
–5
–5
–5
Slipway
IMCO
⑰
⑯
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
Ferry Terminal
CFS
Yacht Club
Main Quay
Shed 1
Shed 2
Shed 3
Ferry Terminal
200 100 0 100 200
SCALE IN METRES

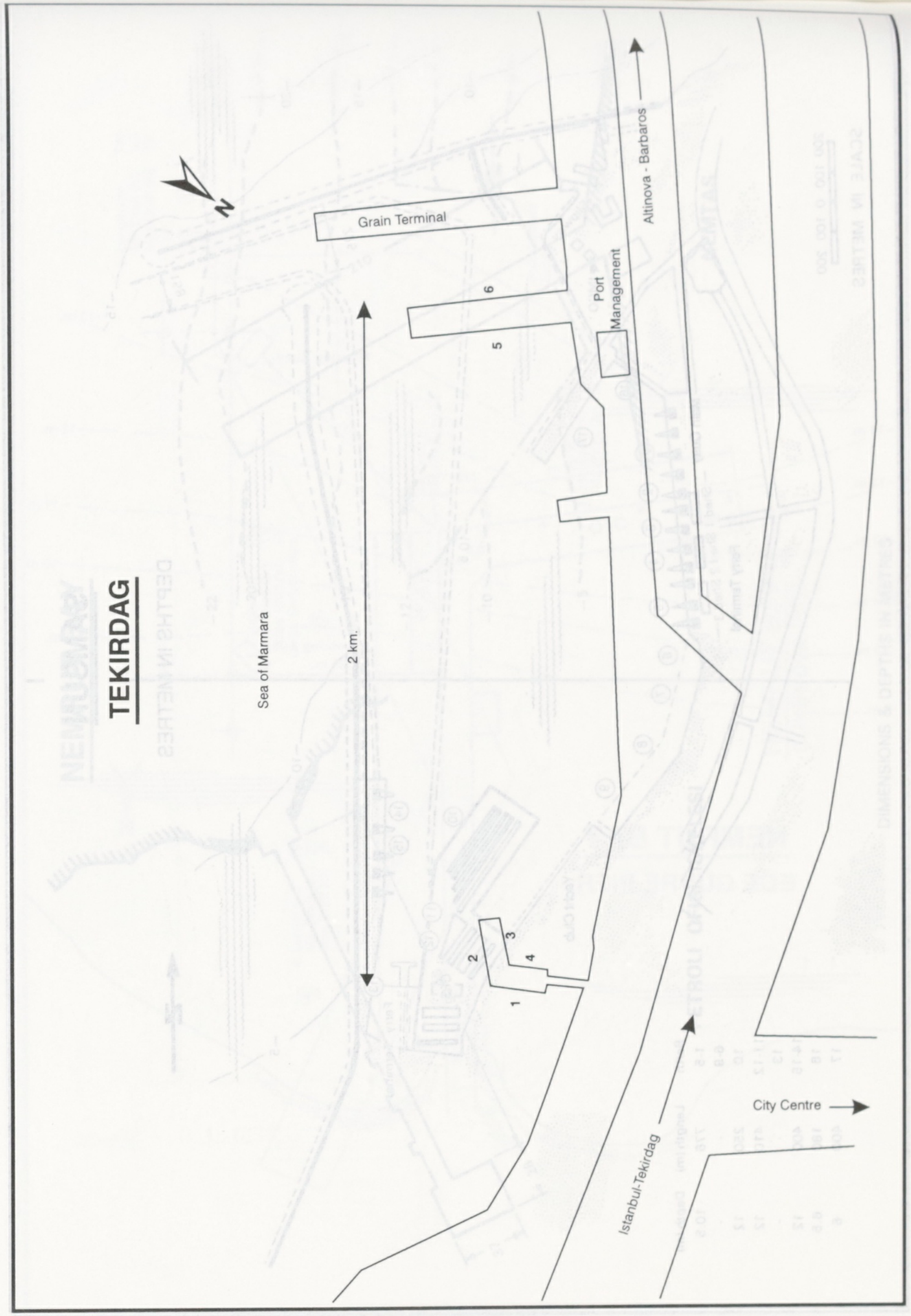
Berth	Length (m)	Depth (m)
1-5	776	10.5
6-9	-	-
10	250	12
11-12	410	12
13	-	-
14-15	400	12
16	180	6.5
17	400	6

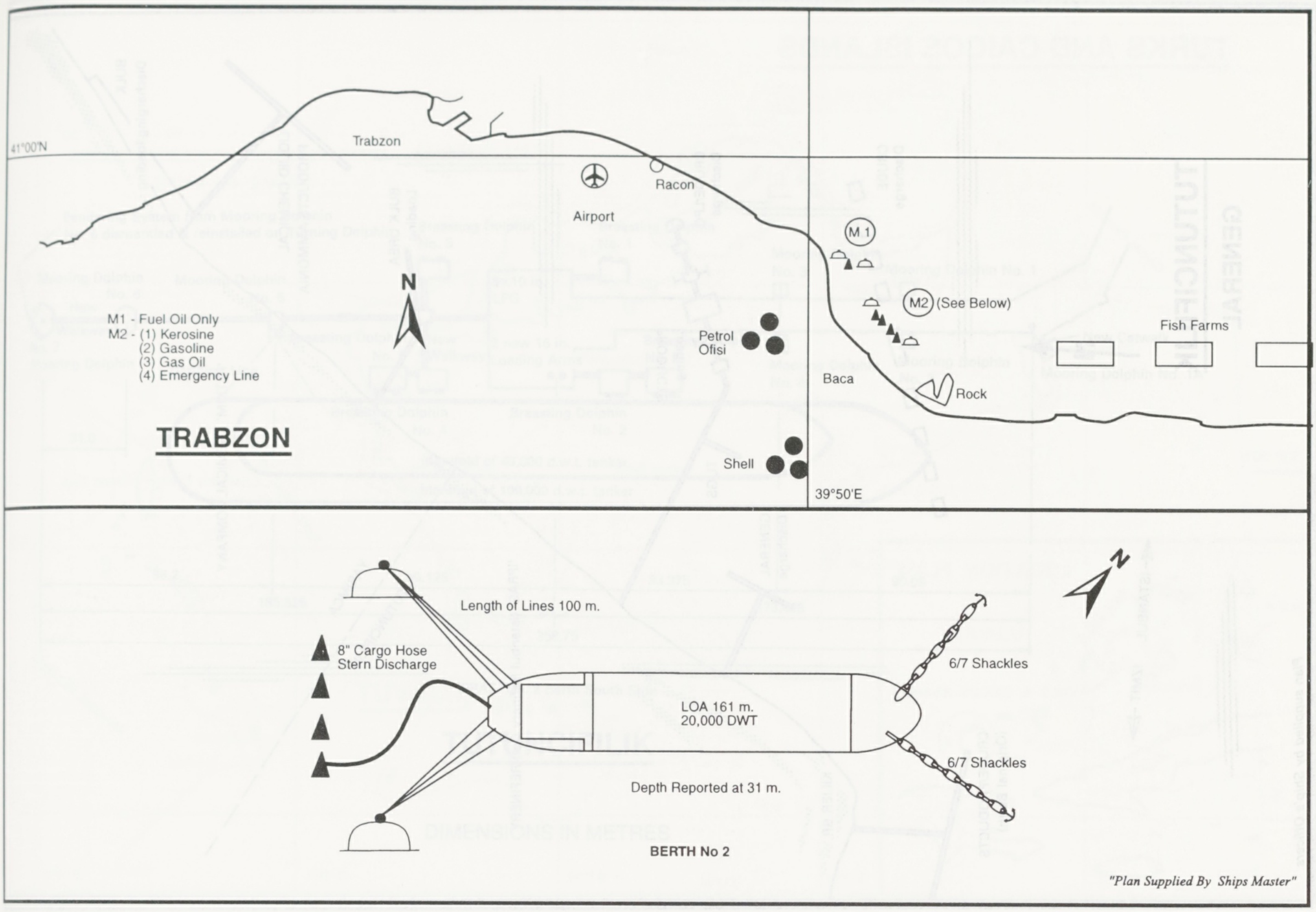
SAMSUN


Fenders
Catwalk on Piles
Rail Ferry Ramp
Industrial Quay
Dogu Mendirek
Scale 1 mm. = 1 m.
(Approximate)

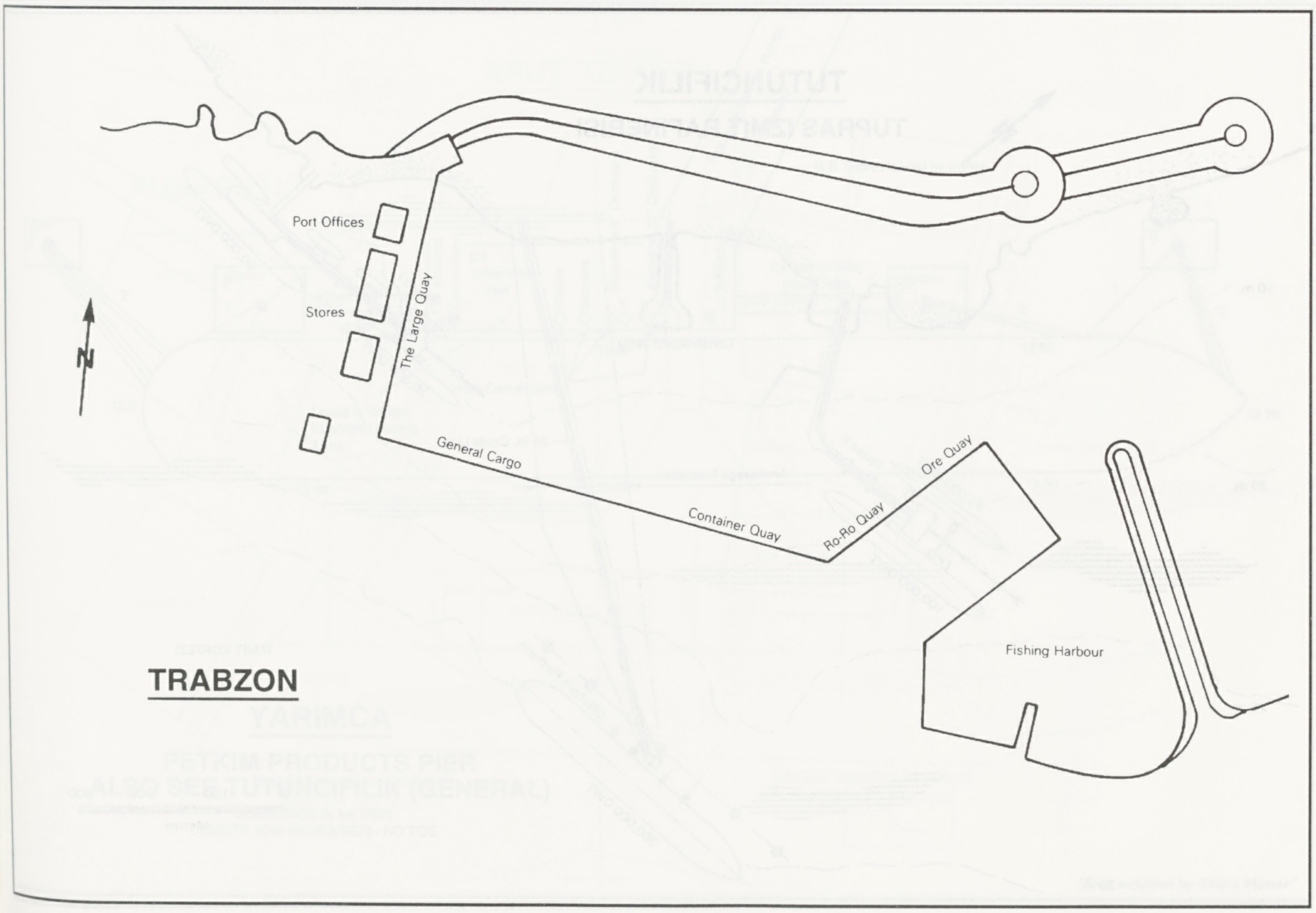
"Plan Supplied by Ship's Master"

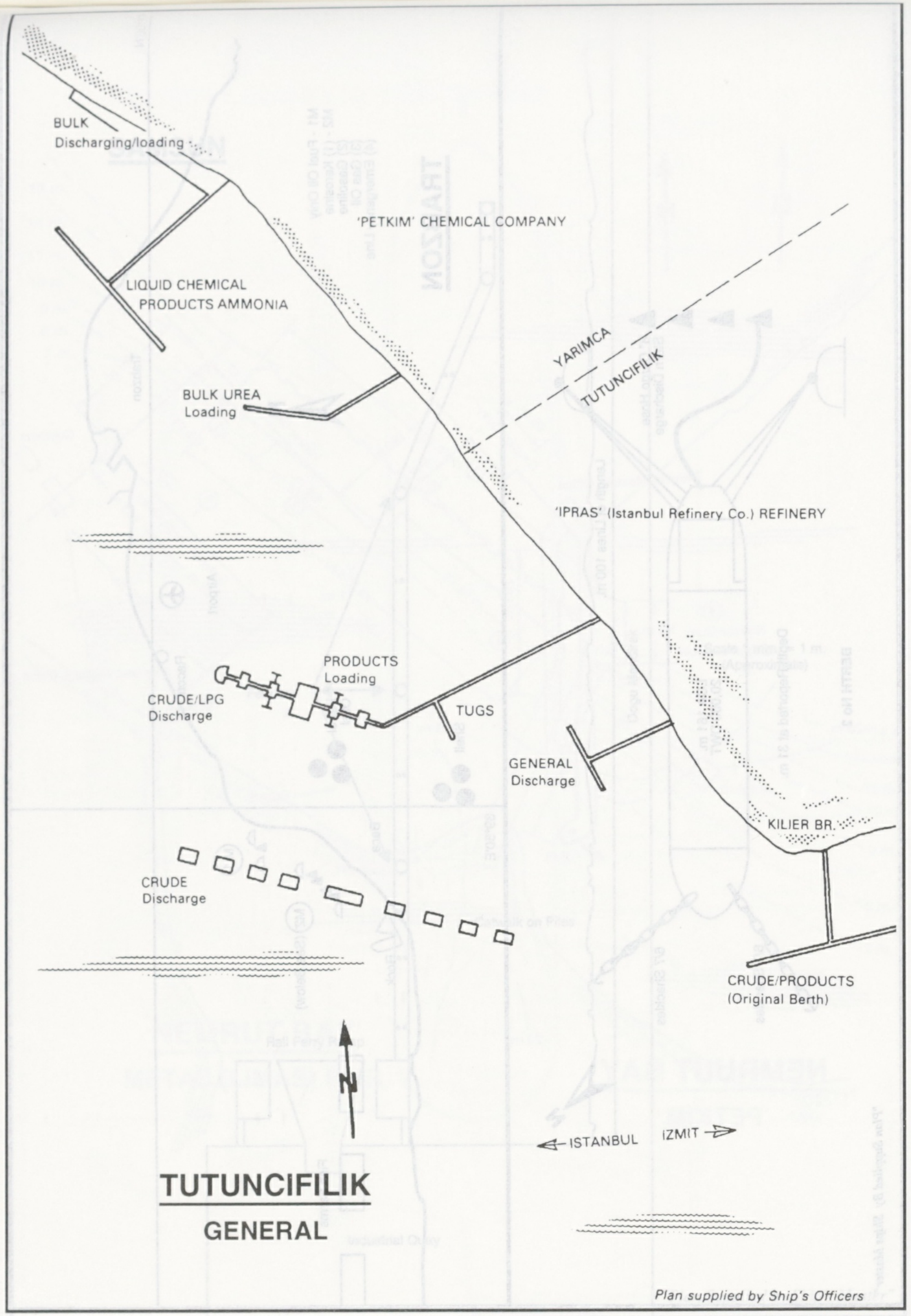
TEKIRDAG


N
Grain Terminal
6
5
Port Management
Altinova - Barbaros
Sea of Marmara
2 km.
1
2
3
4
Istanbul-Tekirdag
City Centre


41°00'N
Trabzon
Racon
Airport
M 1
M2 (See Below)
N
M1 - Fuel Oil Only
M2 - (1) Kerosine
(2) Gasoline
(3) Gas Oil
(4) Emergency Line
Petrol Ofisi
Baca
Fish Farms
Rock
TRABZON
Shell
39°50'E
Length of Lines 100 m.
8" Cargo Hose Stern Discharge
LOA 161 m. 20,000 DWT
6/7 Shackles
6/7 Shackles
Depth Reported at 31 m.
BERTH No 2
N

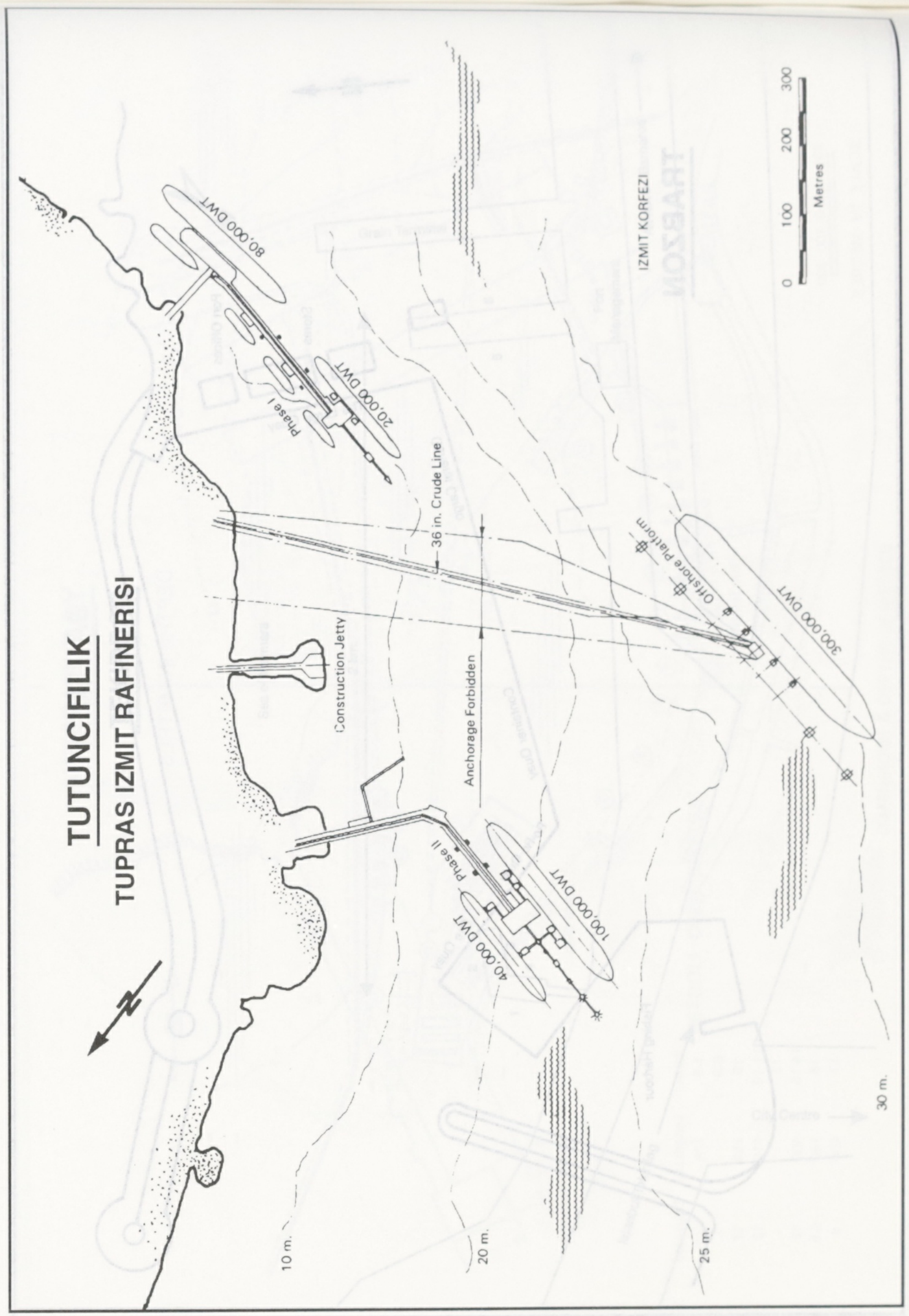
"Plan Supplied By Ships Master"


Port Offices
Stores
The Large Quay
N
General Cargo
Container Quay
Ro-Ro Quay
Ore Quay
Fishing Harbour
TRABZON

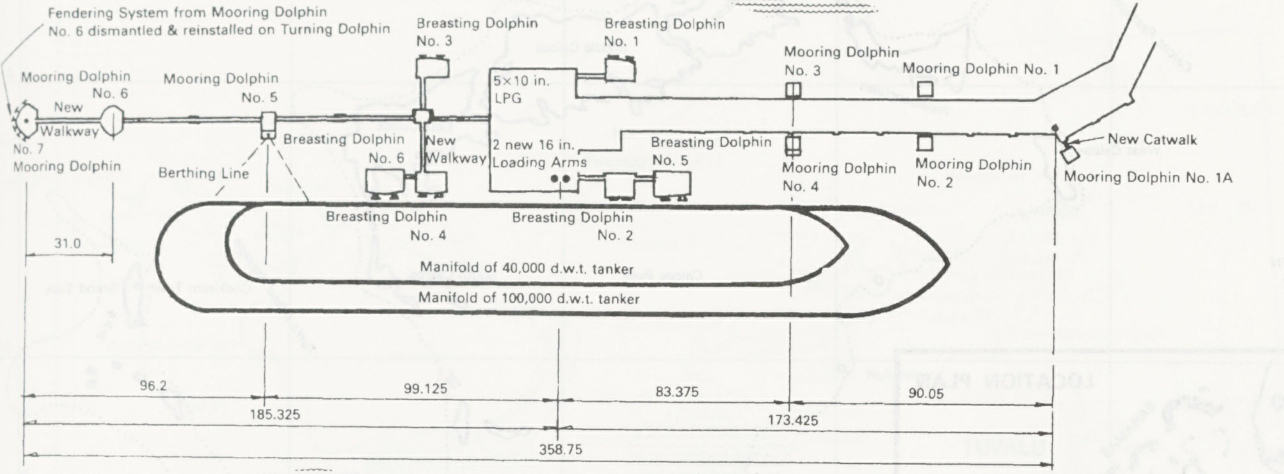

BULK
Discharging/loading
'PETKIM' CHEMICAL COMPANY
LIQUID CHEMICAL
PRODUCTS AMMONIA
BULK UREA
Loading
YARIMCA
TUTUNCIFILIK
'IPRAS' (Istanbul Refinery Co.) REFINERY
PRODUCTS
Loading
CRUDE/LPG
Discharge
TUGS
GENERAL
Discharge
KILIER BR.
CRUDE
Discharge
CRUDE/PRODUCTS
(Original Berth)
N
ISTANBUL
IZMIT

TUTUNCIFILIK
GENERAL

Plan supplied by Ship's Officers


80,000 DWT
20,000 DWT
Phase I
36 in. Crude Line
Offshore Platform
300,000 DWT
Construction Jetty
Anchorage Forbidden
Phase II
100,000 DWT
40,000 DWT
N
IZMIT KORFEZI
0
100
200
300
Metres
10 m.
20 m.
25 m.
30 m.

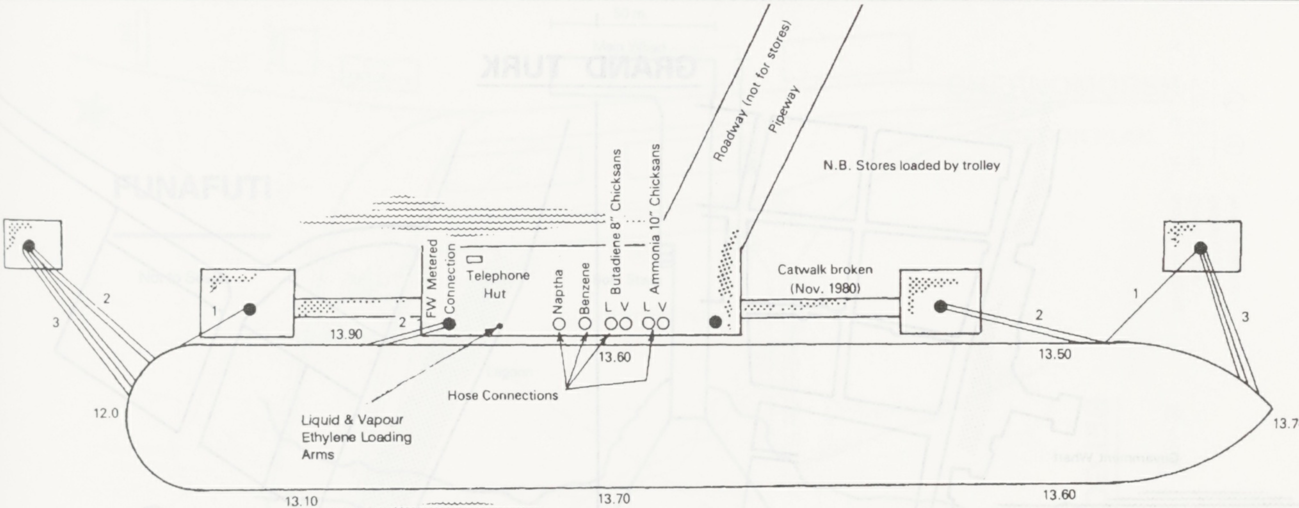
TUTUNCIFILIK
TUPRAS IZMIT RAFINERISI


Fendering System from Mooring Dolphin No. 6 dismantled & reinstalled on Turning Dolphin
Breasting Dolphin No. 3
Breasting Dolphin No. 1
Mooring Dolphin No. 3
Mooring Dolphin No. 1
Mooring Dolphin No. 6
Mooring Dolphin No. 5
New Walkway
No. 7 Mooring Dolphin
5×10 in. LPG
New Walkway
2 new 16 in. Loading Arms
Breasting Dolphin No. 6
Breasting Dolphin No. 5
Berthing Line
Mooring Dolphin No. 4
Mooring Dolphin No. 2
New Catwalk
Mooring Dolphin No. 1A
Breasting Dolphin No. 4
Breasting Dolphin No. 2
31.0
Manifold of 40,000 d.w.t. tanker
Manifold of 100,000 d.w.t. tanker
96.2
185.325
99.125
83.375
173.425
90.05
358.75

'IPRAS' No. 2 Berth South Side

TUTUNCIFILIK

DIMENSIONS IN METRES

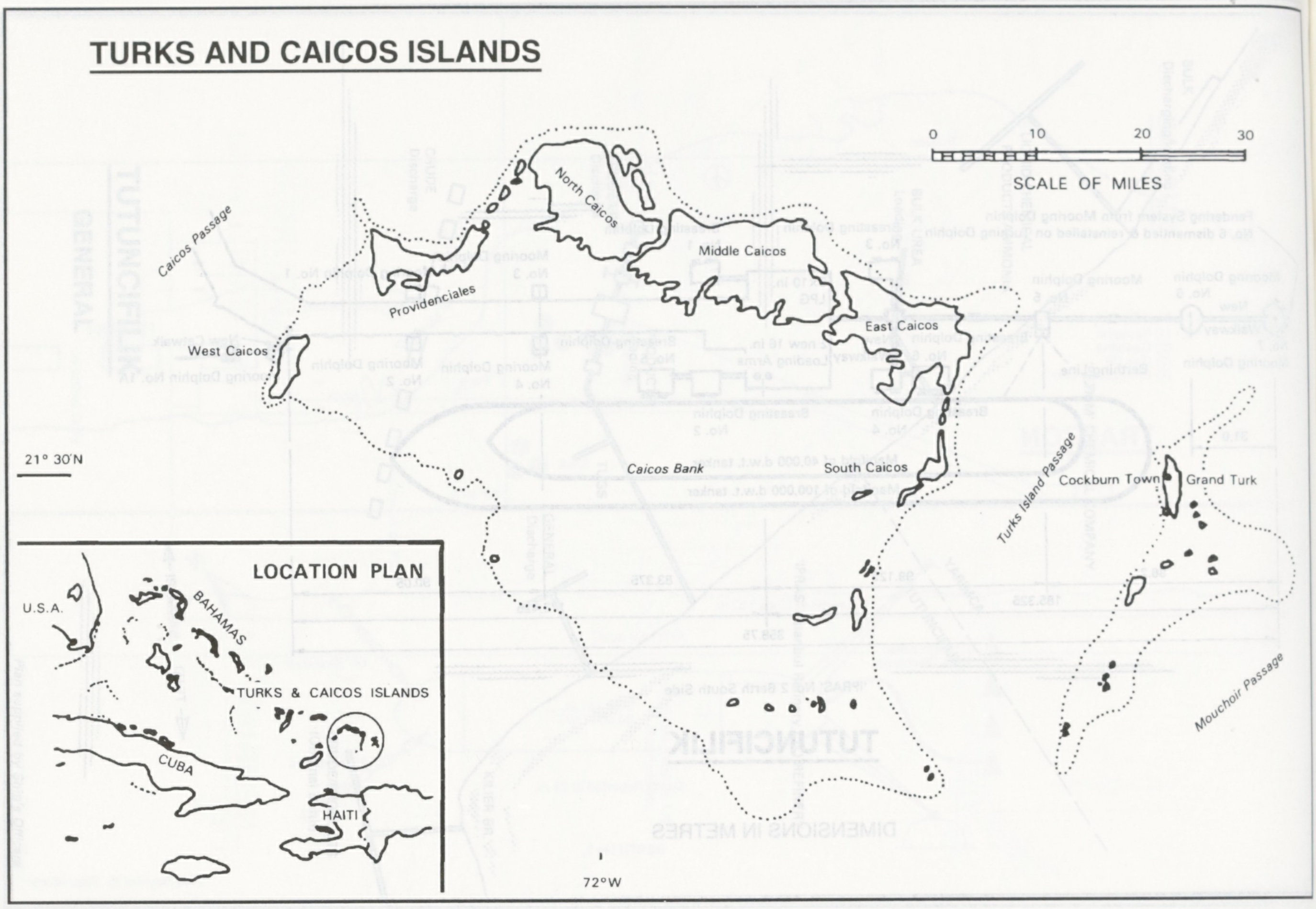

Roadway (not for stores)
Pipeway
N.B. Stores loaded by trolley
FW Metered Connection
Telephone Hut
Butadiene 8" Chicksans
Ammonia 10" Chicksans
Naptha
Benzene
L V
L V
Catwalk broken (Nov. 1980)
1
2
3
13.90
2
1
2
3
13.60
13.50
12.0
Hose Connections
Liquid & Vapour Ethylene Loading Arms
13.70
13.10
13.70
13.60

YARIMCA

PETKIM PRODUCTS PIER
ALSO SEE TUTUNCIFILIK (GENERAL)

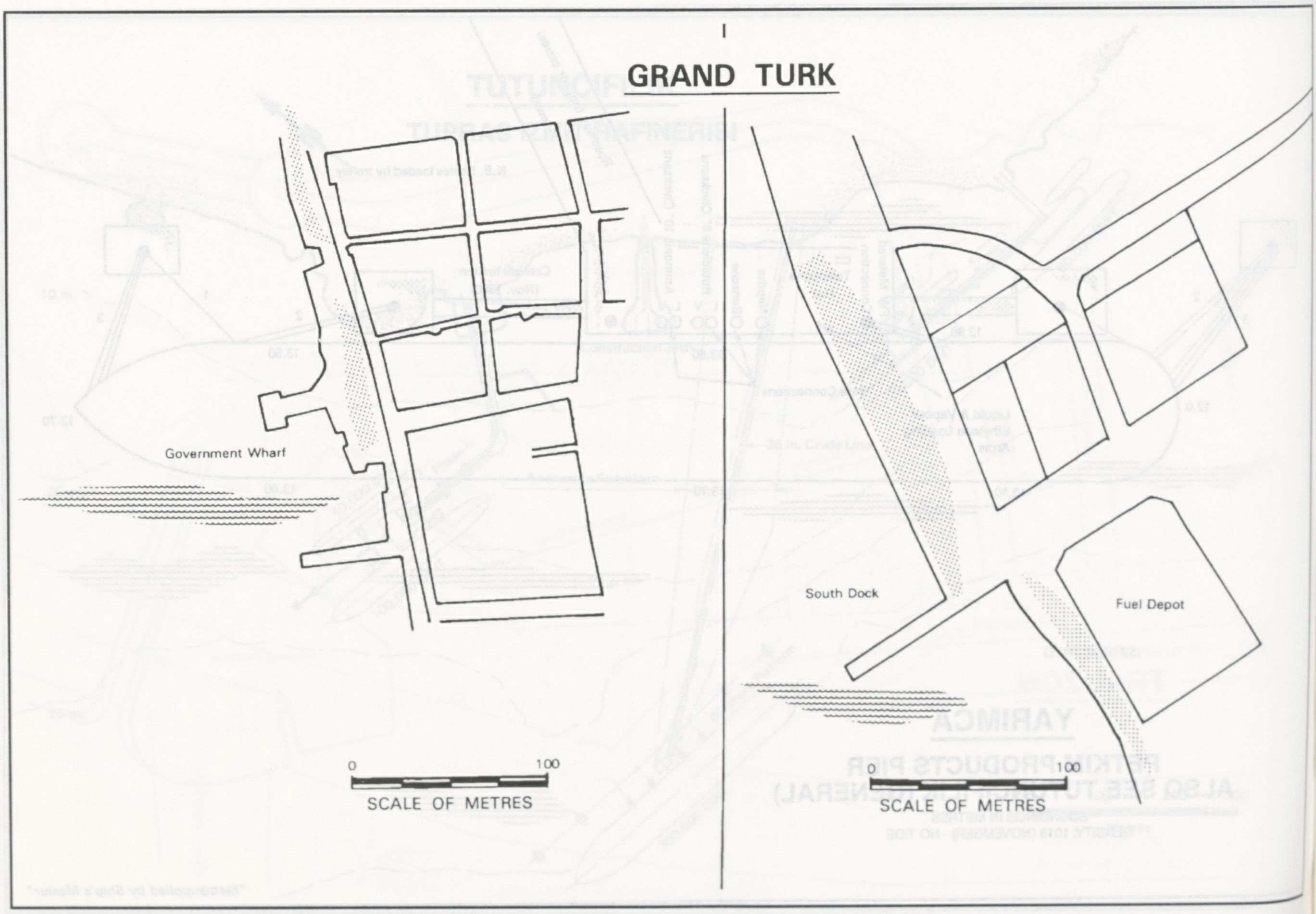
SOUNDINGS IN METRES
DENSITY: 1018 (NOVEMBER) - NO TIDE

"Plan supplied by Ship's Master"



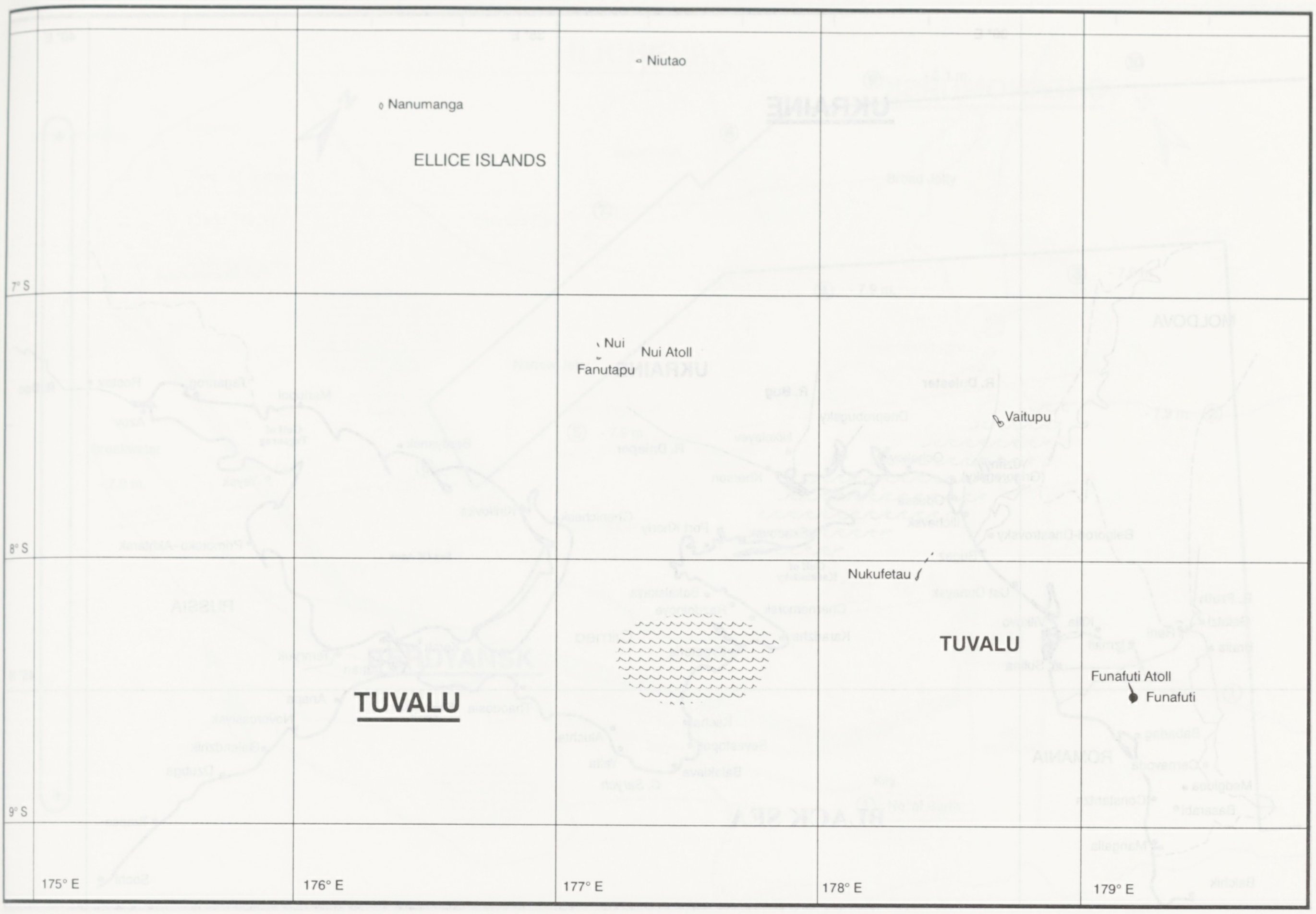
TURKS AND CAICOS ISLANDS

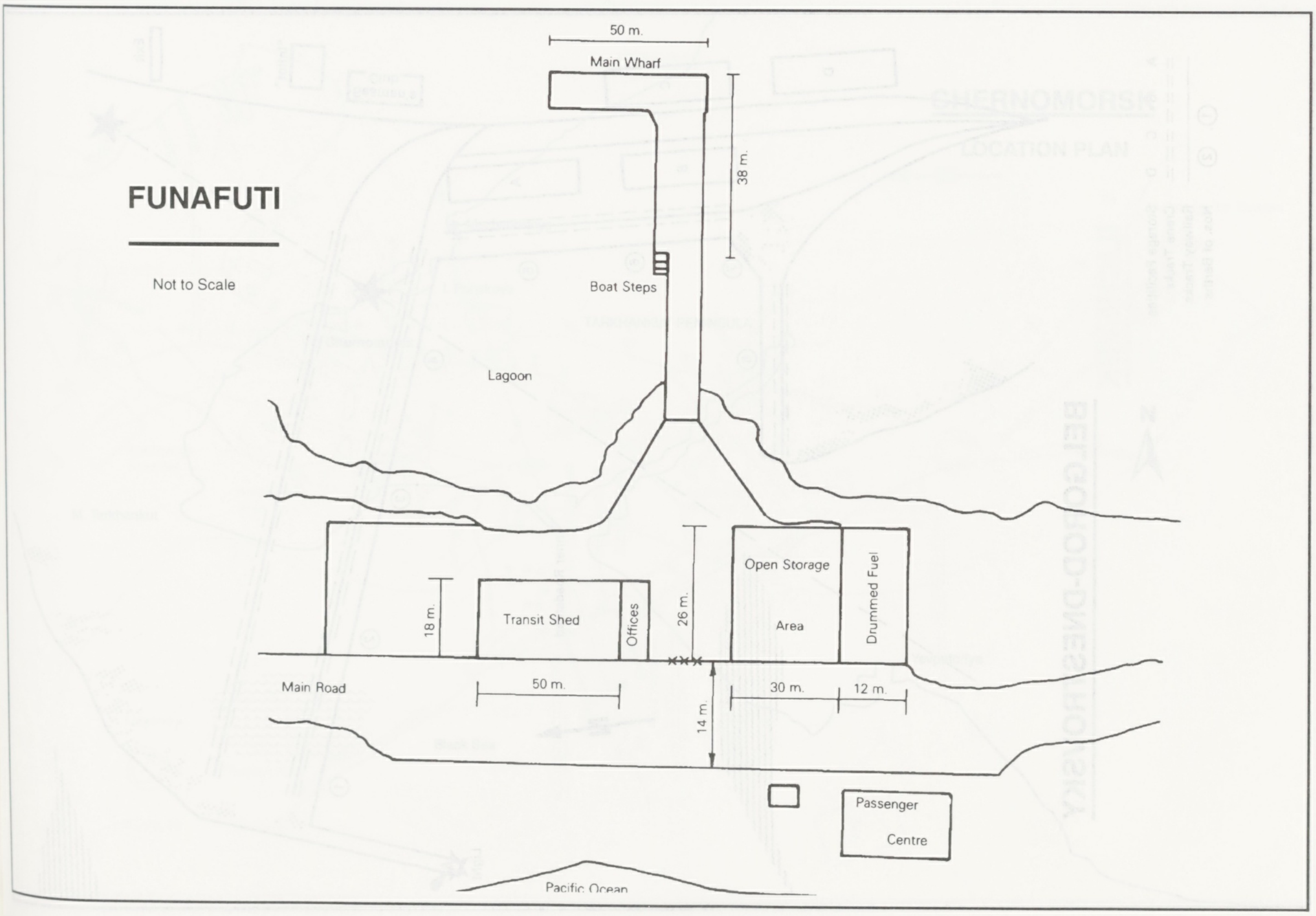
0
10
20
30
SCALE OF MILES
Caicos Passage
Providenciales
North Caicos
Middle Caicos
East Caicos
West Caicos
21° 30'N
Caicos Bank
South Caicos
Turks Island Passage
Cockburn Town
Grand Turk
Mouchoir Passage
72°W
LOCATION PLAN
U.S.A.
BAHAMAS
TURKS & CAICOS ISLANDS
CUBA
HAITI

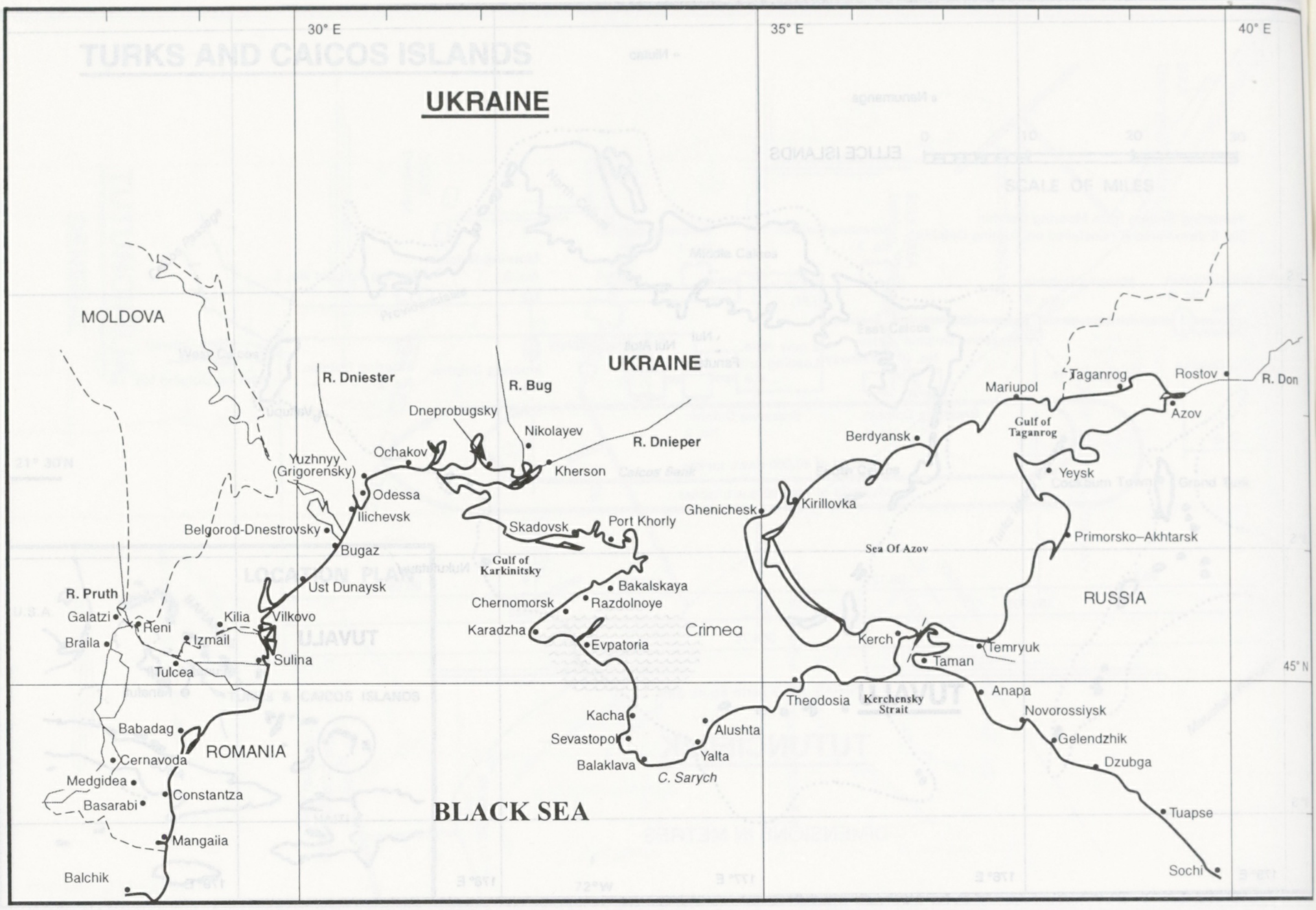


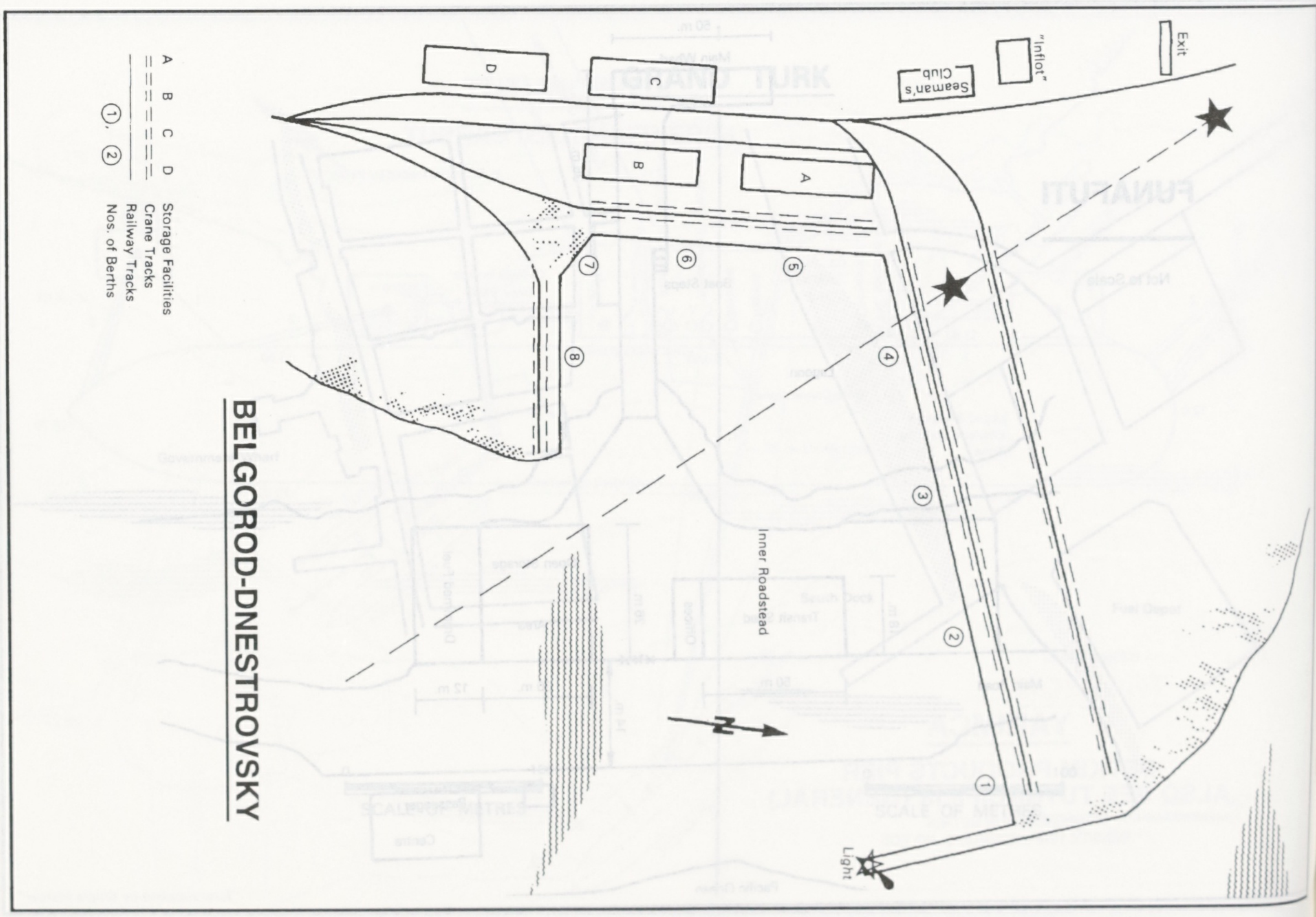
GRAND TURK

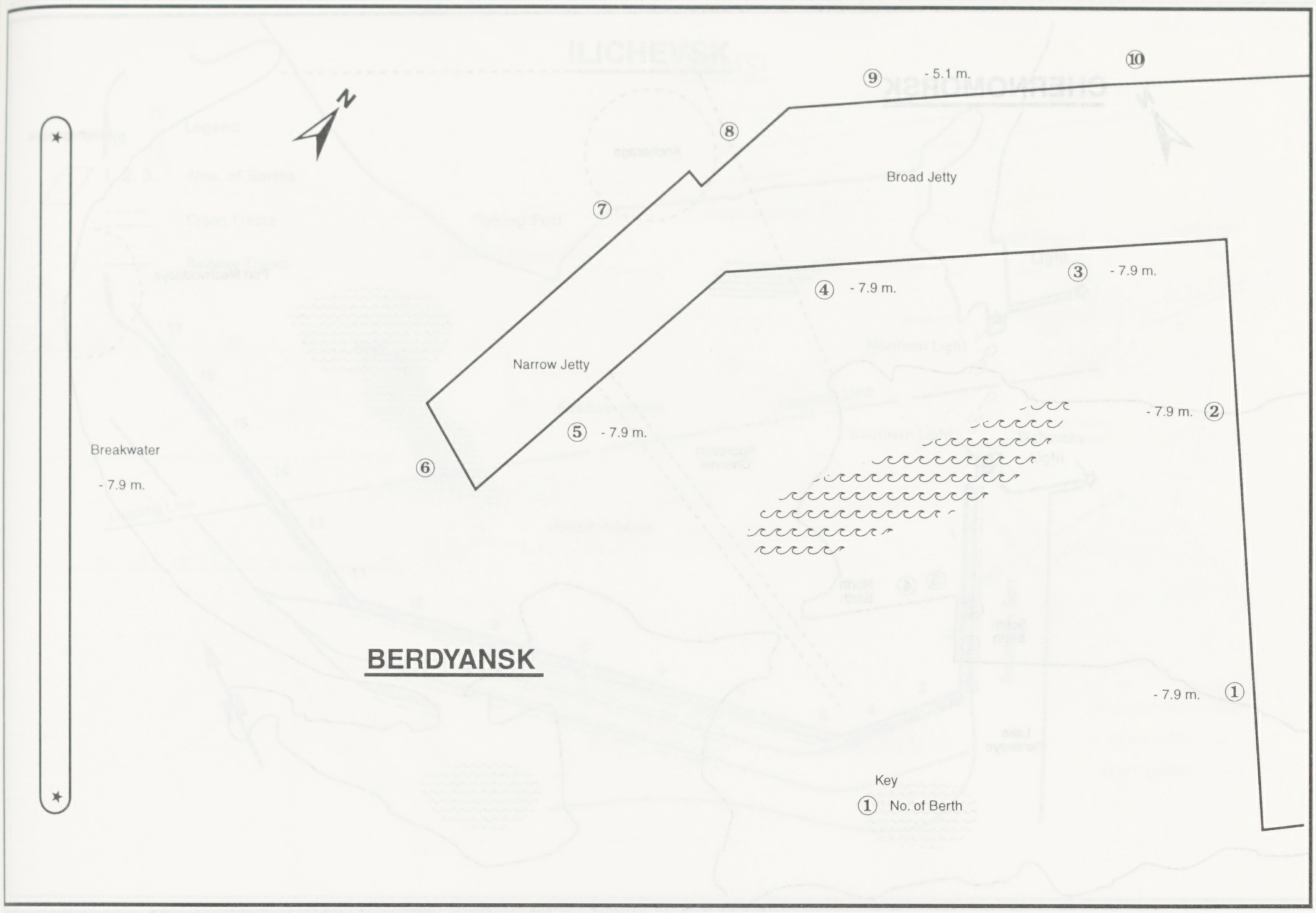
Government Wharf
0
100
SCALE OF METRES
South Dock
Fuel Depot
0
100
SCALE OF METRES

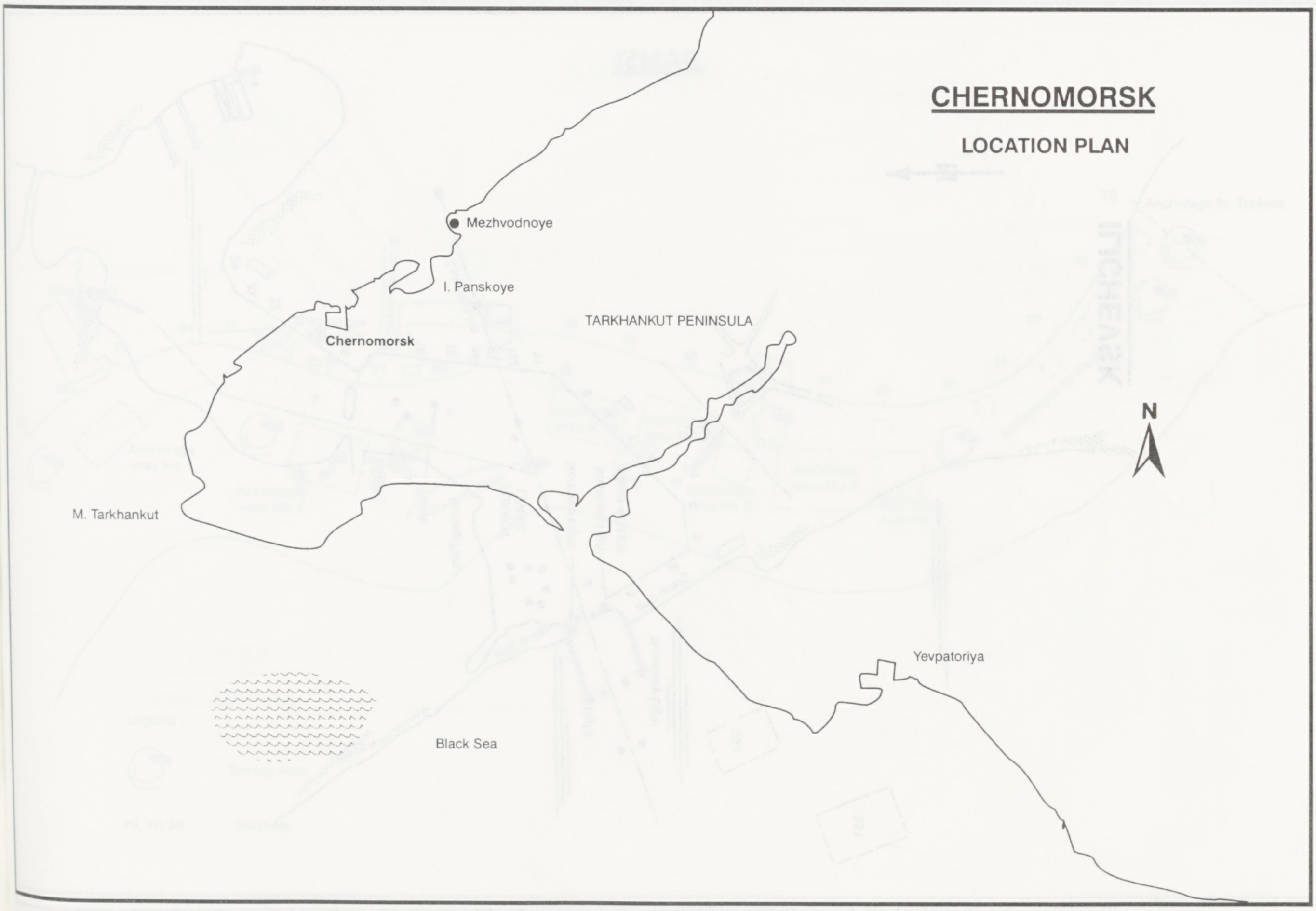

Niutao
Nanumanga
ELLICE ISLANDS
7° S
Nui
Nui Atoll
Fanutapu
Vaitupu
8° S
Nukufetau
TUVALU
TUVALU
Funafuti Atoll
Funafuti
9° S
175° E
176° E
177° E
178° E
179° E

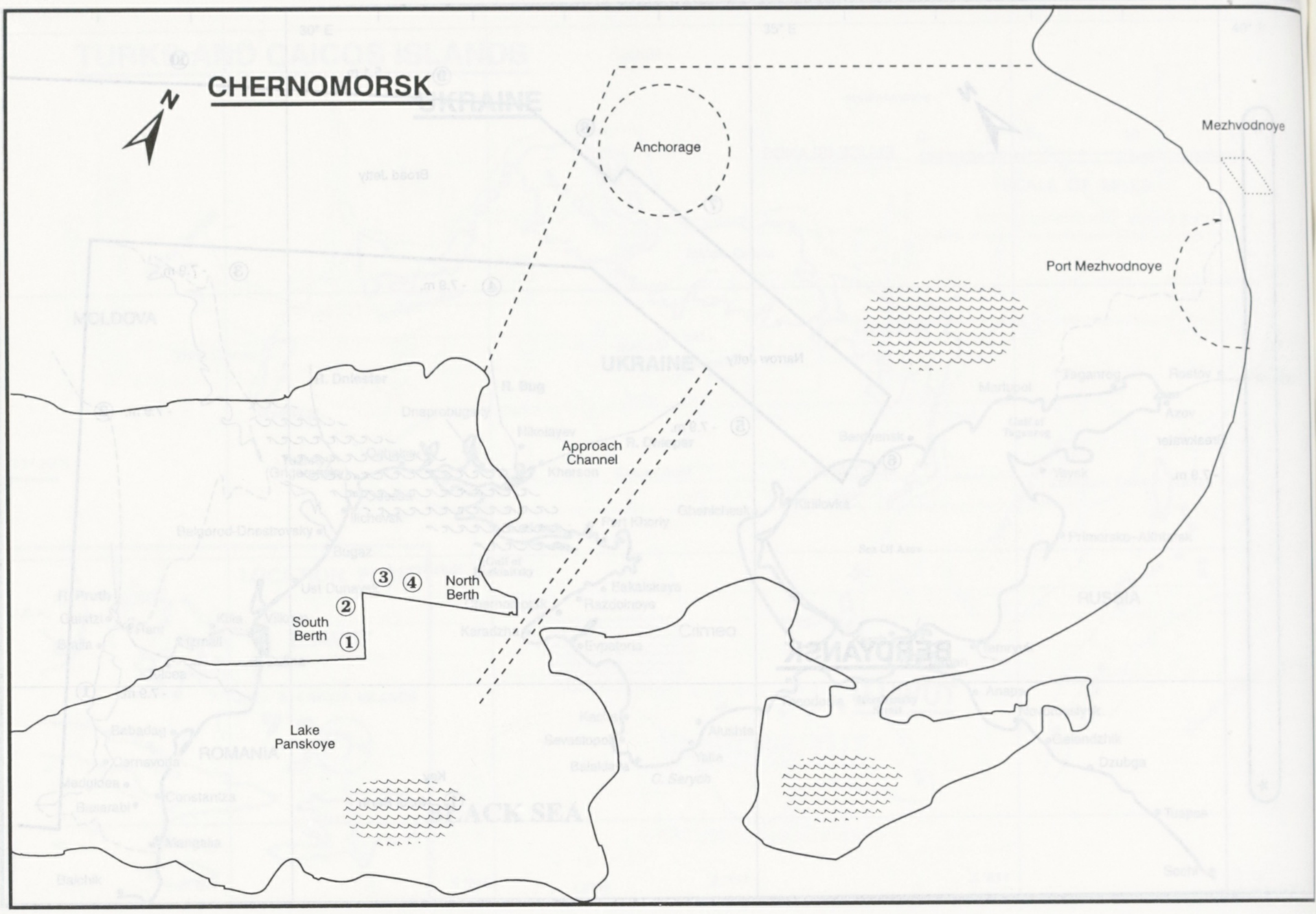

FUNAFUTI
Not to Scale
50 m.
Main Wharf
38 m.
Boat Steps
Lagoon
Transit Shed
Offices
18 m.
26 m.
Open Storage
Area
Drummed Fuel
Main Road
50 m.
14 m.
30 m.
12 m.
Passenger
Centre
Pacific Ocean

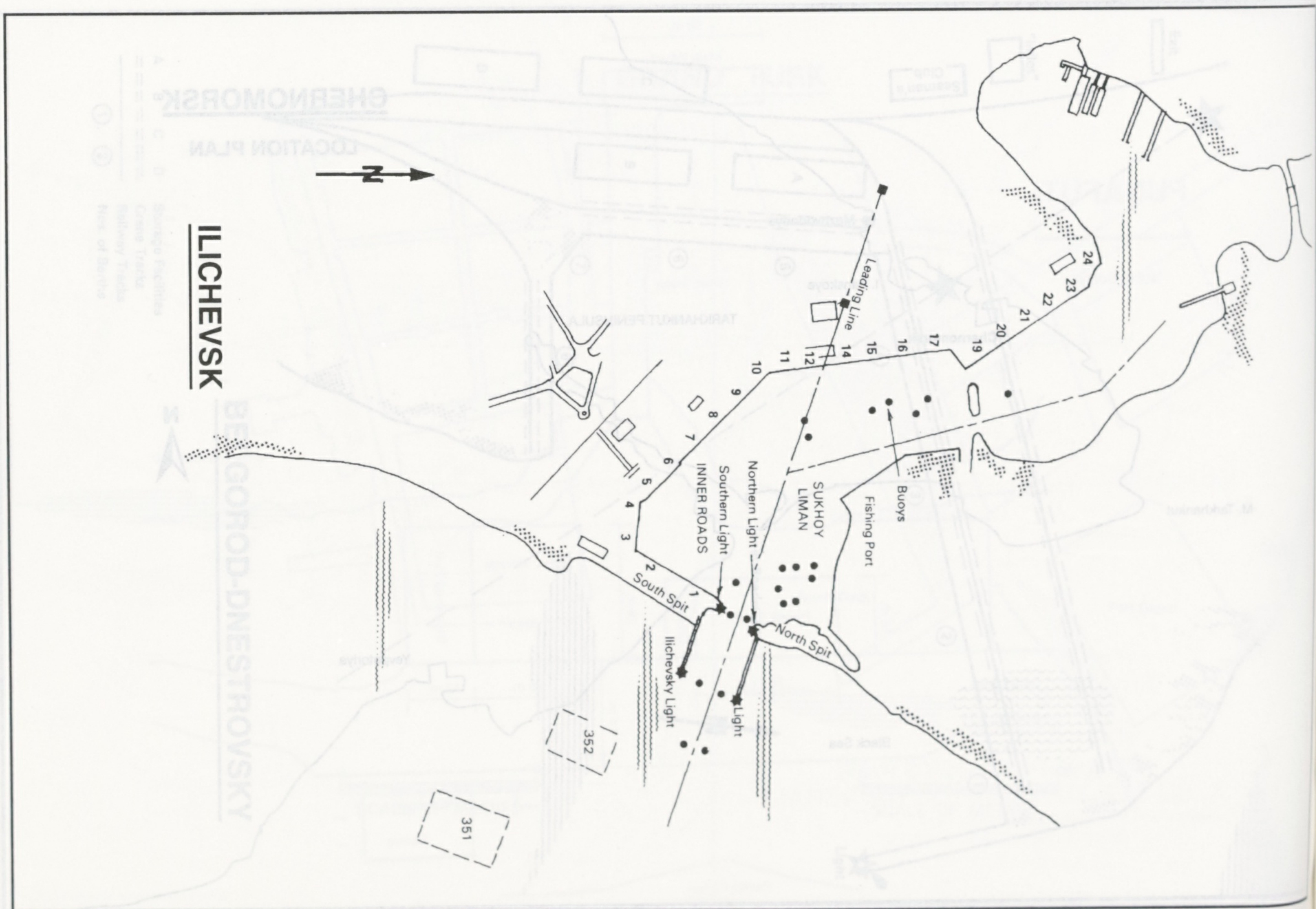

UKRAINE
30° E
35° E
40° E
45° N
MOLDOVA
UKRAINE
RUSSIA
ROMANIA
BLACK SEA
Crimea
Sea Of Azov
Gulf of Karkinitsky
Gulf of Taganrog
Kerchensky Strait
R. Dniester
R. Bug
R. Dnieper
R. Pruth
R. Don
Dneprobugsky
Nikolayev
Kherson
Ochakov
Yuzhnyy (Grigorensky)
Odessa
Ilichevsk
Belgorod-Dnestrovsky
Bugaz
Ust Dunaysk
Kilia
Vilkovo
Izmail
Sulina
Galatzi
Reni
Braila
Tulcea
Babadag
Cernavoda
Medgidea
Basarabi
Constantza
Mangaiia
Balchik
Skadovsk
Port Khorly
Bakalskaya
Razdolnoye
Chernomorsk
Karadzha
Evpatoria
Kacha
Sevastopol
Balaklava
C. Sarych
Yalta
Alushta
Theodosia
Kerch
Taman
Temryuk
Anapa
Novorossiysk
Gelendzhik
Dzubga
Tuapse
Sochi
Ghenichesk
Kirillovka
Berdyansk
Mariupol
Taganrog
Rostov
Azov
Yeysk
Primorsko-Akhtarsk


BELGOROD-DNESTROVSKY
A B C D Storage Facilities
Crane Tracks
Railway Tracks
①, ② Nos. of Berths
A
B
C
D
Seaman's Club
"Inflot"
Exit
①
②
③
④
⑤
⑥
⑦
⑧
Inner Roadstead
N
Light

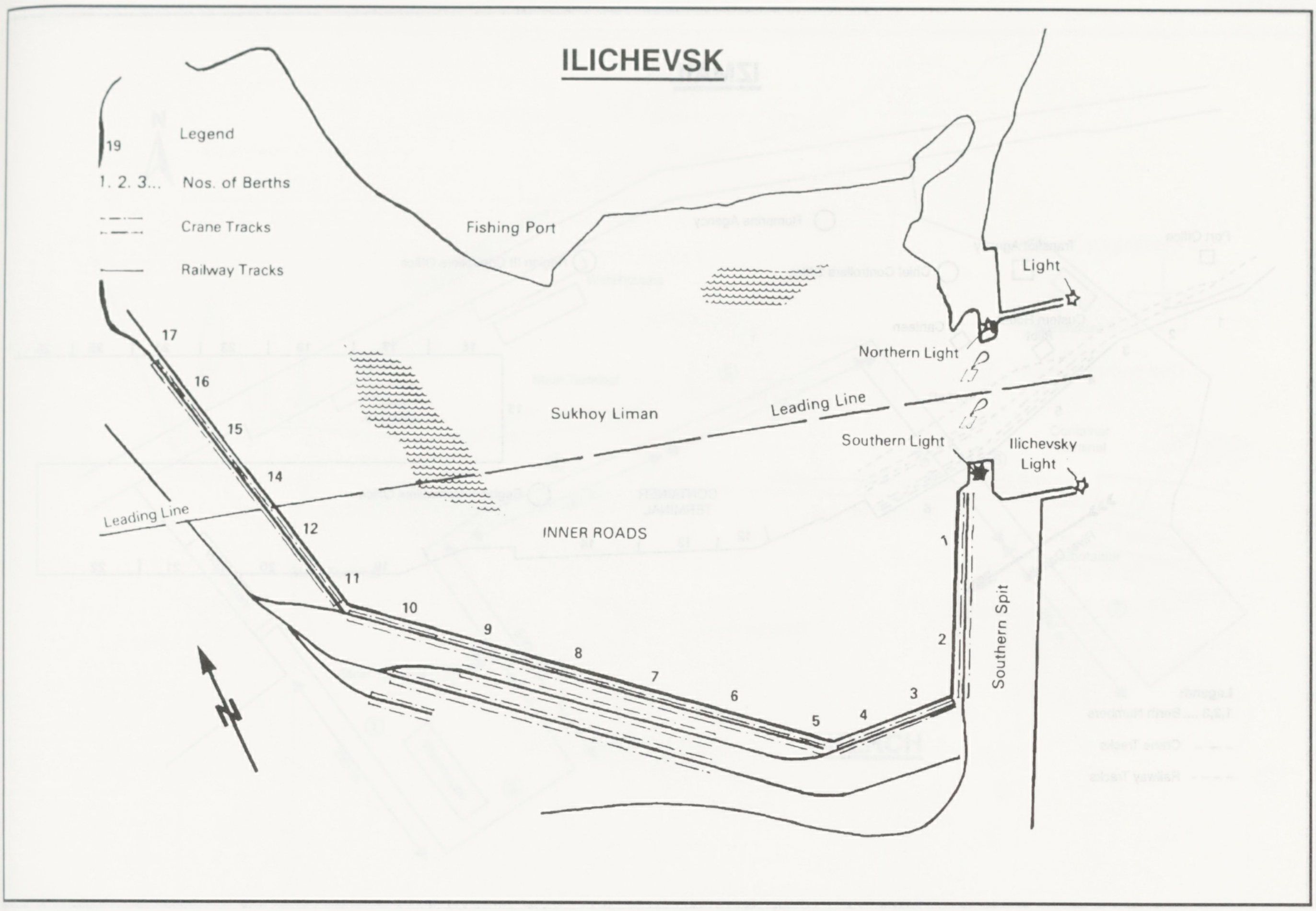

N
⑨ - 5.1 m.
⑩
⑧
Broad Jetty
⑦
④ - 7.9 m.
③ - 7.9 m.
Narrow Jetty
⑤ - 7.9 m.
- 7.9 m. ②
⑥
Breakwater
- 7.9 m.
BERDYANSK
- 7.9 m. ①
Key
① No. of Berth


CHERNOMORSK
LOCATION PLAN
Mezhvodnoye
I. Panskoye
TARKHANKUT PENINSULA
Chernomorsk
N
M. Tarkhankut
Yevpatoriya
Black Sea

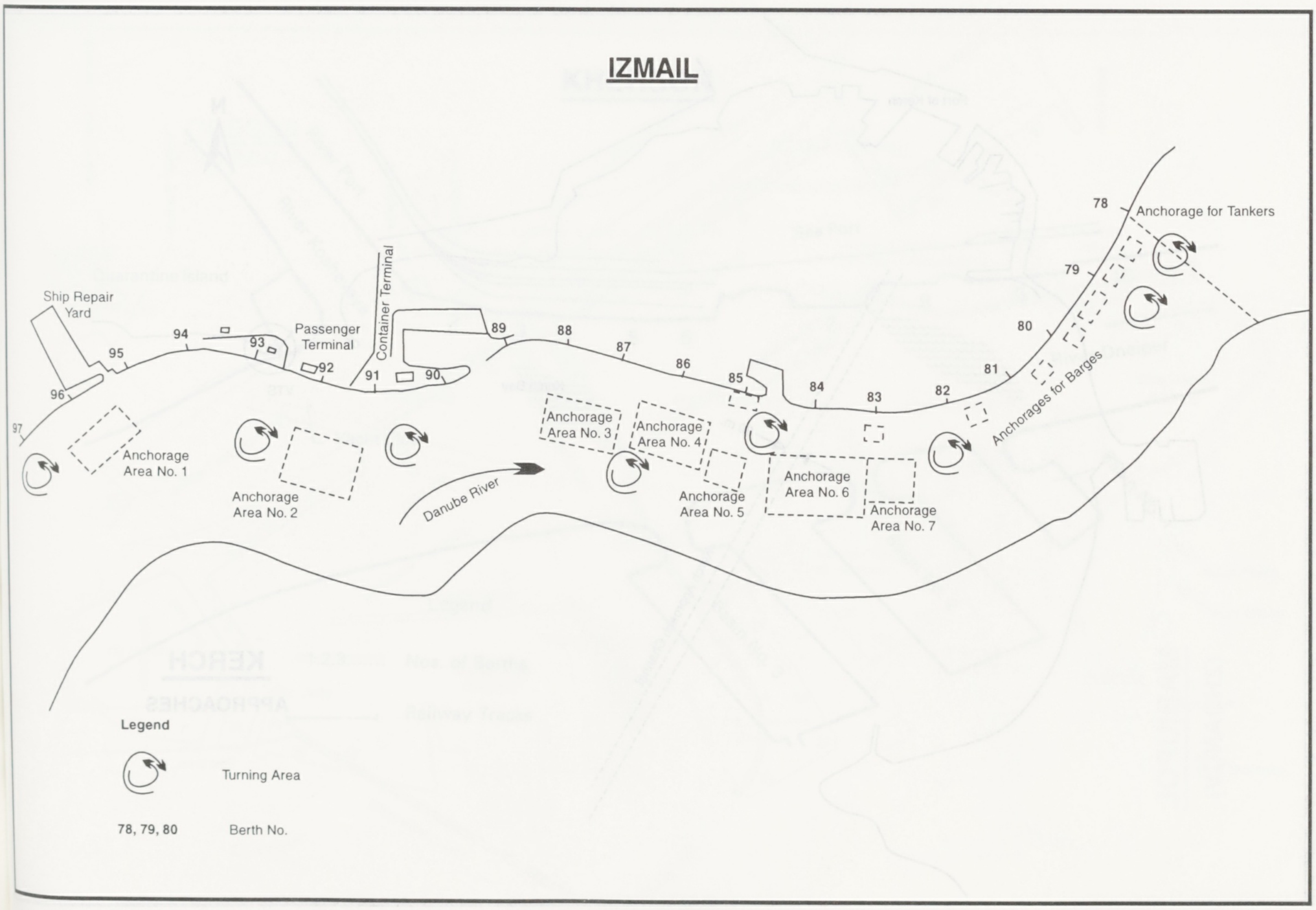

CHERNOMORSK
N
Anchorage
Mezhvodnoye
Port Mezhvodnoye
Approach Channel
③
④
North Berth
②
South Berth
①
Lake Panskoye

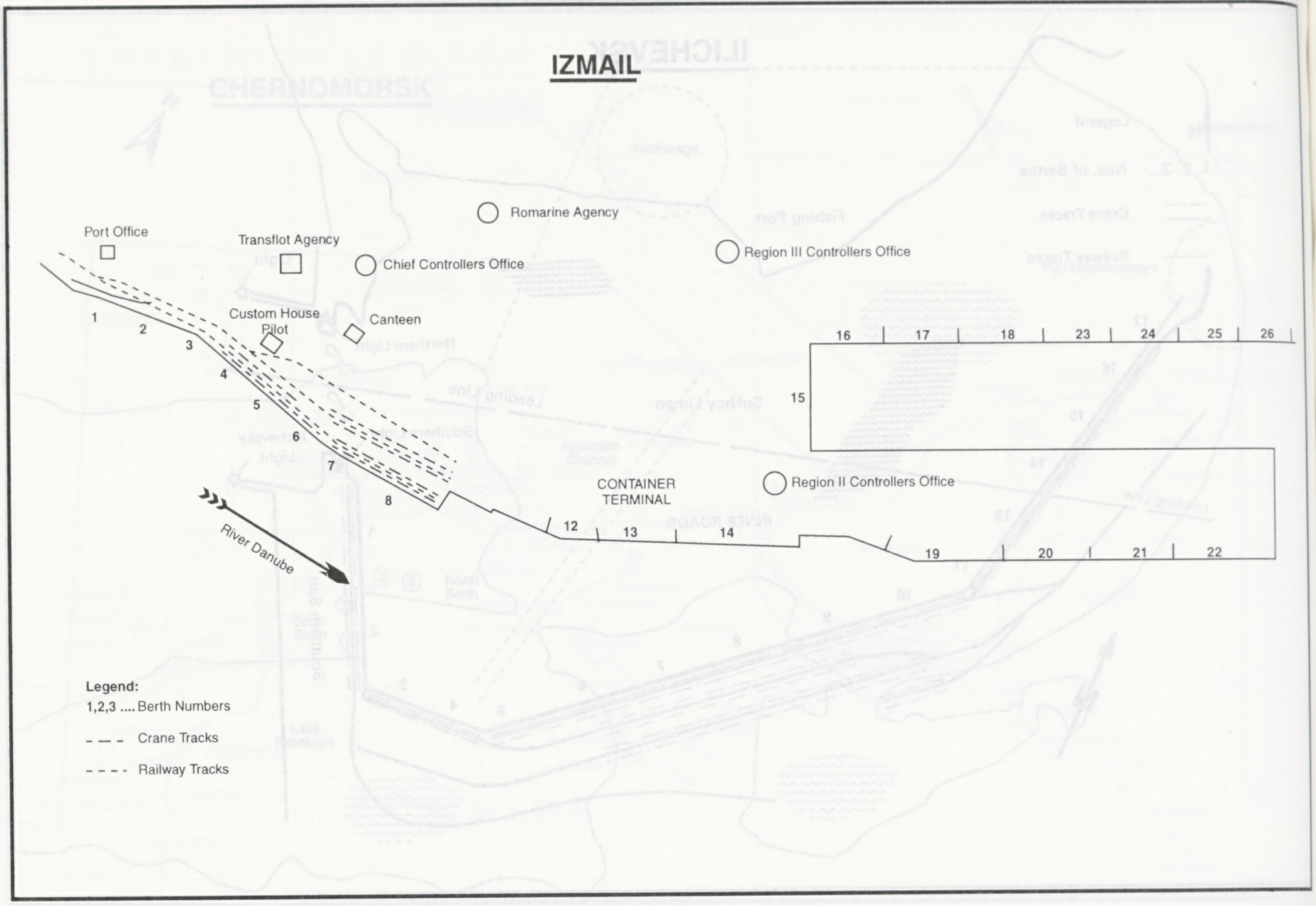

ILICHEVSK
N
Leading Line
1
2
3
4
5
6
7
8
9
10
11
12
14
15
16
17
19
20
21
22
23
24
SUKHOY LIMAN
Northern Light
Southern Light
INNER ROADS
Fishing Port
Buoys
South Spit
North Spit
Ilichevsky Light
Light
352
351

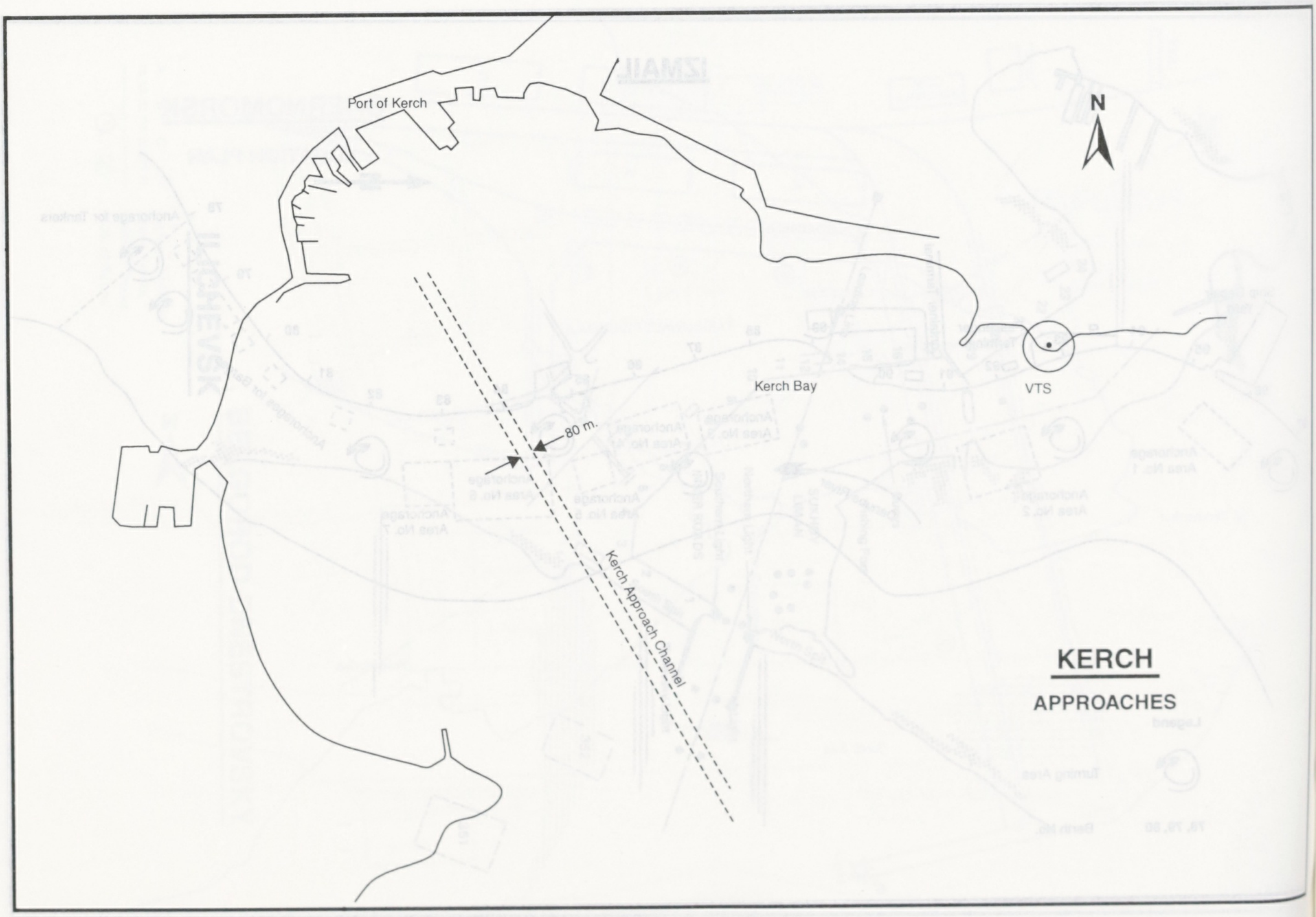
ILICHEVSK

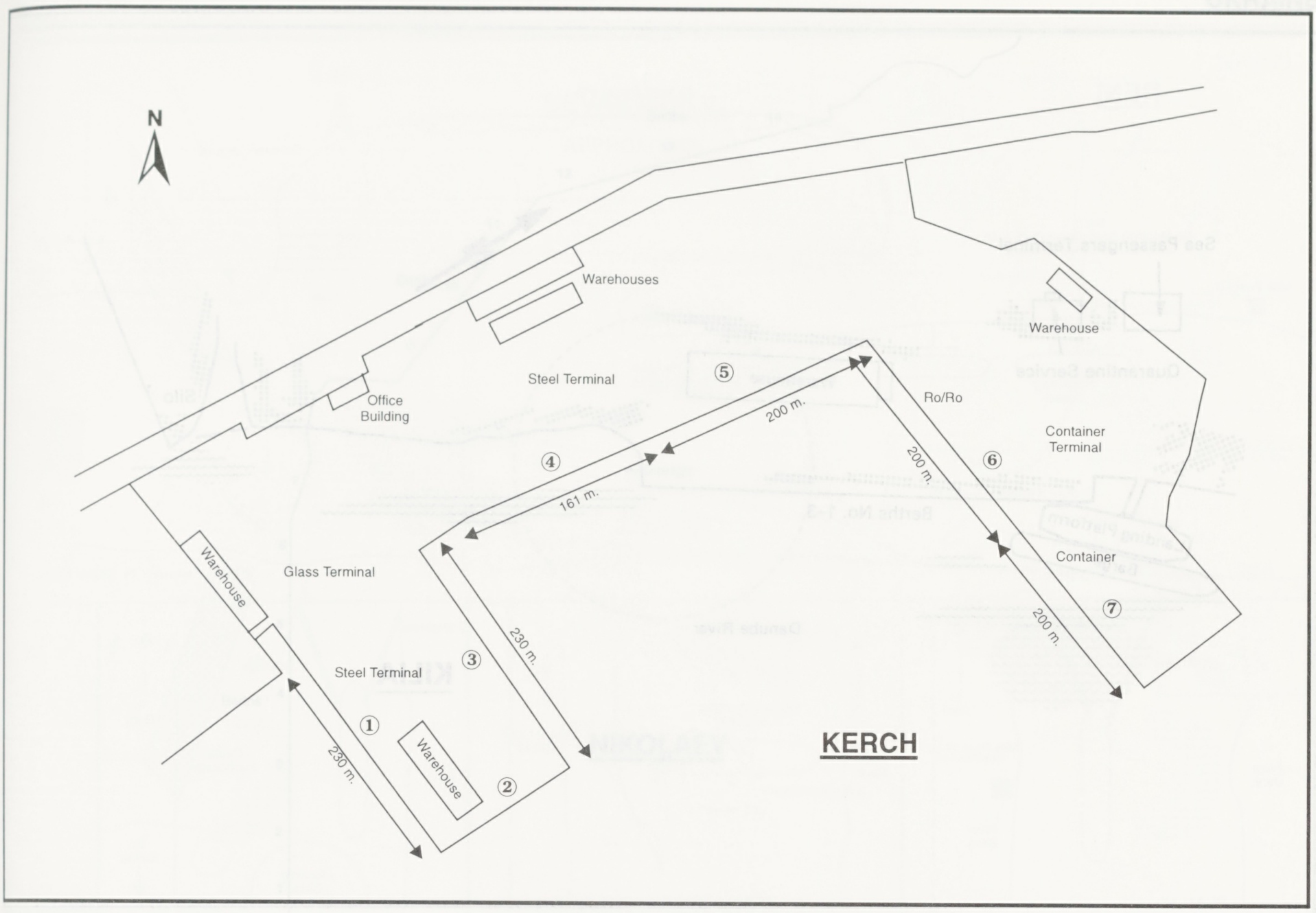

Legend
1. 2. 3... Nos. of Berths
Crane Tracks
Railway Tracks
19
17
16
15
14
12
11
10
9
8
7
6
5
4
3
2
1
Fishing Port
Sukhoy Liman
Leading Line
Leading Line
INNER ROADS
Light
Northern Light
Southern Light
Ilichevsky Light
Southern Spit
N

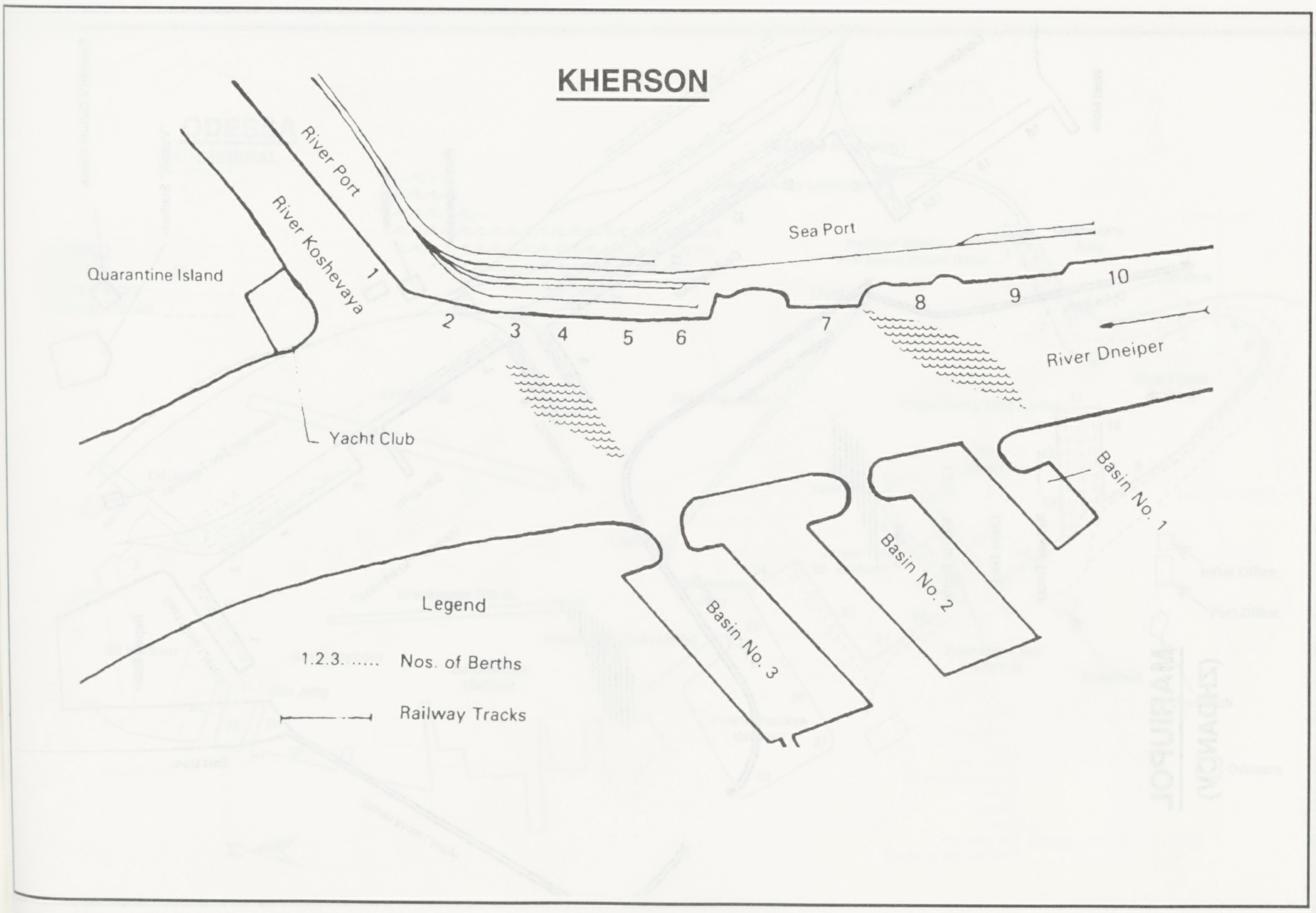
IZMAIL

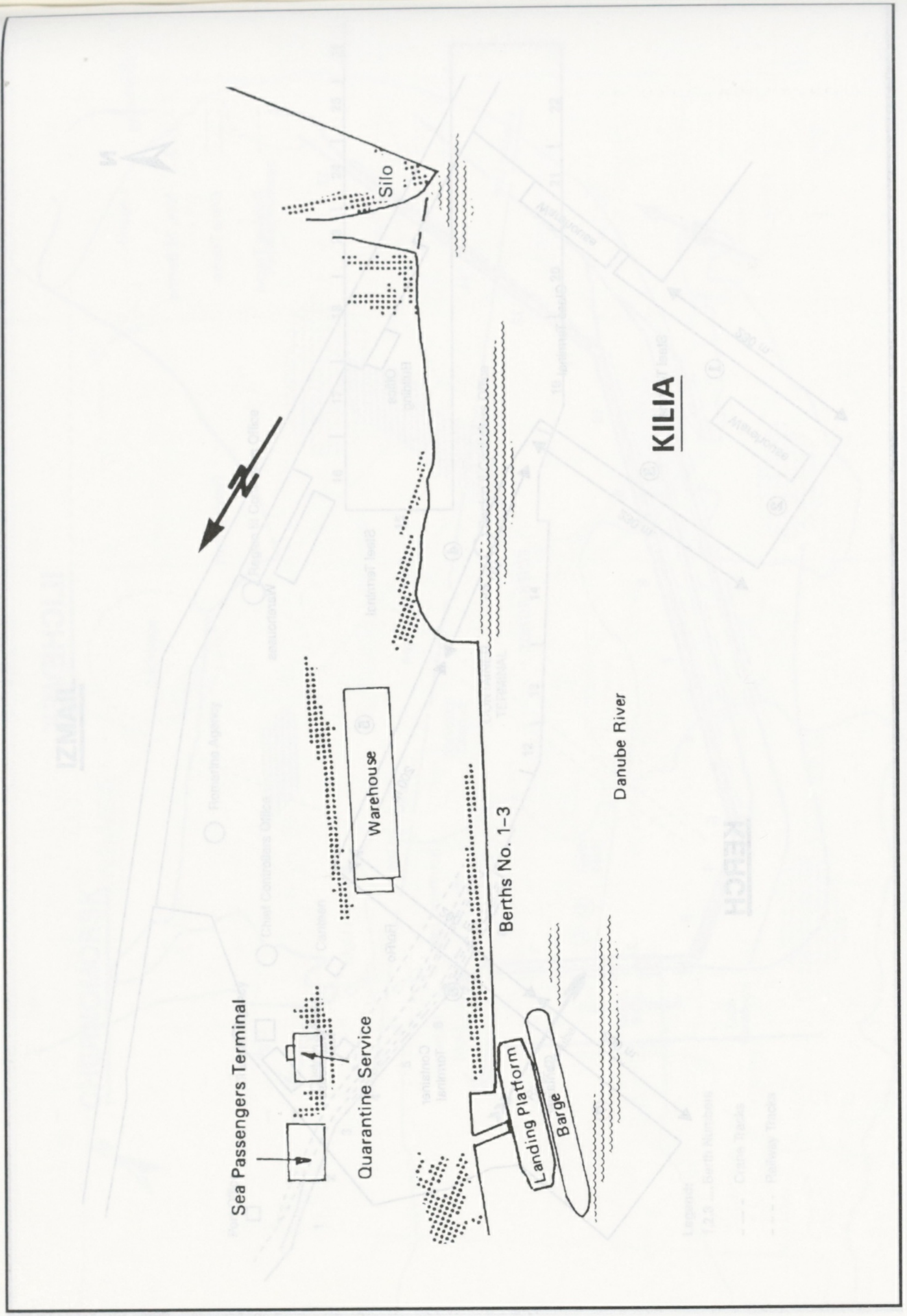

Ship Repair Yard
Passenger Terminal
Container Terminal
97
96
95
94
93
92
91
90
89
88
87
86
85
84
83
82
81
80
79
78
Anchorage for Tankers
Anchorages for Barges
Anchorage Area No. 1
Anchorage Area No. 2
Anchorage Area No. 3
Anchorage Area No. 4
Anchorage Area No. 5
Anchorage Area No. 6
Anchorage Area No. 7
Danube River
Legend
Turning Area
78, 79, 80 Berth No.

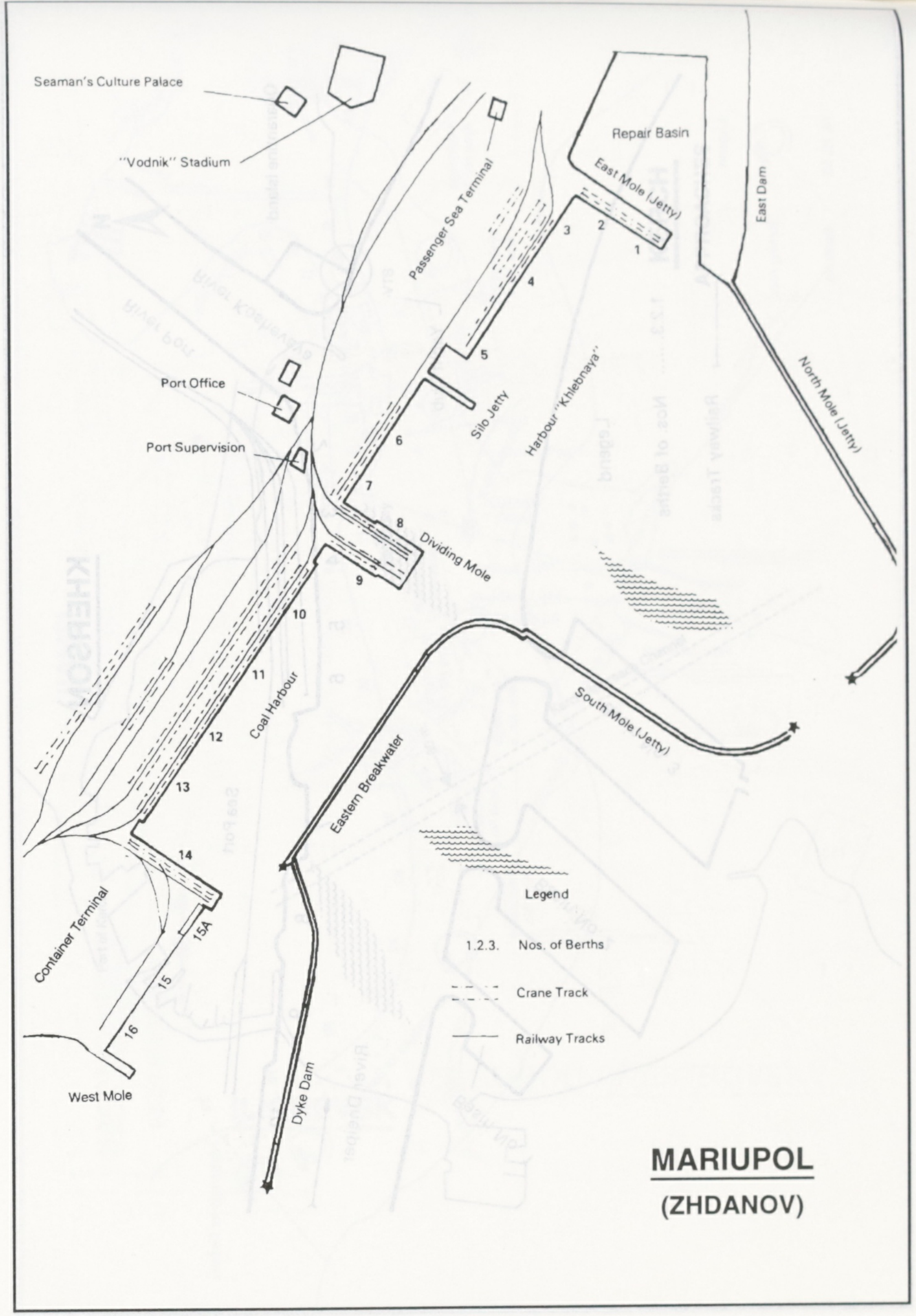

IZMAIL
Port Office
Transflot Agency
Romarine Agency
Chief Controllers Office
Region III Controllers Office
Custom House
Pilot
Canteen
1
2
3
4
5
6
7
8
River Danube
CONTAINER
TERMINAL
12
13
14
Region II Controllers Office
15
16
17
18
23
24
25
26
19
20
21
22
Legend:
1,2,3 .... Berth Numbers
Crane Tracks
Railway Tracks

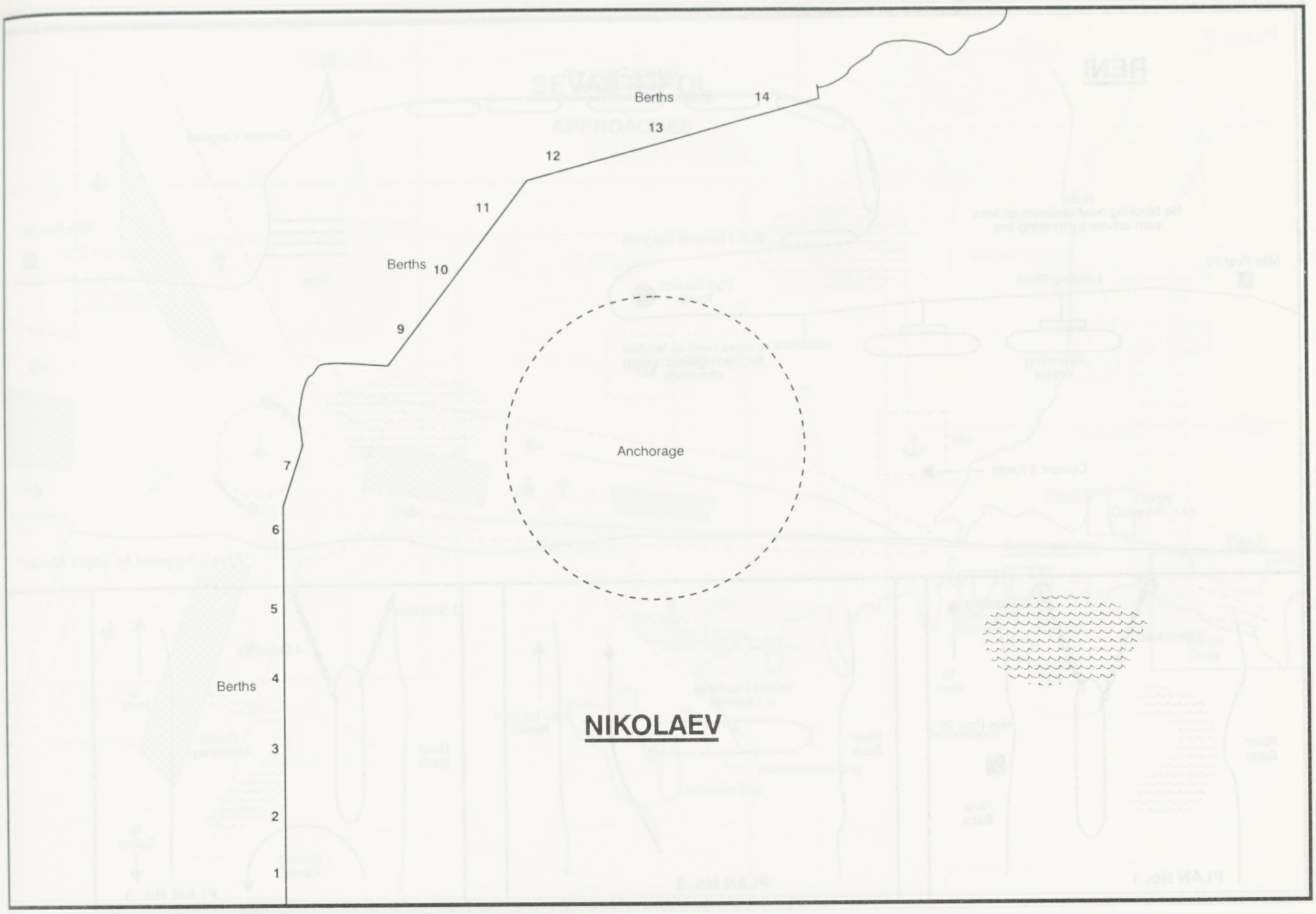

Port of Kerch
N
Kerch Bay
VTS
80 m.
Kerch Approach Channel
KERCH
APPROACHES

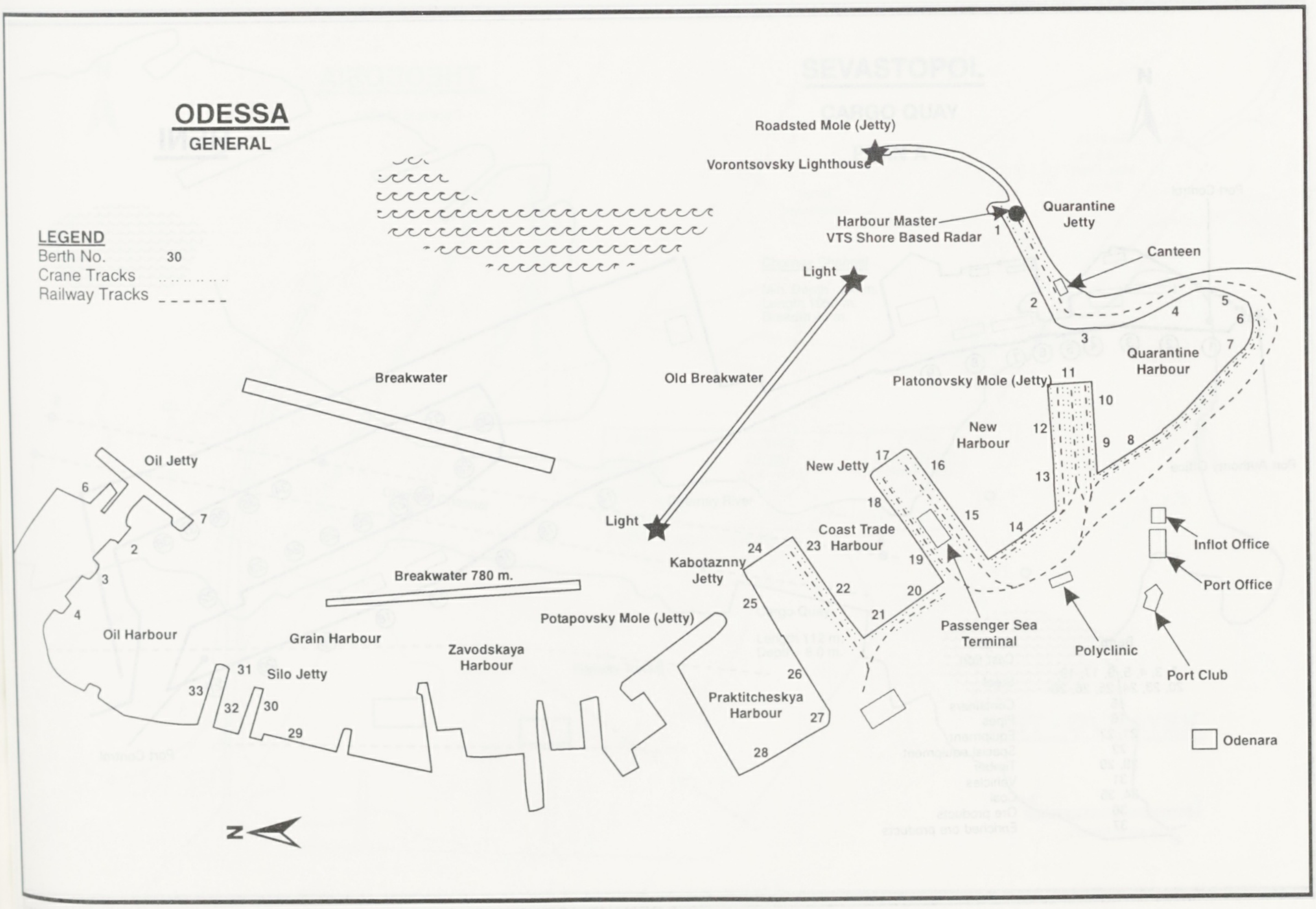

N
Warehouses
Warehouse
Office Building
Steel Terminal
⑤
Ro/Ro
200 m.
Container Terminal
④
⑥
161 m.
200 m.
Glass Terminal
Warehouse
Container
230 m.
⑦
200 m.
Steel Terminal
③
①
KERCH
230 m.
Warehouse
②


KHERSON
River Port
River Koshevaya
Sea Port
Quarantine Island
1
2
3
4
5
6
7
8
9
10
River Dneiper
Yacht Club
Basin No. 1
Basin No. 2
Basin No. 3
Legend
1.2.3. ..... Nos. of Berths
Railway Tracks


Silo
N
KILIA
Warehouse
Berths No. 1–3
Danube River
Sea Passengers Terminal
Quarantine Service
Landing Platform
Barge


Seaman's Culture Palace
"Vodnik" Stadium
Repair Basin
East Mole (Jetty)
East Dam
Passenger Sea Terminal
1
2
3
4
5
Silo Jetty
Harbour "Khlebnaya"
North Mole (Jetty)
Port Office
Port Supervision
6
7
8
Dividing Mole
9
10
11
Coal Harbour
12
13
14
15A
15
16
Container Terminal
West Mole
Eastern Breakwater
South Mole (Jetty)
Dyke Dam
Legend
1.2.3. Nos. of Berths
Crane Track
Railway Tracks
MARIUPOL
(ZHDANOV)


NIKOLAEV
Berths
14
13
12
11
Berths
10
9
7
6
5
Berths
4
3
2
1
Anchorage


ODESSA
GENERAL
LEGEND
Berth No. 30
Crane Tracks ....
Railway Tracks - - - - -
Roadsted Mole (Jetty)
Vorontsovsky Lighthouse
Harbour Master
VTS Shore Based Radar
Quarantine Jetty
Canteen
Light
Breakwater
Old Breakwater
Platonovsky Mole (Jetty)
Quarantine Harbour
New Harbour
New Jetty
Coast Trade Harbour
Oil Jetty
Light
Kabotaznny Jetty
Breakwater 780 m.
Potapovsky Mole (Jetty)
Oil Harbour
Grain Harbour
Silo Jetty
Zavodskaya Harbour
Praktitcheskya Harbour
Passenger Sea Terminal
Polyclinic
Inflot Office
Port Office
Port Club
Odenara
N
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
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25
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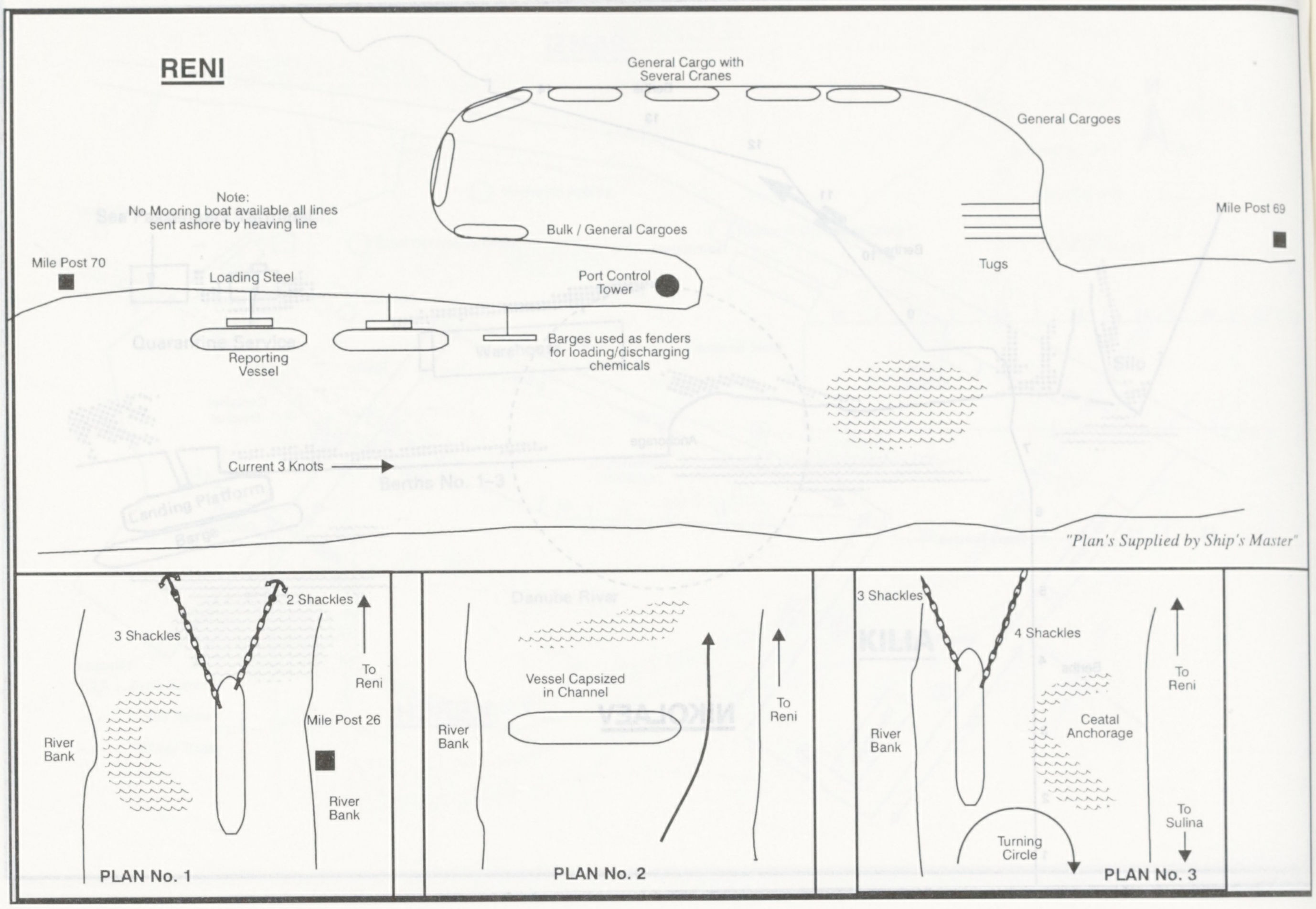
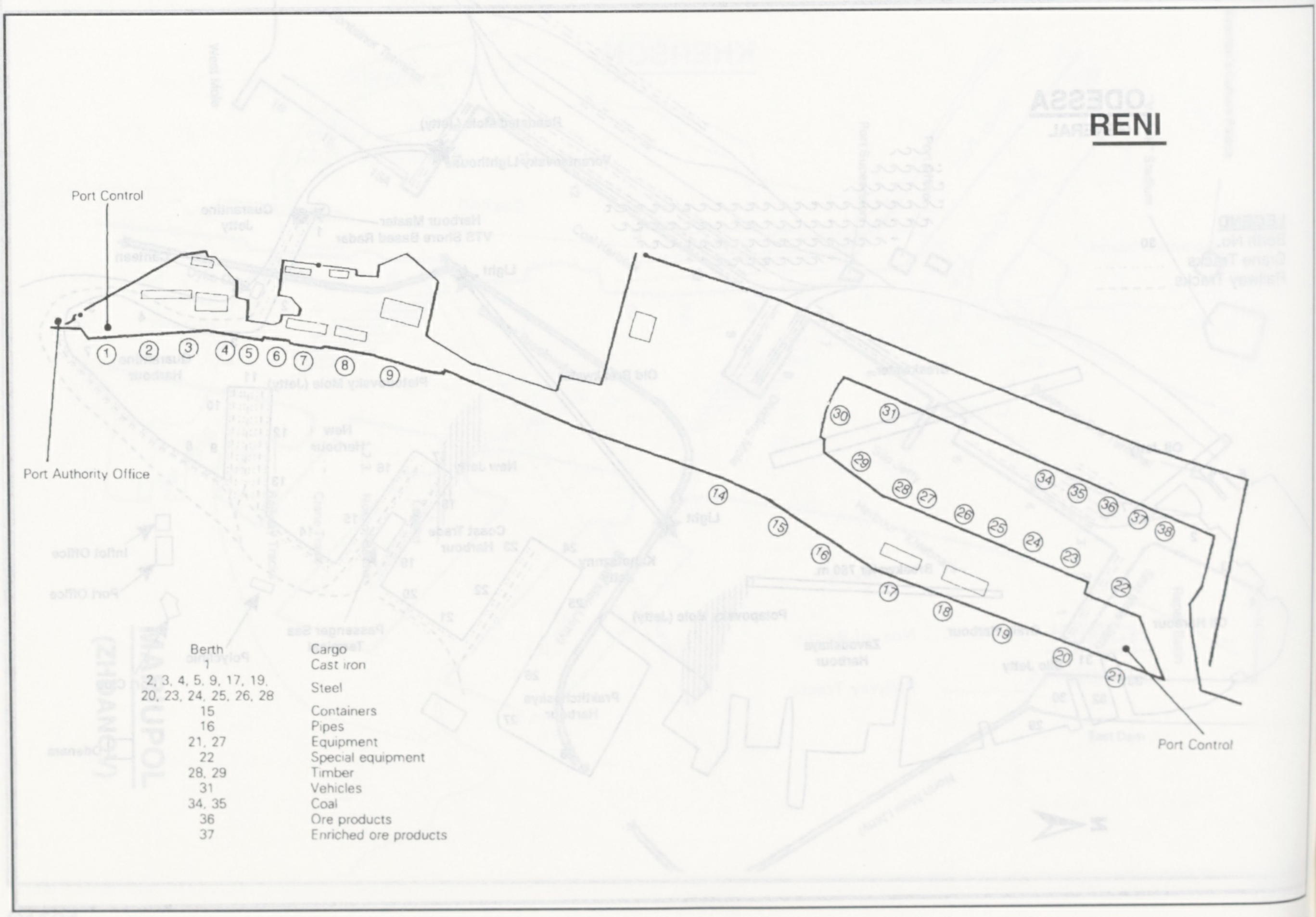
27
28
29
30
31
32
33
6
7
2
3
4


RENI
General Cargo with
Several Cranes
General Cargoes
Note:
No Mooring boat available all lines
sent ashore by heaving line
Mile Post 69
Bulk / General Cargoes
Tugs
Mile Post 70
Loading Steel
Port Control
Tower
Barges used as fenders
for loading/discharging
chemicals
Reporting
Vessel
Current 3 Knots
"Plan's Supplied by Ship's Master"
2 Shackles
3 Shackles
To
Reni
Mile Post 26
River
Bank
River
Bank
PLAN No. 1
Vessel Capsized
in Channel
River
Bank
To
Reni
PLAN No. 2
3 Shackles
4 Shackles
To
Reni
Ceatal
Anchorage
River
Bank
Turning
Circle
To
Sulina
PLAN No. 3


RENI
Port Control
Port Authority Office
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑭
⑮
⑯
⑰
⑱
⑲
⑳
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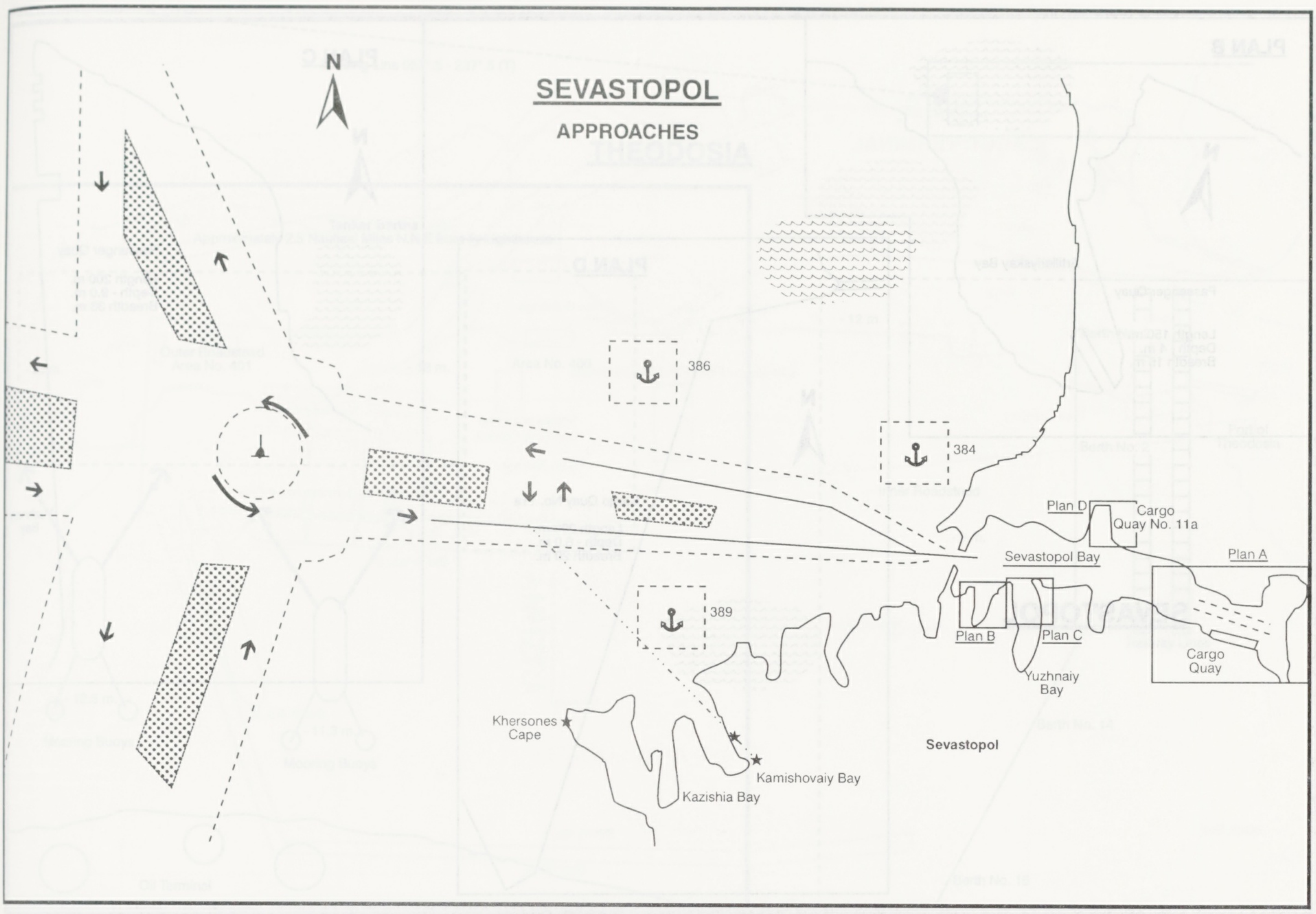
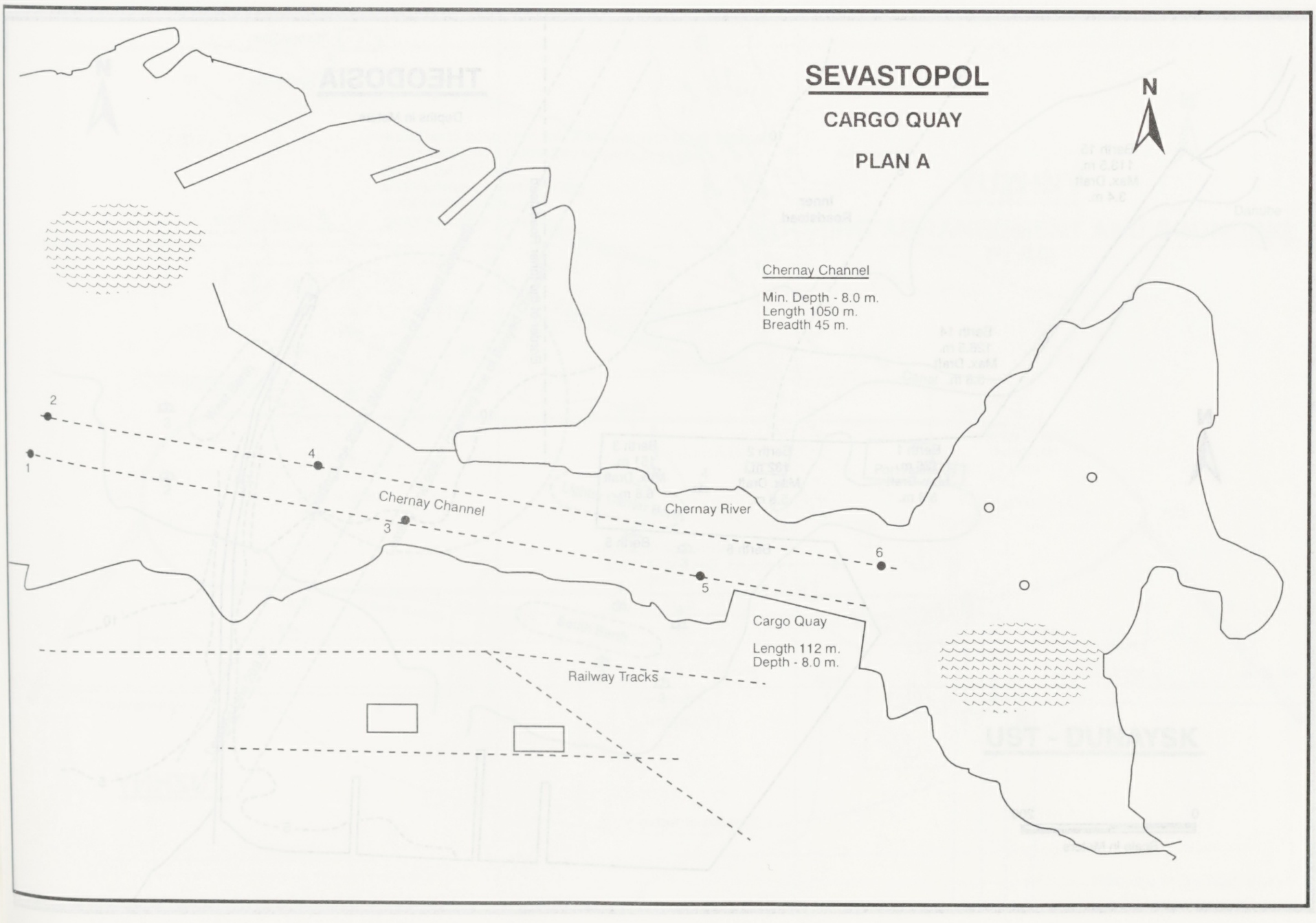
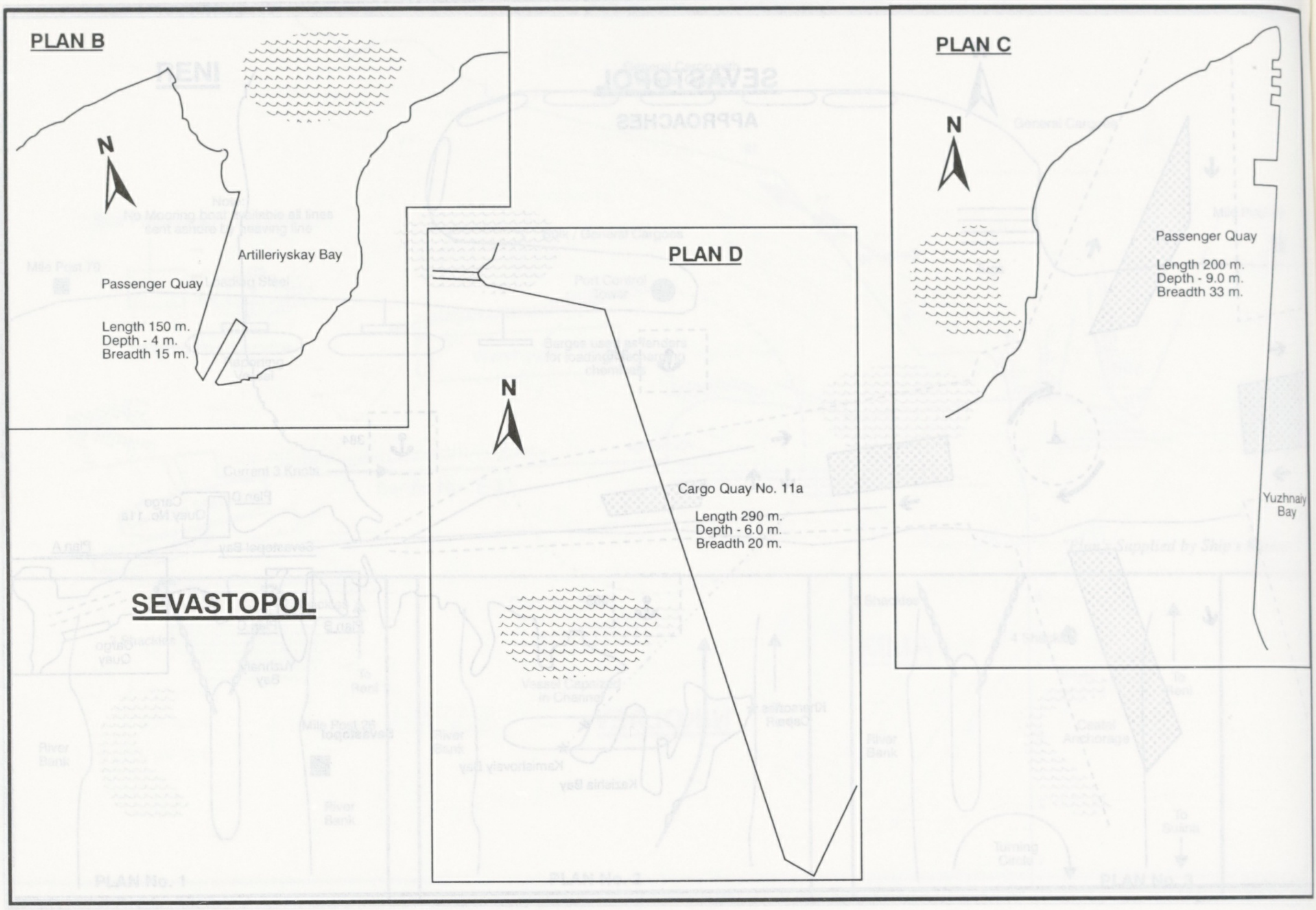
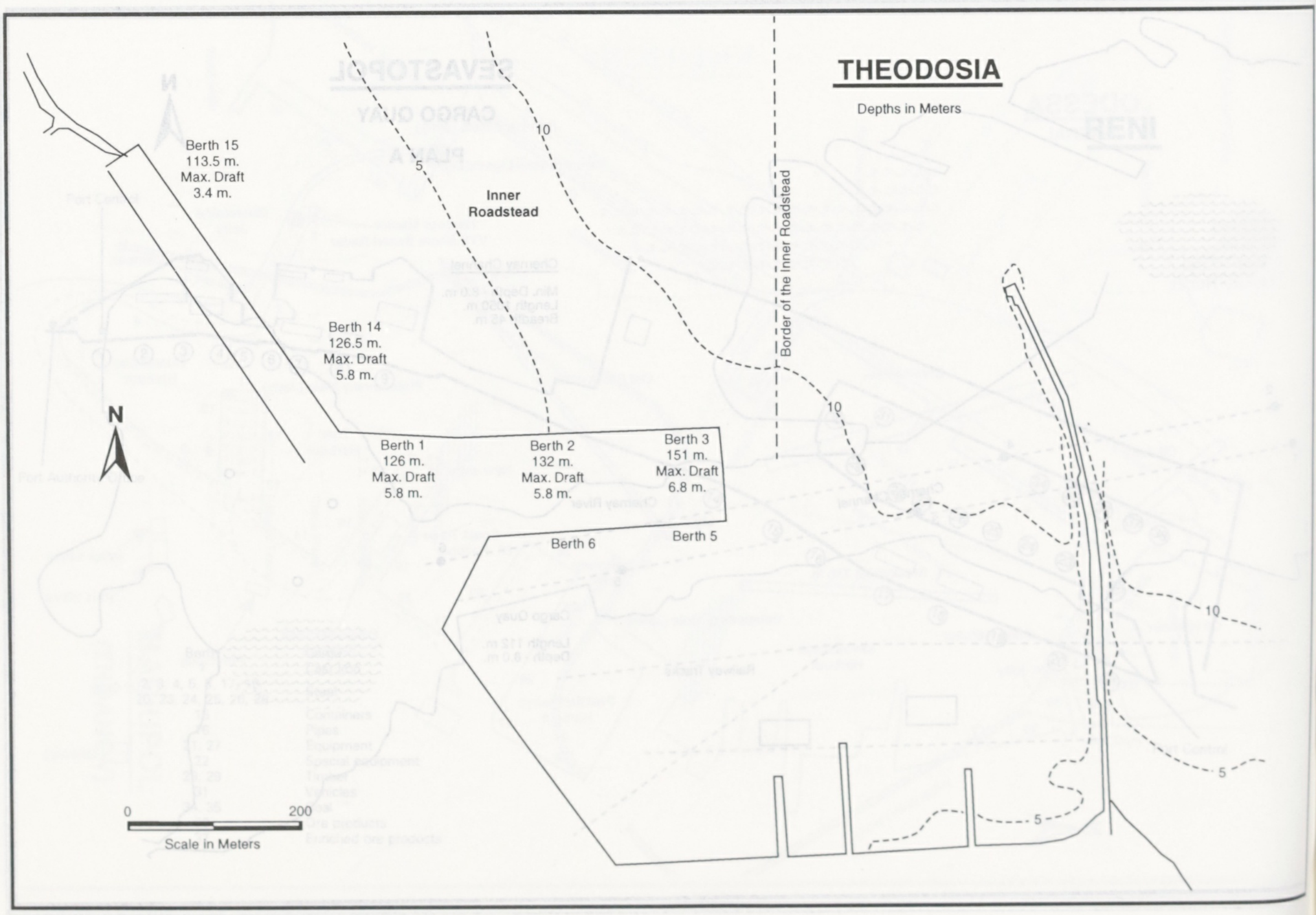
㉓
㉔
㉕
㉖
㉗
㉘
㉙
㉚
㉛
㉞
㉟
㊱
㊲
㊳
Port Control

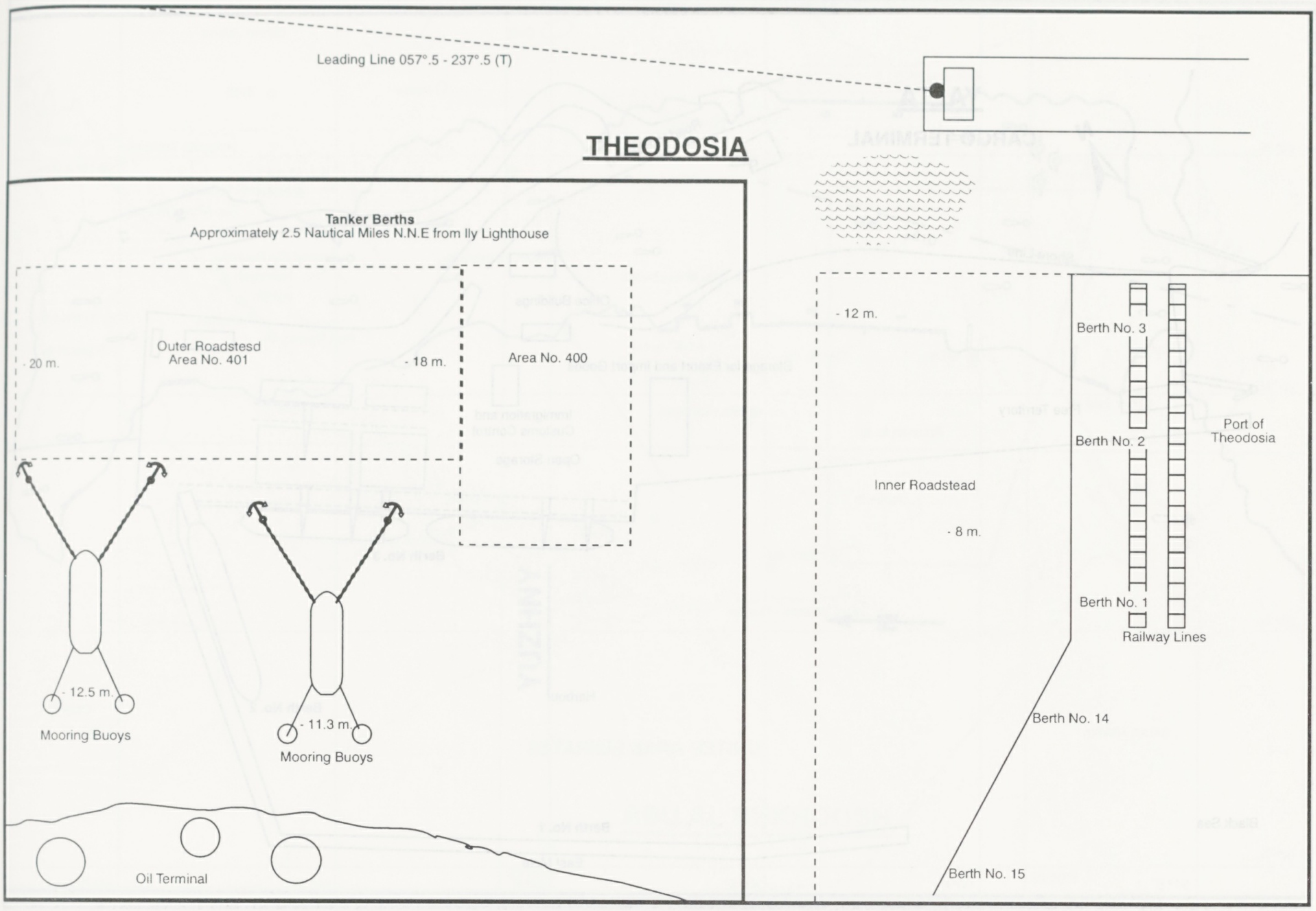
Berth	Cargo
1	Cast iron
2, 3, 4, 5, 9, 17, 19, 20, 23, 24, 25, 26, 28	Steel
15	Containers
16	Pipes
21, 27	Equipment
22	Special equipment
28, 29	Timber
31	Vehicles
34, 35	Coal
36	Ore products
37	Enriched ore products

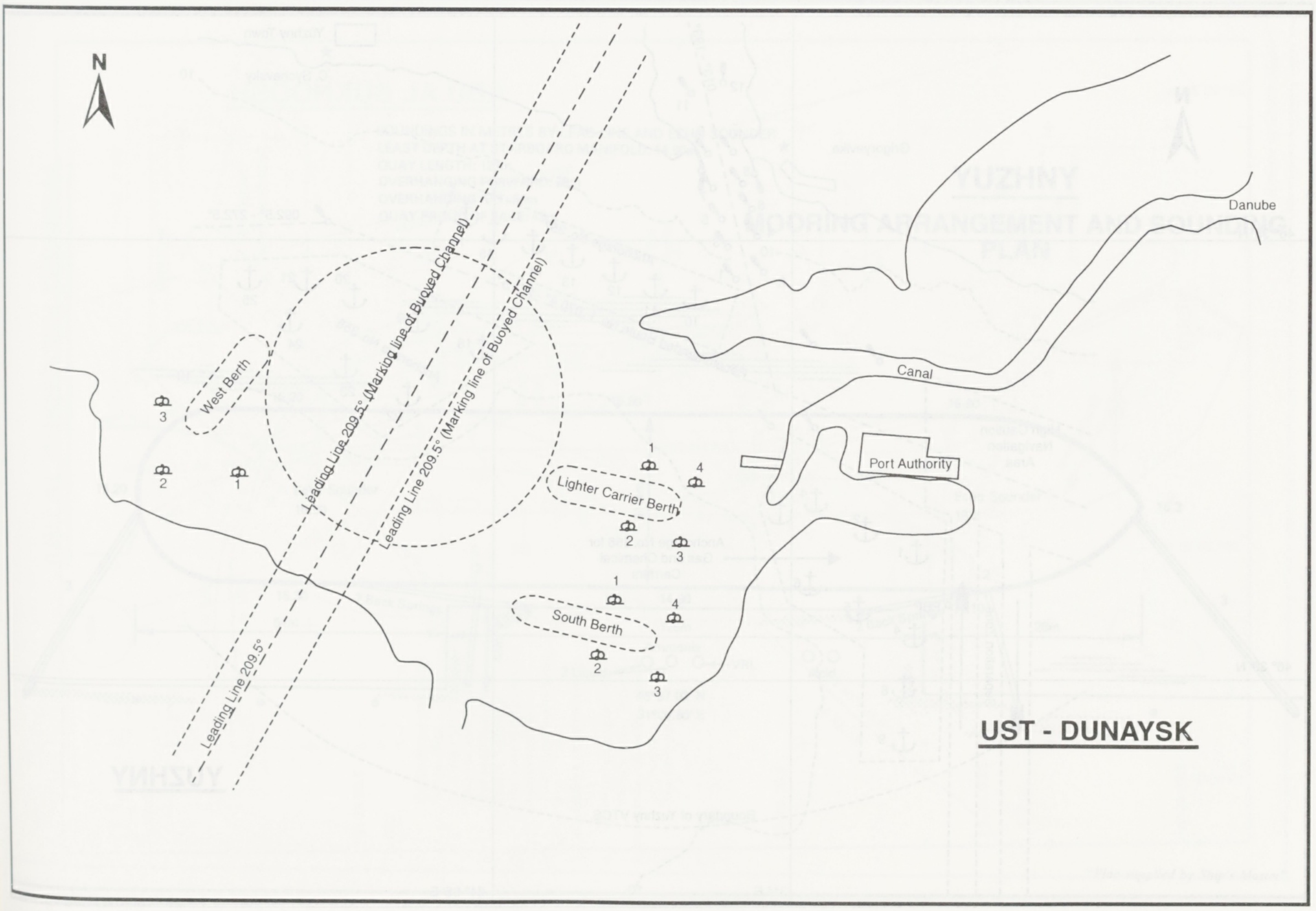

N
SEVASTOPOL
APPROACHES
386
384
389
Plan D
Cargo
Quay No. 11a
Sevastopol Bay
Plan A
Plan B
Plan C
Cargo
Quay
Yuzhnaiy
Bay
Khersones
Cape
Sevastopol
Kamishovaiy Bay
Kazishia Bay

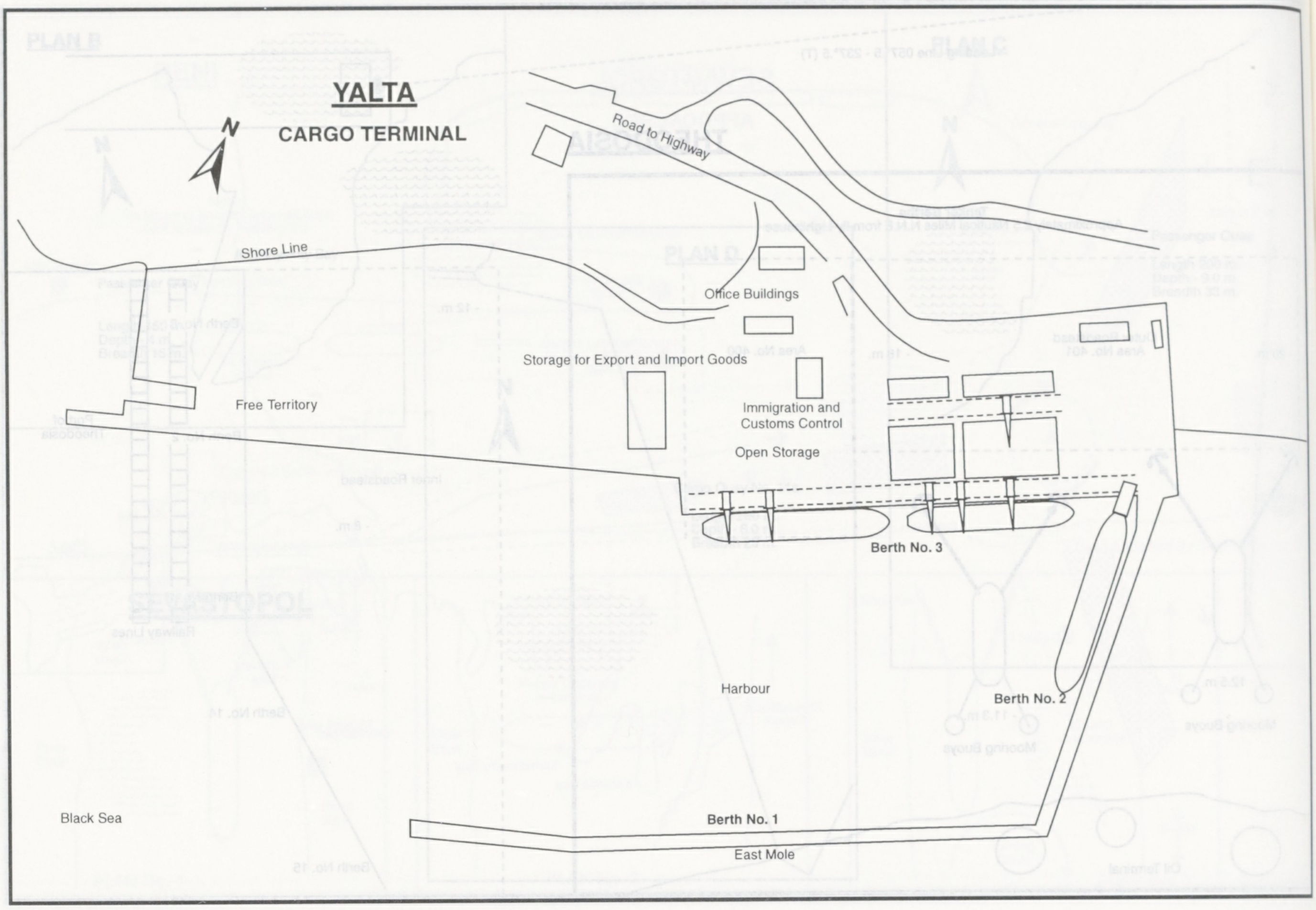

SEVASTOPOL
CARGO QUAY
PLAN A
N
Chernay Channel
Min. Depth - 8.0 m.
Length 1050 m.
Breadth 45 m.
2
1
4
Chernay Channel
3
Chernay River
6
5
Cargo Quay
Length 112 m.
Depth - 8.0 m.
Railway Tracks

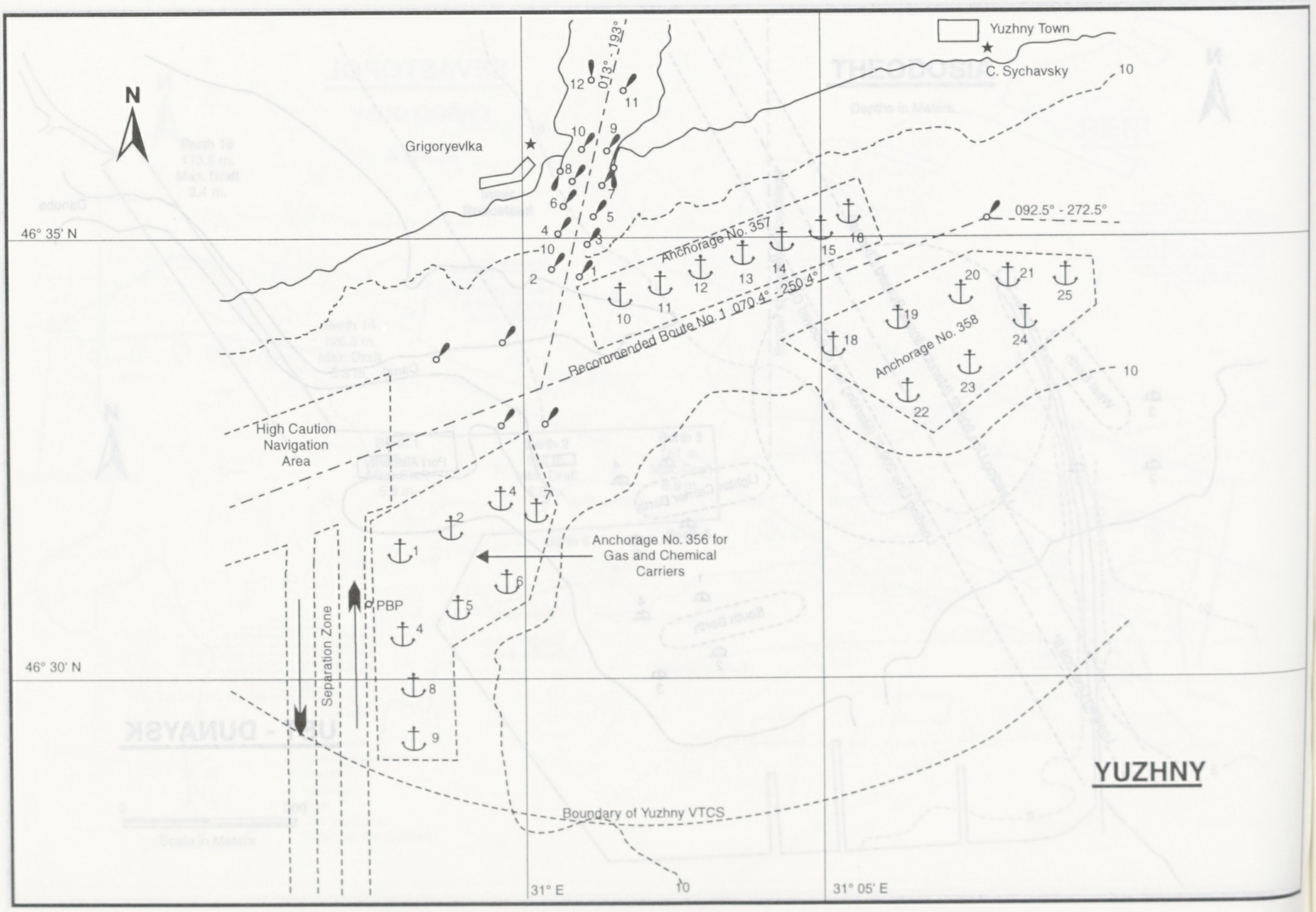

PLAN B
N
Artilleriyskay Bay
Passenger Quay
Length 150 m.
Depth - 4 m.
Breadth 15 m.
PLAN D
N
Cargo Quay No. 11a
Length 290 m.
Depth - 6.0 m.
Breadth 20 m.
PLAN C
N
Passenger Quay
Length 200 m.
Depth - 9.0 m.
Breadth 33 m.
Yuzhnaiy
Bay
SEVASTOPOL

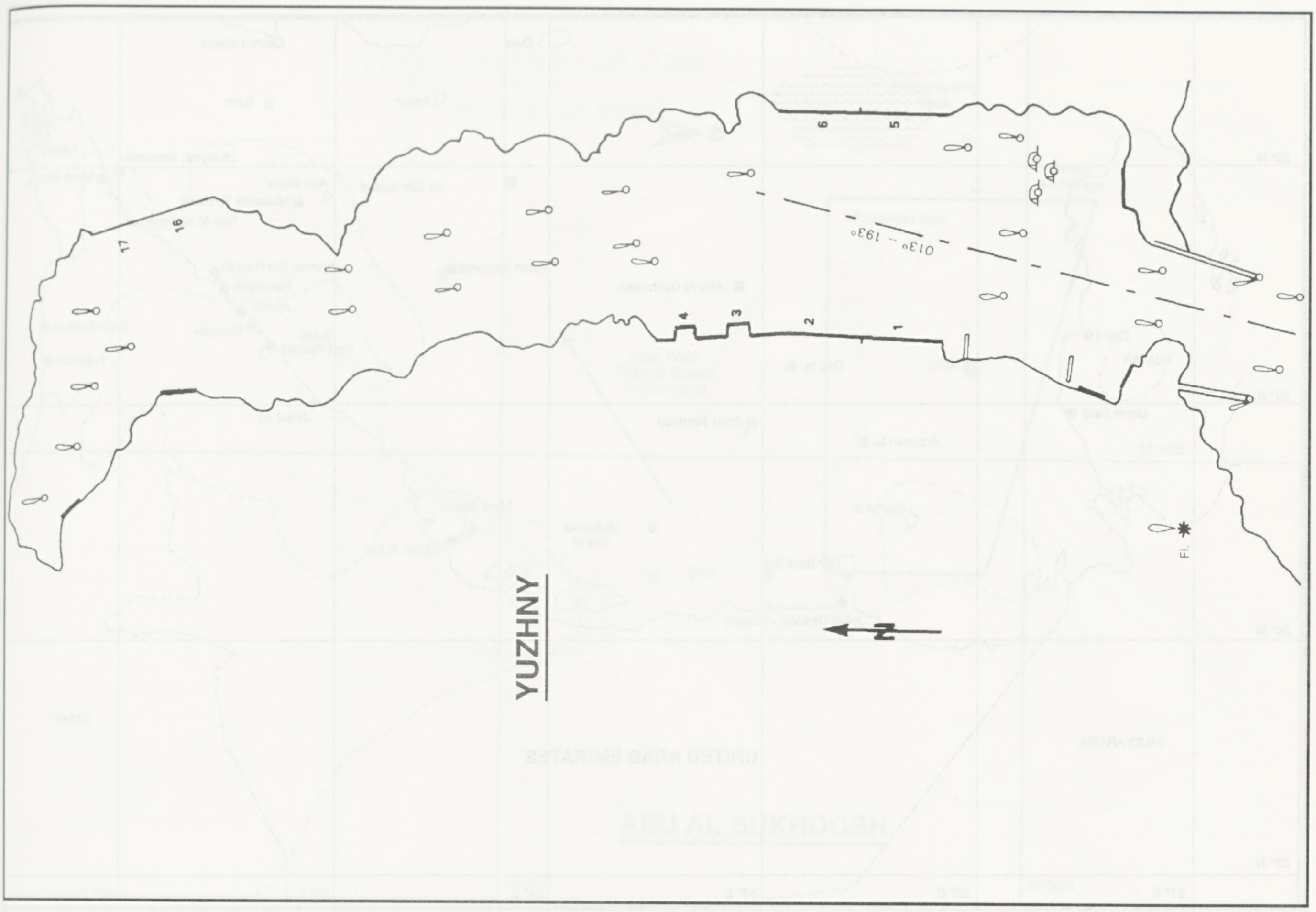

THEODOSIA
Depths in Meters
Border of the Inner Roadstead
Inner Roadstead
10
5
Berth 15
113.5 m.
Max. Draft
3.4 m.
Berth 14
126.5 m.
Max. Draft
5.8 m.
N
Berth 1
126 m.
Max. Draft
5.8 m.
Berth 2
132 m.
Max. Draft
5.8 m.
Berth 3
151 m.
Max. Draft
6.8 m.
Berth 6
Berth 5
10
10
5
5
0
200
Scale in Meters


Leading Line 057°.5 - 237°.5 (T)
THEODOSIA
Tanker Berths
Approximately 2.5 Nautical Miles N.N.E from Ily Lighthouse
- 20 m.
Outer Roadstesd
Area No. 401
- 18 m.
Area No. 400
- 12.5 m.
Mooring Buoys
- 11.3 m.
Mooring Buoys
Oil Terminal
- 12 m.
Inner Roadstead
- 8 m.
Berth No. 3
Berth No. 2
Berth No. 1
Railway Lines
Port of
Theodosia
Berth No. 14
Berth No. 15


N
Danube
Canal
Port Authority
Leading Line 209.5° (Marking line of Buoyed Channel)
Leading Line 209.5° (Marking line of Buoyed Channel)
Leading Line 209.5°
West Berth
3
2
1
Lighter Carrier Berth
1
4
2
3
South Berth
1
4
2
3
UST - DUNAYSK


YALTA
CARGO TERMINAL
N
Road to Highway
Shore Line
Office Buildings
Storage for Export and Import Goods
Free Territory
Immigration and Customs Control
Open Storage
Berth No. 3
Harbour
Berth No. 2
Black Sea
Berth No. 1
East Mole

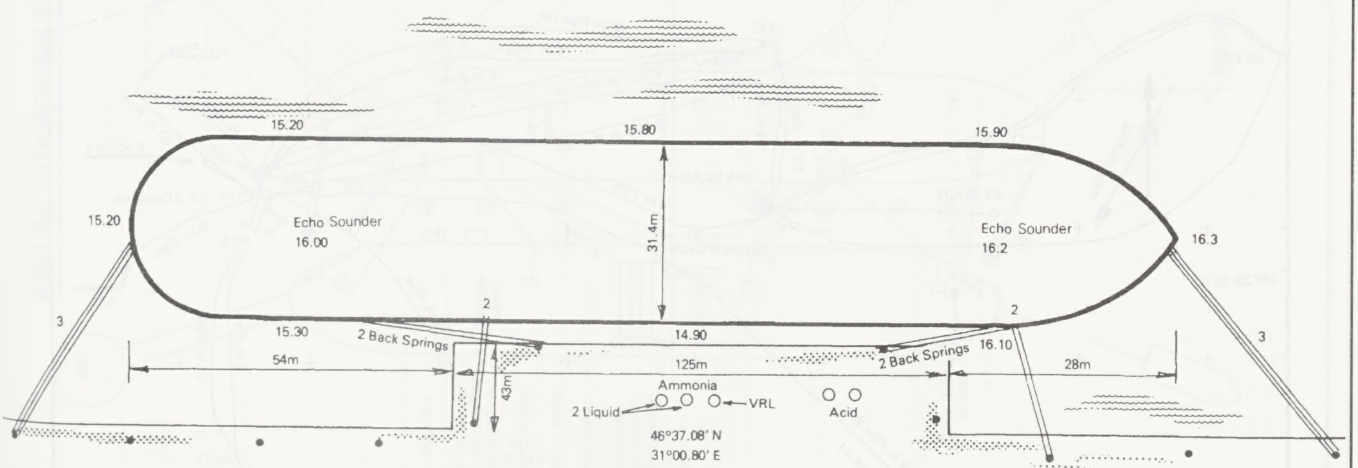

Yuzhny Town
C. Sychavsky
10
N
Grigoryevlka
013° - 193°
12
11
10
9
8
7
6
5
4
3
2
1
46° 35' N
Anchorage No. 357
10
11
12
13
14
15
16
092.5° - 272.5°
Recommended Route No. 1 070.4° - 250.4°
Anchorage No. 358
18
19
20
21
22
23
24
25
10
High Caution Navigation Area
Anchorage No. 356 for Gas and Chemical Carriers
1
2
4
7
6
5
4
8
9
PBP
Separation Zone
46° 30' N
YUZHNY
Boundary of Yuzhny VTCS
31° E
31° 05' E
10


YUZHNY
N
013° - 193°
1
2
3
4
5
6
16
17
Fl.

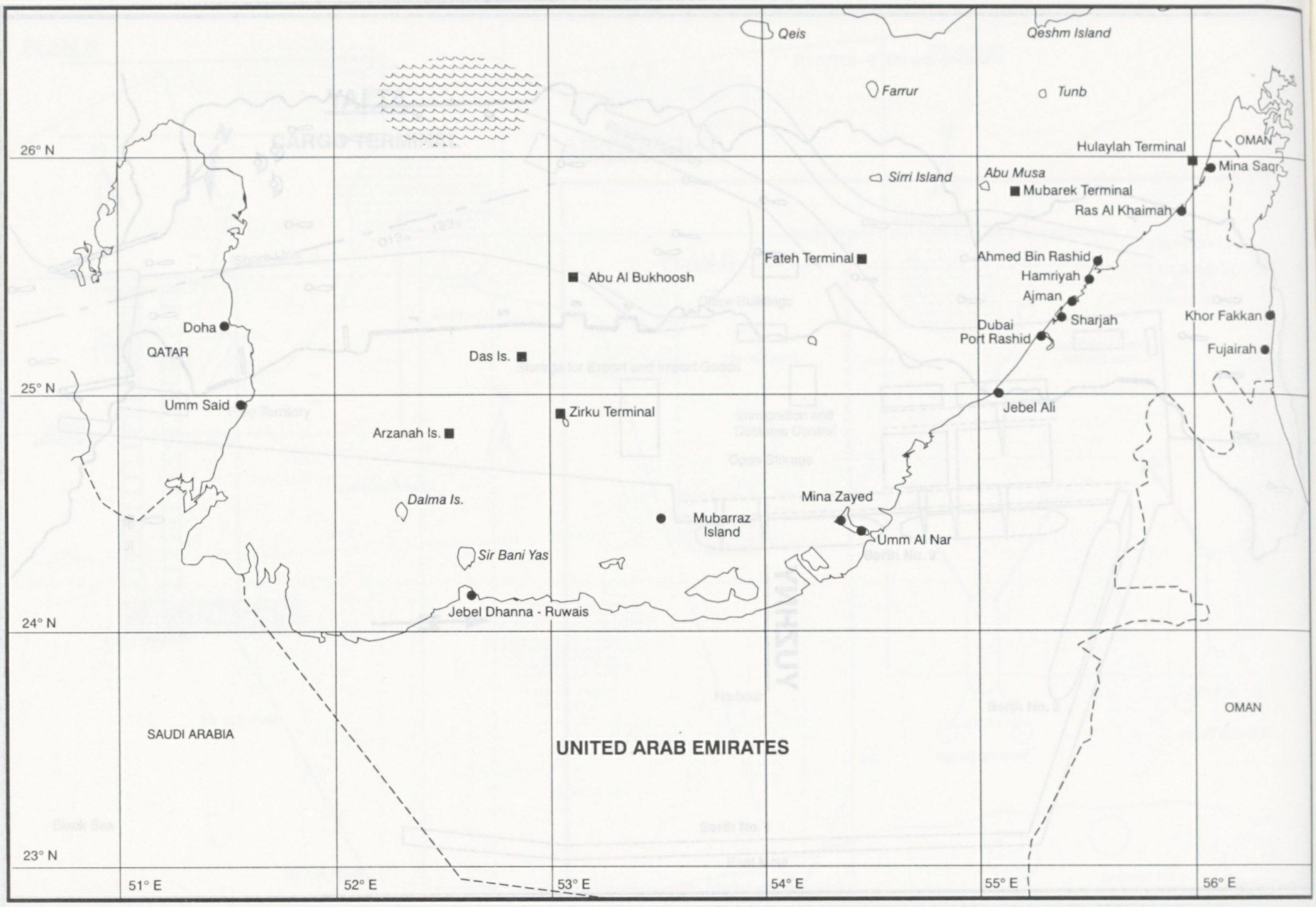
YUZHNY

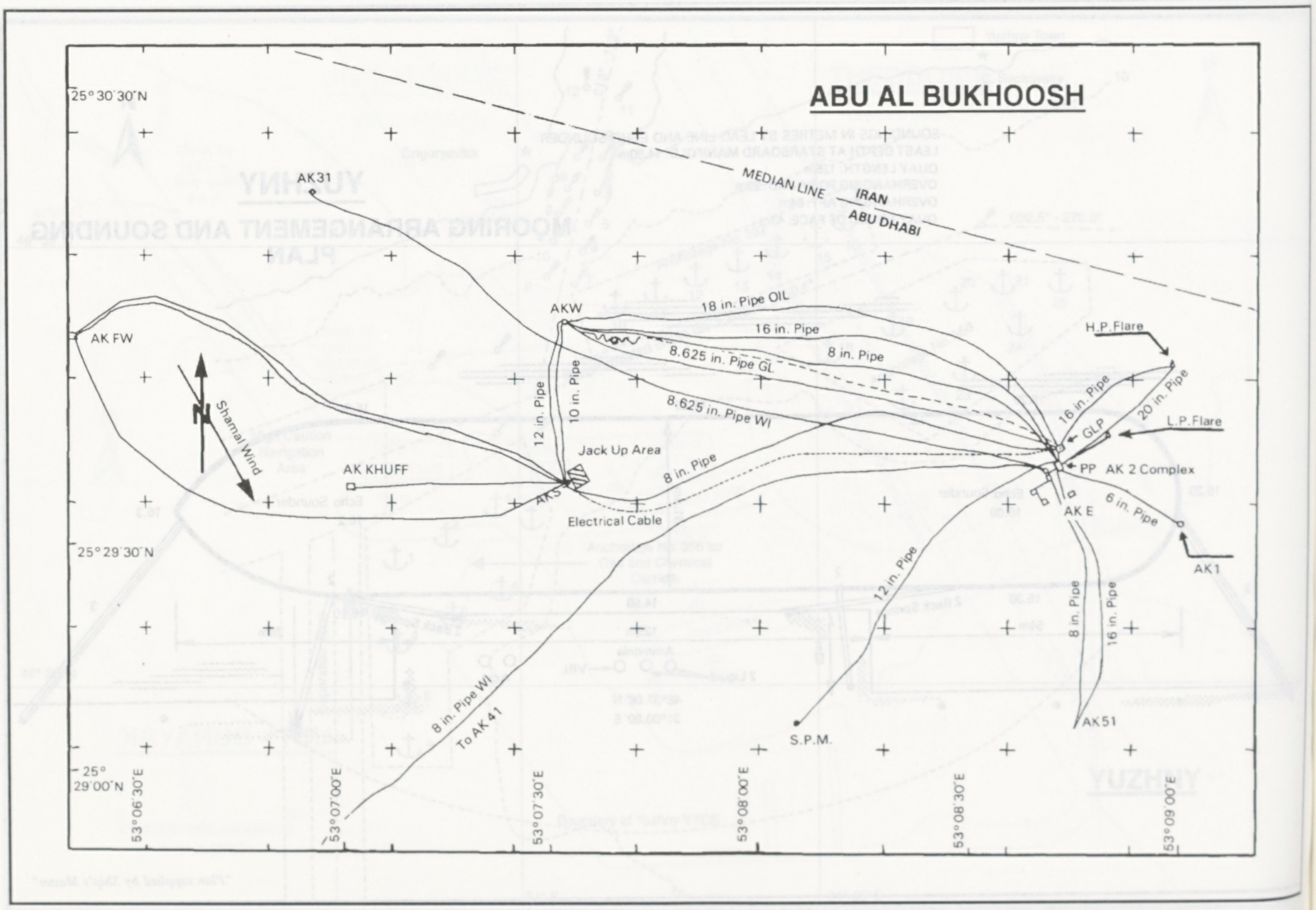
MOORING ARRANGEMENT AND SOUNDING PLAN

SOUNDINGS IN METRES BY LEAD LINE AND ECHO SOUNDER
LEAST DEPTH AT STARBOARD MANIFOLD: 14.90m
QUAY LENGTH: 125m
OVERHANGING FORWARD: 28m
OVERHANGING AFT: 54m
QUAY PROUD OF FACE: 43m

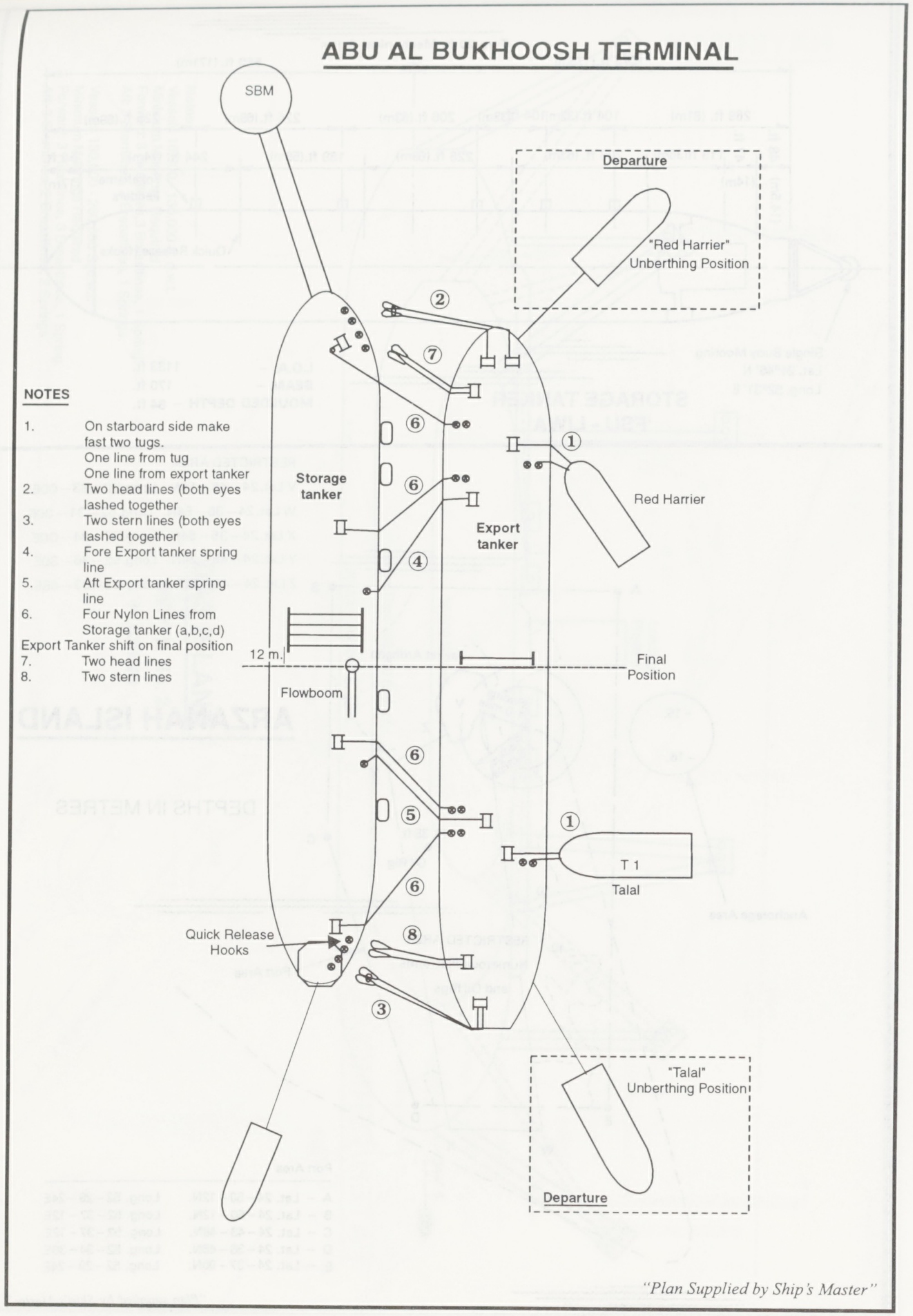

15.20
15.80
15.90
15.20
Echo Sounder
16.00
31.4m
Echo Sounder
16.2
16.3
3
15.30
2 Back Springs
2
14.90
2
2 Back Springs
16.10
3
54m
4
125m
28m
43m
Ammonia
2 Liquid
VRL
Acid
46°37.08′ N
31°00.80′ E

"Plan supplied by Ship's Master"


Qeis
Qeshm Island
Farrur
Tunb
Hulaylah Terminal
OMAN
Mina Saqr
26° N
Sirri Island
Abu Musa
Mubarek Terminal
Ras Al Khaimah
Fateh Terminal
Ahmed Bin Rashid
Abu Al Bukhoosh
Hamriyah
Ajman
Sharjah
Doha
Khor Fakkan
Dubai
Port Rashid
QATAR
Das Is.
Fujairah
25° N
Umm Said
Jebel Ali
Zirku Terminal
Arzanah Is.
Dalma Is.
Mina Zayed
Mubarraz Island
Umm Al Nar
Sir Bani Yas
Jebel Dhanna - Ruwais
24° N
OMAN
SAUDI ARABIA
UNITED ARAB EMIRATES
23° N
51° E
52° E
53° E
54° E
55° E
56° E


ABU AL BUKHOOSH
25°30'30"N
AK31
MEDIAN LINE
IRAN
ABU DHABI
AKW
18 in. Pipe OIL
16 in. Pipe
8 in. Pipe
8.625 in. Pipe GL
8.625 in. Pipe WI
AK FW
Shamal Wind
12 in. Pipe
10 in. Pipe
Jack Up Area
8 in. Pipe
AK KHUFF
AKS
Electrical Cable
H.P. Flare
16 in. Pipe
20 in. Pipe
GLP
L.P. Flare
PP
AK 2 Complex
AK E
6 in. Pipe
AK1
25°29'30"N
12 in. Pipe
8 in. Pipe
16 in. Pipe
AK51
S.P.M.
8 in. Pipe WI
To AK 41
25° 29'00"N
53°06'30"E
53°07'00"E
53°07'30"E
53°08'00"E
53°08'30"E
53°09'00"E

ABU AL BUKHOOSH TERMINAL


SBM
Departure
"Red Harrier" Unberthing Position
②
⑦
⑥
①
Red Harrier
Storage tanker
Export tanker
⑥
④
12 m.
Final Position
Flowboom
⑥
⑤
①
T 1
Talal
⑥
⑧
Quick Release Hooks
③
"Talal" Unberthing Position
Departure

NOTES

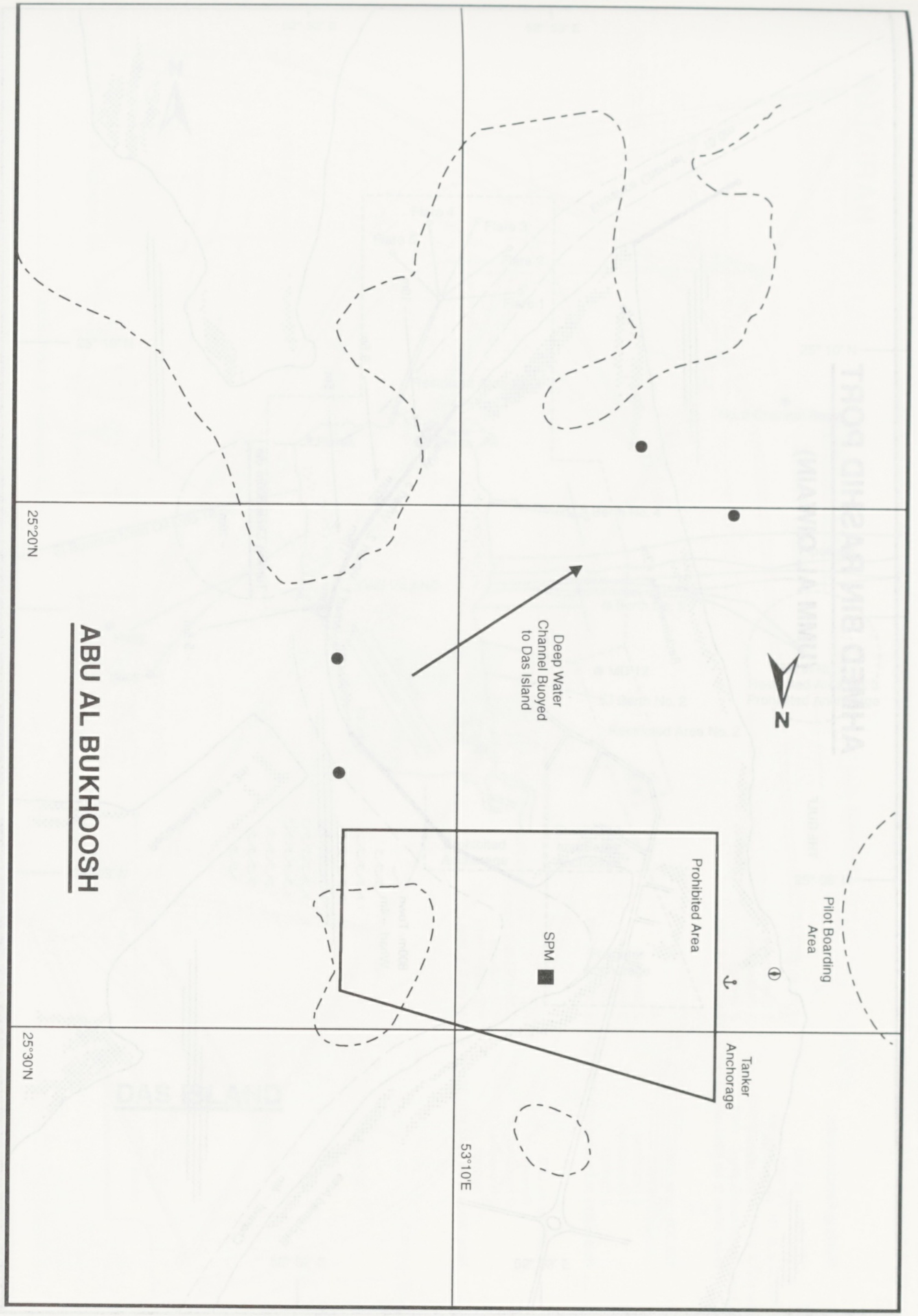
1. On starboard side make fast two tugs.
One line from tug
One line from export tanker
2. Two head lines (both eyes lashed together
3. Two stern lines (both eyes lashed together
4. Fore Export tanker spring line
5. Aft Export tanker spring line
6. Four Nylon Lines from Storage tanker (a,b,c,d)

Export Tanker shift on final position

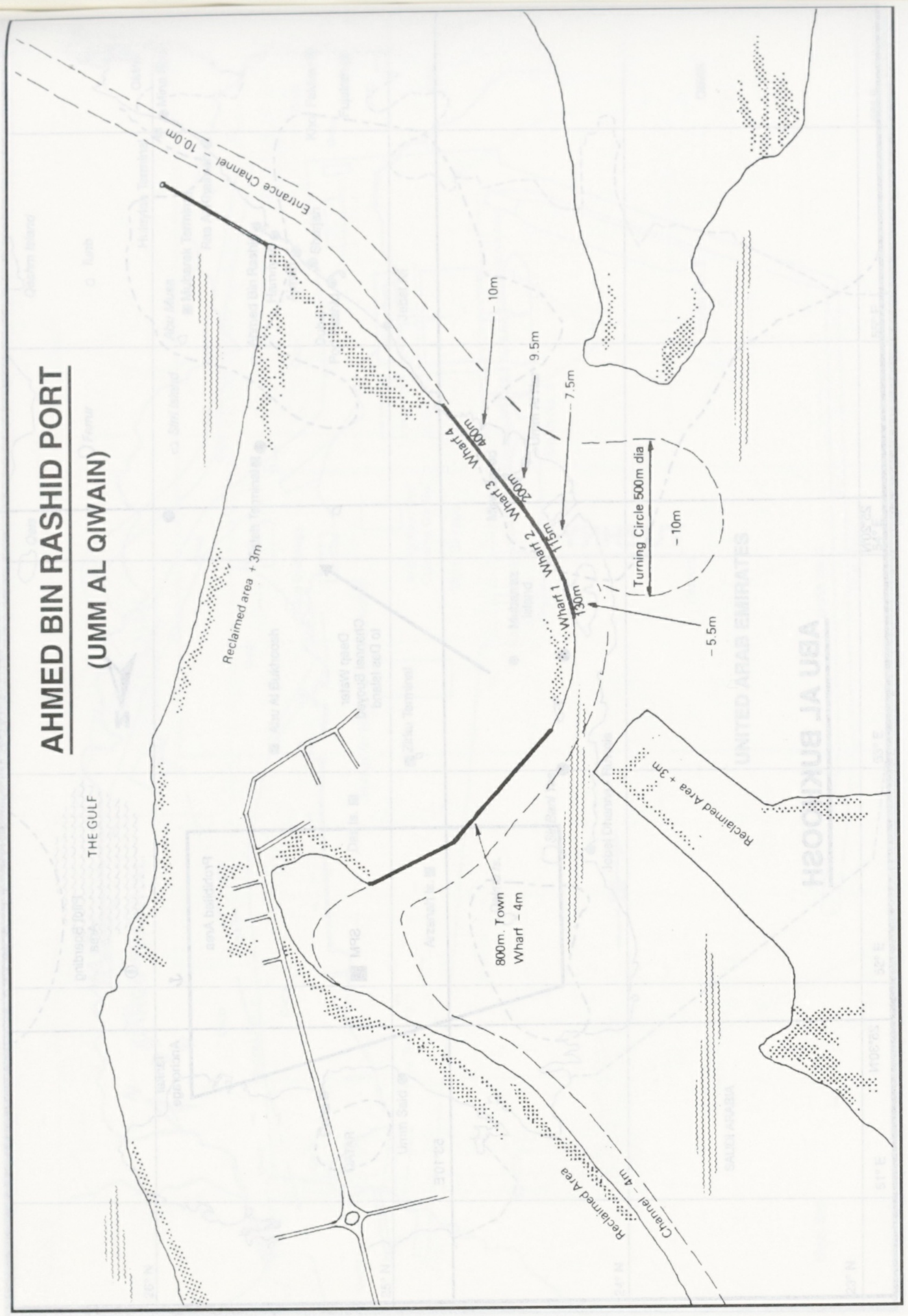
7. Two head lines
8. Two stern lines

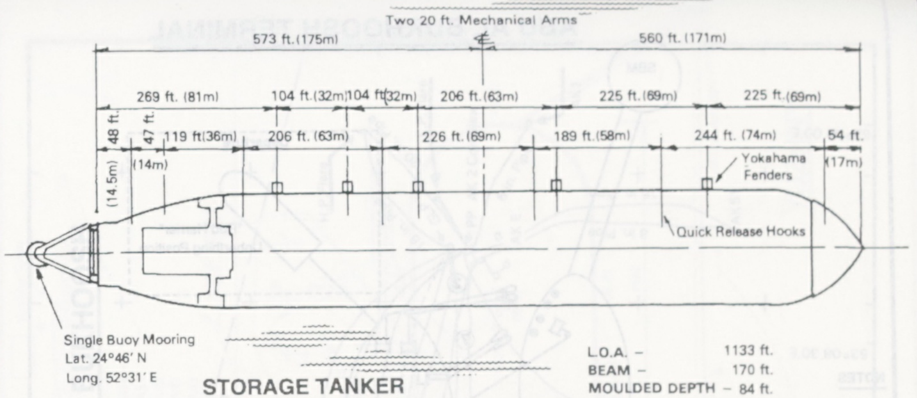
"Plan Supplied by Ship's Master"

ABU AL BUKHOOSH


25°20'N
25°30'N
53°10'E
Deep Water Channel Buoyed to Das Island
N
Prohibited Area
SPM
Pilot Boarding Area
Tanker Anchorage

AHMED BIN RASHID PORT
(UMM AL QIWAIN)


Entrance Channel
10.0m
10m
9.5m
7.5m
Wharf 4
400m
Wharf 3
200m
Wharf 2
115m
Wharf 1
130m
Turning Circle 500m dia
-10m
-5.5m
Reclaimed area +3m
THE GULF
800m. Town
Wharf - 4m
Reclaimed Area +3m
Reclaimed Area
Channel - 4m


Two 20 ft. Mechanical Arms
573 ft.(175m)
560 ft. (171m)
269 ft. (81m)
104 ft.(32m)
104 ft.(32m)
206 ft.(63m)
225 ft.(69m)
225 ft.(69m)
48 ft.
(14.5m)
47 ft.
(14m)
119 ft(36m)
206 ft. (63m)
226 ft. (69m)
189 ft.(58m)
244 ft. (74m)
54 ft.
(17m)
Yokohama Fenders
Quick Release Hooks
Single Buoy Mooring
Lat. 24°46' N
Long. 52°31' E

STORAGE TANKER
'FSU - LIWA'

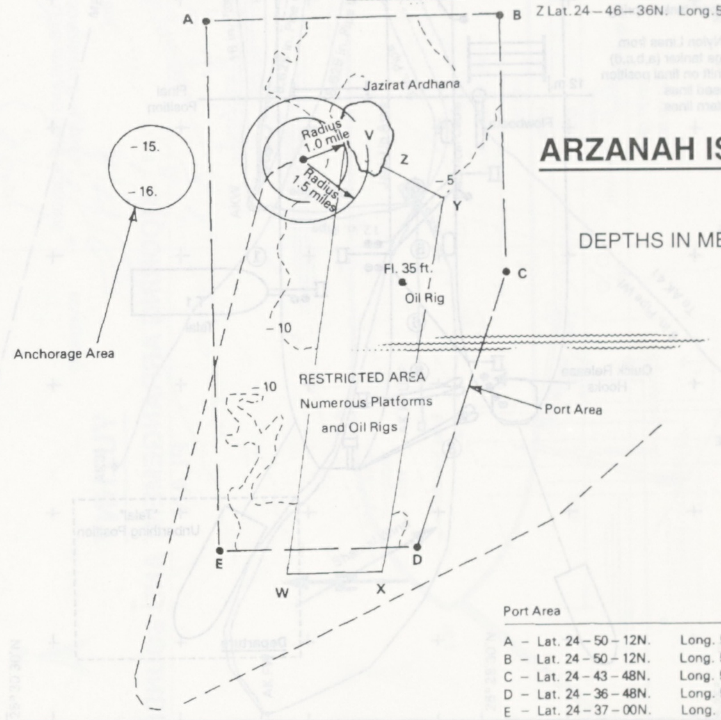
L.O.A. – 1133 ft.
BEAM – 170 ft.
MOULDED DEPTH – 84 ft.

ARZANAH ISLAND

DEPTHS IN METRES

RESTRICTED AREA

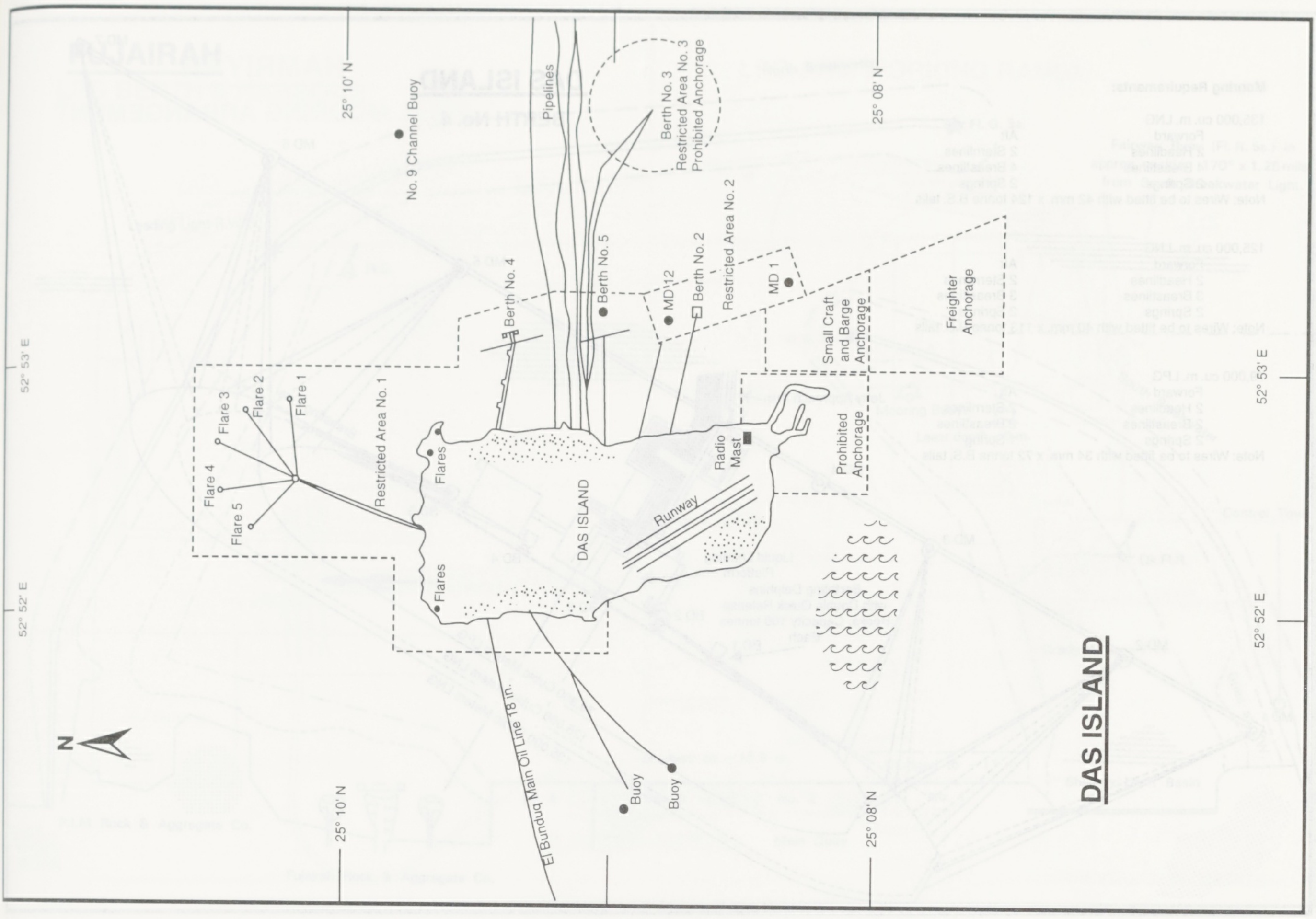
V	Lat. 24–46–18N.	Long. 52–33–00E.
W	Lat. 24–35–54N.	Long. 52–31–30E.
X	Lat. 24–35–54N.	Long. 52–34–00E.
Y	Lat. 24–45–24N.	Long. 52–36–30E.
Z	Lat. 24–46–36N.	Long. 52–33–48E.


A
B
C
D
E
V
W
X
Y
Z
Jazirat Ardhana
Radius 1.0 mile
Radius 1.5 miles
-5
-15.
-16.
Anchorage Area
Fl. 35 ft.
Oil Rig
-10
10
RESTRICTED AREA
Numerous Platforms
and Oil Rigs
Port Area

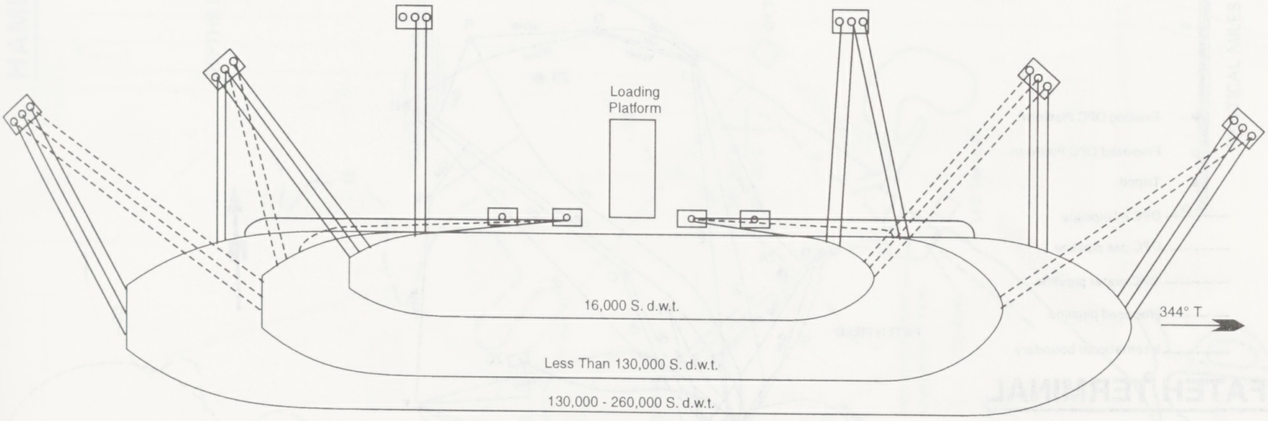
Port Area

A	Lat. 24–50–12N.	Long. 52–29–24E
B	Lat. 24–50–12N.	Long. 52–37–12E
C	Lat. 24–43–48N.	Long. 52–37–12E
D	Lat. 24–36–48N.	Long. 52–34–36E
E	Lat. 24–37–00N.	Long. 52–29–24E

"Plan supplied by Ship's Master"


25° 10' N
25° 08' N
52° 53' E
52° 52' E
No. 9 Channel Buoy
Pipelines
Berth No. 3
Restricted Area No. 3
Prohibited Anchorage
Restricted Area No. 2
Berth No. 5
MD 12
Berth No. 2
MD 1
Berth No. 4
Freighter Anchorage
Small Craft and Barge Anchorage
Prohibited Anchorage
Radio Mast
Runway
DAS ISLAND
Flares
Flares
Flare 1
Flare 2
Flare 3
Flare 4
Flare 5
Restricted Area No. 1
El Bunduq Main Oil Line 18 in.
Buoy
Buoy
N

DAS ISLAND


Loading Platform
16,000 S. d.w.t.
Less Than 130,000 S. d.w.t.
130,000 - 260,000 S. d.w.t.
344° T

DAS ISLAND

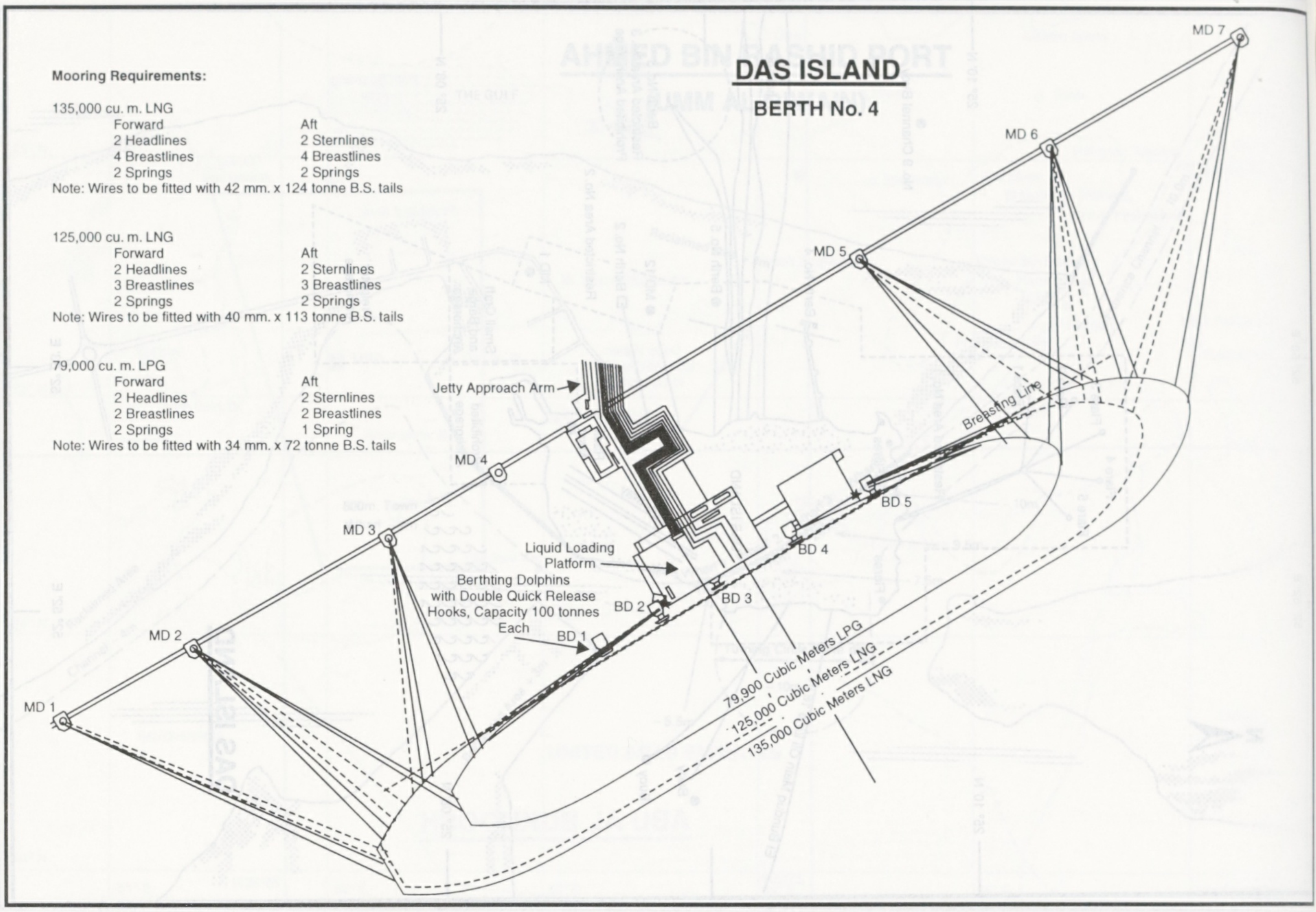
BERTH No. 2

MOORING

Notes:

Vessels 16,000 - 130,000 S. d.w.t.
Minimum Moorings Required
Forward: 3 Headlines,3 Breastlines, 1 Spring.
Aft: 3 Sternlines, 2 Breastlines, 1 Springs.

Vessels 130,000 - 260,000 S. d.w.t.
Minimum Moorings Required
Forward: 3 Headlines, 3 Breastlines, 1 Spring.
Aft: 3 Sternlines, 2 Breastlines, 2 Springs



DAS ISLAND

BERTH No. 4

Mooring Requirements:

135,000 cu. m. LNG

Forward	Aft
2 Headlines	2 Sternlines
4 Breastlines	4 Breastlines
2 Springs	2 Springs

Note: Wires to be fitted with 42 mm. x 124 tonne B.S. tails

125,000 cu. m. LNG

Forward	Aft
2 Headlines	2 Sternlines
3 Breastlines	3 Breastlines
2 Springs	2 Springs

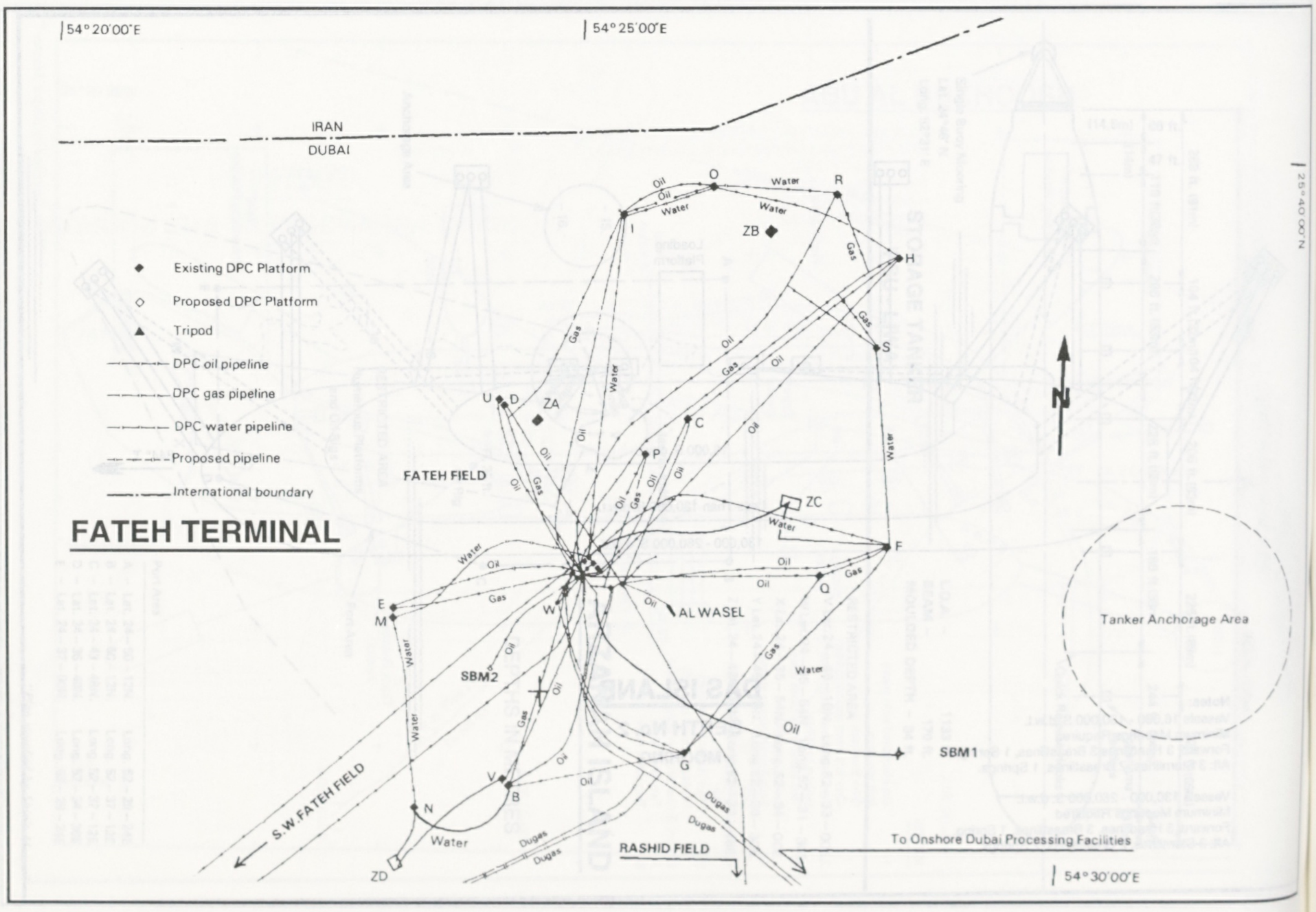
Note: Wires to be fitted with 40 mm. x 113 tonne B.S. tails

79,000 cu. m. LPG

Forward	Aft
2 Headlines	2 Sternlines
2 Breastlines	2 Breastlines
2 Springs	1 Spring

Note: Wires to be fitted with 34 mm. x 72 tonne B.S. tails

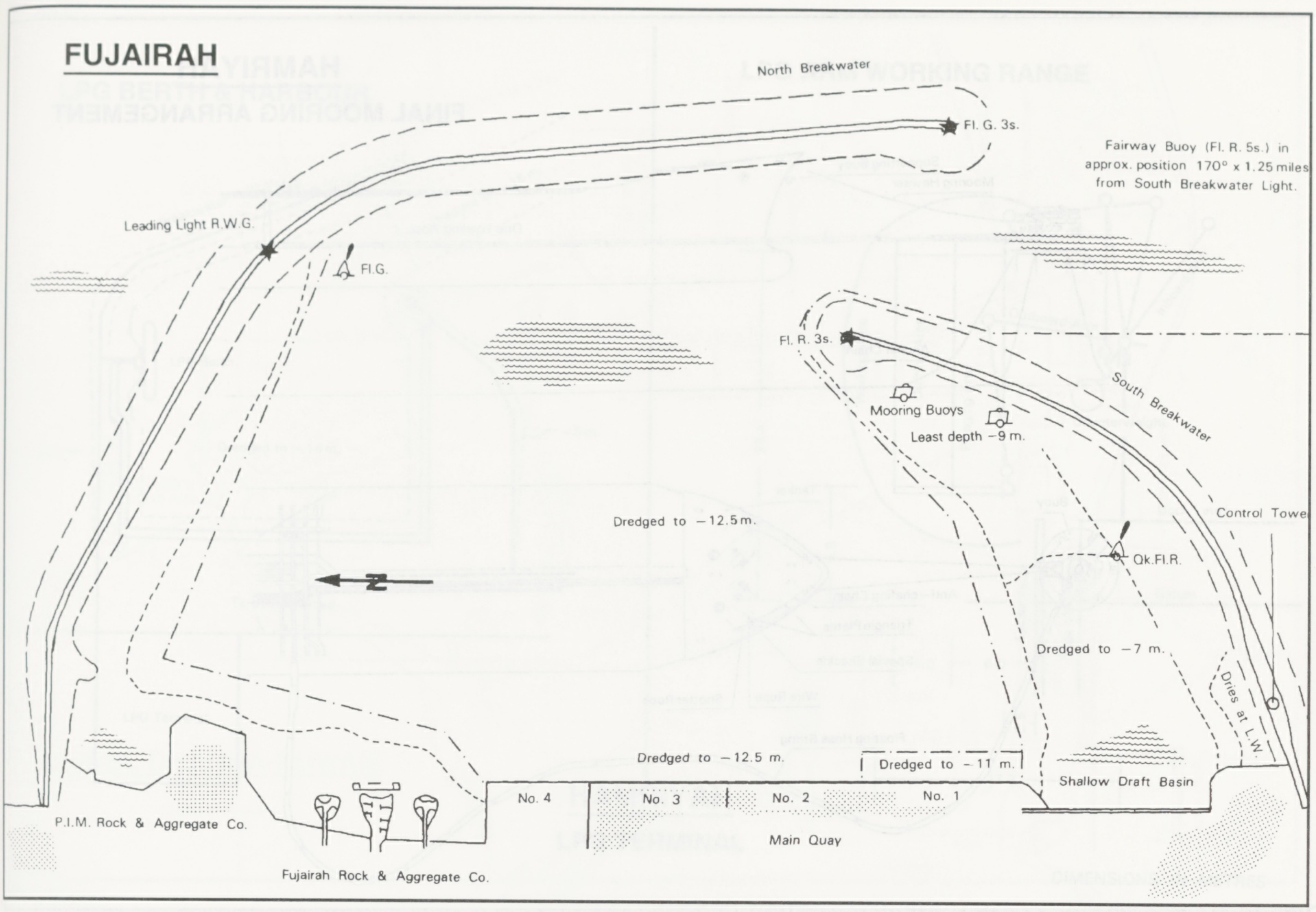
MD 1
MD 2
MD 3
MD 4
MD 5
MD 6
MD 7
Jetty Approach Arm
Liquid Loading Platform
Berthting Dolphins with Double Quick Release Hooks, Capacity 100 tonnes Each
BD 1
BD 2
BD 3
BD 4
BD 5
Breasting Line
79,900 Cubic Meters LPG
125,000 Cubic Meters LNG
135,000 Cubic Meters LNG



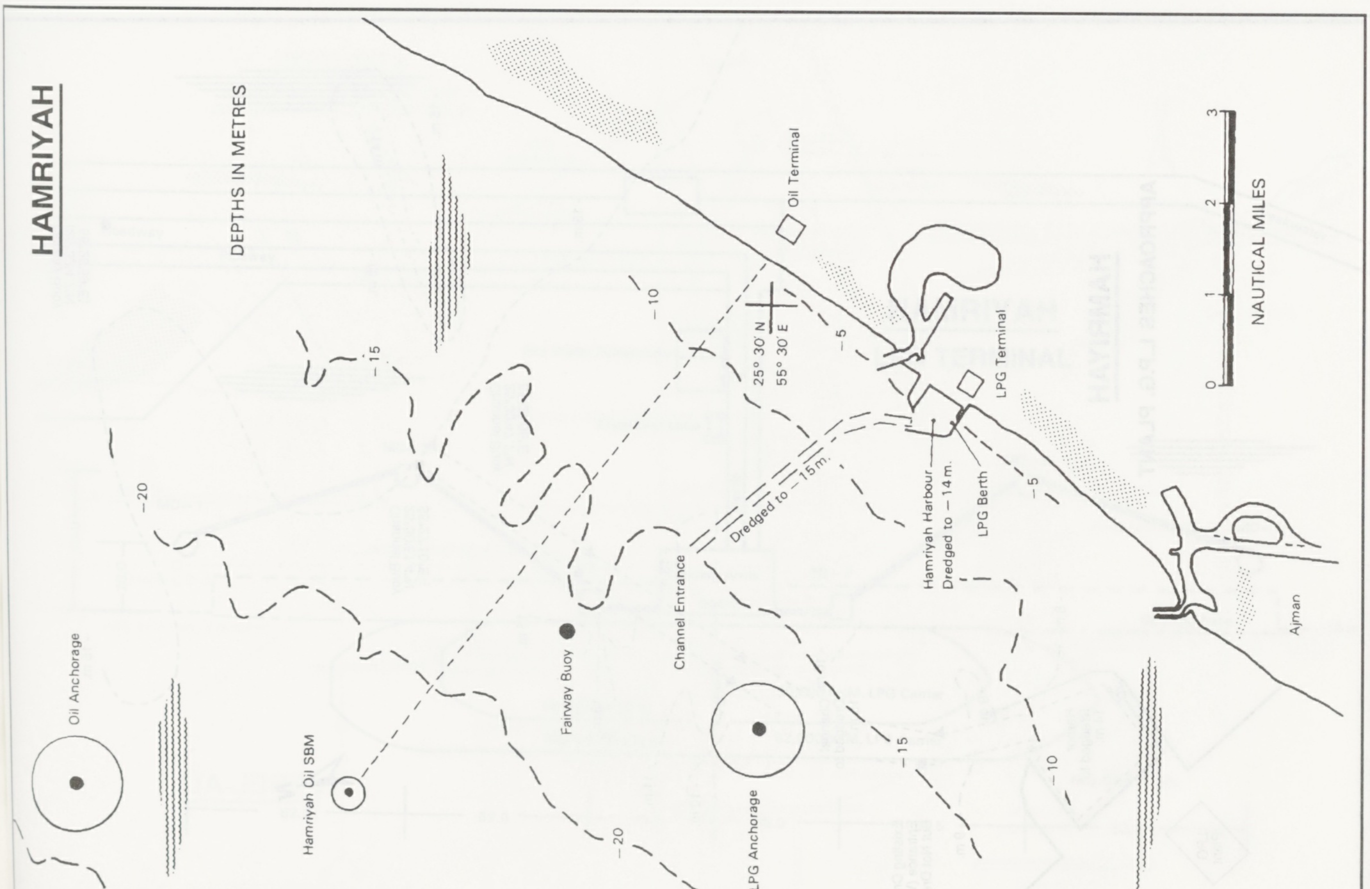
FATEH TERMINAL

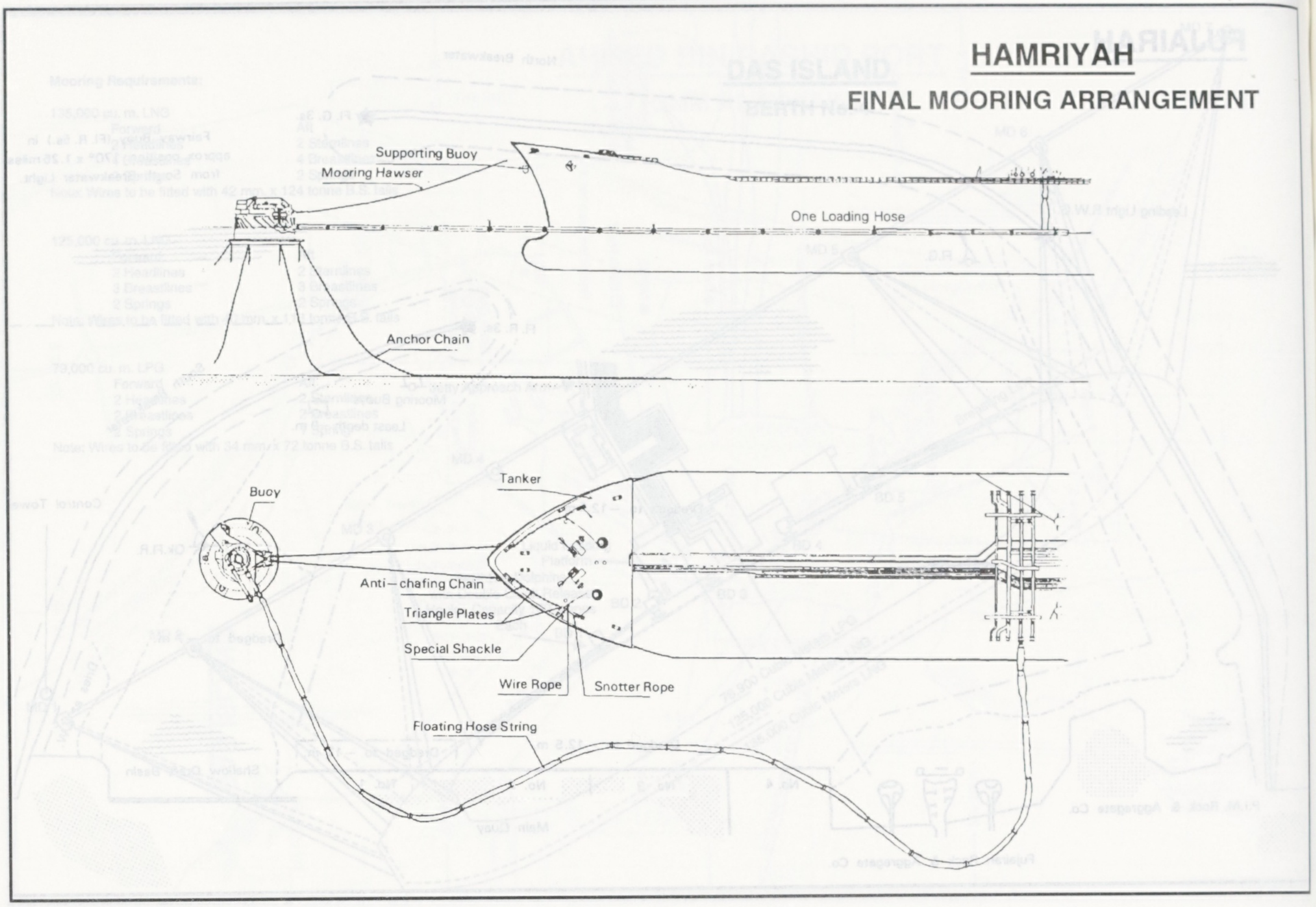
54° 20′ 00″ E
54° 25′ 00″ E
54° 30′ 00″ E
25° 40′ 00″ N
IRAN
DUBAI
◆ Existing DPC Platform
◇ Proposed DPC Platform
▲ Tripod
DPC oil pipeline
DPC gas pipeline
DPC water pipeline
Proposed pipeline
International boundary
FATEH FIELD
S.W. FATEH FIELD
RASHID FIELD
AL WASEL
To Onshore Dubai Processing Facilities
Tanker Anchorage Area
N
O
R
I
ZB
H
S
U
D
ZA
C
P
ZC
F
Q
E
M
W
SBM2
SBM1
G
V
B
N
ZD
Oil
Gas
Water
Dugas

FUJAIRAH


North Breakwater
Fl. G. 3s.
Fairway Buoy (Fl. R. 5s.) in approx. position 170° x 1.25 miles from South Breakwater Light.
Leading Light R.W.G.
Fl.G.
Fl. R. 3s.
South Breakwater
Mooring Buoys
Least depth −9 m.
Dredged to −12.5 m.
Control Tower
Qk.Fl.R.
N
Dredged to −7 m.
Dries at L.W.
Dredged to −12.5 m.
Dredged to −11 m.
Shallow Draft Basin
No. 4
No. 3
No. 2
No. 1
Main Quay
P.I.M. Rock & Aggregate Co.
Fujairah Rock & Aggregate Co.

HAMRIYAH

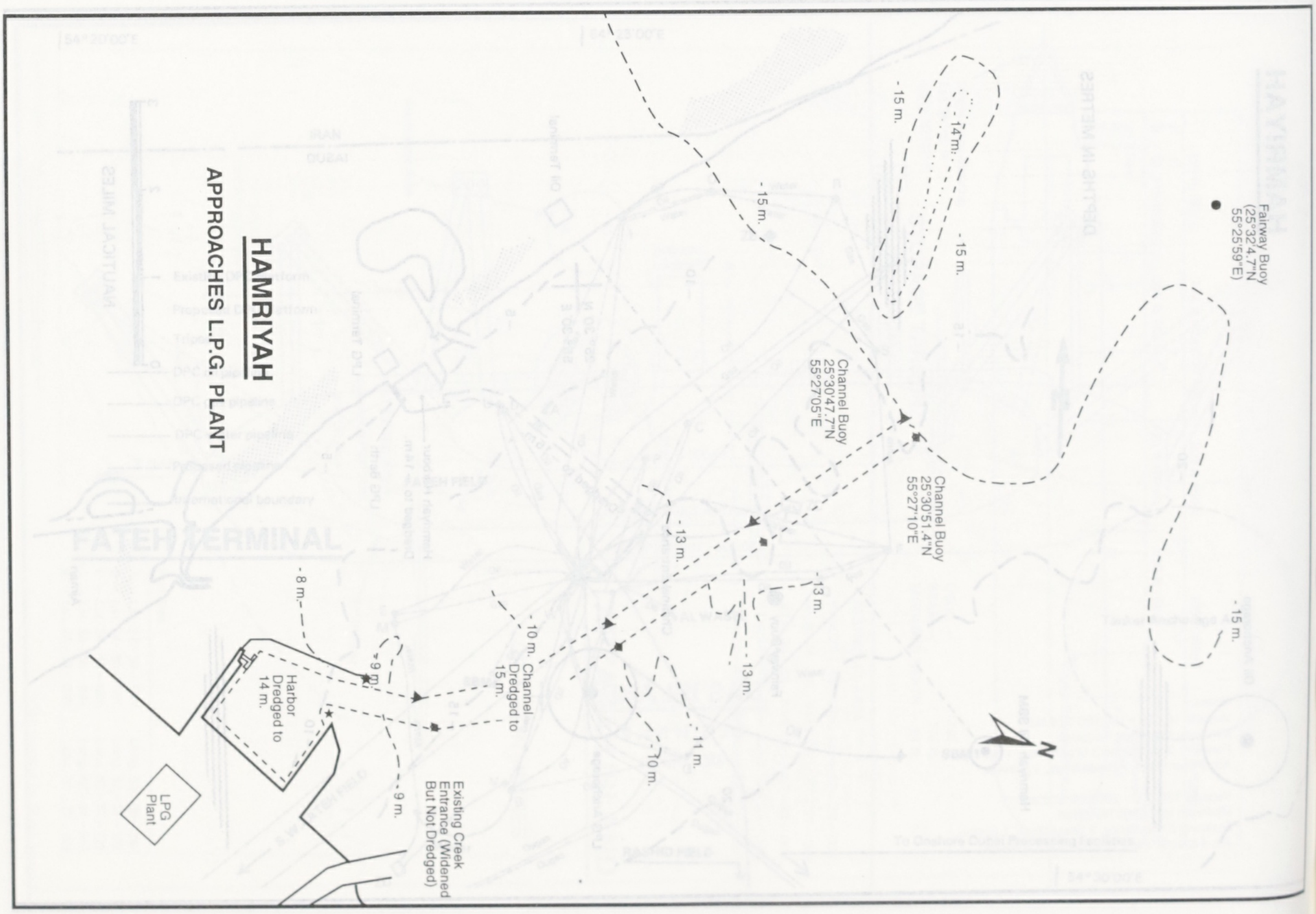

DEPTHS IN METRES
Oil Terminal
−10
−15
−5
25° 30′ N
55° 30′ E
LPG Terminal
Hamriyah Harbour
Dredged to −14 m.
LPG Berth
−5
Dredged to −15 m.
Channel Entrance
−20
Fairway Buoy
Oil Anchorage
Hamriyah Oil SBM
LPG Anchorage
−20
−15
−10
Ajman
0
1
2
3
NAUTICAL MILES



HAMRIYAH

FINAL MOORING ARRANGEMENT

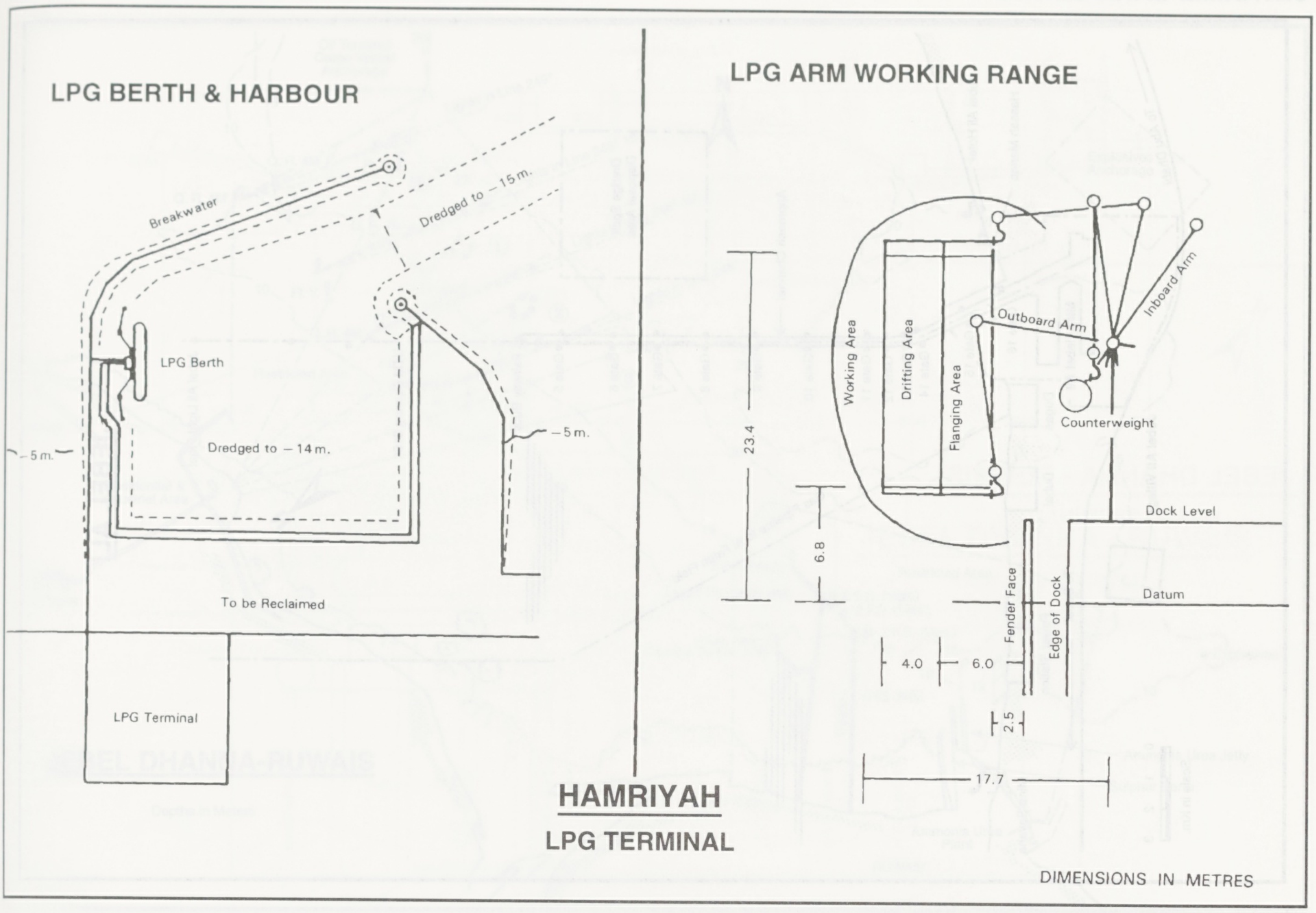
Supporting Buoy
Mooring Hawser
One Loading Hose
Anchor Chain
Buoy
Tanker
Anti–chafing Chain
Triangle Plates
Special Shackle
Wire Rope
Snotter Rope
Floating Hose String

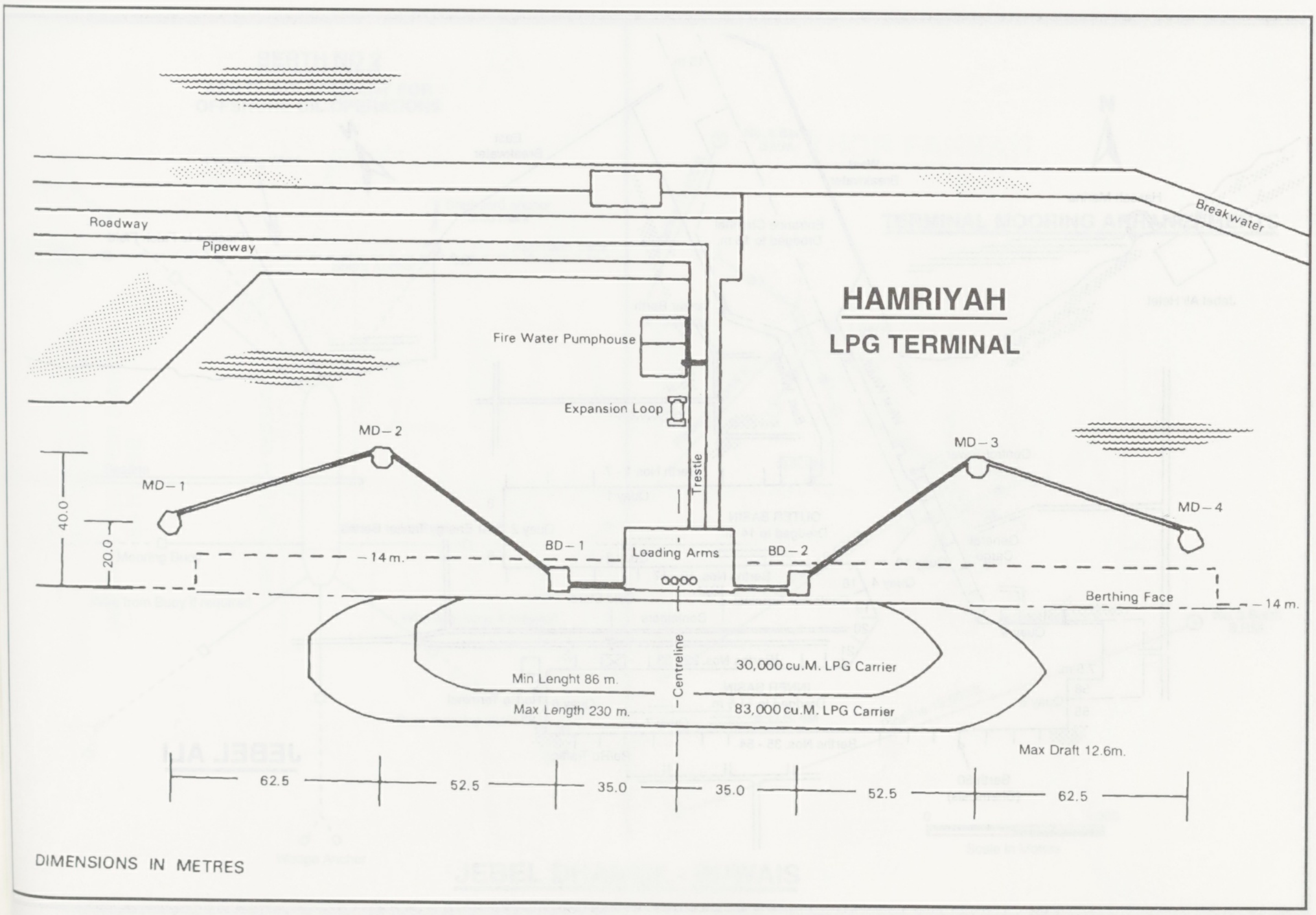


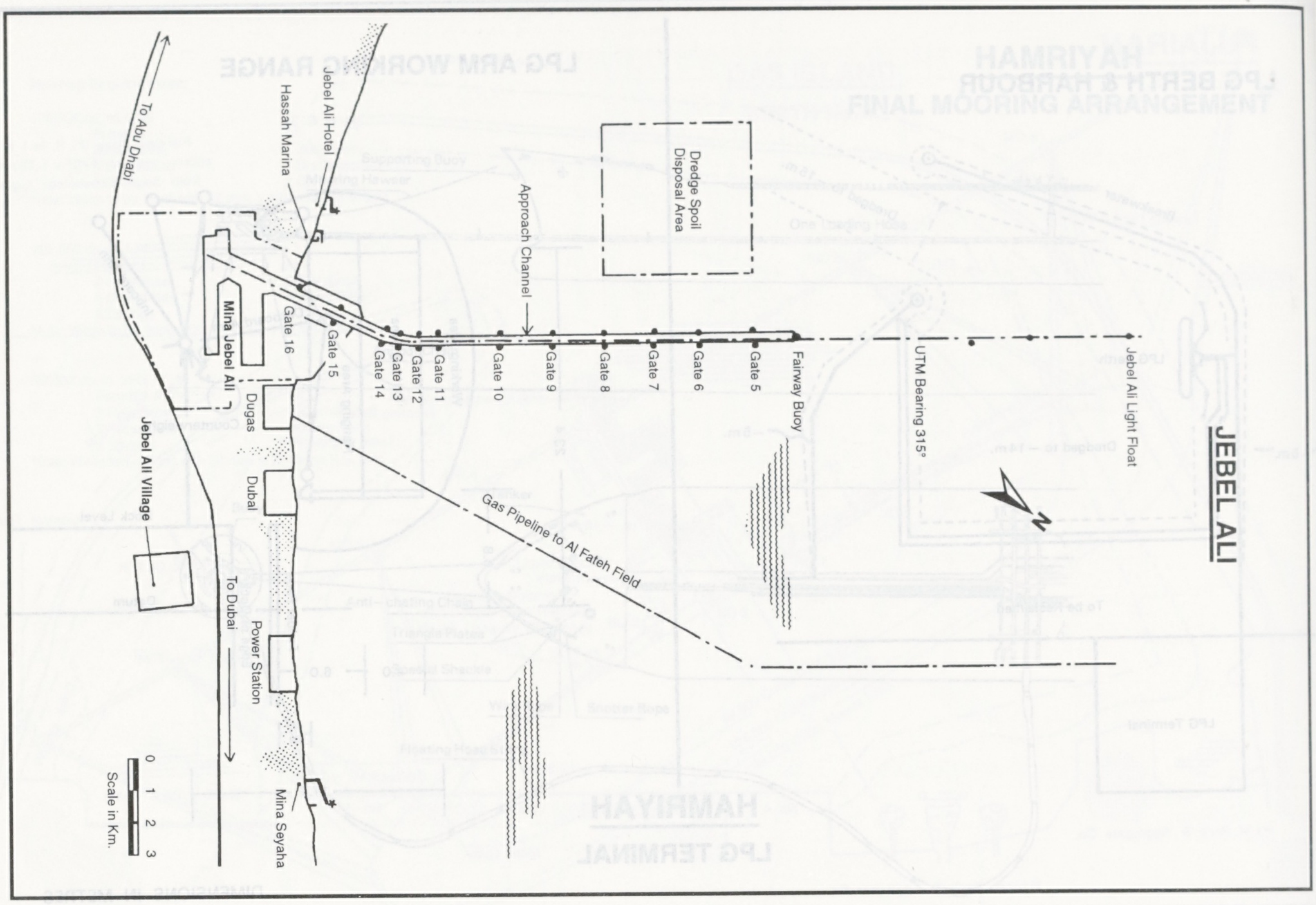
HAMRIYAH

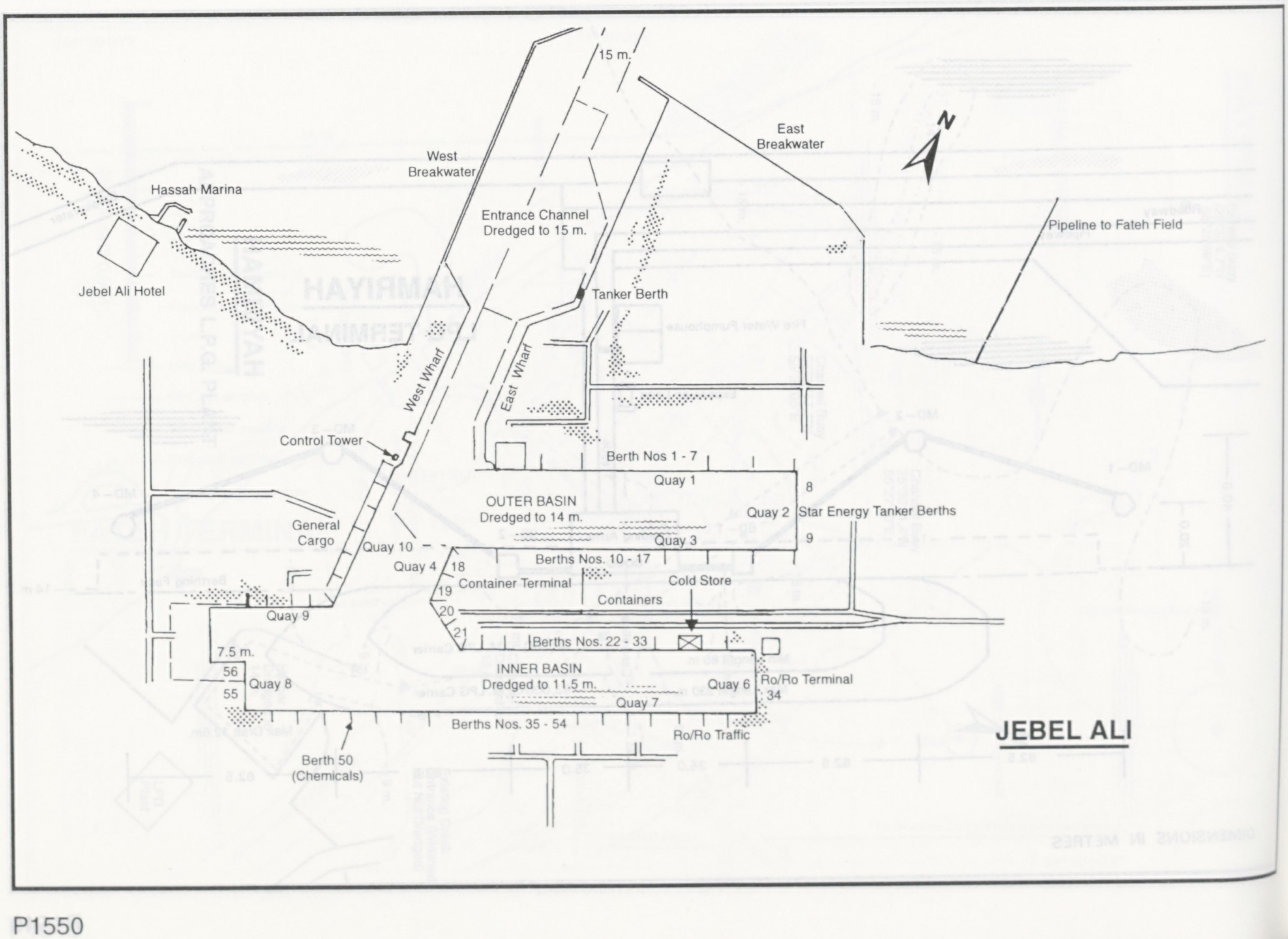
APPROACHES L.P.G. PLANT

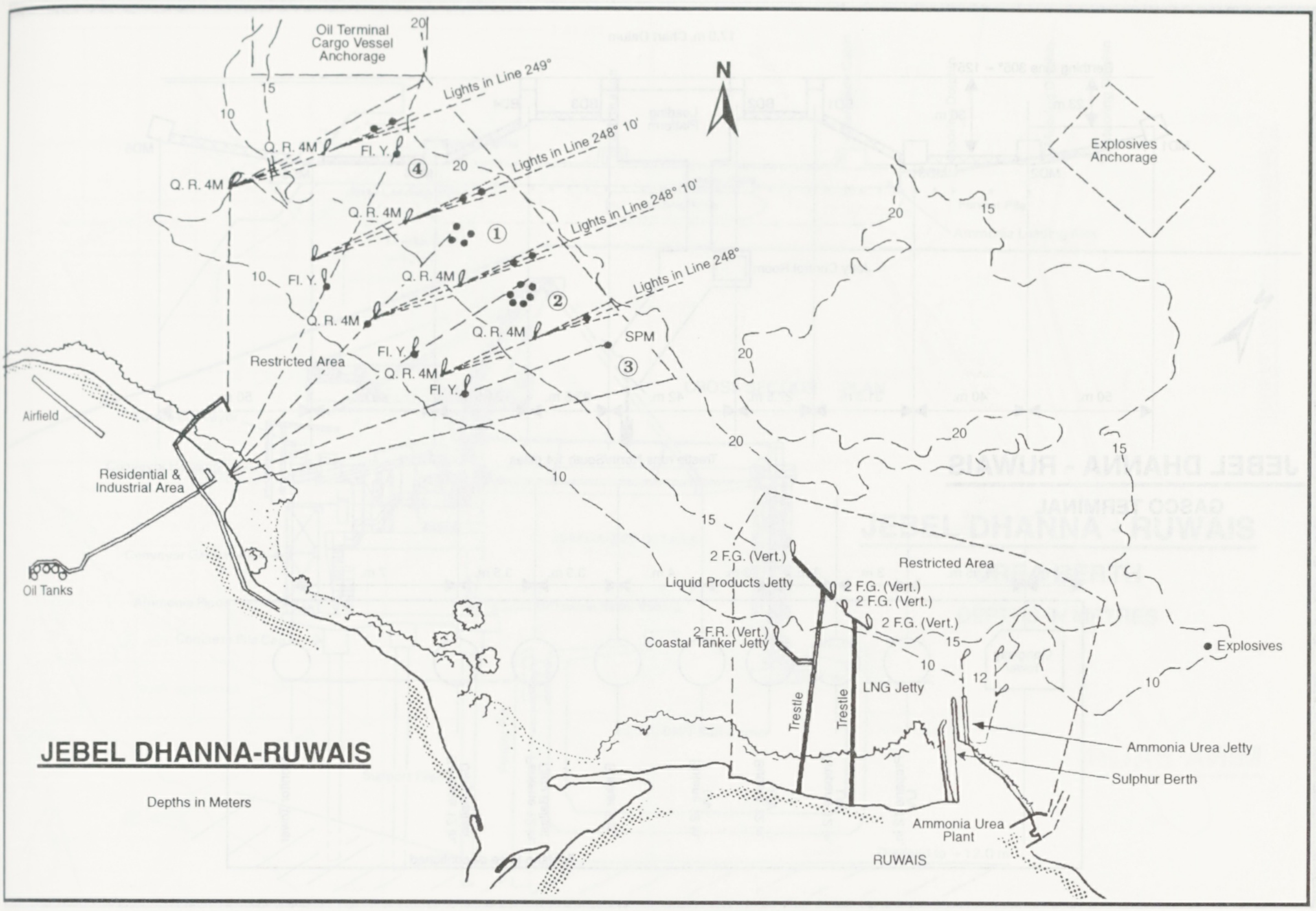
Fairway Buoy
(25°32'4.7"N
55°25'59"E)
-15 m.
14 m.
-15 m.
-15 m.
Channel Buoy
25°30'47.7"N
55°27'05"E
Channel Buoy
25°30'51.4"N
55°27'10"E
-13 m.
13 m.
-13 m.
-11 m.
-10 m.
10 m. Channel
Dredged to
15 m.
Harbor
Dredged to
14 m.
-9 m.
-8 m.
-9 m.
Existing Creek
Entrance (Widened
But Not Dredged)
LPG
Plant
N
-15 m.


LPG BERTH & HARBOUR
Breakwater
Dredged to – 15 m.
LPG Berth
Dredged to – 14 m.
– 5 m.
– 5 m.
To be Reclaimed
LPG Terminal
LPG ARM WORKING RANGE
Working Area
Drifting Area
Flanging Area
Outboard Arm
Inboard Arm
Counterweight
Dock Level
Datum
Fender Face
Edge of Dock
23.4
6.8
4.0
6.0
2.5
17.7
HAMRIYAH
LPG TERMINAL
DIMENSIONS IN METRES


Roadway
Pipeway
Breakwater
HAMRIYAH
LPG TERMINAL
Fire Water Pumphouse
Expansion Loop
Trestle
MD – 1
MD – 2
MD – 3
MD – 4
BD – 1
BD – 2
Loading Arms
– 14 m.
– 14 m.
Berthing Face
40.0
20.0
Centreline
30,000 cu.M. LPG Carrier
Min Lenght 86 m.
83,000 cu.M. LPG Carrier
Max Length 230 m.
Max Draft 12.6m.
62.5
52.5
35.0
35.0
52.5
62.5
DIMENSIONS IN METRES

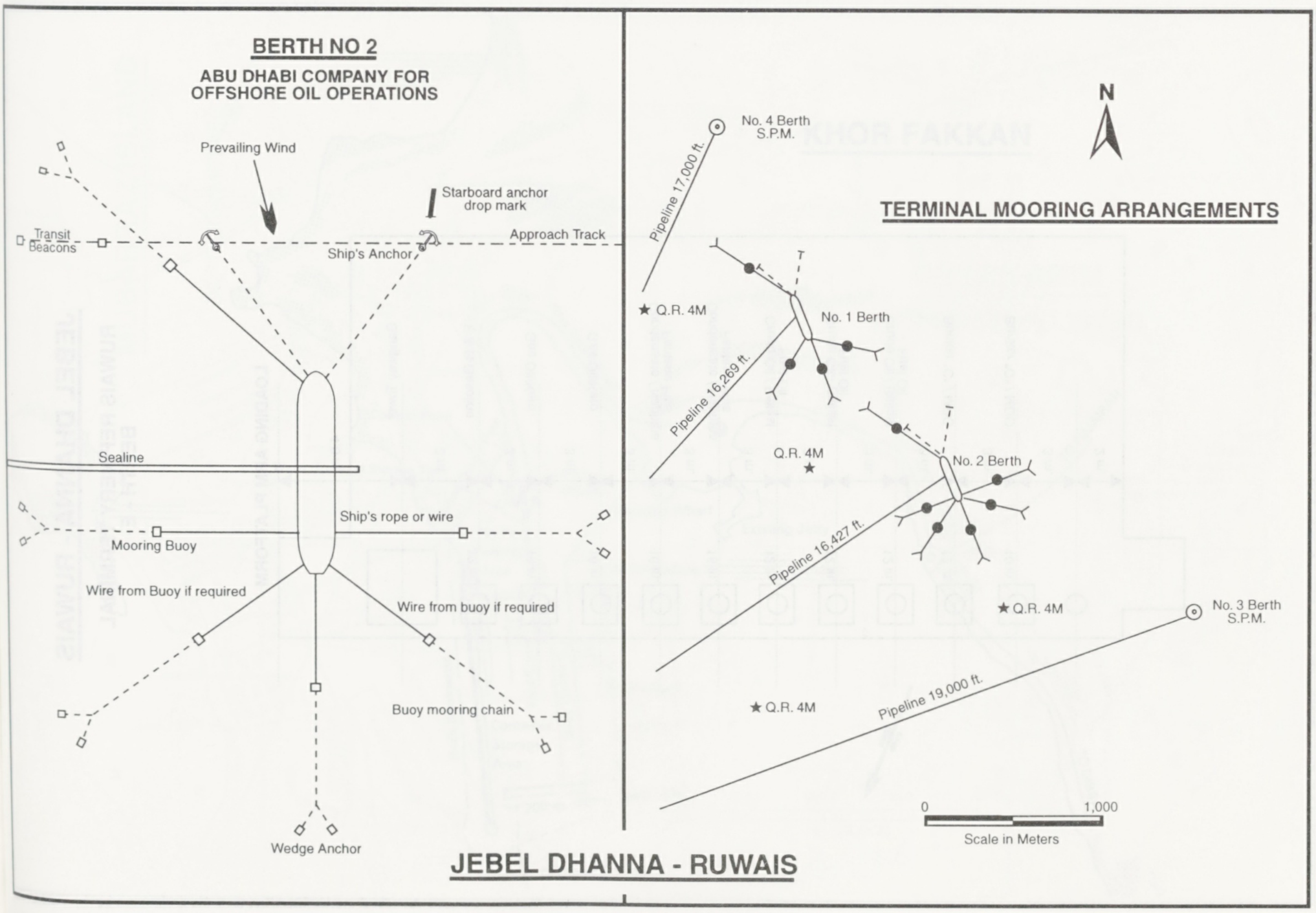

JEBEL ALI
Jebel Ali Light Float
UTM Bearing 315°
N
Fairway Buoy
Gate 5
Gate 6
Gate 7
Gate 8
Gate 9
Gate 10
Gate 11
Gate 12
Gate 13
Gate 14
Gate 15
Gate 16
Dredge Spoil Disposal Area
Approach Channel
Gas Pipeline to Al Fateh Field
Jebel Ali Hotel
Hassah Marina
To Abu Dhabi
Mina Jebel Ali
Dugas
Dubal
Power Station
To Dubai
Jebel Ali Village
Mina Seyaha
0 1 2 3
Scale in Km.


15 m.
West Breakwater
East Breakwater
N
Hassah Marina
Jebel Ali Hotel
Entrance Channel Dredged to 15 m.
Pipeline to Fateh Field
Tanker Berth
West Wharf
East Wharf
Control Tower
Berth Nos 1 - 7
Quay 1
8
OUTER BASIN Dredged to 14 m.
Quay 2
Star Energy Tanker Berths
9
Quay 3
General Cargo
Quay 10
Quay 4
18
Berths Nos. 10 - 17
19
Container Terminal
Containers
Cold Store
20
21
Quay 9
Berths Nos. 22 - 33
7.5 m.
56
55
Quay 8
INNER BASIN Dredged to 11.5 m.
Quay 6
Ro/Ro Terminal
34
Quay 7
Berths Nos. 35 - 54
Ro/Ro Traffic
Berth 50 (Chemicals)
JEBEL ALI


Oil Terminal Cargo Vessel Anchorage
20
15
10
N
Lights in Line 249°
Lights in Line 248° 10'
Lights in Line 248° 10'
Lights in Line 248°
Q. R. 4M
Fl. Y.
④
①
②
③
SPM
Restricted Area
Airfield
Residential & Industrial Area
Oil Tanks
Explosives Anchorage
2 F.G. (Vert.)
Liquid Products Jetty
2 F.R. (Vert.)
Coastal Tanker Jetty
Trestle
LNG Jetty
12
Explosives
Ammonia Urea Jetty
Sulphur Berth
Ammonia Urea Plant
RUWAIS

JEBEL DHANNA-RUWAIS

Depths in Meters


Prevailing Wind
Starboard anchor drop mark
Transit Beacons
Approach Track
Ship's Anchor
Sealine
Ship's rope or wire
Mooring Buoy
Wire from Buoy if required
Wire from buoy if required
Buoy mooring chain
Wedge Anchor
N
No. 4 Berth S.P.M.
Pipeline 17,000 ft.
Q.R. 4M
No. 1 Berth
Pipeline 16,269 ft.
No. 2 Berth
Pipeline 16,427 ft.
No. 3 Berth S.P.M.
Pipeline 19,000 ft.
0
1,000
Scale in Meters

BERTH NO 2

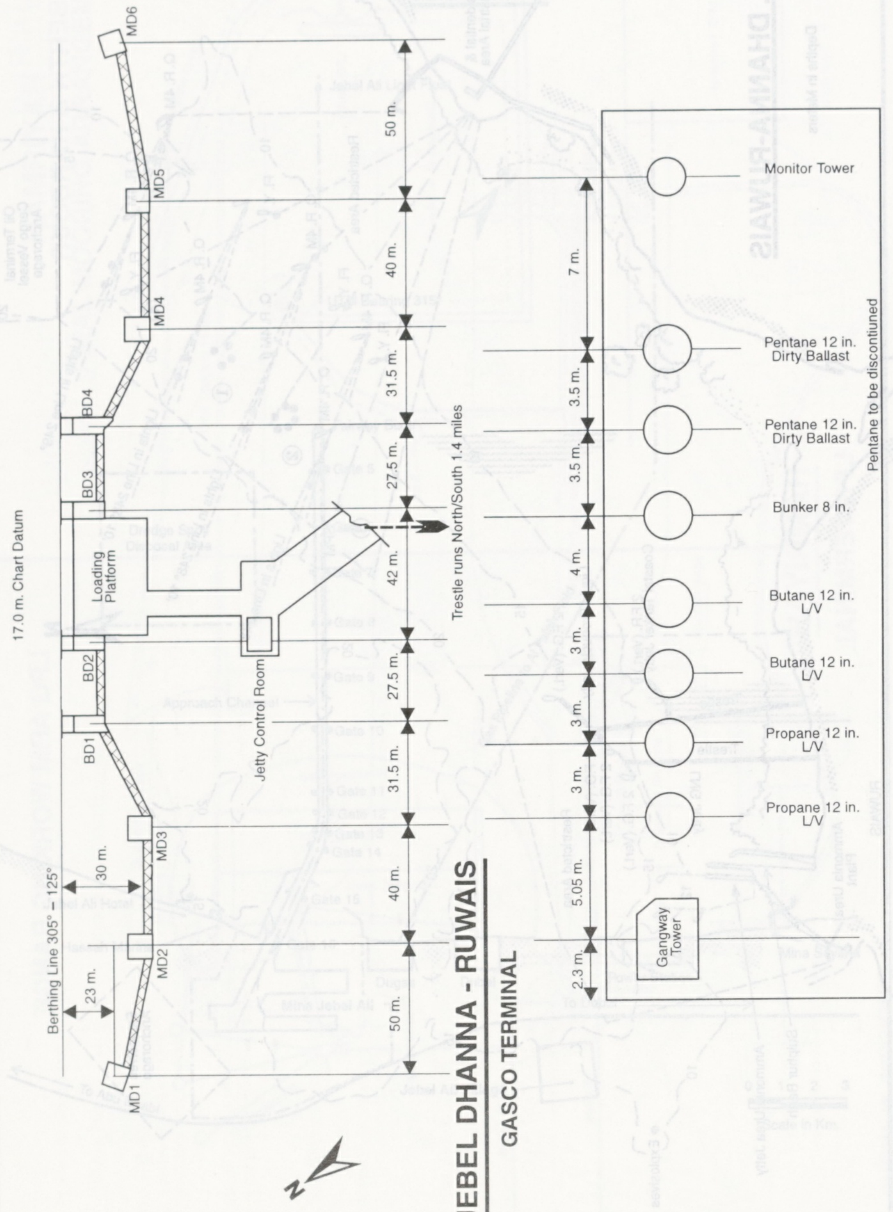
ABU DHABI COMPANY FOR OFFSHORE OIL OPERATIONS

TERMINAL MOORING ARRANGEMENTS

JEBEL DHANNA - RUWAIS

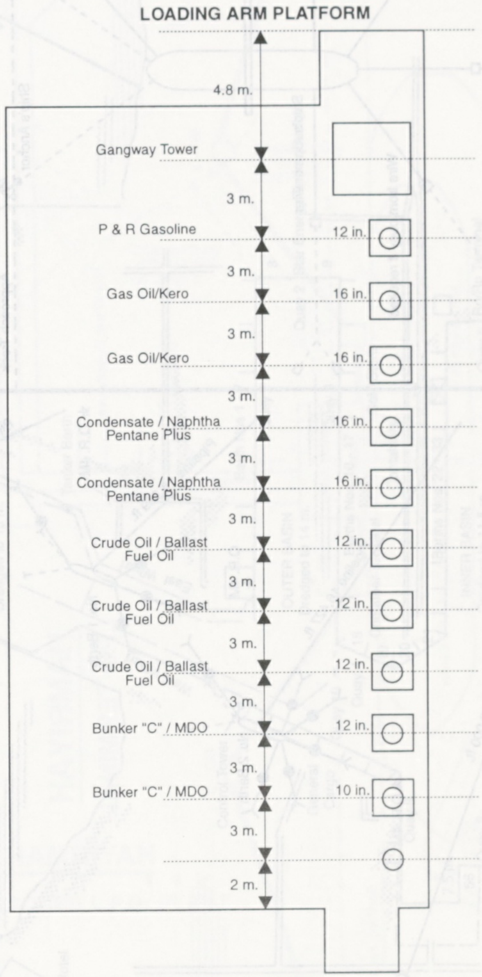
JEBEL DHANNA - RUWAIS

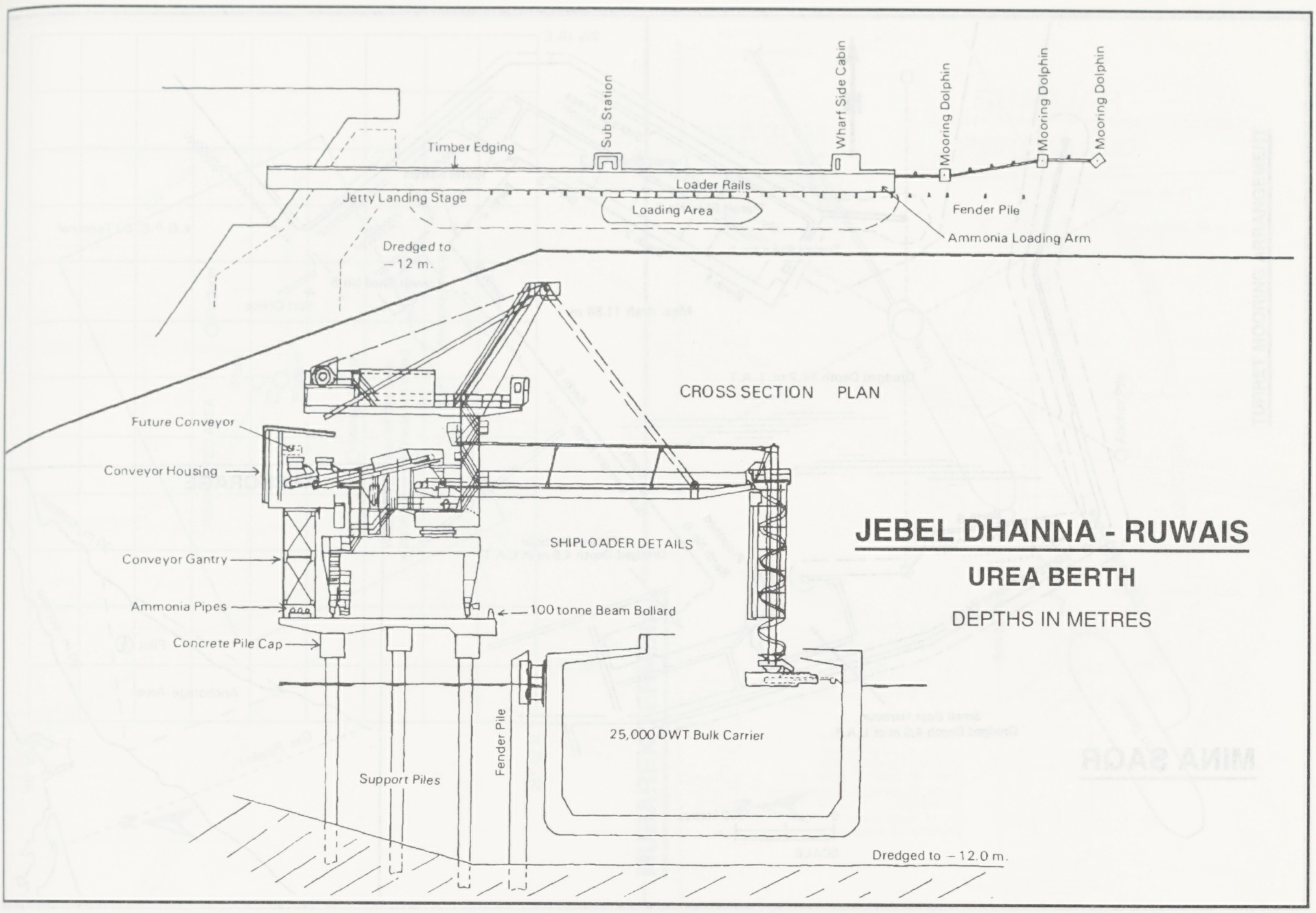
GASCO TERMINAL

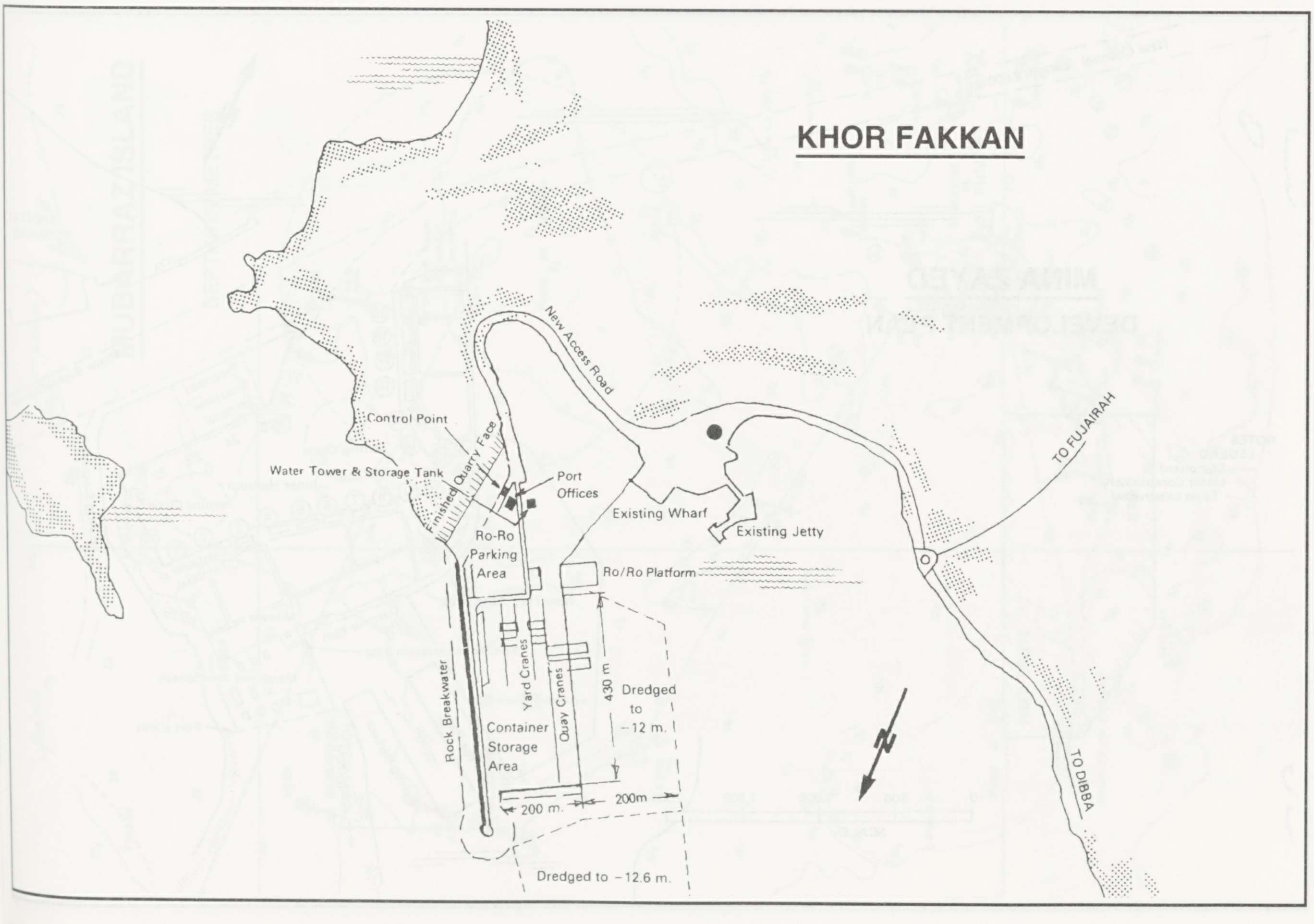

MD6
MD5
MD4
BD4
BD3
Loading Platform
BD2
BD1
MD3
MD2
MD1
17.0 m. Chart Datum
Berthing Line 305° – 125°
30 m.
23 m.
Jetty Control Room
50 m.
40 m.
31.5 m.
27.5 m.
42 m.
27.5 m.
31.5 m.
40 m.
50 m.
Trestle runs North/South 1.4 miles
7 m.
3.5 m.
3.5 m.
4 m.
3 m.
3 m.
3 m.
5.05 m.
2.3 m.
Monitor Tower
Pentane 12 in. Dirty Ballast
Pentane 12 in. Dirty Ballast
Bunker 8 in.
Butane 12 in. L/V
Butane 12 in. L/V
Propane 12 in. L/V
Propane 12 in. L/V
Gangway Tower
Pentane to be discontinued
N

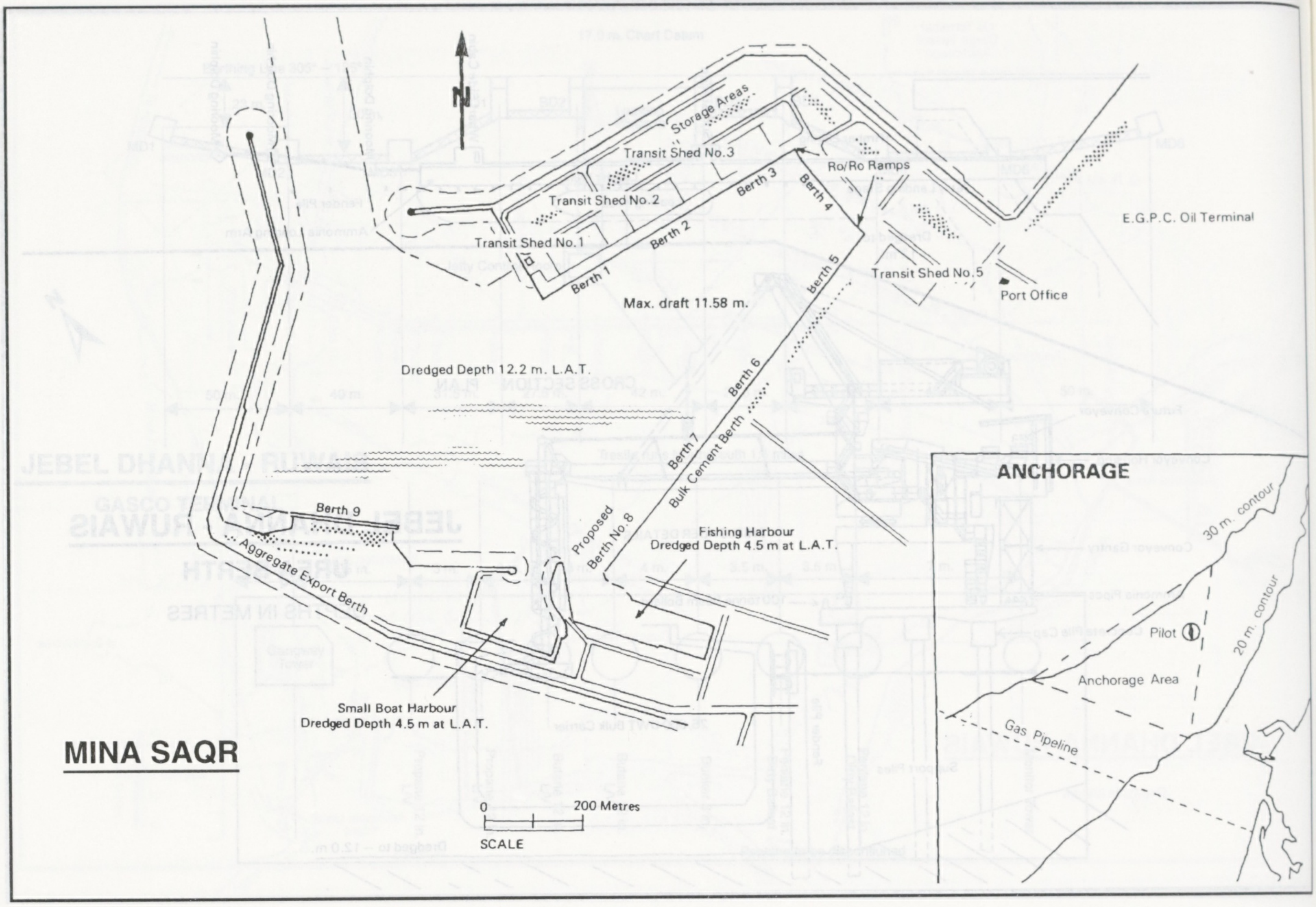
JEBEL DHANNA - RUWAIS

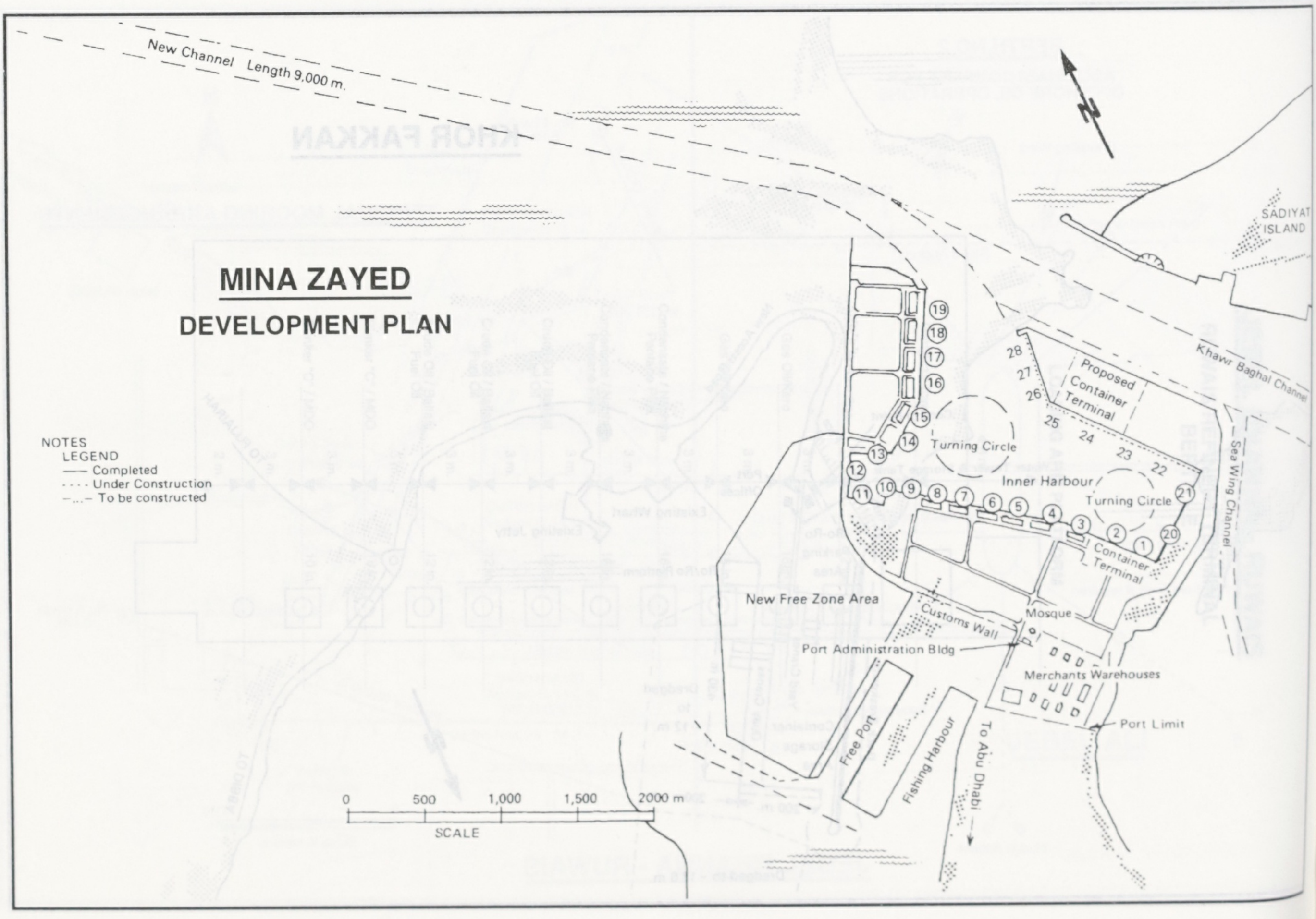
RUWAIS REFINERY TERMINAL
BERTH - E

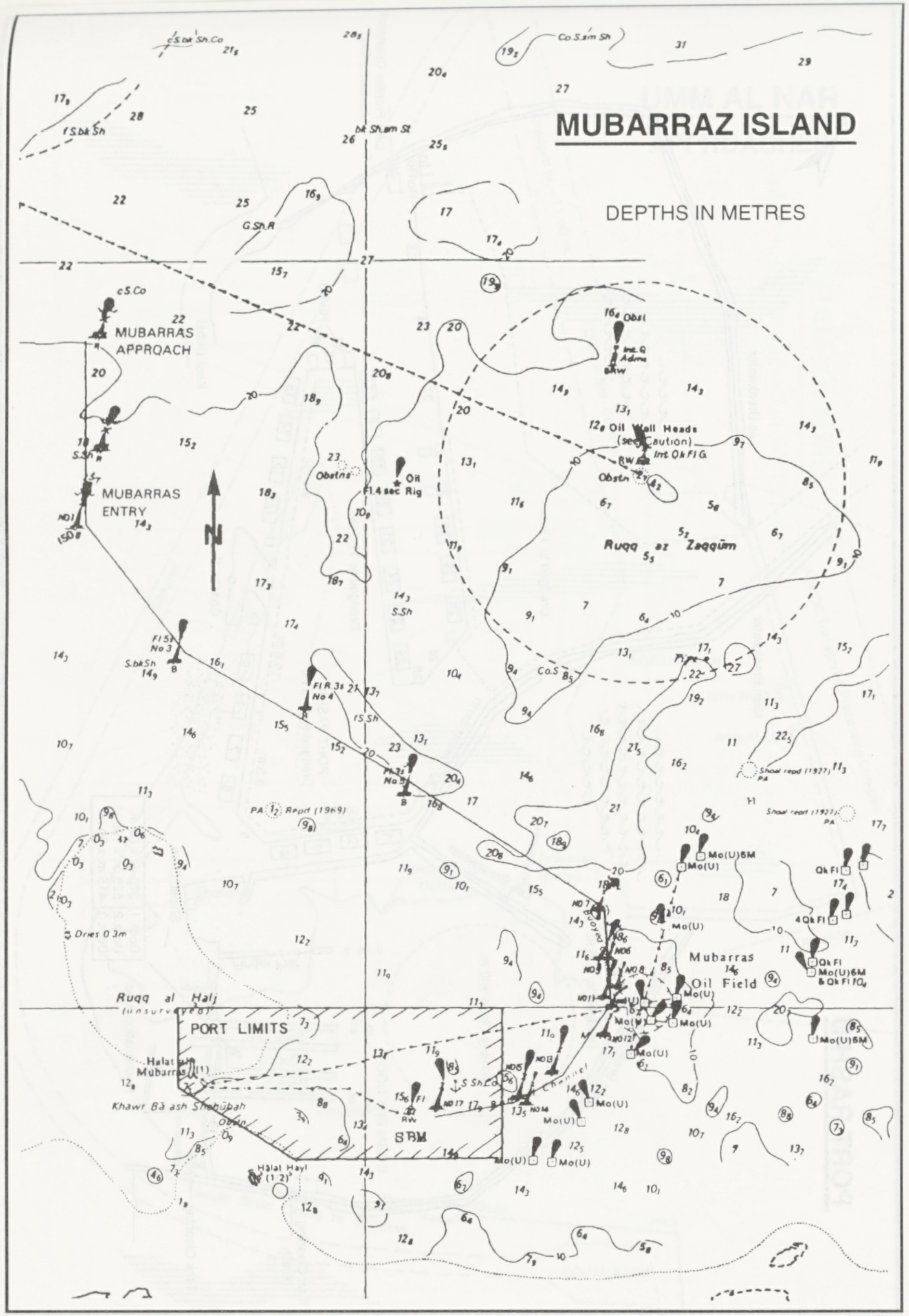

LOADING ARM PLATFORM
4.8 m.
Gangway Tower
3 m.
P & R Gasoline
12 in.
3 m.
Gas Oil/Kero
16 in.
3 m.
Gas Oil/Kero
16 in.
3 m.
Condensate / Naphtha Pentane Plus
16 in.
3 m.
Condensate / Naphtha Pentane Plus
16 in.
3 m.
Crude Oil / Ballast Fuel Oil
12 in.
3 m.
Crude Oil / Ballast Fuel Oil
12 in.
3 m.
Crude Oil / Ballast Fuel Oil
12 in.
3 m.
Bunker "C" / MDO
12 in.
3 m.
Bunker "C" / MDO
10 in.
3 m.
2 m.


JEBEL DHANNA - RUWAIS
UREA BERTH
DEPTHS IN METRES
CROSS SECTION
PLAN
Timber Edging
Sub Station
Wharf Side Cabin
Mooring Dolphin
Mooring Dolphin
Mooring Dolphin
Loader Rails
Jetty Landing Stage
Loading Area
Fender Pile
Ammonia Loading Arm
Dredged to – 12 m.
Future Conveyor
Conveyor Housing
Conveyor Gantry
Ammonia Pipes
Concrete Pile Cap
SHIPLOADER DETAILS
100 tonne Beam Bollard
Fender Pile
25,000 DWT Bulk Carrier
Support Piles
Dredged to – 12.0 m.

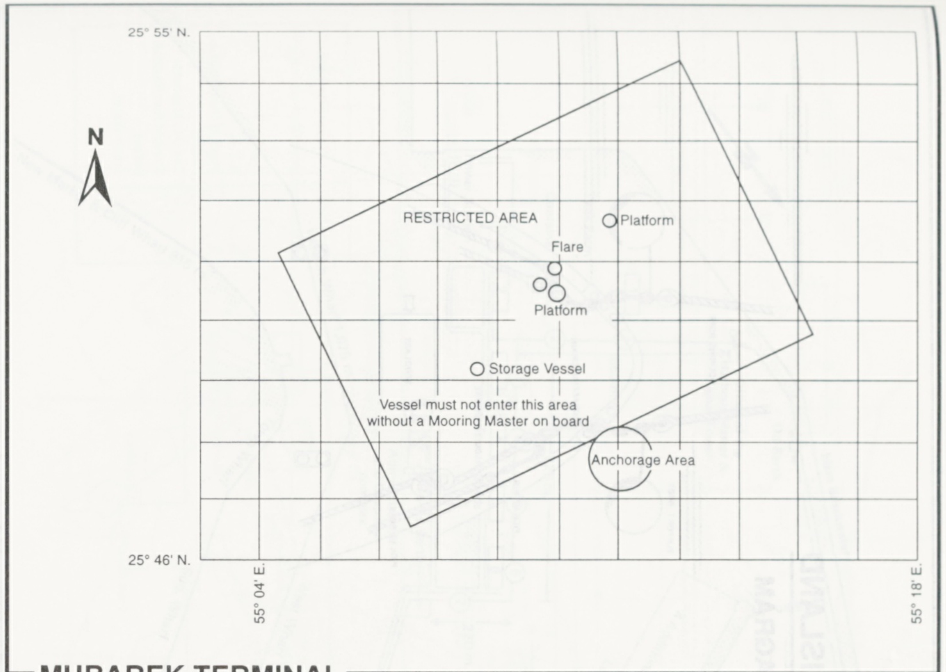

KHOR FAKKAN
New Access Road
TO FUJAIRAH
Control Point
Water Tower & Storage Tank
Finished Quarry Face
Port Offices
Existing Wharf
Existing Jetty
Ro-Ro Parking Area
Ro/Ro Platform
Yard Cranes
Quay Cranes
430 m
Dredged to – 12 m.
Rock Breakwater
Container Storage Area
200 m.
200m
Dredged to – 12.6 m.
TO DIBBA

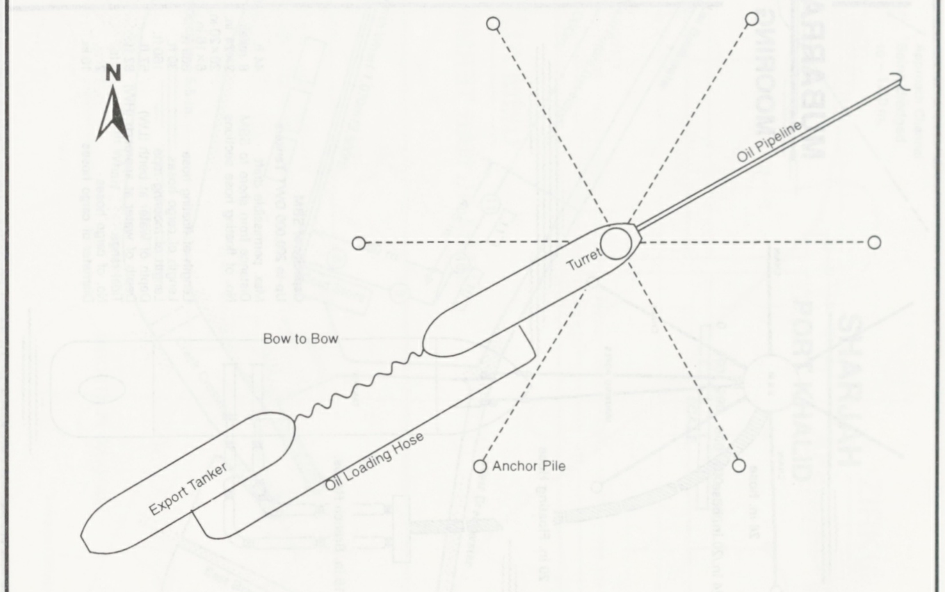

N
Storage Areas
Transit Shed No.3
Ro/Ro Ramps
Transit Shed No.2
Berth 3
Berth 4
Transit Shed No.1
Berth 2
E.G.P.C. Oil Terminal
Berth 1
Transit Shed No.5
Port Office
Max. draft 11.58 m.
Berth 5
Dredged Depth 12.2 m. L.A.T.
Berth 6
Berth 7
Bulk Cement Berth
ANCHORAGE
Berth 9
Proposed Berth No.8
30 m. contour
Aggregate Export Berth
Fishing Harbour
Dredged Depth 4.5 m at L.A.T.
20 m. contour
Pilot
Anchorage Area
Small Boat Harbour
Dredged Depth 4.5 m at L.A.T.
Gas Pipeline
MINA SAQR
0
200 Metres
SCALE


New Channel Length 9,000 m.
N
SADIYAT ISLAND
MINA ZAYED
DEVELOPMENT PLAN
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
28
27
26
25
24
23
22
21
20
Proposed Container Terminal
Khawr Baghal Channel
Sea Wing Channel
Turning Circle
Inner Harbour
Turning Circle
NOTES
LEGEND
—— Completed
- - - - Under Construction
-...- To be constructed
Container Terminal
New Free Zone Area
Customs Wall
Mosque
Port Administration Bldg
Merchants Warehouses
Port Limit
Free Port
Fishing Harbour
To Abu Dhabi
0
500
1,000
1,500
2000 m
SCALE


MUBARRAZ ISLAND
DEPTHS IN METRES
MUBARRAS APPROACH
MUBARRAS ENTRY
N
Oil Rig
Oil Well Heads (see Caution)
Ruqq az Zaqqūm
Mubarras Oil Field
Ruqq al Halj (unsurveyed)
PORT LIMITS
Halat al Mubarras
Khawr Bā ash Shubūbah
Halat Hayl
SBM
Channel
Mo(U)
Qk Fl
Obstn
Dries 0.3m

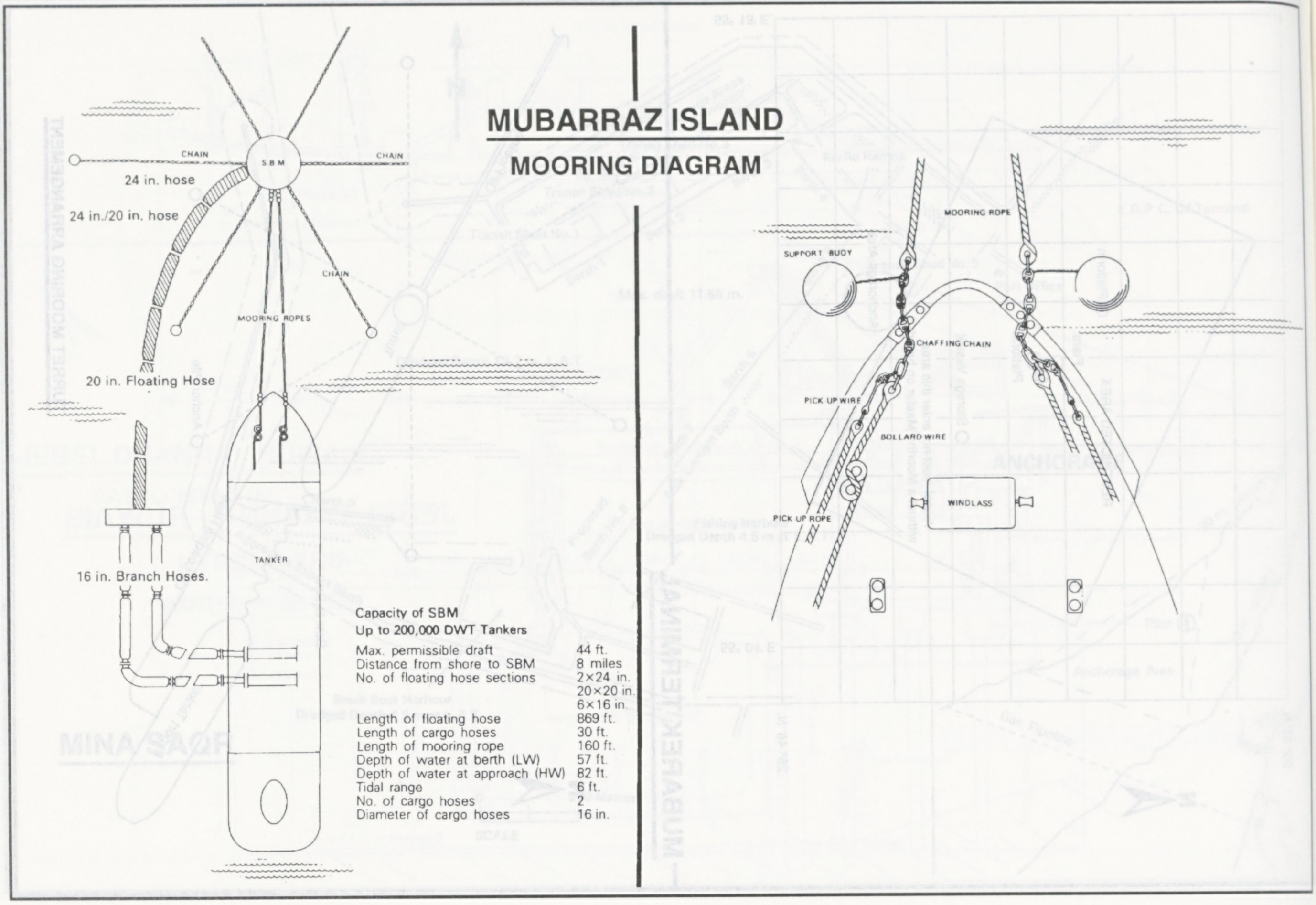
MUBAREK TERMINAL


25° 55' N.
25° 46' N.
55° 04' E.
55° 18' E.
N
RESTRICTED AREA
Platform
Flare
Platform
Storage Vessel
Vessel must not enter this area without a Mooring Master on board
Anchorage Area


N
Oil Pipeline
Turret
Bow to Bow
Anchor Pile
Oil Loading Hose
Export Tanker

TURRET MOORING ARRANGEMENT

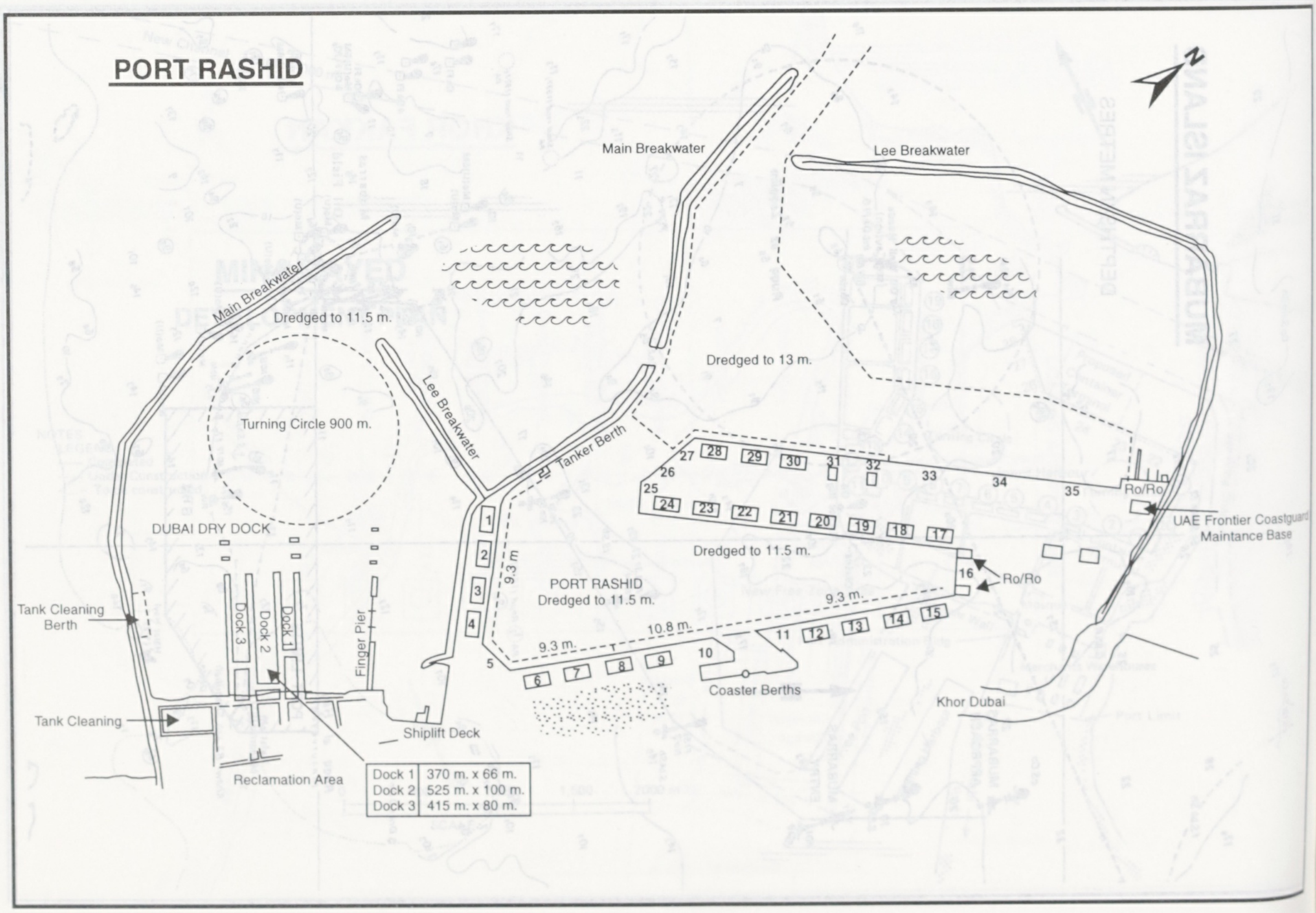
MUBARRAZ ISLAND
MOORING DIAGRAM


CHAIN
S B M
CHAIN
24 in. hose
24 in./20 in. hose
CHAIN
MOORING ROPES
20 in. Floating Hose
16 in. Branch Hoses.
TANKER
MOORING ROPE
SUPPORT BUOY
CHAFFING CHAIN
PICK-UP WIRE
BOLLARD WIRE
WINDLASS
PICK UP ROPE

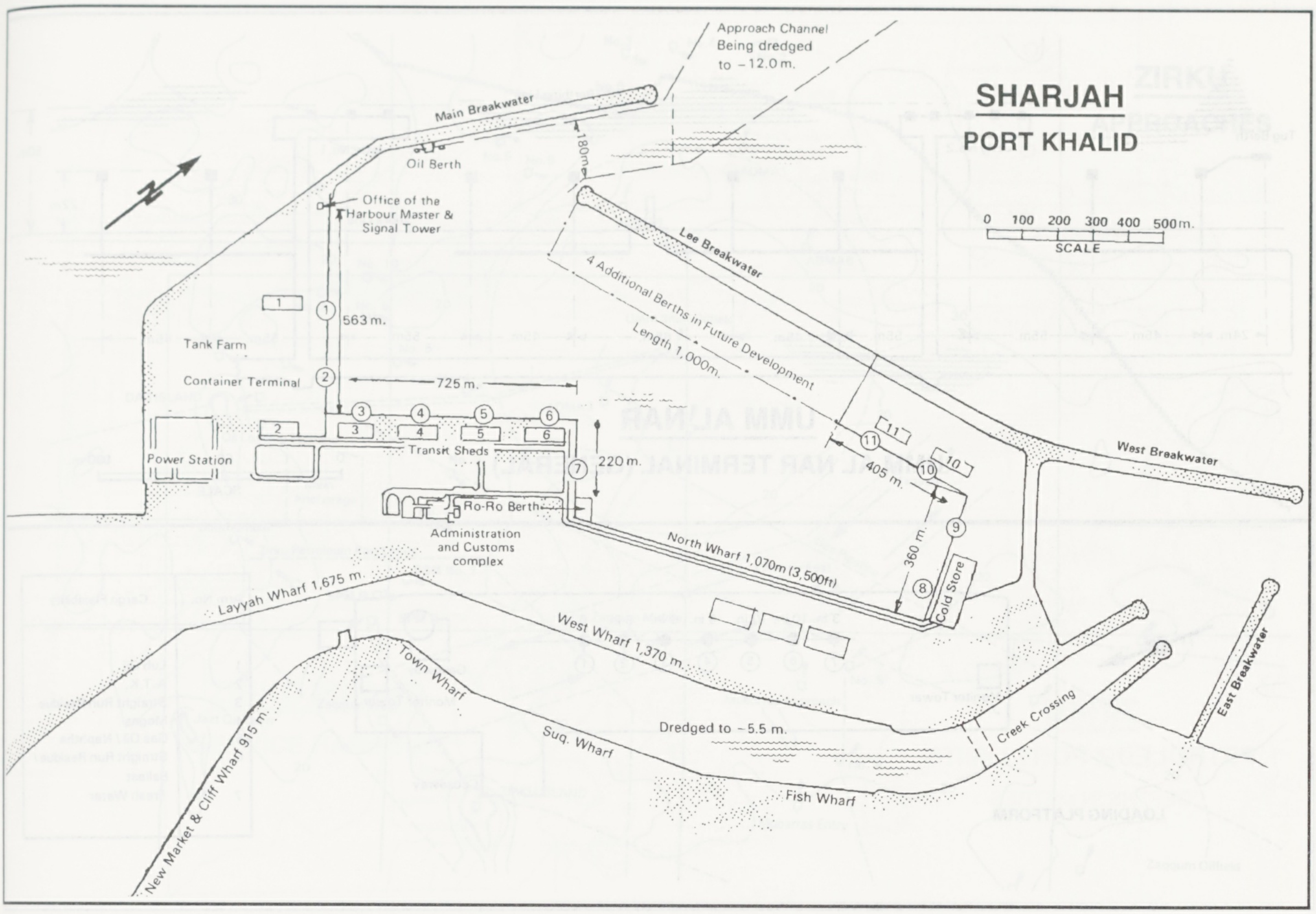
Capacity of SBM
Up to 200,000 DWT Tankers

Max. permissible draft	44 ft.
Distance from shore to SBM	8 miles
No. of floating hose sections	2×24 in. 20×20 in. 6×16 in.
Length of floating hose	869 ft.
Length of cargo hoses	30 ft.
Length of mooring rope	160 ft.
Depth of water at berth (LW)	57 ft.
Depth of water at approach (HW)	82 ft.
Tidal range	6 ft.
No. of cargo hoses	2
Diameter of cargo hoses	16 in.

PORT RASHID


N
Main Breakwater
Lee Breakwater
Main Breakwater
Dredged to 11.5 m.
Dredged to 13 m.
Turning Circle 900 m.
Lee Breakwater
Tanker Berth
DUBAI DRY DOCK
Dock 3
Dock 2
Dock 1
Finger Pier
Tank Cleaning Berth
Tank Cleaning
Shiplift Deck
Reclamation Area
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
9.3 m.
PORT RASHID
Dredged to 11.5 m.
Dredged to 11.5 m.
9.3 m.
10.8 m.
9.3 m.
Coaster Berths
Ro/Ro
Ro/Ro
UAE Frontier Coastguard Maintance Base
Khor Dubai

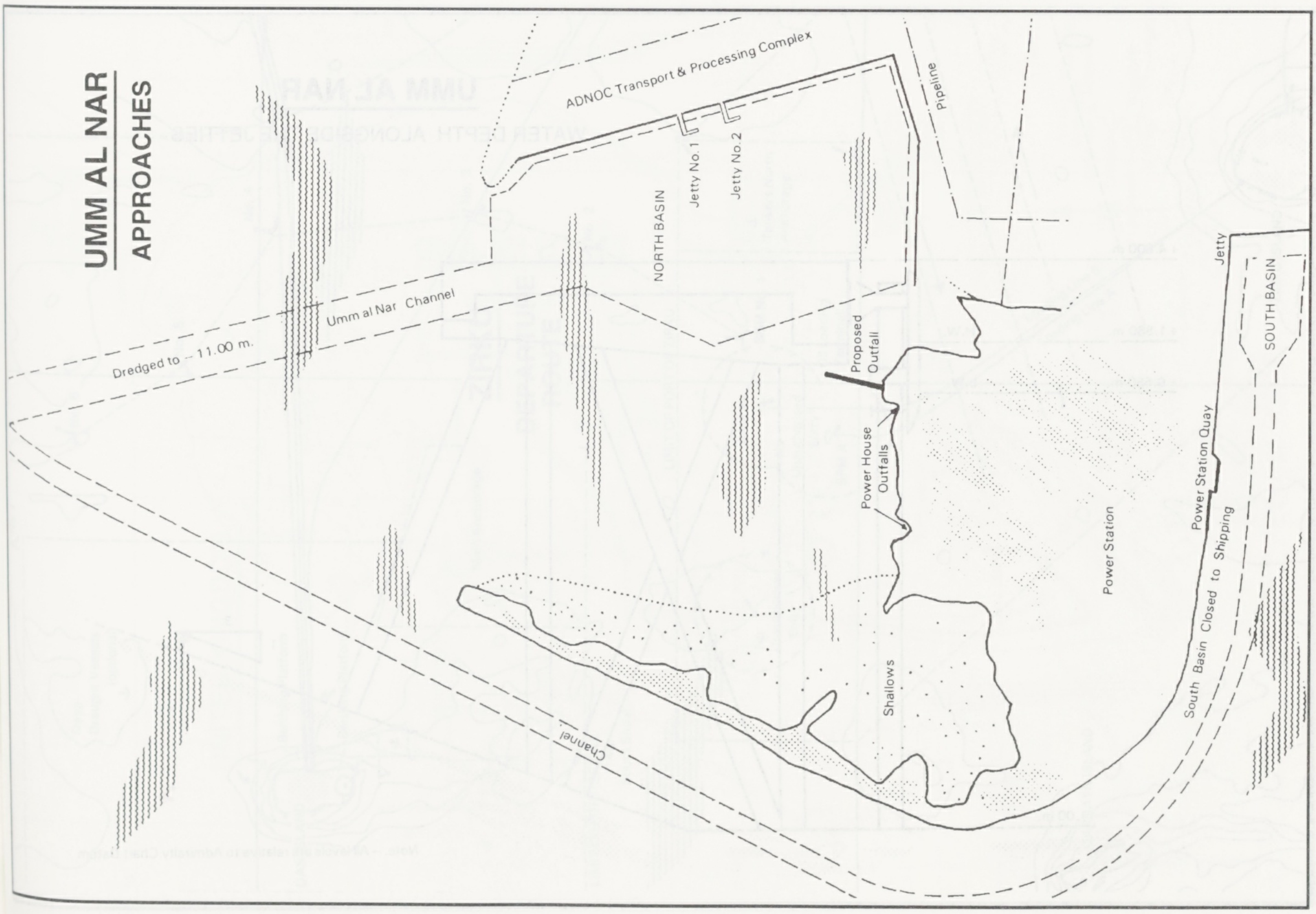
Dock 1	370 m. x 66 m.
Dock 2	525 m. x 100 m.
Dock 3	415 m. x 80 m.



SHARJAH

PORT KHALID

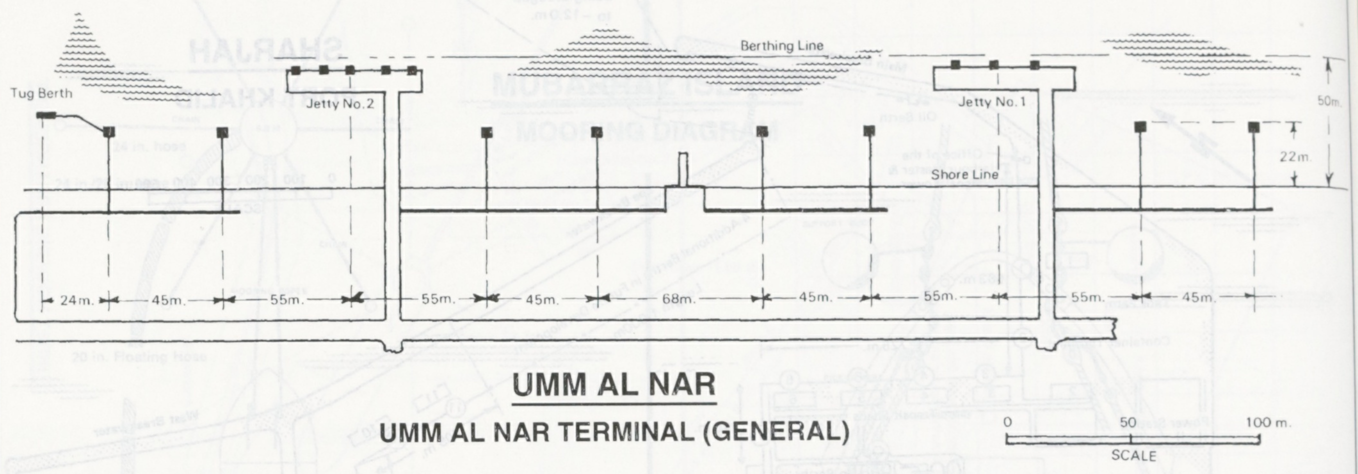
Approach Channel
Being dredged
to −12.0 m.
Main Breakwater
Oil Berth
180m.
Office of the
Harbour Master &
Signal Tower
Lee Breakwater
4 Additional Berths in Future Development
Length 1,000m.
0 100 200 300 400 500m.
SCALE
1
563 m.
Tank Farm
Container Terminal
725 m.
2
3
4
5
6
Transit Sheds
Power Station
220 m.
7
Ro-Ro Berth
Administration
and Customs
complex
11
10
405 m.
9
360 m.
8
Cold Store
West Breakwater
North Wharf 1,070m (3,500ft)
Layyah Wharf 1,675 m.
West Wharf 1,370 m.
Town Wharf
New Market & Cliff Wharf 915 m.
Suq. Wharf
Dredged to −5.5 m.
Fish Wharf
Creek Crossing
East Breakwater



UMM AL NAR

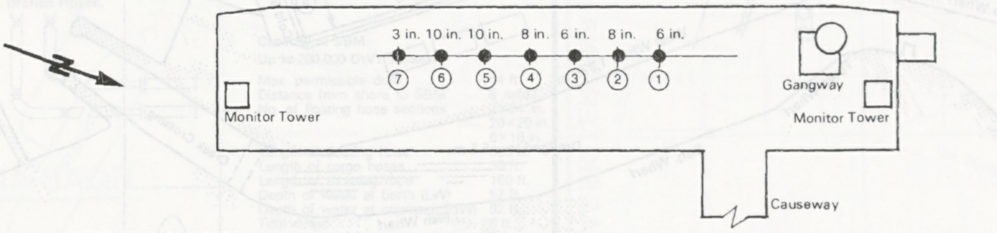
APPROACHES

ADNOC Transport & Processing Complex
Pipeline
Jetty No. 1
Jetty No. 2
NORTH BASIN
Umm al Nar Channel
Dredged to −11.00 m.
Proposed
Outfall
Power House
Outfalls
Jetty
SOUTH BASIN
Power Station Quay
Power Station
South Basin Closed to Shipping
Shallows
Channel


Tug Berth
Jetty No.2
Berthing Line
Jetty No.1
Shore Line
50m.
22m.
24m.
45m.
55m.
55m.
45m.
68m.
45m.
55m.
55m.
45m.
0
50
100 m.
SCALE

UMM AL NAR

UMM AL NAR TERMINAL (GENERAL)

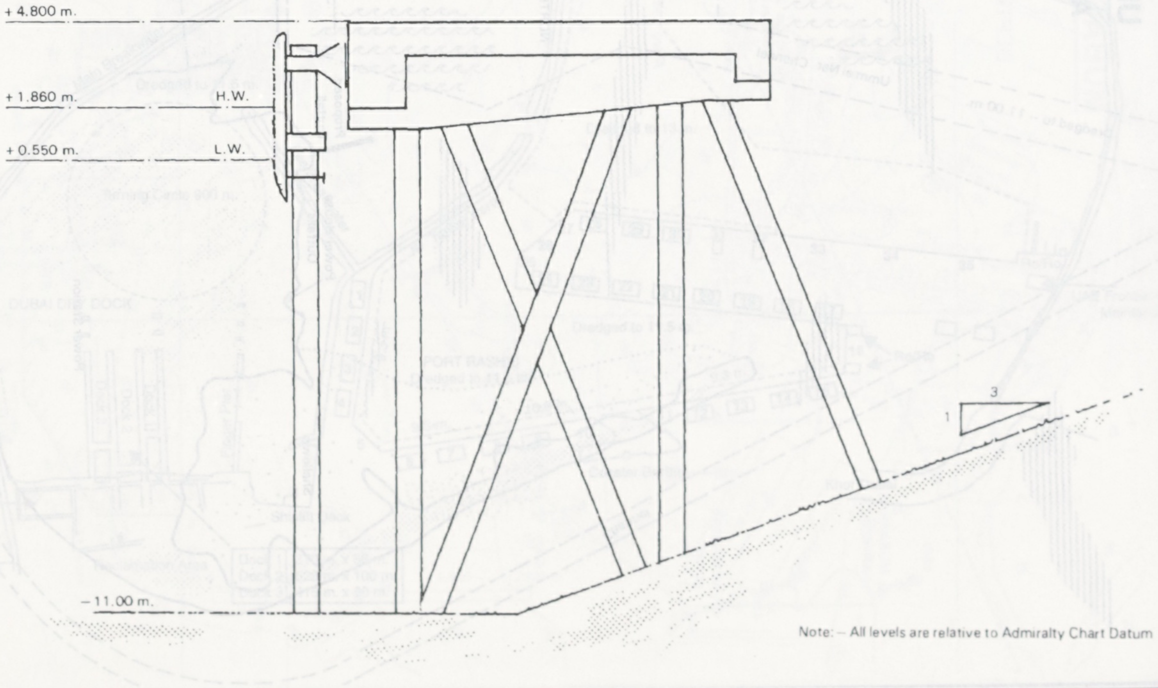

3 in.
10 in.
10 in.
8 in.
6 in.
8 in.
6 in.
7
6
5
4
3
2
1
Monitor Tower
Gangway
Monitor Tower
Causeway

LOADING PLATFORM

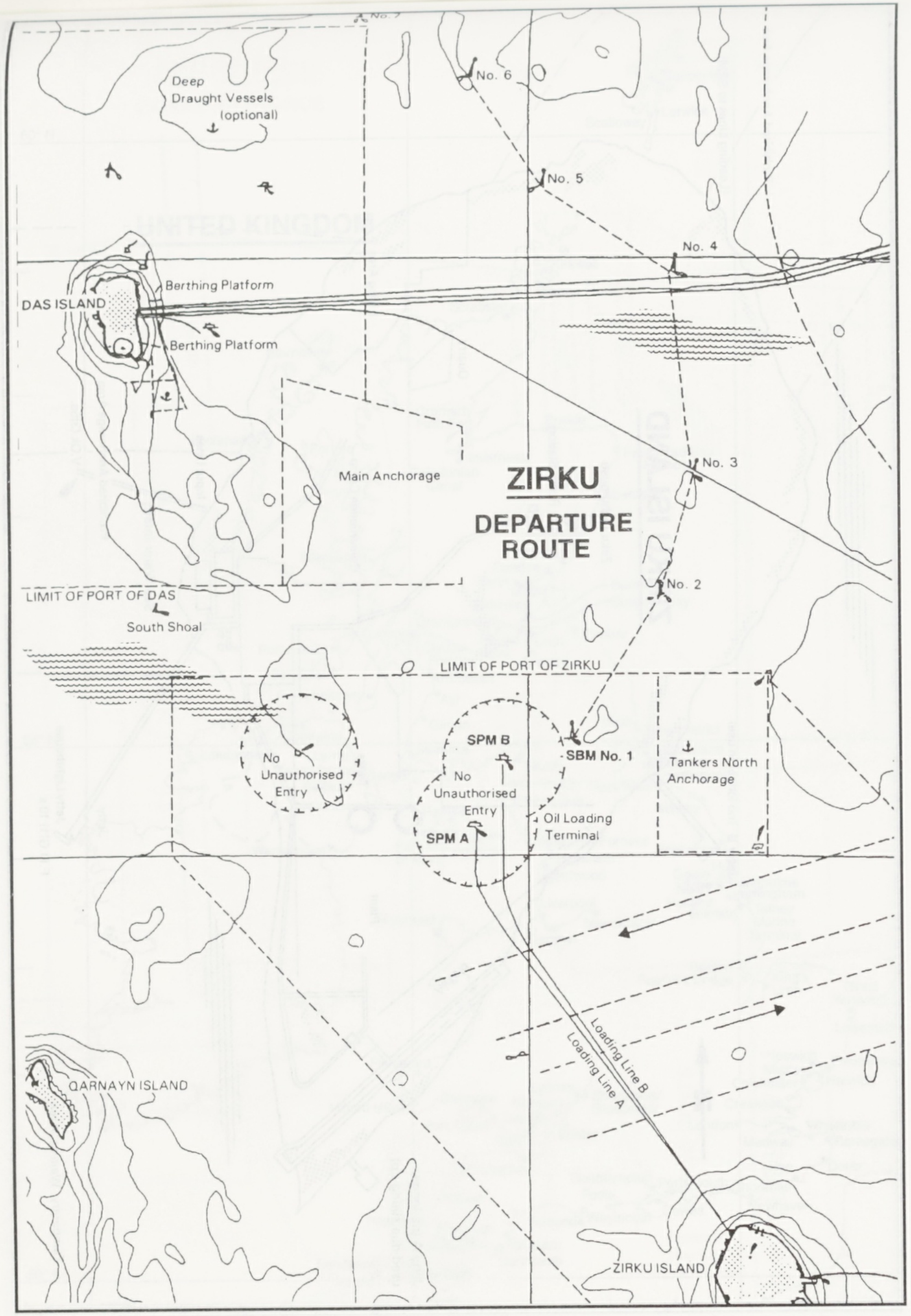
Arm No.	Cargo Flexibility
1	Lub Oil
2	A.T.K.
3	Straight Run Residue
4	Mogas
5	Gas Oil / Naphtha
6	Straight Run Residue / Ballast
7	Fresh Water

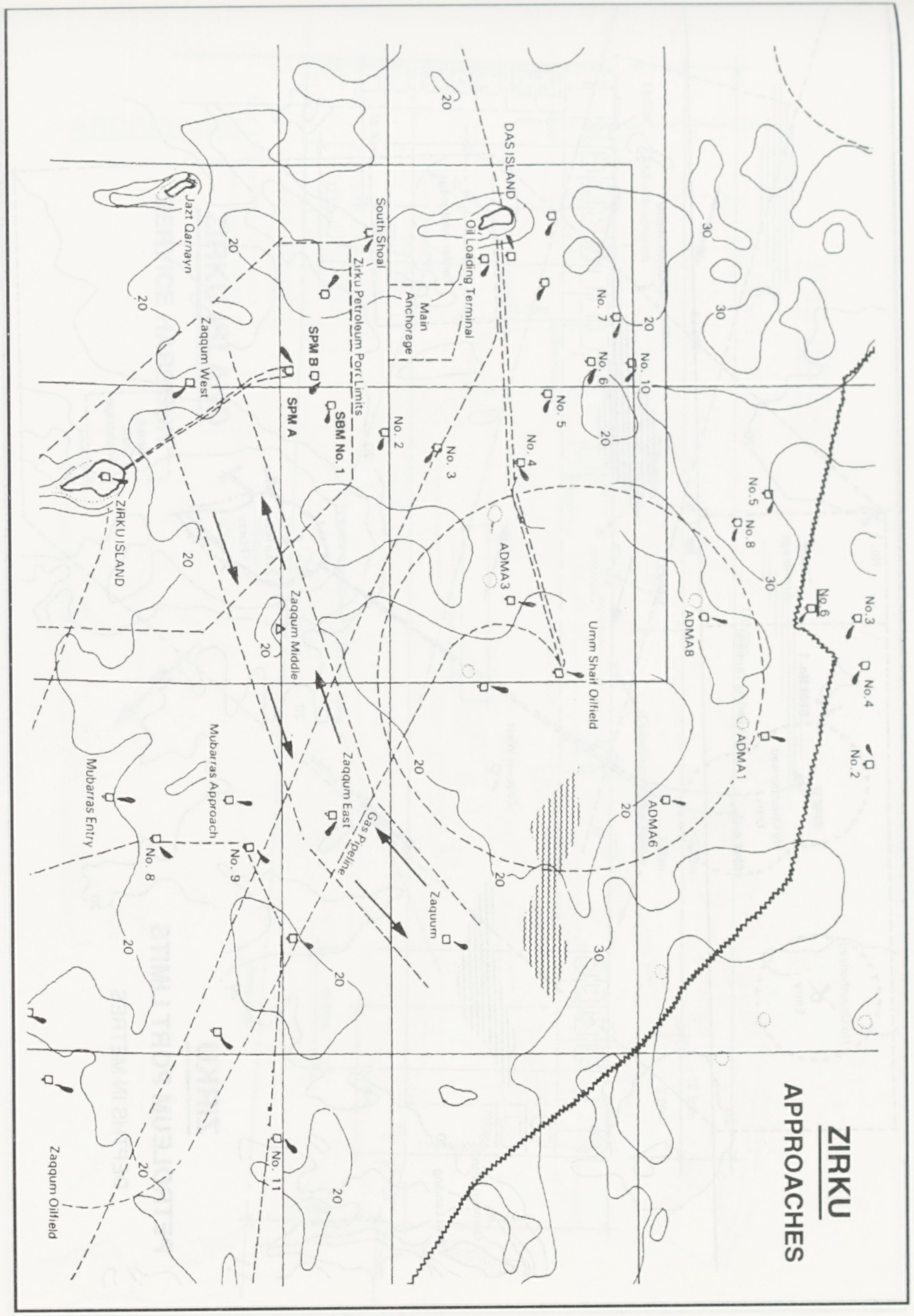
UMM AL NAR

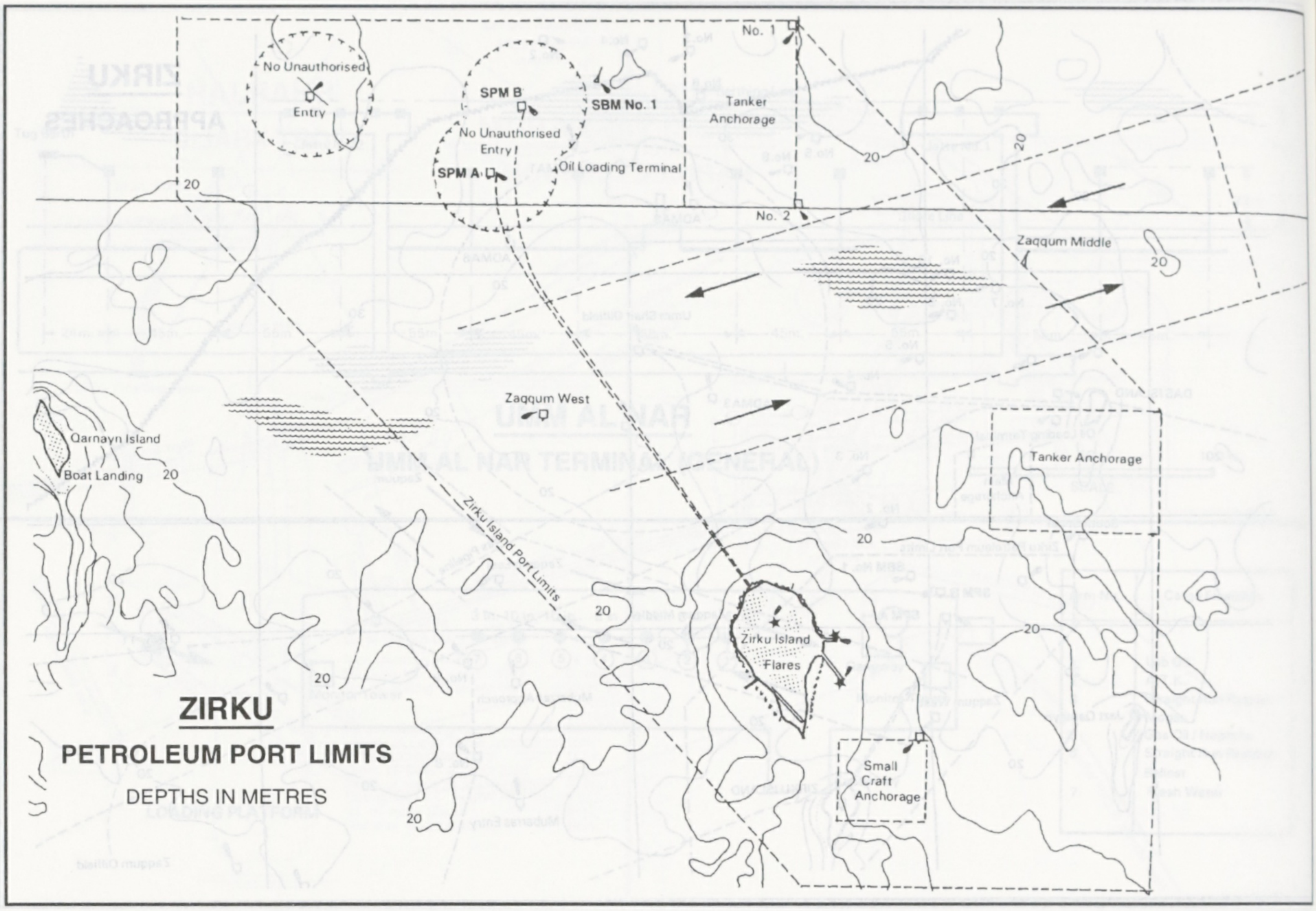
WATER DEPTH ALONGSIDE THE JETTIES

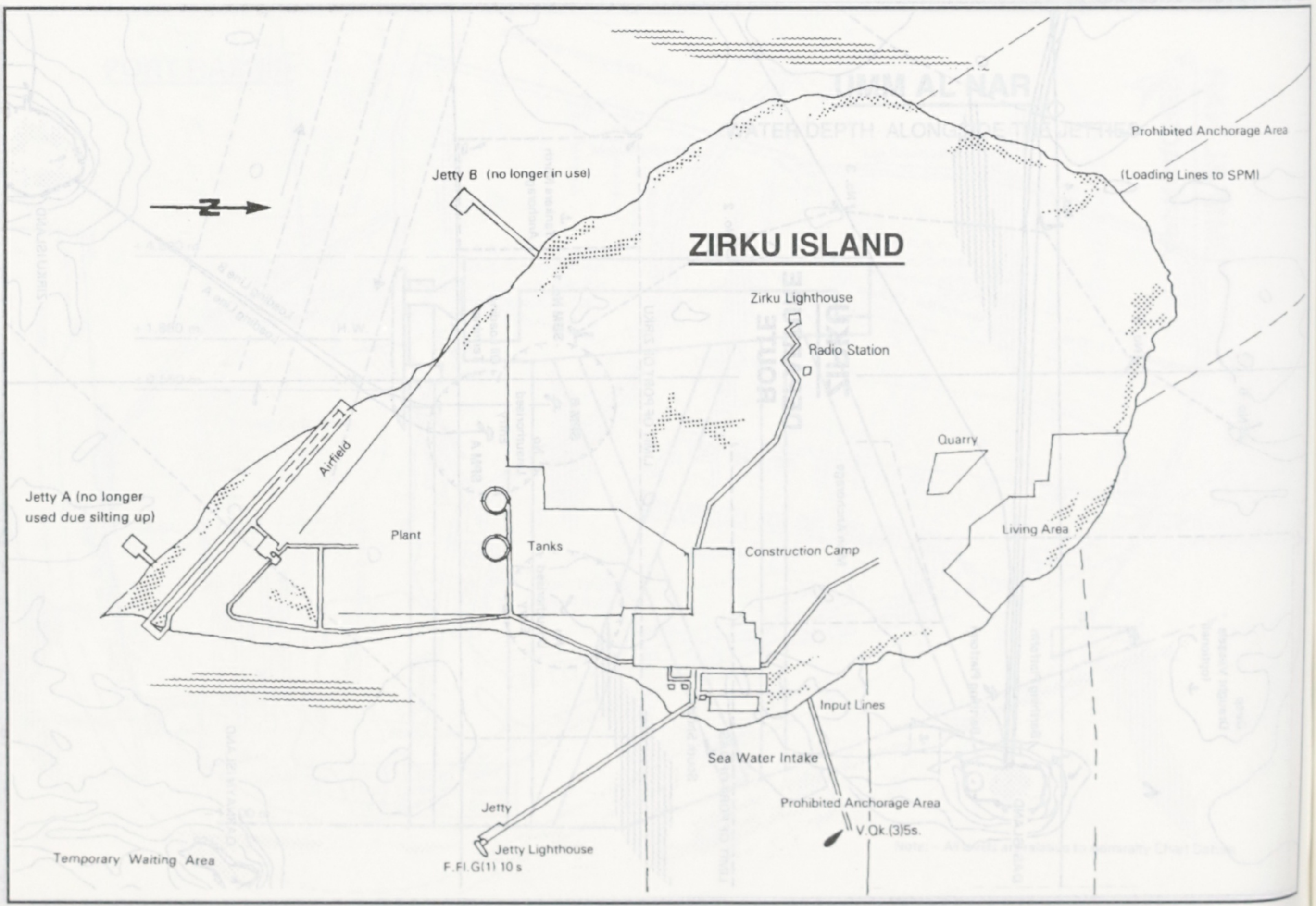

+ 4.800 m.
+ 1.860 m.
H.W.
+ 0.550 m.
L.W.
– 11.00 m.
3
1

Note: – All levels are relative to Admiralty Chart Datum

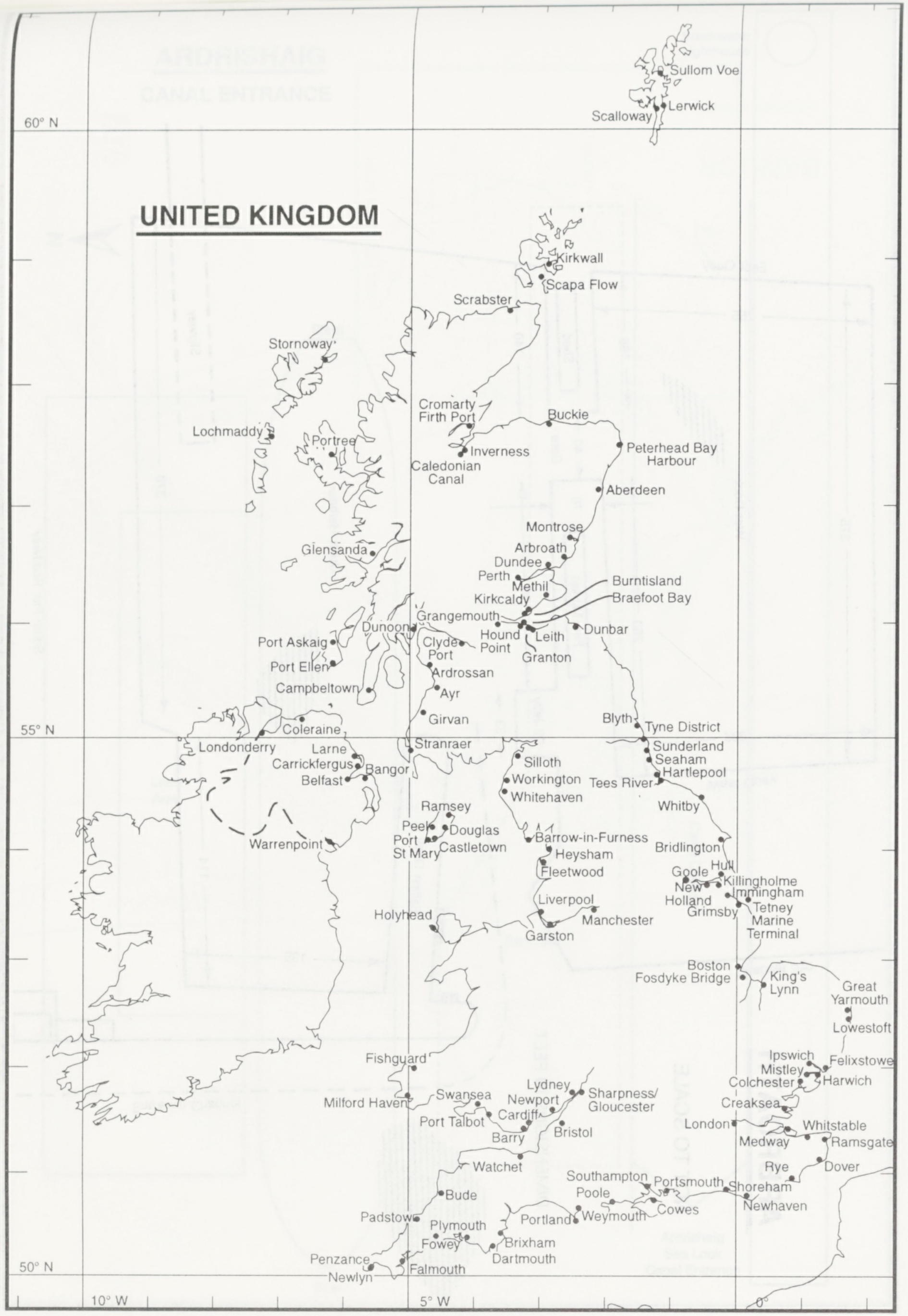

ZIRKU
DEPARTURE ROUTE
Deep Draught Vessels (optional)
No. 7
No. 6
No. 5
No. 4
No. 3
No. 2
DAS ISLAND
Berthing Platform
Berthing Platform
Main Anchorage
LIMIT OF PORT OF DAS
South Shoal
LIMIT OF PORT OF ZIRKU
No Unauthorised Entry
SPM B
SBM No. 1
No Unauthorised Entry
SPM A
Oil Loading Terminal
Tankers North Anchorage
Loading Line B
Loading Line A
QARNAYN ISLAND
ZIRKU ISLAND


ZIRKU
APPROACHES
DAS ISLAND
Oil Loading Terminal
Main Anchorage
South Shoal
Zirku Petroleum Port Limits
Jazt Qarnayn
Zaqqum West
SPM B
SPM A
SBM No. 1
ZIRKU ISLAND
Zaqqum Middle
Zaqqum East
Gas Pipeline
Zaqqum
Mubarras Approach
Mubarras Entry
Zaqqum Oilfield
Umm Shaif Oilfield
ADMA3
ADMA8
ADMA1
ADMA6
No. 2
No. 3
No. 4
No. 5
No. 6
No. 7
No. 8
No. 9
No. 10
No. 11
20
30


No Unauthorised
Entry
SPM B
SBM No. 1
No Unauthorised
Entry
SPM A
Oil Loading Terminal
No. 1
Tanker
Anchorage
No. 2
20
Zaqqum Middle
Zaqqum West
Qarnayn Island
Boat Landing
Zirku Island Port Limits
Tanker Anchorage
Zirku Island
Flares
Small
Craft
Anchorage
ZIRKU
PETROLEUM PORT LIMITS
DEPTHS IN METRES

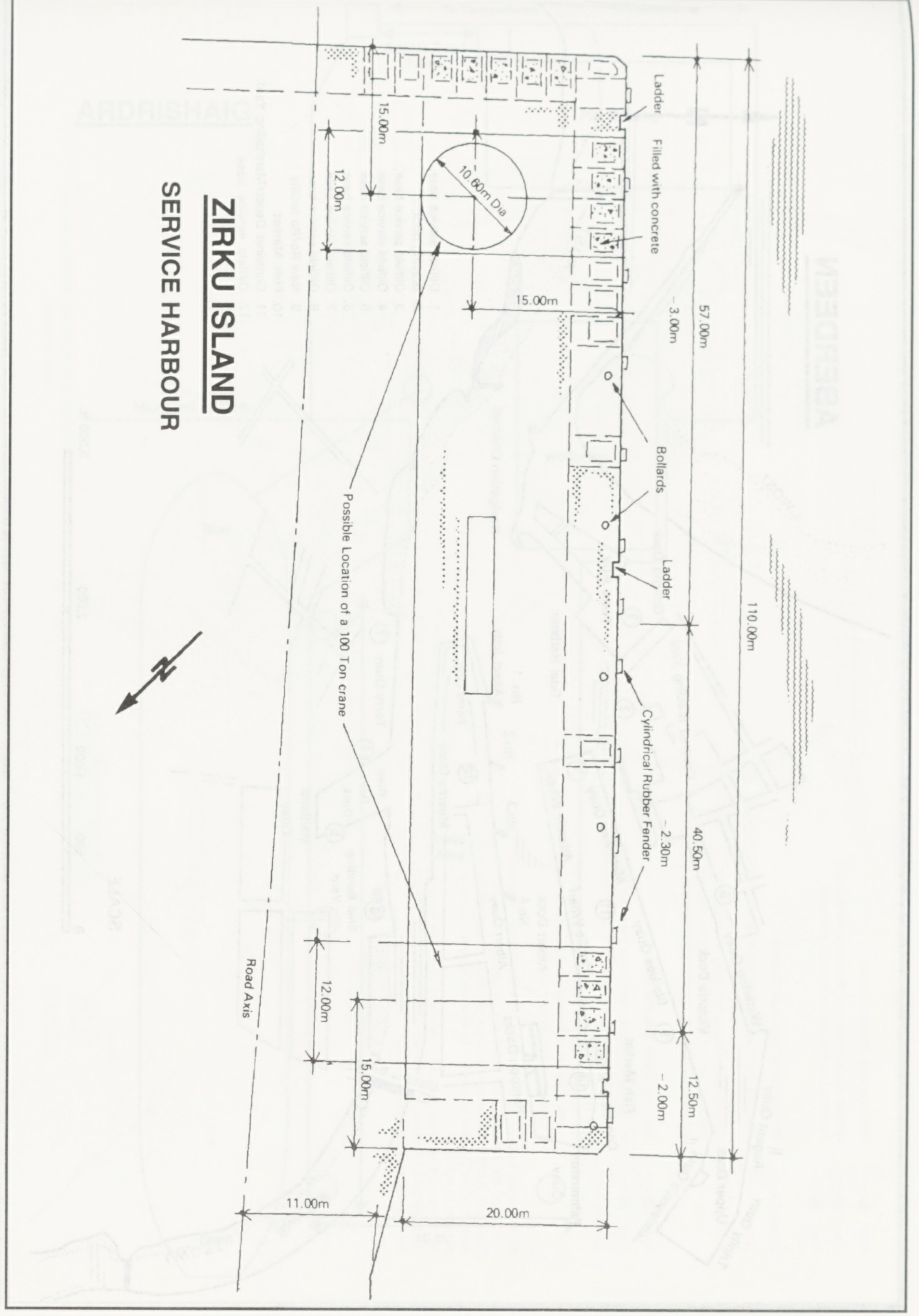

ZIRKU ISLAND
N
Jetty B (no longer in use)
Prohibited Anchorage Area
(Loading Lines to SPM)
Zirku Lighthouse
Radio Station
Quarry
Airfield
Jetty A (no longer
used due silting up)
Plant
Tanks
Construction Camp
Living Area
Input Lines
Sea Water Intake
Prohibited Anchorage Area
V.Qk.(3)5s.
Jetty
Jetty Lighthouse
F.Fl.G(1) 10 s
Temporary Waiting Area

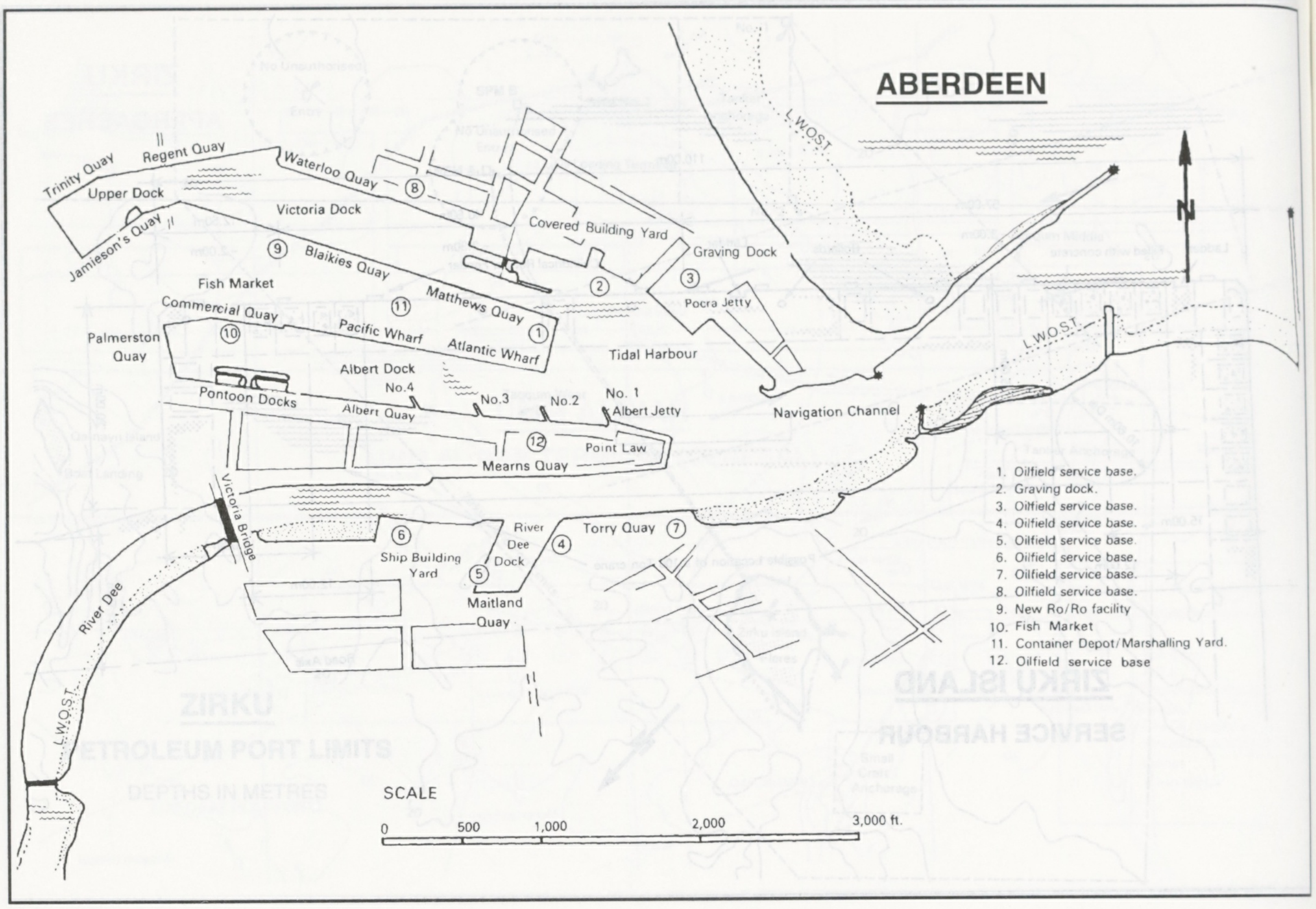
UNITED KINGDOM

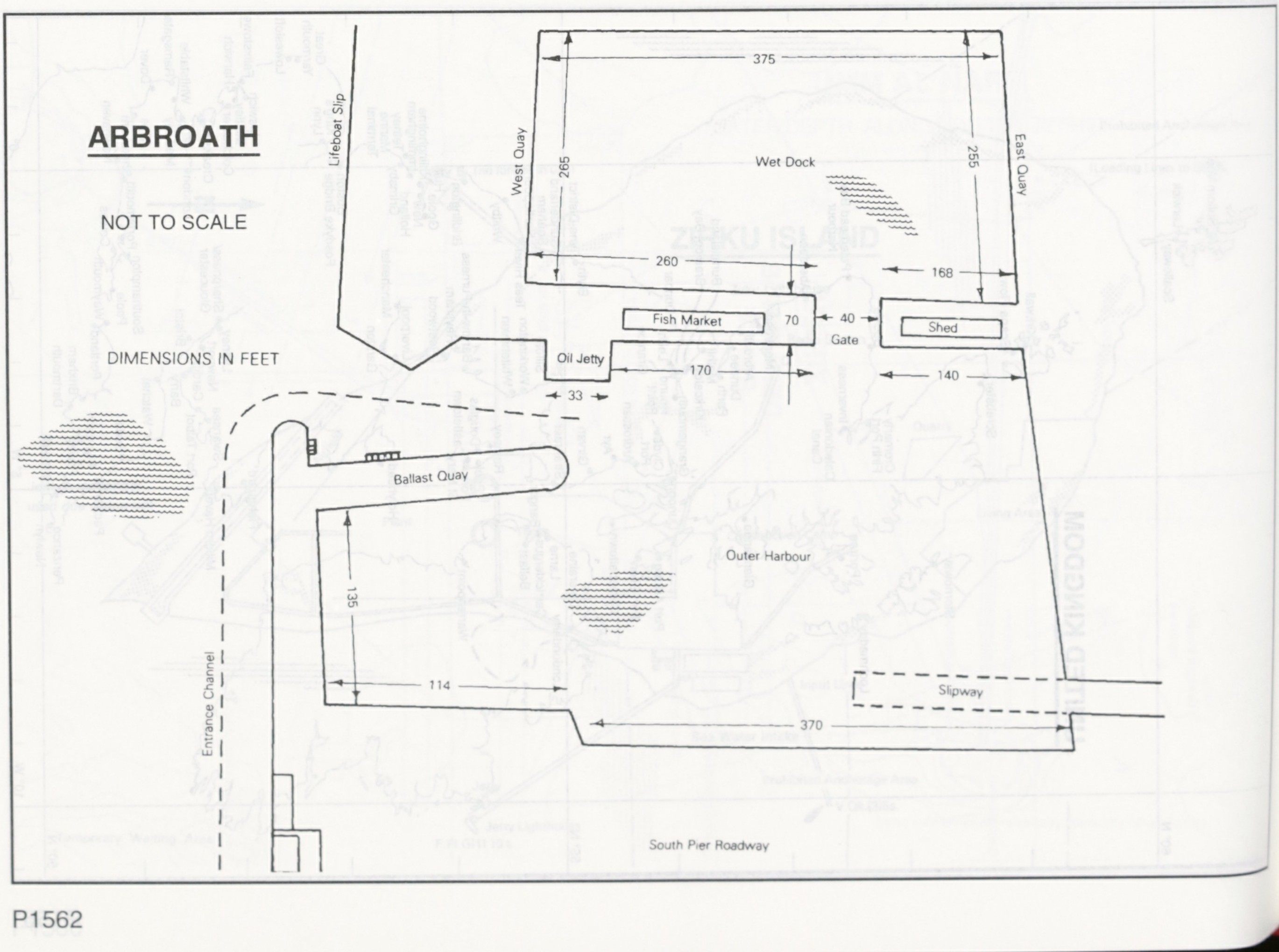

60° N
55° N
50° N
10° W
5° W
0°
Sullom Voe
Lerwick
Scalloway
Kirkwall
Scapa Flow
Scrabster
Stornoway
Lochmaddy
Portree
Cromarty Firth Port
Inverness
Caledonian Canal
Buckie
Peterhead Bay Harbour
Aberdeen
Montrose
Arbroath
Dundee
Perth
Methil
Kirkcaldy
Burntisland
Braefoot Bay
Glensanda
Grangemouth
Hound Point
Leith
Granton
Dunbar
Dunoon
Clyde Port
Ardrossan
Ayr
Girvan
Port Askaig
Port Ellen
Campbeltown
Coleraine
Londonderry
Larne
Carrickfergus
Bangor
Belfast
Warrenpoint
Stranraer
Blyth
Tyne District
Sunderland
Seaham
Hartlepool
Tees River
Whitby
Silloth
Workington
Whitehaven
Ramsey
Peel
Douglas
Port St Mary
Castletown
Barrow-in-Furness
Heysham
Fleetwood
Bridlington
Goole
Hull
New Holland
Killingholme
Immingham
Grimsby
Tetney Marine Terminal
Liverpool
Garston
Manchester
Holyhead
Boston
Fosdyke Bridge
King's Lynn
Great Yarmouth
Lowestoft
Ipswich
Mistley
Felixstowe
Harwich
Colchester
Creaksea
Fishguard
Milford Haven
Swansea
Port Talbot
Lydney
Sharpness/Gloucester
Newport
Cardiff
Barry
Bristol
London
Medway
Whitstable
Ramsgate
Dover
Rye
Shoreham
Newhaven
Watchet
Bude
Padstow
Southampton
Poole
Portsmouth
Cowes
Portland
Weymouth
Plymouth
Fowey
Brixham
Dartmouth
Penzance
Newlyn
Falmouth

ZIRKU ISLAND

SERVICE HARBOUR

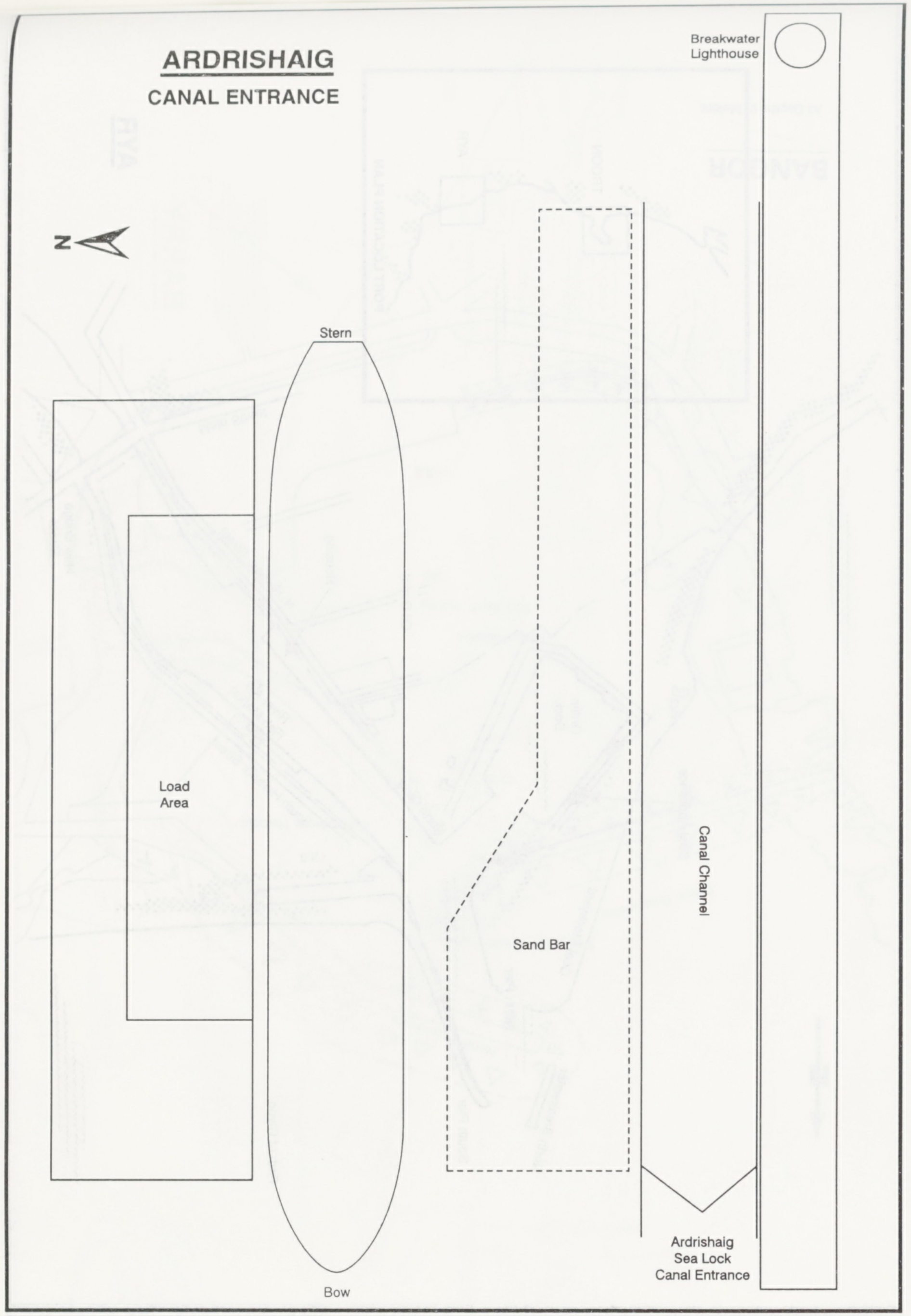

Ladder
Filled with concrete
15.00m
12.00m
10.60m Dia
15.00m
~3.00m
57.00m
110.00m
Bollards
Ladder
Possible Location of a 100 Ton crane
Cylindrical Rubber Fender
~2.30m
40.50m
12.00m
15.00m
~2.00m
12.50m
Road Axis
11.00m
20.00m


ABERDEEN
Trinity Quay
Regent Quay
Upper Dock
Waterloo Quay
Jamieson's Quay
Victoria Dock
Covered Building Yard
Graving Dock
Blaikies Quay
Fish Market
Matthews Quay
Pocra Jetty
Commercial Quay
Pacific Wharf
Palmerston Quay
Atlantic Wharf
Tidal Harbour
Albert Dock
No.4
No.3
No.2
No. 1
Albert Jetty
Pontoon Docks
Albert Quay
Navigation Channel
Point Law
Mearns Quay
Victoria Bridge
River Dee
Dock
Torry Quay
Ship Building Yard
Maitland Quay
River Dee
L.W.O.S.T.
SCALE
0
500
1,000
2,000
3,000 ft.
N
1. Oilfield service base.
2. Graving dock.
3. Oilfield service base.
4. Oilfield service base.
5. Oilfield service base.
6. Oilfield service base.
7. Oilfield service base.
8. Oilfield service base.
9. New Ro/Ro facility
10. Fish Market
11. Container Depot/Marshalling Yard.
12. Oilfield service base

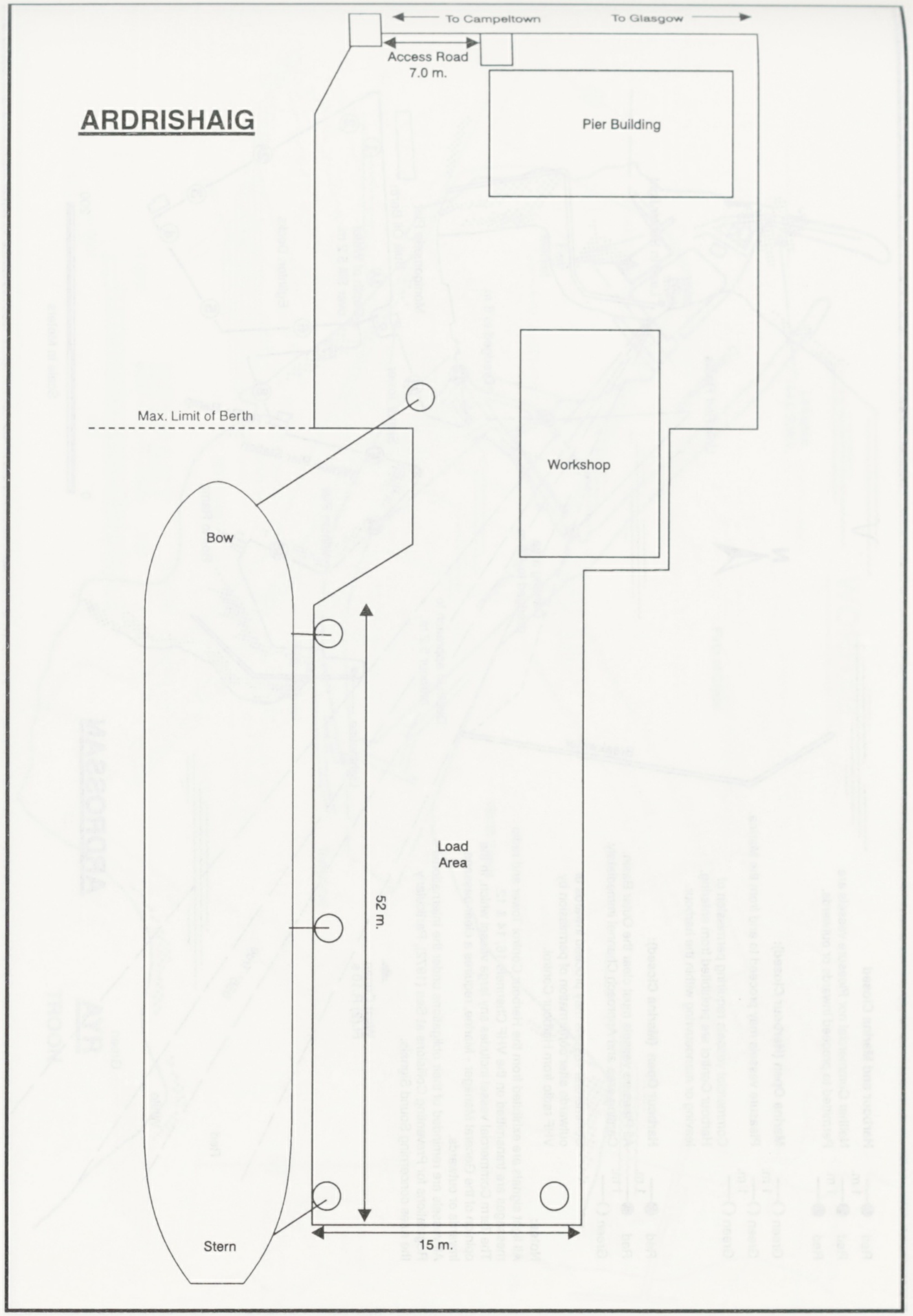

ARBROATH
NOT TO SCALE
DIMENSIONS IN FEET
Lifeboat Slip
West Quay
265
375
Wet Dock
255
East Quay
260
168
Fish Market
70
40
Gate
Shed
Oil Jetty
170
140
33
Ballast Quay
135
Outer Harbour
114
Slipway
370
Entrance Channel
South Pier Roadway

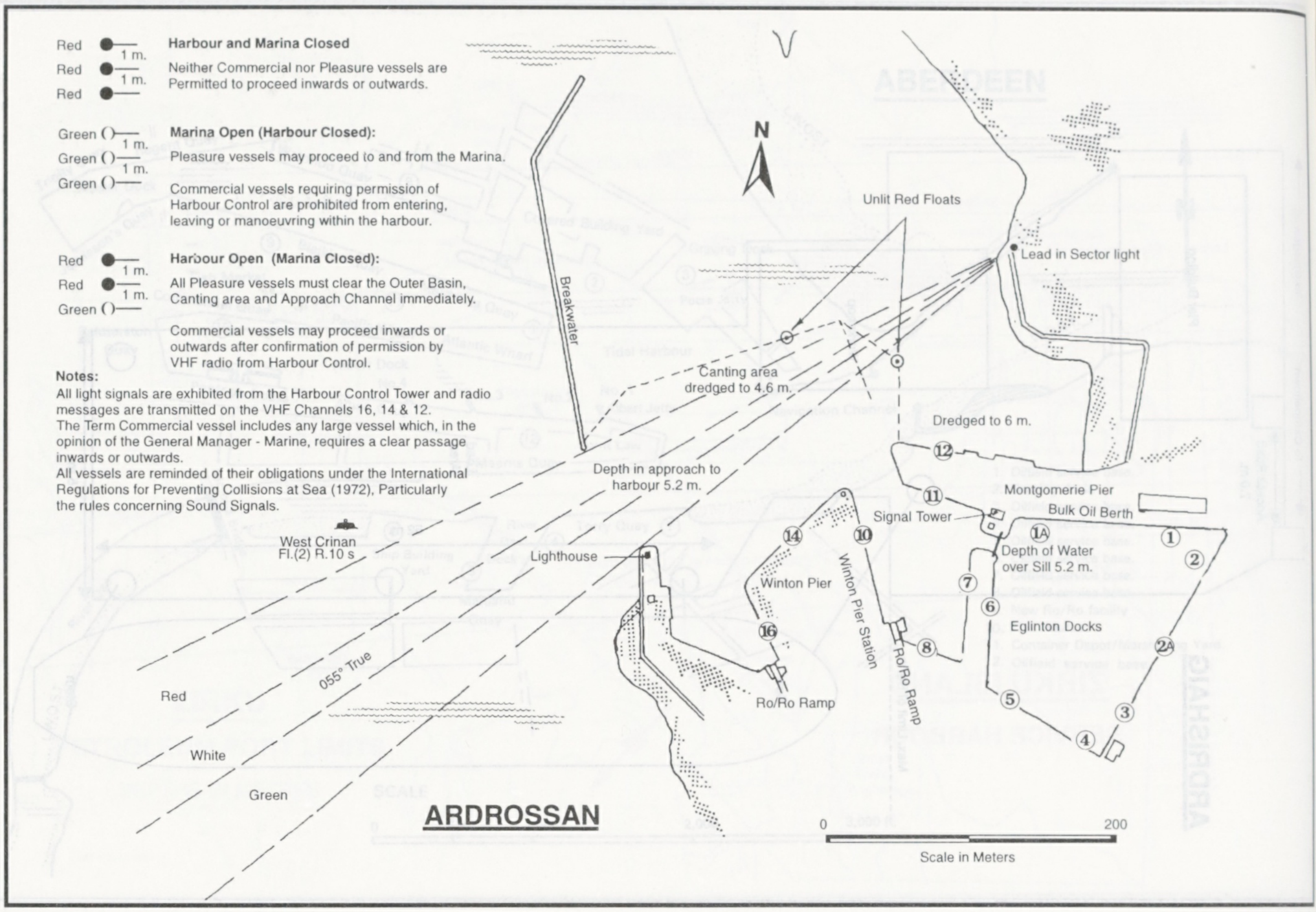
ARDRISHAIG

CANAL ENTRANCE


N
Breakwater
Lighthouse
Stern
Load
Area
Sand Bar
Canal Channel
Ardrishaig
Sea Lock
Canal Entrance
Bow

ARDRISHAIG


To Campeltown
To Glasgow
Access Road
7.0 m.
Pier Building
Max. Limit of Berth
Workshop
Bow
Load
Area
52 m.
Stern
15 m.



Red ● 1 m. Red ● 1 m. Red ●

Harbour and Marina Closed

Neither Commercial nor Pleasure vessels are Permitted to proceed inwards or outwards.

Green ○ 1 m. Green ○ 1 m. Green ○

Marina Open (Harbour Closed):

Pleasure vessels may proceed to and from the Marina.

Commercial vessels requiring permission of Harbour Control are prohibited from entering, leaving or manoeuvring within the harbour.

Red ● 1 m. Red ● 1 m. Green ○

Harbour Open (Marina Closed):

All Pleasure vessels must clear the Outer Basin, Canting area and Approach Channel immediately.

Commercial vessels may proceed inwards or outwards after confirmation of permission by VHF radio from Harbour Control.

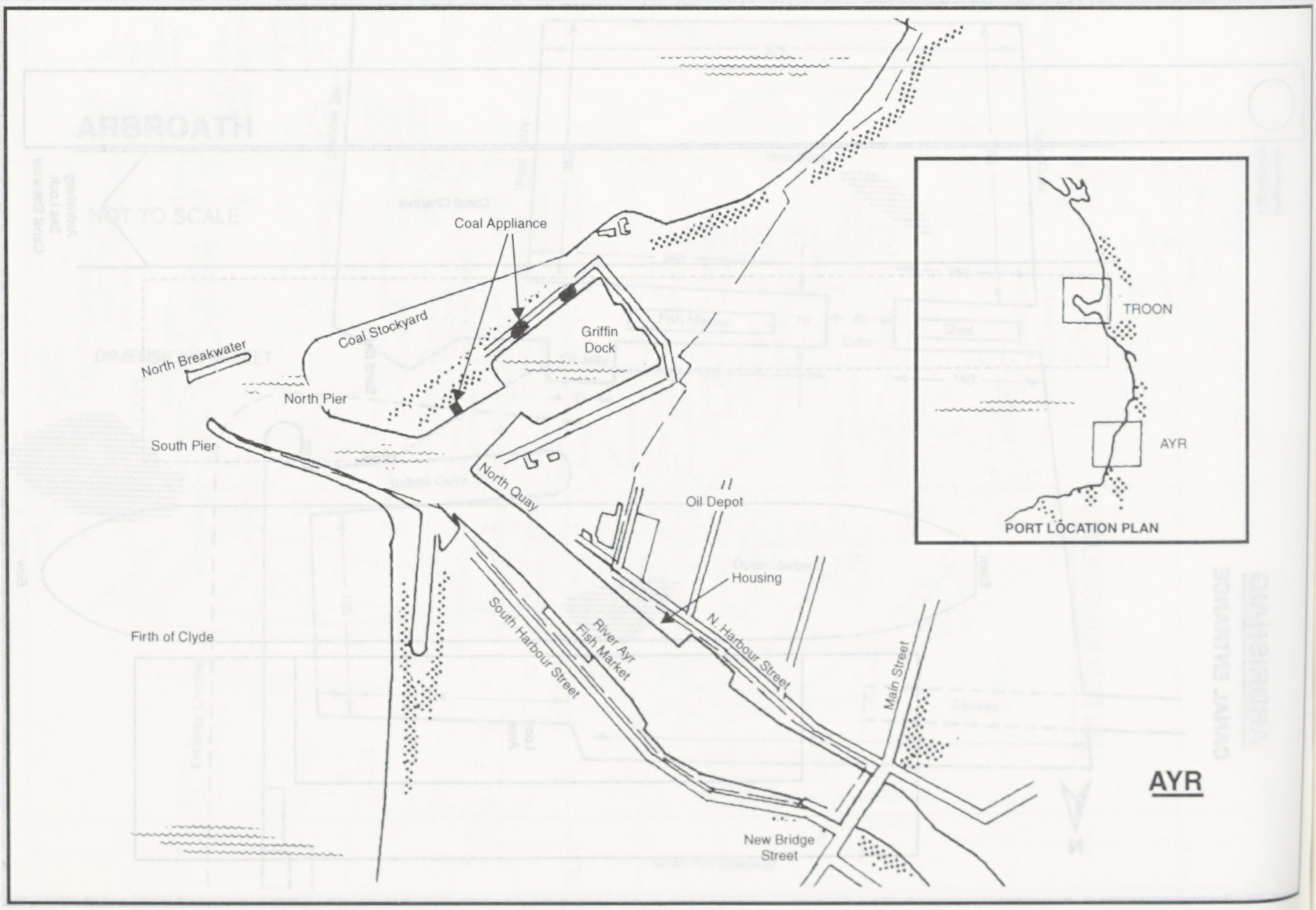
Notes:

All light signals are exhibited from the Harbour Control Tower and radio messages are transmitted on the VHF Channels 16, 14 & 12.

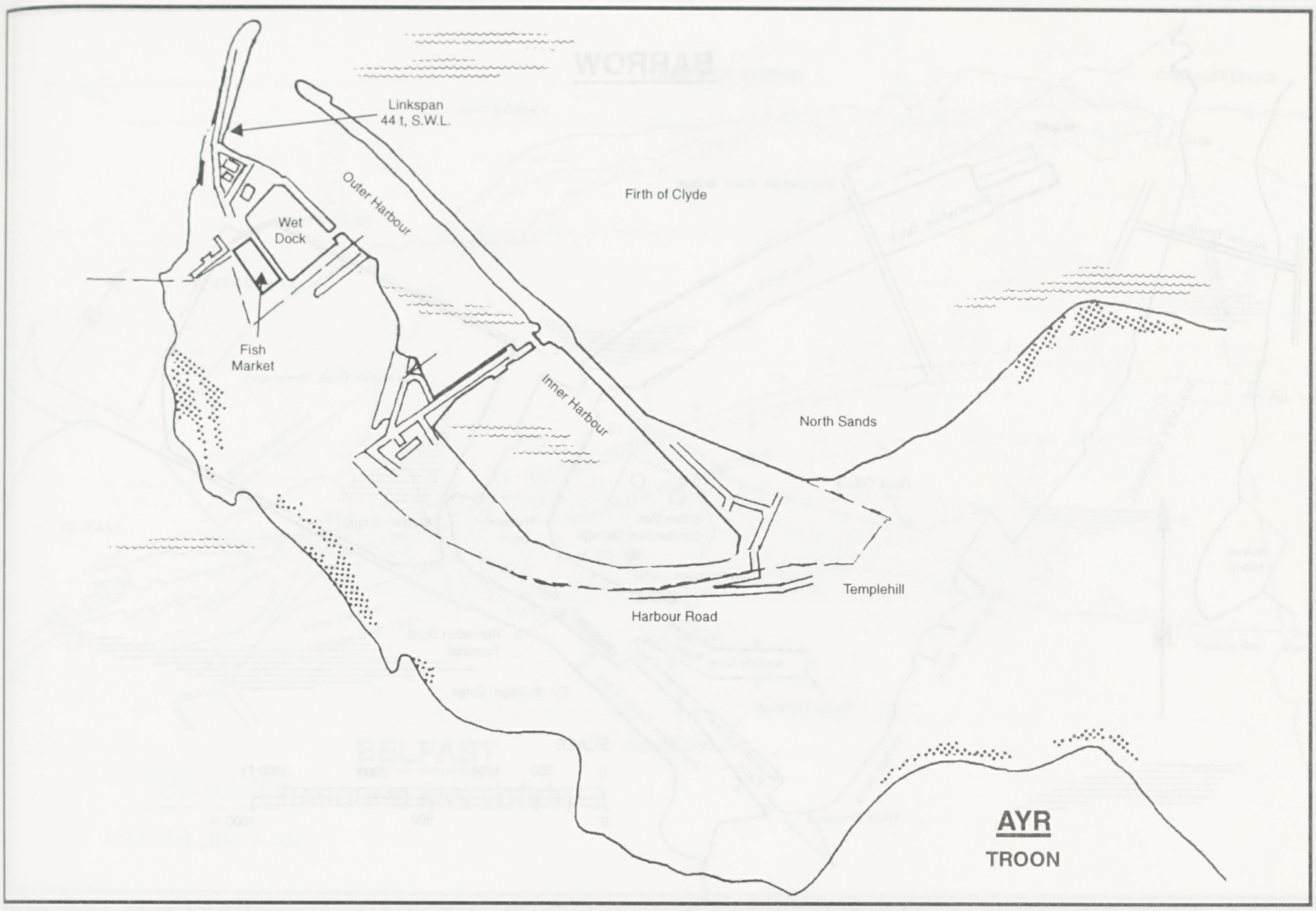
The Term Commercial vessel includes any large vessel which, in the opinion of the General Manager - Marine, requires a clear passage inwards or outwards.

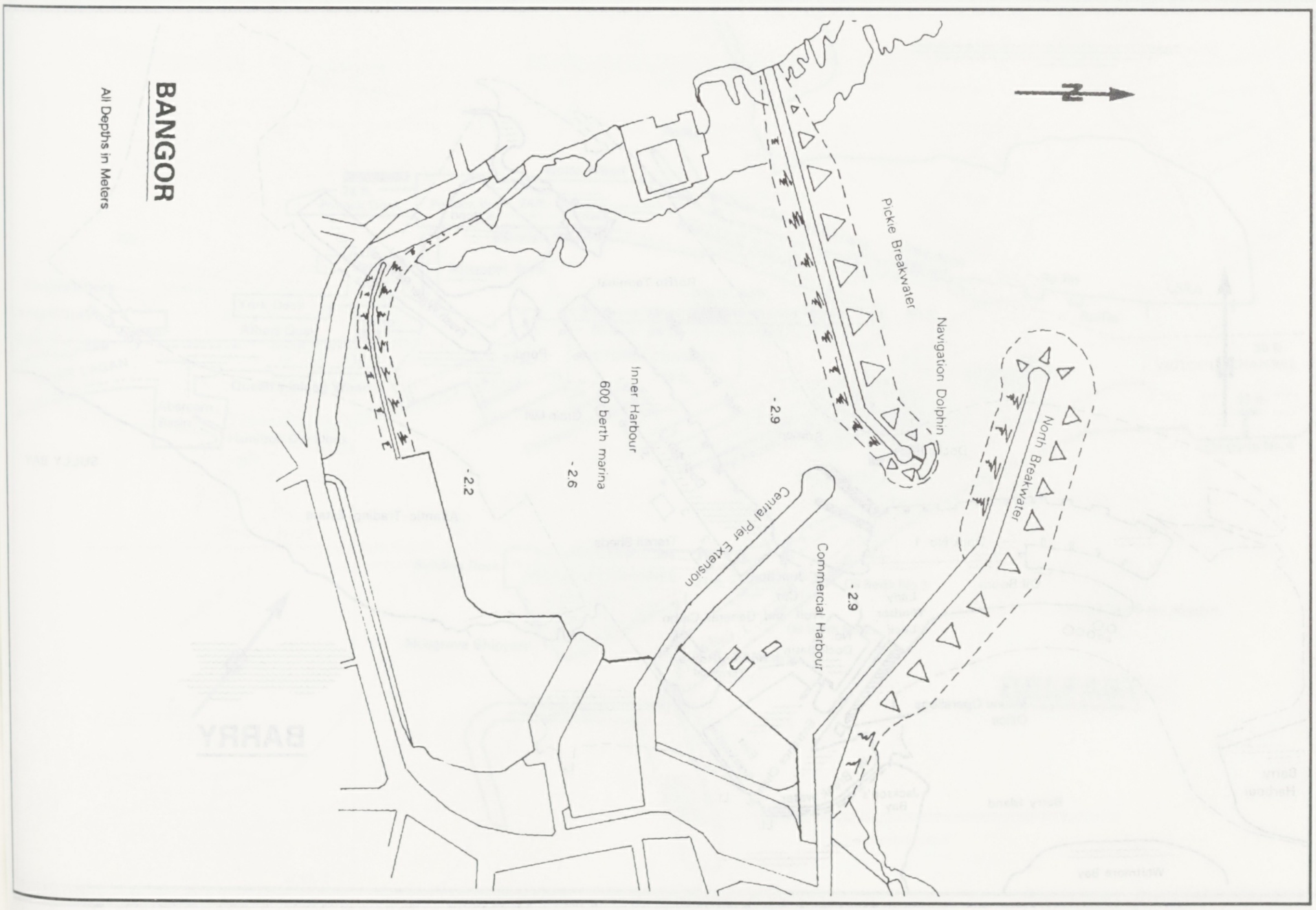
All vessels are reminded of their obligations under the International Regulations for Preventing Collisions at Sea (1972). Particularly the rules concerning Sound Signals.

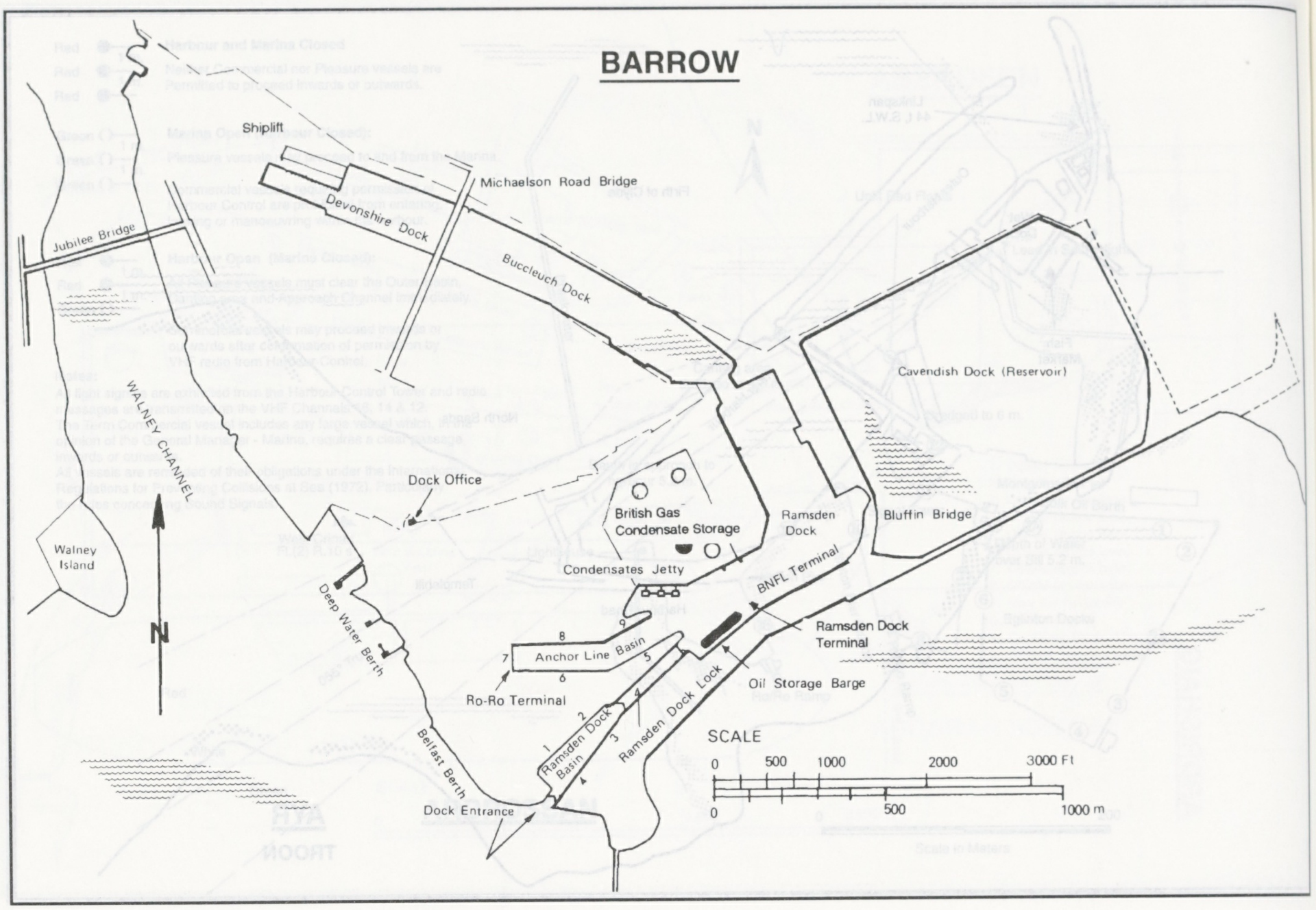
N
Breakwater
Unlit Red Floats
Lead in Sector light
Canting area dredged to 4.6 m.
Dredged to 6 m.
⑫
⑪
Montgomerie Pier
Signal Tower
Bulk Oil Berth
1A
①
②
Depth of Water over Sill 5.2 m.
⑦
⑥
Eglinton Docks
2A
⑤
③
④
Depth in approach to harbour 5.2 m.
West Crinan
Fl.(2) R.10 s
Lighthouse
⑭
⑩
Winton Pier
Winton Pier Station
⑯
⑧
Ro/Ro Ramp
Ro/Ro Ramp
055° True
Red
White
Green
ARDROSSAN
0
200
Scale in Meters

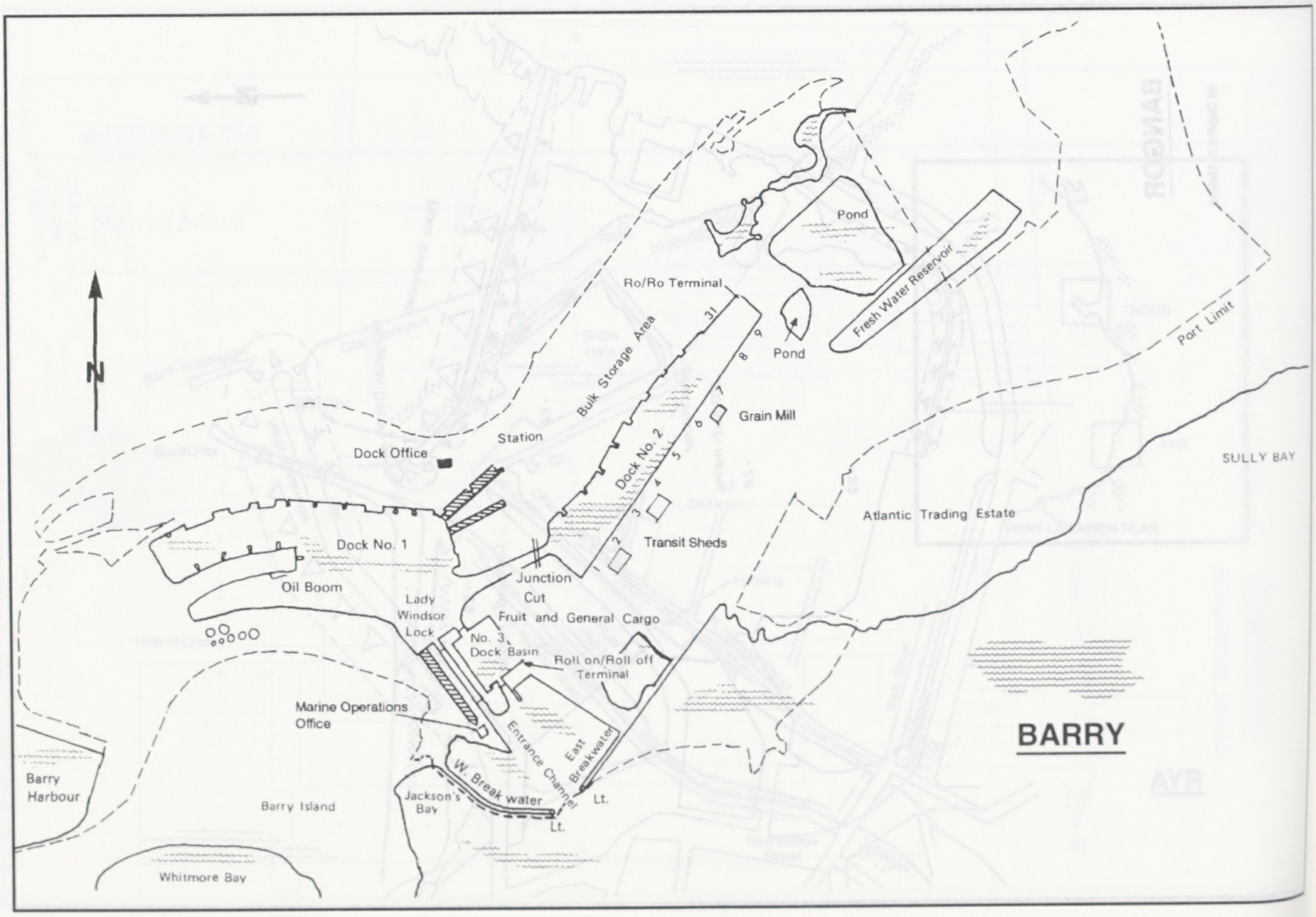


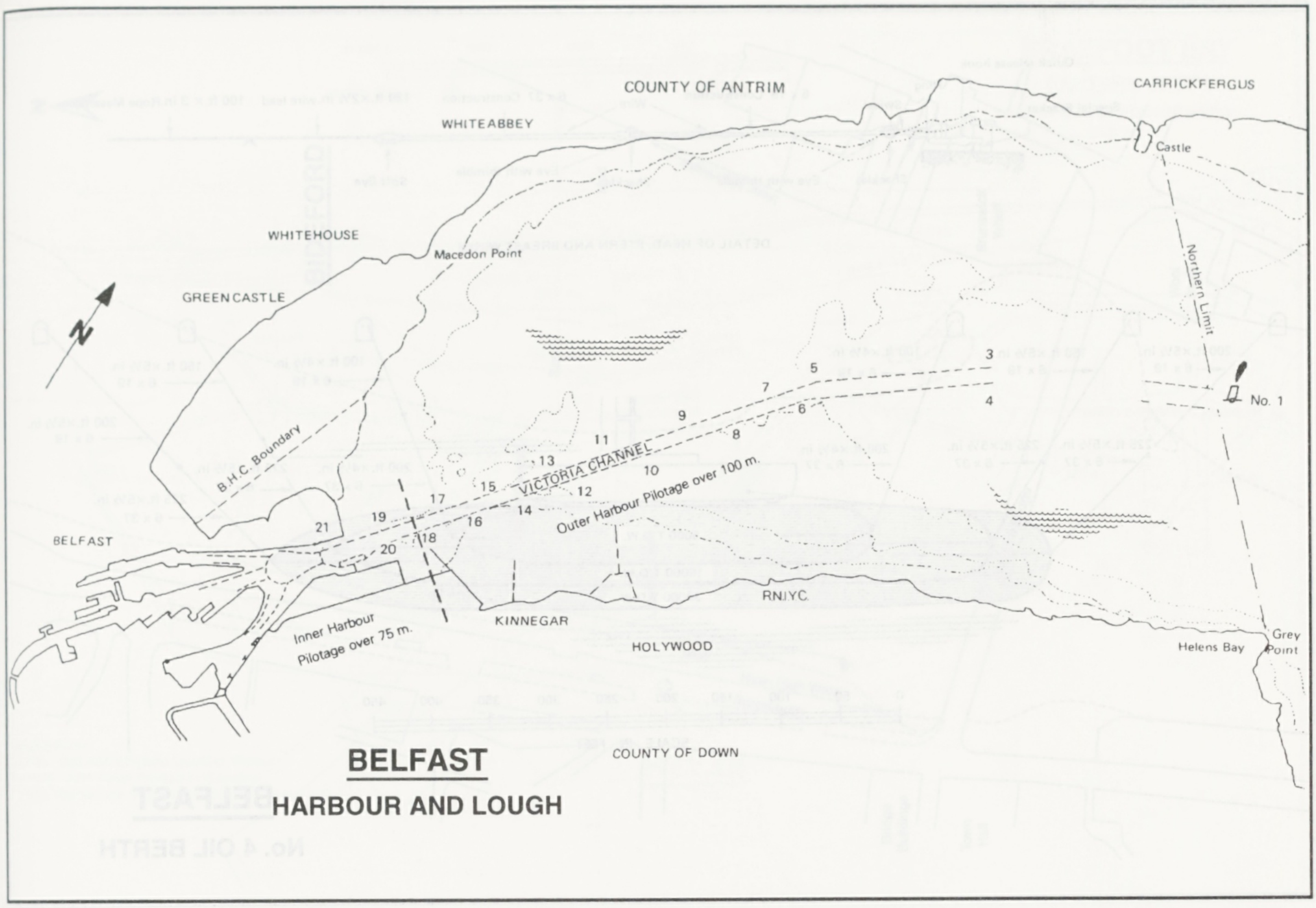
Coal Appliance
Griffin Dock
Coal Stockyard
North Breakwater
North Pier
South Pier
North Quay
Oil Depot
Housing
N. Harbour Street
River Ayr
Fish Market
South Harbour Street
Main Street
New Bridge Street
Firth of Clyde
TROON
AYR
PORT LOCATION PLAN
AYR


Linkspan
44 t, S.W.L.
Outer Harbour
Wet Dock
Fish Market
Firth of Clyde
Inner Harbour
North Sands
Templehill
Harbour Road
AYR
TROON


BANGOR
All Depths in Meters
N
Pickie Breakwater
Navigation Dolphin
North Breakwater
Inner Harbour
600 berth marina
-2.9
-2.6
-2.2
Central Pier Extension
Commercial Harbour
-2.9


BARROW
Shiplift
Michaelson Road Bridge
Devonshire Dock
Jubilee Bridge
Buccleuch Dock
Cavendish Dock (Reservoir)
WALNEY CHANNEL
Dock Office
British Gas
Condensate Storage
Ramsden
Dock
Bluffin Bridge
Walney
Island
N
Condensates Jetty
BNFL Terminal
Deep Water Berth
Ramsden Dock
Terminal
8
9
7
Anchor Line Basin
5
6
Oil Storage Barge
Ro-Ro Terminal
4
2
Ramsden Dock Lock
1
Ramsden Dock
Basin
3
Belfast Berth
SCALE
0
500
1000
2000
3000 Ft
0
500
1000 m
Dock Entrance

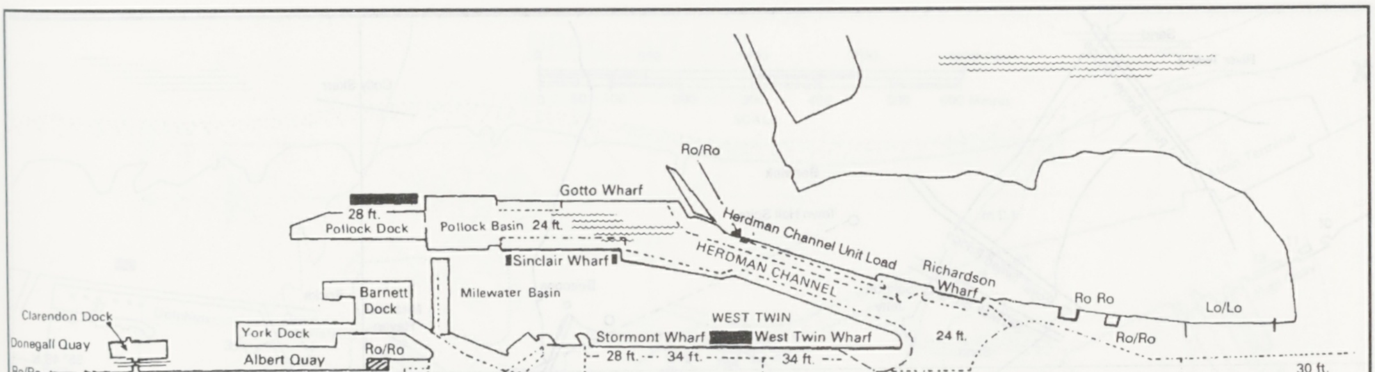

Pond
Fresh Water Reservoir
Ro/Ro Terminal
31
9
Pond
N
Bulk Storage Area
8
Port Limit
7
Grain Mill
6
Station
Dock No. 2
5
SULLY BAY
Dock Office
4
Atlantic Trading Estate
3
Dock No. 1
2
Transit Sheds
Oil Boom
Junction
Cut
Lady
Windsor
Lock
Fruit and General Cargo
No. 3
Dock Basin
Roll on/Roll off
Terminal
Marine Operations
Office
Entrance Channel
East
Breakwater
BARRY
Barry
Harbour
W. Breakwater
Jackson's
Bay
Lt.
Barry Island
Lt.
Whitmore Bay



BELFAST

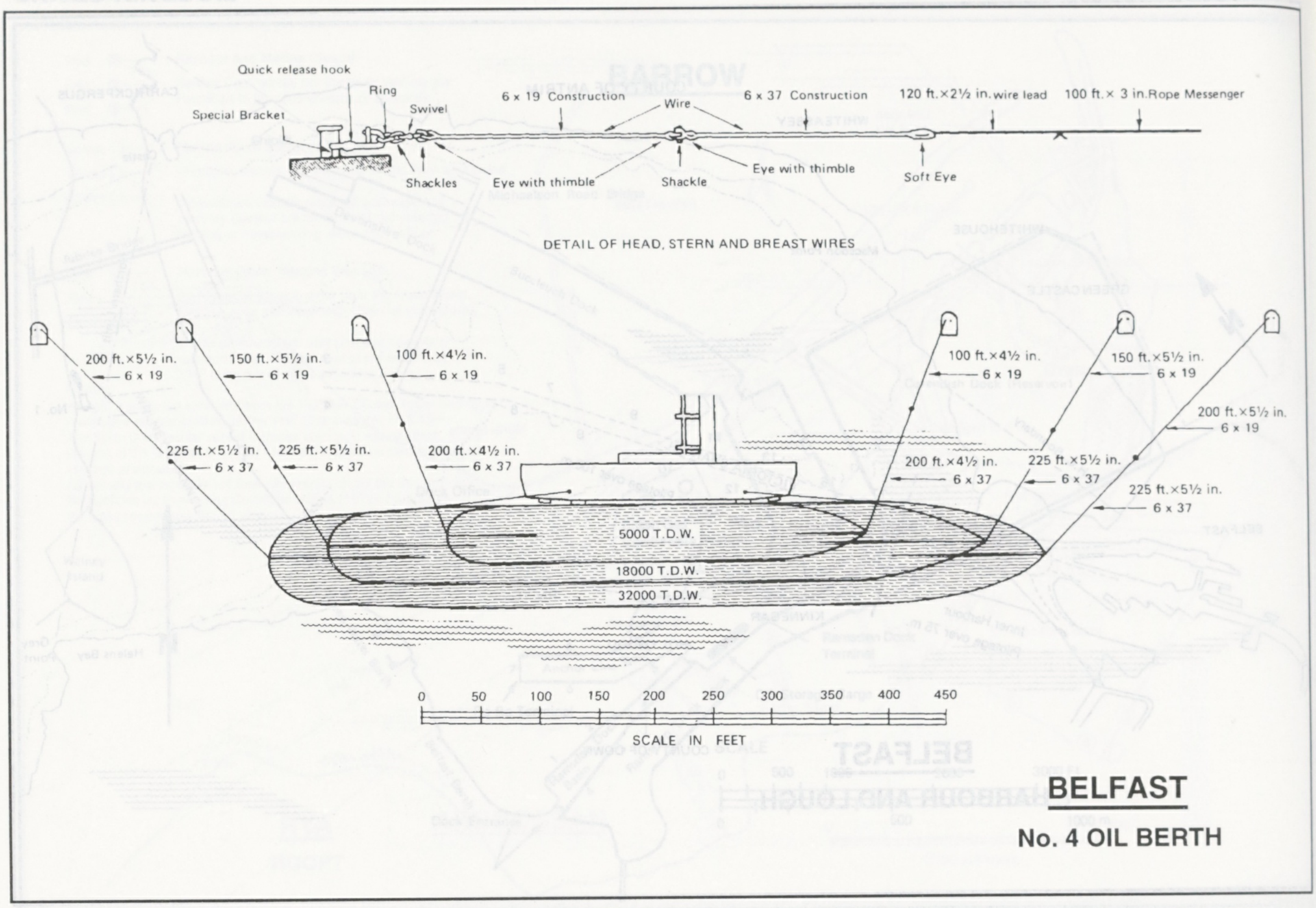
HARBOUR AND LOUGH

COUNTY OF ANTRIM
CARRICKFERGUS
Castle
WHITEABBEY
WHITEHOUSE
Macedon Point
GREENCASTLE
N
Northern Limit
No. 1
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
VICTORIA CHANNEL
Outer Harbour Pilotage over 100 m.
B.H.C. Boundary
BELFAST
Inner Harbour Pilotage over 75 m.
KINNEGAR
HOLYWOOD
RNIYC
Helens Bay
Grey Point
COUNTY OF DOWN



BELFAST

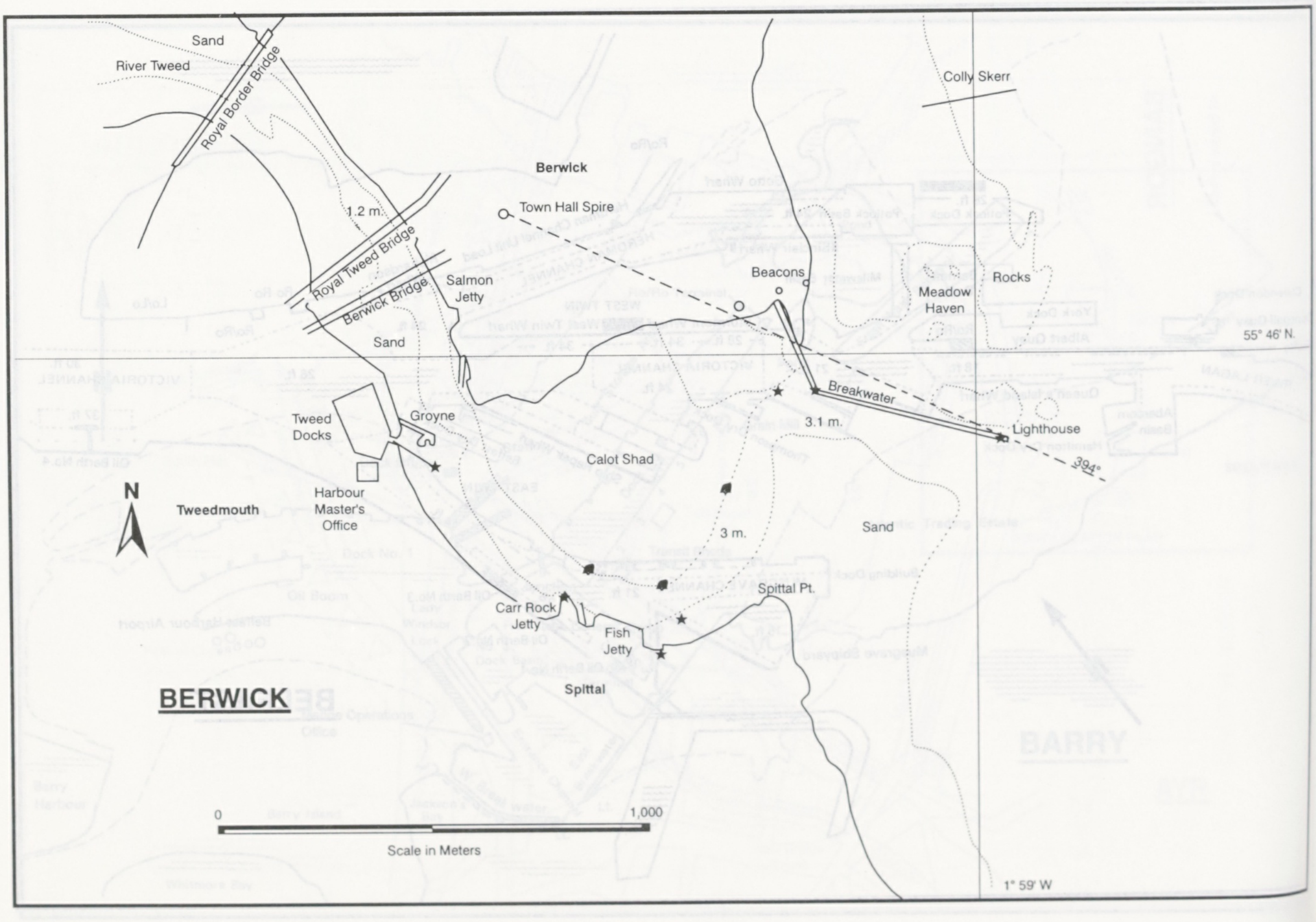
Ro/Ro
Gotto Wharf
28 ft.
Pollock Dock
Pollock Basin 24 ft.
Herdman Channel Unit Load
HERDMAN CHANNEL
Richardson Wharf
Sinclair Wharf
Milewater Basin
Barnett Dock
WEST TWIN
Ro Ro
Lo/Lo
Ro/Ro
Clarendon Dock
Donegall Quay
Ro/Ro
York Dock
Albert Quay
Ro/Ro
Stormont Wharf
West Twin Wharf
24 ft.
28 ft.
34 ft.
34 ft.
RIVER LAGAN
18 ft.
21 ft.
VICTORIA CHANNEL
24 ft.
26 ft.
30 ft.
VICTORIA CHANNEL
37 ft.
Oil Berth No.4
Queen's Island Wharf
Abercorn Basin
Hamilton Dry Dock
Thompson Dry Dock
Ship Repair Wharf
Belfast Dry Dock
EAST TWIN
24 ft.
Building Dock
MUSGRAVE CHANNEL
21 ft.
28 ft.
Oil Berth No.3
15 ft.
Oil Berth No.2
Musgrave Shipyard
28 ft.
Oil Berth No.1
Belfast Harbour Airport
N



BELFAST

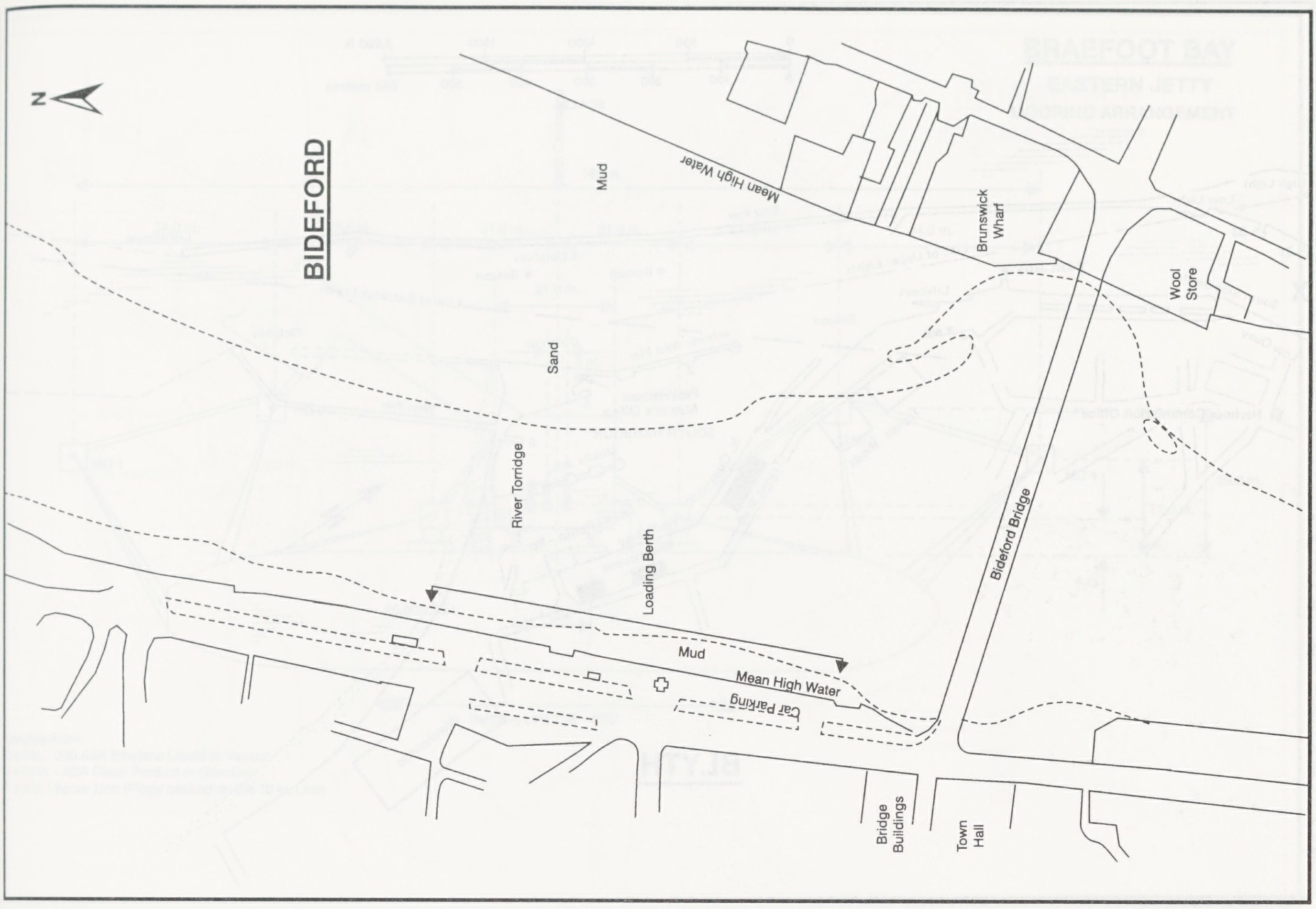
No. 4 OIL BERTH

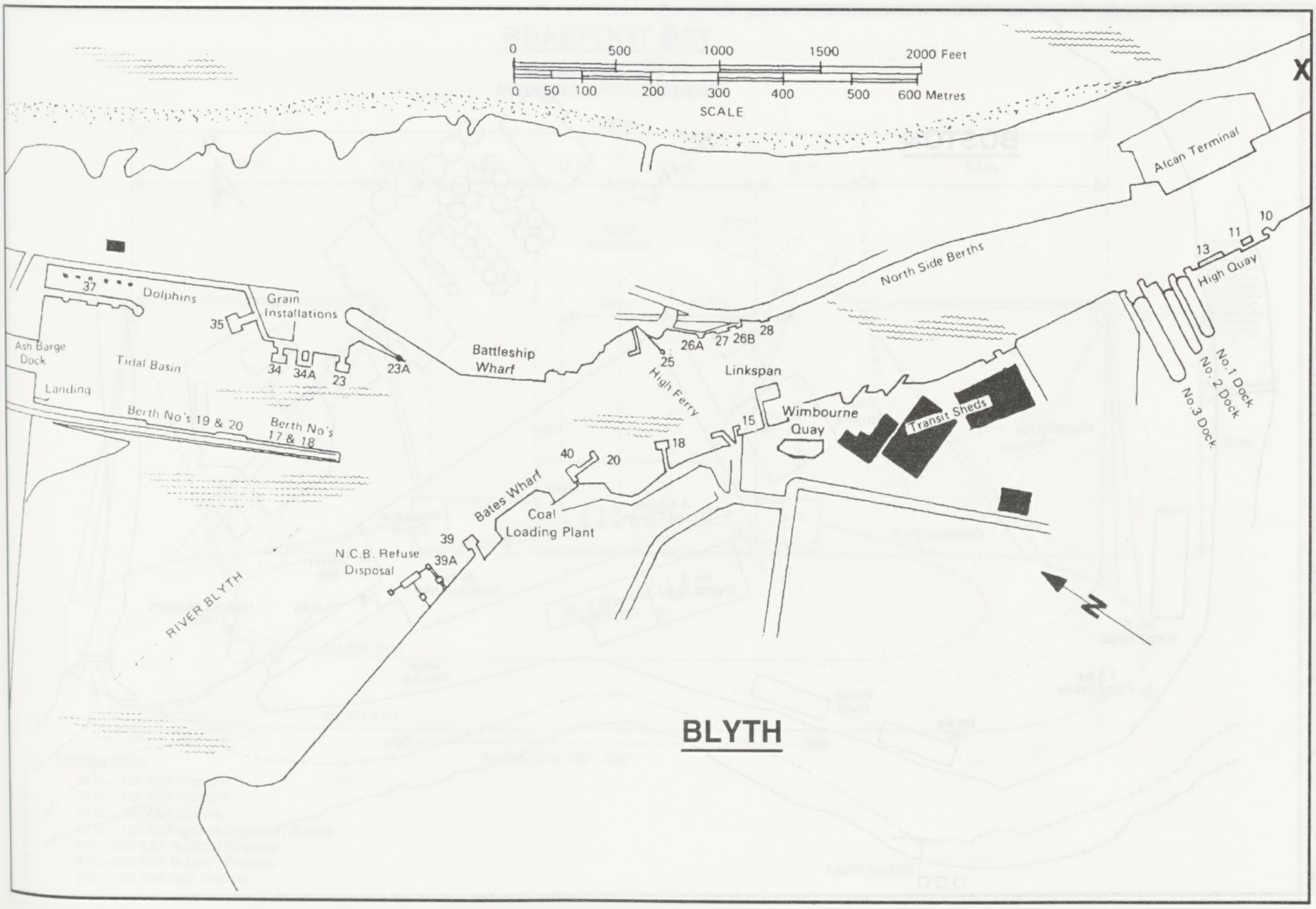
Quick release hook
Ring
Special Bracket
Swivel
6 x 19 Construction
Wire
6 x 37 Construction
120 ft.×2½ in. wire lead
100 ft.× 3 in. Rope Messenger
Shackles
Eye with thimble
Shackle
Eye with thimble
Soft Eye
DETAIL OF HEAD, STERN AND BREAST WIRES
200 ft.×5½ in.
6 x 19
150 ft.×5½ in.
6 x 19
100 ft.×4½ in.
6 x 19
100 ft.×4½ in.
6 x 19
150 ft.×5½ in.
6 x 19
200 ft.×5½ in.
6 x 19
225 ft.×5½ in.
6 x 37
225 ft.×5½ in.
6 x 37
200 ft.×4½ in.
6 x 37
200 ft.×4½ in.
6 x 37
225 ft.×5½ in.
6 x 37
225 ft.×5½ in.
6 x 37
5000 T.D.W.
18000 T.D.W.
32000 T.D.W.
0
50
100
150
200
250
300
350
400
450
SCALE IN FEET

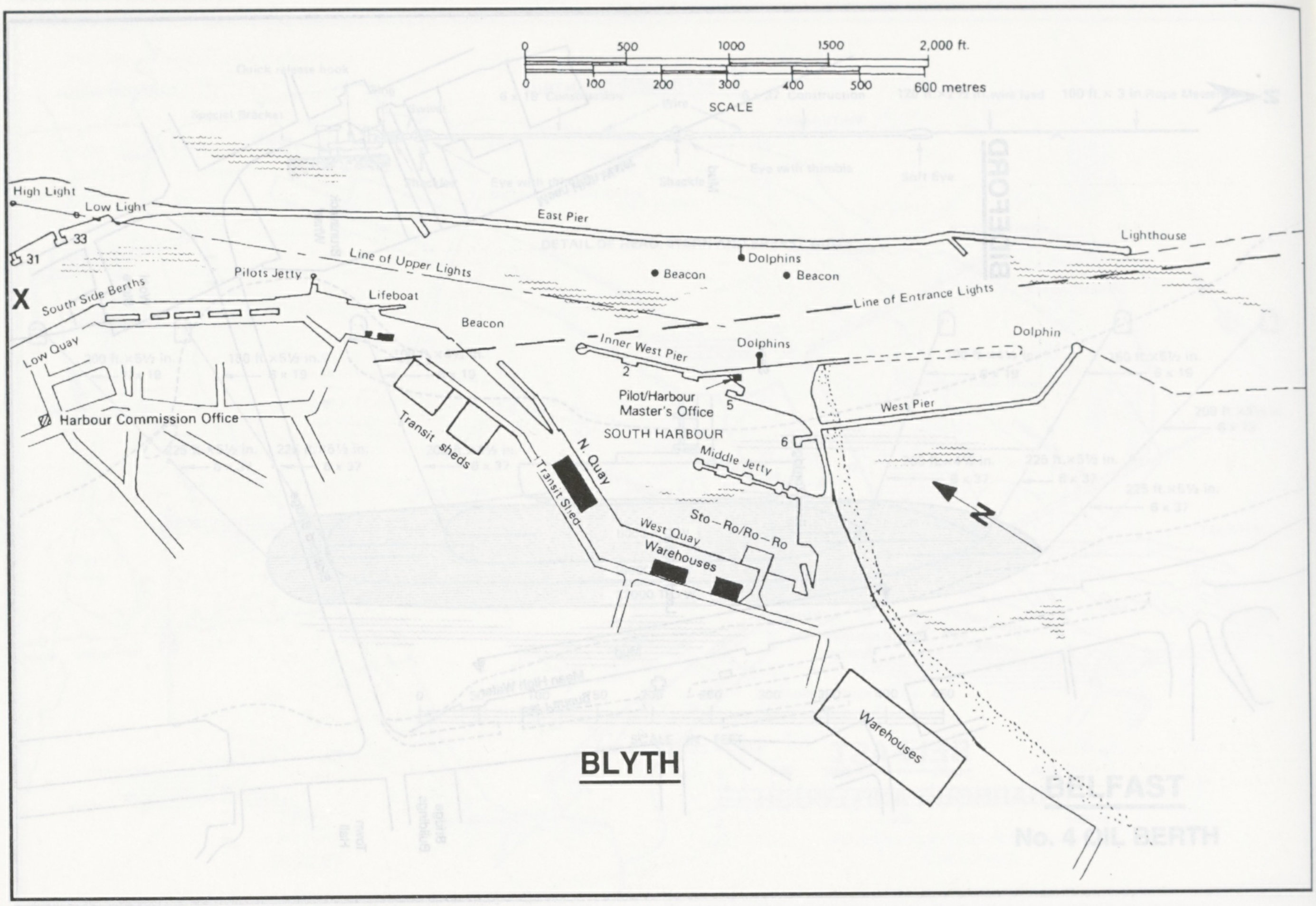


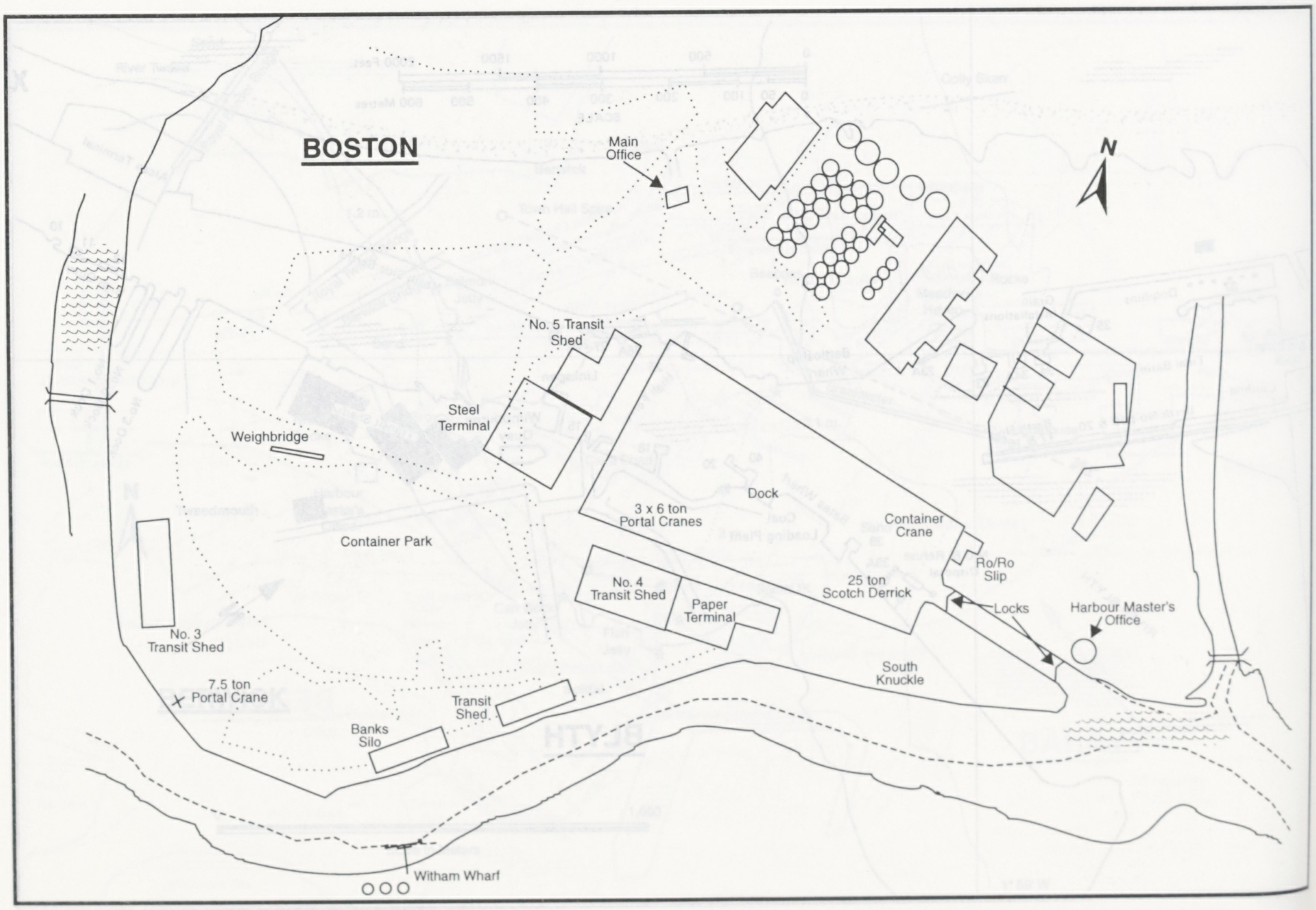
BERWICK

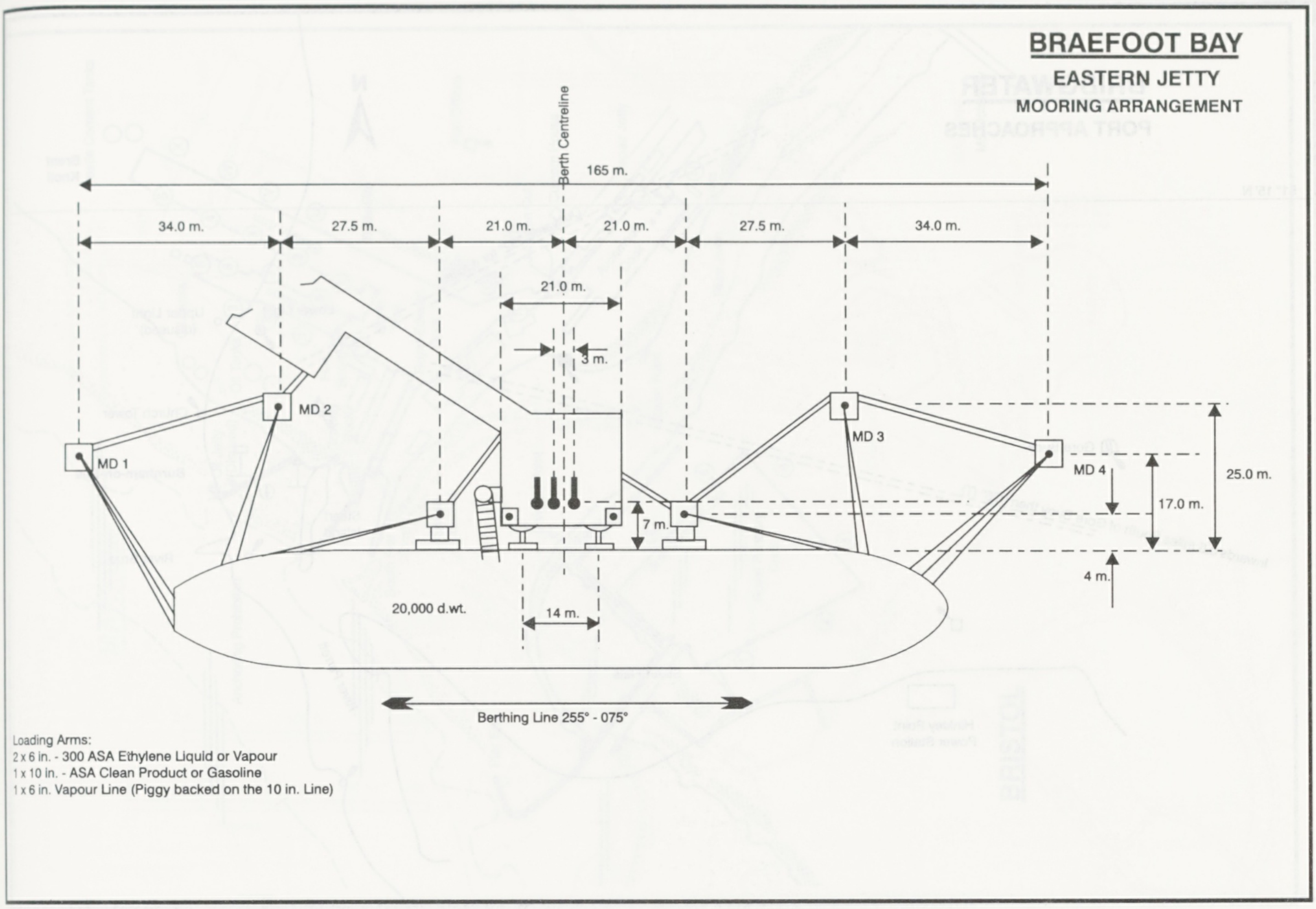
Sand
River Tweed
Royal Border Bridge
Colly Skerr
Berwick
Town Hall Spire
1.2 m.
Royal Tweed Bridge
Berwick Bridge
Salmon Jetty
Beacons
Meadow Haven
Rocks
55° 46' N.
Sand
Breakwater
3.1 m.
Lighthouse
294°
Tweed Docks
Groyne
Calot Shad
N
Tweedmouth
Harbour Master's Office
3 m.
Sand
Carr Rock Jetty
Spittal Pt.
Fish Jetty
Spittal
0
1,000
Scale in Meters
1° 59' W


N
BIDEFORD
Mud
Mean High Water
Brunswick Wharf
Wool Store
Sand
River Torridge
Loading Berth
Mud
Mean High Water
Car Parking
Bideford Bridge
Bridge Buildings
Town Hall


0
500
1000
1500
2000 Feet
0
50
100
200
300
400
500
600 Metres
SCALE
X
Alcan Terminal
10
11
13
High Quay
No.1 Dock
No.2 Dock
No.3 Dock
North Side Berths
37
Dolphins
35
Grain Installations
Ash Barge Dock
Tidal Basin
Landing
34
34A
23
23A
Battleship Wharf
25
High Ferry
26A
27
26B
28
Linkspan
15
Wimbourne Quay
Transit Sheds
Berth No's 19 & 20
Berth No's 17 & 18
40
20
18
Bates Wharf
Coal Loading Plant
39
39A
N.C.B. Refuse Disposal
RIVER BLYTH
N
BLYTH


0
500
1000
1500
2,000 ft.
0
100
200
300
400
500
600 metres
SCALE
High Light
Low Light
33
31
X
East Pier
Line of Upper Lights
Pilots Jetty
Beacon
Dolphins
Beacon
Lighthouse
South Side Berths
Lifeboat
Beacon
Line of Entrance Lights
Low Quay
Inner West Pier
Dolphins
Dolphin
2
Pilot/Harbour Master's Office
5
Harbour Commission Office
West Pier
Transit sheds
SOUTH HARBOUR
N. Quay
6
Middle Jetty
Transit Shed
Sto-Ro/Ro-Ro
West Quay
Warehouses
N
Warehouses
BLYTH


BOSTON
Main Office
N
No. 5 Transit Shed
Steel Terminal
Weighbridge
Dock
3 x 6 ton Portal Cranes
Container Crane
Container Park
No. 4 Transit Shed
Paper Terminal
Ro/Ro Slip
25 ton Scotch Derrick
Locks
Harbour Master's Office
No. 3 Transit Shed
South Knuckle
7.5 ton Portal Crane
Transit Shed
Banks Silo
Witham Wharf



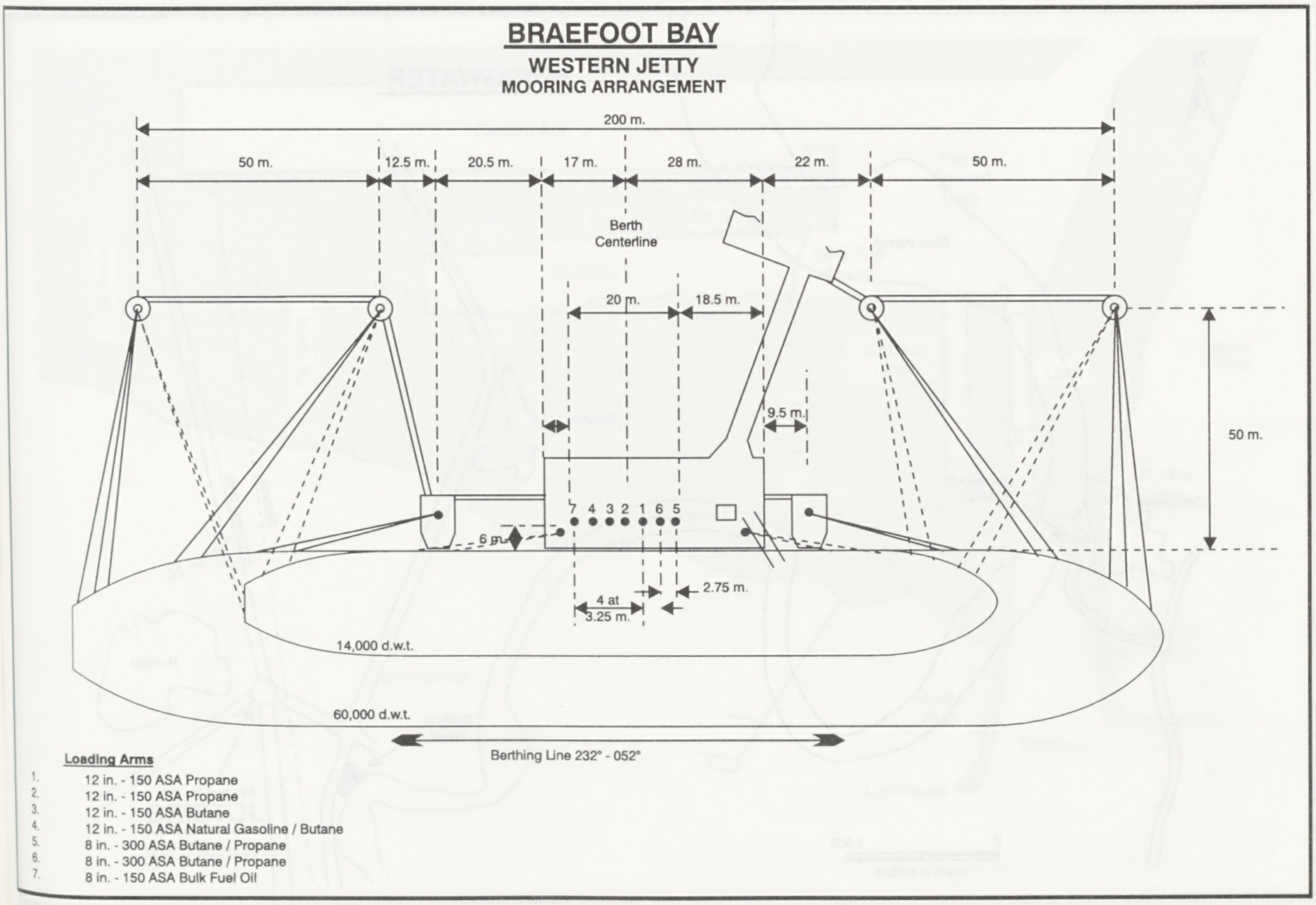
BRAEFOOT BAY

EASTERN JETTY

MOORING ARRANGEMENT

Berth Centreline
165 m.
34.0 m.
27.5 m.
21.0 m.
21.0 m.
27.5 m.
34.0 m.
21.0 m.
3 m.
MD 1
MD 2
MD 3
MD 4
7 m.
25.0 m.
17.0 m.
4 m.
20,000 d.wt.
14 m.
Berthing Line 255° - 075°

Loading Arms:
2 x 6 in. - 300 ASA Ethylene Liquid or Vapour
1 x 10 in. - ASA Clean Product or Gasoline
1 x 6 in. Vapour Line (Piggy backed on the 10 in. Line)



BRAEFOOT BAY

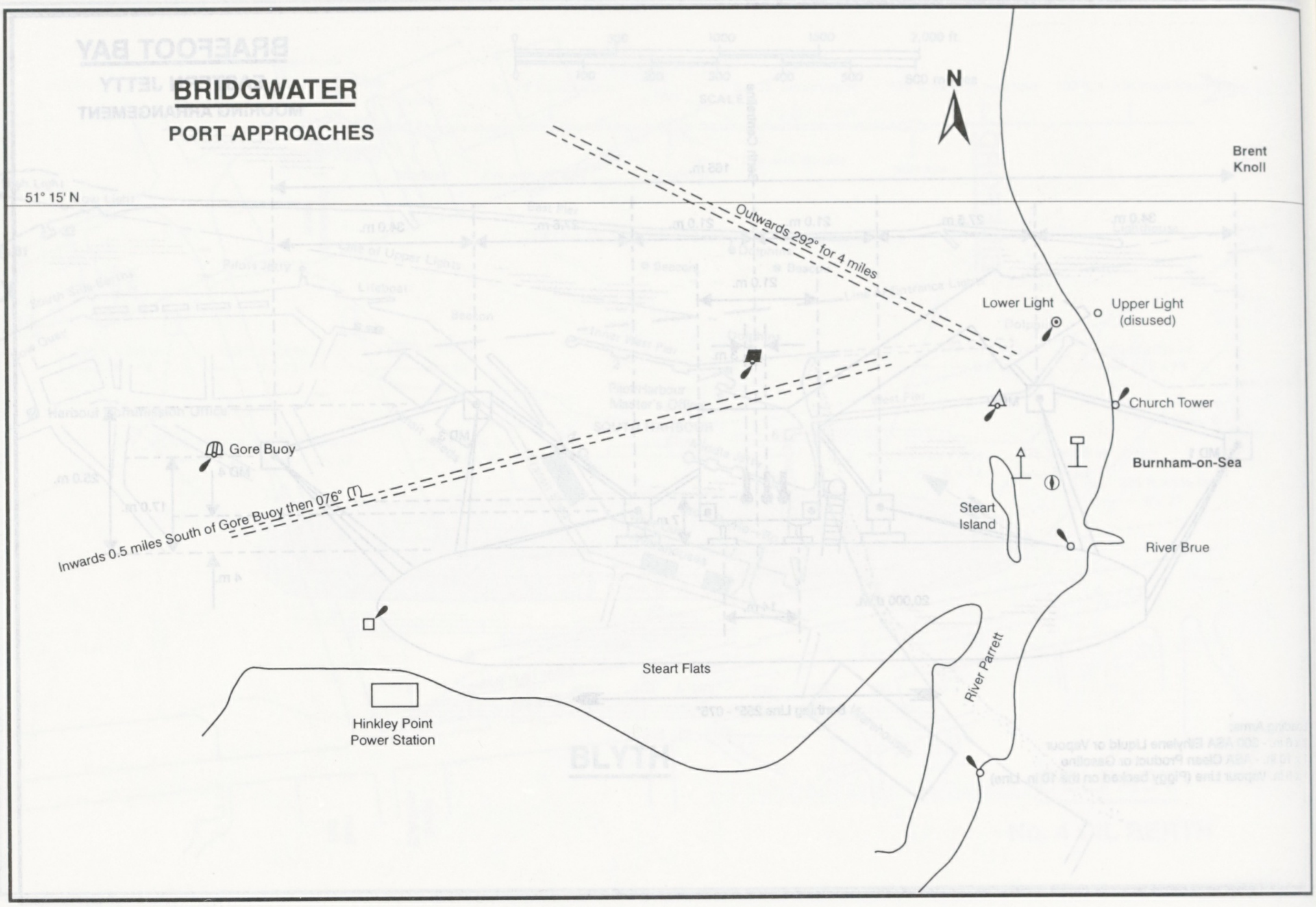
WESTERN JETTY

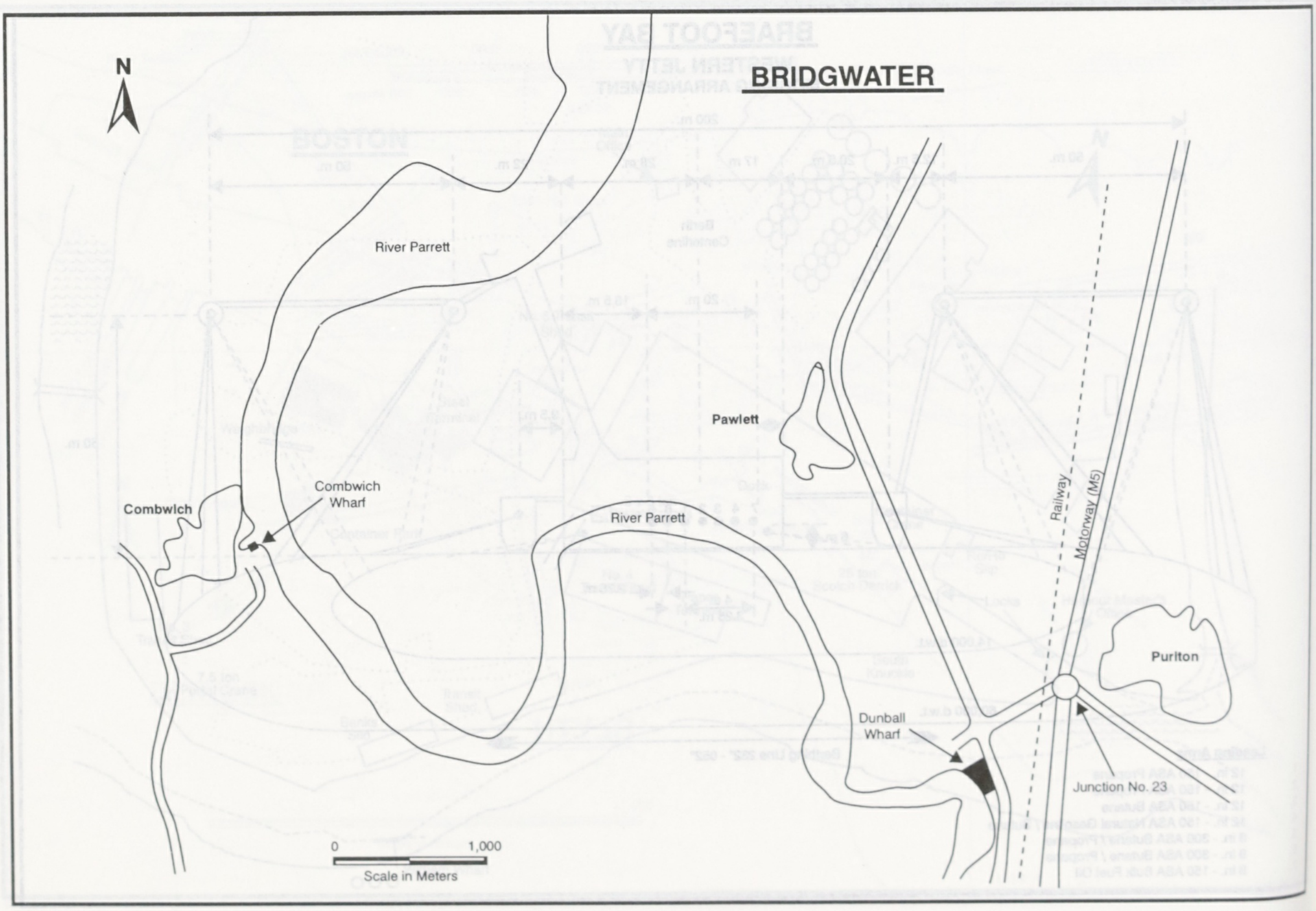
MOORING ARRANGEMENT

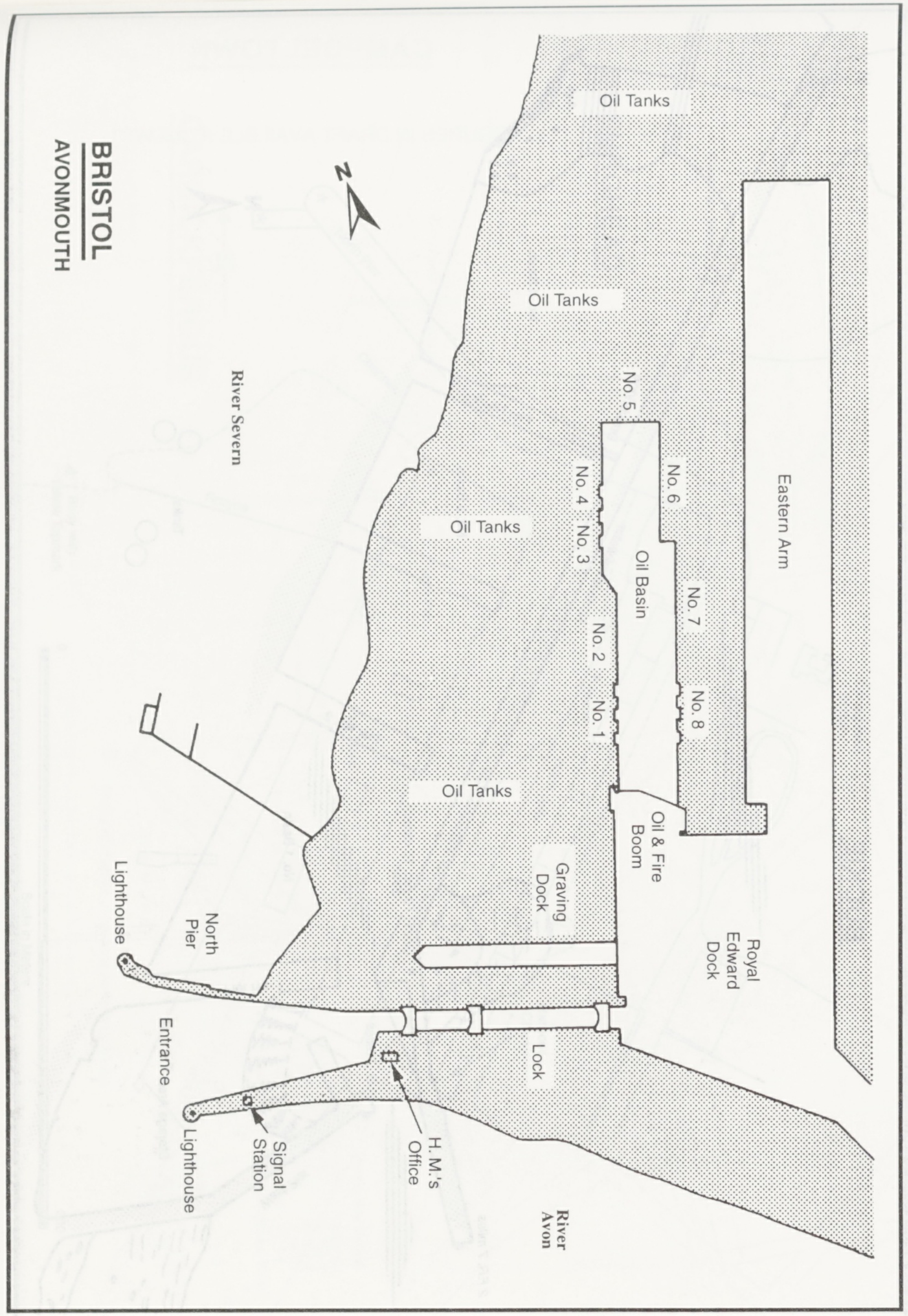
200 m.
50 m.
12.5 m.
20.5 m.
17 m.
28 m.
22 m.
50 m.
Berth Centerline
20 m.
18.5 m.
9.5 m.
50 m.
7 4 3 2 1 6 5
6 m.
2.75 m.
4 at 3.25 m.
14,000 d.w.t.
60,000 d.w.t.
Berthing Line 232° - 052°

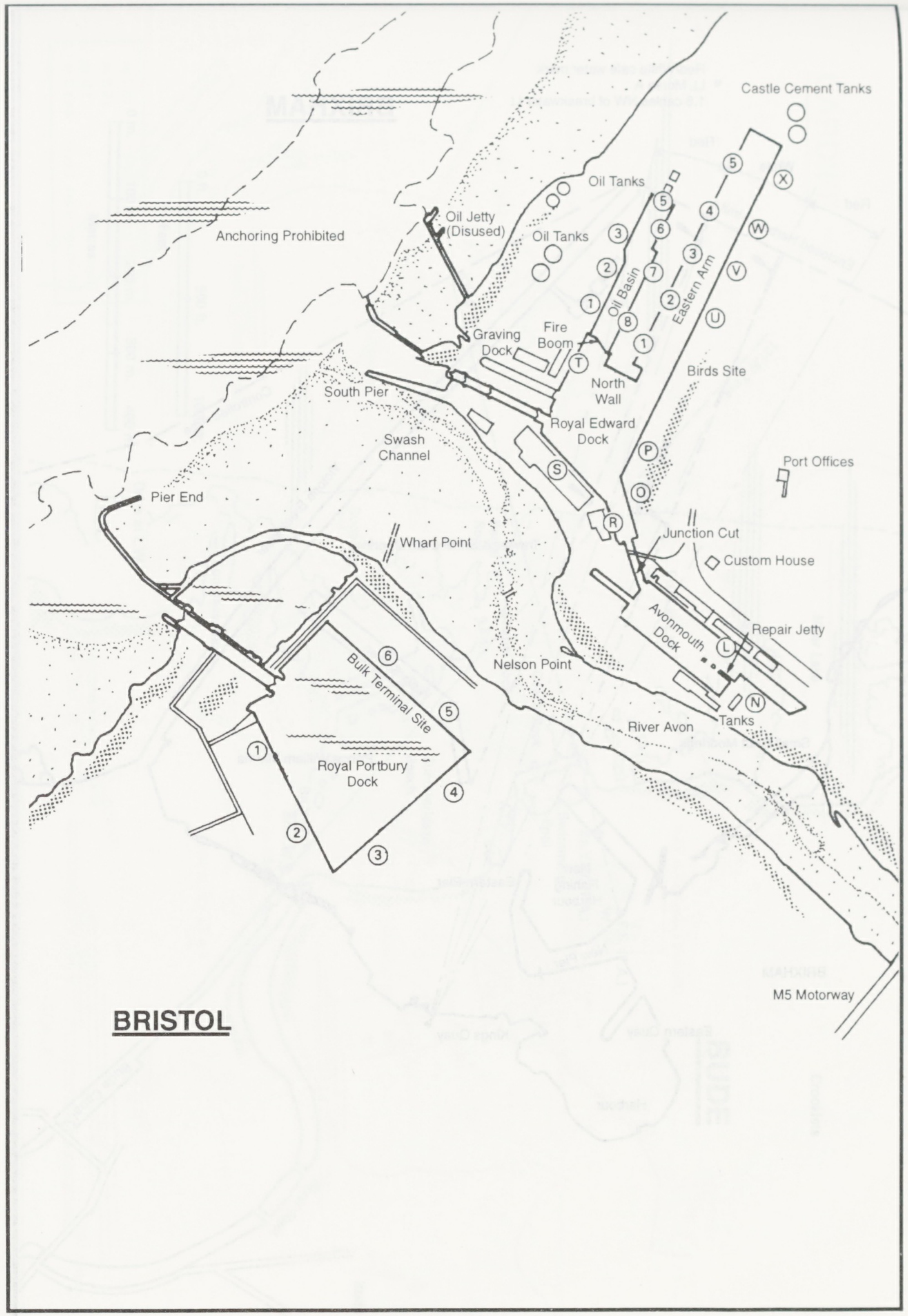
Loading Arms

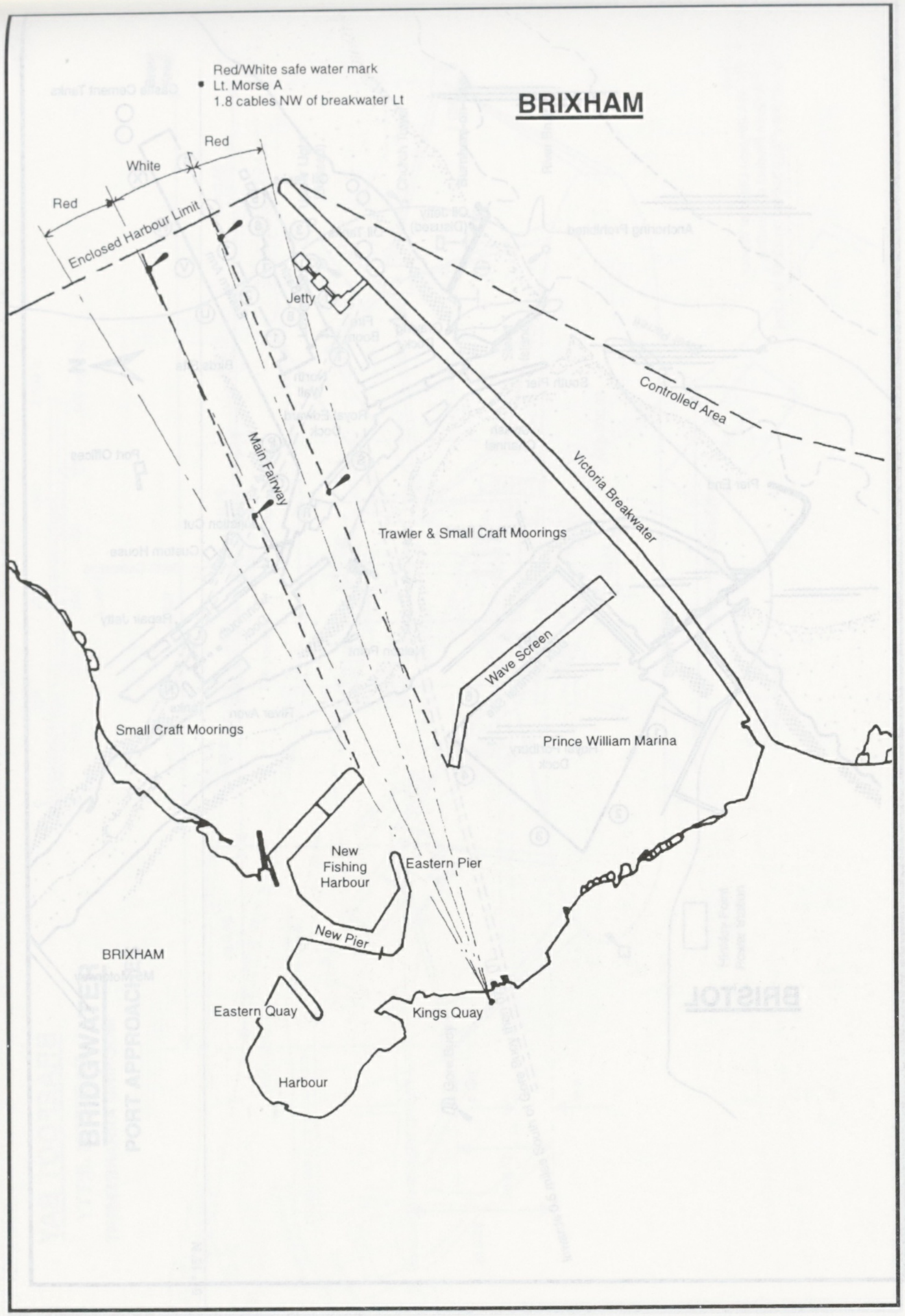
1. 12 in. - 150 ASA Propane
2. 12 in. - 150 ASA Propane
3. 12 in. - 150 ASA Butane
4. 12 in. - 150 ASA Natural Gasoline / Butane
5. 8 in. - 300 ASA Butane / Propane
6. 8 in. - 300 ASA Butane / Propane
7. 8 in. - 150 ASA Bulk Fuel Oil

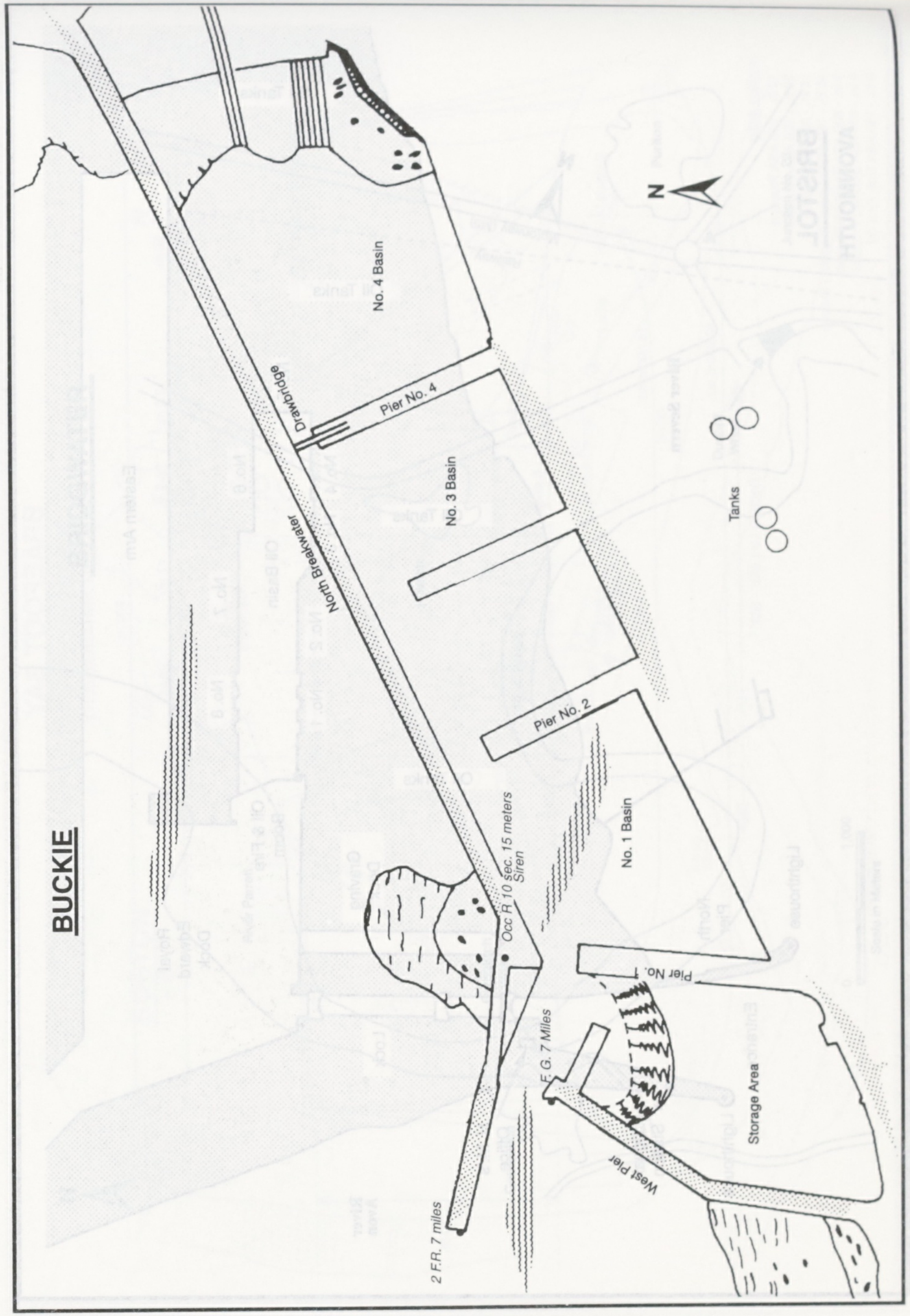

BRIDGWATER
PORT APPROACHES
N
51° 15' N
Brent Knoll
Outwards 292° for 4 miles
Lower Light
Upper Light (disused)
Church Tower
Burnham-on-Sea
Gore Buoy
Inwards 0.5 miles South of Gore Buoy then 076° (T)
Steart Island
River Brue
Steart Flats
River Parrett
Hinkley Point Power Station

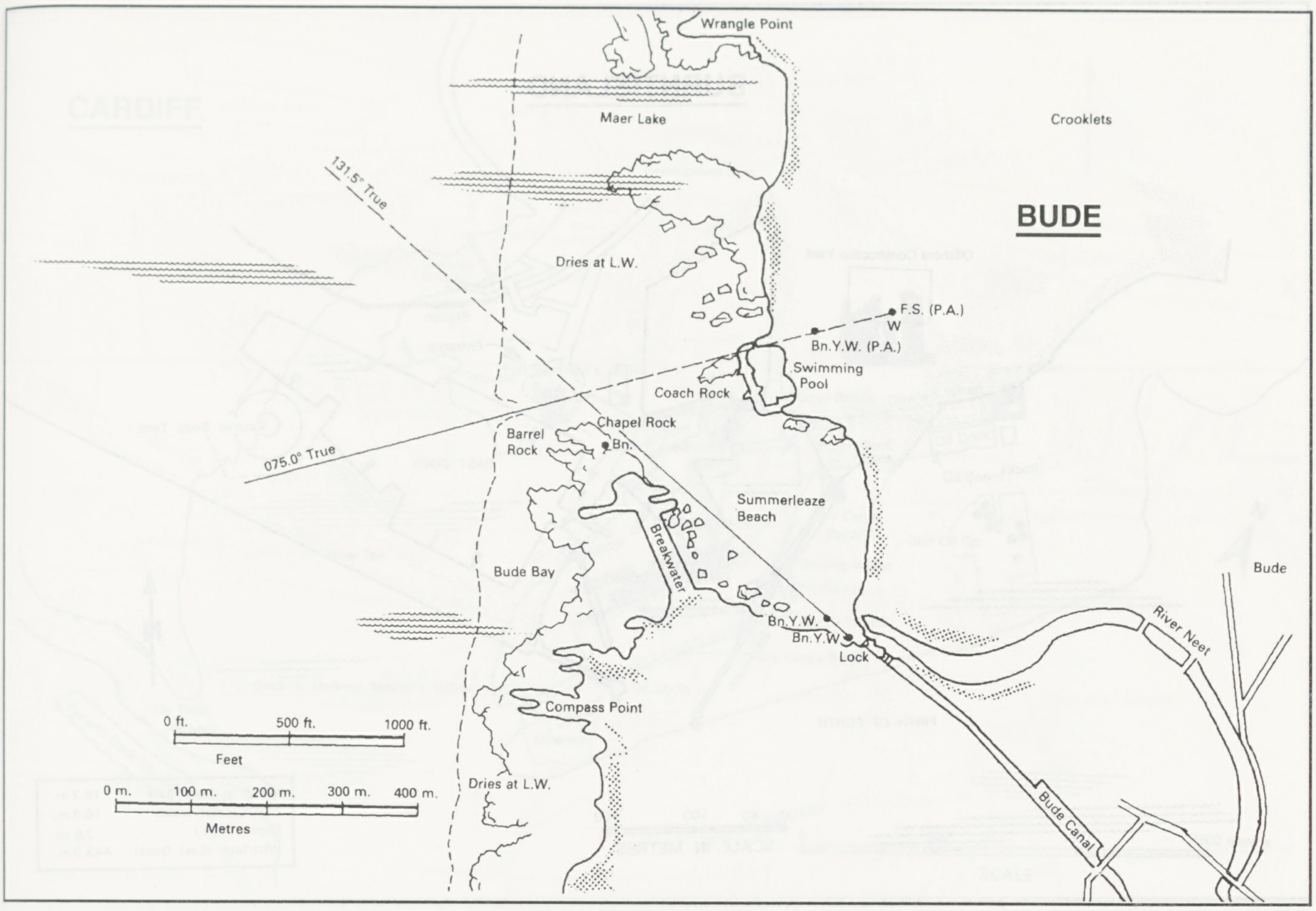

N
BRIDGWATER
River Parrett
Pawlett
Combwich
Combwich Wharf
River Parrett
Railway
Motorway (M5)
Purlton
Dunball Wharf
Junction No. 23
0
1,000
Scale in Meters

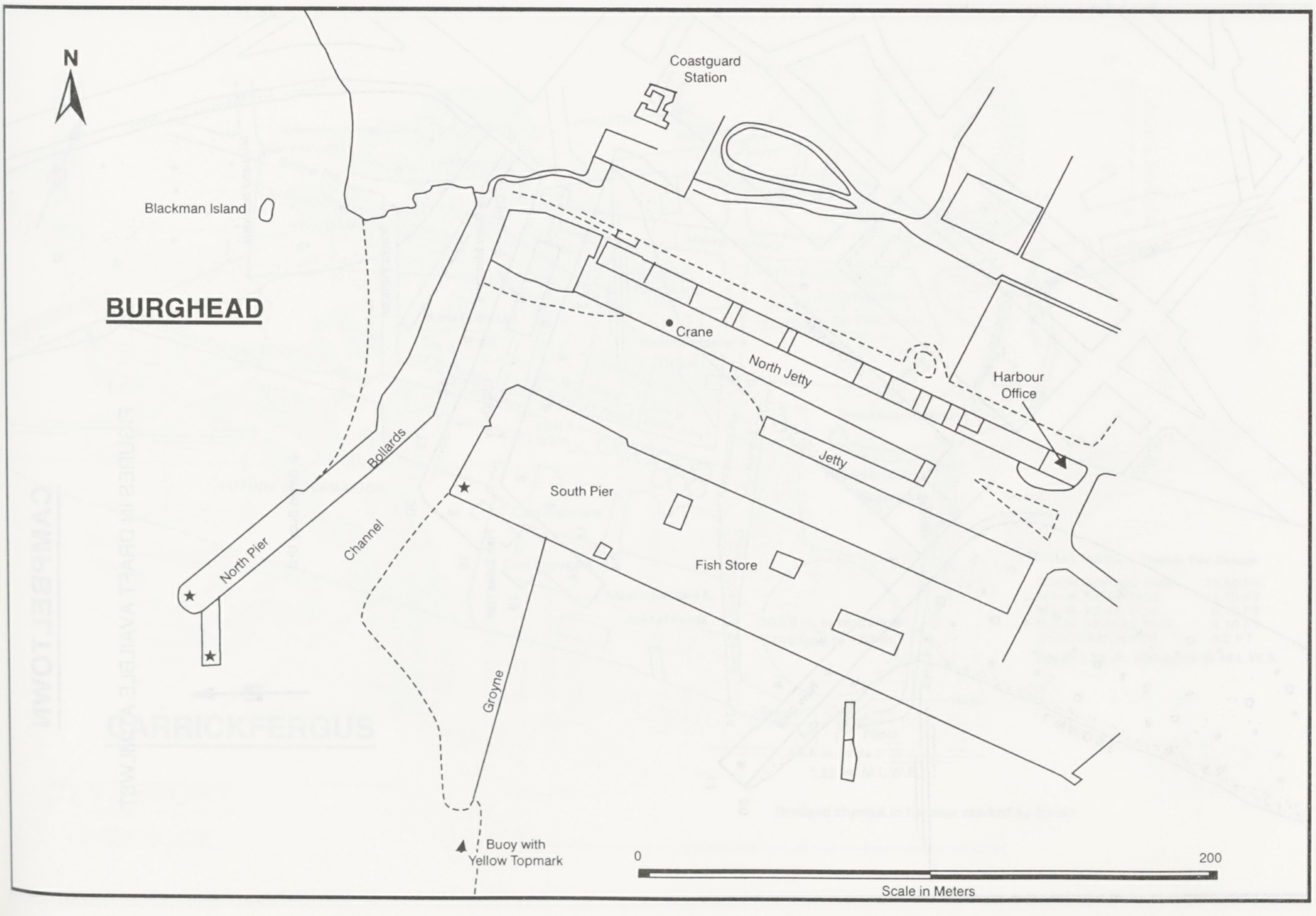

BRISTOL
AVONMOUTH
River Severn
Oil Tanks
Oil Tanks
Oil Tanks
Oil Tanks
Eastern Arm
No. 5
No. 6
No. 4
No. 3
Oil Basin
No. 7
No. 2
No. 1
No. 8
Oil & Fire Boom
Graving Dock
Royal Edward Dock
North Pier
Lighthouse
Entrance
Lock
Lighthouse
Signal Station
H. M.'s Office
River Avon


Castle Cement Tanks
Oil Tanks
Oil Jetty (Disused)
Oil Tanks
Anchoring Prohibited
5
4
X
3
6
W
3
2
7
V
1
Oil Basin
2
Eastern Arm
8
1
U
Graving Dock
Fire Boom
T
North Wall
Birds Site
South Pier
Royal Edward Dock
Swash Channel
P
S
Port Offices
O
Pier End
R
Junction Cut
Wharf Point
Custom House
Avonmouth Dock
Repair Jetty
6
L
Bulk Terminal Site
Nelson Point
5
N
Tanks
River Avon
1
Royal Portbury Dock
4
2
3
M5 Motorway
BRISTOL

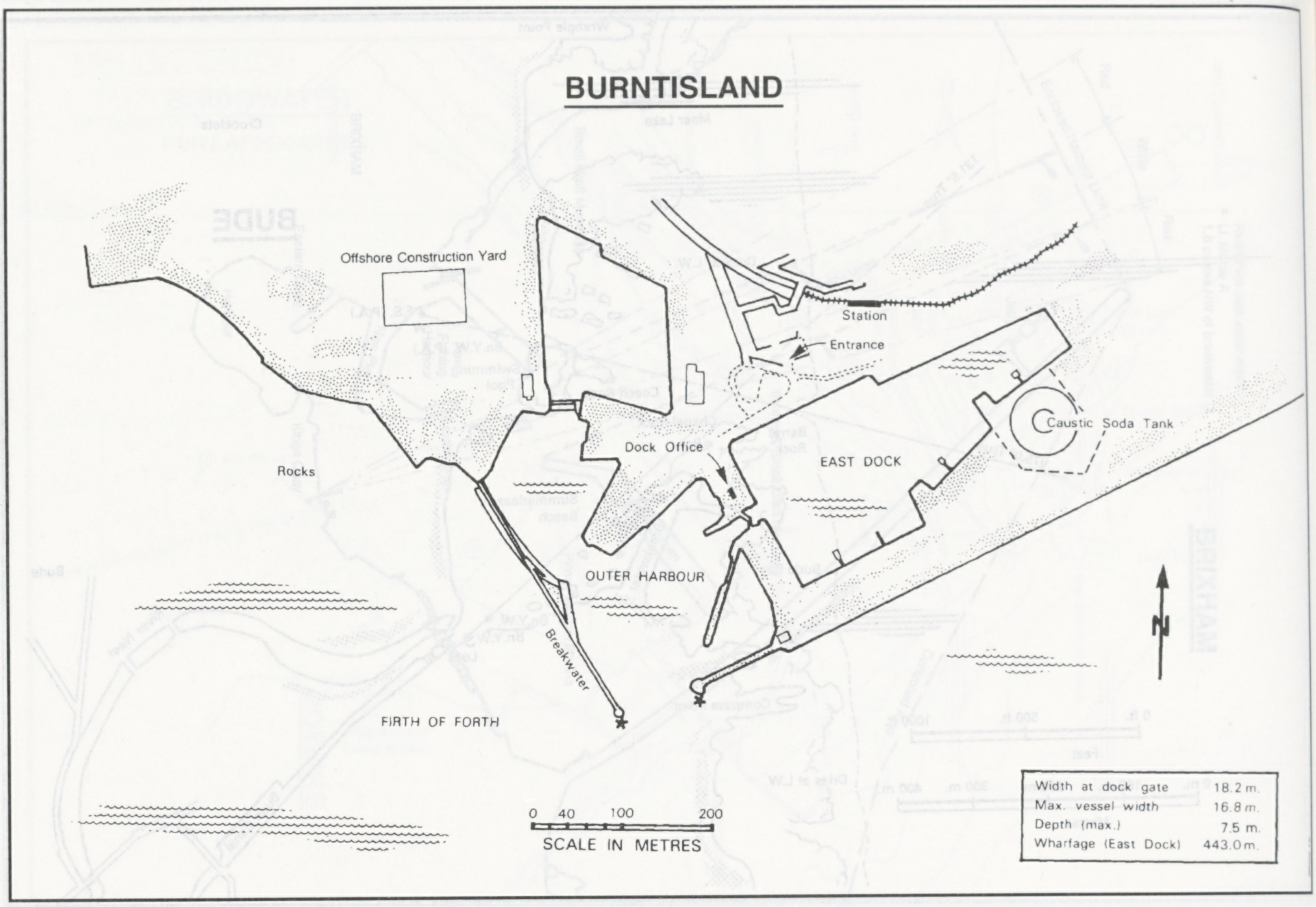

BRIXHAM
Red/White safe water mark
Lt. Morse A
1.8 cables NW of breakwater Lt
Red
White
Red
Enclosed Harbour Limit
Jetty
Controlled Area
Main Fairway
Victoria Breakwater
Trawler & Small Craft Moorings
Wave Screen
Prince William Marina
Small Craft Moorings
New Fishing Harbour
Eastern Pier
New Pier
BRIXHAM
Eastern Quay
Kings Quay
Harbour


BUCKIE
N
No. 4 Basin
Drawbridge
Pier No. 4
No. 3 Basin
North Breakwater
Tanks
Pier No. 2
No. 1 Basin
Occ R 10 sec. 15 meters
Siren
Pier No. 1
F. G. 7 Miles
Storage Area
West Pier
2 F.R. 7 miles


BUDE
Wrangle Point
Maer Lake
Crooklets
131.5° True
Dries at L.W.
F.S. (P.A.)
W
Bn.Y.W. (P.A.)
Swimming Pool
Coach Rock
Chapel Rock
Barrel Rock
Bn.
075.0° True
Summerleaze Beach
Breakwater
Bude Bay
Bn.Y.W.
Bn.Y.W.
Lock
River Neet
Bude
Compass Point
Dries at L.W.
Bude Canal
0 ft.
500 ft.
1000 ft.
Feet
0 m.
100 m.
200 m.
300 m.
400 m.
Metres


N
BURGHEAD
Coastguard Station
Blackman Island
Crane
North Jetty
Harbour Office
Jetty
Bollards
Channel
North Pier
South Pier
Fish Store
Groyne
Buoy with Yellow Topmark
0
200
Scale in Meters

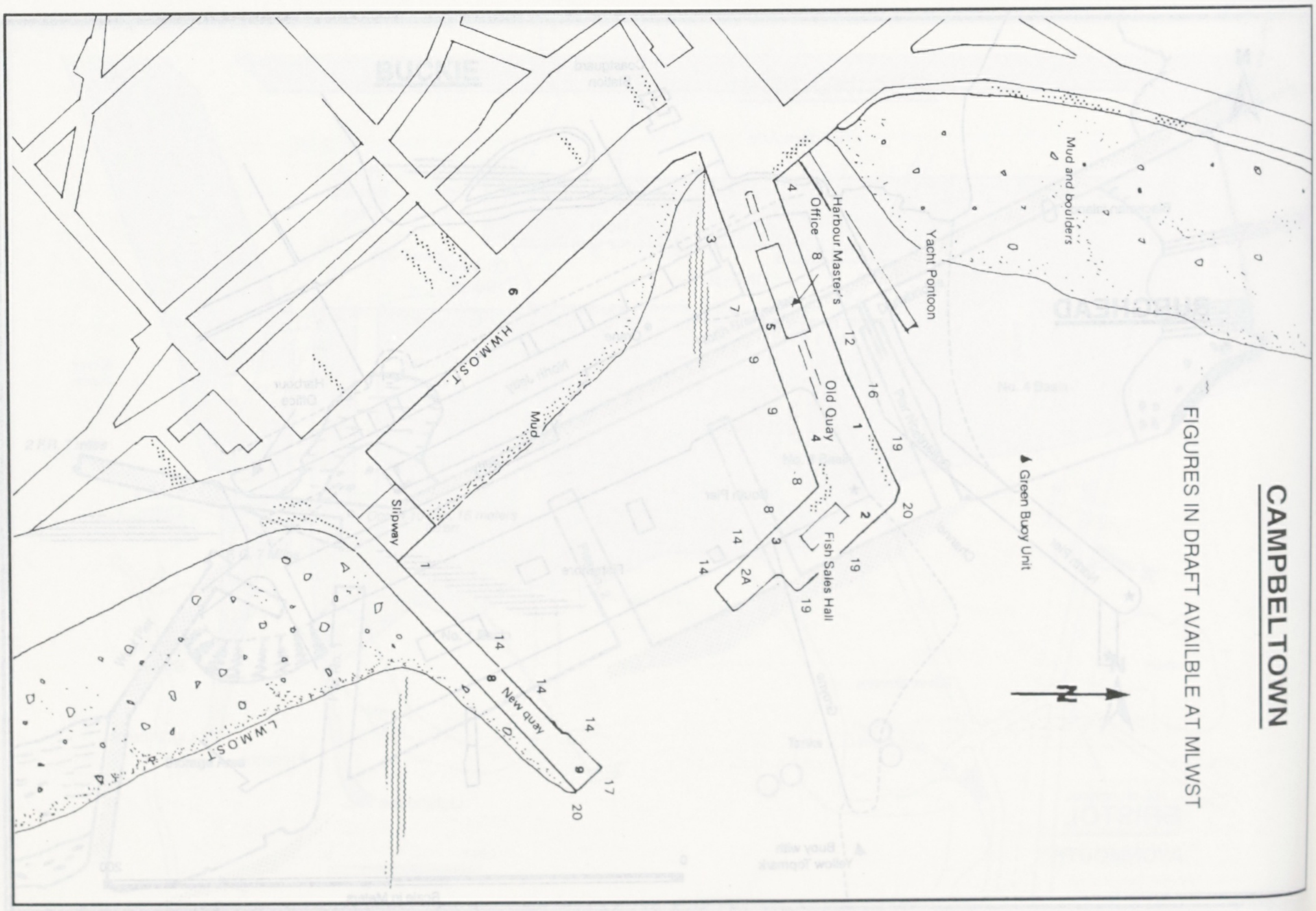
BURNTISLAND


Offshore Construction Yard
Station
Entrance
Caustic Soda Tank
Dock Office
EAST DOCK
Rocks
OUTER HARBOUR
Breakwater
FIRTH OF FORTH
N
0 40 100 200
SCALE IN METRES

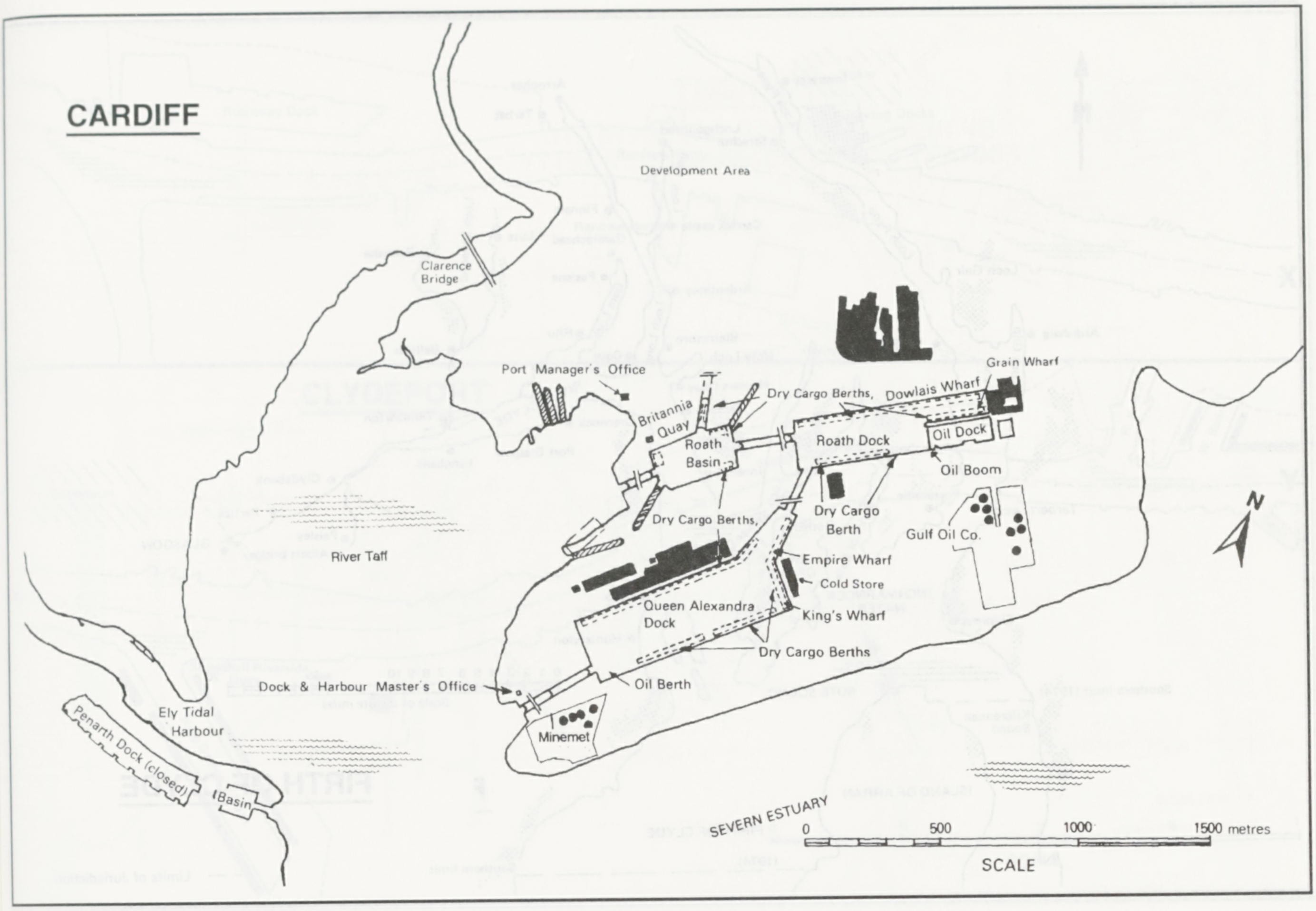
Width at dock gate	18.2 m.
Max. vessel width	16.8 m.
Depth (max.)	7.5 m.
Wharfage (East Dock)	443.0 m.

CAMPBELTOWN

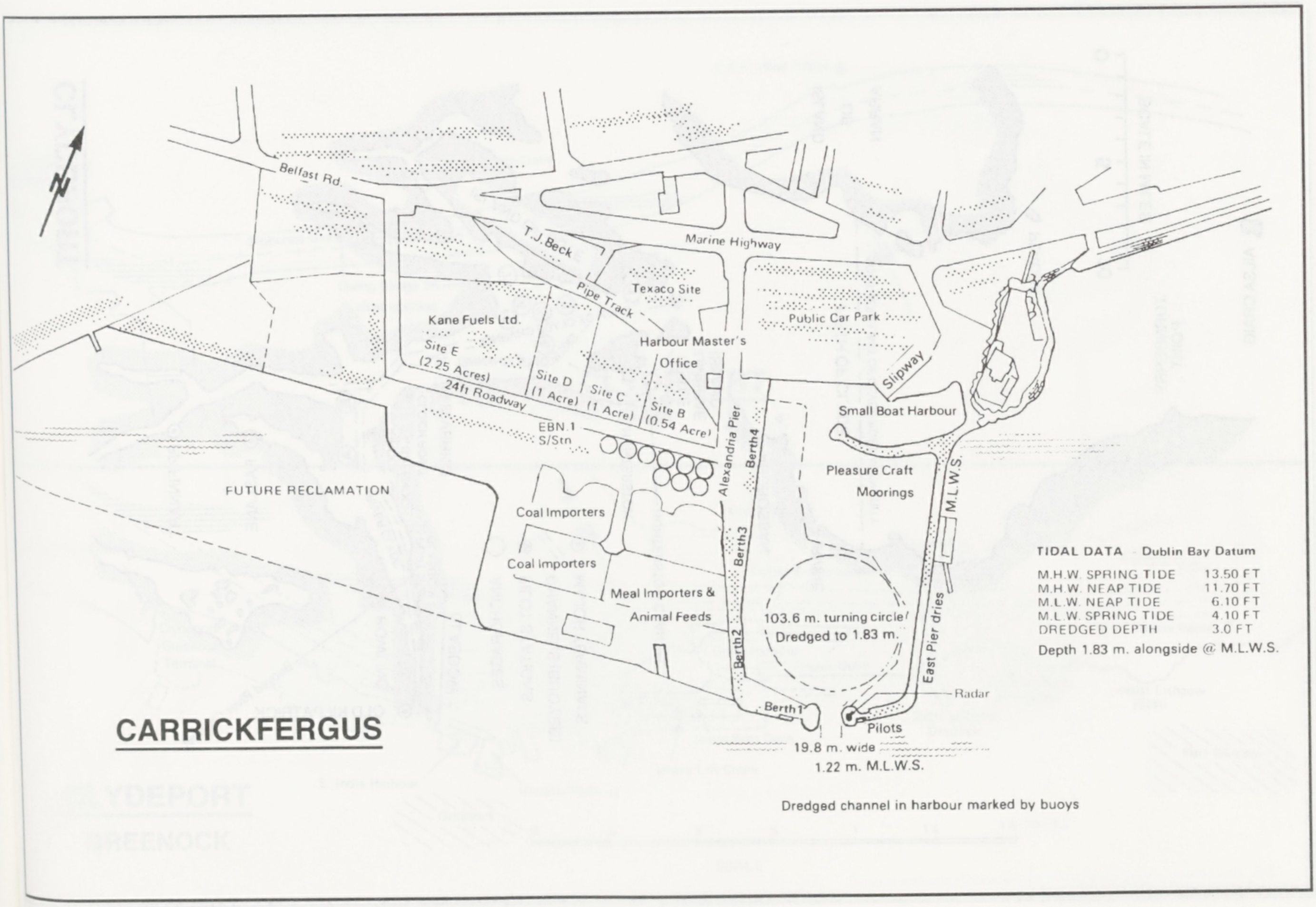
FIGURES IN DRAFT AVAILBLE AT MLWST


Harbour Master's Office
Yacht Pontoon
Mud and boulders
Old Quay
Fish Sales Hall
H.W.M.O.S.T
Mud
Slipway
New quay
L.W.M.O.S.T
▲ Green Buoy Unit
N
4
8
3
6
7
5
9
12
16
1
4
19
9
8
20
2
14
3
19
2A
14
19
1
14
8
14
14
9
17
20

CARDIFF


Development Area
Clarence Bridge
Port Manager's Office
Britannia Quay
Roath Basin
Dry Cargo Berths,
Dowlais Wharf
Grain Wharf
Roath Dock
Oil Dock
Oil Boom
Dry Cargo Berths,
Dry Cargo Berth
Gulf Oil Co.
River Taff
Empire Wharf
Cold Store
Queen Alexandra Dock
King's Wharf
Dry Cargo Berths
Oil Berth
Dock & Harbour Master's Office
Ely Tidal Harbour
Penarth Dock (closed)
Basin
Minemet
SEVERN ESTUARY
0
500
1000
1500 metres
SCALE
N

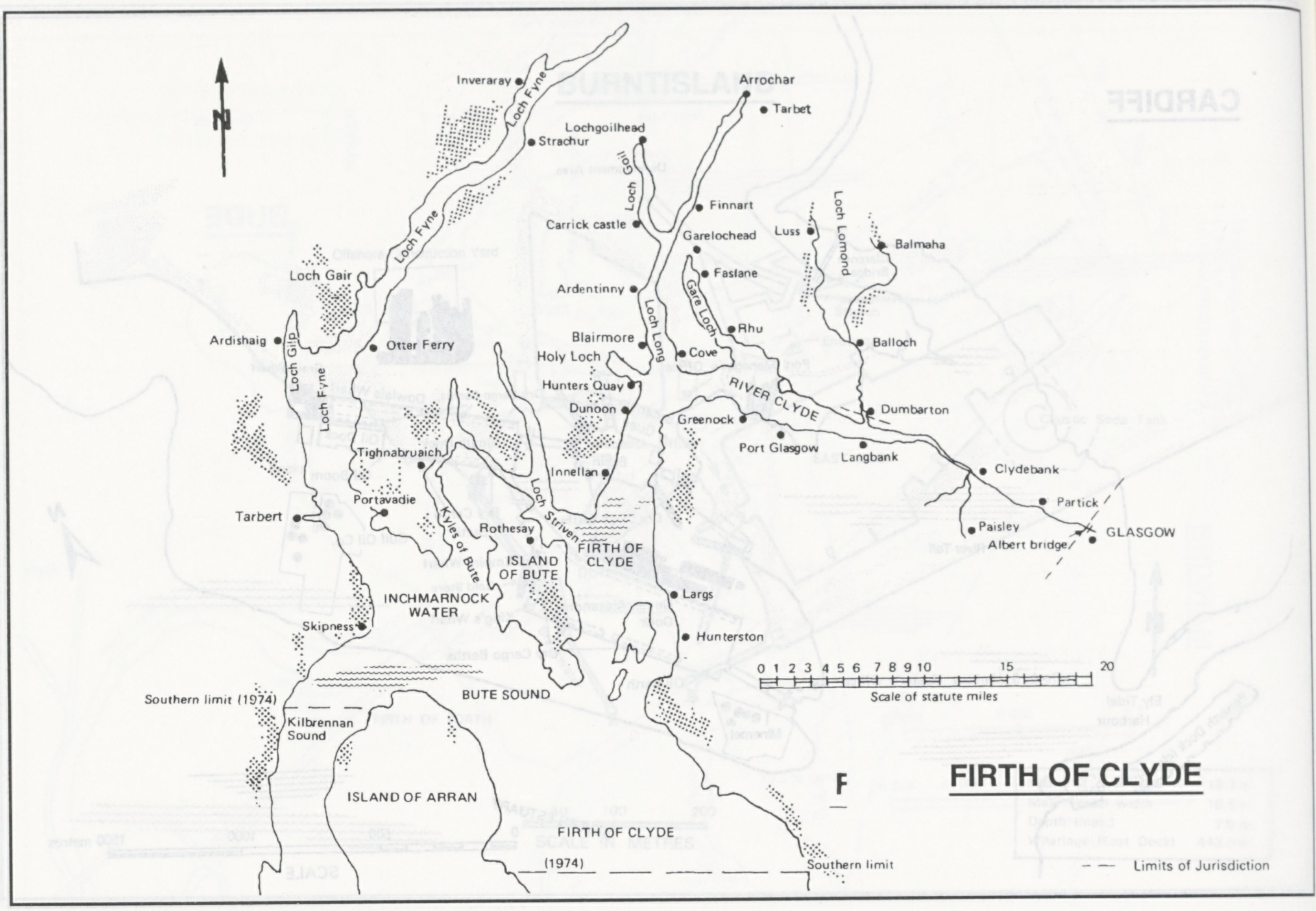
CARRICKFERGUS

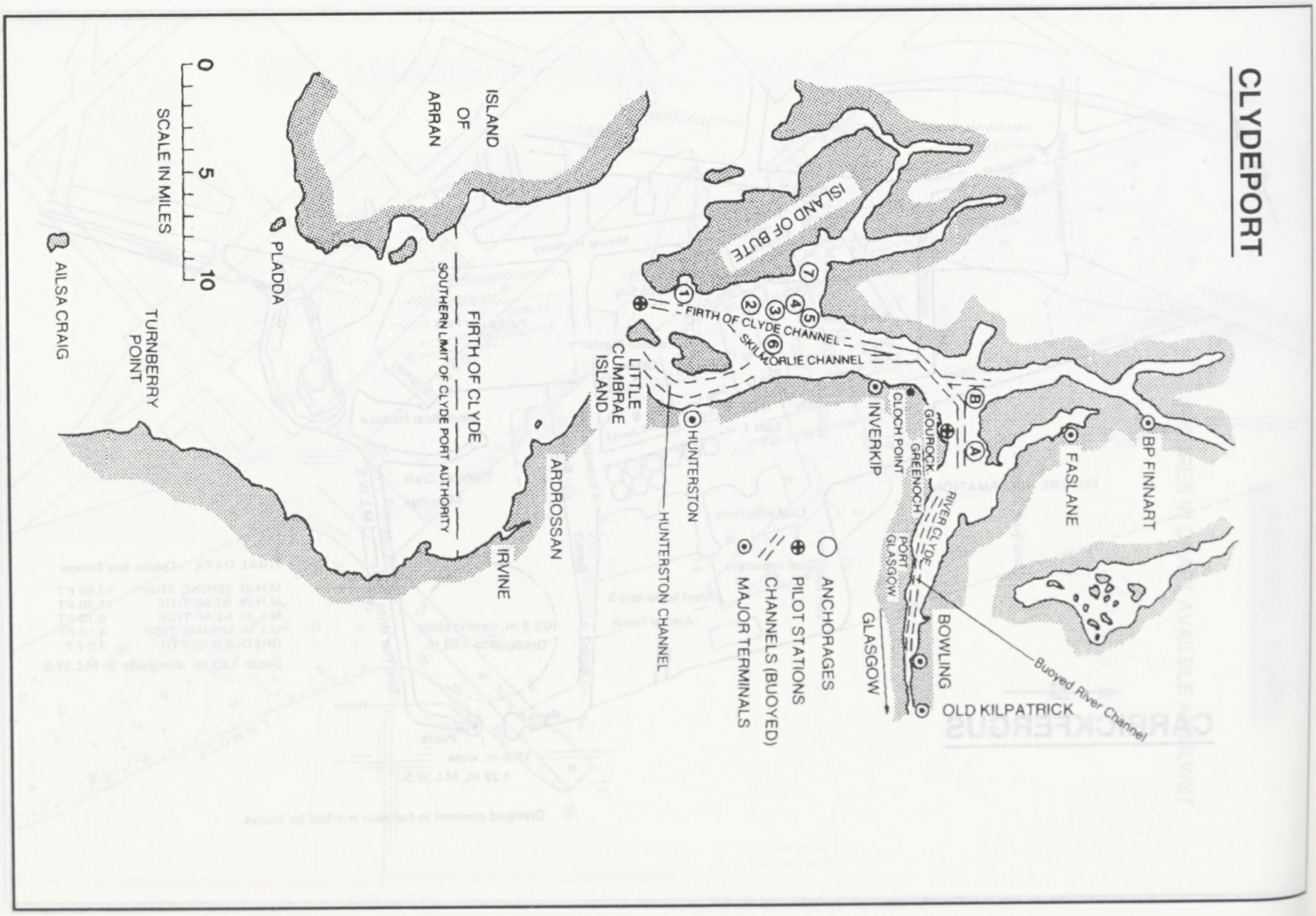

N
Belfast Rd.
T.J. Beck
Marine Highway
Pipe Track
Texaco Site
Kane Fuels Ltd.
Site E (2.25 Acres)
Site D (1 Acre)
Site C (1 Acre)
Site B (0.54 Acre)
Harbour Master's Office
Public Car Park
Slipway
24ft Roadway
EBN 1 S/Stn
Small Boat Harbour
Alexandra Pier
Berth4
Pleasure Craft Moorings
FUTURE RECLAMATION
Coal Importers
Coal Importers
Berth3
M.L.W.S.
Meal Importers & Animal Feeds
103.6 m. turning circle Dredged to 1.83 m.
East Pier dries
Berth2
Radar
Berth1
Pilots
19.8 m. wide
1.22 m. M.L.W.S.
Dredged channel in harbour marked by buoys

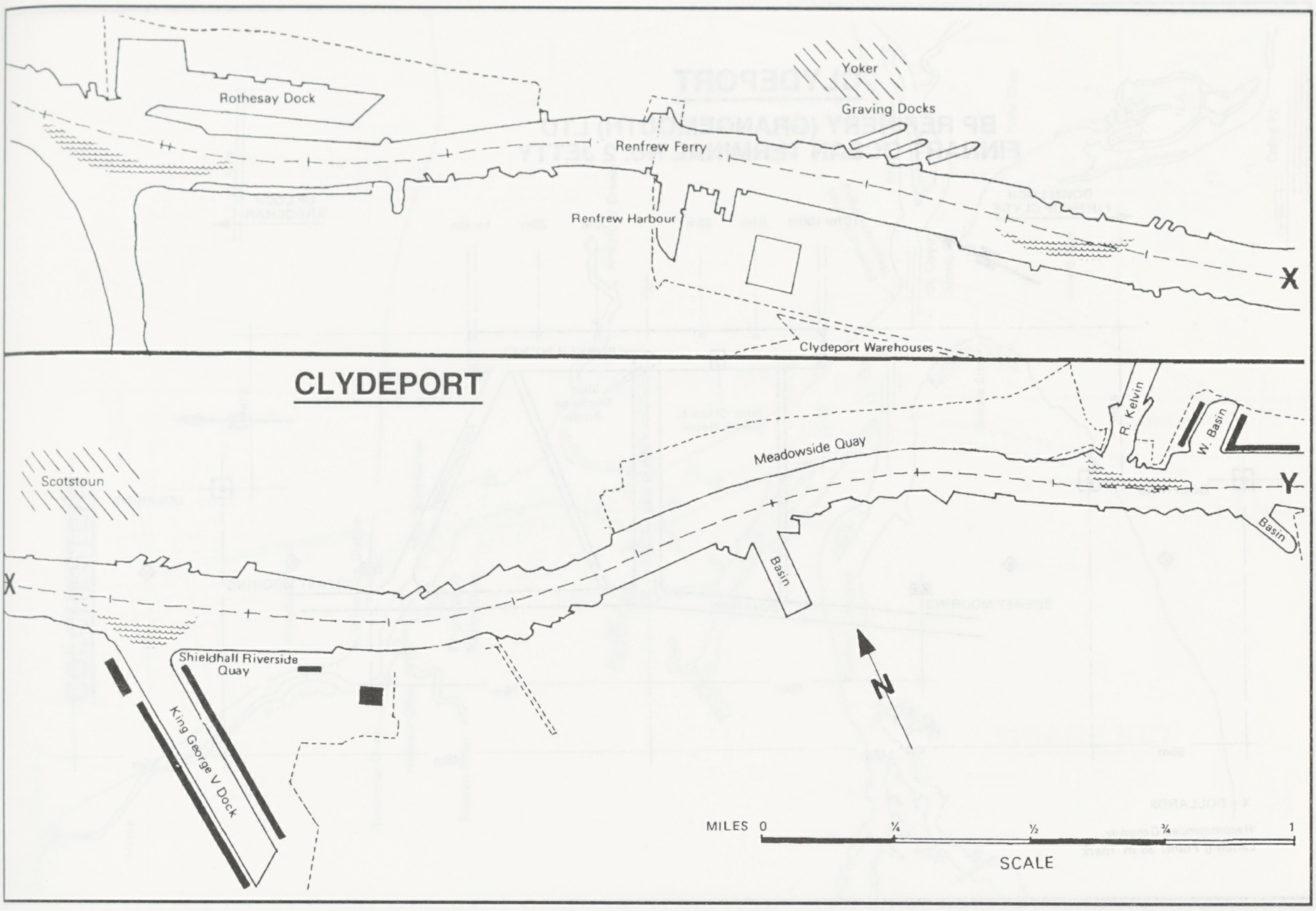
TIDAL DATA – **Dublin Bay Datum**

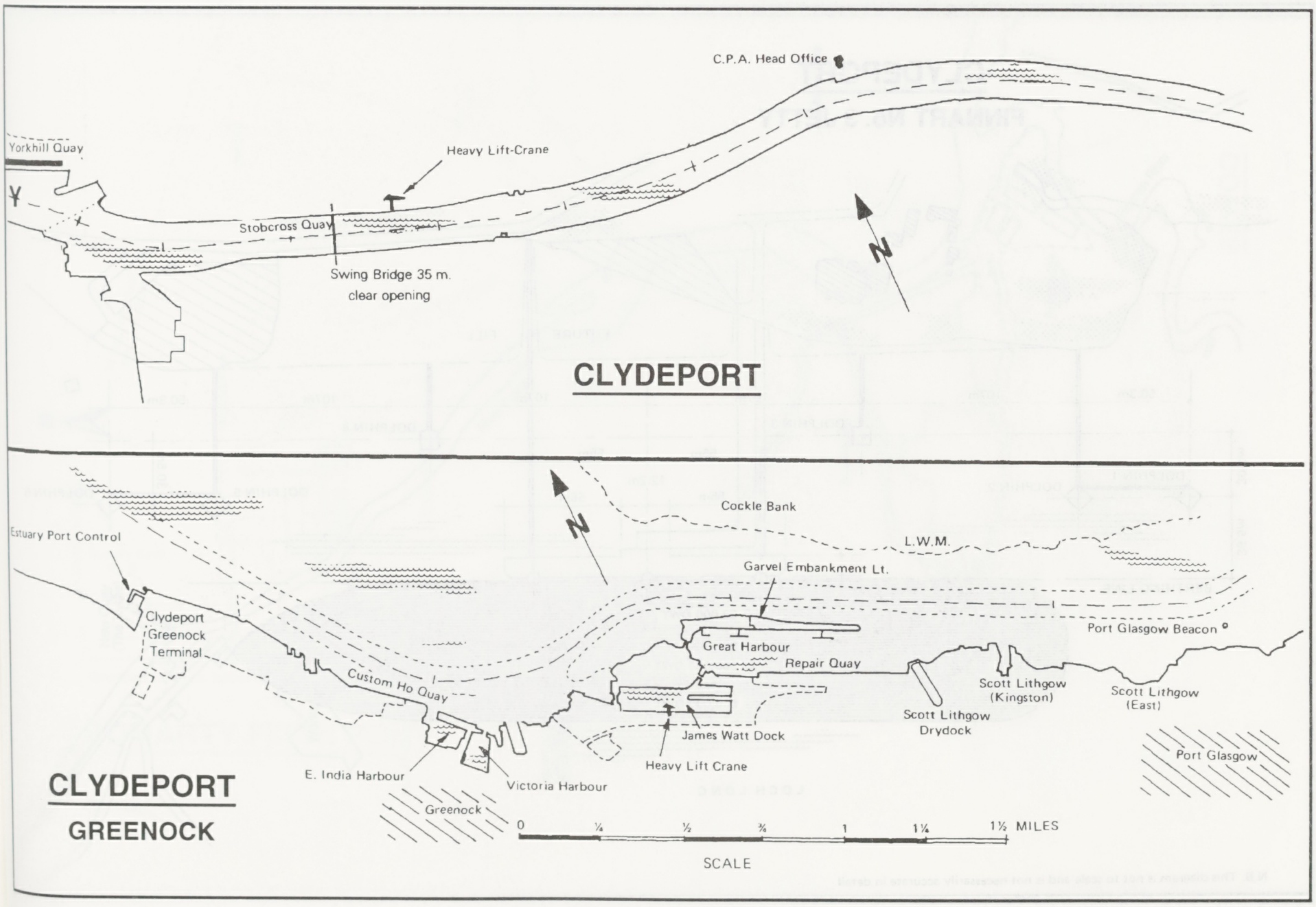
M.H.W. SPRING TIDE	13.50 FT
M.H.W. NEAP TIDE	11.70 FT
M.L.W. NEAP TIDE	6.10 FT
M.L.W. SPRING TIDE	4.10 FT
DREDGED DEPTH	3.0 FT

Depth 1.83 m. alongside @ M.L.W.S.


N
Inveraray
Loch Fyne
Arrochar
Tarbet
Lochgoilhead
Strachur
Loch Goil
Finnart
Loch Lomond
Luss
Balmaha
Carrick castle
Garelochead
Faslane
Loch Gair
Ardentinny
Gare Loch
Rhu
Ardishaig
Loch Gilp
Otter Ferry
Blairmore
Loch Long
Holy Loch
Cove
Balloch
Hunters Quay
RIVER CLYDE
Dunoon
Dumbarton
Greenock
Port Glasgow
Langbank
Tighnabruaich
Clydebank
Innellan
Partick
Tarbert
Portavadie
Kyles of Bute
Rothesay
Loch Striven
FIRTH OF CLYDE
Paisley
Albert bridge
GLASGOW
ISLAND OF BUTE
INCHMARNOCK WATER
Largs
Skipness
Hunterston
0 1 2 3 4 5 6 7 8 9 10 15 20
Scale of statute miles
Southern limit (1974)
BUTE SOUND
Kilbrennan Sound
FIRTH OF CLYDE
ISLAND OF ARRAN
FIRTH OF CLYDE (1974)
Southern limit
Limits of Jurisdiction

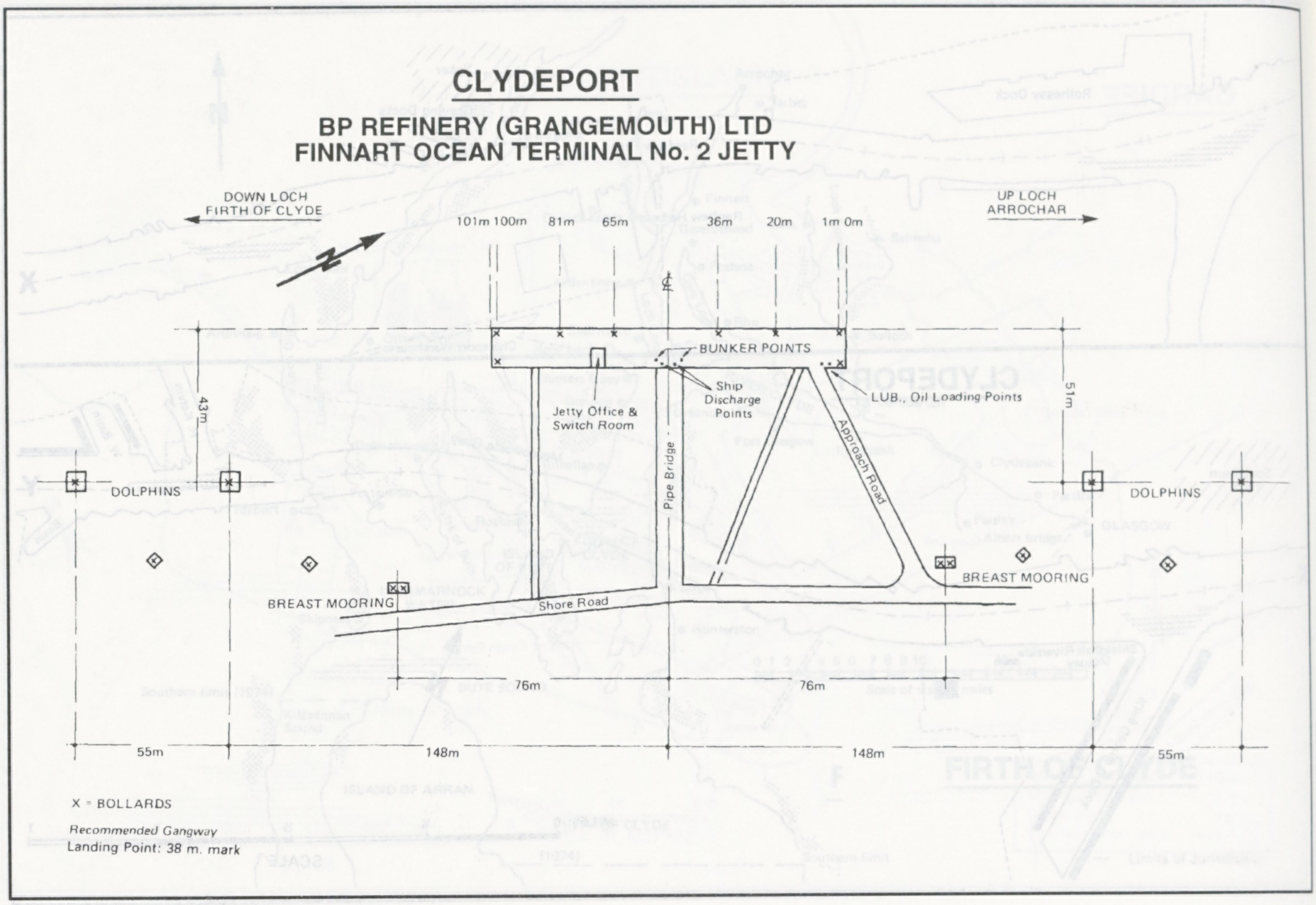

CLYDEPORT
0 5 10
SCALE IN MILES
ISLAND OF ARRAN
PLADDA
AILSA CRAIG
TURNBERRY POINT
FIRTH OF CLYDE
SOUTHERN LIMIT OF CLYDE PORT AUTHORITY
IRVINE
ARDROSSAN
LITTLE CUMBRAE ISLAND
HUNTERSTON CHANNEL
HUNTERSTON
ISLAND OF BUTE
1 2 3 4 5 6 7
FIRTH OF CLYDE CHANNEL
SKELMORLIE CHANNEL
INVERKIP
CLOCH POINT
GOUROCK
GREENOCK
PORT GLASGOW
RIVER CLYDE
A
B
FASLANE
BP FINNART
GLASGOW
BOWLING
OLD KILPATRICK
Buoyed River Channel
○ ANCHORAGES
⊕ PILOT STATIONS
// CHANNELS (BUOYED)
⊙ MAJOR TERMINALS


Rothesay Dock
Yoker
Graving Docks
Renfrew Ferry
Renfrew Harbour
X
Clydeport Warehouses
CLYDEPORT
Scotstoun
Meadowside Quay
R. Kelvin
W. Basin
Y
Basin
Basin
X
Shieldhall Riverside Quay
King George V Dock
N
MILES 0 ¼ ½ ¾ 1
SCALE


C.P.A. Head Office
Yorkhill Quay
Heavy Lift-Crane
Y
Stobcross Quay
Swing Bridge 35 m. clear opening
N
CLYDEPORT
N
Cockle Bank
L.W.M.
Estuary Port Control
Garvel Embankment Lt.
Clydeport Greenock Terminal
Great Harbour
Repair Quay
Port Glasgow Beacon
Custom Ho Quay
Scott Lithgow (Kingston)
Scott Lithgow (East)
Scott Lithgow Drydock
James Watt Dock
Heavy Lift Crane
E. India Harbour
Victoria Harbour
Port Glasgow
Greenock
CLYDEPORT
GREENOCK
0 ¼ ½ ¾ 1 1¼ 1½ MILES
SCALE

CLYDEPORT

BP REFINERY (GRANGEMOUTH) LTD
FINNART OCEAN TERMINAL No. 2 JETTY

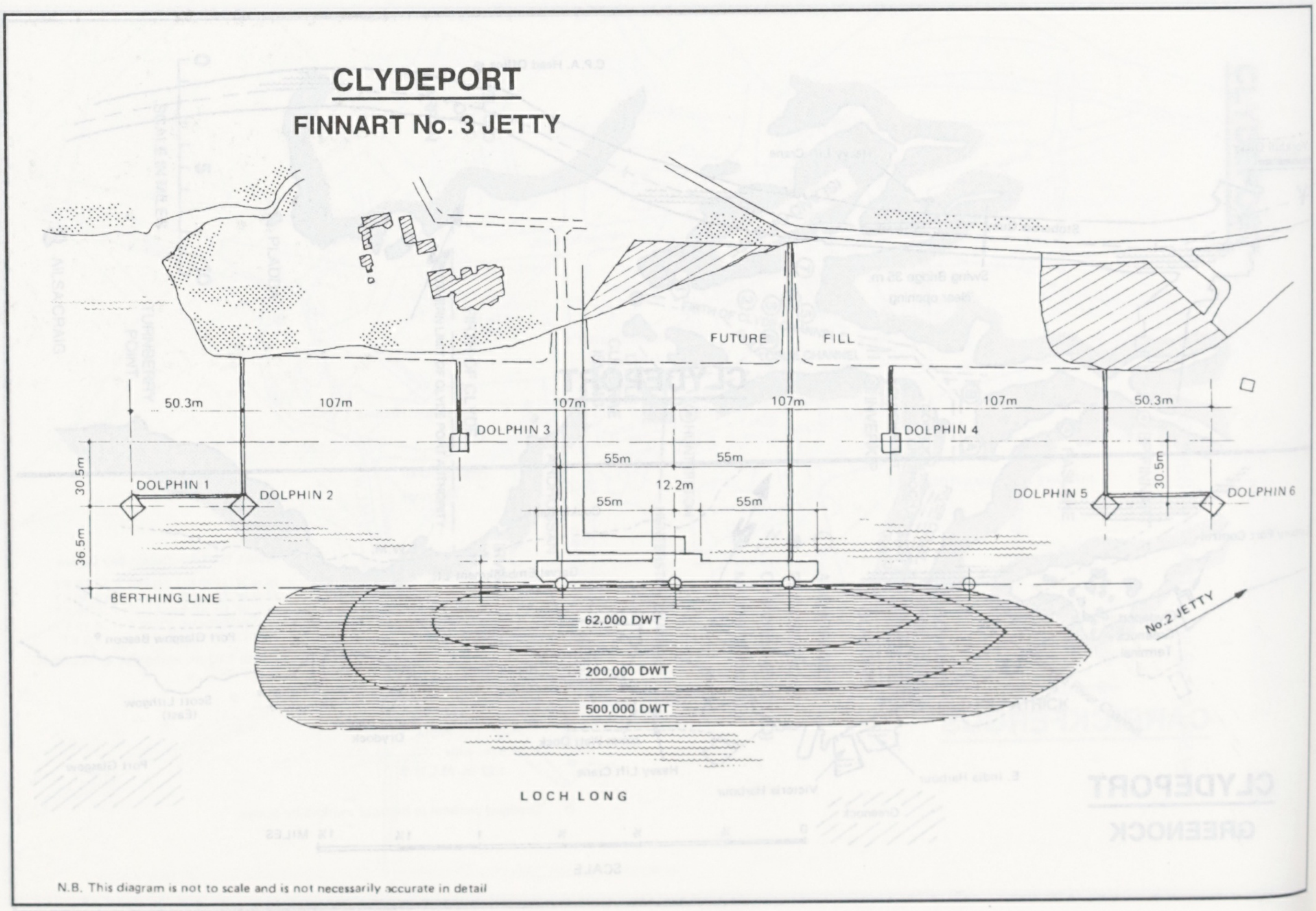

DOWN LOCH
FIRTH OF CLYDE
UP LOCH
ARROCHAR
N
101m 100m
81m
65m
36m
20m
1m 0m
℄
BUNKER POINTS
Ship Discharge Points
LUB., Oil Loading Points
Jetty Office & Switch Room
Pipe Bridge
Approach Road
43m
51m
DOLPHINS
DOLPHINS
BREAST MOORING
BREAST MOORING
Shore Road
76m
76m
55m
148m
148m
55m

X = BOLLARDS

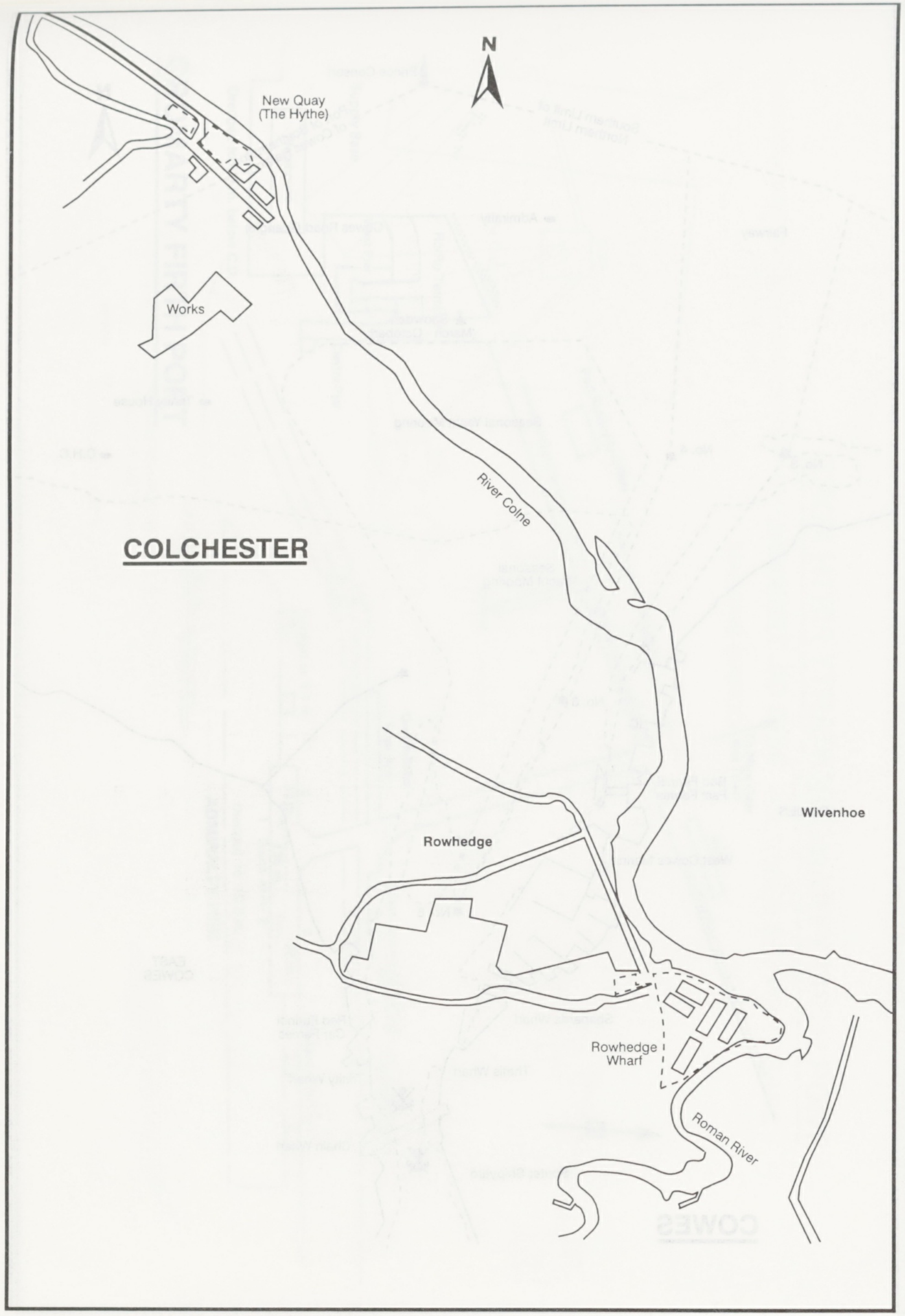
Recommended Gangway
Landing Point: 38 m. mark

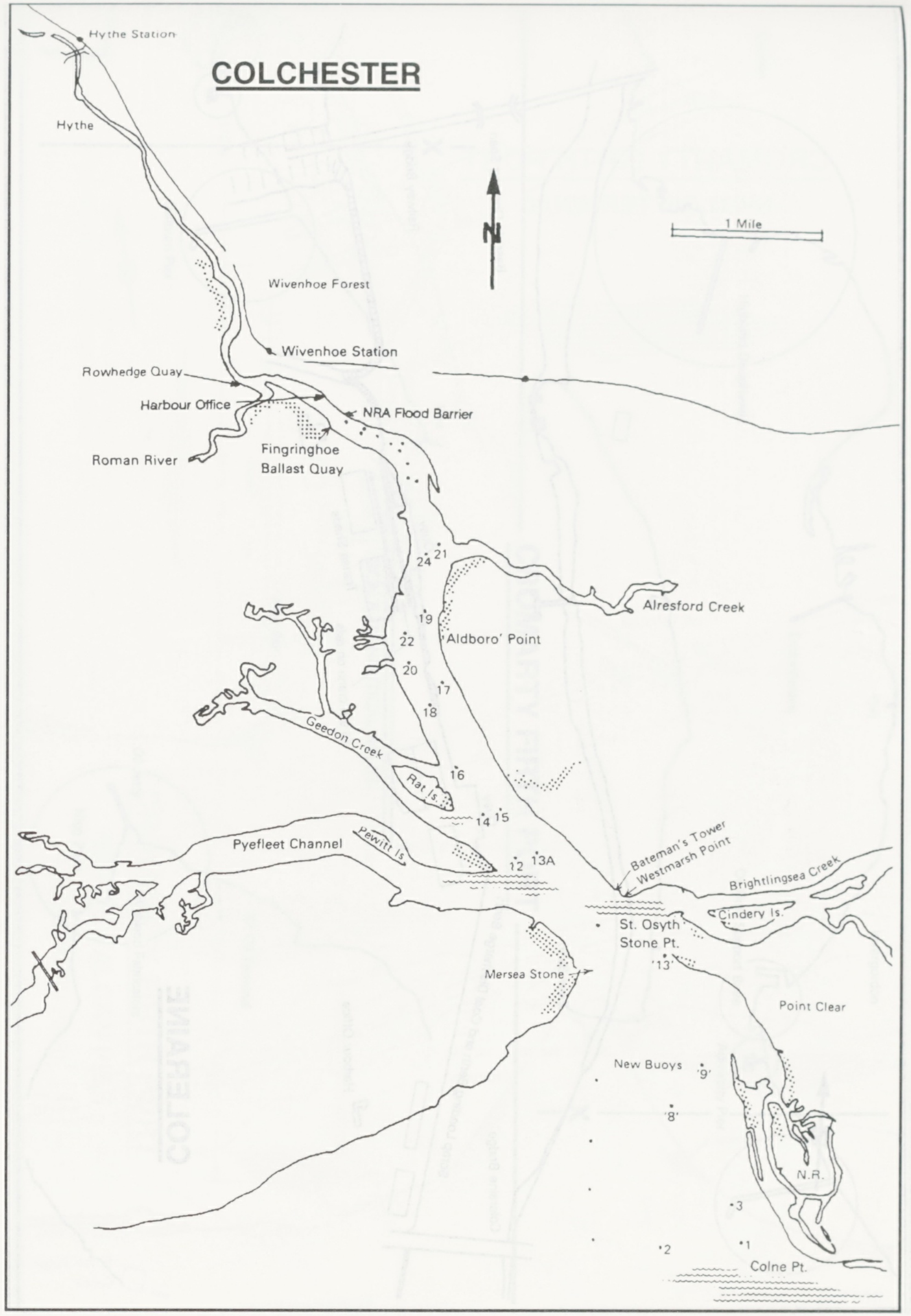
CLYDEPORT

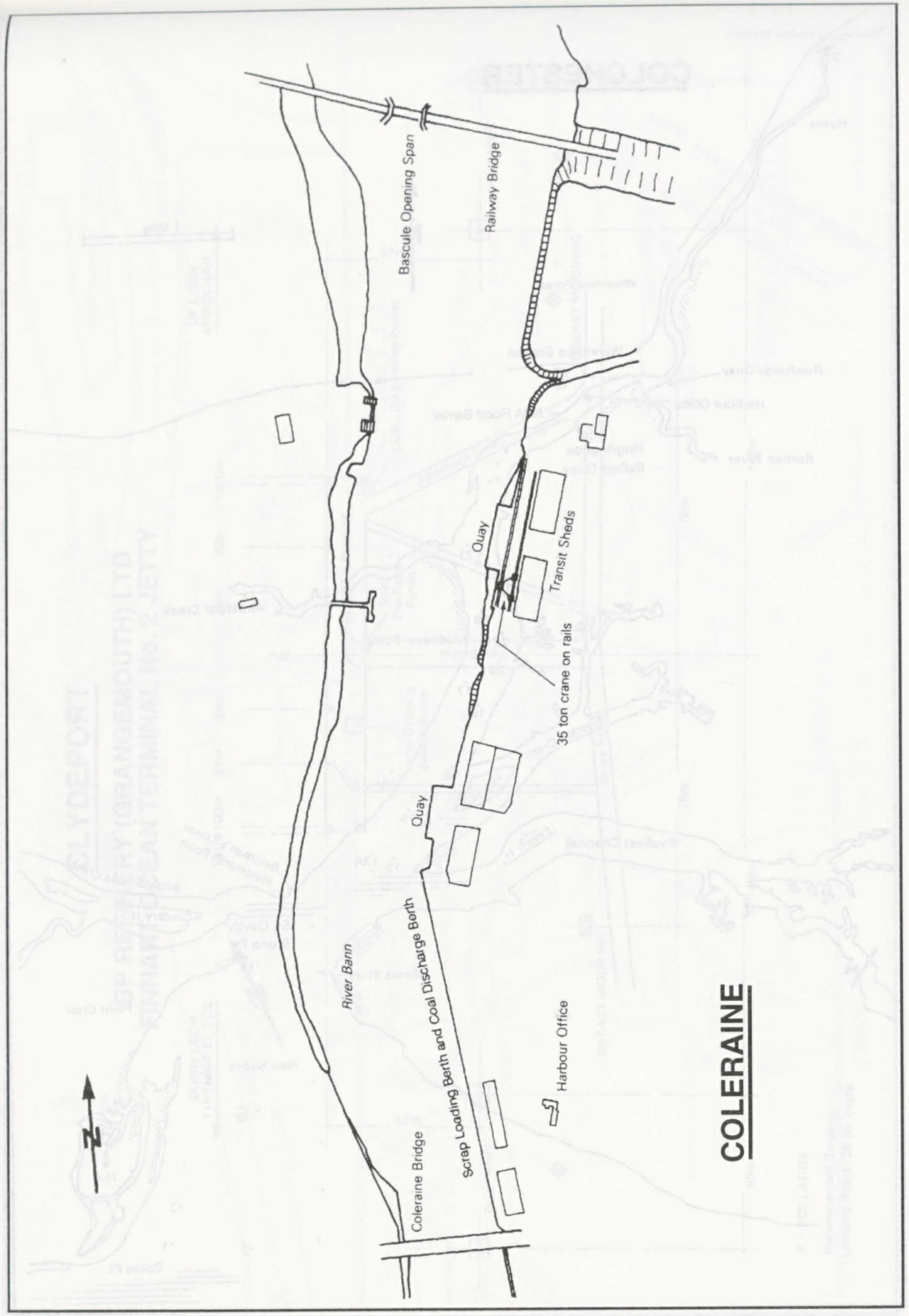
FINNART No. 3 JETTY

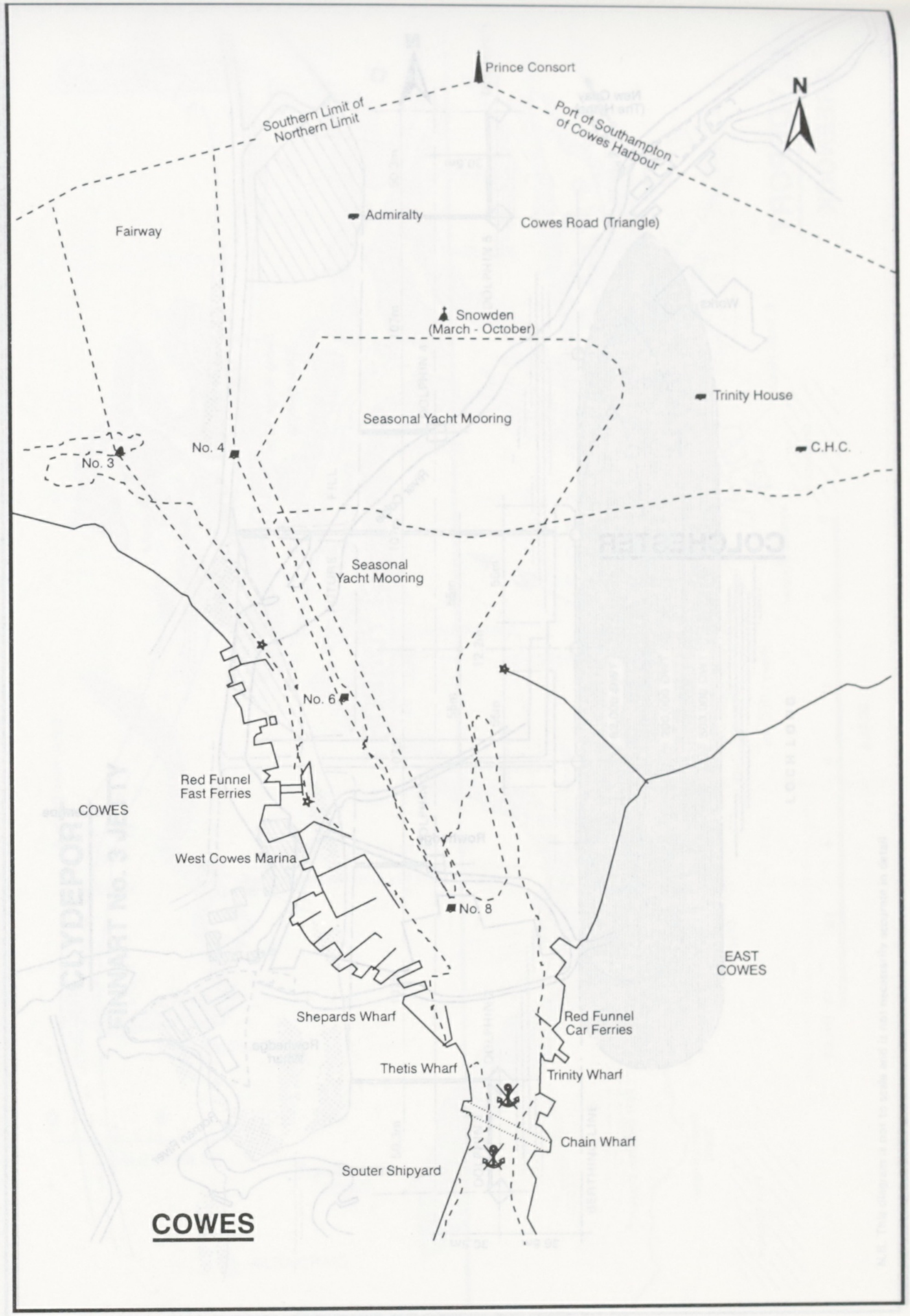

FUTURE
FILL
50.3m
107m
107m
107m
107m
50.3m
DOLPHIN 3
DOLPHIN 4
DOLPHIN 1
DOLPHIN 2
DOLPHIN 5
DOLPHIN 6
30.5m
36.5m
30.5m
55m
55m
12.2m
55m
55m
BERTHING LINE
62,000 DWT
200,000 DWT
500,000 DWT
No.2 JETTY
LOCH LONG

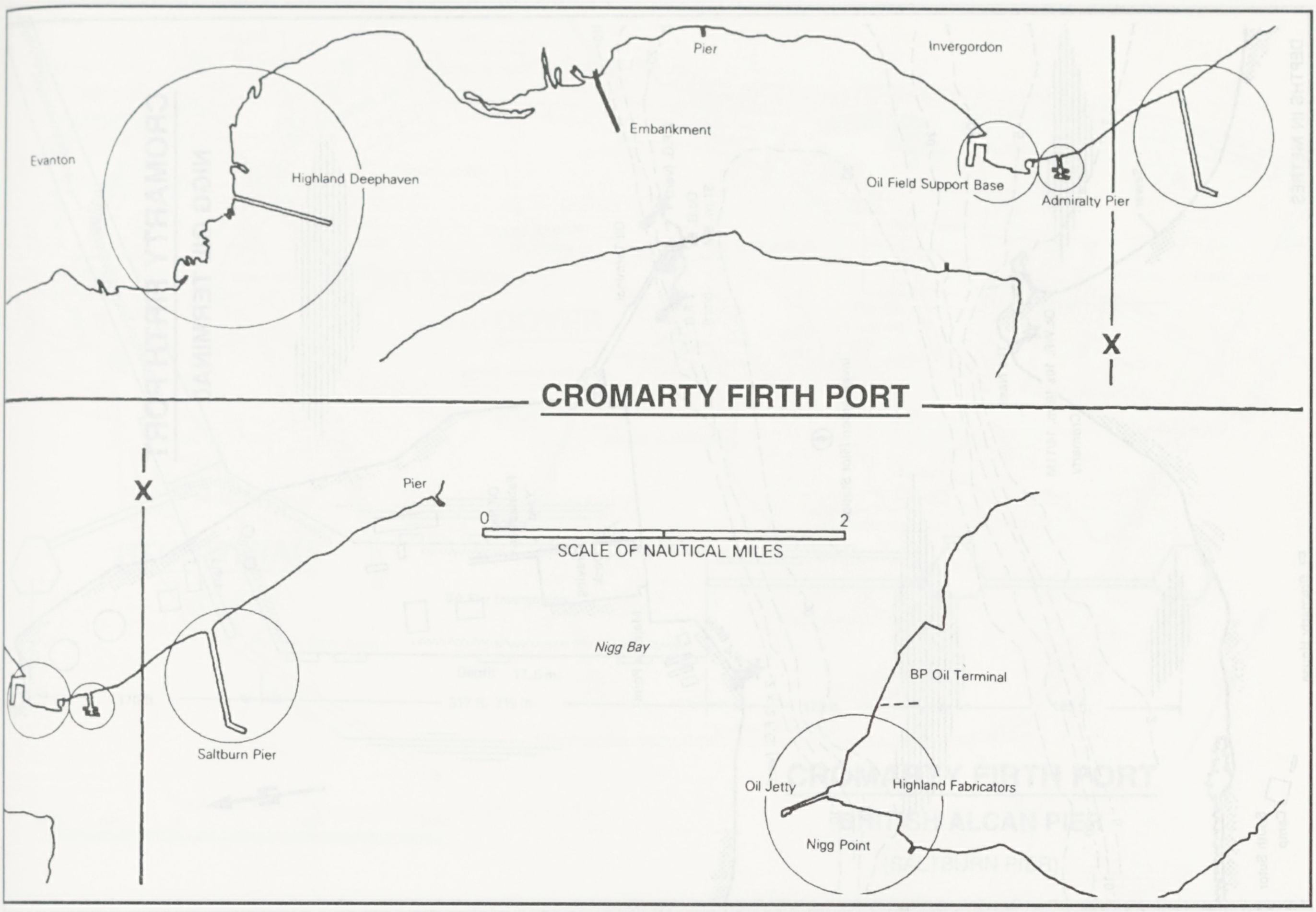
N.B. This diagram is not to scale and is not necessarily accurate in detail


N
New Quay
(The Hythe)
Works
COLCHESTER
River Colne
Wivenhoe
Rowhedge
Rowhedge
Wharf
Roman River


Hythe Station
COLCHESTER
Hythe
N
1 Mile
Wivenhoe Forest
Wivenhoe Station
Rowhedge Quay
Harbour Office
NRA Flood Barrier
Fingringhoe
Ballast Quay
Roman River
24
21
Alresford Creek
19
22
Aldboro' Point
20
17
18
Geedon Creek
16
Rat Is.
14
15
Pyefleet Channel
Pewitt Is.
12
13A
Bateman's Tower
Westmarsh Point
Brightlingsea Creek
Cindery Is.
St. Osyth
Stone Pt.
'13'
Mersea Stone
Point Clear
New Buoys
'9'
'8'
N.R.
3
2
1
Colne Pt.

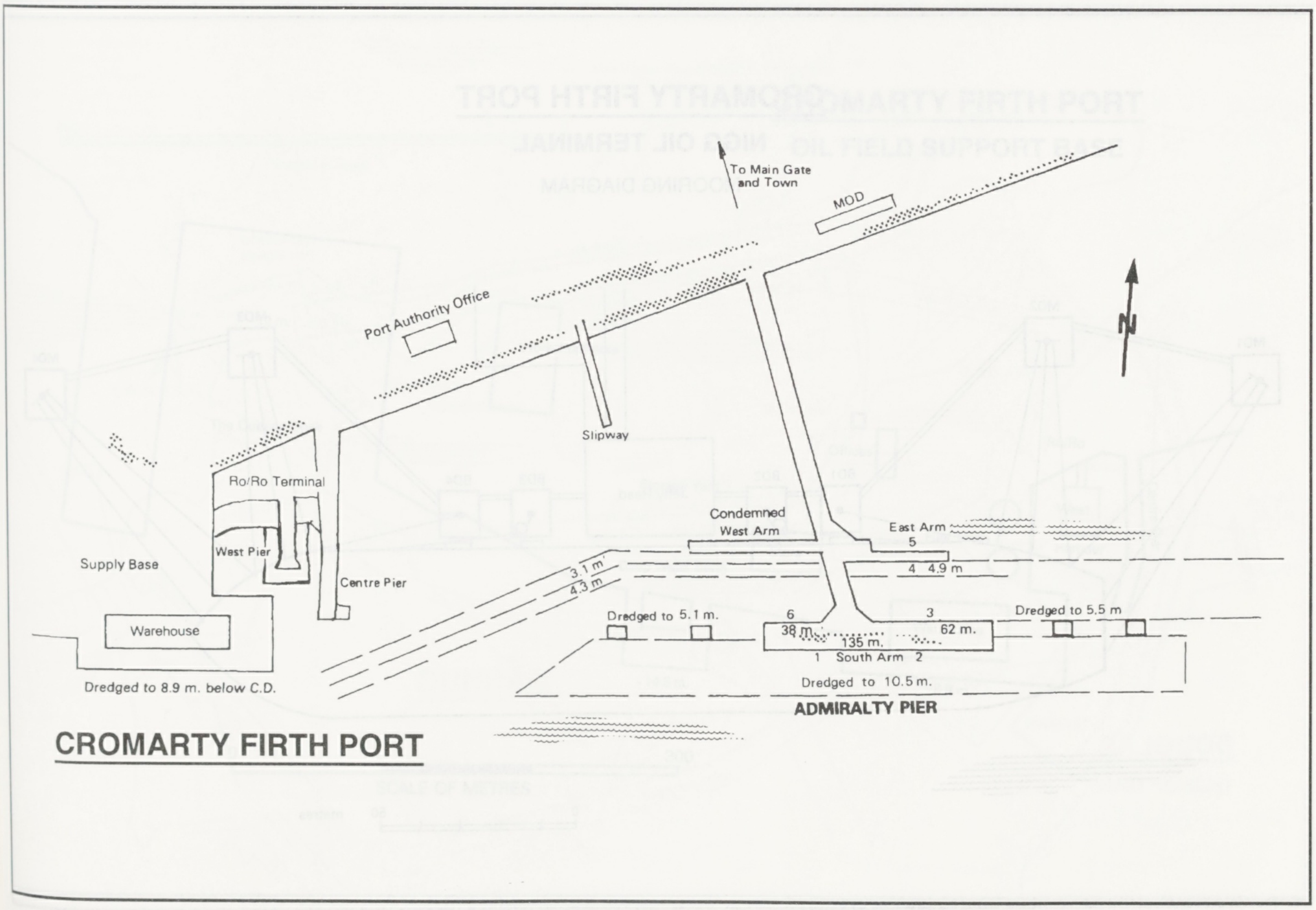

Bascule Opening Span
Railway Bridge
Quay
Transit Sheds
35 ton crane on rails
Quay
Scrap Loading Berth and Coal Discharge Berth
Harbour Office
River Bann
Coleraine Bridge
N
COLERAINE


Prince Consort
N
Southern Limit of Northern Limit
Port of Southampton of Cowes Harbour
Admiralty
Cowes Road (Triangle)
Fairway
Snowden (March - October)
Seasonal Yacht Mooring
Trinity House
C.H.C.
No. 4
No. 3
Seasonal Yacht Mooring
No. 6
Red Funnel Fast Ferries
COWES
West Cowes Marina
No. 8
EAST COWES
Shepards Wharf
Red Funnel Car Ferries
Thetis Wharf
Trinity Wharf
Chain Wharf
Souter Shipyard
COWES



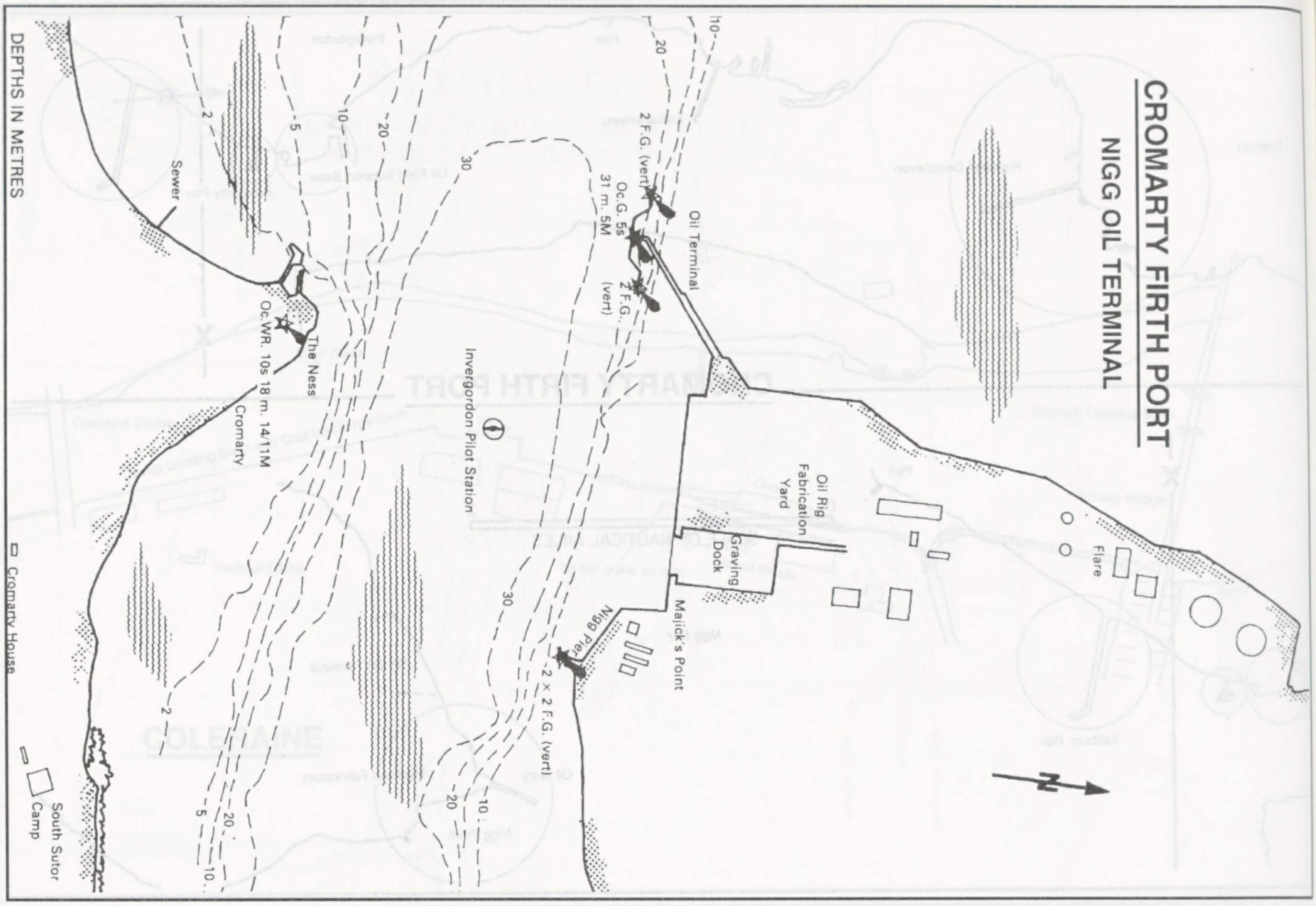
CROMARTY FIRTH PORT

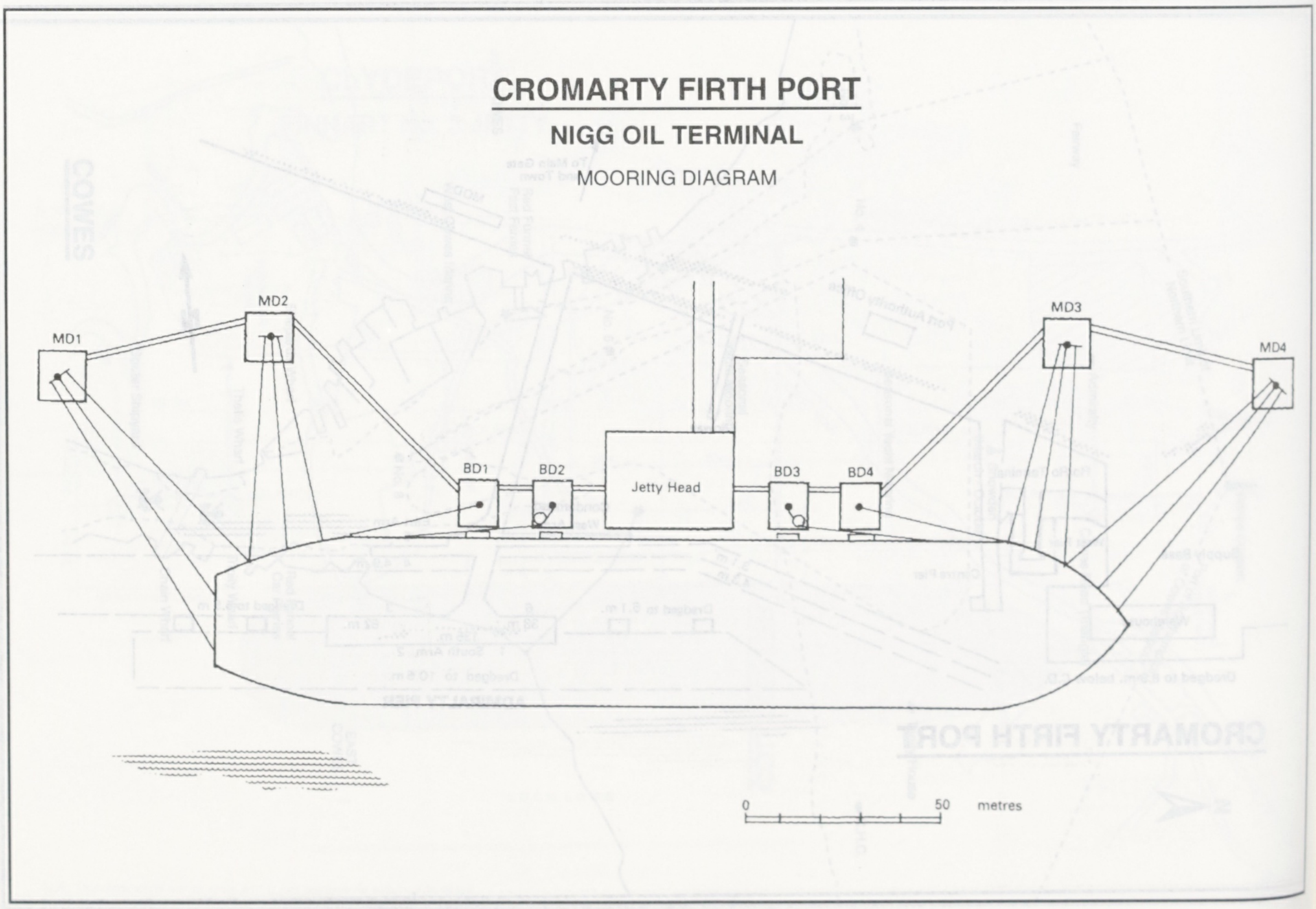
Evanton
Highland Deephaven
Pier
Embankment
Invergordon
Oil Field Support Base
Admiralty Pier
X
X
Pier
0
2
SCALE OF NAUTICAL MILES
Nigg Bay
BP Oil Terminal
Saltburn Pier
Oil Jetty
Highland Fabricators
Nigg Point

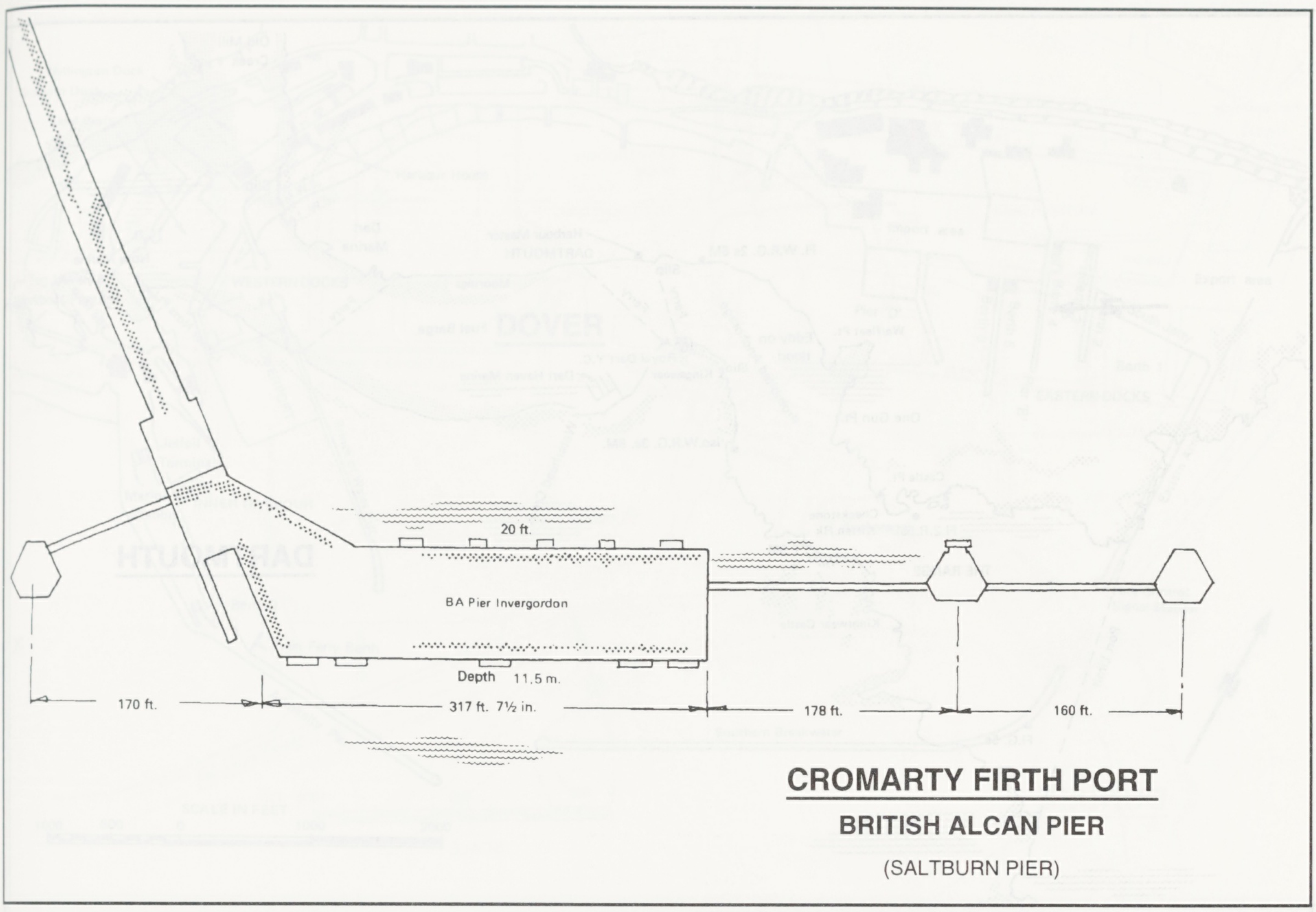


CROMARTY FIRTH PORT

To Main Gate and Town
MOD
N
Port Authority Office
Slipway
Ro/Ro Terminal
West Pier
Supply Base
Centre Pier
Warehouse
Dredged to 8.9 m. below C.D.
Condemned West Arm
East Arm
5
4 4.9 m
3.1 m
4.3 m
Dredged to 5.1 m.
6
3
Dredged to 5.5 m
38 m.
135 m.
62 m.
1 South Arm 2
Dredged to 10.5 m.
ADMIRALTY PIER


CROMARTY FIRTH PORT
NIGG OIL TERMINAL
DEPTHS IN METRES
Sewer
2
5
10
20
30
The Ness
Oc.WR. 10s 18 m. 14/11M
Cromarty
Invergordon Pilot Station
Oil Terminal
2 F.G. (vert)
Oc.G. 5s 31 m. 5M
2 F.G. (vert)
Oil Rig Fabrication Yard
Graving Dock
Majick's Point
Nigg Pier
2 × 2 F.G. (vert)
Flare
N
Cromarty House
South Sutor Camp

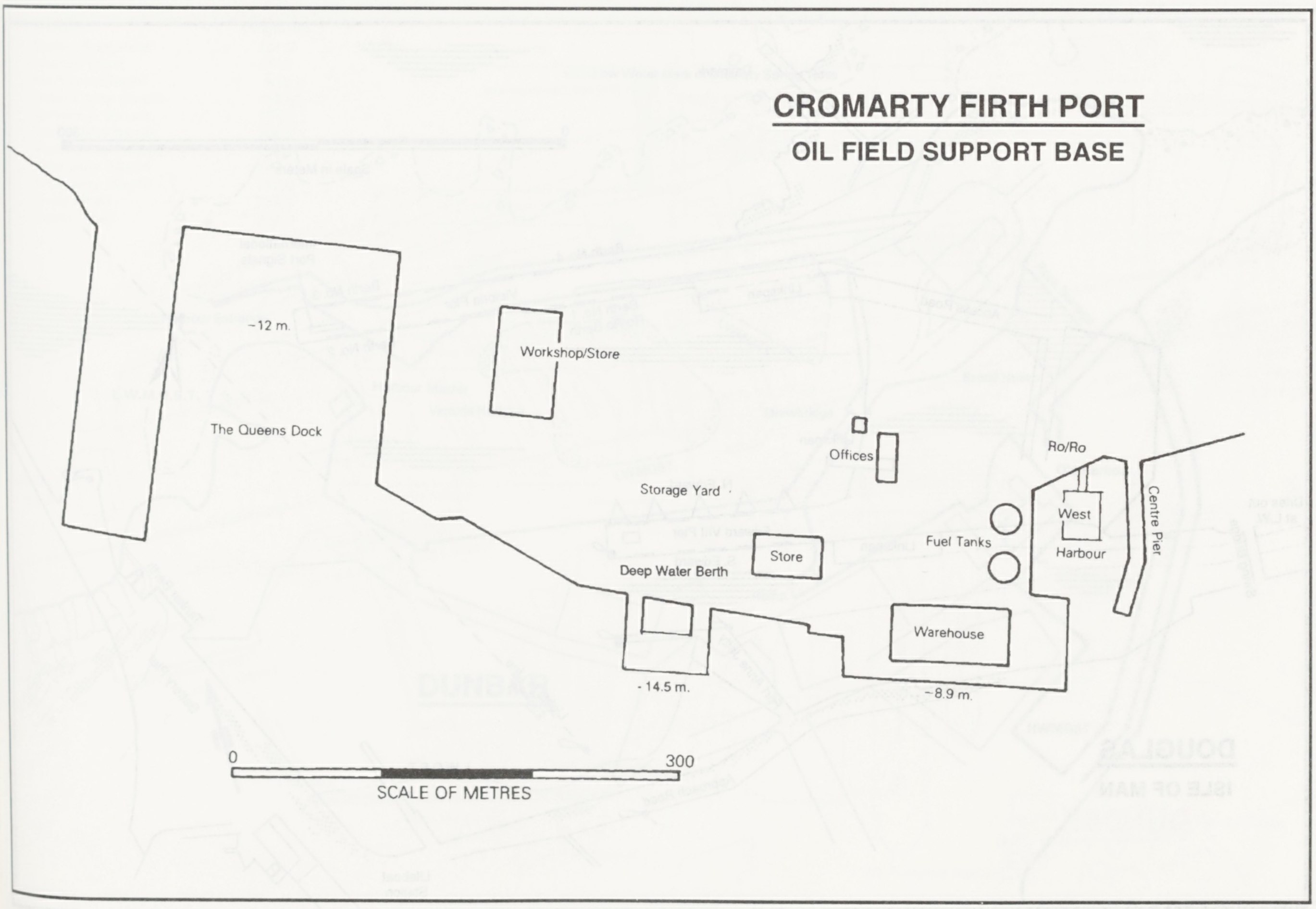

CROMARTY FIRTH PORT
NIGG OIL TERMINAL
MOORING DIAGRAM
MD1
MD2
BD1
BD2
Jetty Head
BD3
BD4
MD3
MD4
0
50
metres


20 ft.
BA Pier Invergordon
Depth 11.5 m.
170 ft.
317 ft. 7½ in.
178 ft.
160 ft.

CROMARTY FIRTH PORT

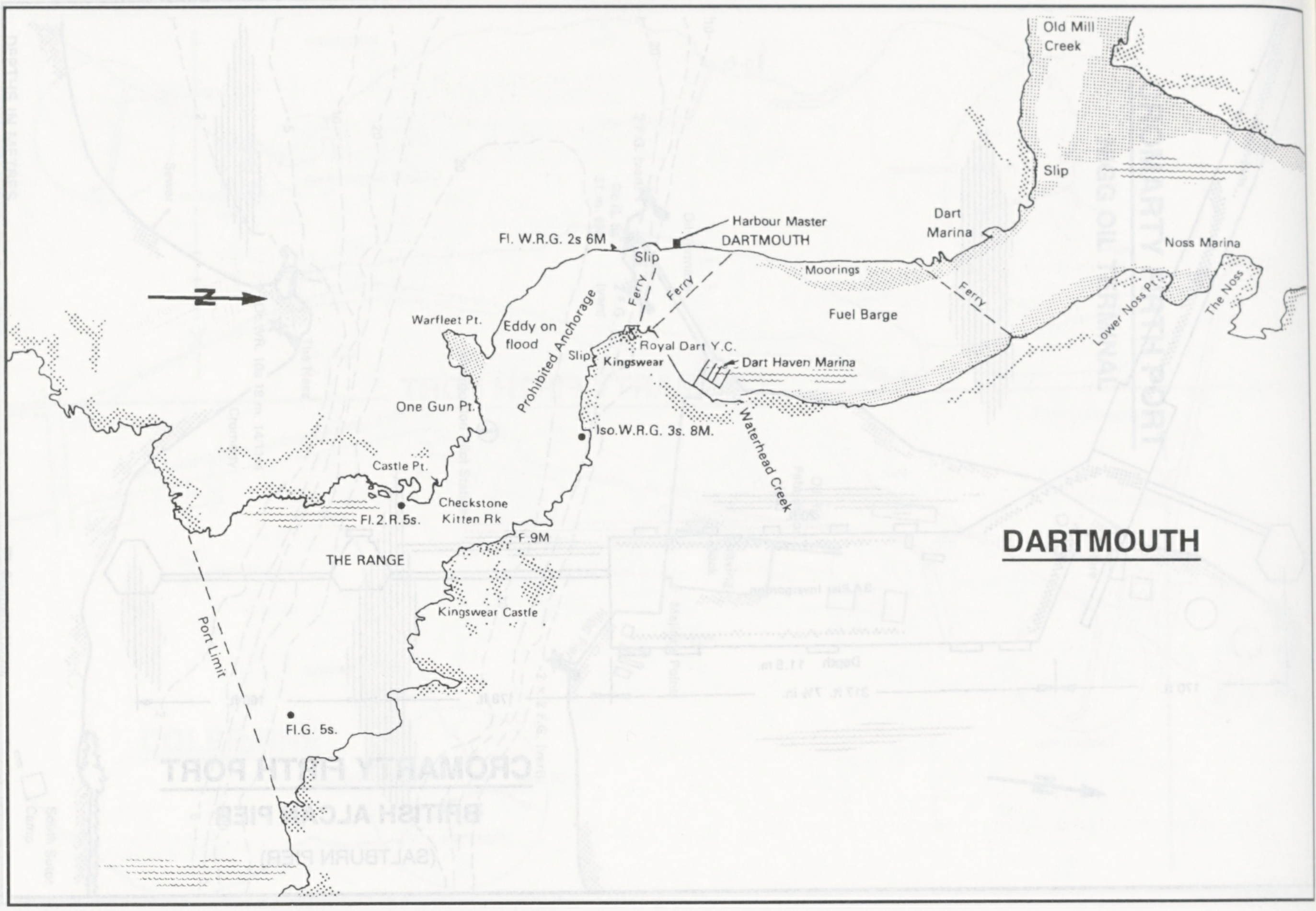
BRITISH ALCAN PIER

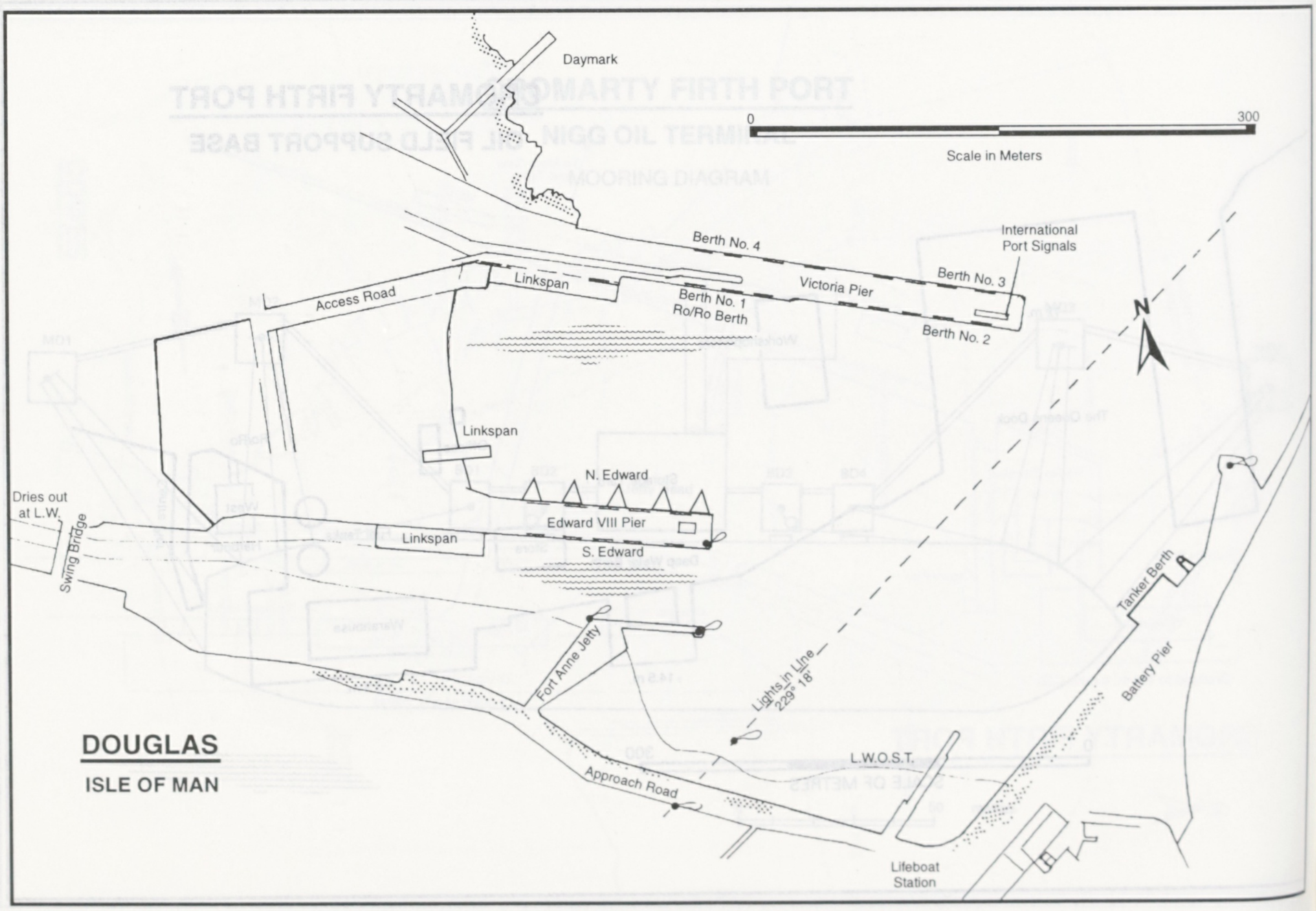
(SALTBURN PIER)

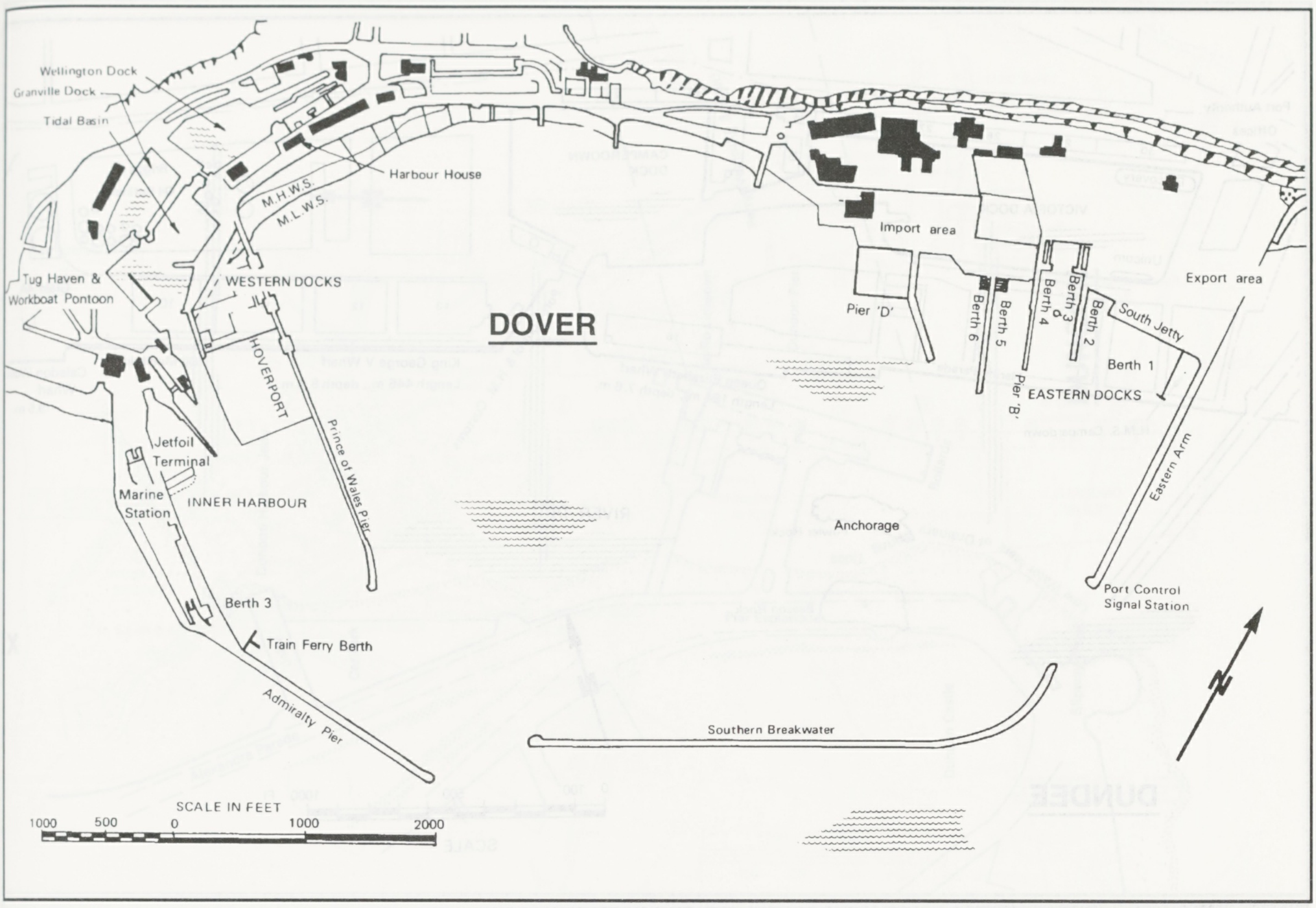

~12 m.
The Queens Dock
Workshop/Store
Storage Yard
Offices
Ro/Ro
West
Harbour
Centre Pier
Fuel Tanks
Store
Deep Water Berth
Warehouse
- 14.5 m.
~8.9 m.
0
300
SCALE OF METRES

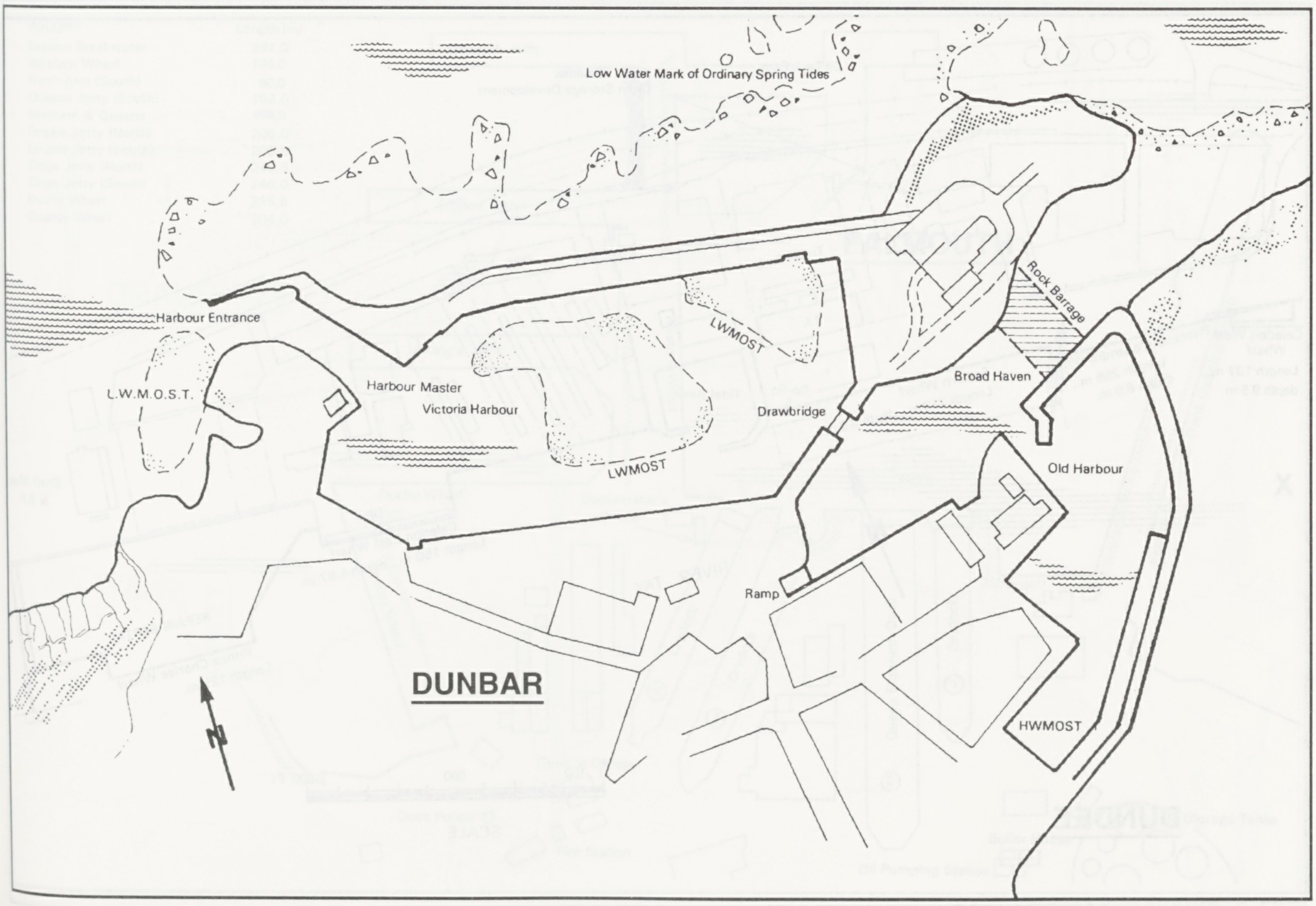
CROMARTY FIRTH PORT

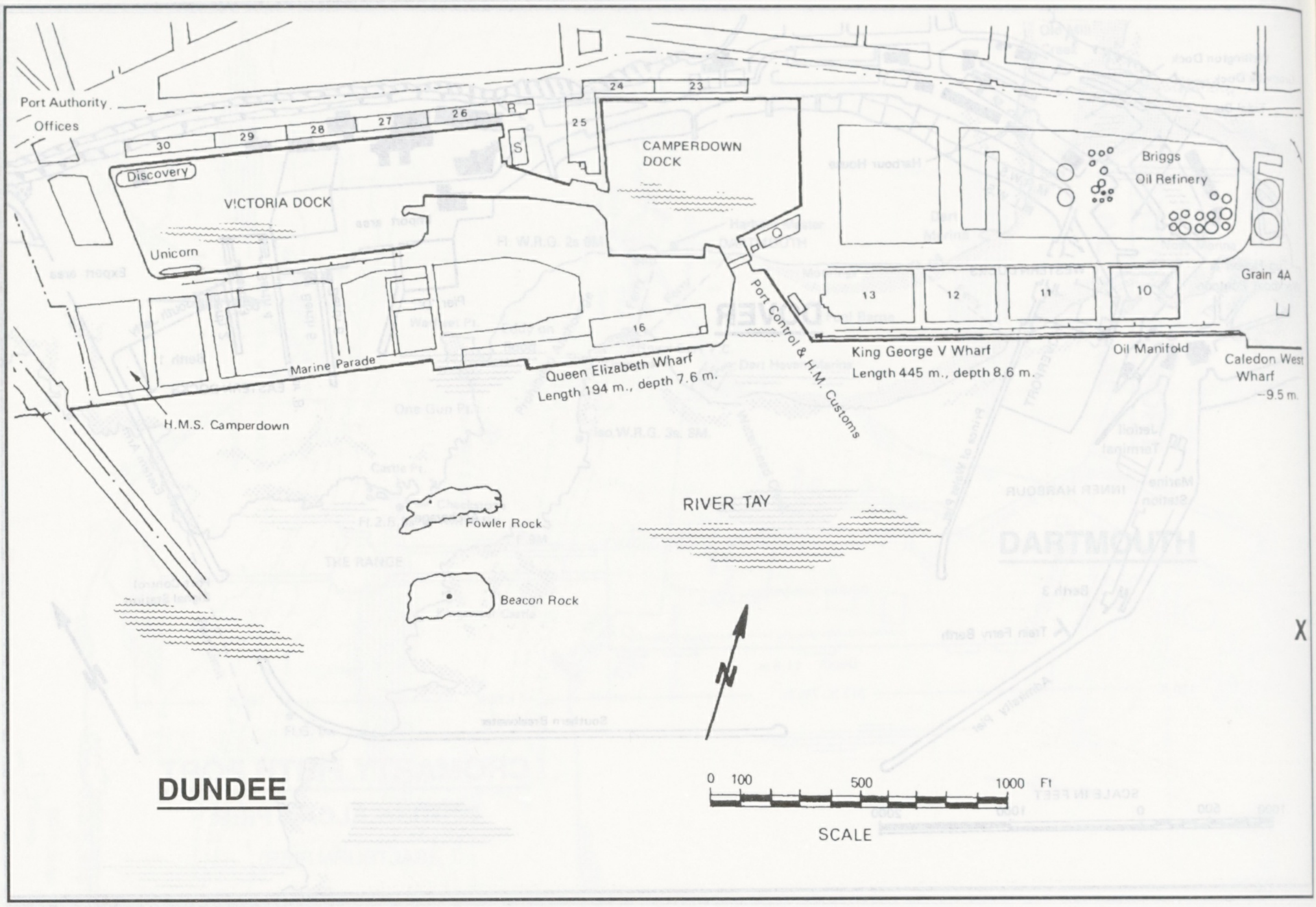
OIL FIELD SUPPORT BASE

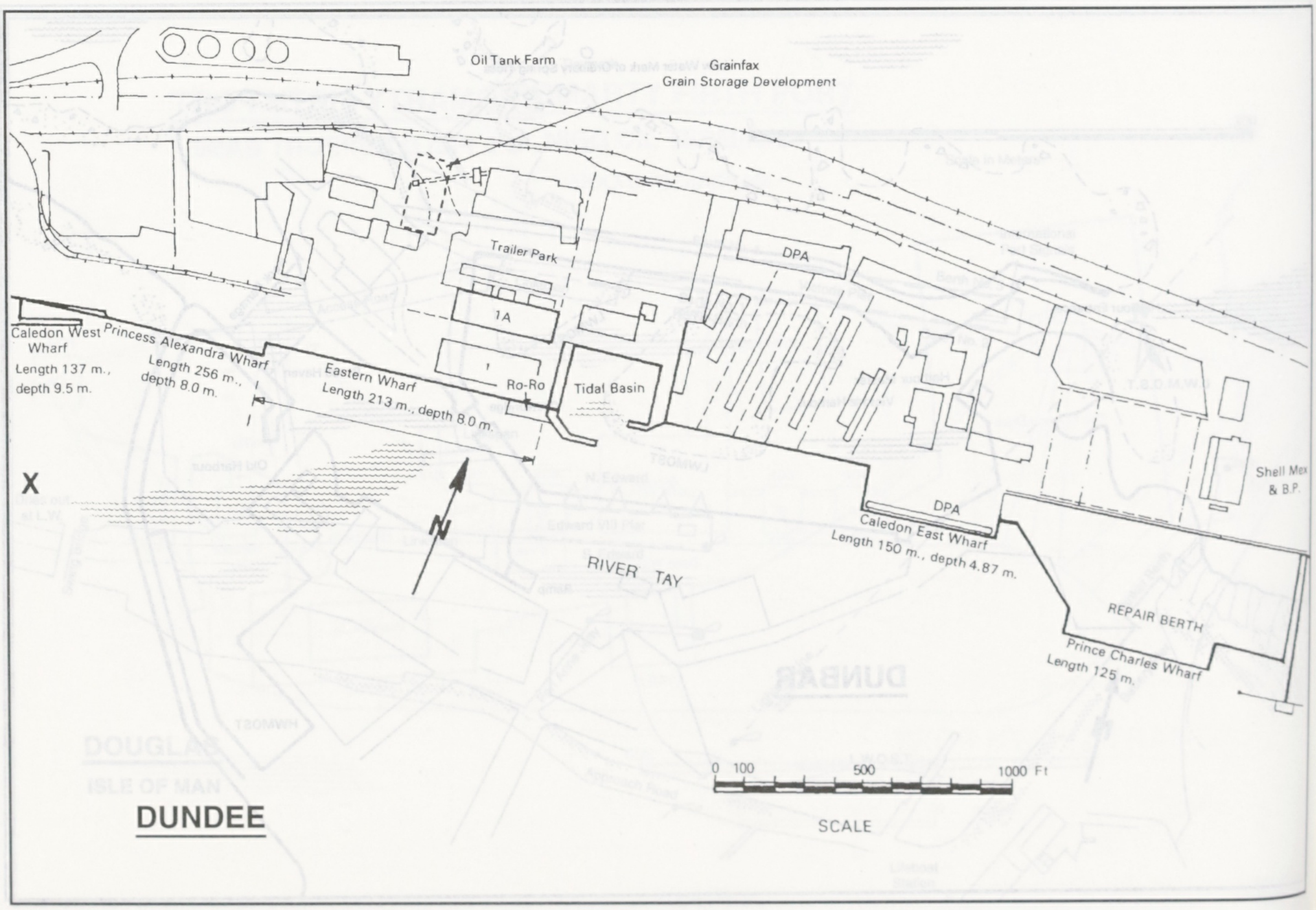

Old Mill Creek
Slip
Dart Marina
Noss Marina
Lower Noss Pt.
The Noss
Harbour Master
DARTMOUTH
Fl. W.R.G. 2s 6M
Slip
Ferry
Ferry
Moorings
Ferry
Fuel Barge
Warfleet Pt.
Eddy on flood
Prohibited Anchorage
Royal Dart Y.C.
Slip
Kingswear
Dart Haven Marina
Waterhead Creek
One Gun Pt.
Iso.W.R.G. 3s. 8M.
Castle Pt.
Checkstone
Kitten Rk
Fl. 2.R.5s.
F.9M
THE RANGE
Kingswear Castle
Port Limit
Fl.G. 5s.
N
DARTMOUTH

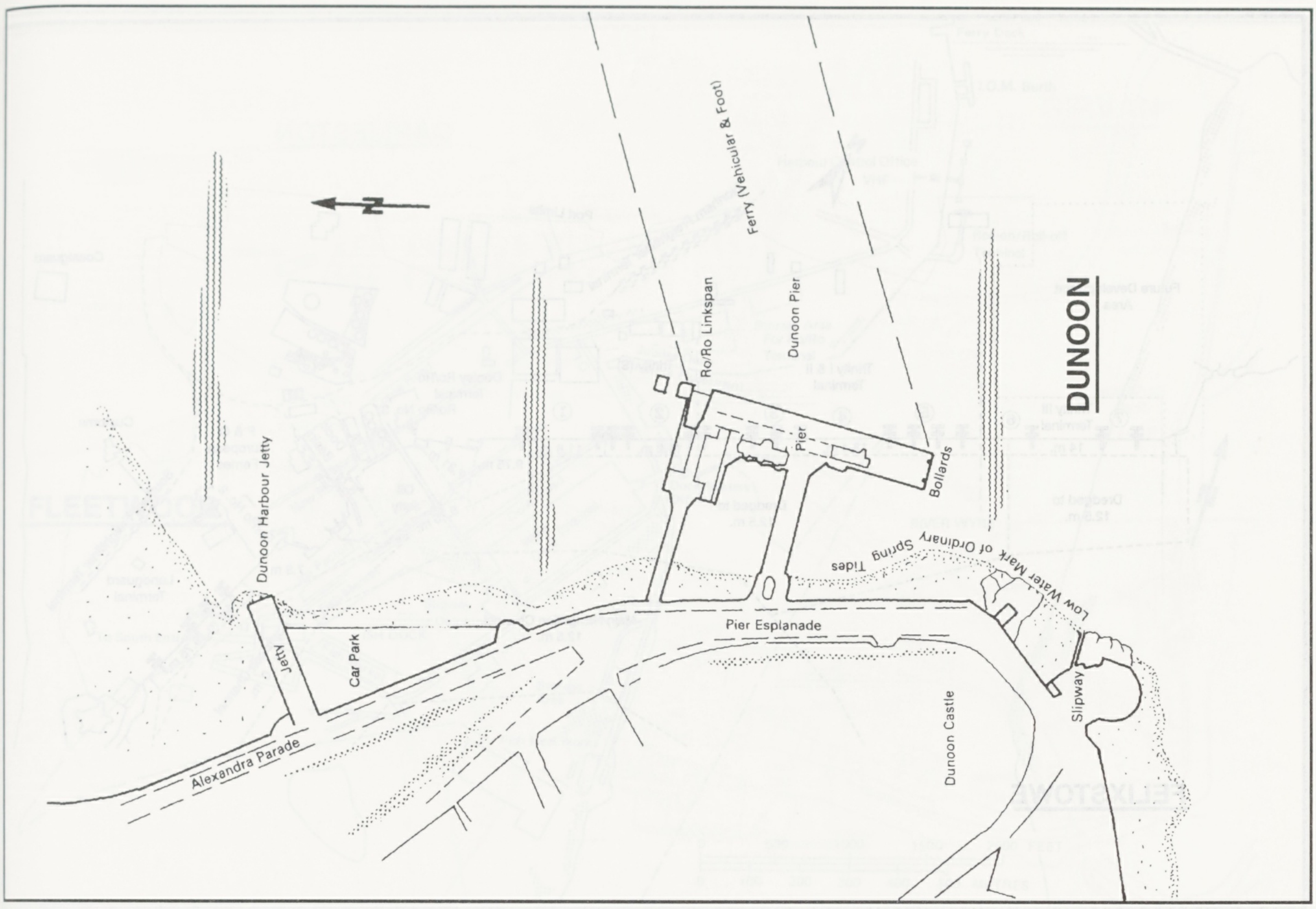

Daymark
0
300
Scale in Meters
International Port Signals
Berth No. 4
Berth No. 3
Victoria Pier
Linkspan
Berth No. 1
Ro/Ro Berth
Berth No. 2
Access Road
N
Linkspan
N. Edward
Edward VIII Pier
S. Edward
Dries out at L.W.
Swing Bridge
Linkspan
Fort Anne Jetty
Lights in Line 229° 18'
Tanker Berth
Battery Pier
L.W.O.S.T.
Approach Road
Lifeboat Station
DOUGLAS
ISLE OF MAN

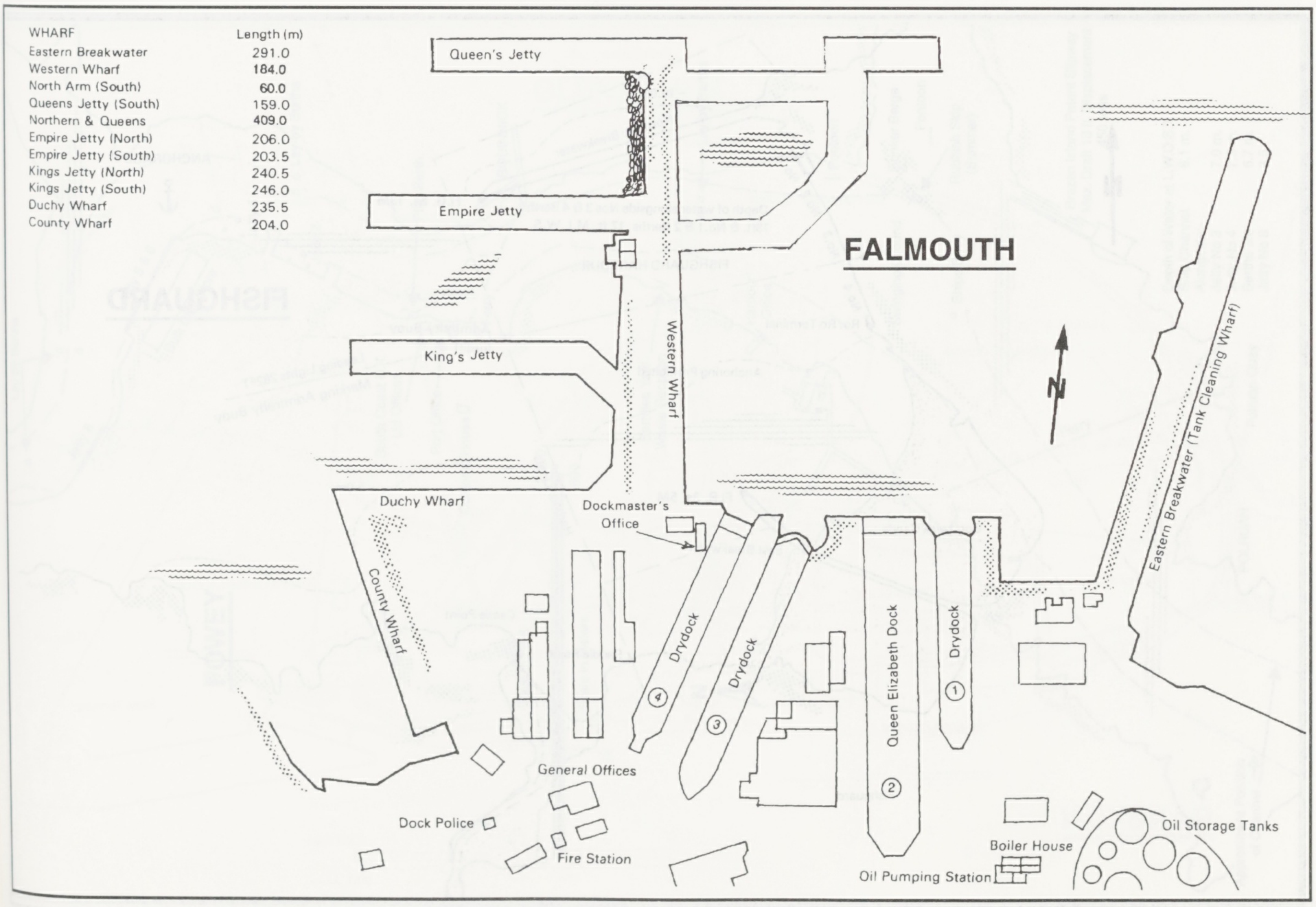

Wellington Dock
Granville Dock
Tidal Basin
Harbour House
M.H.W.S.
M.L.W.S.
Tug Haven &
Workboat Pontoon
WESTERN DOCKS
DOVER
HOVERPORT
Prince of Wales Pier
Jetfoil
Terminal
Marine
Station
INNER HARBOUR
Berth 3
Train Ferry Berth
Admiralty Pier
Import area
Pier 'D'
Berth 6
Berth 5
Berth 4
Berth 3
Berth 2
Pier 'B'
South Jetty
Berth 1
EASTERN DOCKS
Export area
Eastern Arm
Anchorage
Port Control
Signal Station
Southern Breakwater
SCALE IN FEET
1000
500
0
1000
2000


Low Water Mark of Ordinary Spring Tides
Harbour Entrance
L.W.M.O.S.T.
Harbour Master
Victoria Harbour
LWMOST
LWMOST
Drawbridge
Rock Barrage
Broad Haven
Old Harbour
Ramp
DUNBAR
HWMOST


Port Authority
Offices
30
29
28
27
26
R
S
25
24
23
Discovery
VICTORIA DOCK
Unicorn
CAMPERDOWN
DOCK
Briggs
Oil Refinery
Grain 4A
13
12
11
10
16
Marine Parade
H.M.S. Camperdown
Queen Elizabeth Wharf
Length 194 m., depth 7.6 m.
Port Control & H.M. Customs
King George V Wharf
Length 445 m., depth 8.6 m.
Oil Manifold
Caledon West
Wharf
-9.5 m.
RIVER TAY
Fowler Rock
Beacon Rock
X
N
DUNDEE
0 100 500 1000 Ft
SCALE

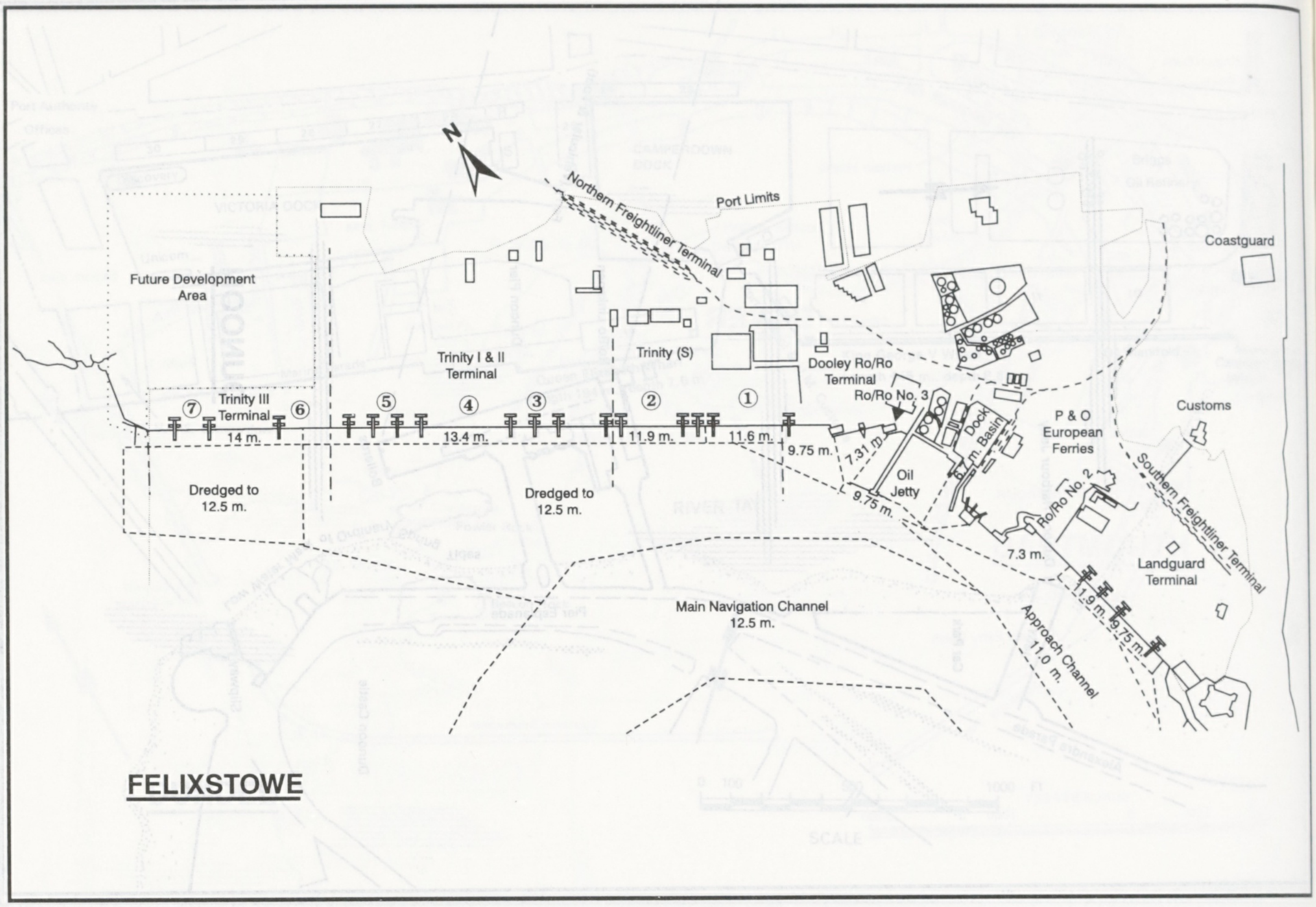

Oil Tank Farm
Grainfax
Grain Storage Development
Trailer Park
DPA
1A
Caledon West
Wharf
Length 137 m.,
depth 9.5 m.
Princess Alexandra Wharf
Length 256 m.,
depth 8.0 m.
Eastern Wharf
Length 213 m., depth 8.0 m.
Ro-Ro
Tidal Basin
X
N
RIVER TAY
DPA
Caledon East Wharf
Length 150 m., depth 4.87 m.
Shell Mex
& B.P.
REPAIR BERTH
Prince Charles Wharf
Length 125 m.
DUNDEE
0 100 500 1000 Ft
SCALE

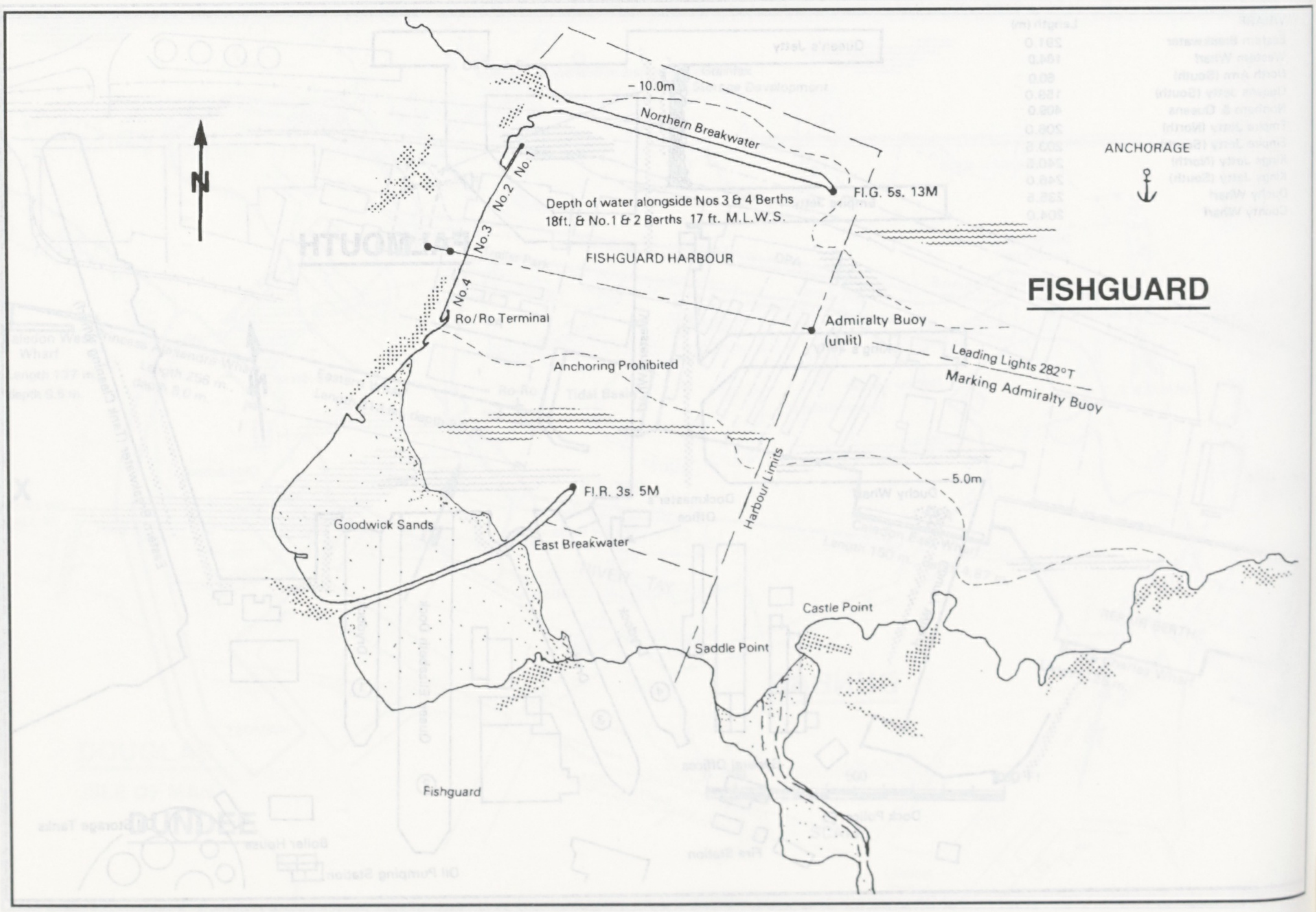

DUNOON
N
Ferry (Vehicular & Foot)
Ro/Ro Linkspan
Dunoon Pier
Pier
Bollards
Low Water Mark of Ordinary Spring Tides
Dunoon Harbour Jetty
Jetty
Car Park
Alexandra Parade
Pier Esplanade
Dunoon Castle
Slipway

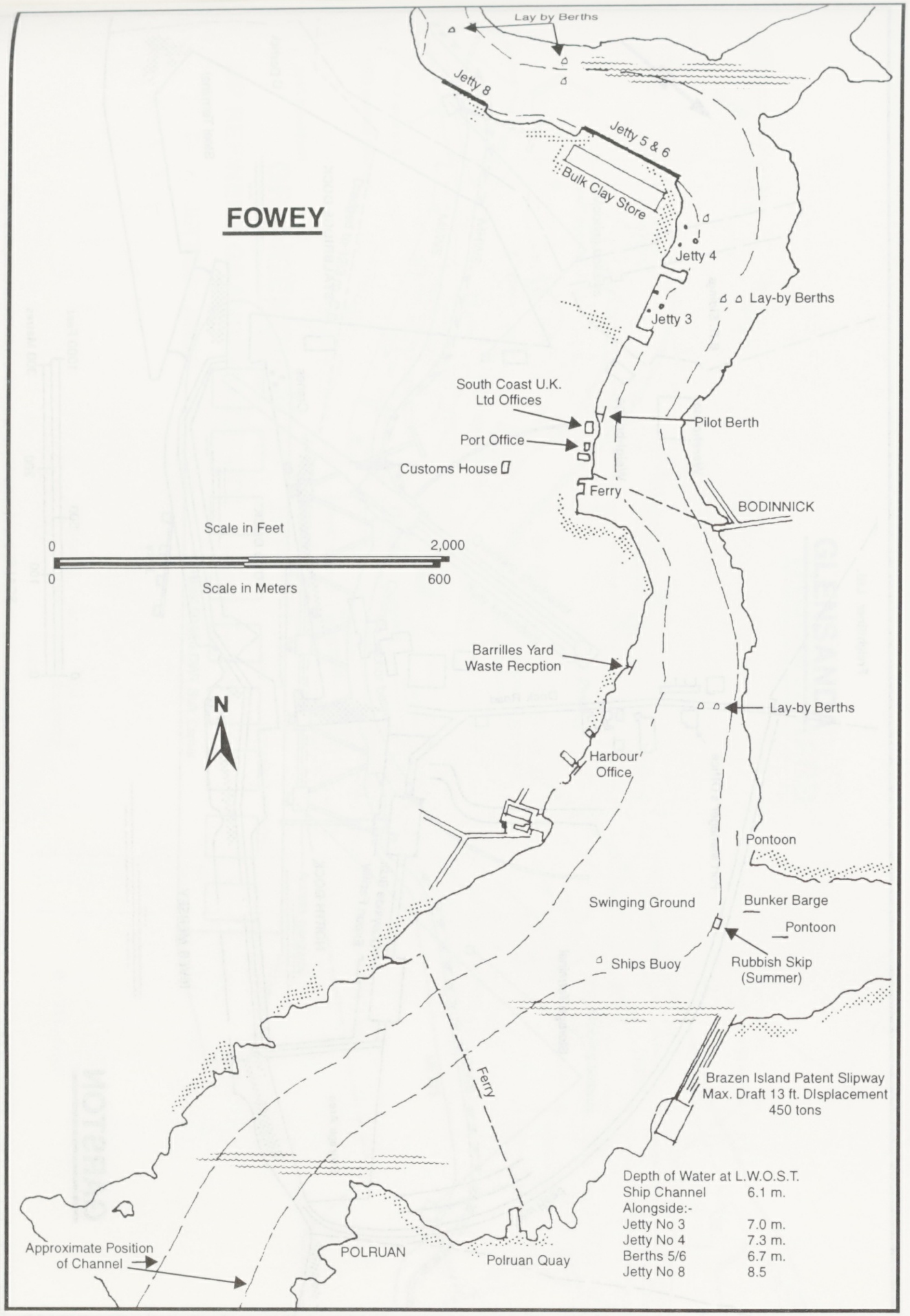


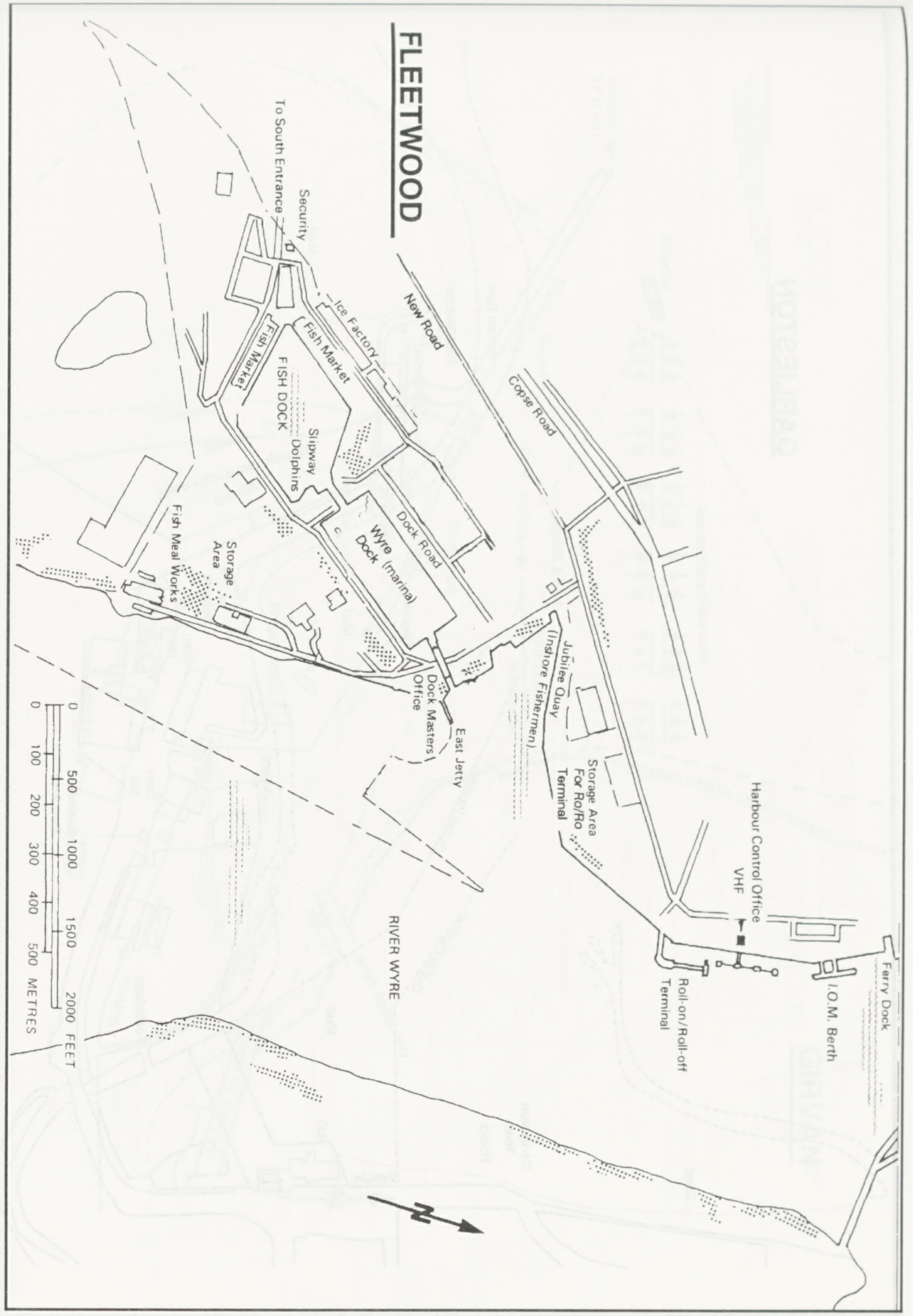
WHARF	Length (m)
Eastern Breakwater	291.0
Western Wharf	184.0
North Arm (South)	60.0
Queens Jetty (South)	159.0
Northern & Queens	409.0
Empire Jetty (North)	206.0
Empire Jetty (South)	203.5
Kings Jetty (North)	240.5
Kings Jetty (South)	246.0
Duchy Wharf	235.5
County Wharf	204.0

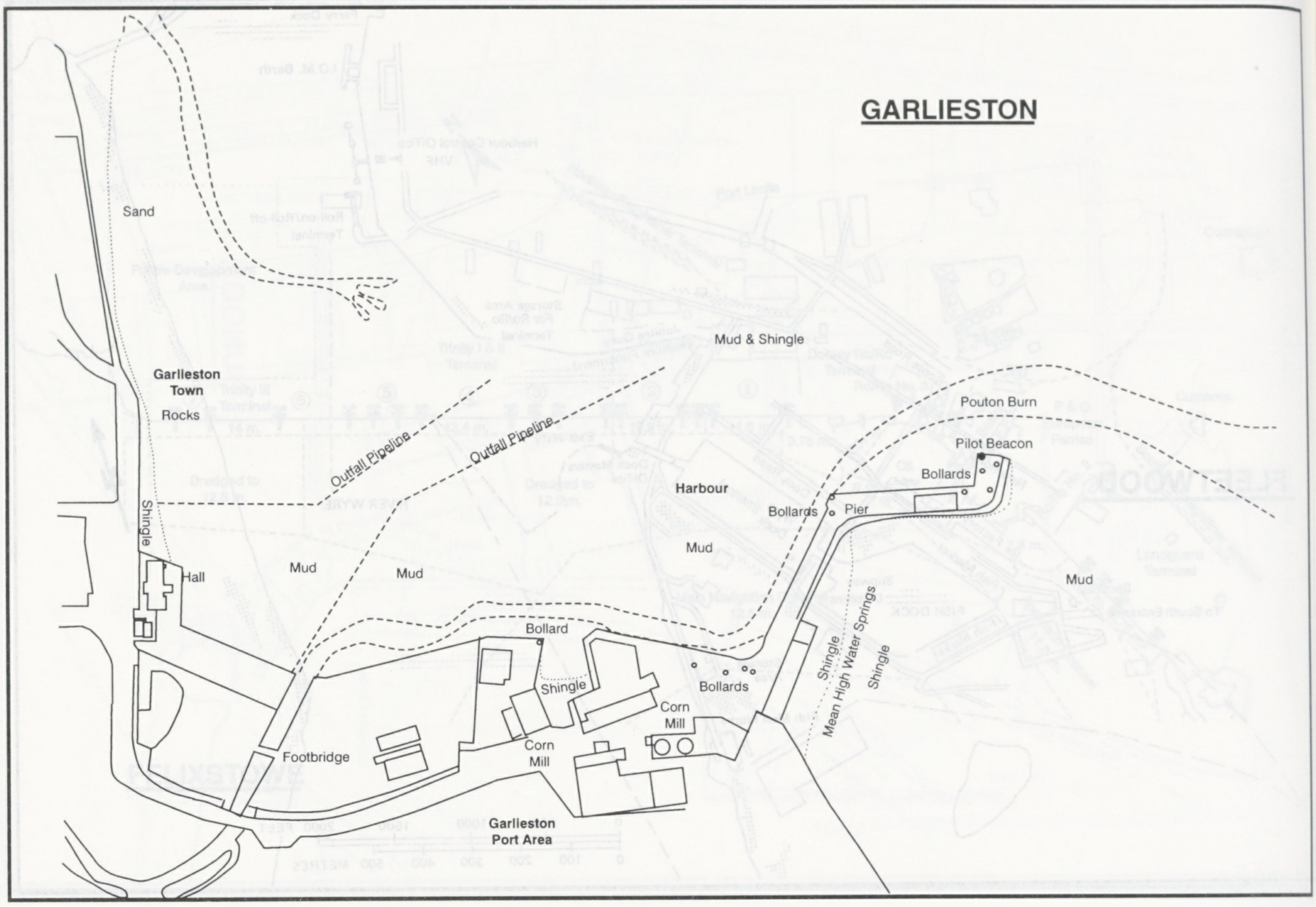
FALMOUTH
Queen's Jetty
Empire Jetty
King's Jetty
Western Wharf
Duchy Wharf
County Wharf
Dockmaster's Office
Drydock ④
Drydock ③
Queen Elizabeth Dock ②
Drydock ①
Eastern Breakwater (Tank Cleaning Wharf)
N
General Offices
Dock Police
Fire Station
Boiler House
Oil Pumping Station
Oil Storage Tanks

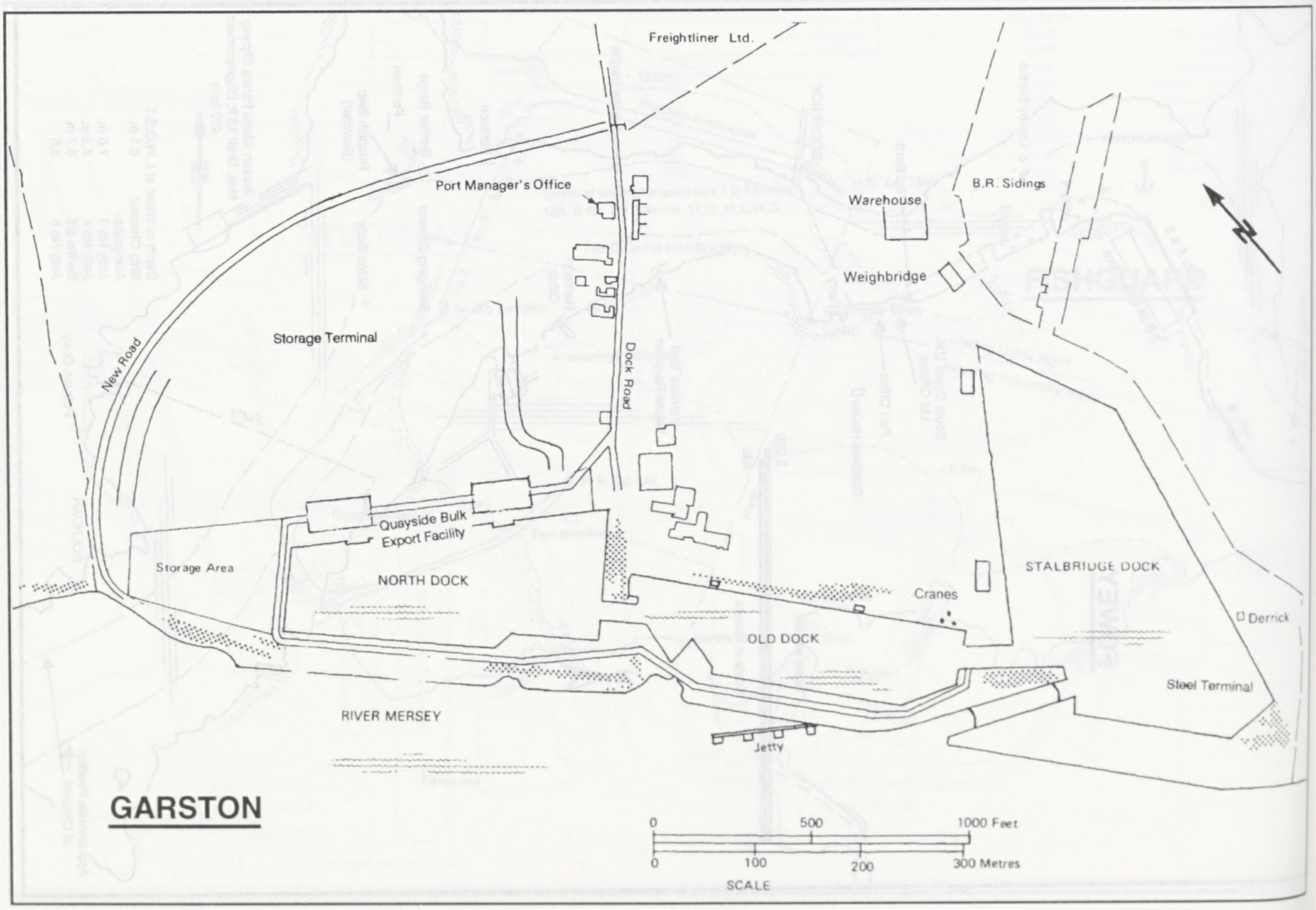

FELIXSTOWE
N
Future Development Area
Northern Freightliner Terminal
Port Limits
Coastguard
Trinity I & II Terminal
Trinity (S)
Dooley Ro/Ro Terminal
Ro/Ro No. 3
Trinity III Terminal
⑦
⑥
⑤
④
③
②
①
14 m.
13.4 m.
11.9 m.
11.6 m.
9.75 m.
7.31 m.
Dock Basin
Oil Jetty
9.75 m.
P & O European Ferries
Customs
Southern Freightliner Terminal
Ro/Ro No. 2
Dredged to 12.5 m.
Dredged to 12.5 m.
7.3 m.
Landguard Terminal
Main Navigation Channel 12.5 m.
Approach Channel 11.0 m.
11.9 m.
9.75 m.


FISHGUARD
N
– 10.0m
Northern Breakwater
No. 1
No. 2
No. 3
No. 4
Depth of water alongside Nos 3 & 4 Berths 18ft. & No.1 & 2 Berths 17 ft. M.L.W.S.
Fl.G. 5s. 13M
ANCHORAGE
FISHGUARD HARBOUR
Ro/Ro Terminal
Admiralty Buoy (unlit)
Leading Lights 282°T Marking Admiralty Buoy
Anchoring Prohibited
Harbour Limits
– 5.0m
Fl.R. 3s. 5M
Goodwick Sands
East Breakwater
Castle Point
Saddle Point
Fishguard

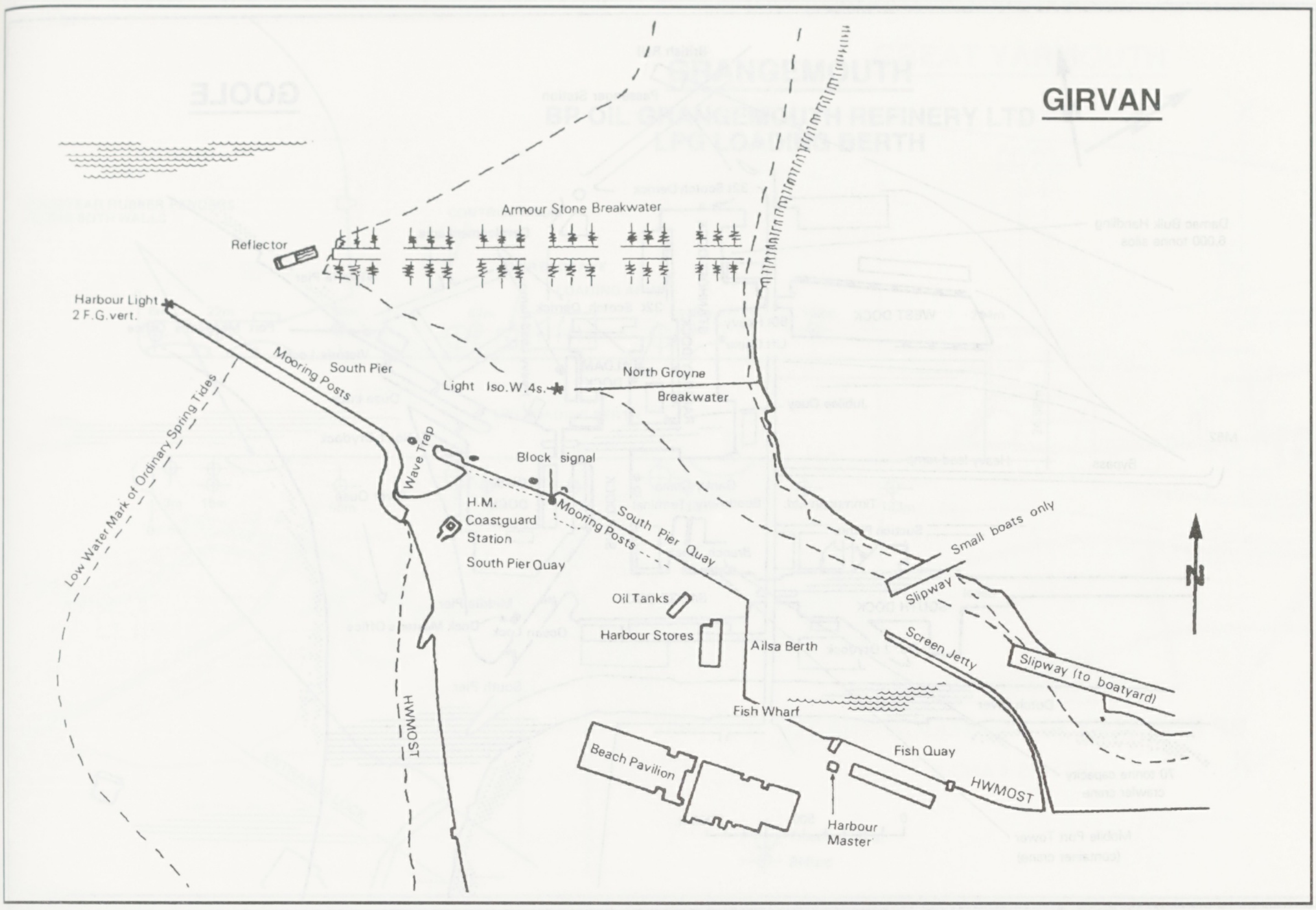

FOWEY
Lay by Berths
Jetty 8
Jetty 5 & 6
Bulk Clay Store
Jetty 4
Lay-by Berths
Jetty 3
South Coast U.K. Ltd Offices
Pilot Berth
Port Office
Customs House
Ferry
BODINNICK
Scale in Feet
0
2,000
0
600
Scale in Meters
Barrilles Yard Waste Recption
N
Lay-by Berths
Harbour Office
Pontoon
Swinging Ground
Bunker Barge
Pontoon
Ships Buoy
Rubbish Skip (Summer)
Ferry
Brazen Island Patent Slipway Max. Draft 13 ft. Displacement 450 tons
Depth of Water at L.W.O.S.T.
Ship Channel 6.1 m.
Alongside:-
Jetty No 3 7.0 m.
Jetty No 4 7.3 m.
Berths 5/6 6.7 m.
Jetty No 8 8.5
Approximate Position of Channel
POLRUAN
Polruan Quay


FLEETWOOD
To South Entrance
Security
New Road
Ice Factory
Fish Market
Fish Market
FISH DOCK
Slipway
Dolphins
Copse Road
Dock Road
Wyre Dock (marina)
Fish Meal Works
Storage Area
Dock Masters Office
East Jetty
Jubilee Quay (Inshore Fishermen)
Storage Area For Ro/Ro Terminal
Harbour Control Office VHF
Roll-on/Roll-off Terminal
I.O.M. Berth
Ferry Dock
RIVER WYRE
0
500
1000
1500
2000 FEET
0
100
200
300
400
500 METRES
N

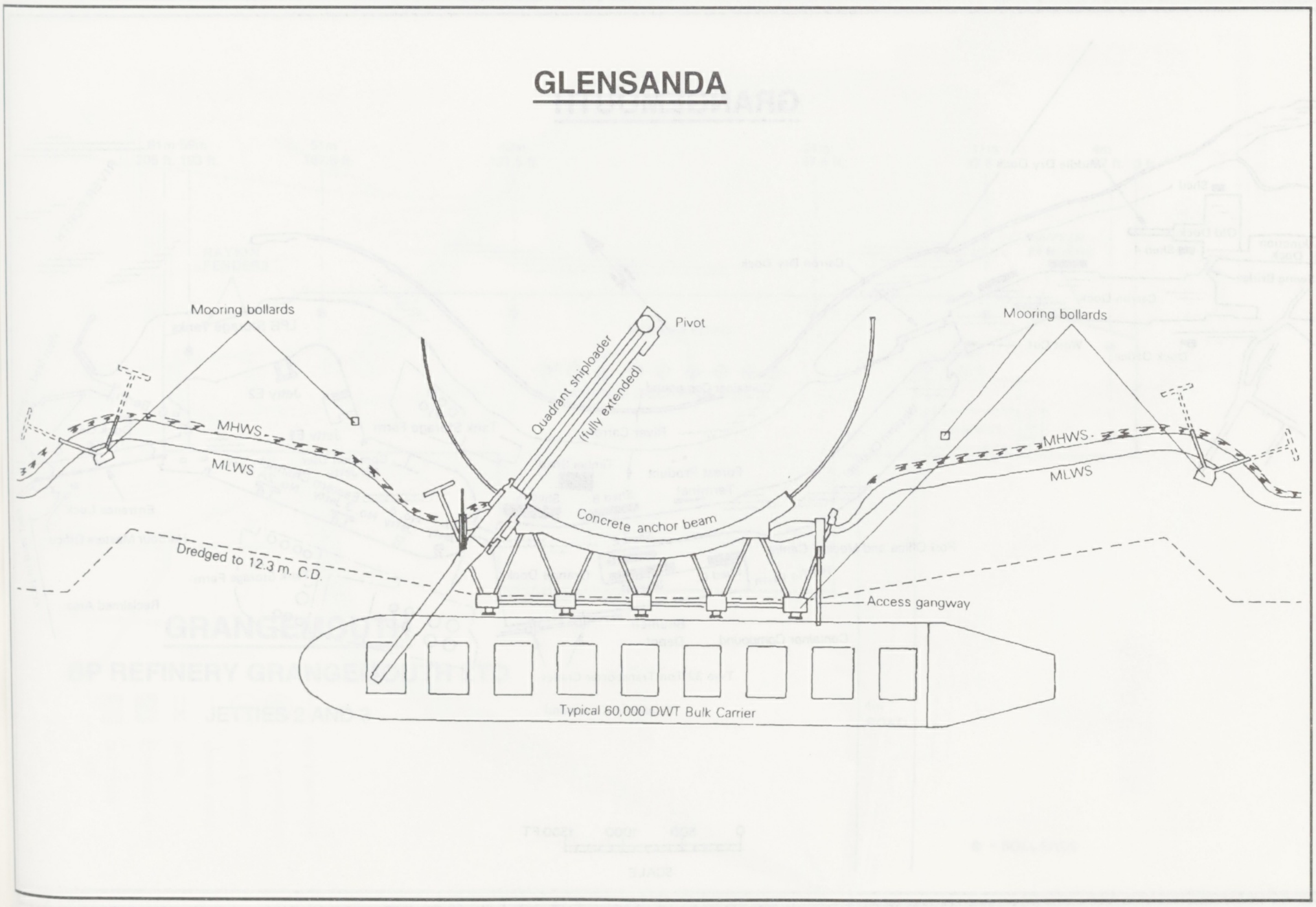

GARLIESTON
Sand
Garlieston Town
Rocks
Shingle
Hall
Mud
Mud
Outfall Pipeline
Outfall Pipeline
Mud & Shingle
Harbour
Mud
Pouton Burn
Pilot Beacon
Bollards
Bollards
Pier
Mud
Bollard
Shingle
Bollards
Corn Mill
Corn Mill
Shingle
Mean High Water Springs
Shingle
Footbridge
Garlieston Port Area

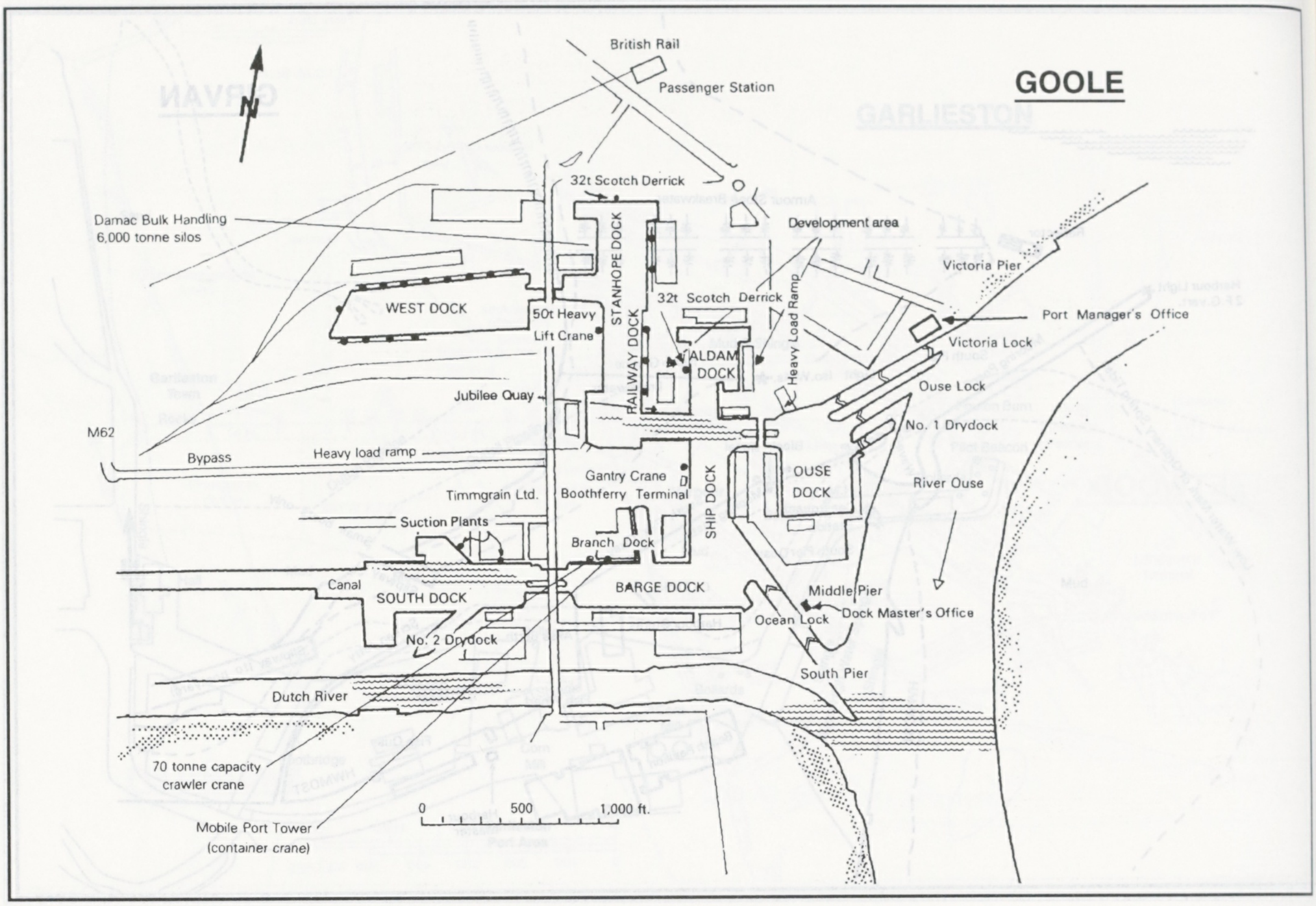

Freightliner Ltd.
Port Manager's Office
Warehouse
B.R. Sidings
Weighbridge
Storage Terminal
New Road
Dock Road
Quayside Bulk Export Facility
Storage Area
NORTH DOCK
STALBRIDGE DOCK
Cranes
Derrick
OLD DOCK
Steel Terminal
RIVER MERSEY
Jetty
GARSTON
0
500
1000 Feet
0
100
200
300 Metres
SCALE

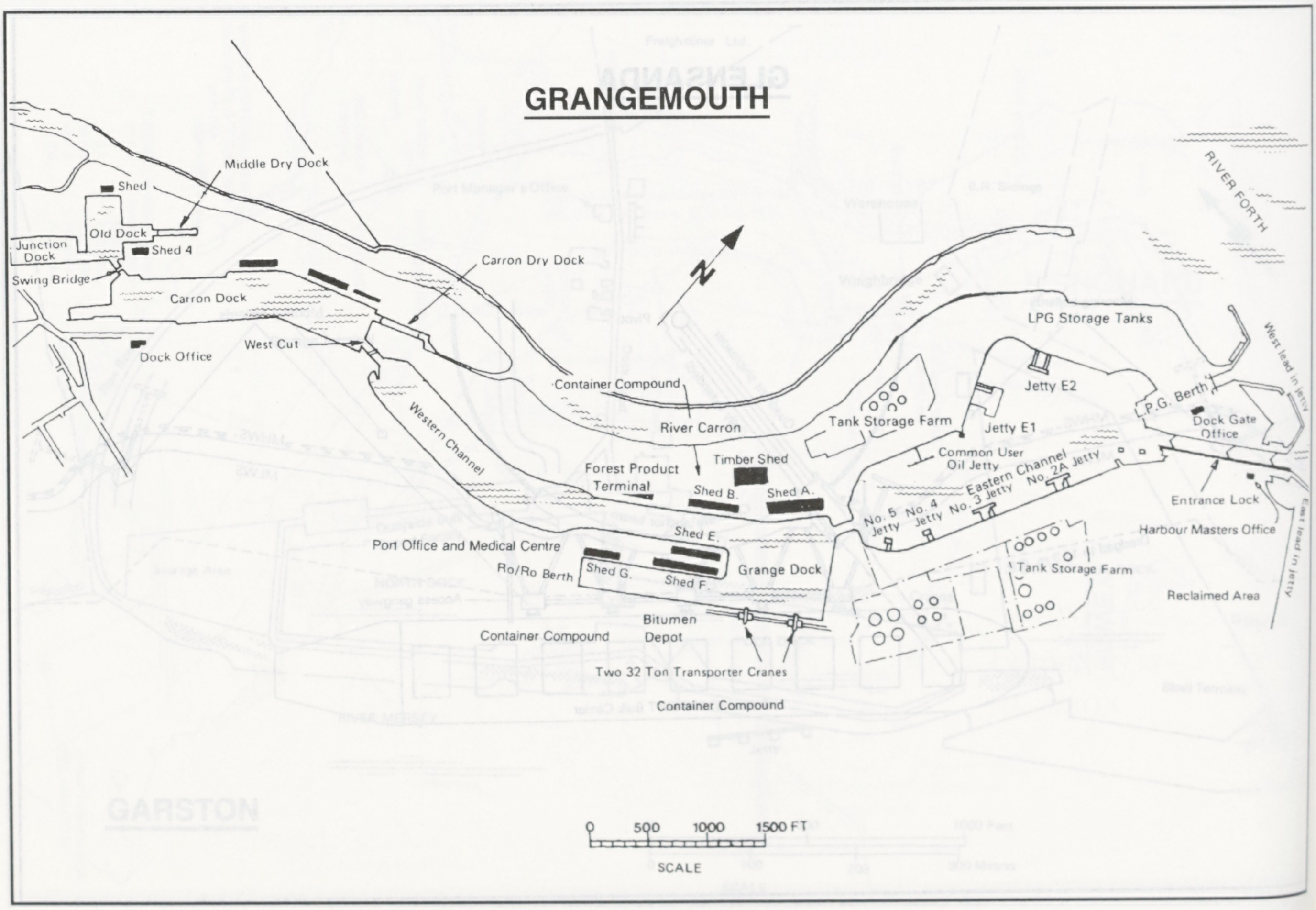
GIRVAN

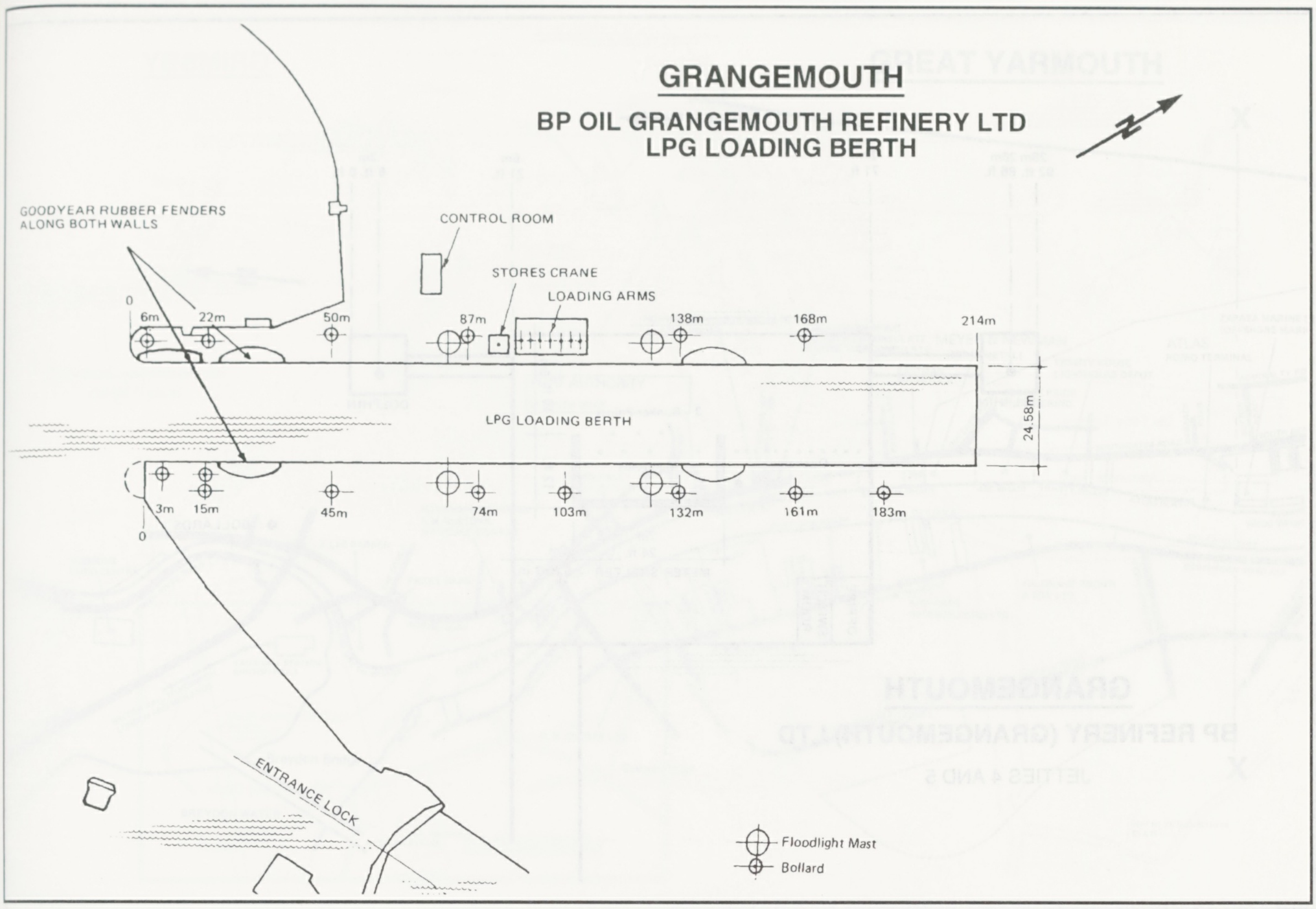

Armour Stone Breakwater
Reflector
Harbour Light
2 F.G.vert.
Mooring Posts
South Pier
Light Iso.W.4s.
North Groyne
Breakwater
Low Water Mark of Ordinary Spring Tides
Wave Trap
Block signal
H.M.
Coastguard
Station
South Pier Quay
Mooring Posts
South Pier Quay
Small boats only
Slipway
Oil Tanks
Harbour Stores
Ailsa Berth
Screen Jetty
Slipway (to boatyard)
N
HWMOST
Fish Wharf
Beach Pavilion
Fish Quay
HWMOST
Harbour
Master

GLENSANDA


Mooring bollards
Pivot
Quadrant shiploader
(fully extended)
Mooring bollards
MHWS
MLWS
MHWS
MLWS
Concrete anchor beam
Dredged to 12.3 m. C.D.
Access gangway
Typical 60,000 DWT Bulk Carrier


GOOLE
N
British Rail
Passenger Station
32t Scotch Derrick
Damac Bulk Handling
6,000 tonne silos
Development area
Victoria Pier
WEST DOCK
50t Heavy
Lift Crane
STANHOPE DOCK
RAILWAY DOCK
32t Scotch Derrick
ALDAM DOCK
Heavy Load Ramp
Port Manager's Office
Victoria Lock
Ouse Lock
Jubilee Quay
No. 1 Drydock
M62
Bypass
Heavy load ramp
Gantry Crane
Boothferry Terminal
Timmgrain Ltd.
SHIP DOCK
OUSE DOCK
River Ouse
Suction Plants
Branch Dock
Canal
SOUTH DOCK
BARGE DOCK
Middle Pier
Ocean Lock
Dock Master's Office
No. 2 Drydock
South Pier
Dutch River
70 tonne capacity
crawler crane
Mobile Port Tower
(container crane)
0
500
1,000 ft.

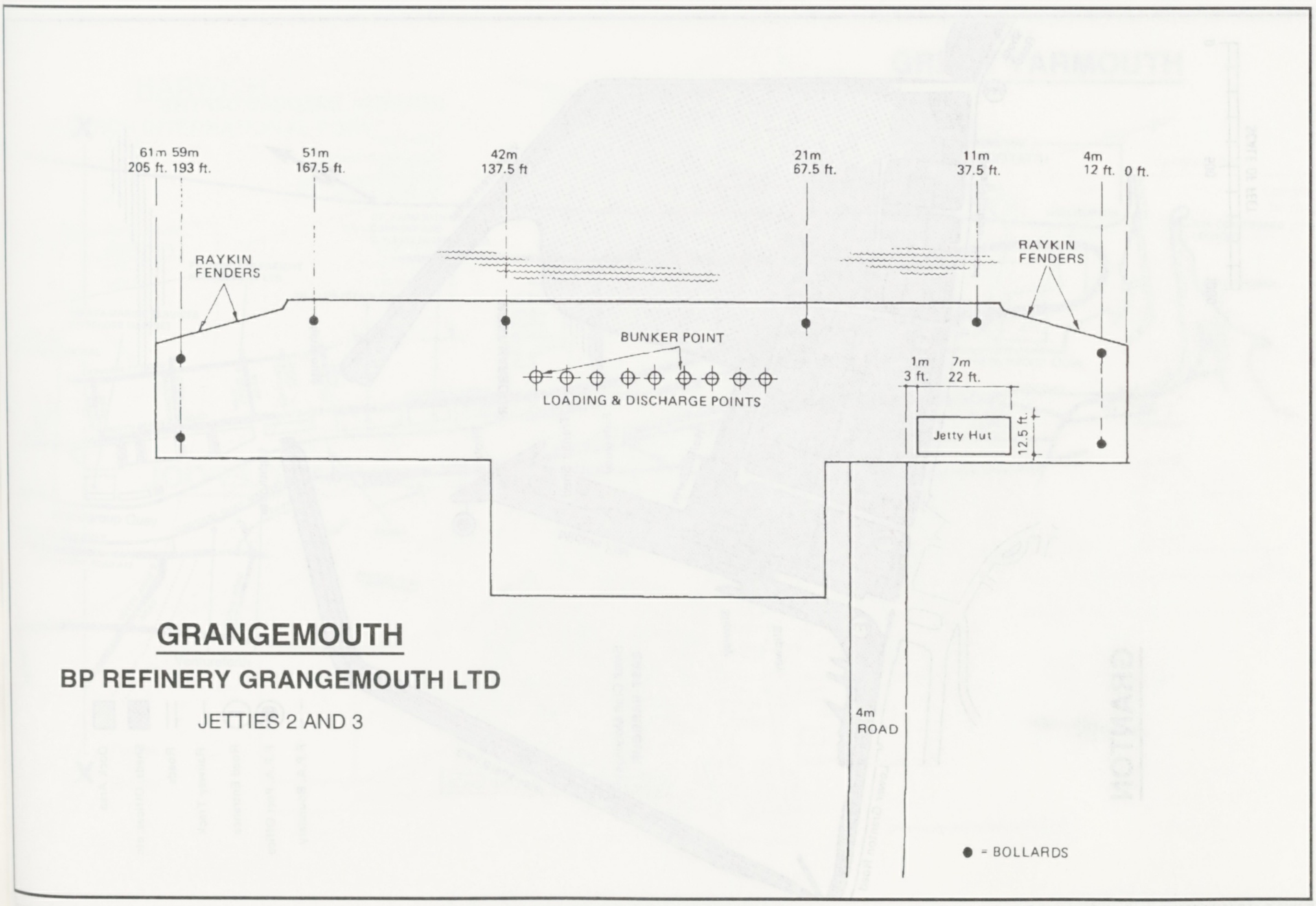

GRANGEMOUTH
Middle Dry Dock
Shed
Old Dock
Junction Dock
Shed 4
Swing Bridge
Carron Dock
Carron Dry Dock
Dock Office
West Cut
N
RIVER FORTH
LPG Storage Tanks
West lead in jetty
Container Compound
Jetty E2
P.G. Berth
Dock Gate Office
Tank Storage Farm
Jetty E1
River Carron
Western Channel
Common User Oil Jetty
Timber Shed
Forest Product Terminal
Eastern Channel
No. 2A Jetty
No. 3 Jetty
No. 4 Jetty
No. 5 Jetty
Shed B.
Shed A.
Entrance Lock
Harbour Masters Office
East lead in jetty
Shed E.
Port Office and Medical Centre
Ro/Ro Berth
Shed G.
Shed F.
Grange Dock
Tank Storage Farm
Reclaimed Area
Bitumen Depot
Container Compound
Two 32 Ton Transporter Cranes
Container Compound
0
500
1000
1500 FT
SCALE



GRANGEMOUTH

BP OIL GRANGEMOUTH REFINERY LTD
LPG LOADING BERTH

GOODYEAR RUBBER FENDERS ALONG BOTH WALLS
CONTROL ROOM
STORES CRANE
LOADING ARMS
0
6m
22m
50m
87m
138m
168m
214m
LPG LOADING BERTH
24.58m
3m
15m
0
45m
74m
103m
132m
161m
183m
ENTRANCE LOCK
Floodlight Mast
Bollard

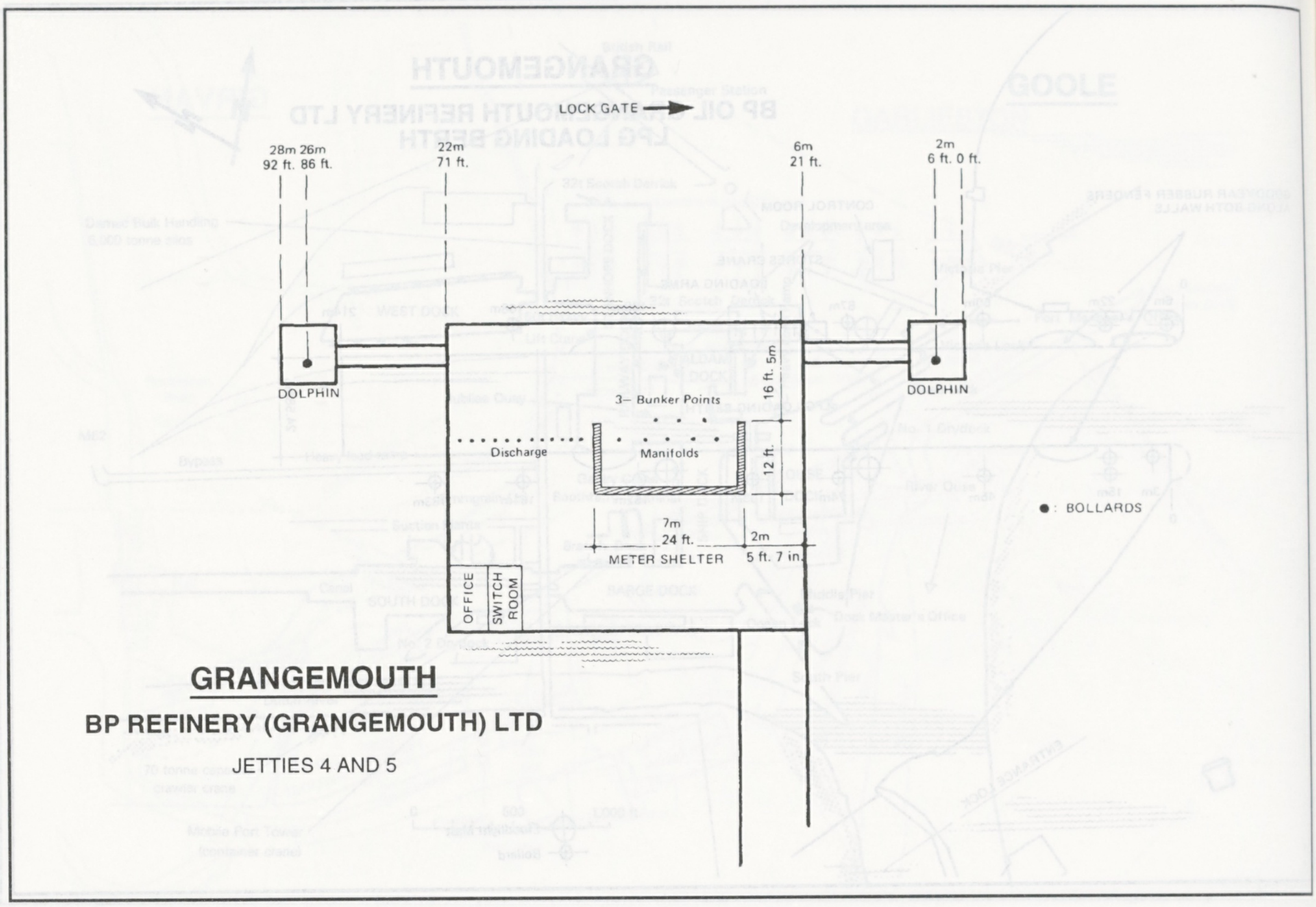


GRANGEMOUTH

BP REFINERY GRANGEMOUTH LTD

JETTIES 2 AND 3

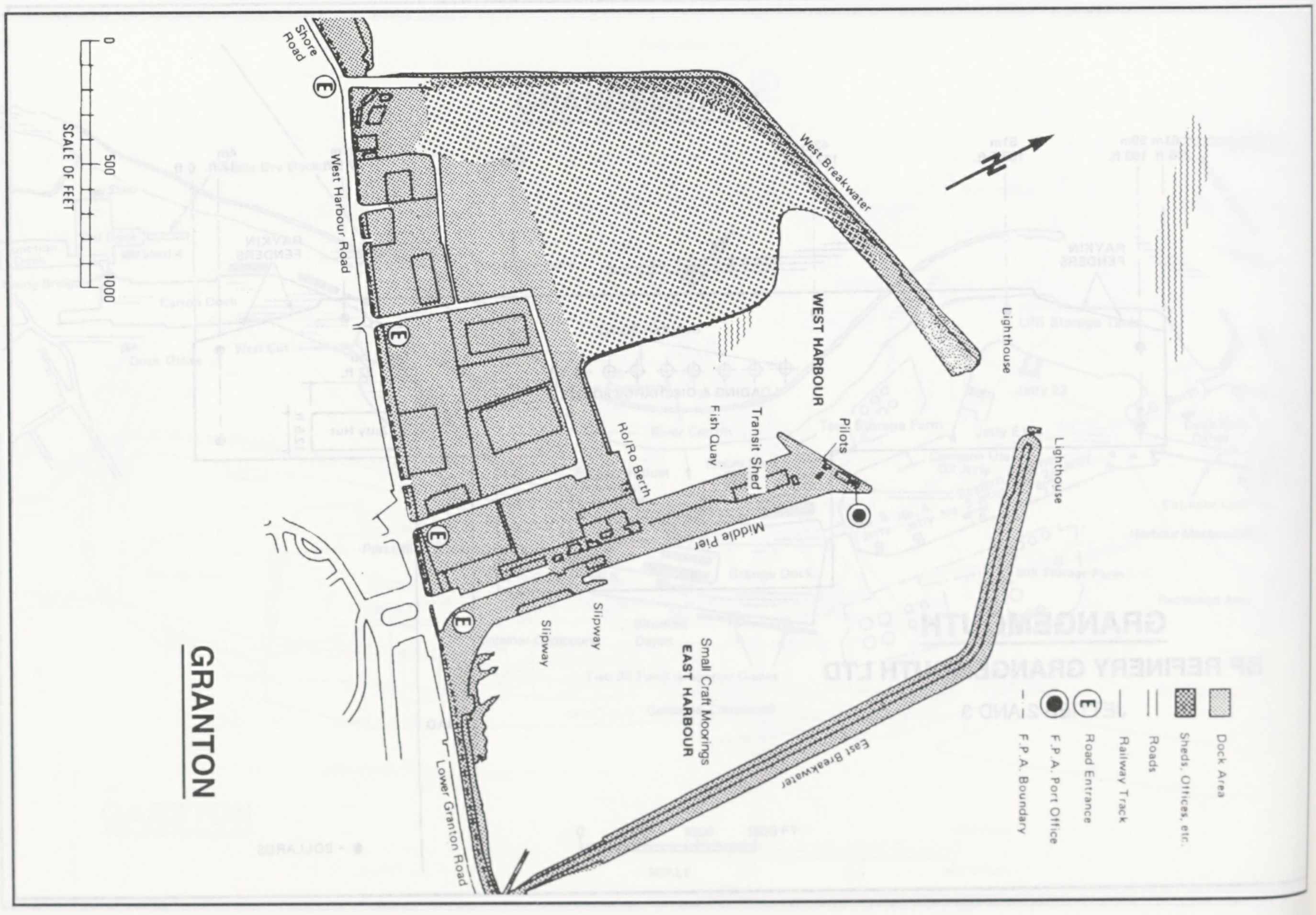
61m 59m
205 ft. 193 ft.
51m
167.5 ft.
42m
137.5 ft
21m
67.5 ft.
11m
37.5 ft.
4m
12 ft.
0 ft.
RAYKIN FENDERS
RAYKIN FENDERS
BUNKER POINT
LOADING & DISCHARGE POINTS
1m
3 ft.
7m
22 ft.
Jetty Hut
12.5 ft.
4m
ROAD
● = BOLLARDS


LOCK GATE
28m 26m
92 ft. 86 ft.
22m
71 ft.
6m
21 ft.
2m
6 ft. 0 ft.
DOLPHIN
DOLPHIN
3— Bunker Points
Discharge
Manifolds
16 ft. 5m
12 ft.
7m
24 ft.
2m
5 ft. 7 in.
METER SHELTER
OFFICE
SWITCH ROOM
●: BOLLARDS

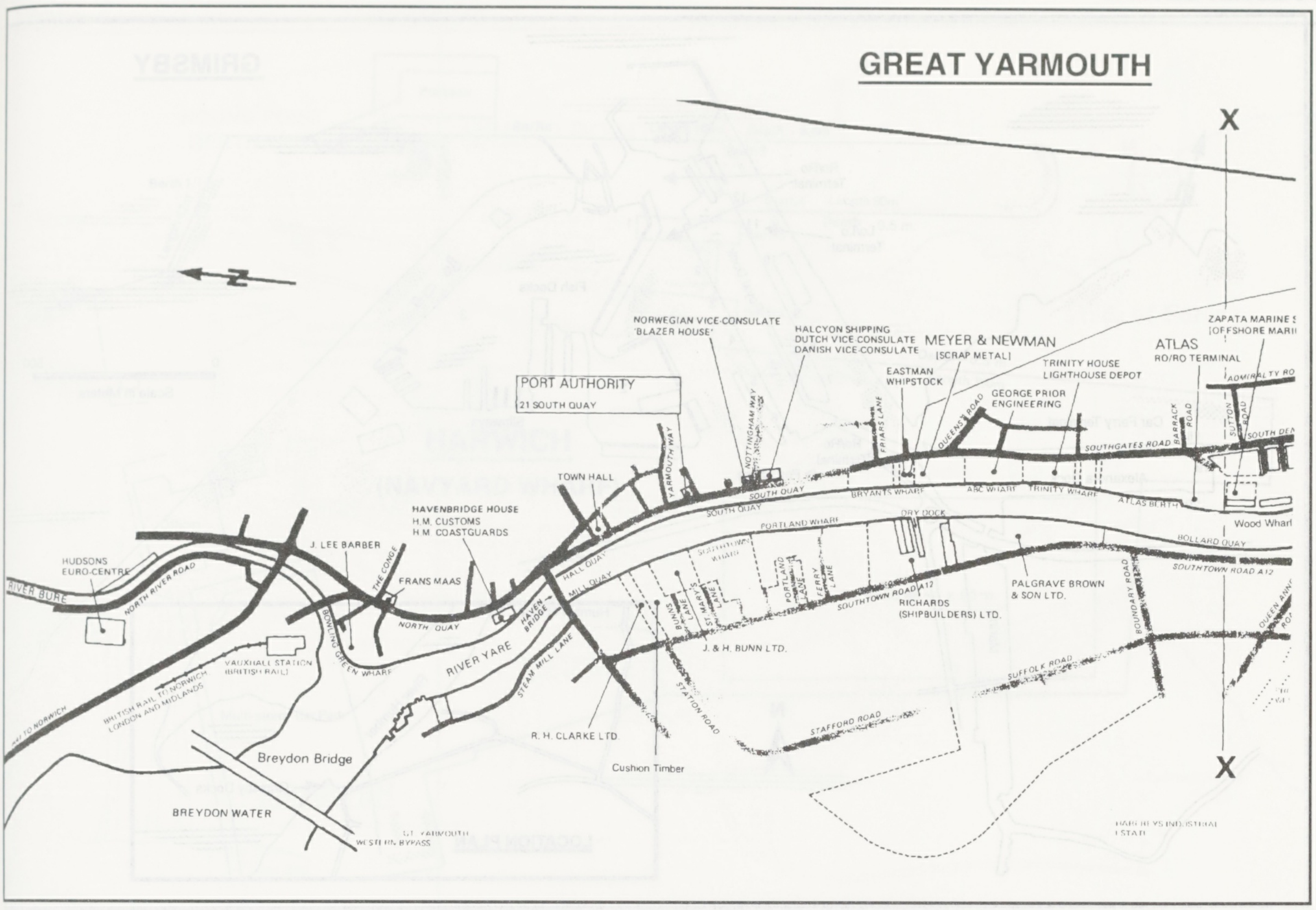
GRANGEMOUTH

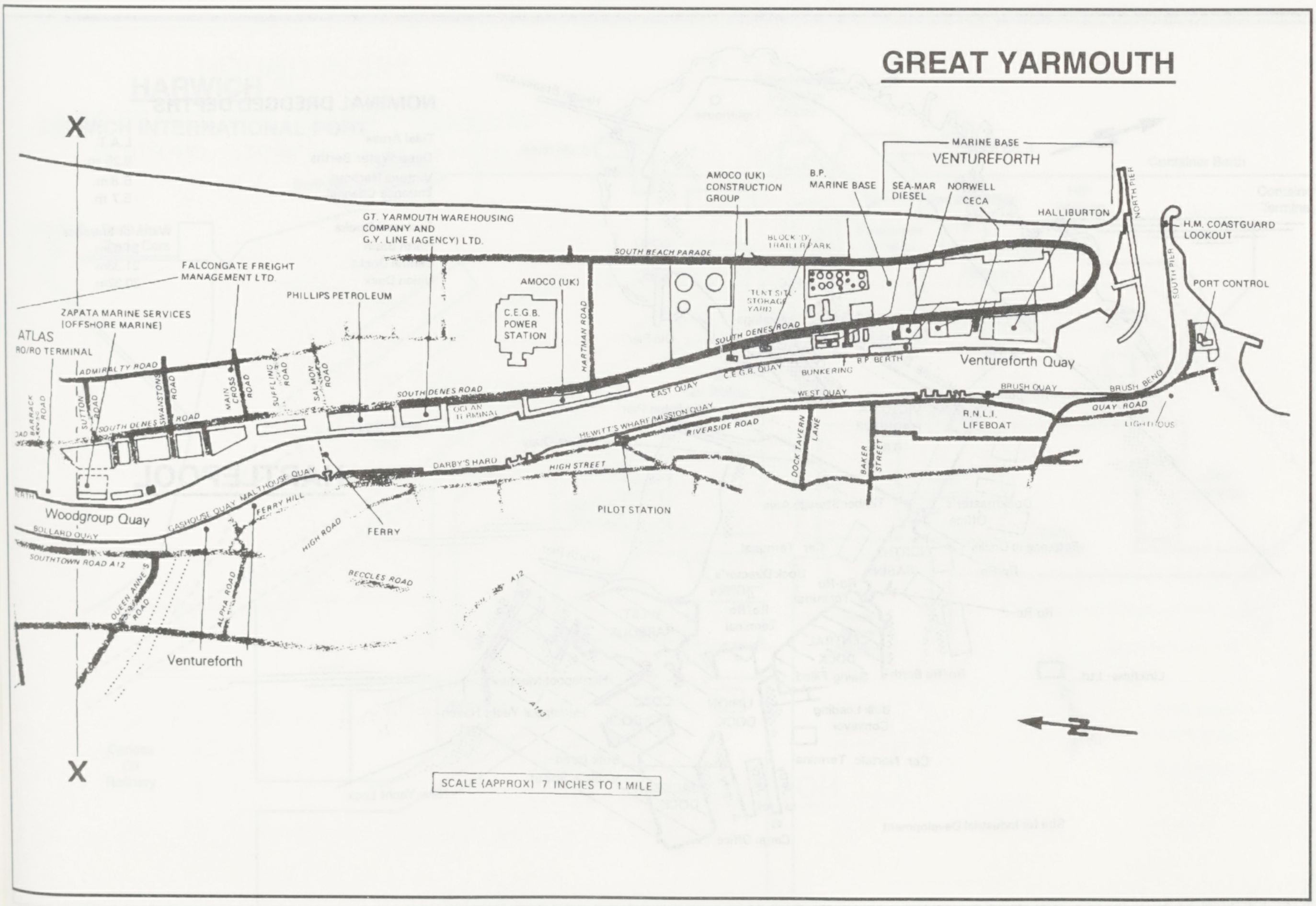
BP REFINERY (GRANGEMOUTH) LTD

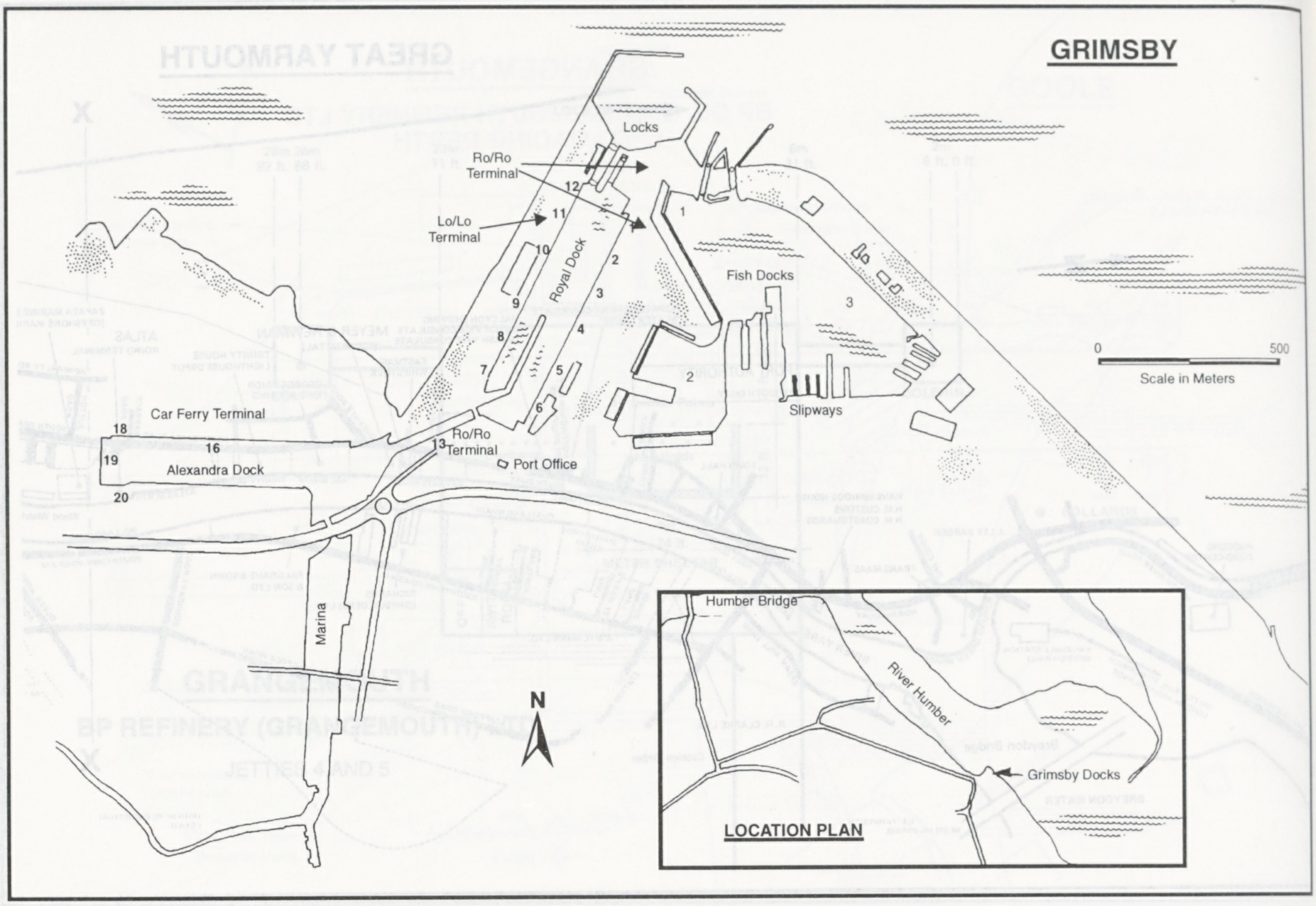
JETTIES 4 AND 5

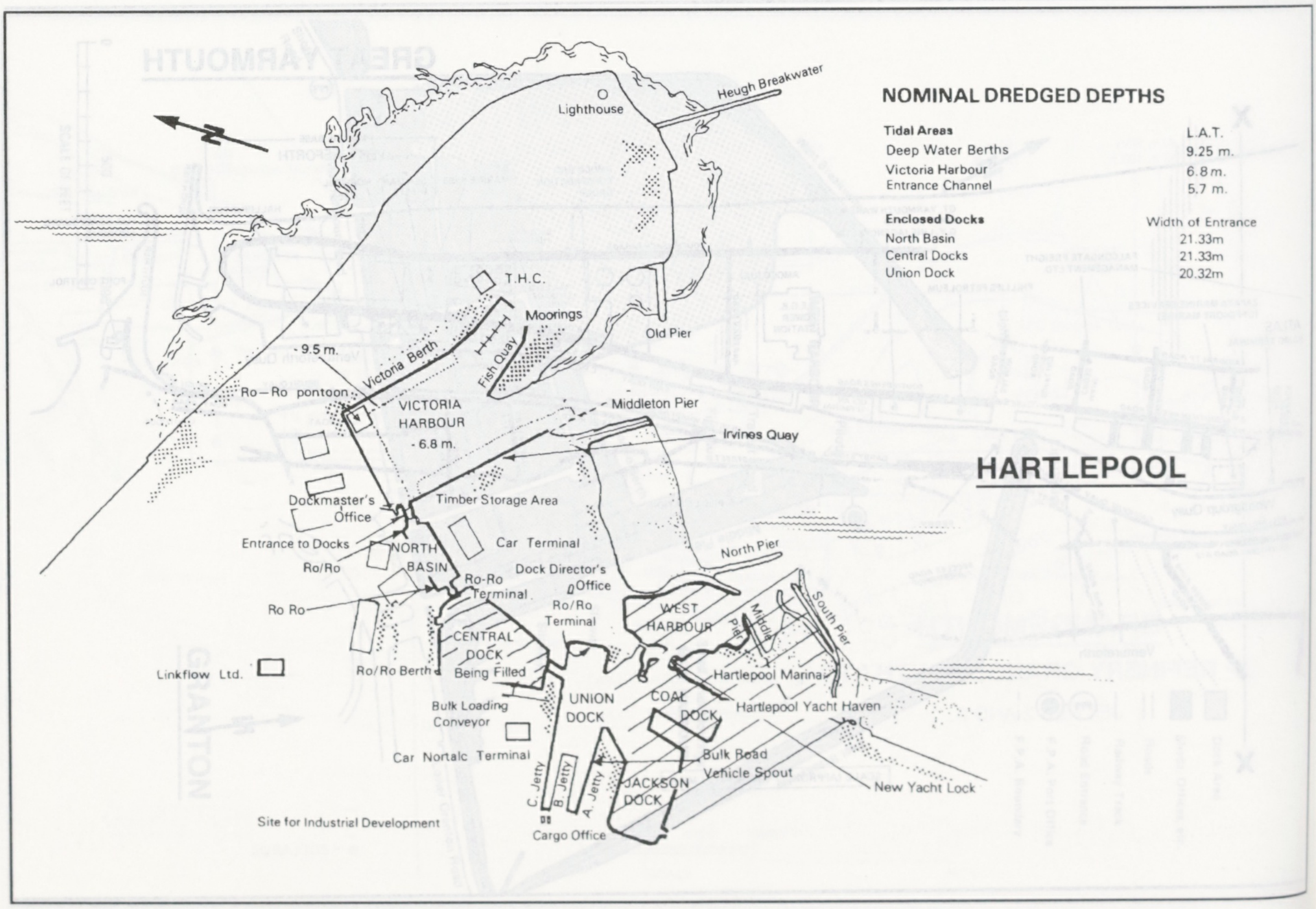

Shore Road
West Harbour Road
SCALE OF FEET
0
500
1000
West Breakwater
WEST HARBOUR
Lighthouse
Pilots
Transit Shed
Fish Quay
Ro/Ro Berth
Middle Pier
Slipway
Slipway
Small Craft Moorings
EAST HARBOUR
Lower Granton Road
East Breakwater
Lighthouse
Dock Area
Sheds, Offices, etc.
Roads
Railway Track
Road Entrance
F.P.A. Port Office
F.P.A. Boundary

GRANTON


GREAT YARMOUTH
X
X
PORT AUTHORITY
21 SOUTH QUAY
NORWEGIAN VICE-CONSULATE
'BLAZER HOUSE'
HALCYON SHIPPING
DUTCH VICE-CONSULATE
DANISH VICE-CONSULATE
MEYER & NEWMAN
(SCRAP METAL)
EASTMAN
WHIPSTOCK
GEORGE PRIOR
ENGINEERING
TRINITY HOUSE
LIGHTHOUSE DEPOT
ATLAS
RO/RO TERMINAL
ZAPATA MARINE S
(OFFSHORE MARI
ADMIRALTY RO
BARRACK ROAD
SUTTON ROAD
SOUTH DEN
SOUTHGATES ROAD
Wood Wharf
ATLAS BERTH
TRINITY WHARF
ABC WHARF
BRYANTS WHARF
FRIARS LANE
QUEENS ROAD
TOWN HALL
YARMOUTH WAY
NOTTINGHAM WAY
SOUTH QUAY
HAVENBRIDGE HOUSE
H.M. CUSTOMS
H.M. COASTGUARDS
HUDSONS
EURO-CENTRE
RIVER BURE
NORTH RIVER ROAD
J. LEE BARBER
THE CONGE
FRANS MAAS
NORTH QUAY
HALL QUAY
HAVEN BRIDGE
MILL QUAY
BOWLING GREEN WHARF
VAUXHALL STATION
(BRITISH RAIL)
BRITISH RAIL TO NORWICH
LONDON AND MIDLANDS
A47 TO NORWICH
RIVER YARE
STEAM MILL LANE
PORTLAND WHARF
SOUTHTOWN WHARF
BUNNS LANE
ST. MARY'S LANE
PORTLAND LANE
FERRY LANE
DRY DOCK
BOLLARD QUAY
SOUTHTOWN ROAD A12
PALGRAVE BROWN
& SON LTD.
RICHARDS
(SHIPBUILDERS) LTD.
J. & H. BUNN LTD.
BOUNDARY ROAD
QUEEN ANNE'S
SUFFOLK ROAD
STATION ROAD
STAFFORD ROAD
R. H. CLARKE LTD.
Cushion Timber
Breydon Bridge
BREYDON WATER
GT. YARMOUTH
WESTERN BYPASS
HARFREYS INDUSTRIAL
ESTATE


GREAT YARMOUTH
X
X
MARINE BASE
VENTUREFORTH
AMOCO (UK)
CONSTRUCTION
GROUP
B.P.
MARINE BASE
SEA-MAR
DIESEL
NORWELL
CECA
HALLIBURTON
NORTH PIER
H.M. COASTGUARD
LOOKOUT
SOUTH PIER
PORT CONTROL
GT. YARMOUTH WAREHOUSING
COMPANY AND
G.Y. LINE (AGENCY) LTD.
SOUTH BEACH PARADE
BLOCK 'D'
TRAILER PARK
TENT SITE
STORAGE
YARD
FALCONGATE FREIGHT
MANAGEMENT LTD.
PHILLIPS PETROLEUM
AMOCO (UK)
C.E.G.B.
POWER
STATION
HARTMAN ROAD
SOUTH DENES ROAD
C.E.G.B. QUAY
BUNKERING
B.P. BERTH
Ventureforth Quay
ZAPATA MARINE SERVICES
(OFFSHORE MARINE)
ATLAS
RO/RO TERMINAL
ADMIRALTY ROAD
BARRACK ROAD
SUTTON ROAD
SWANSTONE ROAD
MAIN CROSS ROAD
SUFFLING ROAD
SALMON ROAD
SOUTH DENES ROAD
OCEAN TERMINAL
EAST QUAY
WEST QUAY
BRUSH QUAY
BRUSH BEND
QUAY ROAD
LIGHTHOUSE
R.N.L.I.
LIFEBOAT
HEWITT'S WHARF
MISSION QUAY
RIVERSIDE ROAD
DOCK TAVERN LANE
BAKER STREET
DARBY'S HARD
HIGH STREET
PILOT STATION
MALTHOUSE QUAY
GASHOUSE QUAY
FERRY HILL
HIGH ROAD
FERRY
Woodgroup Quay
BOLLARD QUAY
SOUTHTOWN ROAD A12
QUEEN ANNE'S ROAD
ALPHA ROAD
BECCLES ROAD
A12
A143
Ventureforth
SCALE (APPROX) 7 INCHES TO 1 MILE

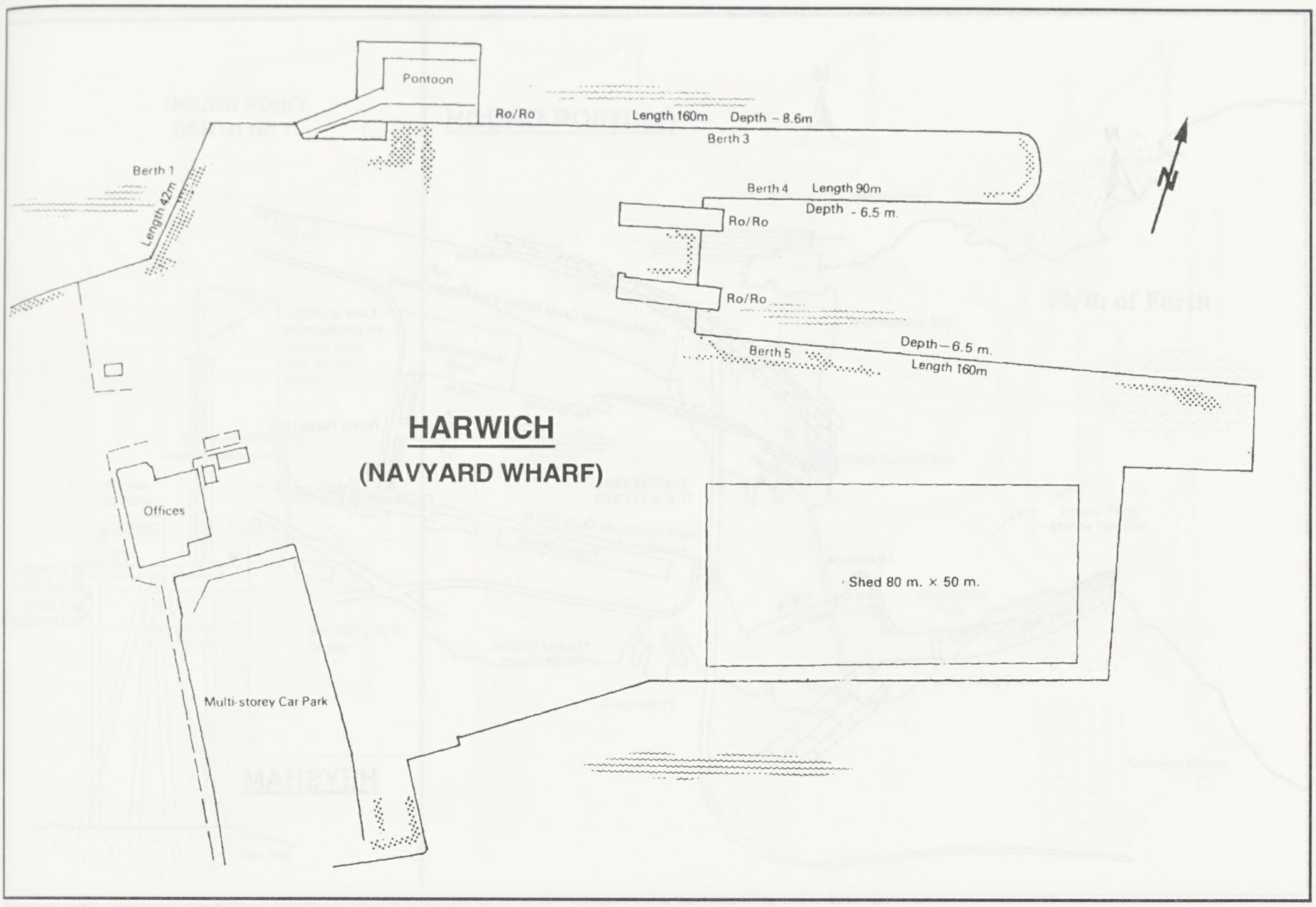

GRIMSBY
Locks
Ro/Ro Terminal
Lo/Lo Terminal
12
11
10
9
8
7
6
5
4
3
2
1
Royal Dock
Fish Docks
3
2
Slipways
0
500
Scale in Meters
Car Ferry Terminal
18
16
19
Alexandra Dock
20
13
Ro/Ro Terminal
Port Office
Marina
N
Humber Bridge
River Humber
Grimsby Docks
LOCATION PLAN

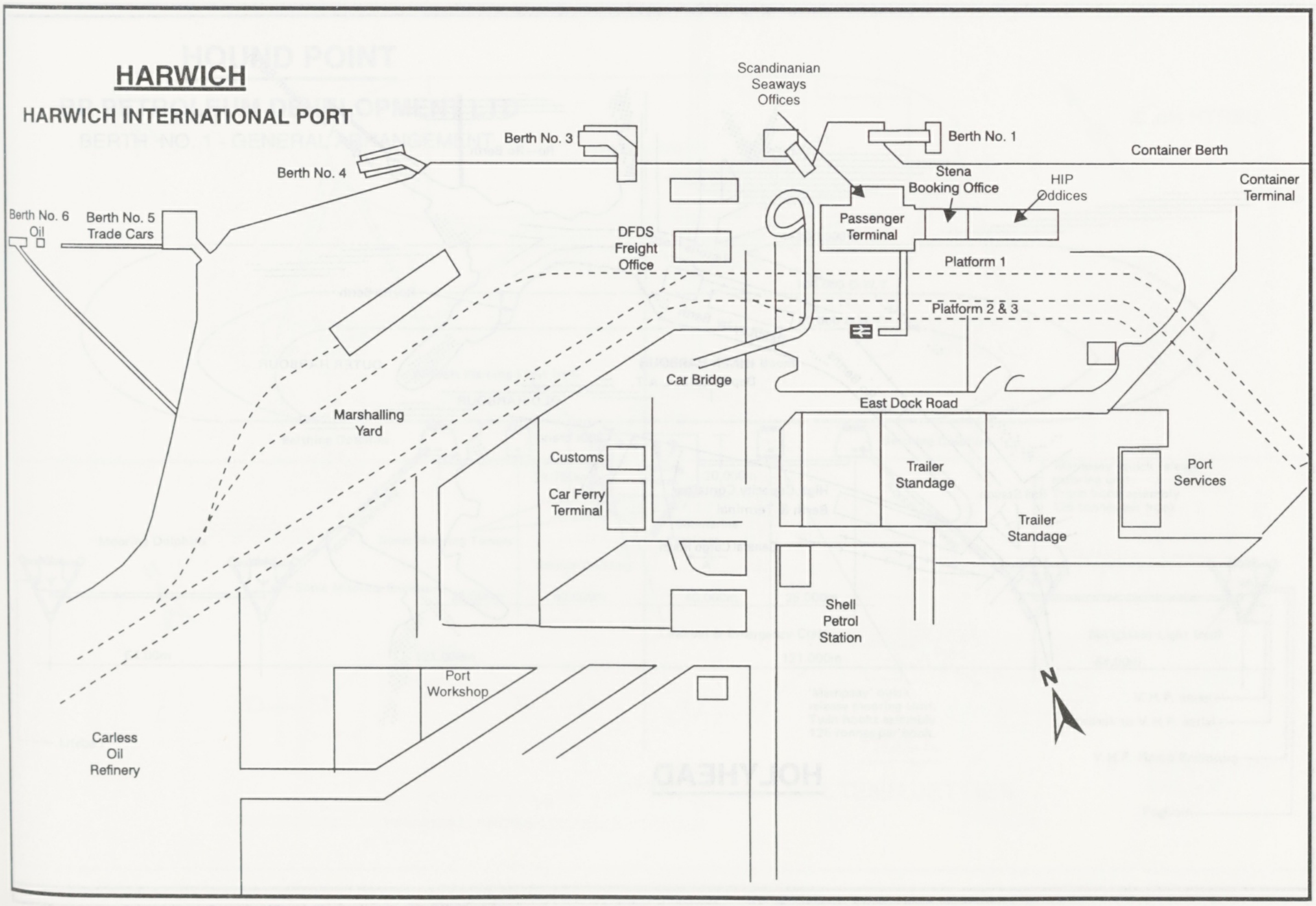

Lighthouse
Heugh Breakwater
T.H.C.
Moorings
Old Pier
- 9.5 m.
Victoria Berth
Fish Quay
Ro—Ro pontoon
VICTORIA HARBOUR - 6.8 m.
Middleton Pier
Irvines Quay
Dockmaster's Office
Timber Storage Area
Entrance to Docks
NORTH BASIN
Car Terminal
Ro/Ro
Ro-Ro Terminal
Dock Director's Office
North Pier
Ro Ro
Ro/Ro Terminal
WEST HARBOUR
Middle Pier
South Pier
CENTRAL DOCK Being Filled
Linkflow Ltd.
Ro/Ro Berth
Hartlepool Marina
Bulk Loading Conveyor
UNION DOCK
COAL DOCK
Hartlepool Yacht Haven
Car Nortalc Terminal
Bulk Road Vehicle Spout
C. Jetty
B. Jetty
A. Jetty
JACKSON DOCK
New Yacht Lock
Site for Industrial Development
Cargo Office
HARTLEPOOL

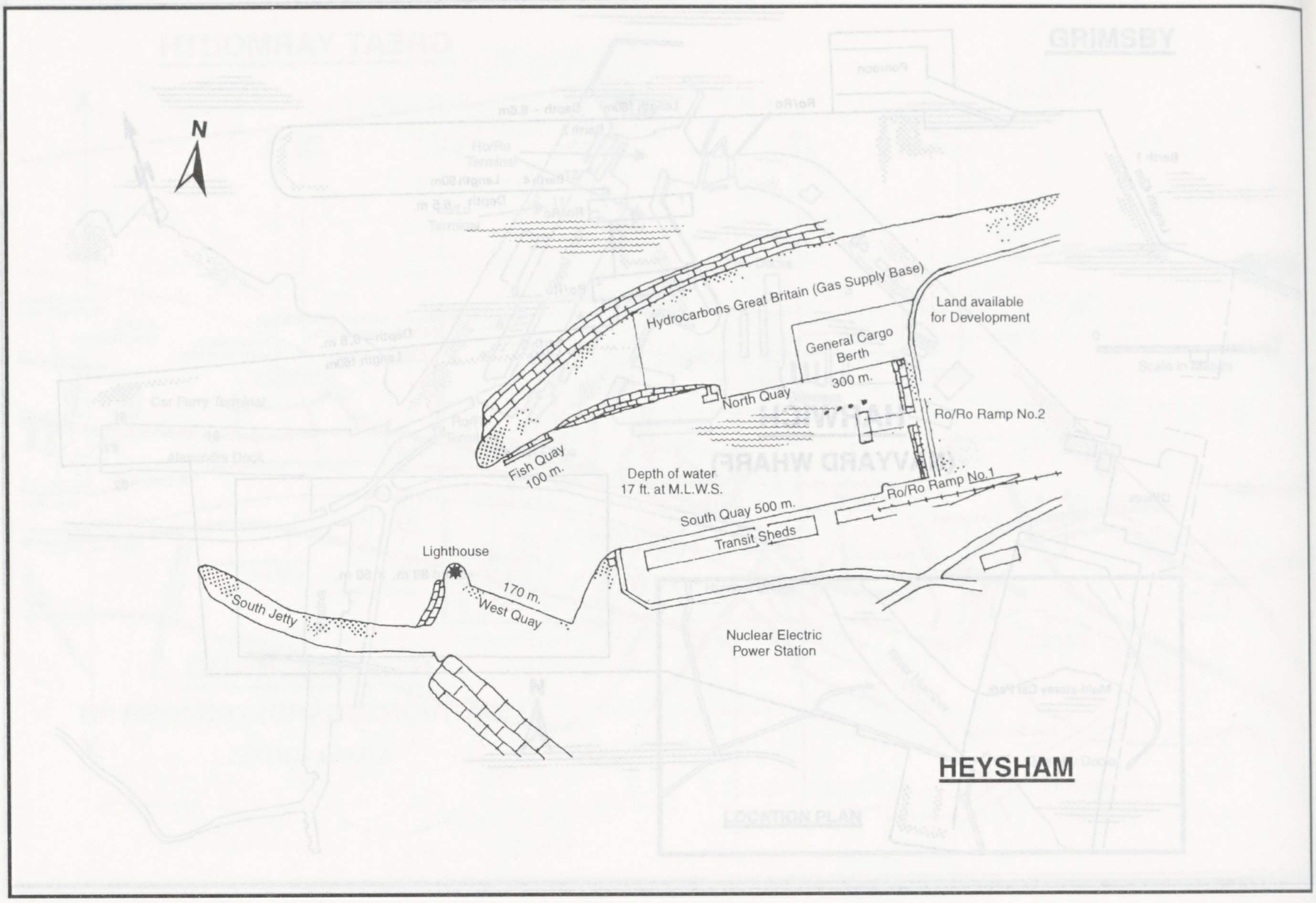
NOMINAL DREDGED DEPTHS

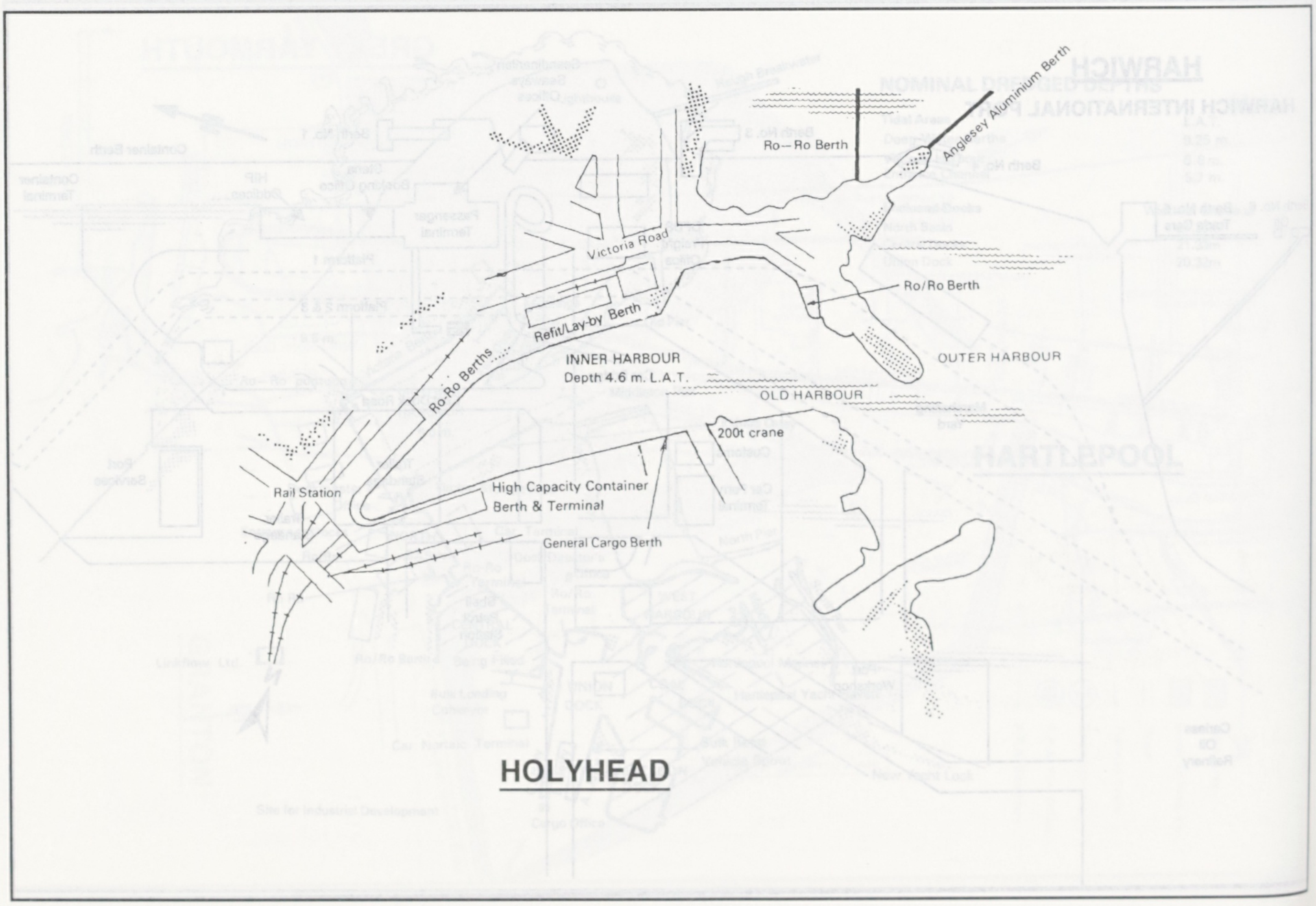
Tidal Areas	L.A.T.
Deep Water Berths	9.25 m.
Victoria Harbour	6.8 m.
Entrance Channel	5.7 m.

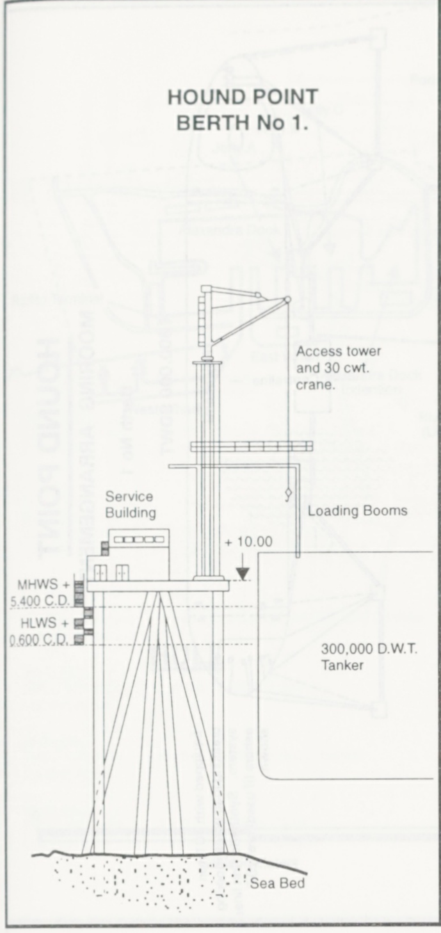
Enclosed Docks	Width of Entrance
North Basin	21.33m
Central Docks	21.33m
Union Dock	20.32m

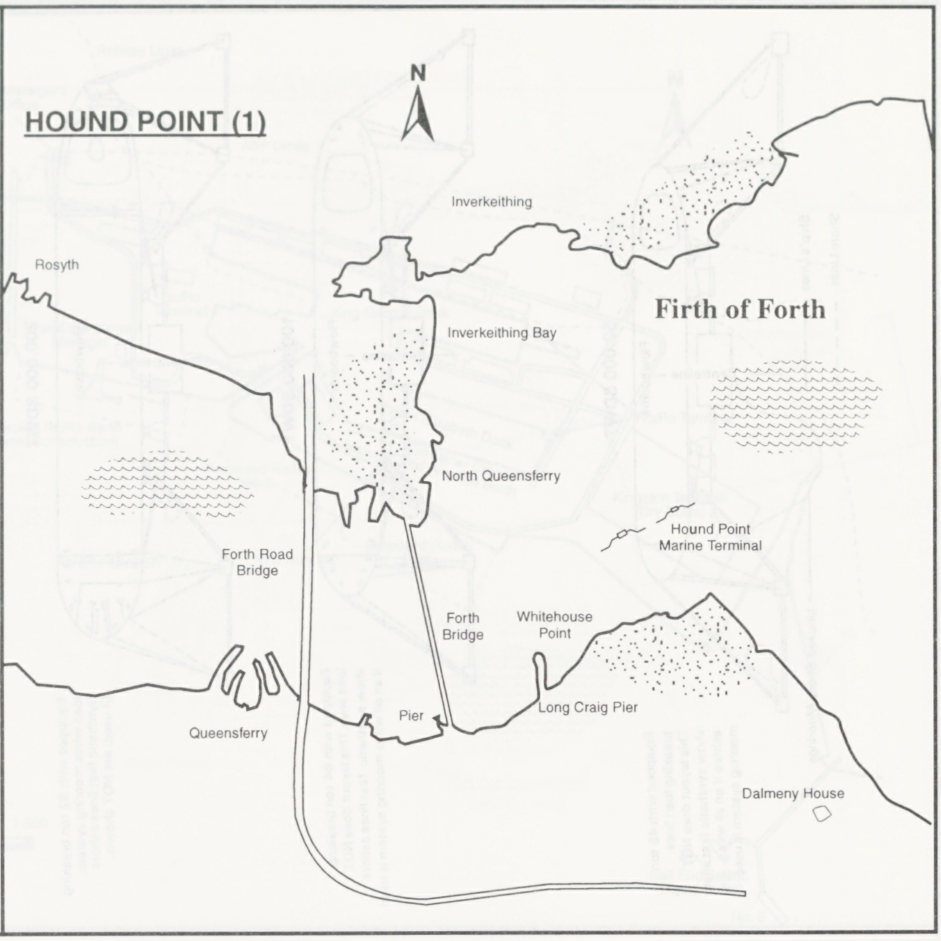

HARWICH
(NAVYARD WHARF)
Pontoon
Ro/Ro
Length 160m
Depth – 8.6m
Berth 3
Berth 1
Length 42m
Berth 4
Length 90m
Depth - 6.5 m.
Ro/Ro
Ro/Ro
Berth 5
Depth – 6.5 m.
Length 160m
Offices
Shed 80 m. × 50 m.
Multi-storey Car Park


HARWICH
HARWICH INTERNATIONAL PORT
Scandinanian
Seaways
Offices
Berth No. 3
Berth No. 1
Container Berth
Berth No. 4
Stena
Booking Office
HIP
Oddices
Container
Terminal
Berth No. 6
Oil
Berth No. 5
Trade Cars
DFDS
Freight
Office
Passenger
Terminal
Platform 1
Platform 2 & 3
Car Bridge
East Dock Road
Marshalling
Yard
Customs
Car Ferry
Terminal
Trailer
Standage
Port
Services
Trailer
Standage
Shell
Petrol
Station
Port
Workshop
N
Carless
Oil
Refinery


N
Hydrocarbons Great Britain (Gas Supply Base)
Land available for Development
General Cargo Berth
300 m.
North Quay
Ro/Ro Ramp No.2
Fish Quay 100 m.
Depth of water 17 ft. at M.L.W.S.
Ro/Ro Ramp No.1
South Quay 500 m.
Transit Sheds
Lighthouse
170 m.
West Quay
South Jetty
Nuclear Electric Power Station
HEYSHAM


Anglesey Aluminium Berth
Ro—Ro Berth
Victoria Road
Ro/Ro Berth
Refit/Lay-by Berth
Ro-Ro Berths
INNER HARBOUR
Depth 4.6 m. L.A.T.
OUTER HARBOUR
OLD HARBOUR
200t crane
Rail Station
High Capacity Container Berth & Terminal
General Cargo Berth
N
HOLYHEAD

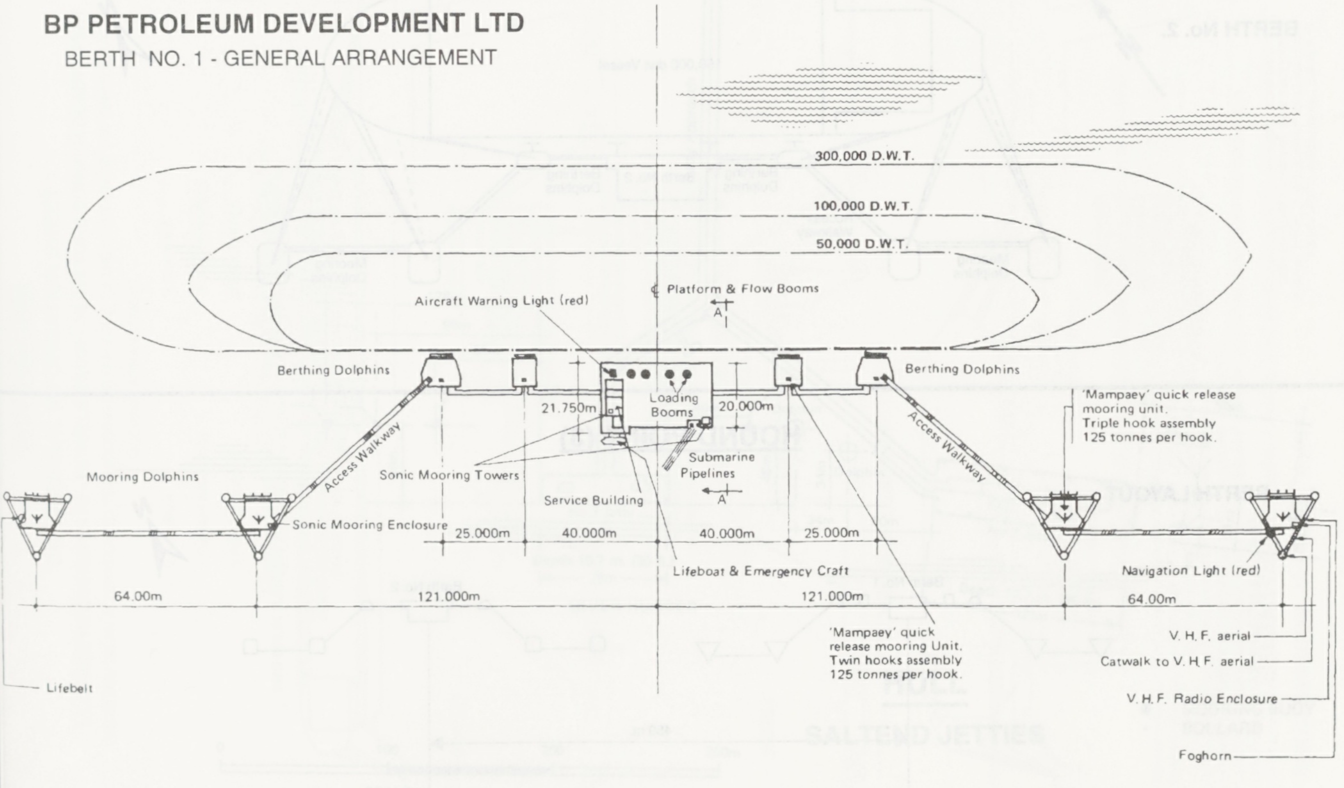

HOUND POINT BERTH No 1.
Access tower
and 30 cwt.
crane.
Service
Building
Loading Booms
+ 10.00
MHWS +
5.400 C.D.
HLWS +
0.600 C.D.
300,000 D.W.T.
Tanker
Sea Bed


HOUND POINT (1)
N
Inverkeithing
Rosyth
Firth of Forth
Inverkeithing Bay
North Queensferry
Hound Point
Marine Terminal
Forth Road
Bridge
Forth
Bridge
Whitehouse
Point
Pier
Long Craig Pier
Queensferry
Dalmeny House

HOUND POINT

BP PETROLEUM DEVELOPMENT LTD

BERTH NO. 1 - GENERAL ARRANGEMENT

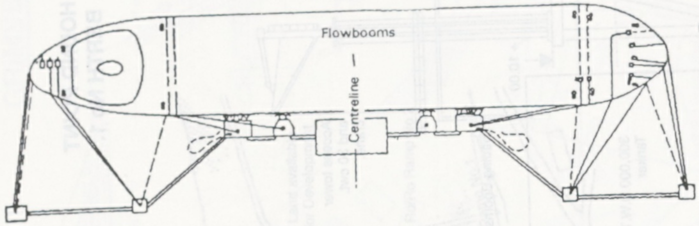

300,000 D.W.T.
100,000 D.W.T.
50,000 D.W.T.
℄ Platform & Flow Booms
A
Aircraft Warning Light (red)
Berthing Dolphins
Berthing Dolphins
Loading
Booms
21.750m
20.000m
'Mampaey' quick release
mooring unit.
Triple hook assembly
125 tonnes per hook.
Access Walkway
Access Walkway
Submarine
Pipelines
A
Mooring Dolphins
Sonic Mooring Towers
Service Building
Sonic Mooring Enclosure
25.000m
40.000m
40.000m
25.000m
Lifeboat & Emergency Craft
Navigation Light (red)
64.00m
121.000m
121.000m
64.00m
'Mampaey' quick
release mooring Unit.
Twin hooks assembly
125 tonnes per hook.
V. H. F. aerial
Catwalk to V. H. F. aerial
V. H. F. Radio Enclosure
Foghorn
Lifebelt

HOUND POINT

MOORING ARRANGEMENT

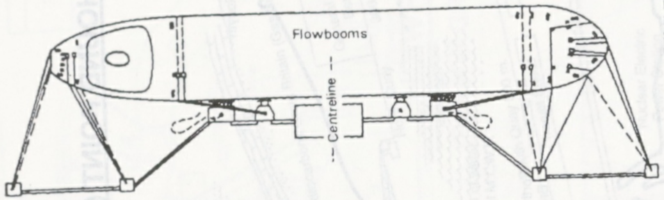
Berth No 1

300,000 SDWT


Flowbooms
Centreline

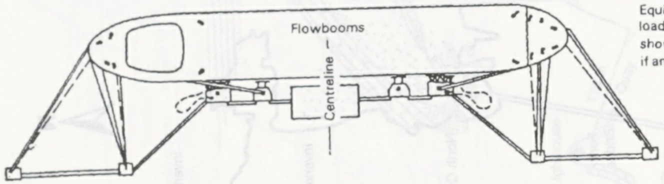
Equipped with 101 ton breaking load wires mooring system. Synthetic first lines ashore (if used) are NOT shown.

200,000 SDWT


Flowbooms
Centreline

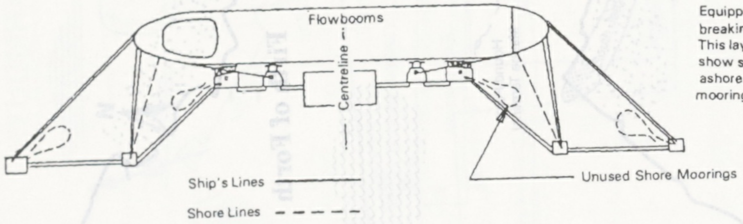
Equipped with 82 ton breaking load wires mooring system. Synthetic first lines ashore (if used) are NOT shown.

100,000 SDWT


Flowbooms
Centreline

Equipped with 64 ton breaking load lines. This layout does NOT show synthetic first lines ashore if an all wires mooring system is used.

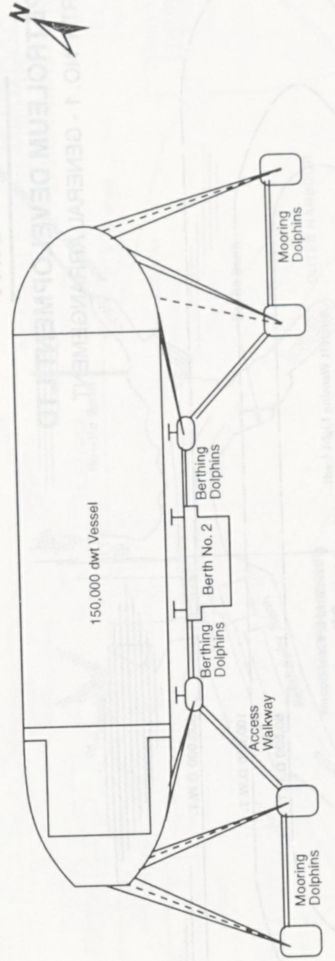
50,000 SDWT


Flowbooms
Centreline
Ship's Lines
Shore Lines
Unused Shore Moorings

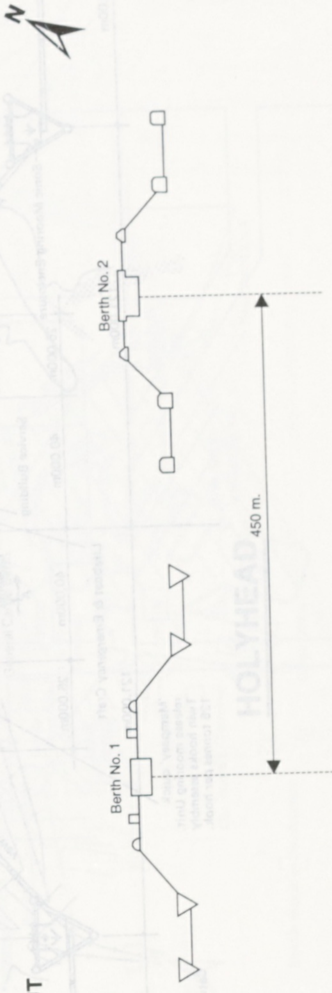
Equipped with 45 ton breaking load lines. This layout does NOT show synthetic first lines ashore if an all wires mooring system is used.

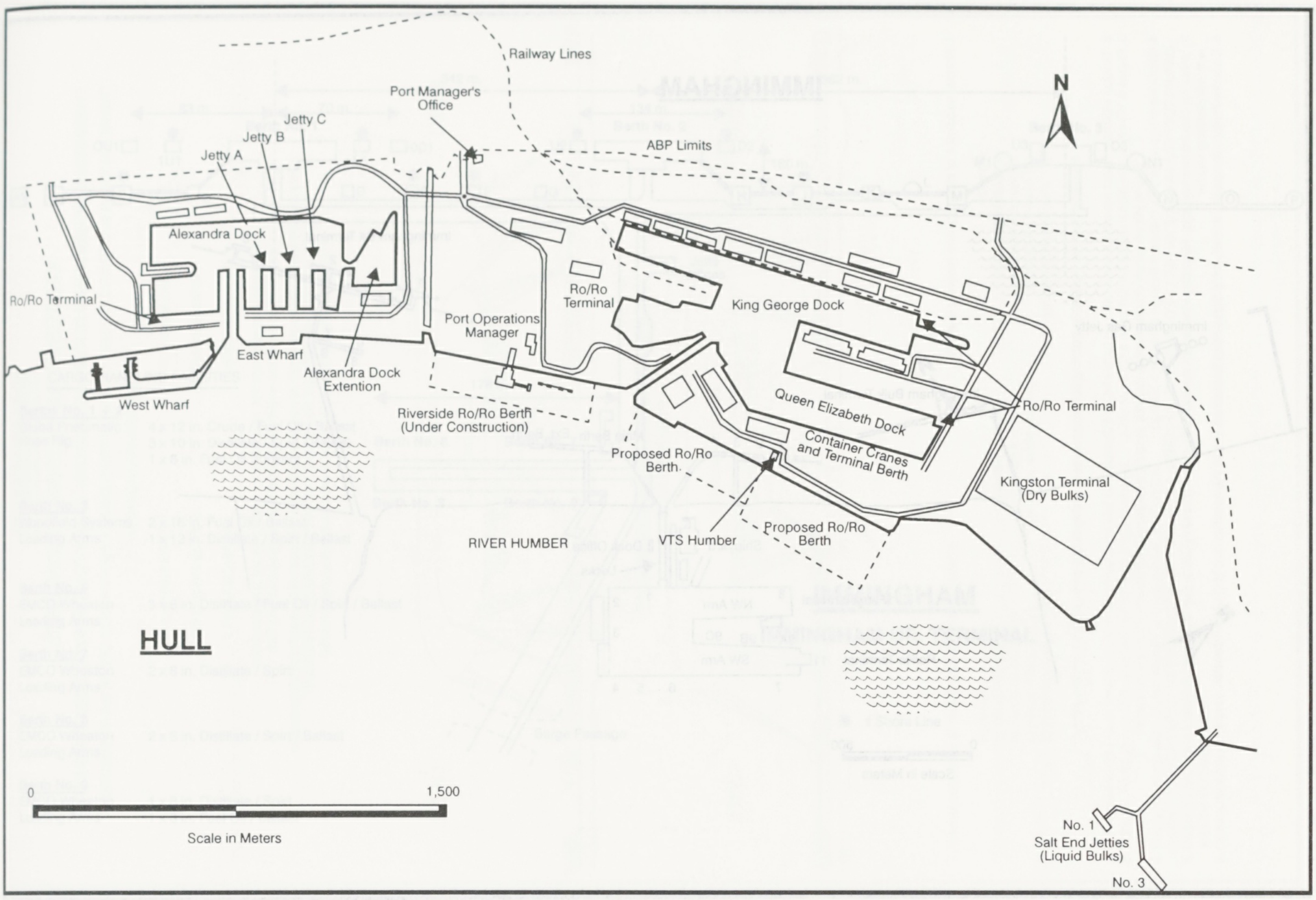
HOUND POINT (3)

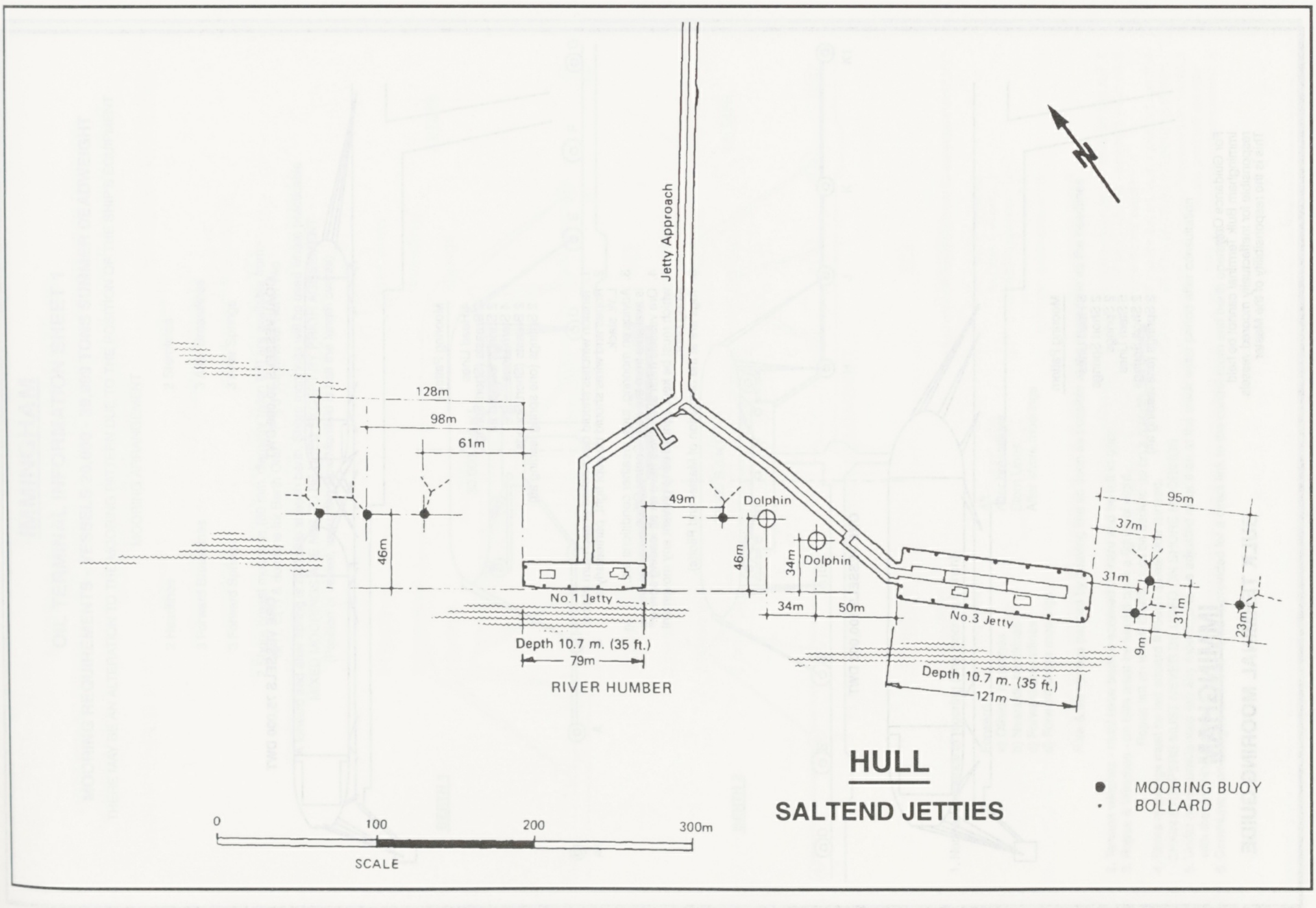
BERTH No. 2.


N
150,000 dwt Vessel
Mooring Dolphins
Berthing Dolphins
Berth No. 2
Berthing Dolphins
Access Walkway
Mooring Dolphins

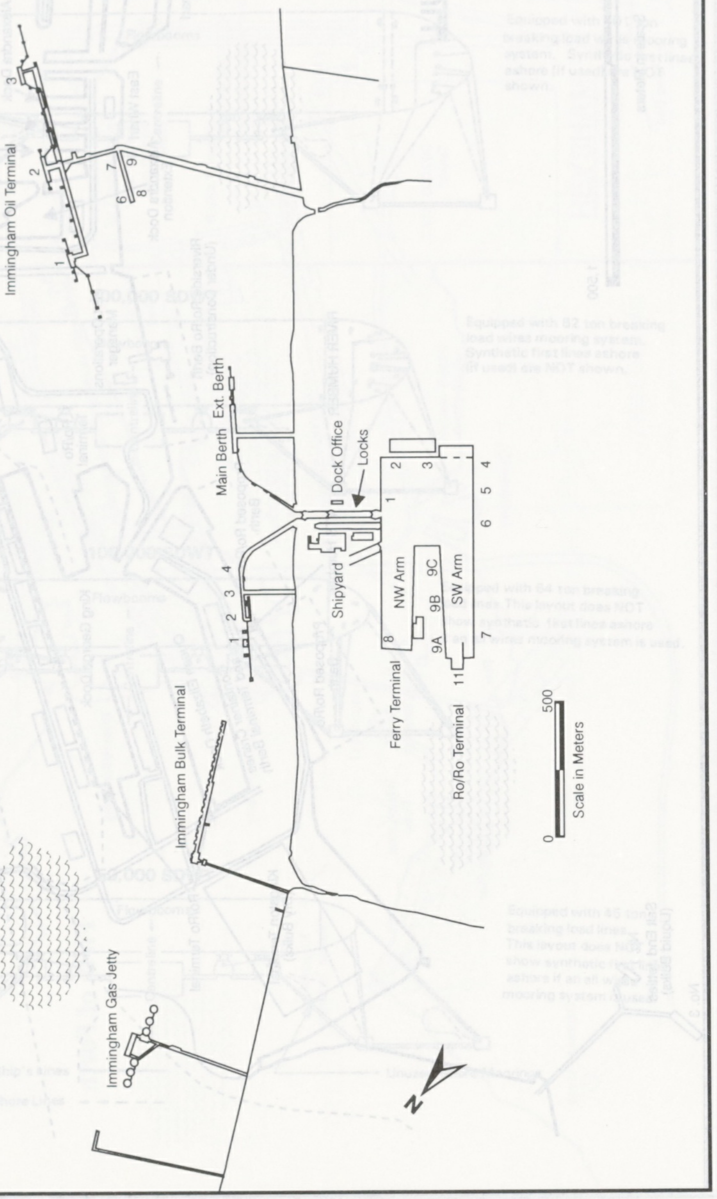
BERTH LAYOUT


N
Berth No. 2
450 m.
Berth No. 1


Railway Lines
Port Manager's Office
Jetty C
Jetty B
Jetty A
ABP Limits
N
Alexandra Dock
Ro/Ro Terminal
East Wharf
West Wharf
Alexandra Dock Extention
Ro/Ro Terminal
Port Operations Manager
King George Dock
Riverside Ro/Ro Berth (Under Construction)
Queen Elizabeth Dock
Ro/Ro Terminal
Container Cranes and Terminal Berth
Proposed Ro/Ro Berth.
Kingston Terminal (Dry Bulks)
RIVER HUMBER
VTS Humber
Proposed Ro/Ro Berth
HULL
0
1,500
Scale in Meters
No. 1
Salt End Jetties (Liquid Bulks)
No. 3

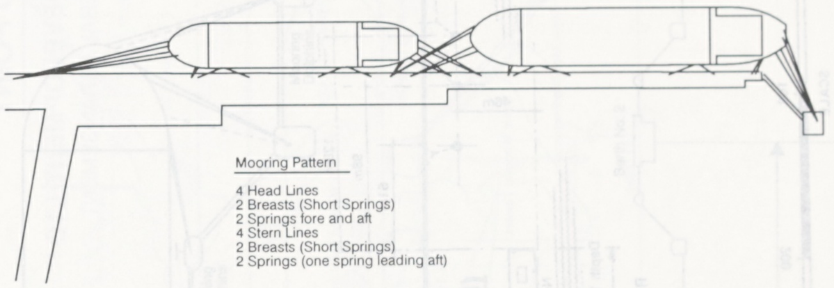

Jetty Approach
128m
98m
61m
46m
49m
Dolphin
46m
34m
Dolphin
34m
50m
No.1 Jetty
Depth 10.7 m. (35 ft.)
79m
RIVER HUMBER
No.3 Jetty
95m
37m
31m
31m
9m
23m
Depth 10.7 m. (35 ft.)
121m
HULL
SALTEND JETTIES
● MOORING BUOY
· BOLLARD
0
100
200
300m
SCALE

IMMINGHAM


Immingham Oil Terminal
1
2
3
6
7
8
9
Main Berth
Ext. Berth
Dock Office
Locks
Shipyard
1
2
3
4
NW Arm
SW Arm
9A
9B
9C
8
11
7
1
2
3
4
5
6
Ferry Terminal
Ro/Ro Terminal
Immingham Bulk Terminal
Immingham Gas Jetty
0
500
Scale in Meters
N

COAL VESSELS 30,000 DWT

ORE VESSELS 75,000 DWT

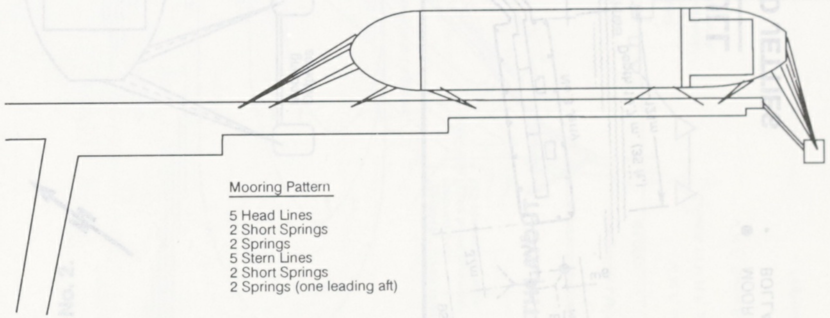


Mooring Pattern

4 Head Lines
2 Breasts (Short Springs)
2 Springs fore and aft
4 Stern Lines
2 Breasts (Short Springs)
2 Springs (one spring leading aft)

1. Tension winches should be checked at each turn of tide.
2. Ropes and wires should be kept tight, particularly at L.W. slack.
3. Advice on mooring, tugs, weather conditions etc, is available from the Jetty Control Office.
4. Ore vessels must at all times have an aft leading spring which must be kept tight so as to prevent any movement along berth.
5. Tugs are at the discretion of Master and Pilot(s).

ORE VESSELS 100,000 DWT



Mooring Pattern

5 Head Lines
2 Short Springs
2 Springs
5 Stern Lines
2 Short Springs
2 Springs (one leading aft)

For Guidance Only :
Immingham Bulk Terminal cannot be held responsible for ineffectually moored vessels.
This is the responsibility of the Master

IMMINGHAM

BULK TERMINAL MOORING GUIDE

IMMINGHAM

OIL TERMINAL INFORMATION SHEET 1

MOORING REQUIREMENTS - VESSELS 20,000 - 39,999 TONS SUMMER DEADWEIGHT

THERE MAY BE AN ALTERATION TO THE MOORING PATTERN DUE TO THE POSITION OF THE SHIP'S EQUIPMENT

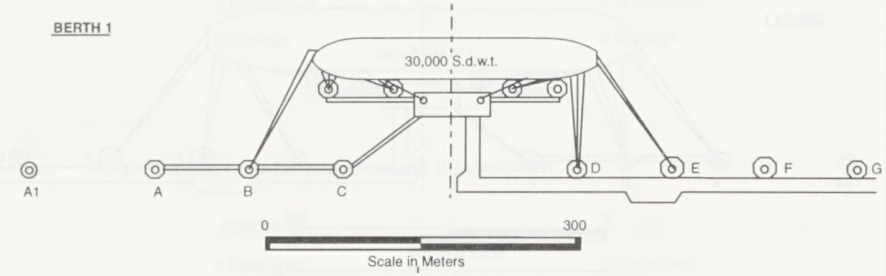
MOORING ARRANGEMENT

2 Headlines	2 Sternlines
3 Forward Breastlines	3 After Breastlines
3 Forward Springs	3 After Springs

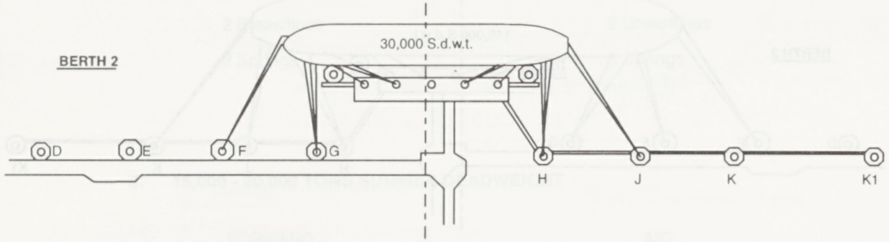
2 Shore breast moorings (80 mm. diameter nylon tail) are available from:-
B(1), C(1) & dolphins for Berth One. F & J dolphins for Berth Two

A forward and after spring is available at each berth. Shore moorings will be used where practicable
MIXED MOORINGS ARE NOT TO BE USED EXCEPT BY PRIOR AGREEMENT
(Position of vessel, assuming Bow/Manifold is half the length overall)

BERTH 1


30,000 S.d.w.t.
A1
A
B
C
D
E
F
G
0
300
Scale in Meters

BERTH 2


30,000 S.d.w.t.
D
E
F
G
H
J
K
K1

1. Normal sequence of mooring (one mooring launch)

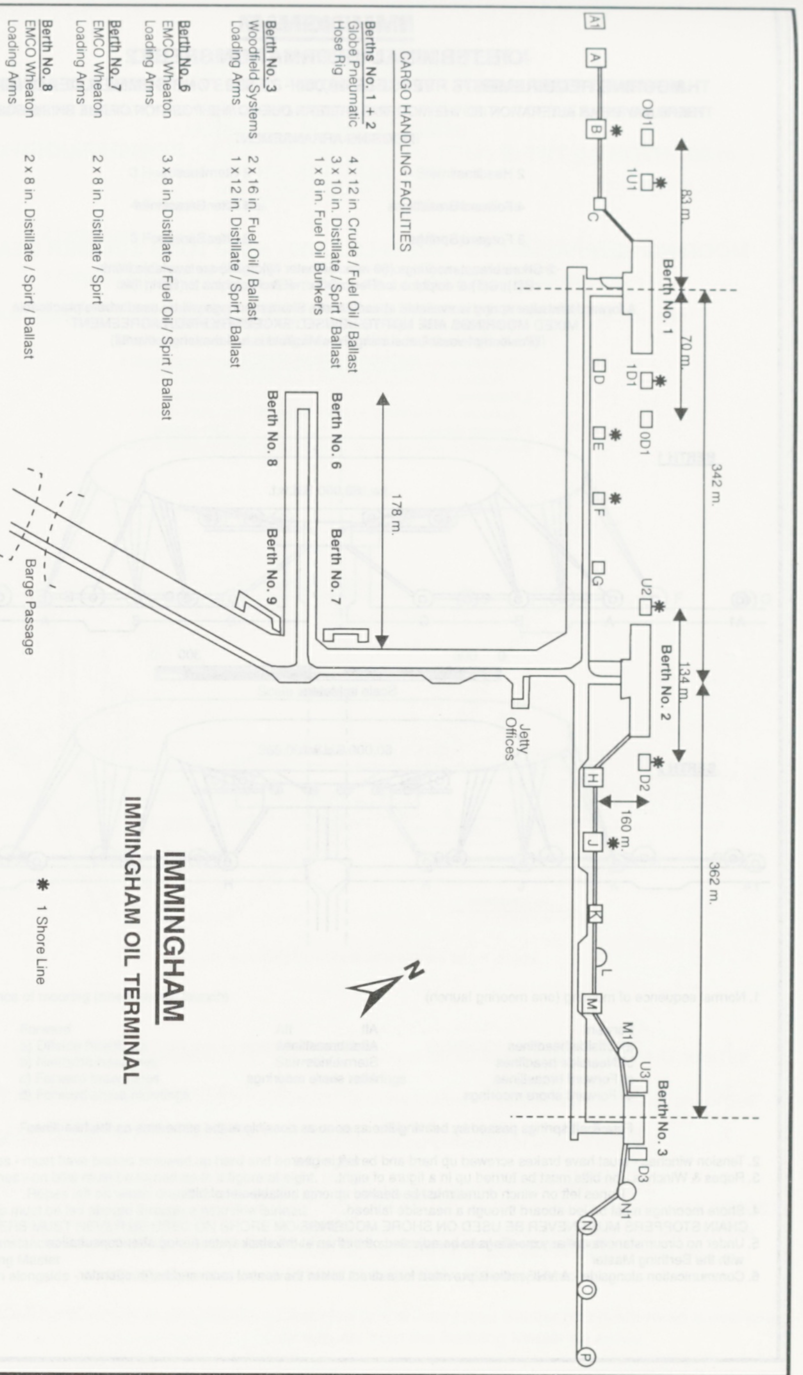
Forward	Aft
a) Offside headlines	After breastlines
b) Nearside headlines	Stern Lines
c) Forward breastlines	After shore moorings
d) Forward shore moorings	

Fore & aft springs passed by heaving line as soon as possible at the same time as the headlines

2. Tension winches - must have brakes screwed up hard and be left in gear
3. Ropes & Winches - on bitts must be turned up in a figure of eight.
   Ropes left on winch drums must be backed up on a suitable set of bitts
4. Shore moorings must be led aboard through a nearside fairlead.
   CHAIN STOPPERS MUST NEVER BE USED ON SHORE MOORINGS
5. Under no circumstances are any moorings to be adjusted other than at the slack water period after consultation with the Berthing Master
6. Communication alongside - A VHF radio is provided for a direct link to the control room and berth operator.

CARGO HANDLING FACILITIES

Berths No. 1 + 2	
Globe Pneumatic	4 x 12 in. Crude / Fuel Oil / Ballast
Hose Rig	3 x 10 in. Distillate / Spirt / Ballast
	1 x 8 in. Fuel Oil Bunkers
Berth No. 3	
Woodfield Systems	2 x 16 in. Fuel Oil / Ballast
Loading Arms	1 x 12 in. Distillate / Spirt / Ballast
Berth No. 6	
EMCO Wheaton	3 x 8 in. Distillate / Fuel Oil / Spirt / Ballast
Loading Arms	
Berth No. 7	
EMCO Wheaton	2 x 8 in. Distillate / Spirt
Loading Arms	
Berth No. 8	
EMCO Wheaton	2 x 8 in. Distillate / Spirt / Ballast
Loading Arms	
Berth No. 9	
EMCO Wheaton	1 x 8 in. Distillate / Spirt
Loading Arms	1 x 6 in. Fuel Oil / Ballast


A1
A
OU1
B
1U1
C
83 m.
Berth No. 1
70 m.
D
1D1
OD1
E
342 m.
F
G
U2
134 m.
Berth No. 2
D2
H
160 m.
J
362 m.
K
L
M
M1
U3
Berth No. 3
D3
N1
N
O
P
Jetty Offices
Berth No. 6
Berth No. 8
178 m.
Berth No. 7
Berth No. 9
Barge Passage
N

IMMINGHAM
IMMINGHAM OIL TERMINAL

✱ 1 Shore Line

IMMINGHAM

OIL TERMINAL INFORMATION SHEET 2

MOORING REQUIREMENTS - VESSELS 40,000 - 79,999 TONS SUMMER DEADWEIGHT

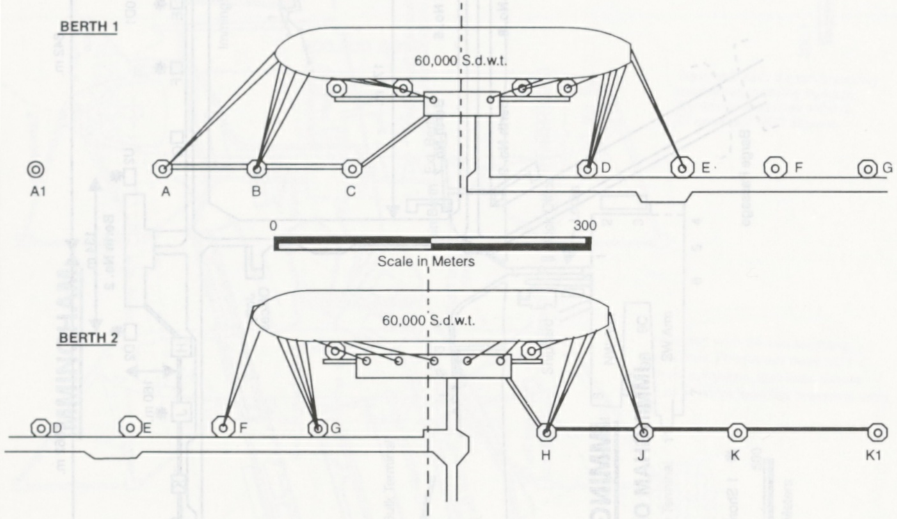
THERE MAY BE AN ALTERATION TO THE MOORING PATTERN DUE TO THE POSITION OF THE SHIP'S EQUIPMENT

MOORING ARRANGEMENT

2 Headlines	2 Sternlines
4 Forward Breastlines	4 After Breastlines
3 Forward Springs	3 After Springs

2 Shore breast moorings (80 mm. diameter nylon tail) are available from:-
B(1), C(1) & dolphins for Berth One. F & J dolphins for Berth Two

A forward and after spring is available at each berth. Shore moorings will be used where practicable
MIXED MOORINGS ARE NOT TO BE USED EXCEPT BY PRIOR AGREEMENT
(Position of vessel, assuming Bow/Manifold is half the length overall)



1. Normal sequence of mooring (one mooring launch)

Forward	Aft
a) Offside headlines	After breastlines
b) Nearside headlines	Stern Lines
c) Forward breastlines	After shore moorings
d) Forward shore moorings	

Fore & aft springs passed by heaving line as soon as possible at the same time as the headlines

2. Tension winches - must have brakes screwed up hard and be left in gear
3. Ropes & Winches - on bitts must be turned up in a figure of eight.
   Ropes left on winch drums must be backed up on a suitable set of bitts
4. Shore moorings must be led aboard through a nearside fairlead.
   CHAIN STOPPERS MUST NEVER BE USED ON SHORE MOORINGS
5. Under no circumstances are any moorings to be adjusted other than at the slack water period after consultation with the Berthing Master
6. Communication alongside - A VHF radio is provided for a direct link to the control room and berth operator.

IMMINGHAM

OIL TERMINAL INFORMATION SHEET 3

MOORING REQUIREMENTS - VESSELS 80,000 - 149,999 TONS SUMMER DEADWEIGHT

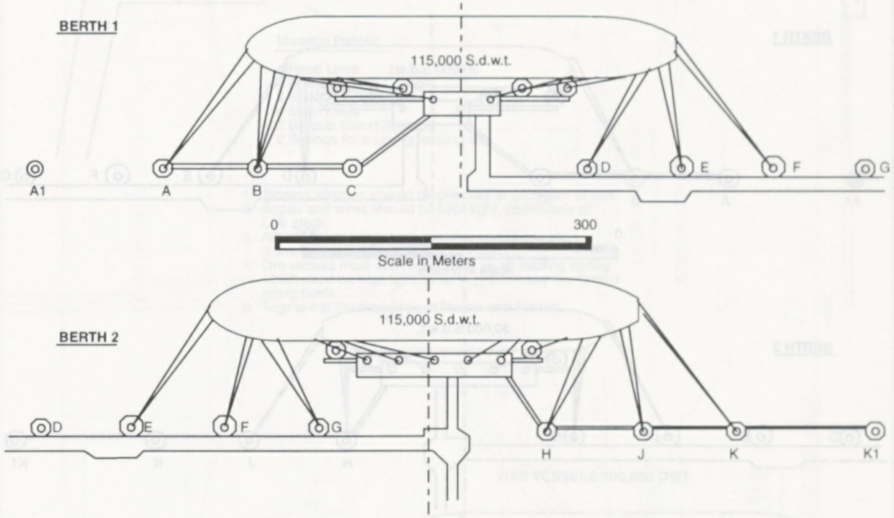
THERE MAY BE AN ALTERATION TO THE MOORING PATTERN DUE TO THE POSITION OF THE SHIP'S EQUIPMENT

MOORING ARRANGEMENT

2 Headlines	2 Sternlines
4 Forward Breastlines	4 After Breastlines
3 Forward Springs	3 After Springs

2 Shore breast moorings (80 mm. diameter nylon tail) are available from:-
B(1), C(1) & dolphins for Berth One. F & J dolphins for Berth Two

A forward and after spring is available at each berth. Shore moorings will be used where practicable
MIXED MOORINGS ARE NOT TO BE USED EXCEPT BY PRIOR AGREEMENT
(Position of vessel, assuming Bow/Manifold is half the length overall)



1. Normal sequence of mooring (one mooring launch)

Forward	Aft
a) Offside headlines	After breastlines
b) Nearside headlines	Stern Lines
c) Forward breastlines	After shore moorings
d) Forward shore moorings	

Fore & aft springs passed by heaving line as soon as possible at the same time as the headlines

2. Tension winches - must have brakes screwed up hard and be left in gear
3. Ropes & Winches - on bitts must be turned up in a figure of eight.
   Ropes left on winch drums must be backed up on a suitable set of bitts
4. Shore moorings must be led aboard through a nearside fairlead.
   CHAIN STOPPERS MUST NEVER BE USED ON SHORE MOORINGS
5. Under no circumstances are any moorings to be adjusted other than at the slack water period after consultation with the Berthing Master
6. Communication alongside - A VHF radio is provided for a direct link to the control room and berth operator.

IMMINGHAM

IMMINGHAM OIL TERMINAL INFORMATION SHEET 5

MOORING REQUIREMENTS

1. 4,000 - 10,000 TONS SUMMER DEADWEIGHT

FORWARD	AFT
2 Headlines	2 Sternlines
2 Breastlines	2 Breastlines
2 Springs	2 Springs

2. 10,000 - 15,000 TONS SUMMER DEADWEIGHT

FORWARD	AFT
3 Headlines	3 Sternlines
2 Breastlines	2 Breastlines
2 Springs	2 Springs

3. 15,000 - 20,000 TONS SUMMER DEADWEIGHT

FORWARD	AFT
2 Headlines	2 Sternlines
3 Breastlines	3 Breastlines
3 Springs	3 Springs

There may be an alteration to the mooring pattern due to the position of the ship's equipment

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IMMINGHAM

OIL TERMINAL INFORMATION SHEET 4

MOORING REQUIREMENTS - VESSELS 150,000 AND OVER TONS SUMMER DEADWEIGHT

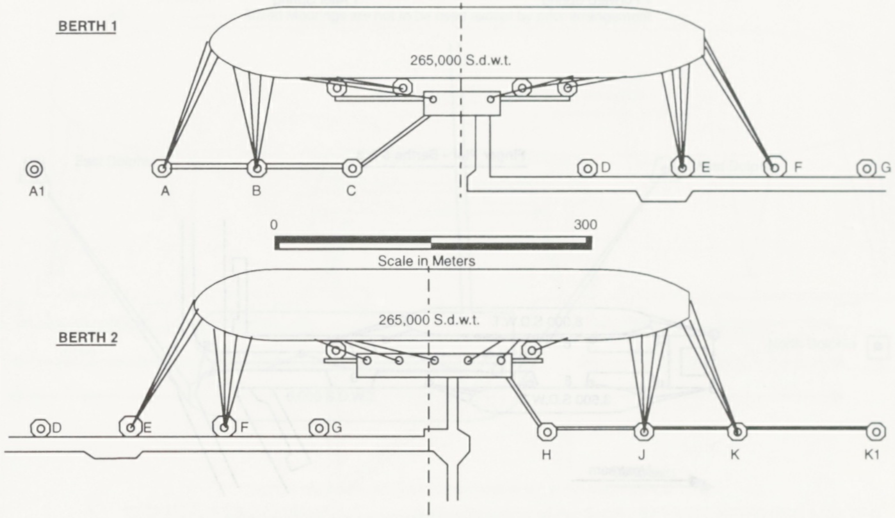
THERE MAY BE AN ALTERATION TO THE MOORING PATTERN DUE TO THE POSITION OF THE SHIP'S EQUIPMENT

MOORING ARRANGEMENT

3 Headlines	3 Sternlines
4 Forward Breastlines	4 After Breastlines
3 Forward Springs	3 After Springs

2 Shore breast moorings (80 mm. diameter nylon tail) are available from:-
B(1), C(1) & dolphins for Berth One. F & J dolphins for Berth Two

A forward and after spring is available at each berth. Shore moorings are mandatory
MOORINGS MUST ALL BE WIRES (Rope Tails Accepted)
(Position of vessel, assuming Bow/Manifold is half the length overall)



1. Normal sequence of mooring (one mooring launch)

Forward	Aft
a) Offside headlines	After breastlines
b) Nearside headlines	Stern Lines
c) Forward breastlines	After shore moorings
d) Forward shore moorings	

Fore & aft springs passed by heaving line as soon as possible at the same time as the headlines

2. Tension winches - must have brakes screwed up hard and be left in gear
3. Ropes & Winches - on bitts must be turned up in a figure of eight.
   Ropes left on winch drums must be backed up on a suitable set of bitts
4. Shore moorings must be led aboard through a nearside fairlead.
   CHAIN STOPPERS MUST NEVER BE USED ON SHORE MOORINGS
5. Under no circumstances are any moorings to be adjusted other than at the slack water period after consultation with the Berthing Master
6. Communication alongside - A VHF radio is provided for a direct link to the control room and berth operator.

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IMMINGHAM OIL TERMINAL

INFORMATION SHEET 6

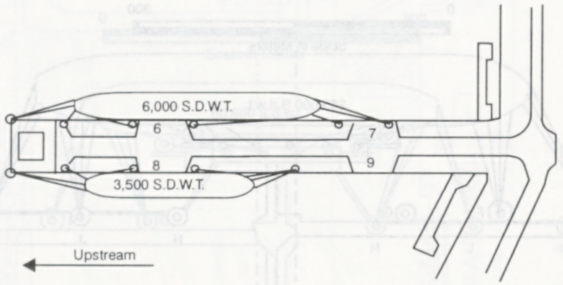
MOORING REQUIREMENTS - VESSELS 3,500 - 6,000 TONS SUMMER DEADWEIGHT

THERE MAY BE AN ALTERATION TO THE MOORING PATTERN DUE TO THE POSITION OF THE SHIPS EQUIPMENT

MOORING ARRANGEMENT

3 Headlines	3 Sternlines
1 Forward Spring	1 After Spring

Finger Pier - Berths 6 & 8



1.	SEQUENCE OF MOORING	At the direction of the MASTER/PILOT/BERTHING MASTER
2.	TENSION WINCHES	Should have the brakes screwed up hard and left out of gear
3.	ROPES AND WIRES	On bitts should be turned up in a figure of eight
4.	EXTREME CAUTION	Must be exercised when tending moorings
5.		ADJUSTMENT OF MOORINGS MUST ONLY BE MADE AFTER CONSULTATION WITH THE BERTHING MASTER

IMMINGHAM

SOUTH KILLINGHOLME JETTY

INFORMATION SHEET 7

MOORING REQUIREMENTS - L.P.G. VESSELS 2,000 TONS S.DWT (LENGTH 80 m.)

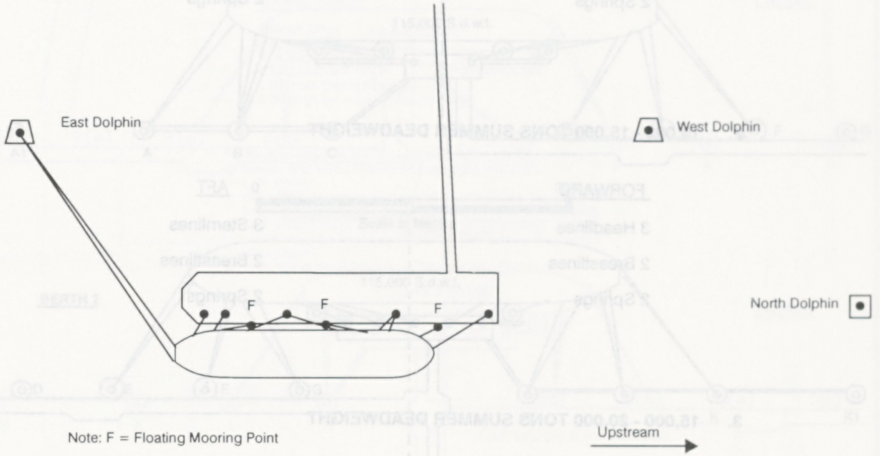
MOORING ARRANGEMENT

2 Headlines	2 Sternlines
2 Forward Breastlines	2 After Breastlines
2 Forward Springs	2 After Springs

2 Shore Moorings (40 mm. Diameter Nylon Tail) are available from East and West Dolphins, which will be used if necessary

Ship's Head and Sternlines must be minimum 100 m. Long

Mixed moorings are not to be used except by prior arrangement



Note: F = Floating Mooring Point

Position of Vessel, assuming Bow/Manifold is half the length overall.

1.	SEQUENCE OF MOORING	At the direction of the MASTER/PILOT/BERTHING MASTER
2.	TENSION WINCHES	Should have the brakes screwed hard and be left out of gear
3.	ROPES AND WIRES	On bitts should be turned up in a figure of eight
4.	SHORE MOORINGS	Must be led aboard through a near side fairlead CHAIN STOPPERS SHOULD NEVER BE USED ON SHORE MOORINGS
5.	EXTREME CAUTION	Must be exercised when tending moorings and adjustments should not normally be made without reference to the DUTY BERTHING MASTER
6.	COMMUNICATION ALONGSIDE	Direct link to the Jetty Head Shelter on private radio is available on request from the Berthing Master on arrival

IMMINGHAM

SOUTH KILLINGHOLME JETTY

INFORMATION SHEET 9

MOORING REQUIREMENTS - L.P.G. VESSELS 30,000 TONS S.DWT (LENGTH 170 m.)

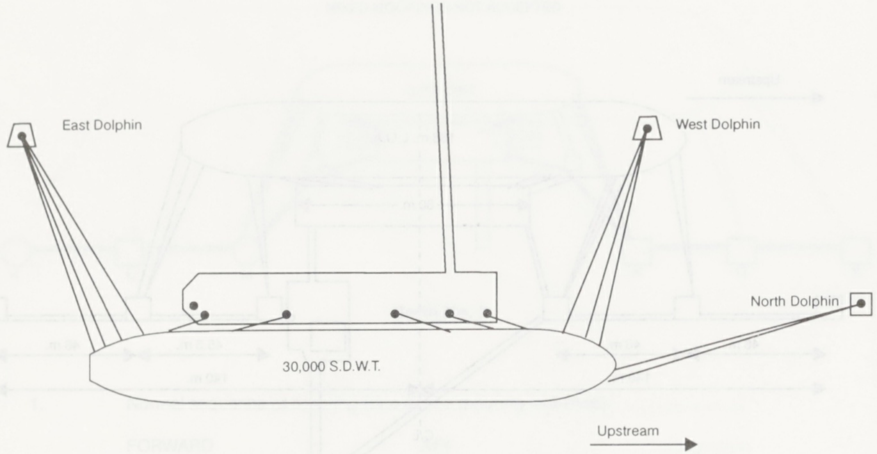
MOORING ARRANGEMENT

2 Headlines	4 After Breastlines
3 Forward Breastlines	2 After Springs
3 Forward Springs	

2 Shore Moorings (40 mm. Diameter Nylon Tail) are available from East and West Dolphins, which will be used if necessary

Ship's Head and Sternlines must be minimum 100 m. Long

Mixed Moorings are not to be used except by prior arrangement



Position of Vessel, assuming Bow/Manifold is half the length - overall.

1. SEQUENCE OF MOORING. (One Mooring Launch)

FORWARD	AFT
(a) Offside Headlines	After Breastlines
(b) Nearside Headlines	After Shore Moorings (if required)
(c) Forward Breastlines	
(d) For'd Shore Moorings (if required)	

2. TENSION WINCHES — Should have the brakes screwed hard and be left out of gear
3. ROPES AND WIRES — On bitts should be turned up in a figure of eight
4. SHORE MOORINGS — Must be led aboard through a near side fairlead
CHAIN STOPPERS SHOULD NEVER BE USED ON SHORE MOORINGS
5. EXTREME CAUTION — Must be exercised when tending moorings and adjustments should not normally be made without reference to the DUTY BERTHING MASTER
6. COMMUNICATION ALONGSIDE — Direct link to the Jetty Head Shelter on private radio is available on request from the Berthing Master on arrival

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IMMINGHAM

SOUTH KILLINGHOLME JETTY

INFORMATION SHEET 8

MOORING REQUIREMENTS - L.P.G. VESSELS 6,000 TONS S.DWT (LENGTH 100 m.)

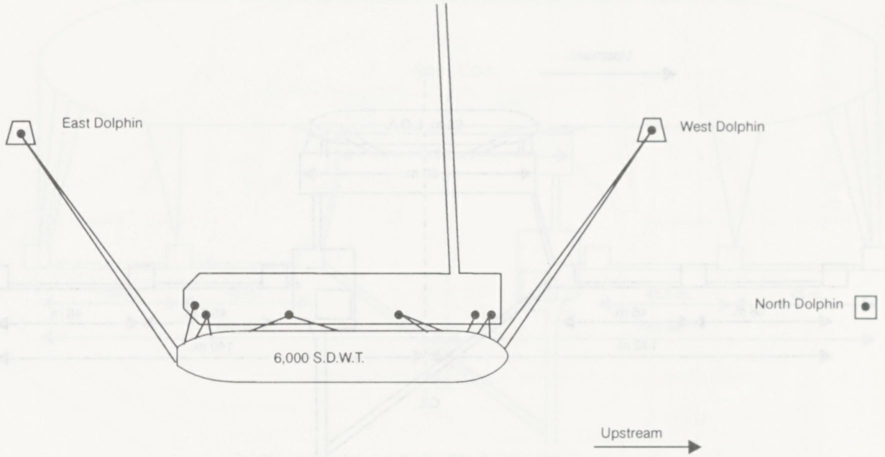
MOORING ARRANGEMENT

2 Headlines	2 Sternlines
3 Forward Breastlines	3 After Breastlines
2 Forward Springs	2 After Springs

2 Shore moorings (40 mm. Diameter Nylon Tail) are available from East and West Dolphins, which will be used if necessary

Ship's Head and Sternlines must be minimum 100 m. Long

Mixed Moorings are not to be used except by prior arrangement



Position of Vessel, assuming Bow/Manifold is half the length overall.

1. SEQUENCE OF MOORING — At the direction of the MASTER/PILOT/BERTHING MASTER
2. TENSION WINCHES — Should have the brakes screwed hard and be left out of gear
3. ROPES AND WIRES — On bitts should be turned up in a figure of eight
4. SHORE MOORINGS — Must be led aboard through a near side fairlead
CHAIN STOPPERS SHOULD NEVER BE USED ON SHORE MOORINGS
5. EXTREME CAUTION — Must be exercised when tending moorings and adjustments should not normally be made without reference to the DUTY BERTHING MASTER
6. COMMUNICATION ALONGSIDE — Direct link to the Jetty Head Shelter on private radio is available on request from the Berthing Master on arrival

IMMINGHAM

IMMINGHAM GAS TERMINAL

INFORMATION SHEET 10

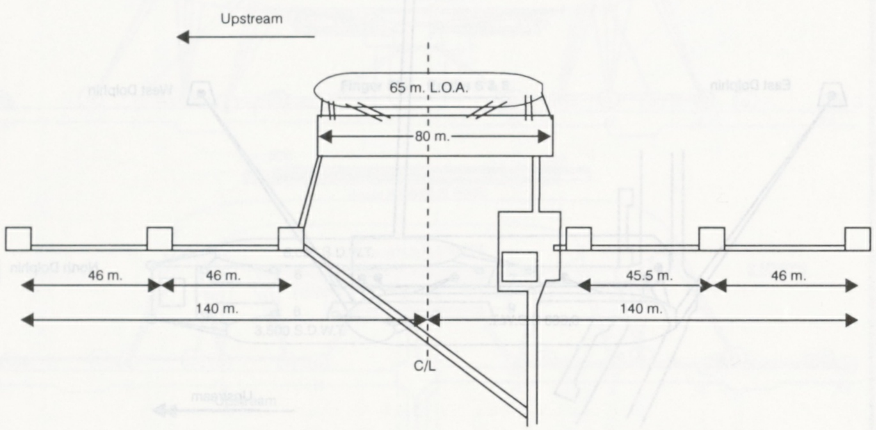
MOORING REQUIREMENTS - VESSELS 1,000 CUBIC METERS (LENGTH 65 m.)

MOORING ARRANGEMENT

1 Headline	1 Sternline
2 Forward Breastlines	2 After Breastlines
2 Forward Springs	2 After Springs

2 Shore Springs are available which will be used if necessary

Mixed Moorings are not to be used except by prior arrangement



Position of Vessel, assuming Bow/Manifold is half the length overall

1. SEQUENCE OF MOORING — At the direction of the MASTER/PILOT/BERTHING MASTER
2. TENSION WINCHES — Should have the brakes screwed hard and be left out of gear
3. ROPES AND WIRES — On bitts should be turned up in a figure of eight
4. SHORE MOORINGS — Must be led aboard through a near side fairlead

   CHAIN STOPPERS SHOULD NEVER BE USED ON SHORE MOORINGS
5. EXTREME CAUTION — Must be exercised when tending moorings and adjustments should not normally be made without reference to the DUTY BERTHING MASTER
6. COMMUNICATION ALONGSIDE — Direct link to the Jetty Head Shelter on private radio is available on request from the Berthing Master on arrival

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IMMINGHAM

IMMINGHAM GAS TERMINAL

INFORMATION SHEET 11

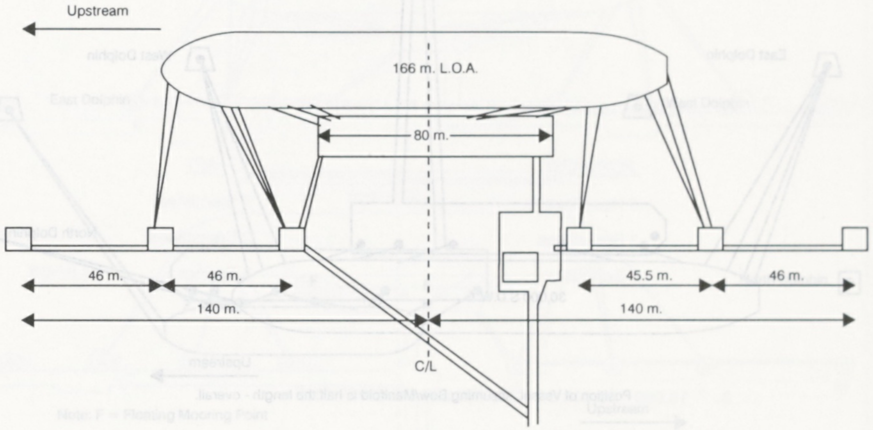
MOORING REQUIREMENTS VESSELS 20,000 CUBIC METERS (LENGTH 166 m.)

MOORING ARRANGEMENT

2 Headlines	2 Sternlines
3 Forward Breastlines	3 After Breastlines
3 Forward Springs	3 After Springs

2 Shore Springs are available which will be used if necessary

Mixed Moorings are not to be used except by prior arrangement



Position of Vessel, assuming Bow/Manifold is half the length overall

1. SEQUENCE OF MOORING — At the direction of the MASTER/PILOT/BERTHING MASTER
2. TENSION WINCHES — Should have the brakes screwed hard and be left out of gear
3. ROPES AND WIRES — On bitts should be turned up in a figure of eight
4. SHORE MOORINGS — Must be led aboard through a near side fairlead

   CHAIN STOPPERS SHOULD NEVER BE USED ON SHORE MOORINGS
5. EXTREME CAUTION — Must be exercised when tending moorings and adjustments should not normally be made without reference to the DUTY BERTHING MASTER
6. COMMUNICATION ALONGSIDE — Direct link to the Jetty Head Shelter on private radio is available on request from the Berthing Master on arrival

IMMINGHAM

IMMINGHAM OIL TERMINAL

INFORMATION SHEET 13

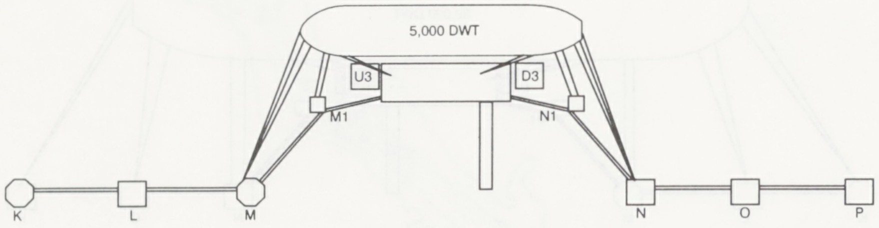
MOORING REQUIREMENTS - VESSELS 5,000 - 14,999 TONS SUMMER DEADWEIGHT

THERE MAY BE AN ALTERATION TO THE MOORING PATTERN
DUE TO THE POSITION OF THE SHIP'S EQUIPMENT

MOORING ARRANGEMENT

FORWARD	AFT
3 Headlines	3 Sternlines
2 Breastlines	2 Breastlines
2 Springs	2 Springs

MIXED MOORINGS NOT ACCEPTED



Berth No. 3

1. Normal sequence of mooring (one or two mooring launches)

FORWARD	AFT
(a) Offside Headlines	After Breastlines
(b) Nearside Headlines	Sternlines
(c) For'd Breastlines	

2. Fore & Aft springs passed by heaving line as soon as possible at the same time as headlines.
3. Tension winches must have the brakes screwed up hard and left out of gear
4. Ropes and wires on bitts must be turned up in a figure of eight

Under no circumstances are any moorings to be adjusted other than at the slack water period after consultation with the Berthing Master

Communications alongside - A VHF Radio is provided for a direct link to the control room and Berth Operator

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IMMINGHAM

IMMINGHAM GAS TERMINAL

INFORMATION SHEET 12

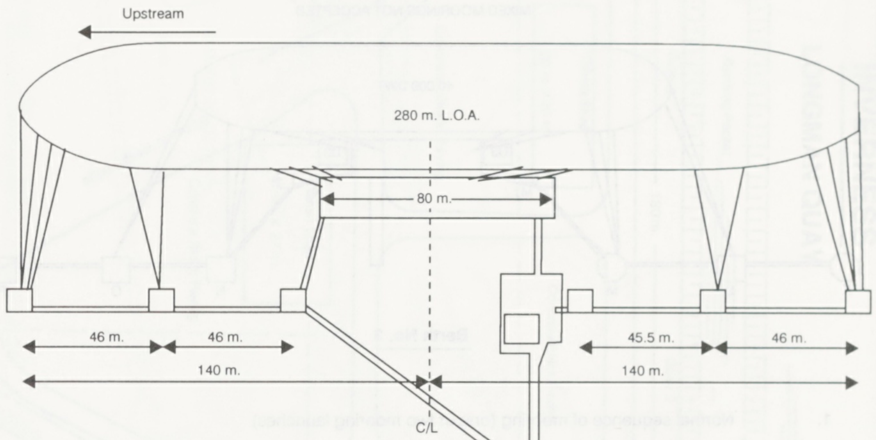
MOORING REQUIREMENTS VESSELS 87,000 CUBIC METERS (LENGTH 280 m.)

MOORING ARRANGEMENT

4 Headlines	4 Sternlines
2 Forward Breastlines	2 After Breastlines
3 Forward Springs	3 After Springs

2 Shore Springs are available which will be used if necessary

Mixed Moorings are not to be used execpt by prior arrangement



Position of Vessel, assuming Bow/Manifold is half the length overall

1.	SEQUENCE OF MOORING	At the direction of the MASTER/PILOT/BERTHING MASTER
2.	TENSION WINCHES	Should have the brakes screwed hard and be left out of gear
3.	ROPES AND WIRES	On bitts should be turned up in a figure of eight
4.	SHORE MOORINGS	Must be led aboard through a near side fairlead CHAIN STOPPERS SHOULD NEVER BE USED ON SHORE MOORINGS
5.	EXTREME CAUTION	Must be exercised when tending moorings and adjustments should not normally be made without reference to the DUTY BERTHING MASTER
6.	COMMUNICATION ALONGSIDE	Direct link to the Jetty Head Shelter on private radio is available on request from the Berthing Master on arrival

IMMINGHAM

IMMINGHAM OIL TERMINAL

INFORMATION SHEET 14

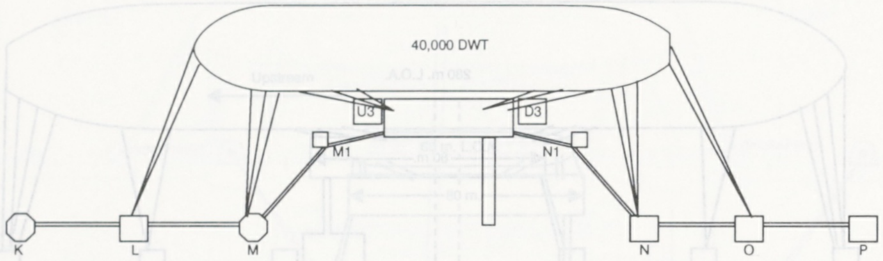
MOORING REQUIREMENTS - VESSELS 15,000 - 39,999 TONS SUMMER DEADWEIGHT

THERE MAY BE AN ALTERATION TO THE MOORING PATTERN
DUE TO THE POSITION OF THE SHIP'S EQUIPMENT

MOORING ARRANGEMENT

FORWARD	AFT
2 Headlines	2 Sternlines
3 Breastlines	3 Breastlines
3 Springs	3 Springs

MIXED MOORINGS NOT ACCEPTED



Berth No. 3

1. Normal sequence of mooring (one or two mooring launches)

FORWARD	AFT
(a) Offside Headlines	After Breastlines
(b) Nearside Headlines	Sternlines
(c) For'd Breastlines	

2. Fore & Aft springs passed by heaving line as soon as possible at the same time as headlines.
3. Tension winches must have the brakes screwed up hard and left out of gear
4. Ropes and wires on bitts must be turned up in a figure of eight

Under no circumstances are any moorings to be adjusted other than at the slack water period after consultation with the Berthing Master

Communications alongside - A VHF Radio is provided for a direct link to the control room and Berth Operator

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IMMINGHAM

IMMINGHAM OIL TERMINAL

INFORMATION SHEET 15

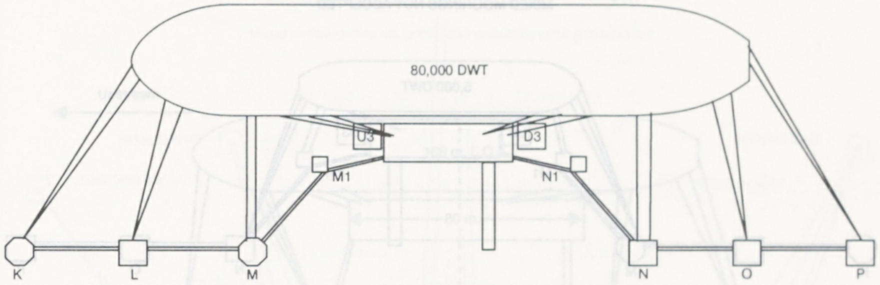
MOORING REQUIREMENTS - VESSELS 40,000 - 80,000 TONS SUMMER DEADWEIGHT

THERE MAY BE AN ALTERATION TO THE MOORING PATTERN
DUE TO THE POSITION OF THE SHIP'S EQUIPMENT

MOORING ARRANGEMENT

FORWARD	AFT
2 Headlines	2 Sternlines
4 Breastlines	4 Breastlines
3 Springs	3 Springs

MIXED MOORINGS NOT ACCEPTED



Berth No. 3

1. Normal sequence of mooring (one or two mooring launches)

FORWARD	AFT
(a) Offside Headlines	After Breastlines
(b) Nearside Headlines	Sternlines
(c) For'd Breastlines	

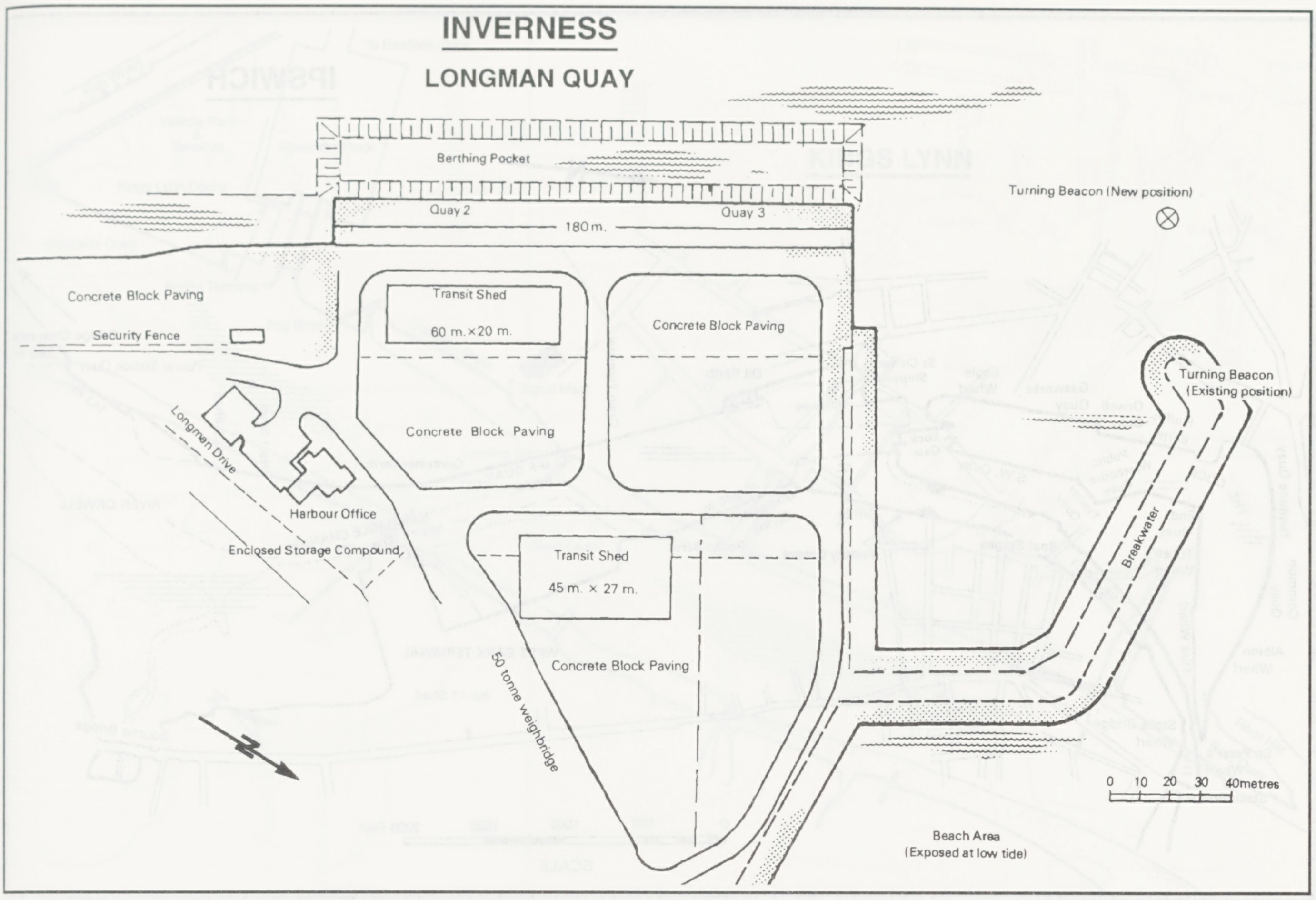
2. Fore & Aft springs passed by heaving line as soon as possible, at the same time as headlines.
3. Tension winches must have the brakes screwed up hard and left out of gear
4. Ropes and wires on bitts must be turned up in a figure of eight

Under no circumstances are any moorings to be adjusted other than at the slack water period after consultation with the Berthing Master

Communications alongside - A VHF Radio is provided for a direct link to the control room and Berth Operator

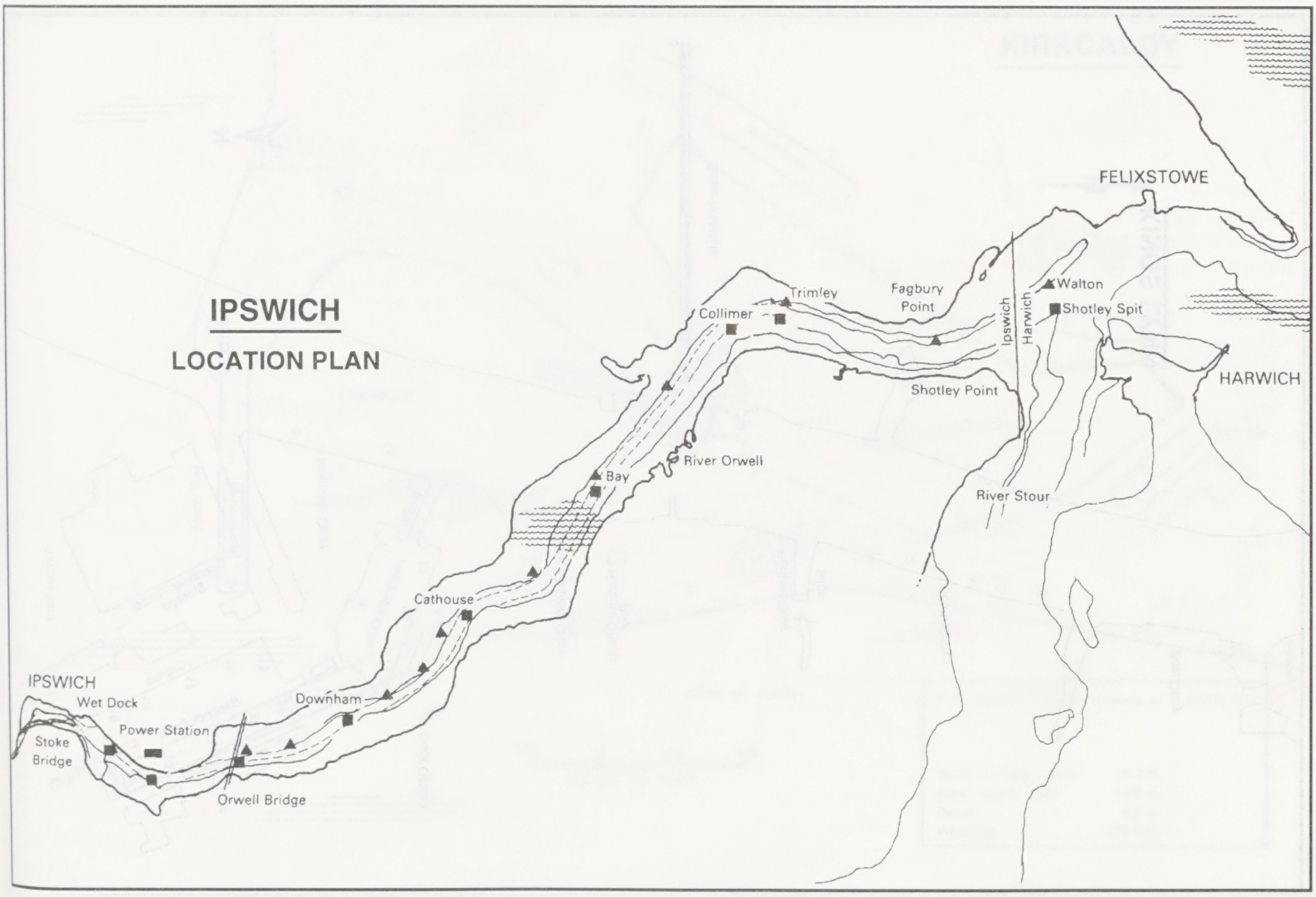
INVERNESS

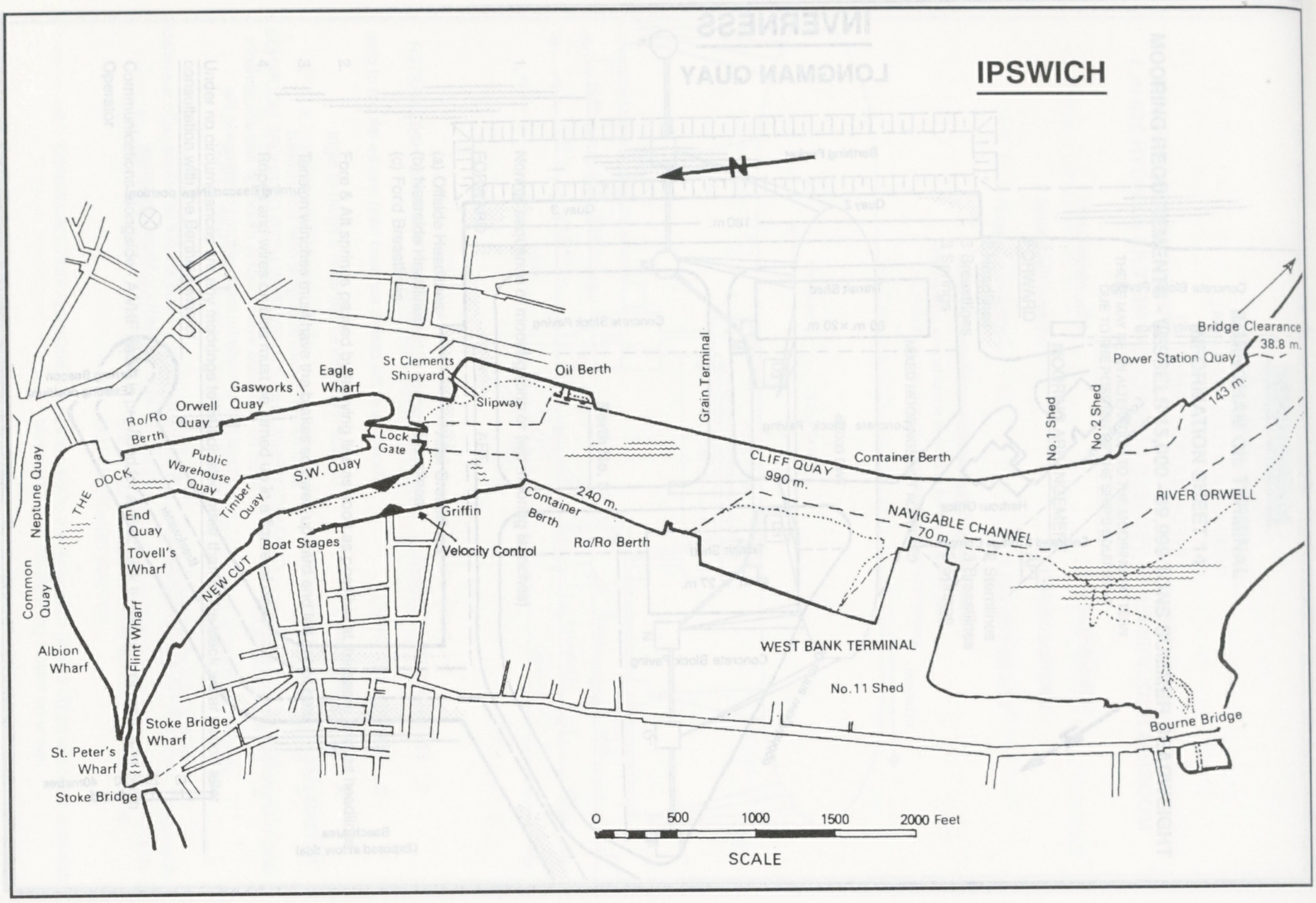
LONGMAN QUAY

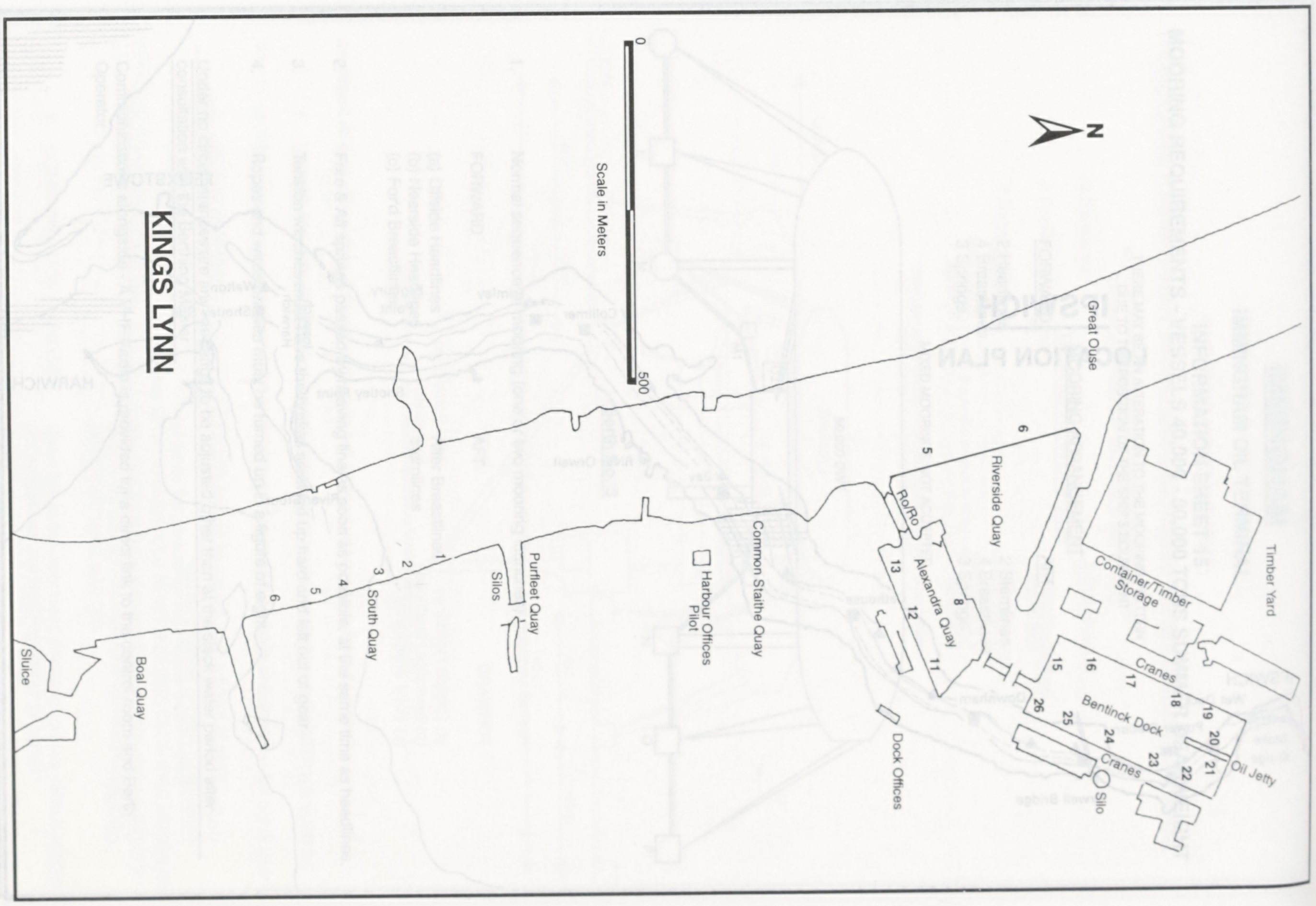

Berthing Pocket
Quay 2
Quay 3
180 m.
Turning Beacon (New position)
Concrete Block Paving
Security Fence
Transit Shed
60 m. × 20 m.
Concrete Block Paving
Longman Drive
Concrete Block Paving
Harbour Office
Enclosed Storage Compound
Transit Shed
45 m. × 27 m.
50 tonne weighbridge
Concrete Block Paving
Breakwater
Turning Beacon
(Existing position)
0 10 20 30 40metres
Beach Area
(Exposed at low tide)

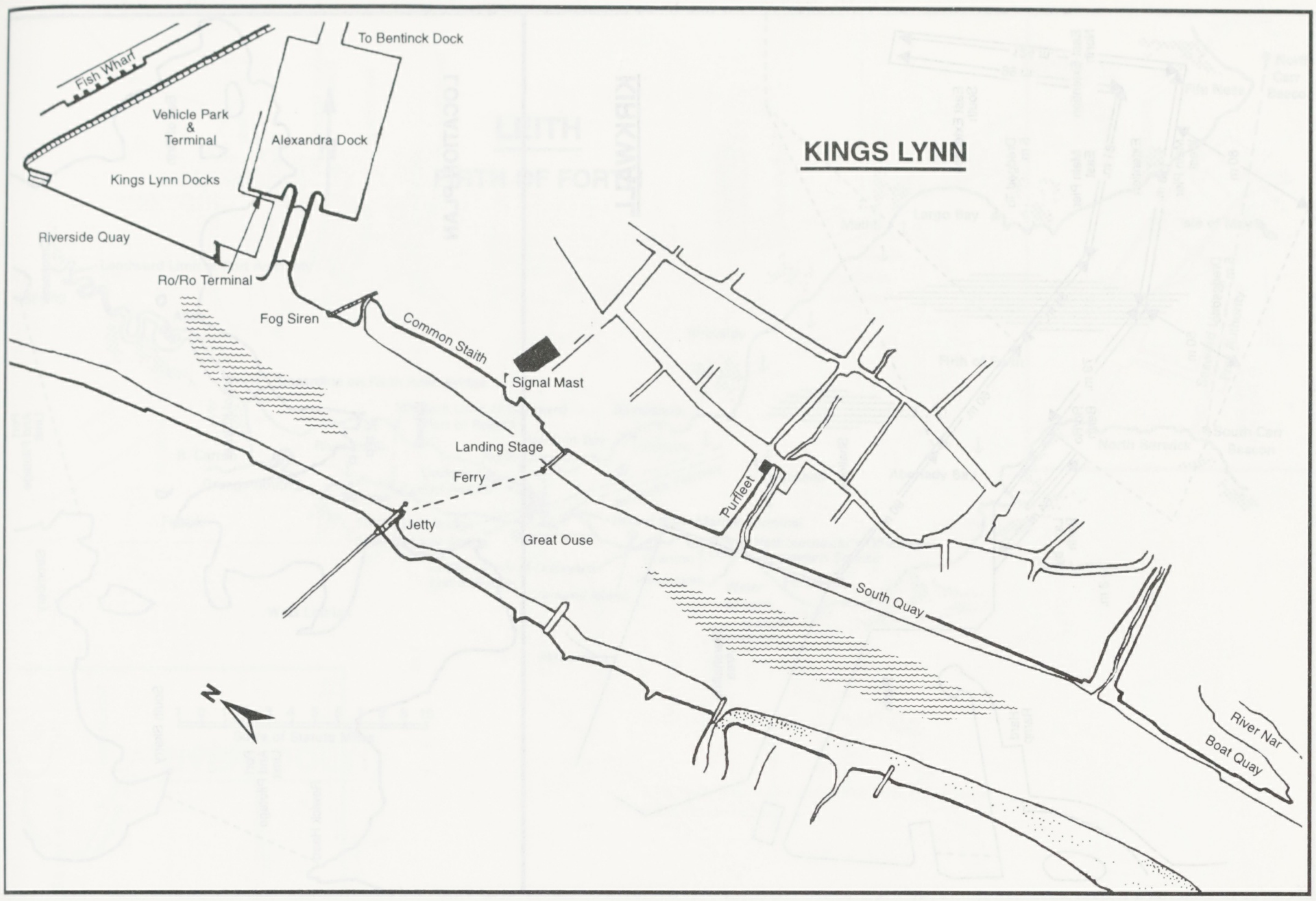
IPSWICH

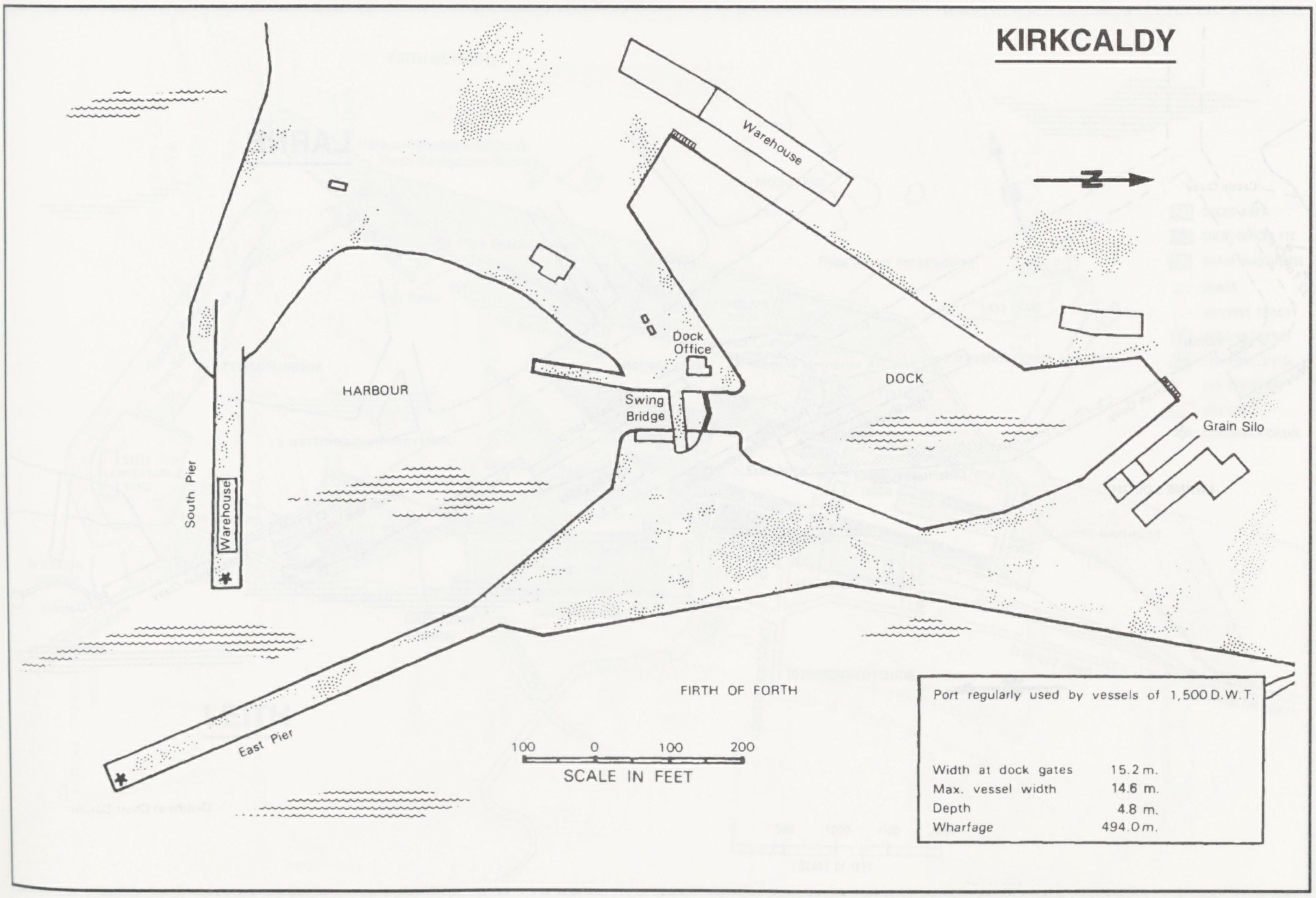
LOCATION PLAN


FELIXSTOWE
Trimley
Fagbury Point
Collimer
Walton
Shotley Spit
Ipswich
Harwich
HARWICH
Shotley Point
River Orwell
Bay
River Stour
Cathouse
IPSWICH
Wet Dock
Downham
Stoke Bridge
Power Station
Orwell Bridge


IPSWICH
N
Bridge Clearance
38.8 m.
Power Station Quay
143 m.
No.1 Shed
No.2 Shed
RIVER ORWELL
Grain Terminal
Oil Berth
St Clements
Shipyard
Slipway
Eagle
Wharf
Gasworks
Quay
Orwell
Quay
Ro/Ro
Berth
Public
Warehouse
Quay
Neptune Quay
THE DOCK
Lock
Gate
S.W. Quay
Timber
Quay
End
Quay
Tovell's
Wharf
Common
Quay
Albion
Wharf
Flint Wharf
NEW CUT
Boat Stages
Griffin
Velocity Control
Container
Berth
240 m.
Ro/Ro Berth
CLIFF QUAY
990 m.
Container Berth
NAVIGABLE CHANNEL
70 m.
WEST BANK TERMINAL
No.11 Shed
Bourne Bridge
Stoke Bridge
Wharf
St. Peter's
Wharf
Stoke Bridge
0
500
1000
1500
2000 Feet
SCALE


KINGS LYNN
0
Scale in Meters
500
N
Great Ouse
Timber Yard
Container/Timber
Storage
Cranes
15
16
17
18
19
20
21
Oil Jetty
Bentinck Dock
26
25
24
23
22
Cranes
Silo
6
5
Riverside Quay
Ro/Ro
13
12
11
8
Alexandra Quay
Dock Offices
Common Staithe Quay
Harbour Offices
Pilot
Purfleet Quay
Silos
1
2
3
4
5
6
South Quay
Boal Quay
Sluice

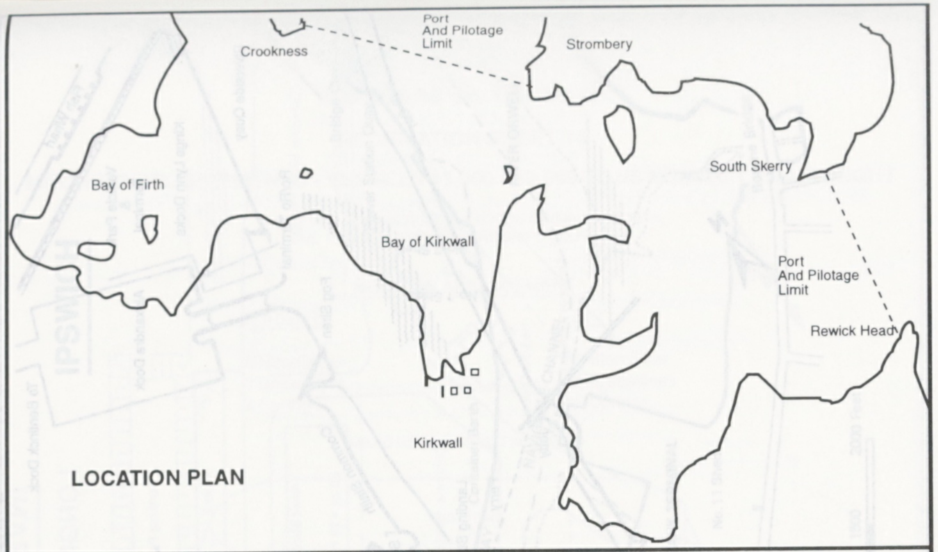

KINGS LYNN
To Bentinck Dock
Fish Wharf
Vehicle Park & Terminal
Alexandra Dock
Kings Lynn Docks
Riverside Quay
Ro/Ro Terminal
Fog Siren
Common Staith
Signal Mast
Landing Stage
Ferry
Jetty
Great Ouse
Purfleet
South Quay
River Nar
Boat Quay
N


KIRKCALDY
Warehouse
N
Dock Office
Swing Bridge
HARBOUR
DOCK
Grain Silo
South Pier
Warehouse
FIRTH OF FORTH
East Pier
100 0 100 200
SCALE IN FEET

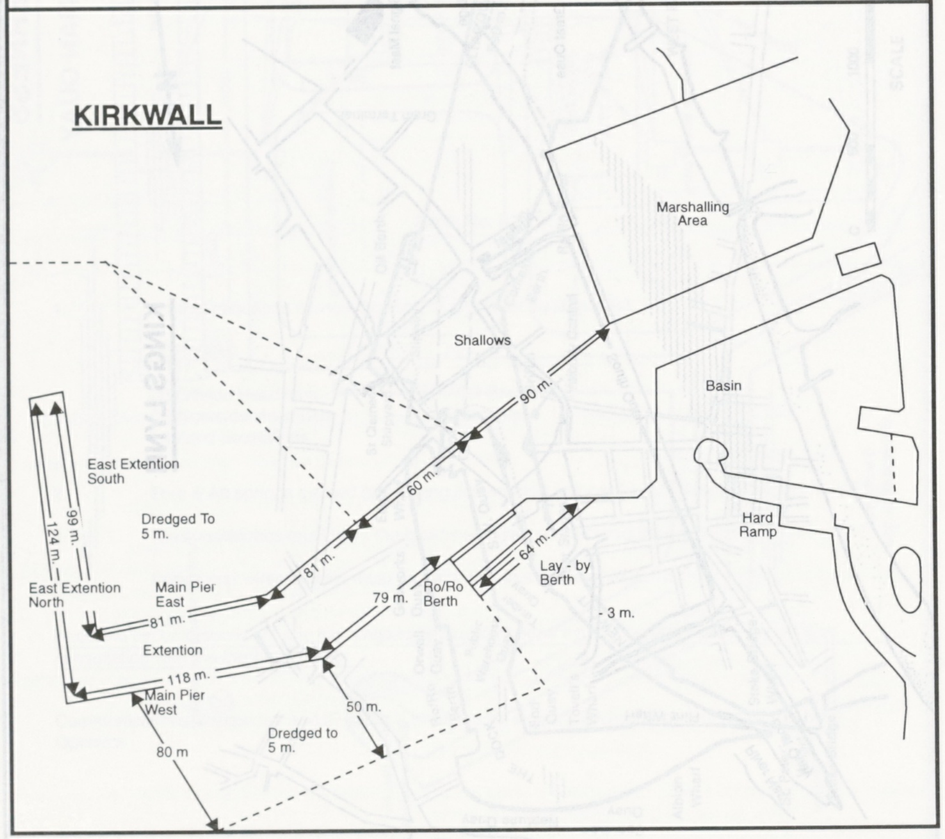
Port regularly used by vessels of 1,500 D.W.T.

Width at dock gates	15.2 m.
Max. vessel width	14.6 m.
Depth	4.8 m.
Wharfage	494.0 m.

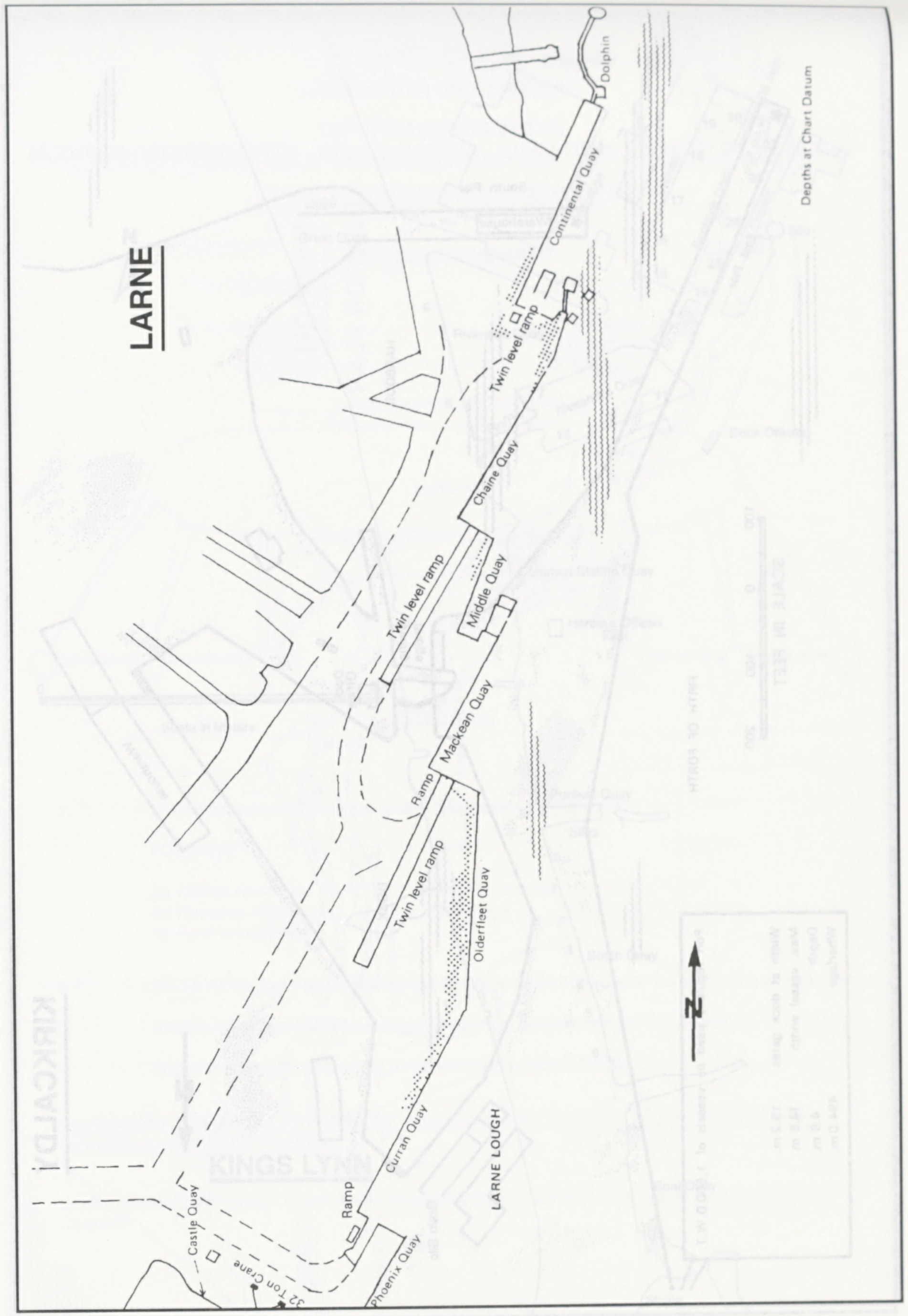
LOCATION PLAN

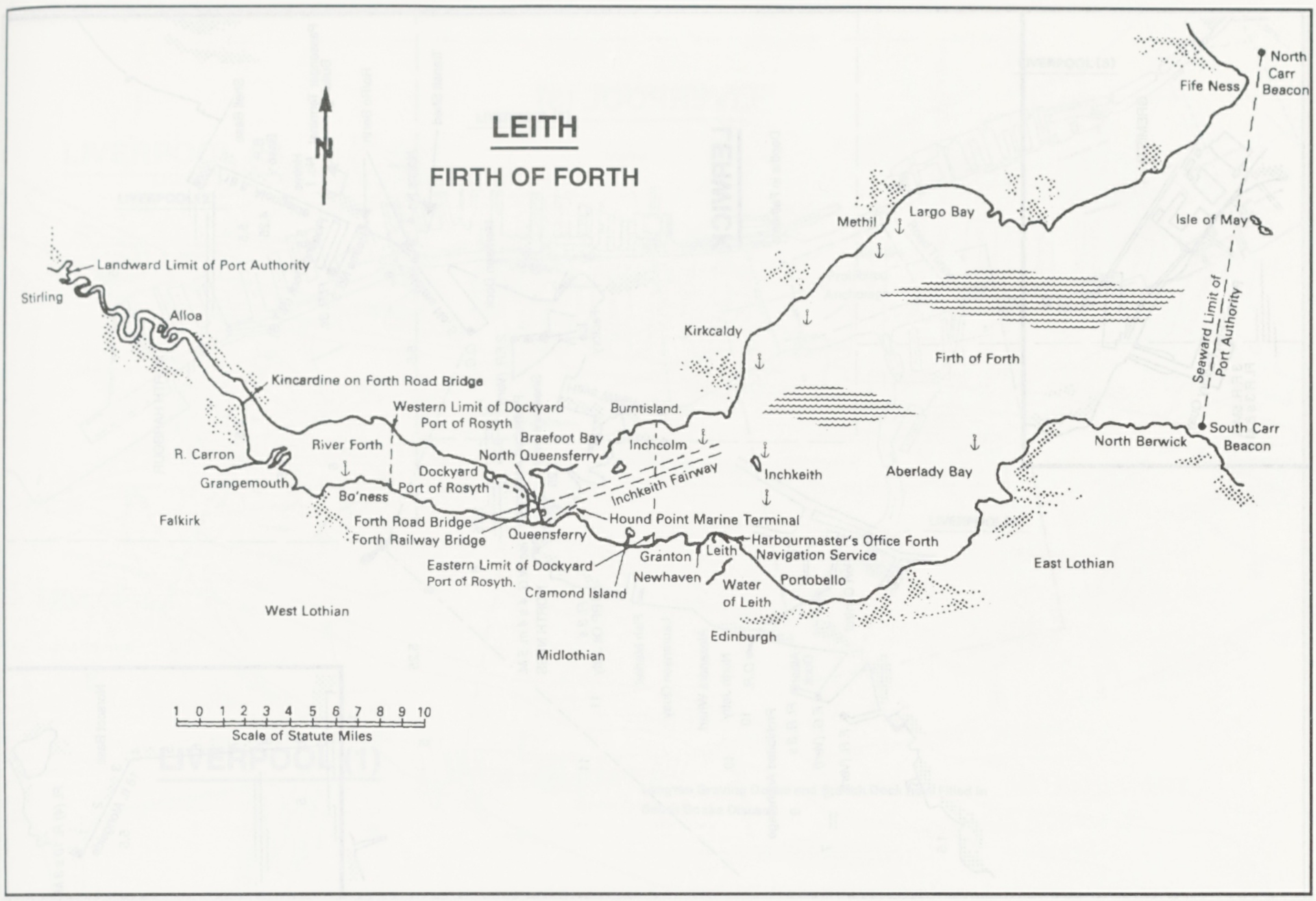

Crookness
Port
And Pilotage
Limit
Strombery
Bay of Firth
South Skerry
Bay of Kirkwall
Port
And Pilotage
Limit
Rewick Head
Kirkwall

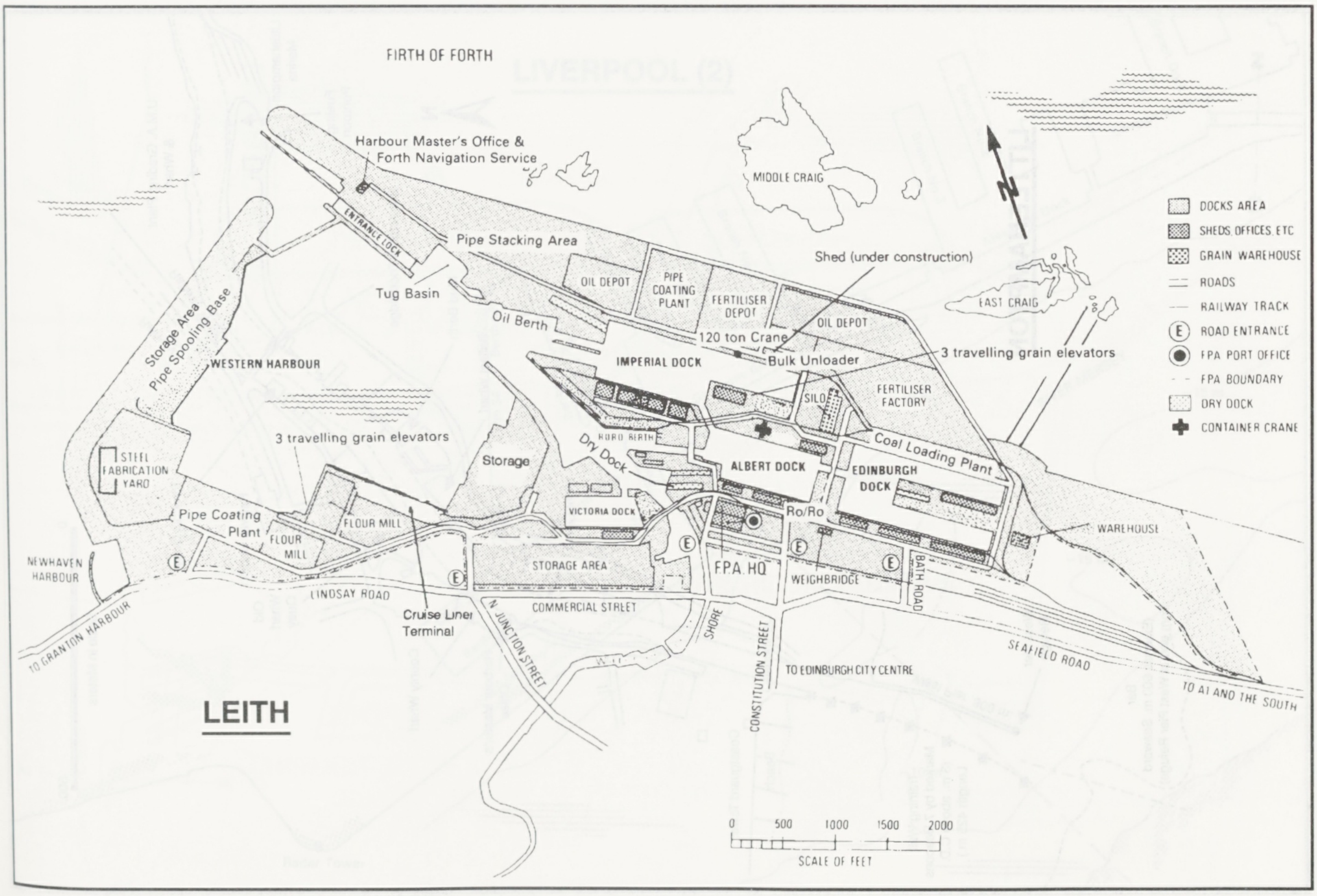
KIRKWALL

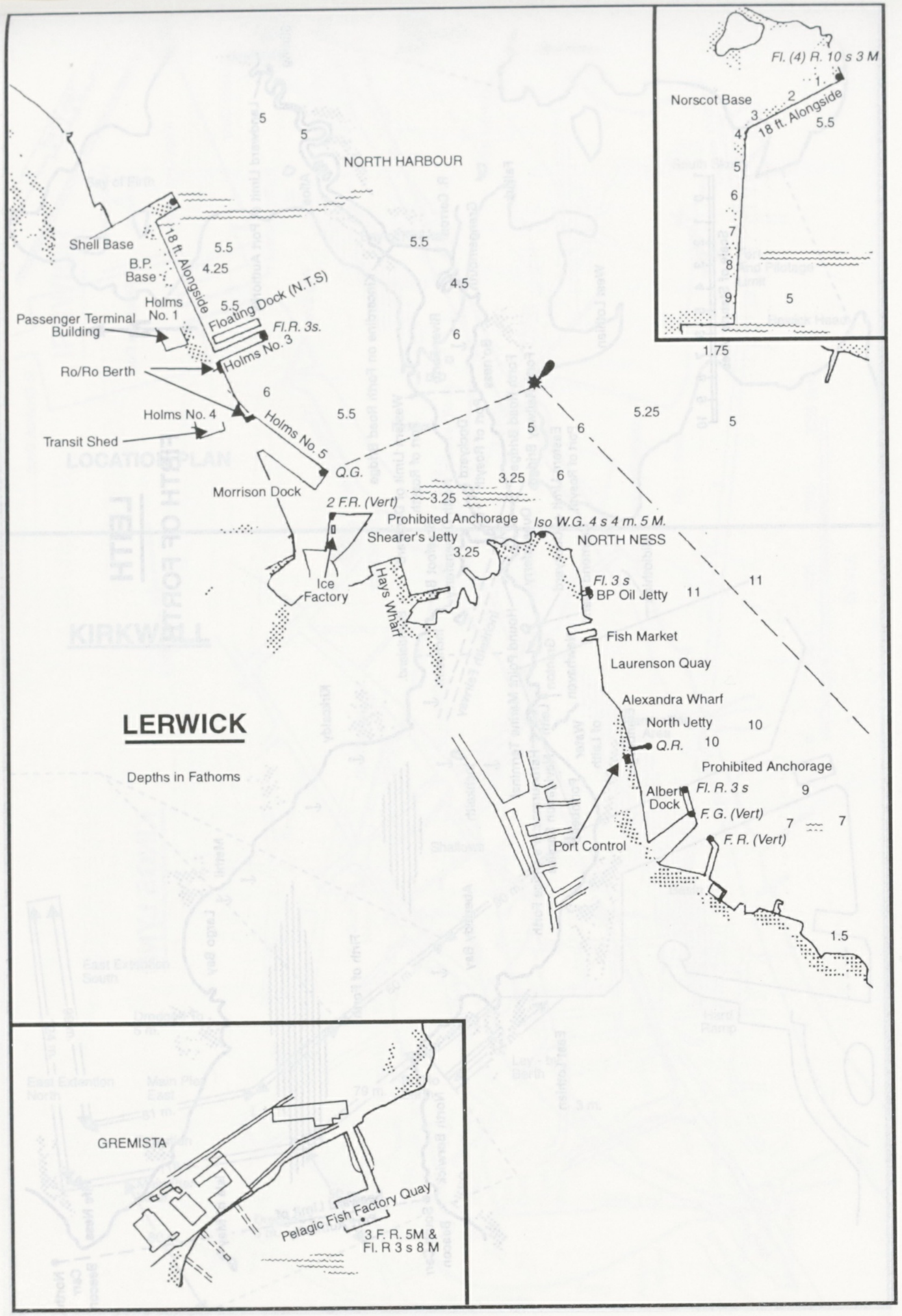

Marshalling
Area
Shallows
Basin
90 m.
60 m.
East Extention
South
99 m.
124 m.
Dredged To
5 m.
Hard
Ramp
81 m.
64 m.
Lay - by
Berth
East Extention
North
Main Pier
East
81 m.
79 m.
Ro/Ro
Berth
- 3 m.
Extention
118 m.
Main Pier
West
50 m.
Dredged to
5 m.
80 m

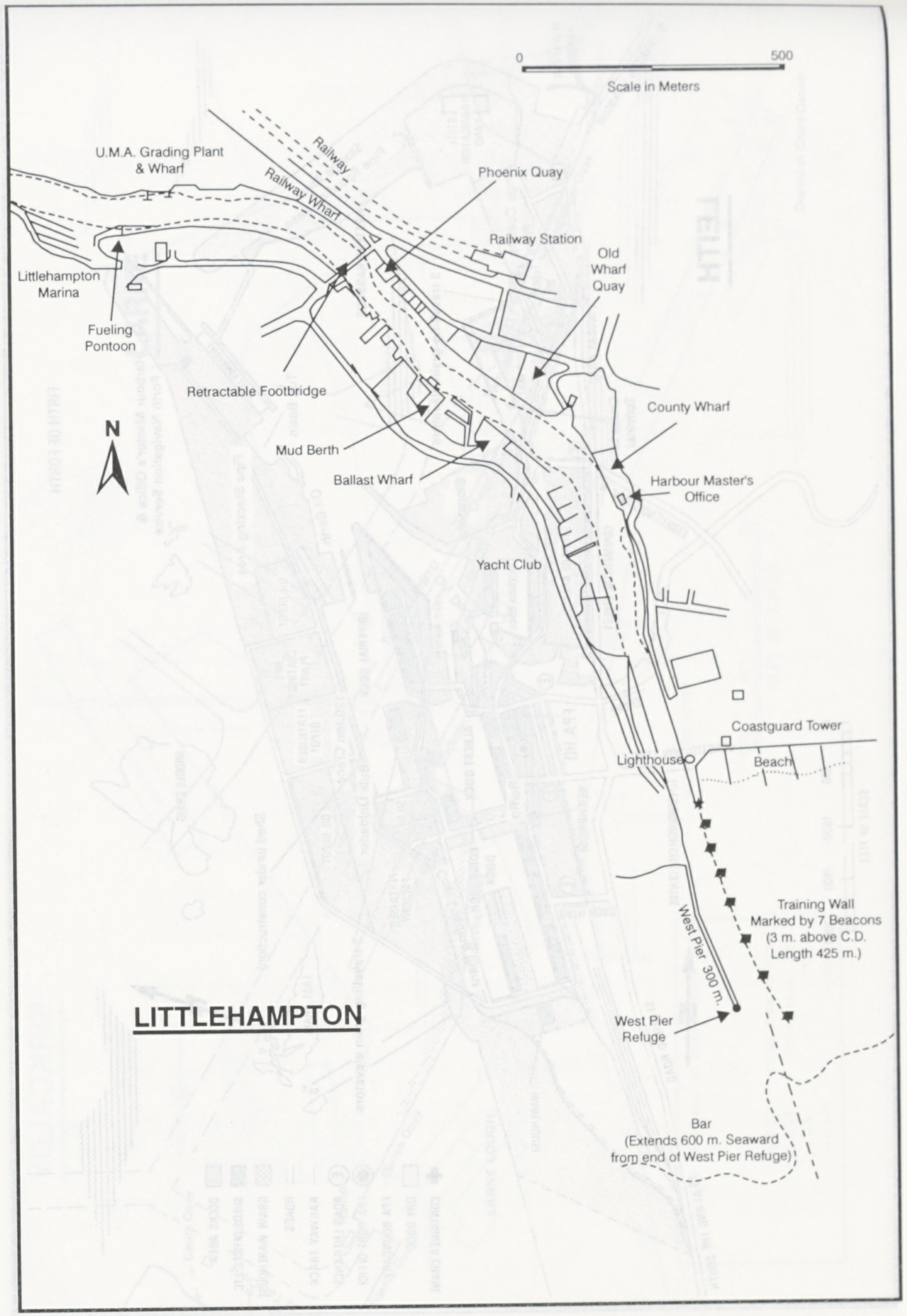
LARNE


Dolphin
Continental Quay
Depths at Chart Datum
Twin level ramp
Chaine Quay
Middle Quay
Twin level ramp
Mackean Quay
Ramp
Twin level ramp
Olderfleet Quay
N
Curran Quay
LARNE LOUGH
Ramp
Castle Quay
32 Ton Crane
Phoenix Quay

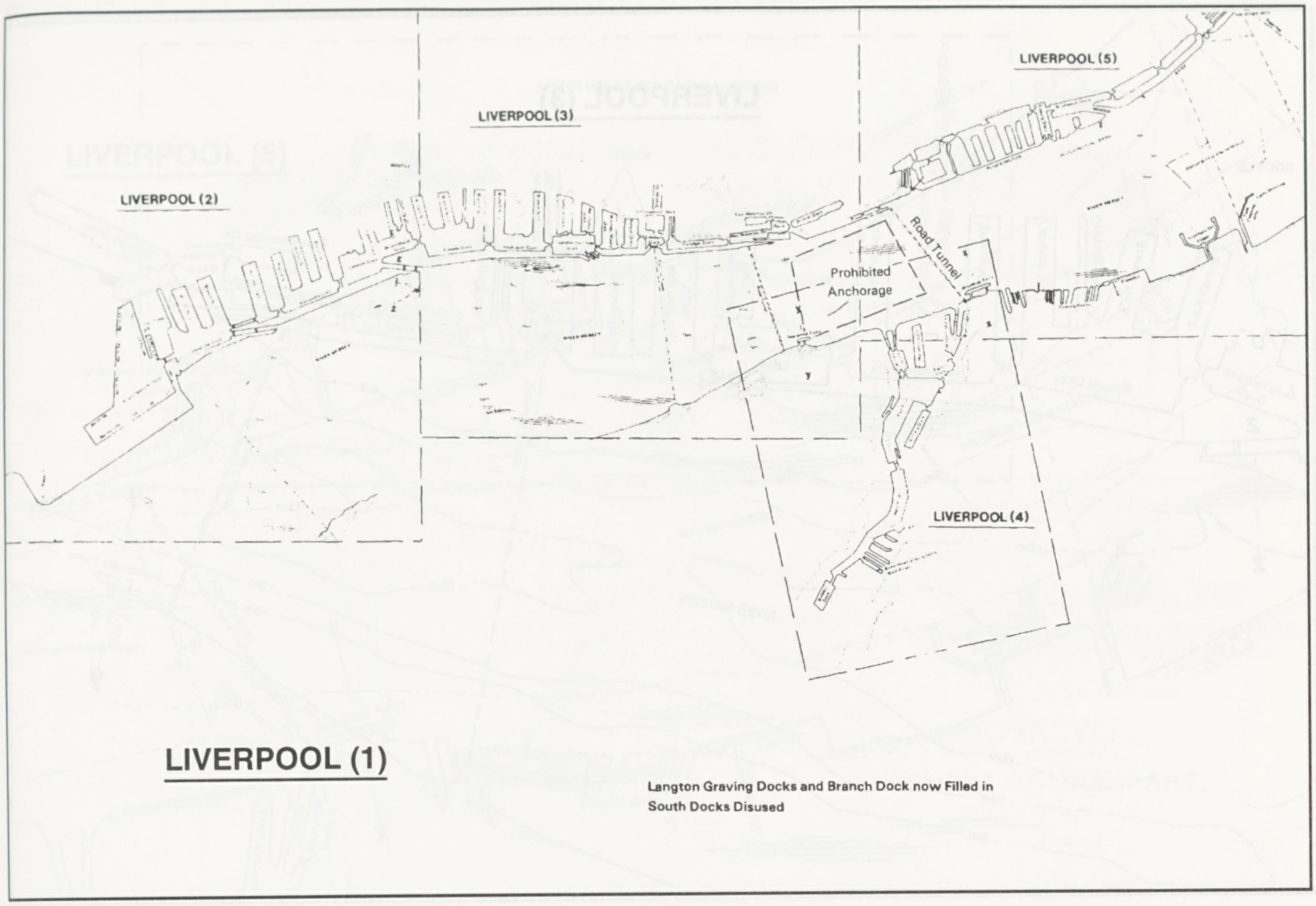

LEITH
FIRTH OF FORTH
N
Landward Limit of Port Authority
Stirling
Alloa
Kincardine on Forth Road Bridge
Western Limit of Dockyard Port of Rosyth
Burntisland.
Braefoot Bay
North Queensferry
Inchcolm
R. Carron
River Forth
Grangemouth
Dockyard Port of Rosyth
Bo'ness
Inchkeith Fairway
Falkirk
Forth Road Bridge
Forth Railway Bridge
Queensferry
Hound Point Marine Terminal
Eastern Limit of Dockyard Port of Rosyth.
Granton
Leith
Harbourmaster's Office Forth Navigation Service
Newhaven
Cramond Island
Water of Leith
Portobello
West Lothian
Edinburgh
Midlothian
Methil
Largo Bay
Fife Ness
North Carr Beacon
Isle of May
Kirkcaldy
Firth of Forth
Seaward Limit of Port Authority
Inchkeith
Aberlady Bay
North Berwick
South Carr Beacon
East Lothian
1 0 1 2 3 4 5 6 7 8 9 10
Scale of Statute Miles


FIRTH OF FORTH
Harbour Master's Office & Forth Navigation Service
ENTRANCE LOCK
MIDDLE CRAIG
N
Pipe Stacking Area
Tug Basin
Oil Berth
OIL DEPOT
PIPE COATING PLANT
FERTILISER DEPOT
OIL DEPOT
Shed (under construction)
EAST CRAIG
120 ton Crane
Bulk Unloader
3 travelling grain elevators
Storage Area
Pipe Spooling Base
WESTERN HARBOUR
IMPERIAL DOCK
SILO
FERTILISER FACTORY
HORO BERTH
Dry Dock
3 travelling grain elevators
Storage
ALBERT DOCK
Coal Loading Plant
EDINBURGH DOCK
STEEL FABRICATION YARD
VICTORIA DOCK
Ro/Ro
Pipe Coating Plant
FLOUR MILL
FLOUR MILL
WAREHOUSE
NEWHAVEN HARBOUR
E
E
E
E
E
STORAGE AREA
FPA HQ
WEIGHBRIDGE
BATH ROAD
LINDSAY ROAD
Cruise Liner Terminal
COMMERCIAL STREET
N JUNCTION STREET
SHORE
CONSTITUTION STREET
TO EDINBURGH CITY CENTRE
SEAFIELD ROAD
TO GRANTON HARBOUR
TO A1 AND THE SOUTH
LEITH
0 500 1000 1500 2000
SCALE OF FEET
DOCKS AREA
SHEDS, OFFICES, ETC
GRAIN WAREHOUSE
ROADS
RAILWAY TRACK
ROAD ENTRANCE
FPA PORT OFFICE
FPA BOUNDARY
DRY DOCK
CONTAINER CRANE


LERWICK
Depths in Fathoms
NORTH HARBOUR
Shell Base
B.P. Base
18 ft. Alongside
Holms No. 1
Passenger Terminal Building
Floating Dock (N.T.S)
Fl.R. 3s.
Holms No. 3
Ro/Ro Berth
Holms No. 4
Transit Shed
Holms No. 5
Q.G.
Morrison Dock
2 F.R. (Vert)
Prohibited Anchorage
Shearer's Jetty
Iso W.G. 4 s 4 m. 5 M.
NORTH NESS
Ice Factory
Hays Wharf
Fl. 3 s
BP Oil Jetty
Fish Market
Laurenson Quay
Alexandra Wharf
North Jetty
Q.R.
Prohibited Anchorage
Albert Dock
Fl. R. 3 s
F. G. (Vert)
F. R. (Vert)
Port Control
5
5
5.5
4.25
5.5
5.5
4.5
6
6
5.5
5
6
5.25
5
3.25
3.25
6
3.25
11
11
10
10
9
7
7
1.5
Norscot Base
Fl. (4) R. 10 s 3 M
18 ft. Alongside
1
2
3
4
5.5
5
6
7
8
9
5
1.75
GREMISTA
Pelagic Fish Factory Quay
3 F. R. 5M & Fl. R 3 s 8 M

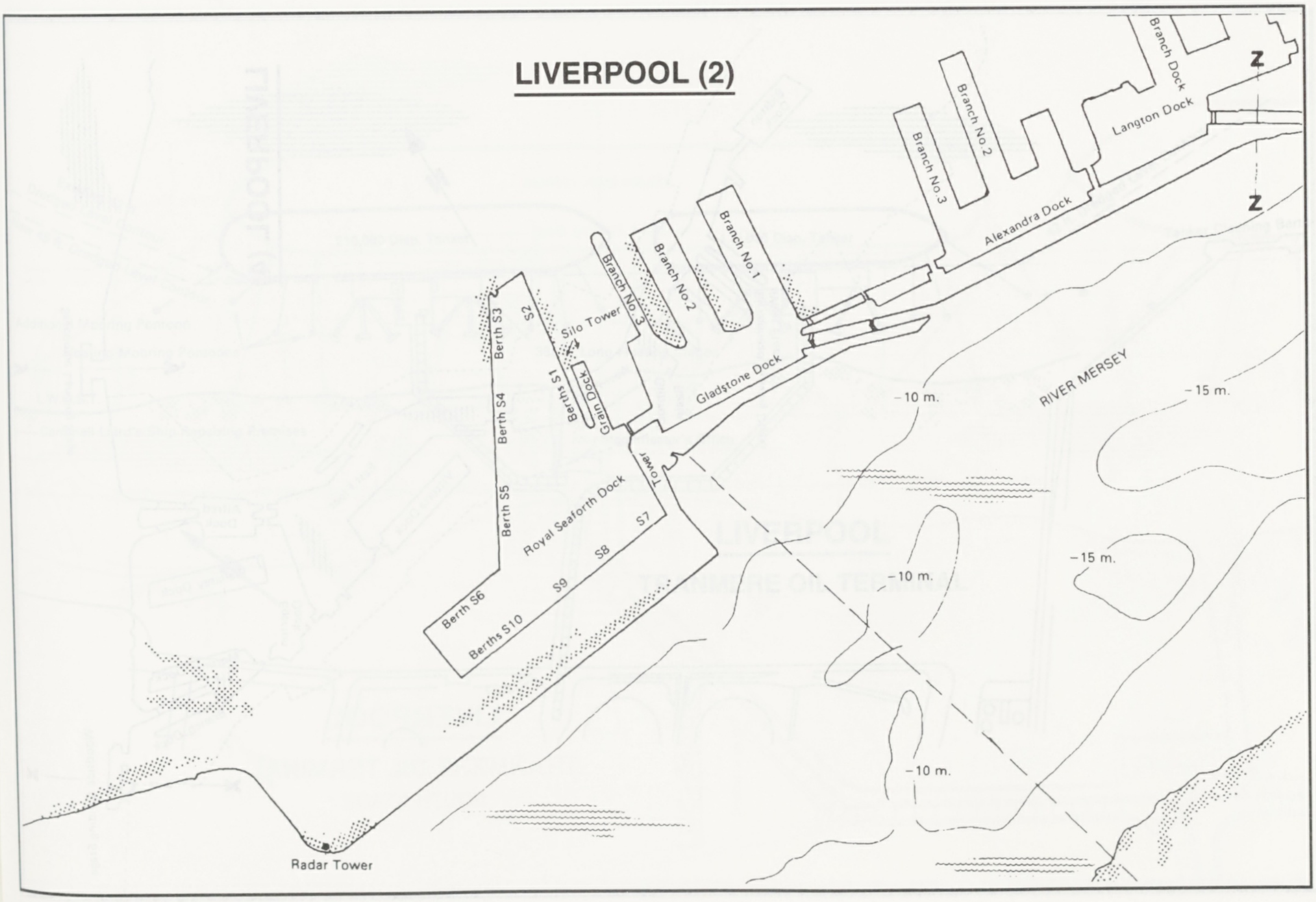

LITTLEHAMPTON
0
500
Scale in Meters
N
U.M.A. Grading Plant & Wharf
Railway
Railway Wharf
Phoenix Quay
Railway Station
Old Wharf Quay
Littlehampton Marina
Fueling Pontoon
Retractable Footbridge
County Wharf
Mud Berth
Ballast Wharf
Harbour Master's Office
Yacht Club
Coastguard Tower
Lighthouse
Beach
Training Wall Marked by 7 Beacons (3 m. above C.D. Length 425 m.)
West Pier 300 m.
West Pier Refuge
Bar (Extends 600 m. Seaward from end of West Pier Refuge)

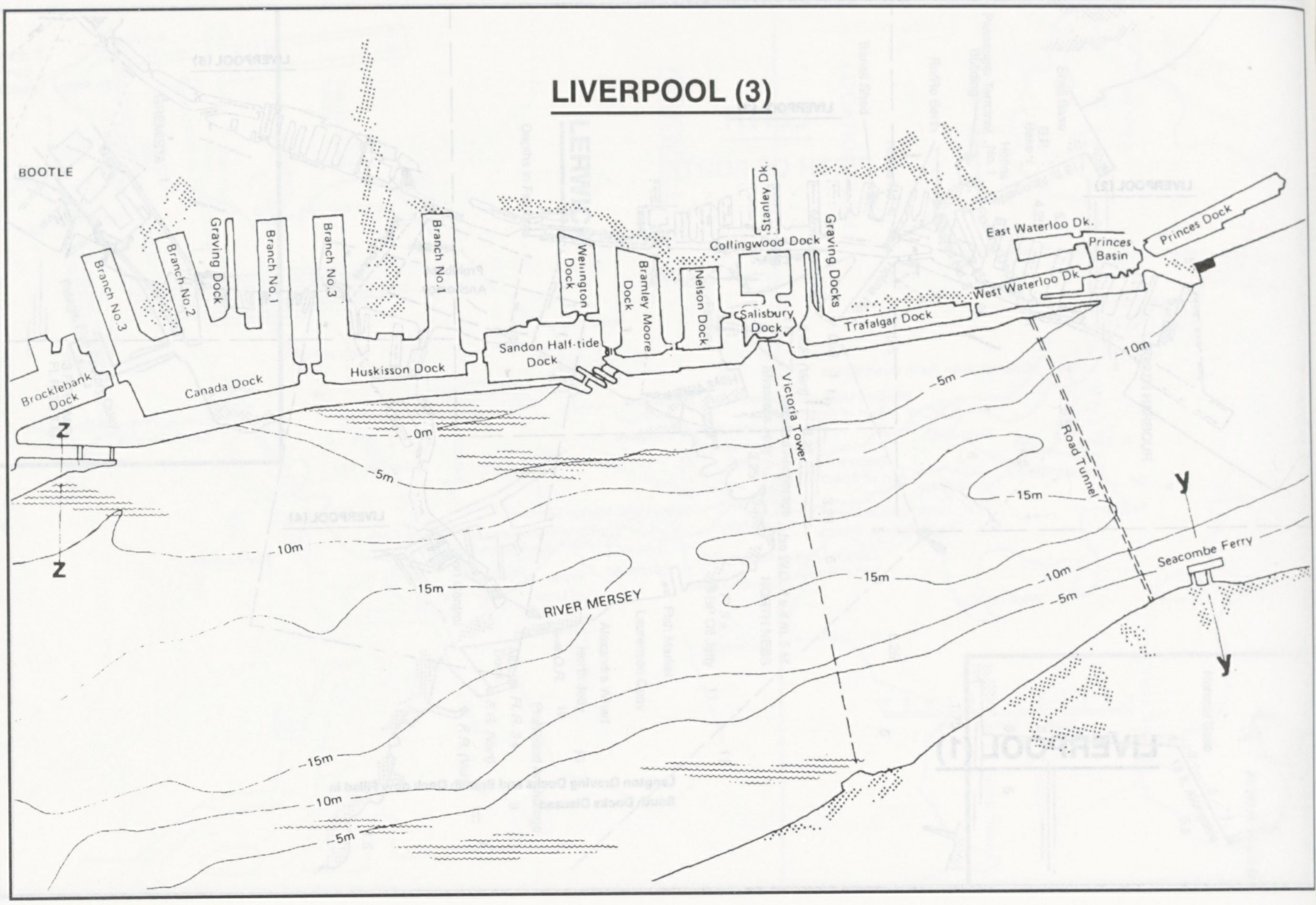
LIVERPOOL (1)


LIVERPOOL (5)
LIVERPOOL (3)
LIVERPOOL (2)
Road Tunnel
Prohibited Anchorage
LIVERPOOL (4)

Langton Graving Docks and Branch Dock now Filled in
South Docks Disused

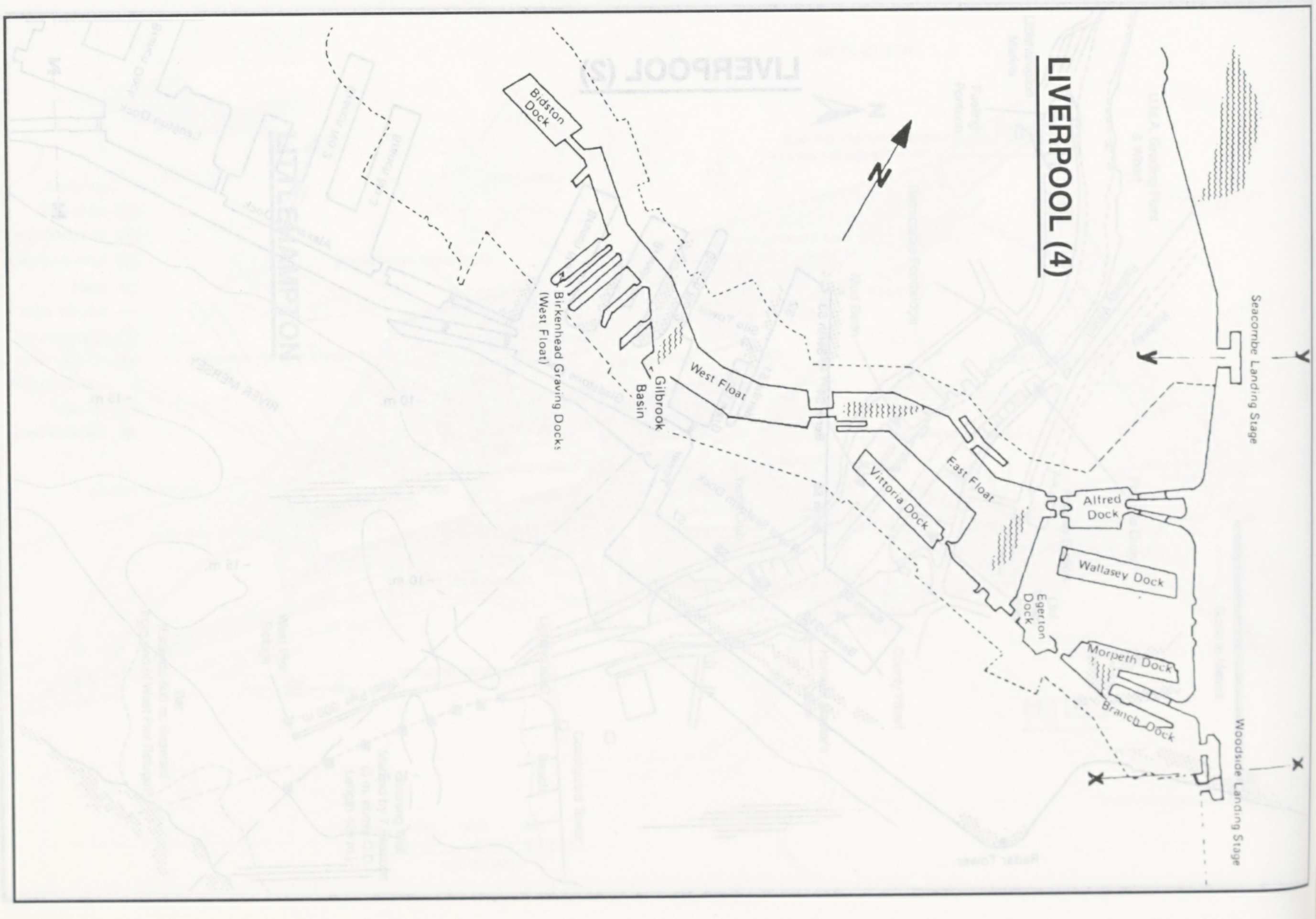
LIVERPOOL (2)


Branch Dock
Z
Branch No.2
Langton Dock
Branch No.3
Z
Alexandra Dock
Branch No.1
Branch No.2
Branch No.3
Silo Tower
S2
Berth S3
Berths S1
Grain Dock
Gladstone Dock
RIVER MERSEY
−10 m.
−15 m.
Berth S4
Tower
Berth S5
Royal Seaforth Dock
S7
S8
S9
Berth S6
Berths S10
−15 m.
−10 m.
−10 m.
Radar Tower



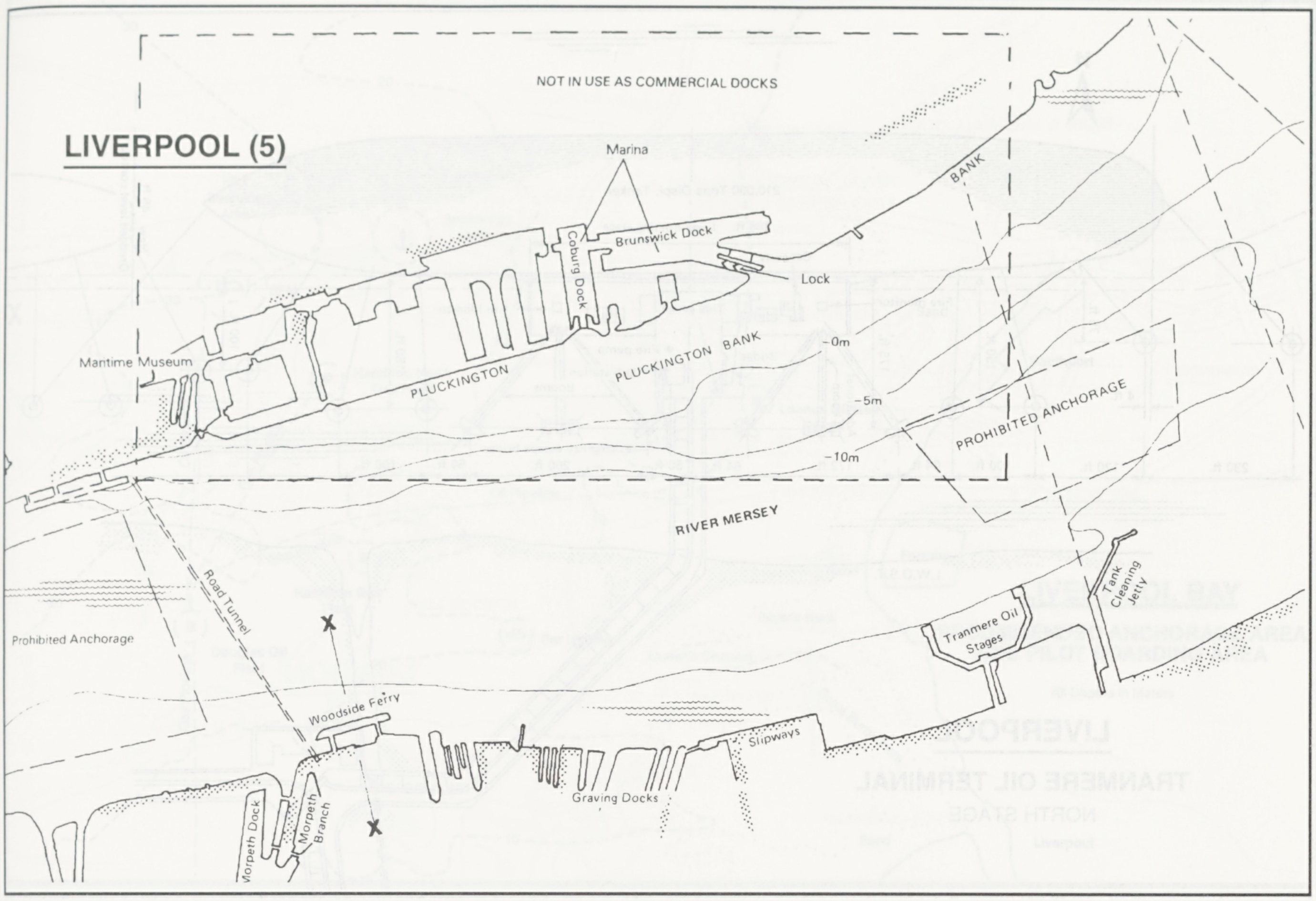
LIVERPOOL (3)

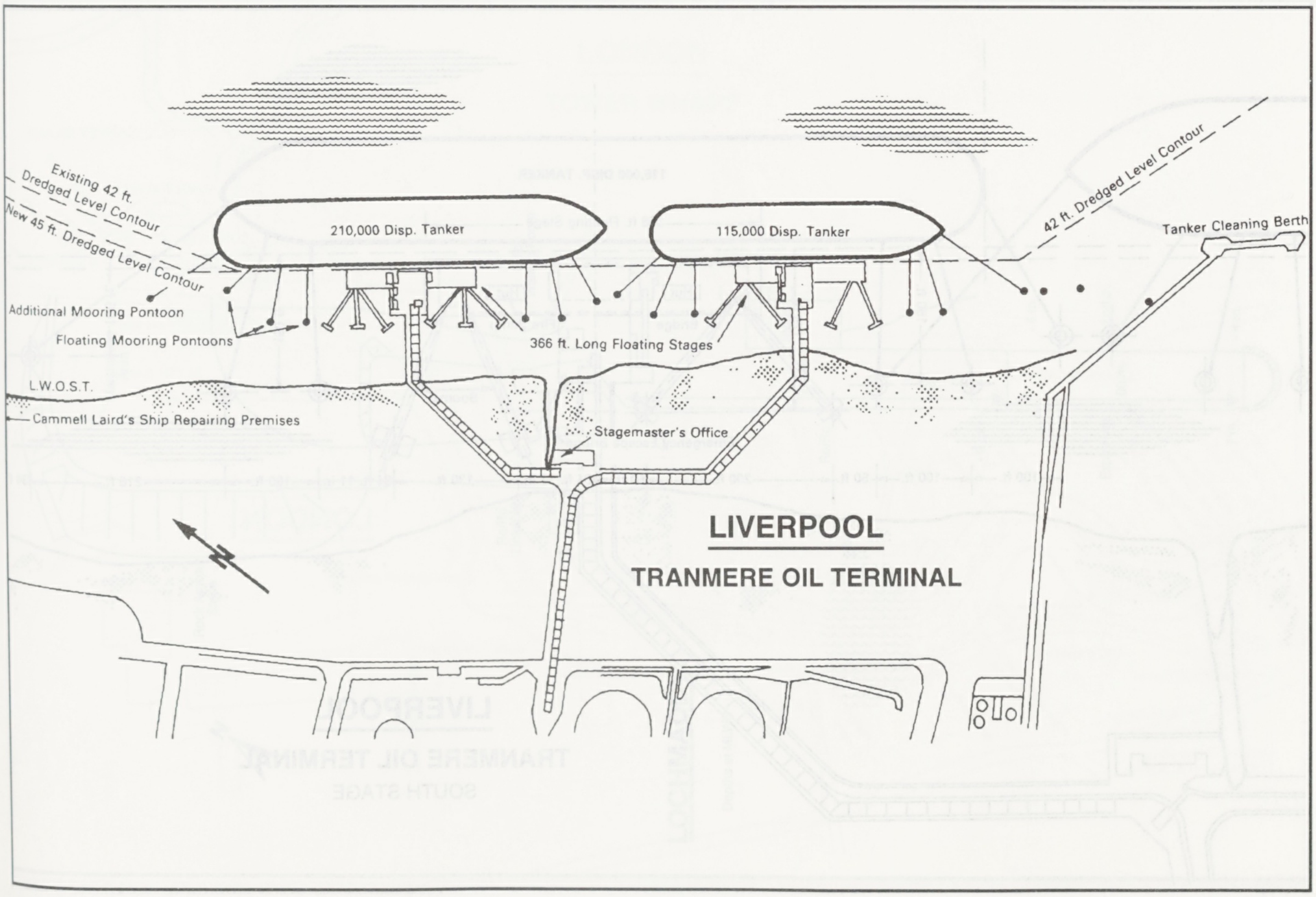
BOOTLE
Brocklebank Dock
Branch No.3
Branch No.2
Graving Dock
Branch No.1
Branch No.3
Branch No.1
Canada Dock
Huskisson Dock
Sandon Half-tide Dock
Wellington Dock
Bramley Moore Dock
Nelson Dock
Stanley Dk.
Collingwood Dock
Salisbury Dock
Graving Docks
Trafalgar Dock
West Waterloo Dk.
East Waterloo Dk.
Princes Basin
Princes Dock
Victoria Tower
Road Tunnel
Seacombe Ferry
RIVER MERSEY
0m
5m
10m
15m
Z
Z
Y
Y

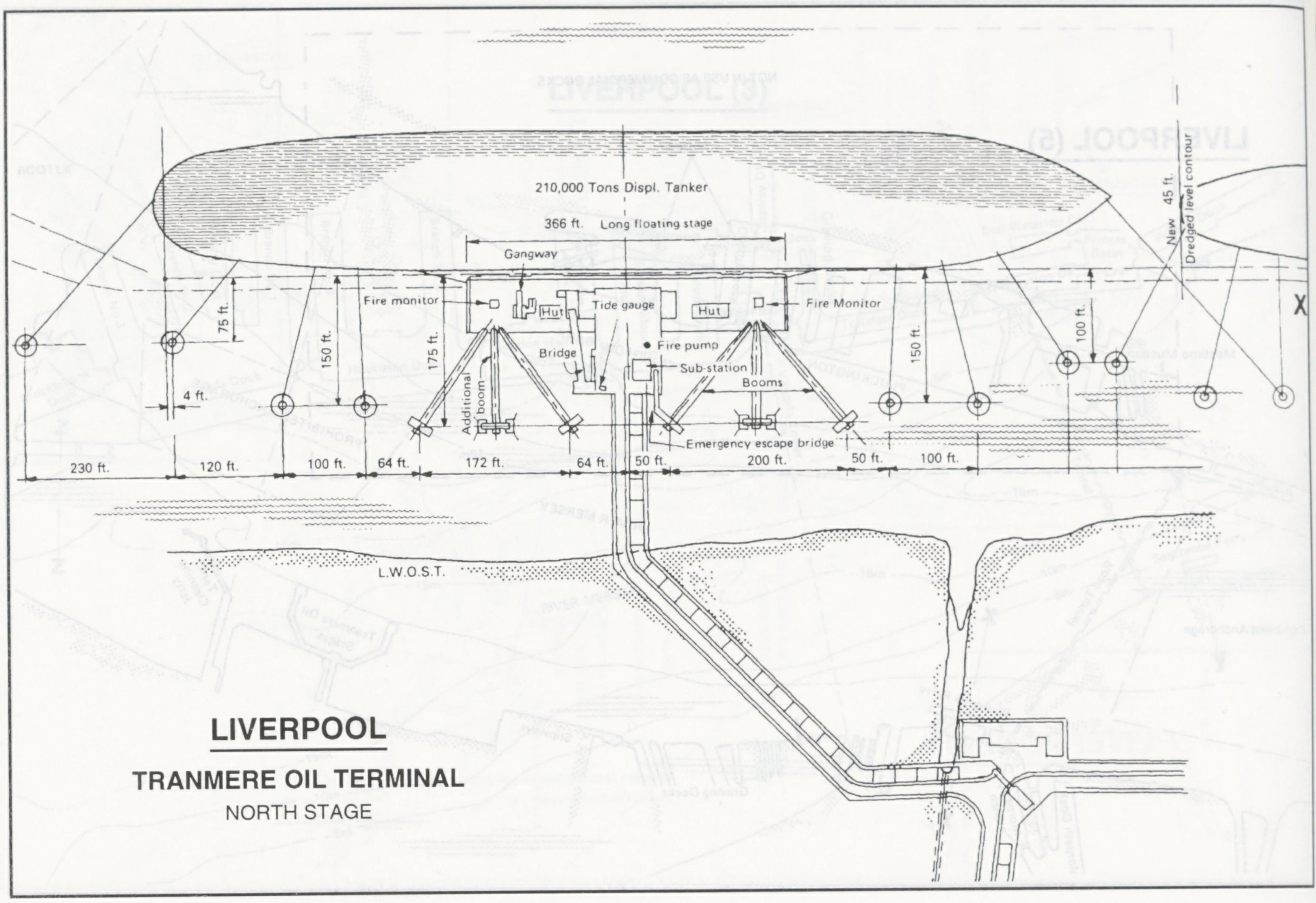


LIVERPOOL (4)

N
Bidston Dock
Birkenhead Graving Docks (West Float)
Gilbrook Basin
West Float
East Float
Vittoria Dock
Alfred Dock
Wallasey Dock
Egerton Dock
Morpeth Dock
Branch Dock
Seacombe Landing Stage
Woodside Landing Stage
Y
Y
X
X


NOT IN USE AS COMMERCIAL DOCKS
LIVERPOOL (5)
Marina
Brunswick Dock
Coburg Dock
Lock
BANK
Maritime Museum
PLUCKINGTON
PLUCKINGTON BANK
-0m
-5m
-10m
PROHIBITED ANCHORAGE
RIVER MERSEY
Road Tunnel
Prohibited Anchorage
X
Tank Cleaning Jetty
Tranmere Oil Stages
Woodside Ferry
Slipways
Graving Docks
Morpeth Dock
Morpeth Branch
X

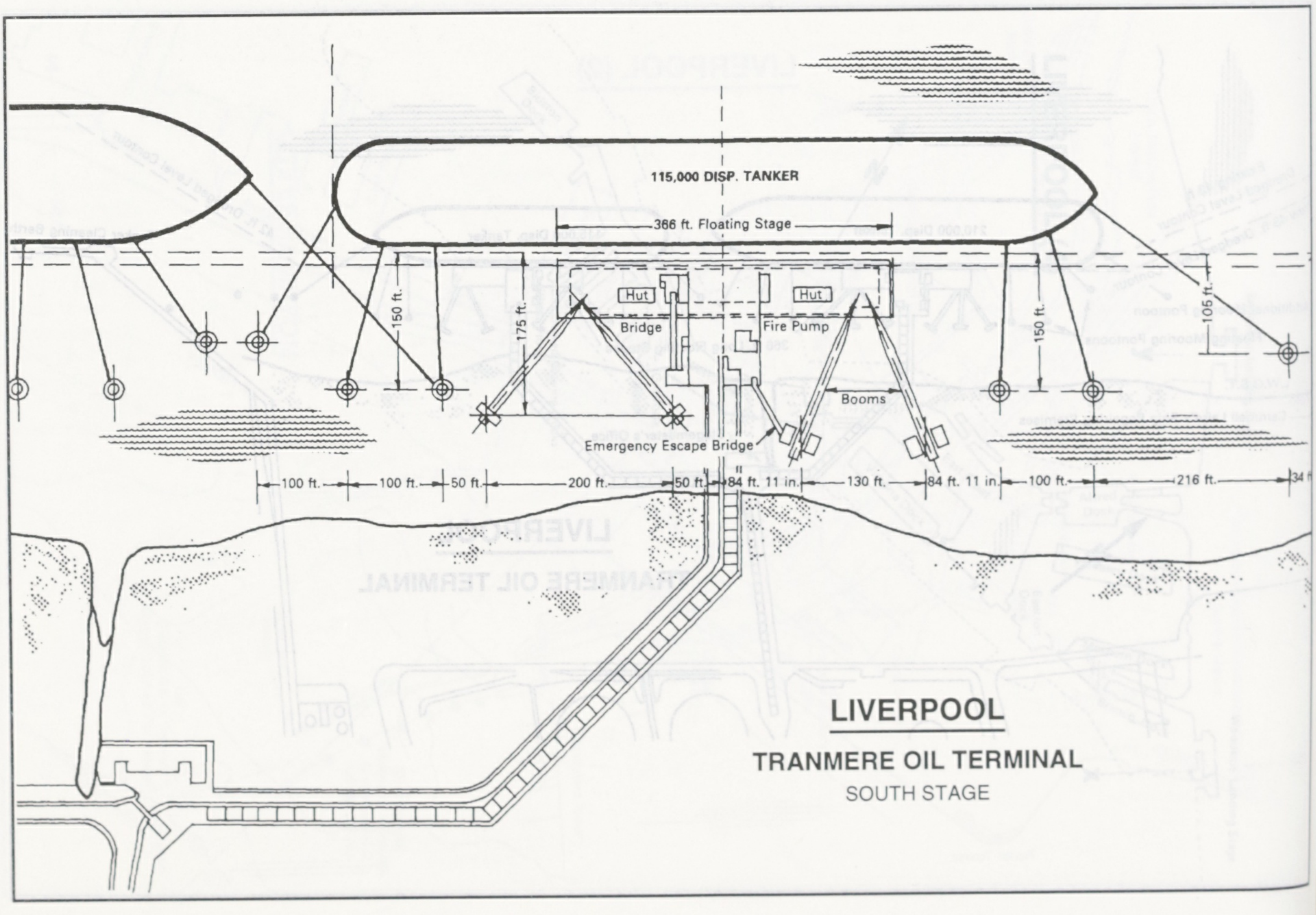

Existing 42 ft. Dredged Level Contour
New 45 ft. Dredged Level Contour
210,000 Disp. Tanker
115,000 Disp. Tanker
42 ft. Dredged Level Contour
Tanker Cleaning Berth
Additional Mooring Pontoon
Floating Mooring Pontoons
366 ft. Long Floating Stages
L.W.O.S.T.
Cammell Laird's Ship Repairing Premises
Stagemaster's Office
LIVERPOOL
TRANMERE OIL TERMINAL


210,000 Tons Displ. Tanker
366 ft. Long floating stage
Gangway
Fire monitor
Hut
Tide gauge
Hut
Fire Monitor
Fire pump
Bridge
Sub-station
Booms
Additional boom
Emergency escape bridge
75 ft.
4 ft.
150 ft.
175 ft.
150 ft.
100 ft.
New 45 ft. Dredged level contour
X
230 ft.
120 ft.
100 ft.
64 ft.
172 ft.
64 ft.
50 ft.
200 ft.
50 ft.
100 ft.
L.W.O.S.T.

LIVERPOOL

TRANMERE OIL TERMINAL

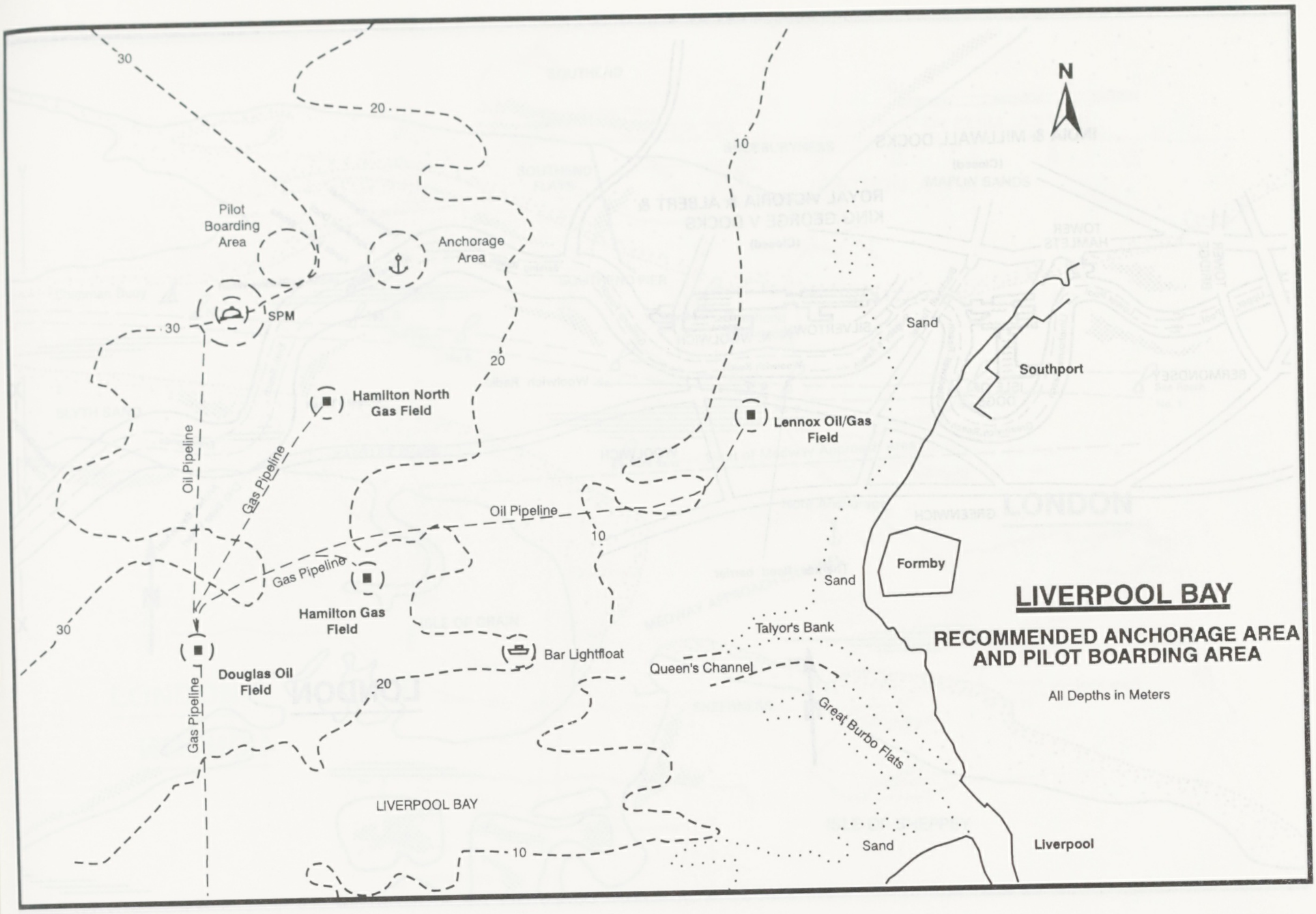
NORTH STAGE


115,000 DISP. TANKER
366 ft. Floating Stage
Hut
Hut
Bridge
Fire Pump
Booms
Emergency Escape Bridge
150 ft.
175 ft.
150 ft.
105 ft.
100 ft.
100 ft.
50 ft.
200 ft.
50 ft.
84 ft. 11 in.
130 ft.
84 ft. 11 in.
100 ft.
216 ft.
34 ft

LIVERPOOL

TRANMERE OIL TERMINAL

SOUTH STAGE

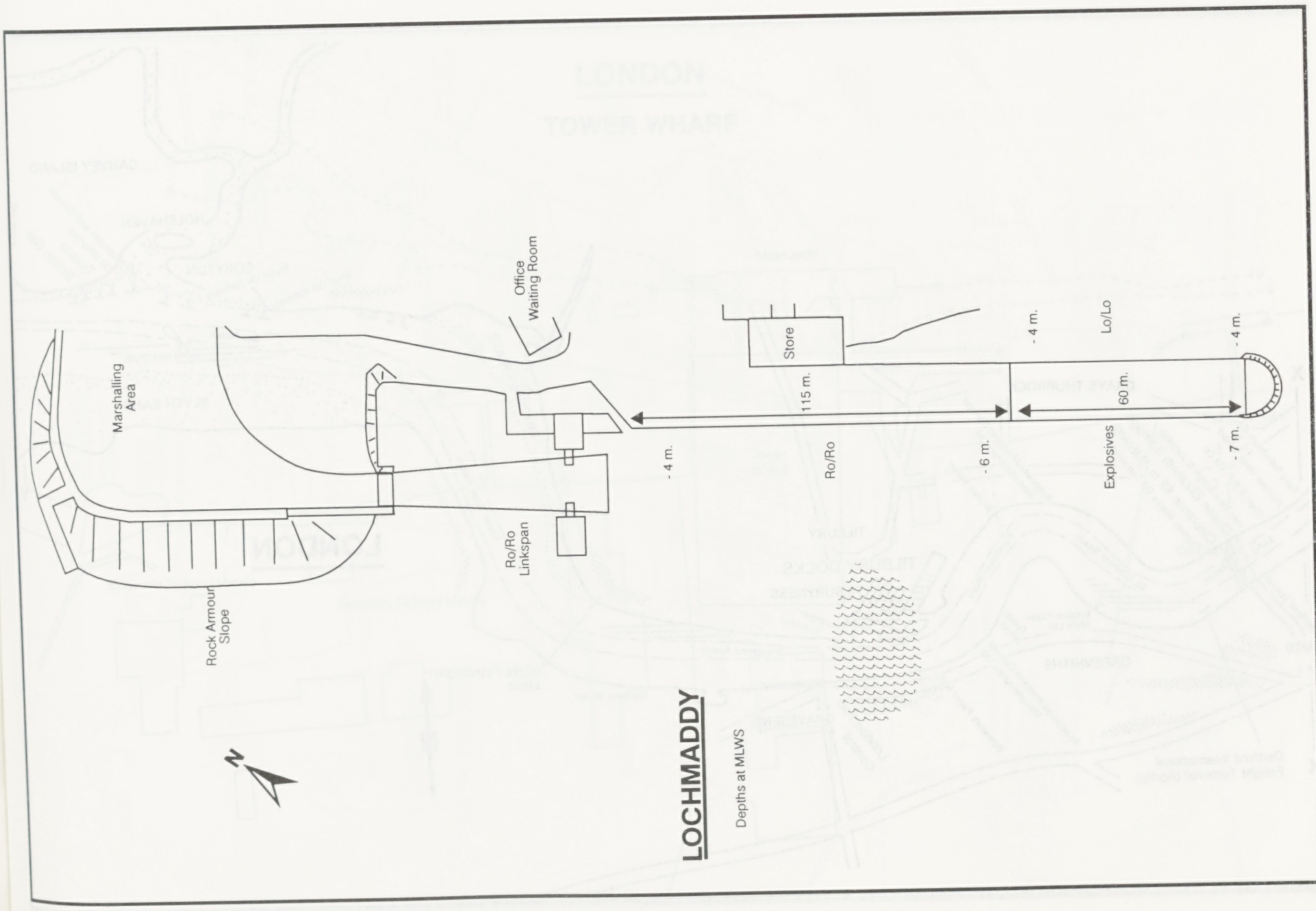


LIVERPOOL BAY

RECOMMENDED ANCHORAGE AREA AND PILOT BOARDING AREA

All Depths in Meters

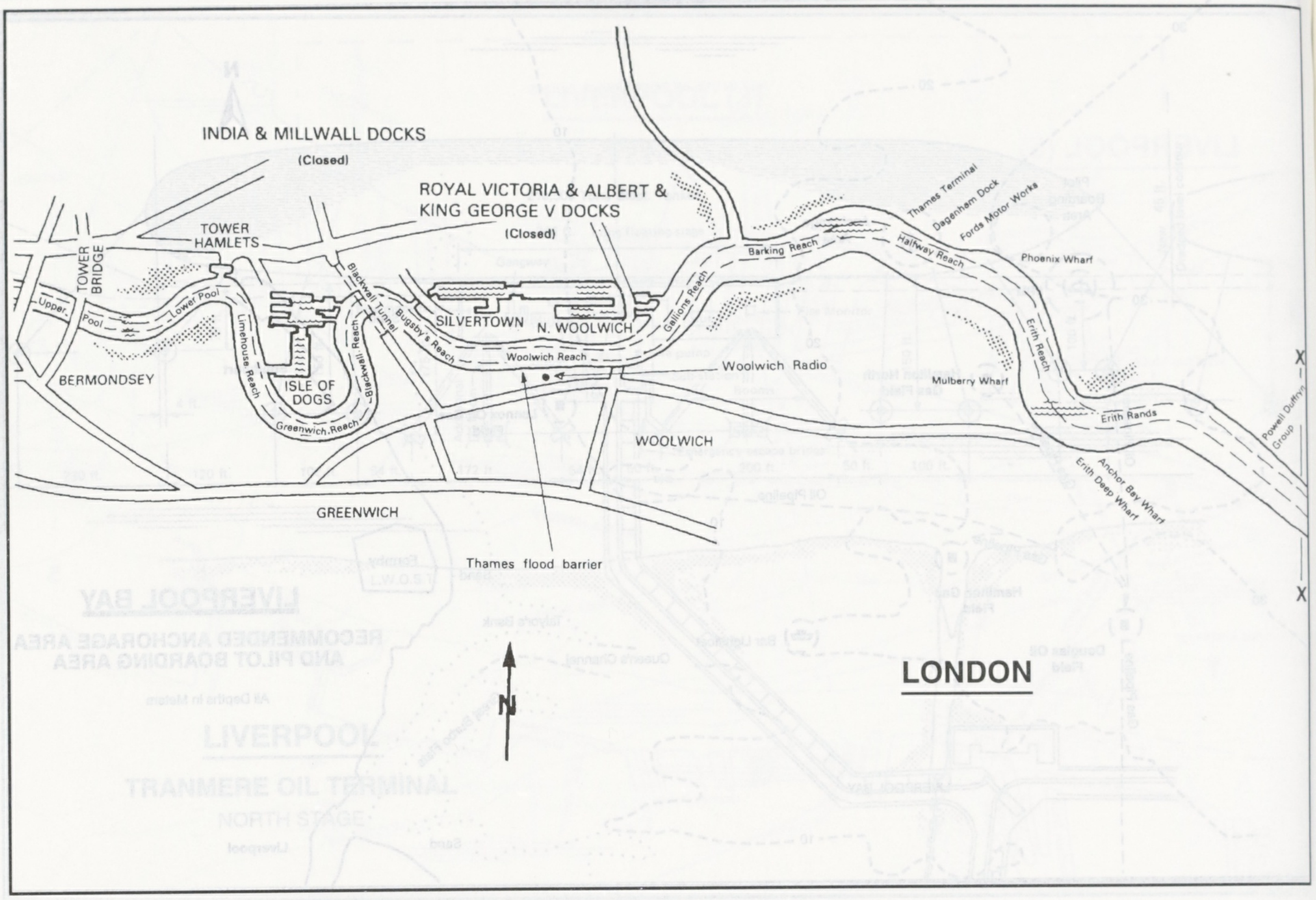
N
30
20
10
Pilot Boarding Area
Anchorage Area
SPM
Hamilton North Gas Field
Lennox Oil/Gas Field
Oil Pipeline
Gas Pipeline
Oil Pipeline
Gas Pipeline
Hamilton Gas Field
Douglas Oil Field
Gas Pipeline
Bar Lightfloat
Queen's Channel
Talyor's Bank
Great Burbo Flats
Sand
Southport
Formby
Sand
Sand
LIVERPOOL BAY
Liverpool

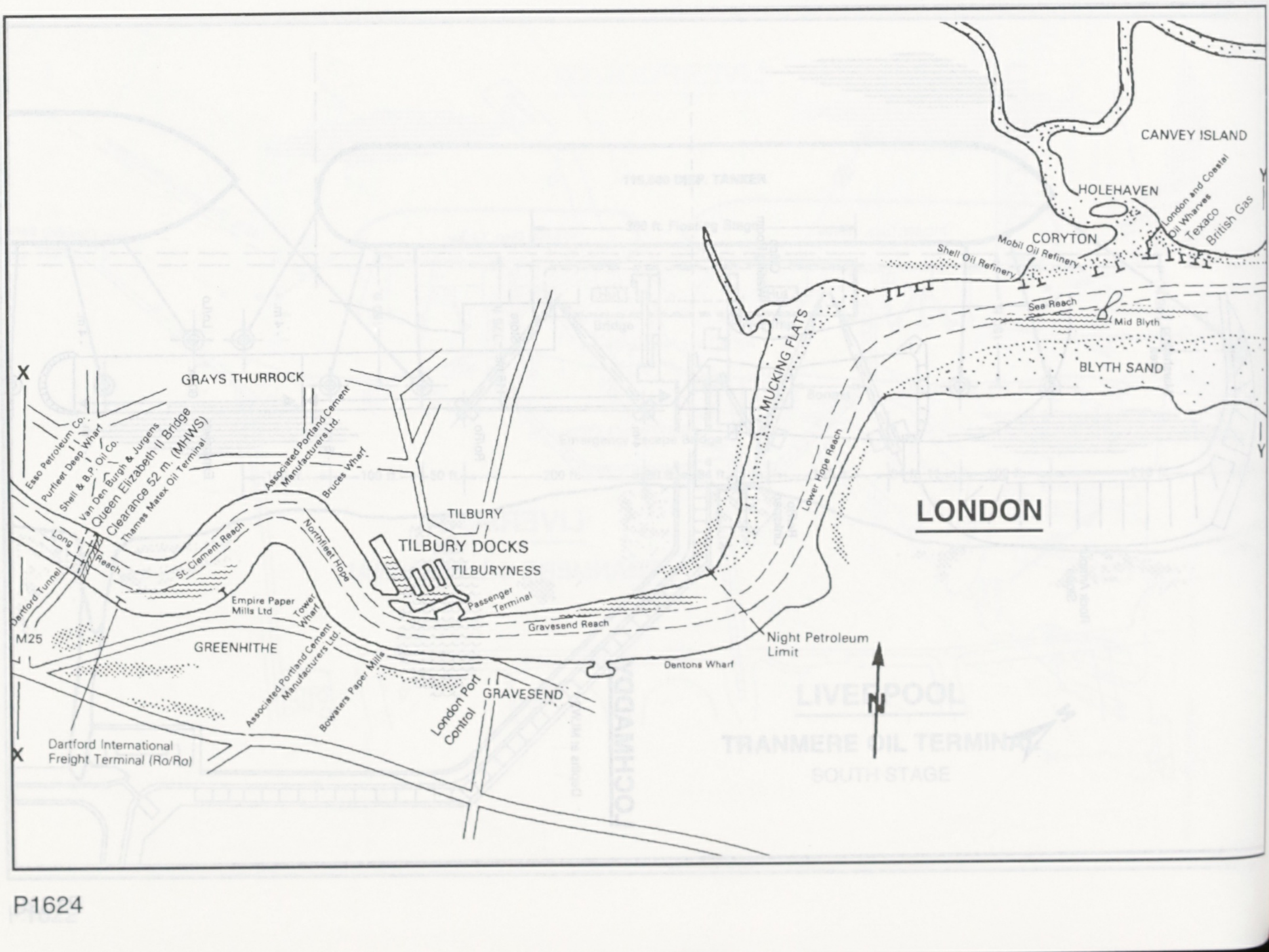


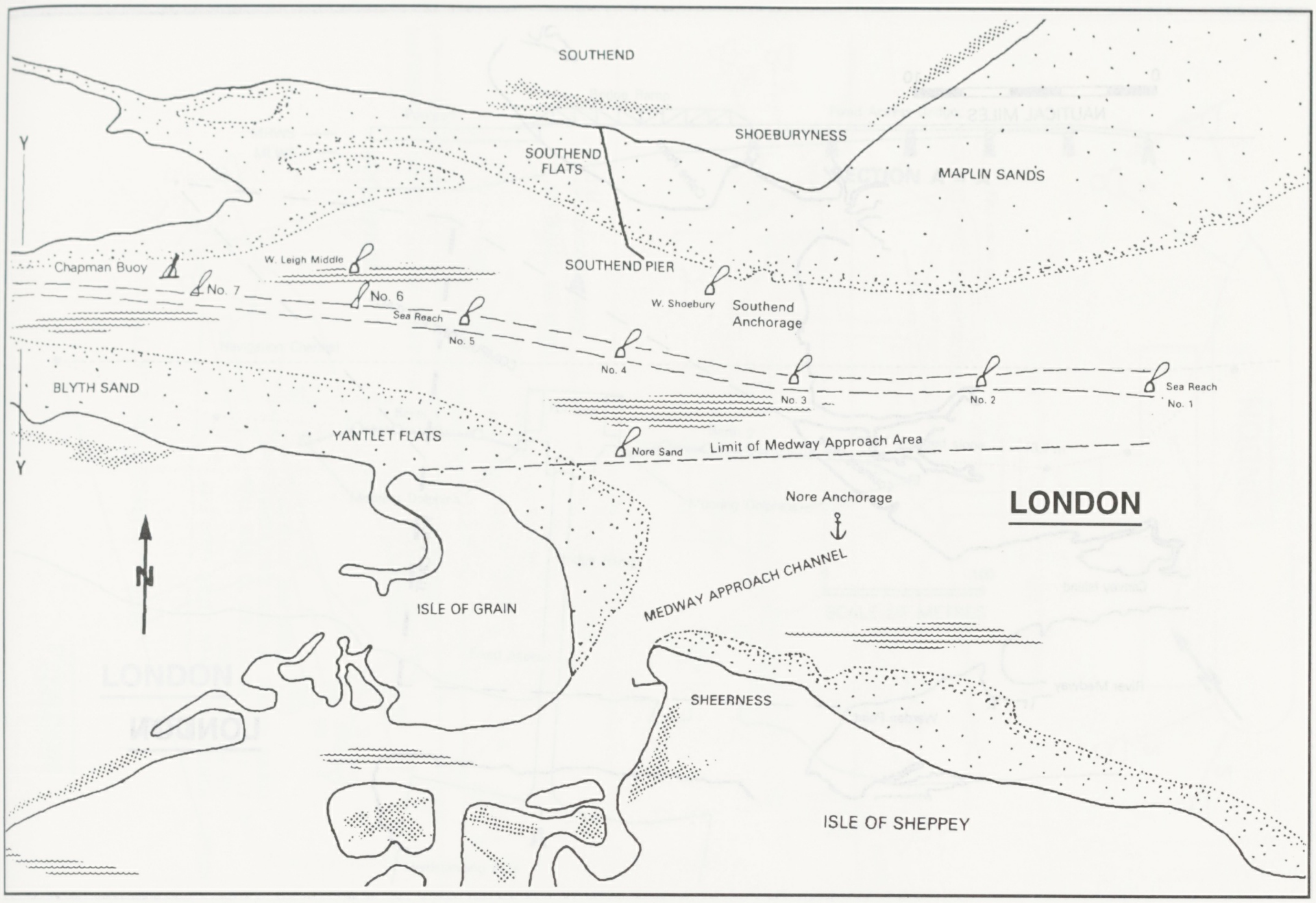
LOCHMADDY

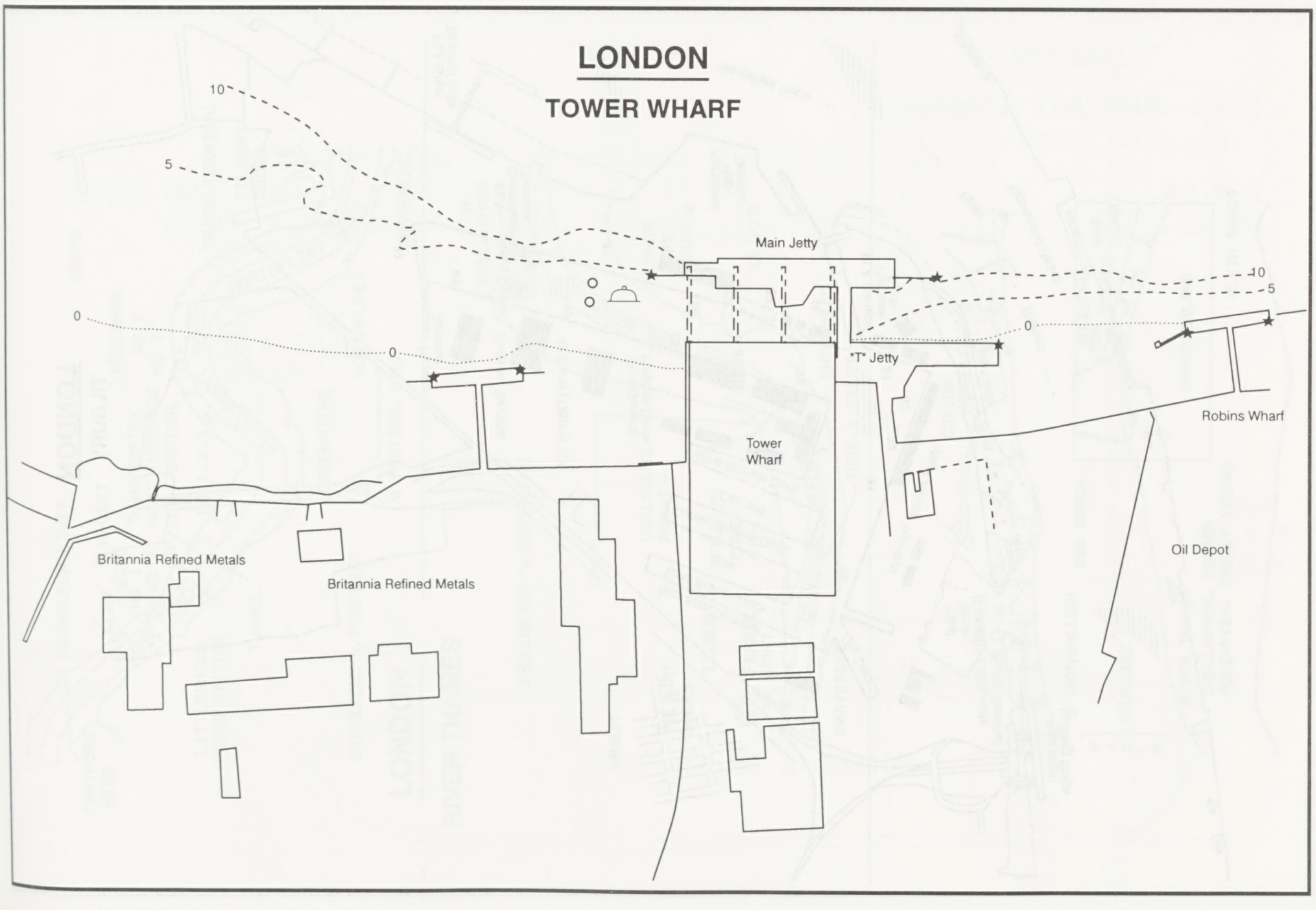
Depths at MLWS

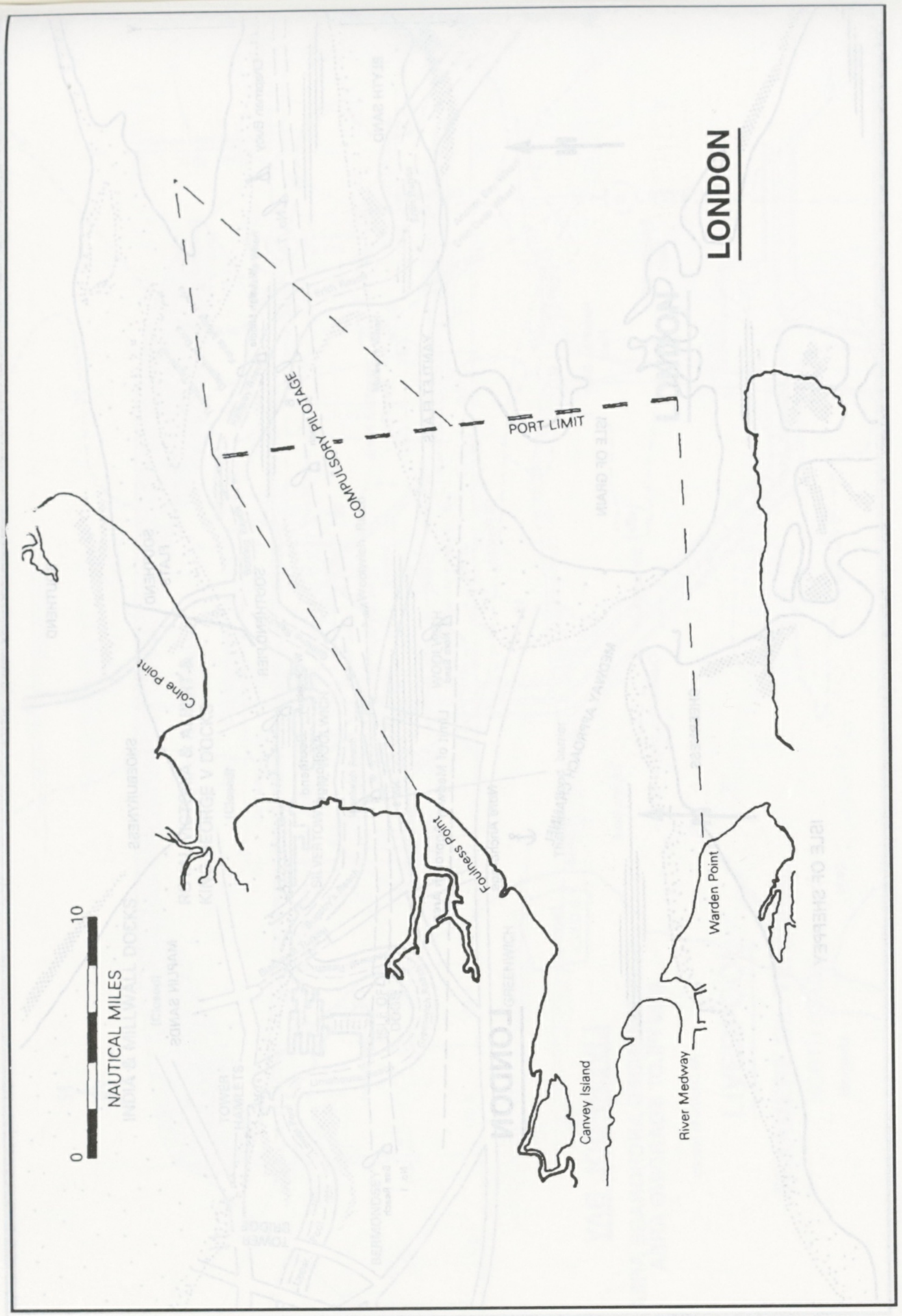
Marshalling Area
Rock Armour Slope
Office Waiting Room
Ro/Ro Linkspan
- 4 m.
Store
115 m.
Ro/Ro
- 6 m.
- 4 m.
Lo/Lo
60 m.
Explosives
- 4 m.
- 7 m.
N

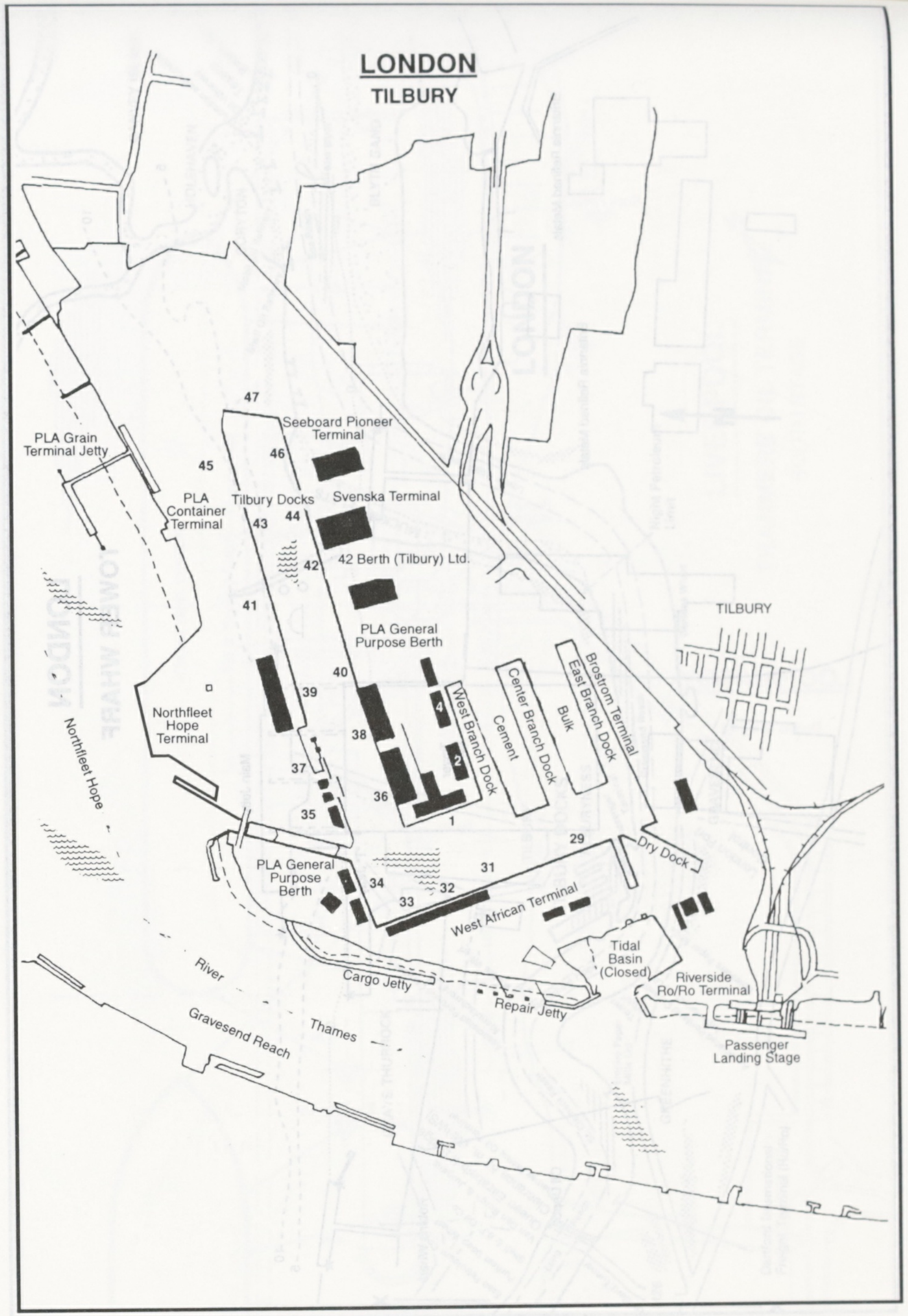

INDIA & MILLWALL DOCKS
(Closed)
ROYAL VICTORIA & ALBERT &
KING GEORGE V DOCKS
(Closed)
TOWER
HAMLETS
TOWER
BRIDGE
Upper
Pool
Lower Pool
Limehouse Reach
Blackwall Tunnel
Blackwall Reach
ISLE OF
DOGS
Greenwich Reach
Bugsby's Reach
SILVERTOWN
N. WOOLWICH
Woolwich Reach
Gallions Reach
Barking Reach
Thames Terminal
Dagenham Dock
Fords Motor Works
Halfway Reach
Phoenix Wharf
Erith Reach
Mulberry Wharf
Erith Rands
Powell Duffryn Group
Anchor Bay Wharf
Erith Deep Wharf
Woolwich Radio
BERMONDSEY
WOOLWICH
GREENWICH
Thames flood barrier
N
X
X
LONDON


CANVEY ISLAND
HOLEHAVEN
CORYTON
London and Coastal Oil Wharves
Texaco
British Gas
Shell Oil Refinery
Mobil Oil Refinery
Sea Reach
Mid Blyth
BLYTH SAND
Y
Y
MUCKING FLATS
Lower Hope Reach
X
GRAYS THURROCK
Esso Petroleum Co.
Purfleet Deep Wharf
Shell & B.P. Oil Co.
Van Den Burgh & Jurgens
Queen Elizabeth II Bridge
Clearance 52 m. (MHWS)
Thames Matex Oil Terminal
Associated Portland Cement Manufacturers Ltd.
Bruces Wharf
Long Reach
Dartford Tunnel
St Clement Reach
Northfleet Hope
TILBURY
TILBURY DOCKS
TILBURYNESS
Passenger Terminal
Gravesend Reach
Dentons Wharf
Night Petroleum Limit
Empire Paper Mills Ltd
Tower Wharf
M25
GREENHITHE
Associated Portland Cement Manufacturers Ltd
Bowaters Paper Mills
London Port Control
GRAVESEND
Dartford International Freight Terminal (Ro/Ro)
X
LONDON
N


SOUTHEND
SHOEBURYNESS
SOUTHEND FLATS
MAPLIN SANDS
Y
Chapman Buoy
W. Leigh Middle
No. 7
No. 6
Sea Reach
No. 5
SOUTHEND PIER
W. Shoebury
Southend Anchorage
No. 4
No. 3
No. 2
Sea Reach No. 1
BLYTH SAND
YANTLET FLATS
Nore Sand
Limit of Medway Approach Area
Y
Nore Anchorage
LONDON
N
MEDWAY APPROACH CHANNEL
ISLE OF GRAIN
SHEERNESS
ISLE OF SHEPPEY

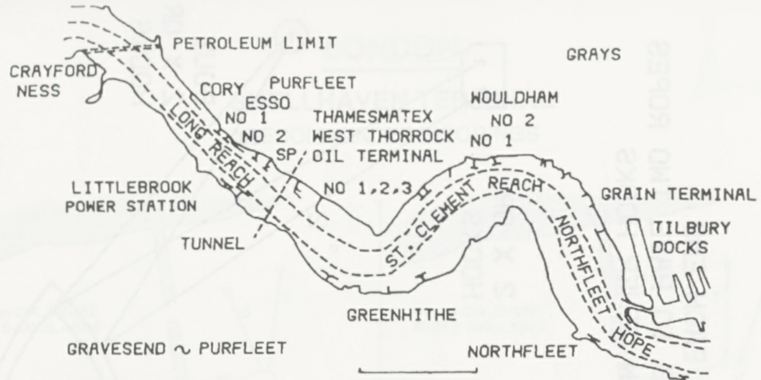

LONDON
TOWER WHARF
10
5
Main Jetty
10
5
0
0
0
"T" Jetty
Robins Wharf
Tower Wharf
Britannia Refined Metals
Britannia Refined Metals
Oil Depot

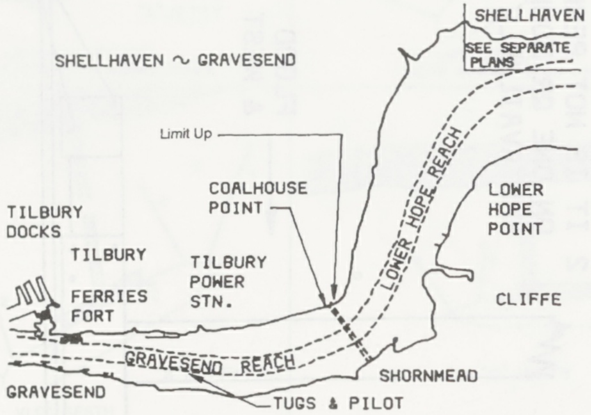

LONDON
PORT LIMIT
COMPULSORY PILOTAGE
Colne Point
Foulness Point
Warden Point
River Medway
Canvey Island
NAUTICAL MILES
0
10

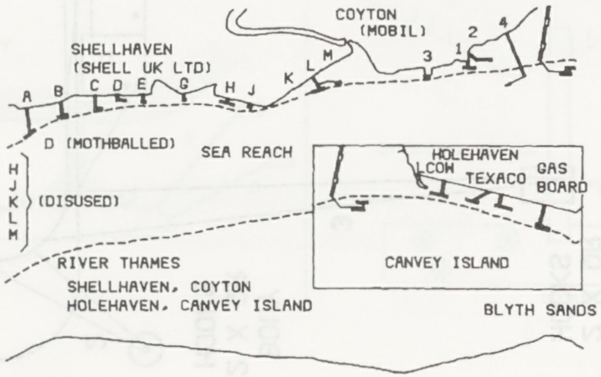

LONDON
TILBURY
47
Seeboard Pioneer Terminal
46
45
PLA Grain Terminal Jetty
Svenska Terminal
Tilbury Docks
44
PLA Container Terminal
43
42
42 Berth (Tilbury) Ltd.
41
PLA General Purpose Berth
TILBURY
40
39
Brostrom Terminal
East Branch Dock
Bulk
Center Branch Dock
Cement
West Branch Dock
4
2
Northfleet Hope Terminal
38
37
36
1
Northfleet Hope
35
29
Dry Dock
31
PLA General Purpose Berth
34
32
33
West African Terminal
Tidal Basin (Closed)
Riverside Ro/Ro Terminal
Cargo Jetty
Repair Jetty
River
Thames
Gravesend Reach
Passenger Landing Stage

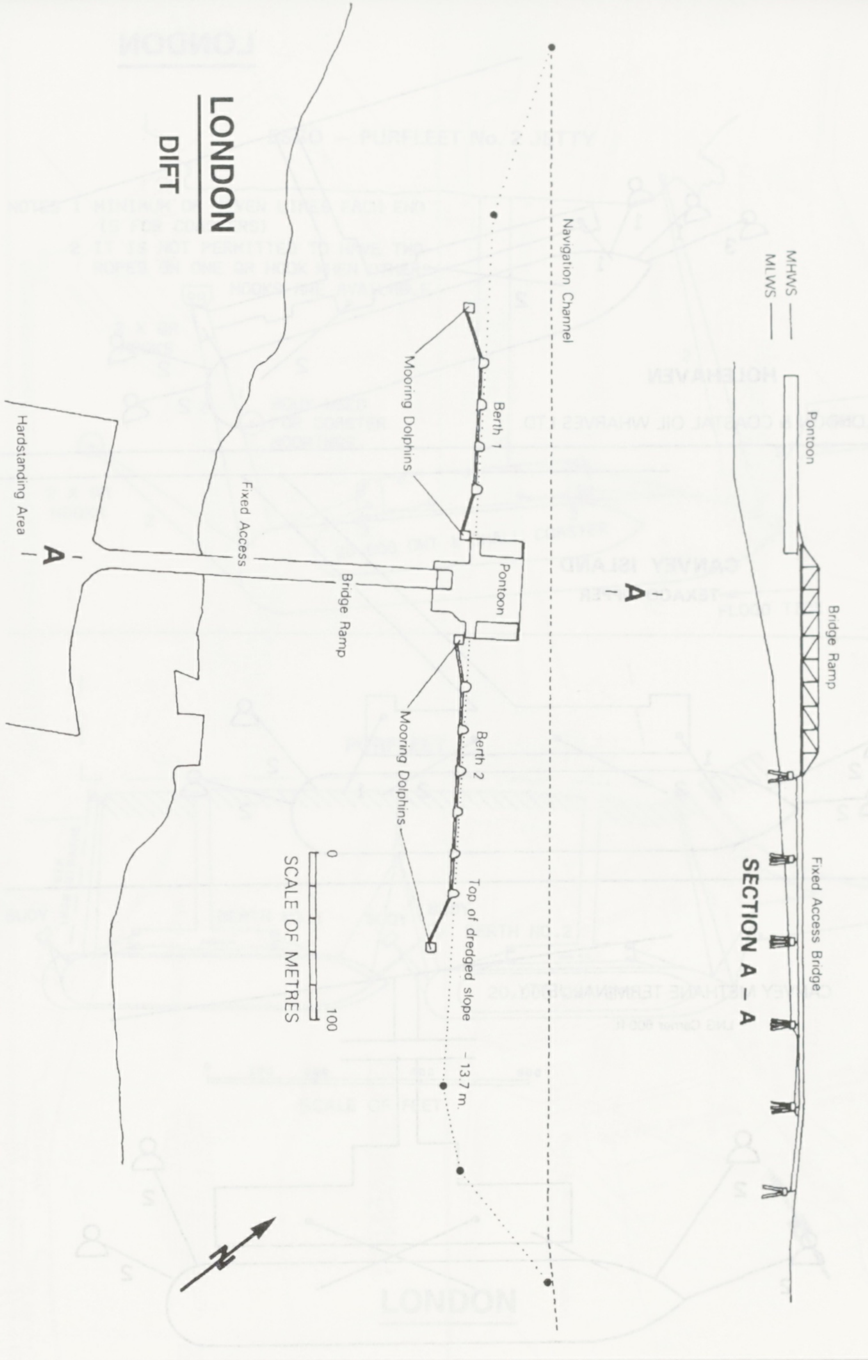
LONDON

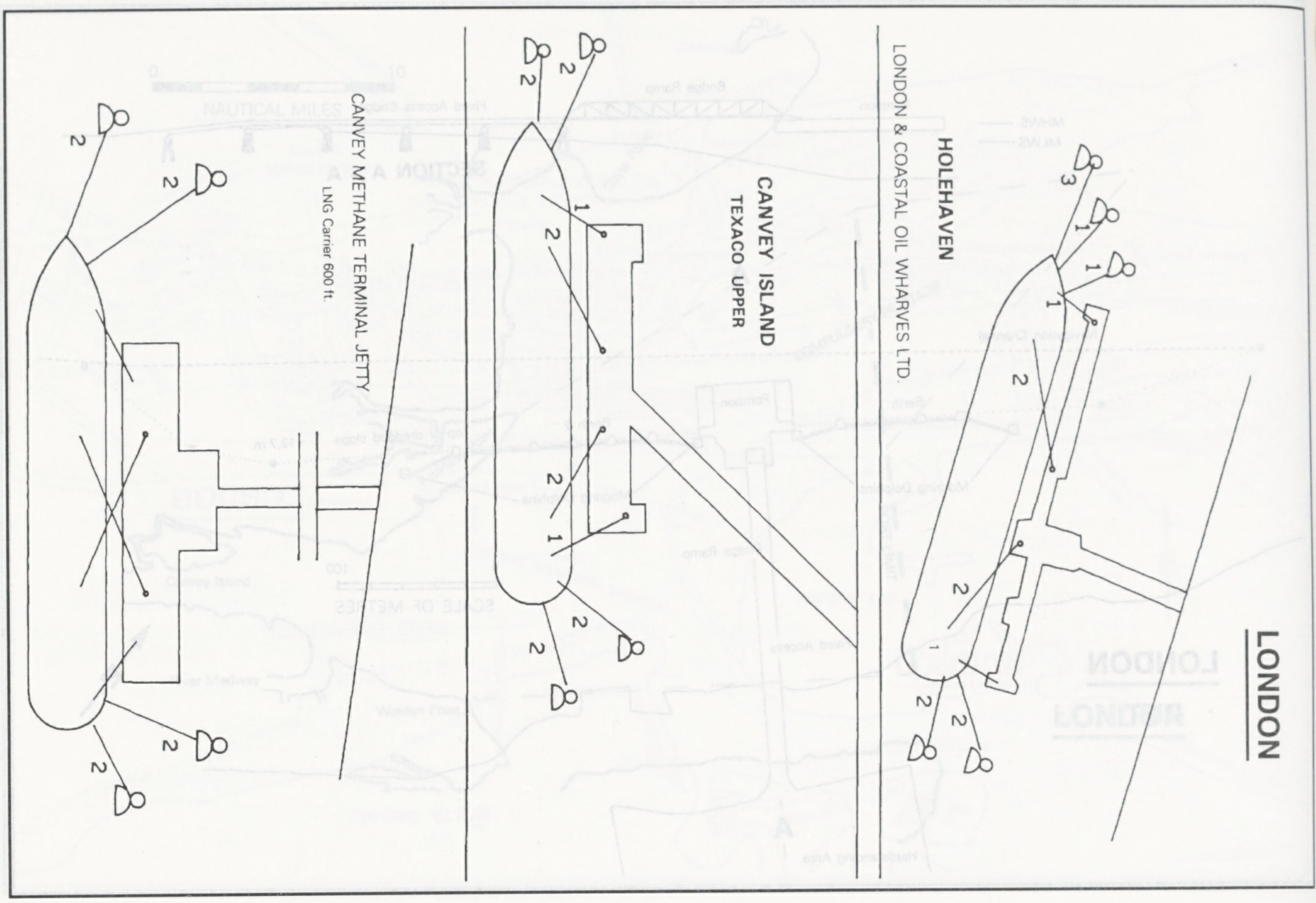
RIVER THAMES

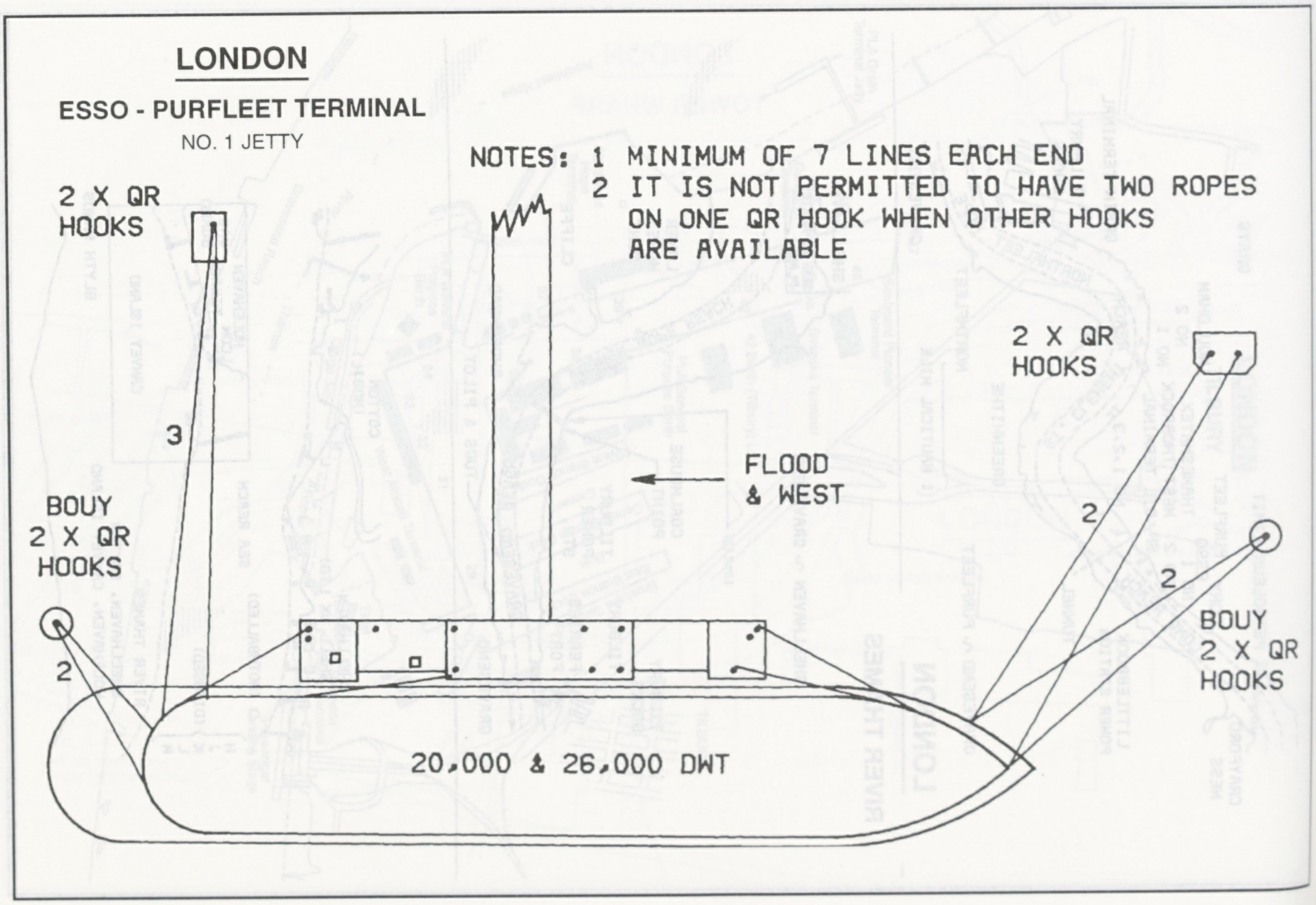

PETROLEUM LIMIT
CRAYFORD NESS
CORY
PURFLEET
ESSO
NO 1
NO 2
SP
THAMESMATEX
WEST THORROCK
OIL TERMINAL
NO 1,2,3
GRAYS
WOULDHAM
NO 2
NO 1
LONG REACH
LITTLEBROOK POWER STATION
TUNNEL
ST. CLEMENT REACH
GRAIN TERMINAL
TILBURY DOCKS
NORTHFLEET HOPE
GREENHITHE
NORTHFLEET
GRAVESEND ~ PURFLEET
1 NAUTICAL MILE
GRAVESEND


SHELLHAVEN
SEE SEPARATE PLANS
SHELLHAVEN ~ GRAVESEND
Limit Up
COALHOUSE POINT
LOWER HOPE REACH
LOWER HOPE POINT
TILBURY DOCKS
TILBURY
TILBURY POWER STN.
FERRIES
FORT
CLIFFE
GRAVESEND REACH
SHORNMEAD
GRAVESEND
TUGS & PILOT


COYTON (MOBIL)
2
4
3
1
SHELLHAVEN (SHELL UK LTD)
A
B
C
D
E
G
H
J
K
L
M
D (MOTHBALLED)
SEA REACH
H J K L M (DISUSED)
HOLEHAVEN
LCOW
TEXACO
GAS BOARD
CANVEY ISLAND
RIVER THAMES
SHELLHAVEN, COYTON HOLEHAVEN, CANVEY ISLAND
BLYTH SANDS


LONDON
DIFT
MHWS
MLWS
Navigation Channel
Pontoon
Bridge Ramp
Mooring Dolphins
Berth 1
Berth 2
Pontoon
Bridge Ramp
Fixed Access
Hardstanding Area
A
A
Fixed Access Bridge
SECTION A – A
SCALE OF METRES
0
100
Top of dredged slope
-13.7 m.
N


LONDON
HOLEHAVEN
LONDON & COASTAL OIL WHARVES LTD.
CANVEY ISLAND
TEXACO UPPER
CANVEY METHANE TERMINAL JETTY
LNG Carrier 600 ft.
3
1
1
1
2
2
1
2
2
2
2
1
2
2
1
2
2
2
2
2
2
2



LONDON

ESSO - PURFLEET TERMINAL

NO. 1 JETTY

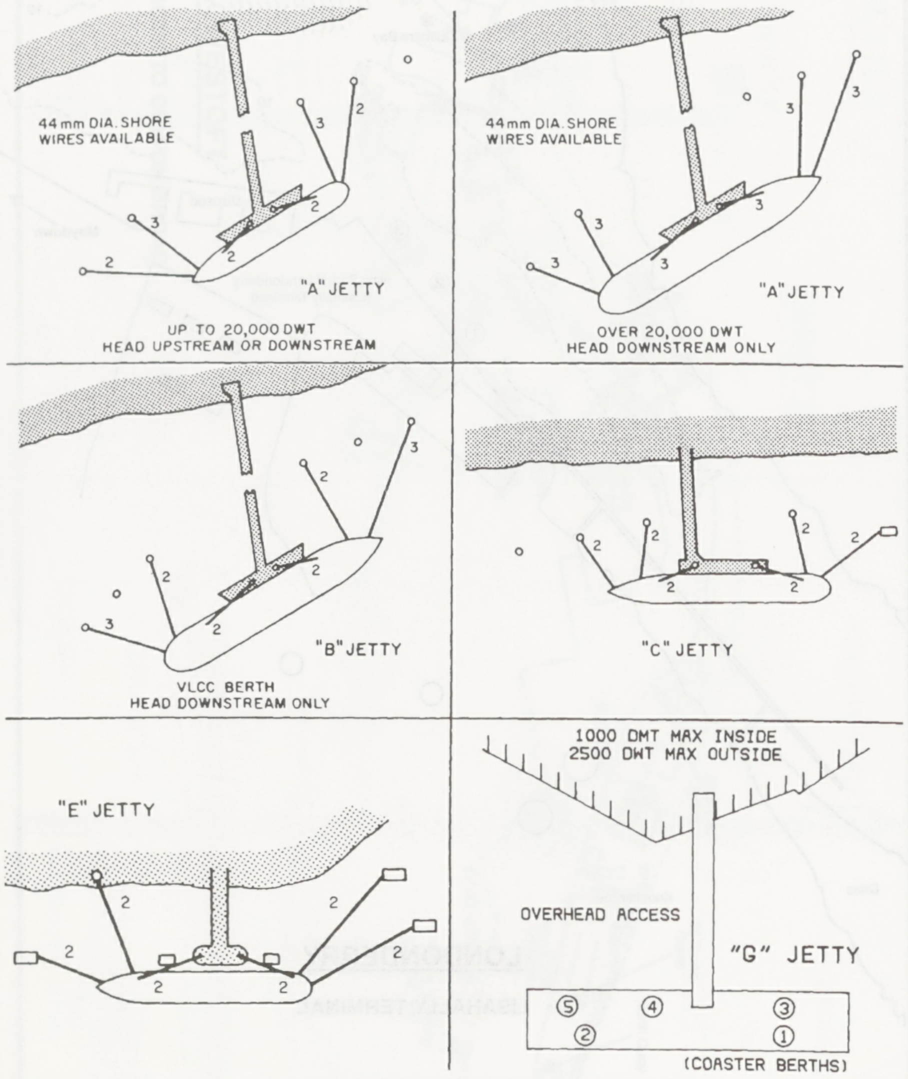
NOTES:
1 MINIMUM OF 7 LINES EACH END
2 IT IS NOT PERMITTED TO HAVE TWO ROPES ON ONE QR HOOK WHEN OTHER HOOKS ARE AVAILABLE

2 X QR HOOKS
3
BOUY 2 X QR HOOKS
2
FLOOD & WEST
20,000 & 26,000 DWT
2 X QR HOOKS
2
2
BOUY 2 X QR HOOKS

LONDON

SHELLHAVEN TERMINAL

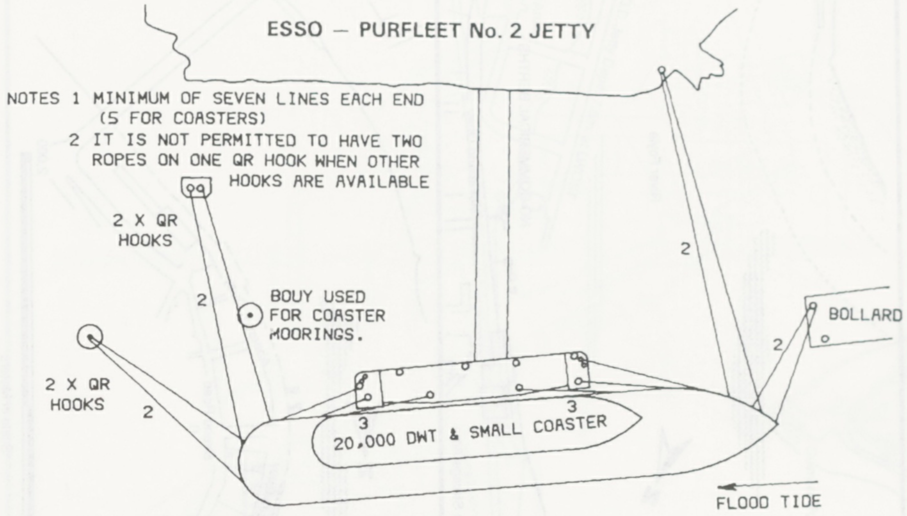
RECOMMENDED MOORINGS

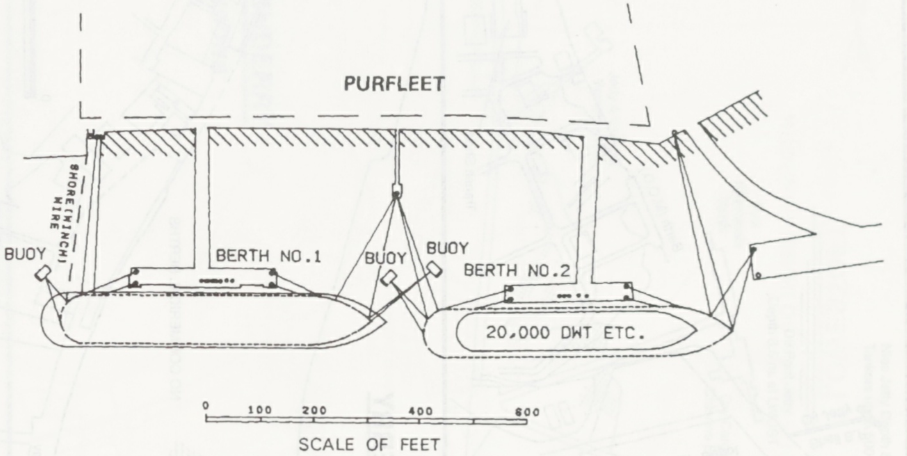

44 mm DIA. SHORE WIRES AVAILABLE
3
2
3
2
2
2
"A" JETTY
UP TO 20,000 DWT
HEAD UPSTREAM OR DOWNSTREAM
44 mm DIA. SHORE WIRES AVAILABLE
3
3
3
3
3
3
"A" JETTY
OVER 20,000 DWT
HEAD DOWNSTREAM ONLY
3
2
2
2
3
2
"B" JETTY
VLCC BERTH
HEAD DOWNSTREAM ONLY
2
2
2
2
2
2
"C" JETTY
"E" JETTY
2
2
2
2
2
2
1000 DWT MAX INSIDE
2500 DWT MAX OUTSIDE
OVERHEAD ACCESS
"G" JETTY
⑤
④
③
②
①
(COASTER BERTHS)

ESSO – PURFLEET No. 2 JETTY

NOTES 1 MINIMUM OF SEVEN LINES EACH END (5 FOR COASTERS)

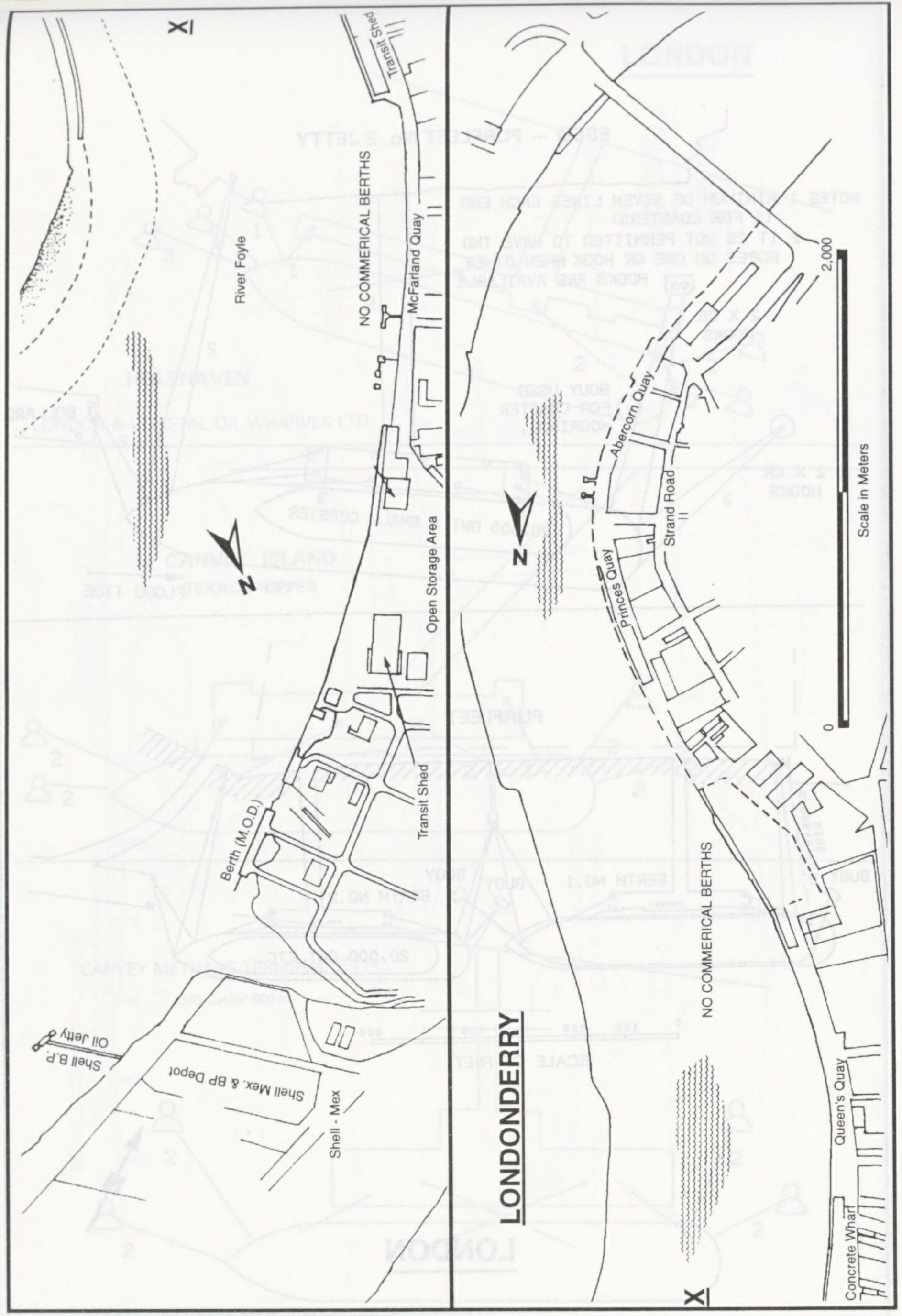
2 IT IS NOT PERMITTED TO HAVE TWO ROPES ON ONE QR HOOK WHEN OTHER HOOKS ARE AVAILABLE

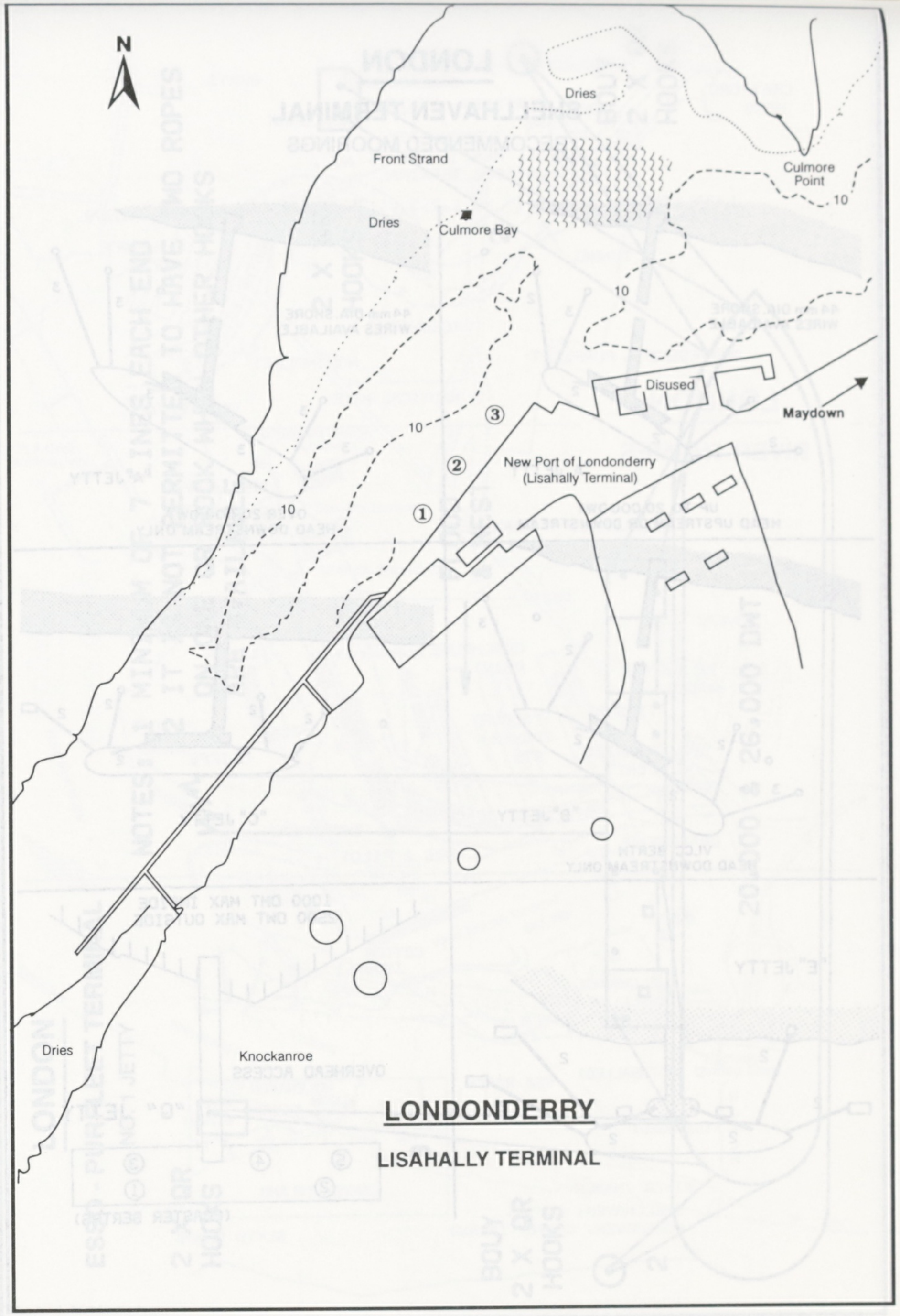

2 X QR HOOKS
2
BOUY USED FOR COASTER MOORINGS.
2 X QR HOOKS
2
2
BOLLARD
2
3
3
20,000 DWT & SMALL COASTER
FLOOD TIDE


PURFLEET
SHORE (1 INCH) WIRE
BUOY
BERTH NO.1
BUOY
BUOY
BERTH NO.2
20,000 DWT ETC.
0
100
200
400
600
SCALE OF FEET

LONDON

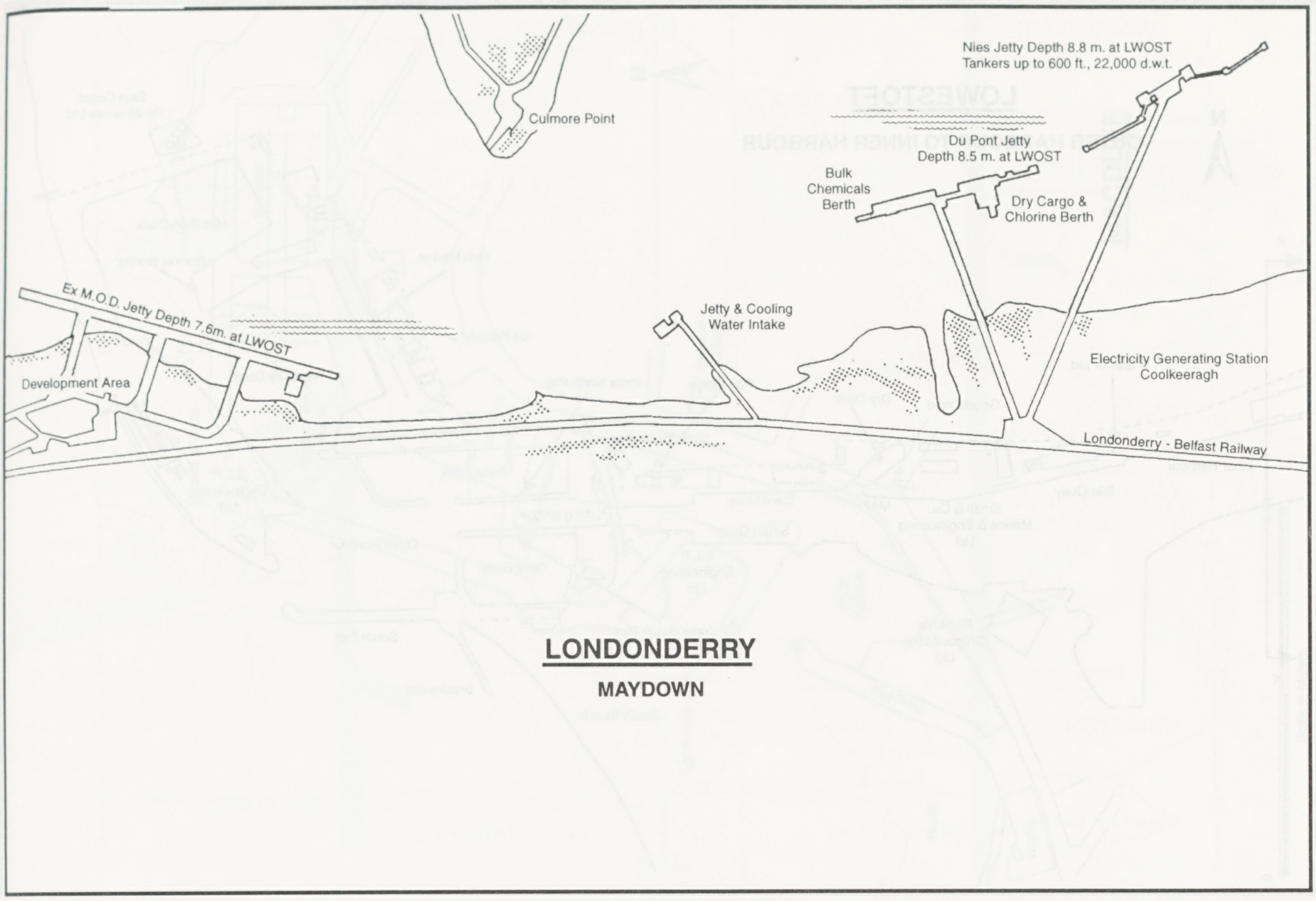
LONDONDERRY


X
Transit Shed
NO COMMERICAL BERTHS
McFarland Quay
River Foyle
Open Storage Area
N
Transit Shed
Berth (M.O.D.)
Oil Jetty
Shell B.P.
Shell Mex. & BP Depot
Shell - Mex
N
Abercorn Quay
Strand Road
Princes Quay
2,000
Scale in Meters
0
NO COMMERICAL BERTHS
Queen's Quay
Concrete Wharf
X


N
Dries
Front Strand
Dries
Culmore Bay
Culmore Point
10
10
Disused
Maydown
③
10
②
New Port of Londonderry
(Lisahally Terminal)
①
10
Dries
Knockanroe

LONDONDERRY

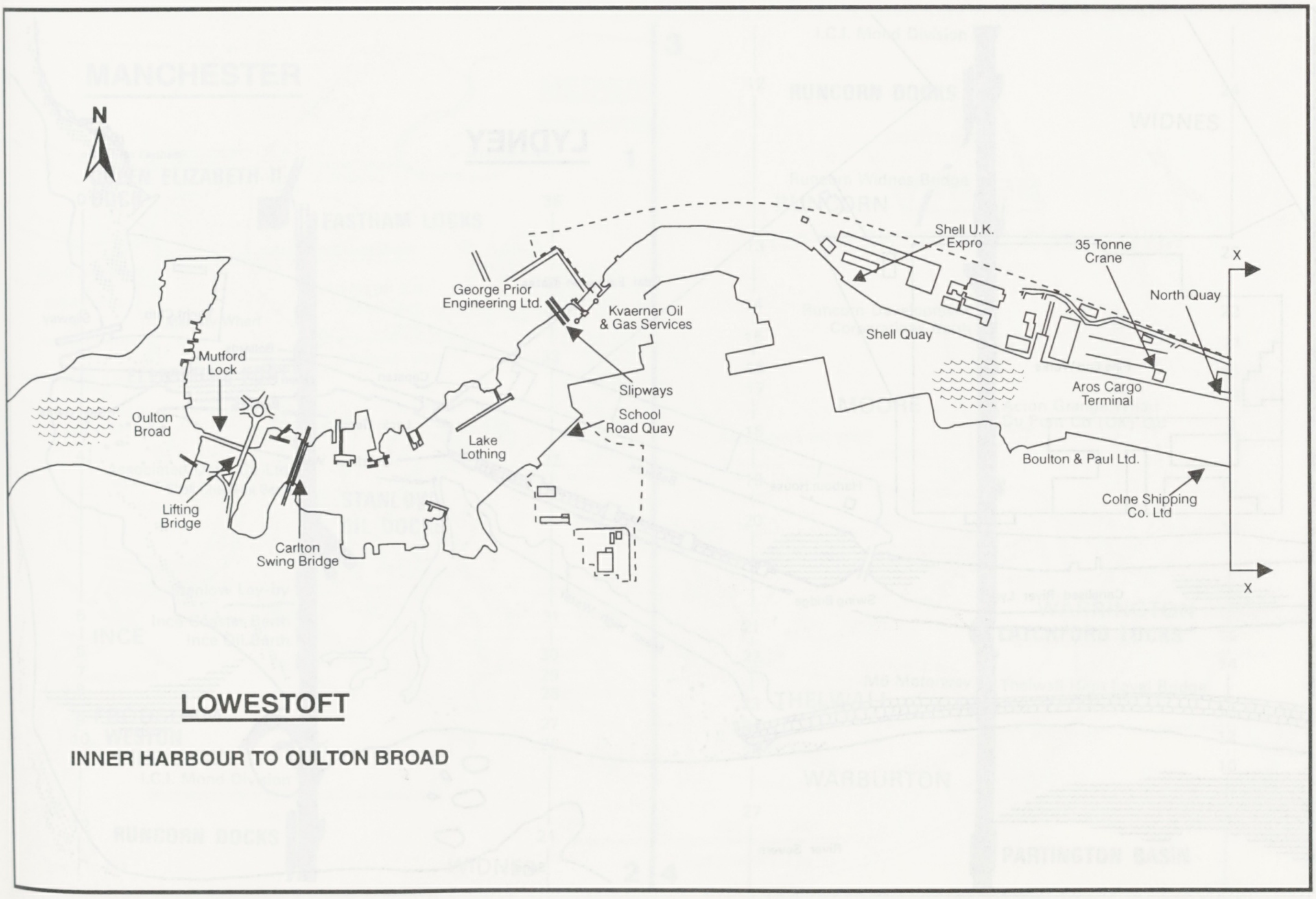
LISAHALLY TERMINAL



LONDONDERRY

MAYDOWN

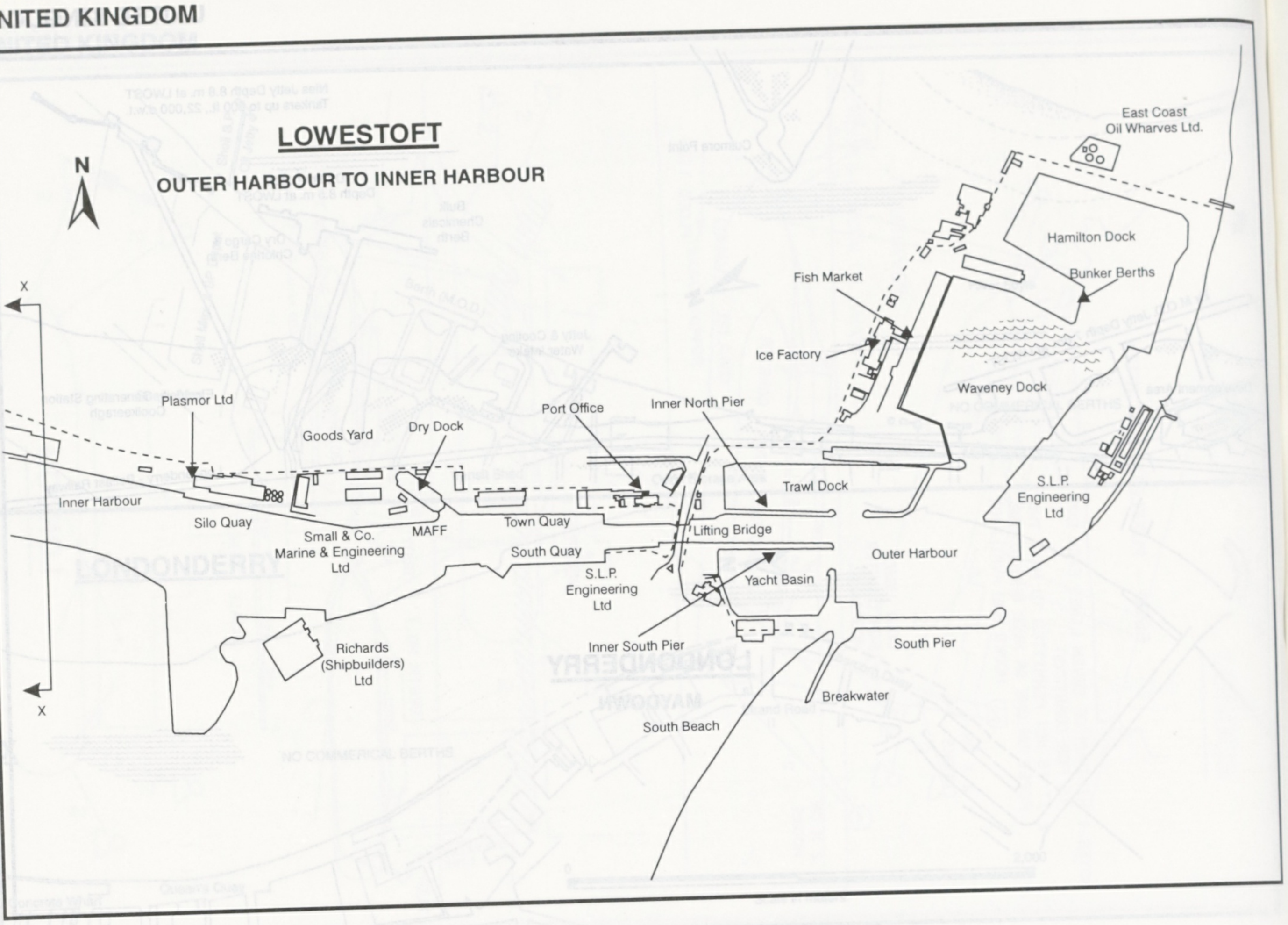
Nies Jetty Depth 8.8 m. at LWOST
Tankers up to 600 ft., 22,000 d.w.t.
Culmore Point
Du Pont Jetty
Depth 8.5 m. at LWOST
Bulk
Chemicals
Berth
Dry Cargo &
Chlorine Berth
Ex M.O.D. Jetty Depth 7.6m. at LWOST
Jetty & Cooling
Water Intake
Electricity Generating Station
Coolkeeragh
Development Area
Londonderry - Belfast Railway

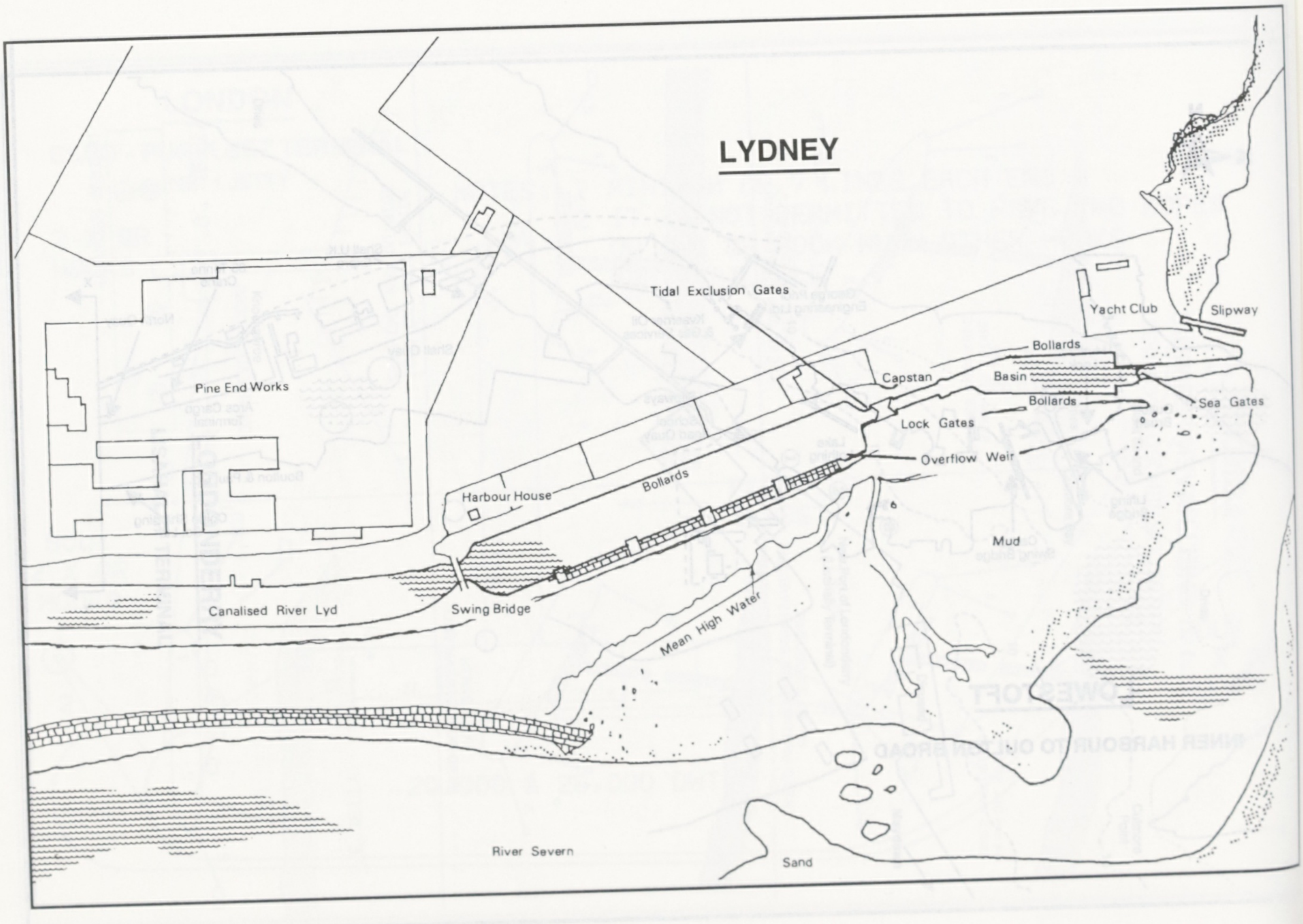


LOWESTOFT

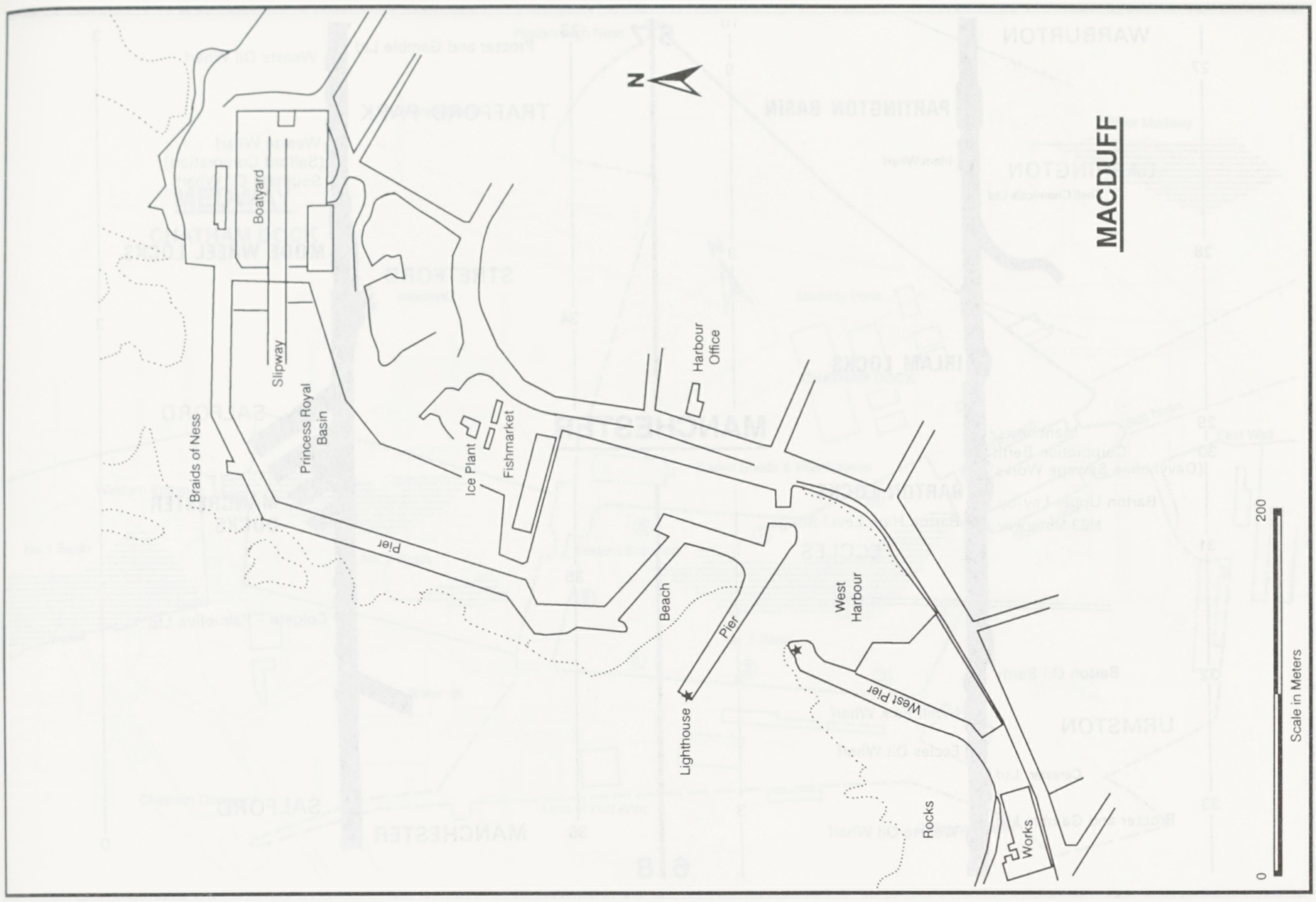
INNER HARBOUR TO OULTON BROAD

N
Shell U.K.
Expro
35 Tonne
Crane
X
George Prior
Engineering Ltd.
Kvaerner Oil
& Gas Services
North Quay
Shell Quay
Mutford
Lock
Slipways
Aros Cargo
Terminal
Oulton
Broad
School
Road Quay
Lake
Lothing
Boulton & Paul Ltd.
Lifting
Bridge
Colne Shipping
Co. Ltd
Carlton
Swing Bridge
X

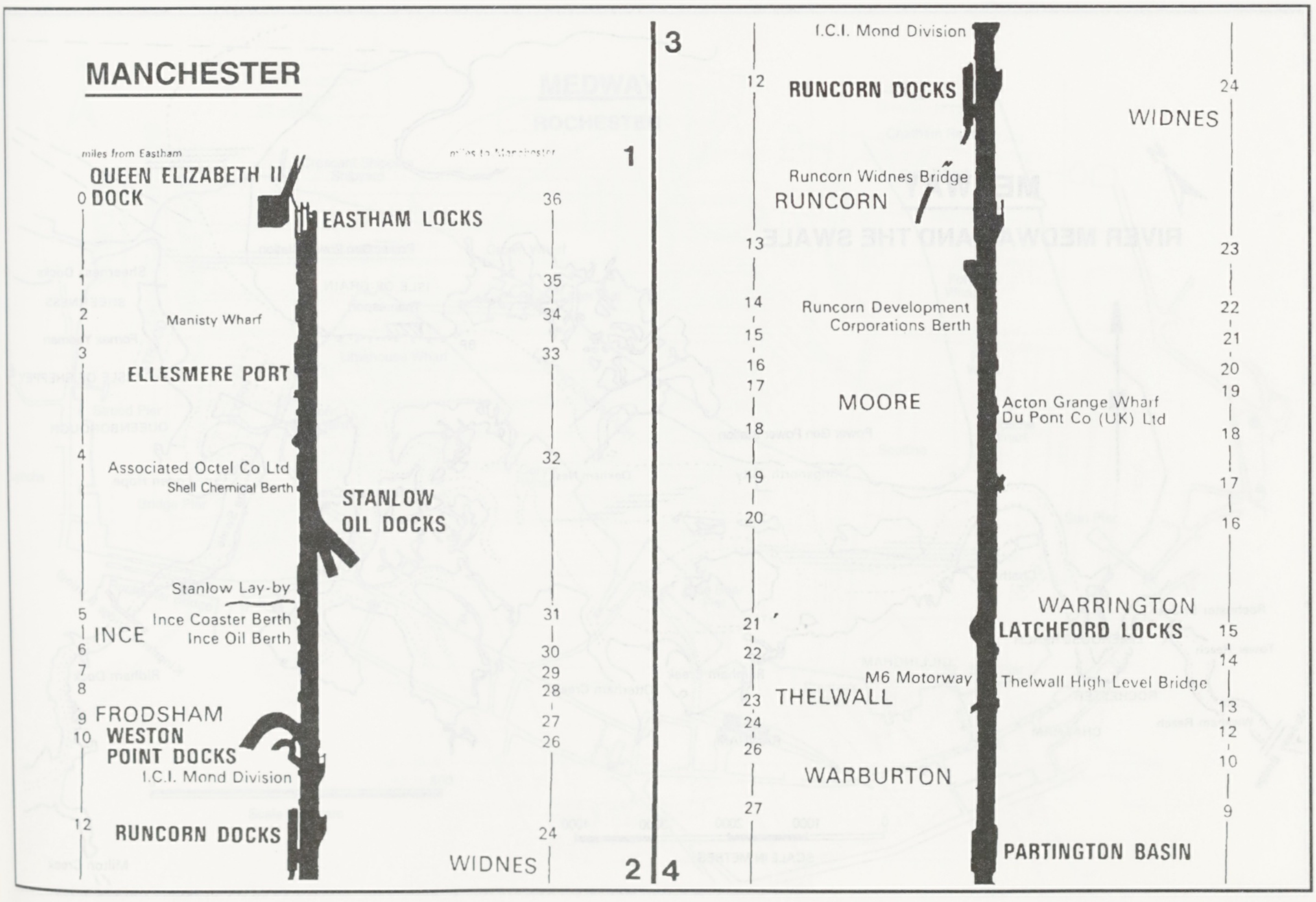

LOWESTOFT
OUTER HARBOUR TO INNER HARBOUR
N
X
X
East Coast Oil Wharves Ltd.
Hamilton Dock
Bunker Berths
Fish Market
Ice Factory
Waveney Dock
Plasmor Ltd
Goods Yard
Dry Dock
Port Office
Inner North Pier
Trawl Dock
S.L.P. Engineering Ltd
Inner Harbour
Silo Quay
Small & Co. Marine & Engineering Ltd
MAFF
Town Quay
Lifting Bridge
South Quay
Outer Harbour
S.L.P. Engineering Ltd
Yacht Basin
Inner South Pier
South Pier
Richards (Shipbuilders) Ltd
Breakwater
South Beach

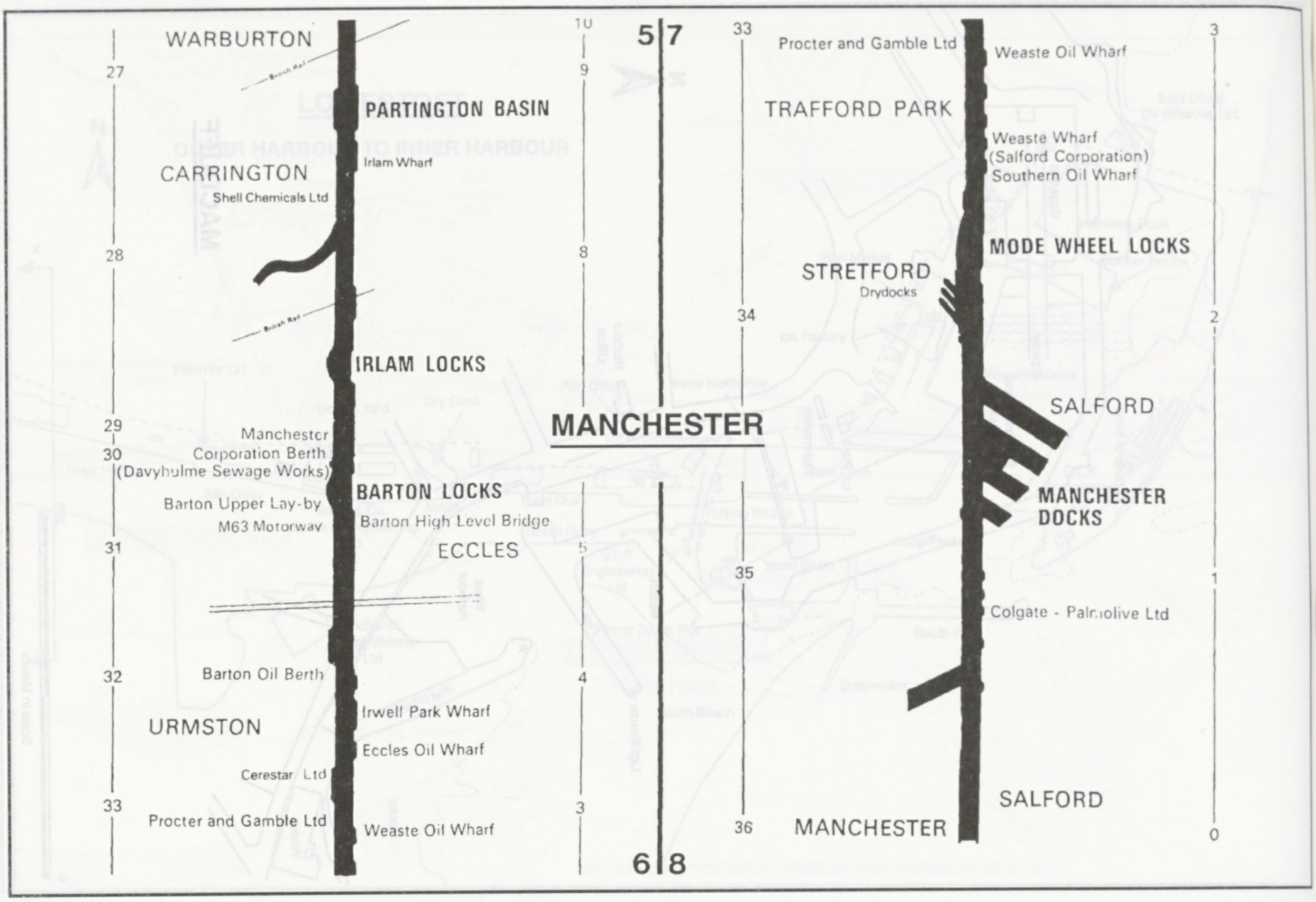

LYDNEY
Tidal Exclusion Gates
Yacht Club
Slipway
Bollards
Capstan
Basin
Bollards
Sea Gates
Pine End Works
Lock Gates
Overflow Weir
Bollards
Harbour House
Mud
Canalised River Lyd
Swing Bridge
Mean High Water
River Severn
Sand

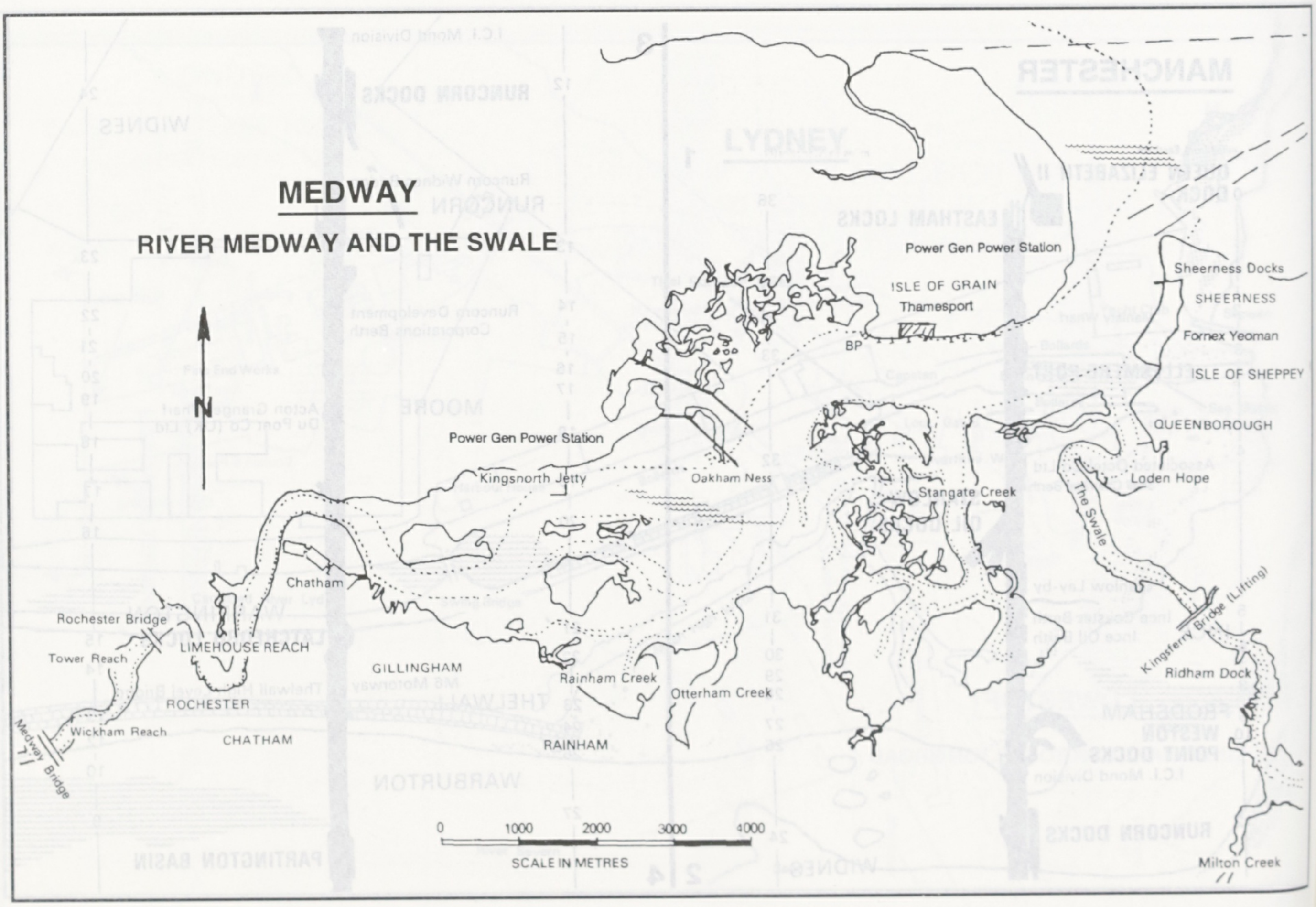
MACDUFF

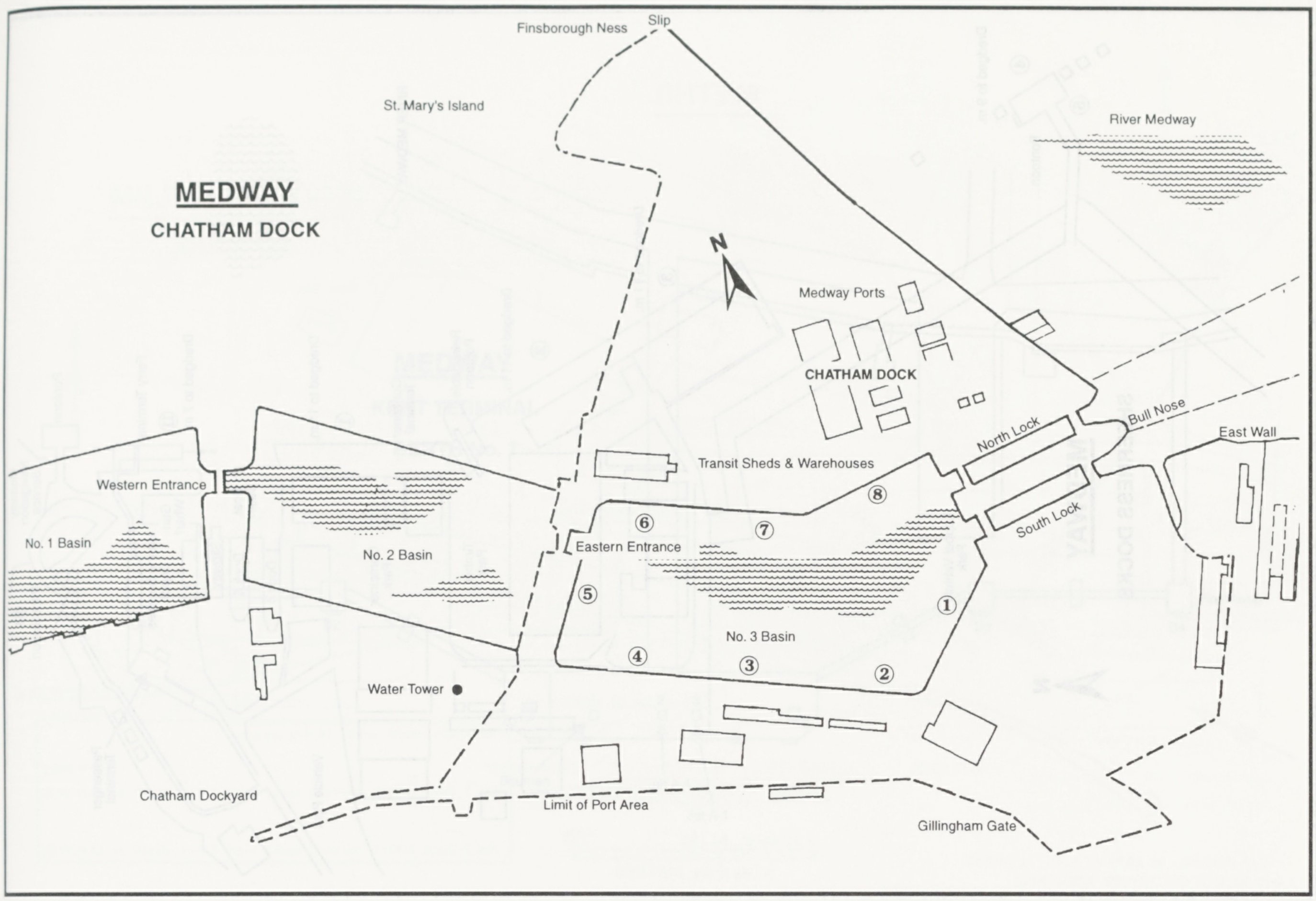

N
Harbour Office
Boatyard
Slipway
Braids of Ness
Princess Royal Basin
Ice Plant
Fishmarket
Pier
Beach
Pier
Lighthouse
West Harbour
West Pier
Rocks
Works
200
0
Scale in Meters

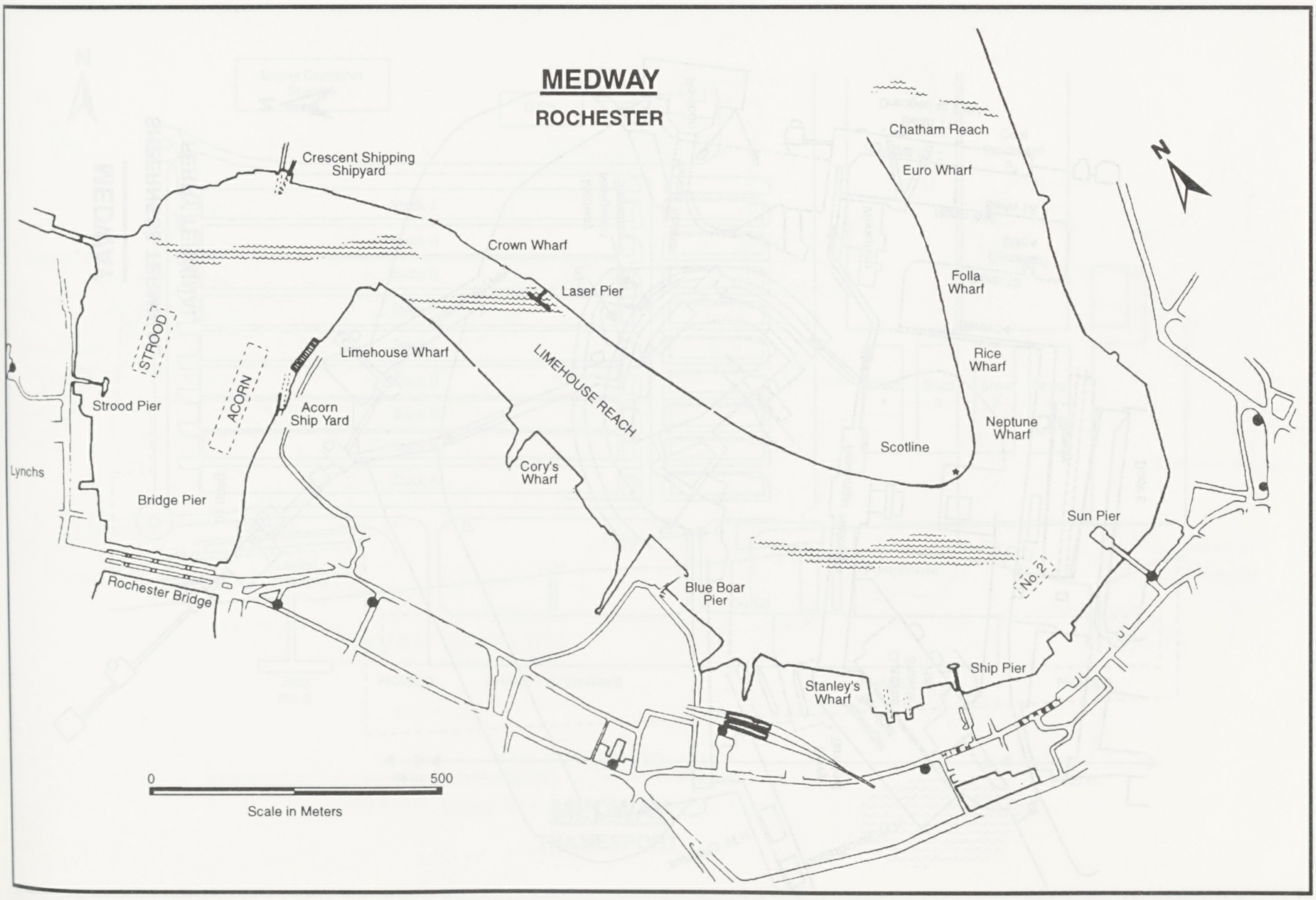
MANCHESTER

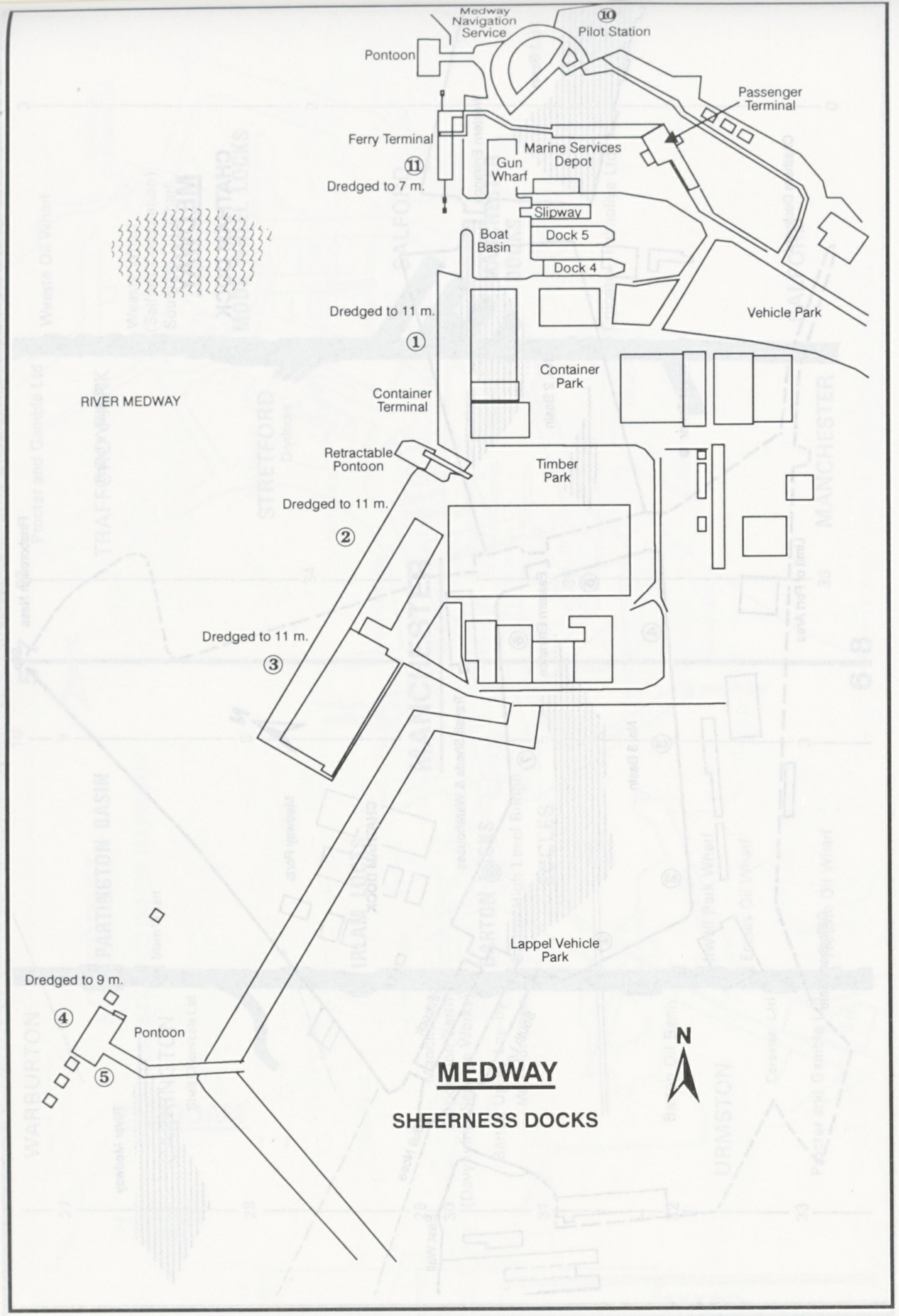

miles from Eastham
miles to Manchester
1
2
3
4
QUEEN ELIZABETH II DOCK
EASTHAM LOCKS
Manisty Wharf
ELLESMERE PORT
Associated Octel Co Ltd
Shell Chemical Berth
STANLOW OIL DOCKS
Stanlow Lay-by
Ince Coaster Berth
Ince Oil Berth
INCE
FRODSHAM
WESTON POINT DOCKS
I.C.I. Mond Division
RUNCORN DOCKS
WIDNES
0
1
2
3
4
5
6
7
8
9
10
12
36
35
34
33
32
31
30
29
28
27
26
24
I.C.I. Mond Division
RUNCORN DOCKS
WIDNES
Runcorn Widnes Bridge
RUNCORN
Runcorn Development Corporations Berth
MOORE
Acton Grange Wharf
Du Pont Co (UK) Ltd
WARRINGTON
LATCHFORD LOCKS
M6 Motorway
Thelwall High Level Bridge
THELWALL
WARBURTON
PARTINGTON BASIN
12
13
14
15
16
17
18
19
20
21
22
23
24
26
27
24
23
22
21
20
19
18
17
16
15
14
13
12
10
9


WARBURTON
27
PARTINGTON BASIN
Irlam Wharf
CARRINGTON
Shell Chemicals Ltd
28
British Rail
IRLAM LOCKS
29
30
Manchester Corporation Berth (Davyhulme Sewage Works)
BARTON LOCKS
Barton Upper Lay-by
M63 Motorway
Barton High Level Bridge
31
ECCLES
32
Barton Oil Berth
URMSTON
Irwell Park Wharf
Eccles Oil Wharf
Cerestar Ltd
33
Procter and Gamble Ltd
Weaste Oil Wharf
10
9
8
5
4
3
5 7
6 8
MANCHESTER
33
Procter and Gamble Ltd
Weaste Oil Wharf
TRAFFORD PARK
Weaste Wharf (Salford Corporation)
Southern Oil Wharf
MODE WHEEL LOCKS
STRETFORD
Drydocks
34
SALFORD
MANCHESTER DOCKS
35
Colgate - Palmolive Ltd
36
MANCHESTER
SALFORD
3
2
1
0


MEDWAY
RIVER MEDWAY AND THE SWALE
N
Power Gen Power Station
ISLE OF GRAIN
Thamesport
BP
Sheerness Docks
SHEERNESS
Fornex Yeoman
ISLE OF SHEPPEY
QUEENBOROUGH
Loden Hope
The Swale
Stangate Creek
Power Gen Power Station
Kingsnorth Jetty
Oakham Ness
Chatham
Rochester Bridge
LIMEHOUSE REACH
Tower Reach
ROCHESTER
Wickham Reach
CHATHAM
Medway Bridge
GILLINGHAM
Rainham Creek
Otterham Creek
RAINHAM
Kingsferry Bridge (Lifting)
Ridham Dock
Milton Creek
0
1000
2000
3000
4000
SCALE IN METRES

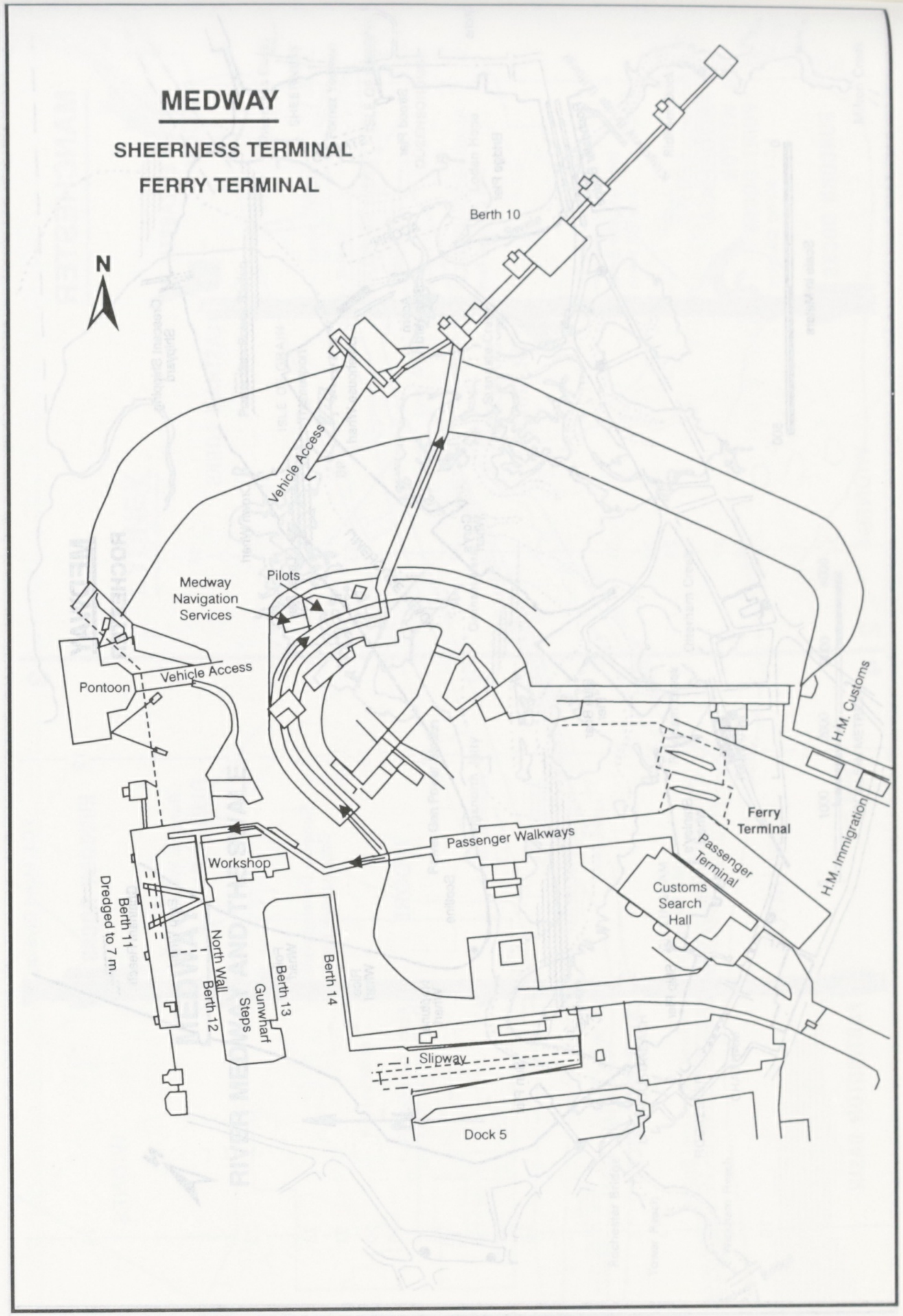

MEDWAY
CHATHAM DOCK
Finsborough Ness
Slip
St. Mary's Island
River Medway
N
Medway Ports
CHATHAM DOCK
North Lock
Bull Nose
East Wall
South Lock
Transit Sheds & Warehouses
Western Entrance
No. 1 Basin
No. 2 Basin
Eastern Entrance
⑥
⑦
⑧
⑤
①
No. 3 Basin
④
③
②
Water Tower
Chatham Dockyard
Limit of Port Area
Gillingham Gate


MEDWAY
ROCHESTER
Chatham Reach
Euro Wharf
N
Crescent Shipping Shipyard
Crown Wharf
Laser Pier
Folla Wharf
STROOD
Limehouse Wharf
LIMEHOUSE REACH
Rice Wharf
ACORN
Strood Pier
Acorn Ship Yard
Neptune Wharf
Scotline
Cory's Wharf
Lynchs
Bridge Pier
Sun Pier
No. 2
Rochester Bridge
Blue Boar Pier
Ship Pier
Stanley's Wharf
0
500
Scale in Meters


Medway
Navigation
Service
⑩
Pilot Station
Pontoon
Passenger
Terminal
Ferry Terminal
Marine Services
Depot
⑪
Gun
Wharf
Dredged to 7 m.
Slipway
Boat
Basin
Dock 5
Dock 4
Vehicle Park
Dredged to 11 m.
①
Container
Park
RIVER MEDWAY
Container
Terminal
Retractable
Pontoon
Timber
Park
Dredged to 11 m.
②
Dredged to 11 m.
③
Lappel Vehicle
Park
Dredged to 9 m.
④
Pontoon
⑤
N

MEDWAY

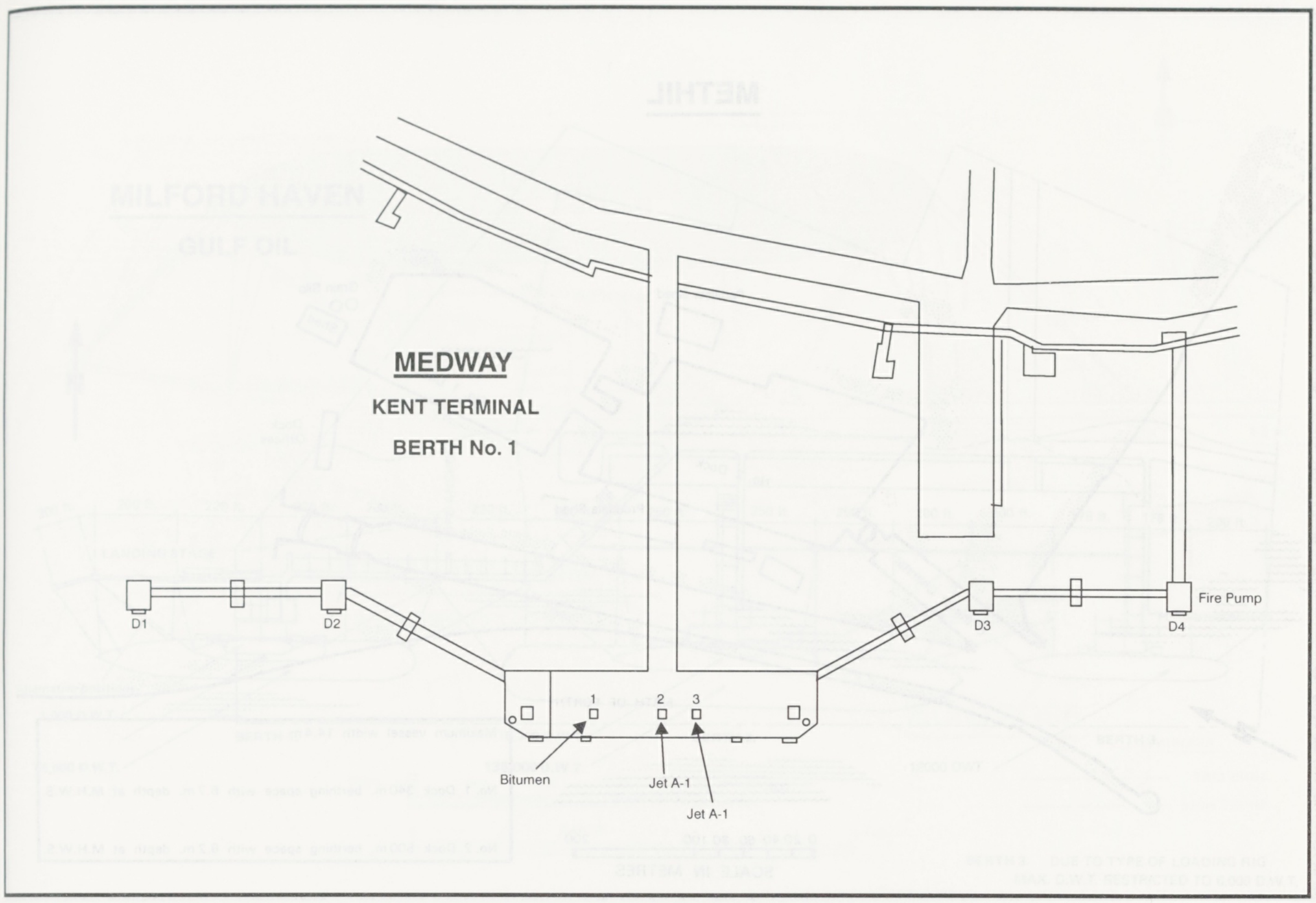
SHEERNESS DOCKS



MEDWAY

SHEERNESS TERMINAL FERRY TERMINAL

Berth 10
N
Vehicle Access
Medway
Navigation
Services
Pilots
Pontoon
Vehicle Access
H.M. Customs
Ferry
Terminal
Passenger Walkways
Passenger
Terminal
H.M. Immigration
Workshop
Customs
Search
Hall
Berth 11
Dredged to 7 m.
North Wall
Berth 12
Gunwharf
Steps
Berth 13
Berth 14
Slipway
Dock 5

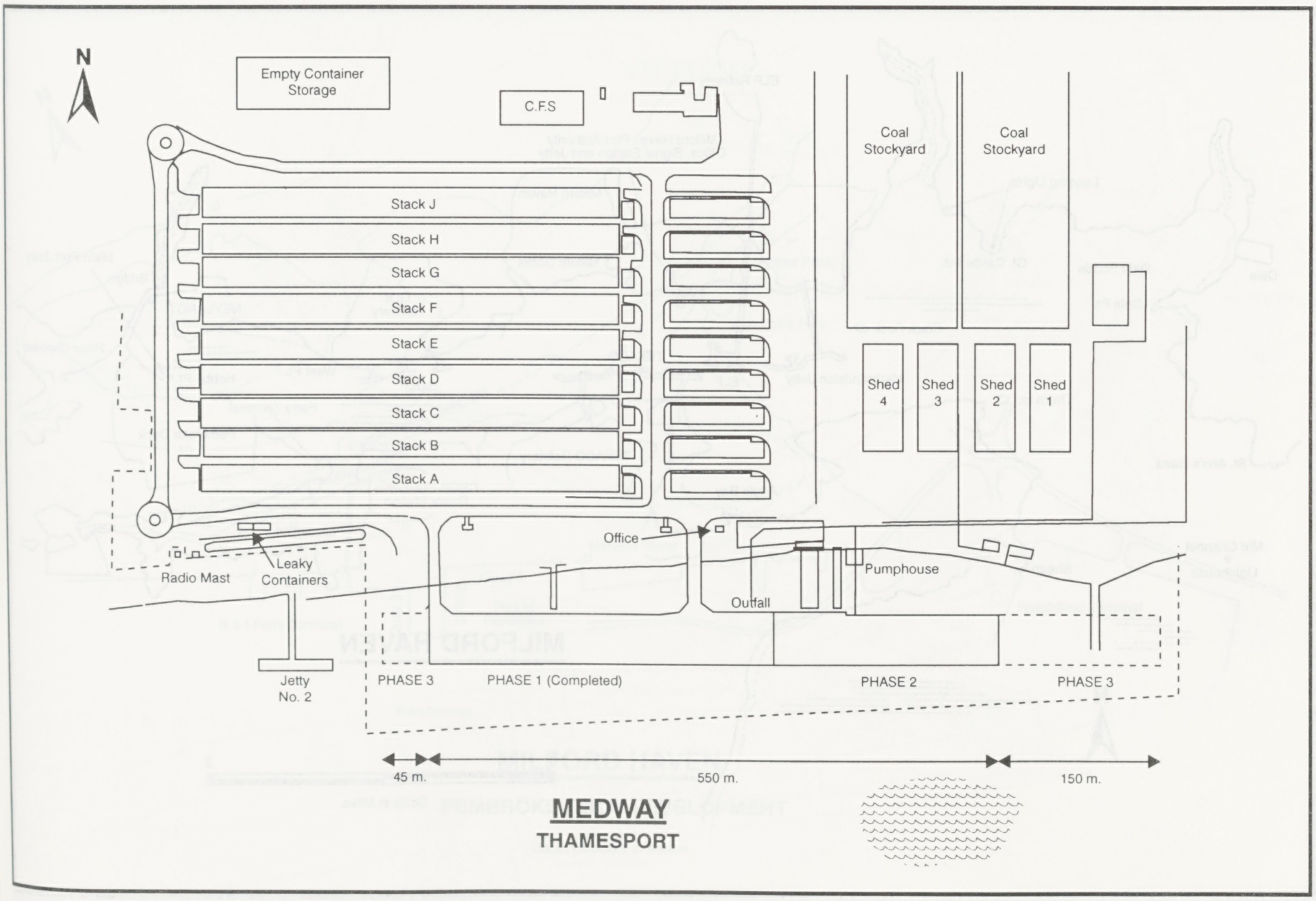


MEDWAY

KENT TERMINAL

BERTH No. 1

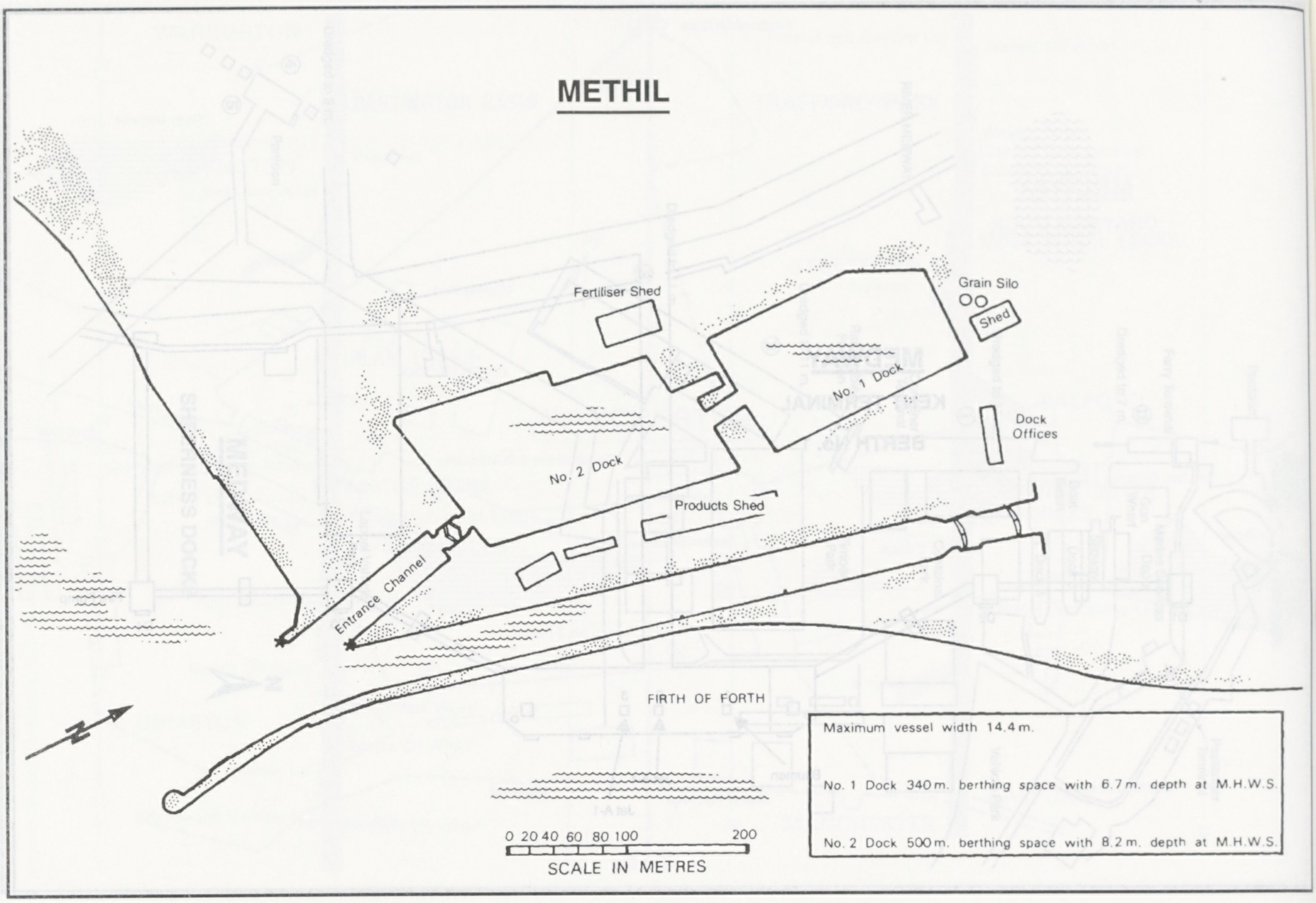
D1
D2
D3
D4
Fire Pump
1
2
3
Bitumen
Jet A-1
Jet A-1



MEDWAY

THAMESPORT

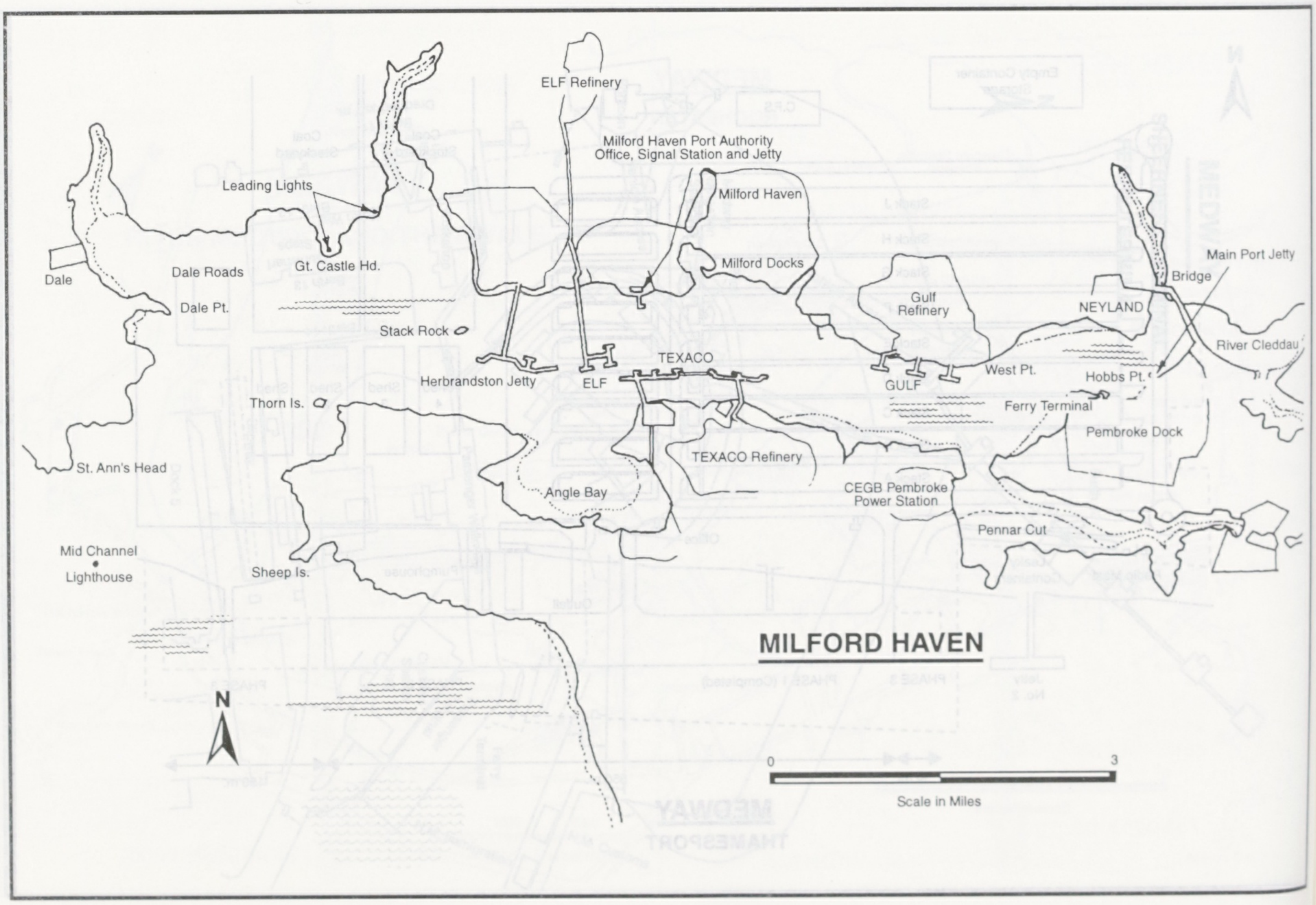
N
Empty Container Storage
C.F.S
Coal Stockyard
Coal Stockyard
Stack J
Stack H
Stack G
Stack F
Stack E
Stack D
Stack C
Stack B
Stack A
Shed 4
Shed 3
Shed 2
Shed 1
Office
Pumphouse
Outfall
Radio Mast
Leaky Containers
Jetty No. 2
PHASE 3
PHASE 1 (Completed)
PHASE 2
PHASE 3
45 m.
550 m.
150 m.

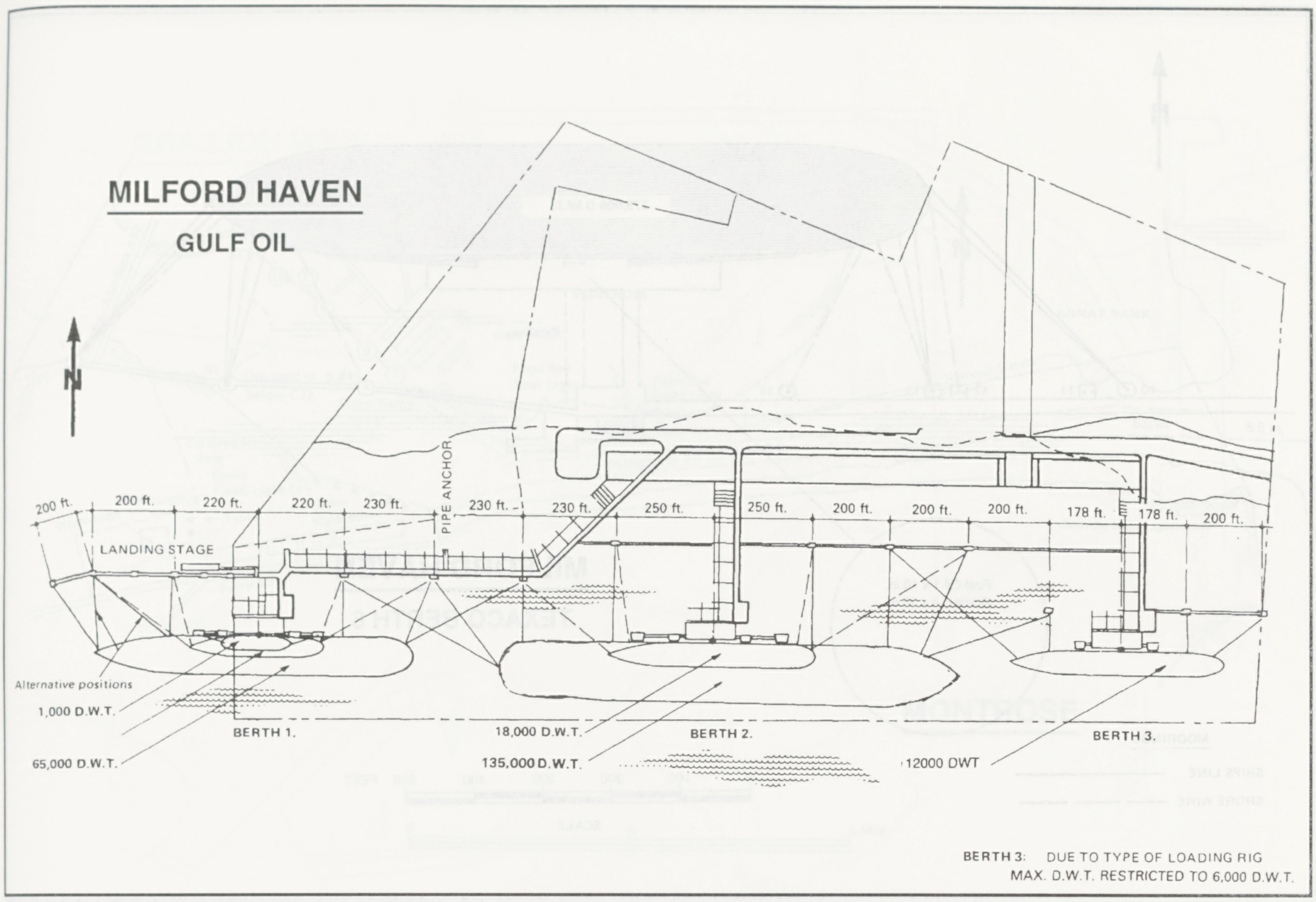

METHIL
Fertiliser Shed
Grain Silo
Shed
No. 1 Dock
Dock Offices
No. 2 Dock
Products Shed
Entrance Channel
FIRTH OF FORTH
N
0 20 40 60 80 100 200
SCALE IN METRES

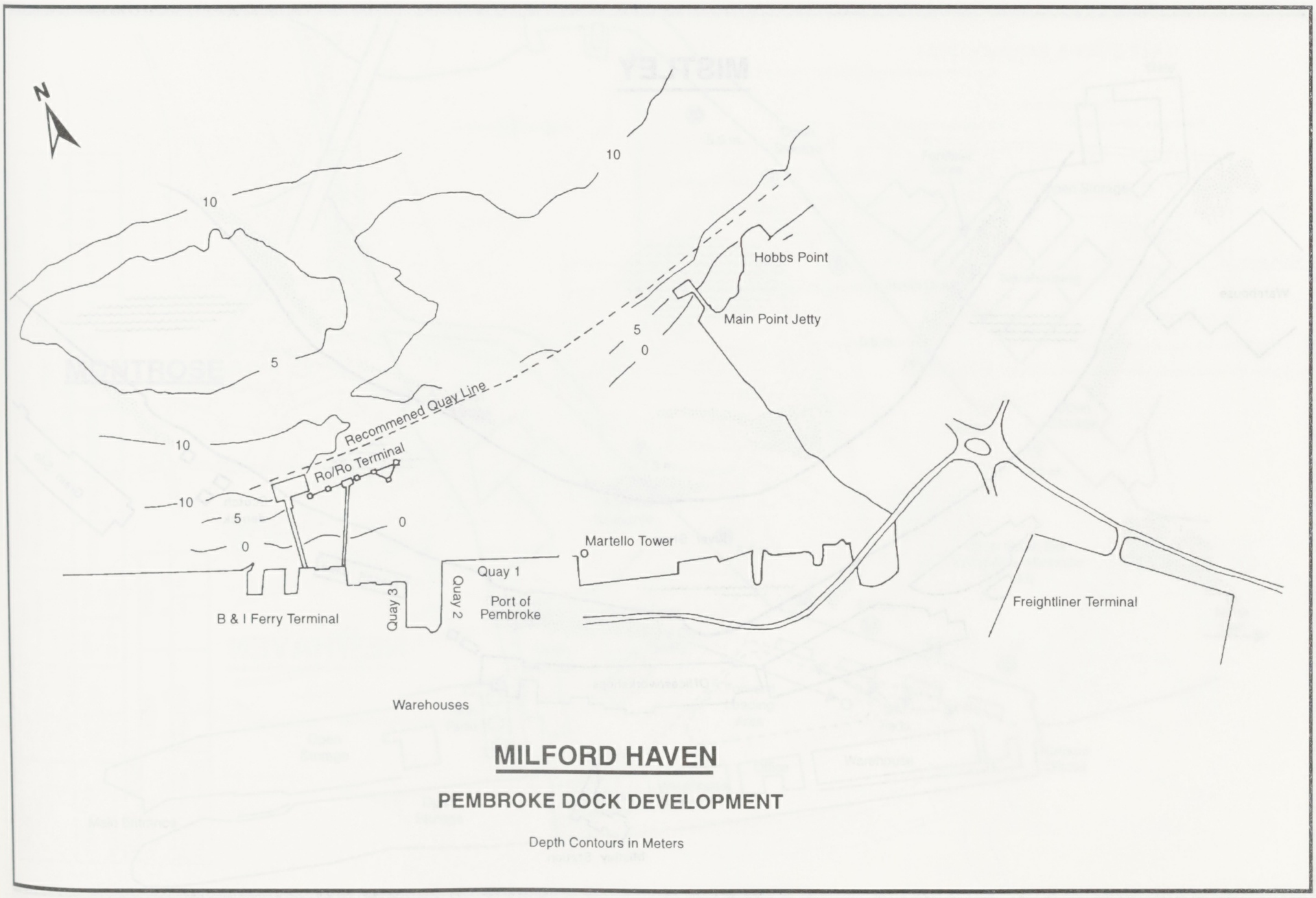
Maximum vessel width 14.4 m.

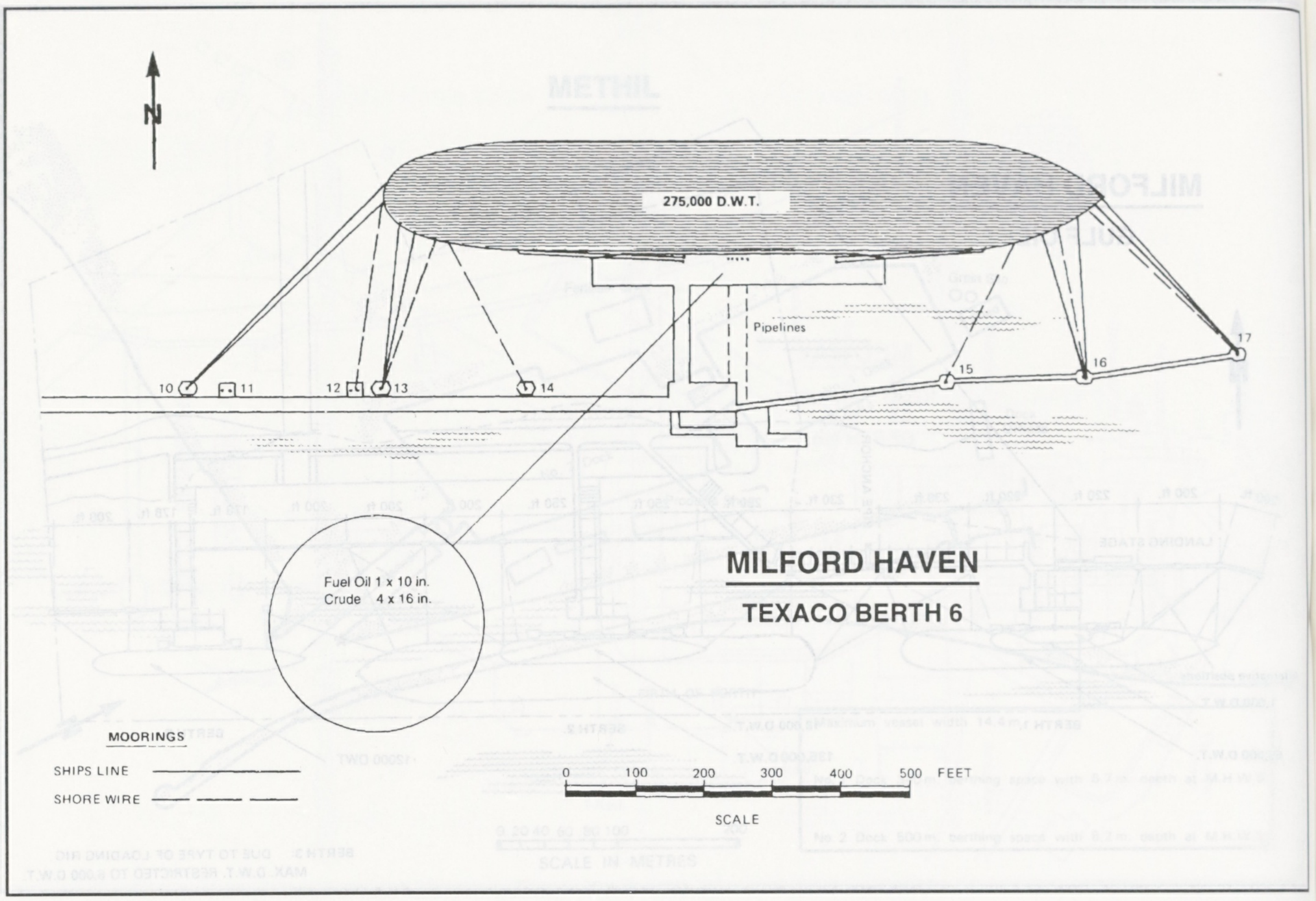
No. 1 Dock 340 m. berthing space with 6.7 m. depth at M.H.W.S.

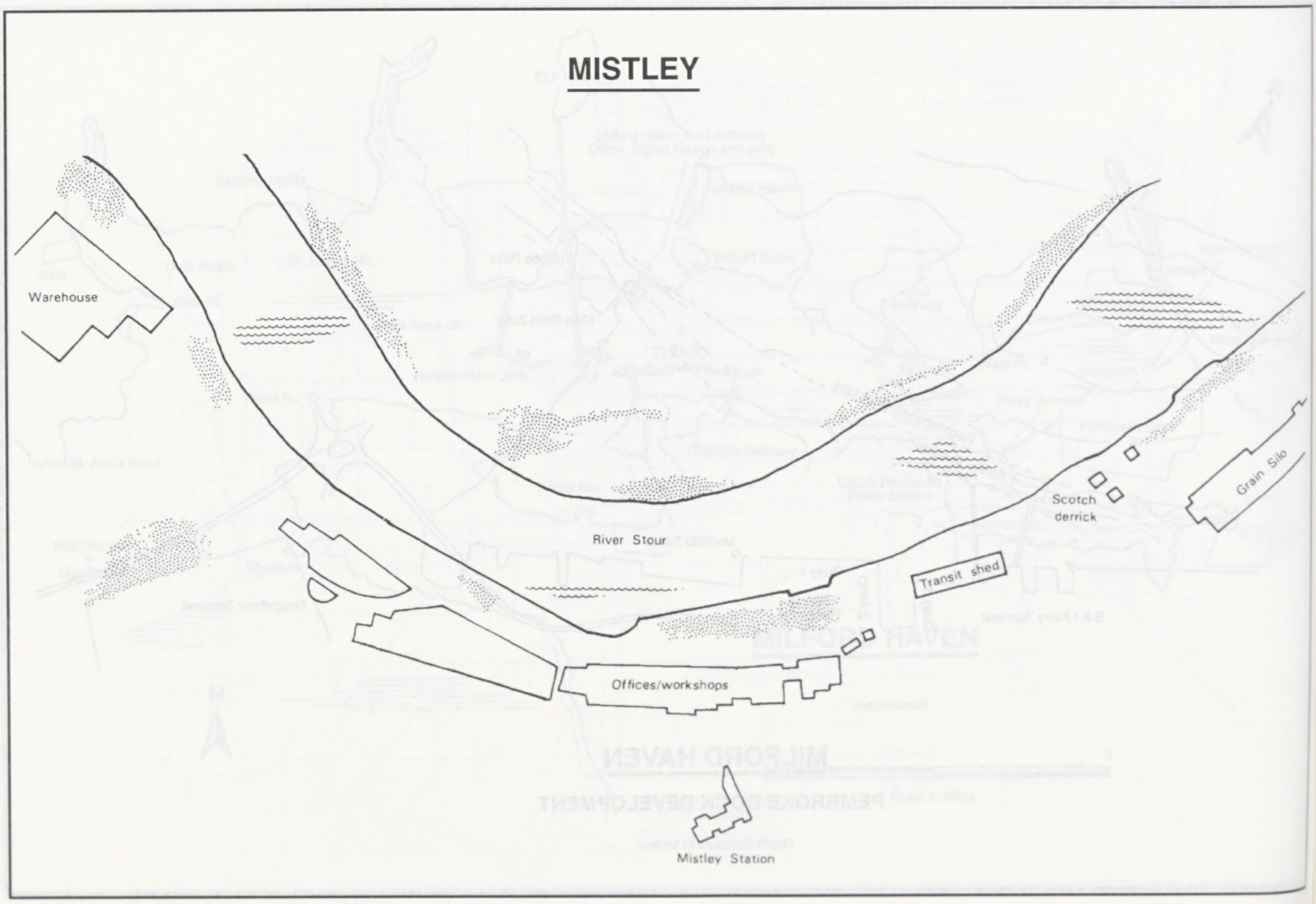
No. 2 Dock 500 m. berthing space with 8.2 m. depth at M.H.W.S.

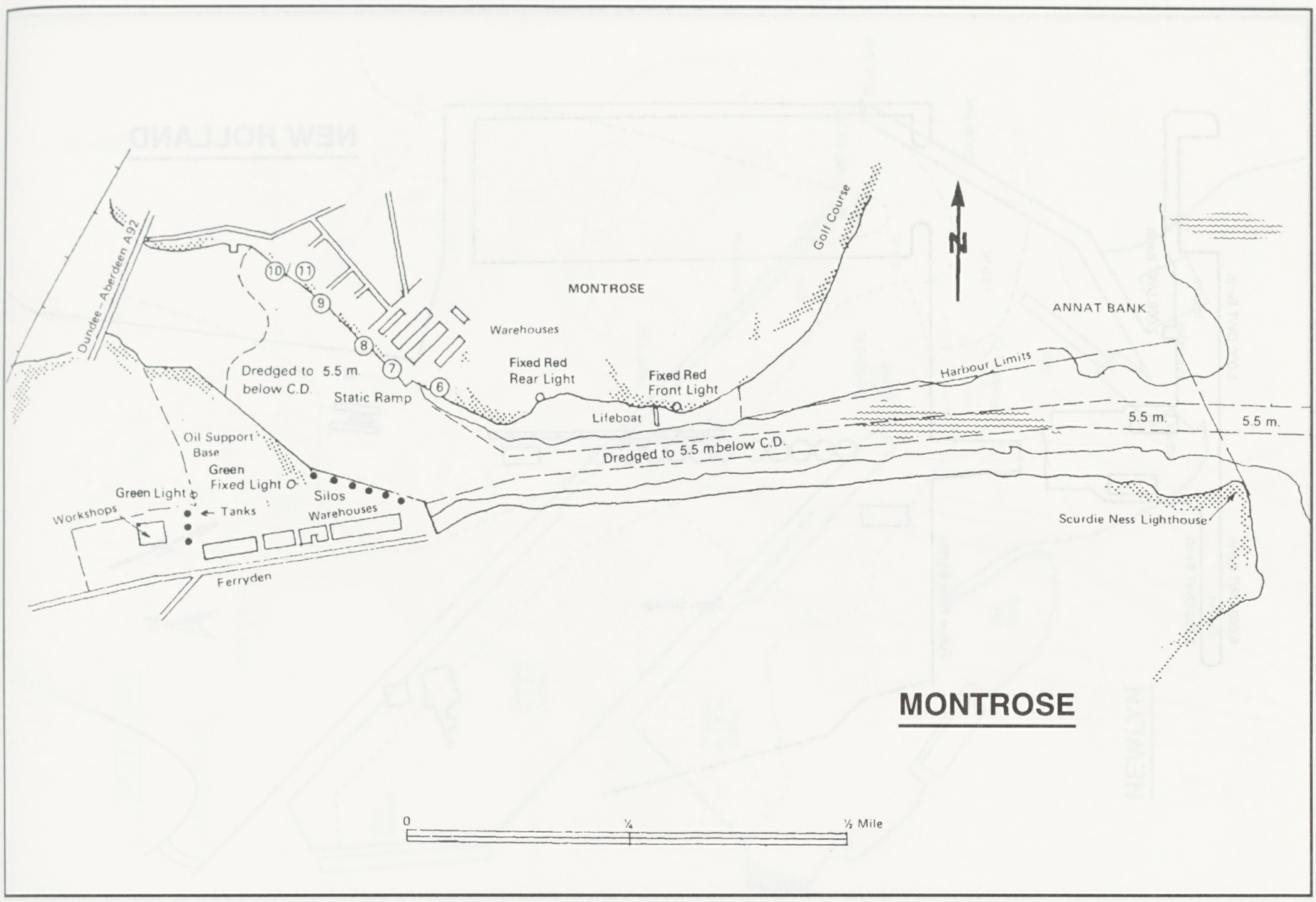

ELF Refinery
Milford Haven Port Authority Office, Signal Station and Jetty
Leading Lights
Milford Haven
Milford Docks
Dale
Dale Roads
Gt. Castle Hd.
Dale Pt.
Gulf Refinery
NEYLAND
Main Port Jetty
Bridge
River Cleddau
Stack Rock
TEXACO
Herbrandston Jetty
ELF
GULF
West Pt.
Hobbs Pt.
Thorn Is.
Ferry Terminal
Pembroke Dock
TEXACO Refinery
St. Ann's Head
Angle Bay
CEGB Pembroke Power Station
Pennar Cut
Mid Channel Lighthouse
Sheep Is.
MILFORD HAVEN
N
0
3
Scale in Miles

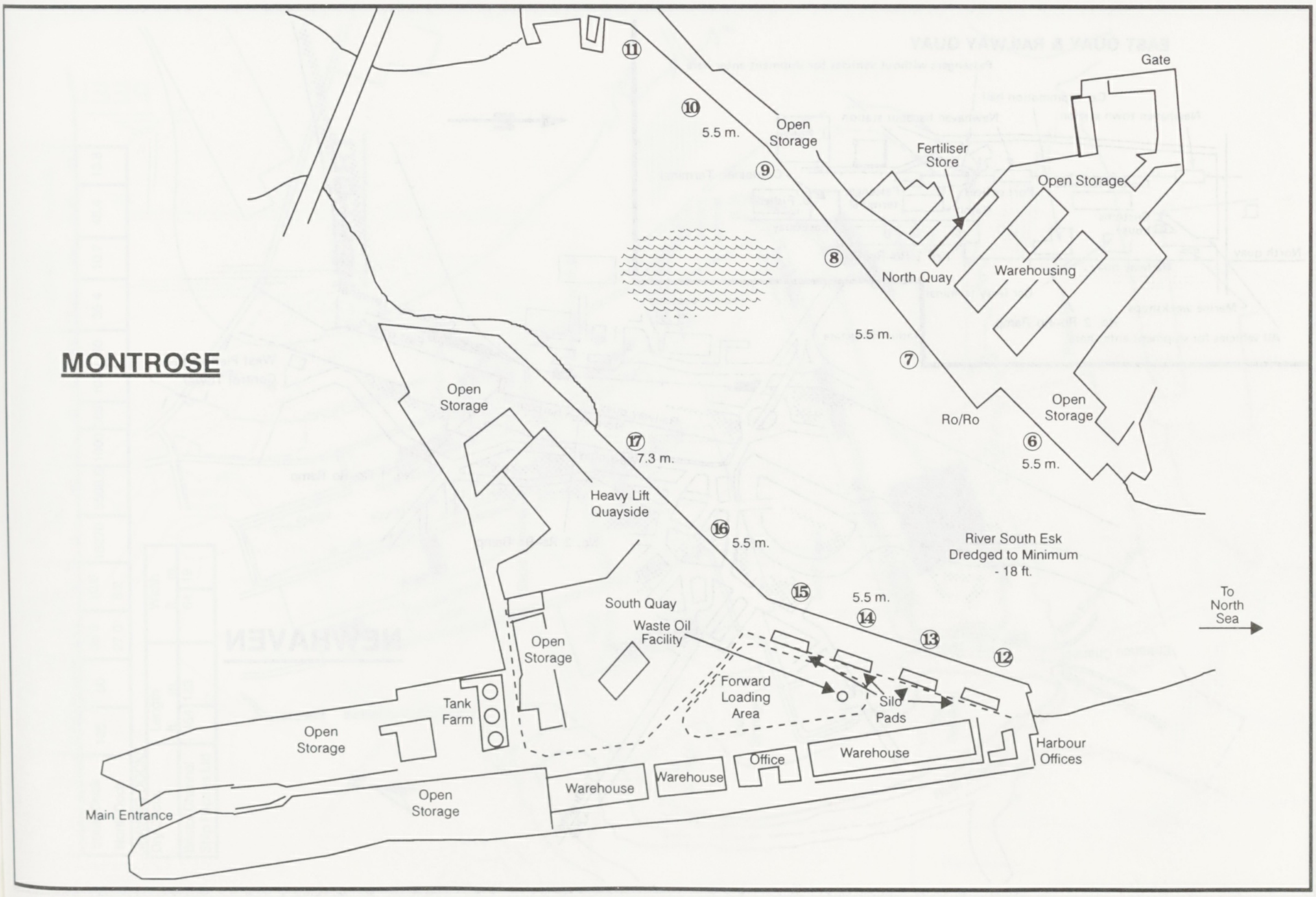

MILFORD HAVEN
GULF OIL
N
200 ft.
200 ft.
220 ft.
220 ft.
230 ft.
PIPE ANCHOR
230 ft.
230 ft.
250 ft.
250 ft.
200 ft.
200 ft.
200 ft.
178 ft.
178 ft.
200 ft.
LANDING STAGE
Alternative positions
1,000 D.W.T.
65,000 D.W.T.
BERTH 1.
18,000 D.W.T.
135,000 D.W.T.
BERTH 2.
12000 DWT
BERTH 3.
BERTH 3: DUE TO TYPE OF LOADING RIG
MAX. D.W.T. RESTRICTED TO 6,000 D.W.T.

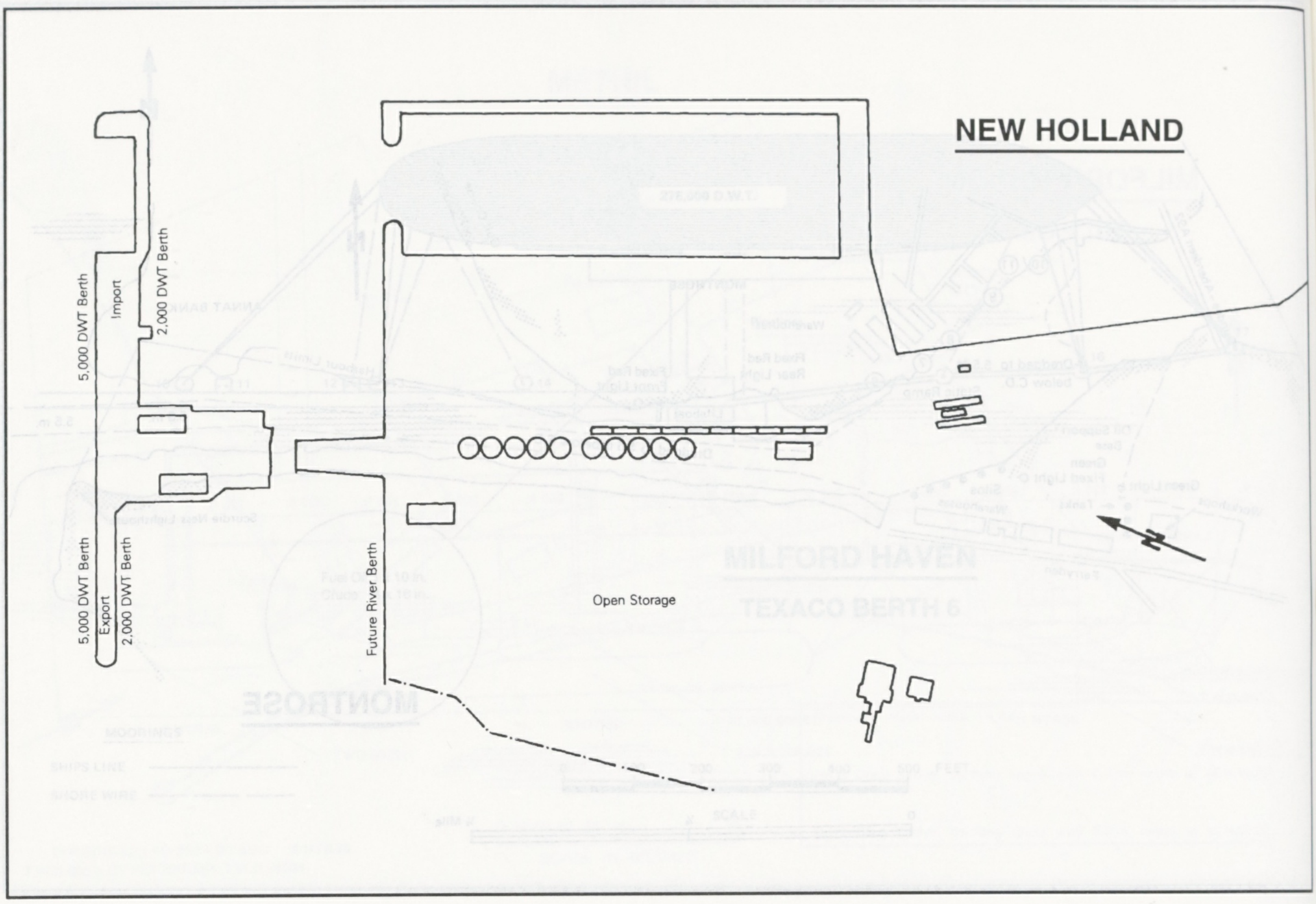

N
10
10
5
10
10
5
0
5
0
0
Hobbs Point
Main Point Jetty
Recommened Quay Line
Ro/Ro Terminal
Martello Tower
Quay 1
Quay 2
Quay 3
Port of Pembroke
B & I Ferry Terminal
Freightliner Terminal
Warehouses
MILFORD HAVEN
PEMBROKE DOCK DEVELOPMENT
Depth Contours in Meters


N
275,000 D.W.T.
Pipelines
10
11
12
13
14
15
16
17
Fuel Oil 1 x 10 in.
Crude 4 x 16 in.
MILFORD HAVEN
TEXACO BERTH 6
MOORINGS
SHIPS LINE
SHORE WIRE
0
100
200
300
400
500
FEET
SCALE


MISTLEY
Warehouse
River Stour
Scotch derrick
Grain Silo
Transit shed
Offices/workshops
Mistley Station

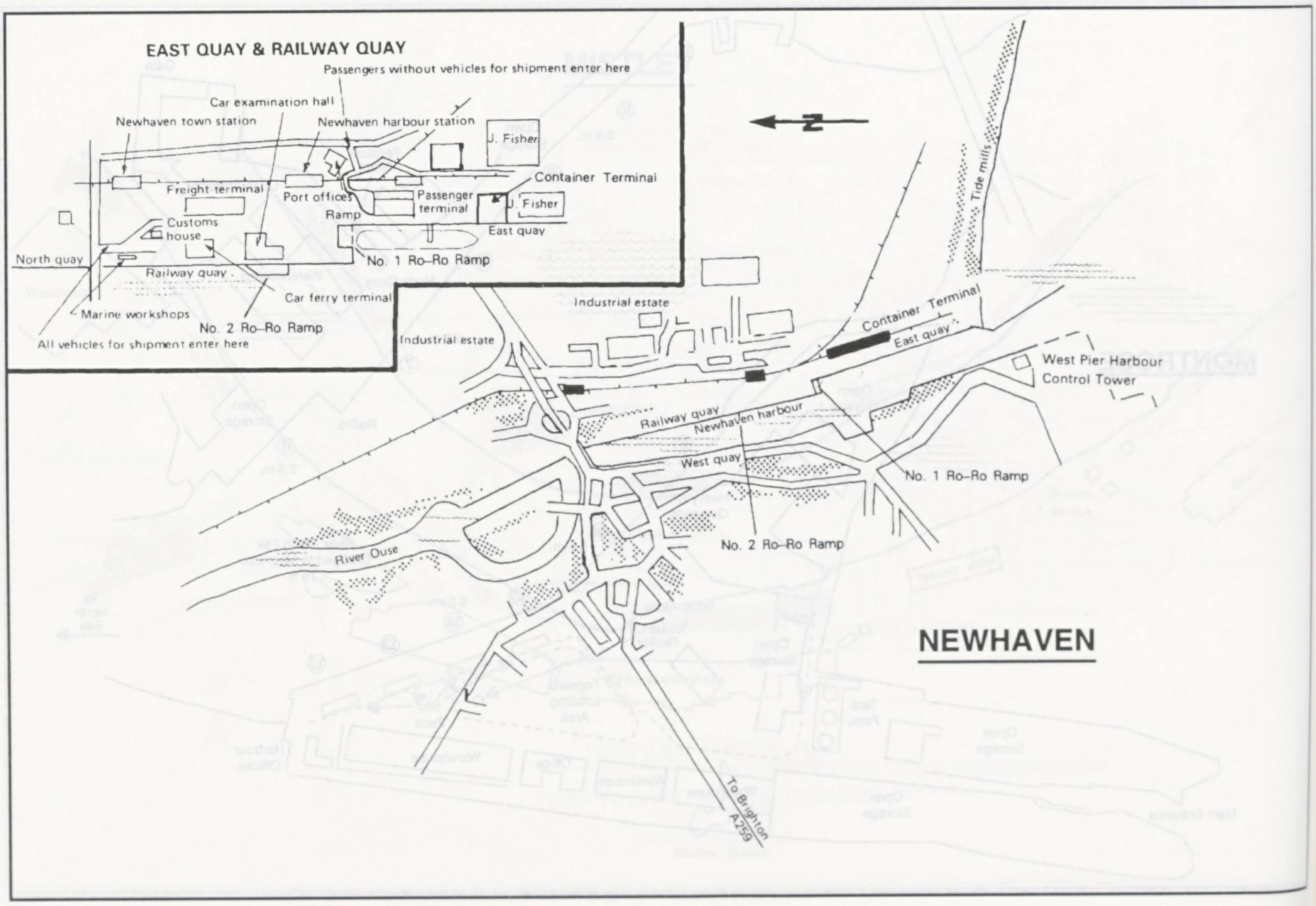

MONTROSE
Dundee – Aberdeen A92
⑩ ⑪
⑨
⑧
⑦
⑥
Dredged to 5.5 m.
below C.D.
Static Ramp
Oil Support
Base
Green
Fixed Light
Green Light
Workshops
Tanks
Silos
Warehouses
Ferryden
MONTROSE
Warehouses
Fixed Red
Rear Light
Fixed Red
Front Light
Lifeboat
Golf Course
N
ANNAT BANK
Harbour Limits
5.5 m.
5.5 m.
Dredged to 5.5 m below C.D.
Scurdie Ness Lighthouse
0
¼
½ Mile


MONTROSE
⑪
⑩
5.5 m.
Open
Storage
⑨
Fertiliser
Store
Gate
Open Storage
⑧
North Quay
Warehousing
5.5 m.
⑦
Ro/Ro
Open
Storage
⑥
5.5 m.
Open
Storage
⑰
7.3 m.
Heavy Lift
Quayside
⑯
5.5 m.
River South Esk
Dredged to Minimum
- 18 ft.
⑮
5.5 m.
⑭
⑬
⑫
To
North
Sea
South Quay
Waste Oil
Facility
Open
Storage
Forward
Loading
Area
Silo
Pads
Tank
Farm
Open
Storage
Office
Warehouse
Harbour
Offices
Warehouse
Warehouse
Open
Storage
Main Entrance



NEW HOLLAND

5,000 DWT Berth
Import
2,000 DWT Berth
5,000 DWT Berth
Export
2,000 DWT Berth
Future River Berth
Open Storage



EAST QUAY & RAILWAY QUAY
Passengers without vehicles for shipment enter here
Car examination hall
Newhaven town station
Newhaven harbour station
J. Fisher
Container Terminal
Freight terminal
Port offices
Passenger terminal
Ramp
J. Fisher
Customs house
East quay
North quay
No. 1 Ro–Ro Ramp
Railway quay
Car ferry terminal
Marine workshops
No. 2 Ro–Ro Ramp
All vehicles for shipment enter here
Industrial estate
Industrial estate
Tide mills
Container Terminal
East quay
West Pier Harbour Control Tower
Railway quay
Newhaven harbour
West quay
No. 1 Ro–Ro Ramp
River Ouse
No. 2 Ro–Ro Ramp
To Brighton A259

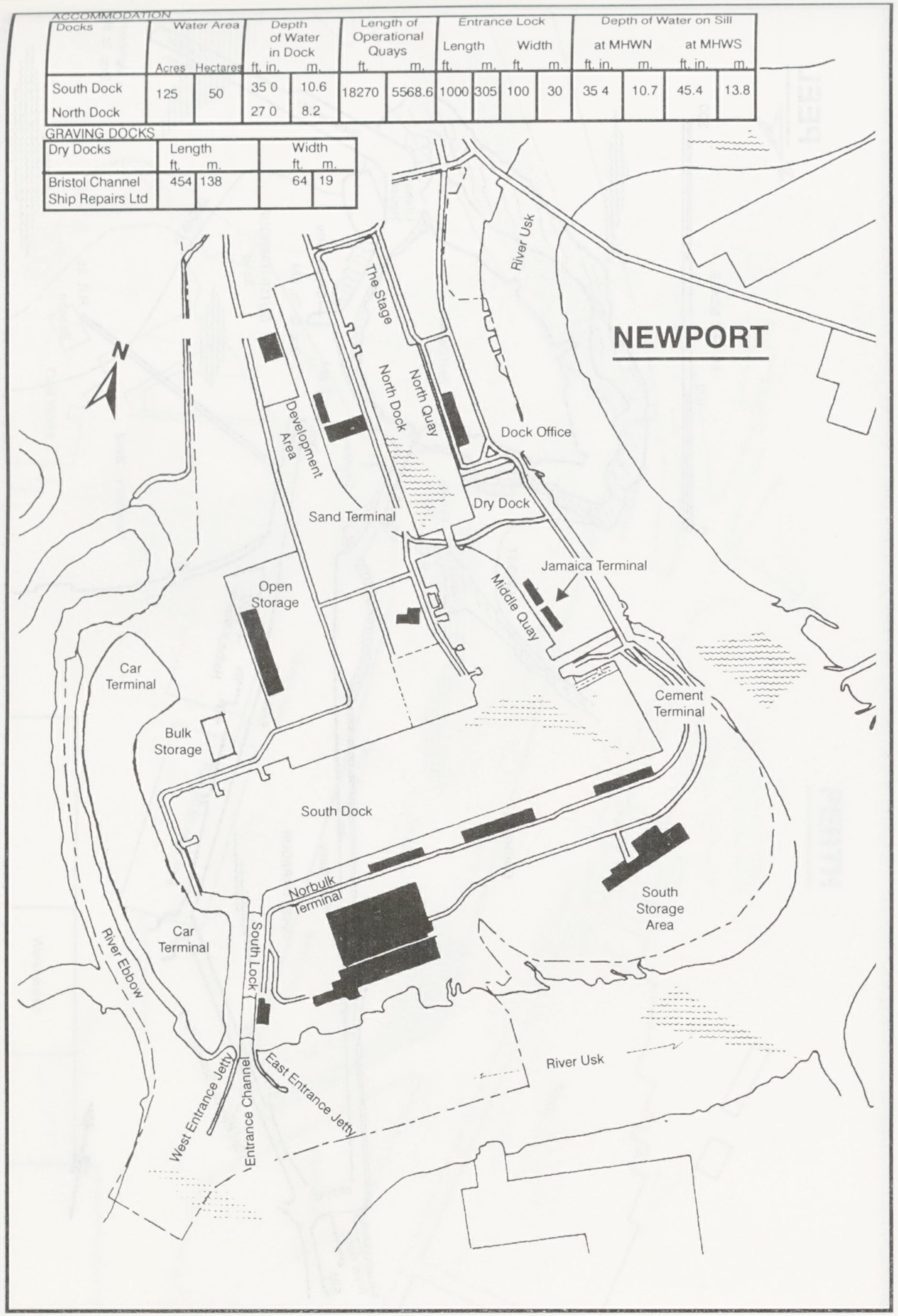
NEWHAVEN

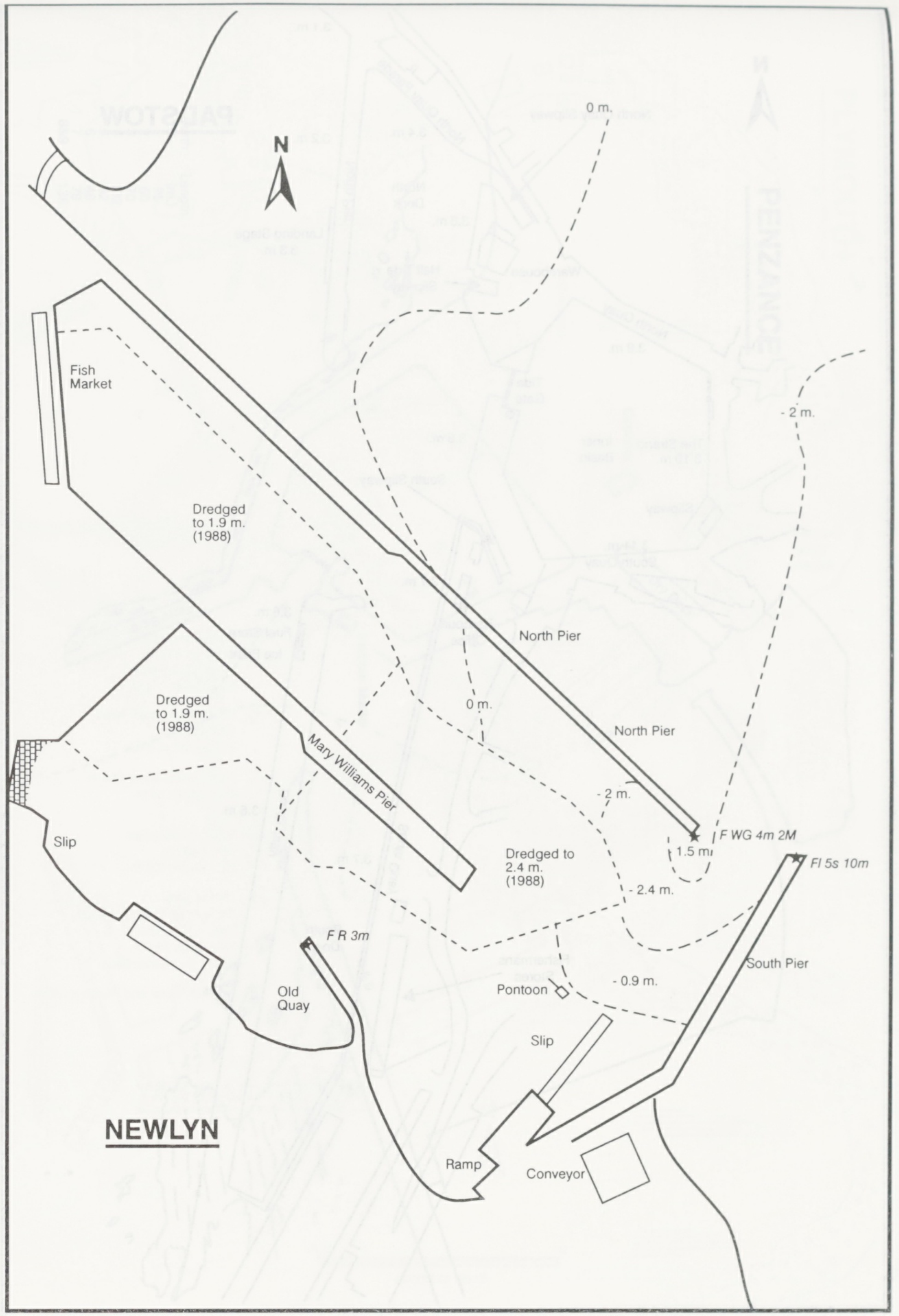
ACCOMMODATION

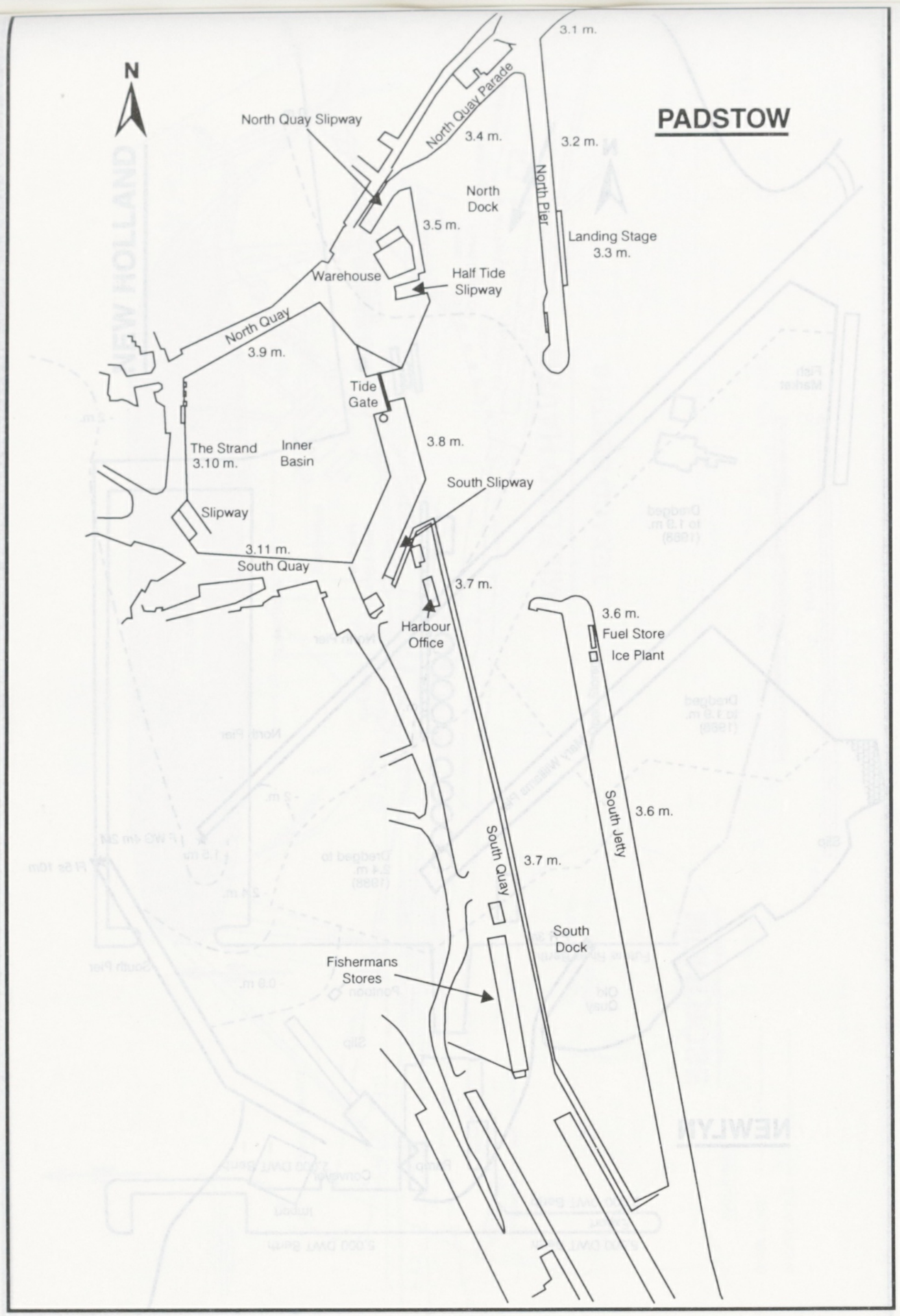
Docks	Water Area		Depth of Water in Dock		Length of Operational Quays		Entrance Lock				Depth of Water on Sill			
							Length		Width		at MHWN		at MHWS	
	Acres	Hectares	ft. in.	m.	ft.	m.	ft.	m.	ft.	m.	ft. in.	m.	ft. in.	m.
South Dock	125	50	35 0	10.6	18270	5568.6	1000	305	100	30	35 4	10.7	45.4	13.8
North Dock			27 0	8.2										

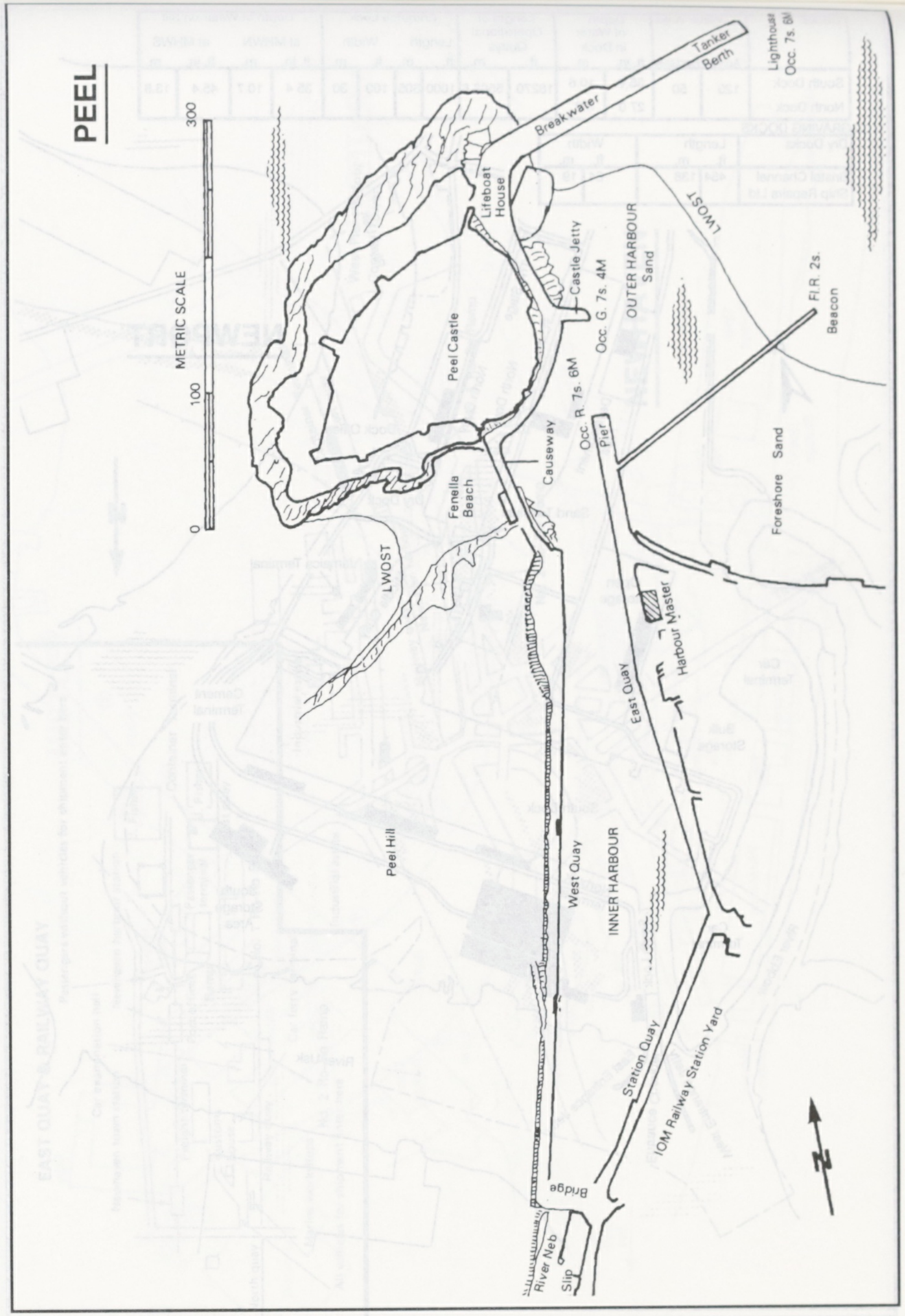
GRAVING DOCKS

Dry Docks	Length		Width	
	ft.	m.	ft.	m.
Bristol Channel Ship Repairs Ltd	454	138	64	19

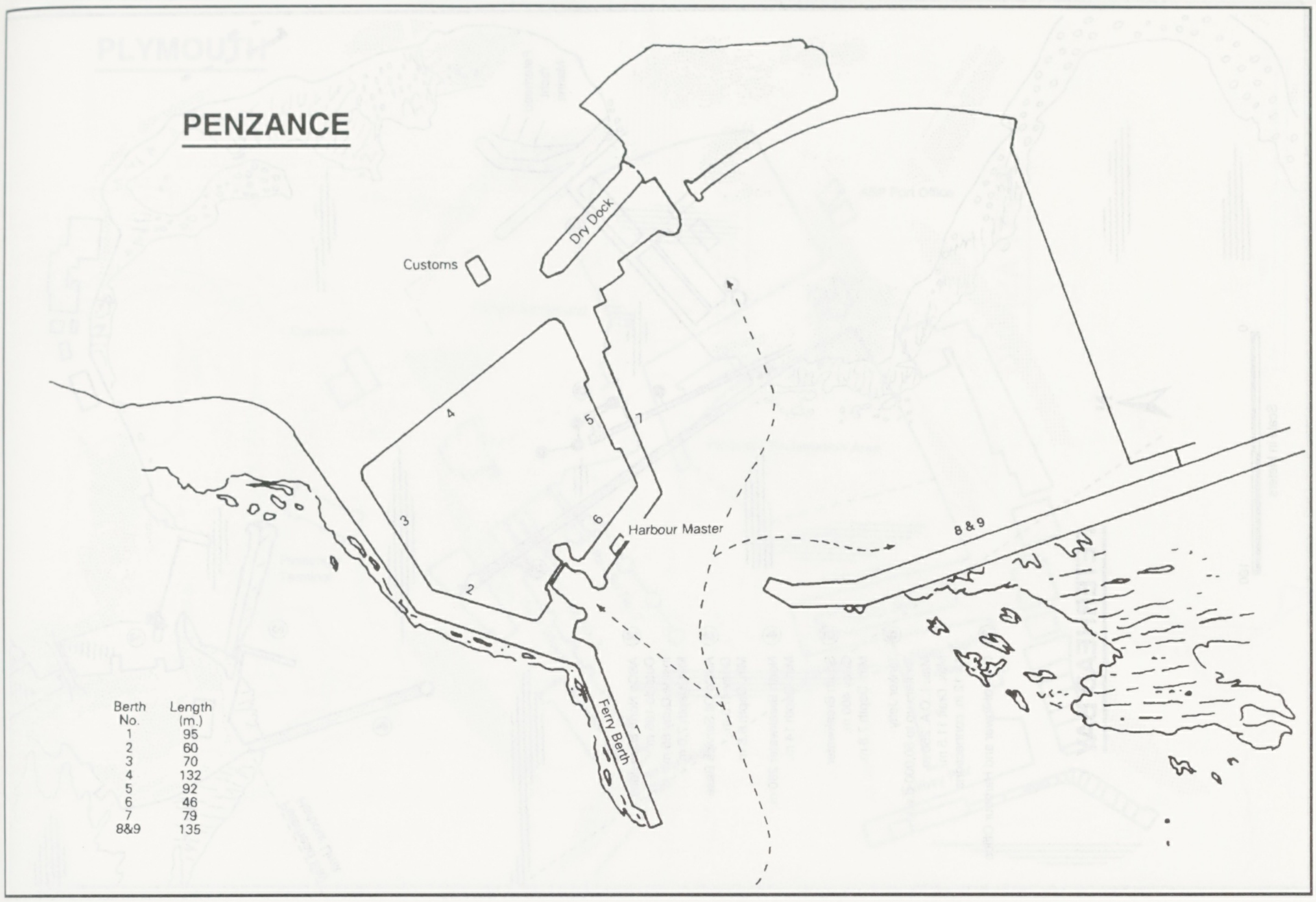

NEWPORT
N
River Usk
The Stage
North Dock
North Quay
Dock Office
Development Area
Sand Terminal
Dry Dock
Jamaica Terminal
Open Storage
Middle Quay
Car Terminal
Cement Terminal
Bulk Storage
South Dock
Norbulk Terminal
South Storage Area
Car Terminal
River Ebbow
South Lock
River Usk
West Entrance Jetty
Entrance Channel
East Entrance Jetty


N
0 m.
Fish Market
- 2 m.
Dredged to 1.9 m. (1988)
North Pier
Dredged to 1.9 m. (1988)
0 m.
North Pier
Mary Williams Pier
- 2 m.
F WG 4m 2M
1.5 m
Fl 5s 10m
Slip
Dredged to 2.4 m. (1988)
- 2.4 m.
F R 3m
South Pier
Old Quay
Pontoon
- 0.9 m.
Slip
NEWLYN
Ramp
Conveyor


PADSTOW
N
3.1 m.
North Quay Slipway
North Quay Parade
3.4 m.
3.2 m.
North Dock
North Pier
3.5 m.
Landing Stage
3.3 m.
Warehouse
Half Tide Slipway
North Quay
3.9 m.
Tide Gate
3.8 m.
The Strand
3.10 m.
Inner Basin
South Slipway
Slipway
3.11 m.
South Quay
3.7 m.
Harbour Office
3.6 m.
Fuel Store
Ice Plant
South Jetty
3.6 m.
South Quay
3.7 m.
South Dock
Fishermans Stores

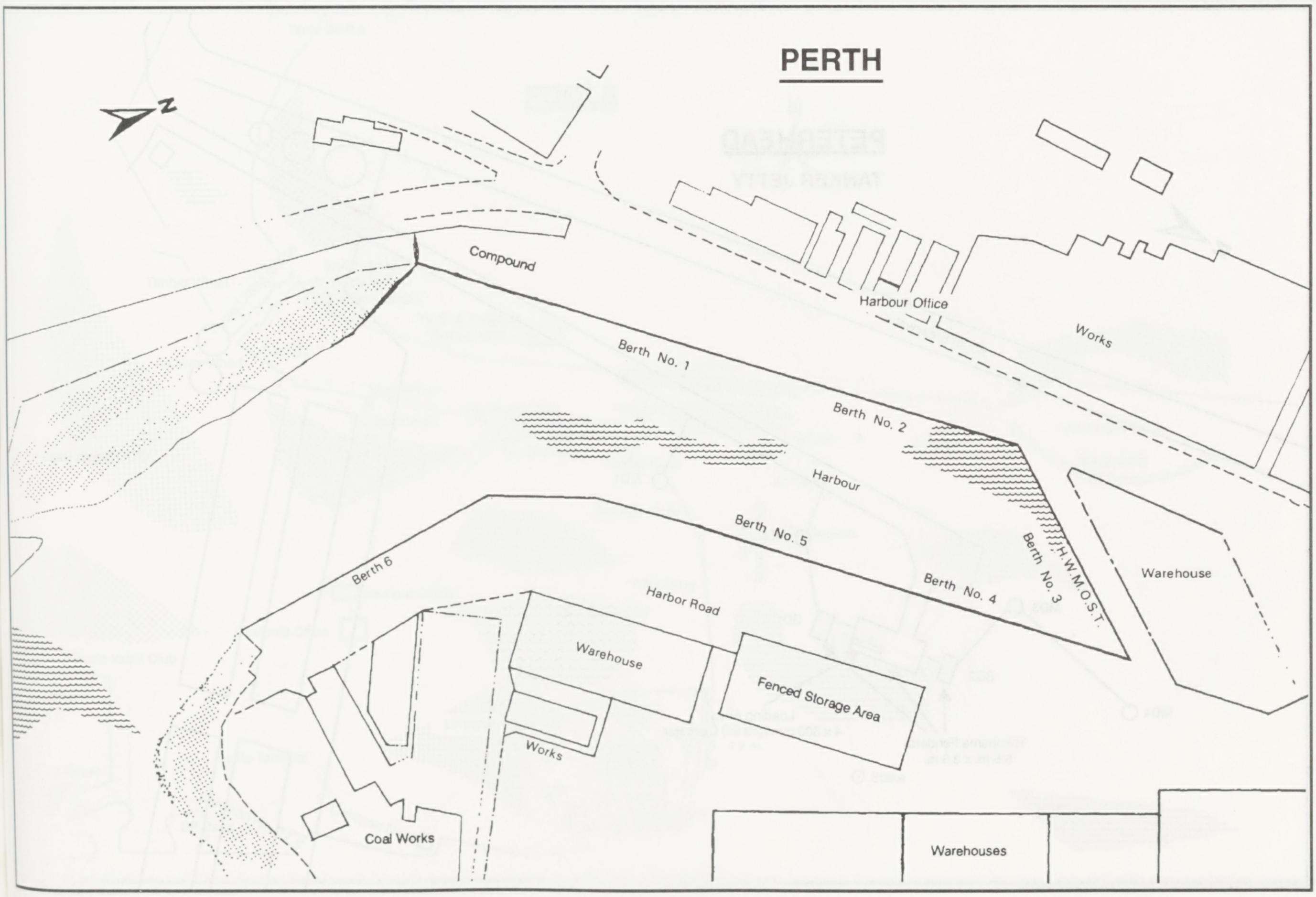

PEEL
METRIC SCALE
0
100
300
Lighthouse Occ. 7s. 6M
Tanker Berth
Breakwater
Lifeboat House
Castle Jetty
Peel Castle
OUTER HARBOUR Sand
Occ. G. 7s. 4M
Occ. R. 7s. 6M
Fl.R. 2s. Beacon
LWOST
Causeway
Pier
Fenella Beach
LWOST
Foreshore Sand
Harbour Master
East Quay
Peel Hill
West Quay
INNER HARBOUR
Station Quay
IOM Railway Station Yard
Bridge
River Neb
Slip
N

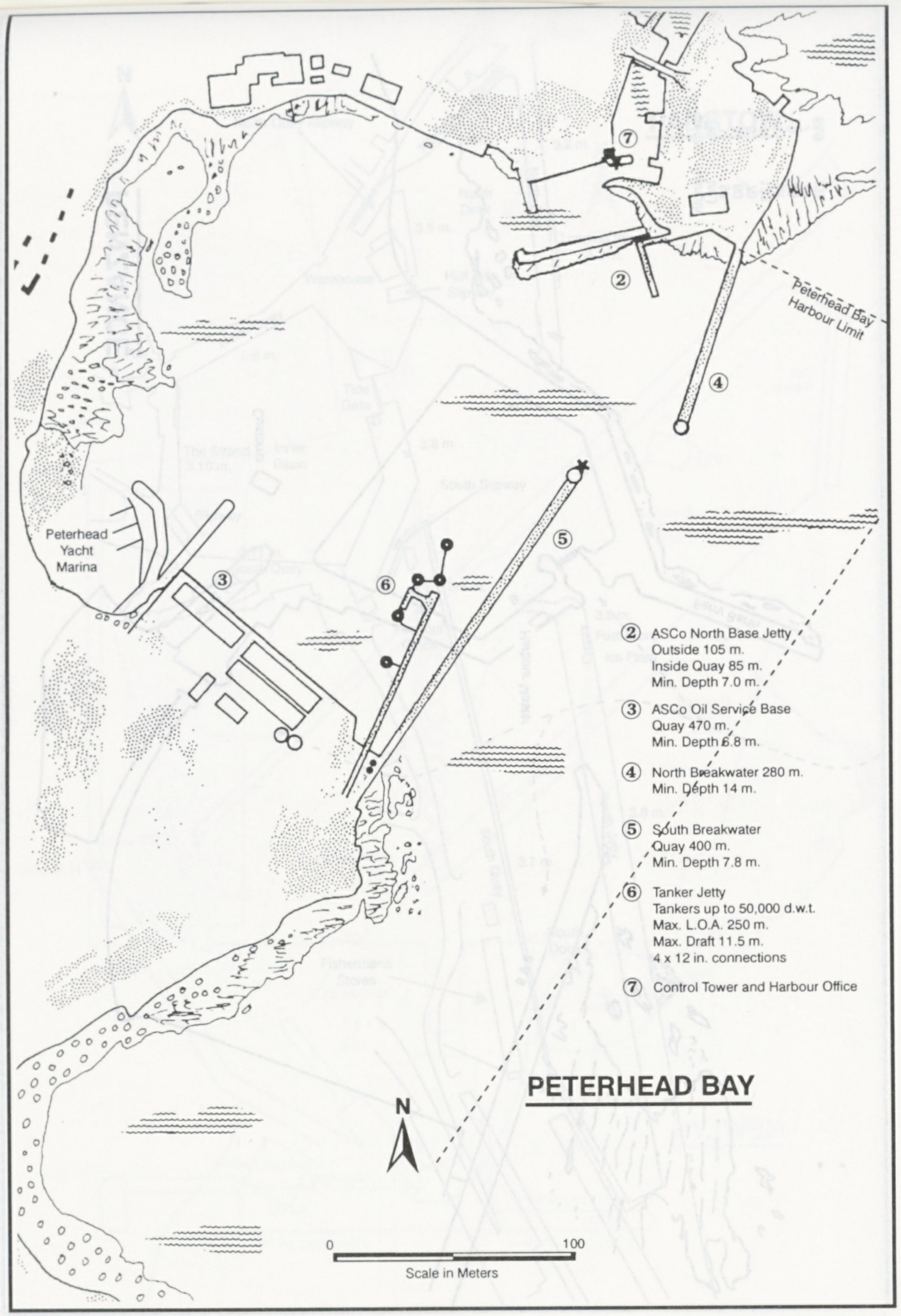
PENZANCE


Customs
Dry Dock
Harbour Master
Ferry Berth
1
2
3
4
5
6
7
8 & 9

Berth No.	Length (m.)
1	95
2	60
3	70
4	132
5	92
6	46
7	79
8&9	135

PERTH


N
Compound
Harbour Office
Works
Berth No. 1
Berth No. 2
Harbour
Berth No. 5
Berth No. 4
Berth No. 3
H.W.M.O.S.T.
Warehouse
Berth 6
Harbor Road
Warehouse
Fenced Storage Area
Works
Coal Works
Warehouses


Peterhead Yacht Marina
Peterhead Bay Harbour Limit
②
③
④
⑤
⑥
⑦
N
0
100
Scale in Meters

PETERHEAD BAY

② ASCo North Base Jetty
Outside 105 m.
Inside Quay 85 m.
Min. Depth 7.0 m.

③ ASCo Oil Service Base
Quay 470 m.
Min. Depth 6.8 m.

④ North Breakwater 280 m.
Min. Depth 14 m.

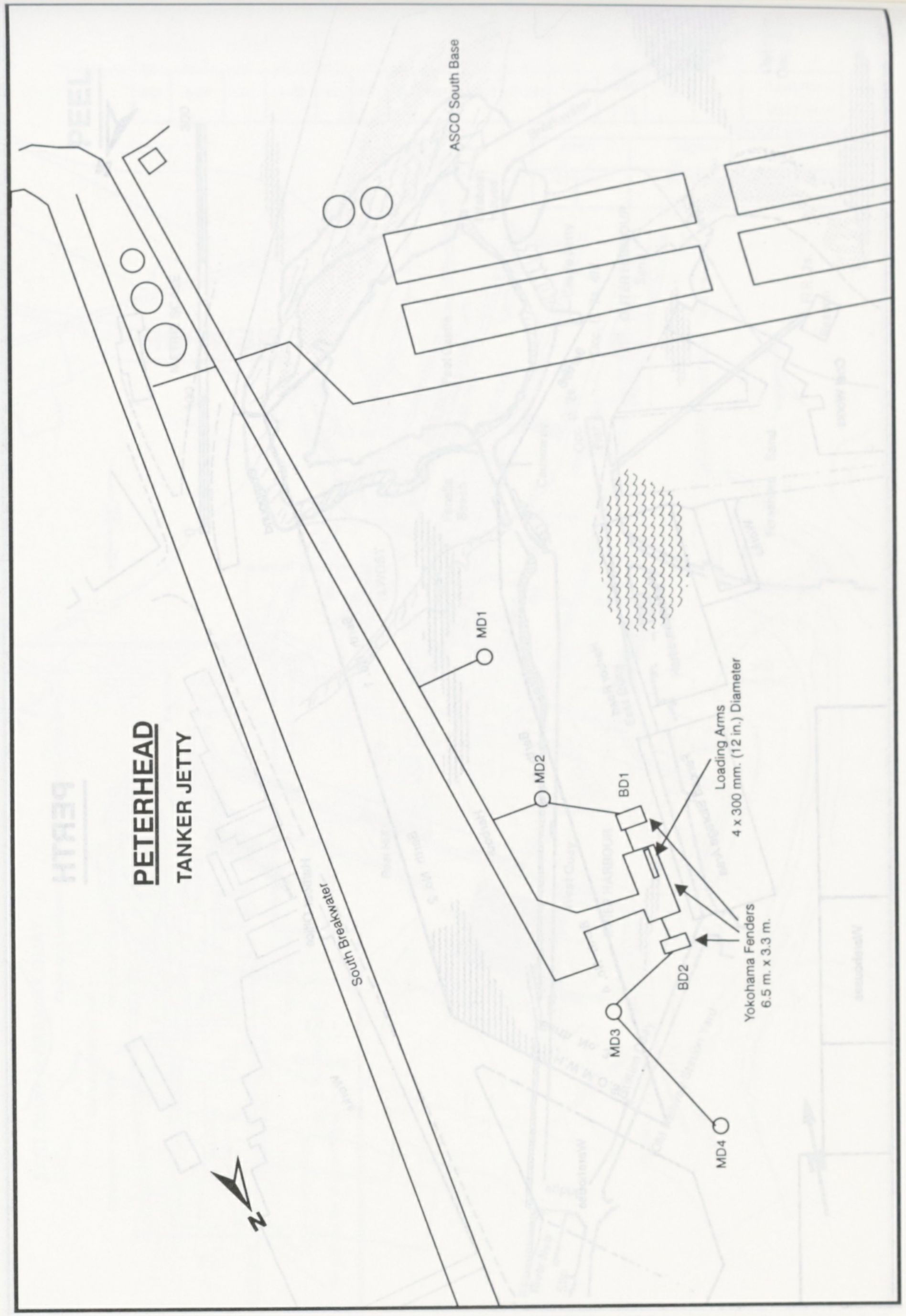
⑤ South Breakwater
Quay 400 m.
Min. Depth 7.8 m.

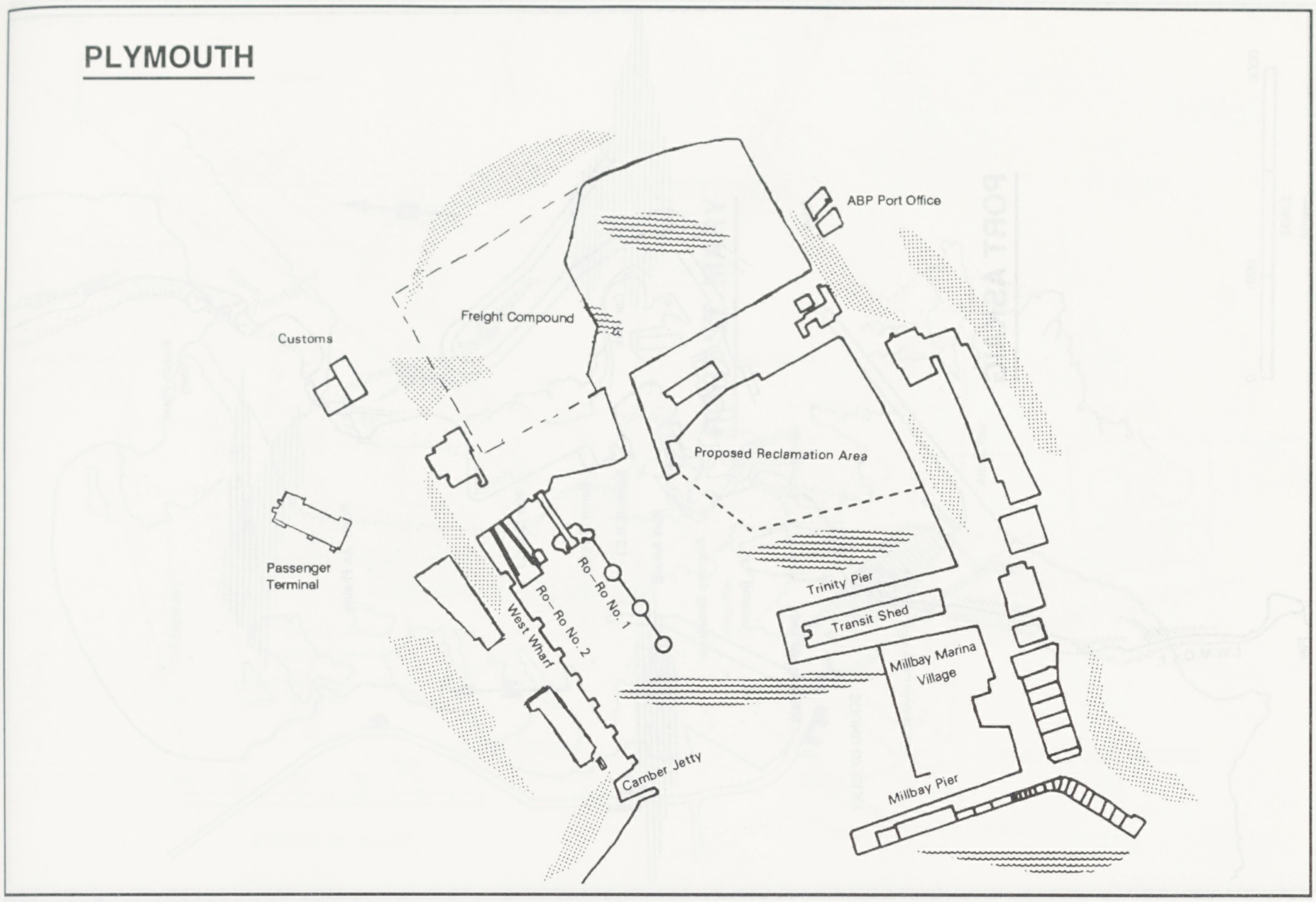
⑥ Tanker Jetty
Tankers up to 50,000 d.w.t.
Max. L.O.A. 250 m.
Max. Draft 11.5 m.
4 x 12 in. connections

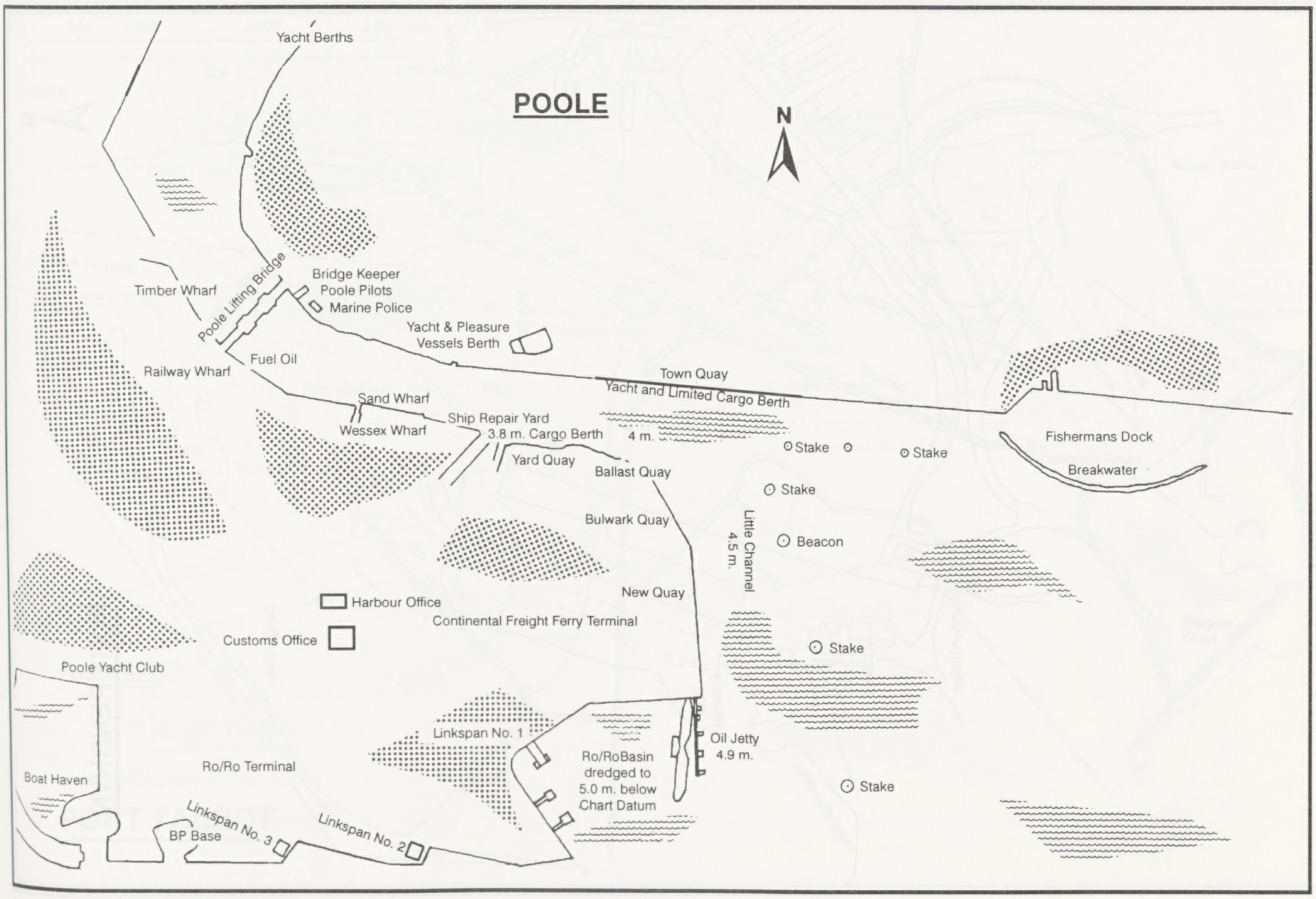
⑦ Control Tower and Harbour Office

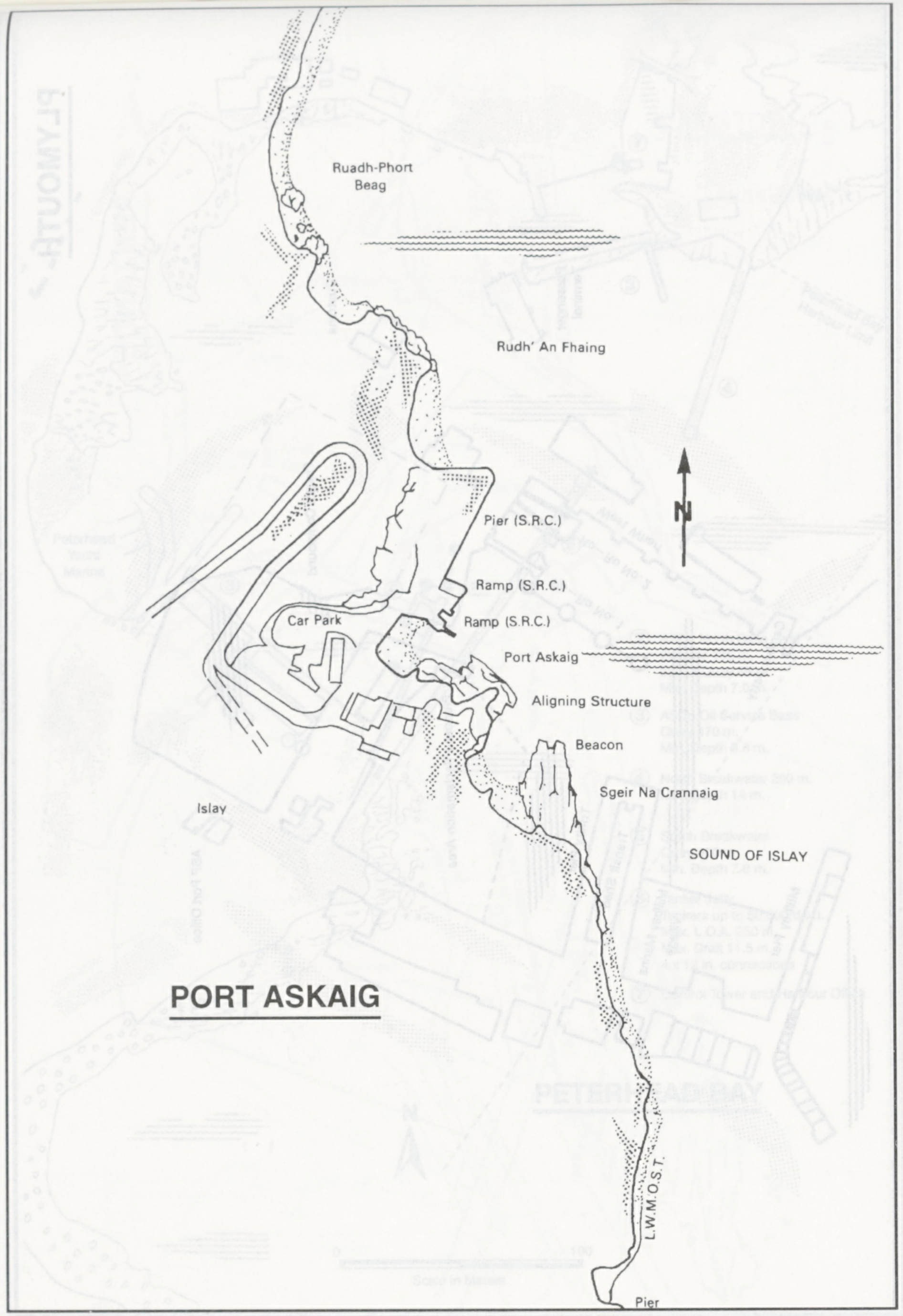
PETERHEAD

TANKER JETTY


ASCO South Base
MD1
MD2
BD1
Loading Arms
4 x 300 mm. (12 in.) Diameter
BD2
Yokohama Fenders
6.5 m. x 3.3 m.
MD3
MD4
South Breakwater
N

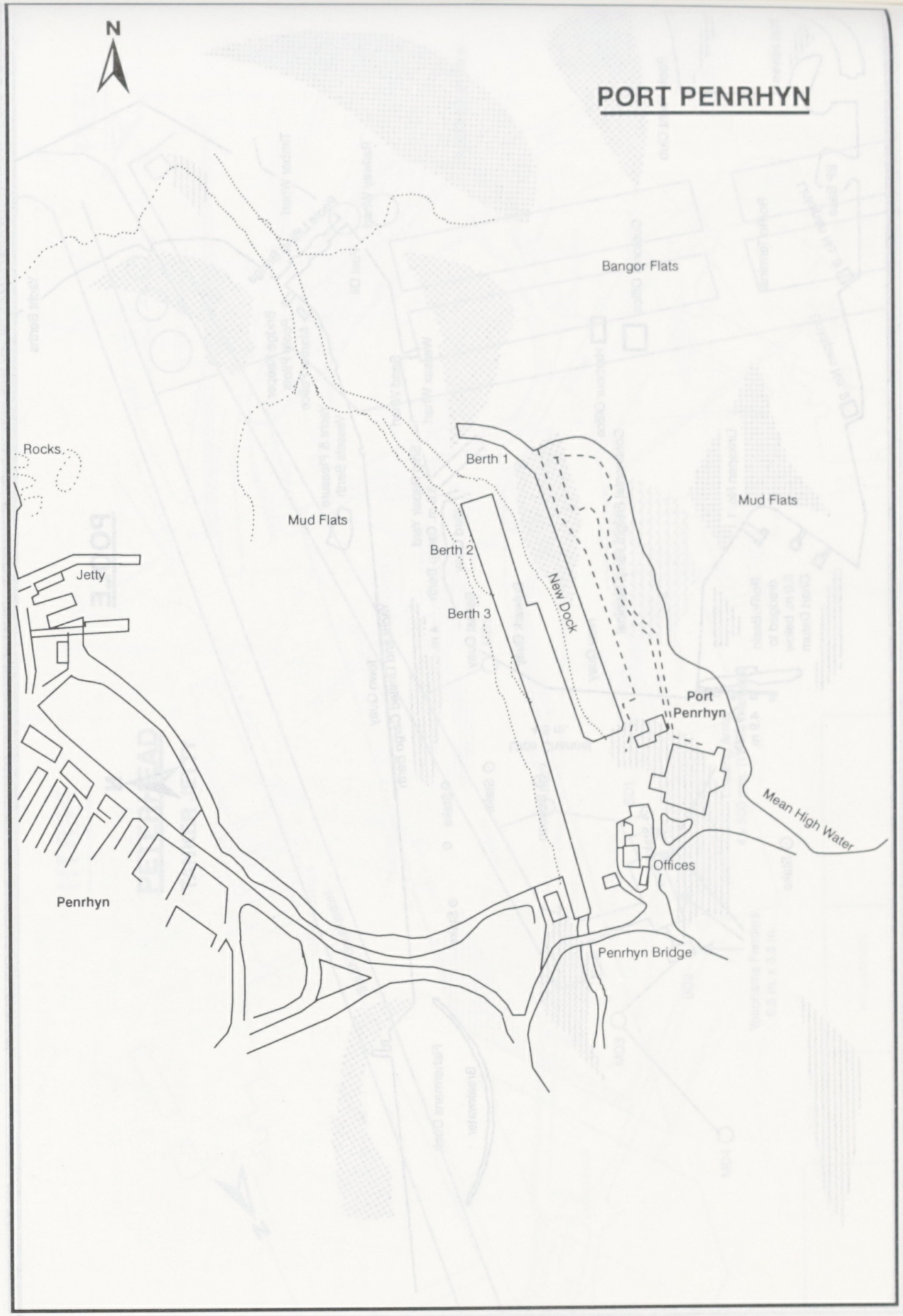

PLYMOUTH
ABP Port Office
Freight Compound
Customs
Proposed Reclamation Area
Passenger Terminal
Ro—Ro No. 1
Ro—Ro No. 2
West Wharf
Trinity Pier
Transit Shed
Millbay Marina Village
Camber Jetty
Millbay Pier


Yacht Berths
POOLE
N
Timber Wharf
Poole Lifting Bridge
Bridge Keeper
Poole Pilots
Marine Police
Yacht & Pleasure Vessels Berth
Fuel Oil
Railway Wharf
Town Quay
Yacht and Limited Cargo Berth
Sand Wharf
Wessex Wharf
Ship Repair Yard
3.8 m. Cargo Berth
4 m.
Stake
Stake
Fishermans Dock
Breakwater
Yard Quay
Ballast Quay
Stake
Bulwark Quay
Little Channel 4.5 m.
Beacon
Harbour Office
New Quay
Continental Freight Ferry Terminal
Customs Office
Stake
Poole Yacht Club
Linkspan No. 1
Oil Jetty 4.9 m.
Ro/RoBasin dredged to 5.0 m. below Chart Datum
Boat Haven
Ro/Ro Terminal
Stake
Linkspan No. 3
BP Base
Linkspan No. 2



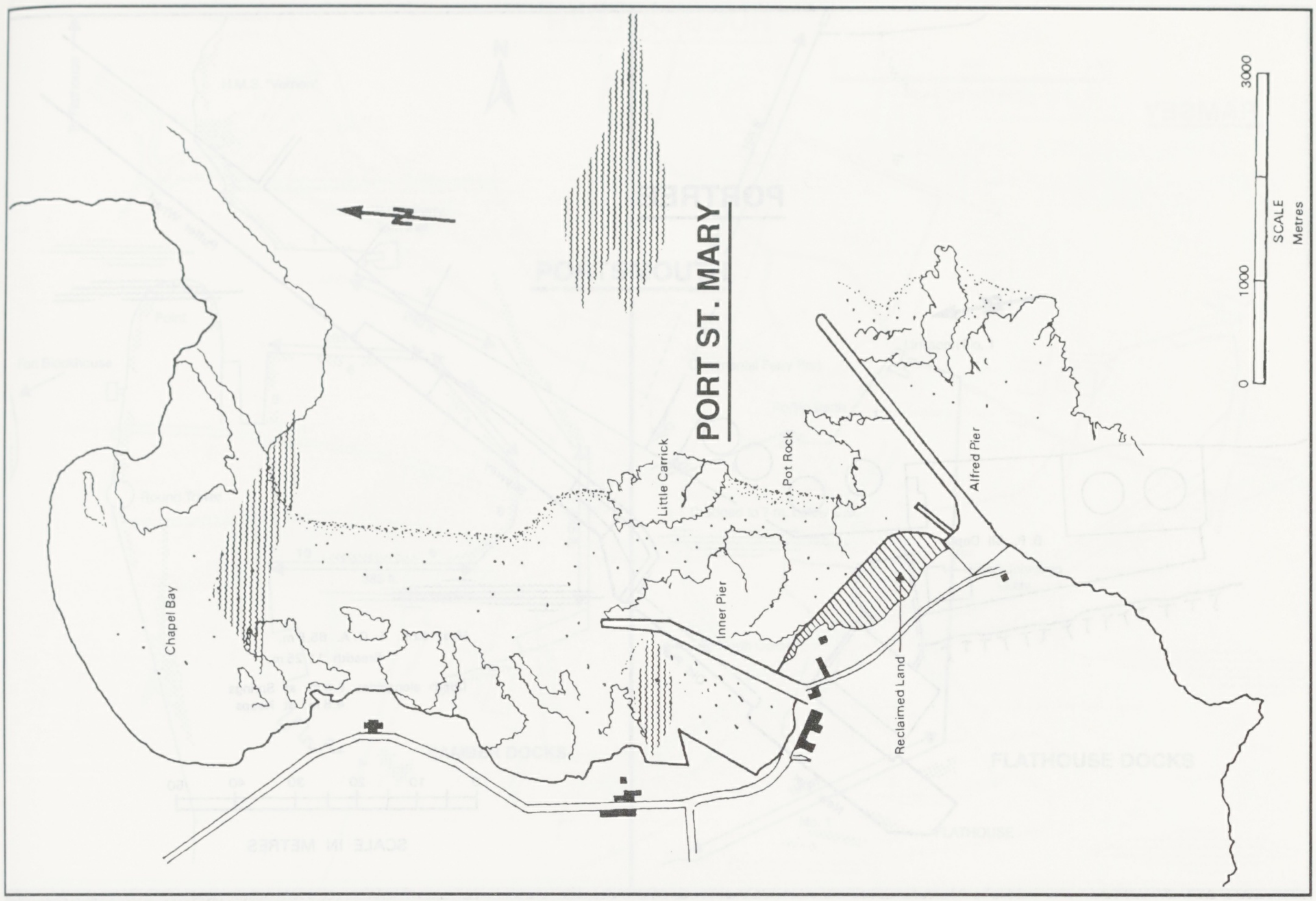
PORT ASKAIG

Ruadh-Phort
Beag
Rudh' An Fhaing
N
Pier (S.R.C.)
Ramp (S.R.C.)
Car Park
Ramp (S.R.C.)
Port Askaig
Aligning Structure
Beacon
Sgeir Na Crannaig
Islay
SOUND OF ISLAY
L.W.M.O.S.T.
Pier



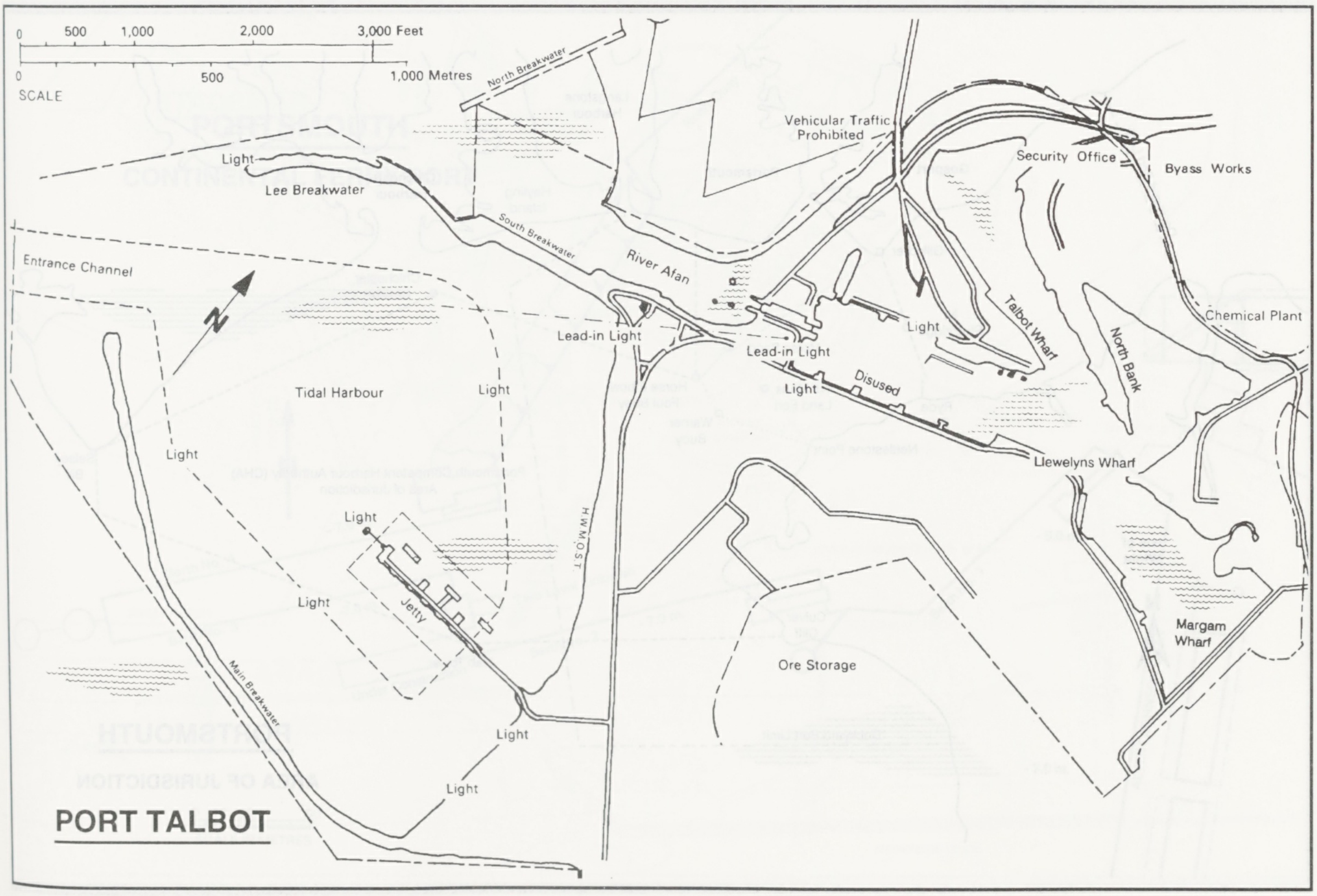
PORT PENRHYN

N
Bangor Flats
Rocks
Berth 1
Mud Flats
Mud Flats
Berth 2
Jetty
New Dock
Berth 3
Port
Penrhyn
Mean High Water
Offices
Penrhyn
Penrhyn Bridge



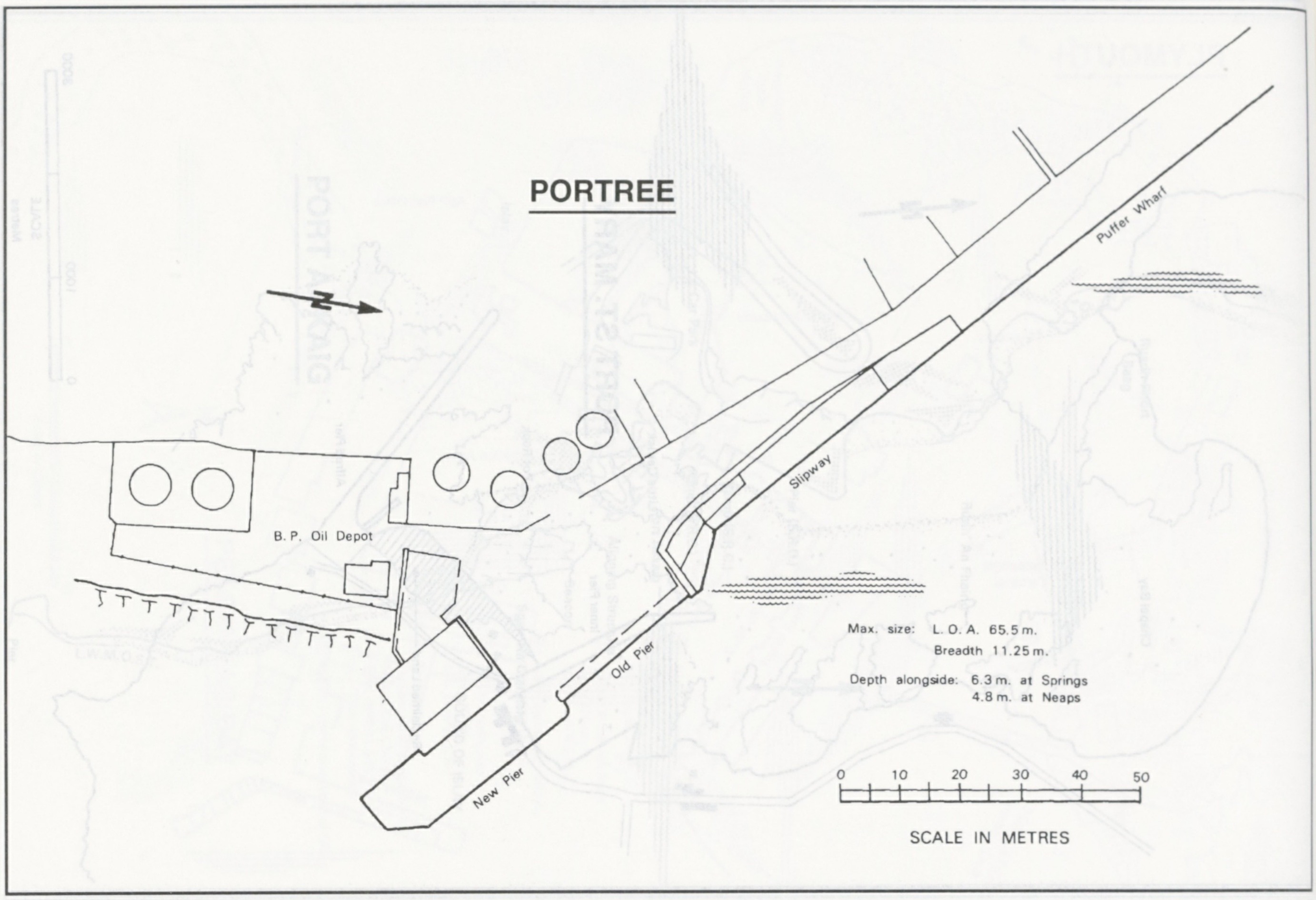
PORT ST. MARY

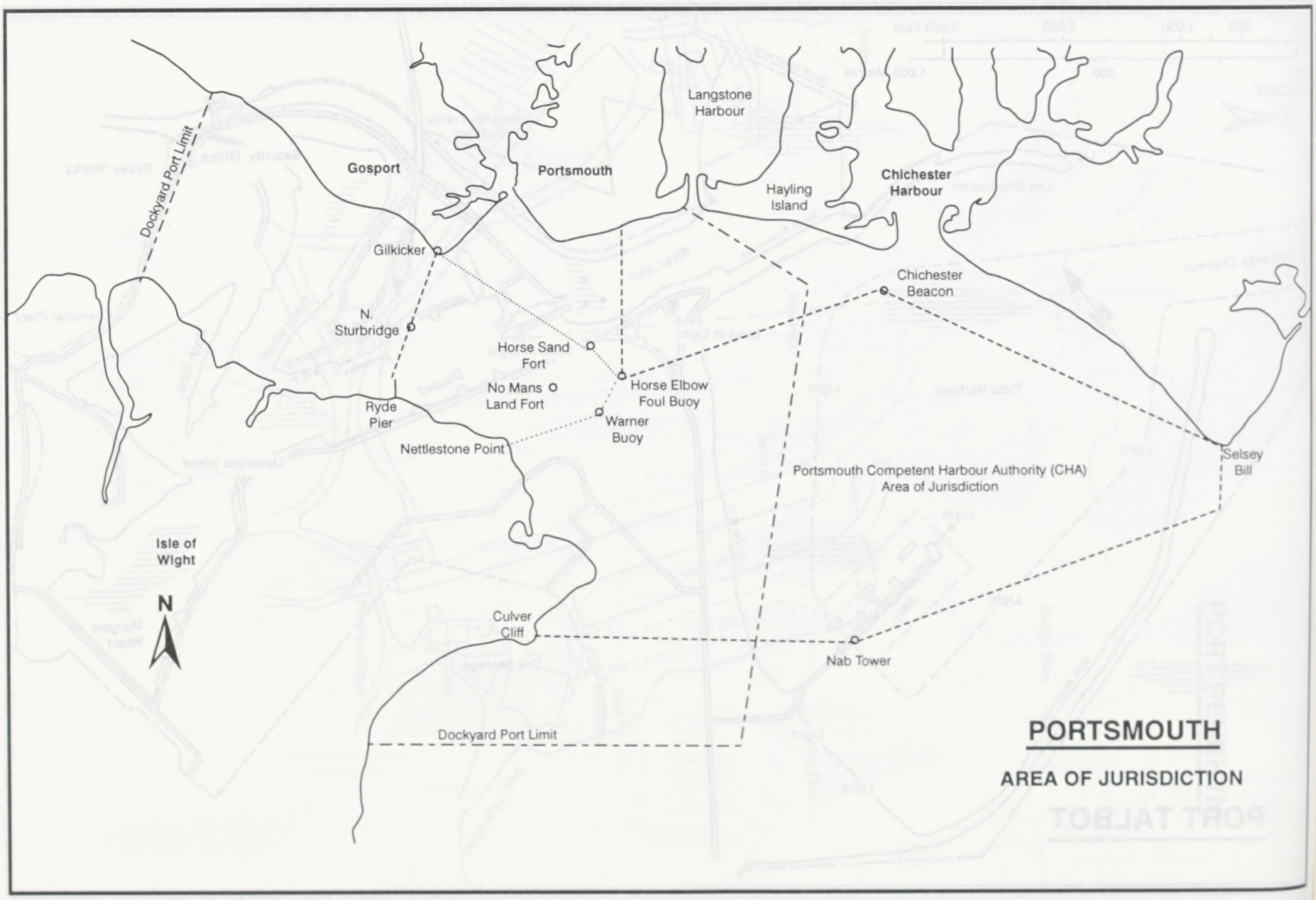
N
SCALE
Metres
0
1000
3000
Chapel Bay
Little Carrick
Pot Rock
Inner Pier
Reclaimed Land
Alfred Pier

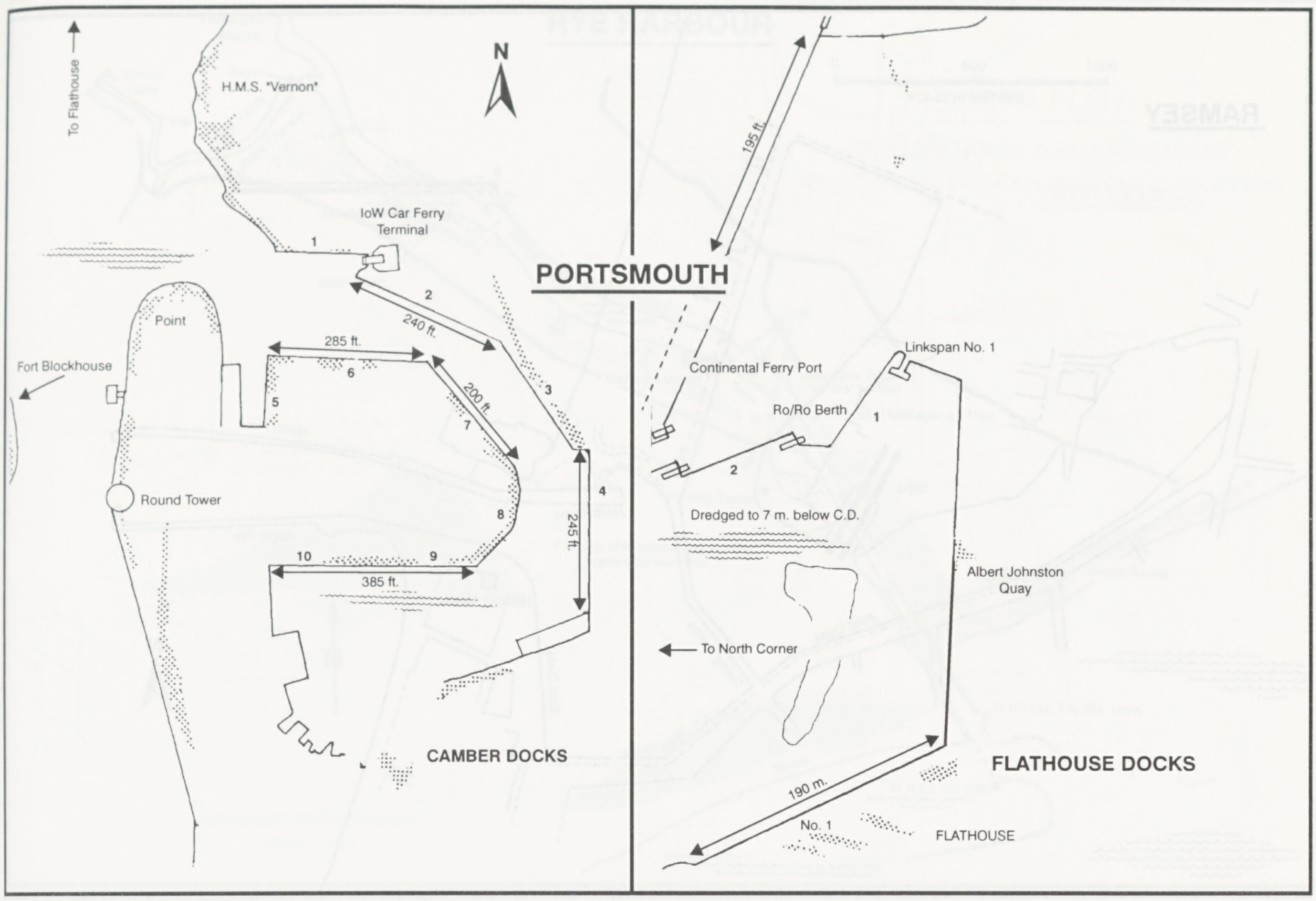


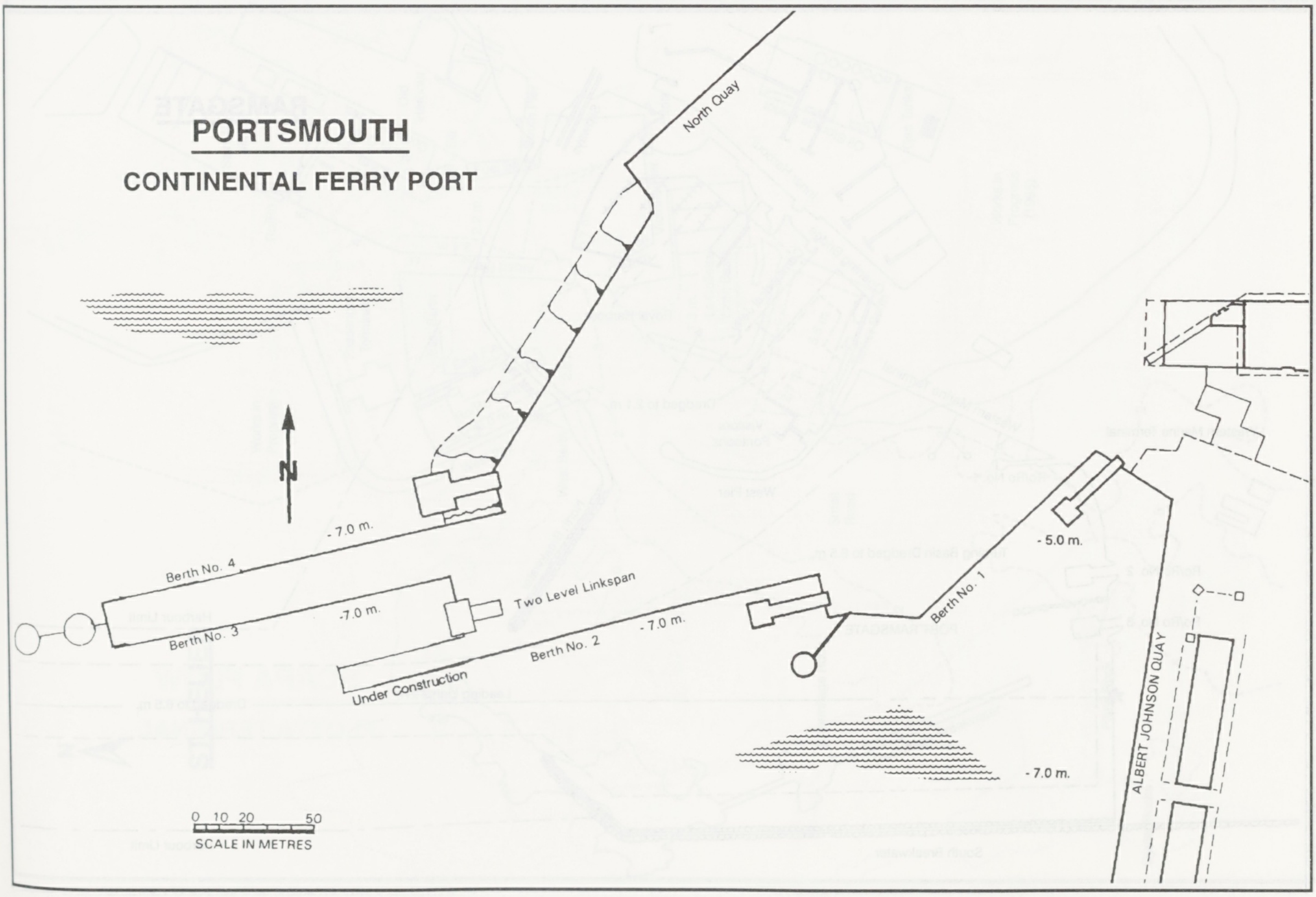
PORT TALBOT

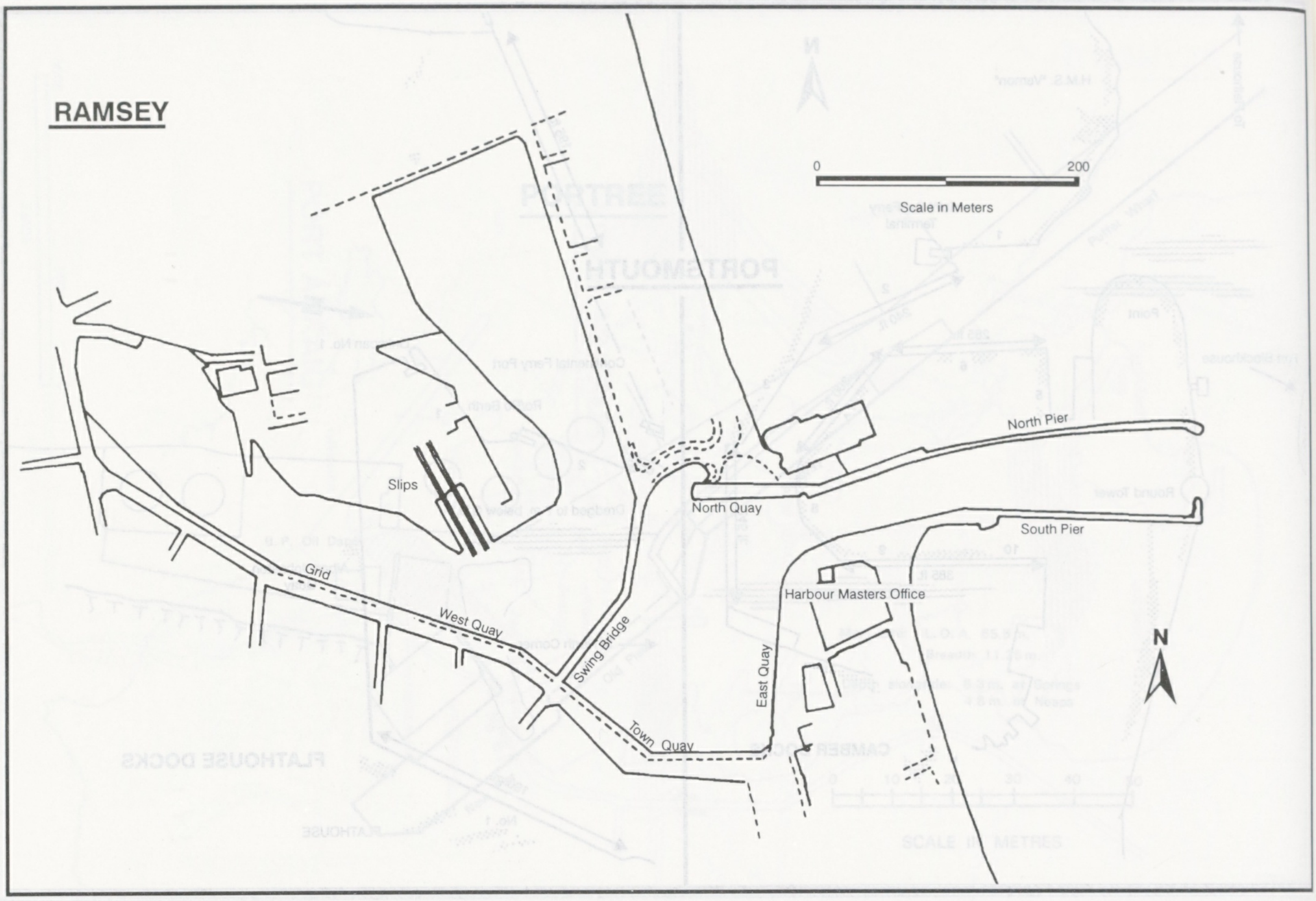
0
500
1,000
2,000
3,000 Feet
0
500
1,000 Metres
SCALE
North Breakwater
Light
Lee Breakwater
South Breakwater
River Afan
Vehicular Traffic Prohibited
Security Office
Byass Works
Entrance Channel
N
Lead-in Light
Lead-in Light
Light
Talbot Wharf
North Bank
Chemical Plant
Tidal Harbour
Light
Light
Disused
Llewelyns Wharf
Light
Light
Jetty
Light
H.W.O.S.T.
Ore Storage
Margam Wharf
Main Breakwater
Light
Light

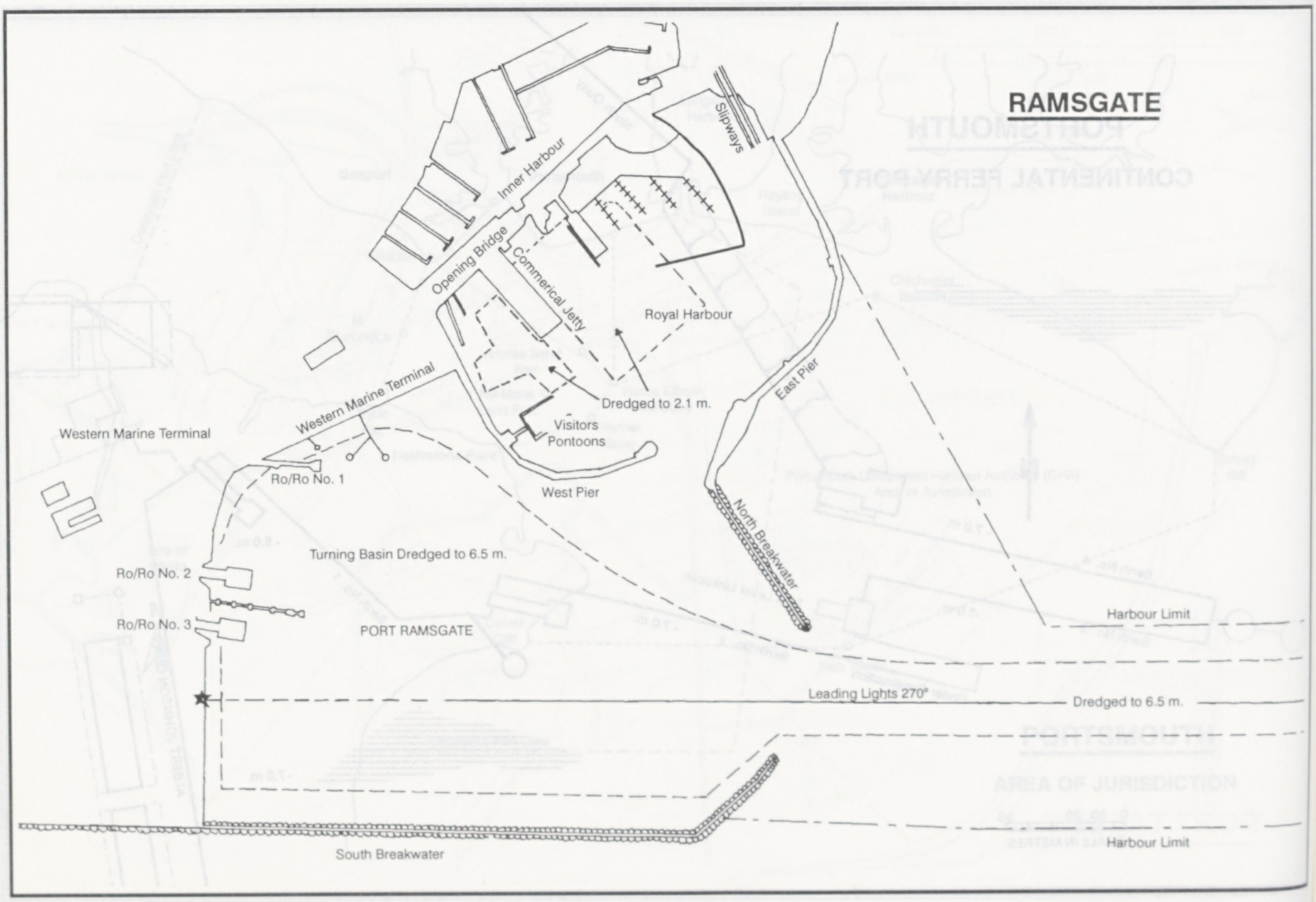

PORTREE
N
B. P. Oil Depot
Slipway
Puffer Wharf
Old Pier
New Pier
Max. size: L. O. A. 65.5 m.
Breadth 11.25 m.
Depth alongside: 6.3 m. at Springs
4.8 m. at Neaps
0
10
20
30
40
50
SCALE IN METRES


Langstone Harbour
Gosport
Portsmouth
Hayling Island
Chichester Harbour
Dockyard Port Limit
Gilkicker
Chichester Beacon
N. Sturbridge
Horse Sand Fort
Horse Elbow Foul Buoy
No Mans Land Fort
Ryde Pier
Warner Buoy
Nettlestone Point
Selsey Bill
Portsmouth Competent Harbour Authority (CHA) Area of Jurisdiction
Isle of Wight
N
Culver Cliff
Nab Tower
Dockyard Port Limit
PORTSMOUTH
AREA OF JURISDICTION

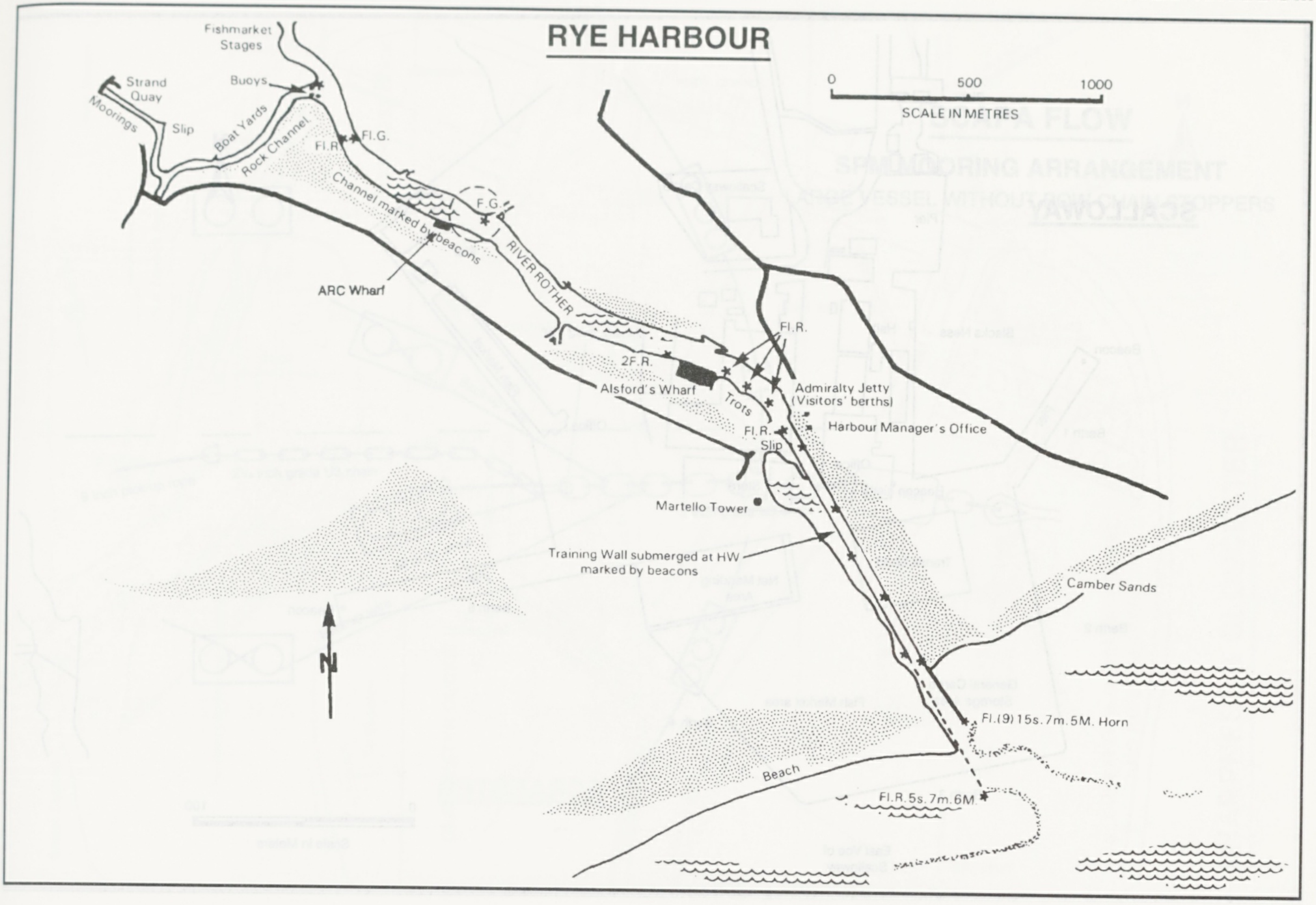

PORTSMOUTH
To Flathouse
H.M.S. "Vernon"
N
IoW Car Ferry Terminal
1
2
240 ft.
Point
285 ft.
6
3
Fort Blockhouse
5
200 ft.
7
4
Round Tower
8
245 ft.
10
9
385 ft.
CAMBER DOCKS
195 ft.
Linkspan No. 1
Continental Ferry Port
Ro/Ro Berth
1
2
Dredged to 7 m. below C.D.
Albert Johnston Quay
To North Corner
FLATHOUSE DOCKS
190 m.
No. 1
FLATHOUSE


PORTSMOUTH
CONTINENTAL FERRY PORT
North Quay
N
- 7.0 m.
Berth No. 4
-7.0 m.
Berth No. 3
Two Level Linkspan
- 7.0 m.
Berth No. 2
Under Construction
Berth No. 1
- 5.0 m.
ALBERT JOHNSON QUAY
- 7.0 m.
0 10 20 50
SCALE IN METRES

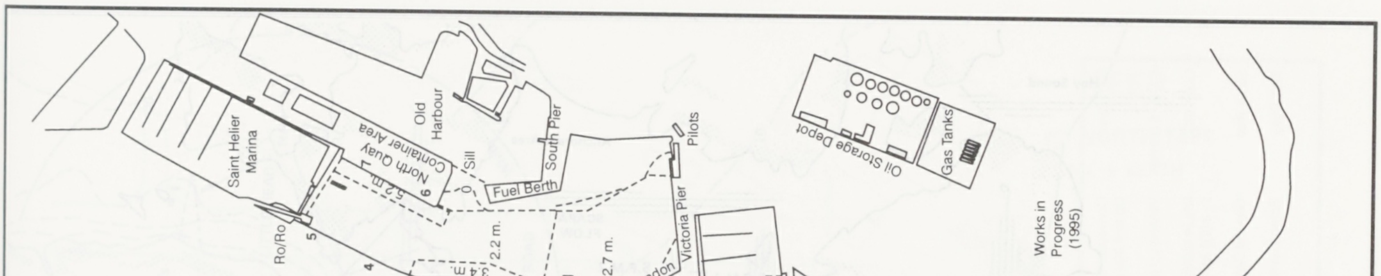

RAMSEY
N
0
200
Scale in Meters
North Pier
Slips
North Quay
South Pier
Grid
Harbour Masters Office
West Quay
Swing Bridge
East Quay
N
Town Quay

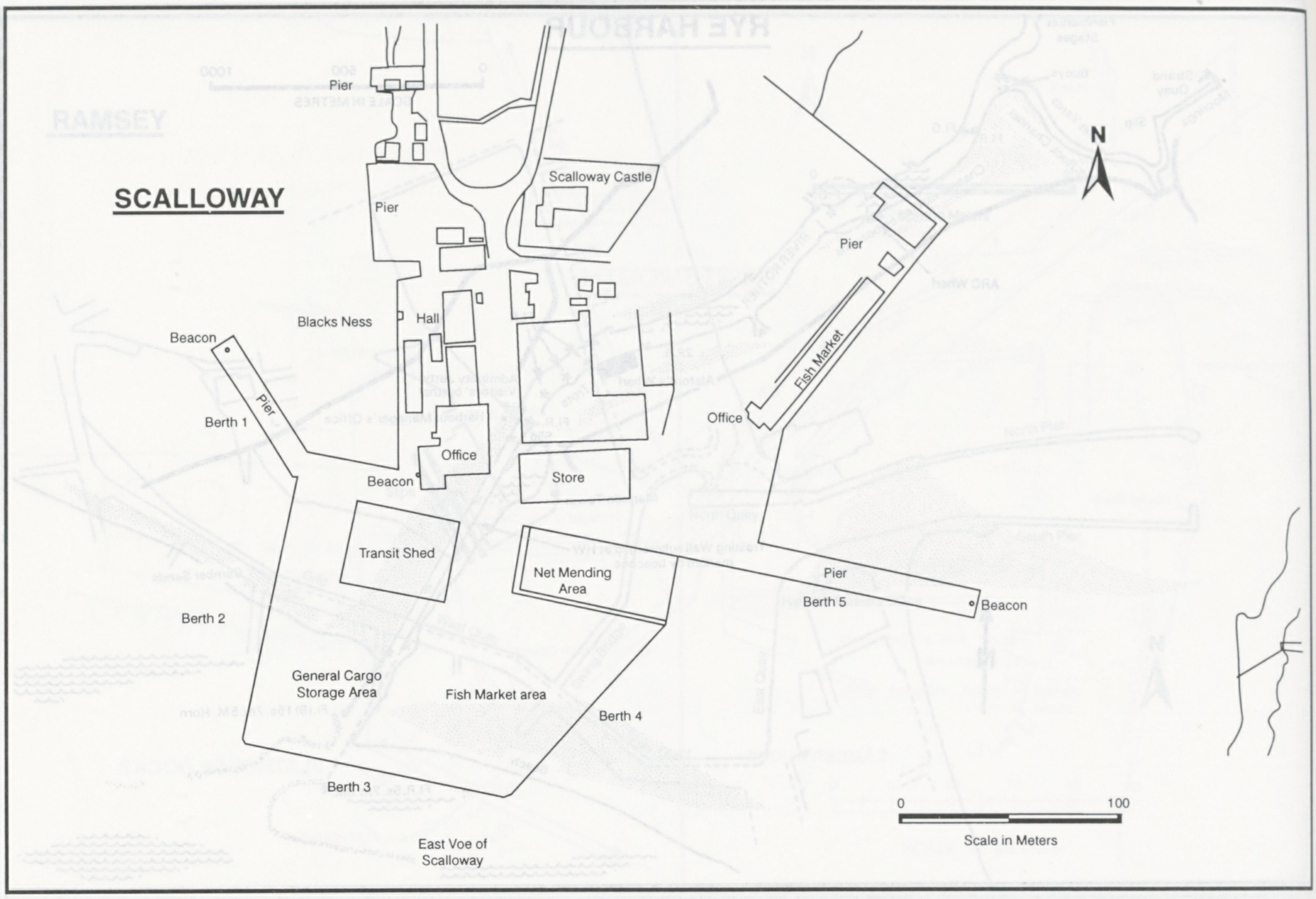

RAMSGATE
Slipways
Inner Harbour
Opening Bridge
Commerical Jetty
Royal Harbour
East Pier
Western Marine Terminal
Dredged to 2.1 m.
Western Marine Terminal
Visitors
Pontoons
Ro/Ro No. 1
West Pier
North Breakwater
Turning Basin Dredged to 6.5 m.
Ro/Ro No. 2
Harbour Limit
Ro/Ro No. 3
PORT RAMSGATE
Leading Lights 270°
Dredged to 6.5 m.
South Breakwater
Harbour Limit

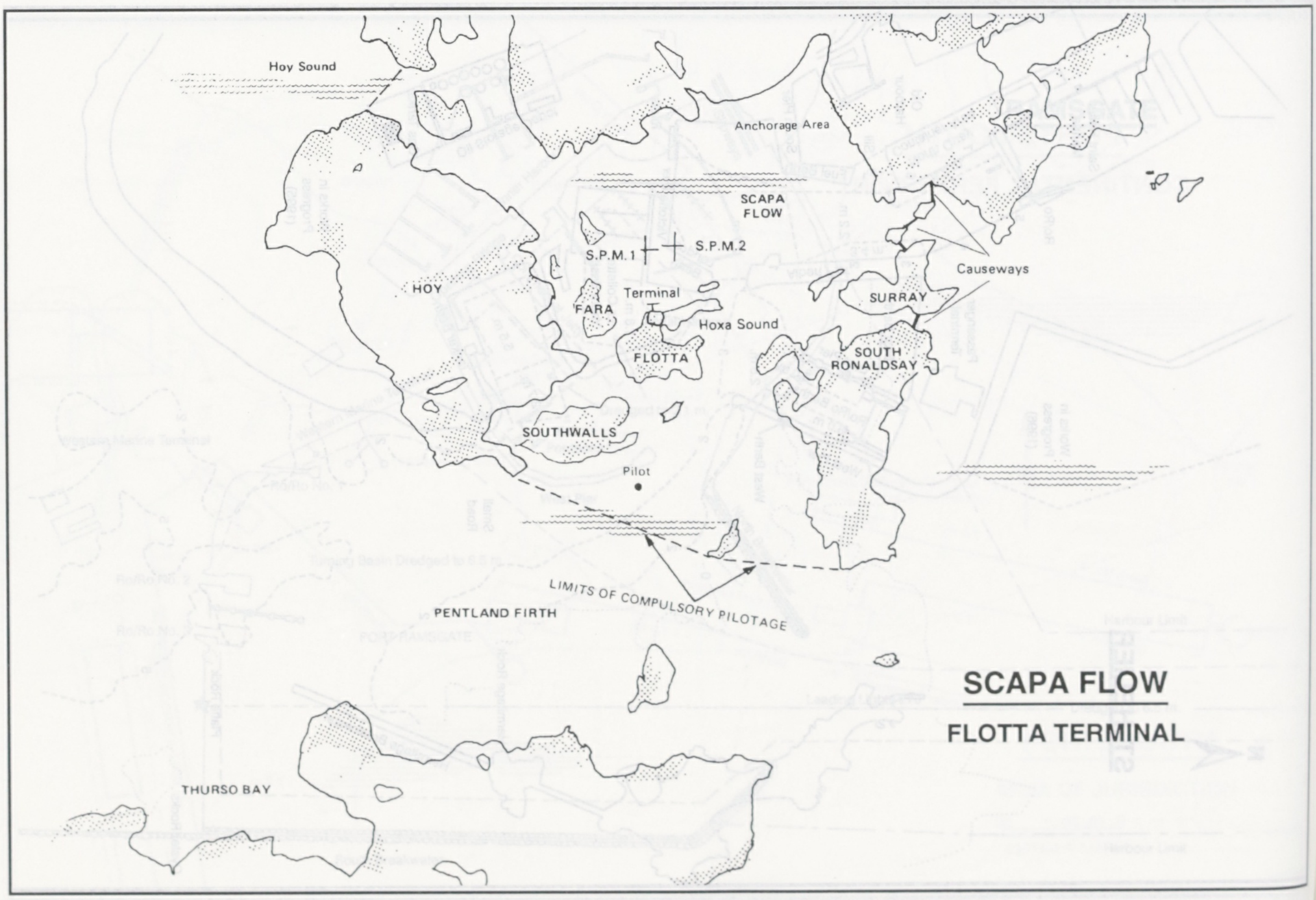
RYE HARBOUR

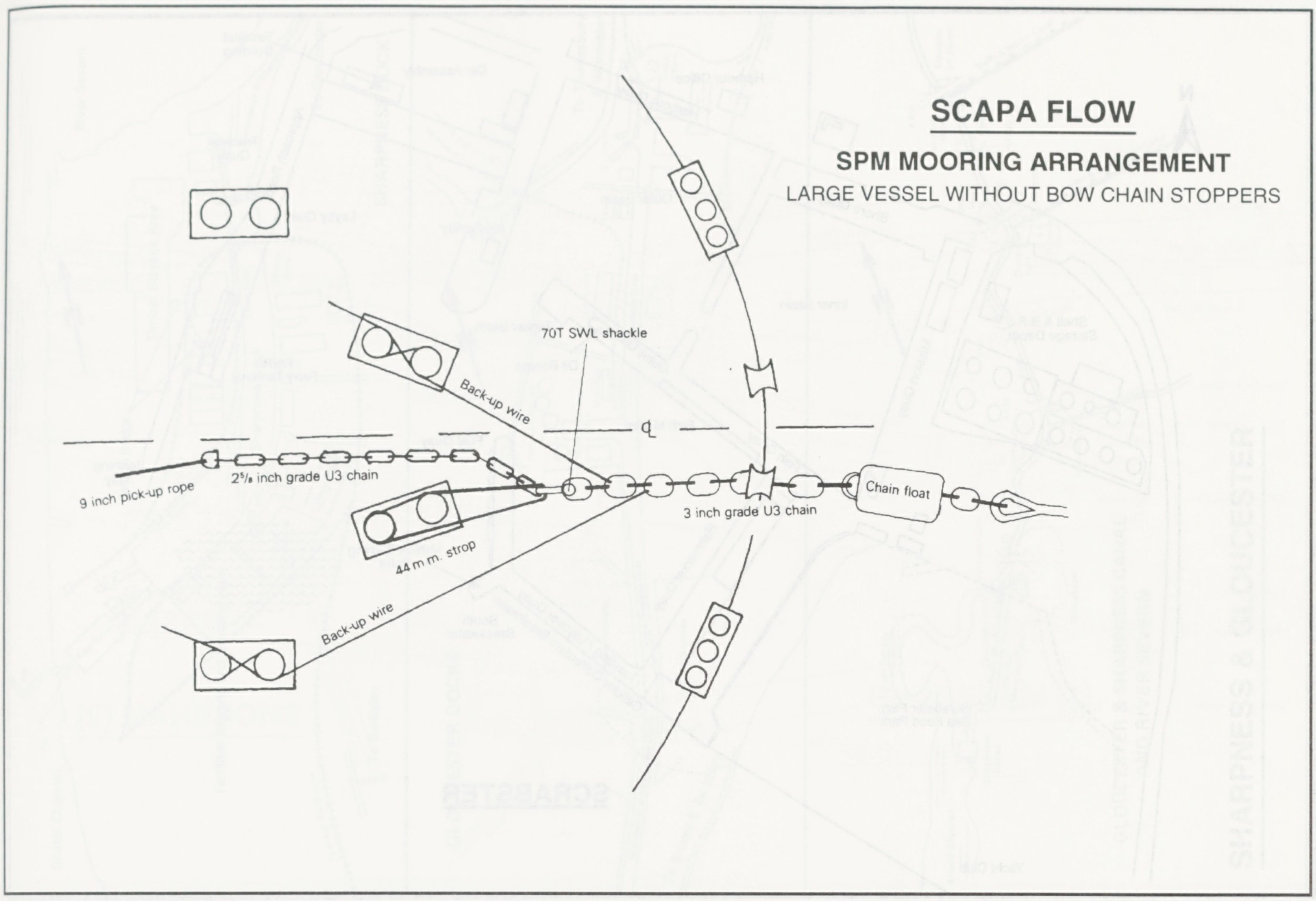

Fishmarket Stages
Strand Quay
Buoys
Moorings
Slip
Boat Yards
Rock Channel
Fl.R.
Fl.G.
F.G.
Channel marked by beacons
RIVER ROTHER
ARC Wharf
0
500
1000
SCALE IN METRES
Fl.R.
2F.R.
Alsford's Wharf
Trots
Admiralty Jetty (Visitors' berths)
Harbour Manager's Office
Fl.R.
Slip
Martello Tower
Training Wall submerged at HW marked by beacons
Camber Sands
N
Fl.(9) 15s.7m.5M. Horn
Beach
Fl.R.5s.7m.6M.

ST. HELIER


Saint Helier Marina
Container Area
North Quay
Old Harbour
Sill
0
South Pier
Fuel Berth
Pilots
Oil Storage Depot
Gas Tanks
5.2 m.
6
1
Ro/Ro
5
4
3
2
3.4 m.
2.2 m.
2.7 m.
Albert Pier
Victoria Pier
London Berth
La Collette Yacht Basin
1.8 m.
Works in Progress (1995)
5.5 m.
Tanker Berth
2.7 m.
Passenger Terminal
East Berth
East Pier
6.0 m.
Ro/Ro Berths
6.0 m.
2.5 m.
3
West Pier
West Berth
Works in Progress (1996)
Small Road
2
2
0
2
5
5
Hermitage Rock
Hermitage Breakwater
Platte Rock
Oyster Rocks
N


SCALLOWAY
N
Pier
Scalloway Castle
Pier
Pier
Hall
Blacks Ness
Beacon
Pier
Berth 1
Office
Beacon
Store
Office
Fish Market
Transit Shed
Net Mending Area
Pier
Berth 5
Beacon
Berth 2
General Cargo Storage Area
Fish Market area
Berth 4
Berth 3
East Voe of Scalloway
0
100
Scale in Meters


Hoy Sound
Anchorage Area
SCAPA FLOW
S.P.M.1
S.P.M.2
HOY
Terminal
FARA
Hoxa Sound
FLOTTA
Causeways
SURRAY
SOUTH RONALDSAY
SOUTHWALLS
Pilot
LIMITS OF COMPULSORY PILOTAGE
PENTLAND FIRTH
THURSO BAY
SCAPA FLOW
FLOTTA TERMINAL

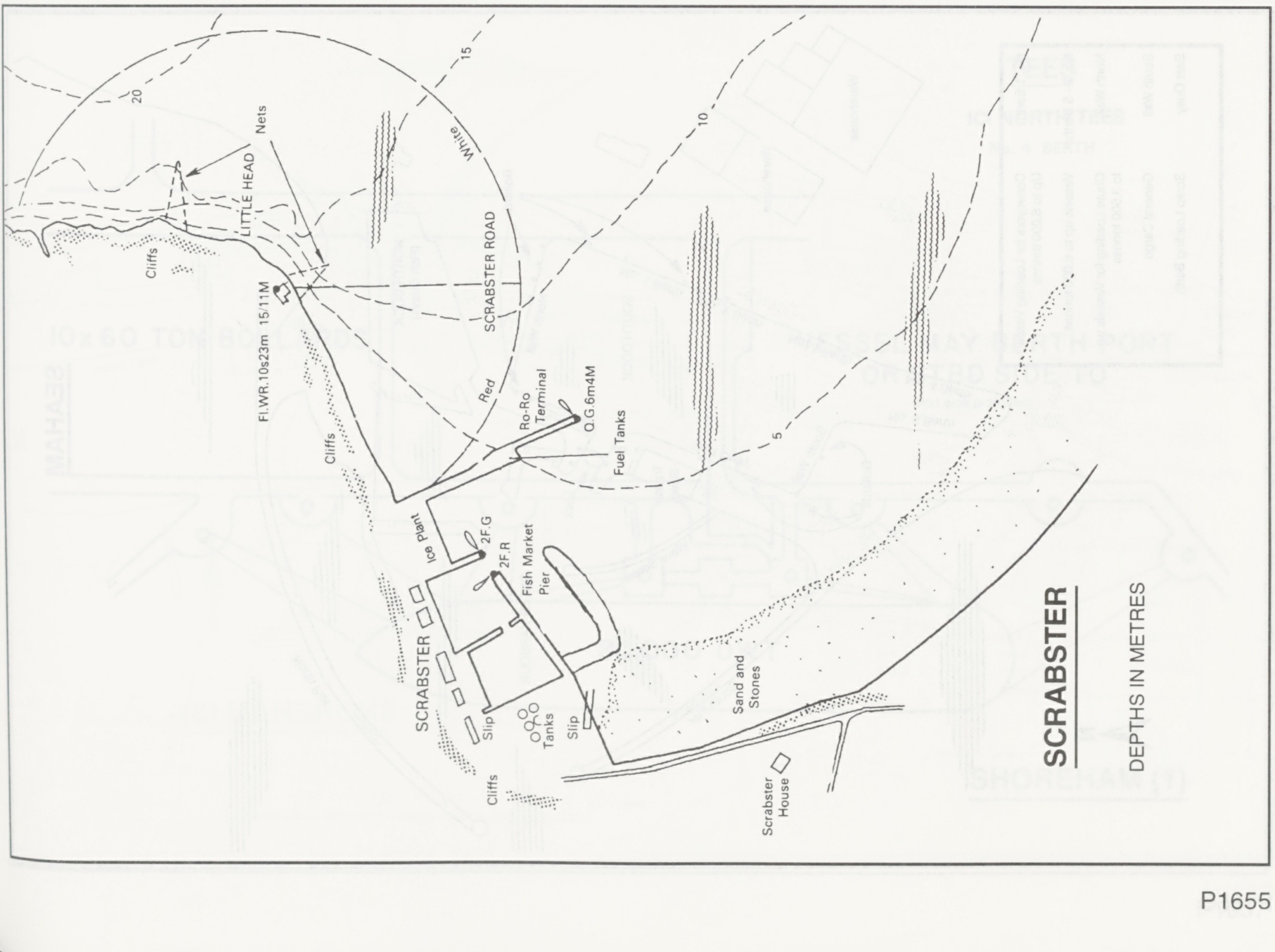


SCAPA FLOW

SPM MOORING ARRANGEMENT

LARGE VESSEL WITHOUT BOW CHAIN STOPPERS

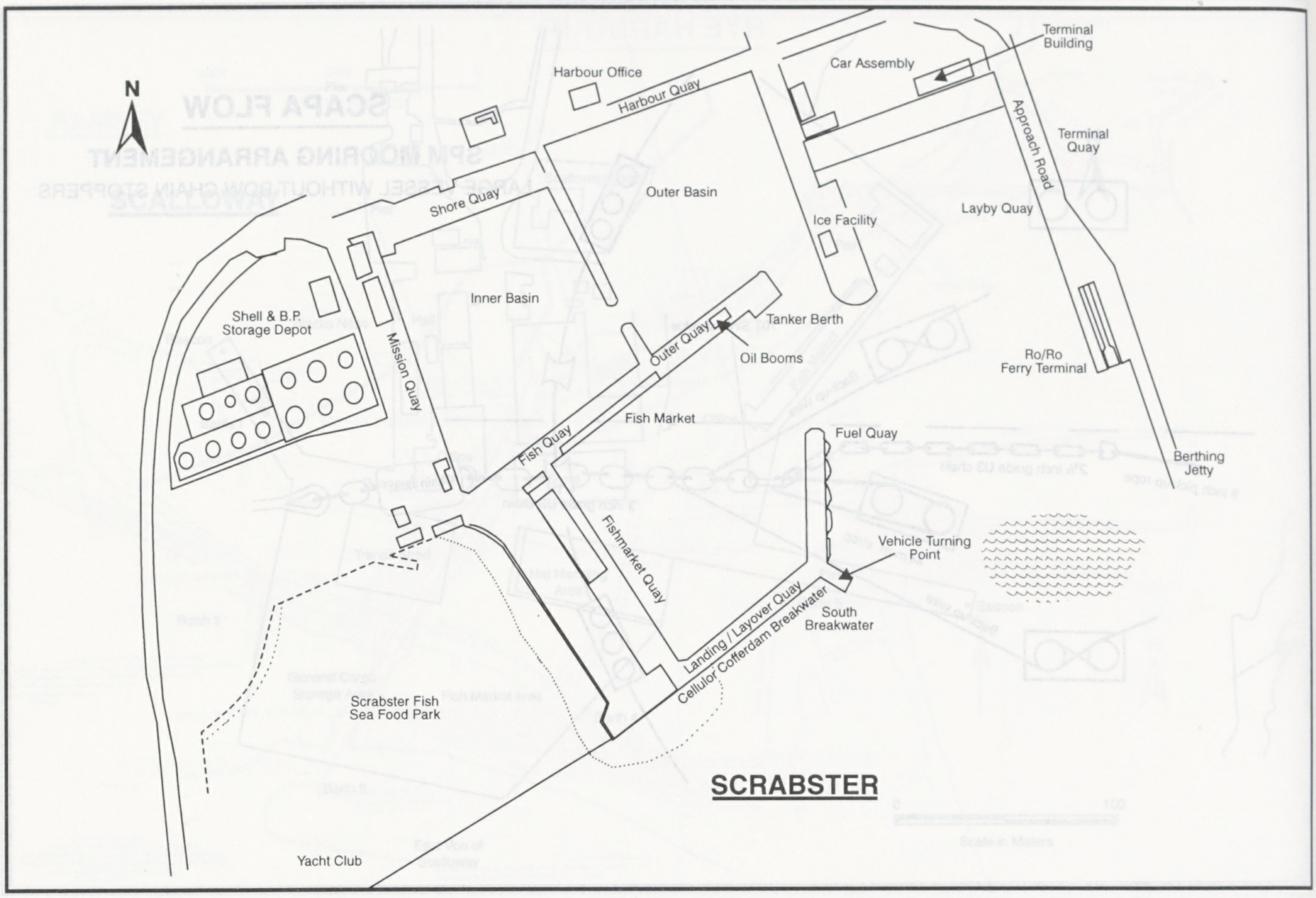
70T SWL shackle
Back-up wire
℄
9 inch pick-up rope
2⅝ inch grade U3 chain
44 m m. strop
3 inch grade U3 chain
Chain float
Back-up wire

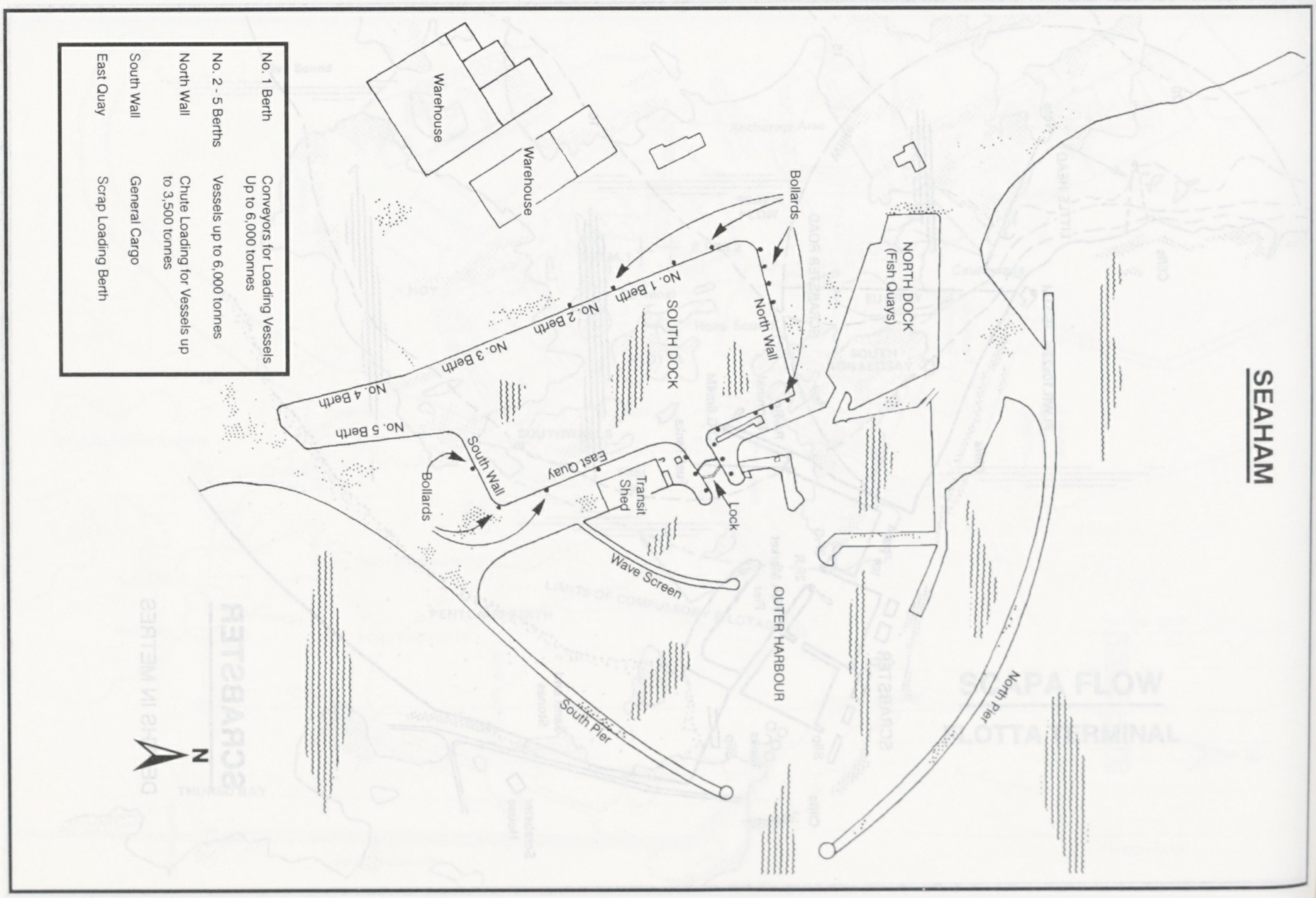


SCRABSTER

DEPTHS IN METRES

20
15
10
5
Nets
LITTLE HEAD
Cliffs
White
SCRABSTER ROAD
Fl.WR.10s23m 15/11M
Red
Ro-Ro Terminal
Q.G.6m4M
Fuel Tanks
Cliffs
Ice Plant
2F.G
2F.R
Fish Market Pier
SCRABSTER
Slip
Tanks
Slip
Cliffs
Sand and Stones
Scrabster House

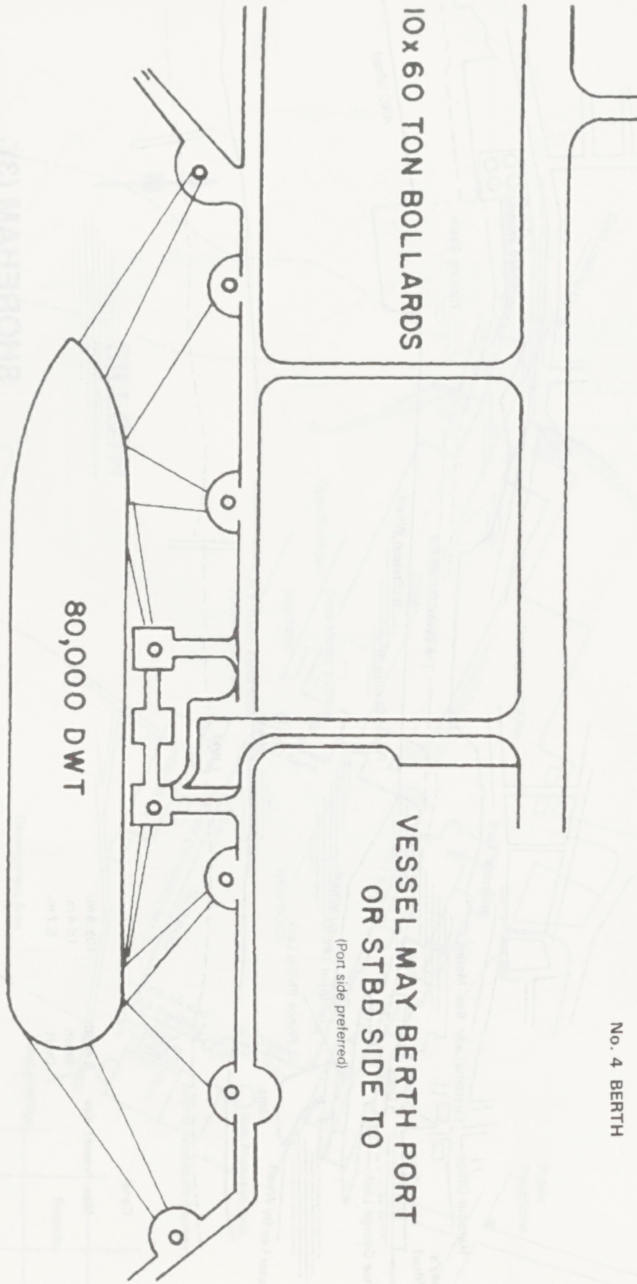

N
Harbour Office
Harbour Quay
Car Assembly
Terminal Building
Approach Road
Terminal Quay
Shore Quay
Outer Basin
Layby Quay
Ice Facility
Inner Basin
Shell & B.P. Storage Depot
Mission Quay
Outer Quay
Tanker Berth
Oil Booms
Ro/Ro Ferry Terminal
Fish Market
Fish Quay
Fuel Quay
Berthing Jetty
Fishmarket Quay
Vehicle Turning Point
Landing / Layover Quay
Cellulor Cofferdam Breakwater
South Breakwater
Scrabster Fish Sea Food Park
SCRABSTER
Yacht Club


Warehouse
Warehouse
Bollards
No. 1 Berth
SOUTH DOCK
North Wall
NORTH DOCK (Fish Quays)
No. 2 Berth
No. 3 Berth
No. 4 Berth
No. 5 Berth
South Wall
East Quay
Transit Shed
Lock
Bollards
Wave Screen
OUTER HARBOUR
South Pier
North Pier
N
SEAHAM

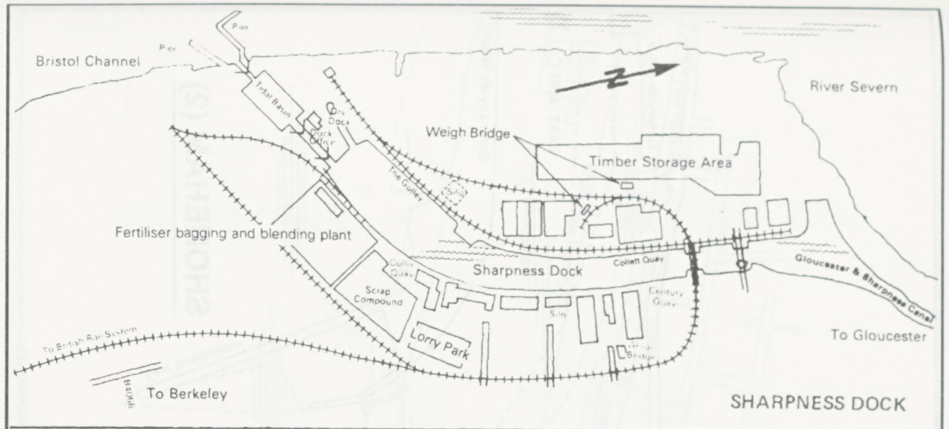
No. 1 Berth	Conveyors for Loading Vessels Up to 6,000 tonnes
No. 2 - 5 Berths	Vessels up to 6,000 tonnes
North Wall	Chute Loading for Vessels up to 3,500 tonnes
South Wall	General Cargo
East Quay	Scrap Loading Berth

TEES

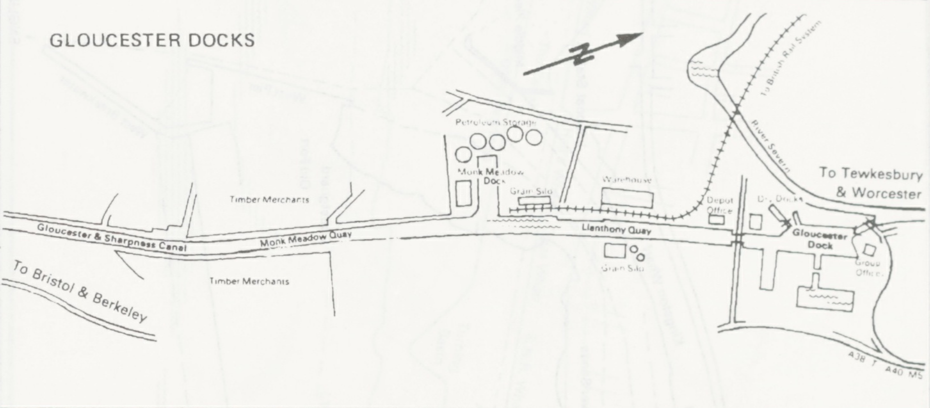
ICI NORTH TEES
No. 4 BERTH


10x60 TON BOLLARDS
80,000 DWT
VESSEL MAY BERTH PORT
OR STBD SIDE TO
(Port side preferred)

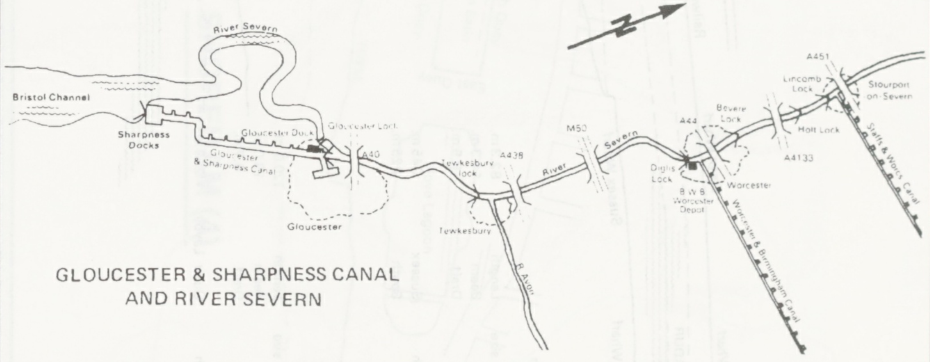
SHARPNESS & GLOUCESTER


Bristol Channel
Pier
Pier
River Severn
Tidal Basin
Dry Dock
Dock Office
Weigh Bridge
Timber Storage Area
The Gulley
Fertiliser bagging and blending plant
Sharpness Dock
Collett Quay
Gloucester & Sharpness Canal
Cullis Quay
Scrap Compound
Century Quay
Silo
Lorry Park
Bridge
To British Rail System
To Gloucester
To Berkeley

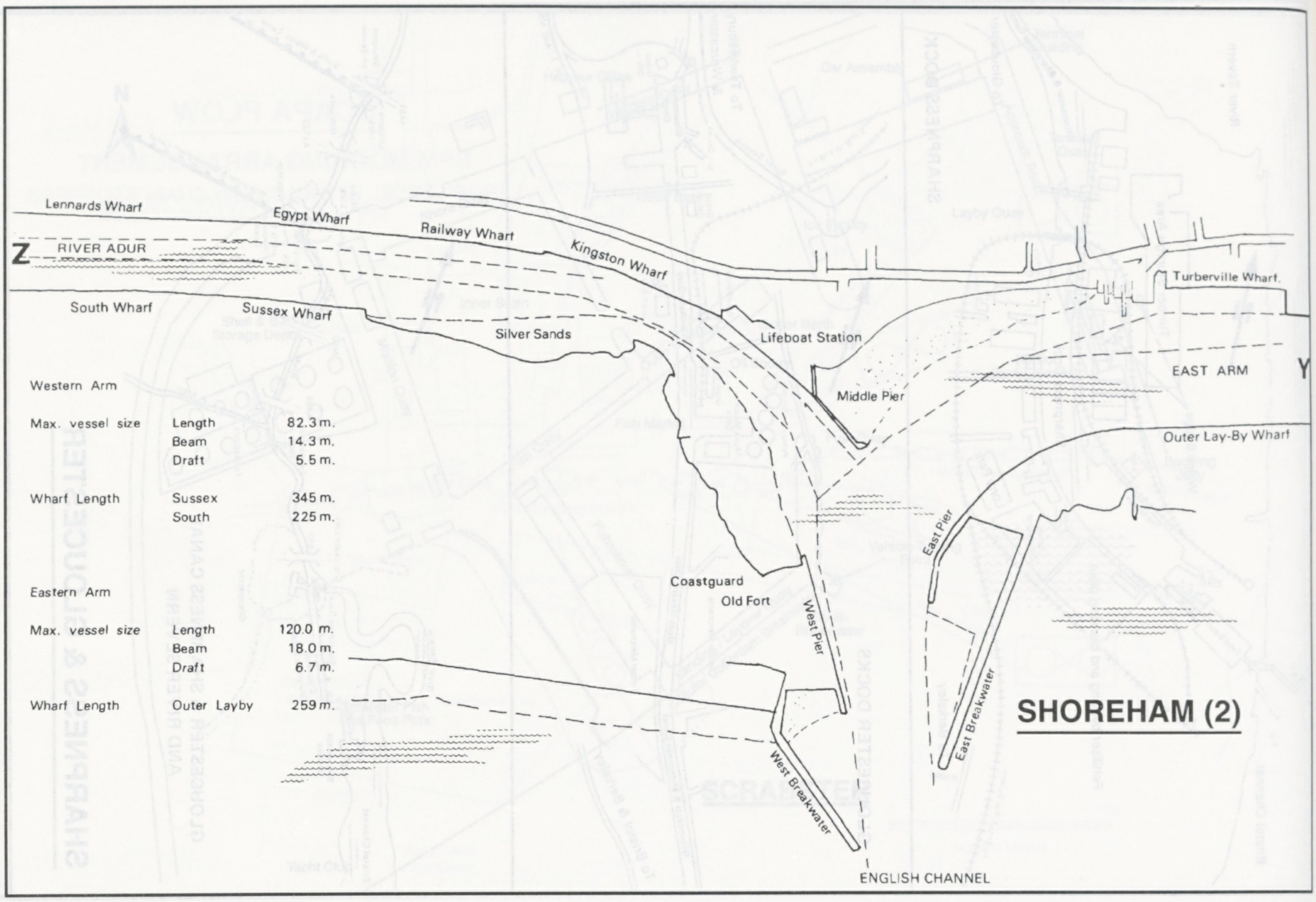
SHARPNESS DOCK


To British Rail System
River Severn
Petroleum Storage
Monk Meadow Dock
Grain Silo
Warehouse
Timber Merchants
Gloucester & Sharpness Canal
Monk Meadow Quay
Llanthony Quay
Depot Office
Dry Docks
Gloucester Dock
Group Office
Grain Silo
Timber Merchants
To Bristol & Berkeley
To Tewkesbury & Worcester
A38 A40 M5

GLOUCESTER DOCKS


River Severn
Bristol Channel
Sharpness Docks
Gloucester Dock
Gloucester Lock
Gloucester & Sharpness Canal
A40
Gloucester
Tewkesbury Lock
Tewkesbury
A438
R. Avon
River
M50
Severn
A44
Diglis Lock
B.W.B. Worcester Depot
Worcester
Worcester & Birmingham Canal
Bevere Lock
Holt Lock
A4133
Lincomb Lock
A451
Stourport on-Severn
Staffs & Worcs Canal

GLOUCESTER & SHARPNESS CANAL
AND RIVER SEVERN


Lennards Wharf
Egypt Wharf
Railway Wharf
Kingston Wharf
Z
RIVER ADUR
South Wharf
Sussex Wharf
Silver Sands
Lifeboat Station
Turberville Wharf.
Middle Pier
EAST ARM
Y
Outer Lay-By Wharf
East Pier
Coastguard
Old Fort
West Pier
East Breakwater
West Breakwater
ENGLISH CHANNEL

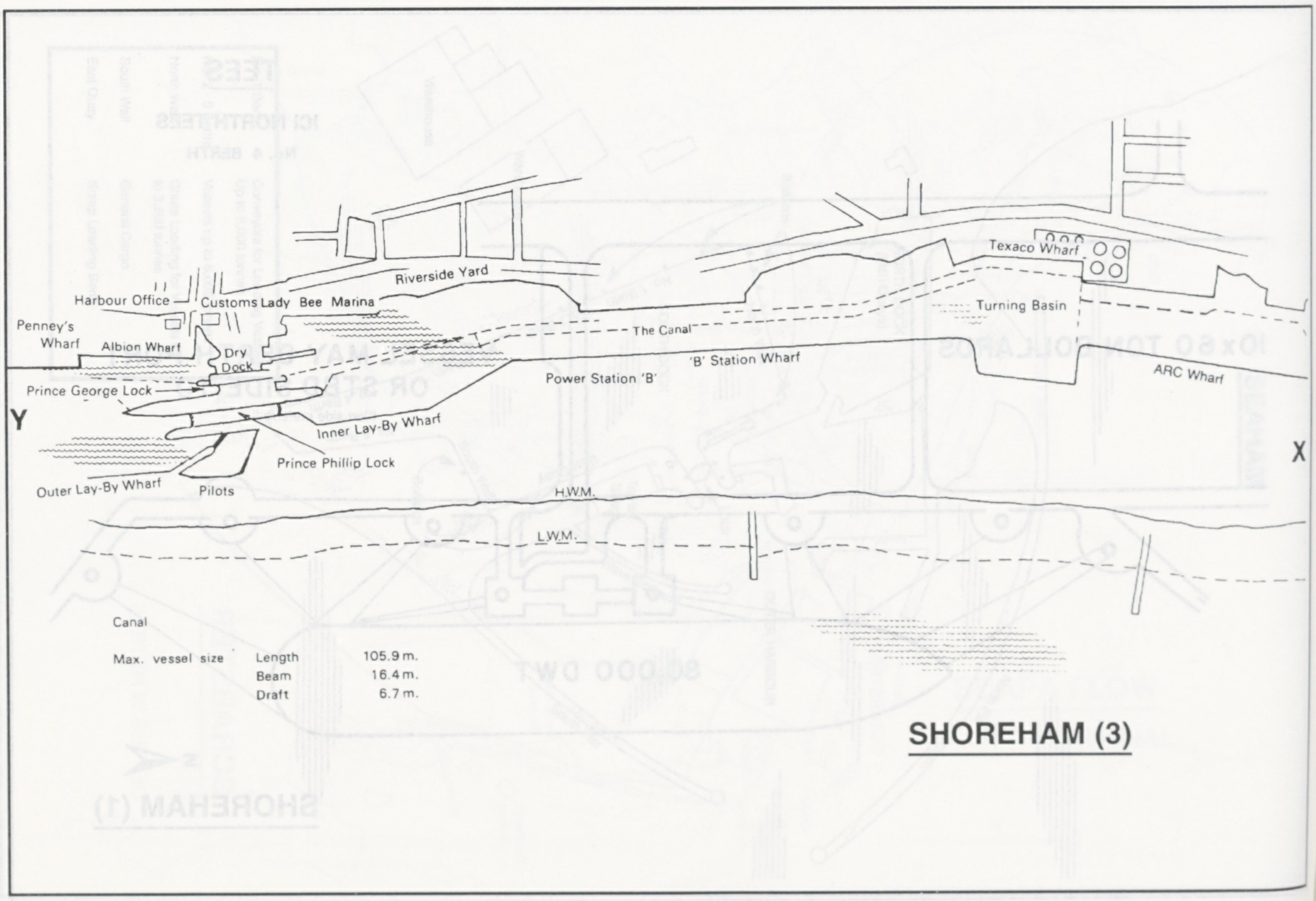
Western Arm

Max. vessel size	Length	82.3 m.
	Beam	14.3 m.
	Draft	5.5 m.
Wharf Length	Sussex	345 m.
	South	225 m.

Eastern Arm

Max. vessel size	Length	120.0 m.
	Beam	18.0 m.
	Draft	6.7 m.
Wharf Length	Outer Layby	259 m.

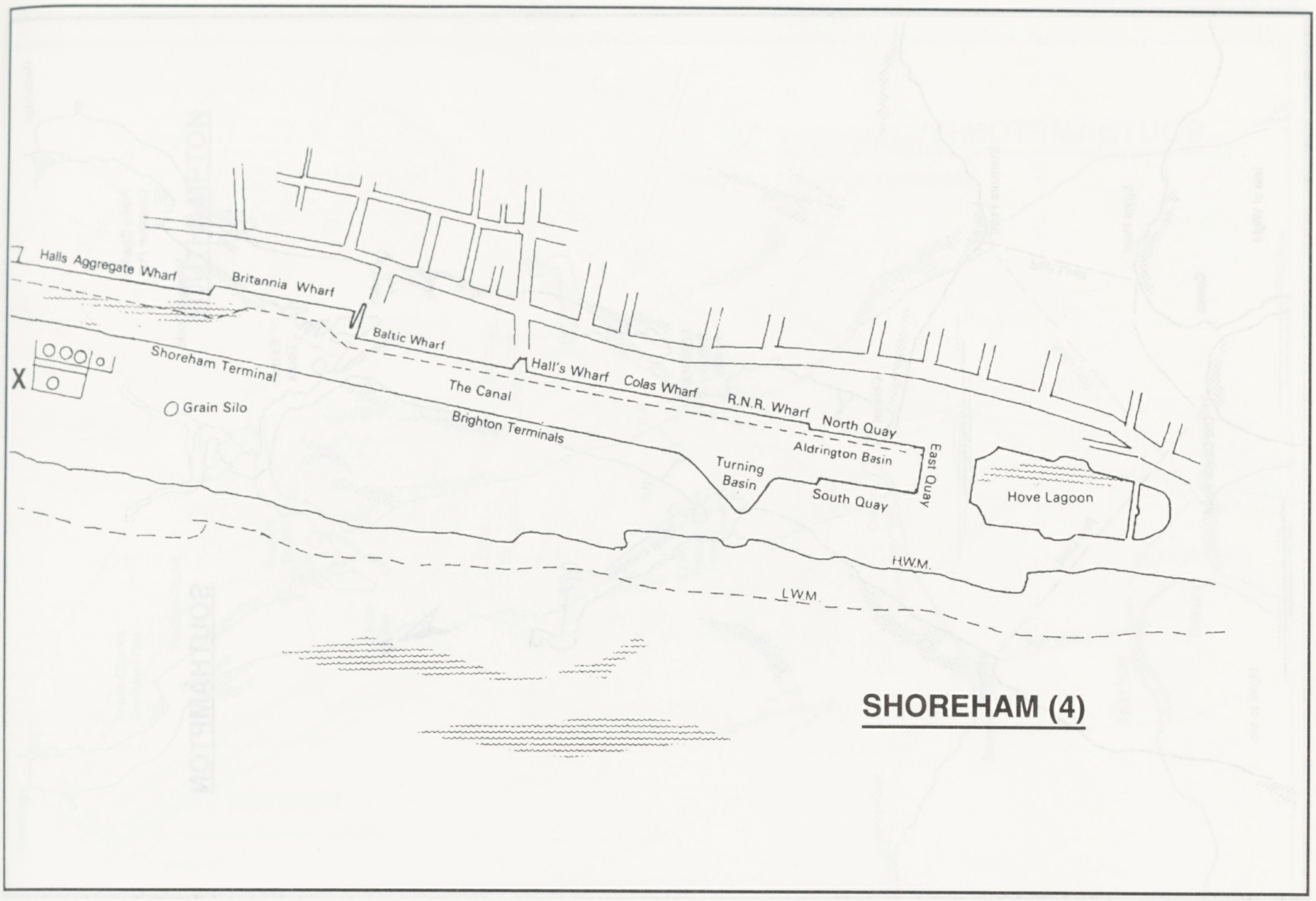
SHOREHAM (2)

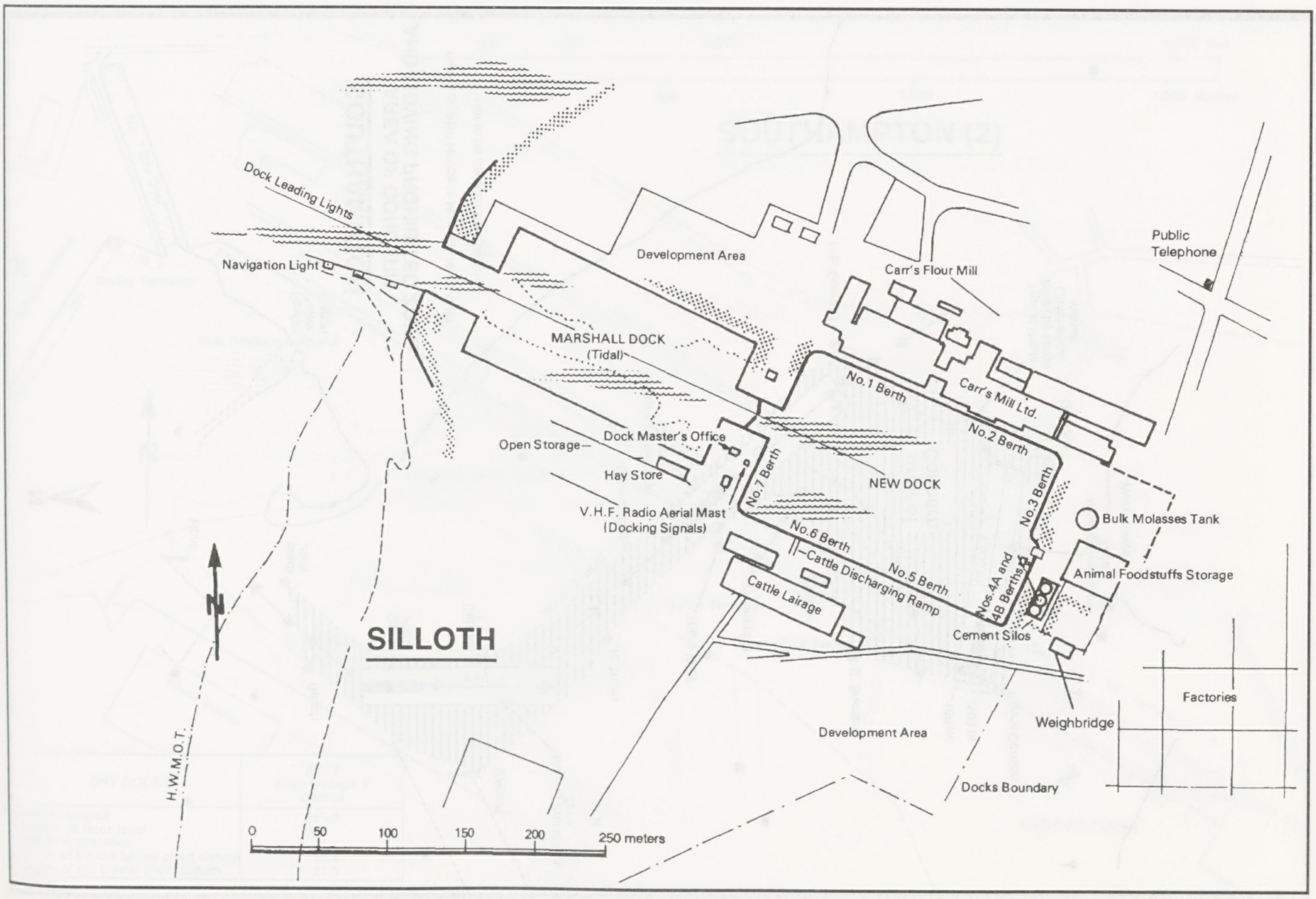

Riverside Yard
Texaco Wharf
Turning Basin
Harbour Office
Customs
Lady Bee Marina
Penney's Wharf
Albion Wharf
Dry Dock
The Canal
'B' Station Wharf
ARC Wharf
Power Station 'B'
Prince George Lock
Y
Inner Lay-By Wharf
Prince Phillip Lock
X
Outer Lay-By Wharf
Pilots
H.W.M.
L.W.M.

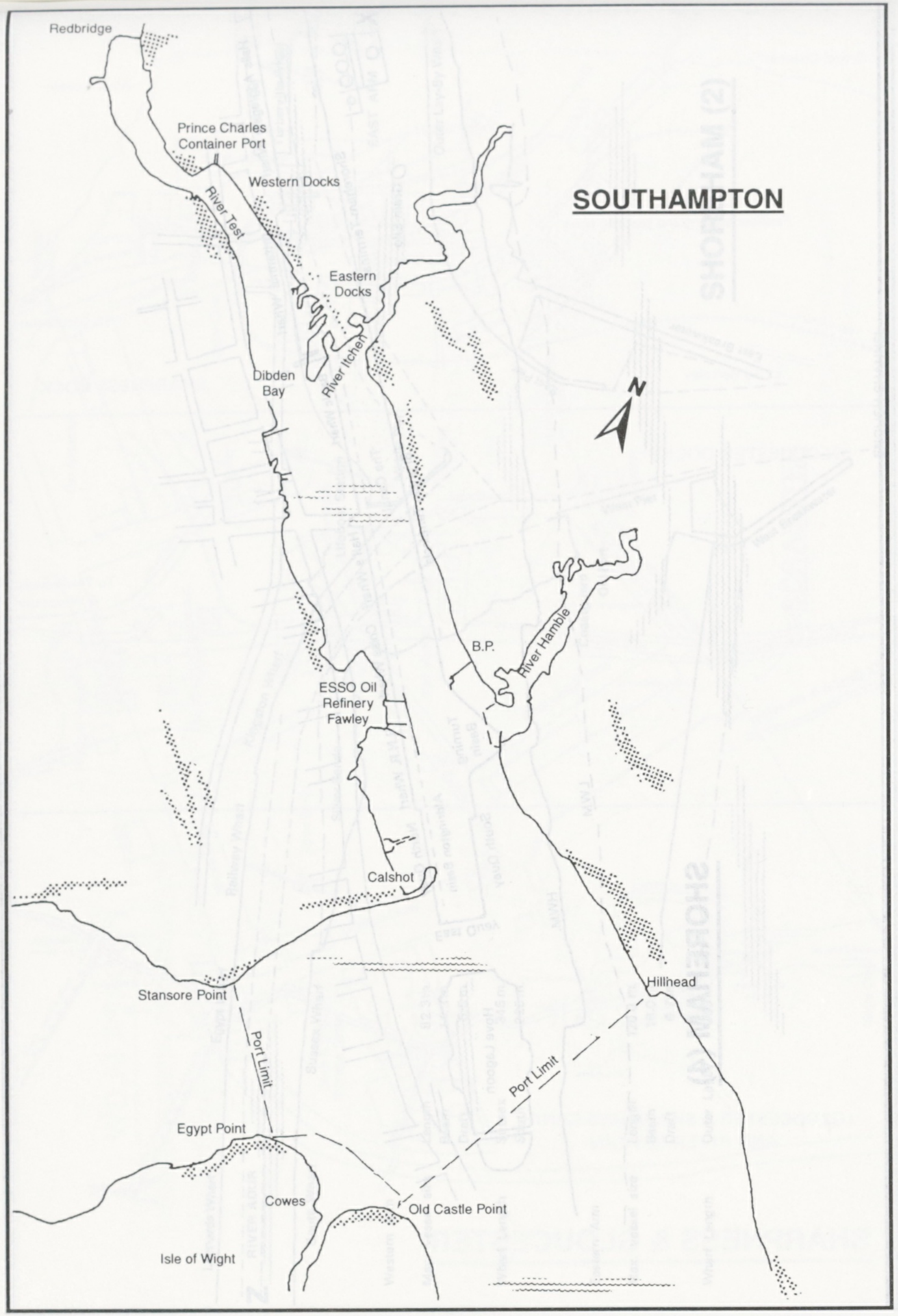
Canal

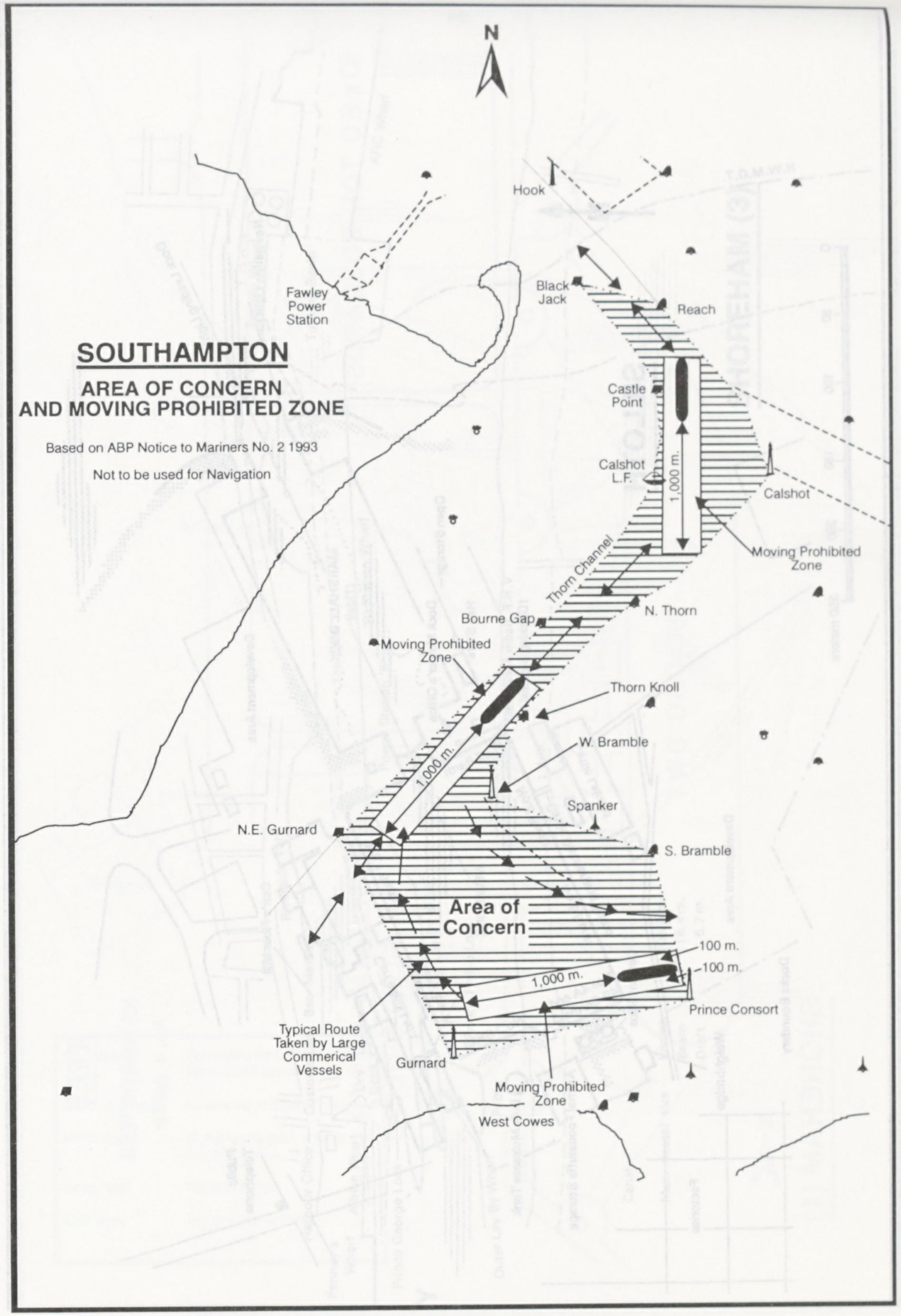
Max. vessel size	Length	105.9 m.
	Beam	16.4 m.
	Draft	6.7 m.

SHOREHAM (3)


Halls Aggregate Wharf
Britannia Wharf
Baltic Wharf
Shoreham Terminal
X
Grain Silo
The Canal
Brighton Terminals
Hall's Wharf
Colas Wharf
R.N.R. Wharf
North Quay
Aldrington Basin
East Quay
Turning Basin
South Quay
Hove Lagoon
H.W.M.
L.W.M.
SHOREHAM (4)


Dock Leading Lights
Navigation Light
Development Area
Carr's Flour Mill
Public Telephone
MARSHALL DOCK (Tidal)
No.1 Berth
Carr's Mill Ltd.
No.2 Berth
Open Storage
Dock Master's Office
Hay Store
No.7 Berth
NEW DOCK
No.3 Berth
V.H.F. Radio Aerial Mast (Docking Signals)
Bulk Molasses Tank
No.6 Berth
Cattle Discharging Ramp
No.5 Berth
Nos.4A and 4B Berths
Animal Foodstuffs Storage
Cattle Lairage
Cement Silos
N
SILLOTH
Factories
Weighbridge
Development Area
Docks Boundary
H.W.M.O.T.
0
50
100
150
200
250 meters


SOUTHAMPTON
N
Redbridge
Prince Charles Container Port
Western Docks
River Test
Eastern Docks
River Itchen
Dibden Bay
ESSO Oil Refinery Fawley
B.P.
River Hamble
Calshot
Stansore Point
Port Limit
Hillhead
Port Limit
Egypt Point
Cowes
Old Castle Point
Isle of Wight


N
Hook
Black Jack
Reach
Fawley Power Station
Castle Point
Calshot L.F.
Calshot
1,000 m.
Moving Prohibited Zone
Thorn Channel
N. Thorn
Bourne Gap
Moving Prohibited Zone
Thorn Knoll
W. Bramble
1,000 m.
Spanker
N.E. Gurnard
S. Bramble
Area of Concern
100 m.
100 m.
1,000 m.
Prince Consort
Typical Route Taken by Large Commerical Vessels
Gurnard
Moving Prohibited Zone
West Cowes

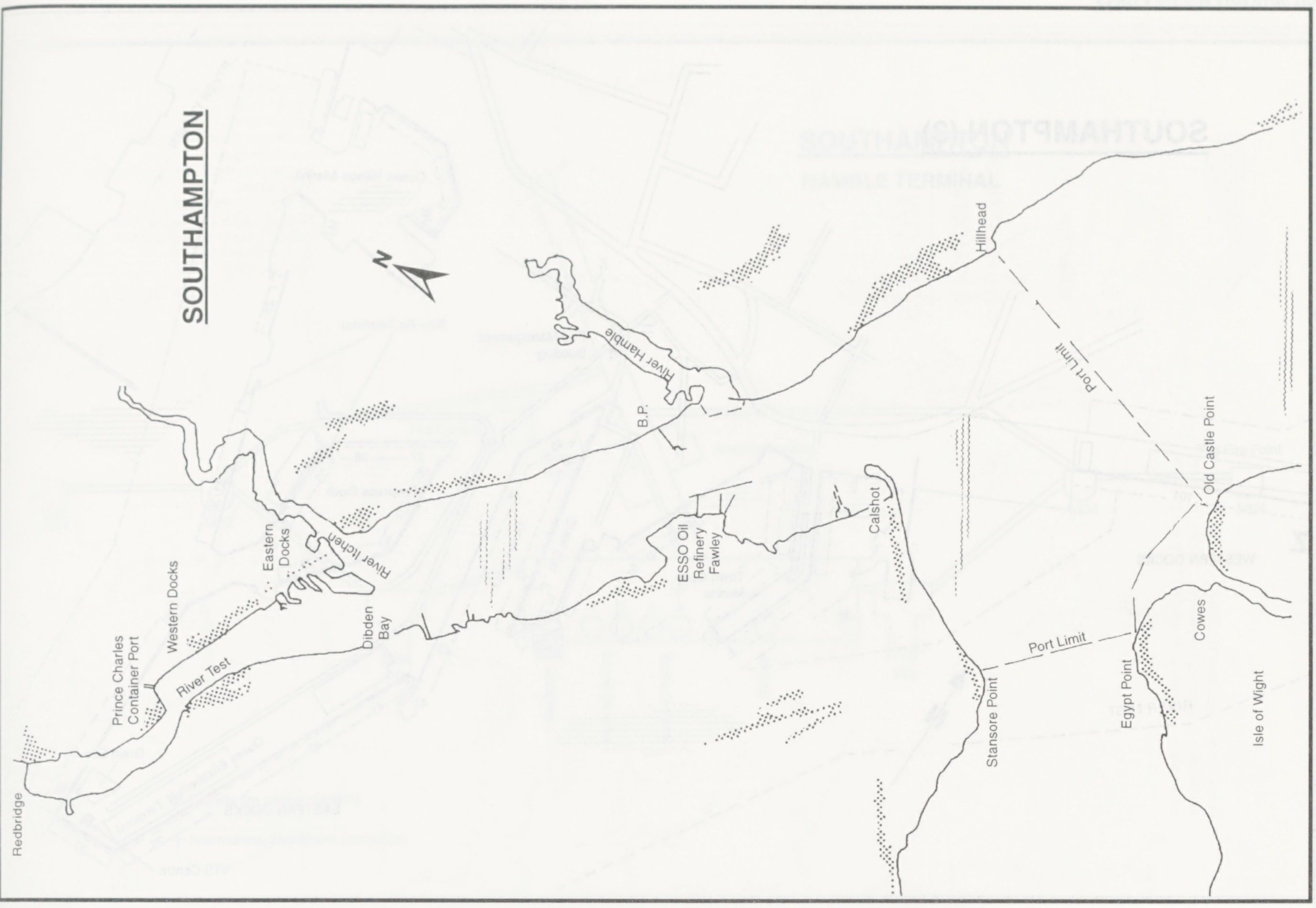
SOUTHAMPTON

AREA OF CONCERN AND MOVING PROHIBITED ZONE

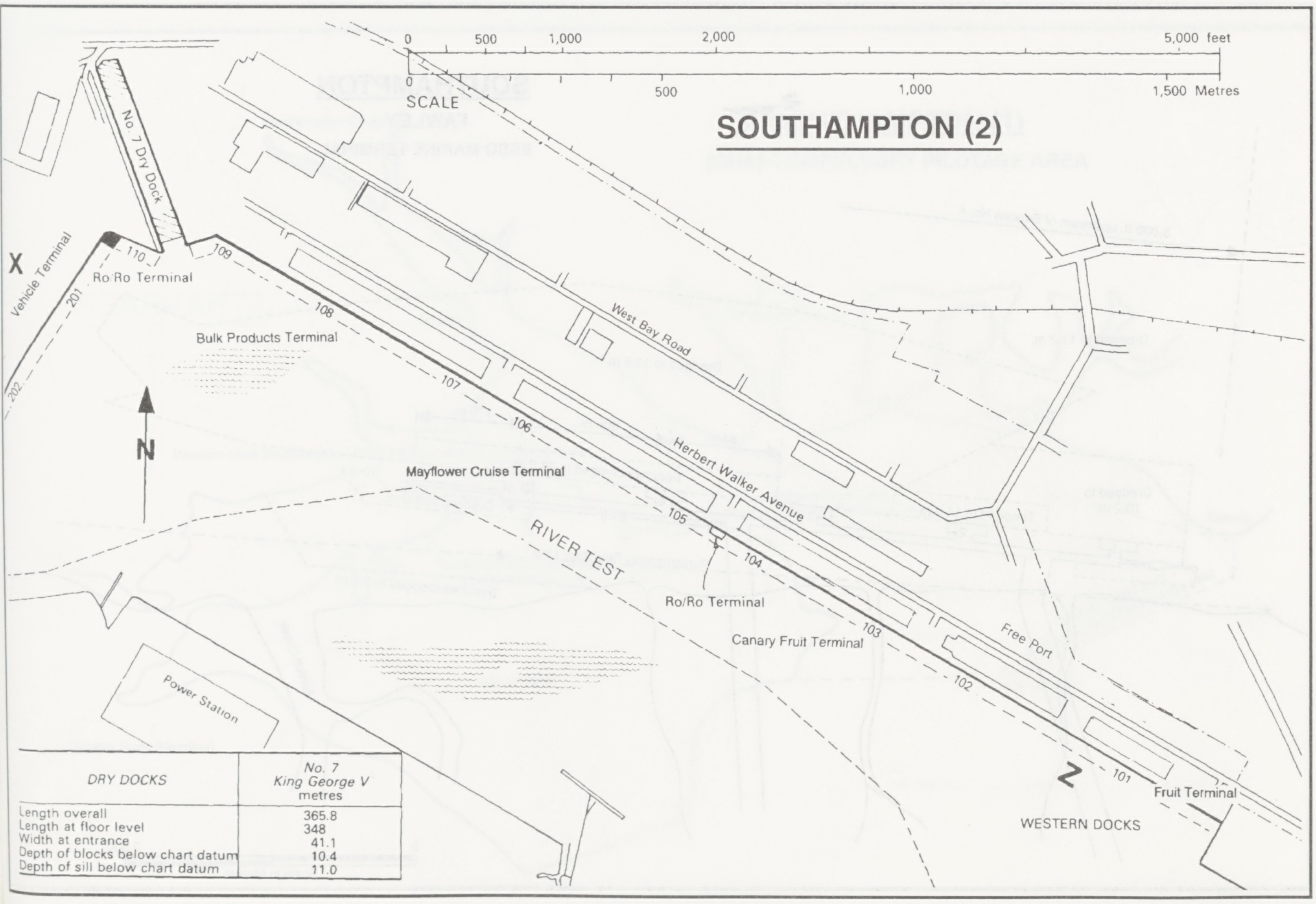
Based on ABP Notice to Mariners No. 2 1993

Not to be used for Navigation

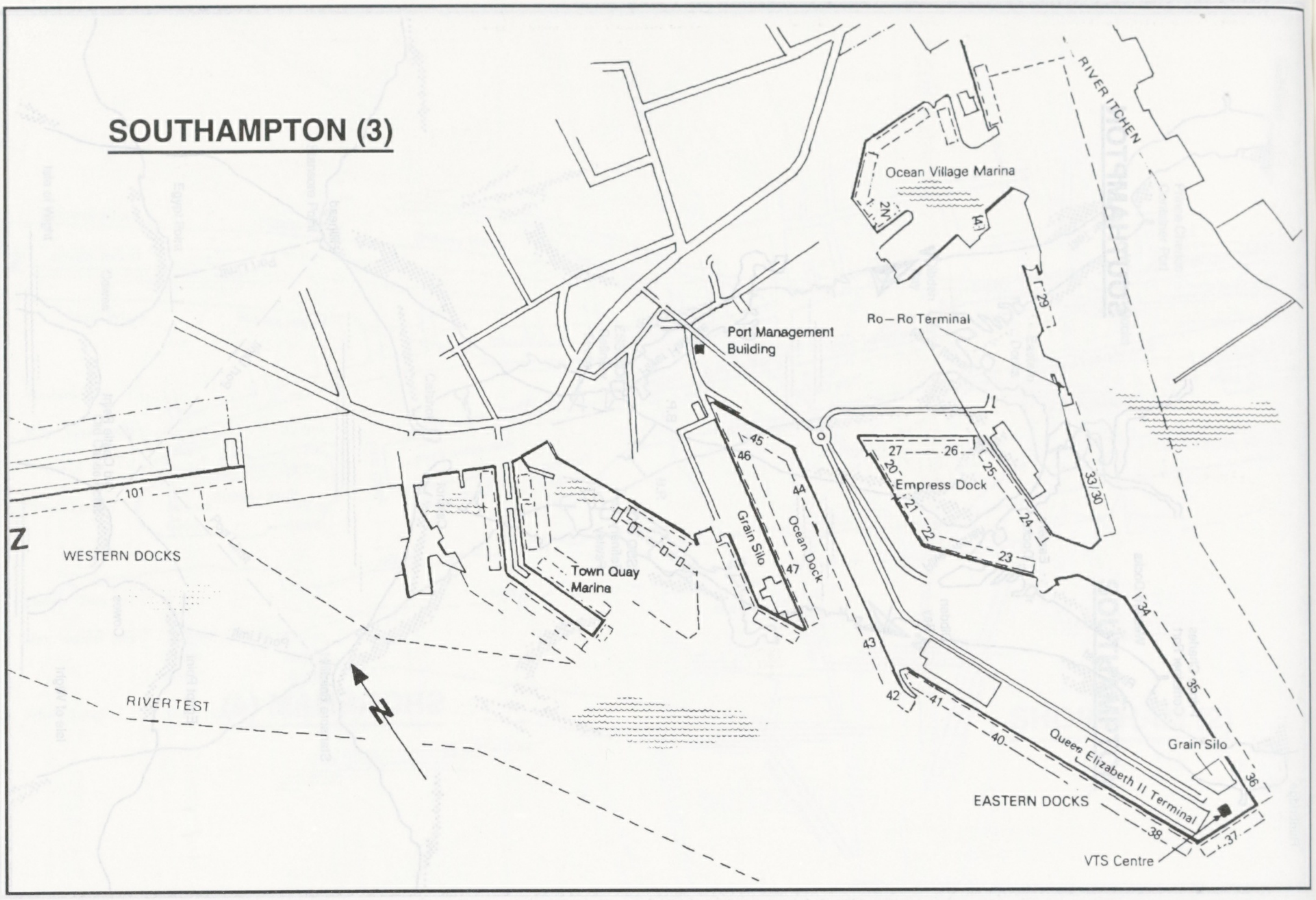
SOUTHAMPTON

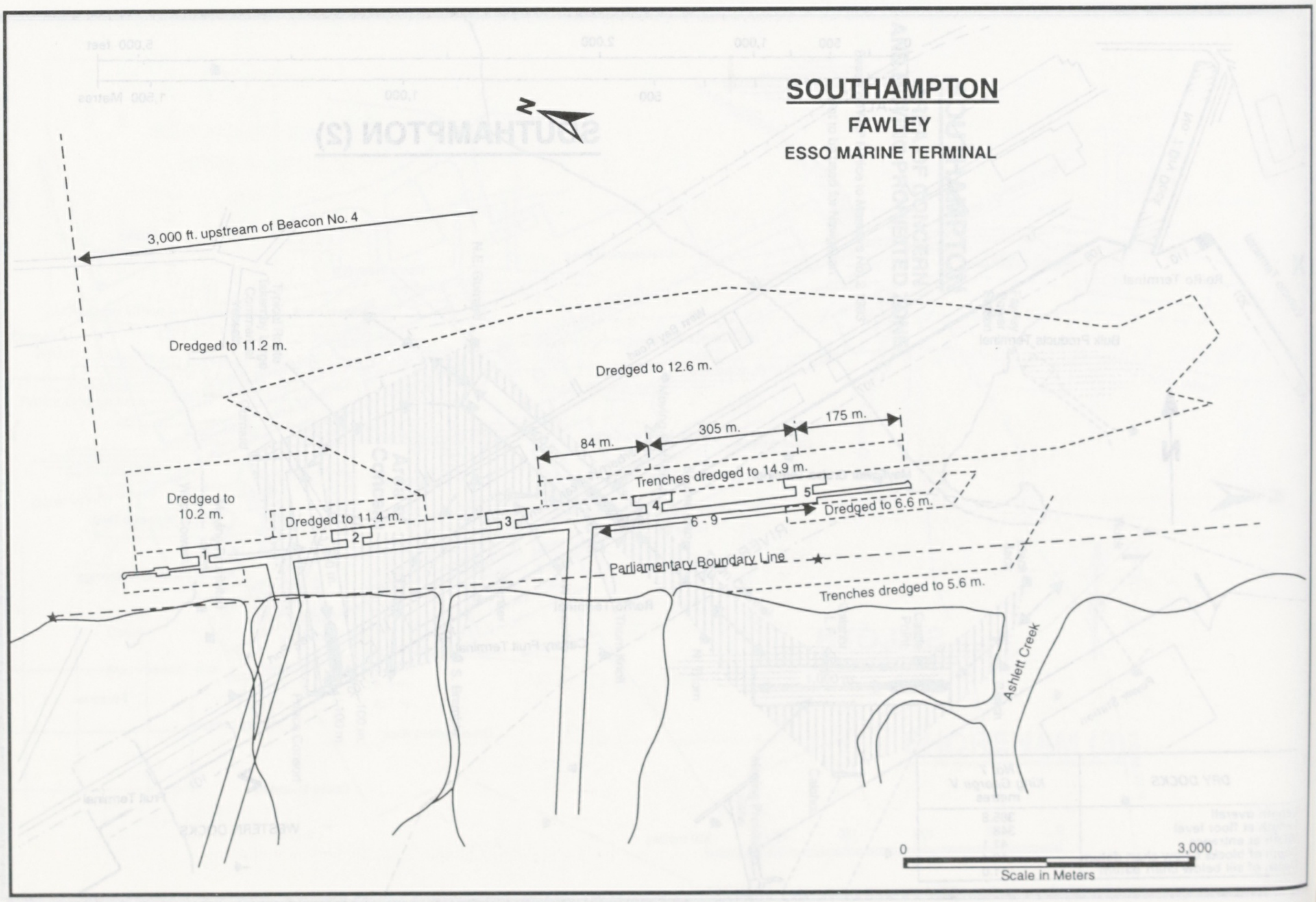

N
Redbridge
Prince Charles Container Port
River Test
Western Docks
Eastern Docks
River Itchen
Dibden Bay
River Hamble
B.P.
ESSO Oil Refinery Fawley
Calshot
Hillhead
Port Limit
Port Limit
Stansore Point
Egypt Point
Old Castle Point
Cowes
Isle of Wight

SOUTHAMPTON (2)


0
500
1,000
2,000
5,000 feet
0
500
1,000
1,500 Metres
SCALE
X
Vehicle Terminal
201
202
No. 7 Dry Dock
110
109
108
107
106
105
104
103
102
101
Ro Ro Terminal
Bulk Products Terminal
N
Mayflower Cruise Terminal
West Bay Road
Herbert Walker Avenue
RIVER TEST
Ro/Ro Terminal
Canary Fruit Terminal
Free Port
Power Station
Z
Fruit Terminal
WESTERN DOCKS

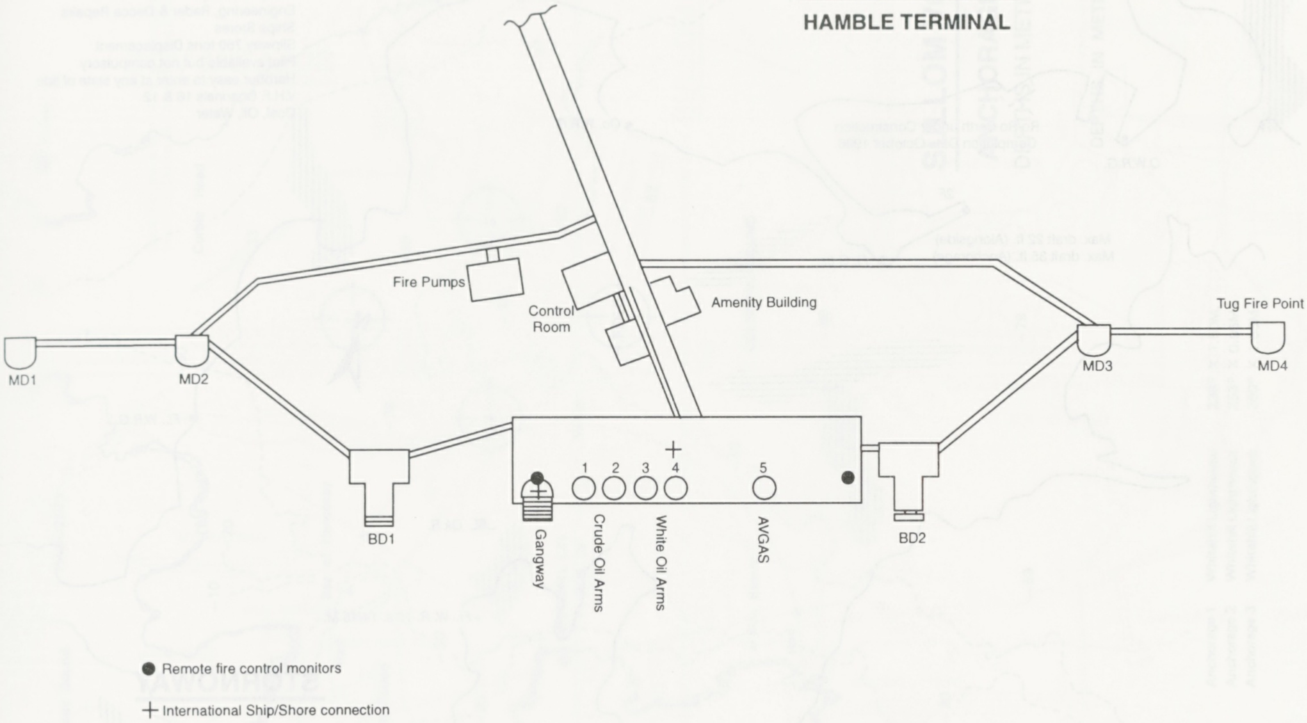
DRY DOCKS	*No. 7 King George V metres*
Length overall	365.8
Length at floor level	348
Width at entrance	41.1
Depth of blocks below chart datum	10.4
Depth of sill below chart datum	11.0


SOUTHAMPTON (3)
RIVER ITCHEN
Ocean Village Marina
2N
41
29
Ro – Ro Terminal
Port Management Building
45
46
44
Grain Silo
Ocean Dock
47
27
26
20
Empress Dock
21
22
25
24
23
33/30
34
35
101
N
WESTERN DOCKS
Town Quay Marina
RIVER TEST
N
43
42
41
40
Queen Elizabeth II Terminal
Grain Silo
36
EASTERN DOCKS
38
37
VTS Centre


SOUTHAMPTON
FAWLEY
ESSO MARINE TERMINAL
N
3,000 ft. upstream of Beacon No. 4
Dredged to 11.2 m.
Dredged to 12.6 m.
84 m.
305 m.
175 m.
Trenches dredged to 14.9 m.
Dredged to 10.2 m.
Dredged to 11.4 m.
1
2
3
4
5
6 - 9
Dredged to 6.6 m.
Parliamentary Boundary Line
Trenches dredged to 5.6 m.
Ashlett Creek
0
3,000
Scale in Meters

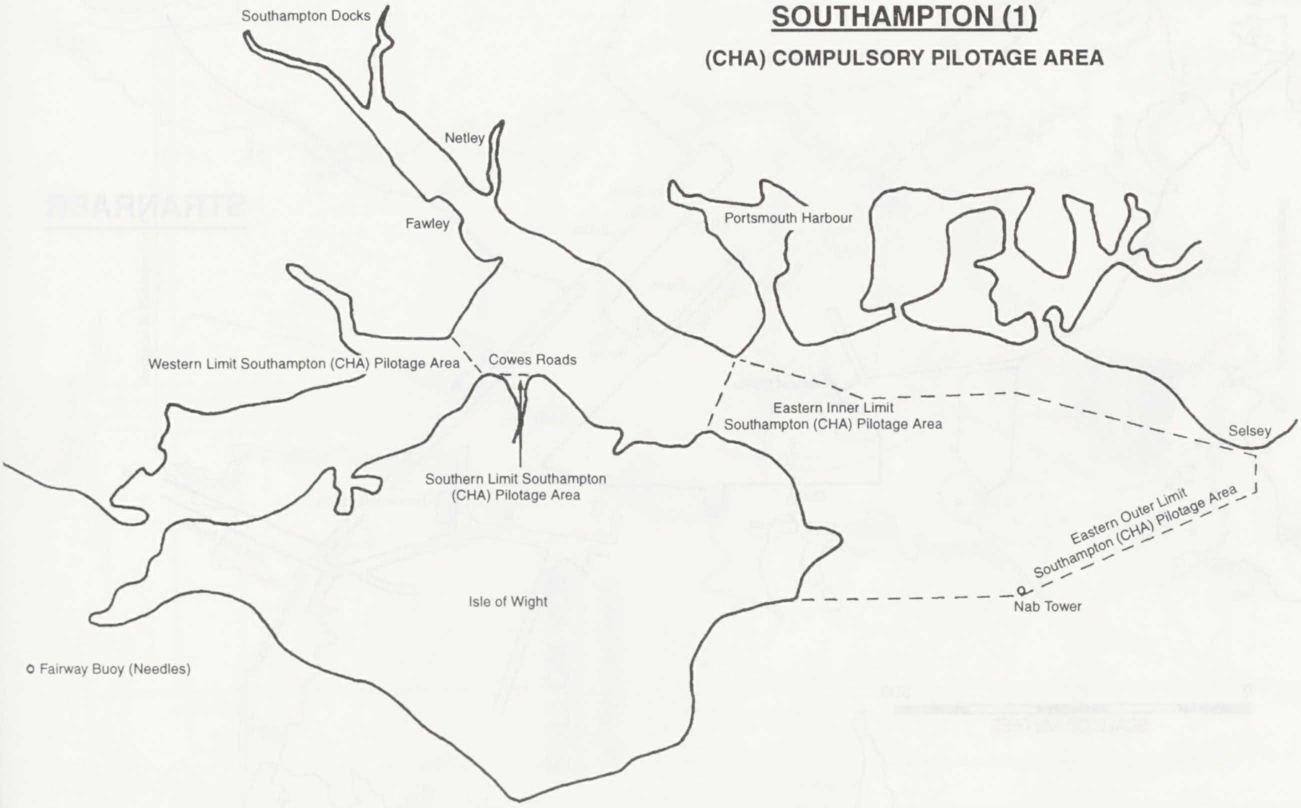
SOUTHAMPTON

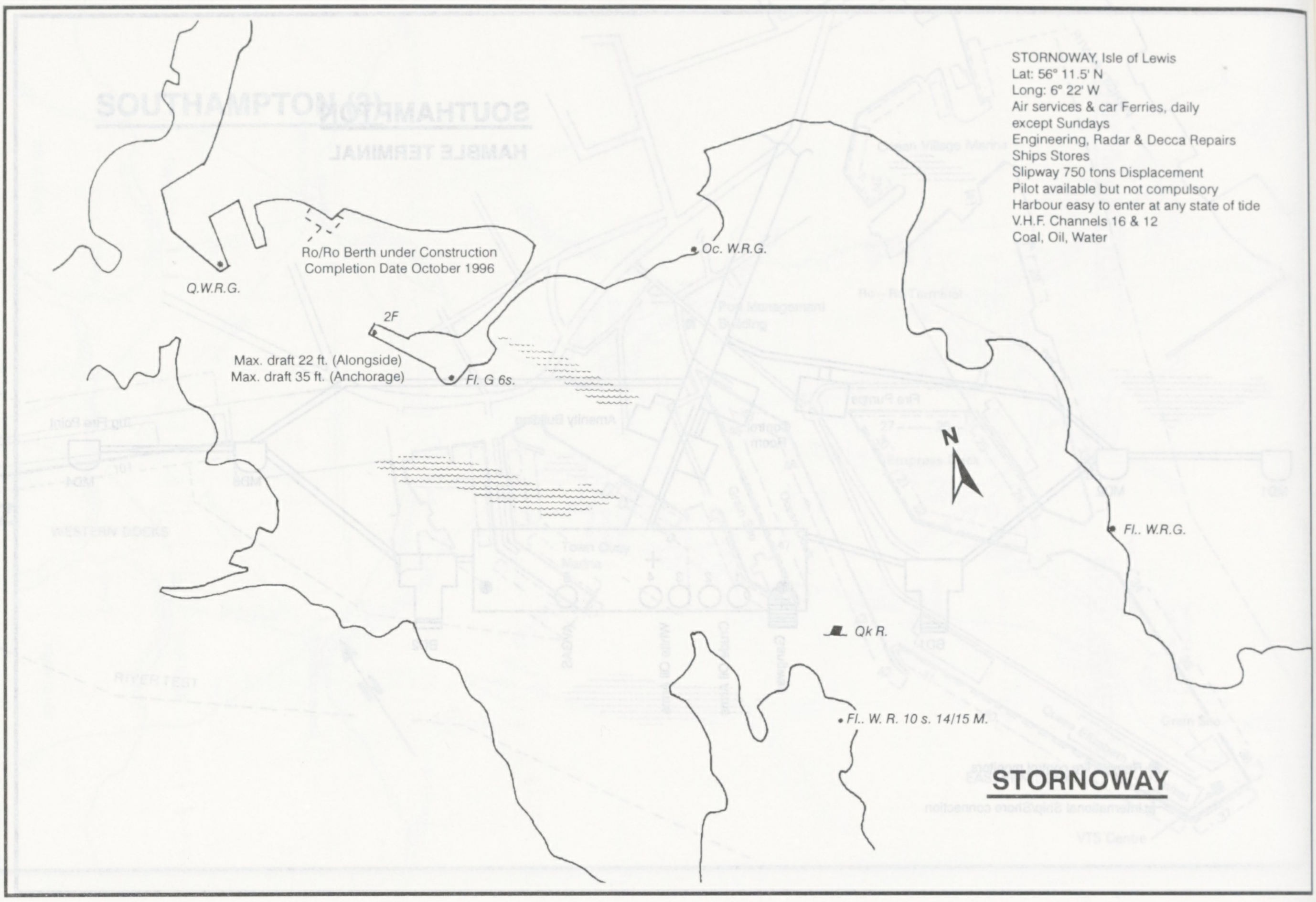
HAMBLE TERMINAL


Fire Pumps
Control Room
Amenity Building
Tug Fire Point
MD1
MD2
MD3
MD4
BD1
BD2
1
2
3
4
5
Gangway
Crude Oil Arms
White Oil Arms
AVGAS
● Remote fire control monitors
+ International Ship/Shore connection

SOUTHAMPTON (1)

(CHA) COMPULSORY PILOTAGE AREA

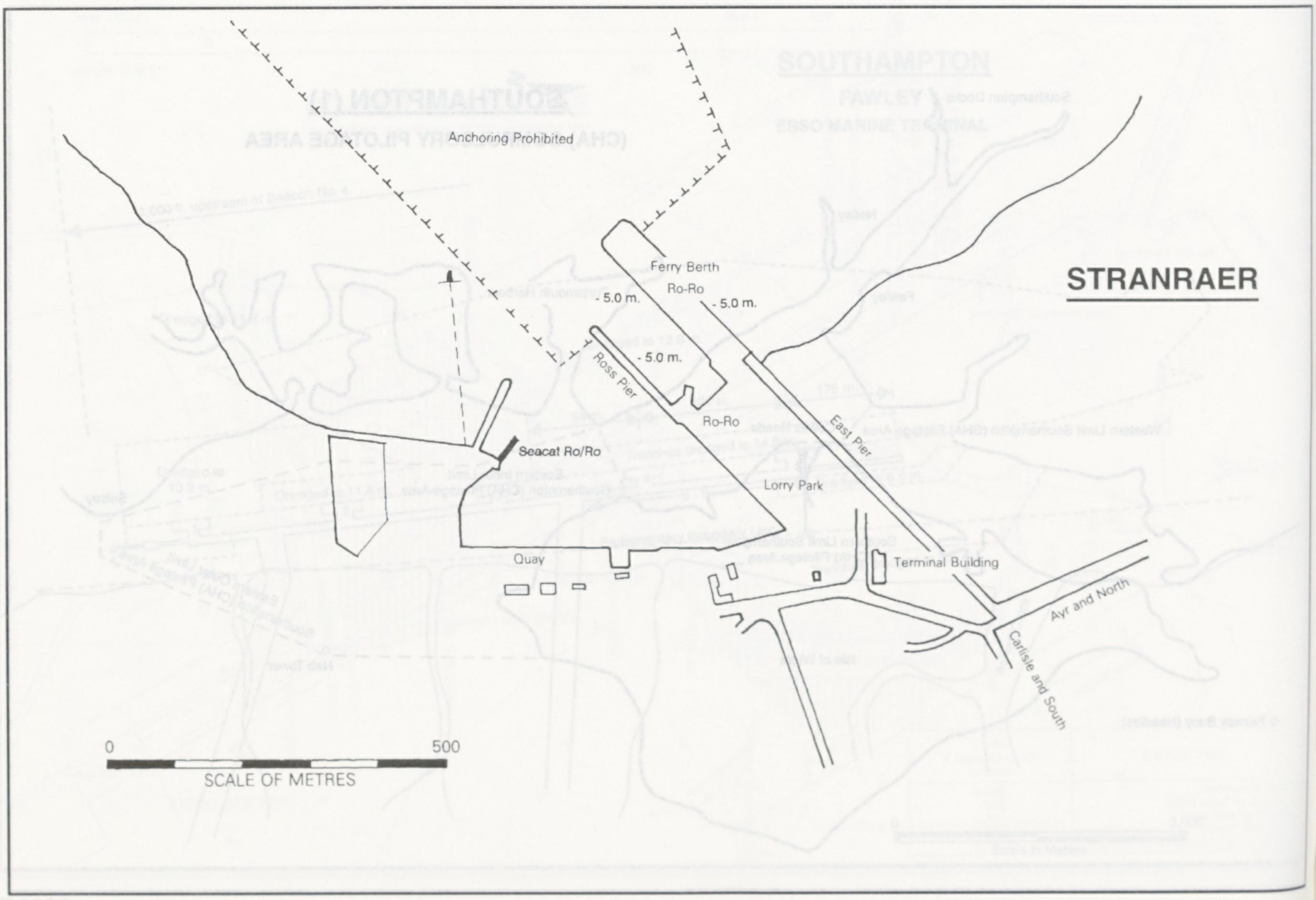

Southampton Docks
Netley
Fawley
Portsmouth Harbour
Western Limit Southampton (CHA) Pilotage Area
Cowes Roads
Eastern Inner Limit Southampton (CHA) Pilotage Area
Selsey
Southern Limit Southampton (CHA) Pilotage Area
Eastern Outer Limit Southampton (CHA) Pilotage Area
Nab Tower
Isle of Wight
○ Fairway Buoy (Needles)



STORNOWAY

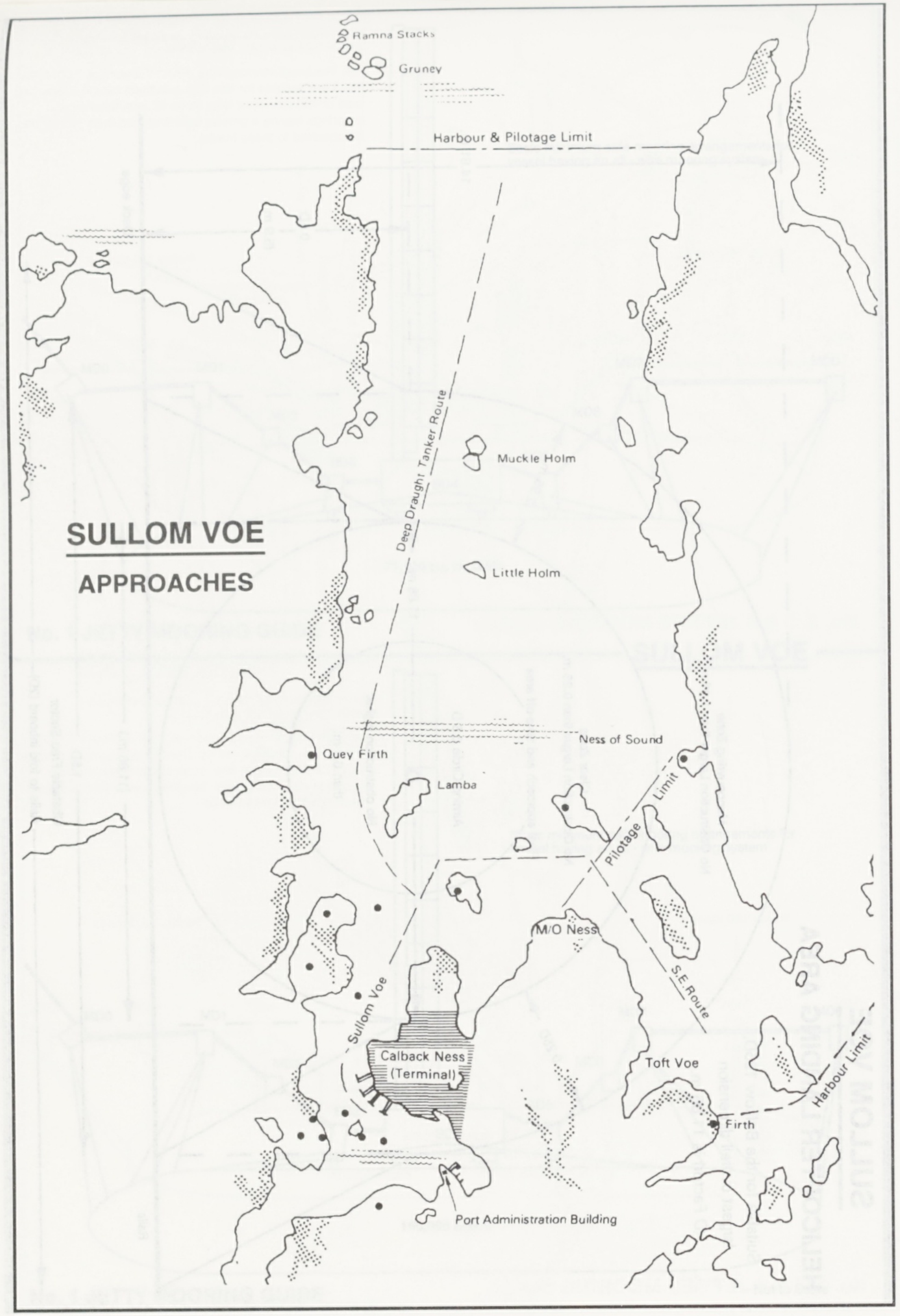
STORNOWAY, Isle of Lewis
Lat: 56° 11.5' N
Long: 6° 22' W
Air services & car Ferries, daily except Sundays
Engineering, Radar & Decca Repairs
Ships Stores
Slipway 750 tons Displacement
Pilot available but not compulsory
Harbour easy to enter at any state of tide
V.H.F. Channels 16 & 12
Coal, Oil, Water

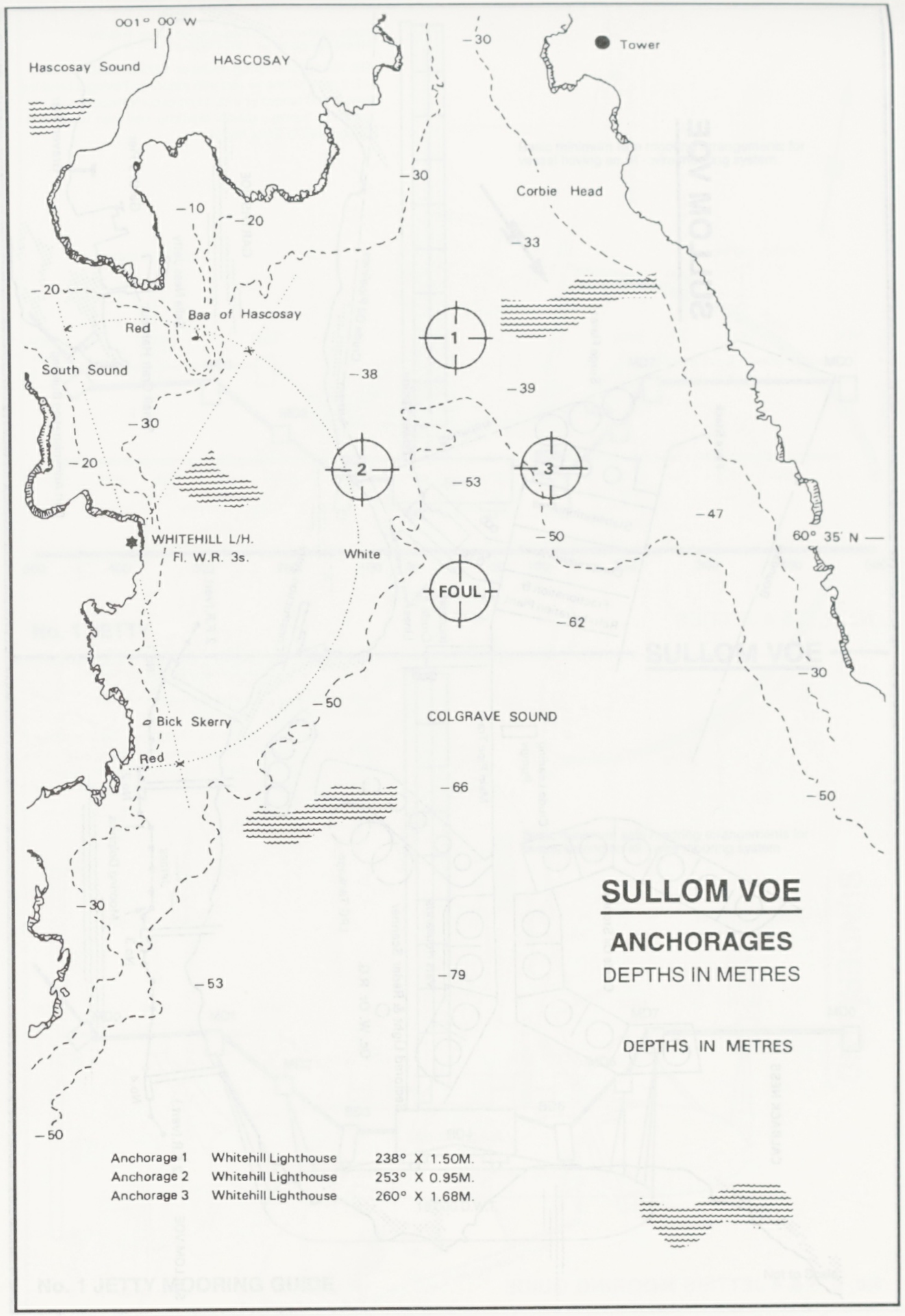
Q.W.R.G.
Ro/Ro Berth under Construction
Completion Date October 1996
Oc. W.R.G.
2F
Max. draft 22 ft. (Alongside)
Max. draft 35 ft. (Anchorage)
Fl. G 6s.
N
Fl.. W.R.G.
Qk R.
Fl.. W. R. 10 s. 14/15 M.



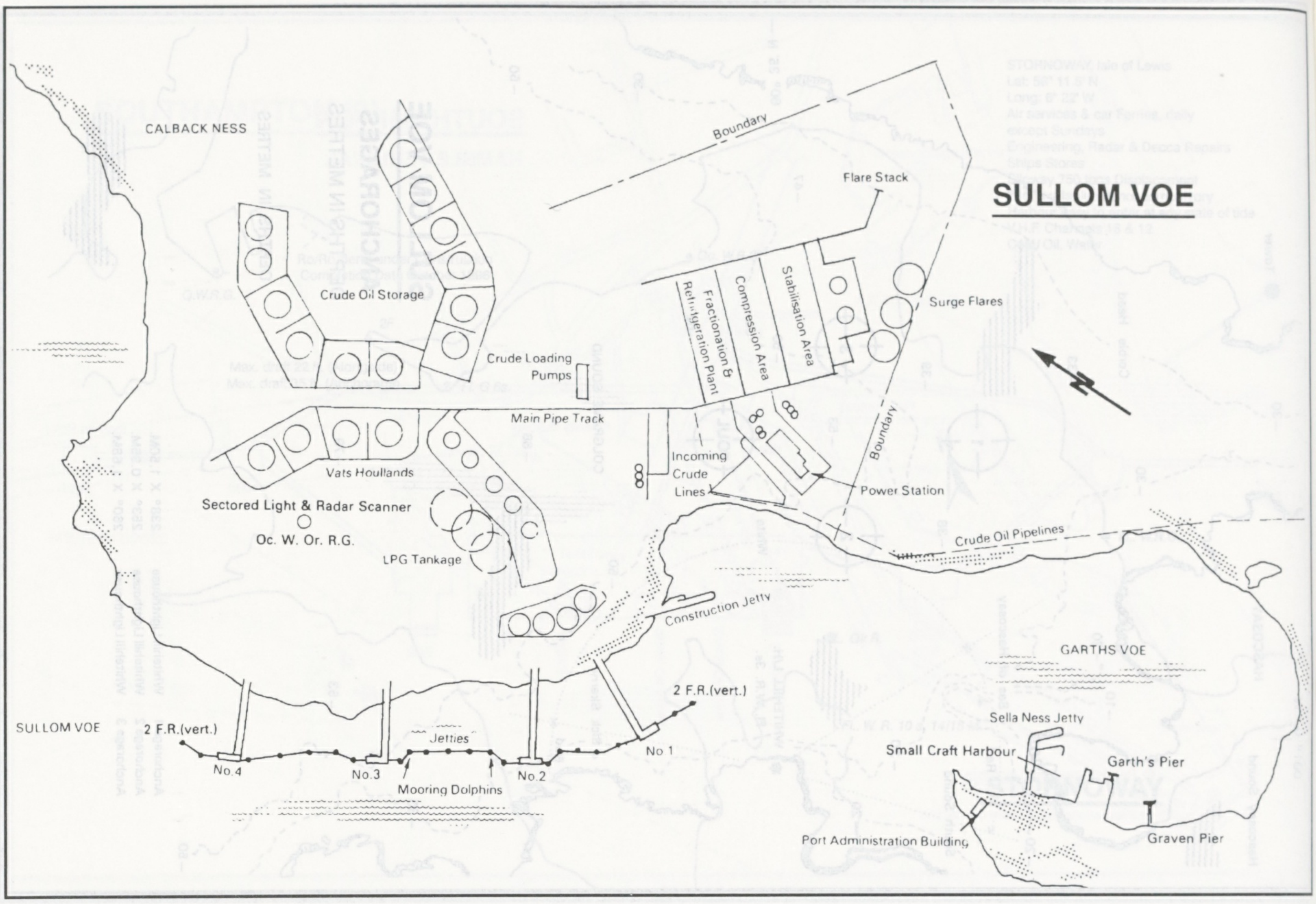
STRANRAER

Anchoring Prohibited
Ferry Berth
Ro-Ro
- 5.0 m.
- 5.0 m.
- 5.0 m.
Ross Pier
Ro-Ro
East Pier
Seacat Ro/Ro
Lorry Park
Quay
Terminal Building
Ayr and North
Carlisle and South
0
500
SCALE OF METRES


SULLOM VOE
APPROACHES
Ramna Stacks
Gruney
Harbour & Pilotage Limit
Deep Draught Tanker Route
Muckle Holm
Little Holm
Ness of Sound
Quey Firth
Lamba
Pilotage Limit
M/O Ness
S.E.Route
Sullom Voe
Calback Ness (Terminal)
Toft Voe
Harbour Limit
Firth
Port Administration Building

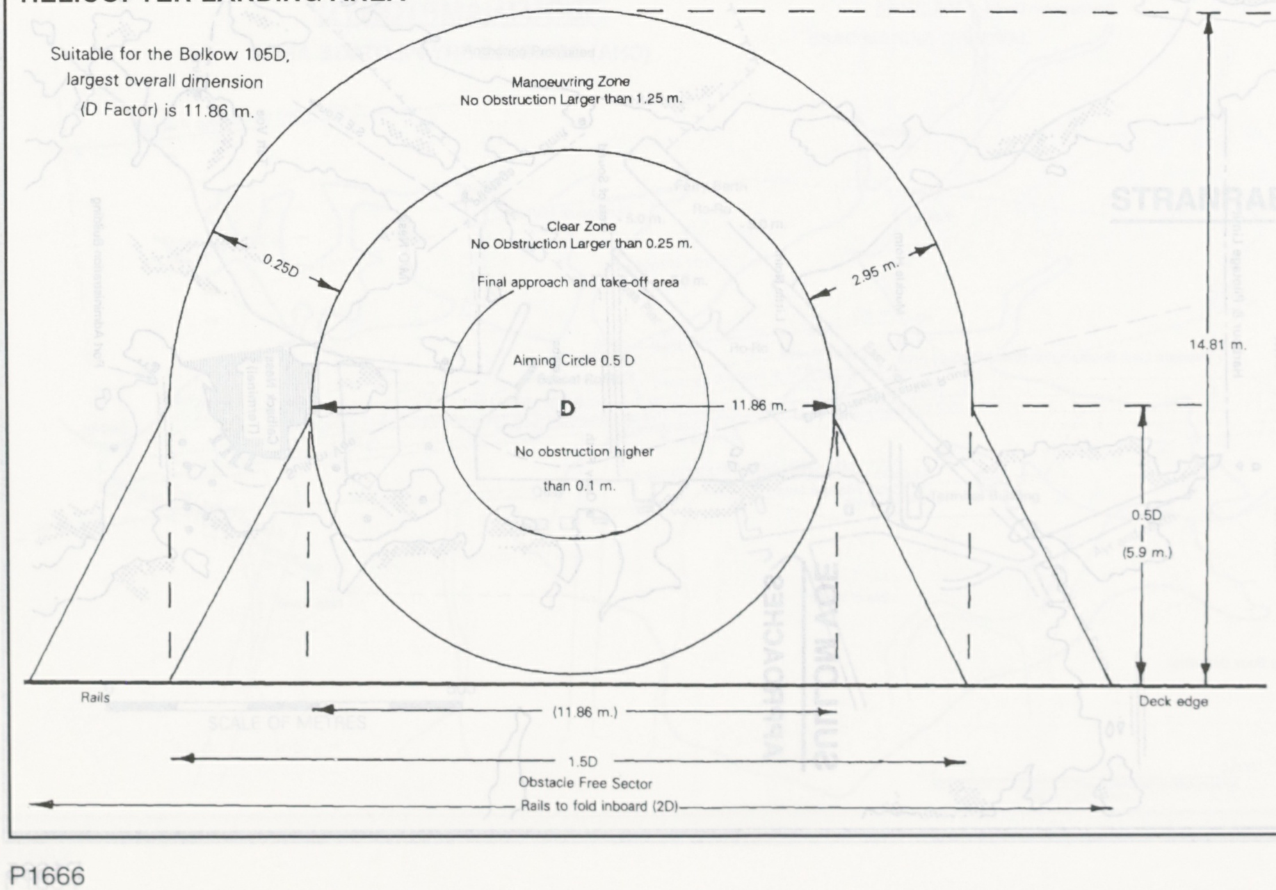

001° 00' W
Hascosay Sound
HASCOSAY
Tower
Corbie Head
Baa of Hascosay
Red
South Sound
WHITEHILL L/H.
Fl. W.R. 3s.
White
Bick Skerry
Red
1
2
3
FOUL
COLGRAVE SOUND
60° 35' N
-10
-20
-20
-20
-30
-30
-30
-30
-30
-33
-38
-39
-47
-50
-50
-50
-50
-53
-53
-62
-66
-79
SULLOM VOE
ANCHORAGES
DEPTHS IN METRES
DEPTHS IN METRES

Anchorage 1	Whitehill Lighthouse	238° X 1.50M.
Anchorage 2	Whitehill Lighthouse	253° X 0.95M.
Anchorage 3	Whitehill Lighthouse	260° X 1.68M.


SULLOM VOE
CALBACK NESS
Boundary
Flare Stack
Crude Oil Storage
Fractionation & Refrigeration Plant
Compression Area
Stabilisation Area
Surge Flares
Crude Loading Pumps
Main Pipe Track
Incoming Crude Lines
Boundary
Power Station
Vats Houllands
Sectored Light & Radar Scanner
Oc. W. Or. R.G.
LPG Tankage
Crude Oil Pipelines
Construction Jetty
GARTHS VOE
SULLOM VOE
2 F.R.(vert.)
2 F.R.(vert.)
Jetties
No.4
No.3
No.2
No.1
Mooring Dolphins
Sella Ness Jetty
Small Craft Harbour
Garth's Pier
Port Administration Building
Graven Pier

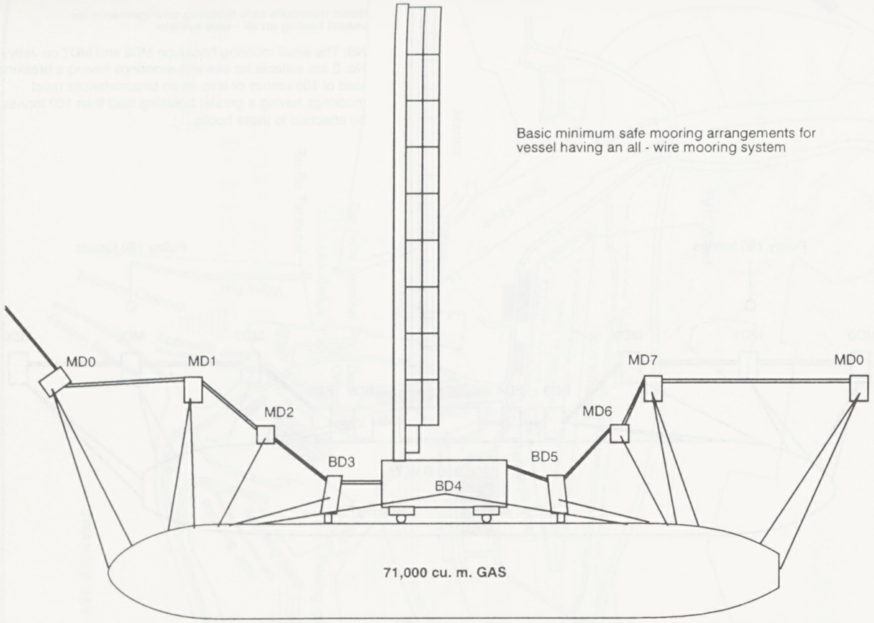
SULLOM VOE

HELICOPTER LANDING AREA


Suitable for the Bolkow 105D, largest overall dimension (D Factor) is 11.86 m.

Manoeuvring Zone
No Obstruction Larger than 1.25 m.
Clear Zone
No Obstruction Larger than 0.25 m.
Final approach and take-off area
Aiming Circle 0.5 D
D
No obstruction higher than 0.1 m.
0.25D
2.95 m.
11.86 m.
14.81 m.
0.5D
(5.9 m.)
Rails
Deck edge
(11.86 m.)
1.5D
Obstacle Free Sector
Rails to fold inboard (2D)

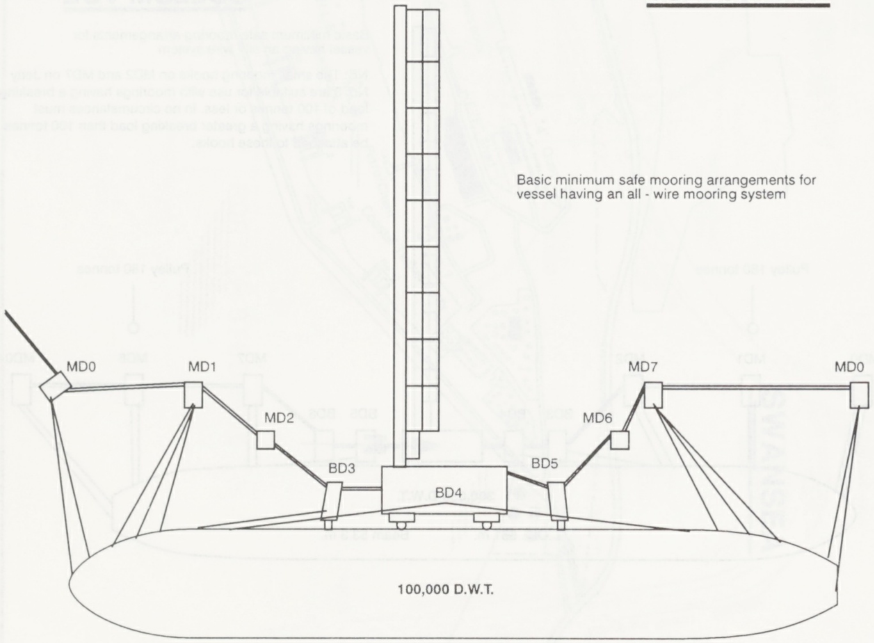
Basic minimum safe mooring arrangements for vessel having an all - wire mooring system


MD0
MD1
MD2
BD3
BD4
BD5
MD6
MD7
MD0
71,000 cu. m. GAS

No. 1 JETTY MOORING GUIDE

SULLOM VOE

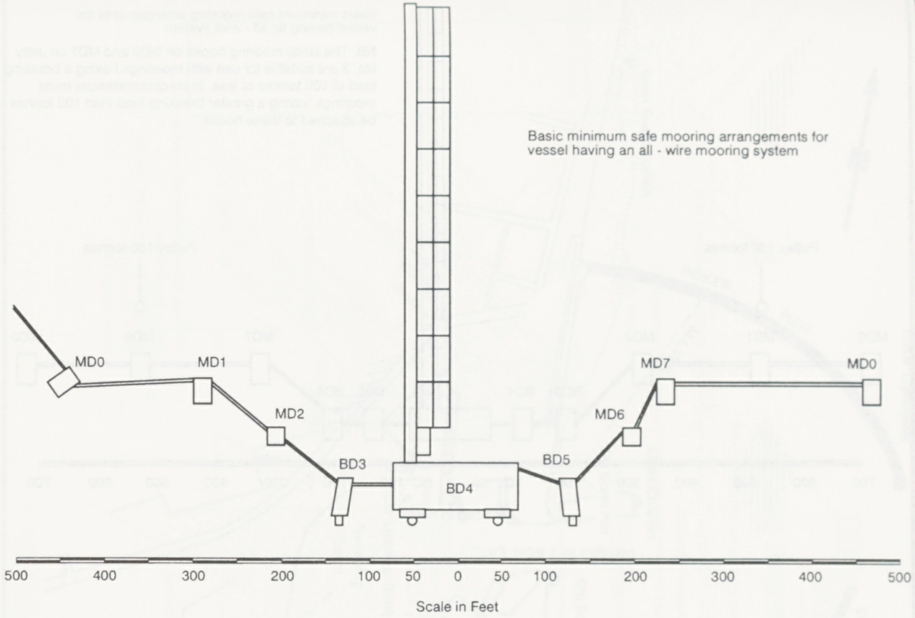
Basic minimum safe mooring arrangements for vessel having an all - wire mooring system


MD0
MD1
MD2
BD3
BD4
BD5
MD6
MD7
MD0
100,000 D.W.T.

No. 1 JETTY MOORING GUIDE

Not to Scale

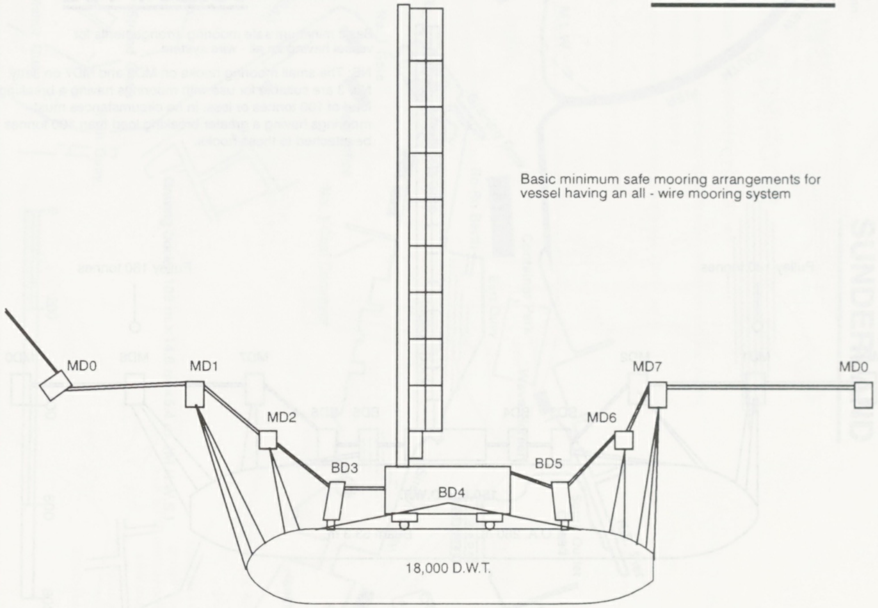
Basic minimum safe mooring arrangements for vessel having an all - wire mooring system


MD0
MD1
MD2
BD3
BD4
BD5
MD6
MD7
MD0
500
400
300
200
100
50
0
50
100
200
300
400
500
Scale in Feet

No. 1 JETTY

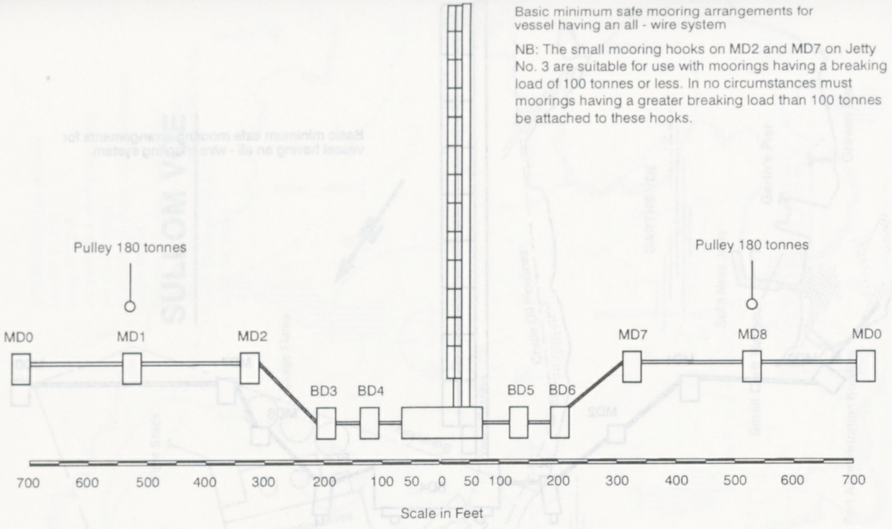
SULLOM VOE

Basic minimum safe mooring arrangements for vessel having an all - wire mooring system


MD0
MD1
MD2
BD3
BD4
BD5
MD6
MD7
MD0
18,000 D.W.T.

No. 1 JETTY MOORING GUIDE

Not to Scale



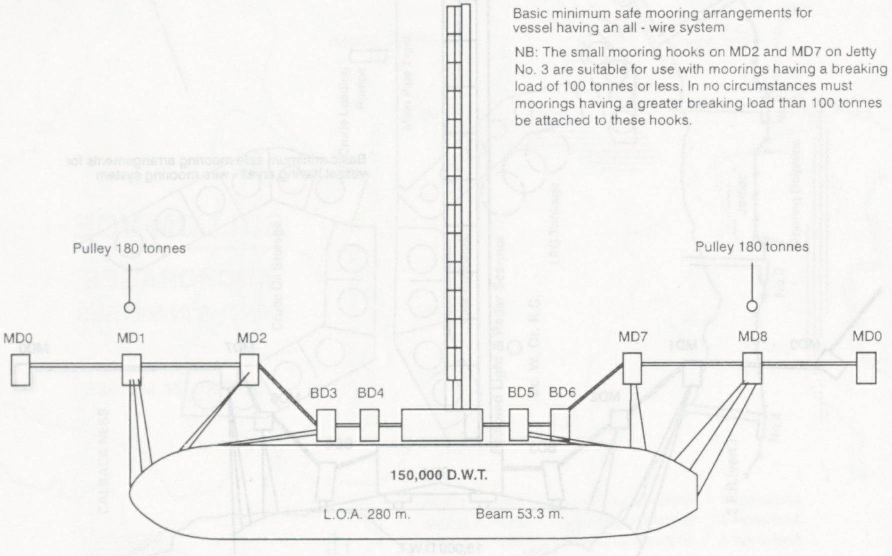
Basic minimum safe mooring arrangements for vessel having an all - wire system

NB: The small mooring hooks on MD2 and MD7 on Jetty No. 3 are suitable for use with moorings having a breaking load of 100 tonnes or less. In no circumstances must moorings having a greater breaking load than 100 tonnes be attached to these hooks.

Pulley 180 tonnes
Pulley 180 tonnes
MD0
MD1
MD2
MD7
MD8
MD0
BD3
BD4
BD5
BD6
700
600
500
400
300
200
100
50
0
50
100
200
300
400
500
600
700
Scale in Feet

No. 2, 3 & 4 JETTIES

SULLOM VOE



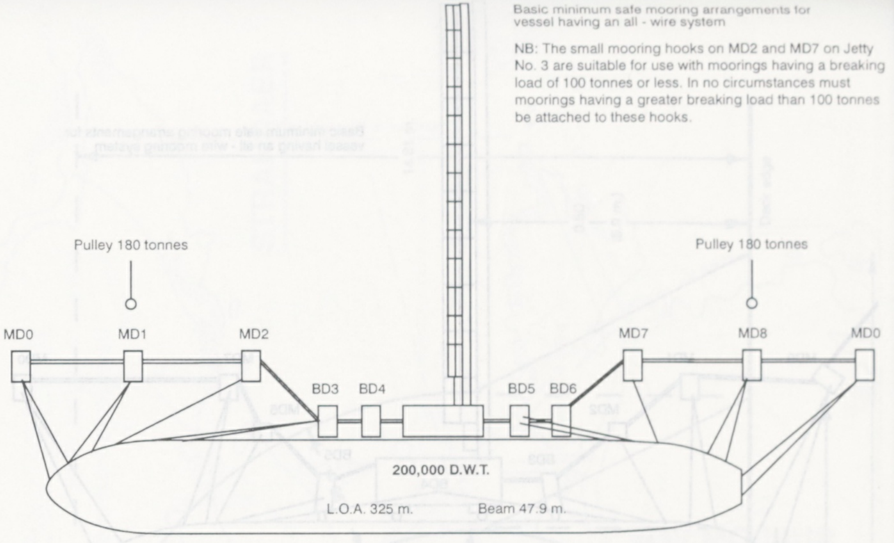
Basic minimum safe mooring arrangements for vessel having an all - wire system

NB: The small mooring hooks on MD2 and MD7 on Jetty No. 3 are suitable for use with moorings having a breaking load of 100 tonnes or less. In no circumstances must moorings having a greater breaking load than 100 tonnes be attached to these hooks.

Pulley 180 tonnes
Pulley 180 tonnes
MD0
MD1
MD2
MD7
MD8
MD0
BD3
BD4
BD5
BD6
150,000 D.W.T.
L.O.A. 280 m.
Beam 53.3 m.

No. 2, 3 & 4 JETTIES MOORING GUIDE

Not to Scale



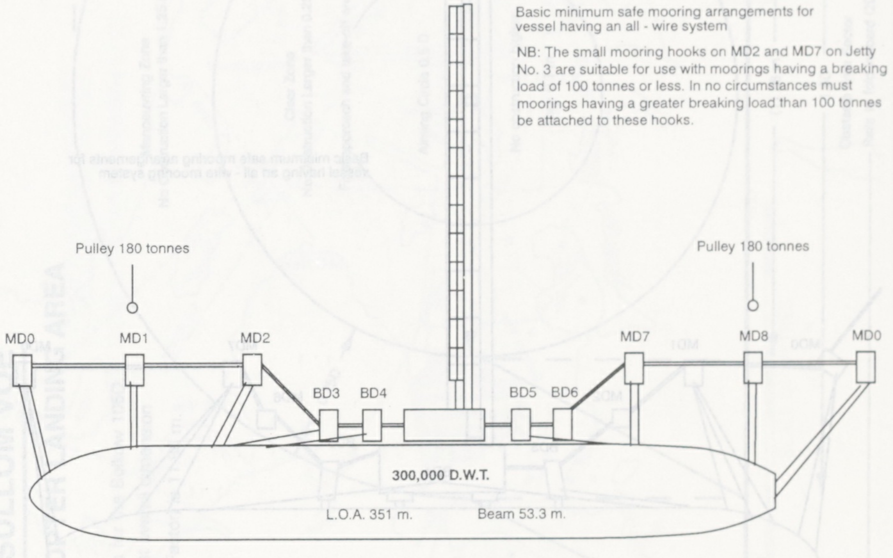
Basic minimum safe mooring arrangements for vessel having an all - wire system

NB: The small mooring hooks on MD2 and MD7 on Jetty No. 3 are suitable for use with moorings having a breaking load of 100 tonnes or less. In no circumstances must moorings having a greater breaking load than 100 tonnes be attached to these hooks.

Pulley 180 tonnes
Pulley 180 tonnes
MD0
MD1
MD2
MD7
MD8
MD0
BD3
BD4
BD5
BD6
200,000 D.W.T.
L.O.A. 325 m.
Beam 47.9 m.

No. 2, 3 & 4 JETTIES MOORING GUIDE

SULLOM VOE



Basic minimum safe mooring arrangements for vessel having an all - wire system

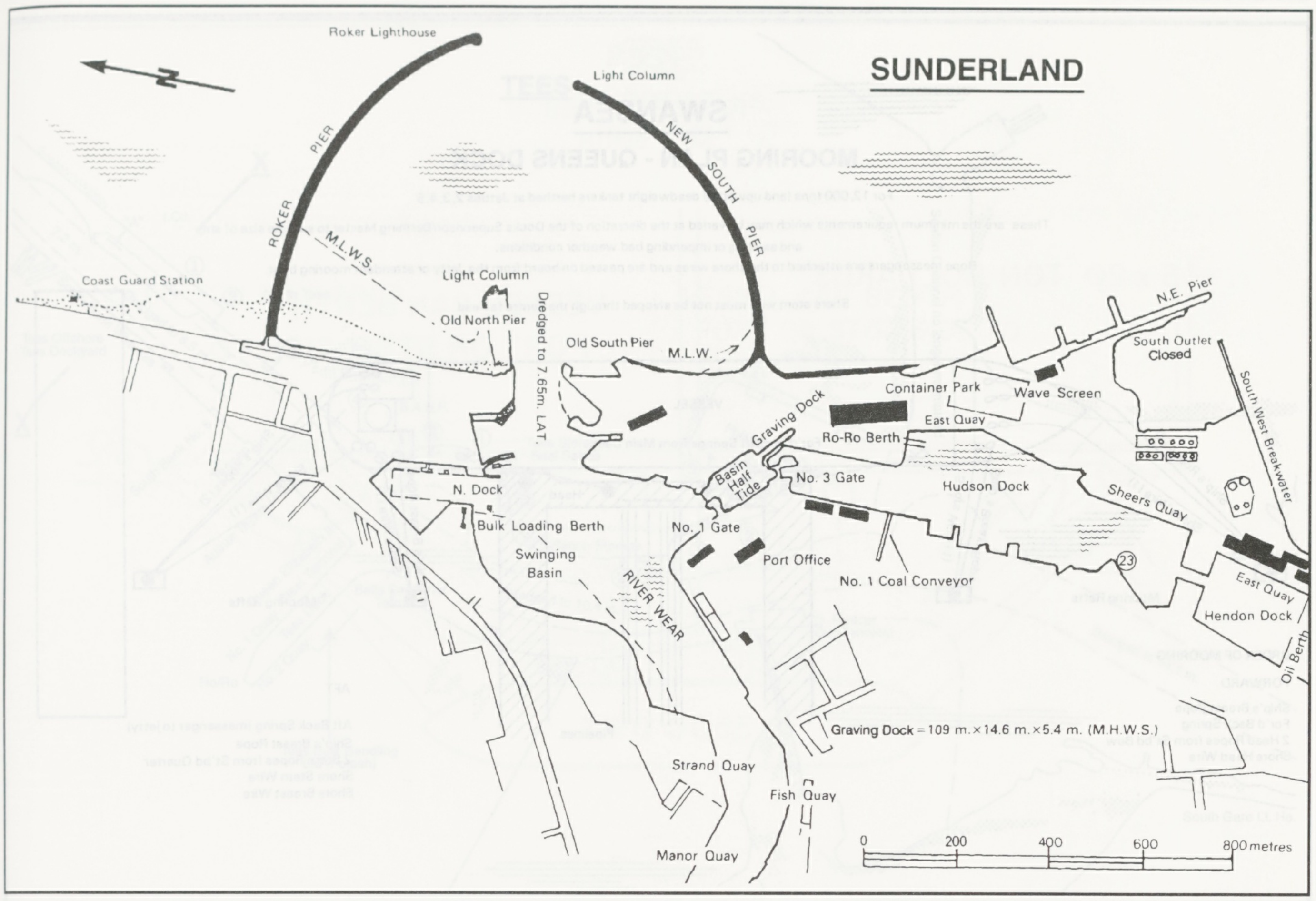
NB: The small mooring hooks on MD2 and MD7 on Jetty No. 3 are suitable for use with moorings having a breaking load of 100 tonnes or less. In no circumstances must moorings having a greater breaking load than 100 tonnes be attached to these hooks.

Pulley 180 tonnes
Pulley 180 tonnes
MD0
MD1
MD2
MD7
MD8
MD0
BD3
BD4
BD5
BD6
300,000 D.W.T.
L.O.A. 351 m.
Beam 53.3 m.

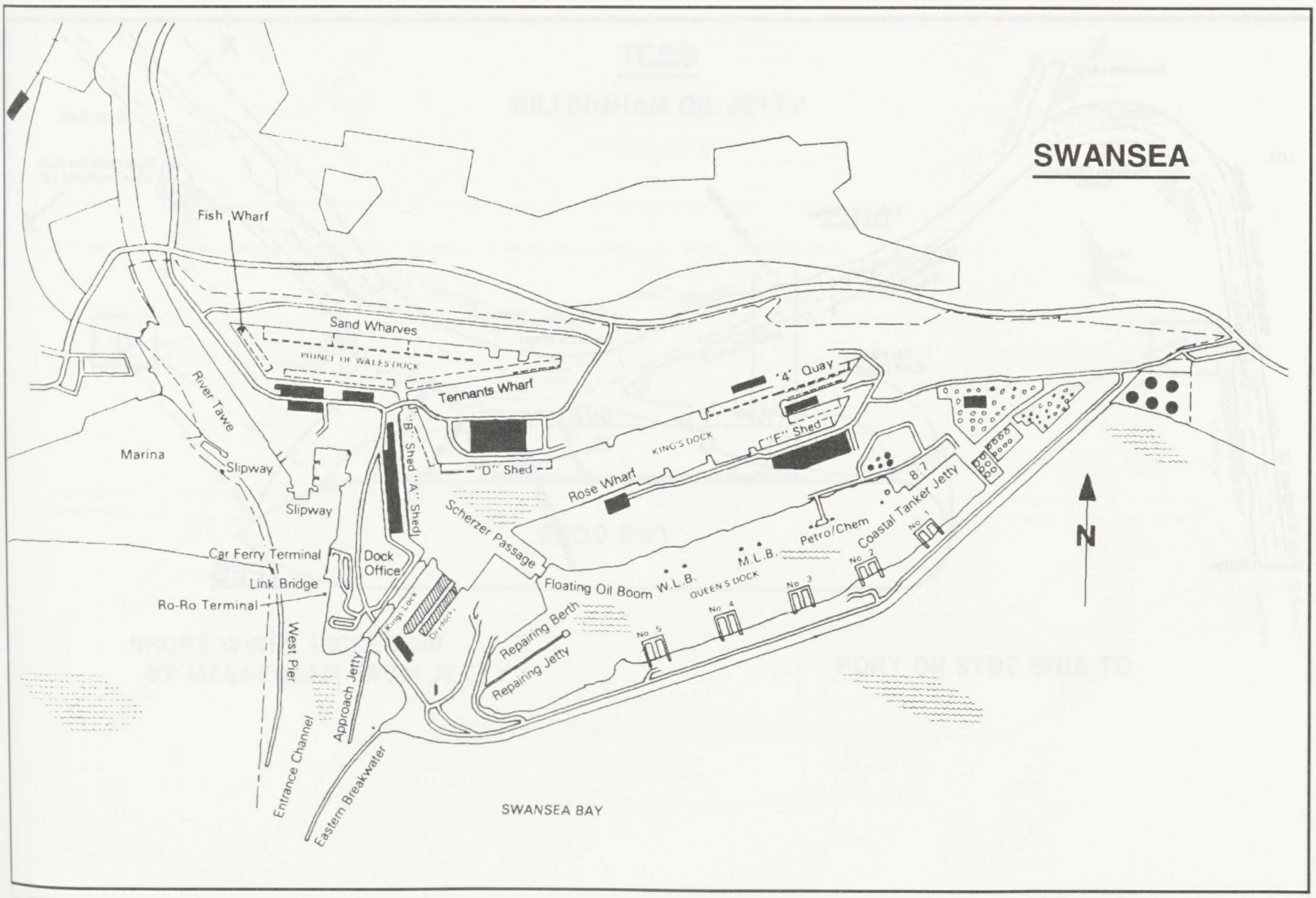
No. 2, 3 & 4 JETTIES MOORING GUIDE

Not to Scale

SUNDERLAND


N
Roker Lighthouse
Light Column
ROKER PIER
NEW SOUTH PIER
M.L.W.S.
Coast Guard Station
Light Column
Old North Pier
Dredged to 7.65m. LAT.
Old South Pier
M.L.W.
N.E. Pier
South Outlet Closed
Container Park
Wave Screen
South West Breakwater
Graving Dock
Ro-Ro Berth
East Quay
Basin Half Tide
No. 3 Gate
Hudson Dock
Sheers Quay
N. Dock
Bulk Loading Berth
No. 1 Gate
Swinging Basin
Port Office
No. 1 Coal Conveyor
23
East Quay
Hendon Dock
Oil Berth
RIVER WEAR
Graving Dock = 109 m. × 14.6 m. × 5.4 m. (M.H.W.S.)
Strand Quay
Fish Quay
Manor Quay
0
200
400
600
800 metres

SWANSEA


Fish Wharf
Sand Wharves
PRINCE OF WALES DOCK
Tennants Wharf
'4' Quay
River Tawe
Marina
Slipway
Slipway
"B" Shed
"A" Shed
"D" Shed
KING'S DOCK
"F" Shed
Rose Wharf
8.7
Coastal Tanker Jetty
No 1
N
Scherzer Passage
Petro/Chem
M.L.B.
W.L.B.
Floating Oil Boom
QUEEN'S DOCK
No 2
No 3
No 4
No 5
Car Ferry Terminal
Dock Office
Link Bridge
Ro-Ro Terminal
Kings Lock
Dry Docks
Repairing Berth
Repairing Jetty
West Pier
Approach Jetty
Entrance Channel
Eastern Breakwater
SWANSEA BAY

SWANSEA

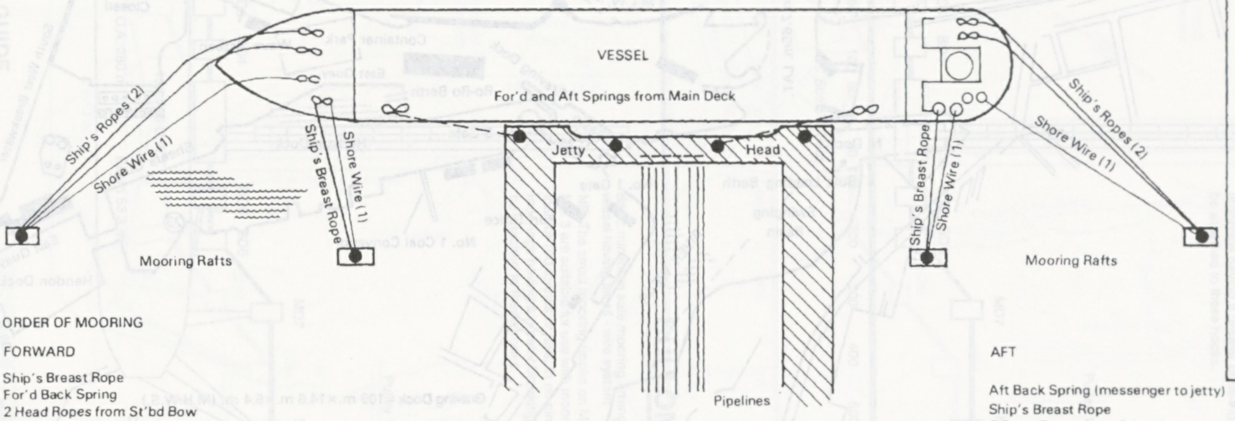
MOORING PLAN - QUEENS DOCK

For 12,000 tons (and upwards) deadweight tankers berthed at Jetties 2,3,4,5

These are the minimum requirements which may be varied at the discretion of the Docks Supervisor/Berthing Master to suit the size of ship and existing or impending bad weather conditions.

Rope messengers are attached to the shore wires and are passed on board from the Jetty or attendant mooring boat.

Shore stern wire must not be shipped through the centre fairlead


VESSEL
For'd and Aft Springs from Main Deck
Ship's Ropes (2)
Shore Wire (1)
Ship's Breast Rope
Shore Wire (1)
Jetty
Head
Ship's Breast Rope
Shore Wire (1)
Ship's Ropes (2)
Shore Wire (1)
Mooring Rafts
Mooring Rafts
Pipelines

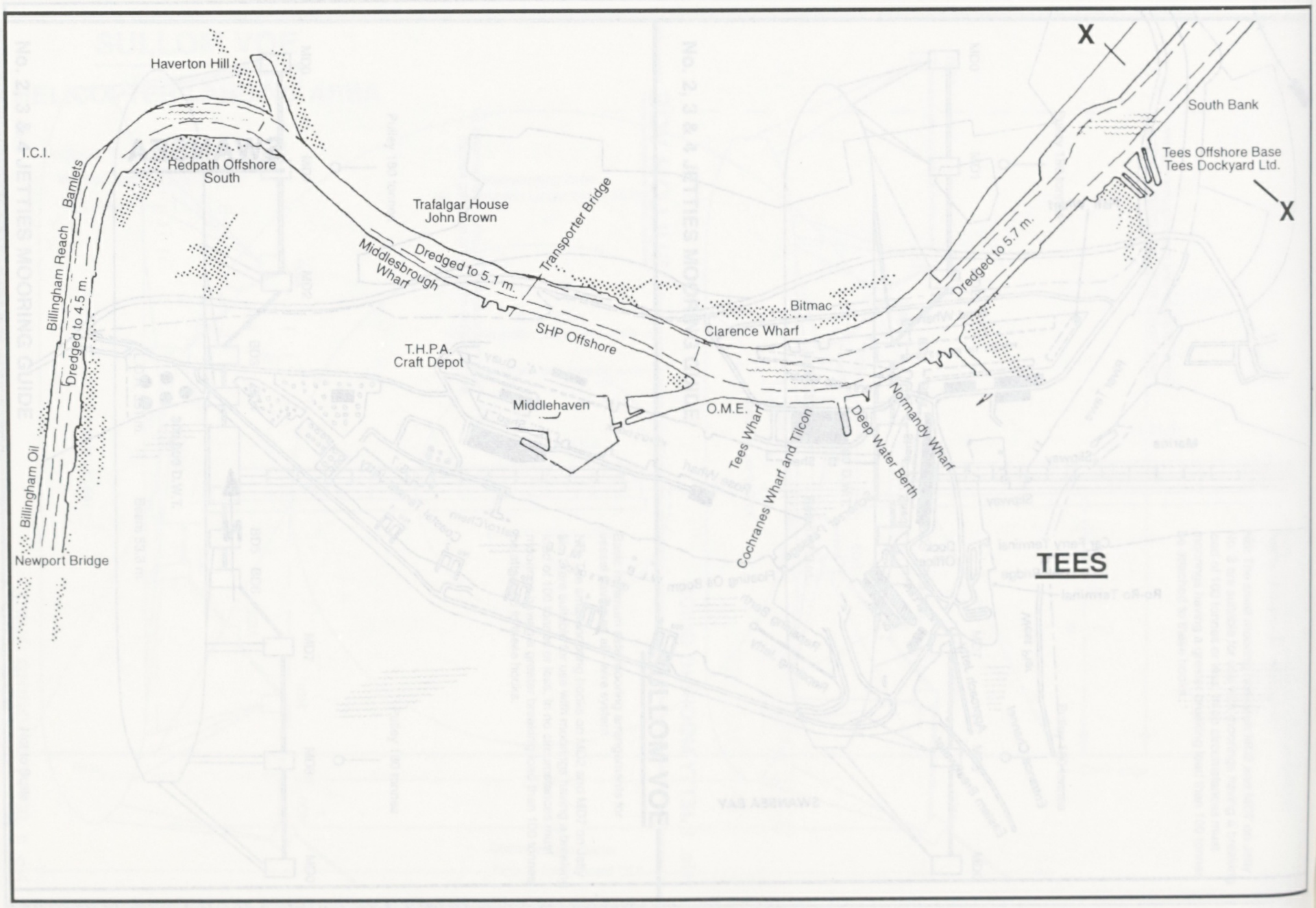
ORDER OF MOORING

FORWARD

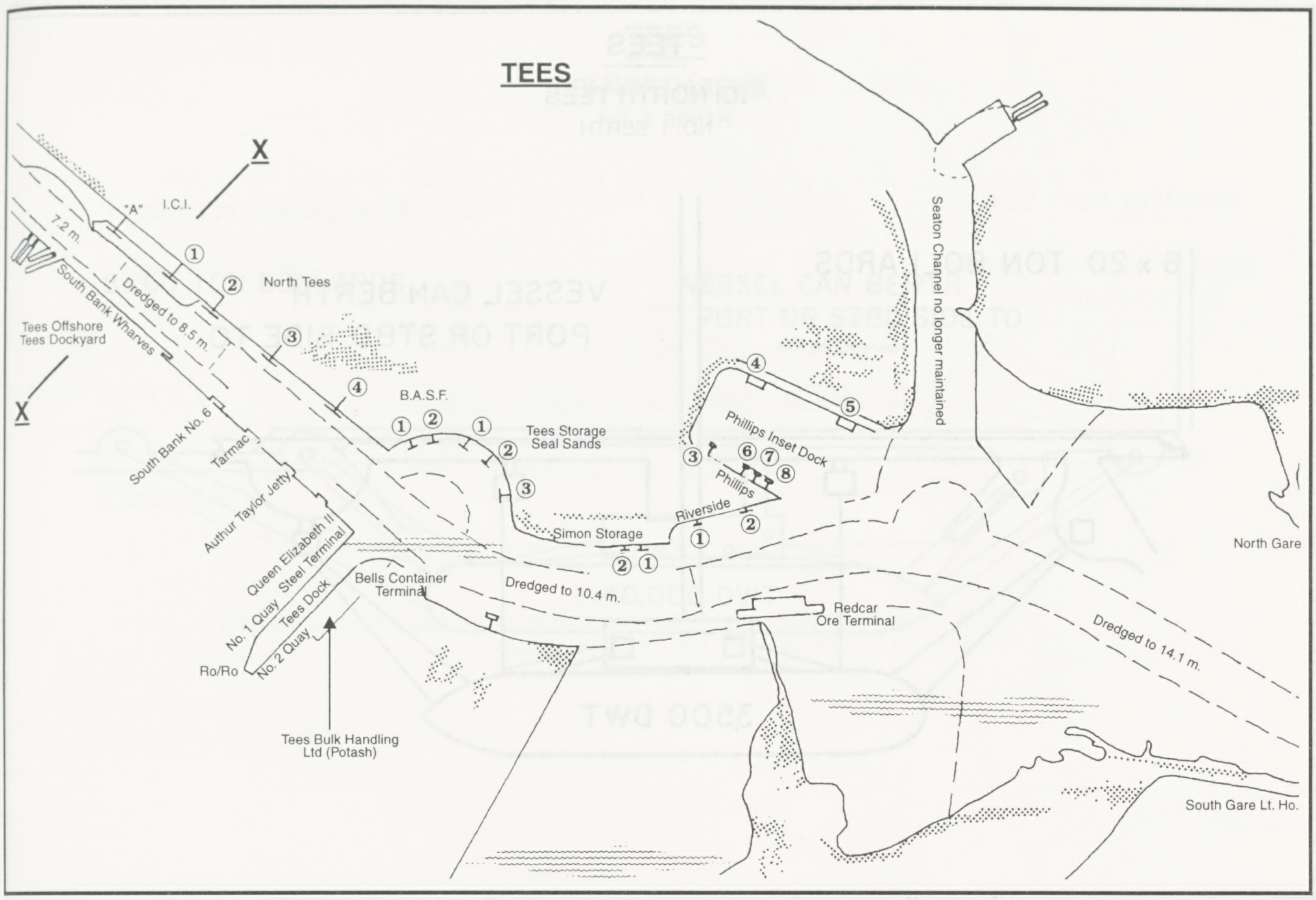
Ship's Breast Rope
For'd Back Spring
2 Head Ropes from St'bd Bow
Shore Head Wire

AFT

Aft Back Spring (messenger to jetty)
Ship's Breast Rope
2 Stern Ropes from St'bd Quarter
Shore Stem Wire
Shore Breast Wire

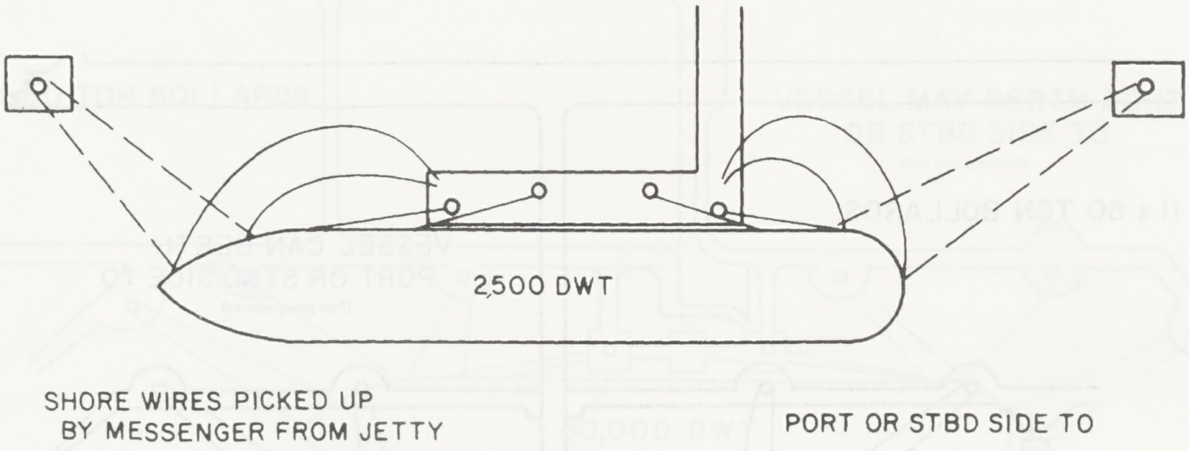

X
X
Haverton Hill
I.C.I.
Redpath Offshore South
Bamlets
Billingham Reach
Dredged to 4.5 m.
Billingham Oil
Newport Bridge
Trafalgar House John Brown
Transporter Bridge
Middlesbrough Wharf
Dredged to 5.1 m.
SHP Offshore
T.H.P.A. Craft Depot
Middlehaven
Bitmac
Clarence Wharf
O.M.E.
Tees Wharf
Cochranes Wharf and Tilcon
Deep Water Berth
Normandy Wharf
Dredged to 5.7 m.
South Bank
Tees Offshore Base
Tees Dockyard Ltd.

TEES


TEES
X
I.C.I.
"A"
7.2 m.
①
②
North Tees
South Bank Wharves
Dredged to 8.5 m.
Tees Offshore
Tees Dockyard
③
④
X
B.A.S.F.
South Bank No. 6
Tarmac
① ② ①
②
③
Tees Storage
Seal Sands
Authur Taylor Jetty
Queen Elizabeth II
No. 1 Quay
Steel Terminal
Tees Dock
No. 2 Quay
Ro/Ro
Bells Container
Terminal
Tees Bulk Handling
Ltd (Potash)
Simon Storage
② ①
Dredged to 10.4 m.
Riverside
①
②
③
Phillips
⑥ ⑦ ⑧
Phillips Inset Dock
④
⑤
Seaton Channel no longer maintained
Redcar
Ore Terminal
North Gare
Dredged to 14.1 m.
South Gare Lt. Ho.

TEES

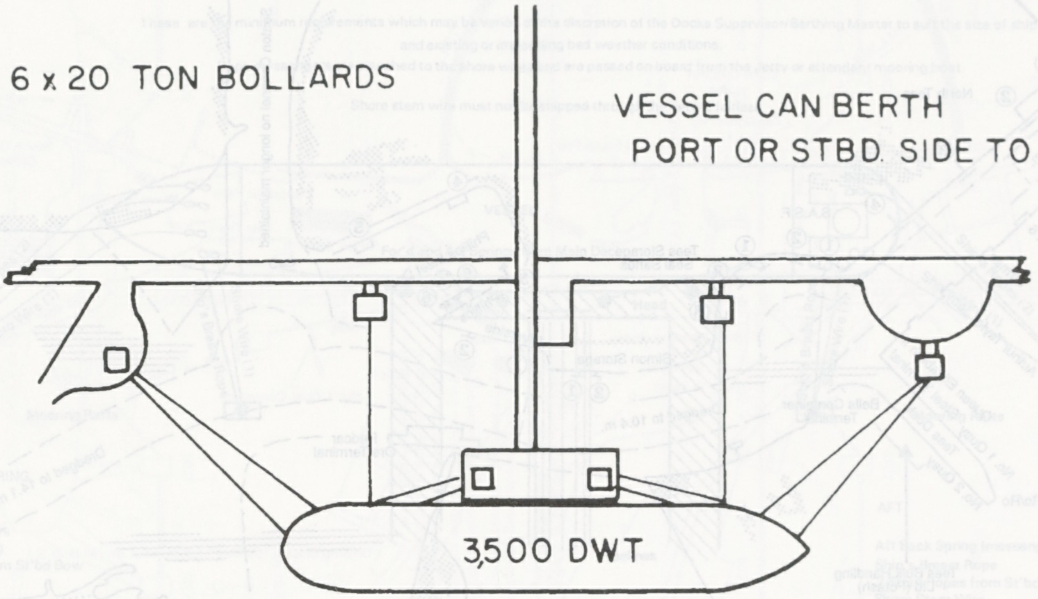
BILLINGHAM OIL JETTY


2,500 DWT
SHORE WIRES PICKED UP
BY MESSENGER FROM JETTY
PORT OR STBD SIDE TO

TEES

ICI NORTH TEES

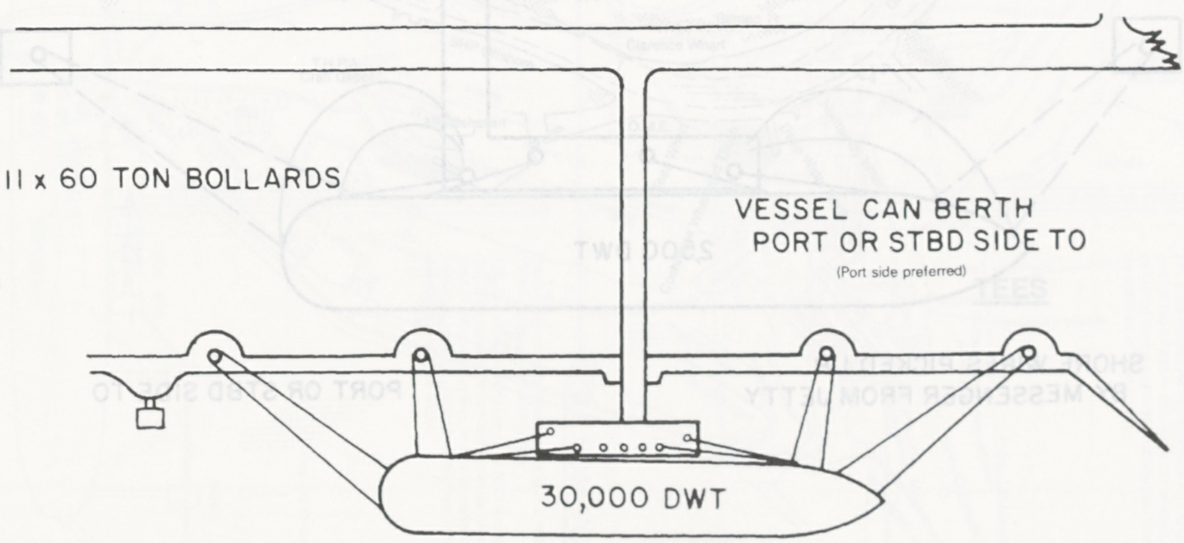
NO. 1 BERTH


6 x 20 TON BOLLARDS
VESSEL CAN BERTH PORT OR STBD. SIDE TO
3,500 DWT

TEES

ICI NORTH TEES

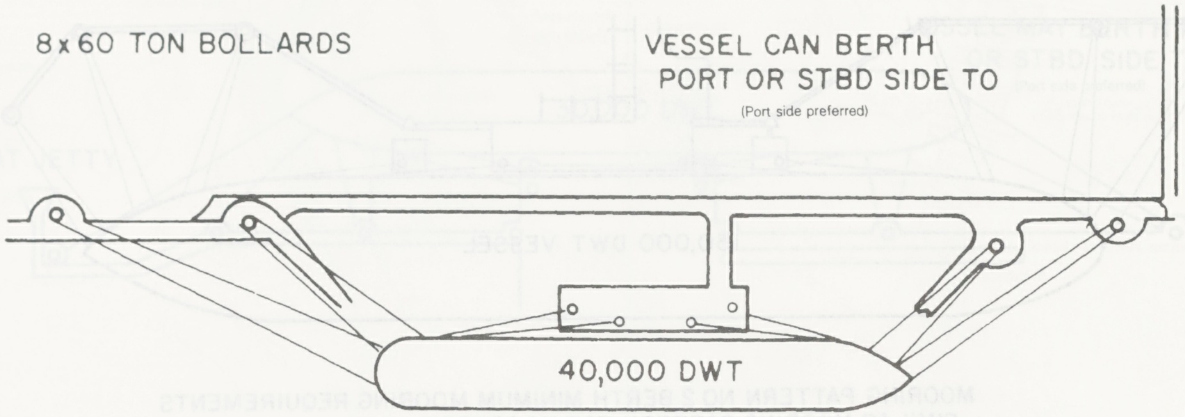
NO. 2 BERTH


11 x 60 TON BOLLARDS
VESSEL CAN BERTH PORT OR STBD SIDE TO
(Port side preferred)
30,000 DWT

TEES

ICI NORTH TEES

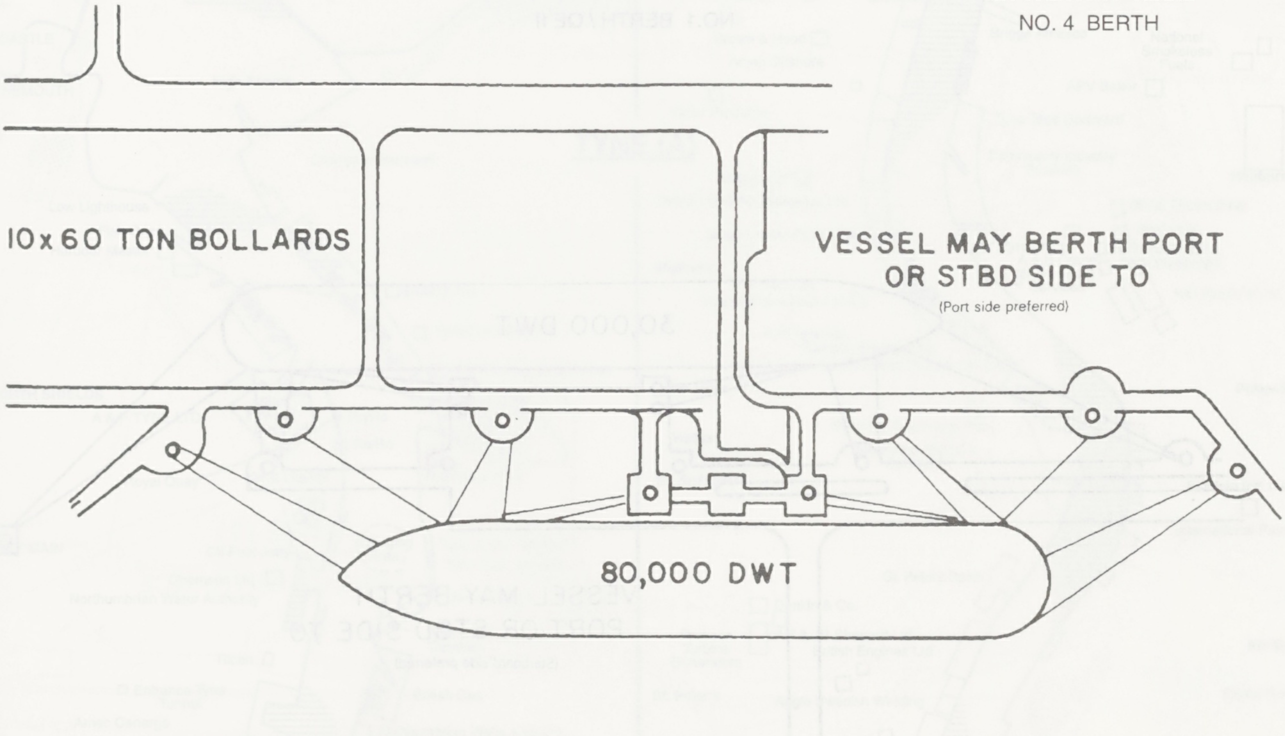
NO. 3 BERTH


8 x 60 TON BOLLARDS
VESSEL CAN BERTH PORT OR STBD SIDE TO
(Port side preferred)
40,000 DWT

TEES

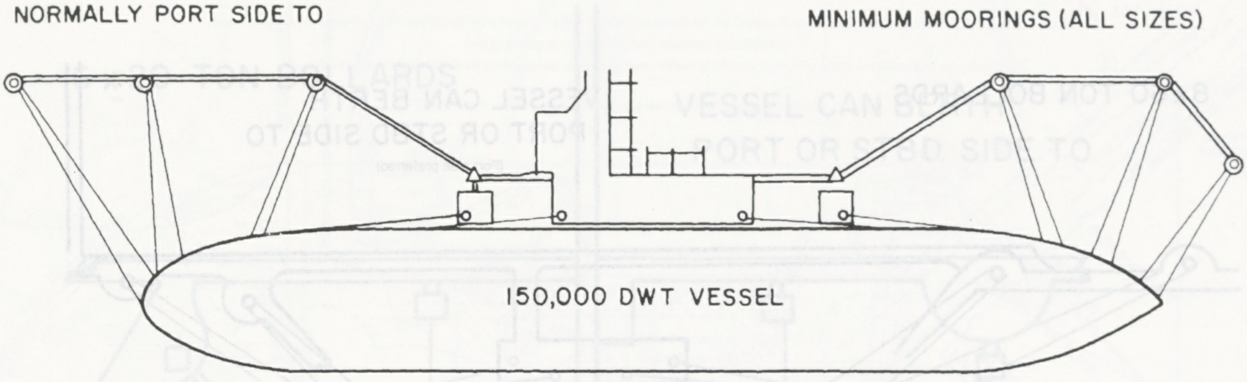
ICI NORTH TEES

NO. 4 BERTH


10 x 60 TON BOLLARDS
VESSEL MAY BERTH PORT OR STBD SIDE TO
(Port side preferred)
80,000 DWT

TEES

PHILLIPS PETROLEUM

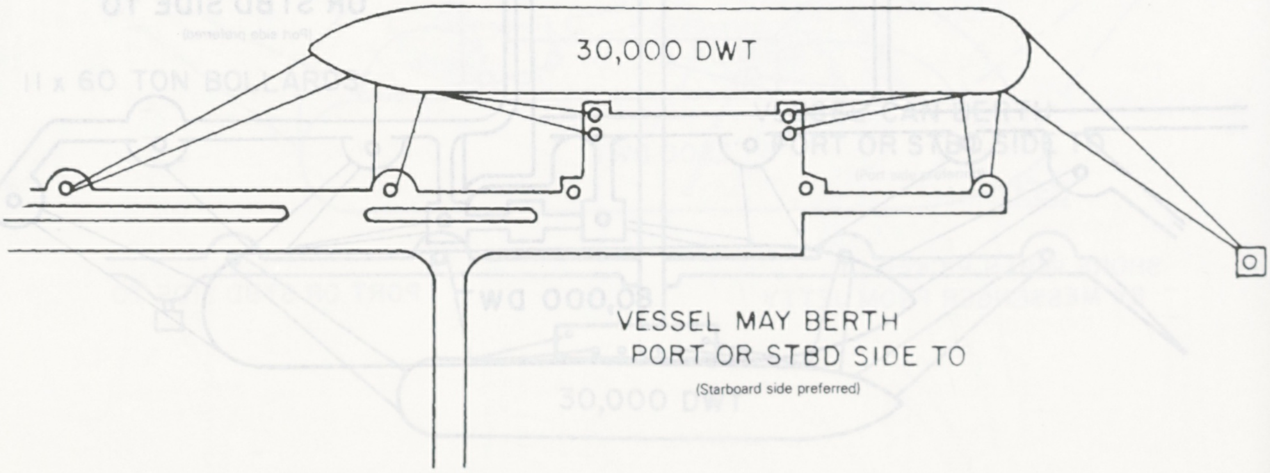

NORMALLY PORT SIDE TO
MINIMUM MOORINGS (ALL SIZES)
150,000 DWT VESSEL

MOORING PATTERN NO 2 BERTH MINIMUM MOORING REQUIREMENTS
SIMILAR MOORING PATTERN FOR NO I BERTH

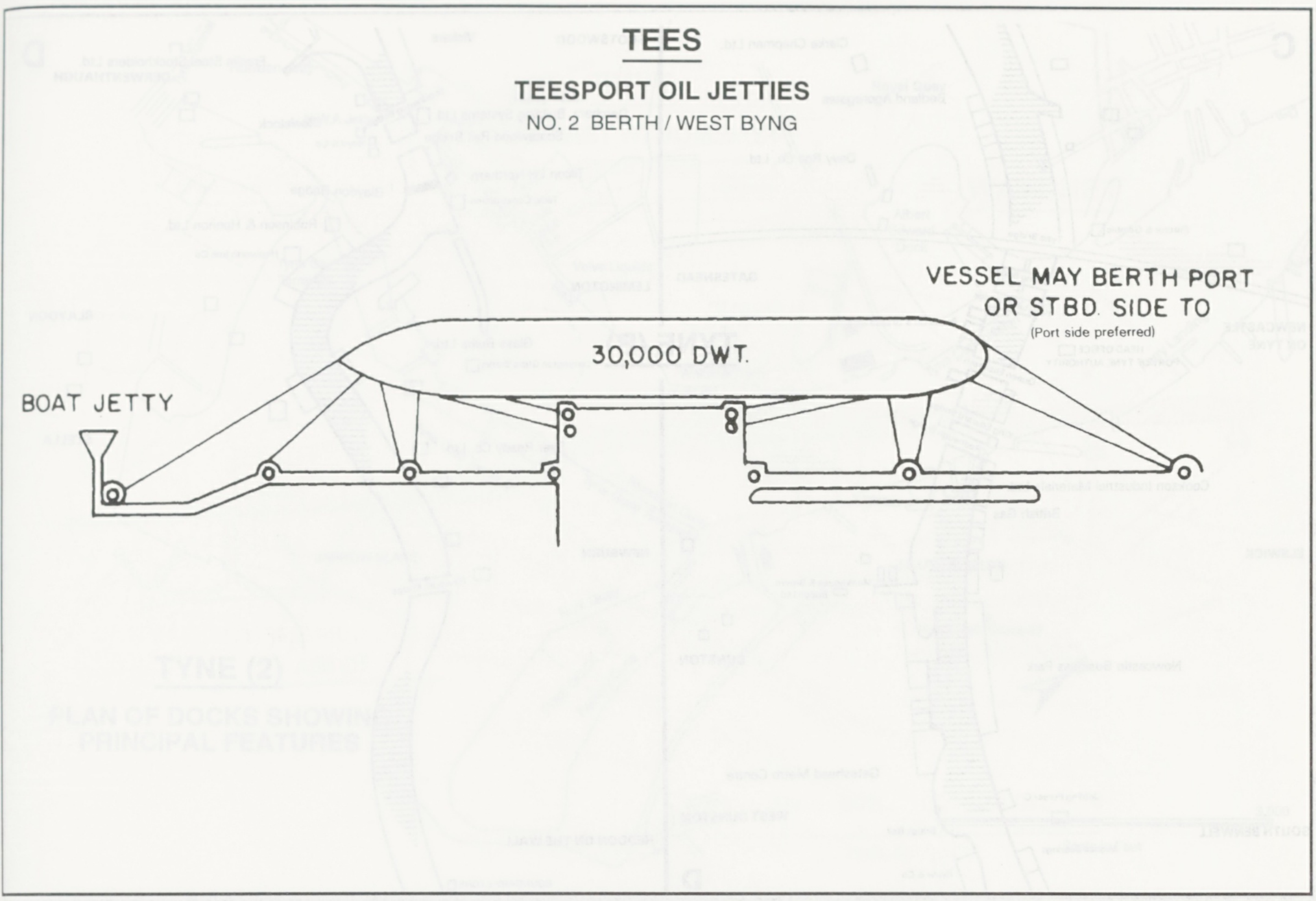
TEES

TEESPORT OIL JETTIES

NO.1 BERTH / QE II



VESSEL MAY BERTH
PORT OR STBD SIDE TO
(Starboard side preferred)

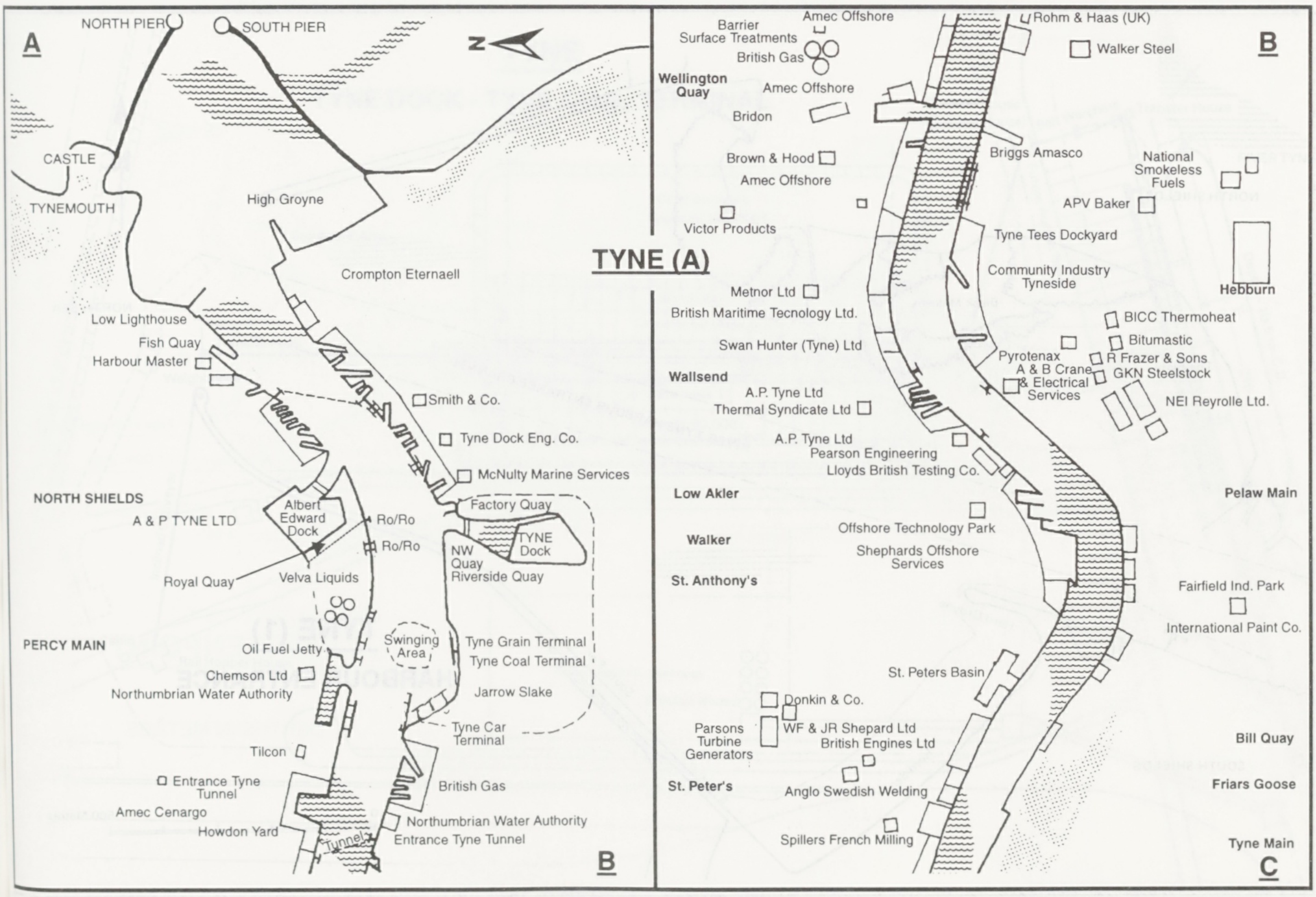


TEES

TEESPORT OIL JETTIES

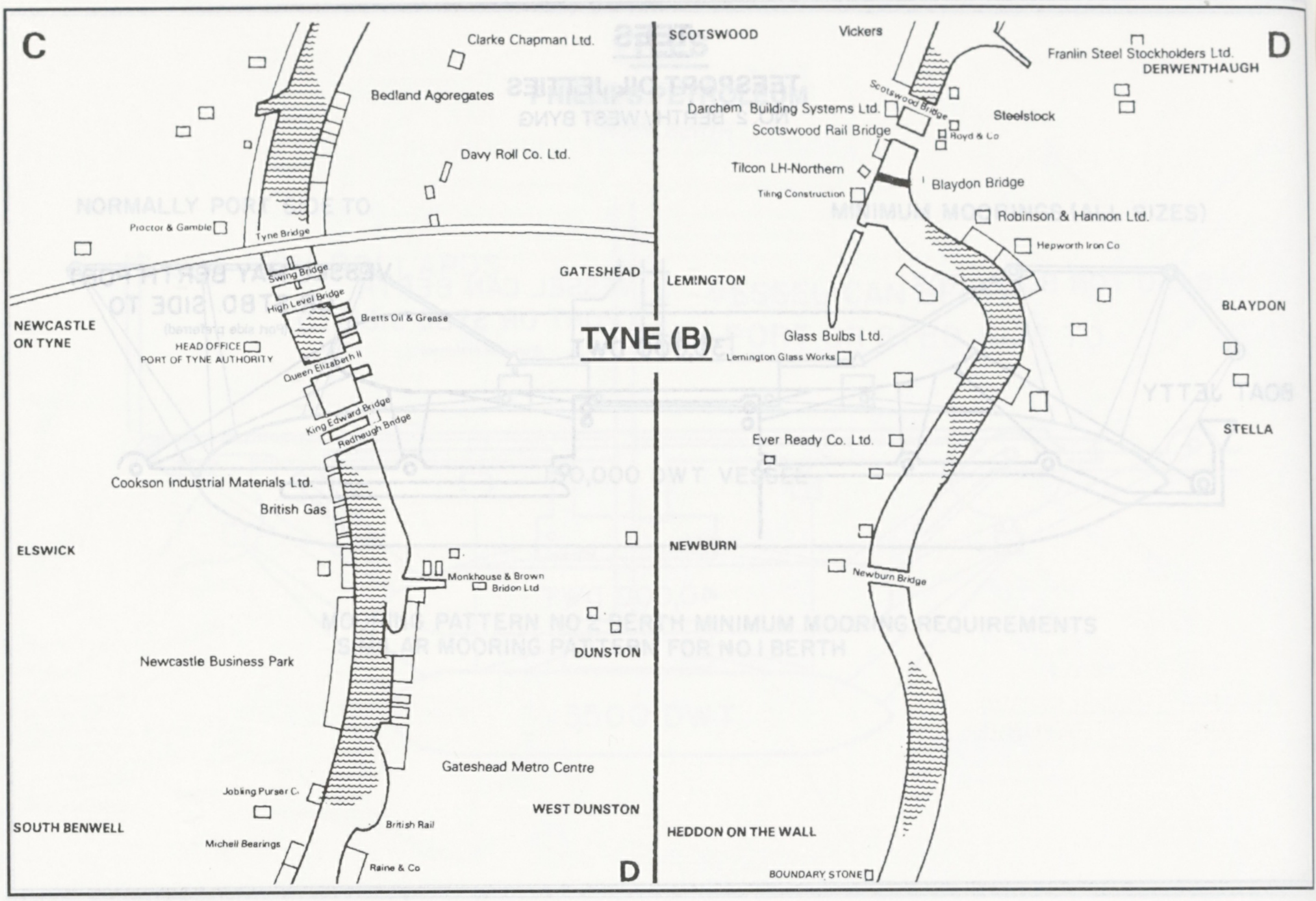
NO. 2 BERTH / WEST BYNG

VESSEL MAY BERTH PORT OR STBD. SIDE TO
(Port side preferred)
30,000 DWT.
BOAT JETTY



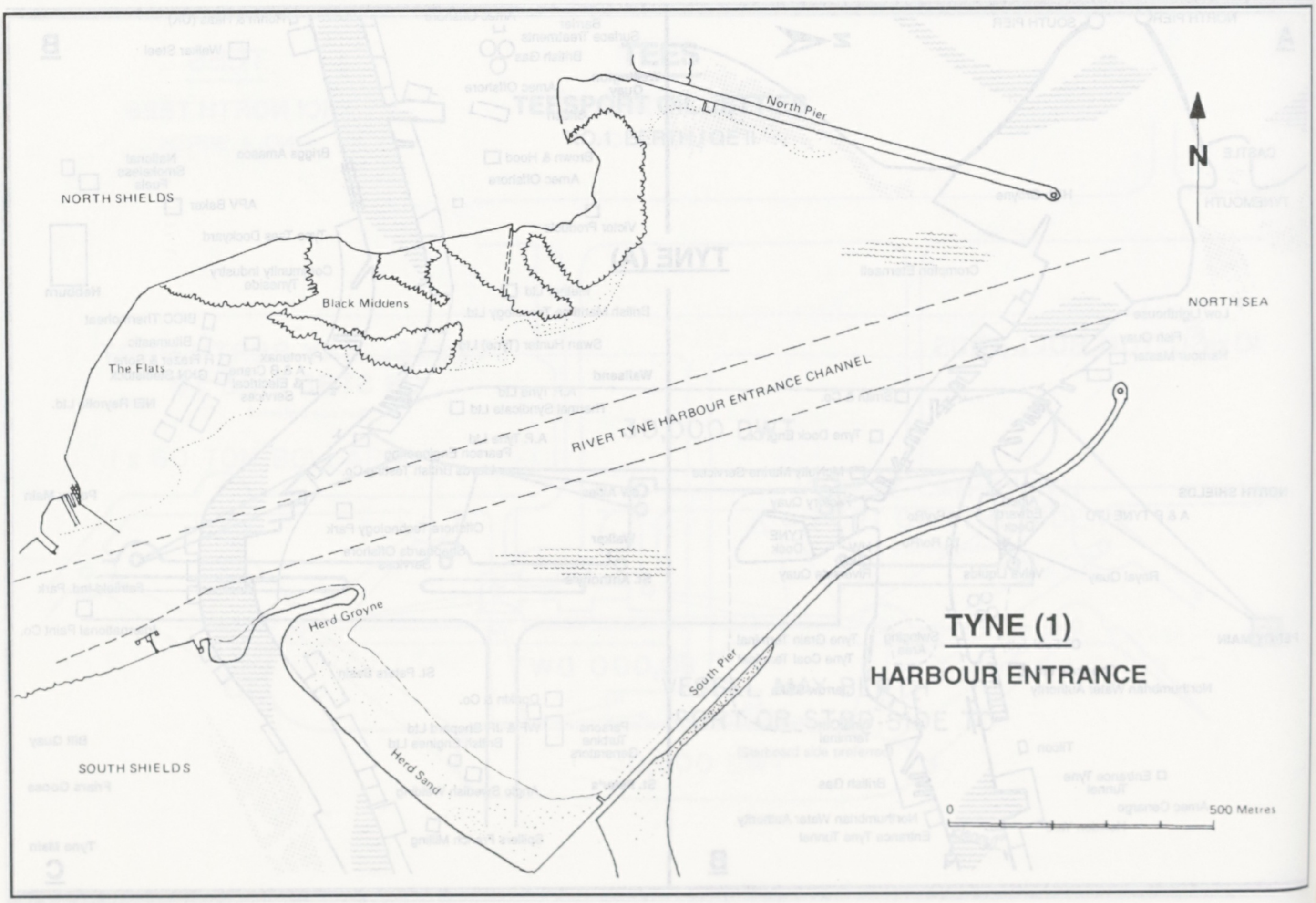
TYNE (A)

A
NORTH PIER
SOUTH PIER
N
CASTLE
TYNEMOUTH
High Groyne
Crompton Eternaell
Low Lighthouse
Fish Quay
Harbour Master
Smith & Co.
Tyne Dock Eng. Co.
McNulty Marine Services
NORTH SHIELDS
A & P TYNE LTD
Albert Edward Dock
Ro/Ro
Ro/Ro
Factory Quay
TYNE Dock
NW Quay
Riverside Quay
Royal Quay
Velva Liquids
PERCY MAIN
Oil Fuel Jetty
Swinging Area
Tyne Grain Terminal
Tyne Coal Terminal
Chemson Ltd
Northumbrian Water Authority
Jarrow Slake
Tyne Car Terminal
Tilcon
Entrance Tyne Tunnel
Amec Cenargo
Howdon Yard
Tunnels
British Gas
Northumbrian Water Authority
Entrance Tyne Tunnel
B
Barrier Surface Treatments
Amec Offshore
British Gas
Wellington Quay
Amec Offshore
Bridon
Brown & Hood
Amec Offshore
Victor Products
Metnor Ltd
British Maritime Tecnology Ltd.
Swan Hunter (Tyne) Ltd
Wallsend
A.P. Tyne Ltd
Thermal Syndicate Ltd
A.P. Tyne Ltd
Pearson Engineering
Lloyds British Testing Co.
Low Akler
Walker
St. Anthony's
Offshore Technology Park
Shephards Offshore Services
St. Peters Basin
Donkin & Co.
Parsons Turbine Generators
WF & JR Shepard Ltd
British Engines Ltd
St. Peter's
Anglo Swedish Welding
Spillers French Milling
Rohm & Haas (UK)
Walker Steel
B
Briggs Amasco
National Smokeless Fuels
APV Baker
Tyne Tees Dockyard
Community Industry Tyneside
Hebburn
BICC Thermoheat
Bitumastic
Pyrotenax
R Frazer & Sons
A & B Crane & Electrical Services
GKN Steelstock
NEI Reyrolle Ltd.
Pelaw Main
Fairfield Ind. Park
International Paint Co.
Bill Quay
Friars Goose
Tyne Main
C



TYNE (B)

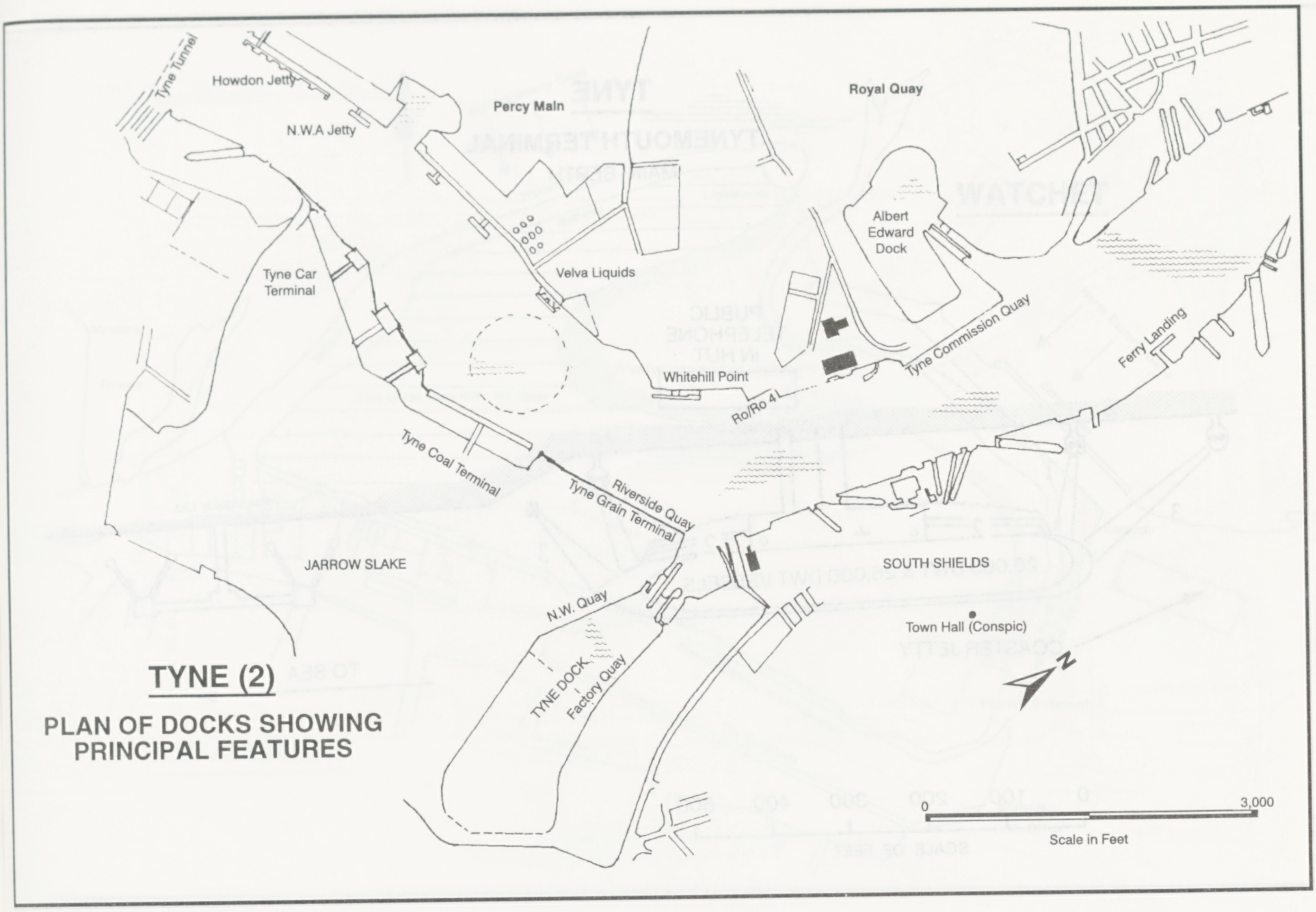
C
Clarke Chapman Ltd.
Bedland Agoregates
Davy Roll Co. Ltd.
Proctor & Gamble
Tyne Bridge
Swing Bridge
High Level Bridge
Bretts Oil & Grease
NEWCASTLE ON TYNE
HEAD OFFICE
PORT OF TYNE AUTHORITY
Queen Elizabeth II
King Edward Bridge
Redheugh Bridge
Cookson Industrial Materials Ltd.
British Gas
ELSWICK
Monkhouse & Brown
Bridon Ltd
Newcastle Business Park
DUNSTON
Gateshead Metro Centre
Jobling Purser C.
SOUTH BENWELL
British Rail
WEST DUNSTON
Michell Bearings
Raine & Co
D
GATESHEAD
SCOTSWOOD
Vickers
Franlin Steel Stockholders Ltd.
DERWENTHAUGH
D
Scotswood Bridge
Darchem Building Systems Ltd.
Scotswood Rail Bridge
Steelstock
Royd & Co
Tilcon LH-Northern
Blaydon Bridge
Tiling Construction
Robinson & Hannon Ltd.
Hepworth Iron Co
LEMINGTON
BLAYDON
Glass Bulbs Ltd.
Lemington Glass Works
STELLA
Ever Ready Co. Ltd.
NEWBURN
Newburn Bridge
HEDDON ON THE WALL
BOUNDARY STONE



TYNE (1)

HARBOUR ENTRANCE

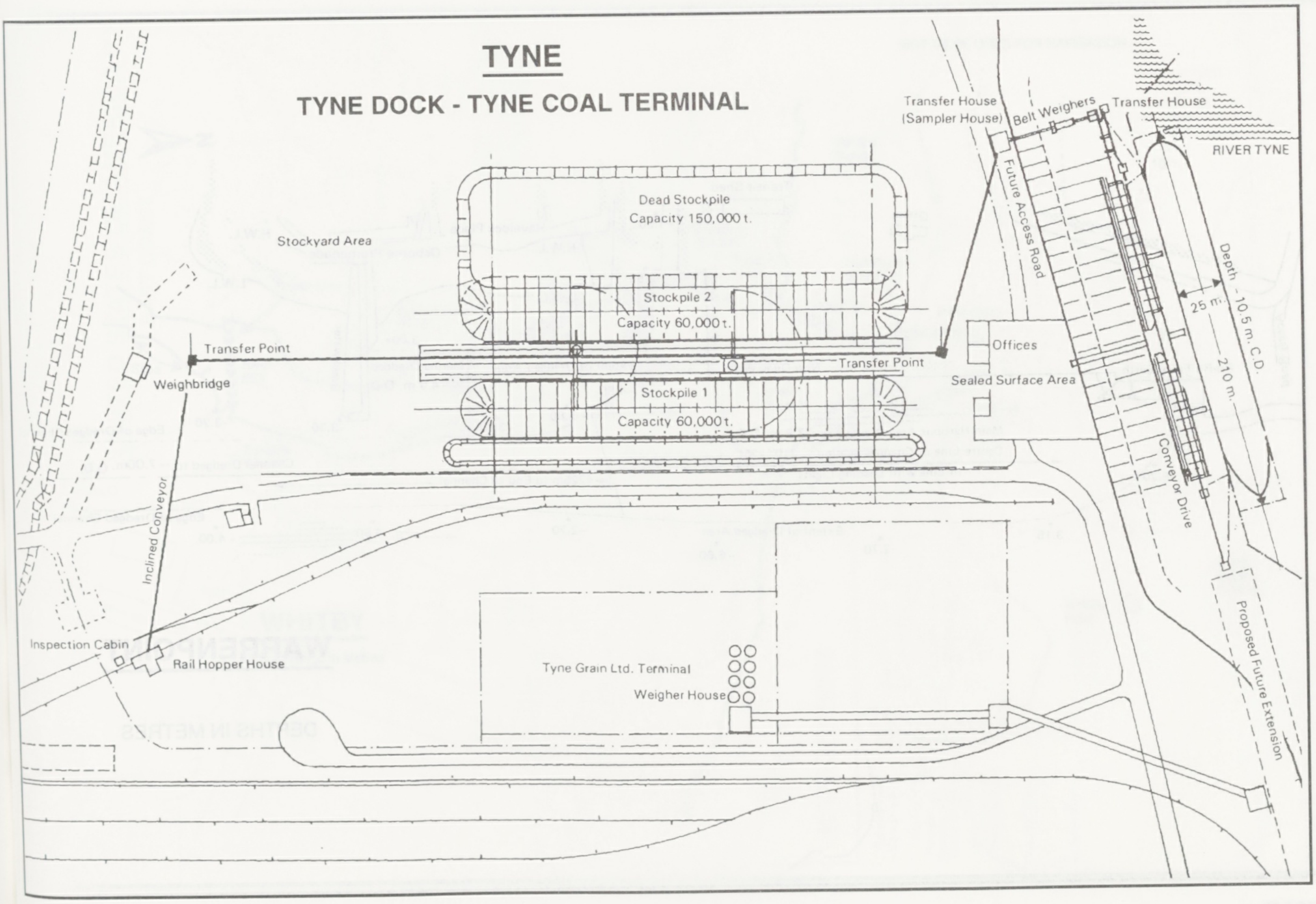
North Pier
N
NORTH SHIELDS
Black Middens
The Flats
NORTH SEA
RIVER TYNE HARBOUR ENTRANCE CHANNEL
Herd Groyne
South Pier
SOUTH SHIELDS
Herd Sand
0
500 Metres



TYNE (2)

PLAN OF DOCKS SHOWING PRINCIPAL FEATURES

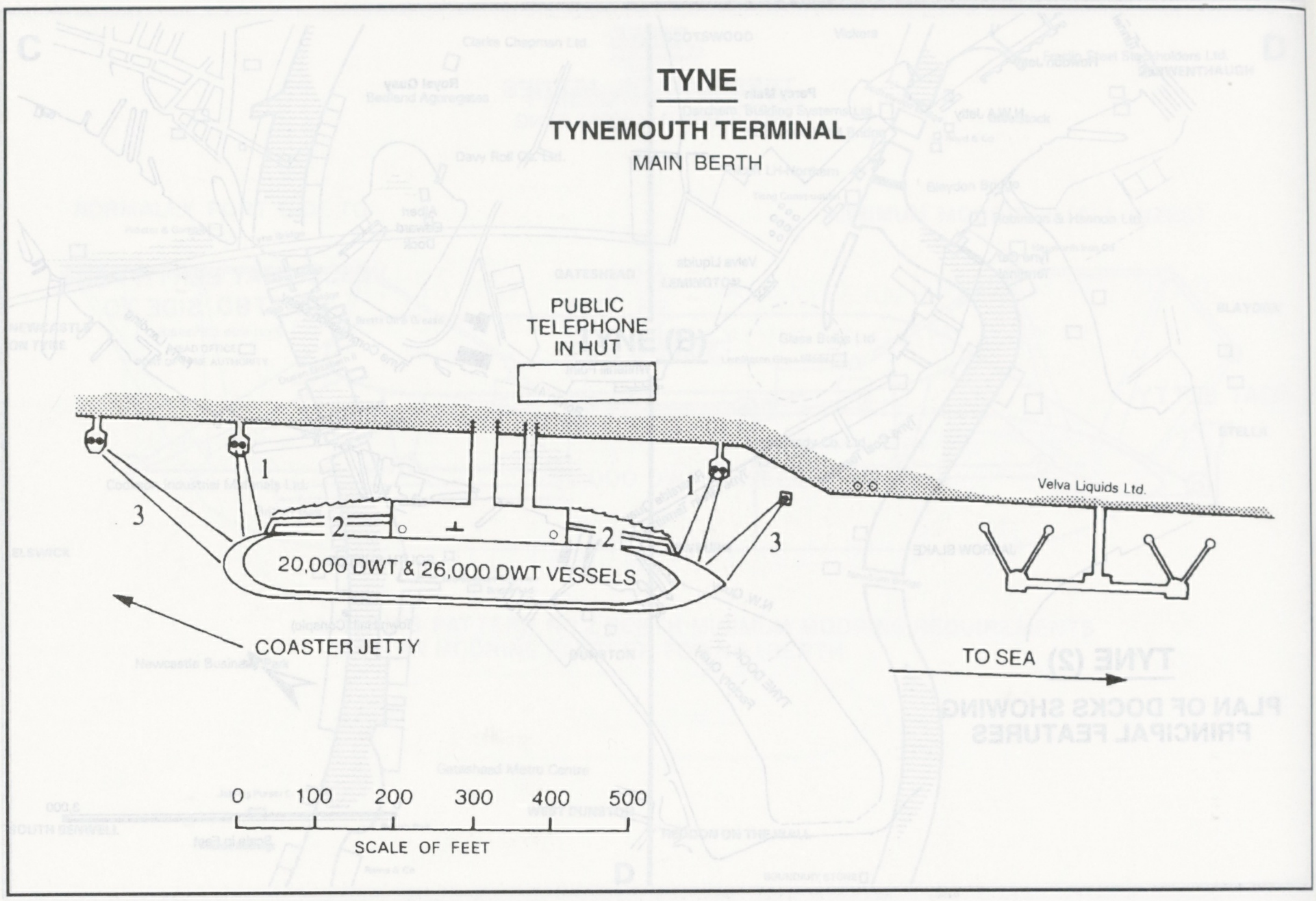
Tyne Tunnel
Howdon Jetty
N.W.A Jetty
Percy Main
Royal Quay
Albert Edward Dock
Tyne Car Terminal
Velva Liquids
Tyne Commission Quay
Whitehill Point
Ferry Landing
Ro/Ro 4
Tyne Coal Terminal
Riverside Quay
Tyne Grain Terminal
JARROW SLAKE
SOUTH SHIELDS
N.W. Quay
Town Hall (Conspic)
TYNE DOCK
Factory Quay
N
0
3,000
Scale in Feet



TYNE

TYNE DOCK - TYNE COAL TERMINAL

Transfer House (Sampler House)
Belt Weighers
Transfer House
RIVER TYNE
Future Access Road
Dead Stockpile
Capacity 150,000 t.
Stockyard Area
Stockpile 2
Capacity 60,000 t.
Depth - 10.5 m. C.D.
25 m
Offices
Transfer Point
Weighbridge
Transfer Point
Sealed Surface Area
210 m.
Stockpile 1
Capacity 60,000 t.
Conveyor Drive
Inclined Conveyor
Proposed Future Extension
Inspection Cabin
Rail Hopper House
Tyne Grain Ltd. Terminal
Weigher House

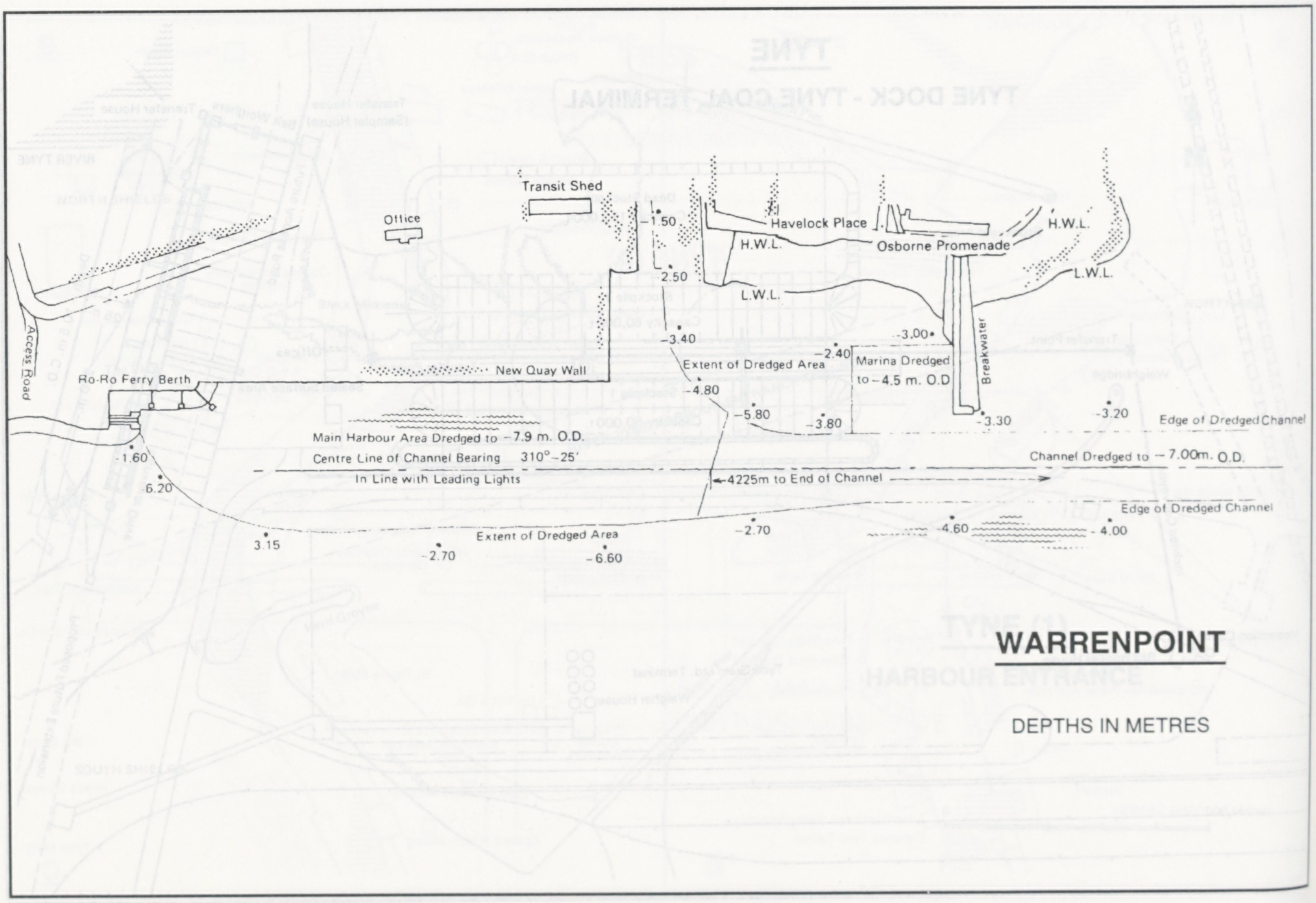


TYNE

TYNEMOUTH TERMINAL

MAIN BERTH

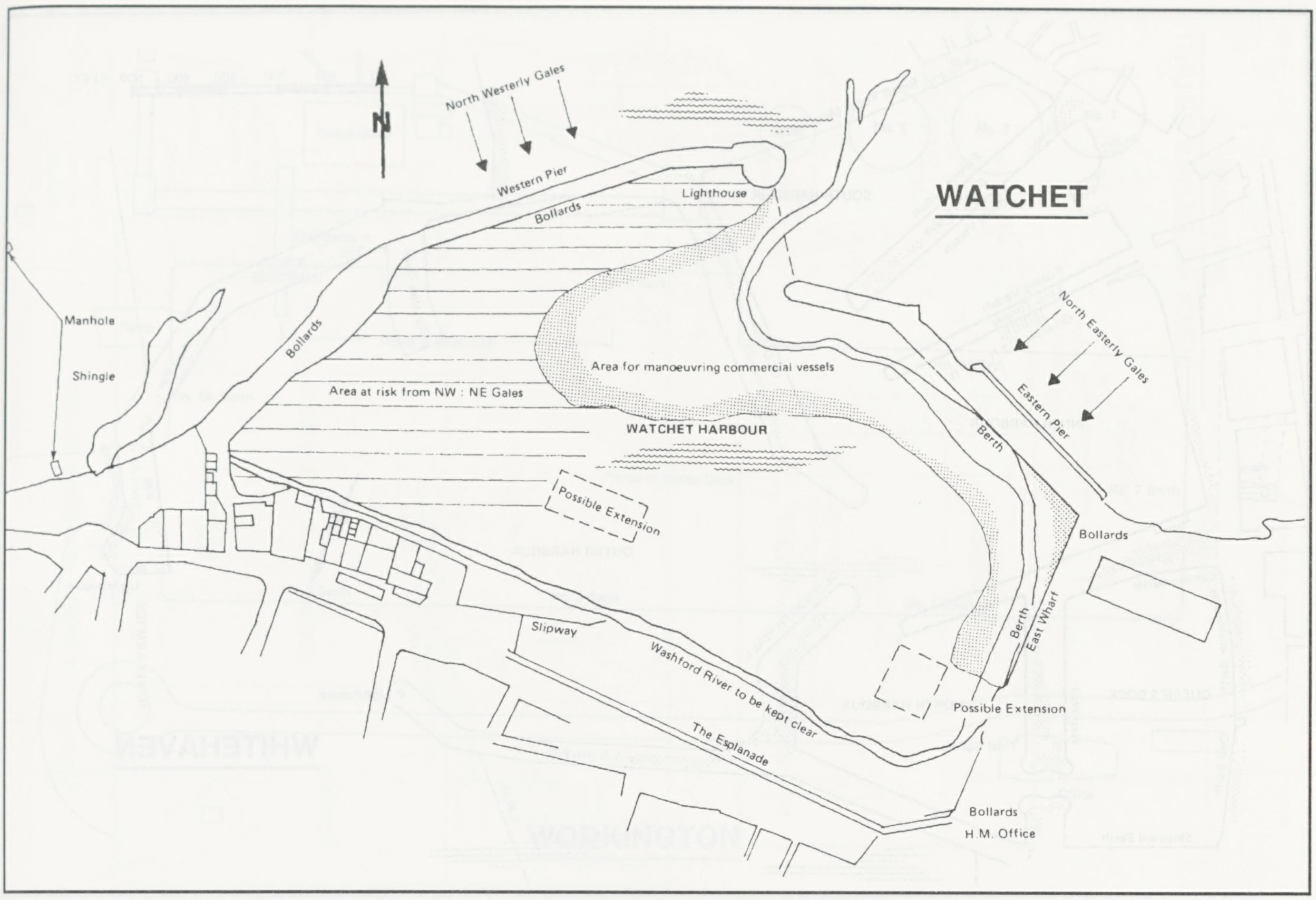
PUBLIC TELEPHONE IN HUT
1
2
3
20,000 DWT & 26,000 DWT VESSELS
2
1
3
COASTER JETTY
Velva Liquids Ltd.
TO SEA
0
100
200
300
400
500
SCALE OF FEET

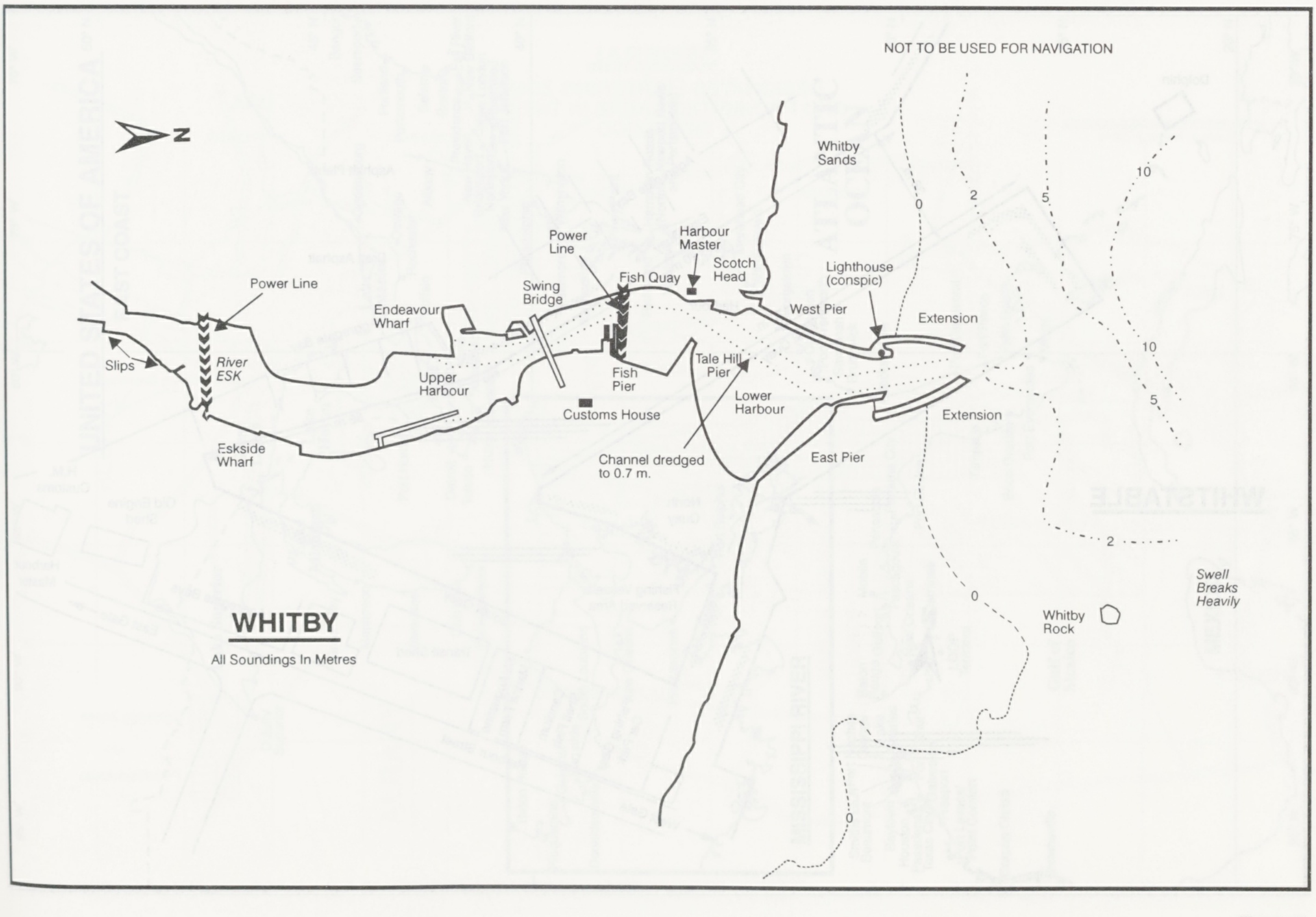


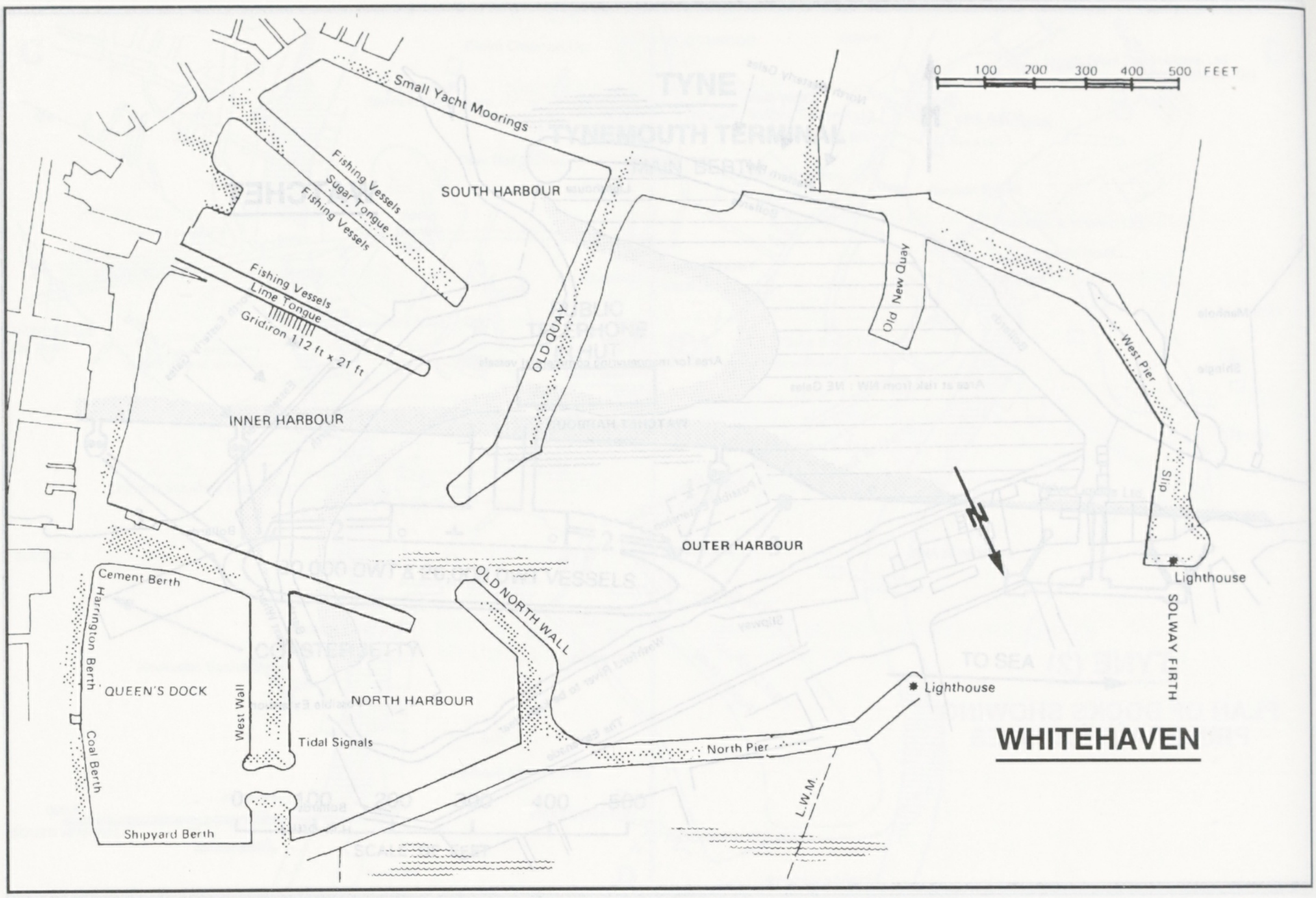
WARRENPOINT

DEPTHS IN METRES

Transit Shed
Office
-1.50
2.50
Havelock Place
H.W.L.
Osborne Promenade
H.W.L.
L.W.L.
L.W.L.
-3.40
-3.00
-2.40
Marina Dredged to -4.5 m. O.D
Breakwater
Extent of Dredged Area
New Quay Wall
Access Road
Ro-Ro Ferry Berth
-4.80
-5.80
-3.80
-3.30
-3.20
Edge of Dredged Channel
Main Harbour Area Dredged to -7.9 m. O.D.
Centre Line of Channel Bearing 310°-25'
In Line with Leading Lights
Channel Dredged to -7.00m. O.D.
4225m to End of Channel
-1.60
6.20
Edge of Dredged Channel
3.15
-2.70
Extent of Dredged Area
-6.60
-2.70
-4.60
-4.00

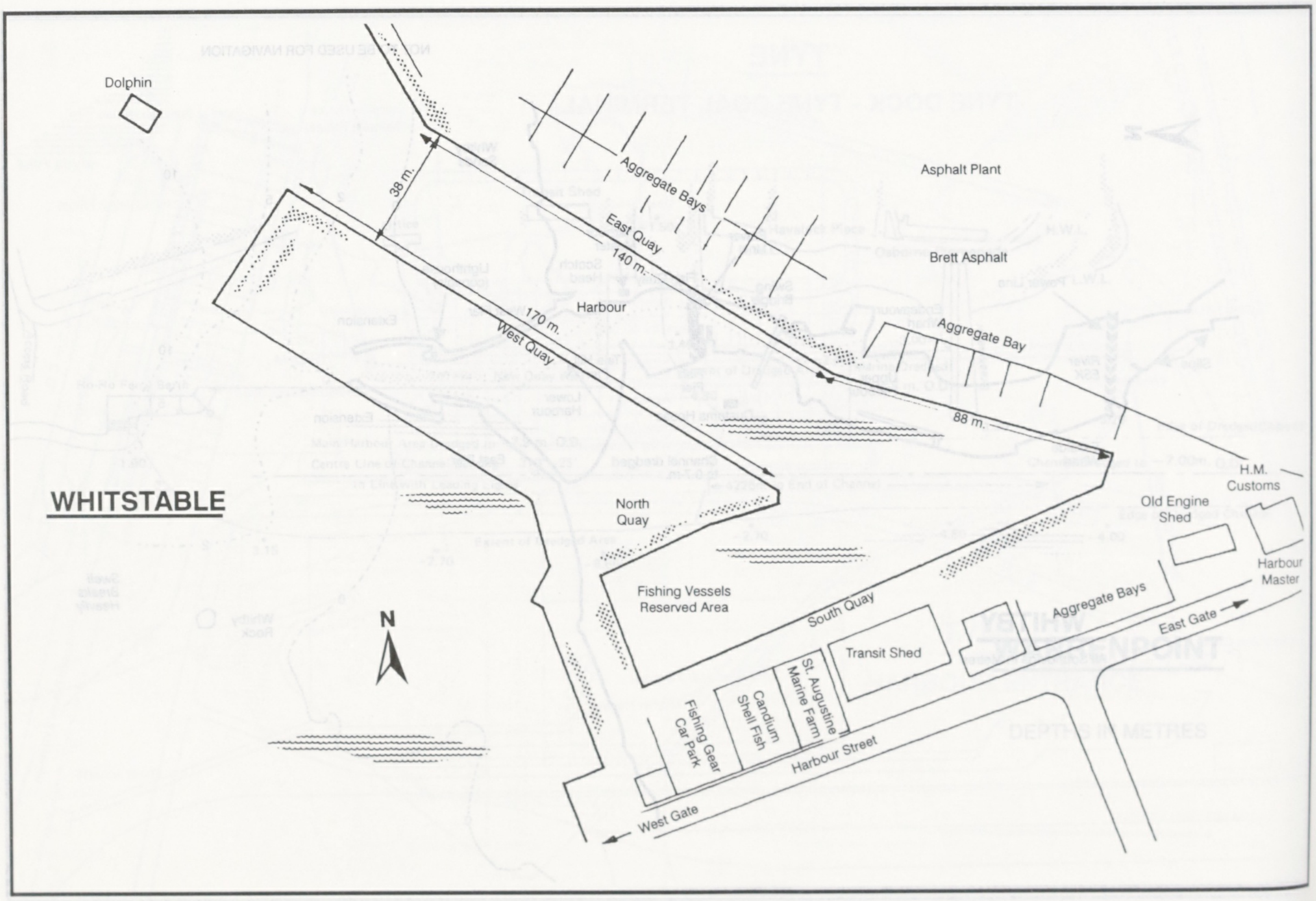

WATCHET
N
North Westerly Gales
Western Pier
Bollards
Lighthouse
Manhole
Shingle
Bollards
Area at risk from NW : NE Gales
Area for manoeuvring commercial vessels
WATCHET HARBOUR
North Easterly Gales
Eastern Pier
Berth
Possible Extension
Slipway
Washford River to be kept clear
The Esplanade
Bollards
Berth
East Wharf
Possible Extension
Bollards
H.M. Office


NOT TO BE USED FOR NAVIGATION
N
WHITBY
All Soundings In Metres
Whitby Sands
0
2
5
10
10
5
Harbour Master
Power Line
Scotch Head
Lighthouse (conspic)
Power Line
Fish Quay
Swing Bridge
Endeavour Wharf
West Pier
Extension
Slips
River ESK
Upper Harbour
Fish Pier
Tale Hill Pier
Lower Harbour
Customs House
Extension
Eskside Wharf
Channel dredged to 0.7 m.
East Pier
2
0
Swell Breaks Heavily
Whitby Rock
0



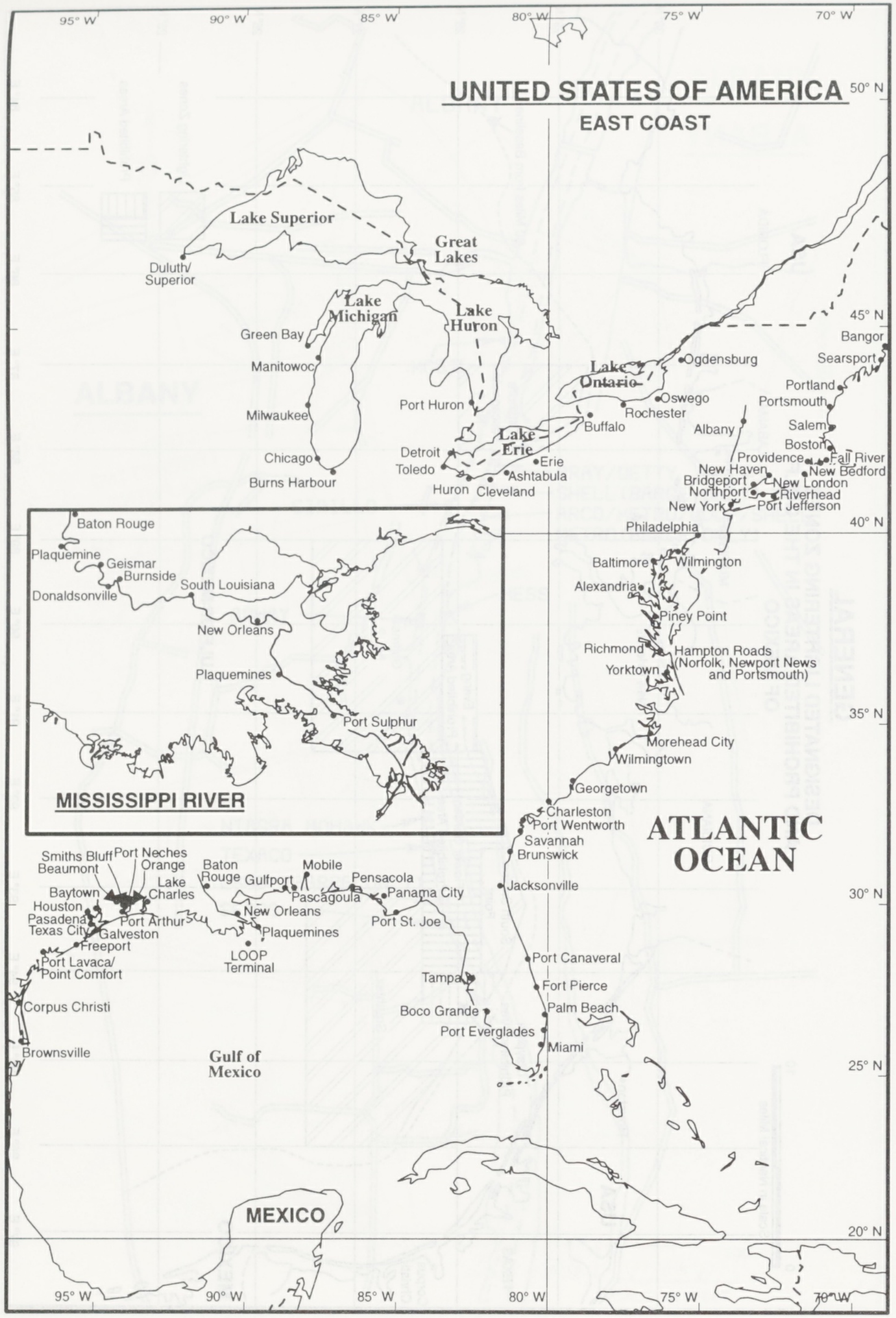
WHITEHAVEN

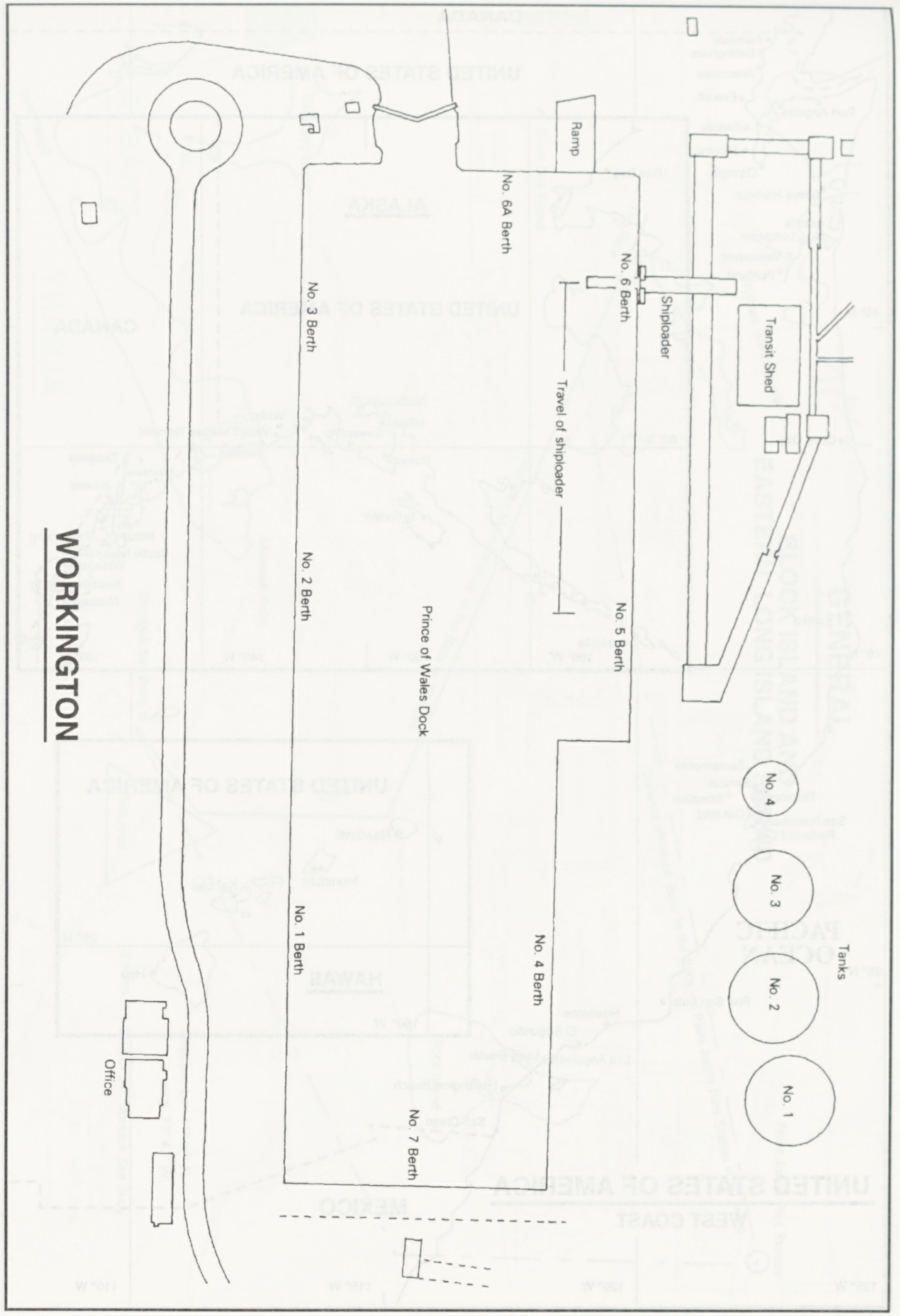
0
100
200
300
400
500
FEET
N
Small Yacht Moorings
Fishing Vessels
Sugar Tongue
Fishing Vessels
SOUTH HARBOUR
Fishing Vessels
Lime Tongue
Gridiron 112 ft x 21 ft
INNER HARBOUR
OLD QUAY
Old New Quay
West Pier
Slip
Lighthouse
SOLWAY FIRTH
OUTER HARBOUR
OLD NORTH WALL
Cement Berth
Harrington Berth
QUEEN'S DOCK
West Wall
NORTH HARBOUR
Tidal Signals
Coal Berth
Shipyard Berth
North Pier
Lighthouse
L.W.M.

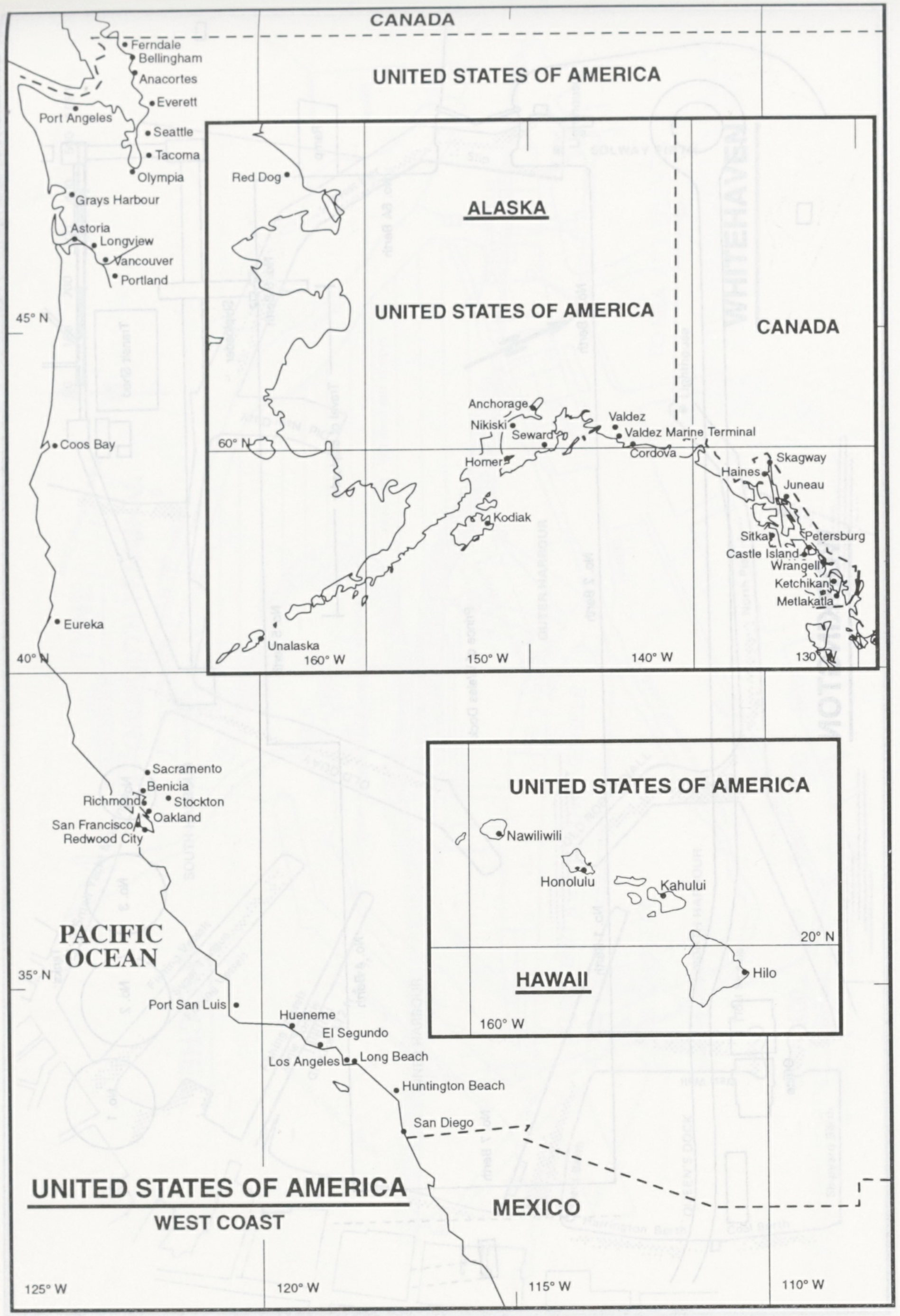


WHITSTABLE

Dolphin
38 m.
Aggregate Bays
East Quay
140 m.
Asphalt Plant
Brett Asphalt
Harbour
170 m.
West Quay
Aggregate Bay
88 m.
H.M. Customs
Old Engine Shed
Harbour Master
North Quay
Fishing Vessels Reserved Area
South Quay
Aggregate Bays
East Gate
Transit Shed
St. Augustine Marine Farm
Candium Shell Fish
Fishing Gear Car Park
Harbour Street
West Gate
N

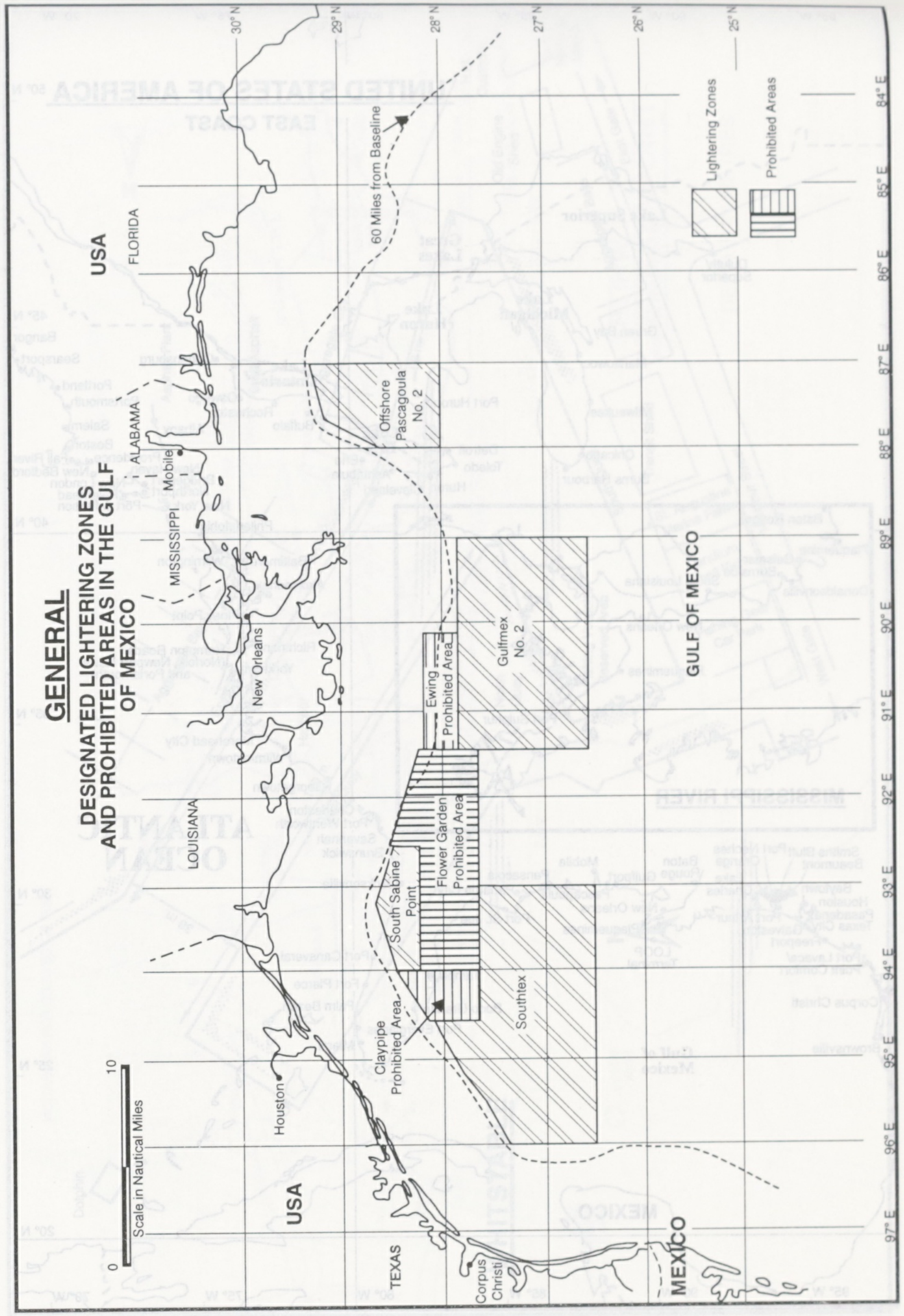

UNITED STATES OF AMERICA
EAST COAST
95° W
90° W
85° W
80° W
75° W
70° W
50° N
45° N
40° N
35° N
30° N
25° N
20° N
Lake Superior
Great Lakes
Duluth/ Superior
Lake Michigan
Lake Huron
Lake Ontario
Lake Erie
Green Bay
Manitowoc
Milwaukee
Chicago
Burns Harbour
Port Huron
Detroit
Toledo
Huron
Cleveland
Ashtabula
Erie
Buffalo
Rochester
Oswego
Ogdensburg
Albany
Bangor
Searsport
Portland
Portsmouth
Salem
Boston
Providence
Fall River
New Bedford
New Haven
Bridgeport
Northport
New London
Riverhead
New York
Port Jefferson
Philadelphia
Baltimore
Wilmington
Alexandria
Piney Point
Richmond
Yorktown
Hampton Roads (Norfolk, Newport News and Portsmouth)
Morehead City
Wilmingtown
Georgetown
Charleston
Port Wentworth
Savannah
Brunswick
Jacksonville
Port Canaveral
Fort Pierce
Palm Beach
Port Everglades
Miami
Tampa
Boco Grande
ATLANTIC OCEAN
Baton Rouge
Plaquemine
Geismar
Burnside
Donaldsonville
South Louisiana
New Orleans
Plaquemines
Port Sulphur
MISSISSIPPI RIVER
Smiths Bluff
Beaumont
Port Neches
Orange
Lake Charles
Baytown
Houston
Pasadena
Texas City
Port Arthur
Galveston
Freeport
Port Lavaca/ Point Comfort
Corpus Christi
Brownsville
Baton Rouge
Gulfport
Mobile
Pascagoula
Pensacola
Panama City
Port St. Joe
New Orleans
Plaquemines
LOOP Terminal
Gulf of Mexico
MEXICO


WORKINGTON
Ramp
No. 6A Berth
No. 6 Berth
Shiploader
Transit Shed
Travel of shiploader
No. 3 Berth
No. 2 Berth
No. 1 Berth
Prince of Wales Dock
No. 5 Berth
No. 4 Berth
No. 7 Berth
Office
No. 4
No. 3
No. 2
No. 1
Tanks



UNITED STATES OF AMERICA
WEST COAST

CANADA
UNITED STATES OF AMERICA
Ferndale
Bellingham
Anacortes
Everett
Port Angeles
Seattle
Tacoma
Olympia
Grays Harbour
Astoria
Longview
Vancouver
Portland
45° N
Coos Bay
Eureka
40° N
Sacramento
Benicia
Richmond
Stockton
Oakland
San Francisco
Redwood City
PACIFIC OCEAN
35° N
Port San Luis
Hueneme
El Segundo
Los Angeles
Long Beach
Huntington Beach
San Diego
MEXICO
125° W
120° W
115° W
110° W
ALASKA
UNITED STATES OF AMERICA
CANADA
Red Dog
Anchorage
Nikiski
Seward
Valdez
Valdez Marine Terminal
Cordova
Homer
60° N
Kodiak
Skagway
Haines
Juneau
Sitka
Petersburg
Castle Island
Wrangell
Ketchikan
Metlakatla
Unalaska
160° W
150° W
140° W
130° W
UNITED STATES OF AMERICA
Nawiliwili
Honolulu
Kahului
20° N
HAWAII
Hilo
160° W

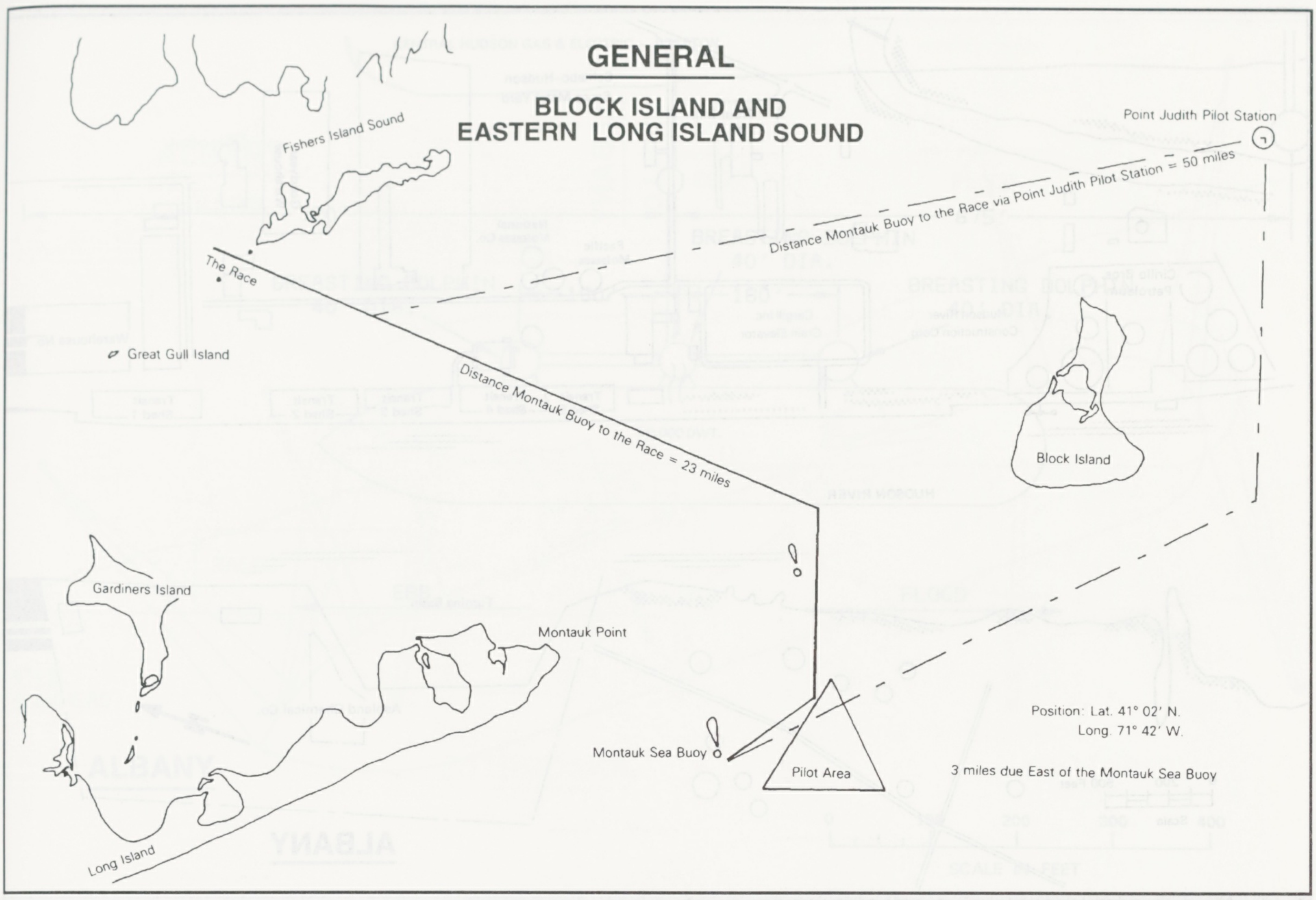


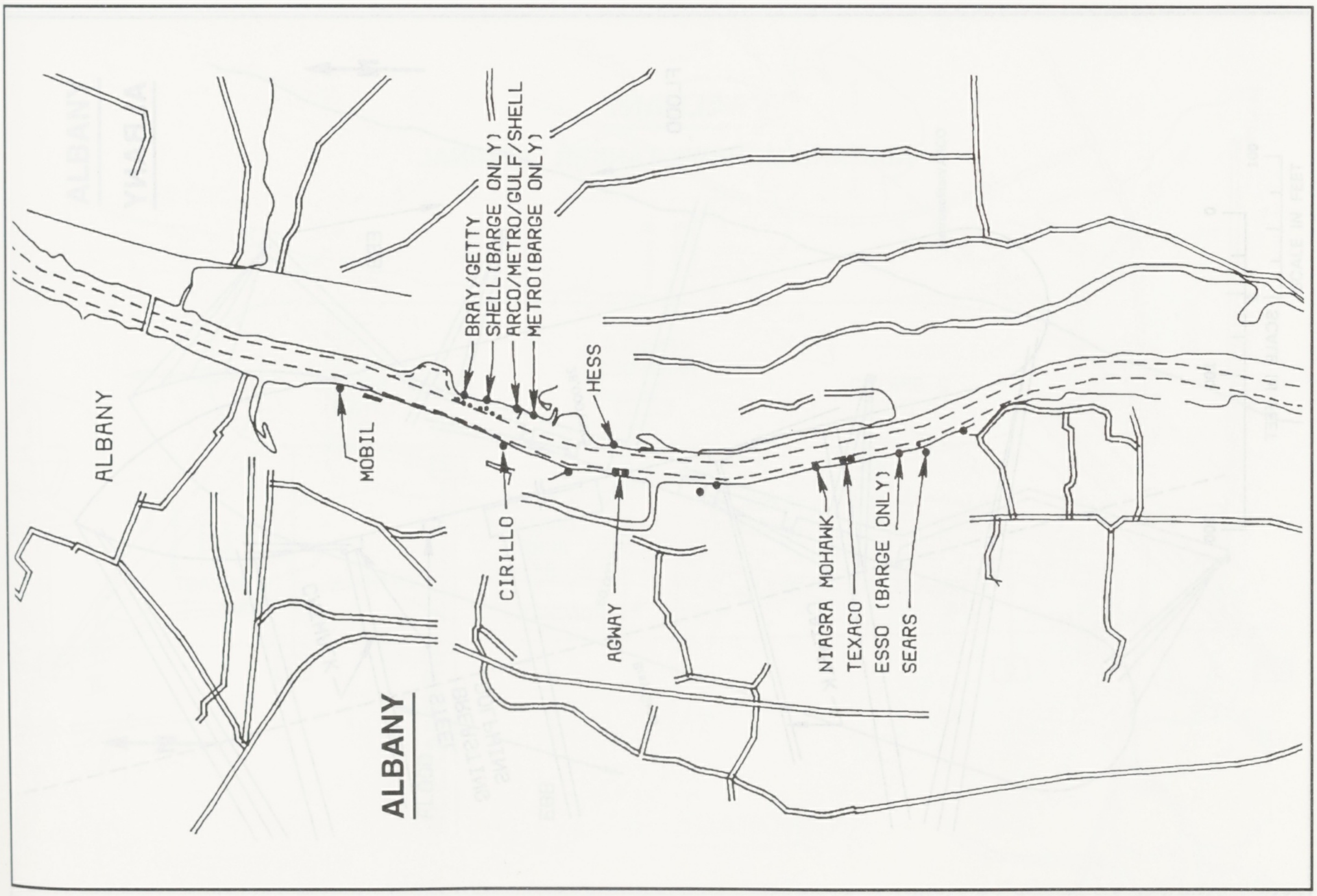
GENERAL
DESIGNATED LIGHTERING ZONES AND PROHIBITED AREAS IN THE GULF OF MEXICO

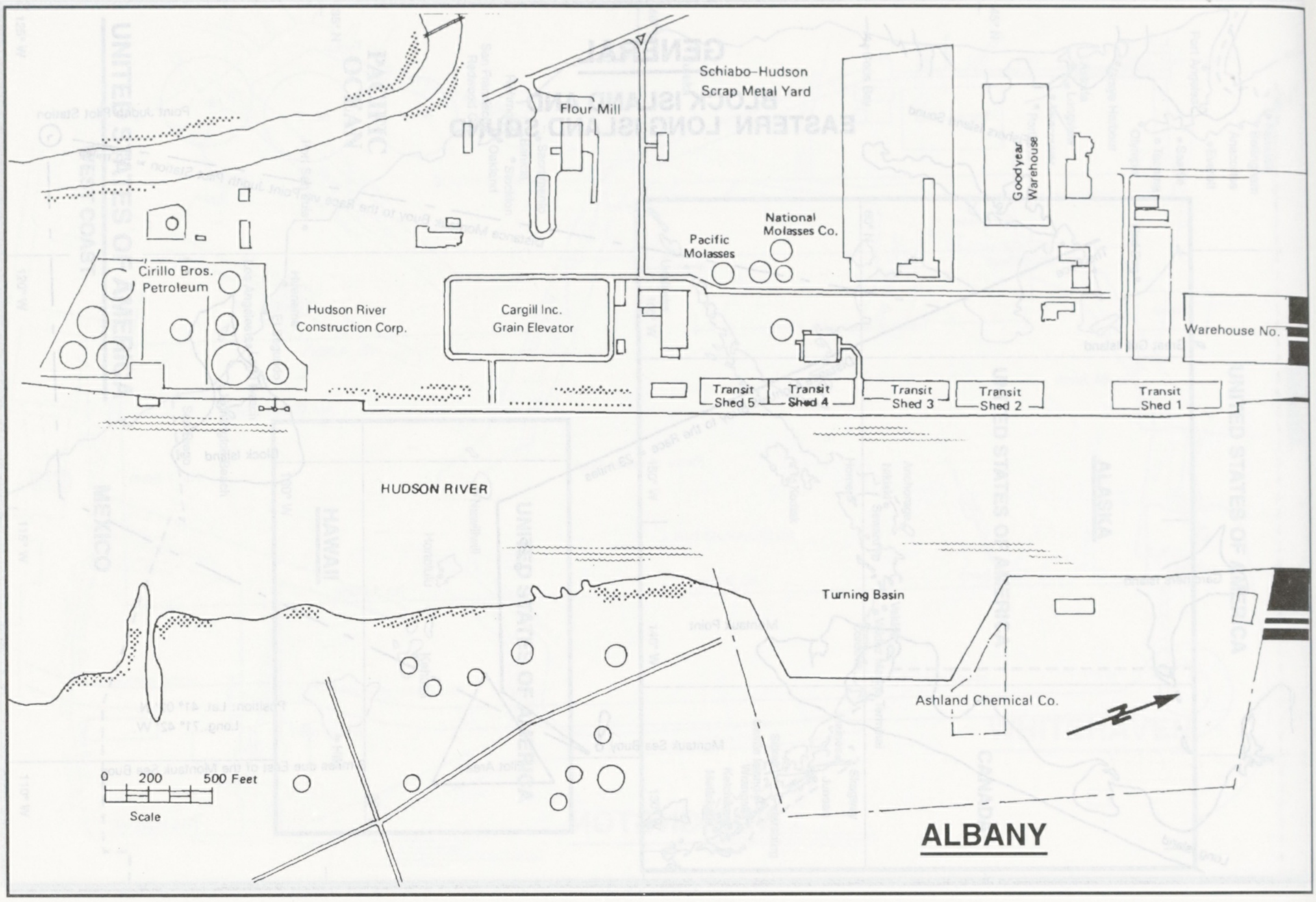
USA
FLORIDA
ALABAMA
Mobile
MISSISSIPPI
LOUISIANA
New Orleans
Houston
TEXAS
USA
Corpus Christi
MEXICO
GULF OF MEXICO
60 Miles from Baseline
Offshore Pascagoula No. 2
Gulfmex No. 2
Ewing Prohibited Area
Flower Garden Prohibited Area
South Sabine Point
Claypipe Prohibited Area
Southtex
Lightering Zones
Prohibited Areas
0
10
Scale in Nautical Miles
30° N
29° N
28° N
27° N
26° N
25° N
84° E
85° E
86° E
87° E
88° E
89° E
90° E
91° E
92° E
93° E
94° E
95° E
96° E
97° E

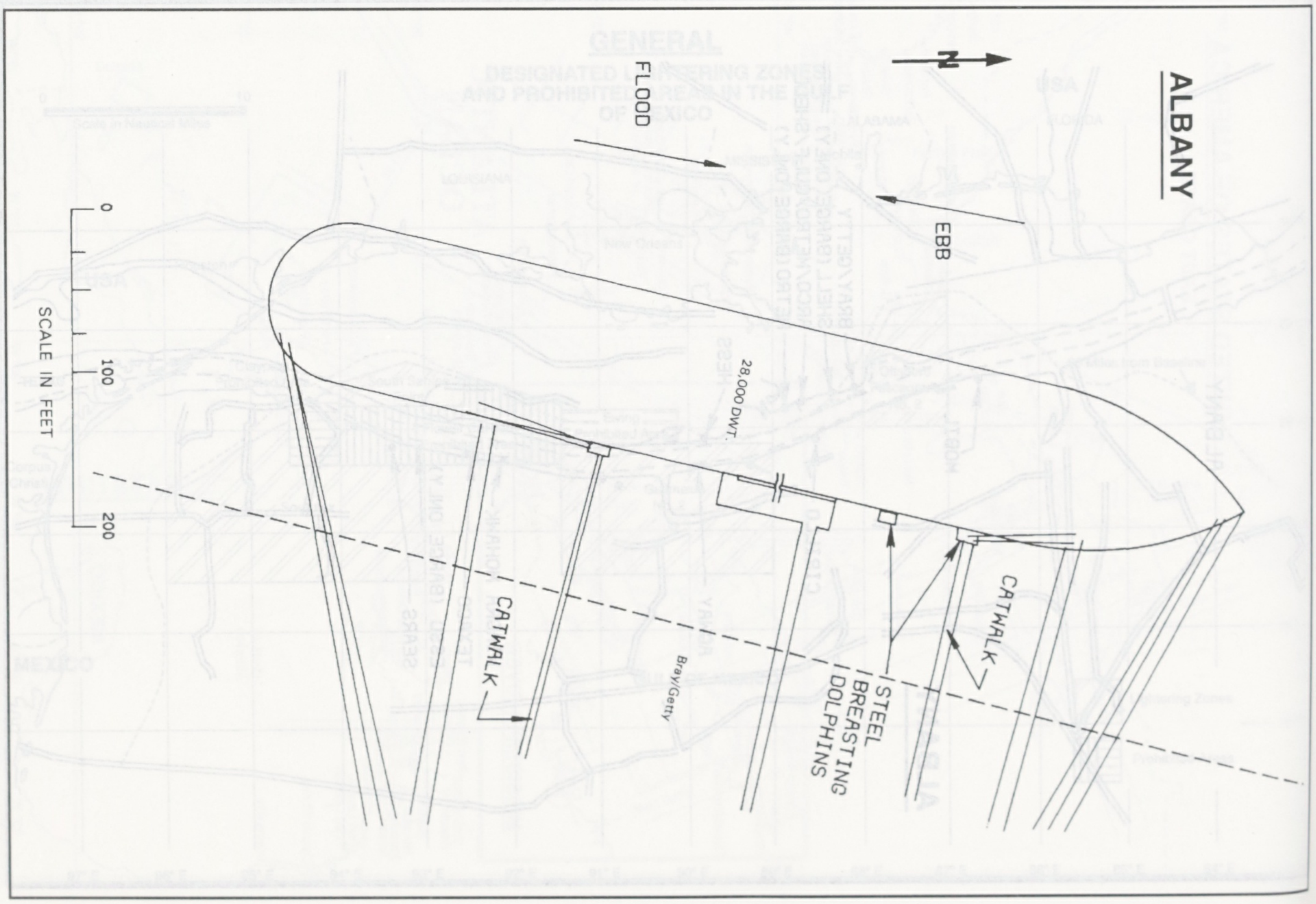
GENERAL

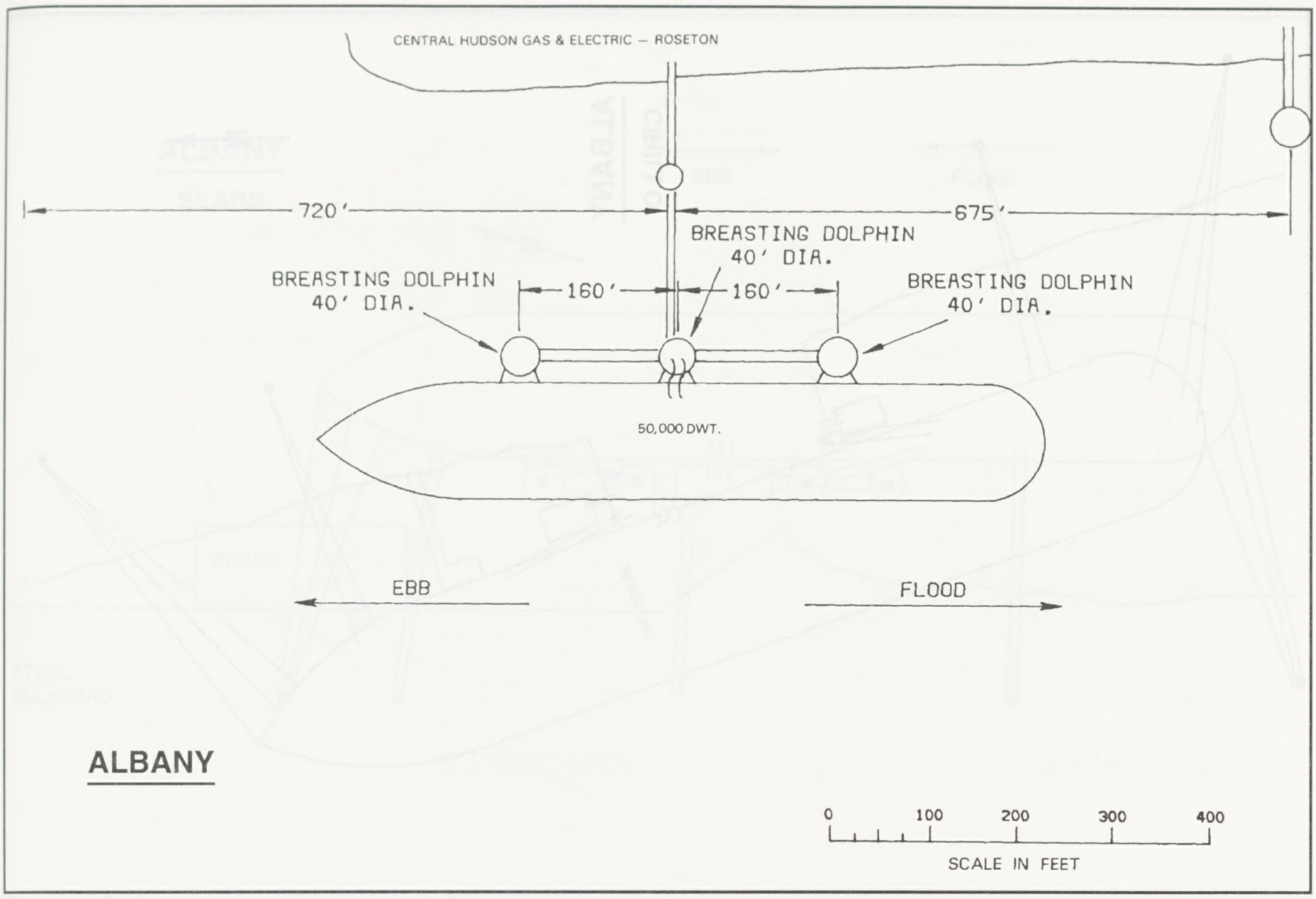
BLOCK ISLAND AND EASTERN LONG ISLAND SOUND

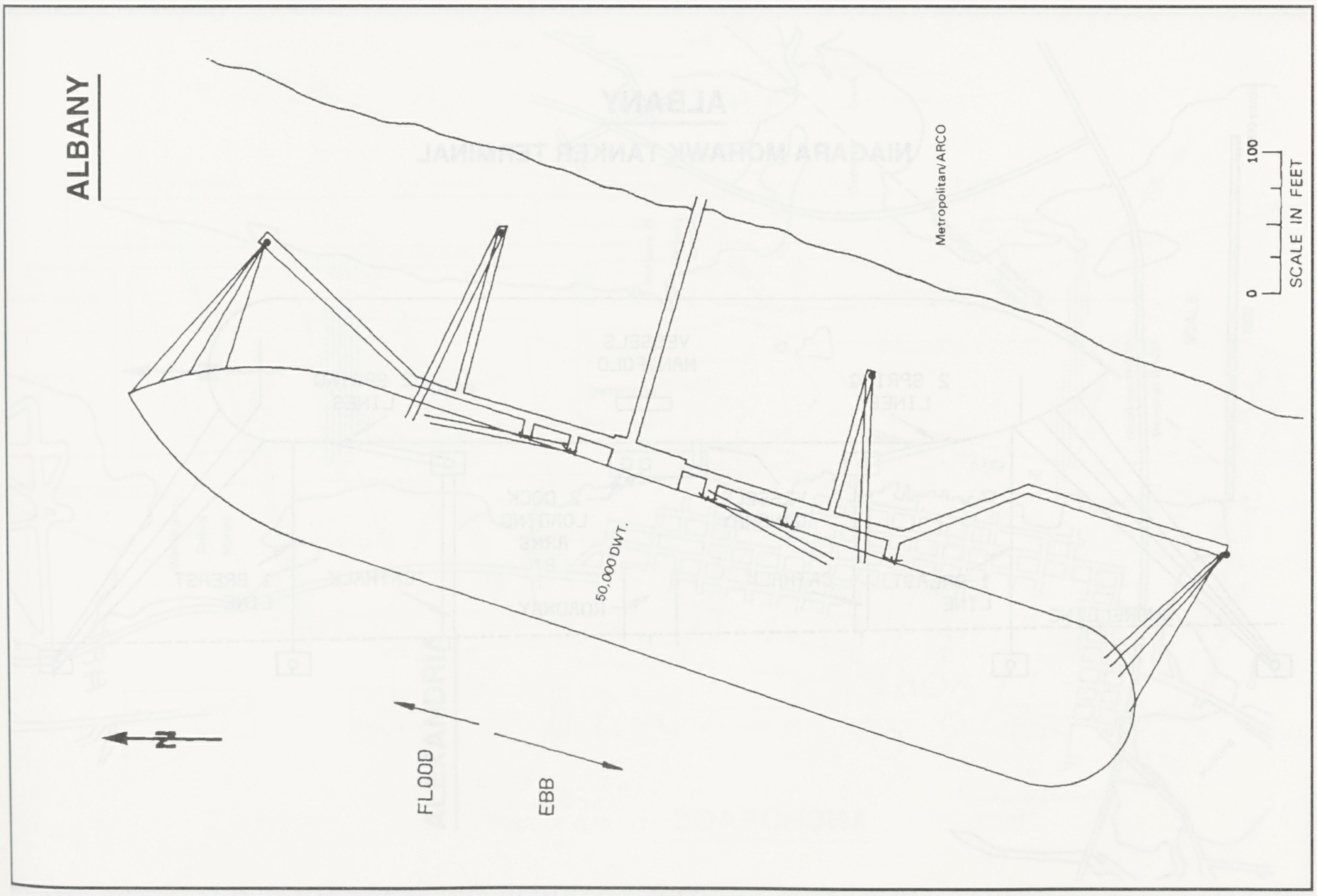

Point Judith Pilot Station
Fishers Island Sound
Distance Montauk Buoy to the Race via Point Judith Pilot Station = 50 miles
The Race
Great Gull Island
Distance Montauk Buoy to the Race = 23 miles
Block Island
Gardiners Island
Montauk Point
Position: Lat. 41° 02′ N.
Long. 71° 42′ W.
Montauk Sea Buoy
Pilot Area
3 miles due East of the Montauk Sea Buoy
Long Island

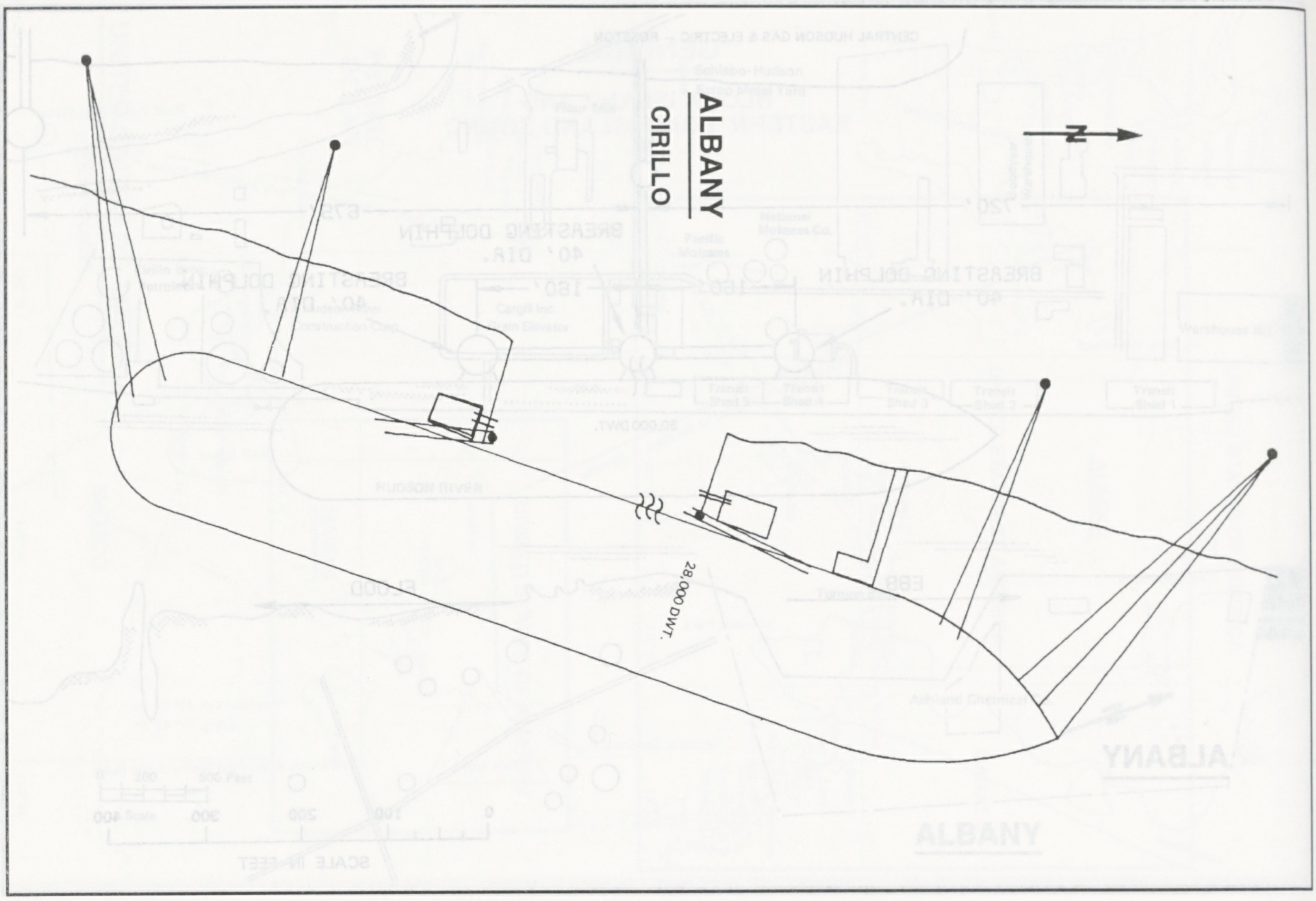

ALBANY
BRAY/GETTY
SHELL (BARGE ONLY)
ARCO/METRO/GULF/SHELL
METRO (BARGE ONLY)
HESS
MOBIL
CIRILLO
AGWAY
NIAGRA MOHAWK
TEXACO
ESSO (BARGE ONLY)
SEARS
ALBANY


Schiabo–Hudson
Scrap Metal Yard
Flour Mill
Goodyear Warehouse
National Molasses Co.
Pacific Molasses
Cirillo Bros. Petroleum
Hudson River Construction Corp.
Cargill Inc. Grain Elevator
Warehouse No.
Transit Shed 5
Transit Shed 4
Transit Shed 3
Transit Shed 2
Transit Shed 1
HUDSON RIVER
Turning Basin
Ashland Chemical Co.
N
0
200
500 Feet
Scale
ALBANY


ALBANY
N
FLOOD
EBB
0
100
200
SCALE IN FEET
28,000 DWT.
CATWALK
CATWALK
STEEL BREASTING DOLPHINS

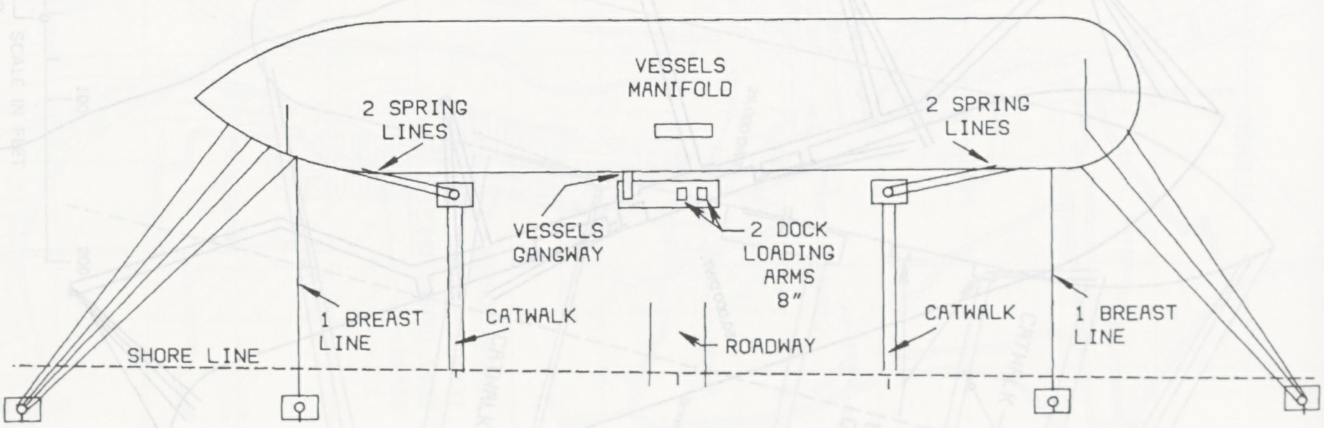

CENTRAL HUDSON GAS & ELECTRIC — ROSETON
720′
675′
BREASTING DOLPHIN
40′ DIA.
BREASTING DOLPHIN
40′ DIA.
BREASTING DOLPHIN
40′ DIA.
160′
160′
50,000 DWT.
EBB
FLOOD
ALBANY
0
100
200
300
400
SCALE IN FEET


ALBANY
Metropolitan/ARCO
0
100
SCALE IN FEET
50,000 DWT.
N
FLOOD
EBB


ALBANY
CIRILLO
N
28,000 DWT.

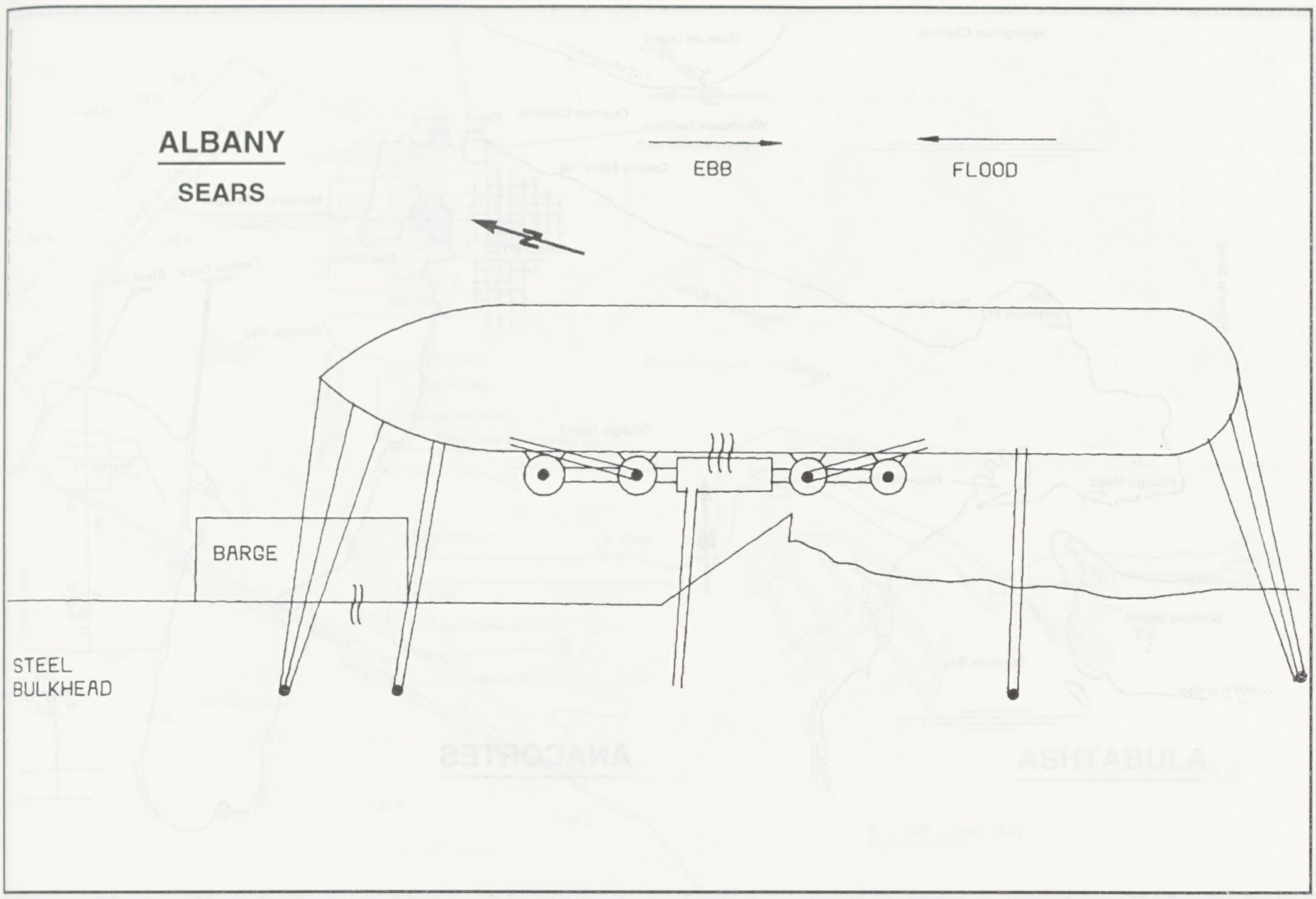
ALBANY

NIAGARA MOHAWK TANKER TERMINAL

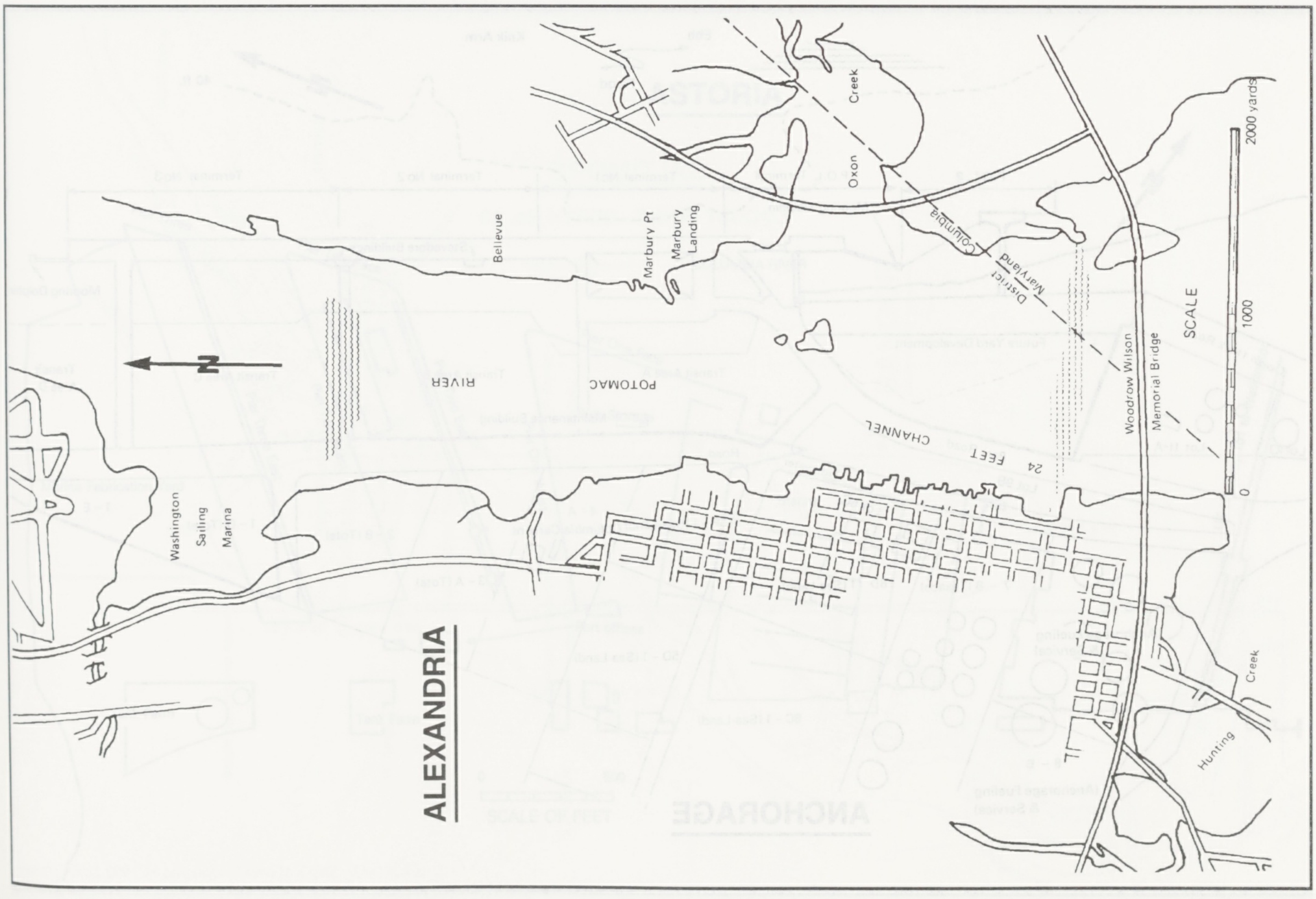

VESSELS
MANIFOLD
2 SPRING
LINES
2 SPRING
LINES
VESSELS
GANGWAY
2 DOCK
LOADING
ARMS
8"
1 BREAST
LINE
CATWALK
ROADWAY
CATWALK
1 BREAST
LINE
SHORE LINE

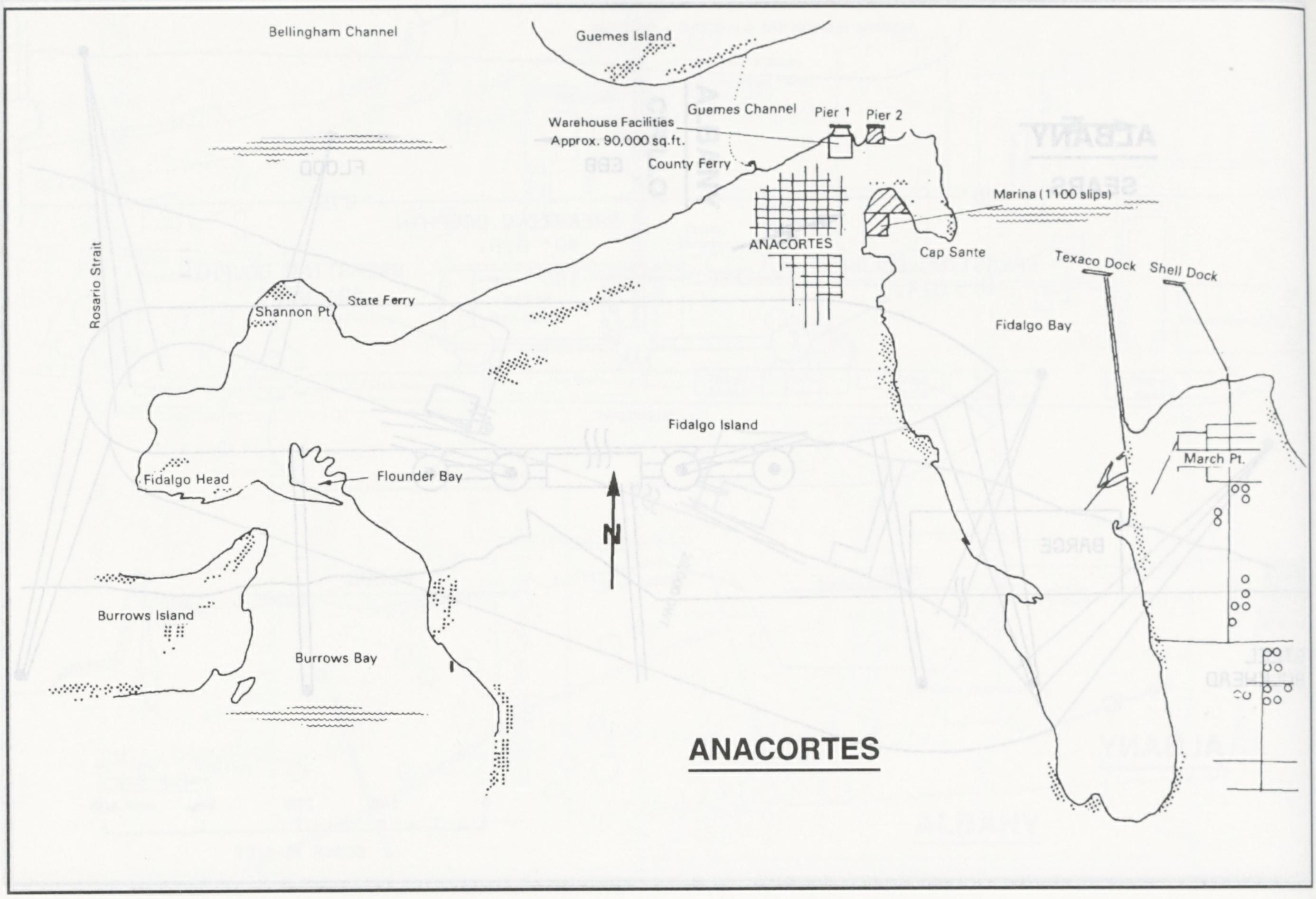
ALBANY

SEARS

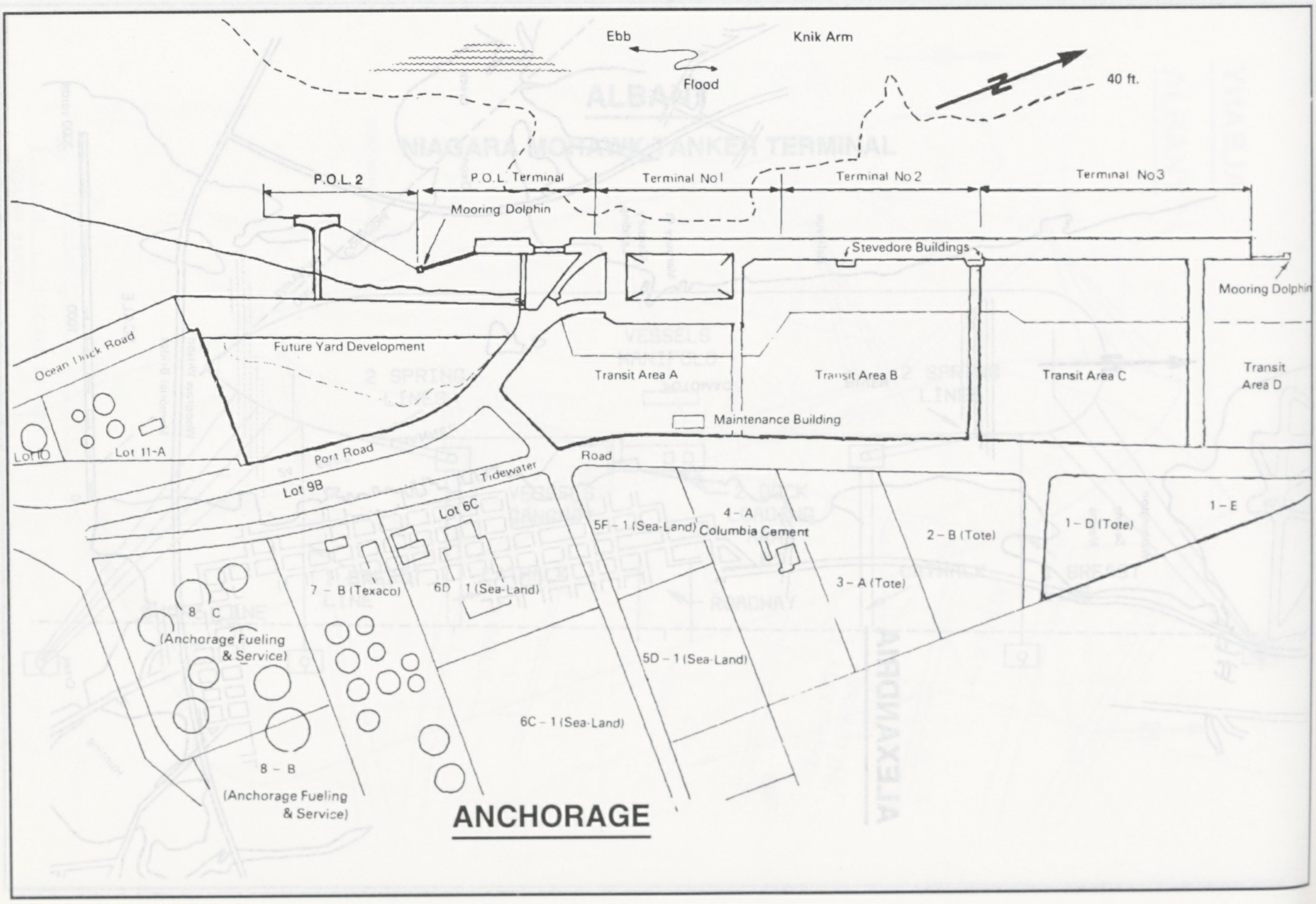

EBB
FLOOD
BARGE
STEEL
BULKHEAD

ALEXANDRIA

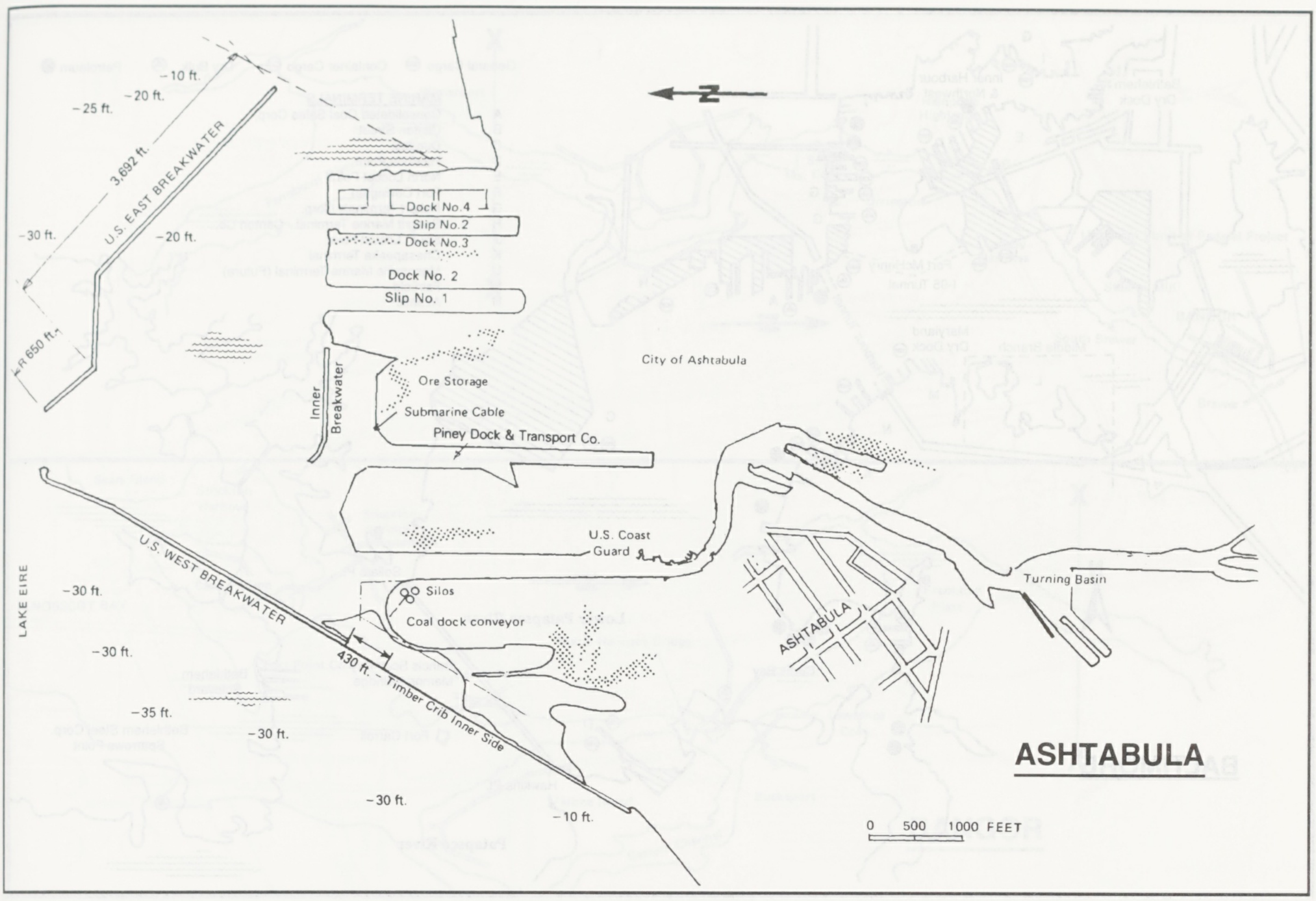

Oxon
Creek
District
Columbia
Maryland
Bellevue
Marbury Pt
Marbury
Landing
POTOMAC
RIVER
24
FEET
CHANNEL
Woodrow Wilson
Memorial Bridge
SCALE
2000 yards
1000
0
Washington
Sailing
Marina
Hunting
Creek

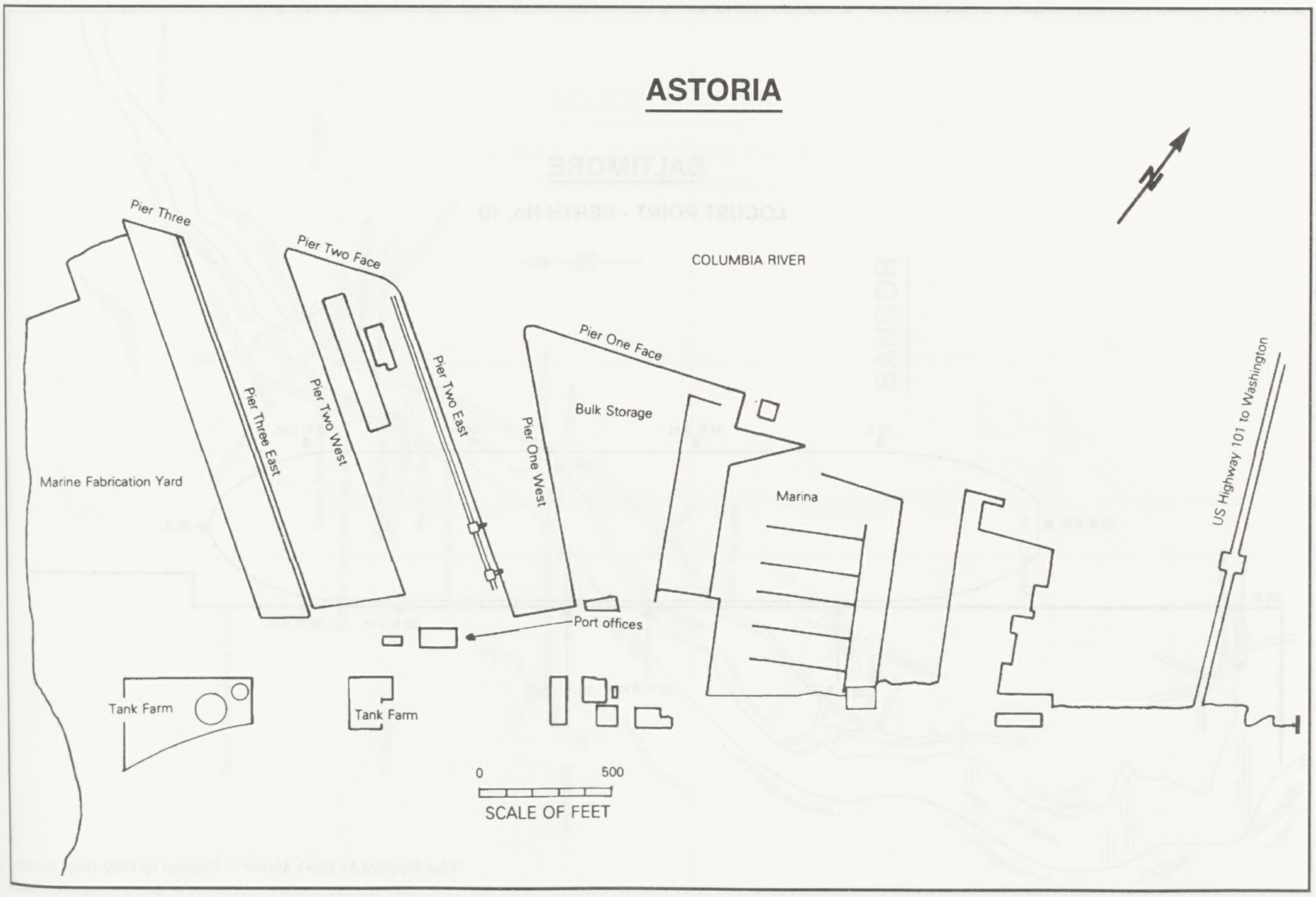

Bellingham Channel
Guemes Island
Guemes Channel
Warehouse Facilities
Approx. 90,000 sq.ft.
Pier 1
Pier 2
County Ferry
Marina (1100 slips)
ANACORTES
Cap Sante
Texaco Dock
Shell Dock
Fidalgo Bay
Rosario Strait
Shannon Pt.
State Ferry
Fidalgo Island
March Pt.
Fidalgo Head
Flounder Bay
N
Burrows Island
Burrows Bay

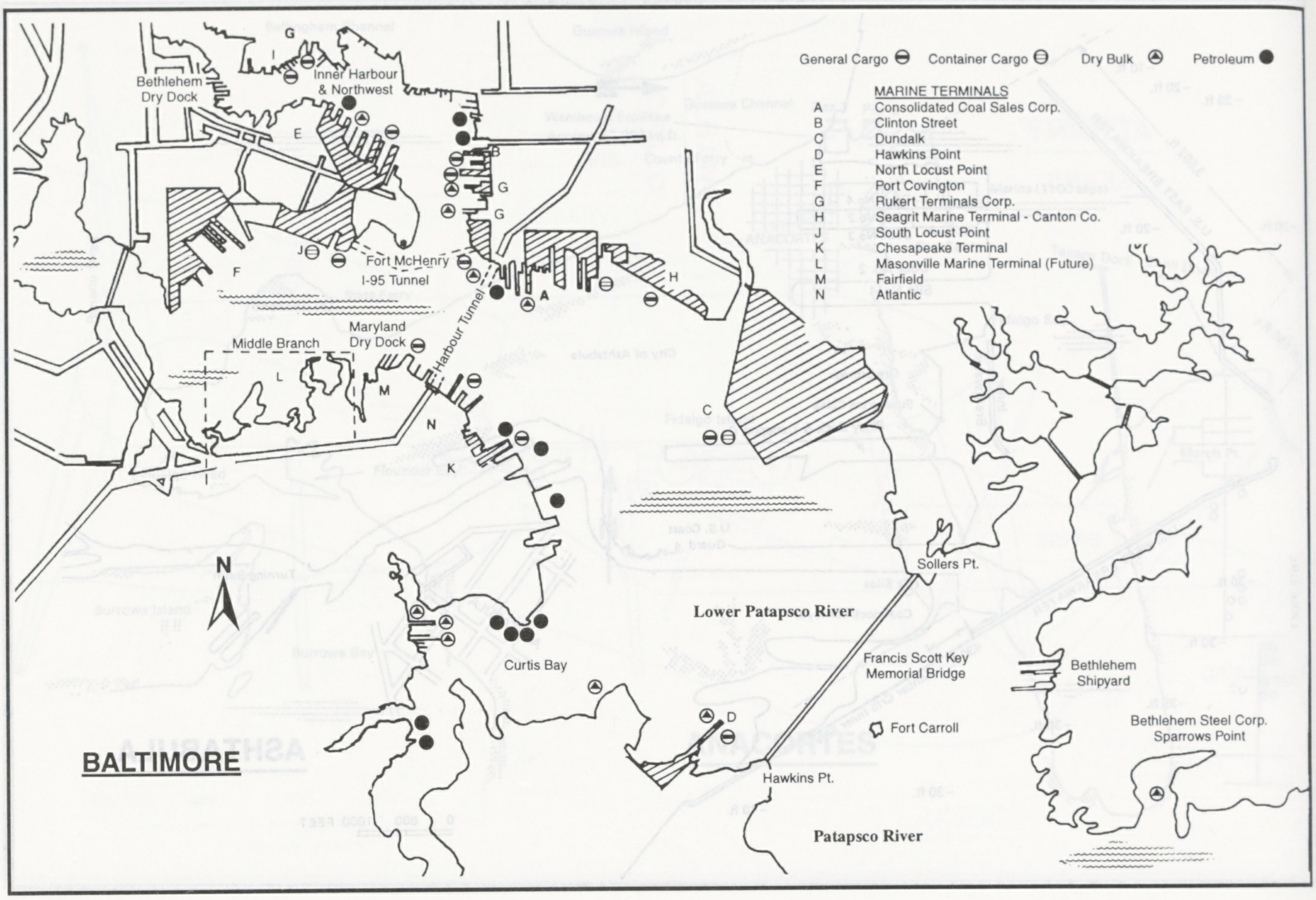
ANACORTES

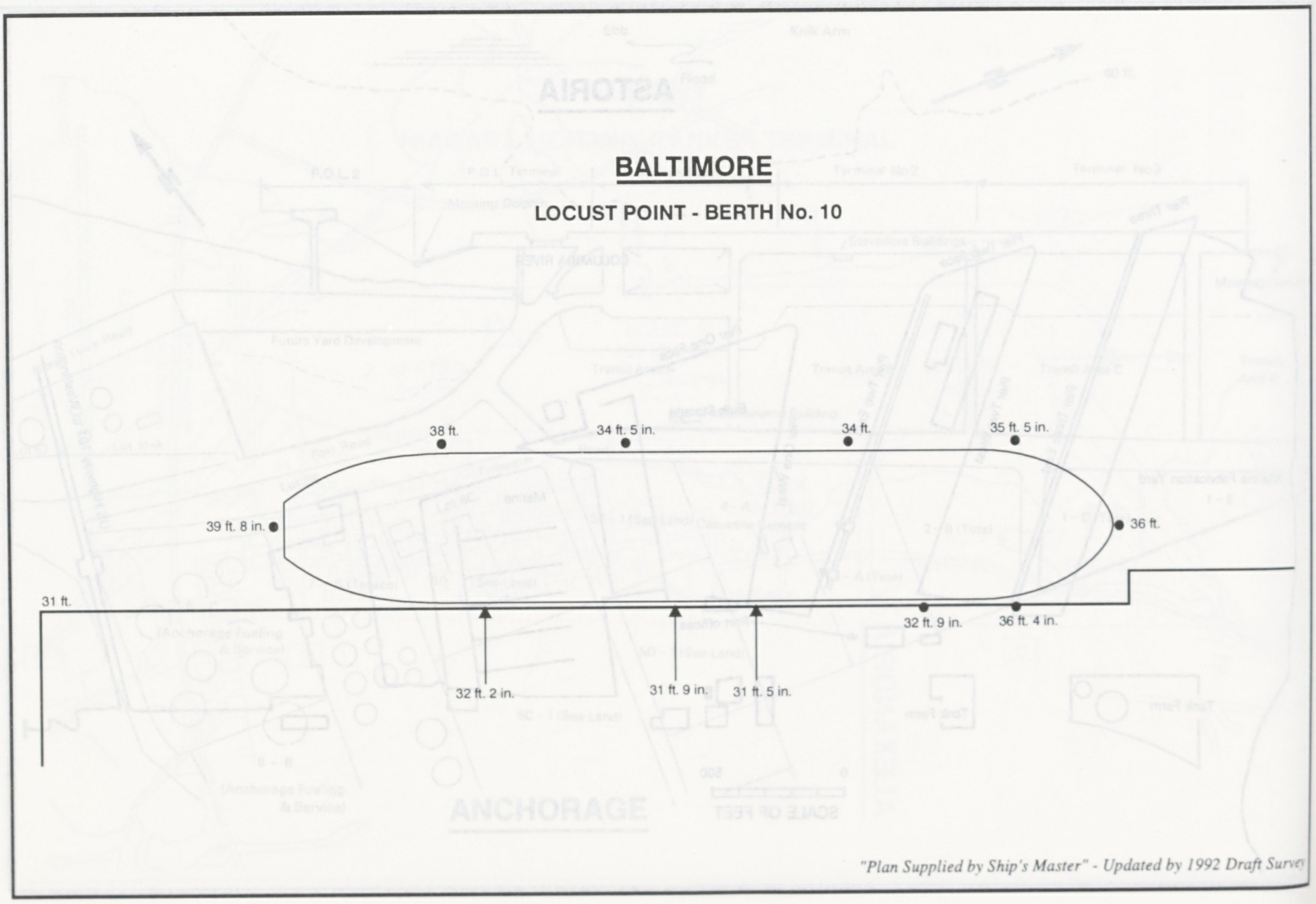

Ebb
Flood
Knik Arm
N
40 ft.
P.O.L. 2
P.O.L. Terminal
Terminal No1
Terminal No2
Terminal No3
Mooring Dolphin
Stevedore Buildings
Mooring Dolphin
Ocean Dock Road
Future Yard Development
Transit Area A
Transit Area B
Transit Area C
Transit Area D
Maintenance Building
Lot 10
Lot 11-A
Port Road
Road
Lot 9B
Tidewater
Lot 6C
5F – 1 (Sea-Land)
4 – A
Columbia Cement
2 – B (Tote)
1 – D (Tote)
1 – E
3 – A (Tote)
8 C
(Anchorage Fueling & Service)
7 – B (Texaco)
6D 1 (Sea-Land)
5D – 1 (Sea-Land)
6C – 1 (Sea-Land)
8 – B
(Anchorage Fueling & Service)

ANCHORAGE

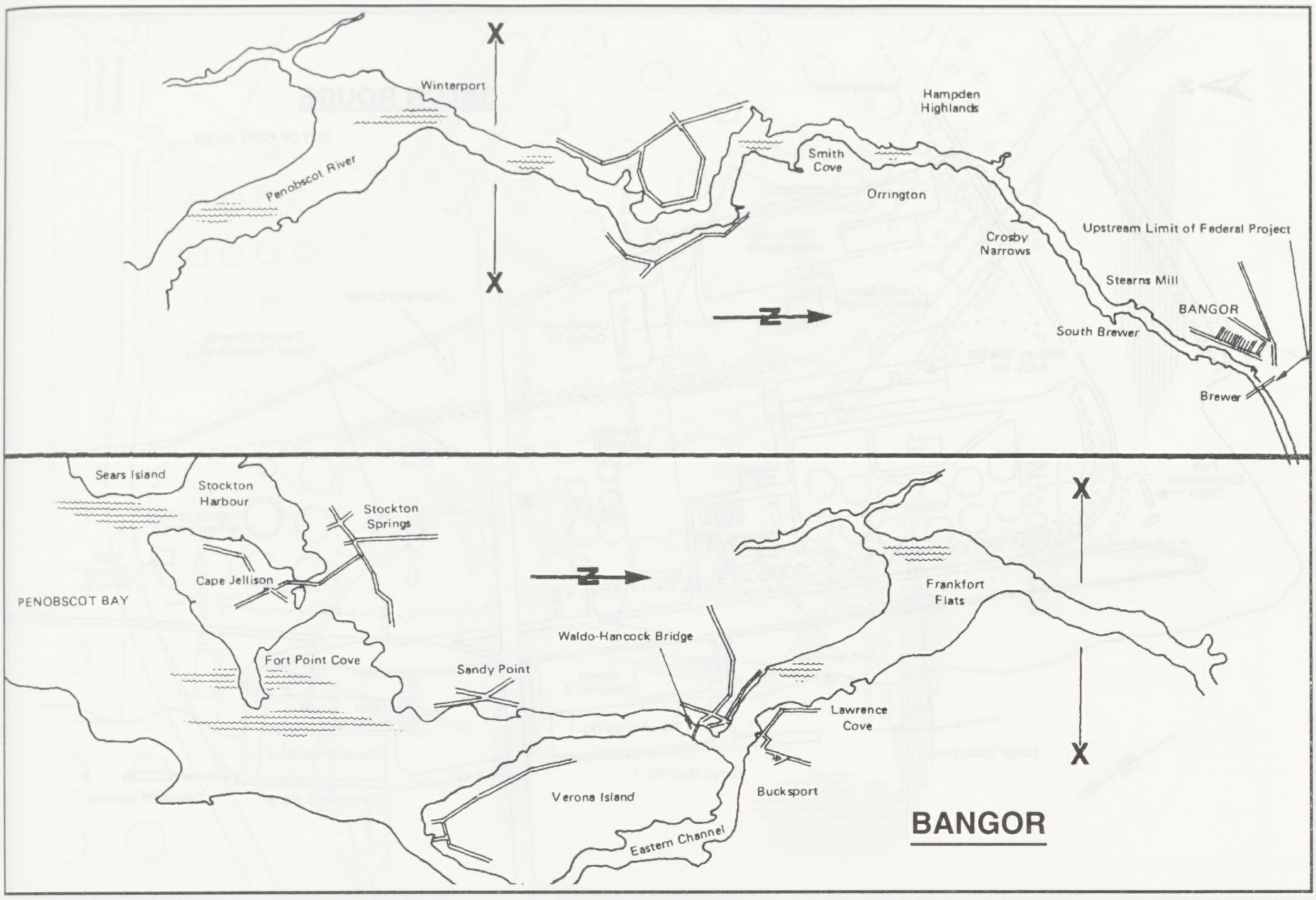

ASHTABULA
N
-10 ft.
-20 ft.
-25 ft.
3,692 ft.
U.S. EAST BREAKWATER
-30 ft.
-20 ft.
R 650 ft.
Dock No.4
Slip No.2
Dock No.3
Dock No. 2
Slip No. 1
Inner Breakwater
Ore Storage
Submarine Cable
Piney Dock & Transport Co.
City of Ashtabula
U.S. Coast Guard
Silos
Coal dock conveyor
U.S. WEST BREAKWATER
430 ft.
Timber Crib Inner Side
LAKE EIRE
-30 ft.
-30 ft.
-35 ft.
-30 ft.
-30 ft.
-10 ft.
ASHTABULA
Turning Basin
0 500 1000 FEET


ASTORIA
N
COLUMBIA RIVER
Pier Three
Pier Two Face
Pier Three East
Pier Two West
Pier Two East
Pier One Face
Pier One West
Bulk Storage
Marina
Marine Fabrication Yard
Port offices
Tank Farm
Tank Farm
US Highway 101 to Washington
0 500
SCALE OF FEET

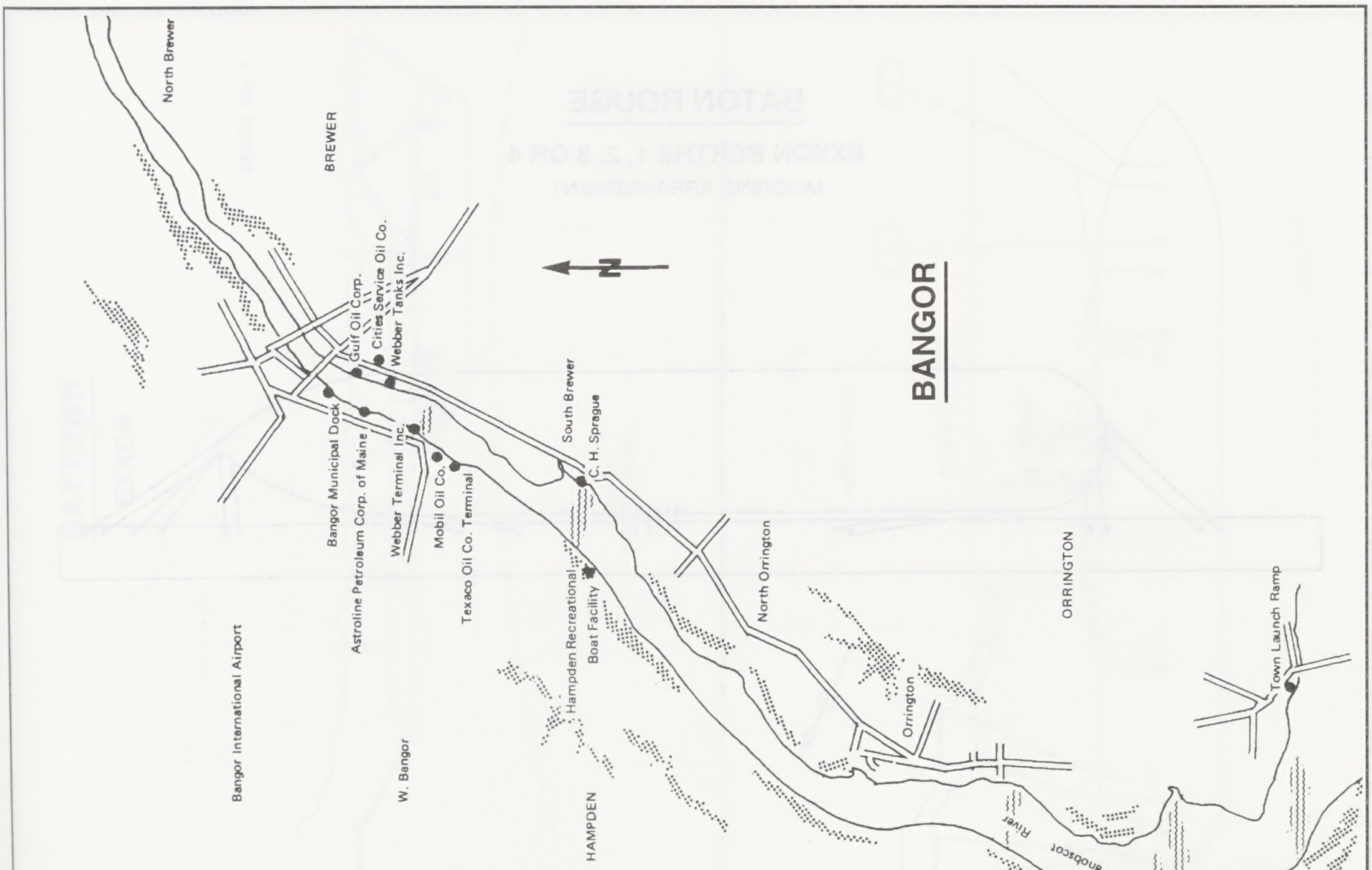

General Cargo ⊖
Container Cargo ⊜
Dry Bulk ⊕
Petroleum ●
MARINE TERMINALS
A Consolidated Coal Sales Corp.
B Clinton Street
C Dundalk
D Hawkins Point
E North Locust Point
F Port Covington
G Rukert Terminals Corp.
H Seagrit Marine Terminal - Canton Co.
J South Locust Point
K Chesapeake Terminal
L Masonville Marine Terminal (Future)
M Fairfield
N Atlantic
Inner Harbour & Northwest
Bethlehem Dry Dock
Fort McHenry
I-95 Tunnel
Harbour Tunnel
Middle Branch
Maryland Dry Dock
N
Curtis Bay
Lower Patapsco River
Sollers Pt.
Francis Scott Key Memorial Bridge
Bethlehem Shipyard
Fort Carroll
Bethlehem Steel Corp. Sparrows Point
Hawkins Pt.
Patapsco River
BALTIMORE

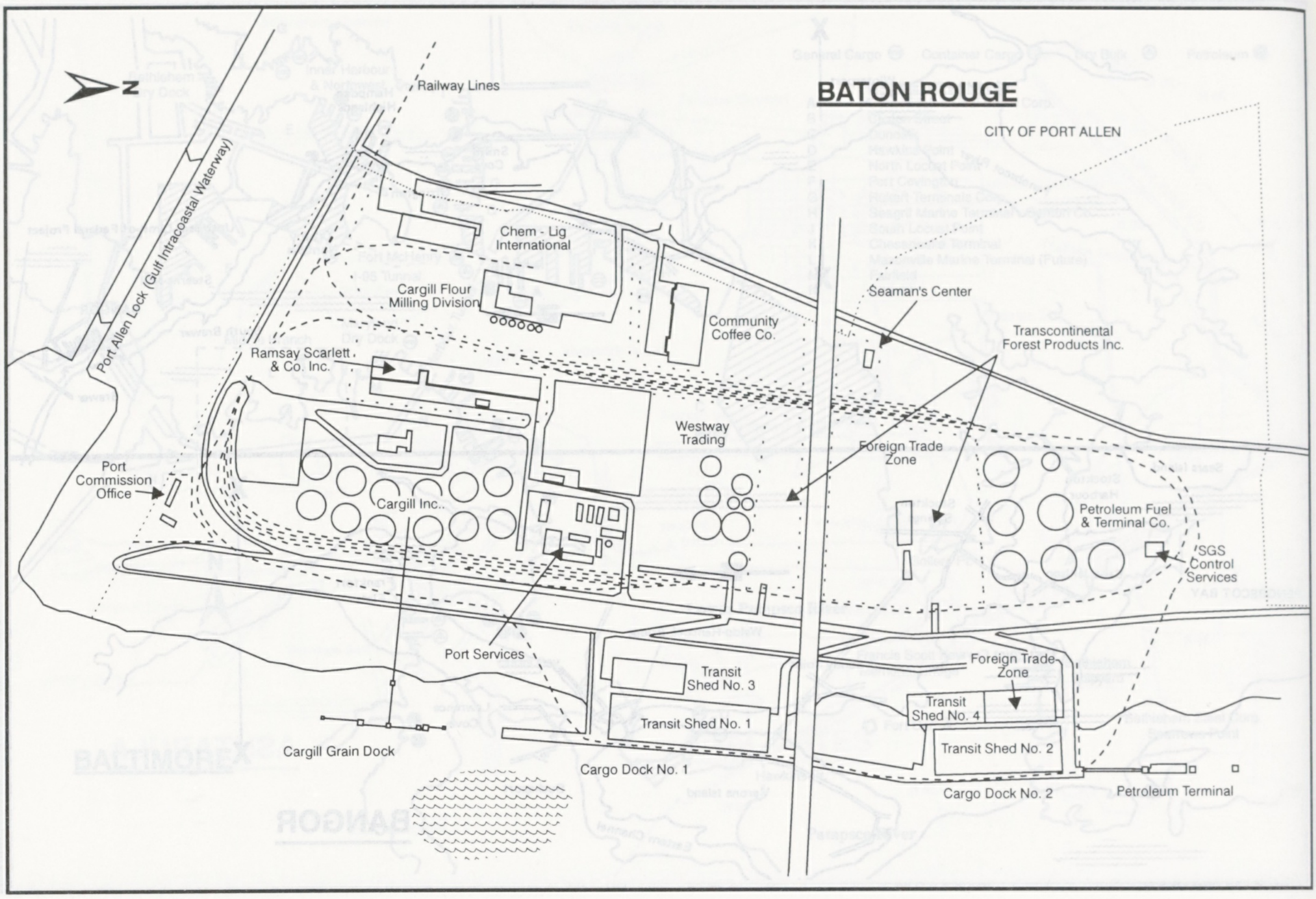

BALTIMORE
LOCUST POINT - BERTH No. 10
38 ft.
34 ft. 5 in.
34 ft.
35 ft. 5 in.
39 ft. 8 in.
36 ft.
31 ft.
32 ft. 9 in.
36 ft. 4 in.
32 ft. 2 in.
31 ft. 9 in.
31 ft. 5 in.

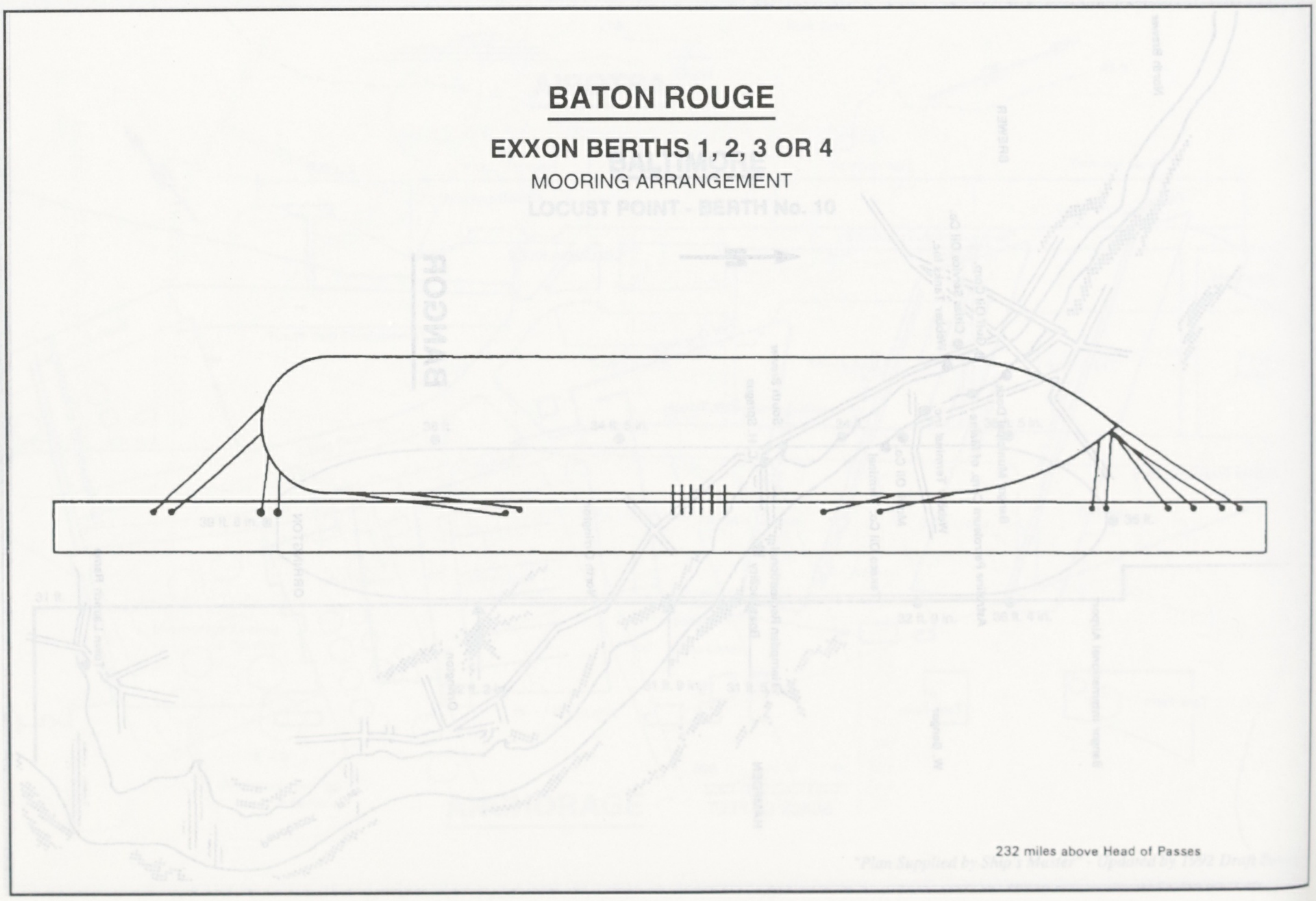
"Plan Supplied by Ship's Master" - Updated by 1992 Draft Surve


X
Winterport
Hampden Highlands
Smith Cove
Orrington
Penobscot River
Crosby Narrows
Upstream Limit of Federal Project
Stearns Mill
BANGOR
South Brewer
Brewer
X
N
Sears Island
Stockton Harbour
Stockton Springs
X
Cape Jellison
PENOBSCOT BAY
N
Frankfort Flats
Waldo-Hancock Bridge
Fort Point Cove
Sandy Point
Lawrence Cove
Bucksport
Verona Island
Eastern Channel
X

BANGOR

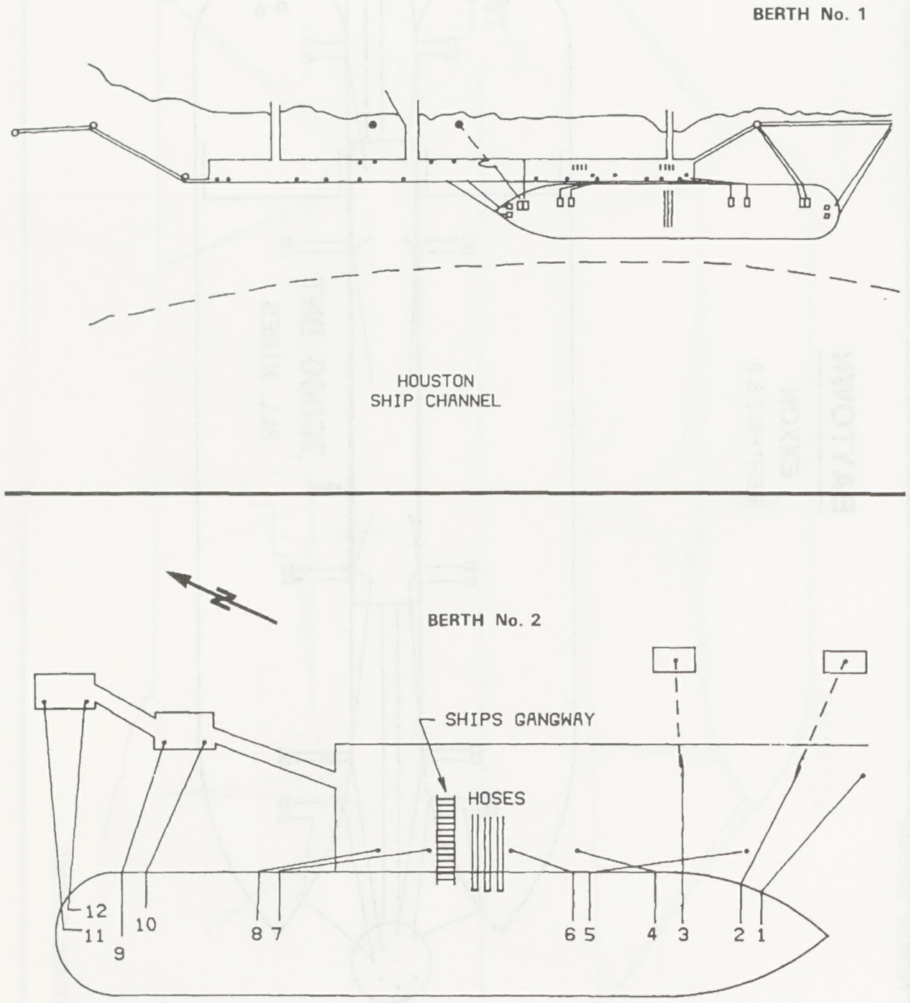

North Brewer
BREWER
Gulf Oil Corp.
Cities Service Oil Co.
Webber Tanks Inc.
N
BANGOR
Bangor Municipal Dock
Astroline Petroleum Corp. of Maine
Webber Terminal Inc.
Mobil Oil Co.
Texaco Oil Co. Terminal
South Brewer
C. H. Sprague
Hampden Recreational Boat Facility
North Orrington
ORRINGTON
Orrington
Town Launch Ramp
Penobscot River
Bangor International Airport
W. Bangor
HAMPDEN

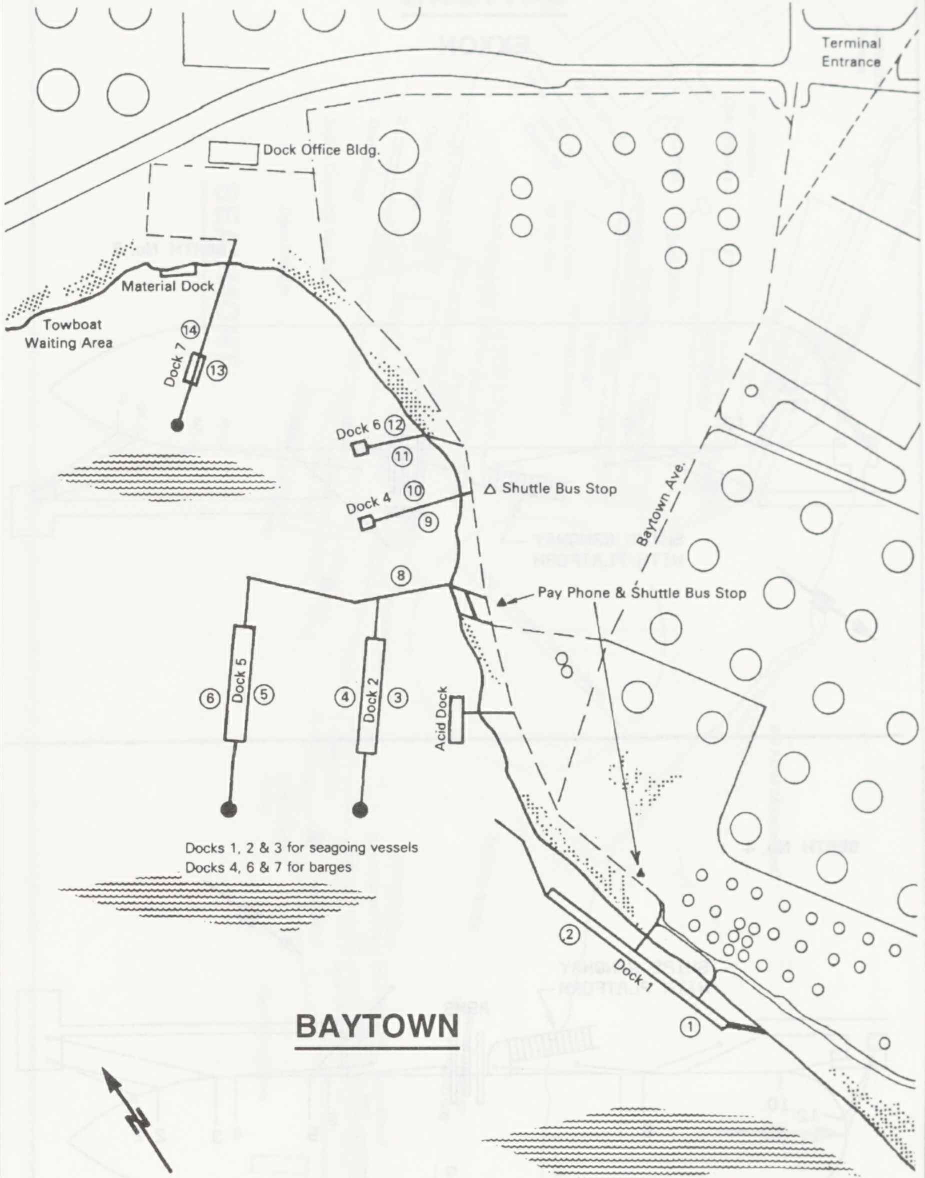

N
BATON ROUGE
CITY OF PORT ALLEN
Railway Lines
Port Allen Lock (Gulf Intracoastal Waterway)
Chem - Lig International
Cargill Flour Milling Division
Community Coffee Co.
Seaman's Center
Transcontinental Forest Products Inc.
Ramsay Scarlett & Co. Inc.
Westway Trading
Foreign Trade Zone
Port Commission Office
Cargill Inc..
Petroleum Fuel & Terminal Co.
SGS Control Services
Port Services
Transit Shed No. 3
Foreign Trade Zone
Transit Shed No. 4
Transit Shed No. 1
Transit Shed No. 2
Cargill Grain Dock
Cargo Dock No. 1
Cargo Dock No. 2
Petroleum Terminal


BATON ROUGE
EXXON BERTHS 1, 2, 3 OR 4
MOORING ARRANGEMENT
232 miles above Head of Passes

BAYTOWN

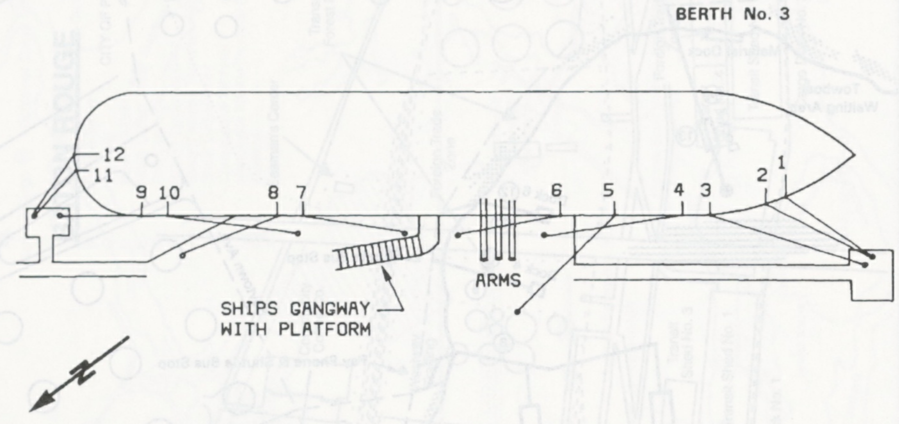
EXXON

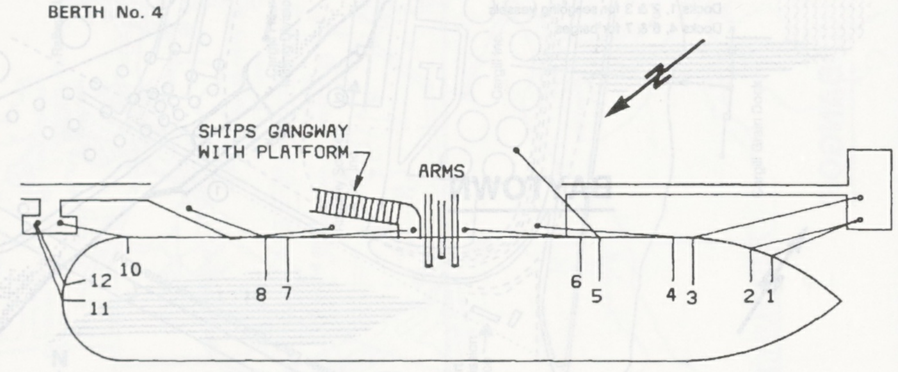

BERTH No. 1
HOUSTON SHIP CHANNEL
BERTH No. 2
SHIPS GANGWAY
HOSES
12
11
9
10
8 7
6 5
4 3
2 1


Terminal Entrance
Dock Office Bldg.
Material Dock
Towboat Waiting Area
Dock 7
⑭
⑬
Dock 6
⑫
⑪
Dock 4
⑩
⑨
△ Shuttle Bus Stop
Baytown Ave.
⑧
Pay Phone & Shuttle Bus Stop
Dock 5
⑥
⑤
Dock 2
④
③
Acid Dock
Docks 1, 2 & 3 for seagoing vessels
Docks 4, 6 & 7 for barges
②
Dock 1
①
BAYTOWN
N

BAYTOWN

EXXON

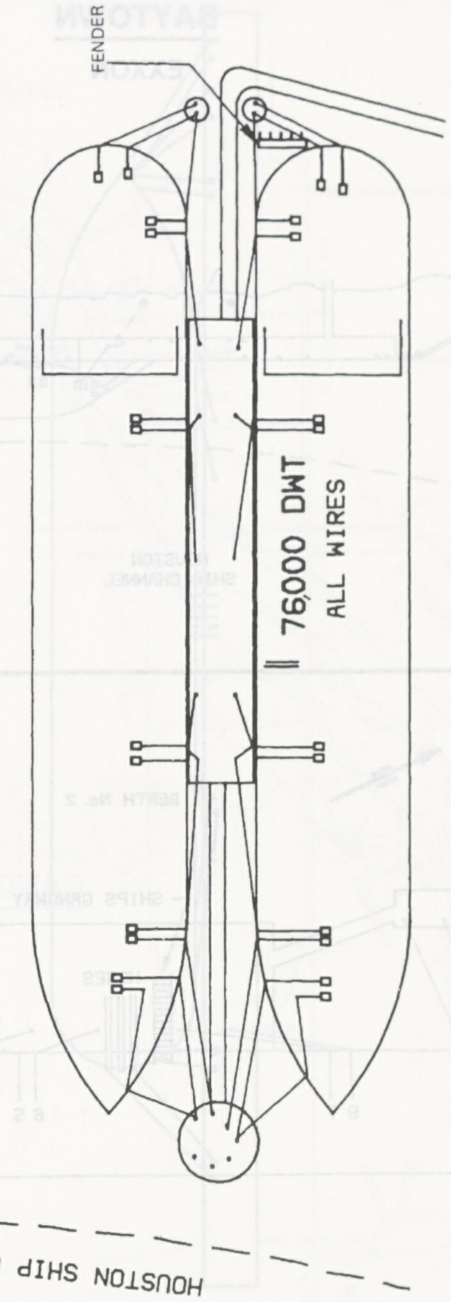

BERTH No. 3
12
11
9 10
8 7
6
5
4 3
2 1
ARMS
SHIPS GANGWAY
WITH PLATFORM

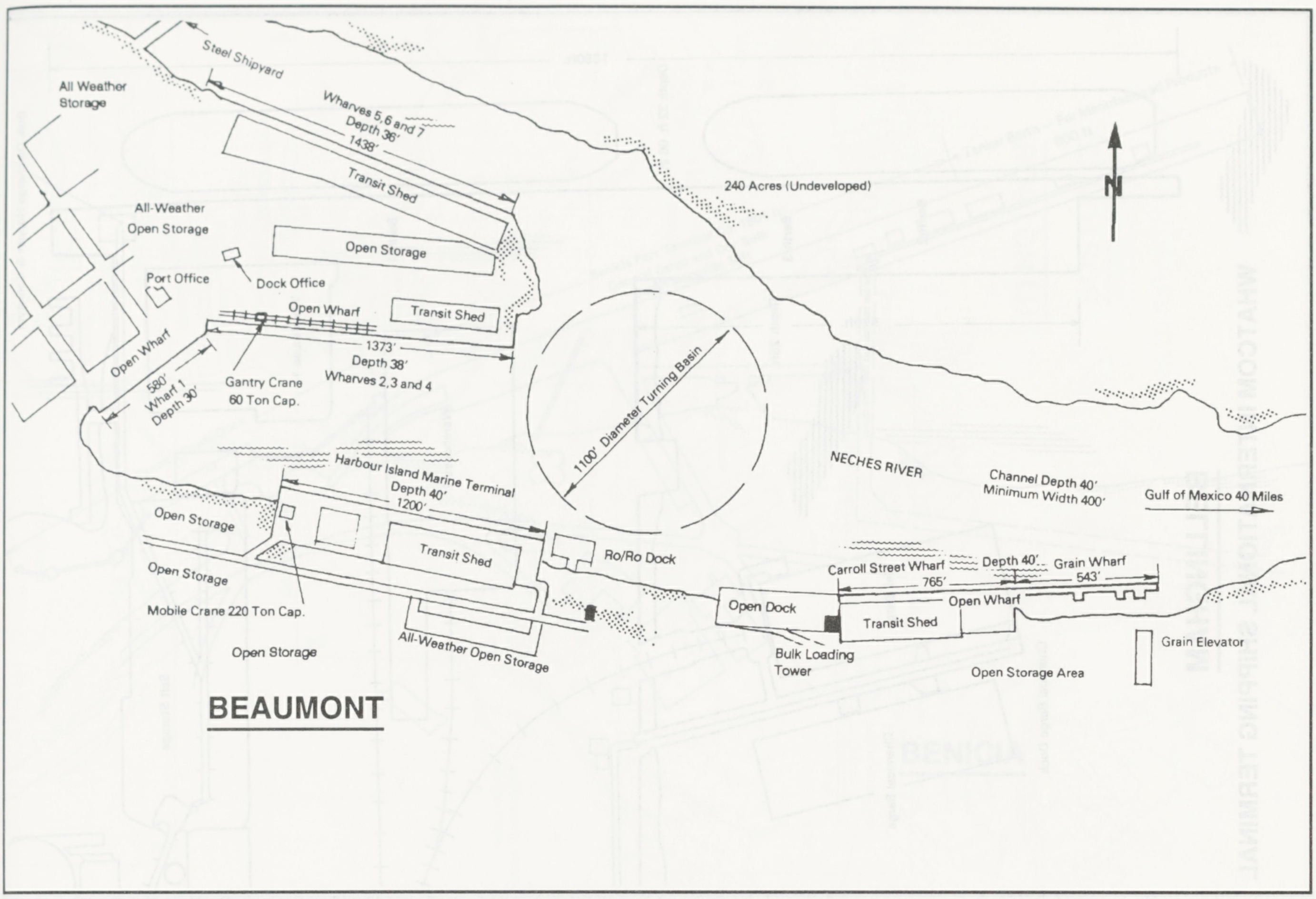

BERTH No. 4
SHIPS GANGWAY
WITH PLATFORM
ARMS
10
12
11
8 7
6 5
4 3
2 1

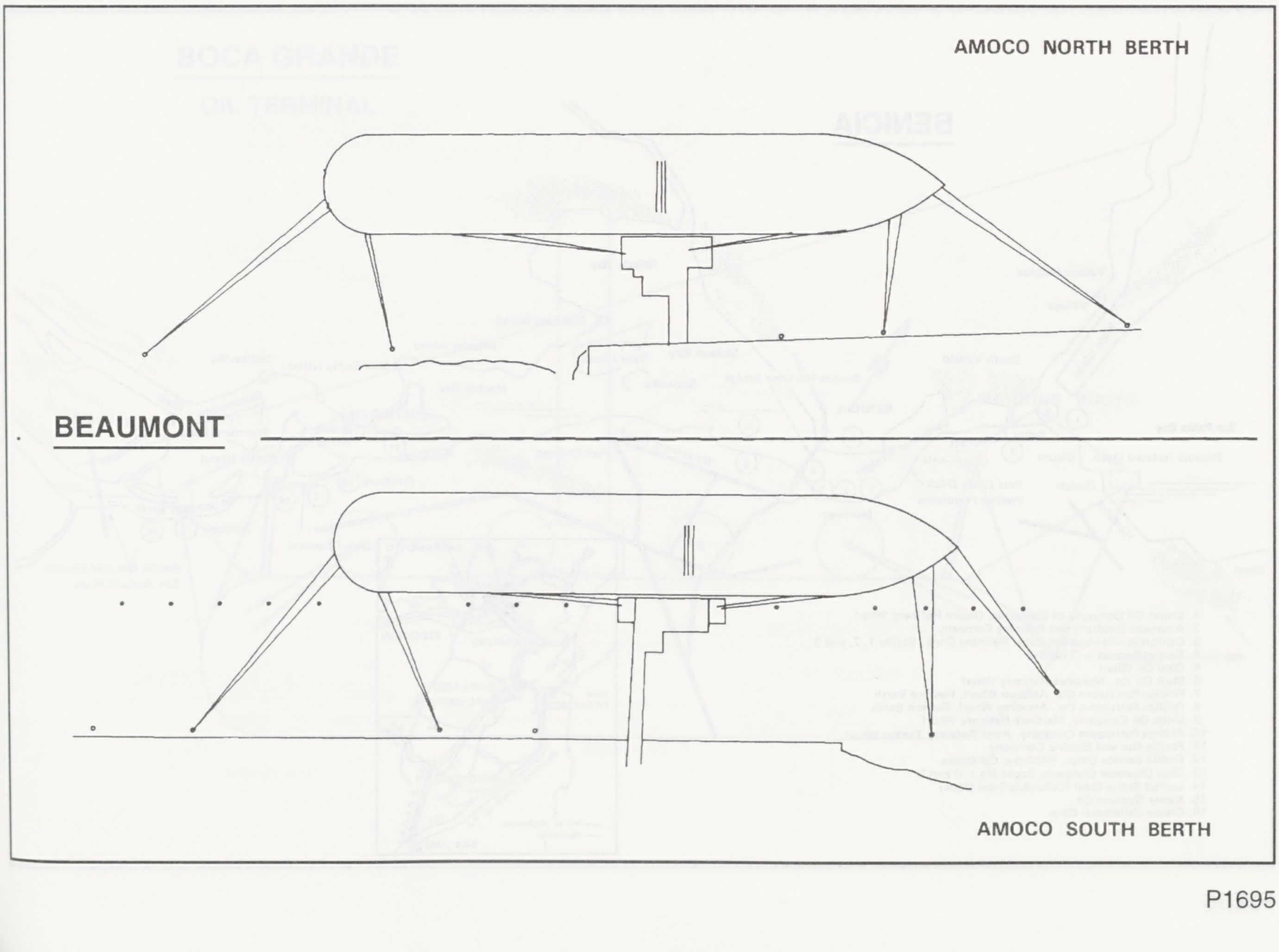
BAYTOWN

EXXON

BERTHS 5 & 6

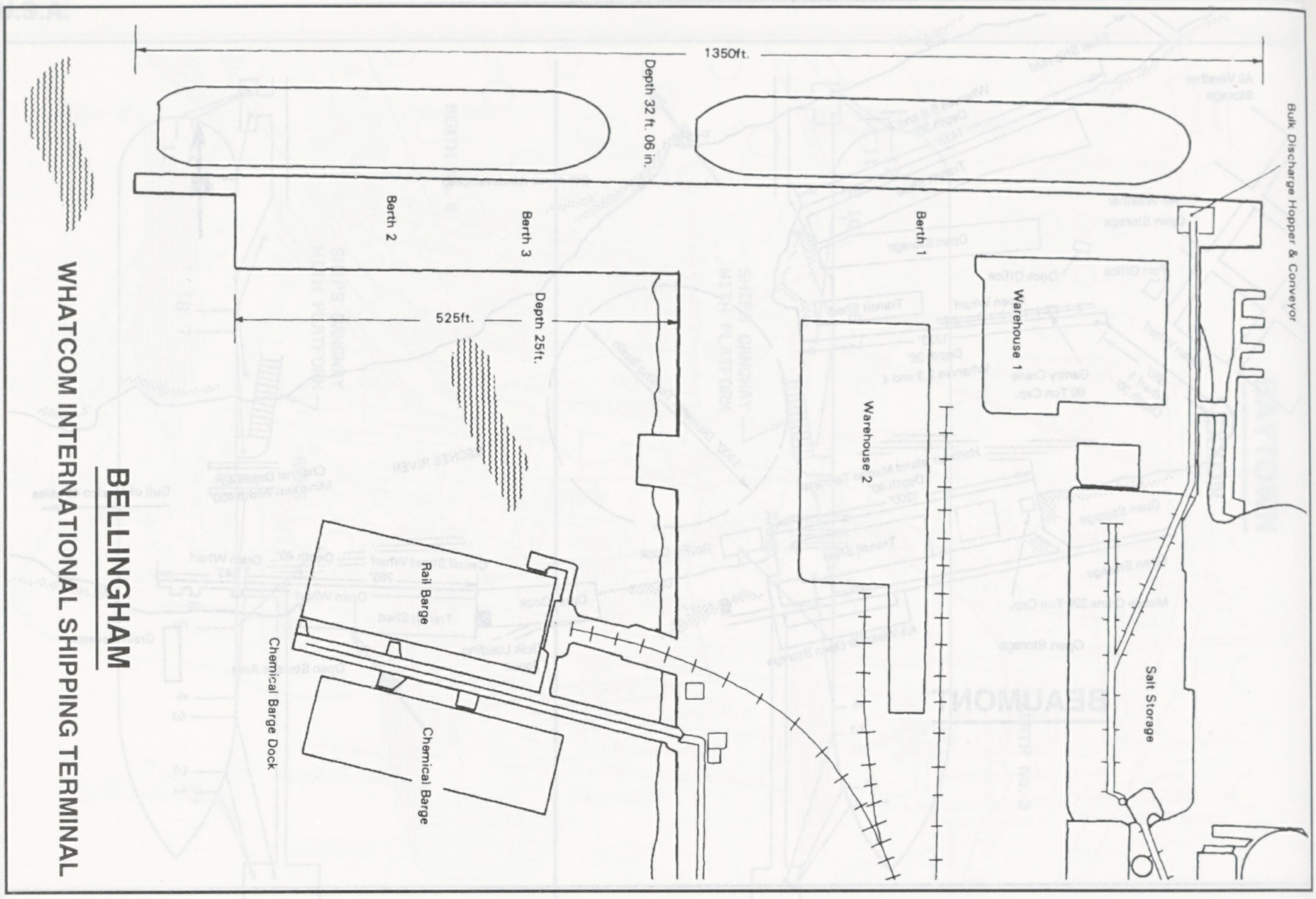

FENDER
76,000 DWT
ALL WIRES
HOUSTON SHIP CHANNEL


Steel Shipyard
All Weather Storage
Wharves 5,6 and 7
Depth 36'
1438'
Transit Shed
240 Acres (Undeveloped)
N
All-Weather Open Storage
Open Storage
Port Office
Dock Office
Open Wharf
Transit Shed
Open Wharf
580'
Wharf 1
Depth 30'
Gantry Crane
60 Ton Cap.
1373'
Depth 38'
Wharves 2,3 and 4
1100' Diameter Turning Basin
NECHES RIVER
Channel Depth 40'
Minimum Width 400'
Gulf of Mexico 40 Miles
Harbour Island Marine Terminal
Depth 40'
1200'
Open Storage
Transit Shed
Ro/Ro Dock
Open Storage
Mobile Crane 220 Ton Cap.
Open Storage
All-Weather Open Storage
Carroll Street Wharf
Depth 40'
Grain Wharf
765'
543'
Open Wharf
Open Dock
Transit Shed
Bulk Loading Tower
Grain Elevator
Open Storage Area
BEAUMONT

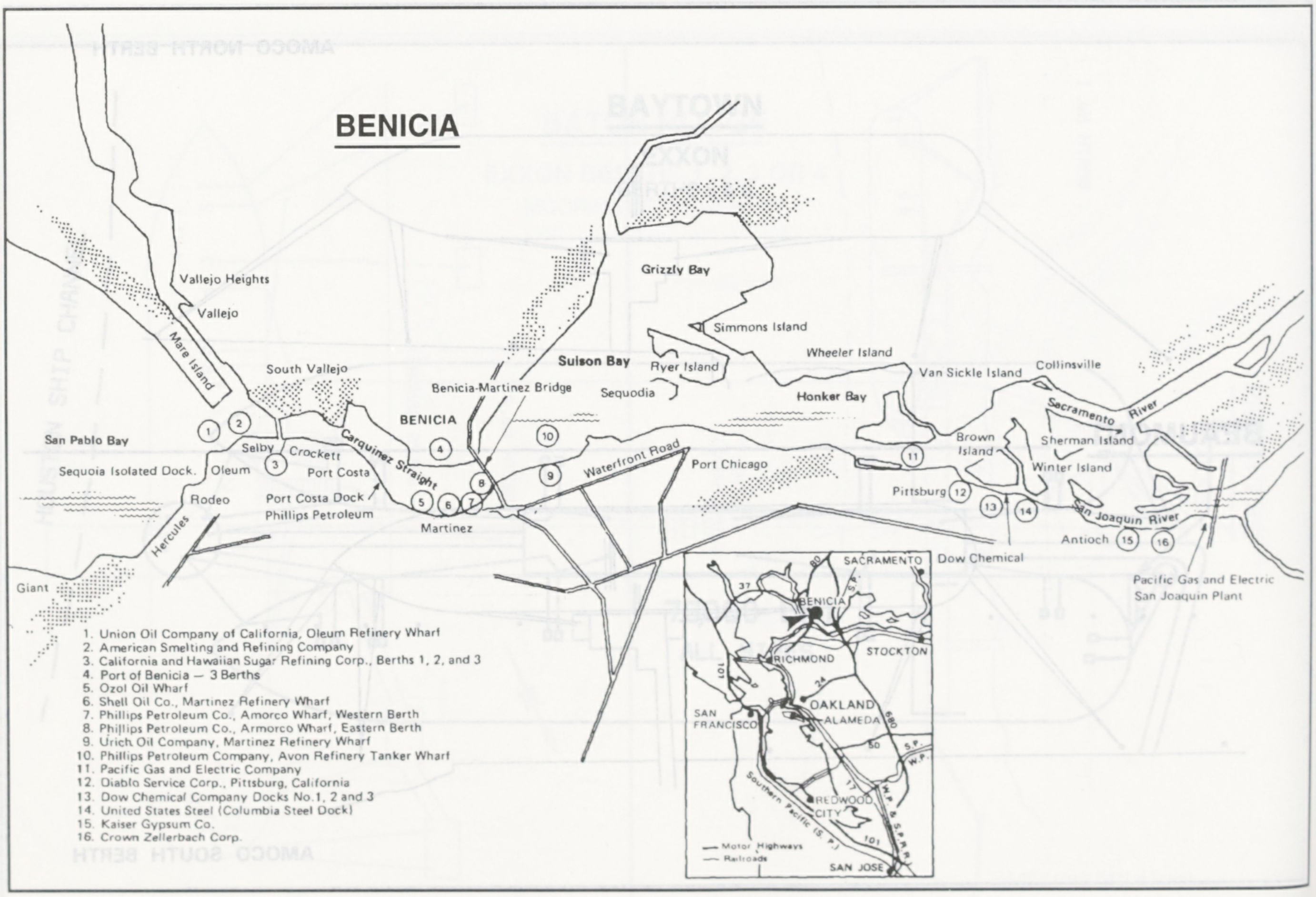

AMOCO NORTH BERTH
BEAUMONT
AMOCO SOUTH BERTH

BELLINGHAM

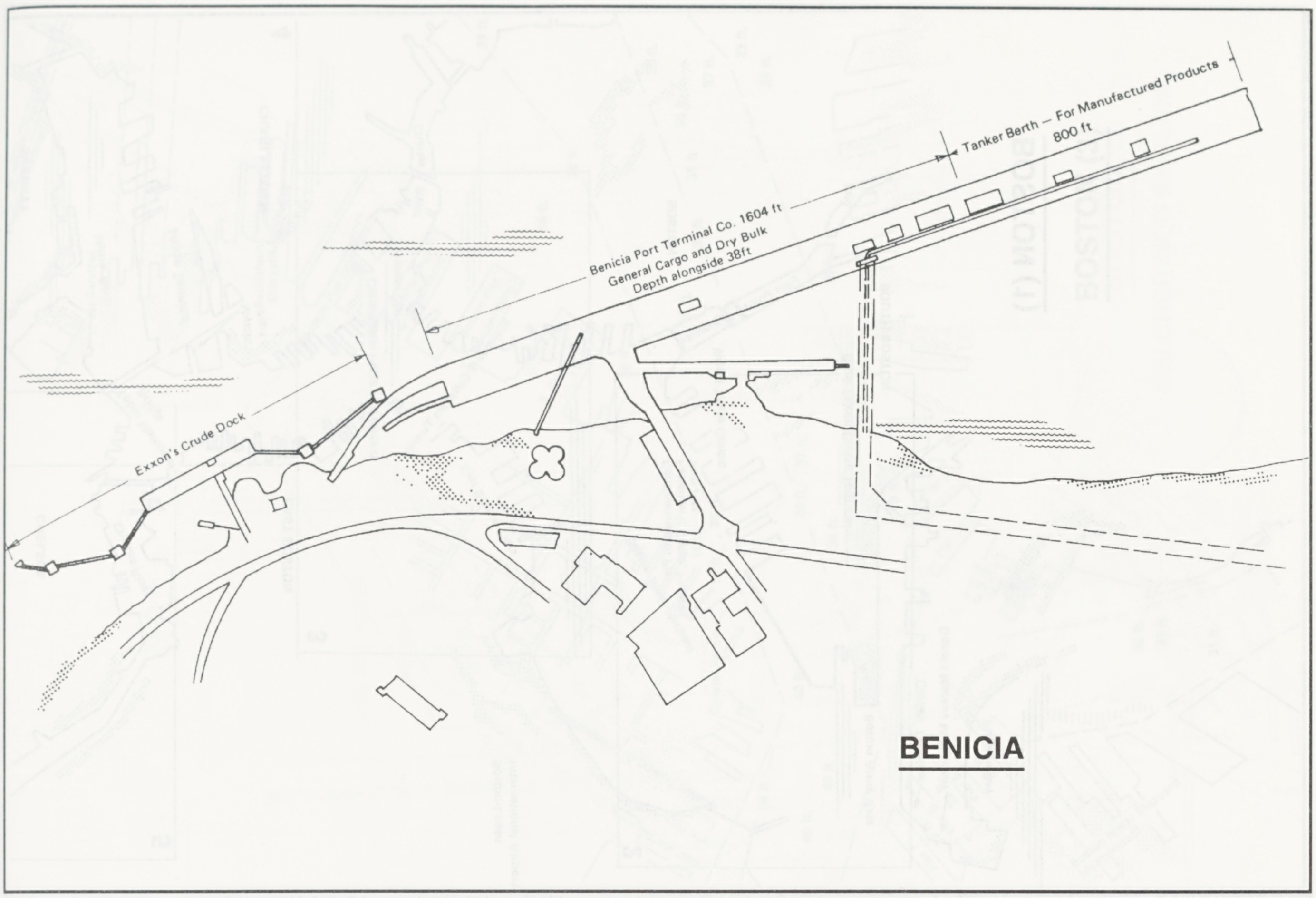
WHATCOM INTERNATIONAL SHIPPING TERMINAL


1350ft.
Depth 32 ft. 06 in.
Berth 2
Berth 3
525ft.
Depth 25ft.
Berth 1
Warehouse 1
Warehouse 2
Bulk Discharge Hopper & Conveyor
Salt Storage
Rail Barge
Chemical Barge
Chemical Barge Dock

BENICIA

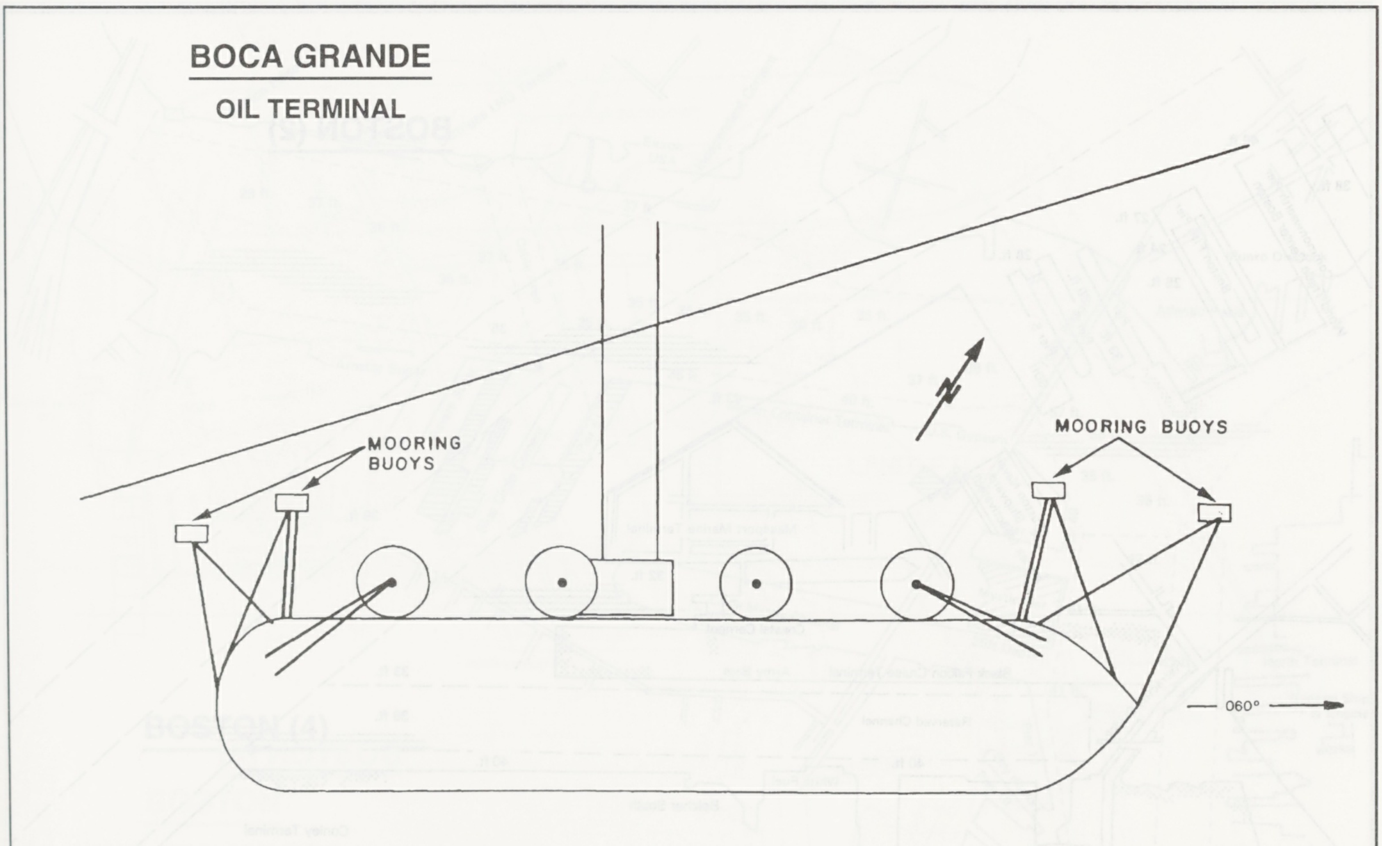

Vallejo Heights
Vallejo
Mare Island
South Vallejo
San Pablo Bay
Sequoia Isolated Dock.
Oleum
Selby
Crockett
Port Costa
Port Costa Dock
Phillips Petroleum
Rodeo
Hercules
Giant
Carquinez Straight
Martinez
BENICIA
Benicia-Martinez Bridge
Suisun Bay
Grizzly Bay
Simmons Island
Ryer Island
Sequodia
Wheeler Island
Honker Bay
Waterfront Road
Port Chicago
Van Sickle Island
Collinsville
Sacramento River
Brown Island
Sherman Island
Winter Island
Pittsburg
San Joaquin River
Antioch
Dow Chemical
Pacific Gas and Electric San Joaquin Plant
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
SACRAMENTO
BENICIA
RICHMOND
STOCKTON
OAKLAND
ALAMEDA
SAN FRANCISCO
REDWOOD CITY
SAN JOSE
Southern Pacific (S.P.)
S.P.
W.P.
Motor Highways
Railroads
80
37
101
24
680
50
17

1. Union Oil Company of California, Oleum Refinery Wharf
2. American Smelting and Refining Company
3. California and Hawaiian Sugar Refining Corp., Berths 1, 2, and 3
4. Port of Benicia — 3 Berths
5. Ozol Oil Wharf
6. Shell Oil Co., Martinez Refinery Wharf
7. Phillips Petroleum Co., Amorco Wharf, Western Berth
8. Phillips Petroleum Co., Armorco Wharf, Eastern Berth
9. Urich Oil Company, Martinez Refinery Wharf
10. Phillips Petroleum Company, Avon Refinery Tanker Wharf
11. Pacific Gas and Electric Company
12. Diablo Service Corp., Pittsburg, California
13. Dow Chemical Company Docks No.1, 2 and 3
14. United States Steel (Columbia Steel Dock)
15. Kaiser Gypsum Co.
16. Crown Zellerbach Corp.



BENICIA

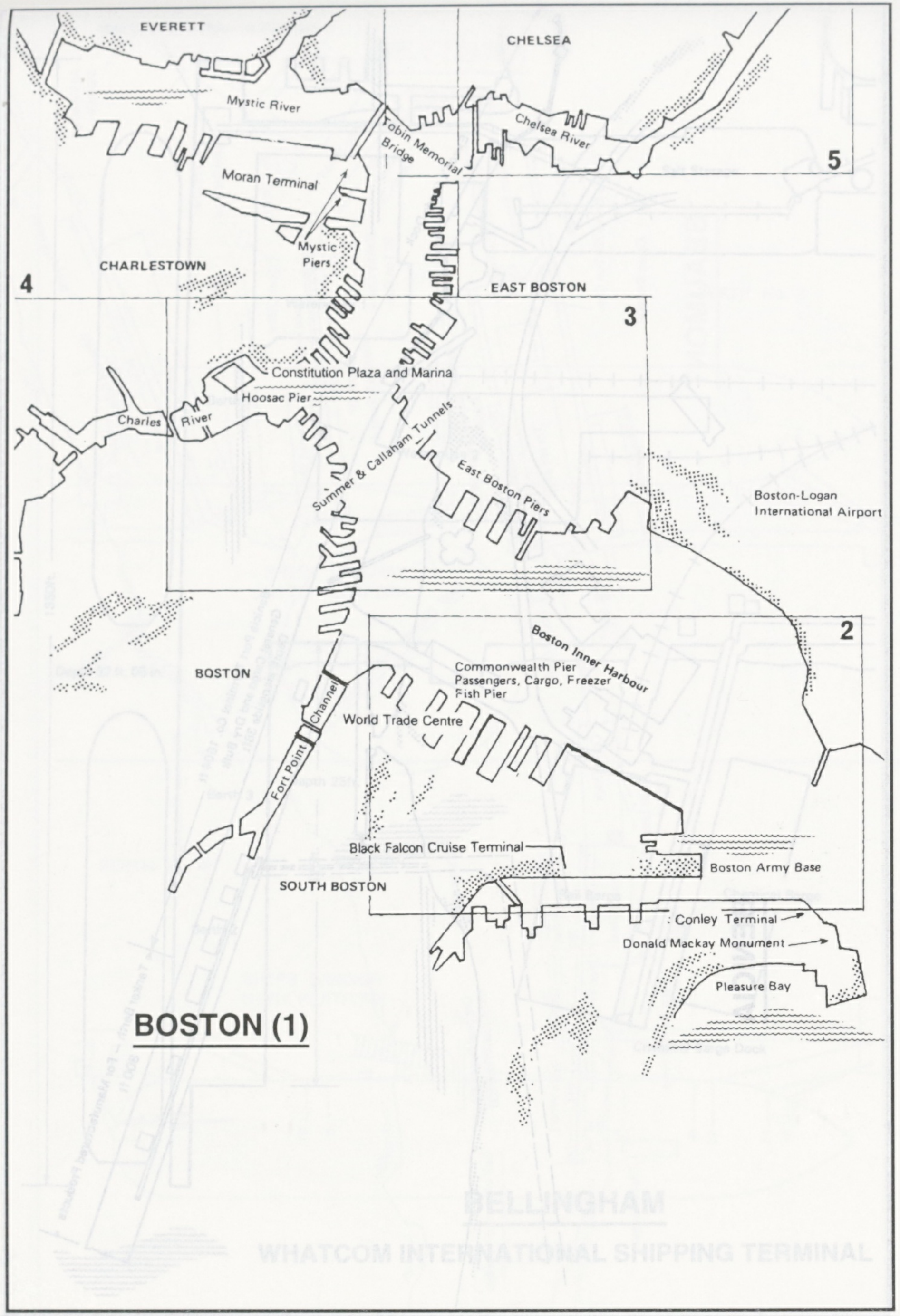
Exxon's Crude Dock
Benicia Port Terminal Co. 1604 ft
General Cargo and Dry Bulk
Depth alongside 38ft
Tanker Berth — For Manufactured Products
800 ft



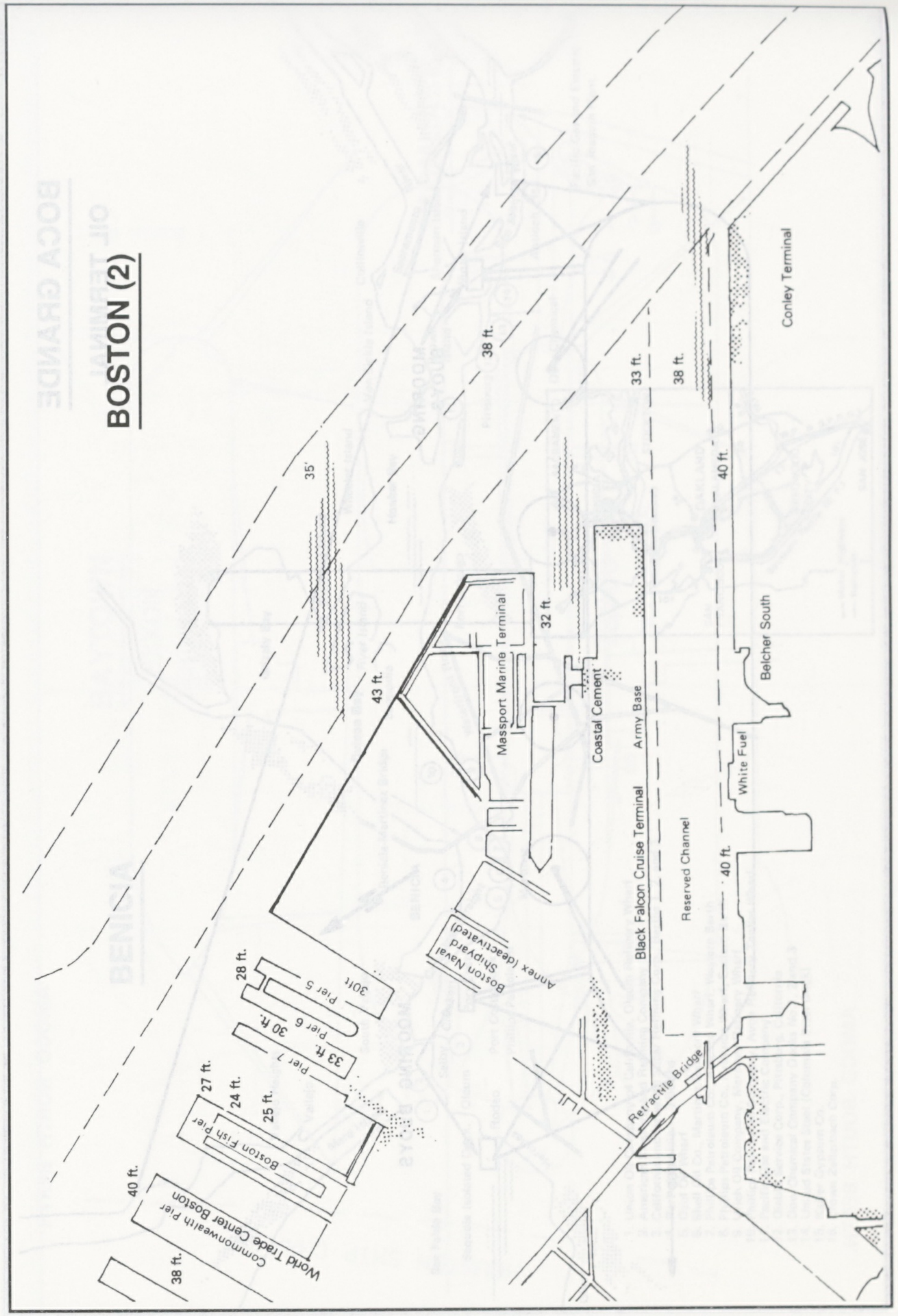
BOCA GRANDE

OIL TERMINAL

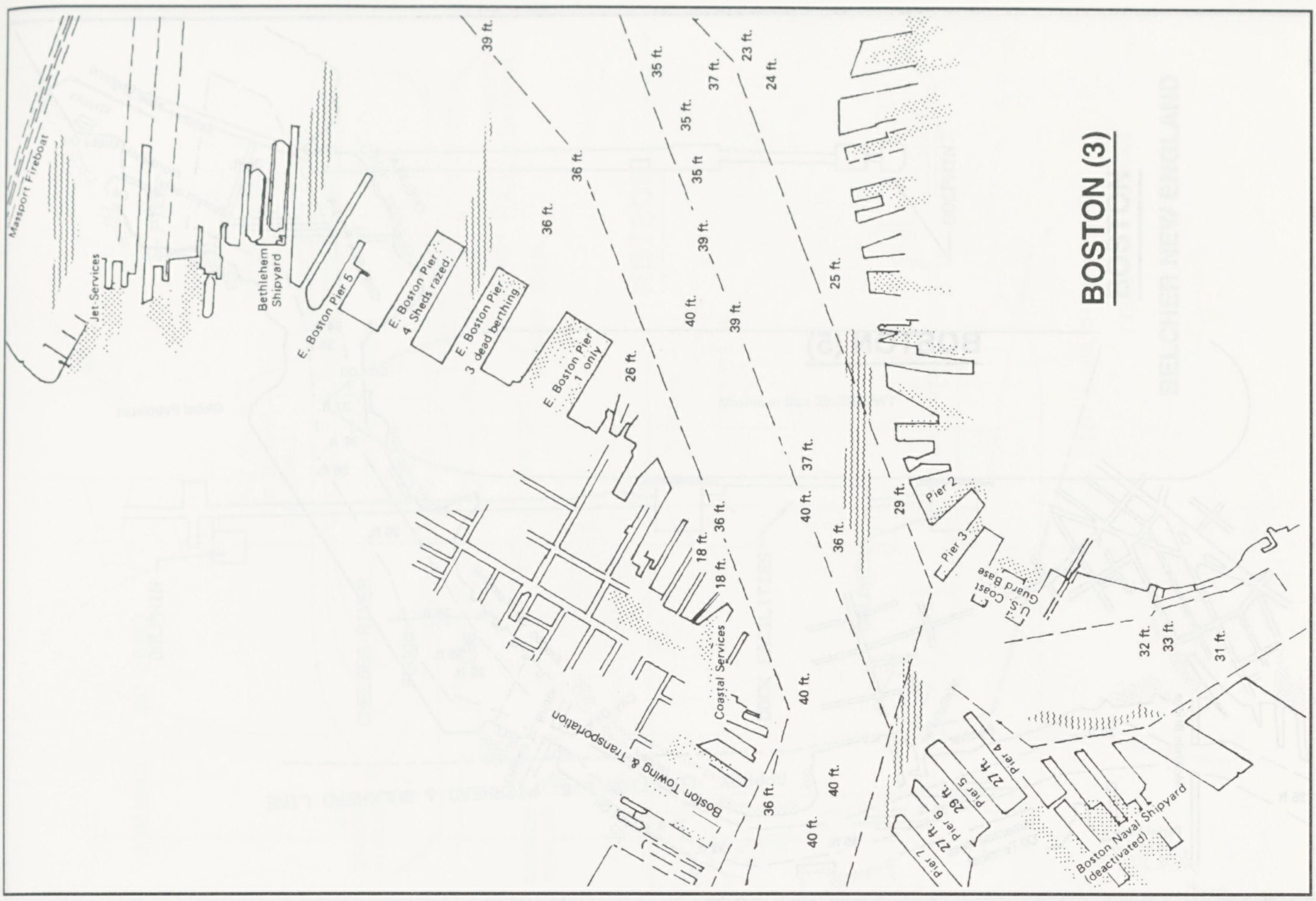
MOORING
BUOYS
MOORING BUOYS
060°


EVERETT
CHELSEA
Mystic River
Chelsea River
Tobin Memorial Bridge
5
Moran Terminal
Mystic Piers
CHARLESTOWN
4
EAST BOSTON
3
Constitution Plaza and Marina
Hoosac Pier
Charles River
Summer & Callaham Tunnels
East Boston Piers
Boston-Logan International Airport
2
Boston Inner Harbour
Commonwealth Pier Passengers, Cargo, Freezer Fish Pier
World Trade Centre
BOSTON
Channel
Fort Point
Black Falcon Cruise Terminal
Boston Army Base
SOUTH BOSTON
Conley Terminal
Donald Mackay Monument
Pleasure Bay

BOSTON (1)

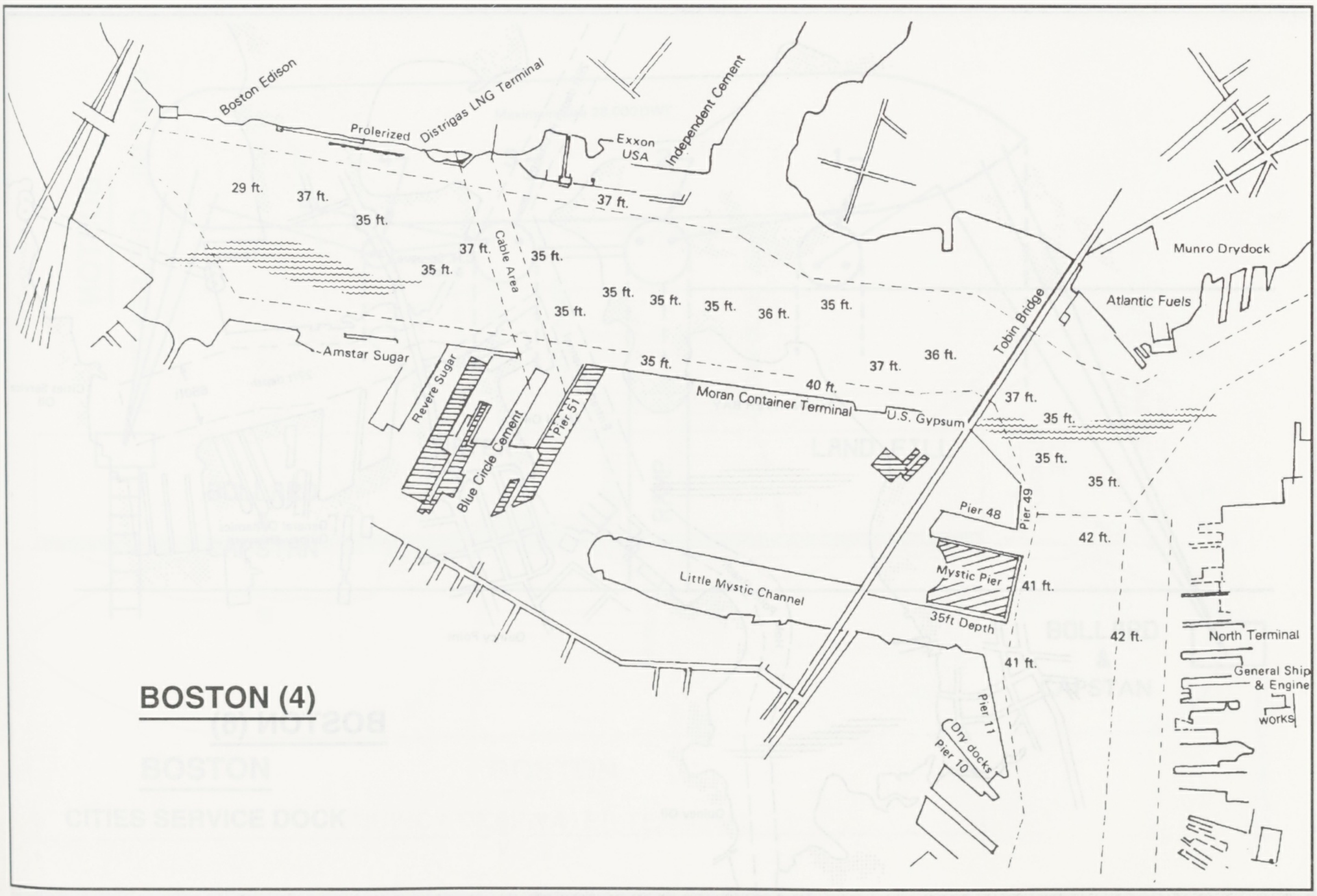

Conley Terminal
38 ft.
33 ft.
40 ft.
Belcher South
White Fuel
40 ft.
Reserved Channel
Black Falcon Cruise Terminal
Army Base
Coastal Cement
32 ft.
Massport Marine Terminal
38 ft.
43 ft.
35'
Boston Naval Shipyard Annex (deactivated)
30ft
Pier 5
28 ft.
Pier 6
30 ft.
33 ft.
Pier 7
27 ft.
24 ft.
25 ft.
Boston Fish Pier
40 ft.
Commonwealth Pier
World Trade Center Boston
38 ft.
Retractile Bridge

BOSTON (2)



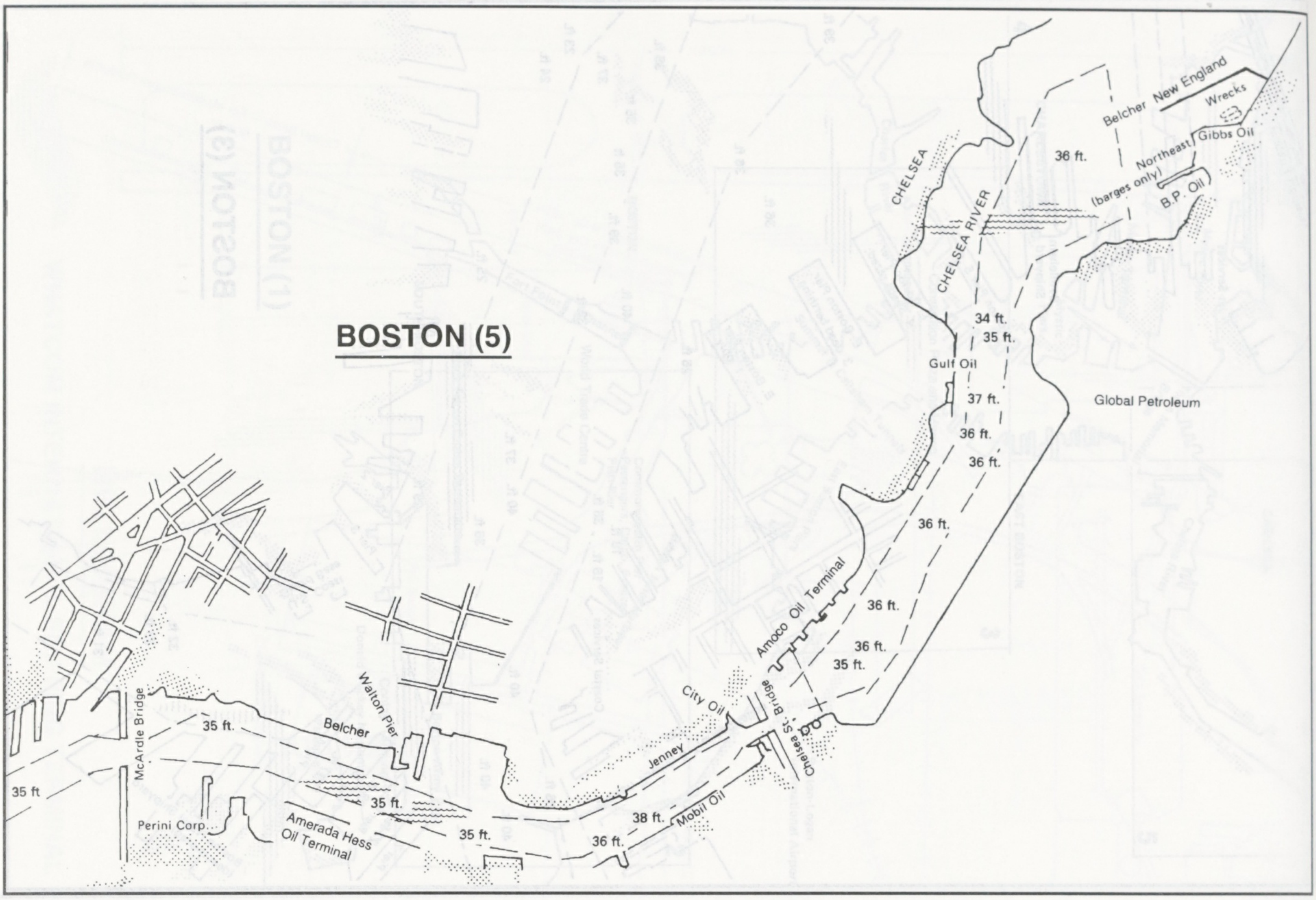
BOSTON (3)

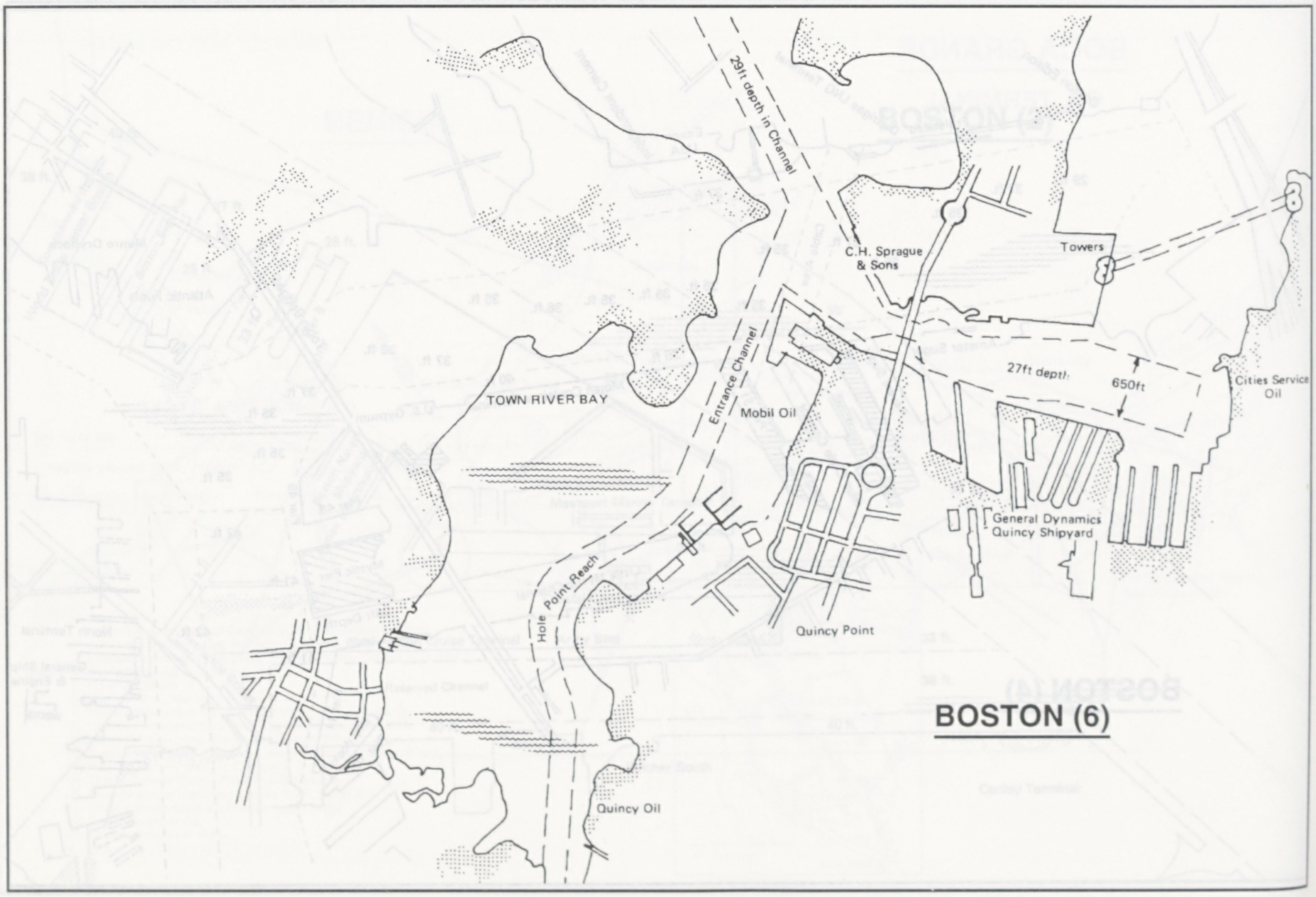
Massport Fireboat
Jet Services
Bethlehem Shipyard
E. Boston Pier 5
E. Boston Pier 4 Sheds razed.
E. Boston Pier 3 dead berthing
E. Boston Pier 1 only
39 ft.
36 ft.
36 ft.
26 ft.
35 ft.
35 ft.
35 ft.
39 ft.
40 ft.
39 ft.
37 ft.
23 ft.
24 ft.
25 ft.
37 ft.
40 ft.
36 ft.
29 ft.
Pier 2
Pier 3
U.S. Coast Guard Base
18 ft.
18 ft.
36 ft.
Coastal Services
Boston Towing & Transportation
40 ft.
36 ft.
40 ft.
40 ft.
Pier 4
27 ft.
Pier 5
29 ft.
Pier 6
27 ft.
Pier 7
32 ft.
33 ft.
31 ft.
Boston Naval Shipyard (deactivated)



BOSTON (4)

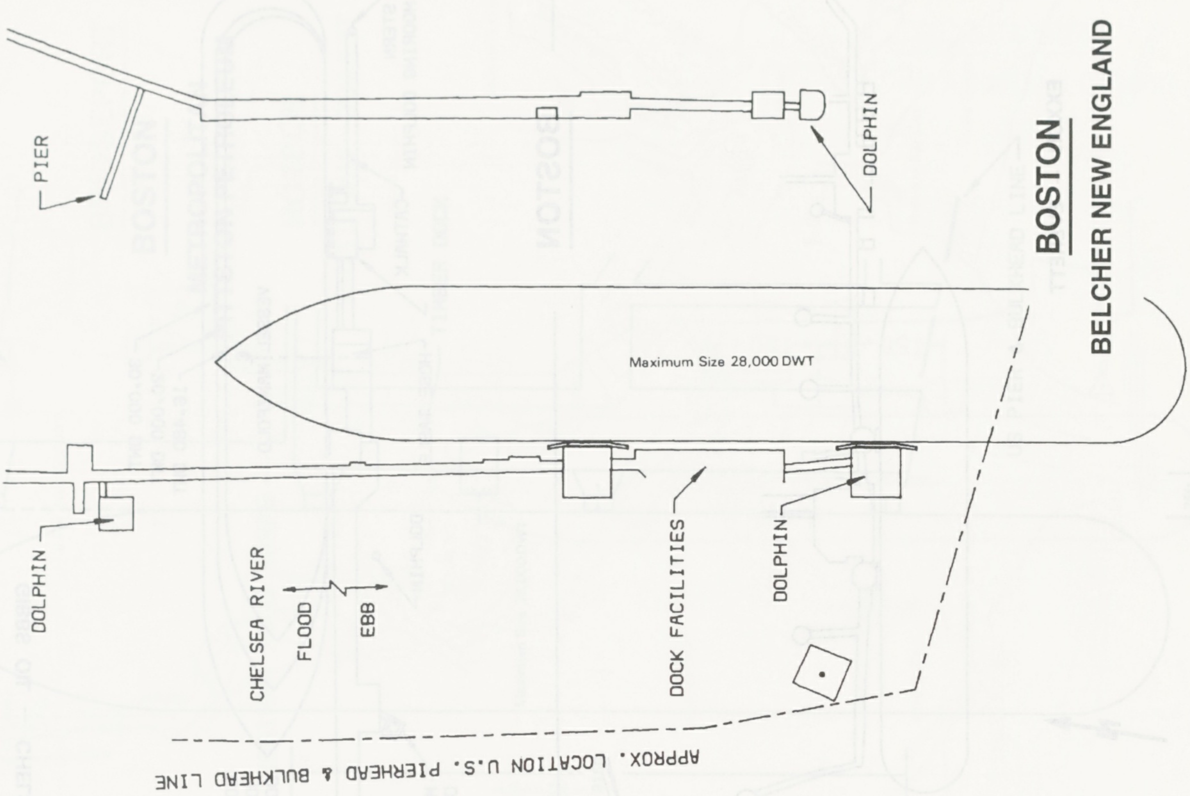
Boston Edison
Prolerized
Distrigas LNG Terminal
Exxon USA
Independent Cement
29 ft.
37 ft.
35 ft.
37 ft.
37 ft.
35 ft.
35 ft.
Cable Area
35 ft.
35 ft.
35 ft.
35 ft.
36 ft.
35 ft.
Amstar Sugar
Revere Sugar
Blue Circle Cement
Pier 51
35 ft.
40 ft.
37 ft.
36 ft.
Moran Container Terminal
U.S. Gypsum
Tobin Bridge
Munro Drydock
Atlantic Fuels
37 ft.
35 ft.
35 ft.
35 ft.
Pier 48
Pier 49
42 ft.
Mystic Pier
41 ft.
Little Mystic Channel
35ft Depth
42 ft.
41 ft.
North Terminal
General Ship & Engine works
Pier 11
Dry docks
Pier 10

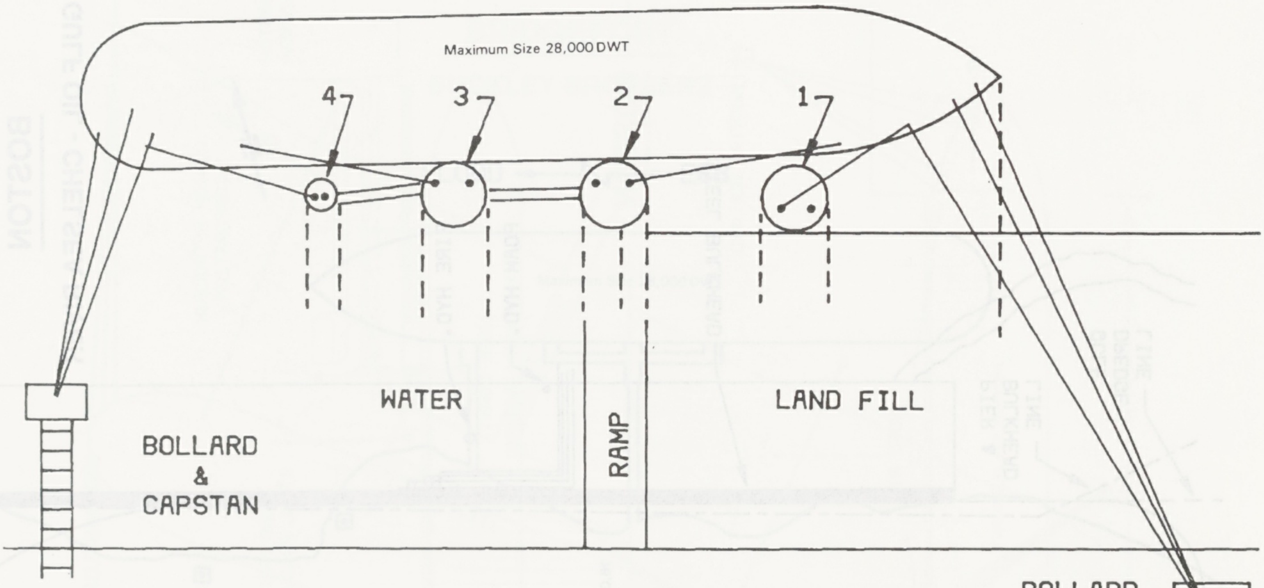

BOSTON (5)
Belcher New England
Wrecks
Gibbs Oil
Northeast
(barges only)
B.P. Oil
36 ft.
CHELSEA
CHELSEA RIVER
34 ft.
35 ft.
Gulf Oil
37 ft.
36 ft.
36 ft.
Global Petroleum
36 ft.
36 ft.
36 ft.
35 ft.
Amoco Oil Terminal
Chelsea St. Bridge
City Oil
Jenney
Mobil Oil
38 ft.
36 ft.
35 ft.
35 ft.
Belcher
Walton Pier
35 ft.
McArdle Bridge
35 ft
Perini Corp.
Amerada Hess
Oil Terminal


29ft depth in Channel
C.H. Sprague
& Sons
Towers
27ft depth
650ft
Cities Service
Oil
TOWN RIVER BAY
Entrance Channel
Mobil Oil
General Dynamics
Quincy Shipyard
Hole Point Reach
Quincy Point
BOSTON (6)
Quincy Oil

BOSTON

BELCHER NEW ENGLAND

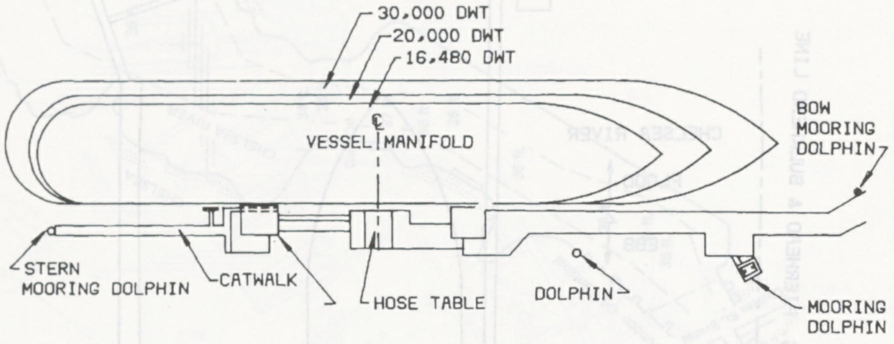

PIER
DOLPHIN
Maximum Size 28,000 DWT
DOLPHIN
CHELSEA RIVER
FLOOD
EBB
DOCK FACILITIES
DOLPHIN
APPROX. LOCATION U.S. PIERHEAD & BULKHEAD LINE


Maximum Size 28,000 DWT
4
3
2
1
WATER
RAMP
LAND FILL
BOLLARD & CAPSTAN
BOLLARD & CAPSTAN

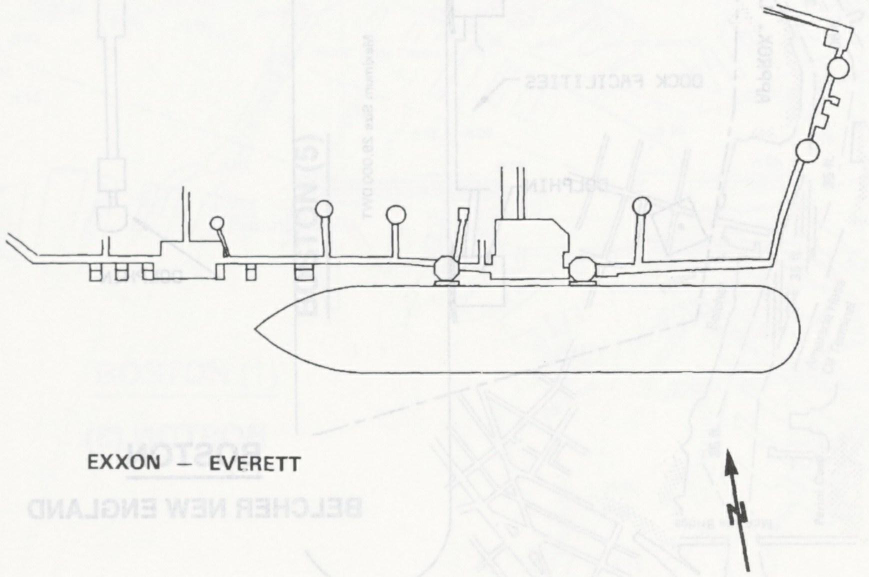
BOSTON

CITIES SERVICE DOCK

GIBBS OIL — CHELSEA


30,000 DWT
20,000 DWT
16,480 DWT
℄
VESSEL MANIFOLD
BOW MOORING DOLPHIN
STERN MOORING DOLPHIN
CATWALK
HOSE TABLE
DOLPHIN
MOORING DOLPHIN

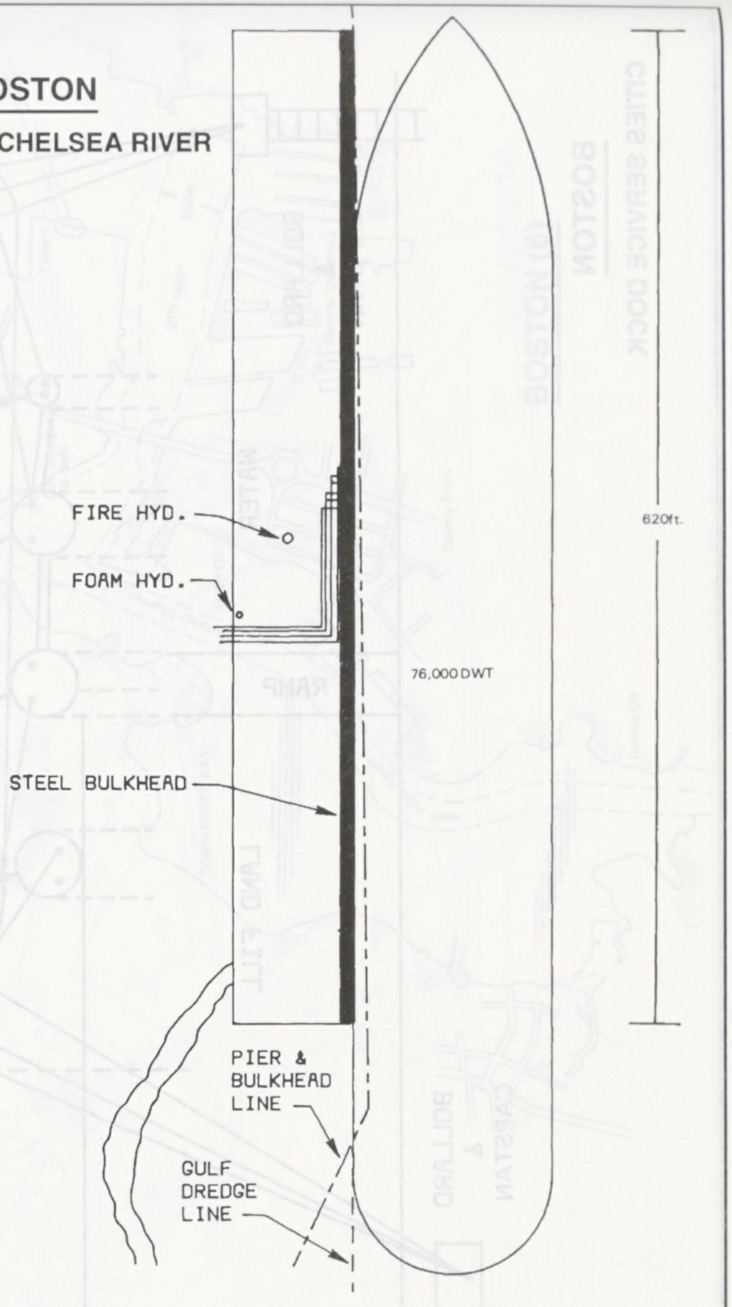
BOSTON



EXXON — EVERETT

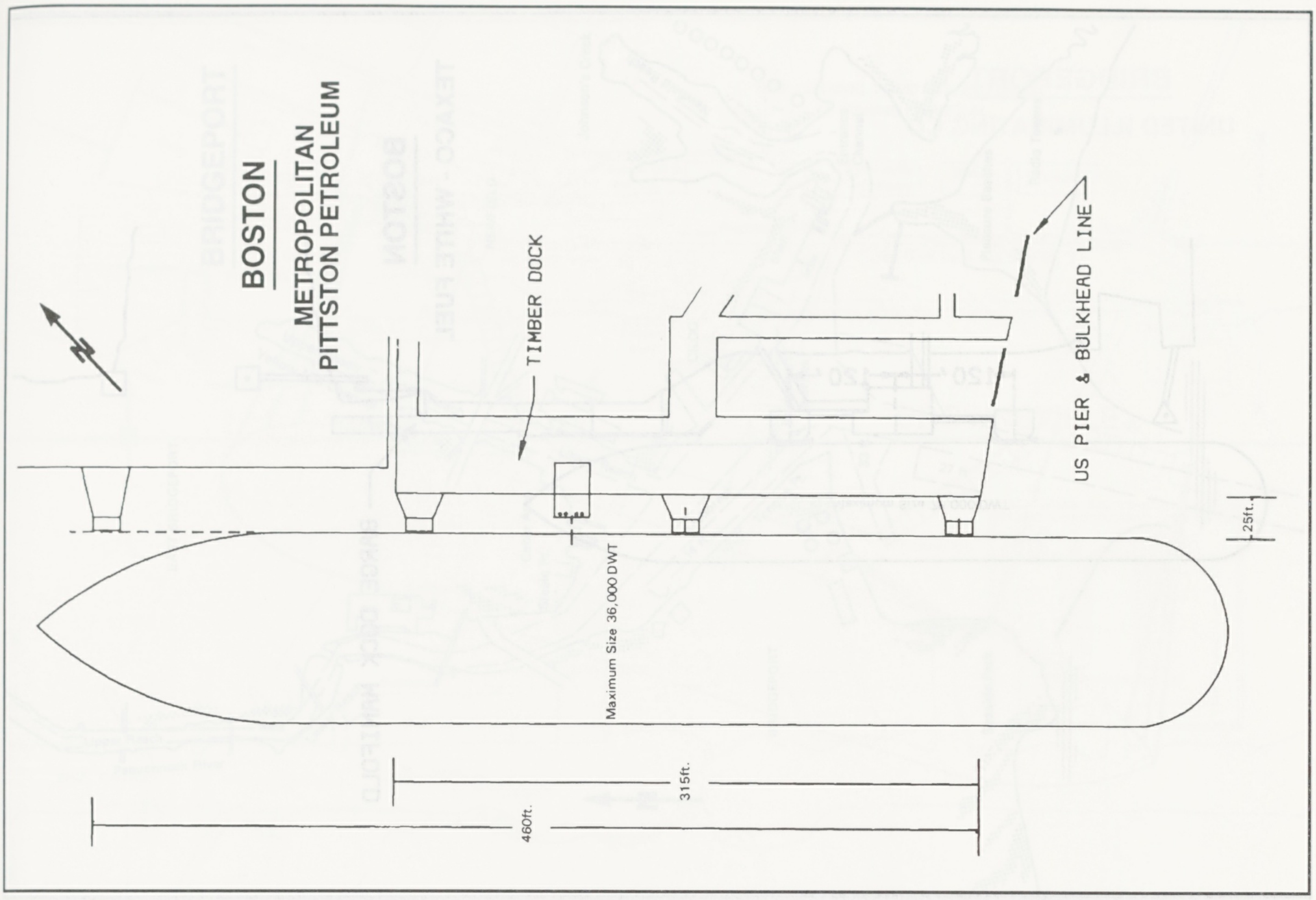
BOSTON

GULF OIL - CHELSEA RIVER


FIRE HYD.
FOAM HYD.
STEEL BULKHEAD
76,000 DWT
620ft.
PIER & BULKHEAD LINE
GULF DREDGE LINE

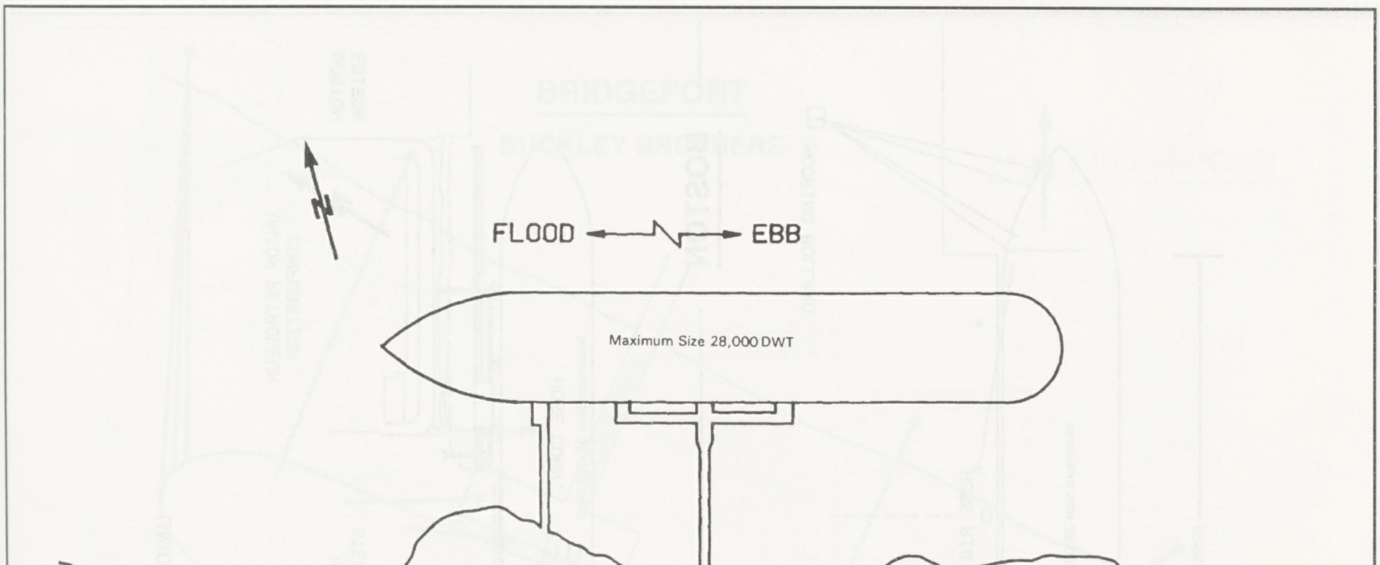
BOSTON

METROPOLITAN PITTSTON PETROLEUM


N
TIMBER DOCK
US PIER & BULKHEAD LINE
25ft.
Maximum Size 36,000 DWT
315ft.
460ft.

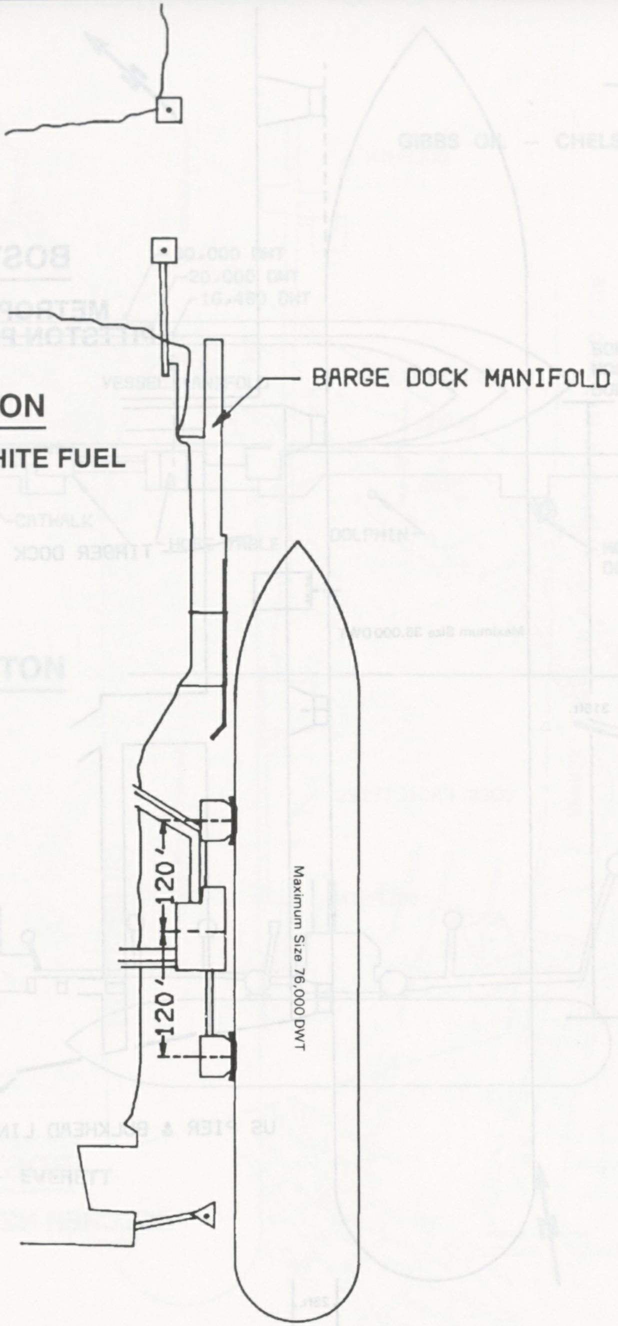
BOSTON

QUINCY DEEPWATER TERMINAL

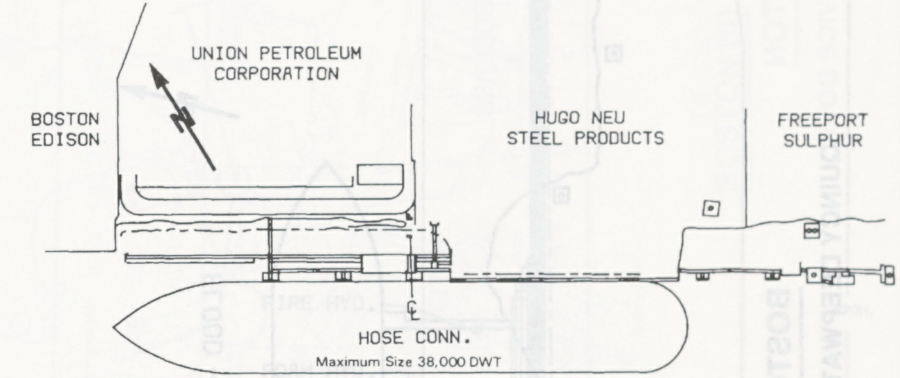

N
FLOOD
EBB
Maximum Size 28,000 DWT

BOSTON

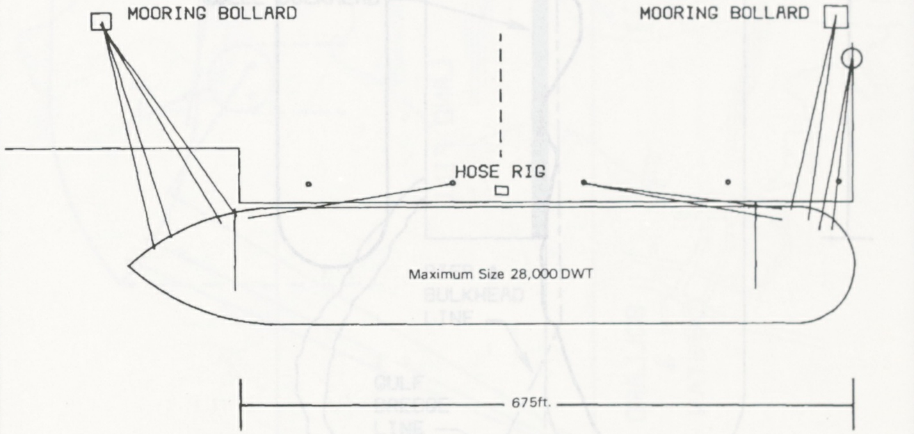
TEXACO - WHITE FUEL


BARGE DOCK MANIFOLD
120'
120'
Maximum Size 76,000 DWT

UNION/BELCHER OIL — EVERETT

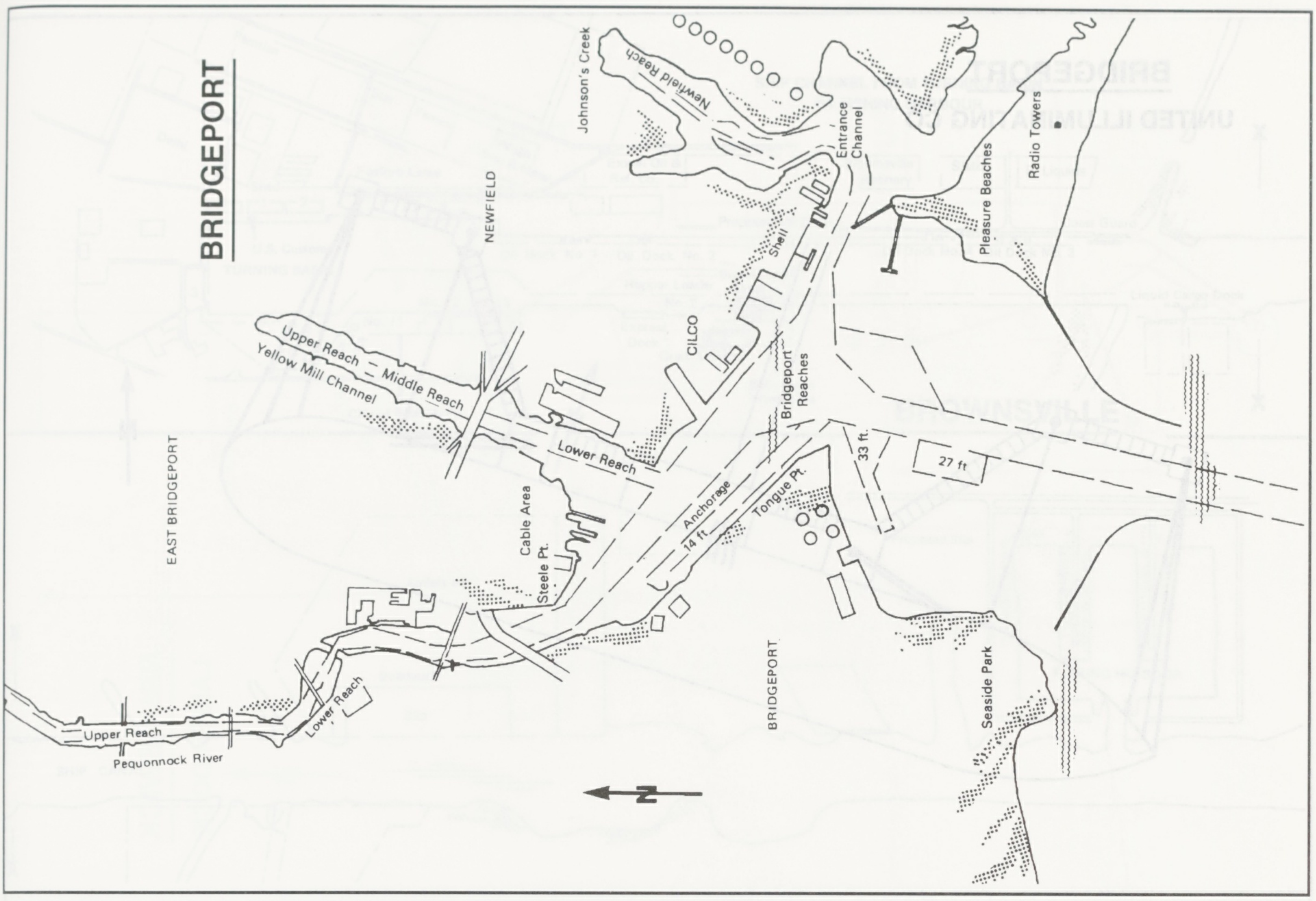

UNION PETROLEUM CORPORATION
BOSTON EDISON
HUGO NEU STEEL PRODUCTS
FREEPORT SULPHUR
HOSE CONN.
Maximum Size 38,000 DWT

BOSTON


MOORING BOLLARD
MOORING BOLLARD
HOSE RIG
Maximum Size 28,000 DWT
675ft.

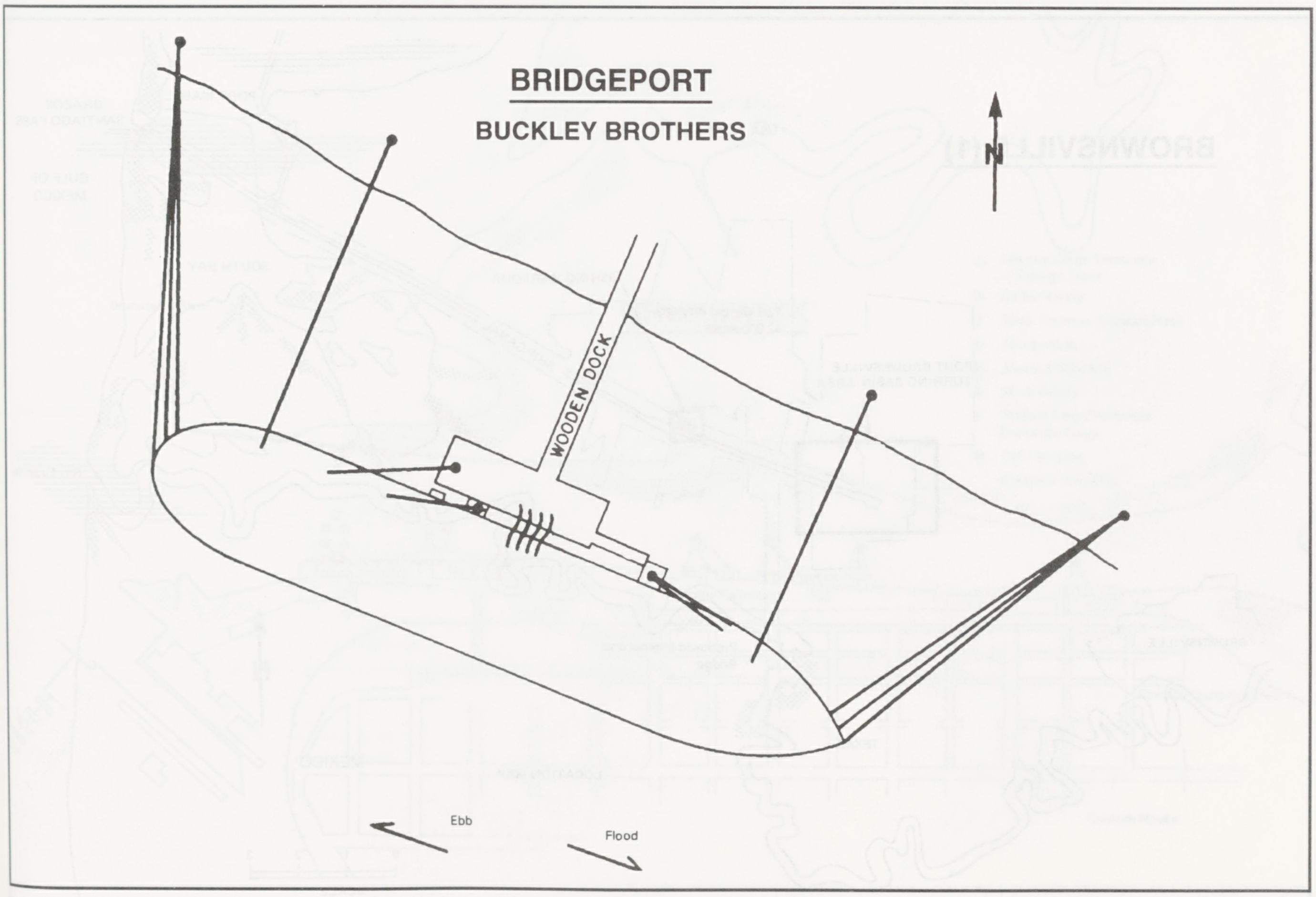
BOSTON EDDISON

BRIDGEPORT


EAST BRIDGEPORT
NEWFIELD
Johnson's Creek
Newfield Reach
Entrance Channel
Pleasure Beaches
Radio Towers
Upper Reach
Middle Reach
Yellow Mill Channel
Lower Reach
CILCO
Shell
Bridgeport Reaches
33 ft.
27 ft
Anchorage
14 ft.
Tongue Pt.
Cable Area
Steele Pt.
Upper Reach
Pequonnock River
Lower Reach
BRIDGEPORT
Seaside Park
N

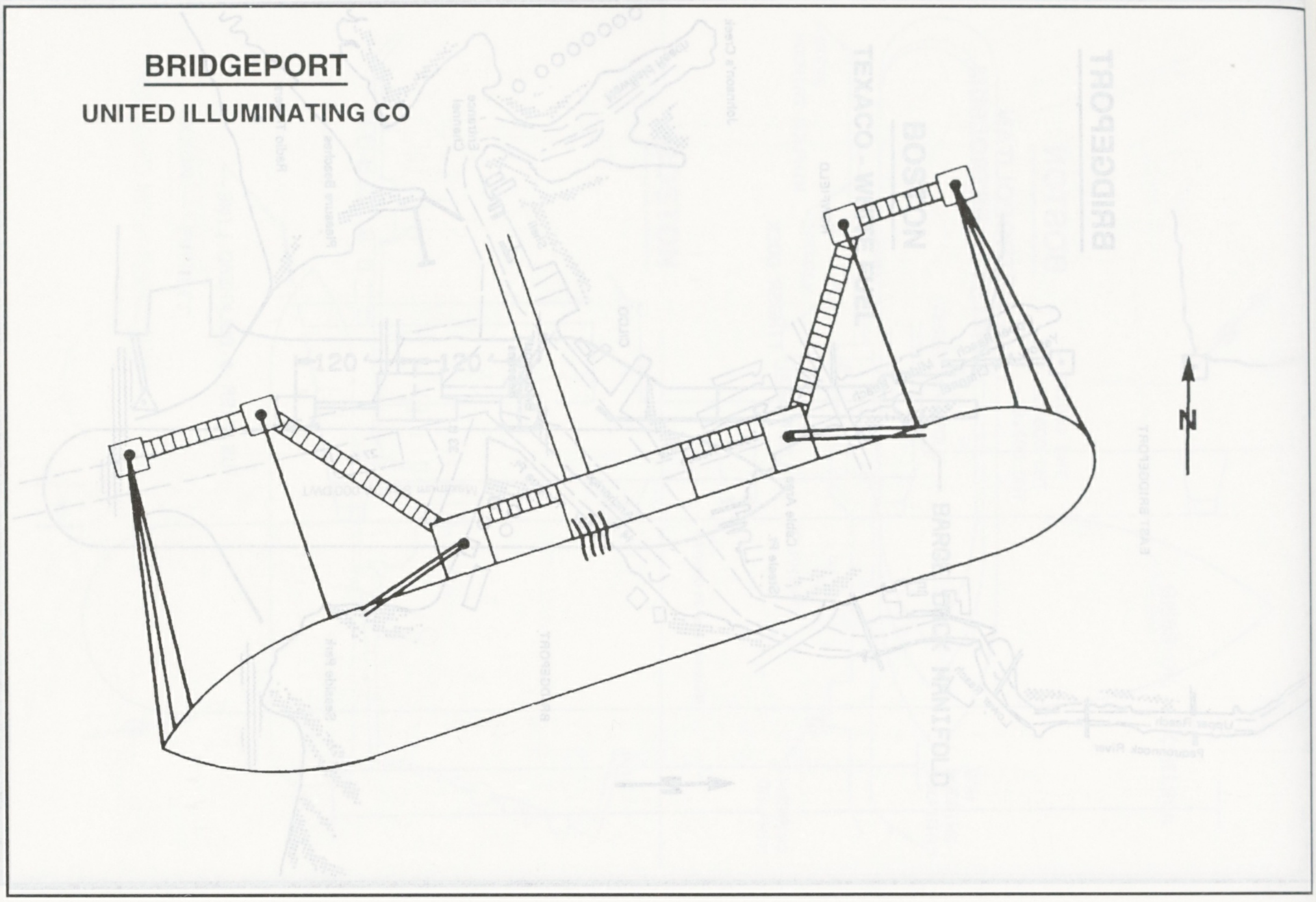
BRIDGEPORT

BUCKLEY BROTHERS

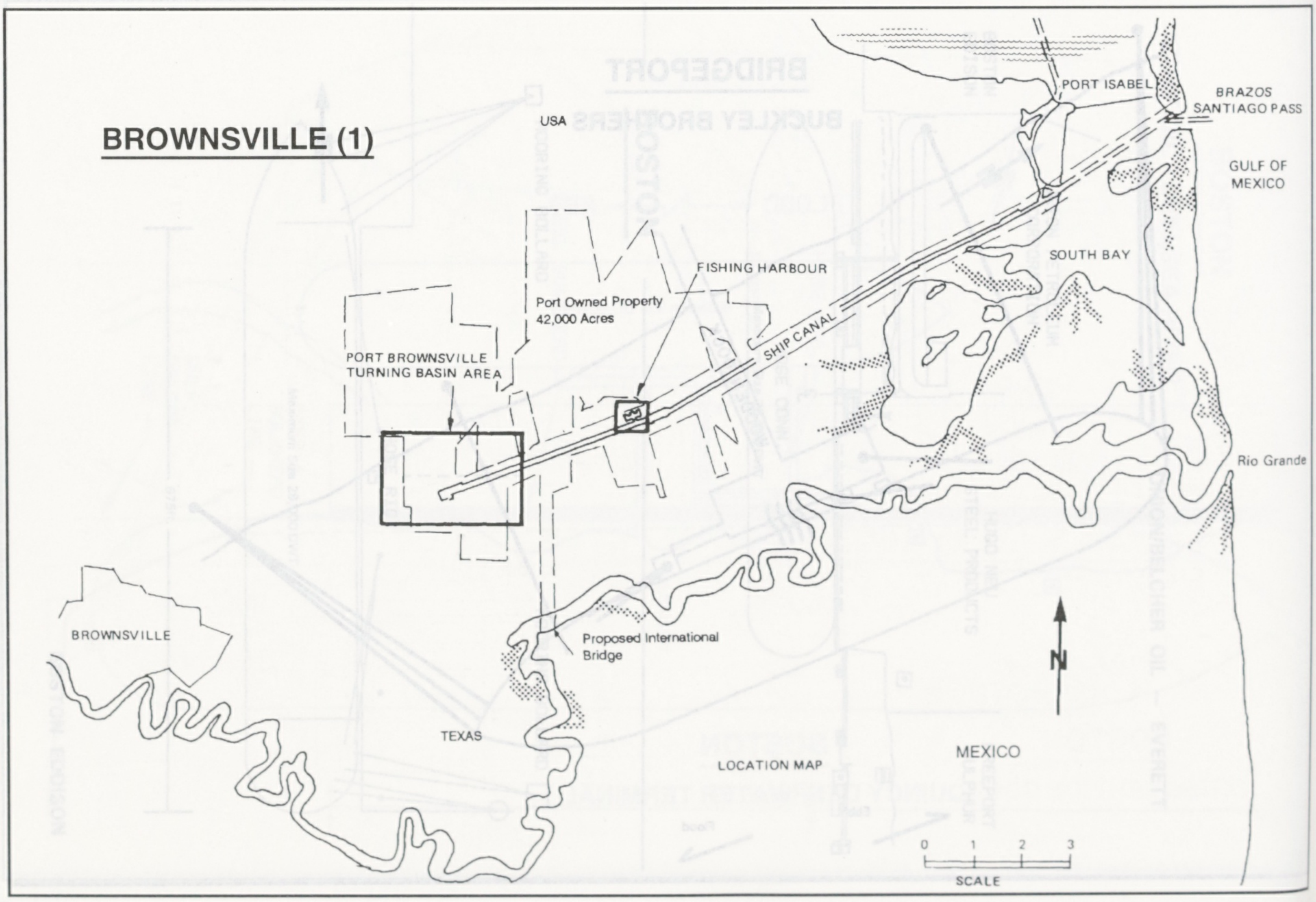

N
WOODEN DOCK
Ebb
Flood

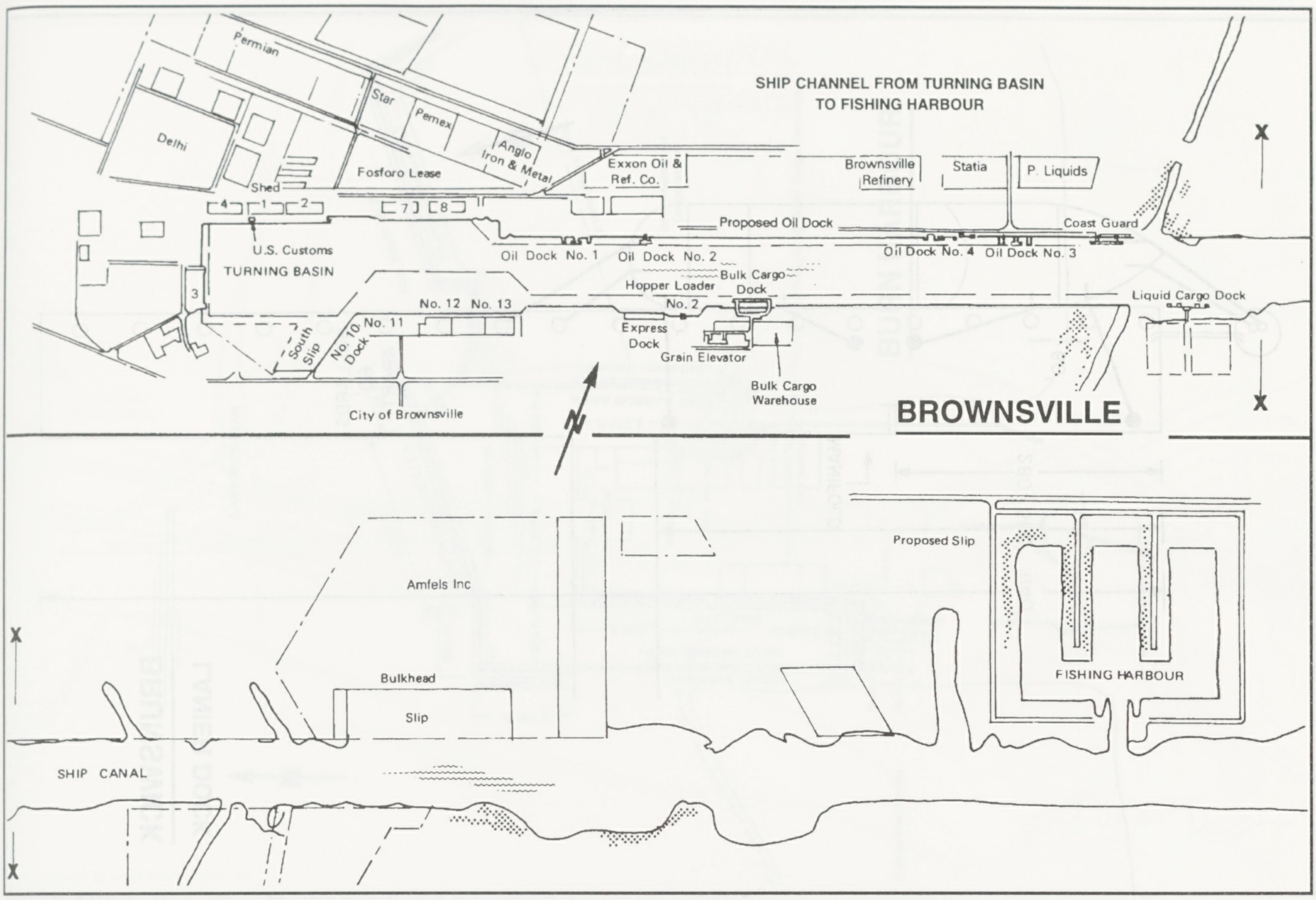
BRIDGEPORT

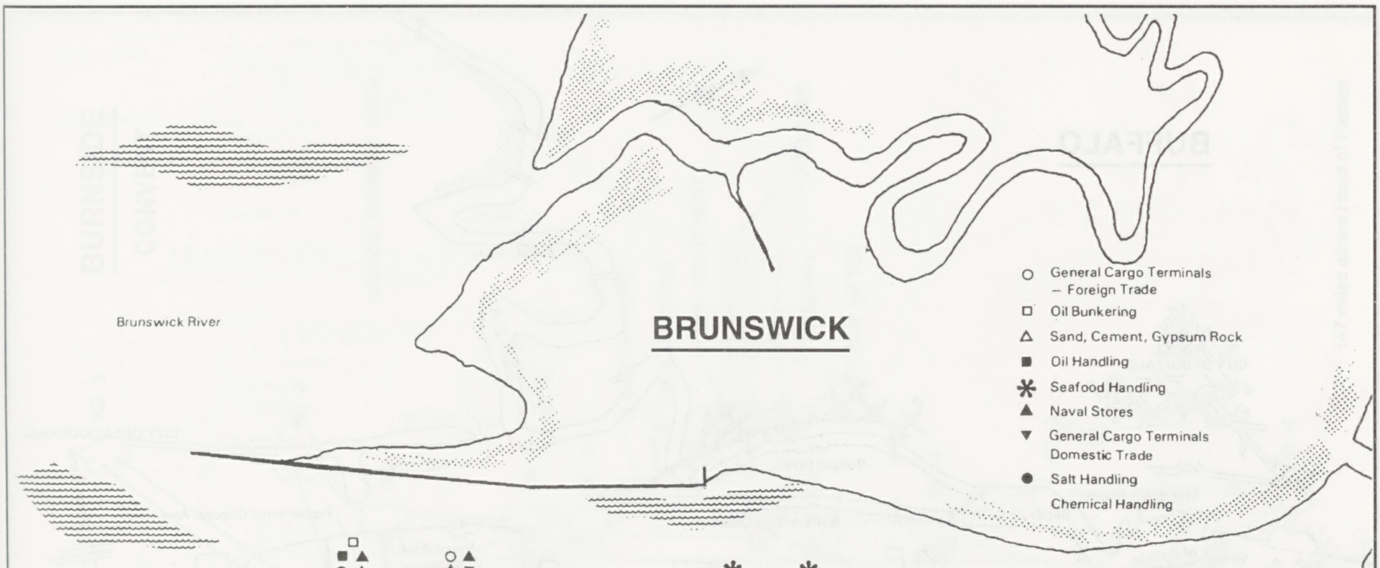
UNITED ILLUMINATING CO

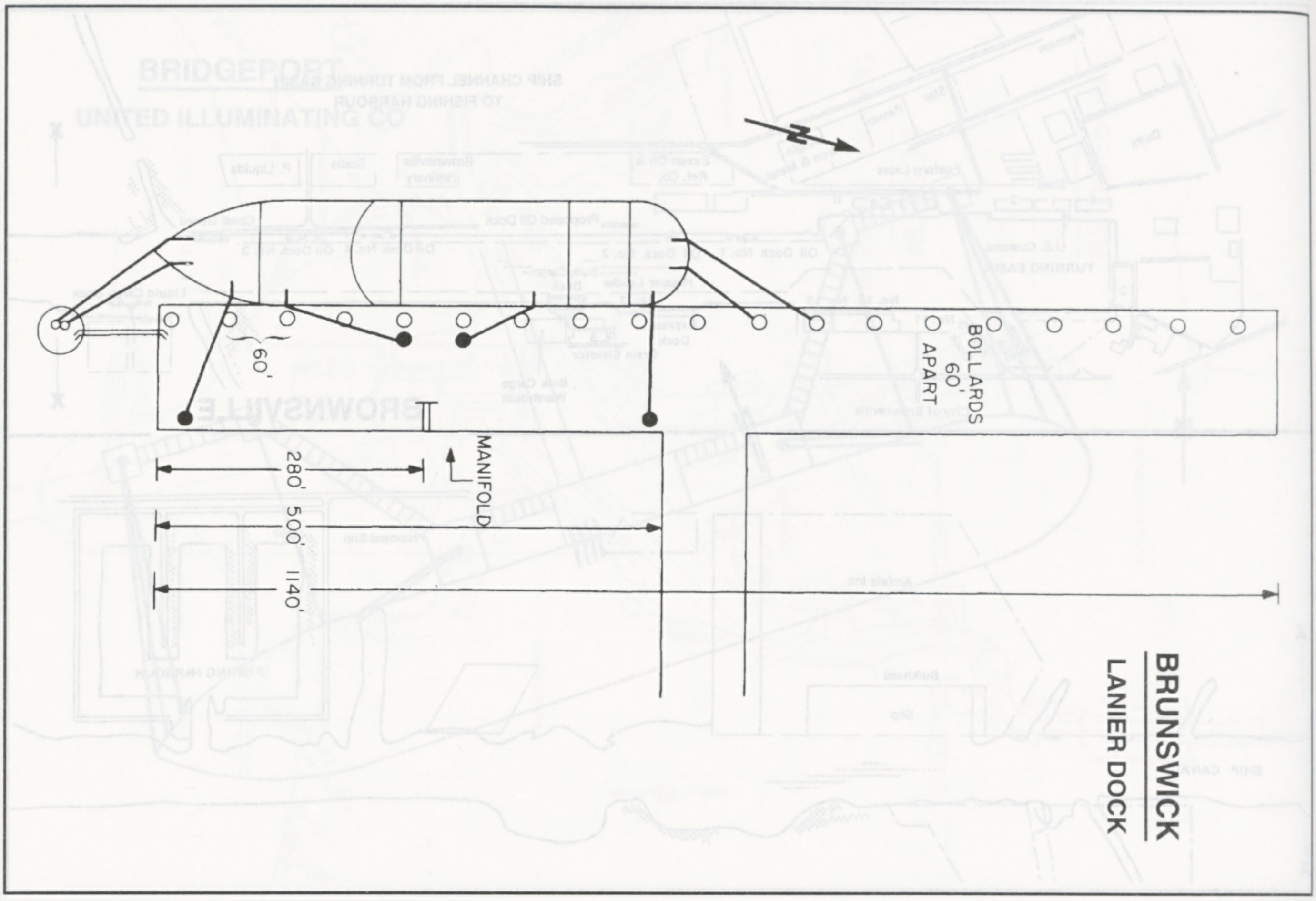


BROWNSVILLE (1)


USA
PORT ISABEL
BRAZOS SANTIAGO PASS
GULF OF MEXICO
SOUTH BAY
FISHING HARBOUR
Port Owned Property 42,000 Acres
SHIP CANAL
PORT BROWNSVILLE TURNING BASIN AREA
Rio Grande
BROWNSVILLE
Proposed International Bridge
N
TEXAS
LOCATION MAP
MEXICO
0
1
2
3
SCALE

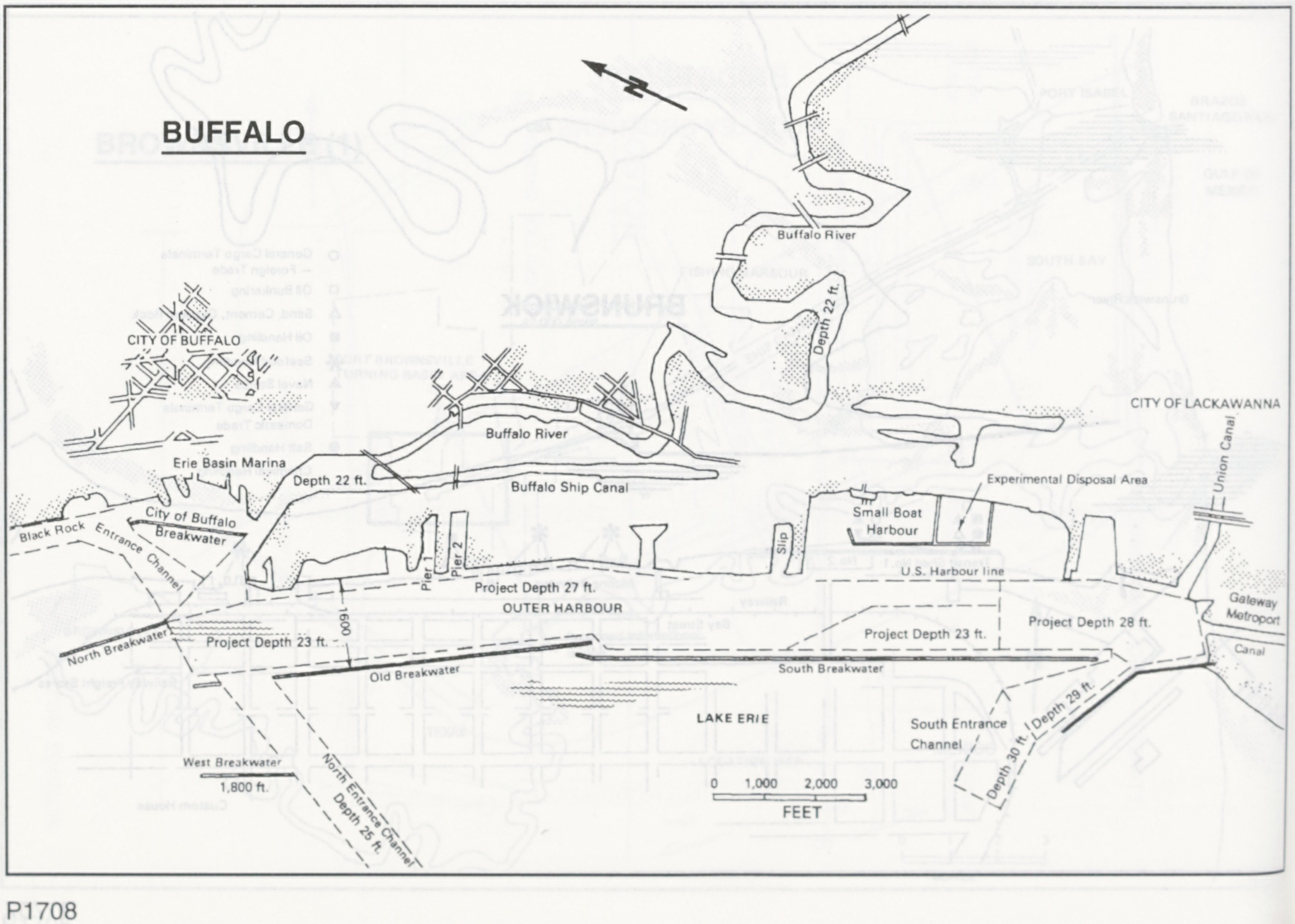

Permian
Star
Pemex
Delhi
Anglo
Iron & Metal
Exxon Oil &
Ref. Co.
SHIP CHANNEL FROM TURNING BASIN
TO FISHING HARBOUR
Brownsville
Refinery
Statia
P. Liquids
Fosforo Lease
Shed
4
1
2
7
8
Proposed Oil Dock
Coast Guard
U.S. Customs
TURNING BASIN
Oil Dock No. 1
Oil Dock No. 2
Oil Dock No. 4
Oil Dock No. 3
3
Hopper Loader
Bulk Cargo
Dock
No. 2
No. 12
No. 13
Liquid Cargo Dock
No. 11
South
Slip
No. 10
Dock
Express
Dock
Grain Elevator
Bulk Cargo
Warehouse
City of Brownsville
N
BROWNSVILLE
X
X
Proposed Slip
Amfels Inc
X
Bulkhead
Slip
FISHING HARBOUR
SHIP CANAL
X


Brunswick River
BRUNSWICK
○ General Cargo Terminals
– Foreign Trade
□ Oil Bunkering
△ Sand, Cement, Gypsum Rock
■ Oil Handling
✱ Seafood Handling
▲ Naval Stores
▼ General Cargo Terminals
Domestic Trade
● Salt Handling
Chemical Handling
Transit Shed No. 1
No. 2
Marine Railways
Railway
Bay Street
Railway Freight Stores
Custom House



BRUNSWICK
LANIER DOCK

BOLLARDS 60' APART
60'
MANIFOLD
280'
500'
1140'

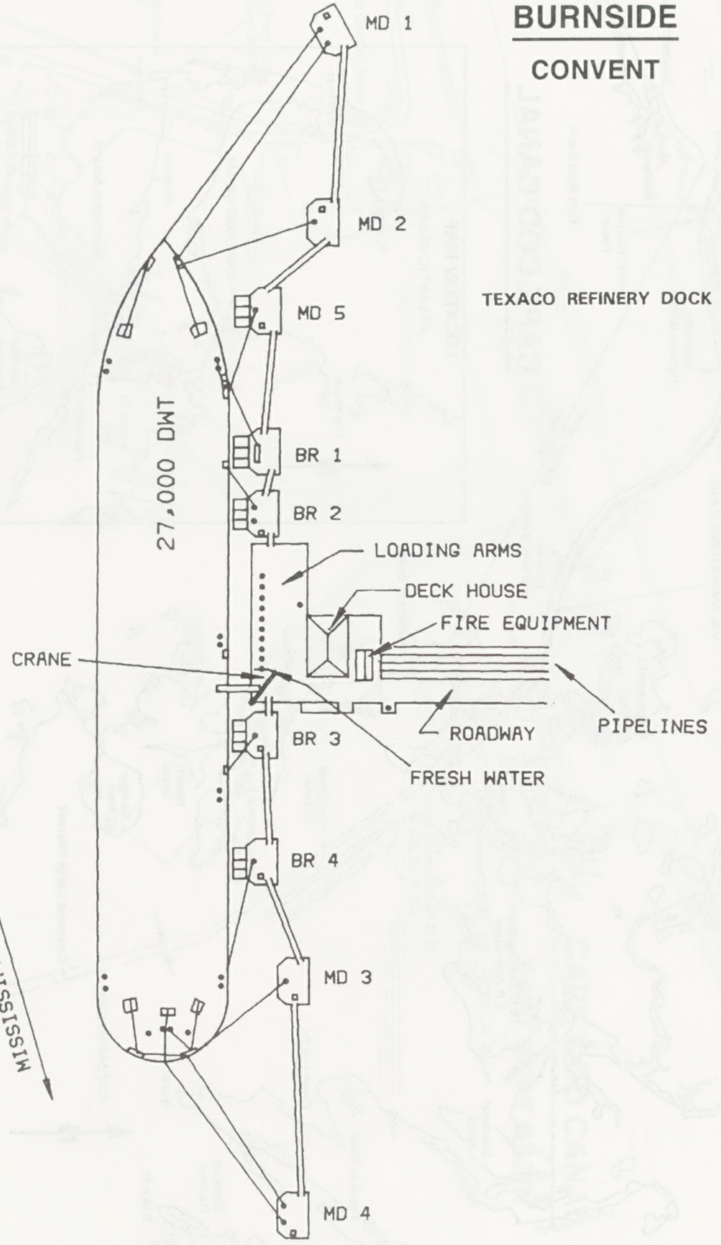


BUFFALO

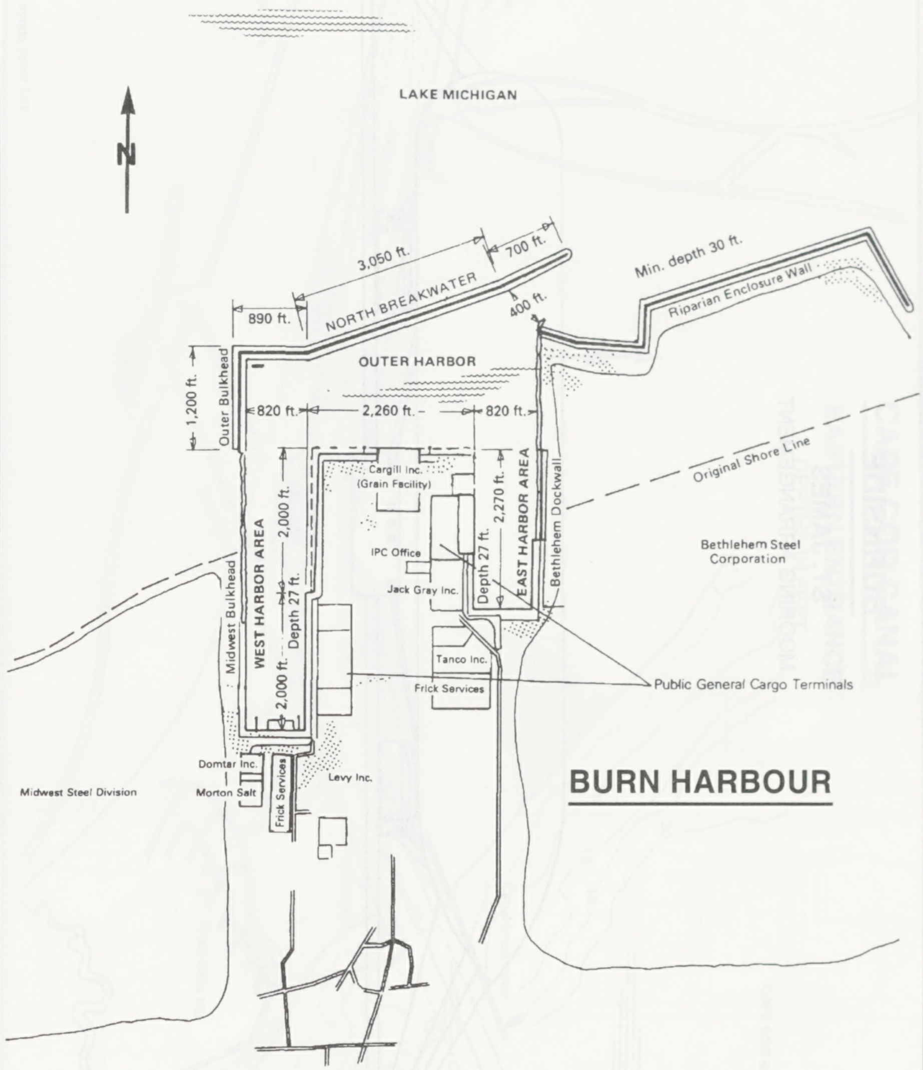
CITY OF BUFFALO
Buffalo River
Buffalo River
Depth 22 ft.
Erie Basin Marina
Depth 22 ft.
Buffalo Ship Canal
CITY OF LACKAWANNA
Union Canal
Experimental Disposal Area
Small Boat Harbour
Slip
Black Rock
Entrance Channel
City of Buffalo Breakwater
Pier 1
Pier 2
Project Depth 27 ft.
OUTER HARBOUR
U.S. Harbour line
Gateway Metroport
Canal
1600
North Breakwater
Project Depth 23 ft.
Project Depth 23 ft.
Project Depth 28 ft.
Old Breakwater
South Breakwater
LAKE ERIE
South Entrance Channel
Depth 29 ft.
Depth 30 ft.
West Breakwater
1,800 ft.
North Entrance Channel
Depth 25 ft.
0
1,000
2,000
3,000
FEET

BURNSIDE

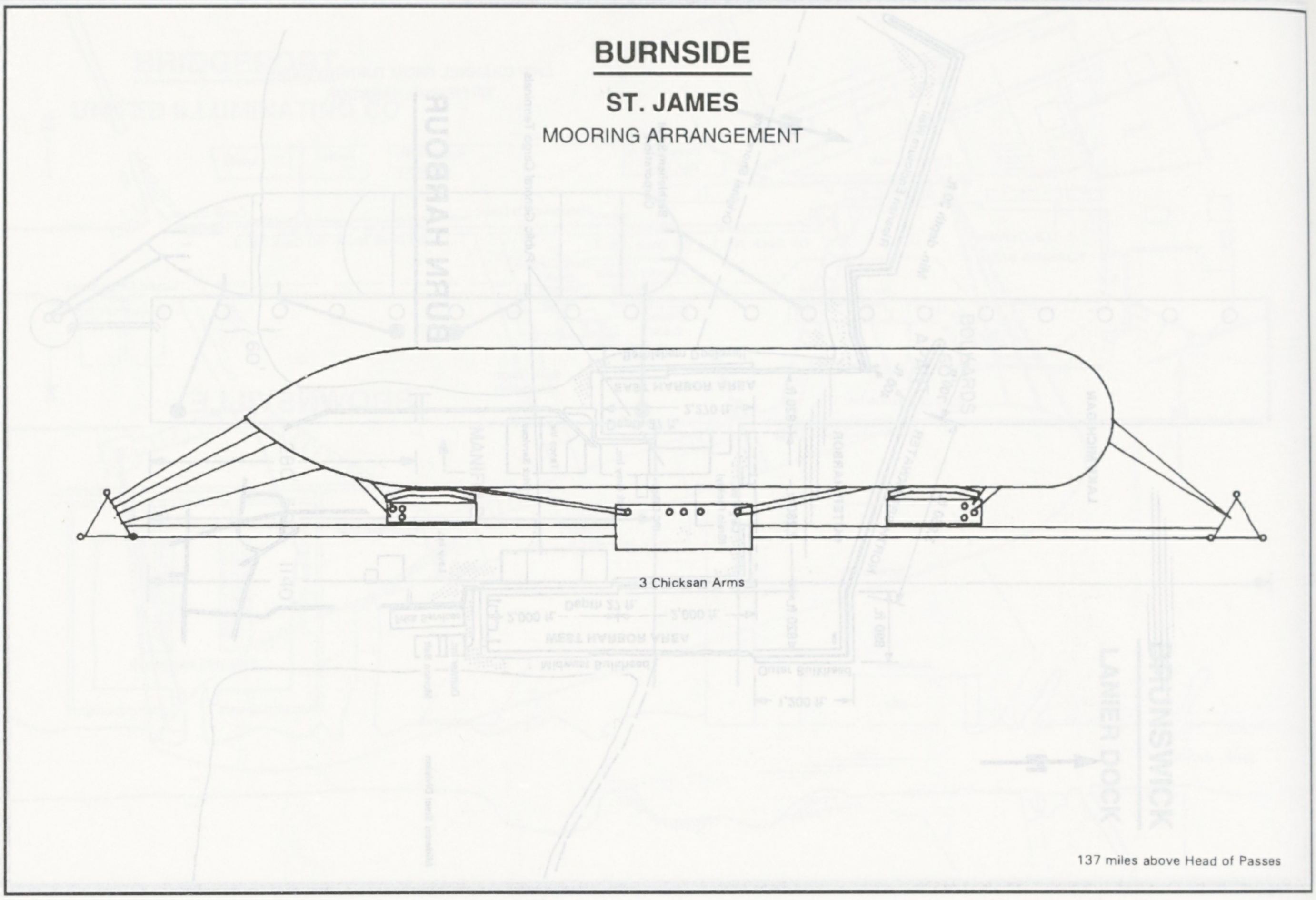
CONVENT


MD 1
TEXACO REFINERY DOCK
MD 2
MD 5
BR 1
BR 2
27,000 DWT
LOADING ARMS
DECK HOUSE
FIRE EQUIPMENT
CRANE
PIPELINES
ROADWAY
BR 3
FRESH WATER
BR 4
MISSISSIPPI RIVER
MD 3
MD 4

147 miles above Head of Passes


LAKE MICHIGAN
N
3,050 ft.
700 ft.
Min. depth 30 ft.
890 ft.
NORTH BREAKWATER
400 ft.
Riparian Enclosure Wall
OUTER HARBOR
1,200 ft.
Outer Bulkhead
820 ft.
2,260 ft.
820 ft.
Original Shore Line
Cargill Inc.
(Grain Facility)
2,000 ft.
2,270 ft.
WEST HARBOR AREA
EAST HARBOR AREA
Bethlehem Dockwall
IPC Office
Depth 27 ft.
Bethlehem Steel Corporation
Jack Gray Inc.
Depth 27 ft.
Midwest Bulkhead
2,000 ft.
Tanco Inc.
Public General Cargo Terminals
Frick Services
Domtar Inc.
Levy Inc.
Midwest Steel Division
Morton Salt
Frick Services

BURN HARBOUR

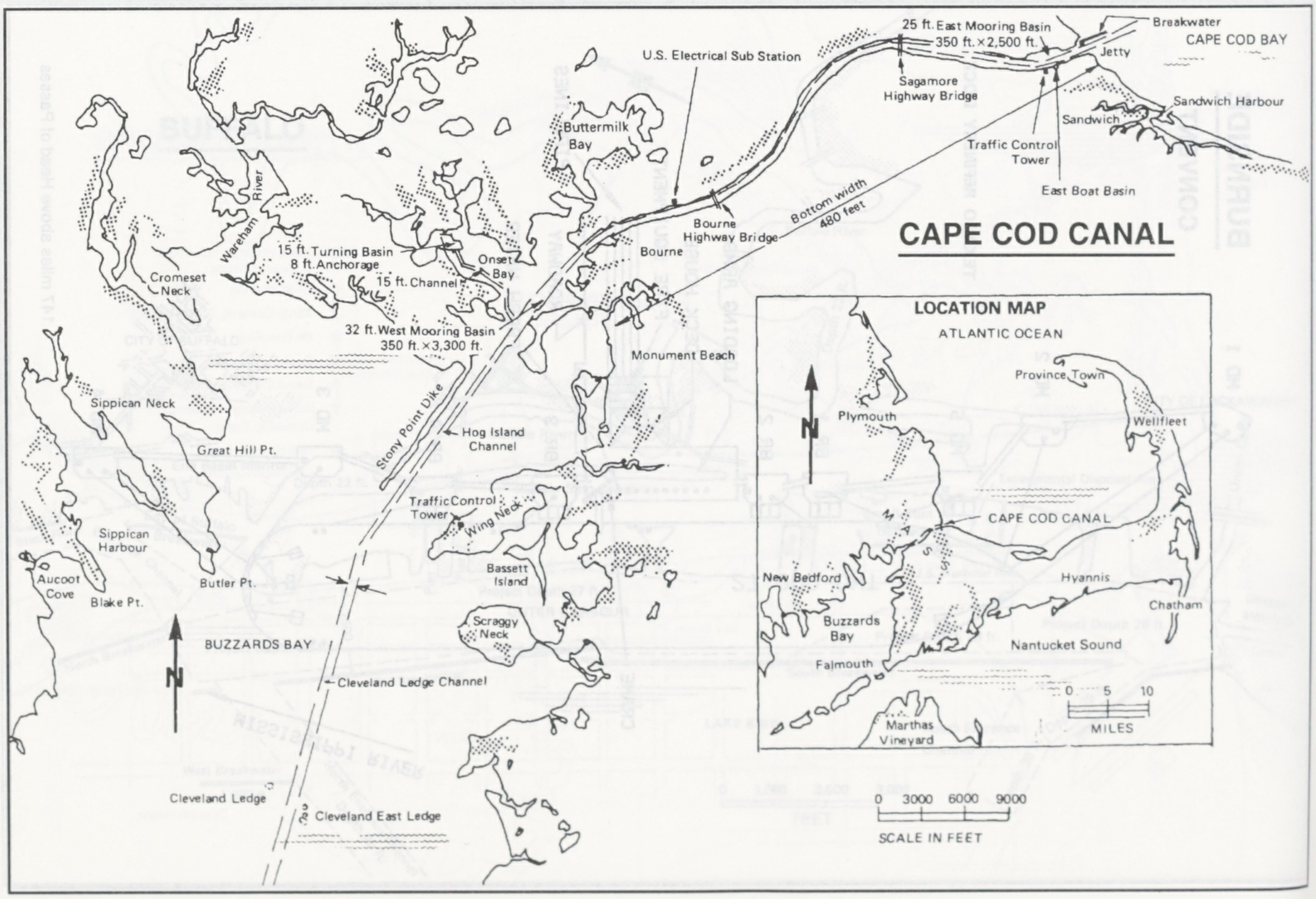


BURNSIDE

ST. JAMES

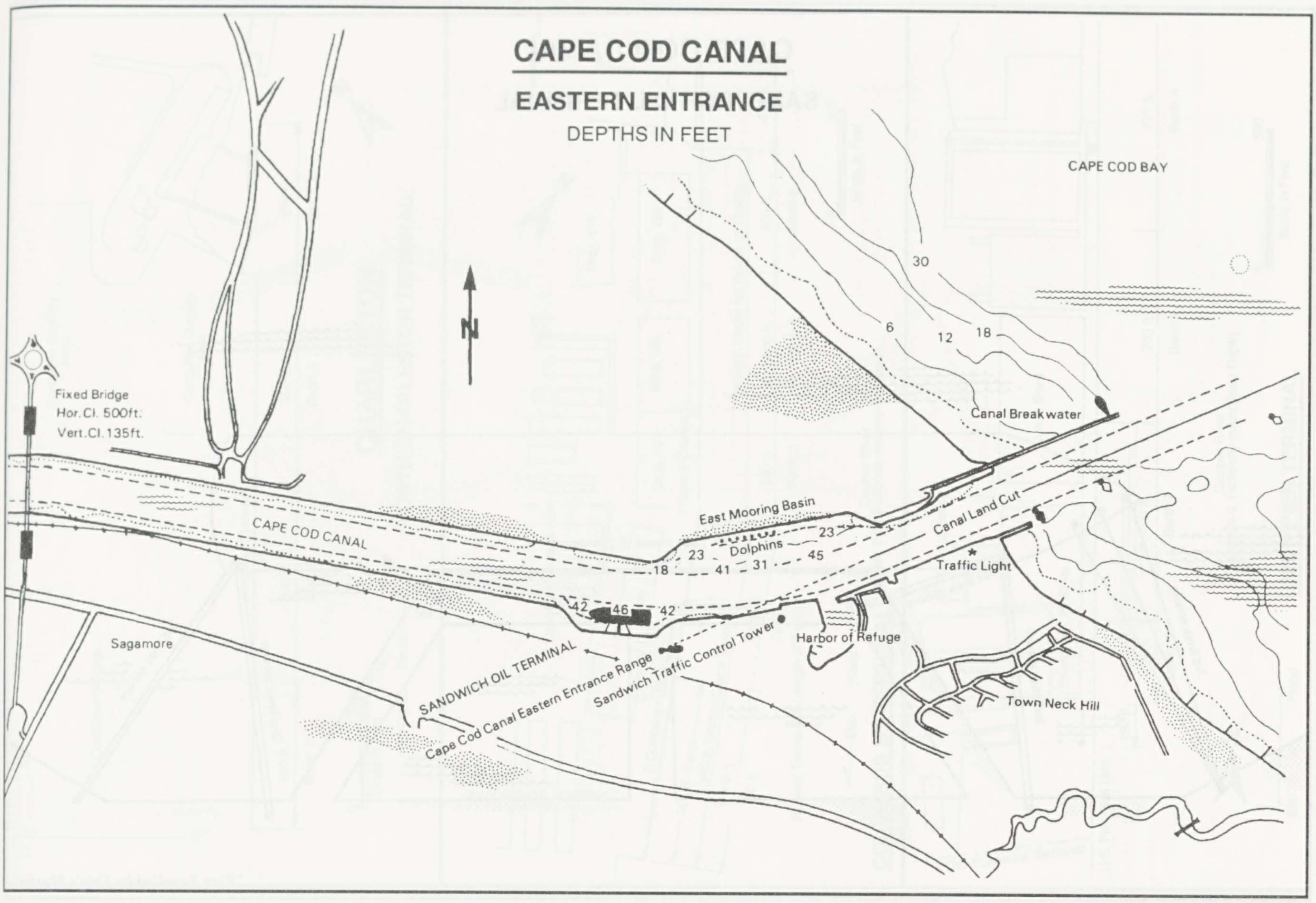
MOORING ARRANGEMENT

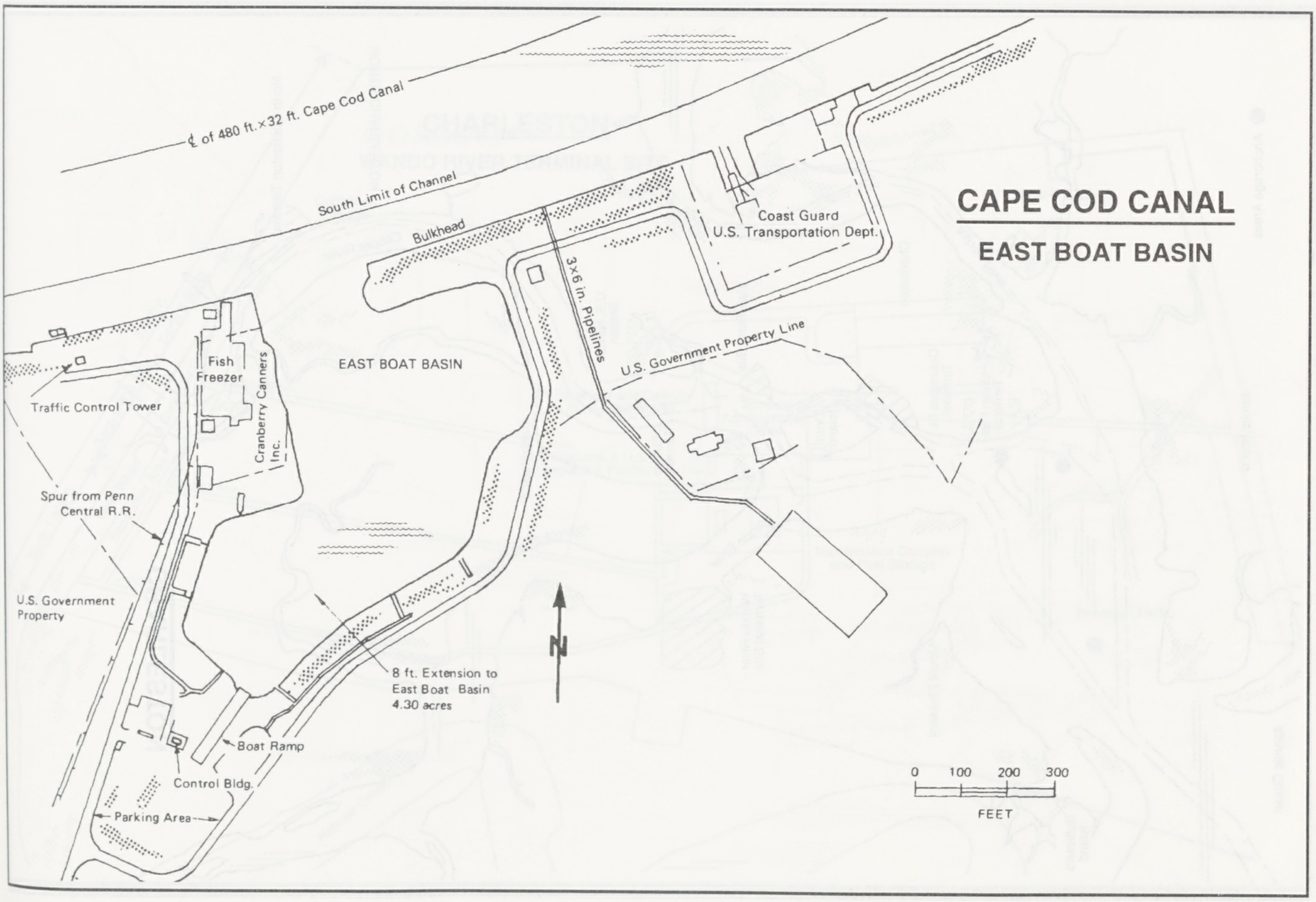
3 Chicksan Arms
137 miles above Head of Passes



CAPE COD CANAL

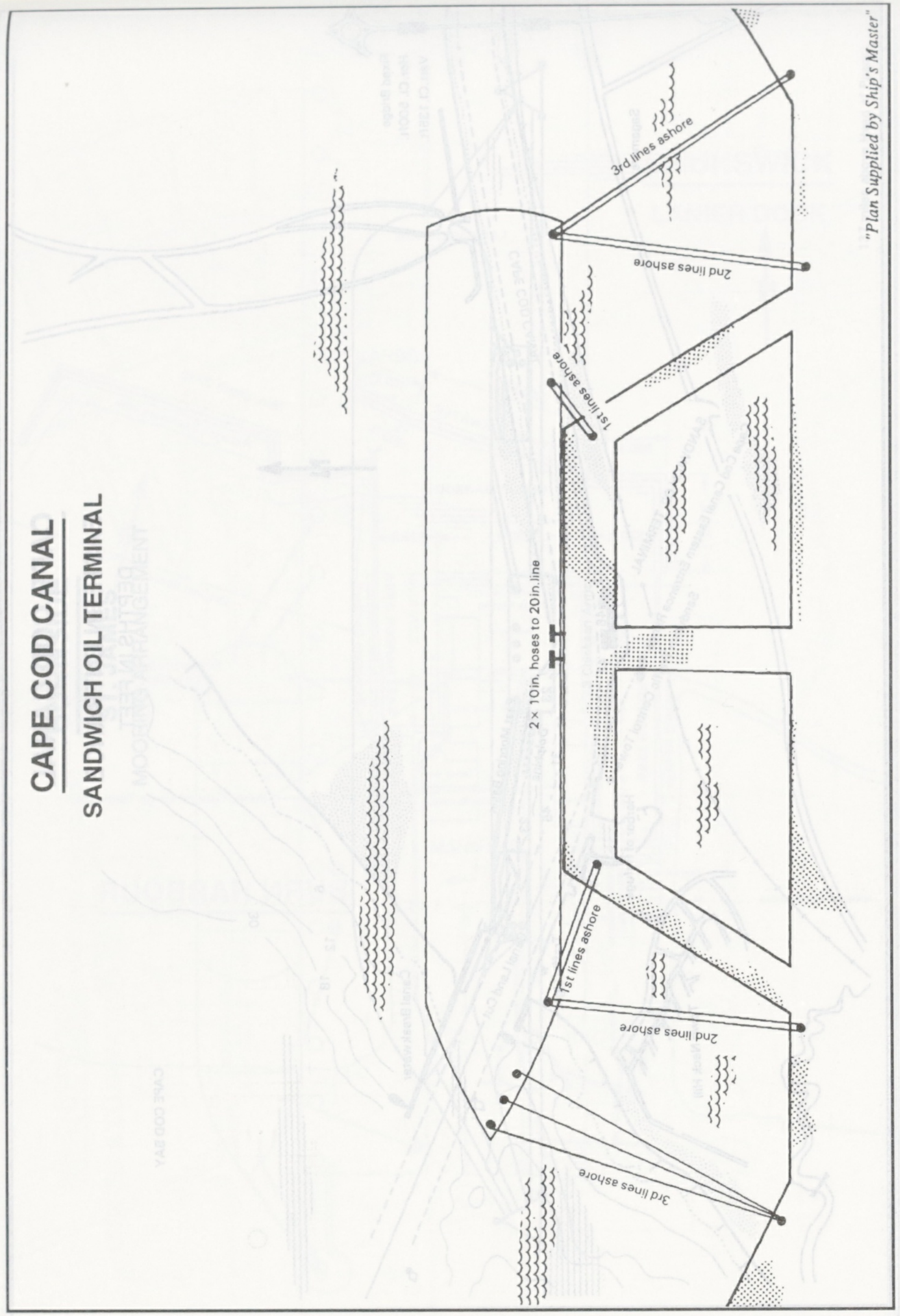
25 ft. East Mooring Basin
350 ft. × 2,500 ft.
Breakwater
CAPE COD BAY
Jetty
U.S. Electrical Sub Station
Sagamore Highway Bridge
Sandwich Harbour
Sandwich
Traffic Control Tower
East Boat Basin
Buttermilk Bay
Bottom width 480 feet
Bourne Highway Bridge
Bourne
Wareham River
15 ft. Turning Basin
8 ft. Anchorage
Onset Bay
15 ft. Channel
Cromeset Neck
32 ft. West Mooring Basin
350 ft. × 3,300 ft.
Monument Beach
Sippican Neck
Stony Point Dike
Hog Island Channel
Great Hill Pt.
Traffic Control Tower
Wing Neck
Sippican Harbour
Aucoot Cove
Blake Pt.
Butler Pt.
Bassett Island
Scraggy Neck
N
BUZZARDS BAY
Cleveland Ledge Channel
Cleveland Ledge
Cleveland East Ledge
0 3000 6000 9000
SCALE IN FEET
LOCATION MAP
ATLANTIC OCEAN
Province Town
Plymouth
Wellfleet
N
CAPE COD CANAL
MASS
New Bedford
Hyannis
Chatham
Buzzards Bay
Nantucket Sound
Falmouth
0 5 10
MILES
Marthas Vineyard


CAPE COD CANAL
EASTERN ENTRANCE
DEPTHS IN FEET
CAPE COD BAY
N
30
6
12
18
Canal Breakwater
Fixed Bridge
Hor.Cl. 500ft.
Vert.Cl. 135ft.
CAPE COD CANAL
East Mooring Basin
Dolphins
23
23
45
18
41
31
42
46
42
Canal Land Cut
Traffic Light
Sagamore
SANDWICH OIL TERMINAL
Cape Cod Canal Eastern Entrance Range
Sandwich Traffic Control Tower
Harbor of Refuge
Town Neck Hill


℄ of 480 ft.×32 ft. Cape Cod Canal
South Limit of Channel
Bulkhead
CAPE COD CANAL
EAST BOAT BASIN
Coast Guard
U.S. Transportation Dept.
3×6 in. Pipelines
U.S. Government Property Line
EAST BOAT BASIN
Fish Freezer
Cranberry Canners Inc.
Traffic Control Tower
Spur from Penn Central R.R.
U.S. Government Property
N
8 ft. Extension to East Boat Basin 4.30 acres
Boat Ramp
Control Bldg.
Parking Area
0
100
200
300
FEET

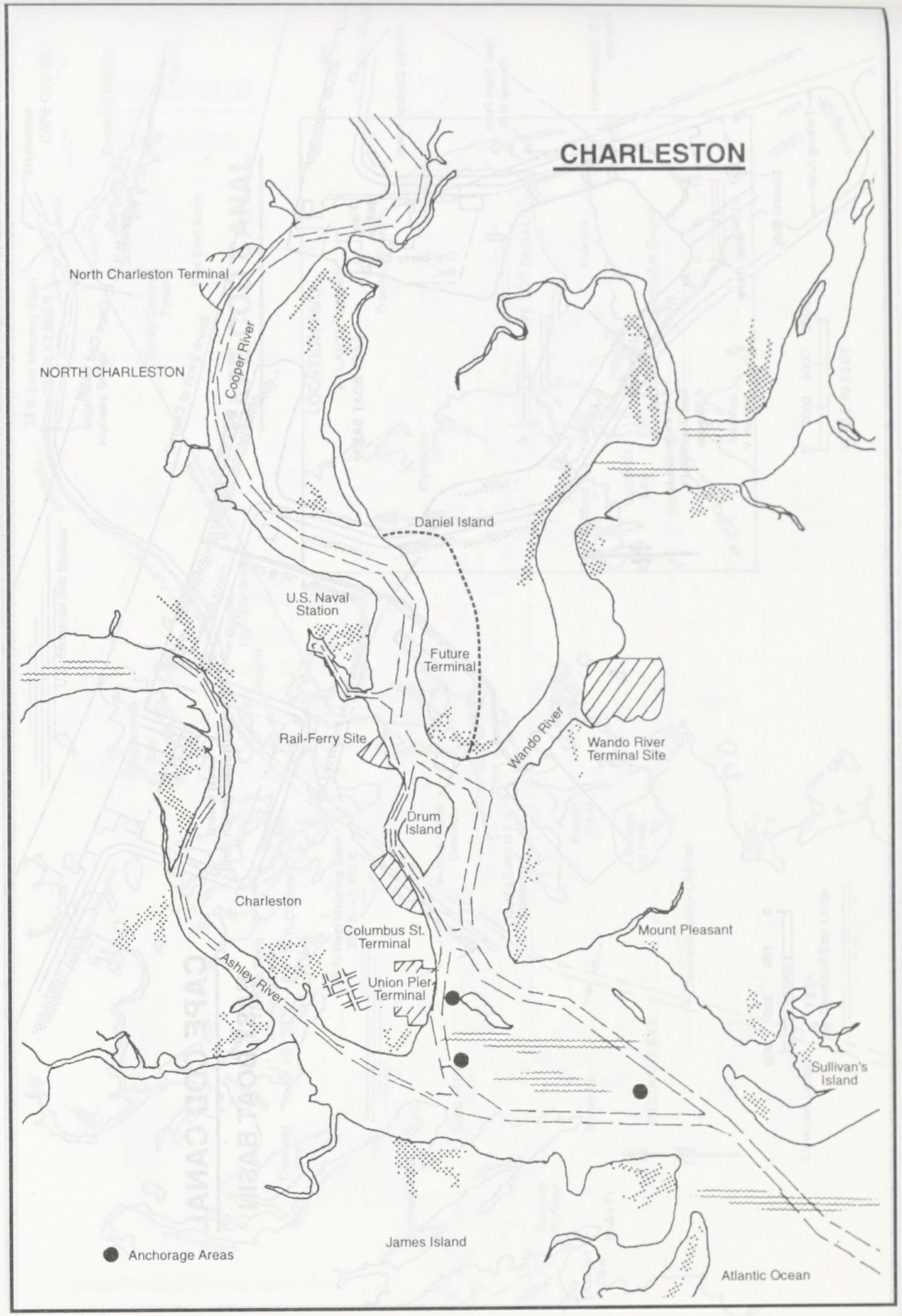
CAPE COD CANAL

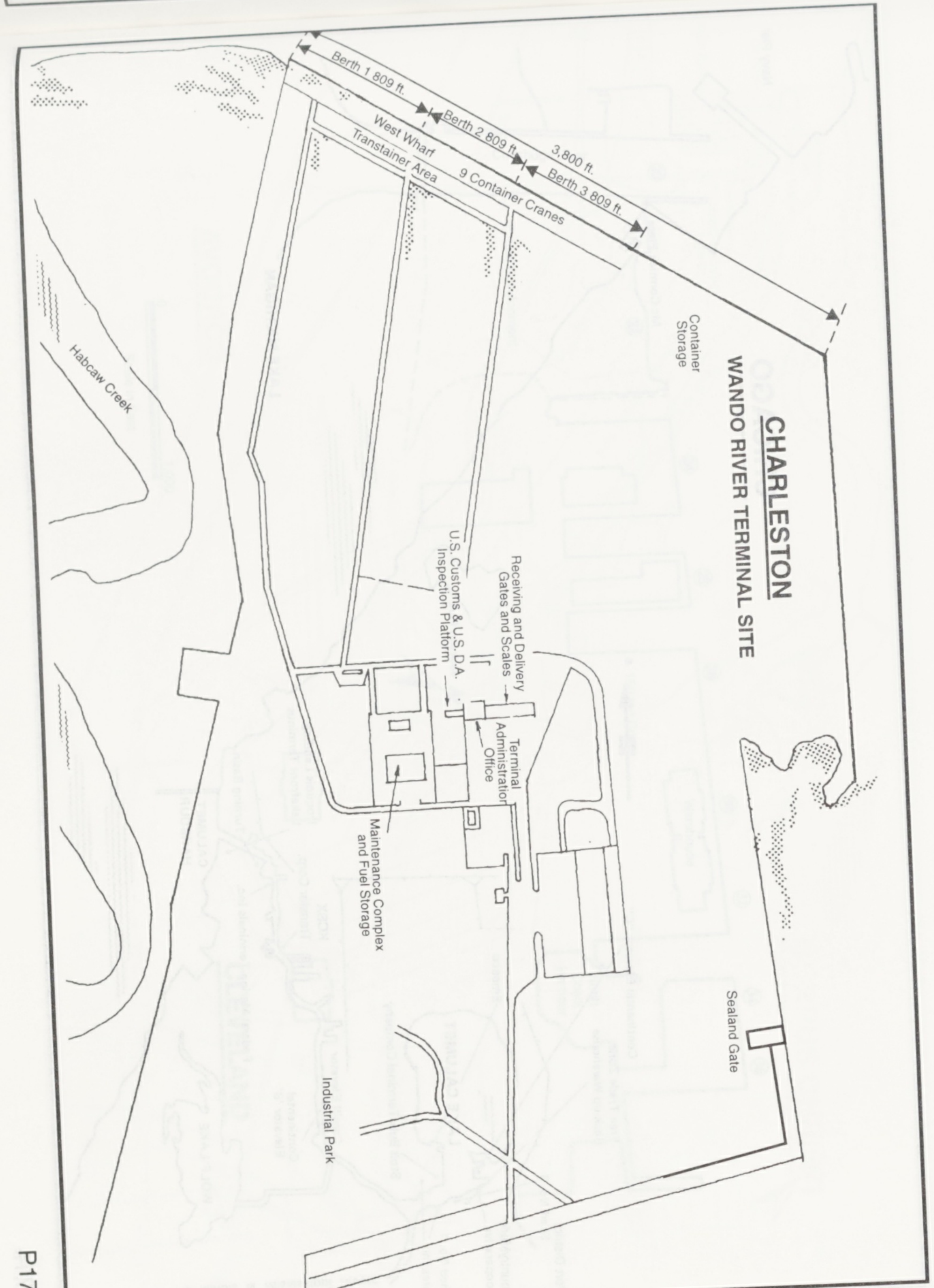
SANDWICH OIL TERMINAL


3rd lines ashore
2nd lines ashore
1st lines ashore
2× 10in. hoses to 20in.line
1st lines ashore
2nd lines ashore
3rd lines ashore

"Plan Supplied by Ship's Master"

CHARLESTON

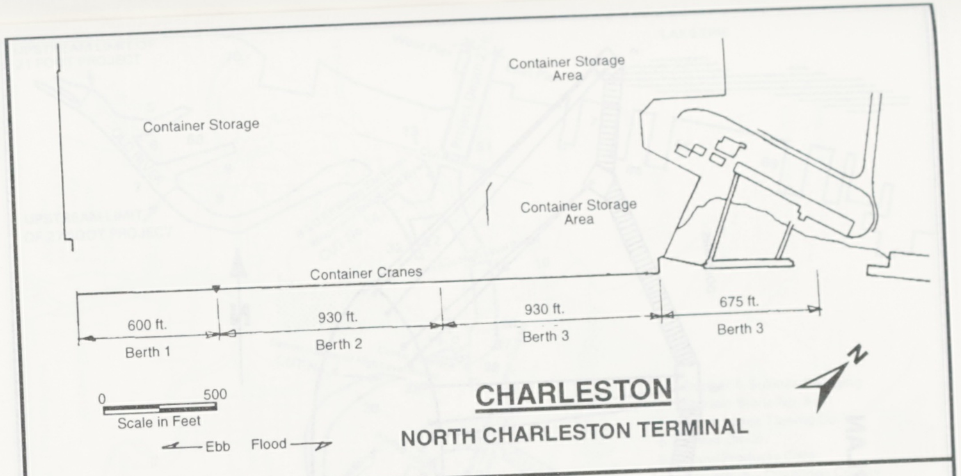

North Charleston Terminal
NORTH CHARLESTON
Cooper River
Daniel Island
U.S. Naval Station
Future Terminal
Rail-Ferry Site
Wando River
Wando River Terminal Site
Drum Island
Charleston
Columbus St. Terminal
Union Pier Terminal
Ashley River
Mount Pleasant
Sullivan's Island
James Island
Atlantic Ocean
● Anchorage Areas



CHARLESTON

WANDO RIVER TERMINAL SITE

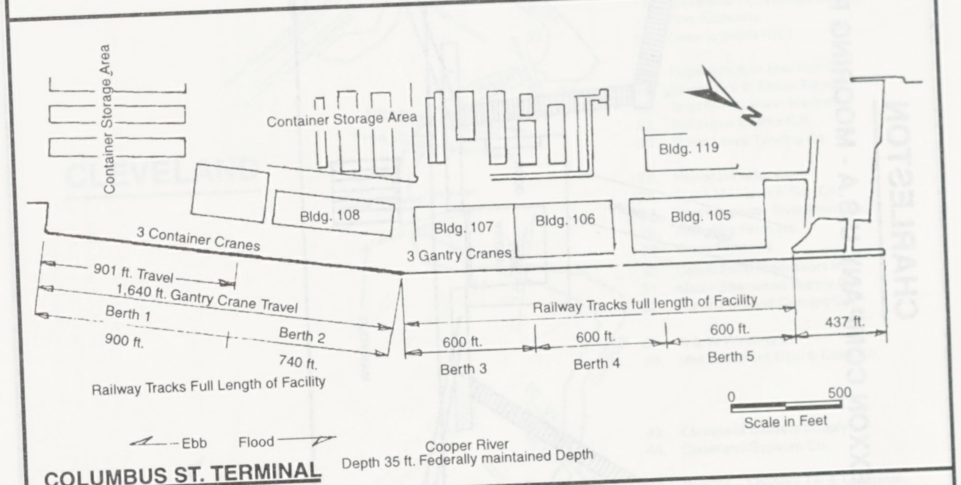
Berth 1 809 ft.
Berth 2 809 ft.
Berth 3 809 ft.
3,800 ft.
West Wharf
Transtainer Area
9 Container Cranes
Container Storage
Habcaw Creek
Receiving and Delivery Gates and Scales
U.S. Customs & U.S.D.A. Inspection Platform
Terminal Administration Office
Maintenance Complex and Fuel Storage
Sealand Gate
Industrial Park



CHARLESTON

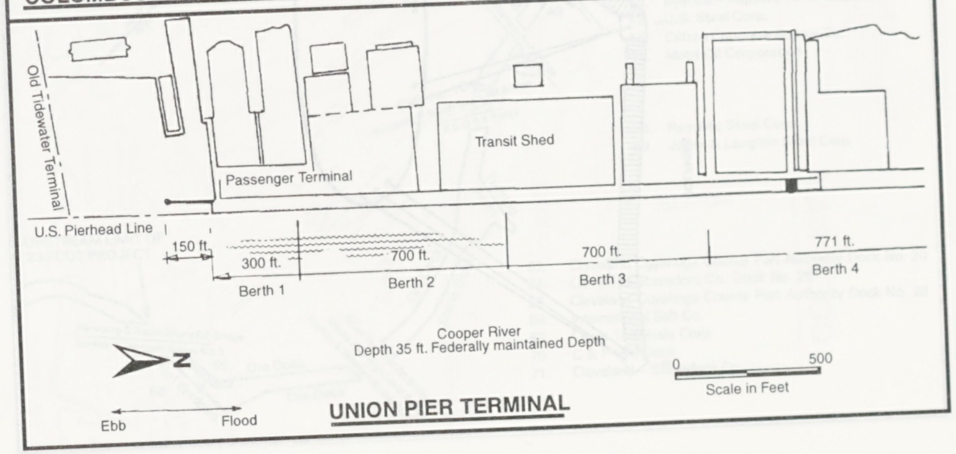
NORTH CHARLESTON TERMINAL

Container Storage Area
Container Storage
Container Storage Area
Container Cranes
600 ft.
Berth 1
930 ft.
Berth 2
930 ft.
Berth 3
675 ft.
Berth 3
0
500
Scale in Feet
Ebb
Flood
N



COLUMBUS ST. TERMINAL

Container Storage Area
Container Storage Area
Bldg. 119
Bldg. 108
Bldg. 107
Bldg. 106
Bldg. 105
3 Container Cranes
3 Gantry Cranes
901 ft. Travel
1,640 ft. Gantry Crane Travel
Berth 1
900 ft.
Berth 2
740 ft.
Railway Tracks full length of Facility
600 ft.
Berth 3
600 ft.
Berth 4
600 ft.
Berth 5
437 ft.
Railway Tracks Full Length of Facility
0
500
Scale in Feet
Ebb
Flood
Cooper River
Depth 35 ft. Federally maintained Depth
N

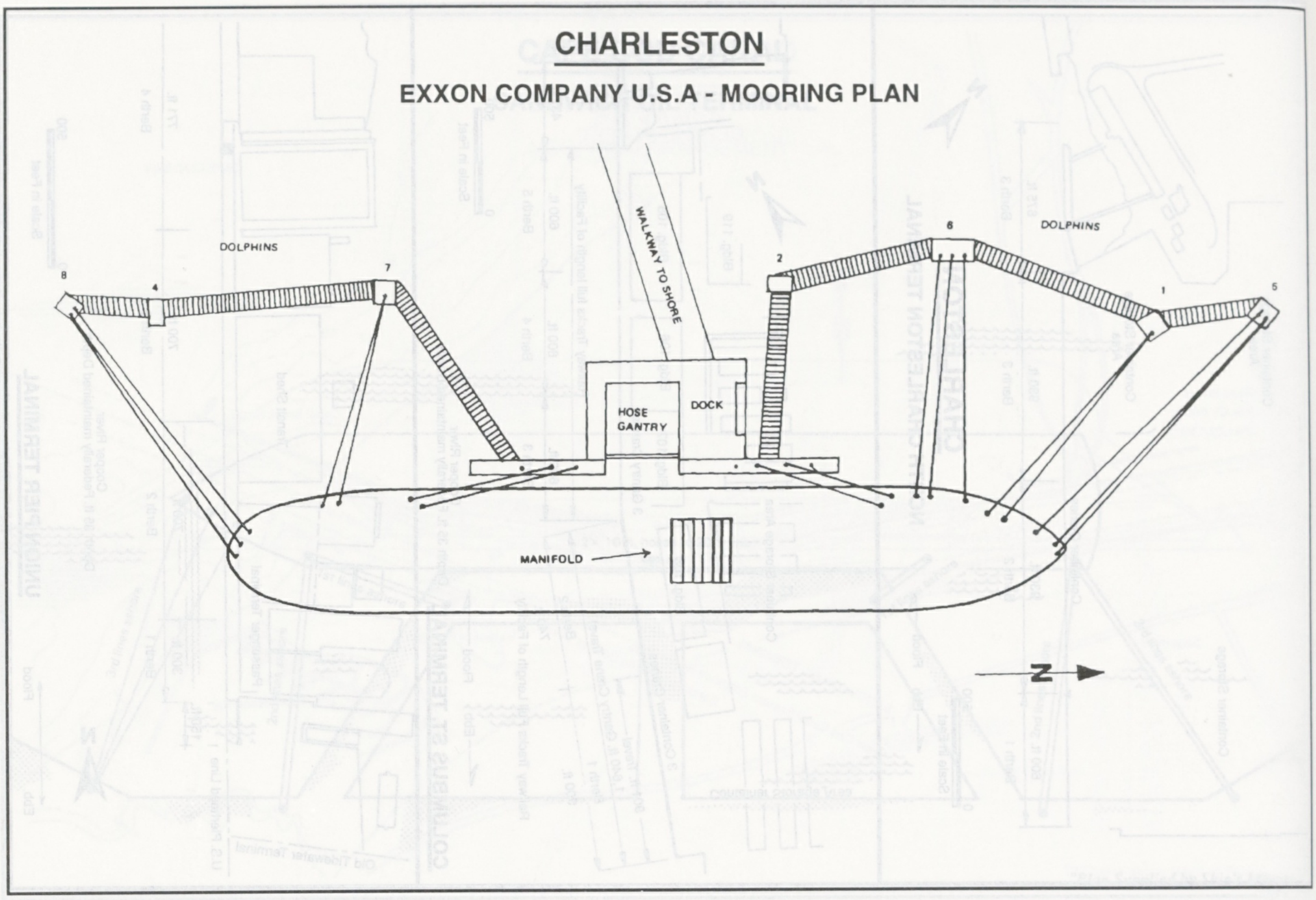


UNION PIER TERMINAL

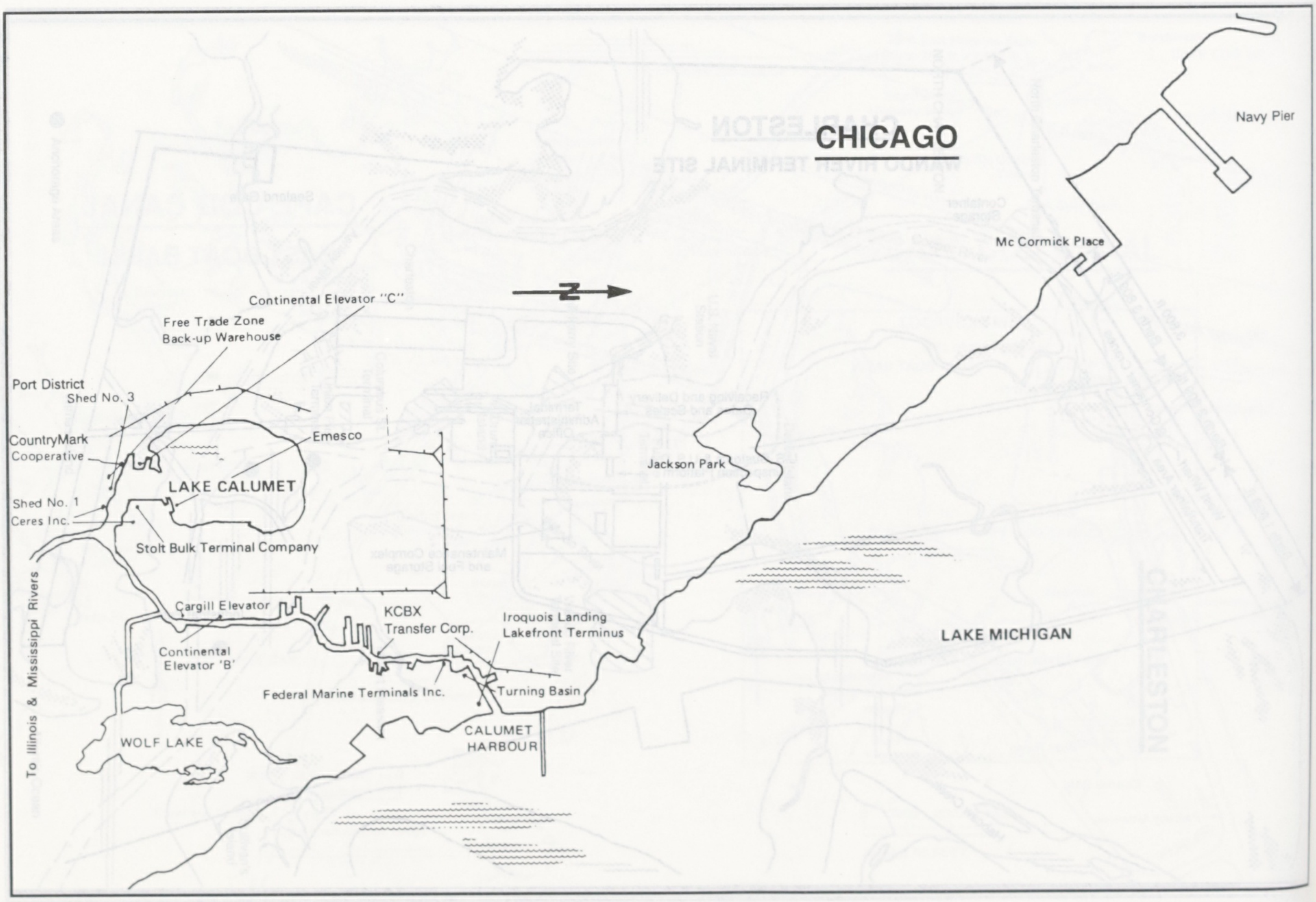
Old Tidewater Terminal
Passenger Terminal
Transit Shed
U.S. Pierhead Line
150 ft.
300 ft.
Berth 1
700 ft.
Berth 2
700 ft.
Berth 3
771 ft.
Berth 4
Cooper River
Depth 35 ft. Federally maintained Depth
N
Ebb
Flood
0
500
Scale in Feet

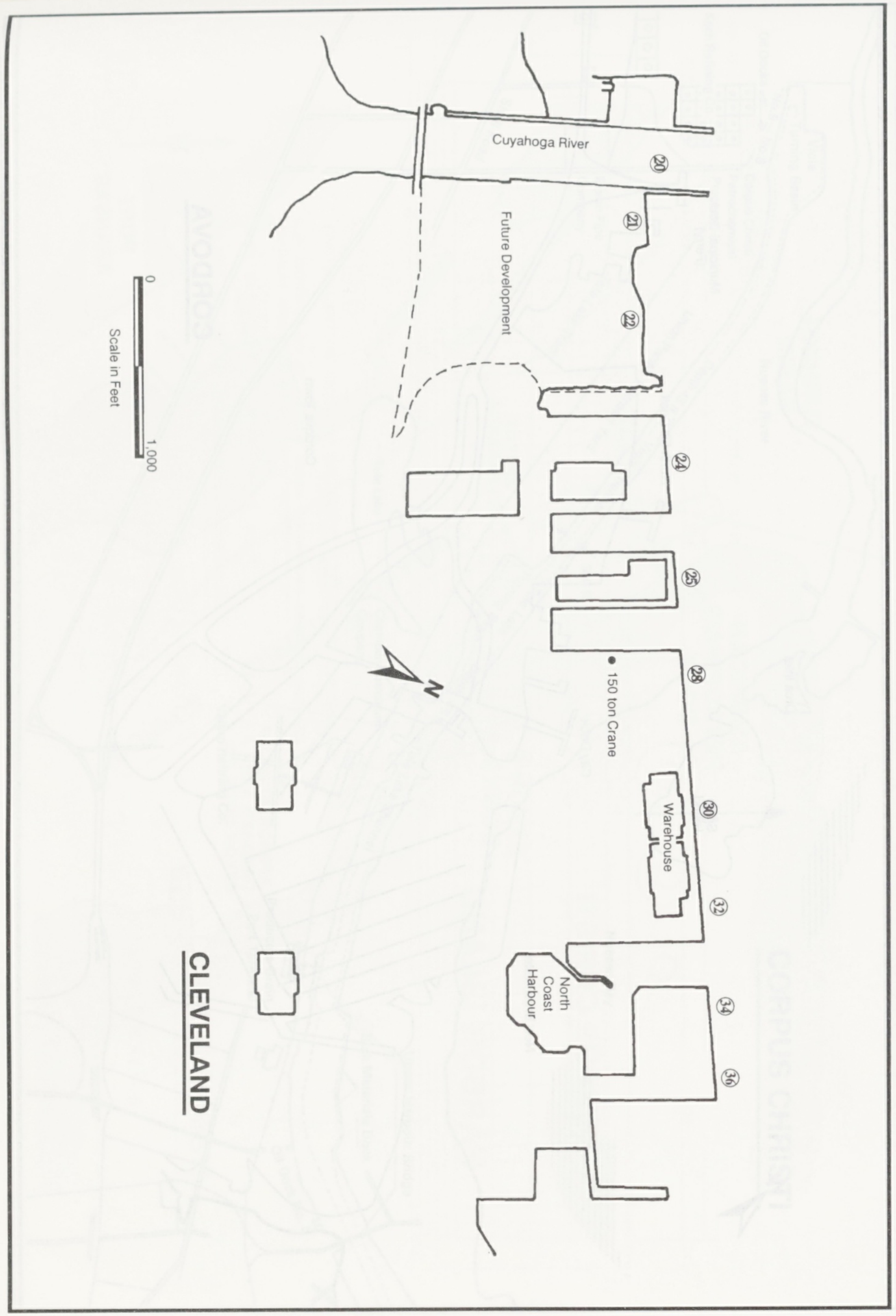
CHARLESTON

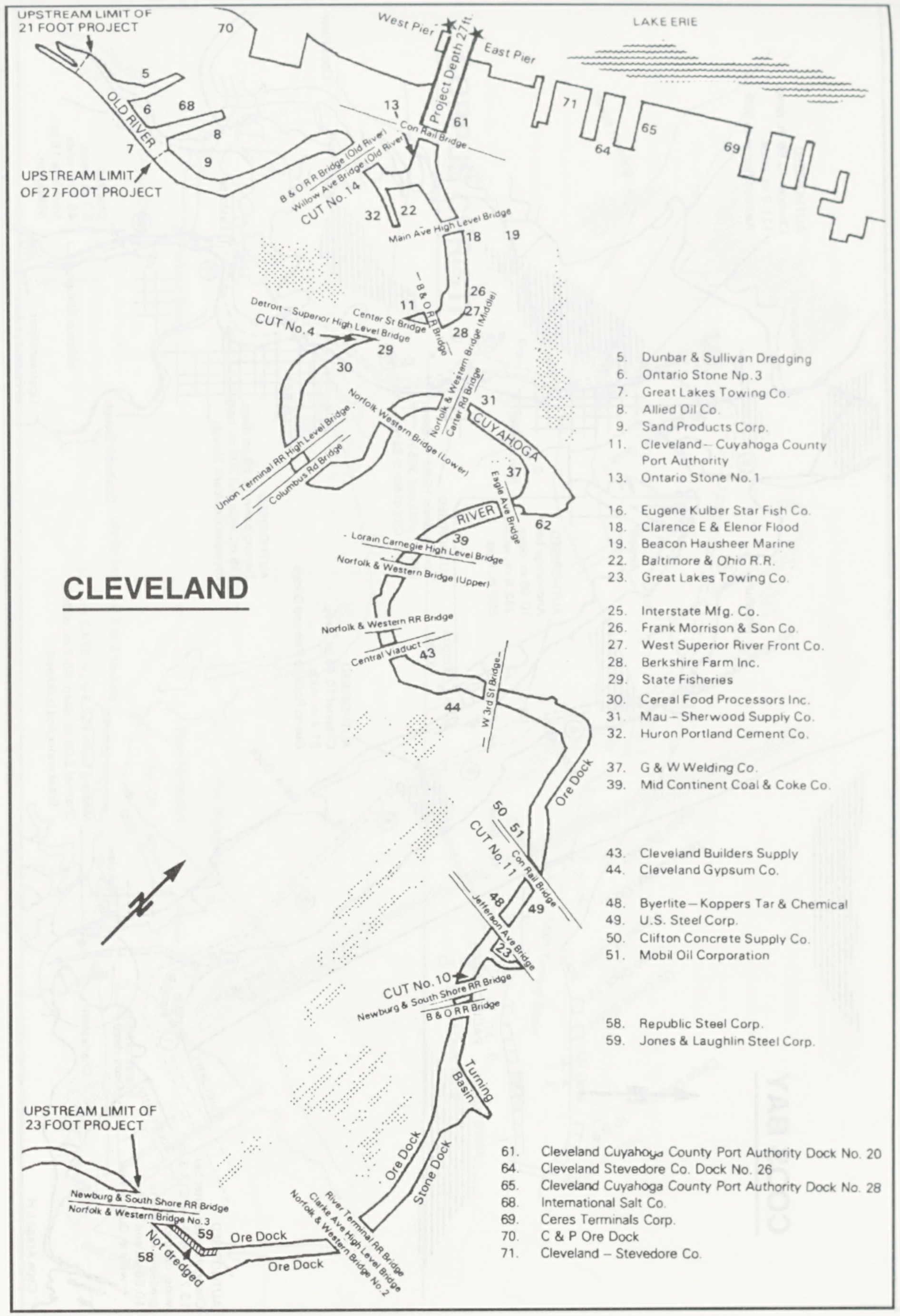
EXXON COMPANY U.S.A - MOORING PLAN


DOLPHINS
8
4
7
WALKWAY TO SHORE
2
6
DOLPHINS
1
5
HOSE GANTRY
DOCK
MANIFOLD
N

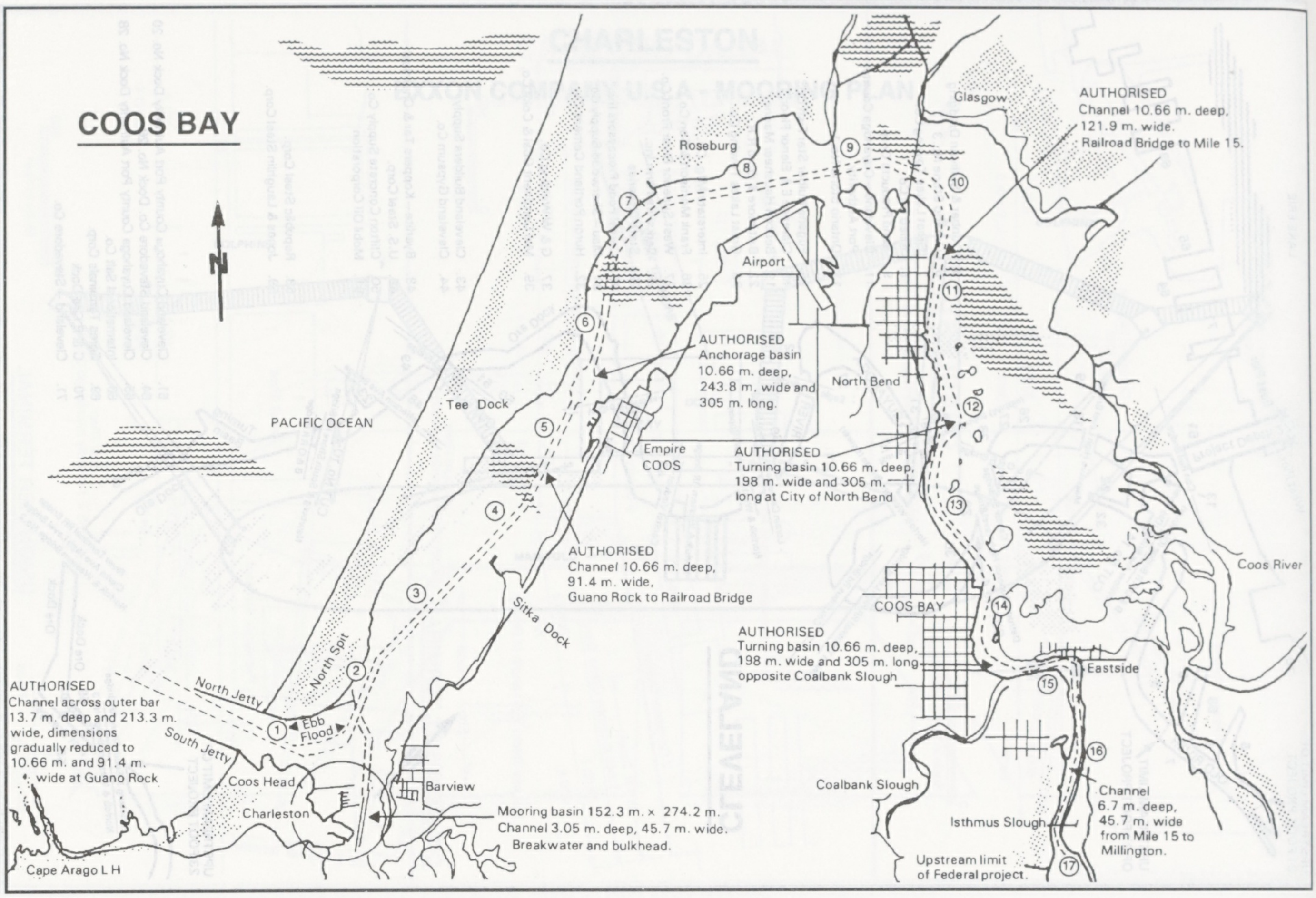
CHICAGO

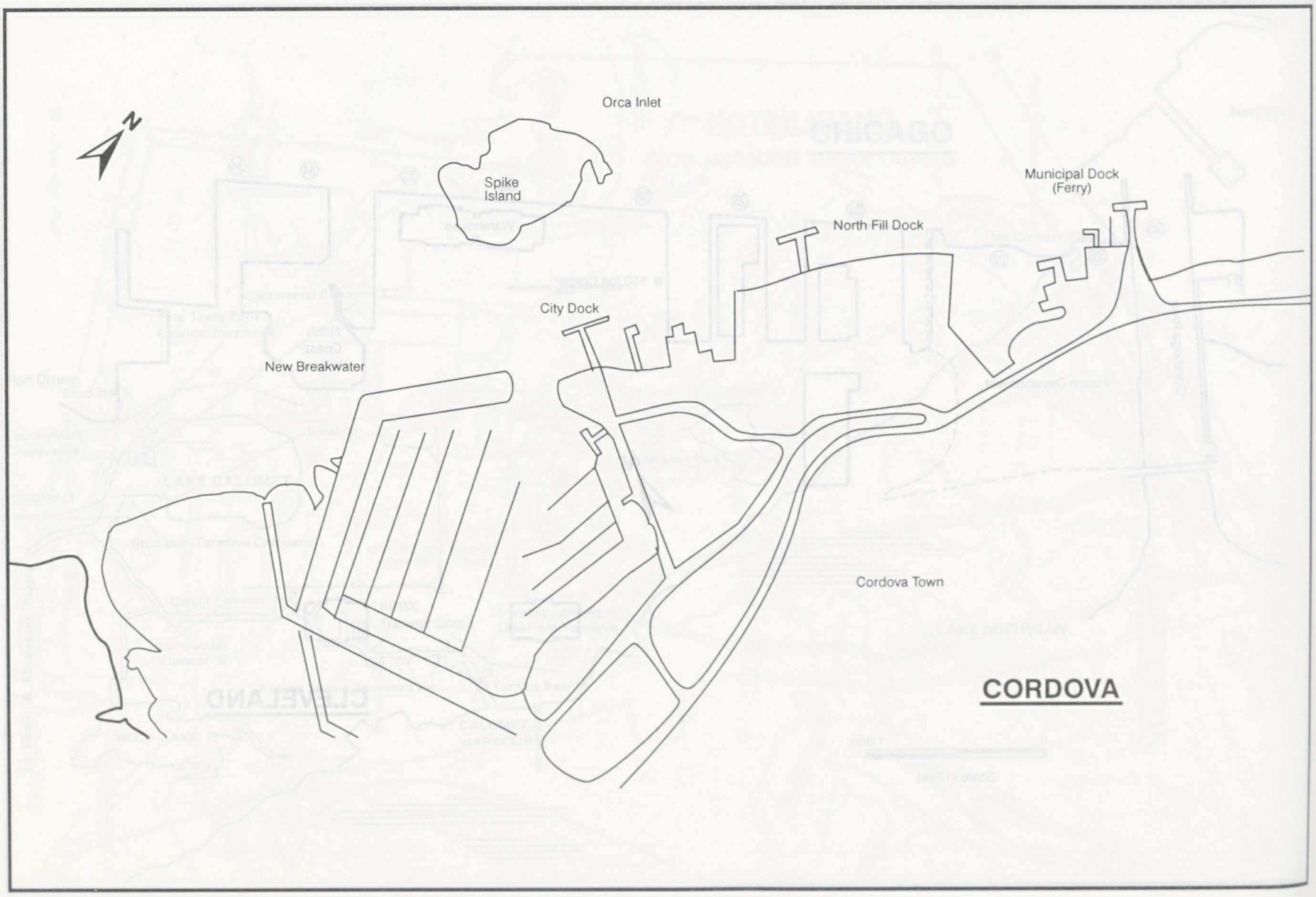

Navy Pier
Mc Cormick Place
N
Continental Elevator "C"
Free Trade Zone Back-up Warehouse
Port District Shed No. 3
CountryMark Cooperative
Emesco
LAKE CALUMET
Jackson Park
Shed No. 1
Ceres Inc.
Stolt Bulk Terminal Company
To Illinois & Mississippi Rivers
Cargill Elevator
KCBX Transfer Corp.
Iroquois Landing Lakefront Terminus
LAKE MICHIGAN
Continental Elevator 'B'
Federal Marine Terminals Inc.
Turning Basin
WOLF LAKE
CALUMET HARBOUR

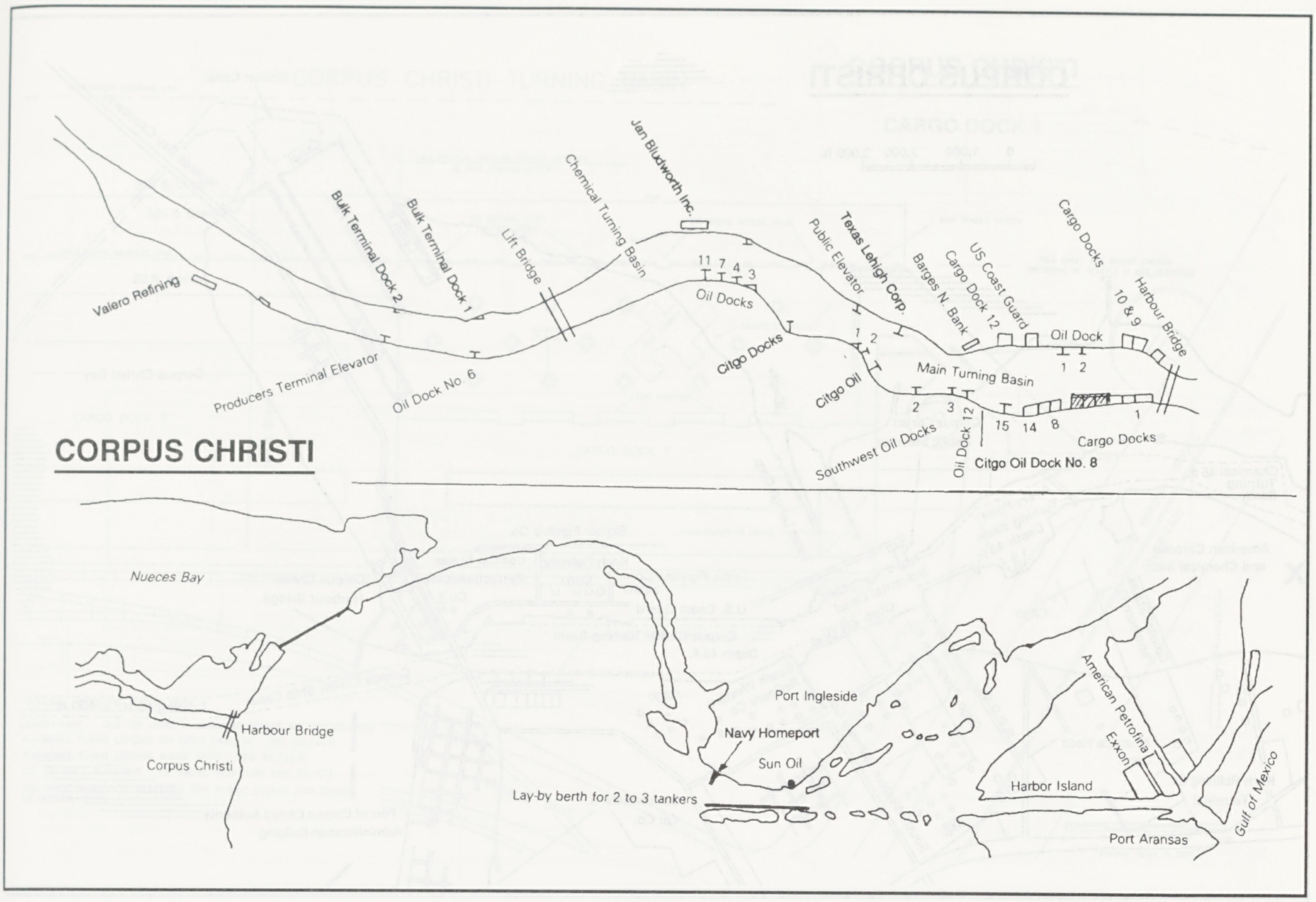

CLEVELAND
Cuyahoga River
Future Development
Scale in Feet
0
1,000
150 ton Crane
Warehouse
North Coast Harbour
N
(20)
(21)
(22)
(24)
(25)
(28)
(30)
(32)
(34)
(36)

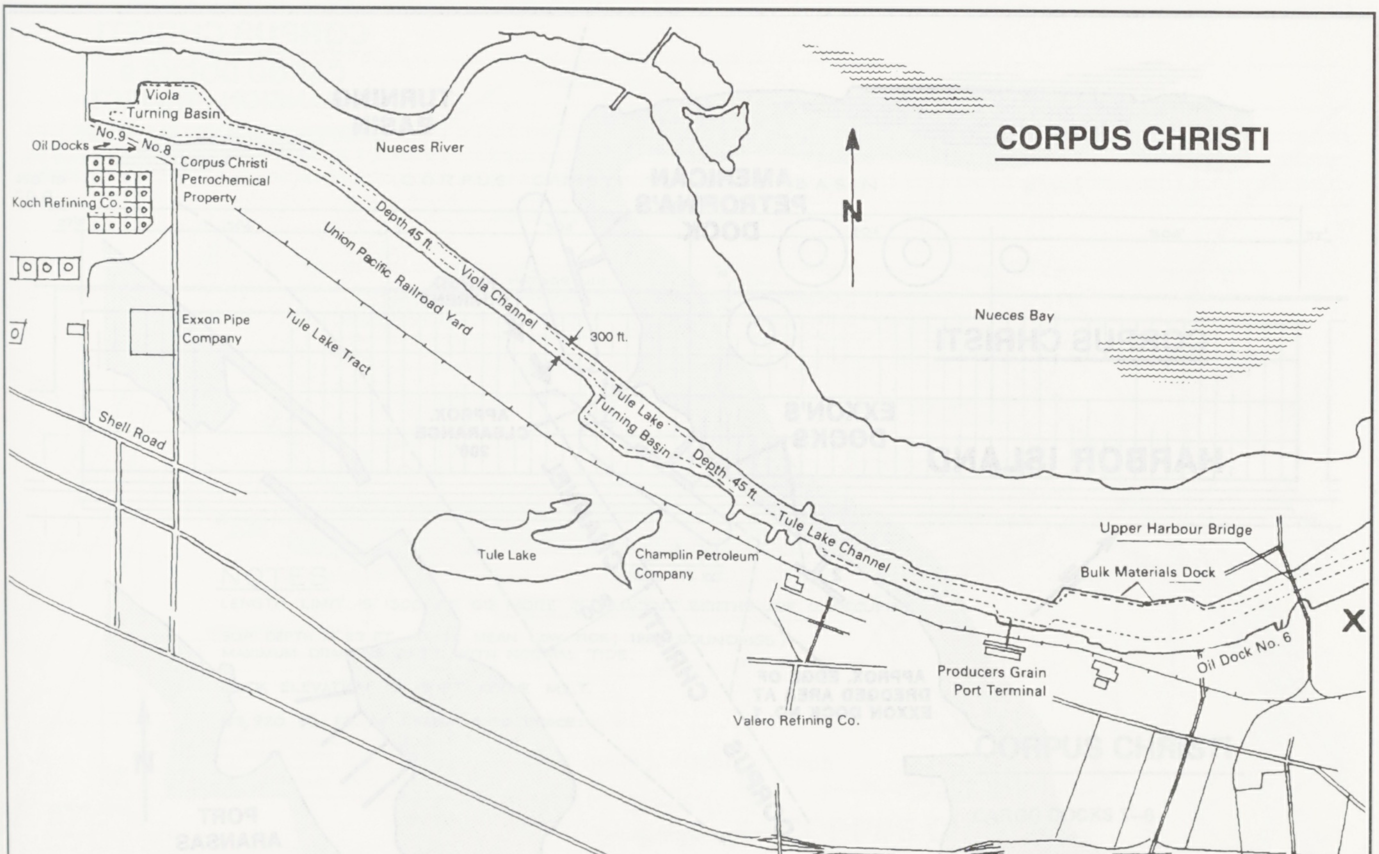

CLEVELAND
LAKE ERIE
UPSTREAM LIMIT OF 21 FOOT PROJECT
UPSTREAM LIMIT OF 27 FOOT PROJECT
UPSTREAM LIMIT OF 23 FOOT PROJECT
West Pier
East Pier
Project Depth 27 ft.
OLD RIVER
Con Rail Bridge
B & O R.R. Bridge (Old River)
Willow Ave Bridge (Old River)
CUT No. 14
Main Ave High Level Bridge
B & O R.R. Bridge
Center St Bridge
Detroit - Superior High Level Bridge
CUT No. 4
Norfolk & Western Bridge (Middle)
Center Rd Bridge
Norfolk Western Bridge (Lower)
Union Terminal RR High Level Bridge
Columbus Rd Bridge
CUYAHOGA
RIVER
Eagle Ave Bridge
Lorain Carnegie High Level Bridge
Norfolk & Western Bridge (Upper)
Norfolk & Western RR Bridge
Central Viaduct
W 3rd St Bridge
Ore Dock
CUT No. 11
Con Rail Bridge
Jefferson Ave Bridge
CUT No. 10
Newburg & South Shore RR Bridge
B & O RR Bridge
Turning Basin
Ore Dock
Stone Dock
River Terminal RR Bridge
Clarke Ave High Level Bridge
Norfolk & Western Bridge No. 2
Ore Dock
Ore Dock
Newburg & South Shore RR Bridge
Norfolk & Western Bridge No. 3
Not dredged
N
5
6
7
8
9
11
13
18
19
22
23
26
27
28
29
30
31
32
37
39
43
44
48
49
50
51
58
59
61
62
64
65
68
69
70
71

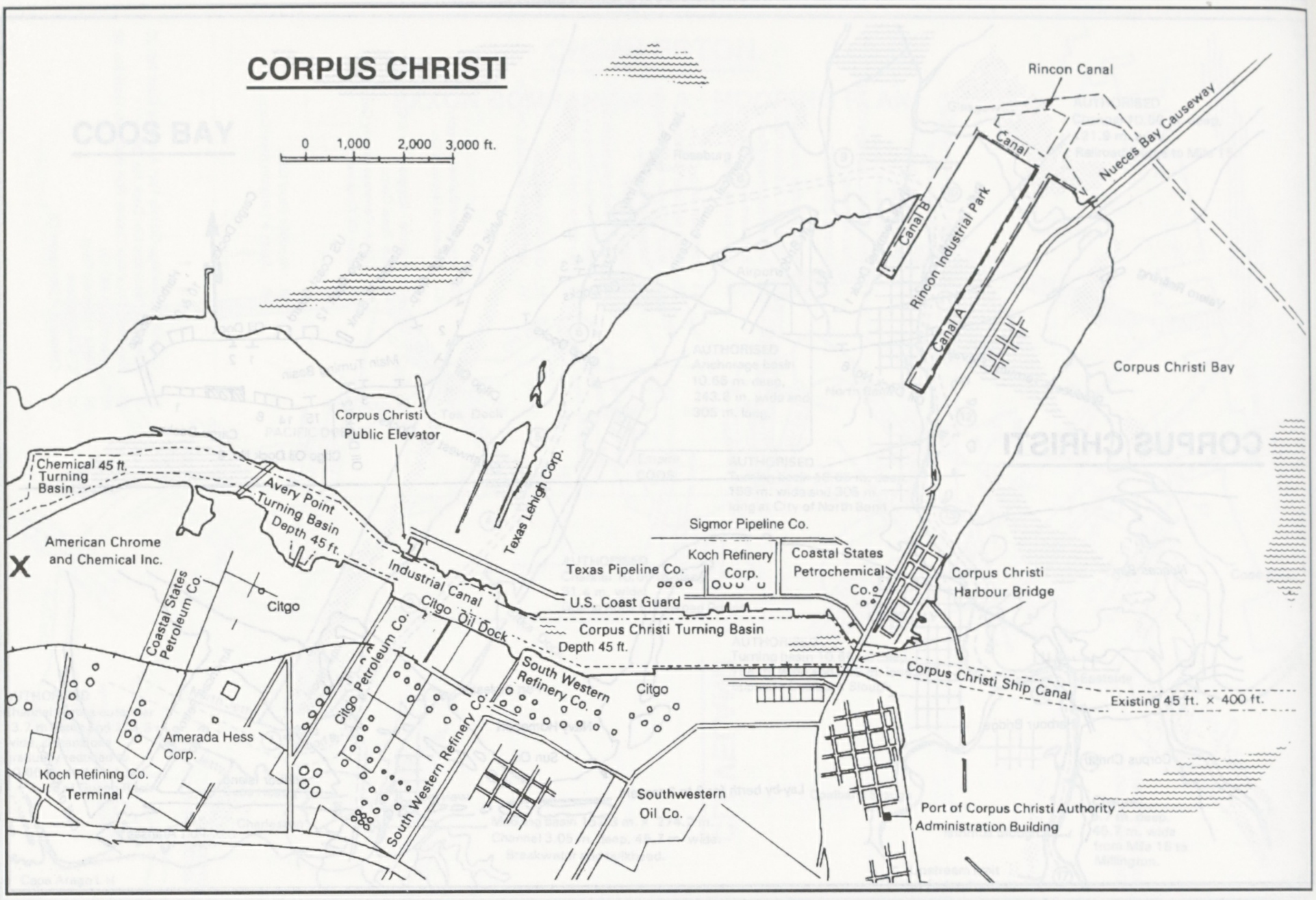
5.	Dunbar & Sullivan Dredging
6.	Ontario Stone No. 3
7.	Great Lakes Towing Co.
8.	Allied Oil Co.
9.	Sand Products Corp.
11.	Cleveland – Cuyahoga County Port Authority
13.	Ontario Stone No. 1
16.	Eugene Kulber Star Fish Co.
18.	Clarence E & Elenor Flood
19.	Beacon Hausheer Marine
22.	Baltimore & Ohio R.R.
23.	Great Lakes Towing Co.
25.	Interstate Mfg. Co.
26.	Frank Morrison & Son Co.
27.	West Superior River Front Co.
28.	Berkshire Farm Inc.
29.	State Fisheries
30.	Cereal Food Processors Inc.
31.	Mau – Sherwood Supply Co.
32.	Huron Portland Cement Co.
37.	G & W Welding Co.
39.	Mid Continent Coal & Coke Co.
43.	Cleveland Builders Supply
44.	Cleveland Gypsum Co.
48.	Byerlite – Koppers Tar & Chemical
49.	U.S. Steel Corp.
50.	Clifton Concrete Supply Co.
51.	Mobil Oil Corporation
58.	Republic Steel Corp.
59.	Jones & Laughlin Steel Corp.
61.	Cleveland Cuyahoga County Port Authority Dock No. 20
64.	Cleveland Stevedore Co. Dock No. 26
65.	Cleveland Cuyahoga County Port Authority Dock No. 28
68.	International Salt Co.
69.	Ceres Terminals Corp.
70.	C & P Ore Dock
71.	Cleveland – Stevedore Co.

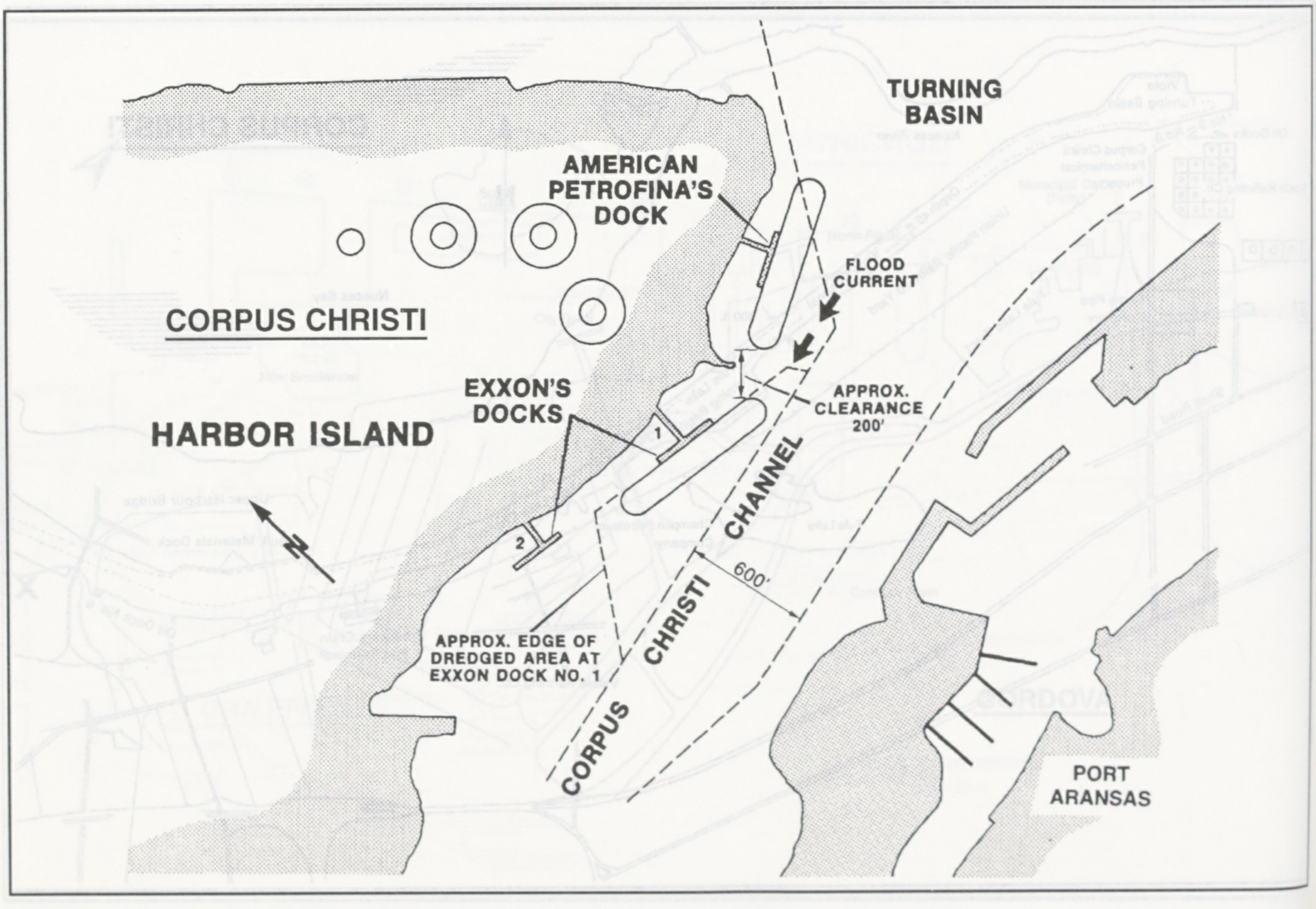

COOS BAY
N
PACIFIC OCEAN
Tee Dock
Roseburg
Airport
Glasgow
AUTHORISED
Channel 10.66 m. deep,
121.9 m. wide.
Railroad Bridge to Mile 15.
AUTHORISED
Anchorage basin
10.66 m. deep,
243.8 m. wide and
305 m. long.
North Bend
Empire
COOS
AUTHORISED
Turning basin 10.66 m. deep,
198 m. wide and 305 m.
long at City of North Bend
AUTHORISED
Channel 10.66 m. deep,
91.4 m. wide,
Guano Rock to Railroad Bridge
Sitka Dock
Coos River
COOS BAY
AUTHORISED
Turning basin 10.66 m. deep,
198 m. wide and 305 m. long
opposite Coalbank Slough
Eastside
North Spit
North Jetty
South Jetty
Ebb
Flood
AUTHORISED
Channel across outer bar
13.7 m. deep and 213.3 m.
wide, dimensions
gradually reduced to
10.66 m. and 91.4 m.
wide at Guano Rock
Coos Head
Charleston
Barview
Mooring basin 152.3 m. × 274.2 m.
Channel 3.05 m. deep, 45.7 m. wide.
Breakwater and bulkhead.
Coalbank Slough
Isthmus Slough
Channel
6.7 m. deep,
45.7 m. wide
from Mile 15 to
Millington.
Upstream limit
of Federal project.
Cape Arago L H
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰


N
Orca Inlet
Spike
Island
Municipal Dock
(Ferry)
North Fill Dock
City Dock
New Breakwater
Cordova Town
CORDOVA


Valero Refining
Bulk Terminal Dock 2
Bulk Terminal Dock 1
Lift Bridge
Chemical Turning Basin
Jan Bludworth Inc.
11
7
4
3
Oil Docks
Public Elevator
Texas Lehigh Corp.
Barges N. Bank
Cargo Dock 12
US Coast Guard
Cargo Docks
10 & 9
Harbour Bridge
Oil Dock
1
2
Producers Terminal Elevator
Oil Dock No. 6
Citgo Docks
1
2
Citgo Oil
Main Turning Basin
2
3
15
14
8
1
Cargo Docks
Southwest Oil Docks
Oil Dock 12
Citgo Oil Dock No. 8
CORPUS CHRISTI
Nueces Bay
Harbour Bridge
Corpus Christi
Port Ingleside
Navy Homeport
Sun Oil
Lay-by berth for 2 to 3 tankers
American Petrofina
Exxon
Harbor Island
Port Aransas
Gulf of Mexico

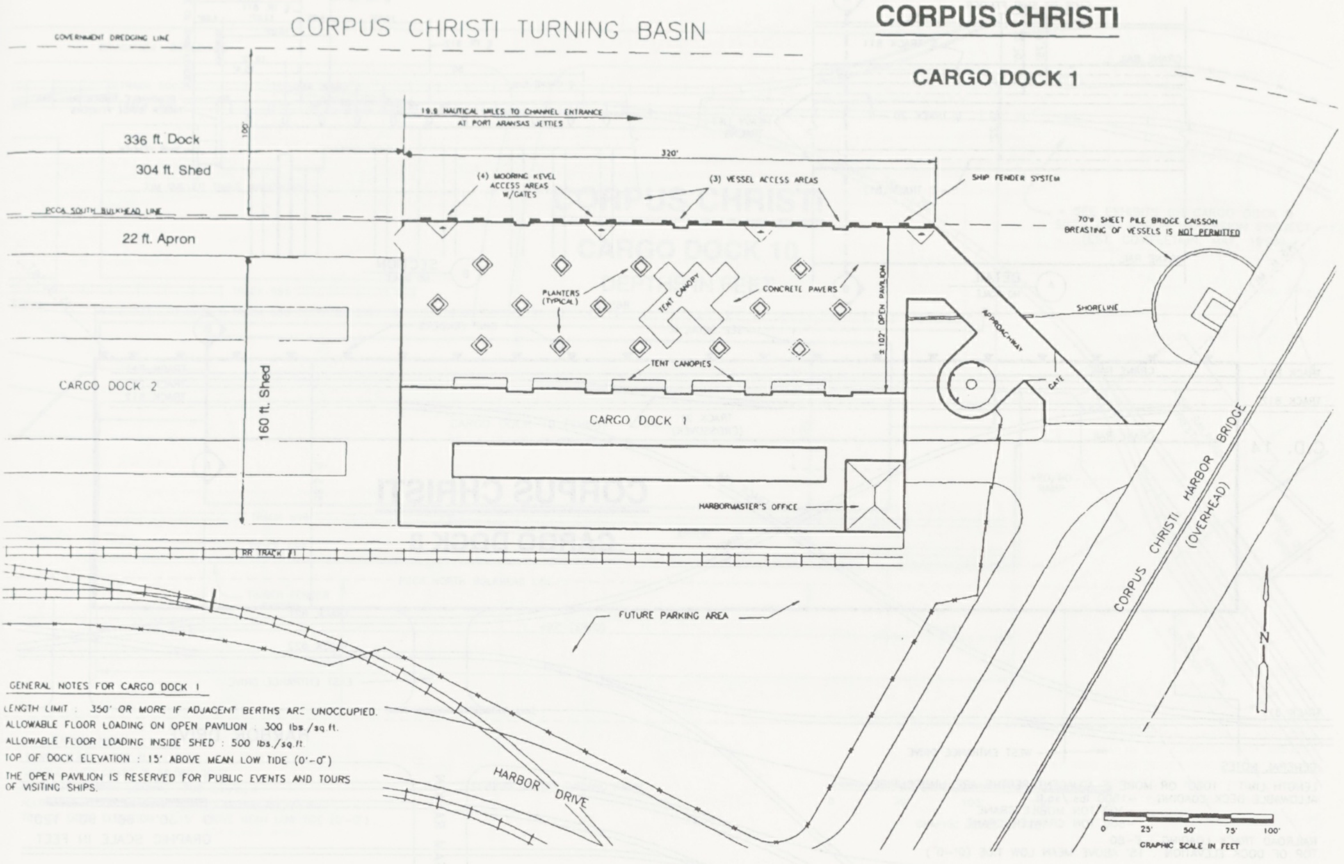

Viola
Turning Basin
No.9
No.8
Oil Docks
Corpus Christi Petrochemical Property
Koch Refining Co.
Nueces River
Depth 45 ft.
Viola Channel
Union Pacific Railroad Yard
Tule Lake Tract
Exxon Pipe Company
300 ft.
Shell Road
Tule Lake Turning Basin
Depth 45 ft.
Tule Lake Channel
Tule Lake
Champlin Petroleum Company
N
CORPUS CHRISTI
Nueces Bay
Upper Harbour Bridge
Bulk Materials Dock
X
Oil Dock No. 6
Producers Grain Port Terminal
Valero Refining Co.


CORPUS CHRISTI
0 1,000 2,000 3,000 ft.
Rincon Canal
Canal
Nueces Bay Causeway
Canal B
Rincon Industrial Park
Canal A
Corpus Christi Bay
Corpus Christi Public Elevator
Texas Lehigh Corp.
Chemical 45 ft. Turning Basin
Avery Point Turning Basin Depth 45 ft.
American Chrome and Chemical Inc.
X
Coastal States Petroleum Co.
Citgo
Industrial Canal
Citgo Oil Dock
Sigmor Pipeline Co.
Koch Refinery Corp.
Coastal States Petrochemical Co.
Texas Pipeline Co.
U.S. Coast Guard
Corpus Christi Turning Basin
Depth 45 ft.
Corpus Christi Harbour Bridge
Corpus Christi Ship Canal
Existing 45 ft. × 400 ft.
Citgo Petroleum Co.
South Western Refinery Co.
Citgo
Amerada Hess Corp.
Koch Refining Co. Terminal
South Western Refinery Co.
Southwestern Oil Co.
Port of Corpus Christi Authority Administration Building


TURNING BASIN
AMERICAN PETROFINA'S DOCK
FLOOD CURRENT
CORPUS CHRISTI
EXXON'S DOCKS
APPROX. CLEARANCE 200'
HARBOR ISLAND
1
2
CORPUS CHRISTI CHANNEL
600'
APPROX. EDGE OF DREDGED AREA AT EXXON DOCK NO. 1
PORT ARANSAS

CORPUS CHRISTI

CARGO DOCK 1


CORPUS CHRISTI TURNING BASIN
GOVERNMENT DREDGING LINE
19.9 NAUTICAL MILES TO CHANNEL ENTRANCE AT PORT ARANSAS JETTIES
336 ft. Dock
304 ft. Shed
100'
320'
(4) MOORING KEVEL ACCESS AREAS W/GATES
(3) VESSEL ACCESS AREAS
SHIP FENDER SYSTEM
PCCA SOUTH BULKHEAD LINE
22 ft. Apron
70'Ø SHEET PILE BRIDGE CAISSON BREASTING OF VESSELS IS NOT PERMITTED
PLANTERS (TYPICAL)
TENT CANOPY
CONCRETE PAVERS
± 102' OPEN PAVILION
SHORELINE
APPROACHWAY
GATE
TENT CANOPIES
CARGO DOCK 2
160 ft. Shed
CARGO DOCK 1
HARBORMASTER'S OFFICE
CORPUS CHRISTI HARBOR BRIDGE (OVERHEAD)
RR TRACK #1
FUTURE PARKING AREA
N
HARBOR DRIVE
0 25' 50' 75' 100'
GRAPHIC SCALE IN FEET

GENERAL NOTES FOR CARGO DOCK 1

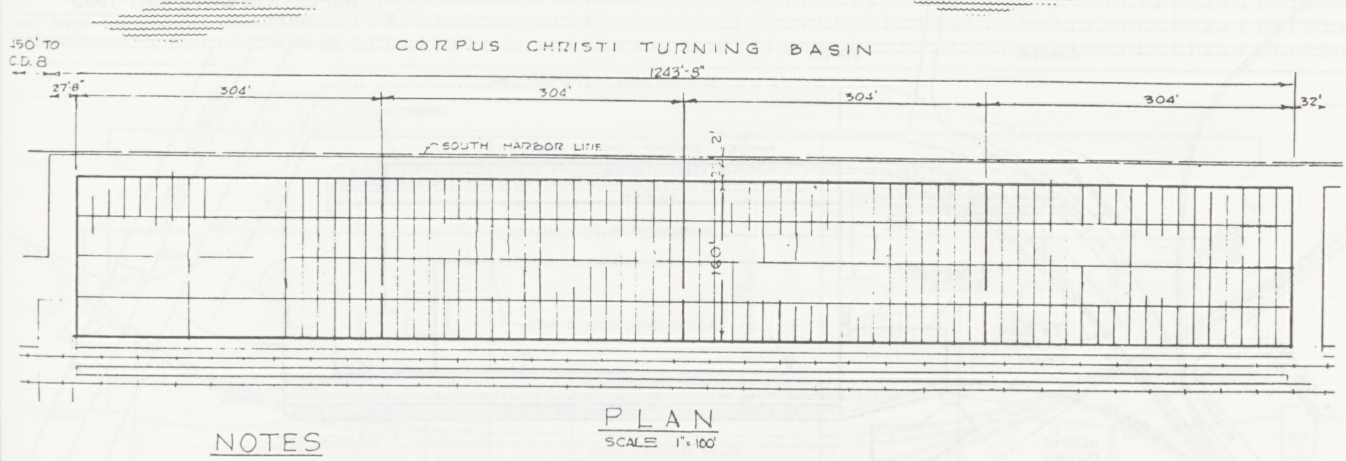
LENGTH LIMIT : 350' OR MORE IF ADJACENT BERTHS ARE UNOCCUPIED.

ALLOWABLE FLOOR LOADING ON OPEN PAVILION : 300 lbs./sq.ft.

ALLOWABLE FLOOR LOADING INSIDE SHED : 500 lbs./sq.ft.

TOP OF DOCK ELEVATION : 15' ABOVE MEAN LOW TIDE (0'–0")

THE OPEN PAVILION IS RESERVED FOR PUBLIC EVENTS AND TOURS OF VISITING SHIPS.


450' TO C.D. 8
CORPUS CHRISTI TURNING BASIN
1243'-8"
27'8"
304'
304'
304'
304'
32'
SOUTH HARBOR LINE
22'-2"
160'
PLAN
SCALE 1"=100'

NOTES

LENGTH LIMIT IS 1300 FT. OR MORE IF ADJACENT BERTHS ARE UNOCCUPIED.

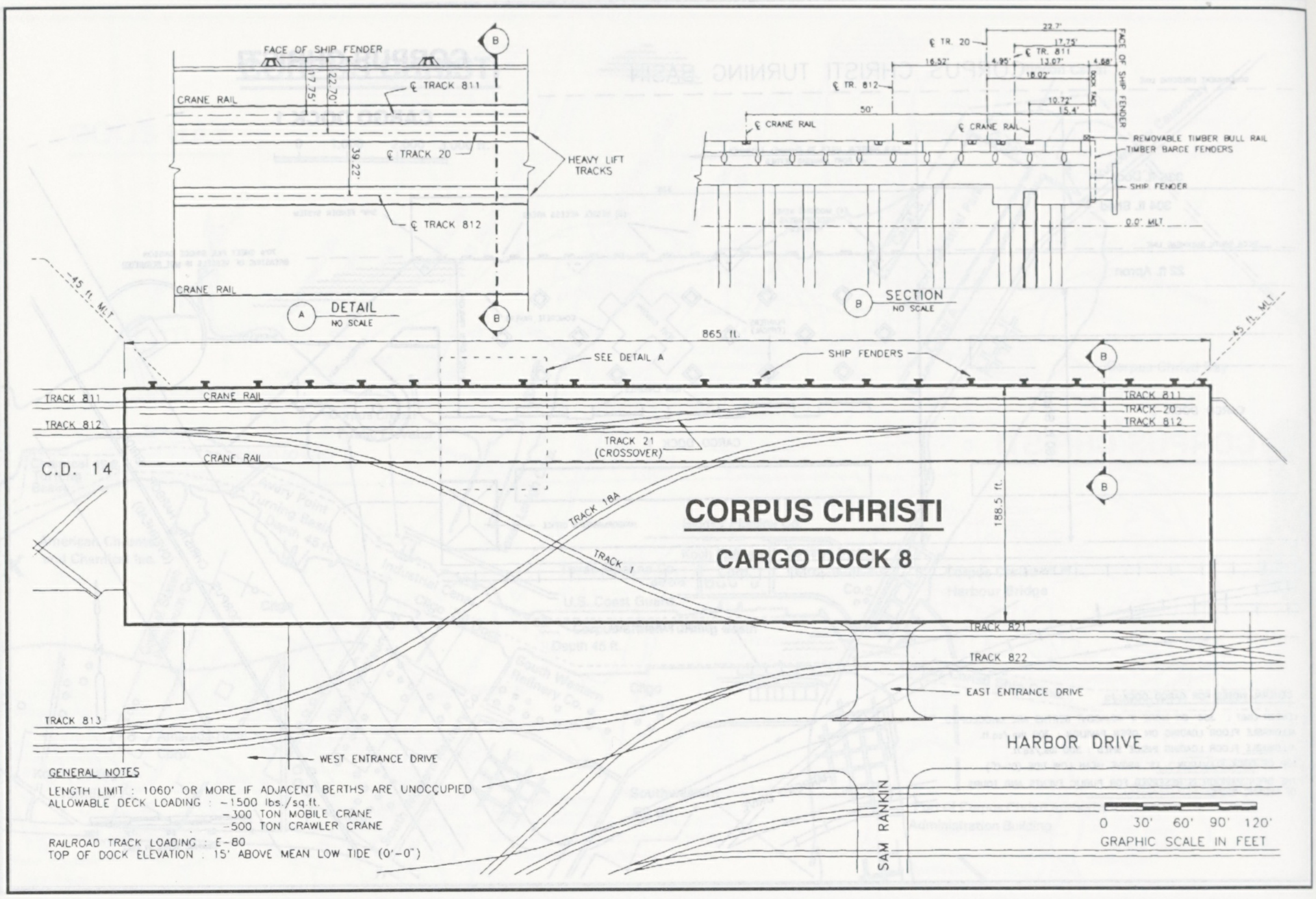
SLIP DEPTH IS 27 FT. (REF.: MEAN LOW TIDE; 1985 SOUNDINGS)
MAXIMUM DRAFT IS 29 FT. WITH NORMAL TIDE.

DOCK ELEVATION IS 15 FT. ABOVE M.L.T.

193,920 SQ. FT. OF USABLE SHED SPACE.

CORPUS CHRISTI

CARGO DOCKS 3–6



CORPUS CHRISTI

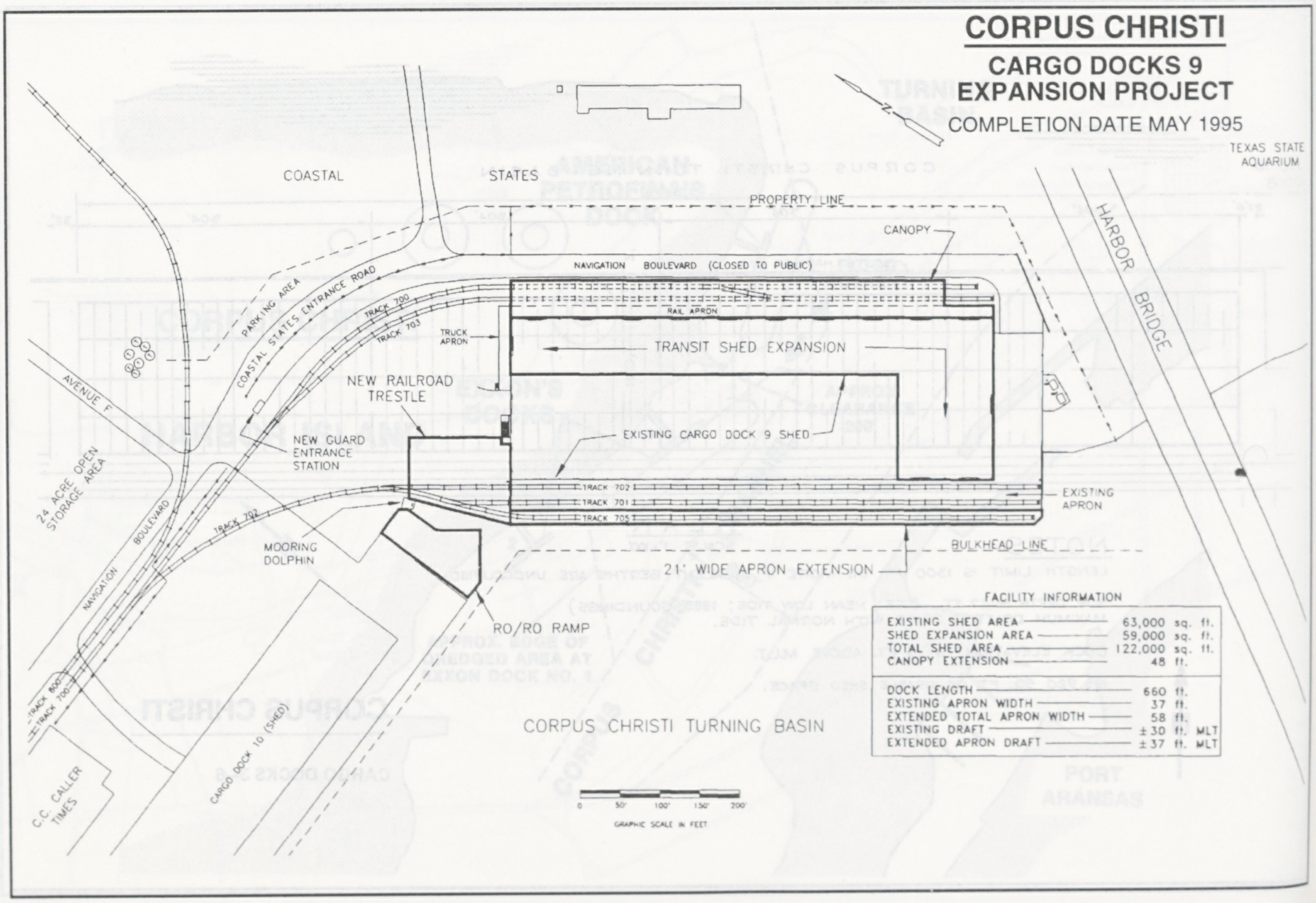
CARGO DOCK 8

FACE OF SHIP FENDER
17.75'
22.70'
39.22'
CRANE RAIL
℄ TRACK 811
℄ TRACK 20
℄ TRACK 812
HEAVY LIFT TRACKS
CRANE RAIL
A DETAIL NO SCALE
B
℄ TR. 20
℄ TR. 811
℄ TR. 812
22.7'
17.75'
16.52'
4.95'
13.07'
4.88'
18.02'
10.72'
15.4'
50'
DOCK FACE
FACE OF SHIP FENDER
℄ CRANE RAIL
℄ CRANE RAIL
REMOVABLE TIMBER BULL RAIL
TIMBER BARGE FENDERS
SHIP FENDER
0.0' MLT
B SECTION NO SCALE
45 ft. MLT
865 ft.
SEE DETAIL A
SHIP FENDERS
45 ft. MLT
TRACK 811
TRACK 812
CRANE RAIL
CRANE RAIL
TRACK 21 (CROSSOVER)
TRACK 811
TRACK 20
TRACK 812
C.D. 14
TRACK 18A
TRACK 1
188.5 ft.
TRACK 821
TRACK 822
EAST ENTRANCE DRIVE
HARBOR DRIVE
TRACK 813
WEST ENTRANCE DRIVE
SAM RANKIN
0 30' 60' 90' 120'
GRAPHIC SCALE IN FEET

GENERAL NOTES

LENGTH LIMIT : 1060' OR MORE IF ADJACENT BERTHS ARE UNOCCUPIED
ALLOWABLE DECK LOADING : -1500 lbs./sq.ft.
-300 TON MOBILE CRANE
-500 TON CRAWLER CRANE

RAILROAD TRACK LOADING : E-80
TOP OF DOCK ELEVATION : 15' ABOVE MEAN LOW TIDE (0'-0")



CORPUS CHRISTI

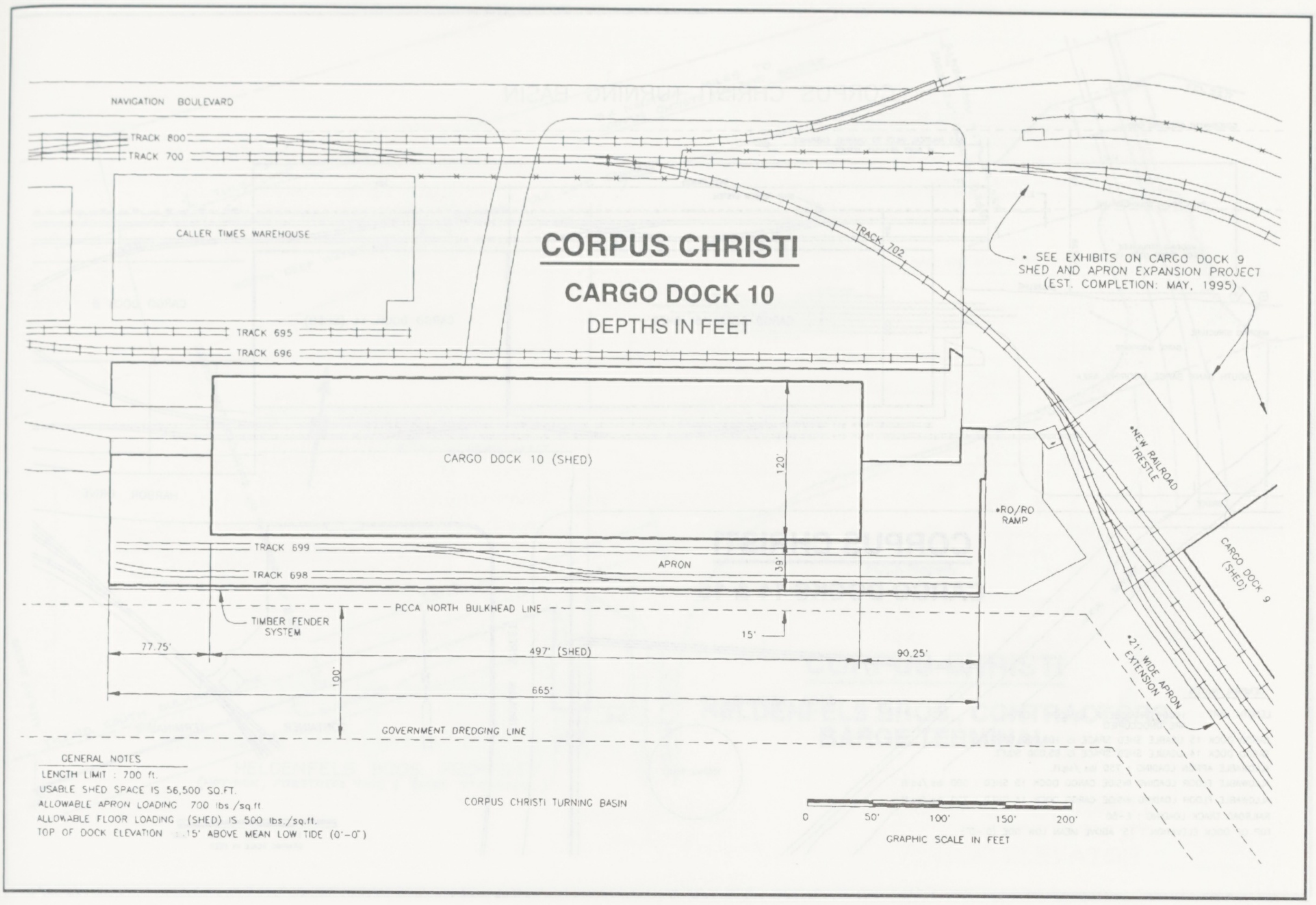
CARGO DOCKS 9 EXPANSION PROJECT

COMPLETION DATE MAY 1995

N
TEXAS STATE AQUARIUM
COASTAL
STATES
PROPERTY LINE
CANOPY
HARBOR BRIDGE
NAVIGATION BOULEVARD (CLOSED TO PUBLIC)
RAIL APRON
TRUCK APRON
TRACK 700
TRACK 703
PARKING AREA
COASTAL STATES ENTRANCE ROAD
TRANSIT SHED EXPANSION
NEW RAILROAD TRESTLE
EXISTING CARGO DOCK 9 SHED
AVENUE F
NEW GUARD ENTRANCE STATION
24 ACRE OPEN STORAGE AREA
TRACK 702
TRACK 701
TRACK 705
EXISTING APRON
BULKHEAD LINE
TRACK 702
MOORING DOLPHIN
21' WIDE APRON EXTENSION
NAVIGATION BOULEVARD
RO/RO RAMP
TRACK 800
TRACK 700
CARGO DOCK 10 (SHED)
C.C. CALLER TIMES
CORPUS CHRISTI TURNING BASIN
0 50' 100' 150' 200'
GRAPHIC SCALE IN FEET

FACILITY INFORMATION

EXISTING SHED AREA	63,000 sq. ft.
SHED EXPANSION AREA	59,000 sq. ft.
TOTAL SHED AREA	122,000 sq. ft.
CANOPY EXTENSION	48 ft.
DOCK LENGTH	660 ft.
EXISTING APRON WIDTH	37 ft.
EXTENDED TOTAL APRON WIDTH	58 ft.
EXISTING DRAFT	±30 ft. MLT
EXTENDED APRON DRAFT	±37 ft. MLT



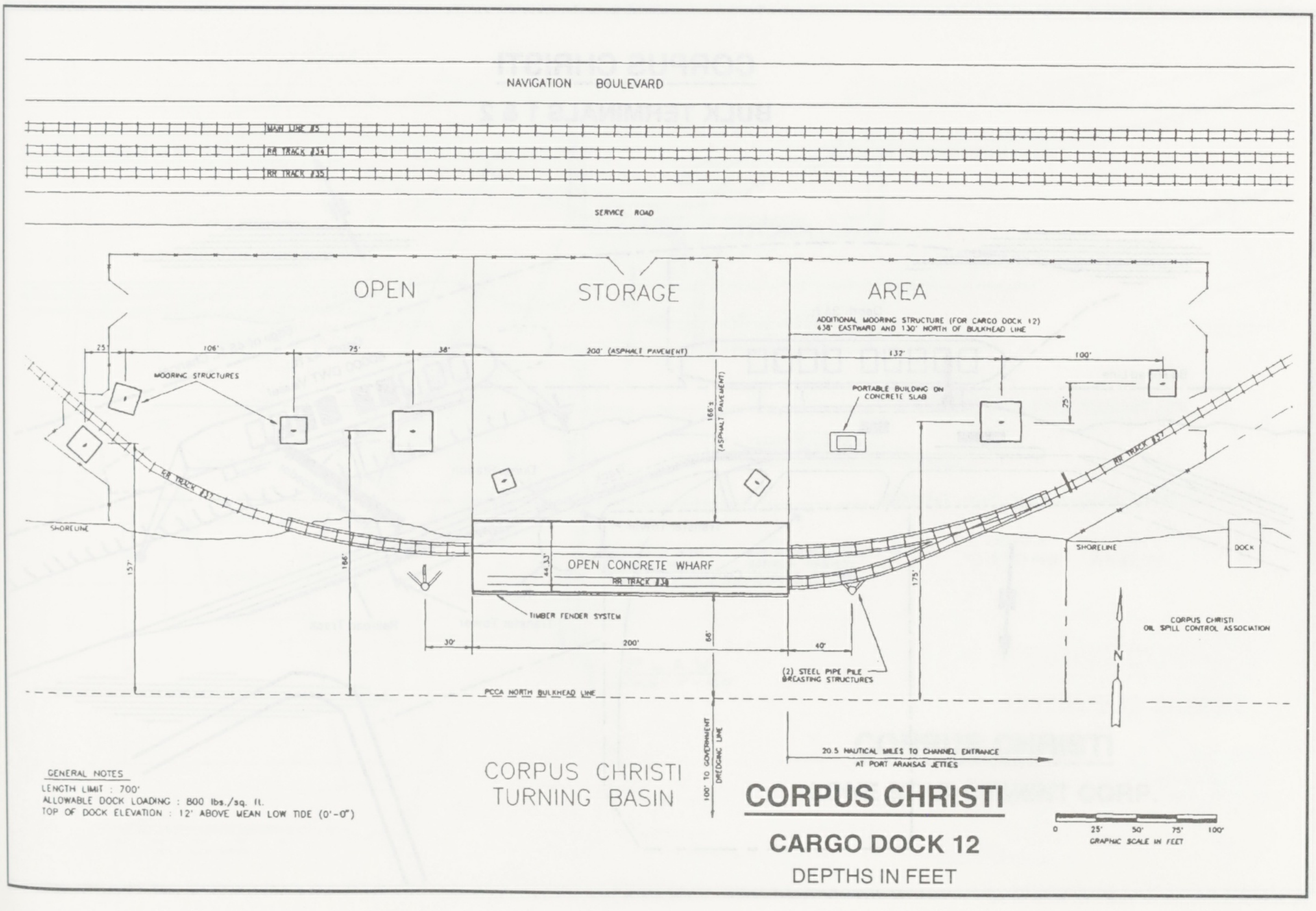
CORPUS CHRISTI

CARGO DOCK 10

DEPTHS IN FEET

GENERAL NOTES
LENGTH LIMIT : 700 ft.
USABLE SHED SPACE IS 56,500 SQ.FT.
ALLOWABLE APRON LOADING 700 lbs./sq.ft.
ALLOWABLE FLOOR LOADING (SHED) IS 500 lbs./sq.ft.
TOP OF DOCK ELEVATION 15' ABOVE MEAN LOW TIDE (0'-0")

NAVIGATION BOULEVARD
TRACK 800
TRACK 700
CALLER TIMES WAREHOUSE
TRACK 702
• SEE EXHIBITS ON CARGO DOCK 9 SHED AND APRON EXPANSION PROJECT (EST. COMPLETION: MAY, 1995)
TRACK 695
TRACK 696
CARGO DOCK 10 (SHED)
120'
•NEW RAILROAD TRESTLE
•RO/RO RAMP
CARGO DOCK 9 (SHED)
TRACK 699
TRACK 698
APRON
39'
TIMBER FENDER SYSTEM
PCCA NORTH BULKHEAD LINE
15'
•21' WIDE APRON EXTENSION
77.75'
497' (SHED)
90.25'
100'
665'
GOVERNMENT DREDGING LINE
CORPUS CHRISTI TURNING BASIN
0
50'
100'
150'
200'
GRAPHIC SCALE IN FEET



GENERAL NOTES
LENGTH LIMIT : 700'
ALLOWABLE DOCK LOADING : 800 lbs./sq. ft.
TOP OF DOCK ELEVATION : 12' ABOVE MEAN LOW TIDE (0'-0")

CORPUS CHRISTI

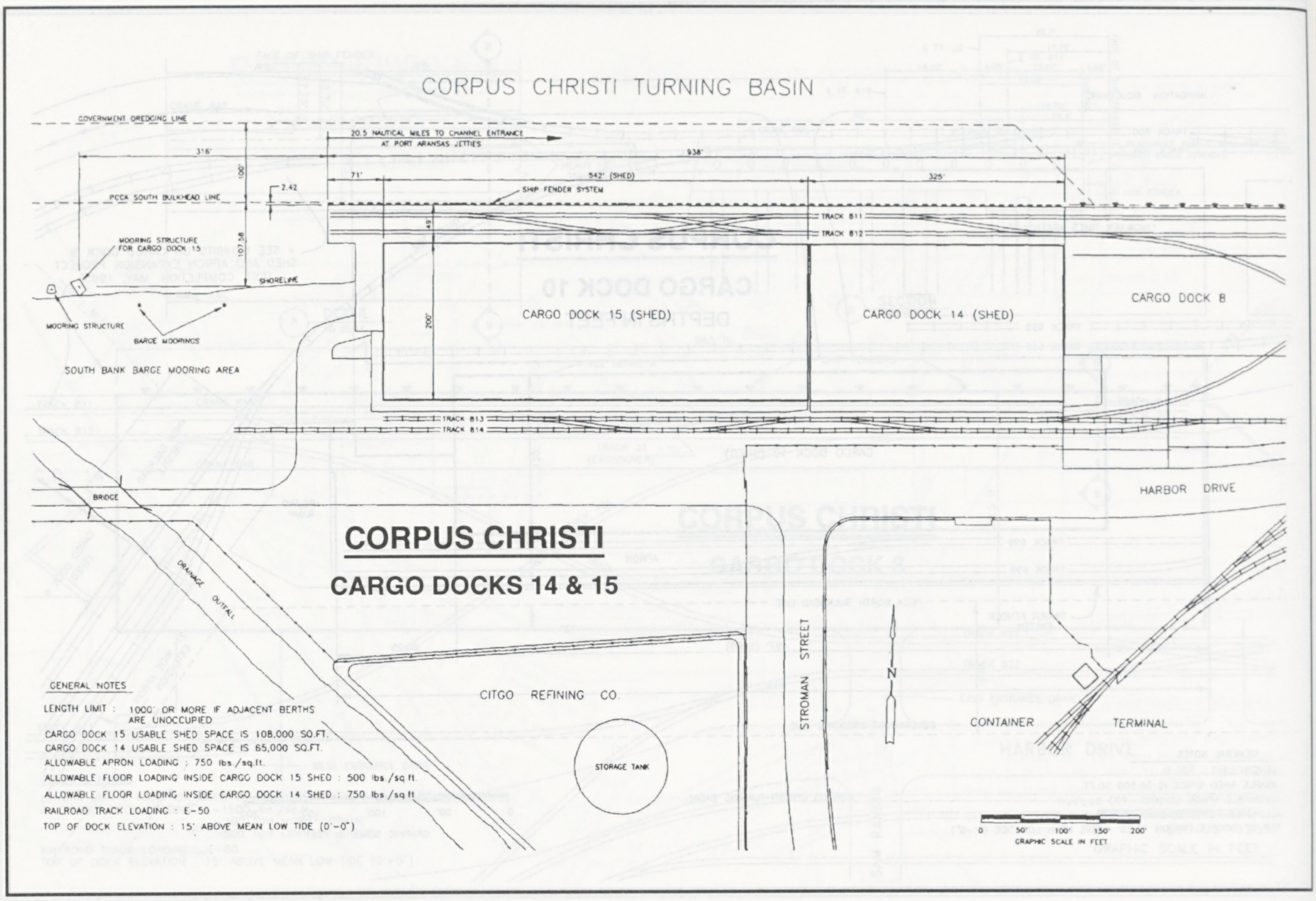
CARGO DOCK 12

DEPTHS IN FEET

NAVIGATION BOULEVARD
MAIN LINE #5
RR TRACK #34
RR TRACK #35
SERVICE ROAD
OPEN
STORAGE
AREA
ADDITIONAL MOORING STRUCTURE (FOR CARGO DOCK 12) 438' EASTWARD AND 130' NORTH OF BULKHEAD LINE
25'
106'
75'
38'
200' (ASPHALT PAVEMENT)
132'
100'
MOORING STRUCTURES
PORTABLE BUILDING ON CONCRETE SLAB
166'±
(ASPHALT PAVEMENT)
25'
RR TRACK #37
SHORELINE
157'
186'
44.33'
OPEN CONCRETE WHARF
RR TRACK #38
175'
SHORELINE
DOCK
TIMBER FENDER SYSTEM
CORPUS CHRISTI OIL SPILL CONTROL ASSOCIATION
30'
200'
68'
40'
N
(2) STEEL PIPE PILE BREASTING STRUCTURES
PCCA NORTH BULKHEAD LINE
100' TO GOVERNMENT DREDGING LINE
20.5 NAUTICAL MILES TO CHANNEL ENTRANCE AT PORT ARANSAS JETTIES
CORPUS CHRISTI TURNING BASIN
0
25'
50'
75'
100'
GRAPHIC SCALE IN FEET

CORPUS CHRISTI

CARGO DOCKS 14 & 15


CORPUS CHRISTI TURNING BASIN
GOVERNMENT DREDGING LINE
20.5 NAUTICAL MILES TO CHANNEL ENTRANCE AT PORT ARANSAS JETTIES
316'
938'
100'
2.42
71'
542' (SHED)
325'
SHIP FENDER SYSTEM
PCCA SOUTH BULKHEAD LINE
107.58
49'
TRACK 811
TRACK 812
MOORING STRUCTURE FOR CARGO DOCK 15
SHORELINE
MOORING STRUCTURE
BARGE MOORINGS
SOUTH BANK BARGE MOORING AREA
200'
CARGO DOCK 15 (SHED)
CARGO DOCK 14 (SHED)
CARGO DOCK 8
TRACK 813
TRACK 814
HARBOR DRIVE
BRIDGE
DRAINAGE
OUTFALL
CITGO REFINING CO.
STORAGE TANK
STROMAN STREET
N
CONTAINER
TERMINAL
0
50'
100'
150'
200'
GRAPHIC SCALE IN FEET

GENERAL NOTES

LENGTH LIMIT : 1000' OR MORE IF ADJACENT BERTHS ARE UNOCCUPIED

CARGO DOCK 15 USABLE SHED SPACE IS 108,000 SQ.FT.

CARGO DOCK 14 USABLE SHED SPACE IS 65,000 SQ.FT.

ALLOWABLE APRON LOADING : 750 lbs./sq.ft.

ALLOWABLE FLOOR LOADING INSIDE CARGO DOCK 15 SHED : 500 lbs./sq.ft.

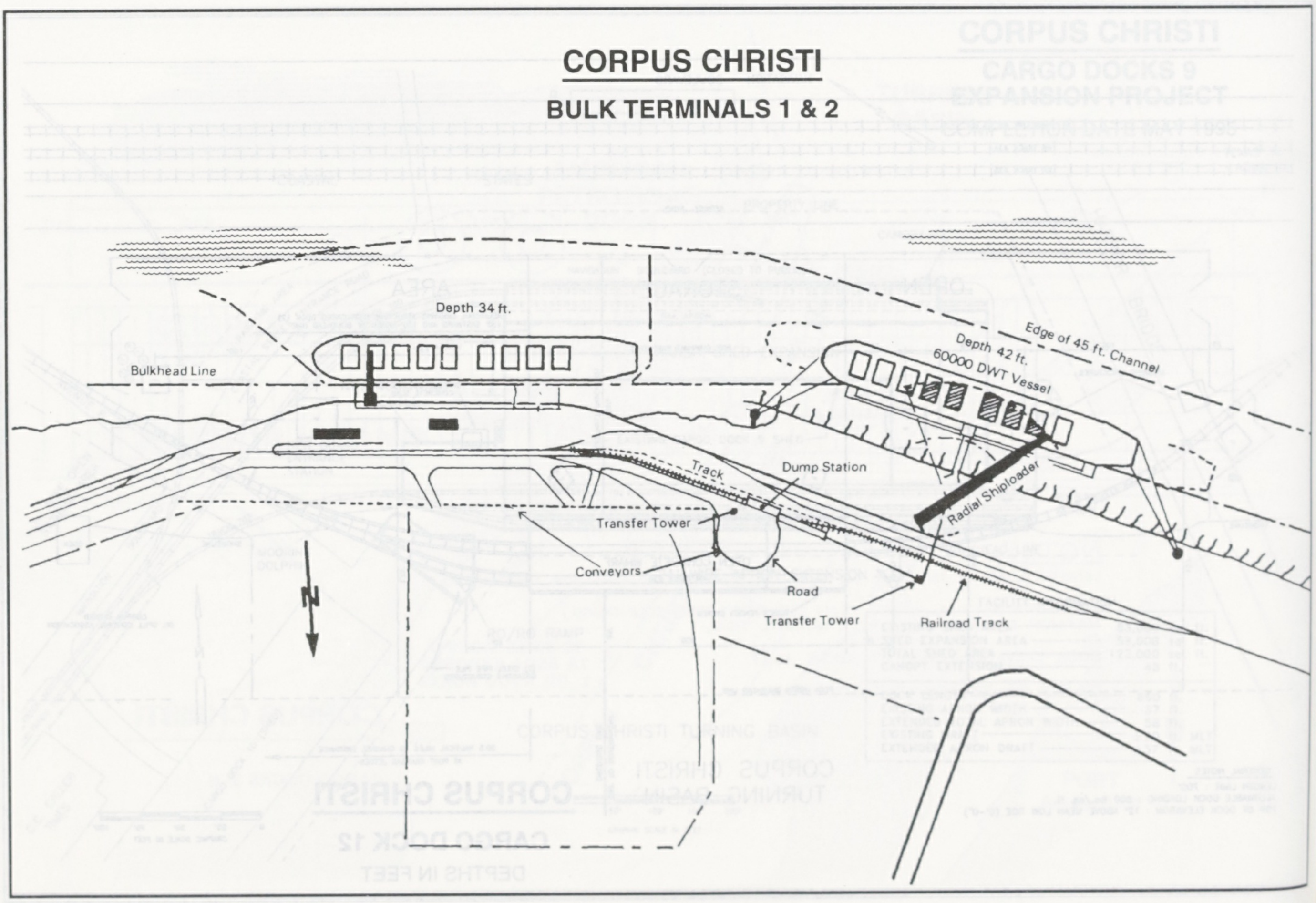
ALLOWABLE FLOOR LOADING INSIDE CARGO DOCK 14 SHED : 750 lbs./sq.ft.

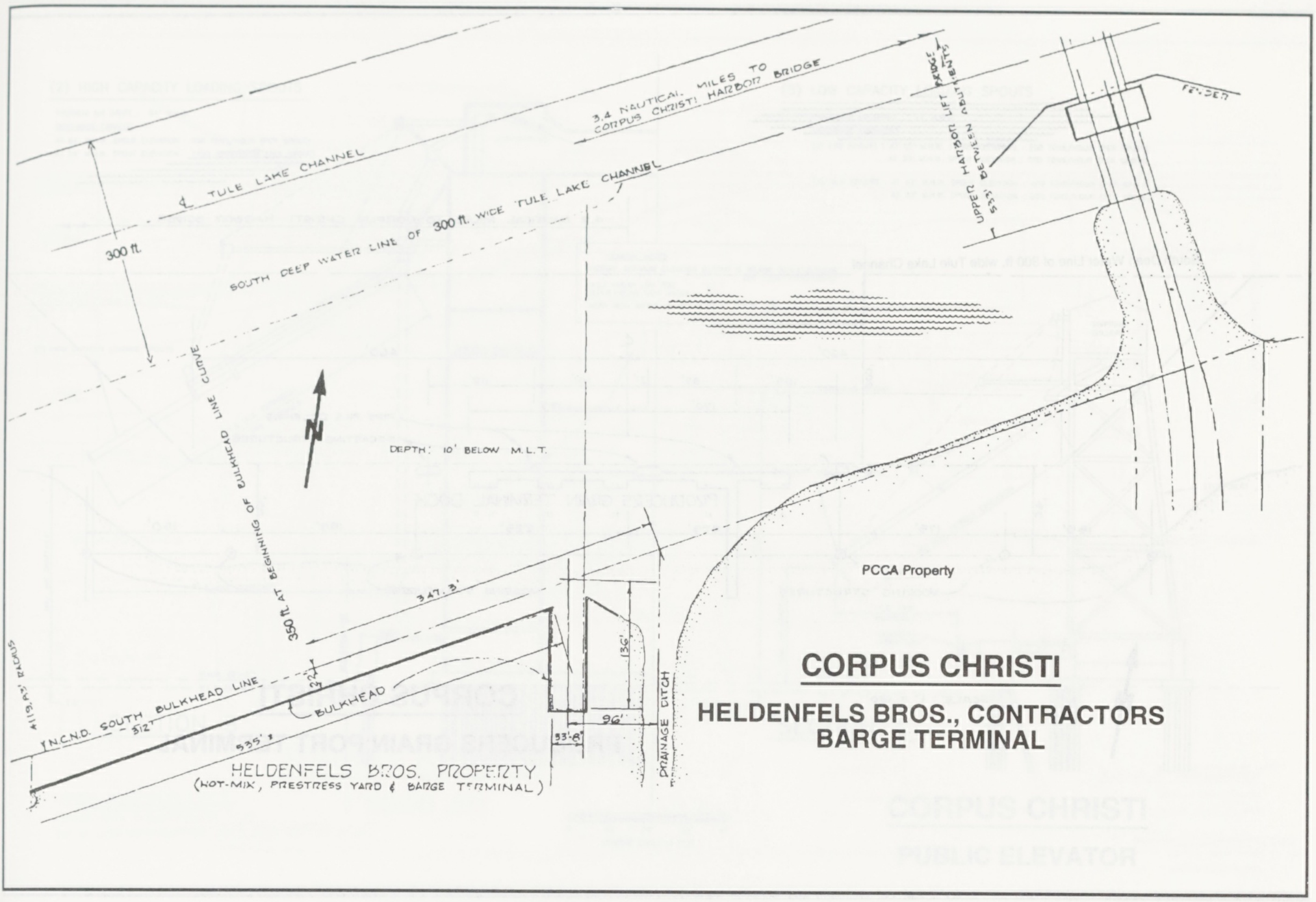
RAILROAD TRACK LOADING : E-50

TOP OF DOCK ELEVATION : 15' ABOVE MEAN LOW TIDE (0'-0")

CORPUS CHRISTI

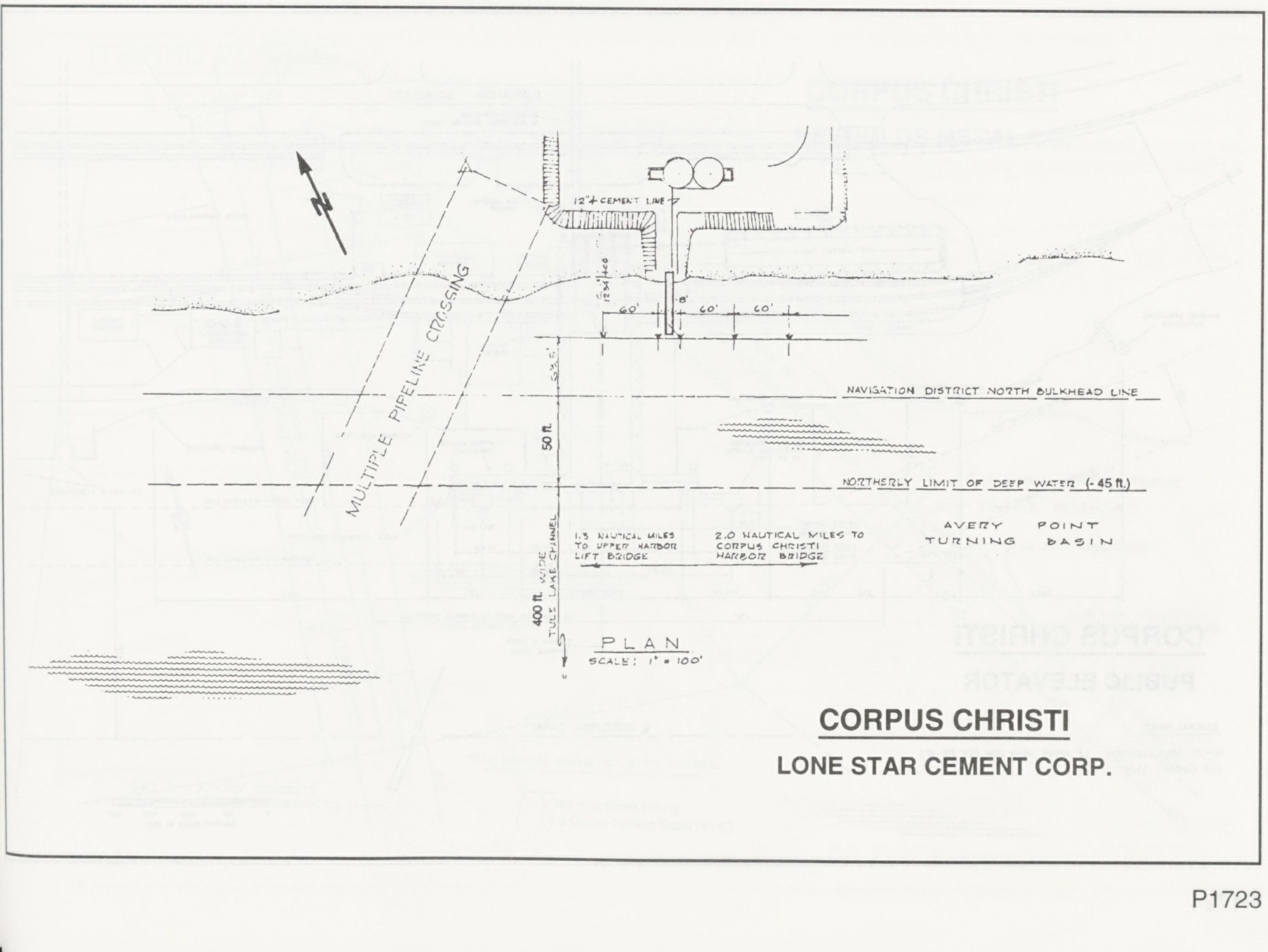
BULK TERMINALS 1 & 2


Depth 34 ft.
Bulkhead Line
Edge of 45 ft. Channel
Depth 42 ft.
60000 DWT Vessel
Track
Dump Station
Radial Shiploader
Transfer Tower
Conveyors
Road
Transfer Tower
Railroad Track
N


℄ TULE LAKE CHANNEL
3.4 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
UPPER HARBOR LIFT BRIDGE
553' BETWEEN ABUTMENTS
FENDER
300 ft.
SOUTH DEEP WATER LINE OF 300 ft. WIDE TULE LAKE CHANNEL
350 ft. AT BEGINNING OF BULKHEAD LINE CURVE
N
DEPTH: 10' BELOW M.L.T.
PCCA Property
347.3'
136'
96'
33'8"
DRAINAGE DITCH
32'
BULKHEAD
T.N.C.N.D. SOUTH BULKHEAD LINE
512'
535'
4113.83' RADIUS
HELDENFELS BROS. PROPERTY
(HOT-MIX, PRESTRESS YARD & BARGE TERMINAL)

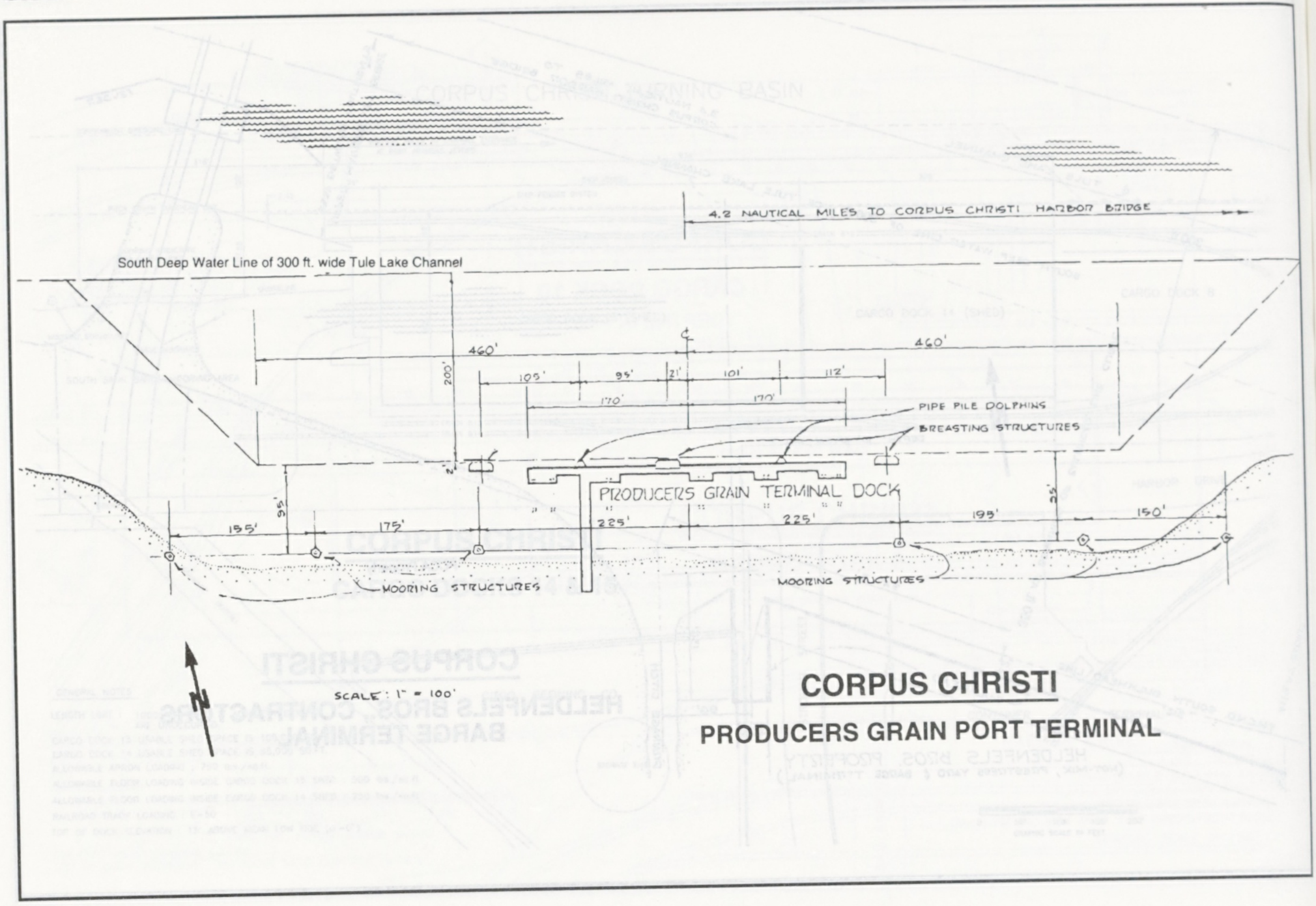
CORPUS CHRISTI

HELDENFELS BROS., CONTRACTORS BARGE TERMINAL


N
12" CEMENT LINE
123'±
60'
8'
60'
60'
MULTIPLE PIPELINE CROSSING
535'
NAVIGATION DISTRICT NORTH BULKHEAD LINE
50 ft.
NORTHERLY LIMIT OF DEEP WATER (-45 ft.)
AVERY POINT TURNING BASIN
1.3 NAUTICAL MILES TO UPPER HARBOR LIFT BRIDGE
2.0 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
400 ft. WIDE TULE LAKE CHANNEL
PLAN
SCALE: 1" = 100'

CORPUS CHRISTI

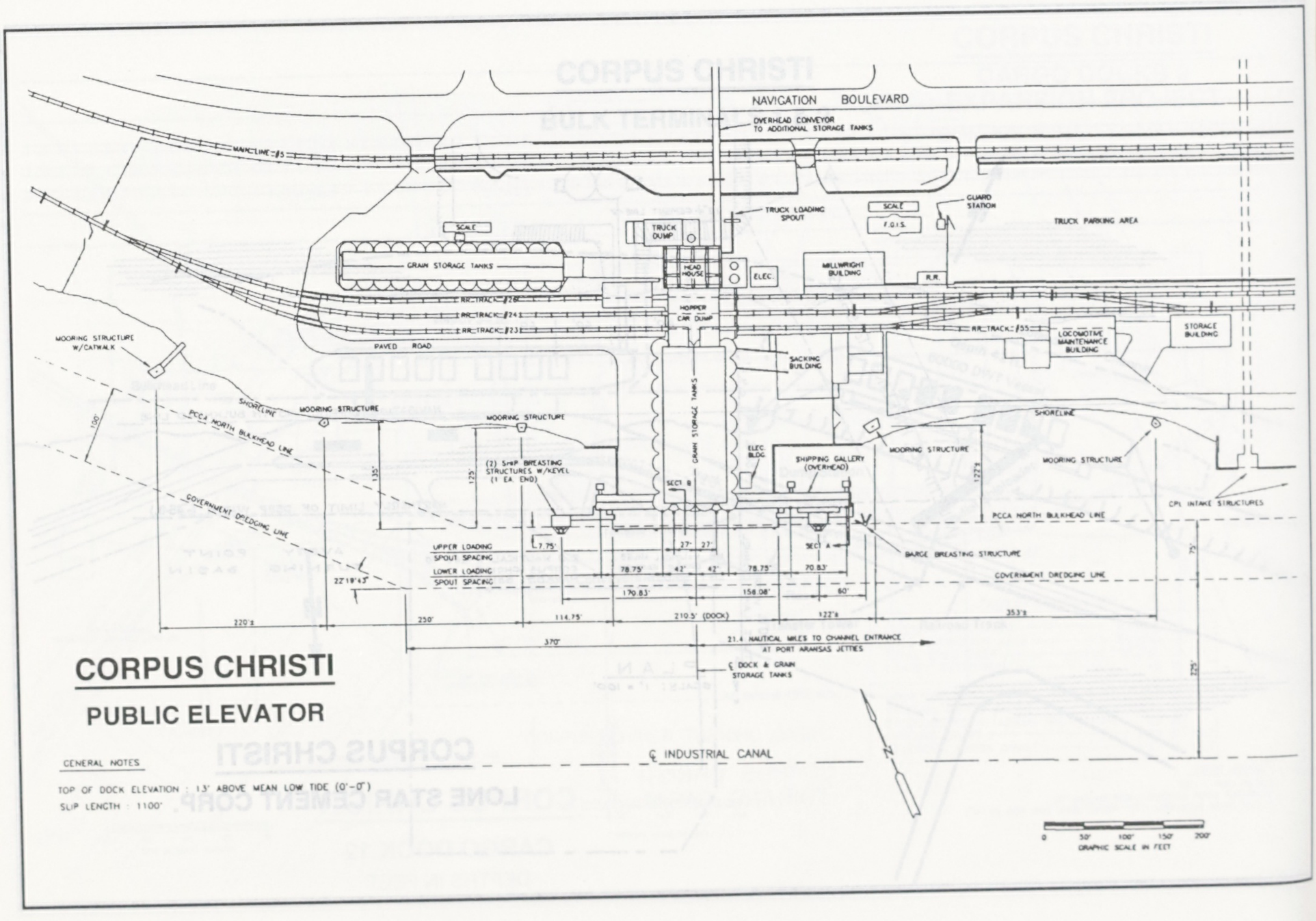
LONE STAR CEMENT CORP.



CORPUS CHRISTI

PRODUCERS GRAIN PORT TERMINAL

4.2 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
South Deep Water Line of 300 ft. wide Tule Lake Channel
460'
460'
200'
105'
95'
21'
101'
112'
170'
170'
PIPE PILE DOLPHINS
BREASTING STRUCTURES
PRODUCERS GRAIN TERMINAL DOCK
95'
155'
175'
225'
225'
195'
55'
150'
MOORING STRUCTURES
MOORING STRUCTURES
N
SCALE: 1" = 100'



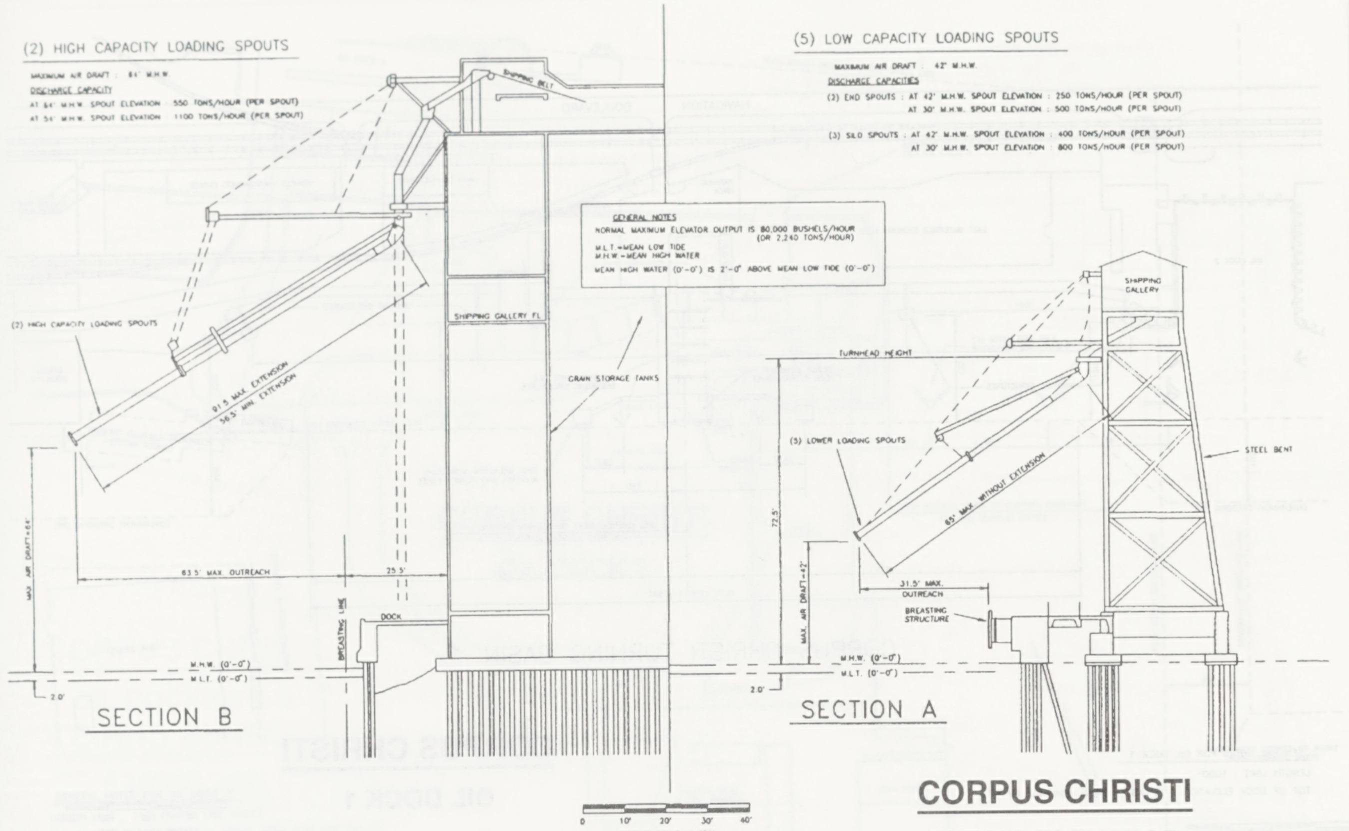
CORPUS CHRISTI

PUBLIC ELEVATOR

GENERAL NOTES

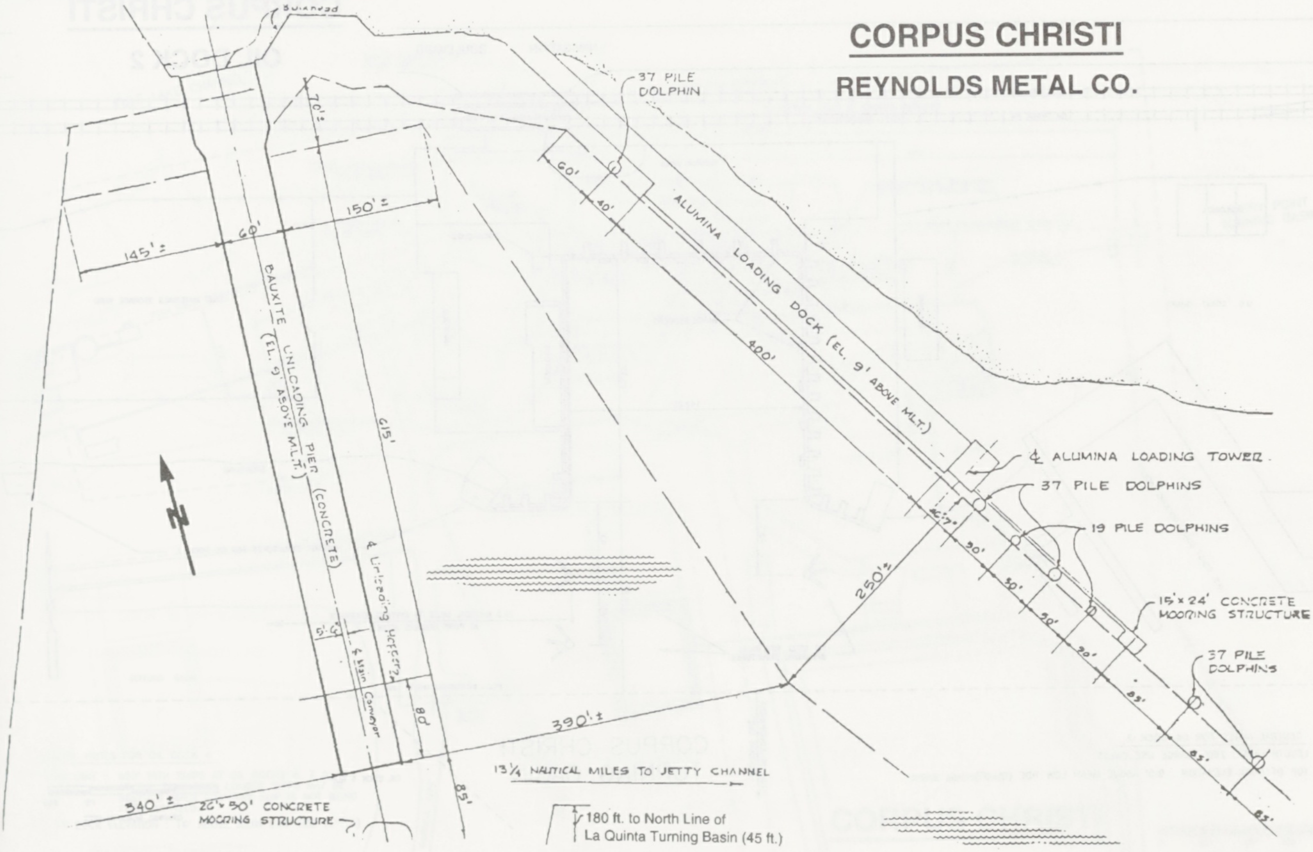
TOP OF DOCK ELEVATION : 13' ABOVE MEAN LOW TIDE (0'-0')
SLIP LENGTH : 1100'

NAVIGATION BOULEVARD
OVERHEAD CONVEYOR TO ADDITIONAL STORAGE TANKS
MAINLINE #5
TRUCK LOADING SPOUT
SCALE
F.G.I.S.
GUARD STATION
TRUCK PARKING AREA
SCALE
TRUCK DUMP
GRAIN STORAGE TANKS
HEAD HOUSE
ELEC.
MILLWRIGHT BUILDING
R.R.
RR TRACK #26
RR TRACK #24
RR TRACK #23
HOPPER CAR DUMP
RR TRACK #55
LOCOMOTIVE MAINTENANCE BUILDING
STORAGE BUILDING
PAVED ROAD
SACKING BUILDING
MOORING STRUCTURE W/CATWALK
SHORELINE
MOORING STRUCTURE
MOORING STRUCTURE
PCCA NORTH BULKHEAD LINE
GRAIN STORAGE TANKS
SHORELINE
(2) SHIP BREASTING STRUCTURES W/KEVEL (1 EA. END)
ELEC BLDG
SHIPPING GALLERY (OVERHEAD)
MOORING STRUCTURE
MOORING STRUCTURE
SECT. B
CPL INTAKE STRUCTURES
GOVERNMENT DREDGING LINE
PCCA NORTH BULKHEAD LINE
100'
135'
125'
122'±
UPPER LOADING SPOUT SPACING
LOWER LOADING SPOUT SPACING
7.75'
27'
27'
SECT. A
BARGE BREASTING STRUCTURE
78.75'
42'
42'
78.75'
70.83'
GOVERNMENT DREDGING LINE
75'
22°19'43"
170.83'
158.08'
60'
220'±
250'
114.75'
210.5' (DOCK)
122'±
353'±
370'
21.4 NAUTICAL MILES TO CHANNEL ENTRANCE AT PORT ARANSAS JETTIES
℄ DOCK & GRAIN STORAGE TANKS
225'
℄ INDUSTRIAL CANAL
N
0
50'
100'
150'
200'
GRAPHIC SCALE IN FEET


(2) HIGH CAPACITY LOADING SPOUTS
MAXIMUM AIR DRAFT : 64' M.H.W.
DISCHARGE CAPACITY
AT 64' M.H.W. SPOUT ELEVATION : 550 TONS/HOUR (PER SPOUT)
AT 54' M.H.W. SPOUT ELEVATION : 1100 TONS/HOUR (PER SPOUT)
SHIPPING BELT
(2) HIGH CAPACITY LOADING SPOUTS
91.5' MAX. EXTENSION
56.5' MIN. EXTENSION
SHIPPING GALLERY FL
GRAIN STORAGE TANKS
MAX. AIR DRAFT=64'
63.5' MAX. OUTREACH
25.5'
BREASTING LINE
DOCK
M.H.W. (0'-0")
M.L.T. (0'-0")
2.0'
SECTION B
GENERAL NOTES
NORMAL MAXIMUM ELEVATOR OUTPUT IS 80,000 BUSHELS/HOUR (OR 2,240 TONS/HOUR)
M.L.T.=MEAN LOW TIDE
M.H.W.=MEAN HIGH WATER
MEAN HIGH WATER (0'-0") IS 2'-0" ABOVE MEAN LOW TIDE (0'-0")
(5) LOW CAPACITY LOADING SPOUTS
MAXIMUM AIR DRAFT : 42' M.H.W.
DISCHARGE CAPACITIES
(2) END SPOUTS : AT 42' M.H.W. SPOUT ELEVATION : 250 TONS/HOUR (PER SPOUT)
AT 30' M.H.W. SPOUT ELEVATION : 500 TONS/HOUR (PER SPOUT)
(3) SILO SPOUTS : AT 42' M.H.W. SPOUT ELEVATION : 400 TONS/HOUR (PER SPOUT)
AT 30' M.H.W. SPOUT ELEVATION : 800 TONS/HOUR (PER SPOUT)
SHIPPING GALLERY
TURNHEAD HEIGHT
(5) LOWER LOADING SPOUTS
65' MAX. WITHOUT EXTENSION
STEEL BENT
72.5'
MAX. AIR DRAFT=42'
31.5' MAX. OUTREACH
BREASTING STRUCTURE
M.H.W. (0'-0")
M.L.T. (0'-0")
2.0'
SECTION A
0 10' 20' 30' 40'
GRAPHIC SCALE IN FEET

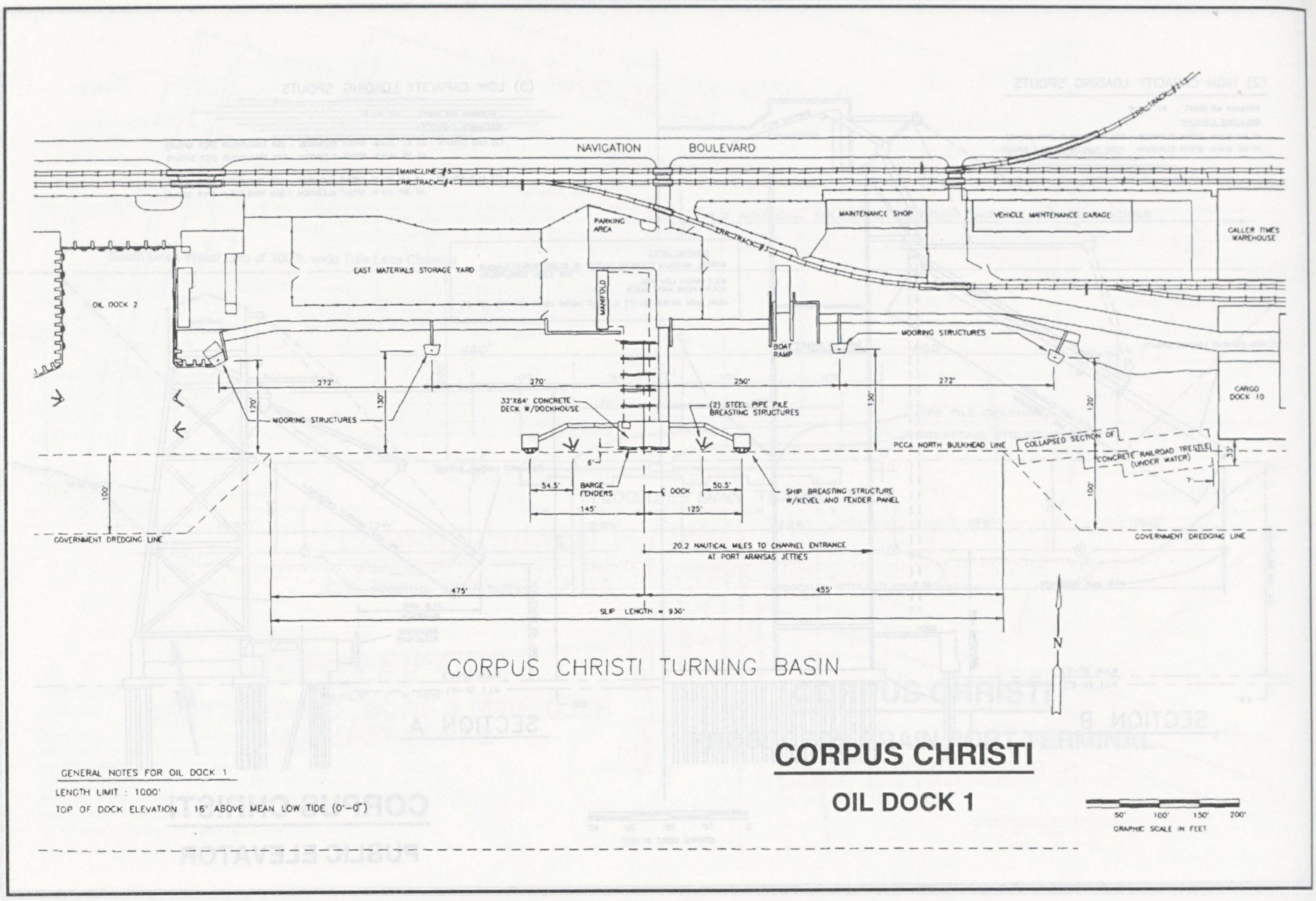
CORPUS CHRISTI

PUBLIC ELEVATOR


BULKHEAD
37 PILE DOLPHIN
70'±
60'
40'
150'±
145'±
60'
BAUXITE UNLOADING PIER (CONCRETE) (EL. 9' ABOVE M.L.T.)
615'
ALUMINA LOADING DOCK (EL. 9' ABOVE M.L.T.)
400'
℄ ALUMINA LOADING TOWER
37 PILE DOLPHINS
19 PILE DOLPHINS
15'×24' CONCRETE MOORING STRUCTURE
37 PILE DOLPHINS
40'±
30'
30'
30'
30'
83'
83'
83'
250'±
N
℄ Unloading Towers
℄ Main Conveyor
5'
5'
80'
390'±
85'
13 1/4 NAUTICAL MILES TO JETTY CHANNEL
340'±
26'×50' CONCRETE MOORING STRUCTURE
180 ft. to North Line of La Quinta Turning Basin (45 ft.)

CORPUS CHRISTI

REYNOLDS METAL CO.



CORPUS CHRISTI

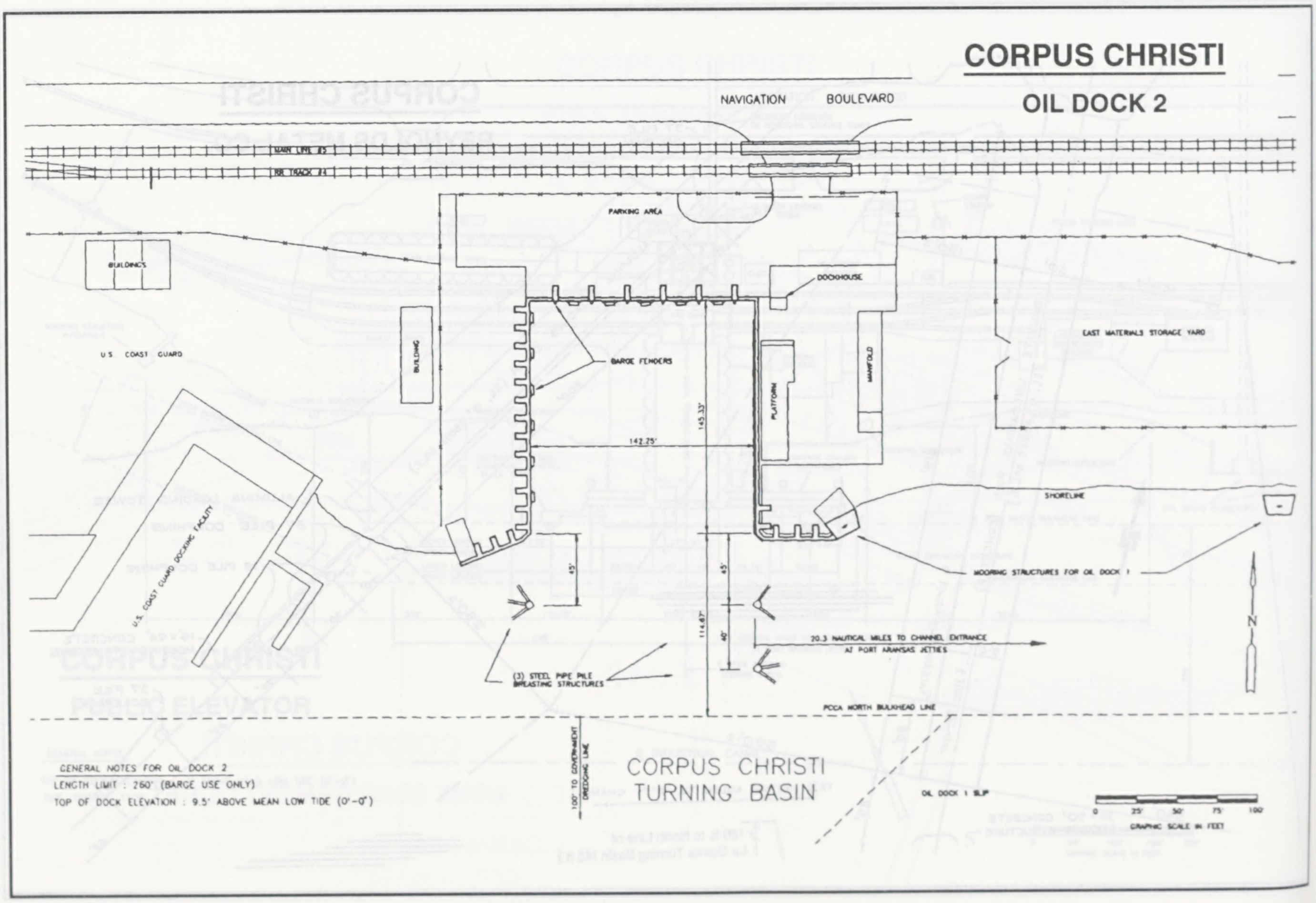
OIL DOCK 1

GENERAL NOTES FOR OIL DOCK 1

LENGTH LIMIT : 1000'

TOP OF DOCK ELEVATION 16' ABOVE MEAN LOW TIDE (0'-0")

NAVIGATION
BOULEVARD
MAIN LINE #5
RR TRACK #4
RR TRACK #3
RR TRACK #2
PARKING AREA
EAST MATERIALS STORAGE YARD
MAINTENANCE SHOP
VEHICLE MAINTENANCE GARAGE
CALLER TIMES WAREHOUSE
OIL DOCK 2
MANIFOLD
BOAT RAMP
MOORING STRUCTURES
272'
270'
250'
272'
120'
130'
130'
120'
32'X64' CONCRETE DECK W/DOCKHOUSE
(2) STEEL PIPE PILE BREASTING STRUCTURES
CARGO DOCK 10
PCCA NORTH BULKHEAD LINE
COLLAPSED SECTION OF CONCRETE RAILROAD TRESTLE (UNDER WATER)
33'
7'
6'
54.5'
BARGE FENDERS
℄ DOCK
50.5'
145'
125'
SHIP BREASTING STRUCTURE W/KEVEL AND FENDER PANEL
100'
100'
GOVERNMENT DREDGING LINE
GOVERNMENT DREDGING LINE
20.2 NAUTICAL MILES TO CHANNEL ENTRANCE AT PORT ARANSAS JETTIES
475'
455'
SLIP LENGTH = 930'
N
CORPUS CHRISTI TURNING BASIN
50'
100'
150'
200'
GRAPHIC SCALE IN FEET



CORPUS CHRISTI

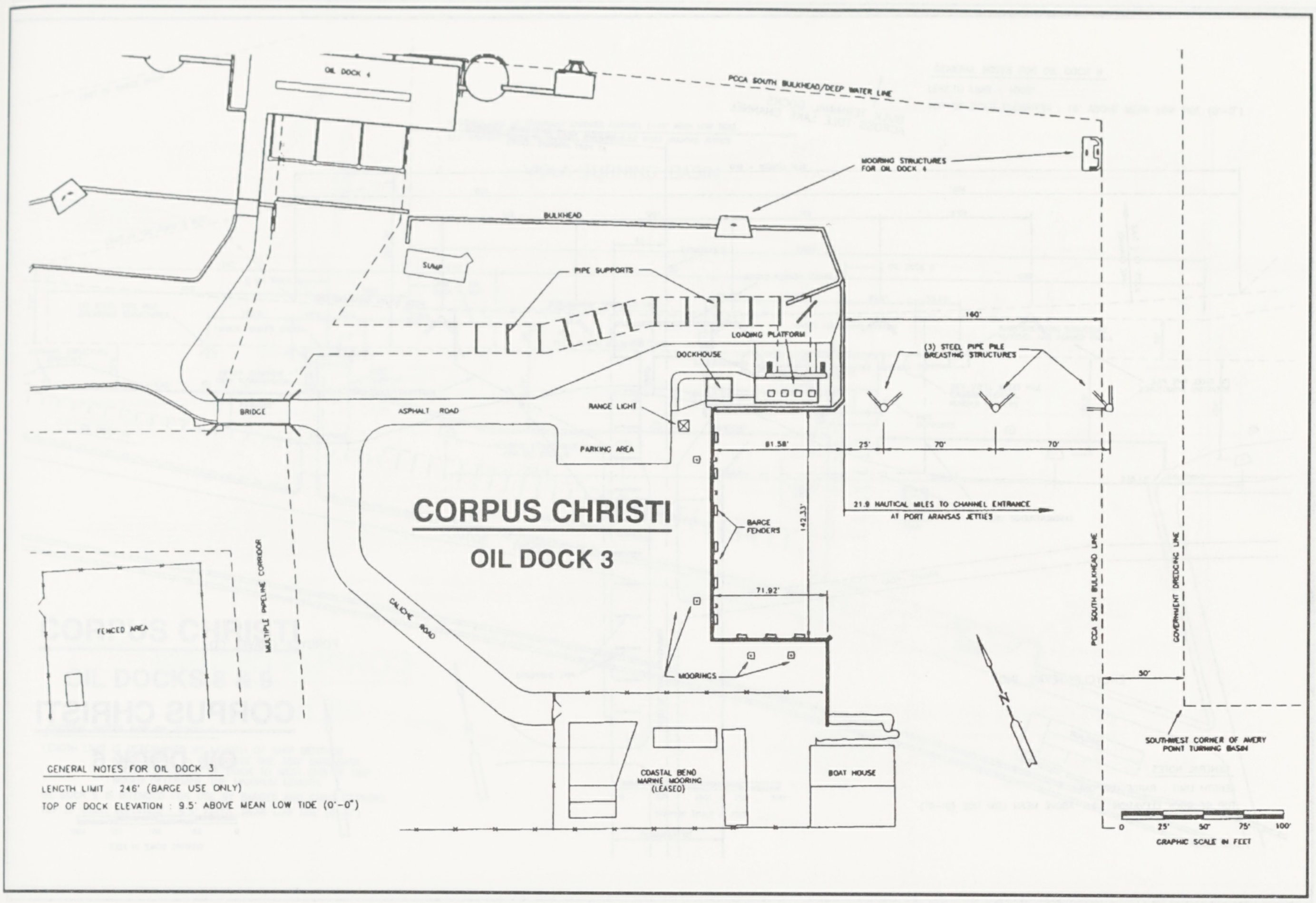
OIL DOCK 2

GENERAL NOTES FOR OIL DOCK 2

LENGTH LIMIT : 260' (BARGE USE ONLY)

TOP OF DOCK ELEVATION : 9.5' ABOVE MEAN LOW TIDE (0'-0")

NAVIGATION
BOULEVARD
MAIN LINE #5
RR TRACK #4
PARKING AREA
BUILDINGS
DOCKHOUSE
U.S. COAST GUARD
BUILDING
BARGE FENDERS
PLATFORM
MANIFOLD
EAST MATERIALS STORAGE YARD
145.33'
142.25'
SHORELINE
U.S. COAST GUARD DOCKING FACILITY
45'
45'
114.67'
40'
MOORING STRUCTURES FOR OIL DOCK 1
20.3 NAUTICAL MILES TO CHANNEL ENTRANCE AT PORT ARANSAS JETTIES
(3) STEEL PIPE PILE BREASTING STRUCTURES
N
PCCA NORTH BULKHEAD LINE
100' TO GOVERNMENT DREDGING LINE
CORPUS CHRISTI TURNING BASIN
OIL DOCK 1 SLIP
0
25'
50'
75'
100'
GRAPHIC SCALE IN FEET



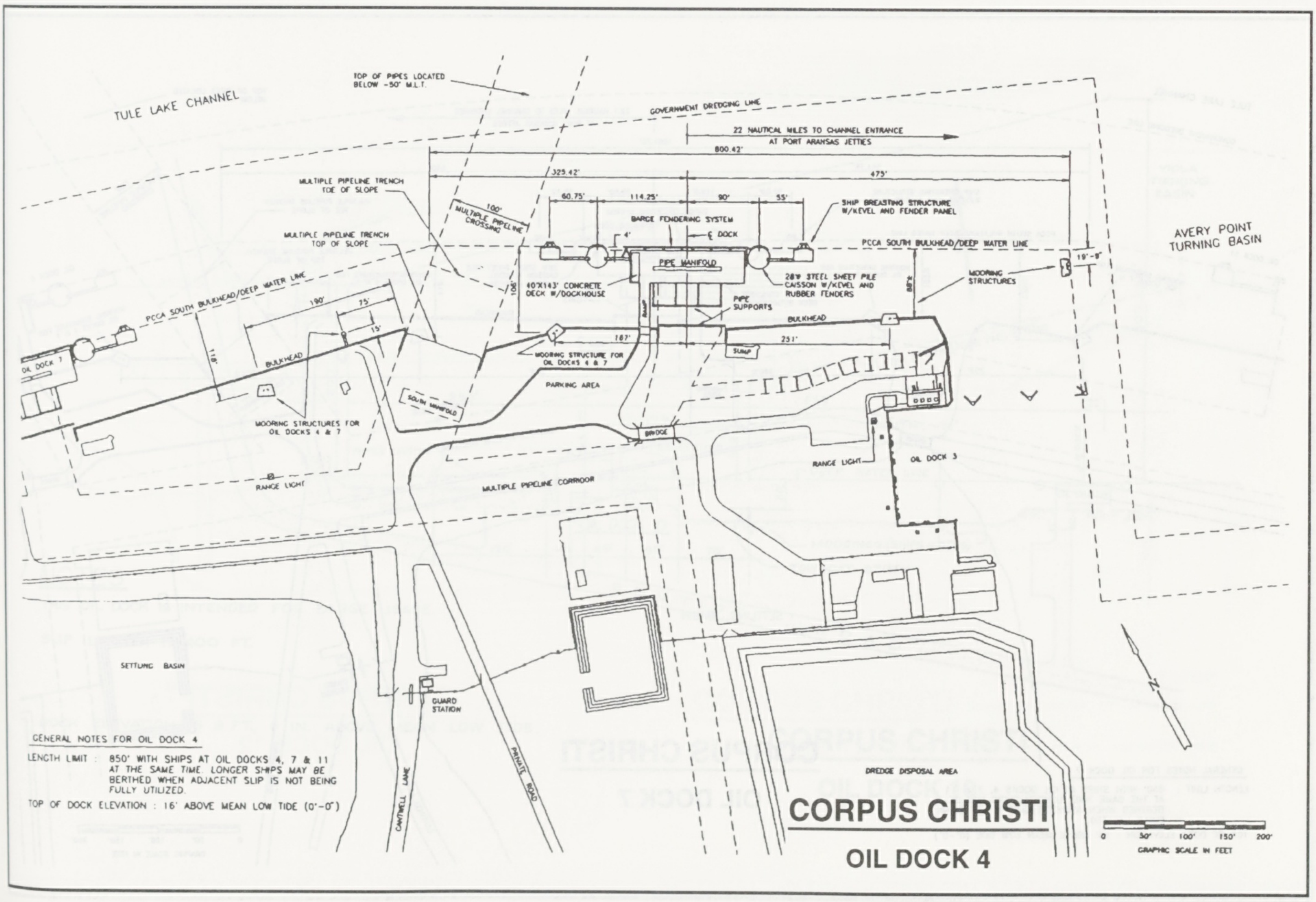
CORPUS CHRISTI

OIL DOCK 3

GENERAL NOTES FOR OIL DOCK 3

LENGTH LIMIT 246' (BARGE USE ONLY)
TOP OF DOCK ELEVATION : 9.5' ABOVE MEAN LOW TIDE (0'-0")

OIL DOCK 4
PCCA SOUTH BULKHEAD/DEEP WATER LINE
MOORING STRUCTURES FOR OIL DOCK 4
BULKHEAD
SUMP
PIPE SUPPORTS
LOADING PLATFORM
DOCKHOUSE
160'
(3) STEEL PIPE PILE BREASTING STRUCTURES
BRIDGE
ASPHALT ROAD
RANGE LIGHT
PARKING AREA
81.58'
25'
70'
70'
21.9 NAUTICAL MILES TO CHANNEL ENTRANCE AT PORT ARANSAS JETTIES
BARGE FENDERS
142.33'
71.92'
FENCED AREA
MULTIPLE PIPELINE CORRIDOR
CALICHE ROAD
MOORINGS
PCCA SOUTH BULKHEAD LINE
GOVERNMENT DREDGING LINE
N
30'
SOUTHWEST CORNER OF AVERY POINT TURNING BASIN
COASTAL BEND MARINE MOORING (LEASED)
BOAT HOUSE
0
25'
50'
75'
100'
GRAPHIC SCALE IN FEET



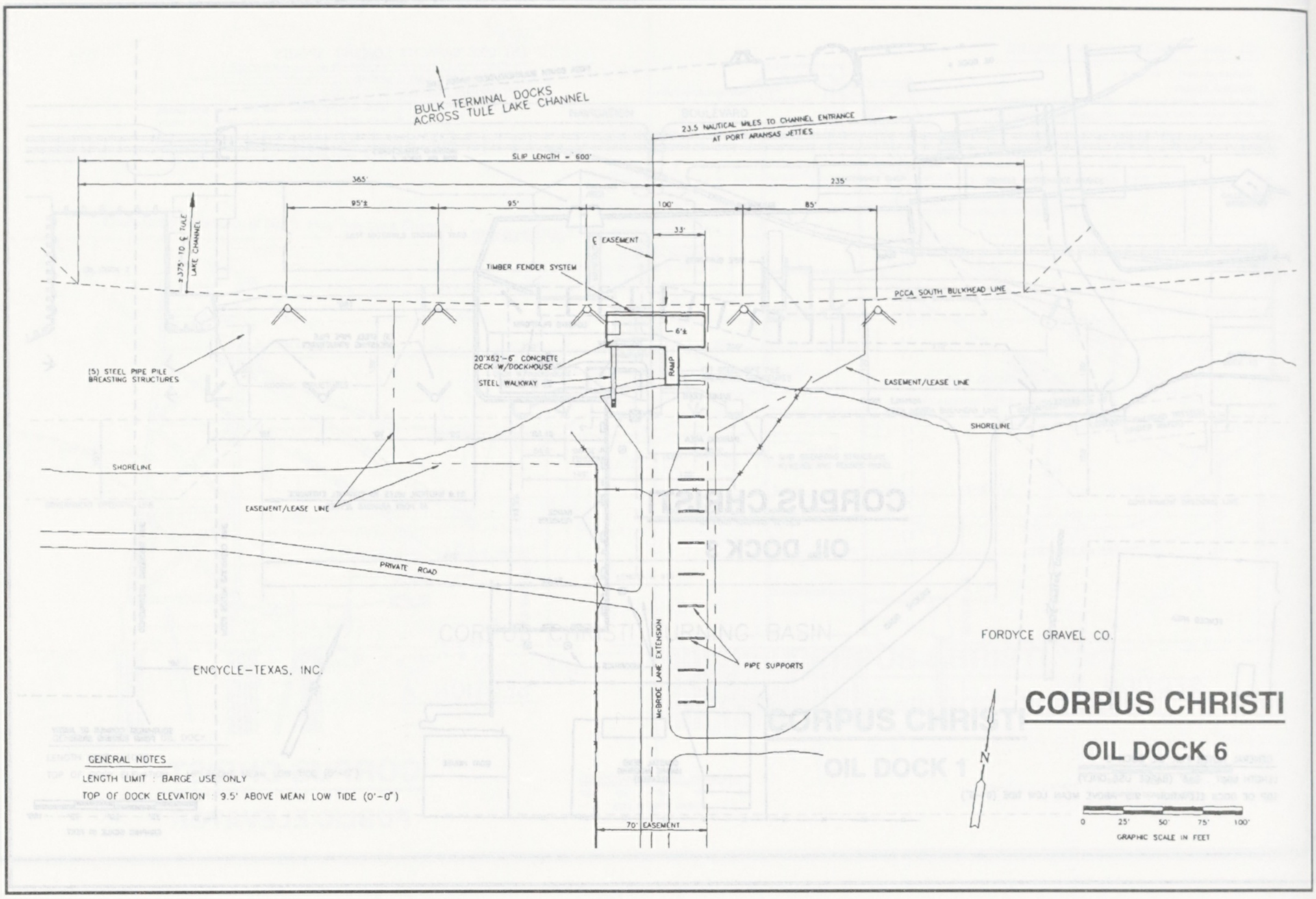
CORPUS CHRISTI

OIL DOCK 4

GENERAL NOTES FOR OIL DOCK 4

LENGTH LIMIT : 850' WITH SHIPS AT OIL DOCKS 4, 7 & 11 AT THE SAME TIME. LONGER SHIPS MAY BE BERTHED WHEN ADJACENT SLIP IS NOT BEING FULLY UTILIZED.
TOP OF DOCK ELEVATION : 16' ABOVE MEAN LOW TIDE (0'-0")

TULE LAKE CHANNEL
TOP OF PIPES LOCATED BELOW -50' M.L.T.
GOVERNMENT DREDGING LINE
22 NAUTICAL MILES TO CHANNEL ENTRANCE AT PORT ARANSAS JETTIES
800.42'
325.42'
475'
60.75'
114.25'
90'
55'
MULTIPLE PIPELINE TRENCH TOE OF SLOPE
100'
MULTIPLE PIPELINE CROSSING
BARGE FENDERING SYSTEM
℄ DOCK
4'
SHIP BREASTING STRUCTURE W/KEVEL AND FENDER PANEL
MULTIPLE PIPELINE TRENCH TOP OF SLOPE
PCCA SOUTH BULKHEAD/DEEP WATER LINE
AVERY POINT TURNING BASIN
PIPE MANIFOLD
40'X143' CONCRETE DECK W/DOCKHOUSE
108'
28'Ø STEEL SHEET PILE CAISSON W/KEVEL AND RUBBER FENDERS
88'±
MOORING STRUCTURES
19'-9"
OIL DOCK 7
190'
75'
15'
118'
BULKHEAD
RAMP
PIPE SUPPORTS
187'
251'
SUMP
MOORING STRUCTURE FOR OIL DOCKS 4 & 7
PARKING AREA
SOUTH MANIFOLD
MOORING STRUCTURES FOR OIL DOCKS 4 & 7
BRIDGE
RANGE LIGHT
OIL DOCK 3
RANGE LIGHT
MULTIPLE PIPELINE CORRIDOR
SETTLING BASIN
GUARD STATION
CANTWELL LANE
PRIVATE ROAD
DREDGE DISPOSAL AREA
N
0
50'
100'
150'
200'
GRAPHIC SCALE IN FEET


BULK TERMINAL DOCKS
ACROSS TULE LAKE CHANNEL
23.5 NAUTICAL MILES TO CHANNEL ENTRANCE
AT PORT ARANSAS JETTIES
SLIP LENGTH = 600'
365'
235'
95'±
95'
100'
85'
33'
±375' TO ℄ TULE LAKE CHANNEL
℄ EASEMENT
TIMBER FENDER SYSTEM
PCCA SOUTH BULKHEAD LINE
6'±
20'X62'-6" CONCRETE DECK W/DOCKHOUSE
STEEL WALKWAY
RAMP
(5) STEEL PIPE PILE BREASTING STRUCTURES
EASEMENT/LEASE LINE
SHORELINE
SHORELINE
EASEMENT/LEASE LINE
PRIVATE ROAD
McBRIDE LANE EXTENSION
PIPE SUPPORTS
FORDYCE GRAVEL CO.
ENCYCLE-TEXAS, INC.
70' EASEMENT
N
0
25'
50'
75'
100'
GRAPHIC SCALE IN FEET

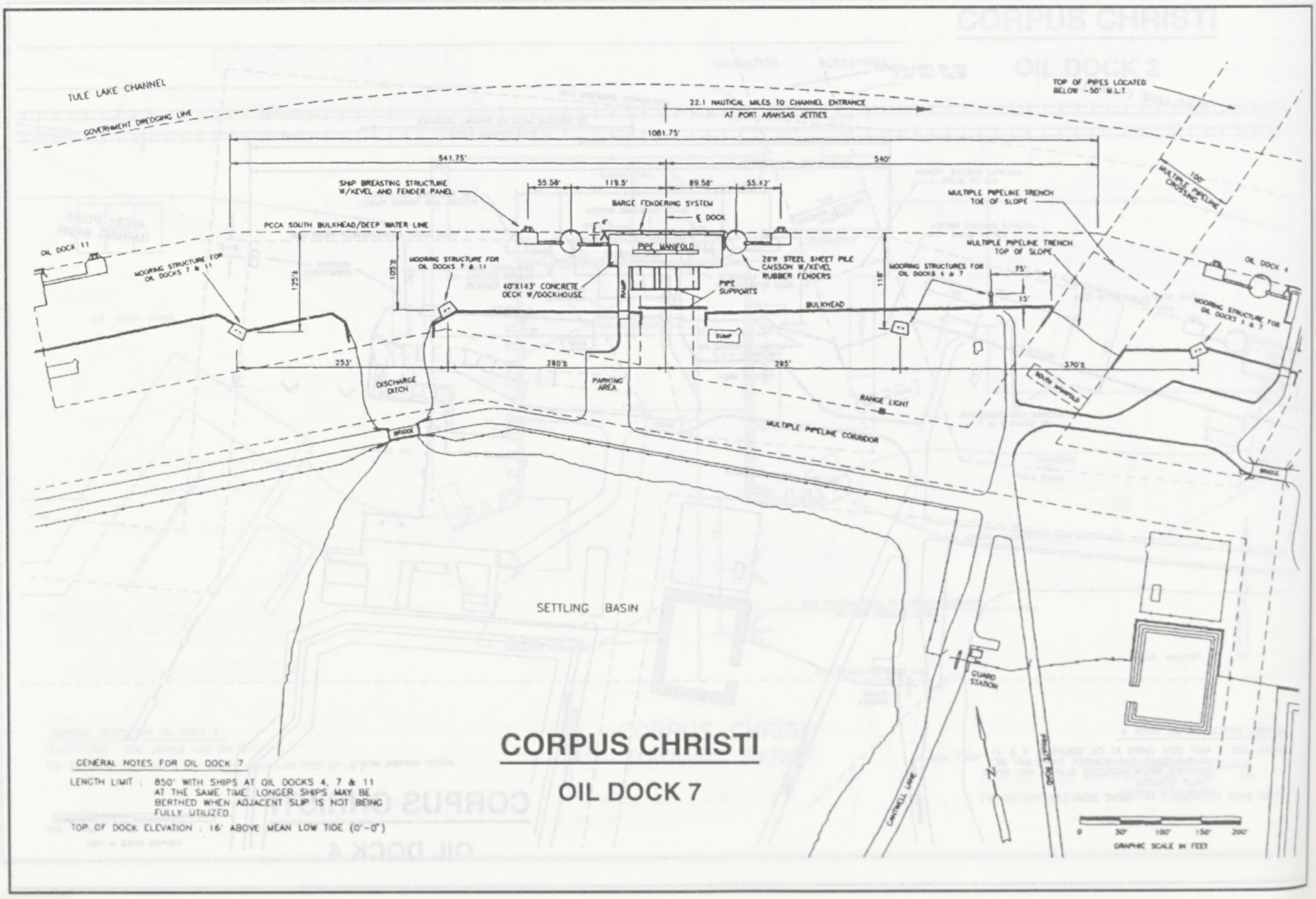
CORPUS CHRISTI

OIL DOCK 6

GENERAL NOTES

LENGTH LIMIT : BARGE USE ONLY

TOP OF DOCK ELEVATION : 9.5' ABOVE MEAN LOW TIDE (0'-0")


TULE LAKE CHANNEL
GOVERNMENT DREDGING LINE
22.1 NAUTICAL MILES TO CHANNEL ENTRANCE
AT PORT ARANSAS JETTIES
TOP OF PIPES LOCATED
BELOW -50' M.L.T.
1081.75'
541.75'
540'
55.58'
119.5'
89.58'
55.42'
SHIP BREASTING STRUCTURE
W/KEVEL AND FENDER PANEL
BARGE FENDERING SYSTEM
℄ DOCK
PCCA SOUTH BULKHEAD/DEEP WATER LINE
OIL DOCK 11
MOORING STRUCTURE FOR
OIL DOCKS 7 & 11
MOORING STRUCTURE FOR
OIL DOCKS 7 & 11
125'±
105'±
4'
PIPE MANIFOLD
40'X143' CONCRETE
DECK W/DOCKHOUSE
RAMP
28'Ø STEEL SHEET PILE
CAISSON W/KEVEL
RUBBER FENDERS
PIPE
SUPPORTS
MOORING STRUCTURES FOR
OIL DOCKS 4 & 7
118'
75'
15'
BULKHEAD
SUMP
MULTIPLE PIPELINE TRENCH
TOE OF SLOPE
MULTIPLE PIPELINE TRENCH
TOP OF SLOPE
100'
MULTIPLE PIPELINE
CROSSING
OIL DOCK 4
MOORING STRUCTURE FOR
OIL DOCKS 4 & 7
253'
280'±
285'
370'±
DISCHARGE
DITCH
PARKING
AREA
BRIDGE
RANGE LIGHT
MULTIPLE PIPELINE CORRIDOR
SOUTH MANIFOLD
BRIDGE
SETTLING BASIN
GUARD
STATION
CANTWELL LANE
PRIVATE ROAD
N
0
50'
100'
150'
200'
GRAPHIC SCALE IN FEET

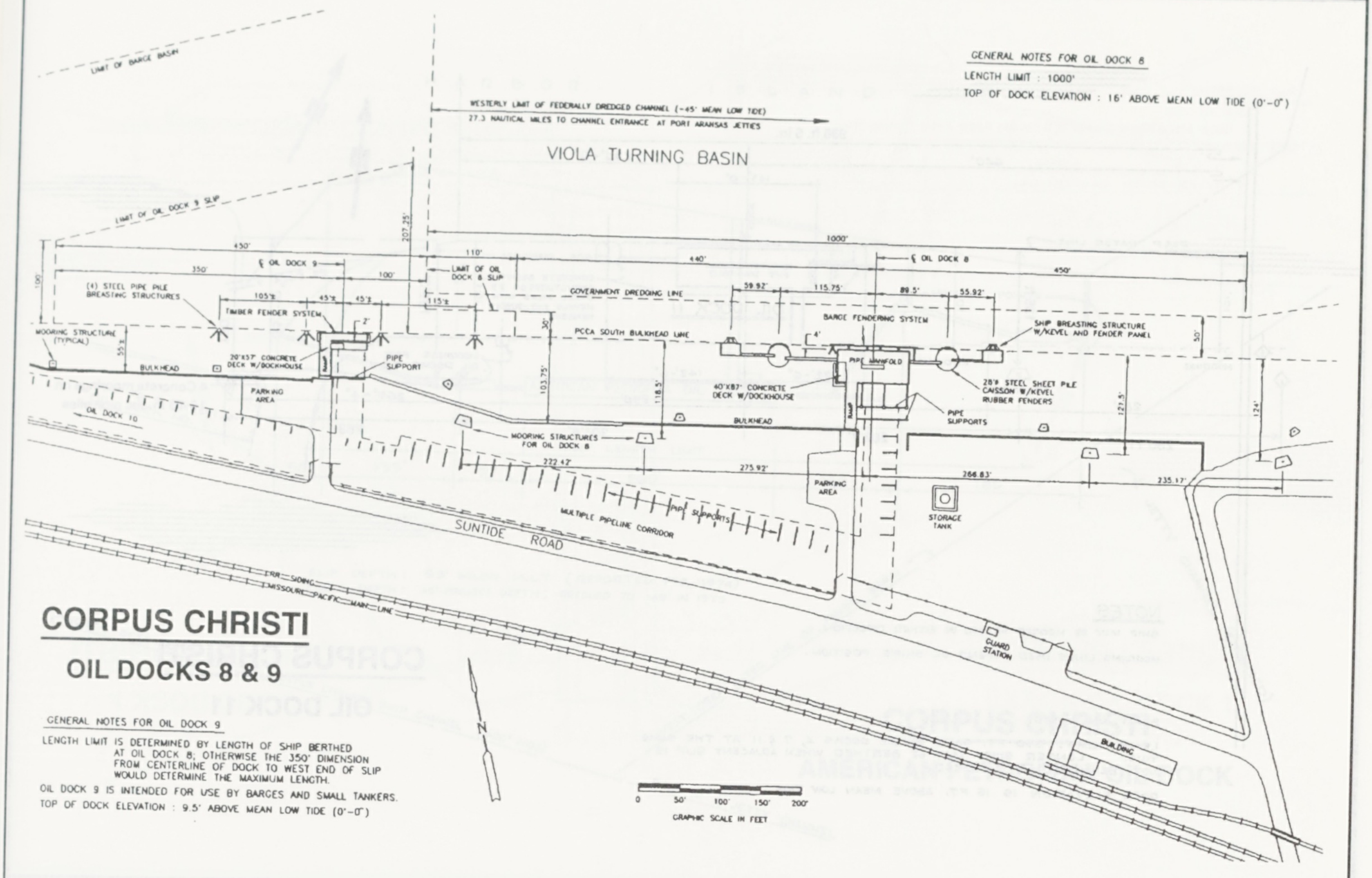
CORPUS CHRISTI

OIL DOCK 7

GENERAL NOTES FOR OIL DOCK 7

LENGTH LIMIT : 850' WITH SHIPS AT OIL DOCKS 4, 7 & 11 AT THE SAME TIME. LONGER SHIPS MAY BE BERTHED WHEN ADJACENT SLIP IS NOT BEING FULLY UTILIZED.

TOP OF DOCK ELEVATION : 16' ABOVE MEAN LOW TIDE (0'-0")


LIMIT OF BARGE BASIN
WESTERLY LIMIT OF FEDERALLY DREDGED CHANNEL (-45' MEAN LOW TIDE)
27.3 NAUTICAL MILES TO CHANNEL ENTRANCE AT PORT ARANSAS JETTIES
VIOLA TURNING BASIN
LIMIT OF OIL DOCK 9 SLIP
207.25'
450'
350'
100'
℄ OIL DOCK 9
100'
110'
1000'
440'
℄ OIL DOCK 8
450'
LIMIT OF OIL DOCK 8 SLIP
(4) STEEL PIPE PILE BREASTING STRUCTURES
105'±
45'±
45'±
115'±
GOVERNMENT DREDGING LINE
59.92'
115.75'
89.5'
55.92'
TIMBER FENDER SYSTEM
2'
30'
PCCA SOUTH BULKHEAD LINE
BARGE FENDERING SYSTEM
4'
SHIP BREASTING STRUCTURE W/KEVEL AND FENDER PANEL
50'
MOORING STRUCTURE (TYPICAL)
55'±
BULKHEAD
20'X57' CONCRETE DECK W/DOCKHOUSE
PIPE SUPPORT
PIPE MANIFOLD
28'Ø STEEL SHEET PILE CAISSON W/KEVEL RUBBER FENDERS
40'X87' CONCRETE DECK W/DOCKHOUSE
103.75'
118.5'
PIPE SUPPORTS
127.5'
124'
PARKING AREA
OIL DOCK 10
BULKHEAD
MOORING STRUCTURES FOR OIL DOCK 8
222.47'
275.92'
PARKING AREA
266.83'
235.17'
STORAGE TANK
PIPE SUPPORTS
MULTIPLE PIPELINE CORRIDOR
SUNTIDE ROAD
RR SIDING
MISSOURI PACIFIC MAIN LINE
GUARD STATION
BUILDING
N
0
50'
100'
150'
200'
GRAPHIC SCALE IN FEET

GENERAL NOTES FOR OIL DOCK 8

LENGTH LIMIT : 1000'

TOP OF DOCK ELEVATION : 16' ABOVE MEAN LOW TIDE (0'-0")

CORPUS CHRISTI

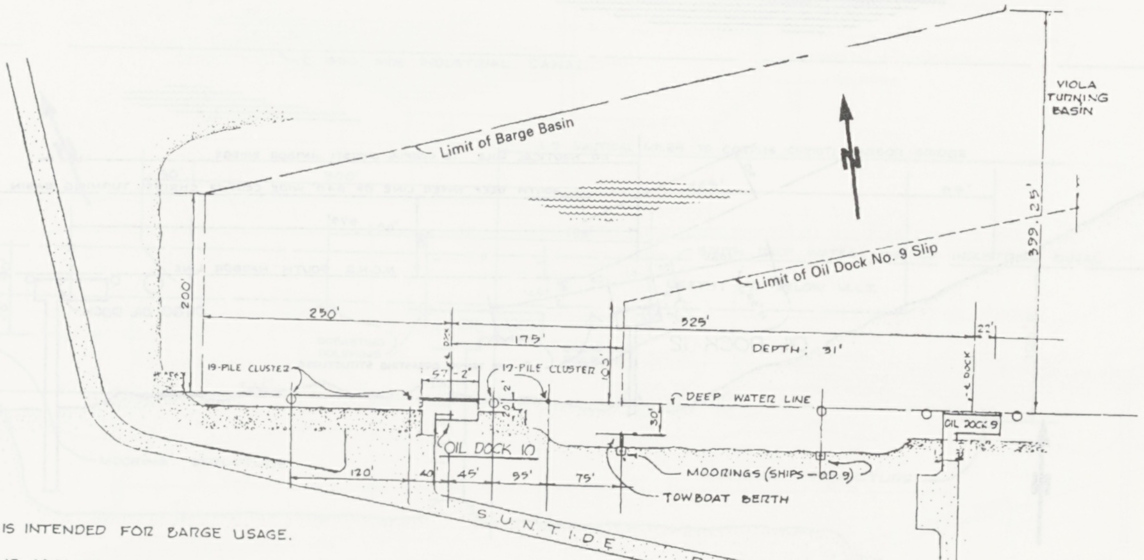
OIL DOCKS 8 & 9

GENERAL NOTES FOR OIL DOCK 9

LENGTH LIMIT IS DETERMINED BY LENGTH OF SHIP BERTHED AT OIL DOCK 8; OTHERWISE THE 350' DIMENSION FROM CENTERLINE OF DOCK TO WEST END OF SLIP WOULD DETERMINE THE MAXIMUM LENGTH.

OIL DOCK 9 IS INTENDED FOR USE BY BARGES AND SMALL TANKERS.

TOP OF DOCK ELEVATION : 9.5' ABOVE MEAN LOW TIDE (0'-0")


VIOLA TURNING BASIN
Limit of Barge Basin
N
399.25'
Limit of Oil Dock No. 9 Slip
200'
230'
175'
525'
DEPTH: 31'
22'
19-PILE CLUSTER
57'-2'
17-PILE CLUSTER
DEEP WATER LINE
30'
OIL DOCK 10
OIL DOCK 9
120'
40'
45'
95'
75'
MOORINGS (SHIPS—O.D. 9)
TOWBOAT BERTH
SUNTIDE ROAD

NOTES

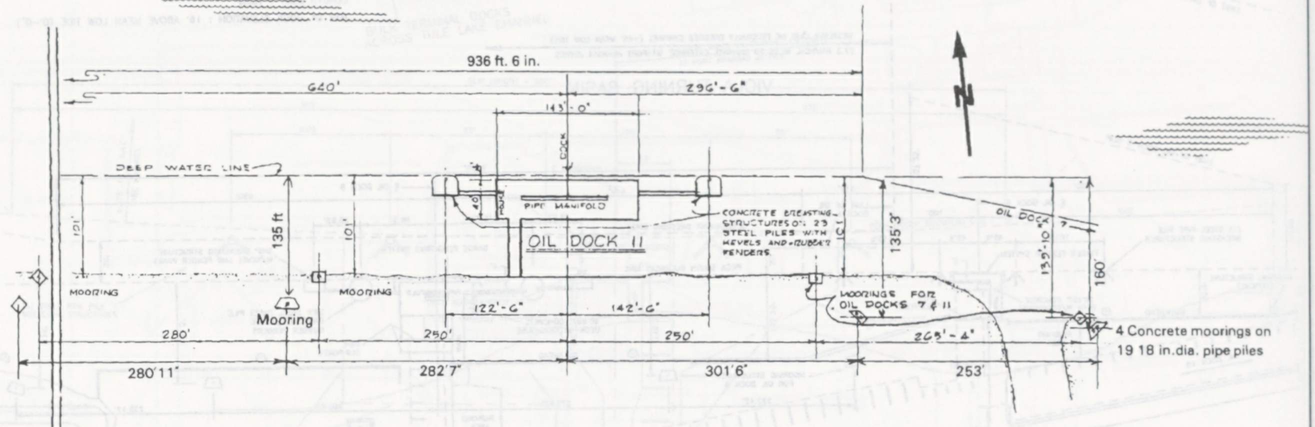
THIS OIL DOCK IS INTENDED FOR BARGE USAGE.

SLIP LENGTH IS 400 FT.

DOCK ELEVATION IS 9 FT., 6 IN. ABOVE MEAN LOW TIDE.

CORPUS CHRISTI

OIL DOCK 10


936 ft. 6 in.
640'
296'-6"
143'-0"
DOCK
DEEP WATER LINE
PIPE MANIFOLD
OIL DOCK 11
CONCRETE BREASTING STRUCTURES ON 23 STEEL PILES WITH KEVELS AND RUBBER FENDERS.
135'3"
OIL DOCK 7
139'-10"
160'
101'
135 ft
101'
40'
MOORING
Mooring
MOORING
MOORINGS FOR OIL DOCKS 7 & 11
122'-6"
142'-6"
280'
250'
250'
265'-4"
4 Concrete moorings on 19 18 in.dia. pipe piles
280'11"
282'7"
301'6"
253'

NOTES

SHIP MAY BE MOORED HEADED IN EITHER DIRECTION.

MOORING LINES USED DEPEND ON SHIP'S POSITION.

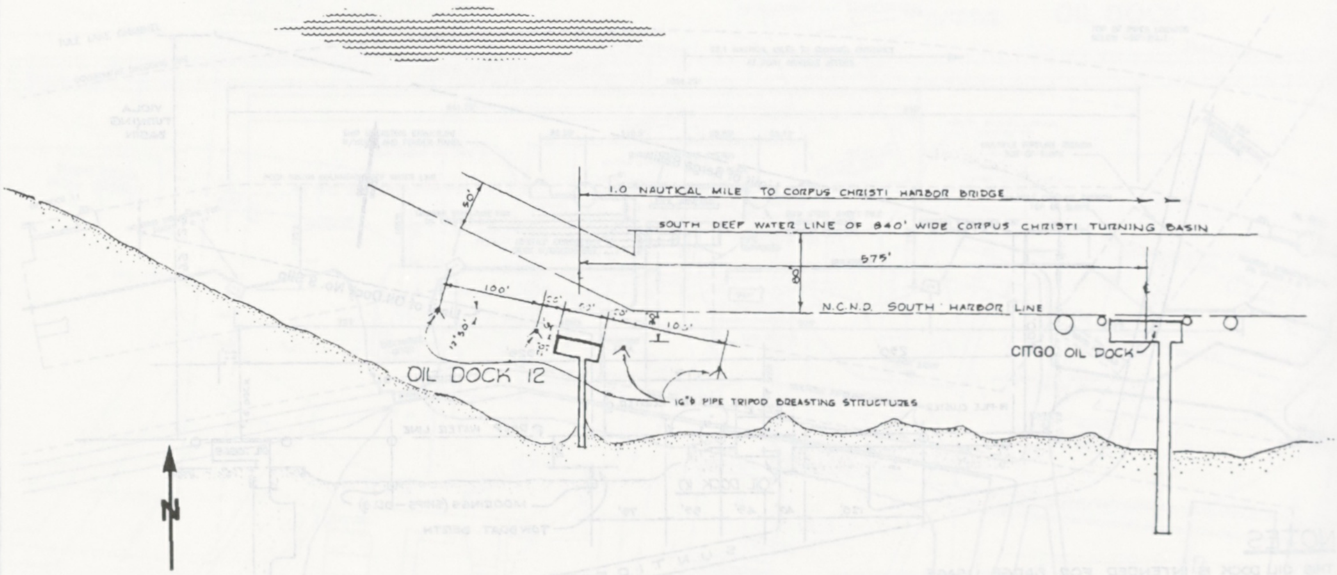
BEAM UNLIMITED.

LENGTH LIMIT: 990 FT. SHIPS AT OIL DOCKS 4, 7 & 11 AT THE SAME TIME. LONGER SHIPS MAY BE BERTHED WHEN ADJACENT SLIP IS NOT BEING FULLY UTILIZED.

DOCK ELEVATION IS 16 FT. ABOVE MEAN LOW TIDE.

CORPUS CHRISTI

OIL DOCK 11


1.0 NAUTICAL MILE TO CORPUS CHRISTI HARBOR BRIDGE
SOUTH DEEP WATER LINE OF 840' WIDE CORPUS CHRISTI TURNING BASIN
575'
50'
80'
100'
50'
50'
50'
105'
12'30"
N.C.N.D. SOUTH HARBOR LINE
OIL DOCK 12
16"Ø PIPE TRIPOD BREASTING STRUCTURES
CITGO OIL DOCK
N

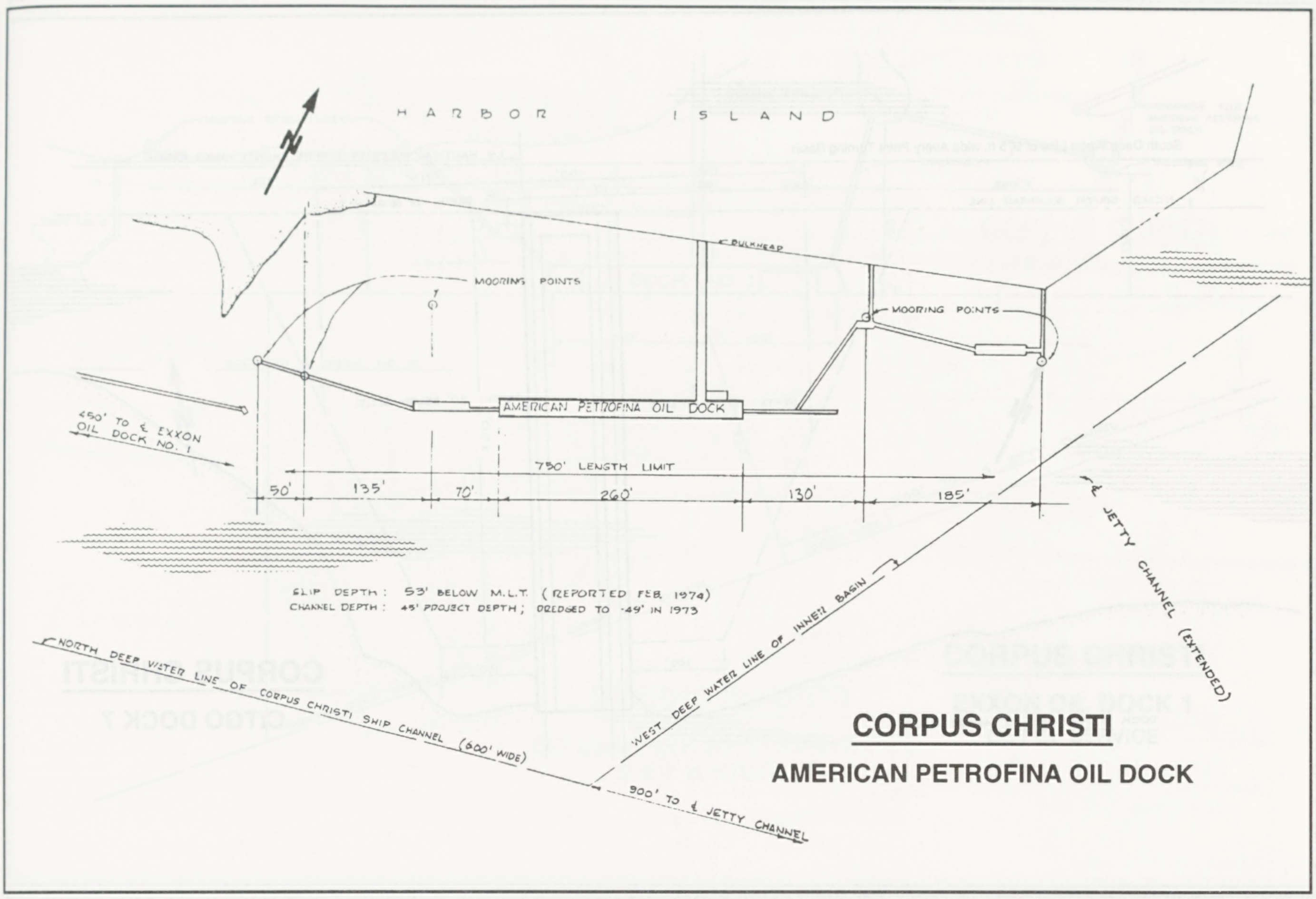
NOTES:

OIL DOCK 12 FOR BARGE USE ONLY.

DOCK ELEVATION IS 8 FT. ABOVE M.L.T.

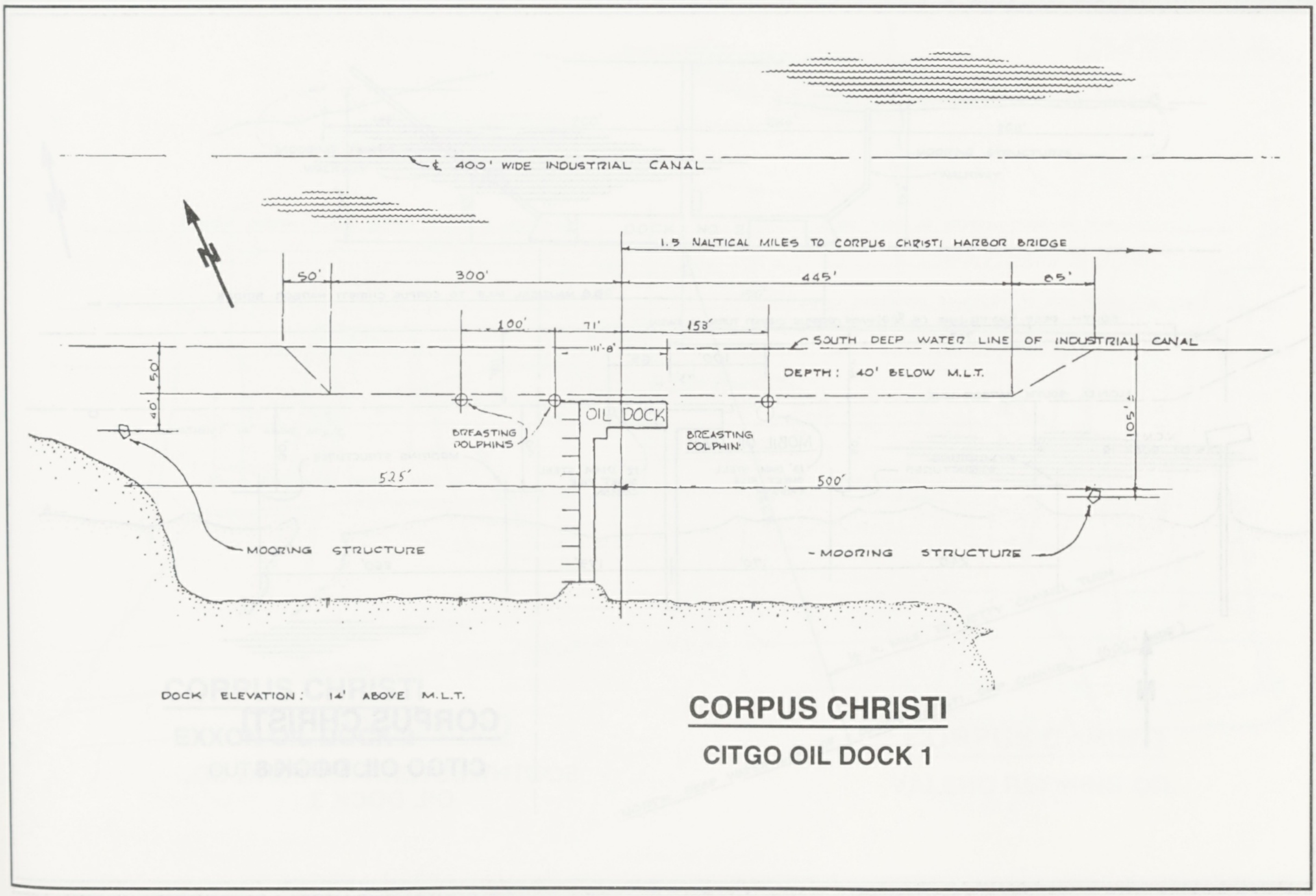
CORPUS CHRISTI

OIL DOCK 12


N
HARBOR ISLAND
BULKHEAD
MOORING POINTS
MOORING POINTS
AMERICAN PETROFINA OIL DOCK
450' TO ℄ EXXON OIL DOCK NO. 1
750' LENGTH LIMIT
50'
135'
70'
260'
130'
185'
℄ JETTY CHANNEL (EXTENDED)
SLIP DEPTH: 53' BELOW M.L.T. (REPORTED FEB. 1974)
CHANNEL DEPTH: 45' PROJECT DEPTH; DREDGED TO -49' IN 1973
WEST DEEP WATER LINE OF INNER BASIN
NORTH DEEP WATER LINE OF CORPUS CHRISTI SHIP CHANNEL (600' WIDE)
900' TO ℄ JETTY CHANNEL

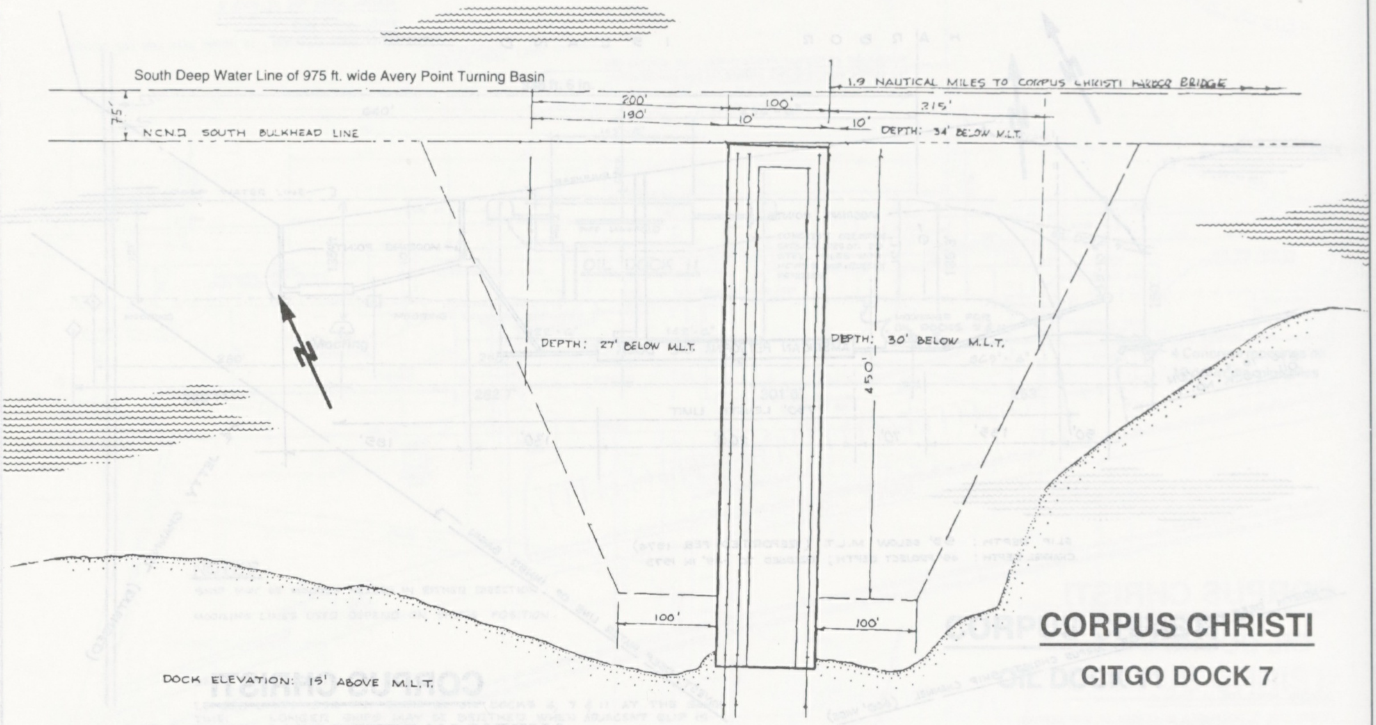
CORPUS CHRISTI

AMERICAN PETROFINA OIL DOCK


℄ 400' WIDE INDUSTRIAL CANAL
N
1.5 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
50'
300'
445'
85'
100'
71'
11'-8"
158'
SOUTH DEEP WATER LINE OF INDUSTRIAL CANAL
DEPTH: 40' BELOW M.L.T.
50'
40'
105'±
OIL DOCK
BREASTING DOLPHINS
BREASTING DOLPHIN
525'
500'
MOORING STRUCTURE
MOORING STRUCTURE
DOCK ELEVATION: 14' ABOVE M.L.T.

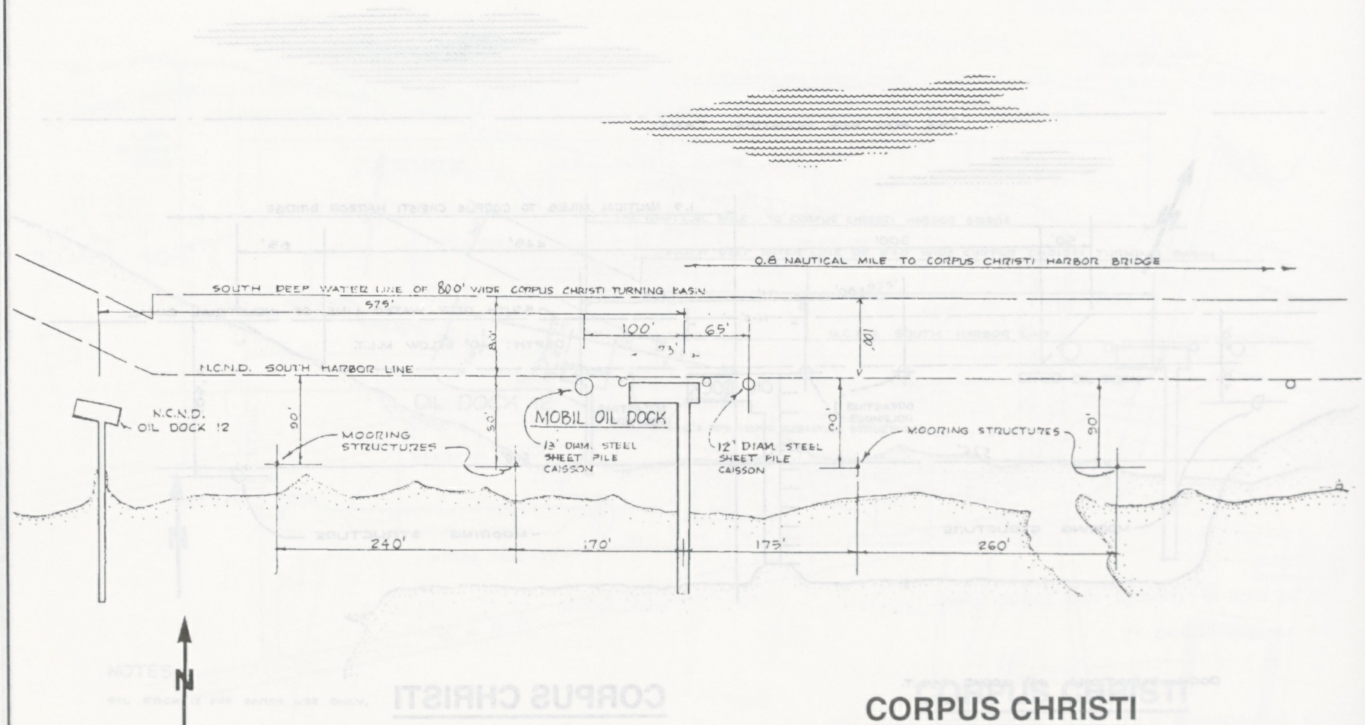
CORPUS CHRISTI

CITGO OIL DOCK 1


South Deep Water Line of 975 ft. wide Avery Point Turning Basin
1.9 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
75'
N.C.N.D. SOUTH BULKHEAD LINE
200'
190'
100'
10'
10'
315'
DEPTH: 34' BELOW M.L.T.
DEPTH: 27' BELOW M.L.T.
DEPTH: 30' BELOW M.L.T.
450'
100'
100'
DOCK ELEVATION: 15' ABOVE M.L.T.
N

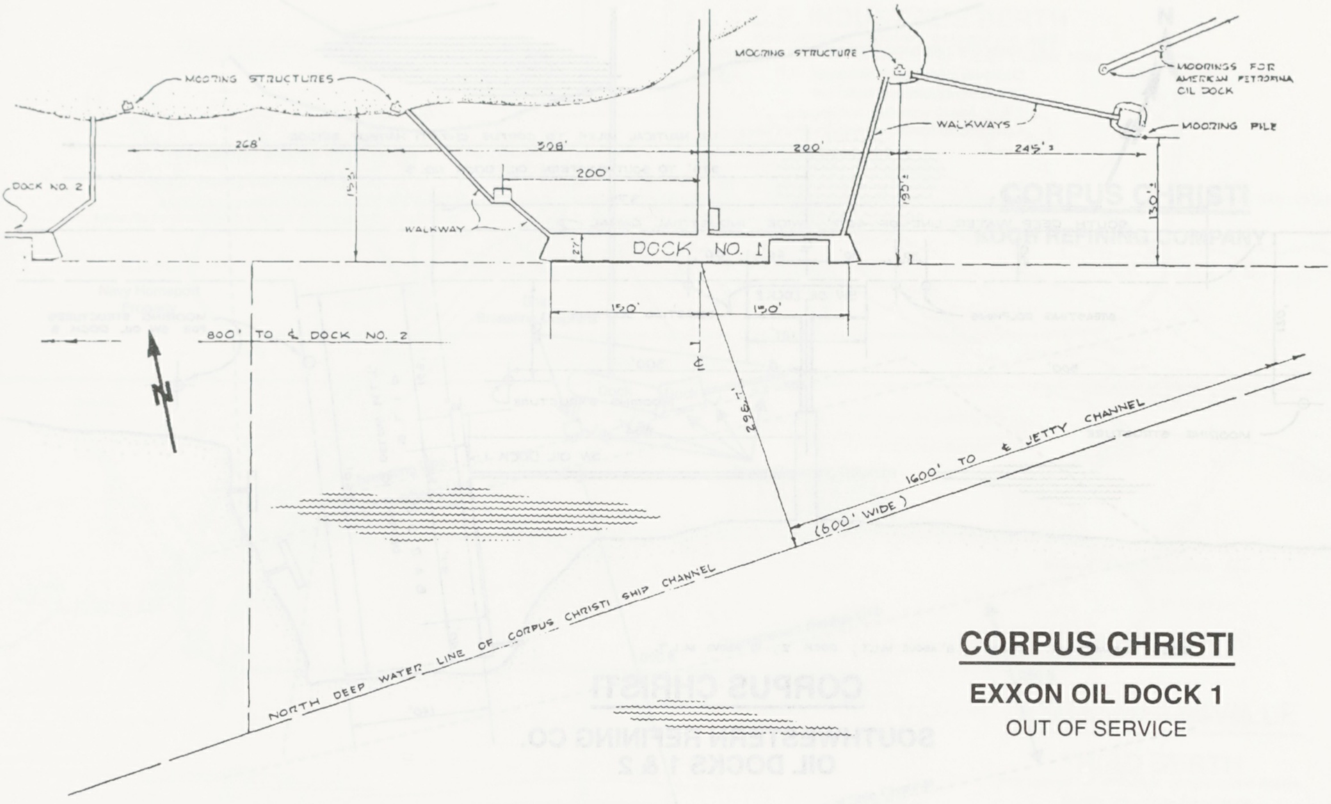
CORPUS CHRISTI

CITGO DOCK 7


0.8 NAUTICAL MILE TO CORPUS CHRISTI HARBOR BRIDGE
SOUTH DEEP WATER LINE OF 800' WIDE CORPUS CHRISTI TURNING BASIN
575'
100'
65'
73'
80'
100'
N.C.N.D. SOUTH HARBOR LINE
N.C.N.D. OIL DOCK 12
90'
MOORING STRUCTURES
50'
MOBIL OIL DOCK
13' DIAM. STEEL SHEET PILE CAISSON
12' DIAM. STEEL SHEET PILE CAISSON
90'
MOORING STRUCTURES
90'
240'
170'
175'
260'
N

CORPUS CHRISTI

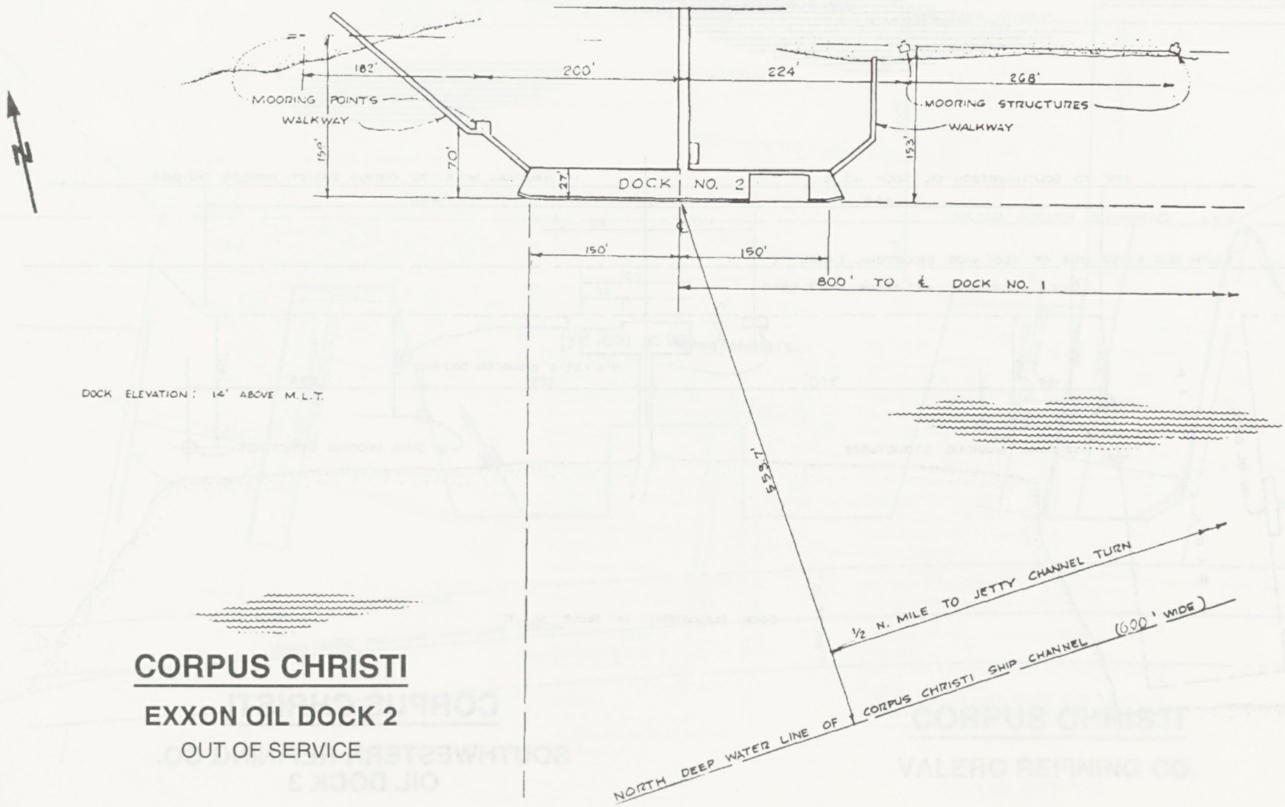
CITGO OIL DOCK 8


MOORING STRUCTURES
DOCK NO. 2
268'
308'
153'
200'
WALKWAY
27'
DOCK NO. 1
150'
150'
800' TO ℄ DOCK NO. 2
N
14'
296'±
MOORING STRUCTURE
WALKWAYS
MOORINGS FOR AMERICAN PETROFINA OIL DOCK
MOORING PILE
200'
245'±
195'±
130'±
1600' TO ℄ JETTY CHANNEL
(600' WIDE)
NORTH DEEP WATER LINE OF CORPUS CHRISTI SHIP CHANNEL

CORPUS CHRISTI

EXXON OIL DOCK 1

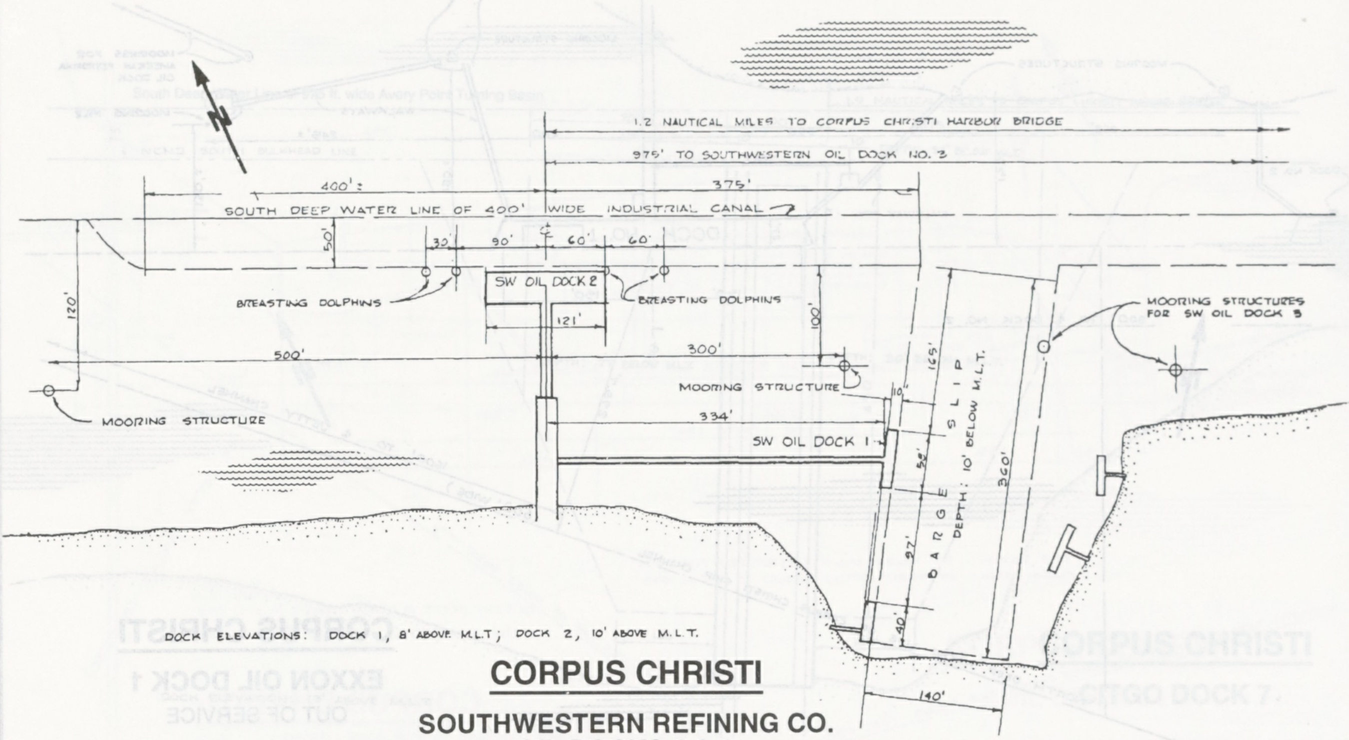
OUT OF SERVICE


N
182'
200'
MOORING POINTS
WALKWAY
150'
70'
27'
DOCK NO. 2
224'
268'
MOORING STRUCTURES
WALKWAY
153'
150'
150'
800' TO ℄ DOCK NO. 1
DOCK ELEVATION: 14' ABOVE M.L.T.
553'
1/2 N. MILE TO JETTY CHANNEL TURN
(600' WIDE)
NORTH DEEP WATER LINE OF CORPUS CHRISTI SHIP CHANNEL

CORPUS CHRISTI

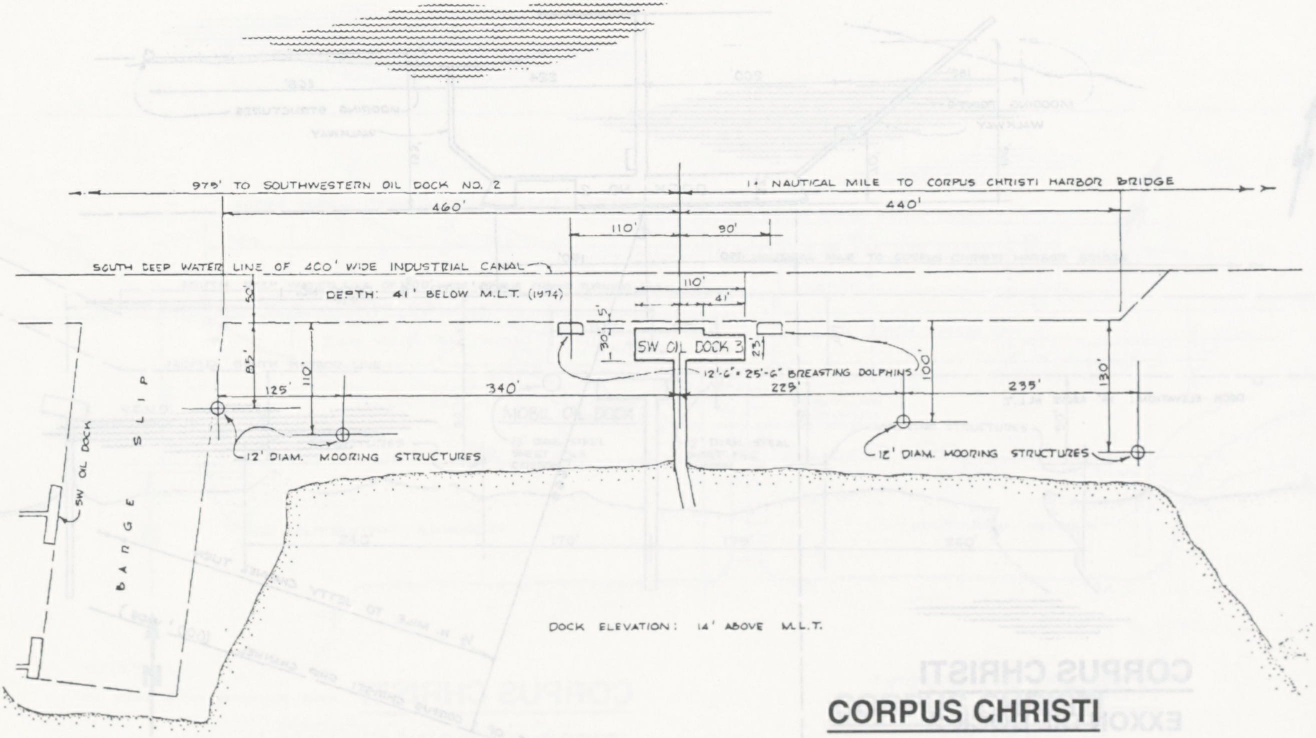
EXXON OIL DOCK 2

OUT OF SERVICE


N
1.2 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
975' TO SOUTHWESTERN OIL DOCK NO. 3
400'±
375'
SOUTH DEEP WATER LINE OF 400' WIDE INDUSTRIAL CANAL
50'
30'
90'
60'
60'
SW OIL DOCK 2
BREASTING DOLPHINS
BREASTING DOLPHINS
121'
120'
500'
300'
100'
MOORING STRUCTURES FOR SW OIL DOCK 3
MOORING STRUCTURE
MOORING STRUCTURE
10'
165'
334'
SW OIL DOCK 1
52'
27'
40'
BARGE SLIP
DEPTH: 10' BELOW M.L.T.
360'
140'
DOCK ELEVATIONS: DOCK 1, 8' ABOVE M.L.T; DOCK 2, 10' ABOVE M.L.T.

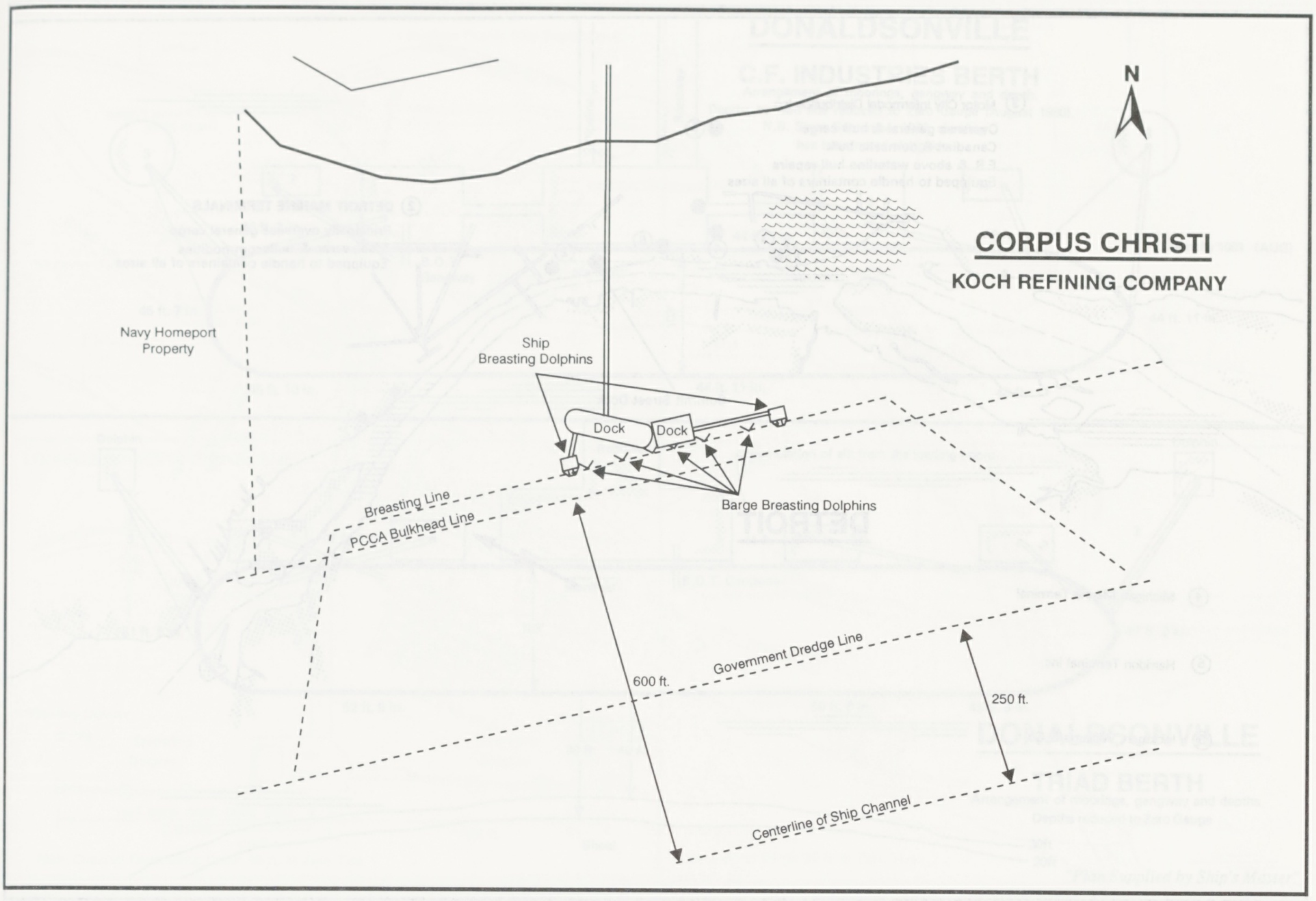
CORPUS CHRISTI

SOUTHWESTERN REFINING CO.
OIL DOCKS 1 & 2


975' TO SOUTHWESTERN OIL DOCK NO. 2
1± NAUTICAL MILE TO CORPUS CHRISTI HARBOR BRIDGE
460'
440'
110'
90'
SOUTH DEEP WATER LINE OF 400' WIDE INDUSTRIAL CANAL
DEPTH: 41' BELOW M.L.T. (1974)
110'
41'
50'
5'
30'
85'
110'
SW OIL DOCK 3
23'
12'-6" × 25'-6" BREASTING DOLPHINS
100'
130'
125'
340'
225'
235'
12' DIAM. MOORING STRUCTURES
12' DIAM. MOORING STRUCTURES
SW OIL DOCK
BARGE SLIP
DOCK ELEVATION: 14' ABOVE M.L.T.

CORPUS CHRISTI

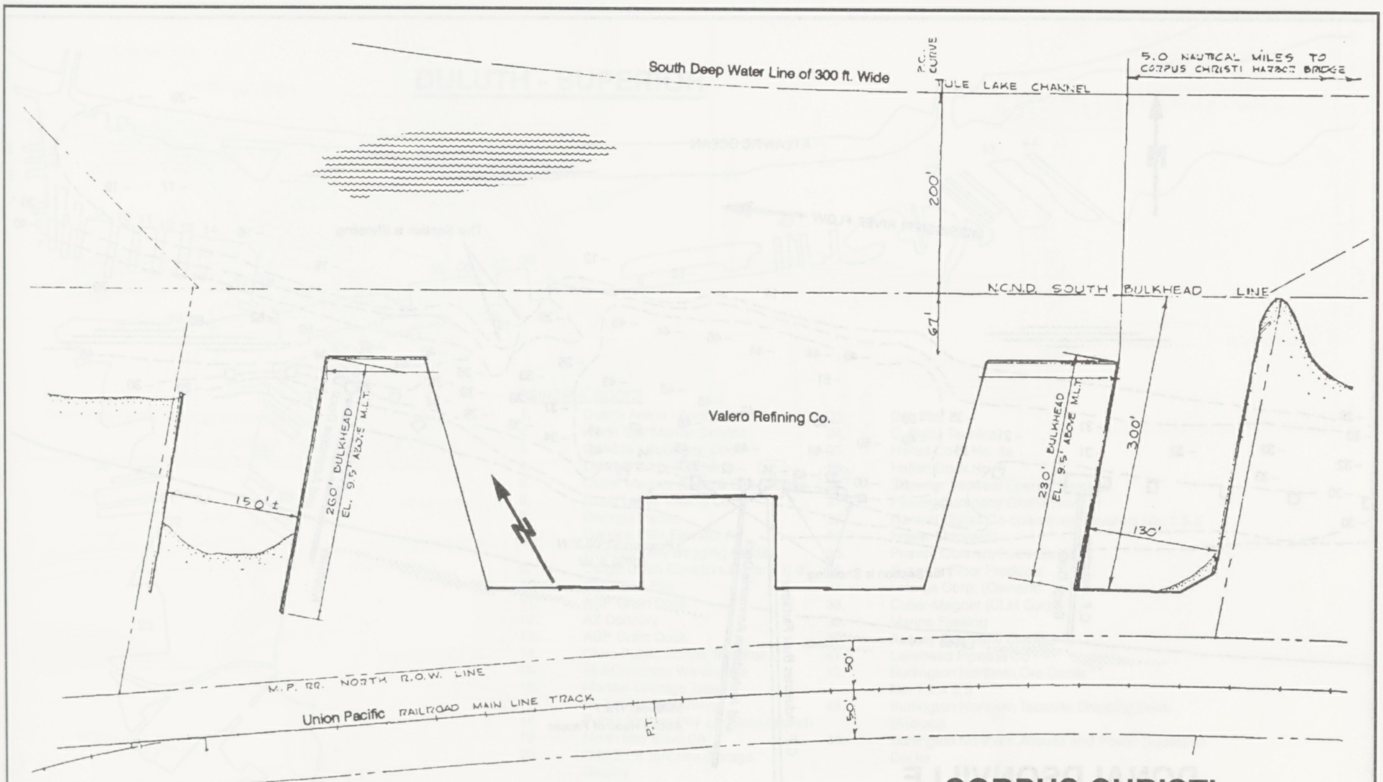
SOUTHWESTERN REFINING CO.
OIL DOCK 3



CORPUS CHRISTI

KOCH REFINING COMPANY

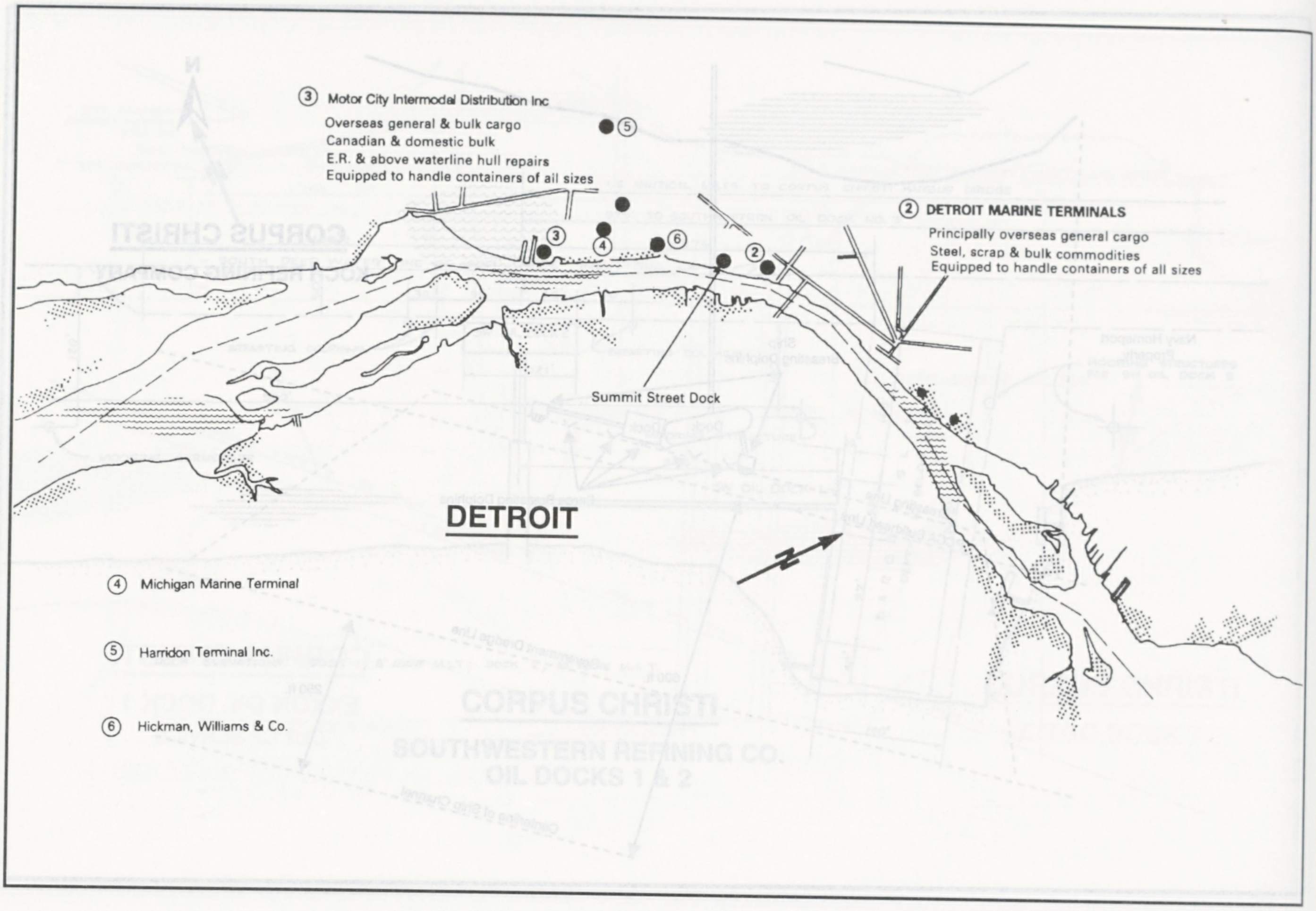
N
Navy Homeport Property
Ship Breasting Dolphins
Dock
Dock
Barge Breasting Dolphins
Breasting Line
PCCA Bulkhead Line
Government Dredge Line
600 ft.
250 ft.
Centerline of Ship Channel

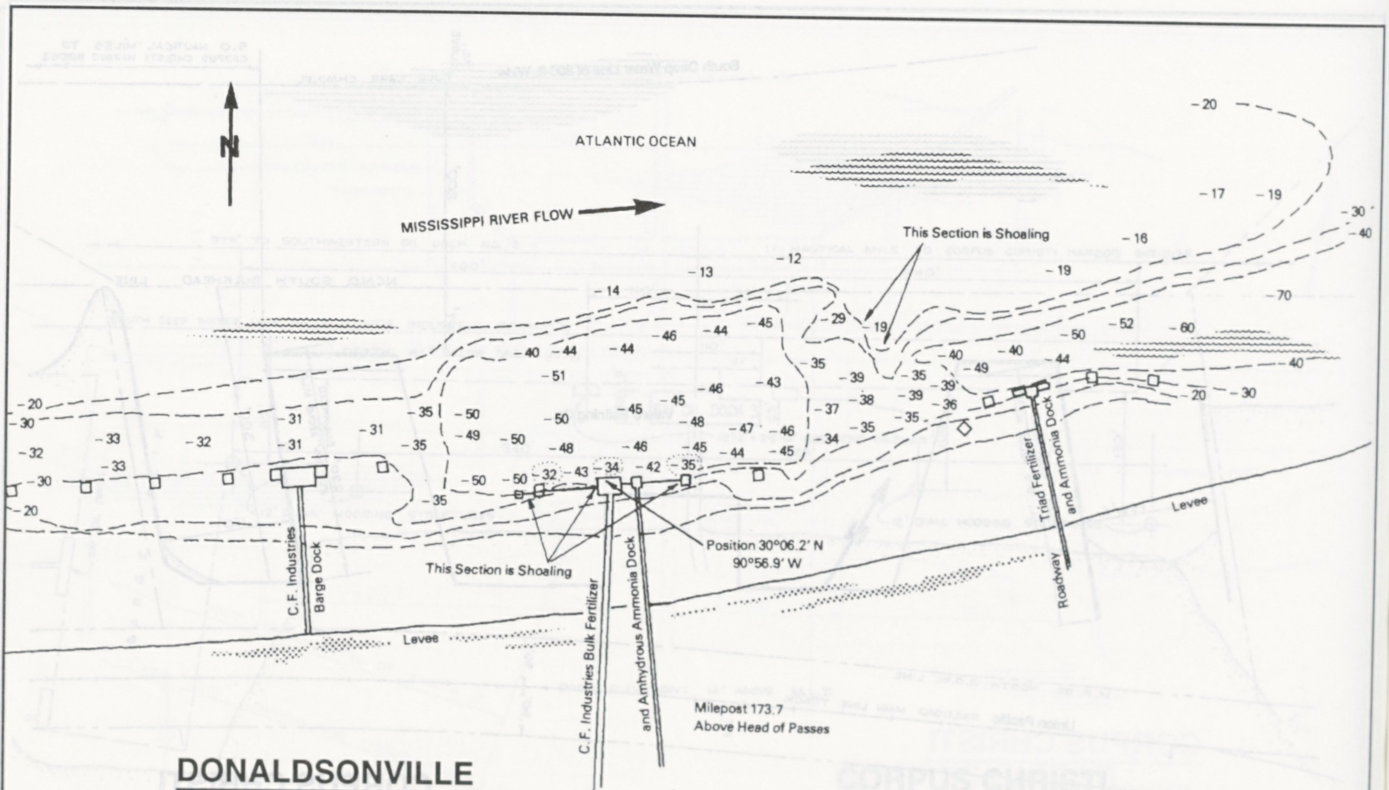


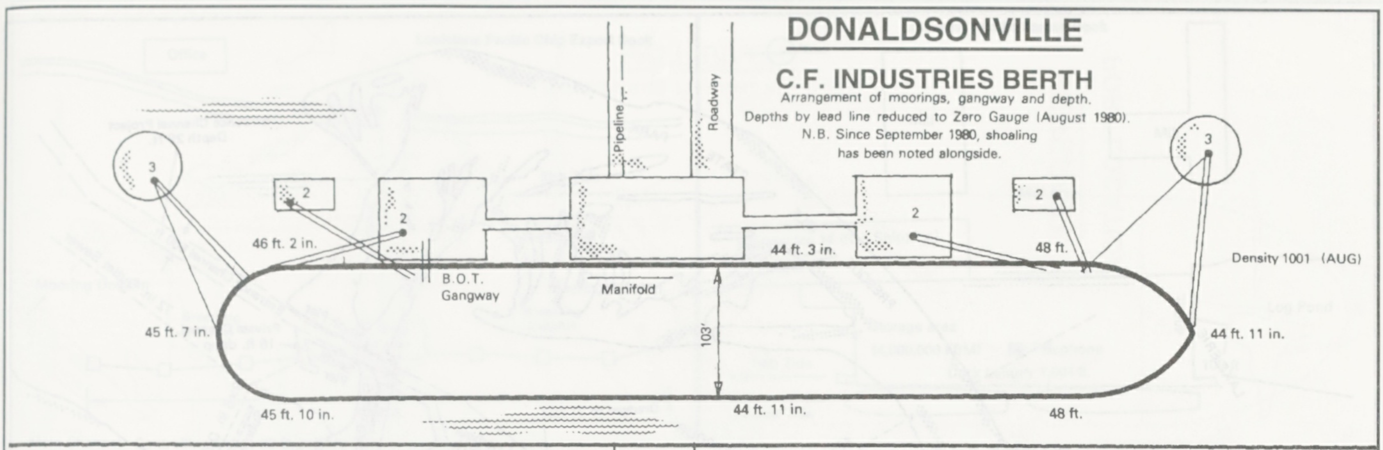
CORPUS CHRISTI

VALERO REFINING CO.

South Deep Water Line of 300 ft. Wide
P.C. CURVE
TULE LAKE CHANNEL
5.0 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
200'
67'
N.C.N.D. SOUTH BULKHEAD LINE
Valero Refining Co.
150'±
260' BULKHEAD EL. 9.5' ABOVE M.L.T.
N
230' BULKHEAD EL. 9.5' ABOVE M.L.T.
300'
130'
50'
50'
M.P. RR. NORTH R.O.W. LINE
Union Pacific RAILROAD MAIN LINE TRACK
P.T.


N
③ Motor City Intermodal Distribution Inc
Overseas general & bulk cargo
Canadian & domestic bulk
E.R. & above waterline hull repairs
Equipped to handle containers of all sizes
② DETROIT MARINE TERMINALS
Principally overseas general cargo
Steel, scrap & bulk commodities
Equipped to handle containers of all sizes
⑤
③
④
⑥
②
Summit Street Dock
DETROIT
N
④ Michigan Marine Terminal
⑤ Harridon Terminal Inc.
⑥ Hickman, Williams & Co.


N
ATLANTIC OCEAN
MISSISSIPPI RIVER FLOW
This Section is Shoaling
This Section is Shoaling
Position 30°06.2' N
90°56.9' W
C.F. Industries
Barge Dock
C.F. Industries Bulk Fertilizer
and Amhydrous Ammonia Dock
Triad Fertilizer
and Ammonia Dock
Roadway
Levee
Levee
Milepost 173.7
Above Head of Passes
Central Farmers Industries
DONALDSONVILLE
DEPTHS IN FEET
Max. Draft 40 ft. at Dock
"Plan Supplied by Ship's Master"

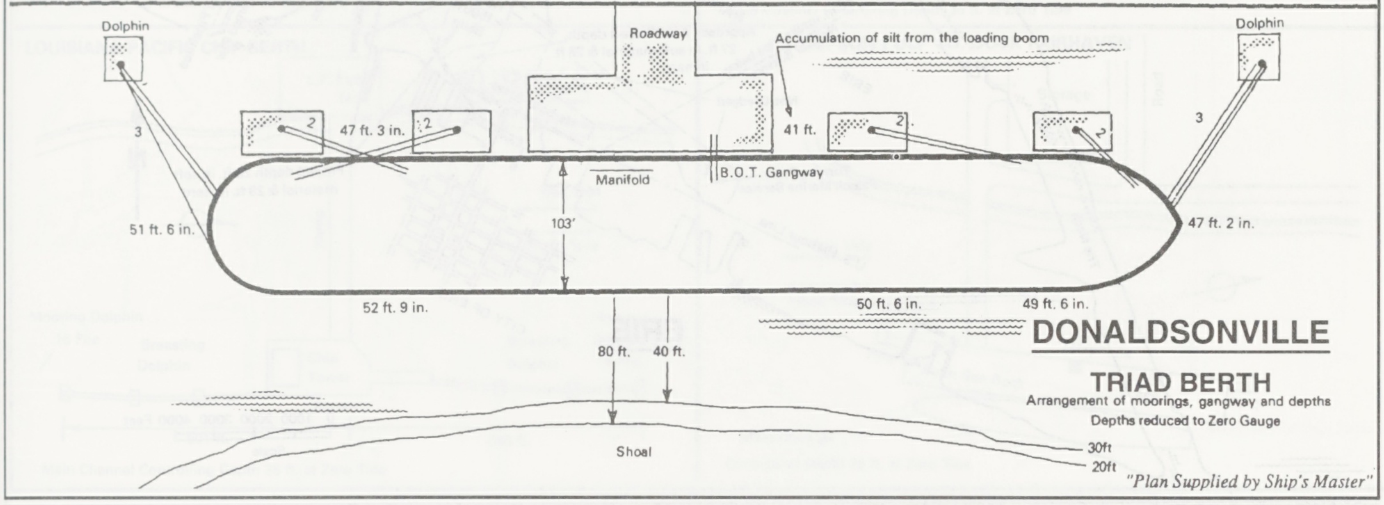


DONALDSONVILLE

C.F. INDUSTRIES BERTH

Arrangement of moorings, gangway and depth.
Depths by lead line reduced to Zero Gauge (August 1980).
N.B. Since September 1980, shoaling has been noted alongside.

Pipeline
Roadway
3
2
2
2
2
3
46 ft. 2 in.
44 ft. 3 in.
48 ft.
Density 1001 (AUG)
B.O.T. Gangway
Manifold
45 ft. 7 in.
103'
44 ft. 11 in.
45 ft. 10 in.
44 ft. 11 in.
48 ft.



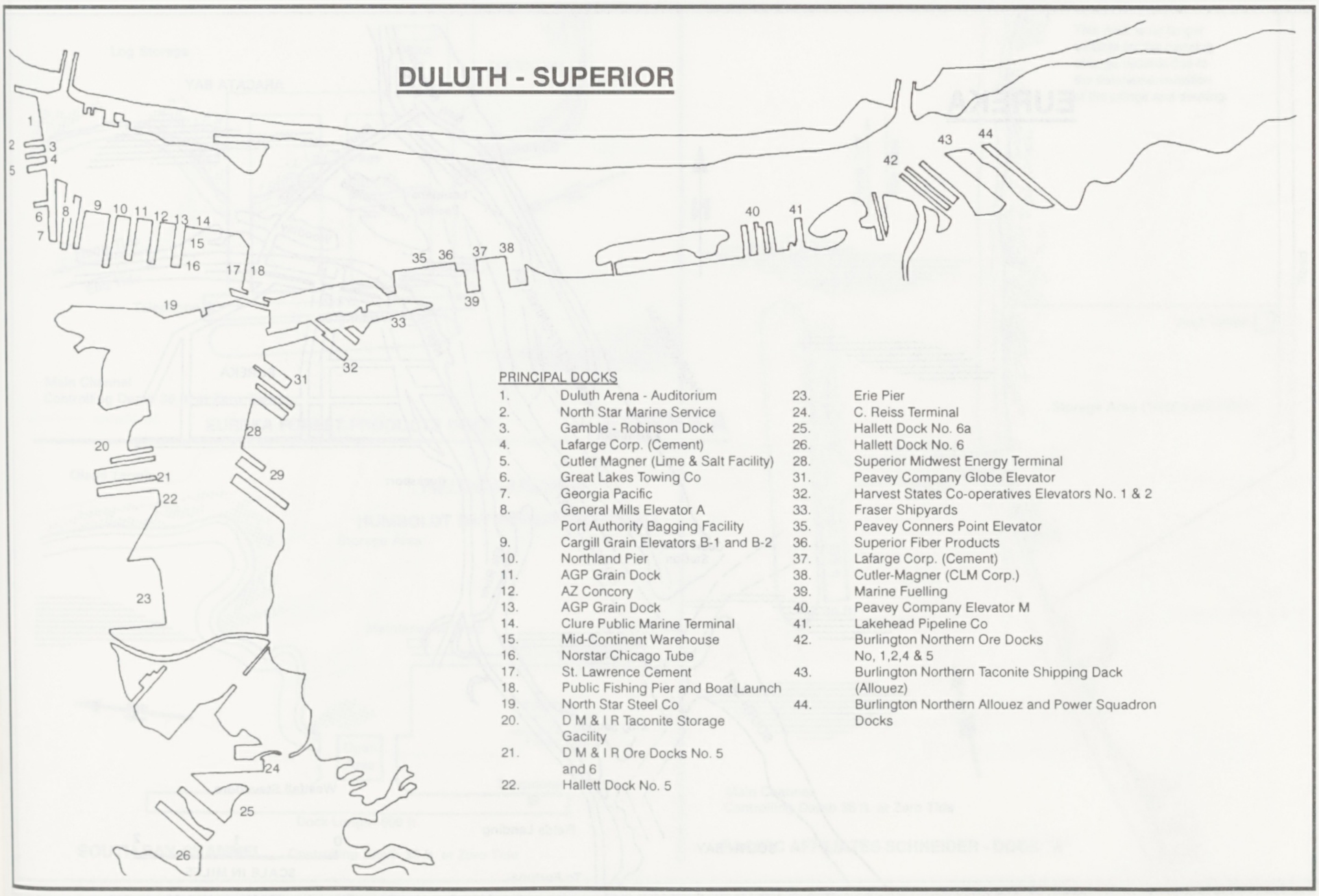
DONALDSONVILLE

TRIAD BERTH

Arrangement of moorings, gangway and depths
Depths reduced to Zero Gauge

Dolphin
Roadway
Accumulation of silt from the loading boom
Dolphin
3
2
47 ft. 3 in.
2
41 ft.
2
2
3
Manifold
B.O.T. Gangway
51 ft. 6 in.
103'
47 ft. 2 in.
52 ft. 9 in.
50 ft. 6 in.
49 ft. 6 in.
80 ft.
40 ft.
Shoal
30ft
20ft

"Plan Supplied by Ship's Master"



DULUTH - SUPERIOR

1
2
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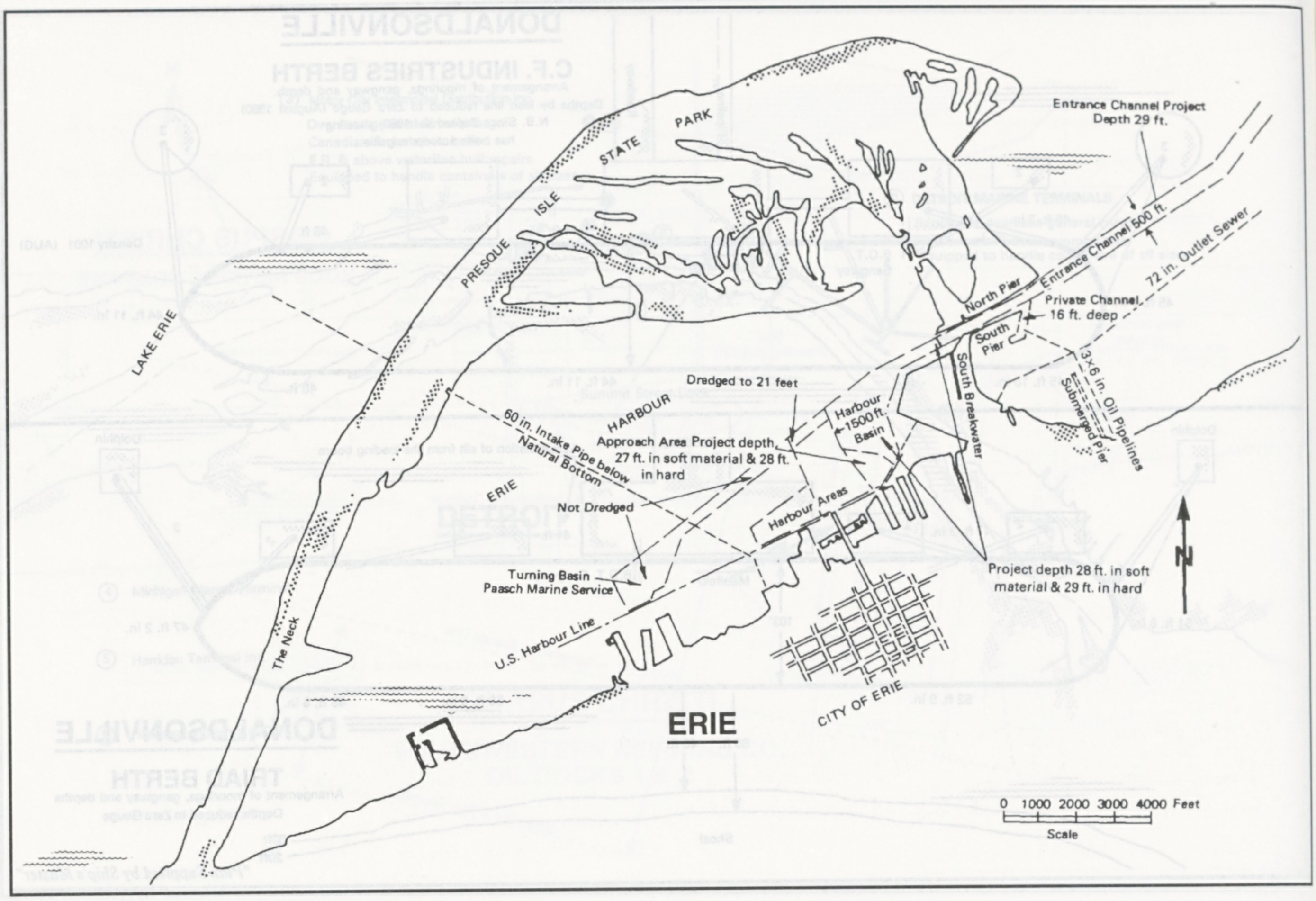
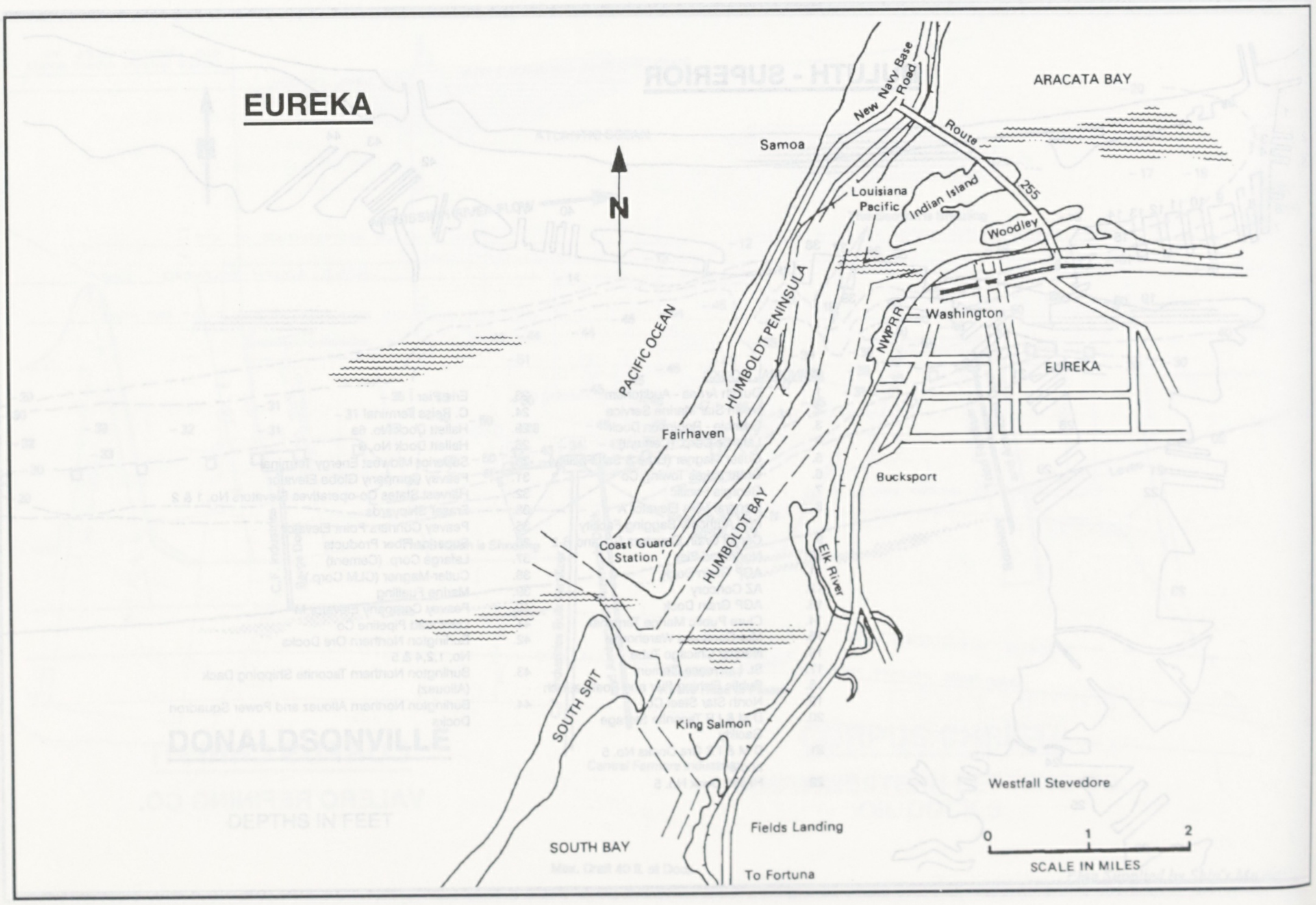
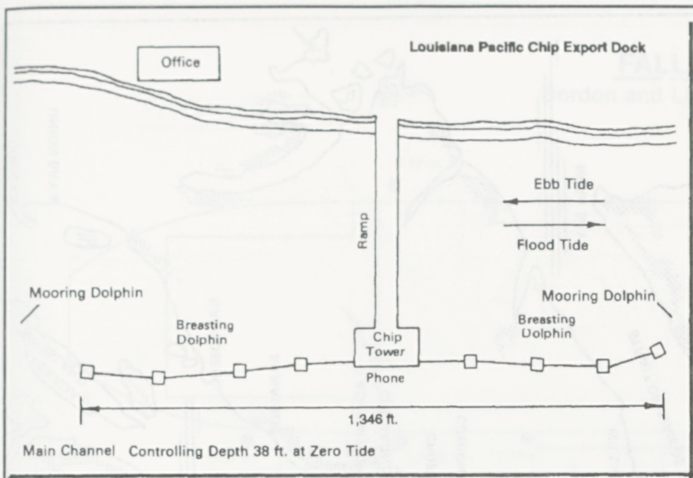
41
42
43
44

PRINCIPAL DOCKS

1.	Duluth Arena - Auditorium
2.	North Star Marine Service
3.	Gamble - Robinson Dock
4.	Lafarge Corp. (Cement)
5.	Cutler Magner (Lime & Salt Facility)
6.	Great Lakes Towing Co
7.	Georgia Pacific
8.	General Mills Elevator A Port Authority Bagging Facility
9.	Cargill Grain Elevators B-1 and B-2
10.	Northland Pier
11.	AGP Grain Dock
12.	AZ Concory
13.	AGP Grain Dock
14.	Clure Public Marine Terminal
15.	Mid-Continent Warehouse
16.	Norstar Chicago Tube
17.	St. Lawrence Cement
18.	Public Fishing Pier and Boat Launch
19.	North Star Steel Co
20.	D M & I R Taconite Storage Gacility
21.	D M & I R Ore Docks No. 5 and 6
22.	Hallett Dock No. 5
23.	Erie Pier
24.	C. Reiss Terminal
25.	Hallett Dock No. 6a
26.	Hallett Dock No. 6
28.	Superior Midwest Energy Terminal
31.	Peavey Company Globe Elevator
32.	Harvest States Co-operatives Elevators No. 1 & 2
33.	Fraser Shipyards
35.	Peavey Conners Point Elevator
36.	Superior Fiber Products
37.	Lafarge Corp. (Cement)
38.	Cutler-Magner (CLM Corp.)
39.	Marine Fuelling
40.	Peavey Company Elevator M
41.	Lakehead Pipeline Co
42.	Burlington Northern Ore Docks No, 1,2,4 & 5
43.	Burlington Northern Taconite Shipping Dack (Allouez)
44.	Burlington Northern Allouez and Power Squadron Docks

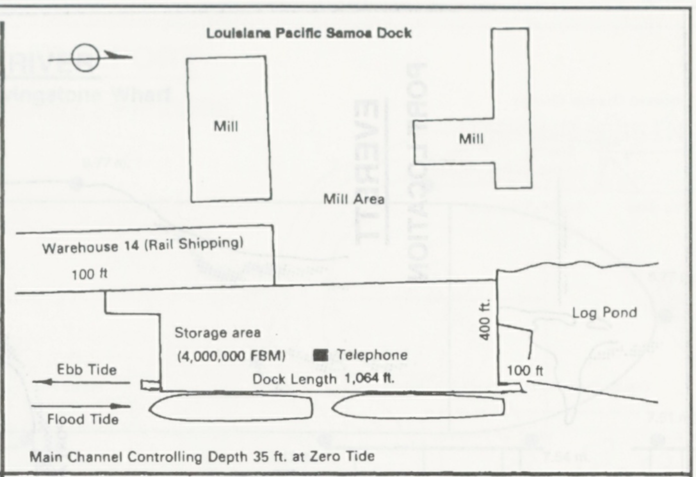

ERIE
LAKE ERIE
PRESQUE ISLE STATE PARK
Entrance Channel Project Depth 29 ft.
Entrance Channel 500 ft.
72 in. Outlet Sewer
North Pier
Private Channel 16 ft. deep
South Pier
13x6 in. Oil Pipelines
Submerged Pier
South Breakwater
Dredged to 21 feet
Harbour 1500 ft. Basin
HARBOUR
60 in. Intake Pipe below Natural Bottom
Approach Area Project depth 27 ft. in soft material & 28 ft. in hard
ERIE
Not Dredged
Harbour Areas
Turning Basin Paasch Marine Service
U.S. Harbour Line
The Neck
Project depth 28 ft. in soft material & 29 ft. in hard
CITY OF ERIE
N
0 1000 2000 3000 4000 Feet
Scale


EUREKA
N
New Navy Base Road
ARACATA BAY
Samoa
Route 255
Louisiana Pacific
Indian Island
Woodley
Washington
NWPRR
HUMBOLDT PENINSULA
PACIFIC OCEAN
EUREKA
Fairhaven
Bucksport
HUMBOLDT BAY
Coast Guard Station
Elk River
SOUTH SPIT
King Salmon
Westfall Stevedore
Fields Landing
SOUTH BAY
To Fortuna
0 1 2
SCALE IN MILES



Louisiana Pacific Chip Export Dock

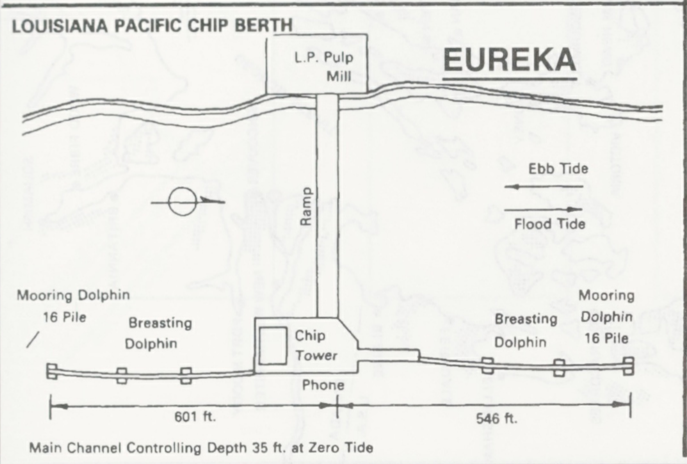
Office
Ramp
Ebb Tide
Flood Tide
Mooring Dolphin
Breasting Dolphin
Chip Tower
Phone
Breasting Dolphin
Mooring Dolphin
1,346 ft.
Main Channel Controlling Depth 38 ft. at Zero Tide



Louisiana Pacific Samoa Dock

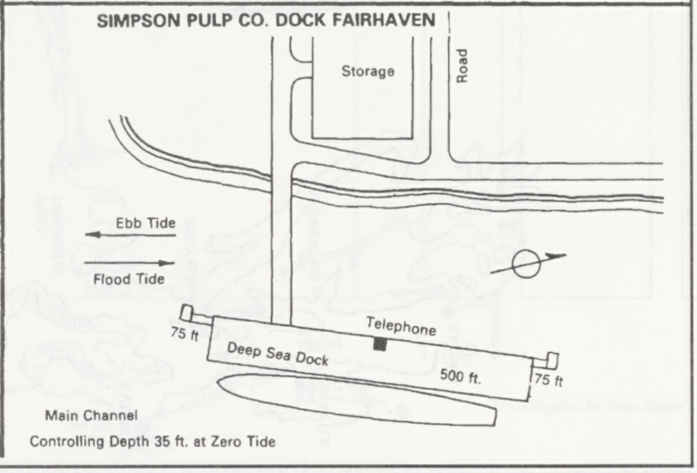
Mill
Mill
Mill Area
Warehouse 14 (Rail Shipping)
100 ft
Storage area
(4,000,000 FBM)
Telephone
400 ft.
Log Pond
100 ft
Ebb Tide
Flood Tide
Dock Length 1,064 ft.
Main Channel Controlling Depth 35 ft. at Zero Tide

EUREKA



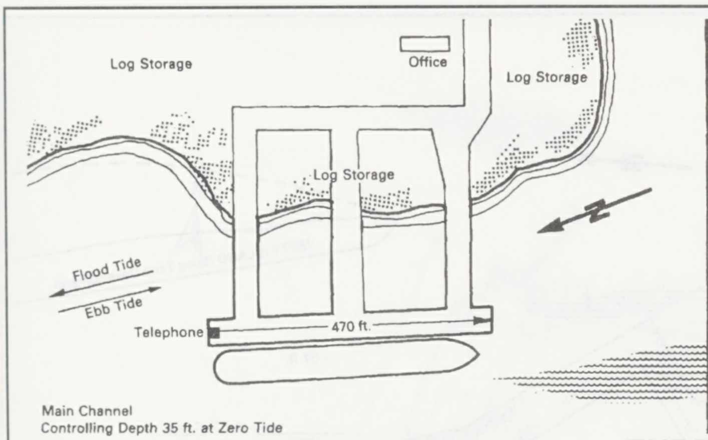
LOUISIANA PACIFIC CHIP BERTH

L.P. Pulp Mill
Ramp
Ebb Tide
Flood Tide
Mooring Dolphin 16 Pile
Breasting Dolphin
Chip Tower
Phone
Breasting Dolphin
Mooring Dolphin 16 Pile
601 ft.
546 ft.
Main Channel Controlling Depth 35 ft. at Zero Tide



SIMPSON PULP CO. DOCK FAIRHAVEN

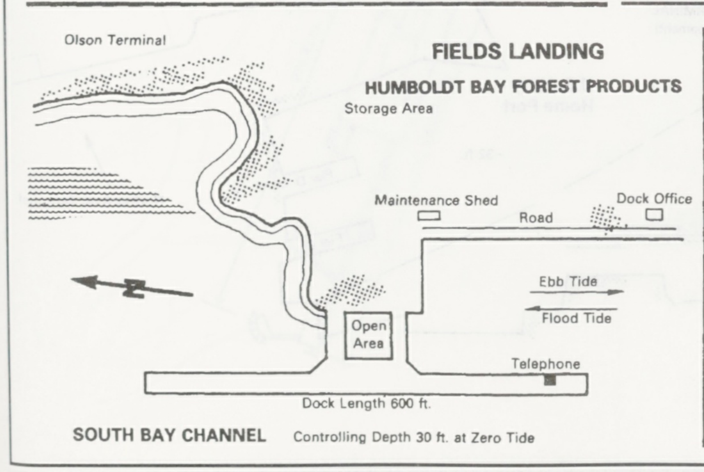
Storage
Road
Ebb Tide
Flood Tide
75 ft
Telephone
Deep Sea Dock
500 ft.
75 ft
Main Channel
Controlling Depth 35 ft. at Zero Tide



EUREKA FOREST PRODUCTS DOCK

Log Storage
Office
Log Storage
Log Storage
N
Flood Tide
Ebb Tide
Telephone
470 ft.
Main Channel
Controlling Depth 35 ft. at Zero Tide

EUREKA

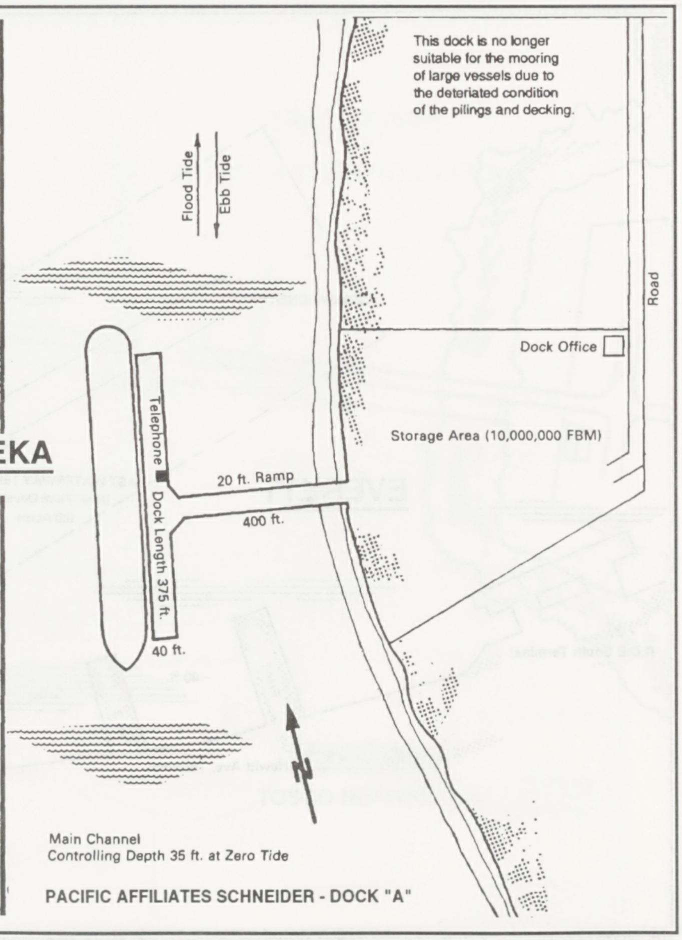


FIELDS LANDING

HUMBOLDT BAY FOREST PRODUCTS

Olson Terminal
Storage Area
Maintenance Shed
Dock Office
Road
N
Ebb Tide
Flood Tide
Open Area
Telephone
Dock Length 600 ft.

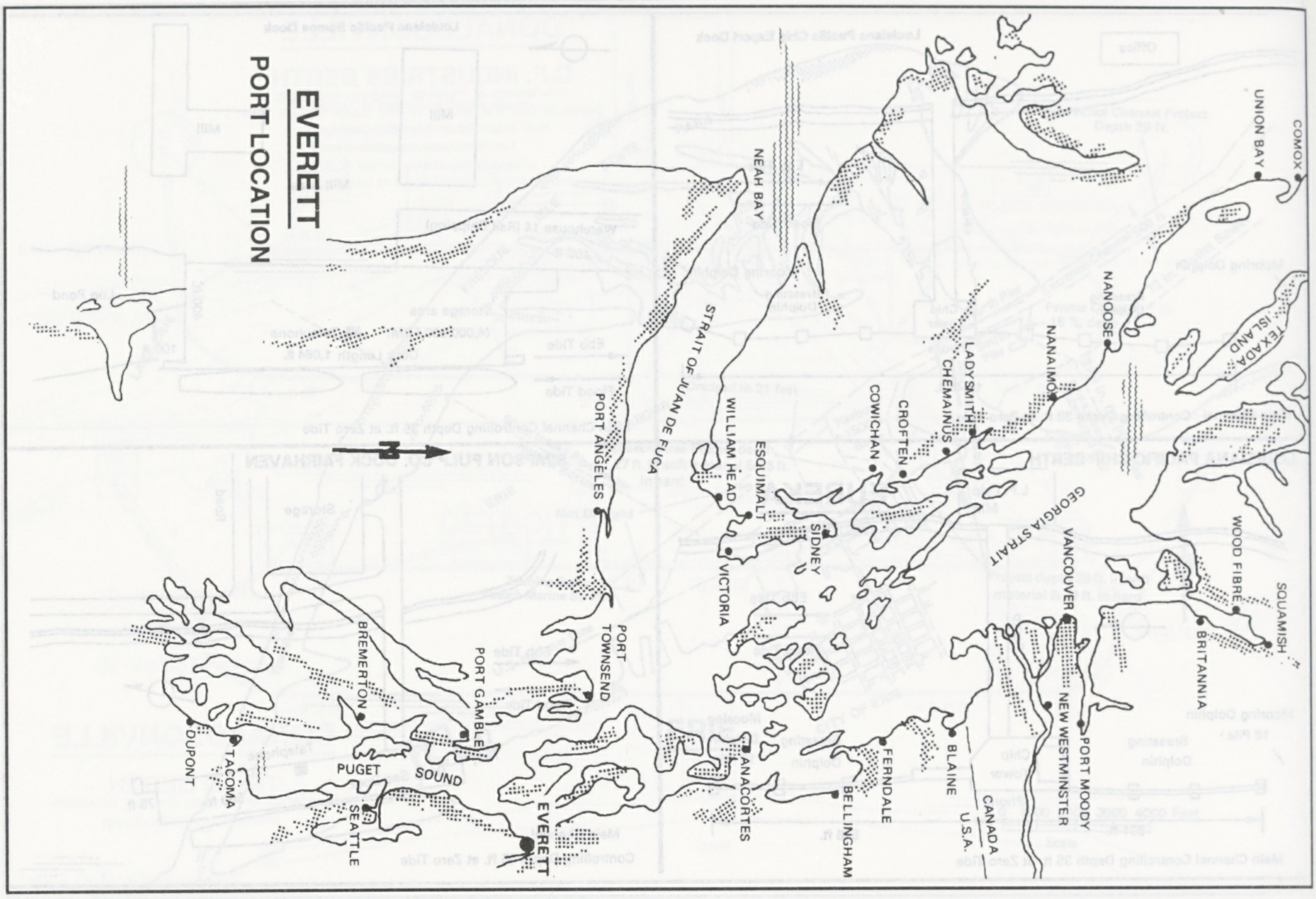
SOUTH BAY CHANNEL Controlling Depth 30 ft. at Zero Tide



PACIFIC AFFILIATES SCHNEIDER - DOCK "A"

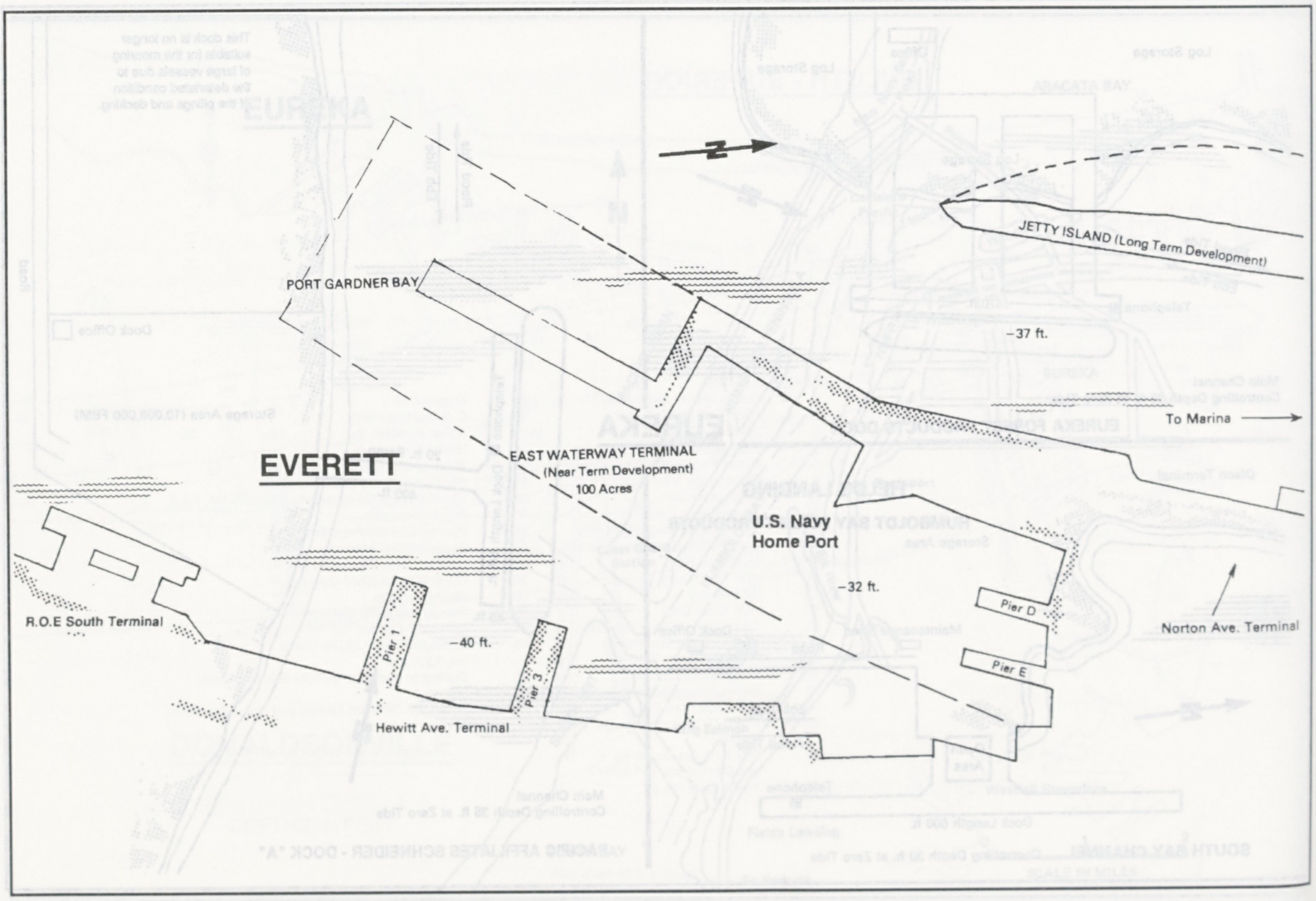
This dock is no longer suitable for the mooring of large vessels due to the deteriated condition of the pilings and decking.

Flood Tide
Ebb Tide
Road
Dock Office
Storage Area (10,000,000 FBM)
Telephone
Dock Length 375 ft.
20 ft. Ramp
400 ft.
40 ft.
N
Main Channel
Controlling Depth 35 ft. at Zero Tide


EVERETT

PORT LOCATION

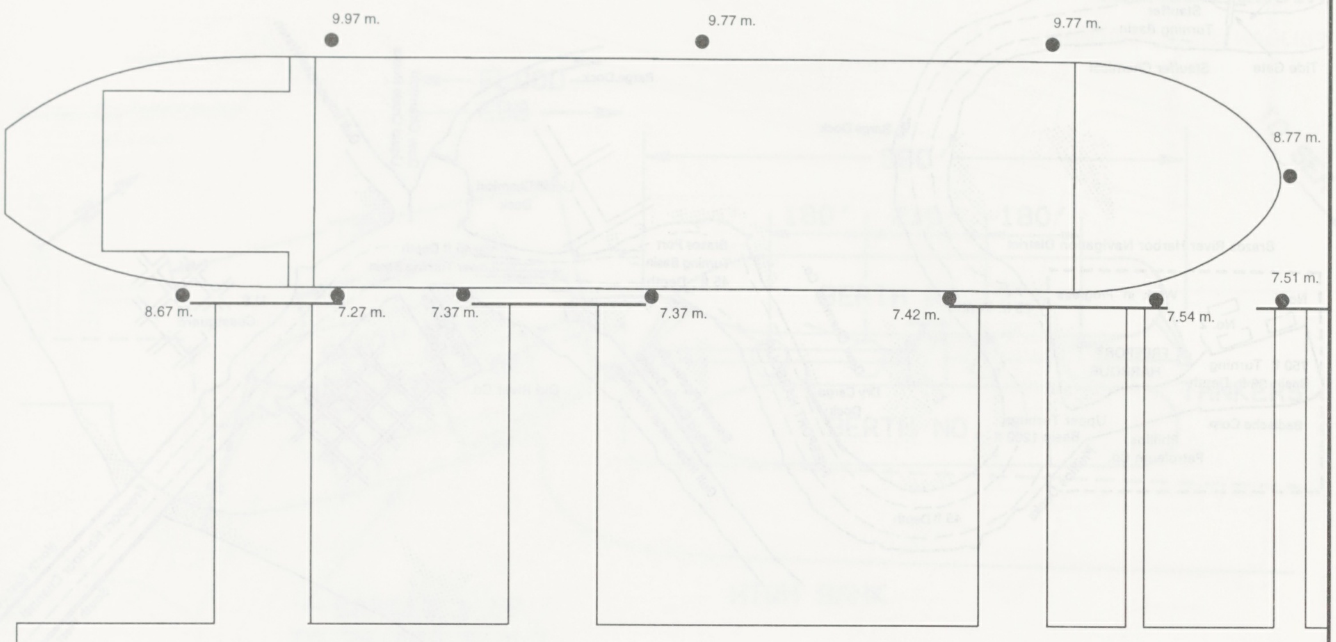
COMOX
UNION BAY
TEXADA ISLAND
SQUAMISH
WOOD FIBRE
BRITANNIA
NANOOSE
NANAIMO
GEORGIA STRAIT
VANCOUVER
PORT MOODY
NEW WESTMINSTER
CANADA
U.S.A.
LADYSMITH
CHEMAINUS
CROFTEN
COWICHAN
BLAINE
FERNDALE
BELLINGHAM
SIDNEY
ESQUIMALT
WILLIAM HEAD
VICTORIA
ANACORTES
NEAH BAY
STRAIT OF JUAN DE FUCA
PORT ANGELES
PORT TOWNSEND
EVERETT
PORT GAMBLE
PUGET SOUND
BREMERTON
SEATTLE
TACOMA
DUPONT
N


EVERETT

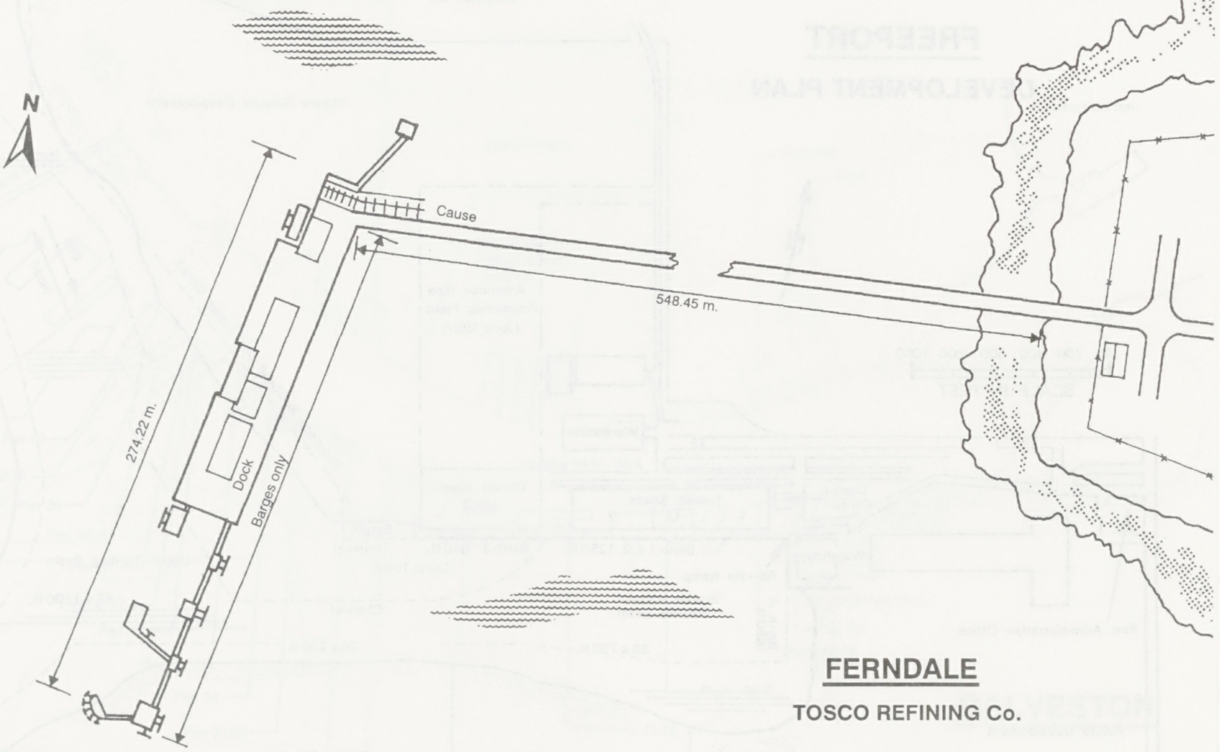
N
JETTY ISLAND (Long Term Development)
PORT GARDNER BAY
−37 ft.
To Marina
EAST WATERWAY TERMINAL
(Near Term Development)
100 Acres
U.S. Navy
Home Port
−32 ft.
Pier D
Pier E
Norton Ave. Terminal
R.O.E South Terminal
Pier 1
−40 ft.
Pier 3
Hewitt Ave. Terminal

FALL RIVER

Bordon and Livingstone Wharf

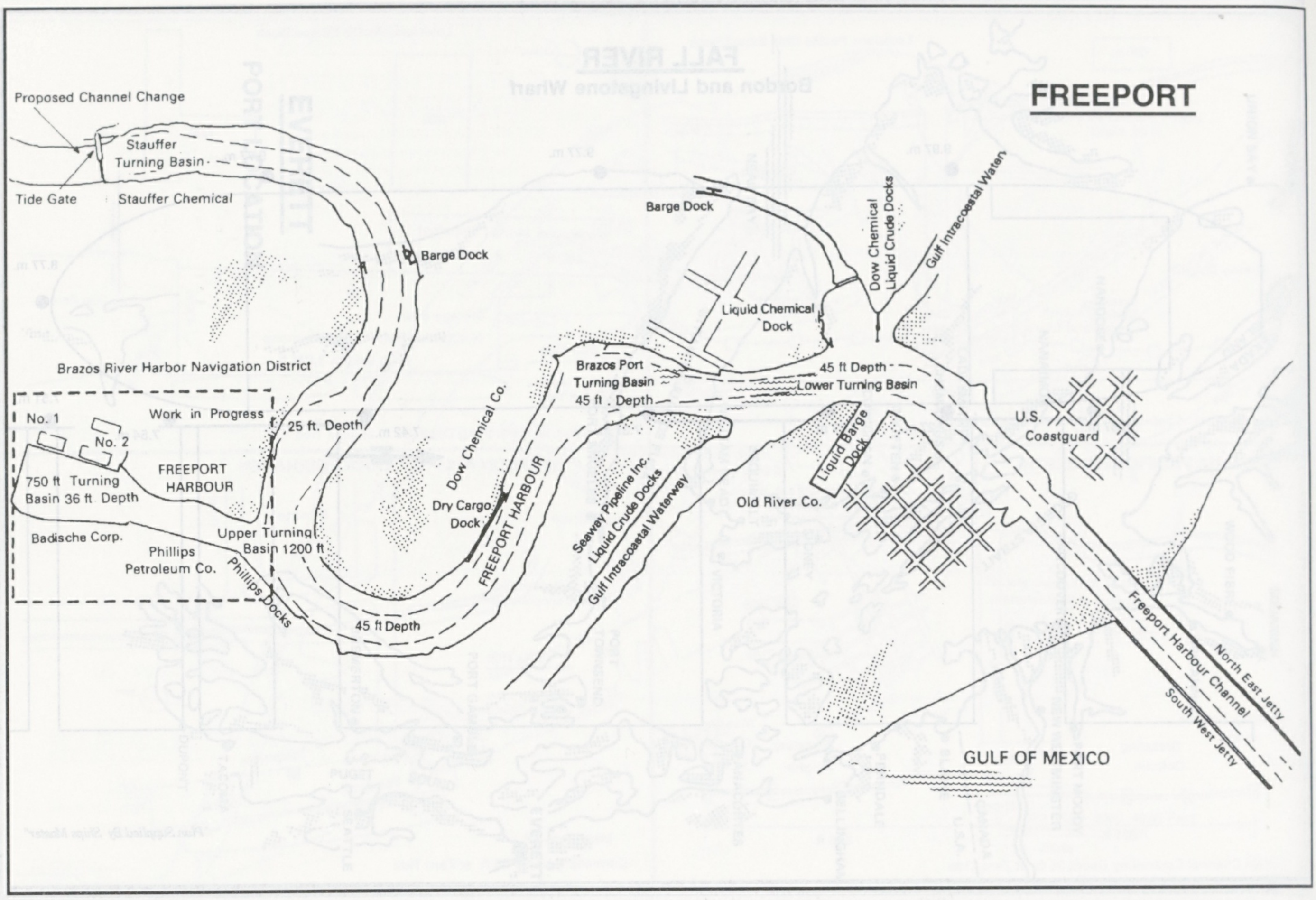

9.97 m.
9.77 m.
9.77 m.
8.77 m.
7.51 m.
8.67 m.
7.27 m.
7.37 m.
7.37 m.
7.42 m.
7.54 m.

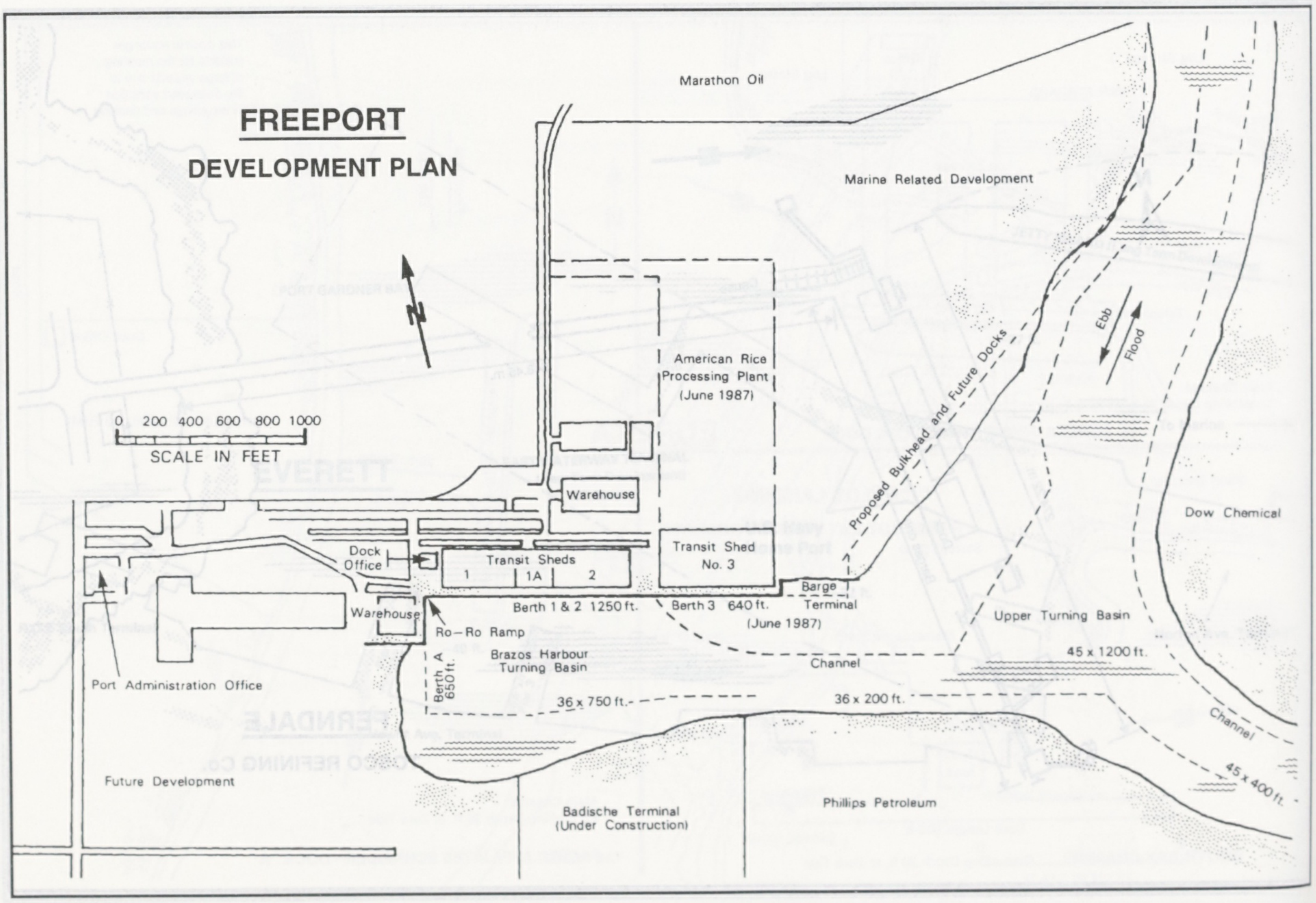
"Plan Supplied By Ships Master"

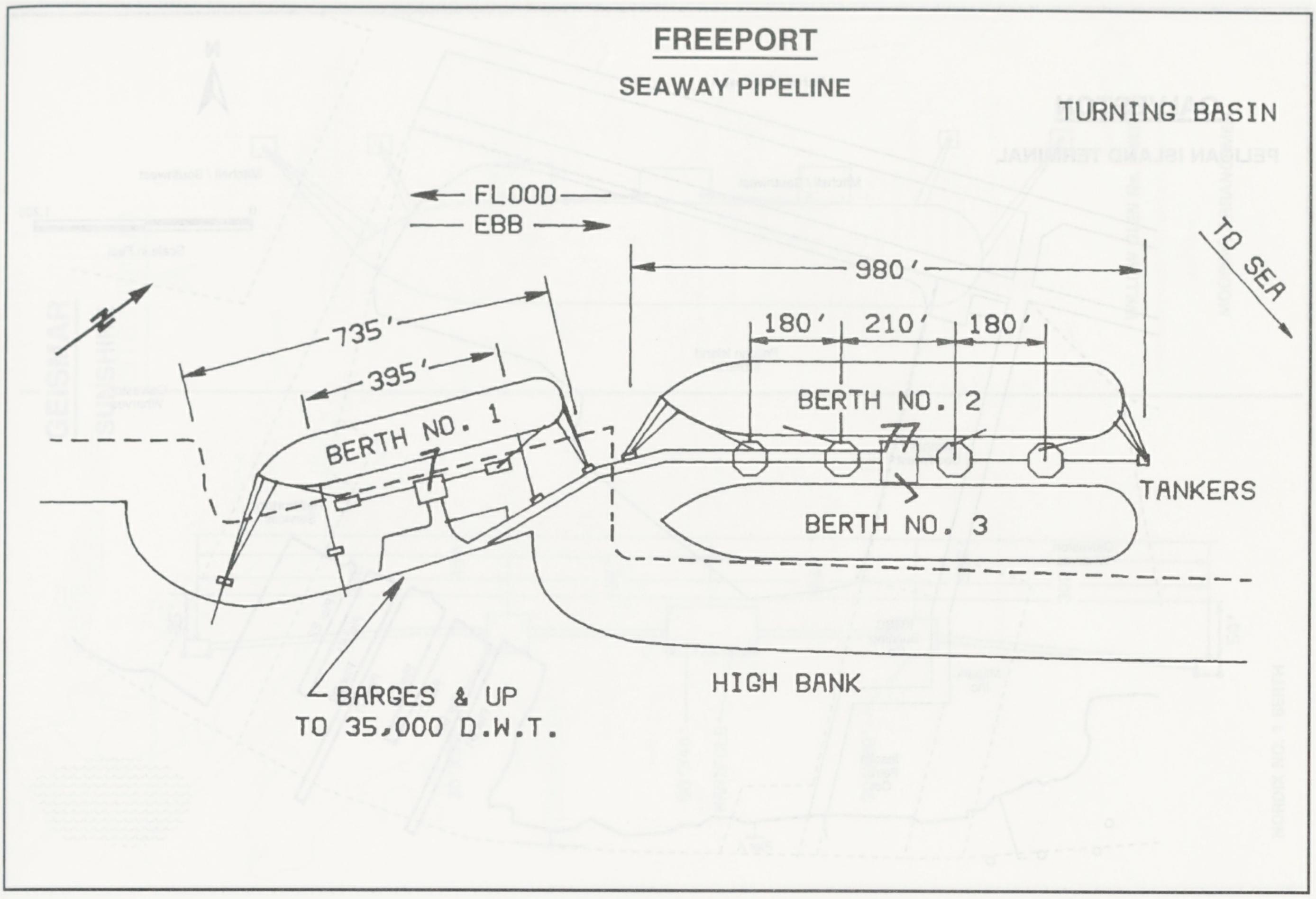

N
Cause
548.45 m.
274.22 m.
Dock
Barges only

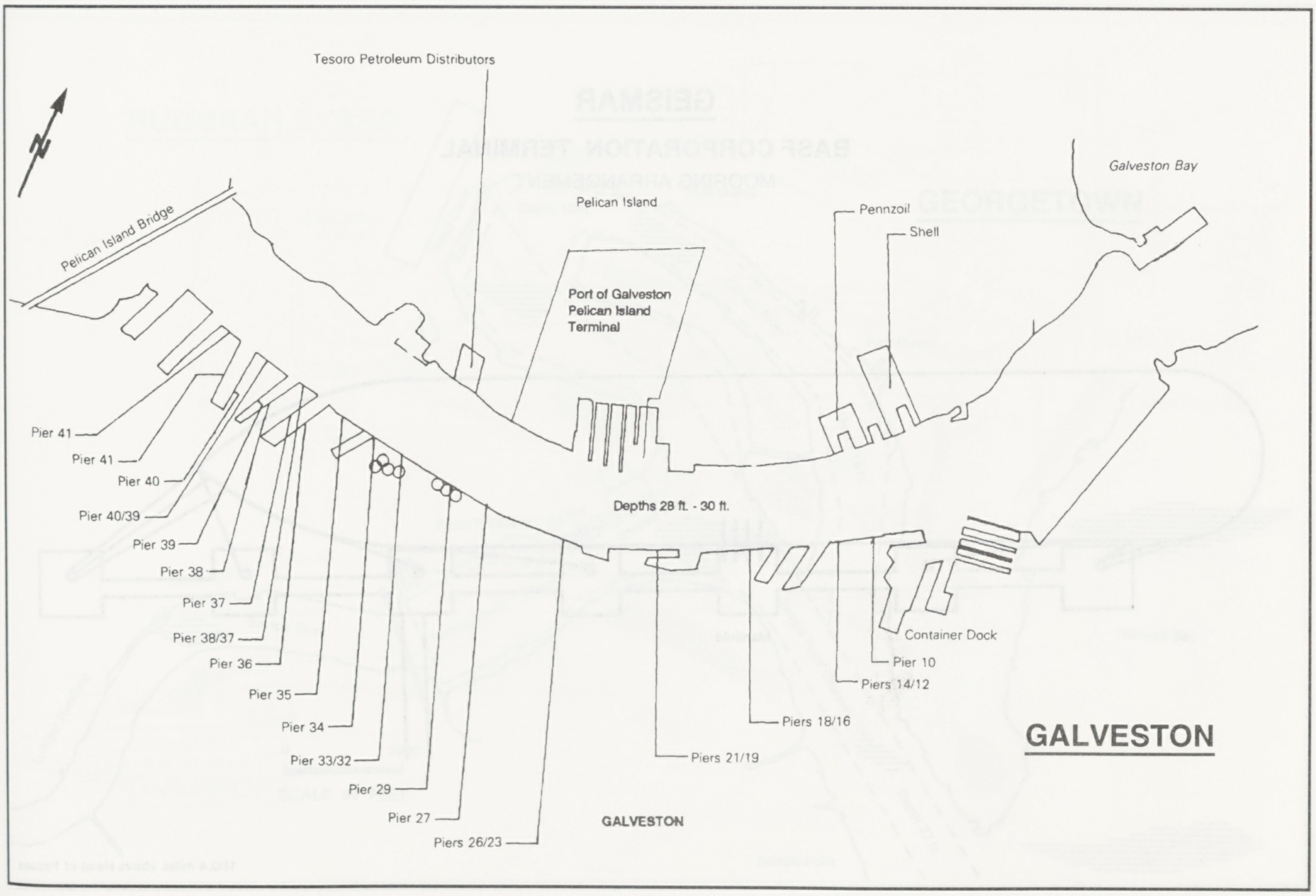
FERNDALE

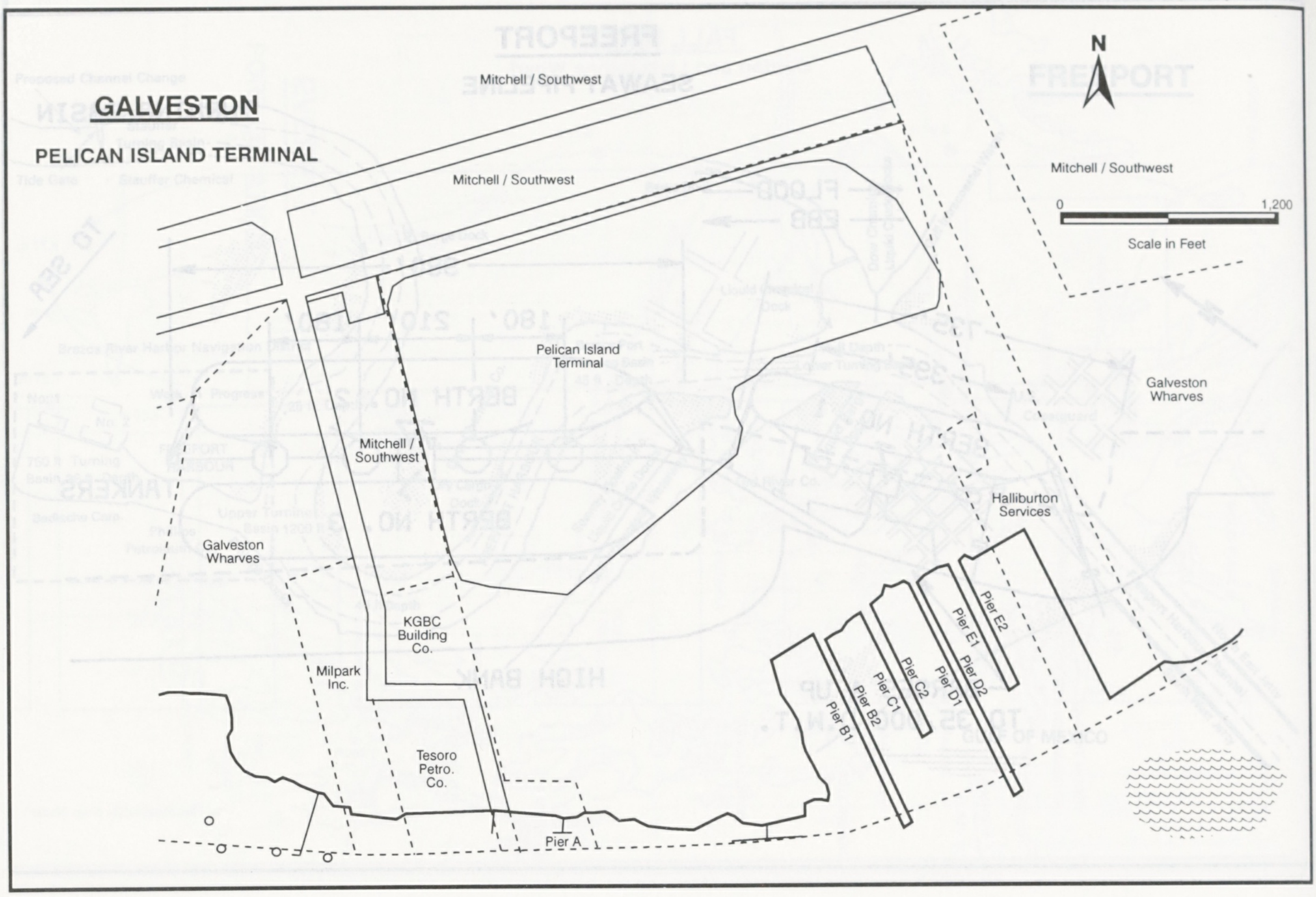
TOSCO REFINING Co.


FREEPORT
Proposed Channel Change
Stauffer Turning Basin
Tide Gate
Stauffer Chemical
Barge Dock
Brazos River Harbor Navigation District
No. 1
No. 2
Work in Progress
25 ft. Depth
750 ft Turning Basin 36 ft Depth
FREEPORT HARBOUR
Badische Corp.
Phillips Petroleum Co.
Upper Turning Basin 1200 ft
Phillips Docks
45 ft Depth
Dow Chemical Co.
Dry Cargo Dock
FREEPORT HARBOUR
Brazos Port Turning Basin 45 ft . Depth
Seaway Pipeline Inc. Liquid Crude Docks
Gulf Intracoastal Waterway
Barge Dock
Liquid Chemical Dock
Dow Chemical Liquid Crude Docks
Gulf Intracoastal Watean
45 ft Depth
Lower Turning Basin
Liquid Barge Dock
Old River Co.
U.S. Coastguard
Freeport Harbour Channel
North East Jetty
South West Jetty
GULF OF MEXICO


FREEPORT
DEVELOPMENT PLAN
N
0 200 400 600 800 1000
SCALE IN FEET
Marathon Oil
Marine Related Development
American Rice Processing Plant (June 1987)
Warehouse
Transit Shed No. 3
Dock Office
Transit Sheds
1
1A
2
Warehouse
Ro – Ro Ramp
Berth 1 & 2 1250 ft.
Berth 3 640 ft. (June 1987)
Barge Terminal
Proposed Bulkhead and Future Docks
Ebb
Flood
Dow Chemical
Upper Turning Basin
45 x 1200 ft.
Channel
36 x 200 ft.
Brazos Harbour Turning Basin
36 x 750 ft.
Berth A 650 ft.
Channel
45 x 400 ft.
Port Administration Office
Future Development
Badische Terminal (Under Construction)
Phillips Petroleum


FREEPORT
SEAWAY PIPELINE
TURNING BASIN
FLOOD
EBB
TO SEA
N
980′
180′
210′
180′
735′
395′
BERTH NO. 1
BERTH NO. 2
BERTH NO. 3
TANKERS
HIGH BANK
BARGES & UP TO 35,000 D.W.T.

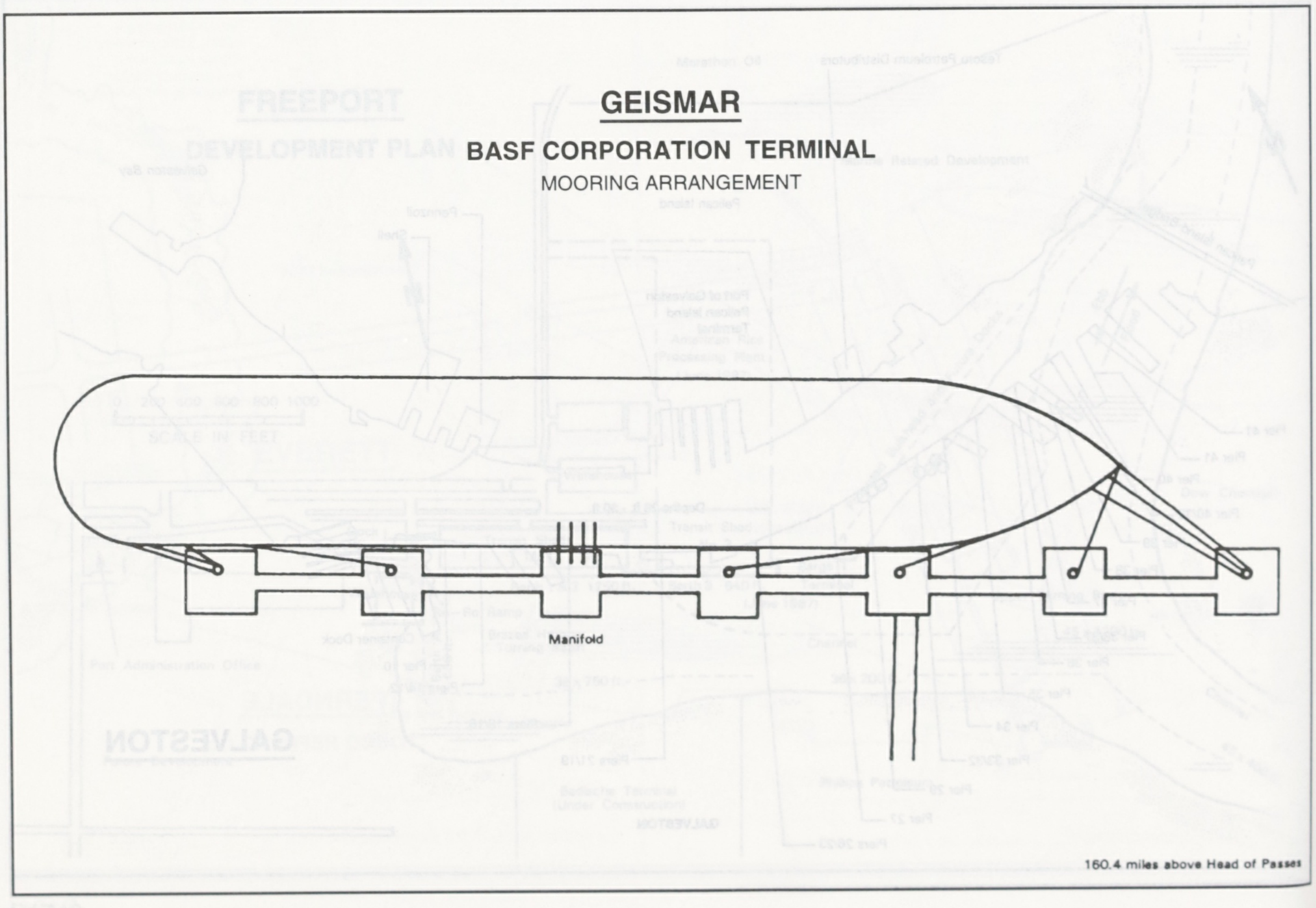

Tesoro Petroleum Distributors
N
Pelican Island Bridge
Pelican Island
Port of Galveston Pelican Island Terminal
Pennzoil
Shell
Galveston Bay
Pier 41
Pier 41
Pier 40
Pier 40/39
Pier 39
Pier 38
Pier 37
Pier 38/37
Pier 36
Pier 35
Pier 34
Pier 33/32
Pier 29
Pier 27
Piers 26/23
Depths 28 ft. - 30 ft.
GALVESTON
Piers 21/19
Piers 18/16
Piers 14/12
Pier 10
Container Dock
GALVESTON



GALVESTON

PELICAN ISLAND TERMINAL

N
Mitchell / Southwest
Mitchell / Southwest
Mitchell / Southwest
0
1,200
Scale in Feet
Pelican Island Terminal
Galveston Wharves
Mitchell / Southwest
Halliburton Services
Galveston Wharves
KGBC Building Co.
Milpark Inc.
Tesoro Petro. Co.
Pier A
Pier B1
Pier B2
Pier C2
Pier C1
Pier D1
Pier D2
Pier E1
Pier E2



GEISMAR

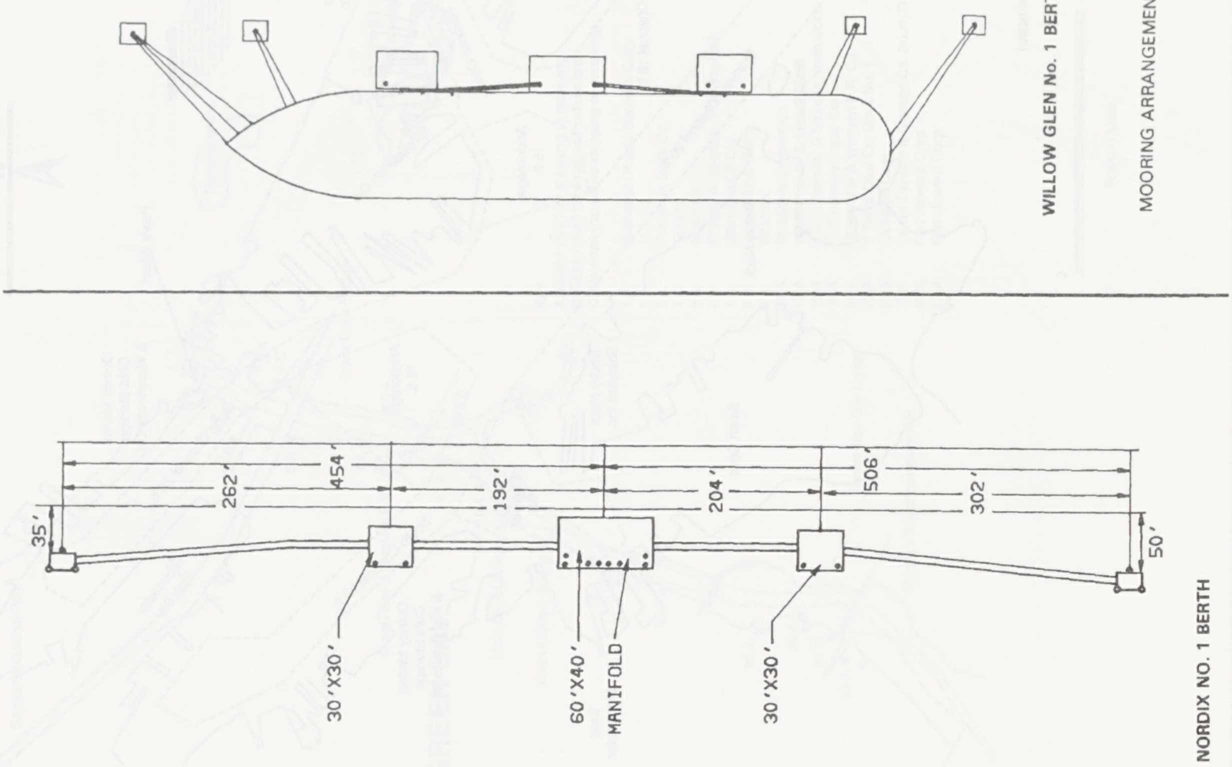
BASF CORPORATION TERMINAL

MOORING ARRANGEMENT

Manifold
160.4 miles above Head of Passes

GEISMAR

SUNSHINE

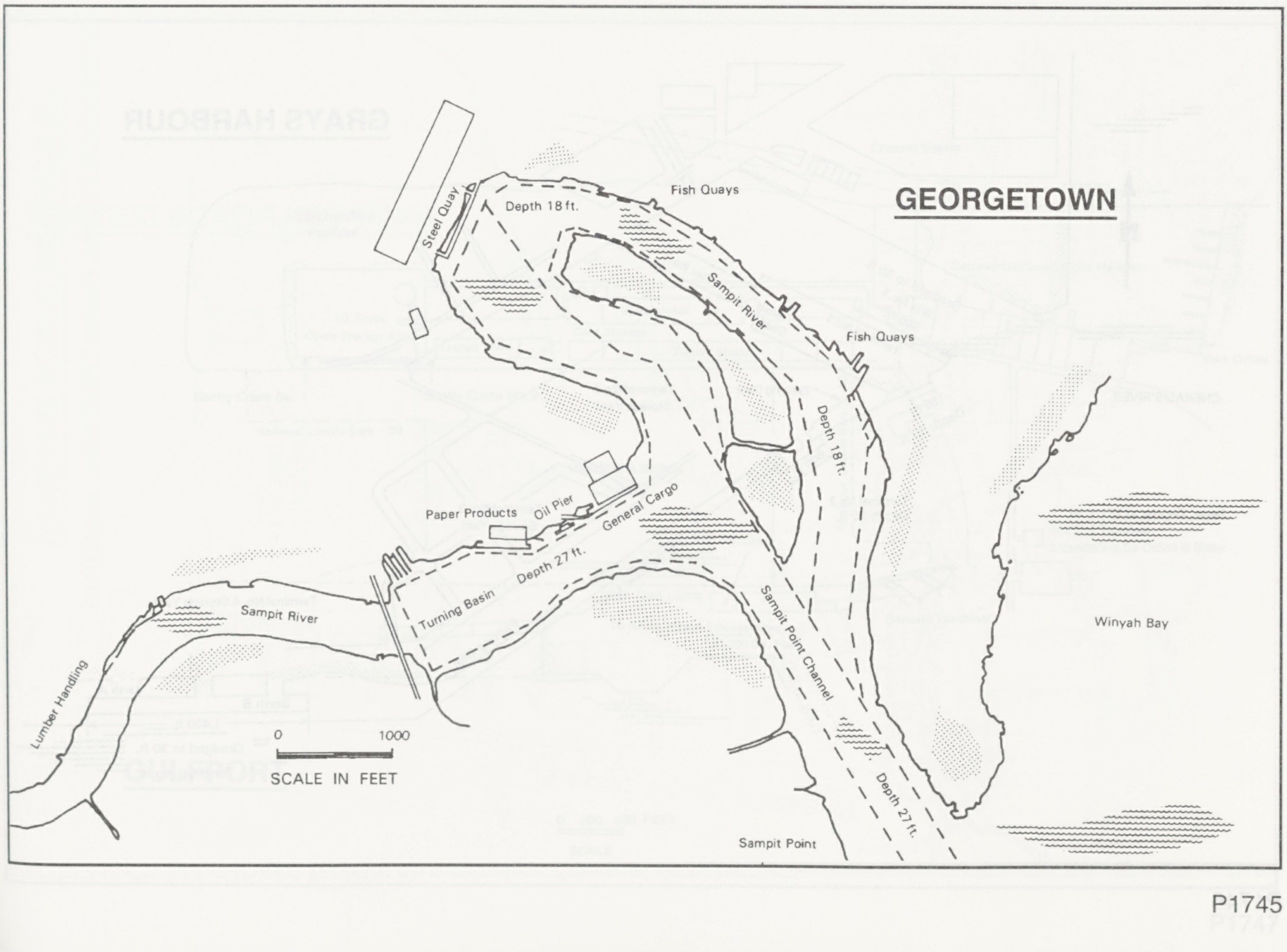

35'
262'
454'
192'
204'
506'
302'
50'
30'X30'
60'X40'
MANIFOLD
30'X30'

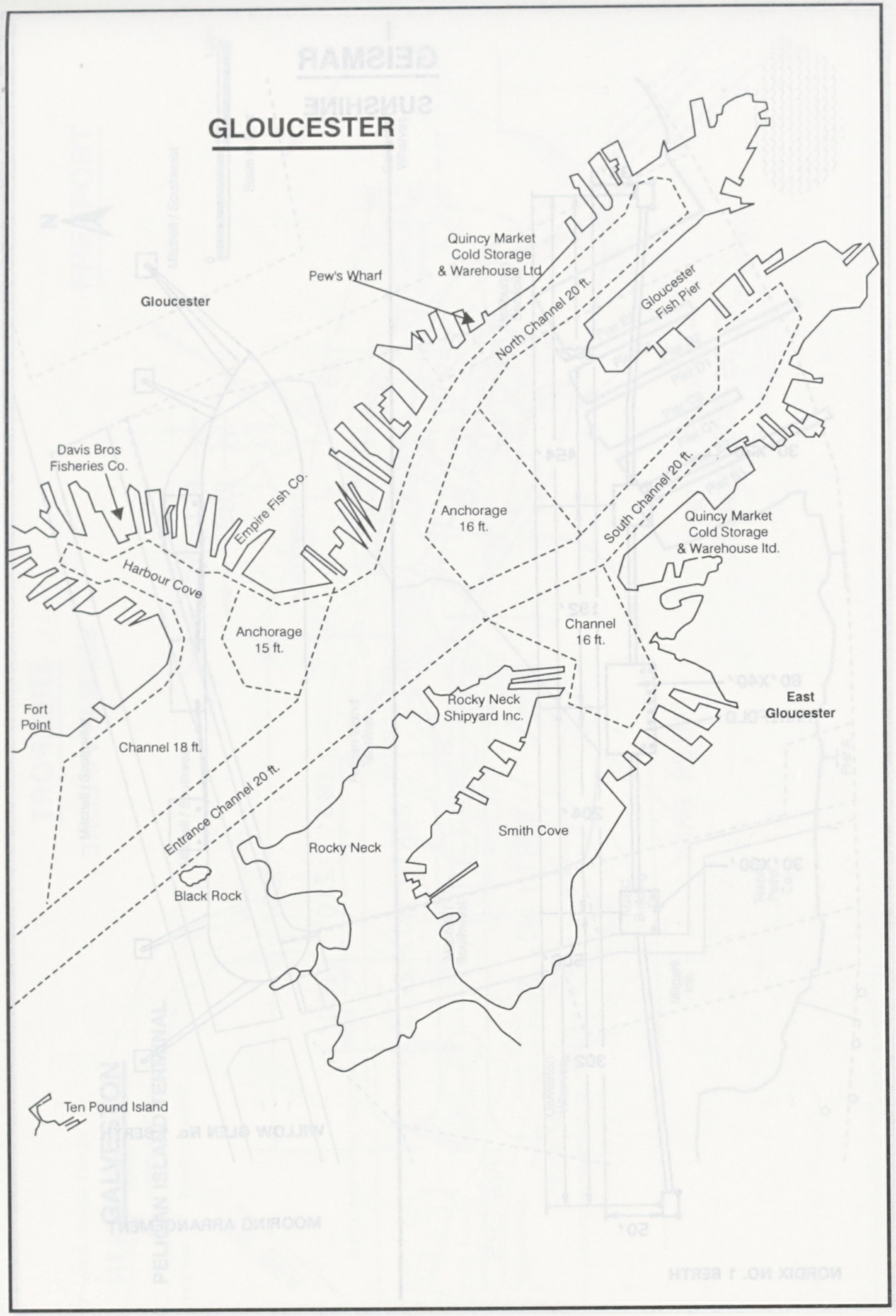
WILLOW GLEN No. 1 BERTH

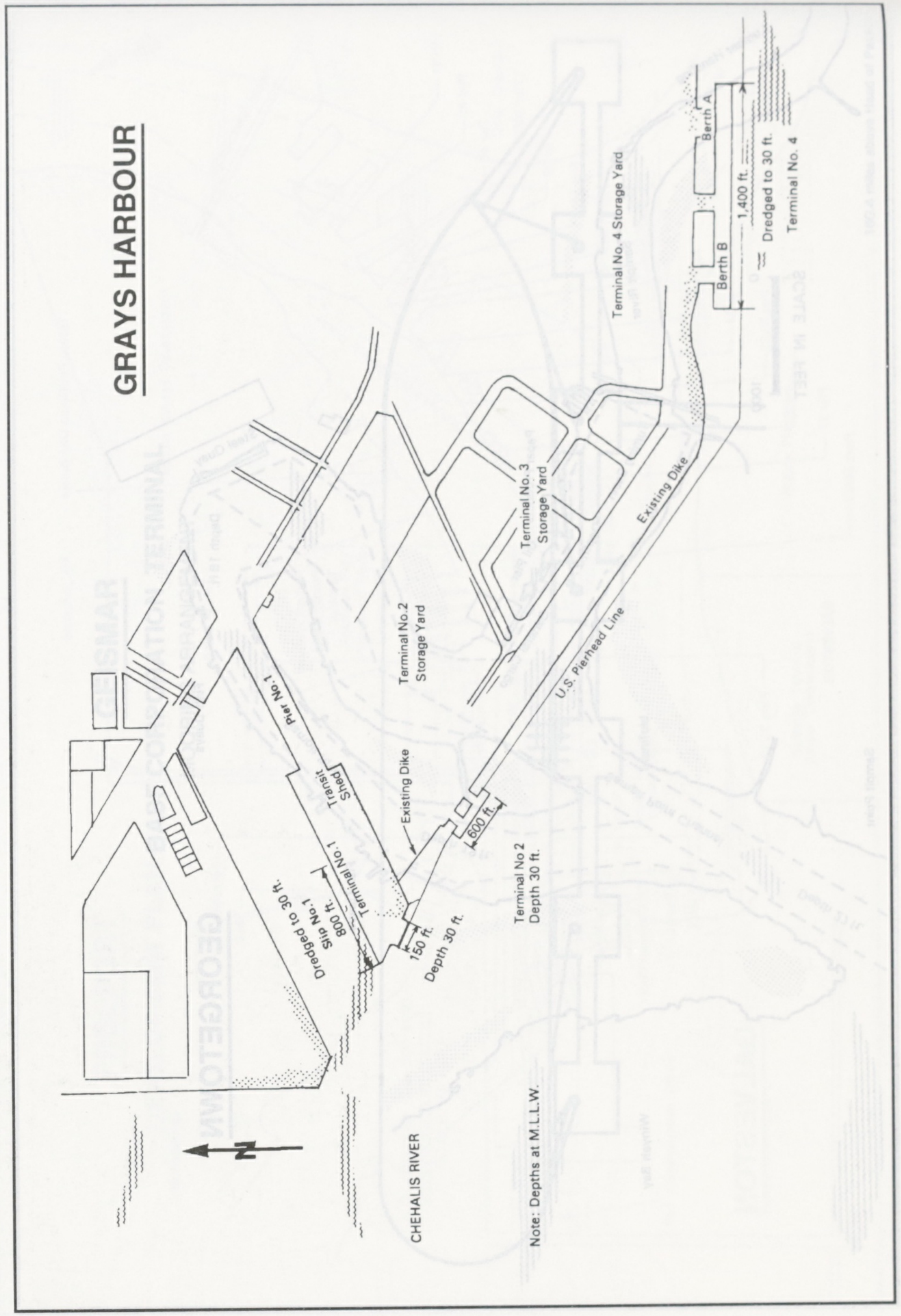
MOORING ARRANGEMENT

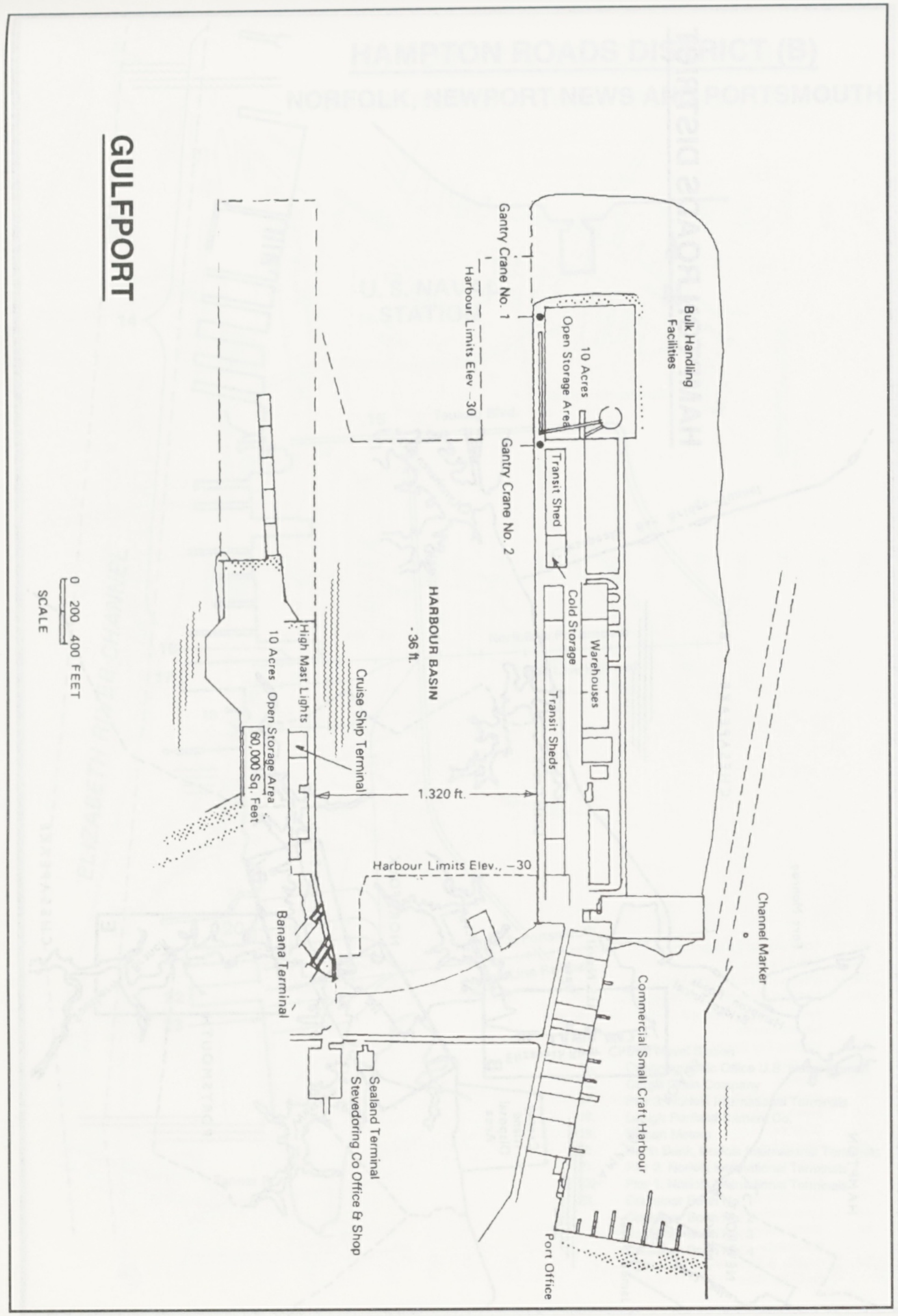
NORDIX NO. 1 BERTH

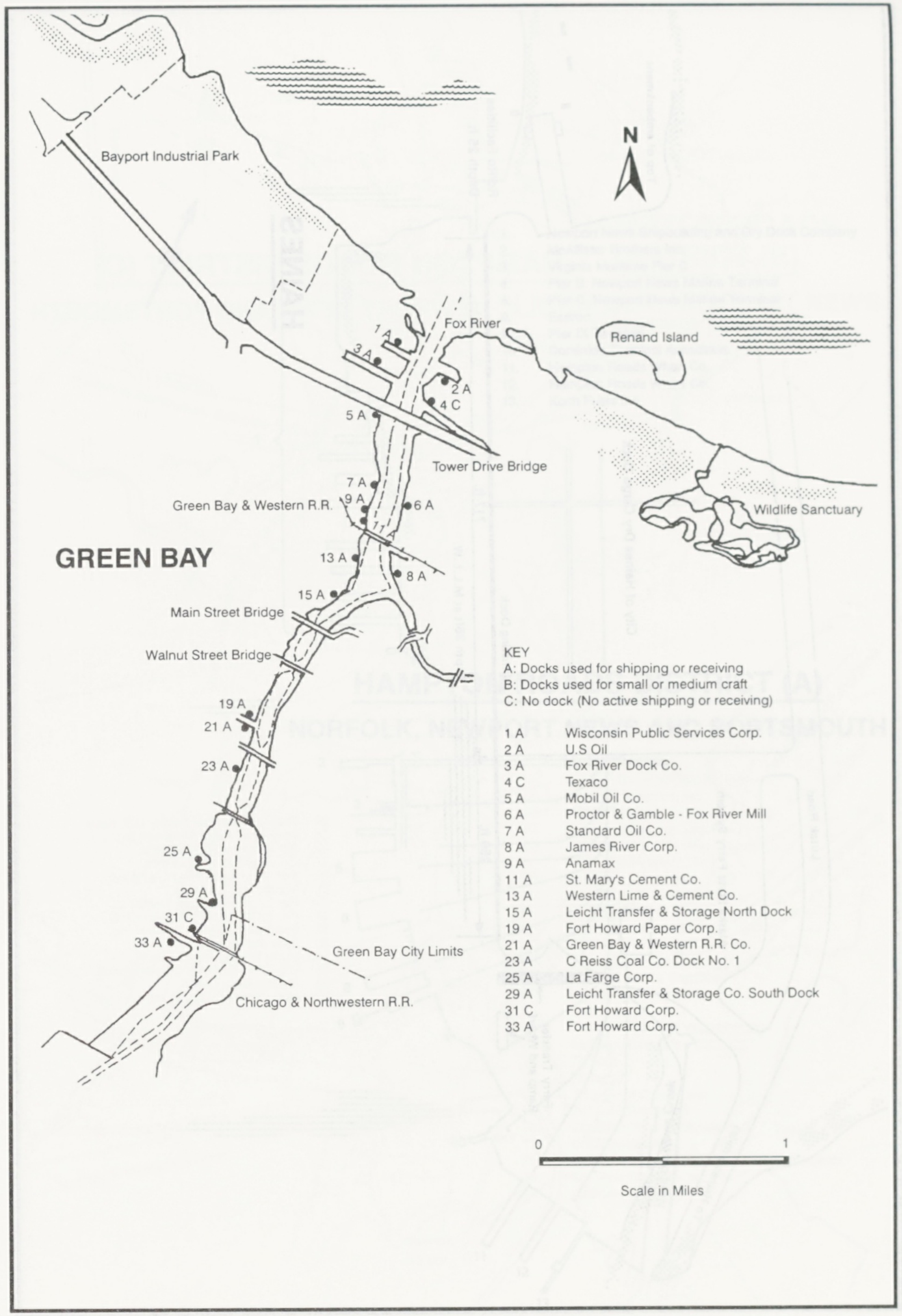
GEORGETOWN


Steel Quay
Depth 18 ft.
Fish Quays
Sampit River
Fish Quays
Depth 18 ft.
Paper Products
Oil Pier
General Cargo
Depth 27 ft.
Turning Basin
Sampit River
Lumber Handling
Sampit Point Channel
Winyah Bay
Depth 27 ft.
Sampit Point
0
1000
SCALE IN FEET


GLOUCESTER
Quincy Market
Cold Storage
& Warehouse Ltd
Pew's Wharf
Gloucester
North Channel 20 ft.
Gloucester
Fish Pier
Davis Bros
Fisheries Co.
Empire Fish Co.
Anchorage
16 ft.
South Channel 20 ft.
Quincy Market
Cold Storage
& Warehouse ltd.
Harbour Cove
Anchorage
15 ft.
Channel
16 ft.
East
Gloucester
Fort
Point
Rocky Neck
Shipyard Inc.
Channel 18 ft.
Entrance Channel 20 ft.
Smith Cove
Rocky Neck
Black Rock
Ten Pound Island

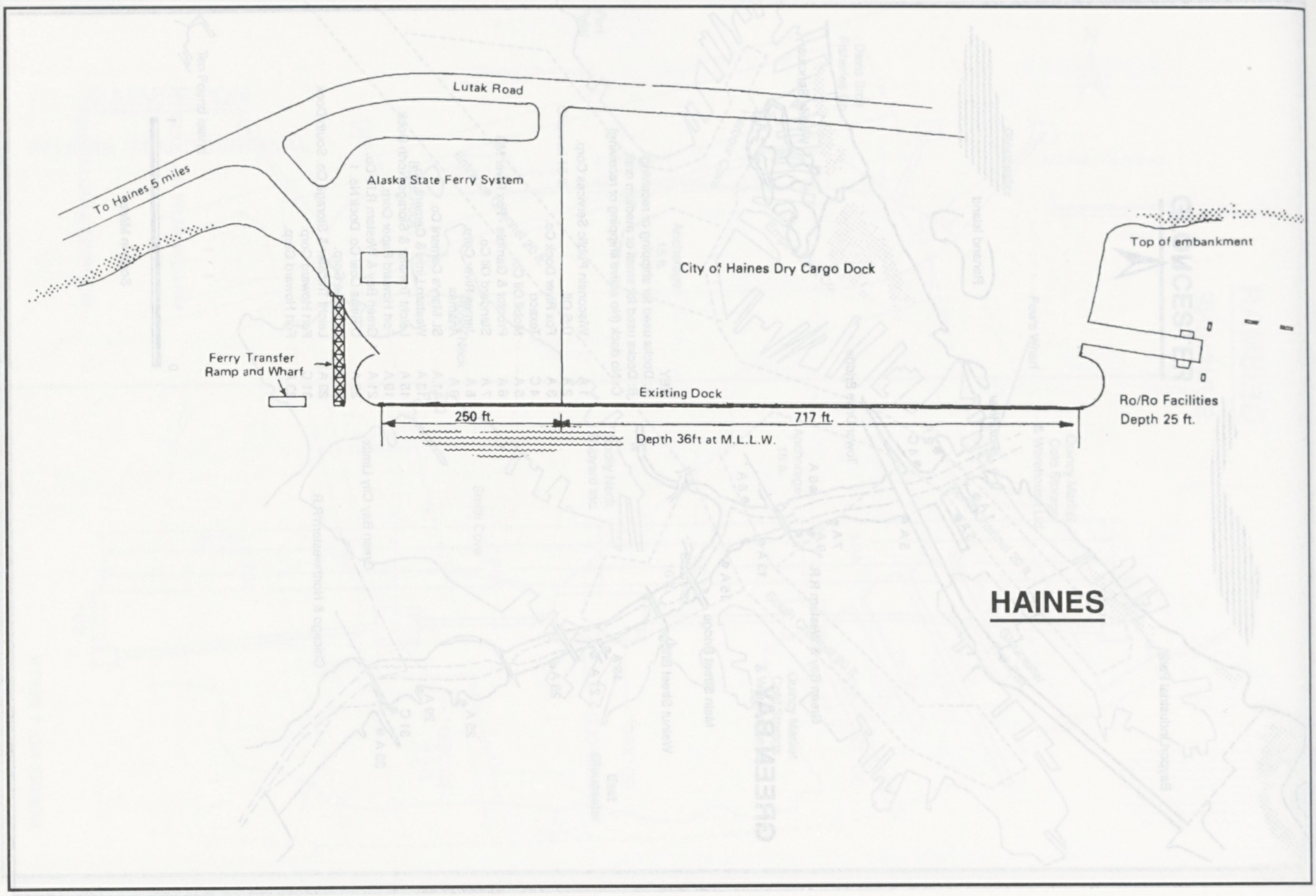

GRAYS HARBOUR
Berth A
Berth B
1,400 ft.
Dredged to 30 ft.
Terminal No. 4
Terminal No. 4 Storage Yard
Terminal No. 3
Storage Yard
Existing Dike
U.S. Pierhead Line
Terminal No.2
Storage Yard
Pier No.1
Transit
Shed
Existing Dike
Terminal No.1
Slip No.1
800 ft.
Dredged to 30 ft.
150 ft.
Depth 30 ft.
600 ft.
Terminal No 2
Depth 30 ft.
N
CHEHALIS RIVER
Note: Depths at M.L.L.W.

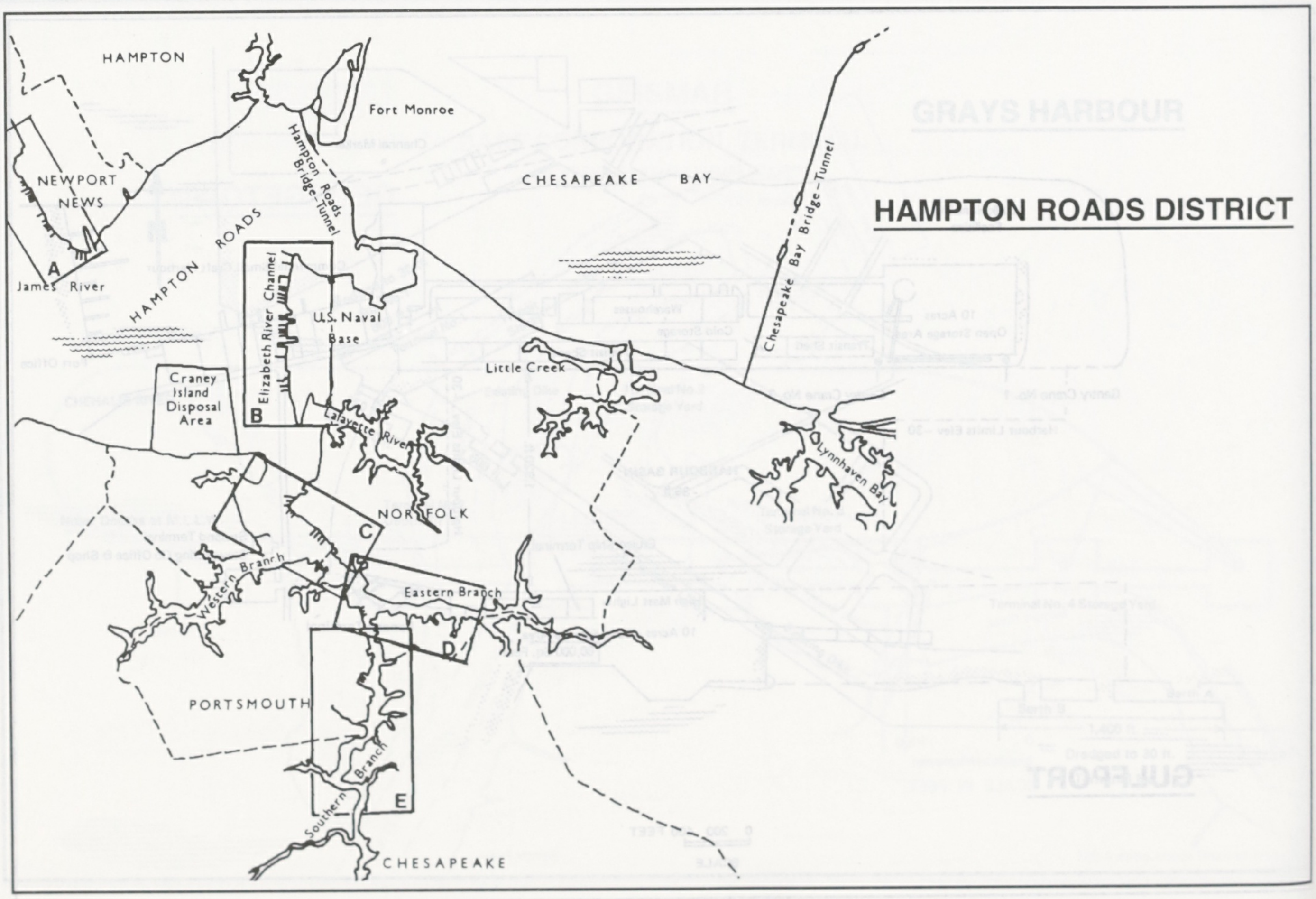

GULFPORT
Gantry Crane No. 1
Harbour Limits Elev -30
10 Acres
Open Storage Area
Bulk Handling Facilities
Gantry Crane No. 2
Transit Shed
Cold Storage
Warehouses
Transit Sheds
HARBOUR BASIN
-36 ft.
Cruise Ship Terminal
High Mast Lights
10 Acres Open Storage Area
60,000 Sq. Feet
1.320 ft.
Harbour Limits Elev., -30
Banana Terminal
Sealand Terminal
Stevedoring Co Office & Shop
Commercial Small Craft Harbour
Channel Marker
Port Office
0 200 400 FEET
SCALE


GREEN BAY
N
Bayport Industrial Park
Fox River
Renand Island
Tower Drive Bridge
Wildlife Sanctuary
Green Bay & Western R.R.
Main Street Bridge
Walnut Street Bridge
Green Bay City Limits
Chicago & Northwestern R.R.
1 A
2 A
3 A
4 C
5 A
6 A
7 A
8 A
9 A
13 A
15 A
19 A
21 A
23 A
25 A
29 A
31 C
33 A
0
1
Scale in Miles

KEY
A: Docks used for shipping or receiving
B: Docks used for small or medium craft
C: No dock (No active shipping or receiving)

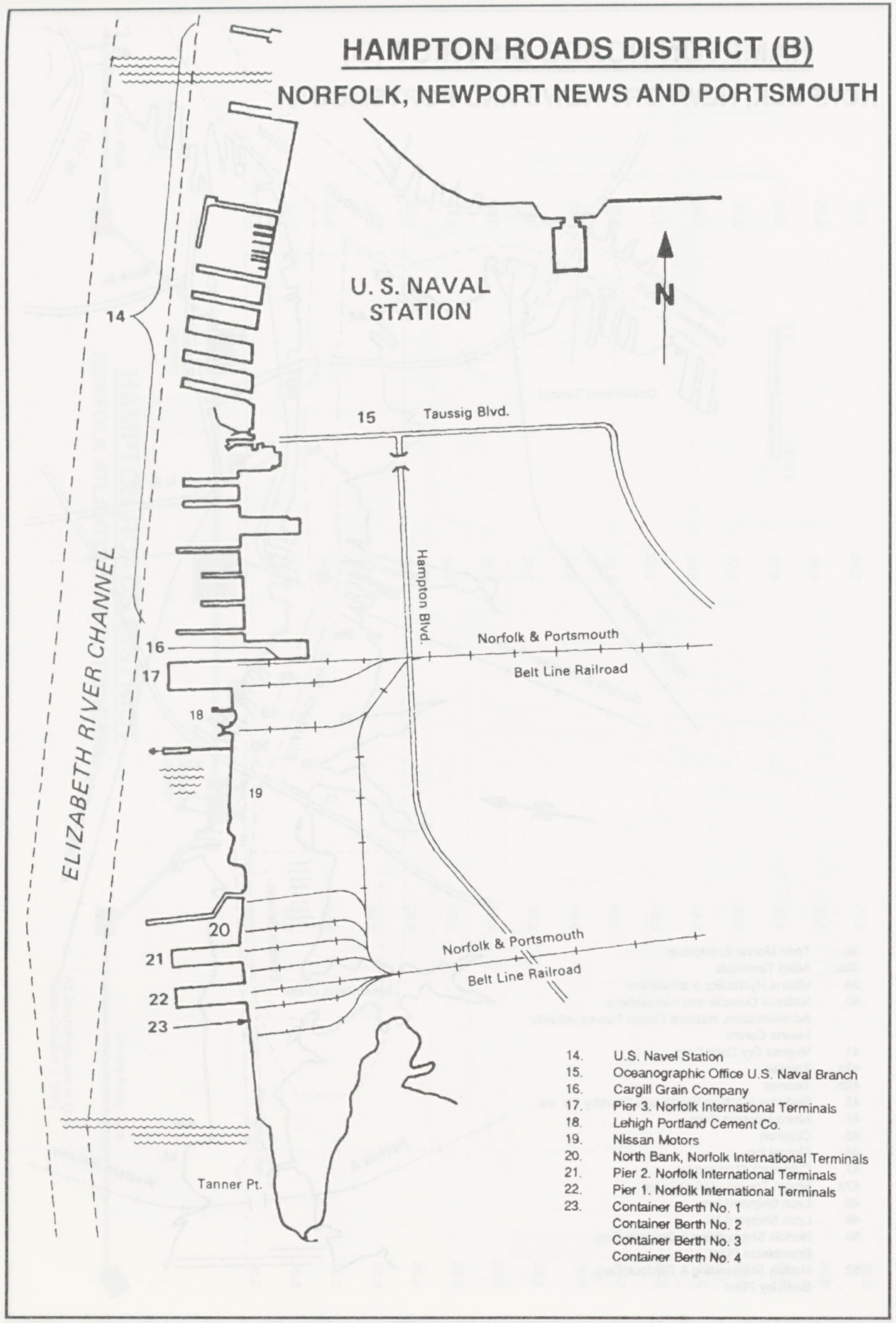
1 A	Wisconsin Public Services Corp.
2 A	U.S Oil
3 A	Fox River Dock Co.
4 C	Texaco
5 A	Mobil Oil Co.
6 A	Proctor & Gamble - Fox River Mill
7 A	Standard Oil Co.
8 A	James River Corp.
9 A	Anamax
11 A	St. Mary's Cement Co.
13 A	Western Lime & Cement Co.
15 A	Leicht Transfer & Storage North Dock
19 A	Fort Howard Paper Corp.
21 A	Green Bay & Western R.R. Co.
23 A	C Reiss Coal Co. Dock No. 1
25 A	La Farge Corp.
29 A	Leicht Transfer & Storage Co. South Dock
31 C	Fort Howard Corp.
33 A	Fort Howard Corp.


Lutak Road
To Haines 5 miles
Alaska State Ferry System
City of Haines Dry Cargo Dock
Top of embankment
Ferry Transfer Ramp and Wharf
Existing Dock
250 ft.
717 ft.
Depth 36ft at M.L.L.W.
Ro/Ro Facilities Depth 25 ft.
HAINES

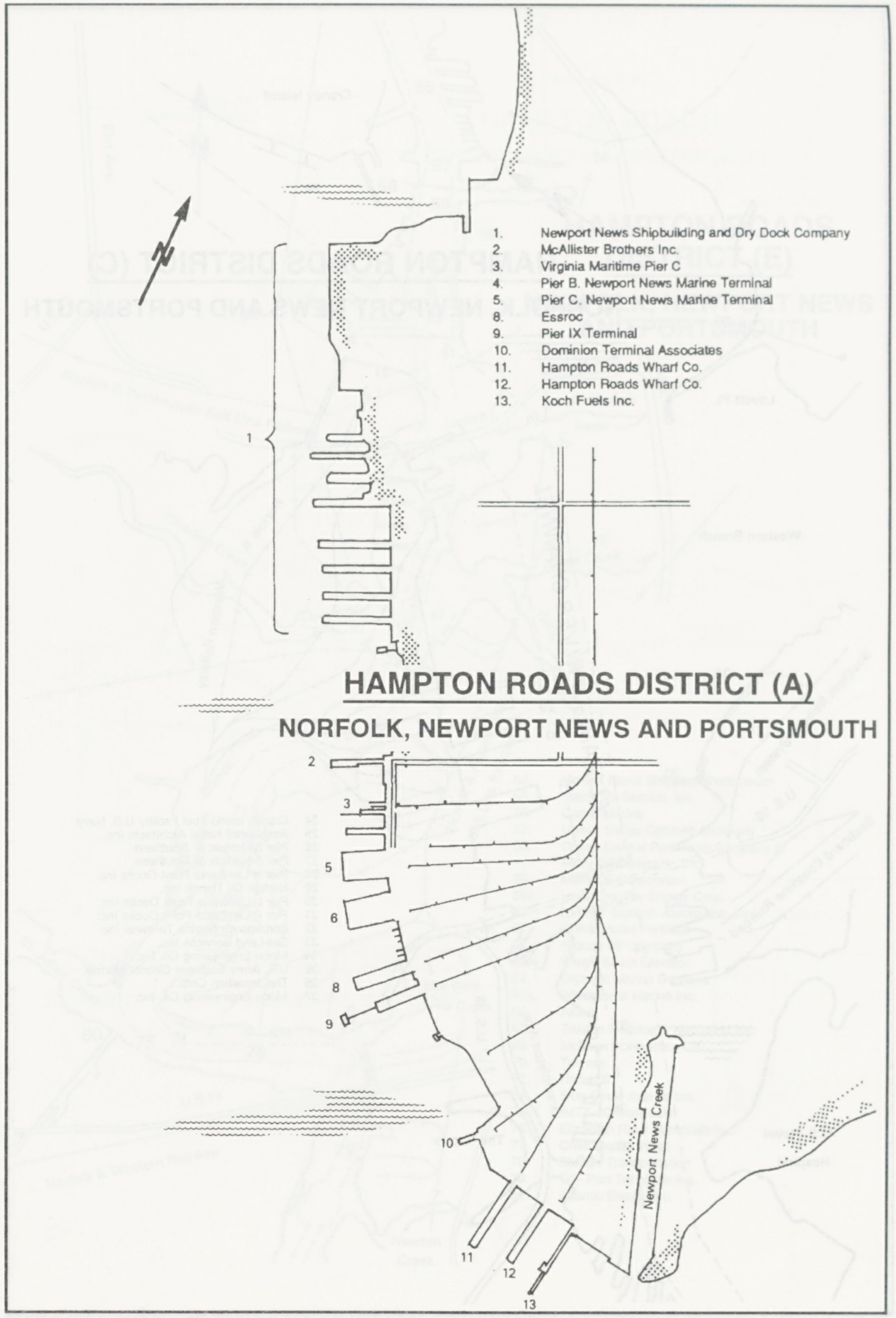

HAMPTON
Fort Monroe
Hampton Roads Bridge-Tunnel
NEWPORT NEWS
HAMPTON ROADS
CHESAPEAKE BAY
Chesapeake Bay Bridge-Tunnel
HAMPTON ROADS DISTRICT
A
James River
Elizabeth River Channel
U.S. Naval Base
Craney Island Disposal Area
B
Little Creek
Lafayette River
Lynnhaven Bay
NORFOLK
C
Western Branch
Eastern Branch
D
PORTSMOUTH
Southern Branch
E
CHESAPEAKE

HAMPTON ROADS DISTRICT (B)

NORFOLK, NEWPORT NEWS AND PORTSMOUTH


U. S. NAVAL STATION
N
15
Taussig Blvd.
Hampton Blvd.
Norfolk & Portsmouth
Belt Line Railroad
14
16
17
18
19
20
21
22
23
ELIZABETH RIVER CHANNEL
Norfolk & Portsmouth
Belt Line Railroad
Tanner Pt.

14.	U.S. Navel Station
15.	Oceanographic Office U.S. Naval Branch
16.	Cargill Grain Company
17.	Pier 3. Norfolk International Terminals
18.	Lehigh Portland Cement Co.
19.	Nissan Motors
20.	North Bank, Norfolk International Terminals
21.	Pier 2. Norfolk International Terminals
22.	Pier 1. Norfolk International Terminals
23.	Container Berth No. 1 Container Berth No. 2 Container Berth No. 3 Container Berth No. 4


1
2
3
5
6
8
9
10
11
12
13
Newport News Creek

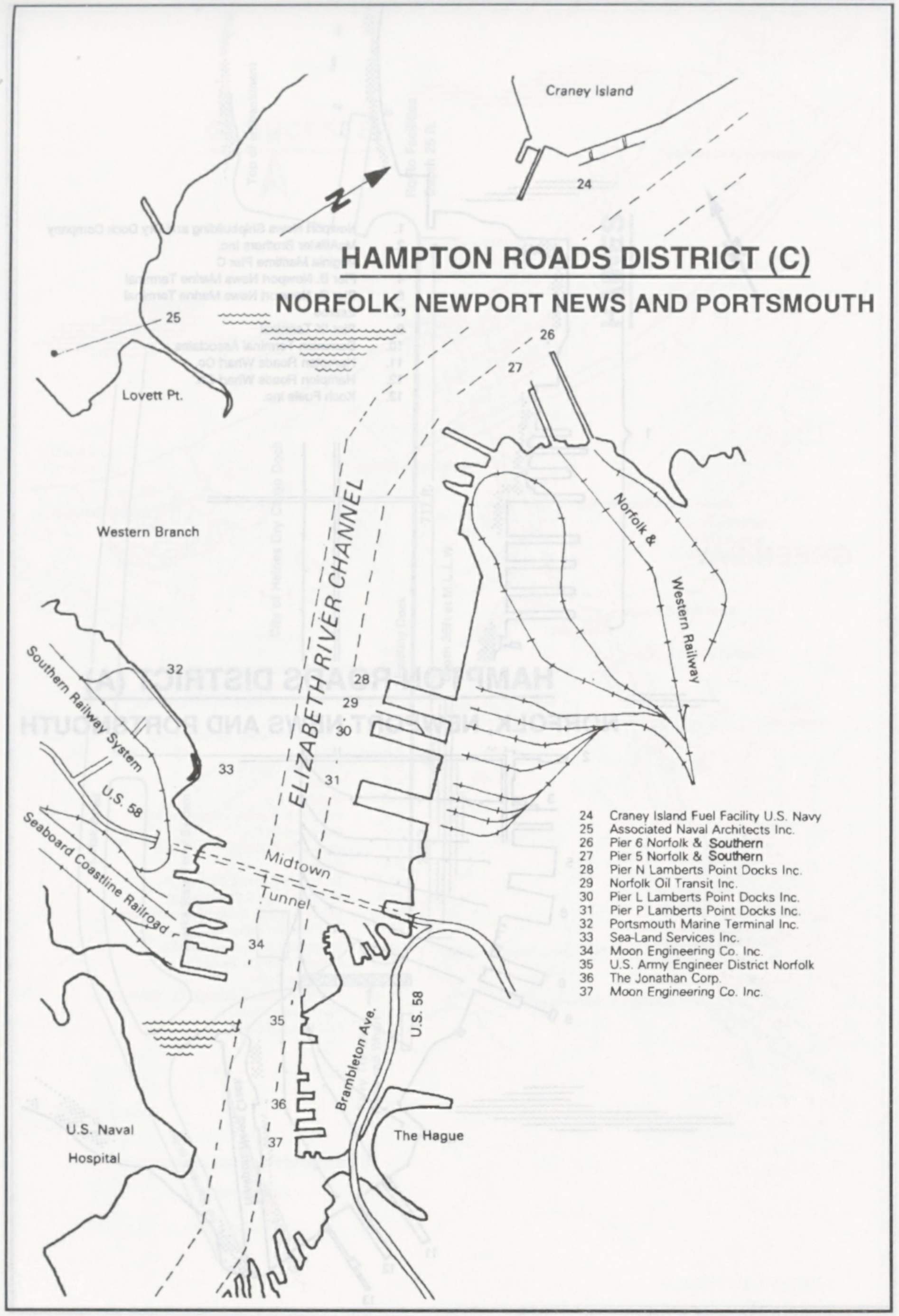
1.	Newport News Shipbuilding and Dry Dock Company
2.	McAllister Brothers Inc.
3.	Virginia Maritime Pier C
4.	Pier B. Newport News Marine Terminal
5.	Pier C. Newport News Marine Terminal
8.	Essroc
9.	Pier IX Terminal
10.	Dominion Terminal Associates
11.	Hampton Roads Wharf Co.
12.	Hampton Roads Wharf Co.
13.	Koch Fuels Inc.

HAMPTON ROADS DISTRICT (A)

NORFOLK, NEWPORT NEWS AND PORTSMOUTH

HAMPTON ROADS DISTRICT (C)

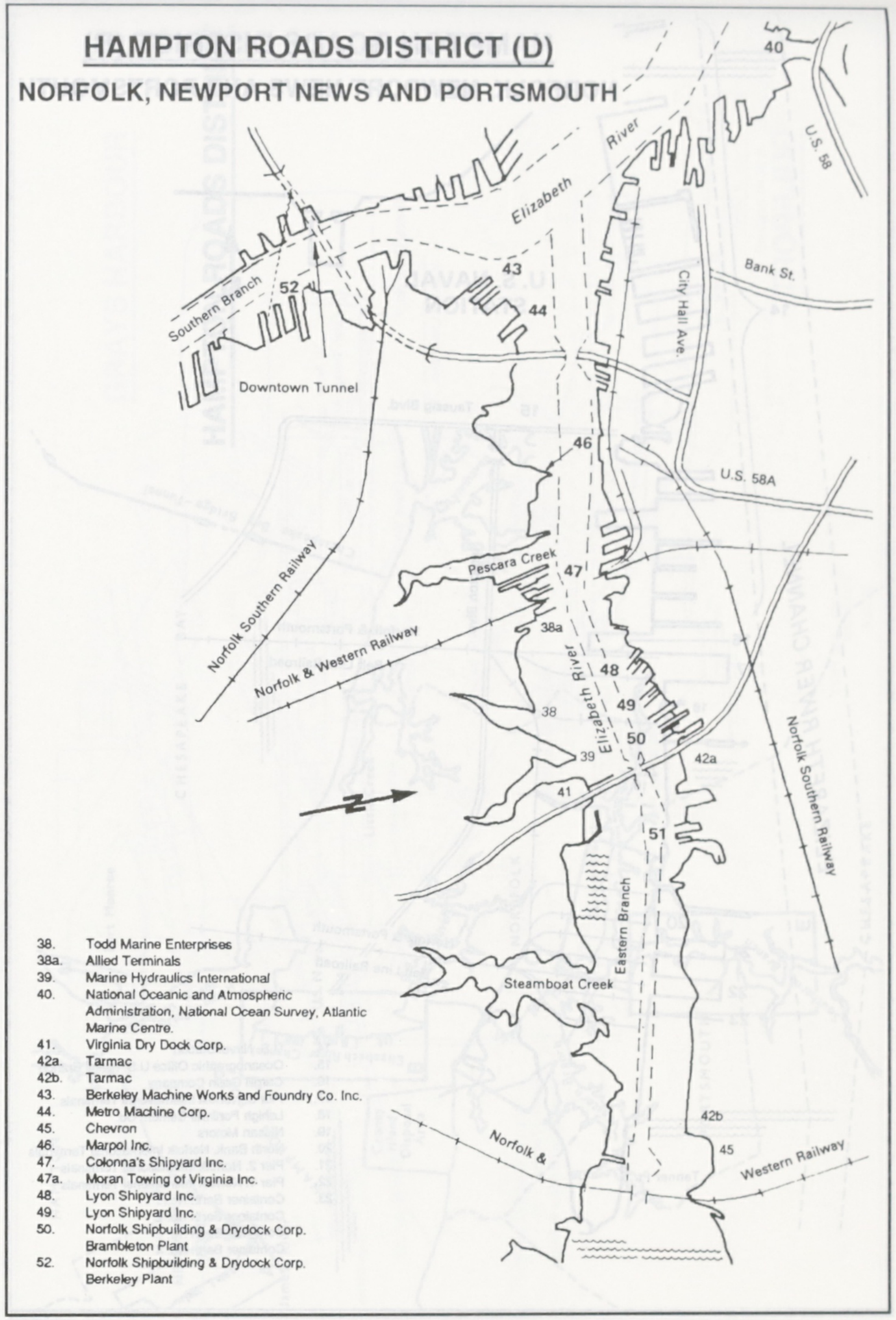
NORFOLK, NEWPORT NEWS AND PORTSMOUTH


Craney Island
24
N
25
Lovett Pt.
26
27
Western Branch
ELIZABETH RIVER CHANNEL
Norfolk & Western Railway
28
29
30
31
32
33
34
35
36
37
Southern Railway System
U.S. 58
Seaboard Coastline Railroad
Midtown Tunnel
Brambleton Ave.
U.S. 58
The Hague
U.S. Naval Hospital

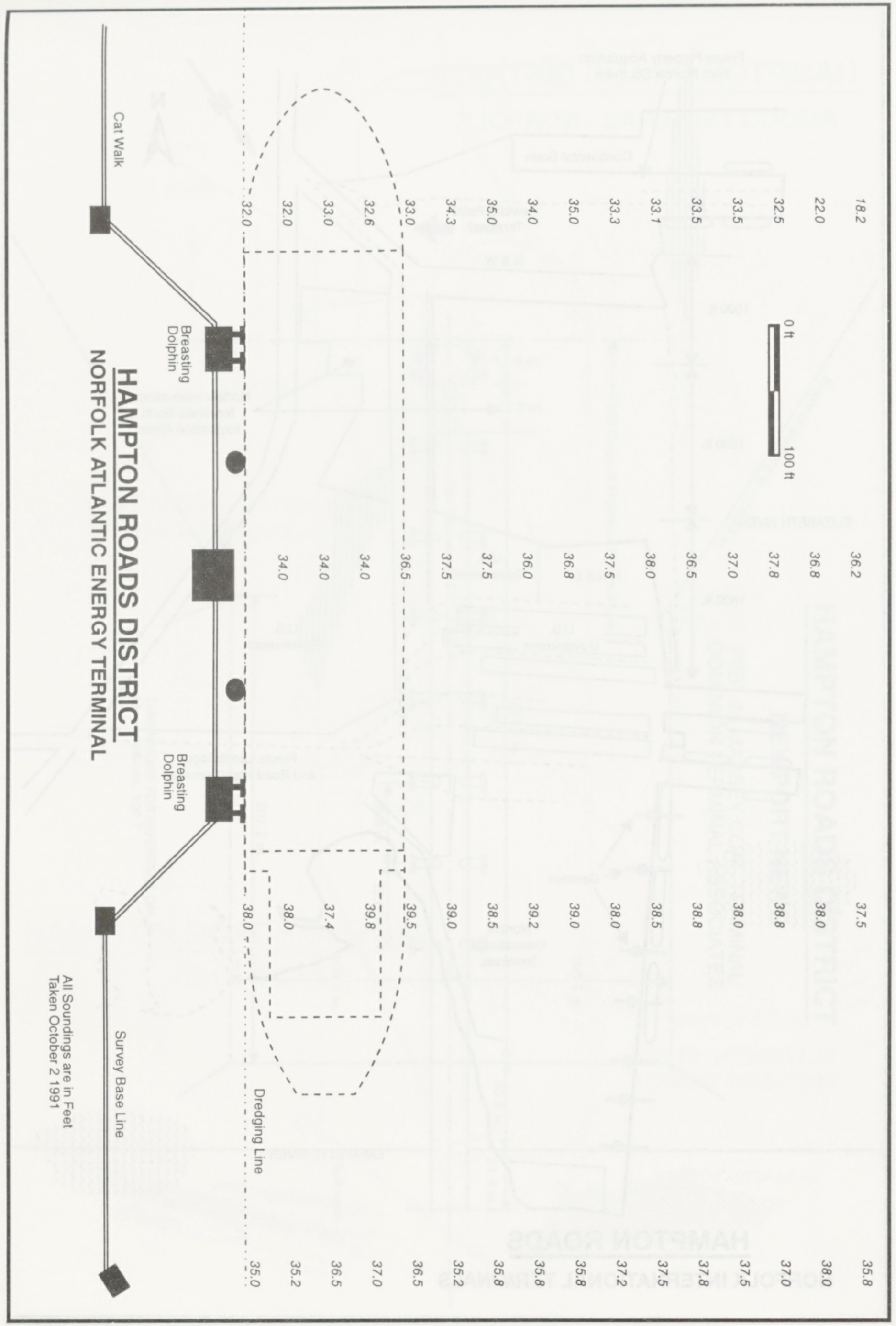
24	Craney Island Fuel Facility U.S. Navy
25	Associated Naval Architects Inc.
26	Pier 6 Norfolk & Southern
27	Pier 5 Norfolk & Southern
28	Pier N Lamberts Point Docks Inc.
29	Norfolk Oil Transit Inc.
30	Pier L Lamberts Point Docks Inc.
31	Pier P Lamberts Point Docks Inc.
32	Portsmouth Marine Terminal Inc.
33	Sea-Land Services Inc.
34	Moon Engineering Co. Inc.
35	U.S. Army Engineer District Norfolk
36	The Jonathan Corp.
37	Moon Engineering Co. Inc.

HAMPTON ROADS DISTRICT (D)

NORFOLK, NEWPORT NEWS AND PORTSMOUTH


40
U.S. 58
Elizabeth River
Bank St.
City Hall Ave
Southern Branch
52
43
44
Downtown Tunnel
46
U.S. 58A
Pescara Creek
47
Norfolk Southern Railway
38a
Norfolk & Western Railway
48
49
50
38
39
41
42a
Elizabeth River
Norfolk Southern Railway
N
51
Eastern Branch
Steamboat Creek
42b
45
Norfolk & Western Railway

38.	Todd Marine Enterprises
38a.	Allied Terminals
39.	Marine Hydraulics International
40.	National Oceanic and Atmospheric Administration, National Ocean Survey, Atlantic Marine Centre.
41.	Virginia Dry Dock Corp.
42a.	Tarmac
42b.	Tarmac
43.	Berkeley Machine Works and Foundry Co. Inc.
44.	Metro Machine Corp.
45.	Chevron
46.	Marpol Inc.
47.	Colonna's Shipyard Inc.
47a.	Moran Towing of Virginia Inc.
48.	Lyon Shipyard Inc.
49.	Lyon Shipyard Inc.
50.	Norfolk Shipbuilding & Drydock Corp. Brambleton Plant
52.	Norfolk Shipbuilding & Drydock Corp. Berkeley Plant



Cat Walk
Breasting Dolphin
Breasting Dolphin
Survey Base Line
Dredging Line
0 ft
100 ft
18.2
22.0
32.5
33.5
33.5
33.1
33.3
35.0
34.0
35.0
34.3
33.0
32.6
33.0
32.0
32.0
36.2
36.8
37.8
37.0
36.5
38.0
37.5
36.8
36.0
37.5
37.5
36.5
34.0
34.0
34.0
37.5
38.0
38.8
38.0
38.8
38.5
38.0
39.0
39.2
38.5
39.0
39.5
39.8
37.4
38.0
38.0
35.8
38.0
37.0
37.5
37.5
37.8
37.5
37.2
35.8
35.8
35.8
35.2
36.5
37.0
36.5
35.2
35.0

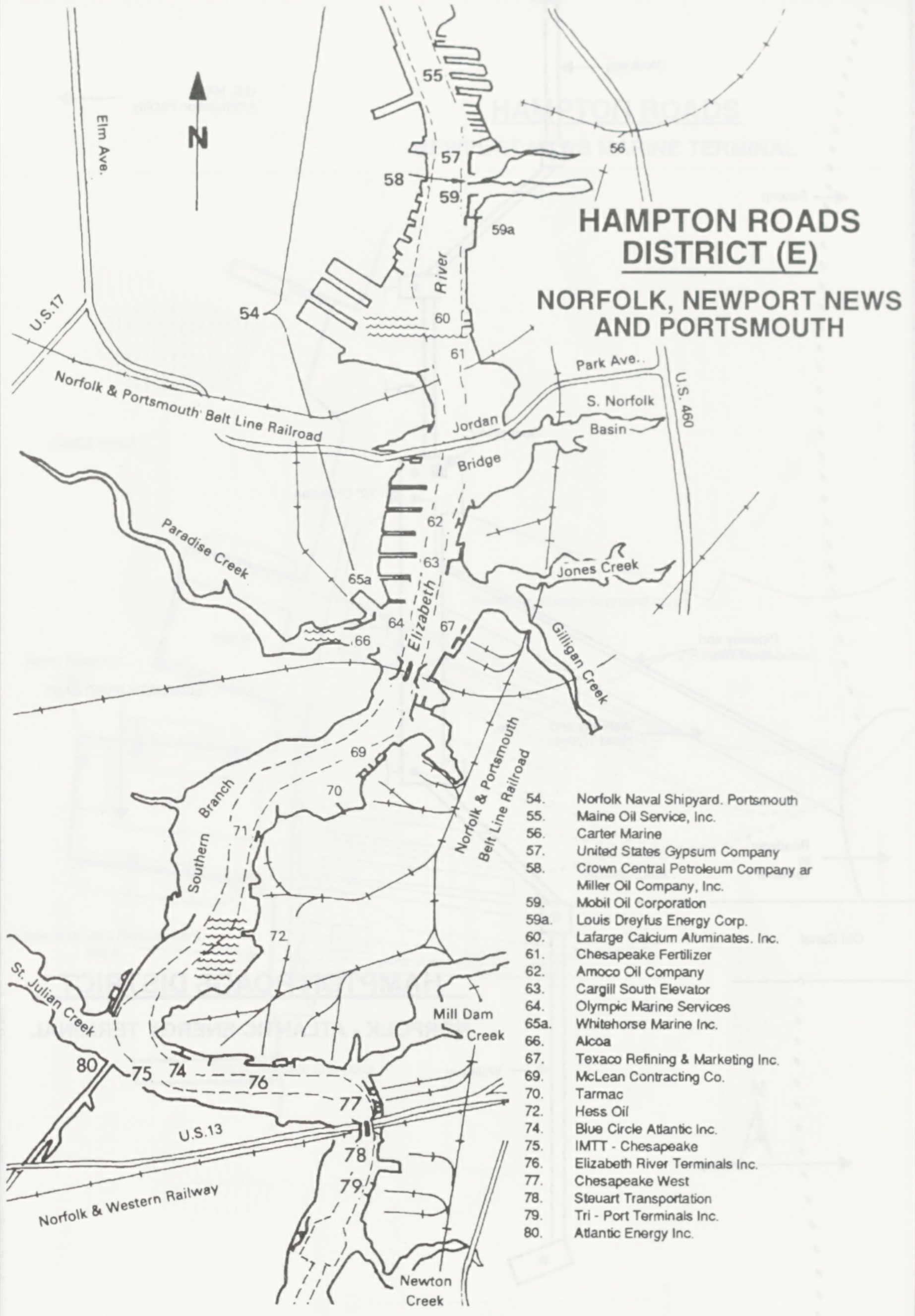
HAMPTON ROADS DISTRICT

NORFOLK ATLANTIC ENERGY TERMINAL

All Soundings are in Feet
Taken October 2 1991

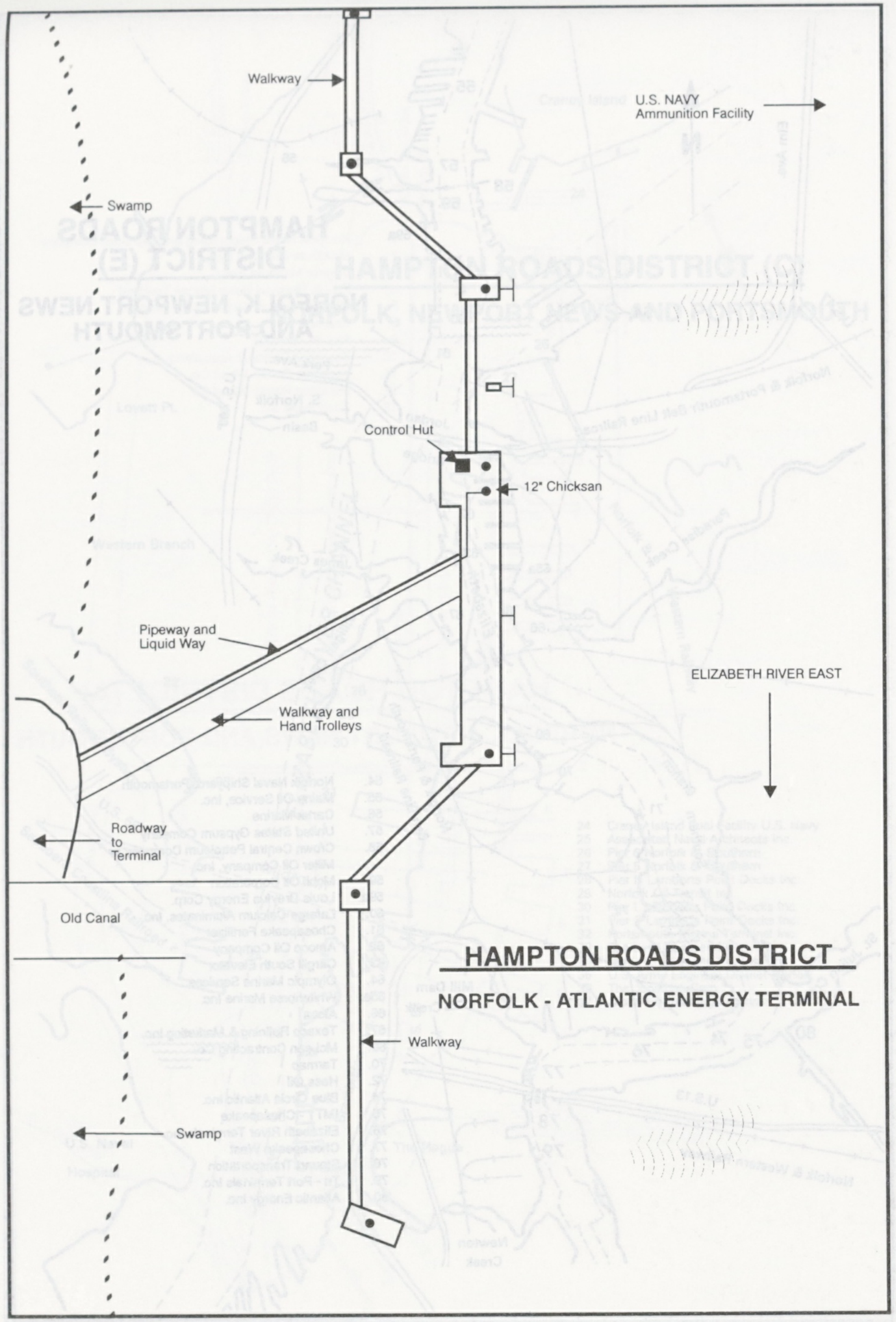
HAMPTON ROADS DISTRICT (E)

NORFOLK, NEWPORT NEWS AND PORTSMOUTH



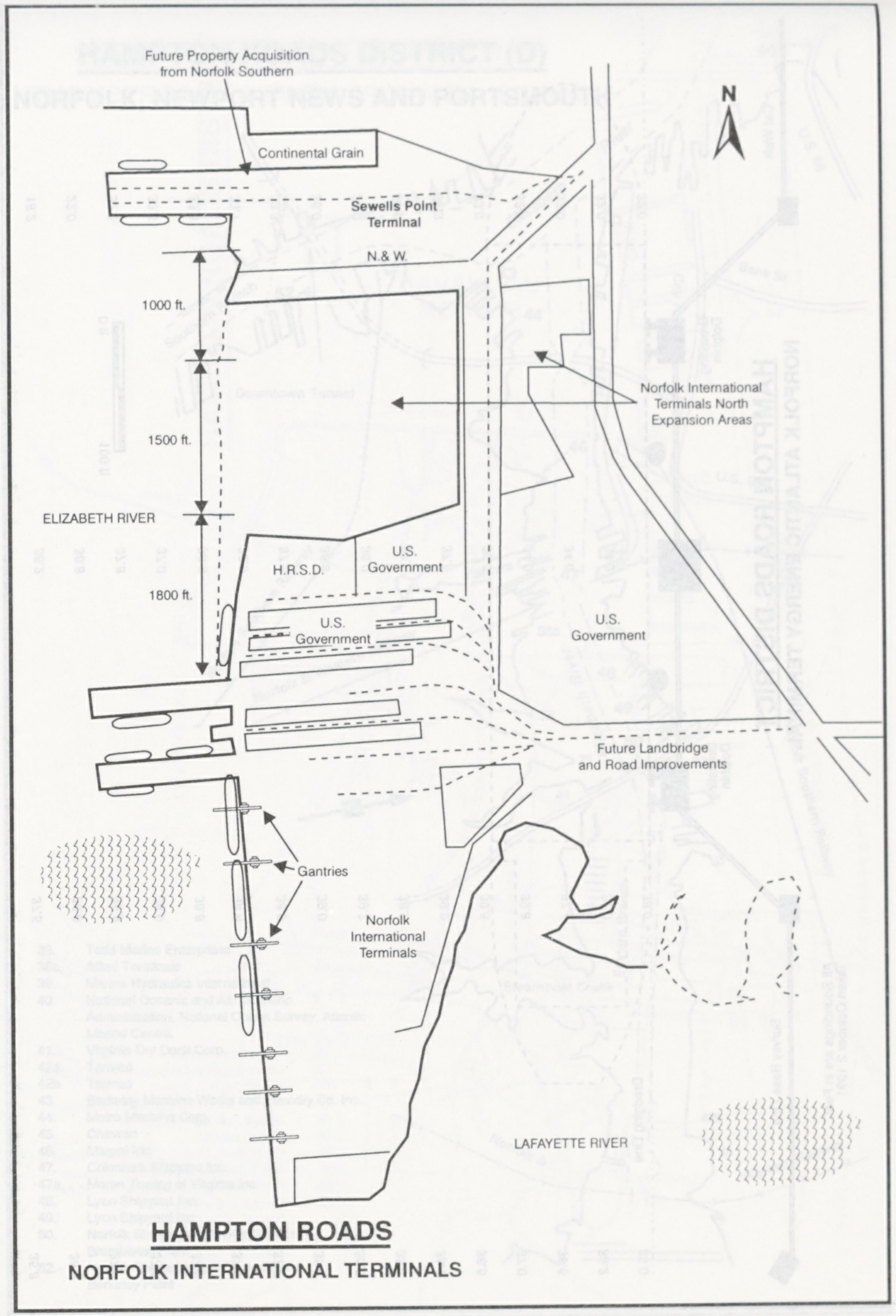
N
Elm Ave.
U.S.17
54
55
56
57
58
59
59a
60
61
River
Park Ave.
U.S. 460
S. Norfolk
Basin
Norfolk & Portsmouth Belt Line Railroad
Jordan
Bridge
Paradise Creek
62
63
65a
64
66
67
Elizabeth
Jones Creek
Gilligan Creek
69
70
71
72
Southern Branch
Norfolk & Portsmouth Belt Line Railroad
St. Julian Creek
Mill Dam Creek
80
75
74
76
77
78
79
U.S.13
Norfolk & Western Railway
Newton Creek

54.	Norfolk Naval Shipyard. Portsmouth
55.	Maine Oil Service, Inc.
56.	Carter Marine
57.	United States Gypsum Company
58.	Crown Central Petroleum Company ar Miller Oil Company, Inc.
59.	Mobil Oil Corporation
59a.	Louis Dreyfus Energy Corp.
60.	Lafarge Calcium Aluminates. Inc.
61.	Chesapeake Fertilizer
62.	Amoco Oil Company
63.	Cargill South Elevator
64.	Olympic Marine Services
65a.	Whitehorse Marine Inc.
66.	Alcoa
67.	Texaco Refining & Marketing Inc.
69.	McLean Contracting Co.
70.	Tarmac
72.	Hess Oil
74.	Blue Circle Atlantic Inc.
75.	IMTT - Chesapeake
76.	Elizabeth River Terminals Inc.
77.	Chesapeake West
78.	Steuart Transportation
79.	Tri - Port Terminals Inc.
80.	Atlantic Energy Inc.


Walkway
U.S. NAVY Ammunition Facility
Swamp
Control Hut
12" Chicksan
Pipeway and Liquid Way
Walkway and Hand Trolleys
ELIZABETH RIVER EAST
Roadway to Terminal
Old Canal
Walkway
Swamp

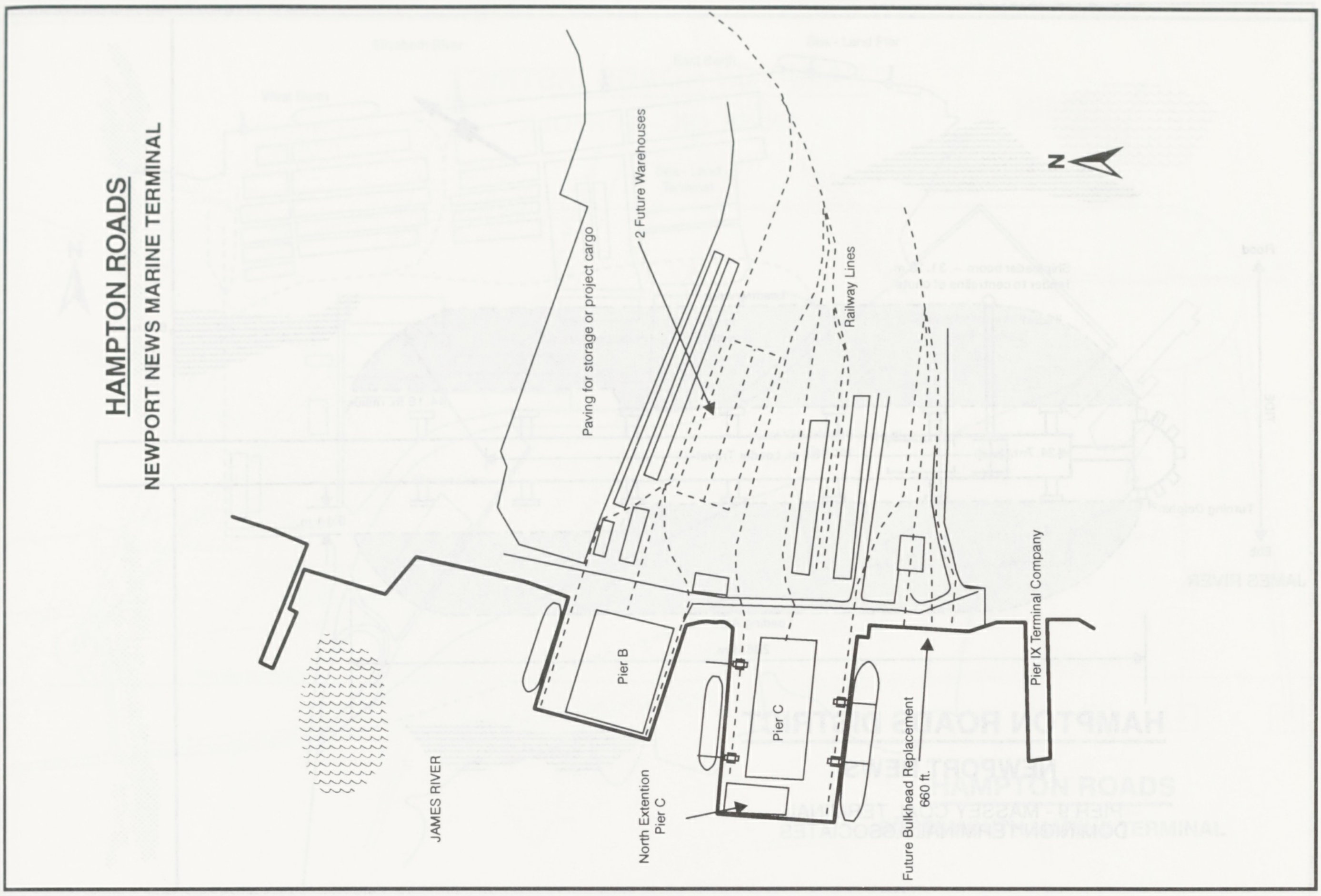
HAMPTON ROADS DISTRICT

NORFOLK - ATLANTIC ENERGY TERMINAL


Future Property Acquisition from Norfolk Southern
N
Continental Grain
Sewells Point Terminal
N & W.
1000 ft.
1500 ft.
ELIZABETH RIVER
1800 ft.
Norfolk International Terminals North Expansion Areas
H.R.S.D.
U.S. Government
U.S. Government
U.S. Government
Future Landbridge and Road Improvements
Gantries
Norfolk International Terminals
LAFAYETTE RIVER

HAMPTON ROADS

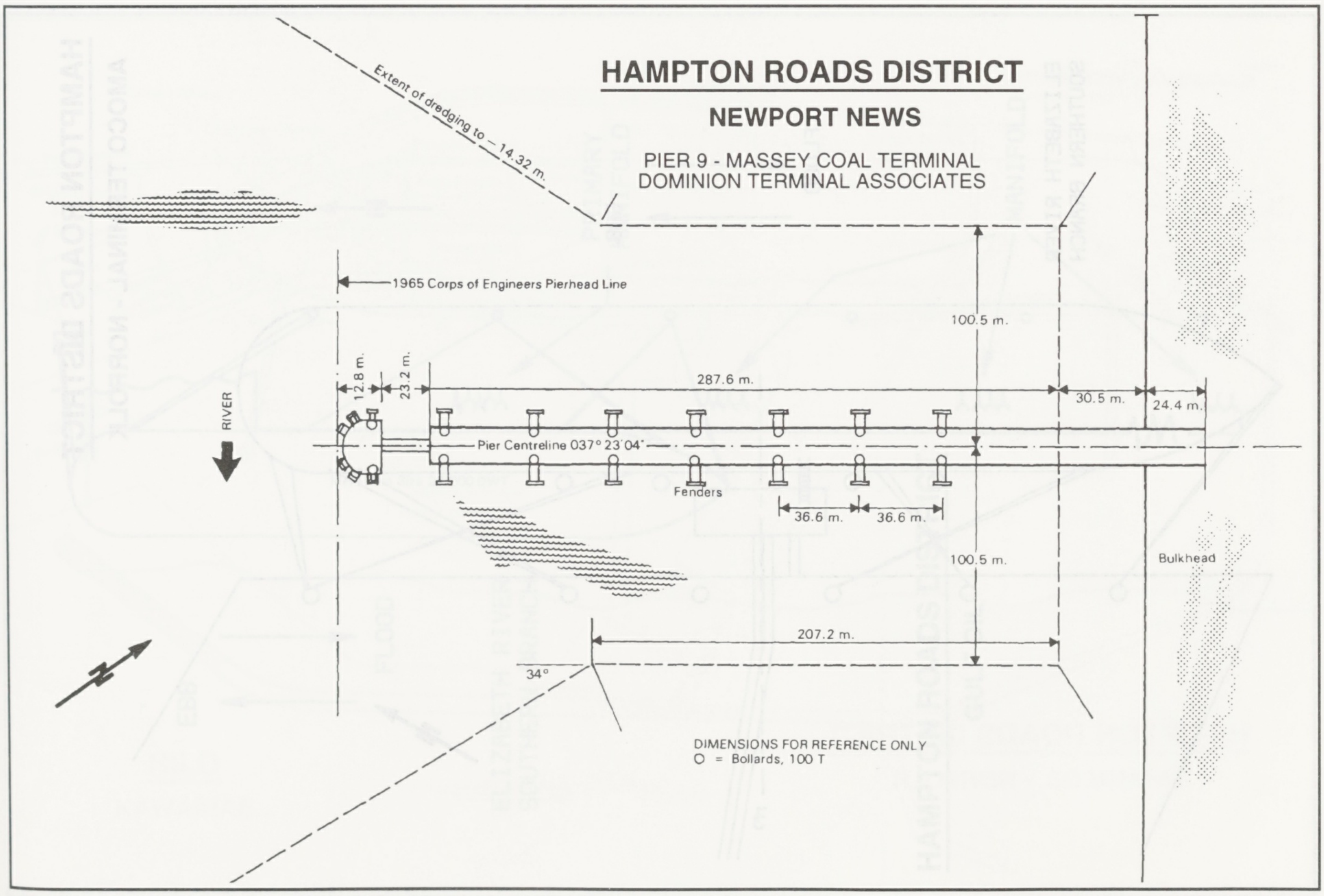
NORFOLK INTERNATIONAL TERMINALS



HAMPTON ROADS

NEWPORT NEWS MARINE TERMINAL

N
Paving for storage or project cargo
2 Future Warehouses
Railway Lines
Pier B
Pier C
JAMES RIVER
North Extention Pier C
Future Bulkhead Replacement 660 ft.
Pier IX Terminal Company



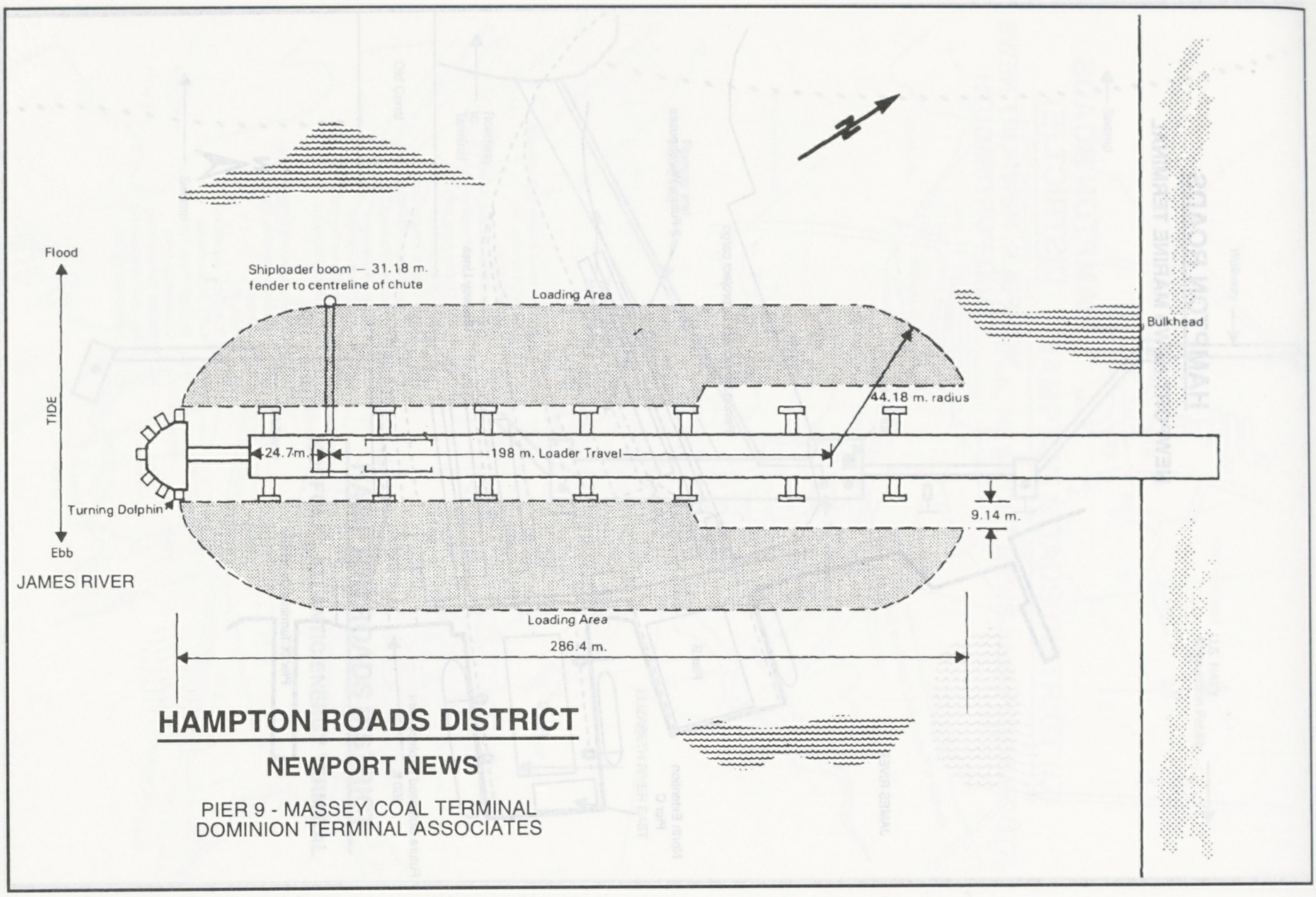
HAMPTON ROADS DISTRICT

NEWPORT NEWS

PIER 9 - MASSEY COAL TERMINAL
DOMINION TERMINAL ASSOCIATES

Extent of dredging to – 14.32 m.
1965 Corps of Engineers Pierhead Line
RIVER
12.8 m.
23.2 m.
287.6 m.
30.5 m.
24.4 m.
100.5 m.
Pier Centreline 037° 23'04"
Fenders
36.6 m.
36.6 m.
100.5 m.
Bulkhead
207.2 m.
34°
N

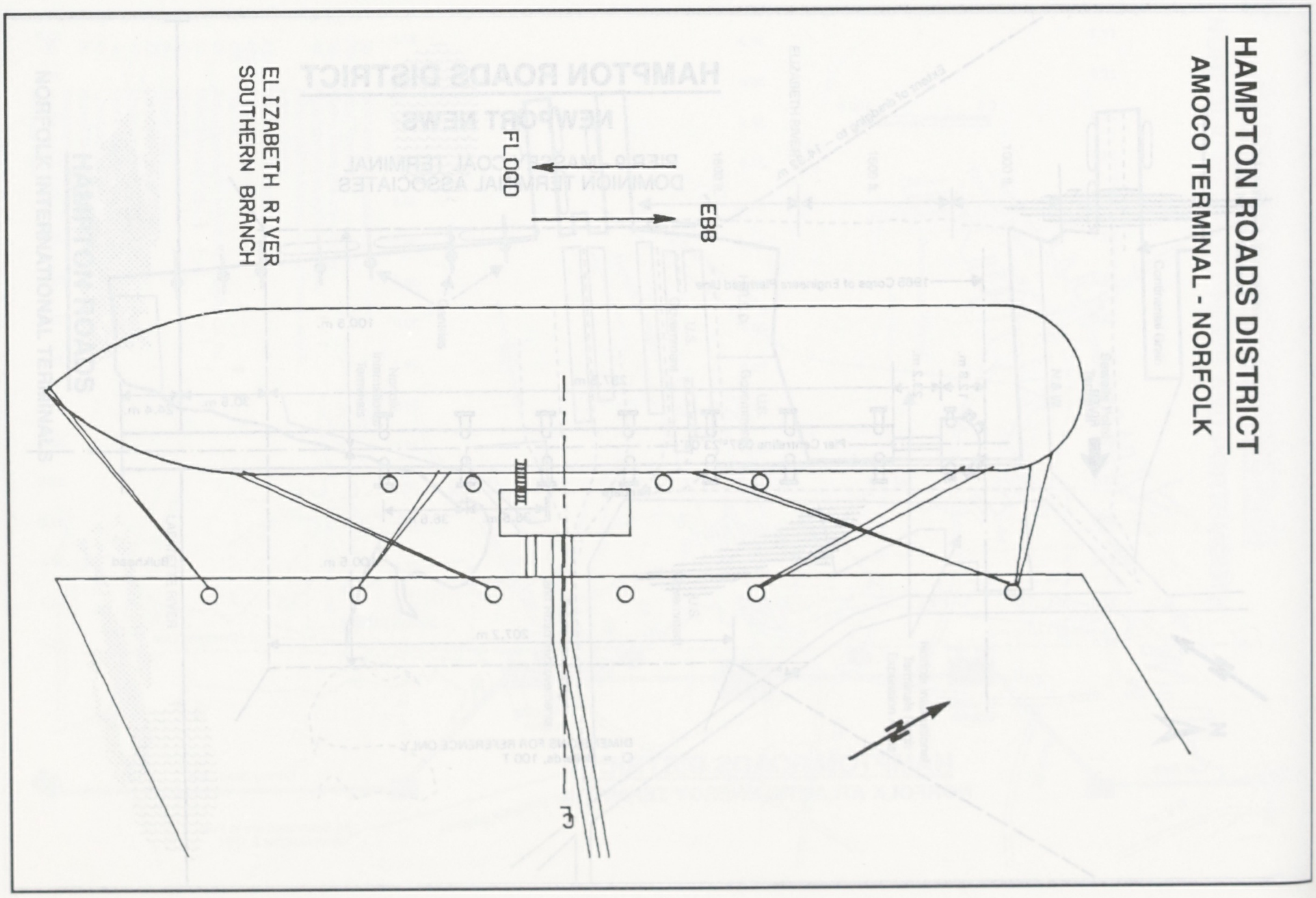
DIMENSIONS FOR REFERENCE ONLY
○ = Bollards, 100 T


Flood
TIDE
Ebb
Turning Dolphin
JAMES RIVER
Shiploader boom – 31.18 m.
fender to centreline of chute
Loading Area
44.18 m. radius
Bulkhead
24.7m.
198 m. Loader Travel
9.14 m.
Loading Area
286.4 m.

HAMPTON ROADS DISTRICT

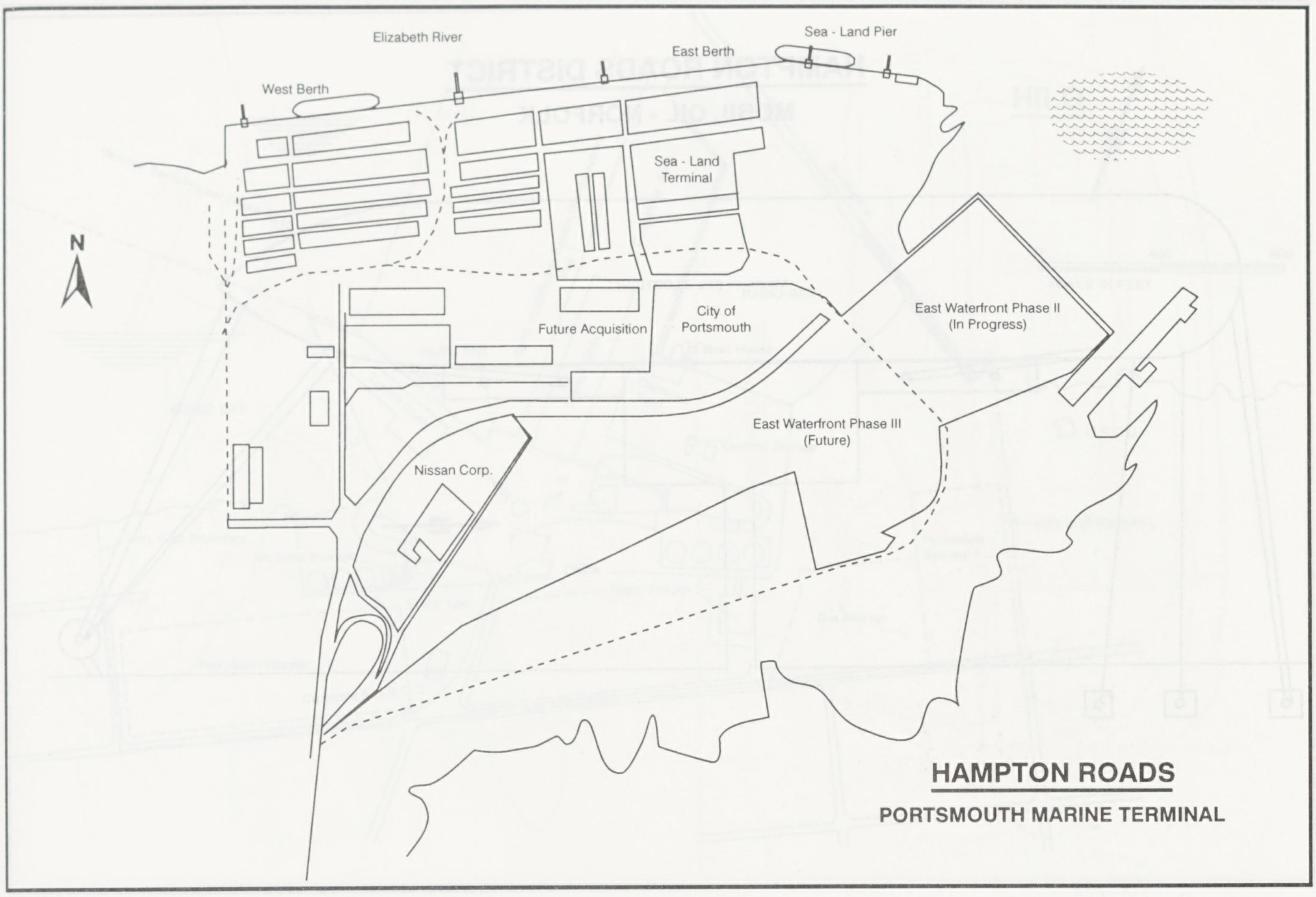
NEWPORT NEWS

PIER 9 - MASSEY COAL TERMINAL
DOMINION TERMINAL ASSOCIATES


FLOOD
EBB
ELIZABETH RIVER
SOUTHERN BRANCH

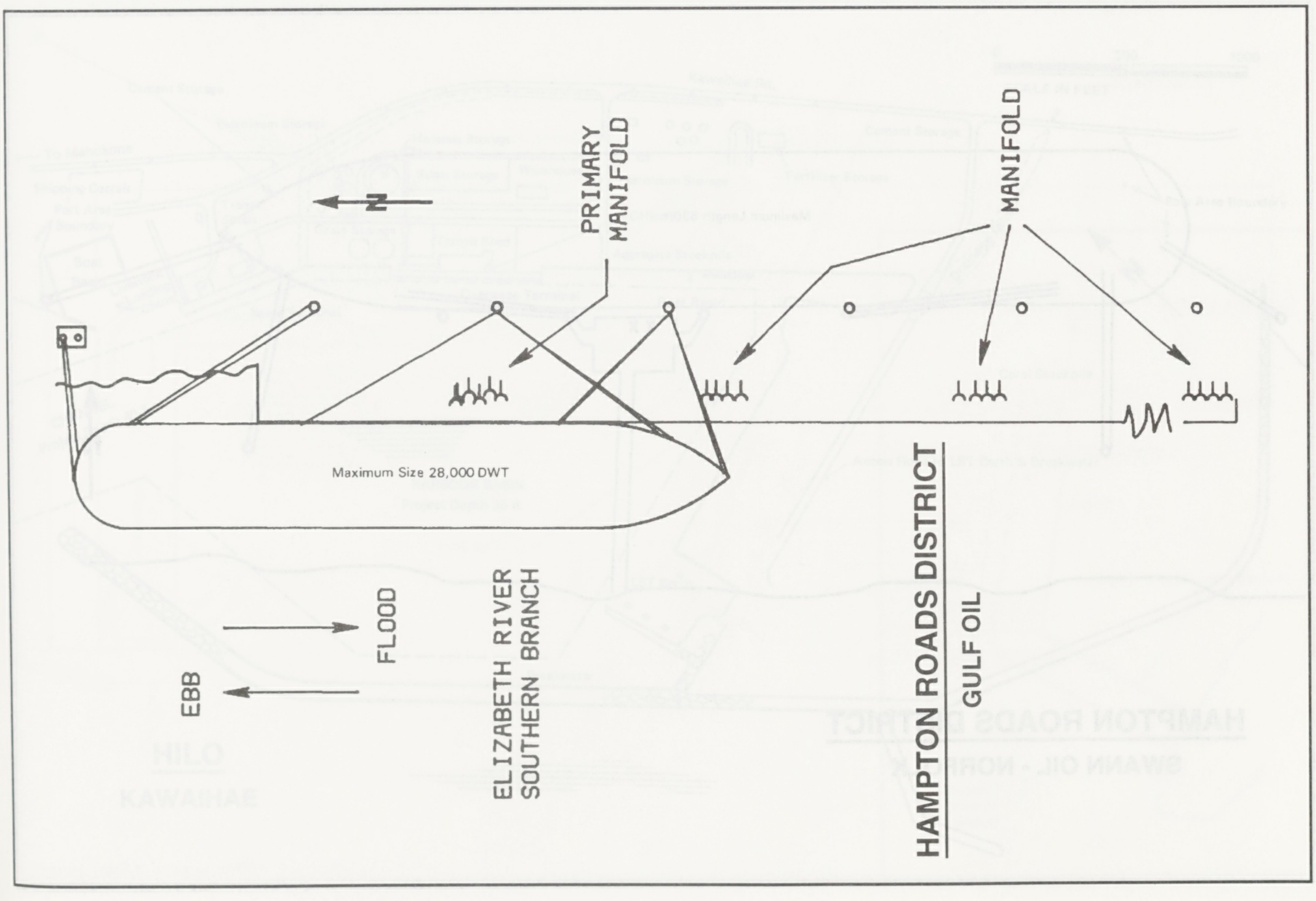
HAMPTON ROADS DISTRICT

AMOCO TERMINAL - NORFOLK


Elizabeth River
Sea - Land Pier
East Berth
West Berth
Sea - Land Terminal
N
Future Acquisition
City of Portsmouth
East Waterfront Phase II (In Progress)
East Waterfront Phase III (Future)
Nissan Corp.

HAMPTON ROADS

PORTSMOUTH MARINE TERMINAL

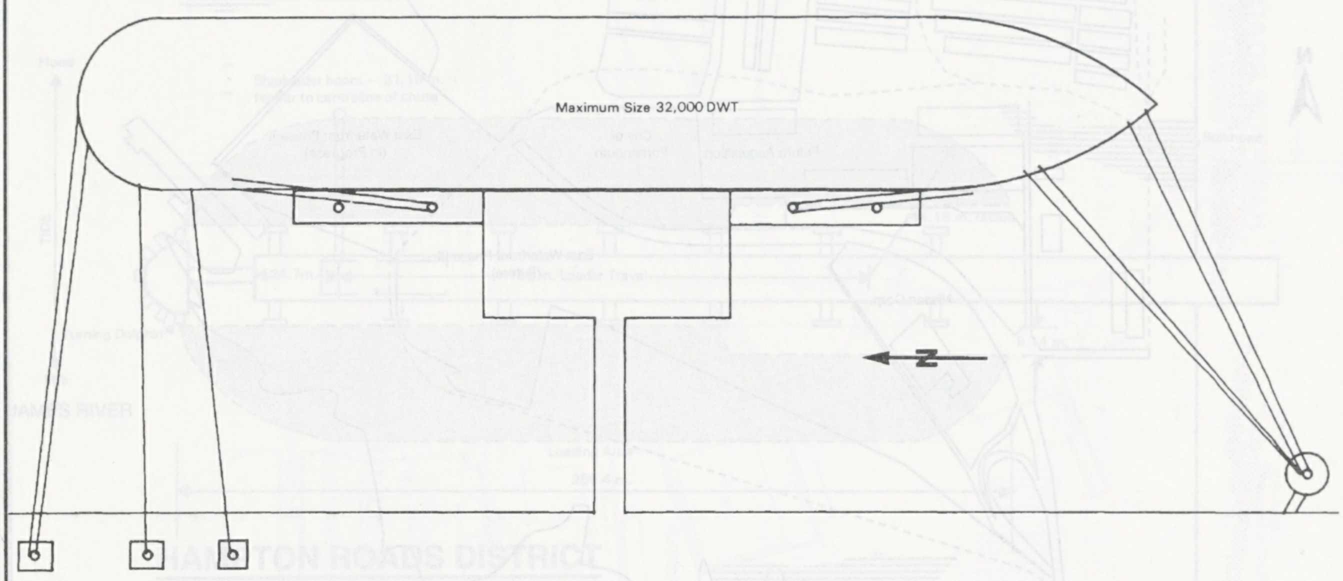

PRIMARY MANIFOLD
MANIFOLD
N
Maximum Size 28,000 DWT
FLOOD
EBB
ELIZABETH RIVER
SOUTHERN BRANCH

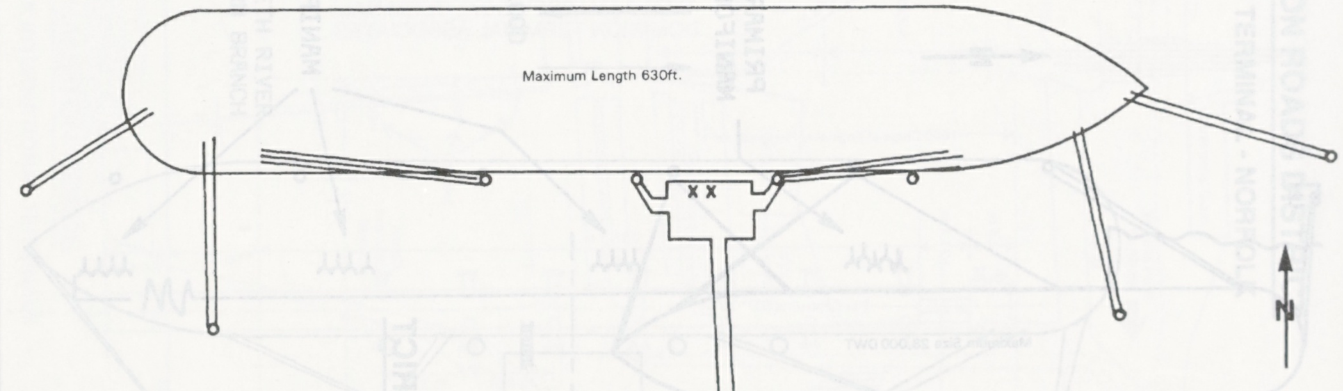
HAMPTON ROADS DISTRICT

GULF OIL

HAMPTON ROADS DISTRICT

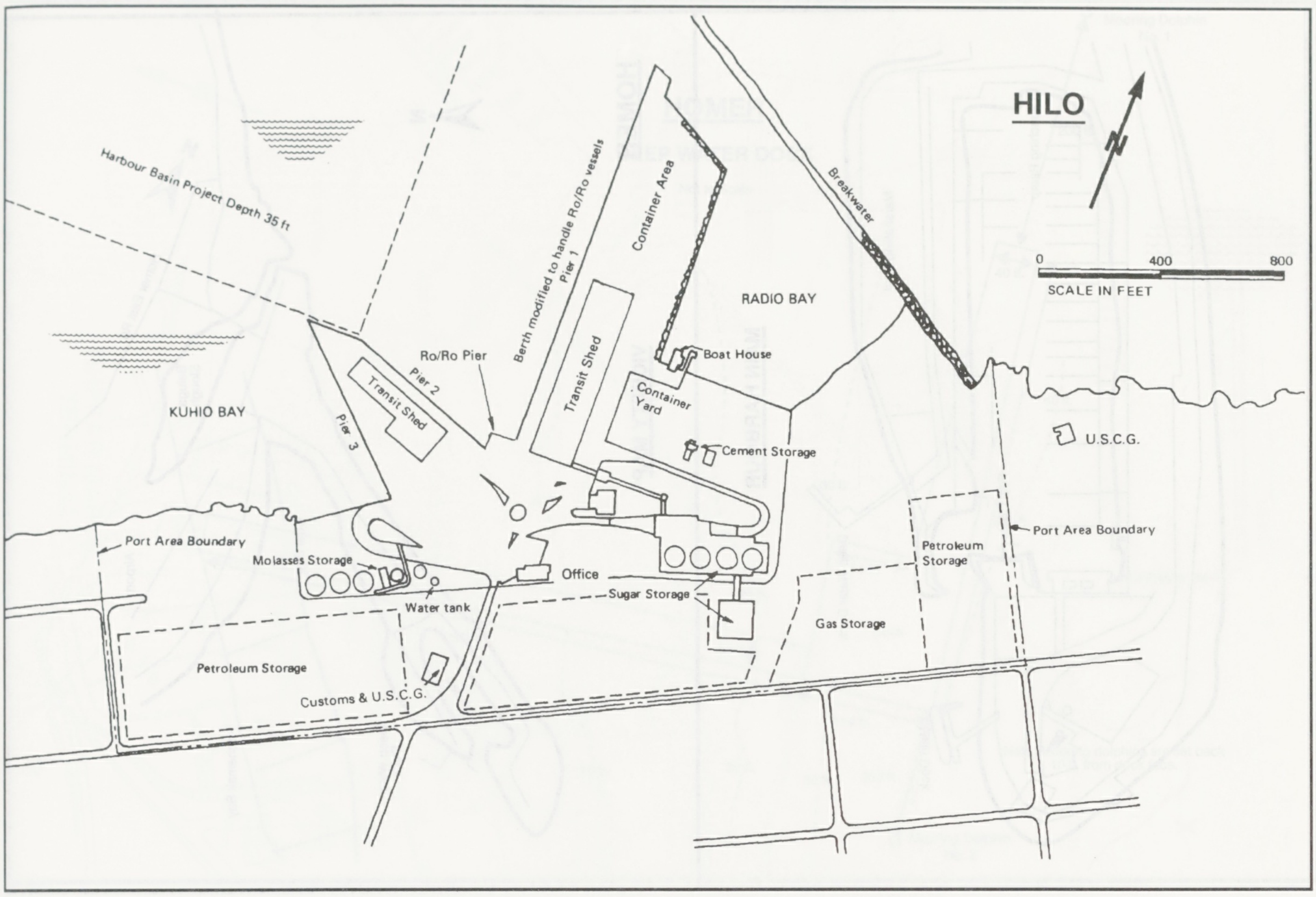
MOBIL OIL - NORFOLK

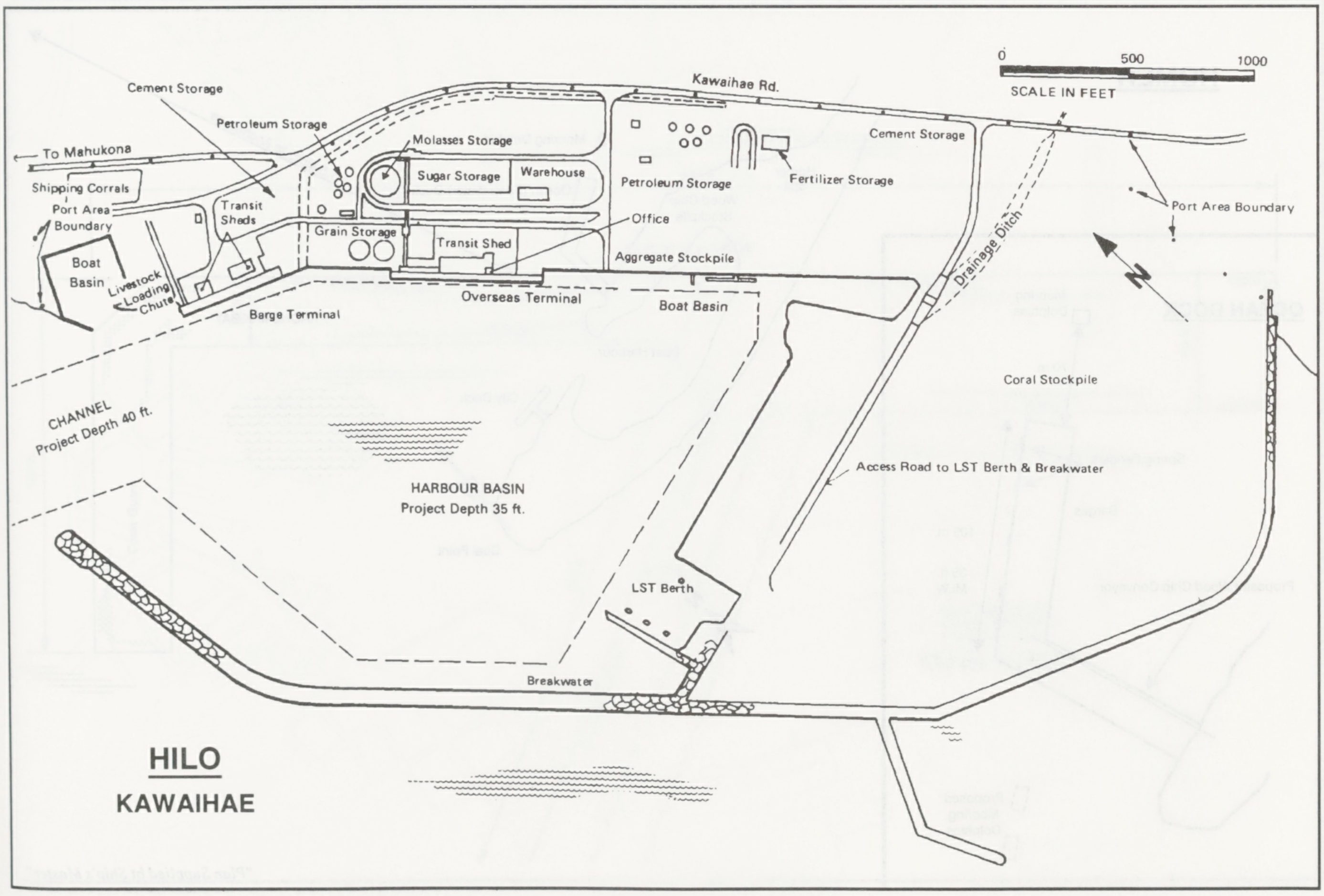

Maximum Size 32,000 DWT
N

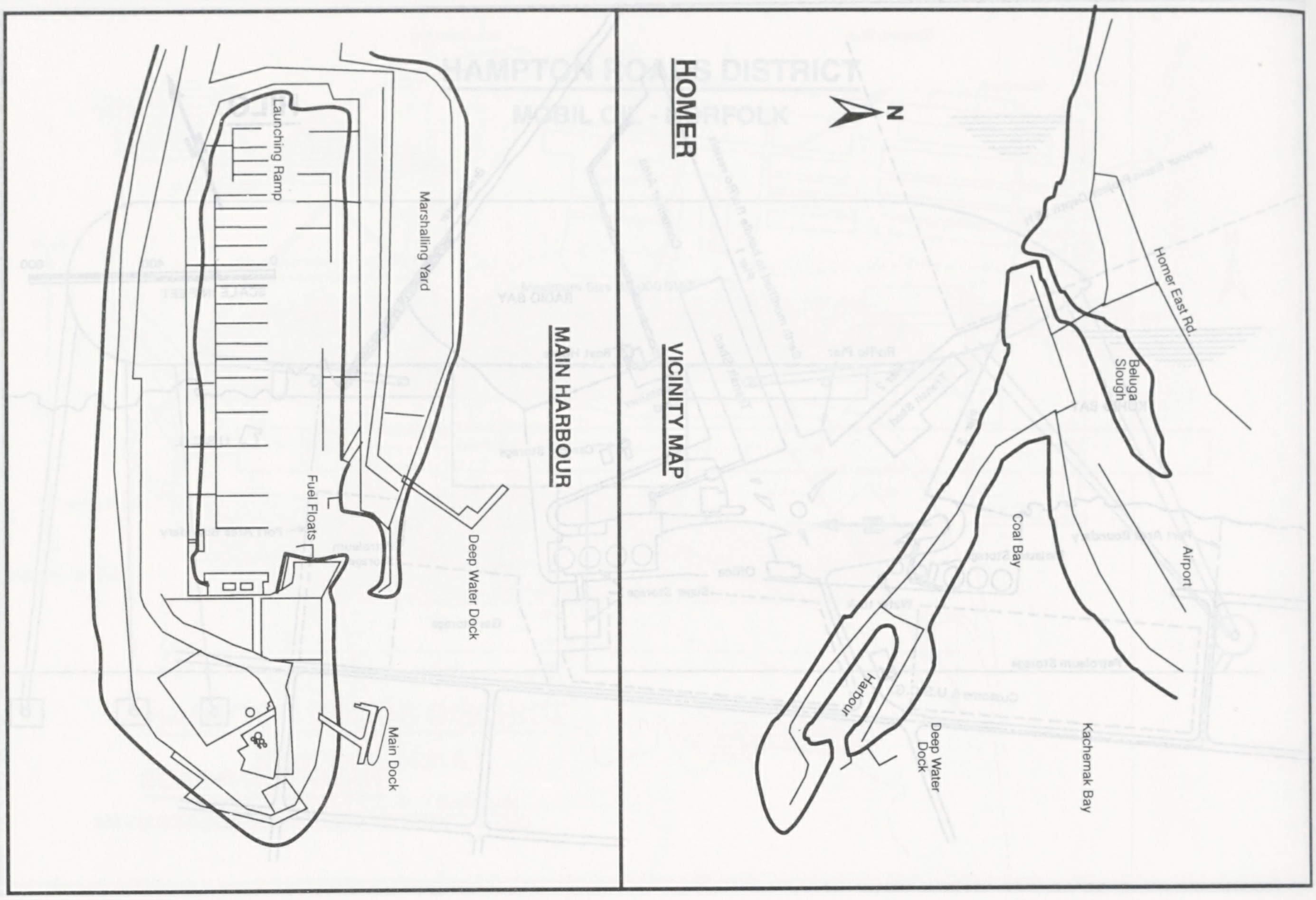

Maximum Length 630ft.
X X
N

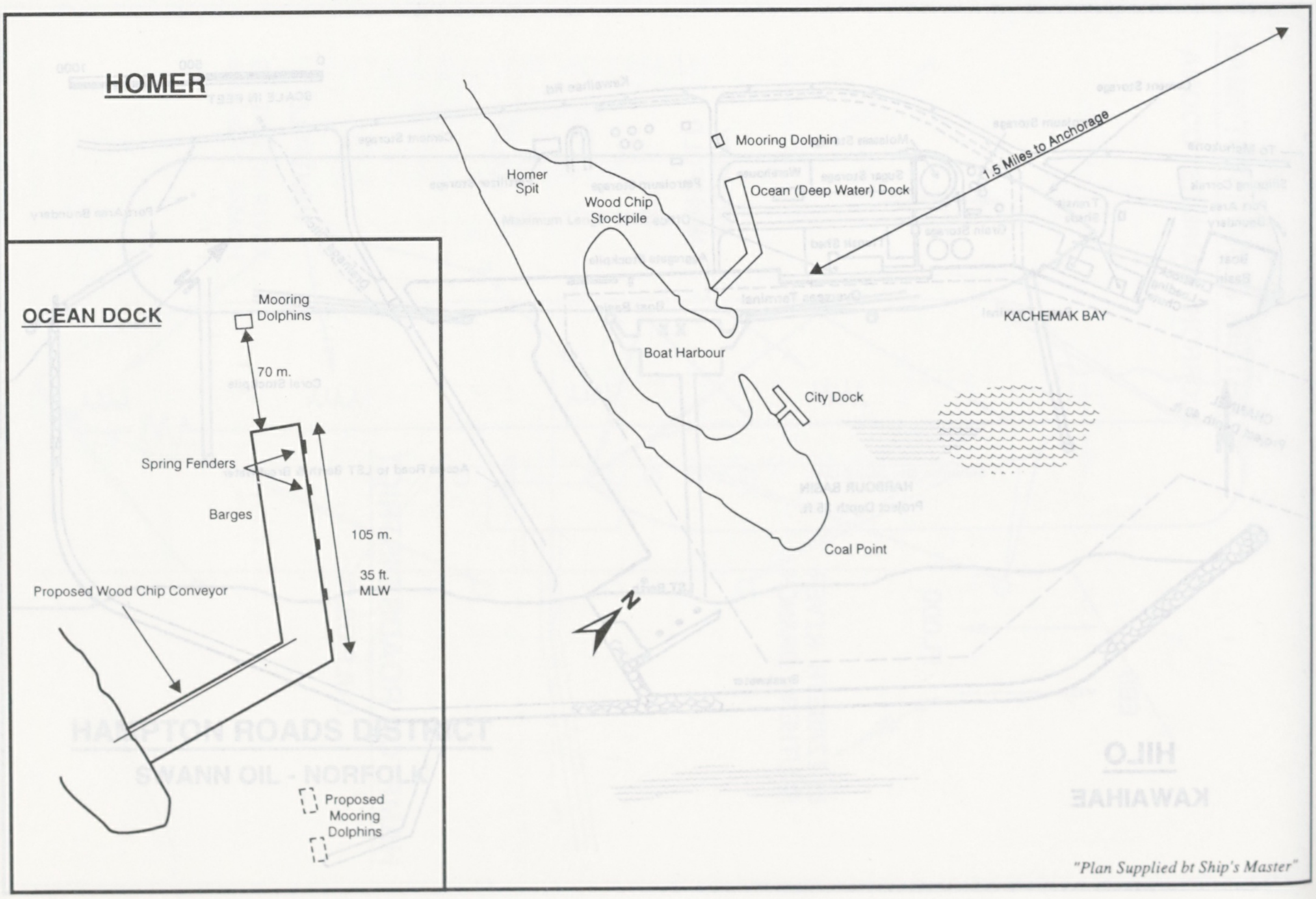
HAMPTON ROADS DISTRICT

SWANN OIL - NORFOLK

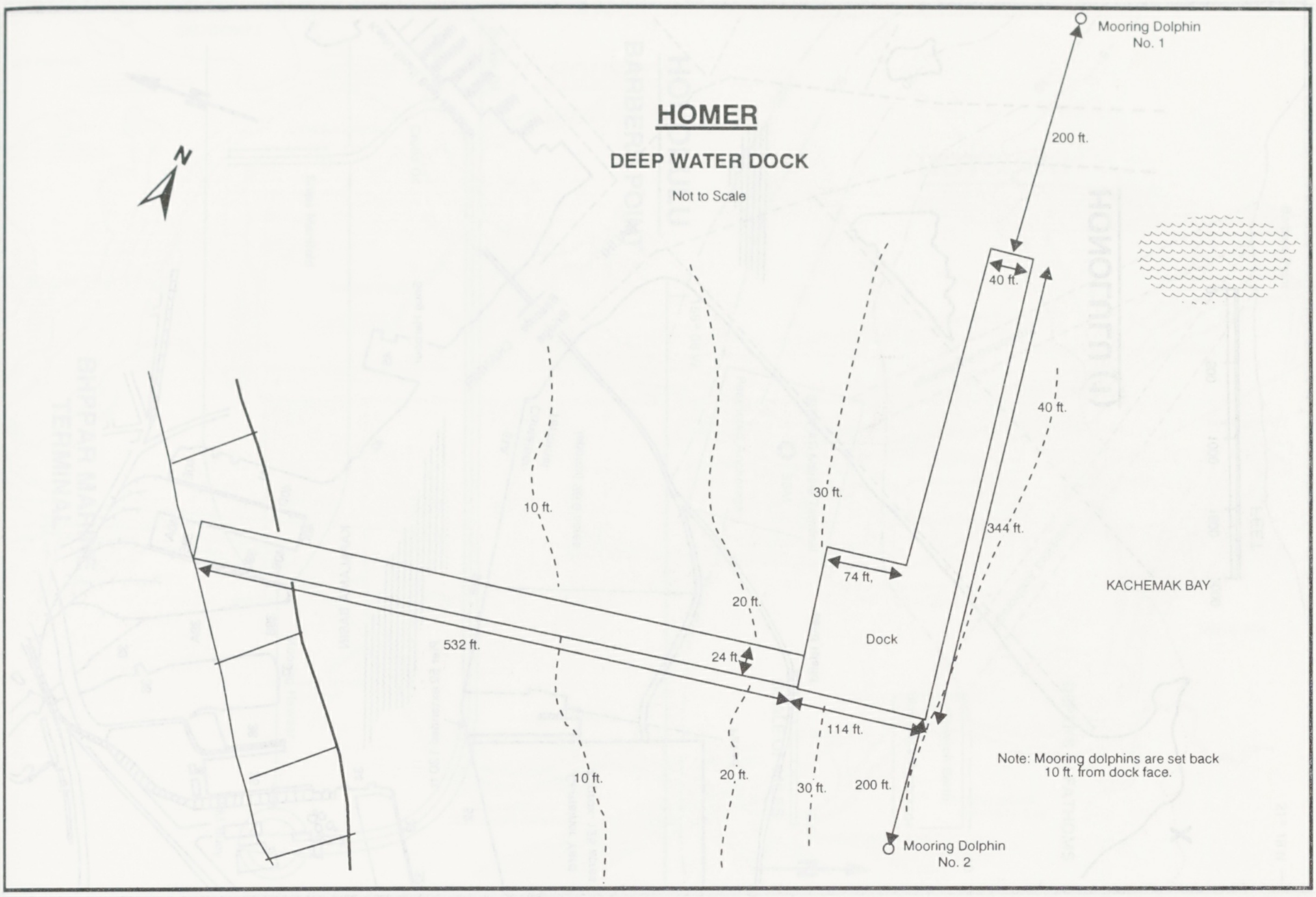

HILO
0
400
800
SCALE IN FEET
Harbour Basin Project Depth 35 ft
Berth modified to handle Ro/Ro vessels
Pier 1
Container Area
Breakwater
RADIO BAY
Boat House
Ro/Ro Pier
Pier 2
Transit Shed
Transit Shed
Pier 3
KUHIO BAY
Container Yard
Cement Storage
U.S.C.G.
Port Area Boundary
Port Area Boundary
Petroleum Storage
Molasses Storage
Office
Water tank
Sugar Storage
Gas Storage
Petroleum Storage
Customs & U.S.C.G.


0
500
1000
SCALE IN FEET
Kawaihae Rd.
Cement Storage
Petroleum Storage
Molasses Storage
To Mahukona
Shipping Corrals
Port Area Boundary
Sugar Storage
Warehouse
Petroleum Storage
Fertilizer Storage
Cement Storage
Port Area Boundary
Transit Sheds
Office
Grain Storage
Transit Shed
Aggregate Stockpile
Boat Basin
Livestock Loading Chute
Overseas Terminal
Boat Basin
Barge Terminal
Drainage Ditch
Coral Stockpile
CHANNEL Project Depth 40 ft.
HARBOUR BASIN Project Depth 35 ft.
Access Road to LST Berth & Breakwater
LST Berth
Breakwater
N
HILO
KAWAIHAE


HOMER
MAIN HARBOUR
Launching Ramp
Marshalling Yard
Fuel Floats
Deep Water Dock
Main Dock
VICINITY MAP
N
Homer East Rd
Beluga Slough
Coal Bay
Airport
Harbour
Deep Water Dock
Kachemak Bay


HOMER
Homer Spit
Wood Chip Stockpile
Mooring Dolphin
Ocean (Deep Water) Dock
1.5 Miles to Anchorage
KACHEMAK BAY
Boat Harbour
City Dock
Coal Point
N
OCEAN DOCK
Mooring Dolphins
70 m.
Spring Fenders
Barges
105 m.
35 ft. MLW
Proposed Wood Chip Conveyor
Proposed Mooring Dolphins

"Plan Supplied bt Ship's Master"



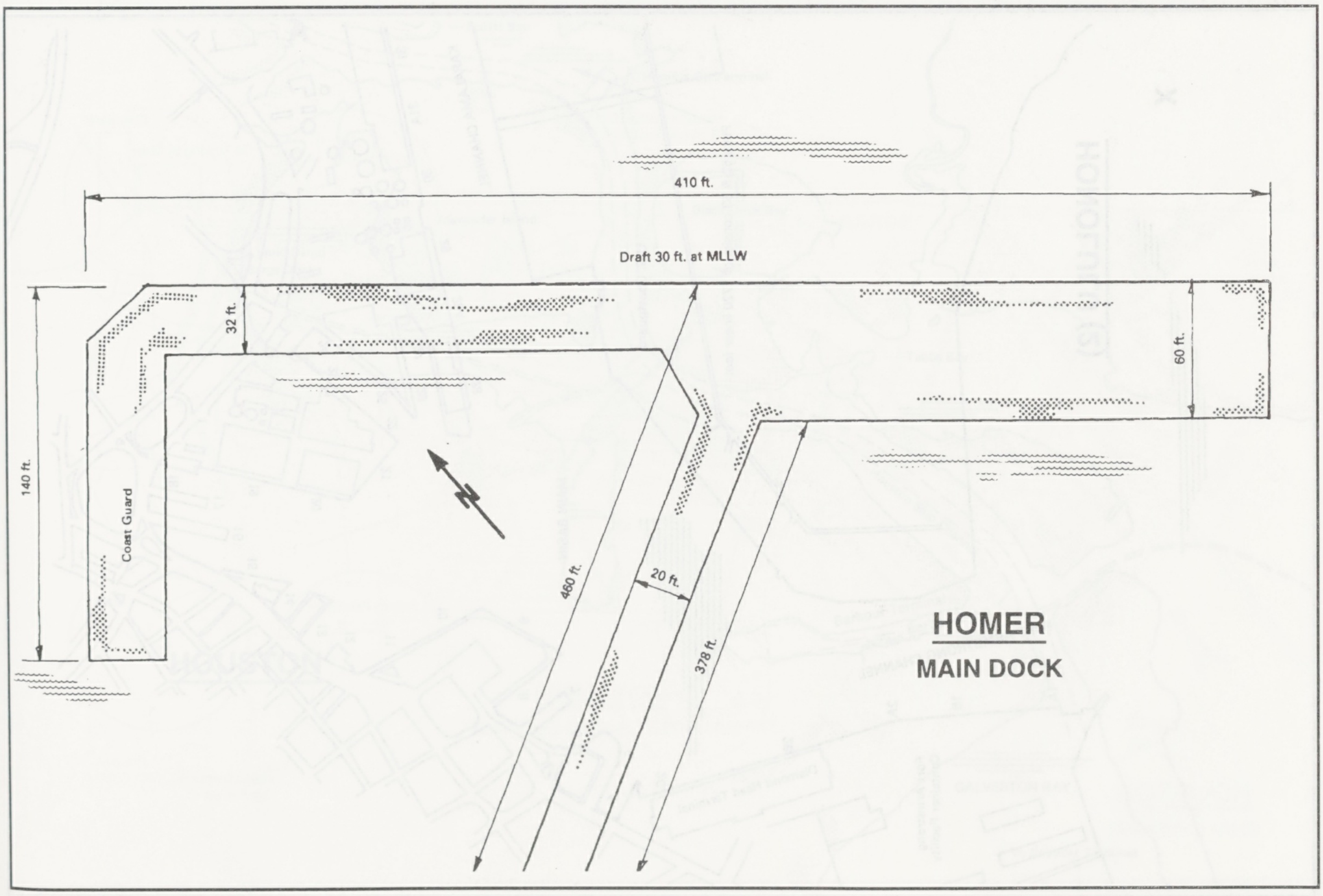
HOMER

DEEP WATER DOCK

Not to Scale

N
Mooring Dolphin
No. 1
200 ft.
40 ft.
40 ft.
30 ft.
10 ft.
344 ft.
74 ft.
20 ft.
KACHEMAK BAY
Dock
532 ft.
24 ft.
114 ft.
10 ft.
20 ft.
30 ft.
200 ft.
Mooring Dolphin
No. 2

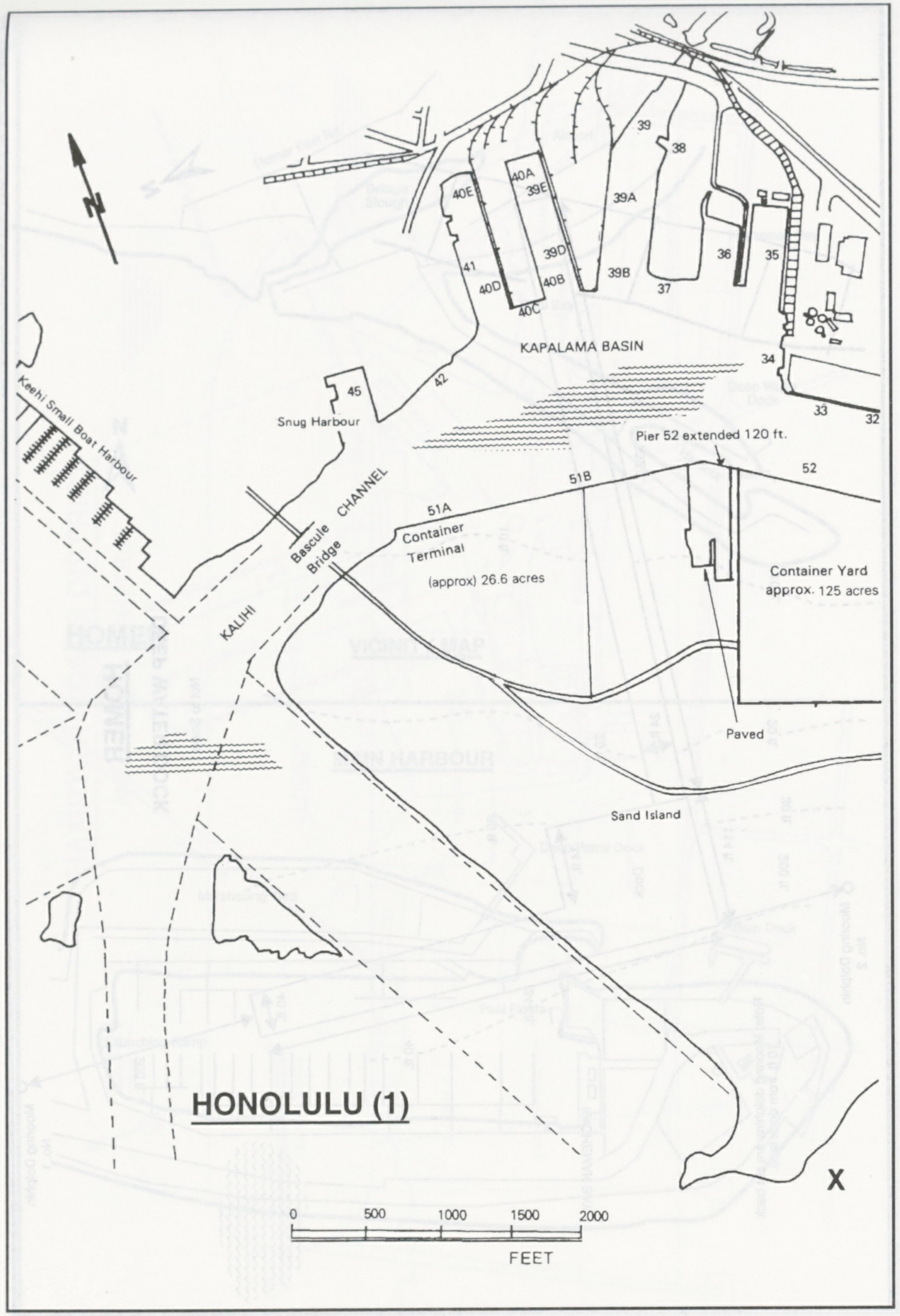
Note: Mooring dolphins are set back 10 ft. from dock face.



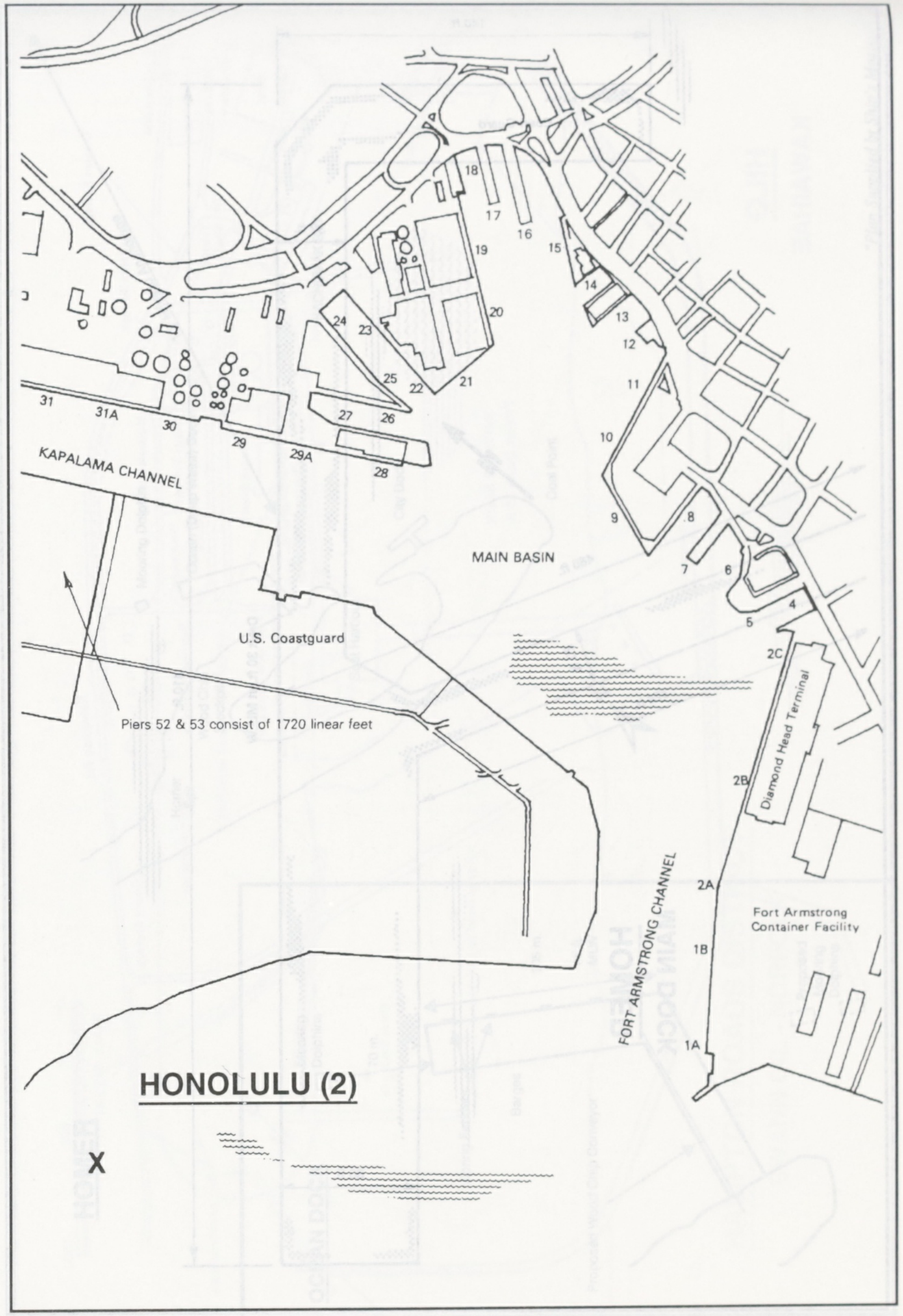
HOMER

MAIN DOCK

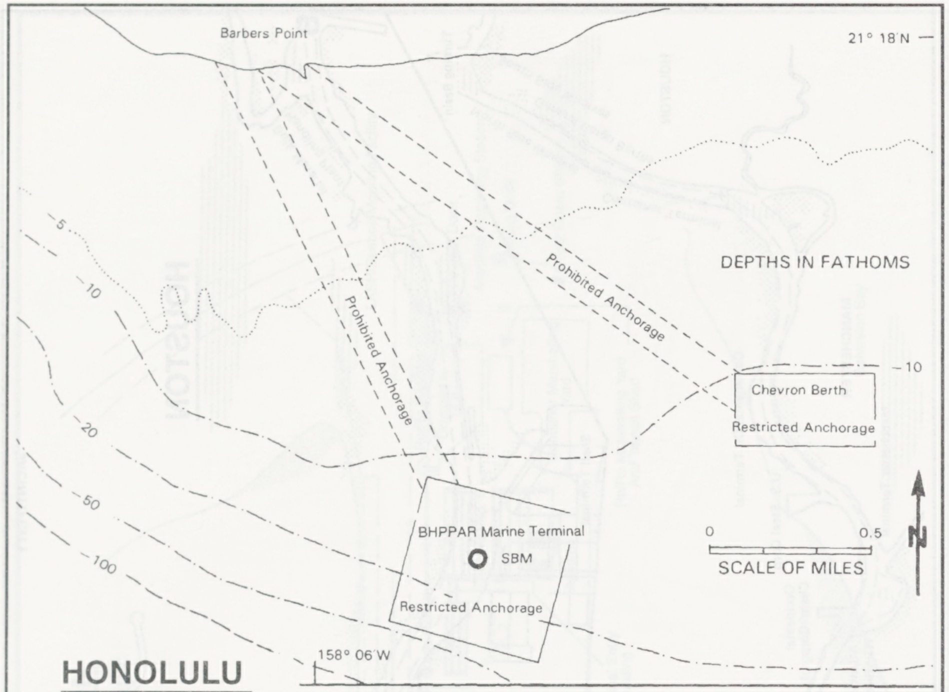
410 ft.
Draft 30 ft. at MLLW
32 ft.
60 ft.
140 ft.
Coast Guard
N
460 ft.
20 ft.
378 ft.


N
39
38
40A
39E
40E
39A
39D
41
40D
40B
40C
39B
37
36
35
KAPALAMA BASIN
34
45
42
Snug Harbour
33
32
Keehi Small Boat Harbour
Pier 52 extended 120 ft.
52
51B
51A
CHANNEL
Container Terminal
(approx) 26.6 acres
Bascule Bridge
KALIHI
Container Yard approx. 125 acres
Paved
Sand Island
X
0
500
1000
1500
2000
FEET

HONOLULU (1)

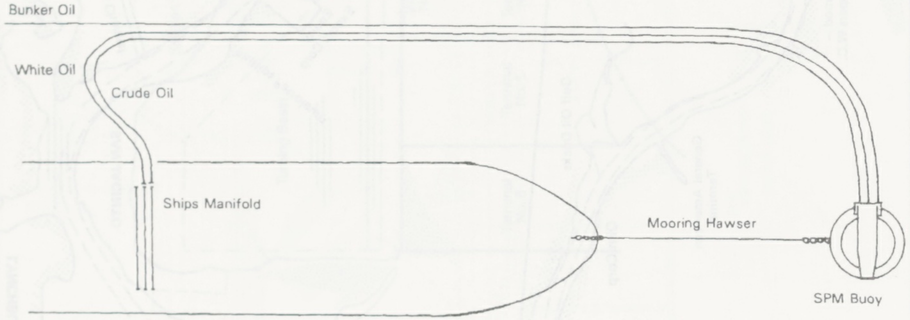

18
17
16
15
19
14
13
12
24
23
20
21
25
22
11
31
31A
30
27
26
29
29A
28
10
KAPALAMA CHANNEL
9
8
7
6
MAIN BASIN
4
5
U.S. Coastguard
2C
Diamond Head Terminal
Piers 52 & 53 consist of 1720 linear feet
2B
FORT ARMSTRONG CHANNEL
2A
Fort Armstrong Container Facility
1B
1A
X

HONOLULU (2)

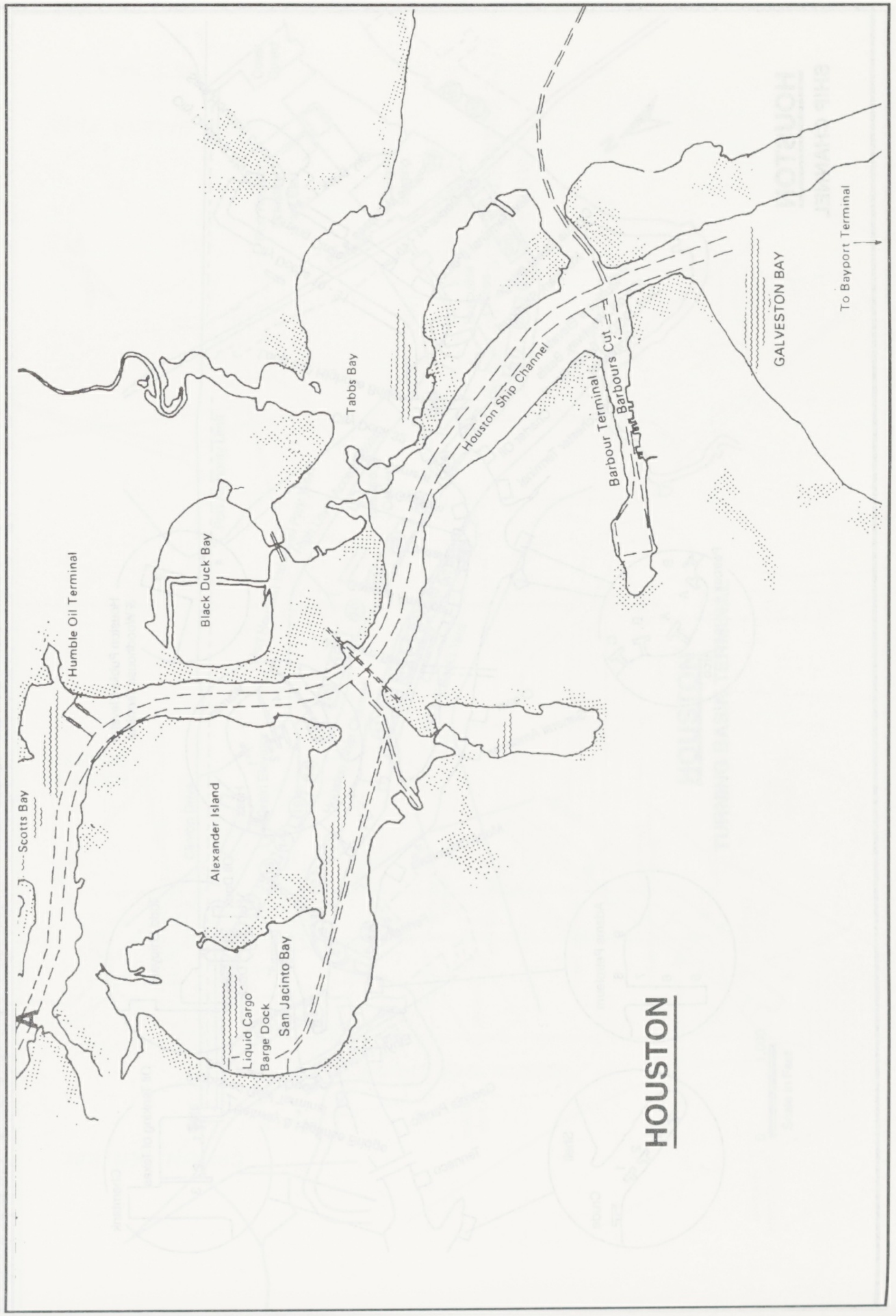

Barbers Point
21° 18'N
5
10
20
50
100
Prohibited Anchorage
Prohibited Anchorage
DEPTHS IN FATHOMS
10
Chevron Berth
Restricted Anchorage
BHPPAR Marine Terminal
SBM
Restricted Anchorage
0
0.5
SCALE OF MILES
N
158° 06' W

HONOLULU

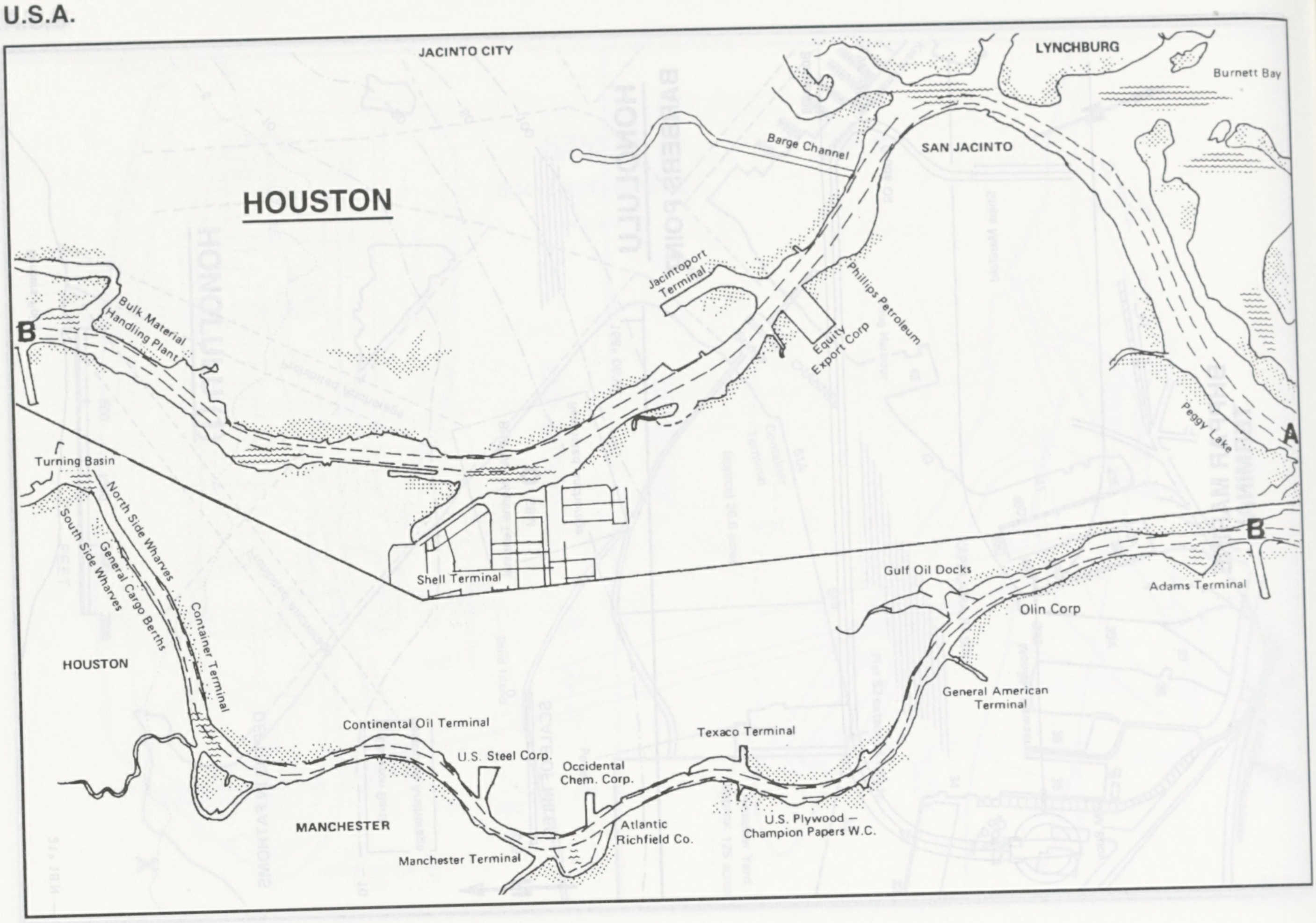
BARBERS POINT

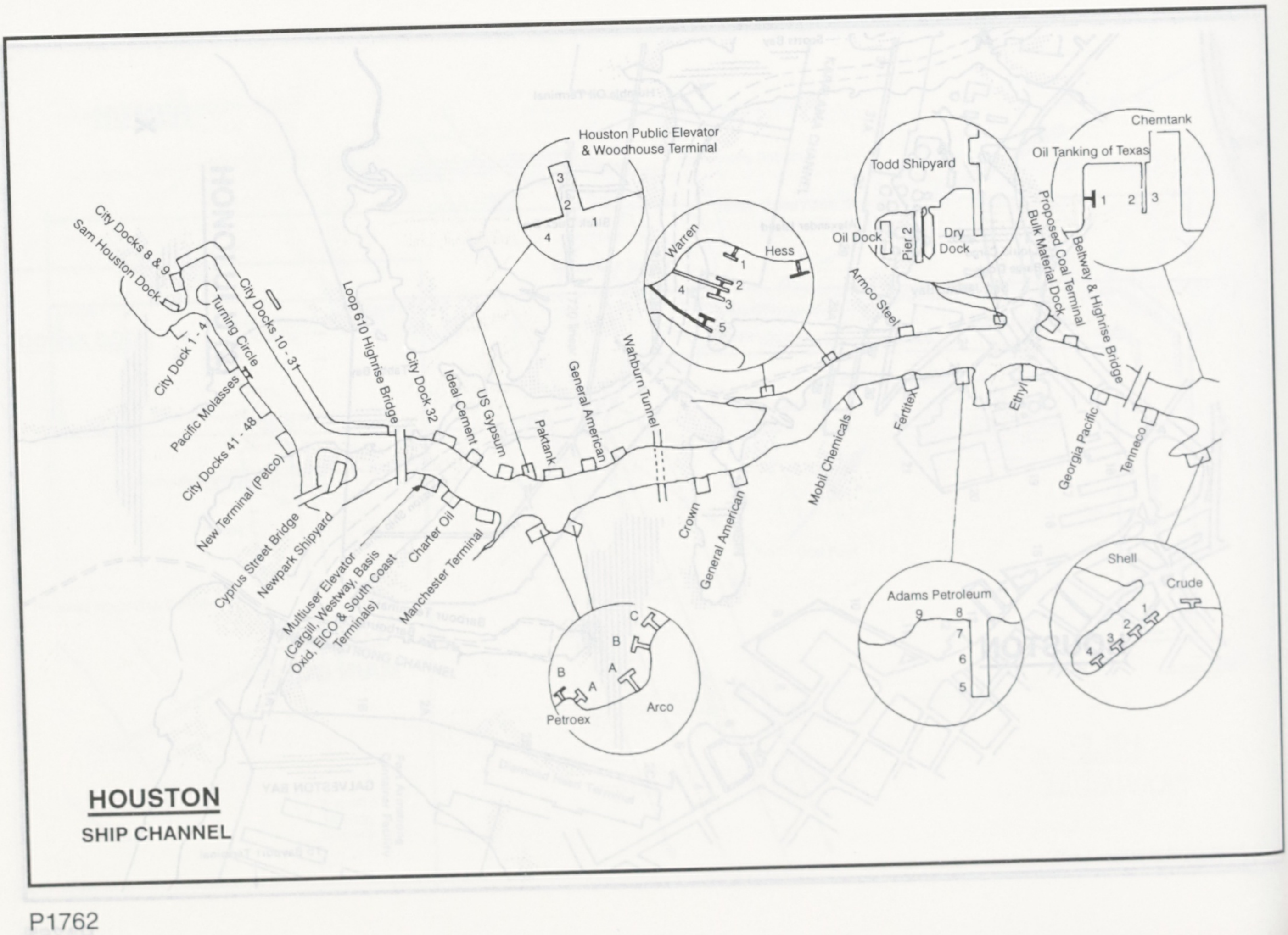

Bunker Oil
White Oil
Crude Oil
Ships Manifold
Mooring Hawser
SPM Buoy

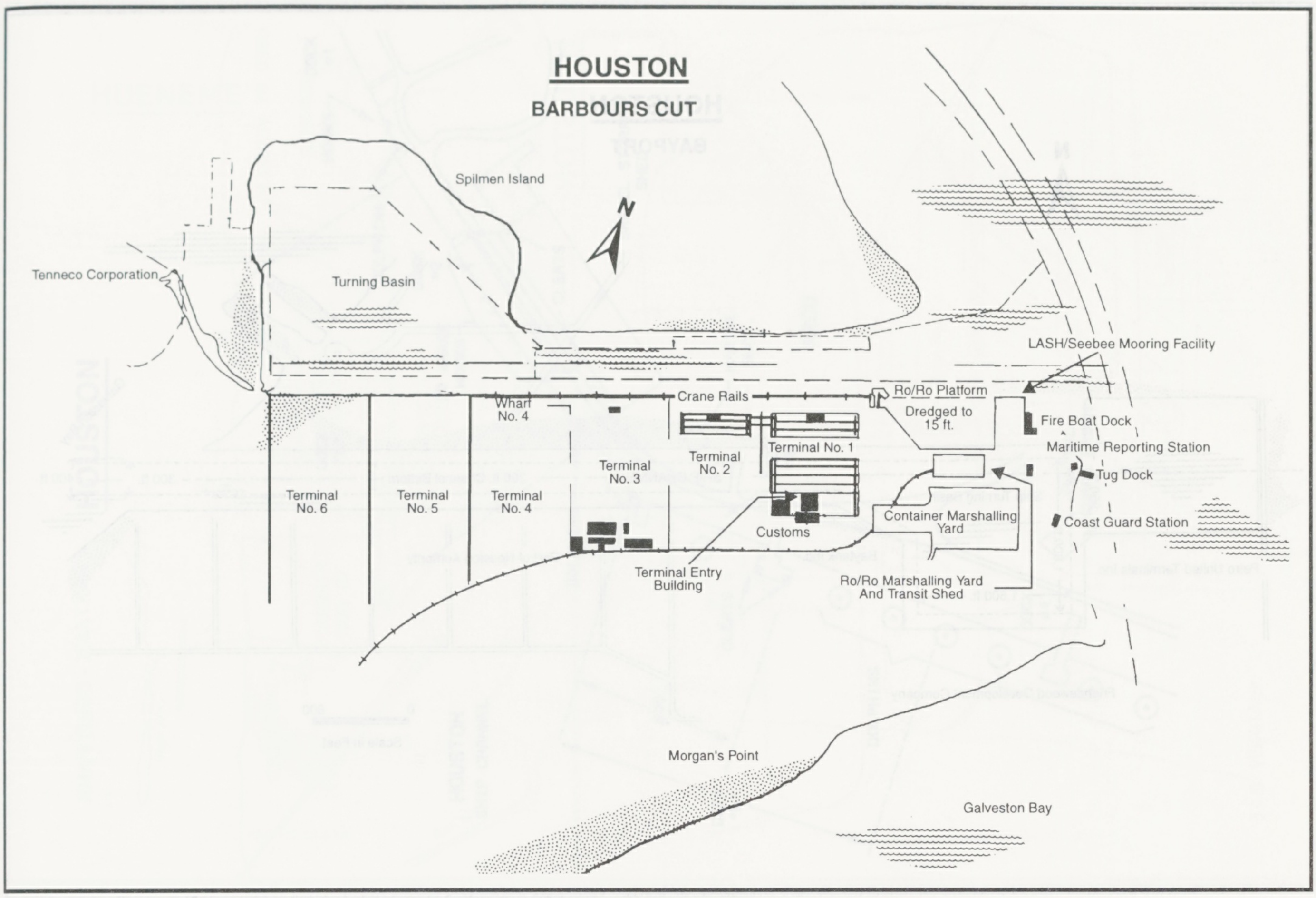
BHPPAR MARINE TERMINAL

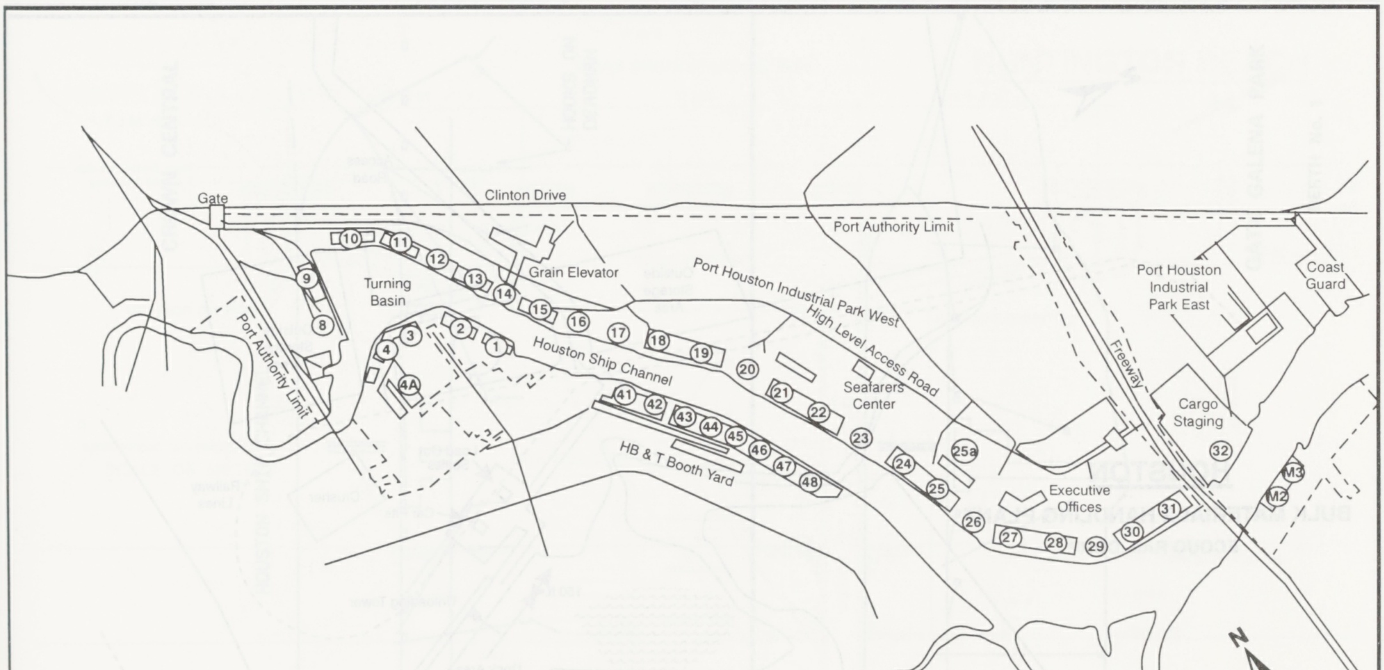

To Bayport Terminal
GALVESTON BAY
Barbours Cut
Barbour Terminal
Houston Ship Channel
Tabbs Bay
Black Duck Bay
Humble Oil Terminal
Alexander Island
Scotts Bay
San Jacinto Bay
Liquid Cargo
Barge Dock
A

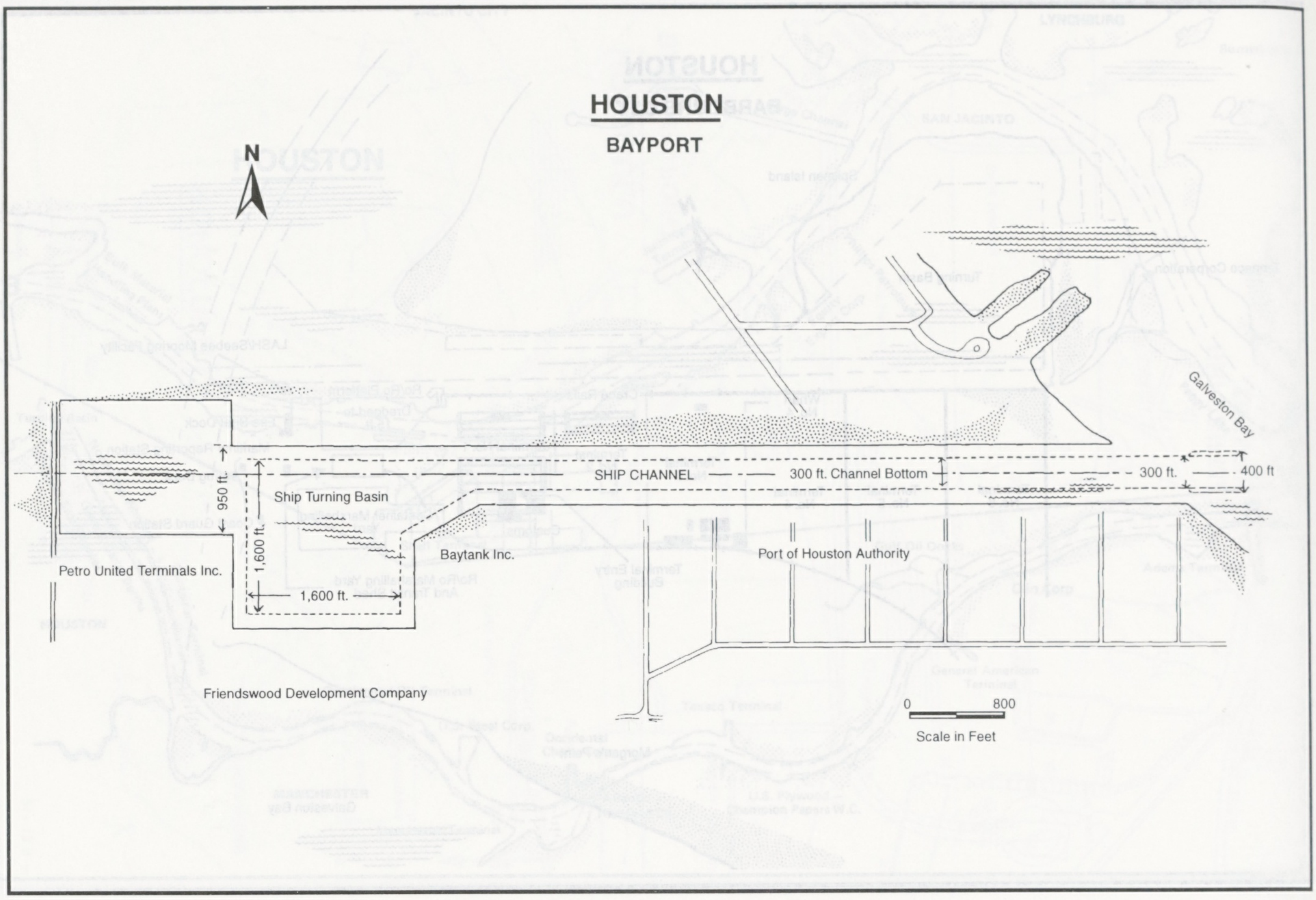
HOUSTON


HOUSTON
JACINTO CITY
LYNCHBURG
Burnett Bay
Barge Channel
SAN JACINTO
Jacintoport Terminal
Phillips Petroleum
Equity Export Corp
Bulk Material Handling Plant
B
A
Peggy Lake
B
Turning Basin
North Side Wharves
South Side Wharves
General Cargo Berths
Shell Terminal
Gulf Oil Docks
Adams Terminal
Olin Corp
HOUSTON
Container Terminal
General American Terminal
Continental Oil Terminal
Texaco Terminal
U.S. Steel Corp.
Occidental Chem. Corp.
MANCHESTER
Atlantic Richfield Co.
U.S. Plywood — Champion Papers W.C.
Manchester Terminal


Houston Public Elevator & Woodhouse Terminal
3
2
1
4
Todd Shipyard
Oil Dock
Pier 2
Dry Dock
Chemtank
Oil Tanking of Texas
1
2
3
Warren
Hess
1
2
3
4
5
City Docks 8 & 9
Sam Houston Dock
City Docks 10 - 31
Turning Circle
City Dock 1 - 4
Pacific Molasses
City Docks 41 - 48
New Terminal (Petco)
Cypress Street Bridge
Newpark Shipyard
Multiuser Elevator (Cargill, Westway, Basis Oxid, EICO & South Coast Terminals)
Charter Oil
Manchester Terminal
Loop 610 Highrise Bridge
City Dock 32
Ideal Cement
US Gypsum
Paktank
General American
Washburn Tunnel
Crown
General American
Armco Steel
Mobil Chemicals
Fertitex
Ethyl
Proposed Coal Terminal
Bulk Material Dock
Beltway & Highrise Bridge
Georgia Pacific
Tenneco
C
B
B
A
A
Petroex
Arco
Adams Petroleum
9
8
7
6
5
Shell
Crude
1
2
3
4
HOUSTON
SHIP CHANNEL


HOUSTON
BARBOURS CUT
Spilmen Island
N
Tenneco Corporation
Turning Basin
LASH/Seebee Mooring Facility
Ro/Ro Platform
Crane Rails
Wharf No. 4
Dredged to 15 ft.
Fire Boat Dock
Terminal No. 1
Maritime Reporting Station
Terminal No. 2
Terminal No. 3
Tug Dock
Terminal No. 6
Terminal No. 5
Terminal No. 4
Container Marshalling Yard
Customs
Coast Guard Station
Terminal Entry Building
Ro/Ro Marshalling Yard And Transit Shed
Morgan's Point
Galveston Bay

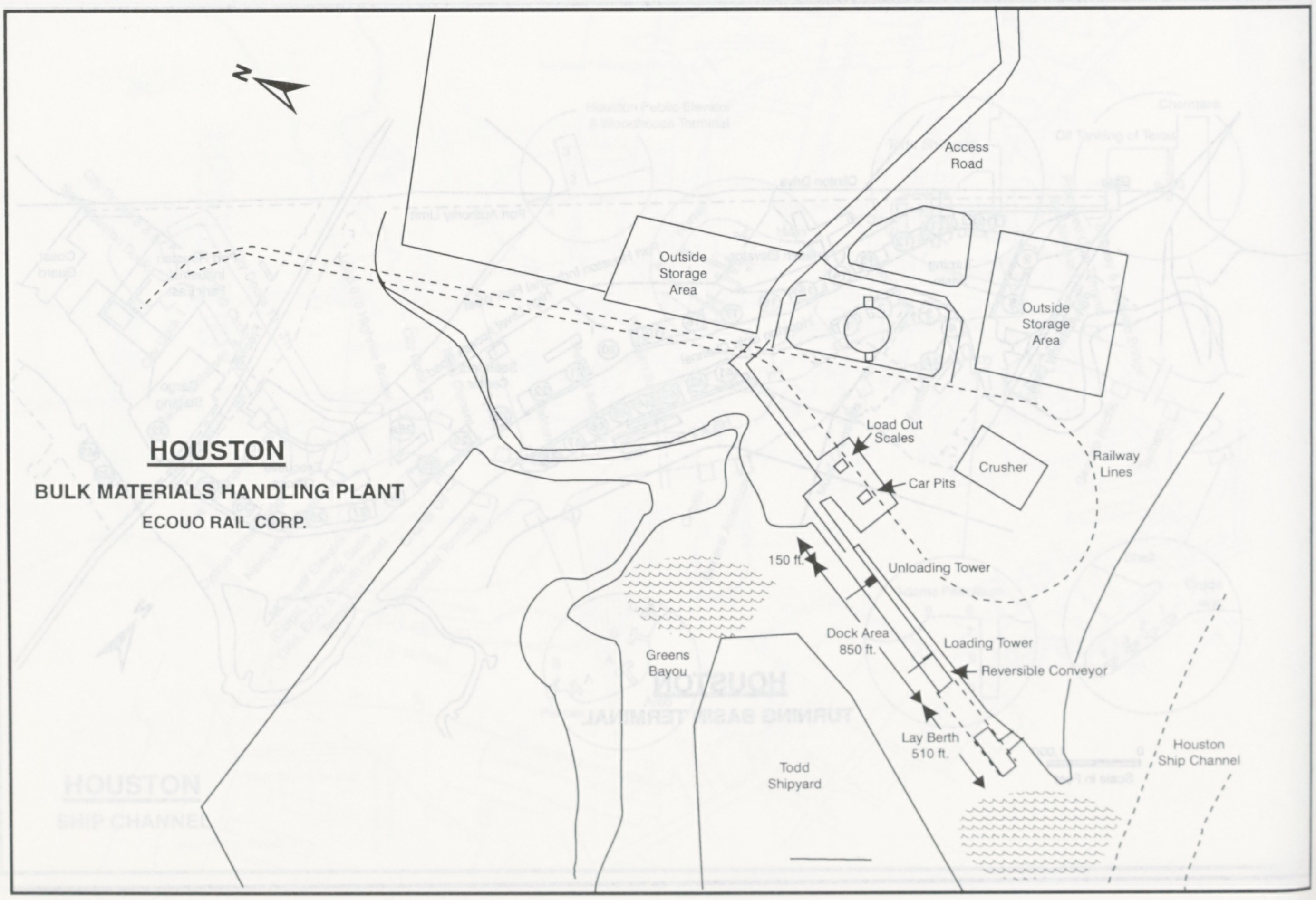

Gate
Clinton Drive
Port Authority Limit
10
11
12
13
14
9
Turning Basin
Grain Elevator
Port Houston Industrial Park West
Port Houston Industrial Park East
Coast Guard
15
16
17
18
19
20
8
Port Authority Limit
3
2
1
4
4A
Houston Ship Channel
High Level Access Road
Freeway
21
22
Seafarers Center
41
42
43
44
45
46
47
48
HB & T Booth Yard
23
24
25a
25
Cargo Staging
32
M3
M2
Executive Offices
26
27
28
29
30
31
N
HOUSTON
TURNING BASIN TERMINAL
0
1,000
Scale in Feet



HOUSTON

BAYPORT

N
Galveston Bay
SHIP CHANNEL
300 ft. Channel Bottom
300 ft.
400 ft
950 ft.
Ship Turning Basin
1,600 ft.
1,600 ft.
Petro United Terminals Inc.
Baytank Inc.
Port of Houston Authority
Friendswood Development Company
0
800
Scale in Feet



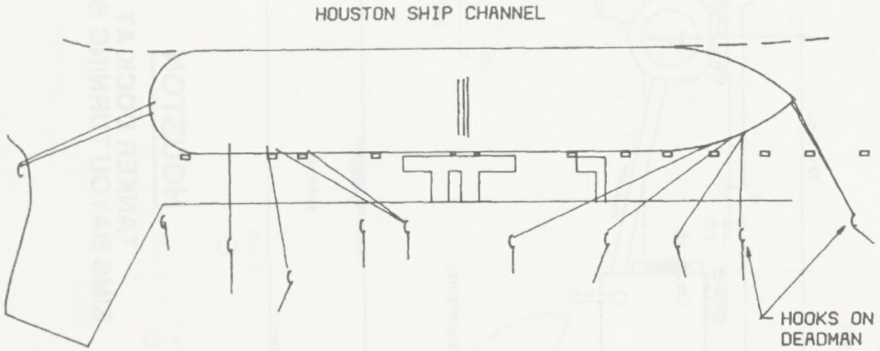
HOUSTON

BULK MATERIALS HANDLING PLANT

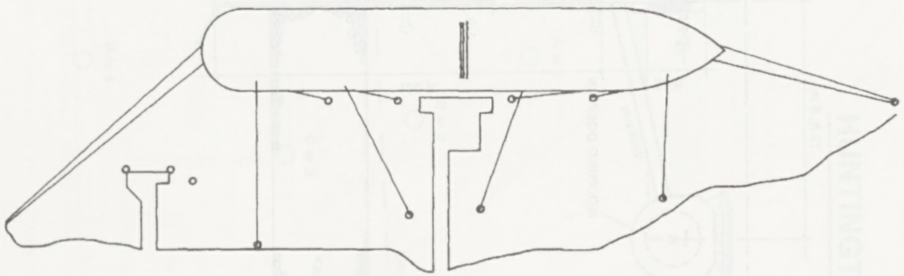
ECOUO RAIL CORP.

N
Access Road
Outside Storage Area
Outside Storage Area
Load Out Scales
Car Pits
Crusher
Railway Lines
150 ft.
Unloading Tower
Dock Area 850 ft.
Loading Tower
Reversible Conveyor
Greens Bayou
Lay Berth 510 ft.
Todd Shipyard
Houston Ship Channel

CROWN CENTRAL


HOUSTON SHIP CHANNEL
HOOKS ON DEADMAN

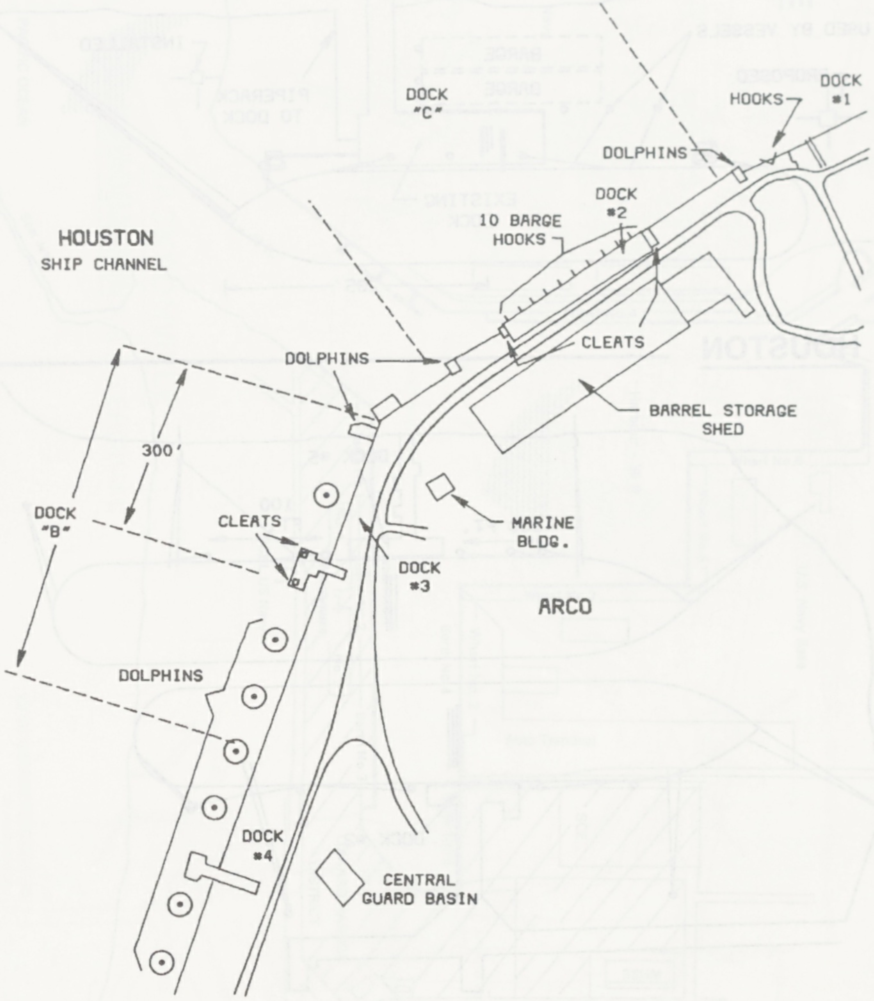
HOUSTON

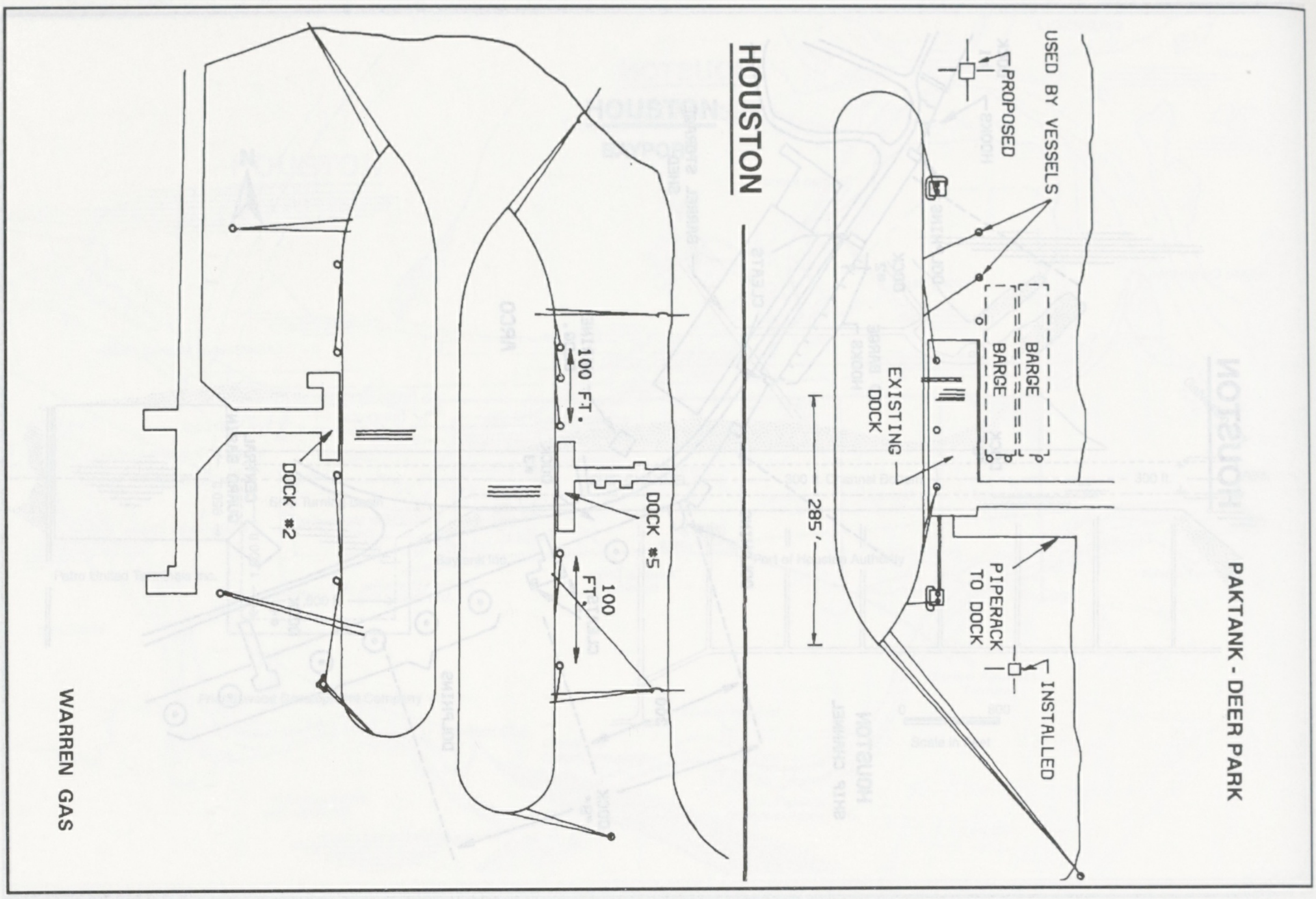


GATX GALENA PARK

BERTH No. 1

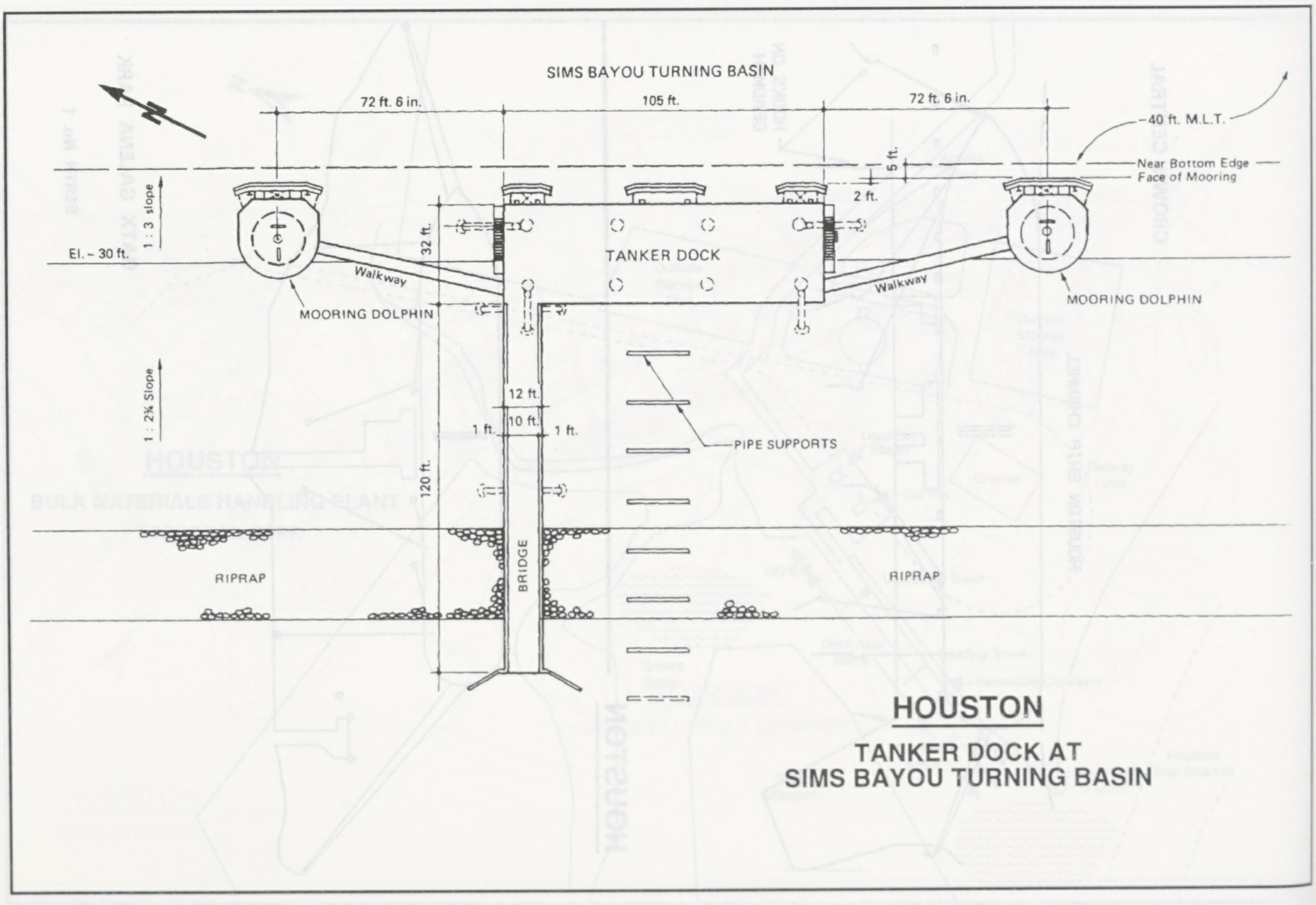
HOUSTON


HOUSTON
SHIP CHANNEL
DOCK "C"
HOOKS
DOCK #1
DOLPHINS
DOCK #2
10 BARGE HOOKS
CLEATS
DOLPHINS
BARREL STORAGE SHED
300'
DOCK "B"
CLEATS
MARINE BLDG.
DOCK #3
ARCO
DOLPHINS
DOCK #4
CENTRAL GUARD BASIN



HOUSTON

PAKTANK - DEER PARK
USED BY VESSELS
PROPOSED
BARGE
BARGE
EXISTING DOCK
285'
PIPERACK TO DOCK
INSTALLED
DOCK #5
100 FT.
100 FT.
DOCK #2
WARREN GAS

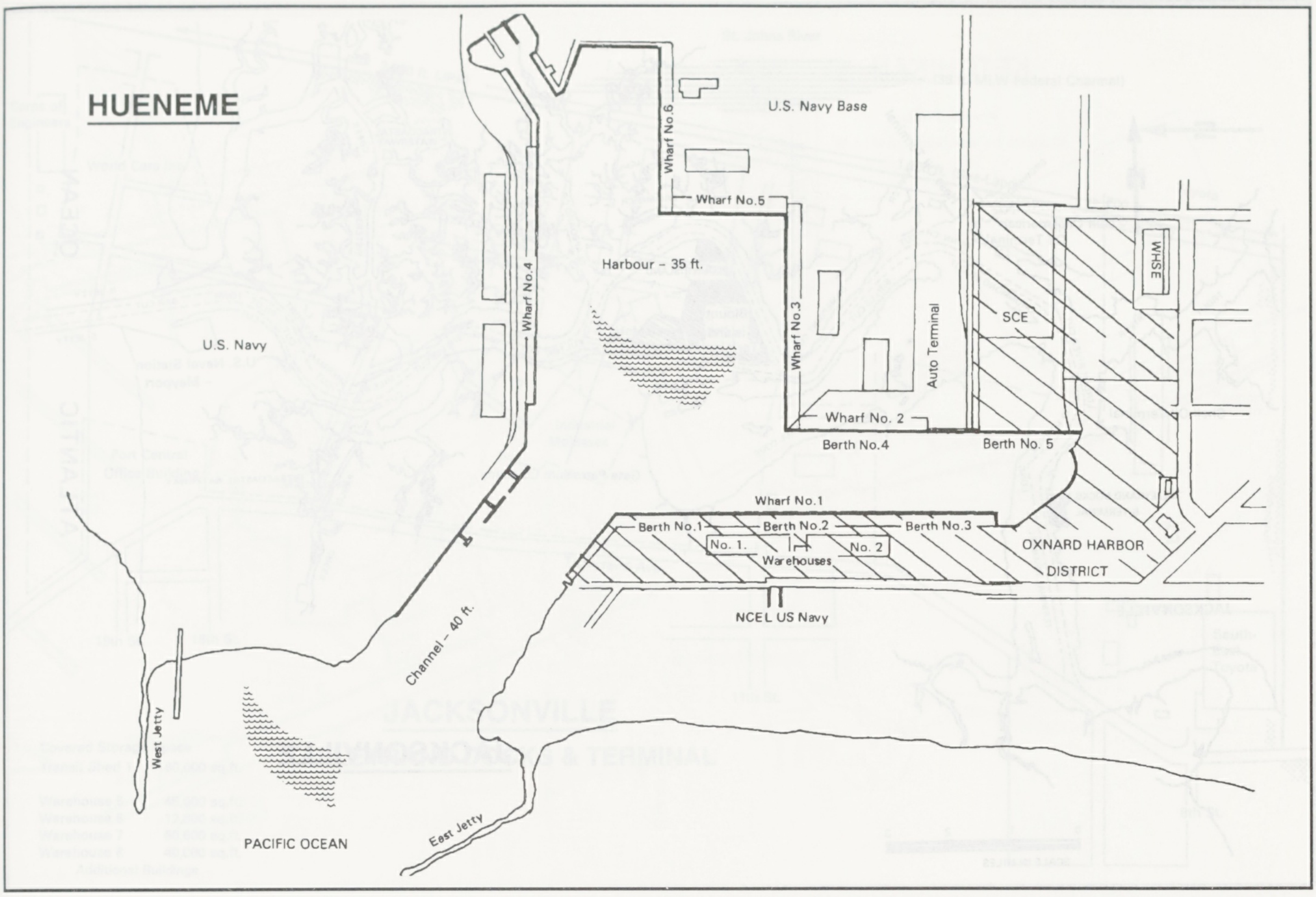


SIMS BAYOU TURNING BASIN
72 ft. 6 in.
105 ft.
72 ft. 6 in.
–40 ft. M.L.T.
Near Bottom Edge
Face of Mooring
5 ft.
2 ft.
1 : 3 slope
El. – 30 ft.
32 ft.
TANKER DOCK
Walkway
Walkway
MOORING DOLPHIN
MOORING DOLPHIN
1 : 2¼ Slope
12 ft.
10 ft.
1 ft.
1 ft.
PIPE SUPPORTS
120 ft.
RIPRAP
BRIDGE
RIPRAP

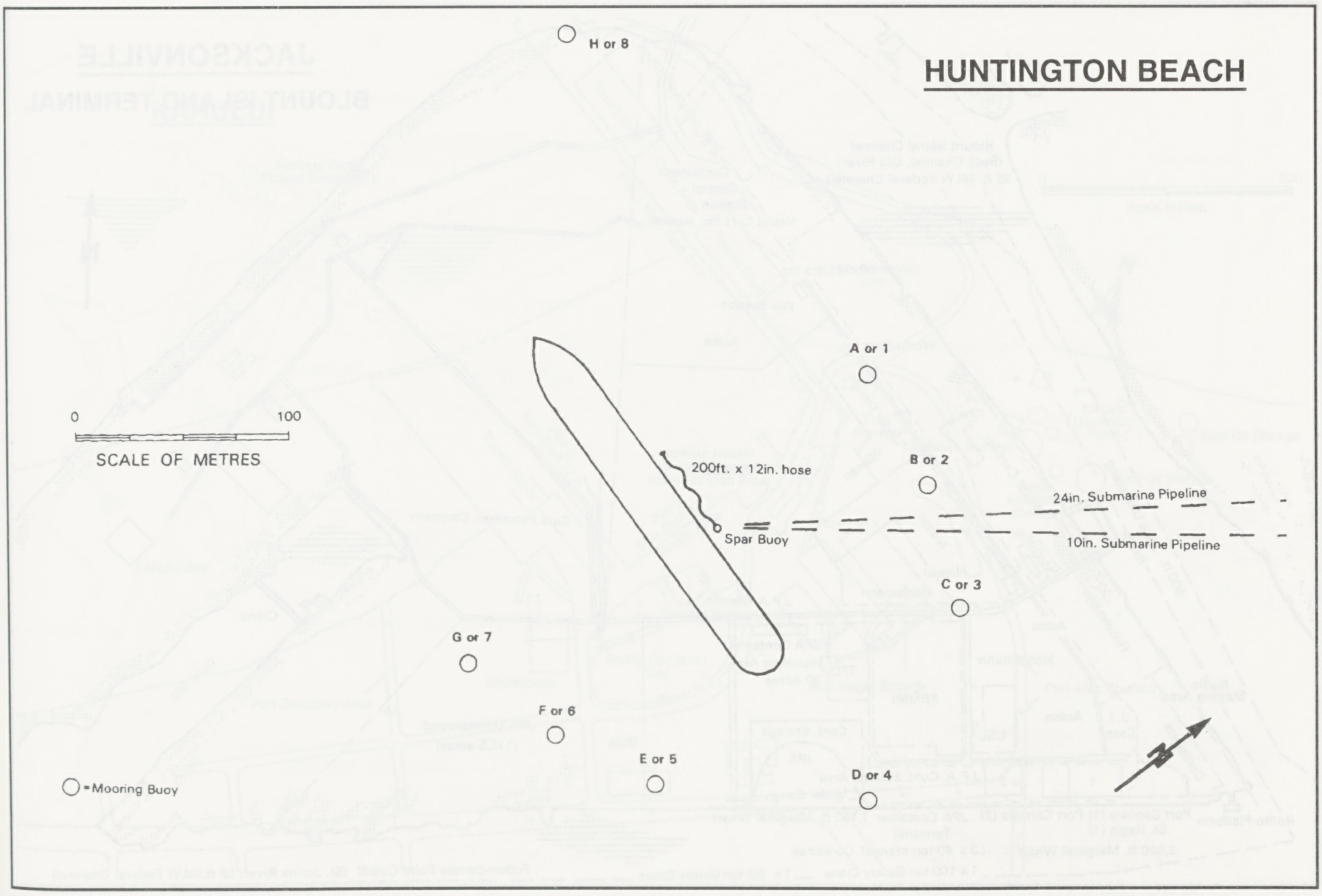
HOUSTON

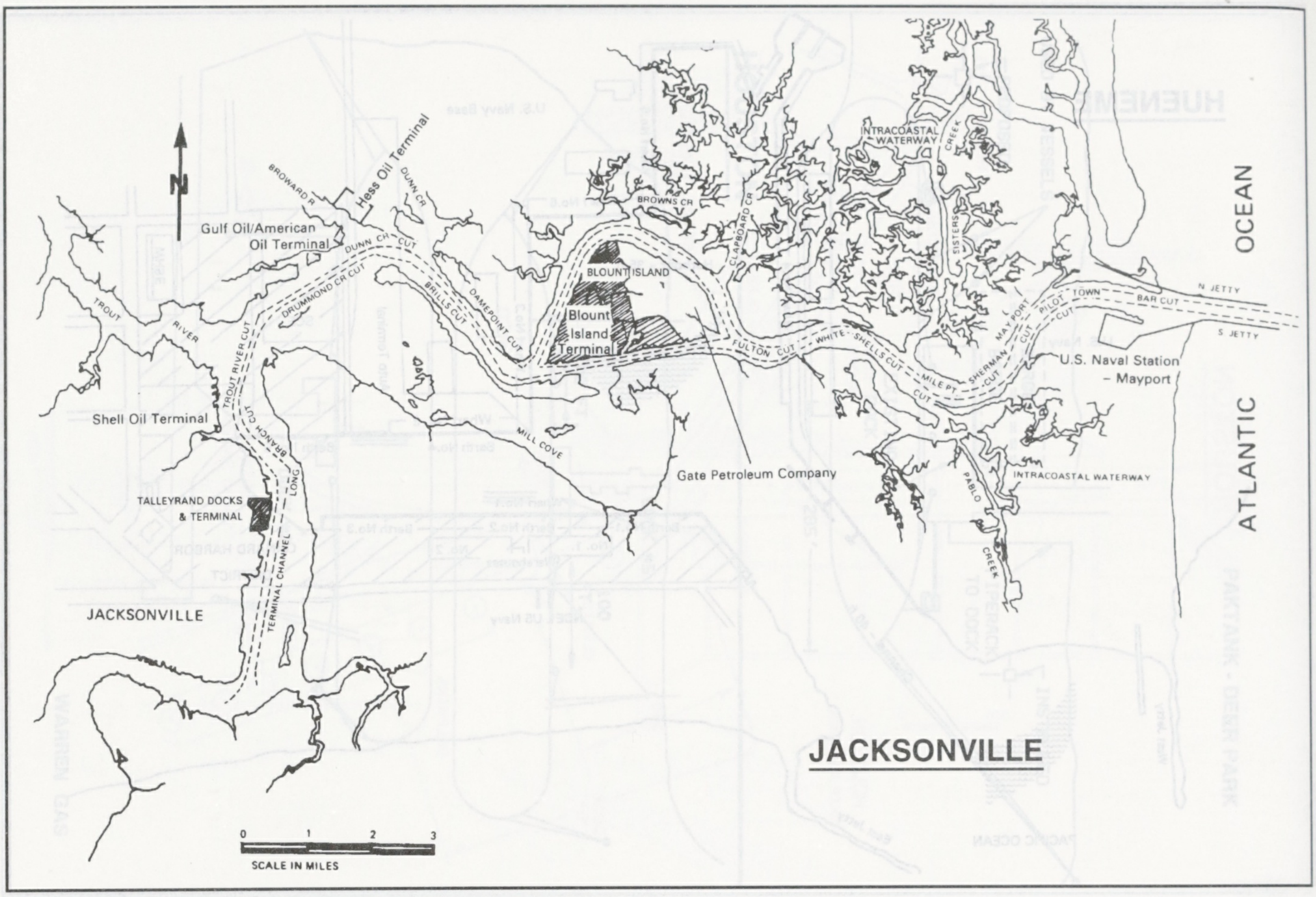
TANKER DOCK AT
SIMS BAYOU TURNING BASIN

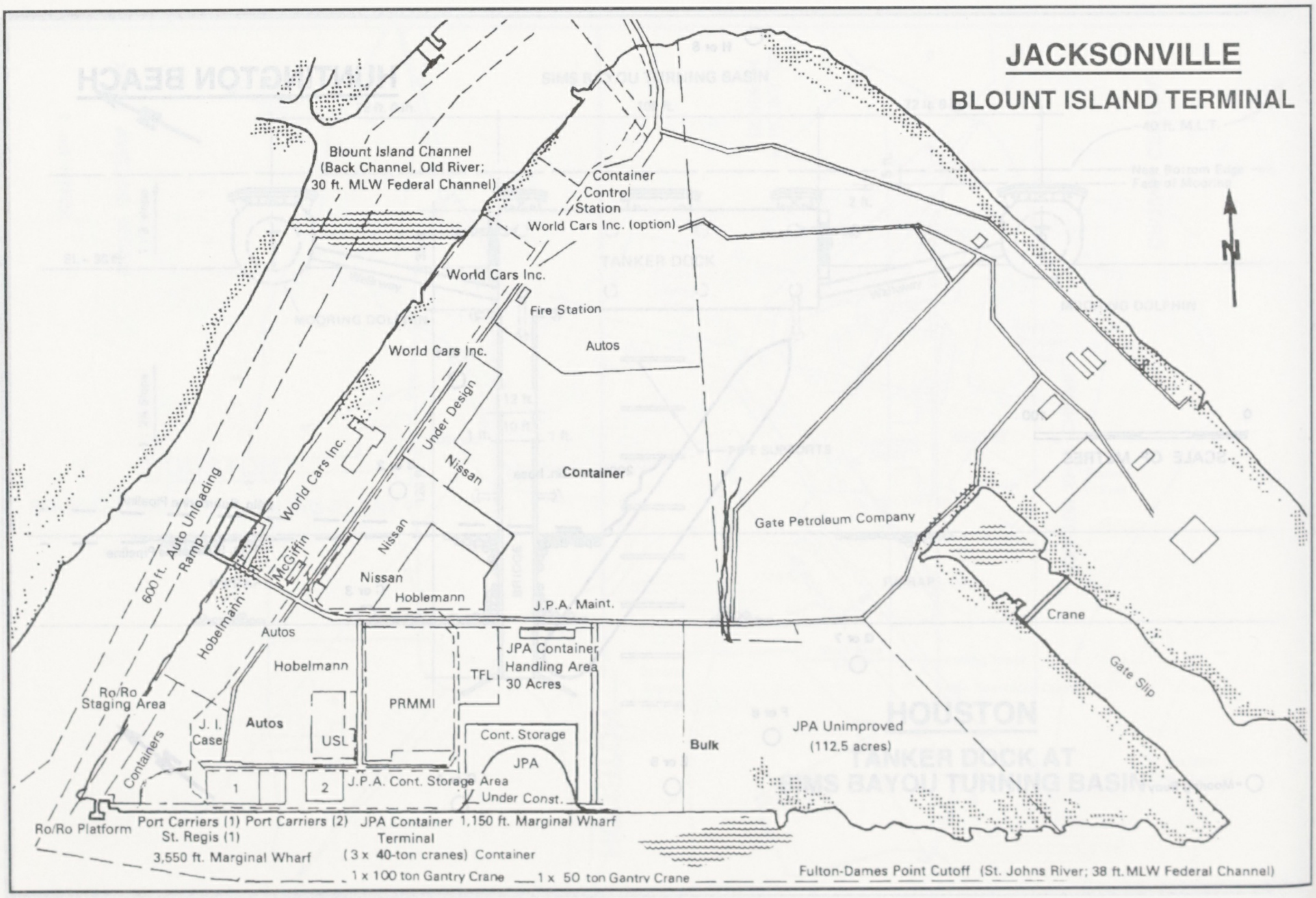
HUENEME

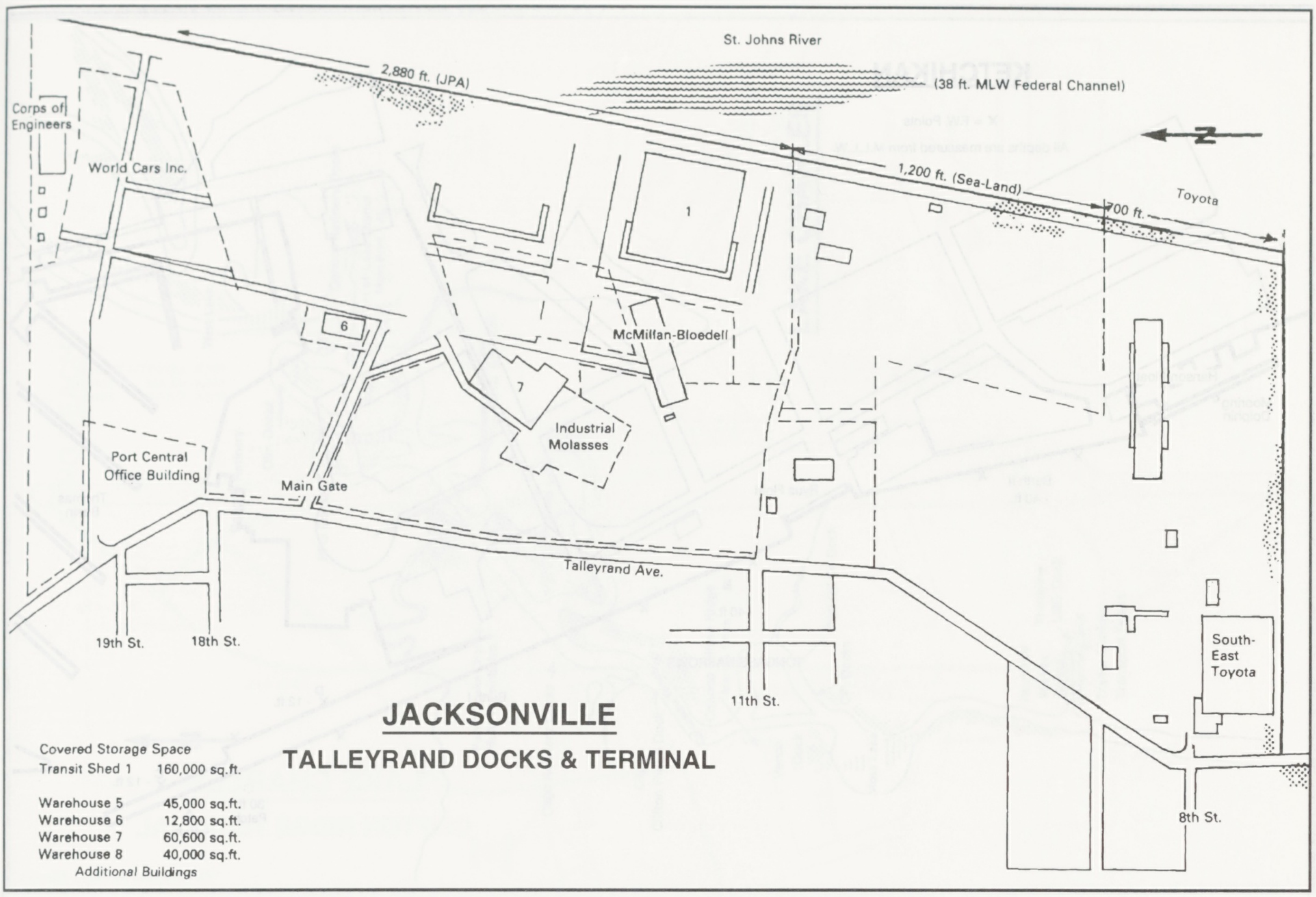

U.S. Navy Base
Wharf No.6
Wharf No.5
Harbour - 35 ft.
Wharf No.4
Wharf No.3
Auto Terminal
SCE
WHSE
U.S. Navy
Wharf No. 2
Berth No.4
Berth No. 5
Wharf No.1
Berth No.1
Berth No.2
Berth No.3
No. 1.
No. 2
Warehouses
OXNARD HARBOR
DISTRICT
NCEL US Navy
Channel - 40 ft.
West Jetty
PACIFIC OCEAN
East Jetty

HUNTINGTON BEACH


H or 8
A or 1
0
100
SCALE OF METRES
200ft. x 12in. hose
B or 2
24in. Submarine Pipeline
Spar Buoy
10in. Submarine Pipeline
C or 3
G or 7
F or 6
E or 5
D or 4
○ = Mooring Buoy


JACKSONVILLE
N
BROWARD R
Hess Oil Terminal
DUNN CR
Gulf Oil/American Oil Terminal
DUNN CR CUT
DRUMMOND CR CUT
TROUT RIVER
TROUT RIVER CUT
BRILLS CUT
DAMEPOINT CUT
BROWNS CR
BLOUNT ISLAND
Blount Island Terminal
CLAPBOARD CR
INTRACOASTAL WATERWAY
SISTERS CREEK
FULTON CUT
WHITE SHELLS CUT
MILE PT CUT
SHERMAN CUT
MAYPORT CUT
PILOT TOWN CUT
BAR CUT
N JETTY
S JETTY
OCEAN
ATLANTIC
U.S. Naval Station – Mayport
Shell Oil Terminal
MILL COVE
Gate Petroleum Company
PABLO CREEK
INTRACOASTAL WATERWAY
TALLEYRAND DOCKS & TERMINAL
LONG BRANCH CUT
TERMINAL CHANNEL
JACKSONVILLE
0 1 2 3
SCALE IN MILES


JACKSONVILLE
BLOUNT ISLAND TERMINAL
N
Blount Island Channel (Back Channel, Old River; 30 ft. MLW Federal Channel)
Container Control Station
World Cars Inc. (option)
World Cars Inc.
Fire Station
Autos
World Cars Inc.
Under Design
Nissan
Container
World Cars Inc.
600 ft. Auto Unloading Ramp
McGiffin
Nissan
Nissan
Hoblemann
J.P.A. Maint.
Gate Petroleum Company
Hobelmann
Autos
Hobelmann
JPA Container Handling Area 30 Acres
TFL
PRMMI
Ro/Ro Staging Area
J. I. Case
Autos
USL
Cont. Storage
JPA
Containers
1
2
J.P.A. Cont. Storage Area
Under Const.
Bulk
JPA Unimproved (112.5 acres)
Crane
Gate Slip
Ro/Ro Platform
Port Carriers (1) Port Carriers (2)
St. Regis (1)
3,550 ft. Marginal Wharf
JPA Container Terminal
(3 x 40-ton cranes) Container
1,150 ft. Marginal Wharf
1 x 100 ton Gantry Crane
1 x 50 ton Gantry Crane
Fulton-Dames Point Cutoff (St. Johns River; 38 ft. MLW Federal Channel)

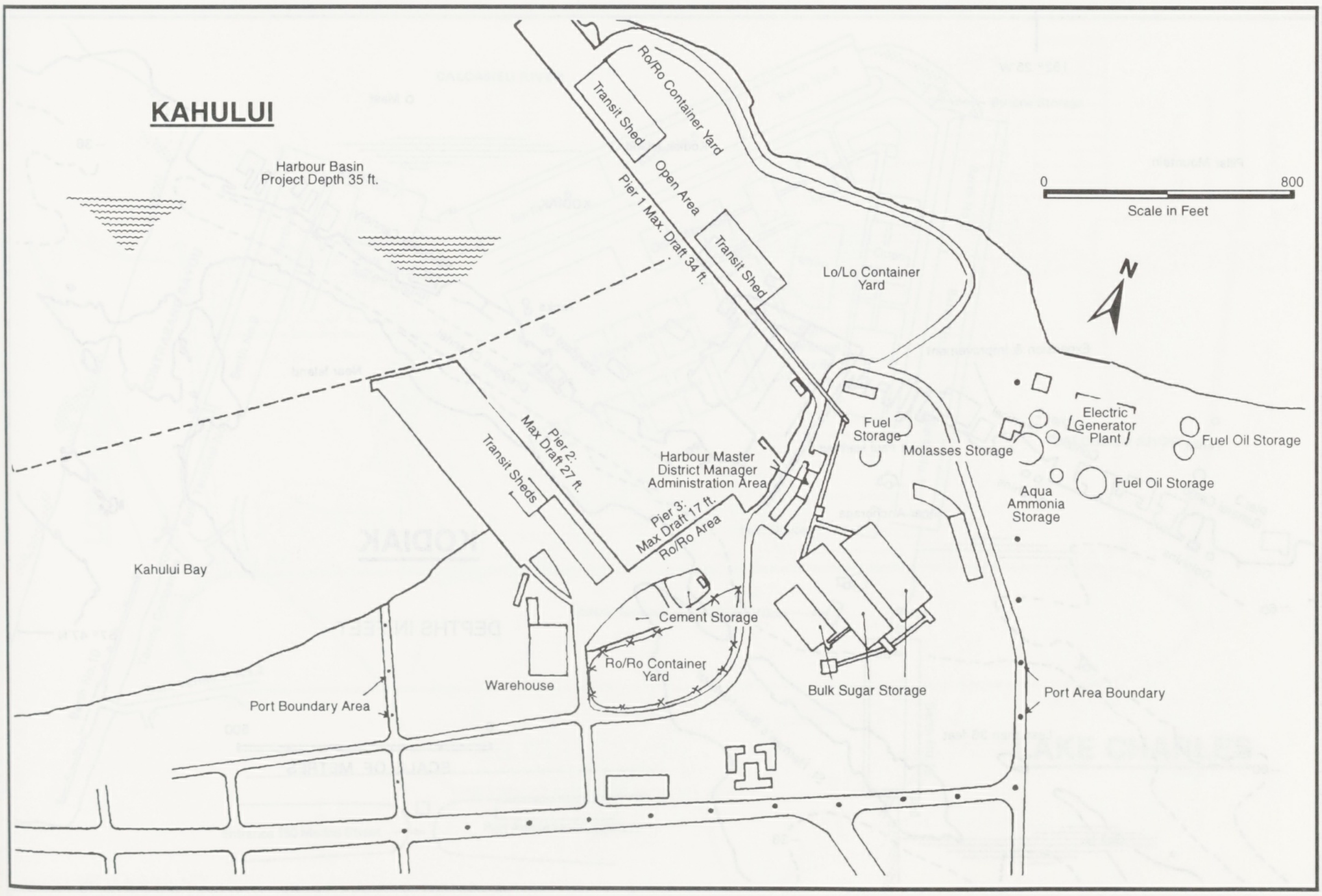


JACKSONVILLE

TALLEYRAND DOCKS & TERMINAL

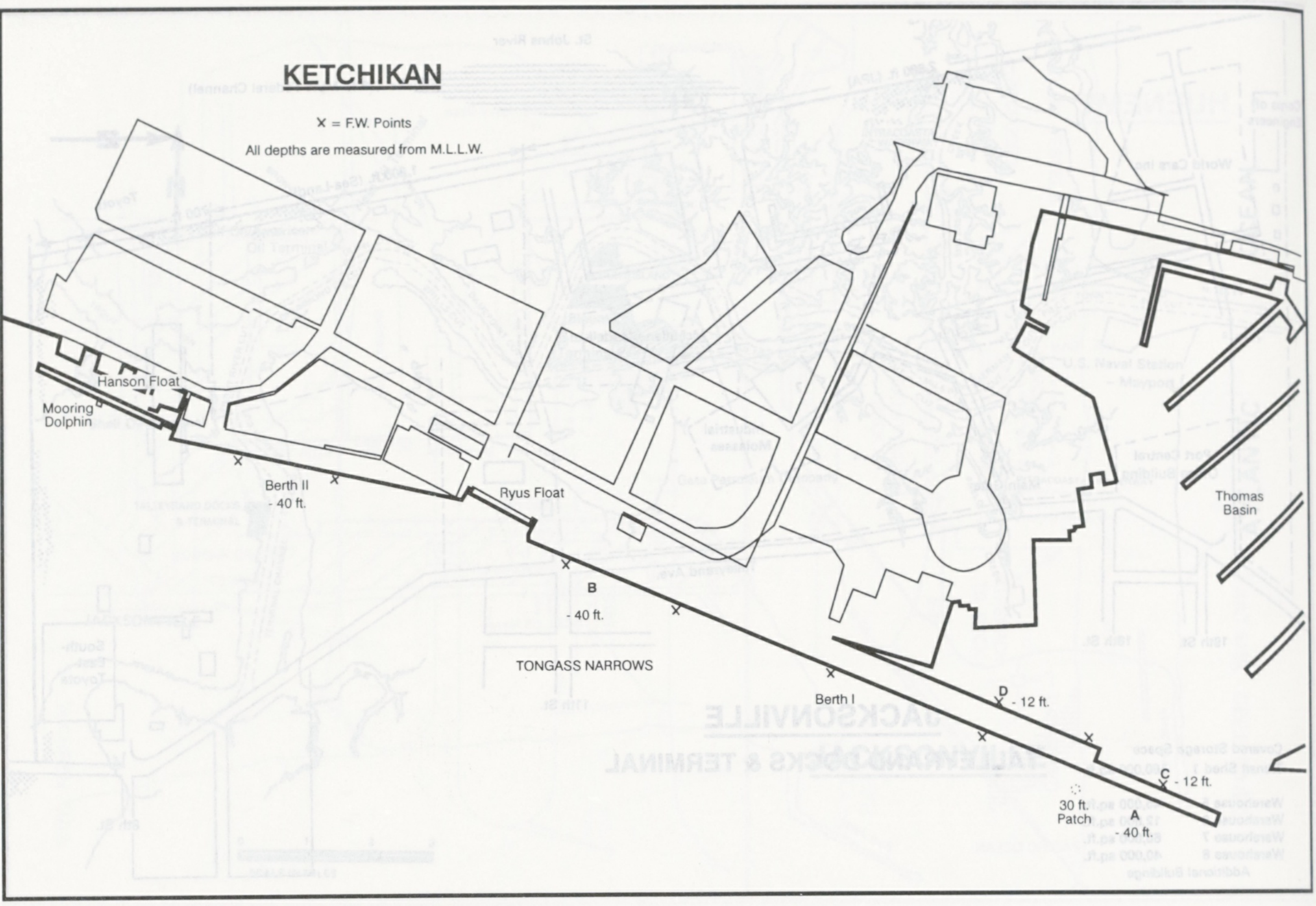
Covered Storage Space	
Transit Shed 1	160,000 sq.ft.
Warehouse 5	45,000 sq.ft.
Warehouse 6	12,800 sq.ft.
Warehouse 7	60,600 sq.ft.
Warehouse 8	40,000 sq.ft.
Additional Buildings	

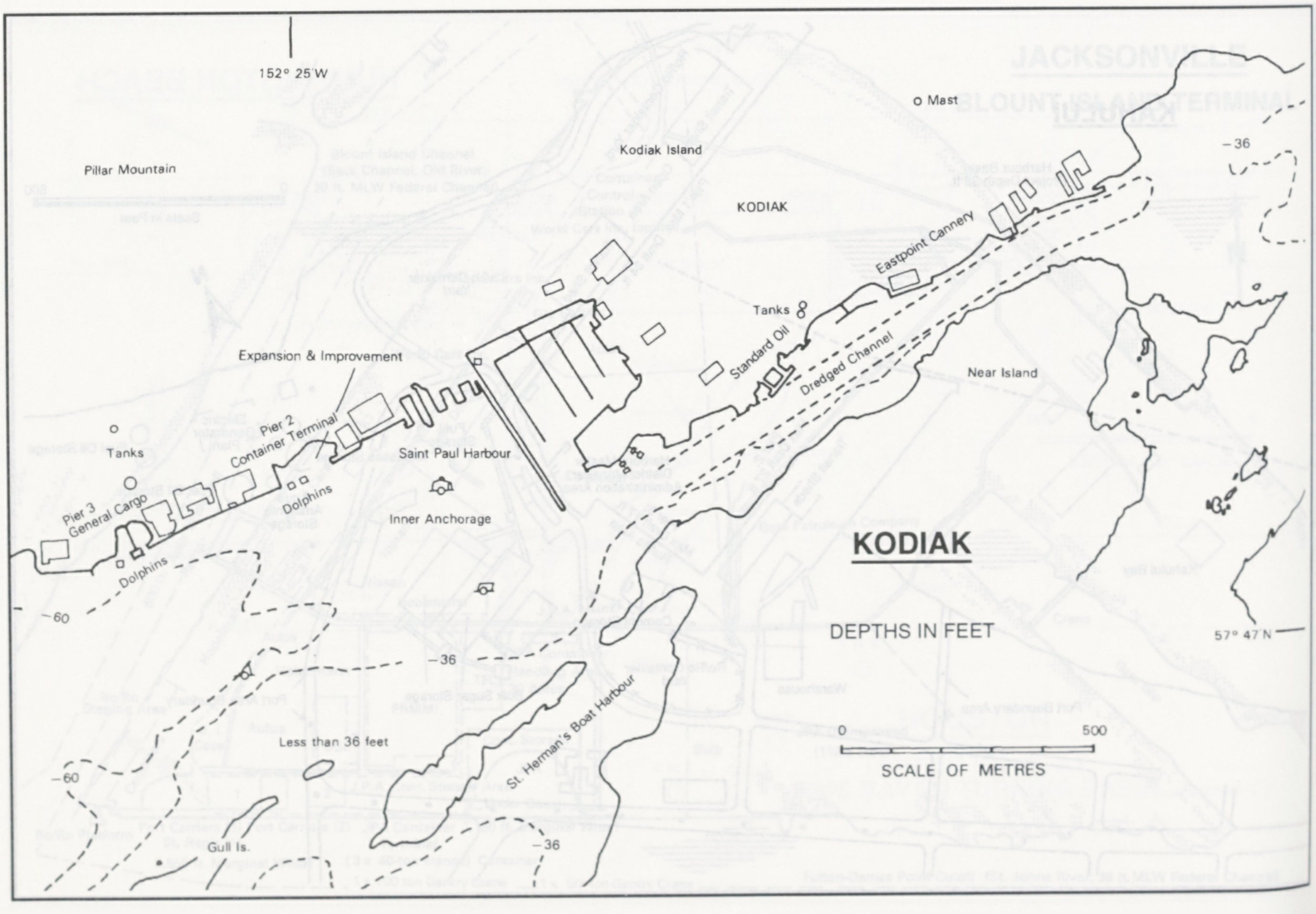
St. Johns River
2,880 ft. (JPA)
(38 ft. MLW Federal Channel)
N
1,200 ft. (Sea-Land)
700 ft.
Toyota
Corps of Engineers
World Cars Inc.
1
6
McMillan-Bloedell
7
Industrial Molasses
Port Central Office Building
Main Gate
Talleyrand Ave.
19th St.
18th St.
11th St.
South-East Toyota
8th St.

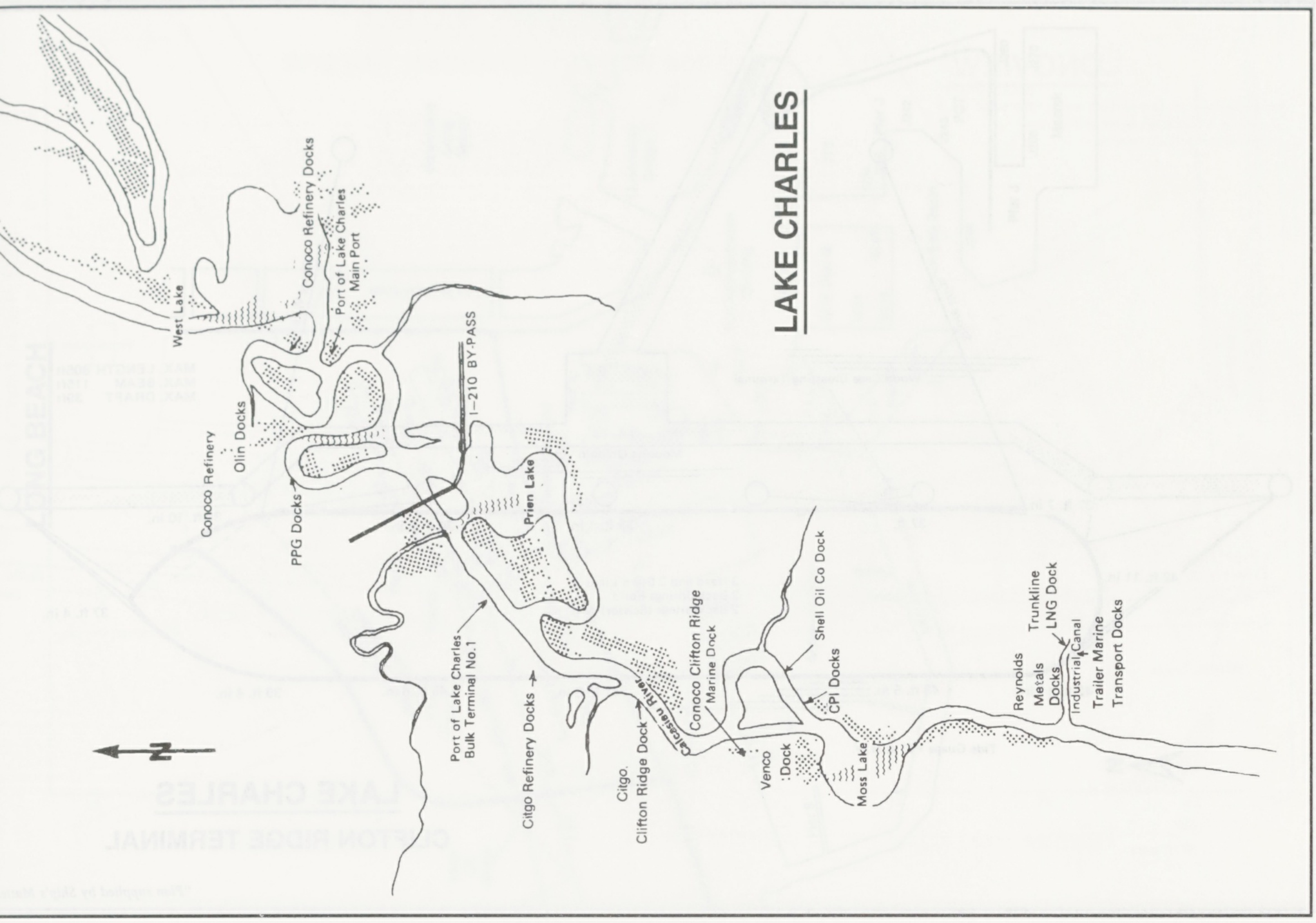


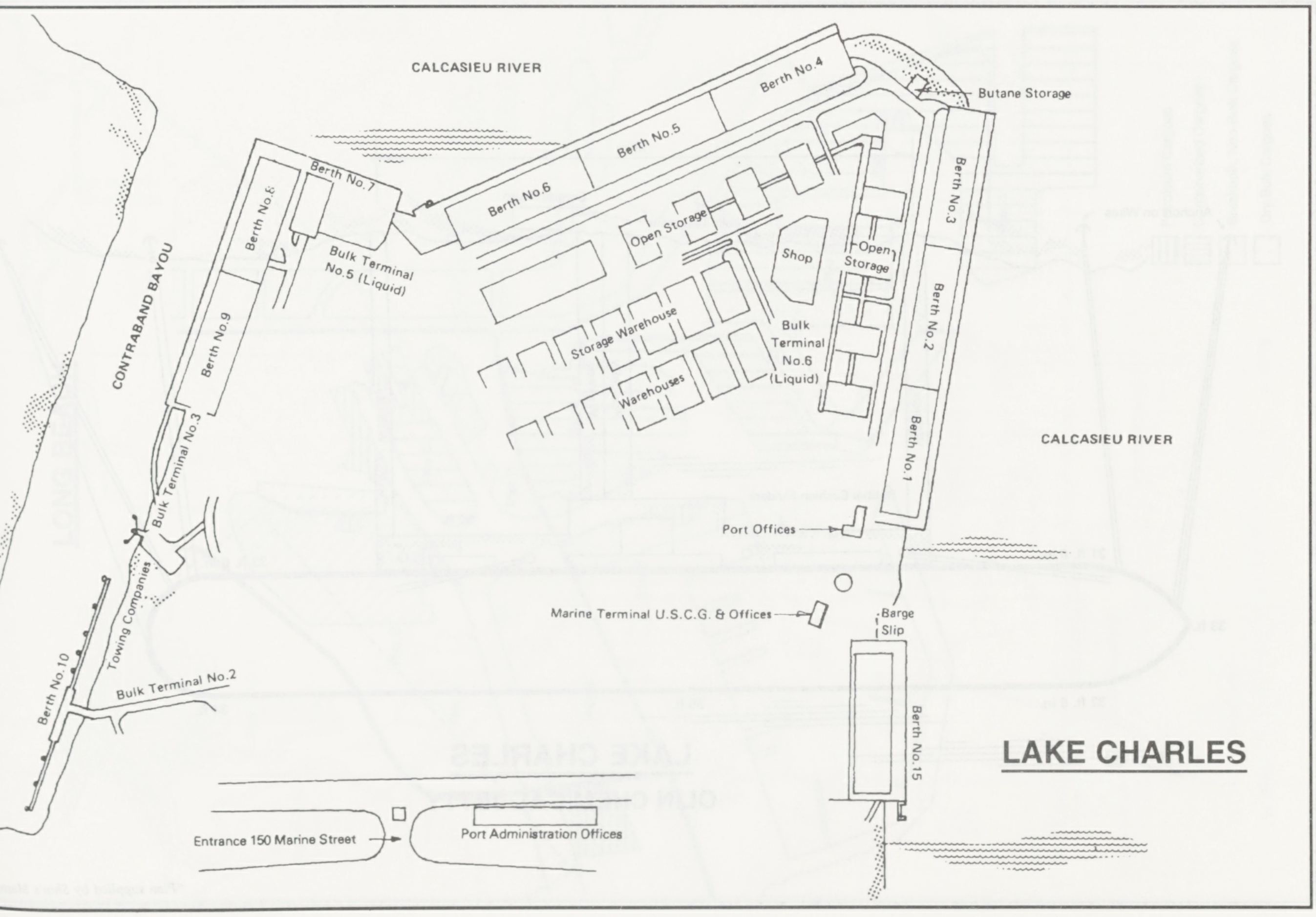
KAHULUI

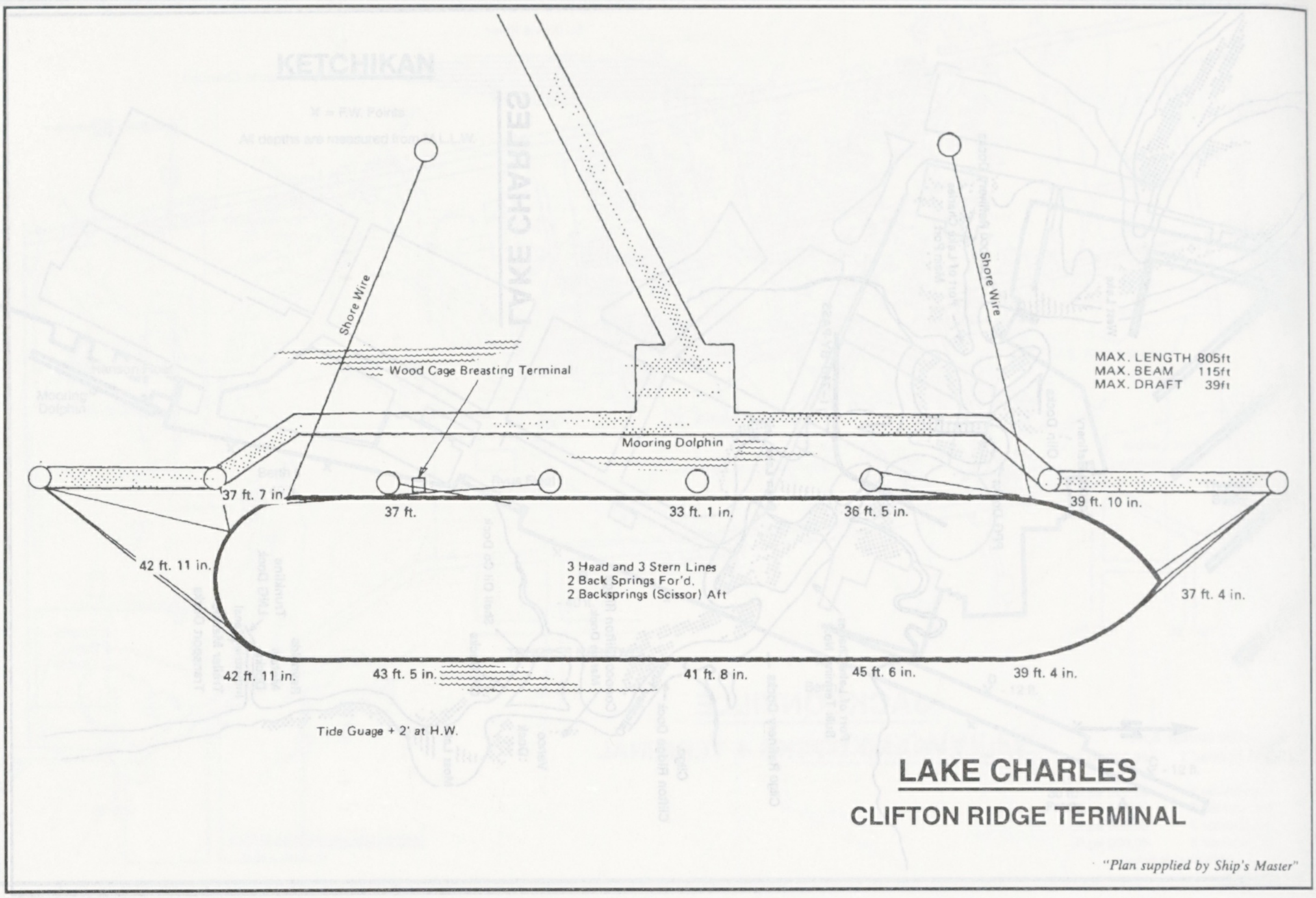
Harbour Basin Project Depth 35 ft.
Ro/Ro Container Yard
Transit Shed
Open Area
Pier 1 Max. Draft 34 ft.
Transit Shed
0
800
Scale in Feet
N
Lo/Lo Container Yard
Pier 2: Max Draft 27 ft.
Transit Sheds
Harbour Master
District Manager
Administration Area
Pier 3: Max Draft 17 ft. Ro/Ro Area
Fuel Storage
Molasses Storage
Electric Generator Plant
Fuel Oil Storage
Fuel Oil Storage
Aqua Ammonia Storage
Kahului Bay
Cement Storage
Ro/Ro Container Yard
Warehouse
Bulk Sugar Storage
Port Boundary Area
Port Area Boundary


KETCHIKAN
X = F.W. Points
All depths are measured from M.L.L.W.
Hanson Float
Mooring Dolphin
Berth II
- 40 ft.
Ryus Float
B
- 40 ft.
TONGASS NARROWS
Berth I
D
- 12 ft.
C
- 12 ft.
30 ft. Patch
A
- 40 ft.
Thomas Basin


152° 25'W
Pillar Mountain
Kodiak Island
KODIAK
Mast
- 36
Eastpoint Cannery
Tanks
Standard Oil
Dredged Channel
Near Island
Expansion & Improvement
Tanks
Pier 2
Container Terminal
Pier 3
General Cargo
Dolphins
Dolphins
Saint Paul Harbour
Inner Anchorage
KODIAK
DEPTHS IN FEET
- 60
- 36
57° 47'N
0
500
SCALE OF METRES
Less than 36 feet
St. Herman's Boat Harbour
- 60
Gull Is.
- 36


LAKE CHARLES
N
West Lake
Conoco Refinery
Olin Docks
PPG Docks
Conoco Refinery Docks
Port of Lake Charles Main Port
I–210 BY-PASS
Port of Lake Charles Bulk Terminal No.1
Prien Lake
Citgo Refinery Docks
Citgo. Clifton Ridge Dock
Calcasieu River
Conoco Clifton Ridge Marine Dock
Venco Dock
Shell Oil Co Dock
CPI Docks
Moss Lake
Reynolds Metals Docks
Trunkline LNG Dock
Industrial Canal
Trailer Marine Transport Docks

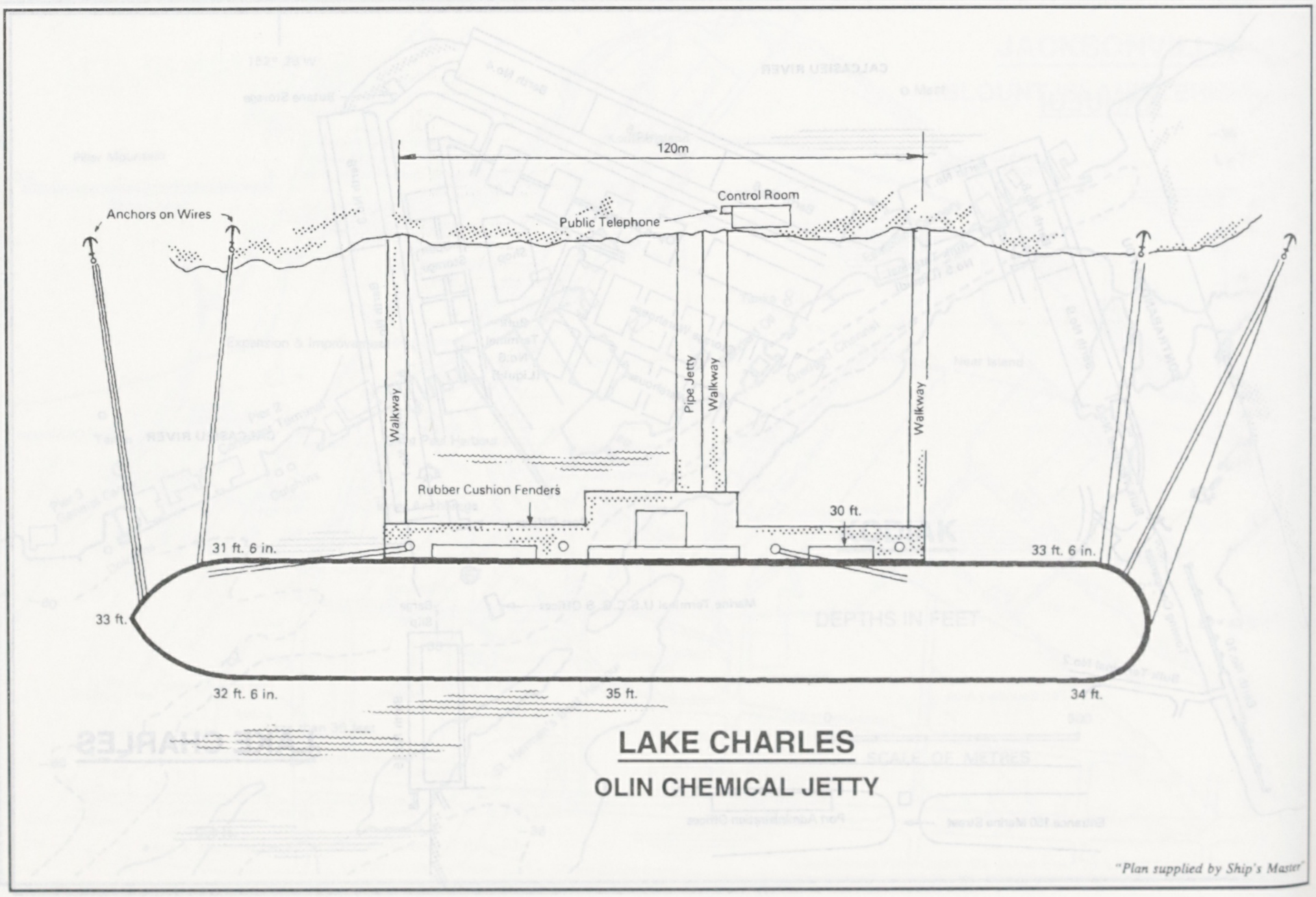

LAKE CHARLES
CALCASIEU RIVER
CONTRABAND BAYOU
Berth No.10
Towing Companies
Bulk Terminal No.2
Bulk Terminal No.3
Berth No.9
Berth No.8
Berth No.7
Bulk Terminal No.5 (Liquid)
Berth No.6
Berth No.5
Berth No.4
Butane Storage
Open Storage
Storage Warehouse
Warehouses
Shop
Open Storage
Bulk Terminal No.6 (Liquid)
Berth No.3
Berth No.2
Berth No.1
CALCASIEU RIVER
Port Offices
Marine Terminal U.S.C.G. & Offices
Barge Slip
Berth No.15
Entrance 150 Marine Street
Port Administration Offices


Shore Wire
Shore Wire
Wood Cage Breasting Terminal
Mooring Dolphin
MAX. LENGTH 805ft
MAX. BEAM 115ft
MAX. DRAFT 39ft
37 ft. 7 in.
37 ft.
33 ft. 1 in.
36 ft. 5 in.
39 ft. 10 in.
42 ft. 11 in.
3 Head and 3 Stern Lines
2 Back Springs For'd.
2 Backsprings (Scissor) Aft
37 ft. 4 in.
42 ft. 11 in.
43 ft. 5 in.
41 ft. 8 in.
45 ft. 6 in.
39 ft. 4 in.
Tide Guage + 2' at H.W.

LAKE CHARLES

CLIFTON RIDGE TERMINAL

"Plan supplied by Ship's Master"

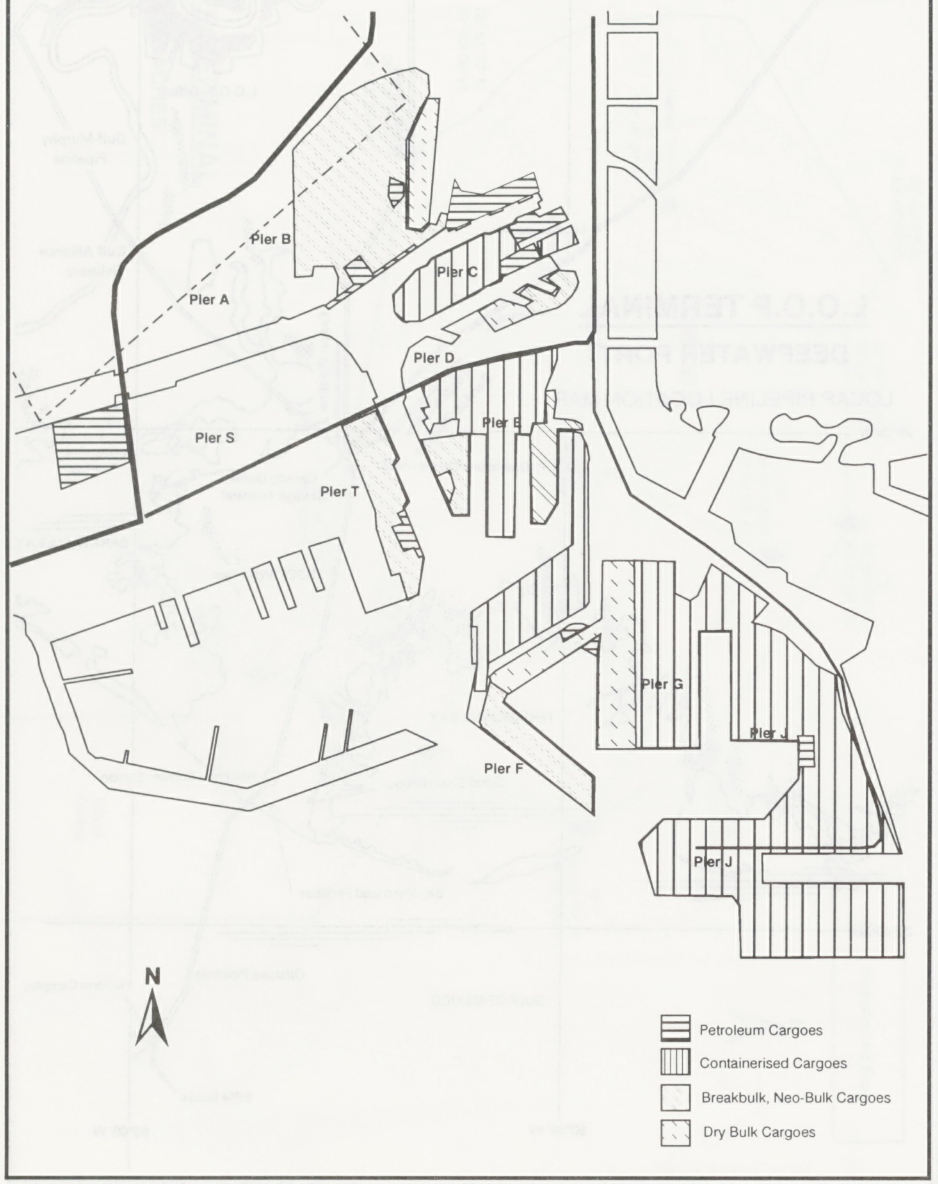

120m
Control Room
Public Telephone
Anchors on Wires
Walkway
Pipe Jetty
Walkway
Walkway
Rubber Cushion Fenders
30 ft.
31 ft. 6 in.
33 ft. 6 in.
33 ft.
32 ft. 6 in.
35 ft.
34 ft.

LAKE CHARLES

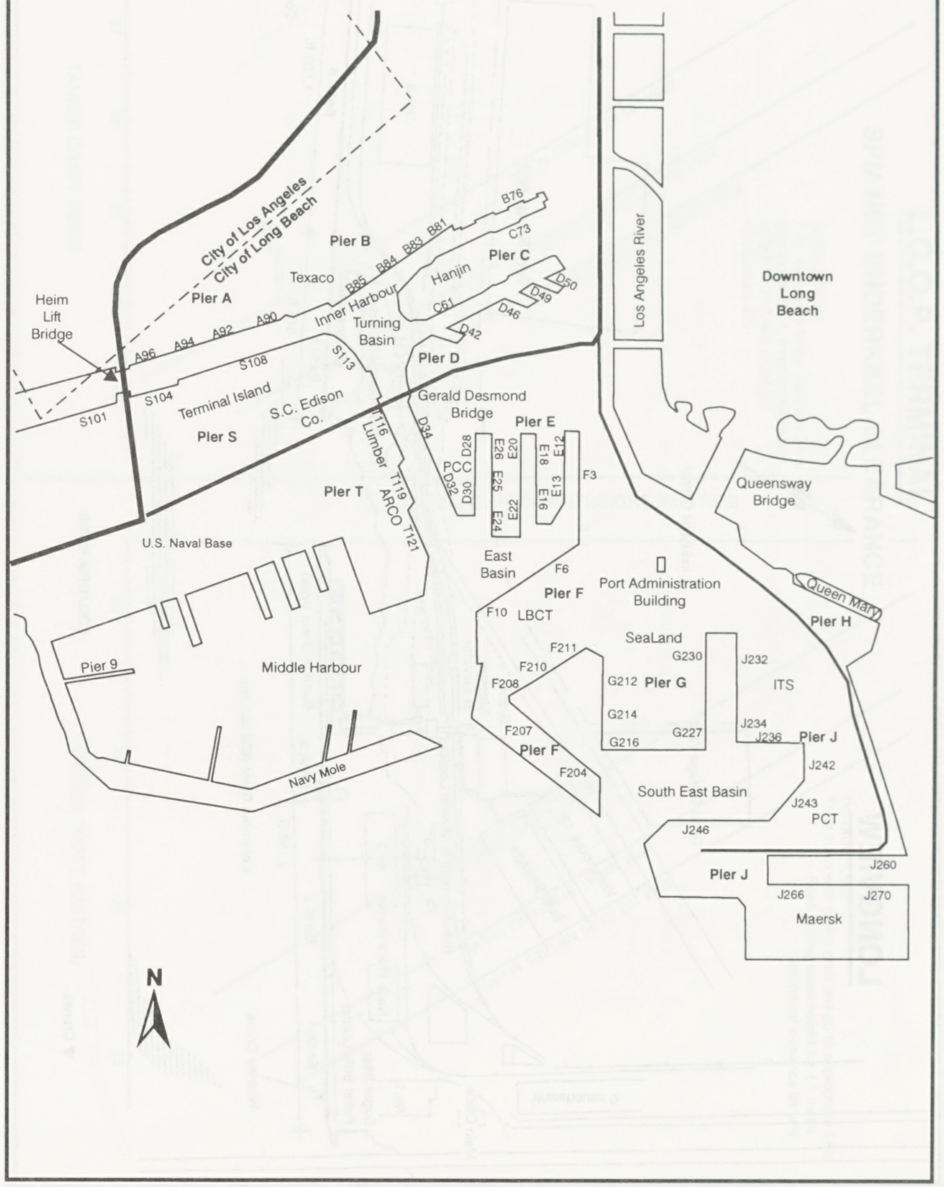
OLIN CHEMICAL JETTY

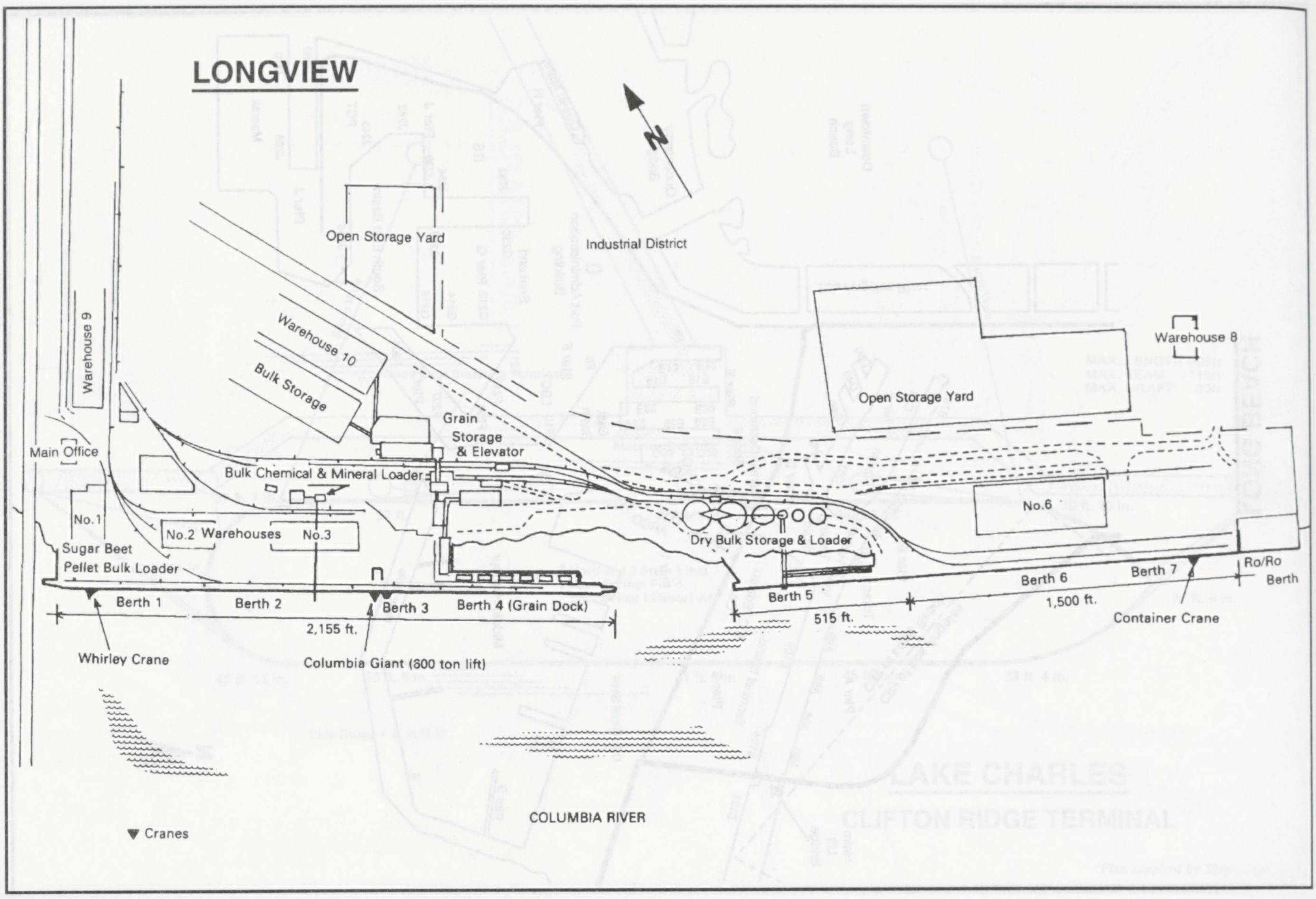
"Plan supplied by Ship's Master"

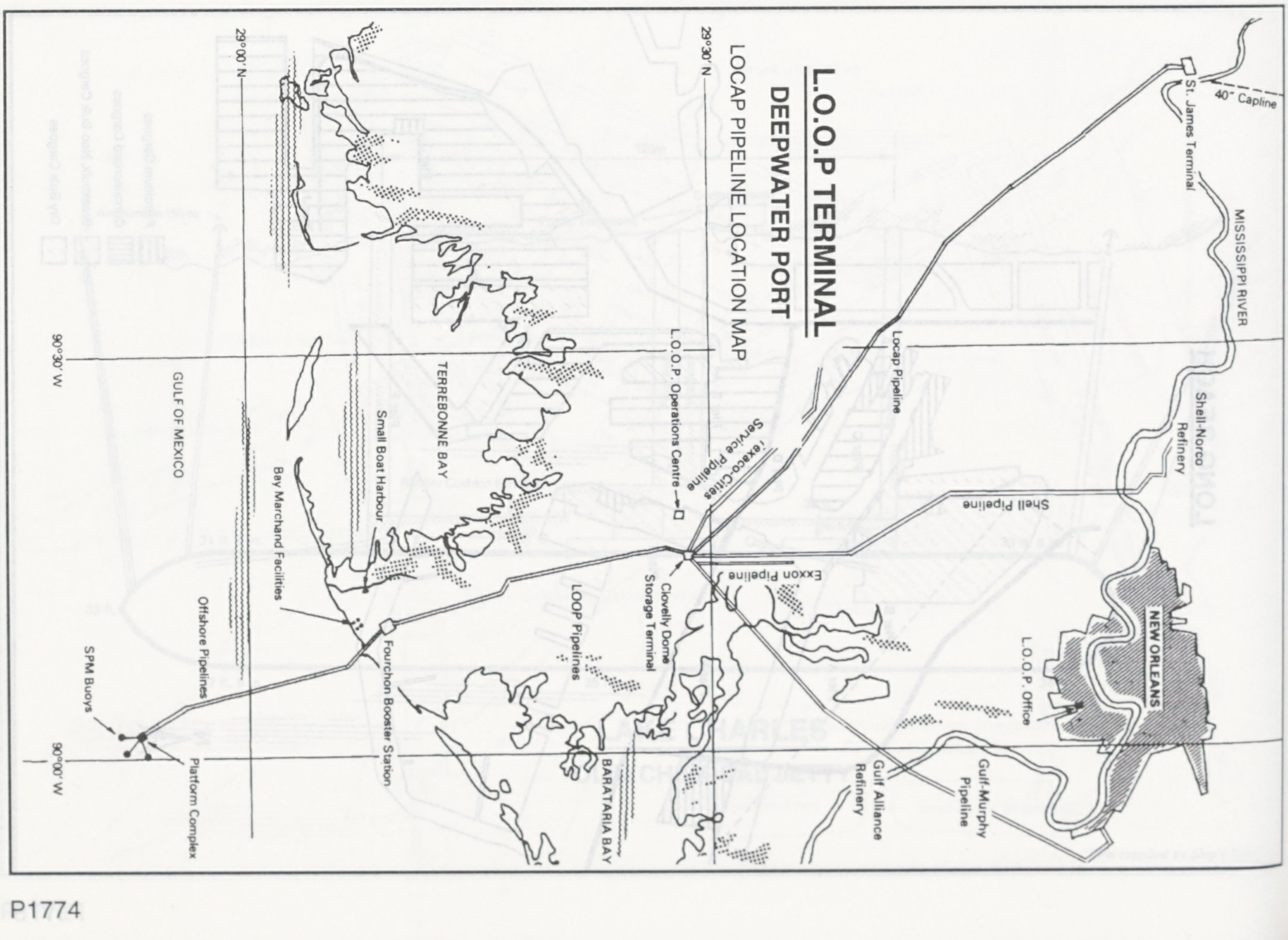
LONG BEACH


Pier B
Pier A
Pier C
Pier D
Pier E
Pier S
Pier T
Pier G
Pier J
Pier F
Pier J
N
▤ Petroleum Cargoes
▥ Containerised Cargoes
▨ Breakbulk, Neo-Bulk Cargoes
▧ Dry Bulk Cargoes

LONG BEACH

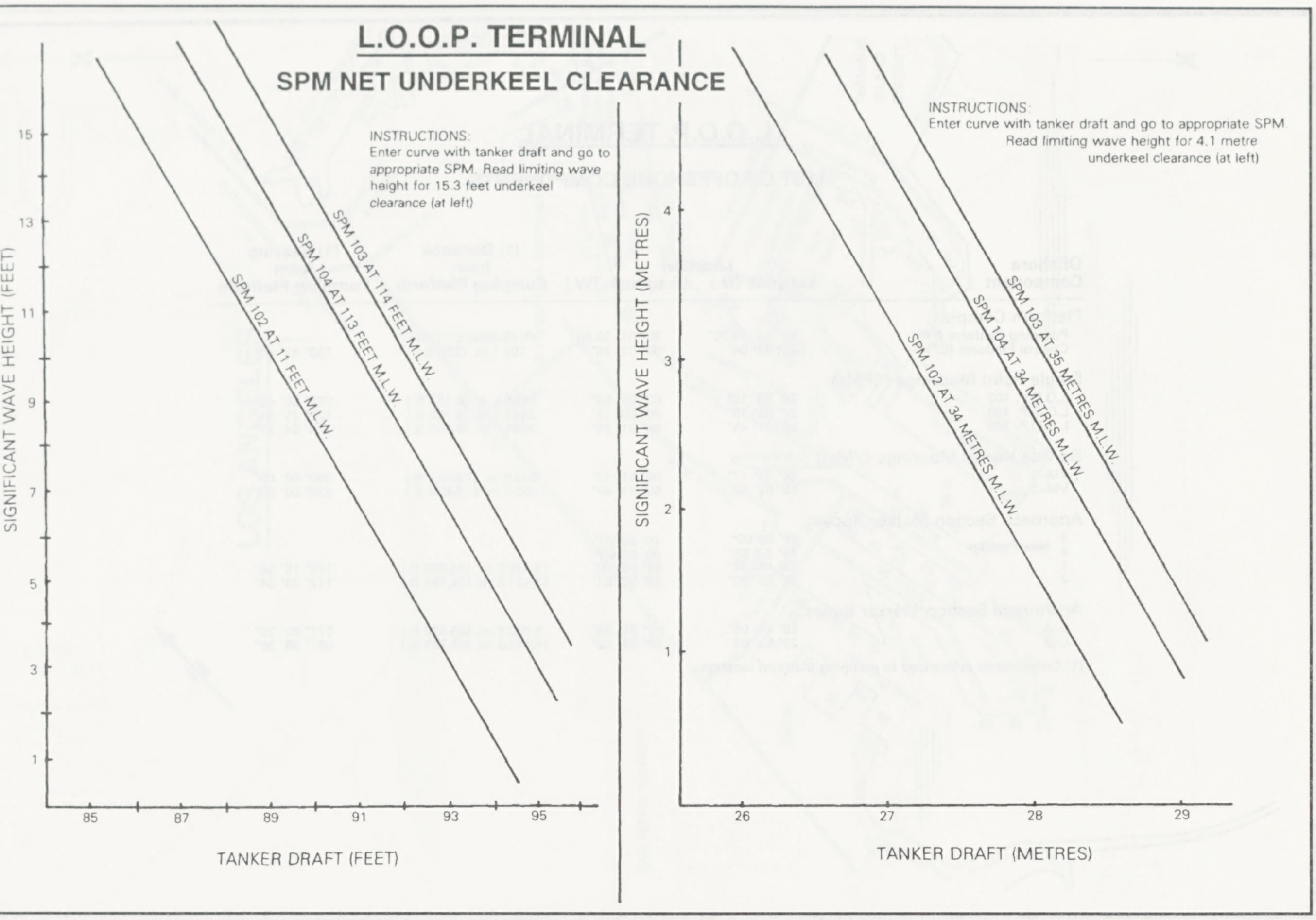

Heim
Lift
Bridge
City of Los Angeles
City of Long Beach
Pier A
Pier B
Texaco
B76
C73
B81
B83
B84
B85
Pier C
Hanjin
Inner Harbour
Turning
Basin
C61
D50
D49
D46
D42
A96
A94
A92
A90
S108
S113
Pier D
S104
S101
Terminal Island
S.C. Edison
Co.
Pier S
Gerald Desmond
Bridge
Pier E
T16
Lumber
T119
ARCO
T121
D34
D28
D30
D32
PCC
E26
E25
E24
E20
E22
E18
E16
E13
E12
F3
Pier T
U.S. Naval Base
East
Basin
F6
Pier F
F10
LBCT
Port Administration
Building
Los Angeles River
Downtown
Long
Beach
Queensway
Bridge
Queen Mary
Pier H
Pier 9
Middle Harbour
F211
F210
F208
F207
Pier F
F204
SeaLand
G230
G212
Pier G
G214
G216
G227
J232
ITS
J234
J236
Pier J
J242
South East Basin
J243
PCT
J246
Navy Mole
Pier J
J260
J266
J270
Maersk
N


LONGVIEW
N
Open Storage Yard
Industrial District
Warehouse 9
Warehouse 10
Bulk Storage
Grain Storage & Elevator
Main Office
Bulk Chemical & Mineral Loader
No.1
No.2
Warehouses
No.3
Sugar Beet Pellet Bulk Loader
Open Storage Yard
Warehouse 8
No.6
Dry Bulk Storage & Loader
Berth 1
Berth 2
Berth 3
Berth 4 (Grain Dock)
Berth 5
Berth 6
Berth 7
Ro/Ro Berth
2,155 ft.
515 ft.
1,500 ft.
Whirley Crane
Columbia Giant (800 ton lift)
Container Crane
COLUMBIA RIVER
▼ Cranes


L.O.O.P TERMINAL
DEEPWATER PORT
LOCAP PIPELINE LOCATION MAP
29°30' N
29°00' N
90°30' W
90°00' W
40" Capline
St. James Terminal
MISSISSIPPI RIVER
Shell-Norco Refinery
Locap Pipeline
Shell Pipeline
Texaco-Cities Service Pipeline
L.O.O.P. Operations Centre
Exxon Pipeline
NEW ORLEANS
L.O.O.P. Office
Gulf-Murphy Pipeline
Gulf Alliance Refinery
Clovelly Dome Storage Terminal
LOOP Pipelines
BARATARIA BAY
TERREBONNE BAY
Small Boat Harbour
Bay Marchand Facilities
Fourchon Booster Station
Offshore Pipelines
GULF OF MEXICO
SPM Buoys
Platform Complex

L.O.O.P. TERMINAL

SPM NET UNDERKEEL CLEARANCE

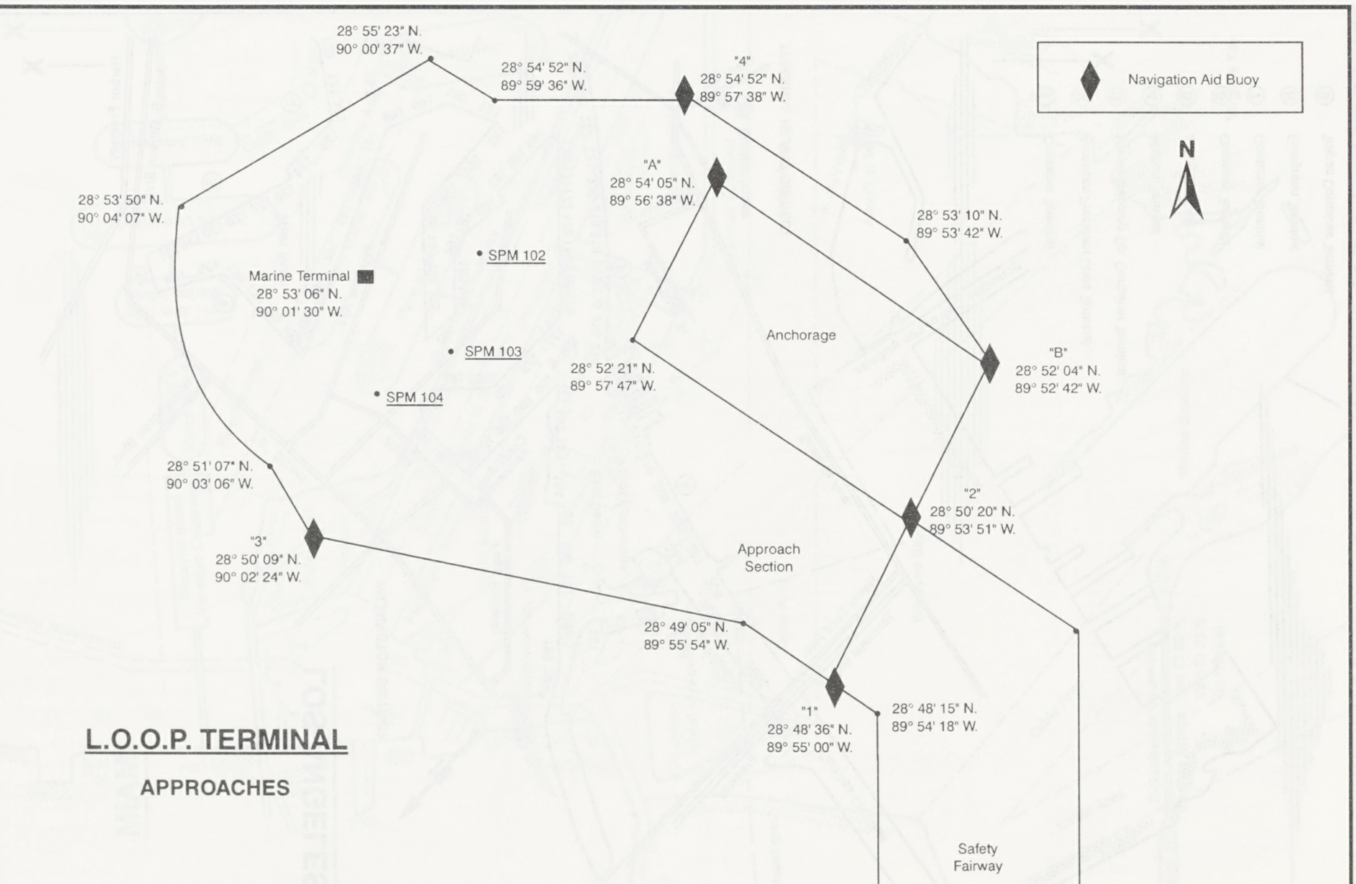


INSTRUCTIONS:
Enter curve with tanker draft and go to appropriate SPM. Read limiting wave height for 15.3 feet underkeel clearance (at left)

INSTRUCTIONS:
Enter curve with tanker draft and go to appropriate SPM. Read limiting wave height for 4.1 metre underkeel clearance (at left)

L.O.O.P. TERMINAL

APPROACHES



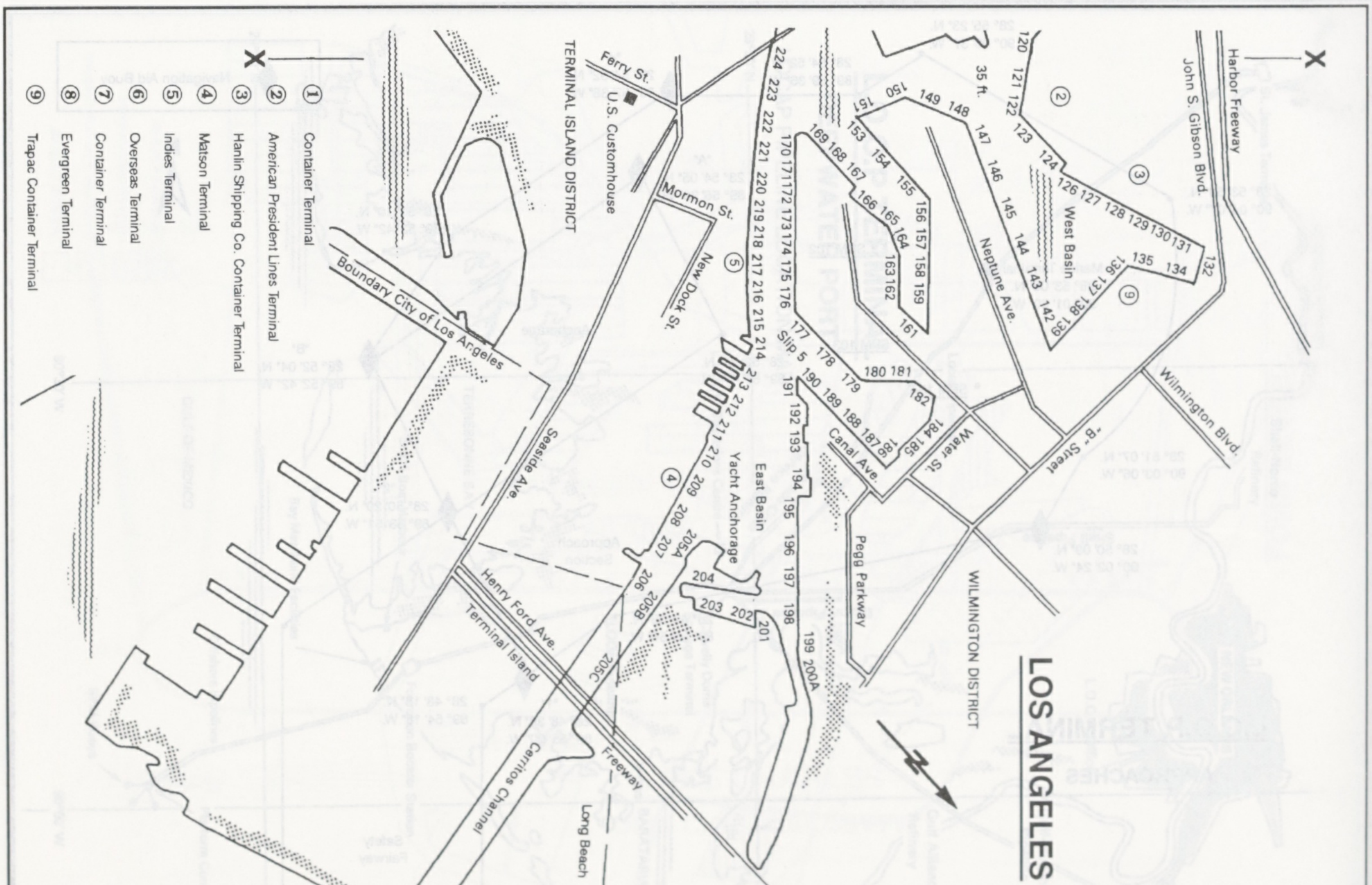
Navigation Aid Buoy
N
28° 55' 23" N.
90° 00' 37" W.
28° 54' 52" N.
89° 59' 36" W.
"4"
28° 54' 52" N.
89° 57' 38" W.
"A"
28° 54' 05" N.
89° 56' 38" W.
28° 53' 50" N.
90° 04' 07" W.
28° 53' 10" N.
89° 53' 42" W.
Marine Terminal
28° 53' 06" N.
90° 01' 30" W.
SPM 102
SPM 103
SPM 104
Anchorage
28° 52' 21" N.
89° 57' 47" W.
"B"
28° 52' 04" N.
89° 52' 42" W.
28° 51' 07" N.
90° 03' 06" W.
"2"
28° 50' 20" N.
89° 53' 51" W.
"3"
28° 50' 09" N.
90° 02' 24" W.
Approach Section
28° 49' 05" N.
89° 55' 54" W.
"1"
28° 48' 36" N.
89° 55' 00" W.
28° 48' 15" N.
89° 54' 18" W.
Safety Fairway

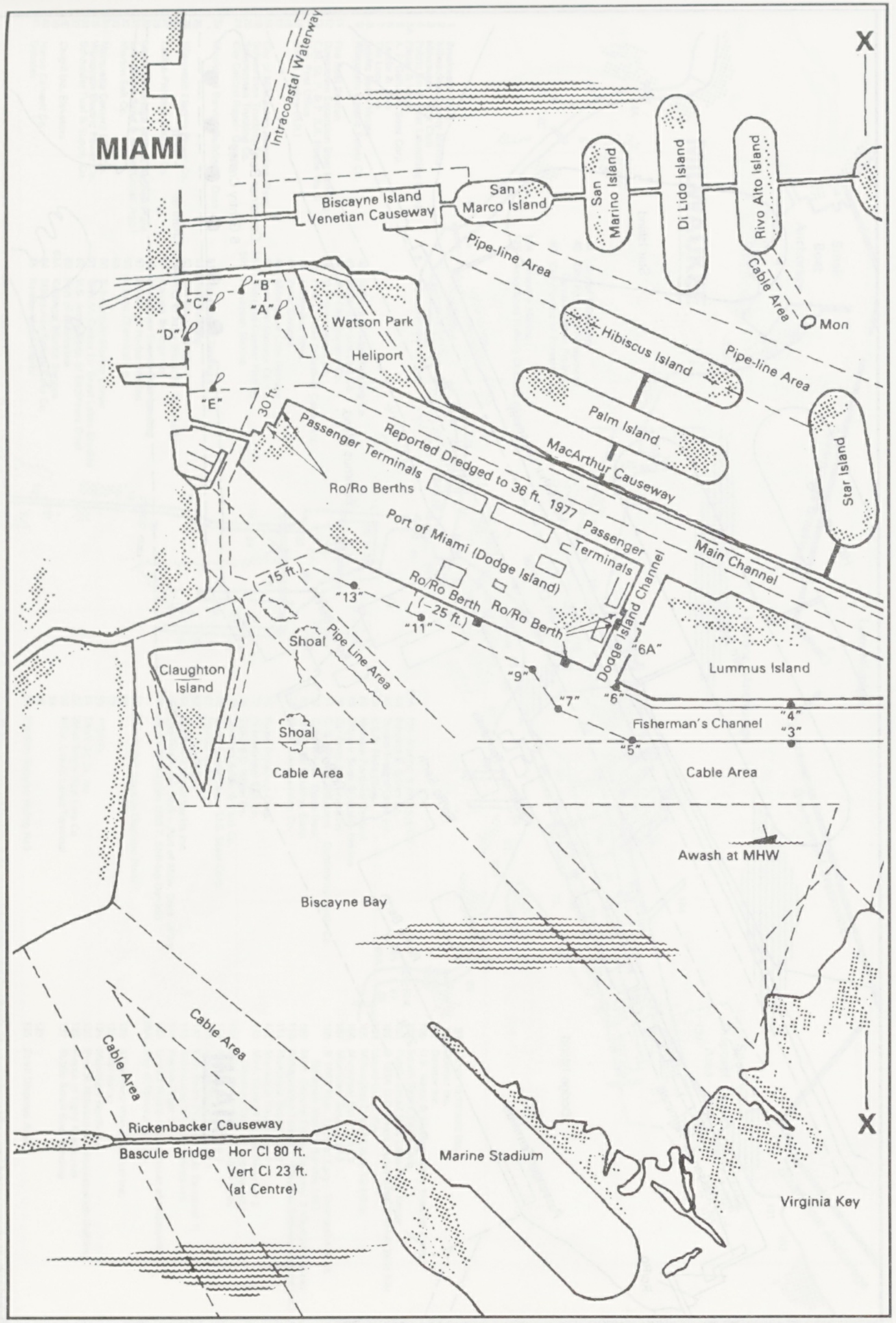
L.O.O.P. TERMINAL

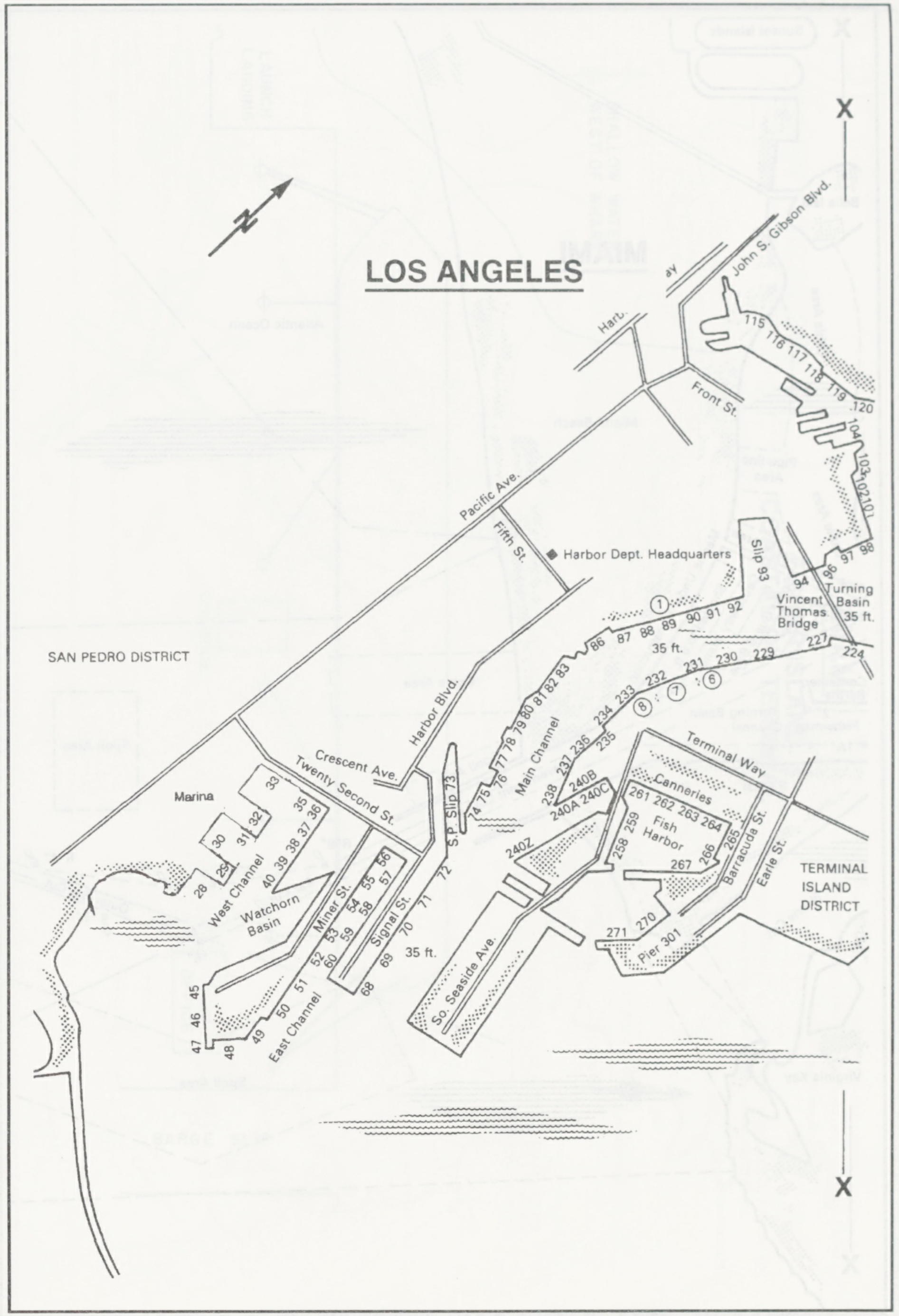
LIST OF OFFSHORE COMPONENTS

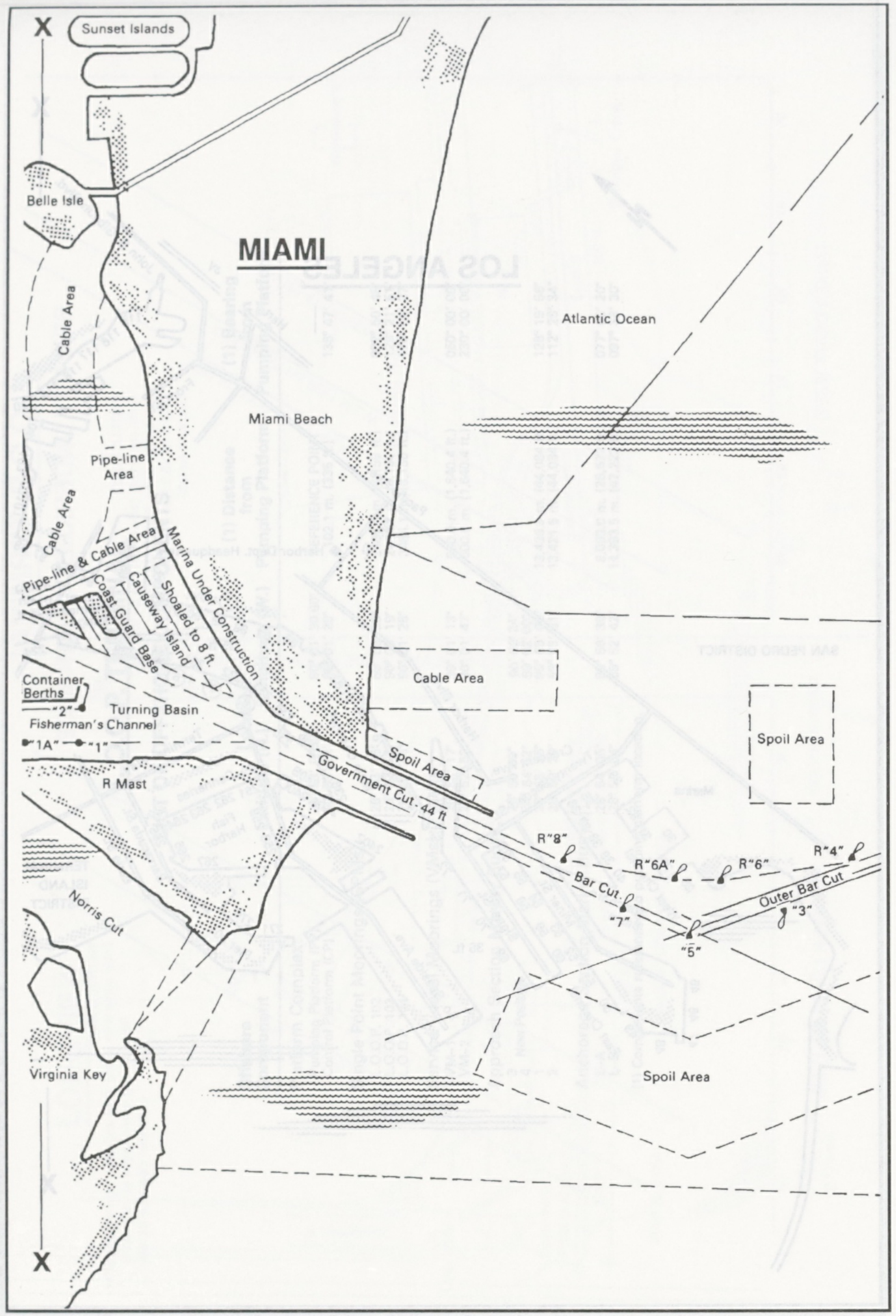
Offshore Component	Location Latitude (N.)	Location Longitude (W.)	(1) Distance from Pumping Platform	(1) Bearing from Pumping Platform
Platform Complex:				
Pumping Platform (PP)	28° 53′ 06.00″	90° 01′ 30.00″	REFERENCE POINT	——
Control Platform (CP)	28° 53′ 04″	90° 01′ 28″	102.1 m. (335 ft.)	138° 47′ 41″
Single Point Moorings (SPMs):				
L.O.O.P. 102	28° 53′ 16″	89° 59′ 59″	2484.1 m. (8,150 ft.)	082° 50′ 48″
L.O.O.P. 103	28° 52′ 15″	90° 00′ 19″	2484.1 m. (8,150 ft.)	129° 21′ 51″
L.O.O.P. 104	28° 51′ 45″	90° 01′ 25″	2484.1 m. (8,150 ft.)	176° 54′ 27″
Service Vessel Moorings (VMs):				
VM–1	28° 53′ 17″	90° 01′ 13″	500.0 m. (1,640.4 ft.)	050° 00′ 00″
VM–2	28° 52′ 52″	90° 01′ 47″	500.0 m. (1,640.4 ft.)	230° 00′ 00″
Approach Section Marker Buoys:				
3 New Position	28° 50′ 09″	90° 02′ 24″		
4 New Position	28° 54′ 52″	89° 02′ 00″		
1	28° 48′ 36″	89° 55′ 00″	13,436.9 m. (44,084 ft.)	128° 19′ 56″
2	28° 50′ 20″	89° 53′ 51″	13,421.5 m. (44,034 ft.)	112° 26′ 34″
Anchorage Section Marker Buoys:				
L–A	28° 54′ 05″	89° 56′ 38″	8,099.0 m. (26,572 ft.)	077° 00′ 20″
L–B	28° 52′ 04″	89° 52′ 42″	14,393.5 m. (47,223 ft.)	097° 38′ 30″

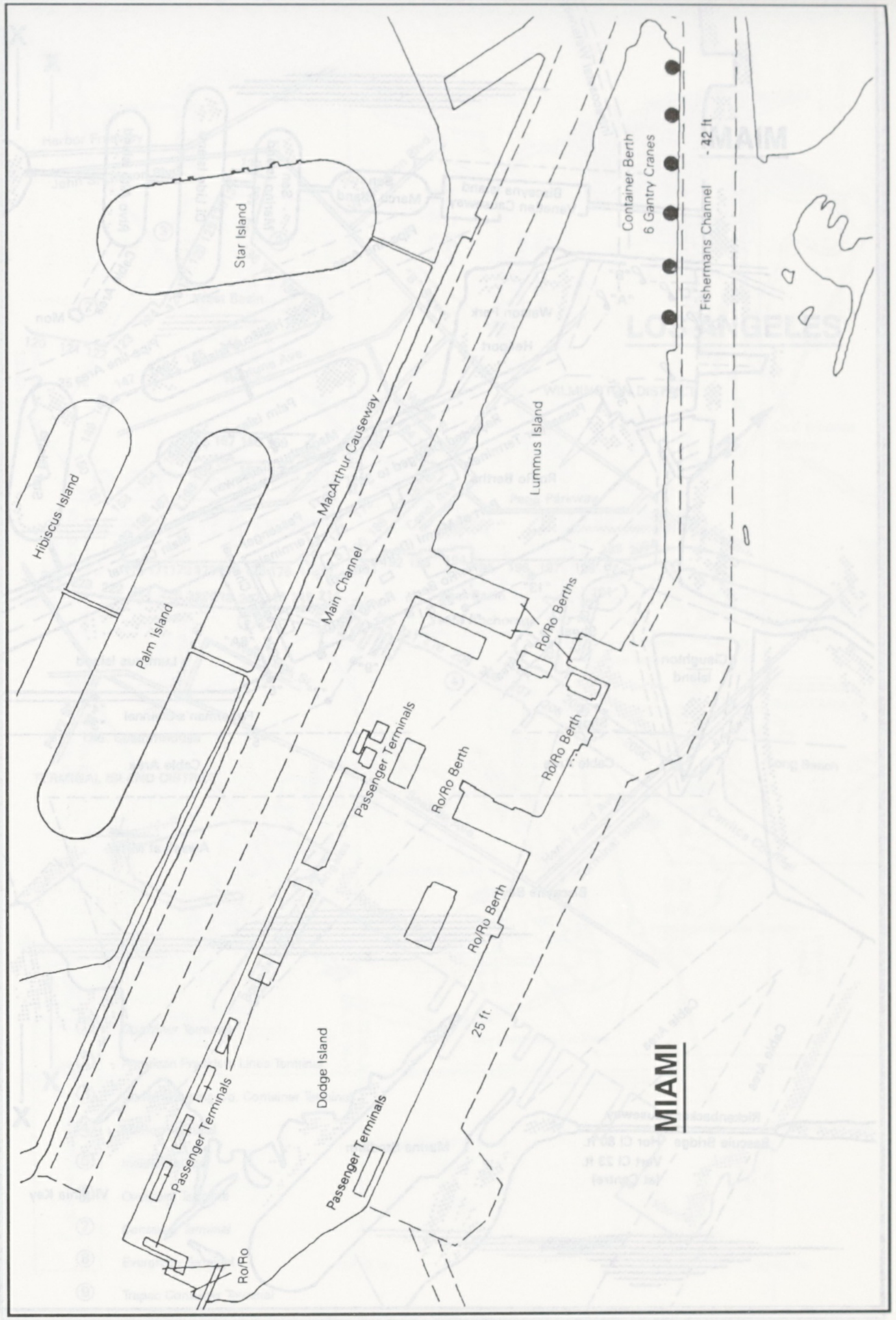
(1) Components referenced to pumping platform location.


LOS ANGELES
① Container Terminal
② American President Lines Terminal
③ Hanjin Shipping Co. Container Terminal
④ Matson Terminal
⑤ Indies Terminal
⑥ Overseas Terminal
⑦ Container Terminal
⑧ Evergreen Terminal
⑨ Trapac Container Terminal
X
X
Harbor Freeway
John S. Gibson Blvd.
West Basin
35 ft.
Neptune Ave.
Wilmington Blvd.
"B" Street
Water St.
Canal Ave.
Pegg Parkway
WILMINGTON DISTRICT
East Basin
Yacht Anchorage
Slip 5
New Dock St.
Mormon St.
Ferry St.
U.S. Customhouse
TERMINAL ISLAND DISTRICT
Boundary City of Los Angeles
Seaside Ave.
Henry Ford Ave.
Terminal Island Freeway
Cerritos Channel
Long Beach
120 121 122 123 124 126 127 128 129 130 131 132 134 135 136 137 138 139 142 143 144 145 146 147 148 149 150 151
153 154 155 156 157 158 159 161 162 163 164 165 166 167 168 169
170 171 172 173 174 175 176 177 178 179 180 181 182 184 185 186 187 188 189 190
191 192 193 194 195 196 197 198 199 200A 201 202 203 204 205A 205B 205C 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224


MIAMI
Intracoastal Waterway
Biscayne Island Venetian Causeway
San Marco Island
San Marino Island
Di Lido Island
Rivo Alto Island
Cable Area
Mon
Pipe-line Area
Pipe-line Area
Hibiscus Island
Palm Island
MacArthur Causeway
Star Island
"B"
"C"
"A"
"D"
"E"
Watson Park
Heliport
30 ft.
Passenger Terminals
Reported Dredged to 36 ft. 1977
Passenger Terminals
Main Channel
Ro/Ro Berths
Port of Miami (Dodge Island)
Ro/Ro Berth
Ro/Ro Berth
(-25 ft.)
Dodge Island Channel
"6A"
Lummus Island
15 ft.
"13"
"11"
Shoal
Pipe Line Area
Claughton Island
"9"
"7"
"6"
Fisherman's Channel
"4"
"3"
"5"
Shoal
Cable Area
Cable Area
Awash at MHW
Biscayne Bay
Cable Area
Cable Area
Rickenbacker Causeway
Bascule Bridge
Hor Cl 80 ft.
Vert Cl 23 ft.
(at Centre)
Marine Stadium
Virginia Key
X
X

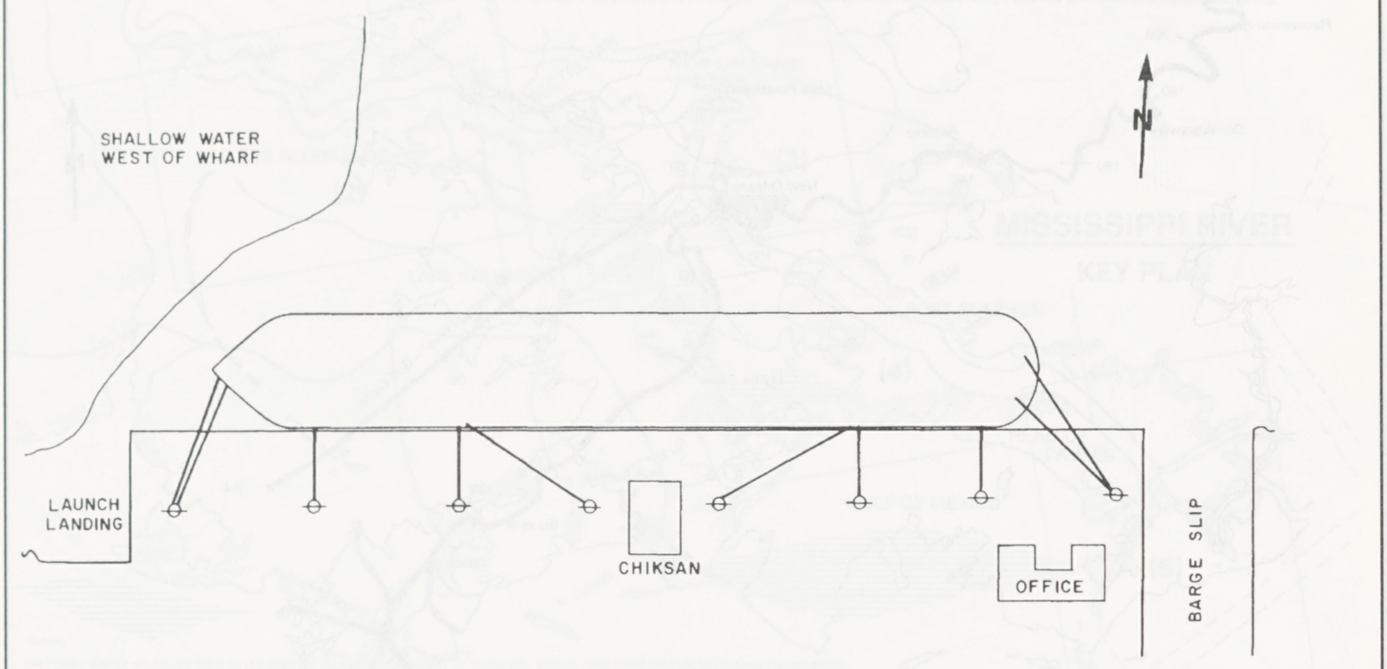

LOS ANGELES
N
John S. Gibson Blvd.
Harb. Fwy
Front St.
115 116 117 118 119 120
104 103 102 101
Pacific Ave.
Fifth St.
Harbor Dept. Headquarters
Slip 93
98 97 96
94
Turning Basin 35 ft.
Vincent Thomas Bridge
①
86 87 88 89 90 91 92
35 ft.
227
224
231 230 229
232 ⑥
⑦
⑧ 233 234
235
SAN PEDRO DISTRICT
Harbor Blvd.
83 82 81 80 79 78 77 76 75 74
Main Channel
236 237 238
240B
240A 240C
Terminal Way
Canneries
261 262 263 264
Fish Harbor
265
266
267
258 259
Barracuda St.
Earle St.
TERMINAL ISLAND DISTRICT
Crescent Ave.
Twenty Second St.
S.P. Slip 73
72
240Z
Marina
33
35 36 37 38 39 40
32 31 30 29 28
West Channel
Watchorn Basin
Miner St.
56 55 54 53 52 51 50 49 48 47 46 45
57 58 59 60
Signal St.
71 70 69 68
35 ft.
So. Seaside Ave.
East Channel
271 270
Pier 301
X
X


X
Sunset Islands
Belle Isle
MIAMI
Cable Area
Pipe-line Area
Cable Area
Pipe-line & Cable Area
Marina Under Construction
Shoaled to 8 ft.
Causeway Island
Coast Guard Base
Container Berths
"2"
Turning Basin
Fisherman's Channel
"1A"
"1"
R Mast
Government Cut · 44 ft
Spoil Area
Miami Beach
Atlantic Ocean
Cable Area
Spoil Area
R"8"
R"6A"
R"6"
R"4"
Bar Cut
Outer Bar Cut
"3"
"7"
"5"
Norris Cut
Virginia Key
Spoil Area
X

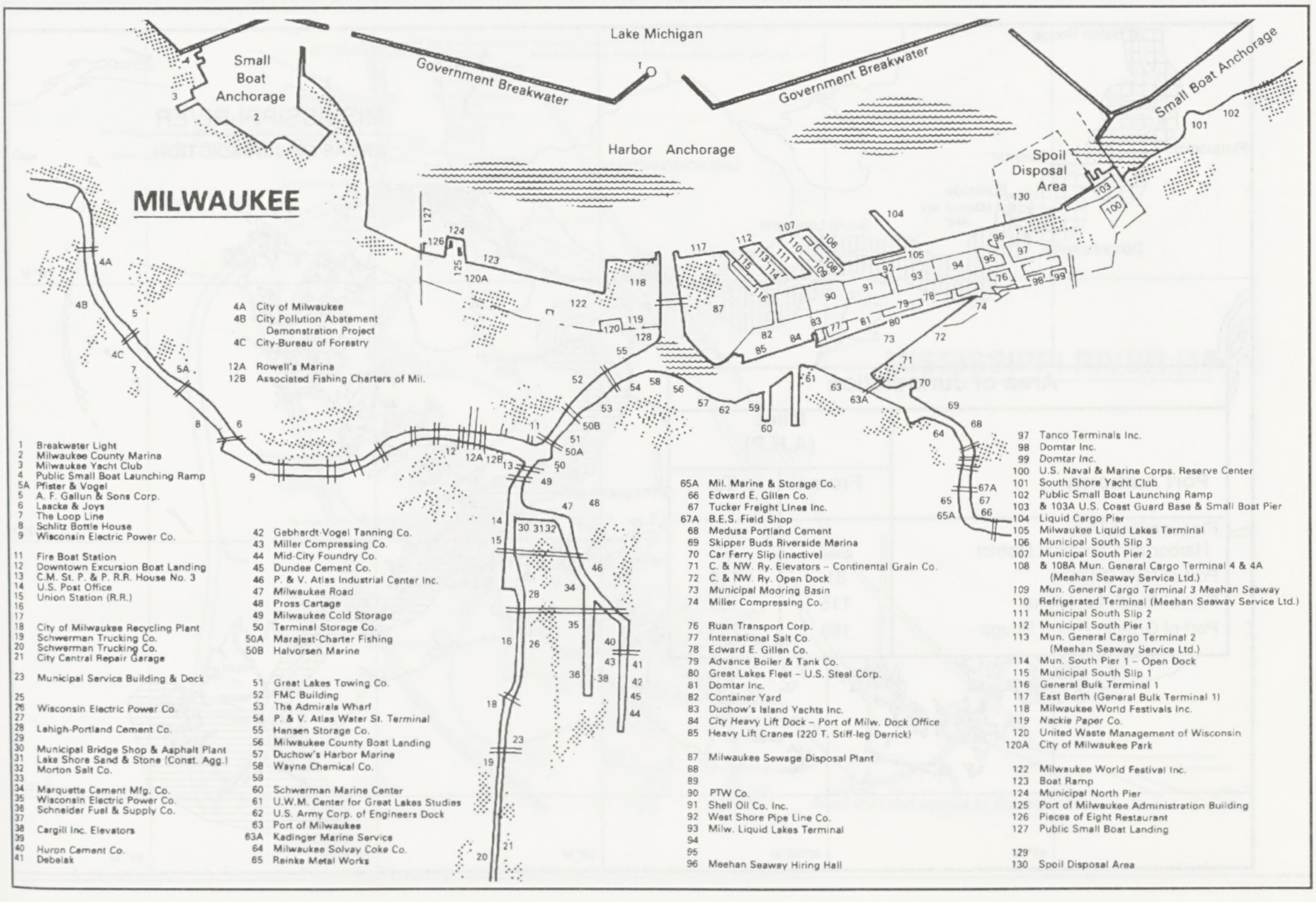

Star Island
Hibiscus Island
Palm Island
MacArthur Causeway
Main Channel
Lummus Island
Ro/Ro Berths
Ro/Ro Berth
Ro/Ro Berth
Ro/Ro Berth
Passenger Terminals
Passenger Terminals
Passenger Terminals
Dodge Island
25 ft
Container Berth
6 Gantry Cranes
Fishermans Channel · 42 ft
MIAMI
Ro/Ro

MIAMI

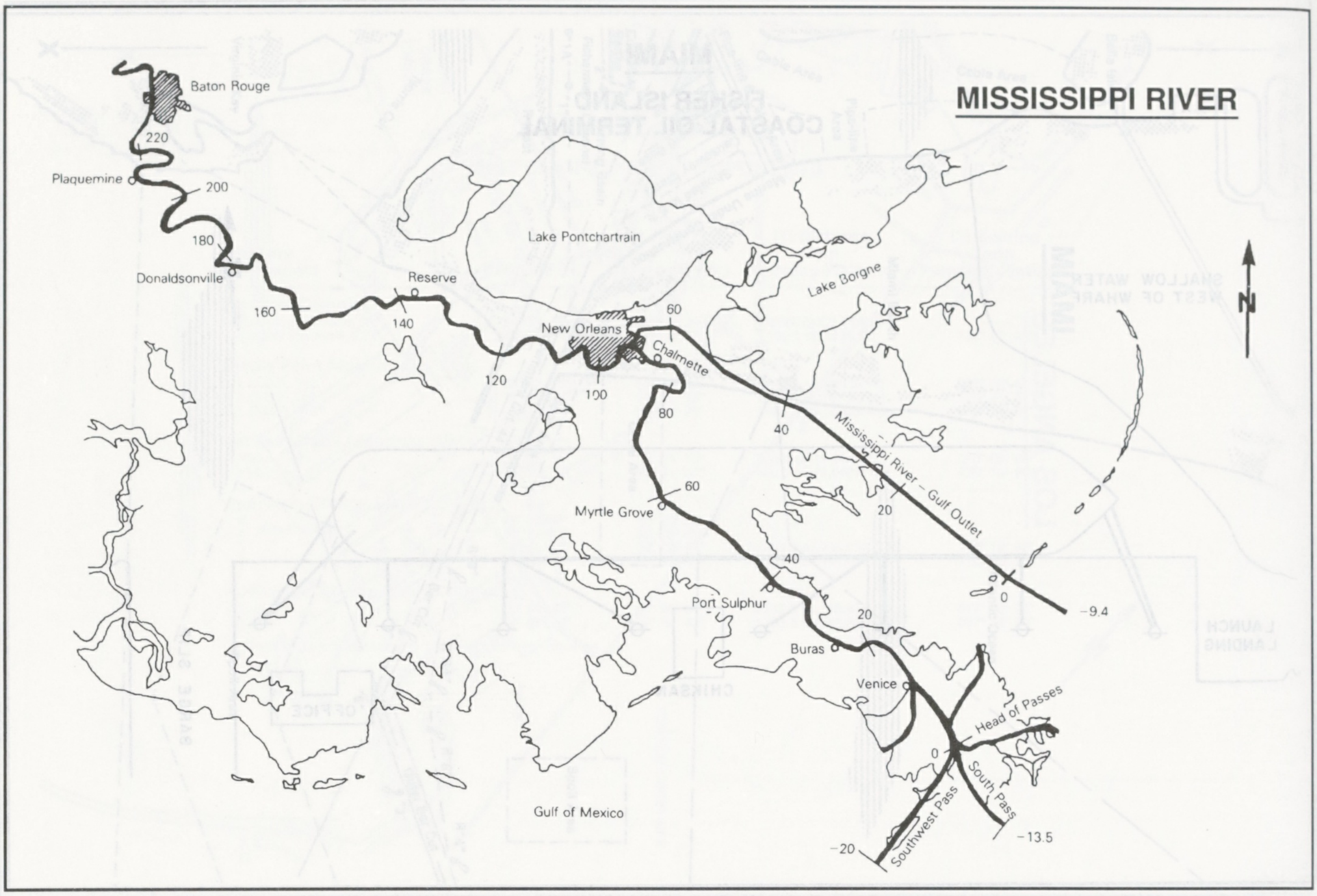
FISHER ISLAND
COASTAL OIL TERMINAL

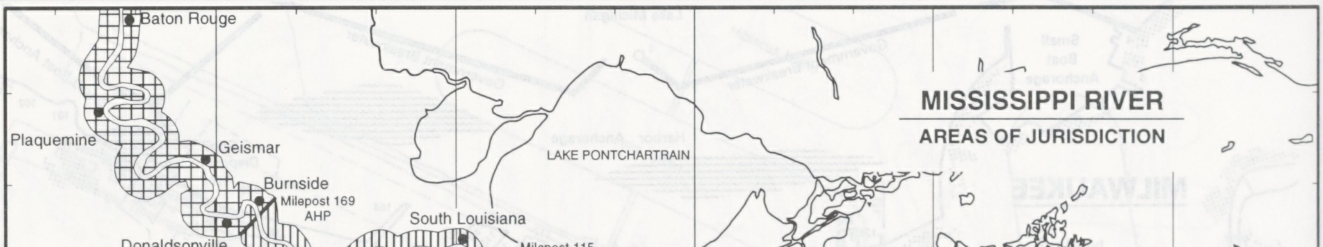


MILWAUKEE



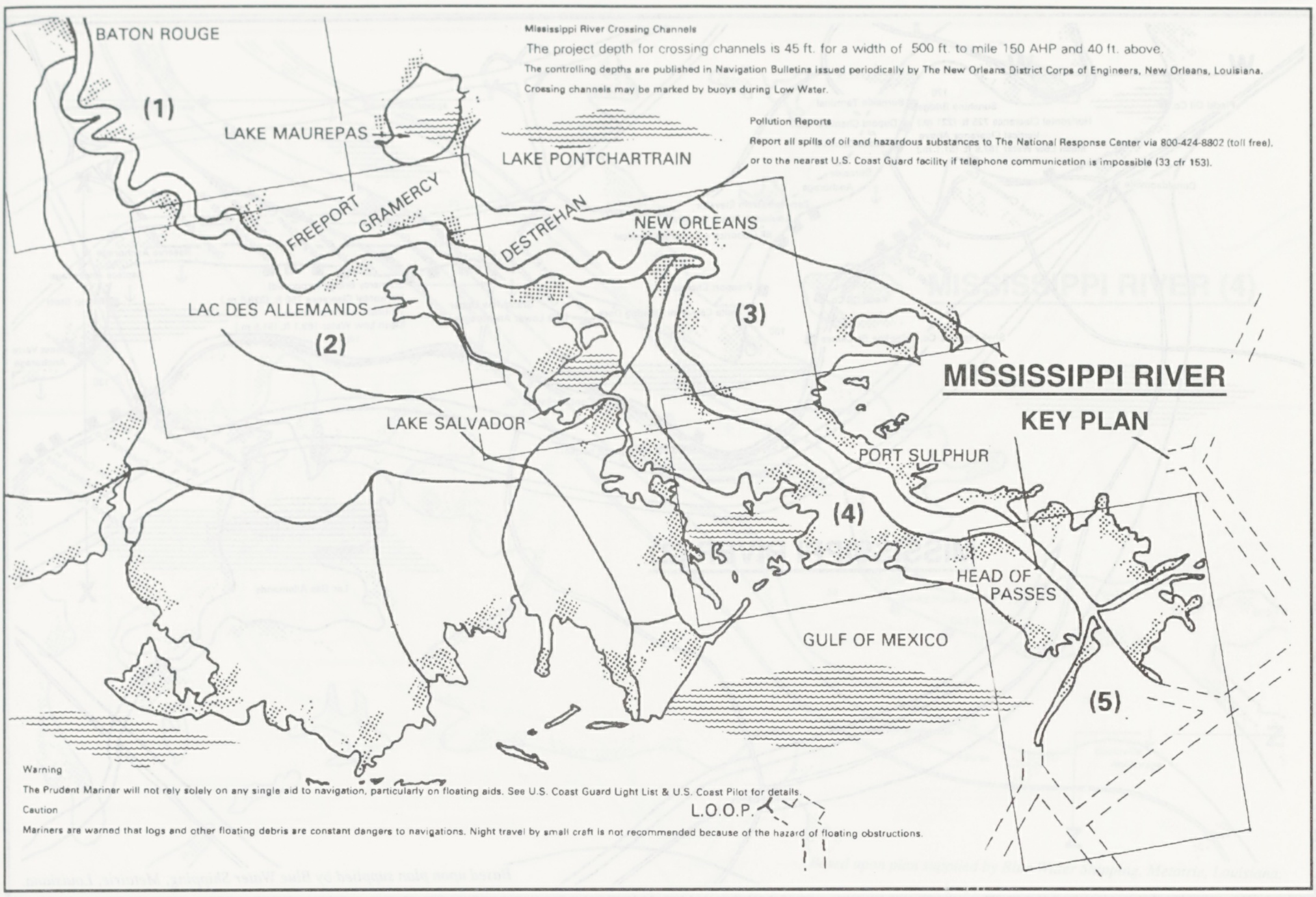
1	Breakwater Light
2	Milwaukee County Marina
3	Milwaukee Yacht Club
4	Public Small Boat Launching Ramp
4A	City of Milwaukee
4B	City Pollution Abatement Demonstration Project
4C	City-Bureau of Forestry
5A	Pfister & Vogel
5	A. F. Gallun & Sons Corp.
6	Laacke & Joys
7	The Loop Line
8	Schlitz Bottle House
9	Wisconsin Electric Power Co.
11	Fire Boat Station
12	Downtown Excursion Boat Landing
12A	Rowell's Marina
12B	Associated Fishing Charters of Mil.
13	C.M. St. P. & P. R.R. House No. 3
14	U.S. Post Office
15	Union Station (R.R.)
16	
17	
18	City of Milwaukee Recycling Plant
19	Schwerman Trucking Co.
20	Schwerman Trucking Co.
21	City Central Repair Garage
23	Municipal Service Building & Dock
25	
26	Wisconsin Electric Power Co.
27	
28	Lehigh-Portland Cement Co.
29	
30	Municipal Bridge Shop & Asphalt Plant
31	Lake Shore Sand & Stone (Const. Agg.)
32	Morton Salt Co.
33	
34	Marquette Cement Mfg. Co.
35	Wisconsin Electric Power Co.
36	Schneider Fuel & Supply Co.
37	
38	Cargill Inc. Elevators
39	
40	Huron Cement Co.
41	Debelak
42	Gebhardt-Vogel Tanning Co.
43	Miller Compressing Co.
44	Mid-City Foundry Co.
45	Dundee Cement Co.
46	P. & V. Atlas Industrial Center Inc.
47	Milwaukee Road
48	Pross Cartage
49	Milwaukee Cold Storage
50	Terminal Storage Co.
50A	Marajest-Charter Fishing
50B	Halvorsen Marine
51	Great Lakes Towing Co.
52	FMC Building
53	The Admirals Wharf
54	P. & V. Atlas Water St. Terminal
55	Hansen Storage Co.
56	Milwaukee County Boat Landing
57	Duchow's Harbor Marine
58	Wayne Chemical Co.
59	
60	Schwerman Marine Center
61	U.W.M. Center for Great Lakes Studies
62	U.S. Army Corp. of Engineers Dock
63	Port of Milwaukee
63A	Kadinger Marine Service
64	Milwaukee Solvay Coke Co.
65	Reinke Metal Works
65A	Mil. Marine & Storage Co.
66	Edward E. Gillen Co.
67	Tucker Freight Lines Inc.
67A	B.E.S. Field Shop
68	Medusa Portland Cement
69	Skipper Buds Riverside Marina
70	Car Ferry Slip (inactive)
71	C. & NW. Ry. Elevators – Continental Grain Co.
72	C. & NW. Ry. Open Dock
73	Municipal Mooring Basin
74	Miller Compressing Co.
76	Ruan Transport Corp.
77	International Salt Co.
78	Edward E. Gillen Co.
79	Advance Boiler & Tank Co.
80	Great Lakes Fleet – U.S. Steel Corp.
81	Domtar Inc.
82	Container Yard
83	Duchow's Island Yachts Inc.
84	*City Heavy Lift Dock – Port of Milw. Dock Office*
85	Heavy Lift Cranes (220 T. Stiff-leg Derrick)
87	Milwaukee Sewage Disposal Plant
88	
89	
90	PTW Co.
91	Shell Oil Co. Inc.
92	West Shore Pipe Line Co.
93	Milw. Liquid Lakes Terminal
94	
95	
96	Meehan Seaway Hiring Hall
97	Tanco Terminals Inc.
98	Domtar Inc.
99	*Domtar Inc.*
100	U.S. Naval & Marine Corps. Reserve Center
101	South Shore Yacht Club
102	Public Small Boat Launching Ramp
103	& 103A U.S. Coast Guard Base & Small Boat Pier
104	Liquid Cargo Pier
105	Milwaukee Liquid Lakes Terminal
106	Municipal South Slip 3
107	Municipal South Pier 2
108	& 108A Mun. General Cargo Terminal 4 & 4A (Meehan Seaway Service Ltd.)
109	*Mun. General Cargo Terminal 3* Meehan Seaway
110	Refrigerated Terminal (Meehan Seaway Service Ltd.)
111	Municipal South Slip 2
112	Municipal South Pier 1
113	Mun. General Cargo Terminal 2 (Meehan Seaway Service Ltd.)
114	Mun. South Pier 1 – Open Dock
115	Municipal South Slip 1
116	General Bulk Terminal 1
117	East Berth (General Bulk Terminal 1)
118	Milwaukee World Festivals Inc.
119	*Nackie Paper Co.*
120	United Waste Management of Wisconsin
120A	City of Milwaukee Park
122	Milwaukee World Festival Inc.
123	Boat Ramp
124	Municipal North Pier
125	Port of Milwaukee Administration Building
126	Pieces of Eight Restaurant
127	Public Small Boat Landing
129	
130	Spoil Disposal Area


MISSISSIPPI RIVER
Baton Rouge
220
Plaquemine
200
180
Donaldsonville
160
Reserve
140
Lake Pontchartrain
Lake Borgne
New Orleans
60
120
100
Chalmette
80
40
Mississippi River – Gulf Outlet
60
Myrtle Grove
20
0
–9.4
40
Port Sulphur
20
Buras
Venice
Head of Passes
0
South Pass
Southwest Pass
–13.5
–20
Gulf of Mexico


MISSISSIPPI RIVER
AREAS OF JURISDICTION
Baton Rouge
Plaquemine
Geismar
Burnside
Milepost 169 AHP
Donaldsonville
South Louisiana
Milepost 115 AHP
New Orleans
LAKE PONTCHARTRAIN
Milepost 81 AHP
Plaquemines
Port Sulphur
Head of Passes
30° N
29°30' N
29° N
91° W
90°30' W
90° W
89°30' W
89° W

Area of Jurisdiction

Port Authority	Miles (A.H.P)	
	From	To
Plaquemines Port Harbor and Terminal District	Sea	81
Port of New Orleans	81	115
Port of South Louisiana	115	169
Port of Greater Baton Rouge	169	253



MISSISSIPPI RIVER
KEY PLAN

Mississippi River Crossing Channels

The project depth for crossing channels is 45 ft. for a width of 500 ft. to mile 150 AHP and 40 ft. above.

The controlling depths are published in Navigation Bulletins issued periodically by The New Orleans District Corps of Engineers, New Orleans, Louisiana.

Crossing channels may be marked by buoys during Low Water.

Pollution Reports

Report all spills of oil and hazardous substances to The National Response Center via 800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 cfr 153).

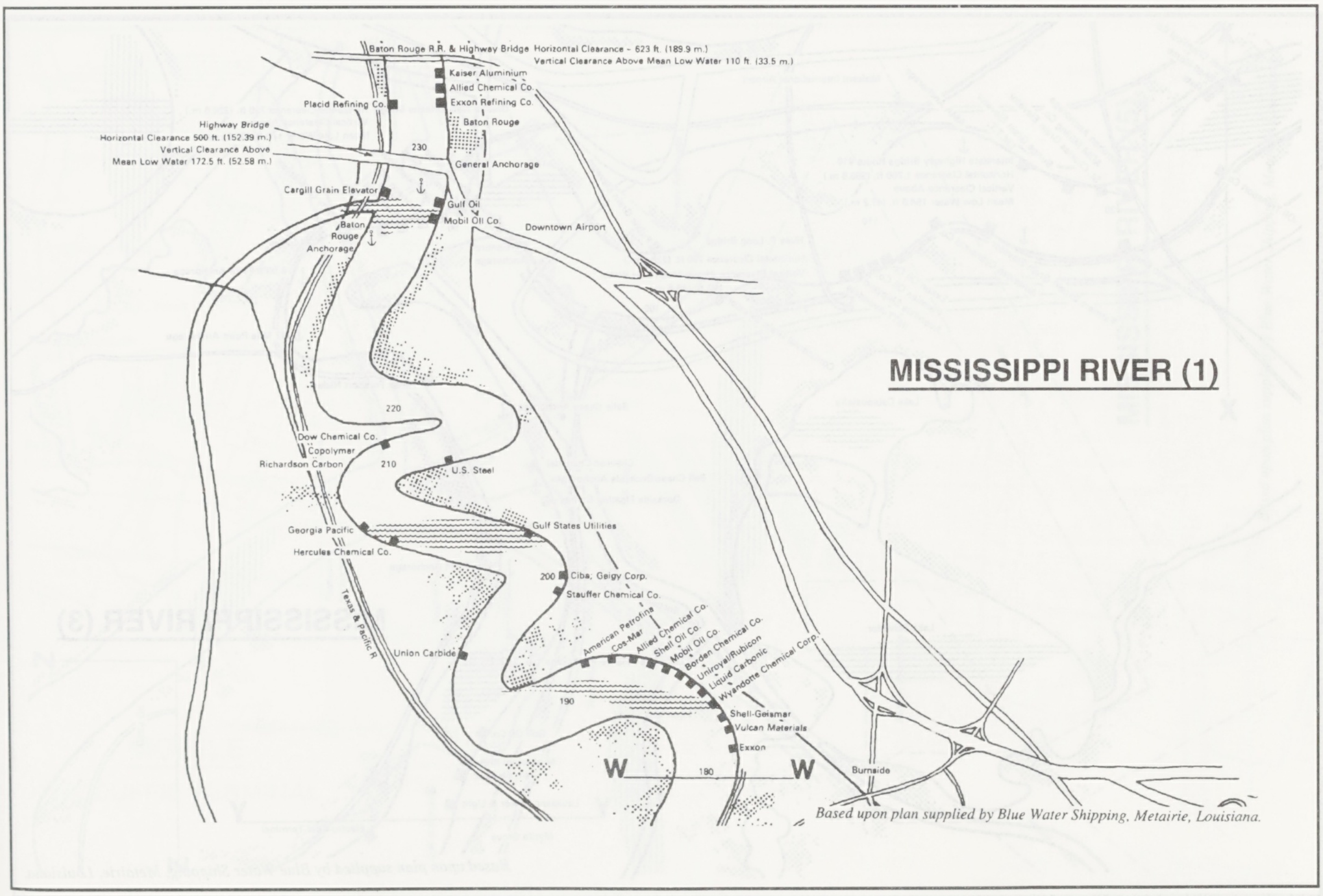
Warning

The Prudent Mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List & U.S. Coast Pilot for details.

Caution

Mariners are warned that logs and other floating debris are constant dangers to navigations. Night travel by small craft is not recommended because of the hazard of floating obstructions.

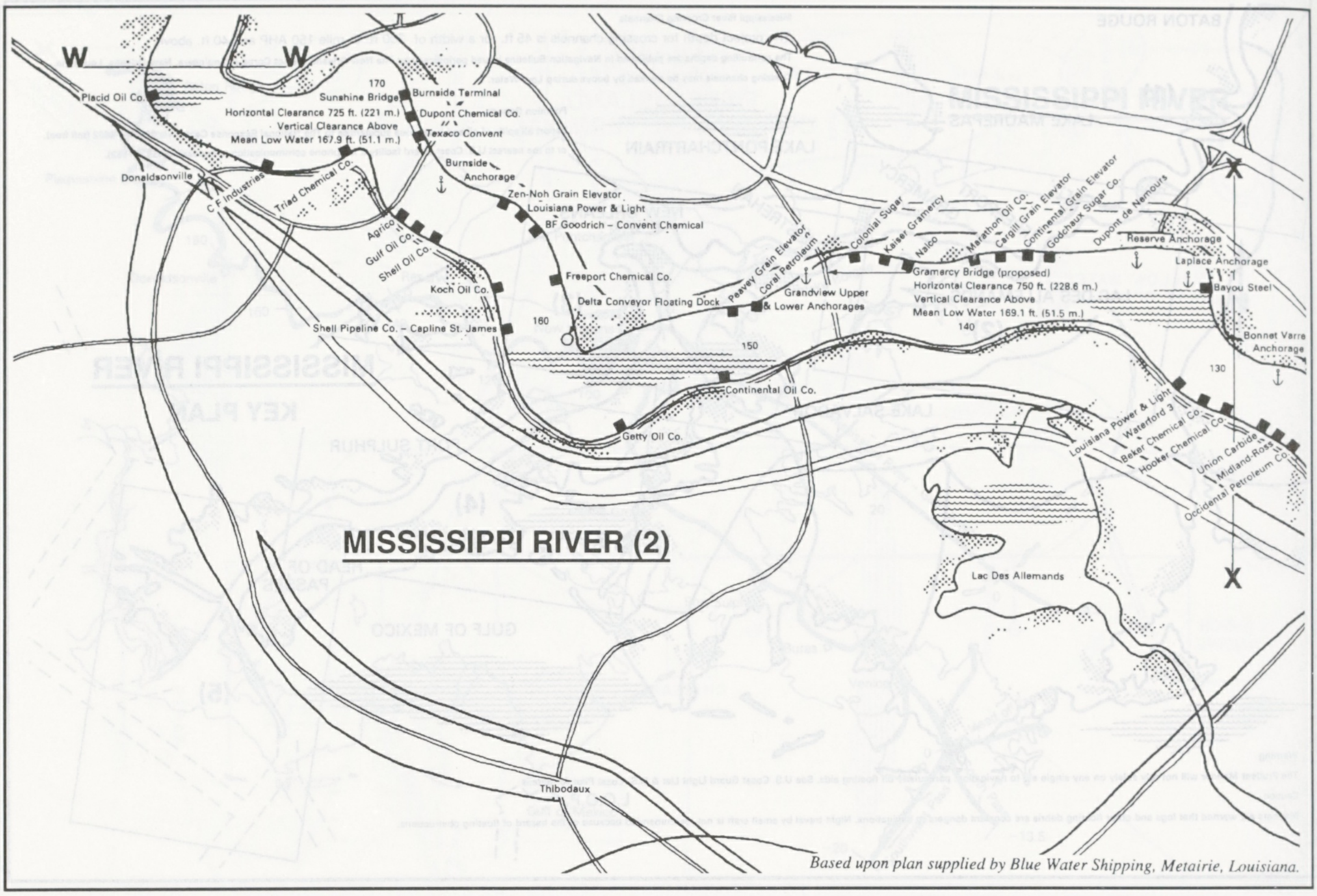
BATON ROUGE
(1)
LAKE MAUREPAS
LAKE PONTCHARTRAIN
FREEPORT
GRAMERCY
DESTREHAN
NEW ORLEANS
LAC DES ALLEMANDS
(2)
(3)
LAKE SALVADOR
PORT SULPHUR
(4)
HEAD OF PASSES
GULF OF MEXICO
(5)
L.O.O.P.



MISSISSIPPI RIVER (1)

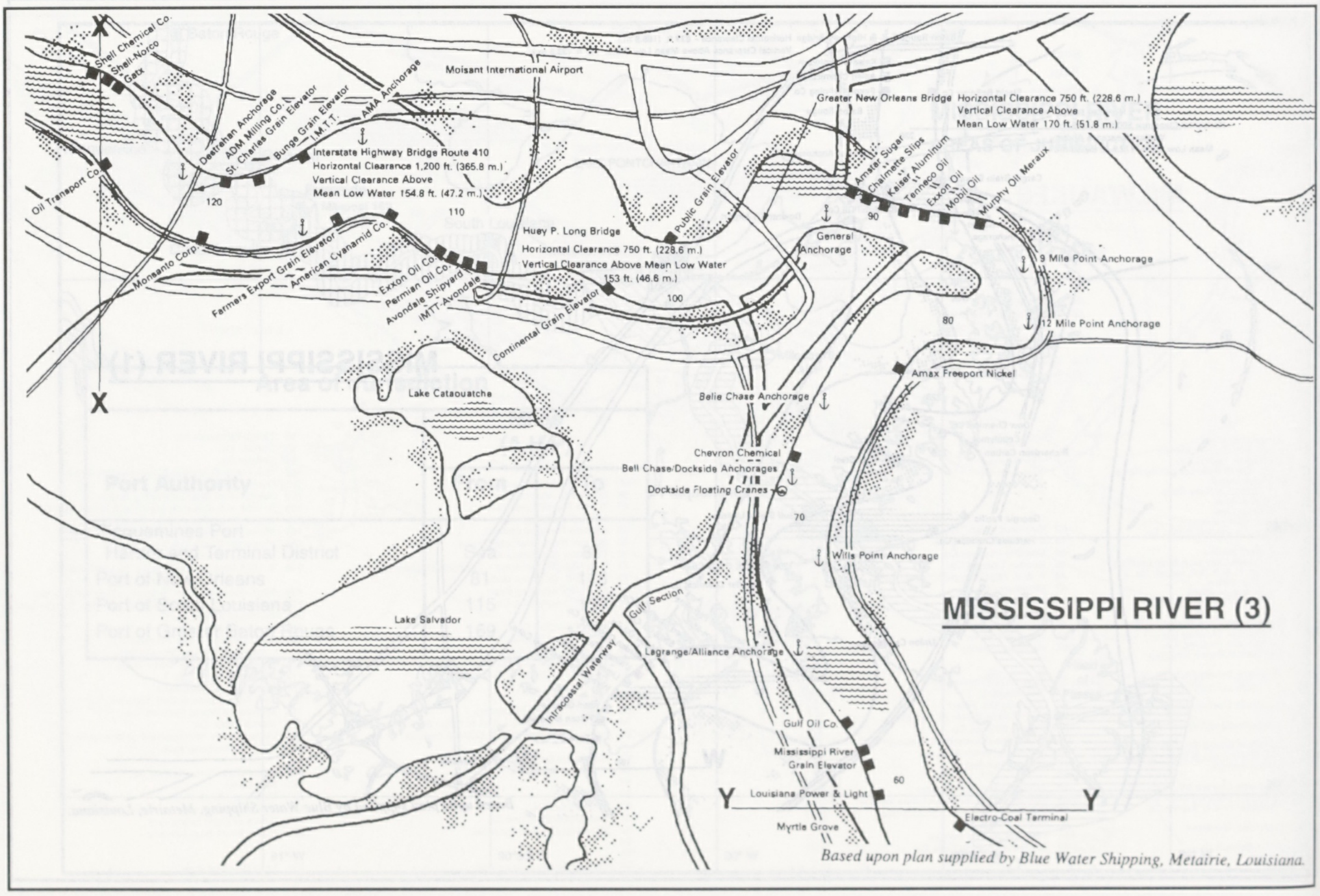
Baton Rouge R.R. & Highway Bridge Horizontal Clearance - 623 ft. (189.9 m.)
Vertical Clearance Above Mean Low Water 110 ft. (33.5 m.)
Kaiser Aluminium
Allied Chemical Co.
Exxon Refining Co.
Placid Refining Co.
Baton Rouge
Highway Bridge
Horizontal Clearance 500 ft. (152.39 m.)
Vertical Clearance Above
Mean Low Water 172.5 ft. (52.58 m.)
230
General Anchorage
Cargill Grain Elevator
Gulf Oil
Mobil Oil Co.
Baton Rouge Anchorage
Downtown Airport
220
Dow Chemical Co.
Copolymer
Richardson Carbon
210
U.S. Steel
Georgia Pacific
Hercules Chemical Co.
Gulf States Utilities
Texas & Pacific R
200
Ciba; Geigy Corp.
Stauffer Chemical Co.
Union Carbide
American Petrofina
Cos-Mar
Allied Chemical Co.
Shell Oil Co.
Mobil Oil Co.
Borden Chemical Co.
Uniroyal/Rubicon
Liquid Carbonic
Wyandotte Chemical Corp.
190
Shell-Geismar
Vulcan Materials
Exxon
W
180
W
Burnside

Based upon plan supplied by Blue Water Shipping, Metairie, Louisiana.


W
W
Placid Oil Co.
Donaldsonville
170
Sunshine Bridge
Horizontal Clearance 725 ft. (221 m.)
Vertical Clearance Above
Mean Low Water 167.9 ft. (51.1 m.)
Burnside Terminal
Dupont Chemical Co.
Texaco Convent
Burnside
Anchorage
C F Industries
Triad Chemical Co.
Zen-Noh Grain Elevator
Louisiana Power & Light
BF Goodrich – Convent Chemical
Agrico
Gulf Oil Co.
Shell Oil Co.
Koch Oil Co.
Freeport Chemical Co.
Delta Conveyor Floating Dock
Shell Pipeline Co. – Capline St. James
160
150
Peavey Grain Elevator
Coral Petroleum
Grandview Upper
& Lower Anchorages
Colonial Sugar
Kaiser Gramercy
Nalco
Marathon Oil Co.
Cargill Grain Elevator
Continental Grain Elevator
Godchaux Sugar Co.
Dupont de Nemours
Reserve Anchorage
Laplace Anchorage
Bayou Steel
Gramercy Bridge (proposed)
Horizontal Clearance 750 ft. (228.6 m.)
Vertical Clearance Above
Mean Low Water 169.1 ft. (51.5 m.)
140
X
Bonnet Varre
Anchorage
130
Continental Oil Co.
Getty Oil Co.
Louisiana Power & Light
Waterford 3
Beker Chemical Co.
Hooker Chemical Co.
Union Carbide
Midland-Ross
Occidental Petroleum Co.
Lac Des Allemands
X
Thibodaux

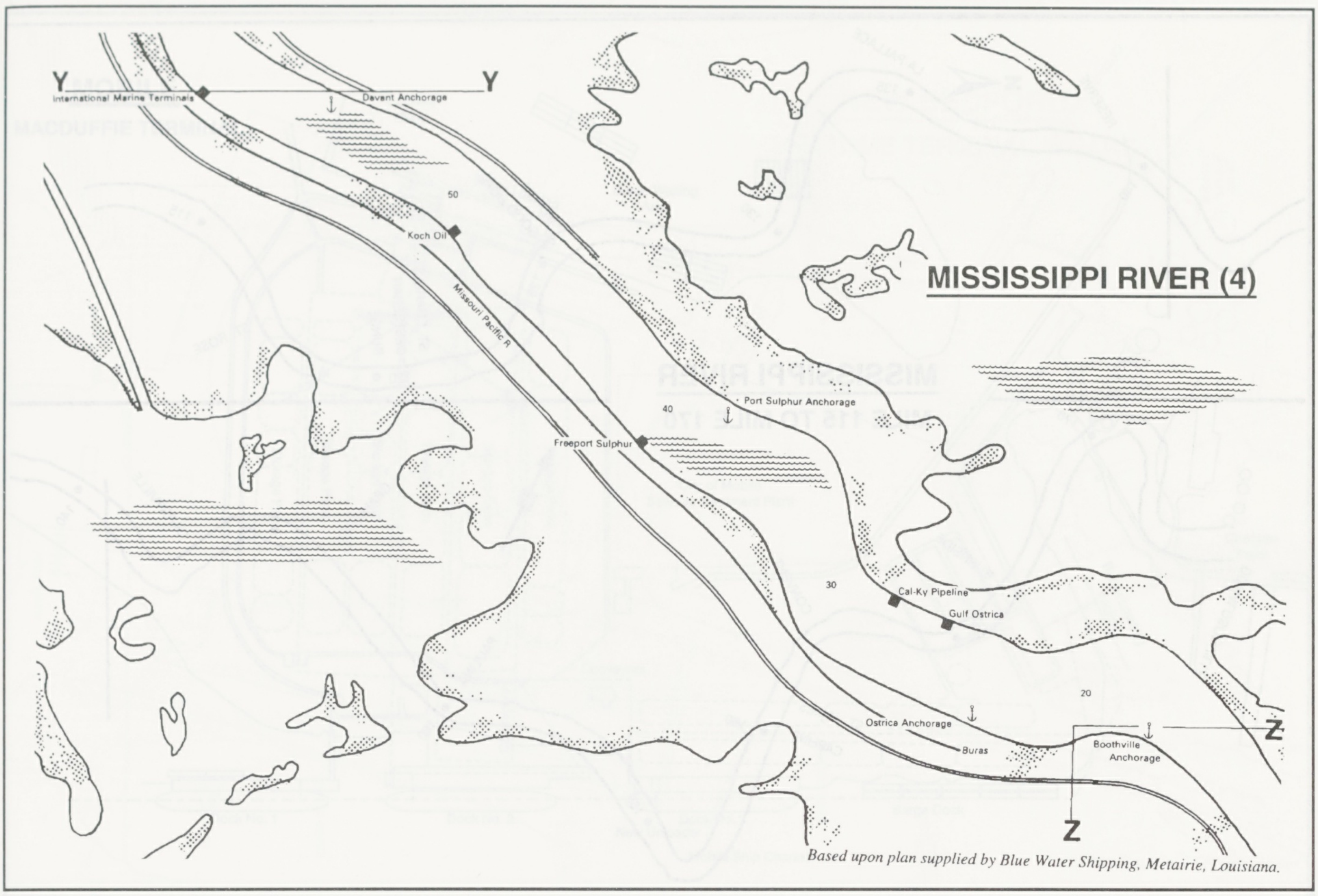
MISSISSIPPI RIVER (2)

Based upon plan supplied by Blue Water Shipping, Metairie, Louisiana.


X
Shell Chemical Co.
Shell-Norco
Gatx
Oil Transport Co.
Destrehan Anchorage
ADM Milling Co.
St. Charles Grain Elevator
Bunge Grain Elevator
I.M.T.T.
AMA Anchorage
Moisant International Airport
Interstate Highway Bridge Route 410
Horizontal Clearance 1,200 ft. (365.8 m.)
Vertical Clearance Above
Mean Low Water 154.8 ft. (47.2 m.)
120
110
Monsanto Corp.
Farmers Export Grain Elevator
American Cyanamid Co.
Exxon Oil Co.
Permian Oil Co.
Avondale Shipyard
IMTT-Avondale
Huey P. Long Bridge
Horizontal Clearance 750 ft. (228.6 m.)
Vertical Clearance Above Mean Low Water
153 ft. (46.6 m.)
100
Continental Grain Elevator
Public Grain Elevator
Greater New Orleans Bridge
Horizontal Clearance 750 ft. (228.6 m.)
Vertical Clearance Above
Mean Low Water 170 ft. (51.8 m.)
Amstar Sugar
Chalmette Slips
Kaiser Aluminum
Tenneco Oil
Exxon Oil
Mobil Oil
Murphy Oil Meraux
90
General
Anchorage
9 Mile Point Anchorage
80
12 Mile Point Anchorage
Amax Freeport Nickel
X
Lake Cataouatche
Belle Chase Anchorage
Chevron Chemical
Bell Chase/Dockside Anchorages
Dockside Floating Cranes
70
Wills Point Anchorage
Lake Salvador
Gulf Section
Intracoastal Waterway
Lagrange/Alliance Anchorage
Gulf Oil Co.
Mississippi River
Grain Elevator
60
Y
Louisiana Power & Light
Y
Myrtle Grove
Electro-Coal Terminal

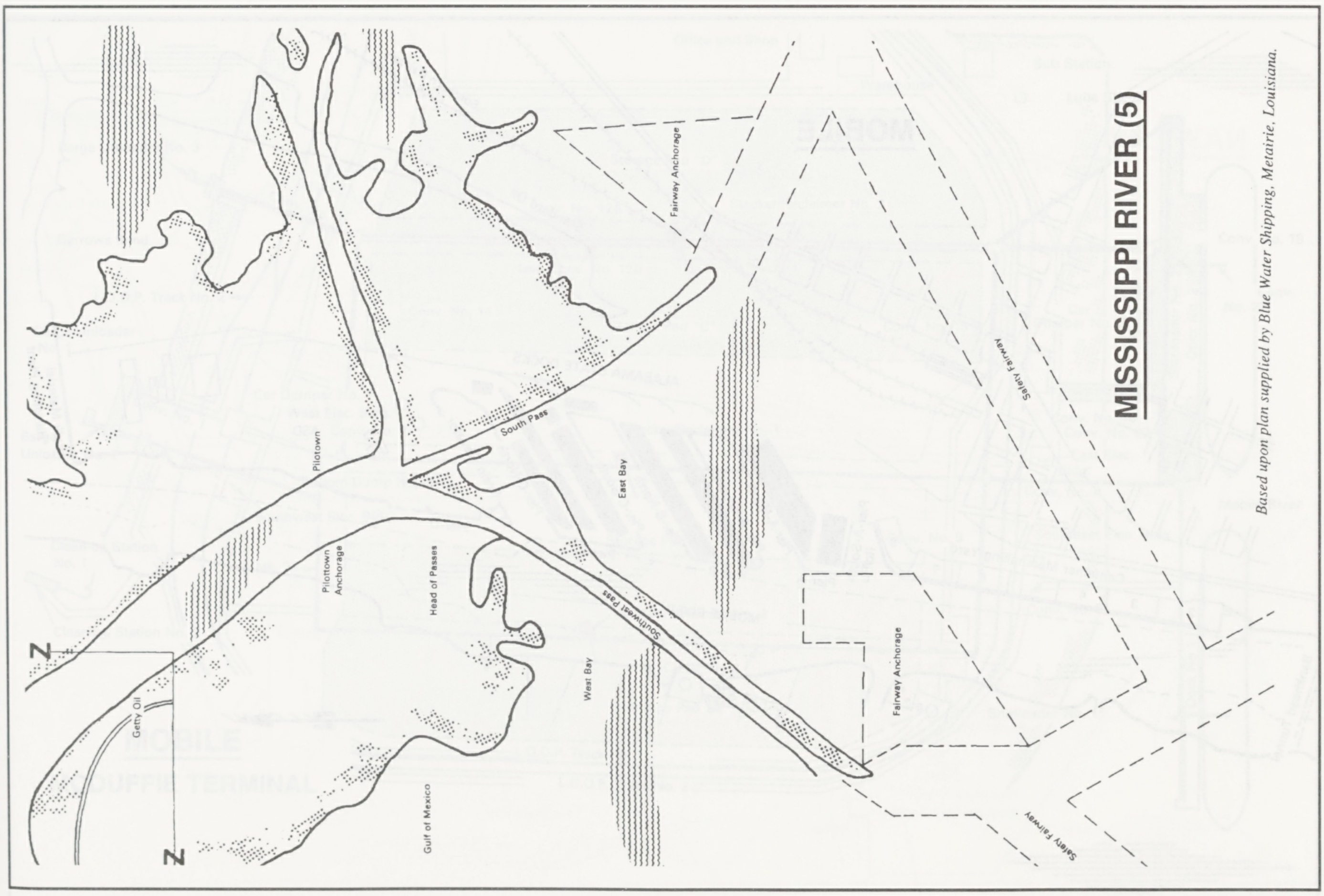
MISSISSIPPI RIVER (3)

Based upon plan supplied by Blue Water Shipping, Metairie, Louisiana.


Y
Y
International Marine Terminals
Davant Anchorage
50
Koch Oil
Missouri Pacific R
40
Port Sulphur Anchorage
Freeport Sulphur
30
Cal-Ky Pipeline
Gulf Ostrica
20
Ostrica Anchorage
Buras
Boothville Anchorage
Z
Z

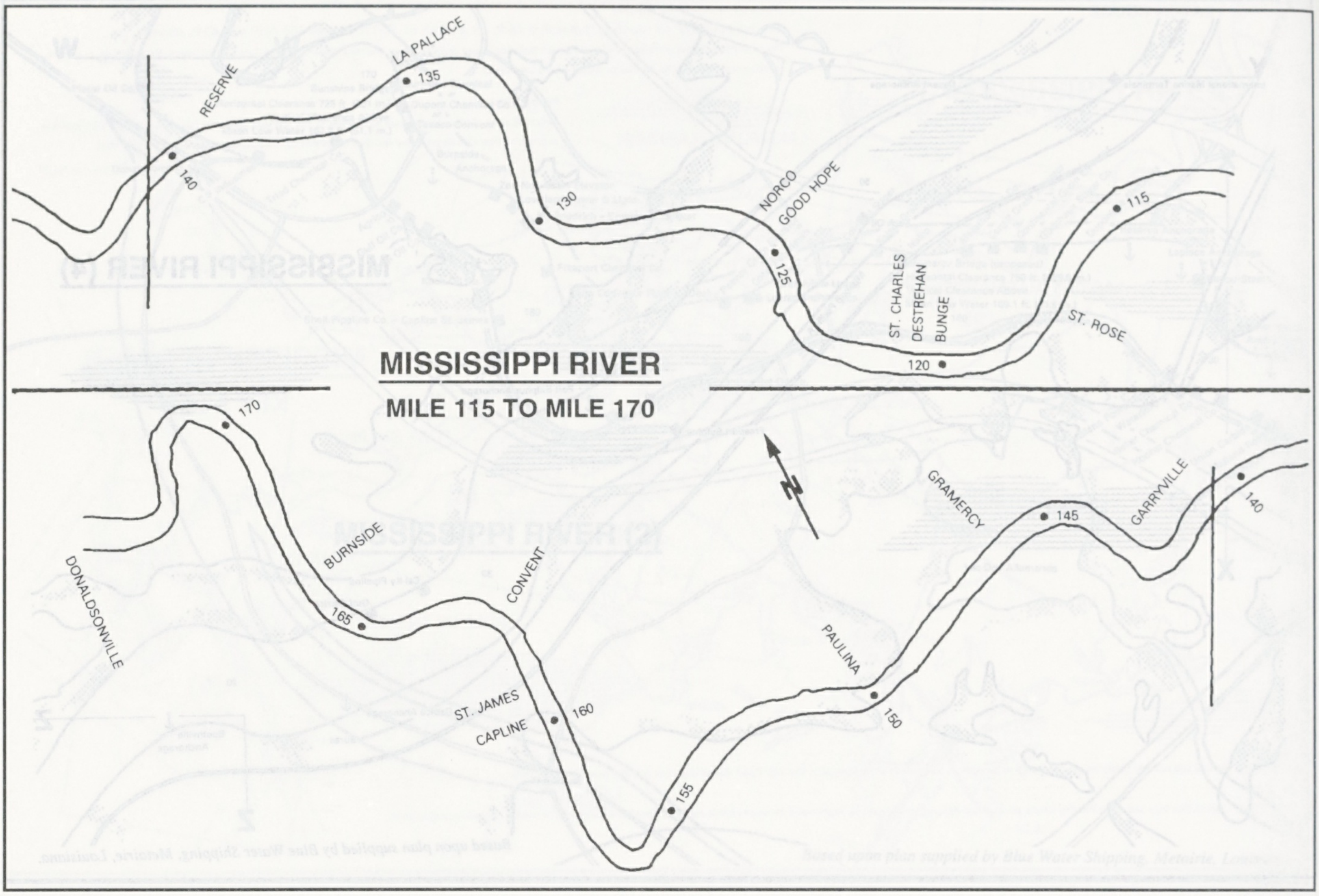
MISSISSIPPI RIVER (4)

Based upon plan supplied by Blue Water Shipping, Metairie, Louisiana.

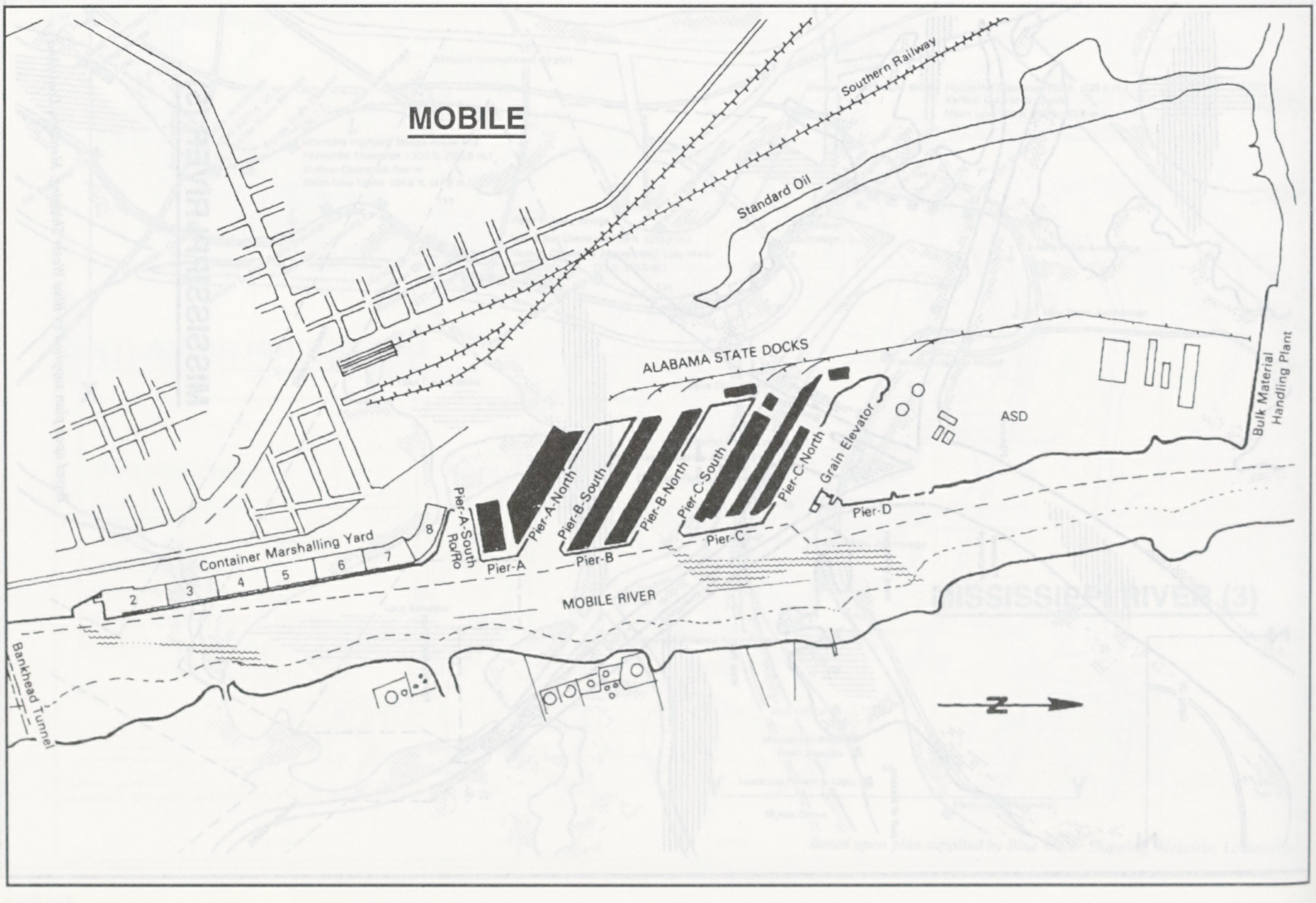

Fairway Anchorage
Safety Fairway
South Pass
Pilotown
East Bay
Pilottown Anchorage
Head of Passes
Southwest Pass
West Bay
Fairway Anchorage
Getty Oil
Gulf of Mexico
Safety Fairway
Z
Z

MISSISSIPPI RIVER (5)

Based upon plan supplied by Blue Water Shipping, Metairie, Louisiana.

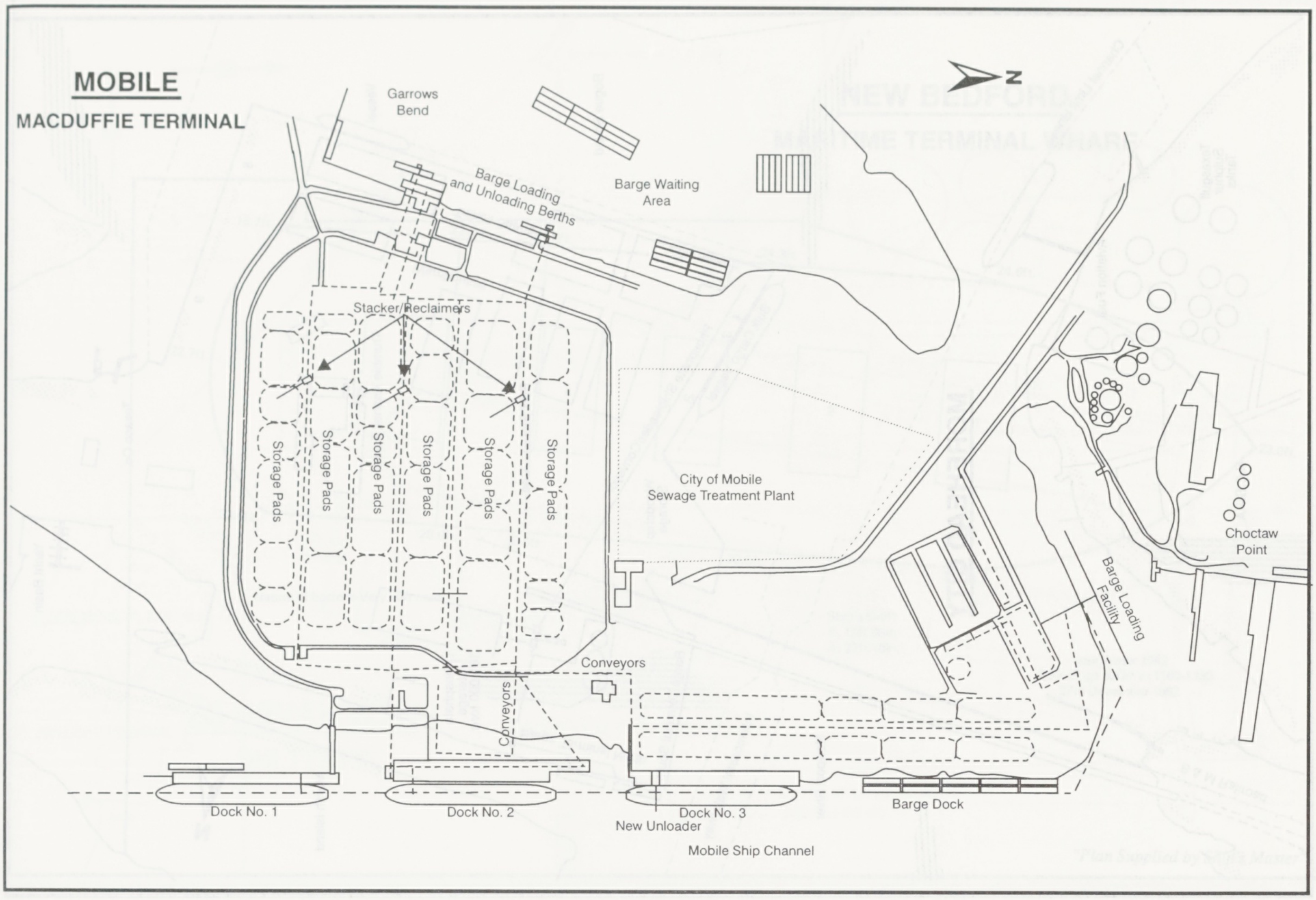

MISSISSIPPI RIVER

MILE 115 TO MILE 170
RESERVE
LA PALLACE
135
140
130
NORCO
GOOD HOPE
125
ST. CHARLES
DESTREHAN
BUNGE
120
ST. ROSE
115
170
N
GRAMERCY
145
GARRYVILLE
140
DONALDSONVILLE
BURNSIDE
165
CONVENT
ST. JAMES
CAPLINE
160
155
PAULINA
150


MOBILE
Southern Railway
Standard Oil
ALABAMA STATE DOCKS
ASD
Bulk Material Handling Plant
Grain Elevator
Pier-C-North
Pier-C-South
Pier-B-North
Pier-B-South
Pier-A-North
Pier-A-South Ro/Ro
Pier-D
Pier-C
Pier-B
Pier-A
Container Marshalling Yard
2
3
4
5
6
7
8
MOBILE RIVER
Bankhead Tunnel
N

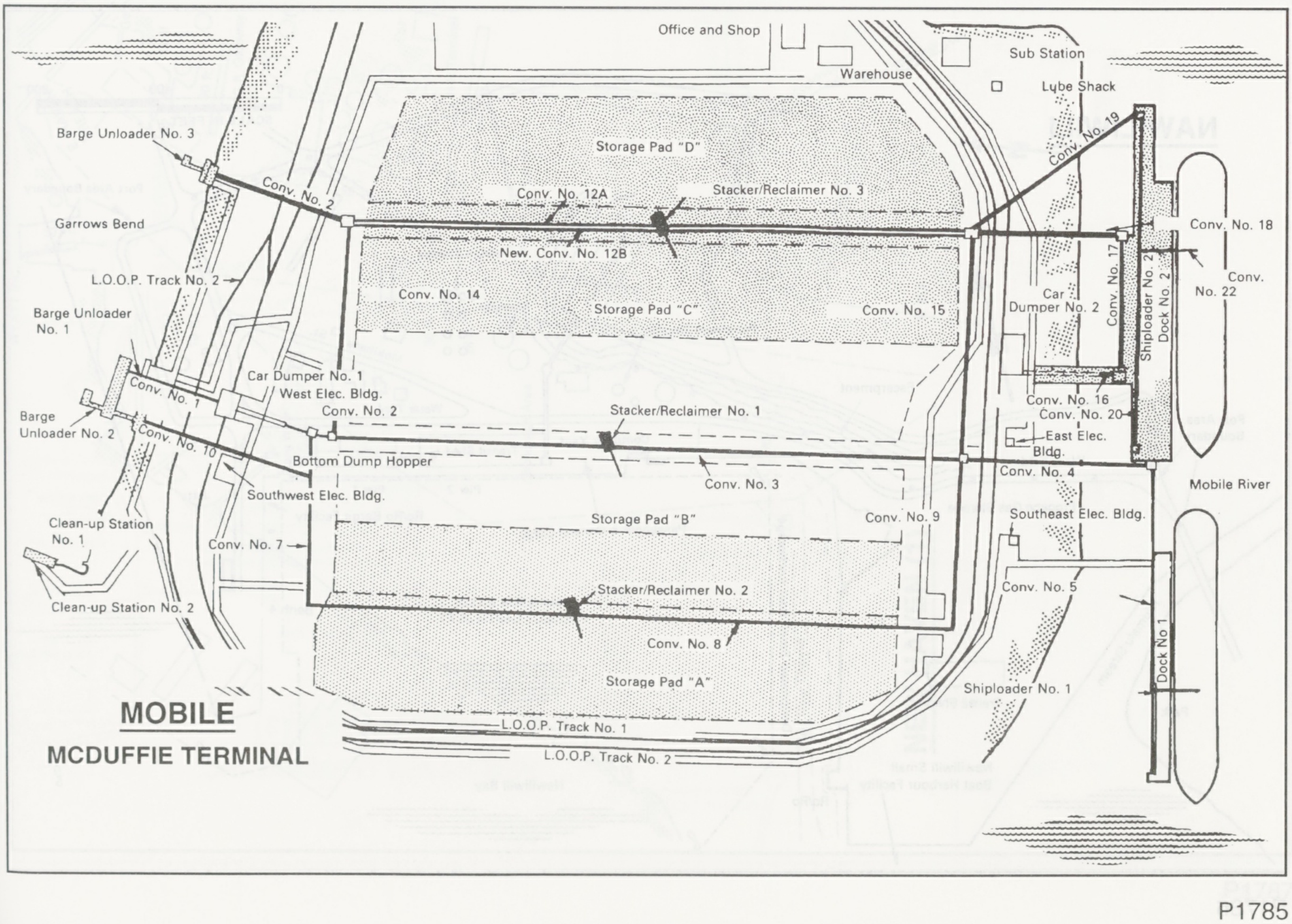
MOBILE

MACDUFFIE TERMINAL

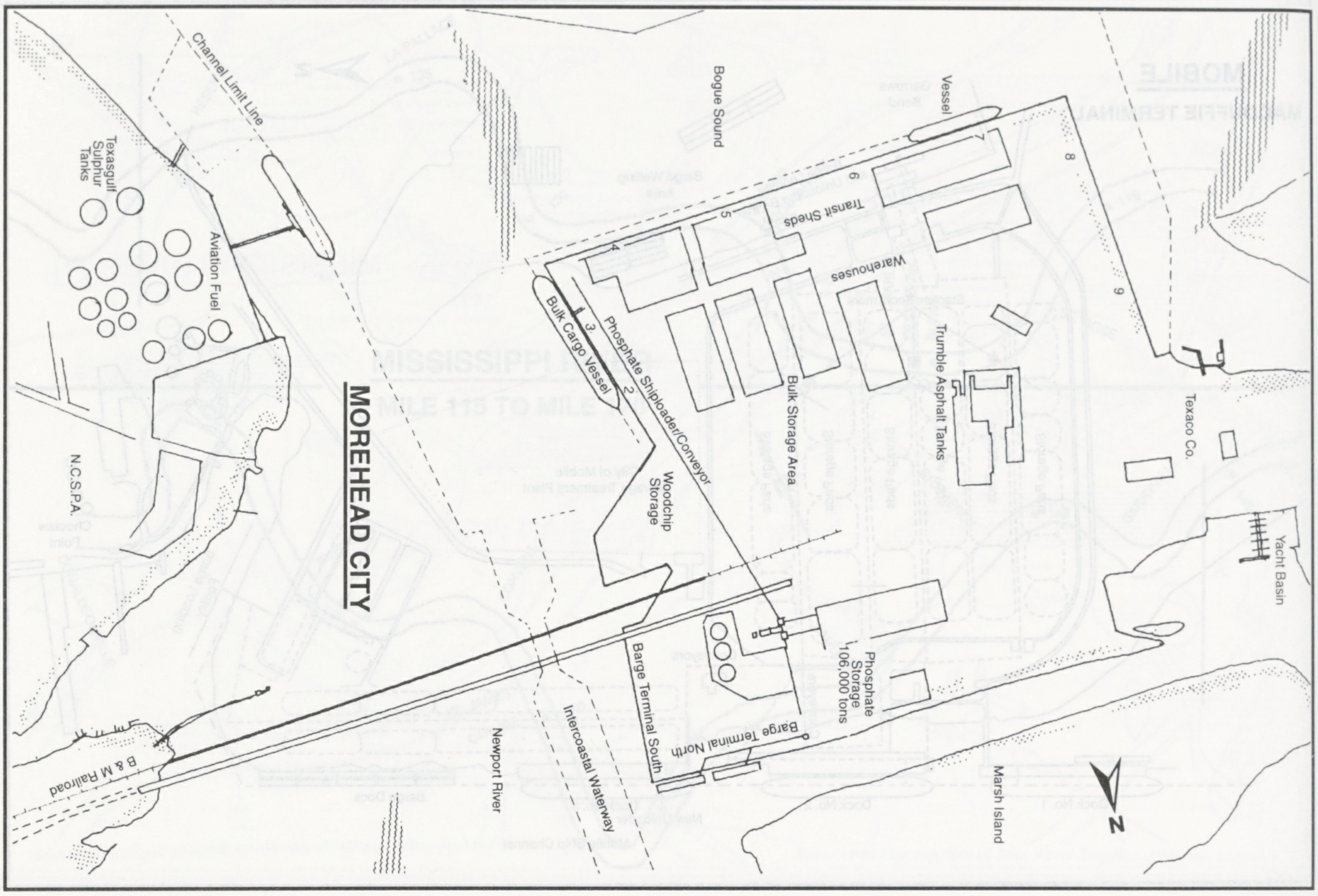

N
Garrows Bend
Barge Loading and Unloading Berths
Barge Waiting Area
Stacker/Reclaimers
Storage Pads
Storage Pads
Storage Pads
Storage Pads
Storage Pads
Storage Pads
City of Mobile Sewage Treatment Plant
Choctaw Point
Barge Loading Facility
Conveyors
Conveyors
Dock No. 1
Dock No. 2
Dock No. 3
New Unloader
Barge Dock
Mobile Ship Channel

MOBILE

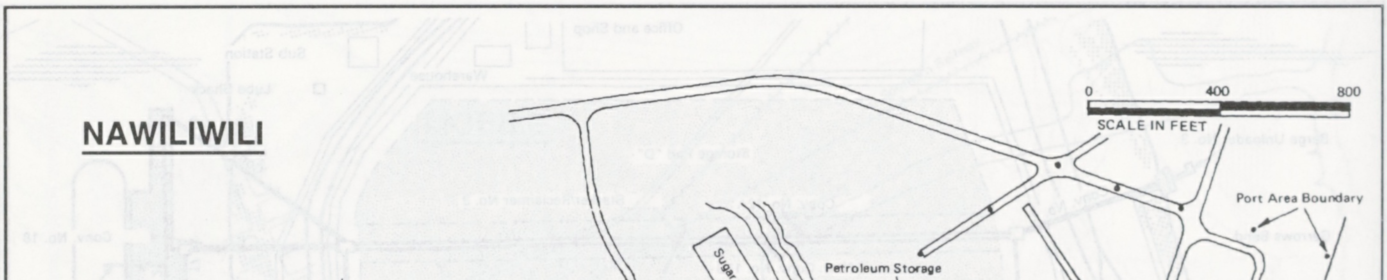
MCDUFFIE TERMINAL


Office and Shop
Warehouse
Sub Station
Lube Shack
Barge Unloader No. 3
Conv. No. 2
Storage Pad "D"
Conv. No. 19
Conv. No. 12A
Stacker/Reclaimer No. 3
Conv. No. 18
Garrows Bend
New. Conv. No. 12B
Conv. No. 17
Shiploader No. 2
Dock No. 2
Conv. No. 22
L.O.O.P. Track No. 2
Barge Unloader No. 1
Conv. No. 14
Storage Pad "C"
Conv. No. 15
Car Dumper No. 2
Car Dumper No. 1
West Elec. Bldg.
Conv. No. 1
Conv. No. 2
Stacker/Reclaimer No. 1
Conv. No. 16
Conv. No. 20
Barge Unloader No. 2
Conv. No. 10
East Elec. Bldg.
Bottom Dump Hopper
Conv. No. 4
Southwest Elec. Bldg.
Conv. No. 3
Mobile River
Clean-up Station No. 1
Storage Pad "B"
Conv. No. 9
Southeast Elec. Bldg.
Conv. No. 7
Clean-up Station No. 2
Stacker/Reclaimer No. 2
Conv. No. 5
Conv. No. 8
Dock No 1
Storage Pad "A"
Shiploader No. 1
L.O.O.P. Track No. 1
L.O.O.P. Track No. 2

MOREHEAD CITY

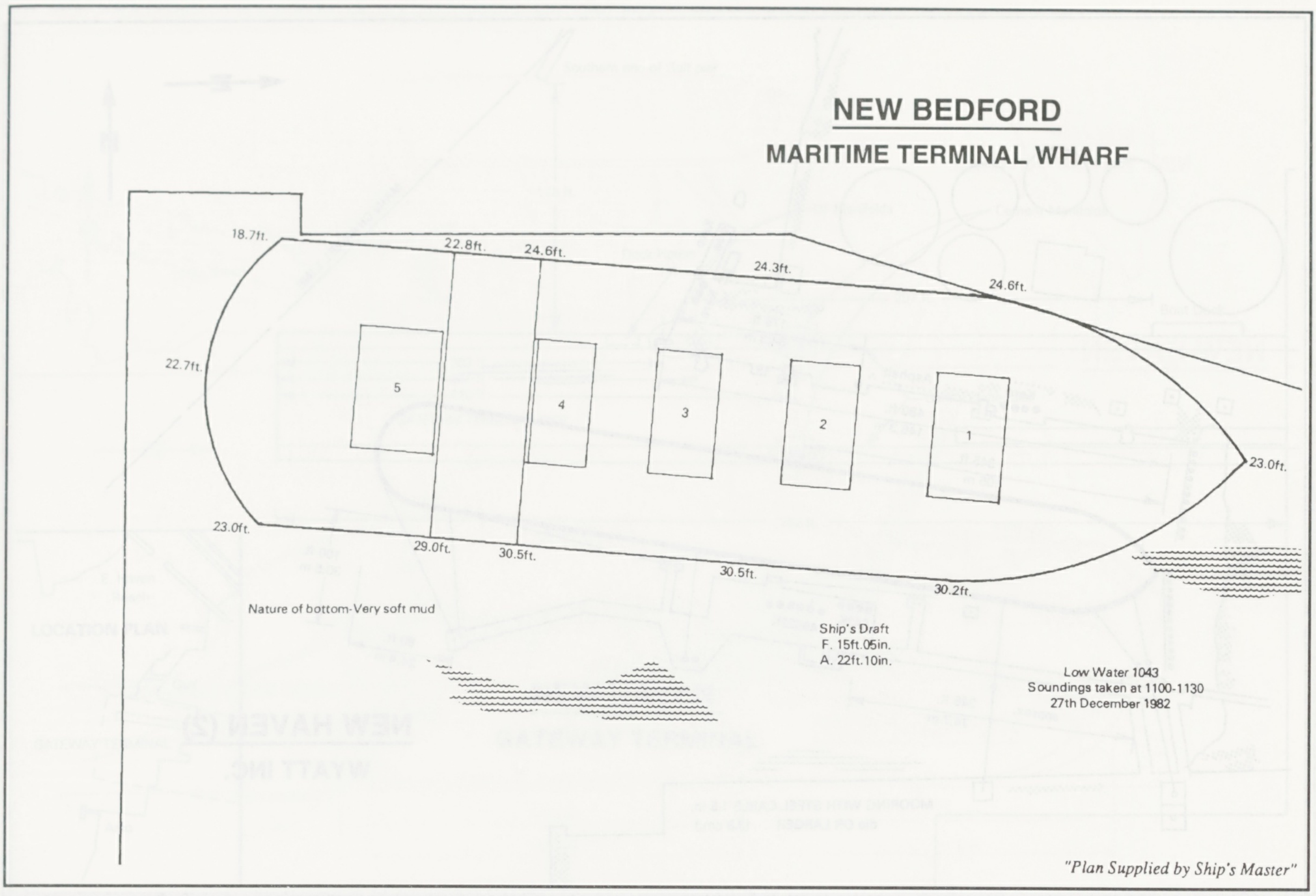

Channel Limit Line
Texasgulf Sulphur Tanks
Aviation Fuel
N.C.S.P.A.
Bulk Cargo Vessel
Phosphate Shiploader/Conveyor
Woodchip Storage
Bogue Sound
Transit Sheds
Warehouses
Vessel
Bulk Storage Area
Trumble Asphalt Tanks
Texaco Co.
Yacht Basin
Phosphate Storage 106,000 tons
Barge Terminal North
Barge Terminal South
Intercoastal Waterway
Newport River
B & M Railroad
Marsh Island
N
2
3
4
5
6
7
8
9

NAWILIWILI


0
400
800
SCALE IN FEET
Port Area Boundary
Petroleum Storage
Sugar Storage
Molasses
Mokihana St.
Petroleum Storage
Escarpment
Water Tank
Port Area Boundary
Waapa Rd
Container Yard
Transit Shed
Propane Gas Storage
Pier 2
Pier 1
Jetty
Ro/Ro Barge Facility
Passenger & General Cargo
Designated Small Boat Anchorage
HARBOUR BASIN
PROJECT DEPTH 35 FT
Berth 4
Pier 3
Niumalu Stream
Park
Transit Shed
Nawiliwili Small Boat Harbour Facility
Ro/Ro
Nawiliwili Bay

NEW BEDFORD

MARITIME TERMINAL WHARF


18.7ft.
22.8ft.
24.6ft.
24.3ft.
24.6ft.
22.7ft.
5
4
3
2
1
23.0ft.
23.0ft.
29.0ft.
30.5ft.
30.5ft.
30.2ft.

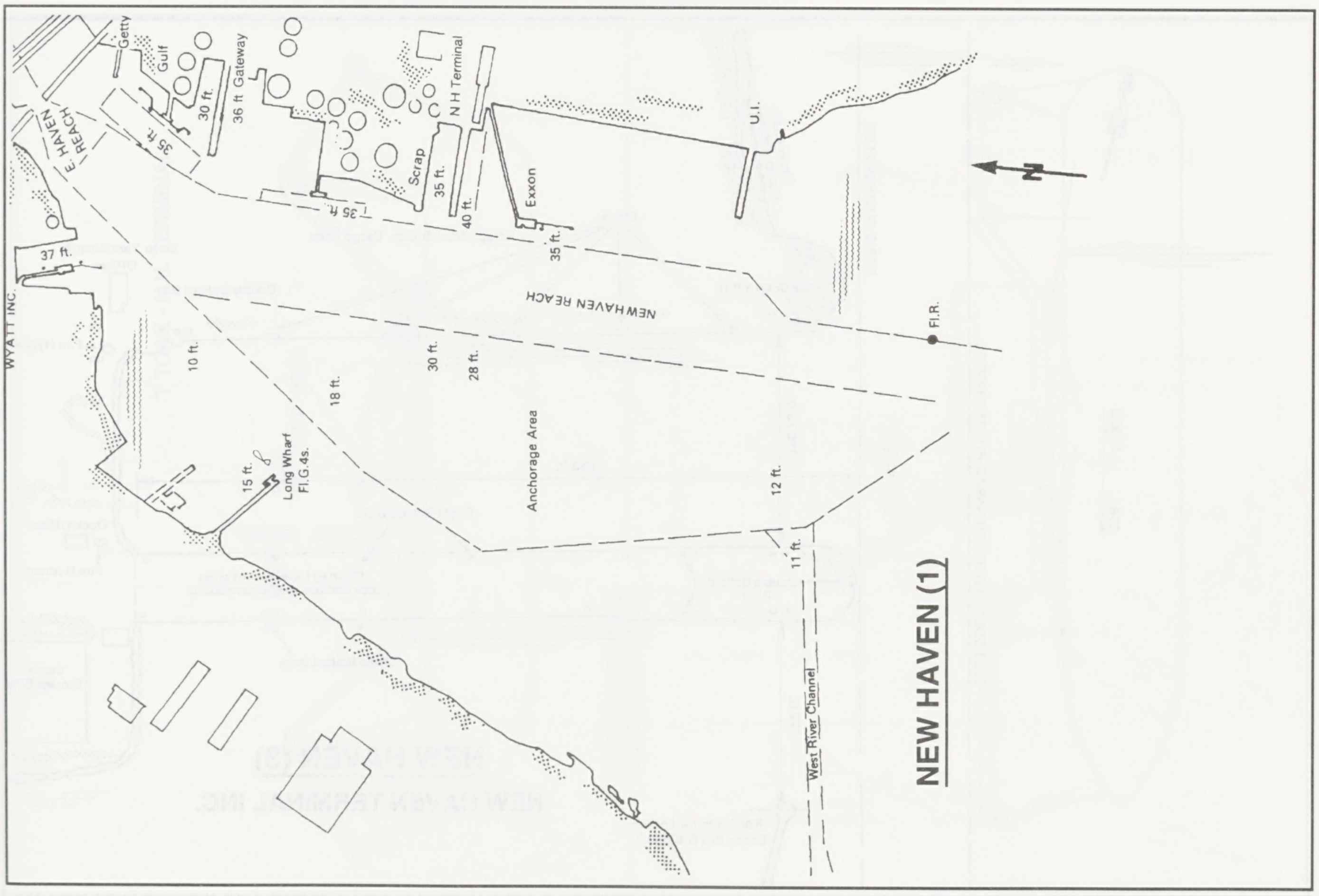
Nature of bottom-Very soft mud

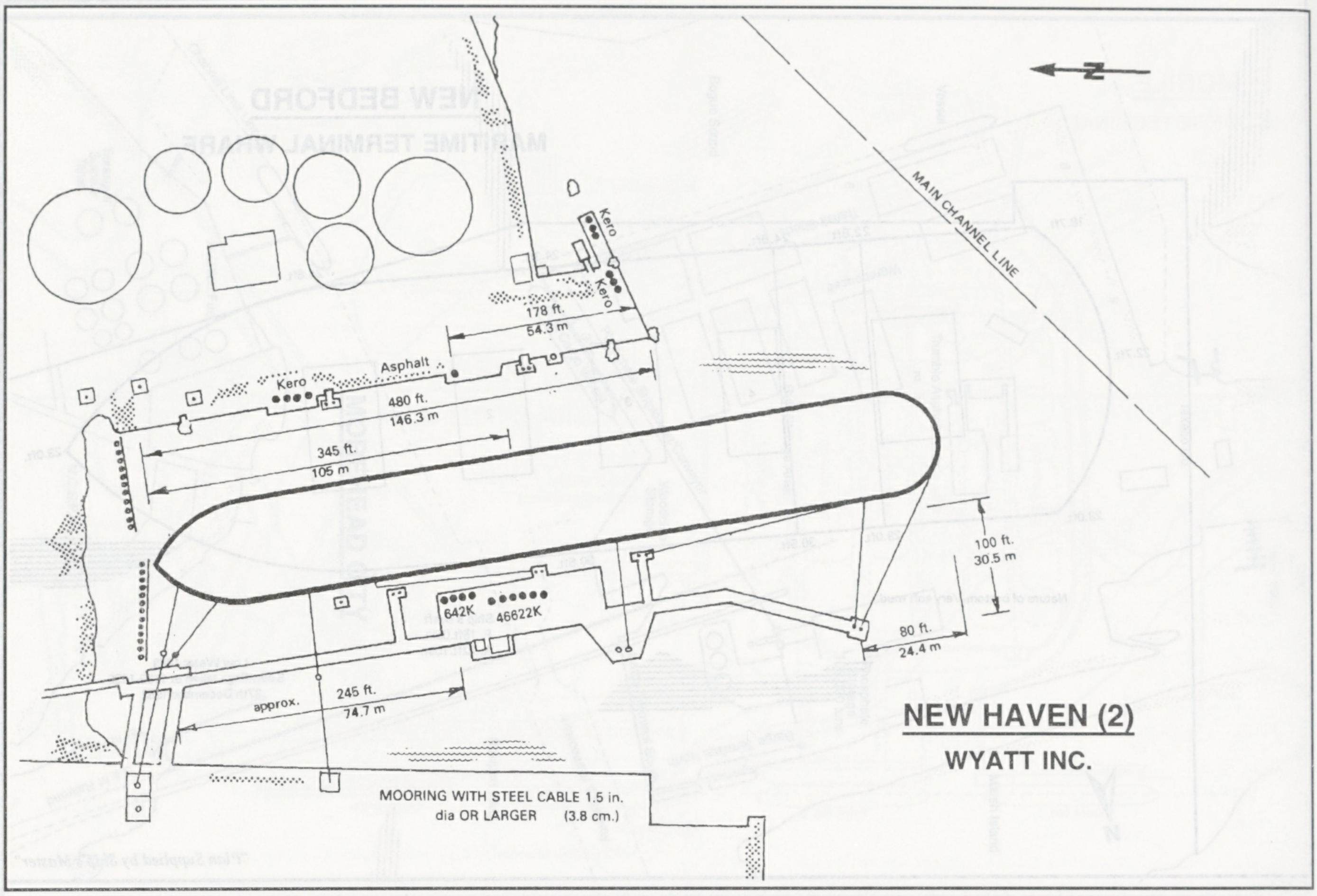
Ship's Draft
F. 15ft.05in.
A. 22ft.10in.

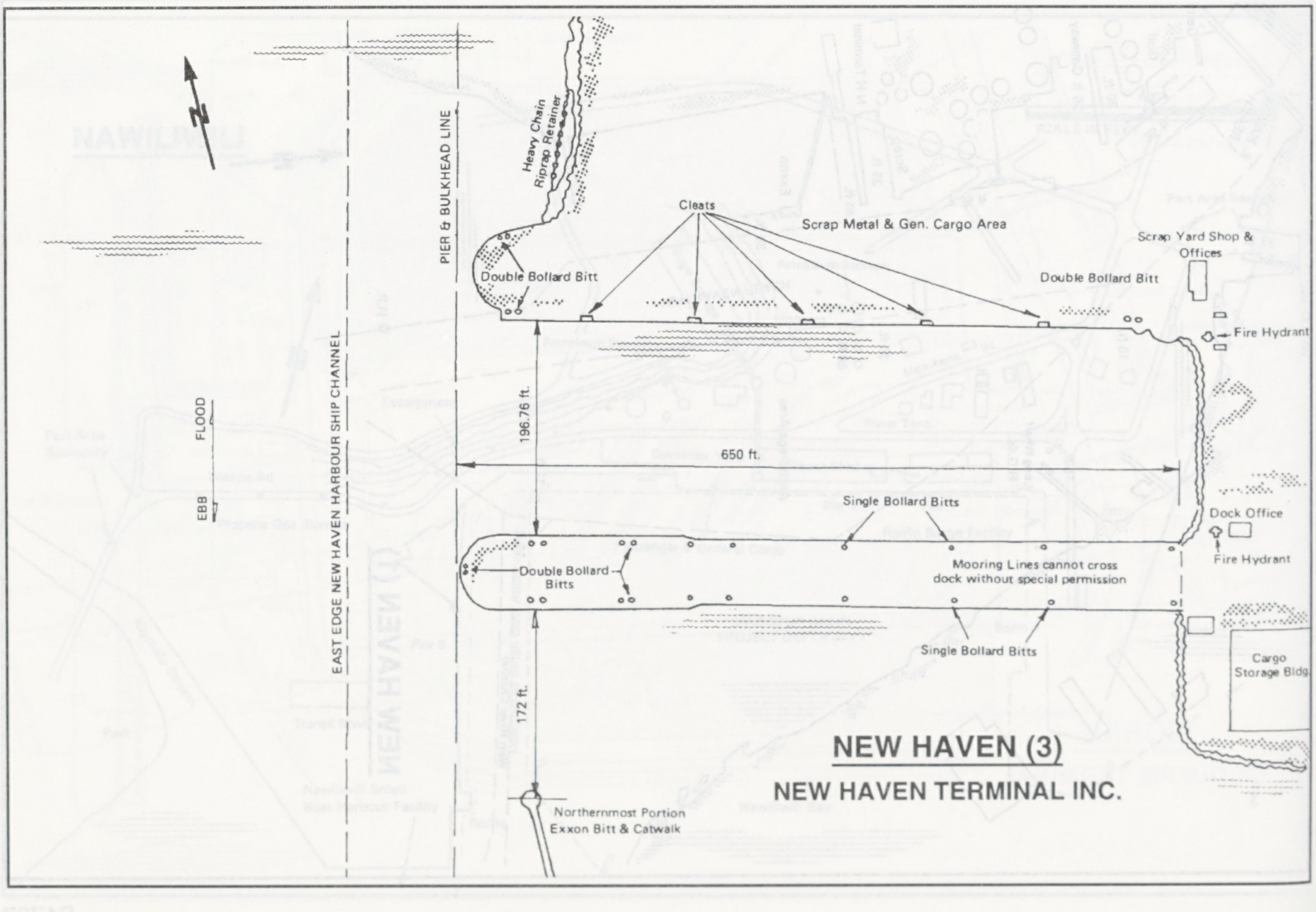
Low Water 1043
Soundings taken at 1100-1130
27th December 1982

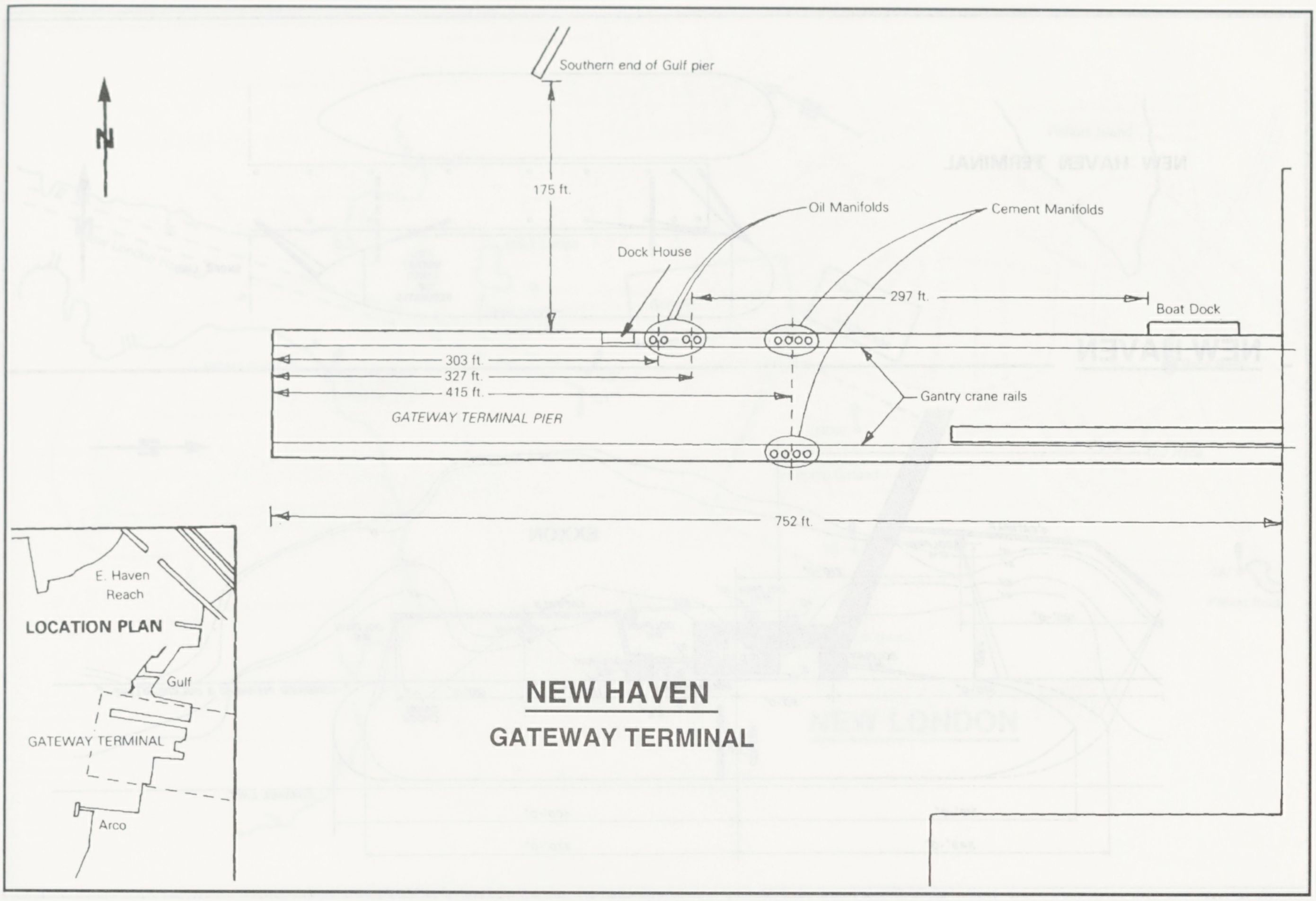
"Plan Supplied by Ship's Master"

NEW HAVEN (1)

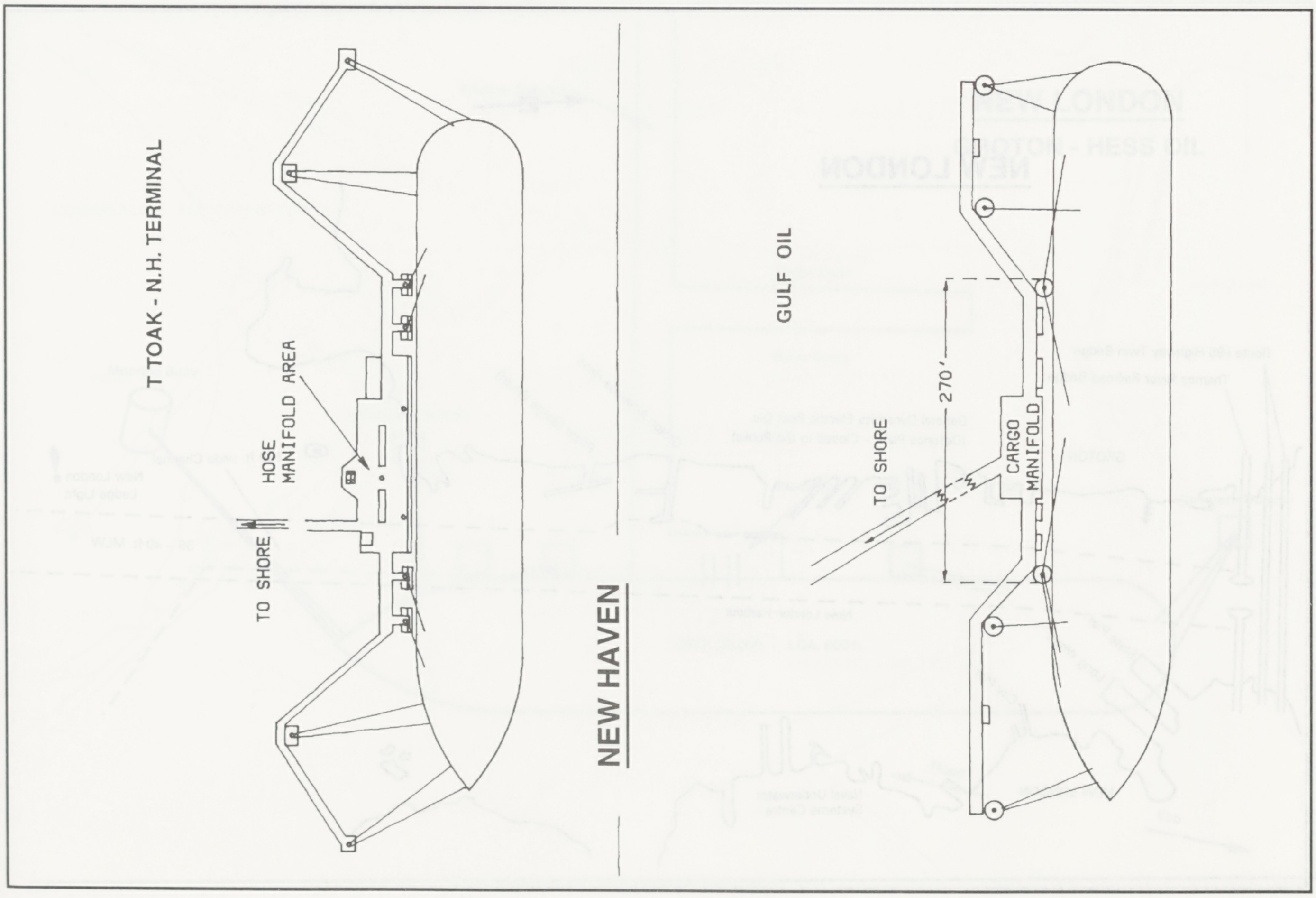

Getty
Gulf
36 ft Gateway
30 ft.
35 ft.
NEW HAVEN E. REACH
35 ft.
Scrap
35 ft.
N H Terminal
40 ft.
Exxon
35 ft.
U.I.
N
37 ft.
WYATT INC.
NEW HAVEN REACH
Fl.R.
10 ft.
30 ft.
28 ft.
18 ft.
Anchorage Area
15 ft.
Long Wharf
Fl.G.4s.
12 ft.
11 ft.
West River Channel


N
MAIN CHANNEL LINE
Kero
Kero
178 ft.
54.3 m
Asphalt
Kero
480 ft.
146.3 m
345 ft.
105 m
100 ft.
30.5 m
642K
46622K
80 ft.
24.4 m
approx.
245 ft.
74.7 m
MOORING WITH STEEL CABLE 1.5 in. dia OR LARGER (3.8 cm.)
NEW HAVEN (2)
WYATT INC.

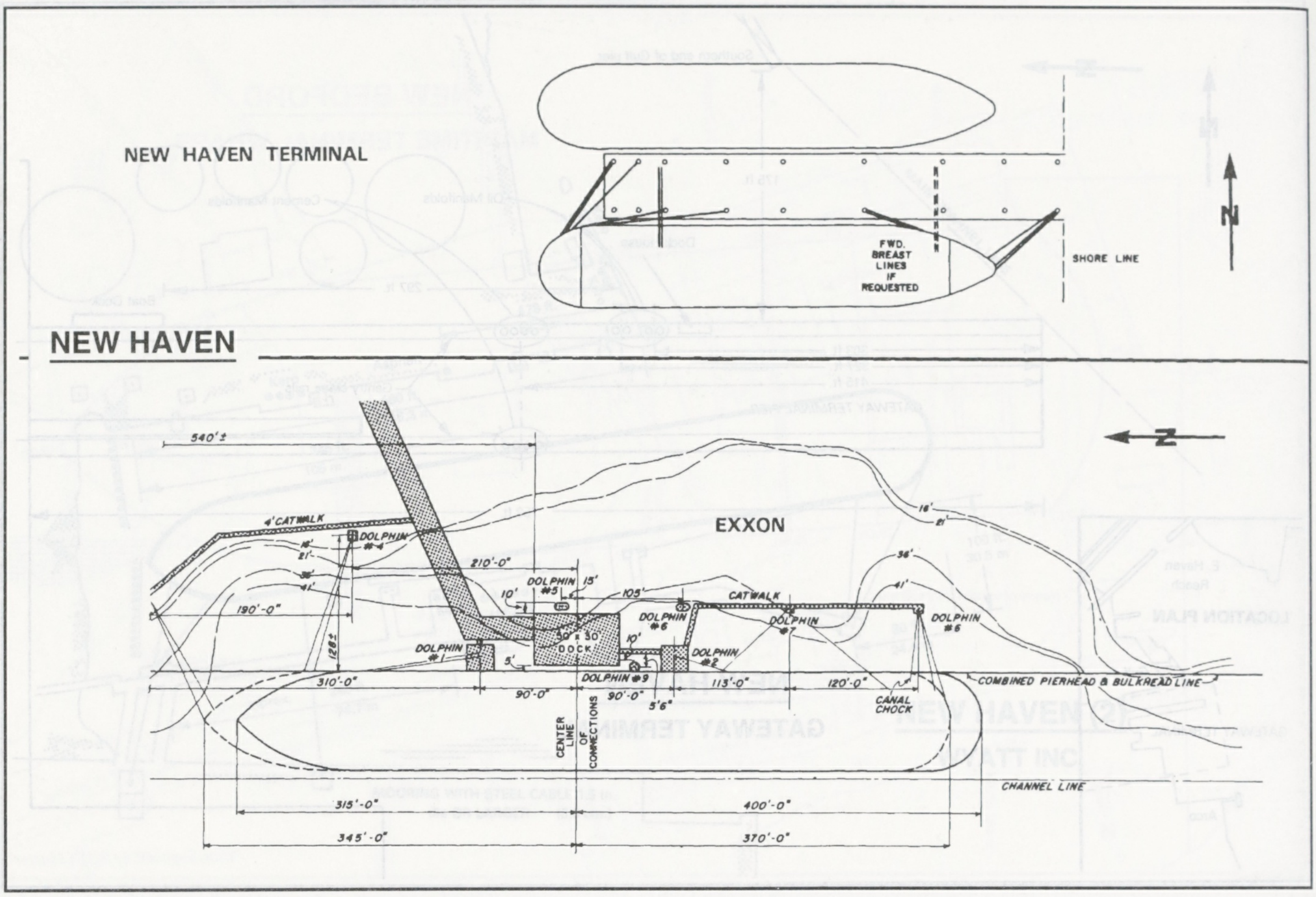

N
FLOOD
EBB
EAST EDGE NEW HAVEN HARBOUR SHIP CHANNEL
PIER & BULKHEAD LINE
Heavy Chain
Riprap Retainer
Cleats
Scrap Metal & Gen. Cargo Area
Scrap Yard Shop & Offices
Double Bollard Bitt
Double Bollard Bitt
Fire Hydrant
196.76 ft.
650 ft.
Single Bollard Bitts
Dock Office
Fire Hydrant
Double Bollard Bitts
Mooring Lines cannot cross dock without special permission
Single Bollard Bitts
Cargo Storage Bldg
172 ft.
Northernmost Portion Exxon Bitt & Catwalk
NEW HAVEN (3)
NEW HAVEN TERMINAL INC.


N
Southern end of Gulf pier
175 ft.
Oil Manifolds
Cement Manifolds
Dock House
297 ft.
Boat Dock
303 ft.
327 ft.
415 ft.
GATEWAY TERMINAL PIER
Gantry crane rails
752 ft.
E. Haven Reach
LOCATION PLAN
Gulf
GATEWAY TERMINAL
Arco

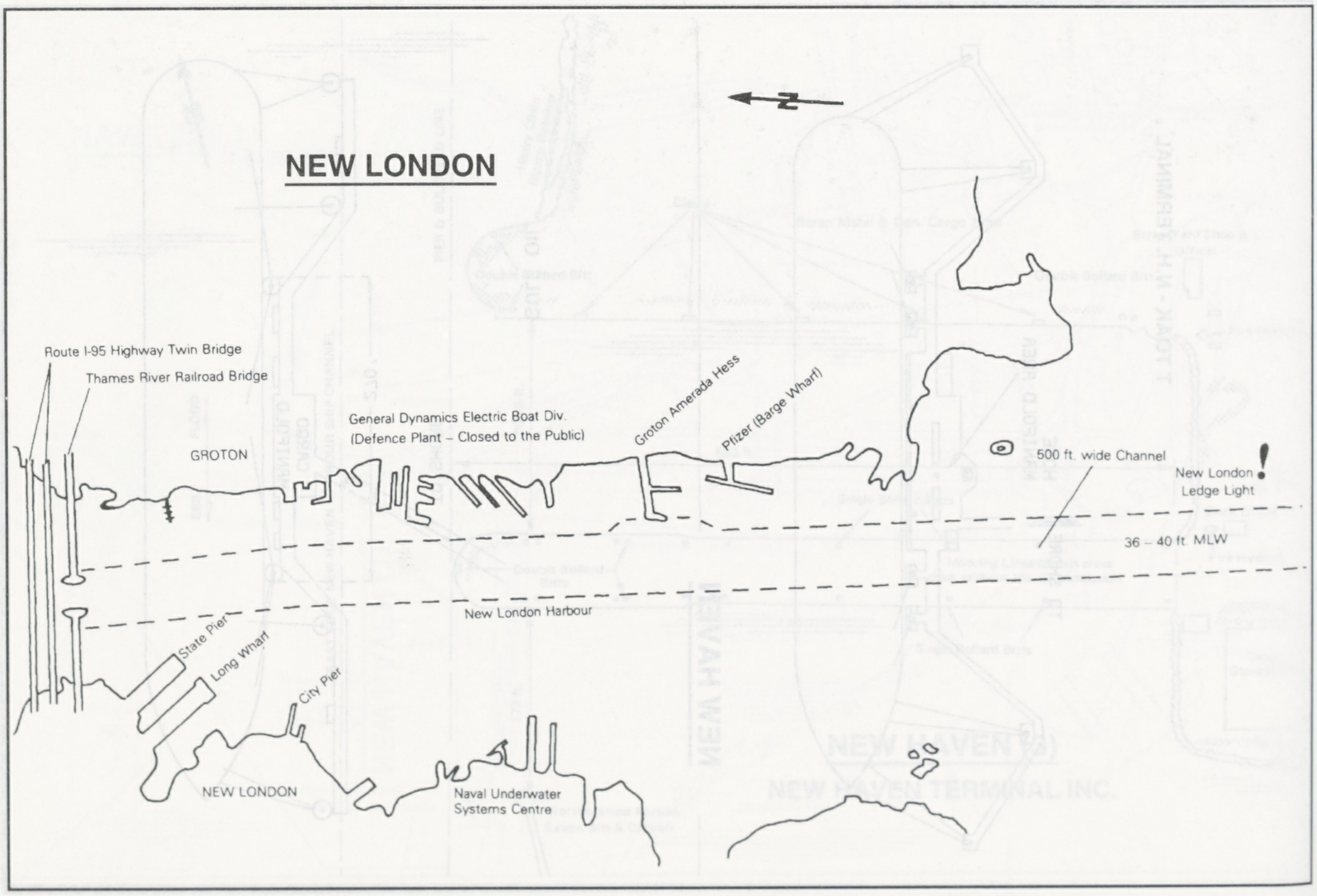
NEW HAVEN
GATEWAY TERMINAL

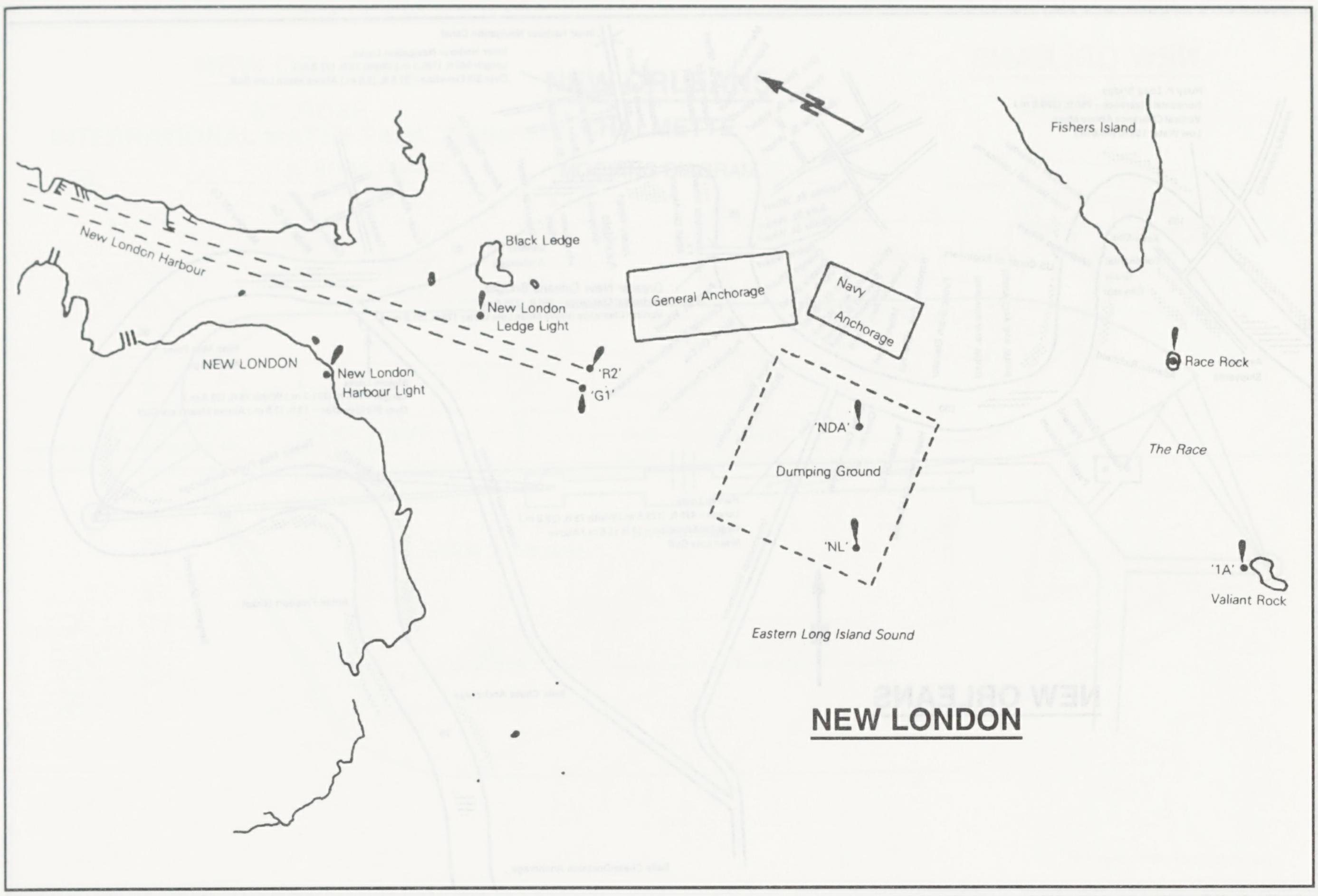

T TOAK - N.H. TERMINAL
HOSE MANIFOLD AREA
TO SHORE
NEW HAVEN
GULF OIL
270'
CARGO MANIFOLD
TO SHORE

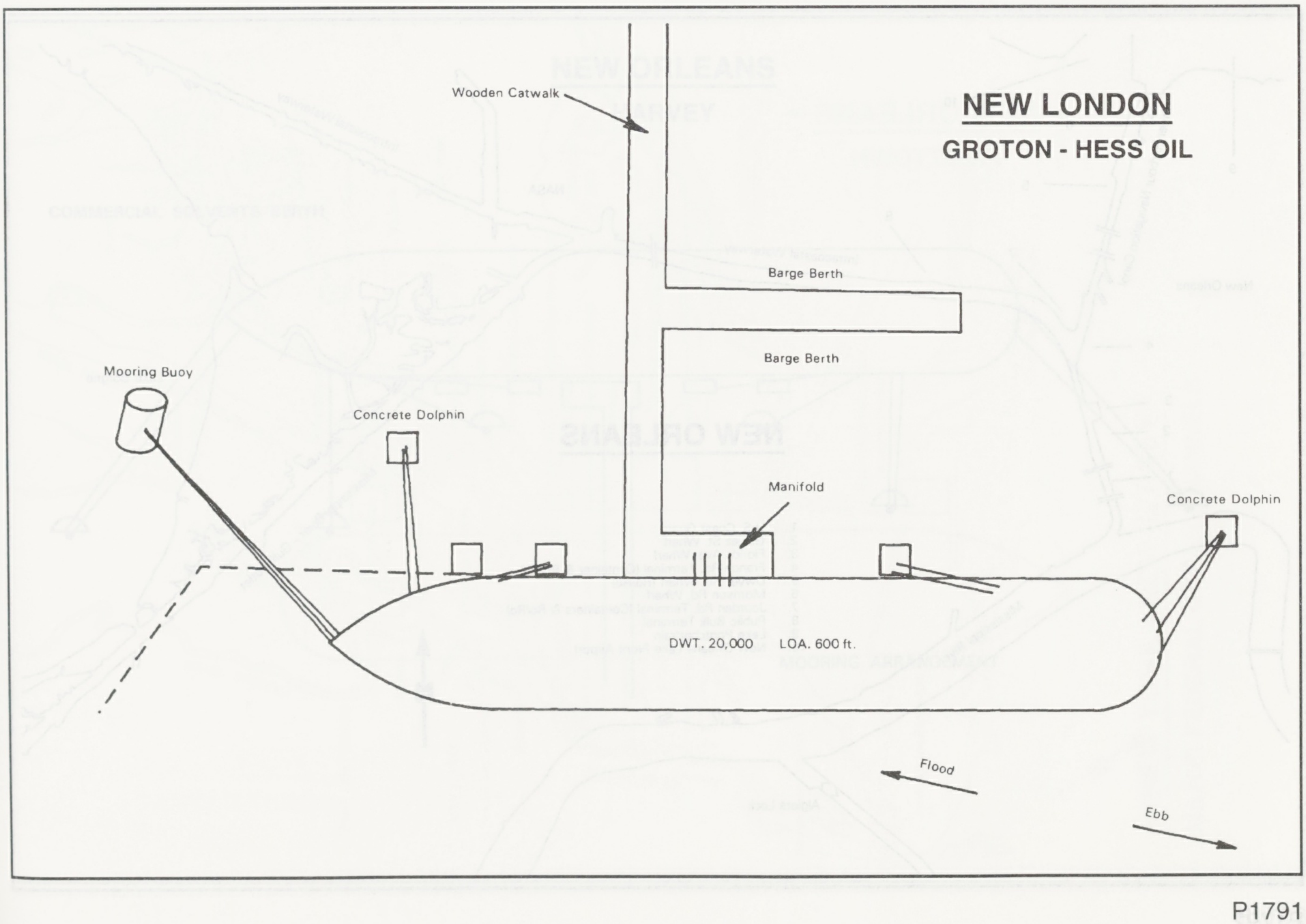
NEW HAVEN

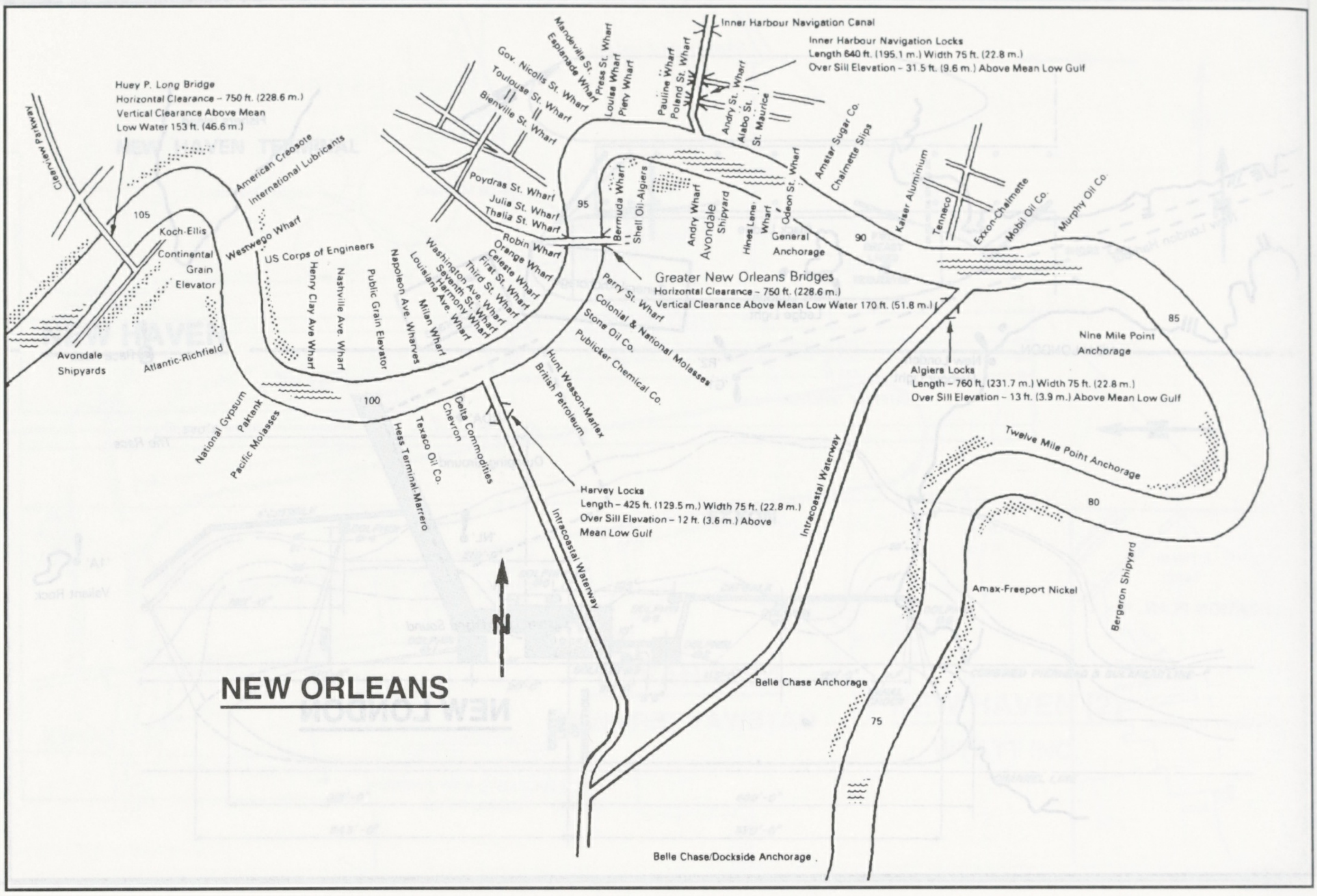

NEW HAVEN TERMINAL
FWD. BREAST LINES IF REQUESTED
SHORE LINE
N
EXXON
N
540'±
4' CATWALK
DOLPHIN #4
16'
21'
36'
41'
210'-0"
190'-0"
128'±
DOLPHIN #5
15'
10'
105'
30' x 30' DOCK
DOLPHIN #1
5'
10'
DOLPHIN #6
DOLPHIN #2
DOLPHIN #9
CATWALK
DOLPHIN #7
DOLPHIN #6
310'-0"
90'-0"
90'-0"
5'6"
113'-0"
120'-0"
CANAL CHOCK
COMBINED PIERHEAD & BULKHEAD LINE
CENTER LINE OF CONNECTIONS
CHANNEL LINE
315'-0"
400'-0"
345'-0"
370'-0"

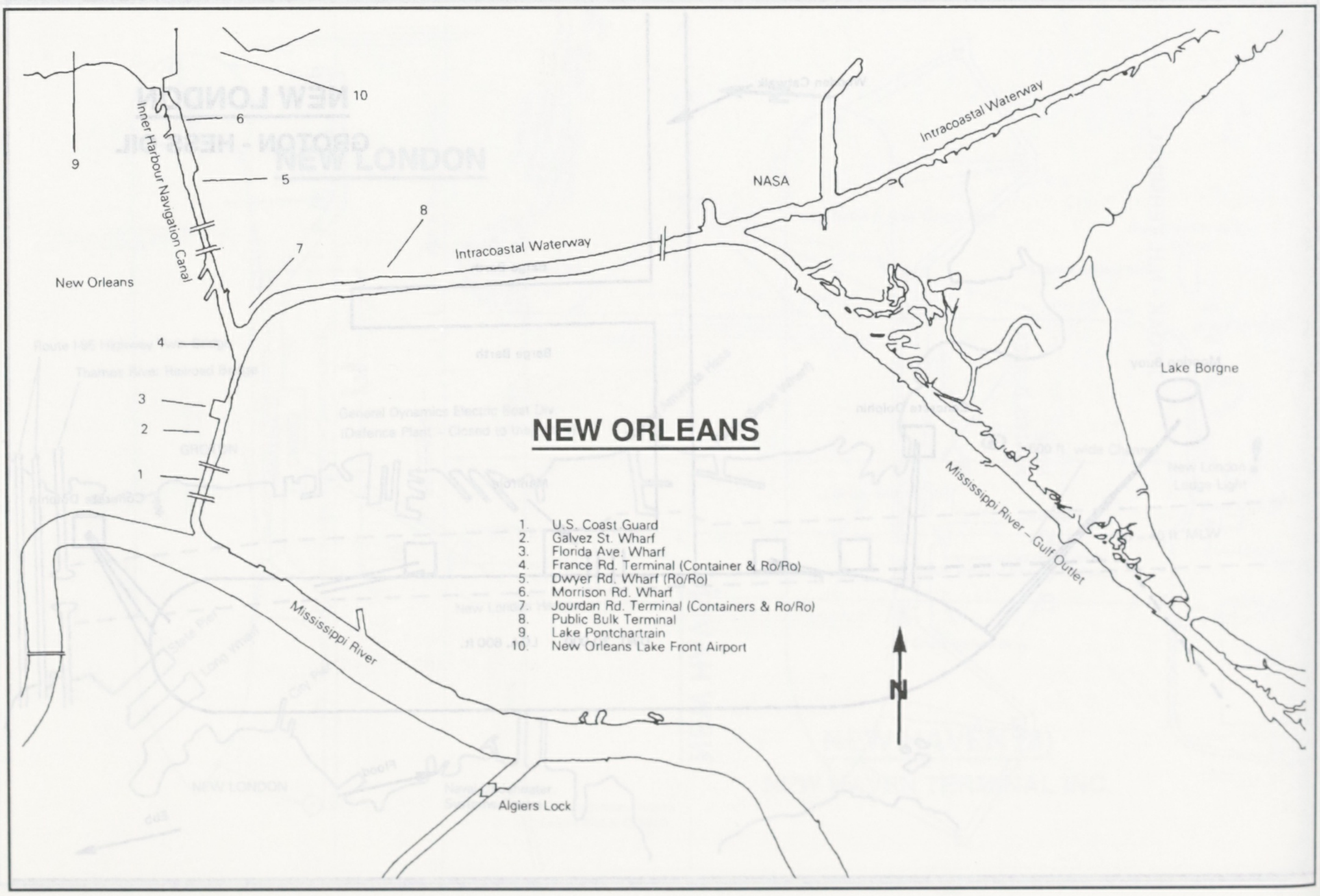
NEW LONDON


N
Route I-95 Highway Twin Bridge
Thames River Railroad Bridge
GROTON
General Dynamics Electric Boat Div.
(Defence Plant – Closed to the Public)
Groton Amerada Hess
Pfizer (Barge Wharf)
500 ft. wide Channel
New London Ledge Light
36 – 40 ft. MLW
New London Harbour
State Pier
Long Wharf
City Pier
NEW LONDON
Naval Underwater Systems Centre


NEW LONDON
New London Harbour
Black Ledge
New London Ledge Light
NEW LONDON
New London Harbour Light
'R2'
'G1'
General Anchorage
Navy Anchorage
'NDA'
Dumping Ground
'NL'
Eastern Long Island Sound
Fishers Island
Race Rock
The Race
'1A'
Valiant Rock


NEW LONDON
GROTON - HESS OIL
Wooden Catwalk
Barge Berth
Barge Berth
Mooring Buoy
Concrete Dolphin
Manifold
Concrete Dolphin
DWT. 20,000 LOA. 600 ft.
Flood
Ebb


Huey P. Long Bridge
Horizontal Clearance – 750 ft. (228.6 m.)
Vertical Clearance Above Mean
Low Water 153 ft. (46.6 m.)
Clearview Parkway
American Creosote
International Lubricants
105
Koch-Ellis
Continental
Grain
Elevator
Westwego Wharf
US Corps of Engineers
Henry Clay Ave Wharf
Nashville Ave. Wharf
Public Grain Elevator
Napoleon Ave. Wharves
Louisiana Ave. Wharf
Milan Wharf
Washington Ave. Wharf
Seventh St. Wharf
Harmony Wharf
Third St. Wharf
First St. Wharf
Celeste Wharf
Orange Wharf
Robin Wharf
Avondale
Shipyards
Atlantic-Richfield
National Gypsum
Paktank
Pacific Molasses
100
Hess Terminal-Marrero
Texaco Oil Co.
Chevron
Delta Commodities
British Petroleum
Hunt Wesson-Marlex
Publicker Chemical Co.
Stone Oil Co.
Colonial & National Molasses
Perry St. Wharf
Mandeville St.
Esplanade Wharf
Gov. Nicolls St. Wharf
Toulouse St. Wharf
Bienville St. Wharf
Press St. Wharf
Louisa Wharf
Piety Wharf
Pauline Wharf
Poland St. Wharf
Poydras St. Wharf
Julia St. Wharf
Thalia St. Wharf
95
Bermuda Wharf
Shell Oil-Algiers
Inner Harbour Navigation Canal
Inner Harbour Navigation Locks
Length 640 ft. (195.1 m.) Width 75 ft. (22.8 m.)
Over Sill Elevation – 31.5 ft. (9.6 m.) Above Mean Low Gulf
Andry St. Wharf
Alabo St.
St. Maurice
Amstar Sugar Co.
Chalmette Slips
Andry Wharf
Avondale
Shipyard
Hines Lane Wharf
Odeon St. Wharf
General
Anchorage
90
Kaiser Aluminium
Tenneco
Exxon-Chalmette
Mobil Oil Co.
Murphy Oil Co.
Greater New Orleans Bridges
Horizontal Clearance – 750 ft. (228.6 m.)
Vertical Clearance Above Mean Low Water 170 ft. (51.8 m.)
85
Nine Mile Point
Anchorage
Algiers Locks
Length – 760 ft. (231.7 m.) Width 75 ft. (22.8 m.)
Over Sill Elevation – 13 ft. (3.9 m.) Above Mean Low Gulf
Twelve Mile Point Anchorage
80
Harvey Locks
Length – 425 ft. (129.5 m.) Width 75 ft. (22.8 m.)
Over Sill Elevation – 12 ft. (3.6 m.) Above
Mean Low Gulf
Intracoastal Waterway
Intracoastal Waterway
Amax-Freeport Nickel
Bergeron Shipyard
N
NEW ORLEANS
Belle Chase Anchorage
75
Belle Chase/Dockside Anchorage

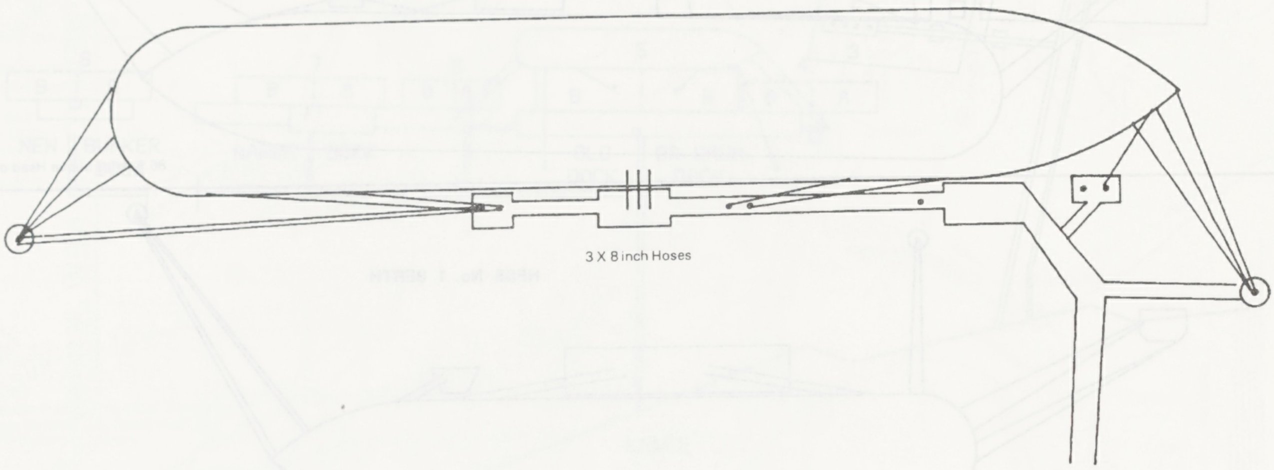

Inner Harbour Navigation Canal
10
6
9
5
8
7
New Orleans
4
3
2
1
Intracoastal Waterway
Intracoastal Waterway
NASA
Lake Borgne
NEW ORLEANS
Mississippi River – Gulf Outlet
Mississippi River
N
Algiers Lock

1. U.S. Coast Guard
2. Galvez St. Wharf
3. Florida Ave. Wharf
4. France Rd. Terminal (Container & Ro/Ro)
5. Dwyer Rd. Wharf (Ro/Ro)
6. Morrison Rd. Wharf
7. Jourdan Rd. Terminal (Containers & Ro/Ro)
8. Public Bulk Terminal
9. Lake Pontchartrain
10. New Orleans Lake Front Airport

NEW ORLEANS

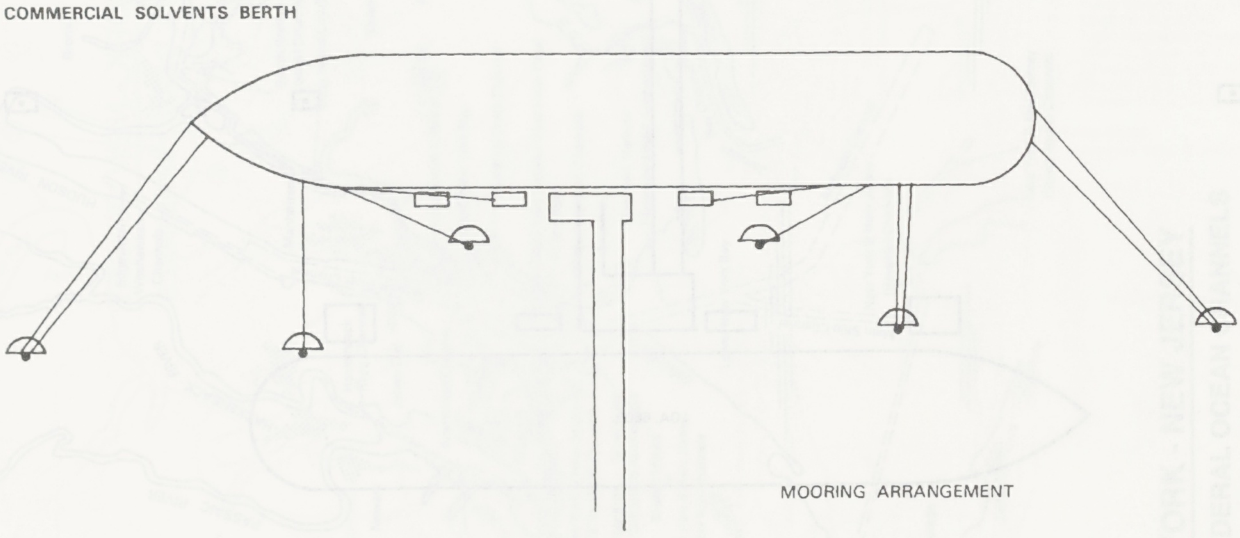
CHALMETTE

MOORING DIAGRAM

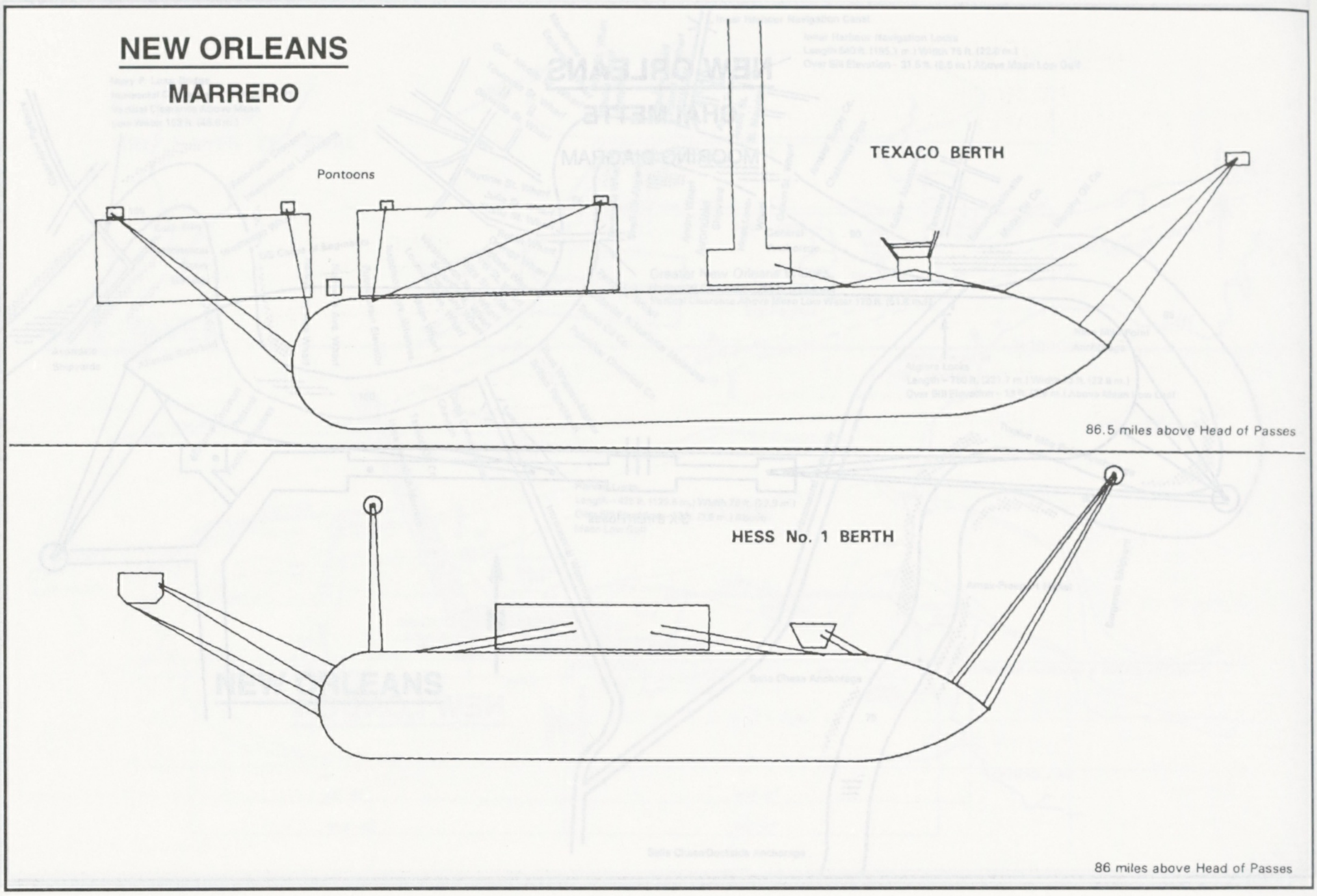

3 X 8 inch Hoses

NEW ORLEANS

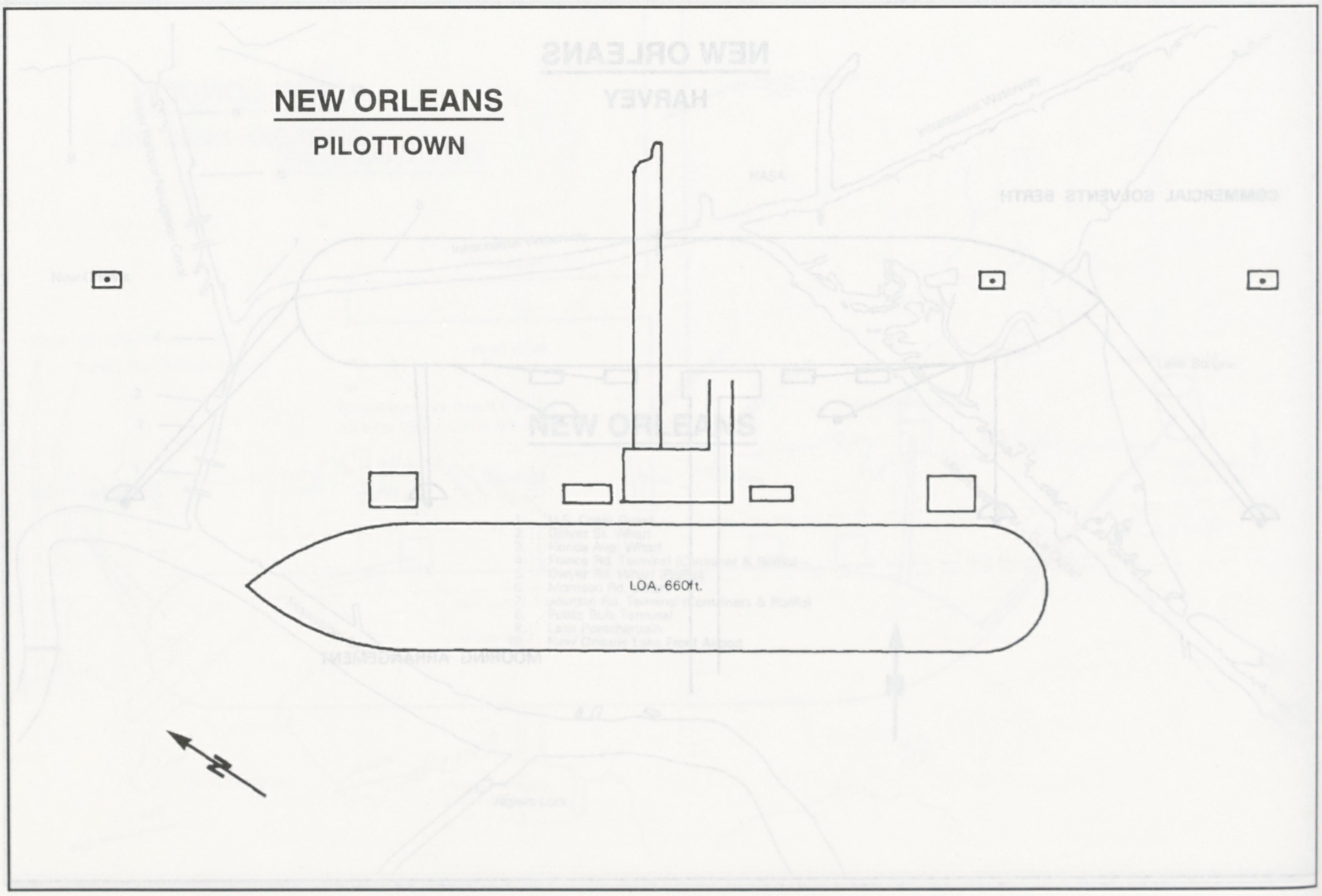
HARVEY

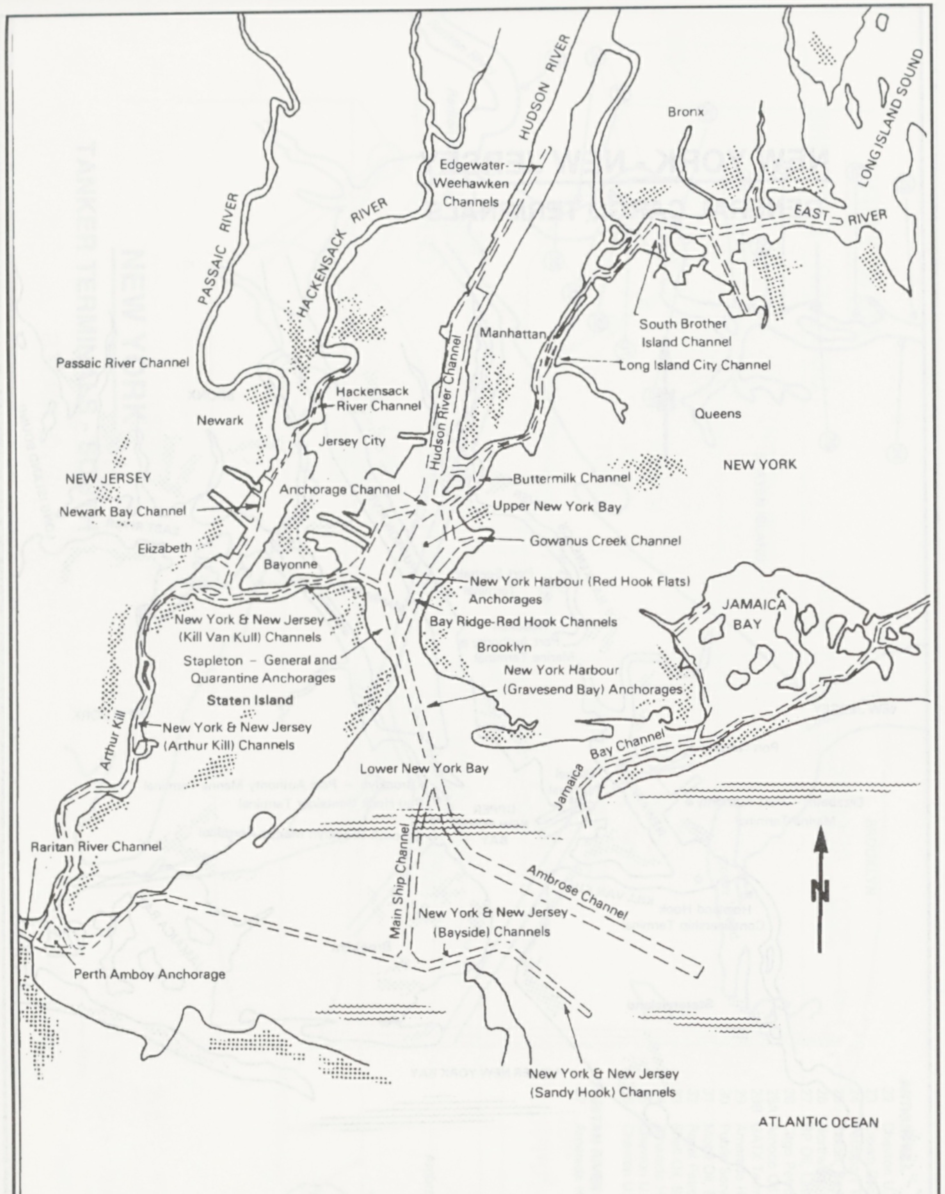

COMMERCIAL SOLVENTS BERTH
MOORING ARRANGEMENT

NEW ORLEANS
MARRERO


Pontoons
TEXACO BERTH
86.5 miles above Head of Passes
HESS No. 1 BERTH
86 miles above Head of Passes

NEW ORLEANS
PILOTTOWN




HUDSON RIVER
Bronx
LONG ISLAND SOUND
Edgewater-Weehawken Channels
EAST RIVER
PASSAIC RIVER
HACKENSACK RIVER
South Brother Island Channel
Manhattan
Long Island City Channel
Passaic River Channel
Hackensack River Channel
Hudson River Channel
Queens
Newark
Jersey City
NEW JERSEY
Buttermilk Channel
NEW YORK
Anchorage Channel
Upper New York Bay
Newark Bay Channel
Gowanus Creek Channel
Elizabeth
Bayonne
New York Harbour (Red Hook Flats) Anchorages
JAMAICA BAY
New York & New Jersey (Kill Van Kull) Channels
Bay Ridge-Red Hook Channels
Brooklyn
Stapleton - General and Quarantine Anchorages
New York Harbour (Gravesend Bay) Anchorages
Staten Island
Arthur Kill
New York & New Jersey (Arthur Kill) Channels
Jamaica Bay Channel
Lower New York Bay
Raritan River Channel
Main Ship Channel
Ambrose Channel
N
New York & New Jersey (Bayside) Channels
Perth Amboy Anchorage
New York & New Jersey (Sandy Hook) Channels
ATLANTIC OCEAN

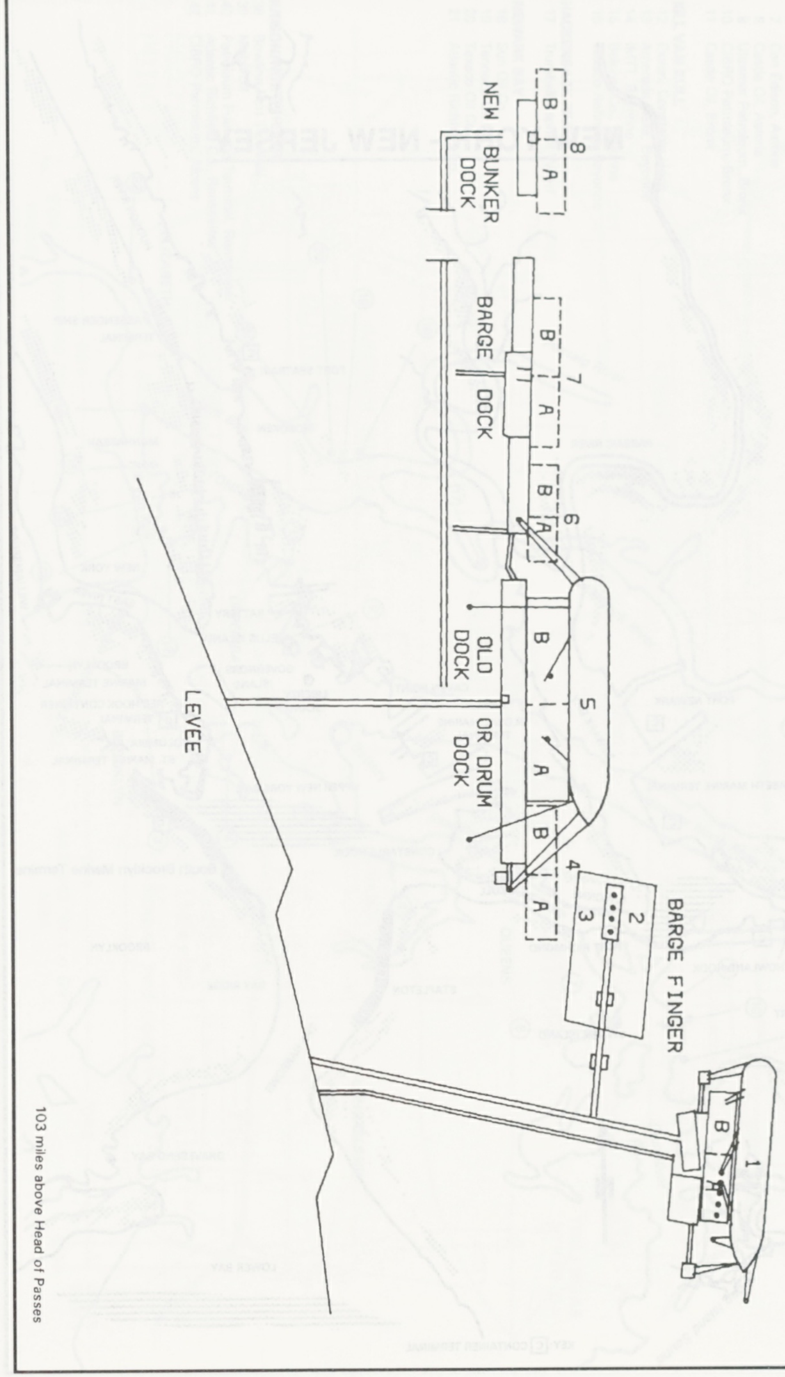
NEW YORK - NEW JERSEY

MAJOR FEDERAL OCEAN CHANNELS

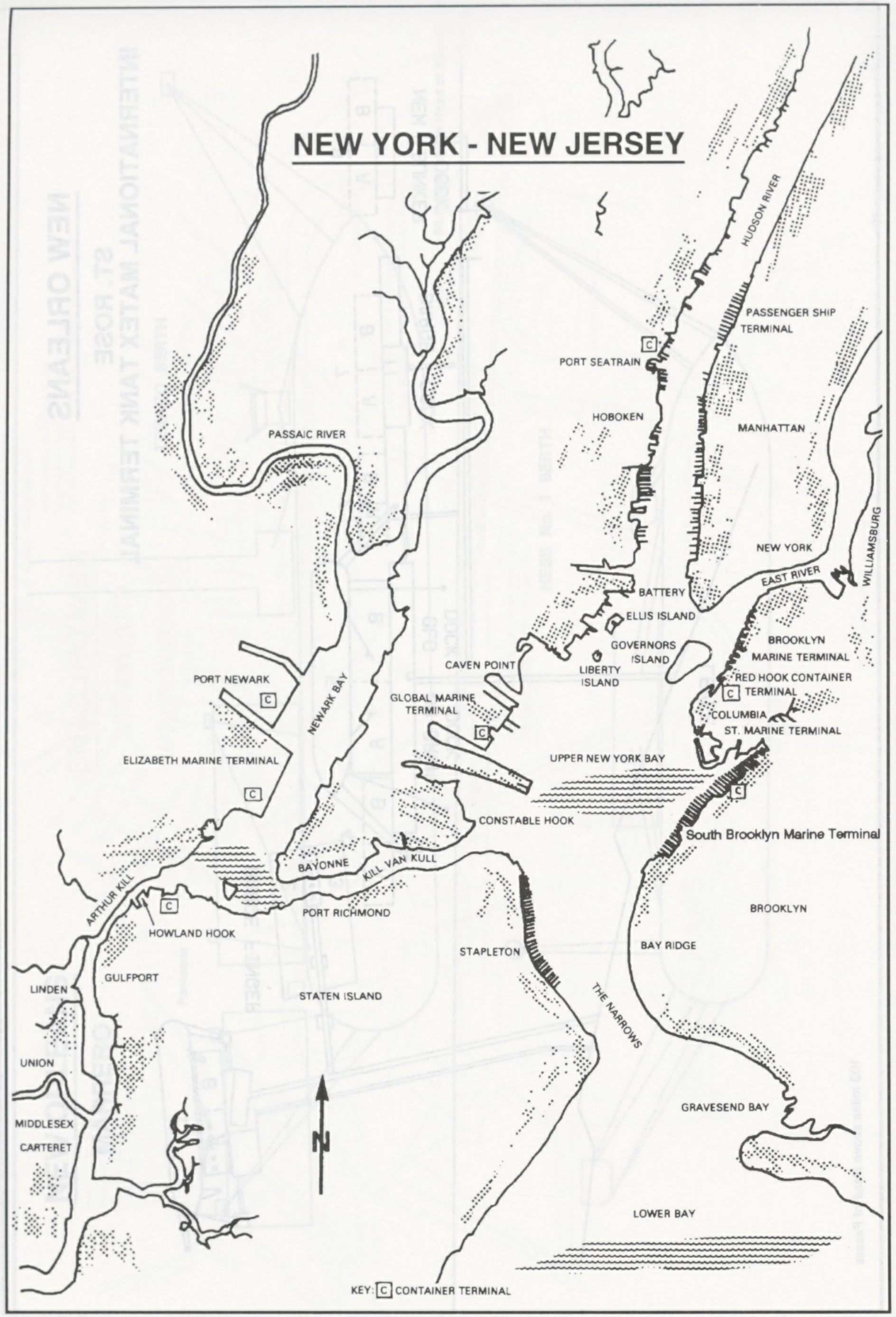
NEW ORLEANS

ST. ROSE

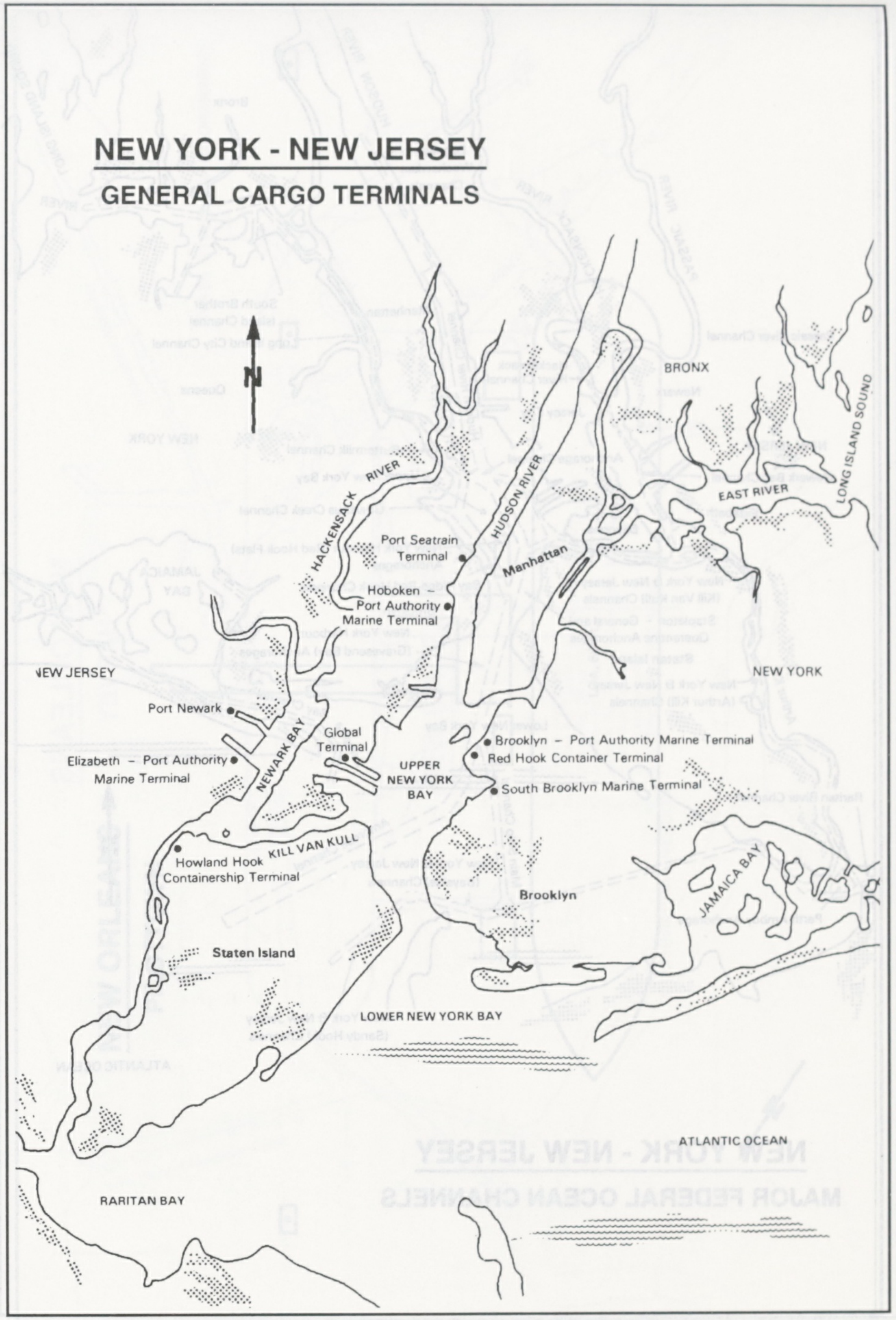
INTERNATIONAL MATEX TANK TERMINAL

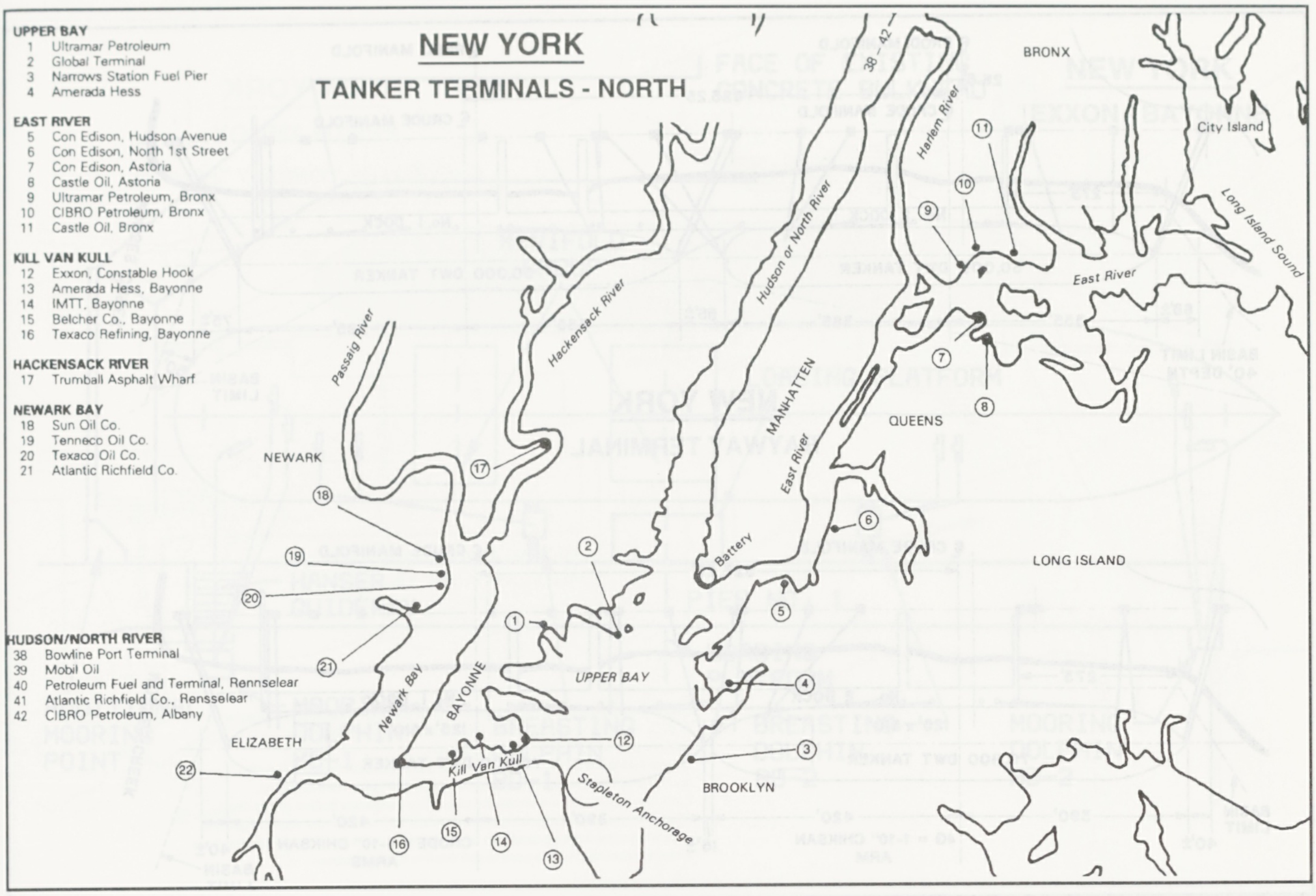

8
B
A
NEW BUNKER DOCK
7
B
A
BARGE DOCK
6
B
A
5
B
A
OLD DOCK
OR DRUM DOCK
4
B
A
2
3
BARGE FINGER
1
B
A
LEVEE
103 miles above Head of Passes

NEW YORK - NEW JERSEY


PASSAIC RIVER
HUDSON RIVER
PASSENGER SHIP TERMINAL
PORT SEATRAIN
HOBOKEN
MANHATTAN
NEW YORK
WILLIAMSBURG
EAST RIVER
BATTERY
ELLIS ISLAND
GOVERNORS ISLAND
LIBERTY ISLAND
CAVEN POINT
BROOKLYN MARINE TERMINAL
RED HOOK CONTAINER TERMINAL
COLUMBIA ST. MARINE TERMINAL
PORT NEWARK
NEWARK BAY
GLOBAL MARINE TERMINAL
ELIZABETH MARINE TERMINAL
UPPER NEW YORK BAY
CONSTABLE HOOK
South Brooklyn Marine Terminal
BAYONNE
KILL VAN KULL
ARTHUR KILL
PORT RICHMOND
HOWLAND HOOK
GULFPORT
LINDEN
STATEN ISLAND
STAPLETON
BAY RIDGE
BROOKLYN
THE NARROWS
UNION
GRAVESEND BAY
MIDDLESEX
CARTERET
N
LOWER BAY
KEY: C CONTAINER TERMINAL

NEW YORK - NEW JERSEY
GENERAL CARGO TERMINALS


N
BRONX
EAST RIVER
LONG ISLAND SOUND
HACKENSACK RIVER
HUDSON RIVER
Manhattan
Port Seatrain Terminal
Hoboken – Port Authority Marine Terminal
NEW JERSEY
NEW YORK
Port Newark
Global Terminal
Elizabeth – Port Authority Marine Terminal
NEWARK BAY
UPPER NEW YORK BAY
Brooklyn – Port Authority Marine Terminal
Red Hook Container Terminal
South Brooklyn Marine Terminal
KILL VAN KULL
Howland Hook Containership Terminal
Brooklyn
JAMAICA BAY
Staten Island
LOWER NEW YORK BAY
ATLANTIC OCEAN
RARITAN BAY



NEW YORK

TANKER TERMINALS - NORTH

UPPER BAY
1 Ultramar Petroleum
2 Global Terminal
3 Narrows Station Fuel Pier
4 Amerada Hess

EAST RIVER
5 Con Edison, Hudson Avenue
6 Con Edison, North 1st Street
7 Con Edison, Astoria
8 Castle Oil, Astoria
9 Ultramar Petroleum, Bronx
10 CIBRO Petroleum, Bronx
11 Castle Oil, Bronx

KILL VAN KULL
12 Exxon, Constable Hook
13 Amerada Hess, Bayonne
14 IMTT, Bayonne
15 Belcher Co., Bayonne
16 Texaco Refining, Bayonne

HACKENSACK RIVER
17 Trumball Asphalt Wharf

NEWARK BAY
18 Sun Oil Co.
19 Tenneco Oil Co.
20 Texaco Oil Co.
21 Atlantic Richfield Co.

HUDSON/NORTH RIVER
38 Bowline Port Terminal
39 Mobil Oil
40 Petroleum Fuel and Terminal, Rennselear
41 Atlantic Richfield Co., Rensselear
42 CIBRO Petroleum, Albany

38 – 42
BRONX
Harlem River
City Island
Long Island Sound
East River
Hudson or North River
MANHATTEN
East River
QUEENS
Hackensack River
Passaic River
NEWARK
Battery
LONG ISLAND
UPPER BAY
BAYONNE
Newark Bay
ELIZABETH
Kill Van Kull
Stapleton Anchorage
BROOKLYN
1
2
3
4
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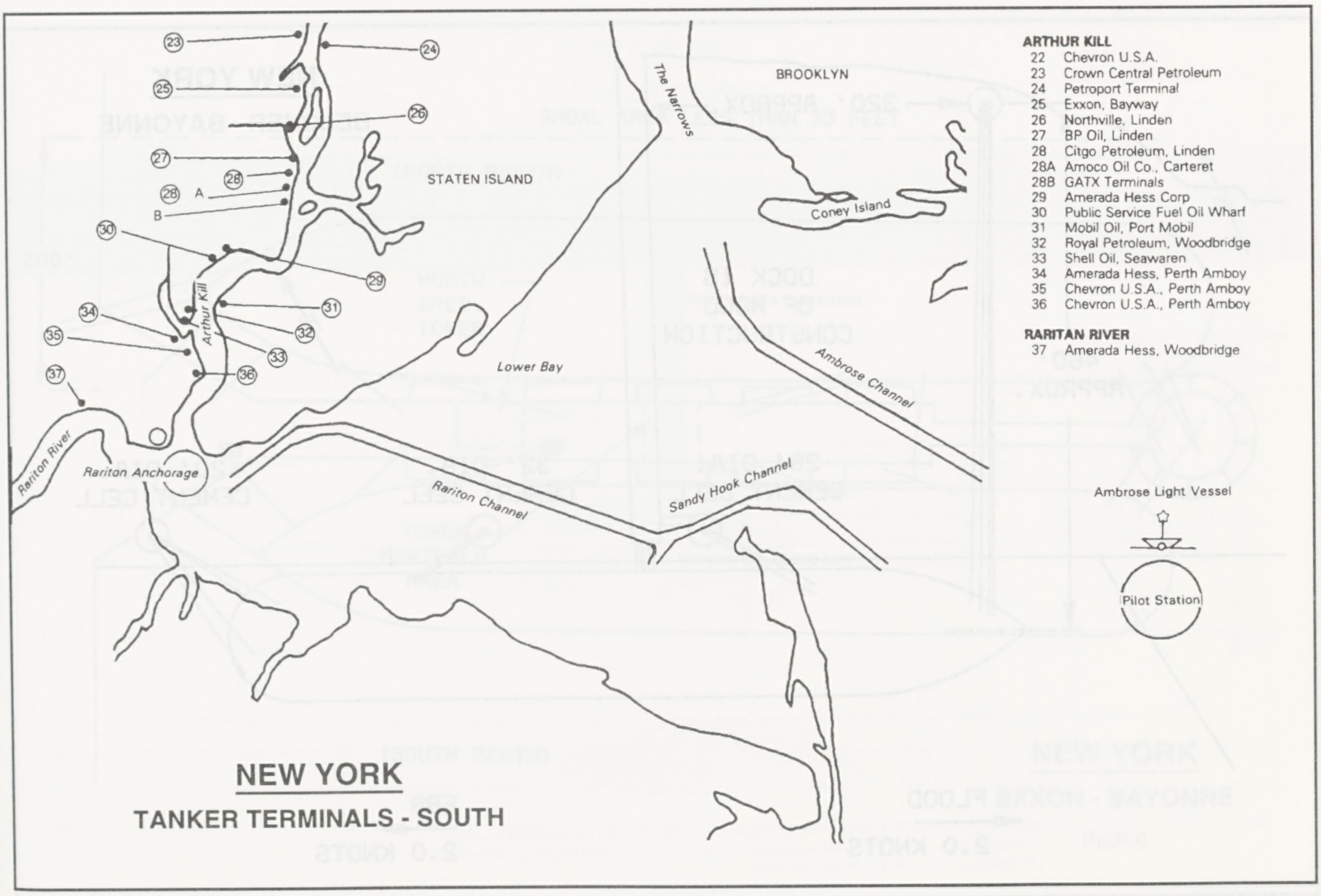
22



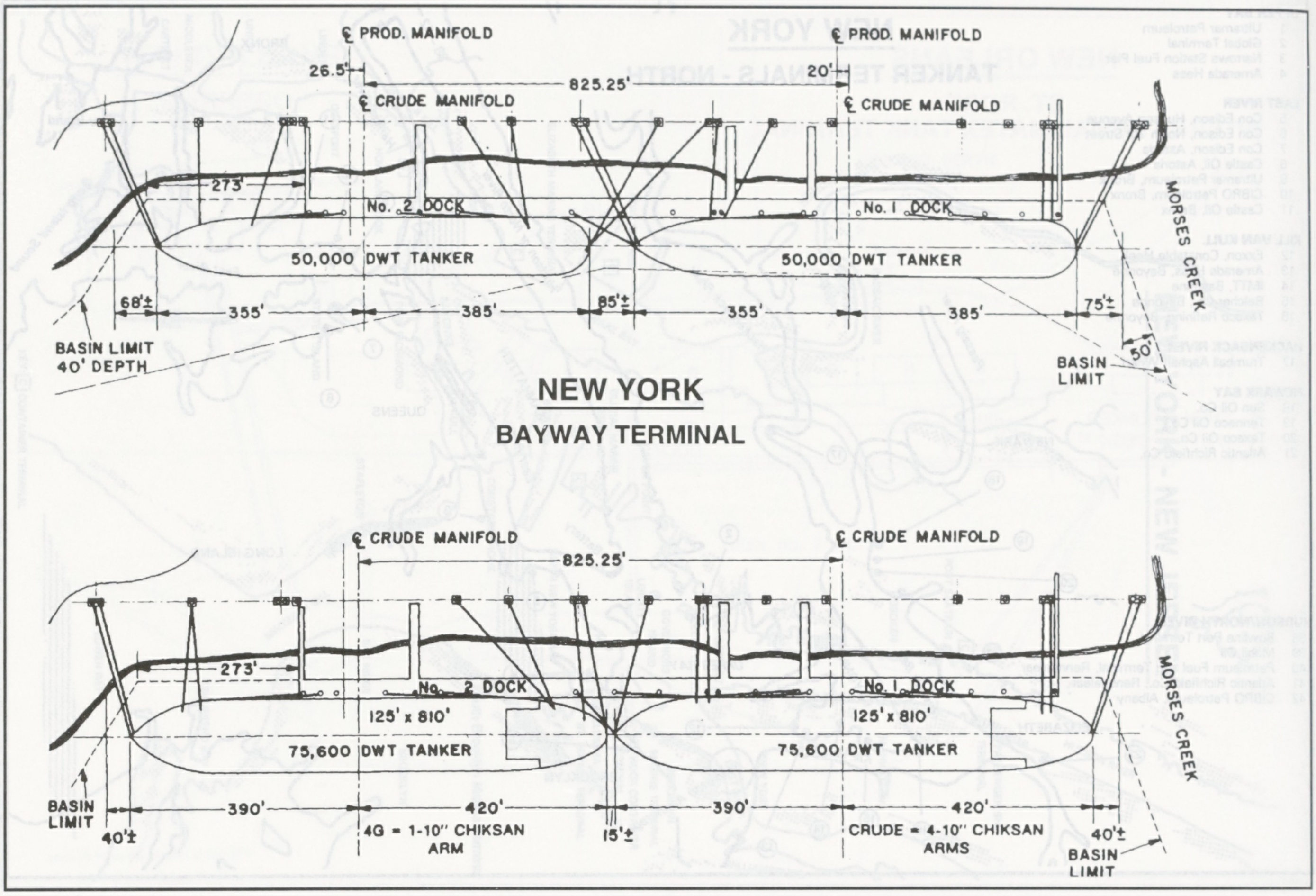
ARTHUR KILL
22 Chevron U.S.A.
23 Crown Central Petroleum
24 Petroport Terminal
25 Exxon, Bayway
26 Northville, Linden
27 BP Oil, Linden
28 Citgo Petroleum, Linden
28A Amoco Oil Co., Carteret
28B GATX Terminals
29 Amerada Hess Corp
30 Public Service Fuel Oil Wharf
31 Mobil Oil, Port Mobil
32 Royal Petroleum, Woodbridge
33 Shell Oil, Seawaren
34 Amerada Hess, Perth Amboy
35 Chevron U.S.A., Perth Amboy
36 Chevron U.S.A., Perth Amboy

RARITAN RIVER
37 Amerada Hess, Woodbridge

NEW YORK

TANKER TERMINALS - SOUTH

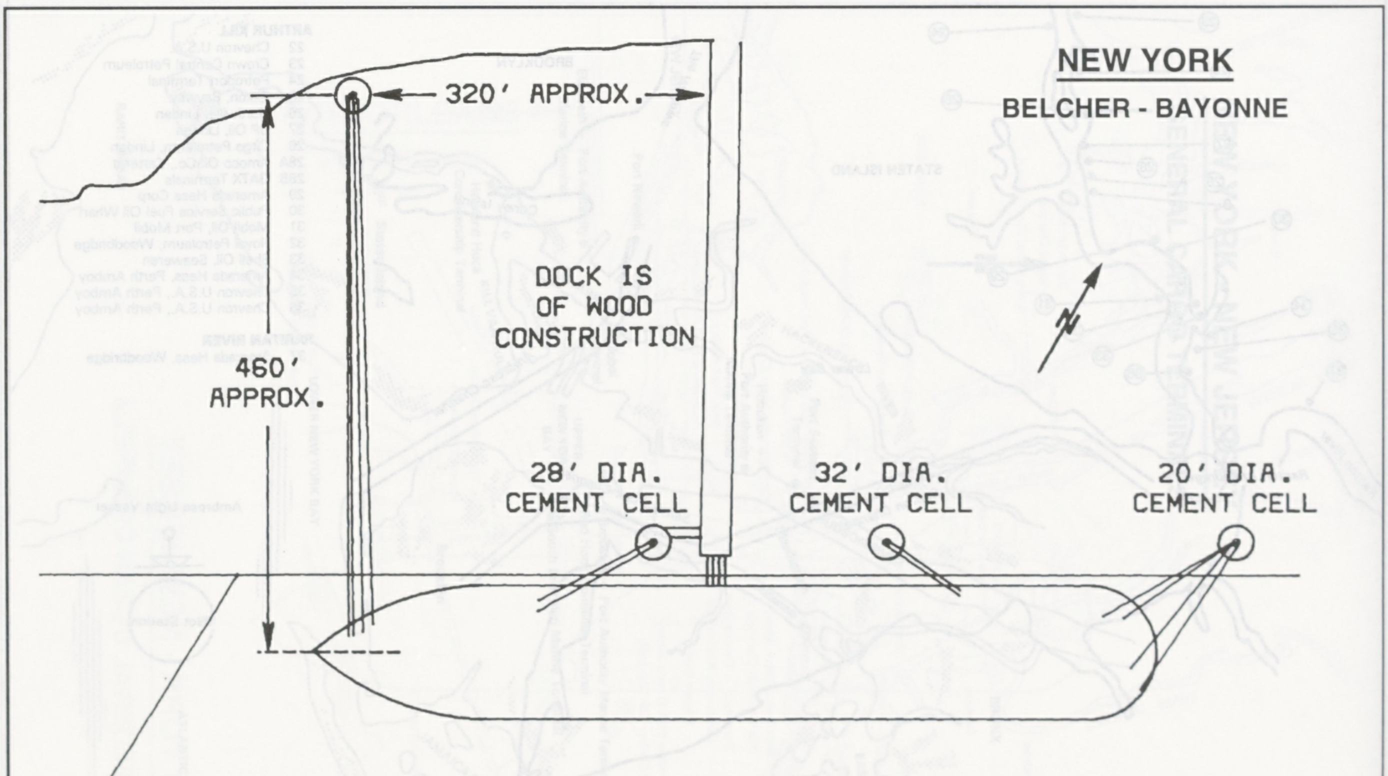
23
24
25
26
27
28
A
B
30
29
31
32
33
34
35
36
37
STATEN ISLAND
Arthur Kill
The Narrows
BROOKLYN
Coney Island
Lower Bay
Ambrose Channel
Raritan River
Raritan Anchorage
Raritan Channel
Sandy Hook Channel
Ambrose Light Vessel
Pilot Station



NEW YORK

BAYWAY TERMINAL

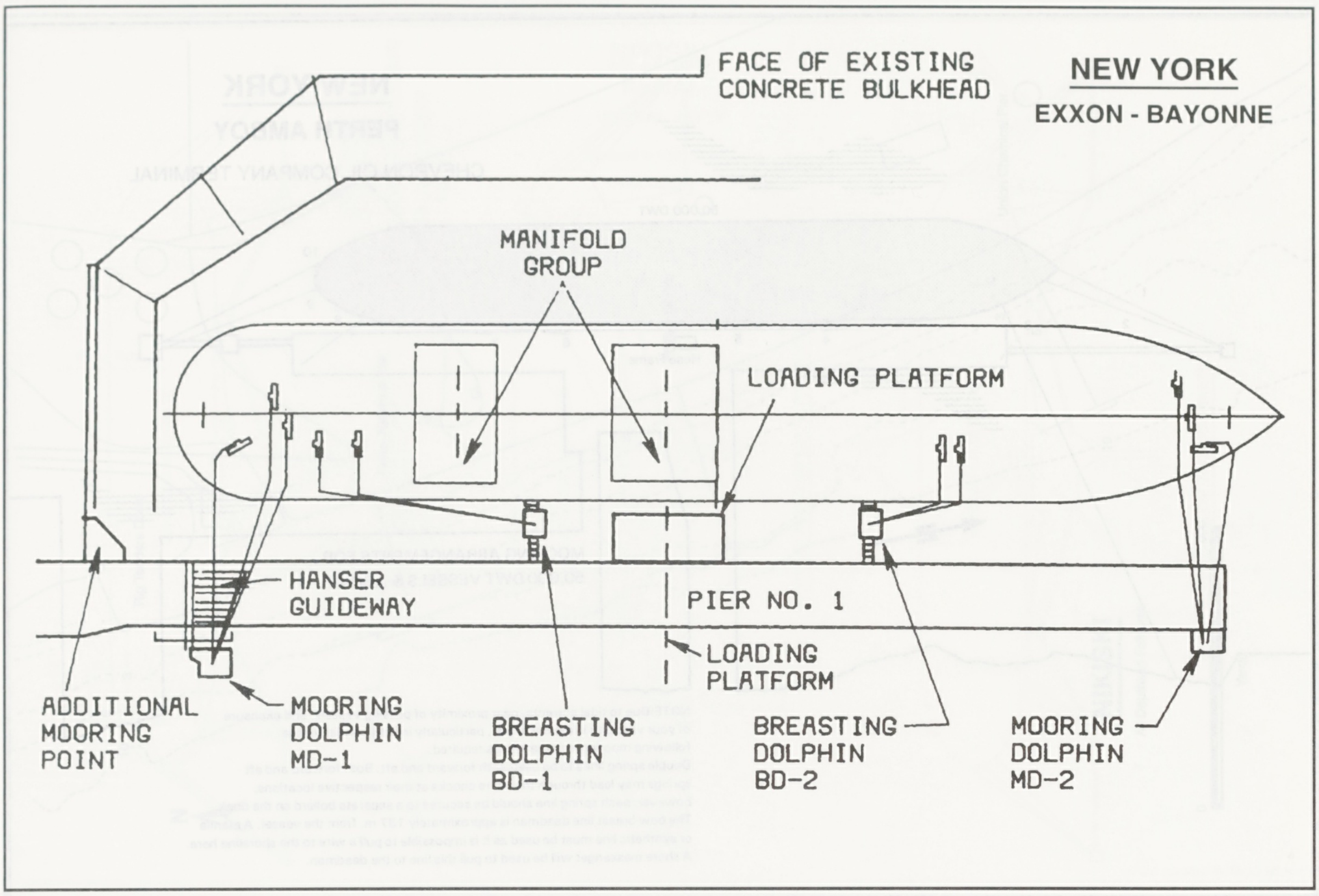
℄ PROD. MANIFOLD
26.5'
℄ CRUDE MANIFOLD
825.25'
℄ PROD. MANIFOLD
20'
℄ CRUDE MANIFOLD
273'
No. 2 DOCK
No. 1 DOCK
MORSES CREEK
50,000 DWT TANKER
50,000 DWT TANKER
68'±
355'
385'
85'±
355'
385'
75'±
50'
BASIN LIMIT
40' DEPTH
BASIN LIMIT
℄ CRUDE MANIFOLD
825.25'
℄ CRUDE MANIFOLD
273'
No. 2 DOCK
No. 1 DOCK
MORSES CREEK
125' x 810'
125' x 810'
75,600 DWT TANKER
75,600 DWT TANKER
BASIN LIMIT
390'
420'
390'
420'
40'±
4G = 1-10" CHIKSAN ARM
15'±
CRUDE = 4-10" CHIKSAN ARMS
40'±
BASIN LIMIT

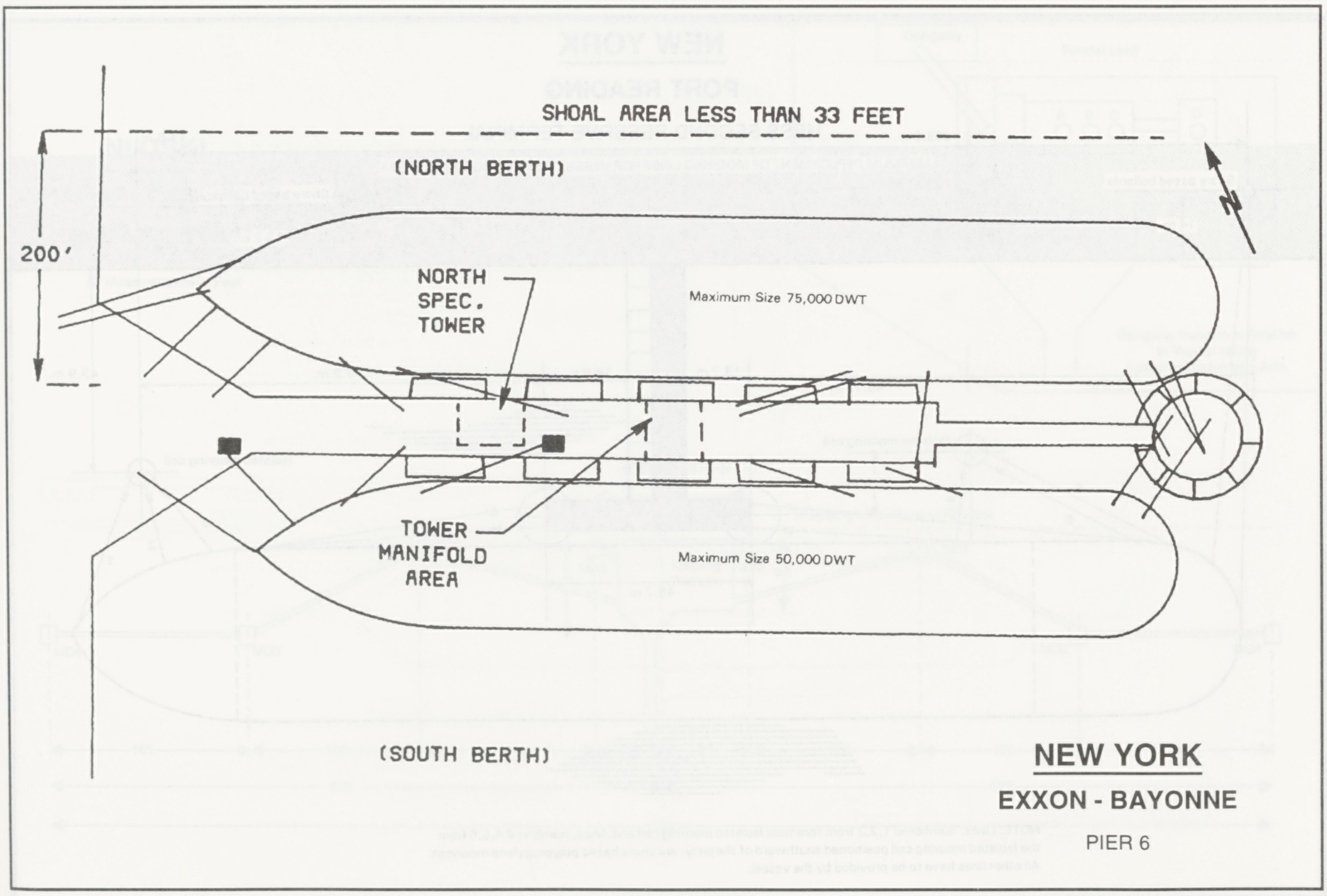


NEW YORK

BELCHER - BAYONNE

320' APPROX.
460' APPROX.
DOCK IS OF WOOD CONSTRUCTION
28' DIA. CEMENT CELL
32' DIA. CEMENT CELL
20' DIA. CEMENT CELL
N
FLOOD 2.0 KNOTS
EBB 2.0 KNOTS

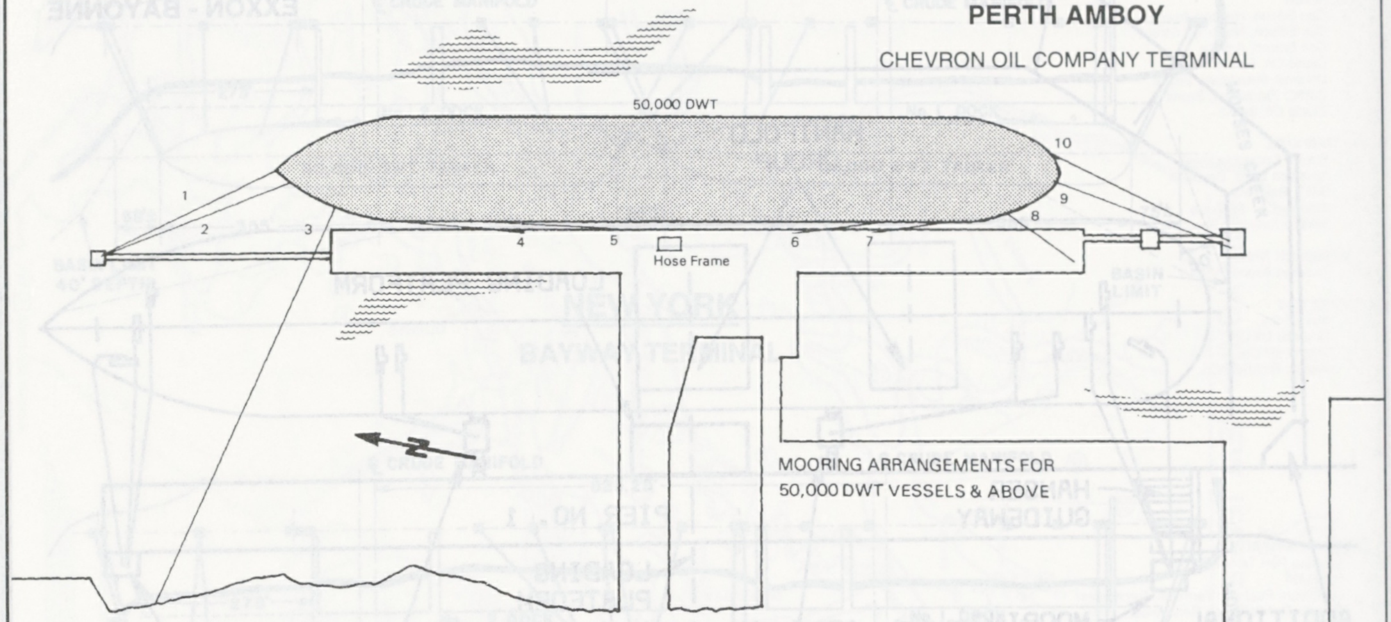

FACE OF EXISTING CONCRETE BULKHEAD
NEW YORK
EXXON - BAYONNE
MANIFOLD GROUP
LOADING PLATFORM
HANSER GUIDEWAY
PIER NO. 1
LOADING PLATFORM
ADDITIONAL MOORING POINT
MOORING DOLPHIN MD-1
BREASTING DOLPHIN BD-1
BREASTING DOLPHIN BD-2
MOORING DOLPHIN MD-2


SHOAL AREA LESS THAN 33 FEET
(NORTH BERTH)
200'
NORTH SPEC. TOWER
Maximum Size 75,000 DWT
TOWER MANIFOLD AREA
Maximum Size 50,000 DWT
(SOUTH BERTH)
NEW YORK
EXXON - BAYONNE
PIER 6

NEW YORK

PERTH AMBOY

CHEVRON OIL COMPANY TERMINAL


50,000 DWT
1
2
3
4
5
6
7
8
9
10
Hose Frame

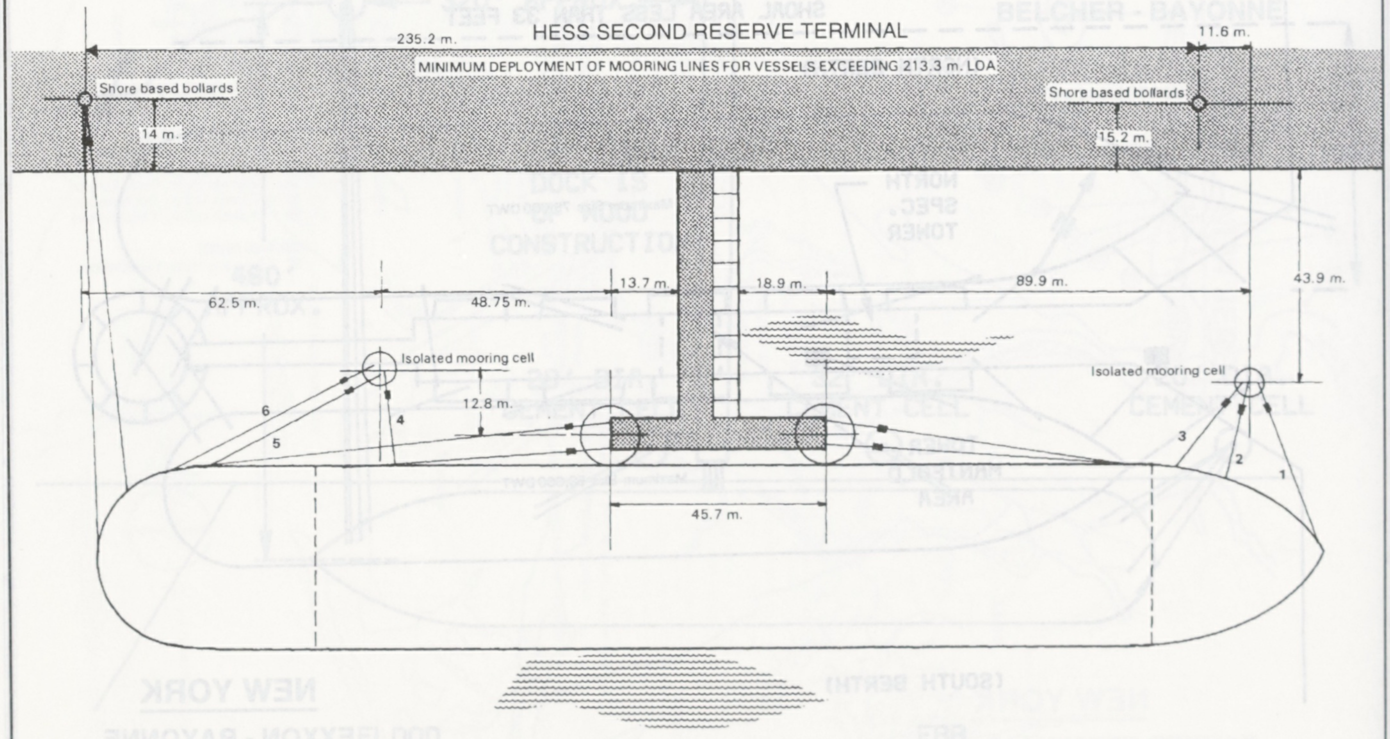
MOORING ARRANGEMENTS FOR
50,000 DWT VESSELS & ABOVE

NOTE: Due to tidal currents, near proximity of passing vessels, and exposure of your vessel to Westerly winds, particularly in light condition, the following mooring arrangement is required.
Double spring lines to be used both forward and aft. Both forward and aft springs may lead through the same chocks at their respective locations, however, each spring line should be secured to a separate bollard on the dock.
The bow breast line deadman is approximately 137 m. from the vessel. A manila or synthetic line must be used as it is impossible to pull a wire to the shoreline here.
A shore messenger will be used to pull this line to the deadman.

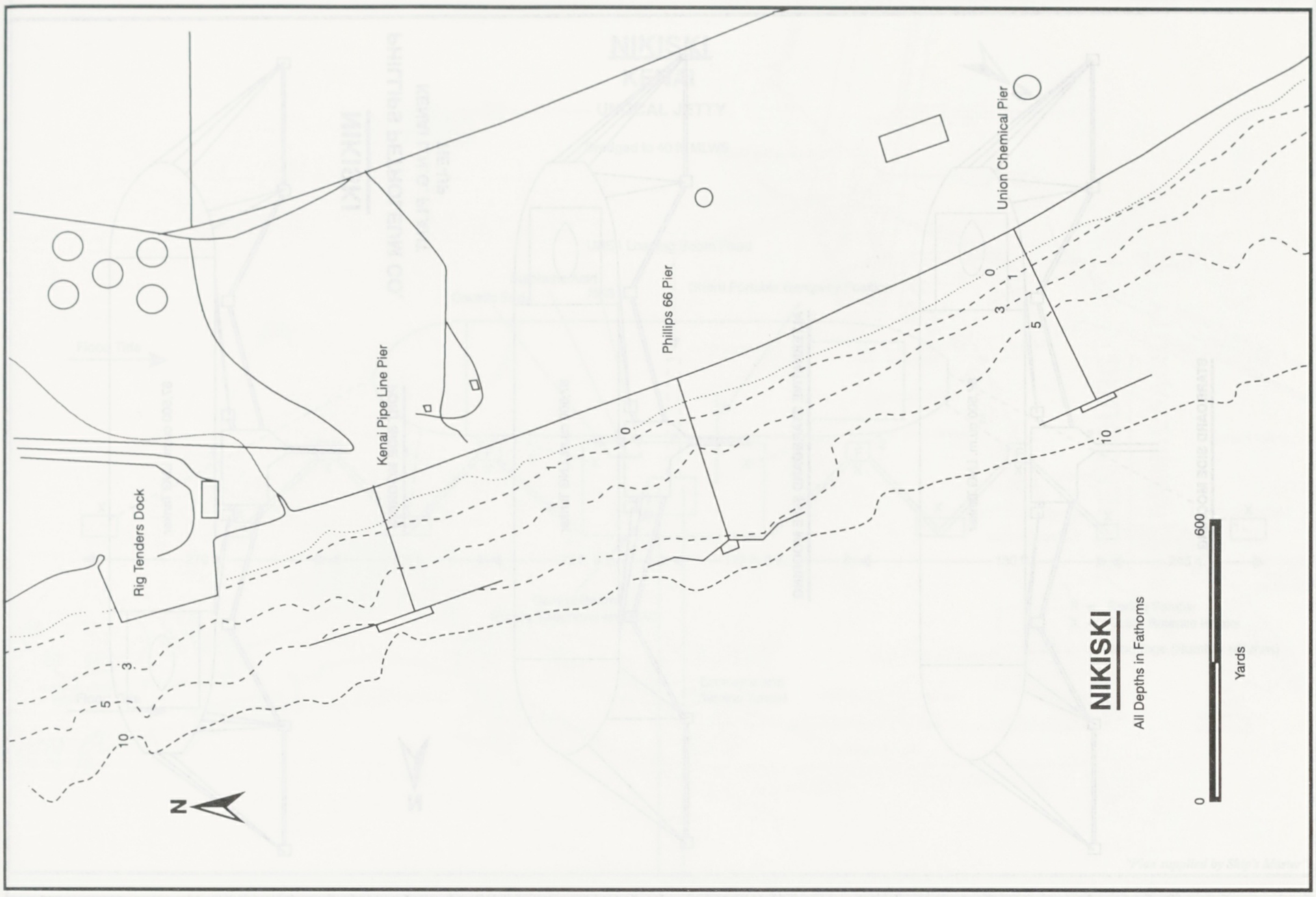
NEW YORK

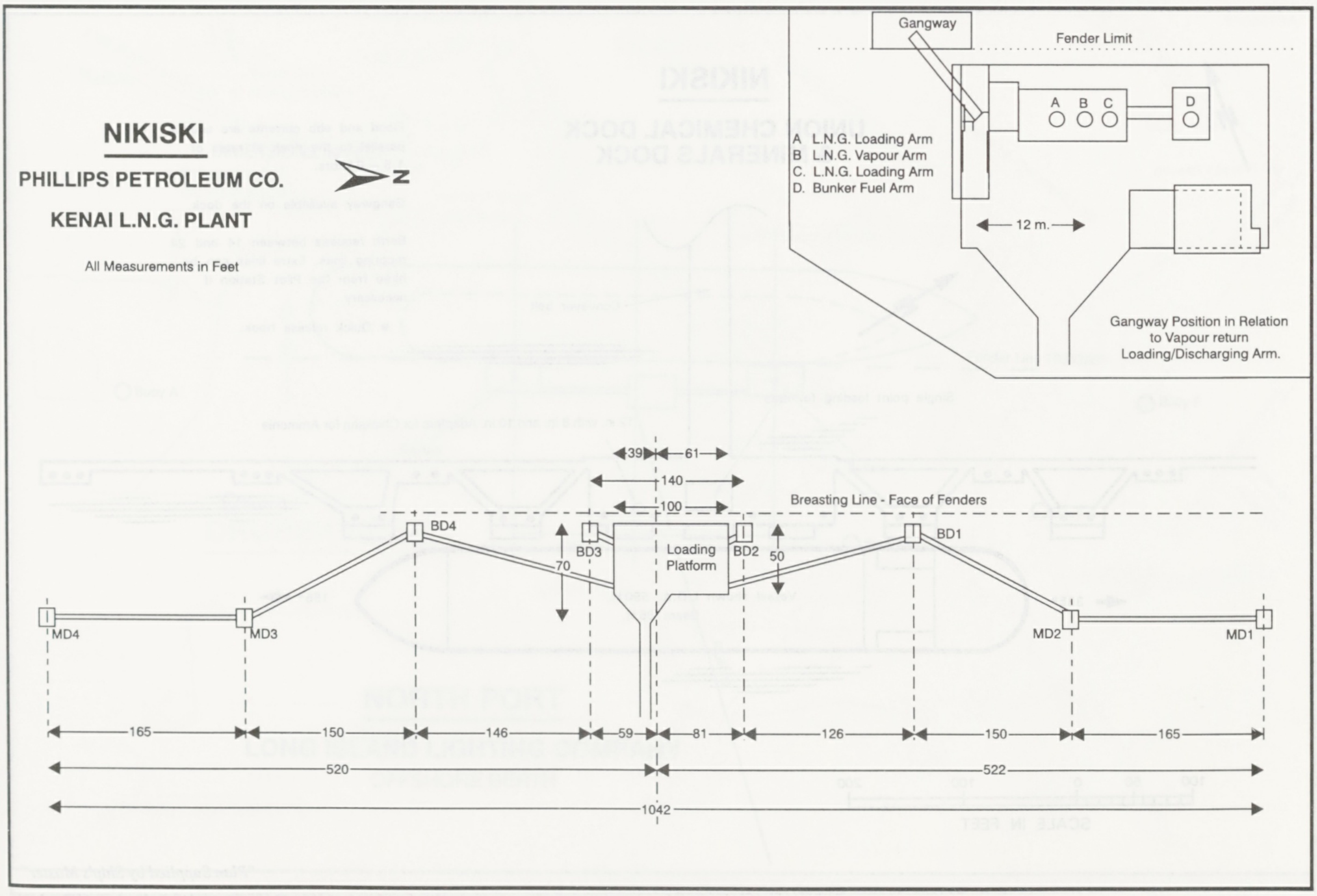
PORT READING

HESS SECOND RESERVE TERMINAL


235.2 m.
MINIMUM DEPLOYMENT OF MOORING LINES FOR VESSELS EXCEEDING 213.3 m. LOA.
Shore based bollards
14 m.
11.6 m.
Shore based bollards
15.2 m.
43.9 m.
62.5 m.
48.75 m.
13.7 m.
18.9 m.
89.9 m.
Isolated mooring cell
Isolated mooring cell
12.8 m.
6
5
4
3
2
1
45.7 m.

NOTE: Lines, numbered 1,2,3 from foremost isolated mooring cell and, lines, numbered 4,5,6 from the isolated mooring cell positioned southward of the jetty, are shore based polypropylene moorings. All other lines have to be provided by the vessel.


Rig Tenders Dock
Kenai Pipe Line Pier
Phillips 66 Pier
Union Chemical Pier
0
3
5
10
NIKISKI
All Depths in Fathoms
600
0
Yards
N



NIKISKI

PHILLIPS PETROLEUM CO.

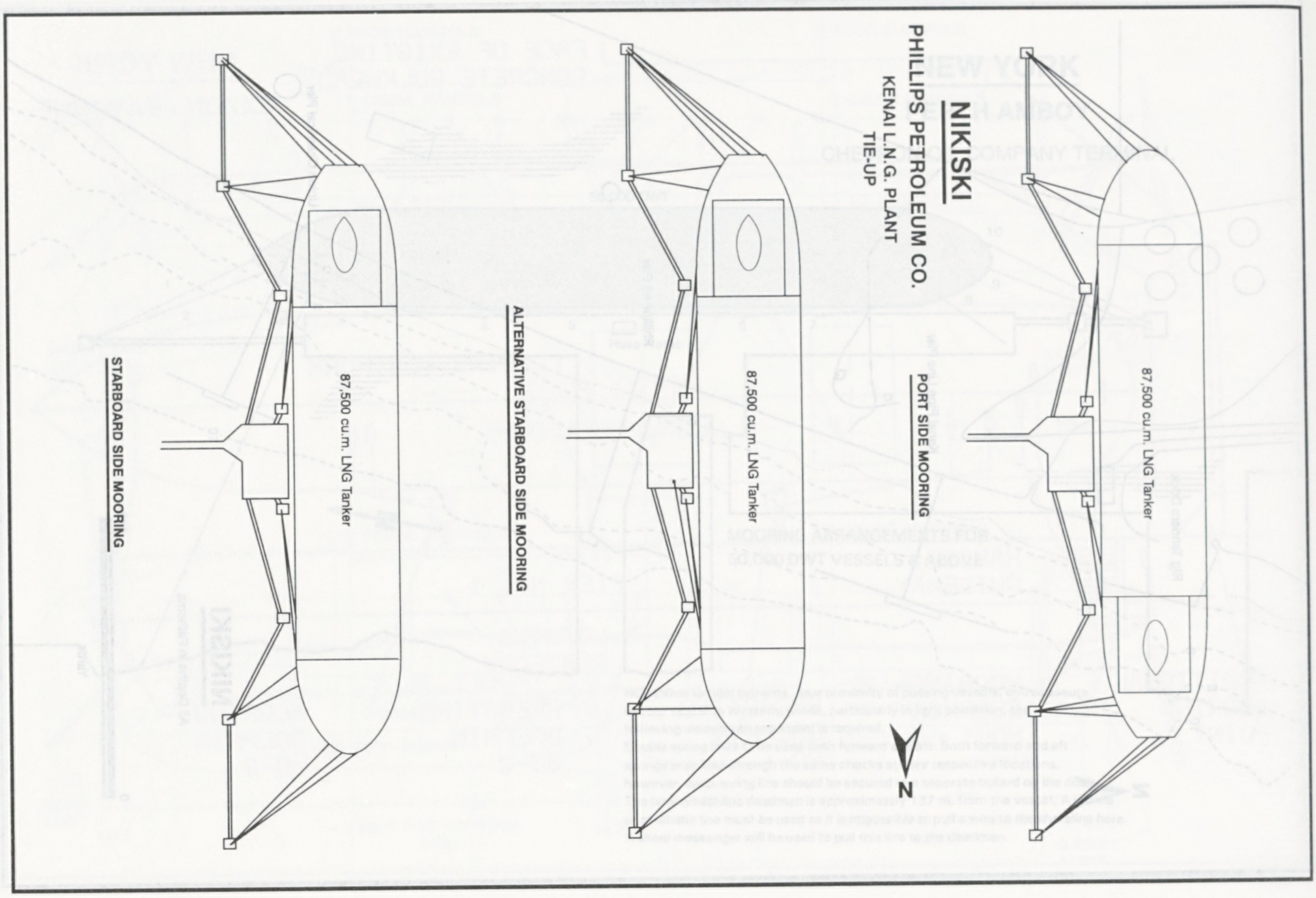
KENAI L.N.G. PLANT

All Measurements in Feet

A. L.N.G. Loading Arm
B. L.N.G. Vapour Arm
C. L.N.G. Loading Arm
D. Bunker Fuel Arm

Gangway Position in Relation to Vapour return Loading/Discharging Arm.

N
Gangway
Fender Limit
A
B
C
D
12 m.
Breasting Line - Face of Fenders
39
61
140
100
BD4
BD3
Loading Platform
BD2
BD1
70
50
MD4
MD3
MD2
MD1
165
150
146
59
81
126
150
165
520
522
1042



NIKISKI

PHILLIPS PETROLEUM CO.

KENAI L.N.G. PLANT
TIE-UP

PORT SIDE MOORING
87,500 cu.m. LNG Tanker
ALTERNATIVE STARBOARD SIDE MOORING
87,500 cu.m. LNG Tanker
STARBOARD SIDE MOORING
87,500 cu.m. LNG Tanker
N

NIKISKI

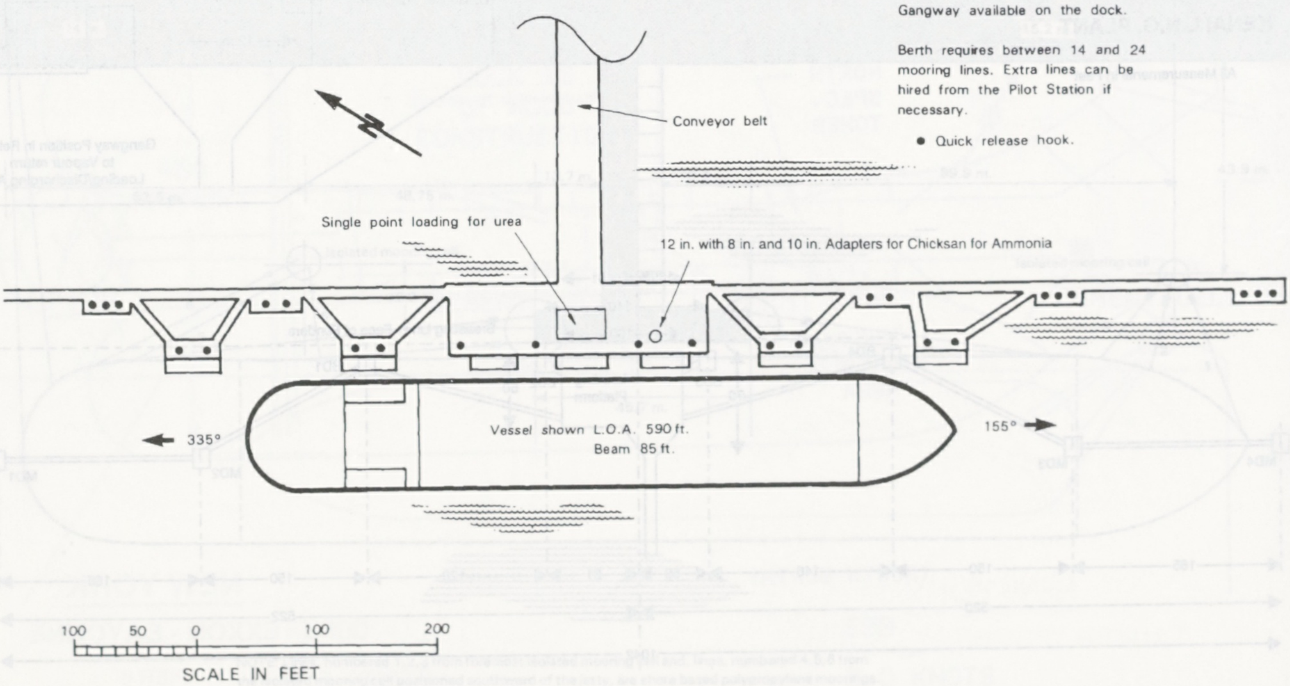
UNION CHEMICAL DOCK & MINERALS DOCK

Flood and ebb currents are usually parallel to the dock at rates of 1.5 – 6 knots.

Gangway available on the dock.

Berth requires between 14 and 24 mooring lines. Extra lines can be hired from the Pilot Station if necessary.

- ● Quick release hook.



Conveyor belt
Single point loading for urea
12 in. with 8 in. and 10 in. Adapters for Chicksan for Ammonia
335°
Vessel shown L.O.A. 590 ft.
Beam 85 ft.
155°
100
50
0
100
200
SCALE IN FEET

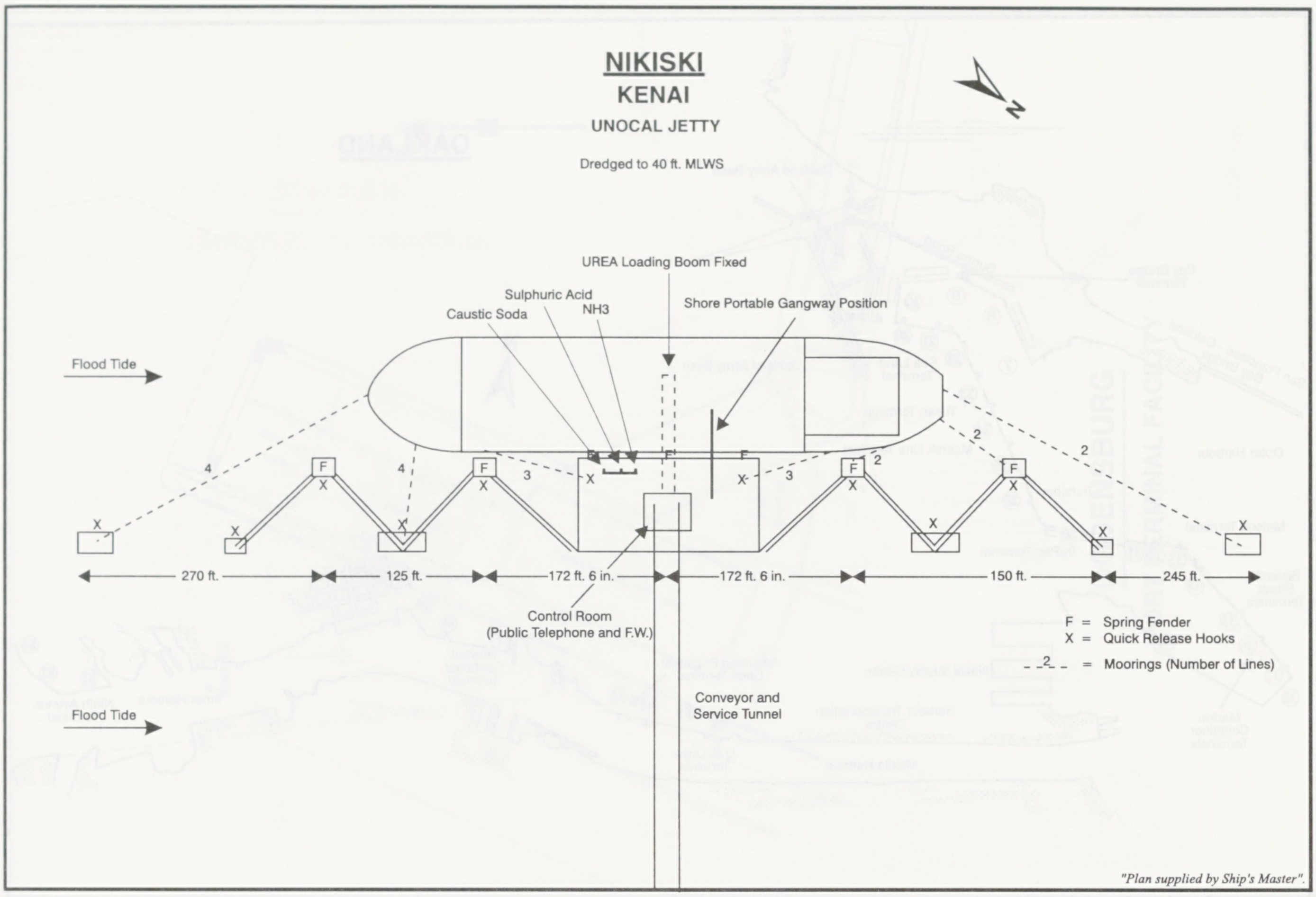
"Plan Supplied by Ship's Master"

NIKISKI

KENAI

UNOCAL JETTY

Dredged to 40 ft. MLWS


N
UREA Loading Boom Fixed
Sulphuric Acid
Caustic Soda
NH3
Shore Portable Gangway Position
Flood Tide
F
X
4
3
2
270 ft.
125 ft.
172 ft. 6 in.
172 ft. 6 in.
150 ft.
245 ft.
Control Room
(Public Telephone and F.W.)
Conveyor and
Service Tunnel
Flood Tide

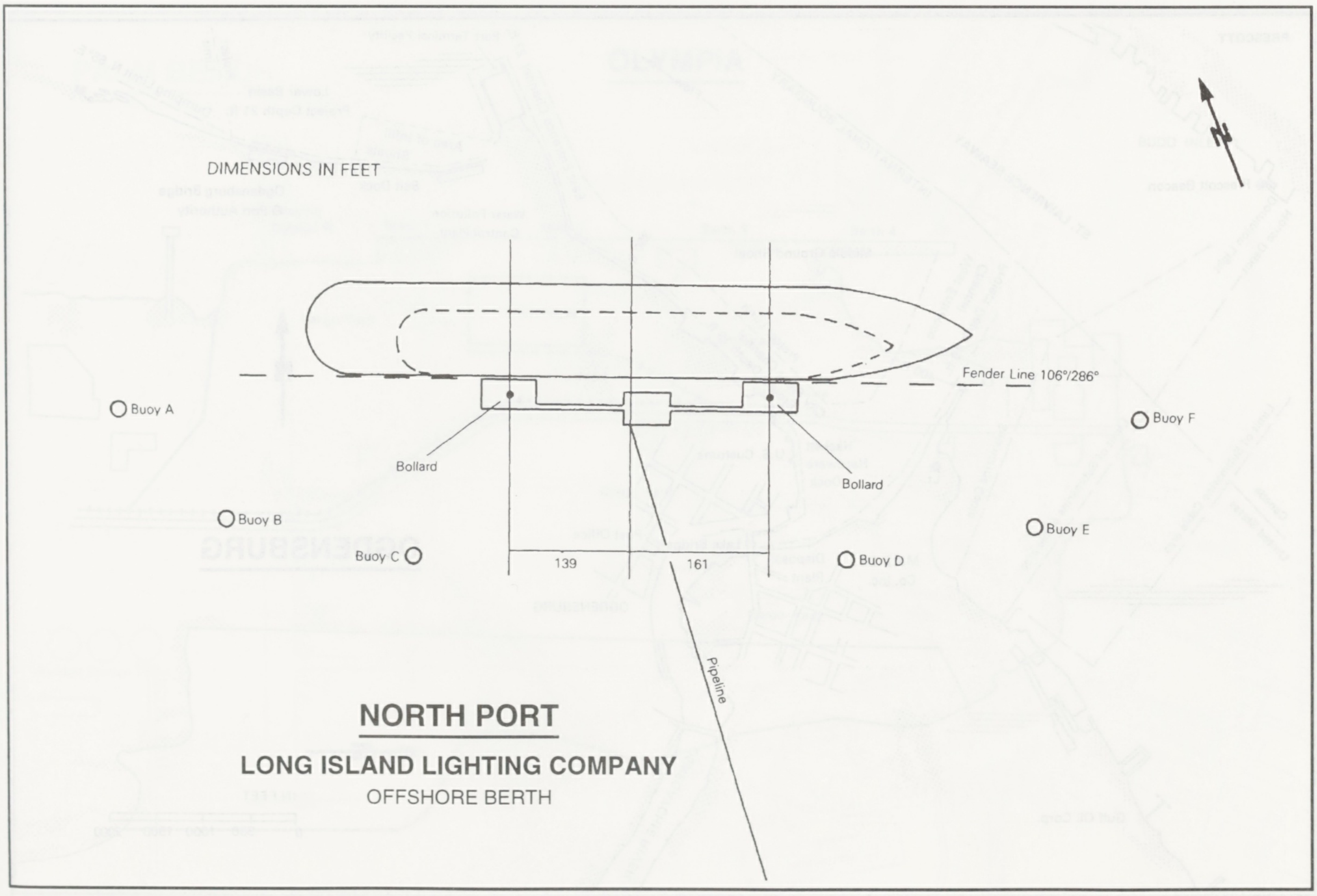
F = Spring Fender
X = Quick Release Hooks
- - 2 - - = Moorings (Number of Lines)

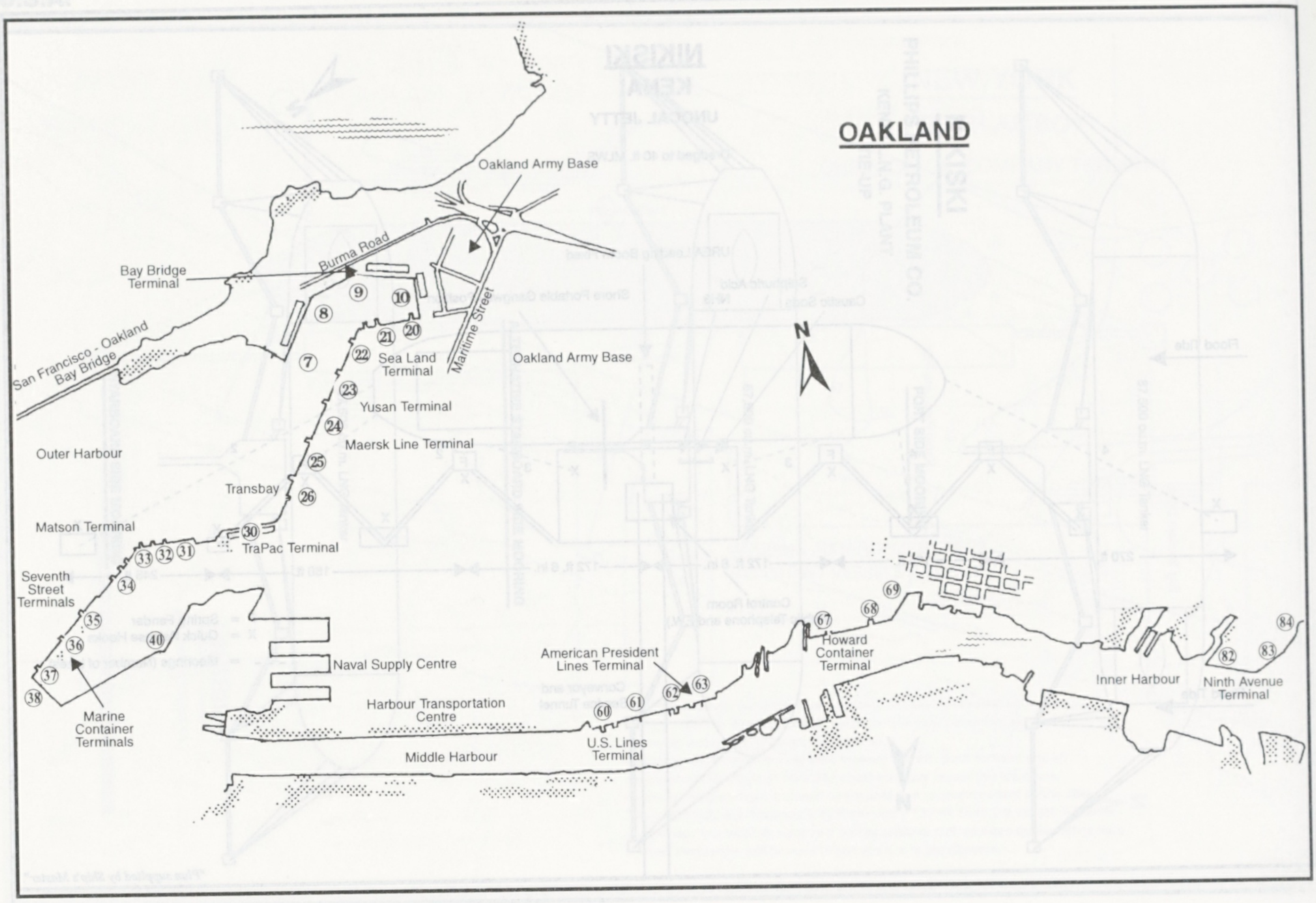
"Plan supplied by Ship's Master".

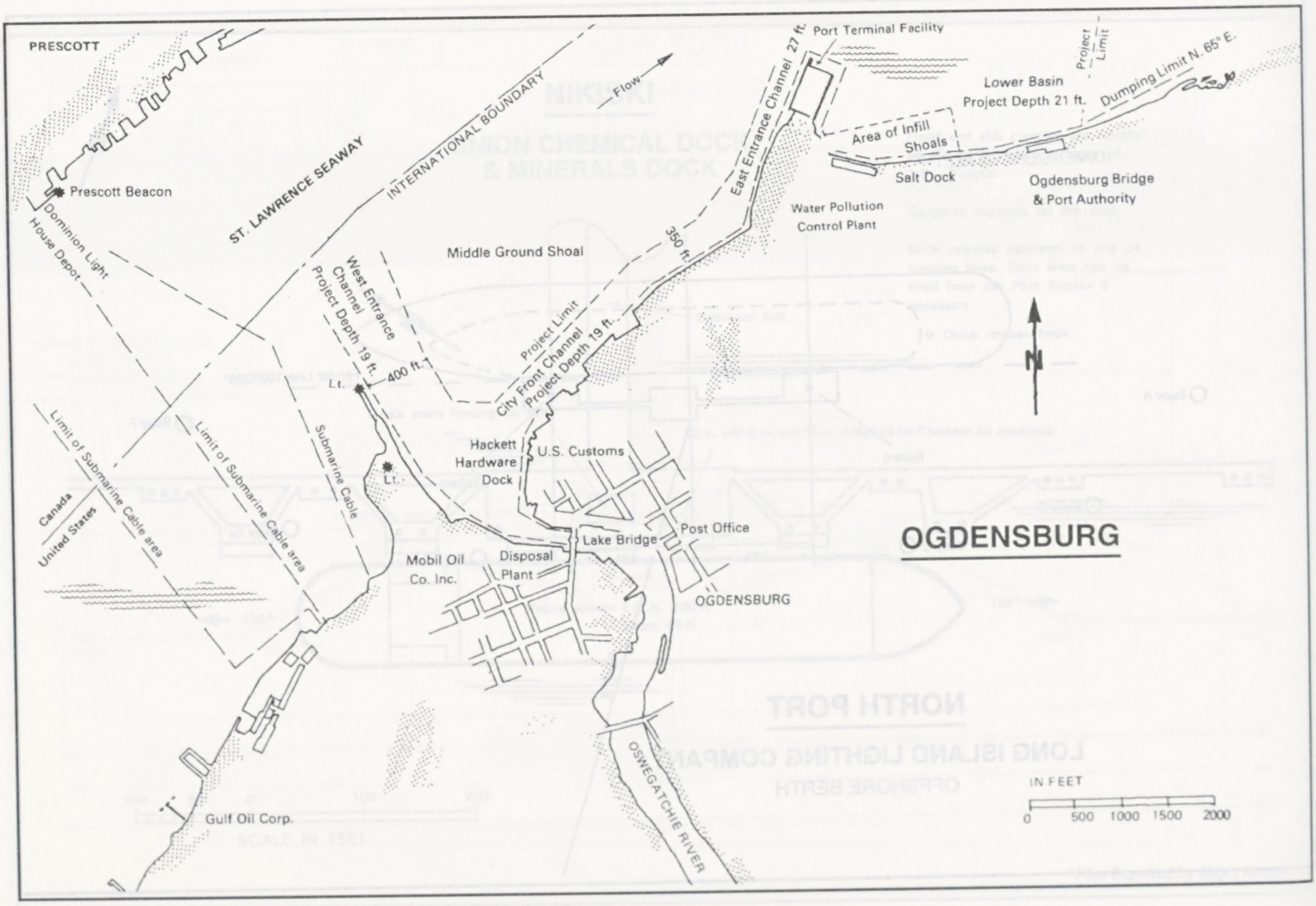
NORTH PORT

LONG ISLAND LIGHTING COMPANY

OFFSHORE BERTH

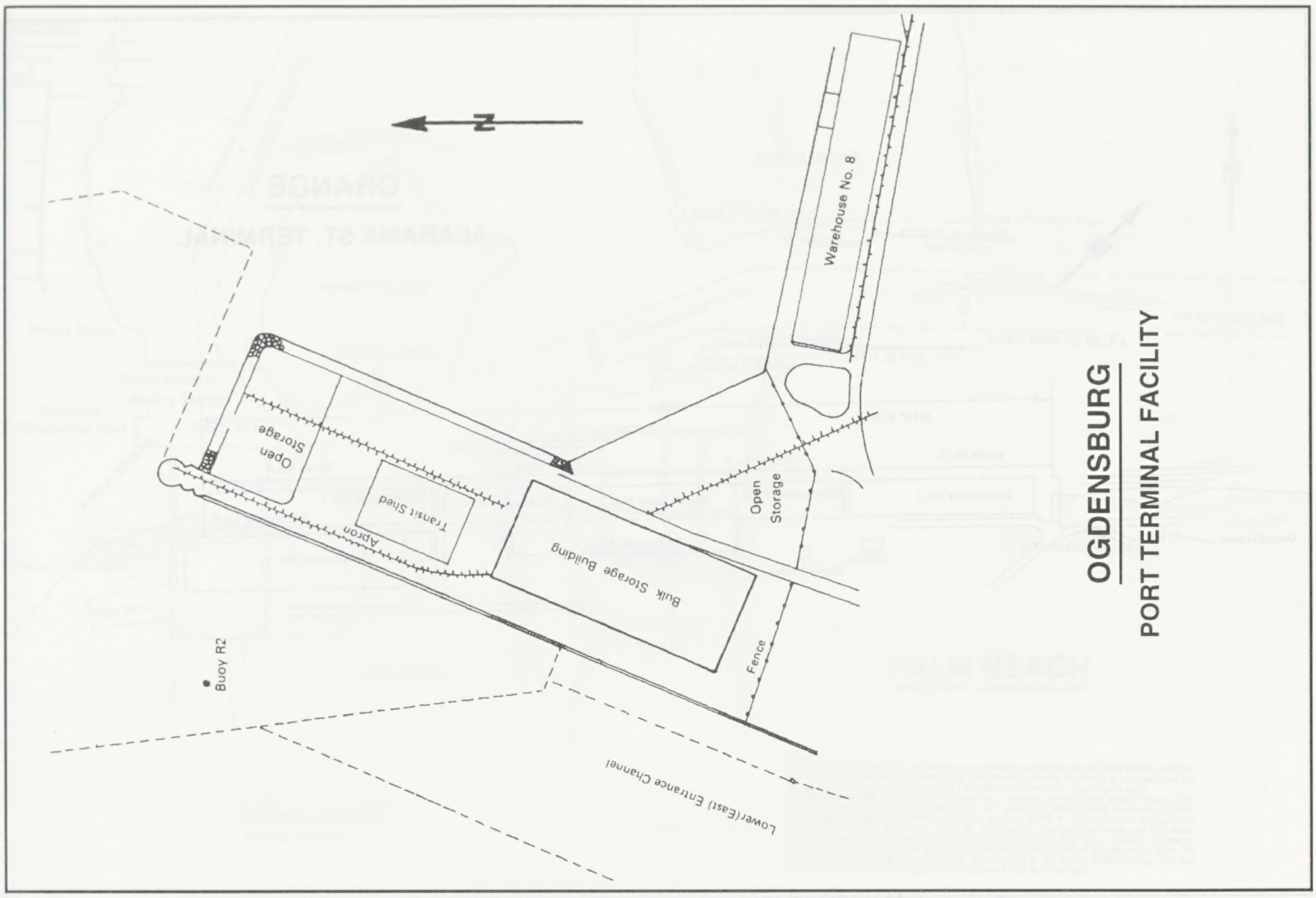

DIMENSIONS IN FEET
N
Fender Line 106°/286°
Buoy A
Buoy B
Buoy C
Buoy D
Buoy E
Buoy F
Bollard
Bollard
139
161
Pipeline


OAKLAND
Oakland Army Base
Bay Bridge Terminal
Burma Road
San Francisco - Oakland Bay Bridge
9
10
8
21
20
7
22
Sea Land Terminal
Maritime Street
Oakland Army Base
N
23
Yusan Terminal
24
Maersk Line Terminal
Outer Harbour
25
Transbay
26
Matson Terminal
30
TraPac Terminal
33
32
31
Seventh Street Terminals
34
35
40
36
37
38
Naval Supply Centre
Marine Container Terminals
Harbour Transportation Centre
Middle Harbour
American President Lines Terminal
62
63
60
61
U.S. Lines Terminal
67
68
69
Howard Container Terminal
Inner Harbour
82
83
84
Ninth Avenue Terminal

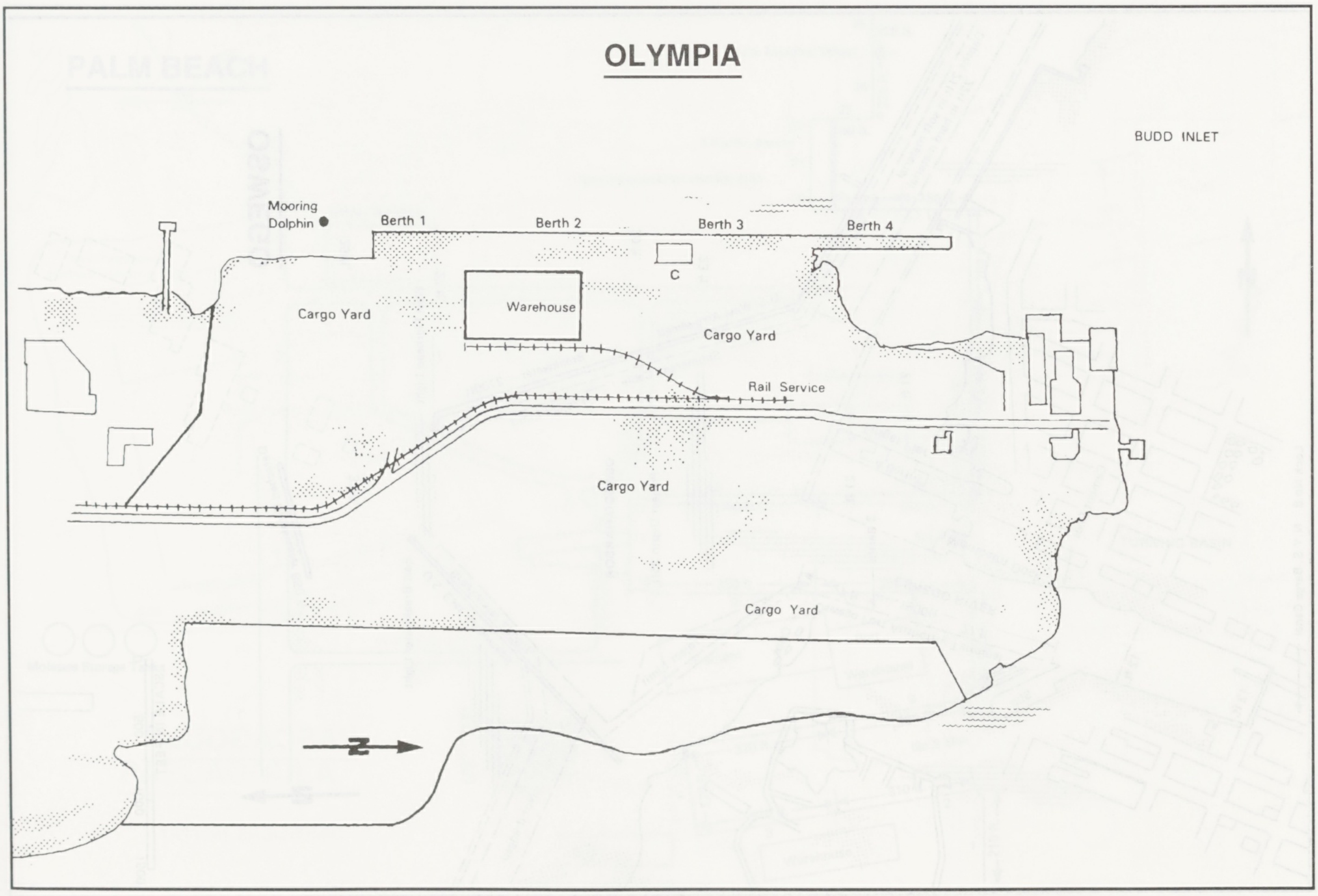

PRESCOTT
Prescott Beacon
Dominion Light House Depot
ST. LAWRENCE SEAWAY
INTERNATIONAL BOUNDARY
Flow
East Entrance Channel 27 ft.
Port Terminal Facility
Project Limit
Lower Basin
Project Depth 21 ft.
Dumping Limit N. 65° E.
Area of Infill
Shoals
Salt Dock
Ogdensburg Bridge
& Port Authority
Water Pollution Control Plant
Middle Ground Shoal
350 ft.
West Entrance Channel Project Depth 19 ft.
Project Limit
City Front Channel Project Depth 19 ft.
400 ft.
Lt.
Lt.
N
Limit of Submarine Cable area
Limit of Submarine Cable area
Submarine Cable
Canada
United States
Hackett Hardware Dock
U.S. Customs
Lake Bridge
Post Office
Mobil Oil Co. Inc.
Disposal Plant
OGDENSBURG
OGDENSBURG
OSWEGATCHIE RIVER
Gulf Oil Corp.
IN FEET
0
500
1000
1500
2000

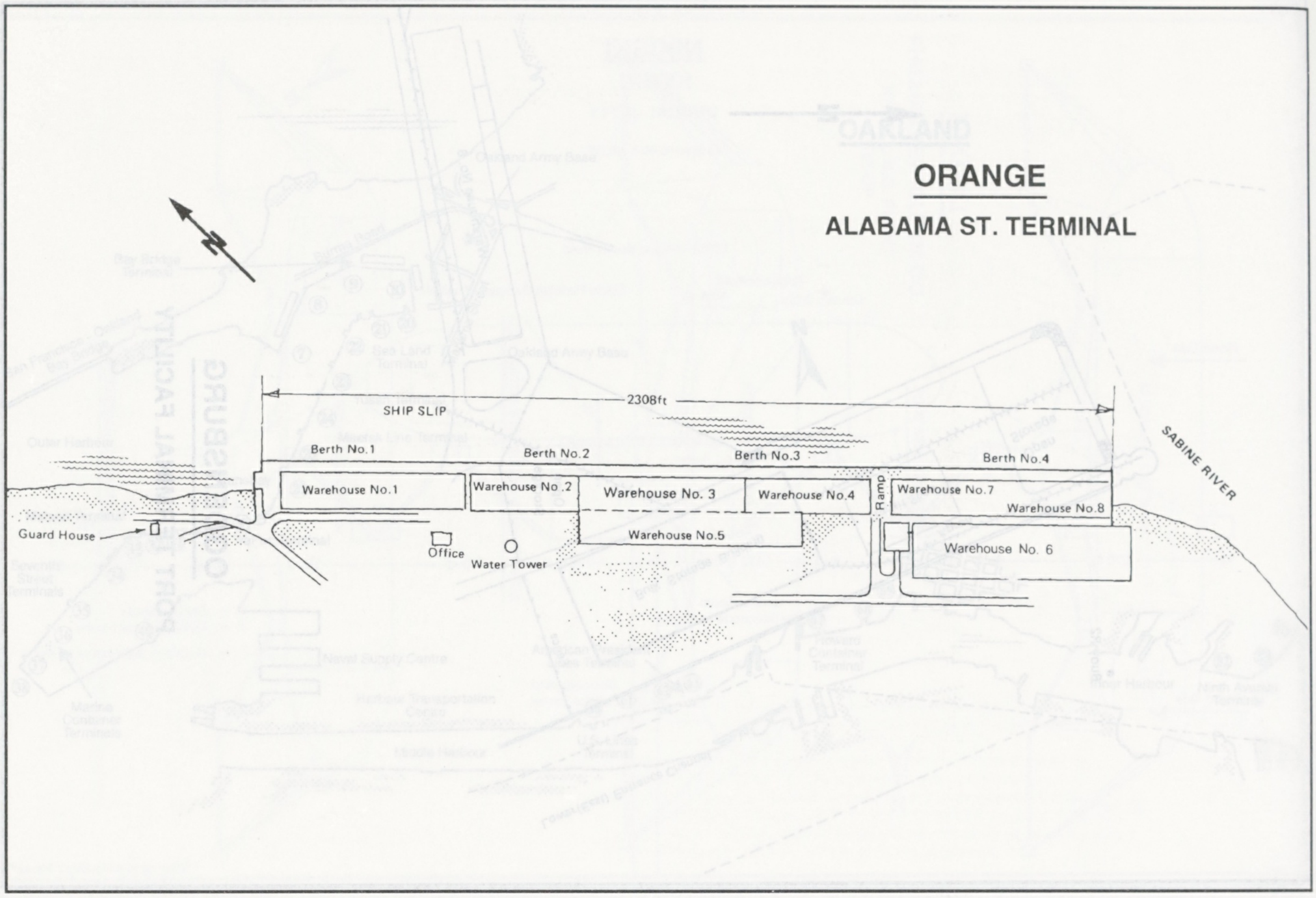
OGDENSBURG

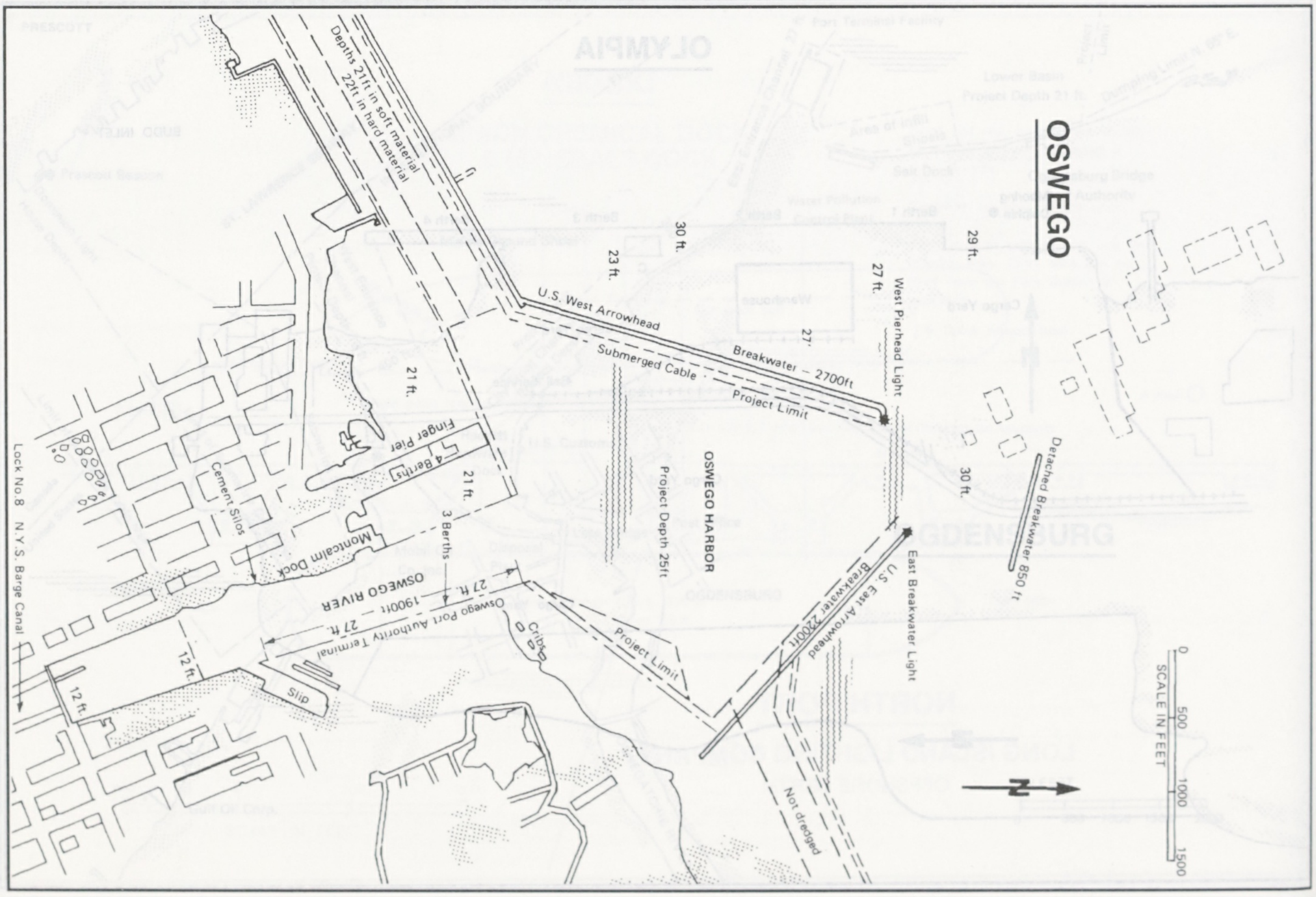
PORT TERMINAL FACILITY

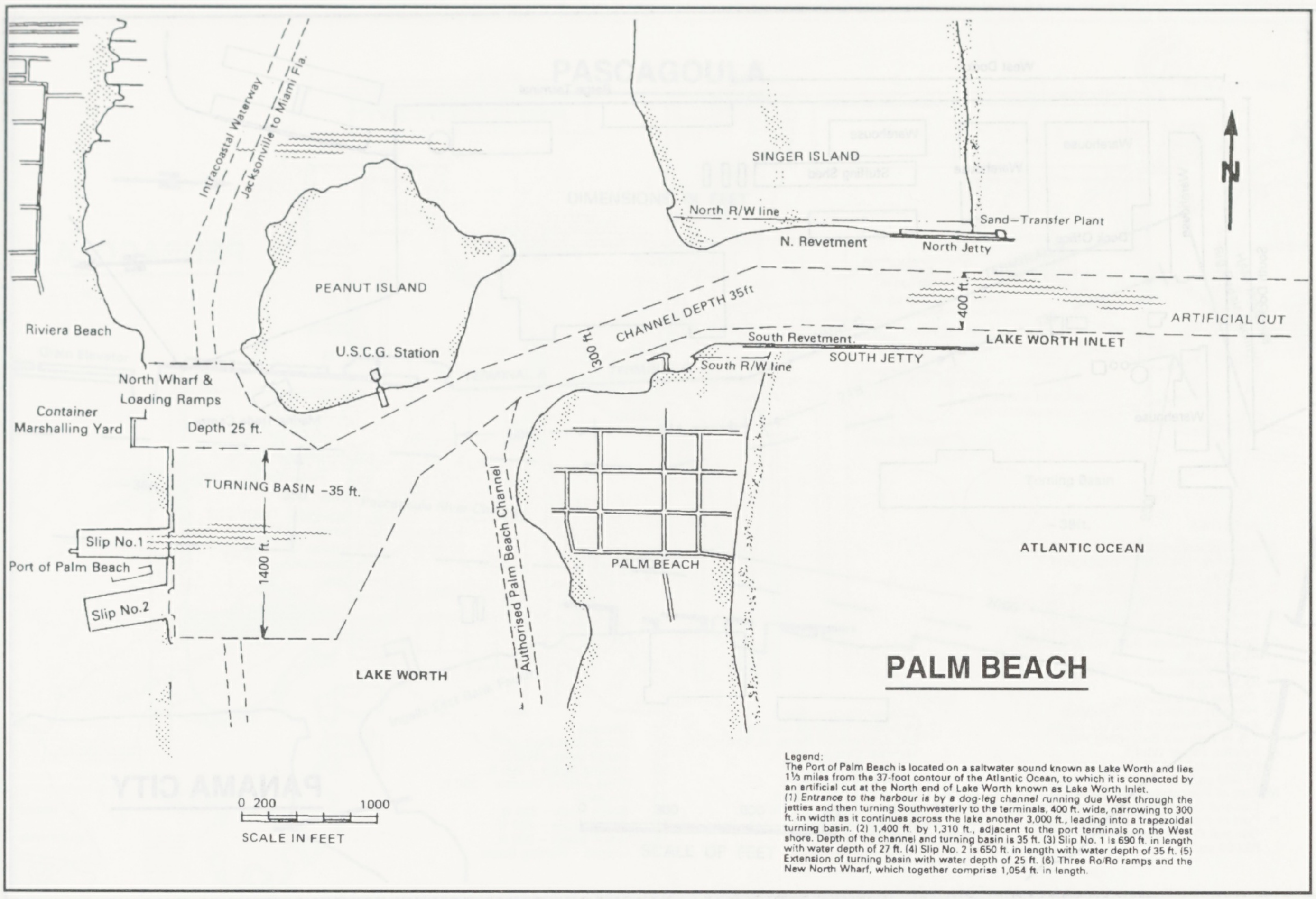

N
Warehouse No. 8
Open Storage
Open Storage
Transit Shed
Apron
Bulk Storage Building
Fence
Buoy R2
Lower (East) Entrance Channel

OLYMPIA


BUDD INLET
Mooring Dolphin
Berth 1
Berth 2
Berth 3
Berth 4
C
Cargo Yard
Warehouse
Cargo Yard
Rail Service
Cargo Yard
Cargo Yard
N


ORANGE
ALABAMA ST. TERMINAL
2308ft
SHIP SLIP
Berth No.1
Berth No.2
Berth No.3
Berth No.4
SABINE RIVER
Warehouse No.1
Warehouse No.2
Warehouse No. 3
Warehouse No.4
Ramp
Warehouse No.7
Warehouse No.8
Warehouse No.5
Warehouse No. 6
Guard House
Office
Water Tower

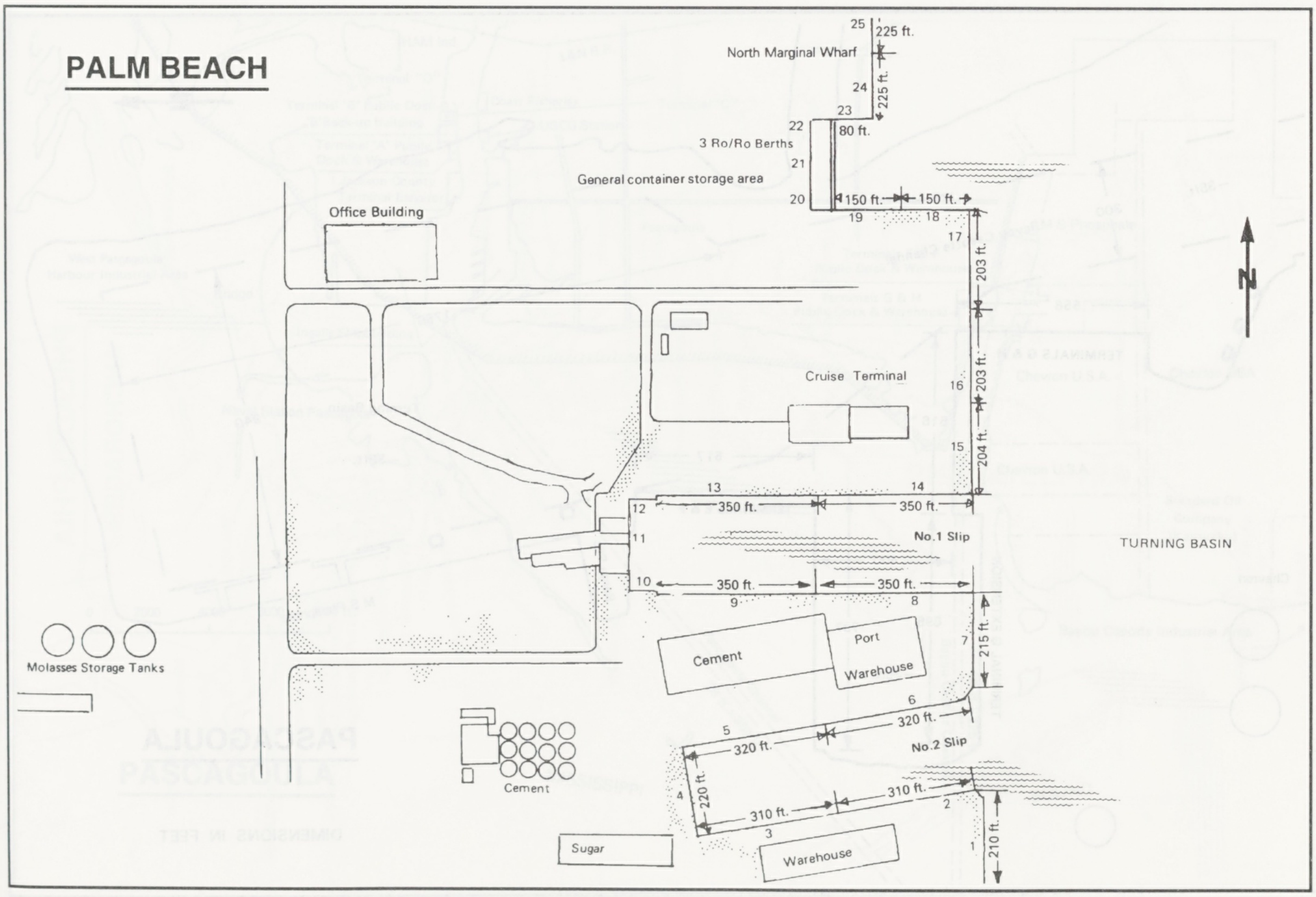

OSWEGO
Depths 21ft in soft material
22ft in hard material
30 ft.
23 ft.
29 ft.
27 ft.
West Pierhead Light
27'
U.S. West Arrowhead
Breakwater – 2700ft
Submerged Cable
Project Limit
21 ft.
Finger Pier
4 Berths
21 ft.
3 Berths
Cement Silos
Montcalm Dock
OSWEGO RIVER
1900ft
27 ft.
27 ft.
Oswego Port Authority Terminal
Lock No.8 N.Y.S. Barge Canal
12 ft.
12 ft.
Slip
Crib
Project Limit
OSWEGO HARBOR
Project Depth 25ft
30 ft.
Detached Breakwater 850 ft
East Breakwater Light
U.S. East Arrowhead
Breakwater 2200ft
Not dredged
SCALE IN FEET
0
500
1000
1500

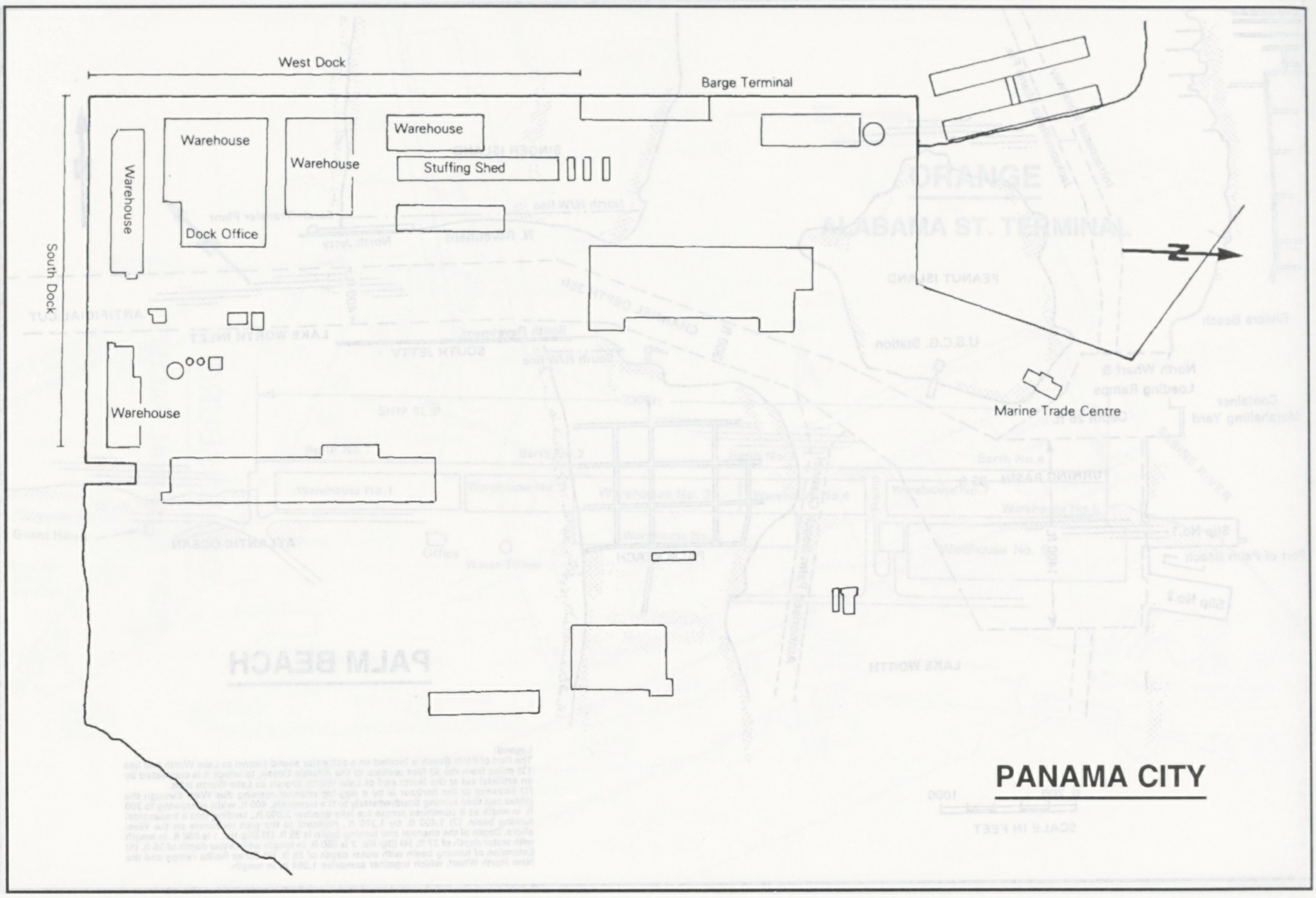

Intracoastal Waterway
Jacksonville to Miami Fla.
SINGER ISLAND
North R/W line
Sand–Transfer Plant
N. Revetment
North Jetty
PEANUT ISLAND
400 ft.
ARTIFICIAL CUT
Riviera Beach
CHANNEL DEPTH 35ft
U.S.C.G. Station
300 ft.
South Revetment
LAKE WORTH INLET
SOUTH JETTY
South R/W line
North Wharf & Loading Ramps
Container Marshalling Yard
Depth 25 ft.
TURNING BASIN -35 ft.
Slip No.1
Port of Palm Beach
1400 ft.
Slip No.2
Authorised Palm Beach Channel
PALM BEACH
ATLANTIC OCEAN
LAKE WORTH
0 200 1000
SCALE IN FEET

PALM BEACH

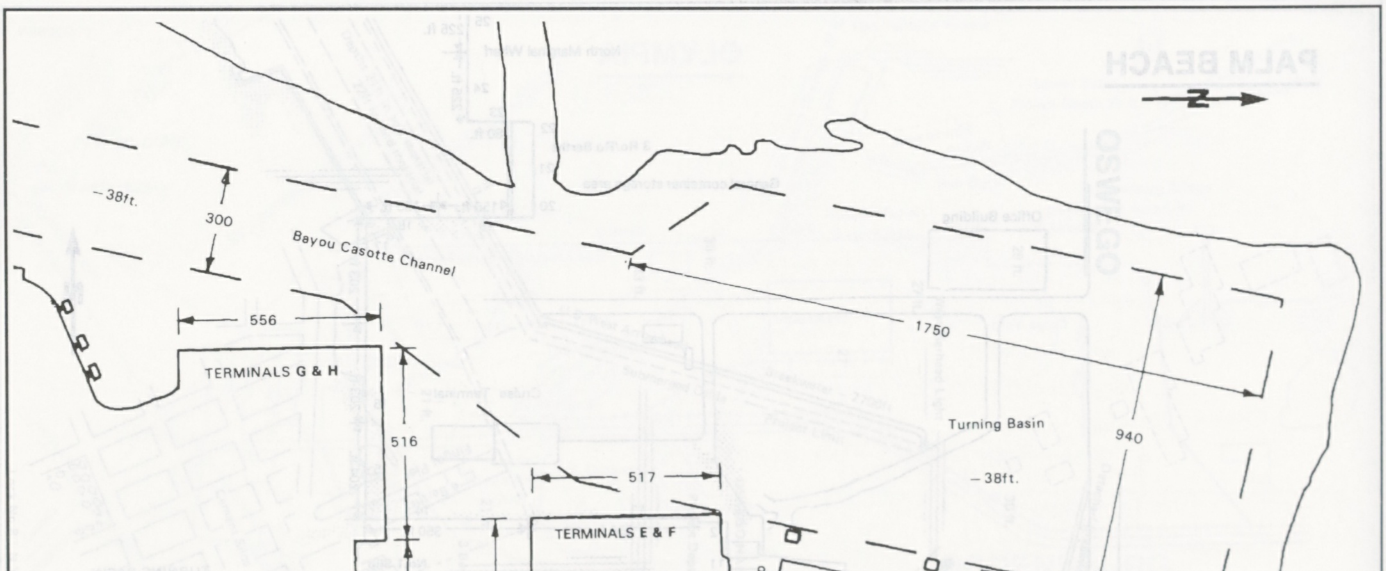
Legend:
The Port of Palm Beach is located on a saltwater sound known as Lake Worth and lies 1⅓ miles from the 37-foot contour of the Atlantic Ocean, to which it is connected by an artificial cut at the North end of Lake Worth known as Lake Worth Inlet.
(1) Entrance to the harbour is by a dog-leg channel running due West through the jetties and then turning Southwesterly to the terminals, 400 ft. wide, narrowing to 300 ft. in width as it continues across the lake another 3,000 ft., leading into a trapezoidal turning basin. (2) 1,400 ft. by 1,310 ft., adjacent to the port terminals on the West shore. Depth of the channel and turning basin is 35 ft. (3) Slip No. 1 is 690 ft. in length with water depth of 27 ft. (4) Slip No. 2 is 650 ft. in length with water depth of 35 ft. (5) Extension of turning basin with water depth of 25 ft. (6) Three Ro/Ro ramps and the New North Wharf, which together comprise 1,054 ft. in length.

PALM BEACH


25
225 ft.
North Marginal Wharf
24
225 ft.
23
22
80 ft.
3 Ro/Ro Berths
21
General container storage area
20
150 ft.
150 ft.
19
18
Office Building
17
203 ft.
203 ft.
16
Cruise Terminal
15
204 ft.
13
14
12
350 ft.
350 ft.
11
No.1 Slip
TURNING BASIN
10
350 ft.
350 ft.
9
8
7
215 ft.
Cement
Port Warehouse
Molasses Storage Tanks
6
5
320 ft.
320 ft.
No.2 Slip
Cement
4
220 ft.
310 ft.
310 ft.
2
3
Sugar
Warehouse
1
210 ft.

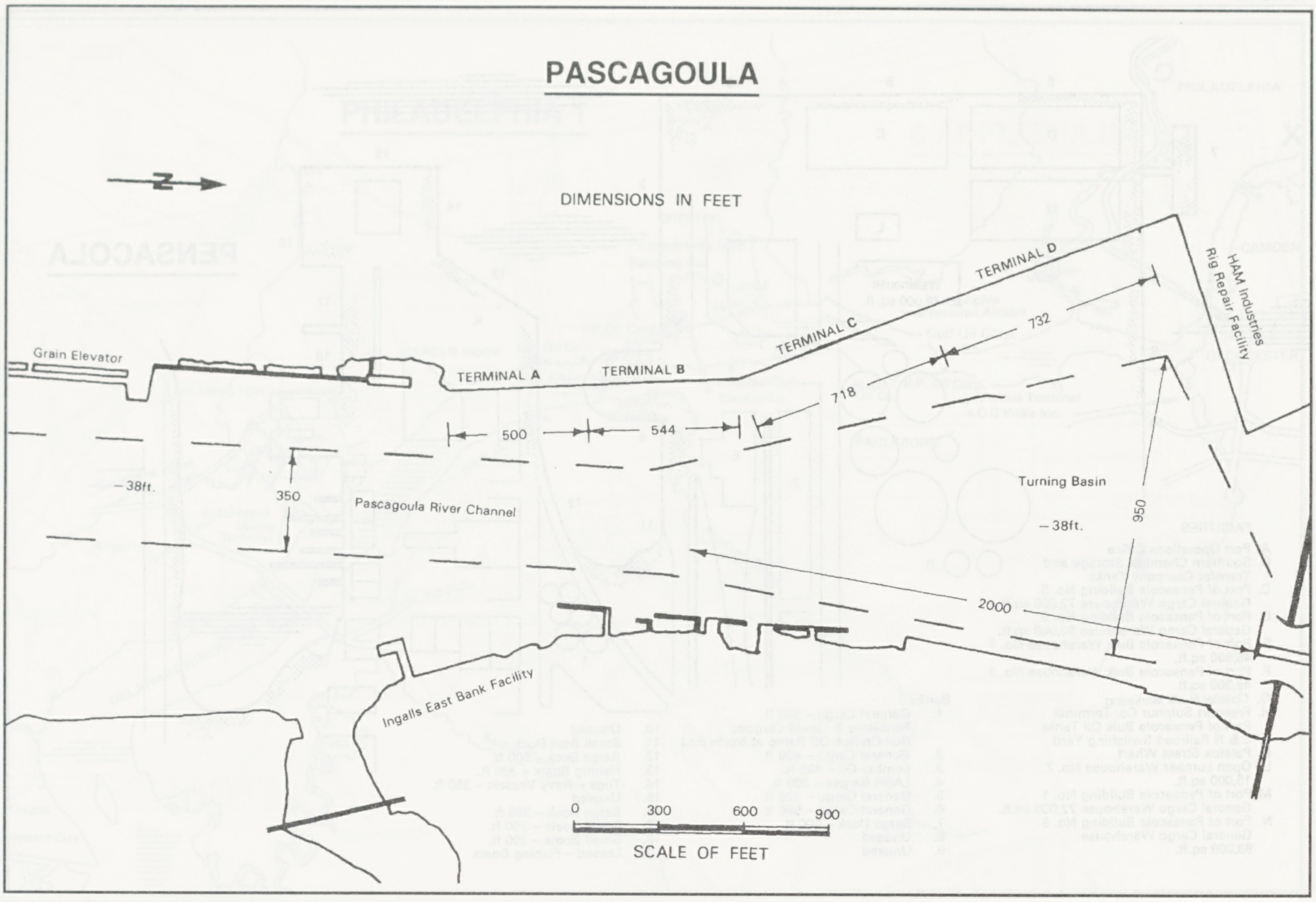

West Dock
Barge Terminal
Warehouse
Warehouse
Warehouse
Stuffing Shed
Warehouse
Dock Office
South Dock
Warehouse
Warehouse
Marine Trade Centre
N

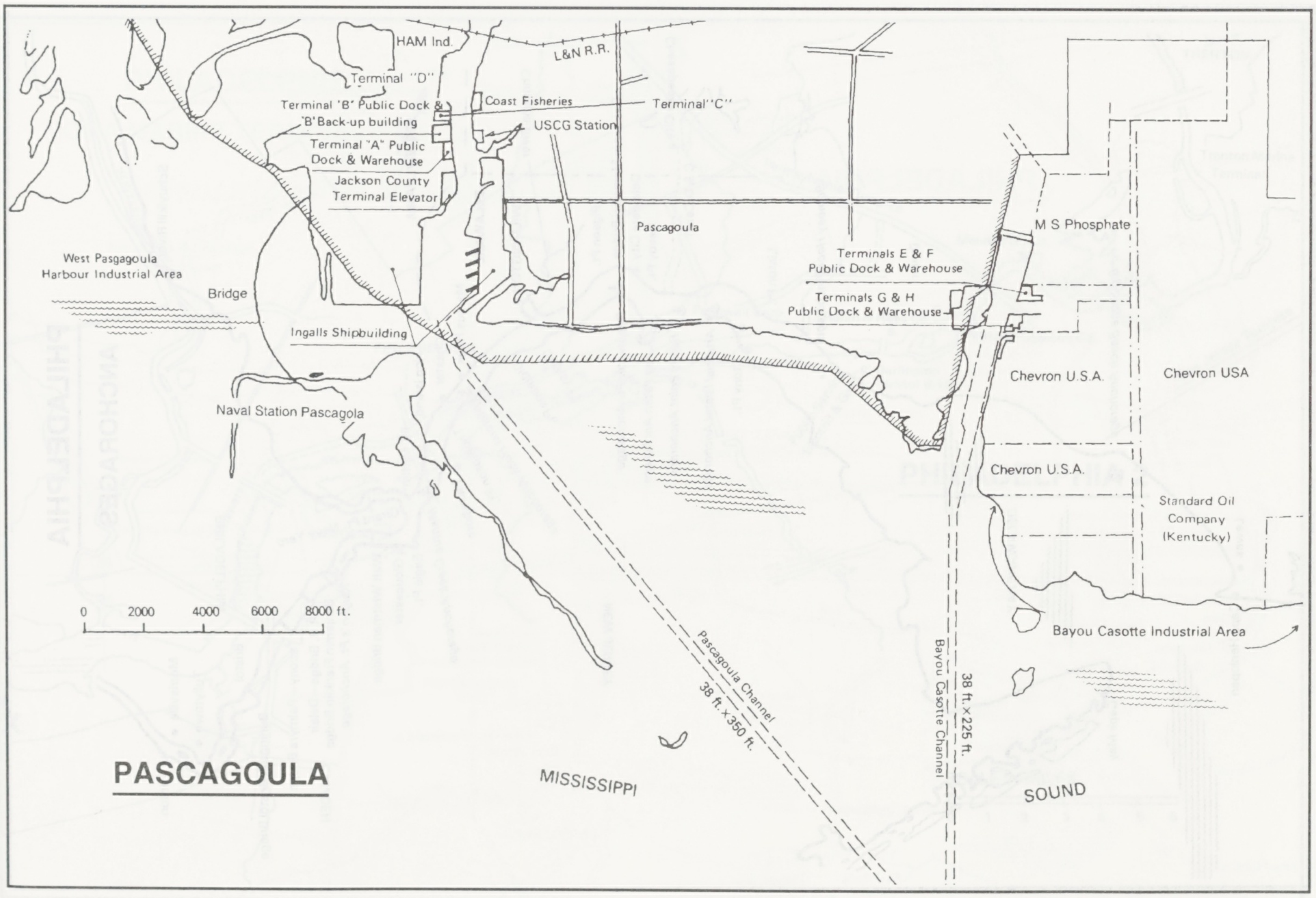
PANAMA CITY


N
–38ft.
300
Bayou Casotte Channel
556
TERMINALS G & H
516
1750
Turning Basin
–38ft.
940
517
TERMINALS E & F
400
Barge Slip
M S Phosphate
695
737
–38ft.
TERMINAL G EXTENSION
Chevron

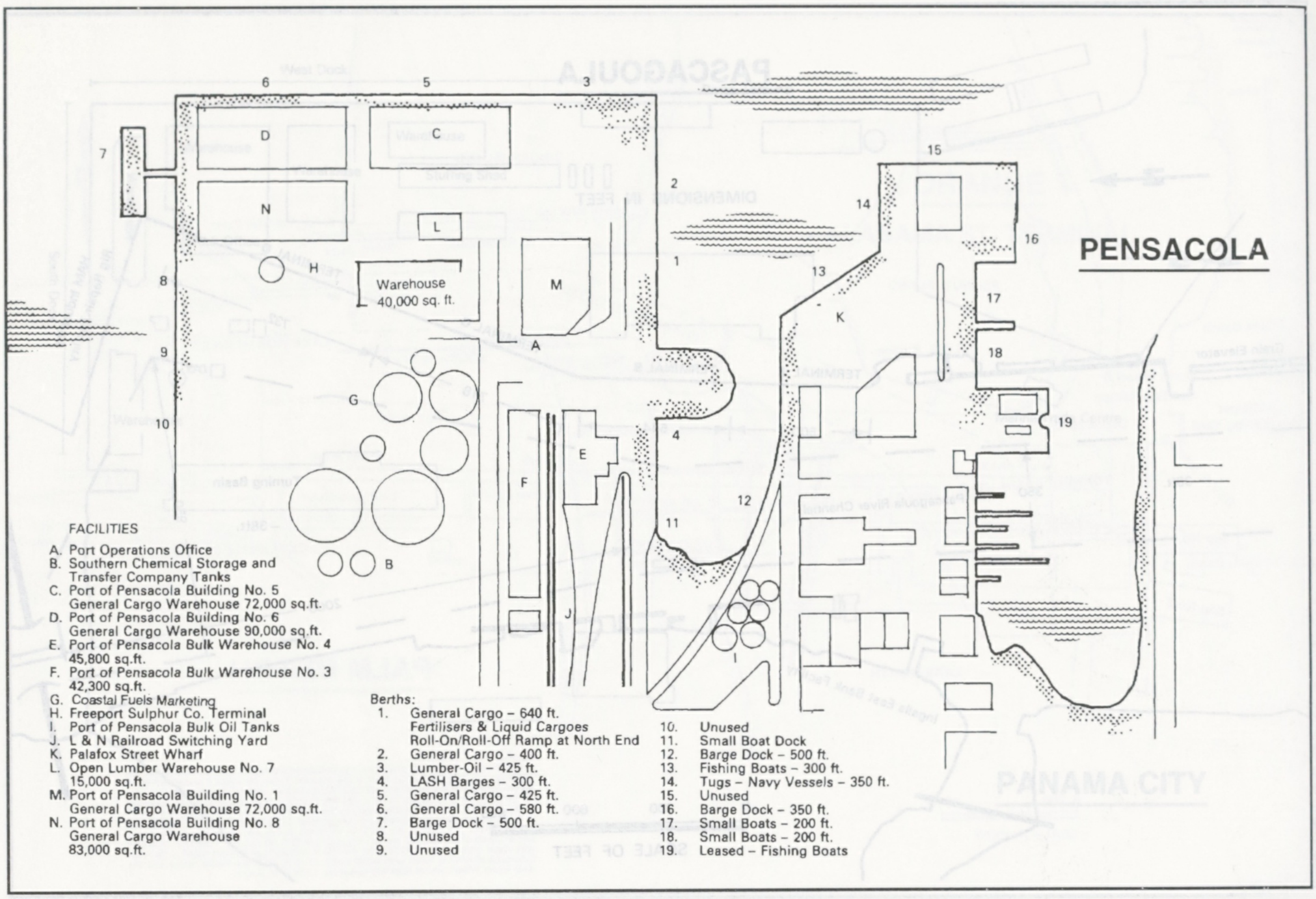
PASCAGOULA

DIMENSIONS IN FEET


PASCAGOULA
N
DIMENSIONS IN FEET
Grain Elevator
TERMINAL A
TERMINAL B
TERMINAL C
TERMINAL D
HAM Industries
Rig Repair Facility
500
544
718
732
950
2000
350
–38ft.
Pascagoula River Channel
Turning Basin
–38ft.
Ingalls East Bank Facility
0
300
600
900
SCALE OF FEET


HAM Ind.
L&N R.R.
Terminal "D"
Terminal 'B' Public Dock &
'B' Back-up building
Coast Fisheries
Terminal "C"
USCG Station
Terminal "A" Public
Dock & Warehouse
Jackson County
Terminal Elevator
Pascagoula
West Pasgagoula
Harbour Industrial Area
Bridge
Ingalls Shipbuilding
Naval Station Pascagoula
M S Phosphate
Terminals E & F
Public Dock & Warehouse
Terminals G & H
Public Dock & Warehouse
Chevron U.S.A.
Chevron USA
Chevron U.S.A.
Standard Oil
Company
(Kentucky)
Bayou Casotte Industrial Area
0
2000
4000
6000
8000 ft.
Pascagoula Channel
38 ft. × 350 ft.
38 ft. × 225 ft.
Bayou Casotte Channel
PASCAGOULA
MISSISSIPPI
SOUND

PENSACOLA



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
A
B
C
D
E
F
G
H
I
J
K
L
M
N
Warehouse
40,000 sq. ft.

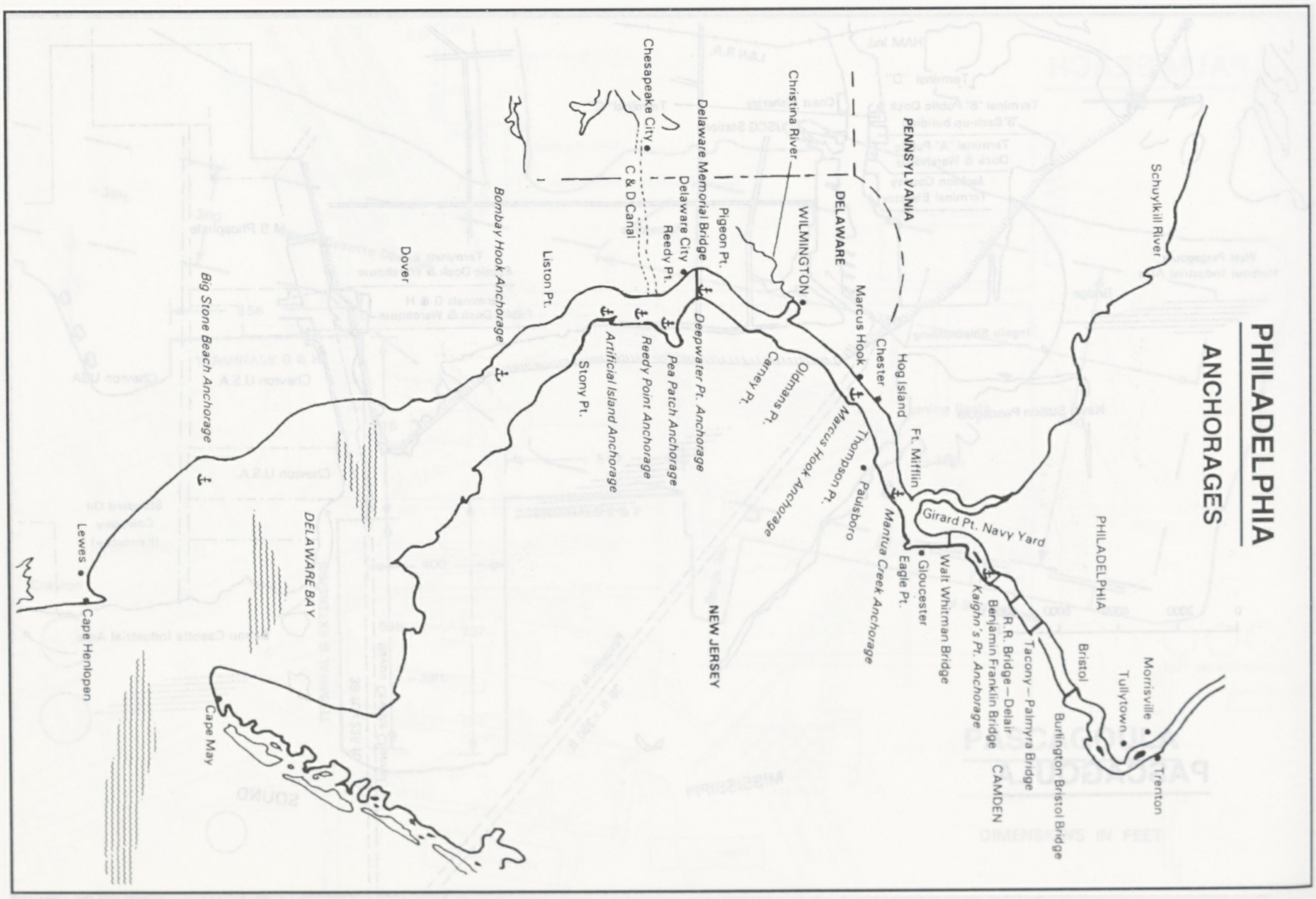
FACILITIES

- A. Port Operations Office
- B. Southern Chemical Storage and Transfer Company Tanks
- C. Port of Pensacola Building No. 5 General Cargo Warehouse 72,000 sq.ft.
- D. Port of Pensacola Building No. 6 General Cargo Warehouse 90,000 sq.ft.
- E. Port of Pensacola Bulk Warehouse No. 4 45,800 sq.ft.
- F. Port of Pensacola Bulk Warehouse No. 3 42,300 sq.ft.
- G. Coastal Fuels Marketing
- H. Freeport Sulphur Co. Terminal
- I. Port of Pensacola Bulk Oil Tanks
- J. L & N Railroad Switching Yard
- K. Palafox Street Wharf
- L. Open Lumber Warehouse No. 7 15,000 sq.ft.
- M. Port of Pensacola Building No. 1 General Cargo Warehouse 72,000 sq.ft.
- N. Port of Pensacola Building No. 8 General Cargo Warehouse 83,000 sq.ft.

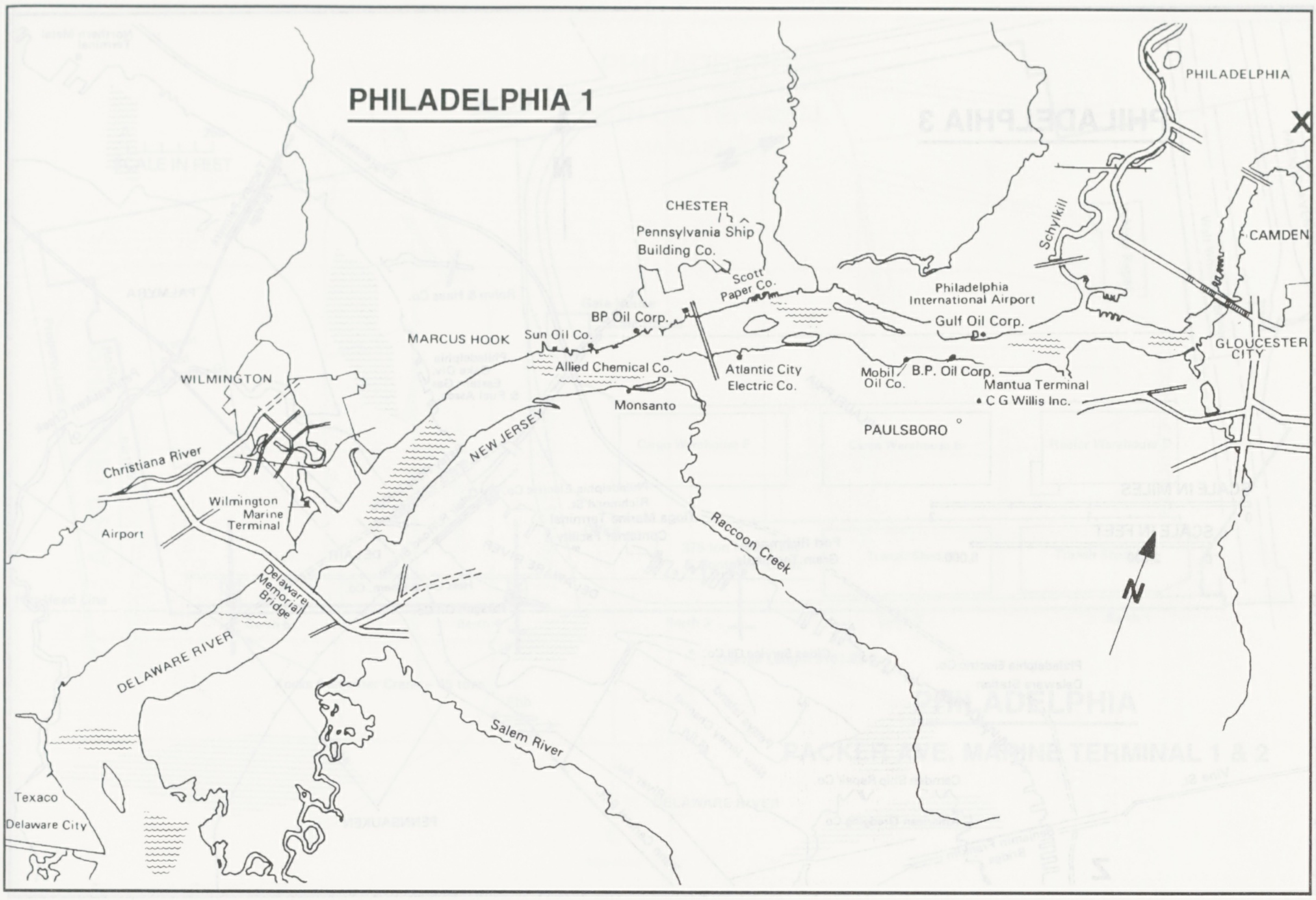
Berths:

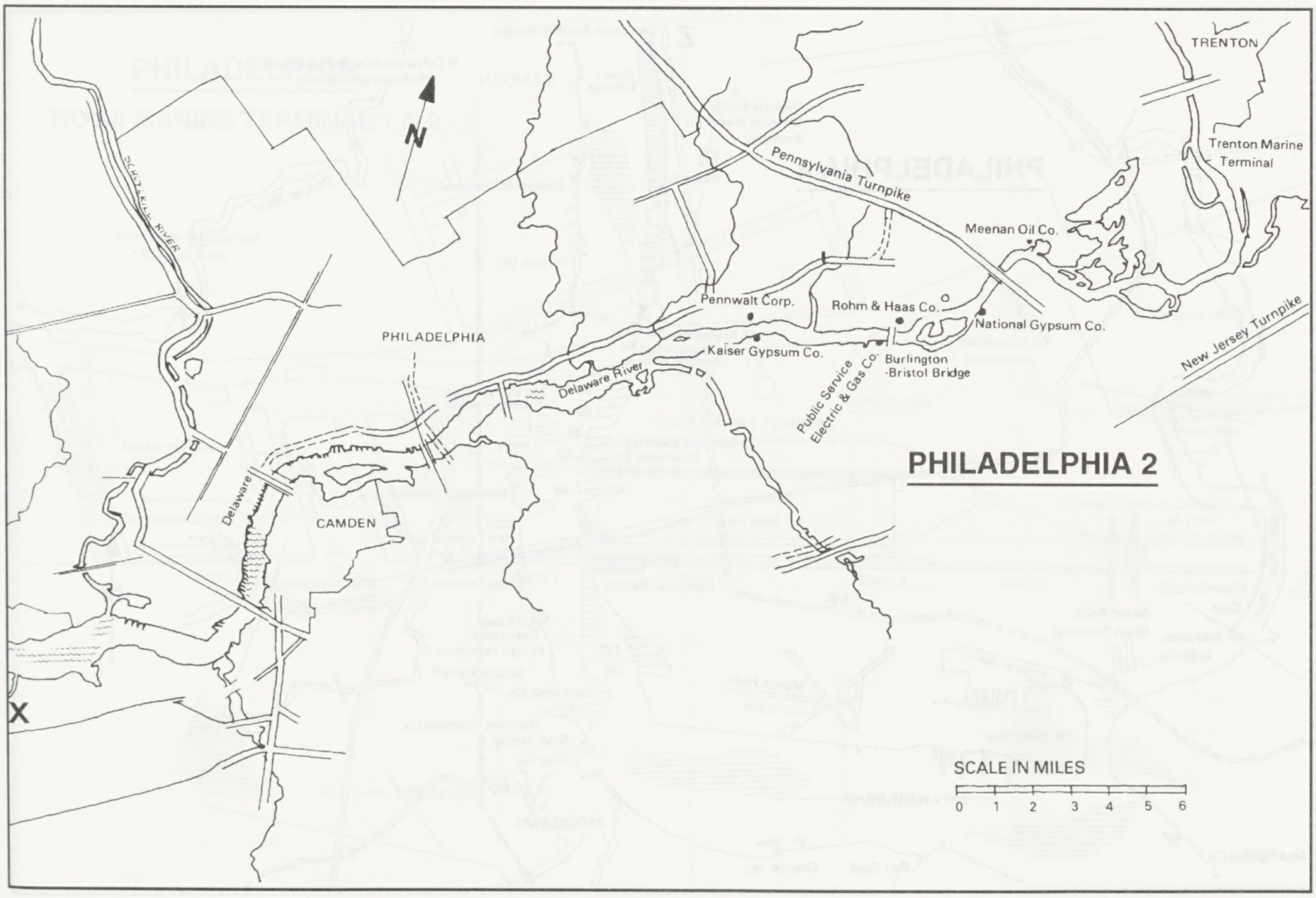
1. General Cargo – 640 ft. Fertilisers & Liquid Cargoes Roll-On/Roll-Off Ramp at North End
2. General Cargo – 400 ft.
3. Lumber-Oil – 425 ft.
4. LASH Barges – 300 ft.
5. General Cargo – 425 ft.
6. General Cargo – 580 ft.
7. Barge Dock – 500 ft.
8. Unused
9. Unused
10. Unused
11. Small Boat Dock
12. Barge Dock – 500 ft.
13. Fishing Boats – 300 ft.
14. Tugs – Navy Vessels – 350 ft.
15. Unused
16. Barge Dock – 350 ft.
17. Small Boats – 200 ft.
18. Small Boats – 200 ft.
19. Leased – Fishing Boats

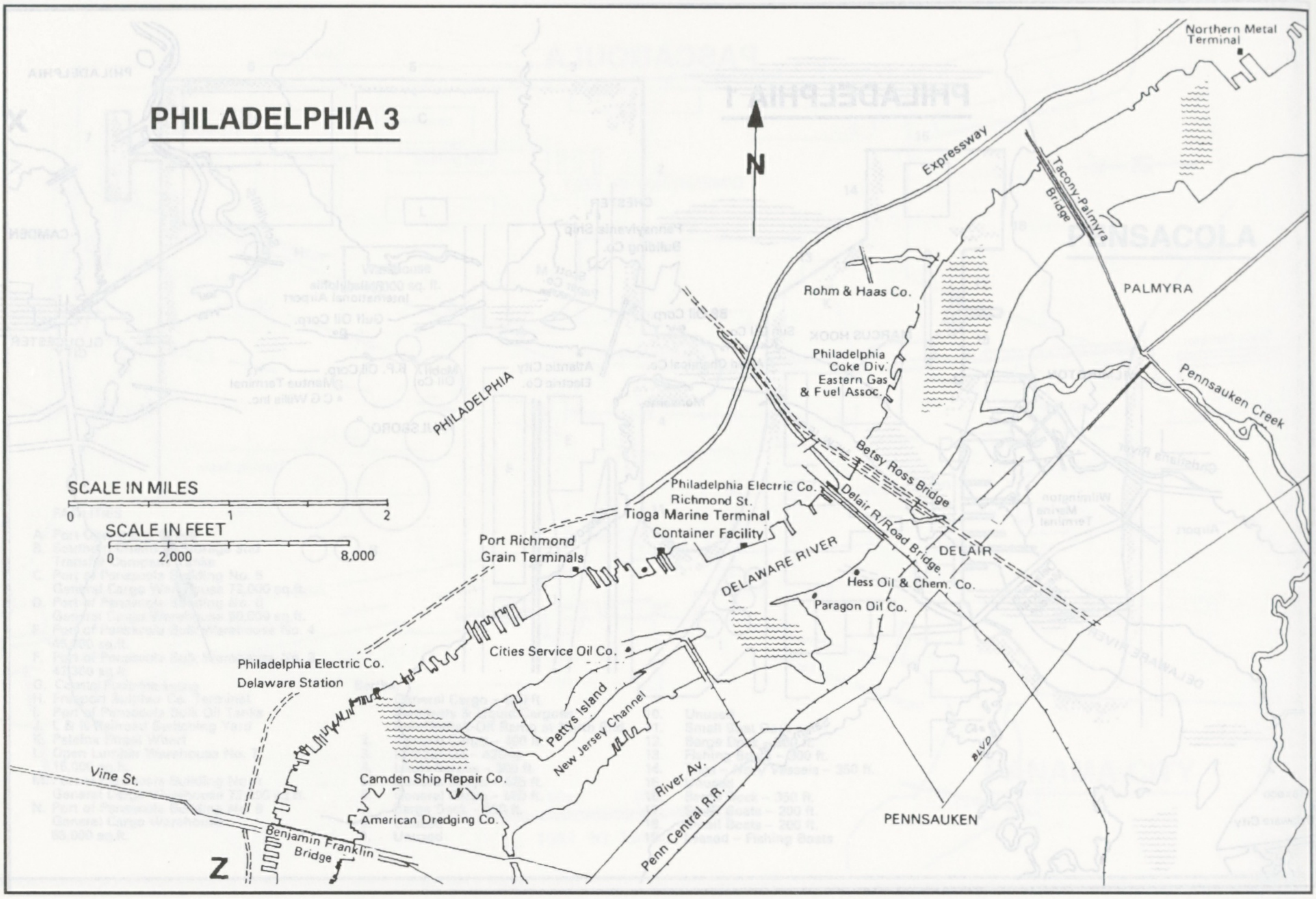
PHILADELPHIA ANCHORAGES

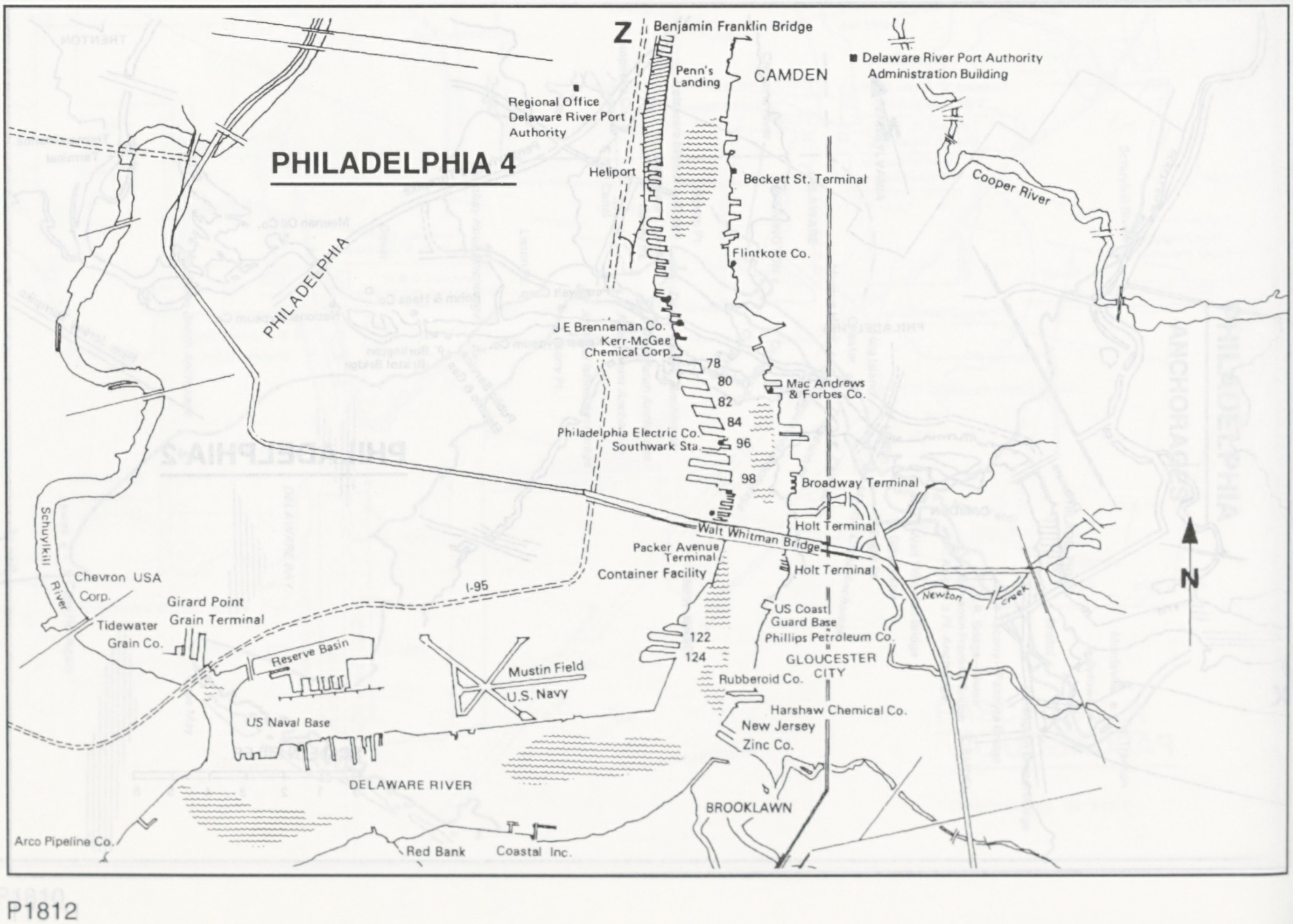


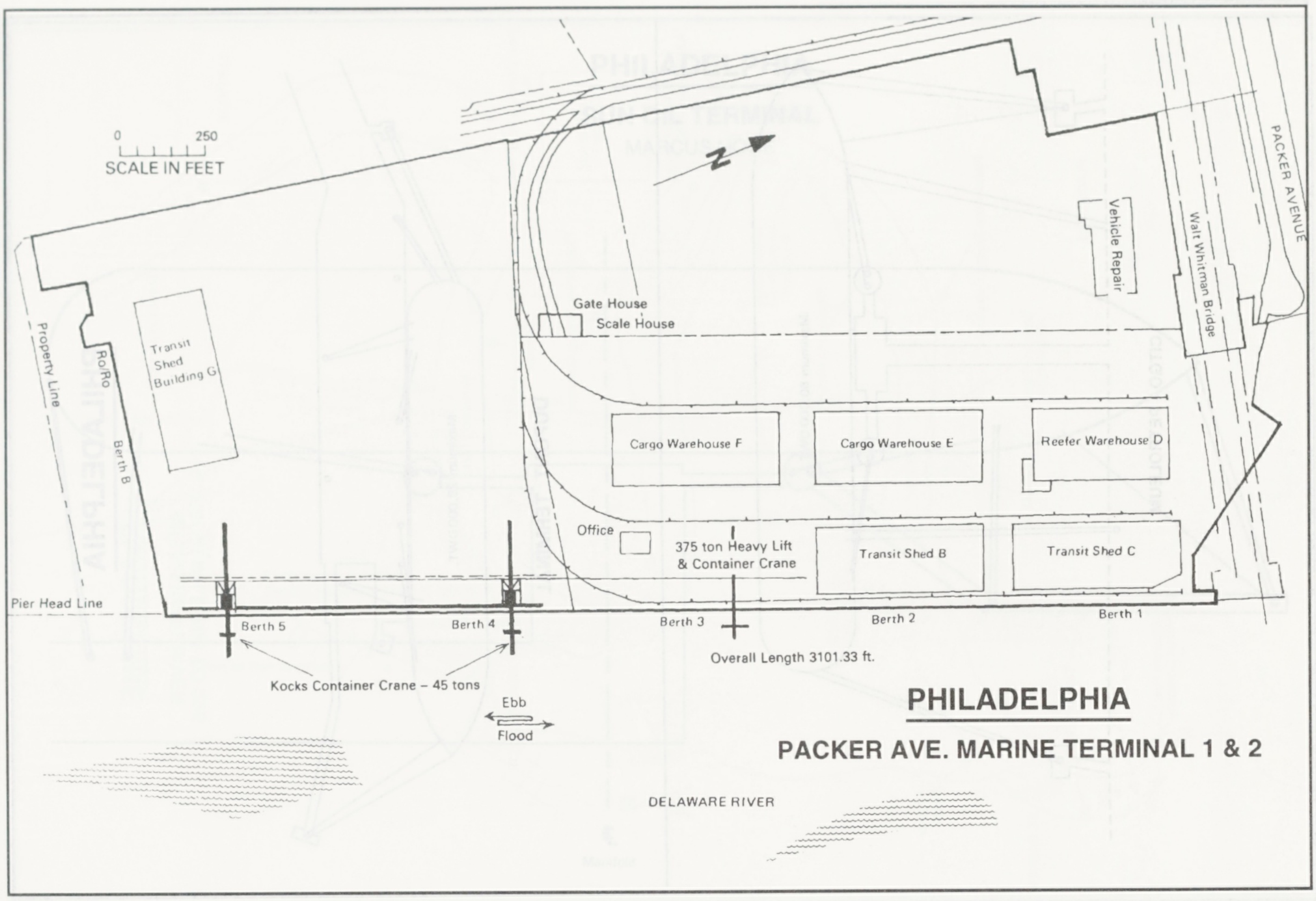
Chesapeake City
C & D Canal
Delaware Memorial Bridge
Delaware City
Reedy Pt.
Pigeon Pt.
Christina River
WILMINGTON
DELAWARE
PENNSYLVANIA
Marcus Hook
Chester
Hog Island
Ft. Mifflin
Schuylkill River
Bombay Hook Anchorage
Liston Pt.
Dover
Big Stone Beach Anchorage
Artificial Island Anchorage
Stony Pt.
Reedy Point Anchorage
Pea Patch Anchorage
Deepwater Pt. Anchorage
Carney Pt.
Oldmans Pt.
Marcus Hook Anchorage
Thompson Pt.
Paulsboro
Mantua Creek Anchorage
Eagle Pt.
Girard Pt. Navy Yard
Gloucester
Walt Whitman Bridge
Kaighn's Pt. Anchorage
Benjamin Franklin Bridge
R.R. Bridge – Delair
CAMDEN
Tacony – Palmyra Bridge
Burlington Bristol Bridge
Bristol
PHILADELPHIA
Tullytown
Morrisville
Trenton
NEW JERSEY
DELAWARE BAY
Lewes
Cape Henlopen
Cape May


PHILADELPHIA 1
PHILADELPHIA
X
CAMDEN
Schylkill
CHESTER
Pennsylvania Ship
Building Co.
Scott
Paper Co.
Philadelphia
International Airport
Gulf Oil Corp.
GLOUCESTER
CITY
BP Oil Corp.
MARCUS HOOK
Sun Oil Co.
Allied Chemical Co.
Atlantic City
Electric Co.
Mobil
Oil Co.
B.P. Oil Corp.
Mantua Terminal
C G Willis Inc.
Monsanto
PAULSBORO
WILMINGTON
NEW JERSEY
Christiana River
Wilmington
Marine
Terminal
Airport
Raccoon Creek
N
Delaware
Memorial
Bridge
DELAWARE RIVER
Salem River
Texaco
Delaware City


TRENTON
Trenton Marine
Terminal
N
Pennsylvania Turnpike
SCHUYLKILL RIVER
Meenan Oil Co.
Pennwalt Corp.
Rohm & Haas Co.
National Gypsum Co.
PHILADELPHIA
Kaiser Gypsum Co.
Burlington
-Bristol Bridge
New Jersey Turnpike
Delaware River
Public Service
Electric & Gas Co.
PHILADELPHIA 2
Delaware
CAMDEN
X
SCALE IN MILES
0
1
2
3
4
5
6


PHILADELPHIA 3
N
Northern Metal Terminal
Expressway
Tacony-Palmyra Bridge
PALMYRA
Rohm & Haas Co.
Philadelphia Coke Div. Eastern Gas & Fuel Assoc.
Pennsauken Creek
Betsy Ross Bridge
Delair R/Road Bridge
DELAIR
Philadelphia Electric Co. Richmond St.
Tioga Marine Terminal Container Facility
SCALE IN MILES
0
1
2
SCALE IN FEET
0
2,000
8,000
Port Richmond Grain Terminals
DELAWARE RIVER
Hess Oil & Chem. Co.
Paragon Oil Co.
PHILADELPHIA
Cities Service Oil Co.
Philadelphia Electric Co. Delaware Station
Pettys Island
New Jersey Channel
BLVD
Camden Ship Repair Co.
Vine St.
American Dredging Co.
River Av.
Penn Central R.R.
PENNSAUKEN
Benjamin Franklin Bridge
Z

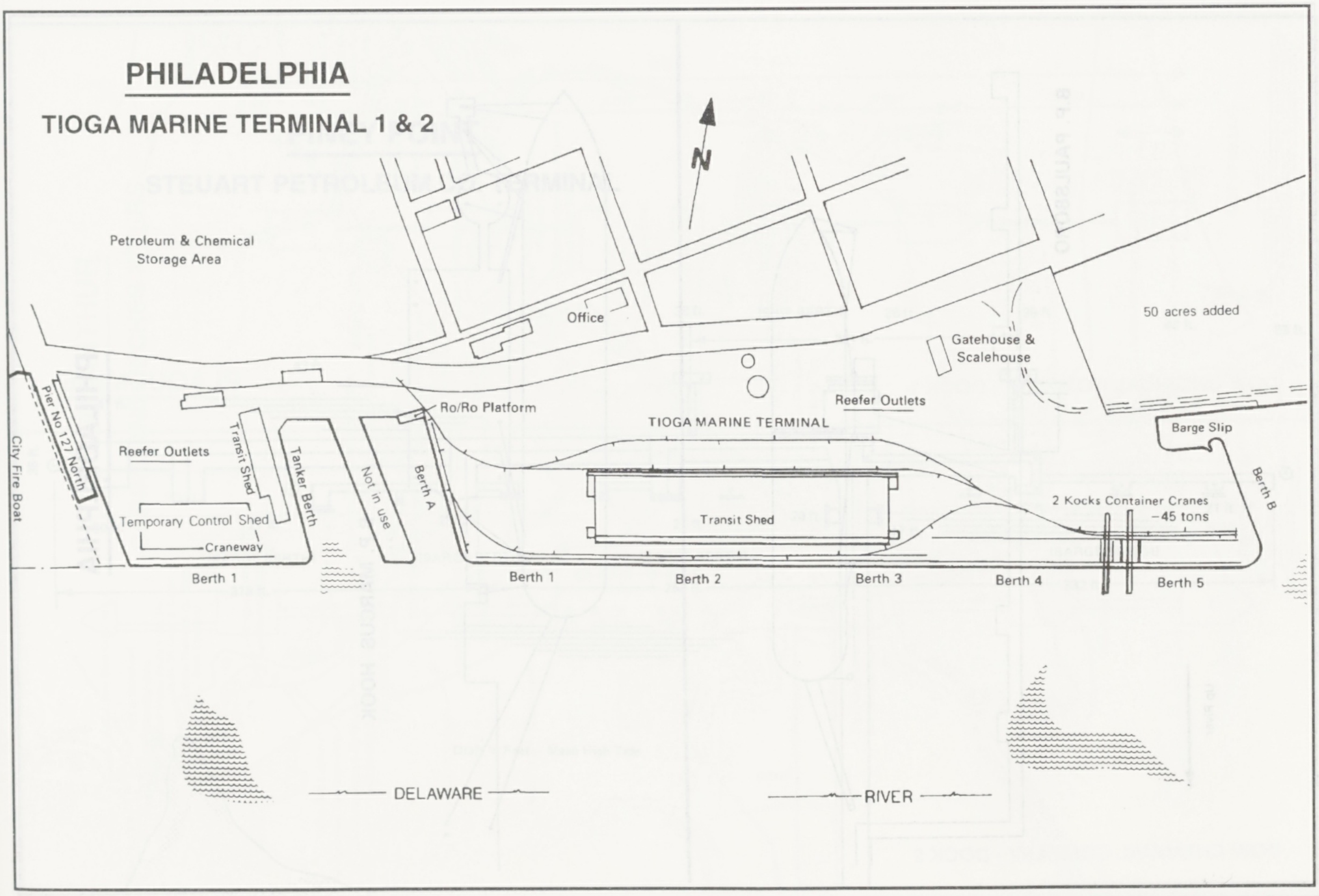

Z
Benjamin Franklin Bridge
Penn's Landing
CAMDEN
Delaware River Port Authority Administration Building
Regional Office Delaware River Port Authority
PHILADELPHIA 4
Heliport
Beckett St. Terminal
Cooper River
Flintkote Co.
PHILADELPHIA
J E Brenneman Co.
Kerr-McGee Chemical Corp.
78
80
82
84
Mac Andrews & Forbes Co.
Philadelphia Electric Co. Southwark Sta.
96
98
Broadway Terminal
Holt Terminal
Walt Whitman Bridge
Packer Avenue Terminal
Container Facility
Holt Terminal
N
Schuylkill River
Chevron USA Corp.
Girard Point Grain Terminal
Tidewater Grain Co.
I-95
US Coast Guard Base
Phillips Petroleum Co.
Newton Creek
122
124
GLOUCESTER CITY
Reserve Basin
Mustin Field U.S. Navy
Rubberoid Co.
Harshaw Chemical Co.
US Naval Base
New Jersey Zinc Co.
DELAWARE RIVER
BROOKLAWN
Arco Pipeline Co.
Red Bank
Coastal Inc.



PHILADELPHIA

PACKER AVE. MARINE TERMINAL 1 & 2

0 250
SCALE IN FEET
N
PACKER AVENUE
Walt Whitman Bridge
Vehicle Repair
Gate House
Scale House
Property Line
Ro/Ro
Transit Shed Building G
Berth B
Cargo Warehouse F
Cargo Warehouse E
Reefer Warehouse D
Office
375 ton Heavy Lift & Container Crane
Transit Shed B
Transit Shed C
Pier Head Line
Berth 5
Berth 4
Berth 3
Berth 2
Berth 1
Overall Length 3101.33 ft.
Kocks Container Crane – 45 tons
Ebb
Flood
DELAWARE RIVER

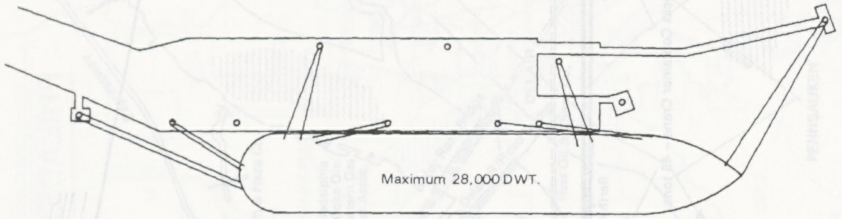


PHILADELPHIA

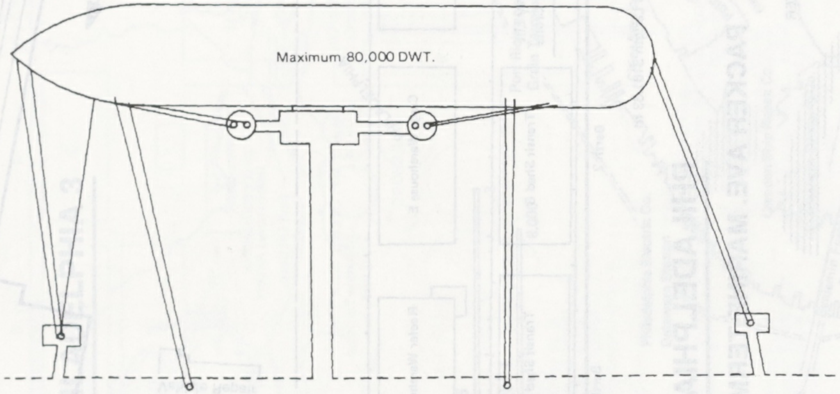
TIOGA MARINE TERMINAL 1 & 2

N
Petroleum & Chemical Storage Area
Office
Gatehouse & Scalehouse
50 acres added
Ro/Ro Platform
Reefer Outlets
TIOGA MARINE TERMINAL
Barge Slip
Pier No 127 North
City Fire Boat
Reefer Outlets
Transit Shed
Tanker Berth
Not in use
Berth A
Temporary Control Shed
Craneway
Transit Shed
2 Kocks Container Cranes – 45 tons
Berth B
Berth 1
Berth 1
Berth 2
Berth 3
Berth 4
Berth 5
DELAWARE
RIVER

PHILADELPHIA


Maximum 28,000 DWT.

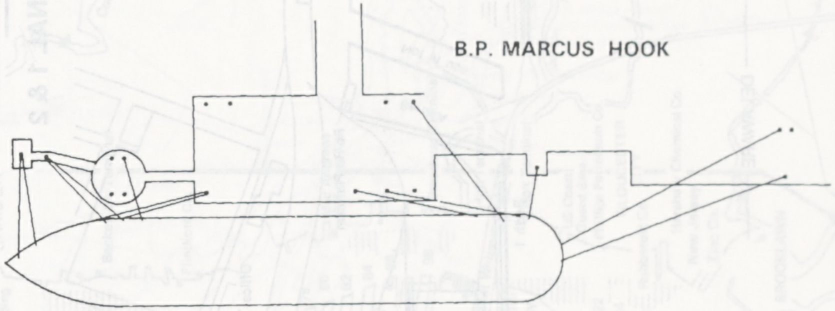
DUPONT TERMINAL

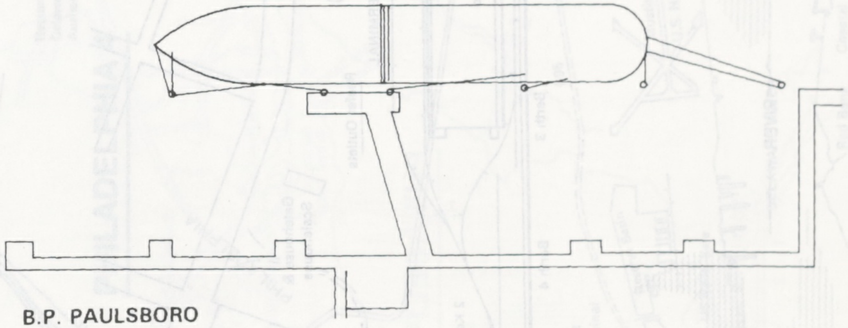

Maximum 80,000 DWT.

CITGO - PETROLEUM

PHILADELPHIA

B.P. MARCUS HOOK



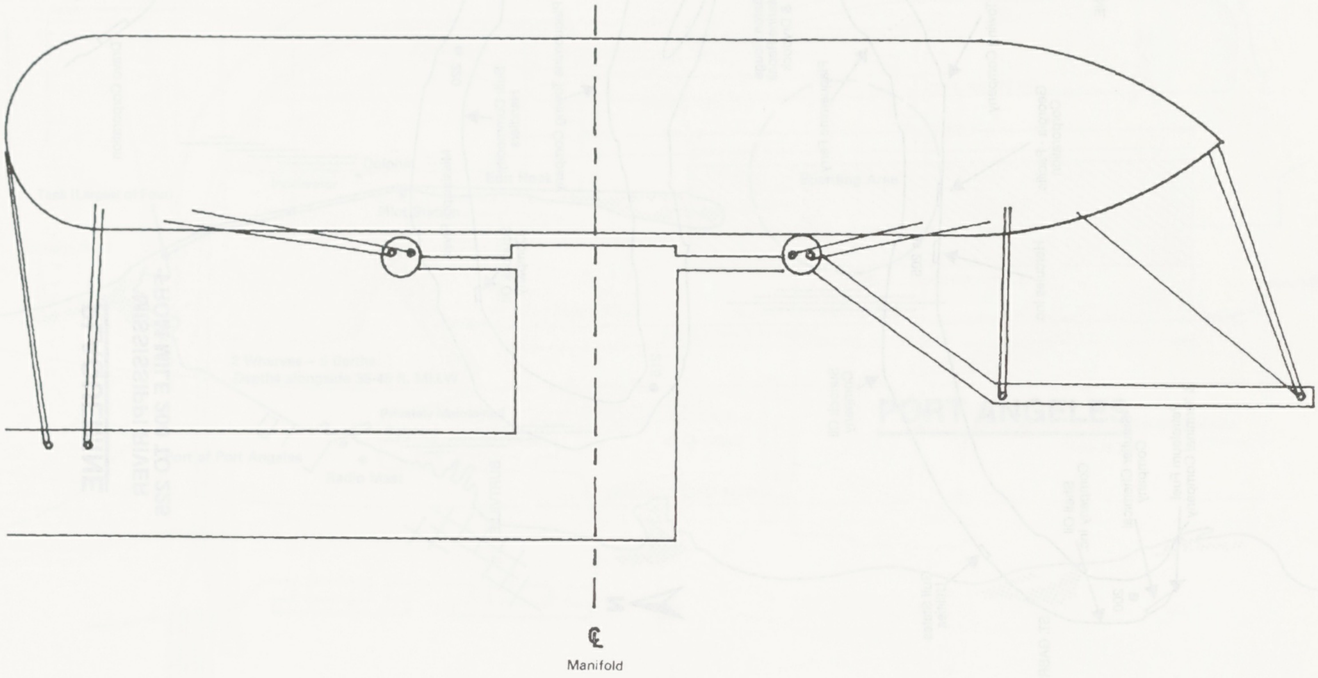


B.P. PAULSBORO

PHILADELPHIA

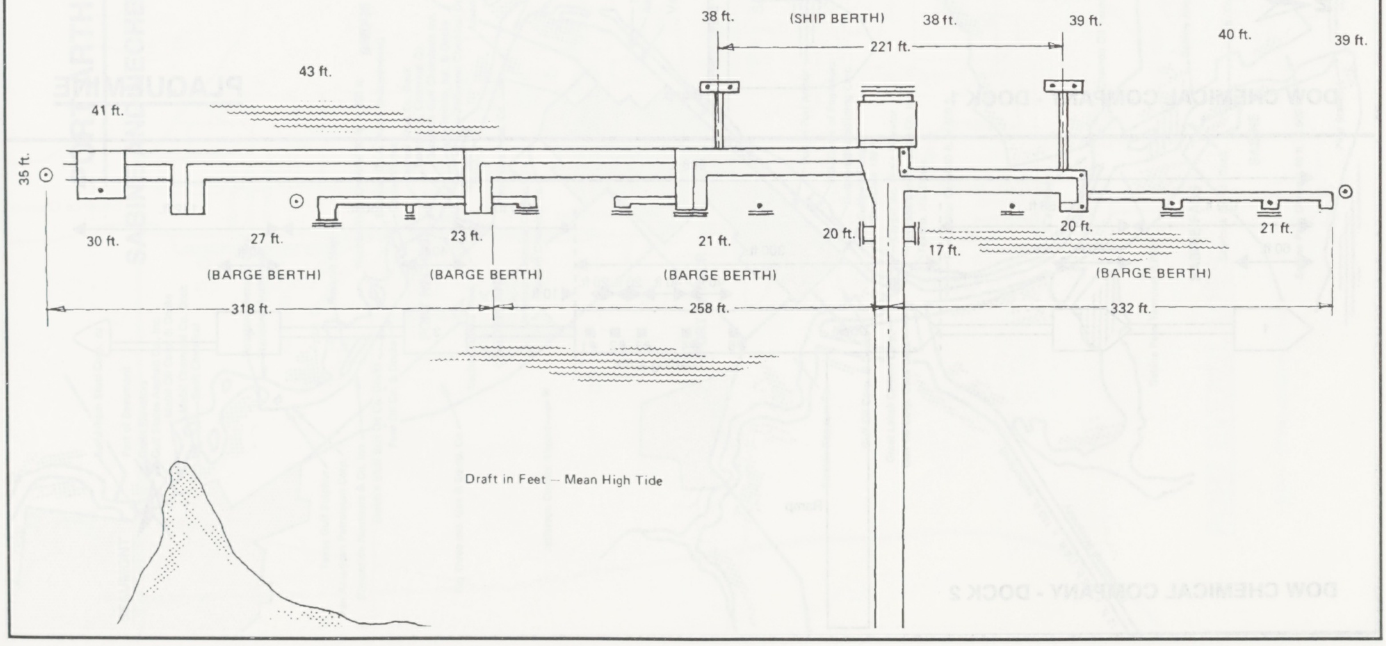
SUN OIL TERMINAL

MARCUS HOOK



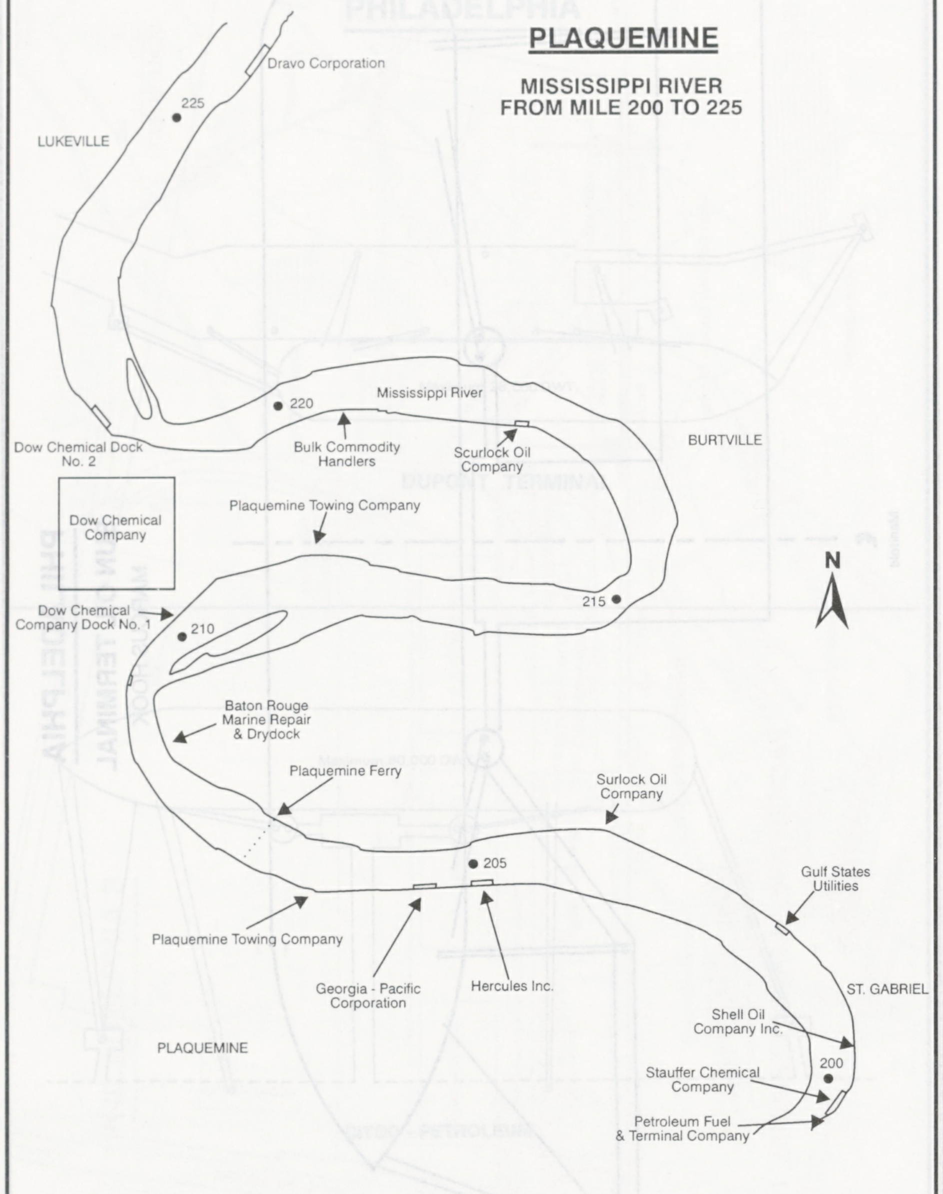
PINEY POINT

STEUART PETROLEUM CO. TERMINAL

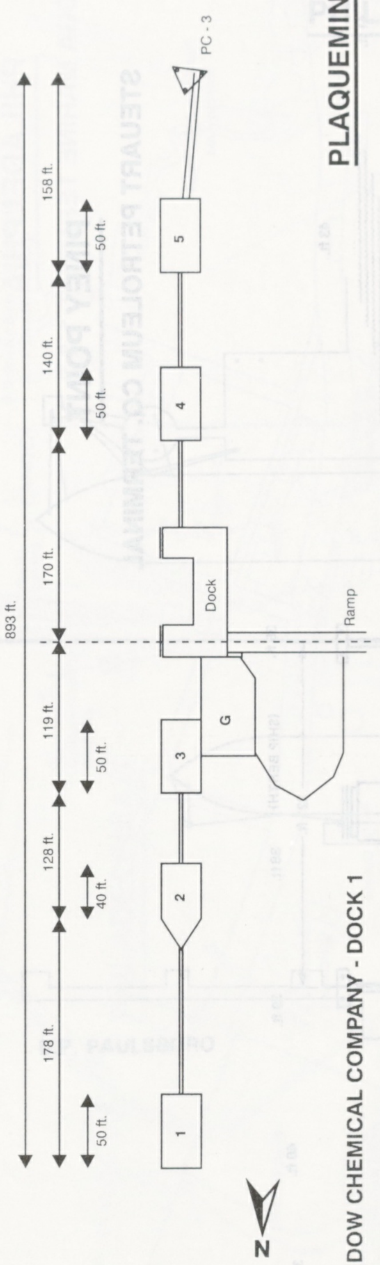

38 ft.
(SHIP BERTH)
38 ft.
39 ft.
40 ft.
39 ft.
221 ft.
43 ft.
41 ft.
35 ft.
30 ft.
27 ft.
23 ft.
21 ft.
20 ft.
17 ft.
20 ft.
21 ft.
(BARGE BERTH)
(BARGE BERTH)
(BARGE BERTH)
(BARGE BERTH)
318 ft.
258 ft.
332 ft.
Draft in Feet – Mean High Tide

PLAQUEMINE

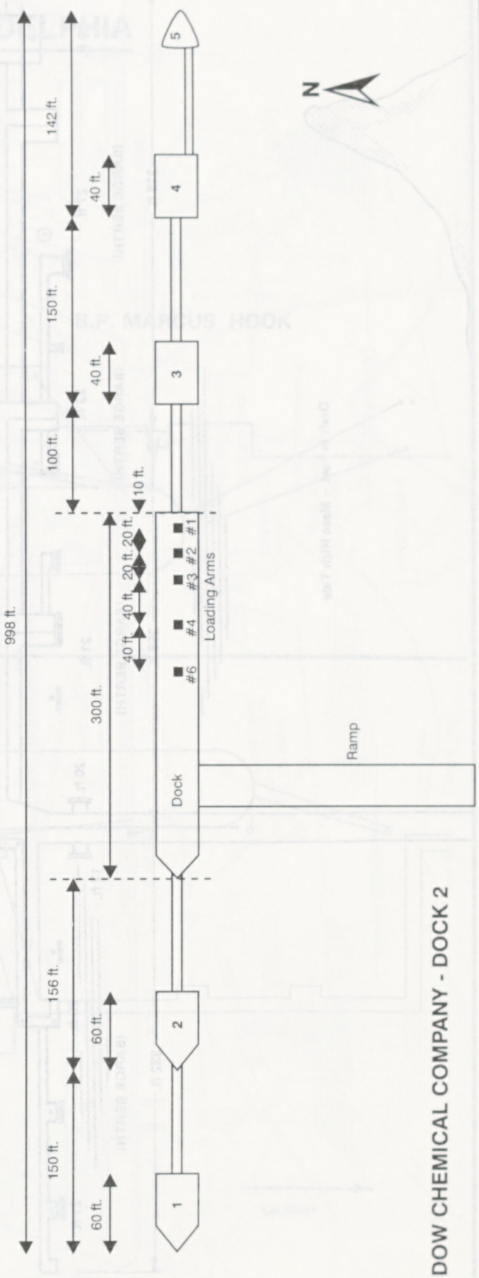
MISSISSIPPI RIVER
FROM MILE 200 TO 225


Dravo Corporation
225
LUKEVILLE
220
Mississippi River
Bulk Commodity Handlers
Scurlock Oil Company
BURTVILLE
Dow Chemical Dock No. 2
Dow Chemical Company
Plaquemine Towing Company
N
215
Dow Chemical Company Dock No. 1
210
Baton Rouge Marine Repair & Drydock
Plaquemine Ferry
Surlock Oil Company
205
Gulf States Utilities
Plaquemine Towing Company
Georgia - Pacific Corporation
Hercules Inc.
ST. GABRIEL
Shell Oil Company Inc.
200
Stauffer Chemical Company
Petroleum Fuel & Terminal Company
PLAQUEMINE

PLAQUEMINE


PC - 3
893 ft.
158 ft.
140 ft.
170 ft.
119 ft.
128 ft.
178 ft.
50 ft.
50 ft.
50 ft.
40 ft.
50 ft.
5
4
Dock
Ramp
G
3
2
1
N

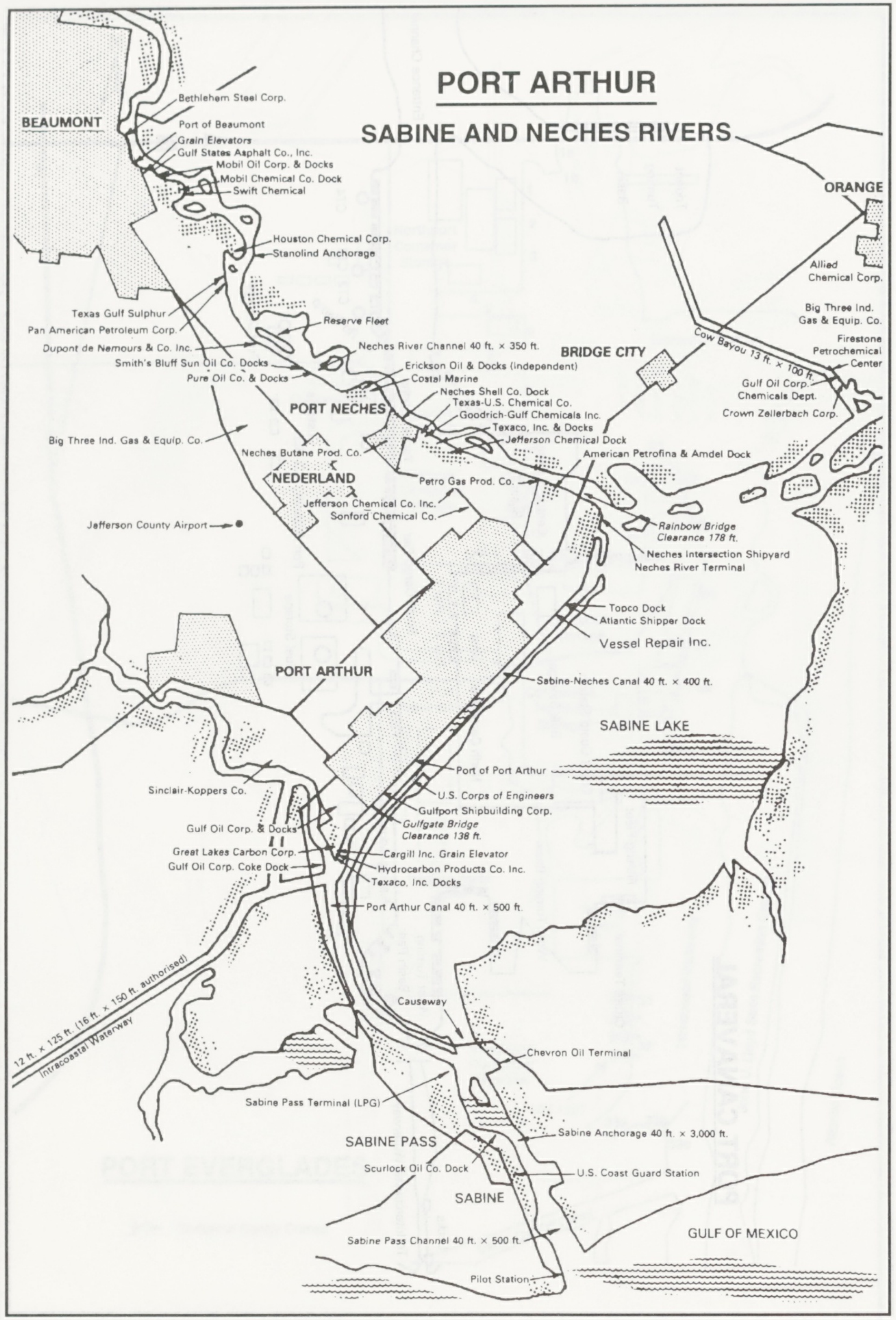
DOW CHEMICAL COMPANY - DOCK 1


998 ft.
142 ft.
150 ft.
100 ft.
300 ft.
156 ft.
150 ft.
40 ft.
40 ft.
10 ft.
20 ft.
20 ft.
40 ft.
40 ft.
40 ft.
60 ft.
60 ft.
5
N
4
3
#1
#2
#3
#4
#6
Loading Arms
Dock
Ramp
2
1

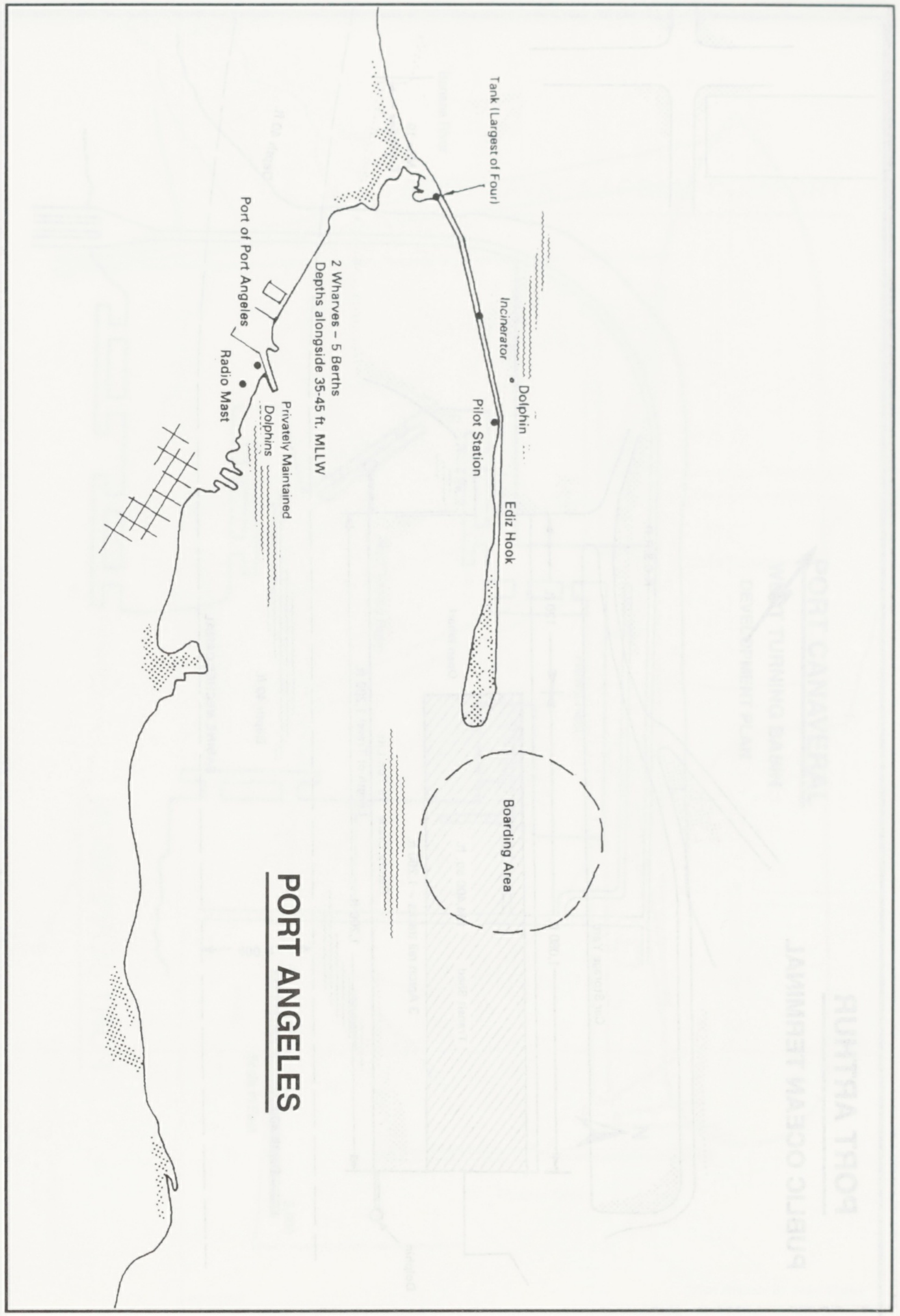
DOW CHEMICAL COMPANY - DOCK 2

PORT ARTHUR

SABINE AND NECHES RIVERS

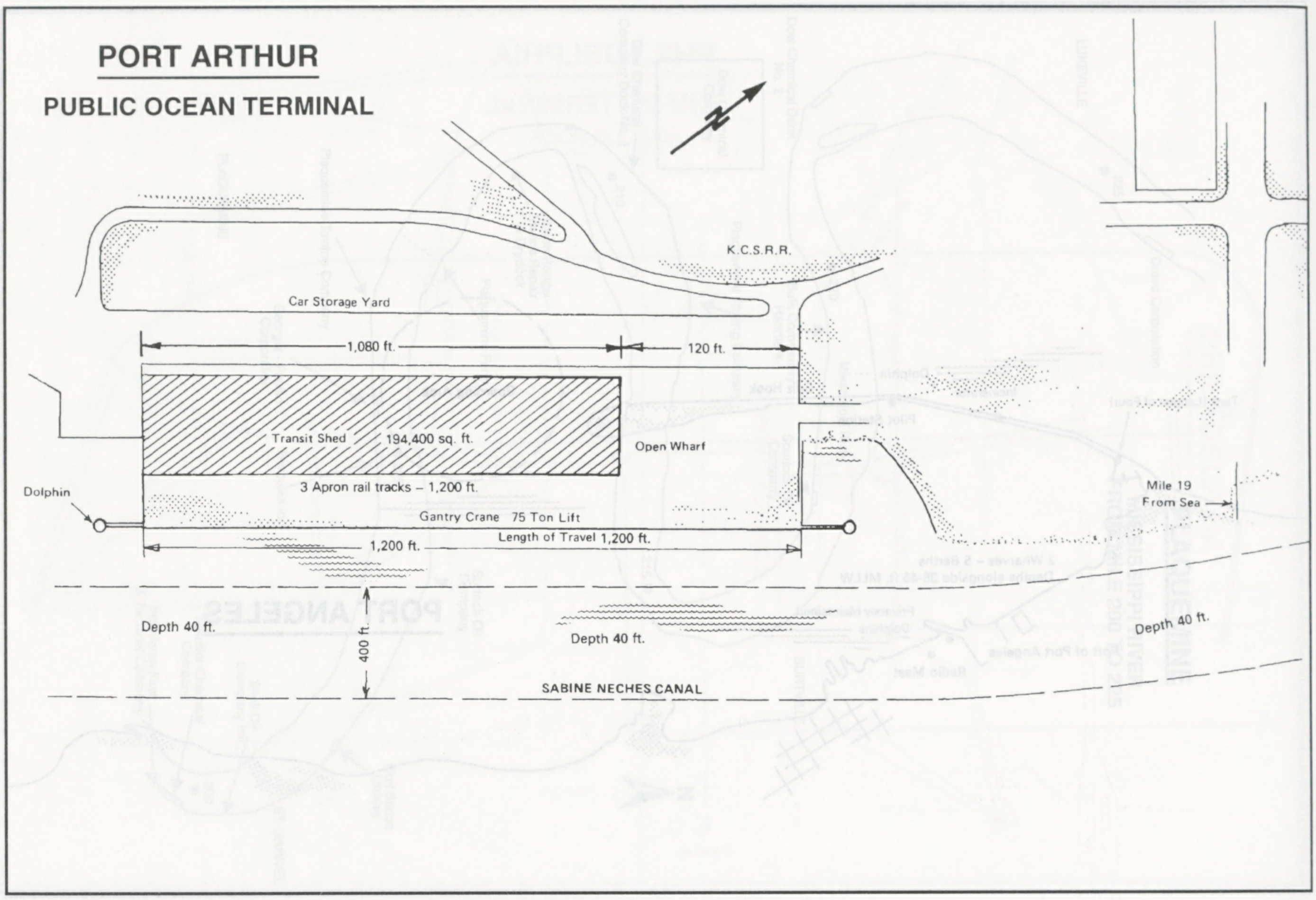

BEAUMONT
Bethlehem Steel Corp.
Port of Beaumont
Grain Elevators
Gulf States Asphalt Co., Inc.
Mobil Oil Corp. & Docks
Mobil Chemical Co. Dock
Swift Chemical
Houston Chemical Corp.
Stanolind Anchorage
Texas Gulf Sulphur
Pan American Petroleum Corp.
Reserve Fleet
Dupont de Nemours & Co. Inc.
Neches River Channel 40 ft. × 350 ft.
Smith's Bluff Sun Oil Co. Docks
Pure Oil Co. & Docks
Erickson Oil & Docks (Independent)
Costal Marine
BRIDGE CITY
ORANGE
Allied Chemical Corp.
Big Three Ind. Gas & Equip. Co.
Cow Bayou 13 ft. × 100 ft.
Firestone Petrochemical Center
Gulf Oil Corp. Chemicals Dept.
Crown Zellerbach Corp.
PORT NECHES
Neches Shell Co. Dock
Texas-U.S. Chemical Co.
Goodrich-Gulf Chemicals Inc.
Texaco, Inc. & Docks
Jefferson Chemical Dock
American Petrofina & Amdel Dock
Big Three Ind. Gas & Equip. Co.
Neches Butane Prod. Co.
NEDERLAND
Petro Gas Prod. Co.
Jefferson Chemical Co. Inc.
Sonford Chemical Co.
Jefferson County Airport
Rainbow Bridge Clearance 178 ft.
Neches Intersection Shipyard
Neches River Terminal
Topco Dock
Atlantic Shipper Dock
Vessel Repair Inc.
PORT ARTHUR
Sabine-Neches Canal 40 ft. × 400 ft.
SABINE LAKE
Port of Port Arthur
Sinclair-Koppers Co.
U.S. Corps of Engineers
Gulfport Shipbuilding Corp.
Gulf Oil Corp. & Docks
Gulfgate Bridge Clearance 138 ft.
Great Lakes Carbon Corp.
Cargill Inc. Grain Elevator
Gulf Oil Corp. Coke Dock
Hydrocarbon Products Co. Inc.
Texaco, Inc. Docks
Port Arthur Canal 40 ft. × 500 ft.
12 ft. × 125 ft. (16 ft. × 150 ft. authorised)
Intracoastal Waterway
Causeway
Chevron Oil Terminal
Sabine Pass Terminal (LPG)
Sabine Anchorage 40 ft. × 3,000 ft.
SABINE PASS
Scurlock Oil Co. Dock
U.S. Coast Guard Station
SABINE
GULF OF MEXICO
Sabine Pass Channel 40 ft. × 500 ft.
Pilot Station

PORT ANGELES

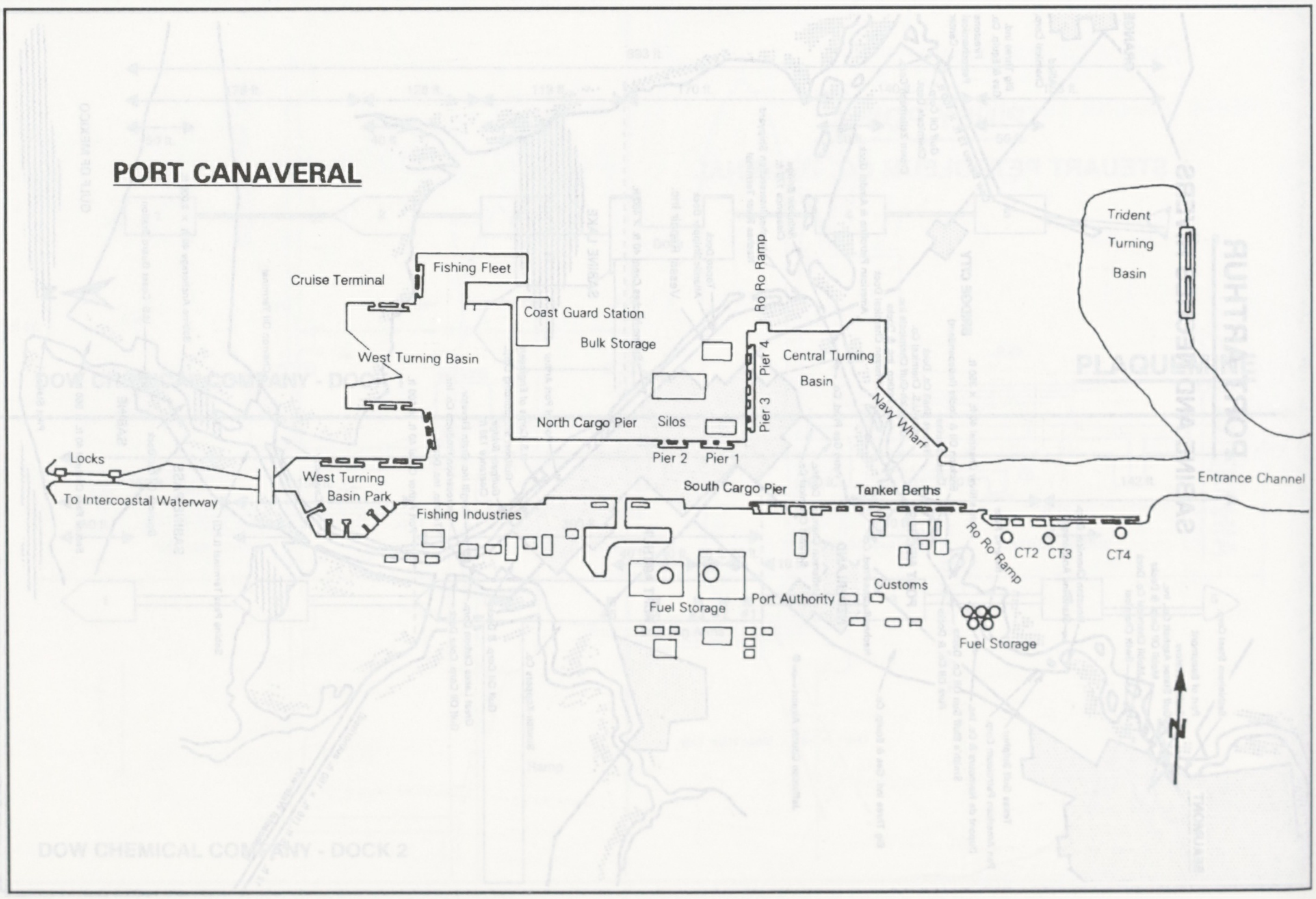

Tank (Largest of Four)
Port of Port Angeles
2 Wharves – 5 Berths
Depths alongside 35-45 ft. MLLW
Radio Mast
Privately Maintained
Dolphins
Incinerator
Dolphin
Pilot Station
Ediz Hook
Boarding Area

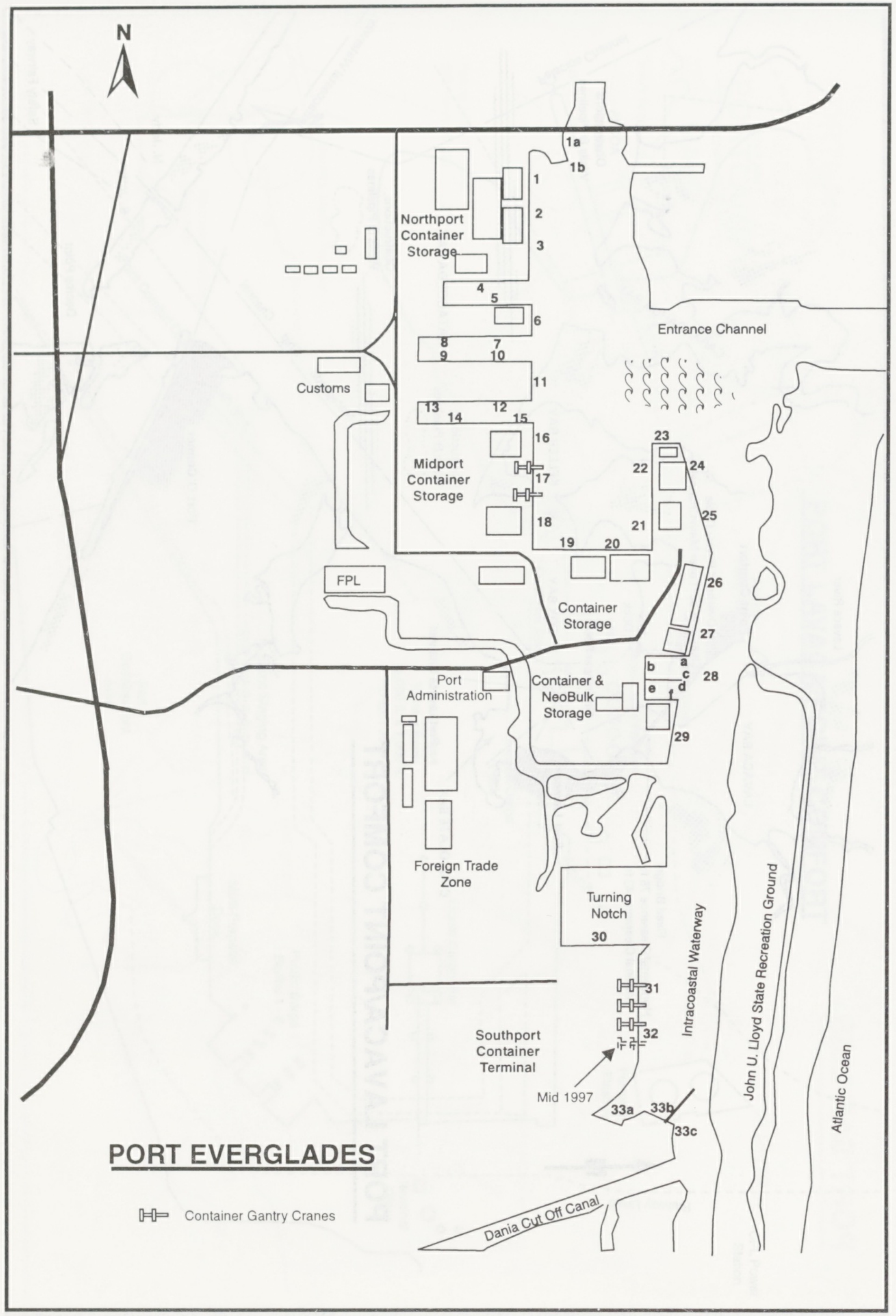
PORT ARTHUR

PUBLIC OCEAN TERMINAL


K.C.S.R.R.
Car Storage Yard
1,080 ft.
120 ft.
Transit Shed
194,400 sq. ft.
Open Wharf
3 Apron rail tracks – 1,200 ft.
Dolphin
Gantry Crane 75 Ton Lift
1,200 ft.
Length of Travel 1,200 ft.
Mile 19
From Sea
Depth 40 ft.
Depth 40 ft.
Depth 40 ft.
400 ft.
SABINE NECHES CANAL

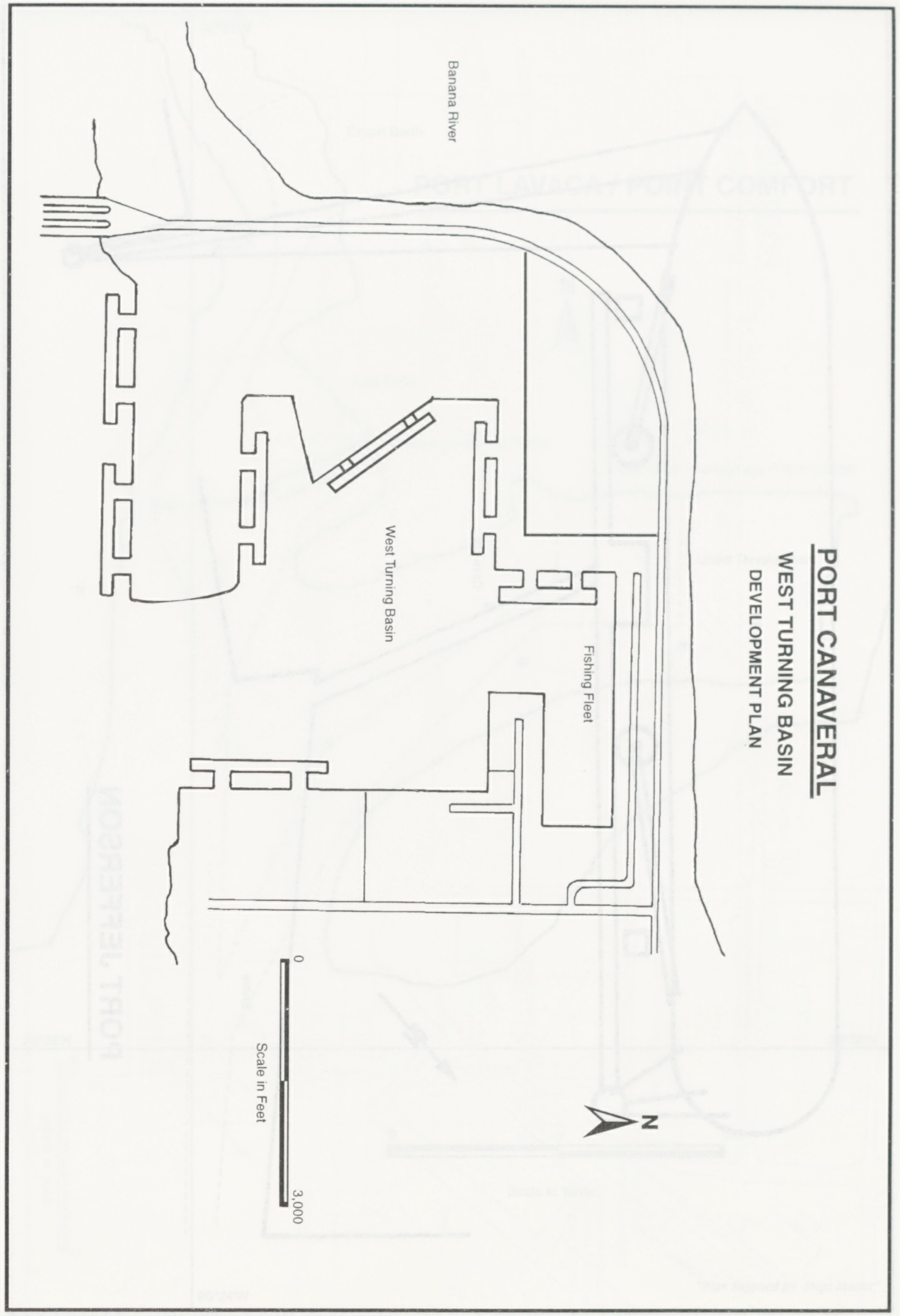
PORT CANAVERAL


Fishing Fleet
Cruise Terminal
Coast Guard Station
Ro Ro Ramp
Bulk Storage
West Turning Basin
Pier 4
Central Turning
Basin
Pier 3
Navy Wharf
North Cargo Pier
Silos
Pier 2
Pier 1
Trident
Turning
Basin
Locks
To Intercoastal Waterway
West Turning
Basin Park
Fishing Industries
South Cargo Pier
Tanker Berths
Entrance Channel
Ro Ro Ramp
CT2
CT3
CT4
Customs
Fuel Storage
Port Authority
Fuel Storage
N



PORT EVERGLADES

N
1a
1b
1
2
3
Northport Container Storage
4
5
6
Entrance Channel
8
9
7
10
Customs
11
13
14
12
15
16
Midport Container Storage
17
23
22
24
25
18
19
20
21
FPL
26
Container Storage
27
Port Administration
Container & NeoBulk Storage
a
b
c
d
e
f
28
29
Foreign Trade Zone
Turning Notch
30
31
32
Intracoastal Waterway
John U. Lloyd State Recreation Ground
Southport Container Terminal
Mid 1997
33a
33b
33c
Atlantic Ocean
Dania Cut Off Canal
Container Gantry Cranes



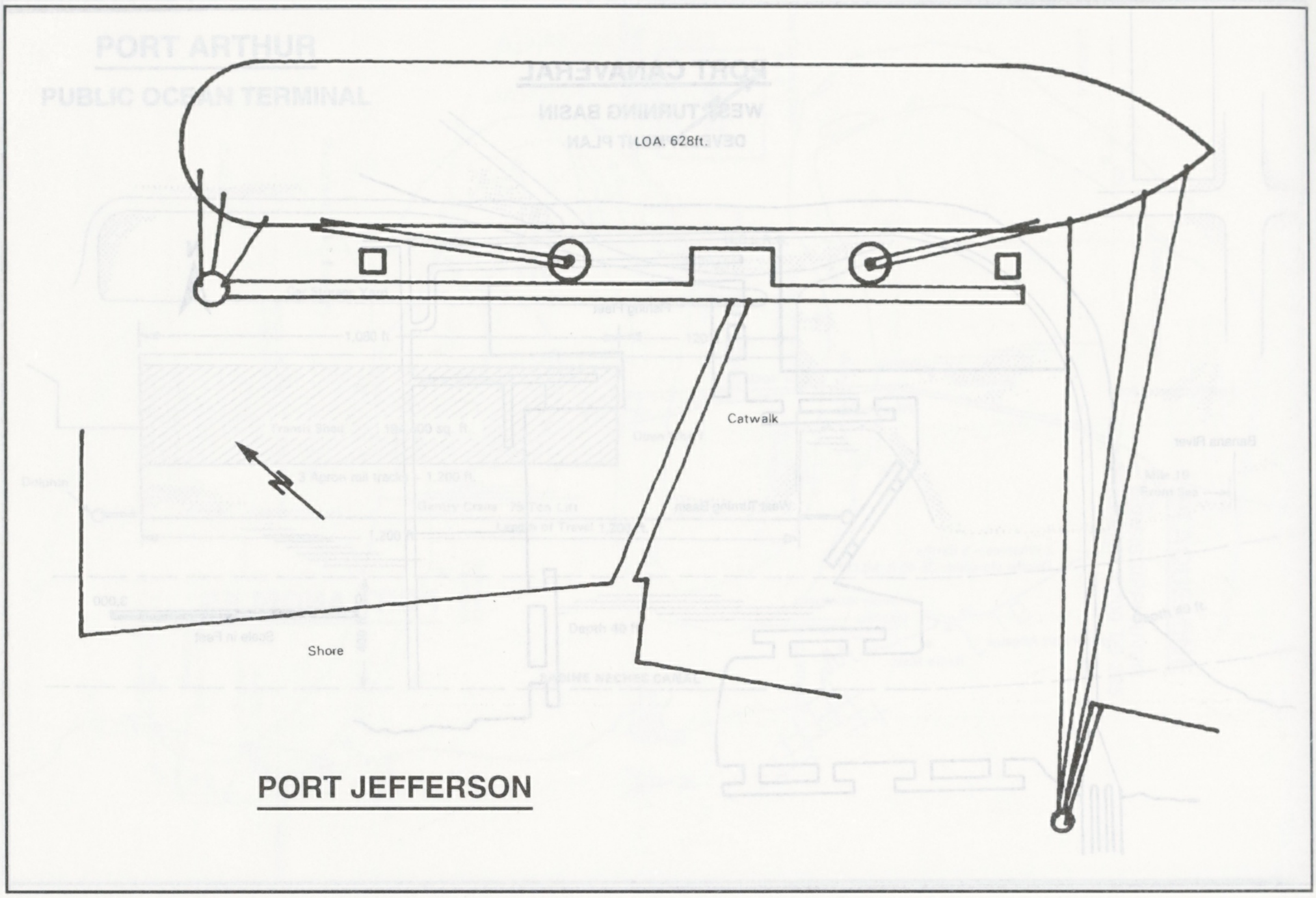
PORT CANAVERAL

WEST TURNING BASIN

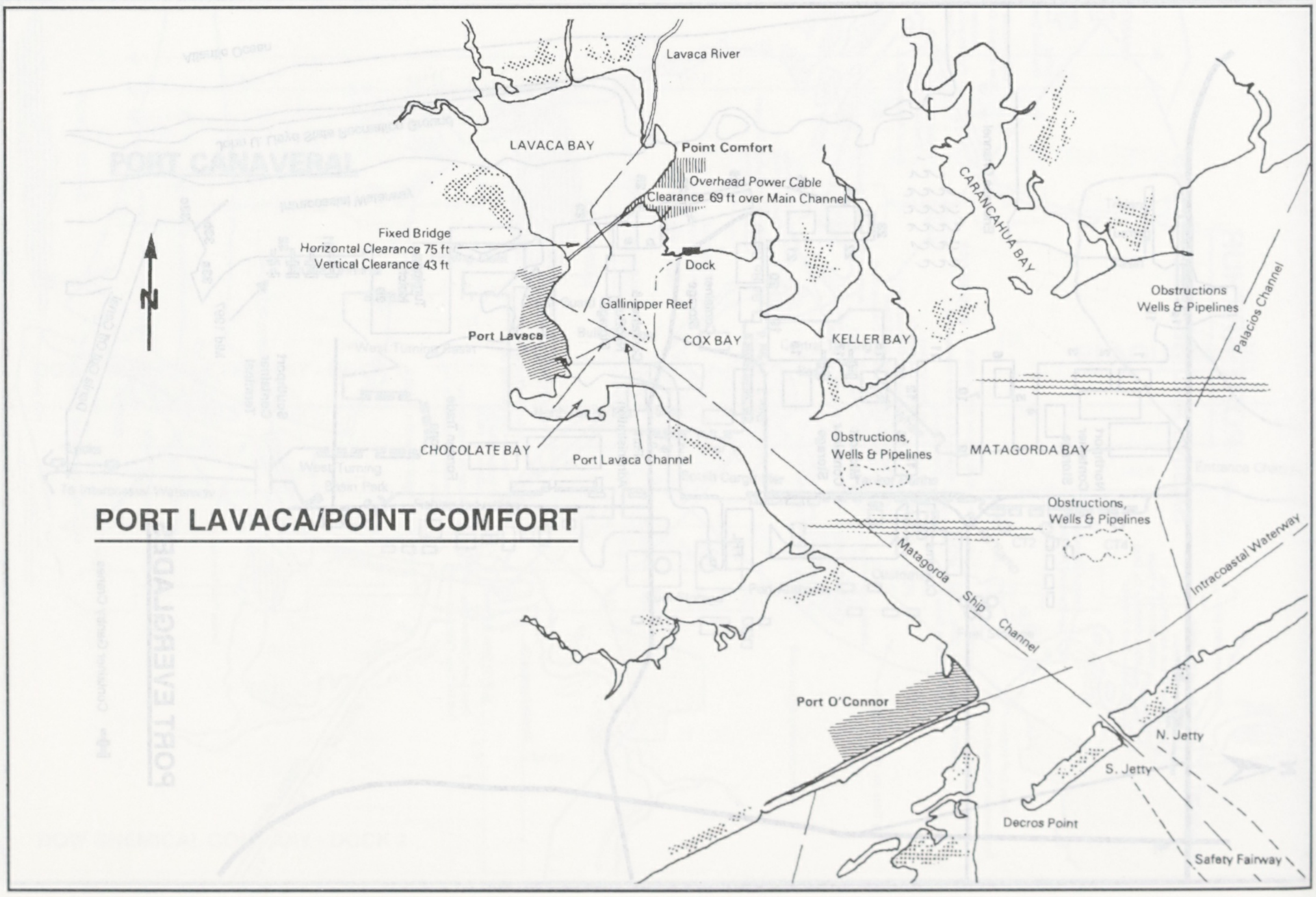
DEVELOPMENT PLAN

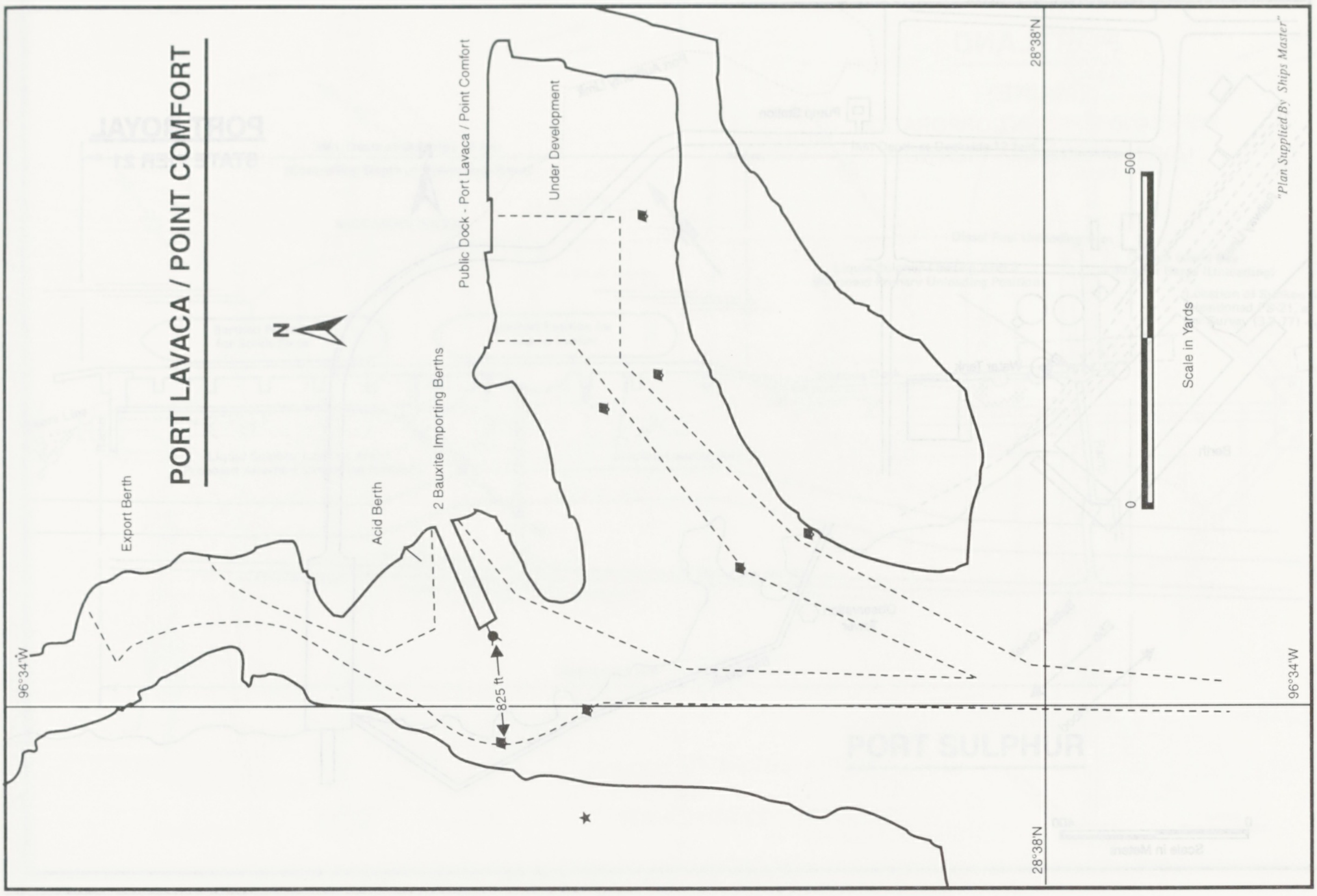
Banana River
West Turning Basin
Fishing Fleet
Scale in Feet
0
3,000
N

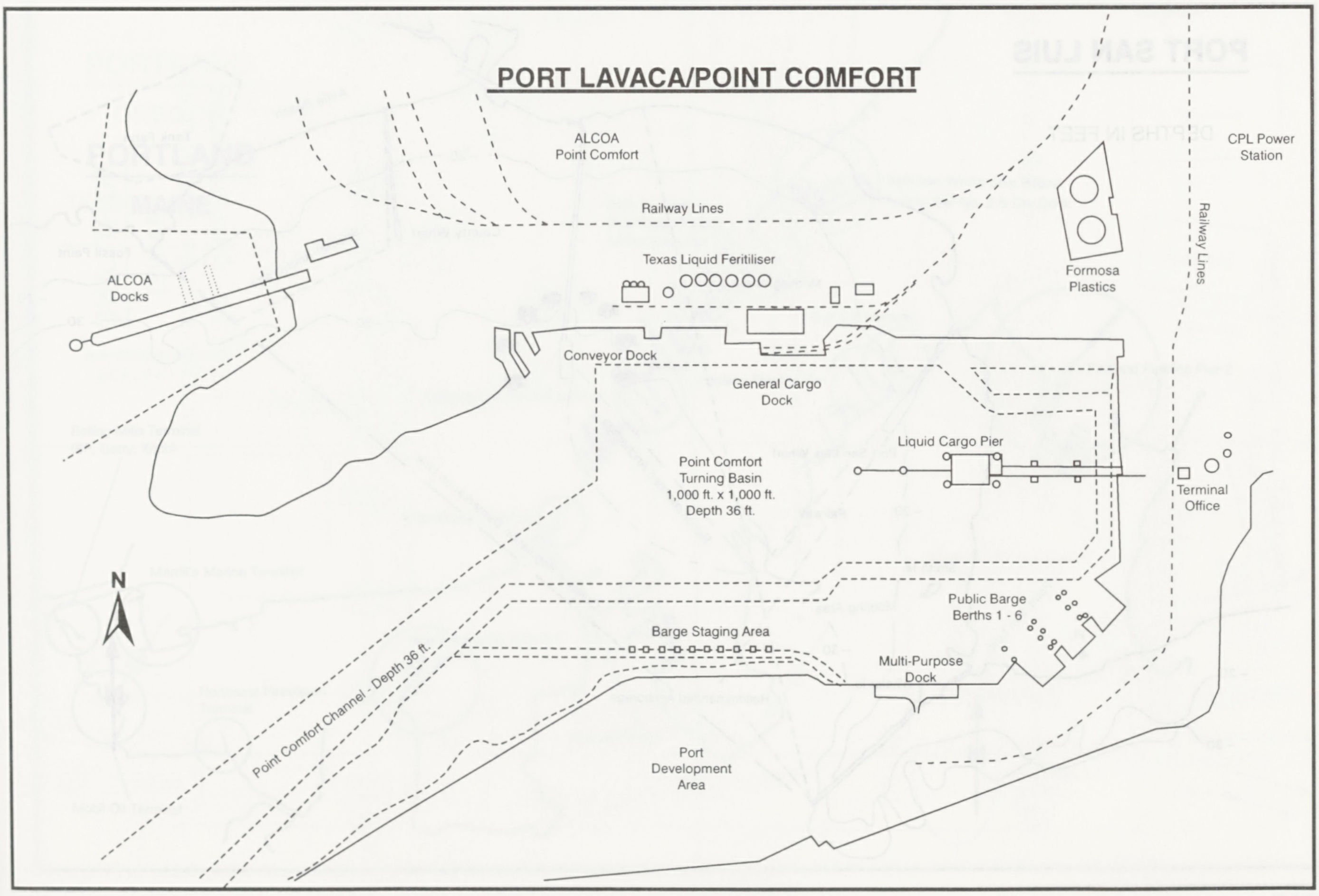
PORT JEFFERSON

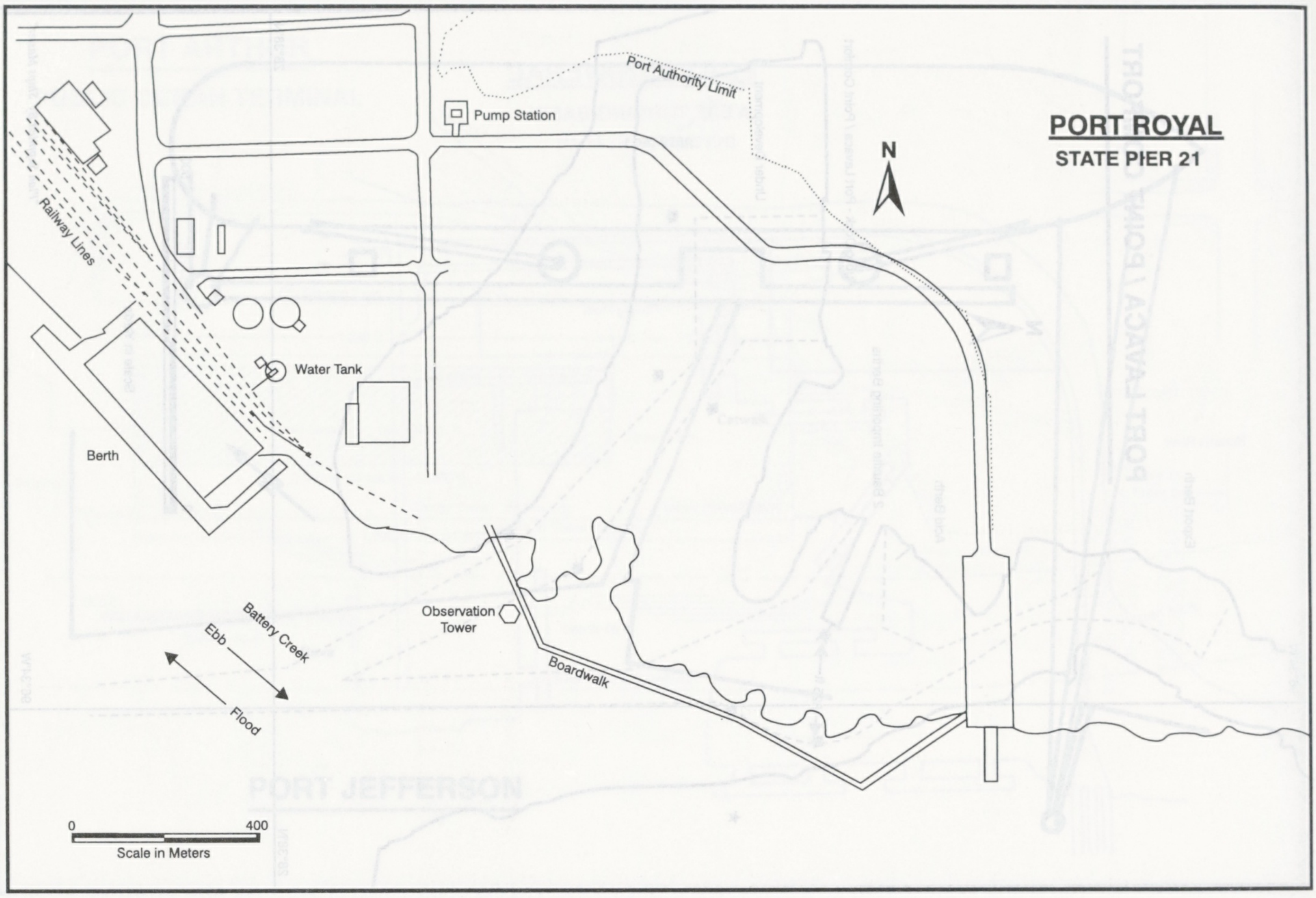

LOA 628ft.
Catwalk
Shore

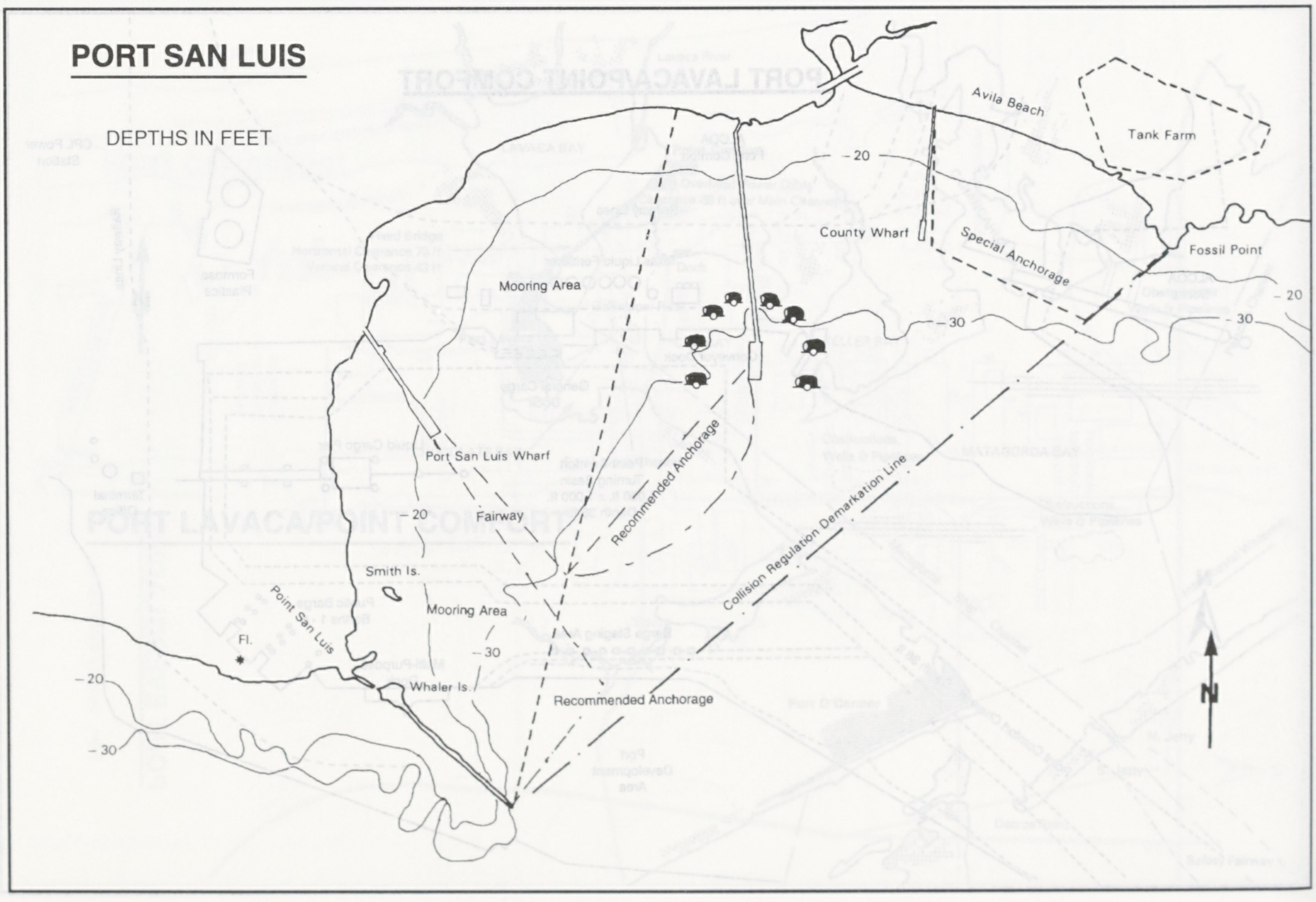
PORT LAVACA/POINT COMFORT

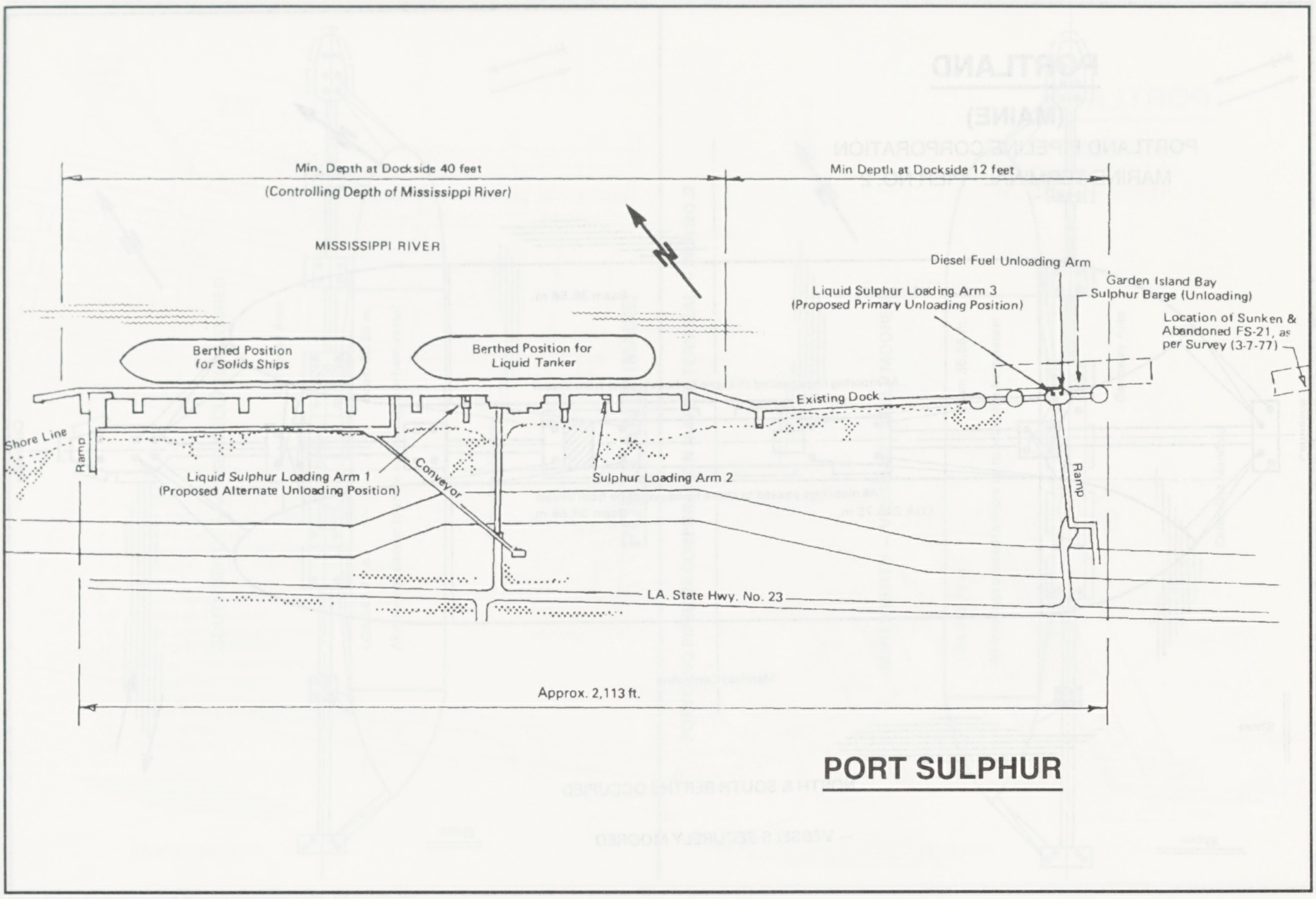

Lavaca River
LAVACA BAY
Point Comfort
Overhead Power Cable
Clearance 69 ft over Main Channel
Fixed Bridge
Horizontal Clearance 75 ft
Vertical Clearance 43 ft
Dock
Gallinipper Reef
Port Lavaca
COX BAY
KELLER BAY
CARANCAHUA BAY
Obstructions
Wells & Pipelines
Palacios Channel
CHOCOLATE BAY
Port Lavaca Channel
Obstructions,
Wells & Pipelines
MATAGORDA BAY
Obstructions,
Wells & Pipelines
Matagorda Ship Channel
Intracoastal Waterway
Port O'Connor
N. Jetty
S. Jetty
Decros Point
Safety Fairway
N


PORT LAVACA / POINT COMFORT
N
Export Berth
Acid Berth
2 Bauxite Importing Berths
Public Dock - Port Lavaca / Point Comfort
Under Development
825 ft
96°34'W
96°34'W
28°38'N
28°38'N
500
0
Scale in Yards
"Plan Supplied By Ships Master"

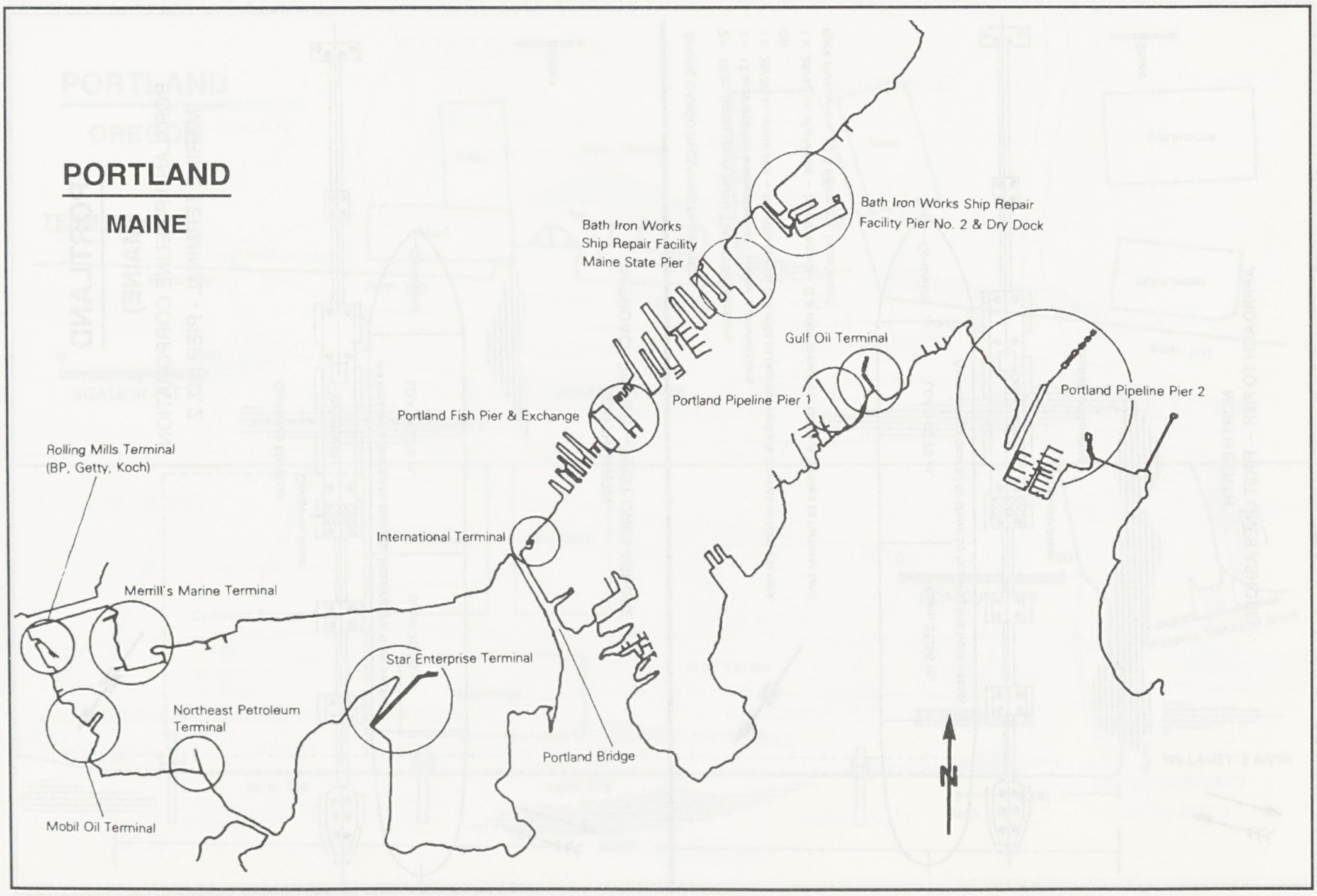

PORT LAVACA/POINT COMFORT
ALCOA
Point Comfort
CPL Power
Station
Railway Lines
Railway Lines
Texas Liquid Feritiliser
ALCOA
Docks
Formosa
Plastics
Conveyor Dock
General Cargo
Dock
Liquid Cargo Pier
Point Comfort
Turning Basin
1,000 ft. x 1,000 ft.
Depth 36 ft.
Terminal
Office
N
Public Barge
Berths 1 - 6
Barge Staging Area
Multi-Purpose
Dock
Point Comfort Channel - Depth 36 ft.
Port
Development
Area


PORT ROYAL
STATE PIER 21
N
Port Authority Limit
Pump Station
Railway Lines
Water Tank
Berth
Observation Tower
Boardwalk
Battery Creek
Ebb
Flood
0
400
Scale in Meters


PORT SAN LUIS
DEPTHS IN FEET
Avila Beach
Tank Farm
– 20
County Wharf
Special Anchorage
Fossil Point
– 20
– 30
– 30
Mooring Area
Recommended Anchorage
Port San Luis Wharf
– 20
Fairway
Collision Regulation Demarkation Line
Smith Is.
Mooring Area
Point San Luis
Fl.
– 30
– 20
Whaler Is.
Recommended Anchorage
– 30
N


Min. Depth at Dockside 40 feet
(Controlling Depth of Mississippi River)
Min Depth at Dockside 12 feet
MISSISSIPPI RIVER
N
Diesel Fuel Unloading Arm
Garden Island Bay
Sulphur Barge (Unloading)
Liquid Sulphur Loading Arm 3
(Proposed Primary Unloading Position)
Location of Sunken & Abandoned FS-21, as per Survey (3-7-77)
Berthed Position for Solids Ships
Berthed Position for Liquid Tanker
Existing Dock
Shore Line
Ramp
Conveyor
Liquid Sulphur Loading Arm 1
(Proposed Alternate Unloading Position)
Sulphur Loading Arm 2
Ramp
LA. State Hwy. No. 23
Approx. 2,113 ft.

PORT SULPHUR


Bath Iron Works Ship Repair Facility Pier No. 2 & Dry Dock
Bath Iron Works Ship Repair Facility Maine State Pier
Gulf Oil Terminal
Portland Pipeline Pier 2
Portland Pipeline Pier 1
Portland Fish Pier & Exchange
Rolling Mills Terminal (BP, Getty, Koch)
International Terminal
Merrill's Marine Terminal
Star Enterprise Terminal
Northeast Petroleum Terminal
Portland Bridge
Mobil Oil Terminal
N

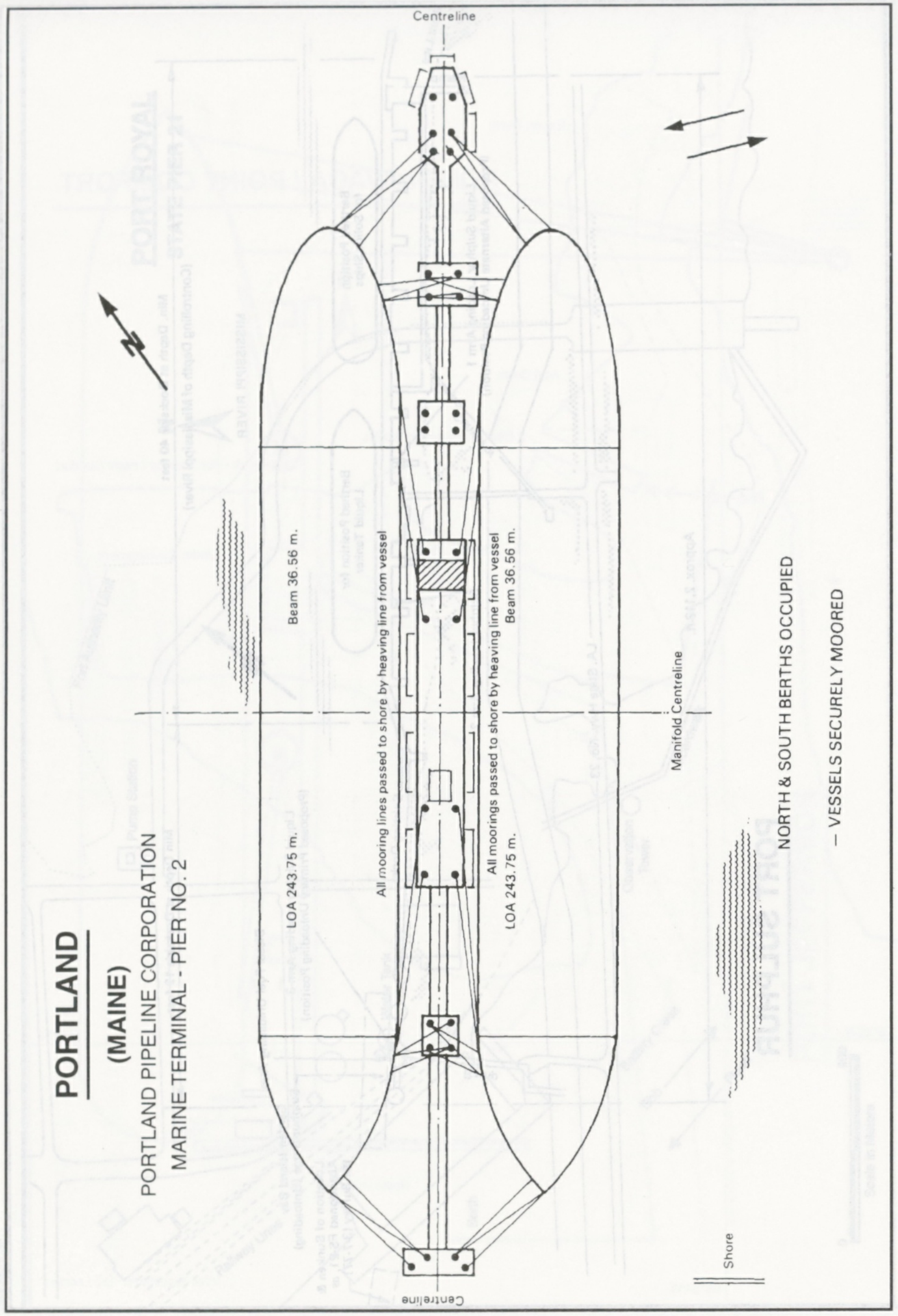
PORTLAND

MAINE

PORTLAND

(MAINE)

PORTLAND PIPELINE CORPORATION
MARINE TERMINAL - PIER NO. 2

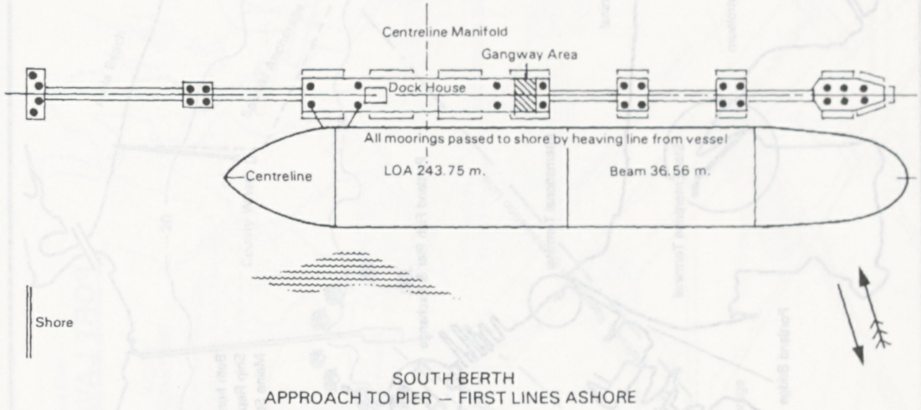

Centreline
Beam 36.56 m.
LOA 243.75 m.
All mooring lines passed to shore by heaving line from vessel
All moorings passed to shore by heaving line from vessel
Beam 36.56 m.
LOA 243.75 m.
Manifold Centreline
Shore
Centreline

NORTH & SOUTH BERTHS OCCUPIED
– VESSELS SECURELY MOORED

PORTLAND

(MAINE)

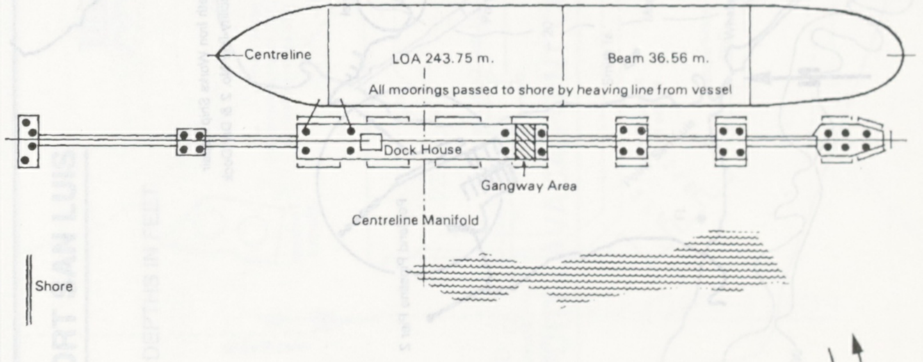
PORTLAND PIPELINE CORPORATION
MARINE TERMINAL - PIER NO. 2


Centreline Manifold
Gangway Area
Dock House
All moorings passed to shore by heaving line from vessel
Centreline
LOA 243.75 m.
Beam 36.56 m.
Shore

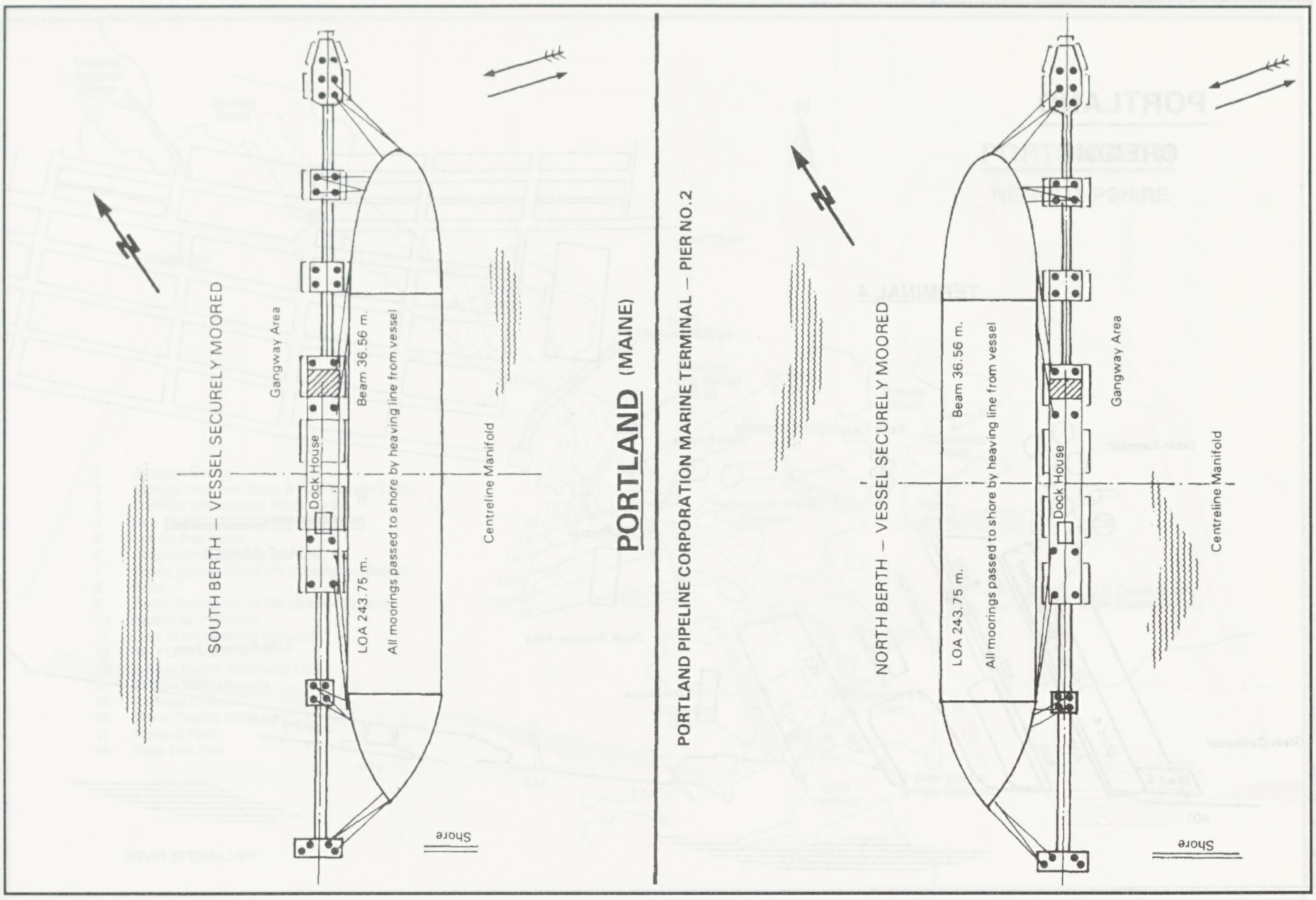
SOUTH BERTH
APPROACH TO PIER – FIRST LINES ASHORE

SHORE CARGO RECEIVING FACILITIES

2× 10 in. hoses (Each Berth) Two aft connections
2× 12 in. metal arms (Each berth) Two for'd connections
1× 36/30 in. shore line – length approx. 0.5 mile to nearest tanks & 3 miles to furthest tank.
OR
1× 36/42 in. shore line – length approx. 0.5 mile to nearest tanks & 3 miles to furthest tank.
Back Pressure = 12.3 kg/sq.cm. (maximum)


Centreline
LOA 243.75 m.
Beam 36.56 m.
All moorings passed to shore by heaving line from vessel
Dock House
Gangway Area
Centreline Manifold
Shore

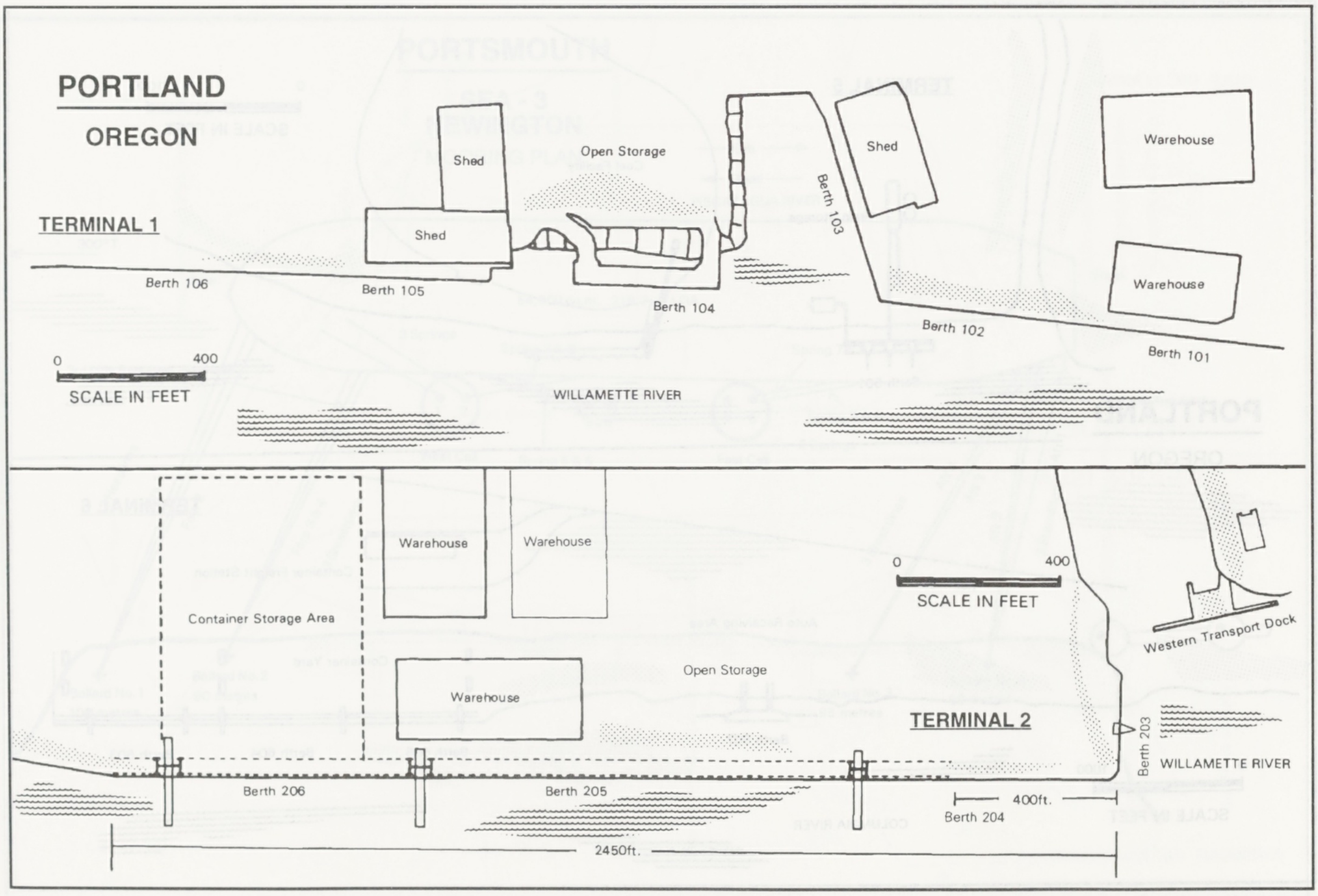
NORTH BERTH
APPROACH TO PIER – FIRST LINES ASHORE



PORTLAND (MAINE)

PORTLAND PIPELINE CORPORATION MARINE TERMINAL — PIER NO.2

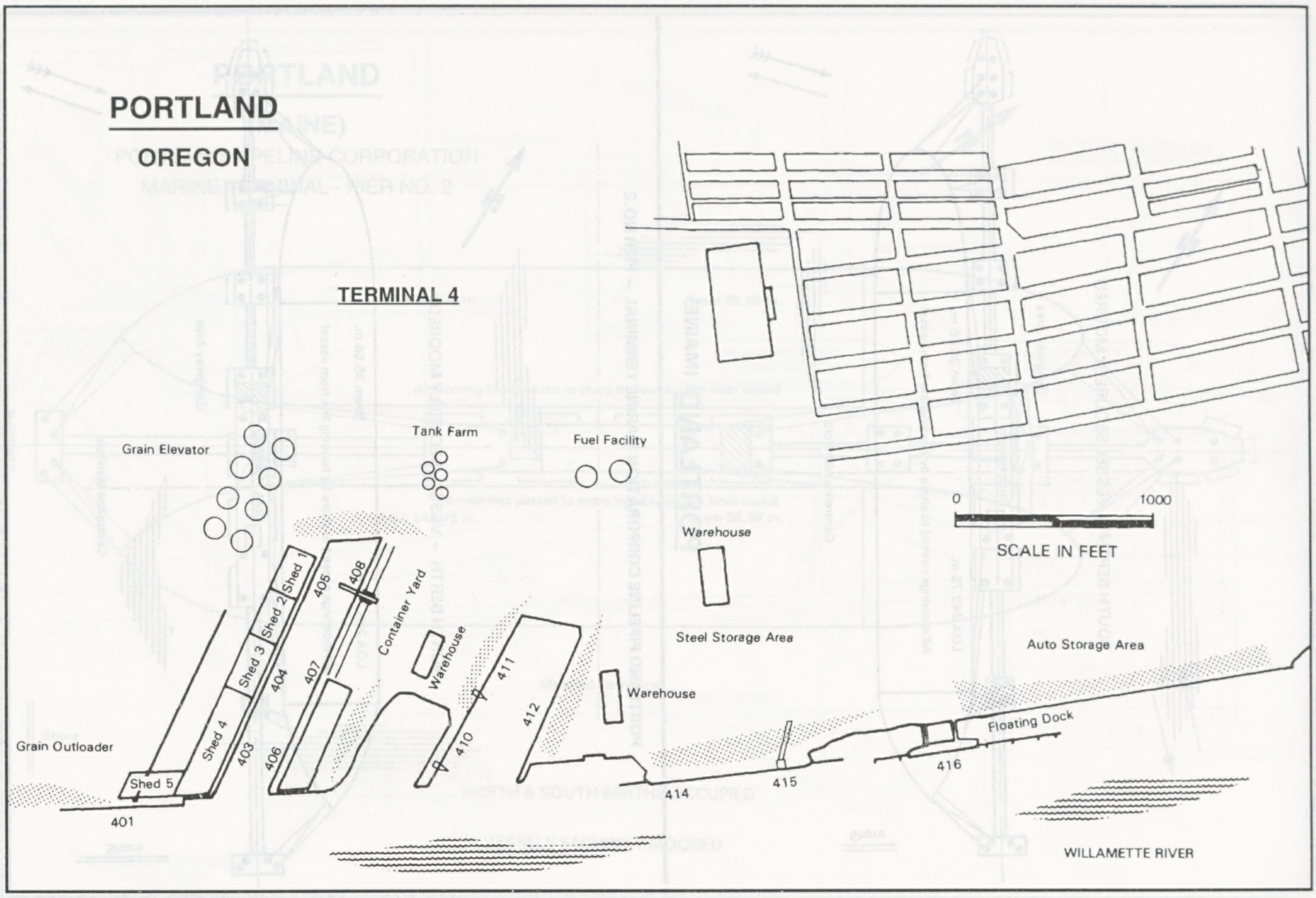
SOUTH BERTH — VESSEL SECURELY MOORED
Gangway Area
Dock House
Beam 36.56 m.
LOA 243.75 m.
All moorings passed to shore by heaving line from vessel
Centreline Manifold
Shore
N
NORTH BERTH — VESSEL SECURELY MOORED
Beam 36.56 m.
LOA 243.75 m.
All moorings passed to shore by heaving line from vessel
Dock House
Gangway Area
Centreline Manifold
Shore
N

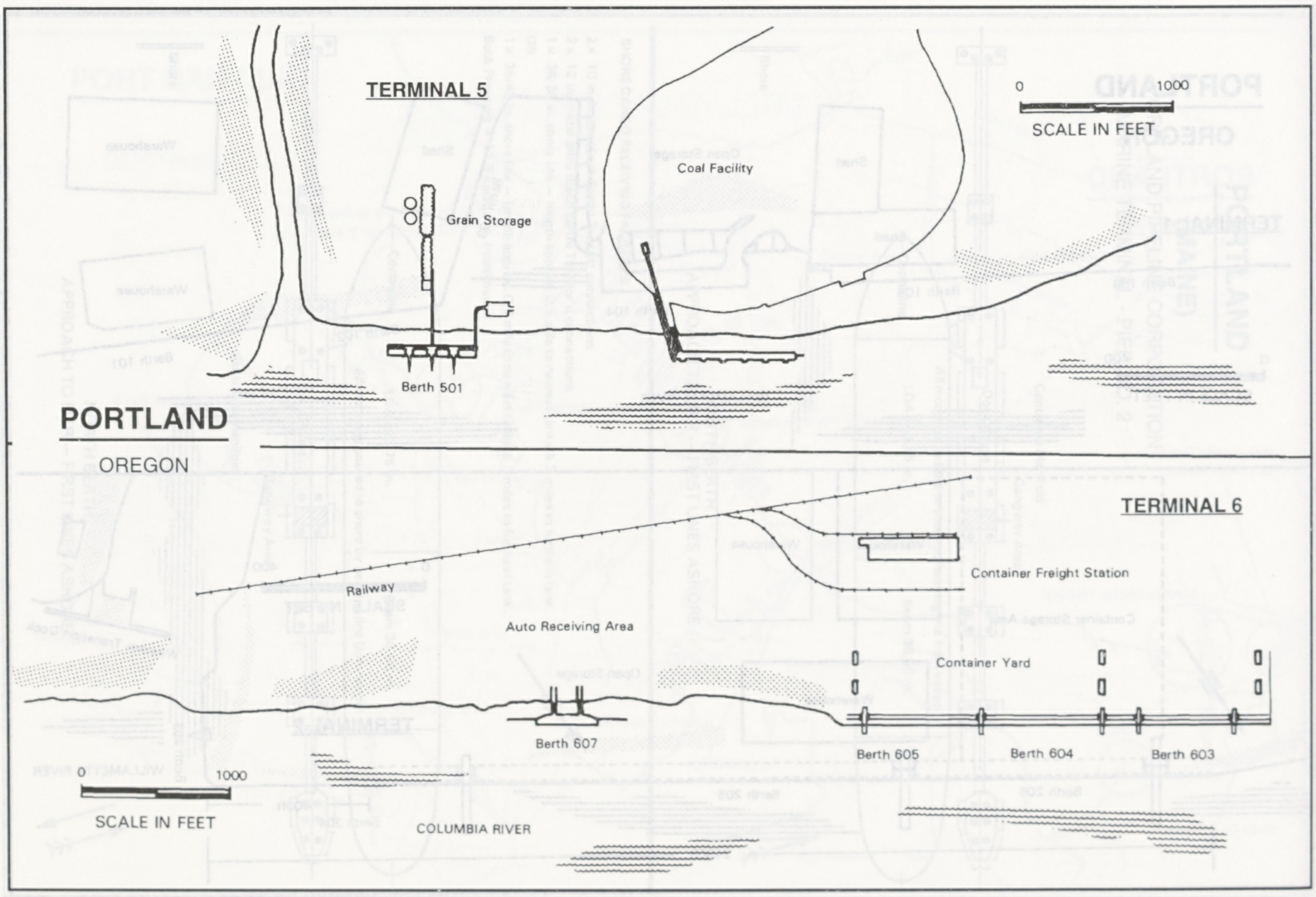


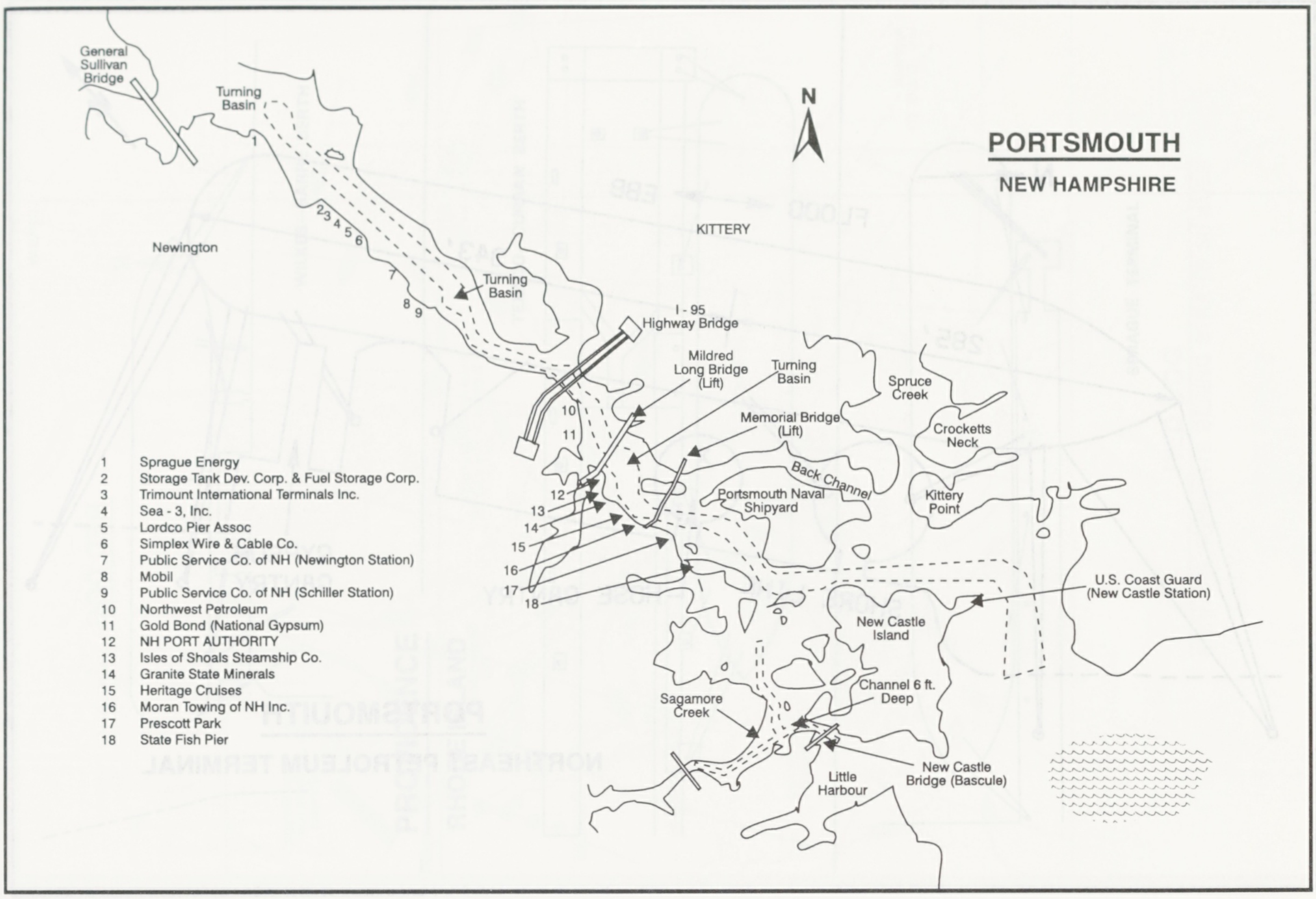
PORTLAND

OREGON

TERMINAL 1
Shed
Shed
Open Storage
Shed
Warehouse
Warehouse
Berth 103
Berth 106
Berth 105
Berth 104
Berth 102
Berth 101
0
400
SCALE IN FEET
WILLAMETTE RIVER
Warehouse
Warehouse
Container Storage Area
Warehouse
Open Storage
0
400
SCALE IN FEET
Western Transport Dock
TERMINAL 2
Berth 203
WILLAMETTE RIVER
Berth 206
Berth 205
400ft.
Berth 204
2450ft.


PORTLAND
OREGON
TERMINAL 4
Grain Elevator
Tank Farm
Fuel Facility
0
1000
SCALE IN FEET
Warehouse
Shed 1
Shed 2
Shed 3
Shed 4
Shed 5
408
405
404
407
403
406
Container Yard
Warehouse
411
412
410
Steel Storage Area
Auto Storage Area
Warehouse
Floating Dock
416
415
414
401
Grain Outloader
WILLAMETTE RIVER

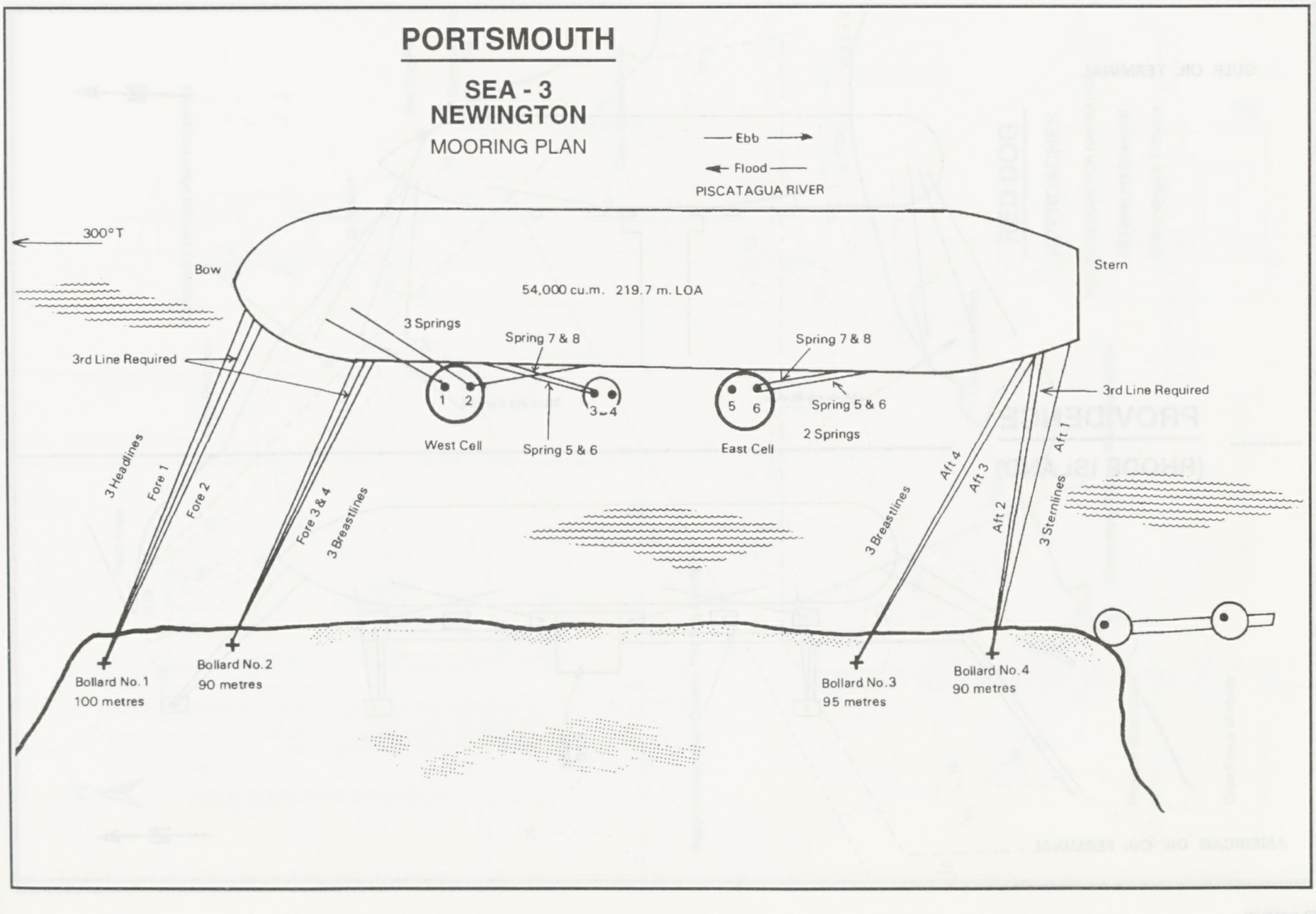

TERMINAL 5
0
1000
SCALE IN FEET
Coal Facility
Grain Storage
Berth 501
PORTLAND
OREGON
TERMINAL 6
Container Freight Station
Railway
Auto Receiving Area
Container Yard
Berth 607
Berth 605
Berth 604
Berth 603
0
1000
SCALE IN FEET
COLUMBIA RIVER



PORTSMOUTH

NEW HAMPSHIRE

General Sullivan Bridge
Turning Basin
N
Newington
KITTERY
Turning Basin
I - 95 Highway Bridge
Mildred Long Bridge (Lift)
Turning Basin
Spruce Creek
Memorial Bridge (Lift)
Crocketts Neck
Back Channel
Portsmouth Naval Shipyard
Kittery Point
U.S. Coast Guard (New Castle Station)
New Castle Island
Channel 6 ft. Deep
Sagamore Creek
New Castle Bridge (Bascule)
Little Harbour
1
2 3 4 5 6
7
8 9
10
11
12
13
14
15
16
17
18
1 Sprague Energy
2 Storage Tank Dev. Corp. & Fuel Storage Corp.
3 Trimount International Terminals Inc.
4 Sea - 3, Inc.
5 Lordco Pier Assoc
6 Simplex Wire & Cable Co.
7 Public Service Co. of NH (Newington Station)
8 Mobil
9 Public Service Co. of NH (Schiller Station)
10 Northwest Petroleum
11 Gold Bond (National Gypsum)
12 NH PORT AUTHORITY
13 Isles of Shoals Steamship Co.
14 Granite State Minerals
15 Heritage Cruises
16 Moran Towing of NH Inc.
17 Prescott Park
18 State Fish Pier

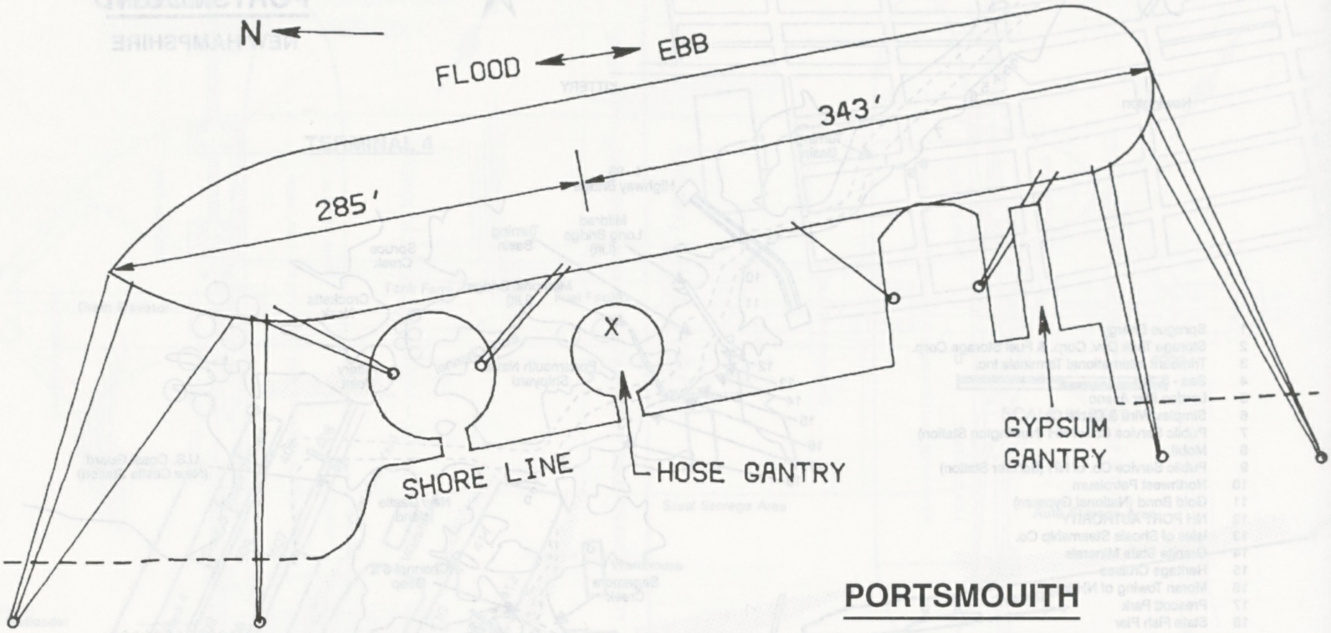


PORTSMOUTH

SEA - 3
NEWINGTON

MOORING PLAN

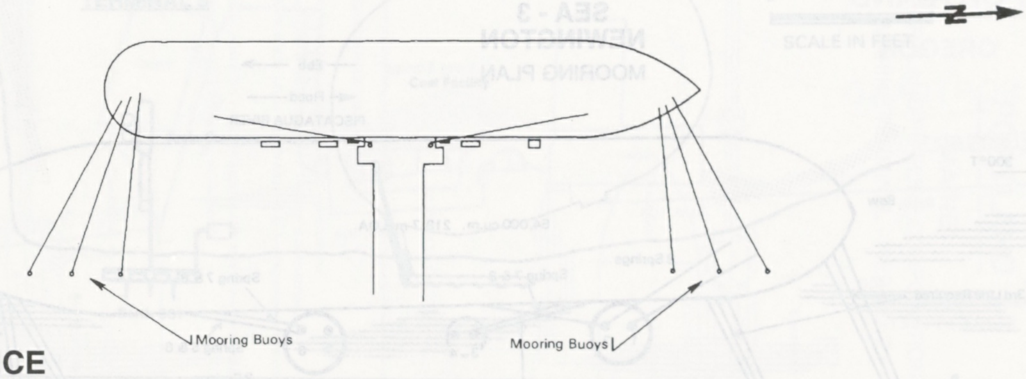
Ebb
Flood
PISCATAGUA RIVER
300° T
Bow
Stern
54,000 cu.m. 219.7 m. LOA
3 Springs
Spring 7 & 8
Spring 7 & 8
3rd Line Required
3rd Line Required
1 2
3 – 4
5 6
Spring 5 & 6
West Cell
Spring 5 & 6
East Cell
2 Springs
3 Headlines
Fore 1
Fore 2
Fore 3 & 4
3 Breastlines
3 Breastlines
Aft 4
Aft 3
Aft 2
Aft 1
3 Sternlines
Bollard No. 1
100 metres
Bollard No. 2
90 metres
Bollard No. 3
95 metres
Bollard No. 4
90 metres


N
FLOOD
EBB
343'
285'
X
SHORE LINE
HOSE GANTRY
GYPSUM
GANTRY

PORTSMOUTH

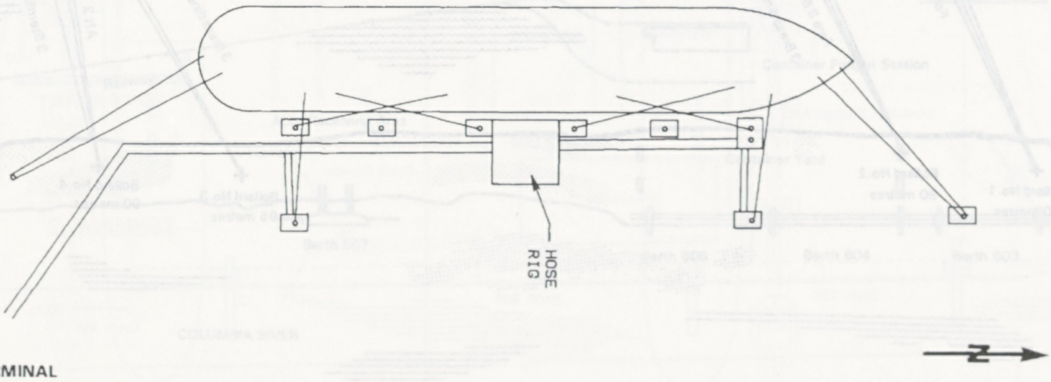
NORTHEAST PETROLEUM TERMINAL

GULF OIL TERMINAL

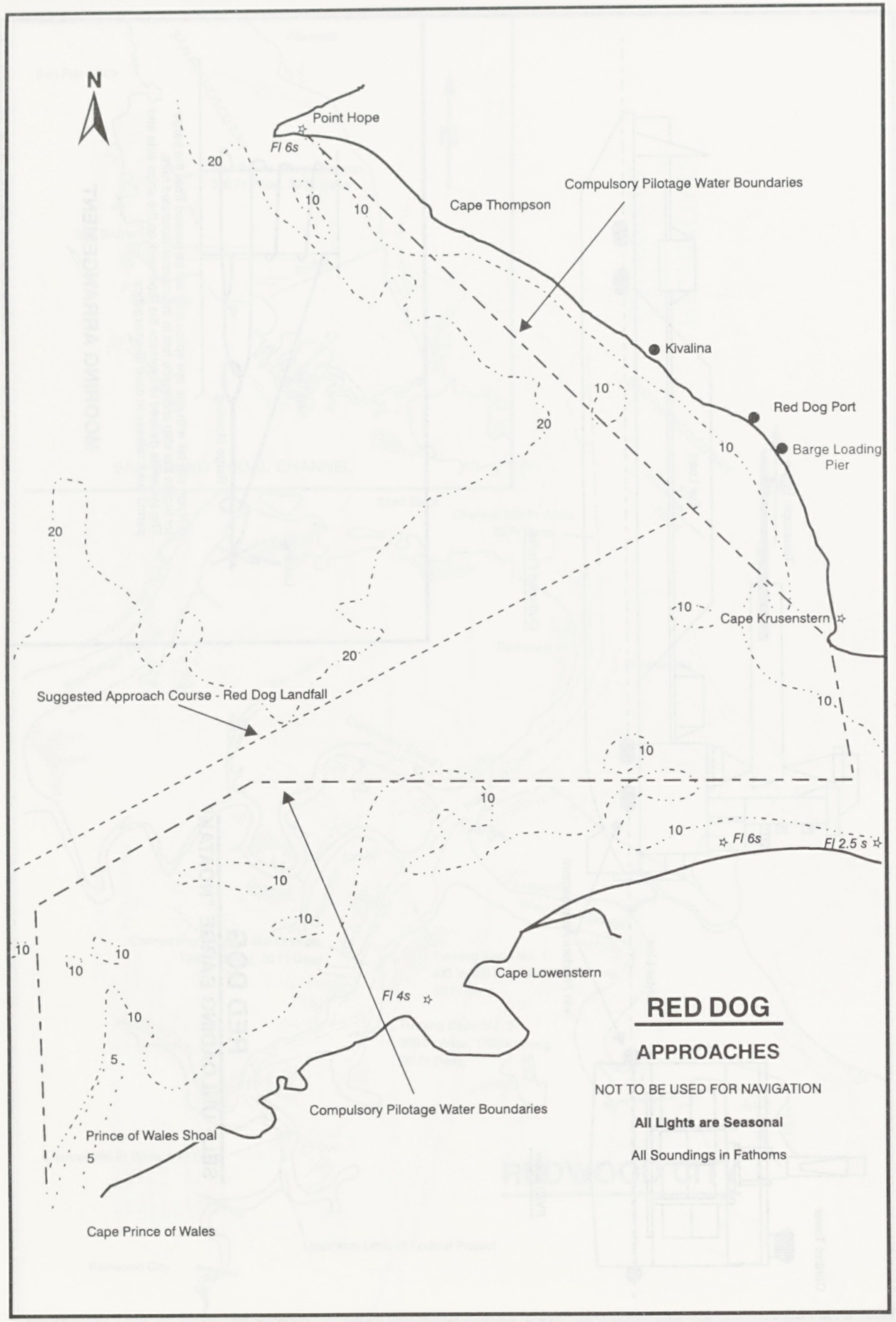

N
Mooring Buoys
Mooring Buoys

PROVIDENCE

(RHODE ISLAND)



AMERICAN OIL CO. TERMINAL


N
Point Hope
Fl 6s
20
10
10
Cape Thompson
Compulsory Pilotage Water Boundaries
Kivalina
10
20
Red Dog Port
10
Barge Loading Pier
20
-10
Cape Krusenstern
20
Suggested Approach Course - Red Dog Landfall
10
10
10
10
Fl 6s
Fl 2.5 s
10
10
10
10
10
Cape Lowenstern
Fl 4s
10
5
Compulsory Pilotage Water Boundaries
Prince of Wales Shoal
5
Cape Prince of Wales

RED DOG

APPROACHES

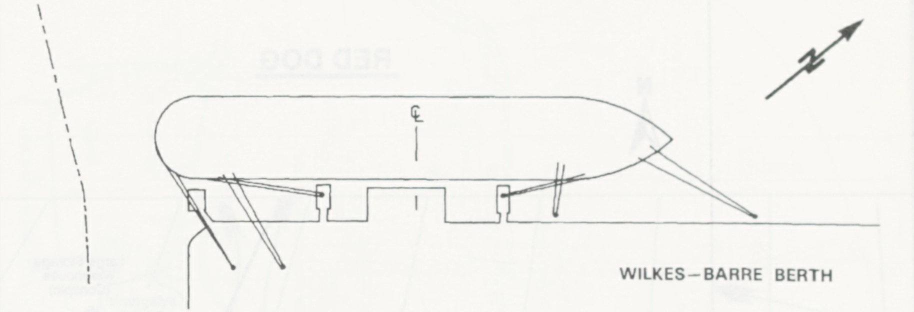
NOT TO BE USED FOR NAVIGATION

All Lights are Seasonal

All Soundings in Fathoms

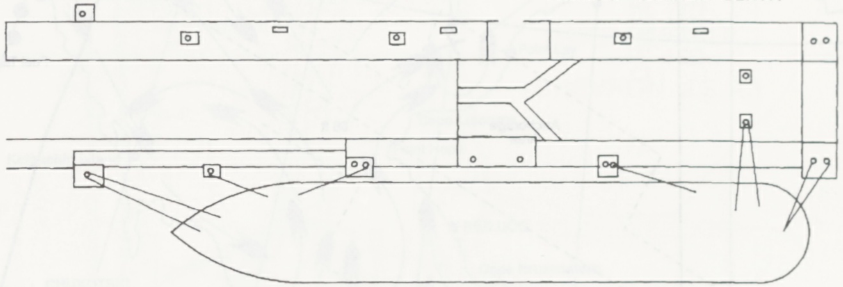
PROVIDENCE

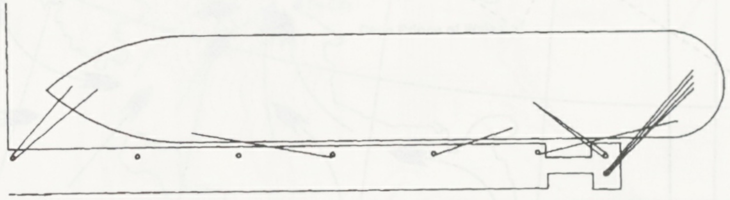
RHODE ISLAND



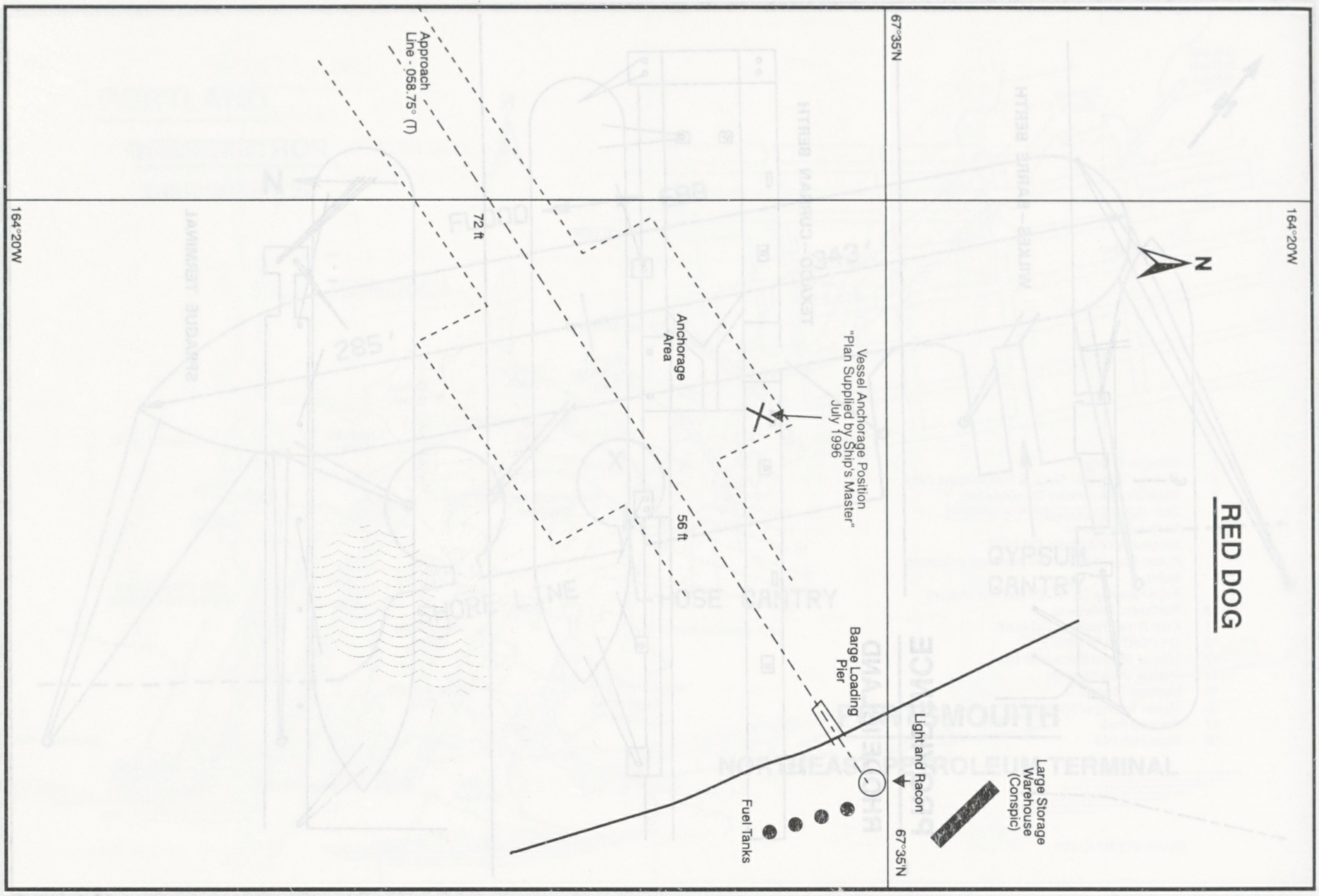
WILKES–BARRE BERTH

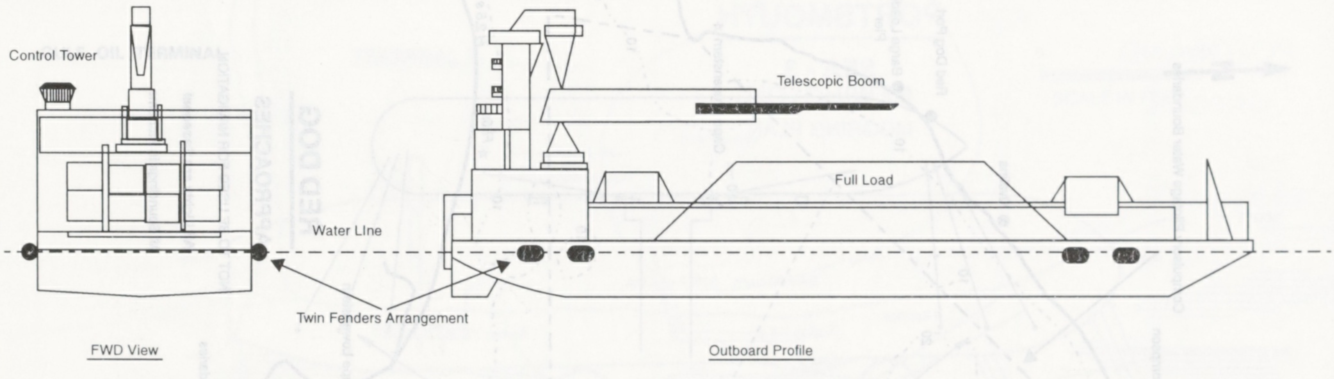
TEXACO–CURRAN BERTH





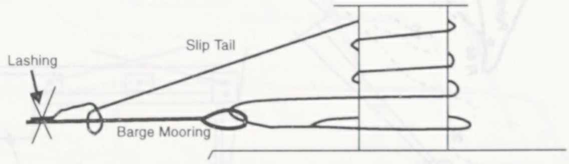
SPRAGUE TERMINAL


RED DOG
N
164°20'W
164°20'W
67°35'N
67°35'N
Approach Line - 058.75° (T)
72 ft
56 ft
Anchorage Area
Vessel Anchorage Position "Plan Supplied by Ship's Master" July 1996
Barge Loading Pier
Light and Racon
Large Storage Warehouse (Conspic)
Fuel Tanks


Control Tower
Telescopic Boom
Full Load
Water LIne
Twin Fenders Arrangement
FWD View
Outboard Profile

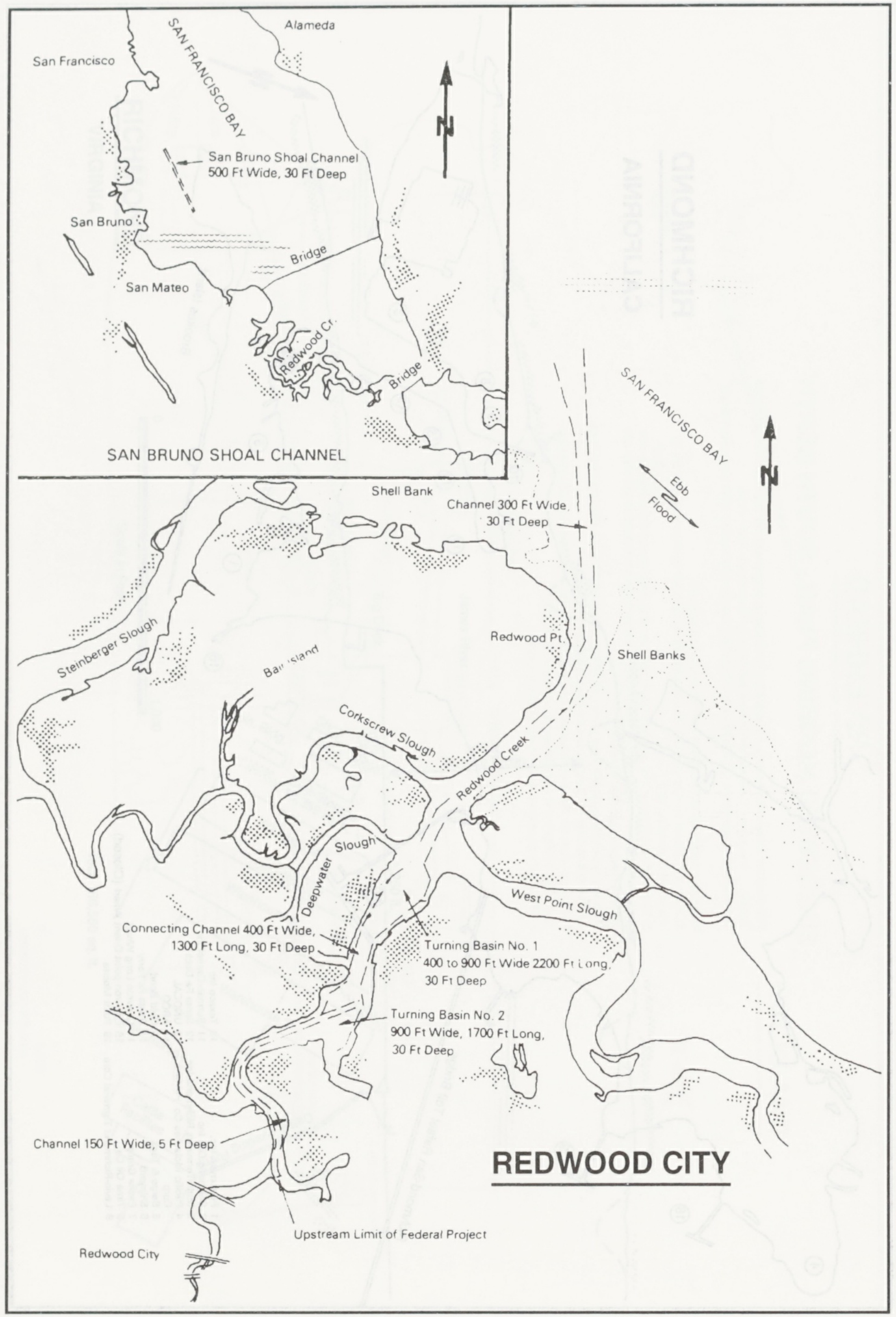
RED DOG

SELF UNLOADING BARGE "NOATAK"

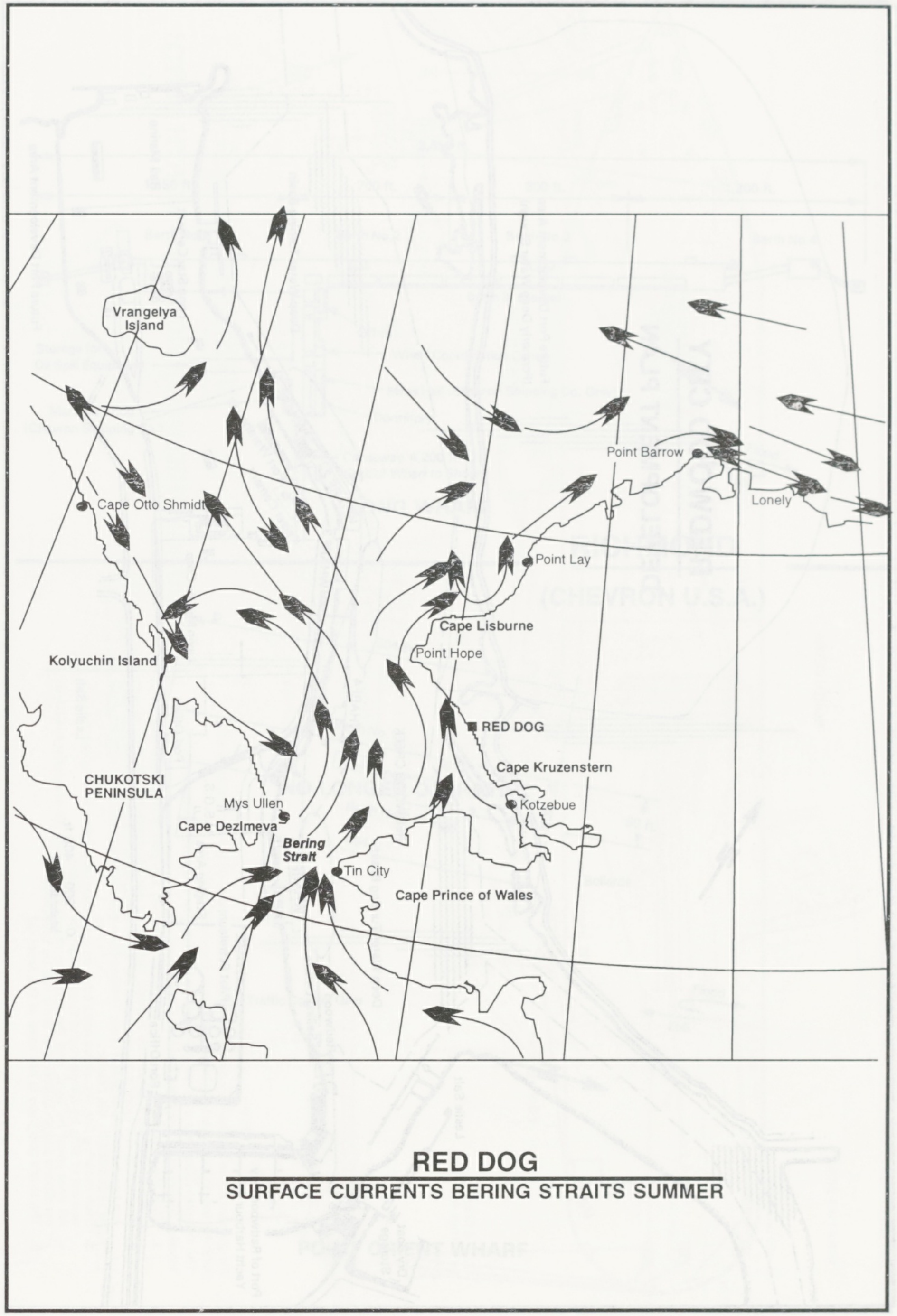

Lashing
Slip Tail
Barge Mooring

A Nylon slip tail with one eye splice only will be passed from the barge (or tug) to the ship and made fast in the manner illustrated here. The system is devised to minimize the rope work on the ships side and permit quick release in case of emergency.

MOORING ARRANGEMENT

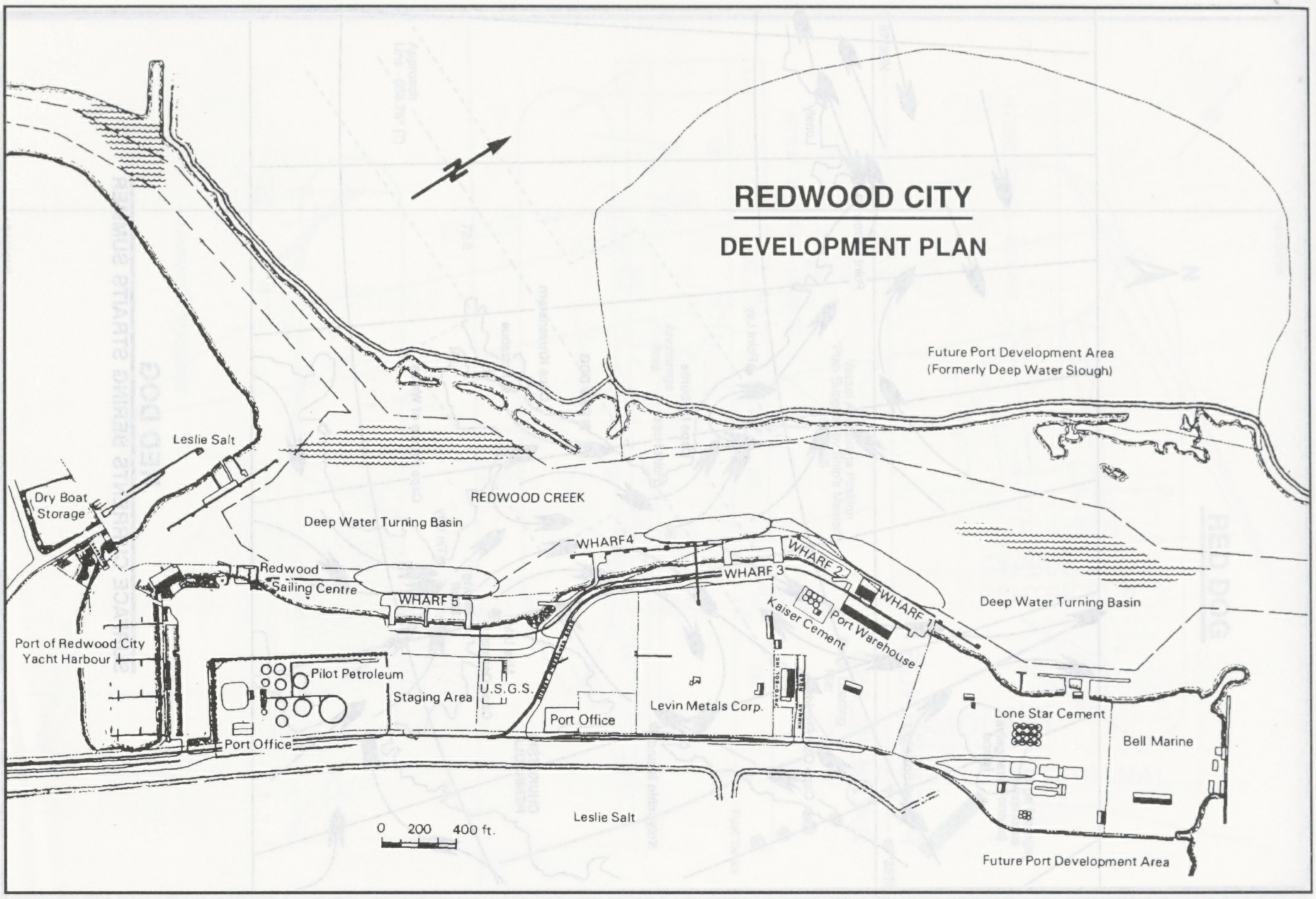

Alameda
San Francisco
SAN FRANCISCO BAY
San Bruno Shoal Channel
500 Ft Wide, 30 Ft Deep
San Bruno
Bridge
San Mateo
Redwood Cr.
Bridge
N
SAN BRUNO SHOAL CHANNEL
Shell Bank
Channel 300 Ft Wide,
30 Ft Deep
SAN FRANCISCO BAY
Ebb
Flood
N
Redwood Pt.
Shell Banks
Steinberger Slough
Bair Island
Corkscrew Slough
Redwood Creek
Slough
Deepwater
West Point Slough
Connecting Channel 400 Ft Wide,
1300 Ft Long, 30 Ft Deep
Turning Basin No. 1
400 to 900 Ft Wide 2200 Ft Long,
30 Ft Deep
Turning Basin No. 2
900 Ft Wide, 1700 Ft Long,
30 Ft Deep
Channel 150 Ft Wide, 5 Ft Deep
Upstream Limit of Federal Project
Redwood City

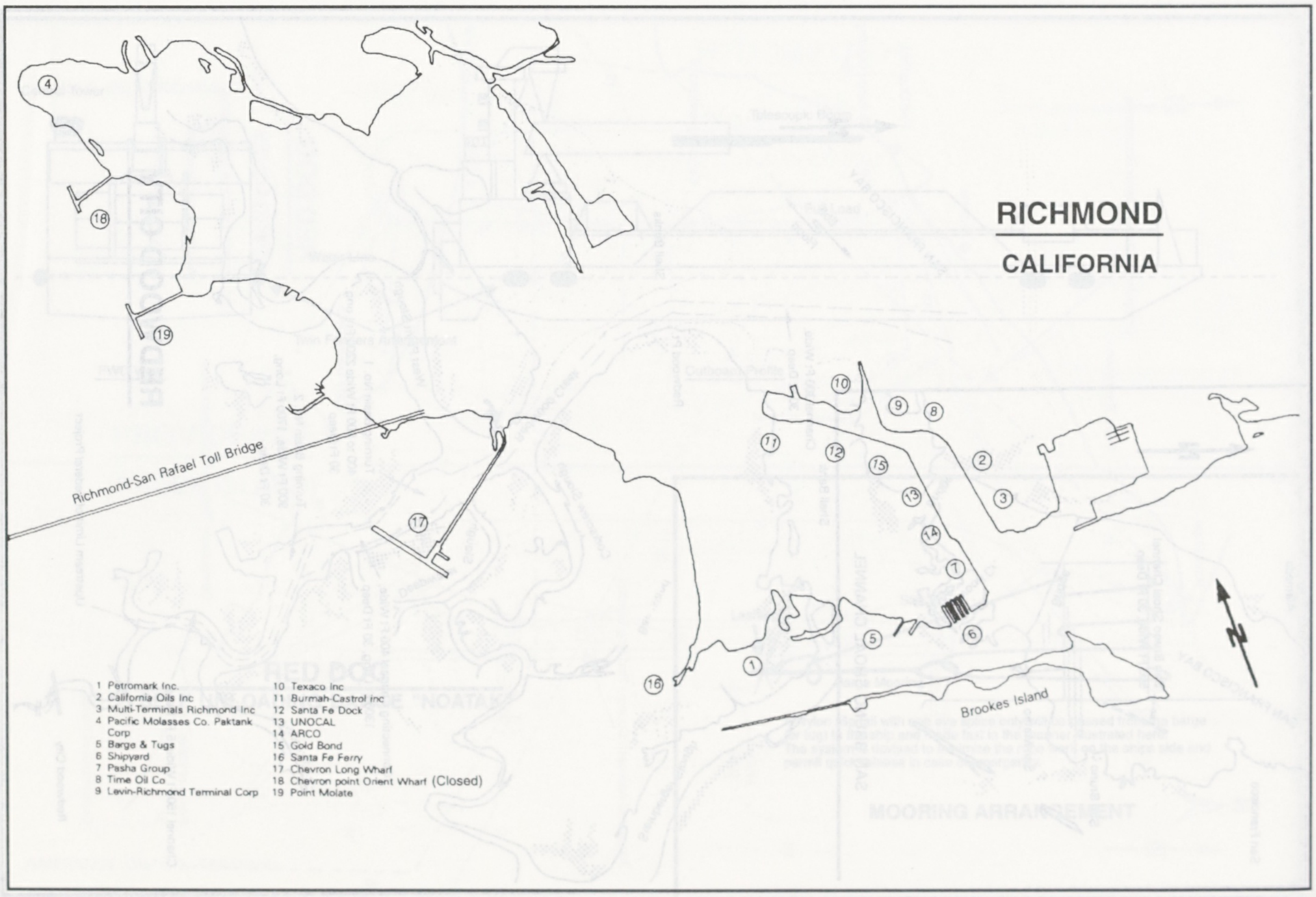
REDWOOD CITY


Vrangelya
Island
Cape Otto Shmidt
Point Barrow
Lonely
Point Lay
Cape Lisburne
Point Hope
Kolyuchin Island
RED DOG
Cape Kruzenstern
CHUKOTSKI
PENINSULA
Mys Ullen
Kotzebue
Cape Dezlmeva
Bering
Strait
Tin City
Cape Prince of Wales

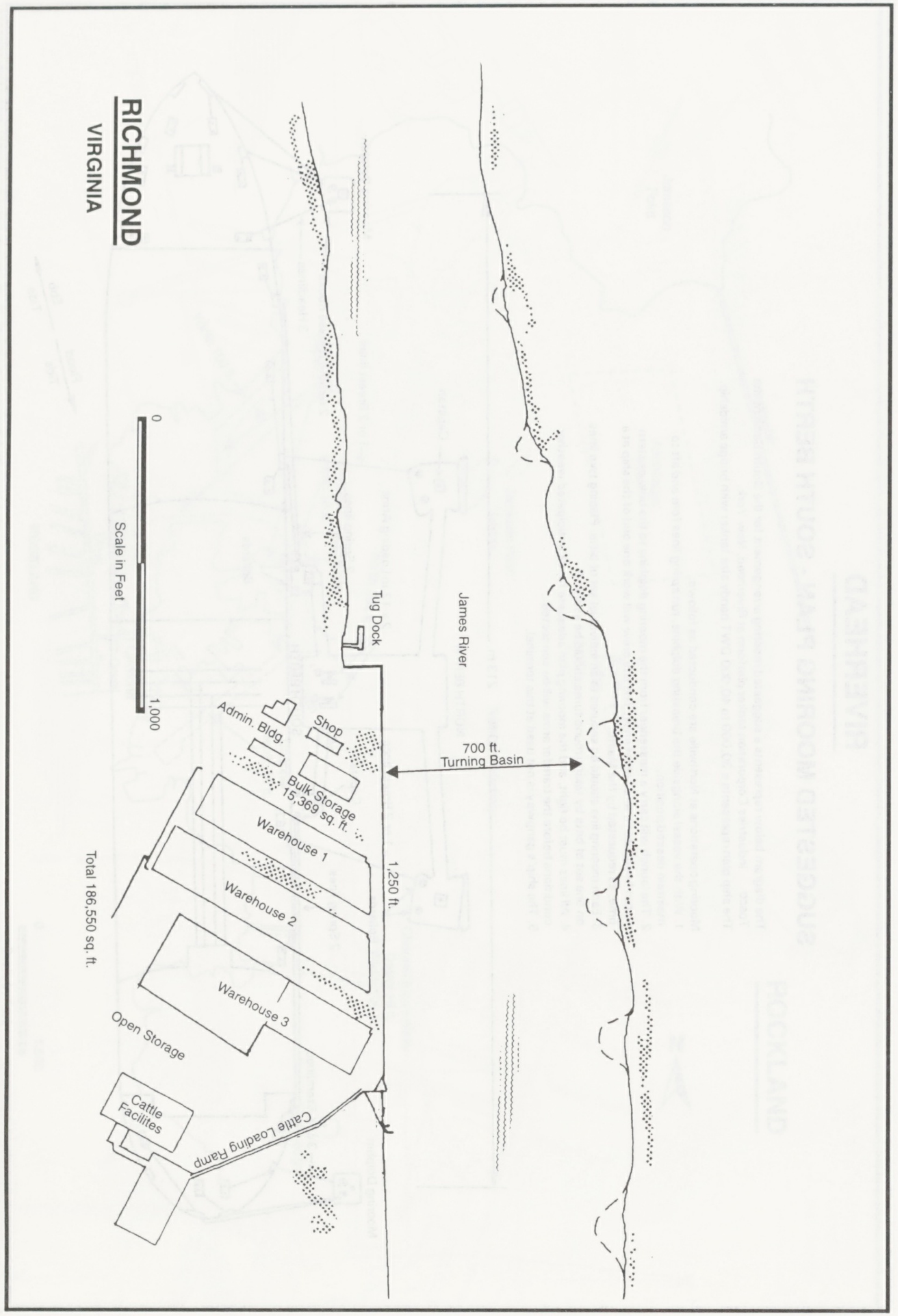
RED DOG

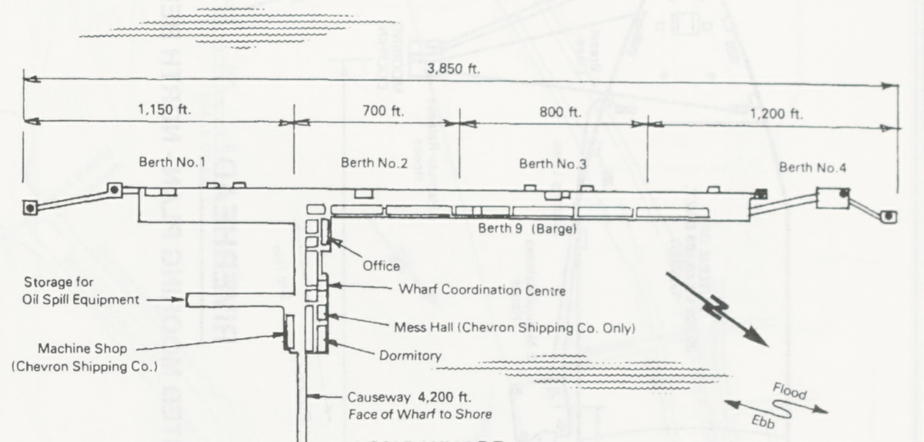
SURFACE CURRENTS BERING STRAITS SUMMER


REDWOOD CITY
DEVELOPMENT PLAN
Future Port Development Area
(Formerly Deep Water Slough)
Leslie Salt
Dry Boat
Storage
REDWOOD CREEK
Deep Water Turning Basin
WHARF4
Redwood
Sailing Centre
WHARF 5
WHARF 3
WHARF 2
WHARF 1
Kaiser Cement
Port Warehouse
Deep Water Turning Basin
Port of Redwood City
Yacht Harbour
Pilot Petroleum
Staging Area
U.S.G.S.
Port Office
Levin Metals Corp.
Lone Star Cement
Bell Marine
Port Office
Leslie Salt
0 200 400 ft.
Future Port Development Area


RICHMOND
CALIFORNIA
Richmond-San Rafael Toll Bridge
Brookes Island
1 Petromark Inc.
2 California Oils Inc
3 Multi-Terminals Richmond Inc
4 Pacific Molasses Co. Paktank Corp
5 Barge & Tugs
6 Shipyard
7 Pasha Group
8 Time Oil Co
9 Levin-Richmond Terminal Corp
10 Texaco Inc
11 Burmah-Castrol inc
12 Santa Fe Dock
13 UNOCAL
14 ARCO
15 Gold Bond
16 Santa Fe Ferry
17 Chevron Long Wharf
18 Chevron point Orient Wharf (Closed)
19 Point Molate

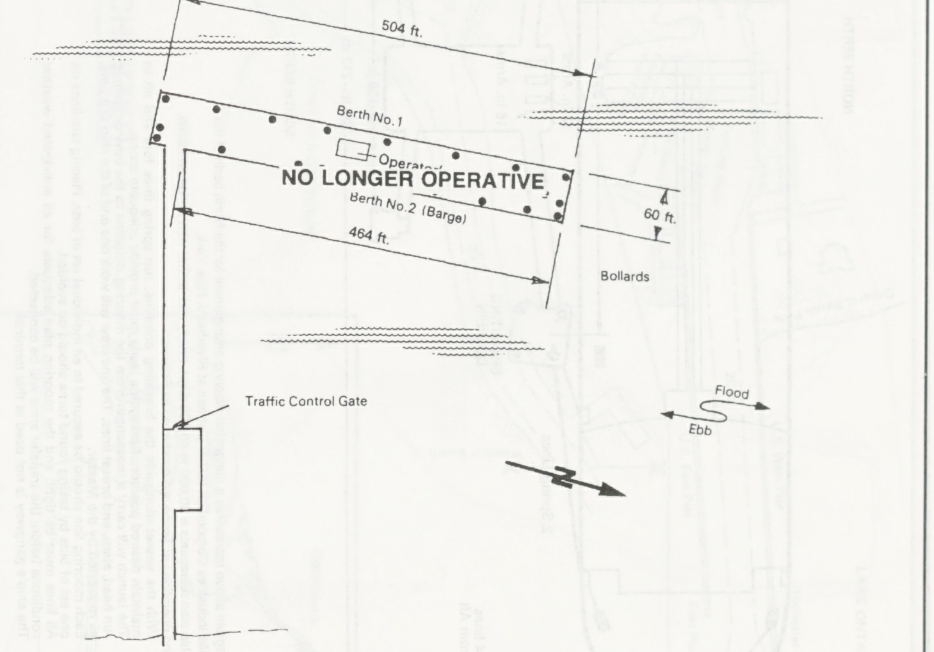
RICHMOND
VIRGINIA


0
Scale in Feet
1,000
Tug Dock
James River
700 ft.
Turning Basin
Shop
Admin. Bldg.
Bulk Storage
15,369 sq. ft.
Warehouse 1
Warehouse 2
Warehouse 3
1,250 ft.
Total 186,550 sq. ft.
Open Storage
Cattle Facilities
Cattle Loading Ramp

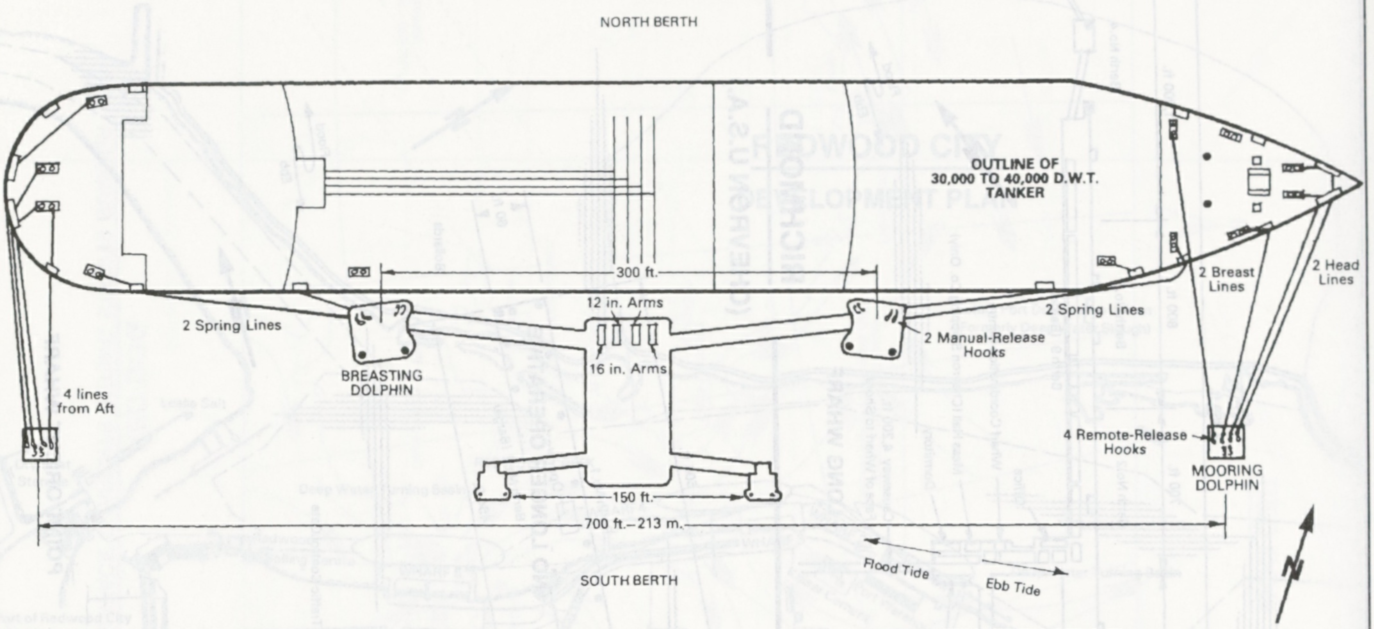

3,850 ft.
1,150 ft.
700 ft.
800 ft.
1,200 ft.
Berth No.1
Berth No.2
Berth No.3
Berth No.4
Berth 9 (Barge)
Office
Wharf Coordination Centre
Storage for Oil Spill Equipment
Mess Hall (Chevron Shipping Co. Only)
Machine Shop (Chevron Shipping Co.)
Dormitory
Causeway 4,200 ft. Face of Wharf to Shore
Flood
Ebb

LONG WHARF

RICHMOND
(CHEVRON U.S.A.)


504 ft.
Berth No. 1
Operat
NO LONGER OPERATIVE
Berth No. 2 (Barge)
464 ft.
60 ft.
Bollards
Traffic Control Gate
Flood
Ebb

POINT ORIENT WHARF


NORTH BERTH
OUTLINE OF 30,000 TO 40,000 D.W.T. TANKER
300 ft.
12 in. Arms
16 in. Arms
2 Spring Lines
BREASTING DOLPHIN
4 lines from Aft
2 Manual-Release Hooks
2 Spring Lines
2 Breast Lines
2 Head Lines
4 Remote-Release Hooks
MOORING DOLPHIN
150 ft.
700 ft.–213 m.
SOUTH BERTH
Flood Tide
Ebb Tide

RIVERHEAD

SUGGESTED MOORING PLAN - NORTH BERTH

The diagram above represents a suggested mooring arrangement for the North berth of the Northville Industries Corporation tanker platform at Riverhead, New York.

The ship plan represents a 30,000 to 40,000 d.w.t. handy size tanker with bridge amidship.

Mooring operations at Tosco are conducted as Follows:

1. With the vessel alongside the breasting dolphins, run spring lines fore and aft to maintain desired position. Spring line leads must provide adequate scope.
2. The launch will carry a messenger from the mooring dolphins to the bow or stern to run head, stern, and breast lines. The line crew will work one end of the ship at a time, as requested by the Master.
3. Each mooring line should be secured to an individual set of bitts. Placing two lines on one set of bitts by taking round turns should be avoided.
4. All lines must be tight, and the mooring plan adequate for all anticipated weather conditions before the transfer arms will be connected.
5. The ship's gangway is not used at this terminal.

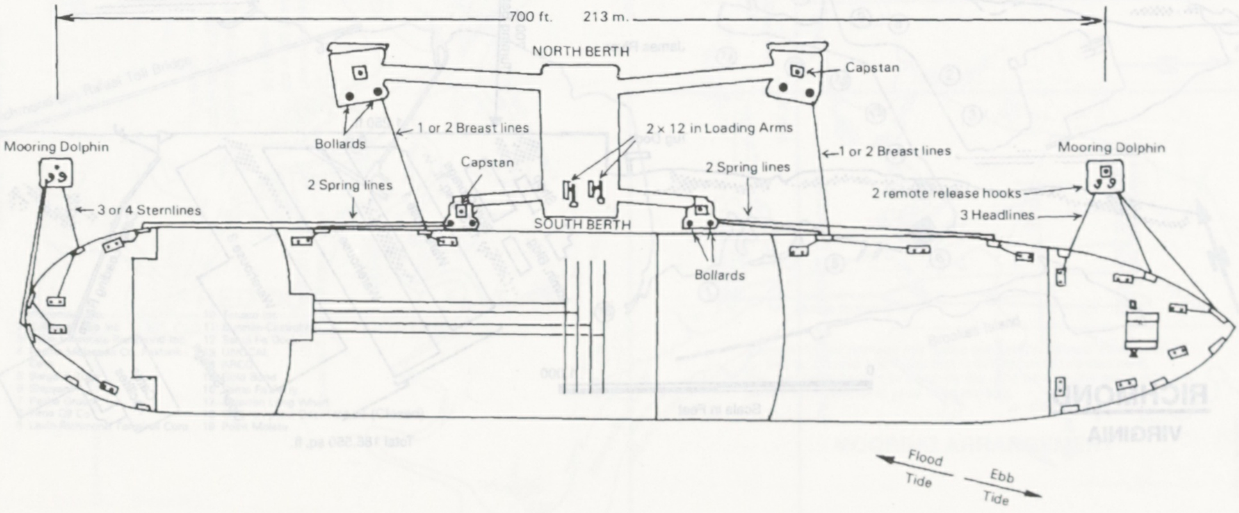
RIVERHEAD

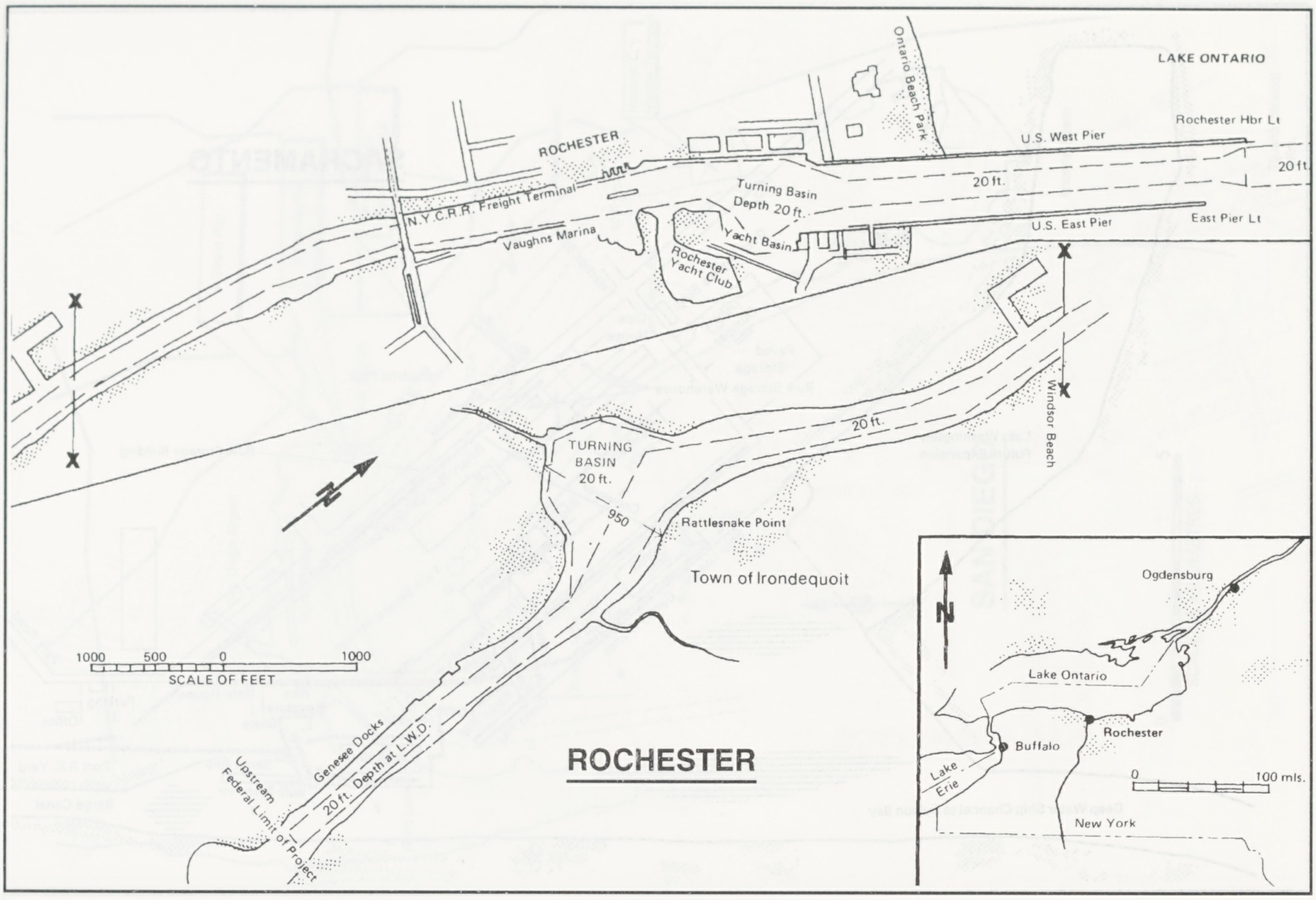
SUGGESTED MOORING PLAN - SOUTH BERTH

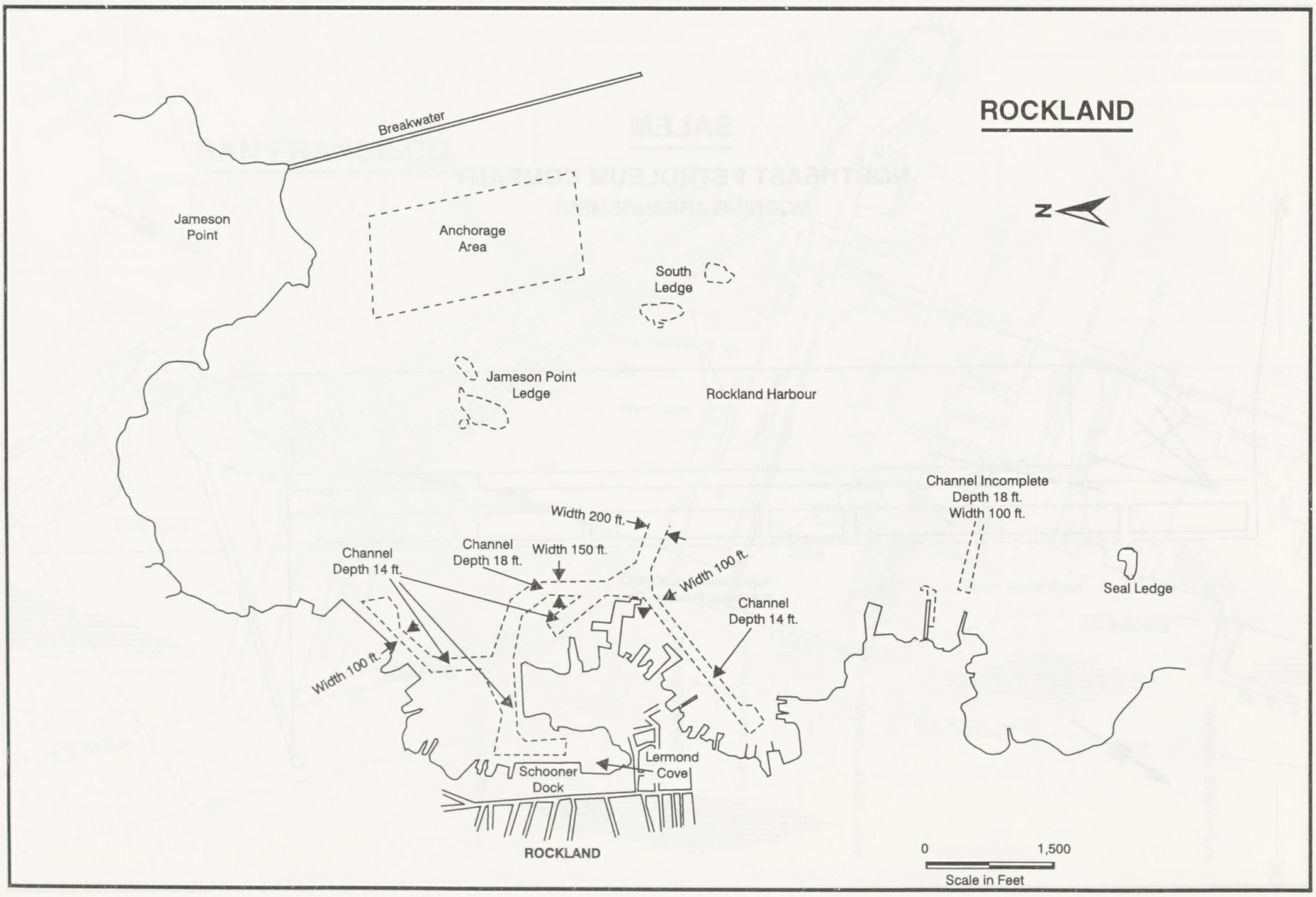
The diagram below represents a suggested mooring arrangement for the South Berth of the Tosco Industries Corporation tanker platform at Riverhead, New York.
The ship plan represents a 30,000 to 40,000 DWT handy size tanker with bridge amidship.

Mooring operations at Northville are conducted as follows:

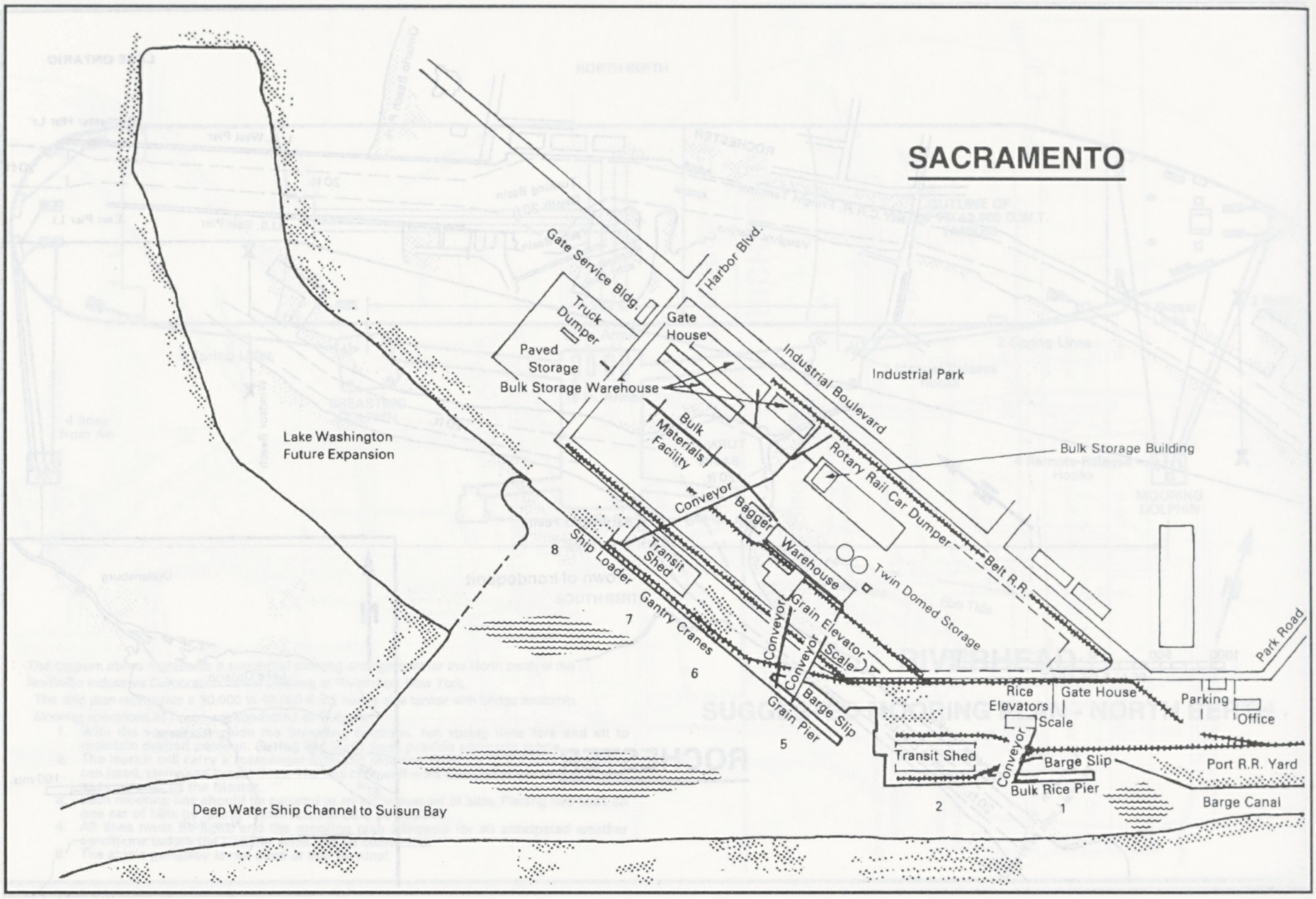
1. With the vessel alongside the breasting dolphins, run spring lines fore and aft to maintain desired position.
2. The launch will carry a messenger from the mooring dolphins to the bow or stern to run head, stern, and breast lines. The line crew will work one end of the ship at a time, as requested by the Master.
3. Each mooring line should be secured to an individual set of bitts. Placing two lines on one set of bitts by taking round turns should be avoided.
4. All lines must be tight, and the mooring plan adequate for all anticipated weather conditions before the transfer arms will be connected.
5. The ship's gangway is not used at this terminal.


700 ft. 213 m.
NORTH BERTH
Capstan
Bollards
1 or 2 Breast lines
2 x 12 in Loading Arms
1 or 2 Breast lines
Mooring Dolphin
Mooring Dolphin
Capstan
2 Spring lines
2 Spring lines
3 or 4 Sternlines
2 remote release hooks
3 Headlines
SOUTH BERTH
Bollards
Flood Tide
Ebb Tide


ROCHESTER
LAKE ONTARIO
Ontario Beach Park
Rochester Hbr Lt
U.S. West Pier
20 ft.
20 ft.
ROCHESTER
Turning Basin
Depth 20 ft.
N.Y.C.R.R. Freight Terminal
Vaughns Marina
Yacht Basin
Rochester Yacht Club
U.S. East Pier
East Pier Lt
X
X
X
X
Windsor Beach
20 ft.
TURNING BASIN 20 ft.
950
Rattlesnake Point
Town of Irondequoit
N
1000 500 0 1000
SCALE OF FEET
Genesee Docks
20 ft. Depth at L.W.D.
Upstream Federal Limit of Project
N
Ogdensburg
Lake Ontario
Rochester
Buffalo
Lake Erie
0 100 mls.
New York


ROCKLAND
Breakwater
Jameson Point
Anchorage Area
N
South Ledge
Jameson Point Ledge
Rockland Harbour
Channel Incomplete
Depth 18 ft.
Width 100 ft.
Width 200 ft.
Channel Depth 18 ft.
Width 150 ft.
Channel Depth 14 ft.
Width 100 ft.
Channel Depth 14 ft.
Width 100 ft.
Seal Ledge
Schooner Dock
Lermond Cove
ROCKLAND
0 1,500
Scale in Feet

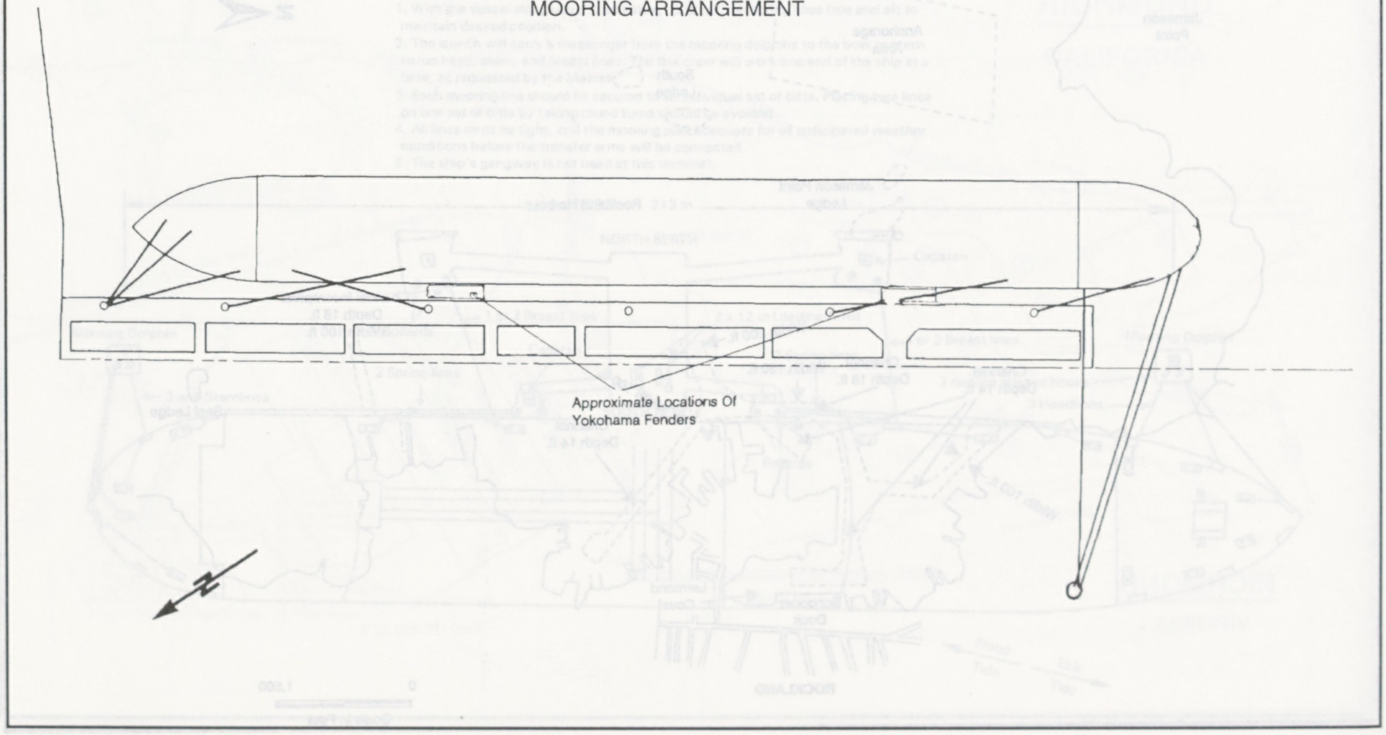
SACRAMENTO

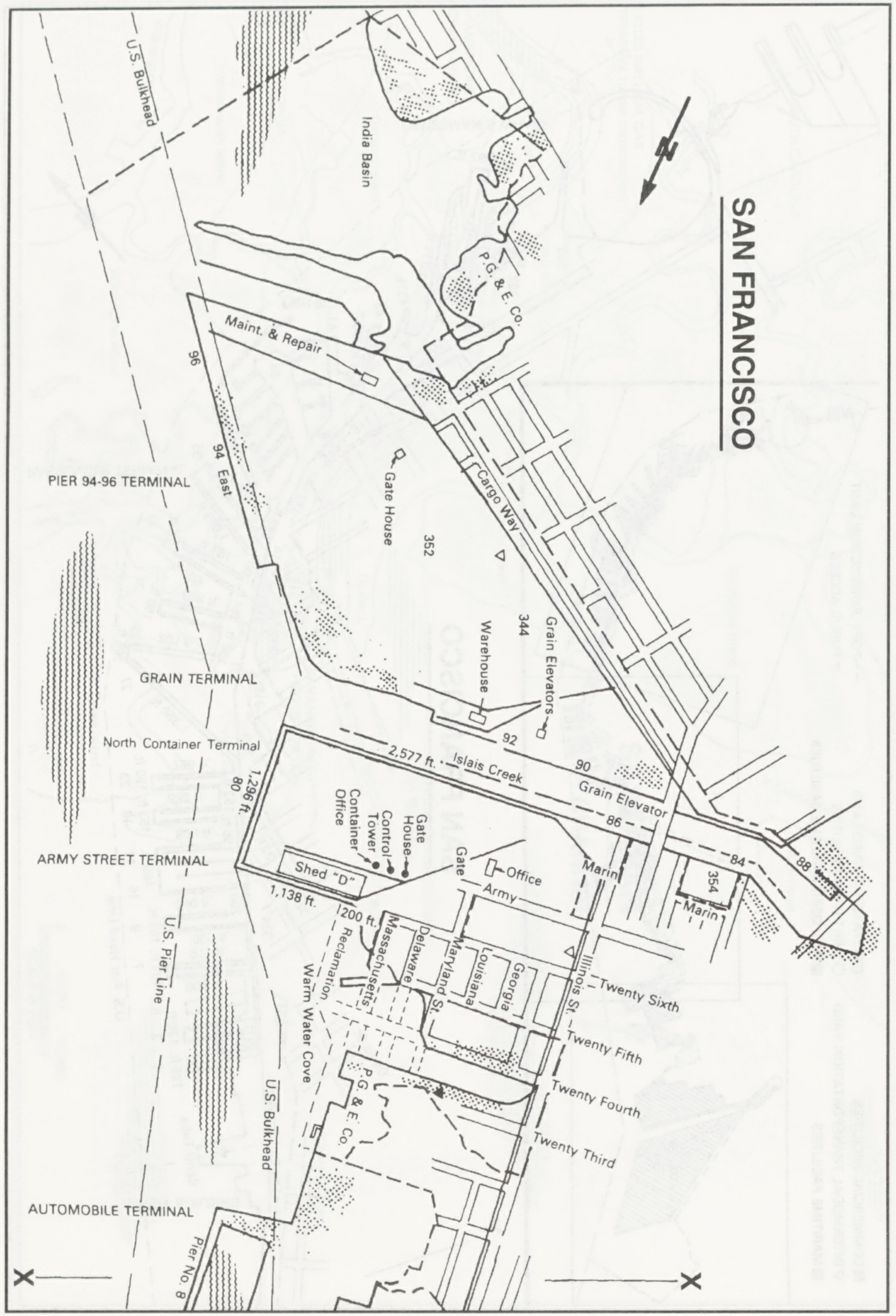

Gate Service Bldg.
Harbor Blvd
Truck Dumper
Gate House
Paved Storage
Bulk Storage Warehouse
Industrial Boulevard
Industrial Park
Bulk Materials Facility
Conveyor
Rotary Rail Car Dumper
Bulk Storage Building
Lake Washington Future Expansion
Bagger
Warehouse
Twin Domed Storage
Belt R.R.
8
Ship Loader
Transit Shed
7
Gantry Cranes
Conveyor
Grain Elevator
Conveyor
Scale
6
Barge Slip
Grain Pier
5
Rice Elevators
Gate House
Parking
Office
Park Road
Scale
Transit Shed
Conveyor
Barge Slip
Port R.R. Yard
Bulk Rice Pier
2
1
Barge Canal
Deep Water Ship Channel to Suisun Bay

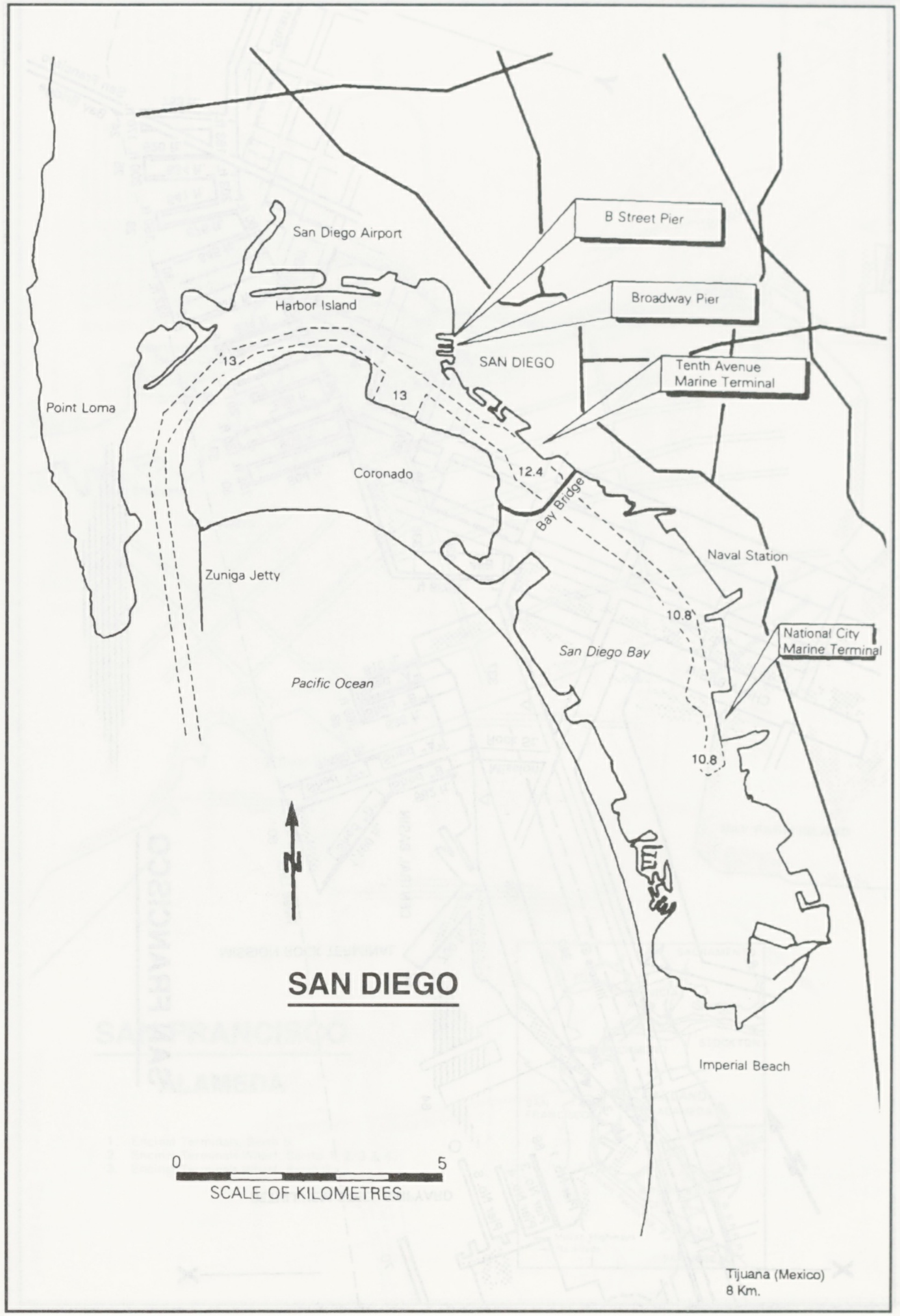
SALEM

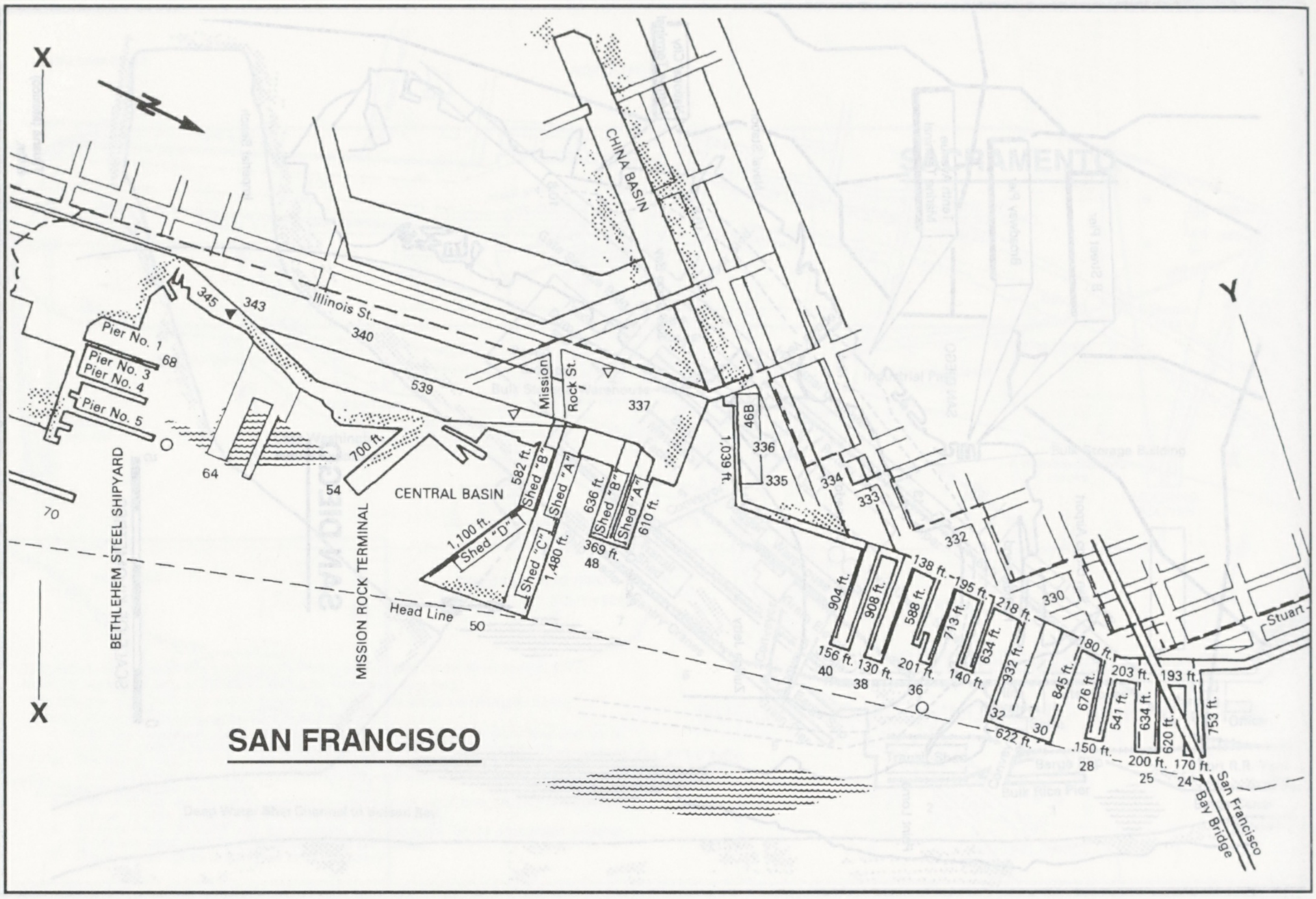
NORTHEAST PETROLEUM COMPANY

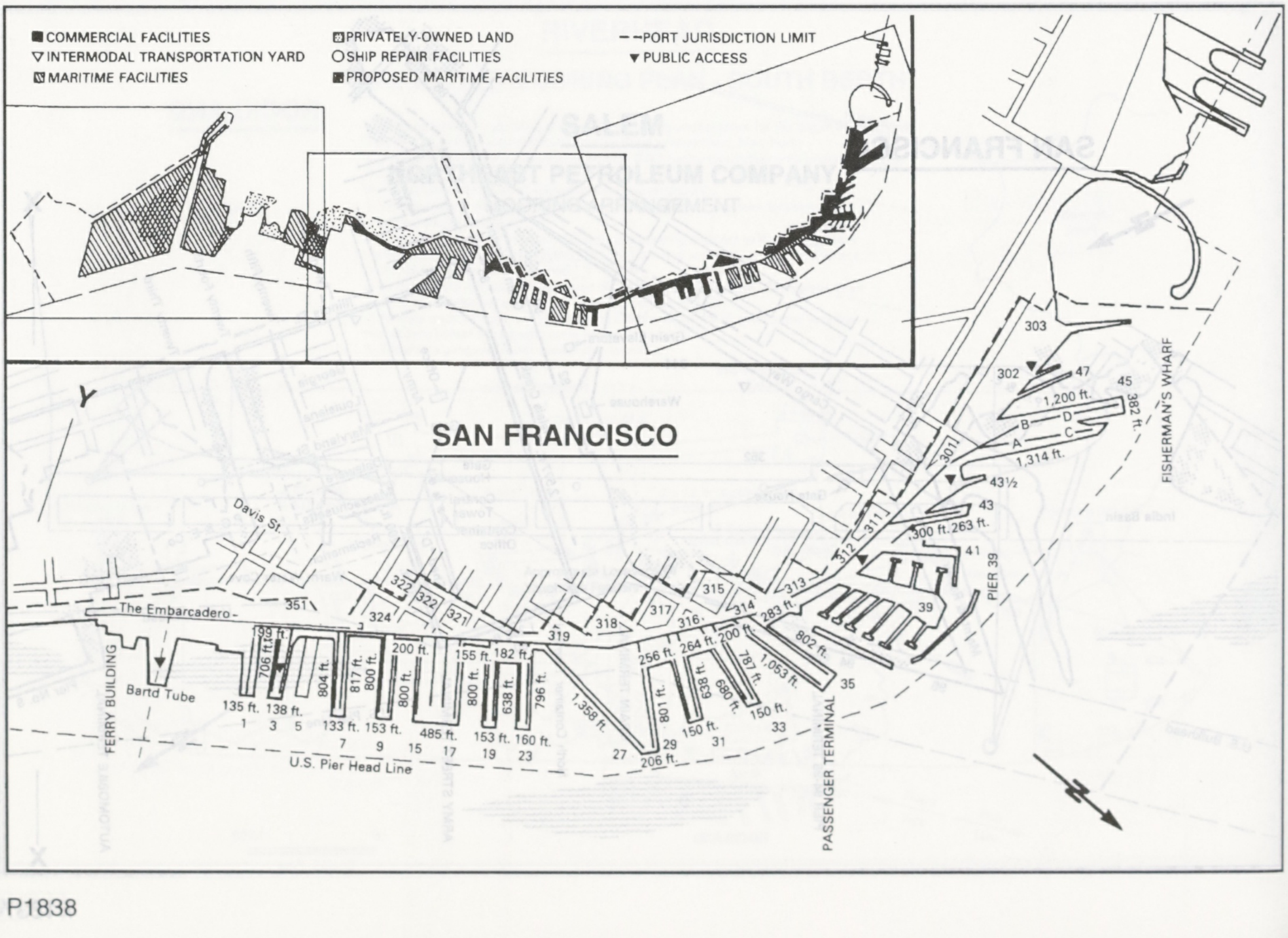
MOORING ARRANGEMENT

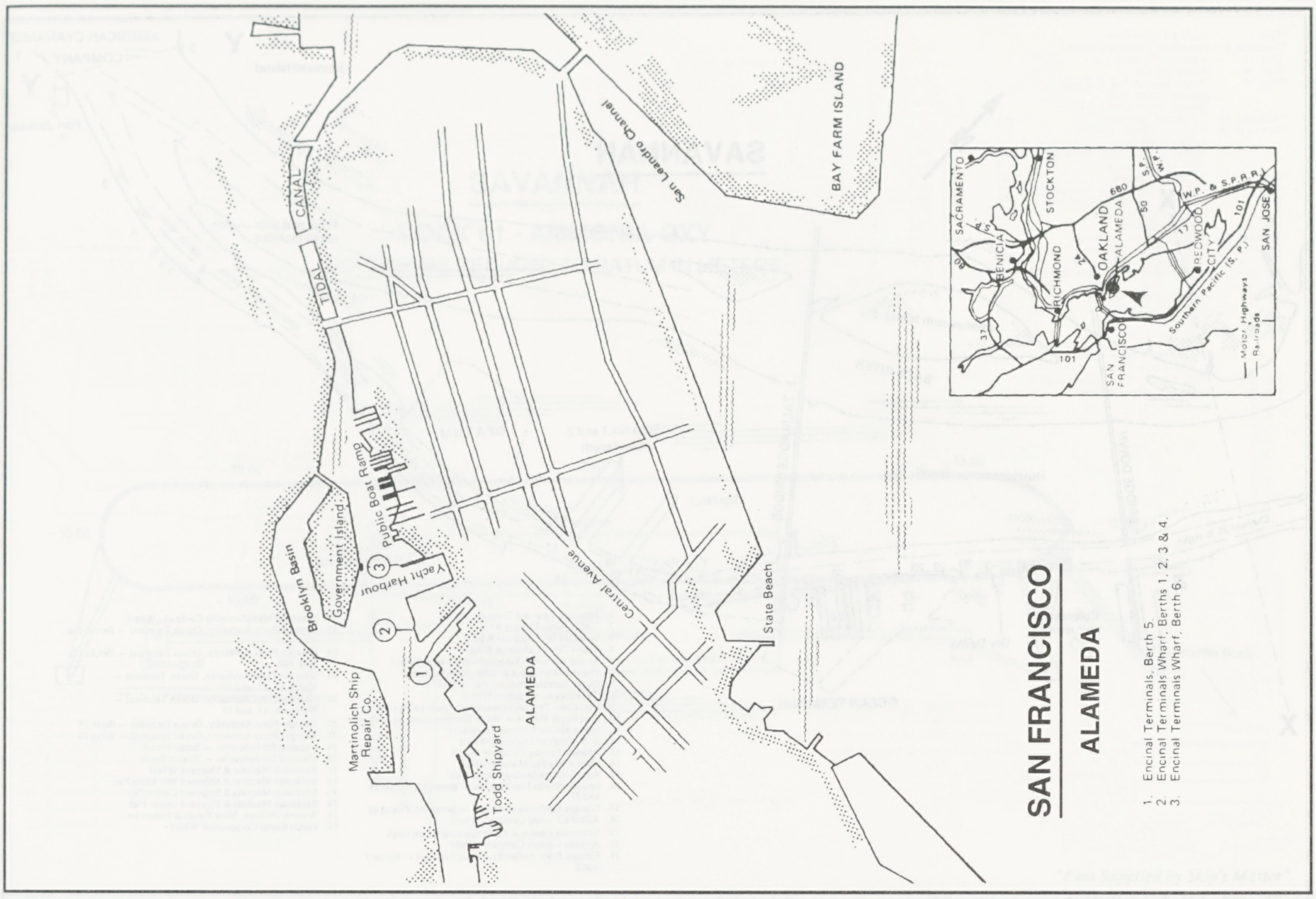

Approximate Locations Of Yokohama Fenders


SAN FRANCISCO
N
U.S. Bulkhead
India Basin
P.G. & E. Co.
Maint. & Repair
96
94 East
PIER 94-96 TERMINAL
Gate House
352
Cargo Way
GRAIN TERMINAL
Warehouse
344
Grain Elevators
North Container Terminal
92
90
2,577 ft.
Islais Creek
Grain Elevator
86
84
88
1,296 ft.
80
Container Office
Control Tower
Gate House
Gate
Office
ARMY STREET TERMINAL
Shed "D"
1,138 ft.
Army
Marin
354
Marin
200 ft.
Reclamation
Massachusetts
Delaware
Maryland St.
Louisiana
Georgia
Illinois St.
Twenty Sixth
Twenty Fifth
Twenty Fourth
Twenty Third
Warm Water Cove
P.G. & E. Co.
U.S. Pier Line
U.S. Bulkhead
AUTOMOBILE TERMINAL
Pier No. 8
X
X


San Diego Airport
Harbor Island
B Street Pier
Broadway Pier
SAN DIEGO
Tenth Avenue Marine Terminal
13
13
Point Loma
Coronado
12.4
Bay Bridge
Naval Station
Zuniga Jetty
10.8
National City Marine Terminal
San Diego Bay
Pacific Ocean
10.8
N
SAN DIEGO
Imperial Beach
0
5
SCALE OF KILOMETRES
Tijuana (Mexico) 8 Km.

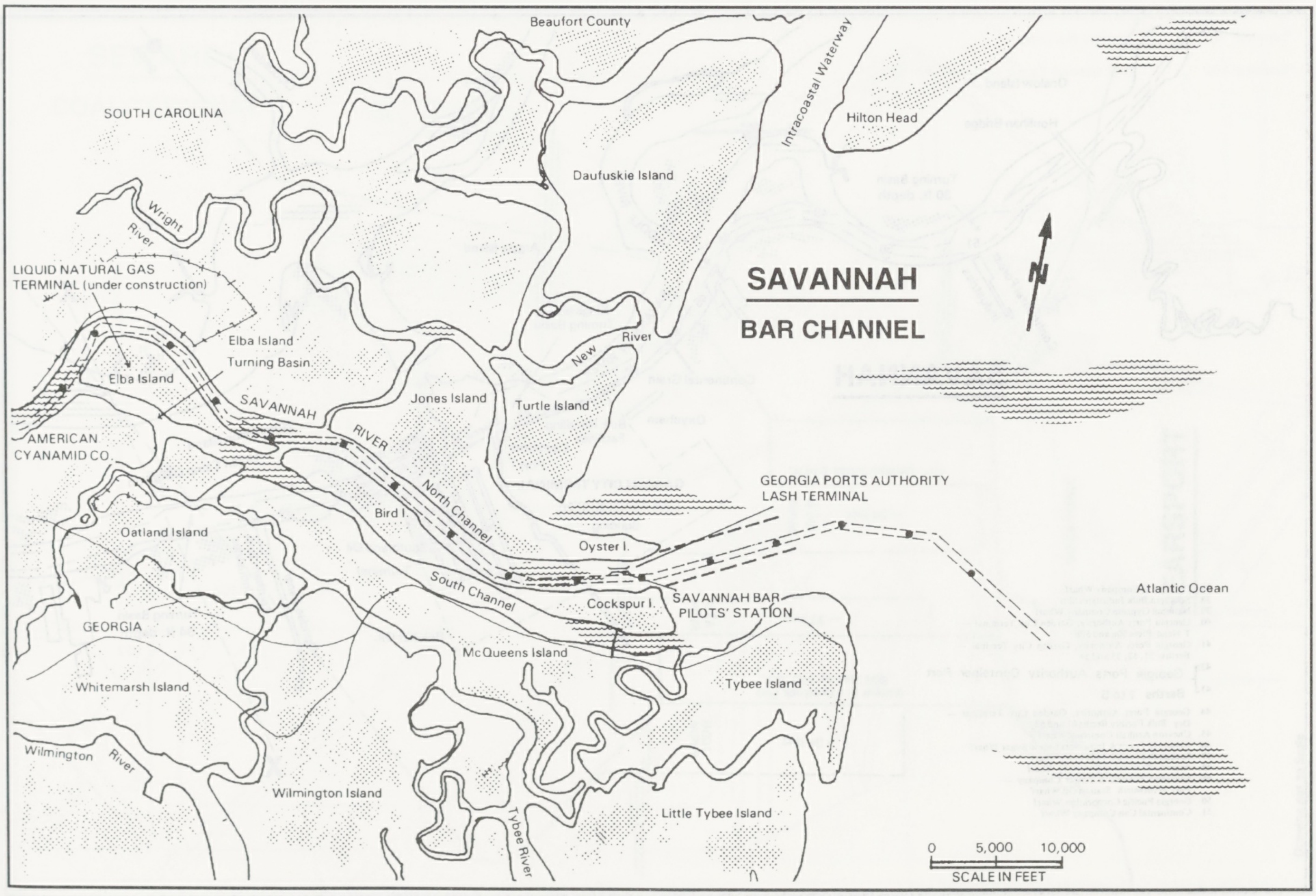

X
Y
X
SAN FRANCISCO
CHINA BASIN
Illinois St.
345
343
340
Pier No. 1
68
Pier No. 3
Pier No. 4
Pier No. 5
539
Mission
Rock St.
337
46B
336
335
334
333
332
330
1,039 ft.
64
54
70
700 ft.
CENTRAL BASIN
582 ft.
Shed "B"
Shed "A"
636 ft.
Shed "B"
Shed "A"
610 ft.
1,100 ft.
Shed "D"
Shed "C"
1,480 ft.
369 ft.
48
Head Line
50
BETHLEHEM STEEL SHIPYARD
MISSION ROCK TERMINAL
904 ft.
908 ft.
588 ft.
713 ft.
634 ft.
932 ft.
845 ft.
676 ft.
541 ft.
634 ft.
620 ft.
753 ft.
138 ft.
195 ft.
218 ft.
180 ft.
203 ft.
193 ft.
156 ft.
130 ft.
201 ft.
140 ft.
40
38
36
32
30
622 ft.
150 ft.
28
200 ft.
25
170 ft.
24
Stuart
San Francisco Bay Bridge


■ COMMERCIAL FACILITIES
▽ INTERMODAL TRANSPORTATION YARD
▧ MARITIME FACILITIES
▨ PRIVATELY-OWNED LAND
○ SHIP REPAIR FACILITIES
■ PROPOSED MARITIME FACILITIES
-- PORT JURISDICTION LIMIT
▼ PUBLIC ACCESS
SAN FRANCISCO
Y
Davis St.
The Embarcadero
351
324
322
322
321
319
318
317
316
315
314
313
312
311
301
303
302
47
45
1,200 ft.
382 ft.
B
D
A
C
1,314 ft.
43½
43
300 ft.
263 ft.
41
39
PIER 39
FISHERMAN'S WHARF
FERRY BUILDING
Bart Tube
199 ft.
706 ft.
804 ft.
817 ft.
800 ft.
200 ft.
800 ft.
155 ft.
182 ft.
800 ft.
638 ft.
796 ft.
1,358 ft.
256 ft.
264 ft.
200 ft.
801 ft.
638 ft.
690 ft.
787 ft.
283 ft.
1,053 ft.
802 ft.
135 ft.
1
138 ft.
3
5
133 ft.
7
153 ft.
9
15
485 ft.
17
153 ft.
19
160 ft.
23
27
206 ft.
29
150 ft.
31
150 ft.
33
35
U.S. Pier Head Line
PASSENGER TERMINAL


CANAL
TIDAL
Brooklyn Basin
Government Island
Public Boat Ramp
Yacht Harbour
Martinolich Ship Repair Co.
Todd Shipyard
ALAMEDA
Central Avenue
State Beach
San Leandro Channel
BAY FARM ISLAND
SACRAMENTO
STOCKTON
BENICIA
RICHMOND
OAKLAND
ALAMEDA
REDWOOD CITY
SAN JOSE
SAN FRANCISCO
W.P. & S.P.R.R.
Southern Pacific (S.P.)
S.P.
W.P.
680
80
50
17
24
4
37
101
Motor Highways
Railroads
1. Encinal Terminals, Berth 5.
2. Encinal Terminals Wharf, Berths 1, 2, 3 & 4.
3. Encinal Terminals Wharf, Berth 6.

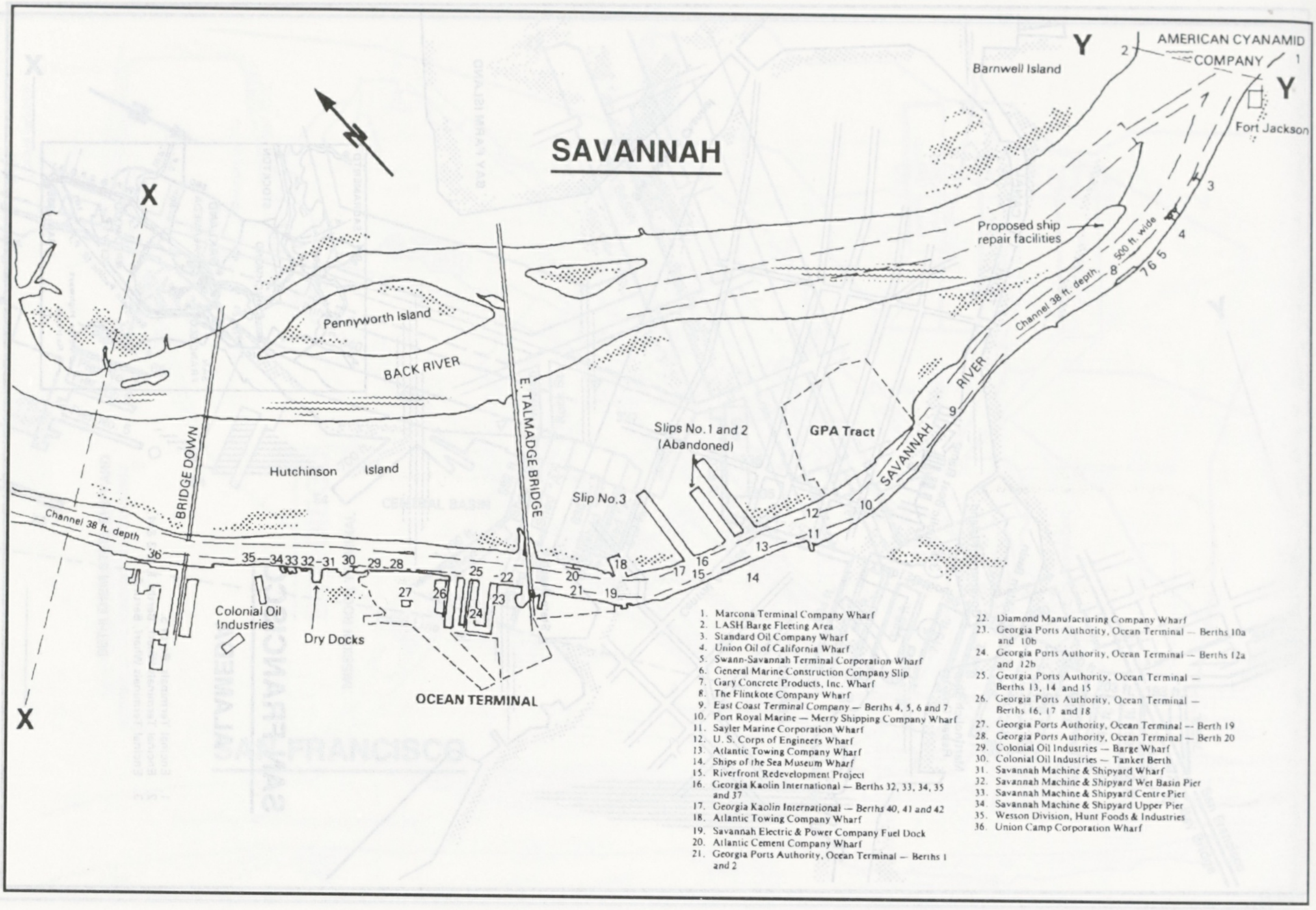
SAN FRANCISCO

ALAMEDA

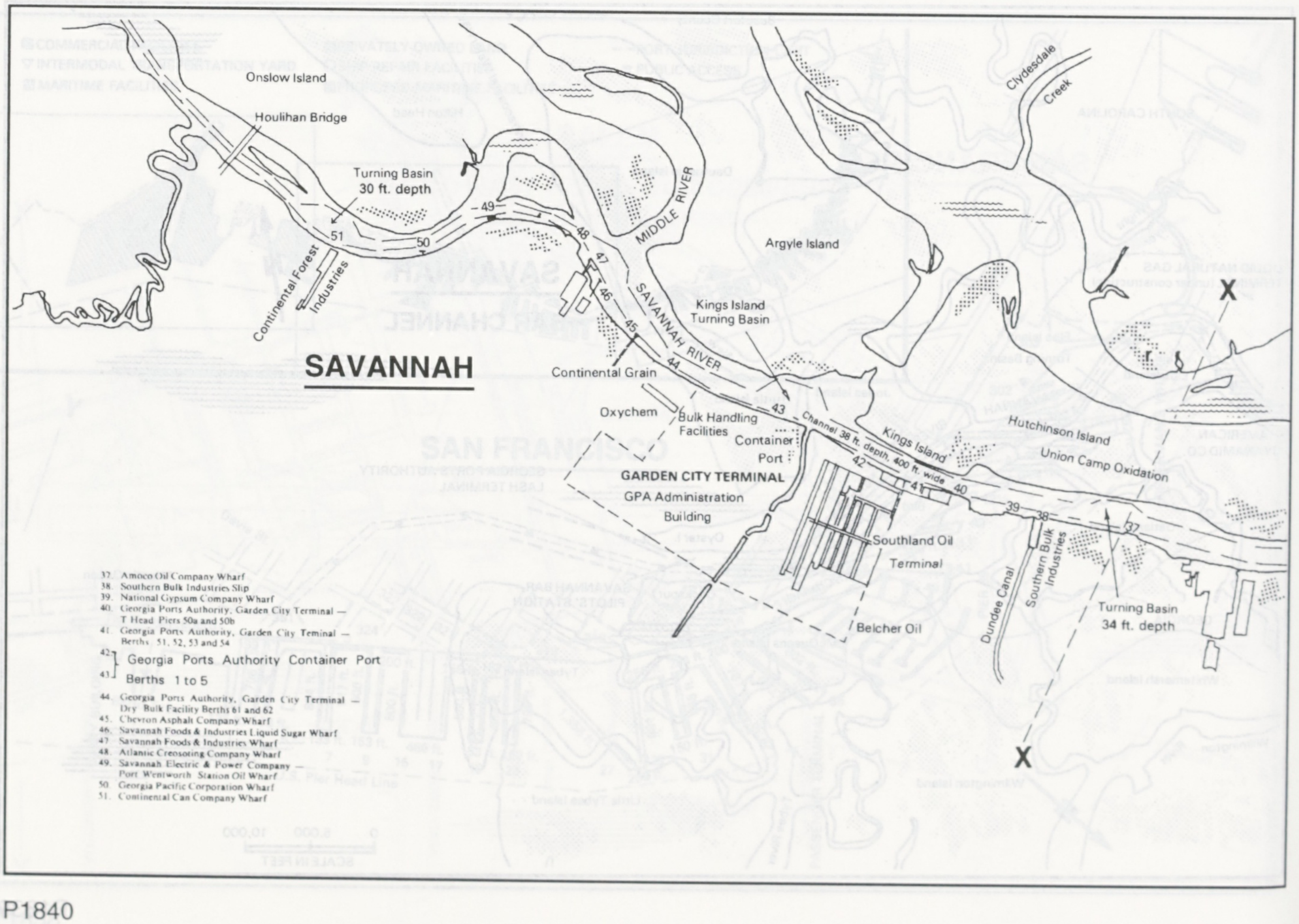

Beaufort County
SOUTH CAROLINA
Intracoastal Waterway
Hilton Head
Daufuskie Island
Wright River
LIQUID NATURAL GAS TERMINAL (under construction)
Elba Island
Elba Island
Turning Basin
SAVANNAH RIVER
Jones Island
Turtle Island
New River
AMERICAN CYANAMID CO.
Bird I.
North Channel
Oyster I.
GEORGIA PORTS AUTHORITY LASH TERMINAL
Oatland Island
South Channel
Cockspur I.
SAVANNAH BAR PILOTS' STATION
Atlantic Ocean
GEORGIA
McQueens Island
Tybee Island
Whitemarsh Island
Wilmington River
Wilmington Island
Tybee River
Little Tybee Island
N
0
5,000
10,000
SCALE IN FEET

SAVANNAH

BAR CHANNEL


SAVANNAH
X
X
Y
Y
AMERICAN CYANAMID COMPANY
Barnwell Island
Fort Jackson
Proposed ship repair facilities
Channel 38 ft. depth. 500 ft. wide
Pennyworth Island
BACK RIVER
SAVANNAH RIVER
GPA Tract
Slips No.1 and 2 (Abandoned)
Slip No.3
Hutchinson Island
BRIDGE DOWN
E. TALMADGE BRIDGE
Channel 38 ft. depth
Colonial Oil Industries
Dry Docks
OCEAN TERMINAL
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36

1. Marcona Terminal Company Wharf
2. LASH Barge Fleeting Area
3. Standard Oil Company Wharf
4. Union Oil of California Wharf
5. Swann-Savannah Terminal Corporation Wharf
6. General Marine Construction Company Slip
7. Gary Concrete Products, Inc. Wharf
8. The Flintkote Company Wharf
9. East Coast Terminal Company — Berths 4, 5, 6 and 7
10. Port Royal Marine — Merry Shipping Company Wharf
11. Sayler Marine Corporation Wharf
12. U. S. Corps of Engineers Wharf
13. Atlantic Towing Company Wharf
14. Ships of the Sea Museum Wharf
15. Riverfront Redevelopment Project
16. Georgia Kaolin International — Berths 32, 33, 34, 35 and 37
17. Georgia Kaolin International — Berths 40, 41 and 42
18. Atlantic Towing Company Wharf
19. Savannah Electric & Power Company Fuel Dock
20. Atlantic Cement Company Wharf
21. Georgia Ports Authority, Ocean Terminal — Berths 1 and 2
22. Diamond Manufacturing Company Wharf
23. Georgia Ports Authority, Ocean Terminal — Berths 10a and 10b
24. Georgia Ports Authority, Ocean Terminal — Berths 12a and 12b
25. Georgia Ports Authority, Ocean Terminal — Berths 13, 14 and 15
26. Georgia Ports Authority, Ocean Terminal — Berths 16, 17 and 18
27. Georgia Ports Authority, Ocean Terminal — Berth 19
28. Georgia Ports Authority, Ocean Terminal — Berth 20
29. Colonial Oil Industries — Barge Wharf
30. Colonial Oil Industries — Tanker Berth
31. Savannah Machine & Shipyard Wharf
32. Savannah Machine & Shipyard Wet Basin Pier
33. Savannah Machine & Shipyard Centre Pier
34. Savannah Machine & Shipyard Upper Pier
35. Wesson Division, Hunt Foods & Industries
36. Union Camp Corporation Wharf


SAVANNAH
X
X
Onslow Island
Houlihan Bridge
Turning Basin 30 ft. depth
Continental Forest Industries
MIDDLE RIVER
SAVANNAH RIVER
Argyle Island
Clydesdale Creek
Kings Island Turning Basin
Continental Grain
Oxychem
Bulk Handling Facilities
Container Port
GARDEN CITY TERMINAL
GPA Administration Building
Channel 38 ft. depth, 400 ft. wide
Kings Island
Hutchinson Island
Union Camp Oxidation
Southland Oil Terminal
Belcher Oil
Dundee Canal
Southern Bulk Industries
Turning Basin 34 ft. depth
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51

37. Amoco Oil Company Wharf
38. Southern Bulk Industries Slip
39. National Gypsum Company Wharf
40. Georgia Ports Authority, Garden City Terminal — T Head Piers 50a and 50b
41. Georgia Ports Authority, Garden City Teminal — Berths 51, 52, 53 and 54

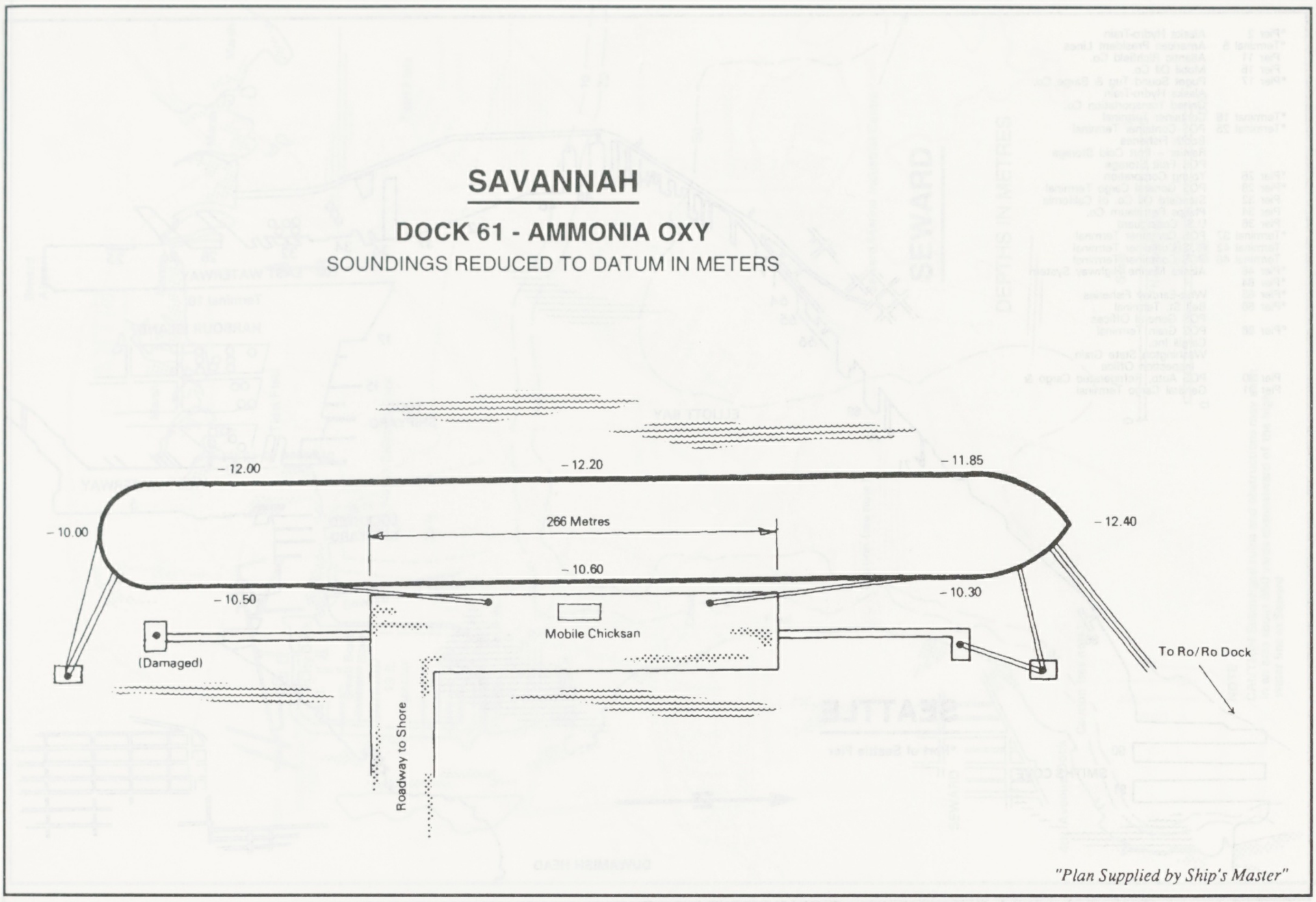
42.
43. } Georgia Ports Authority Container Port Berths 1 to 5

44. Georgia Ports Authority, Garden City Terminal — Dry Bulk Facility Berths 61 and 62
45. Chevron Asphalt Company Wharf
46. Savannah Foods & Industries Liquid Sugar Wharf
47. Savannah Foods & Industries Wharf
48. Atlantic Creosoting Company Wharf
49. Savannah Electric & Power Company — Port Wentworth Station Oil Wharf
50. Georgia Pacific Corporation Wharf
51. Continental Can Company Wharf

SAVANNAH

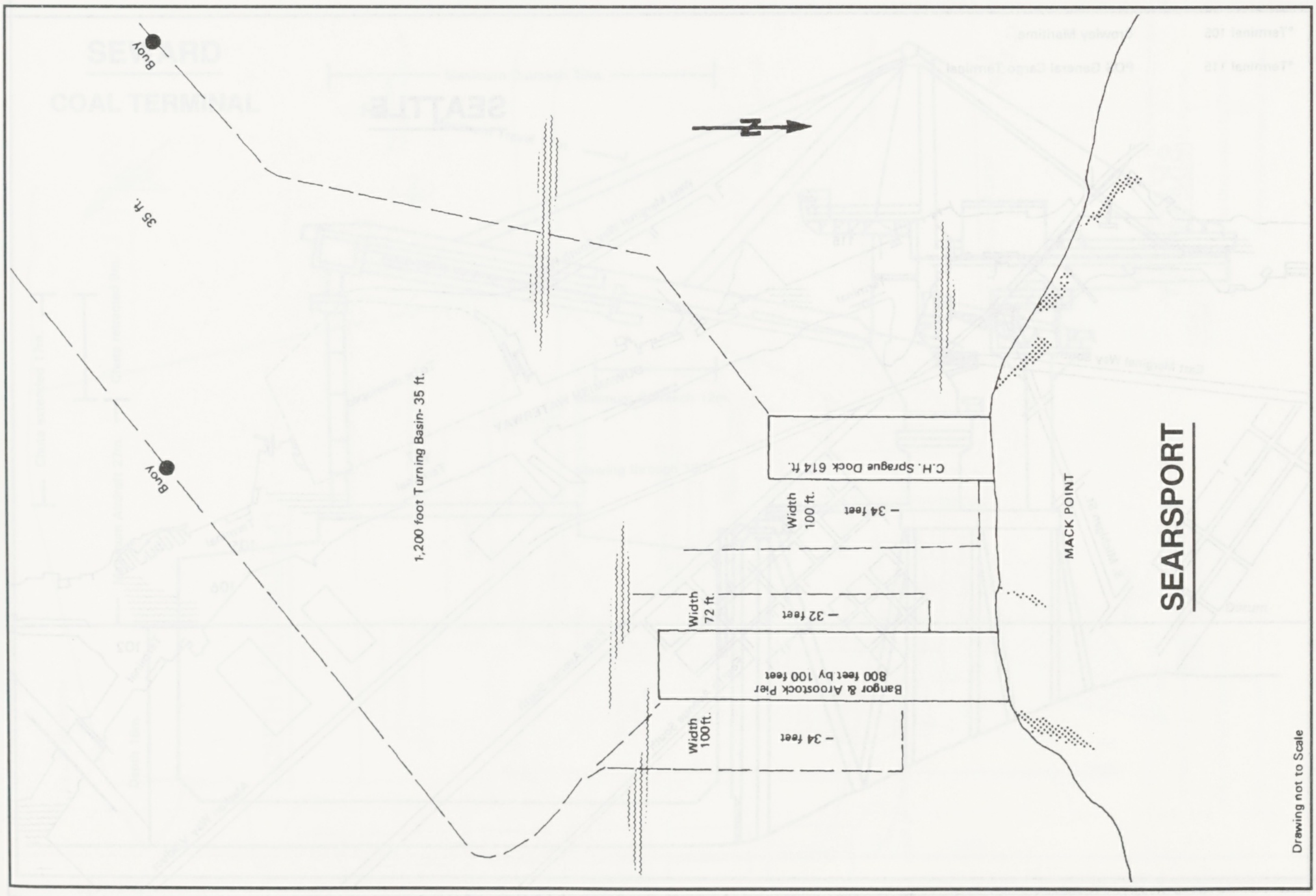
DOCK 61 - AMMONIA OXY

SOUNDINGS REDUCED TO DATUM IN METERS

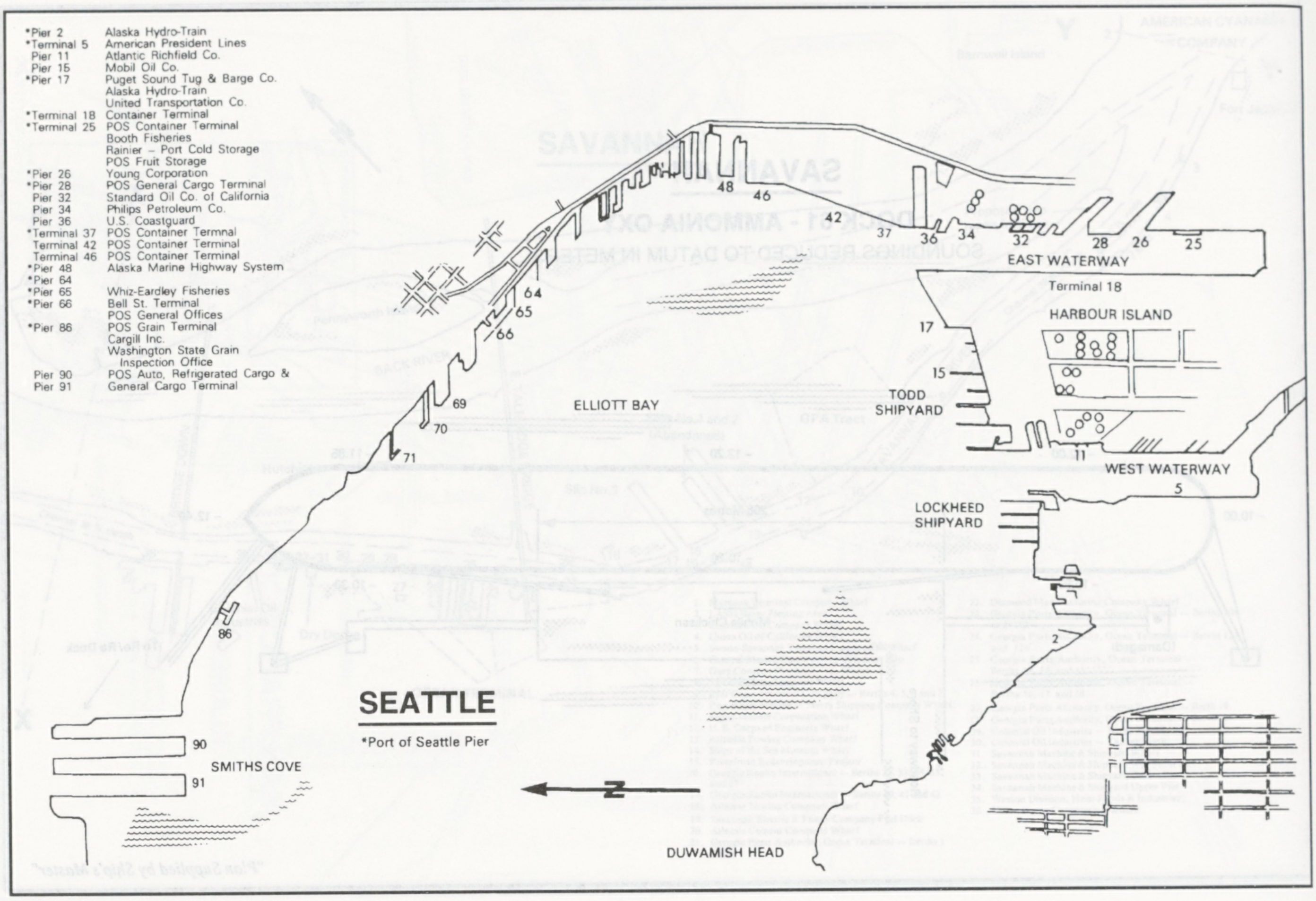

– 12.00
– 12.20
– 11.85
– 10.00
266 Metres
– 12.40
– 10.60
– 10.50
– 10.30
Mobile Chicksan
(Damaged)
To Ro/Ro Dock
Roadway to Shore

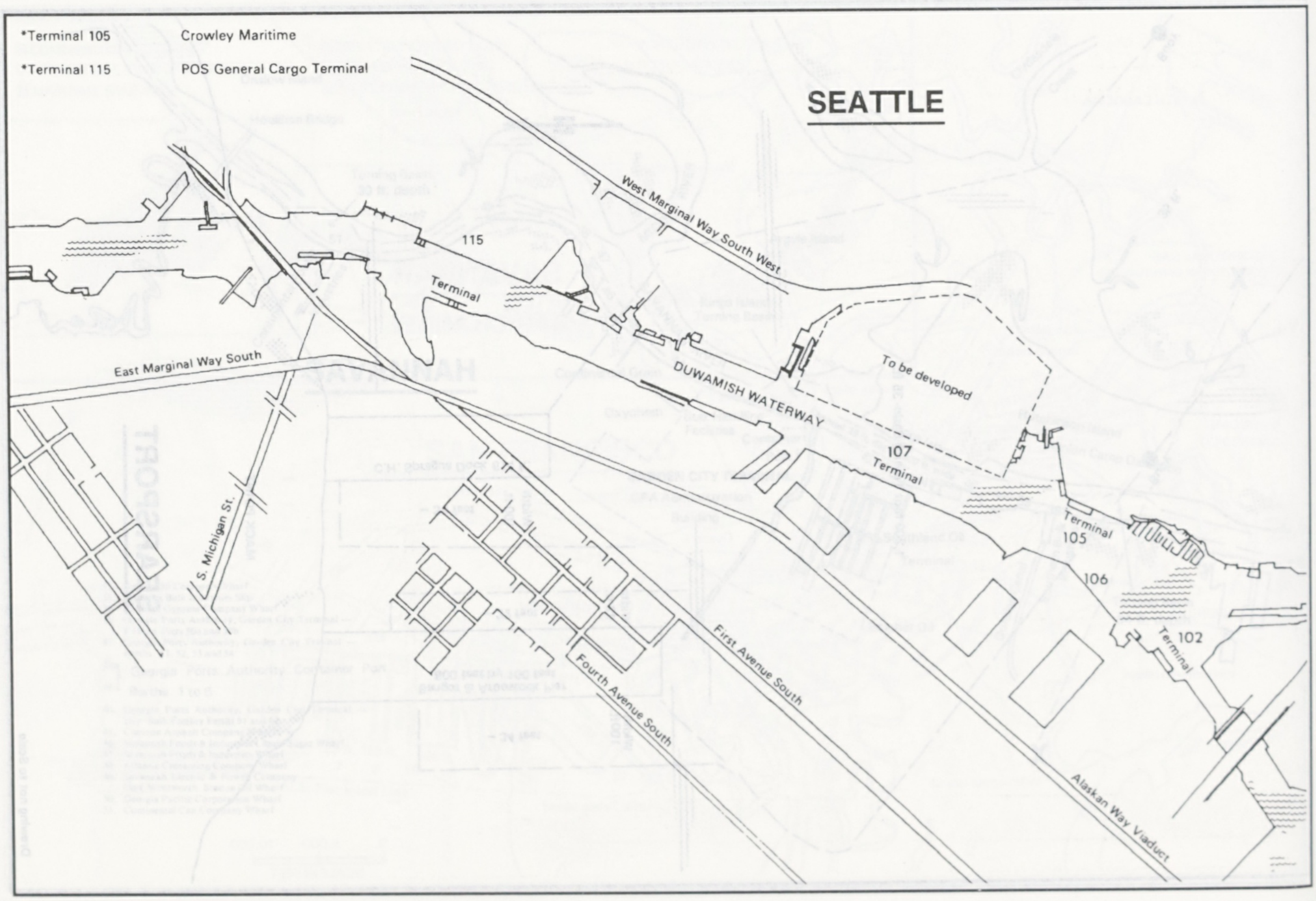
"Plan Supplied by Ship's Master"

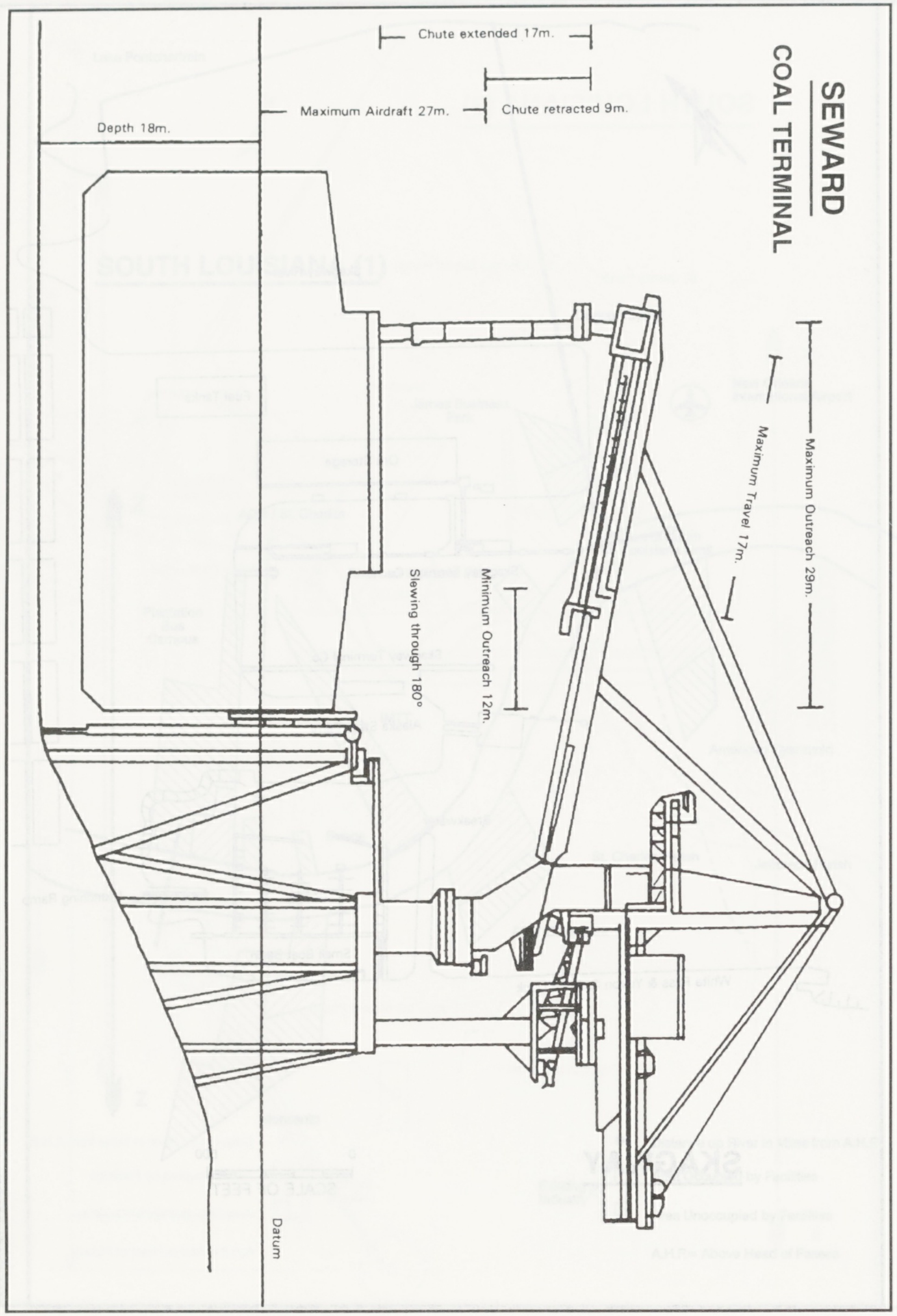
SEARSPORT


Buoy
35 ft.
N
1,200 foot Turning Basin- 35 ft.
Buoy
C.H. Sprague Dock 614 ft.
Width 100 ft.
– 34 feet
MACK POINT
Width 72 ft.
– 32 feet
Bangor & Aroostock Pier 800 feet by 100 feet
Width 100 ft.
– 34 feet

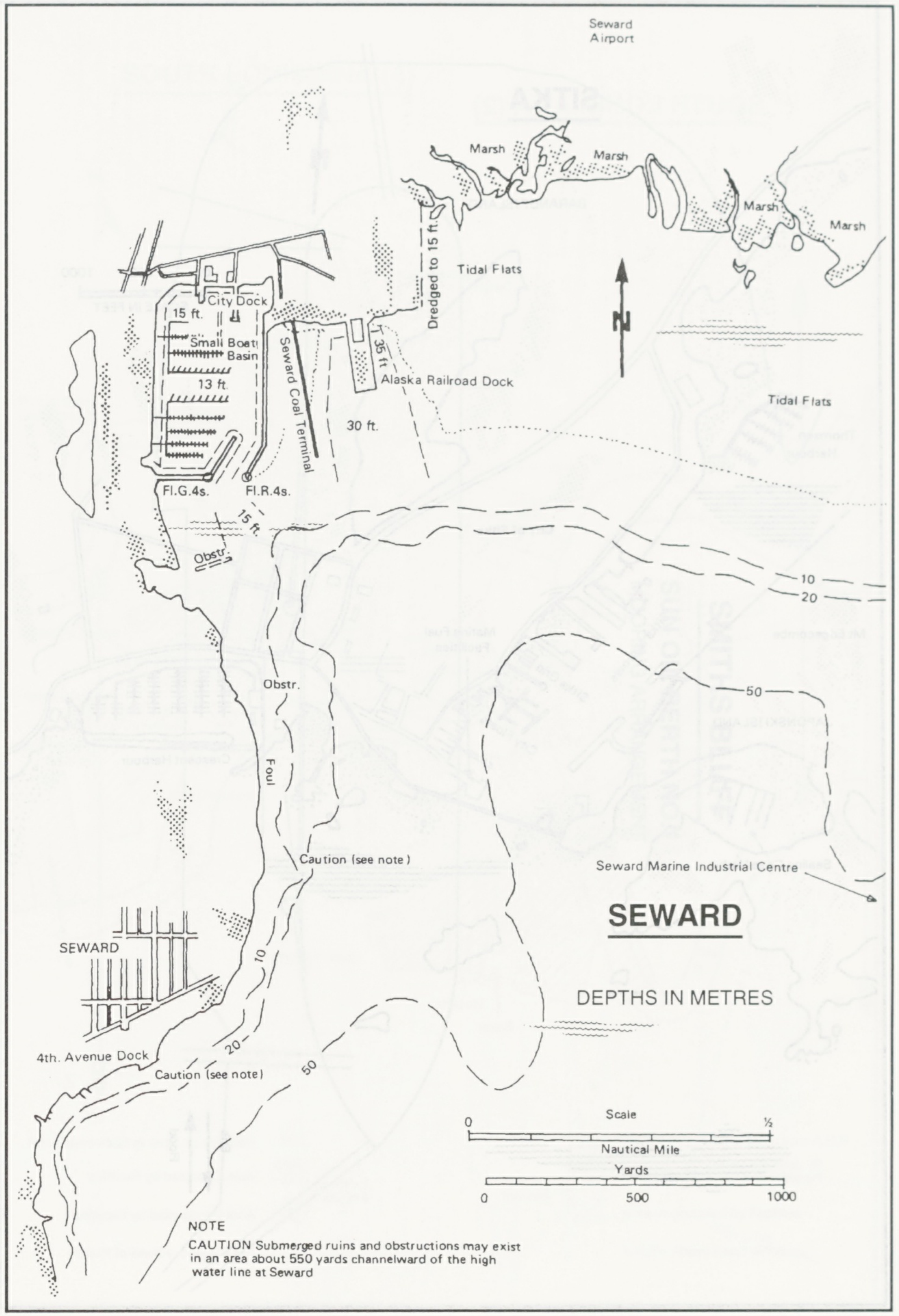
Drawing not to Scale


*Pier 2 Alaska Hydro-Train
*Terminal 5 American President Lines
Pier 11 Atlantic Richfield Co.
Pier 15 Mobil Oil Co.
*Pier 17 Puget Sound Tug & Barge Co.
Alaska Hydro-Train
United Transportation Co.
*Terminal 18 Container Terminal
*Terminal 25 POS Container Terminal
Booth Fisheries
Rainier – Port Cold Storage
POS Fruit Storage
*Pier 26 Young Corporation
*Pier 28 POS General Cargo Terminal
Pier 32 Standard Oil Co. of California
Pier 34 Philips Petroleum Co.
Pier 36 U.S. Coastguard
*Terminal 37 POS Container Termnal
Terminal 42 POS Container Terminal
Terminal 46 POS Container Terminal
*Pier 48 Alaska Marine Highway System
*Pier 64
*Pier 65 Whiz-Eardley Fisheries
*Pier 66 Bell St. Terminal
POS General Offices
*Pier 86 POS Grain Terminal
Cargill Inc.
Washington State Grain Inspection Office
Pier 90 POS Auto, Refrigerated Cargo &
Pier 91 General Cargo Terminal
48
46
42
37
36
34
32
28
26
25
EAST WATERWAY
Terminal 18
HARBOUR ISLAND
17
15
TODD SHIPYARD
11
WEST WATERWAY
5
LOCKHEED SHIPYARD
2
64
65
66
69
70
71
ELLIOTT BAY
86
SEATTLE
*Port of Seattle Pier
90
91
SMITHS COVE
N
DUWAMISH HEAD


*Terminal 105 Crowley Maritime
*Terminal 115 POS General Cargo Terminal
SEATTLE
West Marginal Way South West
115
Terminal
East Marginal Way South
DUWAMISH WATERWAY
To be developed
107
Terminal
Terminal
105
106
Terminal
102
S. Michigan St.
First Avenue South
Fourth Avenue South
Alaskan Way Viaduct


Chute extended 17m.
Chute retracted 9m.
Maximum Airdraft 27m.
Depth 18m.
Maximum Outreach 29m.
Maximum Travel 17m.
Minimum Outreach 12m.
Slewing through 180°
Datum

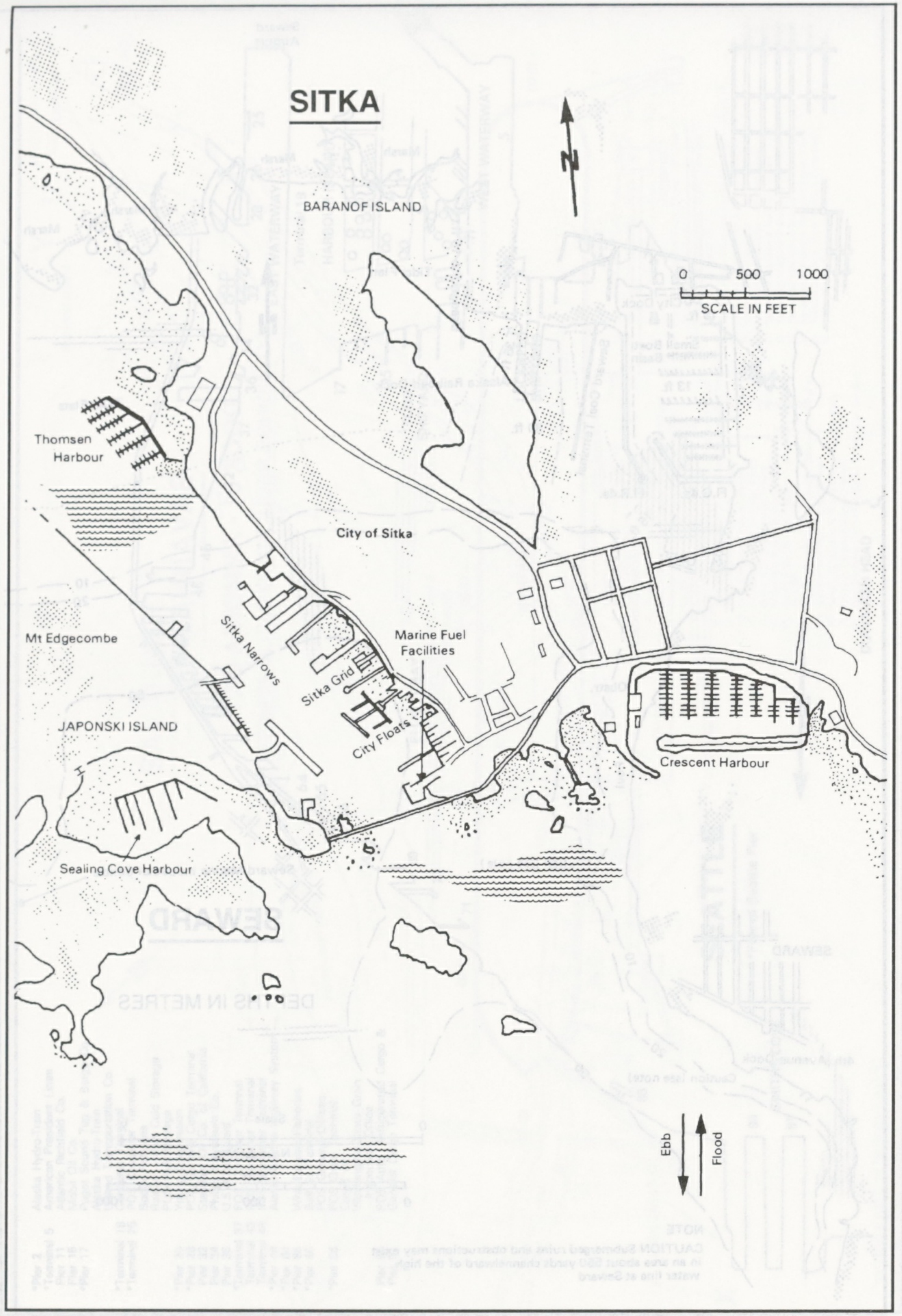
SEWARD
COAL TERMINAL

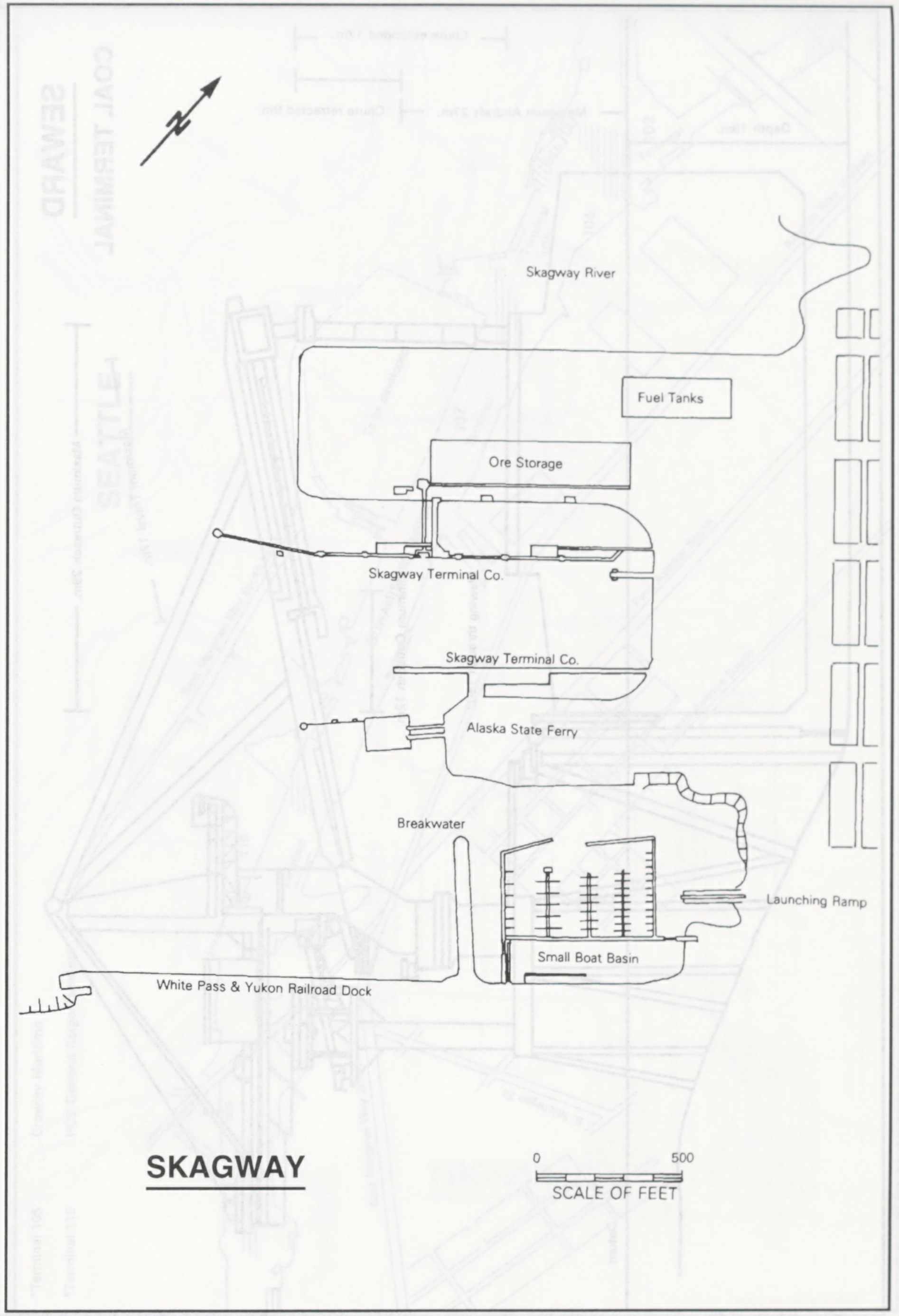

Seward Airport
Marsh
Marsh
Marsh
Marsh
Tidal Flats
Tidal Flats
Dredged to 15 ft.
N
City Dock
15 ft.
Small Boat Basin
13 ft.
Seward Coal Terminal
35 ft
Alaska Railroad Dock
30 ft.
Fl.G.4s.
Fl.R.4s.
15 ft.
Obstr
10
20
50
Obstr.
Foul
Caution (see note)
Seward Marine Industrial Centre
SEWARD
4th. Avenue Dock
Caution (see note)
10
20
50
Scale
0
½
Nautical Mile
Yards
0
500
1000

SEWARD

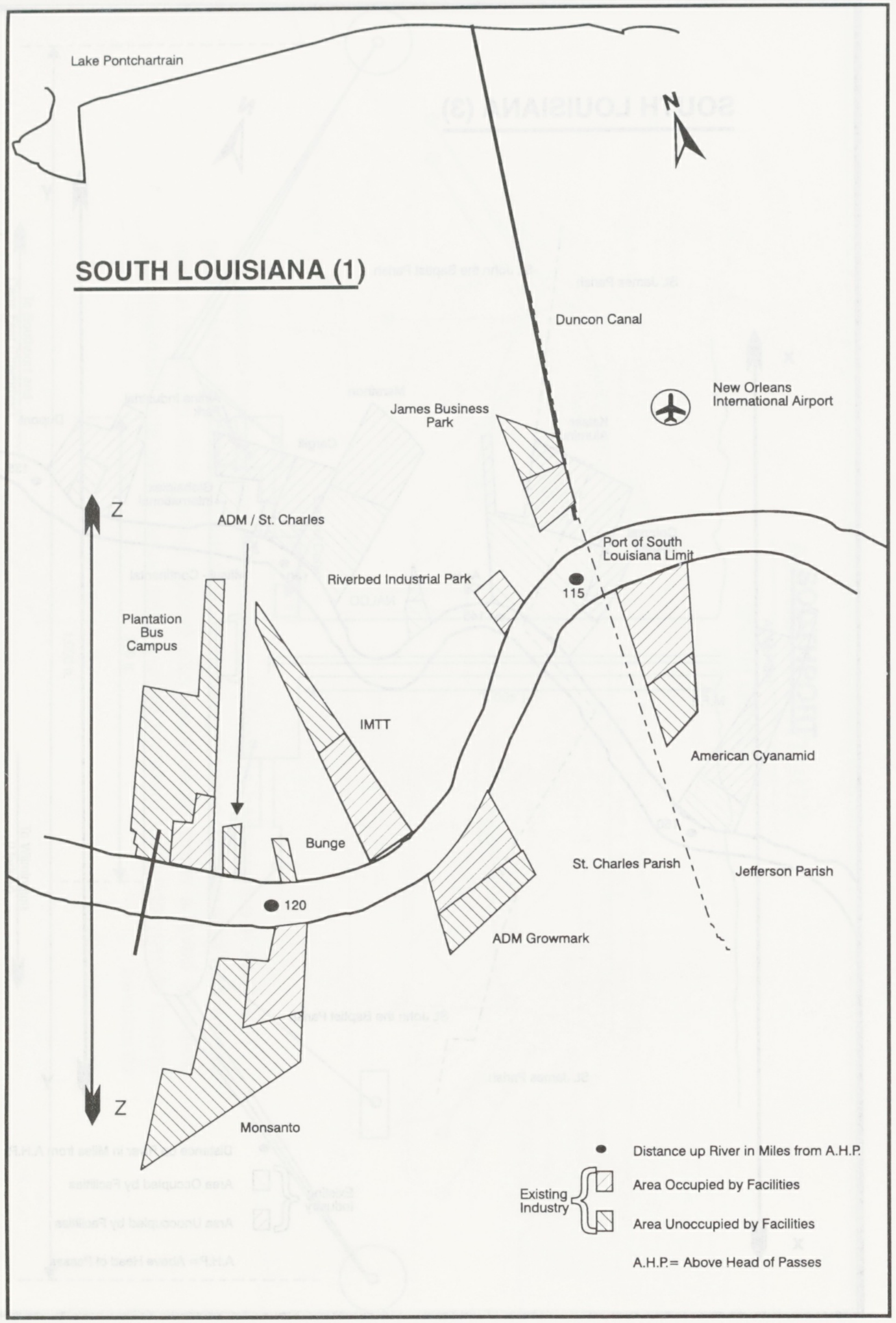
DEPTHS IN METRES

NOTE
CAUTION Submerged ruins and obstructions may exist in an area about 550 yards channelward of the high water line at Seward

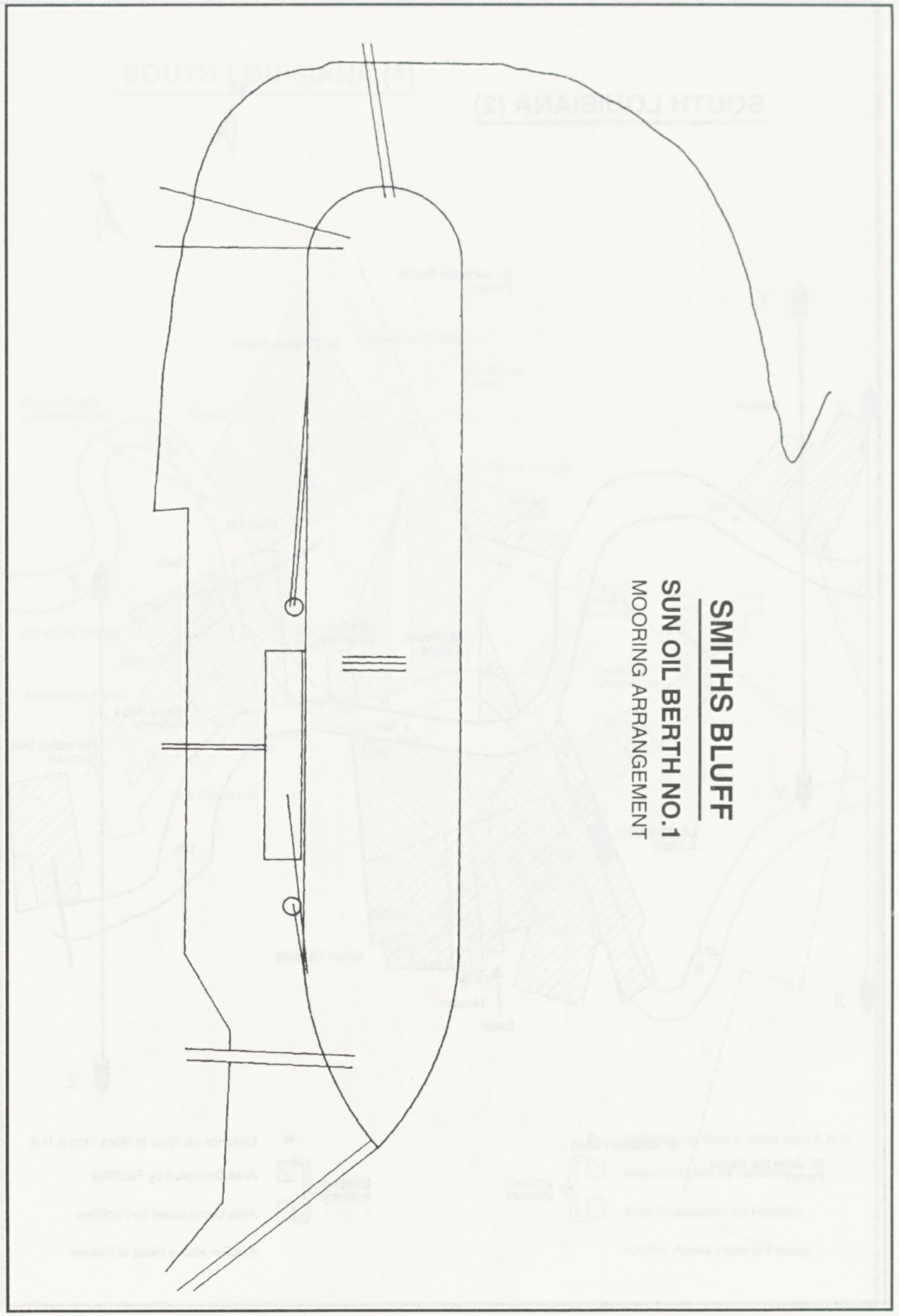

SITKA
N
BARANOF ISLAND
0 500 1000
SCALE IN FEET
Thomsen Harbour
City of Sitka
Mt Edgecombe
Sitka Narrows
Marine Fuel Facilities
Sitka Grid
City Floats
JAPONSKI ISLAND
Crescent Harbour
Sealing Cove Harbour
Ebb
Flood

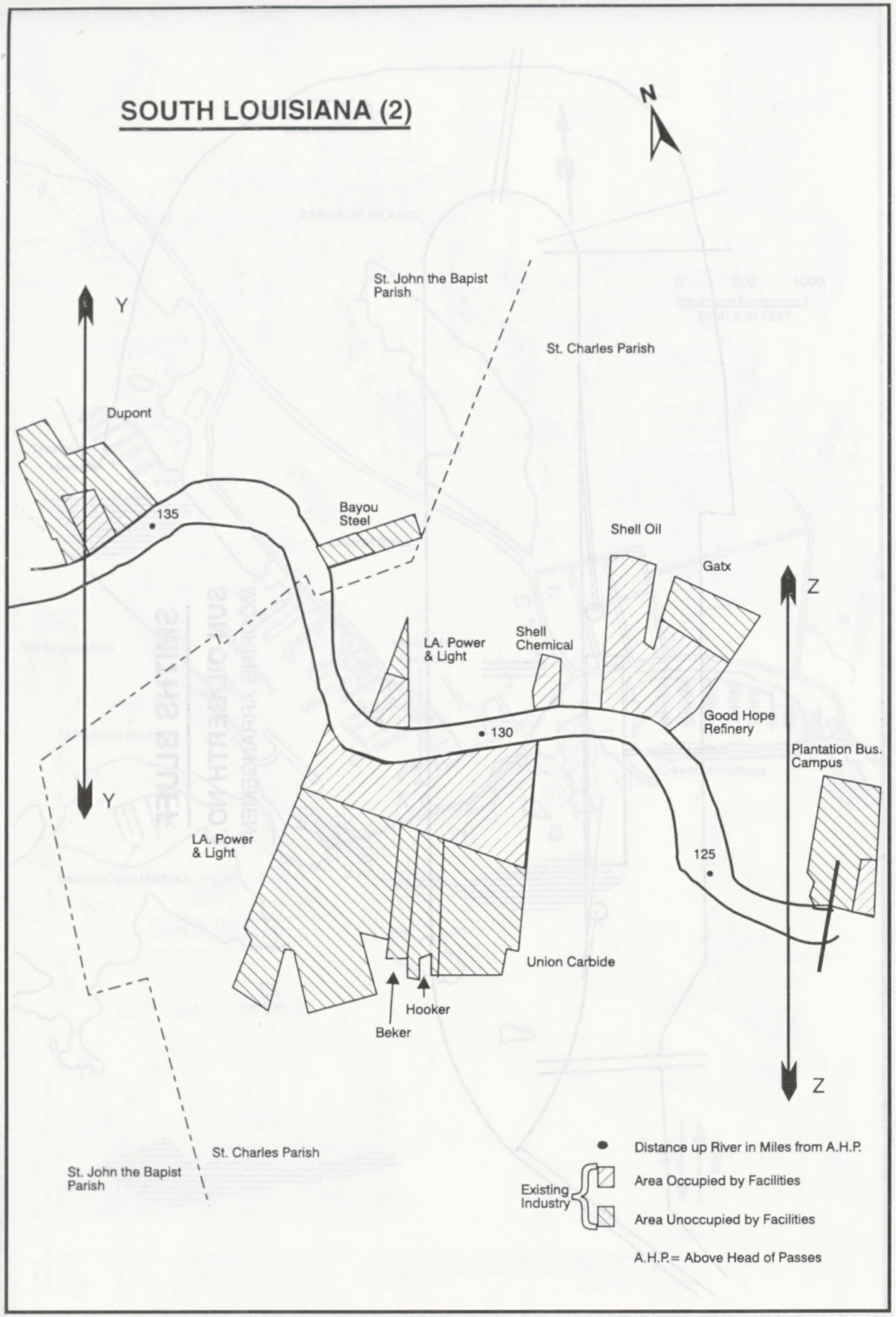

N
Skagway River
Fuel Tanks
Ore Storage
Skagway Terminal Co.
Skagway Terminal Co.
Alaska State Ferry
Breakwater
Launching Ramp
Small Boat Basin
White Pass & Yukon Railroad Dock
SKAGWAY
0 500
SCALE OF FEET

SOUTH LOUISIANA (1)


Lake Pontchartrain
N
Duncon Canal
New Orleans International Airport
James Business Park
Z
ADM / St. Charles
Port of South Louisiana Limit
Riverbed Industrial Park
115
Plantation Bus Campus
IMTT
American Cyanamid
Bunge
St. Charles Parish
Jefferson Parish
120
ADM Growmark
Z
Monsanto
● Distance up River in Miles from A.H.P.
Existing Industry
▨ Area Occupied by Facilities
▨ Area Unoccupied by Facilities
A.H.P.= Above Head of Passes

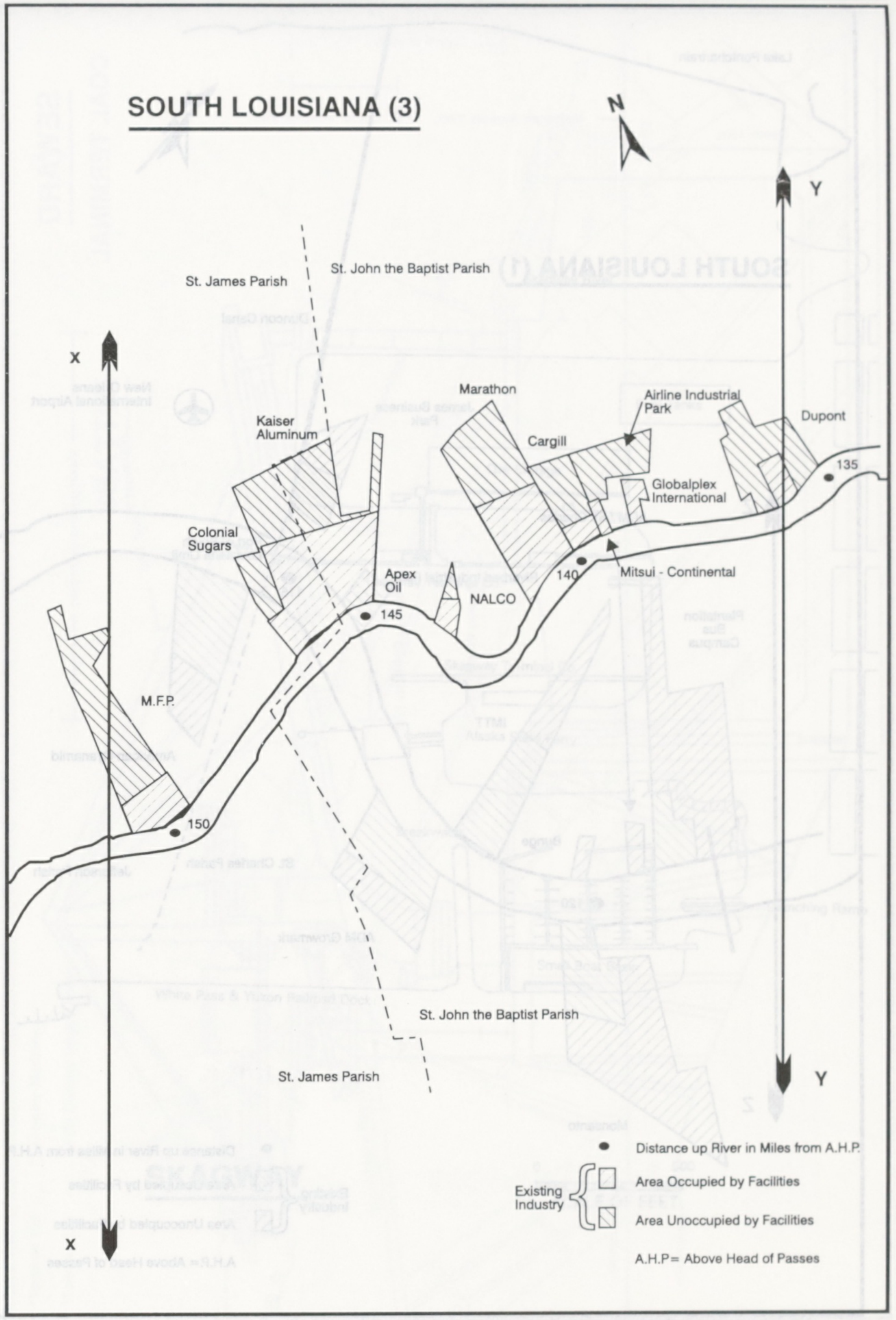
SMITHS BLUFF
SUN OIL BERTH NO.1
MOORING ARRANGEMENT





SOUTH LOUISIANA (2)

N
Y
Y
St. John the Bapist Parish
St. Charles Parish
Dupont
135
Bayou Steel
Shell Oil
Gatx
Z
LA. Power & Light
Shell Chemical
130
Good Hope Refinery
Plantation Bus. Campus
LA. Power & Light
125
Union Carbide
Beker
Hooker
Z
St. Charles Parish
St. John the Bapist Parish
● Distance up River in Miles from A.H.P.
Existing Industry
▨ Area Occupied by Facilities
▨ Area Unoccupied by Facilities
A.H.P.= Above Head of Passes



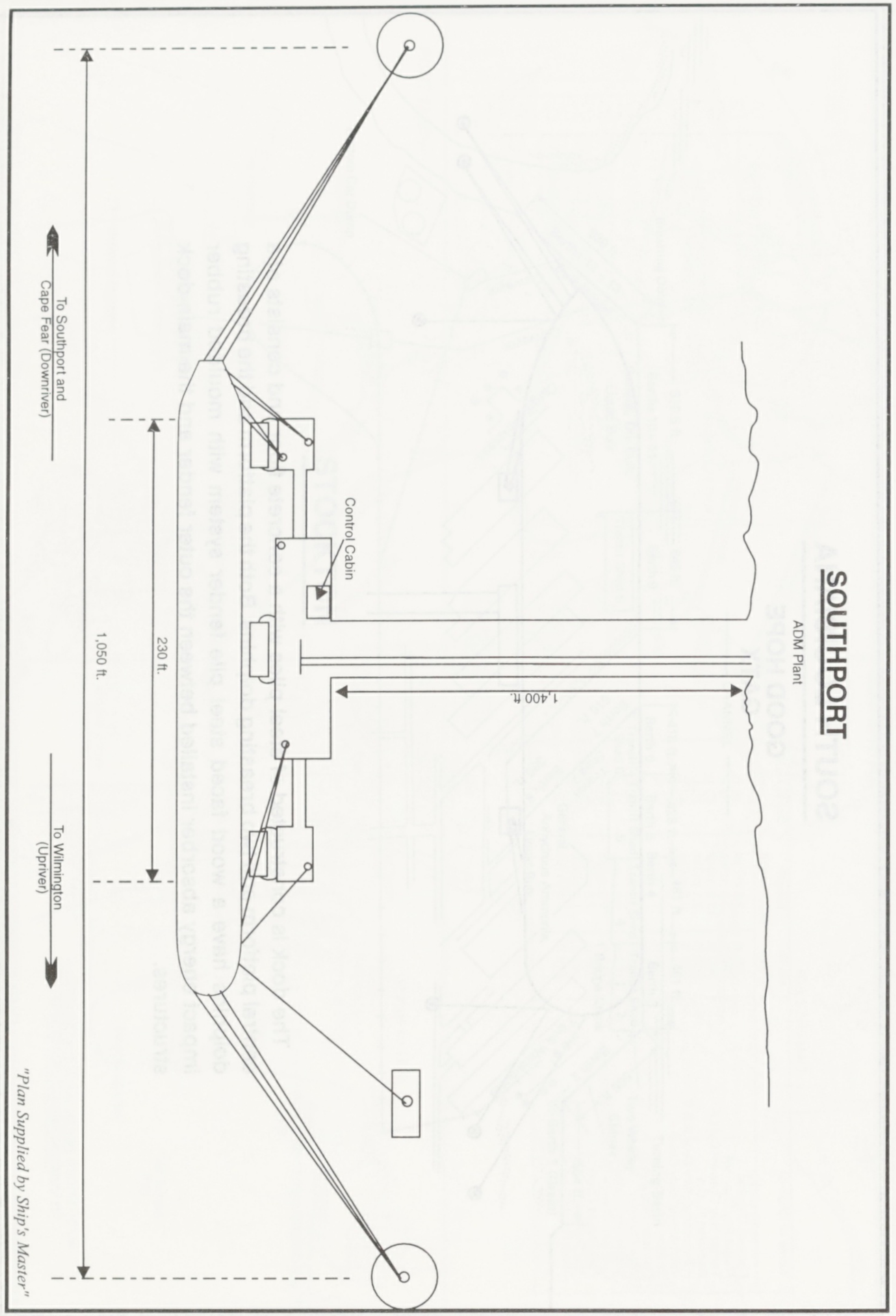
SOUTH LOUISIANA (3)

N
Y
St. James Parish
St. John the Baptist Parish
X
Marathon
Airline Industrial Park
Dupont
Kaiser Aluminum
Cargill
135
Globalplex International
Colonial Sugars
Apex Oil
NALCO
140
Mitsui - Continental
145
M.F.P.
150
St. John the Baptist Parish
St. James Parish
Y
X
● Distance up River in Miles from A.H.P.
Existing Industry
☐ Area Occupied by Facilities
▨ Area Unoccupied by Facilities
A.H.P= Above Head of Passes

U.S.A.

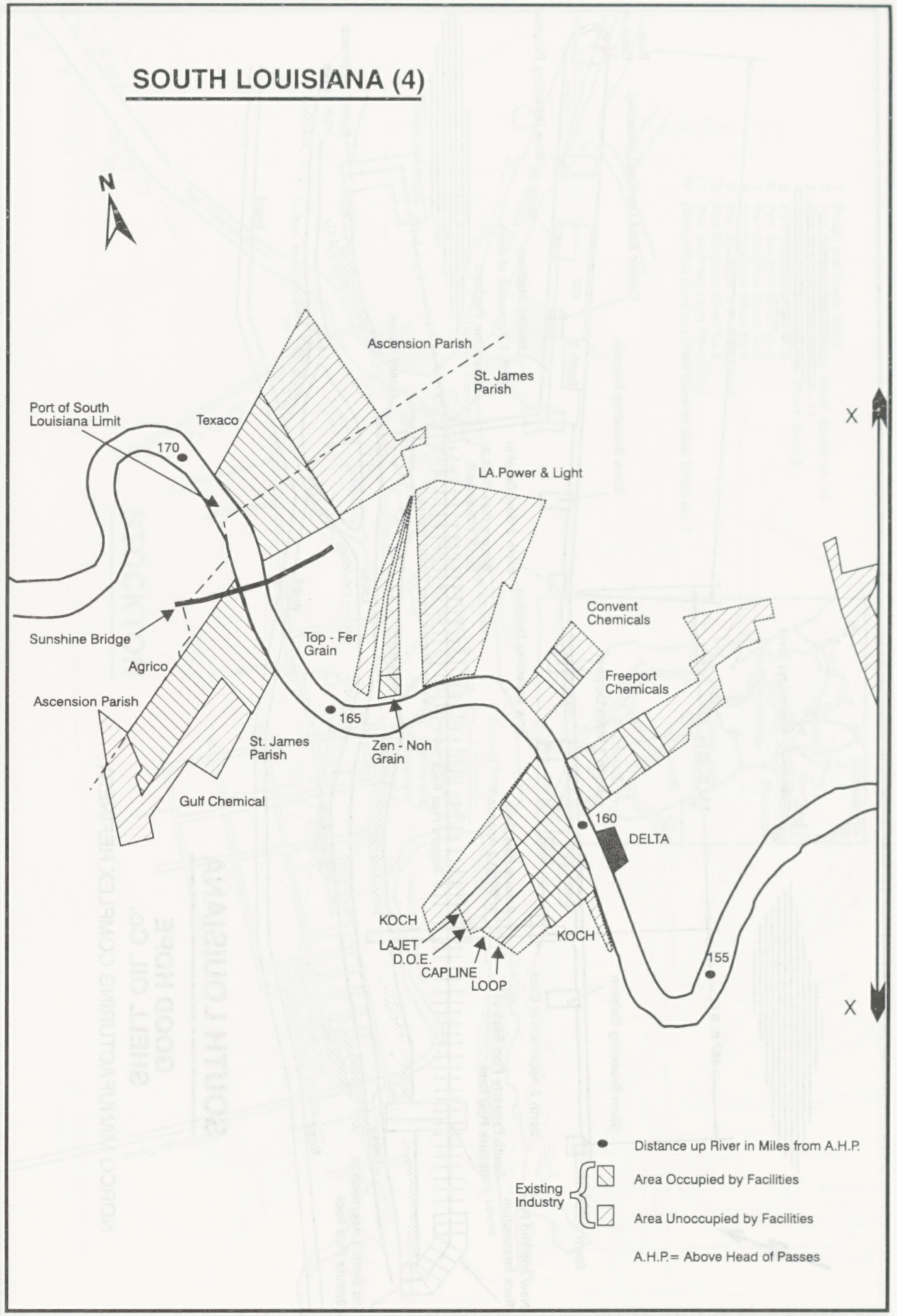
P1846

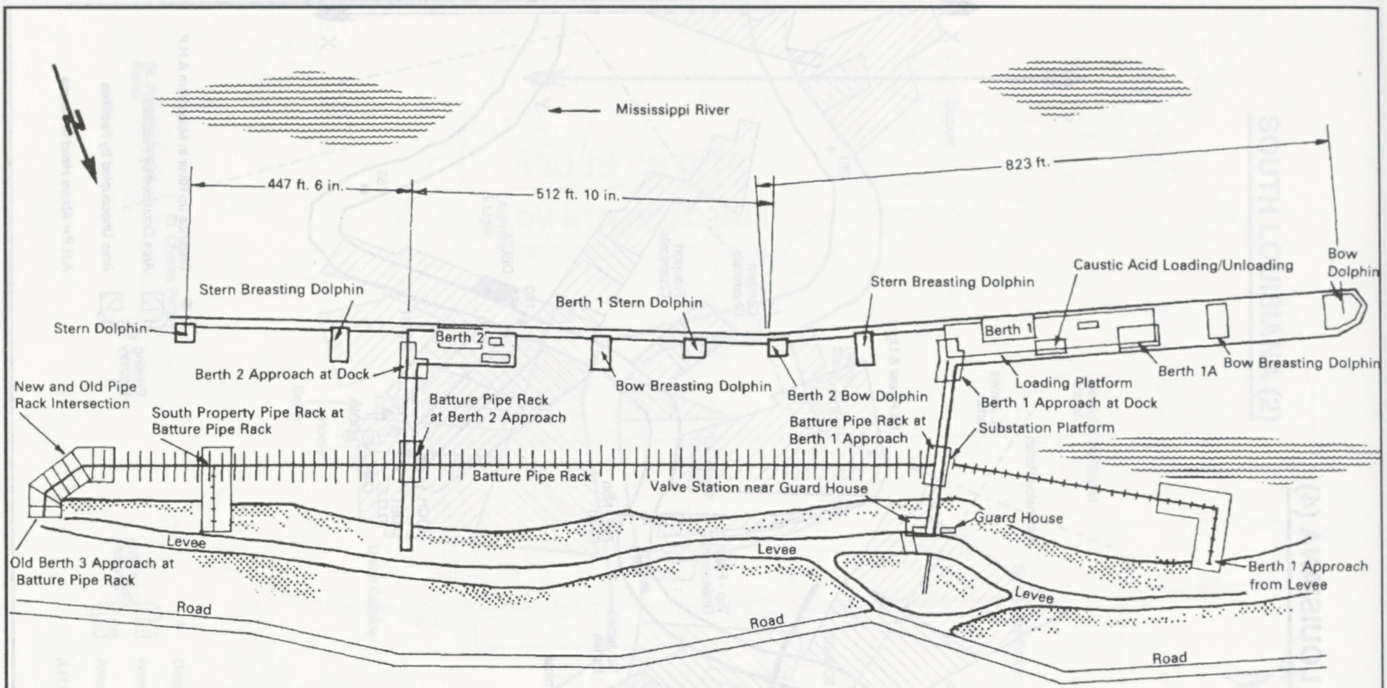
SOUTHPORT


ADM Plant
Control Cabin
1,400 ft.
230 ft.
1,050 ft.
To Southport and Cape Fear (Downriver)
To Wilmington (Upriver)

"Plan Supplied by Ship's Master"

SOUTH LOUISIANA (4)


N
Ascension Parish
St. James Parish
Port of South Louisiana Limit
Texaco
170
LA.Power & Light
Sunshine Bridge
Agrico
Ascension Parish
Top - Fer Grain
165
Zen - Noh Grain
St. James Parish
Gulf Chemical
Convent Chemicals
Freeport Chemicals
160
DELTA
KOCH
LAJET
D.O.E.
CAPLINE
LOOP
KOCH
155
X
X
● Distance up River in Miles from A.H.P.
Existing Industry
▨ Area Occupied by Facilities
▨ Area Unoccupied by Facilities
A.H.P.= Above Head of Passes


N
Mississippi River
447 ft. 6 in.
512 ft. 10 in.
823 ft.
Stern Dolphin
Stern Breasting Dolphin
Berth 2
Berth 1 Stern Dolphin
Stern Breasting Dolphin
Caustic Acid Loading/Unloading
Bow Dolphin
Berth 1
Berth 2 Approach at Dock
Bow Breasting Dolphin
Berth 2 Bow Dolphin
Loading Platform
Berth 1A
Bow Breasting Dolphin
New and Old Pipe Rack Intersection
South Property Pipe Rack at Batture Pipe Rack
Batture Pipe Rack at Berth 2 Approach
Berth 1 Approach at Dock
Batture Pipe Rack at Berth 1 Approach
Substation Platform
Batture Pipe Rack
Valve Station near Guard House
Guard House
Levee
Levee
Levee
Old Berth 3 Approach at Batture Pipe Rack
Berth 1 Approach from Levee
Road
Road
Road

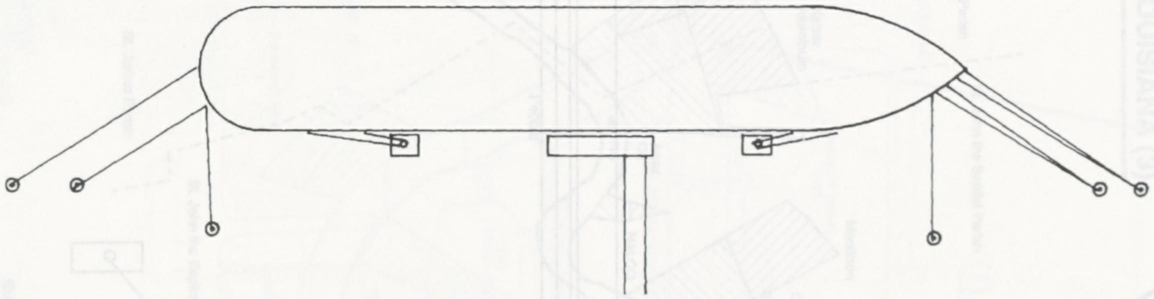
SOUTH LOUISIANA

GOOD HOPE
SHELL OIL Co.

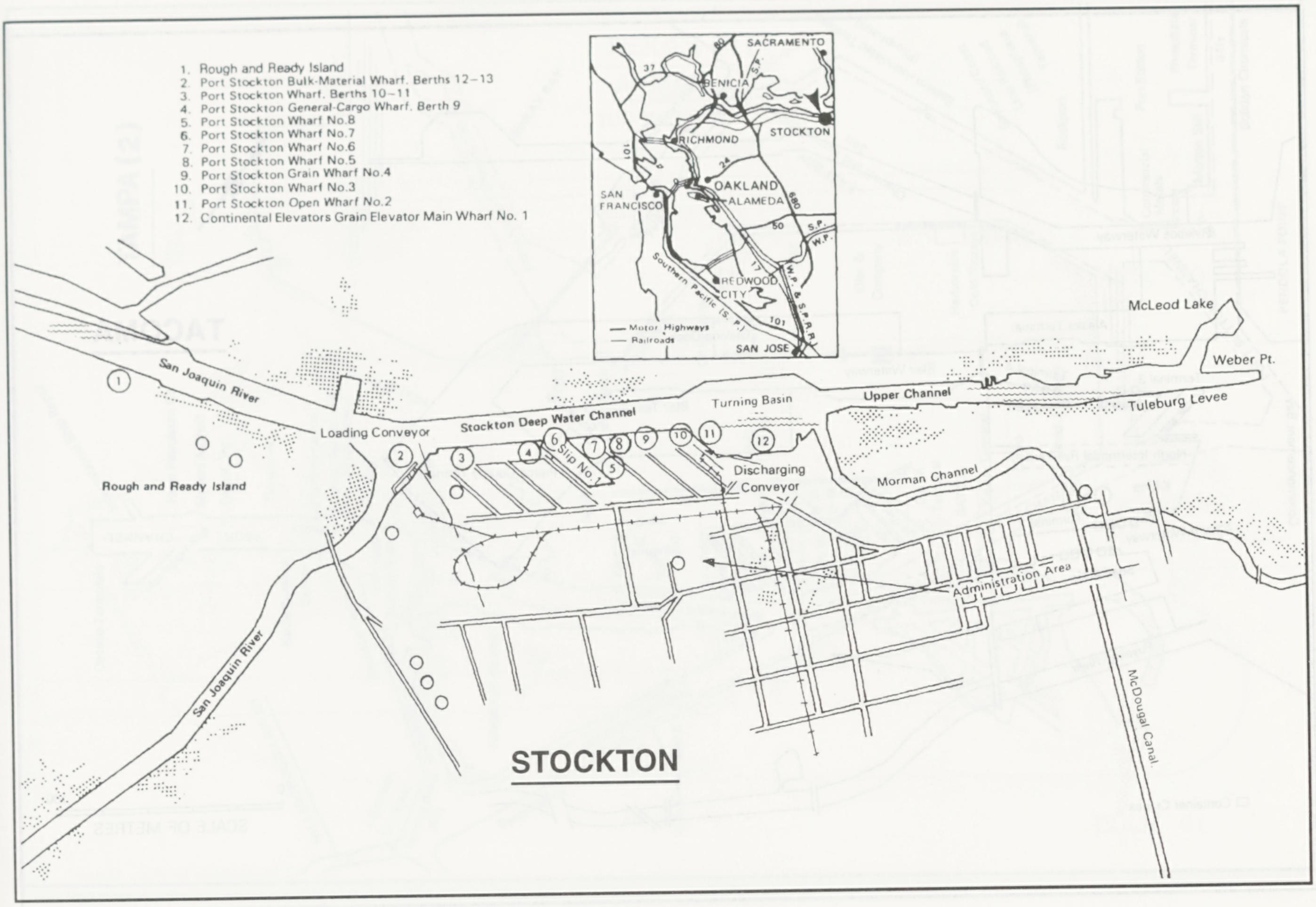
NORCO MANUFACTURING COMPLEX REFINERY

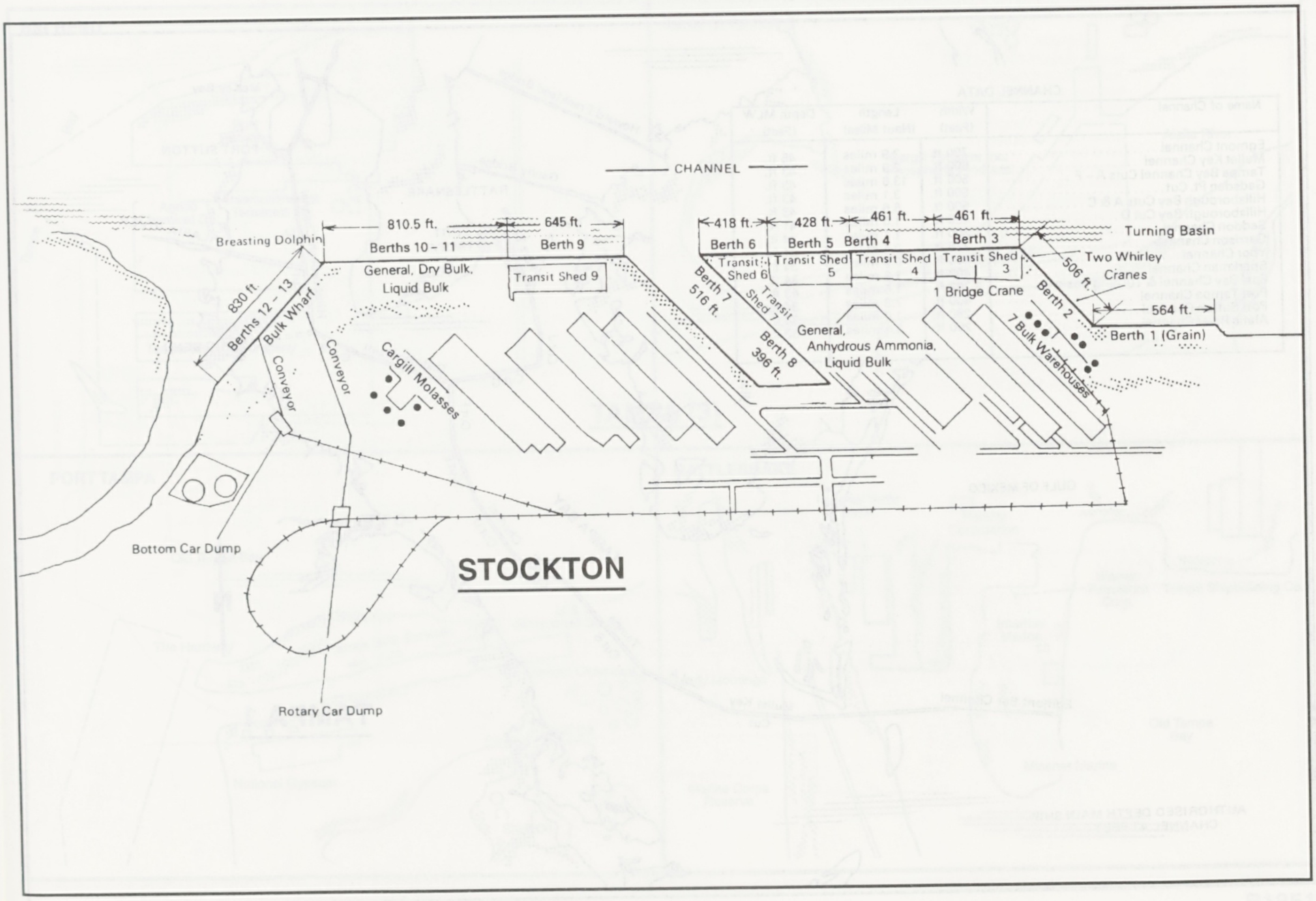
SOUTH LOUISIANA

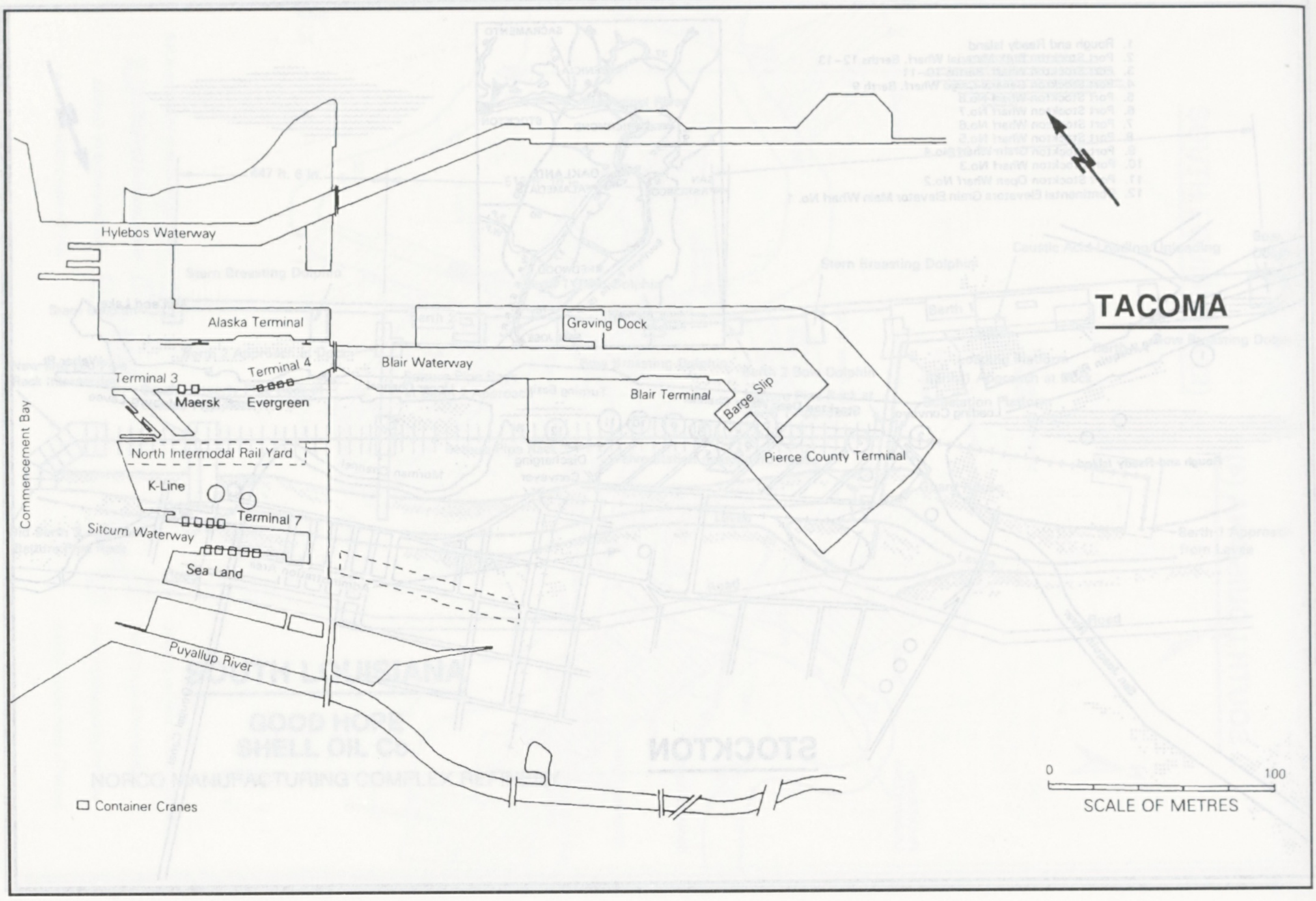
GOOD HOPE
GATX

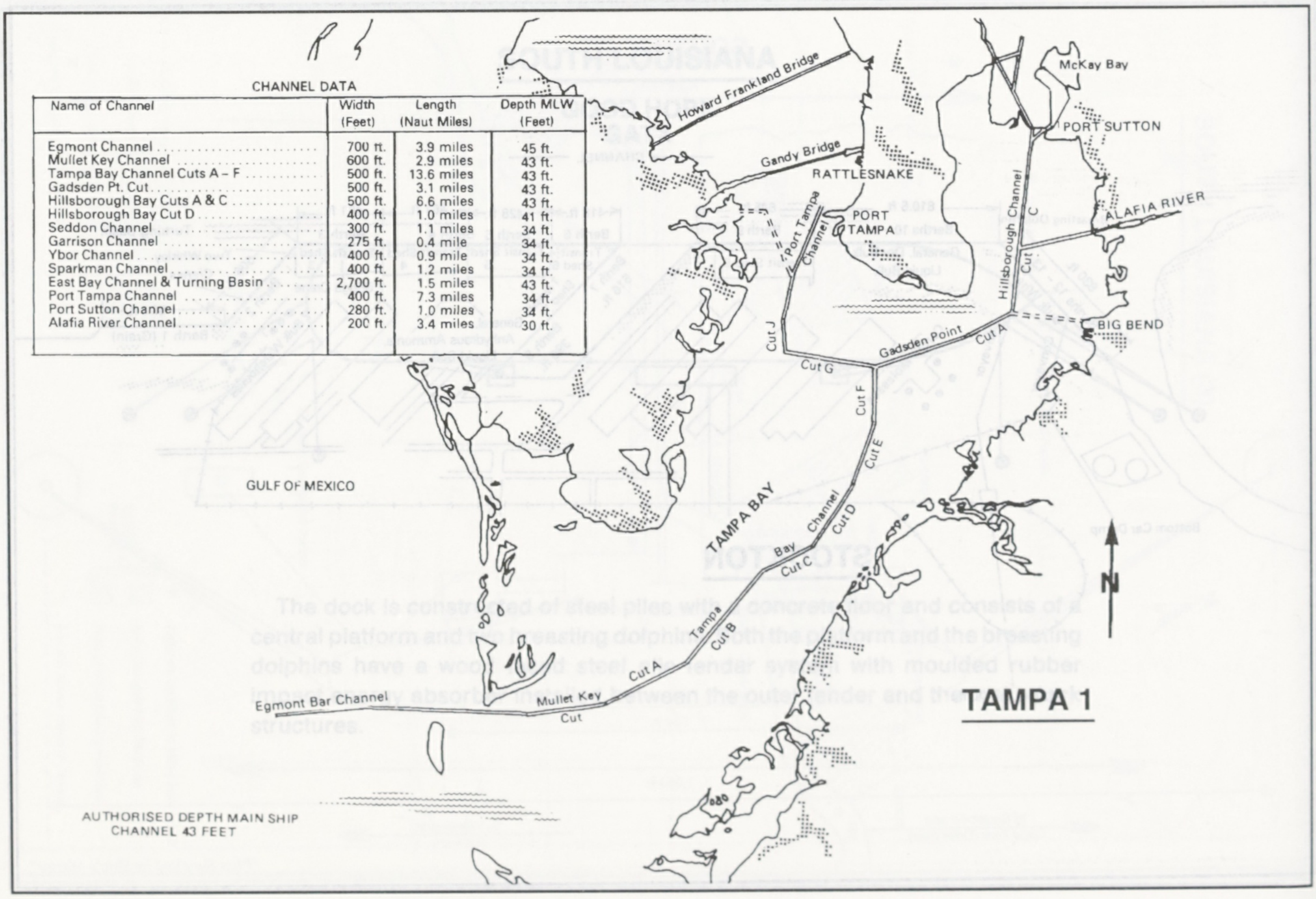


The dock is constructed of steel piles with a concrete floor and consists of a central platform and two breasting dolphins. Both the platform and the breasting dolphins have a wood faced steel pile fender system with moulded rubber impact energy absorber installed between the outer fender and the main dock structures.


1. Rough and Ready Island
2. Port Stockton Bulk-Material Wharf. Berths 12–13
3. Port Stockton Wharf. Berths 10–11
4. Port Stockton General-Cargo Wharf. Berth 9
5. Port Stockton Wharf No.8
6. Port Stockton Wharf No.7
7. Port Stockton Wharf No.6
8. Port Stockton Wharf No.5
9. Port Stockton Grain Wharf No.4
10. Port Stockton Wharf No.3
11. Port Stockton Open Wharf No.2
12. Continental Elevators Grain Elevator Main Wharf No. 1
SACRAMENTO
BENICIA
STOCKTON
RICHMOND
OAKLAND
ALAMEDA
SAN FRANCISCO
REDWOOD CITY
SAN JOSE
Southern Pacific (S.P.)
W.P. & S.P.R.R.
S.P.
W.P.
37
80
101
24
680
50
17
Motor Highways
Railroads
San Joaquin River
Rough and Ready Island
Loading Conveyor
Stockton Deep Water Channel
Slip No.1
Turning Basin
Discharging Conveyor
Upper Channel
McLeod Lake
Weber Pt.
Tuleburg Levee
Morman Channel
Administration Area
McDougal Canal
STOCKTON

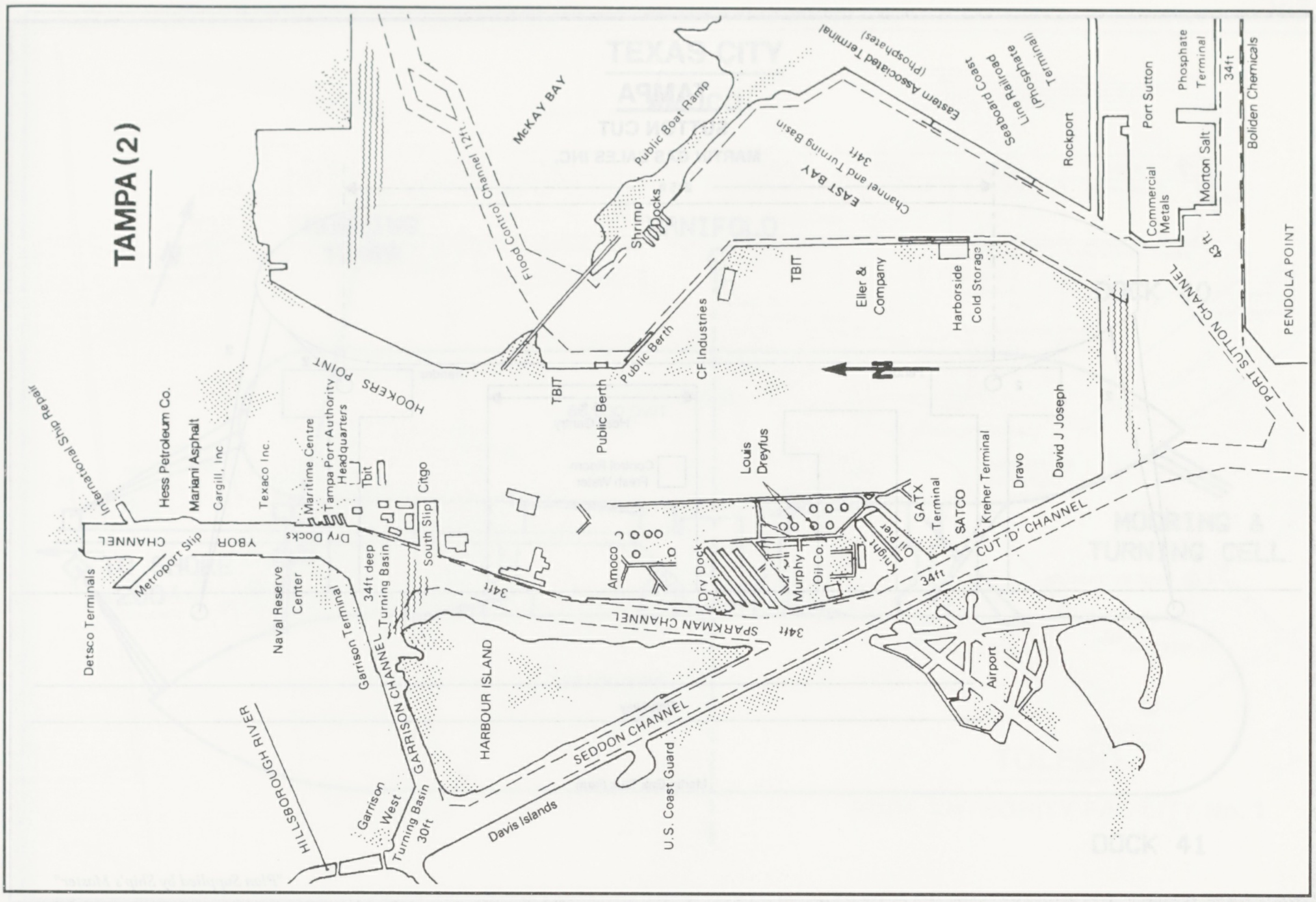

CHANNEL
Breasting Dolphin
810.5 ft.
645 ft.
418 ft.
428 ft.
461 ft.
461 ft.
Berths 10 – 11
Berth 9
Berth 6
Berth 5
Berth 4
Berth 3
Turning Basin
General, Dry Bulk, Liquid Bulk
Transit Shed 9
Transit Shed 6
Transit Shed 5
Transit Shed 4
Transit Shed 3
Two Whirley Cranes
506 ft.
Berth 2
564 ft.
Berth 1 (Grain)
1 Bridge Crane
7 Bulk Warehouses
830 ft.
Berths 12 – 13
Bulk Wharf
Conveyor
Conveyor
Cargill Molasses
Berth 7
516 ft.
Transit Shed 7
Berth 8
396 ft.
General, Anhydrous Ammonia, Liquid Bulk
Bottom Car Dump
Rotary Car Dump
STOCKTON

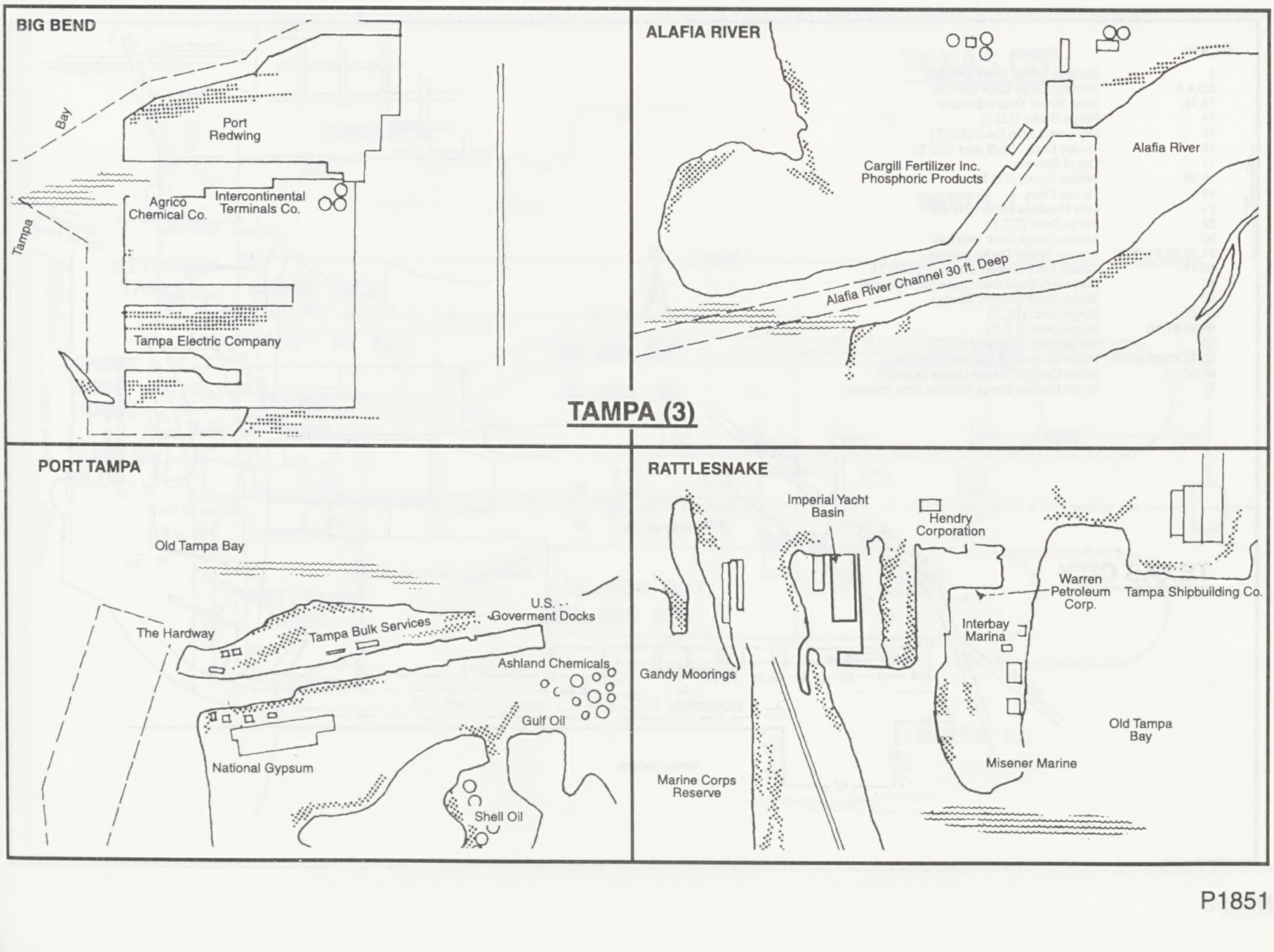

TACOMA
Hylebos Waterway
Alaska Terminal
Graving Dock
Blair Waterway
Terminal 3
Terminal 4
Maersk
Evergreen
Blair Terminal
Barge Slip
North Intermodal Rail Yard
Pierce County Terminal
K-Line
Terminal 7
Sitcum Waterway
Sea Land
Puyallup River
Commencement Bay
N
☐ Container Cranes
0
100
SCALE OF METRES


Howard Frankland Bridge
McKay Bay
Gandy Bridge
PORT SUTTON
RATTLESNAKE
PORT TAMPA
Port Tampa Channel
Hillsborough Channel
Cut C
ALAFIA RIVER
Cut J
Cut G
Gadsden Point
Cut A
BIG BEND
Cut F
Cut E
Cut D
TAMPA BAY
Channel
Bay
Cut C
Tampa
Cut B
Cut A
Egmont Bar Channel
Mullet Key
Cut
GULF OF MEXICO
N
TAMPA 1
AUTHORISED DEPTH MAIN SHIP CHANNEL 43 FEET

CHANNEL DATA

Name of Channel	Width (Feet)	Length (Naut Miles)	Depth MLW (Feet)
Egmont Channel	700 ft.	3.9 miles	45 ft.
Mullet Key Channel	600 ft.	2.9 miles	43 ft.
Tampa Bay Channel Cuts A – F	500 ft.	13.6 miles	43 ft.
Gadsden Pt. Cut	500 ft.	3.1 miles	43 ft.
Hillsborough Bay Cuts A & C	500 ft.	6.6 miles	43 ft.
Hillsborough Bay Cut D	400 ft.	1.0 miles	41 ft.
Seddon Channel	300 ft.	1.1 miles	34 ft.
Garrison Channel	275 ft.	0.4 mile	34 ft.
Ybor Channel	400 ft.	0.9 mile	34 ft.
Sparkman Channel	400 ft.	1.2 miles	34 ft.
East Bay Channel & Turning Basin	2,700 ft.	1.5 miles	43 ft.
Port Tampa Channel	400 ft.	7.3 miles	34 ft.
Port Sutton Channel	280 ft.	1.0 miles	34 ft.
Alafia River Channel	200 ft.	3.4 miles	30 ft.

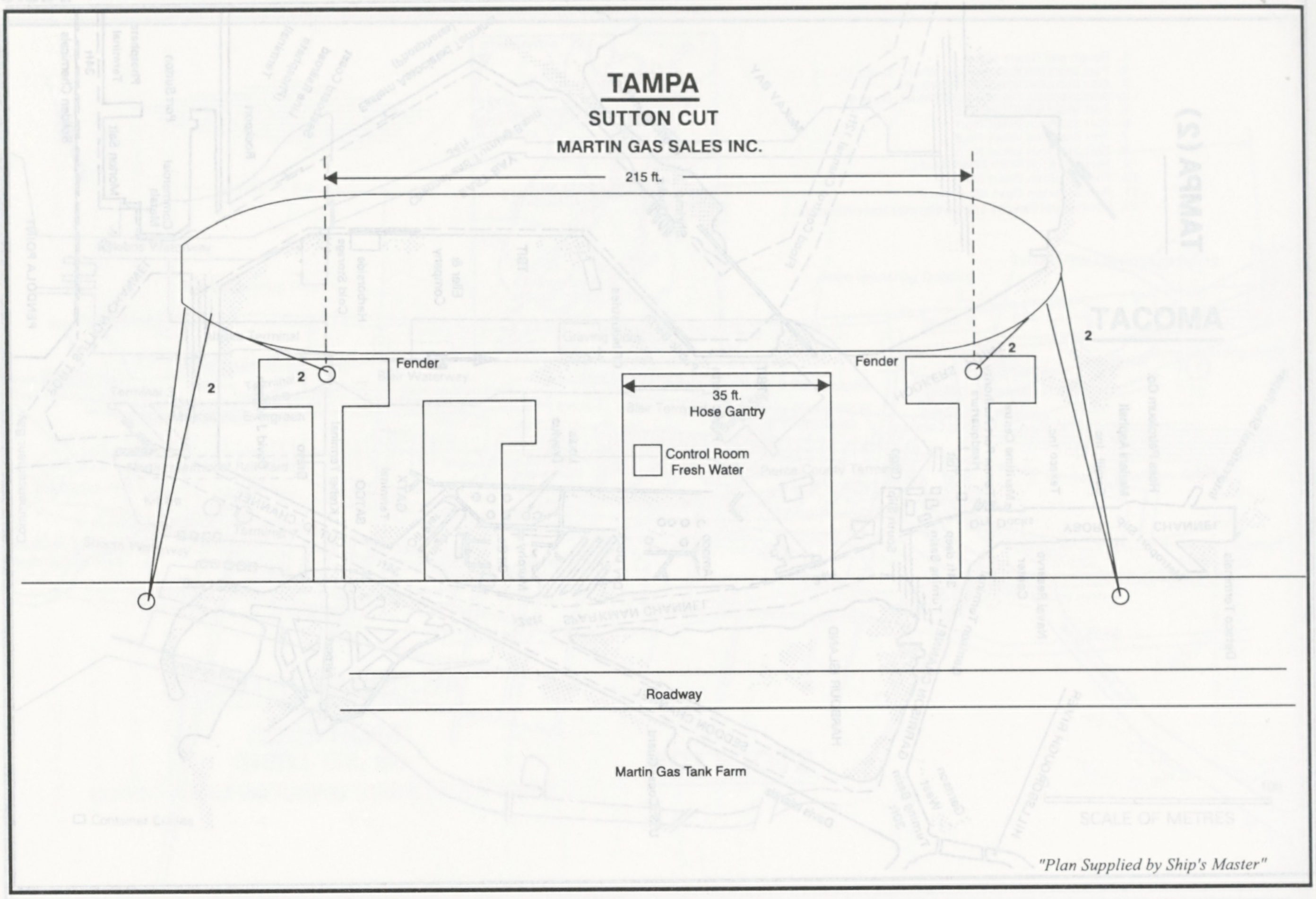

TAMPA (2)
McKAY BAY
Flood Control Channel 12ft.
Public Boat Ramp
Shrimp Docks
Public Berth
Eastern Associated Terminal (Phosphates)
Seaboard Coast Line Railroad (Phosphate Terminal)
Rockport
Port Sutton
Phosphate Terminal
Boliden Chemicals
34ft
Commercial Metals
Morton Salt
43ft
PENDOLA POINT
PORT SUTTON CHANNEL
EAST BAY
Channel and Turning Basin 34ft
TBIT
Eller & Company
Harborside Cold Storage
CF Industries
TBIT
Public Berth
N
HOOKERS POINT
International Ship Repair
Hess Petroleum Co.
Mariani Asphalt
Cargill, Inc
Texaco Inc.
Maritime Centre
Tampa Port Authority Headquarters
Tbit
Citgo
South Slip
Dry Docks
YBOR CHANNEL
Metroport Slip
Detsco Terminals
Naval Reserve Center
Garrison Terminal
34ft deep Turning Basin
34ft
Louis Dreyfus
Amoco
Dry Dock
Murphy Oil Co.
Knight Oil Pier
GATX Terminal
SATCO
Kreher Terminal
Dravo
David J Joseph
CUT 'D' CHANNEL
34ft
SPARKMAN CHANNEL
34ft
HARBOUR ISLAND
GARRISON CHANNEL
SEDDON CHANNEL
U.S. Coast Guard
Airport
Davis Islands
Garrison West Turning Basin 30ft
HILLSBOROUGH RIVER


TAMPA (3)
BIG BEND
Bay
Tampa
Port Redwing
Agrico Chemical Co.
Intercontinental Terminals Co.
Tampa Electric Company
ALAFIA RIVER
Cargill Fertilizer Inc. Phosphoric Products
Alafia River
Alafia River Channel 30 ft. Deep
PORT TAMPA
Old Tampa Bay
The Hardway
Tampa Bulk Services
U.S. Goverment Docks
Ashland Chemicals
Gulf Oil
National Gypsum
Shell Oil
RATTLESNAKE
Imperial Yacht Basin
Hendry Corporation
Warren Petroleum Corp.
Tampa Shipbuilding Co.
Interbay Marina
Gandy Moorings
Old Tampa Bay
Misener Marine
Marine Corps Reserve

TAMPA

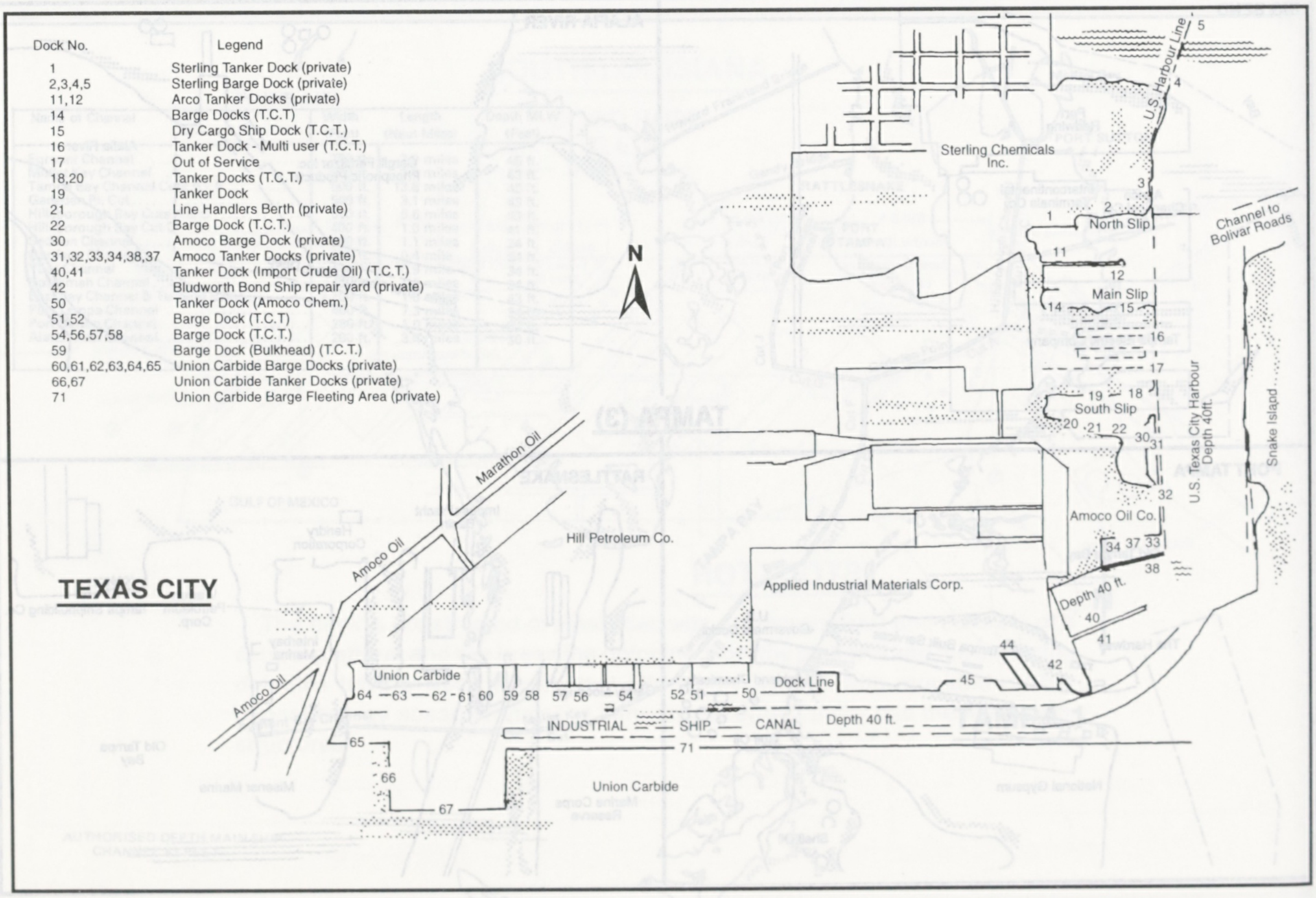
SUTTON CUT

MARTIN GAS SALES INC.


215 ft.
2
2
2
2
Fender
Fender
35 ft.
Hose Gantry
Control Room
Fresh Water
Roadway
Martin Gas Tank Farm

"Plan Supplied by Ship's Master"

TEXAS CITY

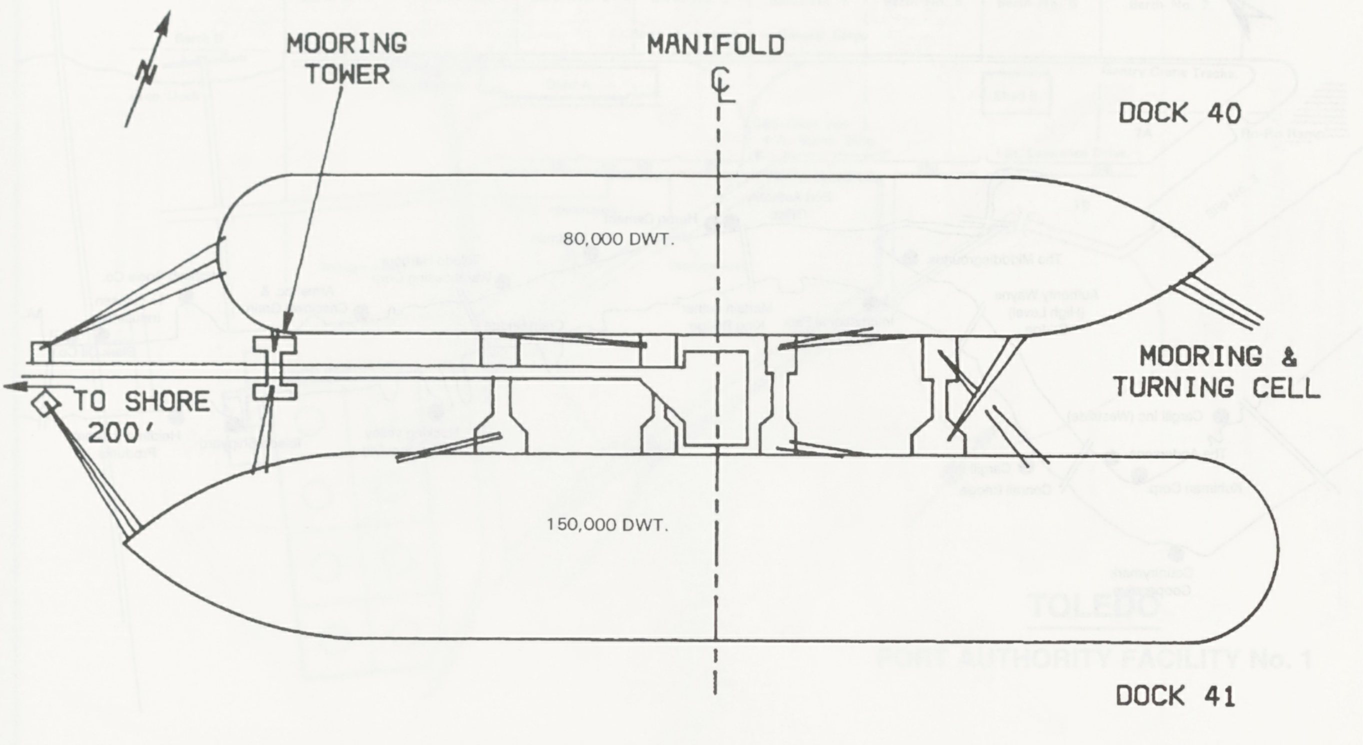


Dock No.	Legend
1	Sterling Tanker Dock (private)
2,3,4,5	Sterling Barge Dock (private)
11,12	Arco Tanker Docks (private)
14	Barge Docks (T.C.T.)
15	Dry Cargo Ship Dock (T.C.T.)
16	Tanker Dock - Multi user (T.C.T.)
17	Out of Service
18,20	Tanker Docks (T.C.T.)
19	Tanker Dock
21	Line Handlers Berth (private)
22	Barge Dock (T.C.T.)
30	Amoco Barge Dock (private)
31,32,33,34,38,37	Amoco Tanker Docks (private)
40,41	Tanker Dock (Import Crude Oil) (T.C.T.)
42	Bludworth Bond Ship repair yard (private)
50	Tanker Dock (Amoco Chem.)
51,52	Barge Dock (T.C.T)
54,56,57,58	Barge Dock (T.C.T.)
59	Barge Dock (Bulkhead) (T.C.T.)
60,61,62,63,64,65	Union Carbide Barge Docks (private)
66,67	Union Carbide Tanker Docks (private)
71	Union Carbide Barge Fleeting Area (private)

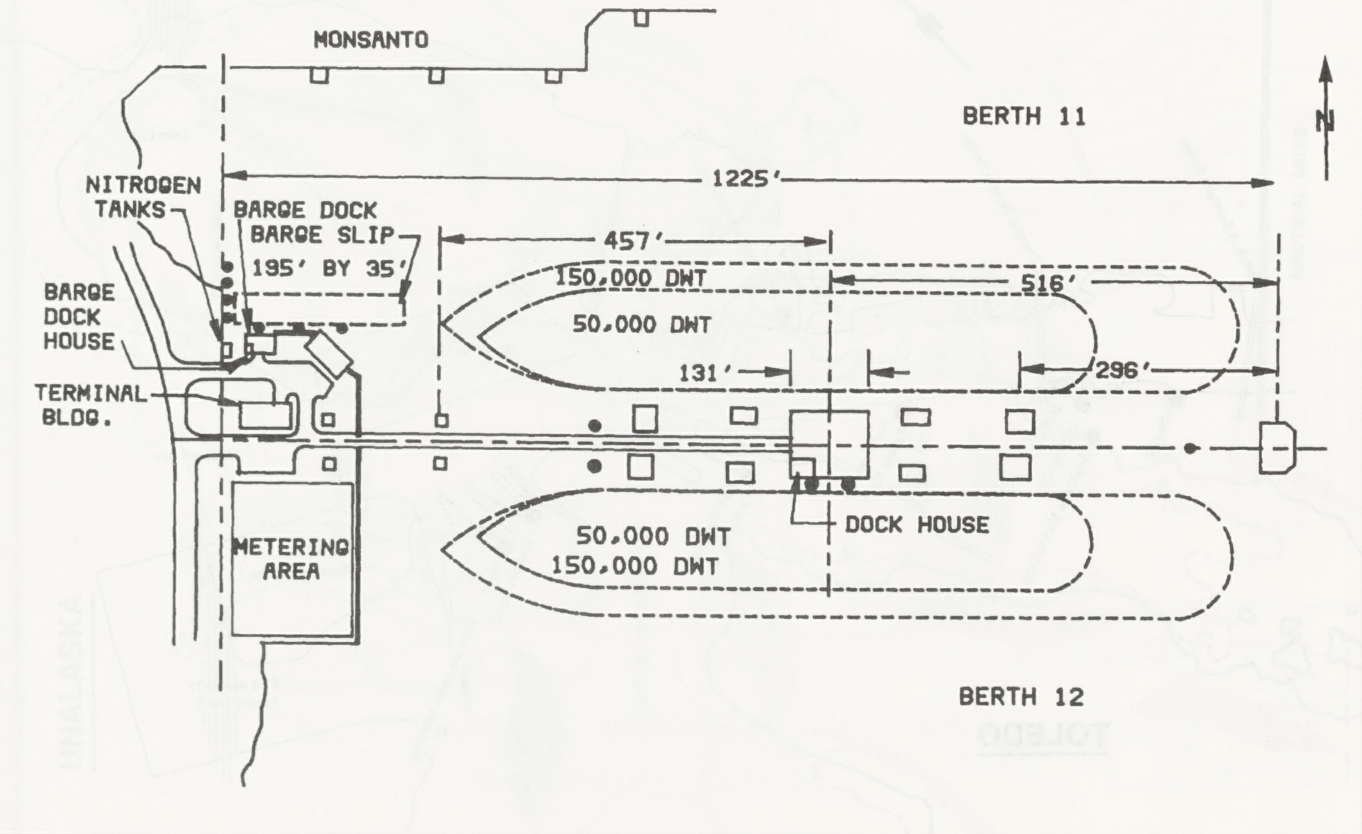
N
Sterling Chemicals Inc.
U.S. Harbour Line
Channel to Bolivar Roads
North Slip
Main Slip
South Slip
U.S. Texas City Harbour Depth 40ft.
Snake Island
Amoco Oil Co.
Depth 40 ft.
Marathon Oil
Amoco Oil
Amoco Oil
Hill Petroleum Co.
Applied Industrial Materials Corp.
Union Carbide
Dock Line
INDUSTRIAL SHIP CANAL
Depth 40 ft.
Union Carbide
1
2
3
4
5
11
12
14
15
16
17
18
19
20
21
22
30
31
32
33
34
37
38
40
41
42
44
45
50
51
52
54
56
57
58
59
60
61
62
63
64
65
66
67
71

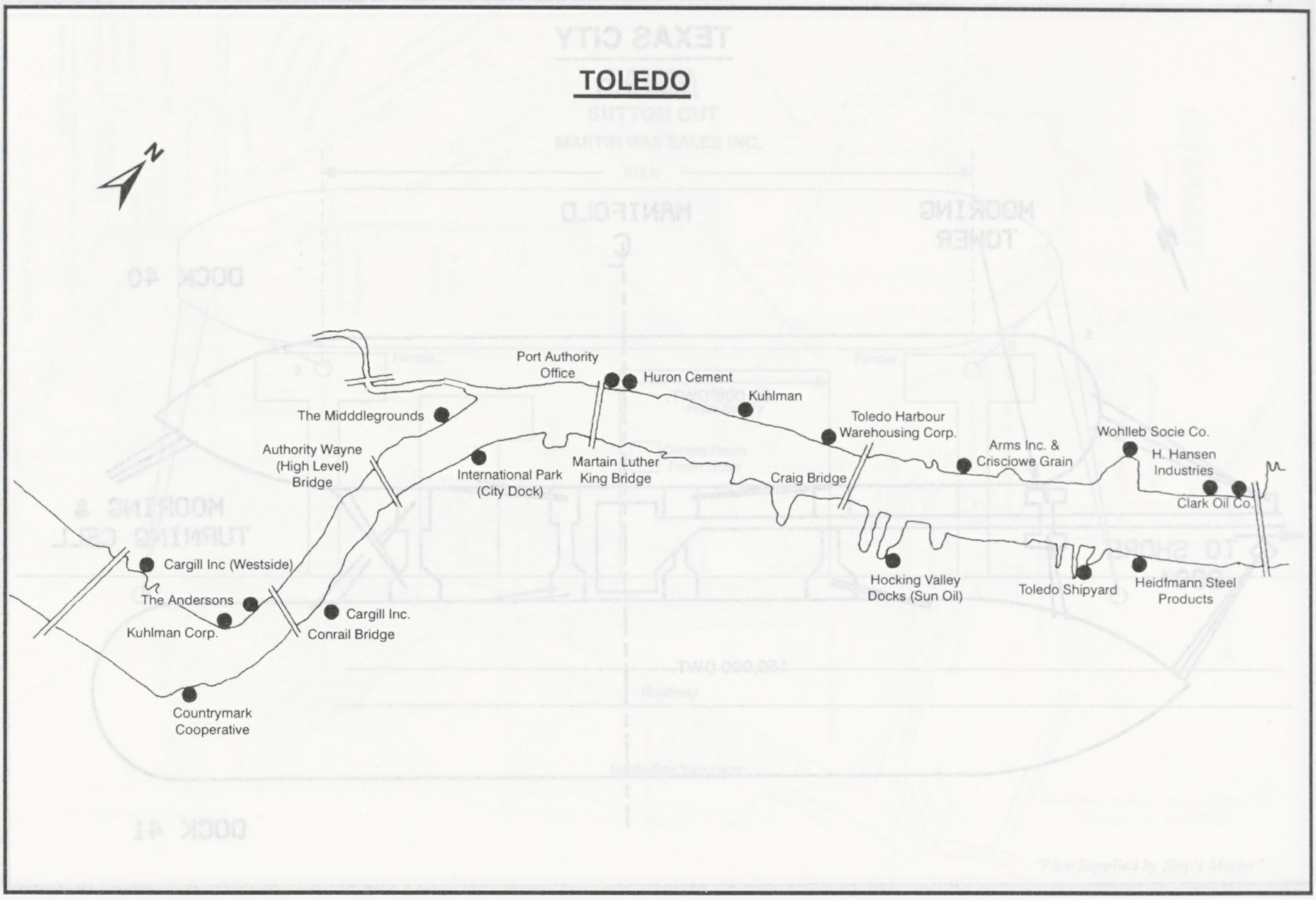
TEXAS CITY

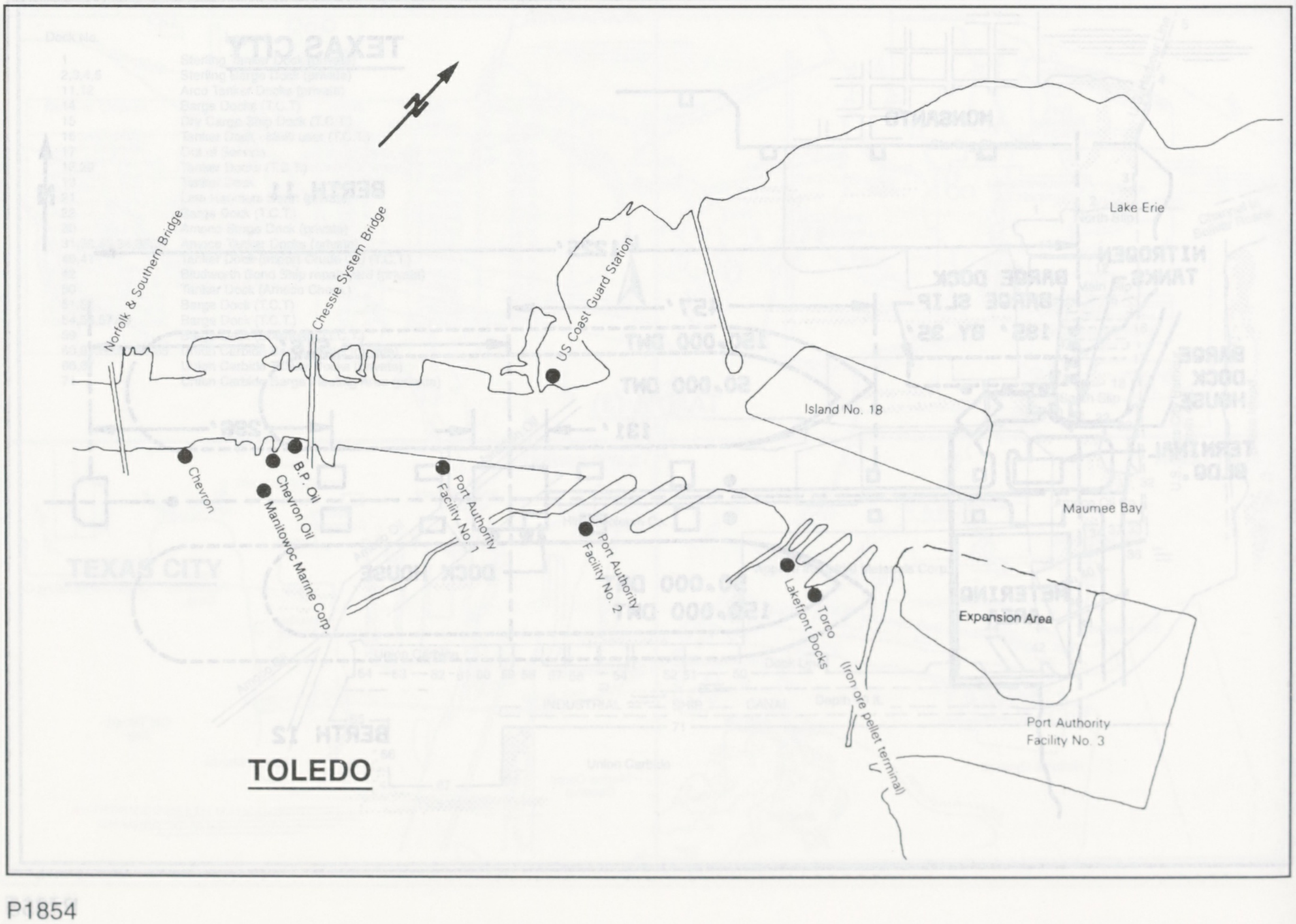
AMOCO

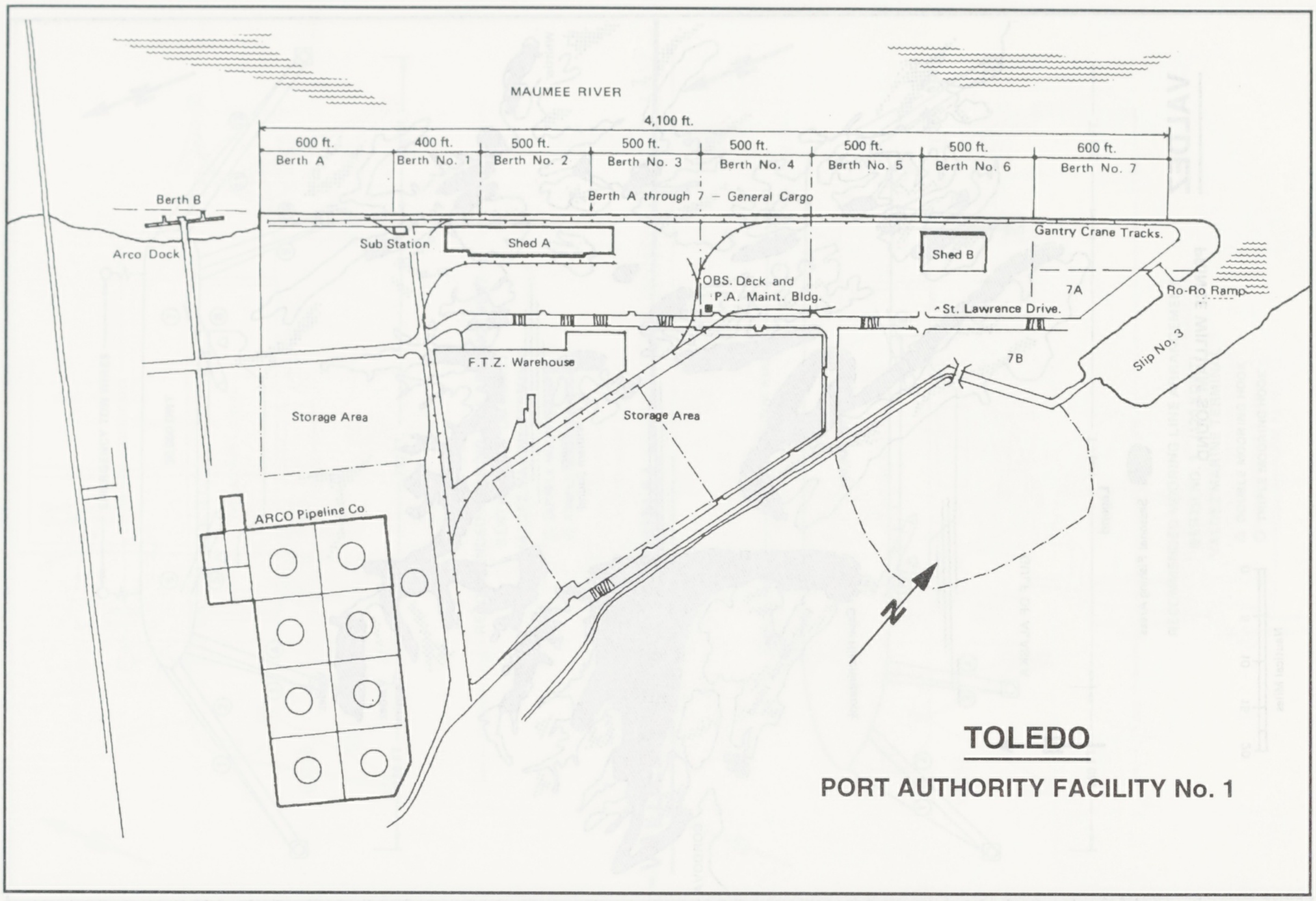

MOORING TOWER
MANIFOLD
℄
N
DOCK 40
80,000 DWT.
MOORING & TURNING CELL
TO SHORE 200′
150,000 DWT.
DOCK 41

TEXAS CITY


MONSANTO
BERTH 11
N
1225′
NITROGEN TANKS
BARGE DOCK
BARGE SLIP
195′ BY 35′
457′
150,000 DWT
516′
BARGE DOCK HOUSE
50,000 DWT
131′
296′
TERMINAL BLDG.
DOCK HOUSE
METERING AREA
50,000 DWT
150,000 DWT
BERTH 12


TOLEDO
N
Port Authority Office
Huron Cement
Kuhlman
The Midddlegrounds
Toledo Harbour Warehousing Corp.
Authority Wayne (High Level) Bridge
International Park (City Dock)
Martain Luther King Bridge
Craig Bridge
Arms Inc. & Crisciowe Grain
Wohlleb Socie Co.
H. Hansen Industries
Clark Oil Co.
Cargill Inc (Westside)
The Andersons
Kuhlman Corp.
Cargill Inc.
Conrail Bridge
Hocking Valley Docks (Sun Oil)
Toledo Shipyard
Heidfmann Steel Products
Countrymark Cooperative

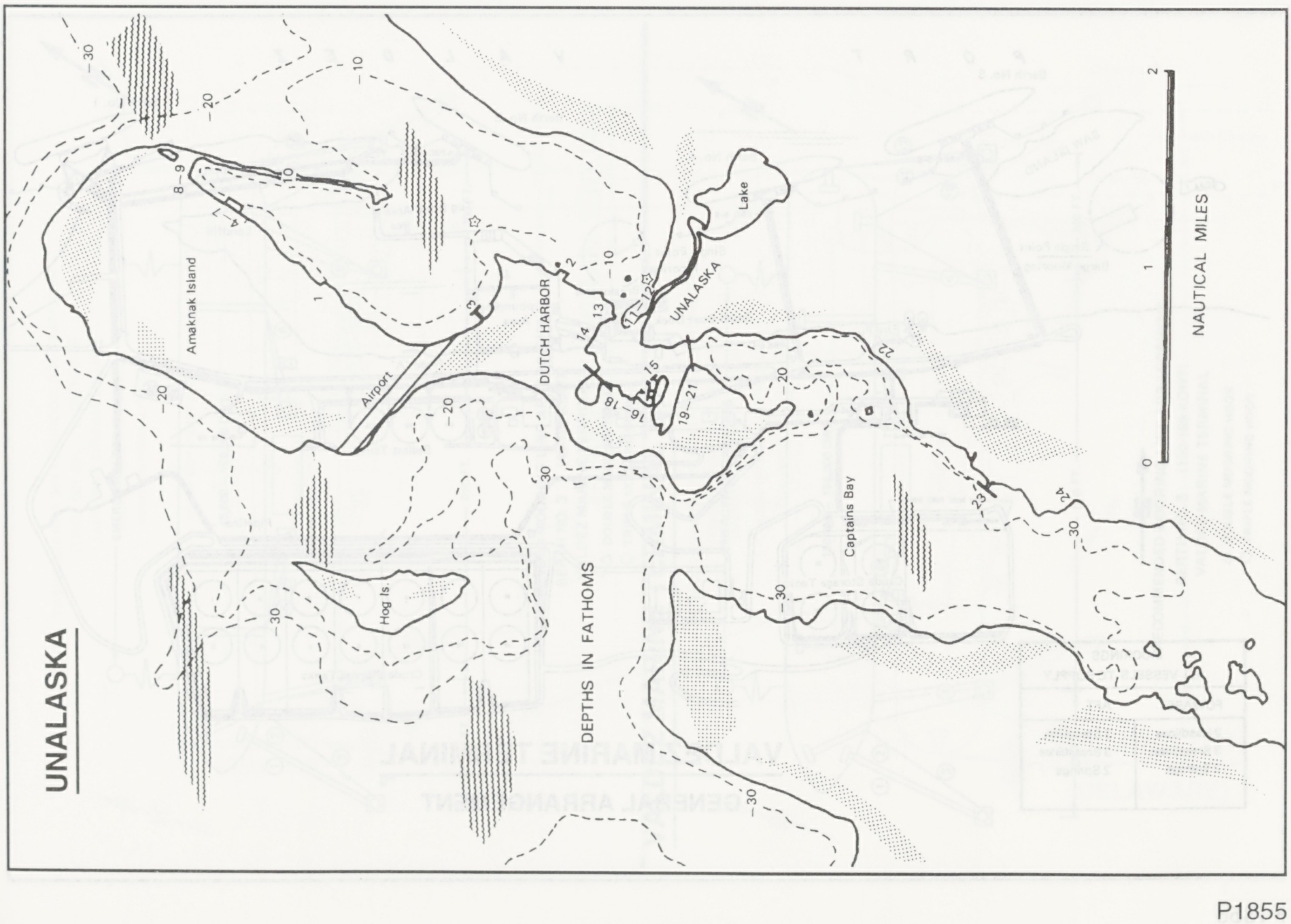

N
Norfolk & Southern Bridge
Chessie System Bridge
US Coast Guard Station
Lake Erie
Island No. 18
Chevron
B.P. Oil
Chevron Oil
Manitowoc Marine Corp.
Port Authority Facility No. 1
Port Authority Facility No. 2
Torco Lakefront Docks
(iron ore pellet terminal)
Maumee Bay
Expansion Area
Port Authority Facility No. 3
TOLEDO



TOLEDO

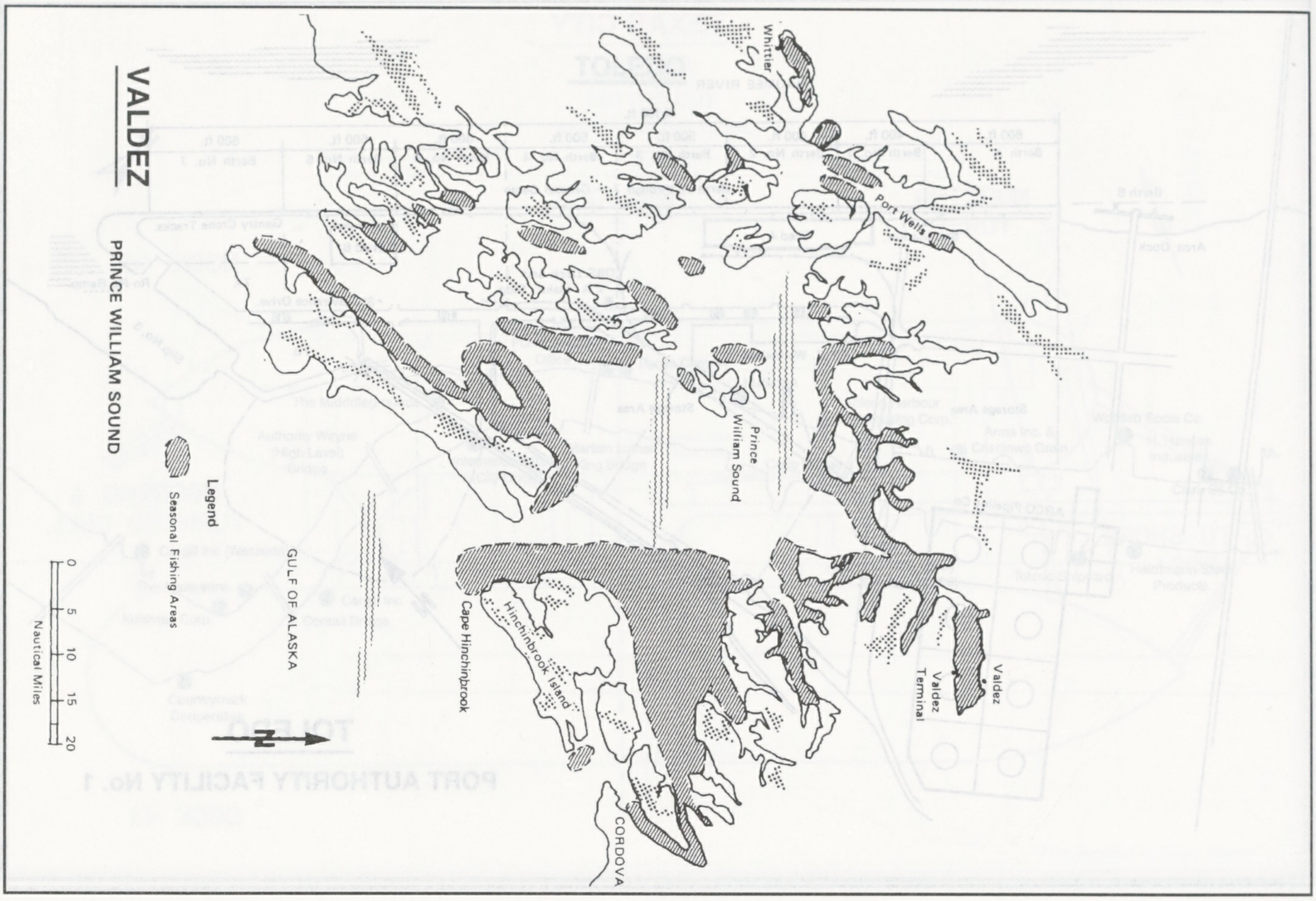
PORT AUTHORITY FACILITY No. 1

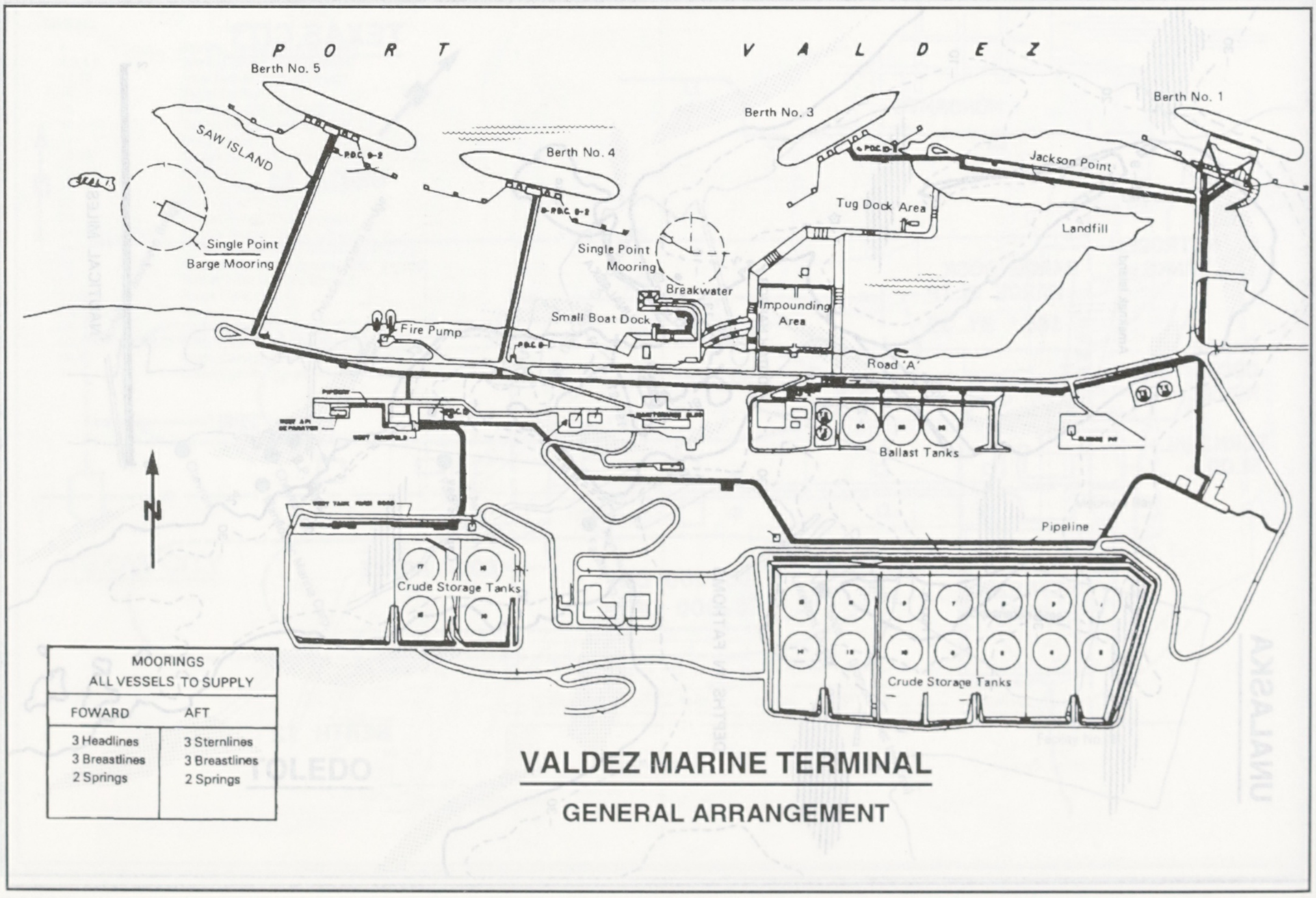
MAUMEE RIVER
4,100 ft.
600 ft.
Berth A
400 ft.
Berth No. 1
500 ft.
Berth No. 2
500 ft.
Berth No. 3
500 ft.
Berth No. 4
500 ft.
Berth No. 5
500 ft.
Berth No. 6
600 ft.
Berth No. 7
Berth A through 7 – General Cargo
Berth B
Arco Dock
Sub Station
Shed A
Shed B
Gantry Crane Tracks.
OBS. Deck and P.A. Maint. Bldg.
St. Lawrence Drive.
7A
7B
Ro-Ro Ramp
Slip No. 3
F.T.Z. Warehouse
Storage Area
Storage Area
ARCO Pipeline Co.
N



UNALASKA

Amaknak Island
Airport
DUTCH HARBOR
UNALASKA
Lake
Hog Is.
Captains Bay
DEPTHS IN FATHOMS
NAUTICAL MILES
0
1
2
1
2
3
4–7
8–9
10
11–12
13
14
15
16–18
19–21
22
23
24
–10
–20
–30

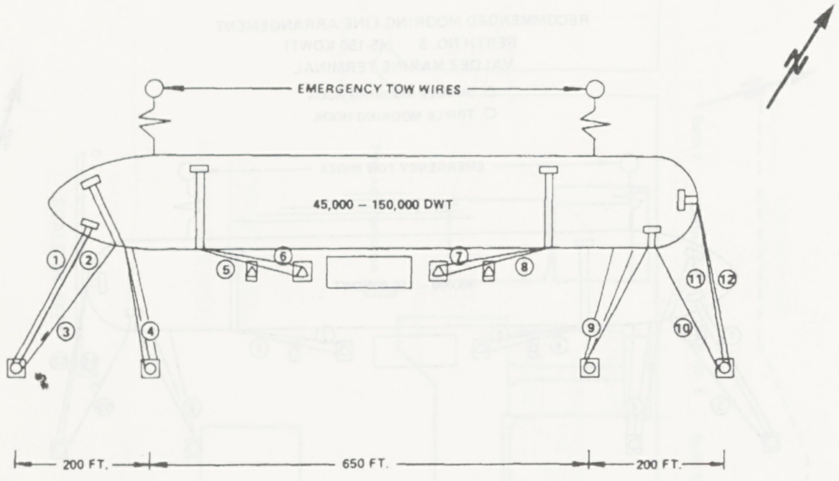

VALDEZ
PRINCE WILLIAM SOUND
Legend
Seasonal Fishing Areas
0
5
10
15
20
Nautical Miles
N
GULF OF ALASKA
Cape Hinchinbrook
Hinchinbrook Island
CORDOVA
Prince William Sound
Whittier
Port Wells
Valdez Terminal
Valdez


P O R T   V A L D E Z
Berth No. 5
Berth No. 4
Berth No. 3
Berth No. 1
SAW ISLAND
Single Point Barge Mooring
Single Point Mooring
Breakwater
Small Boat Dock
Fire Pump
Tug Dock Area
Jackson Point
Landfill
Impounding Area
Road 'A'
Ballast Tanks
Pipeline
Crude Storage Tanks
Crude Storage Tanks
N

MOORINGS ALL VESSELS TO SUPPLY	
FOWARD	AFT
3 Headlines 3 Breastlines 2 Springs	3 Sternlines 3 Breastlines 2 Springs

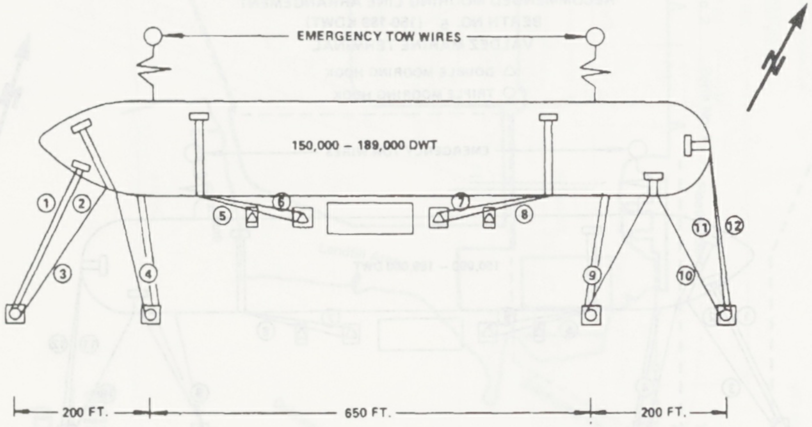
VALDEZ MARINE TERMINAL

GENERAL ARRANGEMENT

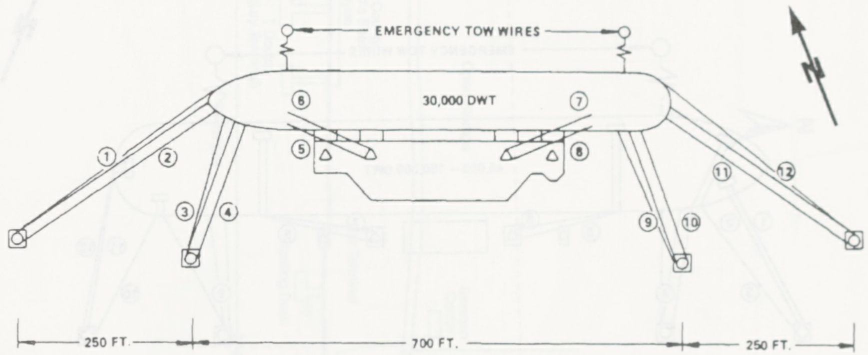

EMERGENCY TOW WIRES
45,000 – 150,000 DWT
N
1
2
3
4
5
6
7
8
9
10
11
12
200 FT.
650 FT.
200 FT.

RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 3 (45-150 KDWT)
VALDEZ MARINE TERMINAL
△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK

VALDEZ MARINE TERMINAL

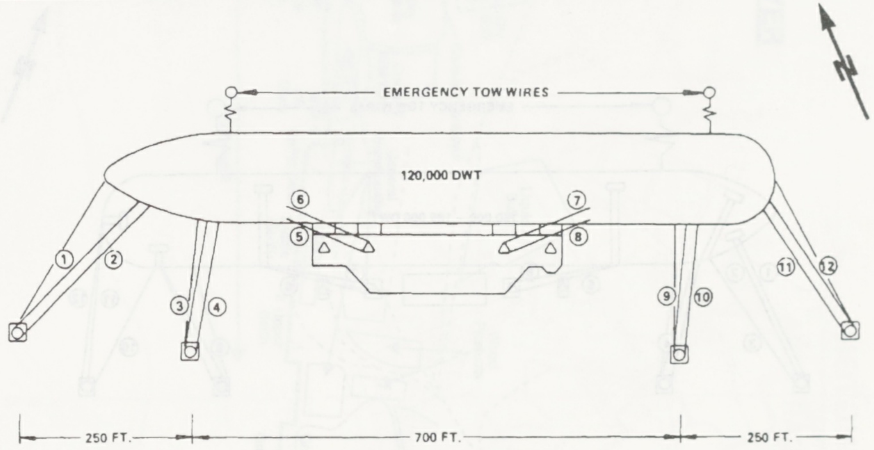

EMERGENCY TOW WIRES
150,000 – 189,000 DWT
N
1
2
3
4
5
6
7
8
9
10
11
12
200 FT.
650 FT.
200 FT.

RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 3 (150-189 KDWT)
VALDEZ MARINE TERMINAL
△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK

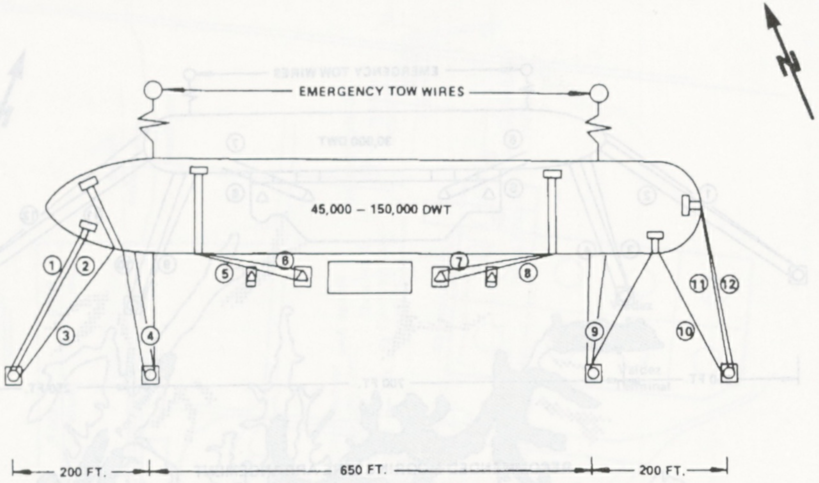

EMERGENCY TOW WIRES
30,000 DWT
N
1
2
3
4
5
6
7
8
9
10
11
12
250 FT.
700 FT.
250 FT.

RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 1 (30 KDWT)
VALDEZ MARINE TERMINAL
△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK

VALDEZ MARINE TERMINAL

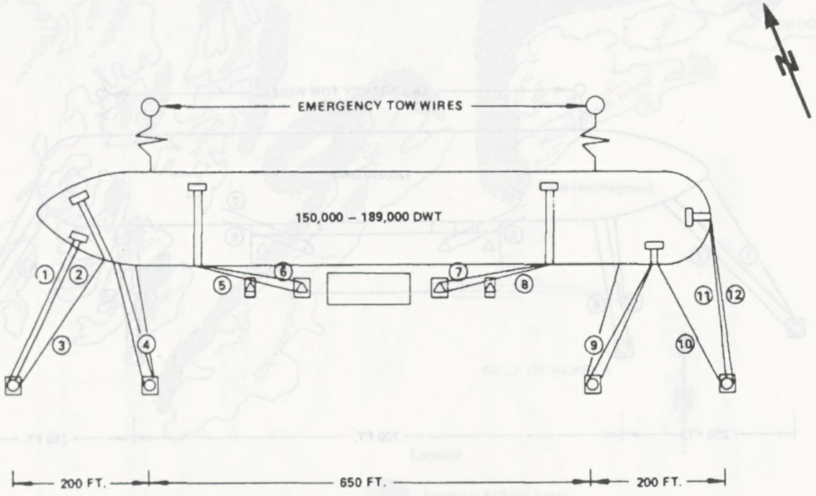

EMERGENCY TOW WIRES
120,000 DWT
N
1
2
3
4
5
6
7
8
9
10
11
12
250 FT.
700 FT.
250 FT.

RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 1 (120 KDWT)
VALDEZ MARINE TERMINAL
△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK


N
EMERGENCY TOW WIRES
45,000 – 150,000 DWT
1
2
3
4
5
6
7
8
9
10
11
12
200 FT.
650 FT.
200 FT.

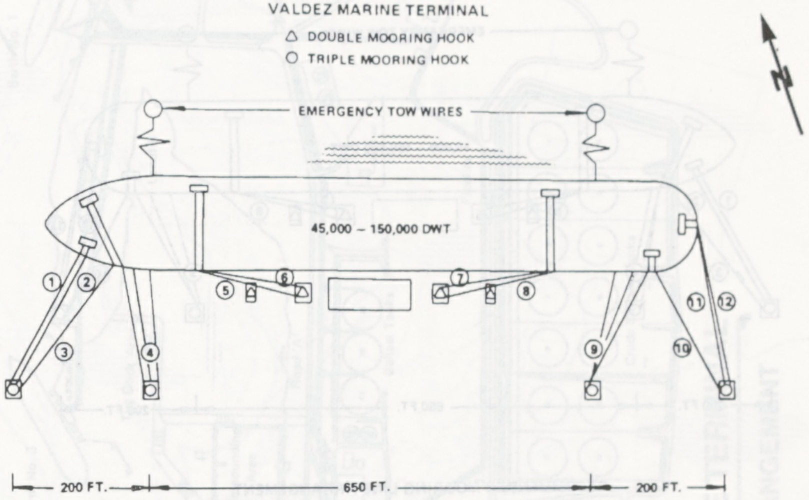
RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 4 (45-150 KDWT)
VALDEZ MARINE TERMINAL
△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK

– VALDEZ MARINE TERMINAL


N
EMERGENCY TOW WIRES
150,000 – 189,000 DWT
1
2
3
4
5
6
7
8
9
10
11
12
200 FT.
650 FT.
200 FT.

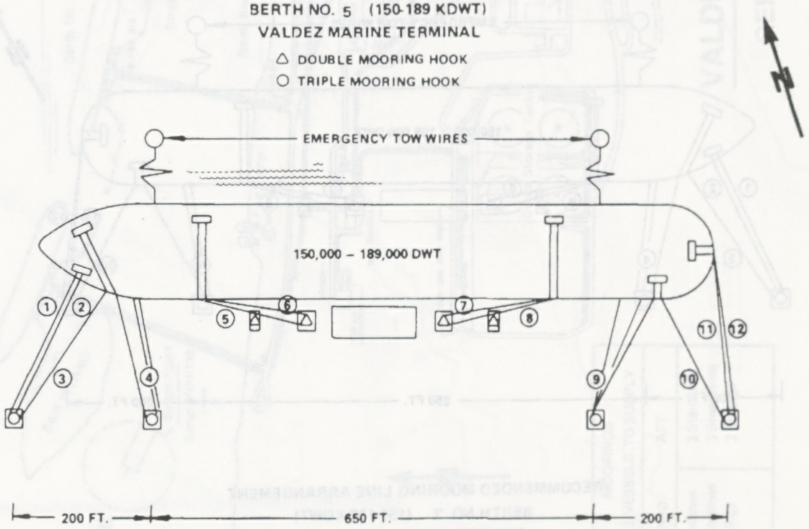
RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 4 (150-189 KDWT)
VALDEZ MARINE TERMINAL
△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK

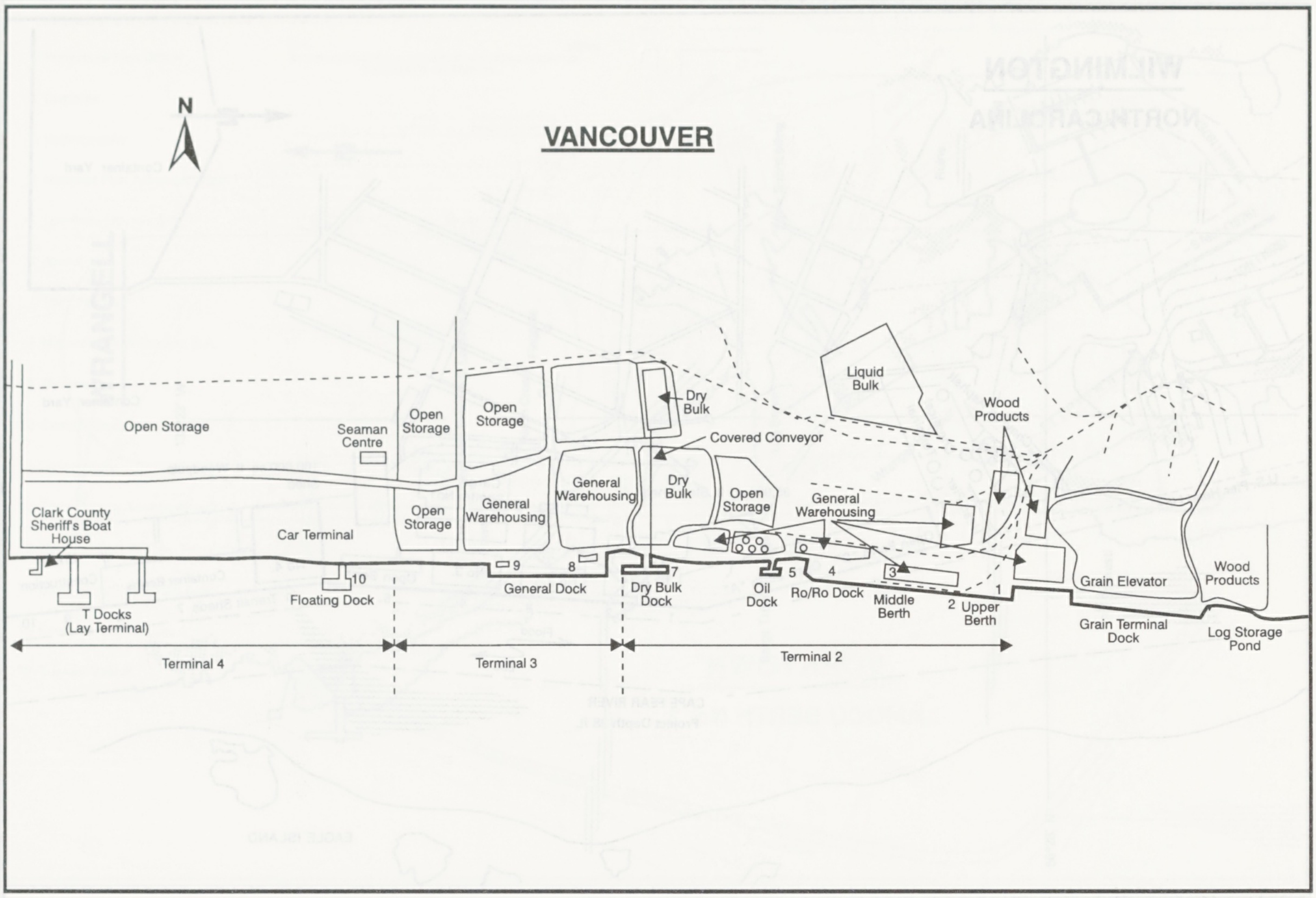
RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 5 (45-150 KDWT)
VALDEZ MARINE TERMINAL
△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK

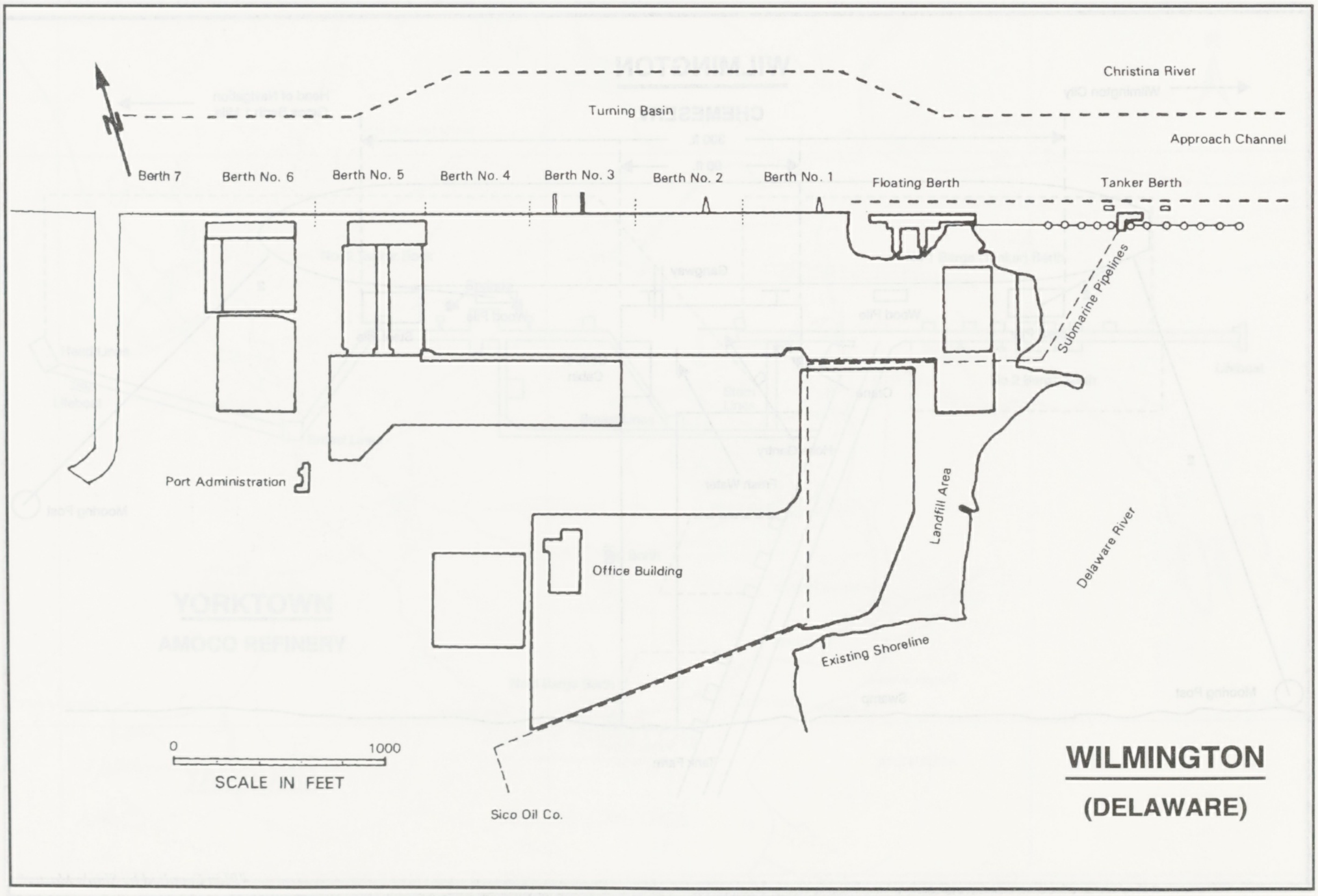

N
EMERGENCY TOW WIRES
45,000 – 150,000 DWT
1
2
3
4
5
6
7
8
9
10
11
12
200 FT.
650 FT.
200 FT.

VALDEZ MARINE TERMINAL

RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 5 (150-189 KDWT)
VALDEZ MARINE TERMINAL
△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK

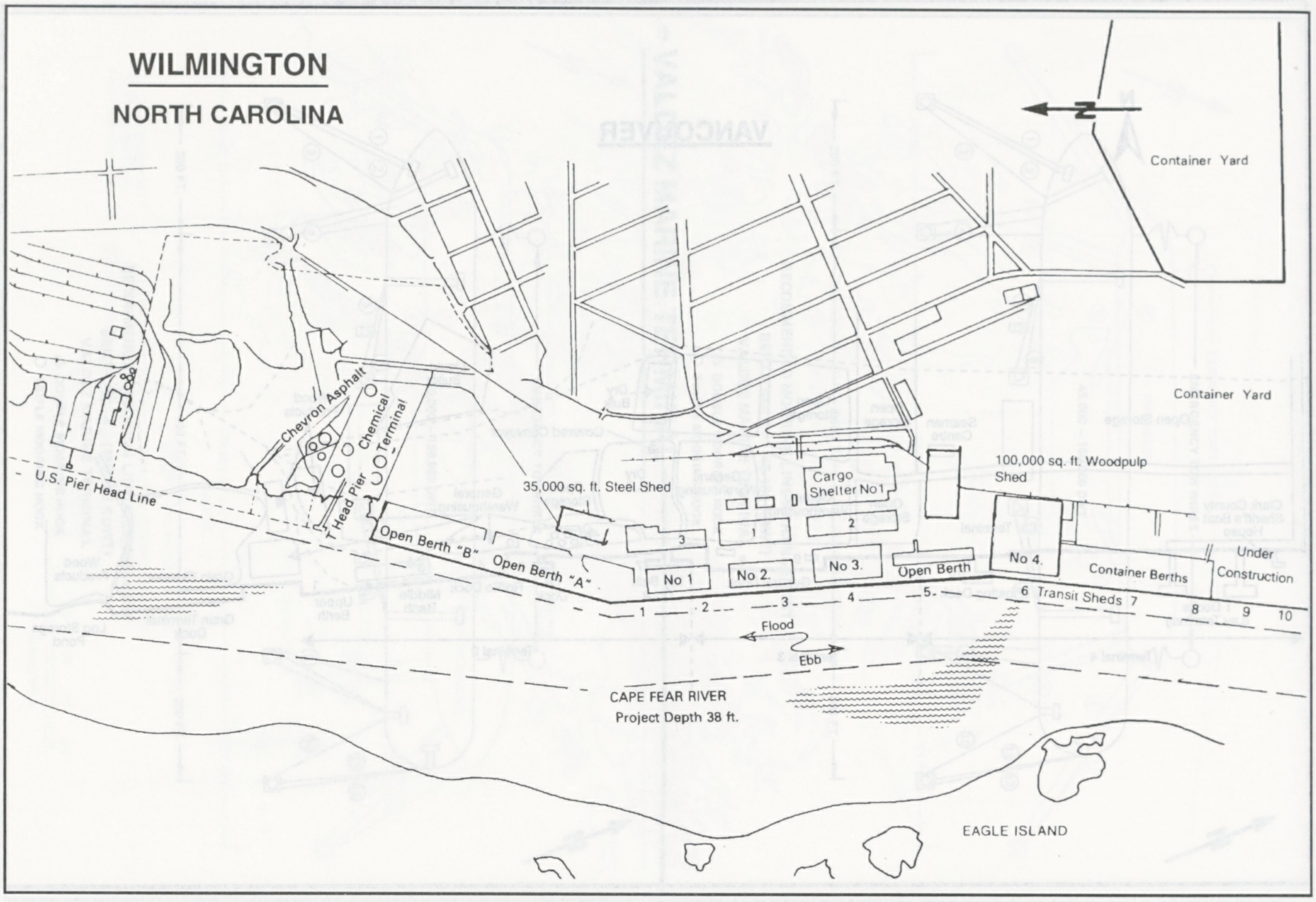

N
EMERGENCY TOW WIRES
150,000 – 189,000 DWT
1
2
3
4
5
6
7
8
9
10
11
12
200 FT.
650 FT.
200 FT.


N
VANCOUVER
Open Storage
Seaman Centre
Open Storage
Open Storage
Dry Bulk
Liquid Bulk
Wood Products
Covered Conveyor
Clark County Sheriff's Boat House
Car Terminal
Open Storage
General Warehousing
General Warehousing
Dry Bulk
Open Storage
General Warehousing
10
Floating Dock
9
8
General Dock
7
Dry Bulk Dock
Oil Dock
5
4
Ro/Ro Dock
3
Middle Berth
2
1
Upper Berth
Grain Elevator
Wood Products
Grain Terminal Dock
Log Storage Pond
T Docks (Lay Terminal)
Terminal 4
Terminal 3
Terminal 2


N
Christina River
Turning Basin
Approach Channel
Berth 7
Berth No. 6
Berth No. 5
Berth No. 4
Berth No. 3
Berth No. 2
Berth No. 1
Floating Berth
Tanker Berth
Submarine Pipelines
Port Administration
Landfill Area
Delaware River
Office Building
Existing Shoreline
0
1000
SCALE IN FEET
Sico Oil Co.
WILMINGTON
(DELAWARE)

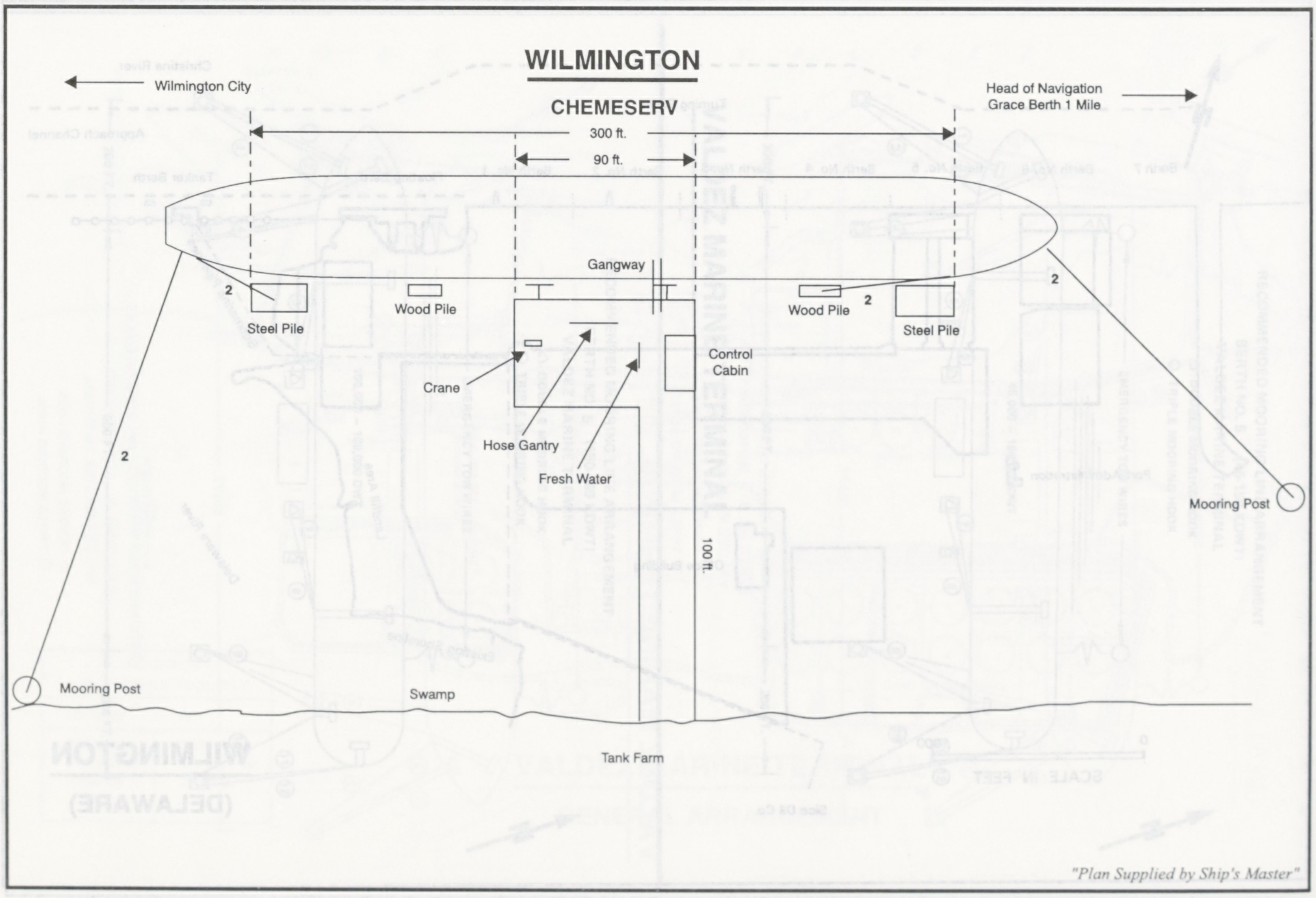
WILMINGTON

NORTH CAROLINA

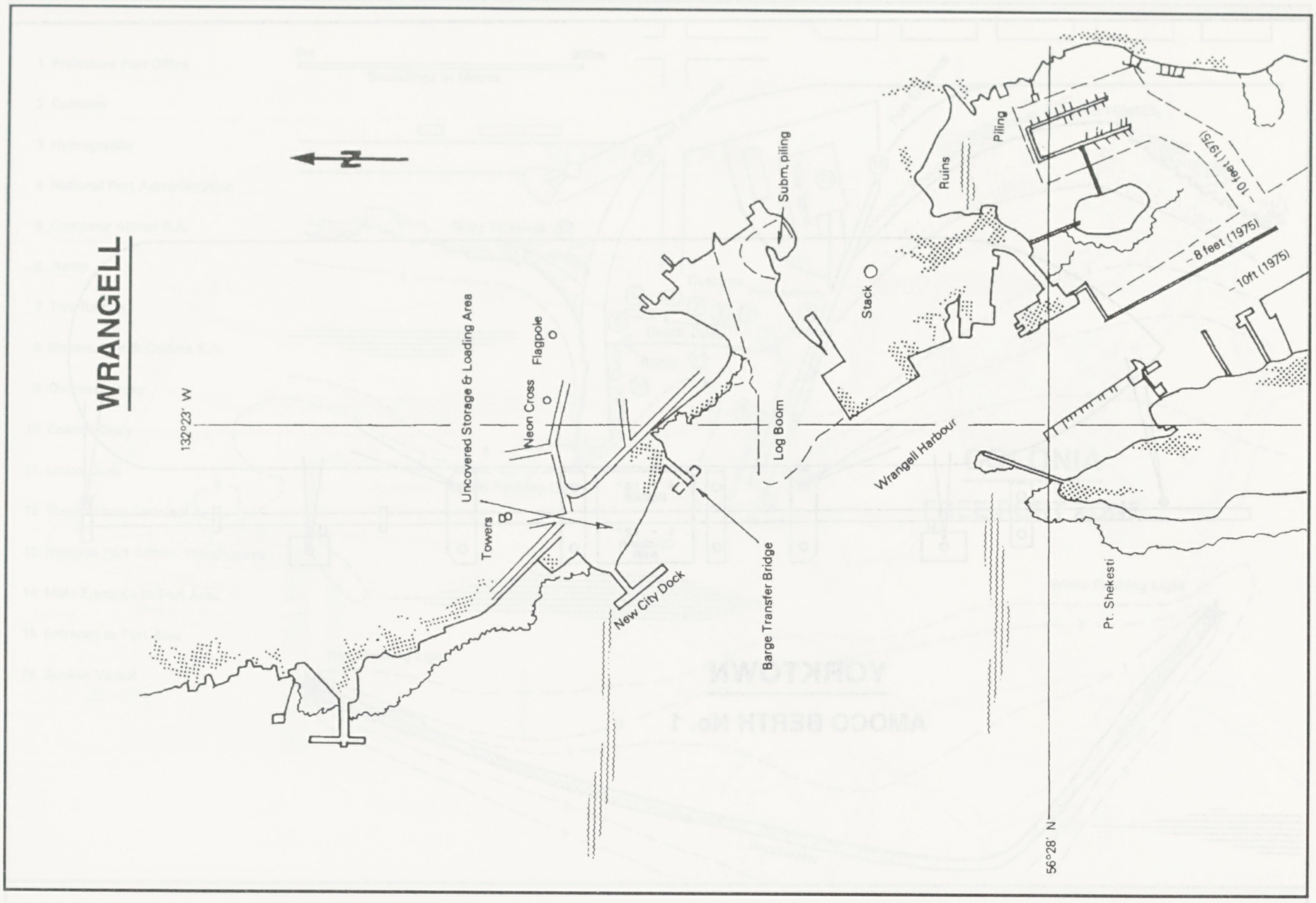

N
Container Yard
Container Yard
100,000 sq. ft. Woodpulp Shed
Cargo Shelter No1
35,000 sq. ft. Steel Shed
Oil
Chevron Asphalt
Chemical Terminal
Head Pier
U.S. Pier Head Line
Open Berth "B"
Open Berth "A"
3
1
2
No 1
No 2.
No 3.
Open Berth
No 4.
Container Berths
Under Construction
1
2
3
4
5
6 Transit Sheds 7
8
9
10
Flood
Ebb
CAPE FEAR RIVER
Project Depth 38 ft.
EAGLE ISLAND

WILMINGTON

CHEMESERV

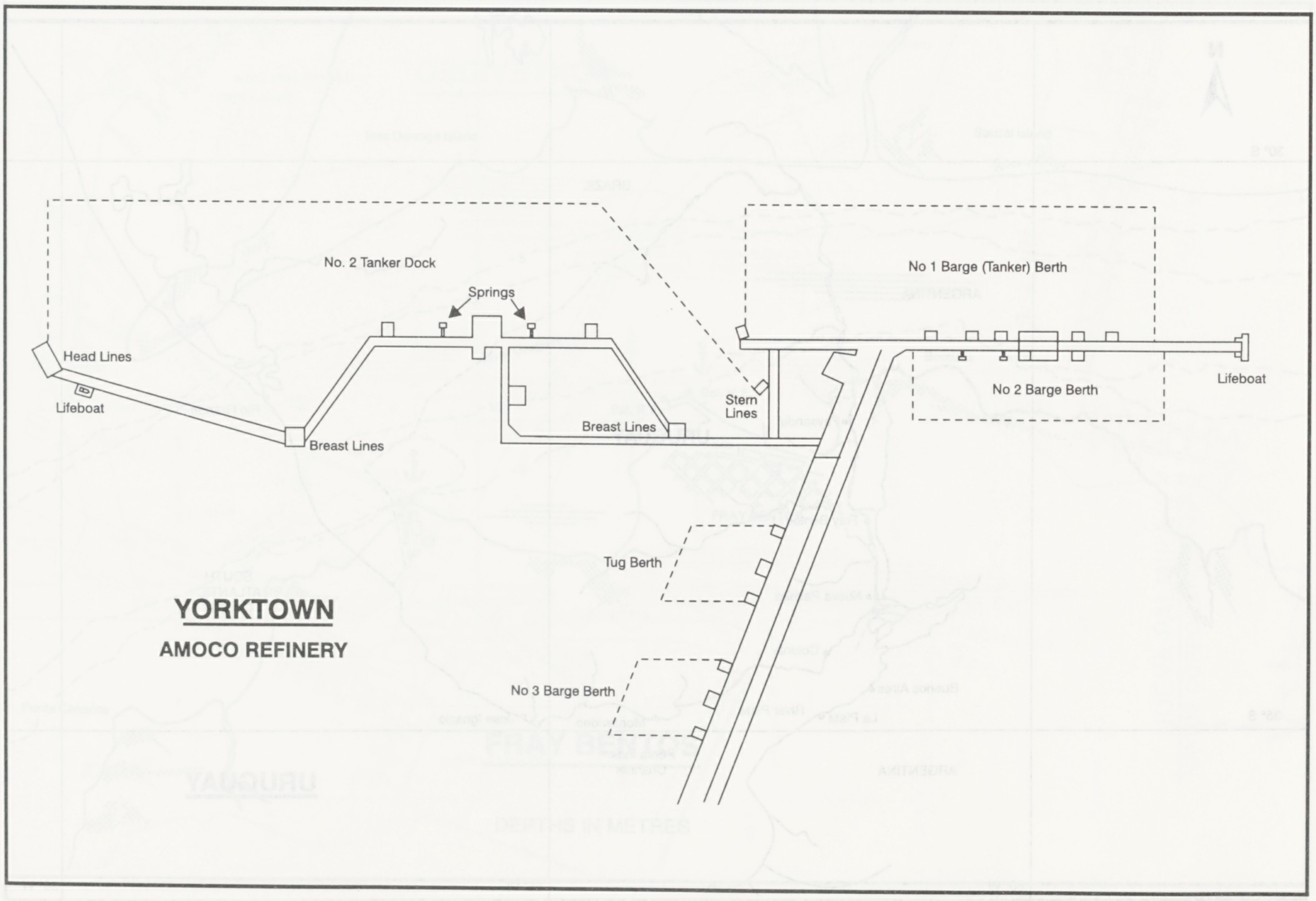

Wilmington City
Head of Navigation
Grace Berth 1 Mile
300 ft.
90 ft.
Gangway
2
Steel Pile
Wood Pile
Wood Pile
2
Steel Pile
2
Control Cabin
Crane
Hose Gantry
Fresh Water
100 ft.
2
Mooring Post
Mooring Post
Swamp
Tank Farm

"Plan Supplied by Ship's Master"



WRANGELL

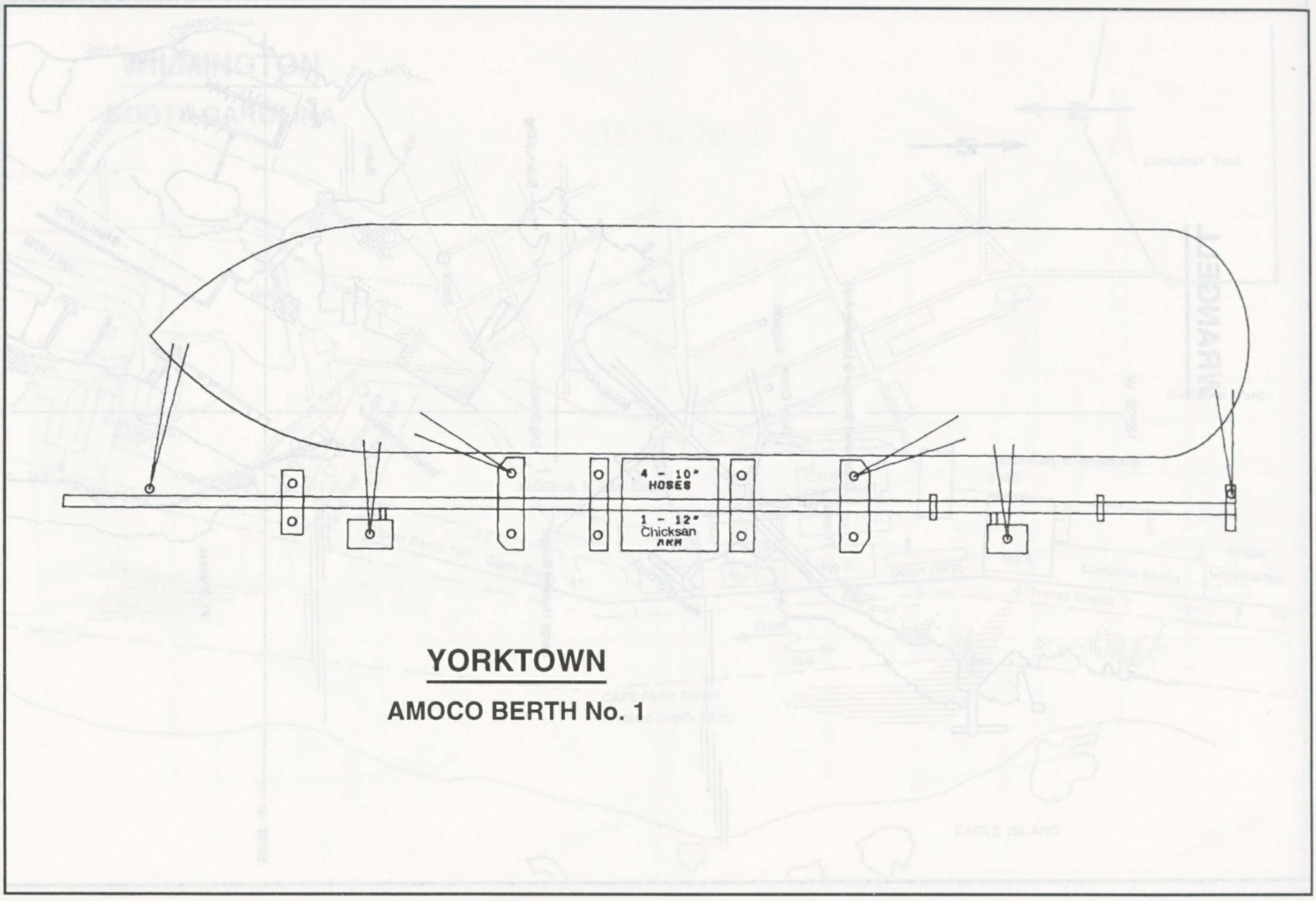
N
132°23' W
56°28' N
Uncovered Storage & Loading Area
Towers
Neon Cross
Flagpole
New City Dock
Barge Transfer Bridge
Log Boom
Subm. piling
Stack
Ruins
Piling
Wrangell Harbour
Pt. Shekesti
10 feet (1975)
8 feet (1975)
10ft (1975)

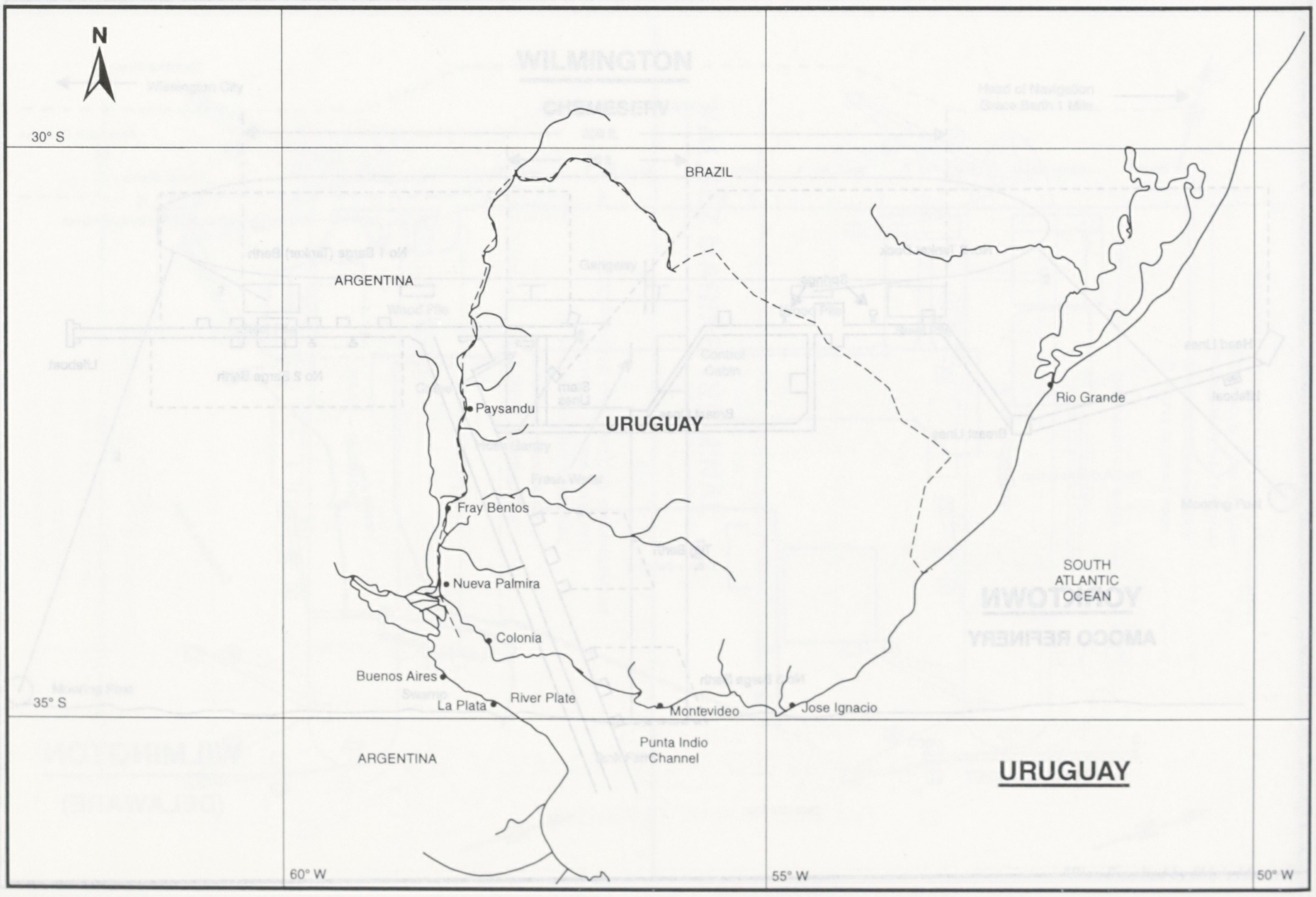


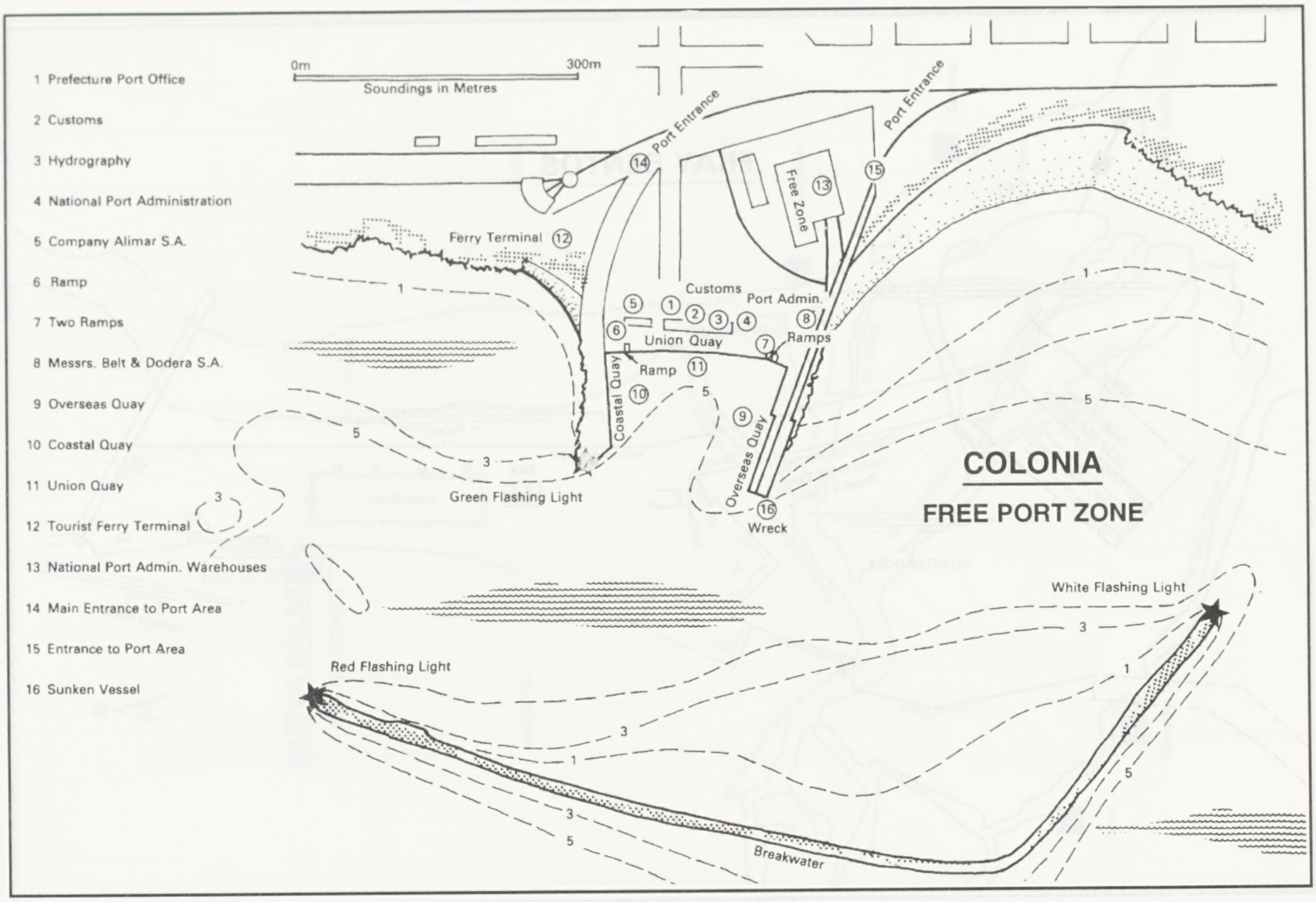
YORKTOWN

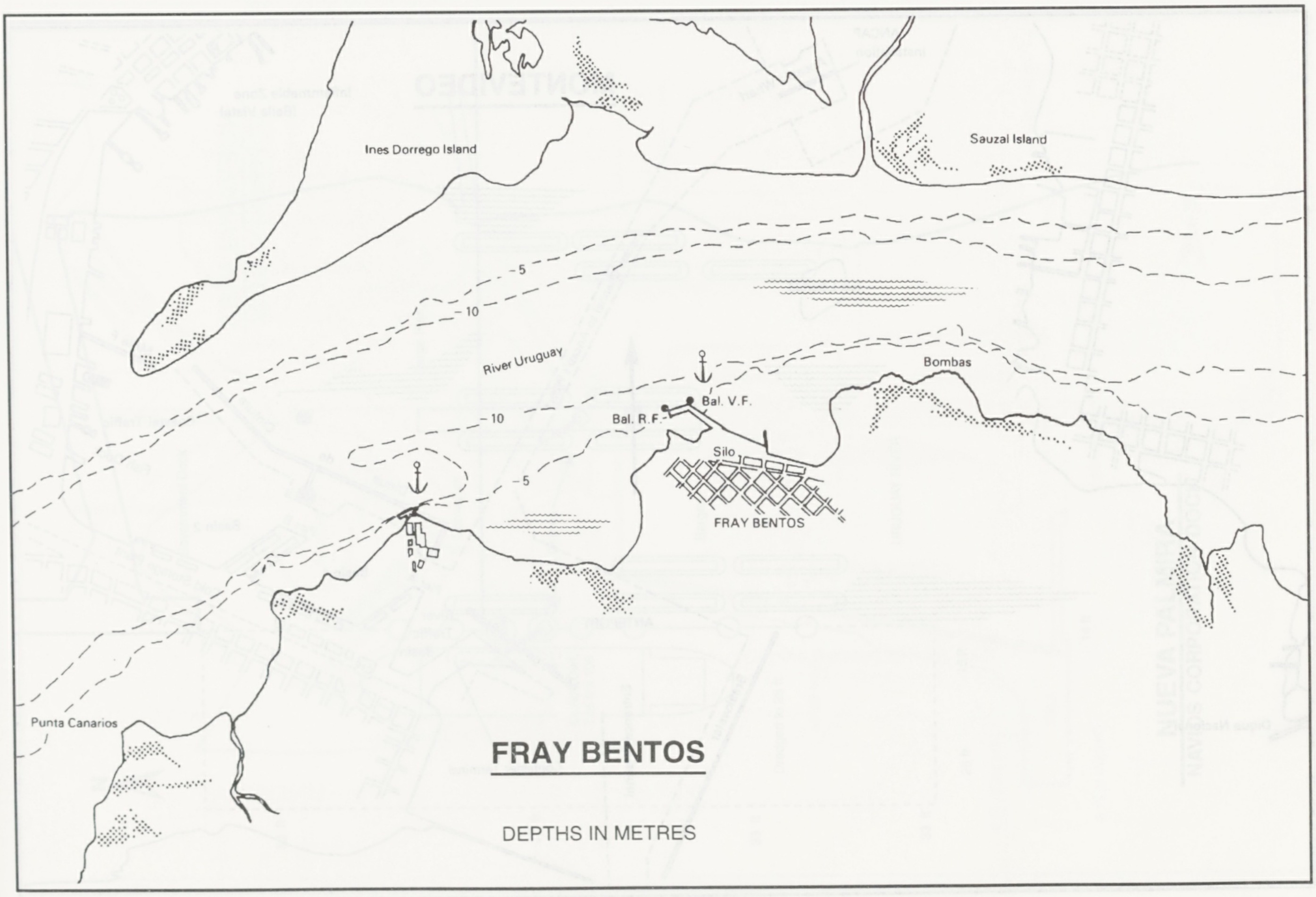
AMOCO REFINERY

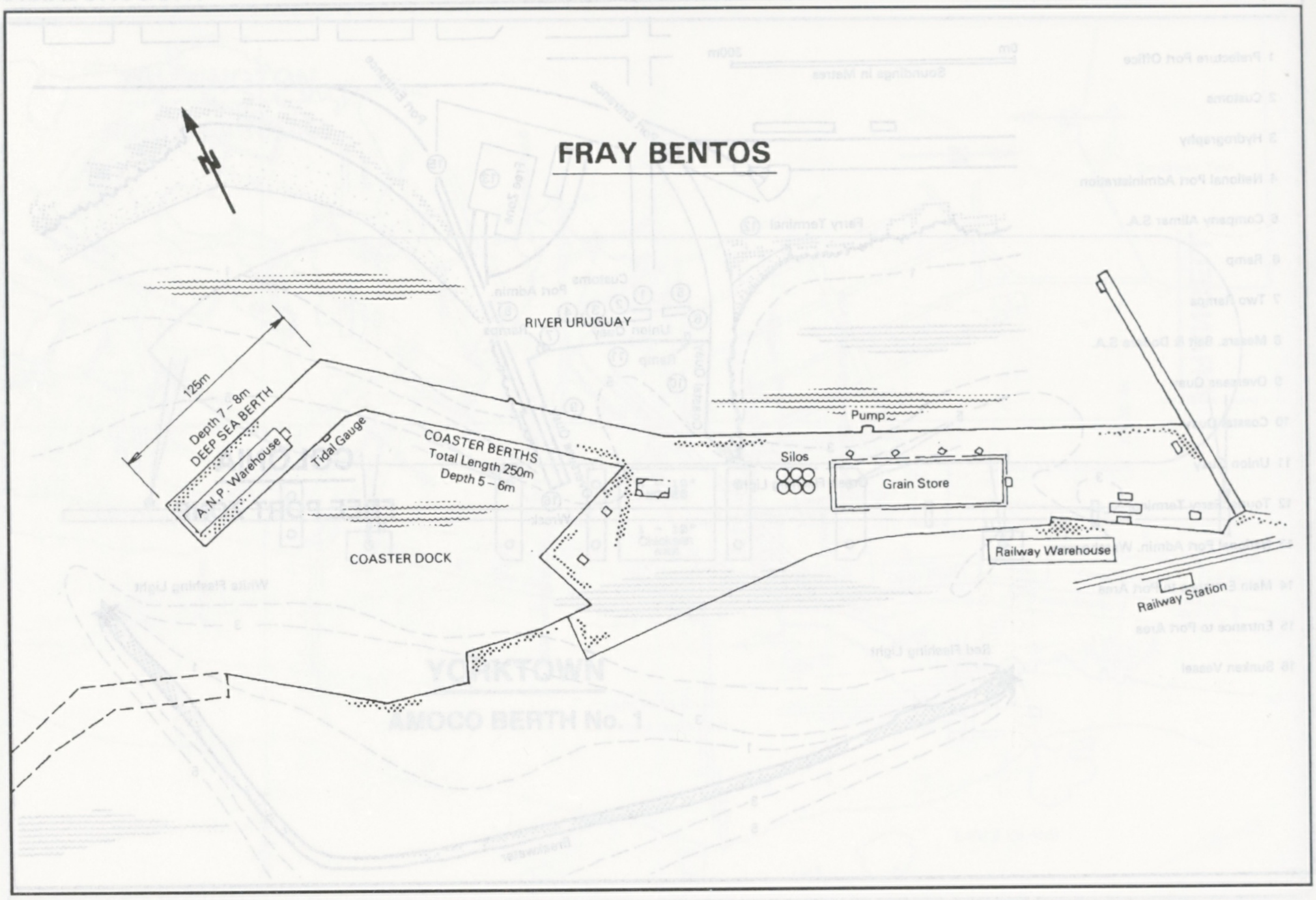
No. 2 Tanker Dock
Springs
Head Lines
Lifeboat
Breast Lines
Breast Lines
Stern Lines
No 1 Barge (Tanker) Berth
No 2 Barge Berth
Lifeboat
Tug Berth
No 3 Barge Berth

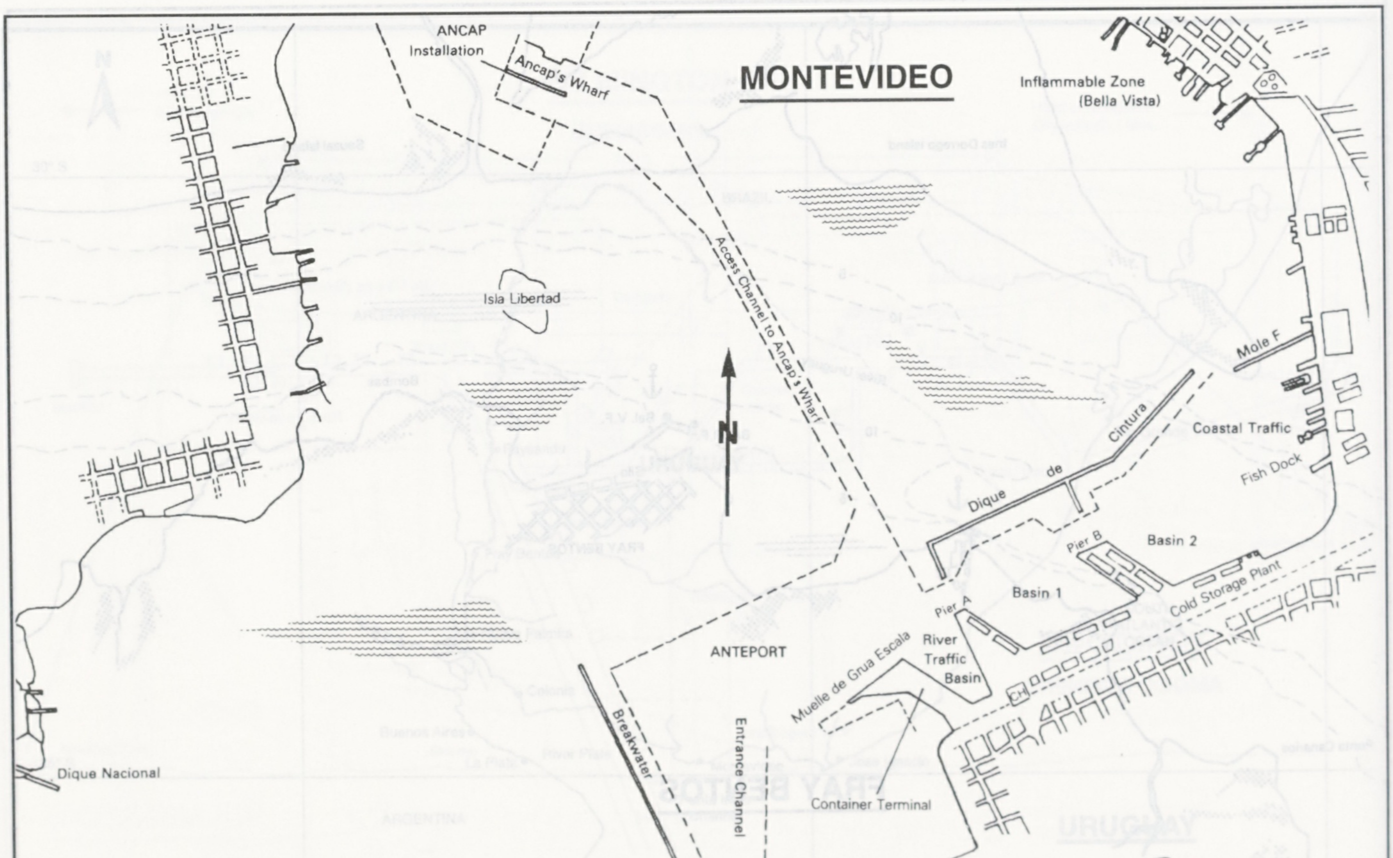

4 - 10" HOSES
1 - 12" Chicksan ARM
YORKTOWN
AMOCO BERTH No. 1

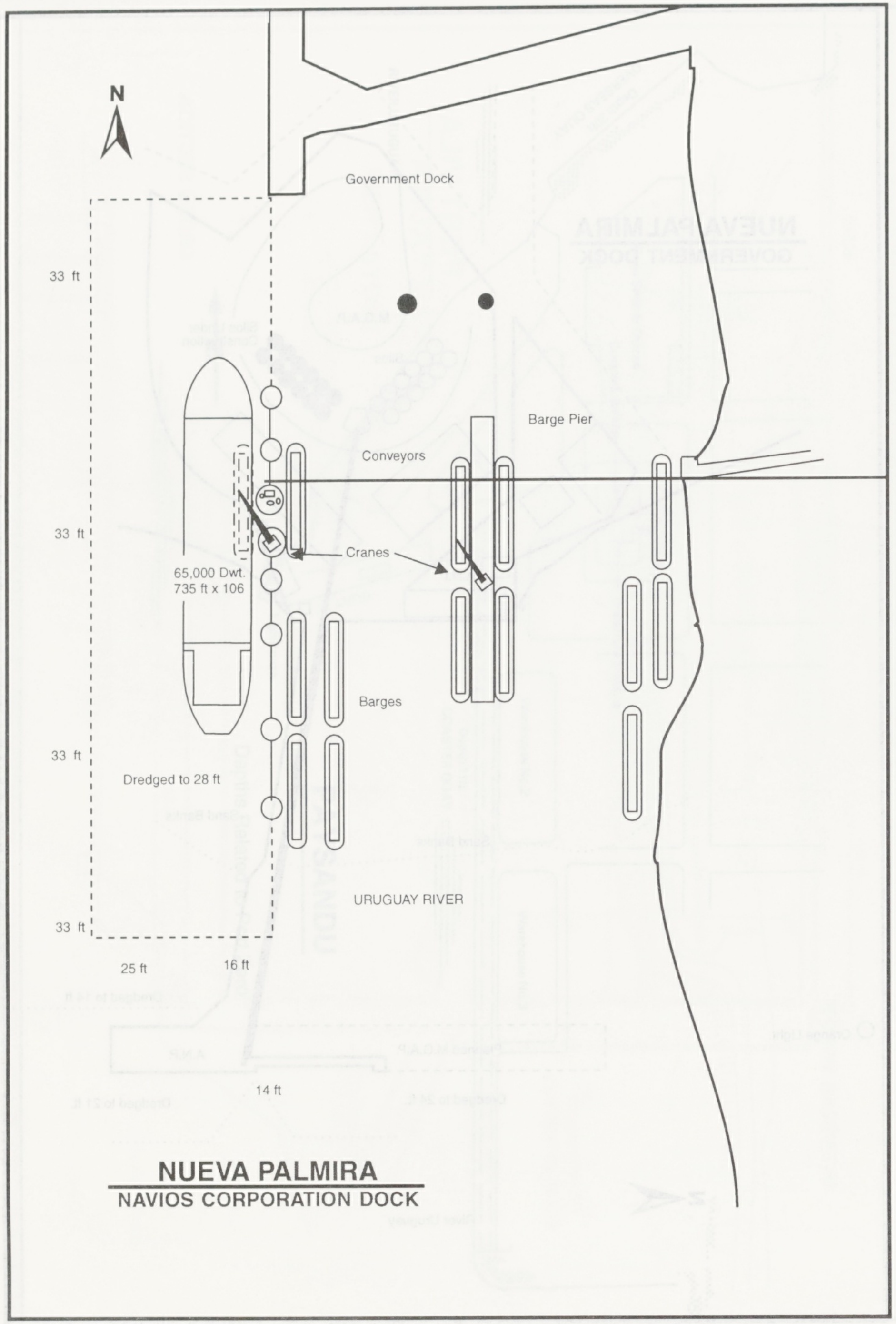

N
30° S
BRAZIL
ARGENTINA
URUGUAY
Paysandu
Fray Bentos
Nueva Palmira
Colonia
Buenos Aires
La Plata
River Plate
Montevideo
Jose Ignacio
Rio Grande
SOUTH ATLANTIC OCEAN
Punta Indio Channel
ARGENTINA
35° S
60° W
55° W
50° W
URUGUAY


1 Prefecture Port Office
2 Customs
3 Hydrography
4 National Port Administration
5 Company Alimar S.A.
6 Ramp
7 Two Ramps
8 Messrs. Belt & Dodera S.A.
9 Overseas Quay
10 Coastal Quay
11 Union Quay
12 Tourist Ferry Terminal
13 National Port Admin. Warehouses
14 Main Entrance to Port Area
15 Entrance to Port Area
16 Sunken Vessel
0m
300m
Soundings in Metres
Port Entrance
Port Entrance
Free Zone
Ferry Terminal
Customs
Port Admin.
Union Quay
Ramps
Ramp
Coastal Quay
Overseas Quay
Green Flashing Light
Wreck
COLONIA
FREE PORT ZONE
White Flashing Light
Red Flashing Light
Breakwater
1
3
5


Ines Dorrego Island
Sauzal Island
5
10
River Uruguay
Bal. V.F.
Bal. R.F.
Bombas
Silo
FRAY BENTOS
Punta Canarios
FRAY BENTOS
DEPTHS IN METRES

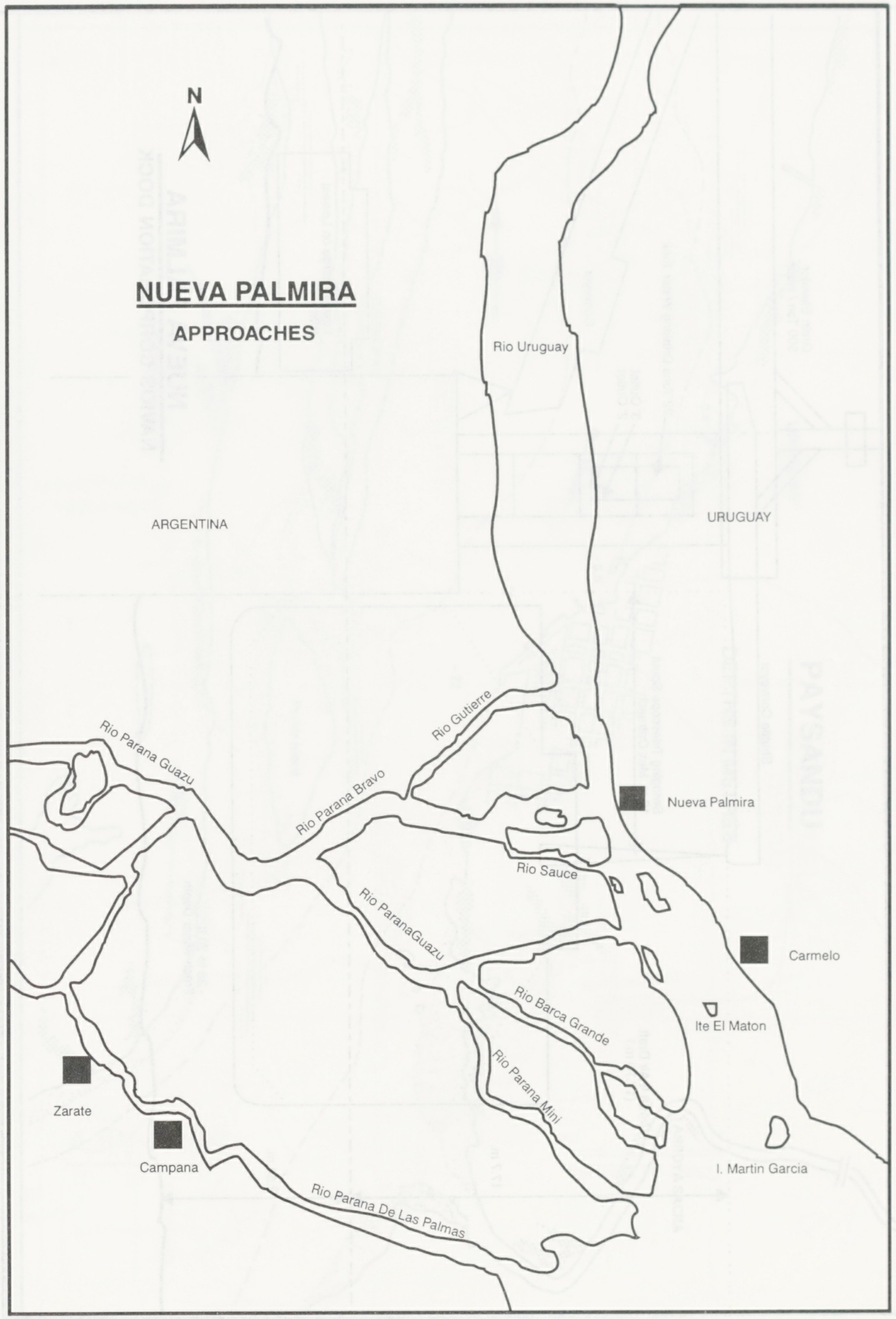

FRAY BENTOS
N
RIVER URUGUAY
125m
Depth 7 – 8m
DEEP SEA BERTH
A.N.P. Warehouse
Tidal Gauge
COASTER BERTHS
Total Length 250m
Depth 5 – 6m
COASTER DOCK
Pump
Silos
Grain Store
Railway Warehouse
Railway Station


ANCAP
Installation
Ancap's Wharf
MONTEVIDEO
Inflammable Zone
(Bella Vista)
Access Channel to Ancap's Wharf
Isla Libertad
N
Mole F
Coastal Traffic
Fish Dock
Dique de Cintura
Basin 2
Pier B
Basin 1
Pier A
Cold Storage Plant
ANTEPORT
River
Traffic
Basin
Muelle de Grua Escala
Breakwater
Entrance Channel
Container Terminal
Dique Nacional


N
Government Dock
33 ft
Barge Pier
Conveyors
33 ft
Cranes
65,000 Dwt.
735 ft x 106
Barges
33 ft
Dredged to 28 ft
URUGUAY RIVER
33 ft
25 ft
16 ft
14 ft

NUEVA PALMIRA

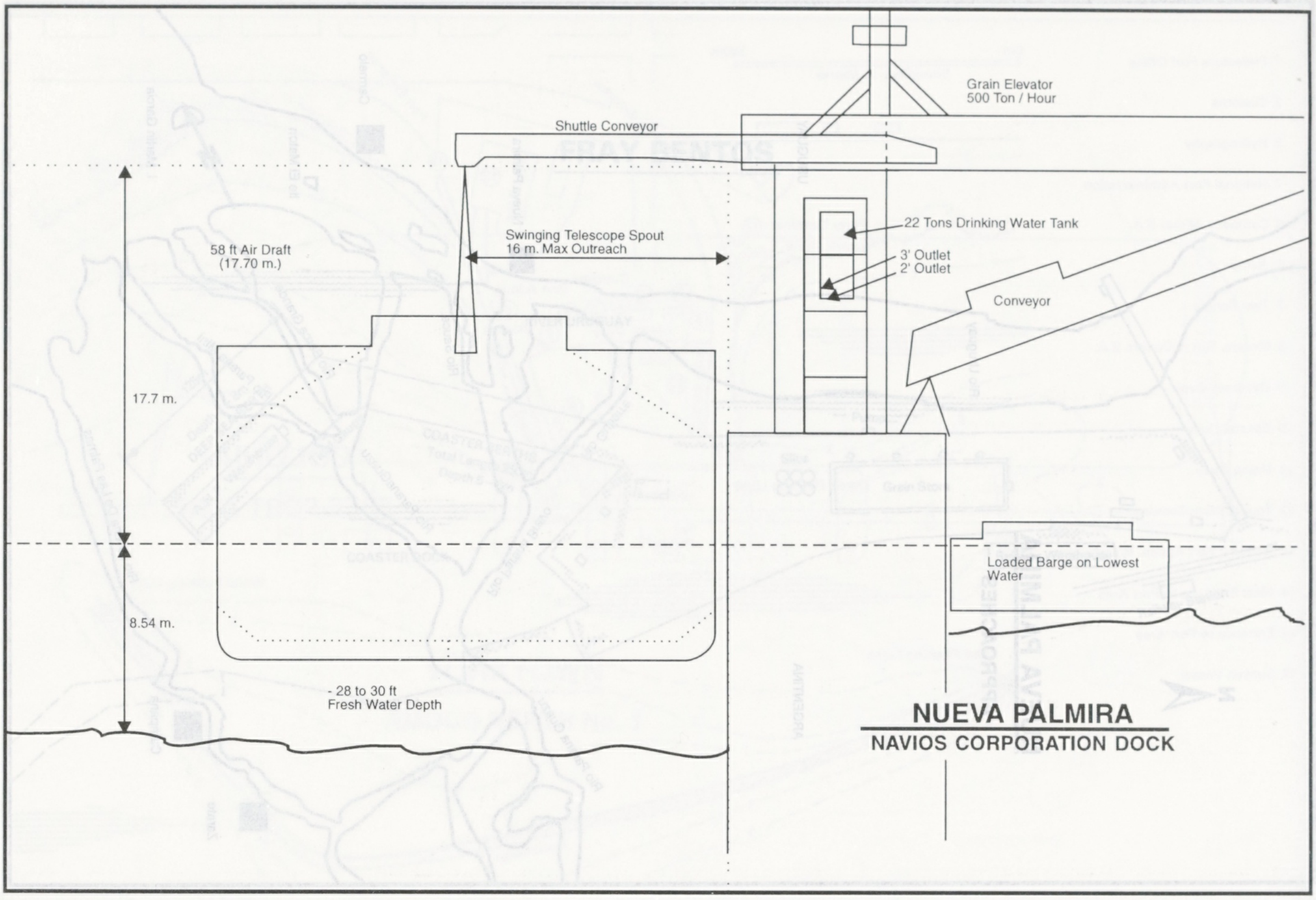
NAVIOS CORPORATION DOCK

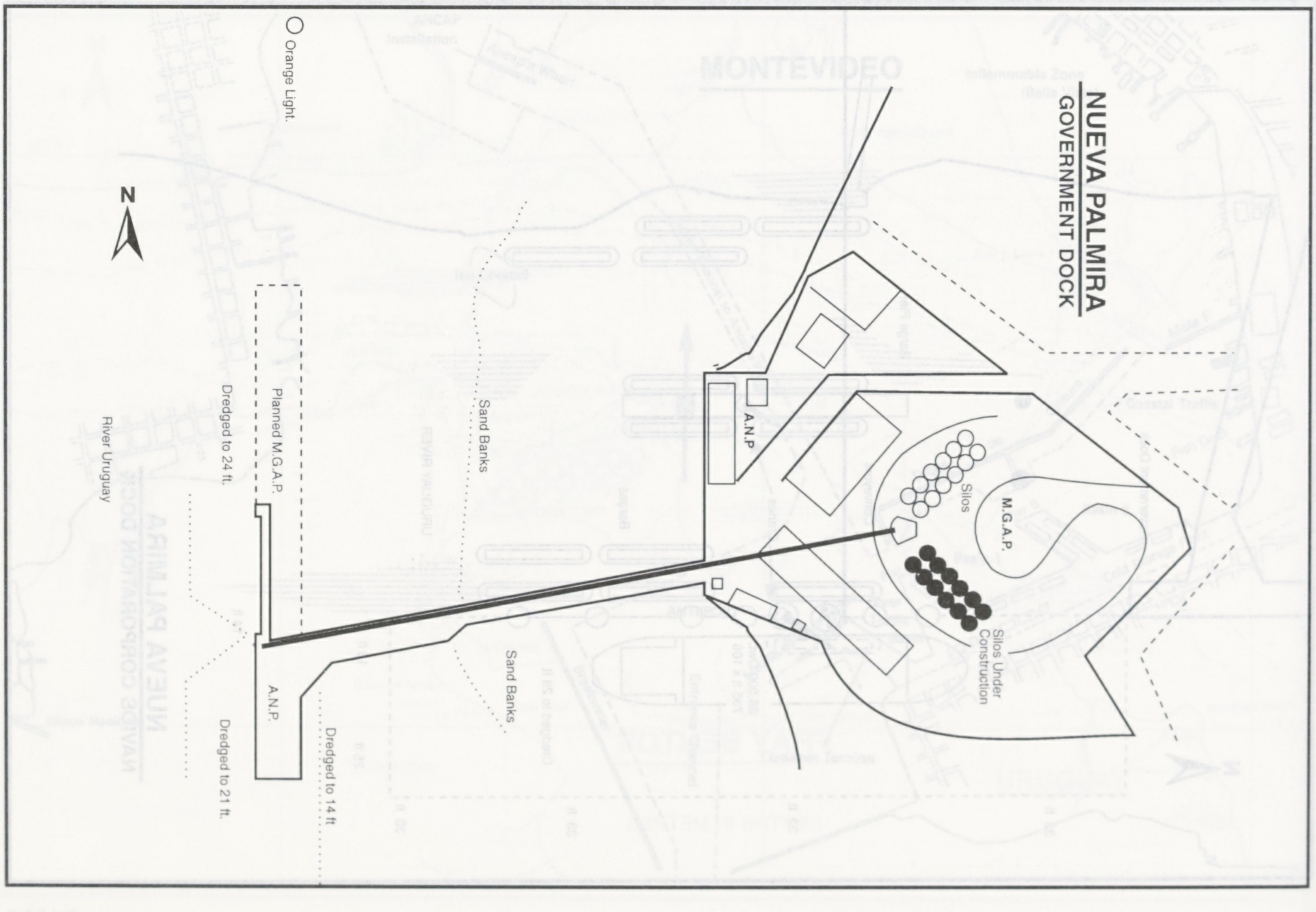


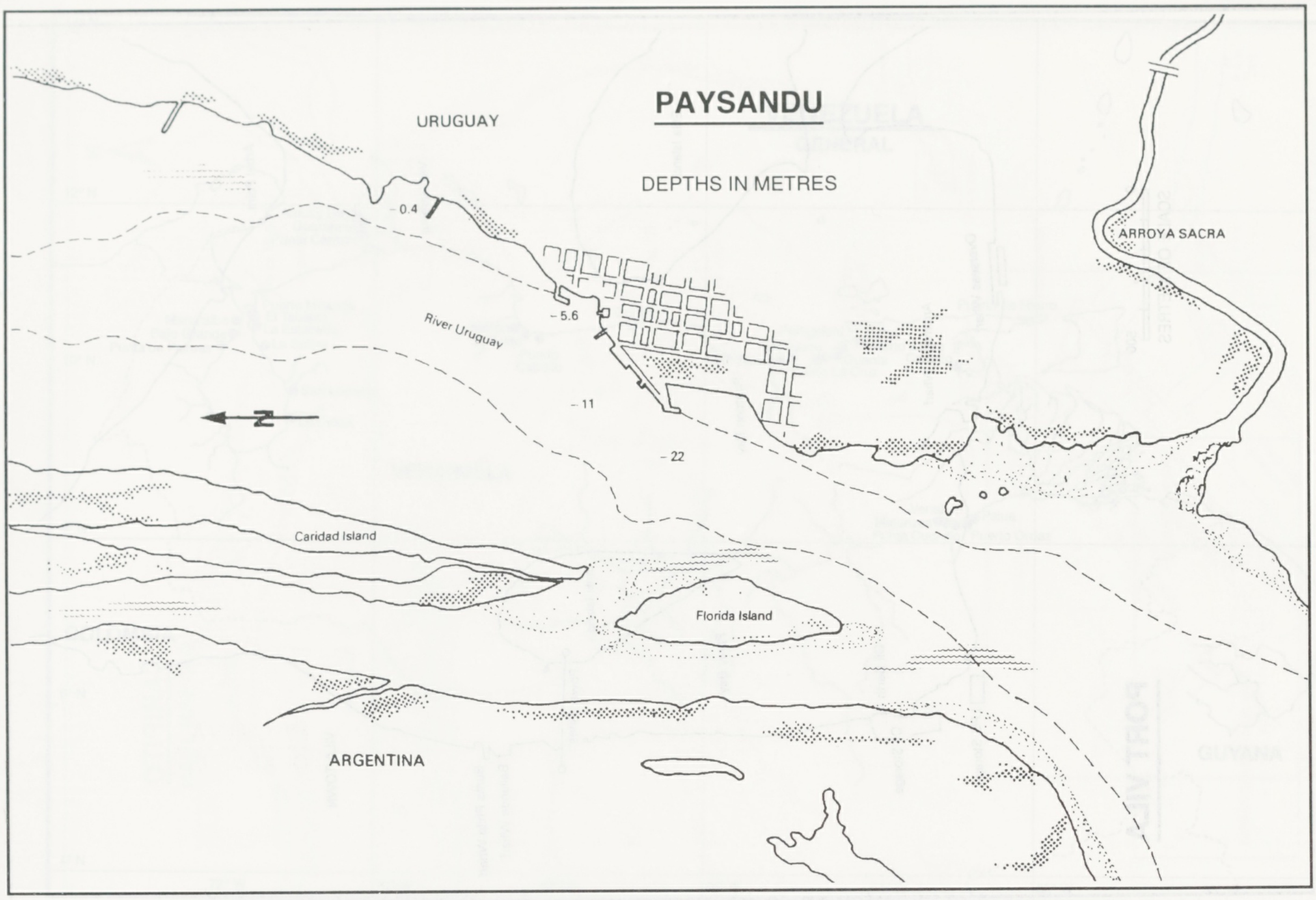
NUEVA PALMIRA

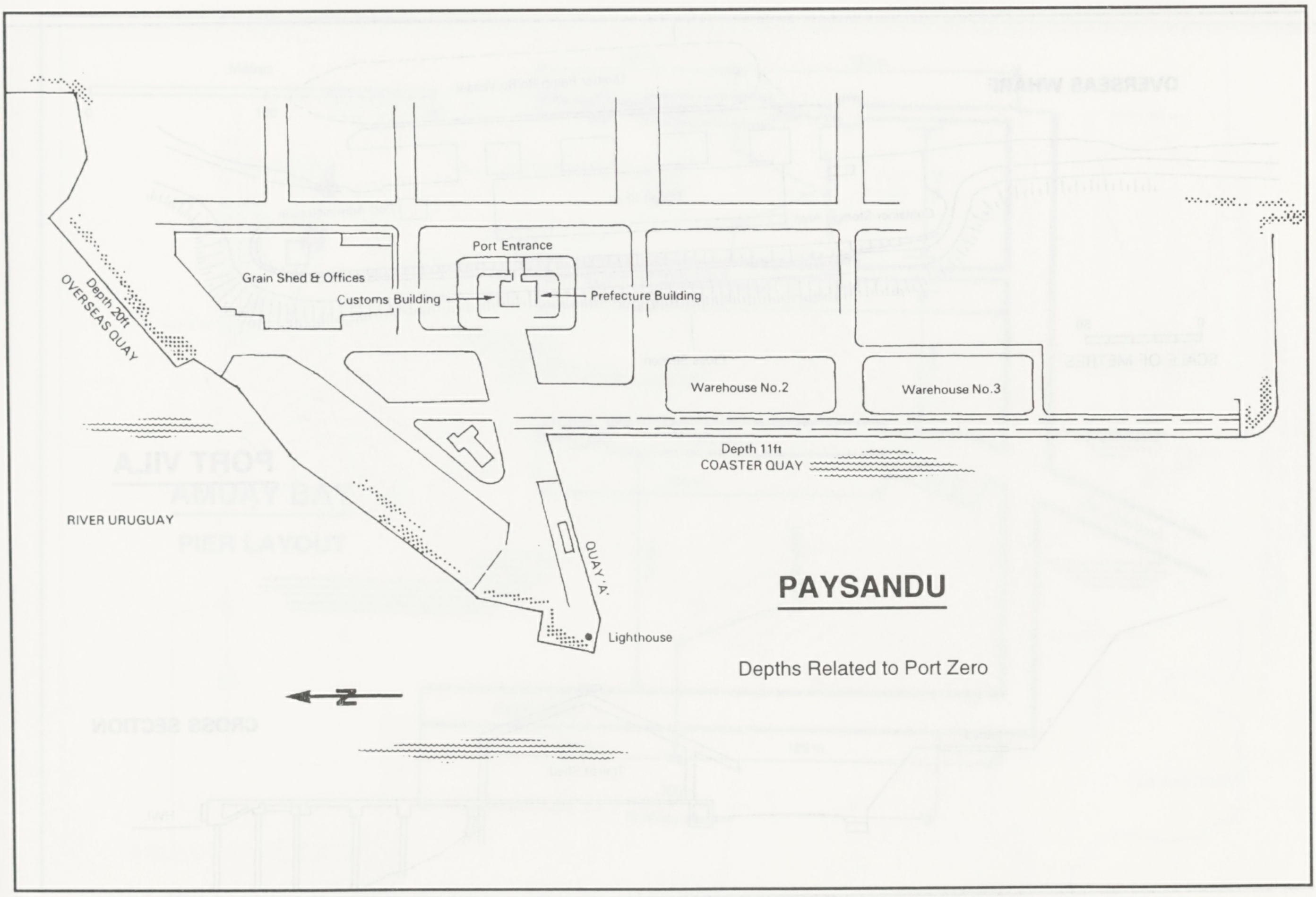
APPROACHES

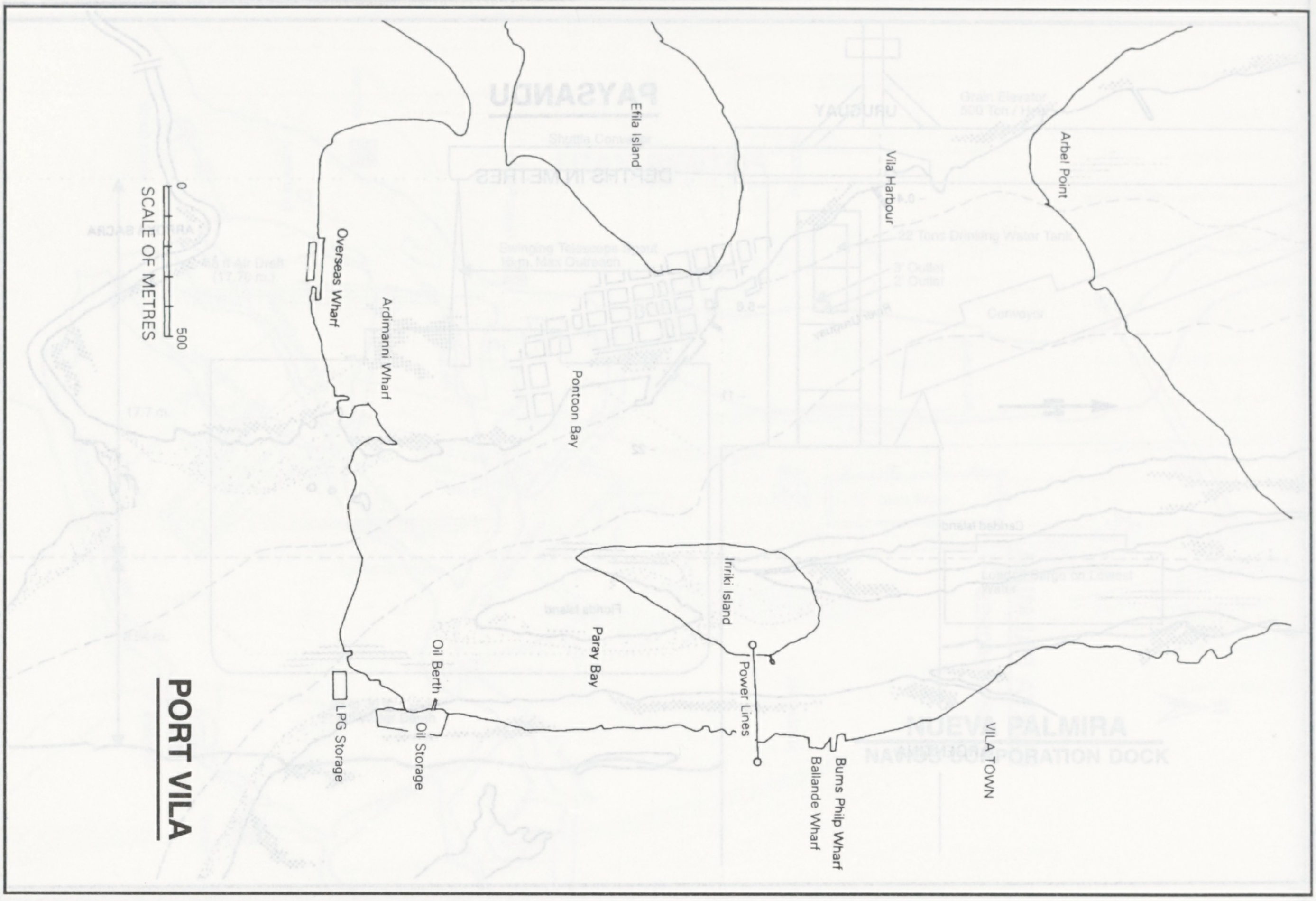
N
Rio Uruguay
ARGENTINA
URUGUAY
Rio Gutierre
Rio Parana Guazu
Rio Parana Bravo
Nueva Palmira
Rio Sauce
Rio ParanaGuazu
Carmelo
Rio Barca Grande
Ite El Maton
Rio Parana Mini
Zarate
Campana
I. Martin Garcia
Rio Parana De Las Palmas

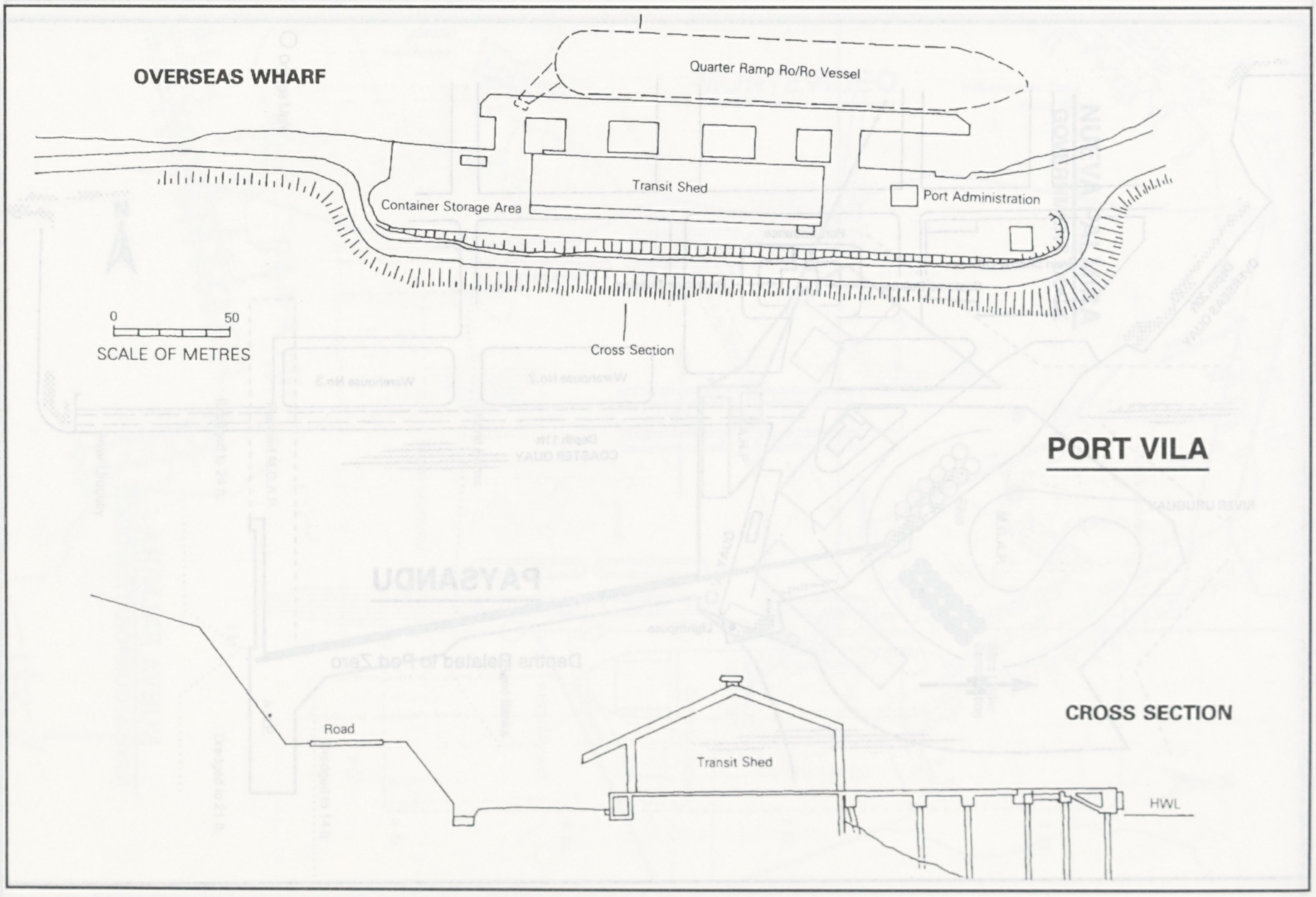

Grain Elevator
500 Ton / Hour
Shuttle Conveyor
58 ft Air Draft
(17.70 m.)
Swinging Telescope Spout
16 m. Max Outreach
22 Tons Drinking Water Tank
3' Outlet
2' Outlet
Conveyor
17.7 m.
8.54 m.
Loaded Barge on Lowest Water
- 28 to 30 ft
Fresh Water Depth
NUEVA PALMIRA
NAVIOS CORPORATION DOCK

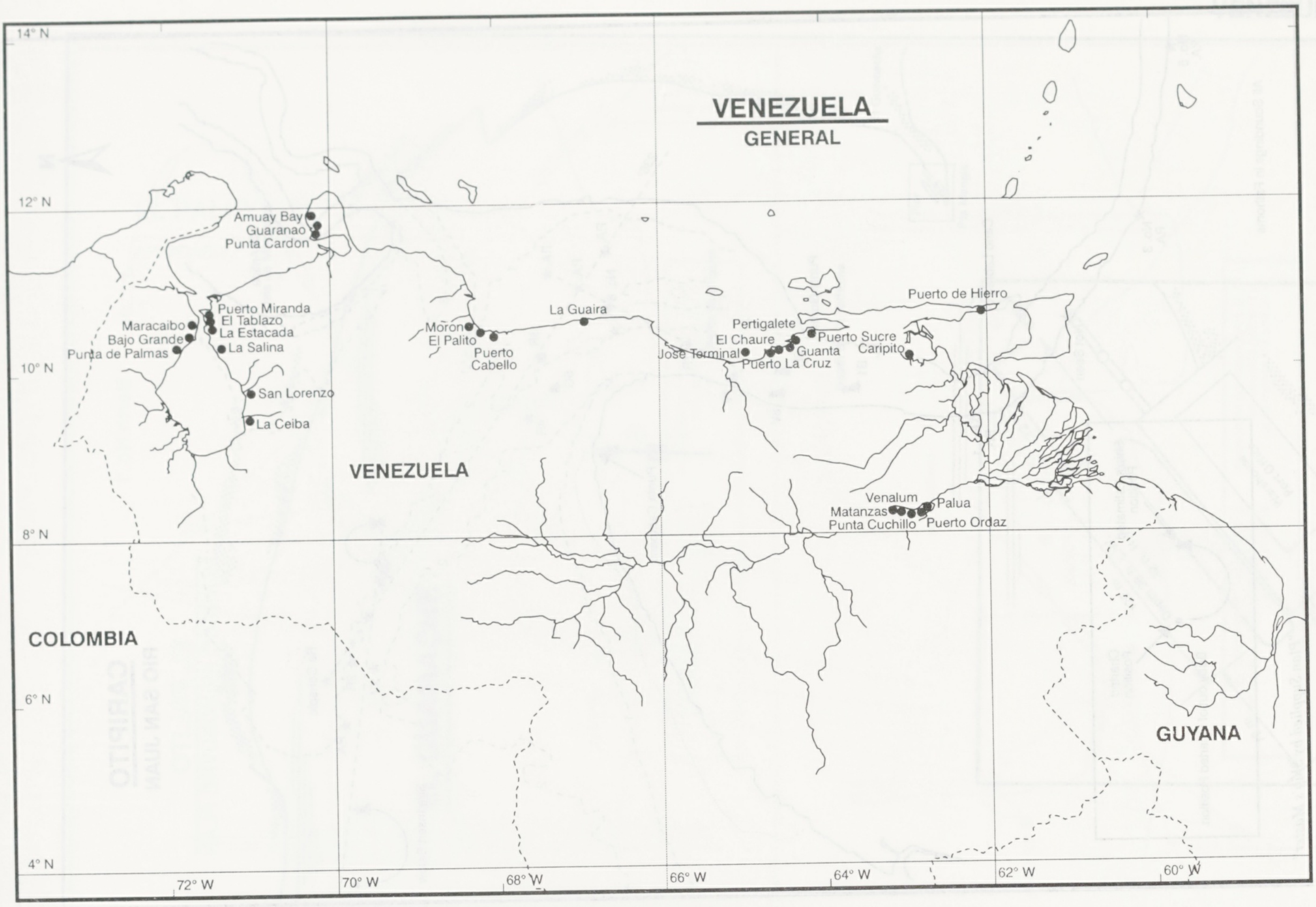

NUEVA PALMIRA
GOVERNMENT DOCK
Orange Light.
N
Planned M.G.A.P.
Dredged to 24 ft.
River Uruguay
Sand Banks
A.N.P
Silos
M.G.A.P.
Silos Under Construction
A.N.P.
Dredged to 21 ft.
Sand Banks
Dredged to 14 ft


PAYSANDU
DEPTHS IN METRES
URUGUAY
– 0.4
– 5.6
River Uruguay
– 11
– 22
ARROYA SACRA
Caridad Island
Florida Island
ARGENTINA
N


Port Entrance
Grain Shed & Offices
Customs Building
Prefecture Building
Depth 20ft
OVERSEAS QUAY
Warehouse No.2
Warehouse No.3
Depth 11ft
COASTER QUAY
RIVER URUGUAY
QUAY 'A'
Lighthouse
PAYSANDU
Depths Related to Port Zero
N

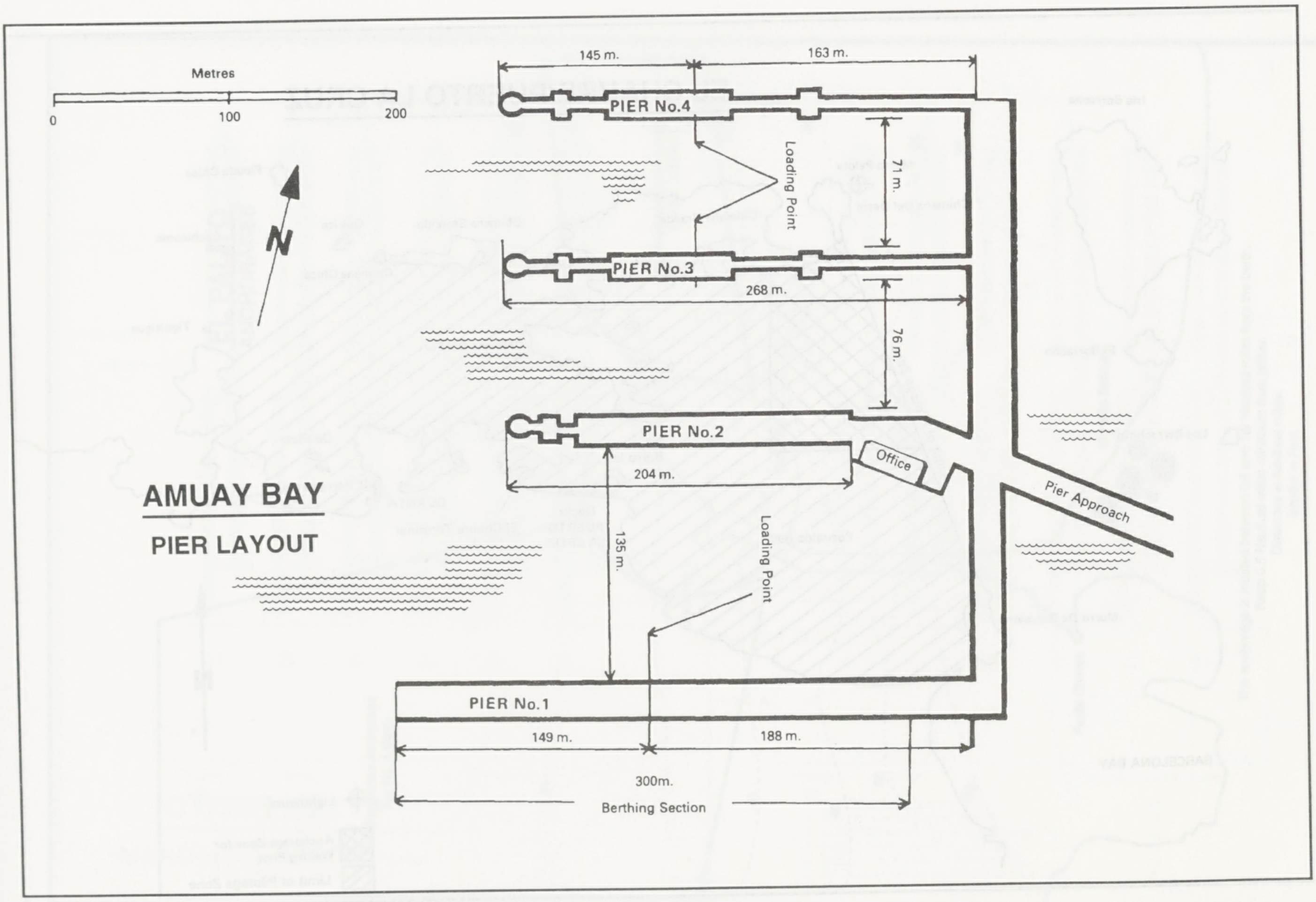

PORT VILA
SCALE OF METRES
0
500
Efila Island
Vila Harbour
Arbel Point
Overseas Wharf
Ardimanni Wharf
Pontoon Bay
Iririki Island
Paray Bay
Oil Berth
Power Lines
LPG Storage
Oil Storage
Bums Philp Wharf
Ballande Wharf
VILA TOWN


OVERSEAS WHARF
Quarter Ramp Ro/Ro Vessel
Transit Shed
Container Storage Area
Port Administration
0
50
SCALE OF METRES
Cross Section
PORT VILA
CROSS SECTION
Road
Transit Shed
HWL



VENEZUELA
GENERAL

14° N
12° N
10° N
8° N
6° N
4° N
72° W
70° W
68° W
66° W
64° W
62° W
60° W
Amuay Bay
Guaranao
Punta Cardon
Puerto Miranda
El Tablazo
La Estacada
Maracaibo
Bajo Grande
Punta de Palmas
La Salina
San Lorenzo
La Ceiba
Moron
El Palito
Puerto Cabello
La Guaira
Pertigalete
El Chaure
Jose Terminal
Puerto La Cruz
Guanta
Puerto Sucre
Caripito
Puerto de Hierro
Venalum
Matanzas
Punta Cuchillo
Palua
Puerto Ordaz
VENEZUELA
COLOMBIA
GUYANA

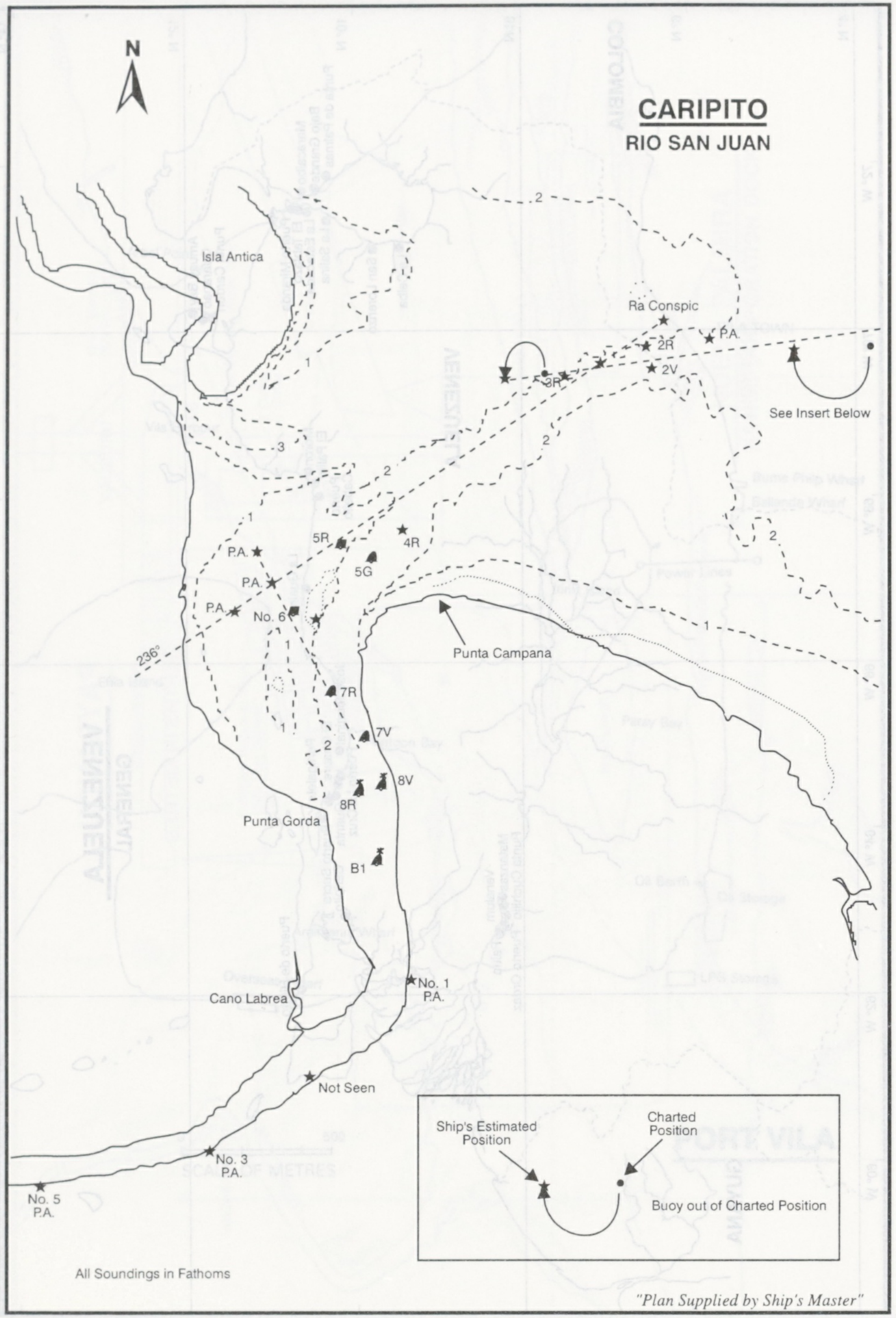


AMUAY BAY
PIER LAYOUT

Metres
0
100
200
N
145 m.
163 m.
PIER No.4
Loading Point
71 m.
PIER No.3
268 m.
76 m.
PIER No.2
Office
204 m.
Pier Approach
Loading Point
135 m.
PIER No.1
149 m.
188 m.
300m.
Berthing Section

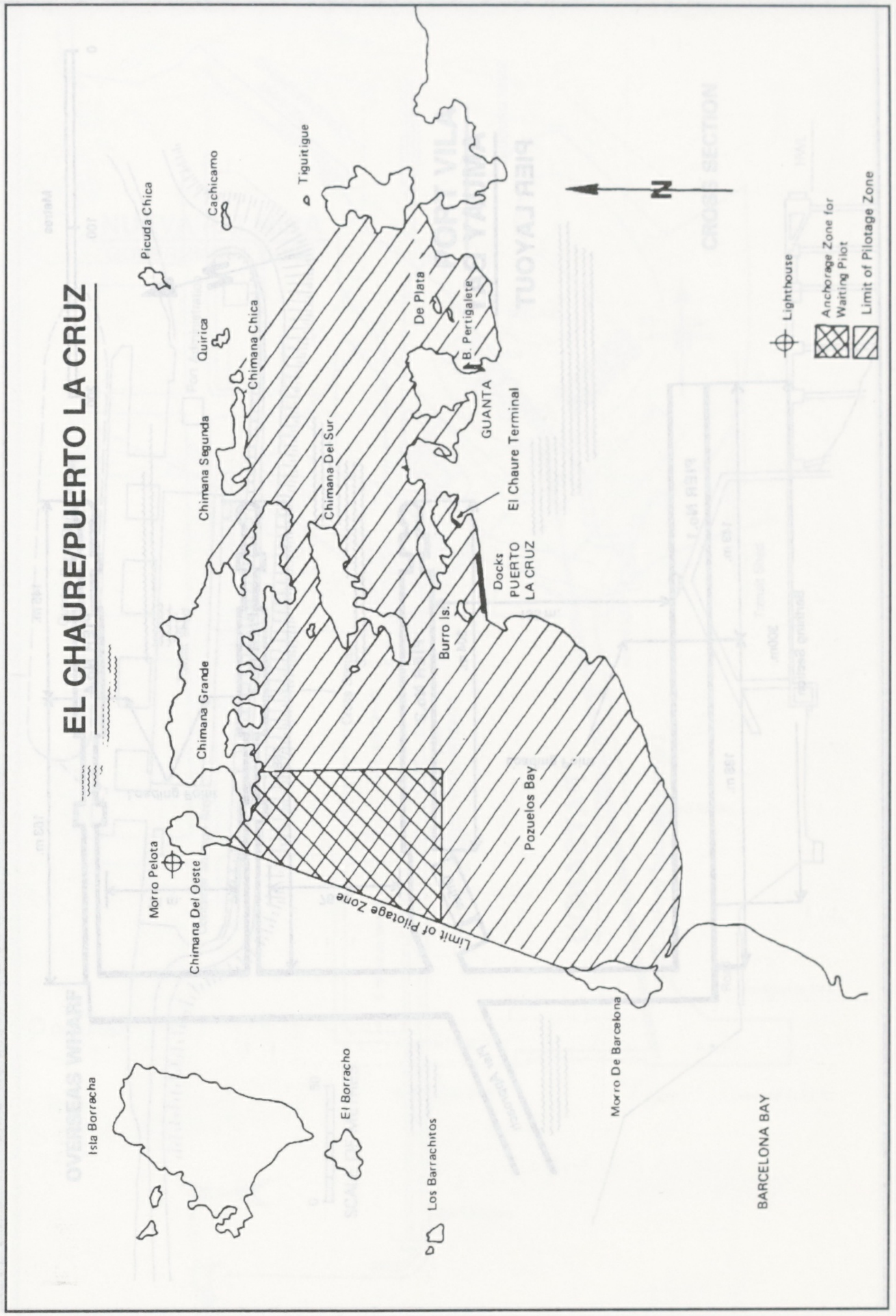
CARIPITO

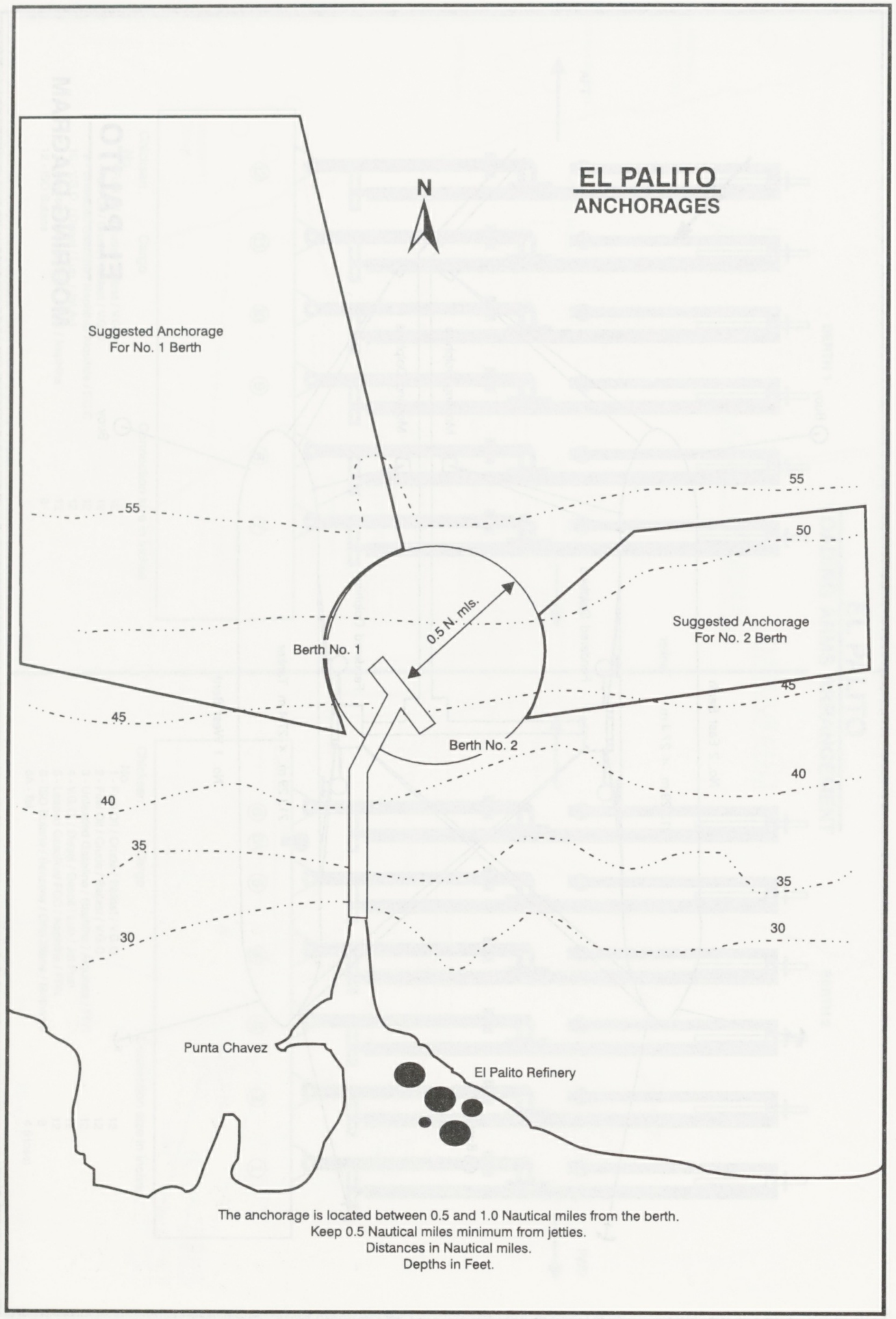
RIO SAN JUAN


N
Isla Antica
Ra Conspic
P.A.
2R
2V
3R
See Insert Below
5R
4R
5G
P.A.
P.A.
P.A.
No. 6
236°
Punta Campana
7R
7V
8V
8R
Punta Gorda
B1
No. 1 P.A.
Cano Labrea
Not Seen
No. 3 P.A.
No. 5 P.A.
Ship's Estimated Position
Charted Position
Buoy out of Charted Position
All Soundings in Fathoms

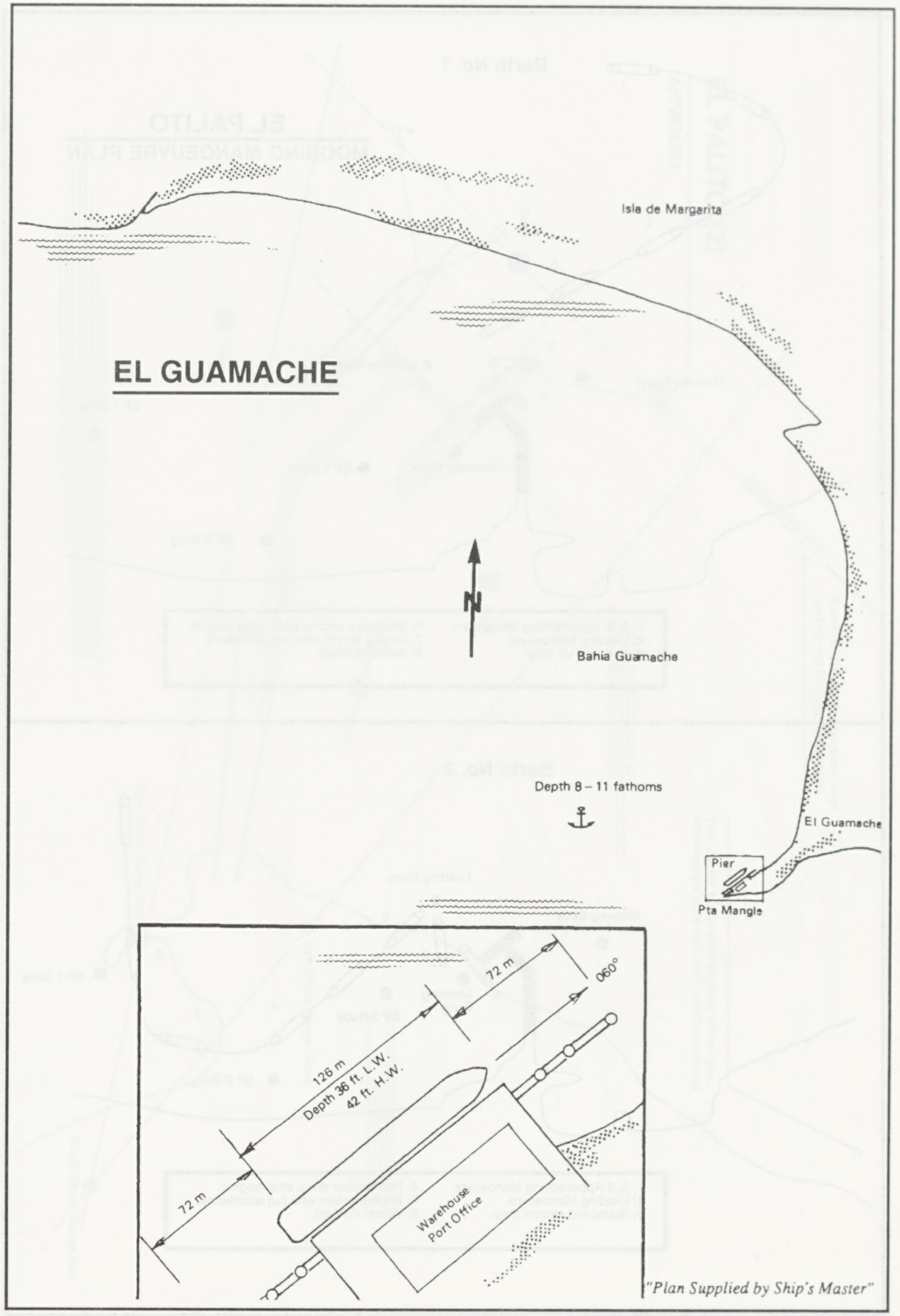
"Plan Supplied by Ship's Master"

EL CHAURE/PUERTO LA CRUZ


N
Picuda Chica
Cachicamo
Tiguitigue
Quirica
Chimana Chica
Chimana Segunda
Chimana Del Sur
De Plata
B. Pertigalete
GUANTA
El Chaure Terminal
Docks
PUERTO LA CRUZ
Burro Is.
Chimana Grande
Morro Pelota
Chimana Del Oeste
Pozuelos Bay
Limit of Pilotage Zone
Isla Borracha
El Borracho
Los Barrachitos
Morro De Barcelona
BARCELONA BAY
Lighthouse
Anchorage Zone for Waiting Pilot
Limit of Pilotage Zone


EL PALITO
ANCHORAGES
N
Suggested Anchorage For No. 1 Berth
Suggested Anchorage For No. 2 Berth
0.5 N. mls.
Berth No. 1
Berth No. 2
55
55
50
45
45
40
40
35
35
30
30
Punta Chavez
El Palito Refinery

The anchorage is located between 0.5 and 1.0 Nautical miles from the berth.
Keep 0.5 Nautical miles minimum from jetties.
Distances in Nautical miles.
Depths in Feet.

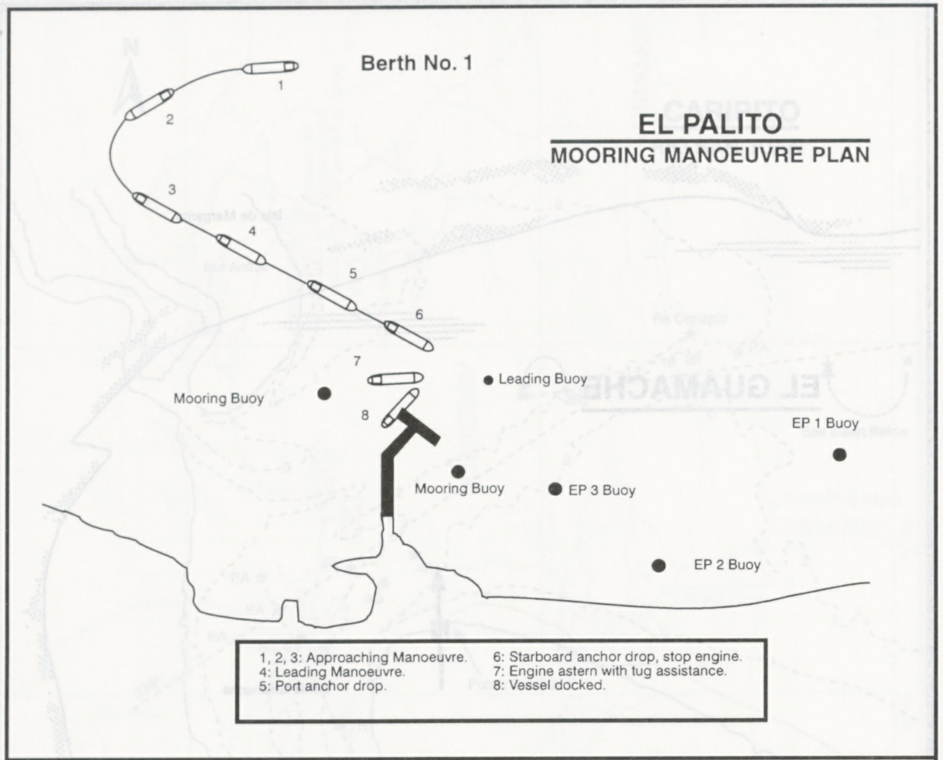

EL GUAMACHE
Isla de Margarita
N
Bahia Guamache
Depth 8 – 11 fathoms
El Guamache
Pier
Pta Mangle
72 m
060°
126 m
Depth 36 ft. L.W.
42 ft. H.W.
72 m
Warehouse
Port Office

"Plan Supplied by Ship's Master"

EL PALITO

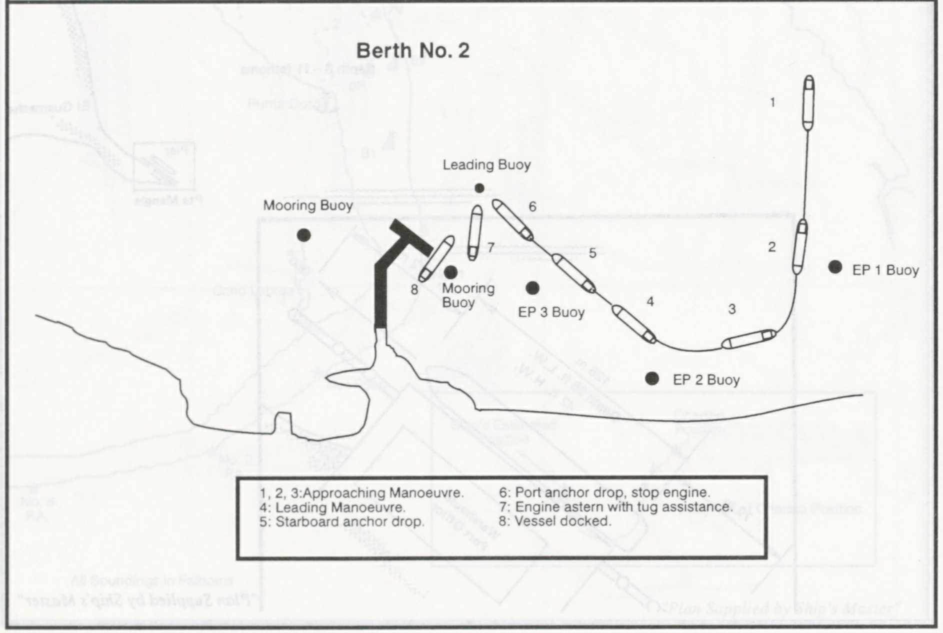
MOORING MANOEUVRE PLAN

Berth No. 1


1
2
3
4
5
6
7
8
Mooring Buoy
Leading Buoy
EP 1 Buoy
Mooring Buoy
EP 3 Buoy
EP 2 Buoy

1, 2, 3: Approaching Manoeuvre.
4: Leading Manoeuvre.
5: Port anchor drop.
6: Starboard anchor drop, stop engine.
7: Engine astern with tug assistance.
8: Vessel docked.

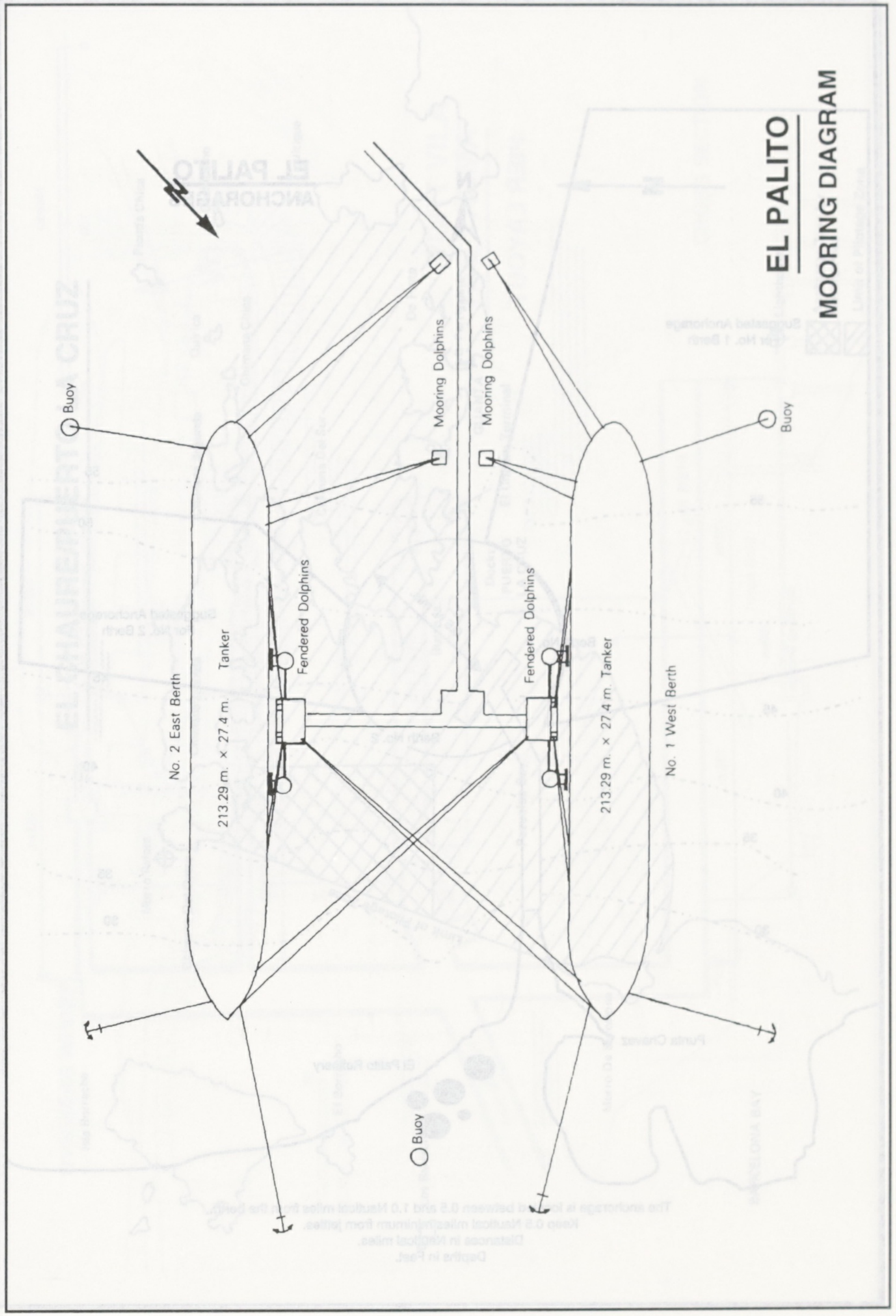
Berth No. 2


1
2
3
4
5
6
7
8
Leading Buoy
Mooring Buoy
Mooring Buoy
EP 1 Buoy
EP 3 Buoy
EP 2 Buoy

1, 2, 3:Approaching Manoeuvre.
4: Leading Manoeuvre.
5: Starboard anchor drop.
6: Port anchor drop, stop engine.
7: Engine astern with tug assistance.
8: Vessel docked.

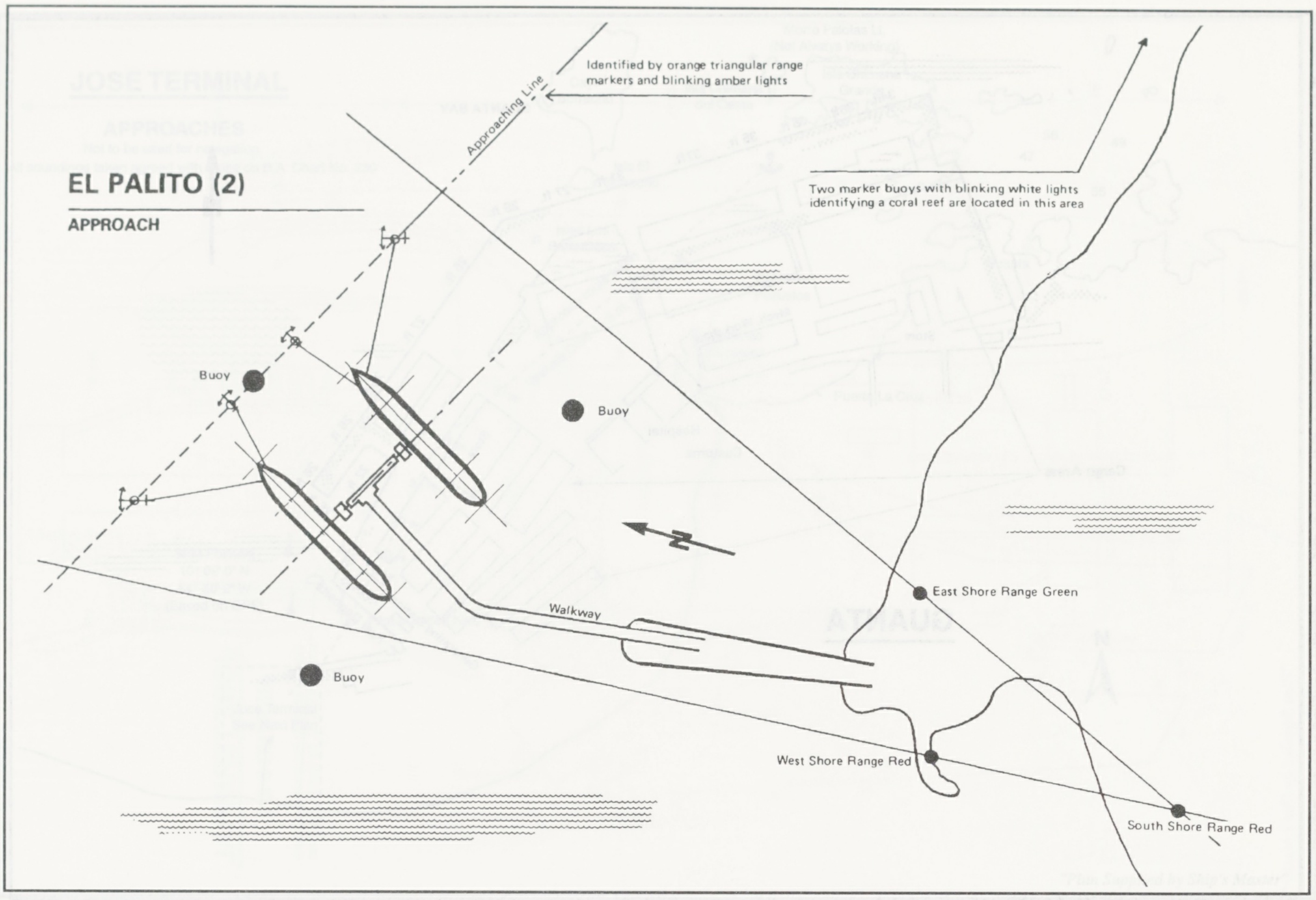
EL PALITO

MOORING DIAGRAM


Buoy
Mooring Dolphins
Mooring Dolphins
Fendered Dolphins
Fendered Dolphins
No. 2 East Berth
213.29 m. × 27.4 m. Tanker
213.29 m. × 27.4 m. Tanker
No. 1 West Berth
Buoy
Buoy

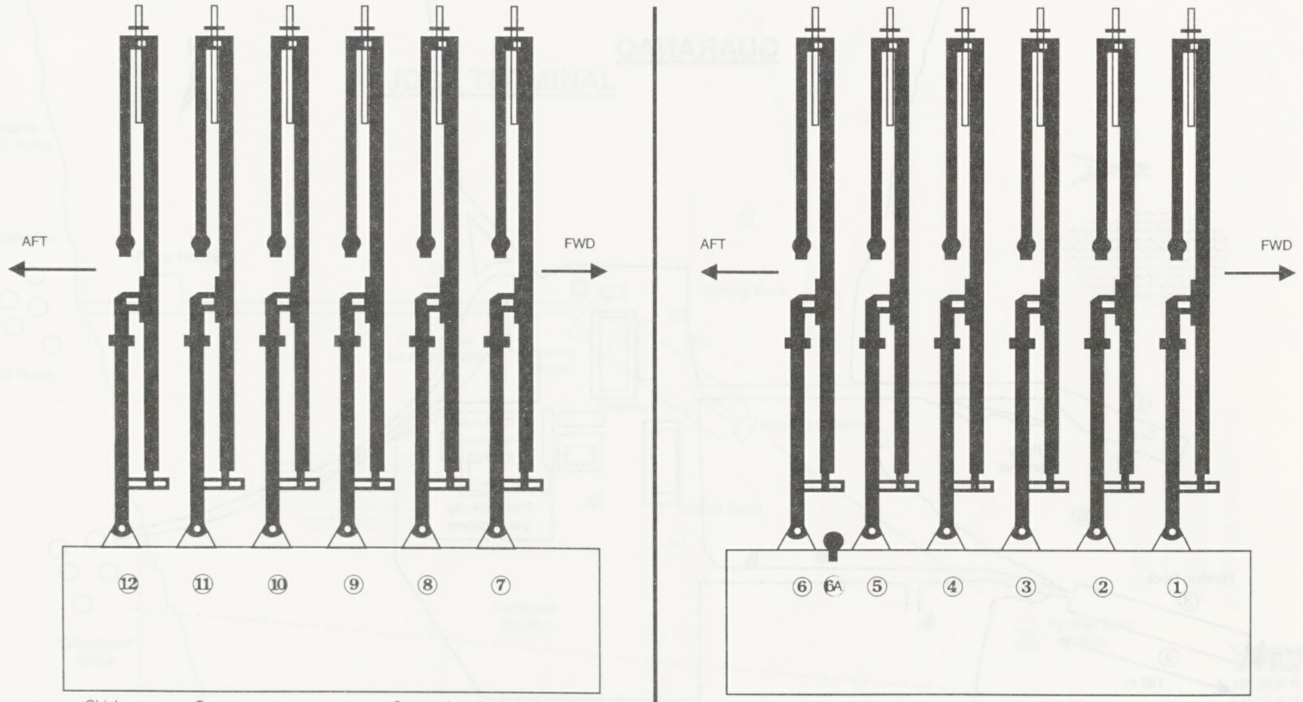
EL PALITO (2)

APPROACH


Identified by orange triangular range markers and blinking amber lights
Approaching Line
Two marker buoys with blinking white lights identifying a coral reef are located in this area
Buoy
Buoy
Buoy
Walkway
East Shore Range Green
West Shore Range Red
South Shore Range Red

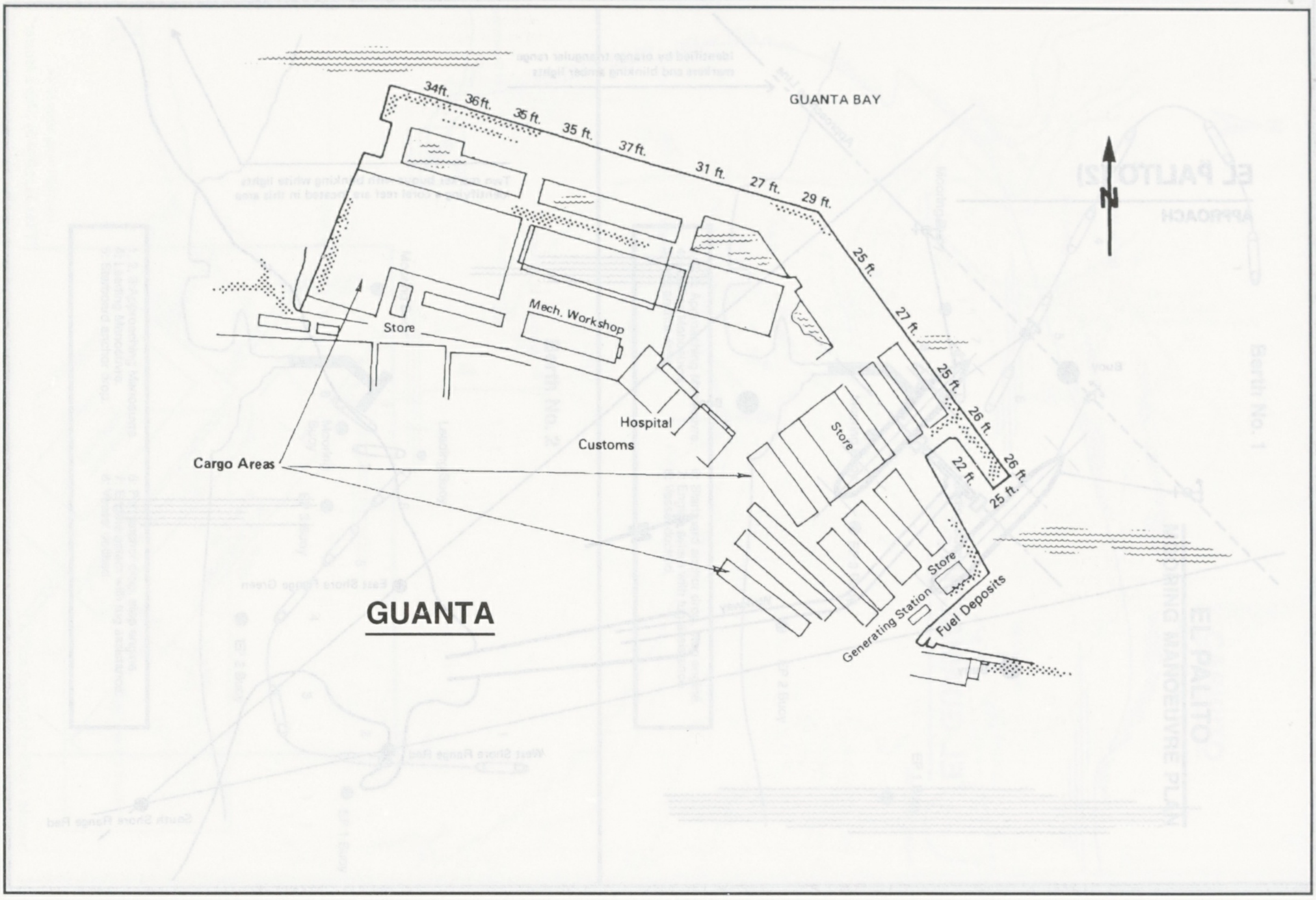
EL PALITO

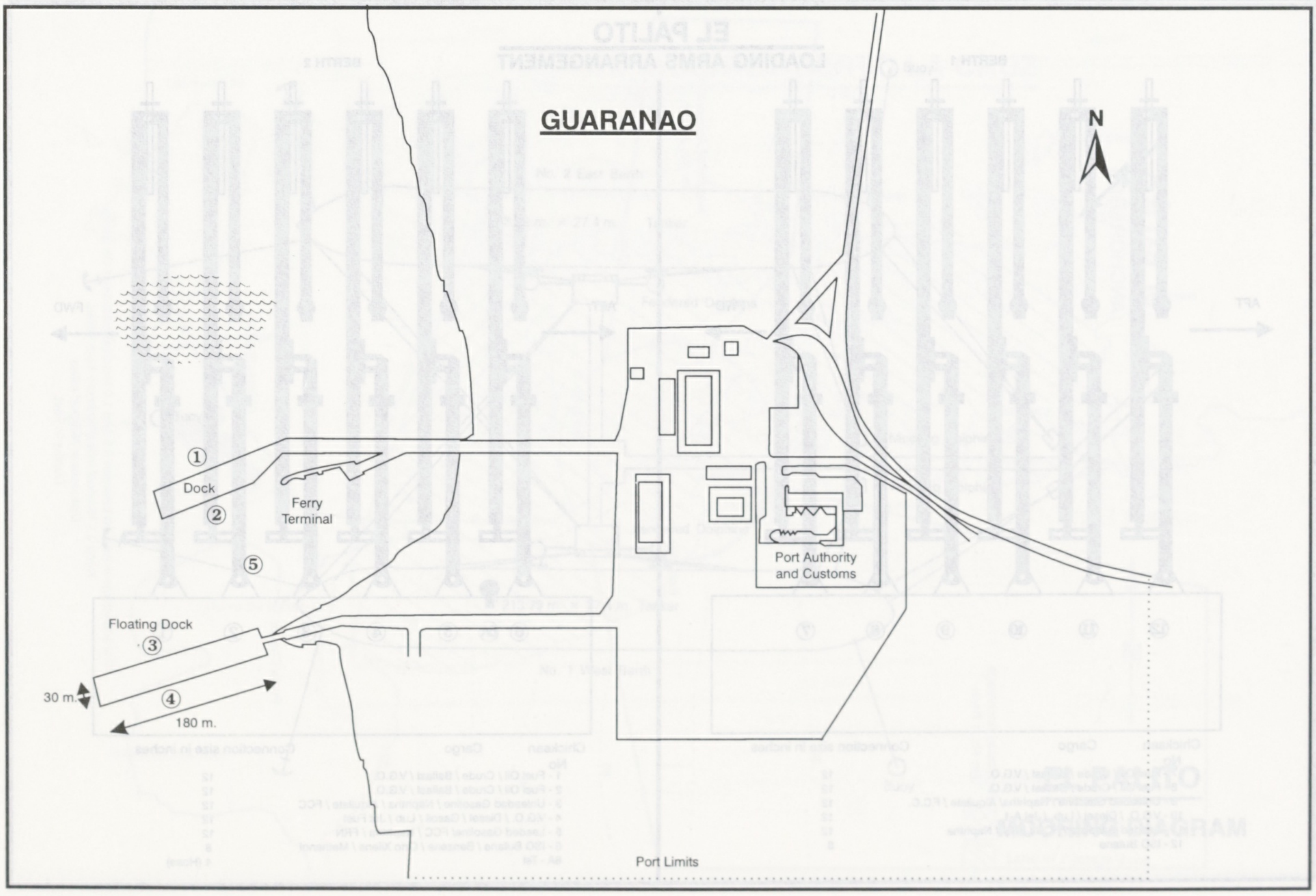
LOADING ARMS ARRANGEMENT

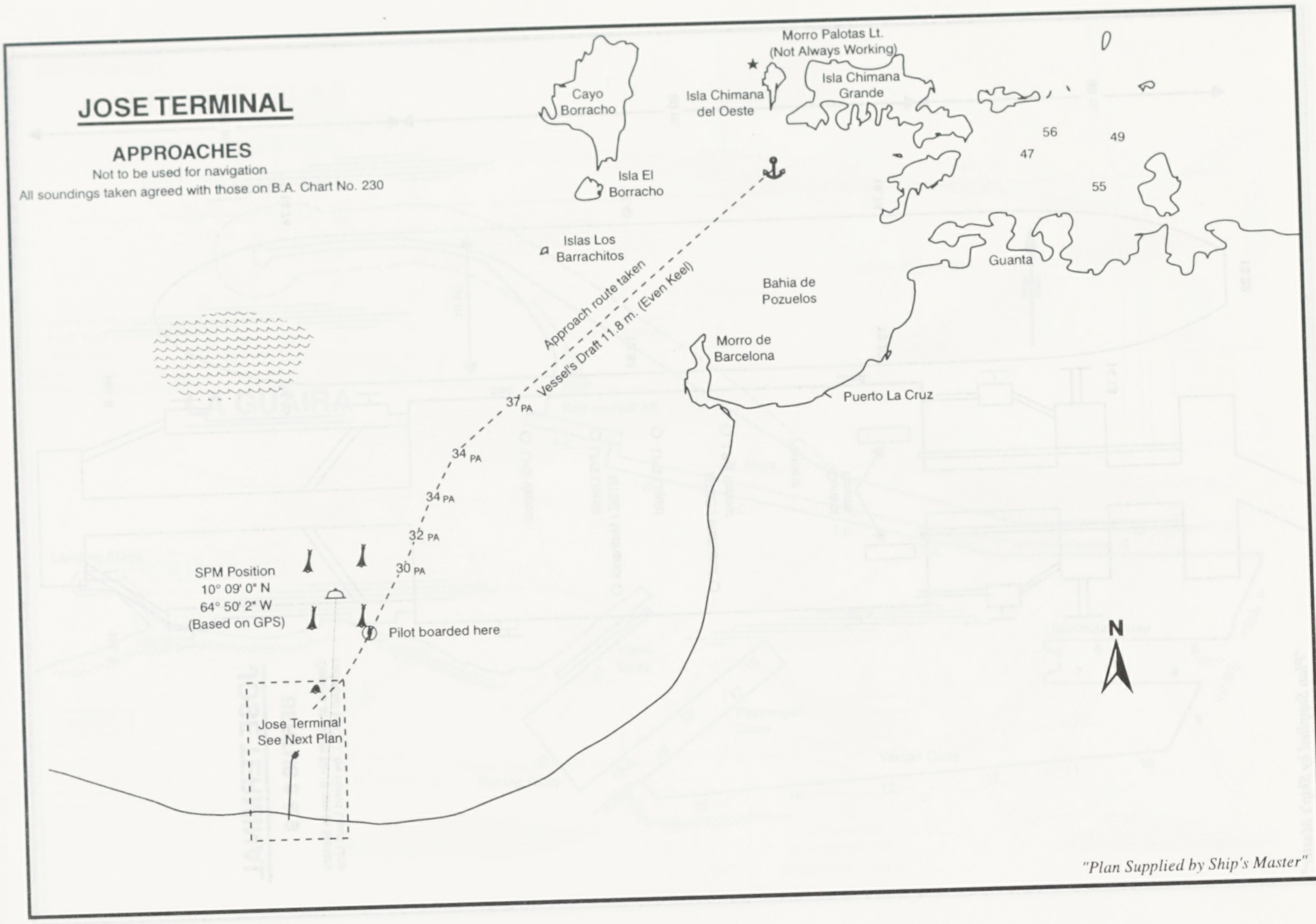

BERTH 1
BERTH 2
AFT
FWD
AFT
FWD
⑫ ⑪ ⑩ ⑨ ⑧ ⑦
⑥ 6A ⑤ ④ ③ ② ①

Chicksan No	Cargo	Connection size in inches
7	Fuel Oil / Crude / Ballast / V.G.O.	12
8	Fuel Oil / Crude / Ballast / V.G.O.	12
9	Unleaded Gasoline / Naphtha/ Alquilate / F.C.C.	12
10	V.G.O. / Diesel / Lub. / Jet A-1	12
11	Leaded Gasoline / FCC / FRN / Naphtha	12
12	ISO Butane	8

Chicksan No	Cargo	Connection size in inches
1	Fuel Oil / Crude / Ballast / V.G.O.	12
2	Fuel Oil / Crude / Ballast / V.G.O.	12
3	Unleaded Gasoline / Naphtha / Alquilate / FCC	12
4	V.G.O. / Diesel / Gasoil / Lub / Jet Fuel	12
5	Leaded Gasoline/ FCC / Naphtha / FRN	12
6	ISO Butane / Benzene / Orto Xilene / Methanol	8
6A	Tel	4 (Hose)


GUANTA BAY
N
34ft.
36ft.
35 ft.
35 ft.
37ft.
31 ft.
27 ft.
29 ft.
25 ft.
27 ft.
25 ft.
26 ft.
26 ft.
22 ft.
25 ft.
Store
Mech. Workshop
Hospital
Customs
Cargo Areas
Store
Store
Generating Station
Fuel Deposits
GUANTA


GUARANAO
N
①
Dock
②
Ferry Terminal
⑤
Floating Dock
③
30 m.
④
180 m.
Port Authority and Customs
Port Limits



JOSE TERMINAL

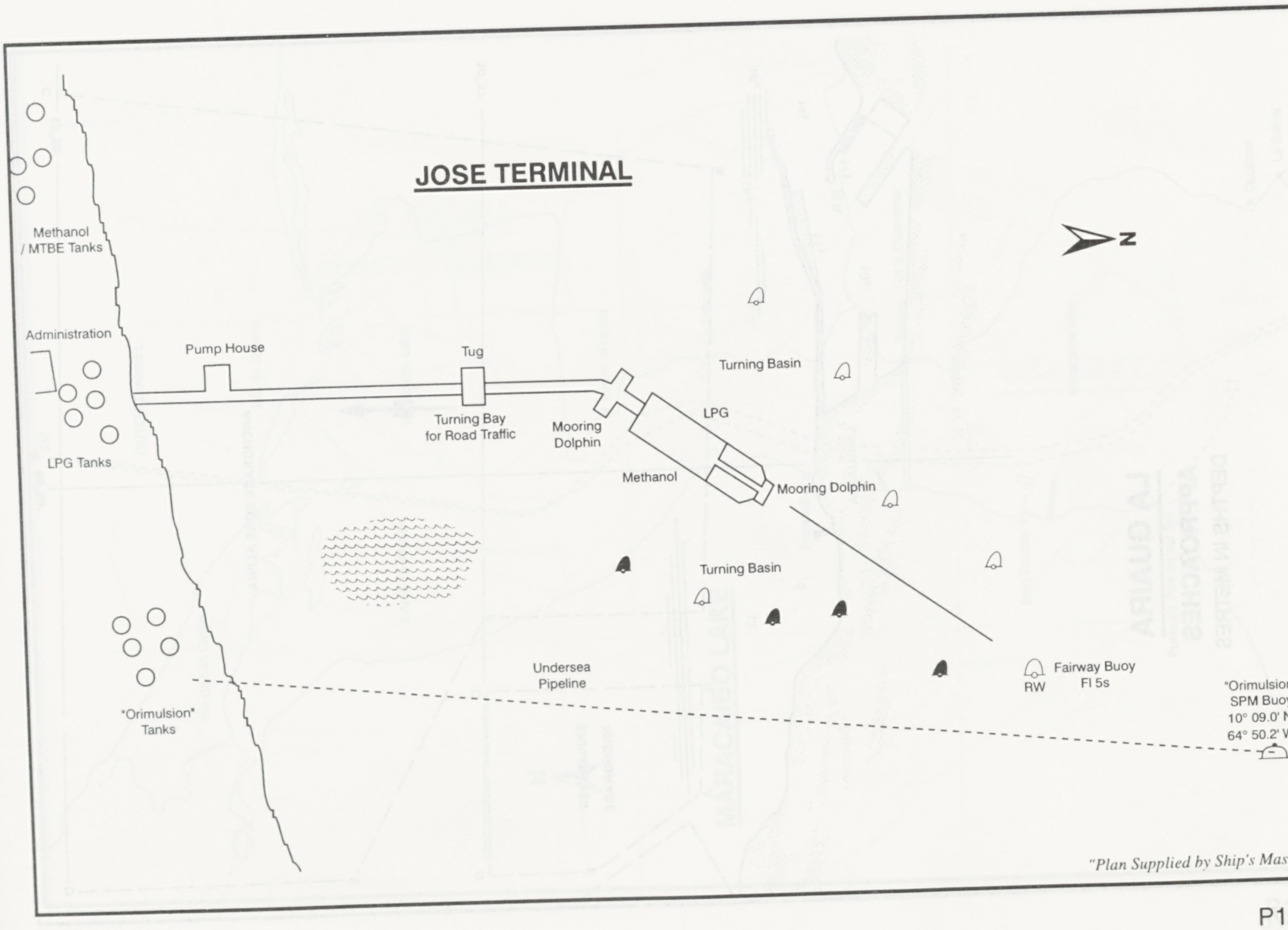
APPROACHES

Not to be used for navigation

All soundings taken agreed with those on B.A. Chart No. 230

Cayo Borracho
Isla El Borracho
Islas Los Barrachitos
Morro Palotas Lt. (Not Always Working)
Isla Chimana del Oeste
Isla Chimana Grande
56
49
47
55
Guanta
Bahia de Pozuelos
Morro de Barcelona
Puerto La Cruz
Approach route taken
Vessel's Draft 11.8 m. (Even Keel)
37 PA
34 PA
34 PA
32 PA
30 PA
SPM Position
10° 09' 0" N
64° 50' 2" W
(Based on GPS)
Pilot boarded here
Jose Terminal
See Next Plan
N

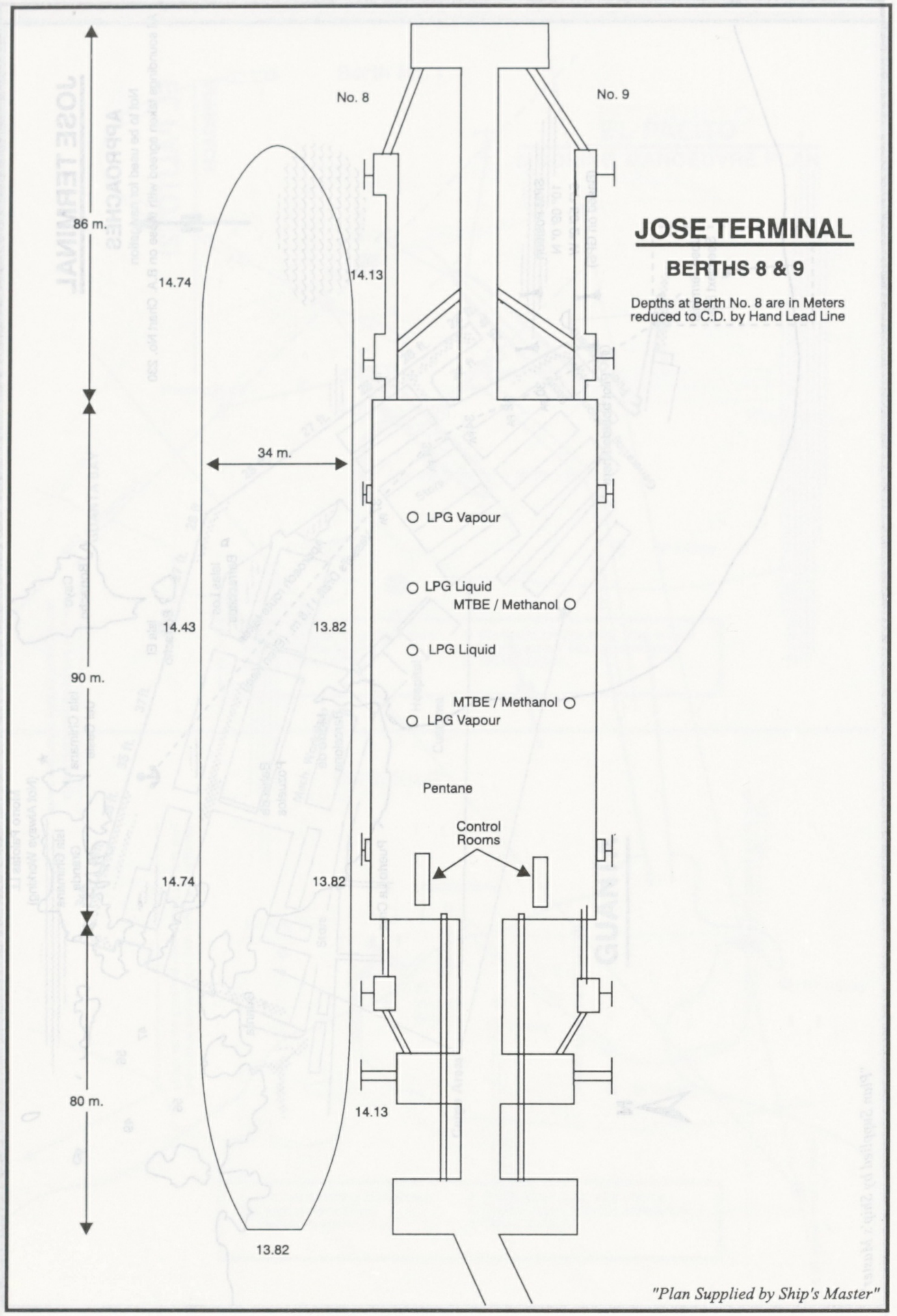
"Plan Supplied by Ship's Master"



JOSE TERMINAL

Methanol / MTBE Tanks
Administration
Pump House
Tug
Turning Bay for Road Traffic
Mooring Dolphin
LPG
Turning Basin
Methanol
Mooring Dolphin
LPG Tanks
Turning Basin
Undersea Pipeline
Fairway Buoy
RW
Fl 5s
"Orimulsion" Tanks
"Orimulsion" SPM Buoy
10° 09.0' N
64° 50.2' W
N

"Plan Supplied by Ship's Mas



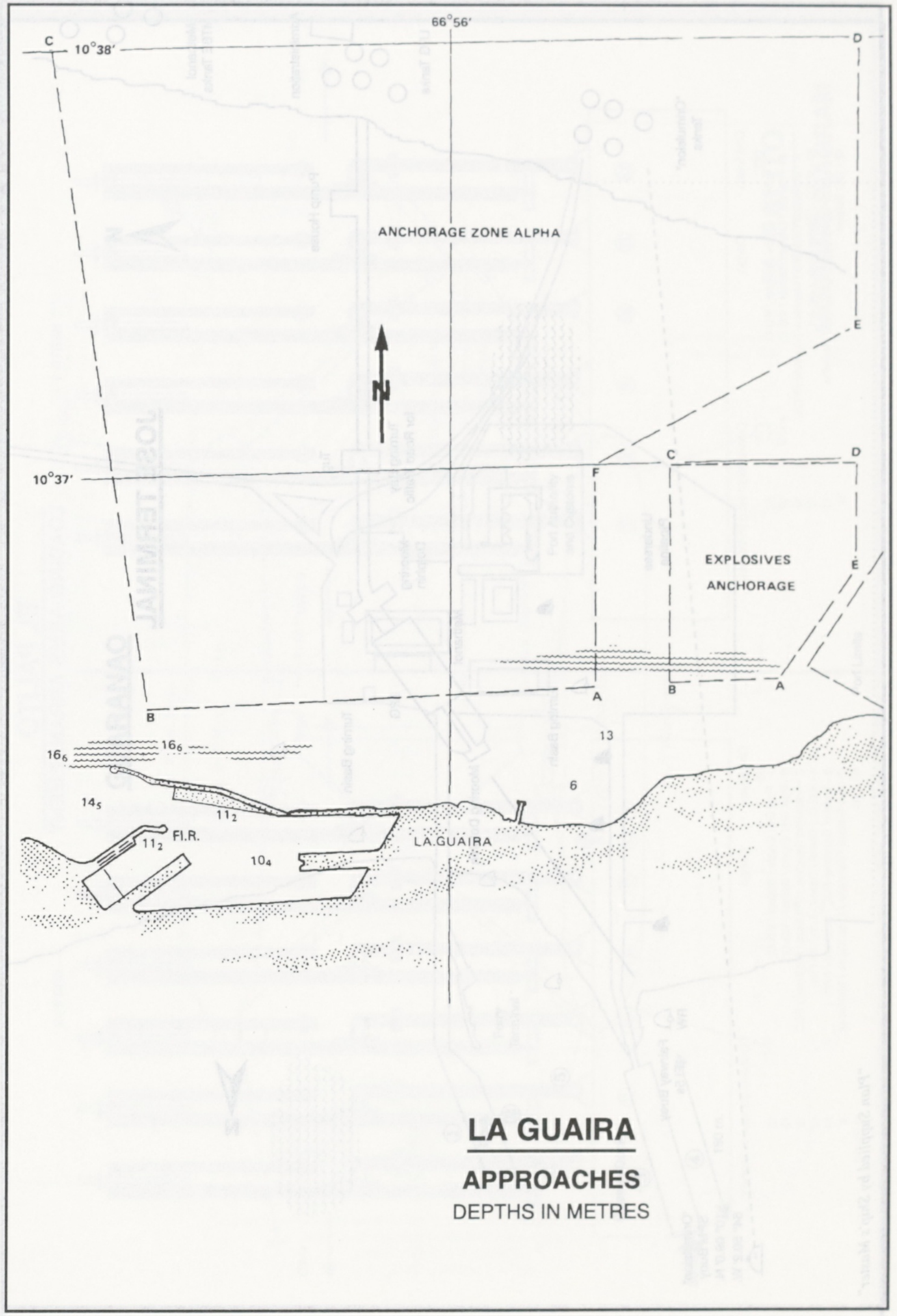
JOSE TERMINAL

BERTHS 8 & 9

Depths at Berth No. 8 are in Meters reduced to C.D. by Hand Lead Line

No. 8
No. 9
86 m.
14.74
14.13
34 m.
LPG Vapour
LPG Liquid
MTBE / Methanol
14.43
13.82
90 m.
LPG Liquid
MTBE / Methanol
LPG Vapour
Pentane
Control Rooms
14.74
13.82
80 m.
14.13
13.82

"Plan Supplied by Ship's Master"

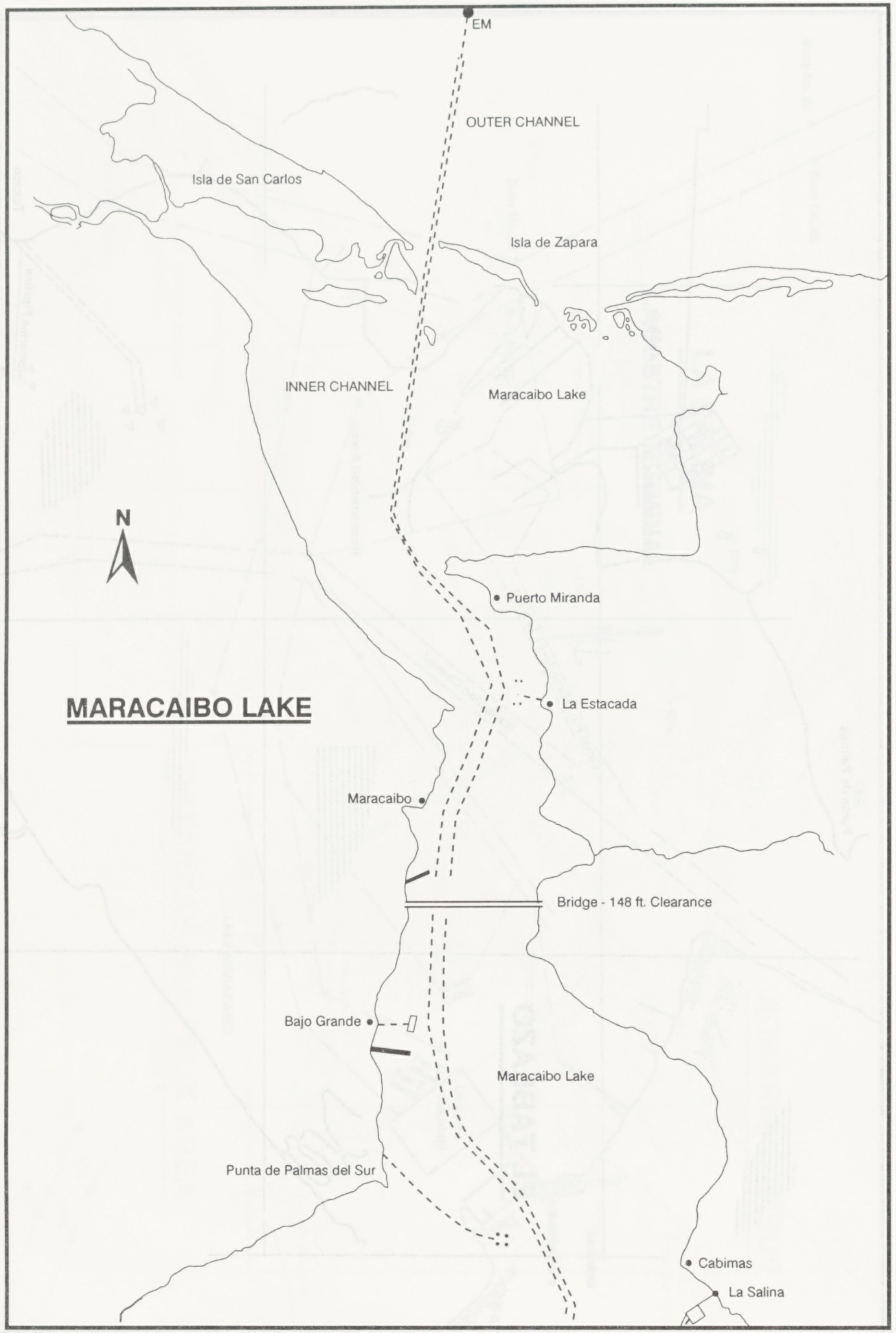


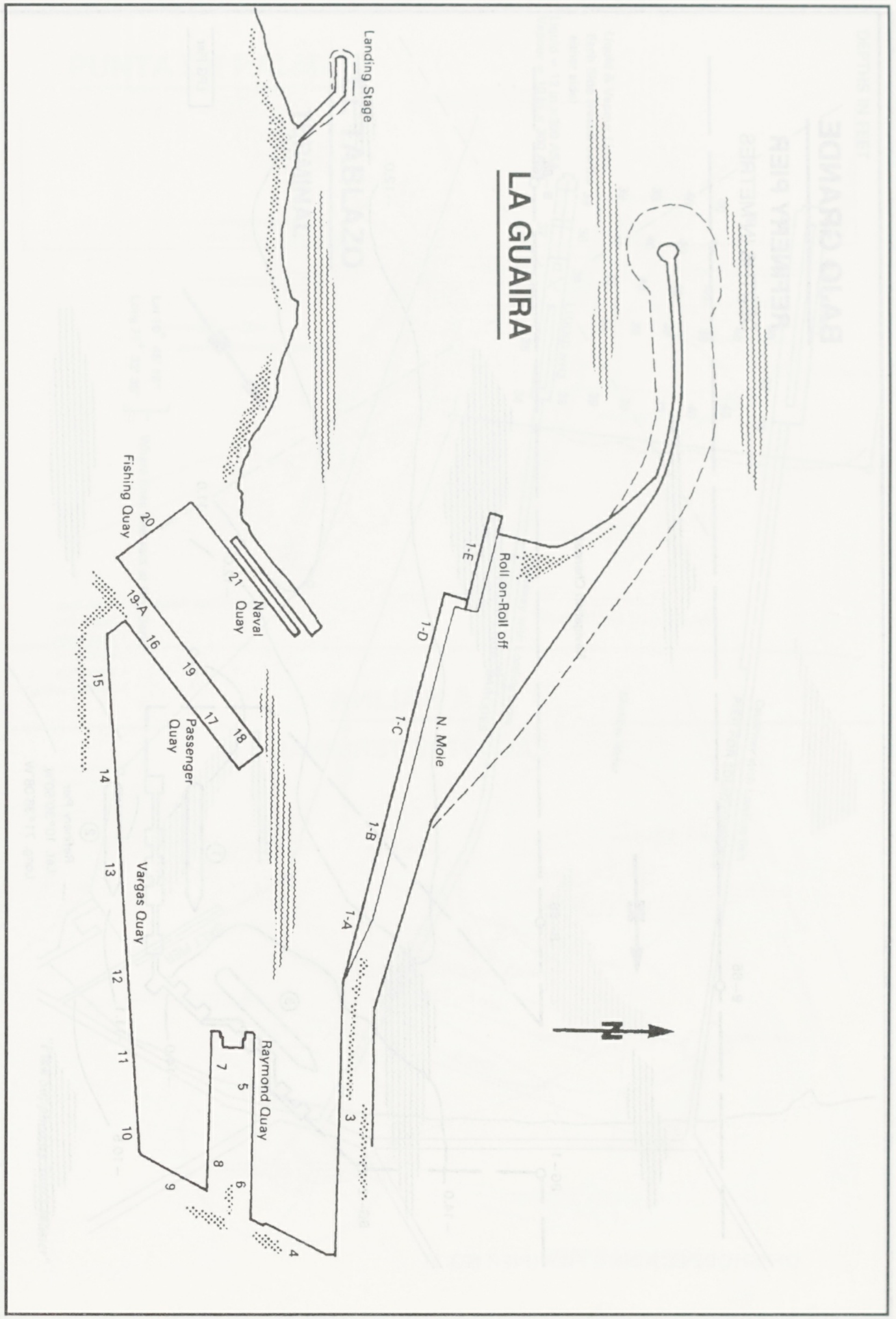
LA GUAIRA

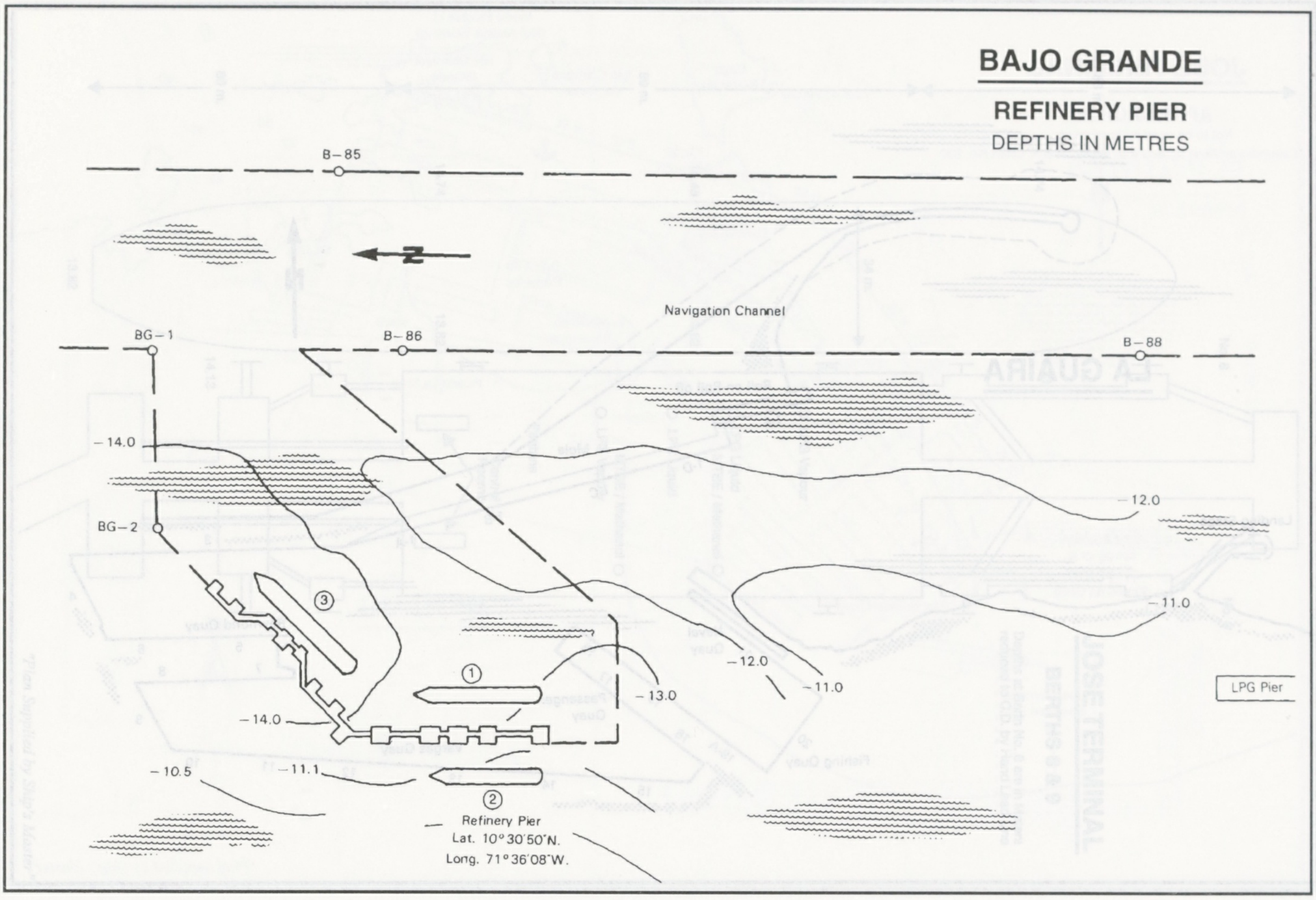
APPROACHES

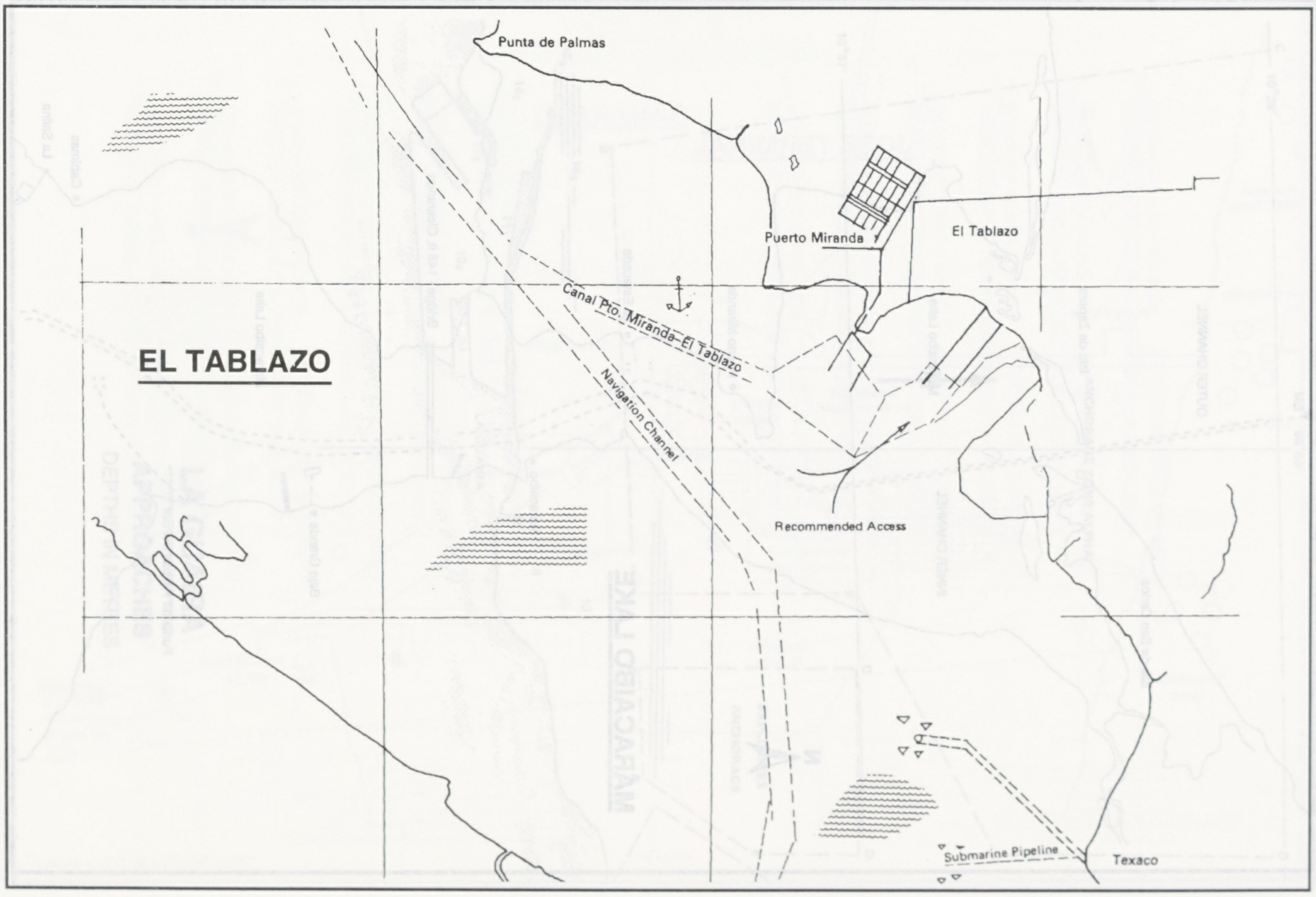
DEPTHS IN METRES

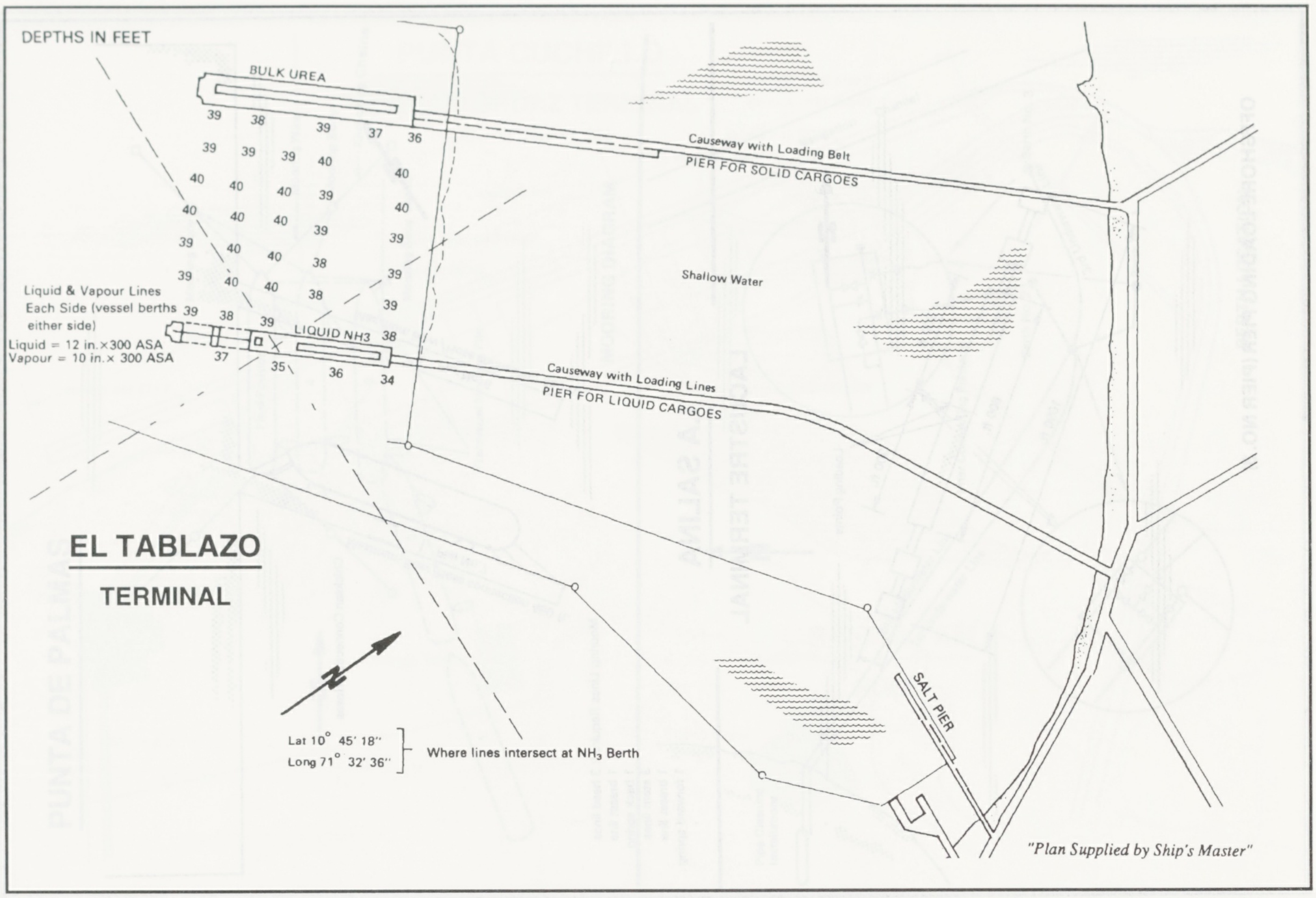
66°56′
C
10°38′
D
ANCHORAGE ZONE ALPHA
N
E
10°37′
F
C
D
EXPLOSIVES ANCHORAGE
E
A
B
A
B
13
16_6
16_6
6
14_5
11_2
Fl.R.
11_2
10_4
LA.GUAIRA

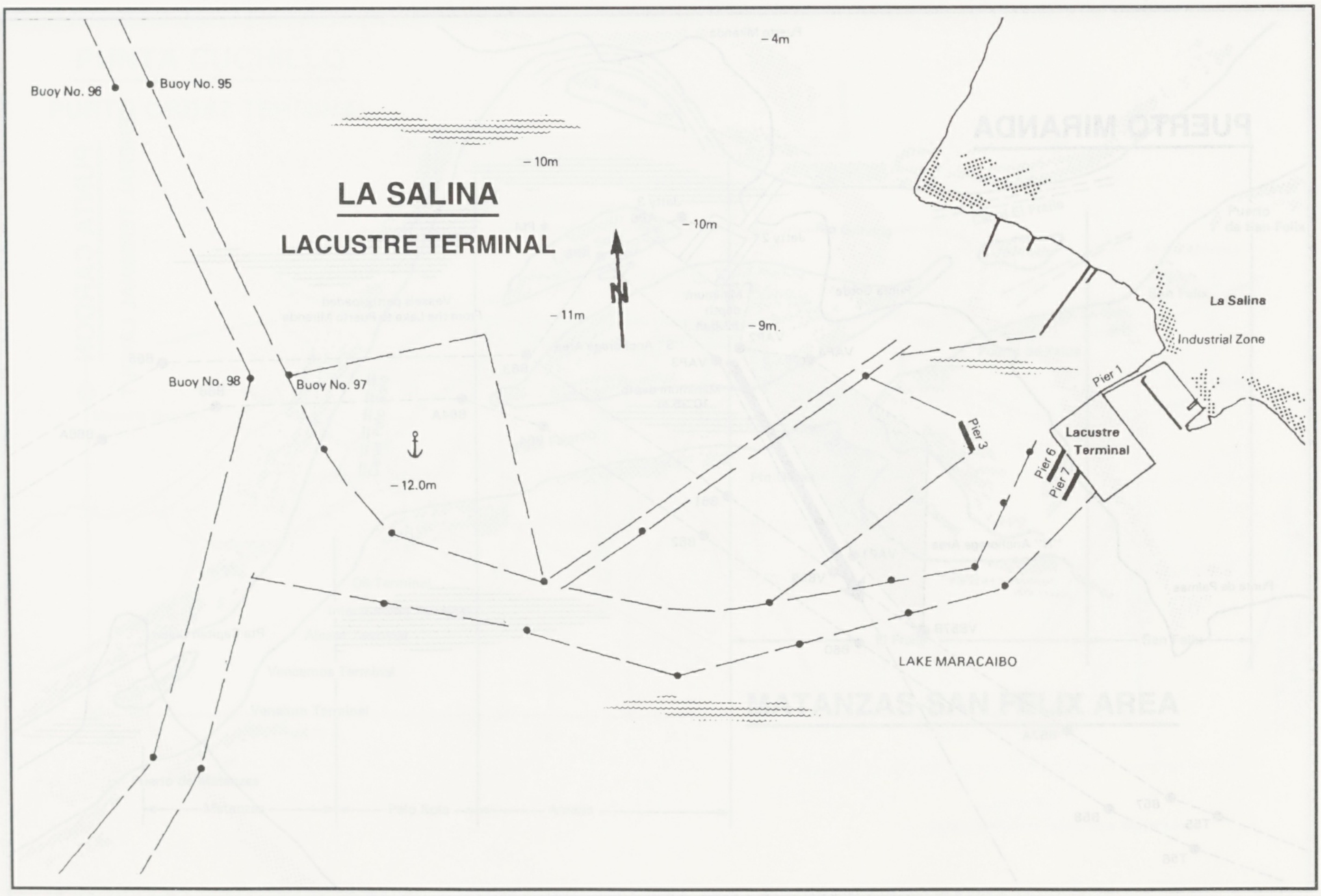

MARACAIBO LAKE
N
EM
OUTER CHANNEL
Isla de San Carlos
Isla de Zapara
INNER CHANNEL
Maracaibo Lake
Puerto Miranda
La Estacada
Maracaibo
Bridge - 148 ft. Clearance
Bajo Grande
Maracaibo Lake
Punta de Palmas del Sur
Cabimas
La Salina

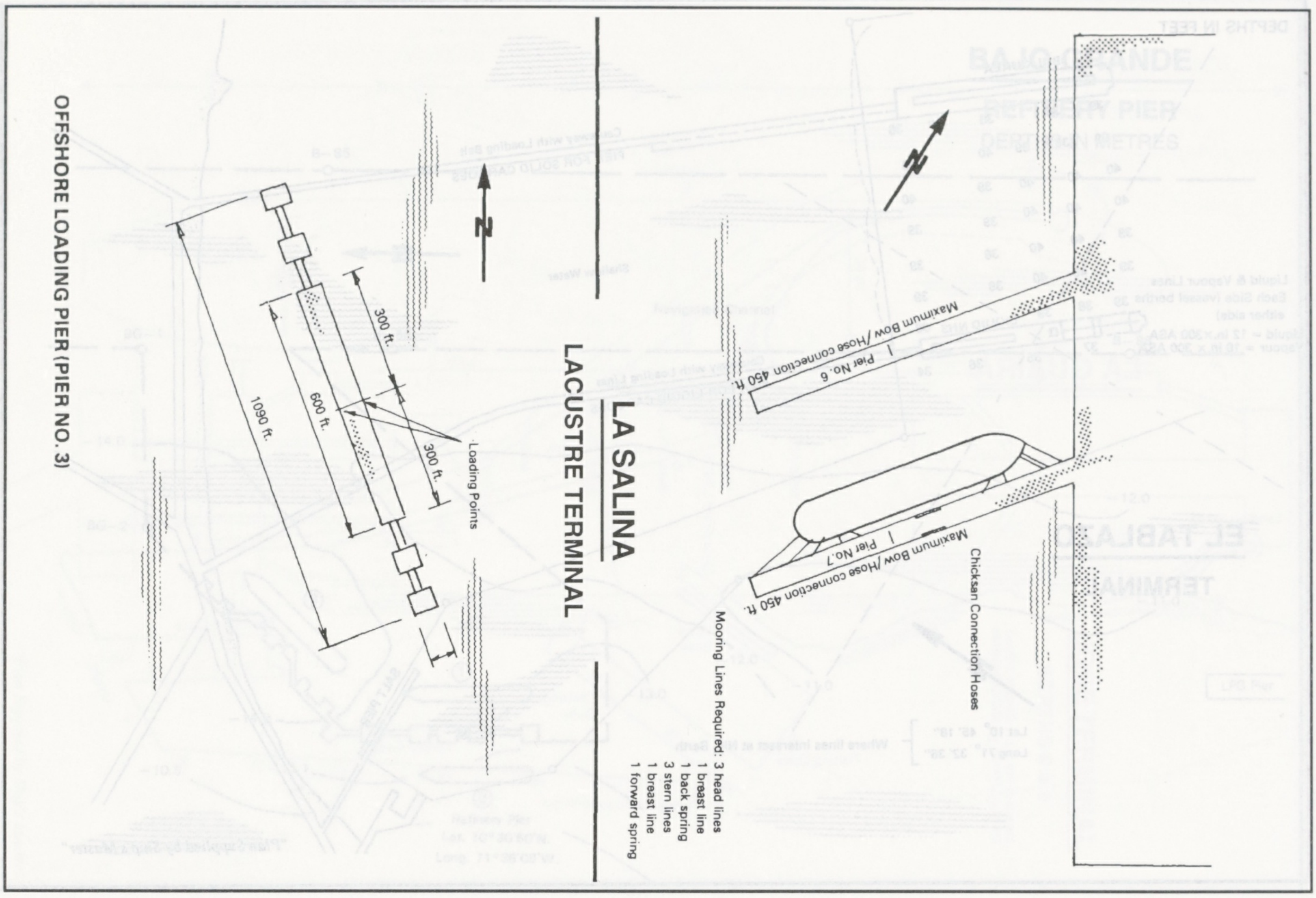

LA GUAIRA
Landing Stage
Roll on-Roll off
1-E
1-D
1-C
N. Mole
1-B
1-A
3
4
Naval Quay
21
Fishing Quay
20
19-A
16
19
17
18
Passenger Quay
15
14
13
Vargas Quay
12
11
10
9
Raymond Quay
7
5
8
6
N

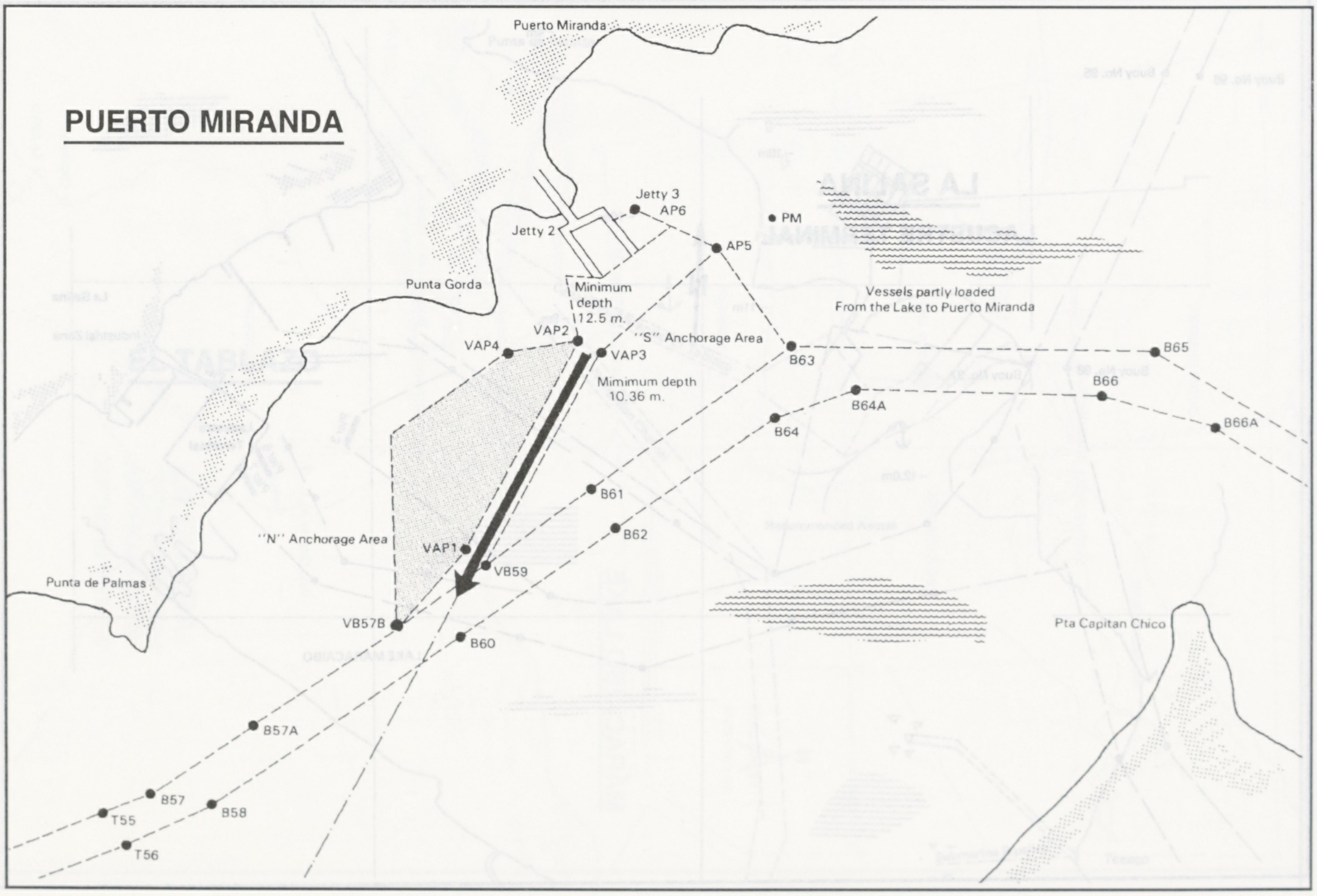

BAJO GRANDE
REFINERY PIER
DEPTHS IN METRES
B–85
N
Navigation Channel
BG–1
B–86
B–88
–14.0
–12.0
BG–2
–11.0
③
①
–12.0
–13.0
–11.0
LPG Pier
–14.0
–10.5
–11.1
②
Refinery Pier
Lat. 10°30'50"N.
Long. 71°36'08"W.

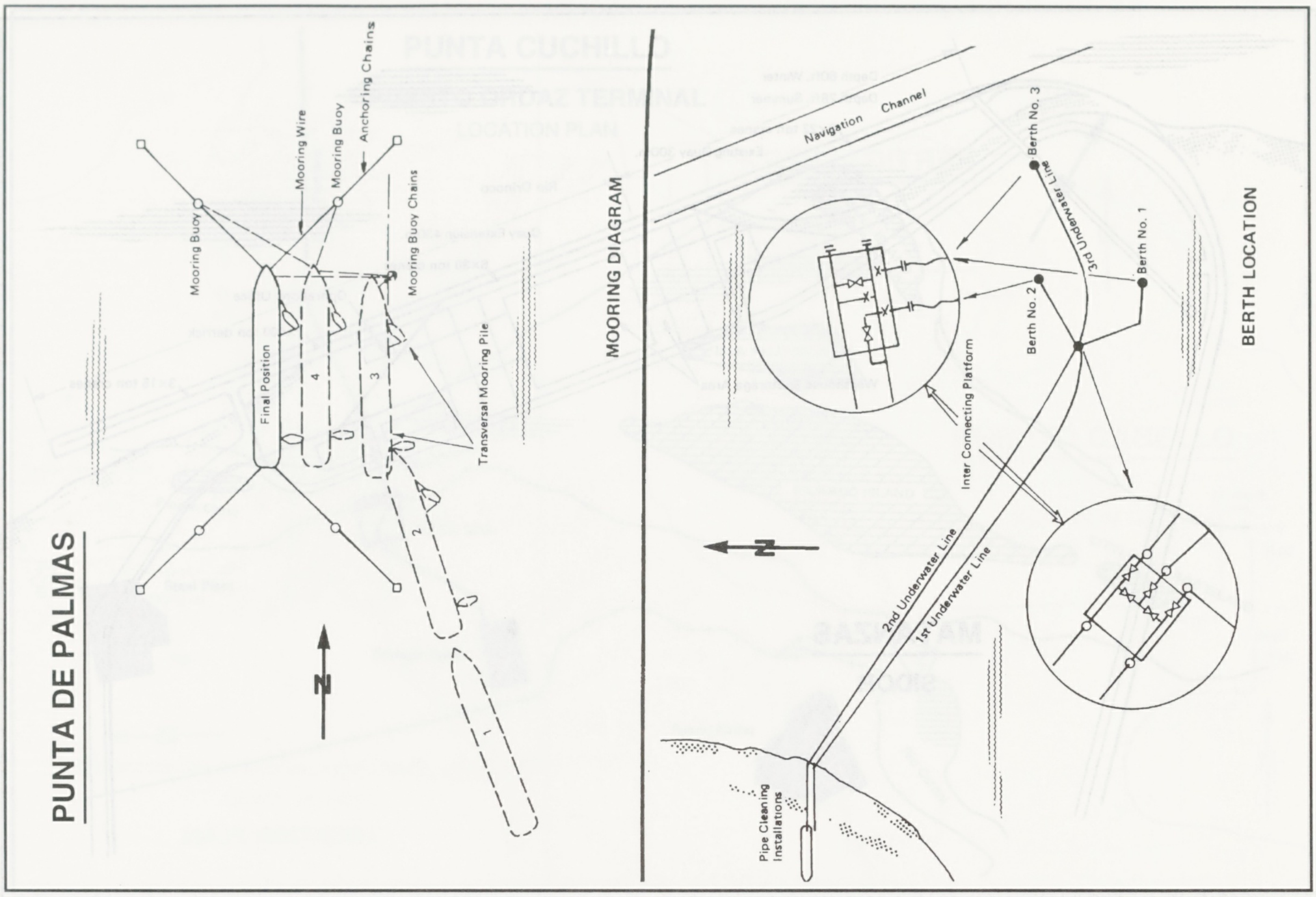

Punta de Palmas
Puerto Miranda
El Tablazo
Canal Pto. Miranda–El Tablazo
EL TABLAZO
Navigation Channel
Recommended Access
Submarine Pipeline
Texaco


DEPTHS IN FEET
BULK UREA
39 38 39 37 36
39 39 39 40 40
40 40 40 39
40 40 40 40
39 40 39 39
39 40 40 38 39
39 40 38 39
Liquid & Vapour Lines Each Side (vessel berths either side)
Liquid = 12 in.×300 ASA
Vapour = 10 in.× 300 ASA
39 38 39
LIQUID NH3
38
37 35 36 34
Causeway with Loading Belt
PIER FOR SOLID CARGOES
Shallow Water
Causeway with Loading Lines
PIER FOR LIQUID CARGOES
EL TABLAZO
TERMINAL
N
SALT PIER
Lat 10° 45' 18''
Long 71° 32' 36''
Where lines intersect at NH$_3$ Berth
"Plan Supplied by Ship's Master"


Buoy No. 96
Buoy No. 95
– 4m
– 10m
LA SALINA
LACUSTRE TERMINAL
– 10m
N
– 11m
– 9m.
La Salina
Industrial Zone
Buoy No. 98
Buoy No. 97
Pier 1
Pier 3
Lacustre Terminal
Pier 6
Pier 7
– 12.0m
LAKE MARACAIBO

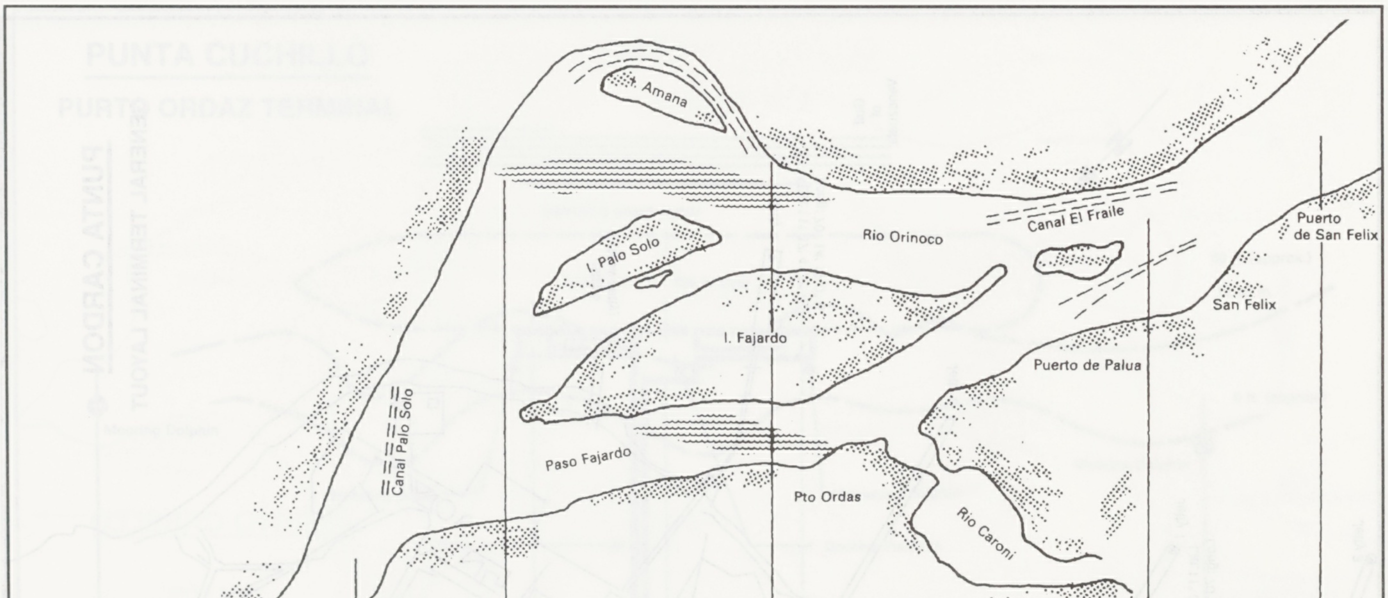

OFFSHORE LOADING PIER (PIER NO. 3)
1090 ft.
600 ft.
300 ft.
300 ft.
Loading Points
N
LA SALINA
LACUSTRE TERMINAL
N
Maximum Bow /Hose connection 450 ft.
Pier No. 6
Pier No.7
Maximum Bow /Hose connection 450 ft.
Chicksan Connection Hoses
Mooring Lines Required: 3 head lines
1 breast line
1 back spring
3 stern lines
1 breast line
1 forward spring


PUERTO MIRANDA
Puerto Miranda
Jetty 3
AP6
PM
Jetty 2
AP5
Punta Gorda
Minimum depth 12.5 m.
Vessels partly loaded From the Lake to Puerto Miranda
VAP4
VAP2
VAP3
"S" Anchorage Area
B63
B65
Mimimum depth 10.36 m.
B64A
B66
B64
B66A
B61
"N" Anchorage Area
B62
VAP1
VB59
Punta de Palmas
VB57B
B60
Pta Capitan Chico
B57A
B57
B58
T55
T56



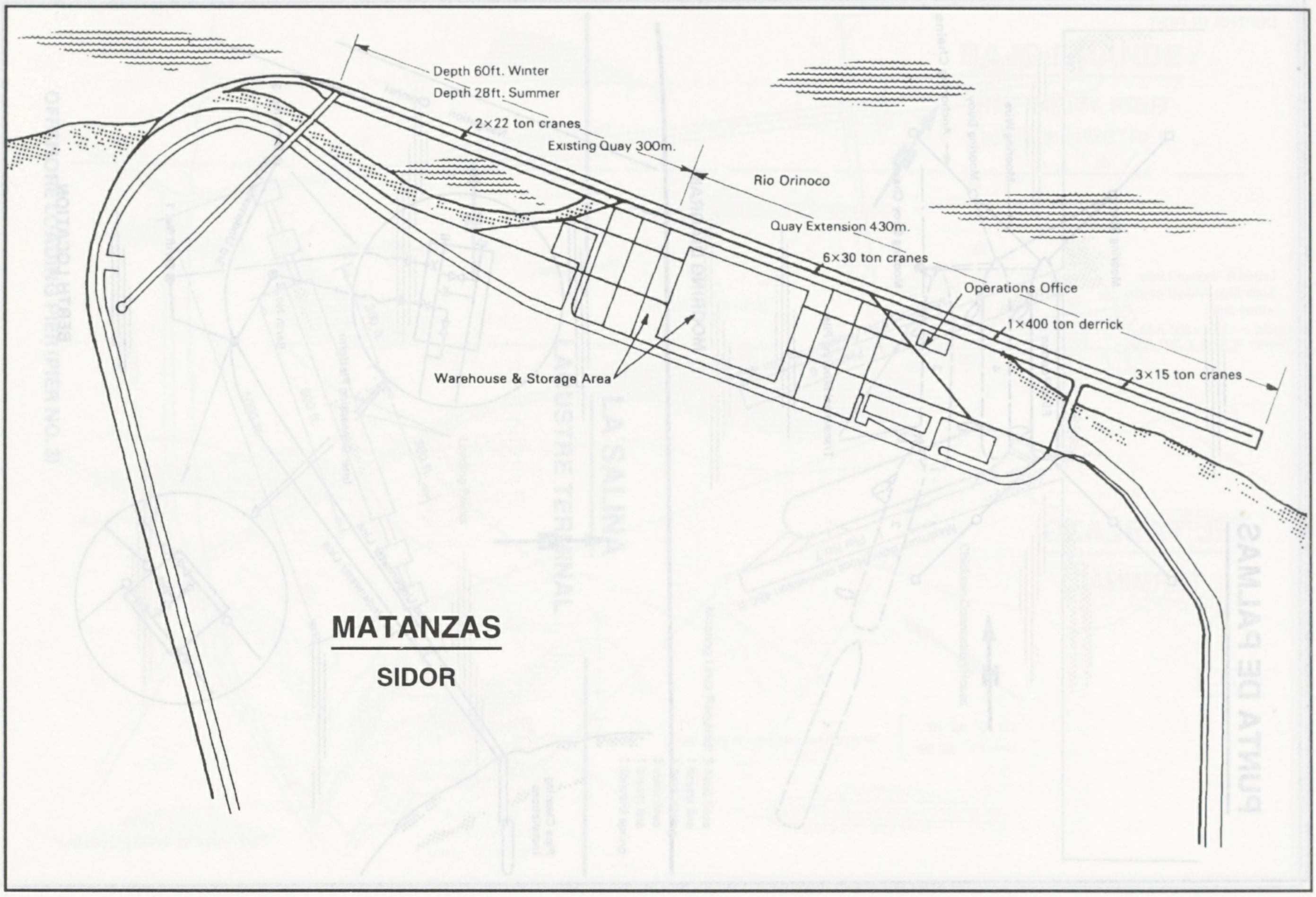
PUNTA DE PALMAS

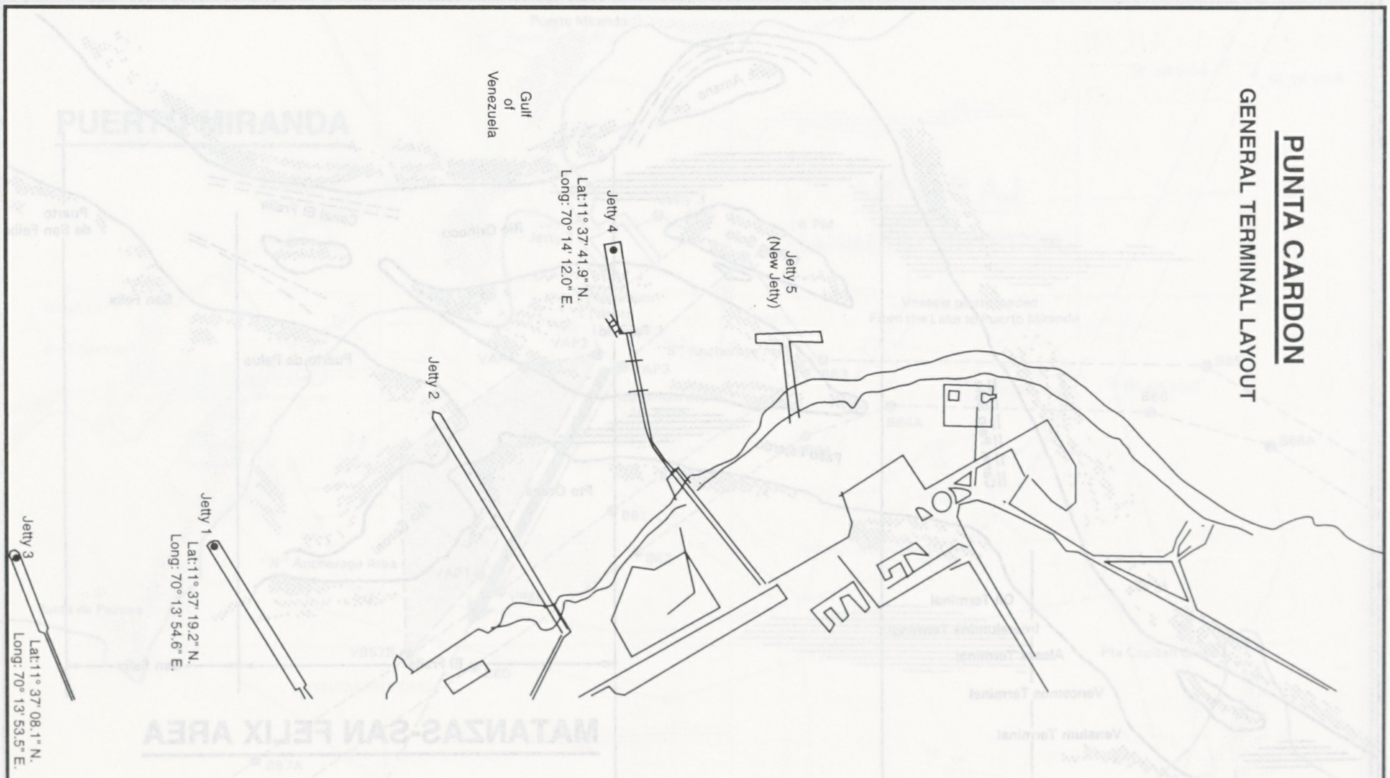
MOORING DIAGRAM
Mooring Buoy
Mooring Wire
Mooring Buoy
Anchoring Chains
Mooring Buoy Chains
Mooring Buoy
Final Position
4
3
2
1
Transversal Mooring Pile
N
BERTH LOCATION
Navigation Channel
Berth No. 3
3rd Underwater Line
Berth No. 1
Berth No. 2
Inter Connecting Platform
2nd Underwater Line
1st Underwater Line
Pipe Cleaning Installations
N

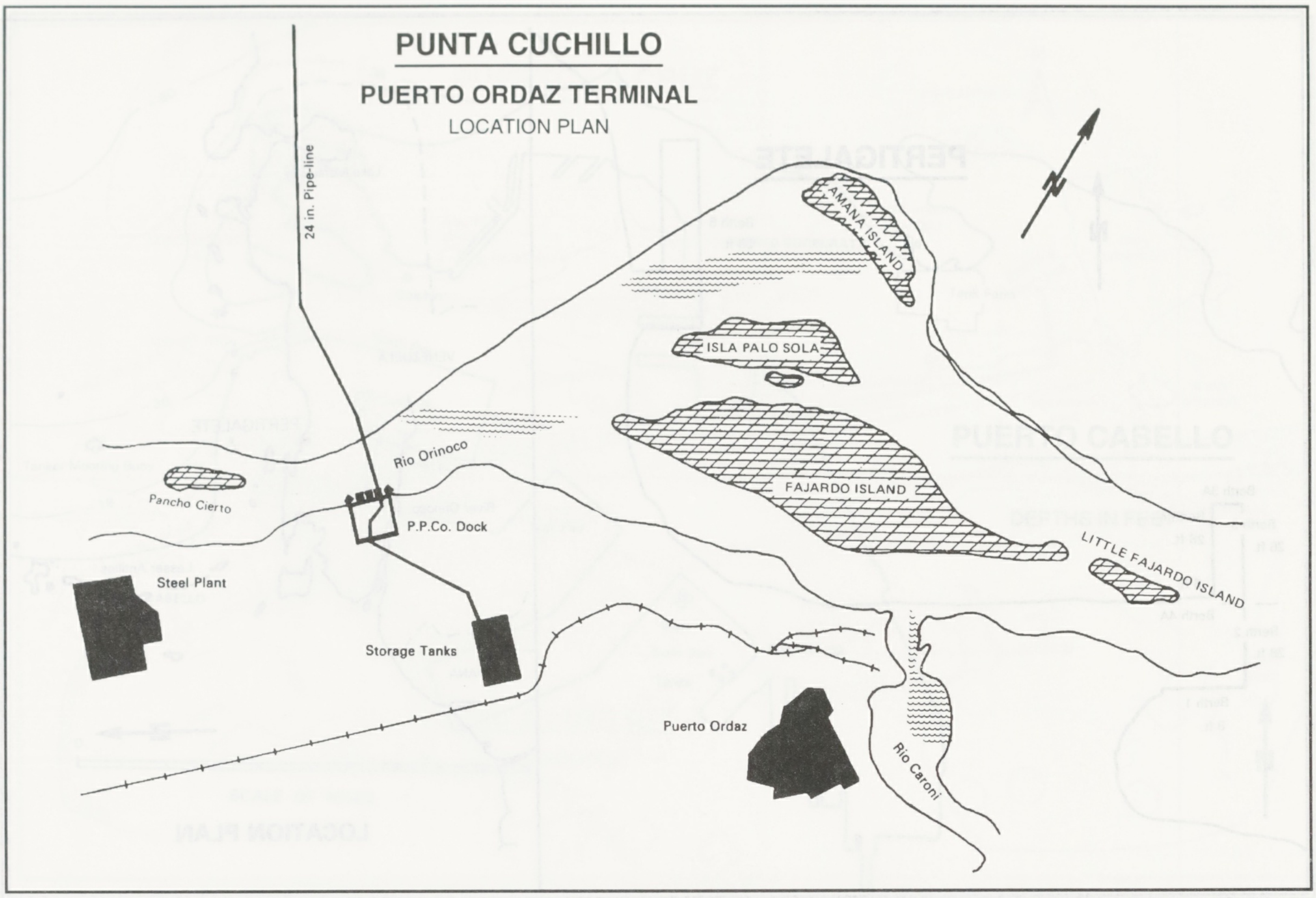


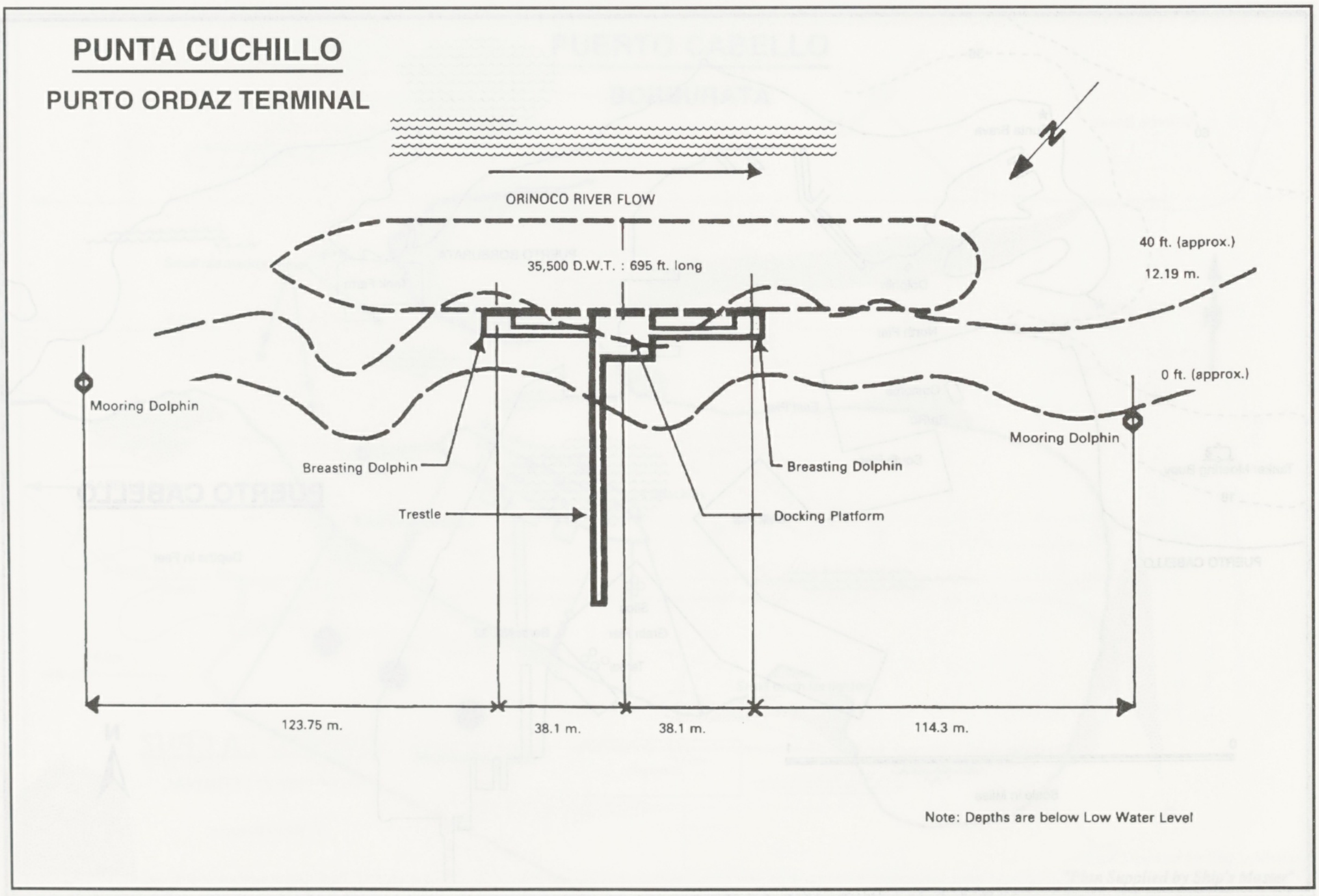
MATANZAS-SAN FELIX AREA

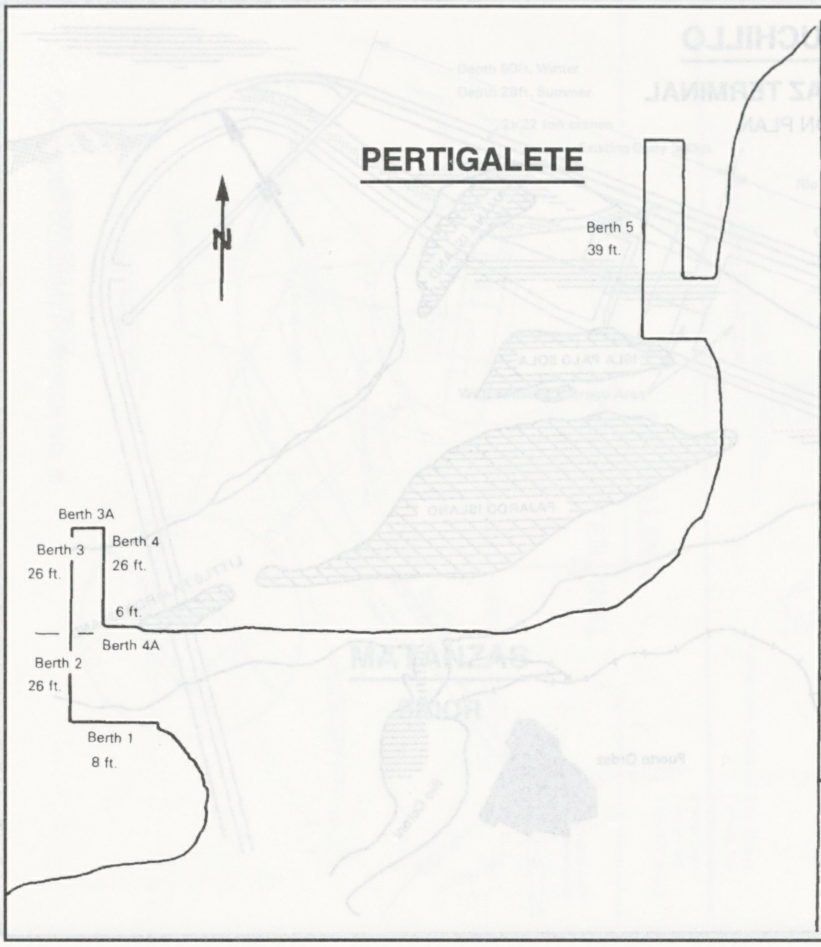
I. Amana
I. Palo Solo
Rio Orinoco
Canal El Fraile
Puerto de San Felix
San Felix
I. Fajardo
Puerto de Palua
Canal Palo Solo
Paso Fajardo
Pto Ordas
Rio Caroni
Oil Terminal
Interalumina Terminal
Alcasa Terminal
Vencemos Terminal
Venalum Terminal
Puerto de Matanzas
Matanzas
Palo Solo
Amana
El Fraile
San Felix


Depth 60ft. Winter
Depth 28ft. Summer
2×22 ton cranes
Existing Quay 300m.
Rio Orinoco
Quay Extension 430m.
6×30 ton cranes
Operations Office
1×400 ton derrick
3×15 ton cranes
Warehouse & Storage Area
MATANZAS
SIDOR

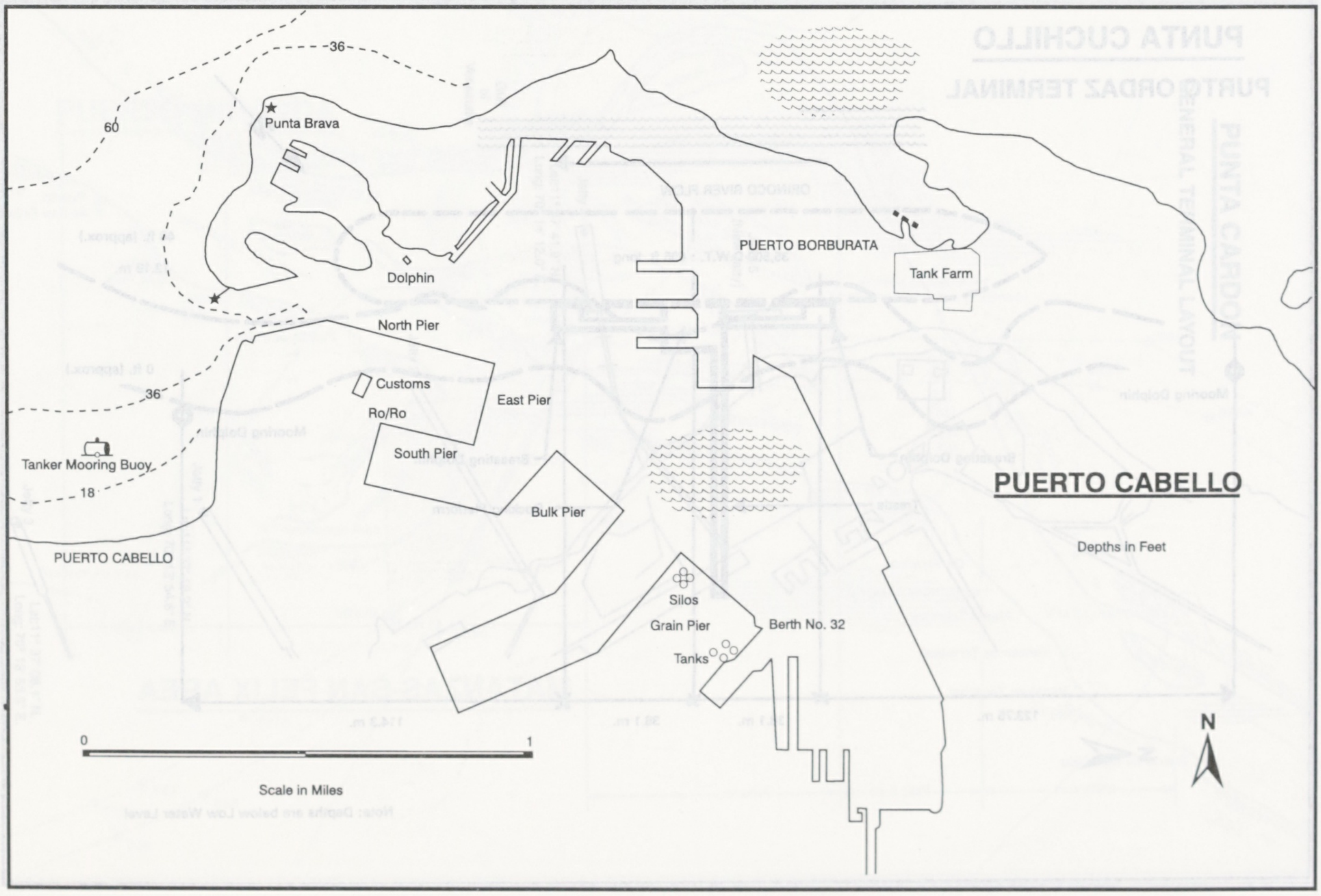

PUNTA CARDON
GENERAL TERMINAL LAYOUT
Gulf of Venezuela
Jetty 4
Lat:11° 37' 41.9" N.
Long: 70° 14' 12.0" E.
Jetty 5 (New Jetty)
Jetty 2
Jetty 1
Lat:11° 37' 19.2" N.
Long: 70° 13' 54.6" E.
Jetty 3
Lat:11° 37' 08.1" N.
Long: 70° 13' 53.5" E.
N

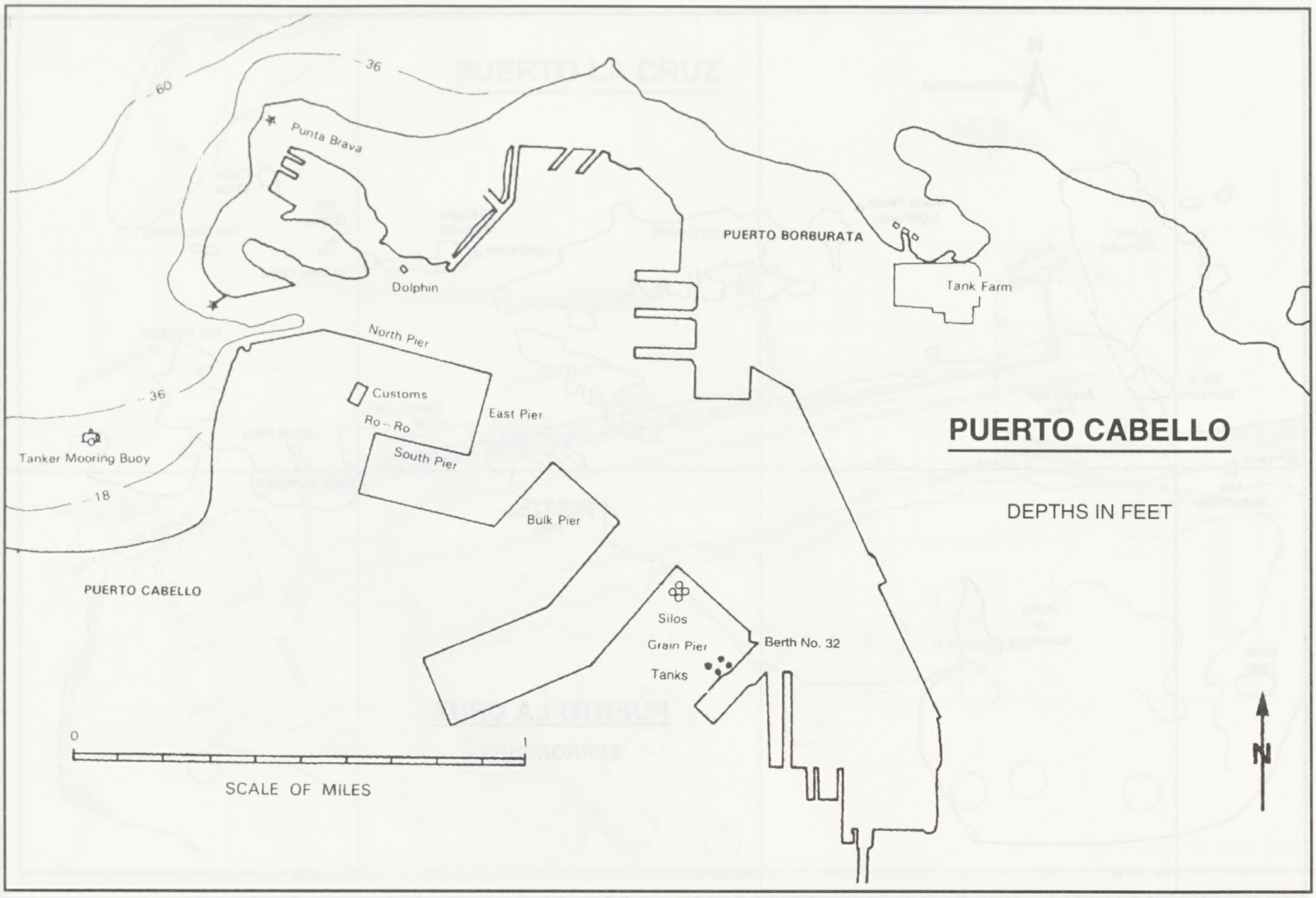

PUNTA CUCHILLO
PUERTO ORDAZ TERMINAL
LOCATION PLAN
24 in. Pipe-line
AMANA ISLAND
ISLA PALO SOLA
FAJARDO ISLAND
LITTLE FAJARDO ISLAND
Rio Orinoco
Pancho Cierto
P.P.Co. Dock
Steel Plant
Storage Tanks
Puerto Ordaz
Rio Caroni

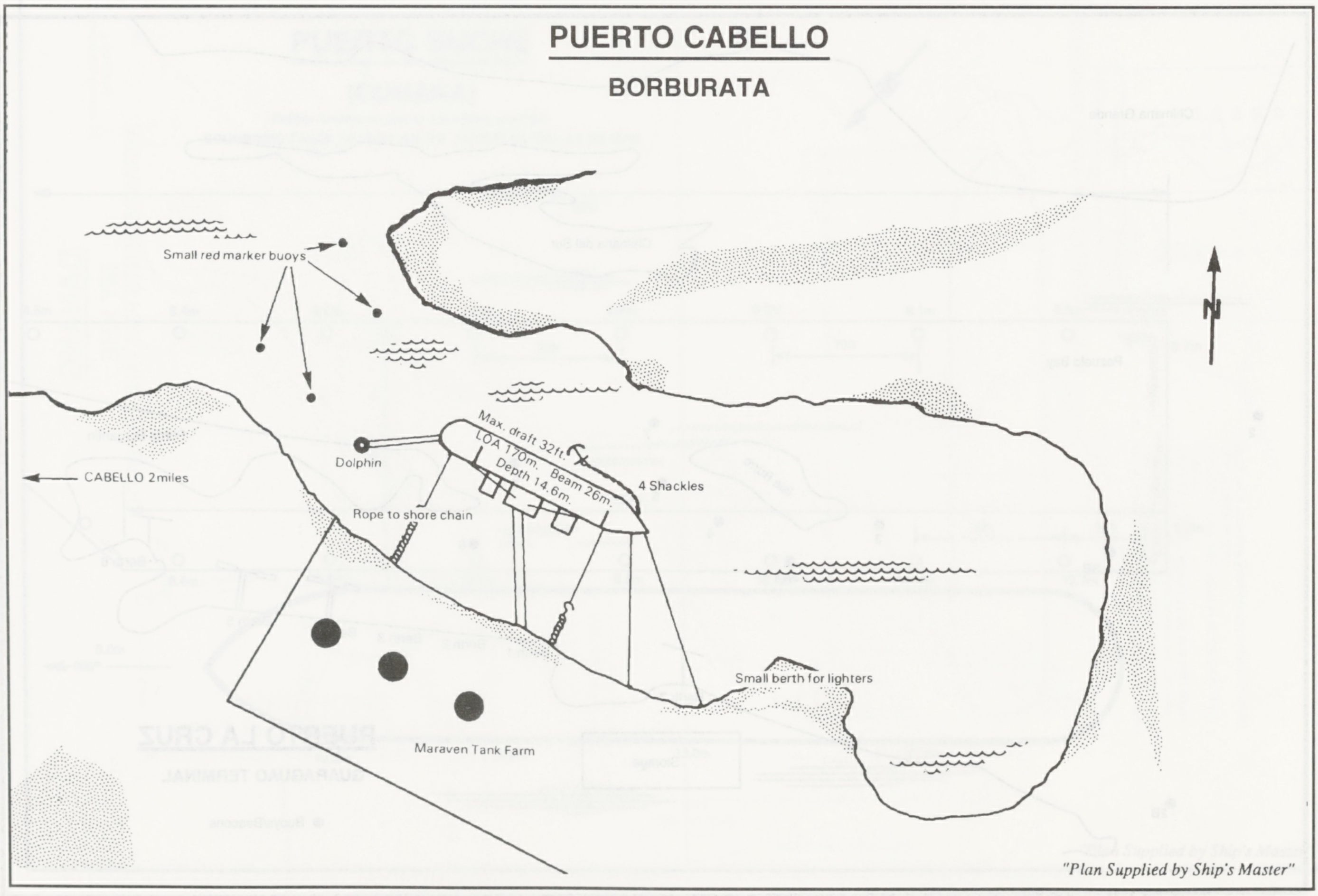

PUNTA CUCHILLO
PURTO ORDAZ TERMINAL
ORINOCO RIVER FLOW
35,500 D.W.T. : 695 ft. long
40 ft. (approx.)
12.19 m.
0 ft. (approx.)
Mooring Dolphin
Mooring Dolphin
Breasting Dolphin
Breasting Dolphin
Trestle
Docking Platform
123.75 m.
38.1 m.
38.1 m.
114.3 m.
Note: Depths are below Low Water Level


PERTIGALETE
N
Berth 5
39 ft.
Berth 3A
Berth 3
26 ft.
Berth 4
26 ft.
6 ft.
Berth 4A
Berth 2
26 ft.
Berth 1
8 ft.

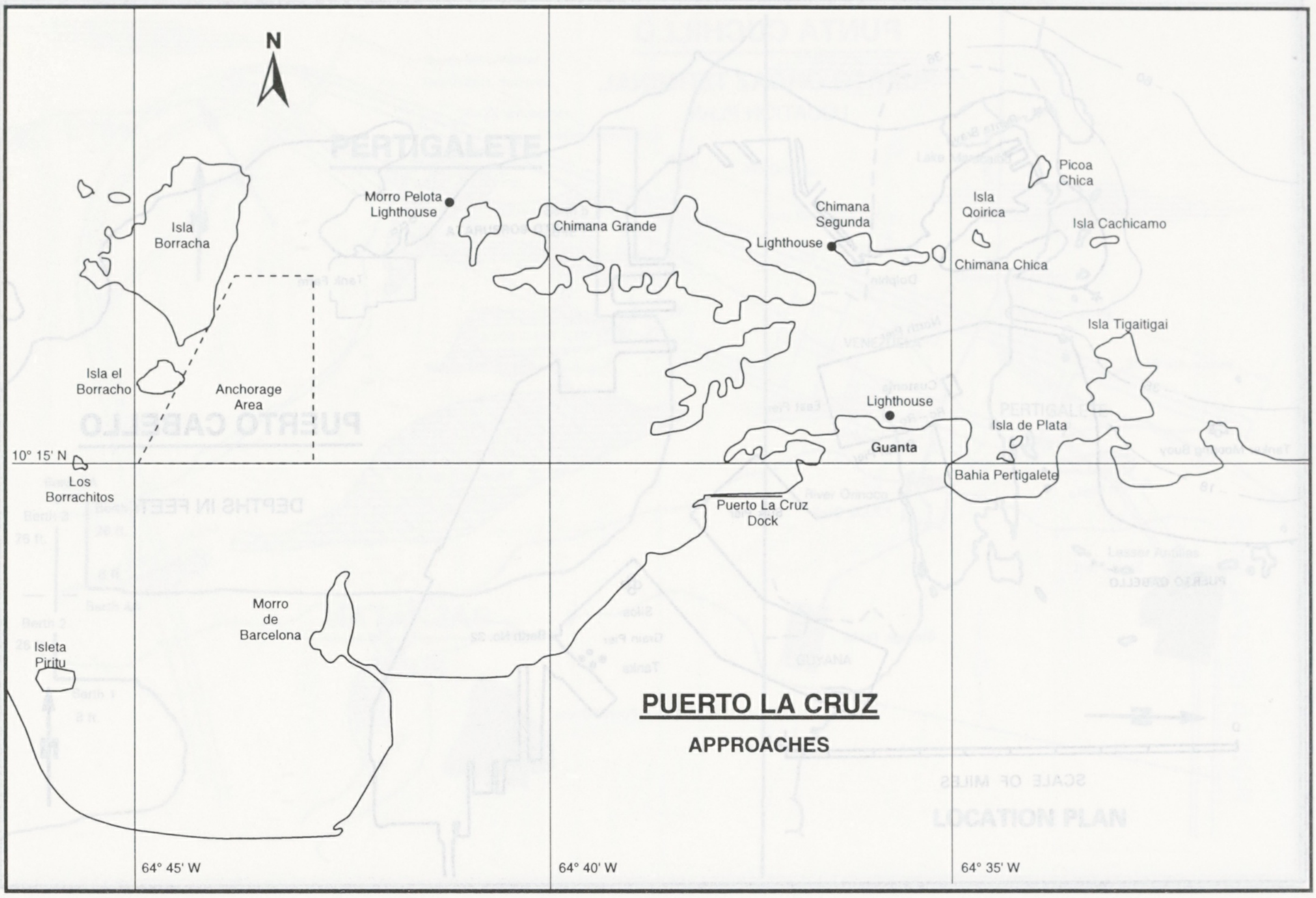
Lake Maracaibo
VENEZUELA
PERTIGALETE
River Orinoco
Lesser Antilles
GUYANA
N
LOCATION PLAN


36
60
Punta Brava
Dolphin
PUERTO BORBURATA
Tank Farm
North Pier
Customs
East Pier
Ro/Ro
South Pier
36
Tanker Mooring Buoy
18
Bulk Pier
PUERTO CABELLO
PUERTO CABELLO
Depths in Feet
Silos
Grain Pier
Berth No. 32
Tanks
0
1
Scale in Miles
N


PUERTO CABELLO
DEPTHS IN FEET
60
36
Punta Brava
Dolphin
PUERTO BORBURATA
Tank Farm
North Pier
Customs
East Pier
Ro-Ro
South Pier
Bulk Pier
Tanker Mooring Buoy
36
18
PUERTO CABELLO
Silos
Grain Pier
Tanks
Berth No. 32
0
SCALE OF MILES
N

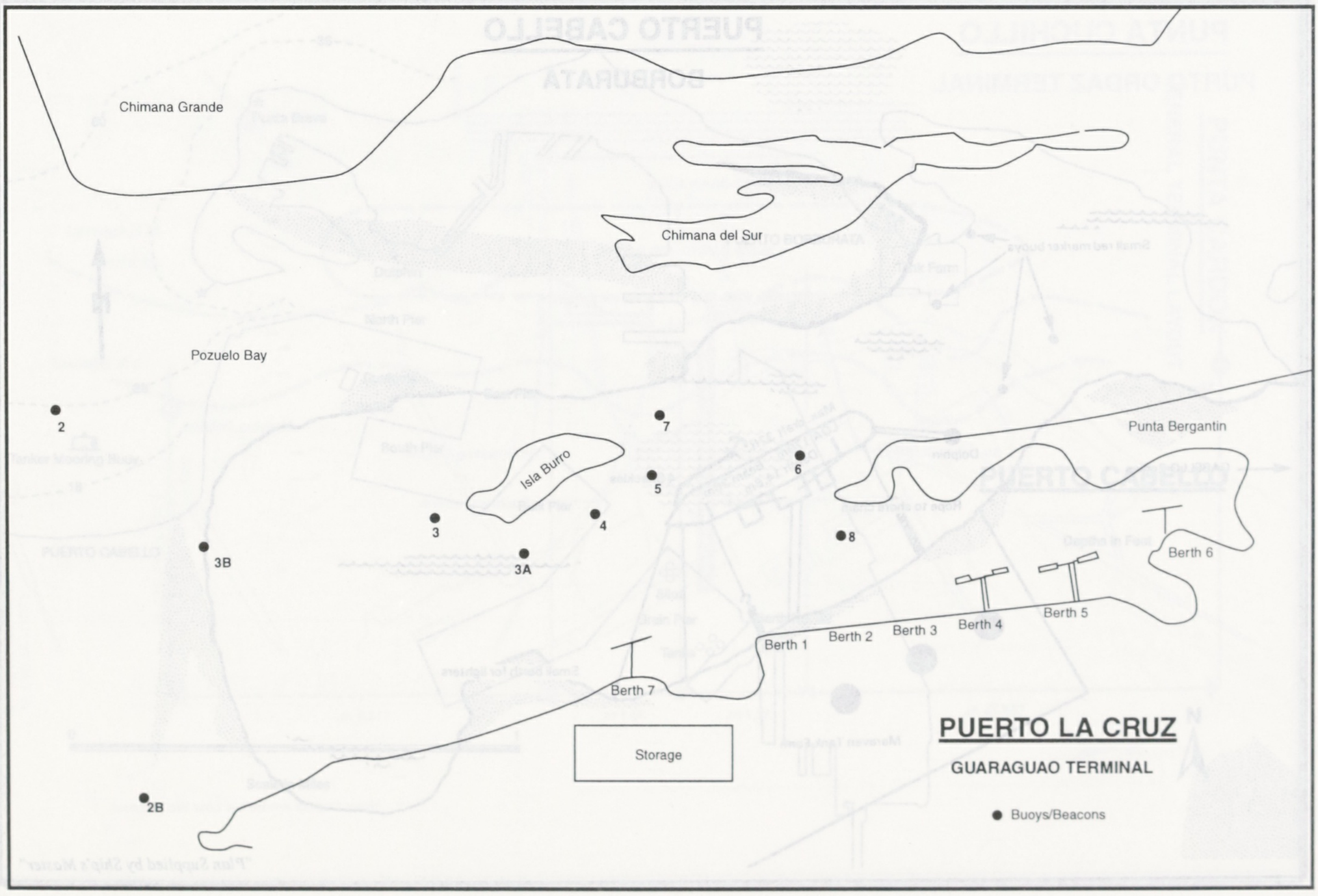

PUERTO CABELLO
BORBURATA
Small red marker buoys
N
Dolphin
CABELLO 2miles
Max. draft 32ft.
LOA 170m. Beam 26m.
Depth 14.6m.
4 Shackles
Rope to shore chain
Small berth for lighters
Maraven Tank Farm

"Plan Supplied by Ship's Master"


N
Isla Borracha
Isla el Borracho
Anchorage Area
10° 15' N
Los Borrachitos
Isleta Piritu
Morro de Barcelona
Morro Pelota Lighthouse
Chimana Grande
Chimana Segunda
Lighthouse
Isla Qoirica
Picoa Chica
Isla Cachicamo
Chimana Chica
Isla Tigaitigai
Lighthouse
Guanta
Isla de Plata
Bahia Pertigalete
Puerto La Cruz Dock
64° 45' W
64° 40' W
64° 35' W

PUERTO LA CRUZ

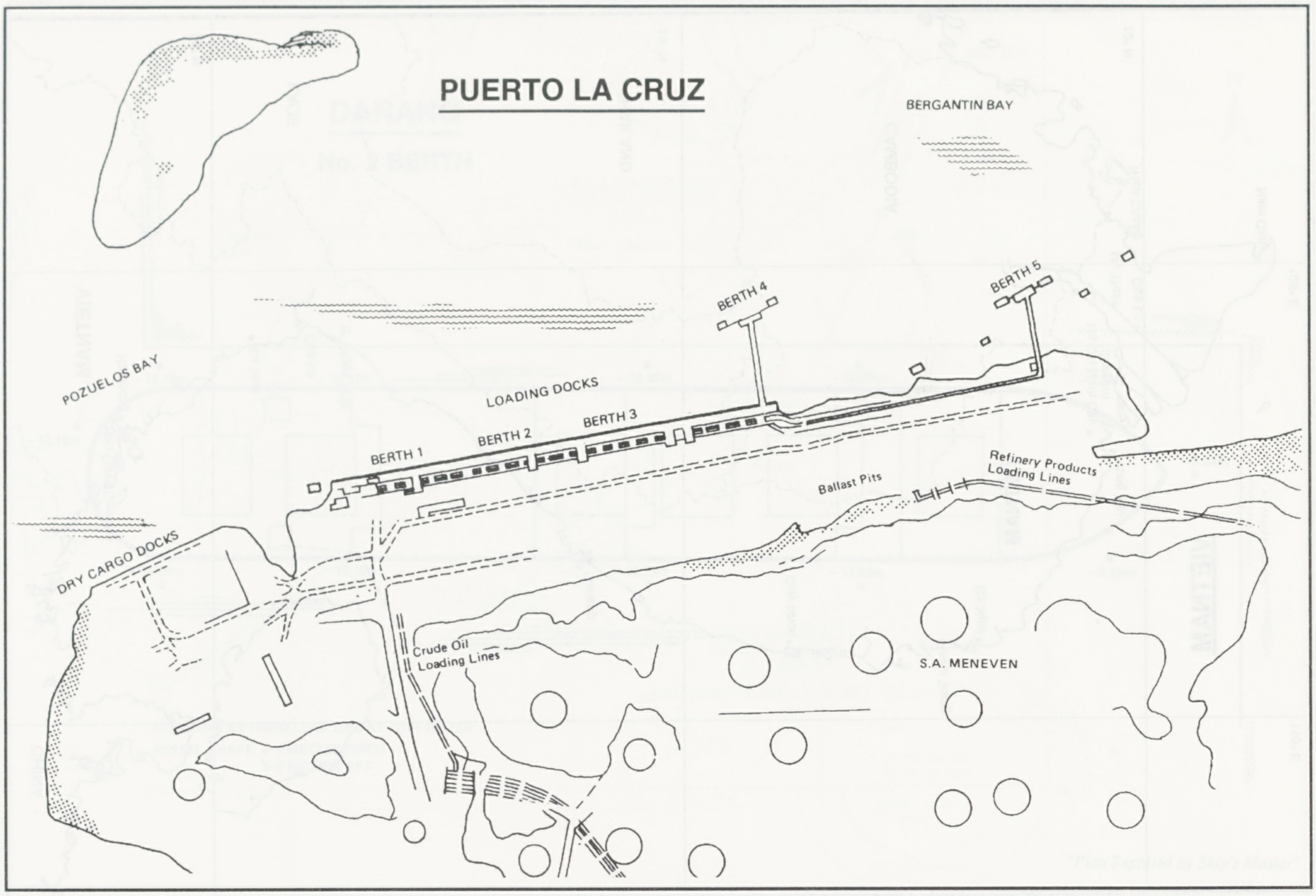
APPROACHES


Chimana Grande
Chimana del Sur
Pozuelo Bay
2
3B
2B
3
3A
Isla Burro
4
5
7
6
8
Punta Bergantin
Berth 1
Berth 2
Berth 3
Berth 4
Berth 5
Berth 6
Berth 7
Storage
● Buoys/Beacons

PUERTO LA CRUZ

GUARAGUAO TERMINAL

PUERTO LA CRUZ

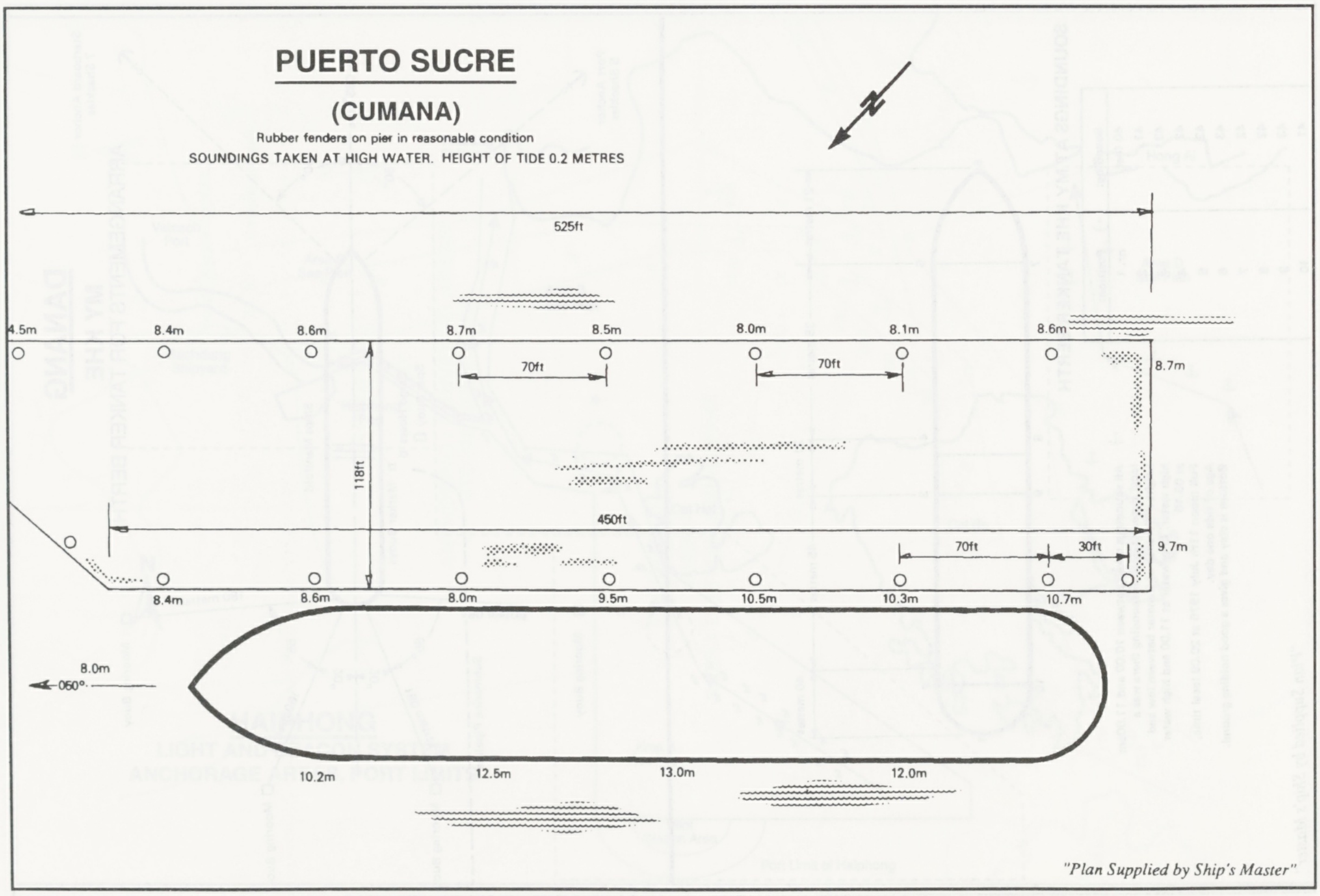

BERGANTIN BAY
BERTH 4
BERTH 5
POZUELOS BAY
LOADING DOCKS
BERTH 3
BERTH 2
BERTH 1
Refinery Products Loading Lines
Ballast Pits
DRY CARGO DOCKS
Crude Oil Loading Lines
S.A. MENEVEN

PUERTO SUCRE

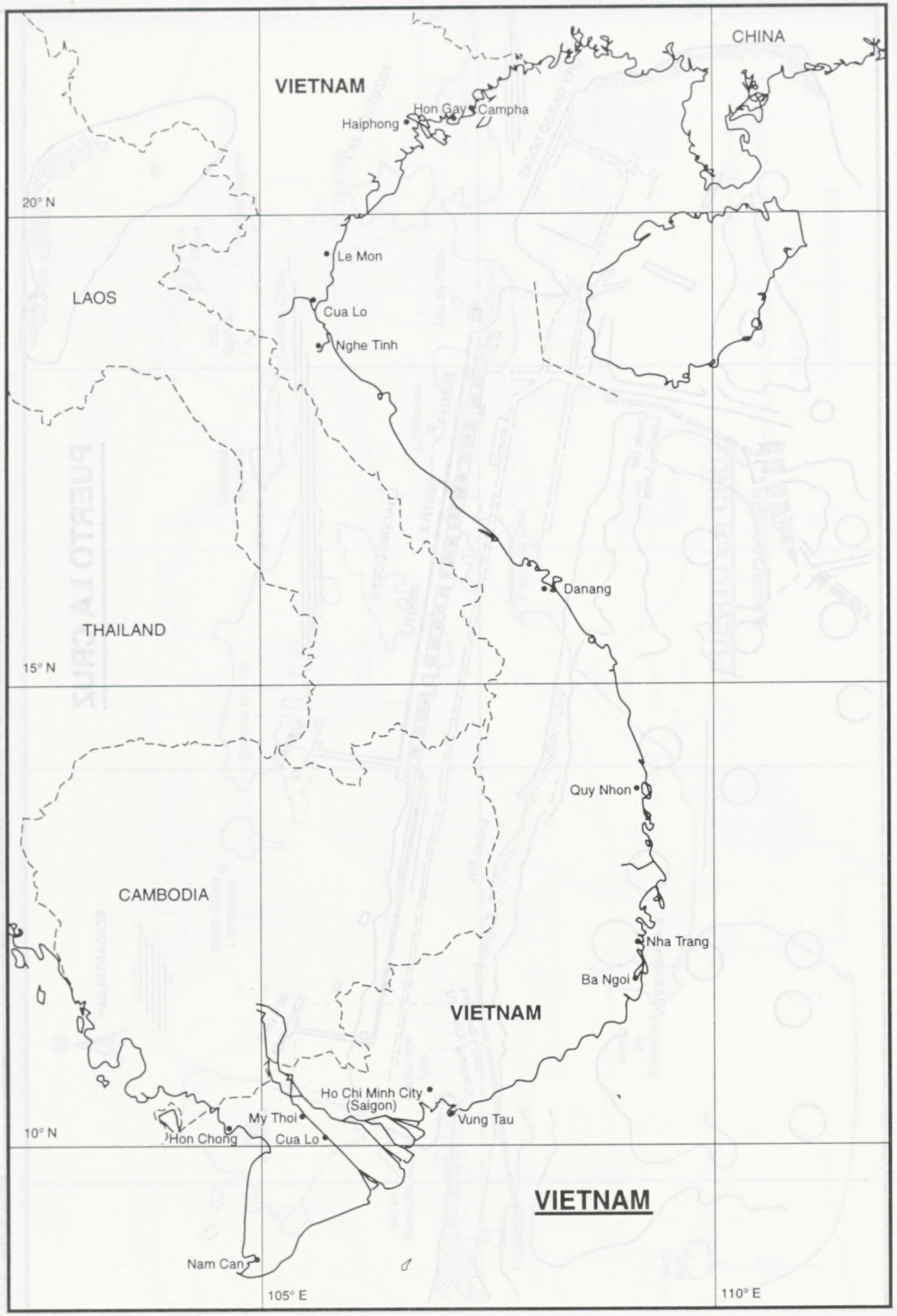
(CUMANA)

Rubber fenders on pier in reasonable condition

SOUNDINGS TAKEN AT HIGH WATER. HEIGHT OF TIDE 0.2 METRES


525ft
4.5m
8.4m
8.6m
8.7m
8.5m
8.0m
8.1m
8.6m
8.7m
70ft
70ft
118ft
450ft
70ft
30ft
9.7m
8.4m
8.6m
8.0m
9.5m
10.5m
10.3m
10.7m
8.0m
060°
10.2m
12.5m
13.0m
12.0m

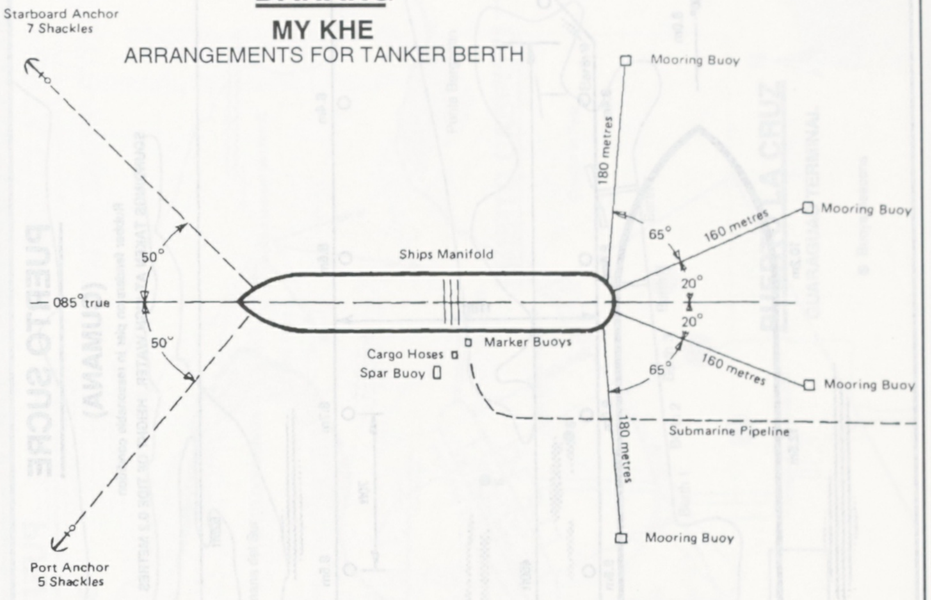
"Plan Supplied by Ship's Master"

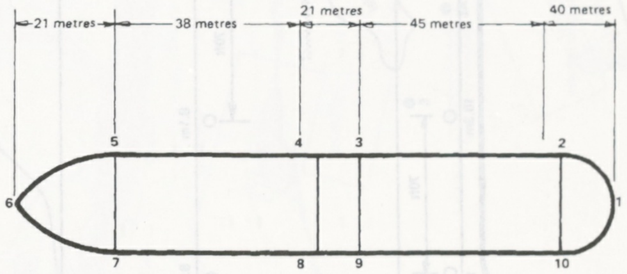

CHINA
VIETNAM
Hon Gay
Campha
Haiphong
20° N
Le Mon
LAOS
Cua Lo
Nghe Tinh
THAILAND
Danang
15° N
Quy Nhon
CAMBODIA
Nha Trang
Ba Ngoi
VIETNAM
Ho Chi Minh City
(Saigon)
Vung Tau
My Thoi
10° N
Hon Chong
Cua Lo
VIETNAM
Nam Can
105° E
110° E

DANANG

MY KHE

ARRANGEMENTS FOR TANKER BERTH


Starboard Anchor
7 Shackles
Mooring Buoy
180 metres
65°
160 metres
Mooring Buoy
Ships Manifold
50°
085° true
20°
20°
50°
Marker Buoys
Cargo Hoses
Spar Buoy
65°
160 metres
Mooring Buoy
Submarine Pipeline
180 metres
Mooring Buoy
Port Anchor
5 Shackles

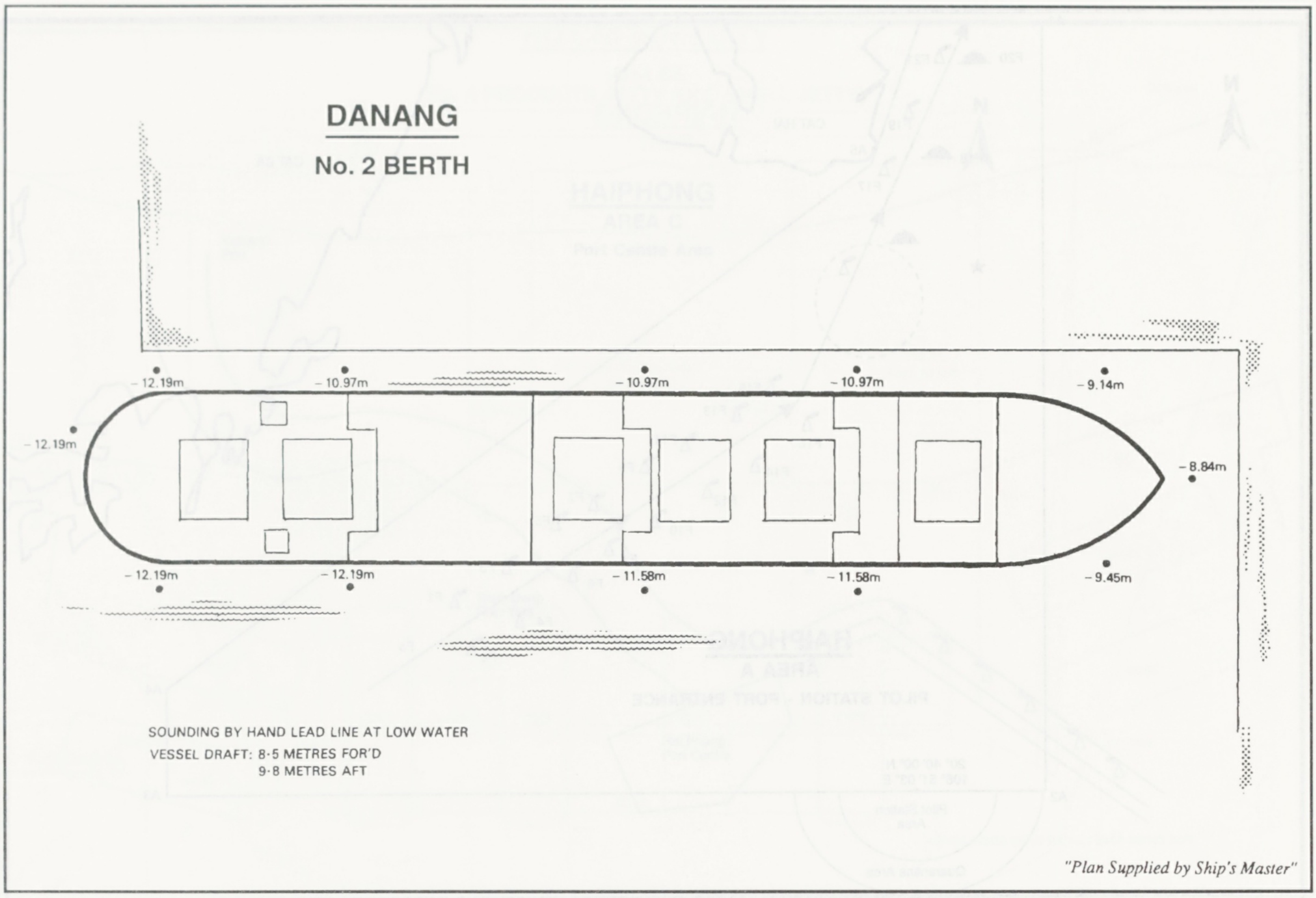

21 metres
38 metres
21 metres
45 metres
40 metres
5
4
3
2
6
1
7
8
9
10

SOUNDINGS AT MY KHE TANKER BERTH

Sounding:	Position:
40 feet	nr. 1
41	2
43	3
42	4
42	5
43	6
42	7
42	8
43	9
41	10

All soundings taken between 10.00 and 11.00am local time. At date of sounding there was a height difference of 2 meter between low and high water. Low water at 11.00 and high water at 06.15
Full moon 11th July 1976 at 20.09 local time,
Age of tide one day.
Bottom is clay and gives a good holding ground.

"Plan Supplied by Ship's Master"



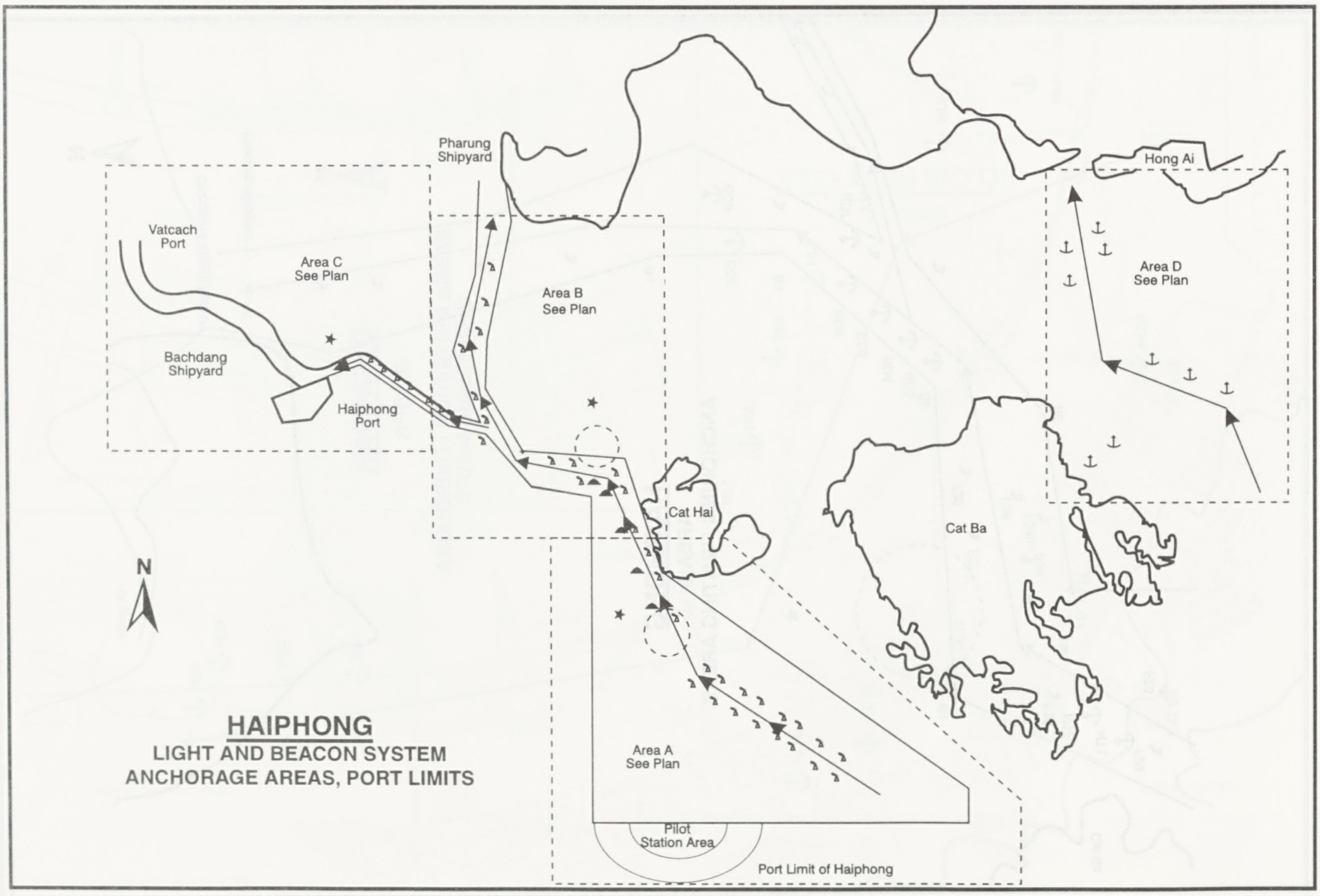
DANANG

No. 2 BERTH

– 12.19m
– 10.97m
– 10.97m
– 10.97m
– 9.14m
– 12.19m
– 8.84m
– 12.19m
– 12.19m
– 11.58m
– 11.58m
– 9.45m

SOUNDING BY HAND LEAD LINE AT LOW WATER
VESSEL DRAFT: 8·5 METRES FOR'D
9·8 METRES AFT

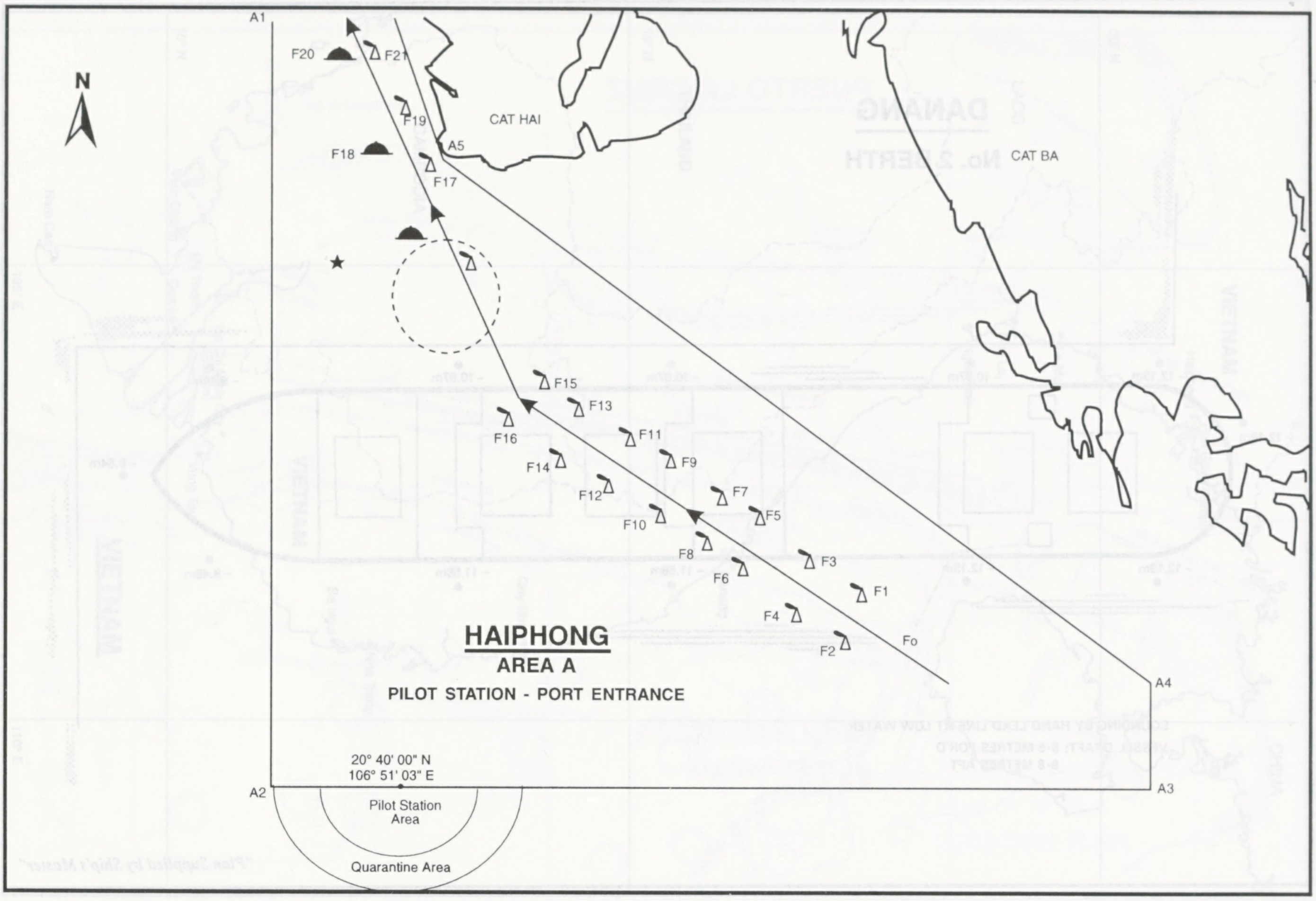
"Plan Supplied by Ship's Master"

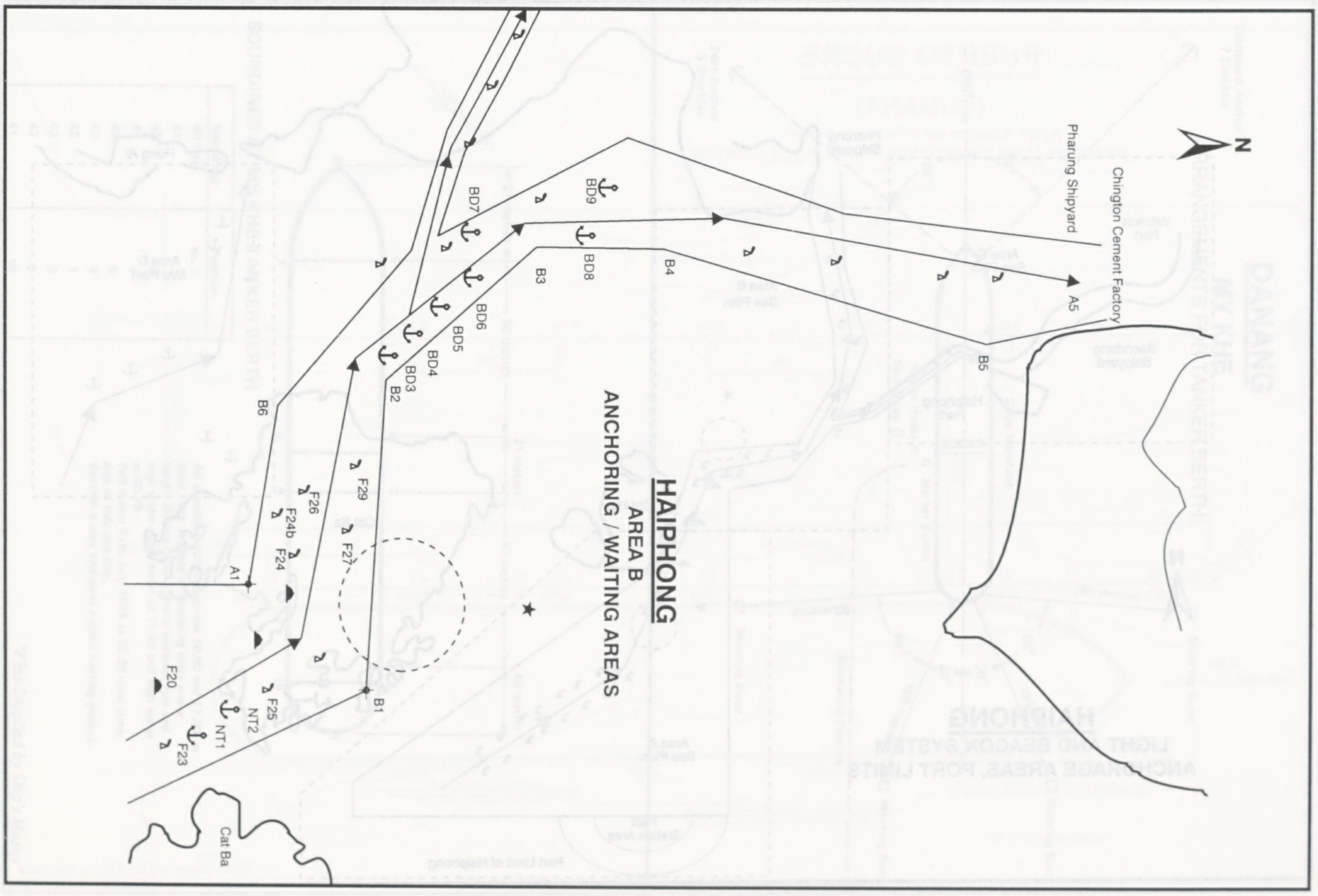


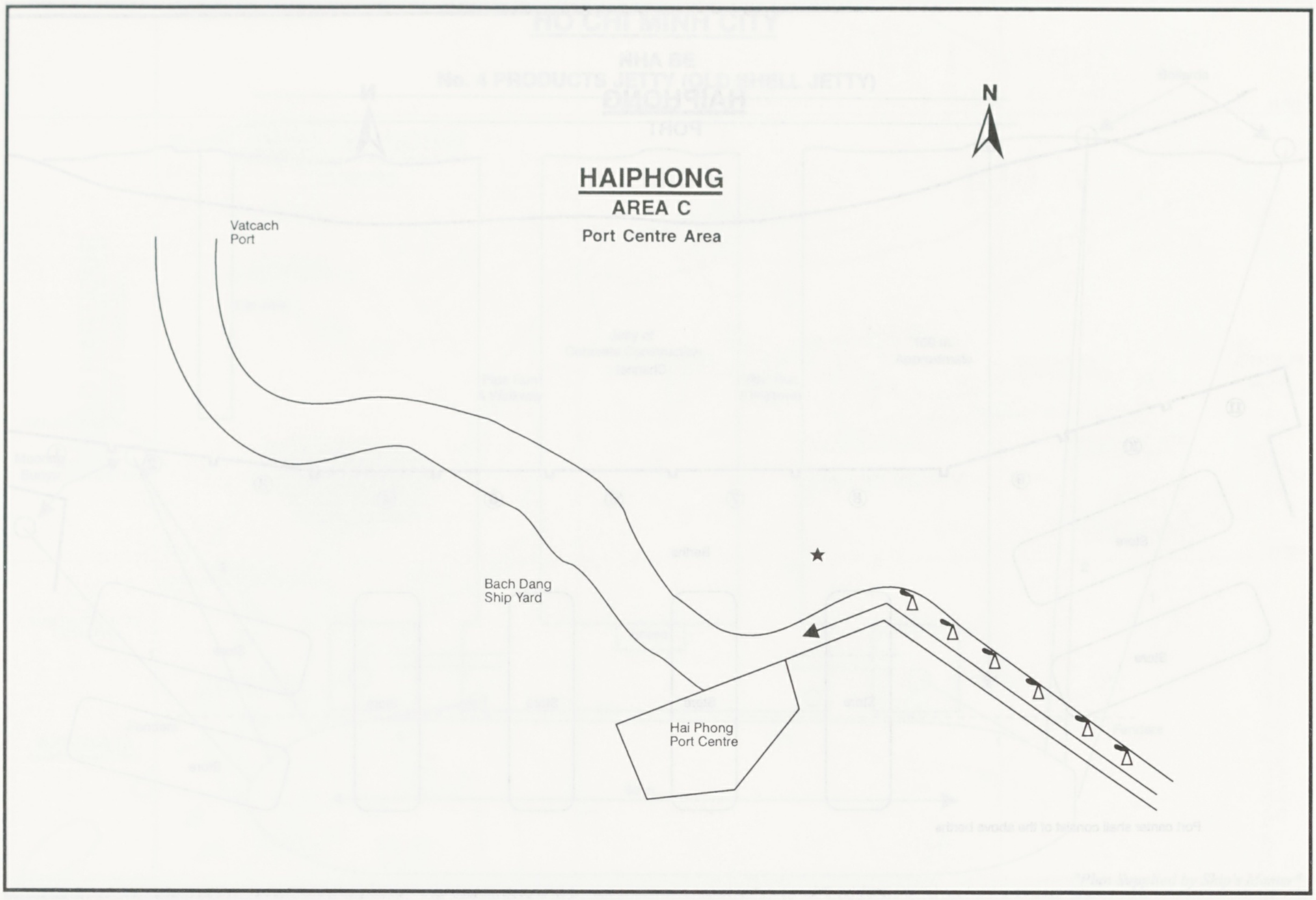
HAIPHONG

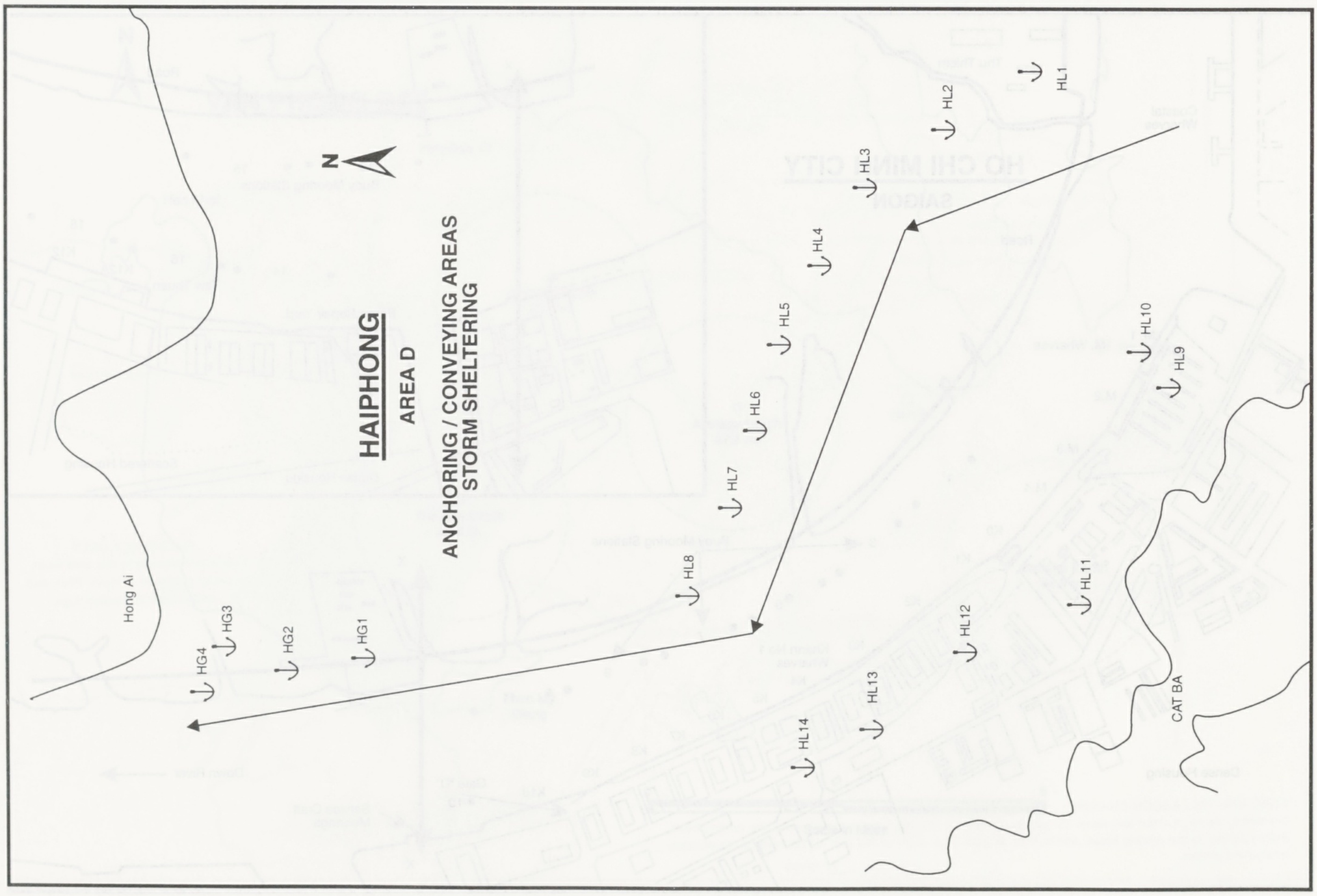
LIGHT AND BEACON SYSTEM
ANCHORAGE AREAS, PORT LIMITS

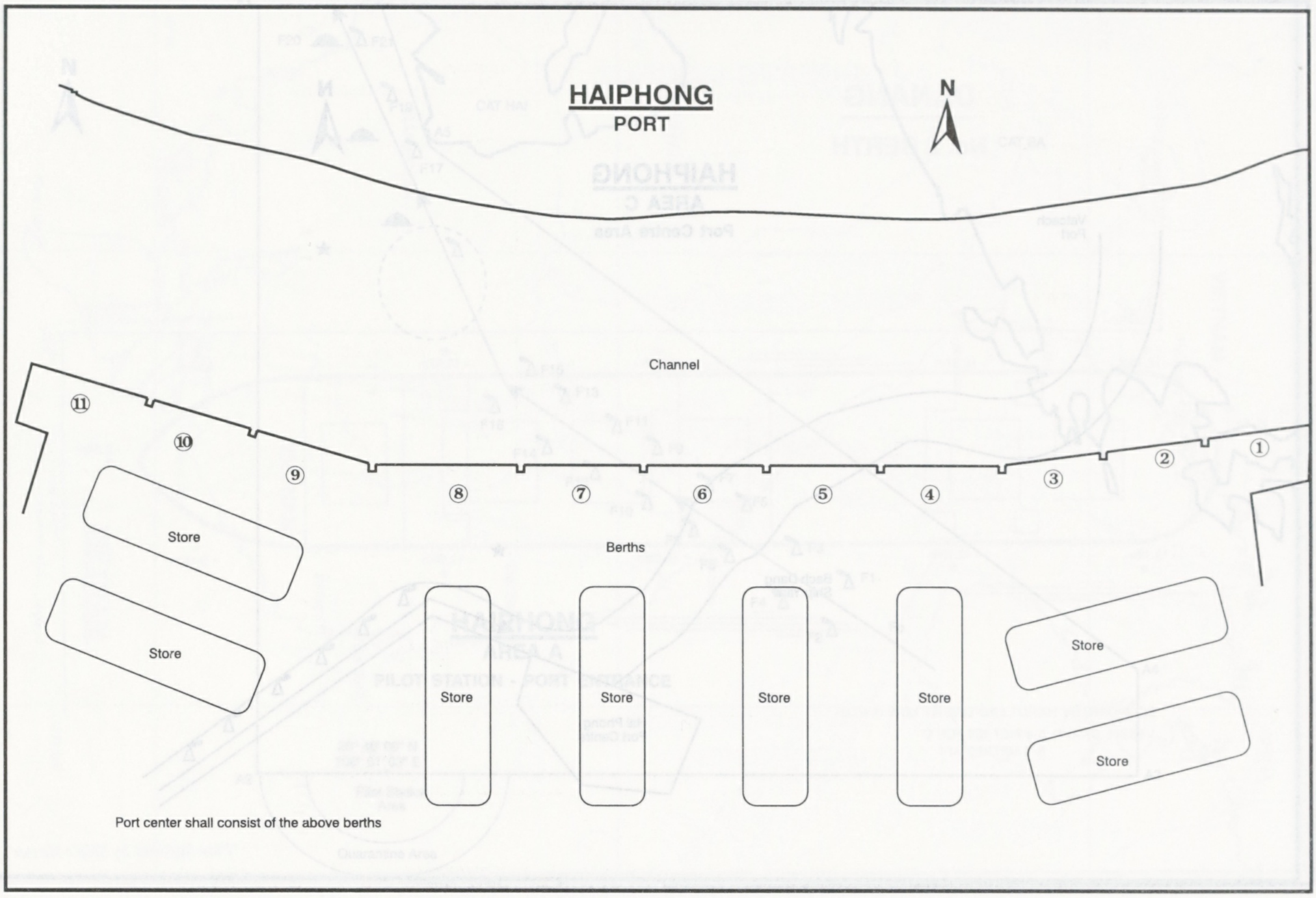
Pharung Shipyard
Hong Ai
Vatcach Port
Area C See Plan
Area B See Plan
Area D See Plan
Bachdang Shipyard
Haiphong Port
Cat Hai
Cat Ba
N
Area A See Plan
Pilot Station Area
Port Limit of Haiphong

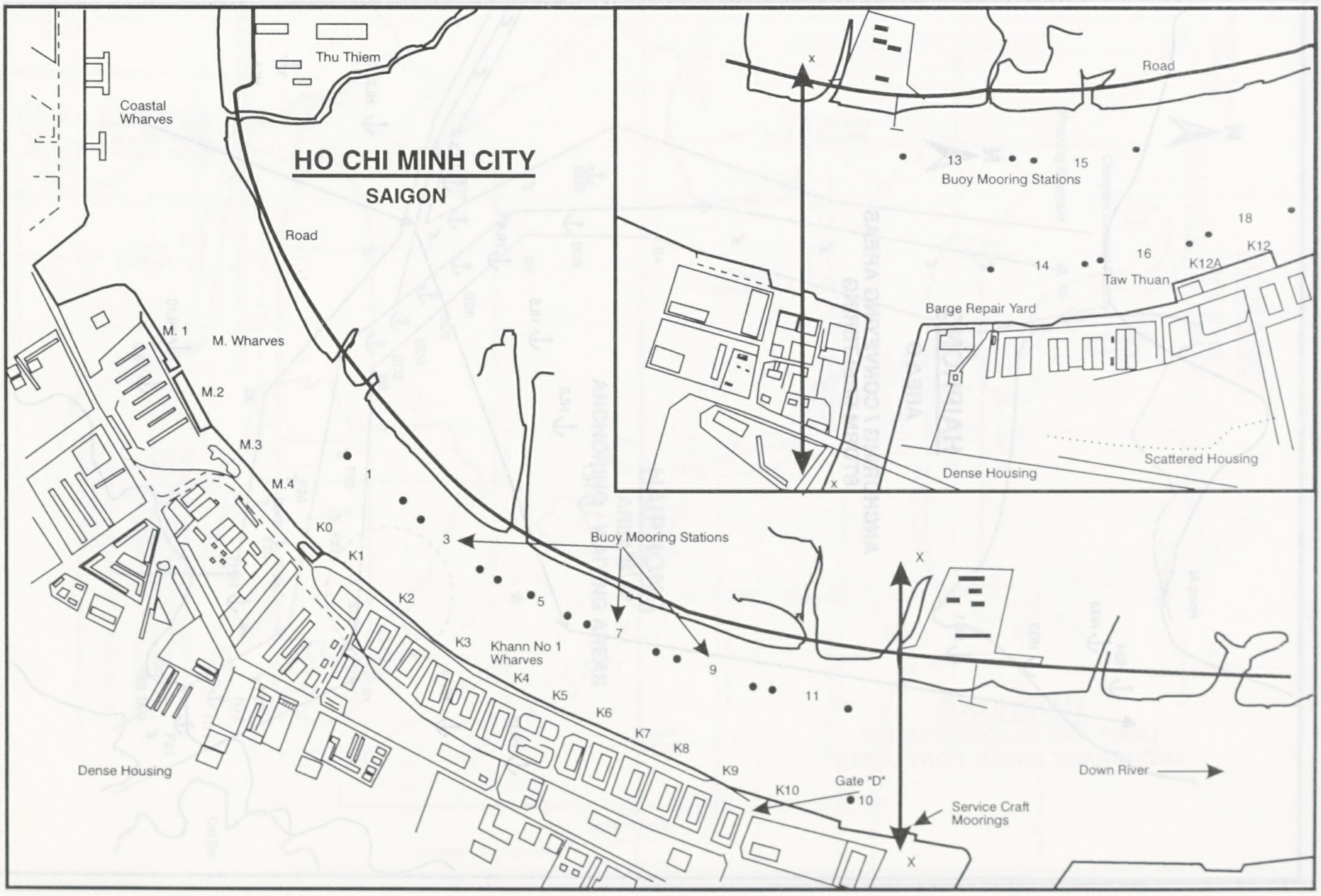

A1
F20
F21
N
F19
CAT HAI
A5
F18
F17
CAT BA
F15
F13
F16
F11
F14
F9
F12
F7
F10
F5
F8
F3
F6
F1
F4
F2
Fo
HAIPHONG
AREA A
PILOT STATION - PORT ENTRANCE
A4
20° 40' 00" N
106° 51' 03" E
A2
Pilot Station Area
A3
Quarantine Area


N
Pharung Shipyard
Chington Cement Factory
A5
B5
BD9
BD7
BD8
B3
B4
BD6
BD5
BD4
BD3
B2
B6
HAIPHONG
AREA B
ANCHORING / WAITING AREAS
F26
F29
F24b
F24
F27
A1
F20
F25
NT2
NT1
F23
B1
Cat Ba


N
HAIPHONG
AREA C
Port Centre Area
Vatcach Port
Bach Dang Ship Yard
Hai Phong Port Centre

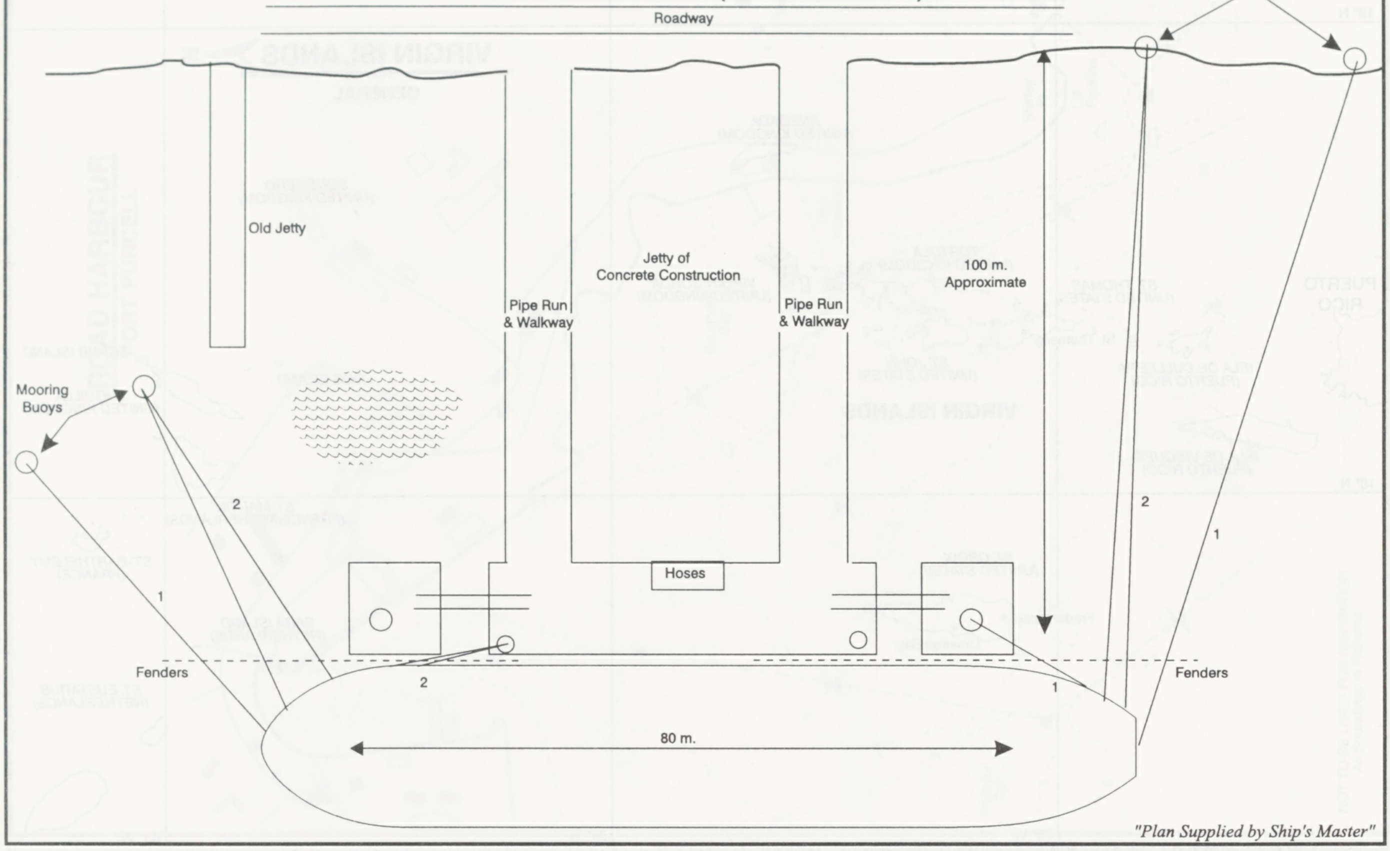

N
HAIPHONG
AREA D
ANCHORING / CONVEYING AREAS
STORM SHELTERING
HL1
HL2
HL3
HL4
HL5
HL6
HL7
HL8
HL9
HL10
HL11
HL12
HL13
HL14
HG1
HG2
HG3
HG4
Hong Ai
CAT BA


HAIPHONG
PORT
N
Channel
⑪
⑩
⑨
⑧
⑦
⑥
⑤
④
③
②
①
Store
Store
Berths
Store
Store
Store
Store
Store
Store
Port center shall consist of the above berths


HO CHI MINH CITY
SAIGON
Thu Thiem
Coastal Wharves
Road
M. 1
M. Wharves
M.2
M.3
M.4
K0
K1
K2
K3
Khann No 1 Wharves
K4
K5
K6
K7
K8
K9
K10
1
3
5
7
9
11
10
Buoy Mooring Stations
Dense Housing
Gate "D"
Service Craft Moorings
Down River
X
X
x
Road
13
15
Buoy Mooring Stations
18
14
16
K12A
K12
Taw Thuan
Barge Repair Yard
Dense Housing
Scattered Housing
x

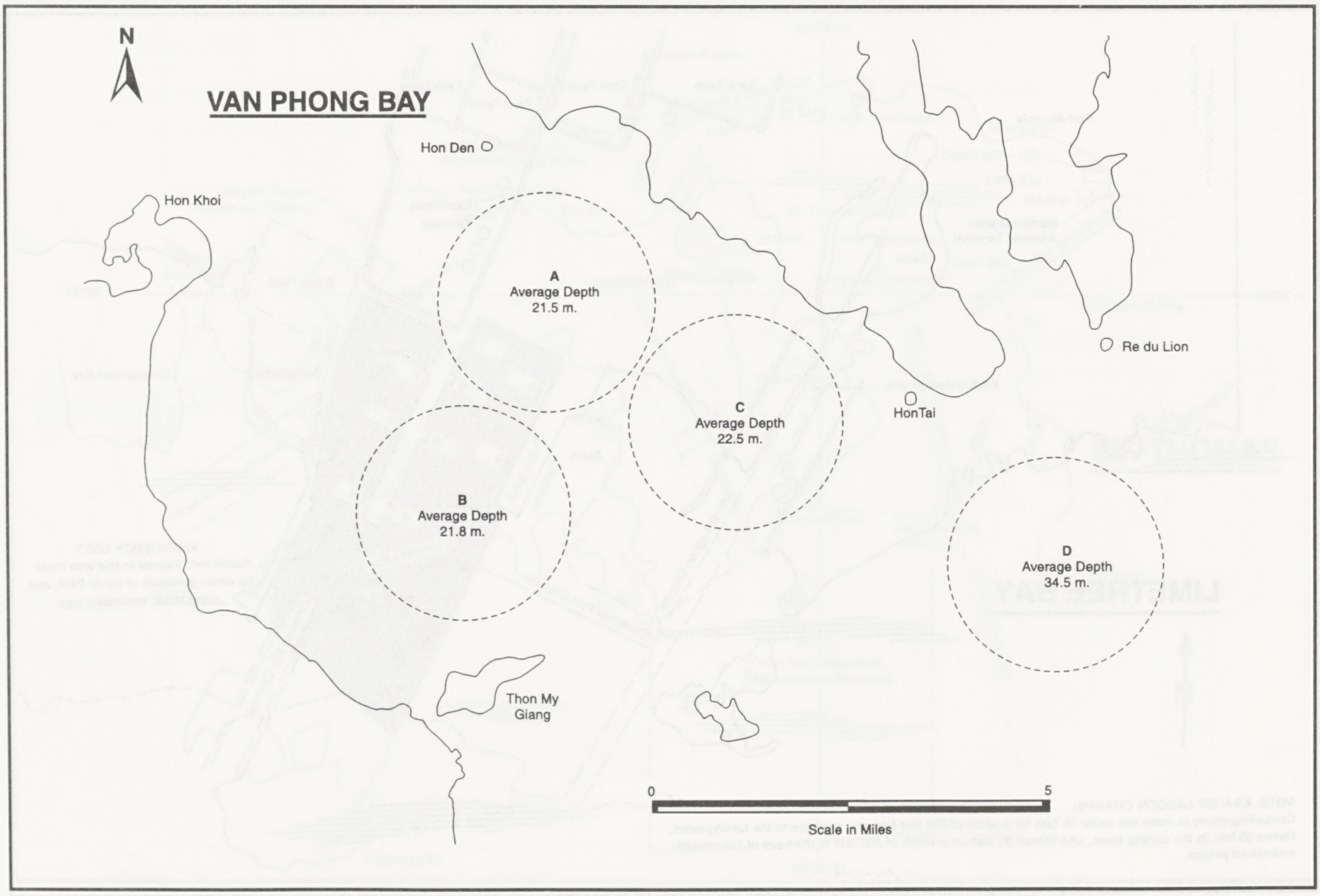
HO CHI MINH CITY

NHA BE
No. 4 PRODUCTS JETTY (OLD SHELL JETTY)


Roadway
Bollards
Old Jetty
Jetty of Concrete Construction
100 m. Approximate
Pipe Run & Walkway
Pipe Run & Walkway
Mooring Buoys
2
1
Hoses
Fenders
2
1
Fenders
2
1
80 m.

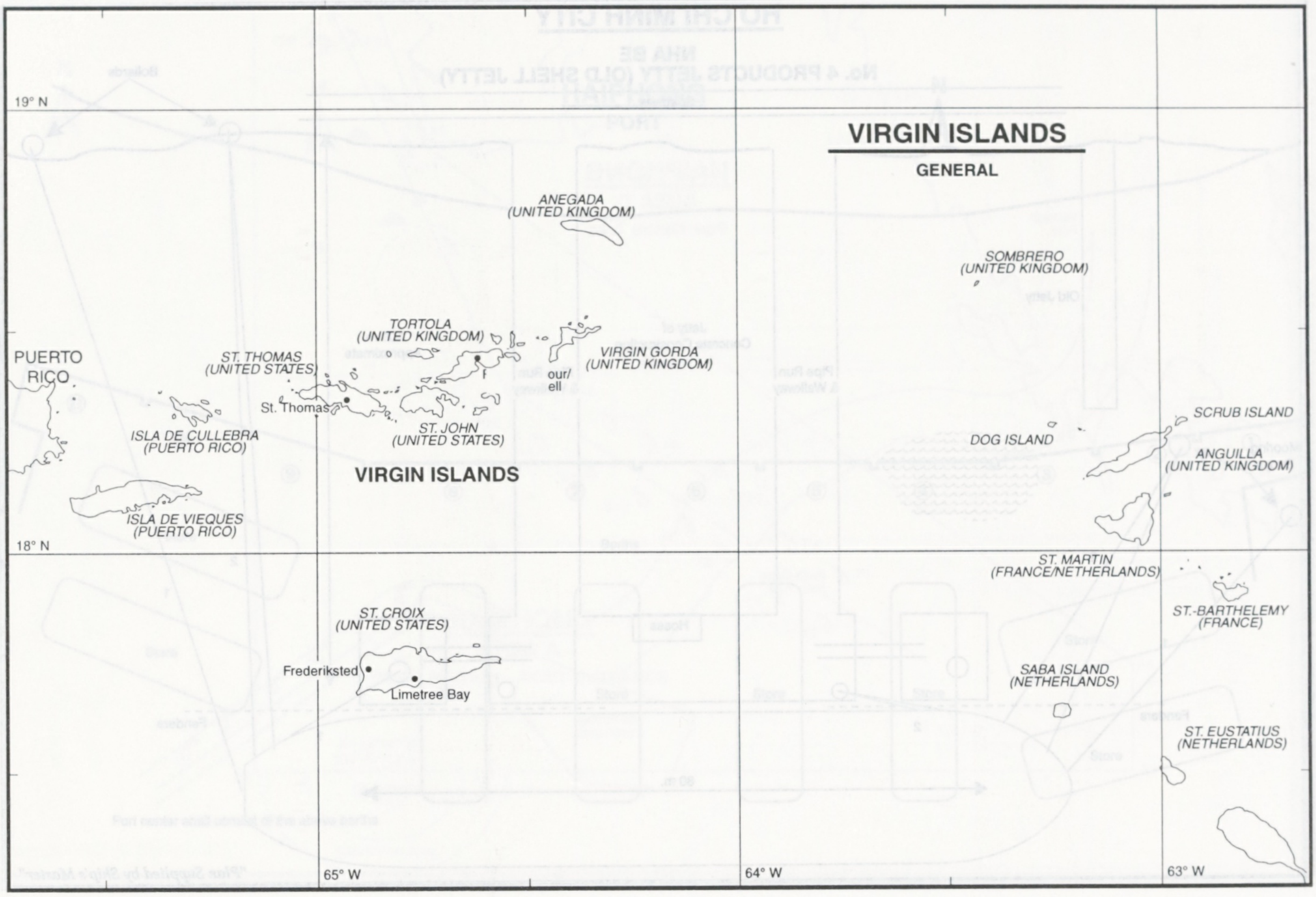
"Plan Supplied by Ship's Master"

VAN PHONG BAY

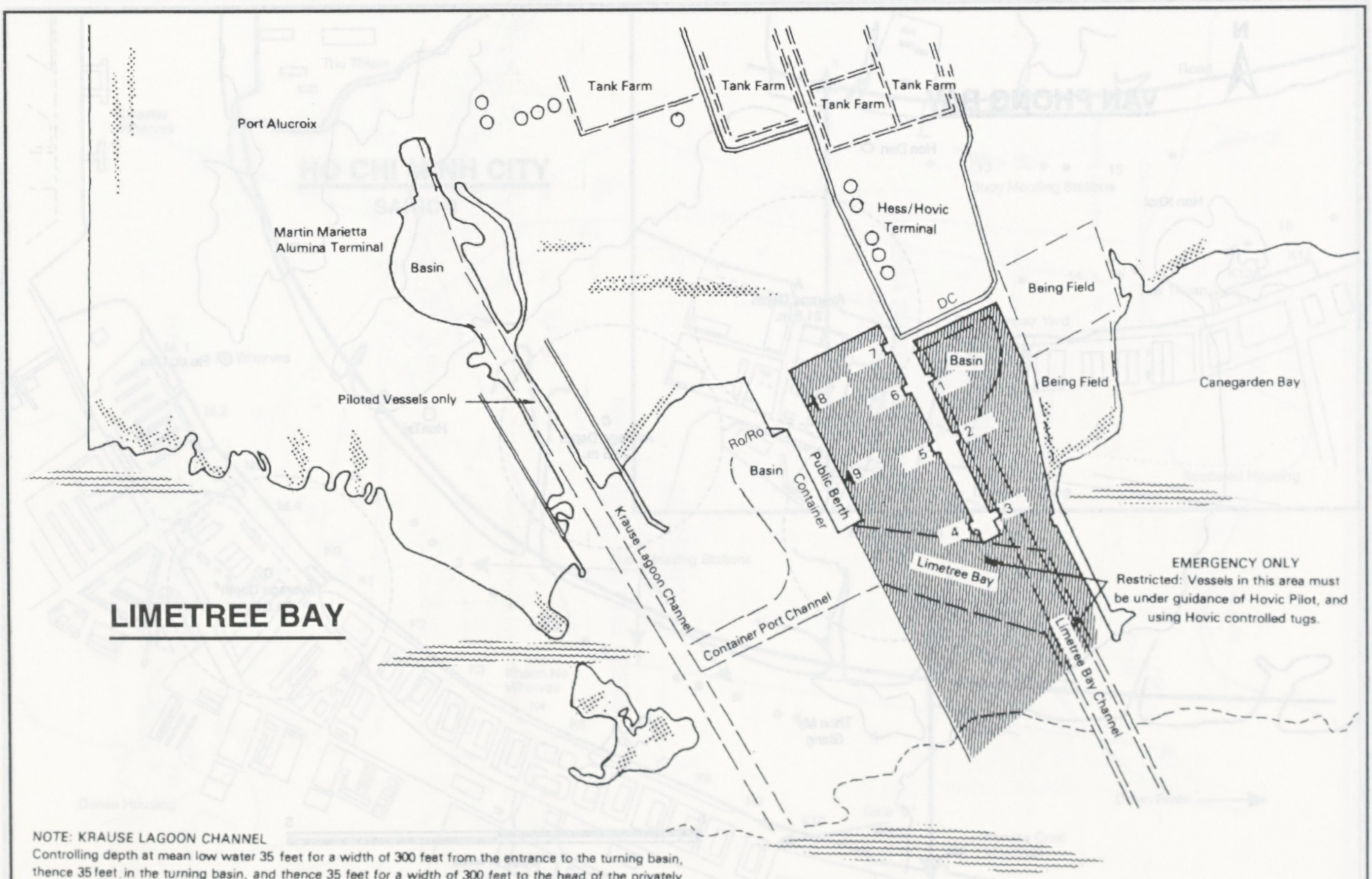

N
Hon Den
Hon Khoi
A
Average Depth
21.5 m.
C
Average Depth
22.5 m.
B
Average Depth
21.8 m.
D
Average Depth
34.5 m.
Re du Lion
HonTai
Thon My Giang
0
5
Scale in Miles

VIRGIN ISLANDS

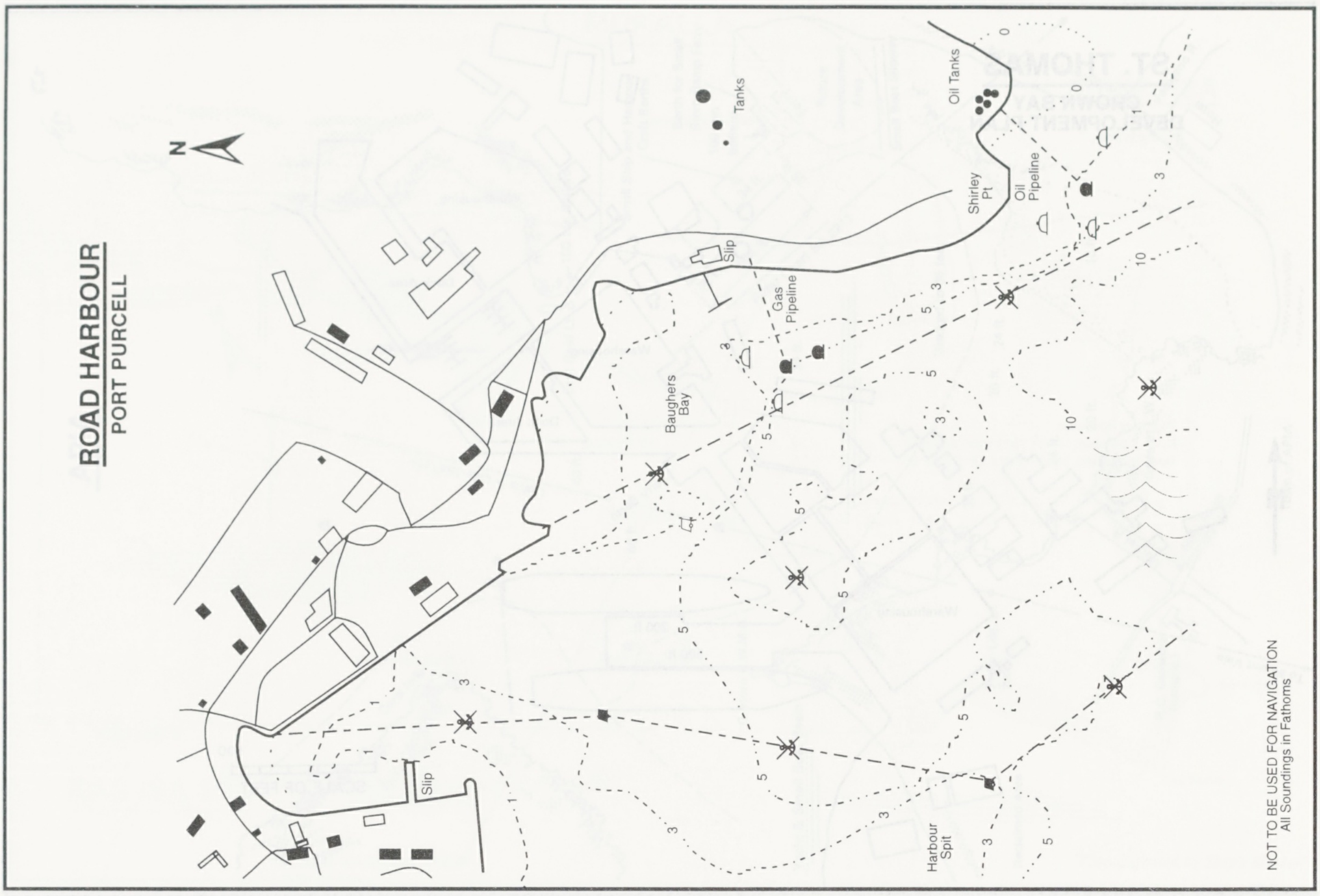
GENERAL

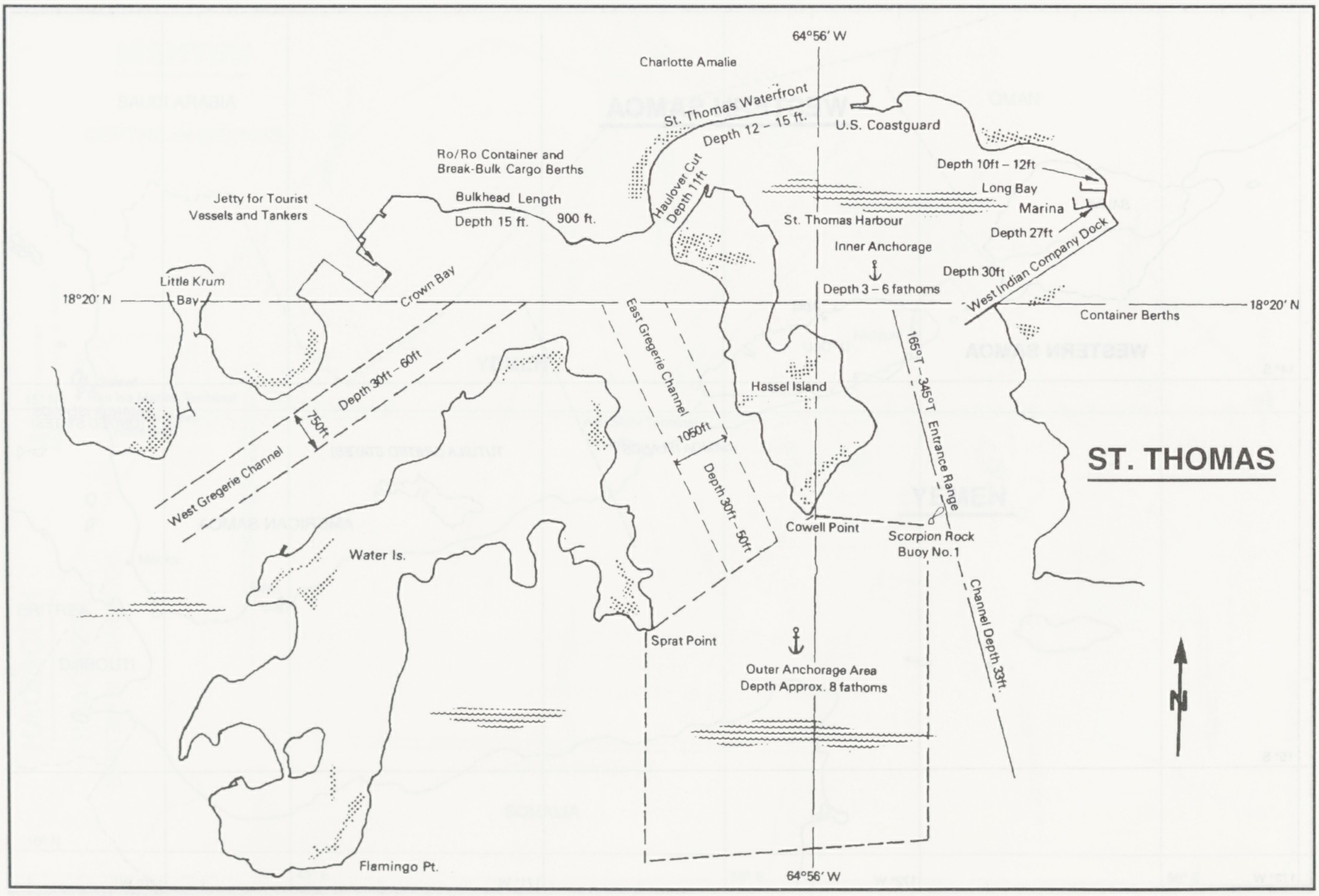

19° N
18° N
65° W
64° W
63° W
ANEGADA (UNITED KINGDOM)
SOMBRERO (UNITED KINGDOM)
PUERTO RICO
TORTOLA (UNITED KINGDOM)
ST. THOMAS (UNITED STATES)
St. Thomas
VIRGIN GORDA (UNITED KINGDOM)
ISLA DE CULLEBRA (PUERTO RICO)
ST. JOHN (UNITED STATES)
VIRGIN ISLANDS
DOG ISLAND
SCRUB ISLAND
ANGUILLA (UNITED KINGDOM)
ISLA DE VIEQUES (PUERTO RICO)
ST. MARTIN (FRANCE/NETHERLANDS)
ST.-BARTHELEMY (FRANCE)
ST. CROIX (UNITED STATES)
Frederiksted
Limetree Bay
SABA ISLAND (NETHERLANDS)
ST. EUSTATIUS (NETHERLANDS)

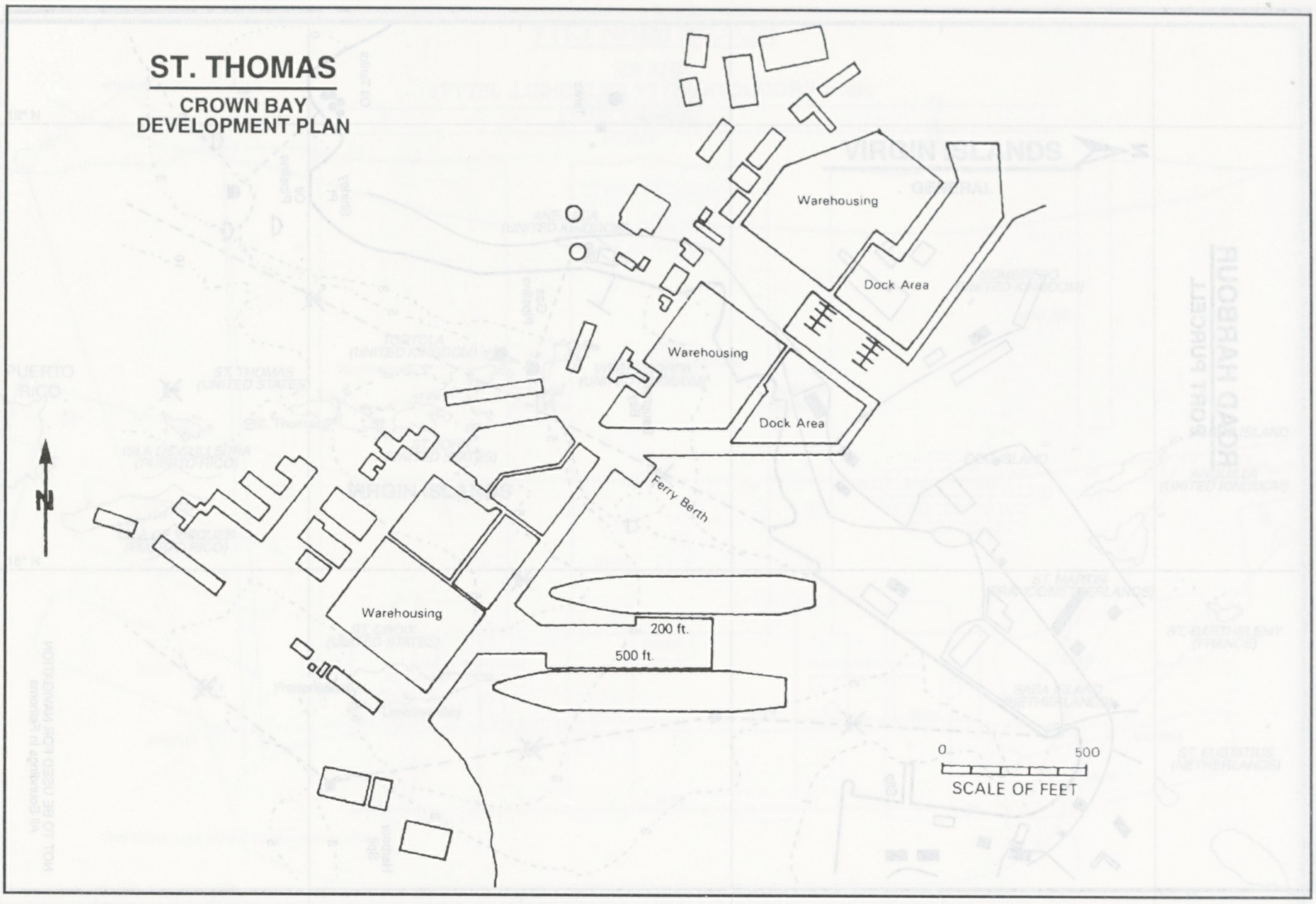
LIMETREE BAY

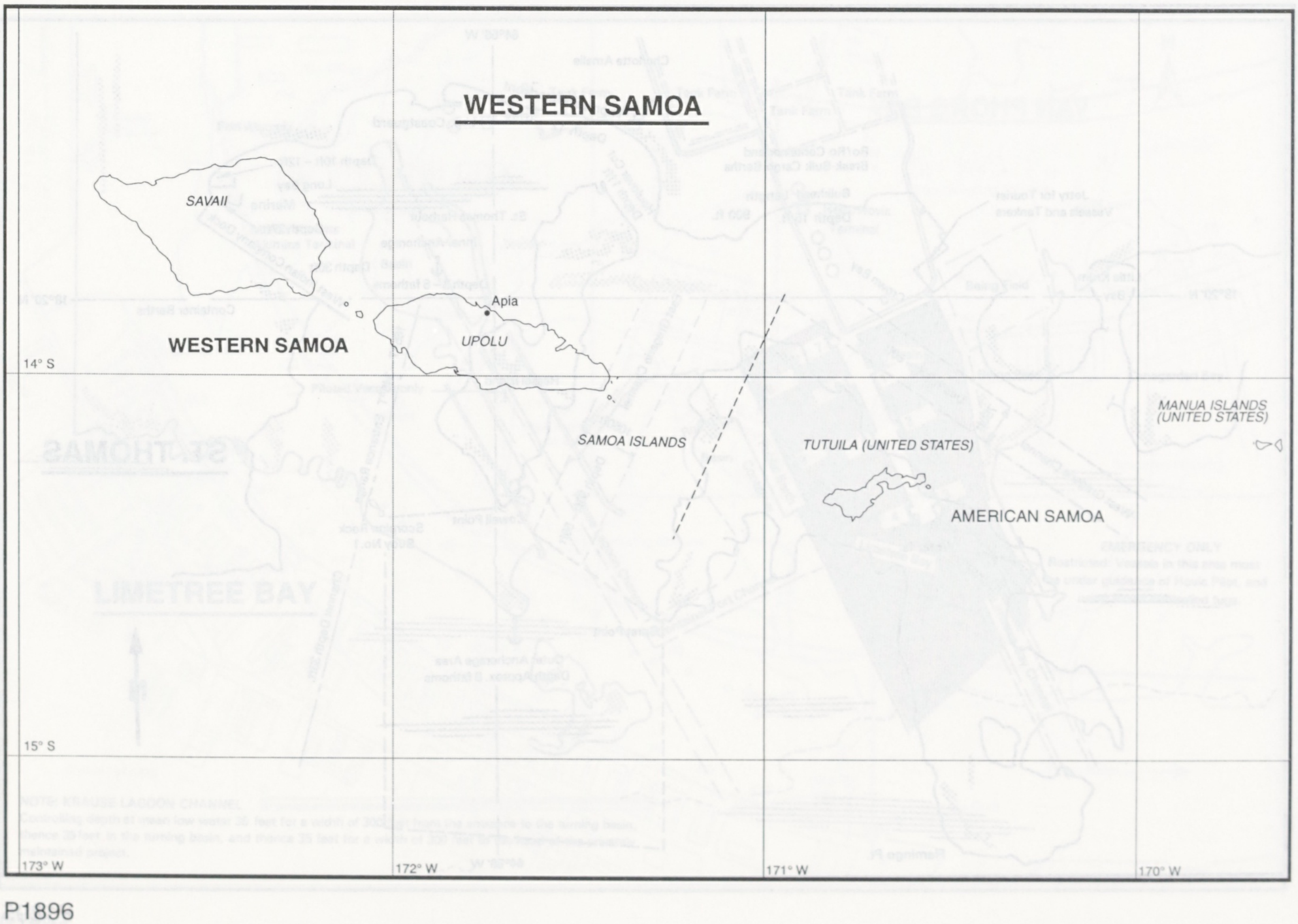

Port Alucroix
Tank Farm
Tank Farm
Tank Farm
Tank Farm
Hess/Hovic Terminal
Martin Marietta Alumina Terminal
Basin
Being Field
Being Field
DC
Basin
Canegarden Bay
Piloted Vessels only
Ro/Ro Basin
Public Berth
Container
1
2
3
4
5
6
7
8
9
Krause Lagoon Channel
Limetree Bay
Container Port Channel
Limetree Bay Channel
EMERGENCY ONLY
Restricted: Vessels in this area must be under guidance of Hovic Pilot, and using Hovic controlled tugs.

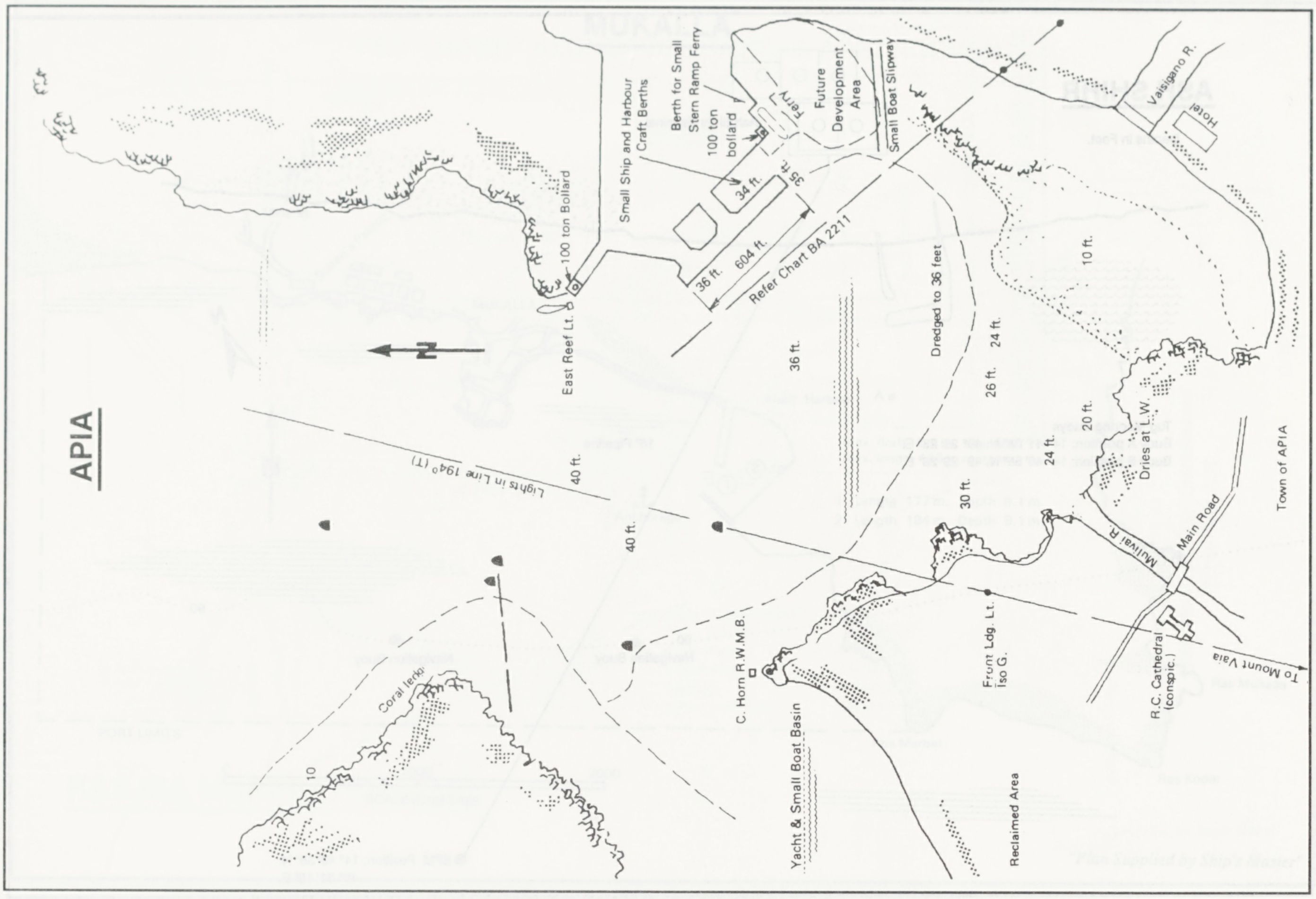
NOTE: KRAUSE LAGOON CHANNEL
Controlling depth at mean low water 35 feet for a width of 300 feet from the entrance to the turning basin, thence 35 feet in the turning basin, and thence 35 feet for a width of 300 feet to the head of the privately maintained project.

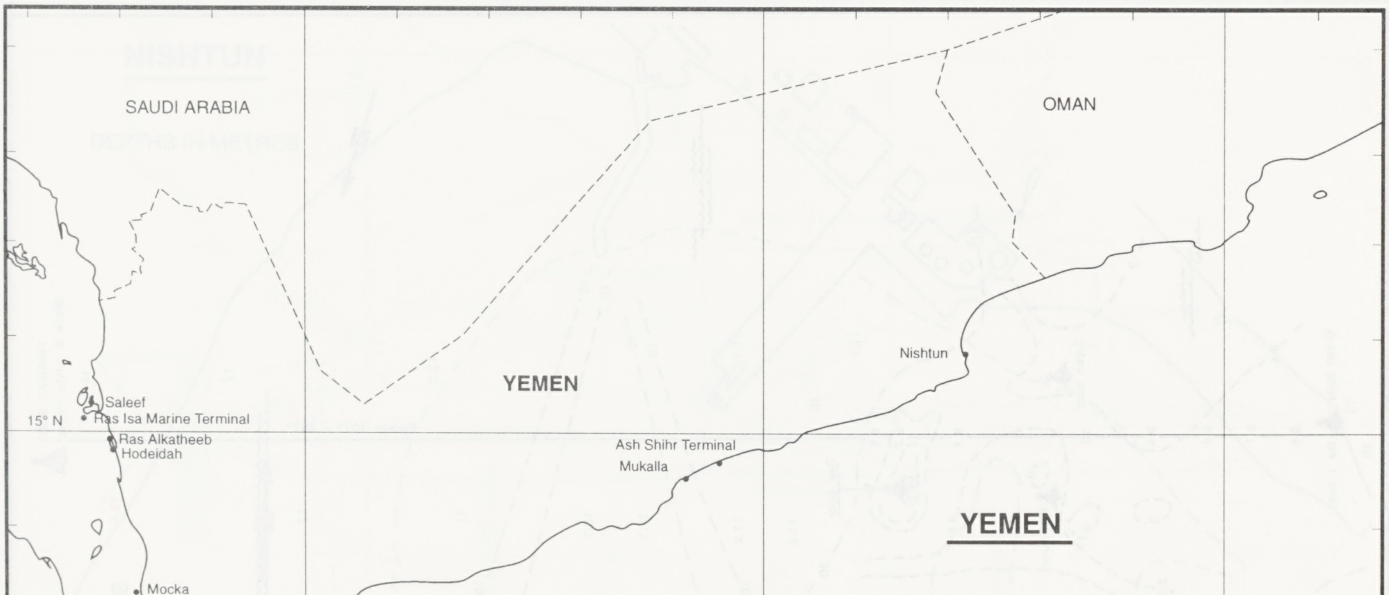

ROAD HARBOUR
PORT PURCELL
N
Tanks
Oil Tanks
Shirley Pt
Oil Pipeline
Slip
Gas Pipeline
Baughers Bay
Slip
Harbour Spit
0
3
5
10
1
NOT TO BE USED FOR NAVIGATION
All Soundings in Fathoms

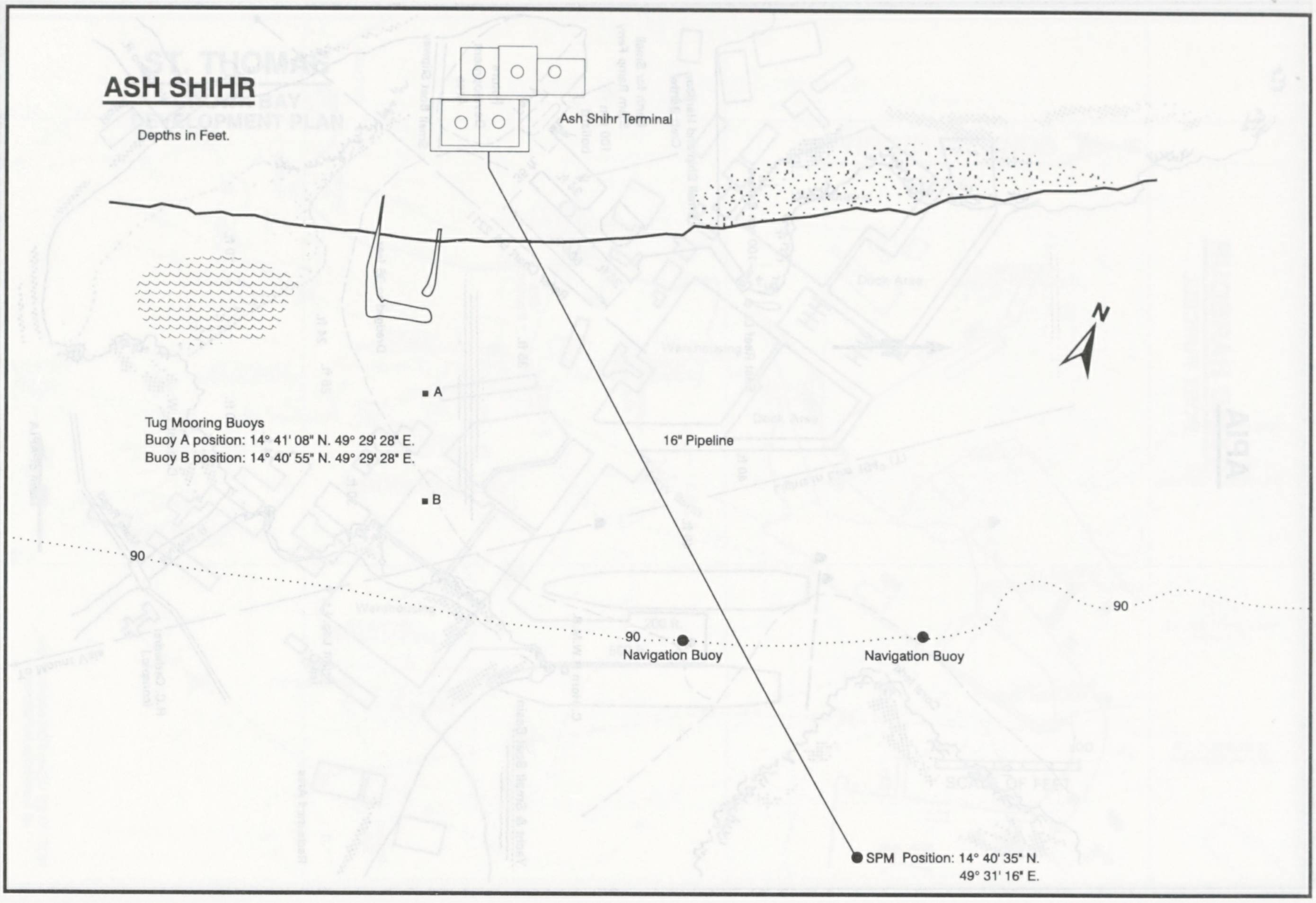

64°56′ W
Charlotte Amalie
St. Thomas Waterfront
Depth 12 – 15 ft.
U.S. Coastguard
Ro/Ro Container and
Break-Bulk Cargo Berths
Jetty for Tourist
Vessels and Tankers
Bulkhead Length
Depth 15 ft.
900 ft.
Haulover Cut
Depth 11ft
Depth 10ft – 12ft
Long Bay
Marina
Depth 27ft
St. Thomas Harbour
Inner Anchorage
Depth 30ft
West Indian Company Dock
Depth 3 – 6 fathoms
Little Krum
Bay
18°20′ N
Crown Bay
18°20′ N
Container Berths
East Gregerie Channel
Depth 30ft – 60ft
750ft
West Gregerie Channel
1050ft
Depth 30ft – 50ft
Hassel Island
165°T – 345°T Entrance Range
ST. THOMAS
Cowell Point
Scorpion Rock
Buoy No. 1
Channel Depth 33ft.
Water Is.
Sprat Point
Outer Anchorage Area
Depth Approx. 8 fathoms
N
Flamingo Pt.
64°56′ W

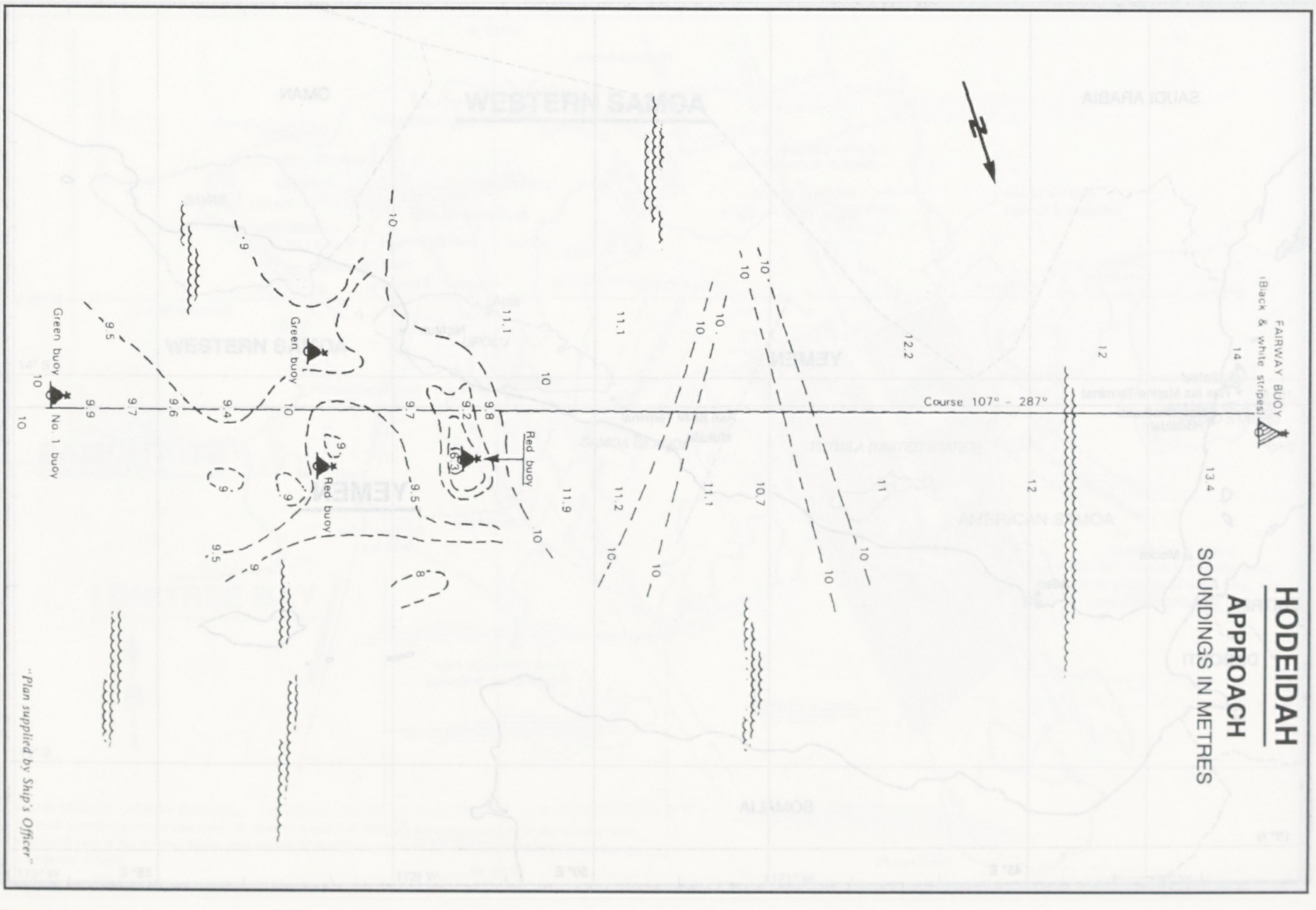

ST. THOMAS
CROWN BAY
DEVELOPMENT PLAN
Warehousing
Dock Area
Warehousing
Dock Area
Ferry Berth
Warehousing
200 ft.
500 ft.
N
0
500
SCALE OF FEET


WESTERN SAMOA
SAVAII
Apia
UPOLU
WESTERN SAMOA
14° S
SAMOA ISLANDS
TUTUILA (UNITED STATES)
MANUA ISLANDS
(UNITED STATES)
AMERICAN SAMOA
15° S
173° W
172° W
171° W
170° W


APIA
N
East Reef Lt.
100 ton Bollard
Small Ship and Harbour Craft Berths
Berth for Small Stern Ramp Ferry
100 ton bollard
34 ft.
35 ft.
Ferry
Future Development Area
Small Boat Slipway
36 ft.
604 ft.
Refer Chart BA 2211
Vaisigano R.
Hotel
10 ft.
Dredged to 36 feet
36 ft.
24 ft.
26 ft.
20 ft.
24 ft.
30 ft.
Dries at L.W.
Town of APIA
Main Road
Mulivai R.
Lights in Line 194° (T)
40 ft.
40 ft.
To Mount Vaia
R.C. Cathedral (conspic.)
Front Ldg. Lt. Iso G.
C. Horn R.W.M.B.
Coral ledge
10
Yacht & Small Boat Basin
Reclaimed Area

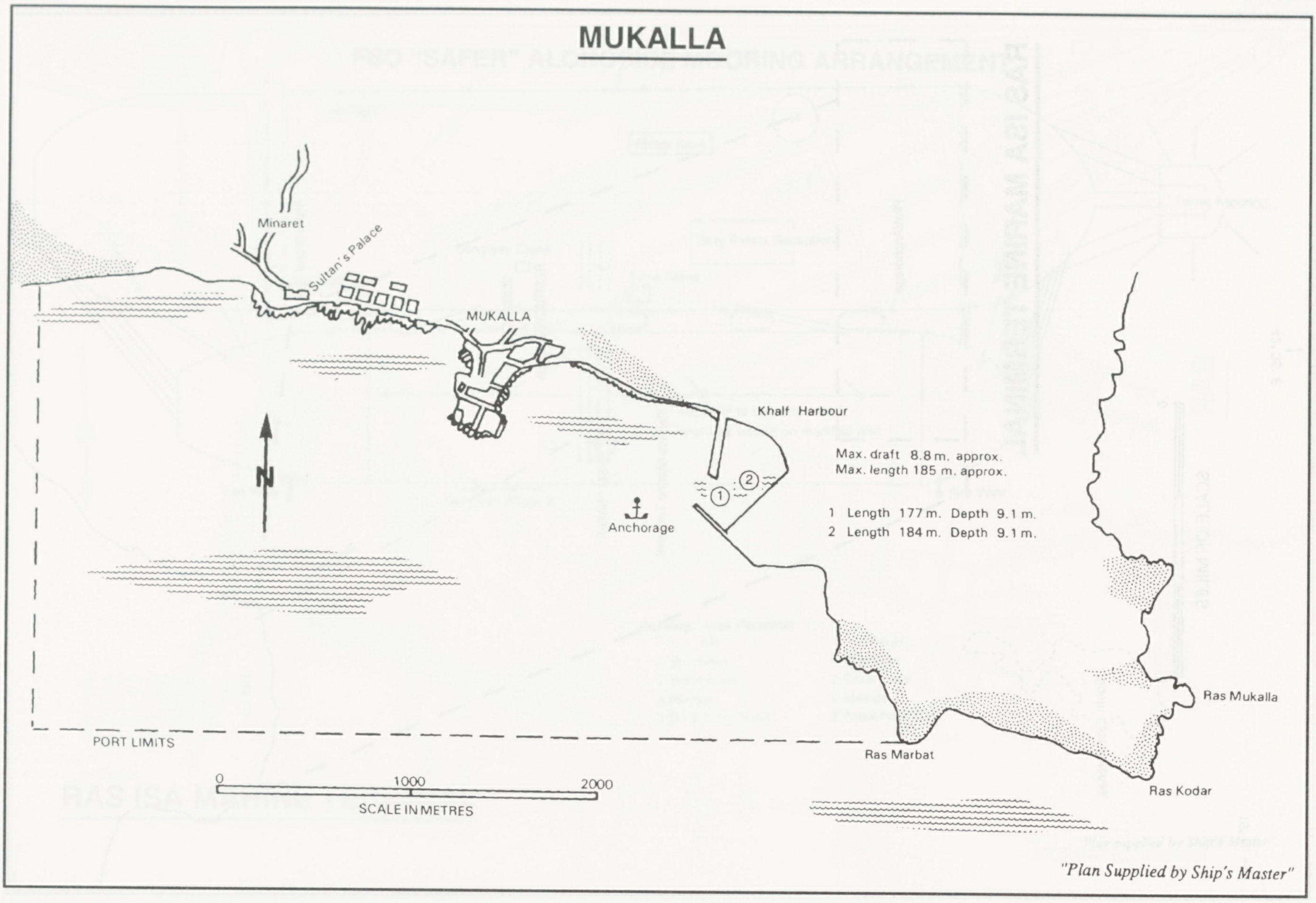

SAUDI ARABIA
OMAN
YEMEN
YEMEN
Nishtun
Saleef
Ras Isa Marine Terminal
15° N
Ras Alkatheeb
Hodeidah
Ash Shihr Terminal
Mukalla
Mocka
Aden
ERITREA
DJIBOUTI
SOMALIA
10° N
45° E
50° E
55° E


ASH SHIHR
Depths in Feet.
Ash Shihr Terminal
A
B
Tug Mooring Buoys
Buoy A position: 14° 41' 08" N. 49° 29' 28" E.
Buoy B position: 14° 40' 55" N. 49° 29' 28" E.
16" Pipeline
N
90
90
90
Navigation Buoy
Navigation Buoy
SPM Position: 14° 40' 35" N.
49° 31' 16" E.


HODEIDAH
APPROACH
SOUNDINGS IN METRES
FAIRWAY BUOY
(Black & white stripes)
N
Course 107° - 287°
Green buoy
No. 1 buoy
Green buoy
Red buoy
Red buoy
(6.3)
10
9.9
9.7
9.6
9.5
9.4
9.2
9.8
11.1
11.9
11.2
10.7
12.2
12
13.4
14
8

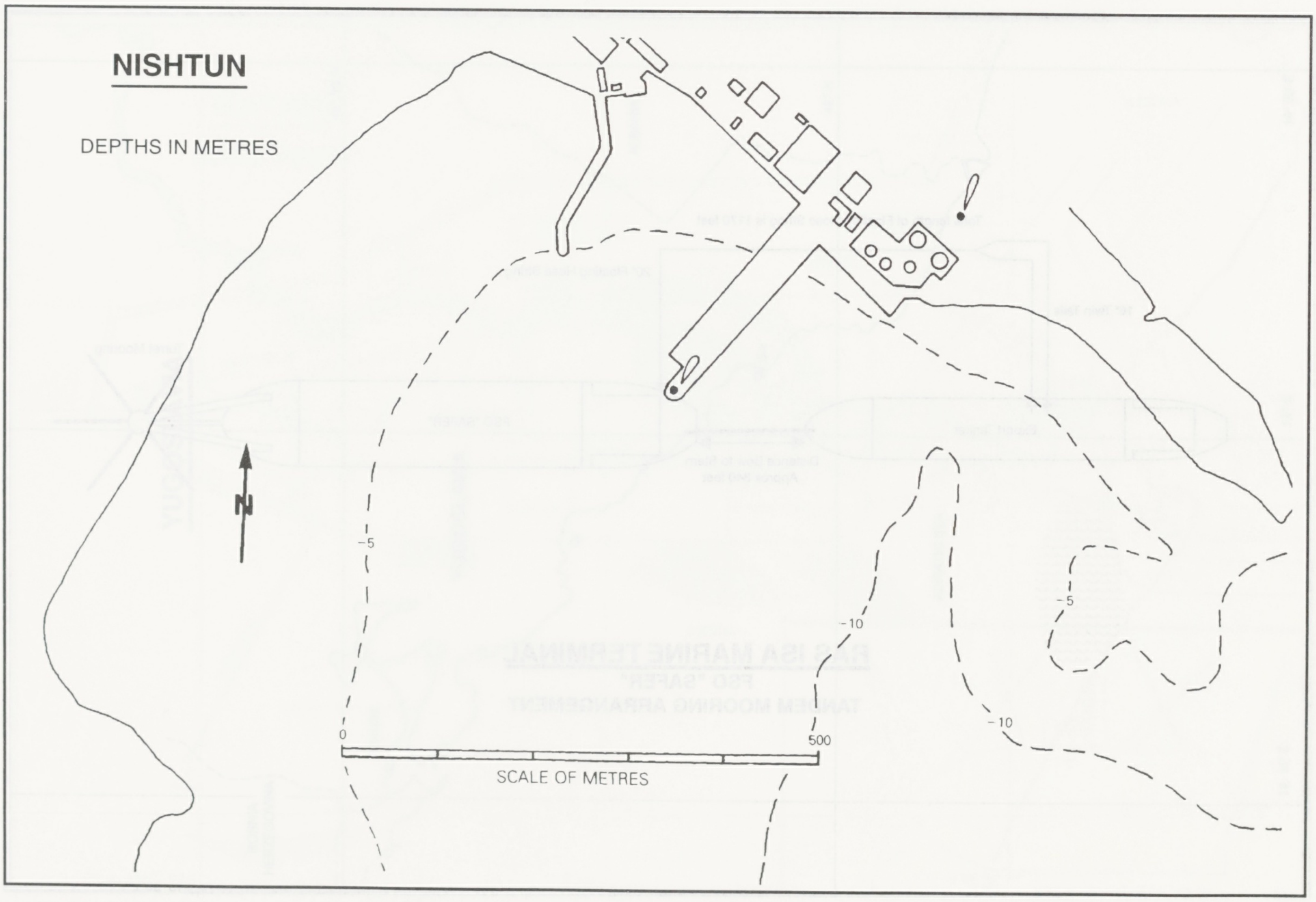
"Plan supplied by Ship's Officer"

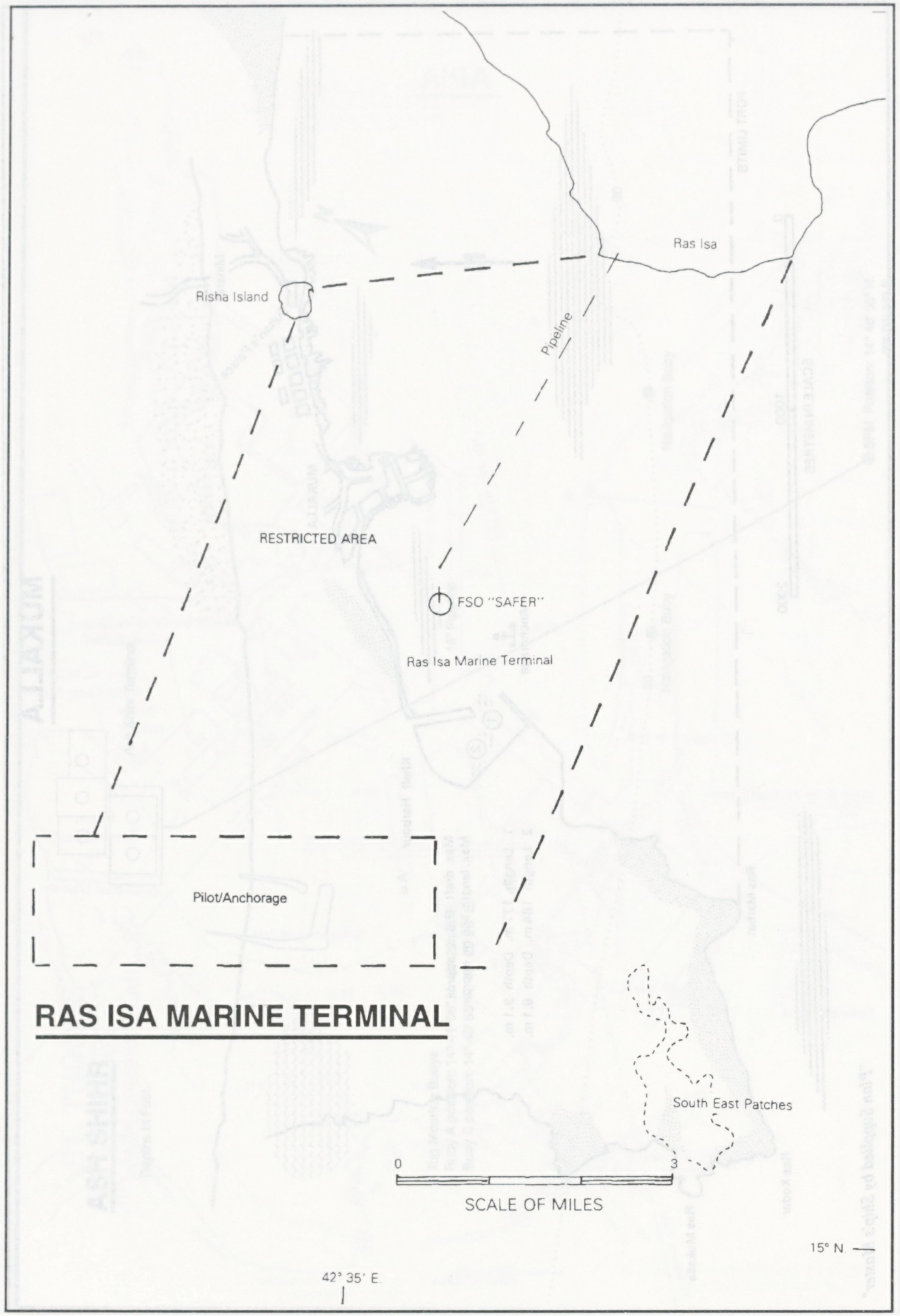
MUKALLA


Minaret
Sultan's Palace
MUKALLA
Khalf Harbour
Max. draft 8.8 m. approx.
Max. length 185 m. approx.
①
②
Anchorage
1 Length 177 m. Depth 9.1 m.
2 Length 184 m. Depth 9.1 m.
N
Ras Mukalla
PORT LIMITS
Ras Marbat
Ras Kodar
0
1000
2000
SCALE IN METRES

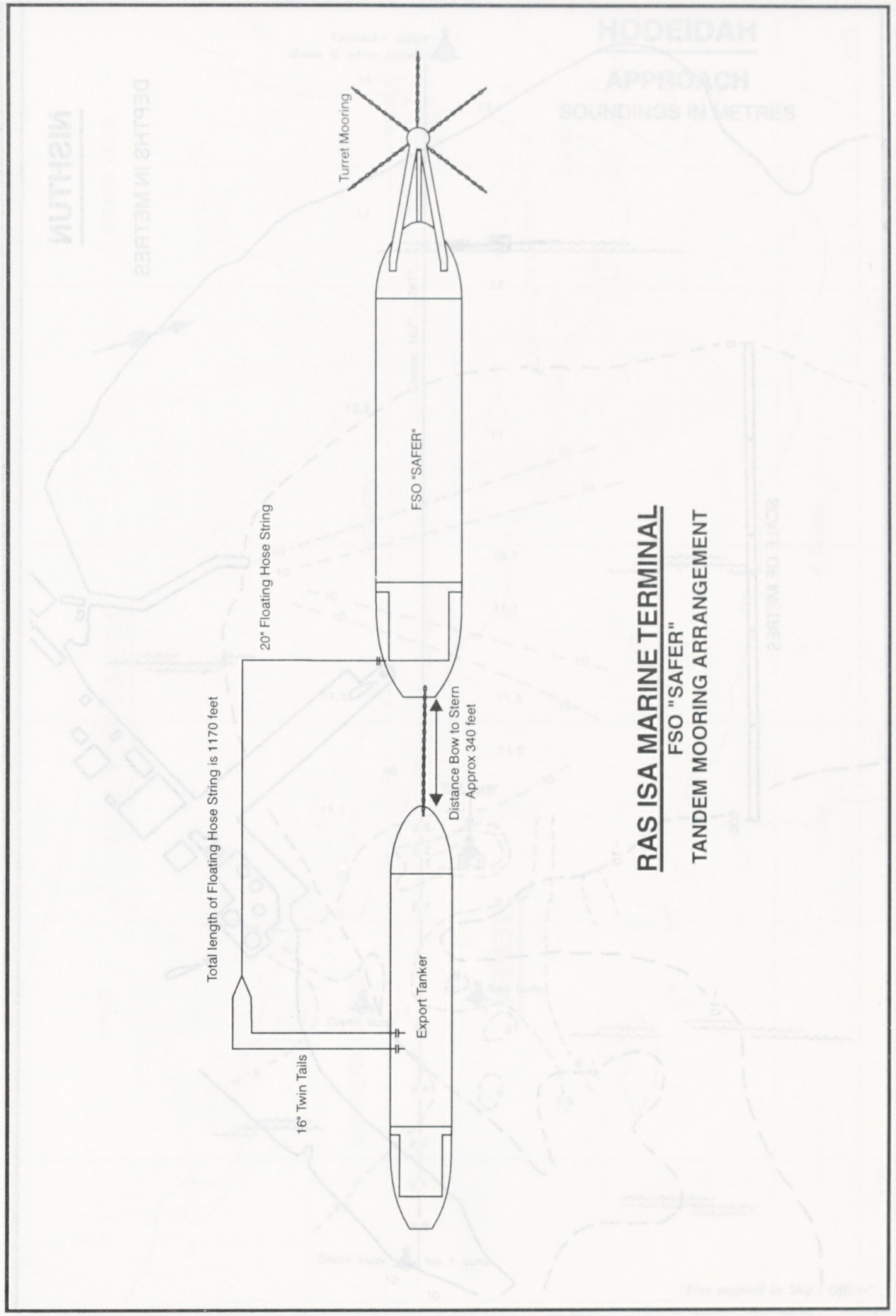
"Plan Supplied by Ship's Master"

NISHTUN


DEPTHS IN METRES
N
−5
−10
−5
−10
0
500
SCALE OF METRES

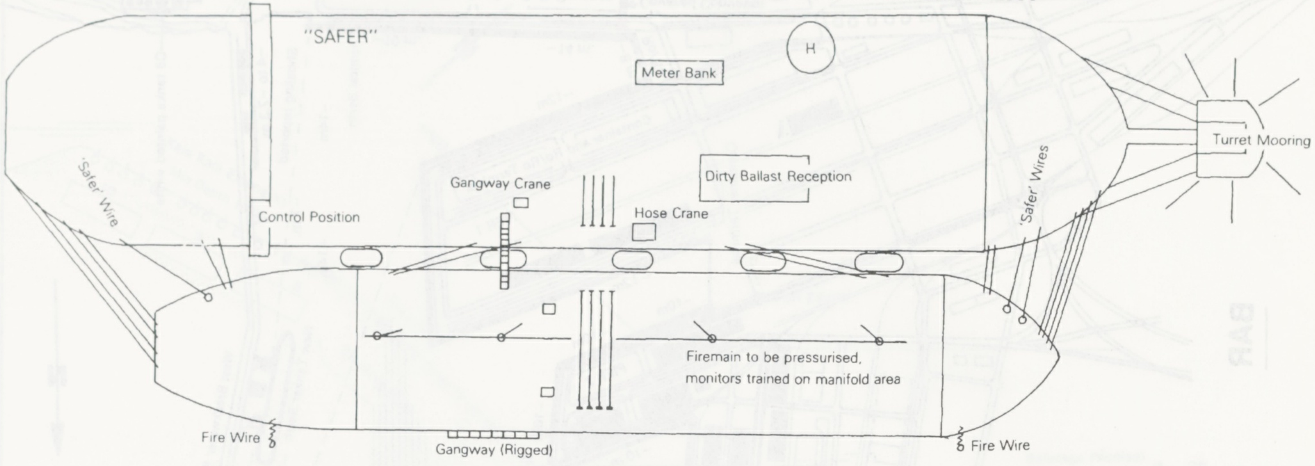

Risha Island
Ras Isa
Pipeline
RESTRICTED AREA
FSO "SAFER"
Ras Isa Marine Terminal
Pilot/Anchorage
South East Patches
0
3
SCALE OF MILES
15° N.
42° 35' E

RAS ISA MARINE TERMINAL


Turret Mooring
FSO "SAFER"
20" Floating Hose String
Total length of Floating Hose String is 1170 feet
Distance Bow to Stern
Approx 340 feet
Export Tanker
16" Twin Tails

RAS ISA MARINE TERMINAL
FSO "SAFER"
TANDEM MOORING ARRANGEMENT

FSO "SAFER" ALONGSIDE MOORING ARRANGEMENT


"SAFER"
Meter Bank
H
Turret Mooring
'Safer' Wire
Gangway Crane
Dirty Ballast Reception
Hose Crane
Control Position
'Safer' Wires
Firemain to be pressurised, monitors trained on manifold area
Fire Wire
Gangway (Rigged)
Fire Wire

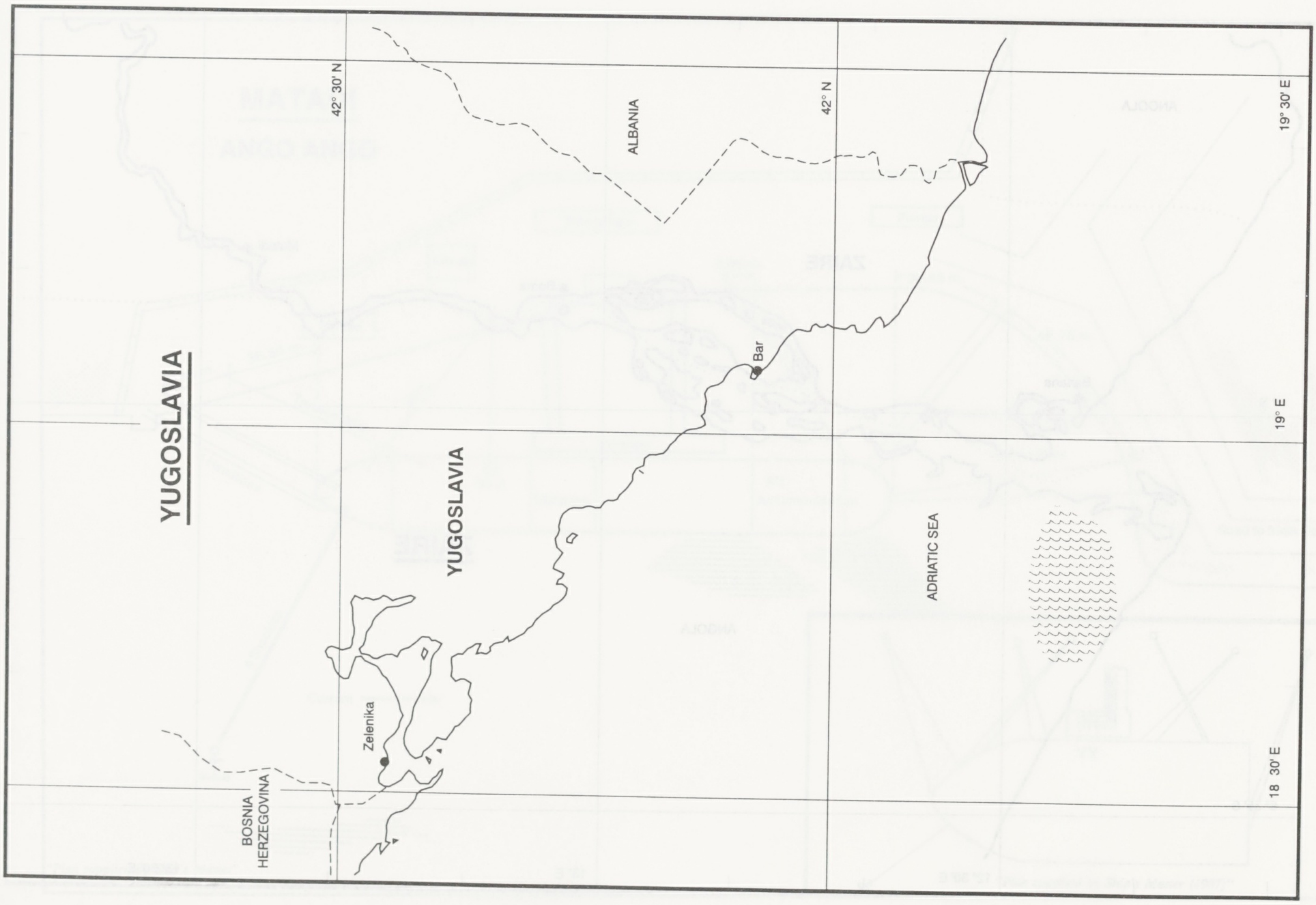
Mooring Lines Required

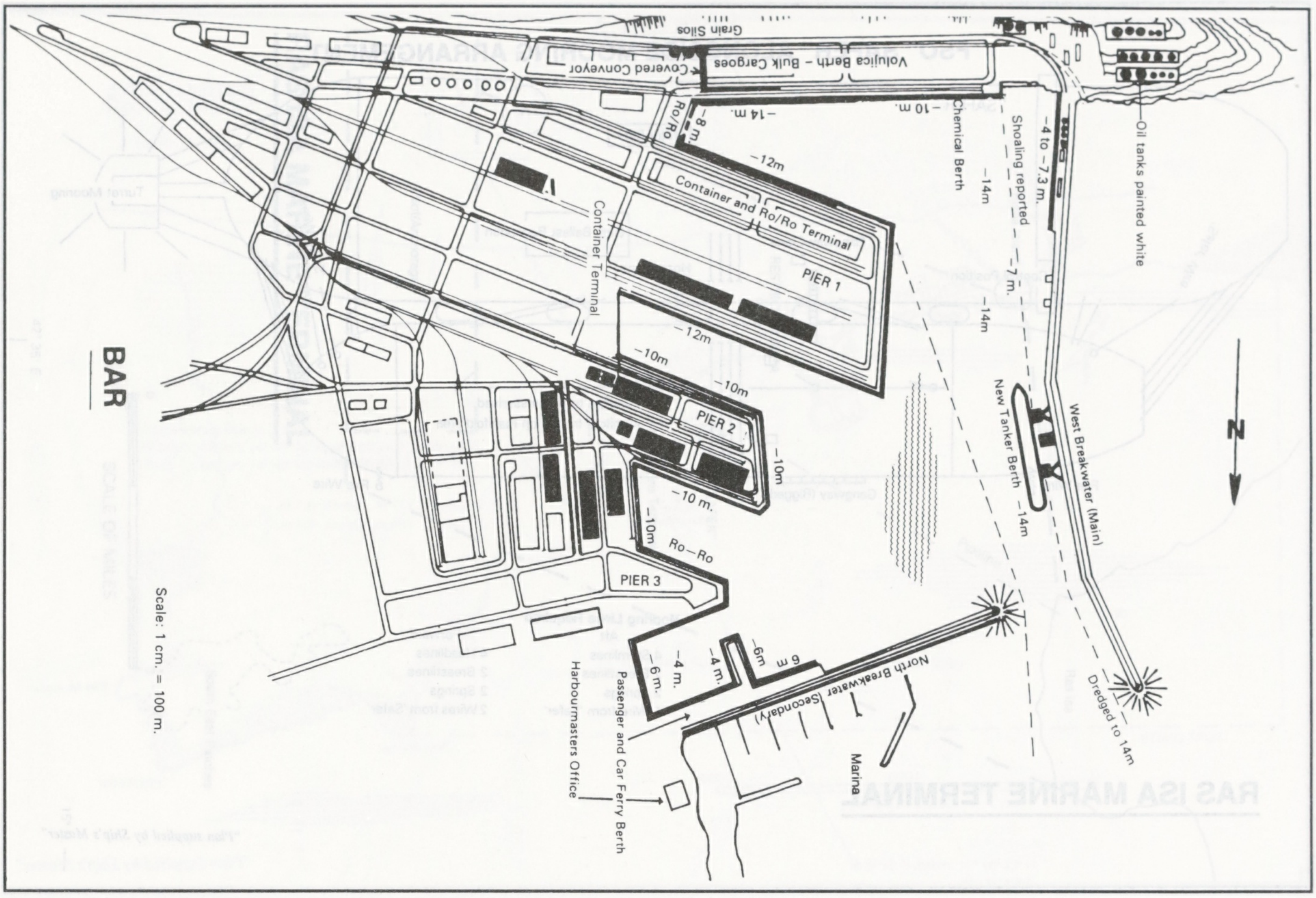
Aft	Forward
4 Sternlines	4 Headlines
2 Breastlines	2 Breastlines
2 Springs	2 Springs
1 Wire from 'Safer'	2 Wires from 'Safer'

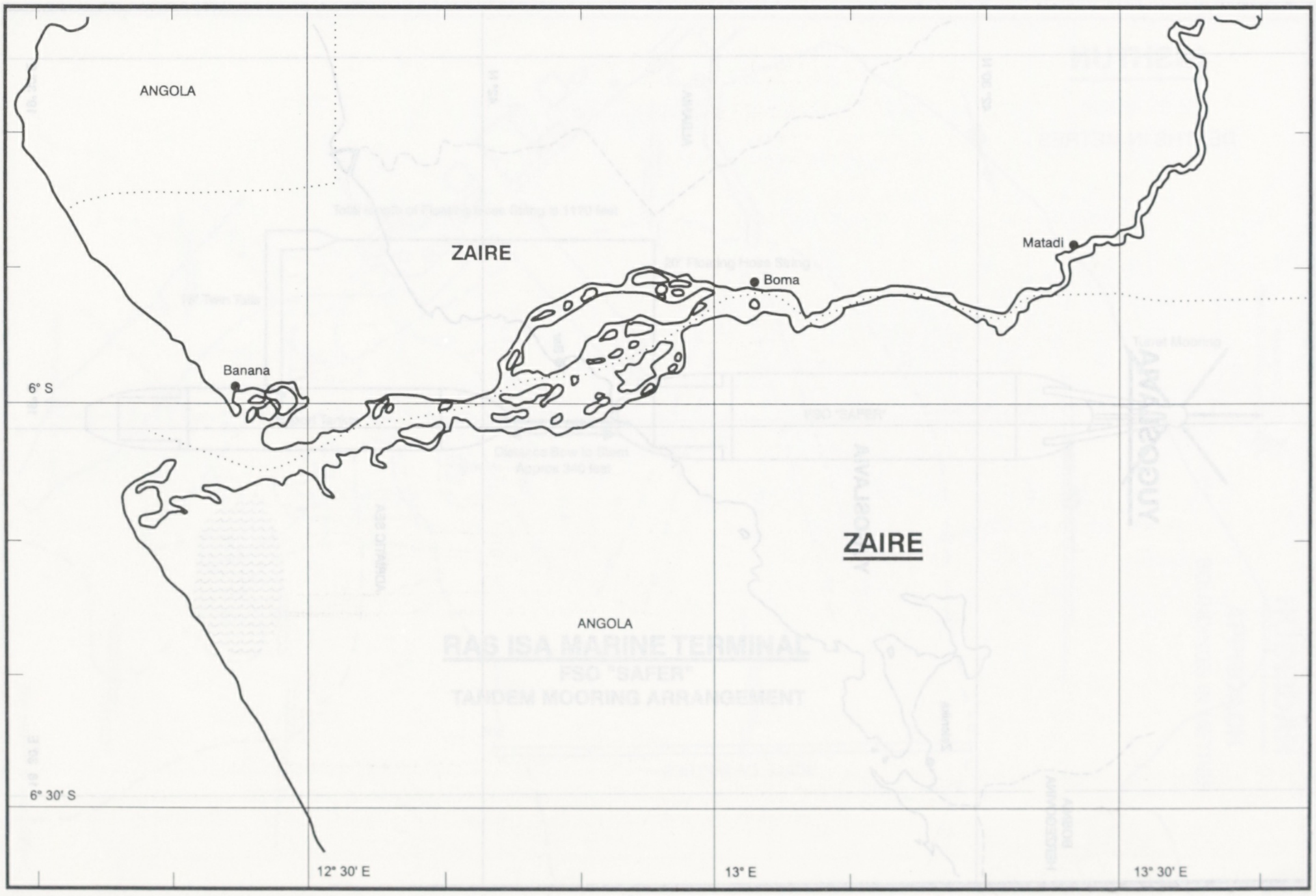
RAS ISA MARINE TERMINAL

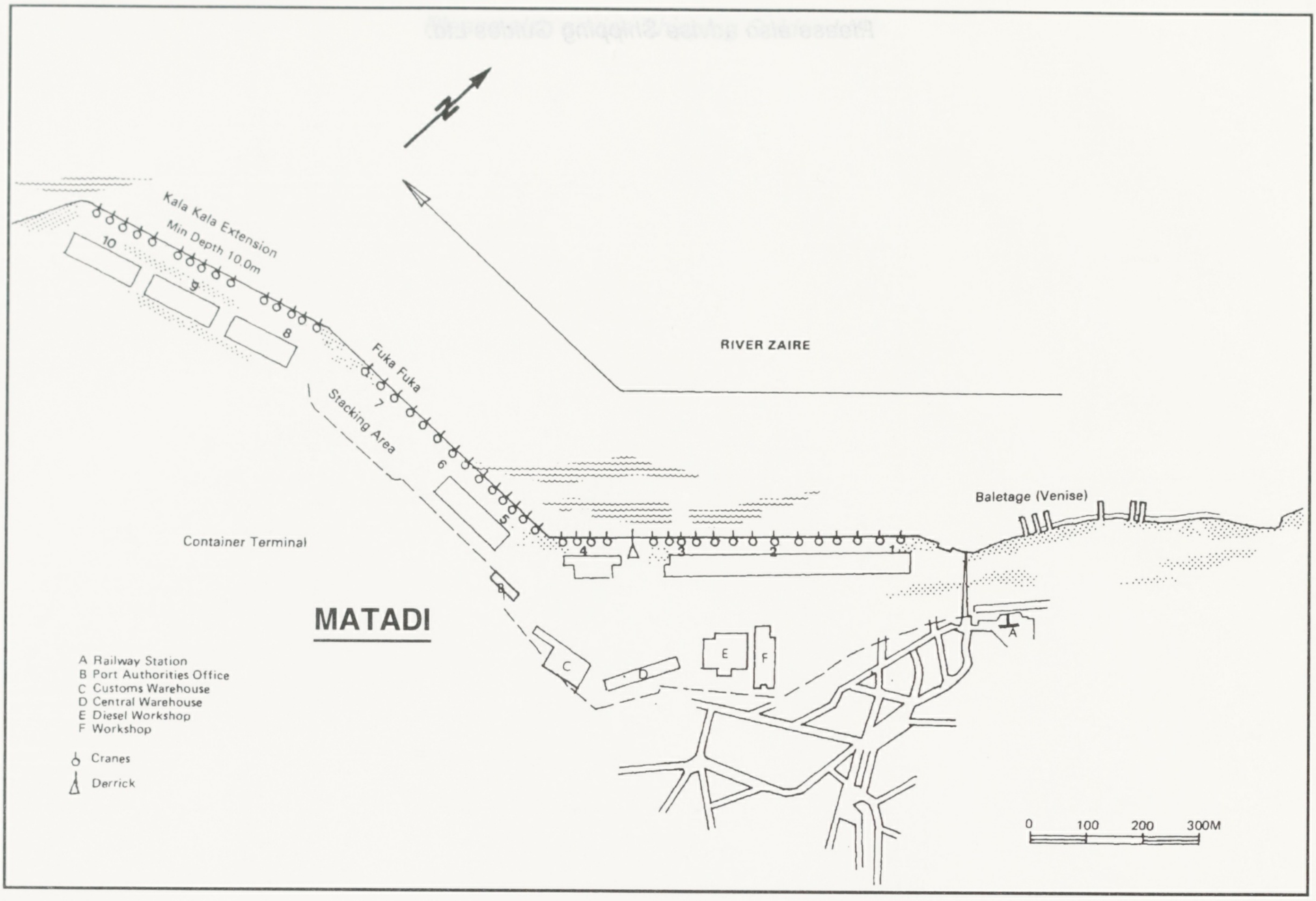
"Plan supplied by Ship's Master"

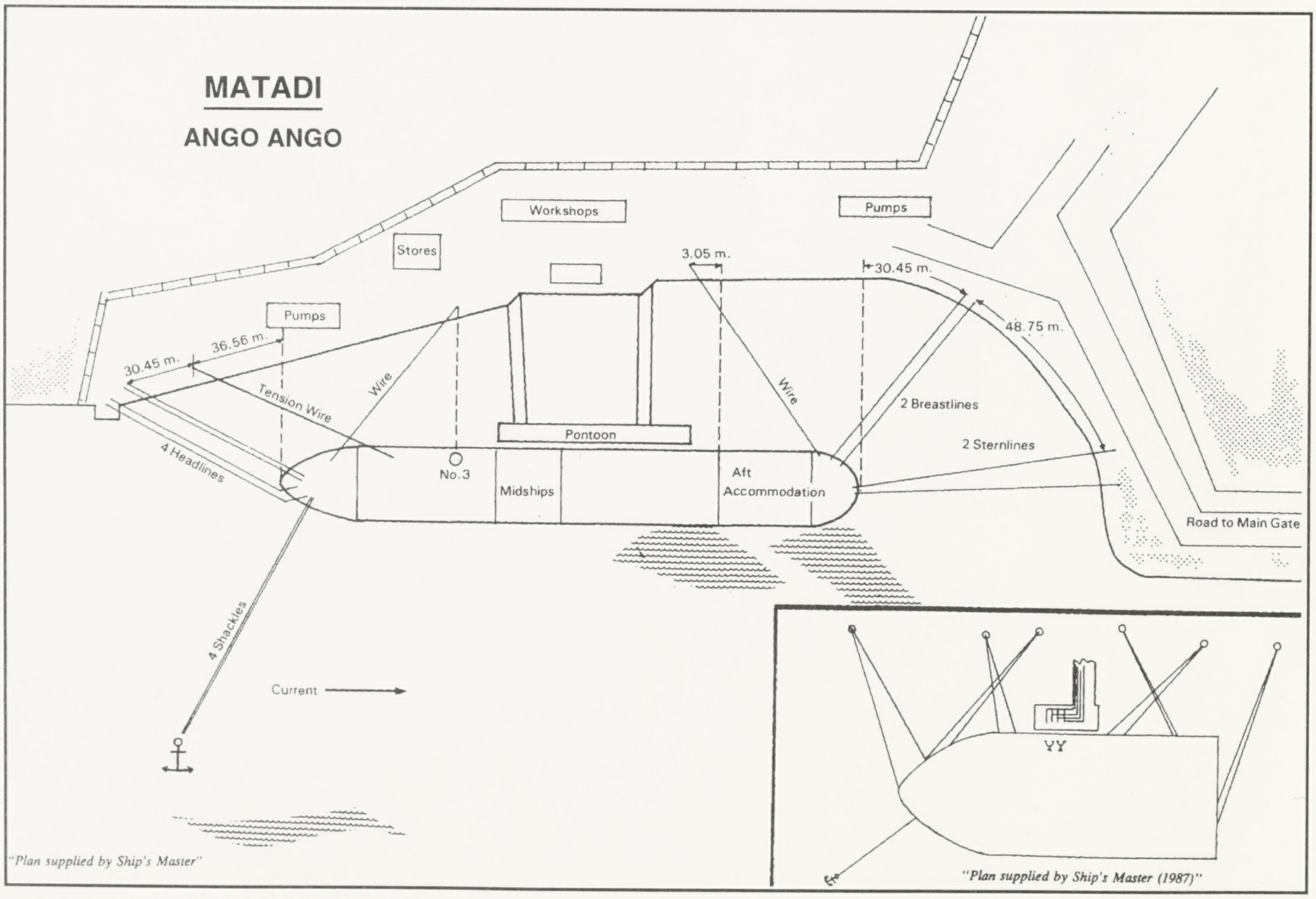
YUGOSLAVIA


42° 30' N
42° N
19° 30' E
19° E
18 30' E
ALBANIA
YUGOSLAVIA
ADRIATIC SEA
Bar
Zelenika
BOSNIA HERZEGOVINA


BAR
Scale: 1 cm. = 100 m.
N
Grain Silos
Covered Conveyor
Volujica Berth – Bulk Cargoes
–14 m.
–10 m.
Ro/Ro
–8 m.
Chemical Berth
Shoaling reported
–4 to –7.3 m.
Oil tanks painted white
–12m
Container and Ro/Ro Terminal
Container Terminal
PIER 1
–14m
–7 m.
–14m
–12m
–10m
–10m
PIER 2
–10m
–10 m.
–10m
Ro–Ro
PIER 3
New Tanker Berth –14m
West Breakwater (Main)
Dredged to 14m
North Breakwater (Secondary)
–6m
6 m
–4 m.
–4 m.
–6 m.
Marina
Passenger and Car Ferry Berth
Harbourmasters Office


ANGOLA
ZAIRE
Matadi
Boma
Banana
6° S
ZAIRE
ANGOLA
6° 30′ S
12° 30′ E
13° E
13° 30′ E


N
Kala Kala Extension
Min Depth 10.0m
10
9
8
Fuka Fuka
7
Stacking Area
6
5
4
3
2
1
RIVER ZAIRE
Baletage (Venise)
Container Terminal
MATADI
A Railway Station
B Port Authorities Office
C Customs Warehouse
D Central Warehouse
E Diesel Workshop
F Workshop
Cranes
Derrick
A
B
C
D
E
F
0
100
200
300M


MATADI
ANGO ANGO
Workshops
Pumps
Stores
Pumps
3.05 m.
30.45 m.
48.75 m.
30.45 m.
36.56 m.
Tension Wire
Wire
Wire
Pontoon
2 Breastlines
2 Sternlines
4 Headlines
No.3
Midships
Aft Accommodation
Road to Main Gate
4 Shackles
Current
YY

"Plan supplied by Ship's Master"

"Plan supplied by Ship's Master (1987)"

NOTES

Please also advise Shipping Guides Ltd.

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	Weipa	GREECE	Saint Nicolas
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	Porto Trombetas	INDIA	Pipavav
	Suape	ITALY	Gioia Tauro
CANADA	Gaspe	IVORY COAST	Lion Terminal
	Newcastle	JAPAN	General
	Portneuf	KOREA, Republic of	Pyeong Taek
	Quebec	LIBYA	General
CHILE	Coronel	QATAR	Al Rayyan
	Quintero	ROMANIA	General
CHINA	General	THAILAND	Map Ta Phut
	Fangcheng	TURKEY	General
	Liuhua Terminal		Golluk
COLOMBIA	Turbo	UKRAINE	Evapatoria

LATE PLANS

ALGERIA	Bejaia	INDIA	Pipavav
AUSTRALIA	Exmouth	ITALY	Gioia Tauro
BRAZIL	Suape	IVORY COAST	Lion Terminal
CHILE	Coronel	KOREA, Republic of	Pyeong Taek
CHINA	Liuhua Terminal	QATAR	Al Rayyan
EL SALVADOR	Acajutla	THAILAND	Map Ta Phut
GREECE	Saint Nicolas	TURKEY	Golluk
GUYANA	New Amsterdam		

Algeria

BEJAIA: (This entry supersedes the entry on Page 5)

(See Late Plans)

LOCATION: Bejaia is located 260 km. East of Algiers and 300 km. West of Annaba.
PORT LIMITS: From Cape Bouak to Soumam River.
DOCUMENTS: Refer to Algiers.
PILOTAGE: Compulsory within pilotage zone between Cap Carbon to the West and Ras Attia to the East. Pilotage services are provided by the Port Authority. Pilot can be contacted through radio operator on VHF Channel 16, Tel: (05) 211344/45 or Telex: 83940. Pilot on duty 24 hours every day.

The Pilot boards at the limit of the Pilotage Zone from a modern fully equipped boat. The pilot ladder is usually placed on the port side.

Notice of Arrival is to be advised 24 hours prior to arrival to the Harbour Master through the ship's Agent.
ANCHORAGE: Anchorage in Gulf of Bejaia is designated by the Pilot or Radio Operator.

A dangerous area in the Western Part of the anchorage is marked by a red buoy.
APPROACHES: *Entrance:* The width of the entrance is 330 m.
RESTRICTIONS: No night movements for tankers with LPG or refined petroleum cargoes. No night berthing for tankers over 80,000 d.w.t., sailing is allowed.
MAX. SIZE: *Tankers:* LOA 260 m. Max. draft after loading 12.8 m. Max. draft for manoeuvring whilst in ballast 10.0 m.
Commercial Port: No restriction on length. Max. draft 9.3 m. (Max. draft after dredging in near future will be 10.0 m.).
HEALTH: Free Pratique granted by Brigade de la Sante Maritime after berthing. If suspected disease on board, Master must advise Port Control before entry.
VHF:

Bejaia Radio	Channel 16
Port Control	Channel 16
Agent – GEMA	Channel 13
Agent – NASHCO	Channel 16
Agent – HYPROC	Channel 16
Repair Company – ERENAV	Channel 14
Bunkers (Barge)	Channel 6
Pilots	Channel 12
Tugs	Channel 12

TUGS: 4 tugs available to assist with berthing, unberthing and movements inside the port, day and night (2×1,500 h.p. and 2×2,300 h.p.).

Tugs normally join in the roads and ship's lines are normally used.

Port Authority tug station can be contacted on Tel: (05) 21-16-77.
Tug Requirements: Under normal weather conditions.

Large tankers	4 tugs for berthing.
	3 tugs for unberthing.
Vessels up to LOA 100 m.	1 tug.
Vessels LOA 100 m. – 130 m.	2 tugs.
Vessels LOA 130 m. – 180 m.	4 tugs.

BERTHING: *Commercial Port:* 19 berths for general cargo with depth 6.1 m. – 9.3 m. One fully equipped berth for grain and one berth with Ro-Ro ramp.
BULK HANDLING FACILITIES: *Grain Pier:* 2×200 t.p.h. grain vacuvators. Max. draft 6.1 m. – 9.3 m.
Developments: Developments include a 30,000 ton silo, 2 additional berths and 2 additional grain vacu-vators (2×200 t.p.h.).
STEVEDORES: Operated by Port Authority.

Working hours are 0645 hrs. – 1900 hrs. daily, except Friday, which is a holiday.
MEDICAL: Two hospitals available. Private doctors and private hospitals also available. Service available through ship's Agent. Assistance according to the international conventions, under control of Algerian Coast Guards.
TANKERS: *Petroleum Port:*

Pier	*Max. Draft* (m.)	*Remarks*
No. 1	11.50	4×10 in. hoses for refined petroleum products.
No. 2	12.50	4×12 in. hoses. Max. distance stern to manifold 125 m.
No. 3	12.80	4×12 in. hoses. Max. LOA 260 m.
No. 19	6.5	For refined petroleum cargoes, general cargo and vegetable oil. 1×8 in. hose (petroleum). 1×8 in. hose (asphalt). Max. LOA 140 m.
No. 24	8.0 (Forward)	New quay for LPG, vegetable oils (4 in. hose) and general cargo. Submersible 4 in. hose for LPG. Max. LOA 150 m. Max. draft 9.3 m.

Max. pressure allowed 3.0 kg.
Loading rate up to 4,000 t.p.h.
Ballast: All dirty ballast to be discharged ashore; 2 hoses available at each berth, can receive ballast up to 2,000 t.p.h.

Vessels berthed at Piers No. 2 and 3 cannot discharge ballast simultaneously.

Clean ballast may be discharged to sea, only if vessel is in gas-free condition.

Thick slop residues may only be accepted subject to terminal operator's approval, but only in quantities of less than 100 tons.
DENSITY: 1025.
FRESH WATER: Available at Berths No. 2 and 3 in the Petroleum Port and all berths in the Commercial Port. Port watchman must be advised before connection. Loading rate about 15 t.p.h.
FUEL: Available at all Petroleum Port berths, subject prior arrangem

Also available by barge "Bordj Menael" from Aviation Marine capacity 1,000 tons.

Lubricants and intermediate fuels available, but prior notice thr Agent is necessary.
FIRE PRECAUTIONS: Anchors must be hove-up while vessel is mo in berth. For tankers, a fire wire must be provided fore and aft for use if necessary.

Tanker's firefighting equipment must be ready for use on fore main deck and under pressure.

4 tugs are equipped with firefighting apparatus and foam tanks.
REPAIRS: ERENAV: Engine repairs, steel repairs, pipe rep accommodation repairs. Tel: 22.81.84.

B.M. (Bejaia Maintenance): Engine repairs, radar and VHF repa

No repairs may be carried out on board without first obtainin Harbour Master's permission.
DRY DOCKS: One dry dock (180 m. × 30 m.), capacity 15,000 d
SURVEYORS: Representative of P&I Club available.

Private surveyors also available.
GANGWAY/DECK WATCHMEN: Recommended. The Harbour M may impose a guard on vessels carrying certain cargoes.
OPENING/CLOSING HATCHES: Normally by ship's crew.
CUSTOMS ALLOWANCES: As per Algerian Customs regulation
CARGO GEAR:

Mobile cranes up to 40 tonnes.
Forklifts up to 30 tonnes.
Tractors.

Load/discharge operations can be performed by ship's gear or s gear.
REPATRIATIONS: Can be arranged via Bejaia-Soumam.

International airport with flights from and to Algiers (H Boumediene Airport), Marseille, Lille and Lyon.

Ferry to Marseille, one sailing per week in Summer and 2 sailing month in Winter.
AIRPORT: Soumam International Airport, 5 km.
HOLIDAYS: New Year's Day (1st January); Independence Day; La Day; Aid Seghir; Aid el Kebir; Achoura; 1st November; Mouloud D
POLICE/FIRE/AMBULANCE: Fire: Bejaia Port Control on Channel 16 (24 hours) or Tel: (05) 21-13-44/45.

Protection Civile: Tel. 21-26-02, 21-26-03.

Ambulance: Tel: 21-18-07, 21-18-08, 21-18-93.
TELEPHONES: None available for placing on board. Teleph available at each tanker berth.
BANKS:

Credit Populaire d'Algerie (CPA). Tel: 22-00-73/74. Fax: 22-27-
Banque Exterieur d'Algerie (BEA). Tel: 21-15-30. Fax: 22-39-38
Banque Nationale d'Algerie (BNA). Tel: 21-20-85/8 Fax: 22-12-59.
Banque de Developpement Local (BDL). Tel: 22-0 Fax: 22-06-45.
Banque Agricole de Developpement Rural (BADR). Tel: 22-97-2 Fax: 22-05-74.

SHIP SUPPLY SERVICE: Available from 4 Agents.

AVICAT specialise in ship's supply services. Tel: 22-9 Fax: 22-91-04.

Ship's supplies available in the roads, by pilot boat or tugs.
SHORE LEAVE: Allowed by Immigration Police Control, prov seamen carry identity cards or shore passes.
GARBAGE DISPOSAL: Port Authority trucks and skips available requested by Agent.
WASTE OIL DISPOSAL: Service provided by ERENAV (R Company). Tanker trucks utilised for collection and removal, ship's A to make arrangements.
CURRENCY: Algerian Dinar. U.S.$ 1.00 = 55.00 Dinars (Septe 1996).
DEVELOPMENTS: Container Terminal to be fully equipped for Initial depth 10.0 m., later to be 12.0 m.

Dangerous goods area for storage and transit to be ready 1997

Two new pilot boats to be available March 1997.

Two new tugs on order.

Dredging operations in all Bejaia Port docks underway.

Also see "Bulk Handling Facilities".

SHIPMASTER'S REPORT: January 1987 (Updated 1996).

While anchored at Bejaia waiting to berth, the vessel was boarde the Algerian Coast Guard.

All ship's papers were correctly presented.

All trading certificates were valid.

The vessel was considered to have violated the Algerian regulations by failing to dip the ensign as a courtesy to the Alg Coast Guard cutter. This was the vessel's first visit to the port an having a copy of Algerian Port Regulations was not accepted a excuse so a fine was imposed.

All crew accommodation was searched and all soap in excess o tablet per cabin was confiscated.

SHIPMASTER'S REPORT: February 1989.
Vessel: 90,000 d.w.t.
Anchoring: Vessel anchored without a Pilot after contacting Port Co
VHF: Pilot on Channel 8.
Tugs: For berthing vessel used one tug on the starboard bow 2 ship's lines and one tug on the starboard quarter with 2 ship's l A third tug was used for pushing alongside.
Moorings: Vessel berthed port side alongside with 3 head lines, 2 b lines and 2 springs, forward and aft. The head lines and stern line the first lines sent to the shore.
Shore Passes: Immigration issue shore passes in exchange passports which are taken ashore.

SHIPMASTER'S REPORT: September 1989.
Fresh Water: When berthed at the oil jetty, fresh water is available between 0400 hrs. and 1100 hrs.
Officials: The following personnel boarded the vessel on arrival: The Agent, Shipper, Loading Master, Surveyor, 3 Customs Officers, 3 Immigration Officers, Doctor and 2 Port Control Officers.
Cargo Documents: The Cargo Documents are delivered on board after completion of loading. This can be from 10 minutes after completion to as long as 3 hours after completion.
Shore Passes: On our last visit to the port, shore passes were in short supply so we made extra copies. On this visit we used some of the copies we made and the Immigration officials asked us to hand over any blank copies we still had remaining.

SHIPMASTER'S REPORT: March 1994.
Vessel: 96,000 d.w.t. combination carrier operating in tanker mode.

Tugs available are of very low power and there is a very small Turning Basin inside the breakwater and close to the berth (S.W. of Berth No. 3 and S.E. of Berth No. 2). Due to above reasons, berthing in adverse conditions of wind and swell is very difficult and risky (All vessels have to be swung 180° in the Basin as, on Berth No. 3 always port side alongside and on Berth No. 2 always starboard side alongside).

Large ships always berth on Berth No. 3.

Cargo operations can be suspended and vessel can be shifted to roads with wind force going up to Force 4 or 5.

Any stores, charts, etc., sent to Bejaia can take as long as 7 days to clear Customs.

Shore leave not advisable at time of our visit.

AUTHORITY: E.P.B. – Enterprise Portuaire de Bejaia, Mole de la Casbah (B.P. 94), Bejaia, Algeria. *Tel:* (05) 21-18-07/08, 21-18-93. *Telex:* 83055 Epbj. *FAX:* (05) 22-25-79. *Contact:* Abdelkader Boumessila, Chairman/General Manager.

Harbour Master. *Tel:* (05) 21-13-44/45. *Telex:* 8394 CAPBJ.

Argentina

DIAMANTE: (Also see Page 51)

SHIPMASTER'S REPORT: May 1996.
Note: This report was received in September 1996.

Diamante is a small harbour situated at Km. 533 on the River Parana. In the first phase of up-river steaming, Pilot boarded at Recalada Pilot Station and dropped anchor in Zona Comun, off La Plata (B.A. Charts No. 1749 and 3561). Steaming time (at 13 knots) was 7 hours. Buoys in the Canal Punta Indio, Canal Intermedio and Paso Banco Chico are unreliable, and we had to depend solely on the local knowledge of Pilot. It was necessary for us to drop anchor at Zona Comun as the Buenos Aires Channel was closed for dredging. However, the Recalada Pilot in any case disembarks at Zona Comun, and Pilots for River Plate board here, which in our case were two Pilots.

We left Zona Comun Anchorage on 8th April 1996 at 2030 hrs., and vessel proceeded to enter Buenos Aires Channel at Km. 37 and then via Canal Emilio Mitre which branches off at Km. 12. The 45 km. stretch of Canal Emilio Mitre is a dredged channel with well lit buoys. This man-made dredged channel ends at Isla Zarate (B.A. Chart No. 1982A), and thereafter begins the remainder of the most arduous part of the passage up to Diamante, which is almost 486 km. of twists, turns and hairpin bends.

The Pilots use their own Argentine charts, as Admiralty charts give a General idea of direction, but cannot be used for navigation.

We dropped anchor off Km. 80 point on 9th April at 0322 hrs. Current was very strong (about 3 knots) flowing all the time down-stream. The current rate increases when there is a surge in the Amazonas River due to rain, and diminishes to a certain extent when the wind blows from South. Continuous Northerly wind reduces the depths in the river and converse is true when the wind changes to South and steadies for sometime. Astronomical factor does very little or nothing to cause rise and fall of tide. It is due to this reason, amongst many others, that Argentine Coast Guard controls the shipping movements in all River Plate, Rio Parana and all other rivers, and water levels are closely monitored continuously. The Pilots get their feedback on VHF from stations manned by Coast Guard.

The reason for dropping anchor at Km. 80 was to pass Campana/Zarate in daylight and also the overhead bridge (not shown in B.A. Chart No. 1982A), in approximate position Lat. 34° 06' S., Long. 59° 00' W. Our anchor position was very close to starboard bank, and obviously the close proximity of the thick bush hardly 75 m. away overlooking our bow was enough to give us a shudder. The Pilot mused over our immediate concern as to lack of swinging room and advised with strong conviction that vessel will always remain tide riden, due to incessant flow of 3 knots – 4 knots tide down-river.

We hove our anchor at 0542 hrs. on 9th April and continued navigation up-river following Rio Parana de las Palmas, and entered Rio Parana Inferior which begin at 230 km. (Corresponding to about 180 km. mark where Rio de la Plata ends).

Passage through these rivers was thrilling with occasional meeting of passing and overtaking ships, but these encounters are prearranged for a suitable time and location for good sea room, and to achieve this, liaison is maintained with Coast Guard, and if necessary, adjust speed. Very frequently, there are sharp turns and blind corners, as such, very good lookout and also equally good radar watch is very important. It is often a futile task to try to fix position by radar, as the coast line shown on the charts rarely conforms with reality, due to constant erosion and silting which alters the coastal features of the charted river banks and islets.

On 10th April at 0018 hrs. dropped anchor at Km. 458 to await day break to pass San Martin, and subsequently arrive Diamante in the morning. We hove up anchor at 0600 hrs. and resumed passage.

Prior to arrival Diamante, we had no information about the port, berth and other things except that max. depth in rivers was 7.035 m. (FW), which is subject to daily change, and max. depth alongside 8.23 m. (FW).

We berthed on the grain bulk pier at 1118 hrs. on 10th April. No tug was available for berthing which is customary for this port. We dropped port anchor and berthed starboard side alongside with utmost care. There is very little room to manoeuvre due to shoaling of the river bed. The strong down-river current was helpful in berthing as vessel responded to helm with minimum engine. Mooring lines forward and aft had to be sent a long distance ashore by boat, as such, one has to ensure that mooring lines are initially 200 m. or longer in order to reach shore. After putting 4 head lines ashore, the mooring boat proceeds aft to carry stern lines.

Upon berthing, many officials boarded. Customs officials were very strict about ship's stores and Personal Property Declaration, where every electronic item had to be mentioned by make, model and serial number. If there is insufficient space in the Personal Property Declaration, then the columns for electronic items should be endorsed "as per attached sheet". These additional sheets should be signed by the owner of the items so declared. One must be careful not to double declare any items, that is to say any item declared in the Personal Property Declaration should not be declared again on the additional sheet. All necessary forms should be obtained by prior arrangement from Buenos Aires Agent, who may supply same along with the Parana River Pilot who boards at Zona Comun. These forms include Stores List, Personal Property List, Maritime Declaration of Health, Crew Shore Pass (photocopy acceptable). Crew photo to be affixed on Shore Pass, and also require right thumb impression in the appropriate box of the Shore Pass.

Upon berthing, all hatches were inspected with meticulous precision. Our hatches were passed in one attempt as we had hosed down all hatches, removed all loose rusts and literally vacuum cleaned the hatches, specially in way of tween deck trackways and container shoe fittings on lower hold tank tops.

We loaded 5,480 tonnes of bulk maize in No. 4 (100% full) by 2 chutes. We had to stop loading several times to ensure proper trimming, especially behind the tween deck pontoons which were left in open position. A small "present" to foreman helped us to get good trimming, as we were desperate to get in minimum 5,400 tonnes as per Charter Party. Loading and trimming finished in about 12 hours, and on the morning of 11th April, we shifted from the grain berth to the only other berth for loading bagged rice, which is situated about 400 m. away. We had one tug for unberthing, and the same tug was used for berthing in the rice berth.

It is important to note that there are no regular tugs and Pilots available at Diamante. The tug requires 12 hours notice and comes from Santa Fe and Pilot comes from Rosario, who is in fact a Rosario Port Pilot and serves Diamante now and again. The maximum allowable draft for shifting was 7.6 m. as given by the Coast Guard, who strictly control navigation through the river and also berthing/unberthing operations. The Pilot, despite his knowledge of the harbour, is very much concerned with shoal depths within tens of meters away, and there are no buoys as such, so there is a great threat of touching bottom. However, we berthed alongside the rice berth with great care. We had to fall behind the berth by about a ship's length in order to drop port anchor (to facilitate unberthing at sailing time). We were unable to be properly alongside as the depth along the berth was 5.5 m. or less, so when we finally berthed, we were about 4.0 m. off the berth, and the jetty was about 20 m. short of our length. The berth wore the delapidated look of an abandoned and disused berth. There are no cranes or lights on the berth. It had only 3 storage sheds for rice.

Shipper wanted loading without any dunnage, mats or plastic, but it was finally agreed that shipper would provide only plastic to spread on the tank tops, ship's side and bulkheads, and necessary indemnity was obtained for any damage to cargo due to sweating.

Upon completion of loading rice cargo on 17th April, we were all ready to sail at 1600 hrs. (draft was 6.88 m. forward and 6.96 m. aft). Tug was made fast on port bow. All lines were let go, except one head line. Engine was put to dead slow and with helm hardover to starboard, the intention was to cant away the stern to port quarter. A short while later, we increased the telegraph to slow ahead and then to half ahead, but vessel did not move an inch.

The Harbour Pilot and myself agreed that vessel was aground alongside berth. The tug, which was fast on the port bow, shifted aft and made fast on port quarter in pulling position. As the tug pulled, the vessel broke off the ground and stern moved to port quarter, and shortly thereafter vessel was afloat. We turned around and proceeded down-river to final destination (Montevideo) without any further incident.

It is worth mentioning here that prior to sailing we had obtained an official Fax from Argentine Coast Guard (through Agent) that the maximum available depth at Diamante Roads on that day was 8.23 m. It is apparent that the actual depth alongside the rice berth on the jetty side is certainly less than 6.96 m. (which was our sailing draft). Therefore, any ship calling Diamante must make sure of the safe draft.

It is with no surprise that vessels transitting Parana River may sometimes be aground or touch the bottom, which is regarded as non-perilous due to liquid nature of mud on the bottom. But this sort of grounding needs to be covered by the Charter Party as a special N.A.A.B.S.A. Clause (not always afloat, but safely aground).

Diamante is a very small town, workshop facility of very small nature is available. There is no hospital with reasonable medical facilities. Fresh water is available alongside at a cost of approximately U.S.$2.50/ton. There is a bus service available to and from Buenos Aires (about 8 hours travel each way). Derat Exemption Certificate can be obtained. The Authorities come to the vessel from Santa Fe. The town is quite safe. Agent places a watchman onboard while cargo operations in progress.

Australia

EXMOUTH: (Also see Page 116) (See Late Plans)

DOCUMENTS: *Add:* Dangerous Cargo Manifest.
Manifest of Foreign Cargo onboard.

PILOTAGE: *Delete and substitute:* Pilotage is not compulsory. If required, Pilots are to be arranged privately from Fremantle. Boarding ground one mile East of pier, from the line launch.

APPROACHES: *Depth in Approach Channel at LWOST:* The approach shelves gradually from 18.3 m. – 12.1 m. The bottom is sand and shell.

ANCHORAGE: *Delete and substitute:* 1 mile N.E. of the pier.

RESTRICTIONS: *Delete and substitute:* Berthing/sailing during daylight hours only. Berthing carried out at slack water.

VHF: *Delete and substitute:* Maritime VHF radiotelephone (24 hours a day). Call "Exmouth Control" on Channel 16.

TUGS: None.

BERTHING: *Line 9 – Amend:* 3 shackles on deck.

DISCHARGING: *Delete and substitute:* 1×8 in. and 1×4 in. line for fuel oil. Permanent line on jetty connected to ship's manifold amidships with hoses. Shore line 300 mm. × 1 km. Max. back pressure 150 p.s.i. High rate of discharge (up to 1,200 cu.m./hr. due to empty shore tanks).

CRANES: There is a 17 tonne (maximum capacity) mobile crane available, its use is to be organised through the Commanding Officer, HEH.

STEVEDORES: Arranged through Commanding Officer HEH and carried out by HEH base support personnel.

MEDICAL: Limited medical and dental support is available through Exmouth District Hospital. The hospital has 15 beds, 2 doctors and 1 dentist available.

FRESH WATER: *Delete and substitute:* Very limited quantities of fresh water available through a 4 in. Camlock fitting, in an emergency.

REPAIRS: *Delete and substitute:* HEH can assist with emergency minor structural/mechanical repairs, but have very limited facilities available.

AIRPORT: The airport is situated approximately 30 km. South of Exmouth. Skywest Airlines service Exmouth on a regular basis.

TIME: There is no daylight saving in Western Australia.

HOLIDAYS: The following holidays apply throughout Australia:
New Year's Day; Australia Day; Good Friday; Easter Monday; Anzac Day; Christmas Day and Boxing Day.
Western Australia State holidays:
Labour Day; Foundation Day and Queen's Birthday.

POLICE/AMBULANCE/FIRE: Police Tel: (099) 492444. Ambulance Tel: (099) 491011. Fire Tel: (099) 491222.

EMERGENCY CO-ORDINATION CENTRE: State Emergency Service – SES available on Tel: (099) 49488.

TELEPHONES: Not available. There is a telephone on the wharf, which can be made STD, ISD upon request to Commanding Officer HEH.

SERVICES: Limited services available in Exmouth, i.e. mechanical, electrical.

BANKS: Westpac Banking Corporation, Maidstone Crescent. Tel: (099) 491213. Fax: (099) 492073.

Agents for Commonwealth Bank at Local Post Office, ANZ Bank at Newsagency.

STORING: See "Prelims".
1. Vessels can be stored by truck.
2. Trucks are allowed onto wharf.
3. Customs regulations if required would be from Perth/Port Hedland.

SHIP SUPPLY SERVICE: Not available.

SHORE LEAVE: Social activities limited. However, Exmouth has much to offer the camera buff with its scenic and wildlife attractions.

IDENTIFICATION CARDS: Desired as proof of identity if need arises.

GARBAGE DISPOSAL: *Delete and substitute:* Contact Exmouth Shire Council to arrange for pick-ups.

WASTE OIL DISPOSAL: Not available.

SEAMEN'S CLUBS: No Seamen's clubs in Exmouth. Local clubs include the Truscott Memorial Club, Golf Club, Lawn Bowls Club.

CURRENCY: Australian Dollar. AUS$1.00 = U.S.$0.80 (July 1996).

GENERAL: *Add:*
Tidal Data: Higher high water 2.0 m. Lower high water 1.4 m.
Reference: Australian National Tide Tables AHP 11.
Location: The pier is located 16 km. from the town of Exmouth.
Gangway: HEH does not have a gangway, ship to supply.
Customs: Customs clearance not available at Exmouth, this would need to be prearranged from Perth or Port Hedland.

AUTHORITY: *Delete and substitute:* Commanding Officer, Naval Communications Station Harold E. Holt (HEH), P.O.Box 125, Exmouth, WA 6707, Australia. *Tel:* (099) 493320, (099) 493374 (After office hours). *FAX:* (099) 491688. *Contact:* Commander J.F. Cooper, Commanding Officer.

WEIPA: (Also see Page 189)

PILOTAGE: *Add: Coastal Pilotage:* Pilotage services between Weipa and Torres Strait, or between Weipa and Darwin via Clarence Strait, are conducted by Pilots available from Australian Reef Pilots Ltd. and Queensland Coastal Pilot Service Pty.Ltd.
Also see "Torres Strait".

Brazil

ARACAJU: (Also see Page 250)

SHIPMASTER'S REPORT: November 1996.
Berth: Barra dos Cequeiros.
Location: Lat. 10° 50' 36" S., Long. 36° 55' 07" W.
Size: Maximum length 338 m., with 15 dolphins. Maximum allowa draft is 9.5 m.
Density: 1025 (average).
Communications: The Port Authority is located at Aracaju town. about 15 km. away. They are not watching on VHF Channe throughout 24 hours. Contact Agent by using VHF Channel Channel 69 is the working channel for manoeuvring.
Pilotage: Compulsory.
Transport: No public transport. To town by taxi is about U.S.$ 30.00 way.
Light Buoy System: System "B". There are 4 privately owned light bu marking the entrance channel and the Turning Basin.
Time: GMT minus 3 hours.
Fresh Water: Available. Supply by hose from the Terminal at a rat about 25 tons per hour.
Fuel: Not available.
Cargo Operations: Loading with one belt about 250 t.p.h. One sh crane for discharging bulk cargo with grab.
General: The Terminal is a jetty out from the shore, the East breakwater aligned 029° – 209°, with length about 600 m.

The swell from the Atlantic Ocean causes the ship to pitch and during the Winter season (May to October). It is advisable to use many lines as you can and longer lines than usual. Drop ancho safety.

PORTO TROMBETAS: (Also see Page 280)

SHIP'S OFFICER'S REPORT: December 1996.

The following telex was received from the Agent in Santana respect to the Amazon North Bar, Banco do Meio and Curua Buo Channel to Macapa (Fazendinha) Pilots.

Quote:
Please advise the following:
(1) Master's name.
(2) Total crew, including Master.
(3) Total Officers, including Master.
(4) ETA Fazendinha Pilot Station (Position Lat. 00° 04' 06 Long. 51° 06' 45" W.).

Remarks for North Channel – according to Navy Authorities:

Barra Norte of Rio Amazonas – Canal Grande of Curua – C No. 201 – Guarah Light – G 0004 – radar responder beacon (Raco inoperative.

Barra Norte of Rio Amazonas – Chart No. 201 – Bailique Lig G 0005 – radar responder beacon (Racon) – inoperative.

Barra Norte of Rio Amazonas – Canal Grande of Curuah – C No. 201 – present situation of Buoyage:
(A) Major Light-Float Amazonas No. 1 – G 0003 – Lat. 01° 34.12 Long. 49° 01.35' W. – extinguished.
(B) Light-Buoy Safewaters No. 2 – NRORD 16 – Lat. 01° 17.55 Long. 49° 27.72' W. – missing.
(C) Light-Buoy Curuah No. 3 – NRORD 36 – out of position – pre position: Lat. 01° 00.94' N., Long. 49° 41.12' W.
(D) Light-Buoy Curuah No. 4 – NRORD 40 – out of position – pre position: Lat. 01° 00.29' N., Long. 49° 40.52' W.
(E) Light-Buoy Curuah No. 6 – NRORD 44 – out of position – pre position: Lat. 00° 58.80' N., Long. 49° 42.17' W.
(F) Light-Buoy Curuah No. 12 – NRORD 56 – out of position – pre position: Lat. 00° 54.32' N., Long. 49° 47.35' W.

We herewith transmit buoy positions for the North Bar:

Amazonas No. 1 (AM-1):	White light,	Lat. 01° 34.12' N., Long. 49° 01.35' W.
Aguas Seguras No. 1:	White light,	Lat. 01° 25.40' N., Long. 49° 22.20' W.
Aguas Seguras No. 2:	White light,	Lat. 01° 17.55' N., Long. 49° 27.72' W.
Aguas Seguras No. 3:	White light,	Lat. 01° 09.64' N., Long. 49° 33.33' W.
Curua No. 1:	Red light,	Lat. 01° 02.39' N., Long. 49° 39.52'
No. 2:	Green light,	Lat. 01° 01.78' N., Long. 49° 38.93'
No. 3:	Red light,	Lat. 01° 00.93' N., Long. 49° 40.96'
No. 4:	Green light,	Lat. 01° 00.20' N., Long. 49° 40.46'
No. 5:	Red light,	Lat. 00° 59.31' N., Long. 49° 42.54'
No. 6:	Green light,	Lat. 00° 58.61' N., Long. 49° 42.01'
No. 7:	Red light,	Lat. 00° 57.65' N., Long. 49° 44.12'
No. 8:	Green light,	Lat. 00° 57.05' N., Long. 49° 43.52'
No. 9:	Red light,	Lat. 00° 56.04' N., Long. 49° 45.66'
No. 10:	Green light,	Lat. 00° 55.26' N., Long. 49° 45.24'
No. 11:	Red light,	Lat. 00° 54.88' N., Long. 49° 47.88'
No. 12:	Green light,	Lat. 00° 54.02' N., Long. 49° 47.65'
No. 14:	Green light,	Lat. 00° 53.78' N., Long. 49° 48.00'

Also note lighthouse positions:

Bailique	Lat. 00° 59.41' N., Long. 49° 56.79' W.
Ilha do Parah	Lat. 00° 52.80' N., Long. 49° 59.27' W.
Ponta do Ceu	Lat. 00° 46.09' N., Long. 50° 05.71' W.
Santarem	Lat. 00° 38.81' N., Long. 50° 05.68' W.
Taia	Lat. 00° 39.23' N., Long. 50° 17.57' W.
Carolina	Lat. 00° 26.67' N., Long. 50° 27.77' W.

Espirito Santo	Lat. 00° 15.66' N., Long. 50° 31.30' W.
Pedreira	Lat. 00° 19.05' N., Long. 50° 37.05' W.
Pau Cavado	Lat. 00° 11.34' N., Long. 50° 47.17' W.
Fugitivo	Lat. 00° 10.21' N., Long. 50° 54.97' W.
Fugitivo	Lat. 00° 07.17' N., Long. 50° 55.10' W.
Macapah	Lat. 00° 05.02' N., Long. 51° 01.16' W.
Caixa d'Agua	Lat. 00° 02.26' N., Long. 51° 03.27' W.
Caixa d'Agua	Lat. 00° 01.39' N., Long. 51° 03.52' W.
Cascalheira	Lat. 00° 01.35' S., Long. 51° 03.69' W.
Chagas	Lat. 00° 01.43' S., Long. 51° 02.23' W.
Ilha de Santana	Lat. 00° 04.02' S., Long. 51° 10.17' W.

Unquote.

Ship's Officer's Remarks: Radio beacon no longer at Pto. do Ceu, but at Canivete (3935), Lat. 0° 30.57' N., Long. 50° 24.86' W., 310 kHz, CN AZA, 200 miles. This is also apparently a DGPS correction beacon, but as we do not know the frequency, have been unable to verify this.

SUAPE: (Also see Page 314) (See Late Plans)

LOCATION: The DTNEST/GENEST-I/Suape Terminal is situated near the extreme Eastern coast of Brazil, about 25 miles South of Recife (capital city of the State of Pernambuco), in position Lat. 08° 23' 50" S., Long. 34° 57' 30" W.

PORT LIMITS: The port limits comprise the maritime area between Lat. 08° 22.0' S. and Lat. 08° 25.0' S., the line of reefs (natural breakwater) and Long. 34° 55.0' W. (Nautical Chart No. 906 – DHN).

Charts: DHN: No. 900, 906 and 930.

HO: No. 528 and 3978 (British Admiralty Charts).

DOCUMENTS: *Documents required for Clearance:*

8 copies Crew List.
8 copies Stores List.
3 copies Personal Effects List.
8 copies Passenger List (if any).
2 copies Cargo Manifest.
2 copies Bill of Lading.
2 copies Health Declaration.
8 copies Narcotics List/Medicine Chest.
Clearance from the last port.

The following information is to be sent to Agent prior to arrival:

Call Sign.
Gross and Net Tonnage.
Ship's Service Speed.
Break Horse Power (BHP).
Draft.
Number of Crew.
Master and Officers names.
Time of Arrival.
Port of Loading and Departure Date.
Amount of Cargo for Suape.
Amount of Cargo in Transit.

PILOTAGE: Inward or outward pilotage is compulsory for all vessels calling at Suape. Any movements within the port limits must also be made under pilot assistance. Pilots for Suape are available by request through the ship's Agent 24 hours before vessel's arrival. They can also be requested via VHF Channels 16 or 13. If vessel is provided with a cell/mobile telephone, the Pilot may be requested directly through Recife telephone number (081) 4245010.

Pilot Boarding Station: Vessels either from the South or the North are required to wait at the pilot station in any position within one mile from breakwater head. Pilot boards 0.7 miles – 1.0 miles N.E. of breakwater head (Pilot waiting point Lat. 08° 23' 12" S., Long. 34° 56' 45" W.).

Pilot Ladder: Vessels are required to have a clean and efficient pilot ladder fitted with spreaders and manropes safely and secured rigged, ready for the Pilot to immediately embark and disembark on the side of the vessel and of sufficient length to reach the Pilot's boat. A lifebuoy with safety line and self-igniting light shall also be available at the pilot ladder head, and an officer in VHF contact with the bridge. Vessel shall afford a "Good Weather Lee", and shall reduce speed as directed by the Pilot, in order to effect the safe embarkation or disembarkation of the Pilot. Pilot ladder to be 1.0 m. above water.

APPROACHES: Approaches to the port can easily be made as very good land marks are available, and the entrance of the port can be safely reached from any direction. There is a lightbuoy marking the Sitiba Shoal, bearing 117° from the breakwater light head. Cape Santo Agostinho Lighthouse is an outstanding aid for navigators, as it can easily be identified from 24 miles. For details see List of Lights, Brazilian Navy publication DH-2.

ANCHORAGE: There is no officially appointed site for anchorage. Vessels may anchor with Cape Santo Agostinho Lt. bearing 330° at a distance greater than one mile from the Suape breakwater head.

Vessels are not allowed to drop anchor inside port limits.

Also see "Safety".

Notice of Readiness: N.O.R. is usually tendered at the time the vessel anchors in the anchorage area, or at the time the vessel is berthed – as soon as the last mooring line is made fast – whichever occurs first. Ultimately, the N.O.R. is accepted at the time the vessel is in all respects ready to operate.

RESTRICTIONS: Mooring operations are normally restricted to daylight hours.

MAX. SIZE:

Berth	*Length* (m.)	*Depth** (m.)	*Max.Draft* (m.)	*Max.LOA* (m.)
A (West)	162	14.0	13.00	190
B (East)	162	14.0	13.00	190
WR	224	15.0	13.90	250

* Current depths along both Berths (A (West) and B (East) still to be officially confirmed by DHN – Brazilian Navy Hydrographic Office.

HEALTH: Vessels must keep the Quarantine flag "Quebec" hoisted until Free Pratique is granted by Port Health Authority.

If any infection disease is suspected, ship's Agent is to be advised before vessel's arrival.

VHF: The Terminal Communication Centre is located in the DTNEST Control Room with permanent watchkeeping on VHF Channel 16, and another designated channel previously agreed with Terminal Operators. Arrived vessels bound for the Terminal will inform time of arrival and anchor position, in event of berthing delay.

TUGS: Tugs and towing services for assisting vessels arriving, departing, berthing and unberthing at Suape facilities are provided by a private towing company. Under normal operating conditions, 2 tugs are required to assist in berthing or unberthing on the pier. The use of 2 tugs is mandatory at the pier and at the LPG storage tanker for small vessels. For mooring large LPG carriers, 3 tugs are necessary, according to the local administration authority regulations. Two tugs are stationed at Suape on a 24 hour basis. Given sufficient prior notice, a third tug from Recife can usually be made available on request. Vessels should have good quality ropes, as tugs are not provided with their own towing gear. Two tugs will normally attend each berthing and each will have a minimum of 1,200 h.p. and a bollard pull of 15 tons. In accepting the service of supplied tugs, the Master of the vessel shall remain solely responsible for the safety and safe navigation of his vessel and for compliance with all applicable laws, rules and regulations.

The following tugs are usually available: "Sagitarius", 1,680 h.p. (22.00 tons BP); "Taurus", 1,680 h.p. (20.72 tons BP); "Aquila", 1,010 h.p. (17.95 tons BP); "Saveiros", 1,200 h.p. (16.45 tons BP) and "Uranus", 1,200 h.p. (15.80 tons BP).

All tugs are fitted with Kort Nozzles.

BERTHING: The Terminal comprises 3 mooring sites, namely a product pier with 2 berths ("A" West and "B" East), and the "WR" Berth which is an LPG floating storage facility, namely a fully refrigerated gas carrier moored to the sheltered side of the port breakwater.

Products handled on Berths "A" West and "B" East: LPG, Ethanol, Petrol, Aviation Spirit, Diesel Oil, Paraffin and Jet Fuel.

Products handled on Berth "WR": LPG.

Mooring Priority: By and large, vessels which depend on tide to manoeuvre will proceed first, followed by the passenger vessels, oil tankers, chemical products carriers and general cargo ships.

Berth "A":

Location:	Internal (inner berth) of the oil pier – West side.
Length:	162 m.
Depth:	10.5 m.
Hoses:	3×8 in. ASA 150 flexible hoses.
Reducers:	See "Appendix".
D.w.t.:	30,000 tons.
Loading Arms:	1×8 in. for LPG Liquid (pressurised) (300 ASA). 1×6 in. for LPG Vapour (pressurised) (300 ASA). 1×12 in. for Jet Fuel (150 ASA). 2×10 in. for Petrol, Diesel Oil, Paraffin, Aviation Spirit and Jet Fuel (150 ASA). 1×10 in. for Ethanol (150 ASA).

Remarks: All arms are fitted with quick release devices.

Berth "B":

Location:	External (outer berth) of the oil pier – East side.
Length:	162 m.
Depth:	11.5 m.
Hoses:	3×8 in. 150 ASA flexible hoses.
Reducers:	See "Appendix".
D.w.t.:	30,000 tons.
Loading Arms:	1×8 in. for LPG Liquid (pressurised) (300 ASA). 1×6 in. for LPG Vapour (pressurised) (300 ASA). 1×12 in. for Jet Fuel (150 ASA). 2×10 in. for Petrol, Diesel Oil, Paraffin, Aviation Spirit and Jet Fuel (150 ASA). 1×10 in. for Ethanol (150 ASA).

Remarks: All arms are fitted with quick release devices.

Berth "WR":

Location:	LPG Floating Storage Vessel "World Rainbow".
Length:	224 m. LOA.
Beam:	34.6 m.
Manifold to Bow:	108 m.
Manifold to Stern:	115 m.
Between Manifolds:	2.0 m.
Manifold above W/L:	14.0 m. – 17.0 m.
Fenders:	2×Yokohama type 6.70 m. × 3.30 m. 2×Yokohama type 5.50 m. × 2.50 m.
Hoses:	2×8 in. ASA 300 flexible hoses.
Reducers:	2×8 in. ASA 300 to 12 in. ASA 150.
Cargo Temperature required:	Fully refrigerated. Propane −42°C. Butane −2°C.
Cargo Tank Pressure required:	Below 0.06 kg./sq.cm.
Discharge Rate:	700 t.p.h. each hose/grade simultaneously.

Mooring: Avoid open fairleads. All wires should be provided with rope tails. In case vessels to be discharged are fitted with a booster/heater, they may eventually be requested to pump heated LPG straight to pressurised shore tanks (across the storage tanker manifold) through a 6 in. 300 ASA hose providing product at +5°C against a back pressure of around 12.0 kg./sq.cm. Daylight berthing only, normally head-in, port side to.

Auxiliary Mooring Gang Service: Terminal mooring gang is available for berthing and unberthing vessels on pier. Mooring of LPG carriers on the storage tanker is usually carried out by ship's crew.

Appendix: Reducers available on Berths "A" and "B":

Quantity	*Diameter* (in.)	*Pressure* (p.s.i.)
3	10/8	150/150
1	6/4	300/150
2	8/4	300/150
1	4/4	300/150
3	8/6	300/300
1	8/8	300/150
1	6/4	300/300
1	8/4	150/150
1	10/8	300/300
1	8/6	300/150
1	12/12	150/150
1	8/6	150/150
1	10/10	150/150
1	6/6	300/150
1	3/3	150/150
1	4/3	300/150

GENERAL CARGO FACILITIES: There is a commercial quay to the West of Berths "A" and "B" with length 343 m. and depth alongside 14.0 m. on external side and 8.0 m. on internal side for vessels up to 80,000 d.w.t. Max. draft 14.0 m. Ro-Ro and refrigerated facilities for containers available. The quay is operated by Suape Port Authority, Suape-Complexo Industrial Portuario, Rod. Pe 60 km. 10, Engenho Massangana, 1 Pojuca – PE – Brazil, CEP 55.590.000.

CARGO OPERATIONS: *Procedures and Requirements on Arrival:* The following information is required on arrival:

Name and vessel's call sign.

Home port (flag).

Cargo grades.

Cargo layout onboard indicating which one is to be discharged and which one is to remain on board.

If the ship is equipped with inert gas system, inform its operational conditions.

Any damage to engine, machinery or hull liable to cause any delays to manoeuvres and safety of other ships, or affect the environment, personnel or property.

Draft on arrival.

Draft after loading/discharge is completed.

Any leakage in hull, bulkhead, valves or pipework prone to provoke pollution or to affect operations.

Any repair which may result in delay to the start of loading/unloading.

Manifold details, including type, diameter and connection material to be used.

The time to tender Notice of Readiness is considered the time the vessel reaches the anchorage area. The Notice of Readiness will be accepted at the time the tanker is in all respects moored and ready to operate.

Products Transfer Device: Loading arms are to be connected by Terminal's Operators with assistance from the ship's personnel.

Ship's manifold flanges must be specified in accordance to international patterns.

Flange's faces, functions and gaskets must be clean and in good order.

Effort must be made to avoid any kind of spilling through connections.

All loading arms must be drained before being disconnected.

Vessel's mooring system must be well arranged and in good order, being frequently inspected to avoid movements which may exceed the operational limits of loading arms.

Discharging/Loading Operations Procedures: Special attention should be given to Safety Tanker/Terminal Check List. Each item should be verified and continuously supervised while operations are underway.

All doors and outer ports should be kept closed.

Total vigilance on deck and engine room, as well as a sufficient number of crew men, should also be provided on board in regard to emergency situations or changes of operational conditions.

At night-time, adequate display of light in the connection area of loading arms should be used.

Two towing wire ropes should always be hanging at the water's surface, so that the tugs can easily make fast, should an emergency arise.

Prior to the beginning of any operation, at least 2 fire hoses should be connected to hydrants on main deck (one forward and the other aft of the cargo valve manifold). A third canvas hose with NPU nozzle and 2 mechanical foam containers should be ready near the pump room, preferably on the catwalk. The fire extinguishing main system should always be kept under pressure.

Vessels at the Terminal must maintain engines and propulsion system in readiness to leave the berth under full power on short notice.

Radio equipment and radar should not be used while vessel is berthed.

Ship-to-shore communication has to be kept in perfect readiness and performed by VHF or telephone.

All cargo tank lids and ullage ports must be kept closed while vessel is undergoing ballast operations.

Ullage plugs must also be kept well closed, unless needed to be maintained open on account of operational reasons. In that case, flame screens must be kept over ullage plugs.

Vessels equipped with inert gas system (IGS) should open their ulla
plugs only when operations require.

All entrances of the central air-conditioned equipment and
mechanic aeration system should be adjusted to avoid penetration
gases, if possible by means of air recirculation into all closed space

In case of stormy weather with electrical discharge, the unload
operation must be stopped, whether or not the vessel is inerted.

During loading/discharge operations, as well as ballast operatio
special attention should be paid to avoid all kinds of oil spilling by s
valves.

Scuppers are to be well plugged, sealed and kept in that condit
until the transfer operation and ship's unberthing are completed.

The number of boats alongside and their laying time are to be reduc
to a minimum, according to ship-to-ship security rules. Likewise, the u
of objects and tools which may cause sparks is also forbidden.

No gas freeing operation is allowed while vessel is berthed.

All guidelines and recommendations from ISGOTT (Internatio
Safety Guide for Oil Tankers and Terminals) are to be complied wit

MEDICAL: Recife is well served by doctors and dentists. First aid c
be obtained in the nearby town of Cabo de Santo Agostinho. Shi
Agent to make arrangements.

FRESH WATER: Fresh water can be supplied, with no restrictions,
Berths "A" and "B". Max. rate 70 cu.m./hr.

FUEL: Bunker "C" fuel oil is not available. MGO/diesel oil may
supplied by truck in very small amounts.

Orders for marine lubricants should be placed well in advance throu
the ship's Agent, but subject to confirmation.

CONSULS: Most maritime nations are represented in Recife.

REPAIRS: Maintenance repairs or services which do not affect the saf
of the Terminal can be effected, after agreement with the Terminal. T
vessel must be ready to move by her own power in case of emergen

SURVEYORS: *Petroleum Inspectors:* SGS, Caleb Brett, Chas. Mar
Saybolt and other inspectors may be contacted through ship's Agen
Classification Societies: Non-exclusive surveyors may be contac
through Classification Societies Headquarters in Rio de Janeiro
Santos.

TIME: The local time is GMT minus 3 hours throughout the year. Dayli
Saving Time (Summer time) is not applicable in this part of Brazil.

HOLIDAYS: *National Holidays:*

1st January, New Year's Day.

21st April, Tiradentes (Hero of Independence).

1st May, Labour Day.

7th September, Independence Day.

12th October, Our Lady Aparecida – Patroness of the Nation.

2nd November, All Soul's Day.

15th November, Republic's Day.

25th December, Christmas Day.

Carnival: Normally occurs in February, sometimes in March.

Holy week: Occurs either in March or in April.

Corpus Christi: Occurs either in June or in July.

GARBAGE DISPOSAL: Dry garbage may be discharged if vess
request the Agent to arrange collection and transportation.

WASTE OIL DISPOSAL: There are no facilities for collecting waste
from bilges in Suape. Overboard discharge of waste oil is stri
forbidden.

SAFETY: *General Safety Rules:*

1. Anchorage inside the port limits (evolution basin) is prohibited.
2. Under exceptional circumstances, vessels may anchor inside p
   area, but a formal permission from the local Navy Authority (Capita
   dos Portos) must be obtained through the ship's Agent 24 hours
   advance.
3. Vessels arriving from abroad will be visited by Port Authorities (Hea
   Police, Customs) as soon as mooring is completed.
4. Vessels awaiting berth at anchor are not allowed to be cleared
   Port Authorities.
5. Mooring of large LPG carriers (import vessels) are carried out dur
   daylight hours only. Three tugs are necessary for this manoeuvr
6. All ship's movements inside port limits, irrespective of ship's size
   type, must be performed under tug assistance.
7. Anchorage areas have sand and mud bottom, providing good hold
   power. Nevertheless, keeping a close watch is a sound practi
   specially under strong E.S.E. stormy winds, when the current can
   strong enough to make the anchor drag.

WEATHER: *Tides:* The datum used is based on the Mean Low Wa
Spring Level, and all depths are quoted in meters. Locally, the diur
tide rise is approximately 2.0 m. at Springs and 1.0 m. at Neaps. M
detailed descriptions of tides can be found in Tide Tables (Brazilian Na
Hydrographic Office – DHN publication No. DH-29).

Currents: Due to the configuraton of the coastline and port basin, curre
prevail with flood tide setting toward South and ebb tide setting tow
North.

Sea State: Waves in the anchorage area result from the prevailing w
force, direction and duration. If the wind blows from E.S.E., the avera
wave height is about 1.0 m. – 1.5 m.

Weather Conditions: Weather conditions is Suape and its vicinities m
be considered as fair. During Winter, rain falls intermittently.

Winds: The prevailing wind is from the East as Suape is located in
Trade Winds belt. Winds of any strength tend to create short steep se
which develop with the intensity and duration of the wind, specially th
coming from the North.

Rain: The period of the most rainfall concentration (Winter) is from Ma
to June (maximum of 390 mm./month in June). In the Summer per
(October to December), the rainfall decreases to about 48 mm./mo
in November (minimum).

Atmospheric Pressure: Atmospheric pressure average is about 1012
Relative Humidity of Air: Yearly average relative humidity of air is 8
Temperature: Annual atmospheric temperature average is 26°C, a
varies from 17°C (minimum) in the Winter to 35°C (maximum) in
Summer.

Visibility: Visibility is generally good to excellent, but can be sever
reduced by rain.

GENERAL: *Ballast Disposal:* Brazilian laws are very strict as far as pollution is concerned. Heavy fines will be imposed on vessels for the violation of pollution laws. No dirty ballast shore reception facilities are available in Suape.

Barges: There are no barges in Suape.

Cash Advances: Can be obtained in local currency through ship's Agent, if advised beforehand.

Charts and Nautical Publications: Some nautical charts and publications are accessible at the local Brazilian Navy Office in Recife. Ship's Agent is to be contacted in advance.

Compass Adjusting: No compass adjusters are available at Suape.

Derat: There are derat companies in Recife. Services are to be requested through ship's Agent.

Explosion and Fire: In case of explosion or fire onboard of a moored vessel, all steps should be adopted in accordance with the best evaluation by the Terminal and vessel's representatives for emergency procedures. Usually in this case, the vessel must be unberthed.

Inert Gas System (IGS): According to SOLAS 74/78 Convention and Amendments, vessels are requested to carry an inert gas plant. Cargo tanks must be fully inerted and pressurised with inert gas at a percentage of O_2 below 8% before start of operations, and must keep such condition throughout the operation. The Terminal must be informed of any problem with the inert gas system.

Oil Pollution: Brazilian laws are very strict with regard to the pollution of coastal waters. In case of any pollution or risk of spill by crude oil, bunker, diesel or other products, either from the ship or from the Terminal, vessel must give immediate alarm to the Terminal, which has the following equipments available for prompt use:

135 m. of floating barrier.

1 oil skimmer for recovering 30 cu.m. of heavy fuel per hour.

10 absorbing cylinders.

2 marker buoys.

1 pilot boat and 2 tugs on stand-by for any emergency. Call Channel 16 on VHF radiotelephone.

All involved costs will be for the Shipowner's expense, since there is no doubt which vessel has provoked the spill. To reach that goal, Petrobras will evoke to international laws and schemes whose purpose is to appoint responsibility for sea pollution oil damages.

Likewise, injury to someone else and damage to environment will be penalised according to the same international schemes, including waste spilling and garbage release.

The Port Authorities (DPC and Port Captaincy) will impose fines foreseen by law.

Remark: Pollution presently is foreseen by Law No. 7347 of 24.7.85 as a crime, subject to imprisonment and heavy fines.

Launch Service: Launch service is usually provided by the pilot boat. Services may be arranged through ship's Agent if prior notice is given. For the gas storage tanker moored on the breakwater, a launch service is provided by the Terminal.

Laundry Service: 24 hour laundry service is available in Recife. Ship's Agent is to be contacted well in advance.

Mail: The nearest post office is located in the city of Ipojuca, about 15 km. from the pier.

Platform Ladder: The berthing pier is not fitted with a platform ladder. The ship's accommodation ladder or gangway is to be used.

Provisions: Local shipchandlers are available to supply limited quantities of provisions, and may be contacted through the ship's Agent.

Ship's Stores: Deck, engine and cabin items can be requested in advance through the ship's Agent. There are many ship suppliers in Recife.

OPERATOR: Petroleo Brasileiro S.A. – Petrobras, Rodovia PE-60, Km. 10, s/n, Suape, Ipojuca, Pernambuco, Brazil, CEP 54500-000. *Tel:* (081) 5276222. *FAX:* (081) 5271150. *Contact:* Richard Ward, Superintendent of DTNEST.

Canada

GASPE: (Also see Page 354)

SHIPMASTER'S REPORT: August 1996.

Chart: B.A. No. 1163.

Approach: Th approach to Gaspe is well defined, with the Gaspe Peninsular and Cape de Gaspe on its Southern tip with a conspicuous lighthouse.

Leading lights on a bearing of 307° through the two buoys at the entrance to the haven show up very well (24 hours) at a distance of about 10 miles.

Racon on the rear leading light is not operating. The two buoys mentioned above mark the channel into Havre de Gaspe, passing Pte. de Sandy Beach (a sand pit). During the ice season, November to April, both buoys are removed and the starboard hand buoy, marking the shallow water off Pte. de Sandy Beach, is replaced by an unlit ice spar. This spar can be detected by radar at about 5 miles. Once inside the Bay, plenty of water is available.

Pilotage: Not compulsory, and not taken by regular ships. If required, the Pilot comes from Matane on the St. Lawrence coast and costs CDN$600.00 plus expenses for each pilotage (CDN$1,200.00 in/out).

Pilot normally boards by fishing boat off Pte. de Sandy Beach and is ordered through the Agent well in advance.

During the ice season, the Master must have at least 2 seasons ice experience before he can pass through the Cabot Strait into the St. Lawrence and Gaspe without a Pilot, otherwise an Ice Pilot/Adviser must be embarked, normally off Halifax, dropping him outbound.

ECAREG: Mandatory Canadian reporting system, inwards/outwards by telex/fax as per ALRS H3600. Local arrival report and permission to sail through Canadian Coast Guard Station – Riviere au Renard on VHF Channels 16/24. The Agent usually sends the Outward Clearance, but check, permission to sail is mandatory from Canadian Coast Guard.

Notice of Readiness: Practice of the port is to tender N.O.R. passing Pte. de Sandy Beach.

Berthing: Berthing/unberthing normally 24 hours, except in the ice season, when daylight movements preferable.

Wind is generally out of N.W., with little current.

Tide: Springs 3.0 m., Neaps 2.5 m.

In fog, the wharf shows up well on radar. Wharf lights not conspicuous. However, the Agent will point his car fog lamps seawards at end of wharf in fog to assist, flashing same, if required.

Agent can be contacted on VHF Channel 10 when rounding Pte. de Sandy Beach. He has a portable set in his car.

Actual berthing manoeuvre will depend on ship type, and if berthing inside or outside of the wharf.

The approach has plenty of room to line up, be careful of being set down onto the beach, if berthing inside.

If inside, putting the ship's starboard shoulder gently on wharf knuckle and levering vessel round seems to be a good method.

Vessels generally berth heading West.

Weather: Wind normally blows from the N.W.

Summer mild with plenty of rain, under influence of depressions North and South. July and August are the hotest months. Winter temperatures very variable. The Winter of 1993 was severe with temperatures to −30°C, but 1994/1995 was milder. Ice season from December through to April. Exact time depends on conditions. Winter weather can be very stormy with the passage of continuous low pressure areas over the region.

Ice breaker assistance is often necessary in Gulf of St. Lawrence and when berthing/unberthing at Gaspe. For ice advice/requirements, the Annual Summary of Canadian Notice to Mariners and relevant Admiralty Sailing Directions should be consulted together with Canadian Coast Guard Ice circulars.

Masters not holding an Ice Pilot Permit must use the services of a Licensed Ice Advisor embarked/disembarked off Halifax.

Tugs: Not available.

Time: GMT minus 4 hours (Eastern Time). Daylight Saving Time as per U.S.A. (See ALRS).

Radio: No local VHF station (Agent on Channel 10 when vessel expected – call 'Robert').

Nearest Canadian Coast Guard Radio Station is at Riviere au Renard (VCG) ALRS 7090, used for ECAREG and public correspondence.

Wharf: Position: Lat. 48° 49.5' N., Long. 64° 26.3' W. and aligned 275° – 095°.

Depths alongside: North side – West (shore) to East – 10.3 m. sloping to 13.6 m. Chart Datum.

South side – West to East – 3.6 m. sloping to 12.6 m. C.D. (for vessels with length of 120 m., minimum depth of 8.3 m. available).

Vessel's of 120 m. length, 20 m. beam with draft 8.0 m. can safely berth inside (South).

North side – maximum berth length 180 m.

South side – maximum berth length 175 m.

Well fendered along all faces with plenty of mooring bitts.

North face of berth used for discharge of Copper Concentrate. Both sides load Sulphuric Acid. North face for discharge of refined oil products (Diesel, gasoline, heating oil).

Solid concrete construction owned by Government of Canada.

Wharf also used by Canadian Fishery Research and Inspection vessels. Fishery Department has large office at Gaspe.

Water about half fresh, dependant on rain. If draft check is necessary, take density.

Cargo: Copper concentrate is discharged with a mobile grab crane into trucks.

Sulphuric Acid is loaded through an 8 in. pipeline from two storage tanks about 1 km. behind the wharf. Line manifold is below the wharf roadway through manholes.

An 8 in. flexi-hose is provided by Noranda, Owners of the facility, and connected using ship's crane and crew.

Acid loading rate of around 550 tonnes/hr.

Shore tonnages are expressed in short tons.

Total Gaspe shore tank size is 20,800 tonnes with similar capacity at Murdochville production facility, some 100 km. from Gaspe.

Very careful inspection of vessel's tanks is carried out before loading as to cleanliness and humidity. Loading will not be carried out into damp tanks.

Tonnage loaded is based on ship's figures.

Temperature of the acid varies depending on ambient.

Loading of acid and discharging of concentrate normally commences at 0630 hrs. and then continues until completion.

Facilities: Fresh water available from wharf stand pipe. Drained down in Winter, prior notice then required.

Fuel: Only MDO. No HFO off wharf. HFO has to come from St. John, N.B., by road tanker, and is very costly.

Small repairs can be undertaken. Otherwise there is a ship repair facility with dry dock near Matane in the St. Lawrence, a few hours away.

Provisions readily obtainable from supermarket near at hand or through local ship chandler.

Public telephone box at end of wharf.

Doctor, dentist, etc., all in Gaspe, about 2.5 km. from Sandy Beach Wharf.

Agent: Agence Maritime Calypso. Tel: (418) 368-3648, (418) 368-5813 (After office hours). Fax: (418) 368-7134. Telex: 0142236. Mr. Robert Lagace – very helpful and seems to control most aspects of local operations. Office at end of wharf together with Harbour Master (who runs local taxi company).

Customs: Vessel not normally visited. Agent handles all formalities. Papers required:
3 copies Crew List on Canadian Form.
2 copies Crew Declaration on Canadian Form.
2 copies Ship's Stores Declaration on Canadian Form.

Crew List has to be faxed to Agent from previous port or from vessel at least 2 working days prior ship's arrival. Canadian Department of Transport has inspection office at base of wharf, and local Inspector conducts regular Port State Control Inspections.

General: Local people predominantly French speaking.

A small provincial town with reasonable shopping, restaurants and bars.

Tourist orientated in Summer.

Winter sports facilities with Ski Doo runs.

Easiest and quick walk into town is along rail track (not at night due to bears).

Transport: Good road system connects with Montreal and Maritime provinces.

Local airport with twice daily services to Montreal (Dorval) and services to Maritimes.

Rail link, with a passenger train every 2 days, connecting with Halifax/Montreal main line.

NEWCASTLE: (Also see Page 347)

SHIPMASTER'S REPORT: September 1996.

Charts: B.A. No. 2034. Canadian Charts No. 4911 and 4912.

Approach: Pt. Escuminac Lighthouse is conspicuous 3.5 miles East of Escuminac Harbour.

Green buoy marks shoaling water off Pt. Escuminac.

Pilot: From April through to December, Pilot boards 2 miles North of Escuminac Harbour in position Lat. 47° 07' N., Long. 64° 52' W., from a white fishing boat out of Escuminac Harbour.

From December to April (during ice season), Pilot boards either off Sydney, Cape Breton Island or Halifax, depending on ice conditions. Arrangements made through Agent who will advise boarding position.

Pilot disembarks in same positions.

VHF: Call Miramichi Pilot on Channel 16 and 11. Pilot monitors VHF When a vessel is due.

Pilot advice can be obtained from "Chatham Dispatcher" on Channel 11.

Local Canadian Coast Guard Station – Sydney, as ALRS.

Channel: Distance from Escuminac Pilot Station to Newcastle is 34 miles. In Summer, transit is about 3 hours, but in Winter, it can be much longer, depending on ice conditions.

Daylight transit in and out only, due to leading lights, and buoys often being extinguished.

Minimum channel width is 90 m.

Maximum draft for vessels with pollutants, according to Canadian Coast Guard, is 23 ft. 6 in. (FW) and for other vessels 25 ft. (FW).

Sheldrake Channel range is the shallowest section, 11 miles below Newcastle.

About 4 ships per month call at Miramichi River.

From 1996/1997 ice season, Canadian Coast Guard will charge for ice breaker assistance in Miramichi River.

Anchorage: The anchorage off Escuminac Pilot Station is exposed.

Ice: During ice season, all river channel buoys are replaced by ice spars.

Ice breaker assistance generally required.

At night, if river transit has not been completed, vessel stops and ice closes in around vessel, keeping vessel in position.

Tugs: None available.

Berths: Berths in Miramichi River:

Public berth at Chatham Marine Terminal has not received vessels for 3 years (0.7 miles below Chatham Bridge).

Tanker berth just above Chatham Bridge used by product tankers supplying adjacent storage facility.

Atlantic Board Mill at Bushville, 1 mile above Chatham Bridge, presently not used, but expected to reopen early 1997.

Newcastle Marine Terminal (head of navigation) used for the loading of paper products and discharge of kaolin clay slurry, both products from/for the paper mill 2 miles West of the town.

A general cargo type berth with clay slurry piping and tanks is located at the S.W. end of the berth. The berth is very well fendered. Vessel berthed starboard side to head in. Moorings were 2-2 each end. Berth reported to have 28 ft. (LW) alongside.

Density: 1000 (LW), 1003 (HW).

ECAREG: As for all Canadian navigation, mandatory reporting is necessary (as per ALRS Vol. 1).

Chatham Dispatcher (VHF Channel 11) will pass ships berthing report to Canadian Coast Guard.

Cargo: Discharge of clay slurry is through 2×6 in. rubber hoses into quay side manifold. Connections by Camlock couplings. Discharge rate in Summer at 500 tonnes/hr., but in Winter it is slower. In fact, in Winter, care must be exercised that product does not become frozen, therefore discharge must be continuous.

2×5,000 tonne tanks for clay slurry at S.W. end of wharf.

On completion of discharge, ship's tanks washed with fresh water into shore slop tank.

Kaolin slurry is trucked to paper mill, 2 miles S.W. of town.

Ship's crew do connection.

Facilities: Fresh water available at berth.

Usual medical and dental facilities.

Fuel by tanker truck from St.John, N.B.

Newcastle itself has a good range of shops very close to the berth and a shopping mall about 10 minutes away by taxi.

Public telephone just inside Dock Office.

Customs: Customs Officer boards about 1 hour to 2 hours after berthing. From 1997, Agent will handle formalities.

Documents required (all on Canadian forms):
3 copies Crew List.
2 copies Stores List.
2 copies Crew Effects Declaration.
2 copies Inward Declaration.
2 copies Outward Declaration, even if coastwise.
3 copies Cargo Manifest.

Transport: Chatham Airport is about 6 miles N.E. of Newcastle. Flight to Montreal twice a day.

Main Halifax/Montreal rail line passes just West of Newcastle with daily service to Montreal and Halifax.

PORTNEUF, Quebec: 45.41 N. 71.53 E.

LOCATION: Located on the North shore of the St. Lawrence River, abou 65 km. from Quebec City, at Lat. 45° 40' 52" N., Long. 71° 52' 39" Navigation season is 12 months a year with occasional ice breake assistance.

PILOTAGE: Compulsory.

RESTRICTIONS: The channel is dredged to a depth of 10.7 m.

RADIO: Quebec Radio (Call sign "VCC").

TUGS: Available.

BERTHING:

	Length (m.)	Depth (m.)
Section 1	85	10.7
Section 2	29	7.0
Section 3	31	2.0

CRANES: Available.

MEDICAL: Services available locally and in Quebec City.

DENSITY: 1000.

FRESH WATER: Available on request.

FUEL: Available by truck.

REPAIRS: Minor repairs only.

DRY DOCKS: Major shipyard at Lauzon (Quebec), 35 nautical miles the East.

SURVEYORS: Mr. Gilles Marcotte, Harbour Master.

AIRPORT: Quebec City (65 km.).

TIME: GMT minus 5 hours in Winter, GMT minus 4 hours in Summe (First Saturday of April to last Saturday of October).

HOLIDAYS: New Year's Day; Good Friday; Easter Monday; Queen Day (4th Monday in May); 24th June; 1st July, Labour Day (1st Monda in September); Thanksgiving Day (2nd Monday in October 11th November; Christmas Day; Boxing Day.

POLICE/AMBULANCE/FIRE: Dial 911.

AUTHORITY: Transport Canada, Harbours and Ports, 901 Cap Diaman 4th Floor, Quebec (Quebec) G1K 4K1, Canada. *Tel:* (418) 648-501 *FAX:* (418) 648-7980. *Contact:* Daniel Leclerc, Ports Operatior Services.

Local Authority: Mr. G. Marcotte, Harbour Master.

QUEBEC: (Also see Page 380)

SHIPMASTER'S REPORT: August 1996.

Berth: No. 50 (Intertank).

Chart: B.A. Chart No. 319.

Approaches: Report into ECAREG and Escoumins VTS, as per ALR NP 286/3 H3590/H3600, H3700.

Approaching Escoumins, the Racon just North of the pilot station not conspicuous. It gets lost in the land clutter, but was identifiable 6 miles.

Pilotage: St. Lawrence Pilot Authority Pilot Station at Escoumins. Ship are advised by Escoumins VTS Channel 9 as to boarding procedur Pilot boards by fast blue hulled cutter, 0.8 miles from pilot station. ALR and Sailing Directions are not clear as to Escoumins/St. Lawrenc pilotage procedure.

The St. Lawrence pilotage area is South of line from Pointe de la Cro (Escoumins) to Saint Simon sur Mer on St. Lawrence South shor approximate line 120° – 300° from Escoumins.

If pilotage is likely to be over 11 hours to Quebec, then 2 Pilots w board.

Normal transit Escoumins to Quebec is about 8 hours, depending tide and speed restrictions.

At Quebec, a Docking Pilot is normally engaged, boarding off Bu K160, just South of Ile d'Orleans. On departure, River Pilot unberth vessel (according to Agent, this is normal practice).

Anchorage: Anchorage can be found approaching Escoumins Pi Station at Ile du Bic (B.A. 307), 5 miles N.E. or 8 miles S.W. of the islan in 17 m. and 20 m. respectively (under Escoumins VTS control).

Emergency river anchorages can be found (under St. Lawrenc pilotage).

Channel: Maximum draft to Quebec is 15.5 m. F.W. at high water, 11.5 m. F.W. at any tidal state.

On leaving Escoumins Pilot Station for sea (after dropping Pilot) at position Lat. 48° 19' N., Long. 69° 23' W., vessels must report to Escoumins VTS on Channel 9, ETA at Checkpoint '5B'. This is not clearly indicated on B.A. No. 312 or ALRS Vol. 6.

Tugs: A number of powerful tugs are available at Quebec. Tugs' lines used. Tugs are compulsory if wind speed over Force 5. Due to wind speed, we used one tug (our vessel 8,000 d.w.t.).

Berth: Bulk Liquid Chemicals: Intertank, Section 50 – off Saint Charles River. Length of Berth 700 ft., dredged to 11.9 m., but Agent reports 12.2 m. MLW. Flat faced concrete quay with floating fenders. Vessels can berth either side to.

Density found to be 995 LW, 997 HW. Agent advises a lot of layering, and density varies from berth to berth.

Tidal range 18 ft. Springs. At L.W., small ship's main deck well below quay level.

Quick and straightforward entrance to St. Lawrence.

Cargo: Following products handled from adjacent tankage (both import and export): Hydrogen Peroxide, Sulphuric Acid, Caustic Soda, Paraffin, LEB, Methanol, Molasses, Tallow, Gas Oil.

Most products through 6 in. rubber hoses from quay manifold, about halfway along length.

There can be up to 40 tonnes in shore line to drain onboard after shore tank valve is closed.

Sulphuric Acid loading rate 600 tonnes/hr.

SGS Surveyors in close attendance.

Ship's crew couple up. Ship's hose crane required.

Loading Master in adjacent office, but English is poor.

Facilities: Fresh water available through meter from Port Authority, arrange through Agent.

Gangway easily landed, but has to be turned in at low water.

Stores truck can get right alongside vessel.

Two telephones adjacent to vessel.

All usual facilities of a large city.

Chandler used: Lighthouse Trading. Fax: (418) 657-3711. Telex: 05 24134. Tel: (418) 657-3767. Fair priced, but delivery not prompt.

Customs: Agent handled all inward documentation.

Ship prepares following Canadian forms:

3 copies Crew List.
2 copies Crew Effects Declaration.
2 copies Stores List.
2 copies Inward Declaration.
3 copies Cargo Manifest.

Customs Search Squad boarded us about 8 hours after berthing. They checked Bond/Log Book/Certificates and interviewed Canadian National as to National Service, and searched his cabin.

Chile

CORONEL: (Also see Page 430) **(See Late Plans)**

SHIPMASTER'S REPORT: September 1996.

Port Limits: Correct, as on Chart No. 3082.

Documents:

7 copies Crew List.
5 copies Stores List.
5 copies Bonded Stores List.
4 copies Personal Effects List.
4 copies Narcotics List.
3 copies Passenger List.
2 copies Arms List.
Last Port Clearance.

Pilotage: Pilot comes from San Vicente and boards 1 mile S.W. of Punta Puchoco. Agents are responsible for transporting Pilots from San Vicente to Coronel, so Agents should be kept well informed of ETA. Agents are on VHF Channel 16, and Pilots normally work on Channel 9.

Anchorage:

Lat. 37° 01' 53" S., Long. 73° 10' 18" E.
Lat. 37° 01' 53" S., Long. 73° 09' 48" E.
Lat. 37° 02' 06" S., Long. 73° 10' 18" E.
Lat. 37° 02' 06" S., Long. 73° 09' 48" E.

Restrictions: No official restrictions have been issued so far for the berth.

Max. Size: LOA 220 m. Max. draft 14.0 m.

Health: If coming from outside Chile, then Health Clearance to be done on arrival.

Radio: Nearest station "Talcahuano Radio".

VHF: See "Pilotage".

Radar: Only for naval use.

Tugs: Normally 2 tugs are used. One tug comes to assist in berthing and unberthing from San Vicente, and the other tug comes from Lirquen.

Berthing: The President of Chile inaugurated the new general cargo berth in August 1996. We berthed at this berth in September 1996.

The berth is a finger pier where vessels can berth on the North or South side (See "Plan").

Vessels berth "Bow to sea" and use offshore anchor. On the North side, vessel will be port side alongside, and on the South side, vessel will be starboard side alongside. Headlines are passed to the dolphin 60 m. seaward of the pier, and stern lines are passed to the bollard situated on the road bridge connecting the pier with the mainland. There is considerable swell experienced at the berth, especially in the Winter months, so vessel has to take great care and regularly check her mooring lines.

We were in port for 5 days, and it was towards end of Winter, during which we broke 8 mooring lines due to continuous surging of the vessel. Our vessel was made fast with 4 headlines, 2 breasts, 2 mooring rope springs and 2 wire springs (30 mm. wire). Similar number of lines were used aft. However, this port is considered to be safer than San Vicente or Lirquen.

Length of Pier: 172 m.
Breadth of Pier: 31 m.
Length of roadbridge joining pier with mainland: 350 m. (approx.).
Area of wood pulp and paper warehouse: 8,700 sq.m.
Area of dry lumber/general warehouse: 2,500 sq.m.

Also vast open area on reclaimed land in front of pulp warehouse for storing logs or sawn timber.

Specialised Cargo Handling Facilities: No facilities available. No shore cranes. Vessel uses own gear to load forestry products and at times other general cargo.

Stevedores: Agents arrange stevedores, who come from San Vicente, along with trucks and forklifts.

Density: 1025.

Fresh Water: Available through pipeline on pier at rate of 30 tonnes/hr. Cost U.S.$ 0.40/tonne.

Fuel: Available by road tanker.

Consuls: Argentina, Brazil, Denmark, Ecuador, Italy, Peru, Great Britain and Sweden, in Conception (20 km.).

Gangway/Deck Watchmen: Necessary, as possibility of theft.

Airport: About 30 km. away with daily flight to Santiago.

Time: GMT minus 4 hours.

Holidays: The only times when stevedores do not work are from 1530 hrs. on 24th December to 1530 hrs. on 25th December, and 1530 hrs. on 31st December to 1530 hrs. on 1st January.

Police/Ambulance/Fire: Police 133. Ambulance 711916. Fire 132.

Telephones: No shore telephones available, but Agent can place mobile telephone on board.

Identification Cards: Passes are issued by Immigration on arrival, and are required for crew going ashore.

Garbage Disposal: A lengthy procedure has to be followed and authorisation required.

QUINTERO: (Also see Page 440)

SHIPMASTER'S REPORT: June 1996.

Las Ventanas: Las Ventanas is the name of the bulk mineral loading Terminal in Quintero Bay. The pilot boarding position is Lat. 32° 45.0' S., Long. 71° 31.9' W. Berthing at Las Ventanas berth is only in daylight hours, but sailing outward can be at any time. For position of the Terminal refer to B.A. Chart No. 1314, but it is better to refer to equivalent Chilean chart, which is of a larger scale.

Las Ventanas Terminal is a private berth and handles only export of bulk minerals. The principal exports are copper concentrates and coal. The berth extends into the sea like a causeway built on dolphins. There are 4 berths, 2 on each side of the causeway. Approximate length of the causeway is 400 m. – 500 m. The available depth is 11.0 m. aft, but about 10.0 m. forward (we berthed at No. 2, port side alongside with bow facing shore and stern facing sea). On completion of loading, we were drawing 8.7 m. forward and 9.6 m. aft.

The berth for loading concentrate has a fixed loading arm connected to the overhead conveyor. The lower conveyor is for coal. The vessel has to be moved up and down the berth by warping with the mooring winches/windlass, in order to position the chute in the right hatch. The shifting is done by the Terminal crew under the supervision of ship's staff. The loading rate of concentrate is 1,000 tonnes/hr. On completion of loading, the Terminal lowers a small bulldozer by mobile crane to trim and level the cargo. We loaded 5,470 tonnes in one hatch, which took about 7.5 hours to load and about 1.5 hours to trim/level.

The greatest problem we experienced was the swell emanating from the vast expanse of the Pacific, lashing the shores of Chile, Peru, Ecuador and Panama. Since there is no breakwater in Quintero Bay, the swell with its deep trough flows past the Las Ventanas Terminal, causing the ship to roll and pitch. At times, it is difficult to keep the vessel securely alongside. The chances of mooring ropes chaffing and eventually parting cannot be rules out. Due to the swell, it is very difficult to read the ship's draft accurately.

Port Control seems to switch on the VHF about 30-45 minutes prior to the ship's ETA. It is possible that they attend/respond to the VHF call all the time during the day. The communication problem cannot be avoided if you are not able to speak some Spanish. However, the Pilot contacts the vessel directly from his portable VHF and advises the time when the vessel is to be at the pilot ground. It is better to approach at a very slow speed, but always ensure that you have good steerage, as the following swell may violently sheer the vessel off course. A traffic separation scheme exists, but when the vessel is inbound, the shore is just about half a mile on the starboard side. Never attempt to go beyond the pilot position, as there may be some ships at anchor or moored to the SBM.

There are 2 tugs available for berthing/unberthing. One of the tugs (Ultramar) is a huge tug with excellent power and manoeuvrability. On approaching the berth, we dropped starboard anchor when almost abeam to the seaward end of the pier, and finally ended up paying out 8 shackles in water. The causeway is built on the dolphins which are about 30 m. apart, and it has very good fenders. It is a problem to lower the gangway, as the dolphin may be too far for the gangway to land upon. Even if one is lucky to be at the right position for the gangway, but this prospect may no longer be possible when the vessel has to position itself under the fixed chute during loading. The Agent and

Authorities are accustomed to boarding by pilot ladder, which should be constantly tended to prevent any damage.

Fresh water is available alongside at a cost of U.S.$ 1.02 per ton, and pumping rate is about 40 t.p.h.

No bunkers or fuel are available.

Shipchandler is available.

This port is a paradise for making telephone calls. A person with a mobile telephone boards, and you can call anywhere in the world at a price of U.S.$1.00 per minute. All hands on board telephoned home at reasonable cost.

People's Republic of China

GENERAL: (Also see Page 448)

MOORING MASTER'S REPORT: November 1996.

Editor's Note: The Mooring Master berths vessels at:

Huizhou Terminal.
Liuhua Terminal.
Lufeng Terminal.
Xijiang Terminal.

Report: There are various platforms, pipelines, cables and other obstructions, but FPSO names, positions, Terminal names, Operators and VHF working channels are as below. At this time, no charts are correct.

I do not work at "Sheng Kai". To the best of my knowledge, they have a 12 in. hose connection where others are 16 in., 10 tonne SWL for lifting gear where others are 15 tonne SWL.

You will find details of FPSO's in Clarkson's.

"Nan Hai Sheng Li", ex-Mega Eagle 134,000 S.d.w.t. Liuhua Terminal, operated by Amoco. VHF 74, working Channel 8. Position: Lat. 20° 51' N., Long. 115° 41' E.

"Nan Hai Fa Xian", ex-Agip Campania, 254,654 S.d.w.t. Huizhou Terminal, operated by CACT. VHF 13, working Channel 69. Position: Lat. 21° 22' N., Long. 115° 24' E.

"Nan Hai Kai Tuo", ex-Java, 152,405 S.d.w.t. Xijiang Terminal, operated by Phillips. VHF 71, working Channel 68. Position: Lat. 21° 18' N., Long. 114° 57' E.

"Nan Hai Sheng Kai", ex-Sea Queen, 123,894 S.d.w.t. Lufeng Terminal, operated by JHN. VHF 12, working Channel 77. Position: Lat. 21° 36' N., Long. 116° 09' E.

Prior to mooring the Export Tanker, Master must sign "Conditions of Terminal Use", which basically says that the ship is responsible for anything that goes wrong throughout the lifting.

All FPSO's are secured on location by a turret mooring system, *all berthing is in Tandem onto stern of FPSO.* Helicopters are normally used for winching the mooring team on and off the Export Tanker, daylight hours only. Berthing takes place in daylight only, vessel may unberth during darkness, but will need to await daylight, and possibly other operations, before helicopter is available to take off mooring team. Boat transfer will be used if conditions are suitable and may be done at night. The *winching area should be on the port side and be suitable for Super Pumas.* Helicopter can land on Export Tanker if all conditions suitable for such operation. Normal practice is to board Export Tanker at a time which will let all operations be finished during daylight the following day. Mooring team flies out from Shekou in China.

Four people will stay onboard the Export Tanker (the Mooring Master, 2 Chinese helpers, and the CCIB Government Surveyor). Occasionally, there could be an extra person doing training. All documentation, including Port Clearance, N.O.R. and Protests are done by Mooring Master. No Agent, Customs, Port Authority, Health or State personnel normally board. The Mooring Master will have approved ship's answer to the Terminal Questionnaire, and can reject vessel prior to berthing if any serious discrepancies are found, he will also report as to the suitability of the vessel for further liftings.

Equipment box(es) will be loaded onto Export Tanker after the mooring team board. Condition of Export Tanker lifting gear is very important, as it may be used in very poor weather conditions, both to transfer the equipment box and to work the hose. *Power guys* should be provided, a ship with Manilla runners and no back-up preventers is a nightmare, operable in the Summer, but not during Monsoon and Typhoon conditions with maybe 15° roll (each side) on berth, when lying to current and across sea and swell. See "Lifting Equipment Recommendations" below.

No tugs as such are available for berthing, the Export Tanker being brought into position for mooring on main engine only. Two AHTSV's provide hose handling and mooring support, and these operations usually dictate whether berthing takes place. On approach to FPSO, the messenger transfer from supply boat is by rocket gun (Export Tanker having long heaving line ready in case of malfunction). Same AHTSV usually then goes to make fast on stern as Export Tanker continues to approach FPSO and then holds position on stern during loading, tug uses own gear including messenger, a heaving line being sufficient to be passed from Export Tanker (at this time Export Tanker will require crew forward and aft, then hose connection will take place immediately after all fast). N.O.R. accepted at all fast. Forward winch must be rated *at least 15 tonnes*, and be able to accept all of messenger onto drum by straight pull or via suitable roller leads.

Vessel must provide a *200 tonne SWL chain stopper* and is secured by a single 76 mm. chain and associated equipment. The area is subject to severe rip tides and Solitron activity which may set the Export Tanker towards the FPSO, even in very strong winds. In Autumn 1996, the chain stopper (rated at 300 tonne SWL) of a 140,000 S.d.w.t. Export Tanker parted under load due to rip tides, winds at the time were 15 knots. Mai engines should be ready for use at all times, and may need to be use astern for periods of time. In event of failure of stern tugs gear (in wor case, half onboard AHTSV and half onboard Export Tanker with propell fouled), it is prudent that Export Tanker has best mooring line ready pass, and also have a good length of fire wires flaked out and secure on deck, heaving line ready.

Hose connection is done by Export Tanker crew, aided by moorin helpers and supervised by Mooring Master. Connection is by Camloc to 150 ANSI dimensions, a slip hook is fitted at hang-off chain. Expo Tanker may have to receive a water flush before and after loadin operations. This information should be provided to Consignee and Expo Tanker by each Terminal, as and when required. As a rough guide, a allowance of 300 cu.m. should be enough. Any definite details regardin cargo heating or handling after loading does not come from the Moorin Master.

All documentation is usually done prior to vessel sailing. Time take depends on sampling method for API/density/BS & W, etc., FPS paperwork may be completed before hose disconnected or could tak several hours. As a guide, the Export Tanker should be ready to let g about one hour after cargo is completed, and a hard copy of cargo figure will either come over by messenger from the FPSO prior to unmoorin or will be brought over later by boat.

The Liuhua Terminal, operated by Amoco, has a cargo history of H_2 SO_2, and Mercaptan content making closed loading, suitable equipme and proper crew training essential. Nine knots of current have bee recorded on seabed at this location during Solitron activity. 230 tonn pull-on hawser on 64,000 S.d.w.t. Export Tanker, Autumn 1996, wi little wind or sea.

LIFTING EQUIPMENT RECOMMENDATIONS OCIMF & SC TERMINALS: Ships should be provided with lifting equipment havin SWL's as follows:

The SWL of the lifting gear should be established in accordance wi the requirements of the ship's Classification Societies, and shou include a normal allowance for impact load.

25,001 to 60,000 S.d.w.t. – 10 tonnes.
60,0001 to 160,000 S.d.w.t. – 15 tonnes.
Over 160,000 S.d.w.t. – 20 tonnes.

The lifting equipment should be able to achieve the appropriate SW when plumbing a point 1.0 m. outboard from the ship's side over the f length of the manifold. It should be able to provide a clear lift above th deck of at least 10.0 m. to any manifold connection.

The lifting equipment fitted shall be able to operate as follows:

(a) To top and lower under load and be fail-safe in the event of pow loss when topping or lowering.
(b) *To slew both ways by power (not manually) under load, both whe topping and lowering and when not topping and lowering.*
(c) The hook and runner should run free without manual interventi under condition of no load.
(d) To lift and lower at a rate at the hook of *10.0 m. and 15.0 m. p minute under load*, and approximately 20.0 m. – 30 m. per minu under conditions of no load.
(e) To operate smoothly during lifting or lowering to a fineness control of 1 in. at the hook. The equipment should have a simil smoothness of operation when slewing (this recommendation particularly important for safety of operations when matching hos to the manifold, etc.).
(f) To be operated from a central control position for all functions lifting and lowering, topping and lowering and slewing (it desirable that the control position be duplicated at the ship's si to enable the Operator to see all stages of the operation).
(g) To *present the hook* or shackle *on a single part of wire* at t water's edge. This recommendation is aimed to minimise t danger to personnel, either in a workboat, or ashore, from a lar block with several turns of wire close to them. As an inter measure, a suitably sized 3.0 m. pennant may be fitted under t block.
(h) *The emphasised items are essential for safe and controll operation at the South China Sea Terminals. All Terminals are open seas and subject to Monsoons and Typhoons in season.*

Further Guidance Notes:

Hook must have safety latch.

Export Tankers will at times have to operate lifting gear in *very rou seas and high winds.* Equipment box and hose will be picked-up fro a supply boat manoeuvring close to ship's side, these vessels have cra barriers. The hook must travel far enough outboard to reach both sup vessel and out over crash barrier to pick-up point. Hook must be safety type to prevent lift from inadvertently coming off during operatio and must be present on a single part at water's edge for safety and ea of use by supply vessel crew. During these operations, the speed gear is very important since if too slow, the supply boat is alongsi longer than necessary, and there is a very real chance that the lift w get caught in crash barrier, as the supply boat rises and falls in sea a swell. The derrick should be able to raise hose to securing position single lift even with safety pennant on block.

FANGCHENG: (Also see Page 466)

SHIPMASTER'S REPORT: September 1996.

Pilotage: There are 6 Pilots available at the port. Pilot embarks from 3,200 h.p. tug. Pilot ladder required 3.0 m. above water. Call Pilot VHF Channel 16, working on Channel 6. Pilot boards at anchorage large ships and at Buoy No. 1 for small ships.

Fairway: Charted depth is 7.5 m., but said by Pilot to be 8.0 m. In Chinese edition of port guide it is declared as 8.0 m. There is a Shore Pilot Guide who can supervise the ship's position in the Fairway between Buoy No. 1 to Buoy No. 5. This station is controlled by the Navy, but available on Pilot's request.

Anchorage: One "waste" mooring buoy exists 5 cables S.W. of Pilot Buoy (Buoy No. 0). This mooring buoy is yellow without a light, and is not marked on B.A. or Chinese charts. Special care should be taken when approaching anchorage at night.

Waste Oil Disposal: Not available at this port, but a barge from port of Beihai can be ordered at a charge.

Agents: Two agencies at this port: Penavico and Sinoagent. Agent speaks very good English and is helpful in every respect.

VHF: Channel 16 for calling. Fangcheng Radio, Penavico and Sinoagent all stand-by on this channel. After connecting, Fangcheng Radio works on Channel 9, Penavico on Channel 68 and Sinoagent on Channel 12. Fangcheng Radio listens 24 hours, but Penavico and Sinoagent only during office hours, so Fangcheng Radio will ask them to contact vessel.

Quarantine: Upon arrival, Animal and Plant Quarantine Officer and Health Quarantine Officer will board together with Agent. Both Quarantine Officers will hand over 3 – 4 papers for different kinds of treatment, which are not necessary for ship's Master to sign. They are for the purpose of making money only. Master can refuse them, and Agent will give good advise at that time.

Garbage Disposal: Collected every morning, and spraying treatment by Health Officer is compulsory. Master will be advised by Agent.

LIUHUA TERMINAL: 20.50 N. 115.42 E.

(See Late Plans)

LOCATION: The Liuhua Terminal is located in the waters of the People's Republic of China, approximately 150 nautical miles S.E. of Hong Kong.

(1) Floating Production System (FPS) "Nan Hai Tiao Zhan" (Nan Hai Challenge), located offshore at Lat. 20° 49' 32.328" N., Long. 115° 42' 0.662" E.

(2) An offshore loading berth Floating Production Storage and Offloading (FPSO) "Nan Hai Sheng Li" (Nan Hai Victory), located offshore at Lat. 20° 35.305' N., Long. 115° 40' 59.913" E.

(3) Water depth at the location is approximately 290 m.

Both the FPS and FPSO are permanently anchored to the sea bed by an anchor leg mooring system.

DOCUMENTS: The following documents are required when calling at the Liuhua Oil Terminal for all foreign flagged vessels:

(a) Crew Lists.
(b) Lists of Ports of Call.
(c) Copies of Cargo Manifest.

PILOTAGE: *Mooring Master Pick-up Area:* The Mooring Master and his mooring crew, including one person from the Chinese Commodities Inspection Bureau (CCIB), will board the Lifting Vessel at the waiting area (See "Approaches"). Depending on weather conditions and following instructions from the Mooring Master, the vessel will be allowed to proceed to the berth.

Also see "Berthing".

APPROACHES: *Waiting Area:* The designated waiting area for vessels awaiting loading at the Liuhua Terminal is an area 2 nautical miles in radius, centred at Lat. 20° 44' N., Long. 115° 38' E. No anchorage is possible due to the water depth.

Navigational Aids: Masters are advised that navigation within the Terminal Zone will only be undertaken in the presence of the Terminal Mooring Master. As the Terminal is in the proximity of the Hong Kong Shipping Lane, radar surveillance will be operated from the field stand-by vessel. This does not relieve the Master of the Lifting Vessel of his responsibility for the safety of his vessel.

Terminal Restricted Zone: Lifting Vessels are prohibited from navigating within the Restricted Zone at the Liuhua Terminal at any time unless a Mooring Master is on board. The Restricted Zone is bounded by the lines connecting the following points:

(1) Lat. 20° 45' N., Long. 115° 38' E.
(2) Lat. 20° 45' N., Long. 115° 45' E.
(3) Lat. 20° 54' N., Long. 115° 45' E.
(4) Lat. 20° 54' N., Long. 115° 38' E.

Hydrographic Chart Information: Vessels are referred to the appropriate Hydrographic Office publications, Admiralty publications and official charts for the approaches and navigational aids to the Liuhua Oil Terminal. Caution is required when navigating near the Terminal, since oil installations and marine activities may be encountered in the area.

Notice to Mariners: The international merchant shipping Notice to Mariners "M" Notices will advise Shipowners and Masters of the extent and operations being undertaken in the Liuhua Oil Field.

HK MARDEP is giving on Navtex, twice a week, the position of rigs and FPSO's operating in the South China Sea.

ANCHORAGE: No anchorage is possible due to the water depth.

RESTRICTIONS: The Liuhua Oil Terminal is operated on a continuous basis, 24 hours a day, 7 days a week, weather and circumstances permitting.

Vessels will be moored in daylight hours only, loaded at any hour, and unmoored at any time, weather and circumstances permitting.

MAX. SIZE: 35,000 d.w.t. – 140,000 d.w.t. Max. LOA 265 m. Max. beam 50 m.

HEALTH: The rules governing the Quarantine of Lifting Vessels are the same as those found in other parts of the world.

RADIO/VHF: *Initial Communications:* ETAs for Liuhua Oil Terminal *must* be sent in writing for all vessels to the Agent, the Operator and by radio to the FPSO.

Radio communication with the FPSO can be established through the marine band channels, and a working frequency chosen once contact has been made.

Call sign of the (FPSO) "Nan Hai Sheng Li" is: ELQK4.

1. Inmarsat – B (Pacific Ocean):
   Fax No. = 872/873-3636-34320
   Telephone No. = 872/873-3636-34310
   Telex No. = 582/583-3636-4350 NHSL X
2. Inmarsat – C (GMDSS Station (Pacific Ocean):
   I.D. No. = 582-4636-97410
3. Radiotelex (ARQ):
   Selcall No. = 25054 ELQK X
4. 2,182 kHz Watchkeeping Receiver.
5. SSB/DSC, VHF /DSC (GMDSS Station):
   MID No. = 636009993
6. Helicopter VHF Radio:
   Frequency = 118.0 – 136 MHz

Providing Estimated Time of Arrival (ETA) and Other Information: It is important that Lifting Vessels establish contact with the Operator when 4 days distant from the Liuhua Oil Terminal and maintain such contact until just prior to arrival at the Liuhua Oil Terminal. Lifting Vessels should send an ETA message to the Operator not less than 96 hours prior to arrival at the Liuhua Oil Terminal, providing the following information:

(1) Vessel's Name, Nationality, Owner, Port of Registry and Call Sign.
(2) The Estimated Time of Arrival in local time (GMT plus 8 hours).
(3) The Quantity of Crude Oil to be Loaded.
(4) The Estimated Sailing Draft.
(5) The Last Port of Call.
(6) Next Port of Call (if known).
(7) Whether the Lifting Vessel has a clean Bill of Health.
(8) A copy of the "Lifting Vessel Nomination Fax" can be required by FPSO (see below).

While it is the responsibility of the Lifting Vessel and her Owners to ensure that she is properly equipped, Lifting Vessel should include in its ETA message any special equipment request. If able to do so, the FPSO will endeavour to provide such equipment.

Further ETA messages should be sent to the Operator when the vessel is 72 hours, 48 hours and 24 hours distant from the Liuhua Oil Terminal, confirming or giving notice of any change in the 96 hour ETA and at any other time after the 24 hour ETA message, when a change by more than 2 hours occurs in the ETA. The 24 hour ETA message should include a positive statement regarding the Lifting Vessel's readiness to load on arrival.

Ship-to-Ship Terminal Communications: The FPSO vessel is equipped with VHF radiotelephone using international frequencies and maintains a radio watch on VHF Channel 16 and designated channel. Not less than 12 hours prior to the Lifting Vessel's ETA at the Liuhua Oil Terminal, the Lifting Vessel is required to maintain a radio watch on VHF Channel 16 when in range. Masters are recommended to use this facility as soon as the Lifting Vessel is within range, since such communications are the best means of avoiding delay in the mooring of the Lifting Vessel. During the loading operations, all communications between the vessel and Liuhua Oil Terminal shall be under the supervision of the Mooring Master. The Mooring Master will advise the Master and Officers regarding the emergency whistle signals set up for use in the event the VHF radiotelephone units become inoperative. The use of the Lifting Vessel's radio station and/or battery charging equipment is prohibited during cargo loading operations. Satellite communications will be permitted at any time.

Radio Watches: While at the designated area awaiting the loading berth, Lifting Vessels should maintain a listening watch on VHF Channel 74, and if contact breaks on this VHF channel, the listening watch should continue on the nominated marine band channel with the FPSO. Chiwan Radio 4,434.6 kHz by day, and 2,512 kHz by night, or as directed by the Mooring Master.

LIFTING VESSEL NOMINATION TELEX/FACSIMILE:

To :
Company :
Fax :
From :
Company : Amoco Orient Petroleum Company
Fax :
Date :

Note: Liuhua 11-1 Crude Oil has Hydrogen Sulphide Gas (H_2S) in concentrations significant enough to be a toxicity concern for personnel. It is therefore mandatory that Lifting Vessels be properly equipped and vented prior to the vessel's arrival at the Terminal loading facilities.

The following is information required by the Liuhua Terminal for vessel nominated to lift crude oil at the Liuhua facilities:

1. Date
2. Vessel's Name
3. Date Delivered
4. Place
5. Summer d.w.t. (Max. 140,000, min. 35,000) tonnes
6. Summer Draft m.
7. Light Displacement tonnes
8. Total Displacement tonnes
9. LOA (Max. 265 m.) m.
10. Beam (Max. 50 m.) m.
11. Draft on Arrival (as per MARPOL '73/Rule 13) F...... A......
12. Manifold Height over SBT Draft (Max. 16.5 m.) m.
13. Flag State
14. Nationality Master .... Officers .... Crew ....
15. Total Number Officers and Crew on Board
16. Officers Ability to Speak/Understand English: Good/Fair/Not Good

17. Are Officers/Crew familiar with Tandem Mooring? Yes/No
18. Are Officers/Crew trained and certified in H_2S Safety? Yes/No
19. Is Vessel properly equipped to handle H_2S concern? Yes/No
20. Is Vessel a Segregated Ballast Tanker? Yes/No
21. Percentage SDWT Vessel can maintain with
    segregated Ballast only %
22. Helicopter Winching Area as per ICS Guideline
    on Port Side? Yes/No
23. Bow Chain Stopper(s): One/Two SWL...... SWL......
24. Bow Chain Stopper Type (Tongue or Hinged Bar)
25. Bow Chain Stopper Chain Size (54 mm. OR 76 mm.) mm.
26. Bow Chain Stopper Fitted with Chain Straightener Device? Yes/No
27. Bow Chock Opening(s): One/Two (600 mm.×450 mm.)
    ......mm. ......mm.
28. Distance between Bow Chocks (2 m. – 3 m.)
29. Distance between Bow Chock and Chain Stopper
    (2.7 m. – 3.7 m.) m.
30. Distance between Chain Stopper and Fairlead (4.5 m.) m.
31. Empty Storage Drum on the Winch (for 9 in. 200 m. line) Yes/No
32. Type of Storage Drum (undivided/split)
33. Pedestal Fairlead in line with Winch Storage Drum Yes/No
34. Winch Rated Pull (min. 15 tonnes) tonnes
35. Does Equipment comply with OCIMF Recommendations? Yes/No
36. Port Boom/Crane (Min. marked 15 tonnes) SWL tonnes
37. Lifting Equipment suitable to operate in Open Sea
    Conditions? Yes/No
38. Lifting Hook fitted with Safety Latch Yes/No
39. Presentation Flange at Manifold to be 16 in. ANSI 150 Yes/No
40. Distance Bow to Centre Manifold (Max. 150 m.) m.
41. Distance Presentation Flange inboard from
    Ship's Side (4.6 m.) m.
42. Height of Presentation Flange Centre
    above Deck (max. 2.1 m.) m.
43. Spacing between Centre of Presentation
    Flange (2 m. – 2.5 m.) m.
44. Manifold Material (should be steel) Yes/No
45. Hose Support Curvature not less than 150 mm. Yes/No
46. Pressure Gauges and Thermometers at Manifold? Yes/No
47. Maximum Freeboard during Loading m.
    (should never exceed Freeboard on Berthing)
48. Do Manifolds and Associated Equipment comply
    with OCIMF Guidelines Yes/No
49. Does Vessel have IG System Yes/No
50. Can IG System maintain less than 8% Oxygen
    at all times? Yes/No
    (Vessel will be rejected if Oxygen percentage
    in cargo tanks more than 8%).
51. Pressure Relief Valve Setting mm./WG
52. Without Breaching Tanks can Vessel be:
    Sampled? Yes/No Ullaged? Yes/No
    Water cut? Yes/No Temperatures taken? Yes/No
53. Initial Loading Rate ....MTPH ....BPH
54. Maximum Loading Rate ....MTPH ....BPH
55. Topping-off Rate ....MTPH ....BPH
56. Vessel able to Receive/Segregate:
    ......cu.m. Line Flush Water prior Loading Cargo Yes/No
    ......cu.m. Line Flush Water after Loading Cargo Yes/No
57. Is Vessel loading on top on Slop Tanks and what Quantity
    is she able to receive in each Slop Tank
58. Main Engine(s) Type BHP
59. Manoeuvring RPM ahead: Full .... Half .... Slow .... Dead slow ....
60. Manoeuvring RPM astern: Full .... Half .... Slow .... Dead slow ....
61. Limit Time Astern minutes
62. Time from Stop to Astern seconds
63. Maximum Number of consecutive Starts
64. Expiring Date of TOVALOP Certificate
65. Expiring Date of Crystal Certificate
66. Vessel Telex: . . . . . . Fax: . . . . . .
    Name and Contact Number of Owner/Operator

Any other comment:

TUGS: 1×12,000 h.p. and 1×8,000 h.p.

BERTHING: *Mooring Arrangement:* The FPSO is a converted tanker whose principle dimensions are:

Length: 258.00 m. Breadth: 44.00 m.
Depth: 22.90 m. Draft (Summer): 17.00 m.
Deadweight: 140,000 tons

The FPSO is permanently installed by a 10 point spread mooring system, with each point secured directly to the seabed by a high holding power anchor.

The FPSO is free to weather vane around her mooring and the FPSO is capable of accepting vessels between 35,000 S.d.w.t. and 140,000 S.d.w.t. The FPSO is equipped with anchorage lights and lights on the bow and on the stern showing Morse letter "U", as required under Maritime Law (Regulations for the Prevention of Collisions at Sea).

Operator's Facilities: The Operator's administrative offices are located in Chiwan. The Operator's facilities for the laboratory testing of crude oil are located onboard the FPSO.

Mooring Master: Lifting Vessels to be moored at the Terminal will be boarded by a Mooring Master at the customary waiting area (See "Approaches"). The Mooring Master will be provided by the Operator and will act as the Loading Master during the loading operations. Lifting Vessels will not be allowed to approach or depart from the loading berth without the assistance of the Operator's designated Mooring Master. The Mooring Master will advise the Lifting Vessel's Master on the approaches to the loading berth, the operation of mooring and unmooring and in all other operations within the loading berth area. The Mooring Master will be in direct charge of the portable VHF radiotelephone, and all ship-to-tug and ship-to-FPSO communications will be by VHF radio.

The Lifting Vessel's Oil Record Book shall be made available
inspection by the Mooring Master on his arrival. All manoeuvring of
Lifting Vessel within the loading berth area shall be performed by
Lifting Vessel personnel as directed by the Lifting Vessel's Officer-
charge and in accordance with the procedures advised by the Moori
Master. The vessel, whilst being manoeuvred, shall remain the s
responsibility of the Lifting Vessel's Master. The Lifting Vessel's Mas
must be on the bridge at all times while the vessel is manoeuvring.

The Lifting Vessel is required to have a clear area, possibly on p
side, for winching on and off the Mooring Master and his crew
helicopter, in accordance with Guide to Helicopter/Ship Operations
published by the International Chamber of Shipping). The winching a
manoeuvring zone should have a diameter suitable for an Aerospati
332L Super Puma type helicopter. In the event that the sea conditi
are favourable, an efficient pilot ladder fitted with spreaders a
manropes, safely and securely rigged, ready for the Mooring Master
embark and disembark on either side of the vessel, may be used
advised by the Mooring Master. Adequate lighting must be rigg
overside for night operations, with lifebuoy, safety line and self-igniti
light, together with a rope messenger for the Mooring Master's docum
case and bags. The Lifting Vessel shall afford a "good weather lee" a
shall reduce speed as directed in order to effect a safe transfer
personnel.

Whenever, as in the case of large Lifting Vessels in light conditi
the freeboard exceeds 30 ft., the accommodation ladder shall also
used in conjunction with the pilot ladder and shall be lowered to ab
12 ft. above the water with the pilot ladder rigged immediately adjac
to the bottom platform of the accommodation ladder. A mechanical h
of an approved type can be an acceptable alternative to a conventio
pilot ladder. A mechanical hoist that relies on a single wire shall not
considered acceptable. If in the opinion of the Mooring Master, the p
ladder is not safe, the Mooring Master may refuse to board the Lift
Vessel, and any delay caused by such refusal shall be for the Lift
Vessel's account.

In any event, the primary method of transfer for the Mooring Mas
will be by helicopter, and such operations will be at the discretion of
Helicopter Pilot and the Mooring Master.

The Lifting Vessel shall provide food for the Mooring Master and
crew, including the CCIB representative while on board the Lifting Ves
and shall accommodate the Mooring Master in the Pilot's cabin. Sho
the Lifting Vessel not be equipped with a Pilot's cabin, the Moori
Master and the CCIB representative shall be accommodated in a ca
equivalent to that of an officer on the Lifting Vessel. The Mooring Mas
shall have access to the bridge and/or control area of the Lifting Ves
including the cargo control room, and such areas shall not be locked
otherwise arranged as to prevent immediate entry at any time by
Mooring Master. Lifting Vessel's Master should give any assista
requested by Mooring Master relevant to oil lifting operations.

Lifting Vessel Equipment: Prior to the berthing of the Lifting Vessel a
after helicopter operation, the lifting equipment on port side of the Lift
Vessel should be fully rigged. Due to the sea conditions, it should
able to slew both ways by power and not manually and have a lift
and lowering rate at the hook between 10 m. and 15 m. per minute un
load conditions, and 29 m. – 30 m. per minute under no load conditio
The derrick or crane should be swung outboard so as to clear
manifold and ensure that it is ready to handle the basket of tools a
hose handling equipment, as well as the floating hose string on the p
side. The mooring arrangement and equipment should be prepared
the bow. One storage drum should be made empty on the bow to reco
the hawser messenger. Anchors should be secured on their stoppe
warping winches and windlass in good working order at all times dur
the lifting operation. A tug will be in attendance at all times during
loading operation, moored to the stern of the Lifting Vessel. The winch
on the poop deck must be in full working order, and efficient stopp
must be readily available to"stop off" the mooring line from the tug.

The Lifting Vessel's manifolds must be rated by an approv
Classification Society and in compliance with OCIMF "Standards
Manifold and Associated Equipment". The derrick or crane must
capable of lifting the cargo hoses safely and efficiently from the Sup
Vessel deck over the rail to the Lifting Vessel's manifold. The Lift
Vessel must have an adequate supply of stud bolts, nuts, gaske
wrenches and big hammers to connect the cargo hose, but the prima
method of hose connection will be with a 16 in. Camlock connecto
the tail end hose. If in the opinion of the Mooring Master, the Lift
Vessel is not equipped with adequate mooring or loading facilities
lines or gear, the Mooring Master will inform the Lifting Vessel's Mas
and in such event, the Lifting Vessel will not be brought into the load
berth until the facilities and equipment are deemed satisfactory by
Mooring Master, and any delay caused by such unsatisfactory facilit
and equipment shall be for the Lifting Vessel's account.

Mooring Operations: As the FPSO operates a tandem mooring syste
the Operator will provide the services of Support Vessels to assist
the mooring and unmooring of the Lifting Vessel. During the lift
operation, a tug will be permanently moored to the stern of the Lift
Vessel to assist in maintaining tension and reduce fish tailing in
mooring arrangement between the FPSO and the Lifting Vessel. T
tug will be based at the loading berth and will operate under the dir
control of the Mooring Master. Another Supply Vessel "Fifi" will pa
the hose end to the Lifting Vessel and will remain standing-by dur
lifting.

The loading berth is in open and unsheltered waters; therefore, fr
the time the Mooring Master boards the Lifting Vessel until the Lift
Vessel has loaded her cargo and the Mooring Master has disembark
full power must be available at all times on deck machinery and
Lifting Vessel's engines, steering machinery and other manoeuvr
equipment must likewise be maintained in a constant state of readin
with full power for immediate use, so as to allow the Lifting Vessel
manoeuvre in an emergency, or so as to allow the Lifting Vessel
depart from the loading berth at any time so directed by the Moor
Master.

Note: The Lifting Vessel berthing and disconnecting thresholds are assumed to be 2.5 m. waves height for berthing and 3.5 m. – 4.0 m. for disconnecting. These values are for guidance only, and the Mooring Master, in conjunction with the FPSO's Offshore Installation Manager, the Lifting Vessel's Master and the Supply Vessel's Master will review the mooring criteria on a case by case basis. Anyway, disconnection should be done when a pull of 200 tons or more is recorded more than 5 times in one hour.

The Lifting Vessel's personnel should be at their stations and alert at all times during mooring, unmooring, hose handling and cargo loading operations. Where Lifting Vessels are equipped with an electric clutch control to the propeller shaft, such Lifting Vessels must disconnect the electrical clutch control and the manual clutch control so that there will be no possibility of the engine engaging the propeller shaft while the Lifting Vessel is moored. A constant watch in the engine control room, cargo control room and on the bridge shall be provided at all times. An additional watch shall be kept at the loading manifold and on the bow mooring at all times.

Berthing: Nominations to load crude oil will normally be accepted, and the loading berth will be assigned to a Lifting Vessel in the order of its arrival, provided the Lifting Vessel has a nomination for crude oil valid at the time, and is in all respects equipped and ready to moor and conduct cargo operations. In the event that mooring is delayed on account of weather, the Lifting Vessel will keep its position in line. Should the Lifting Vessel be required to leave the area on account of weather, the Lifting Vessel should keep in radio contact with Liuhua Oil Terminal, in order to make the Lifting Vessel available as soon as the weather moderates. The Operator reserves the right to load Lifting Vessels "out of turn" following the return of good weather, to the extent that such loading "out of turn" does not materially delay the loading of other Lifting Vessels in line. For example, should weather make it necessary for a specific Lifting Vessel waiting mooring to vacate the area, the Operator may load another Lifting Vessel which arrived at Terminal after the specific Lifting Vessel, but before the return of the specific Lifting Vessel, which was waiting in line ahead of the other Lifting Vessel.

LOADING: *Loading Berth:* Lifting Vessels are loaded by means of a single hose string length 945 ft. This hose string will be of the floating type and be connected to the FPSO at the port side aft. To allow for the handling of this hose string, which is a nominal 20 in. diameter by the smaller Lifting Vessels, the outboard (Lifting Vessel end) 3 lengths of hose, the two tail and one rail hose length portion of the string, will be a nominal 16 in. diameter. The presentation flange on Lifting Vessel should be 16 in. ANSI 150. Hose string configuration and equipment will meet the standard recommended by Oil Companies International Marine Forum (OCIMF) and detailed in their publication "SPM Hose Ancillary Equipment Guide".

The FPSO is loaded by means of a submarine pipeline, consisting of 2×13.5 in. production lines and 1×6 in. well test line, which run from the FPS and are directly connected by a fluid rise system terminating at the FPSO in the turret.

Loading Rate: The crude oil transfer from the FPSO to the Lifting Vessel is by pump, and the maximum flow rate for on-spec crude oil is 30,000 barrels per hour, or approximately 4,500 tonnes/hr. at a minimum temperature of 100°F (38°C) and a maximum temperature of 150°F (65°C).

It is required that only dry clean oil, free from water, by pumped from the on-spec cargo tanks, through the Marine Loading and Measurement Unit (MLM) to the Lifting Vessel, and that the Lifting Vessel will receive oil at the maximum loading rate from the FPSO having due regard for safety for all operations. It is also required that any shipboard impediment (such as "Y's" or mud boxes) to the flow of crude oil into the Lifting Vessel be removed prior to the arrival of the vessel at the loading berth. One reducer only is allowed between hose and distance piece.

Connecting Hoses: After the Lifting Vessel has been securely moored, the cargo hose will be brought alongside with the help of the tug and hoisted to the Lifting Vessel's rail amidships by the Lifting Vessel's derrick/crane, which shall be certified for a minimum SWL of 15 tonnes and clearly marked on the boom. The cargo hose is 1×16 in. hose fitted with a 16 in. butterfly valve and a Camlock spool with ANSI 150 flange. The Lifting Vessel should have adapters and fittings on board so as to enable such cargo hose to be connected to the Lifting Vessel's presentation flange at manifold. The raising and lowering of the cargo hose will be conducted by the Lifting Vessel. All hose connecting and disconnecting will be performed by the Lifting Vessel's crew as directed by the Lifting Vessel's Officer-in-charge, under the supervision of the Mooring Master. The Mooring Master will remain onboard as Loading Master during the entire time the Lifting Vessel is at the loading berth. Particular care should be taken during all phases of operations to avoid damage to the cargo hose and its fittings. A breakaway coupling is inserted between the fourth and the third hose from the Lifting Vessel end for emergency. No Cargo Vapour System Recovery at the Terminal.

Arrival and Notice of Readiness: Upon or after arrival at the FPSO or at the Terminal waiting area, when ready in all respects to conduct mooring and cargo operations, the Lifting Vessel shall tender its Notice of Readiness to the Operator. The Lifting Vessel shall promptly confirm the Notice of Readiness in writing, if first given verbally. Laytime shall commence upon the expiration of 6 hours following the acceptance of such Notice by the Operator, provided that the Lifting Vessel has been nominated to load cargo and the Terminal holds such cargo nomination, and further provided that the Mooring Master has deemed the Lifting Vessel to be in all respects ready to moor and load. The Notice of Readiness will be accepted only between the hours of 0600 and 3 hours before sunset, but will not be accepted at any time when the Liuhua Oil Terminal is closed. If, however, the Lifting Vessel is moved to the loading berth without delay after having arrived at any time and the Lifting Vessel is in all respects ready to moor and load in the opinion of the Mooring Master, the Notice of Readiness will be accepted at the time that the vessel is all secured. Laytime shall continue until the cargo hose has been disconnected from the Lifting Vessel's manifold. Laytime lasting time is 36 hours.

Responsibility: Prior to the commencement of any cargo loading operation, the Mooring Master and the Officer-in-charge of the loading operations for the Lifting Vessel shall engage in a pre-loading conference to formulate a loading plan and to ensure that the Lifting Vessel is in all respects ready to load. No cargo loading shall take place without the concurrence of the Mooring Master, which concurrence shall not be given until the pre-loading conference and the Operational/Safety Check List has been completed. The Lifting Vessel's Master shall remain responsible for the safety of the Lifting Vessel and all operations on board the Lifting Vessel at all times. The Mooring Master will advise the Officer-in-charge of the loading operations for the Lifting Vessel with respect to the loading pressures and hazards, but the Mooring Master will not direct any aspect of the loading, except as may be necessary to protect the loading berth and related facilities and equipment. The manipulation of the Lifting Vessel's valves is the direct responsibility of Lifting Vessel's personnel. The Mooring Master shall have the right to refuse to commence or suspend cargo loading operations or to require the Lifting Vessel to unmoor and depart from the loading berth at any time when the mooring plan, preloading plan or the safety requirements and regulations set forth herein are not being followed by the Lifting Vessel or at any time the Mooring Master believes or becomes aware of the existence of any other reason which in his opinion shall require the suspension of the mooring or the loading of the Lifting Vessel. All time lost in such circumstance shall be for the Lifting Vessel's account.

Valve Control: The incoming oil stream is controlled on the FPSO, and the Lifting Vessel's valves must not be closed at any time against the incoming oil stream. Closing of an inlet valve on the lifting tanker may create an excessive pressure which may damage the hoses or other terminal facilities and the parting of the breakaway coupling. Frequent checks of the cargo loading must be made by Lifting Vessel personnel during the loading operation so that a reduction in the loading rate, before topping of the final tank or tanks, may be arranged through the Mooring Master by the Officer-in-charge of the loading operations for the Lifting Vessel. A normal stand-by warning should be given about 20 minutes before the shut-down of the loading operations. Upon the request from a Lifting Vessel to shut-down the loading operations, a minimum of 3 minutes will be normally required to stop the flow of crude oil. Lifting Vessel's personnel shall be responsible for the call to stop the loading of the Lifting Vessel. When cargo has ceased to flow, the proper valves on the FPSO will be closed and the Lifting Vessel's manifold valves may then be closed. Special attention on valves opening and closure should be paid if hose flushing is scheduled. Lifting Vessel and their Owners shall be held liable for any damages or pollution caused by failure to properly comply with this sub-section or any other provision in these Port Rules and Regulations.

Emergency Signal: The emergency signal employed at Liuhua Oil Terminal shall be the continuous blast on a vessel's whistle. Should normal ship-to-terminal communications fail, the emergency signal must be sounded by the Lifting Vessel. Steam or air should never be shut off from the whistle of the Lifting Vessel during loading. Whenever the emergency whistle signal is used, all loading operations will be shut down until communications can be established with the vessel giving the signal. For this reason, it is requested that Lifting Vessels in the area refrain from using their whistles for other than essential purposes, and that the use of the "continuous blast" whistle signal be reserved for emergency purposes only. All crew members who stand a deck watch during the transfer of crude oil are expected to know the emergency shut-down signal.

Code Flag: During all cargo loading operations, the International Code Flag "B" shall be displayed from a topmast signal halyard during daylight hours, and an all-round red light shall be displayed during the hours of darkness. The red light should be of a character as to be visible at a distance of at least 2 nautical miles.

Terminal Stops: Request for the FPSO to stop the flow of crude oil at a predetermined tonnage (shore stop) must be made in writing to the Operator, and will be deemed to include the statement and understanding that the Operator will not be responsible for (1) any errors, costs or claims arising from such request, and (2) any crude oil loaded in excess of that requested cannot be pumped back aboard the floating storage vessel. Some delays in stopping the flow of crude oil are always incurred when such a stop request is made.

Line Flushing: At the discretion of the Operator, the loading hose may be kept in water, and line flushing may be required prior to and on completion of the lifting operation. The Lifting Vessel will be advised of this operation prior to its arrival, and the agreed amount of water to be passed through the hose string by the FPSO. Displacement of the loading hose and associated pipework is approximately 1,466 bbls. (for the hose string only it is 338×4=1,352 bbls.).

BALLAST: *Terminal Rules and Precautions:* There are no facilities for the offloading of dirty ballast. Clean oil-free ballast from segregated ballast tanks (SBT) only may be discharged overboard from the Lifting Vessel while in the Liuhua Oil Field area. It is the responsibility of the Lifting Vessel Master to see that no oil (crude, bunker, diesel, bunker C, slop, residues, contaminated ballast water, or oily bilge water) is pumped or spilled overboard from the Lifting Vessel. All deck scuppers must be plugged tight, and adequate drip pans with sand and sawdust must be provided where necessary on deck for use at all times, especially when disconnecting hose, in order to prevent any such loss of oil overboard.

Lifting Vessels must have sufficient ballast or cargo as per Rule 13 of the International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978 related thereto (33.3% minimum of its Summer deadweight, propeller completely submerged and trim not to exceed 3.0 m. for a safe manoeuvring). The Mooring Master may refuse to permit the mooring of any Lifting Vessel not in compliance with these requirements until the vessel takes on sufficient ballast and/or alters her trim to meet these requirements.

As soon as practicable after arrival, Lifting Vessel ballast tanks will be inspected for evidence of oil in ballast, and during the discharge of ballast, a similar inspection will take place. If evidence of oil appears at either of these inspections, the Lifting Vessel must vacate the loading berth. All time lost resulting from such condition shall be solely for the Lifting Vessel's account.

Any Lifting Vessel required to vacate the loading berth, having discharged dirty ballast, cleaning tanks or for any similar reason, automatically nullifies any Notice of Readiness already tendered, and at the same time loses any priority held for loading. Lifting Vessels must tender a new Notice of Readiness upon their return and the Lifting Vessel will be entered for loading upon the Operator's acceptance of the new Notice of Readiness.

Lifting Vessels will be rejected if O_2 percentage of inert gas in one or more tanks is found to be more than 8%.

Lifting Vessels must keep a constant watch on the side of the Lifting Vessel from which clean ballast is being discharged for any indication of water discoloration or oil sheen. Discharge of ballast must be immediately suspended, should there be any indication of discoloration or sheen, and the Mooring Master shall be immediately informed of such. An investigation of any such discoloration or sheen shall be carried out by the Lifting Vessel, and the findings reported to the Mooring Master. Discharging shall not resume without permission of the Mooring Master.

If during any inspection or during the process of loading, it is revealed that a Lifting Vessel's tank(s) is (are) not oil-tight, the Lifting Vessel will be rejected by the Mooring Master and refused further loading until satisfactory evidence of effective repairs is submitted, and the Lifting Vessel is duly certified by Lloyd's Register of Shipping, American Bureau of Shipping, or another similarly recognised classification society.

In addition to the lights usually displayed, Lifting Vessels are required to illuminate the Lifting Vessel and the waters around the Lifting Vessel with all available and suitable searchlights and floodlights during the discharge of clean ballast and the loading of crude oil during the hours of darkness and restricted visibility. Such illumination must be to the satisfaction of the Mooring Master, and must be undertaken so as to assist in the loading operations, and in order that any incidental oil spillage on the surface of the sea may be readily detected and appropriate action taken. Lifting Vessels unable to illuminate the sea satisfactorily may not discharge ballast or engage in the loading of crude oil during the hours of darkness, and any such delay shall be for the account of the Lifting Vessel.

Simultaneous Loading and Deballasting: Lifting Vessels equipped with segregated ballast will be required to discharge segregated ballast and load oil simultaneously, subject to the approval of the Mooring Master. CBT tankers are not permitted at Liuhua Terminal unless ballast retained on board.

Pollution Damage and Environmental Liability: The Lifting Vessel, its Master, Owners and Charterers shall be liable for any pollution damage and fines/penalties applicable for any pollution caused by or emanating from the Lifting Vessel in the waters and territory of the People's Republic of China to the full extent provided under Chinese Law. Every Lifting Vessel, to be acceptable for berthing and loading, must possess a current and valid TOVALOP Certificate, evidencing its enrolment in TOVALOP and a current Certificate of Financial Responsibility issued by her flag administration and the Owners, Charterers or Purchasers of the cargo must be a member of Cristal Ltd., with full Cristal coverage to be applicable as evidence of financial responsibility in the event of a pollution incident.

MEDICAL: *Emergency Medical Assistance:* Lifting Vessels requiring emergency medical assistance should contact the Liuhua Oil Terminal by VHF radio and supply the necessary pertinent information which will be passed on to the vessel's Agent. Neither medical nor hospital facilities are available at the Liuhua Oil Terminal.

Also see "Repatriation".

FRESH WATER: Available from supply boats in an emergency.

FUEL: Not available.

REPAIRS: The Masters of Lifting Vessels loading at the loading berth are advised that the loading berth is located in open and unsheltered waters, and under no circumstances may engines be shut down for repairs while the Lifting Vessel is at the loading berth or at Waiting Area. There are no facilities for making repairs to a Lifting Vessel at Liuhua Oil Terminal, and no repairs will be allowed at the Liuhua Oil Terminal.

SURVEYORS: No cargo inspectors or marine surveyors are based in the area, but inspectors and surveyors from the CCIB will be present at all liftings to verify the quality and quantity of the cargo being lifted.

REPATRIATION: In an emergency, the crew can be landed in Hong Kong (for non-Chinese nationality) or Shenzhen (for Chinese nationality) for medical treatment or for emergency repatriation. This arrangement can be made through the vessel's Agent, and Liuhua Terminal will give necessary emergency assistance.

TIME: Local time is GMT plus 8 hours.

GARBAGE/WASTE DISPOSAL: The dumping of garbage, sewage and refuse overboard within the Liuhua Field is prohibited, and there are no facilities for receiving such at the Liuhua Oil Terminal.

SAFETY: The Lifting Vessel's personnel shall adhere to all safety precautions generally followed in the marine industry, as well as all requirements and regulations set forth in the Port Rules and Regulations, the latest edition of "International Safety Guide of Oil Tankers and Terminals" (ISGOTT), and the applicable chapters of the latest edition OCIMF "Ship to Ship Transfer Guide". Any safety precautions, requirements and regulations imposed by the Operator, including those set forth in the Operator's Fire Regulations and Smoking Restriction (not reproduced), and disregarded by the Lifting Vessel's Master, Officers or crew will be considered a just cause for rejection of the Lifting Vessel, and all expenses and delays related thereto shall be for the Lifting Vessel's account. While the Lifting Vessel is moored or within the vicinity of the loading berth, the Lifting Vessel's personnel and the Lifting Vessel's operations must comply or be in accordance with all safety requirements (some of which are reproduced hereunder):

(M) Not less than one licensed Deck Officer and 2 seamen shall be on duty, alert, available and in charge of the operations on deck at all times while the Lifting Vessel is at the loading berth.

(N) Not less than one Engineer shall be on duty, alert, available and in charge of the engine room at all times while the Lifting Vessel is at the loading berth.

(O) A member of the Lifting Vessel's crew, not one involved in any wa with the loading operation, must be stationed on the bow of th Lifting Vessel while the Lifting Vessel is at the loading berth, ar a constant watch must be maintained on the mooring.

(P) A licensed Deck Officer of the Lifting Vessel, not one involved any way with the loading operation, must be on watch and statione on the bridge of the Lifting Vessel while the Lifting Vessel is at th loading berth. He should be in radio contact with the crew membe at the manifold and on the bow.

(T) All loading operations shall be suspended during electric storms the vicinity of the Lifting Vessel.

(U) The Lifting Vessel must be equipped with a fully operational ine gas system. Prior to the commencement of any loading operation all empty Lifting Vessel cargo tanks and tanks carrying cargo mu be under positive pressure and fully inerted with gas having a oxygen content of less than 8%.

(V) No stores may be handled by crane on the weather deck while Lifting Vessel is loading cargo, except at the discretion of th Mooring Master.

(W) *Lifting Vessel Preparedness – Hydrogen Sulphide Gas: Liuh 11-1 Oil Field crude has hydrogen sulphide (H_2S) gas concentrations significant enough to be a toxicity concern f personnel. It is therefore mandatory that Lifting Vessels be prope equipped, and their personnel trained and certified in H_2S safe prior to the vessel's arrival at the Terminal loading facility.*

Although the crude is classified as sweet regarding sulph content, hydrogen sulphide gases remain entrained in the oil a offer concern during loading, hauling, unloading and gaugi operations.

WEATHER: *General:* The Operator can advise of the following gener environmental characteristics for the area bounded by the Liuhua C Field, but the navigator is referred to the published sailing directions f the area for more detailed information on the climate, weather, win tide, current and sea.

Climate: The climatology of the South China Sea is the result of a mixtu of environmental conditions generated by several different physic disturbances. In addition to the intense, but fairly short-lived conditio associated with tropical cyclones, there is the seasonal reversal of win known as the monsoons. These winds blow in response to the differen in temperature between the land mass and the surrounding water. Duri the Winter months, high pressure dominates over the Asian land ma and in the Liuhua area. A N.E.'ly airflow persists from October throu March, with the strongest winds during the November to January tin period. This period of time is known as the Northeast Monsoon.

Monsoons: Monsoon winds blow in response to a pressure gradie caused by the difference in temperature of the Asian land mass and th adjoining Indian Ocean and South China Sea. During Spring, the Asia land mass warms more rapidly than the adjoining oceans, resulting a lower pressure on land than on the oceans. The resulting surfa gradient directs wind flow from water to land. The mean resultant wi flow is from the S.W. The flow during Summer is moist and unstab resulting in periods of showers and thunderstorms. During Autumn, t land mass cools more rapidly than the adjoining oceans causing reverse pressure gradient with a mean resultant wind flow from the N. During Winter, wind is from the dry Asian land mass, picking up son moisture as it moves over the South China Sea. This results in typica stable air masses with light, steady rain and infrequent showers.

Monsoon winds are extremely persistent in direction in all month except the transitional months in Spring and Autumn. Monsoon wi intensity varies from week to week due to atmospheric instabilities. Thu there will be a few days of intense wind and waves, followed by relatively mild period.

Typhoons: Typhoons are tropical cyclones with low central pressure a counter-clockwise winds in the Northern Hemisphere. The frequency typhoons in the Western Pacific is several times more than in the Atlant

Typhoons, like hurricanes, are difficult to predict with certainty. Rece studies on their formation and movement suggest some trends. F example, tropical storms do not develop if the sea surface temperatu is below 26°C. Also upper level winds seem to steer them more th the surface conditions. Once typhoons have recurved under the influen of a approaching cold front in late Autumn, they do not loop and tu back.

The Liuhua Field being 150 nautical miles E.S.E. of Hong Kong along a major "typhoon alley" towards Hong Kong. The season tropical cyclones for Hong Kong is primarily June through Octob although gale force winds (in excess of 34 knots) associated with t passage of tropical cyclones have been recorded as early as 19th M and as late as 12th December.

Currents and Solitons: The South China Sea is influenced by 3 ma types of currents: (1) tidal, (2) oceanic circulation and (3) storm induce Tidal currents being driven by astronomical forces are always prese The oceanic circulation current is attributable to monsoon winds an branch of the Kuroshiwo which enters the South China Sea through t Luzon Straits. Storm currents are driven by local storm winds, eith typhoon or a tropical storm.

Soliton currents are of concern to the lifting operation, as their veloci time profile as well as direction can cause rapid through water chang and apply high loads to a moored vessel. Solitons approach from t N.E. to S.E., with peak velocities ranging from 1 knot – 4.5 knots for to 30 minutes duration. All lifting operations will be undertaken with tug moored to the stern of the Lifting Vessel to provide stern thrust.

GENERAL: *In-Field Helicopter Operations:* No helicopter operations the FPSO are authorised during mooring operation of a Lifting Vess due to the potential danger of the hawser if breaks under exceptio strength during mooring. Helicopter operations to the FPSO during lifti operations are authorised, subject to FPSO's OIM authorisation.

In-Field Vessel Operations: Owners and Masters of Lifting Vessels a reminded that they will be operating in the restricted area of a developi oil field, and as such, there is likely to be extensive boat activity in t field. The Mooring Master will advise the Lifting Vessel of any operatio on-going in the field to which the approach or departure of the Lifting Vessel may be affected.

Flag: Lifting Vessels are required to fly the flag of the People's Republic of China on the foremast during daylight hours whilst loading at the Terminal.

Government Officials: Governmental officials, such as representatives of the CCIB, are present on board the Lifting Vessel during the lifting operation. It is expected that the Lifting Vessel will provide food and accommodation for these officials.

Ship's Agent: The Operator does not perform any vessel agency functions. Lifting Vessels calling at the Liuhua Oil Terminal must arrange for their own Agent, as indicated below.

China Marine Shipping Agency, Shenzhen Branch,
2 Bihua Road, Shekou, Shenzhen,
People's Republic of China.
Post Code: 518067 Shenzhen, China.
Tel: (86) 755 6691216 or 6685805.
Fax: (86) 755 6692455.
Telex: 420815 AGTSZ CN.

Contraband: The Operator prohibits unauthorised craft from coming alongside Lifting Vessels while at the loading berth without the permission of the Mooring Master. To avoid the possibility of undesirable items getting aboard Lifting Vessels, it is recommended that the Mooring Master prohibits any such craft from coming alongside while Lifting Vessels are at or in the vicinity of the loading berth.

Supplies: There are no provisions for loading supplies, bunkers or lubricants at the Liuhua Oil Terminal. Any questions concerning the loading of bunkers, lubricants or any other requirements should be handled through the vessel's Agent.

SHIPMASTER'S REPORT: September 1996.

The vessel was fixed to load a cargo from this Terminal, the Charterer were Chevron with Caltex in the equation, possibly as sub-charterers. The vessel arrived on 10th, and the laydays did not commence until the 13th.

The Terminal is a weather vaning FPSO converted oil tanker called "Nanhai Shengli" of approximately 130,000 d.w.t., fixed in position Lat. 20° 50.4' N., Long. 115° 41.5' E., in approximately 300 m. of water. The vessel approached from the East, and the Terminal was radar conspicuous from about 20 miles with a semi-submersible rig and 2 supply/stand-by vessels in attendance.

There is no suitable anchorage in the vicinity, and the vessel drifted about 20 miles to the S.W. of the Terminal and experienced a set of about 2.5 knots in a N.W.'ly direction. Two days previously, there was a typhoon with 85 knots – 100 knots winds passing over the area, causing the abandonment of the FPSO, which probably accounts for the direction of the set.

Communications: Initially communications with the Terminal by telex was poor, but this was later found to be because the Terminal was abandoned, due to the typhoon.

The Terminal has both Sat B and Sat C installations and monitors the Pacific satellite.

Operators: The Terminal is operated by the Amoco Orient Petroleum Co. (Chiwan Office).

Agents: The Agents for this port are China Marine Shipping Agency, Shenzhen Branch. Their details are as follows:

Tel: 86 755 6685133, 6685387.
Fax: 86 755 6692455.
Telex: 420815 AGTSZ CN.

On approach to the Terminal, the FPSO was called up on Channel 16, and one of the supply boats answered, again possibly due to the fact that they were just re-staffing the vessel after the abandonment. Both the Terminal and the supply boats use Channels 6 and 74 as working channels. The personnel answering the VHF were British, and so there was no communication problem, and they were very helpful.

Pilotage: The Berthing Master and all shore personnel, a total of 6, joined by helicopter, being winched down onto the starboard side. All personnnel remained on the ship throughout loading and left again by helicopter. The Berthing Master is British and the others were Chinese nationals.

Customs: There is no Customs or Immigration, all paper work was prepared in advance, but nobody wanted to see it.

Berthing: There are 2 supply boats/tugs available at this berth.

"Huafa", 12,000 h.p. with 150 tonne bollard pull, and "Hua Jen", 8,000 h.p. with 100 tonne bollard pull.

The Pilot and shore gang board the vessel at a distance of 5 miles from the Terminal. On approach to the Terminal, one of the supply boats comes alongside and passes up 2 baskets of manifold equipment. The Terminal should always lie head to wind, and so an approach is made head to wind direct towards the stern of the FPSO.

When at a distance of about 0.5 miles from the Terminal, one of the supply boats is made fast aft using tug's line, and this remains fast for the duration of the ship's stay.

The ship is made fast to the stern of the FPSO using a 14 in. hawser with a standard chafing chain attached through the starboard AKD stopper. The second supply boat handles the messenger for the hawser, and when fast, brings the hose around to the manifold. For the duration of the vessel's stay, the engines are on immediate notice and were kicked on air about every hour.

The Terminal is very exposed, and throughout mooring and the vessel's stay, the vessel was rolling and pitching easily.

The FPSO is fitted with tension monitors, and the criteria for slipping the moorings in case of bad weather is 4 pulls of 200 tonnes or more in any one hour.

Hoses: There is 1×20 in. hose with a standard 16 in. flange made fast to the ship's port manifold.

Cargo: WARNING: The cargo is the worst aspect of this port. The nomination was 450,000 barrels (+/−5%). The cargo has an API of 22.0 and the loading temperature was about 44°C. The vessel was warned by the Loading Master that the cargo contained very high levels of H_2S, and that the shore hose handlers brought their own BA sets with them. The Loading Master said that on occasions the H_2S levels had reached dangerously high levels, and on one occasion had reached 1,500 ppm. in the cargo tank. To this end, all personnel working on deck whilst cargo operations underway were issued with respirators, and during any time that the cargo system was breached for sampling, ullaging and temperature, then the ship's BA sets were used (please see details of Cargo Spec.). To reduce the exposure to H_2S, the ship's A/C fans were put on full recirculation, and all personnel warned that only those personnel required to go outside the accommodation should do so. During the berthing operation, H_2S could be smelt on the bridge wing and forecastle.

The H_2S details are:

Dissolved Hydrogen Sulphide, ppm. 20.
Evolved Hydrogen Sulphide, ppm. 50.

Another part, which was little unknown, was the Mercaptan Sulphur, ppm. 281.

During the vessel's stay, no H_2S readings were recorded on deck, but readings of about 4 ppm. – 5 ppm. were found at the manifold during disconnection. Throughout the vessel's stay, the wind was Force 5, which obviously helped to disperse any H_2S build-up.

The loading rate is a maximum of 30,000 bbls./hr.

The FPSO has flow meters, and due to the rolling and pitching, it was decided to have a shore stop.

Documents: On completion of loading, the hose is disconnected, and by this time the documents are ready. There are 15 copies of everything, and the Master must sign all copies. There are 10 documents to a set and the ship is given 2 sets, no original Bill of Lading is given to the ship, only a copy.

Departure: Prior to letting go, all the shore manifold equipment is passed down to one of the supply boats. Letting go is very straight forward, and the tug aft, in conjunction with the main engine, tows the ship away from the FPSO. Once about 0.5 miles clear, the tug is let go. The ship then drifted for about one hour to wait for the scheduled helicopter to go to the FPSO and then come to the vessel to take off all the shore personnel. During the helicopter operations, the wind was about Force 5, and with our winching area on the starboard side, the helicopter requested the ship to turn to put the wind about 4 points aft of the starboard beam.

Liuhua Crude as loaded from Sheng Li FPSO: (Details of first cargo analysis). For guidance only:

Test	Results
Viscosity at 68°F, SUS	1,445
Viscosity at 100°F, SUS	454
Sulphur, % weight	0.24%
Dissolved Hydrogen Sulphide, ppm.	20
Evolved Hydrogen Sulphide, ppm.	50
Gravity API at 60°F	22.4
Pour Point F	+40
Total Acid Number, mgKOH/g.	1.50
Salt in Crude lb/1,000 bbls.	8.66
Mercaptan Sulphur, ppm.	281
Asphaltenes, % weight	2.4%
Water by Distillation, % Vol.	0.15%
Water and Sediment by Centrifuge, % Vol.	0.10%
Flash Point C	42°C
C2 % weight	0.05
C3 % weight	0.07
iC4 % weight	0.09
nC4 % weight	0.16
iC5 % weight	0.36
nC5 % weight	0.38
Cyclo C5 % weight	<0.01

Mercaptans are inflammable, water soluble gases and liquids having a very dissagreeable odour compared to rotten cabbage. They have been reported to exhibit extreme toxicity similar to, but less than H_2S. Effects and actions same as H_2S.

Tlv H_2S is 10 ppm.
SO_2 is 2 ppm.

Recommendations on Handling Liuhua Crude Oil Containing H_2S: No heating is required. The temperature of the oil will decrease by 2° – 4° in central cargo tanks and may be up to 8° in wing tanks during the voyage of 4 days – 5 days. This should not create any problems during discharge, due to the pour point which is about 4.4°C (+40°F).

Attention has to be paid to maintaining the pressure of the Inert Gas System. The pressure should not be allowed to go negative because the H_2S ppm. quantity in the vapour space of the tanks will increase due to low vapour tension. A pressure of 600/700 mm. WG is good to avoid an increase of H_2S. P/V valves should not leak.

The day before arrival at the discharge port, the pressure of inert gas should be brought to zero venting through the mast riser. The pressure should be risen again to 1,000 mm. W.G. Maintain for 15 minutes in this condition to allow the turbulence created by the new incoming inert gas to mix with H_2S already in the vapour space, and then bring the pressure again to zero through the venting riser. This operation should be repeated 8/10 times to reduce the H_2S ppm. quantity in the vapour space of the tanks. The full operation requires about 3 hours. Attention has to be paid to people on deck because H_2S clouds from the venting riser can drop on deck in dangerous levels of ppm.

Ullages, temperatures, dipping and samples have to be taken in closed system without breaching tanks.

Signed: Marine Superintendent.

OPERATOR: Amoco Orient Petroleum Company, 15/F Chiwan Petroleum Building, Chiwan, Shenzhen, The People's Republic of China 518067. *Tel:* (86) 755-6852672. *Telex:* 420811 AOPSK CN. *FAX:* (86) 755-6851110. *Contact:* C. Head, Marine Superintendent.

Colombia

TURBO: (Also see Page 527)

PILOT'S REPORT: July 1996.

Documents:

Clearance from last Port.
5 copies Passenger List.
5 copies Personal Effects List.
5 copies Bills of Lading.
7 copies Manifest of Ship in Ballast.
4 copies List of last Ports of Call.
7 copies Crew List.
5 copies Stores List.
5 copies Manifest of Cargo for the Port.
5 copies Manifest of Cargo in Transit.
2 copies Yellow Fever Vaccination List.
2 copies Maritime Health Declaration.
5 copies Negatives: Mail, Passengers, Fire Arms, Animals, Dangerous Cargo, Stowaways and Plants.

If it is not the first voyage of the vessel to Turbo, it is a good idea to present to the Port Authorities a copy of the last Inward Clearance received here. This will result in a smoother Free Pratique.

Inward Clearance: Vessel must first proceed to Punta de las Vacas for official visit of Port Authorities to obtain Clearance.

Port Authorities: Harbour Master (Capitan de Puerto), Customs (DIAN), Immigration Police (DAS), Agriculture (ICA) and Health Department (Sanidad).

Pilotage: Compulsory. Pilot will board at pilot station at Punta de las Vacas once the vessel is cleared by Port Authorities. The pilot station works on a 24 hours basis, and keeps watch on VHF Channels 16 and 11. When sailing, Pilot should be informed at least 2 hours before departure time. Pilot will disembark at Punta de las Vacas after the ship anchors again. Engines must be completely stopped while Colombian Coast Guard Divers inspect the hull for hidden drugs in the sea chests (water intakes). This operation will last no more than 2 hours.

Entrance: As the coast line extends further West because of sedimentation of the muddy river waters, a 2 mile distance is recommended in the vicinity of Point Turbo and Southward. Ships approching Punta de las Vacas must be careful with small fishing boats and small ships crossing the gulf. Vessels can arrive at the pilot station at any time.

Anchorages: Arriving vessels must anchor at the pilot station at "Punta de las Vacas", in an area within the following co-ordinates:

(a) Lat. 8° 04' 24" N., Long. 76° 46' 45" W.
(b) Lat. 8° 03' 14" N., Long. 76° 46' 45" W.
(c) Lat. 8° 04' 24" N., Long. 76° 45' 48" W.
(d) Lat. 8° 05' 14" N., Long. 76° 46' 00" W.

No other Anchorage Area is allowed within territorial waters.

ETA: Vessels are required to report 72 hours, 48 hours, 24 hours and 12 hours before arrival.

VHF:

	Channel	Call Sign
Port Authority	16	Capitania
Navy	16	Apostadero
Coast Guard	13	Guarda Costas
Pilot Station	11, 16	Estacion de Pilotos

Maritime agents and shippers can be contacted by Channel 16, telex and fax.

Tugs: There are small tugs owned and operated by the shippers themselves. Sea tugs are available from Barranquilla and Cartagena (15 hours away).

Mooring: There are no docks or wharves in Turbo. Cargo operations are carried out from barges at two different Anchorage Areas assigned according to the season of the year (dry or rainy). The once employed "Baltic Moor" is no longer used. Caution is advised while navigating within the Anchorage Areas as tugs cross towing barges. During the dry season (December to May) and because of strong Northern winds (Force 5/6), ships anchor (4 shackles in the water) in an area close to Boca del Leoncito marked by the following co-ordinates:

(a) Lat. 8° 00' 18" N., Long. 76° 51' 33" W.
(b) Lat. 7° 59' 50" N., Long. 76° 51' 18" W.
(c) Lat. 8° 00' 18" N., Long. 76° 50' 45" W.
(d) Lat. 8° 00' 06" N., Long. 76° 50' 48" W.

When rainy season arrives (May to December), the anchorage place is changed to an area closer to the banana barges loading zone and off the mouth of Leon River:

(a) Lat. 7° 56' 48" N., Long. 76° 47' 48" W.
(b) Lat. 7° 56' 48" N., Long. 76° 46' 37" W.
(c) Lat. 7° 57' 28" N., Long. 76° 46' 20" W.
(d) Lat. 7° 56' 00" N., Long. 76° 47' 54" W.

There is little current in these Anchorage Areas.

Drafts: Vessels operating in the above named areas can have a maximum draft of 13.0 m., but a vessel with a draft of 18.0 m. can sail with caution in the Gulf of Uraba.

Cargo Operations: They are carried out at the Anchorage Areas with ship's gear from and to barges. There is a floating crane called "Draga Leona" that can handle a maximum of 12 tons. The banana cases come mostly in pallets of 48 cases (1.1 tonnes), and are embarked up to three at a time. In the cargo holds of the ships, these pallets are stowed by small battery operated forklifts. Loading of bananas is made by shippers (Banacol, Banadex, Proban, Sunisa and Uniban) and is quick and efficient.

Medical: There is a hospital for general medicine. Special cases can be sent to nearby Medellin by plane. Dental services are available.

Fresh Water: There is no way to supply fresh water to ships.

Fuel: There are no facilities to supply bunkers.

Certificates: The following valid Certificates are required:

Register.
Cargo Gear Inspection.
Load Line.
Pollution Policy.
Sanitary Declaration of Health.
Cargo Ship Safety Equipment.
Cargo Ship Safety Radio and Radiotelephony.
Cargo Ship Safety Construction.
Derat.

Provisions: There are shipchandlers that can supply all kinds of fre and canned food. Orders should be made upon arrival for chandlers have time enough to obtain them.

Sludge Reception: There are no facilities. Heavy fines are imposed the recently created Ministry of Environment on ships pumping balla or oily waters.

General: Close to the Anchorage Areas, there used to be a Colombi Coast Guard ship that can be contacted through VHF Channels and 13. Drug smuggling and stowaways are a problem at the po P&I representatives should be contacted through the Agent, m Classification Societies representatives too.

It is possible to obtain through the Agent at the Port Captain's Offi the last edition of Colombian Nautical Chart No. 295 (B.A. No. 22 "Bahia Colombia", updated to January 1995.

Private security firms can be contracted in order to prevent stowawa thieves and unauthorised people coming on board. Vessels loading the United States are preferred by stowaways and drug traffickers.

Egypt

SIDI KERIR: (Also see Page 657)

SHIPMASTER'S REPORT: October 1996.

Berth: SBM No. 6.

Max. Size: 400,000 tonnes S.d.w.t.

Location: Lat. 31° 07.436' N., Long. 29° 38.289' E.

Depth: 32.0 m. (approx.).

Moorings: One line with chafing chain.

Hoses: 2×16 in. for cargo and 1×16 in. for ballast.

Connection is made on the port side by ship's crew. The ballast li is the forwardmost hose.

Loading Rate: 14,000 tonnes/hr. (Pilot's advice).

During our call, the maximum loading rate was 8,500 tonnes/hr.

Shore Line: Capacity 13,500 cu.m.

Ballast: Maximum pressure at manifold is restricted to 7 Bar, and w this pressure, the deballasting rate was 3,900 tonnes/hr.

Products:

Belayim Mix – API: 28.13. Temperature: 36°.
Ras Budran – API: 25.9. Temperature: 40°.

SUEZ CANAL: (Also see Page 658)

RULES OF NAVIGATION:

NOTICE: Suez Canal Authority Circular No. 1/96 (dated June 1996)

The Suez Canal Authority has decided that the limit time for arriva join the convoys will be on the basis of passing the following latitud

1. Port Said: South of Lat. 31° 28.7' N.
2. Port Tewfik: Tanker Group – North of Lat. 29° 42.8' N.
   Ordinary Group – North of Lat. 29° 48.33' N.

This Circular comes into effect as of 1st July 1996.

El Salvador

ACAJUTLA: (Also see Page 686)

(B) CBM **(See Late Plan**

LOCATION: The Coastal Technology Salvador S.A. Acajutla Termi Facility is located approximately 1.9 km. W.N.W. of Acajutla port.

The co-ordinates of the 5-point CBM facility are Lat. 13° 35' Long. 89° 52' W. The water depth at the mooring is 17.5 m., with sub-sea pipeline end manifold (PLEM) top elevation of 16.2 m. T PLEM is marked with a white buoy attached to the S.W. corner of PLEM. Additionally it is marked by a spar buoy indicating the curr condition directly over the PLEM. This location may be found on D Navigational Chart No. 21524.

The Mooring Master boards the vessel at anchorage located 2 mi South of the location.

Each of the 5 mooring buoys is lit with a flashing red light. The lig are approximately 4 m. above water level.

Dual sub-sea pipelines of 18 in. and 12 in. diameter for heavy fuel oil and diesel/aviation fuels respectively run from the PLEM to shore in a S.E.'ly direction to onshore storage tank facilities. Each line is clearly identified with markings on the hose buoys and flanges of the respective hose strings (The onshore facilities are not visible from the offshore location).

PILOTAGE: *Mooring Master's Duties and Responsibilities at a Submarine Terminal:*

1. Boards arriving vessel 1 to 2 miles off the mooring.
2. Evaluates vessel's equipment (anchors, mooring lines, cargo booms, deck winches, fairleads, bitts, etc.).
3. Ensures that all necessary preparations for mooring have been made (both anchors clear and ready to drop, mooring lines properly placed, starboard cargo boom topped-up, steam on deck mooring winches, wrenches, snatch blocks, handy billys, stoppers, etc., laid out and ready).
4. Describes (and sometimes sketches) the planned course of action to moor the ship, to the Master and Deck Officers who will be involved.
5. Manoeuvres the vessel into the mooring area.
6. Directs the dropping of anchors and running of lines to the mooring buoys.
7. Controls the actions of the mooring launch during mooring operations.
8. Directs the adjustment of the anchor chains and mooring lines, so that the vessel is properly positioned in the berth.
9. Directs the taking in of mooring lines and heaving up of anchors.
10. Controls the actions of the mooring launches while unmooring.
11. Pilots the vessel safely clear of the moorings.
12. Prepares and submits a log of his activities while on the vessel.
13. Portable radio working properly.
14. Enforces Government and Company operating and safety regulations.
    - (a) Vessel properly positioned and securely moored.
    - (b) Scupper plugs in place and drip pans in place under cargo hose connections.
    - (c) Portable radio working properly.

ANCHORAGE: An anchorage area is immediately to the South of the mooring.

MAX. SIZE: The mooring has been configurated and designed for vessels of up to 60,000 d.w.t.

Characteristics of the maximum vessel are as follows:

Usual particulars of vessels are:

Maximum Draft: 12.8 m.
Maximum Length: 231 m.
Vessel Tonnage: 60,000 d.w.t. *
Water Depth at Mean Low Water: 17.37 m.

* Equivalent to 73,000 loaded displacement tons.

RADIO/VHF: Communications to the Acajutla Terminal may be accomplished through normal telephone service or through the main office in San Salvador during normal working hours (0700 hrs. – 1800 hrs.). Marine communications will be directed through the Port of Acajutla on Channel 16. Communications during off-loading of cargo will be co-ordinated through hand-held UHF radios, which will be brought on board by the Mooring Master.

The Terminal facility operates 6 days per week, 16 hours/day (0400 hrs. – 2000 hrs.).

Contact List:

Acajutla Terminal:	011-503-887-3681. 011-503-887-7083. 011-503-452-3680.
San Salvador Office:	011-503-223-9293.
Shipping Agent:	(Telex).

The following information is required to be transmitted to the Terminal 5 days prior to arrival:

- (A) ETA at Acajutla Terminal.
- (B) Total cargo, barrels and tons at 60°F.
- (C) API gravity of cargo at 60°F.
- (D) Estimated cargo temperature on arrival.
- (E) Other pertinent vessel information requested by Coastal Technology.

The vessel's Master will confirm ETA by radio, telex or telephone, 48 hours and 24 hours prior to arrival.

Additional communication procedure for approaching vessels is as follows:

48 hours Notification of ETA, etc.:	Telex to Agent: El Salvador
24 Hours Confirmation:	Telex as above.
1.5 Hours before Arrival:	Call CEPA on Channel 16.
After Boarding by Mooring Master:	Coastal's Motorola hand-sets (UHF).

TUGS: A Port of Acajutla tug will be available at the Terminal during mooring and unmooring to assist, as needed.

BERTHING: *Tanker Details for Hose Configuration Analysis – Design Basis:*

Tanker size:	60,000 d.w.t.
Maximum freeboard:	10.0 m.
Height of ship's manifold above freeboard:	1.0 m.
Manifold distance inboard from tanker's side:	3.0 m.
Tanker loading/unloading position:	Amidships.
Tanker excursion during loading/unloading forward/aft:	± 10.0 m.
Tanker excursion during loading/unloading port/starboard:	± 2.0 m.
PLEM offset from tanker's side:	13.0 m.
PLEM offset from amidships:	20 m. – 40 m.
Water depth:	17.0 m.
Maximum tide:	1.0 m.
Maximum wave height during loading/unloading:	2.4 m.
Maximum current during loading/unloading:	0.6 m./sec.

Berthing Procedures: Exhibit "C" (See "Late Plans") illustrates the basic berthing procedures for the mooring. The detailed procedures can be modified to suit the conditions of wind, current, sea state, vessel size/loading, and the limitations of vessel's mooring gear.

In general, the following procedure is advised for berthing:

- (i) Vessel approaches the mooring, heading S.E.'ly and passing approximately 0.15 – 0.17 nautical miles West of the "E" mooring buoy.
- (ii) Starboard anchor is let go at Point A, as shown on Plan C, and 8 to 9 shackles of chain are paid out on the run, chain is then held.
- (iii) When starboard chain fetches up leading aft, port anchor is dropped as shown on Plan, and stern is worked into berth as starboard chain is held and the port chain is paid out to approximately 8 shackles, and the lines are run to the mooring buoys. Then both chains are adjusted as necessary to position the vessel properly in the berth.
- (iv) Wind and current will largely govern which mooring lines are run first.
- (v) A spar buoy is located over the PLEM to assist in current determination.

Mooring and Unmooring:

- (A) A Company Mooring Master will board vessel West of the Terminal or in the anchorage if anchored. The Mooring Master will advise the vessel's Master on approaching and departing the berth, mooring and unmooring. With the concurrence of the vessel's Master, this advice may take the form of directions to members of the vessel's crew. All manoeuvring within the mooring area shall be done only in accordance with the advice of the Mooring Master. In all cases, the vessel's Master shall remain solely responsible, on behalf of his vessel's Owner, for the safely and proper manoeuvring of the vessel. The vessel's Master and a qualified Deck Officer must be on the bridge at all times while the vessel is manoeuvring.
- (B) A mooring launch under contract to Company will deliver the Mooring Master and necessary equipment and the telephone instrument. In addition, the mooring launch tows the vessel's mooring lines to the mooring buoys and makes them fast as directed. Similarly, the mooring launch crew casts mooring lines off the buoys as directed on unmooring. A mooring launch remains alongside the vessel the entire time the vessel is in the moorings.

  It is expected that the vessel will provide berthing and messing facilities for the 5 man launch crew as well as the Mooring Master.

Mooring Gear: Owners and Charterers of vessels must consider the particular requirements for an open-sea, fixed spread mooring. These equipment requirements are significantly different from the requirements for vessels docking and handling cargo alongside a pier.

Mooring gear shall include both bow anchors and all ground tackle in good working condition and in size and quantity to meet either "Lloyd's" or "A.B.S." standards, even if they are in fact classified by other societies. The anchor windlass must be capable of operating at its rated speed, and adequate power shall be available to run the windlass at its rated speed at all times while in the moorings. Each anchor shall be equipped with no less than 10 shackles of chain.

Vessels should be equipped with sufficient synthetic lines or combination of wires and lines to run to each of the 5 buoys, plus additional lines to provide doubling up as required.

Wire on mooring winches should be at least 700 ft. in length, and should be of sufficient diameter to secure the vessel. Constant tension winches must be braked by means of a manual brake.

Synthetic fibre lines of dacron or polypropylene must be at least 8 in. in circumference and 720 ft. in length.

Note: Nylon lines are not acceptable.

Suitable stoppers must be provided to hang-off fibre lines.

The mooring stations should be equipped with properly located and functioning warping winches, fairleads, bitts and chocks.

Extra lines are required at each location in order to double up on lines to the buoys when wind or current conditions dictate.

The Mooring Master shall determine the suitability of the vessel's mooring equipment. Should the Mooring Master consider that the mooring gear is not adequate, the vessel shall not be brought into the moorings until the deficiencies have bee corrected.

Departure from Berth: The procedure for leaving the berth is conventional for such moorings and includes the following steps:

- (i) The valve is closed, the hose is disconnected, blinded and returned to the sea with boat assisting.
- (ii) Lines to buoys are slacked by the vessel's crew then released at the buoy by the mooring launch crew.
- (iii) Port anchor is heaved in first, while "D" line is held until the vessel's stern is clear of the buoys.
- (iv) Starboard anchor is heaved in last.
- (v) Mooring Master leaves the vessel after it is underway and clear of the mooring.

LOADING/DISCHARGING: *Cargo Master's Duties and Responsibilities at a Submarine Terminal:*

1. Supervises the lifting of the cargo hose, and ensures that it is properly secured at the deck edge.
2. Provides the vessel with radios, telephone, submarine hose valve handle, drain valve, gaskets and connecting deck hose (when necessary).
3. Supervises the connection of the deck hose to the ship's manifold and the submarine hose.
4. Acts as liaison between ship and shore in coordinating preparations for cargo handling operations by radio or deck telephone.
5. Ensures that all sea suction and overboard discharge valves are closed and lashed.
6. Checks to be sure that scupper plugs are in place.
7. Counsels vessel personnel on details of cargo handling during the loading or discharging operations.
8. Directs the adjustment of anchor chains and/or mooring lines during the cargo handling operation to keep the vessel properly positioned in the berth during changes in draft or weather conditions.

9. Keeps himself currently informed of any impending weather changes by means of broadcast reports and by observing local conditions.
10. Orders additional lines to be put out, when changing weather conditions indicate such action to be necessary.
11. Makes the decision as to whether or not cargo handling operations can safely continue when weather conditions worsen.
12. Directs the disconnecting and lowering of the submarine hose when cargo activities have been completed, or when weather conditions indicate that the berth should be vacated.
13. Prepares and submits a log of his activities while on the vessel.
14. Enforces government and company operating and safety regulations.
    - (a) Vessel properly positioned and securely moored.
    - (b) Scupper plugs in place and drip pans in place under cargo hose connections.
    - (c) Portable radio working properly.
    - (d) Spool above hose valve drained before blank flange removed.
    - (e) Hose connections properly made up. No leaks in the system.
    - (f) Pressure gauge installed on cargo manifold (when possible).
    - (g) Portable radio working properly.
    - (h) Adequate number of qualified personnel available at all times.
    - (i) Frequent surveillance of the water around the vessel for evidence of oil.
    - (j) Submarine hose illuminated at night to detect possible leaks.
    - (k) Close communication between ship and shore facility to control cargo handling.
    - (l) Anchor ball and "Bravo" flag displayed by day, and anchor lights displayed at night.
    - (m) Cargo handling area properly illuminated at night.
    - (n) Weather doors and ports on main decks kept closed and checked frequently.
    - (o) "No smoking on weather decks" regulation enforced.

Note: The Cargo Master is authorised to suspend cargo transfer operations in the event that acceptable safety procedures are not observed or if any other danger appears to exist. All vessels are expected to follow all safety regulations generally accepted and practiced in the marine transport industry. The bridge and/or control area shall not be locked or otherwise secured in any manner that would prevent immediate entry at any time by the Mooring Master.

Hose Handling: The vessel will be expected to have suitable equipment on deck and ready for making the connection to the submarine hose.

A lifting capacity of at least 5 long tons SWL is required.

Care must be exercised that no raising or lowering of the hoses is done unless and until the system is under a positive static head of approximately 50 p.s.i.g. at the inshore end of the lines. Failure to observe this precaution can result in kinking and severe hose damage.

The Terminal provides special gear, such as the chain fall, rope slings to support the hose, adapters and other fittings. The fittings are brought out to the vessel on the mooring launch which delivers the Mooring Master. IT IS THE RESPONSIBILITY OF THE SHIP'S CREW TO CONNECT THE SUBMARINE HOSE TO THE SHIP. The Vessel is expected to provide the bolts, nuts, gaskets and wrenches necessary to make the hose connection.

Preparation for Connecting Hoses: The readiness of the vessel to connect up and to commence cargo transfer operations in a timely and safe manner shall be confirmed by the inspection made by the Mooring Master and by completion of the Marine Terminal Declaration of Inspection (not reproduced) by the vessel's Master. The Mooring Master will present the Declaration of Inspection to the vessel's Master upon boarding.

CBM systems differ from other terminal mooring systems as they provide a complete fluid transfer link from PLEM to tankers without the need for floating hoses.

When no tanker is present, the hose string lies on the seabed and the end of the string is indicated by a marker buoy. A pick-up wire runs from the buoy to the end hose (referred to as the tanker rail hose), and it is this wire that is used to raise the hose string to the tanker's manifold.

Lifting and Connecting Hoses: After the Mooring Master has securely moored the vessel in the berth, the Cargo Master will supervise the lifting and connecting of the cargo hose following the general procedure set forth below:

A work boat is used to bring the buoy indicating the end of the string to a point below the tanker manifold. A lifting wire from the tanker derrick is attached to the end of the pick-up wire and hose gently lifted up the tanker's side.

The hose chain comes complete with a number of enlarged links along its length to allow the hose string to be lifted in several stages.

The tanker rail hose is lifted by the tanker's derrick to a height such that the end of the hose can be reached from the deck. The snubbing chain, which is attached to the end of the hose by the lifting lug opposite to the pick-up wire, is disconnected.

The hose is lifted higher until the snubbing chain can be attached to the bollard in front to the manifold. The rail hose can now be lowered towards the manifold with the snubbing chain supporting the weight of the remaining hoses.

Whilst on the seabed, the end of the hose string is protected by a blind flange. This spool piece is located between the end of butterfly valve/hose and the blind flange. This serves to protect hose end and butterfly.

The butterfly valve between the spool piece and the hose is then opened and locked in this position until loading is complete.

The tanker's derrick is used to support the rail hose to ensure that it remains clear of the tanker rail during loading.

Start/Stop Notice to Shore Personnel: At least 10 minutes' notice shall be given to shore personnel before starting or stopping cargo operations. The vessel shall notify shore personnel of any anticipated changes affecting pumping rates, such as stripping operations, switching pumps or crossing manifolds.

Procedure for Discharging: The cargo is discharged to the facility usi
the ship's pumps to transfer the product ashore uphill to the tank far
Shipboard cargo transfer action is taken by ship's person in charge
the advice of the Cargo Master. The sequence of operations for ea
transfer is controlled by facility personnel ashore.

It is important that the vessel maintains the product at the specifi
temperature and pressure at the ship's rail.

It is essential that the discharging sequence be carefully planned
that stripping and/or collecting of tank bottoms is going on during t
discharge, thus avoiding prolonged stripping ashore toward the end
the cargo discharge. The Cargo Master will review the plans to assu
that maximum practicable discharge rates will be attained consistent w
ship's safety.

SAFETY: *Personnel Safety Equipment:* Personnel safety equipment
be adequate, readily available, and clearly identified. The ship sh
ensure that lifebuoys are kept available in the vicinity of the pilot ladd
and the ladder will be kept at a proper height for safe boarding a
disembarkation. The vessel's fresh air masks and resuscitators shall
laid out in the readily accessible location ready for immediate use.
Firefighting Equipment: Firefighting equipment shall be in readine
throughout the vessel. Fire hoses with nozzles will be laid out
immediate use on the cargo deck.
Minimum Personnel Aboard: The vessel shall provide sufficie
personnel to moor, connect hoses, and conduct cargo operations safe
It shall retain sufficient personnel aboard (where shore leave is permitte
to disconnect hoses and unmoor vessel, in the case of bad weather
other emergency.

Not less than one Deck Officer and three other crew members sh
be on deck, alert and available at all times. No person under the influen
of alcohol, marijuana, or any drug, is to be allowed on deck.
Illumination of Vessel: The vessel shall be illuminated. The vessel sh
have sufficient illumination of all spaces and working areas associat
with transfer and mooring operations. This shall include all ladders a
passageways between key operating stations, such as the pump roo
and the well deck and ship's manifold. The Mooring Master sh
determine the adequacy of such lighting.

In addition, vessels transferring cargo during darkness will illumina
the sea area around the vessel to the satisfaction of the Mooring Mast
Illumination is required in order that any oil on the surface of the s
may be detected readily so that appropriate action may be taken in
timely manner. The vessel will also display anchor lights for a vessel
her class while at anchor awaiting berth or while in the mooring.
Dangerous Gas Hazards: The transfer of any product which may conta
dangerous concentrations of toxic gas, such as light Arabian cru
containing hydrogen sulphide, must be undertaken only with appropria
personnel safety precautions. The same precautions must be tak
when loading tanks which have previously held product containing su
dangerous gas.
Smoking: The Mooring Master shall approve all designated smoki
areas. No smoking will be permitted on deck while in the moorin
Smoking may be prohibited entirely at time by the Mooring Mast
Cigarette butts must not be thrown overboard or through portholes
any time.
Radios and Electrical Equipment on Deck: No radio (including porta
transistor radios) or electrical tool or appliance shall be used on de
unless certified for use in hazardous petroleum areas, and then o
with approval of the Mooring Master.
Tank Hatches and Ullage Plugs: Tank hatches and ullage plugs sh
be kept closed at all times, except when gauging, thieving or sampli
Doors, Portholes and Ventilators: Doors and portholes facing the m
decks shall be closed and remain closed. Ventilators shall be kept
proper trim to minimise fire and explosion hazard.

GENERAL:

REQUIREMENTS FOR
COASTAL ACAJUTLA CONVENTIONAL BUOY MOORINGS:

1. Certification Requirements: Vessels calling at this Terminal m
undergo a certification process to assure the vessel is suitably equipp
to call at this terminal. Certification for vessels will be valid for 3 ye
from date of issuance or from the last acceptable call. This genera
requires a detailed vessel inspection and review of inspection resu
Certification is generally limited to vessels 65,000 tonnes d.w.t. and le
The weight limit is 73,000 tonnes loaded displacement.

2. General Vessel Requirements:

- (A) All vessels are to have the capability of maintaining at least 3
of the vessel's deadweight, with the propeller fully immersed, a
a maximum trim of 5.0 m. by the stern, and a maximum freebo
of 11.0 m. at the manifold at all times while in the berth.
- (B) Only uncontaminated SBT ballast may be discharged at sea.
- (C) No cast iron is permitted in vessel's manifold valves and fittin
outboard from the last fixed rigid support to the deck.
- (D) Rail to manifold distance should be within a range of 2.0 m.
5.0 m.
- (E) Height of roll bar should not exceed bottom of manifold lines.
- (F) Bitts for hanging-off the hose chain, per OCI
recommendations, should be provided in the vicinity of
manifold.
- (G) Connection to the Terminal submarine hose should be ma
inside the manifold permanently installed drip containment tr
adding no more than one reducer, or "spool piece", to the vesse
design flange.
- (H) All ground tackle is to be in good working condition. Vessels m
have at least 10 shackles of chain on each anchor.
- (I) Each mooring winch is to be capable of having the first laye
wire or rope on the drum at a no-load speed of at least 40 met
per minute and a loaded speed of at least 12 metres per minu
Winch speeds shall be maintained during simultaneous operat
of one winch on the main deck aft, two winches on the stern a
one anchor windlass.

(J) All vessels are required to provide feeding and accommodation for one Mooring Master, one Cargo Officer and up to three mooring launch personnel for the duration of the visit.

(K) Vessels may be required to unberth and/or otherwise incur delay during adverse weather conditions. If not specified by Charter Party, time lost thereby shall not count as used laytime, and all costs, expenses, etc., of unberthing and reberthing shall be to the vessel's account.

(L) Vessels can be equipped with an operational searchlight on each bridge wing to assist in illuminating buoys during mooring and unmooring at night, and to shine onto the cargo hose area overboard for early detection of leaks.

(M) Hose boom capacity shall be a minimum of 7 tons. Cargo runners and topping lift must be wire rope. Cargo runner must be rove on winch drum. The vessel's cargo boom must be capable of lifting the end of the submarine hose to a height above the deck at least equal to the combination of the distance of the vessel's side to the manifold, the height of the manifold above deck plus 3 ft.

3. *Vessel Mooring Line Requirements:*

(A) Vessels shall be capable of presenting 4 primary lines on fixed winch drums and 1 primary 720 ft. loose line on poop deck centreline: 5 double-up 720 ft. mooring lines.

Lines locations are to be as follows:

	Port	Centre	Starboard
Main Deck Aft	2 (1 on Drum)		2 (1 on Drum)
Poop Deck	2 (1 on Drum)	2	2 (1 on Drum)

Mooring lines on drums on the main deck aft should be on separate dedicated winches with independent controls. If this is not possible, then a single winch with two drums, or use of another winch from a different location, may be acceptable. This determination will be made on a case-by-case basis following an assessment of the vessel, including configuration of the deck equipment and the ability to handle both port and starboard simultaneously. Mooring lines on drums on the poop deck are to be on separate dedicated winches with independent controls, if possible.

(B) Lines are to meet breaking strength requirements as follows:

Vessel Size	*Breaking Strength*			
d.w.t.	Wire	Primary Rope	Double-up Rope	Pendants
Less than 30,000	110,000 lbs or 49 tons	130,000 lbs or 58 tons	165,000 lbs or 75 tons	125% of Wire
30,000 – 65,000	130,000 lbs or 59 tons	165,000 lbs or 75 tons	165,000 lbs or 75 tons	125% of Wire

(C) All lines on the 4 winch drums are to be the same material. All other lines are to be of the same synthetic material. The line on a 5th winch drum on the poop, if fitted, is to be of the same wire or synthetic material as the rest of the lines.

(D) Lines may include rope pendants up to as long as the pendant and connecting shackle meet the breaking strength requirements for rope per above.

(E) No synthetic ropes with elongation over 15% at full breaking strength will be accepted. Pendants under 15 m. are not subject to this requirement.

(F) Aramid fibre ropes (Kevlar, Spectra) may meet wire breaking strength requirements if manufacturer-provided chafing sleeves are fitted. Right-hand laid nylon rope are not allowed.

(G) Mooring stations for each of the 10 lines are to be equipped with dedicated full strength, properly located, functioning fairleads and closed chocks. Each mooring station for ropes not on winches is, in addition, to be equipped with dedicated, full strength, properly located, functioning double horn bitts and warping winches. Warping heads on winches with wire drums are acceptable if properly located. Closed chocks are to be suitably sized for easily passing pendant connecting shackles if used.

(H) Constant tension winches must be braked by means of manual brake.

4. *Radio Advices:* Master must radio 7 days prior to arrival:

(1) 7 day ETA; thereafter 3, 2 and 1 days ETA's.

(2) Total cargo (bbls./tons) at 60°F.

(3) API.

(4) Estimated cargo temperature on arrival.

(5) The vessel must be capable of maintaining 125 p.s.i.g. at ship's manifold.

ACAJUTLA TERMINAL QUESTIONNAIRE

Coastal – Acajutla Conventional Buoy Moorings:
Position: Lat. 13° 35' N., Long. 89° 51' W.

Requirements:

Vessels calling this Terminal must undergo an approval process by Coastal Vetting Department.

Vessel inspection may be required.

Vessel must be a full "SBT" tanker.

Vessel size is limited to 73,000 tonnes loaded displacement.

Maximum draft 12.8 m.; max. freeboard 10.0 m.; max. LOA 231 m.

Maximum height of manifold above deck 1.0 m.

Maximum distance manifold inboard from side 3.0 m.

Minimum of 30% of d.w.t. to be maintained at all times.

Maximum trim of 4.3 m. by stern.

Owners and Charterers must consider the particular requirements for an open-sea, fixed spread multi-buoy mooring arrangement, and should be guided by OCIMF publication "Effective Mooring", pages 37, 38 and 39.

Owners to confirm:

(1) Both bow anchors shall be used during mooring. Both bow anchors to be in good working condition, and in size and quantity to meet either "Lloyds's" or "A.B.S." standards.

(2) Each anchor must have minimum 10 shackles of chain. Adequate power shall be available to operate the windlass at rated speed (minimum of 9.0 m./minute) at all times.

(3) Vessel to be equipped with sufficient synthetic lines (minimum of 10), or a combination of wires and lines to run to each of the 5 buoys.

(4) Mooring wires on winches should be at least 700 ft., with 10.0 m. synthetic tail. Constant tension winches must be manually braked.

(5) Synthetic fibre lines must be at least 720 ft. in length. The mooring station for each buoy shall be equipped with properly located and functioning chocks, fairleads and double-bitts to moor per Plan. A suitable mooring winch must be available for breast lines and another for stern lines.

(6) Minimum 7 tons SWL for boom/crane on port side.

(7) Ship's crew is responsible for connecting/disconnecting submarine hose to vessel. Tanker crane/derrick will be used to lift the submarine hose. A snubbing chain is secured to ship's bitts, cruciform of large padeye (Per OCIMF recommendations) on deck in front of port side manifold. The tanker boom/crane/derrick is used to support the rail hose (submarine).

(8) A 12 in. rail submarine cargo hose is connected to the ship's port side manifold. Vessel is to have necessary reducer, tools, etc. It is the responsibility of the ship's crew to connect the submarine hose to the ship. A Terminal Supervisor will be provided.

(9) Preference: Vessel should avoid to try final draining (stripping) of tanks at this Terminal, ship internal stripping of cargo tanks required to prevent air or gas from entering submarine hose.

(10) Shore hose is to be left pressurised with product or flush liquid as directed by Cargo Master.

AUTHORITY: *Operator:* Coastal Technology Salvador, Acajutla, El Salvador. *Tel:* (503) 887-3681, 887-7083, 452-3680.

Greece

SAINT NICOLAS: 38.22 N. 22.41 E. (See Late Plans)

DOCUMENTS:
8 copies Crew List.
4 copies Passenger List.
Cargo Manifest.
Bills of Lading.
3 copies Ship's Stores and Spares List.
3 copies Private Effects Declaration List.
1 copy Health Declaration.
Ship's Certificates.

PILOTAGE: Pilotage is compulsory. Vessel should advise ETA at least 24 hours before arrival through the Agent. Pilots are called with the assistance of the Port Authority (St. Nicolas Port Authority or St. Nicolas Pilot Station) on VHF Channel 12, 2 hours before arrival.

Pilot boards 0.5 miles West of the pier, unless Pilot orders another position due to weather conditions.

Pilot boat painted black with white deckhouse with the word "Pilot" painted in white letters on both sides.

ANCHORAGES: Recommended anchorages in positions Lat. 38° 22' 20" N., Long. 22° 40' 18" E. and Lat. 38° 22' 45" N., Long. 22° 39' 25" E.

RESTRICTIONS: Vessel may approach the berth from 0600 hrs. until sunset.

MAX. SIZE: Max. LOA 160 m., max. beam 22.0 m., max. draft 11.0 m. Max. airdraft for loading alumina 11.5 m.

HEALTH: Pratique is granted on arrival by Port Authorities.

RADIO: Contact possible through Hellas Coastal Radio.

VHF: Contact with Port Authority and Pilot made on Channels 12 and 16.

BERTHING: One pier with length 400 m. Max. draft 11.0 m. The South part of pier can accommodate tankers for discharging fuel or caustic soda. There is also a pneumatic conveying installation for loading alumina in bulk.

From the middle of the pier up to the North, there are 3 cranes installed (2 with capacity of 8 tonnes and the Northernmost with 12 tonnes capacity) to facilitate loading of aluminium and also discharging cargo of coke or tar pitch.

STEVEDORES: Shore gear is used. No requirement for gangs.

MEDICAL: 24 hours notice preferred if any medical requirements.

TANKERS: See "Berthing".

DENSITY: 1026 – 1030.

FRESH WATER: Available on pier.

FUEL: Available by trucks from Piraeus, ordered through Agent. Delivery to pier allowed from morning up to 1500 hrs.

FIRE PRECAUTIONS: No fire works or maintenance using fire on deck and/or in accommodation.

CONSULS: No local representation.

REPAIRS: No facilities for repairs. Painting of the freeboard area is prohibited to prevent sea pollution.

GANGWAY/DECK WATCHMEN: Master to appoint crew member.

OPENING/CLOSING HATCHES: Hatches are opened and closed by ship's crew.

CARGO GEAR: Shore facilities.

REPATRIATION: Can be arranged.

AIRPORT: Nearest airport at Athens, approximately 180 km.
TIME: GMT plus 2 hours. Late March to late September, GMT plus 3 hours.
HOLIDAYS: Work during holidays depends on Charter Party.
POLICE/AMBULANCE/FIRE: Available on pier.
TELEPHONES: Cardphone on pier and near main gate. Free transportation from pier to main gate.
IDENTIFICATION CARDS: Needed for crew going ashore.
REGULATIONS: There are general and specific regulations for the port of St. Nicolas.
DELAYS: Delays in loading or discharging not expected.
AUTHORITY: Port Authority of St. Nicolas.
Operator: Aluminium de Grece, Usine de St. Nicolas, Paralia Distomou, 32003 Beotie, Greece. *Tel:* (0261) 22661, (0267) 42502. *Telex:* 299660 ADGU GR. *FAX:* (0261) 22665. *Contact:* T. Petrou, Manager – Transport Department.

Guyana

NEW AMSTERDAM (Everton): (Also see Page 874) (See Late Plans)

SHIPMASTER'S REPORT: August 1996.
Cargo: Loading bauxite in bulk.
Documents: Vessel in ballast.
9 copies Crew List.
3 copies "Nil" Passenger List.
5 copies Stores List.
5 copies Crew Effects List.
1 copy Maritime Declaration of Health.
All Vaccination Certificates.
5 copies Drugs List (if any).
5 copies Bonded Stores List.

Port Authorities come on board after dropping anchor in Inner Roadstead or alongside the berth. Joint inspection team consists of 5-6 officials and Agent.

Pilotage: Through local Agent by telephone, as it is very difficult to connect with Guyana. When 30 miles from Georgetown, Quarantine Anchorage vessel may contact pilot station, call sign "Lighthouse" or "Georgetown Pilot Station". They maintain watch on Channel 16. One hour before Pilot comes on board, pilot station asks ship to heave up anchor and proceed to Buoy No. 1. After Pilot comes on board, vessel changes course to New Amsterdam. 30 minutes before entrance of New Amsterdam Canal, ship must inform Pilot and reduce speed for manoeuvring.

Vessel should order Pilot through ship's Agent in New Amsterdam, no branch pilot station.

Pilot launch of Georgetown Pilot Station has black hull and white superstructure with word "Pilot", and is named "M N Thompson".

Approaches: Canal width about 80 m. when proceeding to Inner Roadstead New Amsterdam. First and second pairs of buoys have steel bodies and are painted red; lights from sea, red to starboard and green to port. The other 8 pairs of buoys are wooden piles with numbers on body. Number of pairs is same (See "Plan"). After turning into river and after leading marks, the only 2 pairs of buoys are "12" and "13". After last pair of piles "13", the deepest place on Inner Roadstead at New Amsterdam is reached, where vessels may unload with max. draft 10.5 m. At this place, vessel drops starboard anchor (other chain secured on buoy). Send 2 additional ropes, from stern to buoy.

The river dredger "Presidente Cardenas" works all the time in the vicinity of the bar. Minimum depths on river and on bar (if average high tide) is 7.0 m., and from 1.5 miles from berth Everton to ferry line, depth is 7.0 m.

Radio/VHF: Watch not required but Master can arrange working hours with Agent on any channel.

During working hours, vessel may communicate with bauxite factory on VHF Channel 73, call sign "Everton Dock".

If Bidco Shipping are vessel's Agent, they may be contacted on VHF Channel 72 (Call sign "Bidco Shipping").

Tugs: No available.

Berthing: First ropes sent are shore springs from bow and stern. This vessel (9,000 – 10,000 tons displacement) used 2 lines, 2 springs and 1 breast line each end.

The berth is 20 m. long with wooden piles either side, and is suitable for vessels up to LOA 150 m. At low water, the depth is 10.0 m.

Loading: Factory has no scales.
Stevedores: Working is continuous if cargo is available.
Medical: Hospital in New Amsterdam, but medicines in short supply.
Density: 996 – 1010. Cargo Officer must check before calculating quantity of cargo on board.
Surveyor: "Bidco Shipping" is an independent surveyor.
Opening/Closing Hatches: By crew.
Time: GMT minus 4 hours.
Shore Leave: No restrictions.
Identification Cards: Not required.
Currency: Guyana Dollar. U.S.$ 1.00 = G$ 138.0 (August 1996).
Services: Boat available for painting draft marks fore and aft. Cost U.S.$ 20.00 – 30.00.
Piracy: According to local authorities, men in very small boats try to board vessels at night at Georgetown Outer Roadstead and New Amsterdam to steal ship's stores and items from cabins.

The Master can order policemen from Agent for the duration of stay.

India

PIPAVAV: 20.57 N. 71.31 E. (See Late Plans)

REPORT: September 1996.

1. Pipavav Port has a draft of 13.0 m., and vessels of 50,000 d.w.t. can enter the channel, that is to say Panama sized vessels with a length of 190 m., and beam of 35.0 m. – 40.0 m., can be berthed at the jetty.
2. The minimum depth will be 13.0 m. Also alongside the berth, the depth is 13.0 m.
3. Gujarat Pipavav Port Limited (GPPL) will be laying 5 general pipelines initially. These will be of 8 in., 10 in. and 12 in. diameter for the transportation of LPG/SKO and other like products. Additionally, there will be dedicated pipelines depending on the end user's product.
4. As regards to shore tanks, GPPL has adequate land available, which is exclusively for setting up tank farms. GPPL will also be setting up 2 tank farms of its own for black and white oil. Some LPG and SKO parties may set up tank farms at the site, depending on the LPG import/handling and transport into hinterland.
5. The dedicated LPG/POL/Chemical Jetty will be operational by December 1996. The distance of the pipeline from this Jetty to the tank farm area is 1.5 km. This set of pipelines will be constructed by GPPL.
6. GPPL is a joint sector undertaking between the Government of Gujarat and Sea King Engineers Ltd. GPPL is setting up an all weather sea port and a modern ship breaking yard at Pipavav.

Port Facilities: GPPL are constructing 3 terminals, one bulk, one breakbulk container handling and one dedicated LPG/POL jetty. The dry cargo jetty is 400 m. and 325 m. length, and the liquid jetty length is 250 m.

Cargo Handling Facilities:

1. Dry Cargo Terminal:
   (a) Ship to Stackyard.
   (b) Shed/Storing Space:
      (i) 5,000 sq.m. or more of covered storage for breakbulk cargo.
      (ii) 30,000 sq.m. paved open stackyard.
      (iii) 125,000 sq.m. open stackyard.
2. Liquid Cargo Terminal: Liquid discharging equipment (installed at jetty) at the rate of 800 t.p.h. to be provided, which will be connected to the private tank farms through common pipelines.

Development Schedule: The construction of all 3 terminals is being carried out by AFCONS and NEC. The bulk cargo Terminal will be operational by May/June 1996, and the second Jetty by August/September 1996, and the LPG Terminal is envisaged to be operational by December 1996.

Port Operator's advice received December 1996:

The first berth out of the four was inaugurated on 2nd November 1996, and the first ship called on 2nd November. We are booked for the next 4 months. The first berth is for handling bulk as well as break-bulk cargo. The remaining 3 Terminals, including one LPG Terminal, will be ready by March 1997. The other 2 berths for handling break-bulk and container cargo will be ready May/June 1997 respectively.

OPERATOR: Gujarat Pipavav Port Limited, 401 C, Poonam Chambers, 'A' Wing, Dr. Annie Besant Road, Worli, Mumbai 400018, India. *Tel:* 496-1654/55/57/58. *FAX:* 496-1659. *Contact:* B.S. Bhalerao, Corporate Advisor.

Italy

GIOIA TAURO: 38.27 N. 15.53 E. (See Late Plans)

LOCATION: Gioia Tauro is situated 15 nautical miles N.E. of Messina Strait Northern entrance on the West coast of Italy.
DOCUMENTS: Ship's documents: All documents required from SOLAS, MARPOL, Oil and other international conventions.
Anchorage Duties/Over-Duties.
Port State Control Certificate (Memorandum of Paris).
6 copies Crew List.
6 copies Passenger List.
Customs documents:
Manifest of Arrival/Departure.
Health documents:
Derat Certificate.
Seaman's Vaccination Certificates.
PILOTAGE: Vessels must contact Gioia Tauro's pilot station on VHF Channels 16/12.

Gioia Tauro Pilot Station: Tel: (090) 312544 (Main office is situated in Messina). Fax: (090) 310756.

The vessel must advise ETA at least 2 hours before arriving at the port.

The colour of the pilot boat is black with a white stripe of 20 cm. on both sides of the boat. The letter "P" or the word "Pilota" is painted on the hull.

Pilot approaches the vessel at 1 mile from the breakwater. In bad weather conditions, there are no particular areas for the meeting point, but the Pilot arranges the meeting point in accordance with the ship's Master's requirements. There is no special location for awaiting Pilots.
ANCHORAGE: Depth in the port is from 12.5 m. – 14.0 m.
RESTRICTIONS: Vessels are prohibited to drop anchor or wait within 1 mile from the port's breakwater.
HEALTH: The ship's Master must send a telex or fax to the "Sanita Marittima di Reggio Calabria" (Tel: (0965) 48379. Fax: (0965) 47056) asking for Pratique, a maximum of 12 hours and a minimum of 4 hours prior to arrival. If this procedure is not possible, the Master must request the medical visit on board through Agents.

RADIO: Messina Radio Station: VHF Channel 16 or HF 2,182 kHz.
VHF: Port Authority on Channel 16. Pilot on Channels 16/12. Tugs on Channel 12.
RADAR: No radar.
TUGS: 2×4,000 h.p. tugs ("San Ferdinando" and "Gioia Tauro") available 24 hours. Tugs are operated by Contug S.r.l.
BERTHING: All docks in the port are available for berthing (See "Plan").
(A) "Levante 1 Tratto" Dock (from BF1 to BF2): The dock is 1,250 m. long with depth from 13.0 m. – 14.0 m.
(B) "Levante 2 Tratto" Dock (from BF2 to BF3): The dock is 1,761 m. long with depth from 11.0 m. – 13.0 m.
(C) "Ro-Ro" Ramp No. 3 (from BF3 – BF4): The dock is 144 m. long with depth of 13.0 m.
(D) "Nord" Dock (from BF4 – B): The dock is 265 m. long with depth of 13.0 m.
(E) "Ponente" Dock (from C to BC1): The dock is 240 m. long with depth from 10.0 m. – 11.0 m.
(F) "Ponente" Dock (from BC1 to Ro-Ro Terminal Ramp): The dock is 270 m. long with depth of 10.0 m.
(G) "Ponente Ro-Ro Ramp No. 1 and Ro-Ro Ramp No. 2": The dock is 200 m. and 220 m. long respectively with depth of 9.0 m.
(H) "Ponente Fishing" Dock: The dock is 200 m. long with depth of 6.0 m.
Remarks: The Docks A, B and C are specially for container vessels.
CARGO HANDLING FACILITIES:
8 post-Panamax quay cranes.
28 straddle carriers.
10 tractors for multi-trailers.
3 travelling quay cranes.
The numbers of cranes are expected to be increased next year.
SPECIALISED CARGO HANDLING FACILITIES: *Container Terminals:*
Capacity: 1,000,000 TEUs.
Yard Capacity: 38,000 TEUs.
Total Surface: 1,000,000 sq.m.
Quay Length: 3,144 m.
6 Rail Tracks: 520 m. (each) = 3,120 m. (total).
No docks are available for LPG, chemical and petrol carriers.
Also see "Berthing".
BRIDGES: No bridges.
STEVEDORES: Stevedores work 24 hours in shifts. All communications must be sent to the Agent.
MEDICAL: Civil Hospital of Gioia Tauro. Tel: (0966) 52228. Medical specialists are available.
TANKERS: No facilities.
FRESH WATER: Available from the firm "Mariba", situated near the port (Tel: (0966) 501028).
FUEL: The Master must request permission to take fuel from the Port Authority, through Agents.
FIRE PRECAUTIONS: None.
CONSULS: None.
REPAIRS: Small repairs can be done, but must be authorised by the Port Authority. Large repairs are not possible, as there are no shipyards in the port.
DRY DOCKS: None (but 21 miles from Gioia Tauro, there are 5 dry docks, the largest is 256 m. in length).
SURVEYORS: The Italian Surveyor "R.I.Na" is located in Messina.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: Normally by stevedores.
CUSTOMS ALLOWANCES:
(A) Tobacco Products: 200 cigarettes, or 100 cigarettes (cigars of maximum weight 3 grams per piece), or 50 cigars, or 250 grams tobacco.
(B) Alcohol or Spirits: Total 1 litre distil drinks and alcohol drinks with a degree over 22% Vol. denatured ehtylic alcohol of 80% Vol. and more,
or total 2 litres distil drinks and alcohol drinks, aperitives based on wine and alcohol, tafia, sake or similar drinks of a alcohol degree equal or inferior of 22% Vol., sparkling wines, strong sweet wines, and total 2 litres tranquil wines.
(C) 50 grams perfumes, and 1/4 litre eau de toilette.
(D) 500 grams coffee, or 200 grams extract of coffee.
(E) 100 grams tea, or 40 grams extract of tea.
CARGO GEAR: All cargo operations undertaken by shore gear.
REPATRIATION: Possible.
AIRPORT: Nearest airports to Gioia Tauro are Lamezia Terme Airport, approximately 65 km. North of Gioia Tauro, and Reggio Calabria Airport, approximately 60 km. South of Gioia Tauro.
TIME: GMT plus 1 hour.
HOLIDAYS: 1st January; 6th January; 25th April; 1st May; 15th August; 1st November; 8th December; 25th/26th December.
Local holiday: 13th August (St. Ippolito Martire).
POLICE/AMBULANCE/FIRE:
Police Tel: (0966) 500666 or 113.
Ambulance Tel: (0966) 52203.
Fire Brigade Tel: 115.
EMERGENCY CO-ORDINATION CENTRE: Nearest Emergency Co-ordination Centre is Italian Coast Guard, 5th M.R.S.C. Reggio Calabria. Tel: (0965) 47907, 42795, 42530. Fax: (0965) 650090, 42542. Telex: 890071. National Emergency No.: 167.090.090.
TELEPHONES: Public telephones situated just outside the port.
SERVICES: All services are available through Agent.
BANKS:
Banca Commerciale Italiana, Via Roma 31, Gioia Tauro. Tel: (0966) 52293. Fax: (0966) 500430.
Banco di Napoli, Via Roma 41, Gioia Tauro. Tel: (0966) 500431.
Cassa di Risparmio di Calabria e Lucania S.P.A., Via Roma 52, Gioia Tauro. Tel: (0966) 52072, 51127.
Banca Popolare di Polistena, Via Trento, Angolo Viale Rimembranze, Gioia Tauro. Tel: (0966) 500589.
STORING: See "Prelims".
1. No, vessels can be stored only by trucks.
2. —
3. Yes.
4. Yes.
5. No particular regulations in force regarding storing other than the usual for all international ports.
6. Yes.
SHIP SUPPLY SERVICE: Available through Agent.
SHORE LEAVE: Crew members are allowed ashore with visa on Seaman's Passport obtained from Frontier Police.
IDENTIFICATION CARDS: Seaman's Books are not sufficient for shore leave. It is necessary to have shore passes available from the Frontier Police.
GARBAGE DISPOSAL: No garbage disposal available alongside. The garbage service is carried out from the following firms (through Agent):
Ecoservice S.A.S., Via Marinella No. 6 II Traversa, Crotone.
Multiser Vice Lavoro 2000, Via F. Sco Tripoldi 50, Gioia Tauro.
Ra-Di S.R.L., Via Roma 78, Palmi. Tel: (0966) 24924.
WASTE OIL DISPOSAL: Not available.
SEAMAN'S CLUBS: None.
CURRENCY: Italian Lira. U.S.$1.00 = Italian Lire 1,500 approximately (November 1996).
GENERAL: The main characteristics of the port: The port of Gioia Tauro has a channel-like configuration dredged parallel to the coast, and has a water surface of 171 hectares. It consists of a large Turning Basin (750 m. diameter), located to the South, which connects to the 3 km. long channel-like berthing area (minimum width of 200 m.), ending in a 500 m. wide Turning Basin to the North.

The port and its hinterland have an overall surface area of 644 hectares, which may be sub-divided into 3 parts: 171 hectares of water surface, 255 hectares of land, 218 hectares for industrial establishments contiguous to the port area; another area of 110 hectares of land at elevation +35 m. has been set aside for industrial establishments.
Sightseeing (Places of interest): Tropea, Scilla, Palmi, Reggio Calabria, Punta Stilo, Copanello, Soverato, Capo Vaticano, Isole Eolie, Gerace.
DEVELOPMENTS: Another berth may be constructed in the next 2-3 years.
AUTHORITY: Italian Coast Guard, Ufficio Circondariale, Marittimo di Gioia Tauro, Contrada Lamia, 89013 Gioia Tauro (RC), Italy. *Tel:* (0966) 52130, 501344. *FAX:* (0966) 52130. *Cables:* Circomare Gioia Tauro. *Contact:* Antonio Ranieri, Harbour Master.

Ivory Coast

LION TERMINAL: 05.02 N. 04.48 W. (See Late Plans)

SHIPMASTER'S REPORT: October 1996.

Vessel: LOA 220 m., beam 35.2 m., Summer d.w.t. 67,958 tonnes. Vessel arrived to load 336,000 bbls. of the Lion Crude Oil.
Location: The Lion Terminal is designed for loading crude oil cargoes on tankers. The Terminal is located in open waters of the West Coast of Africa off the coast of the Ivory Coast.
Terminal Area: The Terminal area is within a 1 mile radius of the FPSO (Floating Production oil Storage Offloading) "Red Teal", or the CALM Buoy.

Restricted area is the area within a 2 mile radius from the Lion "A" Production Platform.
Operation: The Terminal is operated by UMIC (United Meridian International Corporation) Cote d'Ivoire under licenses granted by the Government of the Ivory Coast. The Terminal is governed by the laws of the Ivory Coast.
Geographical Location of Facility: Lion Field, located in Block CI-11, Ivory Coast, lies 50 nautical miles W.S.W. of Abidjan, and 7.3 nautical miles offshore.

The main installations are located at Lat. 5° 02' N., Long. 4° 48' W..

Water depth varies from 64 m. in the North up to 71 m. in Southern area.
Terminal: The Lion Terminal consists of:
(A) One CALM type mooring and loading buoy with associated flowline and riser from Lion "A" Production Platform (which is situated approximately 900 m. S.W. of the CALM Buoy).
(B) One FPSO (Floating Production oil Storage Offloading) tanker "Red Teal" moored to the CALM Buoy.
Anchorage: The designated anchorage position is 1.5 miles N.W. of Lion "A" Production Platform.

Anchorage in any other location within Terminal boundaries is prohibited, unless special clearance is received from the Terminal Manager.
Pre-Arrival Information: A message will be sent to first time Lion Terminal bound tankers, approximately 48 hours prior to tanker's arrival, outlining arrival procedures and loading/planning recommendations.
Communications with "Red Teal":
VHF Calling Channel: 16. VHF Working Channel: 74
Satellite Tel: +871-663601310
Satellite Fax: +871-663601312
SSB: 8,039.5 MHz
Loading: Tandem lightering operations will be through 1×16 in. hose. Port derrick should be ready. Connection flanges of Camlock type coupling ASA ISO. Maximum rate will be 4,800 cu.m./hr.
Arrival: On arrival, make contact with the Master of "Red Teal" for anchoring advice. Mooring Master boards vessel to discuss operation upon arrival.
Tugs: Tug assists aft during loading. Tug's line used.

Japan

GENERAL: (Also see Page 1164)

HEALTH:

INFORMATION REQUIRED FOR RADIO PRATIQUE

The Master of a ship should send the following to the Chief of Quarantine Station by telegram via Agent:

1. Table of example to be used in the telegram.

Item	*Example*	*Remarks*
(1) To request Radio Pratique.	RPM	"RPM" means Radio Pratique message.
(2) Name and nationality of the ship.		Not requested in the telegram.
(3) Name of the first port with date of departure.	New York 1st Apr.	Year to be omitted.
(4) Ports of call with dates of departure within 15 days before arrival.	Honolulu 9th Apr.	Year to be omitted. Ports to be listed in order.
(5) Port and estimated time of arrival.	Hiroshima 25th Apr. 10.00	Use Japanese local time.
(6) Authority and date of issue of Derat Certificate or Derat Exemption Certificate.	Hiroshima 1st Jan. 88 Exemption or Hiroshima 1st Mar. 88 Derat	State as follows: 1) Name of issuing authority. 2) Date of issue. 3) Whether Derat or Derat Exemption.
(7) Number of crew and passengers.	Crew 25 PAX 3	"PAX" means passengers.
(8) Whether any person and (or) goods transferred from other ship during the voyage within 15 days before arrival or not.	YES or NONE	If so, give the following information: 1) Name of the ship concerned, last port and date of departure thereof. 2) Date and number of transferring person on and (or) goods.
(9) Whether any sick person be on board within 15 days before arrival or not.	YES or NONE	State "NONE" in case no sick person with the following symptoms has been on board, and if there is any sick person, give his name and symptoms in plain sentence. 1) Fever accompanied by prostration or persisting for several days, or attended with glandular swelling. 2) Any acute skin rash or eruption with or without fever. 3) Severe diarrhoea with symptons collapse. 4) Jaundice accompanied by fever.
(10) Whether any person has died on board other than a result of accident within 15 days before arrival or not.	YES or NONE	If there is any person dead, give following information in plain sentence. 1) Name and age of person dead. 2) Date of death. 3) The cause of death. (Name of sickness or his symptoms.)
(11) Whether plague has occured or been suspected among the rats or mice on board, or has been an abnormal mortality among them within 15 days before arrival.	YES or NONE	State "YES" in case any inactive rat or any dead rat has been found on board, inspite of not putting out rat poisons within 15 days before arrival. State "NONE" in case none of them has been found on board.
(12) Whether any cargo infected with quarantineable diseases or suspected thereof on board or not.	YES or NONE	State "YES" in case any cargo on board has been packed or loaded in the present infected area. State "NONE" in case none above nmentioned cargo on board.
(13) Whether a ship doctor is on board or not.	AL or NONE	"AL" means a doctor on board.
(14) Name of Captain.	J. Smith	

NOTE: In case "NONE" is applicable for items (8) to (12) or (8) to (13), you may state as follows:
(8) to (12) NONE AL or (8) to (13) NONE.

Typical messages covering the various items mentioned above are given below:
RPM New York 1st Mar. Honolulu 9th Mar. Hiroshima 25th Mar.10.00 Osaka 1st Jan. 1996 Exemption Crew 25 PAX 3 (8) to (12) NONE 13 AL J.Smith.

2. The ship which comes under the following items shall not be given the Quarantine Radio Pratique:

(1) The ship which has arrived from an infected area or a suspected infected area within 6 days (Plague and Yellow Fever), 5 days (Cholera).

(2) The ship which has transferred any person or cargo from other ships or aeroplanes which departed from the area shown in (1) within period in (1).

(3) The ship on which there is or has been within 15 days before arrival any case of disease which you suspect to be of an infectious nature and any person has died on board within 15 days before arrival.

Korea, Republic of

PYEONG TAEK: (Also see Page 1315) (See Late Plans)

SHIPMASTER'S REPORT: October 1996.
Charts: B.A. 1258, 1270 and 1271.
Sailing Directions: NP 32. 15.93 – No information.
Light List: Volume F.
Radio Signals: Volume 6(2) – No information.
Approaches: We arrived from Keelung. No particular problems as weather was fine with good visibility. Sailing directions mention numerous fishing boats, but these were not encountered. However, the notorious behaviour of local traffic, noted many times in MARS reports, was very evident at the TSZ off Huk To, and it seems to pay to assume that all other ships will not behave according to any rules. Ship had been advised that berthing would take place at slack water in daylight, and so we were ordered to anchor off Changan So Lighthouse to await the Pilot.

We anchored with Changan So Lighthouse 043°T × 2.1 miles. Nature of seabed as revealed on echo sounder gave some concern, as it appeared to be extremely rough, and we wondered if we could risk anchoring and perhaps getting the anchor fouled in some crevice. However, the bottom became smooth about 2 miles South of the chosen anchorage position.

Tides did not appear too strong and ship lay quietly.

Pyeong Taek Port Control contacted on VHF Channel 20, and they gave accurate pilot boarding information. Pilots were contacted on Channels 16 and 10.

Pilotage: Pilot boarded at 0900 hrs. Pilot boat is reasonably powerful, but very narrow. It has a white hull and superstructure. Pilot was efficient and safe.

Maximum draft at present is 13.0 m. – 14.0 m., but is under constant review.

The passage from anchorage to LPG berth is about 29 miles, and time from anchor aweigh to picking up tugs was just over 3 hours.

Once anchor was aweigh, course took ship West of Changan So and 1 mile North of P'ung Do, directly through the fish havens marked on the chart, which do not exist according to the Pilot, and then on to the buoyed approach channel. To the South, the port of Taesan was very busy, and there was a great deal of development in progress.

The West side of P'ung Do is being heavily quarried, and there is a continuous procession of barges to and from there. There are also various building works going on. A huge steel tower is going up on reclaimed land near Songmun Gak. Opposite Pyeong Taek, at Ch'ungch'ongnam Do, a new steelworks is half completed. This has a long loading/unloading wharf, which will be able to take heavy traffic when completed. Upstream from Pyeong Taek, extensive reclamation and building work is underway. A new bridge is under construction, and the intention is to build a large enclosed dock with locks similar to that at Incheon.

Reports such as this are thus liable to be rendered out-of-date very rapidly.

Berthing: Berth crew were not quite ready for us on arrival, and we anchored for 15 minutes.

Tide was almost LW slack.

Two tugs were used, the usual powerful and manoeuvrable Japanese type tug. They were well handled.

Ship berthed at the Eastern berth (of 3), which is an LPG berth.

Berthing was no problem with very little current, and ship was made fast port side to with 3 head/stern lines, 2 breasts and 2 springs. The berth is designed for large LPG vessels, and it was found that with this ship (LOA 179.8 m.), the aft fender was just at the run-in to the stern, which meant that the aft springs had to be run from the aftermost quarter lead.

Shore gangway used.

Berth is well fendered and reasonably tidy.

Western berth is being grit/blasted, while a new berth is being "shoe-horned" into the gap between the West and the middle berth.

Discharge: 8 in. Chicksan connection for Methanol. 3,000 tonnes discharged in 10 hours.

Departure: At present, ships handled only in daylight. At 0700 hrs., as we were singling-up, a thick fog bank rolled out from the land and visibilitiy reduced to about 30 m.

After waiting for 15 minutes, it was decided to leave. The poor visibility extended only 1 mile off the berth, and all was clear by the time we were off the steelworks.

Officials: Agent, Port Health and one Customs Officer boarded and cleared the ship in 30 minutes.

Agent remained on board throughout discharge.

Libya

GENERAL: (Also see Page 1362)

AGENCY: *Add:* Libya Shipping Agency, Awqaf Building, 5th Floor, P.O. Box 2563, Ahmed Rafiq Street, Benghazi, Libya. Tel: 00218-61-70923, 70842. Fax: 00218-61-70842. Telex: 50628 LY, 40103 LY.

Libya Shipping Agency act at the following ports and oil terminals: Benghazi, Ras el Mungar, Derna, Tobruk, Marsa el Hariga, Zueitina, Marsa el Brega, Ras Lanuf (Rasco/Veba Terminals), Es Sider, Misurata, Khoms, Tripoli, Bouri, Zawia and Abu Kammash.

Qatar

AL RAYYAN: 26.39 N. 51.33 E. (See Late Plans)

TERMINAL: Al Rayyan Marine Terminal is situated in the Southern part of the Arabian Gulf, approximately 35 nautical miles off the Northern coast of Qatar.

The geographical location of the Terminal is Lat. 26° 39' N., Long. 51° 33' E.

The approximate water depth at the Terminal is 27.0 m. at British Admiralty Chart Datum (Lowest Astronomical Tide).

Terminal Lay-out: The Terminal consists of a storage tanker which is moored to a Single Point Mooring buoy (SPM). Routinely, export tankers berth at the storage tanker in tandem mode; occasionally alongside berthing may be scheduled. The storage tanker receives Al Rayyan Crude Oil through a pipeline from a jack-up production facility, located 1,250 m. to the E.N.E.

The storage tanker is a modified oil tanker with a Summer deadweight of 172,000 tonnes and an overall length of 311 m. after conversion.

Tanker Loading Facilities: Routine loading of export tankers takes place through 1×16 in. floating hose string which is connected to the port side cargo manifold of the export tanker which is berthed behind the storage tanker. The overall length of the floating hose string is 300 m., and incorporates a breakaway coupling which functions as a mechanical pollution prevention device. All hoses are of a pollution protection design (double carcass).

Occasionally, loading may be scheduled with the export tanker moored alongside the export tanker.

DOCUMENTS:

2 copies Crew List.
2 copies Crew Effects List.
2 copies Ship's Manifest.
2 copies Maritime Declaration of Health.
1 copy Current MENAS Receipt (if applicable).
1 copy TOVALOP Insurance Certificate.
1 copy CLC Insurance Certificate.
1 copy Previous Port Clearance.
1 original Outward Port Clearance (issued at departure).

Ship's Appointed Agent: The ship's appointed Agent will not normally visit the vessel, due to the remote location of the Terminal.

The Pilot/Loading Master will assist in agency matters.

The Terminal Operator will collect from the Owner and forward to MENAS (Middle East Navigation Aids Services) the applicable fees when Al Rayyan Marine Terminal is the vessel's first port of call in the Gulf area.

Customs and Immigration: Government officials do not visit the vessel on a routine basis.

PILOTAGE: *Responsibility:* A Pilot is on board the vessel in an advisory capacity. The Master remains responsible for the overall safety of the vessel and stays in command at all times.

Upon completion of berthing, the Pilot will remain on board the vessel and function as Loading Master.

Pilot Boarding Location: The customary pilot boarding location lies 3 miles S.E. of the Terminal. Usually, the Pilot boards from a tug, but under rough sea conditions, the pilot transfer may be made by helicopter. The Master will be given sufficient advance notice when a helicopter landing is planned.

Pilot Transfer Arrangement (If by Boat): The pilot boading ladder must consist of a single pilot ladder, or a combination of a pilot ladder and an accommodation ladder, and be rigged on the starboard side of the vessel.

The entire arrangement must conform precisely with the applicable IMO Resolution.

In case of non-compliance, the Pilot will refuse to board until the situation has been rectified to his satisfaction.

A mechanical pilot hoist is not an acceptable means for personnel transfer.

Pilot Transfer Arrangement (If by Helicopter): Helicopter landing operations will not take place until the Master has acknowledged that the vessel has fulfilled the requirements of the "Guide to Helicopter/Ship Operations", published by the International Chamber of Shipping (ICS).

The Terminal Operator uses a twin engine helicopter for marine helicopter operations. Practices and equipment conform with the Guide.

ANCHORAGE: The designated anchoring position for waiting tankers lies 3 miles S.E. of the Terminal in a water depth of approximately 25.0 m.

APPROACHES: *Navigation and Approach:* Safe approach to the Terminal is from the North, passing 3 miles to the West of the Terminal and thence proceeding to a position 3 miles S.E. of the Terminal.

The Terminal is situated near busy shipping lanes, and Masters of visiting vessels are cautioned accordingly.

Attention is drawn to the existence of unmarked subsea wellheads and other areas of reduced water depths, which would be of concern to a deep draft vessel navigating near the Terminal. The appropriate British Admiralty chart for the area should be consulted.

Safety Zone: For safety purposes, an area around the Terminal has been declared closed for commercial shipping and fishing vessels of any size. This Safety Zone extends to a distance of 1 mile from the Terminal production facility, as well as the storage tanker "Ailsa Craig".

RESTRICTIONS: *Tanker Freeboard and Draft:* Al Rayyan Terminal is situated in a remote location and exposed to the weather.

For this reason, the Master of a vessel must ensure that the vessel maintains, while at the Terminal, a freeboard which is as small as practicable.

This can be achieved through judicious deballasting while loading.

A vessel which is unable to conduct simultaneous deballasting and loading will be required to load part cargo prior to deballasting or retain ballast on board.

In addition, a vessel in the berth must maintain a draft and trim condition, which would allow emergency departure from the berth at all times, if necessary.

Period of Terminal Operations: Terminal operations take place on a continuous 24 hour basis with the exception of tanker berthing activities, which are scheduled for daylight hours only, weather permitting.

Closure of Terminal: Unfavourable wind and sea conditions at the Terminal may from time to time affect tanker operations in general and berthing activities in particular. The Terminal will be declared closed for tanker operations when weather conditions deteriorate beyond the safe working limits of the Terminal, as determined by the Terminal Supervisor at that particular moment in time.

MAX. SIZE: The maximum permissible tanker size at the Terminal is 270,000 tonnes S.d.w.t.

The maximum vessel draft at the Terminal is restricted to 21.0 m.

RADIO/VHF: *General:* Local time is UTC plus 3 hours.

All communications and estimated times of arrival (ETA's) at the Terminal should refer to local time.

The Master of a vessel must send the estimated time of arrival (ETA) of his vessel to the Terminal Operator as early as possible, but not later than 72 hours, 48 hours and 24 hours prior to arrival, regardless of the fact that the vessel may still be at a previous loading port.

Failure to comply with the notification process may delay the actual loading of the vessel.

Tanker ETA's should be sent to both the following addresses:

ARCO Qatar Inc. (AQI)
Tel: 974-446390
Fax: 974-448092

Al Rayyan Marine Terminal FSU
(FSU call name "Ailsa Craig")
via Satcom link:
Fax: 873 or 871-1454263
Telex: 873 or 871-1454264

On receipt of the 72 hour ETA message, the Terminal Operator will send to the vessel a copy of the standard "Tanker Pre-Arrival Questionnaire" (See below) to which the Master shall respond as soon as possible.

When within calling distance, the tanker should contact Al Rayyan Terminal on VHF Channel 16.

After initial contact has been established, the Terminal will request the tanker to switch to the working channel (Marine VHF Channel 69) to exchange the following operational information.

The tanker is required to report to the Terminal:

(i) ETA in local time at a position 3 nautical miles S.E. of the Terminal.
(ii) Any vessel deficiencies which would affect mooring and loading operations.

The Terminal will provide the following details to the tanker:

(i) Pilot boarding time, boarding position and boarding method (boat or helicopter).
(ii) Reminder to rig the pilot boarding ladder on the starboard side.
(iii) Reminder to have ready for use on the port side 1×16 in. cargo manifold connection and the ship's lifting derrick or crane.
(iv) Any other operational information of importance.

While within the Al Rayyan Terminal area, the vessel shall maintain voice communication with the Terminal by marine VHF radio.

Tanker Operational Deficiencies: The tanker's Master must inform the Terminal promptly of the existence on board of an operational deficiency which will substantially affect the readiness and performance of his vessel and crew.

Tanker Notice of Readiness: A Notice of Readiness should only be tendered by the Master of a vessel when the vessel has arrived in a position 3 miles S.E. of the Terminal.

A Notice of Readiness is an undertaking that the vessel is in all respects ready to load, and that all of the vessel's equipment (including but not limited to tanks, pumps, valves and pipelines) is ready and fit to load Al Rayyan Crude Oil.

Acceptance of a Notice of Readiness by AQI is merely an acknowledgment of receipt of such notice, and does not constitute agreement by AQI that the vessel is in fact ready to load, or the acceptance of any other contractual terms and conditions.

A vessel, which is found not to be ready to load, notwithstanding having tendered Notice of Readiness, may be taken from the berth and directed to sea. All expenses incurred shall be borne by the vessel and the decision of the Terminal Supervisor shall be final.

Terminal Forms and Notices: The Master is required to sign a number of Terminal forms and notices. The Appendix contains specimen copies (not reproduced).

Lodging for Shore Personnel: The Master must provide lodging of a satisfactory standard for 3 Terminal personnel throughout the period that the vessel is berthed.

Tanker Pre-Arrival Questionnaire:

TANKER PRE-ARRIVAL QUESTIONNAIRE

To: Master of . . . . . .
From: ARCO Qatar Inc.

We confirm that we hold a nomination for your vessel to load . . . . U.S. barrels at 60°F plus/minus 5% of Al Rayyan Crude Oil with an approximate API of . . .° and a loading temperature of . . .°F.

Please contact Al Rayyan Marine Terminal on VHF Channel 16 when within radio range.

Please confirm as soon as possible the requested information to ARCO Qatar at one of their following numbers:

ARCO Qatar Inc.
Tel: 974-446390
Fax: 974-448092

Al Rayyan Marine Terminal FSU
via Satcom link:
Fax: 873 or 871-1454263
Telex: 873 or 871-1454264

(i) Ability to load nominated quantity.
(ii) Present ETA.
(iii) Previous port of call.
(iv) Arrival draft.
(v) Departure draft.
(vi) Deballasting time prior to loading, if any.
(vii) Maximum acceptable loading rate through one manifold connection.
(viii) Type and number of OCIMF standard bow chain stoppers.
(ix) Safe working load of derrick or crane.
(x) Suitable accommodation available for 5 Terminal staff.
(xi) Any vessel deficiencies which may affect berthing and loading operations.
(xii) Name of ship's Agent in Qatar, if any.
(xiii) Name of Master.
(xiv) Vessel call sign.
(o) Vessel official number.

TUGS: Tug available.

BERTHING: Mooring (Bow to Stern): This tandem berthing method is the routine practice.

The maximum safe working load of the entire mooring equipment system, which is in place between storage tanker and export tanker, is 200 tonnes.

Arrival Draft: Vessels must arrive on a draft which will allow for safe manoeuvring under various weather conditions with the propeller submerged, and a trim by the stern of not more than 3.0 m. A vessel with an insufficient draft or excessive trim will not be berthed until the draft condition has been corrected to the satisfaction of the Pilot/Loading Master.

Tanker Bow Mooring Equipment: Tanker bow mooring equipment must comply with the recommendations contained in the latest edition of the OCIMF publication "Recommendations for Equipment Employed in the Mooring of Ships at Single Point Moorings". The export tanker is berthed on 1×21 in. circumference mooring hawser, which is attached to the stern of the storage tanker. The Terminal will reject for berthing any vessel which is not fitted with one functional bow chain stopper (76 mm.) as prescribed by OCIMF.

Preparations for Berthing: At the time that the Pilot/Loading Master boards, the vessel shall have its port side derrick or crane ready to pick up hose connection ancillary equipment from the tanker tug. The Pilot/Loading Master will inspect the bow mooring arrangements upon boarding. He will also witness oxygen readings taken from a number of cargo tanks to ascertain that cargo tanks on board the vessel are indeed properly inerted. Berthing activities will not proceed when the oxygen contents is found to exceed 8% by volume. The Pilot/Loading Master will also verify that the vessel is equipped with a standardised manifold connection (See "Loading").

Prior to berthing, the vessel must complete the following preparations:

(a) Bow anchors secured in their hawse pipes.
(b) One winch spooling drum readied to accept the pick-up rope of the mooring hawser.
(c) 1×1 in. diameter messenger line rigged on the bow.
(d) One uncovered 16 in. manifold connection on the port side.
(e) One tow rope for the tanker tug laid out on the stern.

Pre-Berthing Operational Safety Inspection: Prior to berthing, the Pilot/Loading Master may choose to conduct a general operational safety inspection of the vessel, if he has reasons to believe that the vessel may be substandard or deficient in those areas which would make the vessel unacceptable to berth and load cargo at the Terminal.

Pre-Berthing Conference: Before proceeding to the berth, the Pilot/Loading Master will discuss with the Master operational and other matters related to the use of the Terminal. The Pilot/Loading Master will request the Master to brief him on vessel matters which are of importance for the safe conduct of berthing and loading operations.

Tug Assistance: One tug is available to assist the tanker throughout its stay at the Terminal. The tanker tug will assist during berthing and unberthing of the tanker. While the tanker is in the berth, the tug will remain connected to the stern of the tanker on a tow rope deployed from the tanker. The tug will tow continuously in order to maintain a safe distance between the storage tanker and the export tanker.

Safe Mooring Practices: A sizeable mooring winch storage drum must be used to heave on board the mooring hawser pick-up rope, which has a length of 150 m. and a circumference of 10 in. (diameter 80 mm.). The use of a winch warping head for this purpose is not permitted.

Mooring Operation: On final approach, but still at a safe distance from the storage tanker, the Pilot/Loading Master shall ascertain that astern engine movements are available promptly.

After the mooring chain has been connected in the bow stopper, the Pilot/Loading Master must satisfy himself that the stopper securing pin rests snugly across the stopper tongue or bar, thus giving it no opportunity to lift.

Emergency Towing Wires (Fire Wires): On completion of mooring, the vessel shall rig on its starboard side, 2 emergency towing wires of adequate strength and condition. One line must be secured on the bow and the other on the stern, with adequate slack on deck and with their eyes being maintained at water level.

Tanker Bow Watchkeeper: Immediately after mooring and until the vessel unmoors, a watchkeeper must remain positioned on the bow. The watchkeeper shall constantly monitor the position of the export tanker in relation to the stern of the storage tanker. He must be in radio contact with the Duty Deck Officer, so that he can immediately report any significant change in vessel position (distance off and direction). The Duty Deck Officer is required to notify the Pilot/Loading Master of such an occurrence without delay.

Mooring (Side by Side): This "alongside" berthing method is optional and may be used occasionally when the tandem mooring method is unavailable.

IMPORTANT NOTE:

Due to shortening of the original hull, the storage tanker now has a bow to cargo manifold distance of 130 m., while its overall length is 311 m. This means that on this vessel, the cargo manifold is located much further forward than usual.

Consequently, the overall length of an export tanker together with the distance between its bow and cargo manifold will determine whether, for this type of mooring operation, the storage tanker can remain connected to the SPM or not. Other factors, such as environmental conditions and vessel characteristics, will also play a role.

As guidance, an overall length of the export tanker of more than approximately 260 m. (typical size 125,000 – 130,000 tonnes S.d.w.t.) would probably necessitate the storage tanker to disconnect from the

SPM, in order to conduct the ship-to-ship mooring operation while underway. This will result in a temporary halt to oil field production.

The export tanker will berth on the starboard side of the storage tanker.

Reference should be made to the "Ship to Ship Transfer Guide", published by ICS/OCIMF. Operational practices must conform with this Guide.

Every aspect of this type of operation will be discussed in great detail with the Master prior to commencing activities.

Departure: *Timely Departure:* It is Terminal practice that a vessel unmoors as soon as practicable after disconnection of the loading hose.

Unmooring: Prior to unmooring, the tanker tug must be released from the stern. Great care must be taken when reducing the tug's engine power in readiness for slipping the tow rope, as the tanker may ride up to the storage tanker at this stage.

Letting go of the tanker tug may only commence when the tanker main propulsion is ready for immediate use.

Unmooring should take place immediately after releasing the tug.

Disembarkation of Pilot/Loading Master: The Pilot/Loading Master will leave the vessel only when the vessel is well clear of the Terminal area.

LOADING: Cargo Hose Handling: A tanker is expected to comply with the standard manifold arrangements which are contained in the OCIMF publication "Recommendations for Oil Tanker Manifolds and Associated Equipment".

Tanker Cargo Manifold Standard Dimensions: A vessel must present for loading one manifold connection flange of 16 in. nominal size (150 ASA).

Flange dimensions and drilling should conform to the common standard of ANSI B16.5 or BS1560 Series 150, or exact equivalent (See "Plan").

The Terminal reserves the right to refuse for loading a vessel which is not fitted with a standardised manifold presentation flange.

Cargo Hose Lifting Capability: The derrick or crane which is used by the vessel to lift and lower the loading hose must have a minimum safe working load (SWL) of 15 tonnes. It should also be able to provide a clear lift of 10 m. above the main deck over the manifold connection in use. The approximate hose weight to be lifted during hose connection is 10 tonnes.

Connection of Cargo Hose: Physical connection of the loading hose is performed by the vessel's crew under supervision of the Pilot/Loading Master.

Prior to hose connection activities, the Pilot/Loading Master will ascertain and confirm with the Terminal that stop valves at each end of the loading hose are shut.

The tanker end of the loading hose is fitted with a Camlock quick connect/disconnect coupling and a stop valve.

Consideration should be given to the insertion of 2 additional studbolts through the Camlock coupling flange connection as a form of security.

Security of Loading Hose: Once connected, the loading hose will be supported from the vessel's derrick or crane, using nylon slings.

In rough sea conditions, additional rope lashings shall be attached to the hose at the rail to prevent excessive fore and aft movement of the hose. This is especially important when the vessel is deeply laden.

Disconnection of Loading Hose: Physical disconnection of the loading hose is performed by the vessel's crew under supervision of the Pilot/Loading Master.

Prior to hose disconnection activities, the Pilot/Loading Master must confirm with the Terminal Control Room that the hose may indeed be disconnected, in particular when loading has been stopped from the Terminal. This is in order to establish that the vessel has received its nominated cargo quantity.

Care must be taken to ensure that the hose end blind flange is securely fitted in place before lowering the hose into the sea.

Upon disconnection, the loading hose must not be allowed to drift under the stern of the vessel. This may happen with smaller sized vessels. In such cases, the hose end pick-up rope shall be retained onboard and secured to a bollard at the manifold, from where it can be released by a member of the crew once the vessel has unmoored and gathered some stern way.

Cargo Operations: *Pre-Loading Conference:* A pre-loading conference will be held between the Pilot/Loading Master and the Master or Chief Officer.

The purpose of this conference is to review the Terminal Regulations, and to ensure that there is a complete understanding of all safety and pollution prevention procedures, as well as deballasting and cargo loading operations, emergency shut-down procedures, tank inspection requirements, cargo nominations and documentation.

It will also be brought to the attention of the Master that Al Rayyan Crude Oil contains hydrogen sulphide (H_2S).

The Master will be handed a "Material Safety Data Sheed (MSDS)", which provides important safety information about Al Rayyan Crude Oil.

Deballasting and loading of cargo cannot commence unless specifically authorised by the Pilot/Loading Master.

Combination Carriers: The ballast and cargo handling activities on board a combination carrier require safety precautions and operational practices which are in addition to those necessary for conventional tankers. Reference should be made to "ISGOTT".

Ship/Shore Radio Communications: The Pilot/Loading Master will provide, on loan to the Master, a portable radio which will remain on board throughout the vessel's stay in the berth. The radio is to be kept switched on at all times, so that tanker and Terminal personnel can maintain voice contact on the dedicated Terminal radio frequency. The radio must be used for operational communications exclusively. It must be used responsibly. Should the radio be lost or damaged while under the care of vessel personnel, then the cost of a replacement will be charged to the vessel's Owner. The Pilot/Loading Master must be notified if the radio seems to malfunction.

In addition, the vessel should keep its marine VHF Channel 69 available as a back-up means of communications. For this purpose, the vessel's wheelhouse must remain accessible and unlocked.

If all radio communications between the Terminal Control Room and the vessel are lost, then all operations shall be stopped until corrective action is taken, and communications have been restored.

Throughout all operations, a responsible ship's Deck Officer shall be on duty. At least 2 capable crew members shall be present on the cargo deck at all times and maintain voice contact with the Officer on watch.

Pre-Loading Tank Inspection: The Pilot/Loading Master does not inspect cargo tanks prior to loading or sign a vessel's "Dry Tank Certificate".

An independent cargo surveyor may witness the gauging of vessel's tanks prior to loading cargo.

Loading: Two loading pumps are available for loading. Each pump is rated at 3,500 cu.m./hr.

The Master is cautioned of the serious consequences of closing or throttling tanker cargo valves against the incoming flow of oil.

Sufficient crew shall be on deck to deal with the operation and security of the vessel.

The ship/shore communications system must be maintained in good working order and checked hourly by exchanging information on quantity loaded at that moment.

The cargo manifold connection and the cargo pumproom should be checked for leakage regularly.

The Duty Deck Officer must notify the Pilot/Loading Master when the vessel is ready in all respects to receive cargo. Cargo transfer will not be started unless tanker and storage tanker manifold locations are visually monitored.

Cargo loading will start at a slow rate until the vessel confirms that cargo is being received on board. At such time, the flow will be increased to the agreed maximum rate.

The vessel can reduce the loading rate at any time (e.g. for topping-off cargo tanks or towards completion of loading), but at least 15 minutes advance notice must be given to the Pilot/Loading Master on each occasion.

Tank Venting: The vessel shall ensure that venting of cargo tanks is done through the designated venting system of the vessel.

The atmosphere of inerted cargo tanks should not be allowed to become flammable when deballasting from cargo tanks.

Tanker Manifold Watchkeeper: A watchkeeper with a radio must remain stationed at the cargo manifold throughout loading of cargo.

Cargo Quantities and Commercial Documentation:

Cargo Measurement: Immediately after completion of loading, tanker cargo figures should be calculated by the Master or Chief Officer and communicated to the Pilot/Loading Master.

An independent cargo surveyor may witness tank measurements on board the vessel and perform his own cargo calculations.

The Bill of Lading figures are solely based on measurements and calculations carried out on board the storage tanker.

Cargo Documentation Package: The following cargo documents are included in the documentation package:

Bill of Lading.
Cargo Manifest.
Certificate of Quality.
Certificate of Quantity.
Certificate of Origin.
Tanker Ullage Report.
Tanker Time Sheet.
Tanker Notice of Readiness (TBP by incoming Tanker).
Master's Receipt for Cargo Documents and Samples.

It is Terminal practice that all cargo documents are completed and presented to the Master for his signature before the vessel commences its sea passage.

BALLAST: *Ballast Handling:* Deballasting may only commence after prior consent from the Pilot/Loading Master.

There are no dirty ballast reception facilities at the Terminal. Arriving vessels must have pumps, lines and ballast tanks clean.

It is an offence under the legislation of the State of Qatar to discharge polluted ballast water into the sea, and penalties apply in case of violation.

Cargo piping used for the discharge overboard of ballast must be clean and free of oil prior to arrival at the Terminal.

The tanker's Master must ensure that the vessel will not release oil overboard when opening sea valves in connection with deballasting or emergency ballasting.

A vessel with contaminated ballast will be required to retain such ballast on board at the exclusion of cargo.

A responsible member of the vessel's crew shall observe continuously the discharge of ballast water, day or night, and shall be in voice communication with the ship's Officer on watch.

Concurrent Loading and Deballasting: Should a vessel wish to deballast and load concurrently, then the Master must demonstrate to the satisfaction of the Pilot/Loading Master that there is a complete physical separation or at least a reliable two-valve segregation between ballast and cargo sections.

MEDICAL: Emergency treatment is available from the Terminal on a limited scale. Medivac by helicopter can be arranged for serious cases.

FRESH WATER: Not available.

FUEL: Not available.

REPATRIATION: Not possible.

TIME: GMT plus 3 hours.

SAFETY: *Note:* Not all safety requirements reproduced hereunder.

State of Readiness: No repairs or work, which will make the tanker unable to move under its own power, may be commenced without the prior consent of the Terminal Supervisor.

In general, such consent will be refused as it is crucial that the vessel keeps ready its main propulsion, steering gear and other machinery required for unmooring and manoeuvring throughout its entire stay in the berth. Routine maintenance work, which would affect propulsion and steering systems and other essential equipment, is not permitted.

In case, where through force majeure, a vessel becomes immobilised while in the berth, the Master must immediately advise the Pilot/Loading Master, so that a decision can be made on remedial action, including suspension of operations.

During the onset of extreme weather, the vessel will be required to vacate the berth. Such measure is designed to protect both the Terminal facilities and the vessel, and will be the decision of the Terminal Supervisor exclusively. The vessel should be prepared to take on additional ballast water if insufficient cargo is on board for it to achieve a safe manoeuvring draft.

Inert Gas System (IGS): The tanker Master shall confirm before berthing that the IGS is working correctly, i.e. maintaining positive pressure in all cargo tanks with an oxygen content of not more than 8% by volume. The Pilot/Loading Master will check the actual oxygen contents in cargo tanks before the vessel proceeds to the berth.

If the IGS is not functional, then deballasting from cargo tanks cannot commence. If the IGS fails after deballasting from cargo tanks has already begun, then such deballasting must be suspended until the system has been made functional again. If repairs are likely to take more than 6 hours, then a safe deballasting/loading plan must be agreed between the Master and the Pilot/Loading Master before operations can resume.

Hydrogen Sulphide (H_2S): Al Rayyan Crude Oil contains hydrogen sulphide, and the Master must ensure that vessel personnel are aware of the toxicity of this gas and that precautionary measures have been taken. "ISGOTT" should be consulted.

Adverse Weather: When wind gust speeds reach 30 knots on the Terminal wind speed indicator, the vessel will be notified that deballasting and loading operations may have to be suspended, and the loading hose disconnected from the manifold and hung off the side of the vessel if conditions worsen. The Terminal Supervisor determines at which point wind conditions necessitate an actual halt of operations.

Alcohol and Drug Control: All visiting vessels must adhere to OCIMF guidelines concerning the control of alcohol and drugs for watchkeeping personnel.

Non-compliance will result in a suspension of all operations until the situation has been rectified.

On Board Shifting of Bunker Fuel Oil: The vessel shall request permission from the Pilot/Loading Master prior to the on board shifting of bunker fuel oil, if such an activity is necessary for operational reasons.

Vessel Garbage Disposal: Garbage generated by the vessel must be retained in plastic bags or receptacles, which are kept securely tied or closed. It is a punishable offence to dump garbage into the water.

GENERAL: *Weather Forecasting Services:* Local weather forecasts for the area of the Terminal, both short term and long term, are issued daily at 0945 hrs. The Terminal will provide the local forecast to vessel's Masters at their request. The weather forecast is also broadcast in a continuous transmission on VHF Channel 72. A voice recording of the weather forecast can also be accessed via local telephone number 974-366111.

Tidal Information: Daily tidal predictions are available from the Terminal. The maximum tidal range is approximately 160 cm.

Provisions and Stores: Not available.

APPENDIX: *Tanker Information Sheet:*

TANKER INFORMATION SHEET

Lifting number:
Arrival date and time:
Vessel name:
Call sign:
Master's name:
Total number of crew:
Port of Registry:
Official number:
Year built:
Gross tonnage:
Summer deadweight:
Length overall:
Width overall:
Owner's Name:
Charterer's Name:
Operator's Name:
Arrival draft – forward:
– aft:
Departure draft – forward:
– aft:
Cargo nomination:
Cargo requested:
Max. loading rate requested:
Max. loading rate agreed:
Cargo tank ballast on board:
Segregated ballast on board:
Part cargo on board:
Slops on board:
Bunker fuel oil on board:
Previous port:
Next port:
ETA at next port:
Discharge port:
ETA at discharge port:
TOVALOP Certificate expiry date:
CLC Certificate expiry date:
Inmarsat contact numbers:
Pilot/Loading Master's name:
Tug's name:

OPERATOR: ARCO Qatar Inc., P.O. Box 22277, Doha, Qatar. *Tel:* (974) 446-390. *FAX:* (974) 364-092. *Contact:* R. Morris, Production Manager.

Romania

GENERAL: (Also see Page 1811)

SPECIAL REGULATIONS: Paragraph 2:
Delete and substitute: Only draft marks and load line may be painted in port, but with Port Authority permission. Fines are imposed if other painting or maintenance carried out.

Thailand

MAP TA PHUT: (Also see Page 2082)

(See Late Plans)

(E) NATIONAL PETROCHEMICAL PUBLIC CO. LTD.

LOCATION: The Terminal is referred to as "NPC Terminal". The Terminal is owned and operated by National Petrochemical Public Company Limited (NPC). It is situated on the Eastern shore of the Gul of Thailand, approximately 220 km. from Bangkok, at Lat. 12° 38' 08" N. Long. 101° 08' 04" E.

The Marine Terminal consists of one berth for importation/exportatio and internal distribution of petrochemical/chemical products, which is located approximately 4.2 km. offshore and connected by a pipeline jetty to Buffer Tank Farm on shore.

PILOTAGE: Pilots must be ordered for both inward and outwar passages by the ship's Agent. VHF Channel 16 is always monitored. The Pilot uses a service boat to board arriving vessels or vessels a anchorage.

RESTRICTIONS: Berthing and unberthing daytime and night-time.

MAX. SIZE: Maximum 9,000 d.w.t. Minimum 1,000 d.w.t.

Max. LOA 170 m. Min. LOA 60 m.

The normal maximum draft for vessels arriving or departing from the loading platform is 8.5 m. This draft relates to depth in front of the loading platform, where the depth is 9.0 m. Chart Datum (LLW).

The existing depth allowance for underkeel clearance is 1.0 m.

Maximum draft for vessels arriving or departing can be stated as being 8.0 m., plus the height of the tide at that time.

VESSEL REQUIREMENTS:

1. Vessels must have been properly cleared and accepted by NPC Terminal. Only such liquefied gas and chemical vessels, which comply with the recommendations of IMO, and have a vali certificate relating to:
   (a) The code for existing ships carrying liquefied gases in bulk (Resolution A.329 (IX));
   (b) The code for the construction and equipment for ships carrying liquefied gases in bulk (Resolution A.328 (IX));
   (c) The international code for the construction and equipment o ships carrying liquefied gases in bulk (IGC) (Resolution MSC 5 (48));
   (d) The code for the construction and equipment of ships carrying dangerous chemicals in bulk (Resolution A.212 (VII));
   may operate at the berth.
2. Vessel must have given proper notices through the ship's Agent t the Terminal by facsimile, and Terminal approval given to procee to the berth prior to arrival. The Notices of Arrival should contain the following:
   (a) Name and call sign of the vessel.
   (b) ETA at NPC Terminal.
   (c) Vessel's particulars.
   (d) Details of cargo, such as quantities, etc.
   (e) Details of ship's manifold, including type, size and numbers.
   (f) Whether the ship has external impressed cathodic protection.
3. Vessel must be in good state of repair, and all equipment properly functioning prior to proceeding to berth. Vessel must be presente in every respect ready to load/unload product at temperature an pressure in accordance with notice.
4. Vessel will not be acceptable for loading/unloading unless the tanks to be loaded/unloaded and ship's piping are free of any liquid o vapour, which would knowingly contaminate or degrade the product

RADIO: See "Vessel Requirements" – No. 2 above.

TUGS: Tug service is arranged by the ship's Agent.

Tugs are required for mooring and unmooring operations.

The number of tugs employed will vary according to the size of the vessel and prevailing weather conditions. Under normal circumstances, one tug is required for vessels up to 110 m. LOA. Two tugs are require for vessels over 110 m. in the Monsoon season. At least one tug must stand-by in the vicinity nearby whilst vessel alongside.

Mooring Gang: Running of mooring lines and releasing of mooring lines, except in an emergency, is handled by mooring gang and is arrange by the ship's Agent.

BERTHING: *Berthing Details:* On the jetty, the fenders and fendering structures are designed to absorb at normal working stress levels, the energy impacted by vessels approaching the jetty at a maximum velocity of 0.25 m./sec. and a nearly parallel approach to the berth. Design is based on a 9,000 d.w.t. vessel.

Mooring Details: Depth alongside the jetty face is 9.5 m. LAT. Approximately 1.0 m. should be allowed for siltation.

Vessel sizes may vary from 1,000 d.w.t. to 9,000 d.w.t.

Smaller or larger vessels may be accommodated. However, specia approval must be obtained prior to scheduling.

Six mooring dolphins are provided to take the breast lines, and the head/stern lines from vessel. The spring lines are led to 2 breasting dolphins. The mooring dolphins are rigid structures consisting of circular piles with a concrete caps. The bollards are fixed on top of each mooring dolphin and breasting dolphin, and are capable of withstanding a stress of 50 tons each.

Berthing Procedure:

(a) Berthing/unberthing is permitted both daytime and night-time. The Government Pilot will board the vessel at anchorage area and will assist the Master in manoeuvring the vessel to berth.

(b) One or two tugs of adequate power will normally assist the vessel in berthing/unberthing. They will also stand-by in the vicinity nearby and ready to take the Master's or NPC's Loading Master's order regarding abrupt change in weather conditions.

(c) One or two mooring boats are used to send lines ashore.

IMPORTANT NOTICES:

All mooring equipment and lines must be in 1st Class working condition.

Synthetic tails without proper connection or spliced mooring lines are not allowed.

Mixed moorings are occasionally acceptable as long as they are not used in the same direction or to the same points.

While manoeuvring for berthing at NPC Terminal, it is essential that the vessel's engine performs promptly and accurately. It is recommended that trial engine manoeuvres are tested before the vessel enters the confines of the port.

Self-tension winches fitted with automatic rendering and hauling should not be used in automatic mode while the vessel is moored.

A sufficient number of personnel to deal with an emergency must be present on board the vessel at all times during the vessel's stay at berth.

While the vessel is at the berth, her boilers, main engines, steering machinery and other equipment essential for manoeuvring should be maintained in condition that will permit the vessel to move away from the berth at short notice.

All vessels, while lying alongside NPC Terminal, must strictly follow the Terminal's Rules and Regulations.

The maximum permissible drift parallel to the platform about the centre of the appropriate loading/unloading hose or arm is 2.0 m.

Wind Speed Limitation for Loading Arm Operation: As safety operations procedure, when the Terminal wind indicator indicates the wind is blowing at 18 m./sec. or more from any direction, the Terminal will take the following precautions/actions:

(a) Inform vessel's personnel to be alort on moorings.
(b) Stop discharging/loading.
(c) Drain loading arms.
(d) Disconnect loading arm.

The said limitation is to ensure that the disconnection of loading arms will be completed before the wind speed reaches the maximum limitation for operating conditions of the loading arms (21 m./sec.).

Emergencies:

(a) The berth is equipped with the E.S.D. system.

In an emergency, the Operator can push a single button to stop loading operations/discharging operations at the berth. This button will stop shore's loading pumps and closes all valves concerned.

It is imperative that a constant watch is maintained on deck while discharging. In case the emergency shut-down is activated, vessels have to *stop immediately all cargo pumps.*

(b) Emergency Release Coupling (E.R.C.) – All the loading arms are equipped with the emergency release coupling (E.R.C.) system, which hydraulically allows disconnection of arm flanges from ship's manifolds in the following cases:
(i) When loading arm travels over the disconnection alarm point.
(ii) When the emergency disconnection button is pressed at the loading arm control console on the gangway tower.

In the event of mishaps, the loading will be stopped by emergency shut-down sequence. The closing speed (5-30 seconds) is controlled to restrict surge pressure after disconnection, the loading arm will be returned to safety area and will be locked.

Ship's Manifold Requirements: No vessel's flexible hoses are allowed to be connected to the loading arms. Since the berth is equipped with loading arms of various types and sizes, they should be used in accordance with their own operating limits.

If the vessel's manifold is unfit for the loading arms after all possible attempts, the Terminal will reject the vessel.

Gangway: Gangway consist of gangway, bulwark ladder and turntable. Length of gangway is adjustable in order to be operated more safely. Hooking-up and unhooking of gangway is performed by jib crane.

Operation Conditions:

Weather conditions:	
Max. wind speed in operation	10 m./sec.
Vessel conditions:	
Max. deck height from platform	–0.75 m.
Min. deck height from platform	–9.55 m.
Gangway load conditions:	
Gangway	5 persons
Bulkwark ladder	2 persons
	(assuming 75 kgs/person)

Restrictions: When operating gangway, it is strictly prohibited to place persons and/or objects on it.

Loading limit must be strictly kept.

On operation of gangway, the maximum number of persons on bridge at one time must be 5 persons.

When any danger is expected due to strong wind, gust and others, do not operate.

Heavy walking on bridge should be prohibited and resonance by walking should be prevented.

Cathodic Protection: Impressed current cathodic protection system, if fitted, must be switched off at least 3 hours before mooring operations.

Firefighting Equipment: The firefighting system at the jetty consists of elevated and tele-controlled monitors. There are 2 monitors installed on the berth, one at the monitor tower and one at the gangway tower. The monitors are mounted at a sufficient elevation to cover the manifold from the smallest vessel when fully loaded (lowest tide) and the largest vessel at light condition (highest tide).

The monitors and the fire pumps are remote controlled and can be used with foam and/or water compound, and can also be used with dry powder.

Fixed water spray systems are provided for both monitor tower and gangway tower in order to protect them from heat radiation.

Several hydrants, portable fire and dry powder extinguishers are installed on the operating platform. All tugs are fitted with firefighting monitors for both water and foam.

LOADING/UNLOADING: *Cargo Calculations:* Sampling, ullaging and quantity calculations will be carried out after berthing, concurrently with Immigration and Port Health Authority formalities, or concurrently with the connection of loading arm. The calculations procedure will be attended by Customs Officials anad Terminal's representative.

Safety and Pollution Check Lists: Ship/shore safety and pollution check lists are to be completed jointly between vessel and Terminal's representative prior to loading or discharging. The Loading Master will coordinate cargo operations between the vessel and shore.

Cargo Operation Requirements and Restrictions: The following requirements and restrictions must be strictly complied with during discharge at NPC Terminal:

(a) Ensure that no water is pumped into the shore lines. All ship's sea suction valves must be closed and sealed before discharge.

(b) Ship's dirty ballasting is not allowed during discharge. However, separate ballast tanks may be used.

(c) Ballast may be discharged to the sea, and it is the Master's responsibility to ensure that the ballast is clean.

(d) Ship's mooring conditions.
   (i) It is the ship's responsibility to maintain a safe mooring at the berth at all times.
   (ii) The tension of mooring lines must be tight, and they must be secured to the satisfaction of the Loading Master.

   Any unsafe mooring equipment or conditions resulting in stopping cargo operations and possible loading arms disconnection, the lost and cost of loading arms disconnection will be for the ship's account.

   (iii) The offshore anchor is always required while approaching the berth. The anchor should not have less than 4-6 shackles in the water.
   (iv) In the event of unsafe mooring situation created by ship's negligence or by weather conditions, tug(s) might be necessary for assistance, as deemed by the Loading Master.

   The cost of the tug(s) will be for the ship's account.

Loading/Unloading Rates:

Product	*Max. Rate* (cu.m./hr.)	*Max. Pressure* (kg./sq.cm.)	*Temperature*
EDC	240	10.0	50°C max.
Ethylene	500	10.0	–103°C max.
Propylene	550	20.0	0 – 40°C
Butene-1	150	11.0	0 – 40°C
VCM	225	5.5	25 – 44°C
NaOH	100	7.0	20 – 50°C

Emergency: In case of fire onboard, discharging/loading operations must be stopped immediately. General alarm should be given to the Terminal for Terminal's assistance to vacate the berth.

In case the ship moved away from original mooring position, the following procedure should be conducted to protect the loading arms from being damaged:

(a) Stop cargo pumps.
(b) Close ship's manifold valve.
(c) Promptly utilise tug(s) for pulling/pushing the vessel in windward direction.
(d) Activate E.R.C. to release loading arm.

In the event of fire ashore:

All loading/unloading and/or ballasting operations must be stopped immediately.

Close all tank openings and batten down.

Prepare vessel for immediate departure.

Await instructions from shore.

Emergency escape:

(i) The vessel's offshore lifeboat shall be rigged ready for immediate lowering as an emergency escape.
(ii) A pilot ladder shall be rigged or positioned on the outboard side of the vessel ready for immediate lowering as a means of escape in the event of an emergency.
(iii) The NPC firefighting water monitors, controlled from the Jetty Control Room panel, will give a water spray cover to vessel's gangway if required as a means of escape in a fire situation.

Cargo Handled: Propylene, Butene-1, Hexene, Ethylene, EDC, VCM, NaOH.

Cargo Arms:

Size of ship's flanges: Propylene, Butene-1, Hexene: 1×8 in. (liquid), 1×4 in. (vapour). ANSI 300 FF.
Ethylene: 1×8 in. (liquid), 1×3 in. (vapour). ANSI 150 FF and ANSI 150 FF (vapour).
EDC: 1×8 in. ANSI 150 FF.
VCM: 1×6 in. (liquid), 1×3 in. (vapour). ANSI 150 FF.

Cargo Hose:

Size of ship's flange: NaOH: 1×4 in. ANSI 150.
Pumping rate: 100 cu.m./hr.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: *Storing:* Storing and victualling of vessels may be permitted during operations, but only with permission of both the Terminal Manager and the Master of the vessel, provided that:

(i) Access to the Terminal is not obstructed.

(ii) Cargo operations remain adequately supervised.

(iii) Cargo operations which may allow vapours to escape on deck, e.g. sampling, ullaging, deflexing, etc., are suspended.

(iv) Drums of oil, paint, steel plates, gas cylinders or any other heavy metal parts, which may cause a spark, should be landed on rubber or other suitable matting and not directly onto vessel's deck. These items must not be dragged or rolled along the deck.

(v) If an oil spillage occurs, the oil shall be disposed of by mopping up or by a method agreed by NPC's representative. Drip trays must always be used when pipeline connections are broken. Under no circumstances shall oil be washed overboard.

(vi) The platform crane is for hose handling and other purposes. It may only be operated by the Terminal personnel and may only assist in loading items of stores, provided that they are within the safe working limit of the crane, and the Terminal personnel are available to operate without detriment to other duties.

(vii) The appropriate document indemnifying NPC against all accidents has been signed.

(viii) The designated point for setting down of vessel's stores is at the discretion of the Terminal personnel.

(ix) If the above criteria are not met, NPC reserves the right to refuse permission.

Supply Vessel: No supply vessels are allowed alongside. All supply vessels used for victualling will berth at the small boat platform or shore small jetty.

Bathing and Fishing: Bathing and fishing will not be permitted from the platform and approaches or from the vessel whilst alongside.

WEATHER: *Tides:*

HAT	+3.50 m.	(highest astronomical tide).
MHHW	+3.00 m.	(mean higher high water).
MHW	+2.80 m.	(mean high water).
MSL	+2.20 m.	(mean sea level).
MLLW	+1.40 m.	(mean lower low water).
LAT	+0.50 m.	(lowest astronomical tide).

Tidal Currents: Pass from East to West during flood tides with mean velocities of 0.16 m./sec. and maximum velocities of 0.34 m./sec.

Pass from West to East during ebb tides with mean velocities of 0.13 m./sec. and maximum velocities of 0.23 m./sec.

Waves: The wind induced waves at the loading platform are mainly from South and S.W. directions. The maximum height of waves is 2.8 m. at wave period of 8 seconds.

Winds: The predominant wind directions are:

From the South during February to May.

From the S.W. during June to September.

From the North during October to January.

Mean monthly wind speed of 13.9 km./hr. or 3.9 m./sec., weak breeze.

Mean of maximum velocity of 135.3 km./hr. or 37.6 m./sec. Typhoon in November from the North.

Strong winds of more than 10 m./sec. are, however, very infrequent in the area, as are the occurrence of tropical storms.

OPERATOR: National Petrochemical Public Company Limited, 14/-1 Road, Map Ta Phut Industrial Estate, Tambon, Map Ta Phut, Rayong 21150, Thailand. *Tel:* (038) 683-796-8, 683-800. *FAX:* (038) 683-797. *Contact:* Booncherd Suwantip, Jetty and BTF Operation Department Director.

Turkey

GENERAL: (Also see Page 2120)

SHIP'S OFFICER'S REPORT: October 1996.

Transit Through Istanbul Straits:

1. Please see below a copy of our Agent's telex received prior to transit of the Dardanelles and Bosphorus.
2. When transiting the Straits, only the following documents are required:
   1 copy Crew List.
   1 copy Health Declaration.
   Ship's Tonnage Certificate and Derat Certificate are sited.
3. For Istanbul, when approaching from North, the Pilot embarks/disembarks vessel off Kavak Br. Light (about 1.0 – 2.0 nautical miles inside the entrance). When approaching from South, Pilot embarks/disembarks off Hydarpasa Breakwater.

Telex: Re – Transit Turkish Straits:

You are kindly requested to pass us the following report which is needed for the passage:

Confirm we will arrange Pilot for Dardanelles and Bosphorus.

For your guidance, as per new regulations in respect to the transit passages through the Turkish Straits, entered in force on the 1st July 1994, the following main important points have to be taken into consideration:

(AAA) A Traffic Separation Scheme, traffic separation lines and navigation lanes have been set in the Strait of Istanbul, Marmara Sea and Strait of Canakkale.

Diagram charts and coordinates of the Traffic Separation Schemes, prepared in accordance with the guidelines in the "Ships Routeing" publication of the IMO, are shown in Annex C of the "Routeing Guide", which will be put onboard upon the passage through the Canakkale Strait.

(BBB) IMPORTANT

The Owner or Manager of large vessels, which plan to effect passage through the Straits, shall provide information to the LCL Maritime Authorities on the vessel and its cargo at the planning state of the passage. The Authorities, taking into consideration the morphological and phycisal structure of the Straits, the vessel's dimensions and manoeuvre capacity, the safety of life, property, environment and the maritime traffic conditions, shall inform the applicants of the outcome of its review.

GUIDANCE

As per regulations, all vessels over 150 m. LOA are considered large vessels.

However, as per latest circular advice of the Ministry of Transport, Istanbul Area Directorate, application for passage is imperatively required for:

(1) All tanker ships over 150 m. LOA and

(2) Dry cargo ships over 200 m. LOA.

(CCC) Vessels transitting the Straits must give the following report to the Authorities, through their Agents, minimum 24 hours before their arrival:

Name of Report: Sailing Plan 1 (SP 1).

Vessel's name, call sign, flag.
Time (date and time).
Position (reporting position).
Sea speed (max. continuous manoeuvring speed).
Port of departure.
Date, time and point of entry into Traffic Separation Scheme.
Port of destination.
Pilotage requirement, i.e. Strait of Canakkale, Sea of Marmara, Strait of Istanbul.
Forward and aft draft (in meters).
Max. air draft.
Cargo (nature of cargo).
Defect/damage/deficiencies/other limitations.
Description of dangerous, nuclear and pollution goods.
Vessel's type/size:
1. LOA.
2. GRT.
3. Actual displacement (d.w.t.).
Any other useful information concerning the vessel.

(DDD) Vessels – on both directions passage – must contact the Traffic Control Stations or pilot stations minimum 2 hours before their arrival to the Straits entrance (Canakkale and/or Bosphorus), and report by VHF to the Traffic Control Stations as follows:

Name of Report: Sailing Plan 2 (SP 2).

Vessel's name, call sign, flag.
Position (bearing/distance).
Date, time and point of entry into Traffic Separation Scheme.
Pilotage requirement.
Position of the vessel.
Any useful information concerning the vessel.

(EEE) Straits navigation speed is restricted to maximum 10 nautical miles per hour over the ground for vessels proceeding in the Straits.

(FFF) Vessels navigating in the Turkish Straits shall continuously monitor the broadcast of the Traffic Control Centres and follow the Centres' instructions.

(GGG) Main Traffic Control Stations:

Turkeli Lighthouse Control Station (Bosphorus North).
Call name: Turkeli Control.
Position: Lat. 41° 14.12' N., Long. 29° 06.75' E.
VHF: Initial contact Channel 11, Operations Channels 12 and 13.

Kandilli (Bosphorus North).
Call name: Kandilli Control.
Position: Lat. 41° 04.50' N., Long. 29° 03.40' E.
VHF: Initial contact Channel 11, Operations Channels 12 and 13.

Ahirkapi Traffic Control Centre (Bosphorus South).
Call name: Istanbul Control.
Position: Lat. 41° 00.42' N., Long. 28° 59.17' E.
VHF: Initial contact Channel 11, Operations Channels 12 and 13.

Gelibolu Control Station (Dardanelles North).
Call name: Gelibolu Control.
Position: Lat. 40° 24.62' N., Long. 26° 40.93' E.
VHF: Initial contact Channel 11, Operations Channels 12 and 13.

Canakkale Traffic Control Centre (Dardanelles South).
Call name: Canakkale Control.
Position: Lat. 40° 09.07' N., Long. 26° 24.15' E.
VHF: Initial contact Channel 11, Operations Channels 12 and 13.

Mehmetcik Traffic Control Station (Dardanelles South).
Call name: Mehmetcik Control.
Position: Lat. 40° 02.57' N., Long. 26° 11.42' E.
VHF: Initial contact Channel 11, Operations Channels 12 and 13.

(HHH) Pilot Stations:
Rumeli Kavak:
Call name: Kavak Pilot.
Position: Lat. 41° 10.60' N., Long. 29° 04.40' E.
Tel: (212) 2420494, 2420374.
Fax: (212) 2421607.
VHF: Channels 16 and 71.
Istanbul:
Call name: Istanbul Pilot.
Position: Lat. 41° 00.70' N., Long. 29° 00.63' E.
Tel: (216) 3330533.
VHF: Channels 16 and 71.
Gelibolu:
Call name: Gelibolu Pilot.
Position: Lat. 40° 24.50' N., Long. 26° 40.95' E.
Tel: (286) 5661612.
Fax: (286) 5661611.
VHF: Channels 16 and 71.
Mehmetcik:
Call name: Canakkale Pilot.
Position: Lat. 41° 02.57' N., Long. 26° 11.42' E.
Tel: (286) 8446154.
Fax: (286) 8446295.
VHF: Channels 16 and 71.

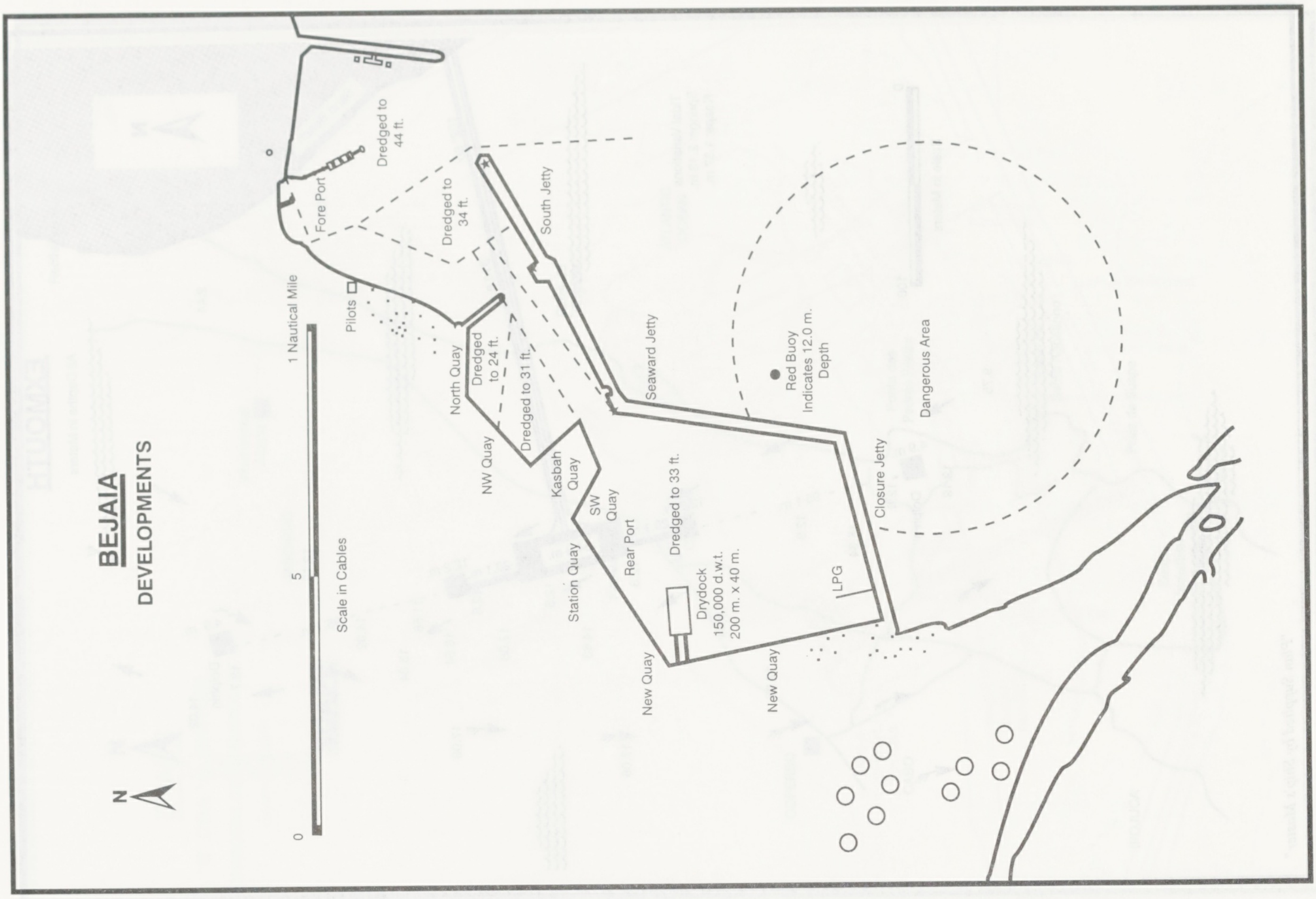
GOLLUK: (Also see Page 2136) (See Late Plans)

PILOT'S REPORT: November 1996.
Pilotage: Available. Pilot can be contacted by VHF Channel 16. Usually berthing manoeuvrings in daytime, but vessels can sail any time, weather permitting.
Tugs: Not available.
Anchorage: Vessels can drop anchor at least 1 mile distance and N.W.'ly from the pier. Depth is approximately 20 m., bottom sand and mud.
Wind: Westerly wind blows daytime and land breeze at night-time during Summer. Northerly wind blows in Winter.
Tide – Current: No regular tide and current.
Density: Average 1027.
Transportation: Highway to all cities. Nearest airports at Bodrum (30 km.) and Izmir (180 km.).
Stevedoring: Vessels must use own cranes. Working hours are 0800 hrs. – 2000 hrs. in Summer, and 0800 hrs. – 2400 hrs. in Winter.
Fresh Water: Drinking water by trucks or by water connection on pier (rate 10 tonnes/hr.).
Fuel: Only diesel oil by trucks.
General: Population – 3,500. Services – Bank, post office (international calls), drug store, fish market, grocery store available.

Ukraine

EVPATORIA: (Also see Page 2154)

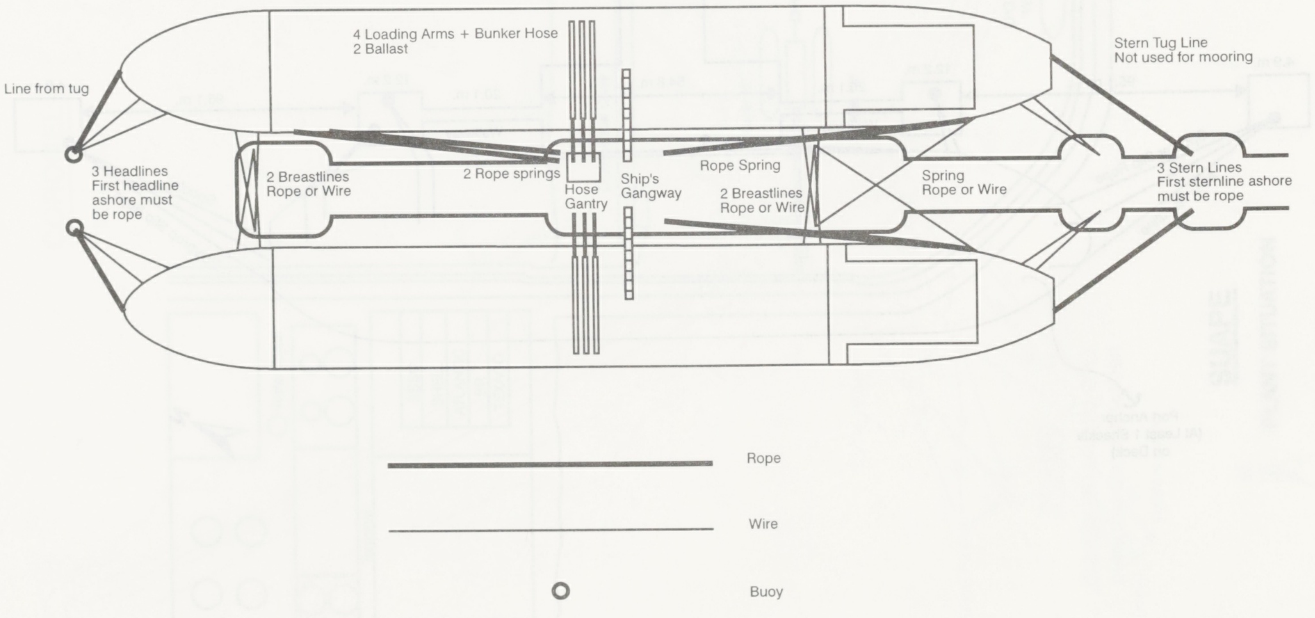
The following information was received in November 1996 and supersedes the information on Page 2154.
LOCATION: The Port of Evpatoria is situated on the Northern Coast of Evpatoriyskaya Bay of Kalamitskiy Bay (Western part of the Crimean Peninsula).
DOCUMENTS: The following documentation is required on arrival:
10 copies Crew List.
10 copies Passenger List.
5 copies General Declaration.
2 copies Crew's Effects Declaration.
2 copies Ship's Stores Declaration.
Cargo Documents.
Bills of Lading.
2 copies Cargo Declaration.
Health Documents.
2 copies List of Arms, Ammunition and Narcotics.
2 copies General Declaration of Crew Members and vessel's cash currency, valuables and objects limited for importation in to Ukraine (Tobacco, spirits, audio, video, etc.).
1 copy Derat Certificate.
1 copy Tonnage Certificate.
1 copy Certificate of Nationality.
1 copy Safety Equipment Certificate.
1 copy Safety Radio Station Certificate.
1 copy Safe Manning Certificate.
1 copy Pollution Liability Certificate.
Master's and Officer's Certificates of Competency, and Seaman's Books of Crew are sighted.
PILOTAGE: Compulsory for vessels over 200 g.r.t. The embarkation and disembarkation of the Pilot is carried out near the Reception Buoy in the vicinity of Karantinniy Cape. Pilot requires 12 hours notice. Pilot station monitors VHF Channels 16 and 14.
Anchorage for Pilot at Lat. 45° 10' N., Long. 33° 23' E.
APPROACHES: The port has an open roadstead that covers the area of Evpatoriyskaya Bay. Depths in the roads are up to 10.0 m.
ANCHORAGES: Anchorage No. 382 is situated 1.1 miles S.E. of Karantinniy Cape. Available depths are 10.0 m. – 12.4 m. Ground is sand and shells.
RESTRICTIONS: When wind speed from a Southern direction is more than 9.0 m./sec., vessels in the roads may be delayed.
MAX. SIZE: Maximum draft for cargo vessels is up to 4.5 m. and max. length 120 m. The restrictions for passenger vessels are 5.0 m. and 200 m. respectively.
RADIO/VHF: Port has communication equipment. Port Radio Station "Evpatoriya Radio 1" can be reached on 500 kHz, 445 kHz or VHF Channel 16. Pilots on VHF Channels 16 and 14.
ETA: Agents and Authorities should be kept well informed of the vessels' ETA and at least 24 hours prior to arrival.
RADAR: No shore based radar stations available.
TUGS: Port has 3 tugs: 1×315 h.p., 2×225 h.p. Number of the tugs depends on g.r.t. For vessels up to 500 g.r.t., one tug is required, and for vessels over 500 g.r.t., 2 tugs are required.
BERTHING: 4 berths are available in the port. 3 berths for passenger vessels (No. 2, 3 and 4), and one berth for cargo vessels (No. 5). Port is equipped with 2 cranes with capacity 5 tons for handling general, bulk cargo, steel products, etc. Warehouses and open storage facilities are available.
CRANES: See "Berthing".
MEDICAL: Medical assistance rendered immediately when required. Hospital facilities available.
FRESH WATER: Available.
DRY DOCK/REPAIRS: No major facilities at port. Mobile repair companies available. No berths dedicated for repair work.
GANGWAY/DECK WATCHMEN: Compulsory. Provided by ship's crew.
OPENING/CLOSING HATCHES: By crew.
REPATRIATION: Facilities exist for changes of crews and repatriation.
AIRPORT: Nearest airport is located at Simpheropol, a distance of 60 km.
TIME: GMT plus 2 hours in Winter. GMT plus 3 hours in Summer.
HOLIDAYS: Official holidays are Sundays and the following calender dates: 1st and 7th January; 8th March; 1st, 2nd and 9th May; 24th August; 7th and 8th November; Easter (one day); St. Trinity (one day).
POLICE/AMBULANCE/FIRE: Police Tel: 02; Fire Department Tel: 01; Ambulance Tel: 03. Ordered through Agent.
IDENTIFICATION CARDS: Required. Shore passes issued.
GARBAGE DISPOSAL: Dry garbage collected into shore based containers.
AUTHORITIES: Port of Evpatoriya, 1 Pl. Moryakov, Evpatoriya, Crimea, 334320 Ukraine. *Tel:* (06569) 32106. *FAX:* (06569) 32076, 61249.
Contact: Dimchenko Nikolay Vasilyevich, Executive Port Director. Tel: (06569) 62577.
AGENT: *General Agent:* Inflot Odessa. Telex: 232124 Inflt Ux.
Local Agent: Sevastopol Inflot Maritime Agency, 5A Pl. Nakhimova, 335054 Sevastopol, Crimea, Ukraine. Tel: (0690) 524411. Fax: (0690) 444851. Telex: 197340 Inflt Ux. Cables: Inflot Sevastopol.
Sevastopol Inflot Maritime Agency in Evpatoria. Tel: (06569) 31036, 51052.


BEJAIA
DEVELOPMENTS
N
1 Nautical Mile
0
5
Scale in Cables
Dredged to 44 ft.
Fore Port
Dredged to 34 ft.
South Jetty
Pilots
North Quay
Dredged to 24 ft.
Dredged to 31 ft.
NW Quay
Kasbah Quay
Seaward Jetty
SW Quay
Rear Port
Station Quay
Dredged to 33 ft.
Drydock
150,000 d.w.t.
200 m. x 40 m.
New Quay
New Quay
LPG
Closure Jetty
Red Buoy
Indicates 12.0 m.
Depth
Dangerous Area

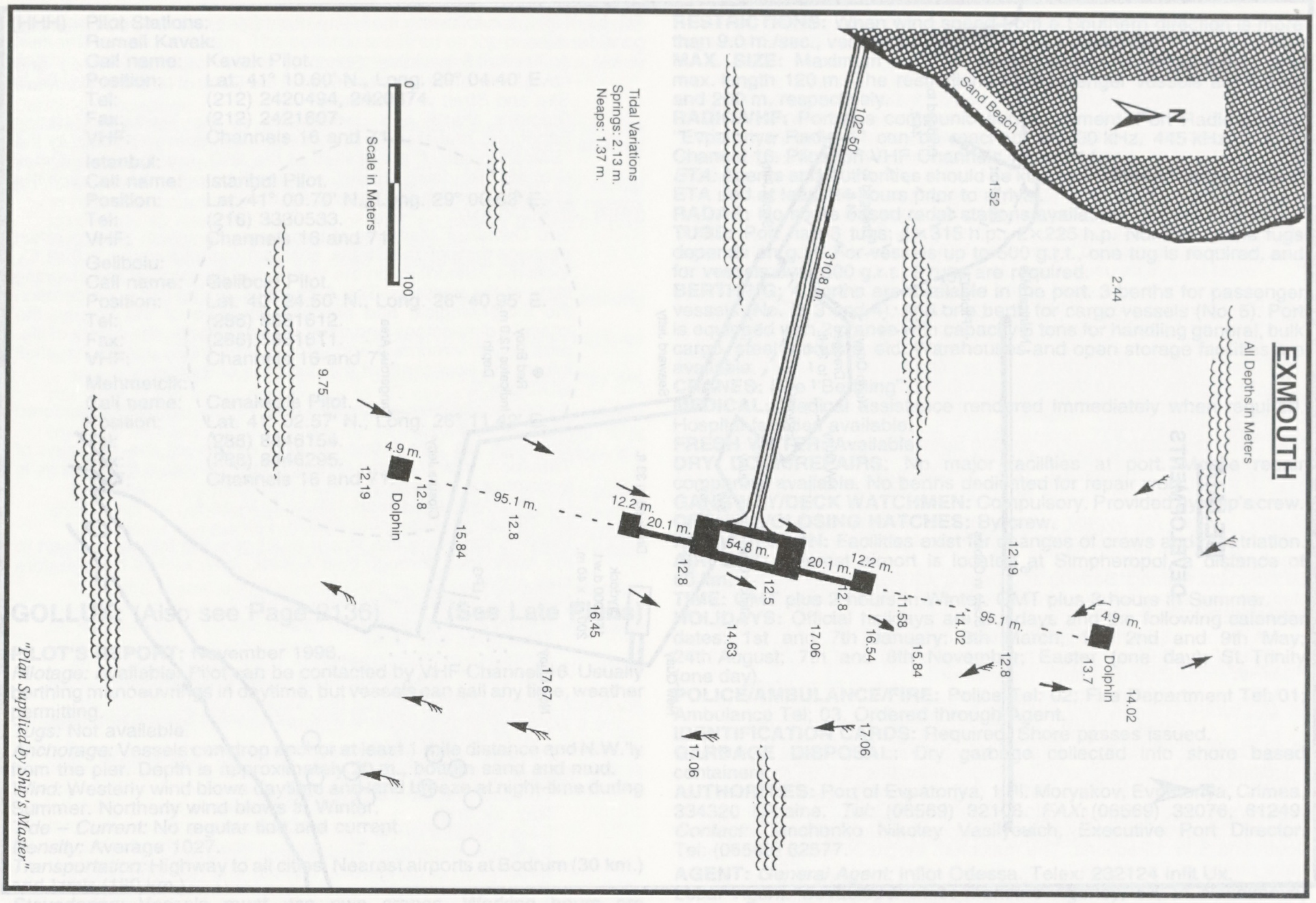
BEJAIA

MOORING ARRANGEMENT VALID FOR ALL THREE PIERS

BERTH DESIGNED FOR 80,000 D.W.T. VESSELS


4 Loading Arms + Bunker Hose
2 Ballast
Stern Tug Line
Not used for mooring
Line from tug
3 Headlines
First headline ashore must be rope
2 Breastlines
Rope or Wire
2 Rope springs
Hose Gantry
Ship's Gangway
Rope Spring
2 Breastlines
Rope or Wire
Spring
Rope or Wire
3 Stern Lines
First sternline ashore must be rope
Rope
Wire
Buoy

AUSTRALIA

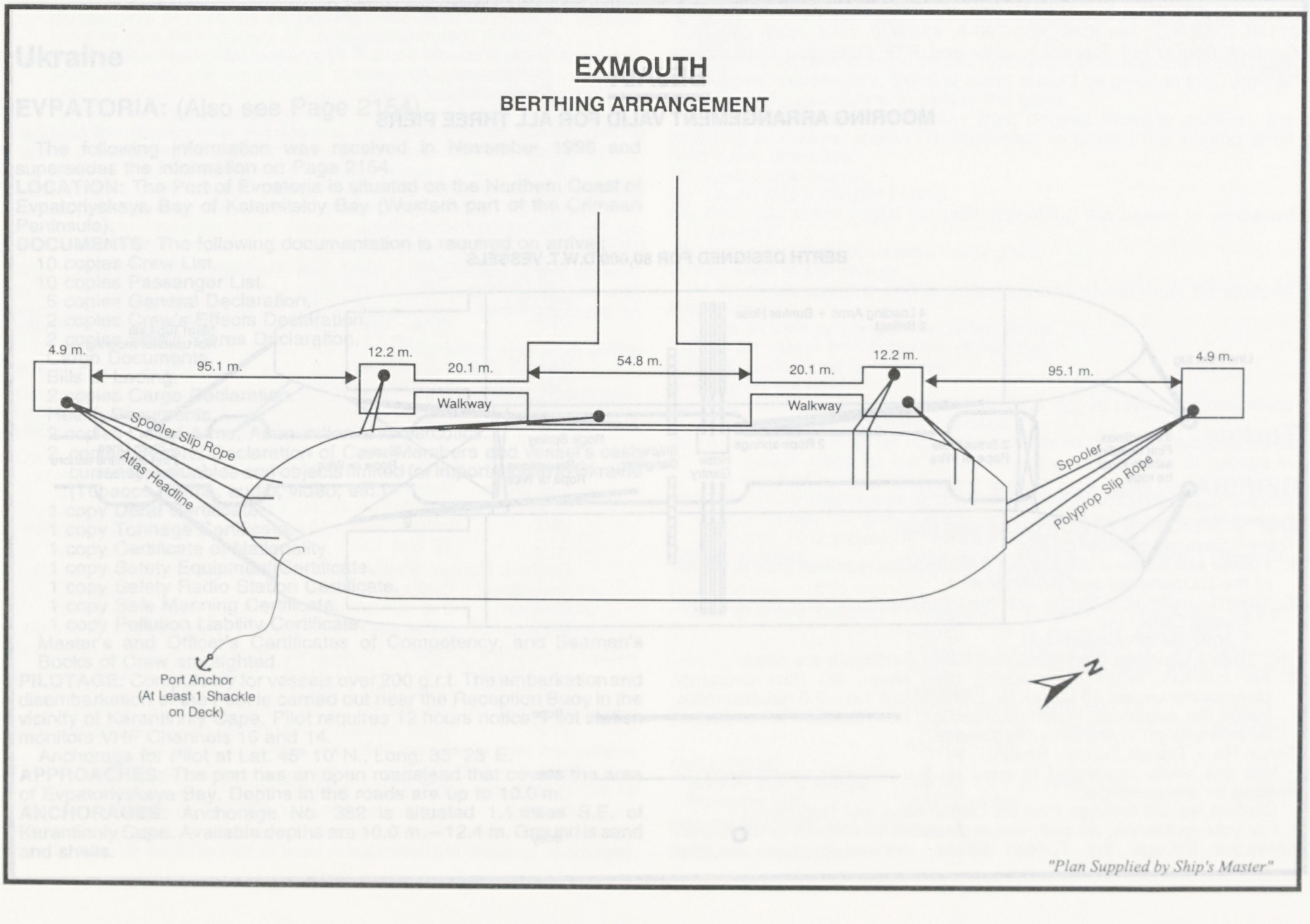

EXMOUTH
All Depths in Meters
N
2.44
Sand Beach
1.52
102° 50'
310.8 m.
Dolphin
4.9 m.
14.02
13.7
12.19
95.1 m.
12.8
14.02
15.84
11.58
12.2 m.
16.54
17.06
12.8
20.1 m.
17.06
12.5
54.8 m.
14.63
17.06
12.8
20.1 m.
12.2 m.
16.45
17.67
95.1 m.
12.8
15.84
12.8
4.9 m.
Dolphin
12.19
9.75
Tidal Variations
Springs: 2.13 m.
Neaps: 1.37 m.
0
100
Scale in Meters

"Plan Supplied by Ship's Master"

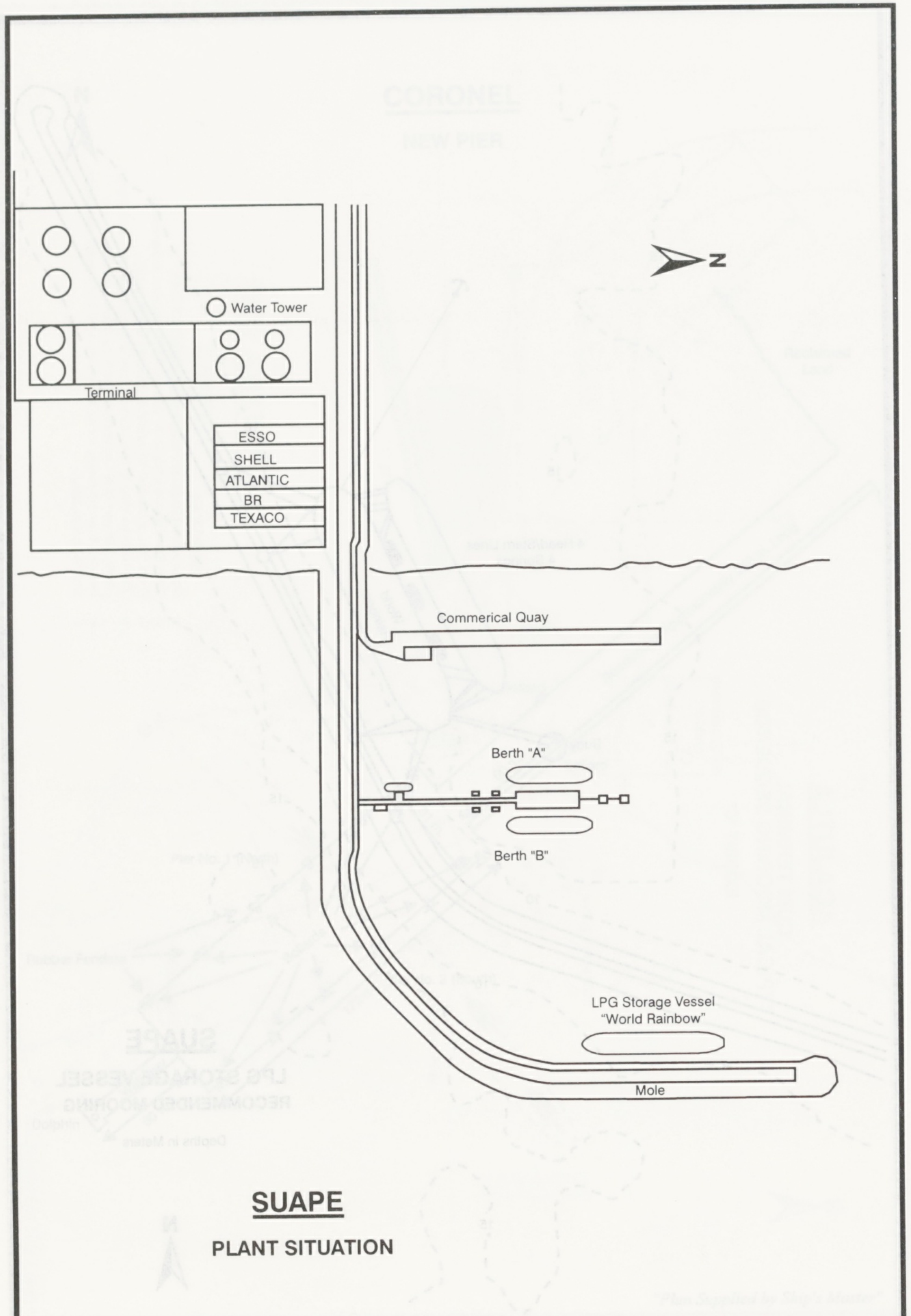
AUSTRALIA

EXMOUTH

BERTHING ARRANGEMENT

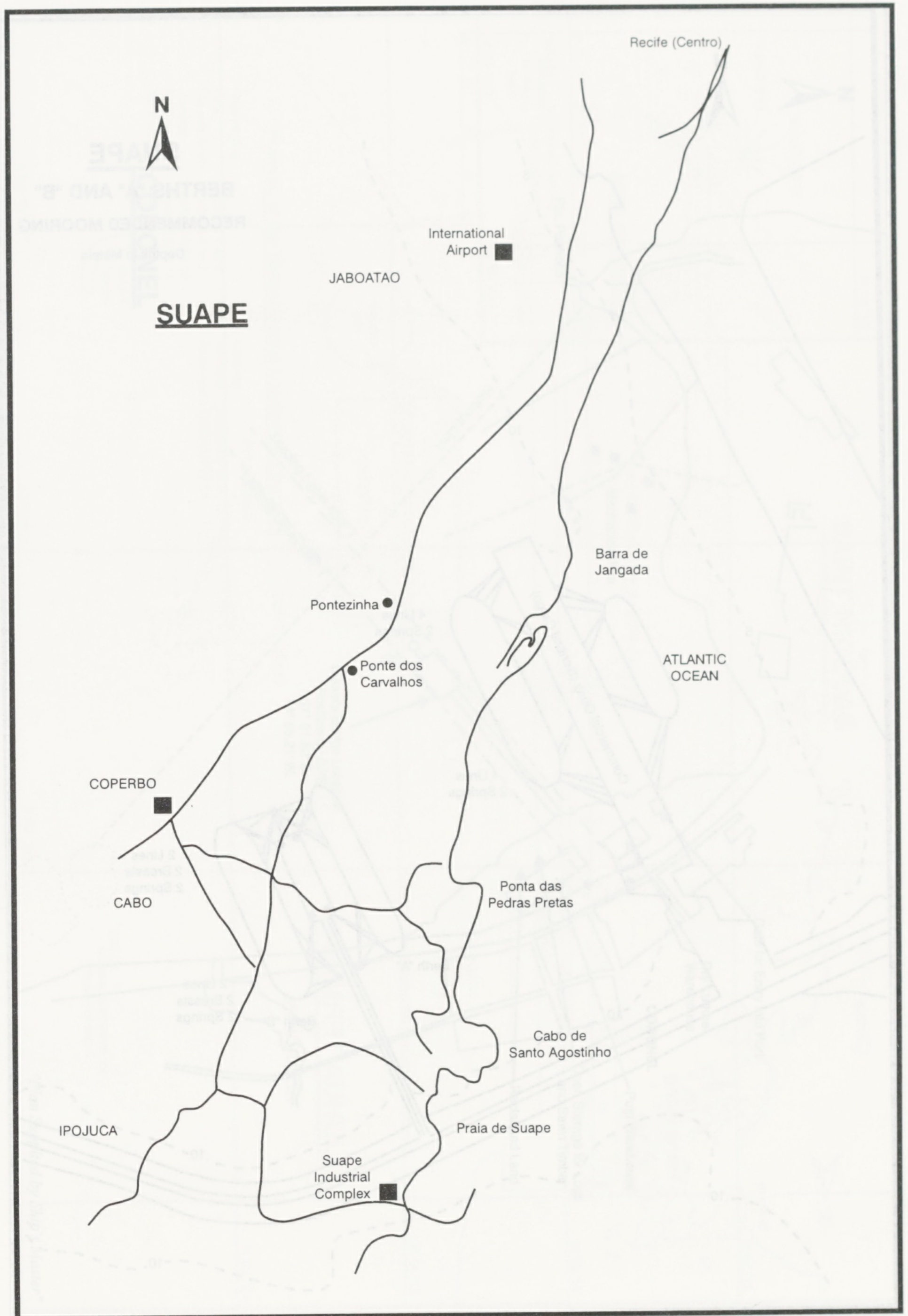

4.9 m.
95.1 m.
12.2 m.
20.1 m.
54.8 m.
20.1 m.
12.2 m.
95.1 m.
4.9 m.
Walkway
Walkway
Spooler Slip Rope
Atlas Headline
Spooler
Polyprop Slip Rope
Port Anchor
(At Least 1 Shackle
on Deck)
N

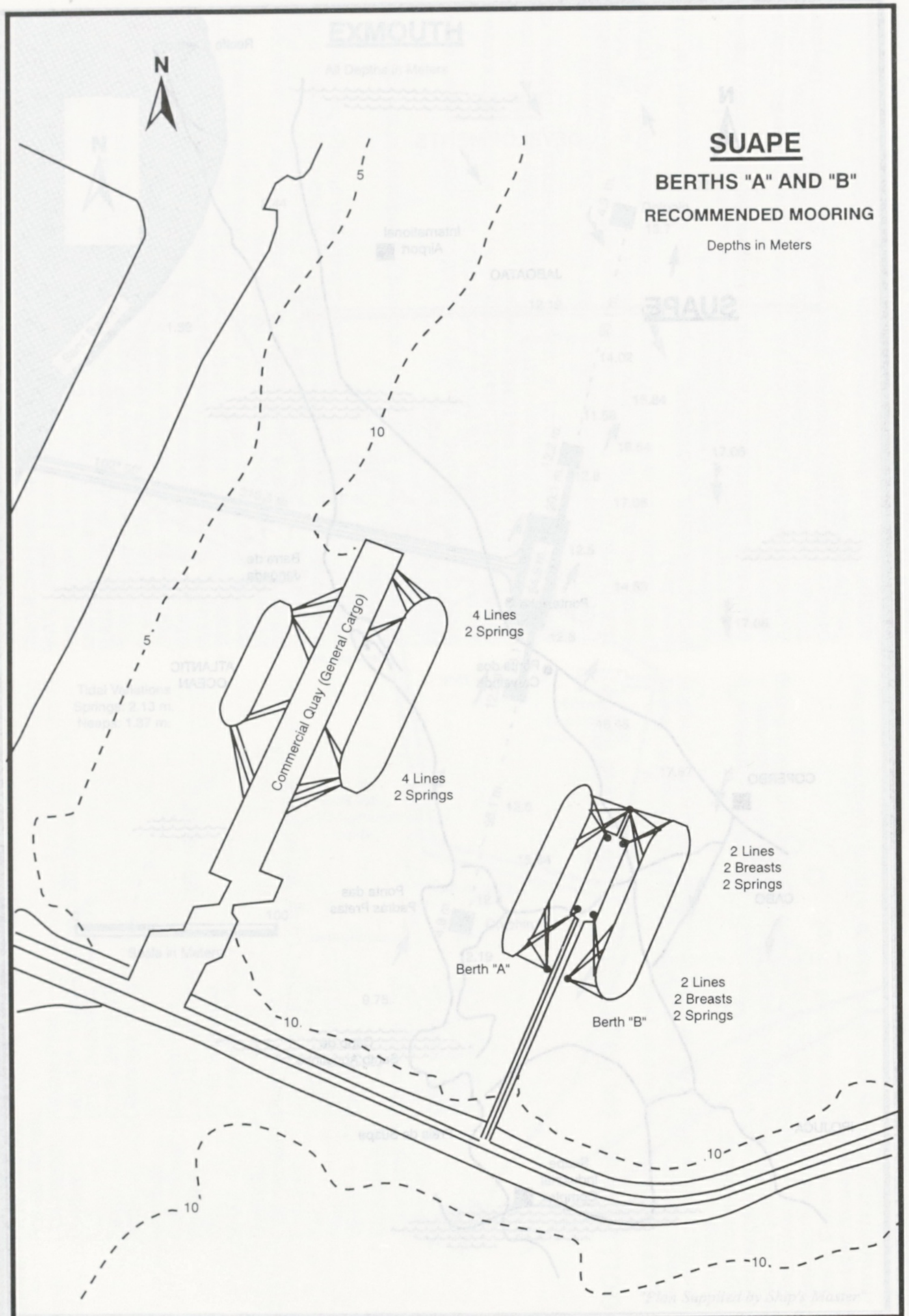
"Plan Supplied by Ship's Master"


N
Water Tower
Terminal
ESSO
SHELL
ATLANTIC
BR
TEXACO
Commerical Quay
Berth "A"
Berth "B"
LPG Storage Vessel
"World Rainbow"
Mole

SUAPE

PLANT SITUATION


Recife (Centro)
N
SUAPE
International
Airport
JABOATAO
Barra de
Jangada
Pontezinha
Ponte dos
Carvalhos
ATLANTIC
OCEAN
COPERBO
CABO
Ponta das
Pedras Pretas
Cabo de
Santo Agostinho
IPOJUCA
Praia de Suape
Suape
Industrial
Complex



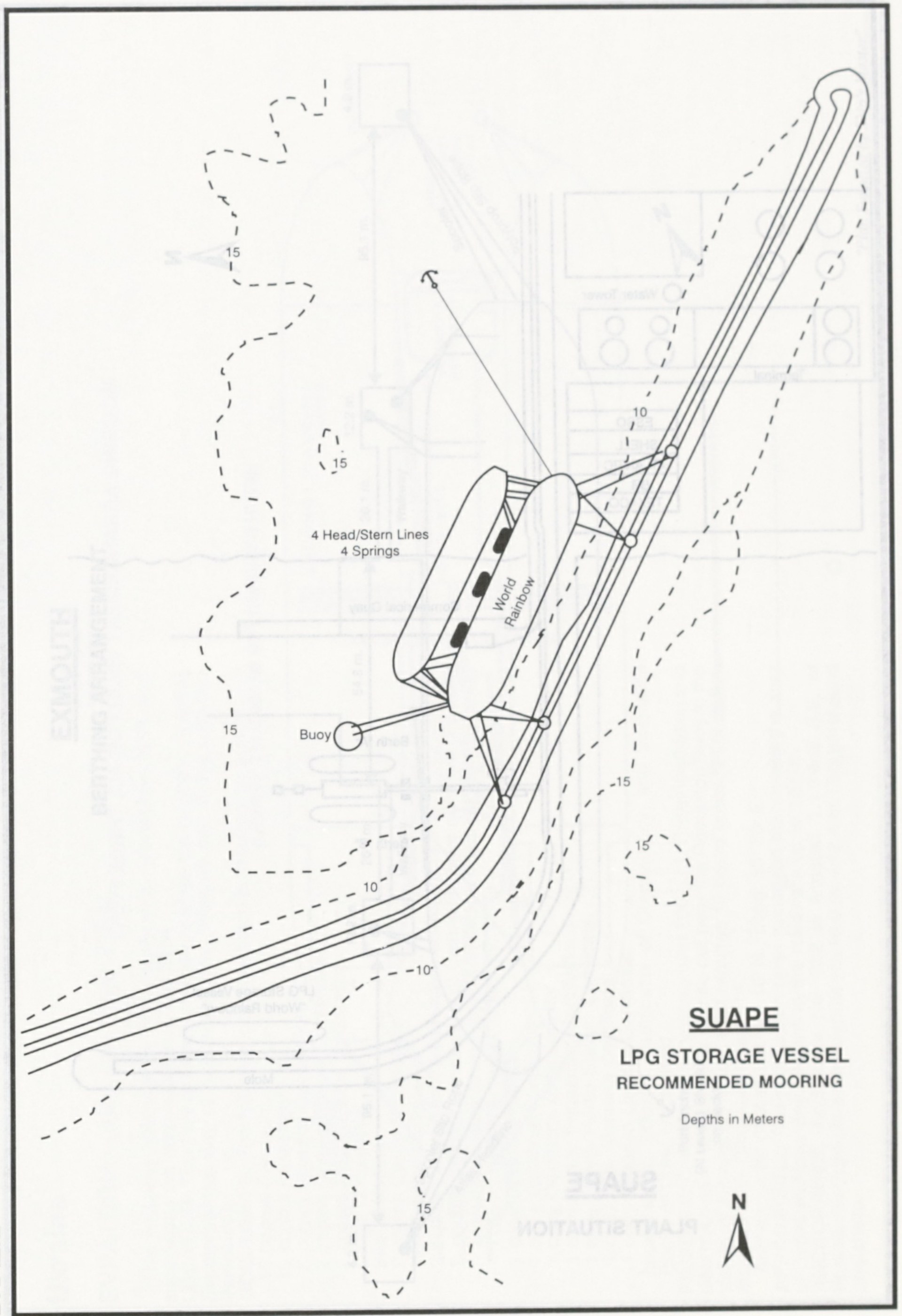
SUAPE

BERTHS "A" AND "B"

RECOMMENDED MOORING

Depths in Meters

N
5
10
5
Commercial Quay (General Cargo)
4 Lines
2 Springs
4 Lines
2 Springs
2 Lines
2 Breasts
2 Springs
Berth "A"
Berth "B"
2 Lines
2 Breasts
2 Springs
10
10
10
10



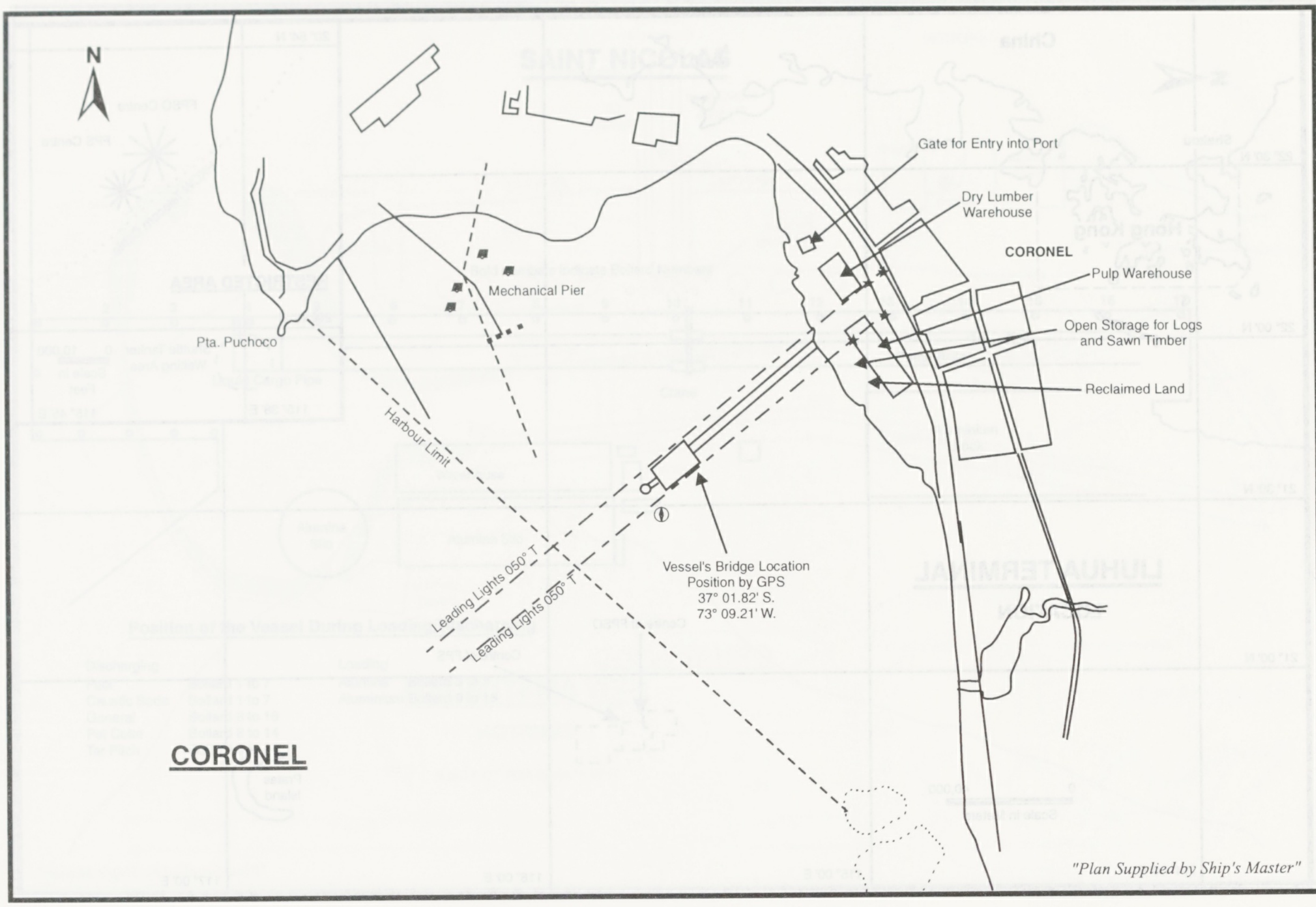
SUAPE

LPG STORAGE VESSEL

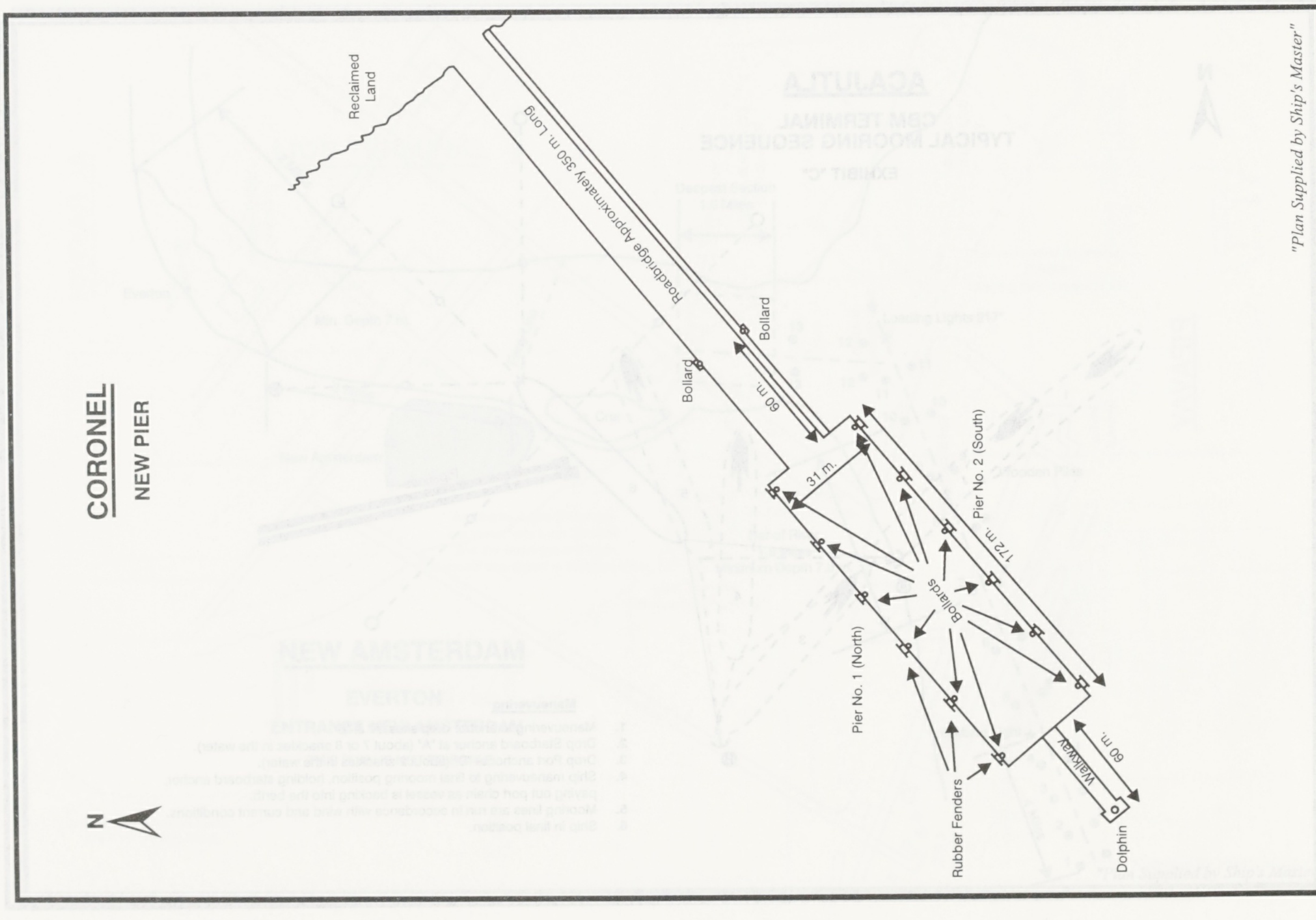
RECOMMENDED MOORING

Depths in Meters

15
15
4 Head/Stern Lines
4 Springs
World Rainbow
10
Buoy
15
15
15
10
10
15
N

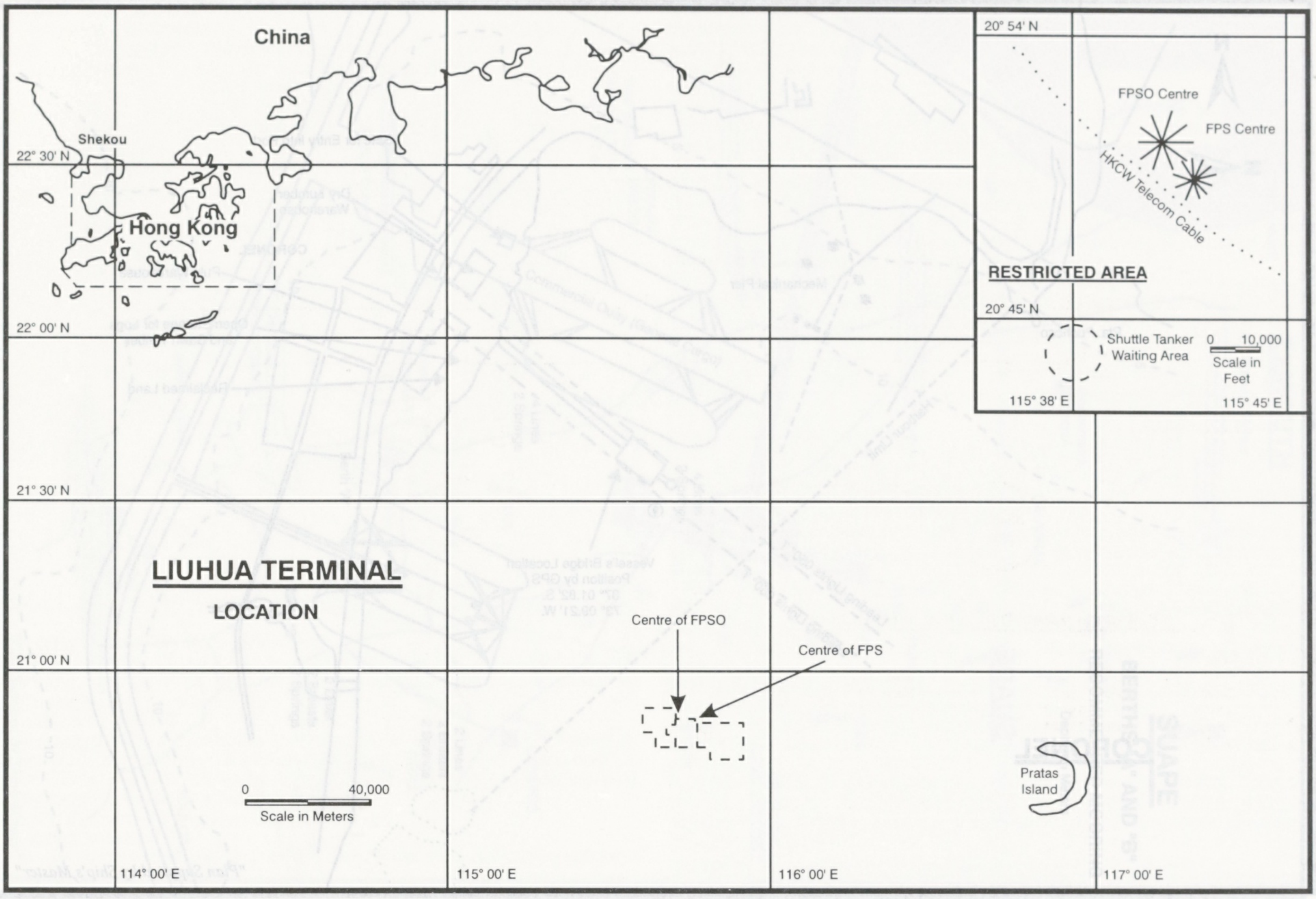

N
Pta. Puchoco
Mechanical Pier
Harbour Limit
Leading Lights 050° T
Leading Lights 050° T
Vessel's Bridge Location
Position by GPS
37° 01.82' S.
73° 09.21' W.
Gate for Entry into Port
Dry Lumber
Warehouse
CORONEL
Pulp Warehouse
Open Storage for Logs
and Sawn Timber
Reclaimed Land
CORONEL

"Plan Supplied by Ship's Master"


CORONEL
NEW PIER
Reclaimed
Land
Roadbridge Approximately 350 m. Long
Bollard
Bollard
60 m.
31 m.
Pier No. 2 (South)
172 m.
Bollards
Pier No. 1 (North)
Rubber Fenders
Walkway
60 m.
Dolphin
N

"Plan Supplied by Ship's Master"

CHINA

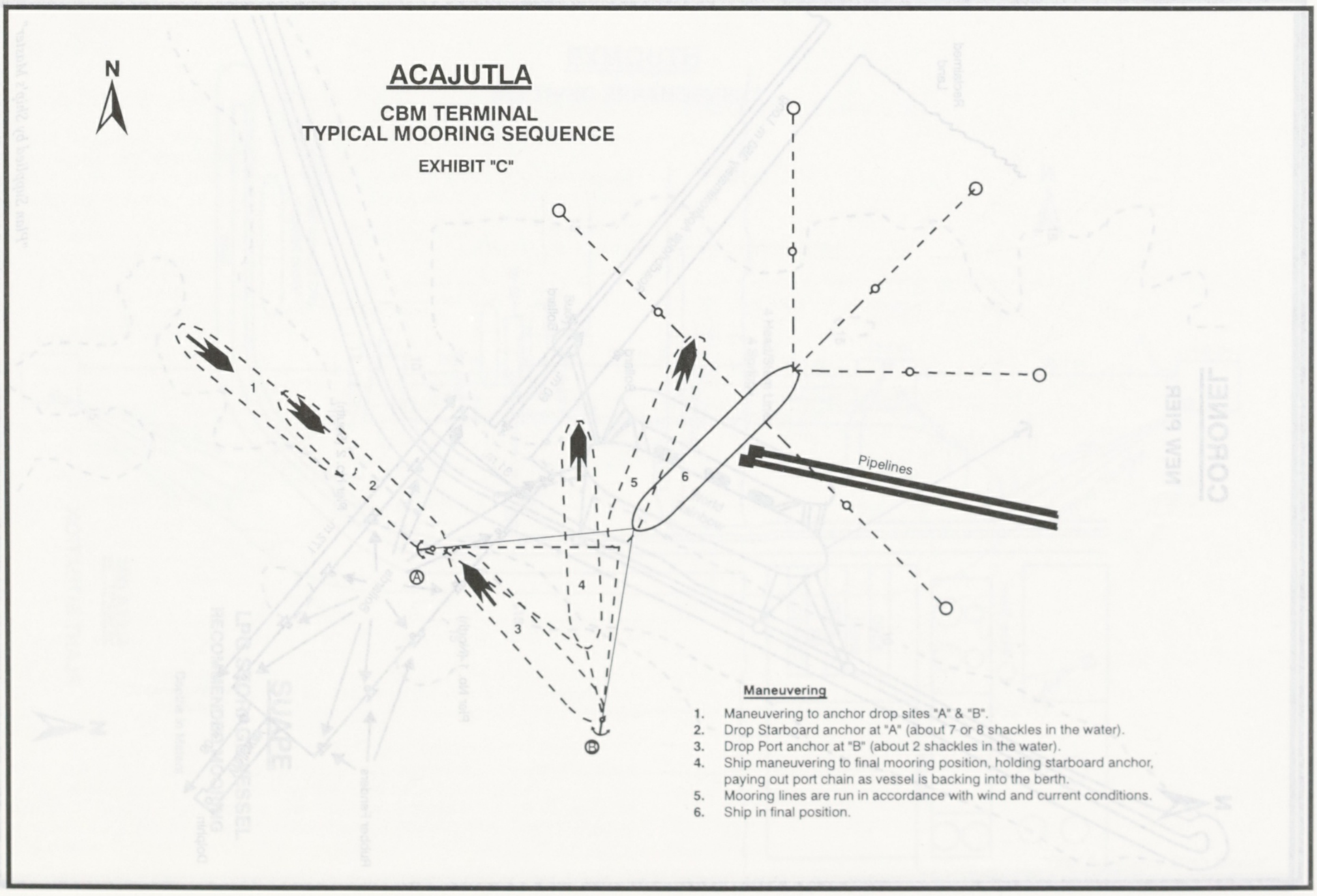


LIUHUA TERMINAL

LOCATION

China
Shekou
Hong Kong
22° 30' N
22° 00' N
21° 30' N
21° 00' N
114° 00' E
115° 00' E
116° 00' E
117° 00' E
Centre of FPSO
Centre of FPS
Pratas Island
0
40,000
Scale in Meters
20° 54' N
20° 45' N
115° 38' E
115° 45' E
FPSO Centre
FPS Centre
HKCW Telecom Cable
RESTRICTED AREA
Shuttle Tanker Waiting Area
0
10,000
Scale in Feet

EL SALVADOR



ACAJUTLA

CBM TERMINAL
TYPICAL MOORING SEQUENCE

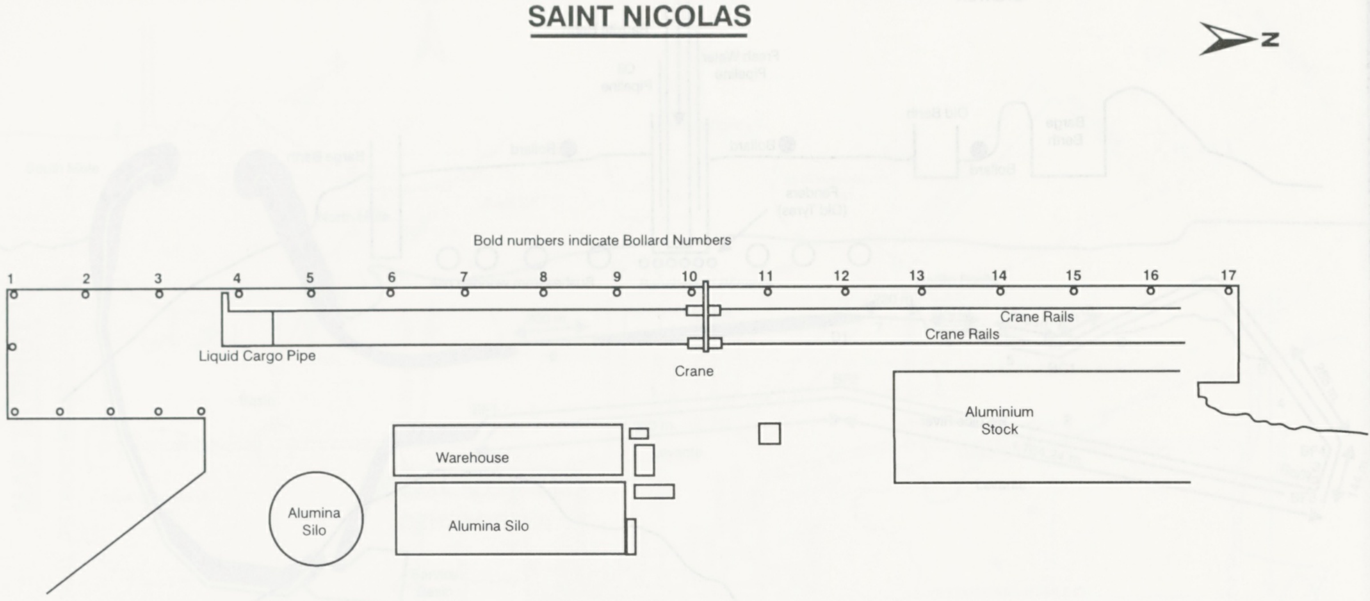
EXHIBIT "C"

N
1
2
3
4
5
6
Ⓐ
Ⓑ
Pipelines

Maneuvering

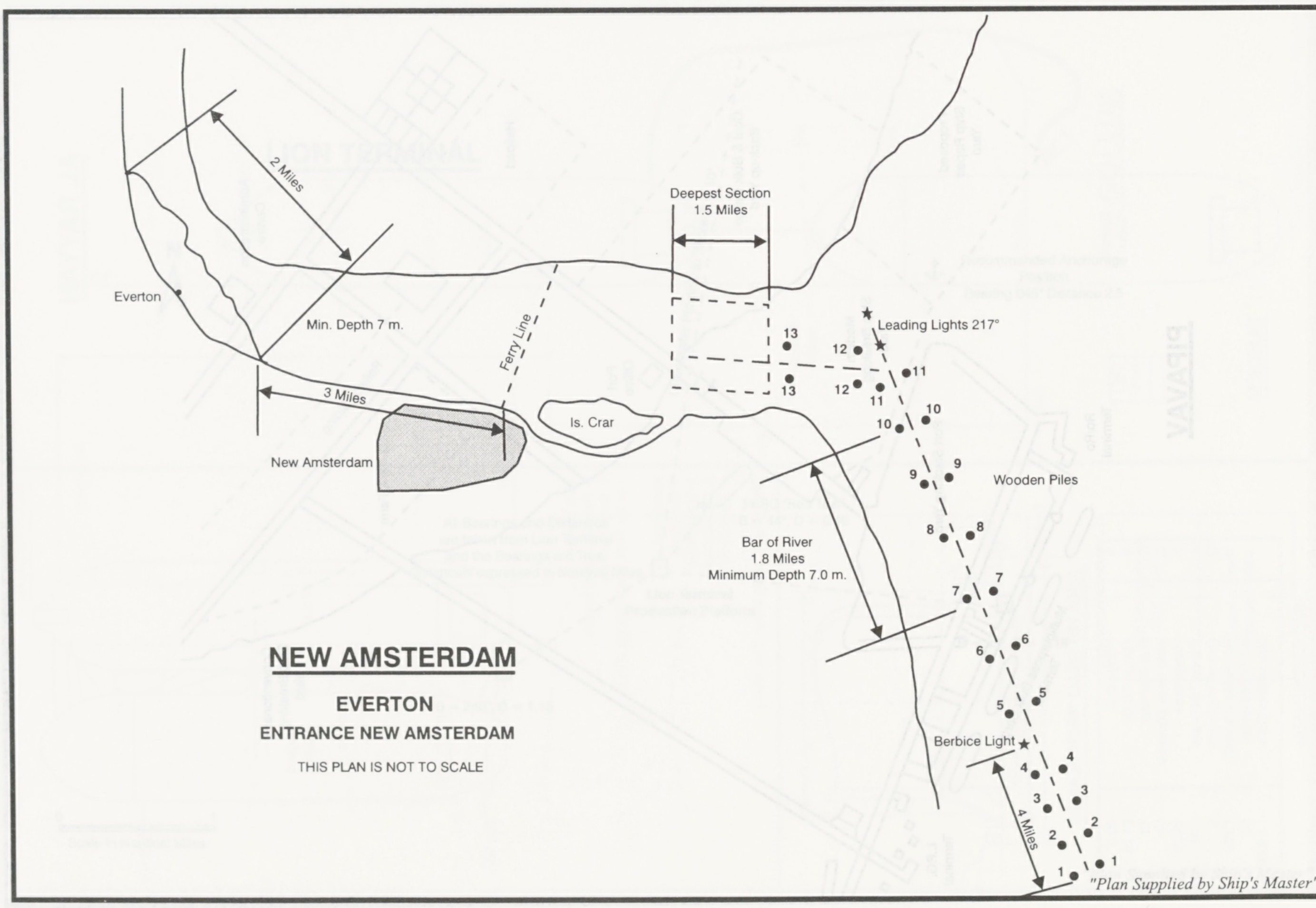
1. Maneuvering to anchor drop sites "A" & "B".
2. Drop Starboard anchor at "A" (about 7 or 8 shackles in the water).
3. Drop Port anchor at "B" (about 2 shackles in the water).
4. Ship maneuvering to final mooring position, holding starboard anchor, paying out port chain as vessel is backing into the berth.
5. Mooring lines are run in accordance with wind and current conditions.
6. Ship in final position.

SAINT NICOLAS


N
Bold numbers indicate Bollard Numbers
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Crane Rails
Crane Rails
Liquid Cargo Pipe
Crane
Aluminium Stock
Warehouse
Alumina Silo
Alumina Silo

Position of the Vessel During Loading/Discharging

Discharging		Loading	
Fuel	Bollard 1 to 7	Alumina	Bollard 3 to 9
Caustic Soda	Bollard 1 to 7	Aluminium	Bollard 9 to 16
General	Bollard 8 to 16		
Pet Coke	Bollard 8 to 14		
Tar Pitch	Bollard 8 to 14		


2 Miles
Everton
Min. Depth 7 m.
3 Miles
Ferry Line
Deepest Section
1.5 Miles
New Amsterdam
Is. Crar
Leading Lights 217°
13
12
12
13
11
11
10
10
9
9
8
8
7
7
6
6
5
5
4
4
3
3
2
2
1
1
Wooden Piles
Bar of River
1.8 Miles
Minimum Depth 7.0 m.
Berbice Light
4 Miles

NEW AMSTERDAM

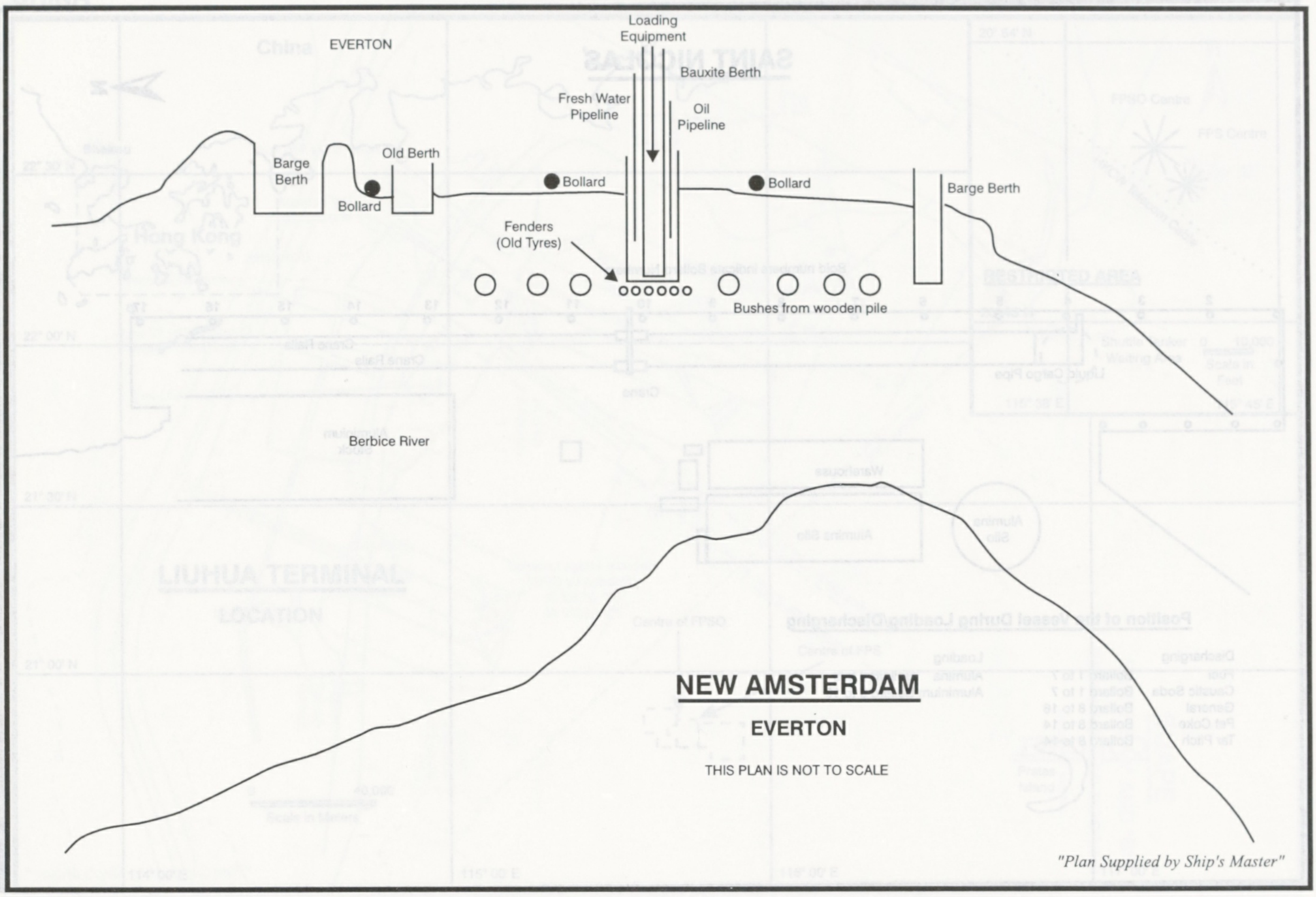
EVERTON

ENTRANCE NEW AMSTERDAM

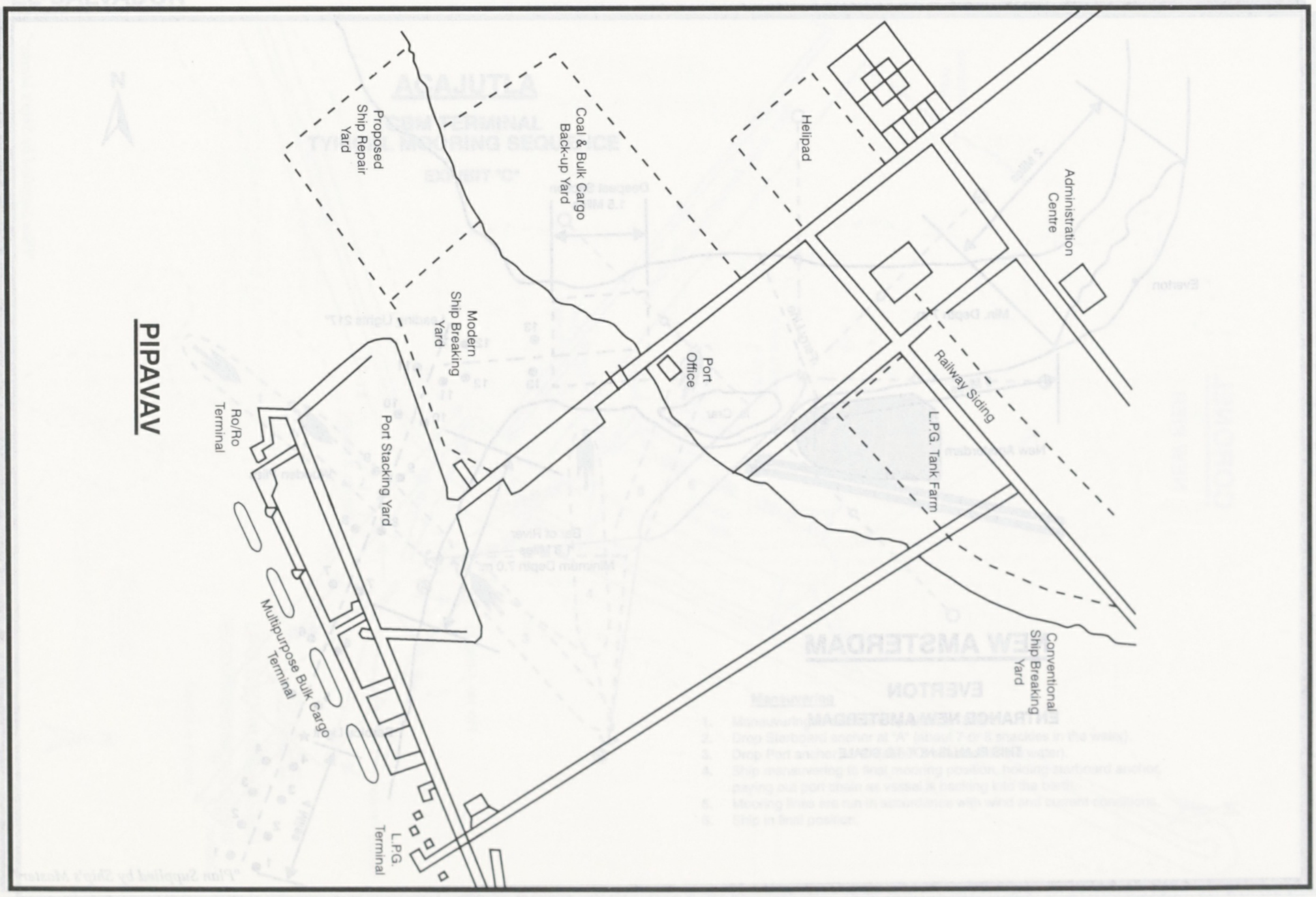
THIS PLAN IS NOT TO SCALE

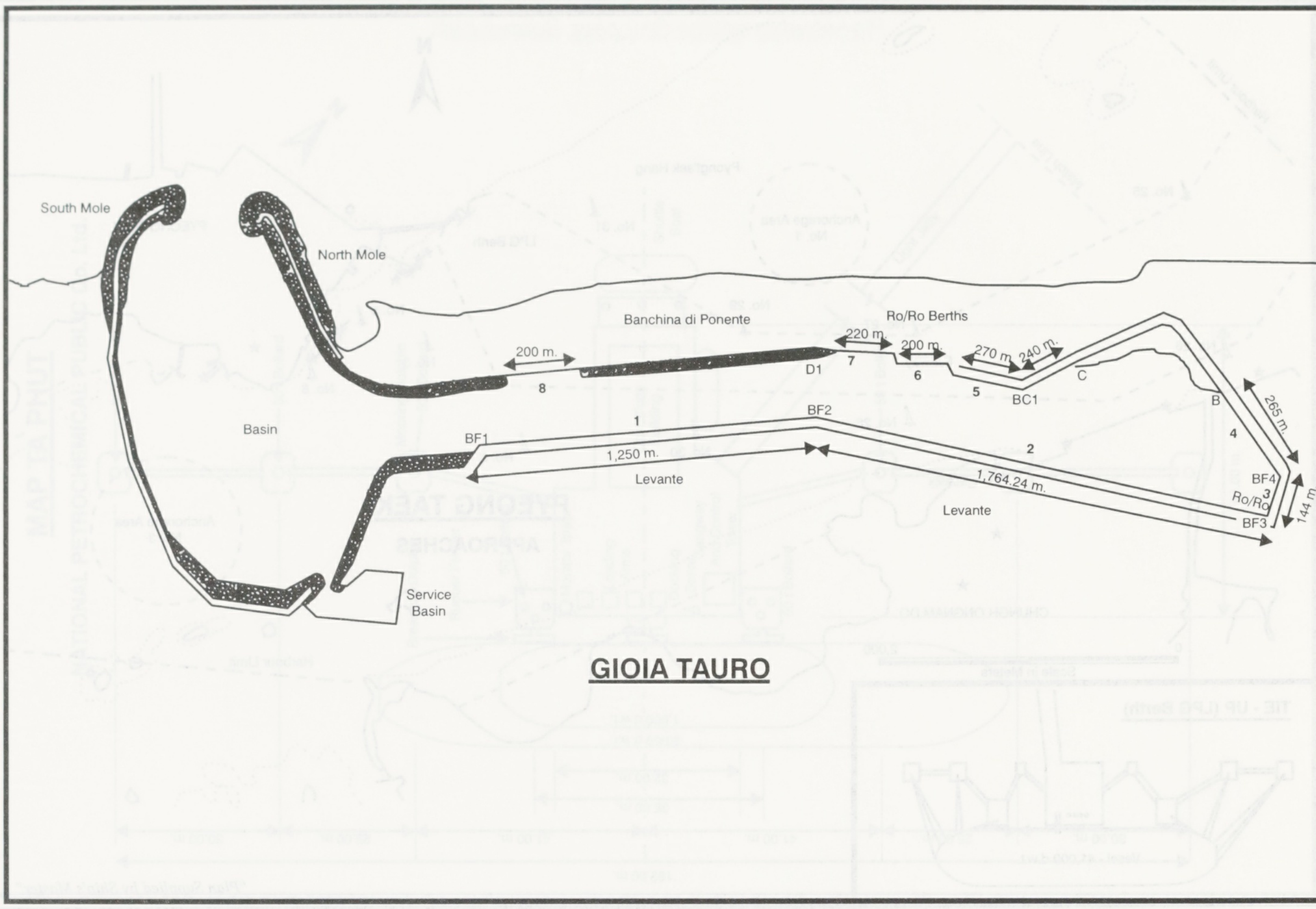
"Plan Supplied by Ship's Master"

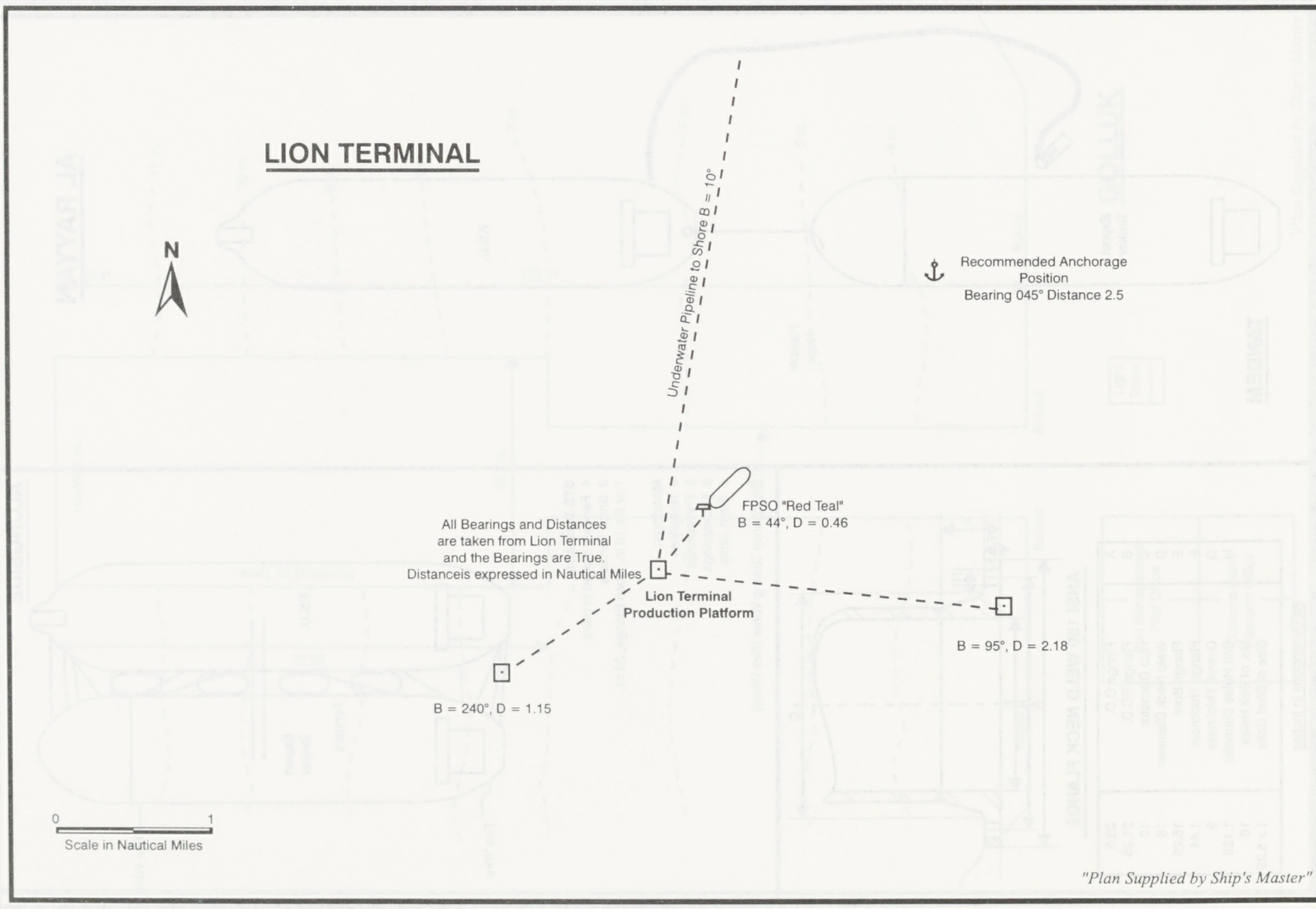
GUYANA


EVERTON
Loading Equipment
Bauxite Berth
Fresh Water Pipeline
Oil Pipeline
Barge Berth
Old Berth
Bollard
Bollard
Bollard
Bollard
Barge Berth
Fenders (Old Tyres)
Bushes from wooden pile
Berbice River
NEW AMSTERDAM
EVERTON
THIS PLAN IS NOT TO SCALE
"Plan Supplied by Ship's Master"

INDIA


PIPAVAV
Proposed Ship Repair Yard
Coal & Bulk Cargo Back-up Yard
Helipad
Administration Centre
Modern Ship Breaking Yard
Port Office
Ro/Ro Terminal
Port Stacking Yard
Railway Siding
L.P.G. Tank Farm
Multipurpose Bulk Cargo Terminal
L.P.G. Terminal
Conventional Ship Breaking Yard

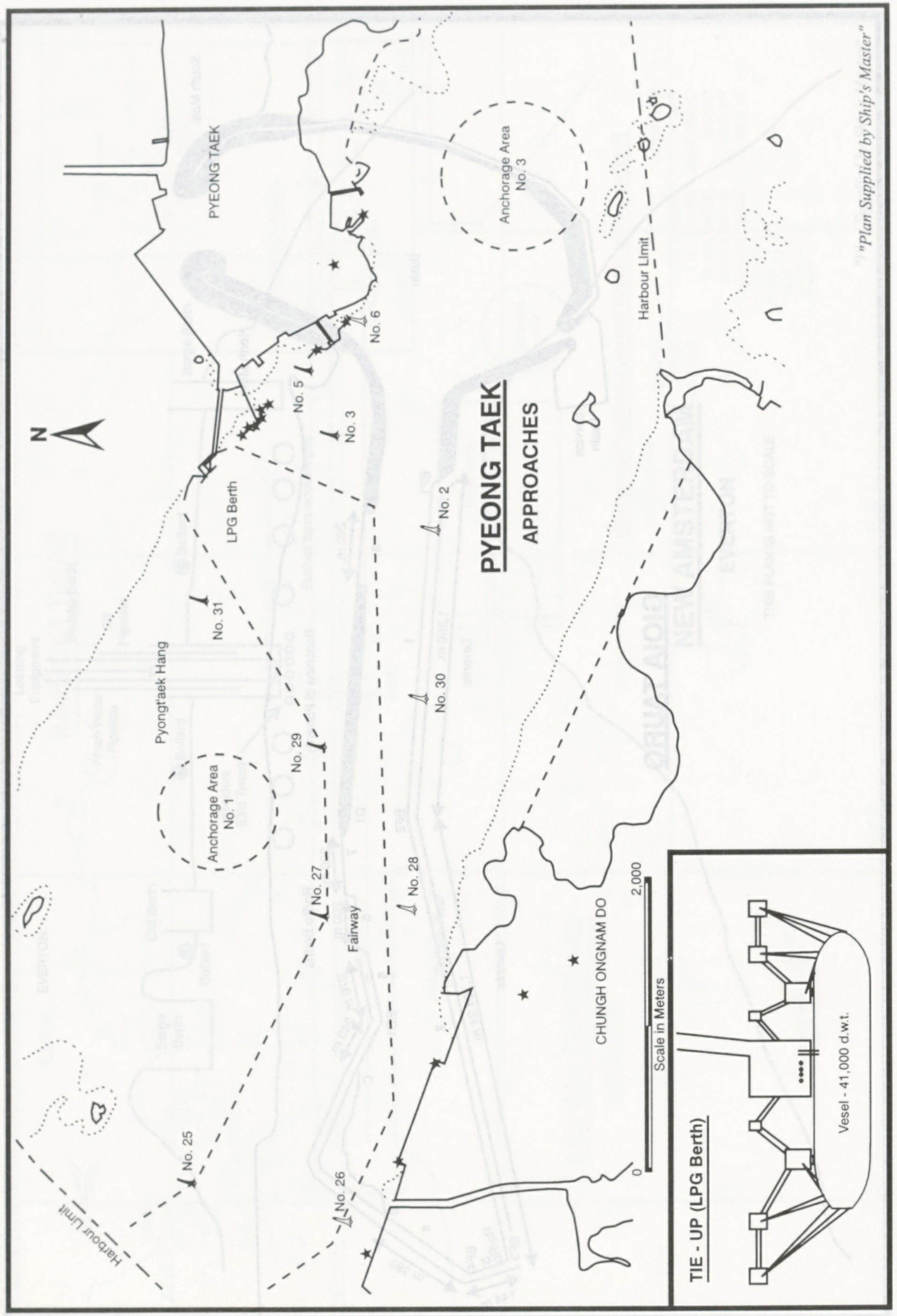

South Mole
North Mole
Banchina di Ponente
Ro/Ro Berths
220 m.
200 m.
200 m.
270 m.
240 m.
265 m.
144 m
D1
7
6
5
8
BC1
C
B
4
BF4
3
Ro/Ro
BF3
Basin
1
BF2
BF1
2
1,250 m.
1,764.24 m.
Levante
Levante
Service Basin
GIOIA TAURO


LION TERMINAL
N
Underwater Pipeline to Shore B = 10°
Recommended Anchorage Position
Bearing 045° Distance 2.5
FPSO "Red Teal"
B = 44°, D = 0.46
Lion Terminal Production Platform
B = 95°, D = 2.18
B = 240°, D = 1.15
0
1
Scale in Nautical Miles

All Bearings and Distances are taken from Lion Terminal and the Bearings are True. Distanceis expressed in Nautical Miles.

"Plan Supplied by Ship's Master"

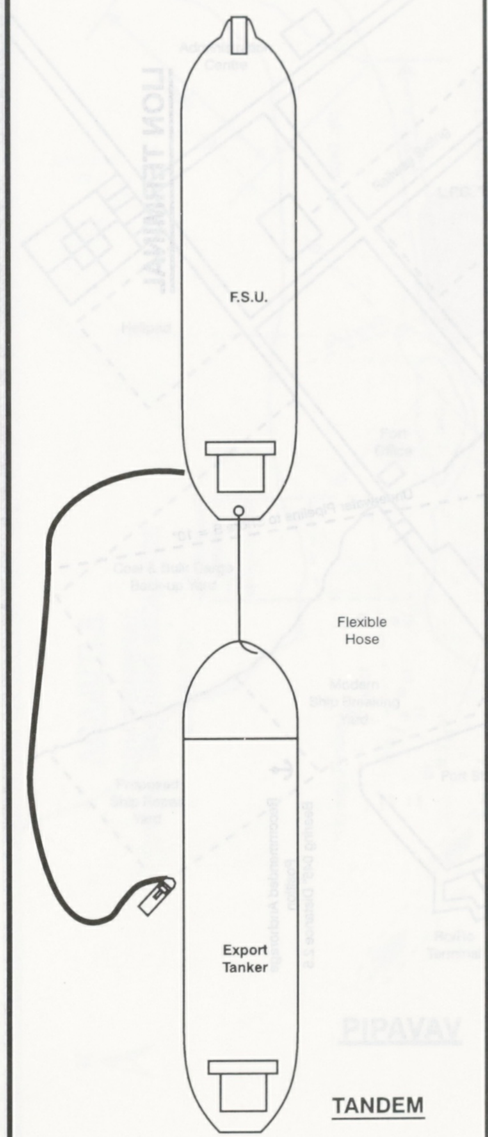
KOREA, Republic of


PYEONG TAEK
APPROACHES
N
PYEONG TAEK
Anchorage Area No. 3
Harbour Limit
No. 6
No. 5
No. 3
No. 2
LPG Berth
No. 31
Pyong'taek Hang
No. 30
No. 29
Anchorage Area No. 1
No. 27
Fairway
No. 28
CHUNGH ONGNAM DO
2,000
Scale in Meters
0
No. 25
No. 26
Harbour Limit
TIE - UP (LPG Berth)
Vesel - 41,000 d.w.t.

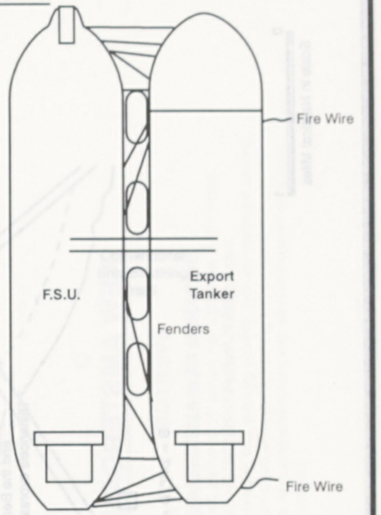
"Plan Supplied by Ship's Master"

QATAR

AL RAYYAN


F.S.U.
Flexible Hose
Export Tanker
TANDEM

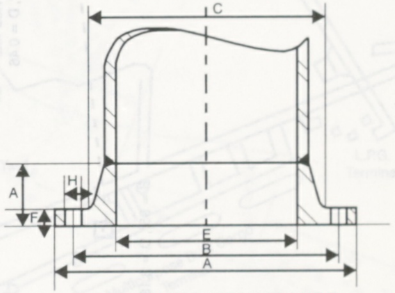
ALONGSIDE


Fire Wire
F.S.U.
Export Tanker
Fenders
Fire Wire

STS Transfers:
4 Fenders rigged in pairs
2 Small Fenders
1 or 2 x 16 in. Hose Strings, 20 m.

Moorings:
4 Headlines
2 Foresprings
2 Backsprings
4 Stern Lines

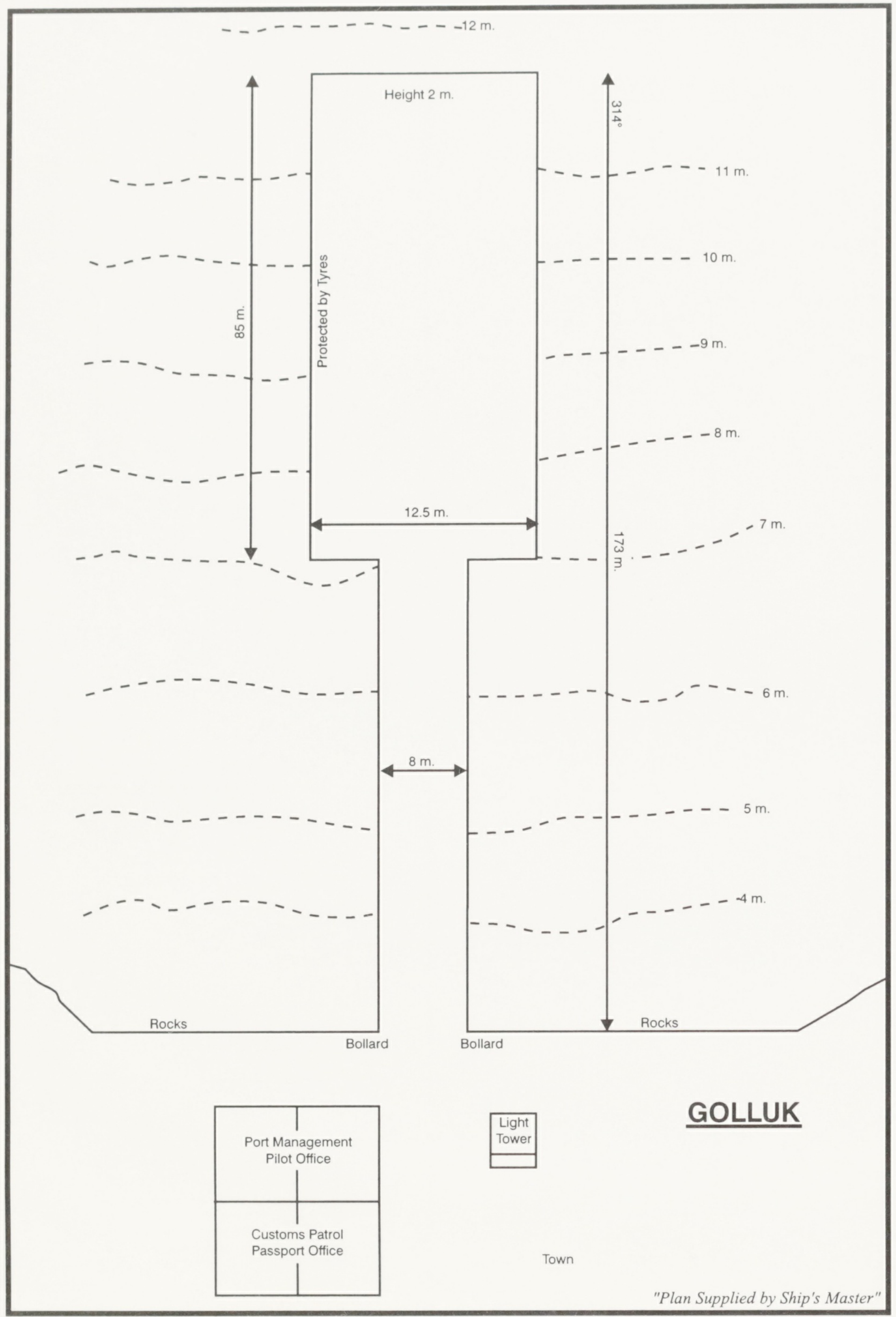
Emergency Towing Wires (Fire Wires)



ANSI 150 WELD NECK FLANGE

A	Flange O.D.	23.5
B	Flange P.C.D.	21.25
C	Hub Diameter	18
D	Weld Neck Diameter	16
E	Flange Bore	15.25
F	Flange Thickness	1.44
G	Overall Thickness	5
H	Bolt Holes Diameter	1.125
	No. of Bolt Holes	16
	Size of Stud Bolts	1 x 5.25

All Dimensions in Inches


12 m.
Height 2 m.
314°
11 m.
10 m.
85 m.
Protected by Tyres
9 m.
8 m.
12.5 m.
7 m.
173 m.
6 m.
8 m.
5 m.
4 m.
Rocks
Rocks
Bollard
Bollard
Port Management
Pilot Office
Customs Patrol
Passport Office
Light
Tower
Town

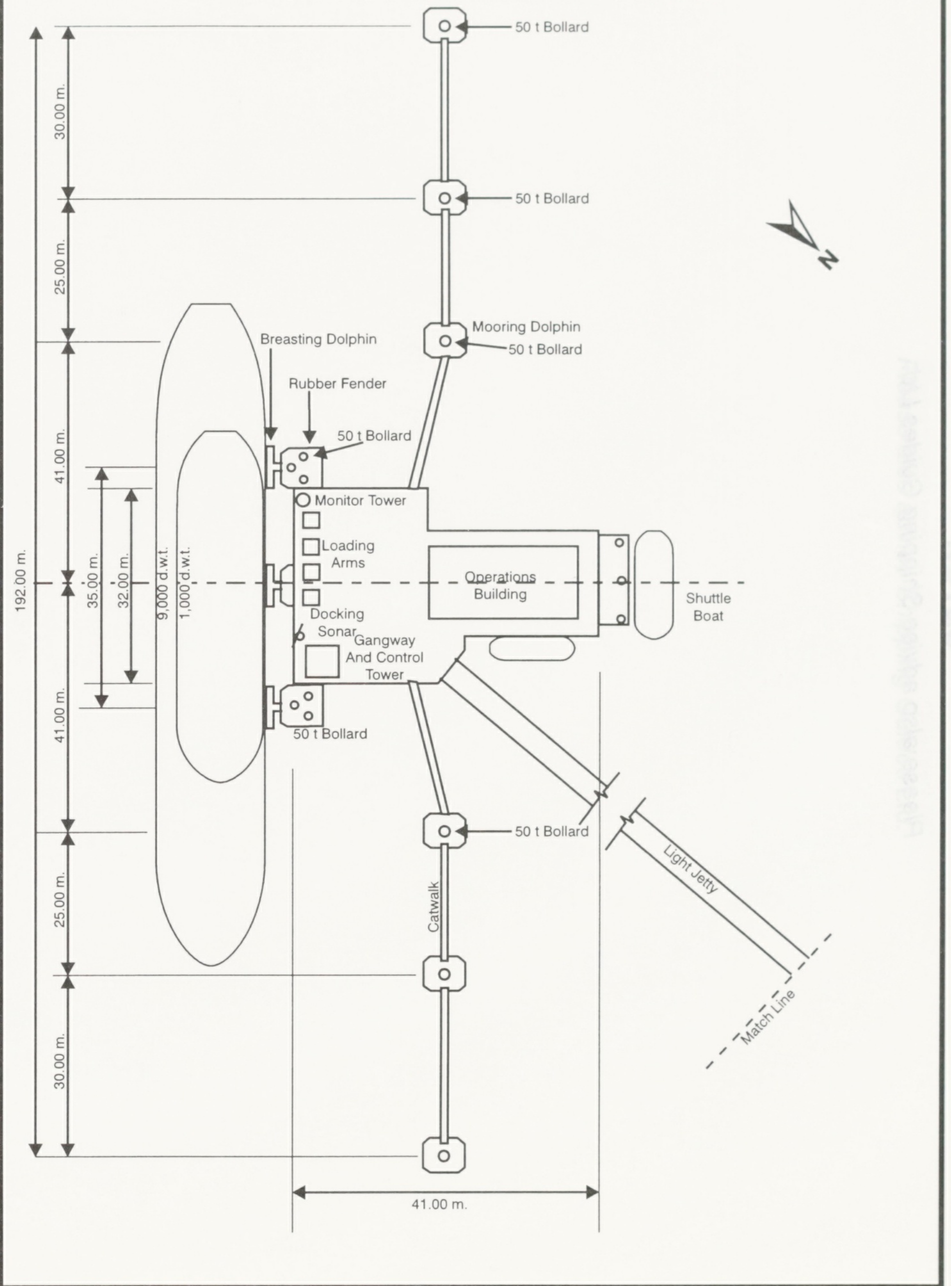
GOLLUK

"Plan Supplied by Ship's Master"

TURKEY

MAP TA PHUT

NATIONAL PETROCHEMICAL PUBLIC Co. Ltd.


50 t Bollard
50 t Bollard
Mooring Dolphin
50 t Bollard
Breasting Dolphin
Rubber Fender
50 t Bollard
Monitor Tower
Loading
Arms
Operations
Building
Shuttle
Boat
Docking
Sonar
Gangway
And Control
Tower
50 t Bollard
50 t Bollard
Catwalk
Light Jetty
Match Line
N
192.00 m.
30.00 m.
25.00 m.
41.00 m.
35.00 m.
32.00 m.
9,000 d.w.t.
1,000 d.w.t.
41.00 m.
25.00 m.
30.00 m.
41.00 m.

THAILAND

NOTES

Please also advise Shipping Guides Ltd.

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